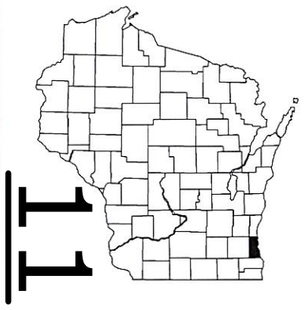
wke FEB 13, 2024

PROJECT ID WITH: N/A 2395-05-71

ORDER OF SHEETS

| | | |
|---|---|---|
| SECTION NO. | 1 | TITLE |
| SECTION NO. | 2 | TYPICAL SECTIONS AND DETAILS |
| SECTION NO. | 3 | ESTIMATE OF QUANTITIES |
| SECTION NO. | 3 | MISCELLANEOUS QUANTITIES |
| SECTION NO. | 4 | RIGHT OF WAY PLAT |
| SECTION NO. | 5 | PLAN AND PROFILE |
| SECTION NO. | 6 | STANDARD DETAIL DRAWINGS |
| SECTION NO. | 7 | SIGN PLATES |
| SECTION NO. | 8 | STRUCTURE PLANS |
| SECTION NO. | 9 | COMPUTER EARTHWORK DATA |
| SECTION NO. | 9 | CROSS SECTIONS |

TOTAL: 638



COUNTY MILWAUKEE

DESIGN DESIGNATION

| | | |
|---|---|---|
| A.D.T. (CURRENT) | = | 12,500-23,100 |
| A.D.T. (2043) | = | 13,800-25,500 |
| D.H.V. | = | 1,440-2,630 |
| D. | = | 52/48 |
| T. | = | 5.2% |
| DESIGN SPEED | = | 35 MPH |
| ESALS | = | 4,250,000 |

CONVENTIONAL SYMBOLS

PLAN

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE (P.L.)
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE (R/W)
- PROPOSED SEWER LATERAL (SIZE)
- REFERENCE LINE
- CONCRETE WALK/DWY. REMOVAL
- LIMITS OF CONCRETE PAVEMENT REMOVAL (X X X X X X)

COMBUSTIBLE FLUIDS

- RAILROADS
- FENCE (TYPE)
- CATCH BASIN OR INLET — EXISTING — PROPOSED

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- GRADE ELEVATION (95.36)

UTILITIES

- CITY UNDERGROUND CONDUIT — CUC
- ELECTRIC — E
- FIBER OPTIC — FO
- GAS — G
- SANITARY SEWER — SAN
- STORM SEWER — STO
- TELEPHONE — T
- WATER — W
- TRAFFIC & ELECTRICAL SERVICES — TE&ES
- MILWAUKEE METRO SEWERAGE DIST — MMSD
- CABLE TELEVISION — TV
- FIRE & POLICE CALL BOX
- LIGHT POLE
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- HYDRANT
- GAS OR WATER GATE VALVE
- MANHOLES - SEWER ○ UTILITY (TYPE) □
- TREES - EXISTING ◑ TO BE REMOVED ⊗

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

# C MILWAUKEE E/W HOWARD AVENUE

S 6TH STREET TO S CLEMENT AVENUE

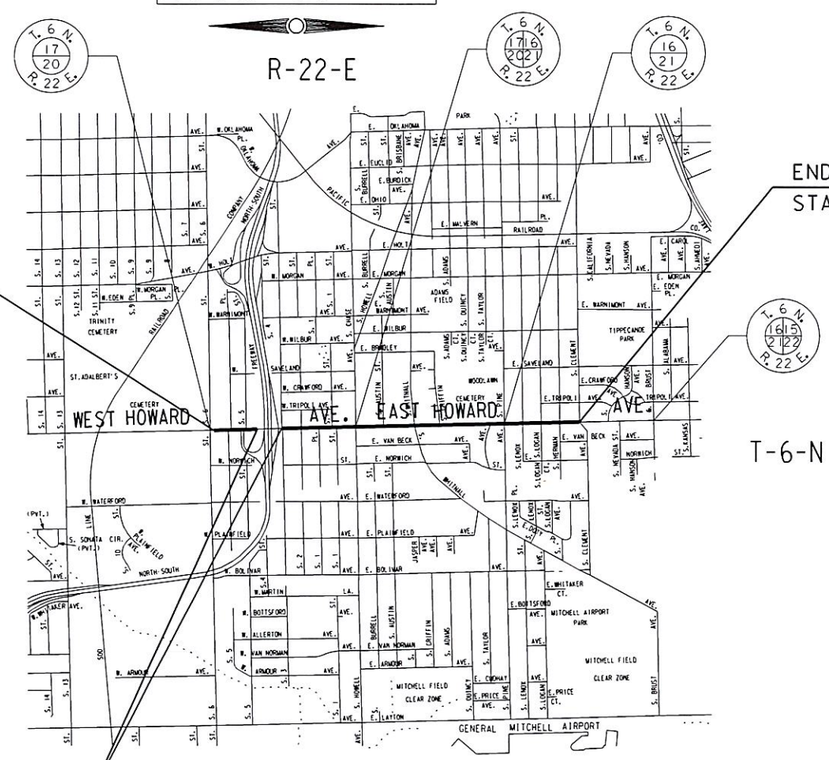
LOCAL STREET

## MILWAUKEE COUNTY

| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 2395-05-71 | WISC 2024223 | 1 |
| | | |
| | | |
| | | |

STATE PROJECT NUMBER 2395-05-71

R-22-E


T. 6 N. R. 22 E. (17, 20)
T. 6 N. R. 22 E. (16, 21)
T. 6 N. R. 22 E. (16, 21)
T. 6 N. R. 22 E. (16, 22)
W. OKLAHOMA AVE.
E. OKLAHOMA AVE.
E. EUCLID AVE.
E. BURDICK AVE.
E. MORGAN AVE.
E. WARREN AVE.
E. BRADLEY
E. WILBUR
E. SAVELAND
E. CRAWFORD
E. TRIPOLI AVE.
E. VAN BECK
E. NORWICH
E. WATERFORD
E. PLAINFIELD
E. BOLIVAR
E. WHITNALL
E. BOTSFORD
E. ARMOUR
E. MORELL
E. PRICE CT.
E. MITCHELL AIRPORT PARK
MITCHELL FIELD CLEAR ZONE
S. 6TH
S. 5TH
S. 7TH
S. 8TH
S. 9TH
S. 10TH
S. 11TH
S. 12TH
S. 13TH
S. 14TH
S. 15TH
S. 16TH
S. 17TH
S. 18TH
S. 19TH
S. 20TH
S. 21ST
S. 22ND
S. 23RD
S. 24TH
S. 25TH
S. 26TH
S. 27TH
S. 28TH
S. CALIFORNIA
S. MARION
S. CARPENTER
S. LOWELL
S. MORGAN
S. WARREN
S. BRADLEY
S. WILBUR
S. SAVELAND
S. CRAWFORD
S. TRIPOLI
S. VAN BECK
S. NORWICH
S. WATERFORD
S. PLAINFIELD
S. BOLIVAR
S. WHITNALL
S. BOTSFORD
S. ARMOUR
S. MORELL
S. PRICE
S. LAYTON
S. QUINCY
S. CHICKAMAUGA
S. LOGAN
S. LOCUST
S. HOWELL
S. KINNICKINNIC
S. CHASE
S. DUANE
S. ADAMS
S. TAYLOR
S. QUINCY

## GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH BASE AGREGATE DENSE 1-1/4 INCH.

2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 3"OF TOPSOIL, AND SODDED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

4. ALL ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.

5. ALL CURB AND GUTTER IS LOW SIDE UNLESS OTHERWISE INDICATED ON THE PLAN.

6. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT 5-FOOT INTERVALS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

OR

6. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

7. ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.

8. THE LOCATION OF LONGITUDINAL JOINTS IN ASPHALTIC CONCRETE SHALL BE APPROVED BY THE ENGINEER.

9. IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL INSTALL THE INLET PROTECTION TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

10. ANY MESH OR REINFORCEMENT FOUND DURING REMOVAL OF THE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM 'REMOVING PAVEMENT'.

11. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

12. EROSION CONTROL BMP'S ARE SHOWN AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER NECESSARY.

13. CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISION (SEWRPC), AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

## STANDARD ABBREVIATIONS

| | |
|---|---|
| ASPH. | - ASPHALT |
| B.M. | - BENCH MARK |
| CTR. | - CENTER |
| C/L | - CENTER LINE |
| COMB. | - COMBINED |
| CONC. | - CONCRETE |
| C.W. | - CONCRETE WALK |
| COR. | - CORNER |
| C | - CURB |
| ELEV. | - ELEVATION |
| ENT. | - ENTRANCE |
| EXIST. | - EXISTING |
| F | - FLANGE |
| G | - GUTTER, OR GAS |
| HYD. | - HYDRANT |
| LT. | - LEFT |
| MMSD | - MILWAUKEE METROPOLITAN SEWERAGE DISTRICT |
| P/L. | - PROPERTY LINE |
| R OR RAD. | - RADIUS |
| RET. | - RETAINING |
| RT. | - RIGHT |
| R/W | - RIGHT OF WAY |
| TEL | - AMERITECH |
| TES | - TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES |
| T/L | - TRANSIT LINE |
| WEP | - WISCONSIN ELECTRIC POWER |

## ORDER OF SECTION 2 SHEETS


| |
|---|
| GENERAL NOTES |
| UTILITY CONTACTS |
| PROJECT OVERVIEW |
| TYPICAL SECTIONS |
| CONSTRUCTION DETAILS |
| CONTAMINATED SOILS LIMITS |
| PLAN DETAILS |
| CURB RAMP DETAILS |
| EROSION CONTROL |
| REMOVAL PLANS |
| UTILITIES AND DRAINAGE |
| TREE REMOVING AND PLANTING |
| PERMANENT SIGNING |
| CITY UNDERGROUND CONDUIT |
| STREET LIGHTING |
| TRAFFIC SIGNALS |
| TRAFFIC CONTROL & CONSTRUCTION STAGING |
| ALIGNMENT PLANS |
| LANDMARK REFERENCE PLANS |


2

# UTILITY CONTACTS

### AT&T WISCONSIN
MATTHEW DINNAUER
2005 PEWAUKEE RD.
WAUKESHA, WI 53188
PHONE: 262-896-7690
md9542@att.com

### AT&T LOCAL NETWORK - COMMUNICATION LINE
JENNIFER NAVARRO
6070 N. FLINT RD.
GLENDALE, WI 53209
PHONE: 414-459-3564
j.navarro@northwindtech.com

### ATC
TONY MARCINIAK
ATC MANAGEMENT, INC
ELECTRICY-TRANSMISSION
WAUKESHA, WI 53187-0047
PHONE: 262-506-6814
amarciniak@atcllc.com

### CHARTER COMMUNICATIONS/SPECTRUM
BEAU ABUYA
CHARTER COMMUNICATIONS
COMMUNICATION LINE
1320 N. DR. MARTIN LUTHER KING JR DR.
MILWAUKEE, WI 53212
PHONE: 414-908-1343
wis.engineering@charter.com

### CITY OF MILWAUKEE - LIGHTING
MARK MACRAE
1440 W. CANAL ST.
MILWAUKEE, WI 53233
PHONE: 414-286-5928
mwray@milwaukee.gov

### CITY OF MILWAUKEE - SEWERS
MR. ZAFAR YOUSUF
841 N. BROADWAY, RM. 501
MILWAUKEE, WI 53202
PHONE: 414-286-2467
zafar.yousuf@milwaukee.gov

### CITY OF MILWAUKEE - TRAFFIC SIGNALS
MR. AL NICHOLS
1540 W. CANAL ST.
MILWAUKEE, WI 53233
PHONE: 414-286-5941
414-708-5148 (CELL)

### CITY OF MILWAUKEE - UNDERGROUND CONDUIT
MS. KAREN ROGNEY
841 N. BROADWAY, RM. 501
MILWAUKEE, WI 53202
PHONE: 414-286-3243
karen.rogney@milwaukee.gov

### CITY OF MILWAUKEE - UTILITY COORDINATOR
AHMED BAYOUD
841 N. BROADWAY, RM 708
MILWAUKEE, WI 53202
PHONE: 414-708-0645
abayou@milwaukee.gov

### CITY OF MILWAUKEE - WATER
JOSHUA IWEN
841 N. BROADWAY, RM. 409
MILWAUKEE, WI 53202
PHONE: 414-286-3604
jiwen@milwaukee.gov

### LEVEL3 ENGINEERING
BRAHIM GADDOUR
3235 INTERTECH DR. SUITE 600
BROOKFIELD, WI 53045
PHONE: 414-704-1026
brahim.gaddour@lumen.com

### MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE
RICHARD TRGOVEC
6070 N. FLINT RD.
GLENDALE, WI 53209
PHONE: 414-459-3554
rtrgovec@midwestfibernetworks.com

### TDS METROCOM - COMMUNICATION LINE
MATHEW SCHULTE
16924 W. VICTOR RD.
NEW BERLIN WI 53151
PHONE: 262-754-3063
matt.schulte@tdstelecom.com

### WE ENERGIES - ELECTRIC
JACOB SCHOENUNG
DESIGN SPECIALIST
7815 NORTHWESTERN AVE.
RACINE, WI 53406
PHONE: 262-884-6738
414-416-3365 (CELL)
jacob.schoenung@we-energies.com

### WE ENERGIES - GAS
WESLEY NUNN
GAS DESIGNER - MAJOR PROJECTS
7815 NORTHWESTERN AVE.
RACINE, WI 53406
PHONE: 262-552-3446
414-659-4933 (CELL)
Wesley.Nunn@we-energies.com

## OTHER CONTACTS

### CITY OF MILWAUKEE - FORESTRY
JAMES KRINGER
841 N. BROADWAY, RM. 801
MILWAUKEE, WI 53202
PHONE: 414-286-2428
james.kringer@milwaukee.gov

### MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
MICKI KLAPPA-SULLIVAN
206 W. SEEBOTH ST.
MILWAUKEE, WI 53204
PHONE: 414-225-2178
mklappasullivan@mmsd.com

### SEWRPC - LAND MONUMENTS
ROB MERRY
W239 N1812 ROCKWOOD DR.
WAUKESHA, WI 53187
PHONE: 262-953-4289
920-912-1036 (CELL)
FAX: 262-547-1103
rmerry@sewrpc.org

ANDY TRAEGER
W239 N1812 ROCKWOOD DR.
WAUKESHA, WI 53187
PHONE: 262-953-4296
262-853-8463 (CELL)
FAX: 262-547-1103
atraeger@sewrpc.org

### WISCONSIN DEPT. OF NATURAL RESOURCES
2300 N. DR. MARTIN LUTHER KING, JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-263-8517

### WISDOT - PROJECT MANAGER
GREG HAFEMAN
141 NW BARSTOW ST.
WAUKESHA, WI 53188
PHONE: 262-548-8677
greg.hafeman@dot.wi.gov

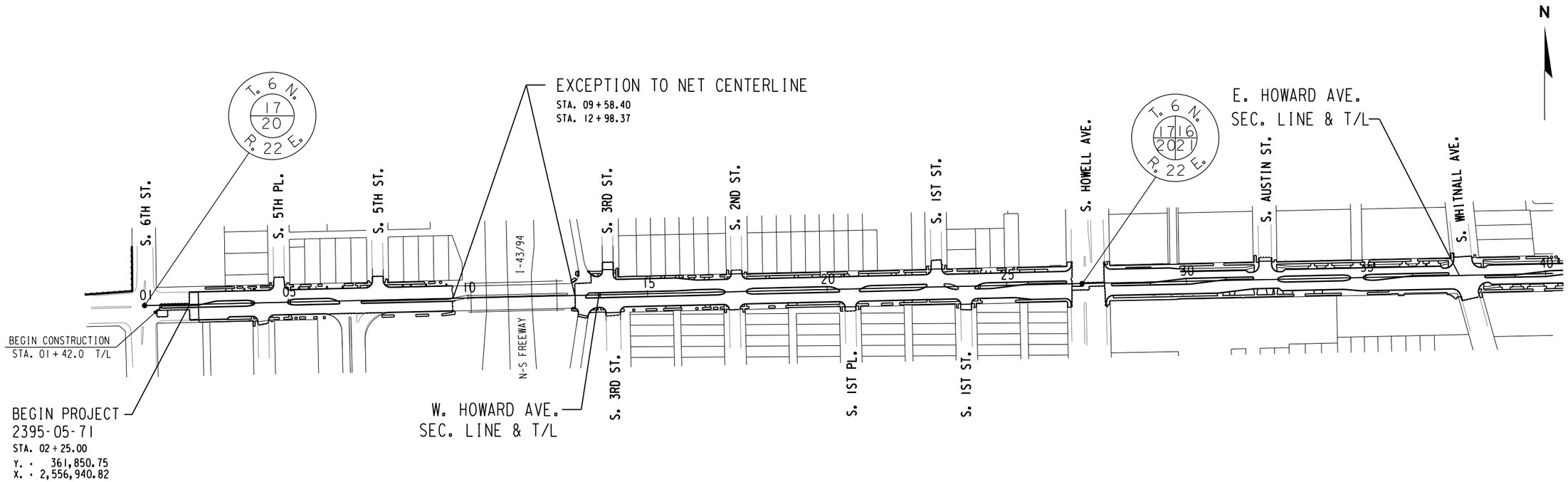
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

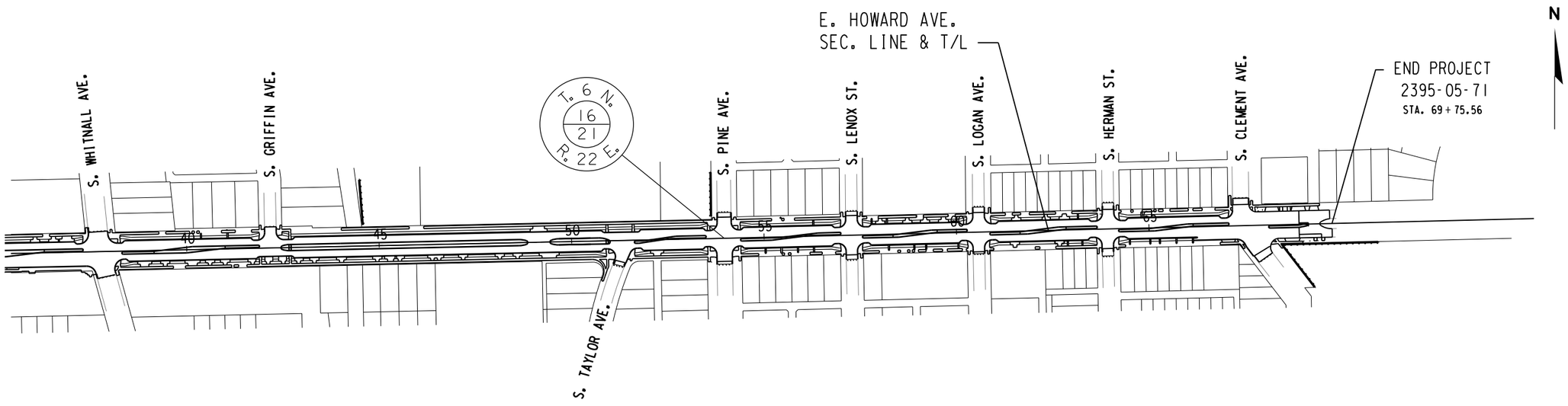
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITY CONTACTS | SCALE FEET | SHEET NO: 3 | E |
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REVISED DATE: 10-04-2023 BY SLB

2

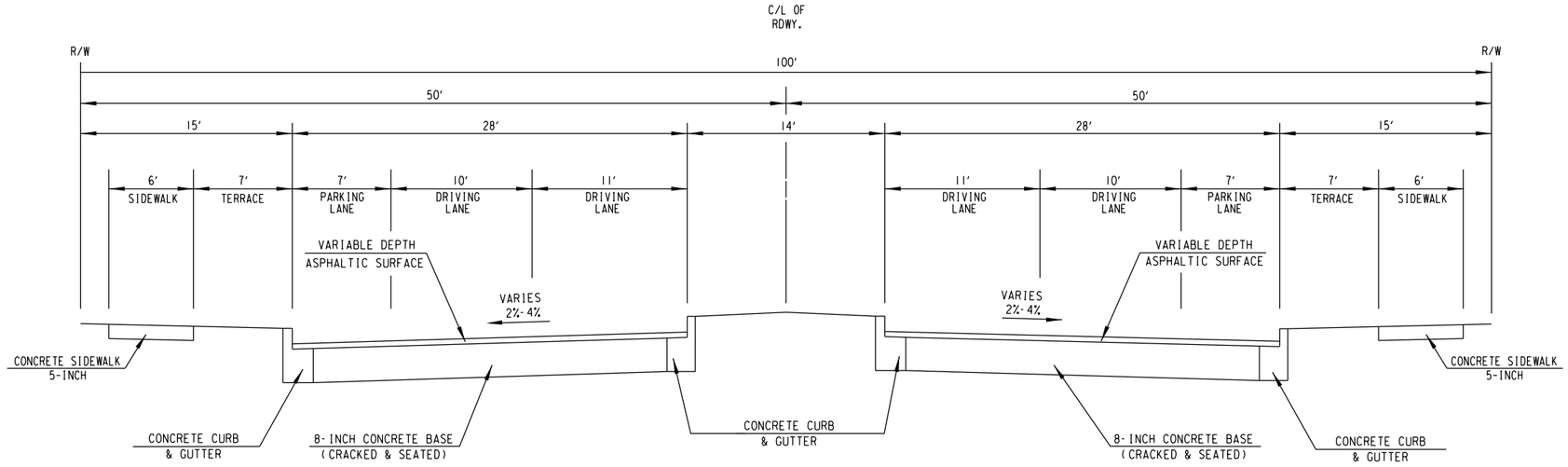



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROJECT OVERVIEW | SCALE FEET 0' 300' | SHEET NO: 4 | E |
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REVISED DATE: 08-02-2023 BY SDB



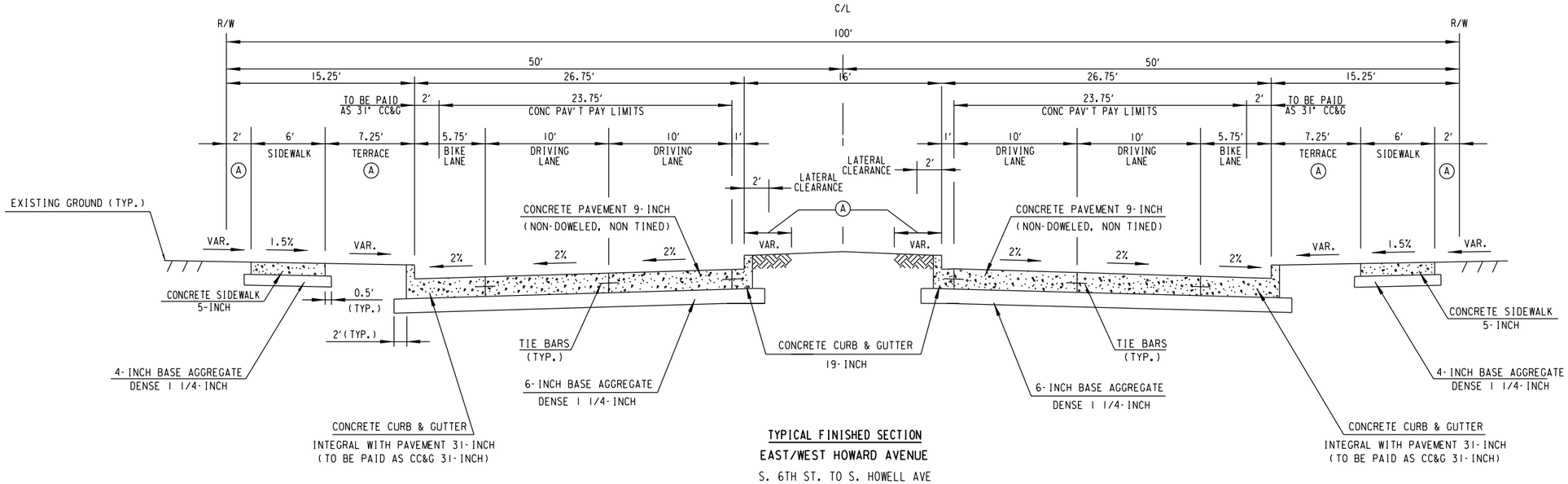

**TYPICAL EXISTING SECTION**

**EAST/WEST HOWARD AVENUE**

S. 6TH ST. TO S. HOWELL AVE

STA. 02+25 TO STA. 09+58

STA. 12+98 TO STA. 27+25




**TYPICAL FINISHED SECTION**

**EAST/WEST HOWARD AVENUE**

S. 6TH ST. TO S. HOWELL AVE

STA. 02+25 TO STA. 09+58

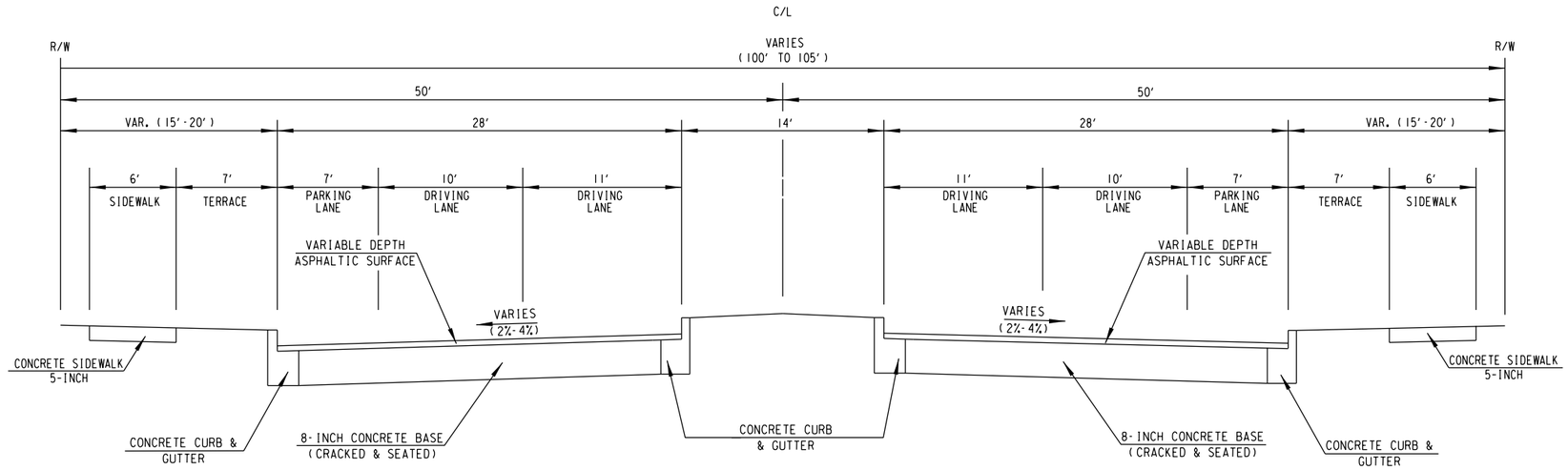
STA. 12+98 TO STA. 27+25

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TYPICAL SECTIONS | SCALE FEET | SHEET NO: 5 | E |
|---|---|---|---|---|---|---|

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REVISED DATE: 12-04-2023 BY EM

2

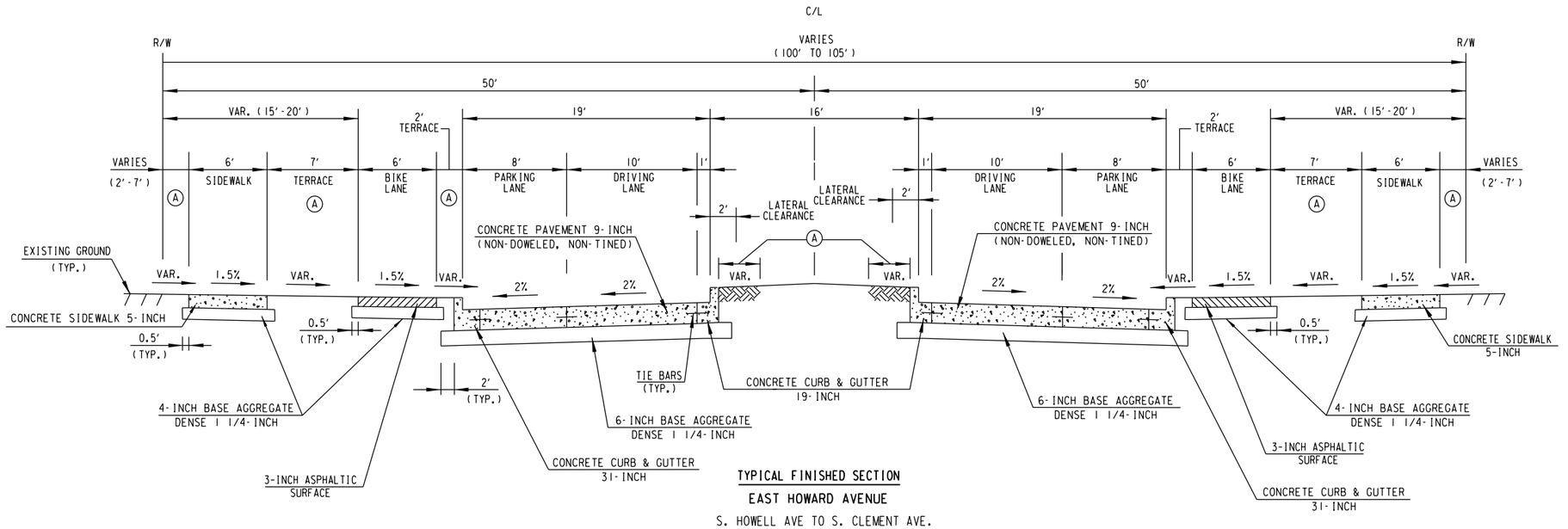



**TYPICAL EXISTING SECTION**

**EAST HOWARD AVENUE**

S. HOWELL AVE TO S. CLEMENT AVE.

STA. 27+25 TO STA. 69+76




(A) 4-INCH TOPSOIL, SOD LAWN

**TYPICAL FINISHED SECTION**

**EAST HOWARD AVENUE**

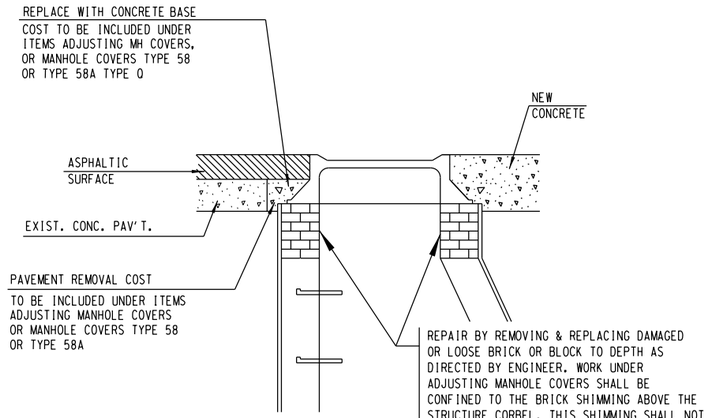
S. HOWELL AVE TO S. CLEMENT AVE.

STA. 27+25 TO STA. 69+76

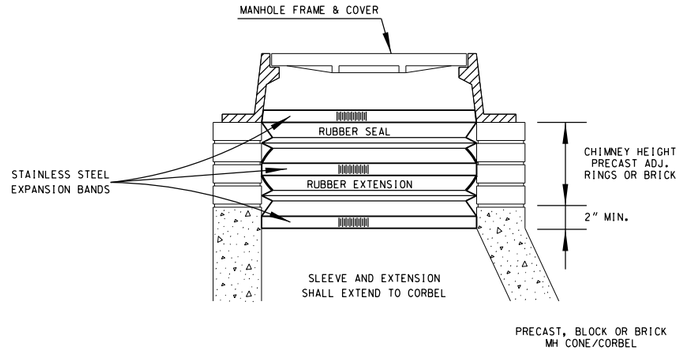
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|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\TYPSEC.DGN

REVISED DATE: 10-27-2023 BY SLB




ADJUSTING SANITARY MANHOLE COVERS
OR SANITARY MANHOLE COVERS TYPE 58A

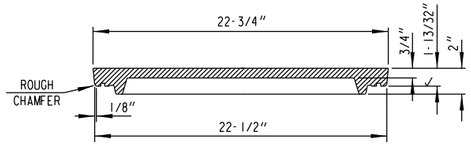



INTERNAL SANITARY MANHOLE SEAL

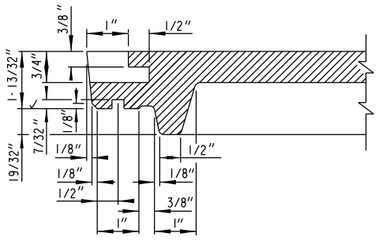
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|---|---|---|---|---|---|---|

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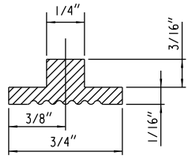
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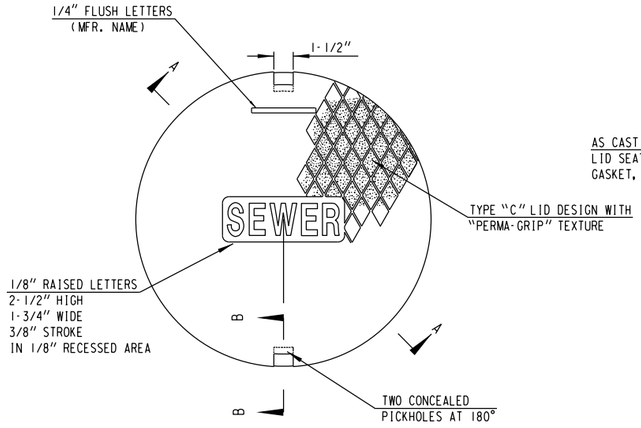



SECTION A-A

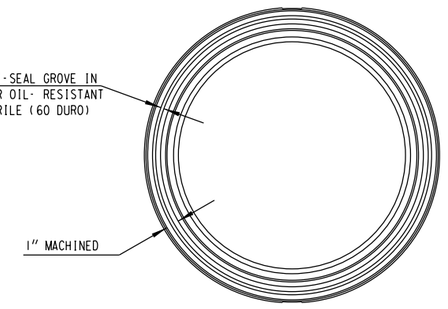



SECTION B-B




TOP VIEW




BOTTOM VIEW

## MANHOLE COVER - TYPE MS58A

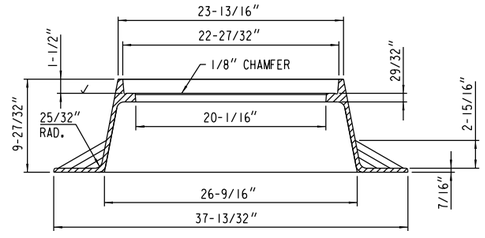
LID - 107 LBS.

NOTE:

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8" HAVING A DIGIT OR LETTER HEIGHT OF ONE INCH ON LOWER FACE OF LID:

1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

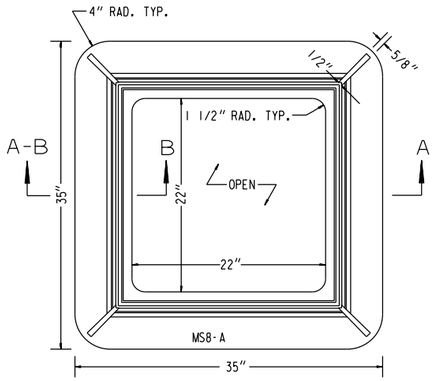



## MANHOLE FRAME - TYPE MS21

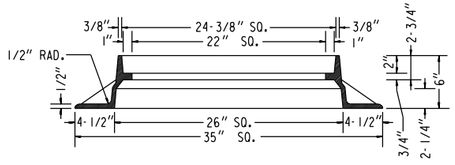
FRAME - 182 LBS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CONSTRUCTION DETAILS | SCALE FEET | SHEET NO: 8 | E |
|---|---|---|---|---|---|---|

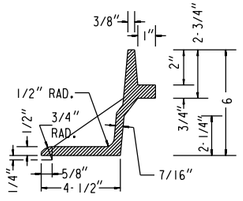
2




TOP VIEW



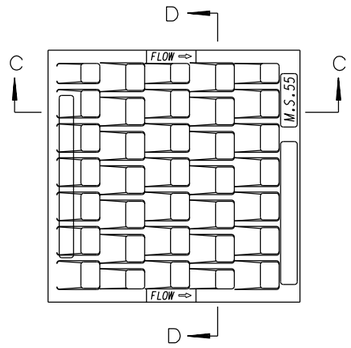

SECTION A-A

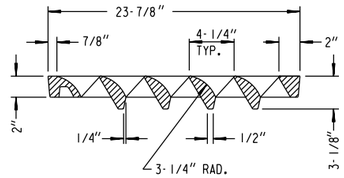



SECTION B-B

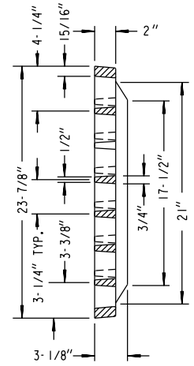
FRAME DETAIL

MS-8A
SCALE N.T.S.




SECTION C-C




SECTION D-D

MS-55
SCALE N.T.S.

GRATE DETAIL

## INLET COVER - TYPE MS55

GRATE-159 LBS., FRAME-165 LBS.

### GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

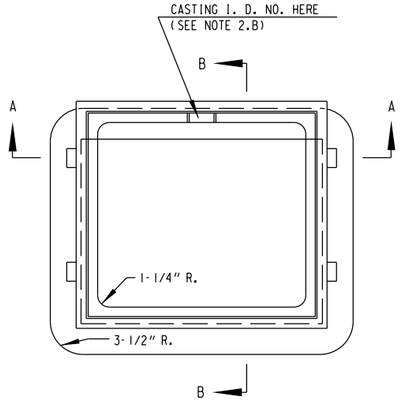
ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 INCH

ON THE FRAME

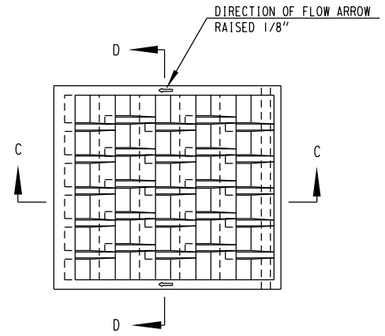
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE CASTING IDENTIFICATION NUMBER (MS-8A), THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 3/4 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (8).

ON THE GRATE

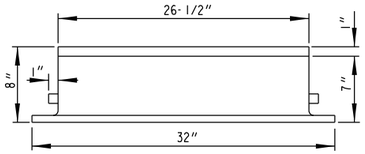
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (MS-55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

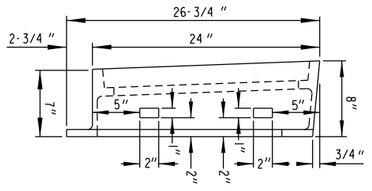


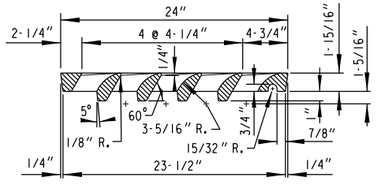

FRAME



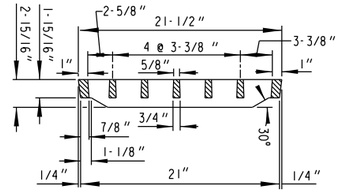

GRATE



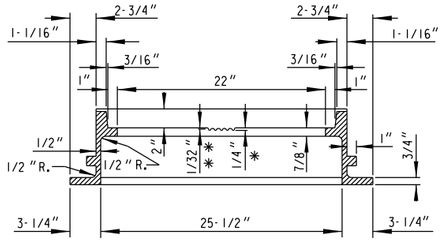




SECTION C-C



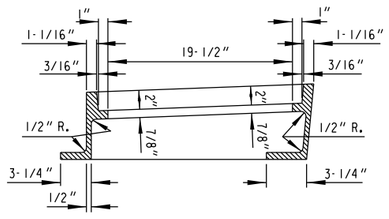

SECTION D-D




SECTION A-A

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT




SECTION B-B

## GENERAL NOTES

1. ALL EDGES ARE TO BE GROUND
2. ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8-INCH

ON THE FRAME

A) ON THE UPPER FACE OF THE FLANGE IN 1-INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

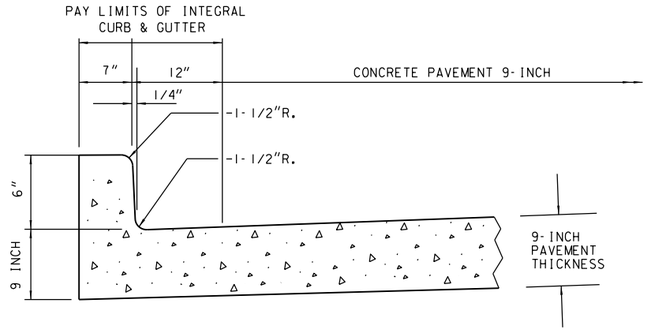
B) ON THE SEAT OF THE FRAME IN 1-INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

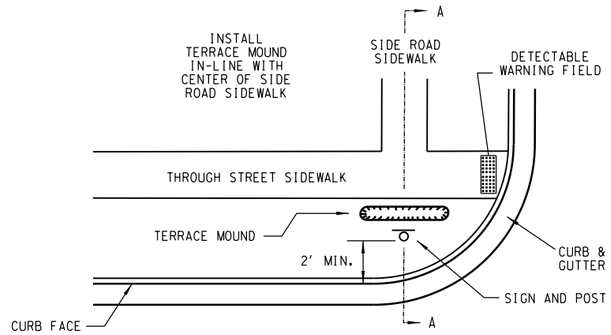
C) ON THE UPPER SIDE OF THE GRATE IN 1-INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

## INLET COVER - TYPE MS 57

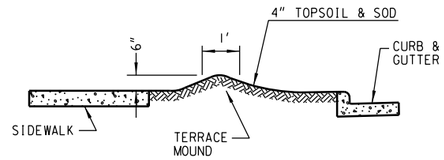
LID-145 LBS., FRAME-204 LBS.



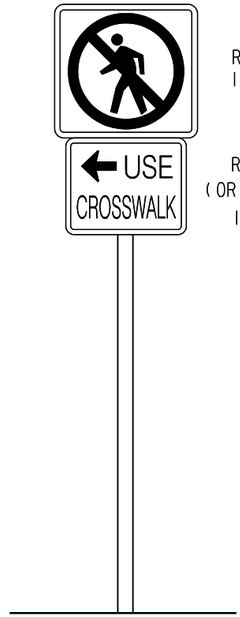

CONCRETE CURB & GUTTER INTEGRAL 19-INCH




MOUND AND SIGN LOCATION DETAIL




TERRACE MOUND DETAIL
SECTION A-A



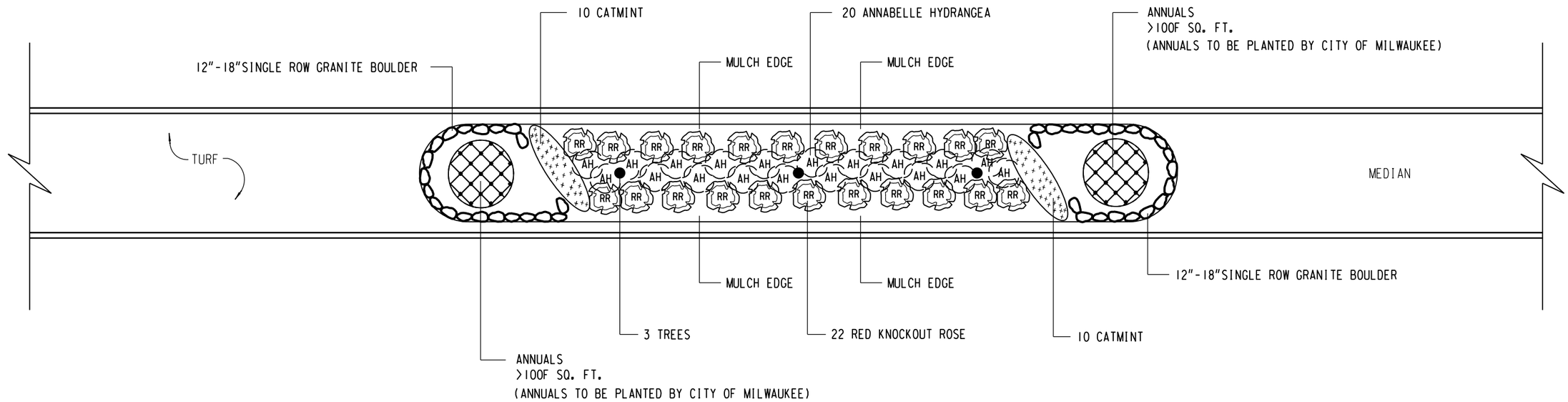

DETAIL OF SIGN AND POST

TERRACE MOUND DETAIL

TM

# SIGNATURE BED DETAIL
## (TYPE 3)

N




**SHRUBS LEGEND**

RR — RED KNOCKOUT ROSE

AH — ANNABELLE HYDRANGEA

**PERENNIALS LEGEND**

BLUE WONDER CATMINT

**TREE LEGEND**

● TREE

| NO. | LOCATIONS |
|---|---|
| 1. | 14+60 TO 15+30 |
| 2. | 21+52 TO 22+21 |

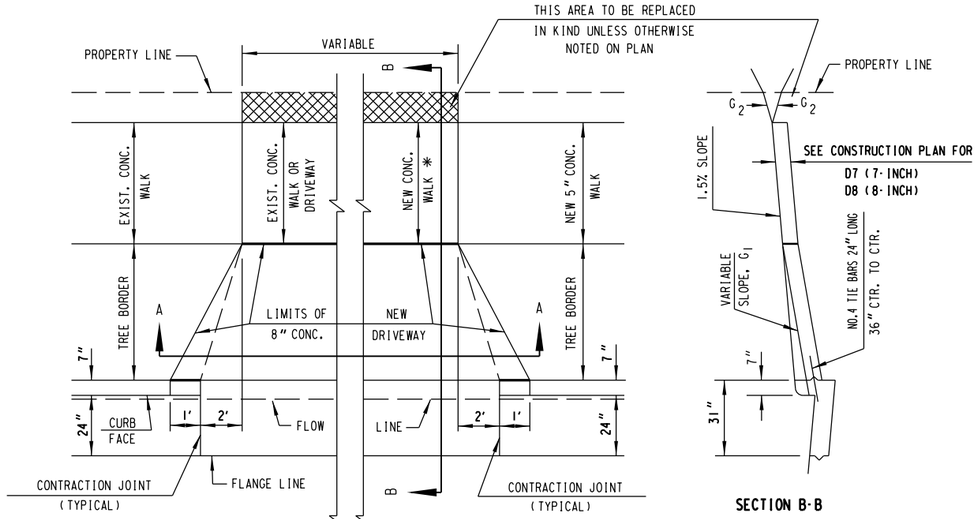
**NOTE:**

IF SIZE ALLOWS - A MINIMUM 5' TURF BOARDER IS ACCEPTABLE.

SHREDDED BARK MULCH AROUND ALL TREES AND IN BED 3-4" DEPTH. SHOVEL CUT BED EDGE.

**ESTIMATE OF QUANTITIES**

| ITEM | UNIT | TOTAL |
|---|---|---|
| SHRUBS AND PERRENIALS | | |
| CATMINT 'BLUE WONDER' | EACH | 20 |
| HYDRANGEA 'ANNABELLE' | EACH | 20 |
| ROSE 'KNOCKOUT RED' | EACH | 22 |
| TREES | | |
| BED #1: DAWN REDWOOD<br>BED #2: JARMIN MARILEE CRABAPPLES | EACH | 3 |







SECTION B-B

SECTION A-A

HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

## CONCRETE DRIVEWAY FLARED

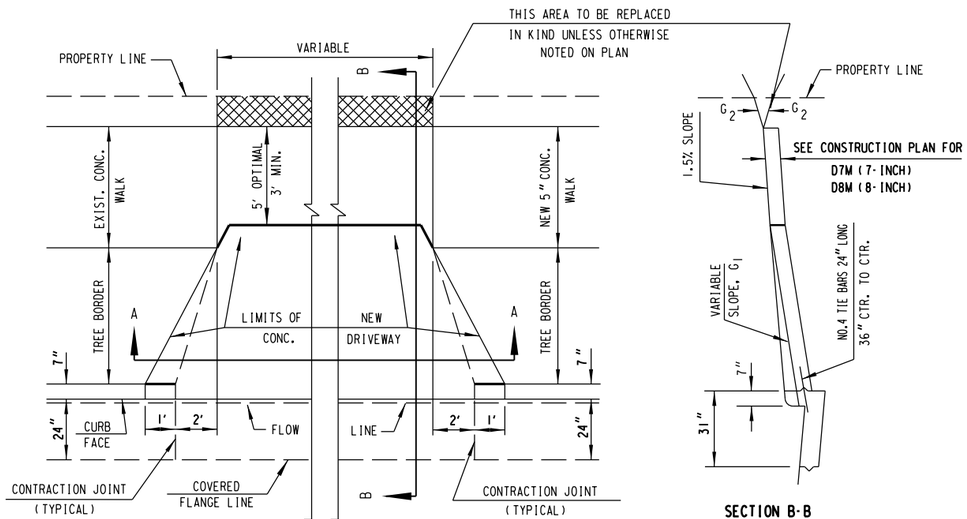
(D7) (D8)

### CONSTRUCTION NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% FOR SIDEWALK CROSS SLOPE. SLOPE SHALL NOT EXCEED 2%
2. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
3. SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, FOR THICKNESS AS THE PLAN SHOWS.
4. CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, THICKNESS AS THE PLAN SHOWS.
5. SEE PLAN DETAIL SHEETS FOR 5-FOOT CONCRETE WALK; 4-FOOT CONCRETE WALK MINIMUM WHERE PROVIDED ACROSS DRIVEWAYS

MAXIMUM DIFFERENCE BETWEEN $G_1$ & $G_2$ NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN $G_1$ & $G_2$ IN FILL = 14%







SECTION B-B

SECTION A-A

HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

SEE CONSTRUCTION PLAN FOR
FM7 (7-INCH)
FM8 (8-INCH)

PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

## FLARED CONCRETE DRIVEWAY (MODIFIED)

(D7M) (D8M)

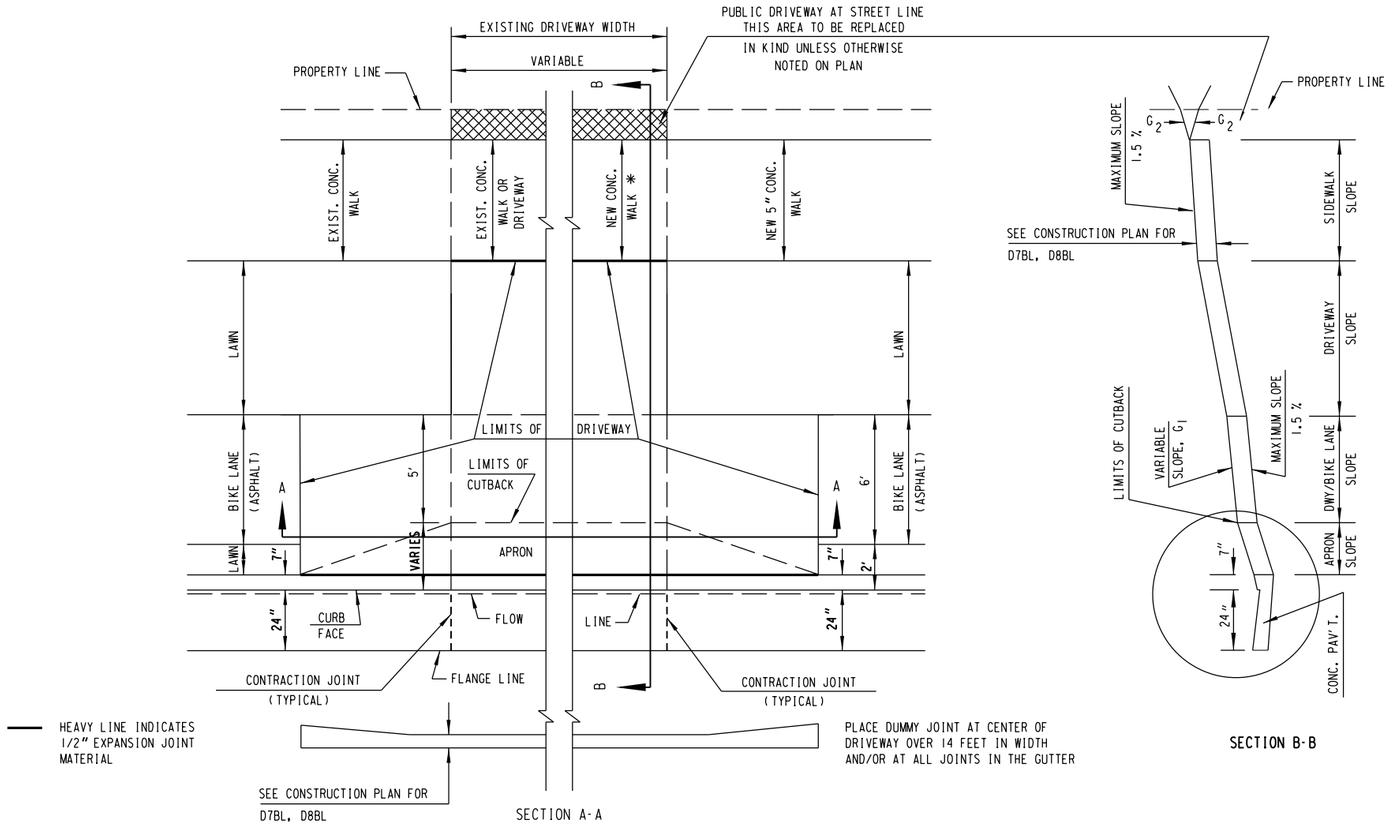
MAXIMUM DIFFERENCE BETWEEN $G_1$ & $G_2$ NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN $G_1$ & $G_2$ IN FILL = 14%

### CONSTRUCTION NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% FOR SIDEWALK CROSS SLOPE. SLOPE SHALL NOT EXCEED 2%
2. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
3. SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, FOR THICKNESS AS THE PLAN SHOWS.
4. CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, THICKNESS AS THE PLAN SHOWS.
5. SEE PLAN DETAIL SHEETS FOR 5-FOOT CONCRETE WALK; 4-FOOT CONCRETE WALK MINIMUM WHERE PROVIDED ACROSS DRIVEWAYS

2




## CONSTRUCTION NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% FOR SIDEWALK CROSS SLOPE. SLOPE SHALL NOT EXCEED 2%
2. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
3. SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, FOR THICKNESS AS THE PLAN SHOWS.
4. CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, THICKNESS AS THE PLAN SHOWS.
5. SEE PLAN DETAIL SHEETS FOR 5-FOOT CONCRETE WALK; 4-FOOT CONCRETE WALK MINIMUM WHERE PROVIDED ACROSS DRIVEWAYS

MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

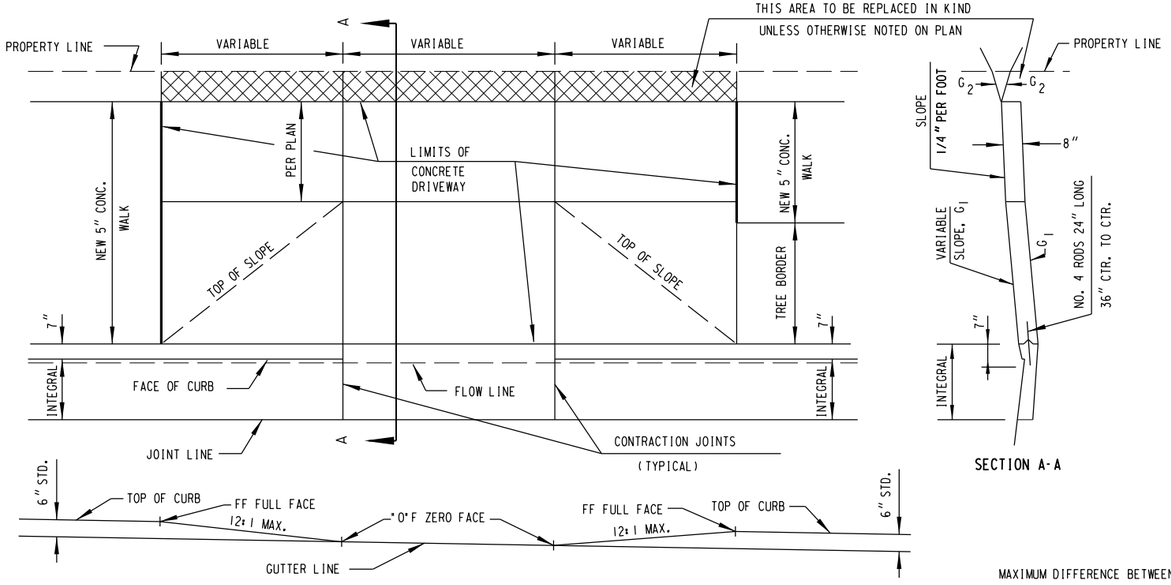
MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ IN FILL = 14%

# DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

D7BL D8BL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CONSTRUCTION DETAILS | SCALE FEET | SHEET NO: 14 | E |
|---|---|---|---|---|---|---|

2







SECTION A-A

MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ NOT TO EXCEED 15%
DESIRABLE MAXIMUM - 10%

MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ IN FILL - 14%

HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

### DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY, PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

## CONSTRUCTION NOTES

1. CONSTRUCTION TOLERANCE OF 0.5% FOR SIDEWALK CROSS SLOPE. SLOPE SHALL NOT EXCEED 2%
2. PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
3. SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, FOR THICKNESS AS THE PLAN SHOWS.
4. CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, THICKNESS AS THE PLAN SHOWS.
5. SEE PLAN DETAIL SHEETS FOR 5-FOOT CONCRETE WALK; 4-FOOT CONCRETE WALK MINIMUM WHERE PROVIDED ACROSS DRIVEWAYS

MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ NOT TO EXCEED 15%
DESIRABLE MAXIMUM - 10%

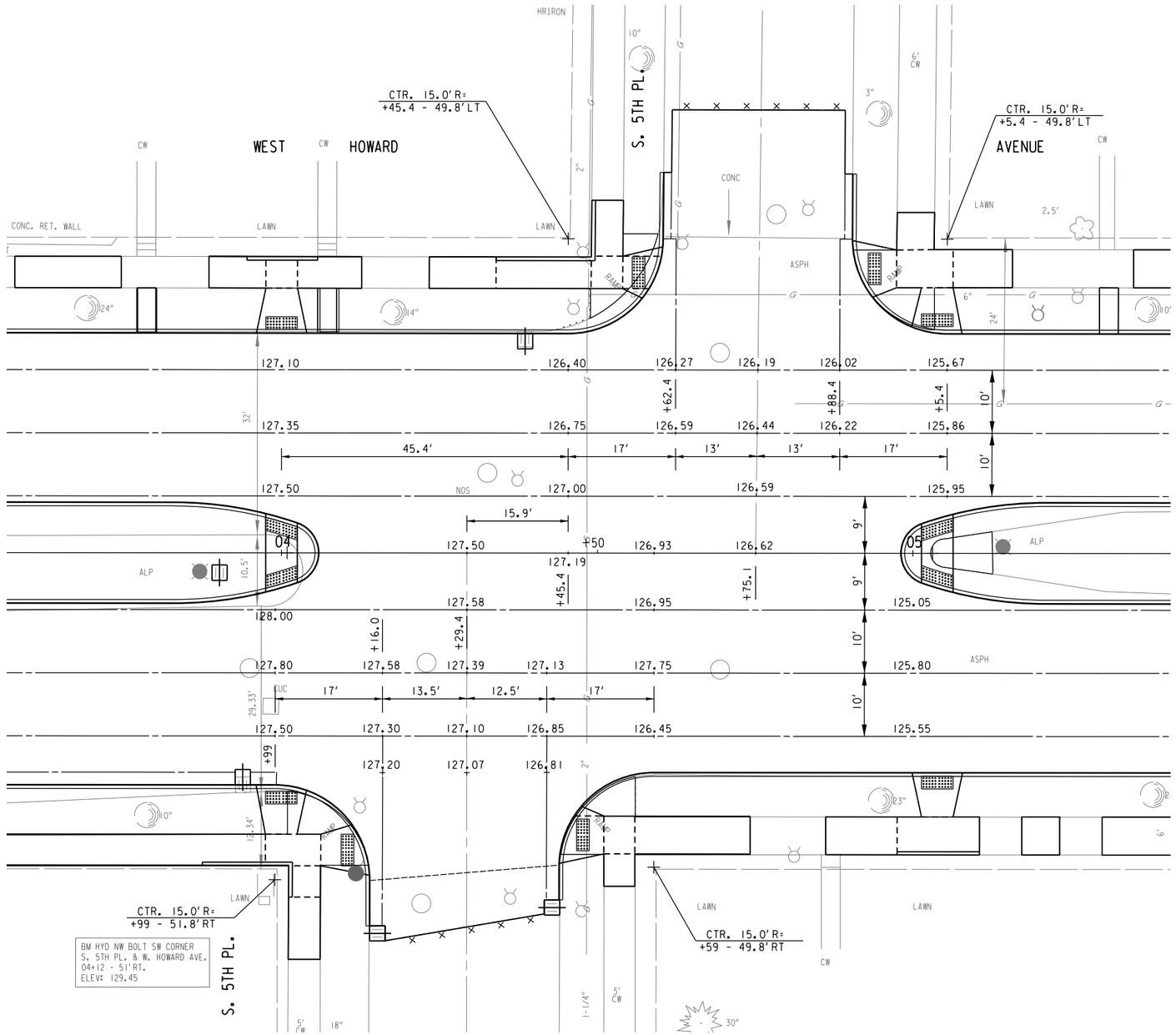
MAXIMUM DIFFERENCE BETWEEN
$G_1$ & $G_2$ IN FILL - 14%

## DEPRESSED CONCRETE DRIVEWAY (MODIFIED) HES

(DD)

2

N

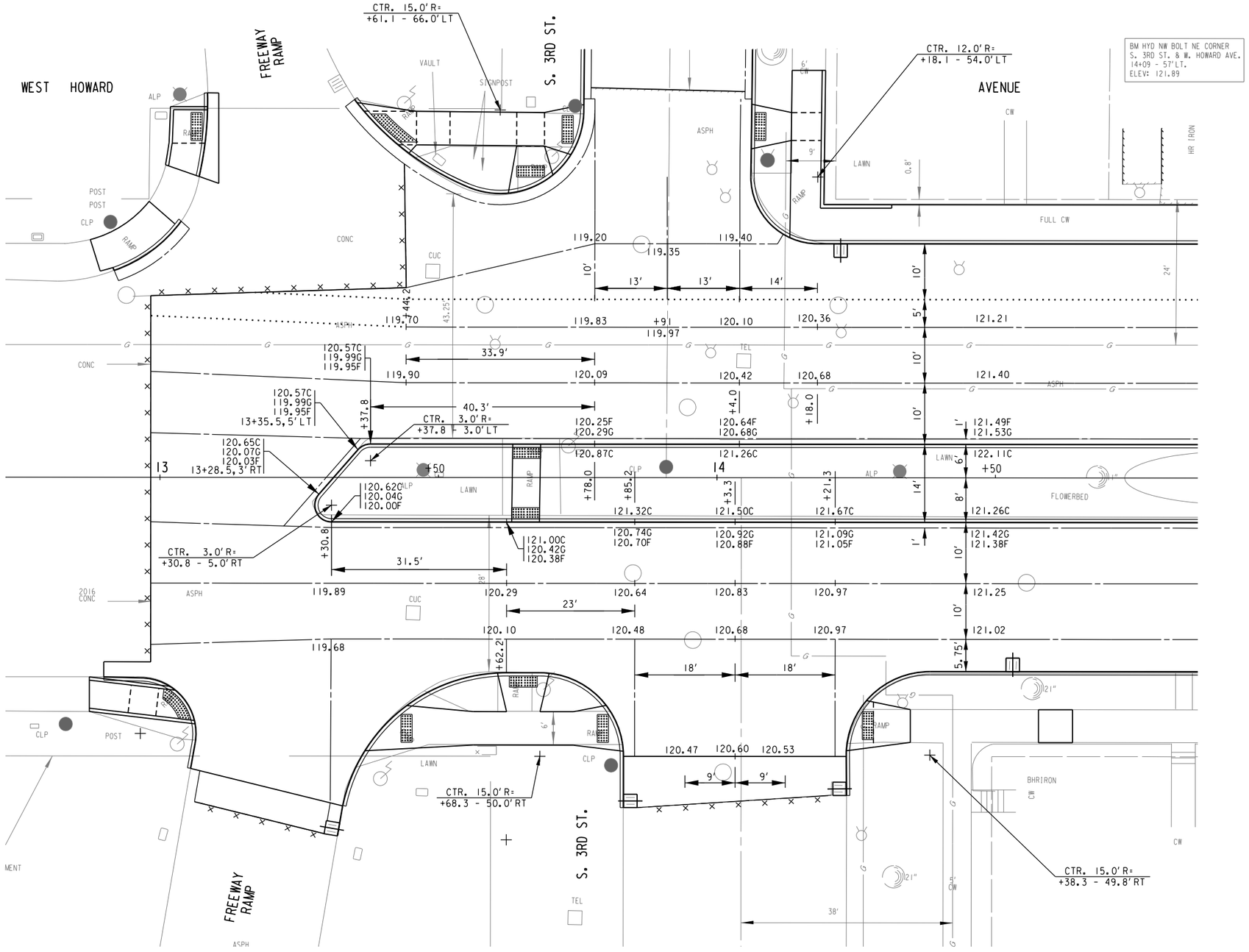



## W. HOWARD AVE. AND S. 5TH PL.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 16 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_5TH PLACE.DGN

REVISED DATE: 07-19-2023 BY JC



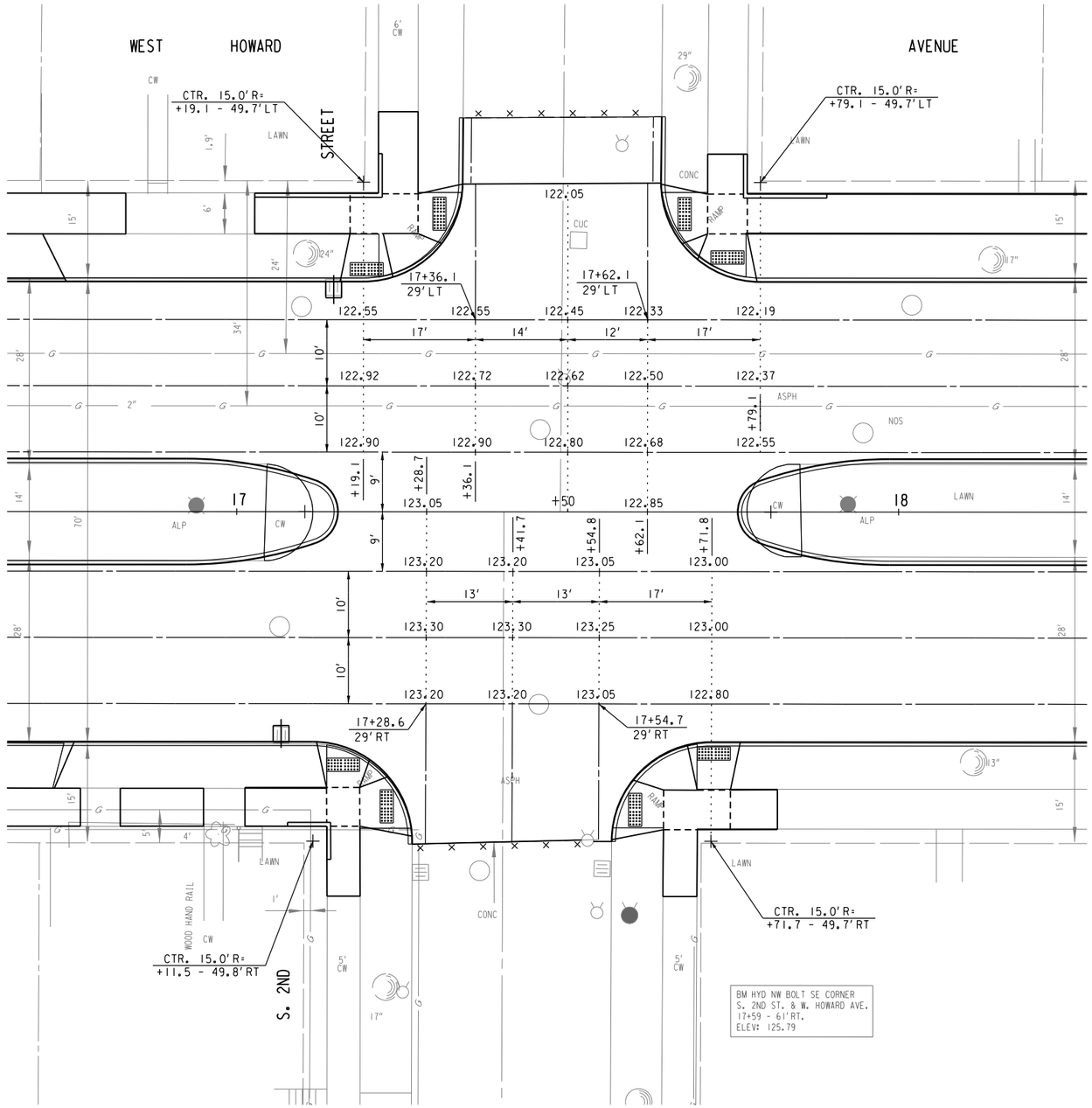

N

## W. HOWARD AVE. AND S. 3RD ST.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 17 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET 3RD ST.DGN

REVISED DATE: 06-29-2023 BY SDB

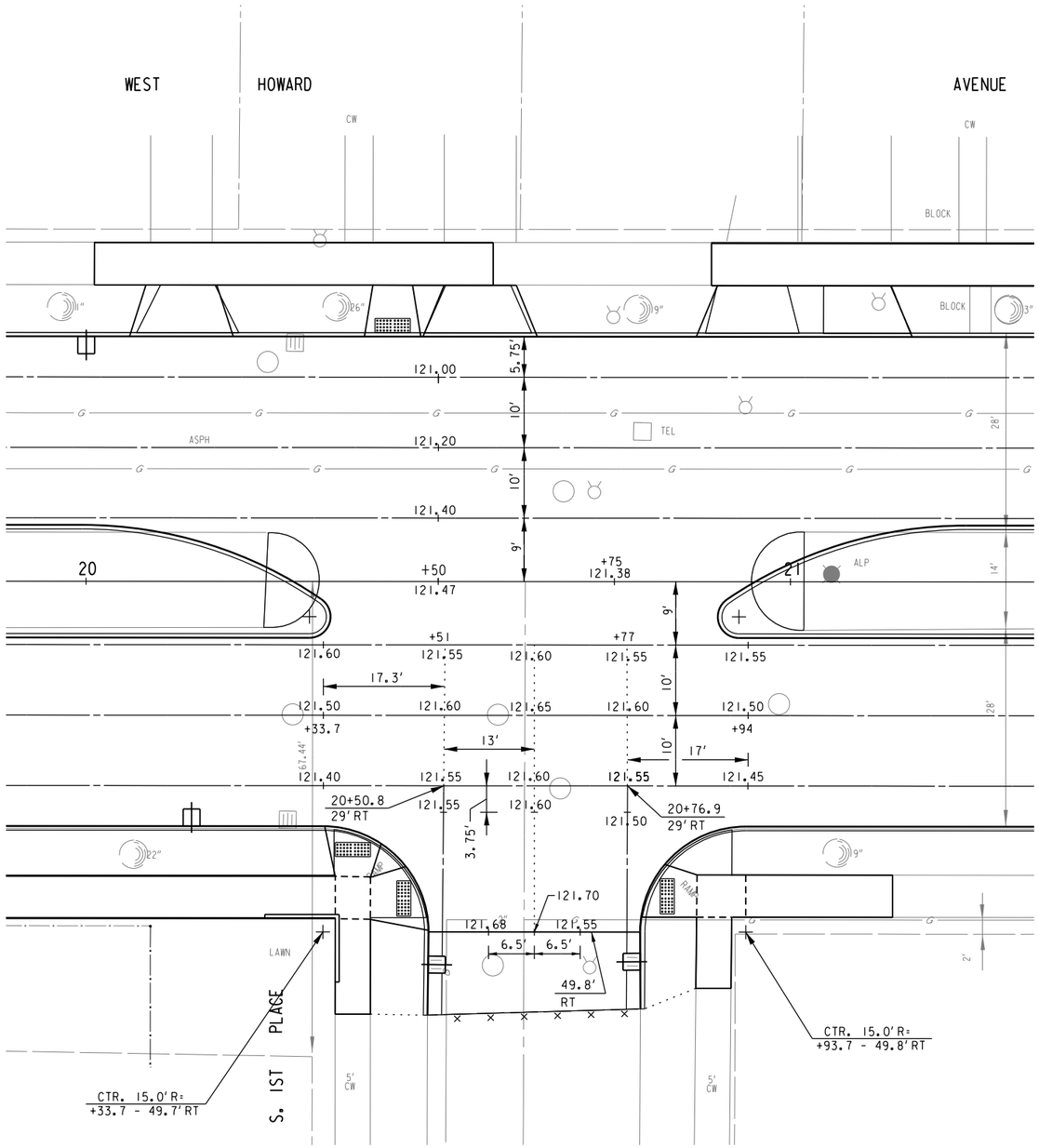



## W. HOWARD AVE. AND S. 2ND ST.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 18 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET 2ND ST.DGN

REVISED DATE: 07-19-2023 BY SDB



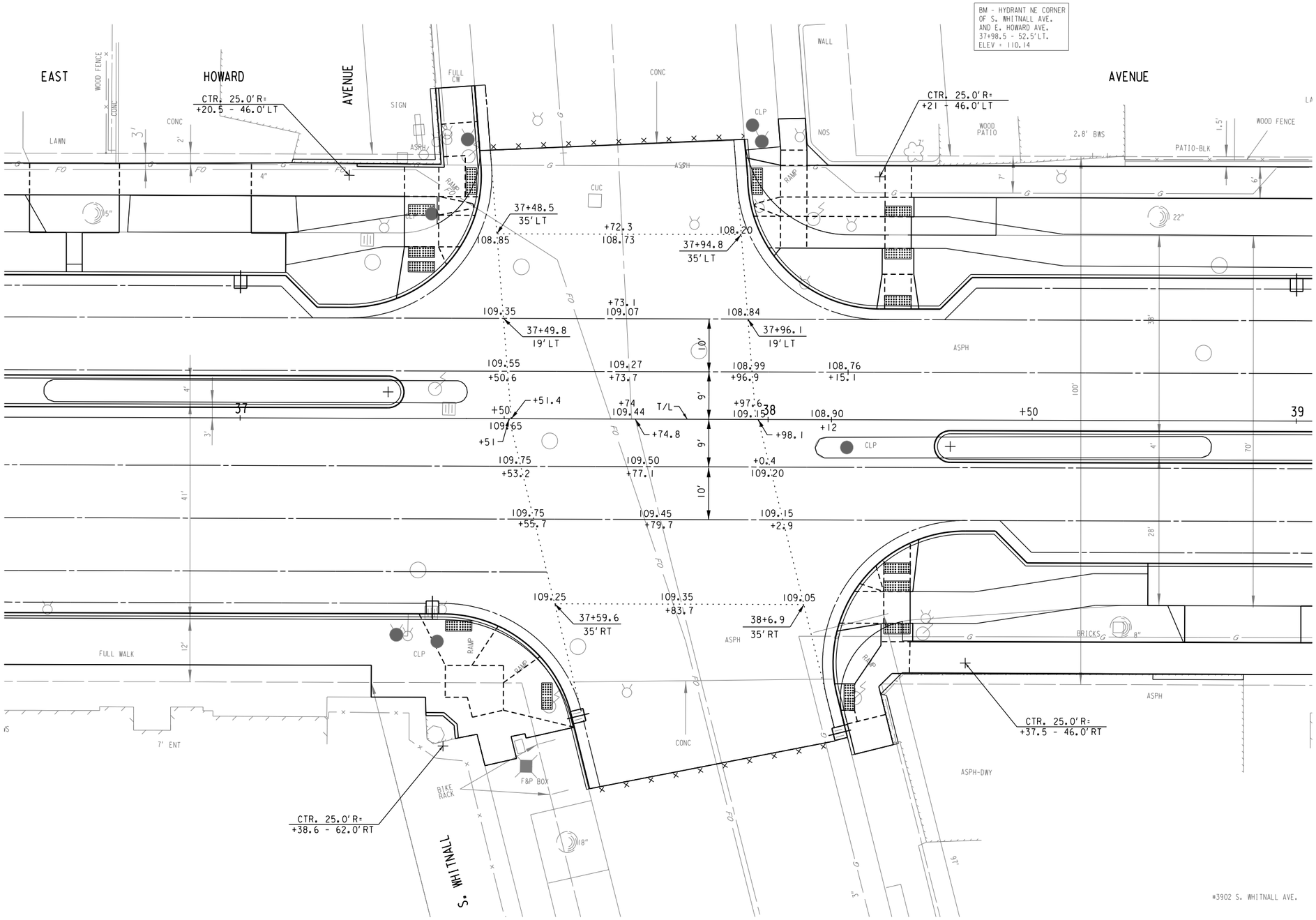

N

## W. HOWARD AVE. AND S. IST PL.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 19 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET IST PL.DGN

REVISED DATE: 03-24-2022 BY SDB




## E. HOWARD AVE. AND S. WHITNALL AVE.

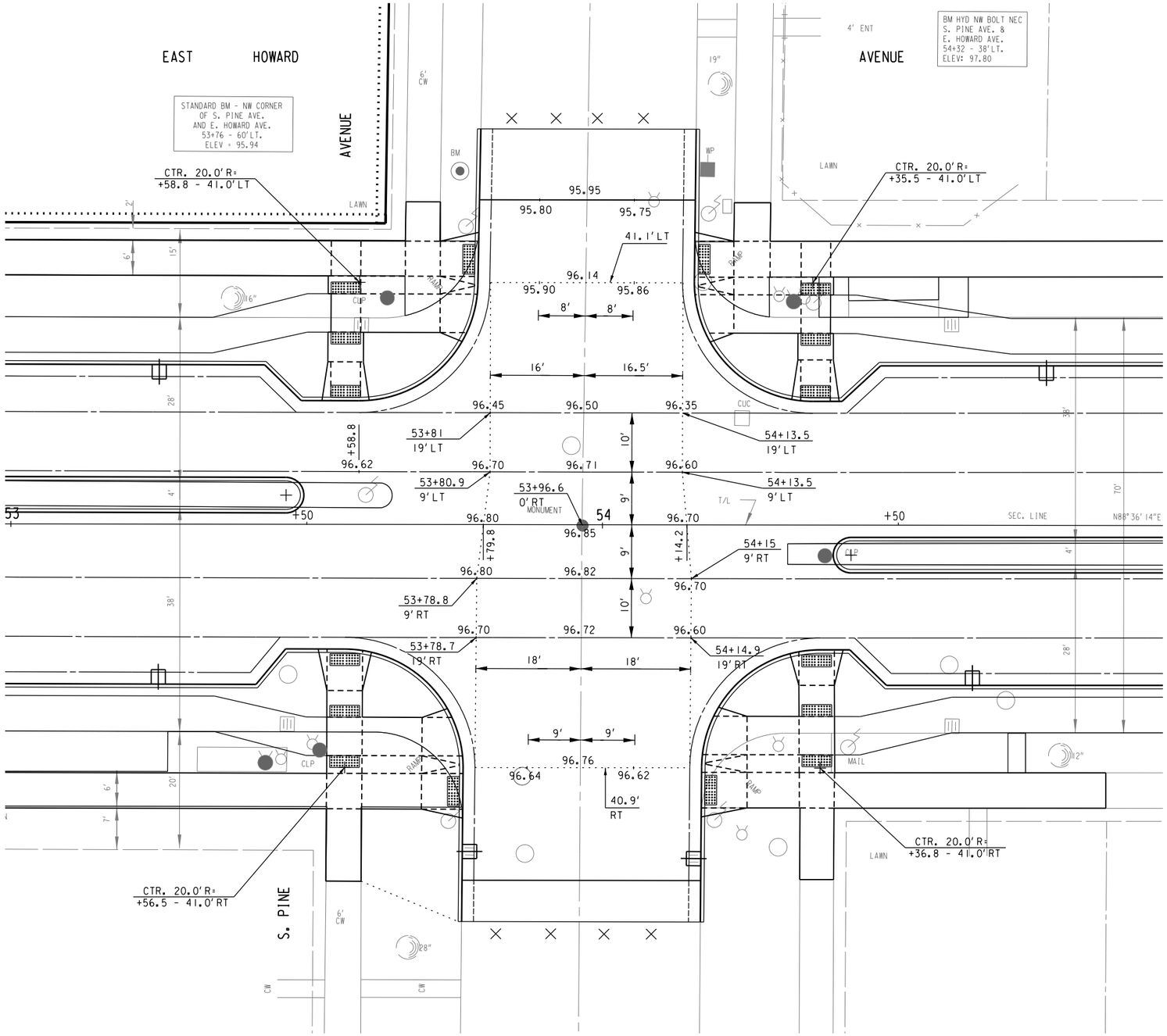
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 20 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_WHITNALL.DGN

REVISED DATE: 07-17-2023 BY SDB

2

N




## E. HOWARD AVE. AND S. PINE AVE.

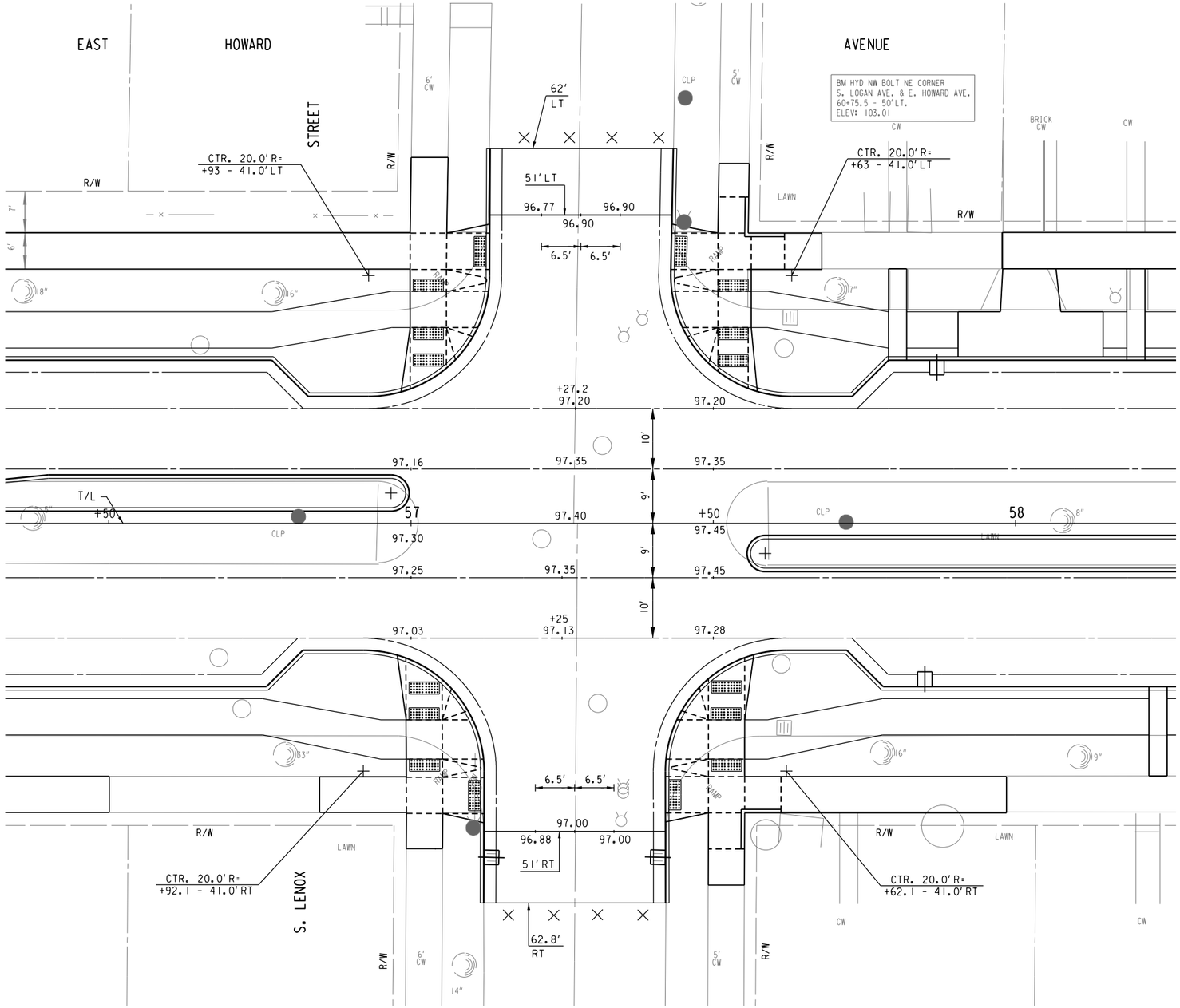
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 21 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_PINE.DGN

REVISED DATE: 07-18-2023 BY SDB

2

N




## E. HOWARD AVE. AND S. LENOX ST.

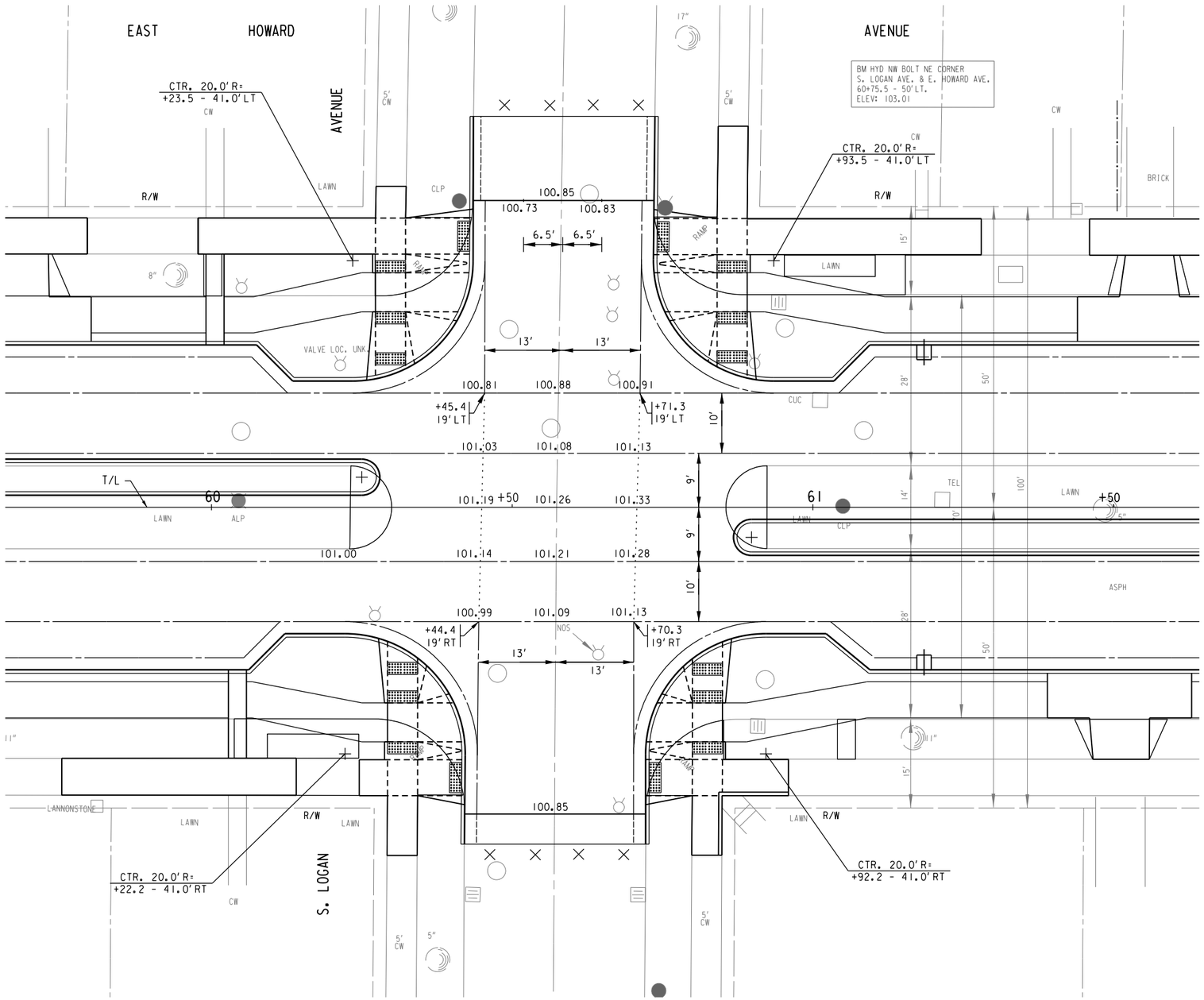
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 22 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_LENOX.DGN

REVISED DATE: 09-19-2023 BY SDB

2

N

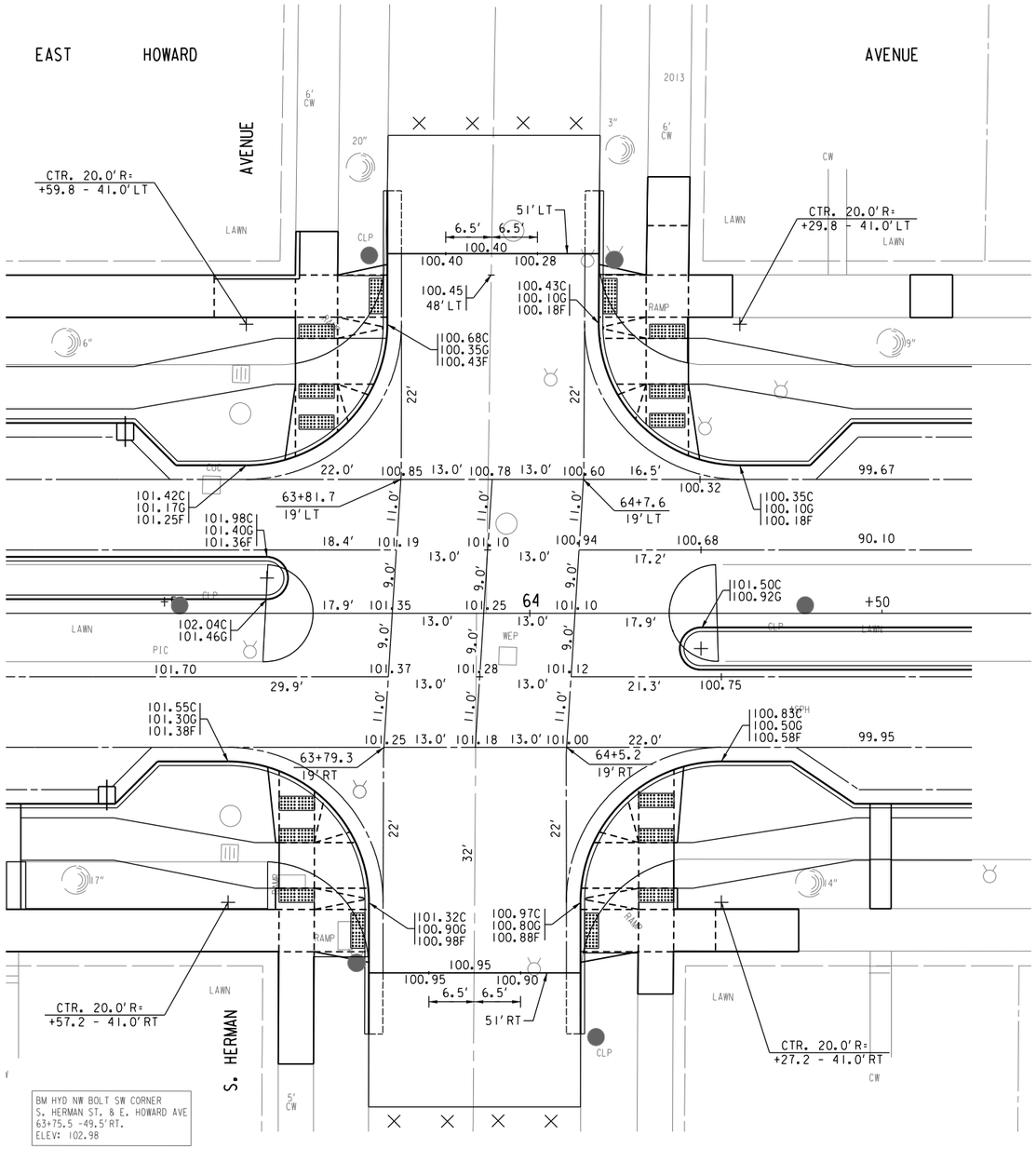



## E. HOWARD AVE. AND S. LOGAN AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 23 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_LOGAN.DGN

REVISED DATE: 07-13-2023 BY SDB



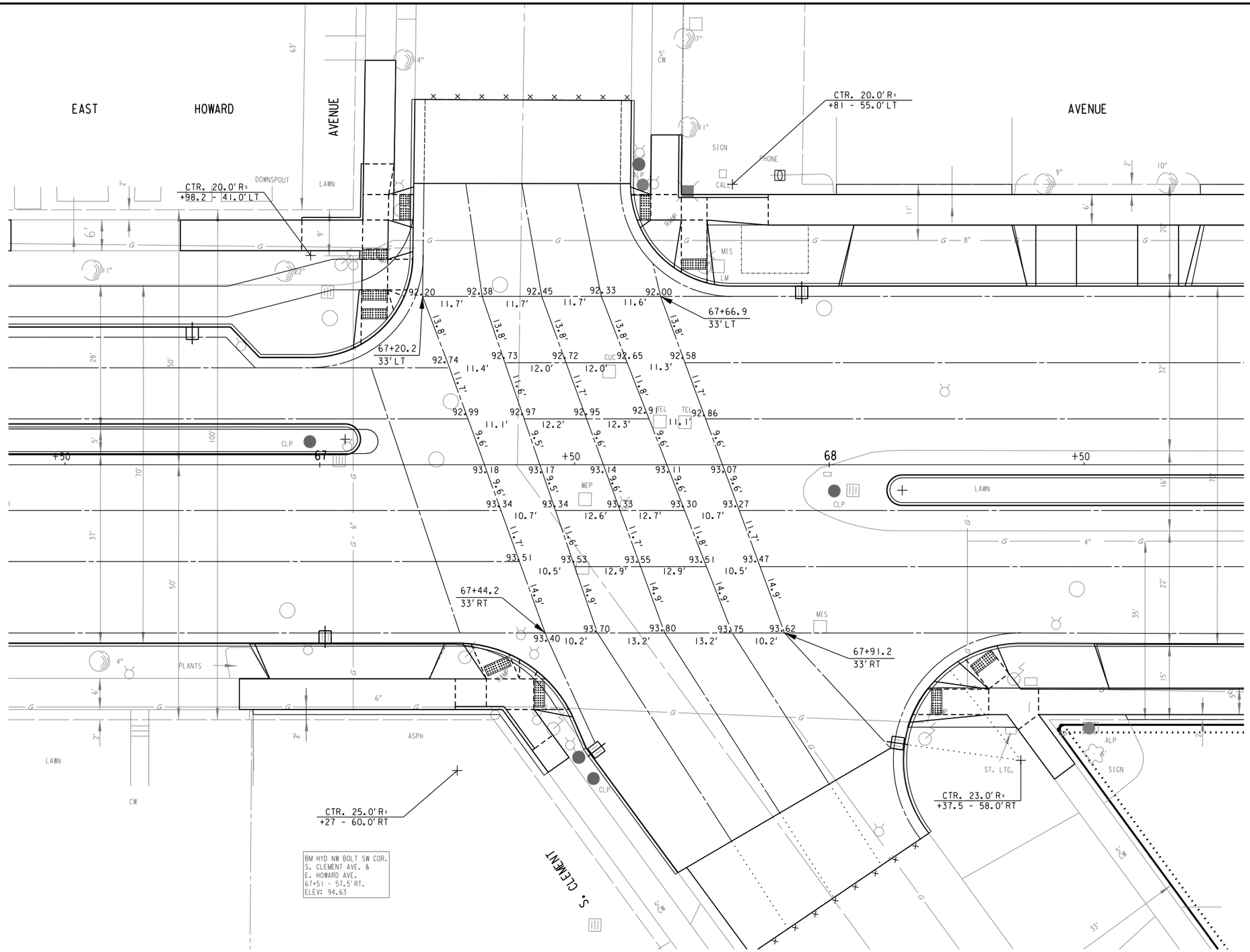

N

## E. HOWARD AVE. AND S. HERMAN AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 24 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_HERMAN.DGN

REVISED DATE: 06-01-2022 BY SDB



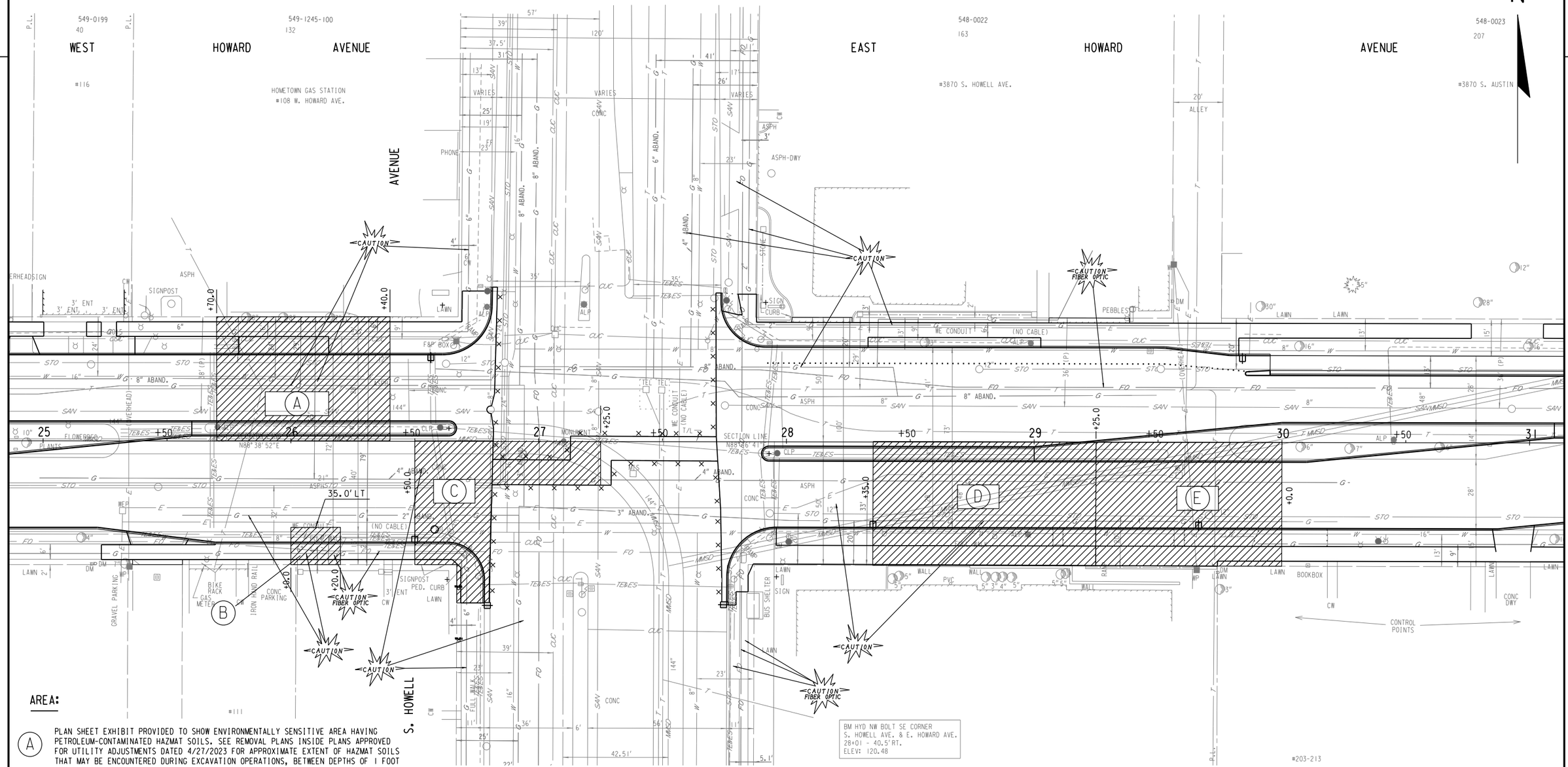

## E. HOWARD AVE. AND S. CLEMENT AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | INTERSECTION GRADE DETAIL | SCALE FEET 0' 20' | SHEET NO: 25 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONSTDET_CLEMENT.DGN

REVISED DATE: 06-13-2022 BY SDB

# PLAN SHEET EXHIBIT




## AREA:

(A) PLAN SHEET EXHIBIT PROVIDED TO SHOW ENVIRONMENTALLY SENSITIVE AREA HAVING PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FOOT AND 6 FEET (1'-6')

(B) PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FOOT AND 6 FEET (1'-6')

(C) PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE CUC AND REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FOOT AND 10 FEET (1'-10')

(D) PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 4 FEET AND 8+ FEET (4'-8+')

(E) PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FOOT AND 6 FEET (1'-6')

## LEGEND

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL, BID ITEM NAMED EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM-CONTAMINATED SOIL, WHICH MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CONTAMINATED SOILS LIMITS | SCALE FEET 0' 40' | SHEET NO: 26 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONTAMINATED SOIL 25-31.DGN

REVISED DATE: 08-02-2023 BY SLB

# PLAN SHEET EXHIBIT

2

2

N

AREA:

(F) PLAN SHEET EXHIBIT PROVIDED TO SHOW ENVIRONMENTALLY SENSITIVE AREA HAVING PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 4 FEET AND 12 FEET (4'-12+')

(G) PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FOOT AND 16+ FEET (1'-16+')

LEGEND

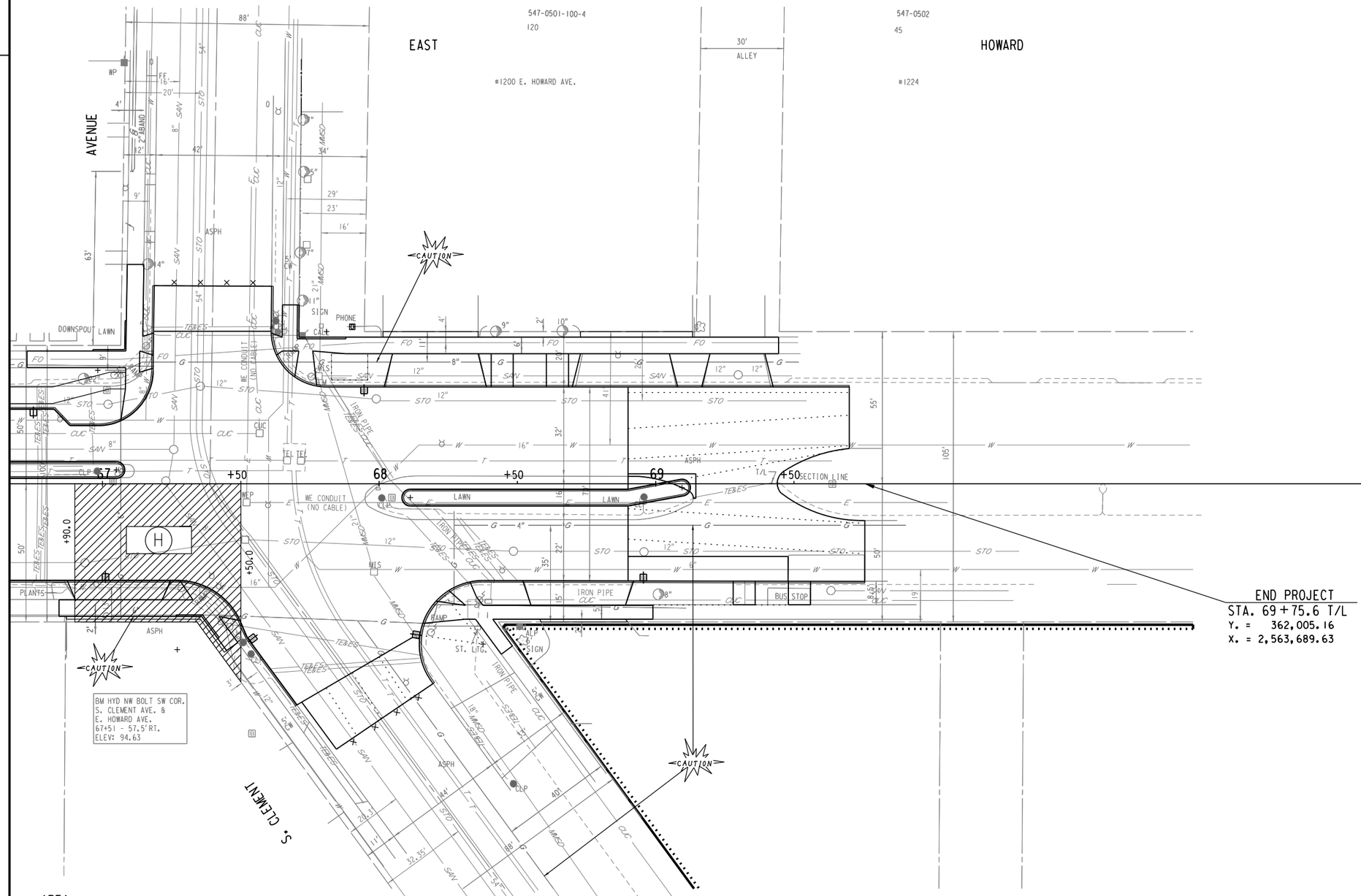
APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL, BID ITEM NAMED EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM-CONTAMINATED SOIL, WHICH MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CONTAMINATED SOILS LIMITS | SCALE FEET 0' 40' | SHEET NO: 27 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONTAMINATED SOIL 37-43.DGN

REVISED DATE: 06-26-2023 BY SLB

# PLAN SHEET EXHIBIT




N

AREA:

(H) PLAN SHEET EXHIBIT PROVIDED TO SHOW ENVIRONMENTALLY SENSITIVE AREA HAVING PETROLEUM-CONTAMINATED HAZMAT SOILS. SEE REMOVAL PLANS INSIDE PLANS APPROVED FOR UTILITY ADJUSTMENTS DATED 4/27/2023 FOR APPROXIMATE EXTENT OF HAZMAT SOILS THAT MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS, BETWEEN DEPTHS OF 1 FEET AND 16 FEET (1'-16+').

LEGEND

APPROXIMATE EXTENT OF PETROLEUM-CONTAMINATED SOIL, BID ITEM NAMED EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM-CONTAMINATED SOIL, WHICH MAY BE ENCOUNTERED DURING EXCAVATION OPERATIONS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CONTAMINATED SOILS LIMITS | SCALE FEET 0' 40' | SHEET NO: 28 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CONTAMINATED SOIL 67-69.DGN

REVISED DATE: 04-26-2023 BY SDB

2

N

WEST HOWARD AVENUE

706 S. 6TH ST. #565 W. HOWARD AVE. #554 W. HOWARD AVE. #524 W. HOWARD AVE. #520

ST. ADALBERTS CATHOLIC CEMETARY

STREET

S. 5TH PL.

6TH STREET

SOUTH

BM HYD NW BOLT NW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38'LT.
ELEV: 135.66

BEGIN CONSTRUCTION
STA. 01+42.0 T/L

BEGIN PROJECT
STA. 02+25 T/L
Y. = 361,850.75
X. = 2,556,940.82

| | ∠ MEASURE |
|---|---|
| 1 | 89° 19' 18" |
| 2 | 89° 59' 38" |

BM HYD NW BOLT SW CORNER
S. 5TH PL. & W. HOWARD AVE.
04+12 - 51'RT.
ELEV: 129.45

#3929 S. 6TH ST. #551-585 W. HOWARD AVE. #529

LEGEND

ARCHAEOLOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 29 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 00-06.DGN

REVISED DATE: 04-26-2023 BY SDB

2

N

WEST

HOWARD

AVENUE

S. 5TH ST.

CAUTION

07+35.4
66.2' LT

07+65.7
65.7' LT

58.1'
LT

54.1'
LT

48.1'
LT

48'
LT

CTR. 20.0' R=
+15.5 - 54.8' LT

CTR. 20.0' R=
+85.5 - 54.7' LT

BM HYD NW BOLT NE CORNER
S. 5TH ST. & W. HOWARD AVE.
STA. 07+84 - 40.5' LT.
ELEV: 122.23

09+57.9
30.1' LT

09+57.8
17.6' LT

09+58.4
0.1' LT

09+58.1
35' LT

09+56.4
30' LT

09+56.2
17.8' LT

∠ PT. +43.8
2.0' RT

09+65.0
6.2' RT

∠ PT. +57.7
8.0' RT

09+56.4
8' RT

P.C. 60.0 'R
+7.8 - 8.0' LT

CTR. 3.0' R=
+06 -5.0' RT

CTR. 3.0' R=
+40 - 5.0' RT

06+13.7
36.9' RT

07+63
37' RT

07+7.6
37.2' RT

06+89.9
36.6' RT

09+57
35' RT

35'
RT

35'
RT

48'
RT

| | ∠ MEASURE |
|---|---|
| 3 | 90° 40' 42" |

I-43/94 RAMPS

FREEWAY EASEMENT

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 30 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 06-11.DGN

REVISED DATE: 10-07-2023 BY SDB

2

N

WEST

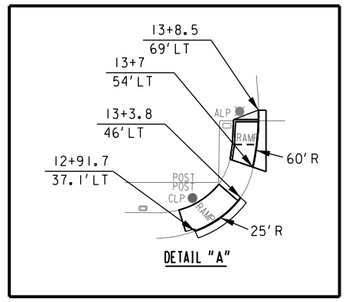
HOWARD

AVENUE

1-43/94 RAMP

STREET

S. 3RD




DETAIL "A"

| | ∠ MEASURE |
|---|---|
| 4 | 177° 30' 00" |
| 5 | 178° 28' 40" |
| 6 | 178° 14' 00" |
| 7 | 178° 13' 55" |
| 8 | 90° 28' 01" |
| 9 | 89° 59' 49" |

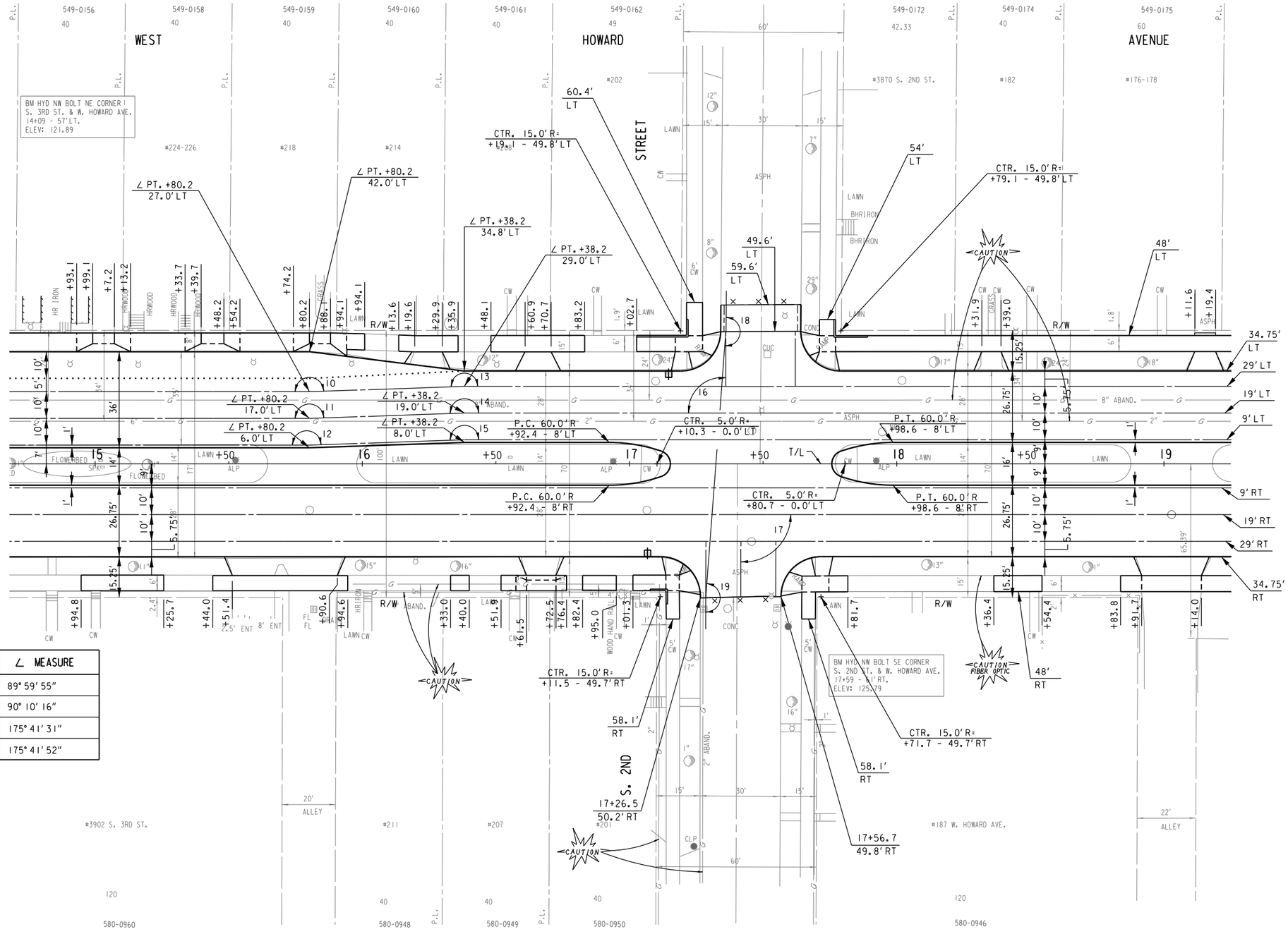
580-0502-100

580-0960

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 31 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 11-15.DGN

REVISED DATE: 04-26-2023 BY SDB




| | ∠ MEASURE |
|---|---|
| 10 | 178° 01' 30" |
| 11 | 178° 01' 30" |
| 12 | 178° 01' 30" |
| 13 | 178° 01' 30" |
| 14 | 178° 01' 30" |
| 15 | 178° 01' 30" |

| | ∠ MEASURE |
|---|---|
| 16 | 89° 59' 55" |
| 17 | 90° 10' 16" |
| 18 | 175° 41' 31" |
| 19 | 175° 41' 52" |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 32 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 15-19.DGN

REVISED DATE: 04-26-2023 BY SDB

WEST HOWARD AVENUE

N

#176-178 #170 #168 #164 #156 #150 #142 W. HOWARD AVE. #132 #124 #120

S. IST ST.

CAUTION

22+90.6 62' LT

74' LT

75' LT

23+20.7 62.5' LT

58.6' LT

60.2' LT

CTR. 15.0' R= +75.6 - 49.75' LT

CTR. 15.0' R= +35.6 - 49.75' LT

34.75' LT

50' CONC LT

29' LT

19' LT

9' LT

9' RT

19' RT

29' RT

P.C. 60.0' R +99.5 - 8' LT

P.T. 60.0' R +25.0 - 8' LT

CTR. 3.0' R= +75 - 5.0' LT

CTR. 3.0' R= +28.5 - 5.0' LT

P.C. 60.0' R +30.6 - 8' LT

CTR. 3.0' R= +14.7 - 5.0' RT

P.T. 60.0' R +46.9 - 8' LT

P.C.C. +64.5 2.5' RT

P.C.C. +26.8 2.5' LT

CTR. 3.0' R= +31.7 - 5.0' RT

CTR. 3.0' R= +92.7 - 5.0' RT

P.C. 60.0' R +42.8 - 8' RT

P.T. 60.0' R +60.7 - 8' RT

CTR. 3.0' R= +62.8 - 5.0' RT

∠ PT. +60.0 8.0' RT

19 20 21 22 23 24 25

+50

ALP

T/L

ASPH

LAWN

FLOWERBED

PLANTS

CONC

GRAVEL

2" ABAND.

8" ABAND.

16' ENT

OVERHEADSIGN

47.9' RT

49.8' RT

61.4' RT

57.7' RT

34.75' RT

47.7' RT

59.7' RT

59.4' RT

50' RT

CTR. 15.0' R= +33.7 - 49.75' RT

CTR. 15.0' R= +93.7 - 49.75' RT

CTR. 15.0' R= +55.7 - 49.75' RT

CTR. 15.0' R= +15.7 - 50.0' RT

20+48.5 61.6' RT

20+78.8 60.7' RT

23+70.6 64.6' RT

24+0.6 65.8' RT

BM HYD. NW BOLT SE CORNER S. IST ST. & W. HOWARD AVE. 24+03 - 50' RT. ELEV: 122.56

CAUTION FIBER OPTIC

WOOD HAND RAIL

IRON HAND RAIL

CENT. LINK/ LUMEN HH

CLP

R/W

S. IST PL.

S. IST ST.

#3905 S. IST PL. #3912 S. IST PL. #153 W. HOWARD AVE. #3901-03 S. IST ST. #3902 S. IST ST.

22' ALLEY 22' ALLEY

| | ∠ MEASURE |
|---|---|
| 20 | 90° 31' 54" |
| 21 | 90° 14' 06" |
| 22 | 90° 33' 23" |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 33 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 19-25.DGN

REVISED DATE: 10-07-2023 BY SDB

WEST HOWARD AVENUE

EAST HOWARD AVENUE

#116

HOMETOWN GAS STATION
#108 W. HOWARD AVE.

#3870 S. HOWELL AVE.

#3870 S. AUSTIN

20' ALLEY

26+81.4
62' LT

60.4'
LT

59.3'
LT

CTR. 18.0' R=
+91.6 - 56.0' LT

CTR. 20.0' R=
+61.2 - 54.75' LT

27+73.5
59.8' LT

∠ PT. +52.8
38.0' LT

∠ PT. +78.8
35.0' LT

48'
LT

52'
LT

26+82.2
19' LT

26+80.6
12.5' LT

26+81.8
5' LT

∠ PT. +60.0
2.0' LT

∠ PT. +0.0
2.0' RT

∠ PT. +0.0
8.0' LT

SEE DETAIL "A"

CTR. 3.0' R=
+63.8 - 5.0' LT

CTR. 3.0' R=
+95 - 5.0' RT

∠ PT. +10.0
8.0' RT

∠ PT. +10.0
2.0' LT

27+73.5
28' RT

∠ PT. +22.0
35.0' RT

∠ PT. +69.5
41.0' RT

26+61
48' RT

26+67
50' RT

CTR. 15.0' R=
+63.0 - 56.0' RT

26+68.6
55.6' RT

65.4'
RT

26+78.1
65.3' RT

27+76.1
64.8' RT

CTR. 20.0' R=
+96.0 - 54.75' RT

27+86.7
49.5' RT

27+84.7
54.1' RT

60.8'
RT

66.1'
RT

49.8'
RT

47.9'
RT

48'
RT

S. HOWELL

#111

#3915 S. HOWELL AVE.

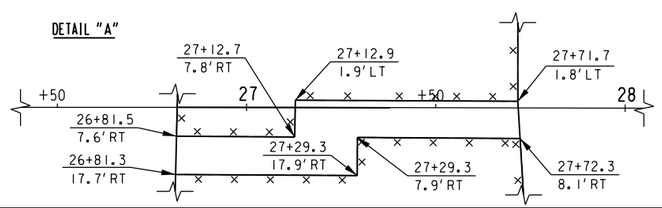
#3912 S. HOWELL AVE.

#203-213

BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.
ELEV: 120.48

CONTROL POINTS

DETAIL "A"




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 34 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 25-31.DGN

REVISED DATE: 10-07-2023 BY SDB

2

EAST HOWARD AVENUE

N

S. AUSTIN ST.

#300 E. HOWARD AVE.

BM - HYDRANT NE CORNER OF S. AUSTIN ST. AND E. HOWARD AVE. 32+58 - 39.5'LT. ELEV = 116.32

#308 #316 #324 #334-336 #342 #348 #360

30' ALLEY

68' LT

CTR. 20.0'R= +83.0 - 41.0'LT

54.7' LT

CTR. 20.0'R= +58.6 - 41.0'LT

61' LT

51' LT

48.1' LT

CTR. 5.0'R= +52.3 - 0.0'LT

∠ PT. +67.0 27.0'LT

∠ PT. +75.0 27.0'LT

∠ PT. +73.0 21.0'LT

∠ PT. +69.0 21.0'LT

P.C. 60.0'R +77.9 - 8'LT

P.T. 60.0'R +34.4 - 8'LT

P.T. 60.0'R +16.5 - 8'LT

∠ PT. +10.0 2.0'LT

CTR. 3.0'R= +84.1 - 5.0'LT

CTR. 5.0'R= +60 - 0.0'LT

P.C. 60.0'R +77.9 - 8'RT

P.T. 60.0'R +34.4 - 8'RT

CTR. 5.0'R= +98.2 - 0.0'LT

∠ PT. +30.5 8.0'RT

∠ PT. +30.0 2.0'LT

10:1 TAPER

∠ PT. +87.3 34.75'RT

∠ PT. +87.3 24.75'RT

48' RT

∠ PT. +64.3 32.0'RT

∠ PT. +57.0 24.75'RT

∠ PT. +87.9 37.0'LT

P.T. 60.0'R +16.5 - 8'RT

47.7' RT

46.8' RT

52.8' RT

∠ PT. +37.9 32.0'RT

46.8' RT CONTROL POINTS

| | ∠ MEASURE |
|---|---|
| 23 | 90° 14' 07" |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 35 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 31-37.DGN

REVISED DATE: 10-07-2023 BY SDB

2

N

EAST HOWARD AVENUE

S. GRIFFIN AVE.

#3880 S. WHITNALL AVE.

#360 #424 #430 #436 #446

37+45.2
50.8' LT

37+95.4
53' LT

37+44.2
63' LT

37+37.4
62.6' LT

57' LT

48' LT

59.7' LT

58.8' LT

54.8' LT

BM - HYDRANT NE CORNER OF S. WHITNALL AVE. AND E. HOWARD AVE. 37+98.5 - 52.5' LT. ELEV = 110.14

BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58' LT. ELEV = 104.97

CAUTION

CTR. 25.0' R= +20.5 - 46.0' LT

∠ PT. +8.5 27.0' LT

∠ PT. +8.5 35.0' LT

CTR. 25.0' R= +21 - 46.0' LT

∠ PT. +34.0 38.5' LT

∠ PT. +33.6 32.5' LT

∠ PT. +38.5 27.0' LT

∠ PT. +55.8 35.2' LT

∠ PT. +55.9 29.2' LT

∠ PT. +31.0 38.5' LT

∠ PT. +14.5 21.0' LT

∠ PT. +27.0 32.5' LT

CTR. 3.0' R= +34.5 - 5.0' RT

∠ PT. +32.5 21.0' LT

∠ PT. +15.0 2.0' RT

∠ PT. +15.0 8.0' LT

CTR. 20.0' R= +83.3 - 41.0' LT

∠ PT. +67.0 35' LT

∠ PT. +67.0 27.0' LT

∠ PT. +73.0 21.0' LT

CTR. 3.0' R= +86.1 - 5.0' LT

∠ PT. +48.2 39.0' LT

CTR. 20.0' R= +53.5 - 41.0' LT

∠ PT. +75.0 21.0' LT

∠ PT. +81.5 27.0' LT

P.T. 60.0' R +66.9 - 8' LT

CTR. 3.0' R= +28.0 - 5.0' LT

∠ PT. +43.0 21.0' RT

∠ PT. +49.0 27.0' RT

∠ PT. +0.0 8.0' RT

∠ PT. +0.0 2.0' LT

∠ PT. +80.9 27.0' RT

∠ PT. +85.9 22.0' RT

CTR. 5.0' R= +50 - 0.0' RT

∠ PT. +73.5 22.0' RT

P.T. 60.0' R +66.9 - 8' RT

∠ PT. +78.5 27.0' RT

37+51.5
60.2' RT

37+54.3
60.5' RT

37+25
46.8' RT

37+25
52.8' RT

37+35.3
52.8' RT

CTR. 25.0' R= +38.6 - 62.0' RT

37+45.1
59.7' RT

37+46.6
65.7' RT

37+52.5
64.3' RT

37+66.4
70' RT

∠ PT. +39.6 38.5' RT

CTR. 25.0' R= +37.5 - 46.0' RT

38+23.6
48' RT

38+21.1
50.5' RT

#3902 S. WHITNALL AVE.

38+23.9
61.5' RT

38+14.6
57.8' RT

∠ PT. +62.0 35.0' RT

S. WHITNALL AVE.

| | ∠ MEASURE |
|---|---|
| 24 | 168° 47' 04" |
| 25 | 89° 56' 29" |

#419 #423-425 #431 #437 #441 #445 #449 #455 #459

CONTROL POINTS

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 36 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 37-43.DGN

REVISED DATE: 07-21-2023 BY SDB

2

N

548-0364
172.13

548-0365-210
40.24

548-1101
908.35

EAST HOWARD AVENUE

#3884 S. GRIFFIN AVE.

WOODLAWN CEMETARY
#614

BM - HYDRANT NE CORNER
OF S. GRIFFIN AVE.
AND E. HOWARD AVE.
STA. 42+37 - 58'LT.
ELEV = 104.97

48'LT

48'LT

R/W

P.C. 60.0'R
+63.1 - 8'LT

CTR. 5.0'R=
+81 - 0.0'LT

P.C. 60.0'R
+63.1 - 8'RT

48'RT

CAUTION

WE ENERGIES
EASEMENT

OVERHEADEASMENT

#467
50
581-9993

#473-475
71.27
581-0701

#502 E. HOWARD AVE.
40

#501-503
44.73
581-0702

#507
48
581-0703

#515
48
581-0704

#521
48
581-0705

#529
60
581-9994

#535
68
581-9995-0

#545
50
581-9996

#603
50
581-9998

#611
50
581-9999

LEGEND

ARCHAELOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 37 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 43-49.DGN

REVISED DATE: 09-12-2022 BY SDB

| | ∠ MEASURE |
|---|---|
| 26 | 65° 18′ 20″ |
| 27 | 179° 29′ 37″ |

EAST HOWARD AVENUE

STANDARD BM - NW CORNER OF S. PINE AVE. AND E. HOWARD AVE. 53+76 - 60′LT. ELEV - 95.94

BW HYD NW BOLT NEC S. PINE AVE. & E. HOWARD AVE. 54+32 - 38′LT. ELEV: 97.80

BM - HYDRANT SE CORNER OF S. TAYLOR AVE. AND E. HOWARD AVE. 51+39 - 65′RT. ELEV - 100.46

DETAIL "A"

LEGEND

ARCHAELOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0′ 40′ | SHEET NO: 38 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 49-55.DGN

REVISED DATE: 10-07-2023 BY SDB

2

N

EAST STREET

HOWARD AVENUE

AVENUE

S. LENOX

S. LOGAN

CAUTION

| | ∠ MEASURE |
|---|---|
| 28 | 90° 53' 38" |
| 29 | 89° 36' 45" |

| | ∠ MEASURE |
|---|---|
| 30 | 179° 23' 13" |
| 31 | 179° 53' 37" |

| | ∠ MEASURE |
|---|---|
| 32 | 179° 29' 37" |

BM HYD NW BOLT SW CORNER
S. LENOX ST & E. HOWARD AVE.
57+10-50'RT.
ELEV: 99.46

BM HYD NW BO
S. LOGAN AVE
60+75.5 - 5
ELEV: 103.0

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 39 | E |
|---|---|---|---|---|---|---|

EAST HOWARD AVENUE

N

547-0339 30 P.L. | 547-0338 30 P.L. | 547-0337 45 P.L. | 547-0335 45 P.L. | 547-0334-110 60 P.L. | 547-0332-100 60 | 547-0354 40 P.L. | 547-0353 40 P.L. | 547-0352 40 P.L. | 547-0347-121 35 P.L. | 547-0347-111 127

#1000-1002 | #1006 | #1010 | #1016 | #1022 | #1030 | #1100 | #1106 | #1112 | #1116 | #3875 S. CLEMENT AVE.

BM HYD NW BOLT NE CORNER
S. LOGAN AVE. & E. HOWARD AVE.
60+75.5 - 50' LT.
ELEV: 103.01

STREET

∠ PT. +3.5 21.0' LT | ∠ PT. +9.5 27.0' LT | 48' LT | ∠ PT. +43.8 27.0' LT | CTR. 20.0' R= +59.8 - 41.0' LT | ∠ PT. +49.8 21.0' LT | 54.2' LT | 33 | 67.8' LT | 51' LT | 35 | 61.9' LT | CTR. 20.0' R= +29.8 - 41.0' LT | ∠ PT. +39.8 21.0' LT | ∠ PT. +45.8 27.0' LT | CAUTION | 48' LT | CTR. 20.0' R= +98.2 - 41.0' LT | ∠ PT. +88.2 21.0' LT

CTR. 3.0' R= +89.8 - 5.0' RT | ∠ PT. +65.0 2.0' RT | ∠ PT. +65.0 8.0' LT | CTR. 3.0' R= +62.7 - 5.0' LT | CTR. 3.0' R= +24.3 - 5.0' RT | ∠ PT. +0.0 2.0' RT | ∠ PT. +0.0 8.0' LT | ∠ PT. +82.5 27.0' LT

61 | 62 | 63 | 64 | 65 | 66 | 67

∠ PT. +85.0 8.0' RT | ∠ PT. +85.0 2.0' LT | ∠ PT. +47.2 21.0' RT | ∠ PT. +15.0 8.0' RT | ∠ PT. +15.0 2.0' LT

∠ PT. +9.5 27.0' RT | ∠ PT. +2.2 21.0' RT | 48' RT | ∠ PT. +41.2 27.0' RT | CTR. 20.0' R= +57.2 - 41.0' RT | 63.9' RT | 70' RT | ∠ PT. +46.1 27.0' RT | ∠ PT. +37.2 21.0' RT | CTR. 20.0' R= +27.2 - 41.0' RT | 54' RT | CAUTION | 66+00 29' RT

| | ∠ MEASURE |
|---|---|
| 33 | 90° 53' 38" |
| 34 | 89° 36' 45" |
| 35 | 178° 30' 57" |
| 36 | 178° 58' 33" |

BM HYD NW BOLT SW CORNER
S. HERMAN ST. & E. HOWARD AVE
63+75.5 -49.5' RT.
ELEV: 102.98

S. HERMAN

#1001 | #1013 | #1019 | #1027 | #1031 | #1107 | #1111 | #1115 | #1121 | #1127

58 582-9981 | 65.31 582-9983 | 61.76 582-1246-100 | 30 582-1245 | 60 582-1214-100 | 47 582-1214-100 | 42.38 582-1215-100 | 42 582-1217 | 42 582-1218 | 42 582-1219 | 48 582-9986

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 40 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 61-67 .DGN

REVISED DATE: 05-01-2023 BY SDB

2

N

EAST HOWARD AVENUE

547-0501-100-4
120

547-0502
45

#1200 E. HOWARD AVE.

#1224

88'

30'
ALLEY

67+39.6
55.1' LT

79.3'
LT

AVENUE

42'

34'

4' SIDEWALK

64.7'
LT

CTR. 20.0' R=
+81 - 55.0' LT

CTR. 20.0' R=
+98.2 - 41.0' LT

ASPH

71.5'
LT

55'
LT

53'
LT

CAUTION

55.1'
LT

∠ PT. +82.5
27.0' LT

+01.3

+35.8

+40.5

+48.5

+60.5

+68.5

+72.8

+13.3

+44.4

+72.7

R/W

DOWNSPOUT

LAWN

SIGN

PHONE

CATV

TEL

WTR

+88

+82

+70.0

+2.5

37

38

67+43.6
33' LT

∠ PT. +88.2
21.0' LT

CTR. 3.0' R=
+14.3 - 5.0' RT

∠ PT. +90.0
2.0' RT

69+14.5
3.6' LT

CTR. 3.0' R=
+05.0 - 5.0' LT

CLP

T/L

68

69

SECTION LINE

CTR. 3.0' R=
+9.5 - 1.4' RT

67+67.7
33' RT

39

∠ PT. +90.0
8.0' RT

69+47.9
26.3' RT

END PROJECT
STA. 69+75.6 T/L
Y. = 362,005.16
X. = 2,563,689.63

68+90
26.3' RT

BUS STOP

+75.6

PLANTS

R/W

+84.2

+87

48'
RT

ASPH

P.T. 25.0' R
+49.4 - 49' RT

ST. LTG.

+98.2

50'
RT

+89

68+99
49' RT

+28.0

+36.0

+48.0

+56.0

68+48.2
58.7' RT

CTR. 23.0' R=
+37.5 - 58.0' RT

68+12
55.6' RT

68+19.5
72.3' RT

40

BM HYD NW BOLT SW COR.
S. CLEMENT AVE. &
E. HOWARD AVE.
67+51 - 57.5' RT.
ELEV: 94.63

67+45.3
60' RT

∠ PT. 67+52.3
55.6' RT

CTR. 25.0' R=
+27.0 - 60.0' RT

67+70.3
80' RT

S. CLEMENT

67+84.5
96' RT

68+00.5
85' RT

#1141

#1213

47.61
582-1201

159.91
582-9987-100

582-9988

P.L.

| | ∠ MEASURE |
|---|---|
| 37 | 169° 04' 33" |
| 38 | 169° 56' 37" |
| 39 | 167° 29' 45" |
| 40 | 176° 25' 58" |

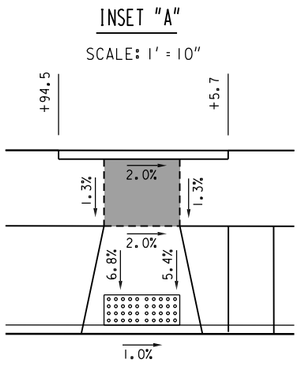
LEGEND

ARCHAEOLOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 41 | E |
|---|---|---|---|---|---|---|

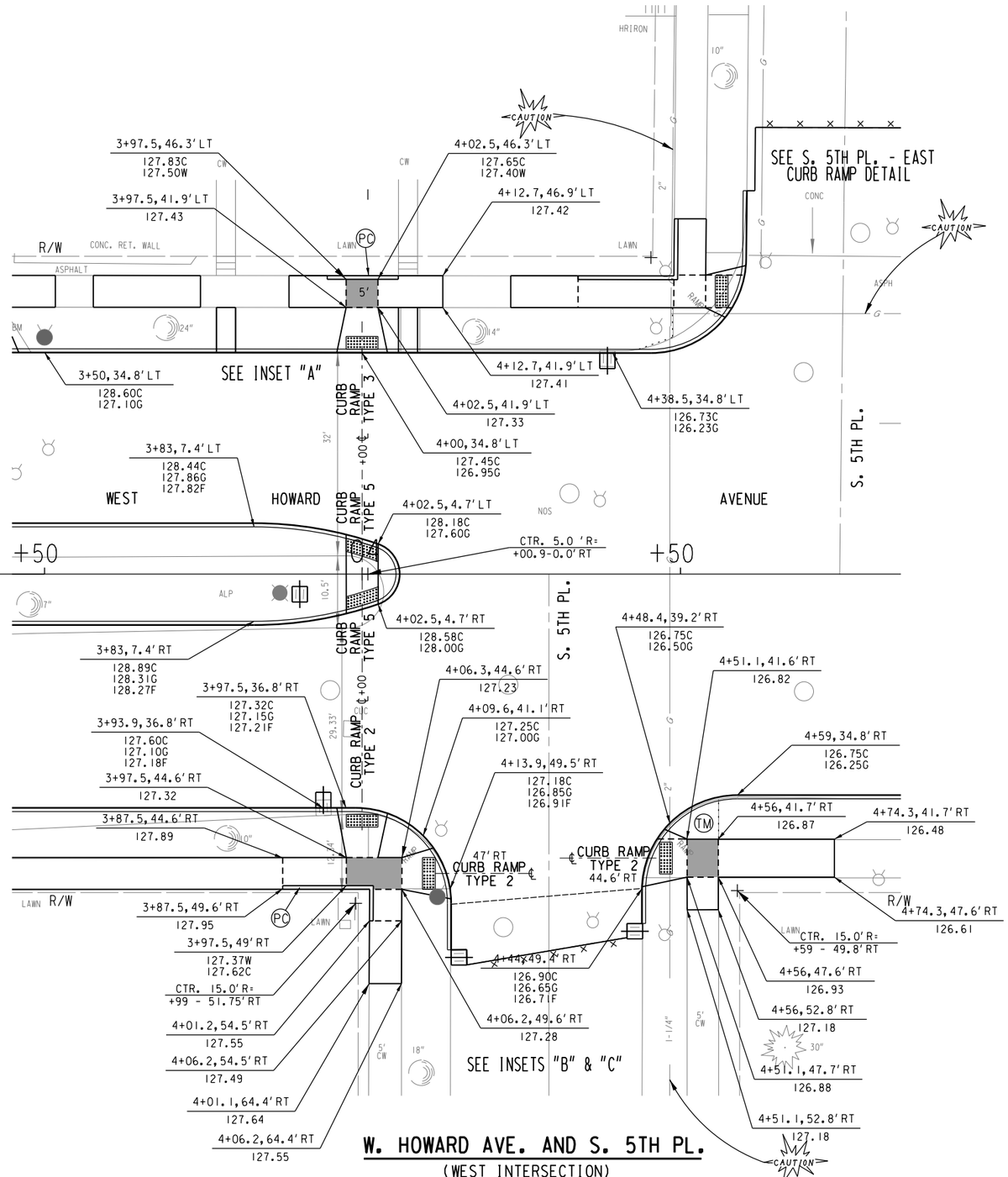
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\PDET 67-69.DGN

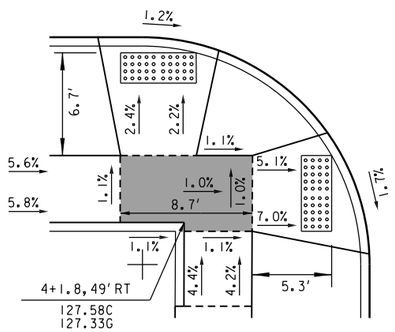
REVISED DATE: 10-07-2023 BY SDB




INSET "A"

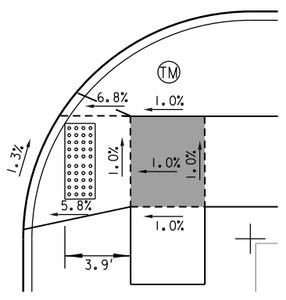
SCALE: 1" = 10"




INSET "B"

SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"

## W. HOWARD AVE. AND S. 5TH PL.

(WEST INTERSECTION)

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

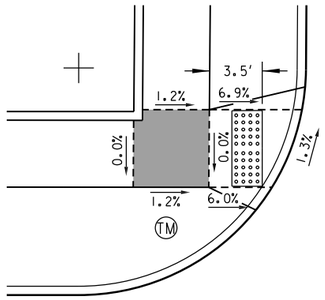
(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

DETECTABLE WARNING FIELD

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 42 | E |
|---|---|---|---|---|---|---|

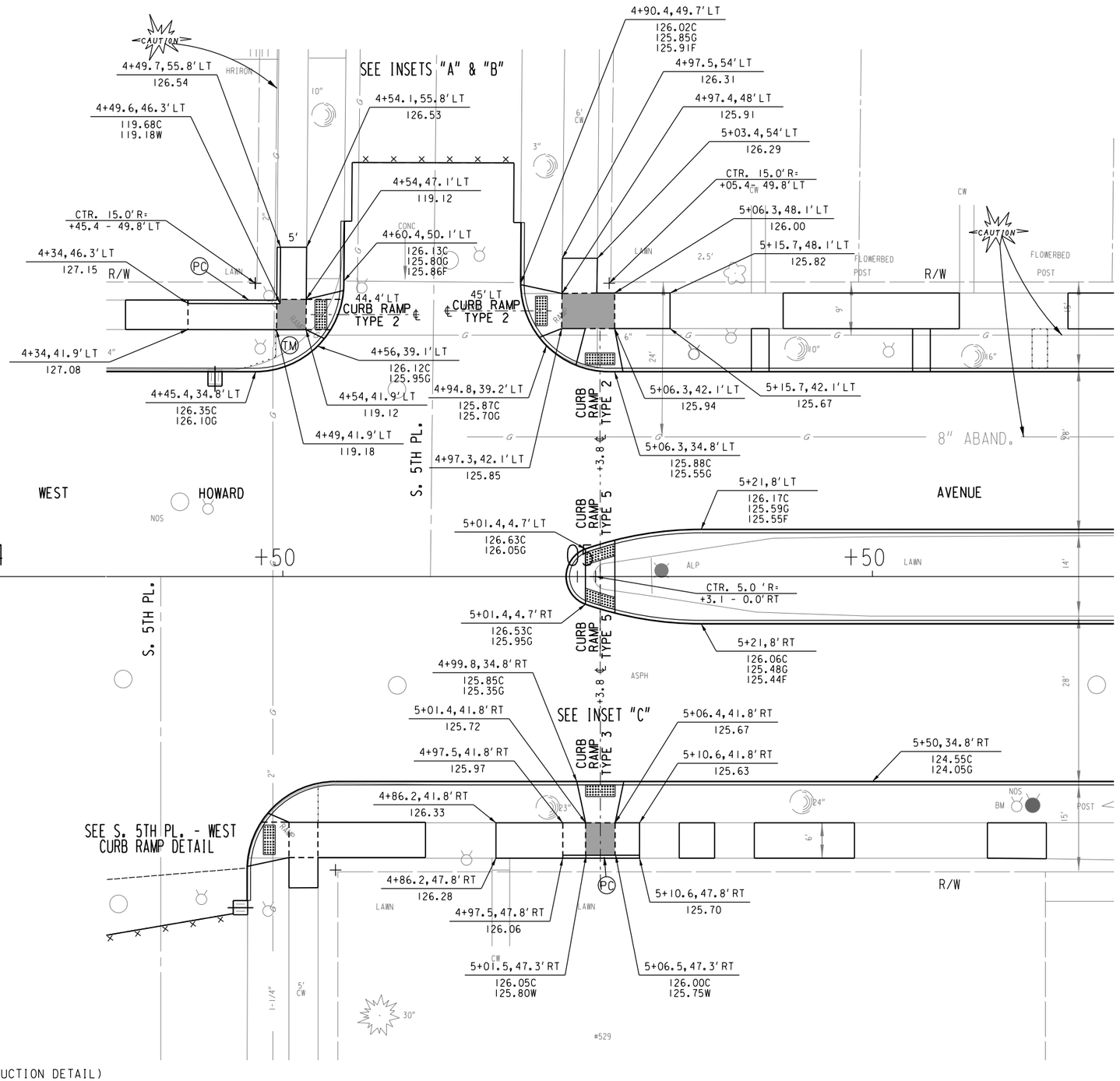
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 5TH PL - WEST.DGN

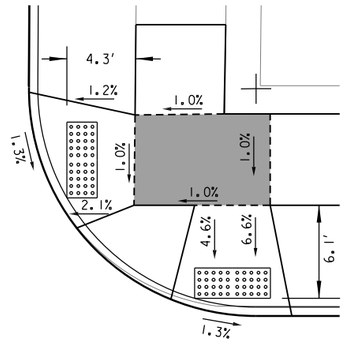
REVISED DATE: 11-02-2023 BY SDB




INSET "A"

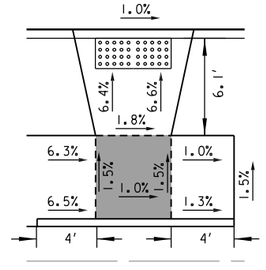
SCALE: 1' = 10"




INSET "B"

SCALE: 1' = 10"




INSET "C"

SCALE: 1' = 10"

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

DETECTABLE WARNING FIELD

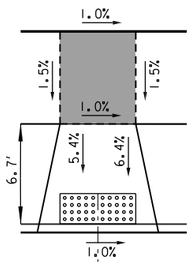
# W. HOWARD AVE. AND S. 5TH PL.

(EAST INTERSECTION)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 43 | E |
|---|---|---|---|---|---|---|

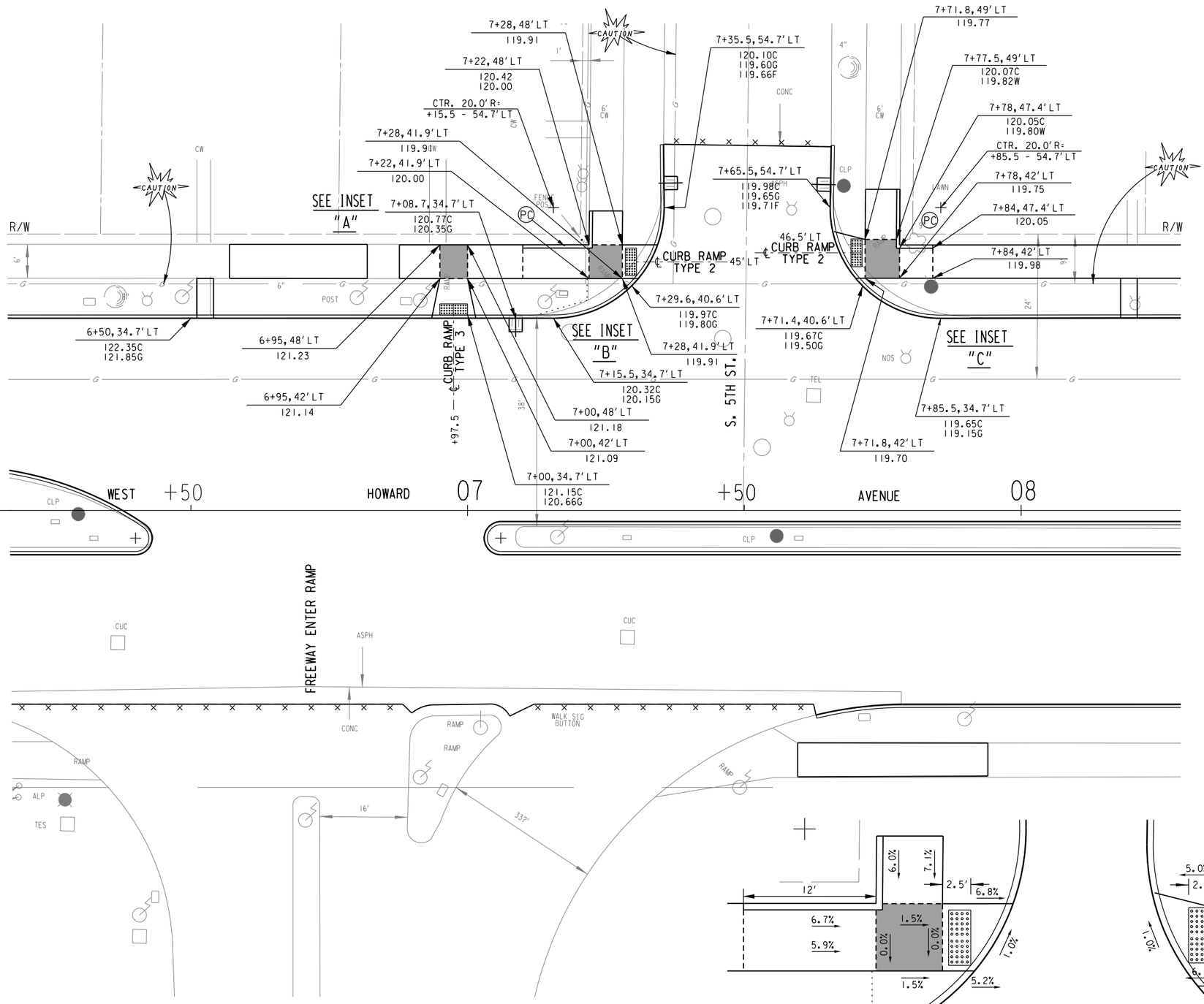
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 5TH PL - EAST.DGN

REVISED DATE: 11-02-2023 BY SDB



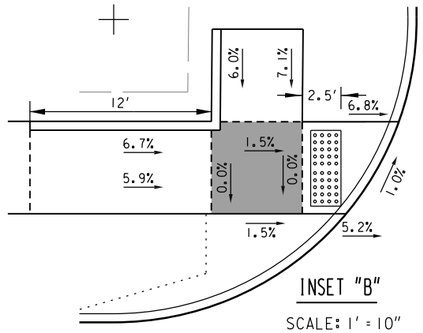

INSET "A"

SCALE: 1" = 10'



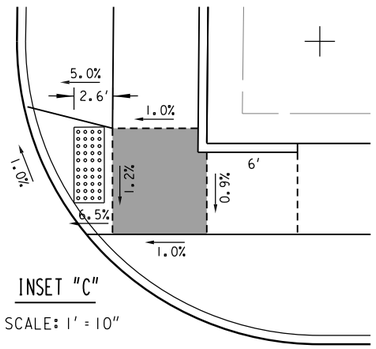







INSET "B"

SCALE: 1" = 10'




INSET "C"

SCALE: 1" = 10'

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

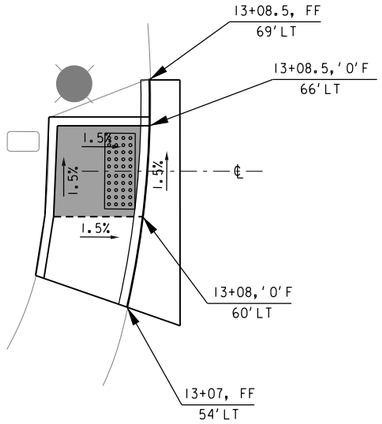
DETECTABLE WARNING FIELD

## W. HOWARD AVE. AND S. 5TH ST.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 44 | E |
|---|---|---|---|---|---|---|

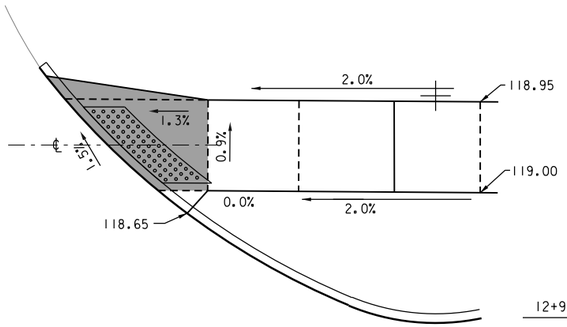
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 5TH ST.DGN

REVISED DATE: 02-22-2023 BY SDB



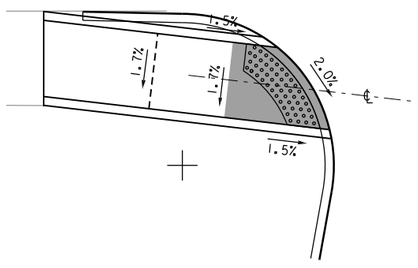

INSET "A"

SCALE: 1' = 10"



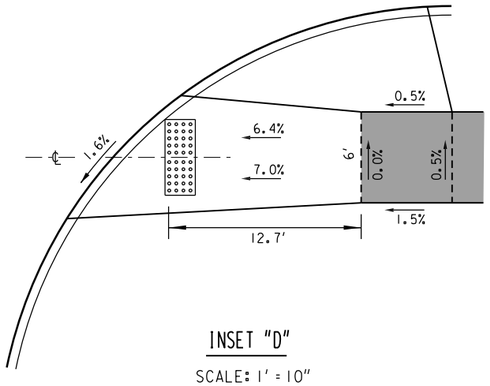

INSET "B"

SCALE: 1' = 10"



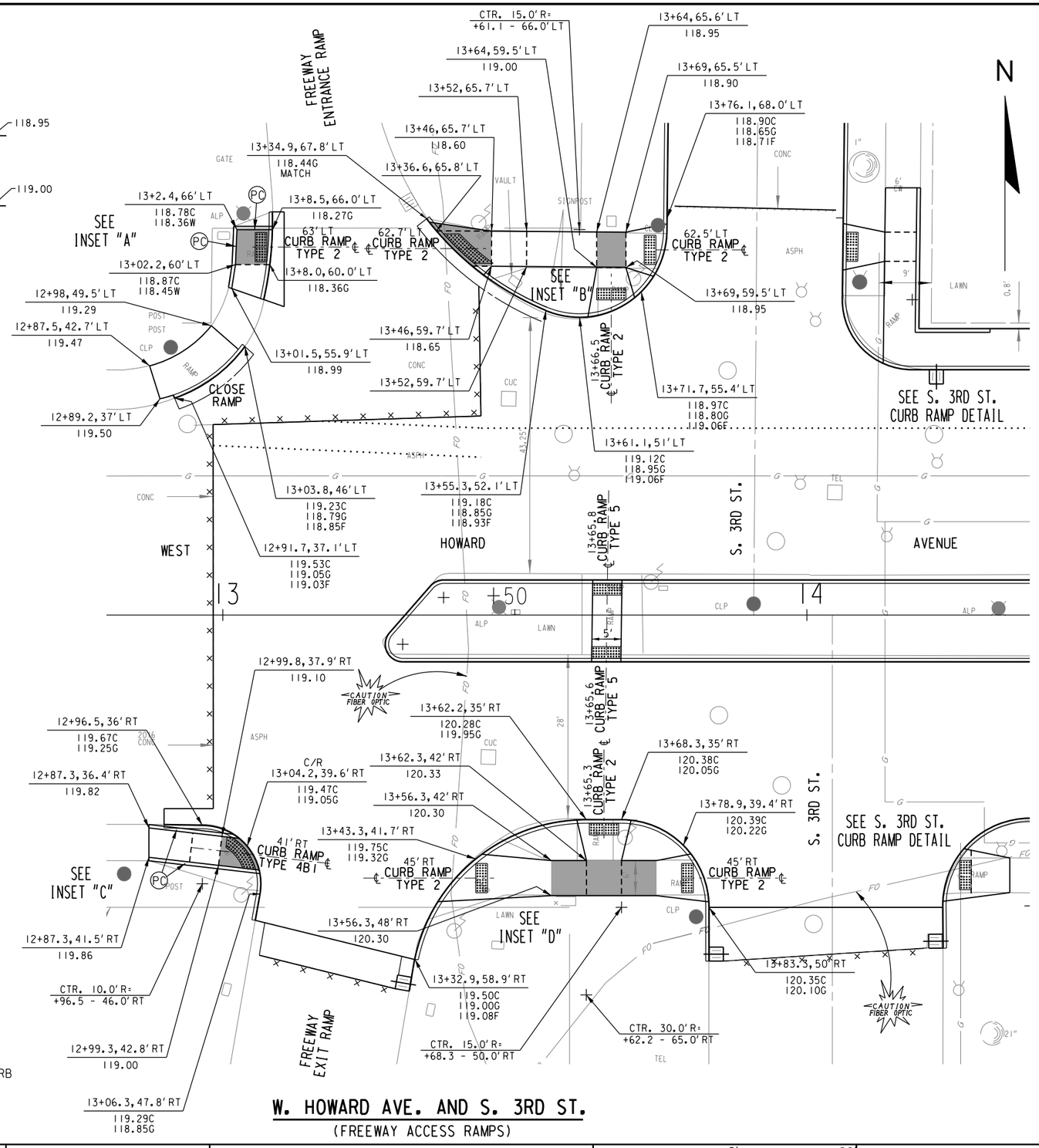

INSET "C"

SCALE: 1' = 10"




INSET "D"

SCALE: 1' = 10"




LANDING AREA

PC CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

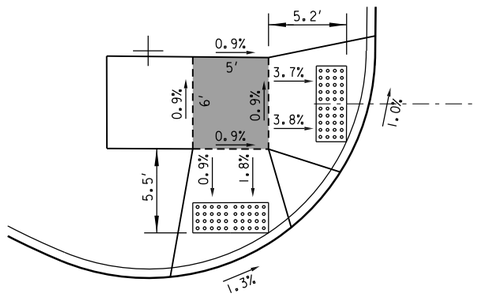
## W. HOWARD AVE. AND S. 3RD ST.

(FREEWAY ACCESS RAMPS)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20 | SHEET NO: 45 | E |
|---|---|---|---|---|---|---|

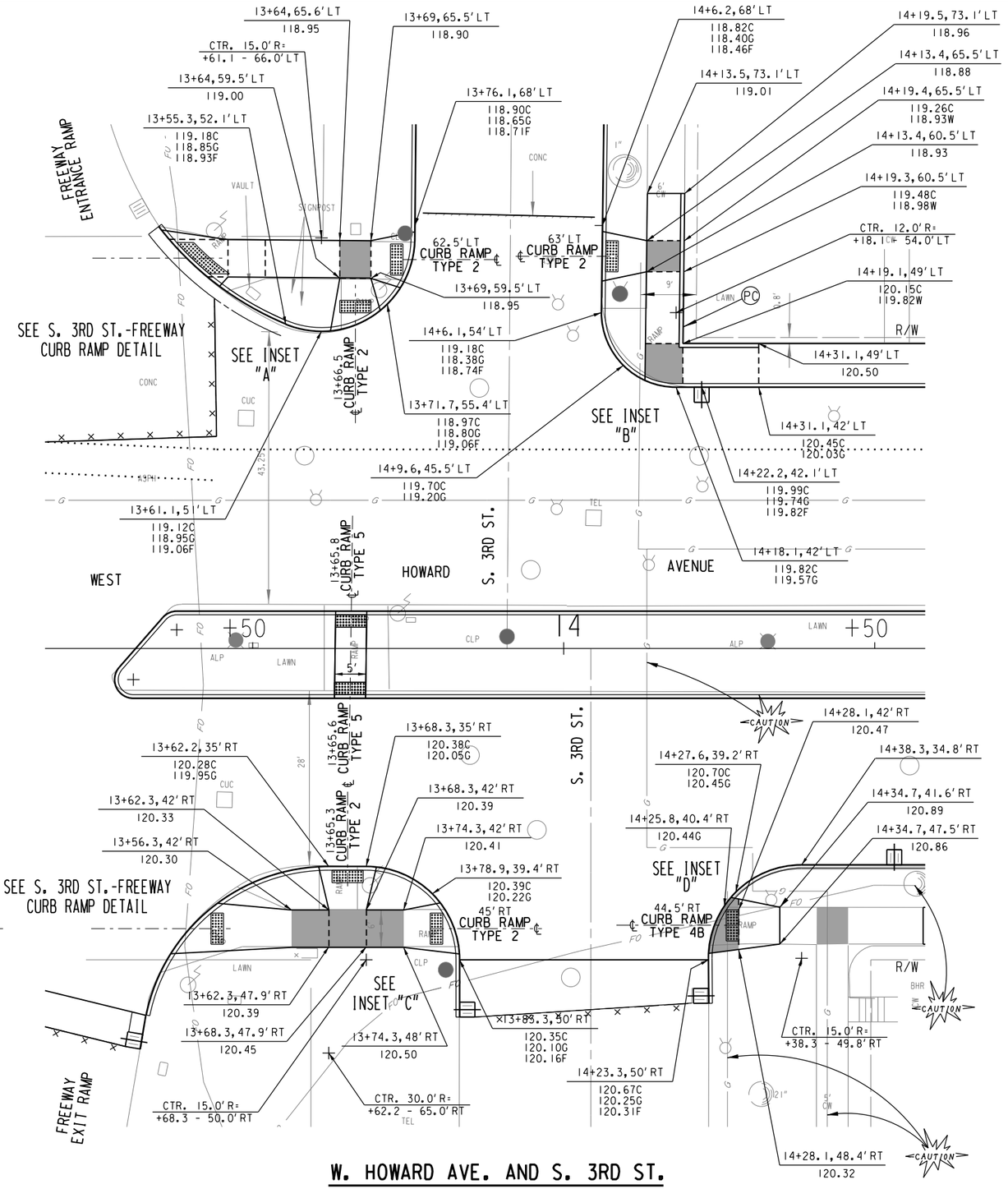
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 3RD ST - FREEWAY.DGN

REVISED DATE: 02-22-2023 BY SLB

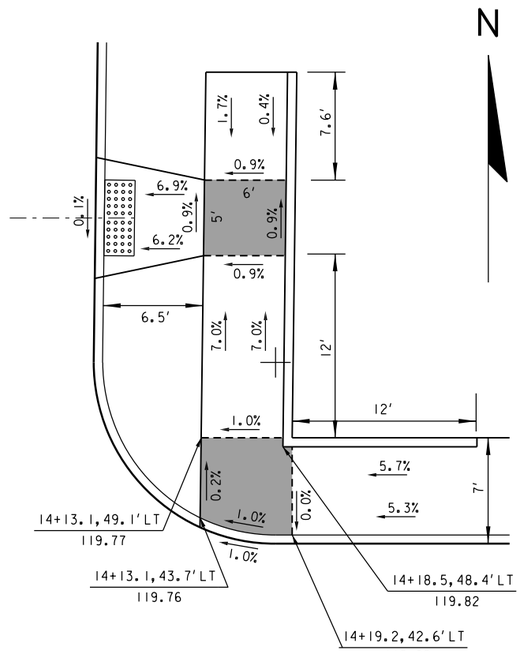



INSET "A"

SCALE: 1" = 10'

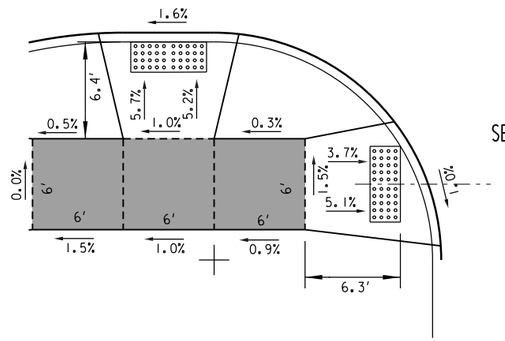



## W. HOWARD AVE. AND S. 3RD ST.



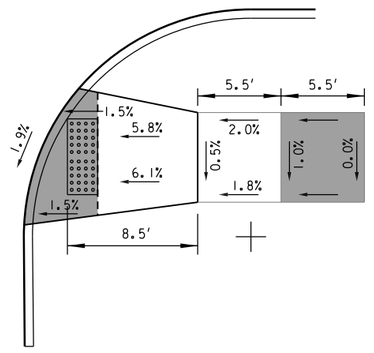

INSET "B"

SCALE: 1" = 10'




INSET "C"

SCALE: 1" = 10'




INSET "D"

SCALE: 1" = 10'

LANDING AREA

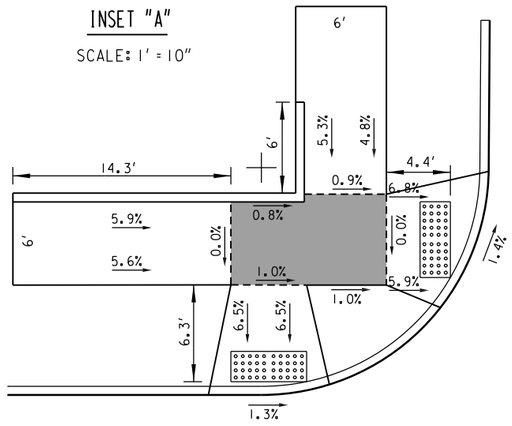
(PC) CONST. CONC. PEDESTRIAN CURB

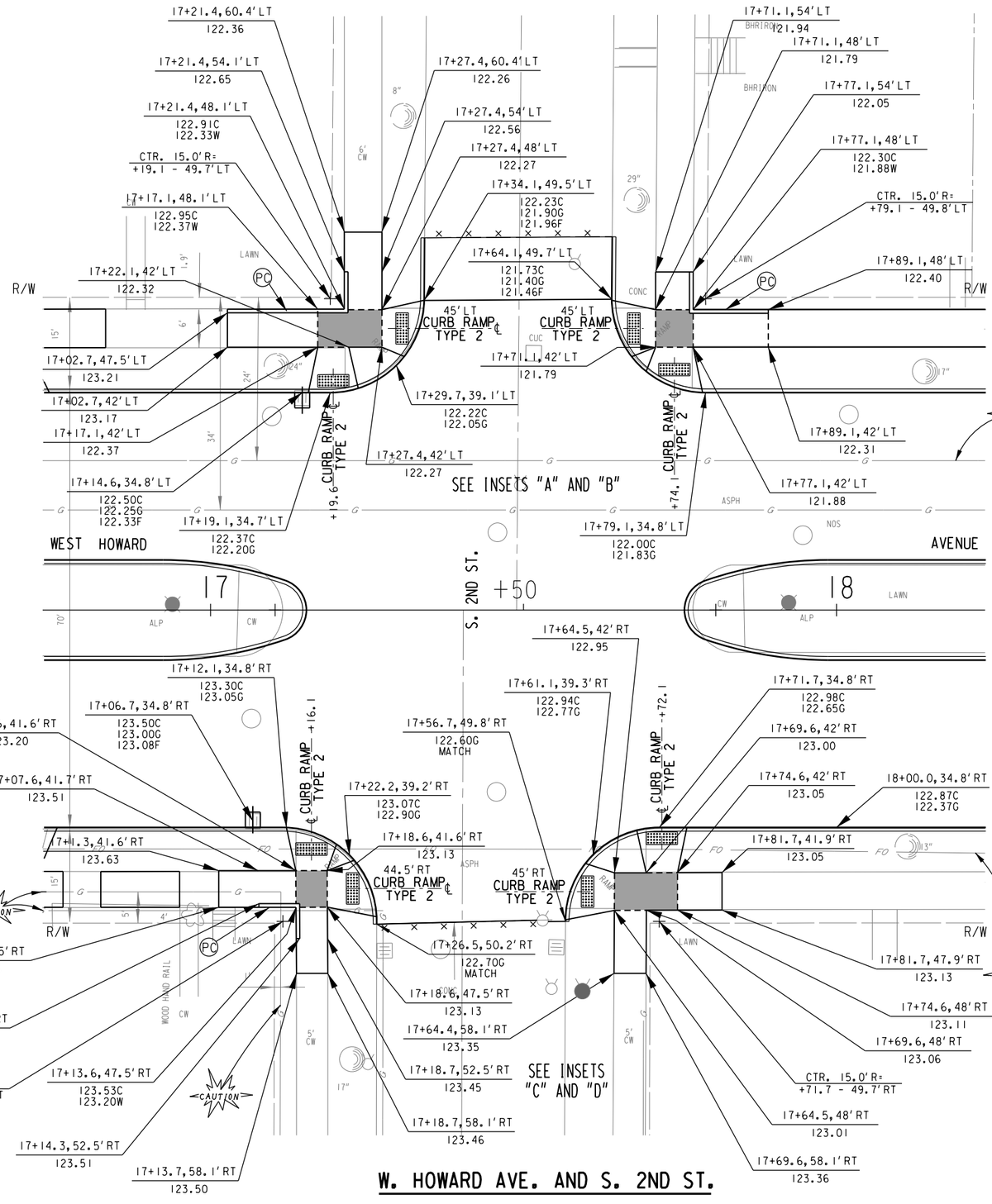
DETECTABLE WARNING FIELD

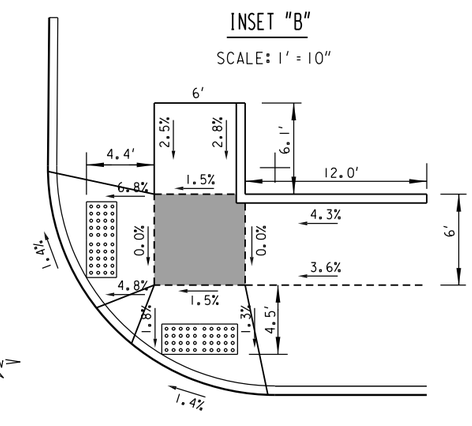
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 46 | E |
|---|---|---|---|---|---|---|

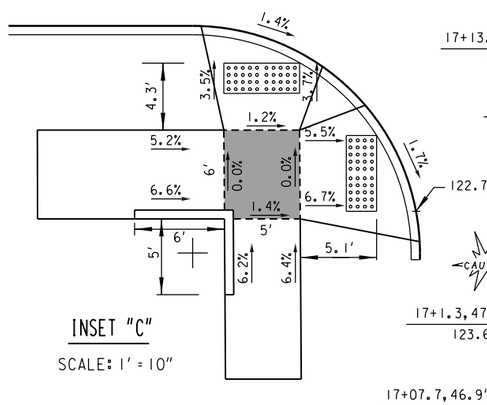
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 3RD ST.DGN

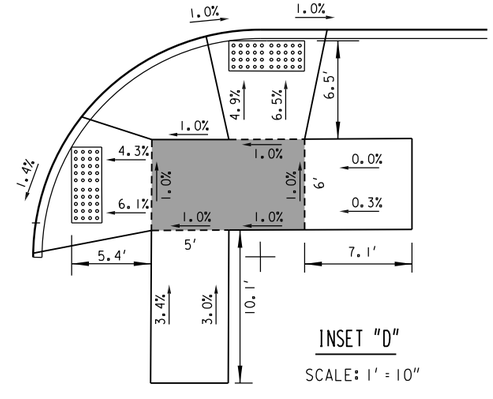
REVISED DATE: 02-08-2023 BY SDB



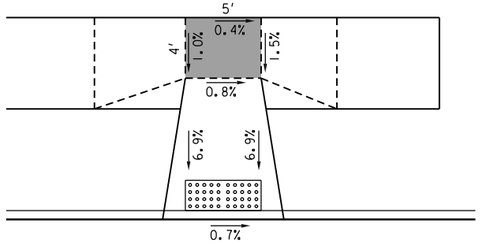

LANDING AREA
(PC) CONST. CONC. PEDESTRIAN CURB
DETECTABLE WARNING FIELD

## W. HOWARD AVE. AND S. 2ND ST.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 47 | E |
|---|---|---|---|---|---|---|

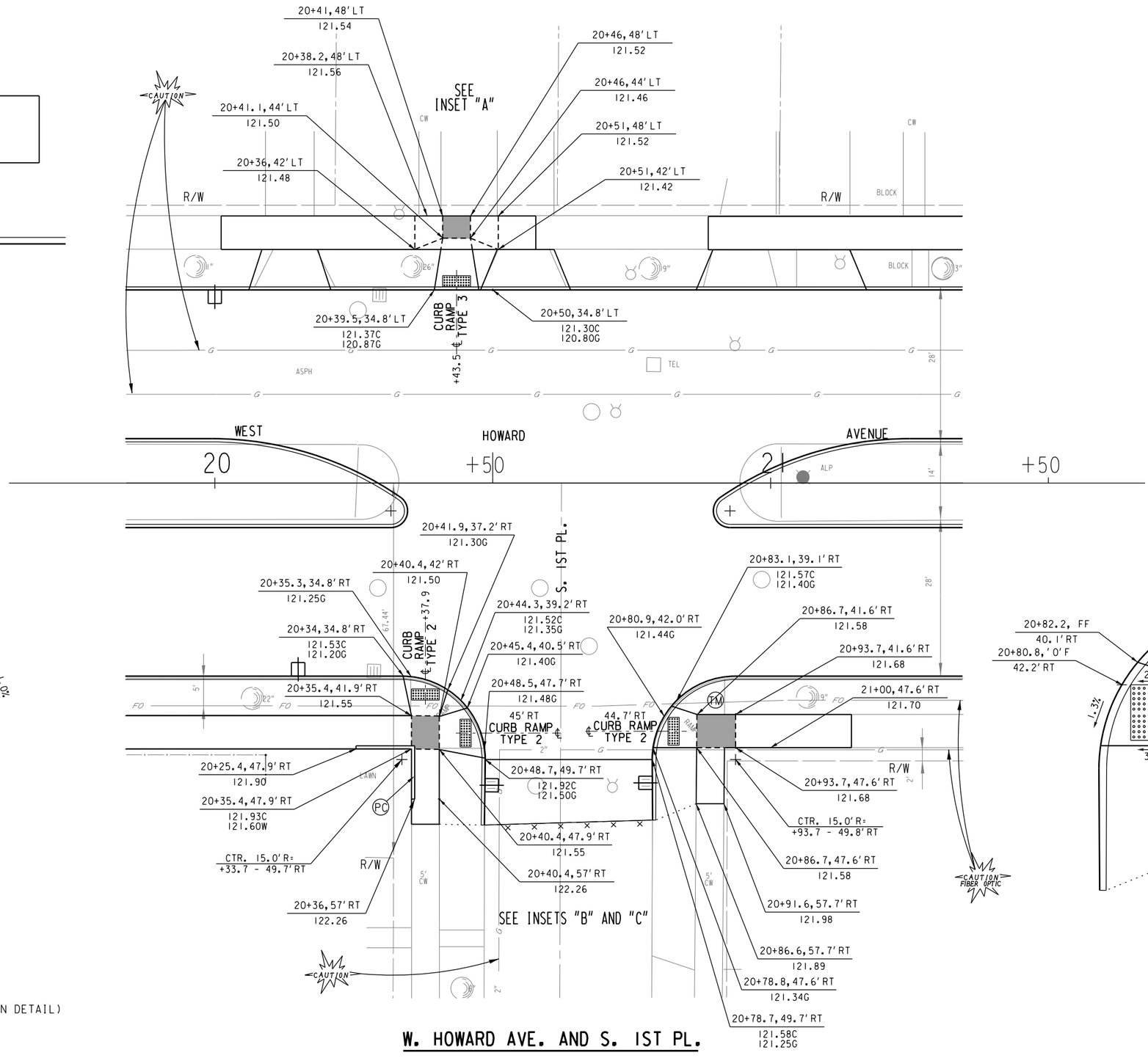
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 2ND ST.DGN

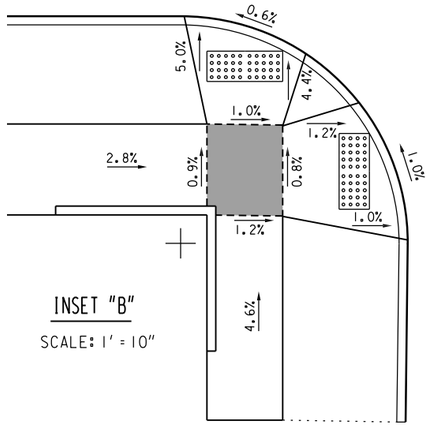
REVISED DATE: 02-22-2023 BY SDB




INSET "A"

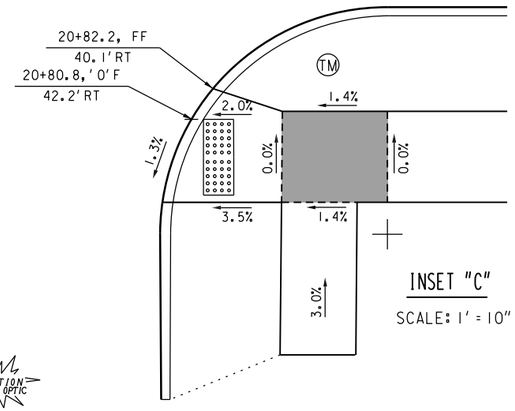
SCALE: 1" = 10"




INSET "B"

SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

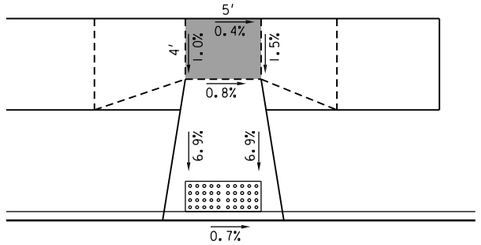
DETECTABLE WARNING FIELD

## W. HOWARD AVE. AND S. IST PL.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 48 | E |
|---|---|---|---|---|---|---|

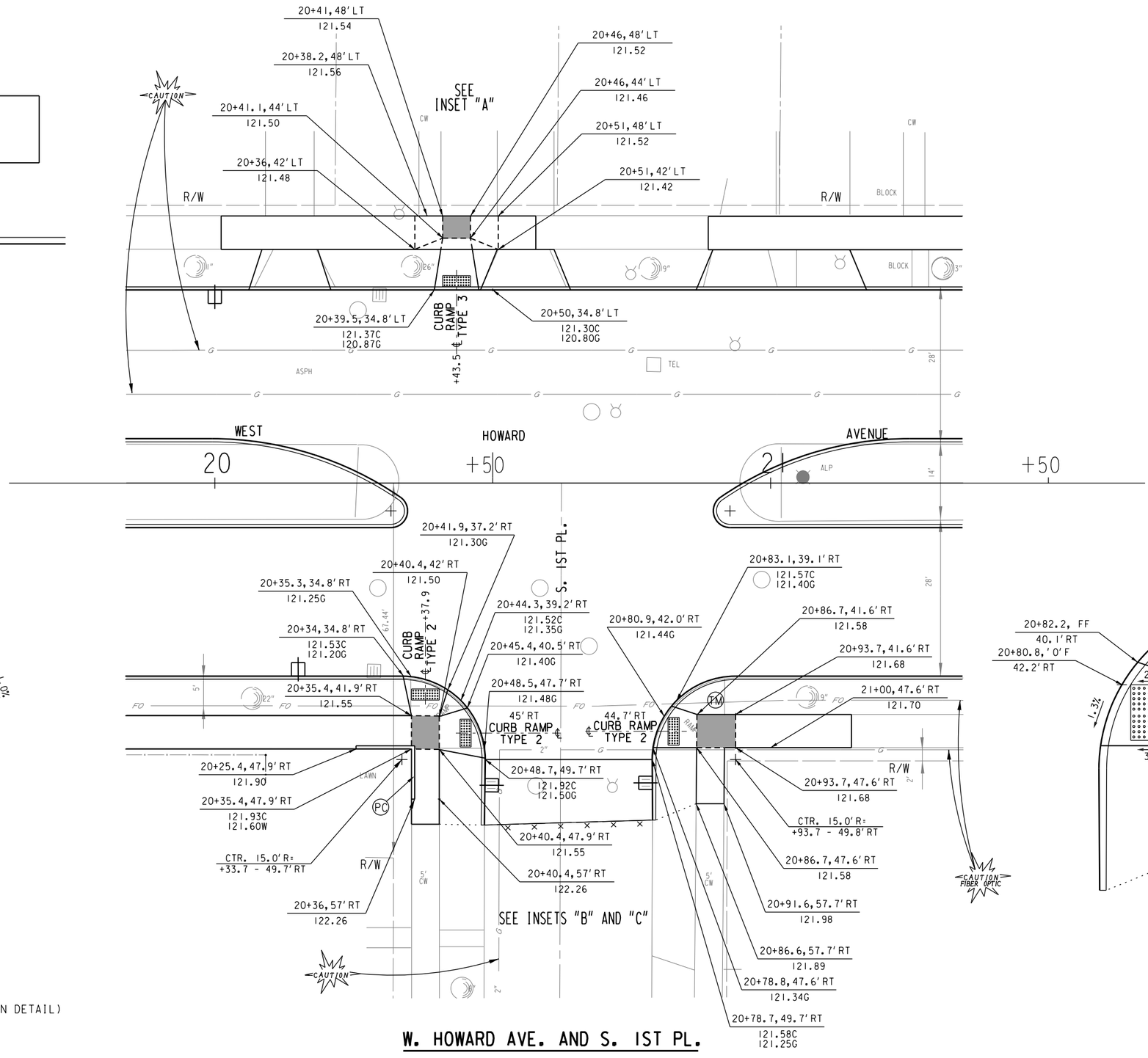
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 1ST PL.DGN

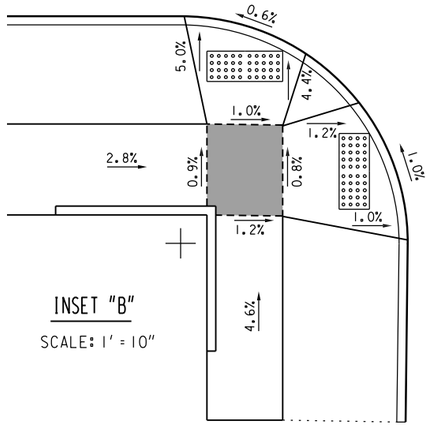
REVISED DATE: 11-02-2023 BY SDB




INSET "A"

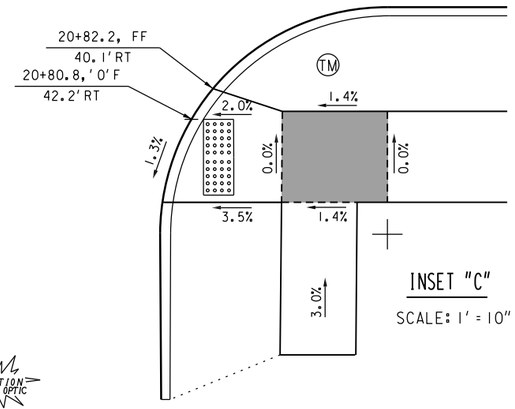
SCALE: 1" = 10"




INSET "B"

SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

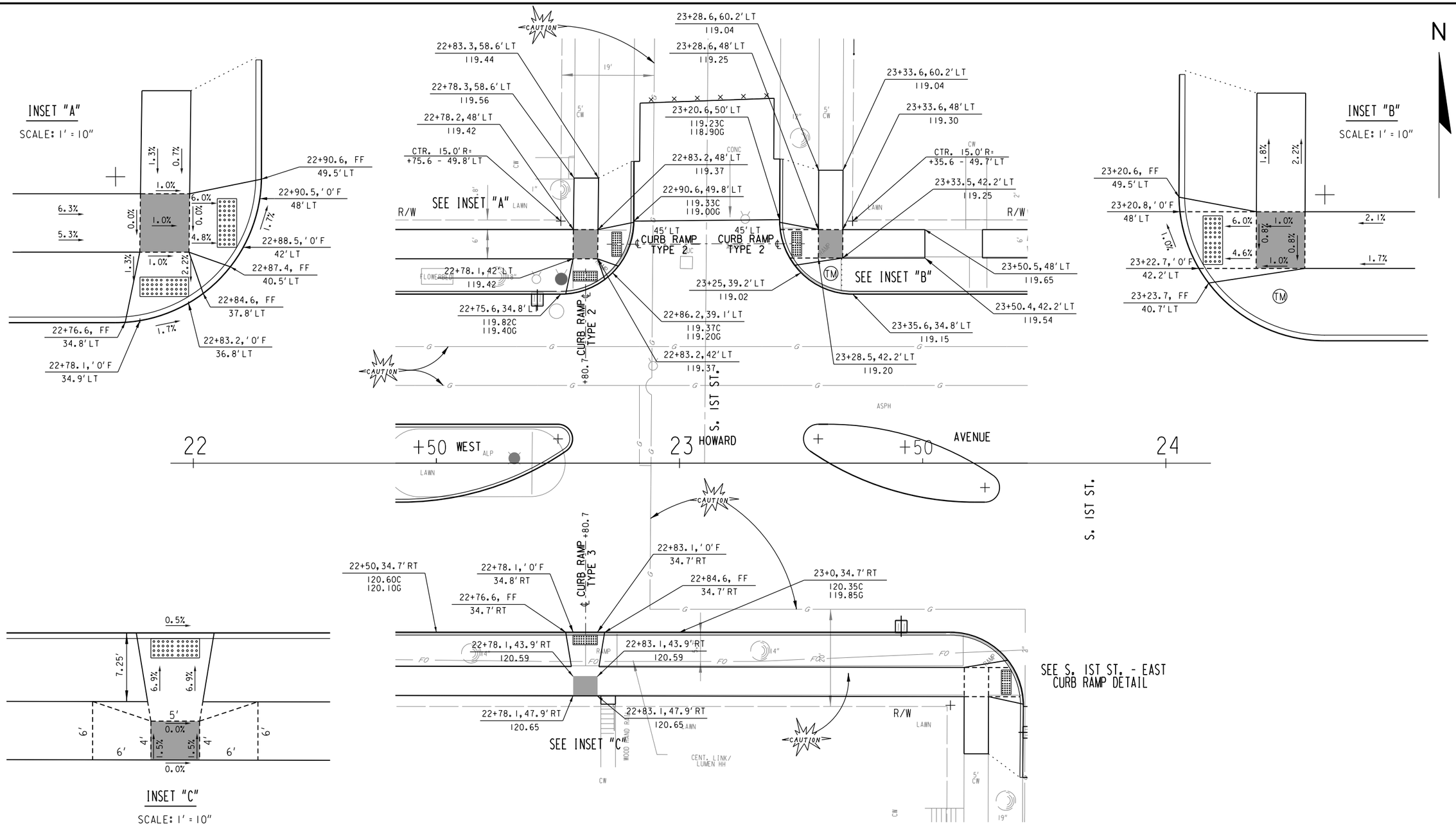
DETECTABLE WARNING FIELD

## W. HOWARD AVE. AND S. IST PL.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 49 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. 1ST PL.DGN

REVISED DATE: 11-02-2023 BY SDB




## W. HOWARD AVE. AND S. IST ST.

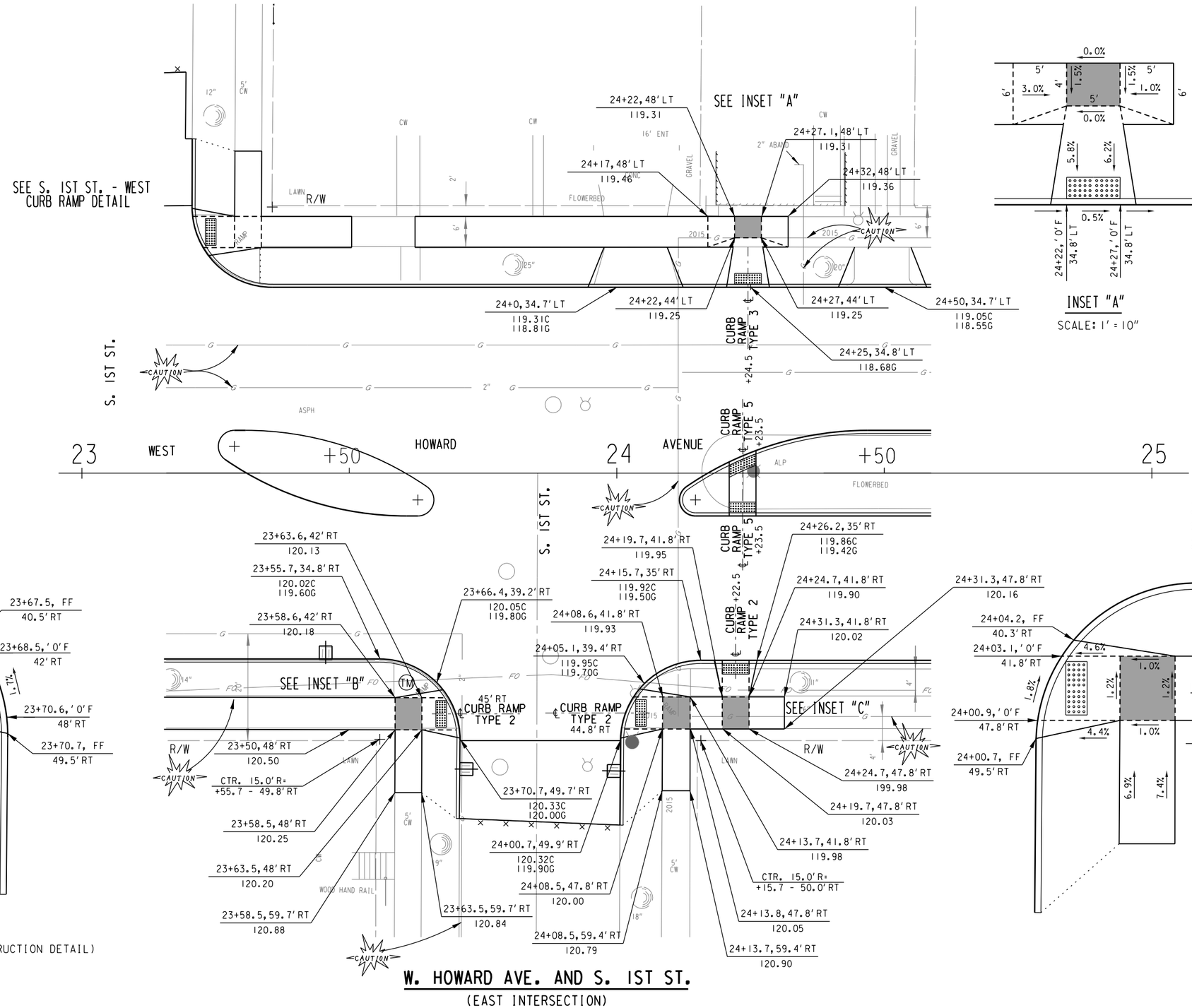
(WEST INTERSECTION)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 50 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. IST ST - WEST.DGN

REVISED DATE: 11-02-2023 BY SDB

2



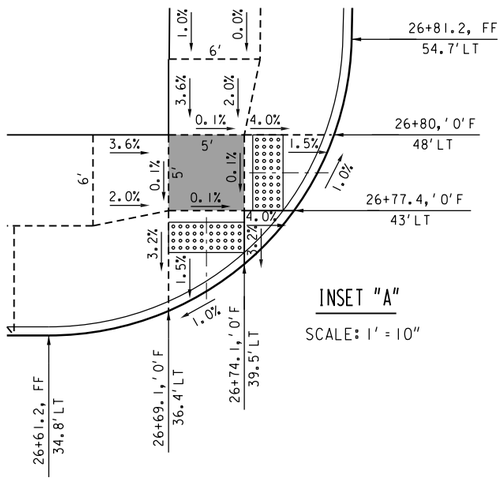

## W. HOWARD AVE. AND S. IST ST.

(EAST INTERSECTION)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 51 | E |
|---|---|---|---|---|---|---|

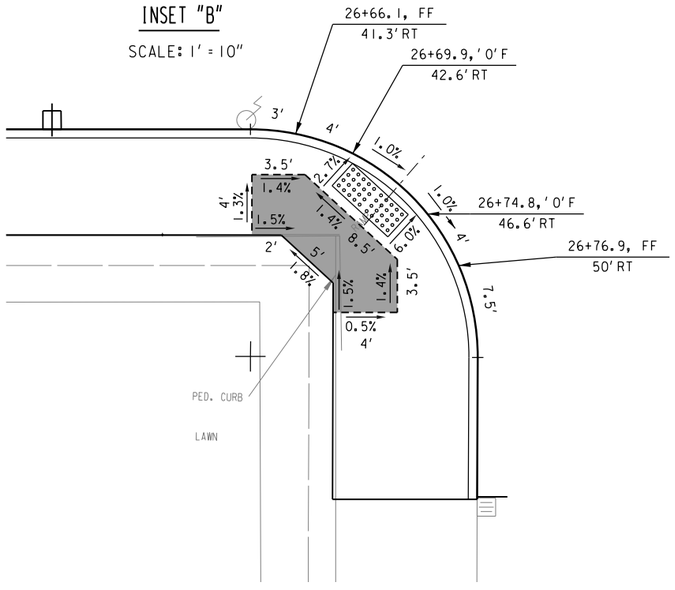
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. IST ST - EAST.DGN

REVISED DATE: 11-02-2023 BY SDB




INSET "A"

SCALE: 1" = 10'

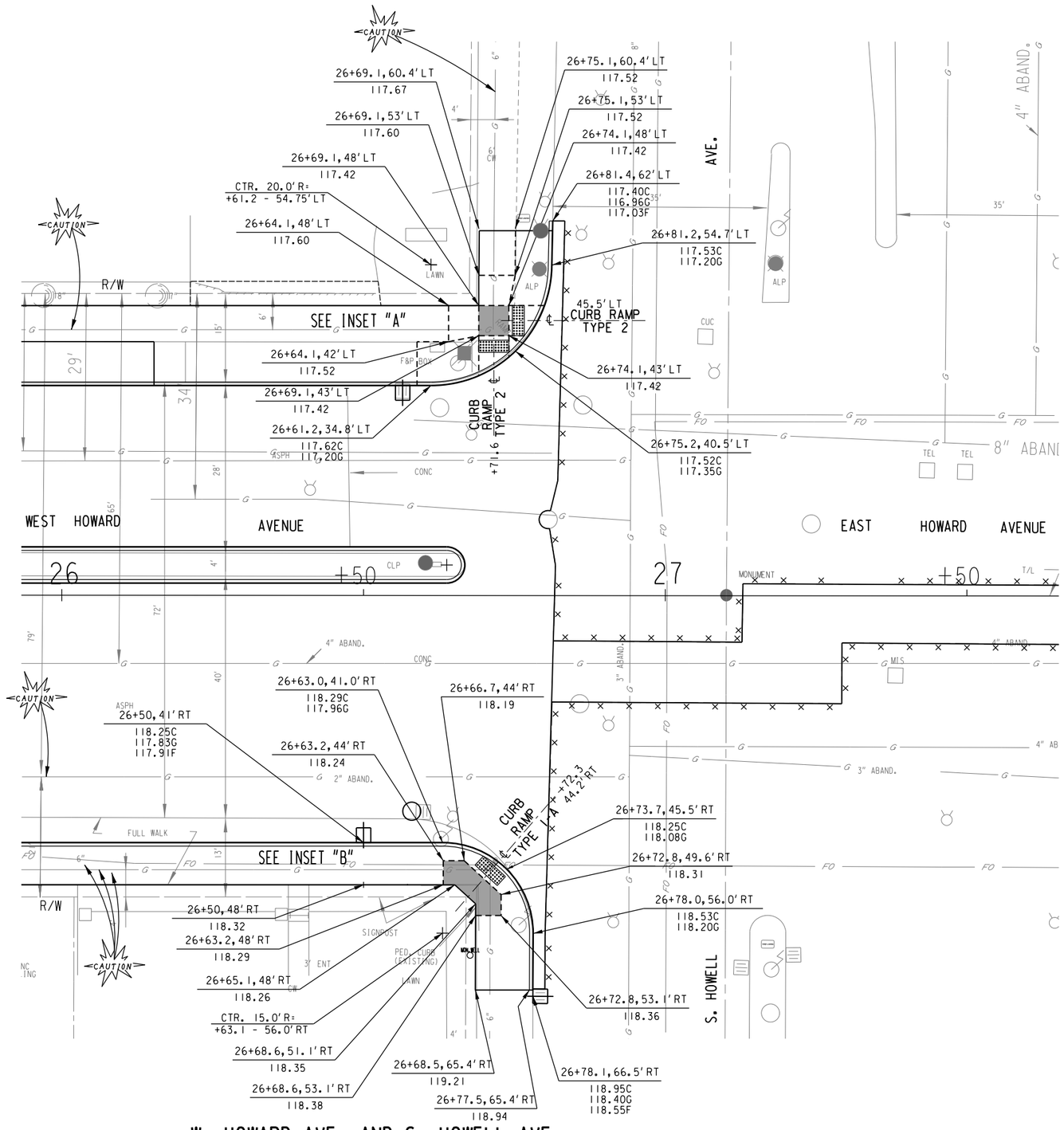



INSET "B"

SCALE: 1" = 10'

LANDING AREA

DETECTABLE WARNING FIELD



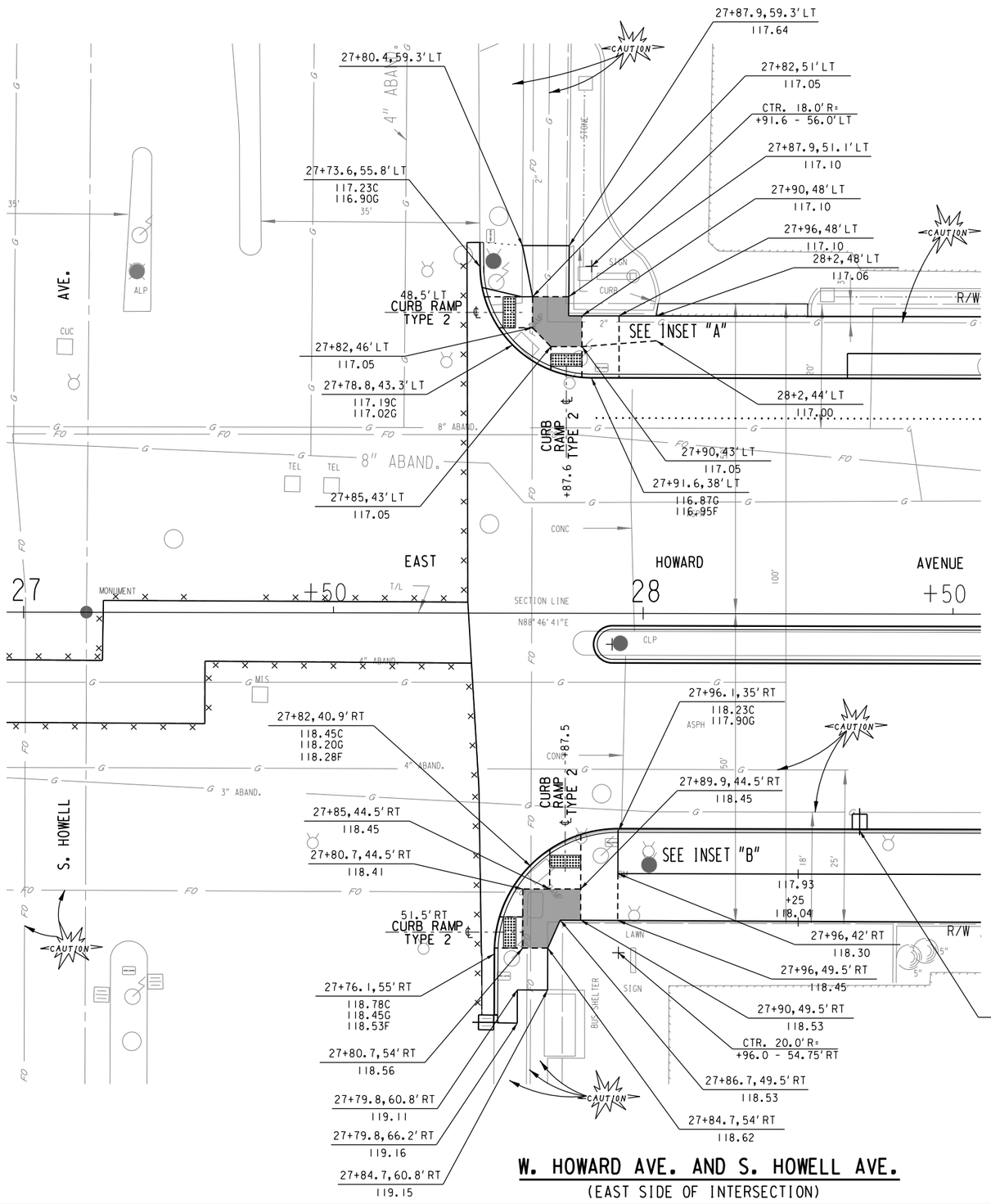

## W. HOWARD AVE. AND S. HOWELL AVE.

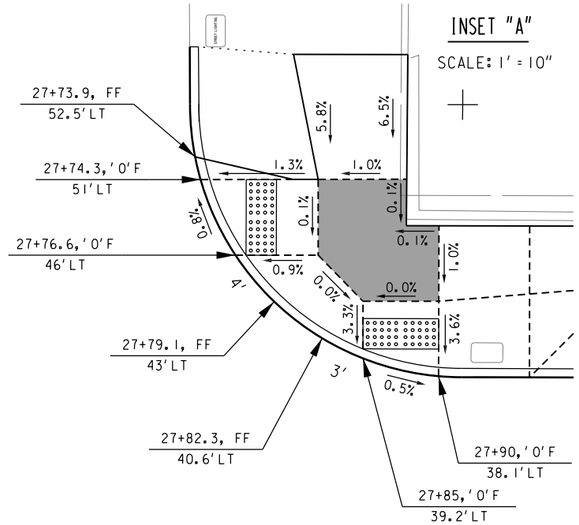
(WEST SIDE OF INTERSECTION)

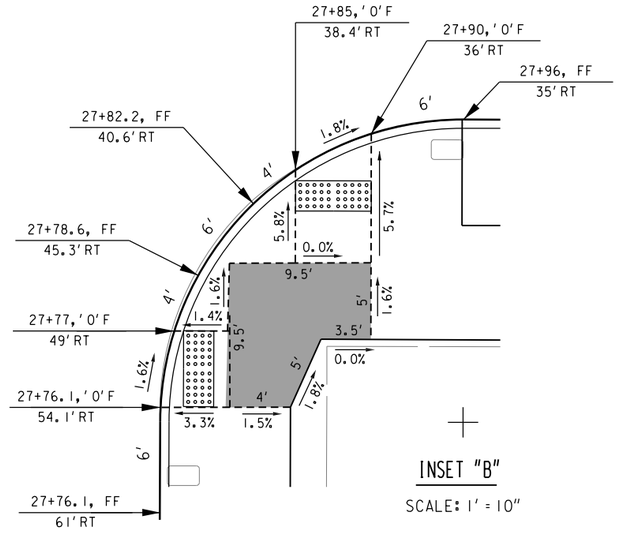
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 52 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. HOWELL AVE - WEST.DGN

REVISED DATE: 02-23-2023 BY SLB




N

LANDING AREA

DETECTABLE WARNING FIELD

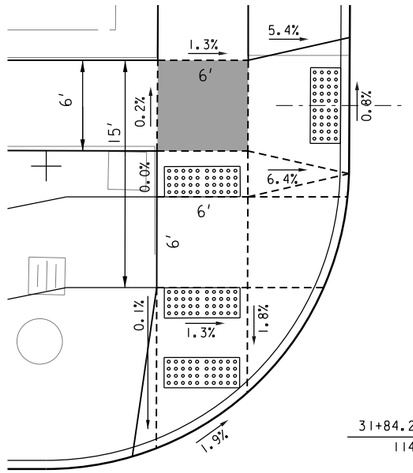
## W. HOWARD AVE. AND S. HOWELL AVE.

(EAST SIDE OF INTERSECTION)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20 | SHEET NO: 53 | E |
|---|---|---|---|---|---|---|

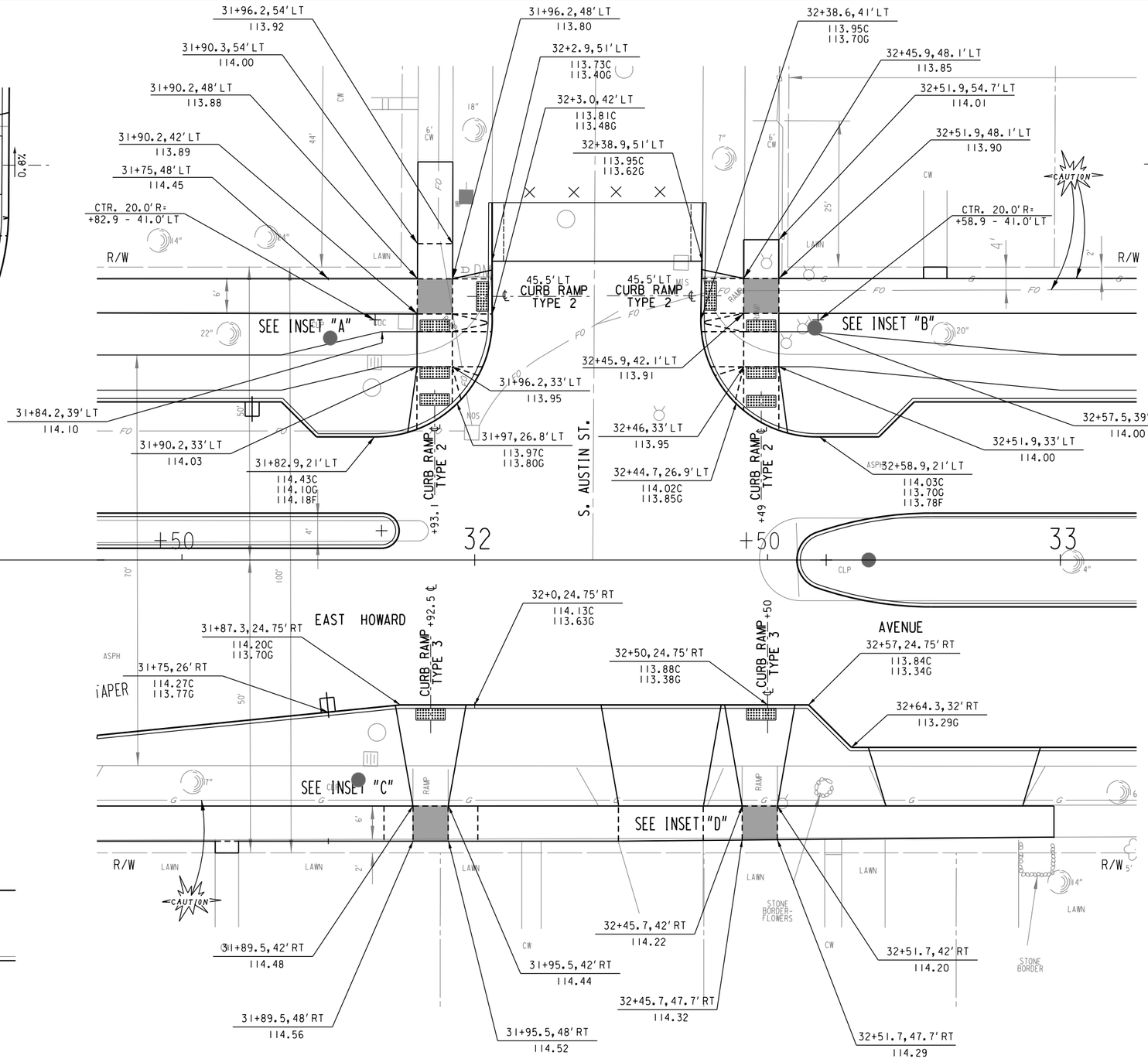
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. HOWELL AVE - EAST.DGN

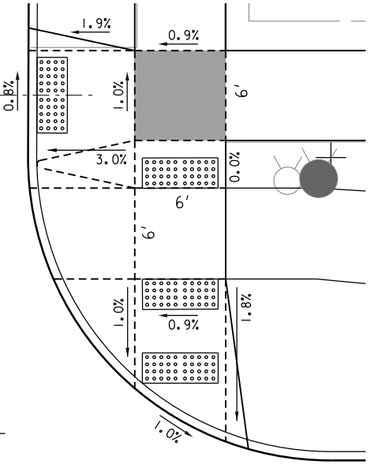
REVISED DATE: 02-23-2023 BY SLB




INSET "A"

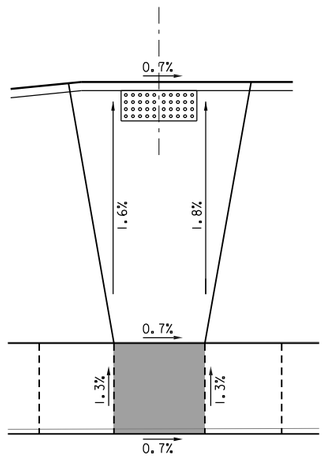
SCALE: 1" = 10"




INSET "A"

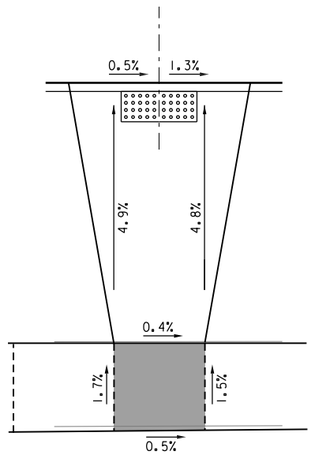
SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"




INSET "D"

SCALE: 1" = 10"

LANDING AREA

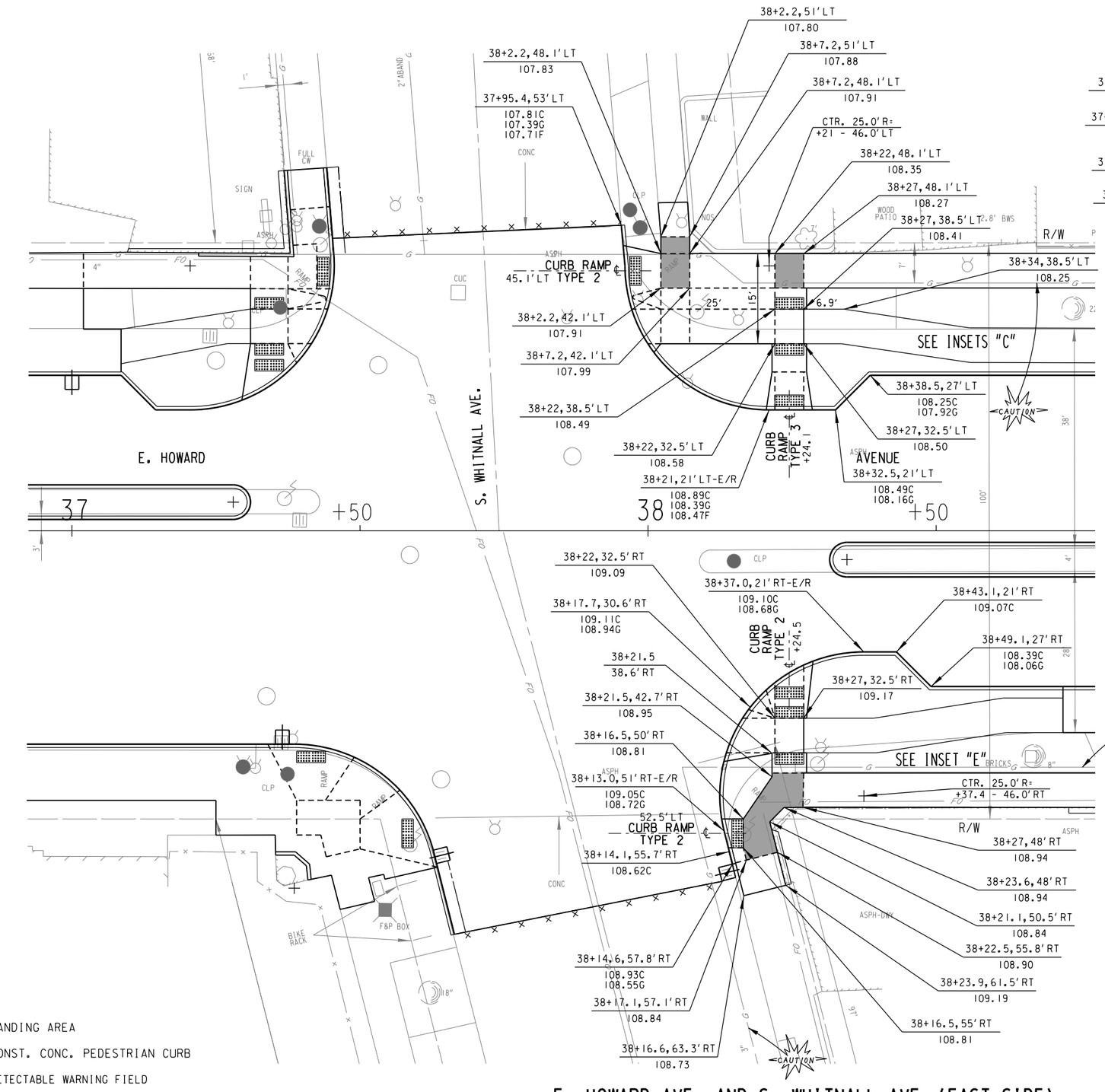
DETECTABLE WARNING FIELD

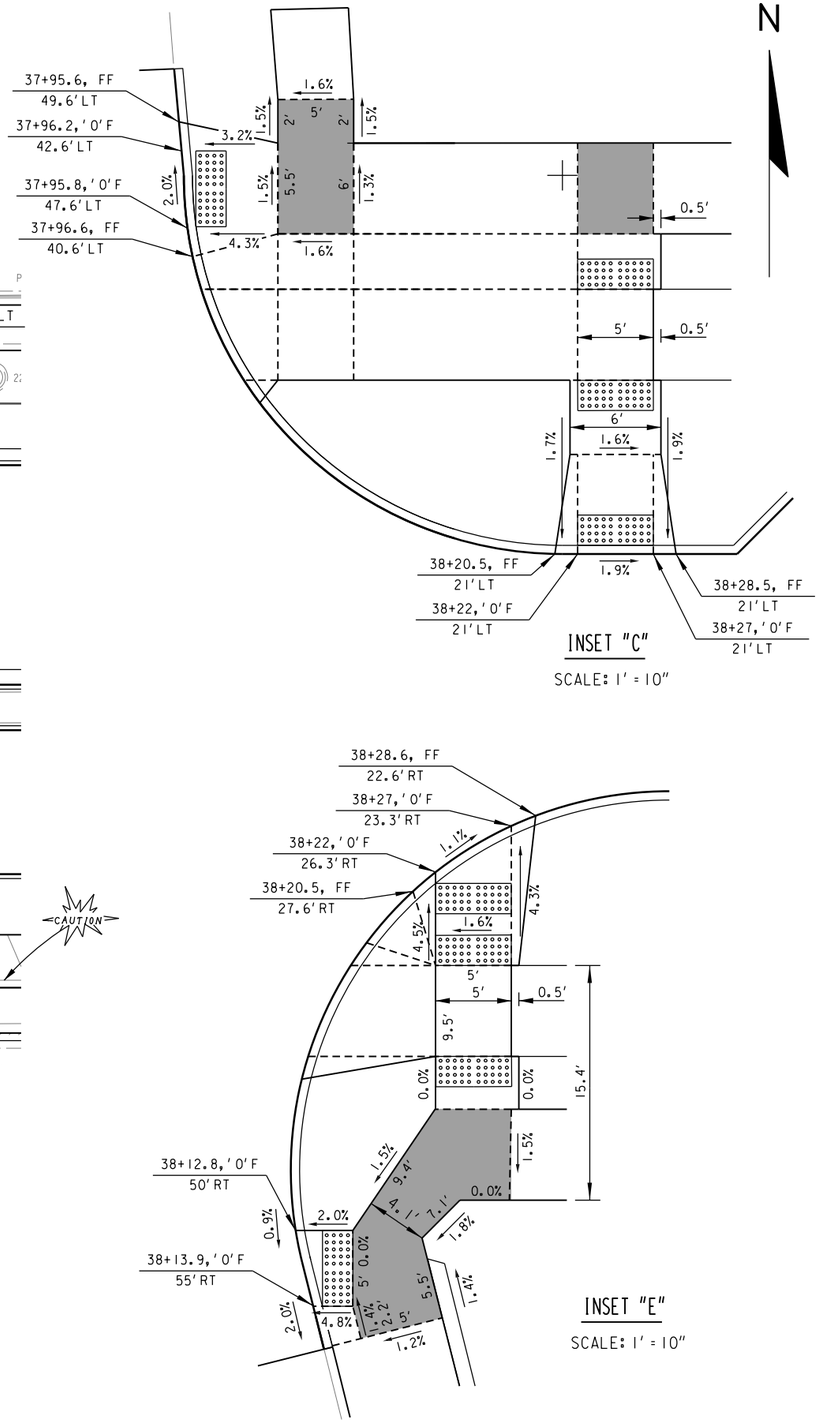
# E. HOWARD AVE. AND S. AUSTIN ST.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 54 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. AUSTIN ST.DGN

REVISED DATE: 05-05-2023 BY SLB



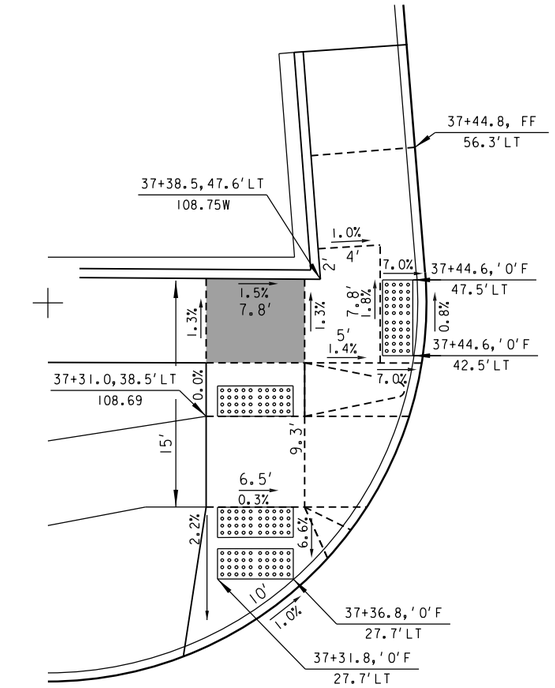




# E. HOWARD AVE. AND S. WHITNALL AVE. (EAST SIDE)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20 | SHEET NO: 55 | E |
|---|---|---|---|---|---|---|

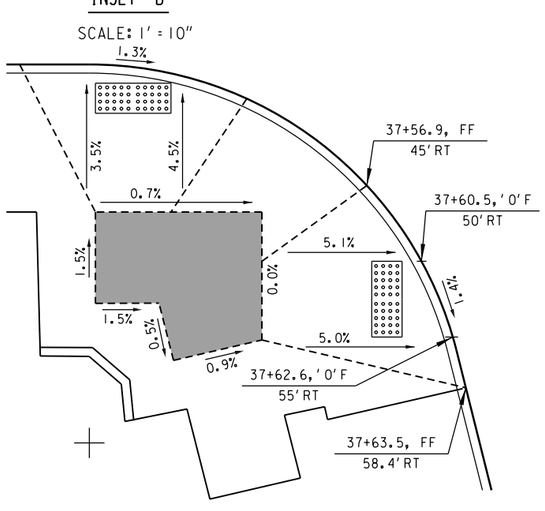
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. WHITNALL AVE - EAST.DGN

REVISED DATE: 10-26-2023 BY SDB




INSET "A"

SCALE: 1" = 10'



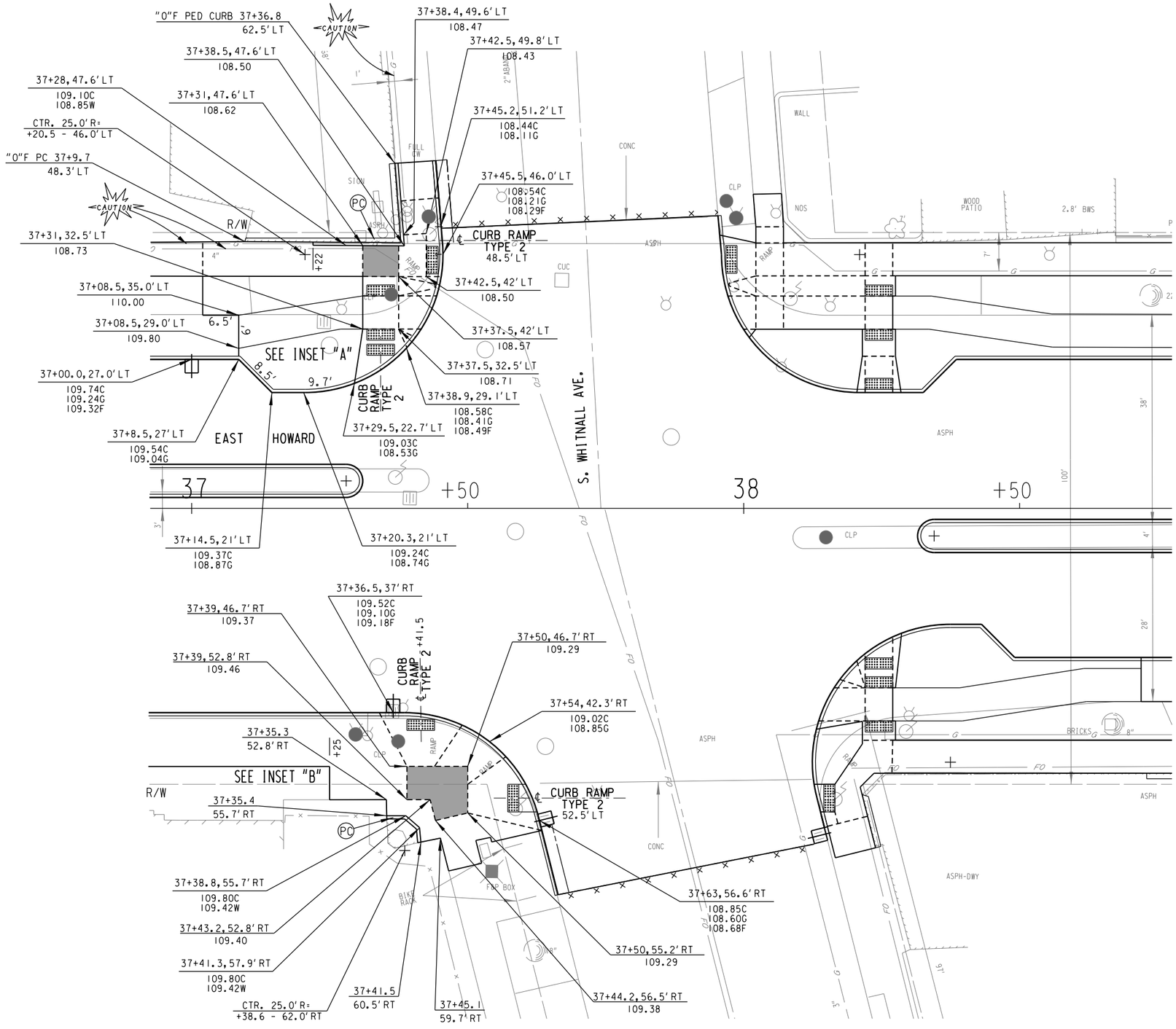

INSET "B"

SCALE: 1" = 10'

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

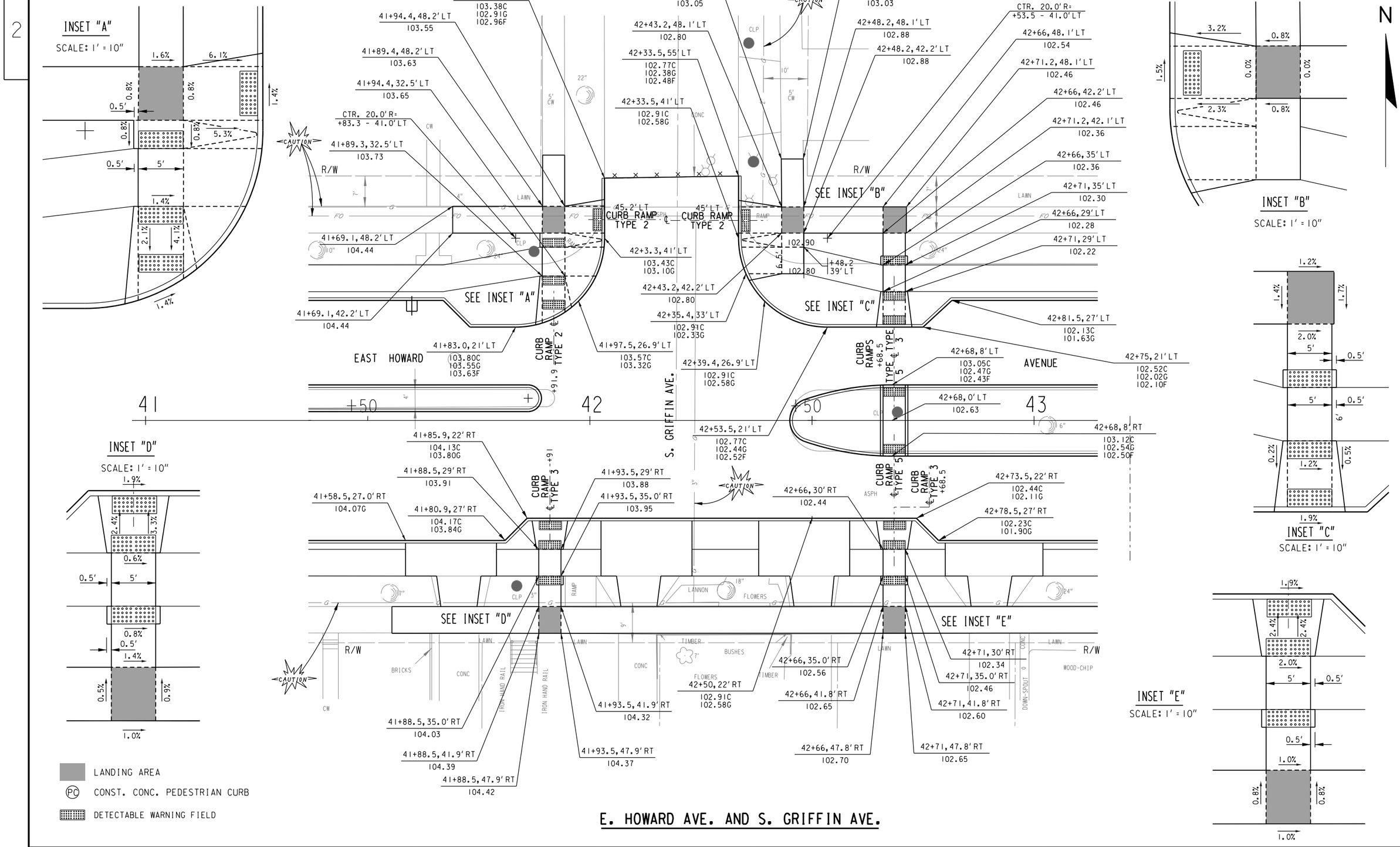



E. HOWARD AVE. AND S. WHITNALL AVE. (WEST SIDE)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 56 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAILS\S. WHITNALL AVE - WEST.DGN

REVISED DATE: 10-26-2023 BY SDB

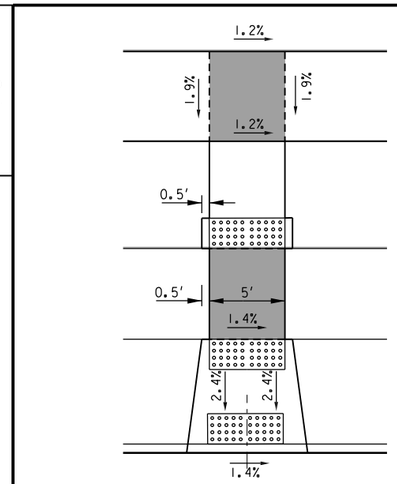



# E. HOWARD AVE. AND S. GRIFFIN AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 57 | E |
|---|---|---|---|---|---|---|

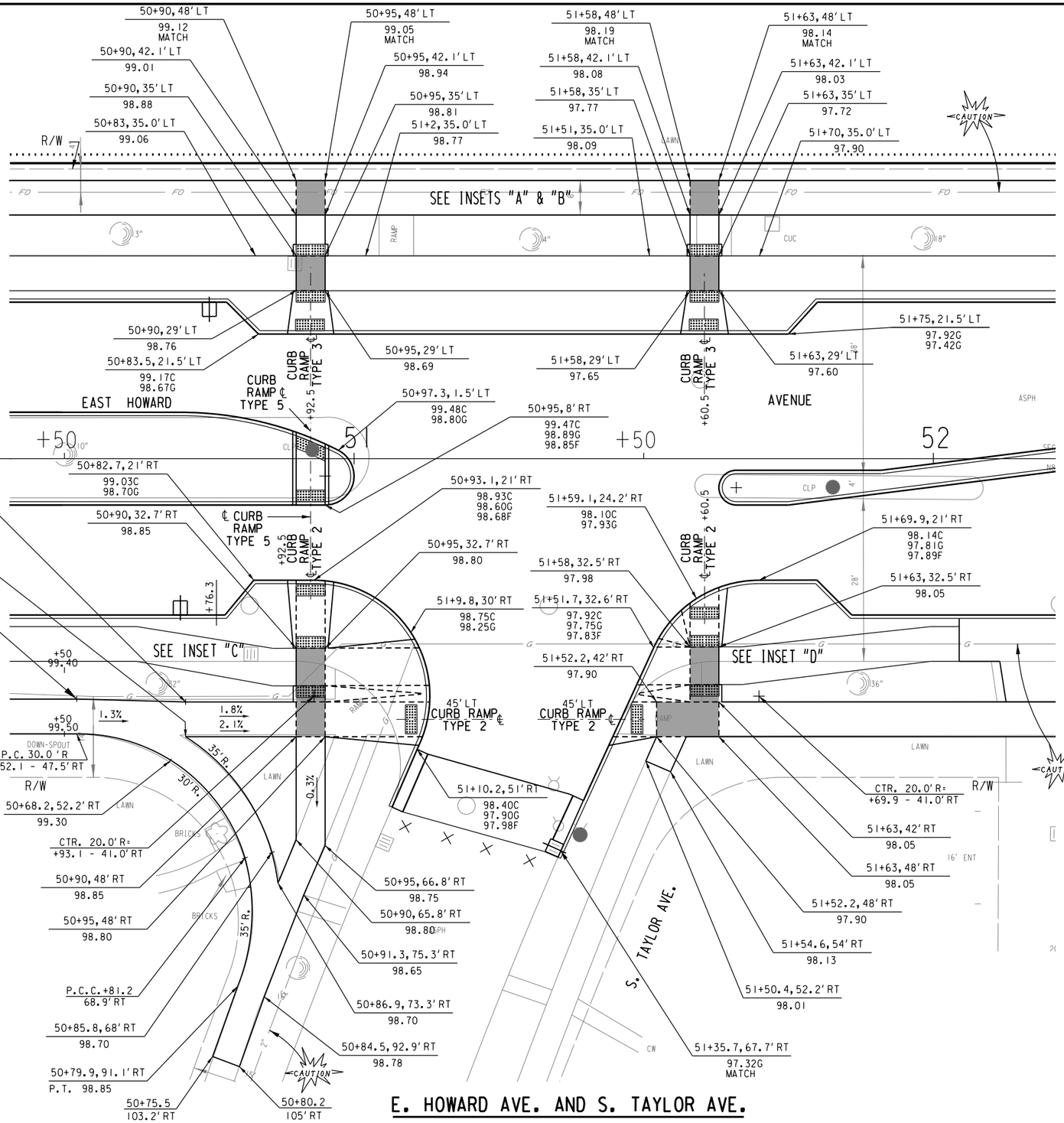
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. GRIFFIN AVE.DGN

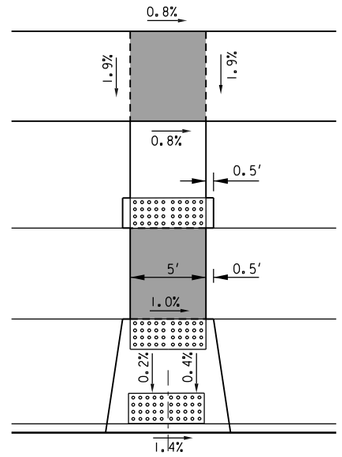
REVISED DATE: 10-07-2023 BY SDB




INSET "A"

SCALE: 1" = 10'



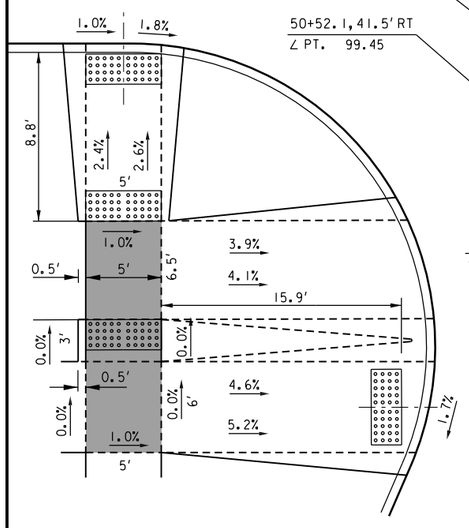



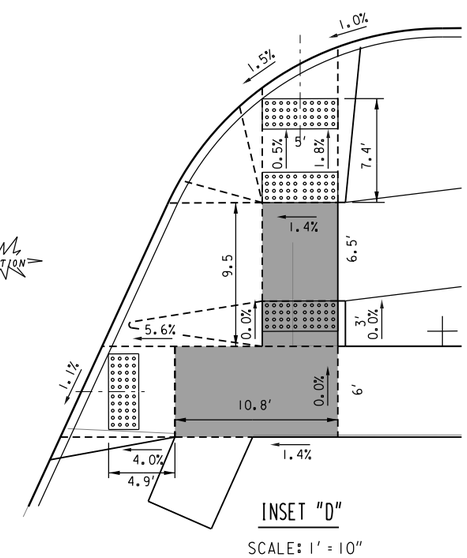

INSET "B"

SCALE: 1" = 10'

INSET "C"

SCALE: 1" = 10'




INSET "D"

SCALE: 1" = 10'

LANDING AREA

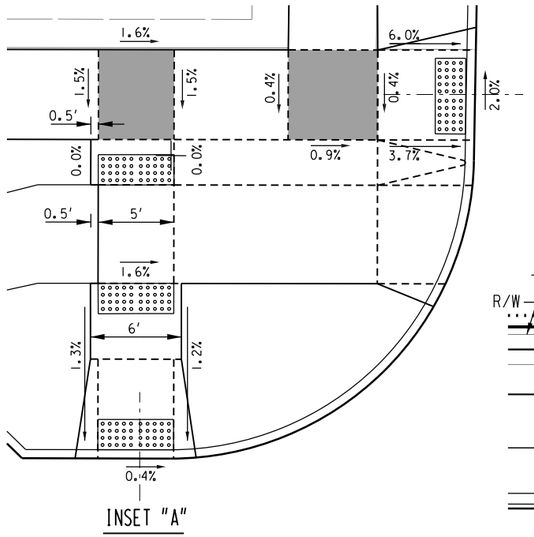
DETECTABLE WARNING FIELD

## E. HOWARD AVE. AND S. TAYLOR AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 58 | E |
|---|---|---|---|---|---|---|

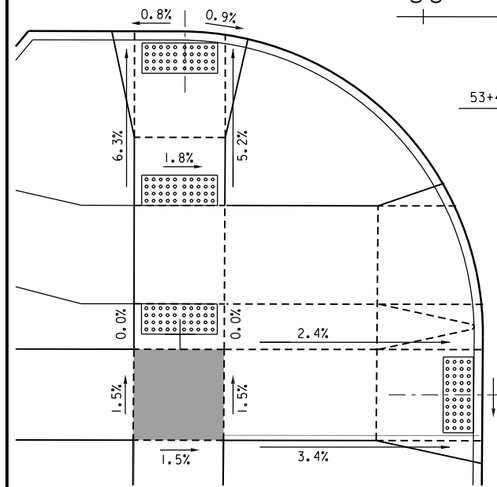
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. TAYLOR AVE.DGN

REVISED DATE: 10-07-2023 BY SDB




INSET "A"

SCALE: 1' = 10"



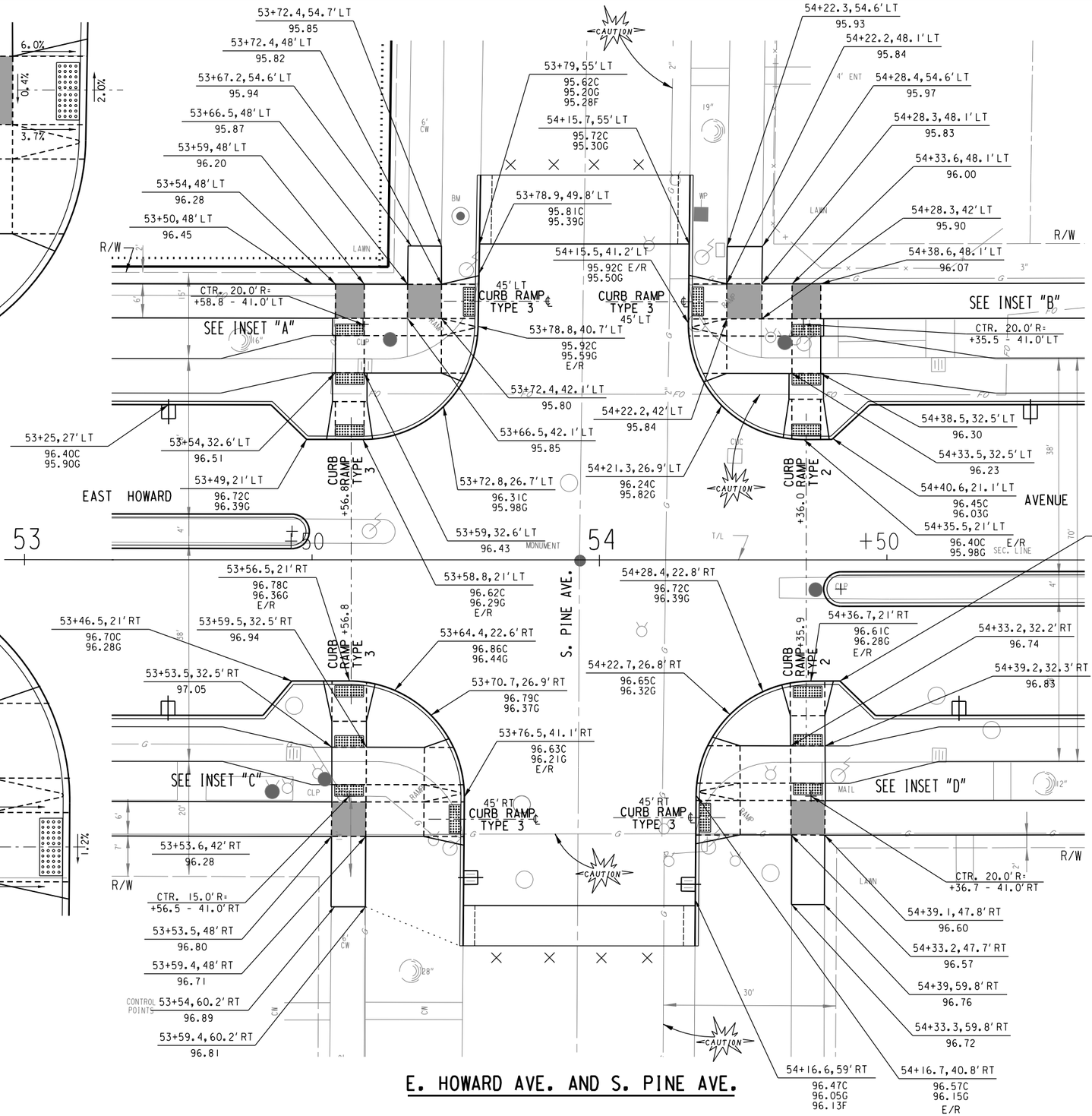

INSET "C"

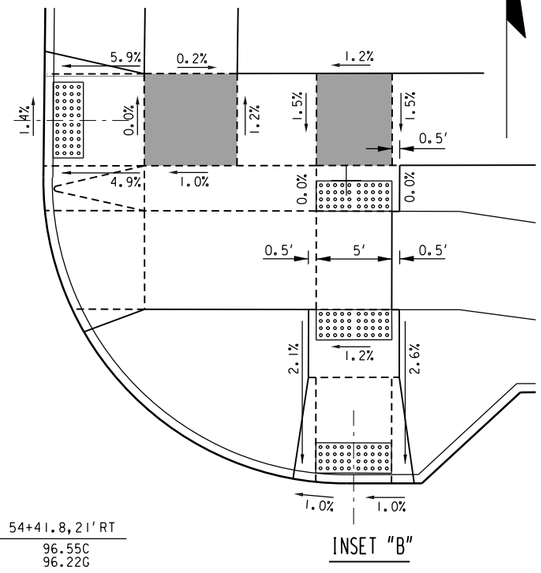
SCALE: 1' = 10"

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

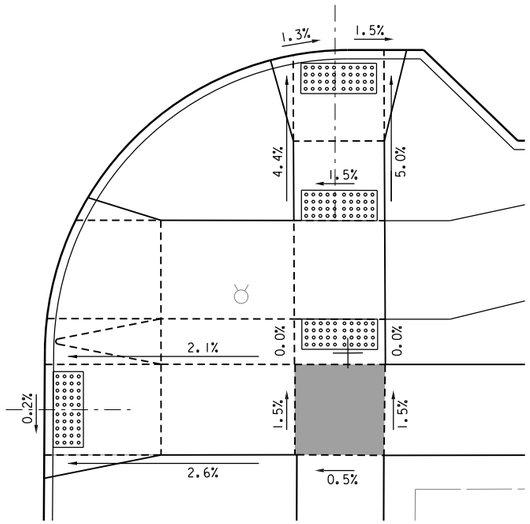
DETECTABLE WARNING FIELD




INSET "B"

SCALE: 1' = 10"




INSET "D"

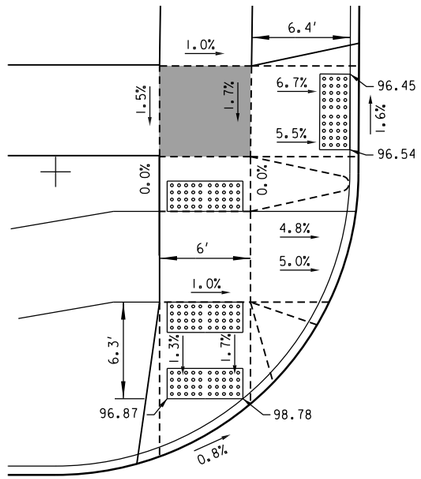
SCALE: 1' = 10"

## E. HOWARD AVE. AND S. PINE AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 59 | E |
|---|---|---|---|---|---|---|

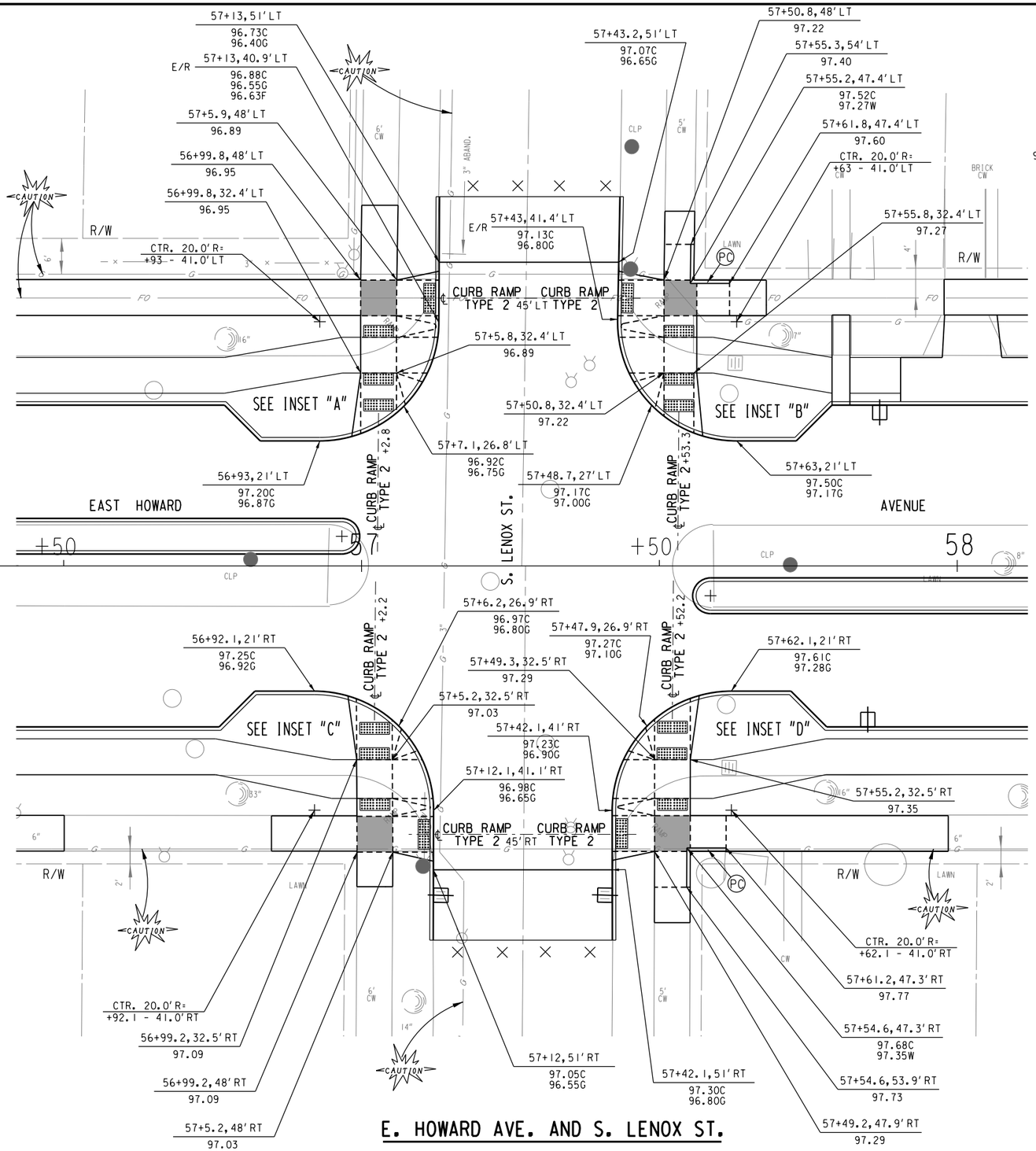
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. PINE AVE.DGN

REVISED DATE: 10-07-2023 BY SDB

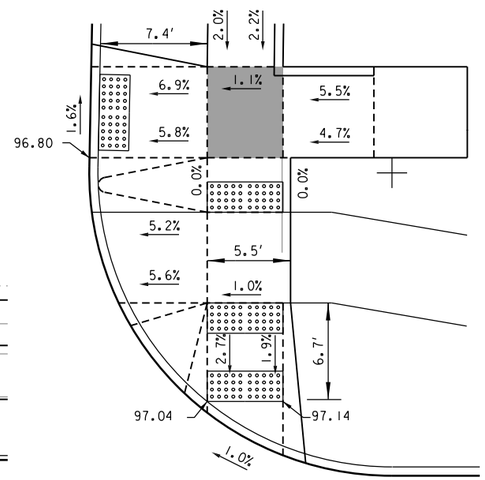



INSET "A"

SCALE: 1" = 10"

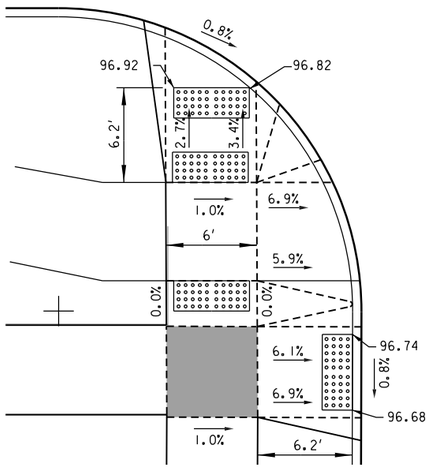



E. HOWARD AVE. AND S. LENOX ST.



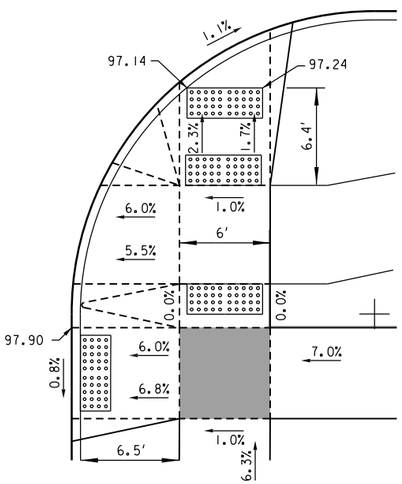

INSET "B"

SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"




INSET "D"

SCALE: 1" = 10"

LANDING AREA

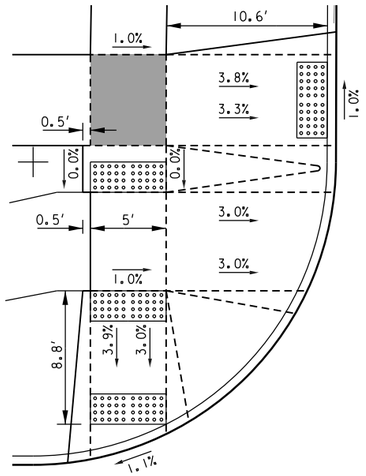
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 60 | E |
|---|---|---|---|---|---|---|

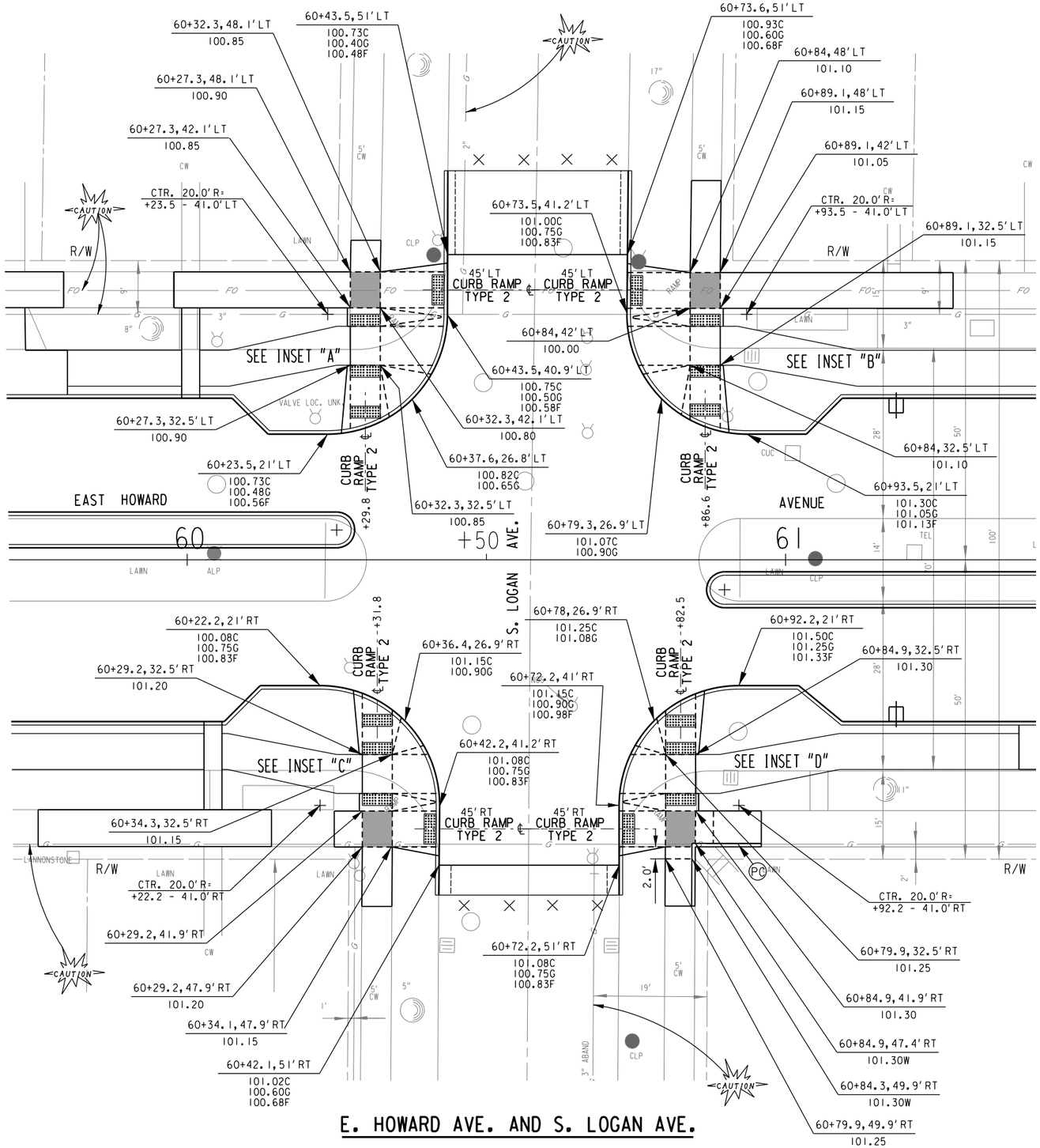
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. LENOX ST.DGN

REVISED DATE: 10-07-2023 BY SDB

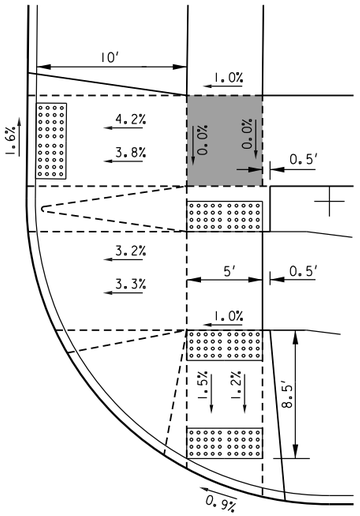



INSET "A"

SCALE: 1" = 10"

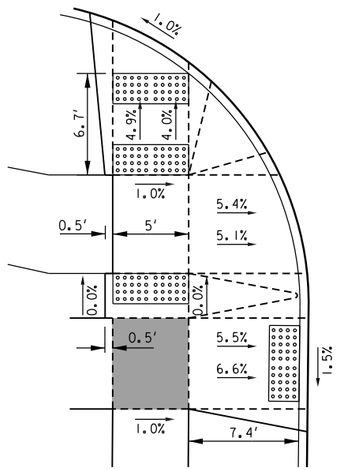



E. HOWARD AVE. AND S. LOGAN AVE.



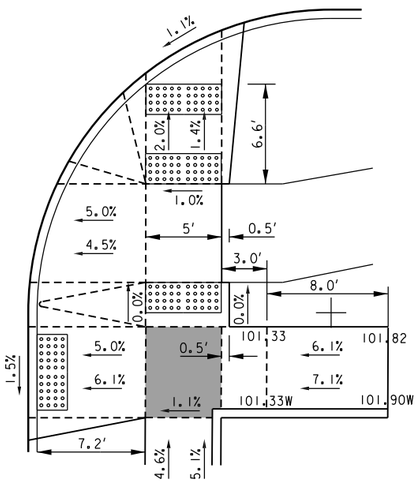

INSET "B"

SCALE: 1" = 10"




INSET "C"

SCALE: 1" = 10"




INSET "D"

SCALE: 1" = 10"

LANDING AREA

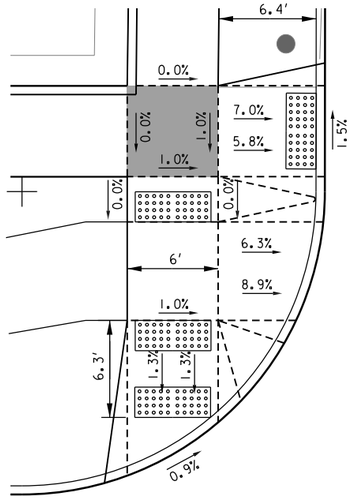
(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 61 | E |
|---|---|---|---|---|---|---|

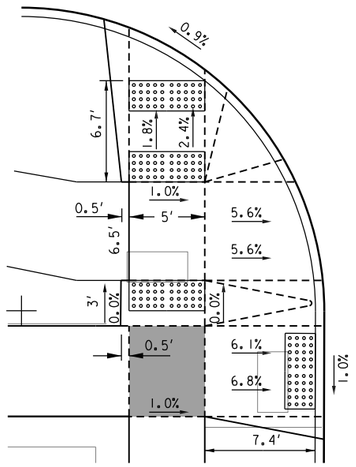
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. LOGAN AVE.DGN

REVISED DATE: 10-06-2023 BY SDB




## INSET "A"

SCALE: 1' = 10"



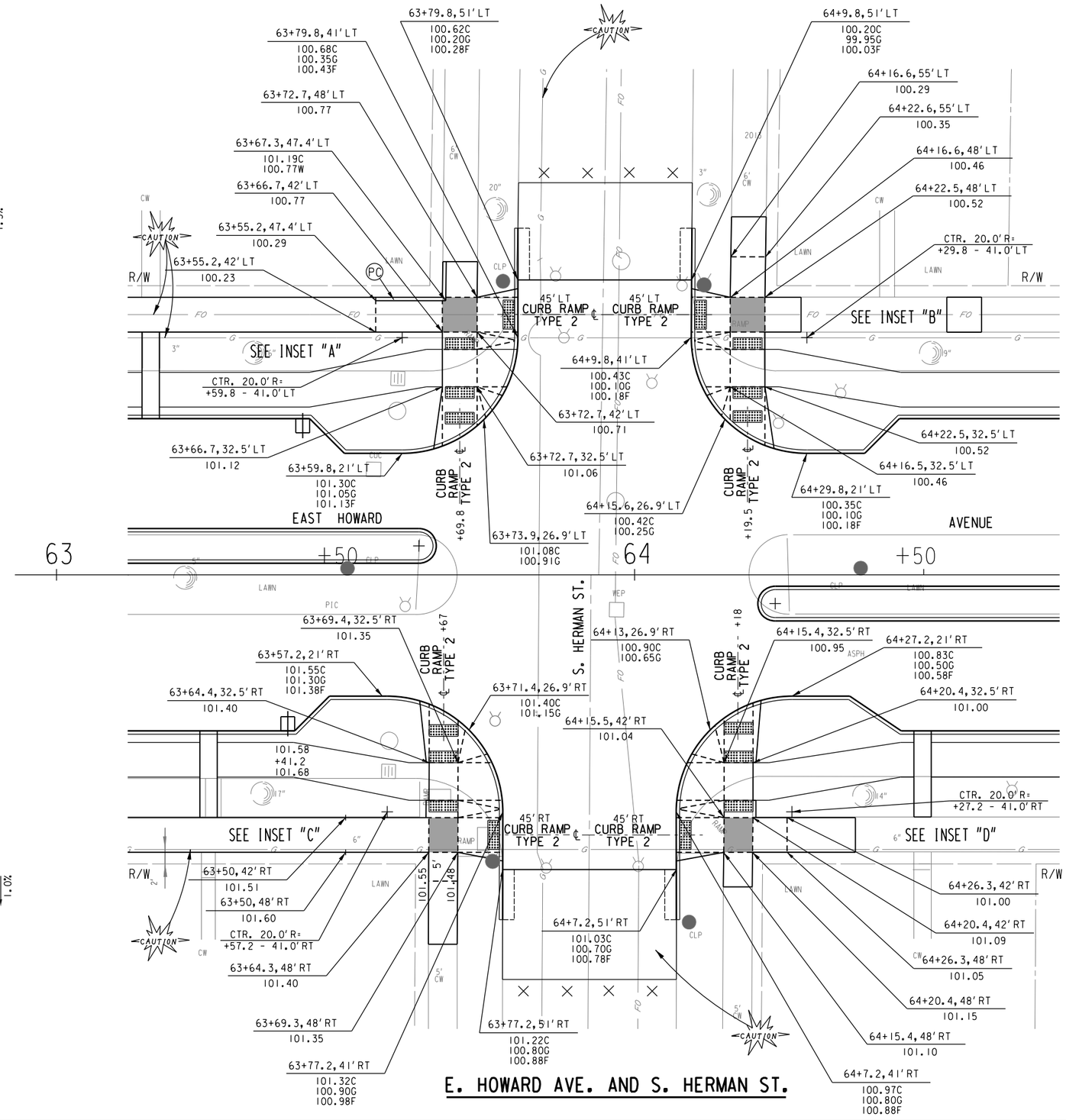

## INSET "C"

SCALE: 1' = 10"

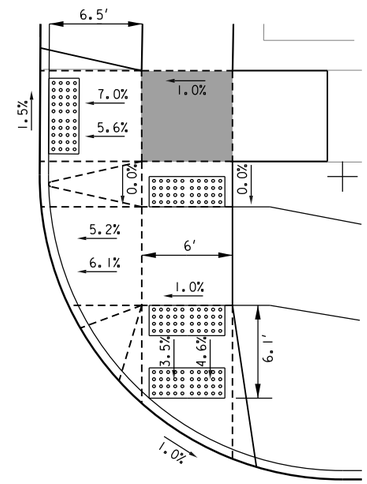
LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

DETECTABLE WARNING FIELD

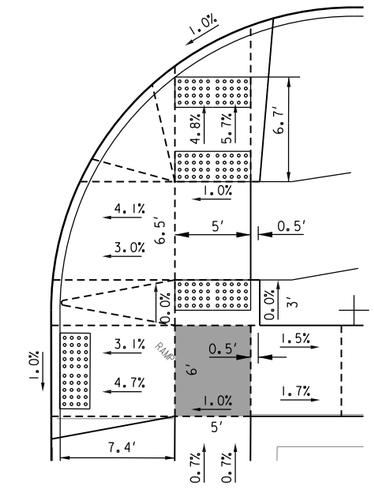



## E. HOWARD AVE. AND S. HERMAN ST.




## INSET "B"

SCALE: 1' = 10"




## INSET "D"

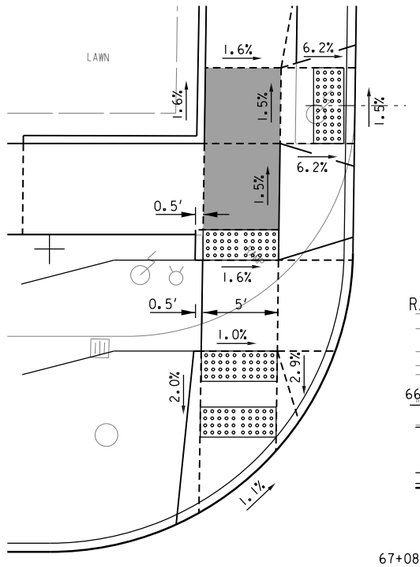
SCALE: 1' = 10"

N

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 62 | E |
|---|---|---|---|---|---|---|

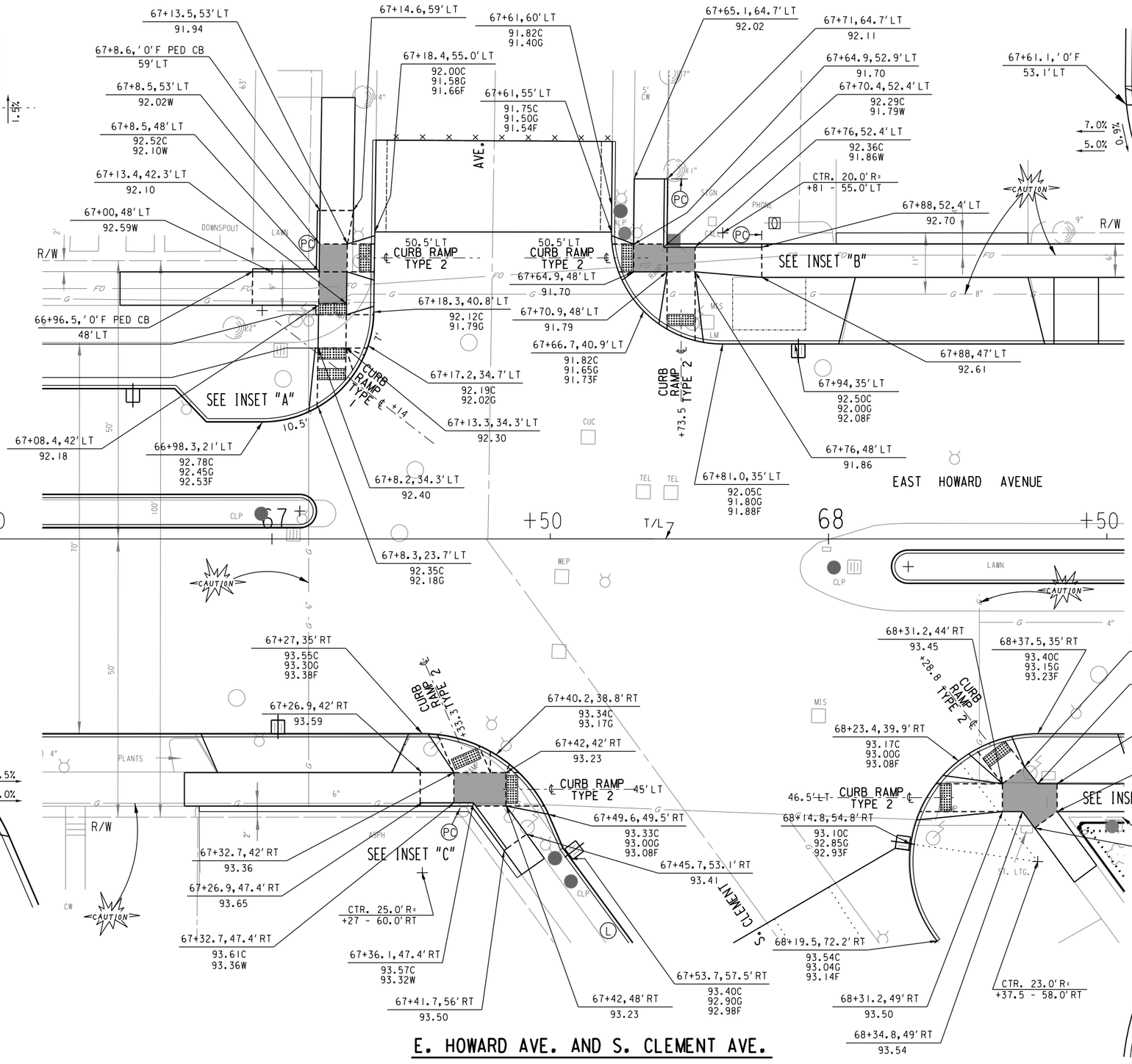
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. HERMAN ST.DGN

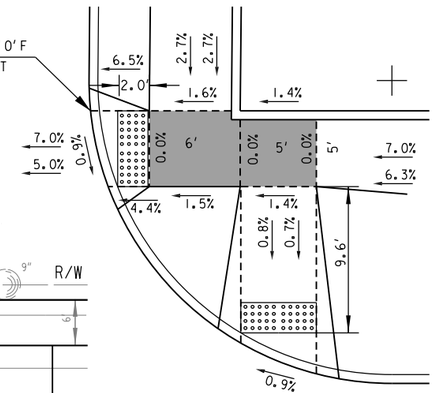
REVISED DATE: 10-07-2023 BY SDB




INSET "A"

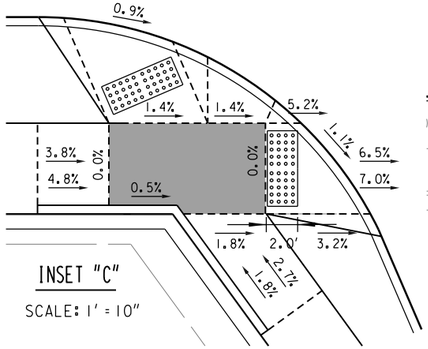
SCALE: 1" = 10'




INSET "B"

SCALE: 1" = 10'




INSET "C"

SCALE: 1" = 10'




INSET "D"

SCALE: 1" = 10'

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

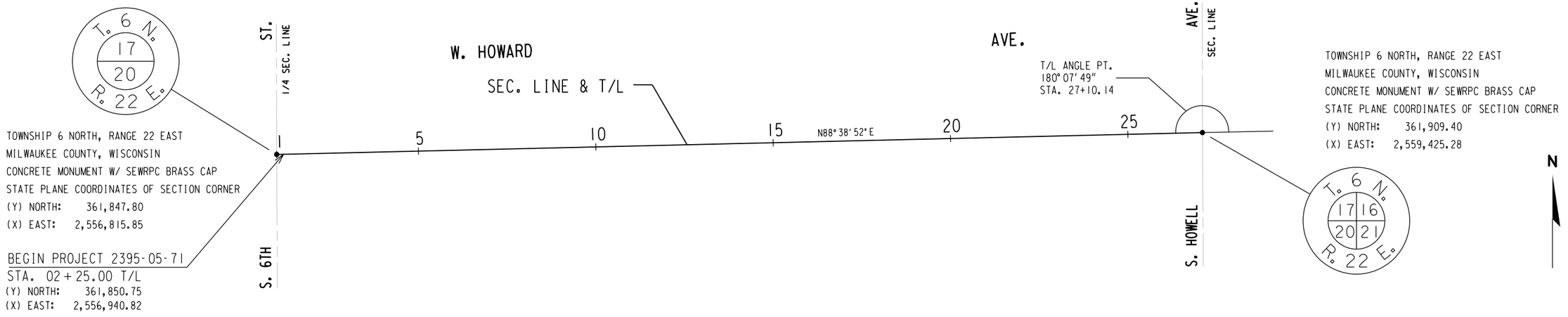
DETECTABLE WARNING FIELD

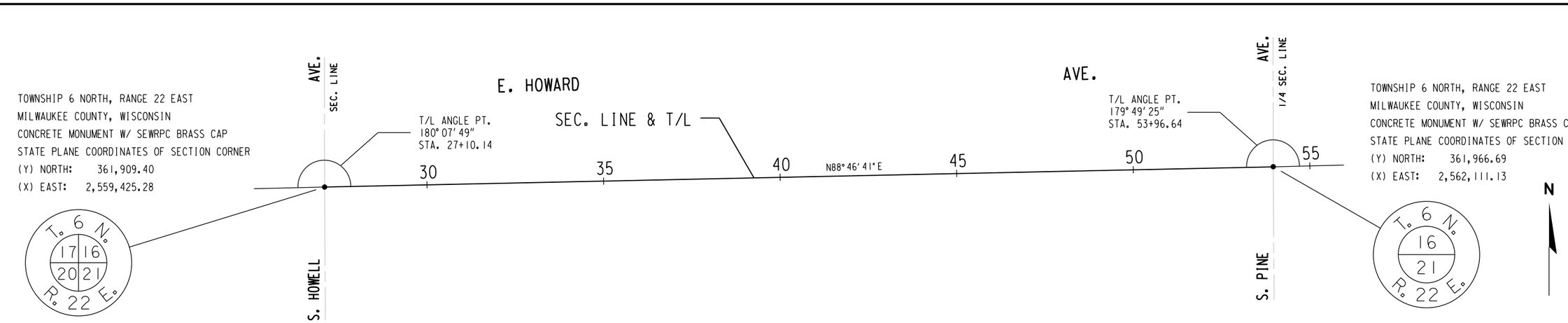
## E. HOWARD AVE. AND S. CLEMENT AVE.

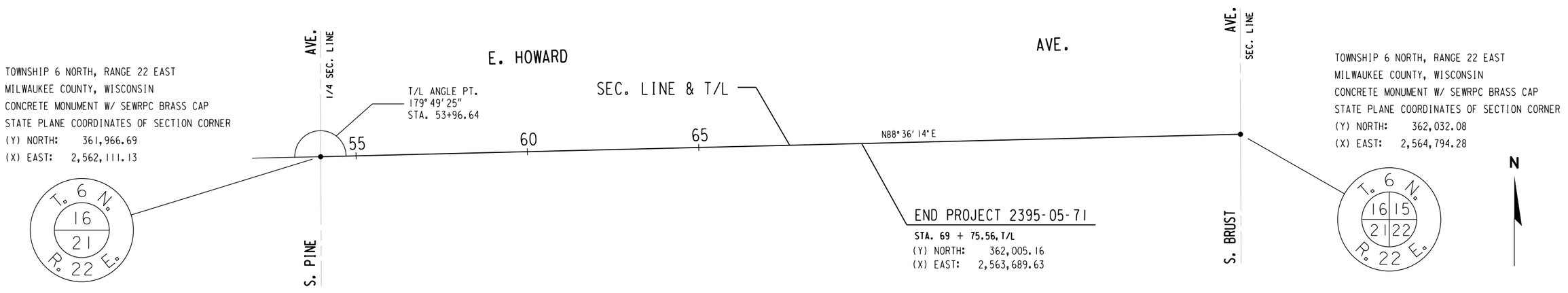
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CURB RAMP DETAILS | SCALE FEET 0' 20' | SHEET NO: 63 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\RAMP DETAIL\S. CLEMENT AVE.DGN

REVISED DATE: 10-07-2023 BY SDB




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ALIGNMENT PLAN | SCALE FEET 0' 300' | SHEET NO: 64 | E |
|---|---|---|---|---|---|---|

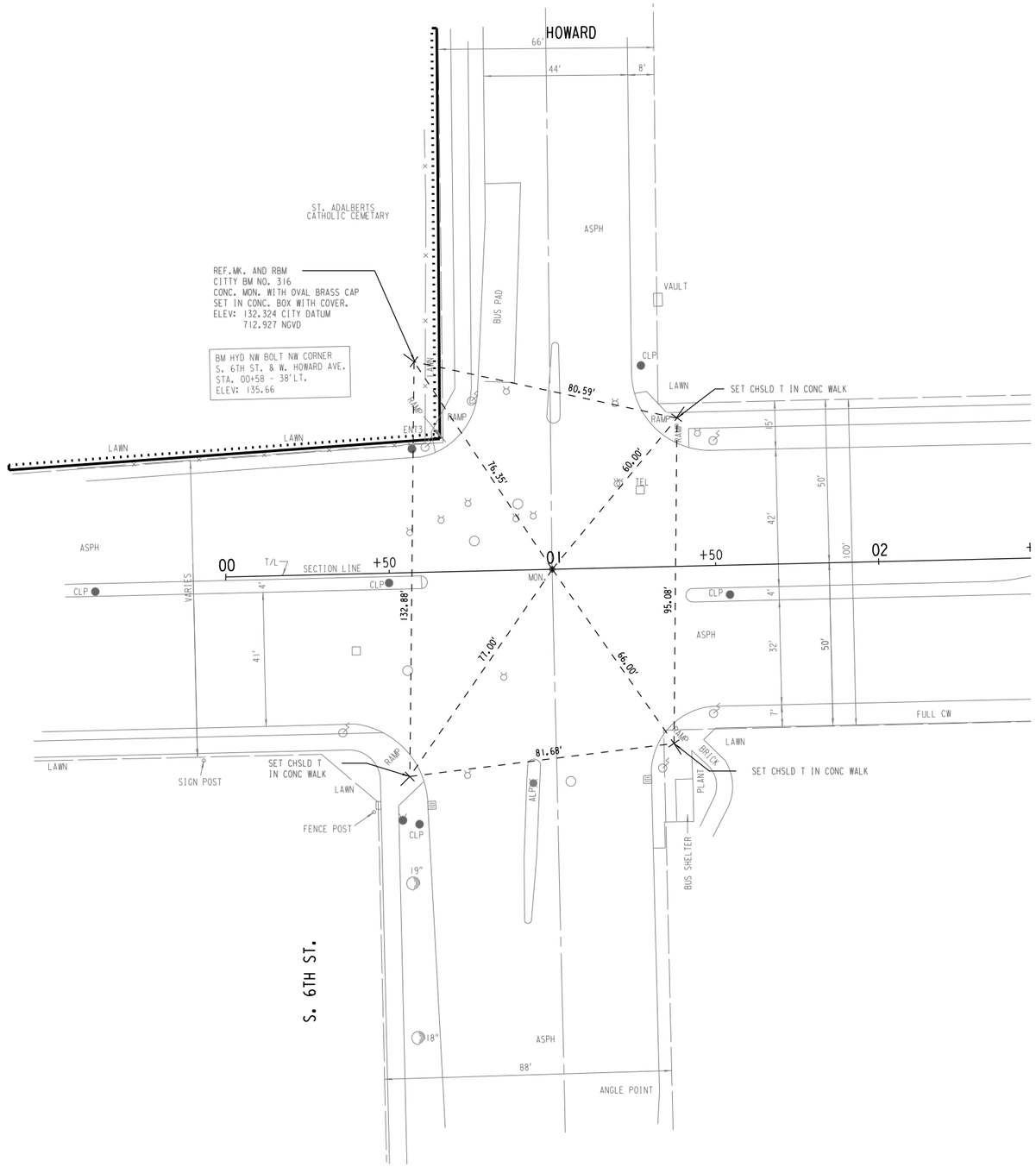
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\EXISTING\ALIGNMENT.DGN

REVISED DATE: 01-14-2023 BY SB

WEST

AVENUE

N




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | LANDMARK REFERENCE PLAN | SCALE FEET 0' 40' | SHEET NO: 65 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\EXISTING\LANDMARK.DGN

REVISED DATE: - - BY

2

WEST

HOWARD

AVENUE

N

2

549-1245-100
132

548-0022
163

120'

VARIES VARIES VARIES

CONC

ASPH

CW

ASPH-DWY

PHONE

FF

S. HOWELL AVE.

REF. MK AND RBM"
FND. ALUM. CAP ON
STEEL ROD IN H. HOLE
MMSD BM NO. 6887-I,
ELEV: 698.593

6' CW

35' 35'

STONE

SET CHSLD T IN
TOP OF N END OF
RAISED CONC CURB

SIGN

LAWN

ALP

RAMP

CLC

F&P BOX

SET CHSLD CROSS
IN CONC WALK

73.78'

97.47'

103.58'

TEL TEL

ASPH

CONC

50'

41'

28'

100'

73'

26 +50 27 MONUMENT +50 T/L SECTION LINE 28 +50

CLP

72'

4'

40'

CONC

MLS

99.06'

91.08'

57.93'

ASPH

CONC

50'

28'

REF. MK. AND RBM.
SET CHSLD CROSS IN TOP
OF NW SIDE OF HYD. FLNG.
2.1' ABV. GRD. ELEV: 700.998

BM

RAMP

FULL WALK

FULL WALK

13'

SIGNPOST SIGNPOST

3 ENT

PED. CURB
LAWN

2015

RAMP

LAWN

WALL PVC WALL

5" 3" 4" 5"

5"

SIGN

BUS SHELTER

IRON HAND RAIL

CW

SET CHSLD
CROSS IN
TOP OF CONC
MEDIAN

NE COR. BRK.
PILLAR AT GRD.

LAWN

S. HOWELL AVE.

CONC

CW

11' 36' 6' 56' 11'

FULL WALK

120'

2015

CW

FULL WALK

BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.
ELEV: 120.48

110.7

580-0901

187

581-0027-100

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | LANDMARK REFERENCE PLAN | SCALE FEET 0' 40' | SHEET NO: 66 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\EXISTING\LANDMARK.DGN

REVISED DATE: - - BY

2

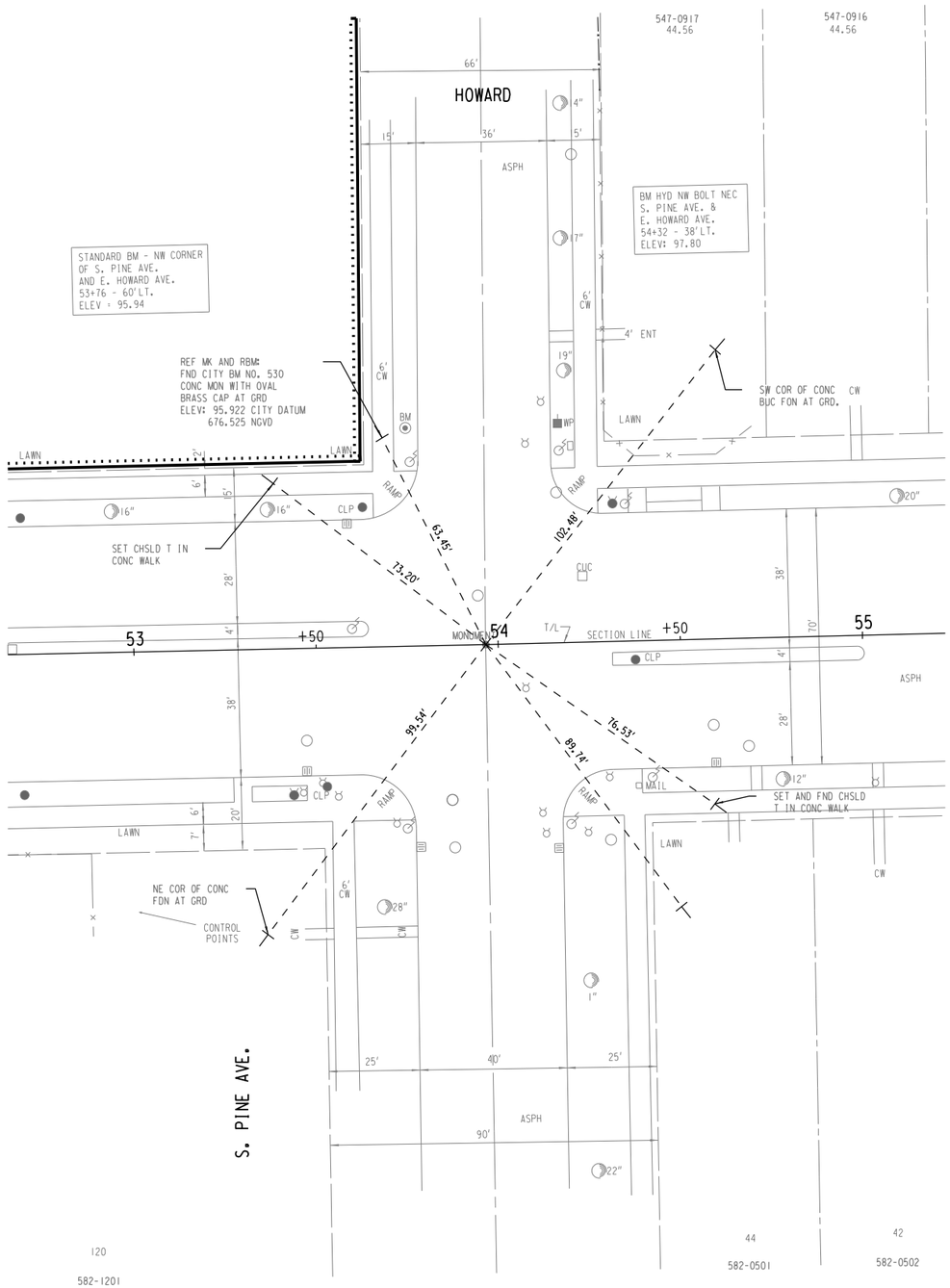
WEST

HOWARD

AVENUE

N

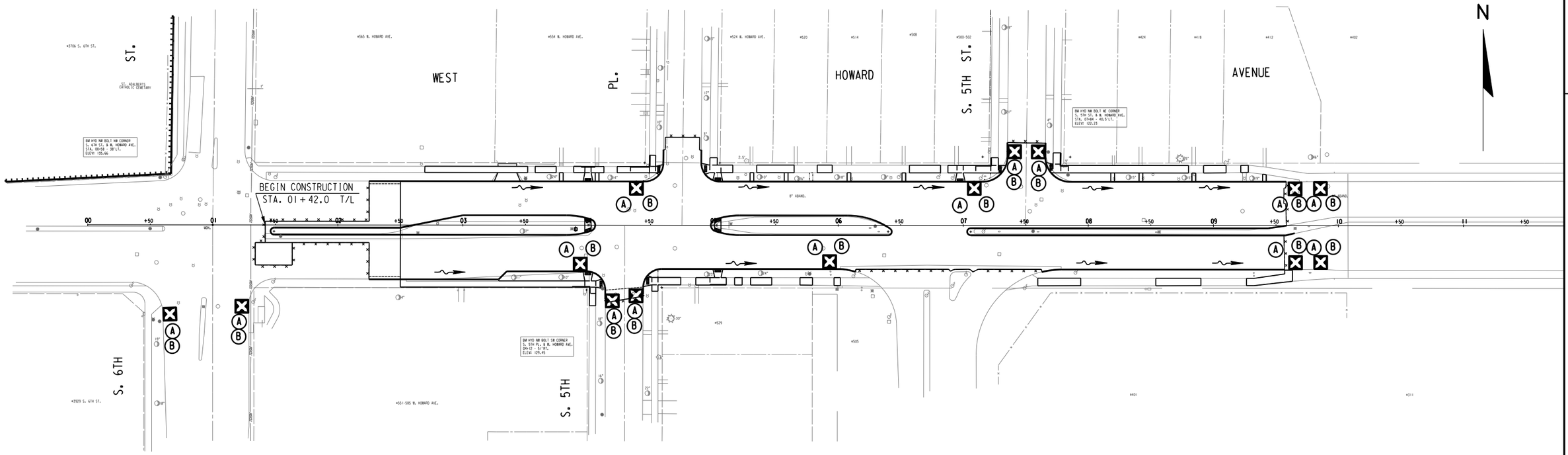
2

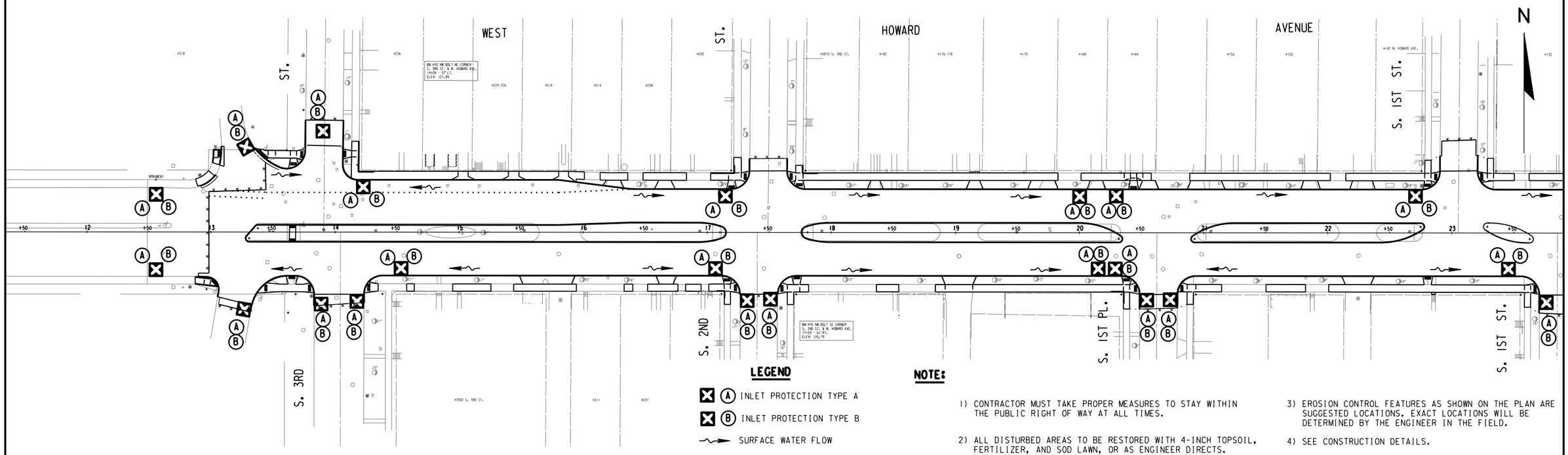



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | LANDMARK REFERENCE PLAN | SCALE FEET 0' 40' | SHEET NO: 67 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\EXISTING\LANDMARK.DGN

REVISED DATE: - - BY




**LEGEND**

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- SURFACE WATER FLOW

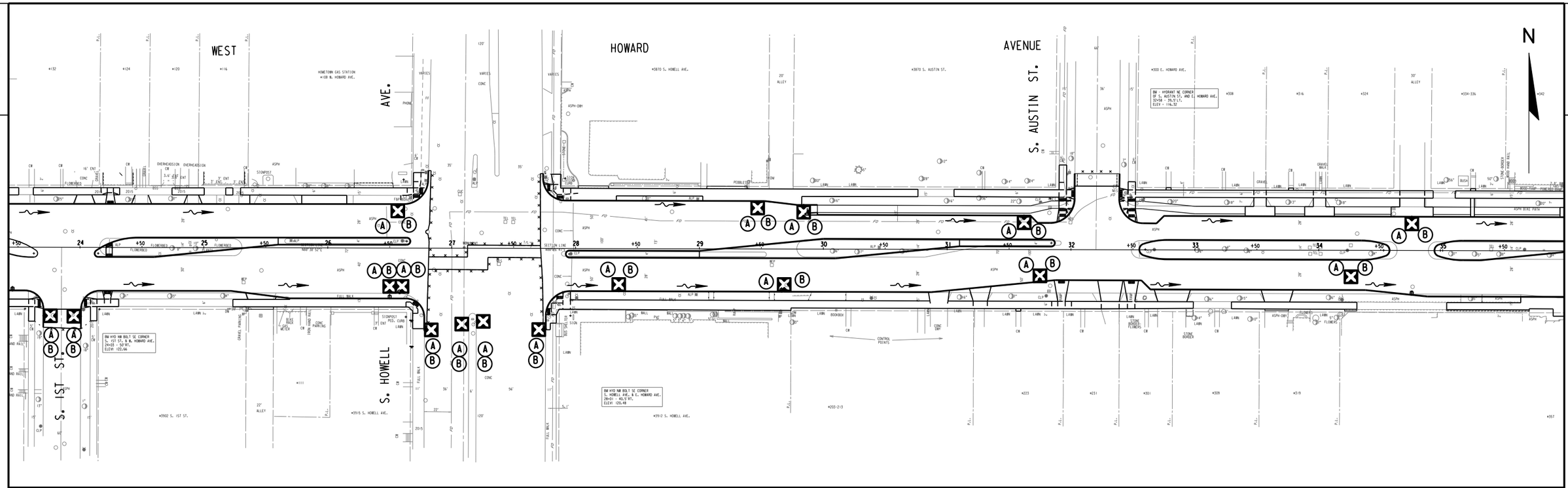
**NOTE:**

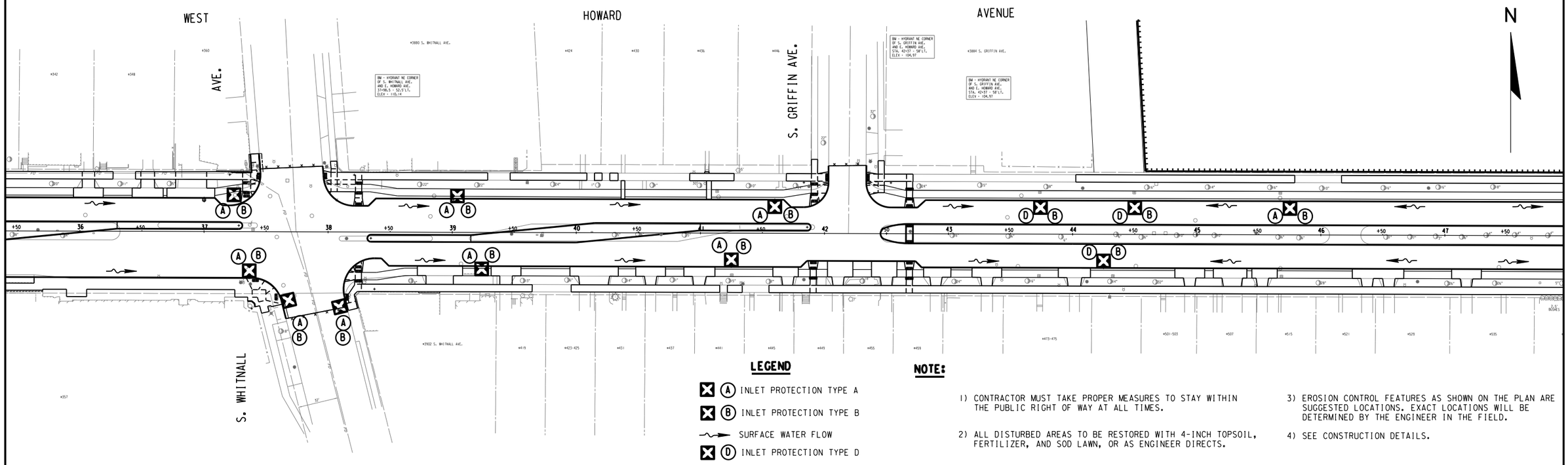
1) CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE PUBLIC RIGHT OF WAY AT ALL TIMES.
2) ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, FERTILIZER, AND SOD LAWN, OR AS ENGINEER DIRECTS.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | EROSION CONTROL | SCALE FEET 0' 80' | SHEET NO: 68 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\EROSION.DGN

REVISED DATE: 06-26-2023 BY SDB




**LEGEND**

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- SURFACE WATER FLOW
- (D) INLET PROTECTION TYPE D

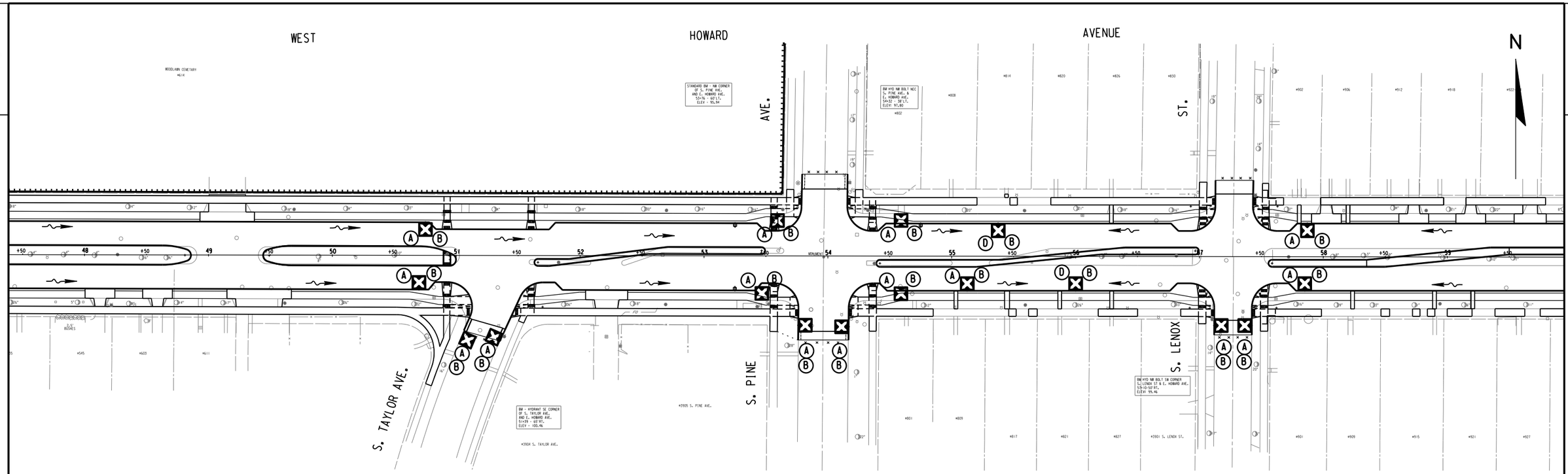
**NOTE:**

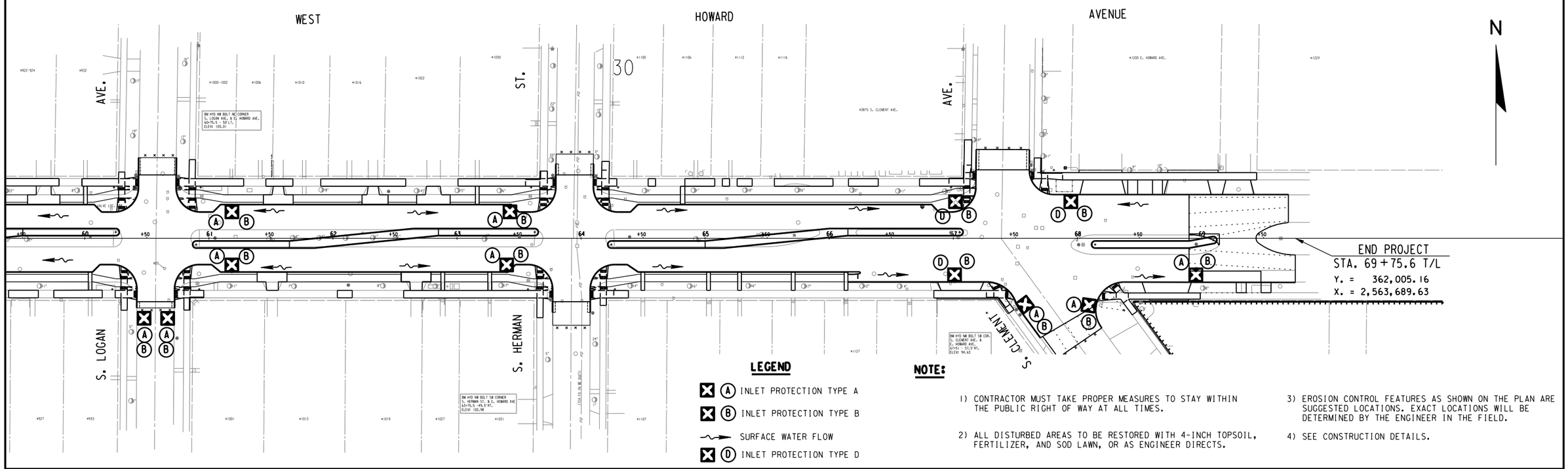
1) CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE PUBLIC RIGHT OF WAY AT ALL TIMES.
2) ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, FERTILIZER, AND SOD LAWN, OR AS ENGINEER DIRECTS.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | EROSION CONTROL | SCALE FEET 0' 80' | SHEET NO: 69 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\EROSION.DGN

REVISED DATE: 10-27-2023 BY SLB




**LEGEND**

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- SURFACE WATER FLOW
- (D) INLET PROTECTION TYPE D

**NOTE:**

1) CONTRACTOR MUST TAKE PROPER MEASURES TO STAY WITHIN THE PUBLIC RIGHT OF WAY AT ALL TIMES.
2) ALL DISTURBED AREAS TO BE RESTORED WITH 4-INCH TOPSOIL, FERTILIZER, AND SOD LAWN, OR AS ENGINEER DIRECTS.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | EROSION CONTROL | SCALE FEET 0' 80' | SHEET NO: 70 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\EROSION.DGN

REVISED DATE: 10-27-2023 BY SLB

2

N

WEST HOWARD AVENUE

S. 5TH PL.

STREET

706 S. 6TH ST.

ST. ADALBERTS CATHOLIC CEMETARY

#565 W. HOWARD AVE.

#554 W. HOWARD AVE.

#524 W. HOWARD AVE.

#520

549-0037
120.28

549-0052
42

549-0051
43

BM HYD NW BOLT NW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38' LT.
ELEV: 135.66

BEGIN CONSTRUCTION
STA. 01+42.0 T/L

BEGIN PROJECT
STA. 02+25 T/L
Y. = 357,711.76
X. = 2,557,146.69

00 T/L SECTION LINE +50 01 SECTION LINE +50 02 +50 03 +50 04 +50 05 +50 06

SECTION LINE N88°38'52"E

MON.

VARIES

54' LT

05+3.3
48.1' LT

70.2' LT

55.8' LT

04+49
46.9' LT

50.5' LT

04+1.2
49.6' RT

64.4' RT

59.2' RT

57.1' RT

04+56
47.8' RT

52.8' RT

BM HYD NW BOLT SW CORNER
S. 5TH PL. & W. HOWARD AVE.
04+12 - 51' RT.
ELEV: 129.45

#3929 S. 6TH ST.

#551-585 W. HOWARD AVE.

#529

120
580-0575-110

266.42

6TH SOUTH

ANGLE POINT

CAUTION

CAUTION FIBER OPTIC

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

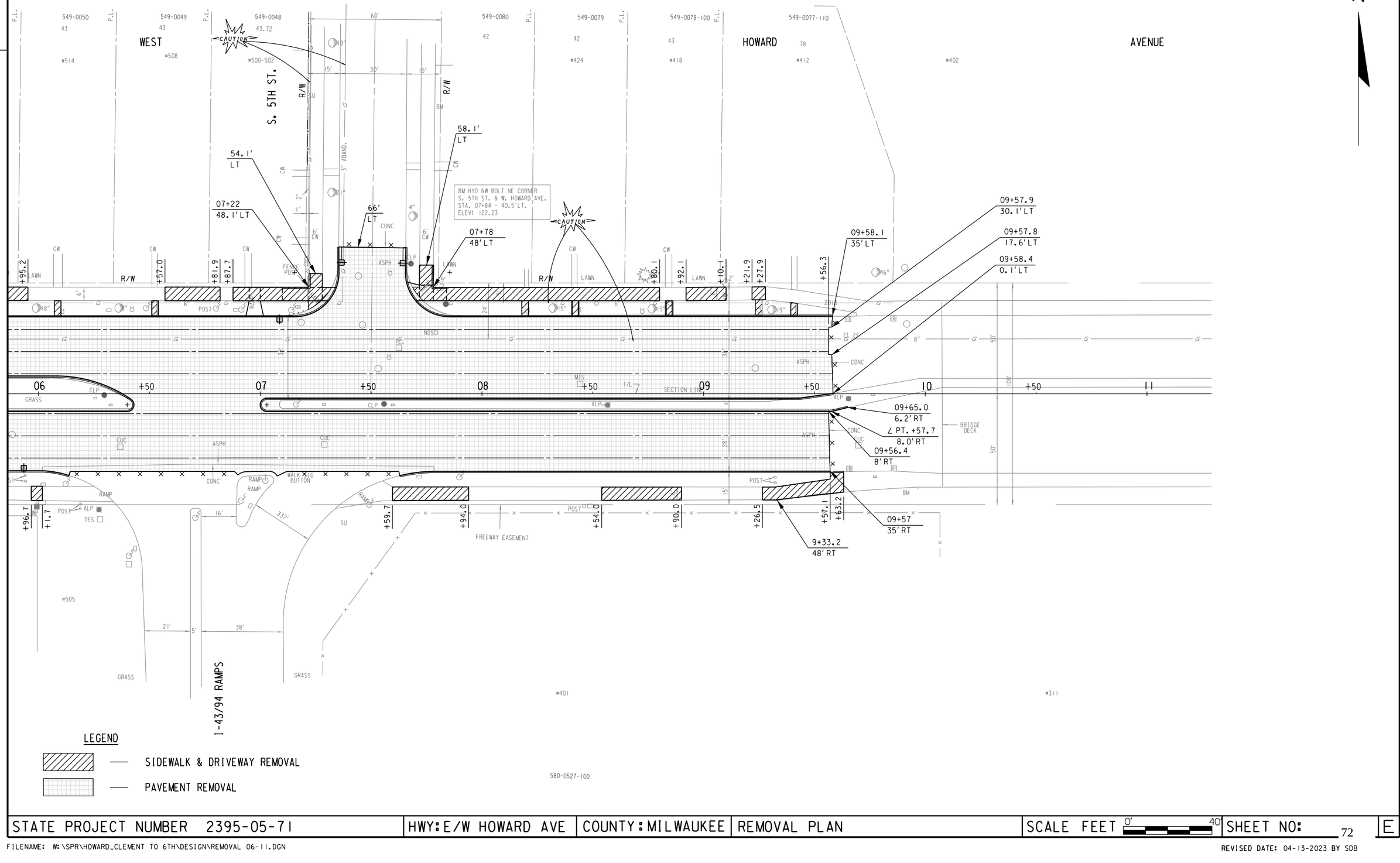
PAVEMENT REMOVAL

ARCHAEOLOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 71 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 00-06.DGN

REVISED DATE: 06-26-2023 BY SDB




LEGEND

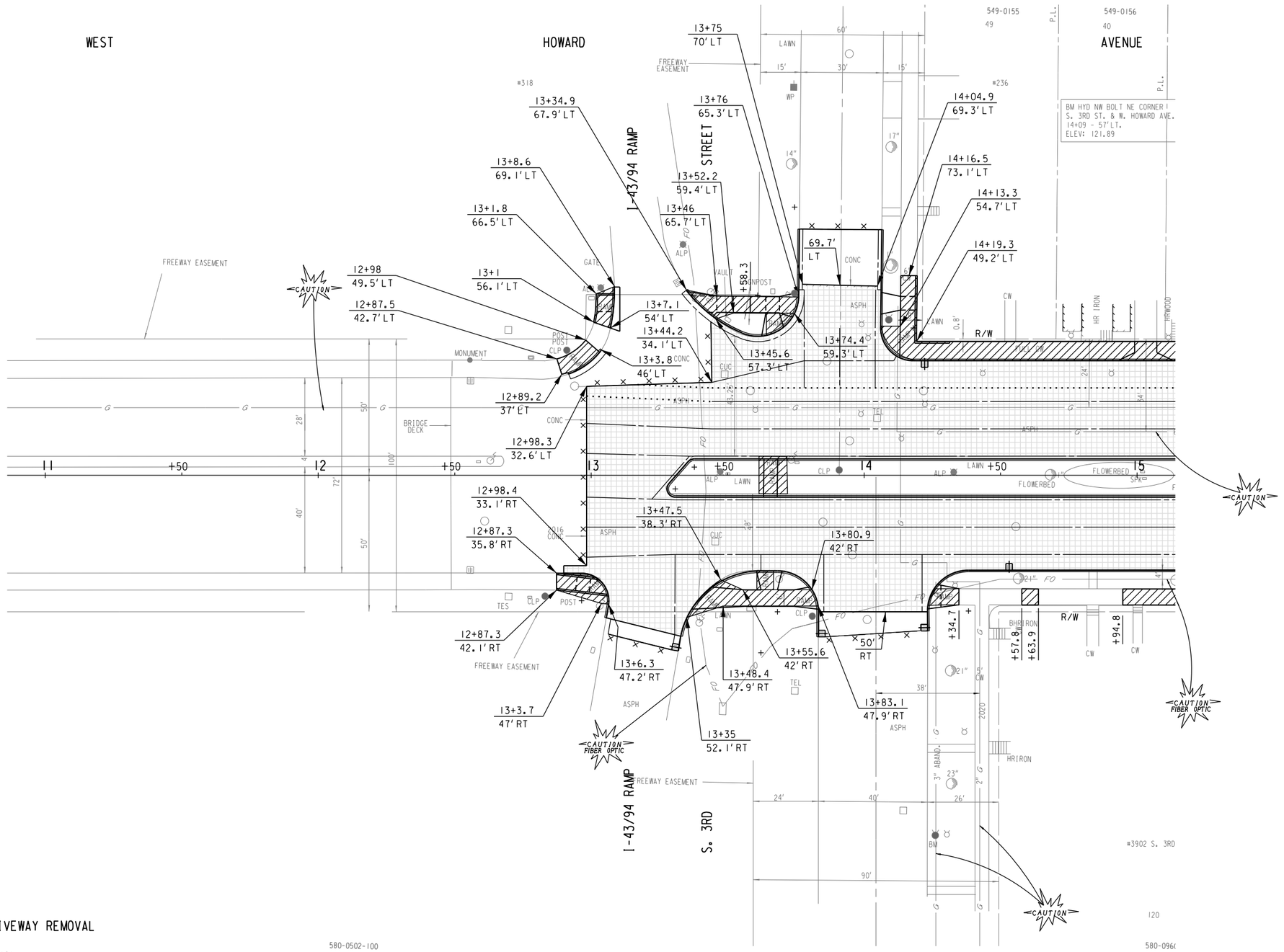
SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 72 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 06-11.DGN

REVISED DATE: 04-13-2023 BY SDB




LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 73 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 11-15.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

549-0156 40 | 549-0158 40 | 549-0159 40 | 549-0160 40 | 549-0161 40 | 549-0162 49 | 549-0172 42.33 | 549-0174 40 | 549-0175 60

WEST HOWARD AVENUE

STREET

#224-226 | #218 | #214 | #208 | #202 | #3870 S. 2ND ST. | #182 | #176-178

BM HYD NW BOLT NE CORNER
. 3RD ST. & W. HOWARD AVE.
4+09 - 57'LT.
LEV: 121.89

15+94.2
42.8'LT

∠ PT. +80.2
42.0'LT

∠ PT. +44.9
35'LT

17+24.4
60.4'LT

17+21.4
48.2'LT

49.6'
LT

17+74.1
54'LT

17+77.1
48.1'LT

CAUTION

R/W

S. 2ND

ALLEY

#3902 S. 3RD ST. | #211 | #207 | #201 | #187 W. HOWARD AVE.

BM HYD NW BOLT SE CORNER
S. 2ND ST. & W. HOWARD AVE.
17+59 - 61'RT.
ELEV: 125.79

17+13.7
47.6'RT

17+69.6
47.9'RT

58.1'
RT

50'
RT

CAUTION FIBER OPTIC

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

580-0960 | 580-0948 | 580-0949 | 580-0950 | 580-0946

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 74 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 15-19.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

WEST AVENUE

HOWARD

S. IST ST.

S. IST PL.

549-0175 549-0176 549-0177 549-0178 549-0179 549-0180 549-0181 549-0182 549-0186 549-2052 549-0196 549-0198

#176-178 #170 #168 #164 #156 #150 #142 W. HOWARD AVE. #132 #124 #120

#3905 S. IST PL. #3912 S. IST PL. #153 W. HOWARD AVE. #3901-03 S. IST ST. #3902 S. IST ST.

CAUTION CAUTION CAUTION CAUTION CAUTION CAUTION CAUTION CAUTION

+82.6 +1.1 +57.8 +88.8 +2.0 +14.5 +80.7 +87.1 +50.5 +62.3 +32.0 +74.3 +0.3 +14.5 +50.4 +82.1 +0.8 +31.3

48' LT 58.6' LT 60.2' LT 50' LT 50' RT 47.8' RT 49.5' RT 59.7' RT 59.4' RT 24+13.7 47.8' RT 23+33.6 48' LT 22+78.1 48.1' LT 20+35.4 47.7' RT 61.4' RT 49.8' RT 20+91.7 47.6' RT 57.7' RT 23+58.5 47.6' RT

R/W LAWN FLOWERBED CONC GRAVEL ASPH PATIO BLOCK WOOD HAND RAIL IRON HAND RAIL CENT. LINK/ LUMEN HH OVERHEADSIGN FL CLP CLIC

8" ABAND. 2" ABAND. 16' ENT 3' ENT

19 20 21 22 23 24 25

ALP LAWN FLOWERBED

22' ALLEY

BM HYD NW BOLT SE CORNER S. IST ST. & W. HOWARD AVE. 24+03 - 50' RT. ELEV: 122.66

580-0928 580-0930 580-0916 580-0914

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 75 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 19-25.DGN

REVISED DATE: 04-13-2023 BY SDB

WEST HOWARD AVENUE

EAST HOWARD AVENUE

549-0199 40

549-1245-100 132

548-0022 163

548-0023 207

#116

HOMETOWN GAS STATION #108 W. HOWARD AVE.

#3870 S. HOWELL AVE.

#3870 S. AUSTIN

N

26+81.4 62' LT

26+68.7 47.9' LT

60.4' LT

48.0' LT

27+73.5 59.8' LT

59.3' LT

27+87.9 48' LT

50' LT

47.9' LT

∠ PT. +48 38.0' LT

50' LT

∠ PT. +82.5 35.0' LT

29+82.5 42.2' LT

CAUTION

AVENUE

20' ALLEY

S. HOWELL

27+12.9 1.9' LT

27+71.7 1.8' LT

26+81.5 7.6' RT

27+72.3 8.1' RT

26+81.3 17.7' RT

27+29.3 17.9' RT

27+29.3 7.9' RT

64.8' RT

65.3' RT

65.4' RT

66.1' RT

25+56.2 41.7' RT

26+68.7 48' RT

48' RT

27+87.1 49.8' RT

27+84.7 55' RT

27+84.7 60.7' RT

27+79.8 60.7' RT

50' RT

29+74.1 48' RT

29+87.9 41.9' RT

29+74.1 50' RT

30+18.5 41.9' RT

47.9' RT

31+0.6 41.9' RT

CONTROL POINTS

BM HYD NW BOLT SE CORNER S. HOWELL AVE. & E. HOWARD AVE. 28+01 - 40.5' RT. ELEV: 120.48

#3915 S. HOWELL AVE.

#3912 S. HOWELL AVE.

#111

#203-213

580-0901

580-0904

581-0027-100

581-9976

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E.W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 76 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 25-31.DGN

REVISED DATE: 08-02-2023 BY SDB

N

EAST HOWARD AVENUE

S. AUSTIN ST.

CAUTION

CAUTION

CAUTION

CAUTION

68' LT

54.7' LT

31+90.2
48.2' LT

32+51.9
48' LT

51' LT

BM - HYDRANT NE CORNER OF S. AUSTIN ST. AND E. HOWARD AVE.
32+58 - 39.5' LT.
ELEV = 116.32

#300 E. HOWARD AVE.

548-0083 58

548-0084 50

548-0080 53.5

30' ALLEY

548-0088 60

548-0090-10-9 60

548-0085 65

548-0086 62.53

#308 #316 #324 #334-336 #342 #348 #360

P.L.

ASPH

R/W

GRAVEL WALK

STONE-BORDER

WOOD HAND RAIL

IRON HAND RAIL

BRICKS

WOOD FENCE

CONC

BUSH

WOOD-RAMP

POWERED-RAMP

2.8' BWS

GAS METER

ASPH BIKE PATH

+5.5 +92.2 +101 +126.6 +44.6 +58.6 +74.4

31 32 33 34 35 36 37

+50

CLP TEL NOS

10:1 TAPER

CONC DWY

STONE BORDER-FLOWERS

STONE BORDER

ASPH-DWY

FLOWERS

+98.9 +29.6 +30.9 +3.4 +89.3 +5.5

2' BWS 4.2' BWS 4.2' BWS 4.2' BWS

7' ENT

46.8' RT

47.7' RT

CONTROL POINTS

36+5.5
46.8' RT

35+89.3
46.8' RT

35+70.1
46.8' RT

#223 #231 #301 #309 #319 #357

72.58 45 43.08 70 65

581-9975 581-9973-200 581-9973-100 581-9972 581-9971

331.31

581-9970

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 77 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 31-37.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

EAST

HOWARD

S. GRIFFIN AVE.

AVENUE

AVENUE

548-0086 62.53 | 548-0505 155.42 | 548-0905 48.05 | 548-0906 50 | 548-0385 60 | 548-0384 60

#3880 S. WHITNALL AVE.

#360 | #424 | #430 | #436 | #446

BM - HYDRANT NE CORNER OF S. WHITNALL AVE. AND E. HOWARD AVE. 37+98.5 - 52.5'LT. ELEV = 110.14

BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58'LT. ELEV = 104.97

37+95.4 53'LT
37+44.2 63'LT
37+45.2 50.8'LT
37+36.8 62.5'LT
37+37.9 48.2'LT
57' LT
38+7.3 52.1'LT
38+11.2 48.1'LT
59.7' LT
41+89.4 48.2'LT
54.8' LT
58.8' LT
42+48.2 48.1'LT

37+35.3 52.8'RT
37+25 46.8'RT
37+51.5 60.2'RT
R/W 46.8' RT
37+25 52.8'RT
37+35.4 56.3'RT
37+41 60.6'RT
37+45.1 59.7'RT
37+46.6 65.7'RT
37+52.5 64.3'RT
37+63.3 58.4'RT
37+66.4 70'RT
37+54.3 60.5'RT
R/W 38+25.5 47.8'RT
38+21.5 51.9'RT
38+23.9 61.5'RT
38+14.6 57.8'RT
38+16 63.5'RT

S. WHITNALL

#3902 S. WHITNALL AVE.

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 78 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 37-43.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

548-0364
172.13

548-0365-210
40.24

548-1101
908.35

EAST HOWARD AVENUE

WOODLAWN CEMETARY
#614

#3884 S. GRIFFIN AVE.

BM - HYDRANT NE CORNER
OF S. GRIFFIN AVE.
AND E. HOWARD AVE.
STA. 42+37 - 58'LT.
ELEV = 104.97

+2.4 +78.9 +16.5

R/W

ASPH

43 +50 44 +50 45 +50 46 +50 47 +50 48 +50 49

#467
50
581-9993

#473-475
71.27
581-0701

#502 E. HOWARD AVE.
40

WE ENERGIES
EASEMENT

#501-503
44.73
581-0702

#507
48
581-0703

#515
48
581-0704

#521
48
581-0705

#529
60
581-9994

#535
68
581-9995-0

#545
50
581-9996

#603
50
581-9998

#611
50
581-9999

WOOD-CHIP
CONC
OVERHEADEASMENT
R/W
RRTP
2.5' BUSHES
PATIO-BLK
CAUTION

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

ARCHAELOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 79 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 43-49.DGN

REVISED DATE: 04-13-2023 BY SDB

EAST HOWARD AVENUE

STANDARD BM - NW CORNER OF S. PINE AVE. AND E. HOWARD AVE. 53+76 - 60' LT. ELEV - 95.94

BM HYD NW BOLT NEC S. PINE AVE. & E. HOWARD AVE. 54+32 - 38' LT. ELEV: 97.80

547-0917 44.56

547-0916 44.56

N

AVENUE

54.7' LT

53+66.5 48' LT

54.6' LT

54+28.3 48' LT

55' LT

50+52.2 47.6' RT

50+69.9 47.7' RT

50+87.1 72.9' RT

50+79.9 91.1' RT

50+75.6 103.2' RT

50+80.2 105' RT

51+2.3 47.6' RT

50+96.8 47.6' RT

51+57.4 47.9' RT

51+54.6 54' RT

51+50.4 52.2' RT

51+39.6 59' RT

51+7.7 49.7' RT

BM - HYDRANT SE CORNER OF S. TAYLOR AVE. AND E. HOWARD AVE. 51+39 - 65' RT. ELEV - 100.46

6TH TAYLOR AVE.

53+53.5 47.6' RT

60.2' RT

60' RT

54+39.1 47.8' RT

59.8' RT

S. PINE

#3905 S. PINE AVE.

#3904 S. TAYLOR AVE.

CONTROL POINTS

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

ARCHAEOLOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 80 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 49-55.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

EAST STREET

HOWARD AVENUE

S. LENOX STREET

S. LOGAN AVENUE

CAUTION

R/W

PLANTAREA

LAWN

ASPH

CLP

CW

BRICK

LANNONSTONE

ALP

VALVE LOC.

3" ABAND.

51' LT

60.6' LT
56+99.8
48.1' LT

59.5' LT
57+55.8
48' LT

53.4' LT
60+27.3
48.1' LT

63.4' LT
60+89.1
47.9' LT

51' RT
56+99.2
47.8' RT
53.8' RT

51' RT
57+55.2
47.9' RT
59.9' RT

BM HYD NW BOLT SW CORNER
S. LENOX ST & E. HOWARD AVE.
57+10-50' RT.
ELEV: 99.46

BM HYD NW BO
S. LOGAN AVE
60+75.5 - 5
ELEV: 103.0

55 56 57 58 59 60 61

LEGEND

SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 81 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 55-61.DGN

REVISED DATE: 04-13-2023 BY SDB

2

N

EAST STREET

HOWARD AVENUE

547-0339 30 P.L. 547-0338 30 P.L. 547-0337 45 P.L. 547-0335 45 P.L. 547-0334-110 60 P.L. 547-0332-100 60

547-0354 40 P.L. 547-0353 40 P.L. 547-0352 40 P.L. 547-0347-121 35 P.L. 547-0347-111 127

#1000-1002 #1006 #1010 #1016 #1022 #1030 #1100 #1106 #1112 #1116 #3875 S. CLEMENT AVE.

BM HYD NW BOLT NE CORNER
S. LOGAN AVE. & E. HOWARD AVE.
60+75.5 - 50' LT.
ELEV: 103.01

63+66.7
48' LT

64+22.6
48' LT

51' LT

51' RT

63+64.3
48' RT

64+20.4
48' RT

63.9' RT

54' RT

CAUTION

45' R

BM HYD NW BOLT SW CORNER
S. HERMAN ST. & E. HOWARD AVE
63+75.5 -49.5' RT.
ELEV: 102.98

S. HERMAN

#1001 #1013 #1019 #1027 #1031 #1107 #1111 #1115 #1121 #1127

61.76 582-1246-100 30 582-1245 60 582-1214-100 47 582-1214-100 42.38 582-1215-100 42 582-1217 42 582-1218 42 582-1219 48 582-9986

LEGEND

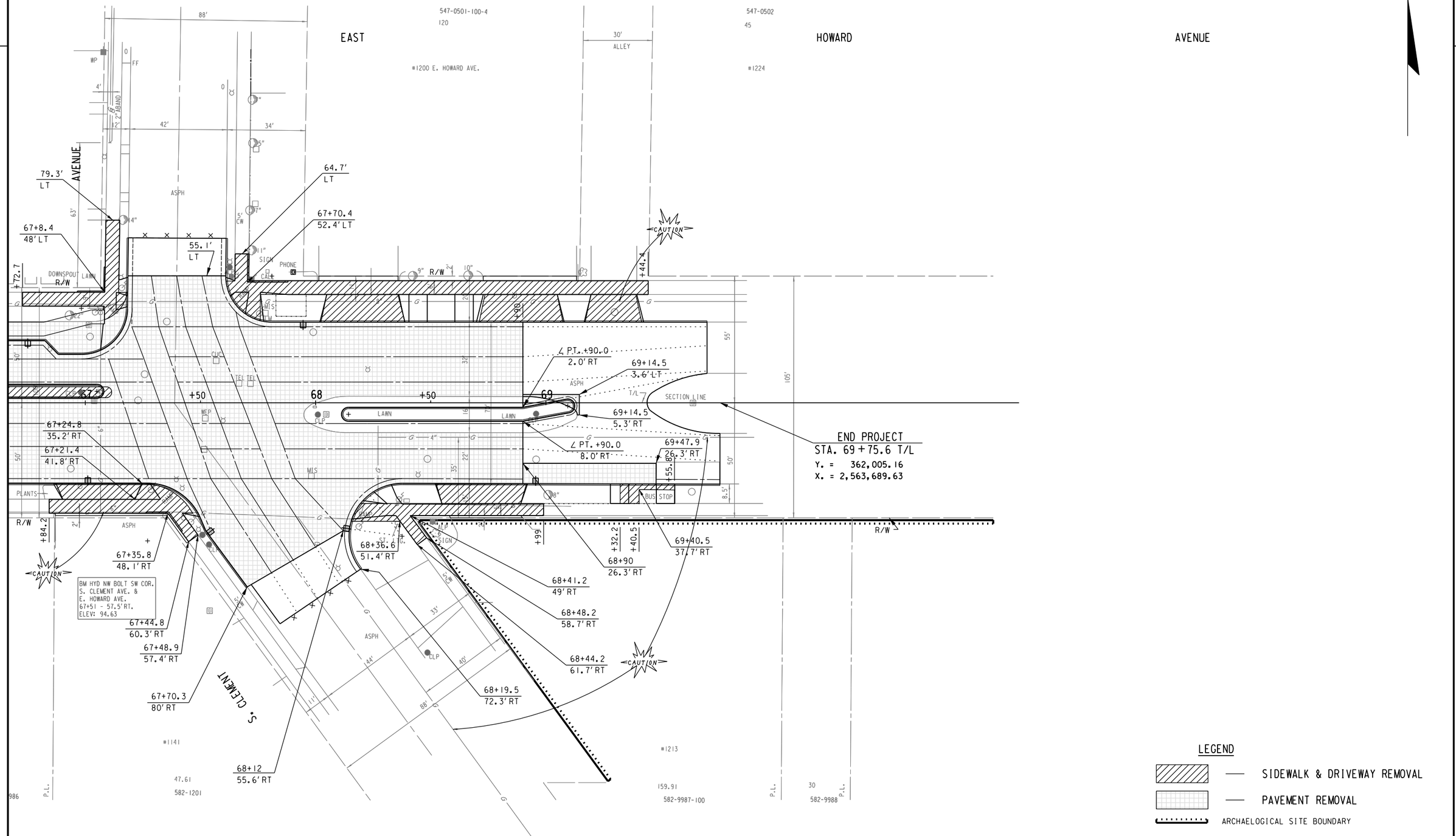
SIDEWALK & DRIVEWAY REMOVAL

PAVEMENT REMOVAL

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 82 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 61-67 .DGN

REVISED DATE: 04-13-2023 BY SDB




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | REMOVAL PLAN | SCALE FEET 0' 40' | SHEET NO: 83 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\REMOVAL 67-69.DGN

REVISED DATE: 10-26-2023 BY SDB

2

N

WEST HOWARD AVENUE

S. 5TH PL.

706 S. 6TH ST.

#565 W. HOWARD AVE.

#554 W. HOWARD AVE.

#524 W. HOWARD AVE.

#520

549-0037
120.28

549-0052
42

549-0051
43

ST. ADALBERTS CATHOLIC CEMETARY

BM HYD NW BOLT NW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38' LT.
ELEV: 135.66

BEGIN CONSTRUCTION
STA. 01+42.0 T/L

BEGIN PROJECT
STA. 02+25 T/L
Y. = 361,850.75
X. = 2,556,940.82

BM HYD NW BOLT SW CORNER
S. 5TH PL. & W. HOWARD AVE.
04+12 - 51' RT.
ELEV: 129.45

00 T/L 01 SECTION LINE MON. N88°38'52"E SECTION LINE 02 03 04 05 06

#3929 S. 6TH ST.

#551-585 W. HOWARD AVE.

#529

120
580-0575-110

579-9957-110

266.42

580-0577-100

ANGLE POINT

SOUTH 6TH STREET

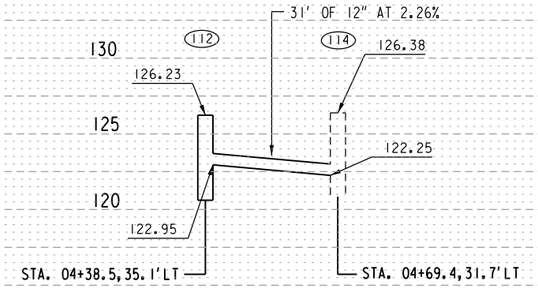
S. 5TH PL.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 84 | E |
|---|---|---|---|---|---|---|

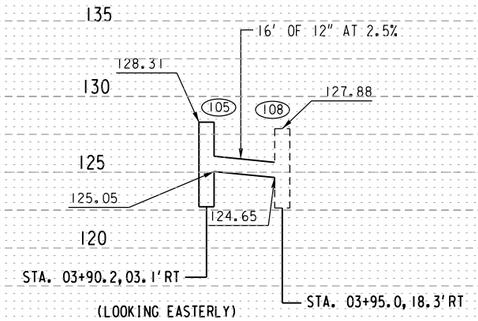
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REVISED DATE: 08-31-2023 BY CZ

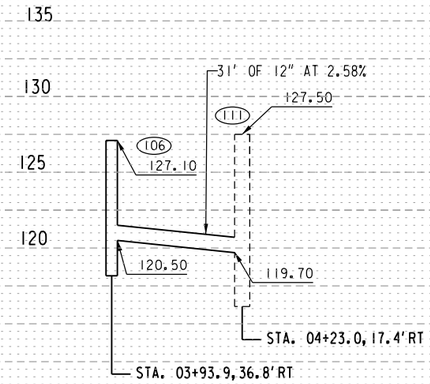
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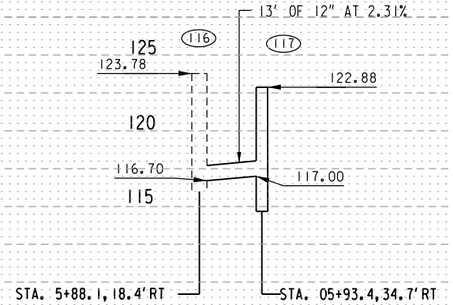



(LOOKING NORTHERLY)




(LOOKING EASTERLY)



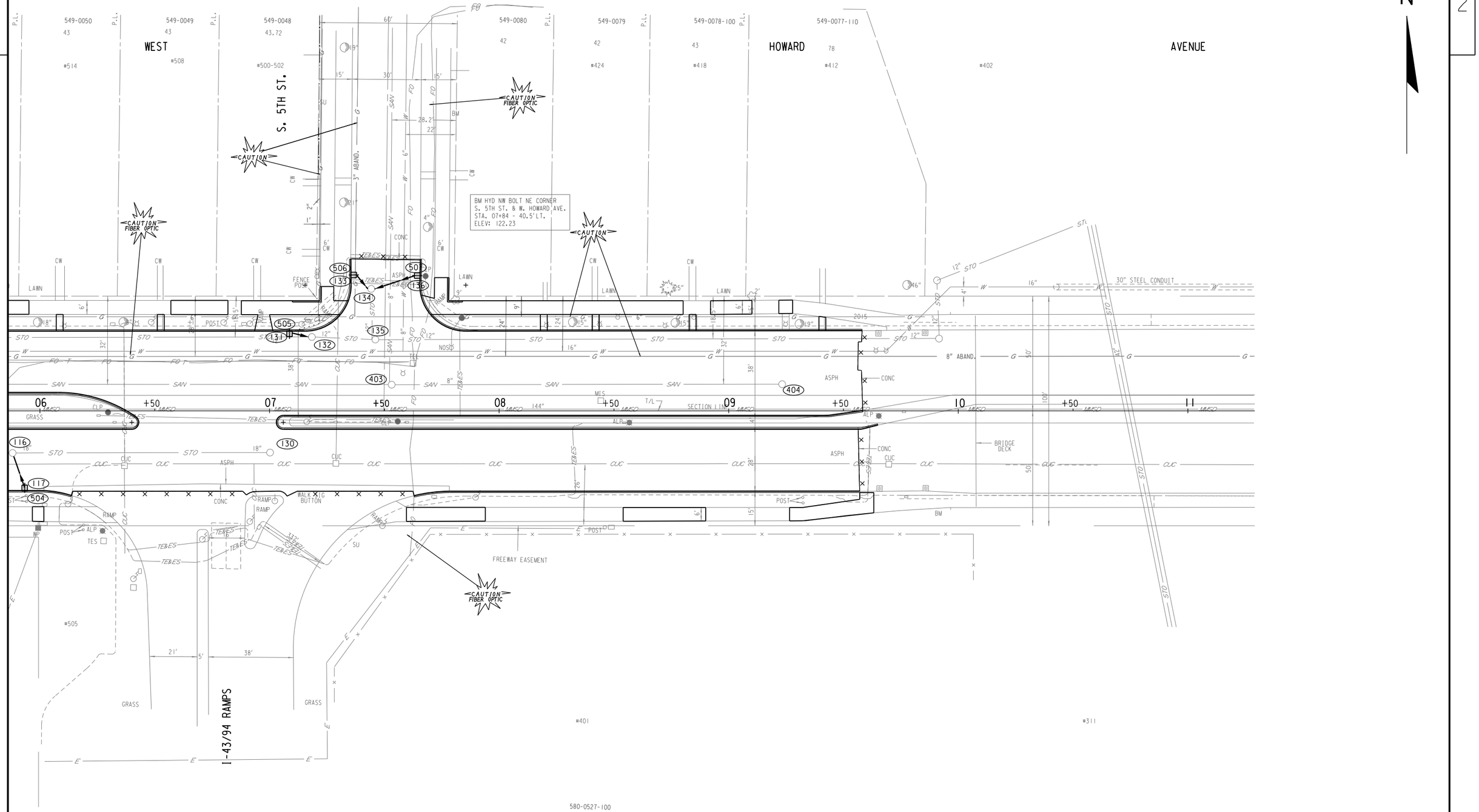




(LOOKING EASTERLY)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 85 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 00-06.DGN

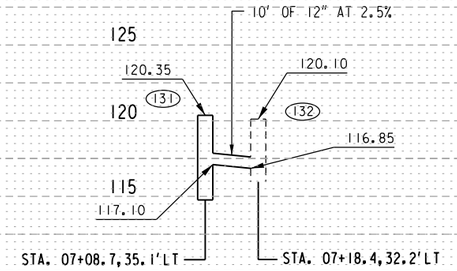
REVISED DATE: 08-29-2023 BY CZ



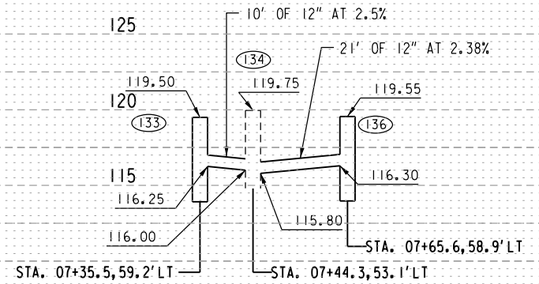

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 86 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 06-11.DGN

REVISED DATE: 08-04-2023 BY SDB

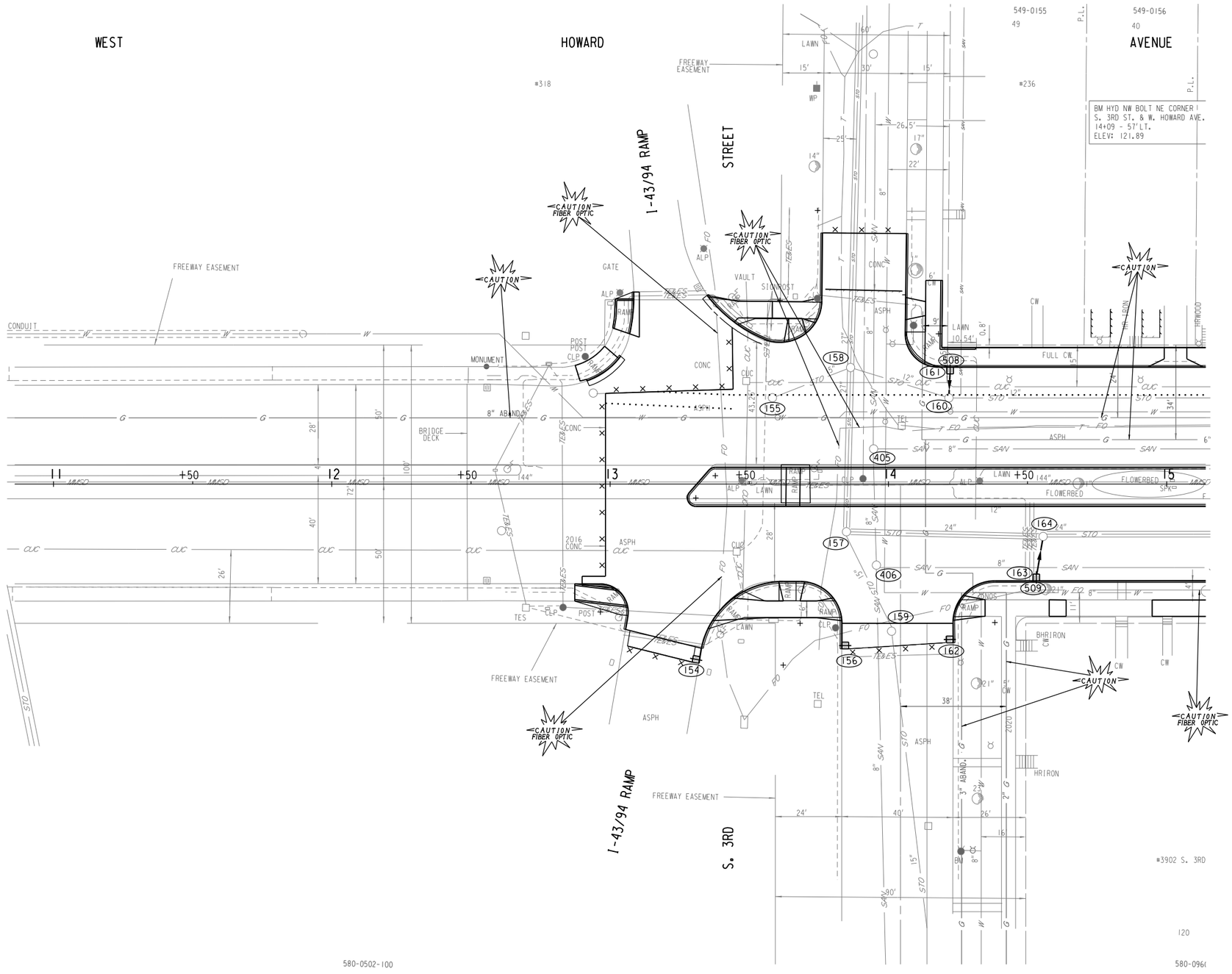



(LOOKING NORTHERLY)

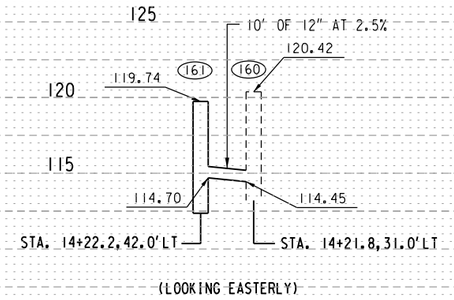


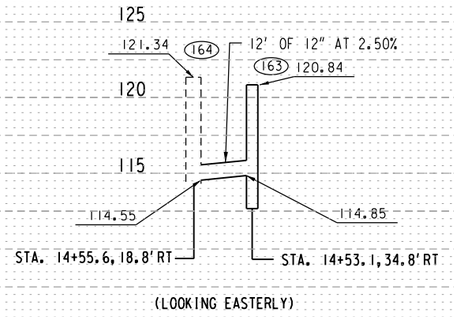

(LOOKING NORTHERLY)

(LOOKING NORTHERLY)

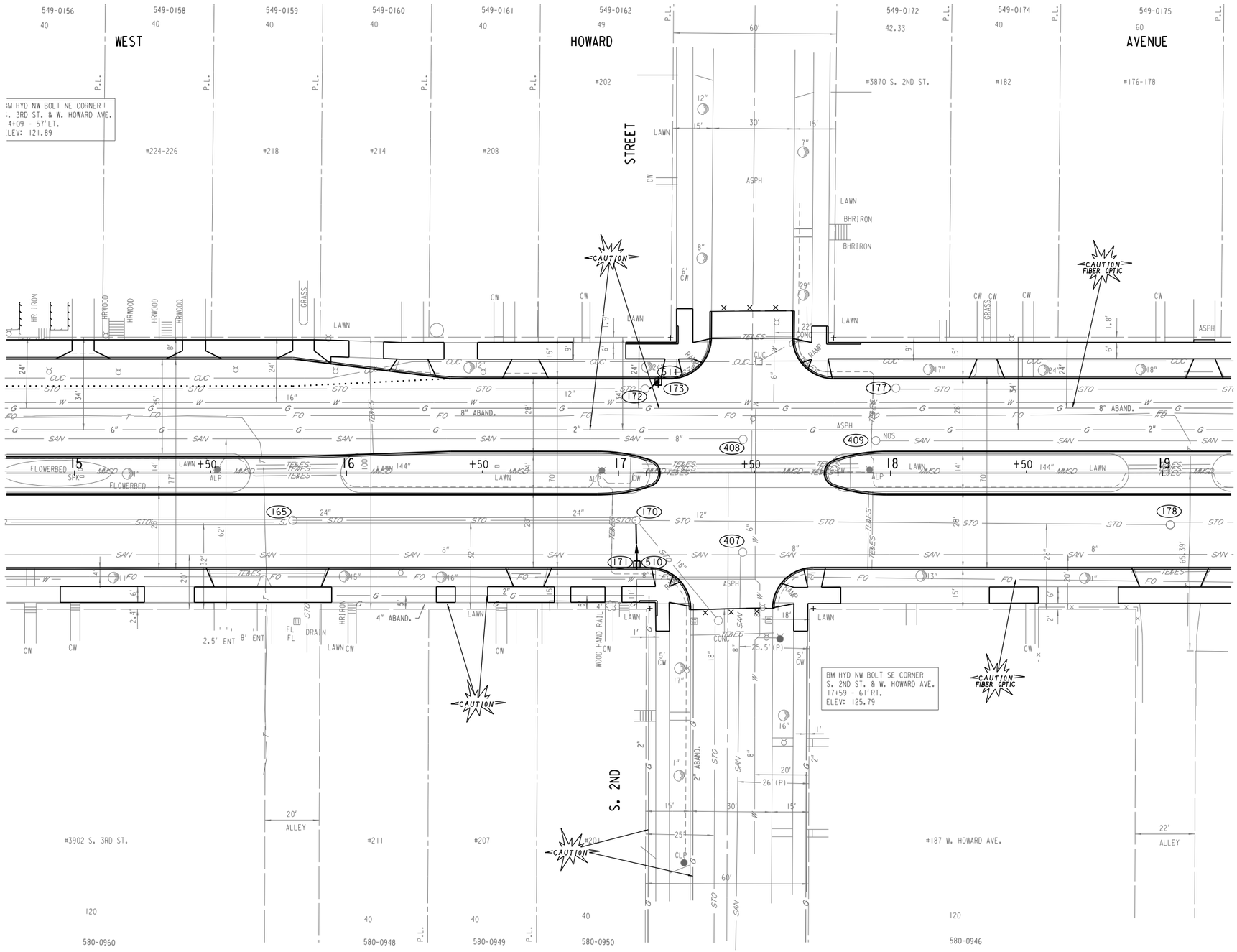

WEST
HOWARD
AVENUE
549-0155
49
549-0156
40
#318
#236
P.L.
BM HYD NW BOLT NE CORNER
S. 3RD ST. & W. HOWARD AVE.
14+09 - 57' LT.
ELEV: 121.89
I-43/94 RAMP
STREET
FREEWAY EASEMENT
CAUTION
FIBER OPTIC
GATE
VAULT
SIGNPOST
CONDUIT
MONUMENT
POST
BRIDGE DECK
8" ABAND.
2016 CONC
ASPH
CONC
LAWN
FLOWERBED
BHRIRON
HRIRON
TEL
TES
FO
ALP
WP
CLP
RAMP
#3902 S. 3RD
580-0502-100
580-096(

2




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 89 | E |
|---|---|---|---|---|---|---|

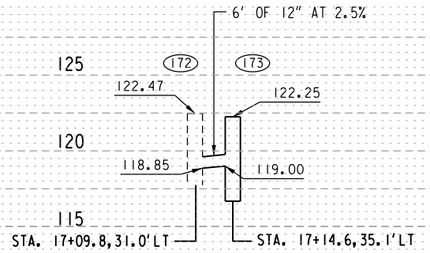



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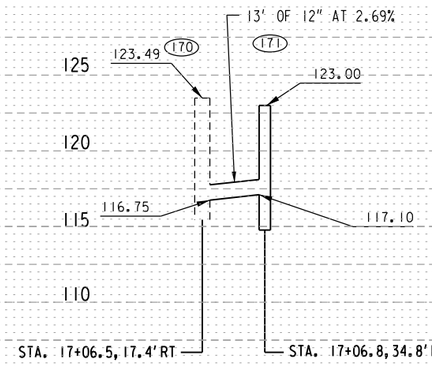
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 90 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 15-19.DGN

REVISED DATE: 08-04-2023 BY SDB




(LOOKING NORTHERLY)




(LOOKING EASTERLY)

2

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 91 | E |
|---|---|---|---|---|---|---|

2

N

549-0175 60 P.L. 549-0176 60 P.L. 549-0177 40 P.L. 549-0178 40 P.L. 549-0179 40 P.L. 549-0180 40 P.L. 549-0181 50 P.L. 549-0182 P.L. 549-0186 37.5 549-2052 80 P.L. 549-0196 40 P.L. 549-0198 40 P.L.

WEST HOWARD AVENUE

#176-178 #170 #168 #164 #156 #150 #142 W. HOWARD AVE. #132 #124 #120

S. IST ST.

CAUTION CAUTION FIBER OPTIC CAUTION CAUTION

WOOD HAND RAIL

ASPH BLOCK LAWN FLOWERBED CONC CUC RAMP GRAVEL 2" ABAND. OVERHEADSIGN

179 191 513 411 199 200 413

19 +50 20 21 +50 22 +50 23 +50 24 +50 25

ALP LAWN FLOWERBED PLANTS

178 193 196 198 206 204 512 190 410 201 515 412

195 194 197 516 202 203 517 205

PATIOBLOCK IRON HAND RAIL CENT. LINK/ LUMEN HH

S. IST PL. S. IST ST.

#3905 S. IST PL. #3912 S. IST PL. #153 W. HOWARD AVE. #3901-03 S. IST ST. #3902 S. IST ST.

22' ALLEY 22' ALLEY

CLP

120 60 60 120 120

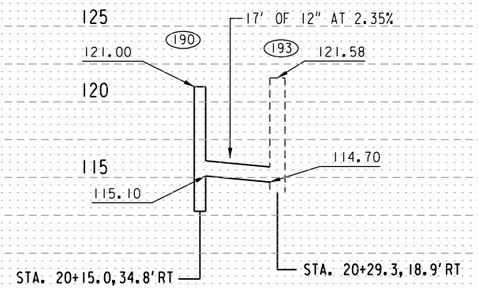
580-0932 580-0928 580-0930 580-0916 580-0914

BM HYD NW BOLT SE CORNER
S. IST ST. & W. HOWARD AVE.
24+03 - 50' RT.
ELEV: 122.66

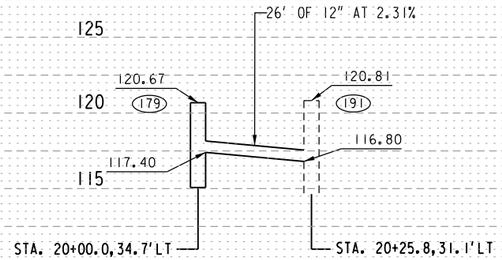
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 92 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 19-25.DGN

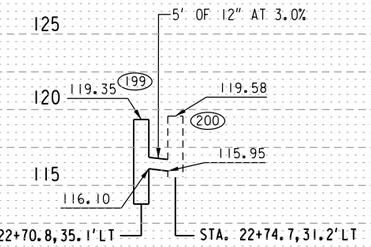
REVISED DATE: 08-04-2023 BY SLB



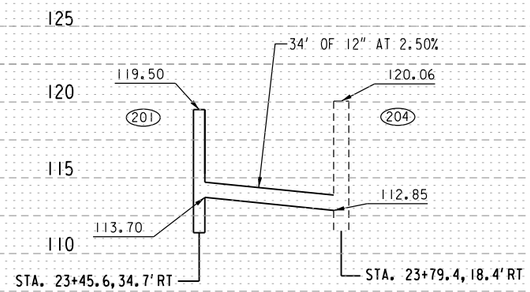

(LOOKING NORTHERLY)



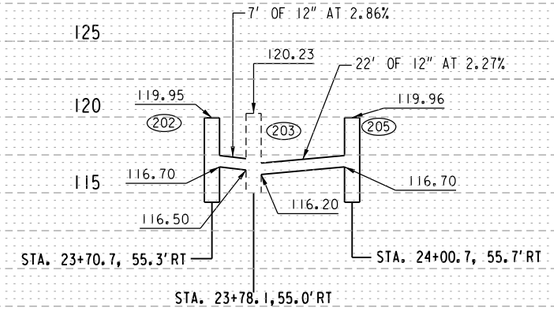

(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING NORTHERLY)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 93 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 19-25.DGN

REVISED DATE: 08-30-2023 BY CZ

2

N

WEST HOWARD AVENUE

EAST HOWARD AVENUE

549-0199
40

549-1245-100
132

548-0022
163

548-0023
207

#116

HOMETOWN GAS STATION
#108 W. HOWARD AVE.

#3870 S. HOWELL AVE.

#3870 S. AUSTIN

20' ALLEY

AVENUE

S. HOWELL

#3915 S. HOWELL AVE.

#3912 S. HOWELL AVE.

#111
45
580-0901

580-0904

22' ALLEY

#203-213

BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.
ELEV: 120.48

187
581-0027-100

147.44
581-9976

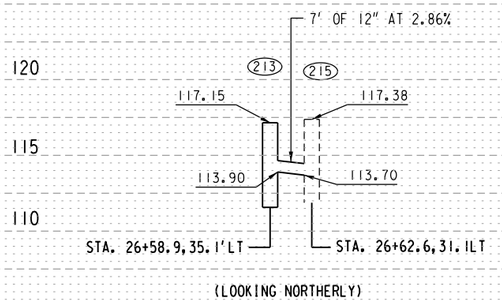
CAUTION FIBER OPTIC

SECTION LINE N88°38'52"E 1317.41'

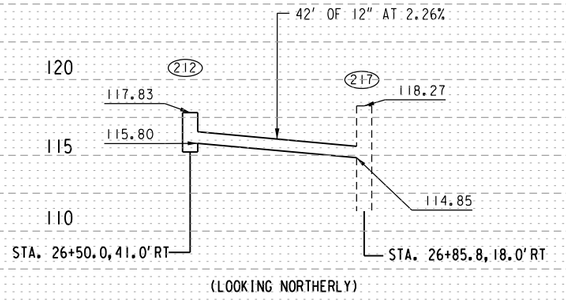
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 94 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 25-31.DGN

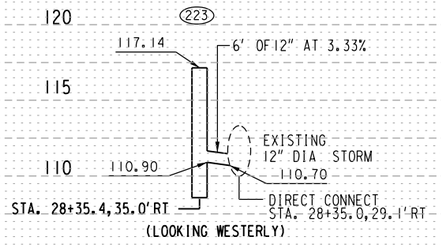
REVISED DATE: 08-11-2023 BY SDB



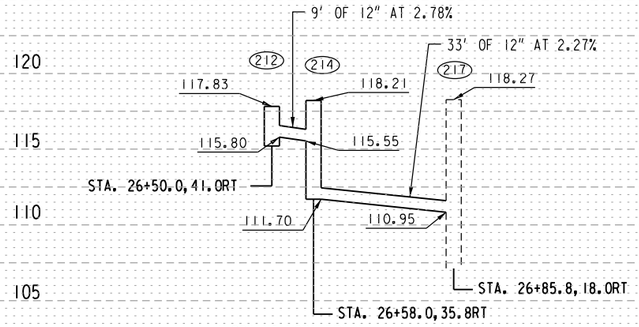

(LOOKING NORTHERLY)



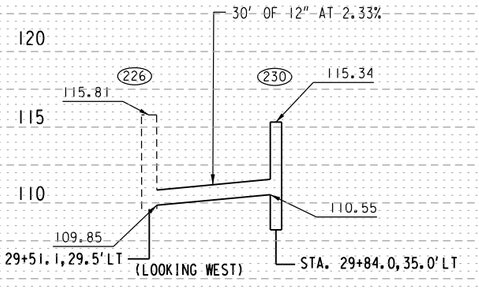

(LOOKING NORTHERLY)




(LOOKING WESTERLY)




(LOOKING NORTHERLY)




(LOOKING WEST)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 95 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 25-31.DGN

REVISED DATE: 08-28-2023 BY CZ

EAST HOWARD AVENUE

N

S. AUSTIN ST.

BM - HYDRANT NE CORNER OF S. AUSTIN ST. AND E. HOWARD AVE. 32+58 - 39.5'LT. ELEV = 116.32

#300 E. HOWARD AVE. | #308 | #316 | #324 | #334-336 | #342 | #348 | #360

548-0081 45.5 | 548-0083 58 | 548-0084 50 | 548-0080 53.5 | 548-0088 60 | 548-0090-10-9 60 | 548-0085 65 | 548-0086 62.53

30' ALLEY

CAUTION | CAUTION FIBER OPTIC

66' | 35.6' | 36' | 22' | 137' | 44' | 25'

246 | 522 | 240 | 243 | 523 | 249 | 251 | 253 | 418 | 419

GRAVEL WALK | STONE-BORDER | WOOD HAND RAIL | IRON HAND RAIL | WOOD FENCE | BUSH | BRICKS | GRAVEL | CONC | WOOD-RAMP | POWERED-RAMP | GAS METER | 2.8' BWS

ASPH BIKE PATH

31 +50 32 +50 33 +50 34 +50 35 +50 36 +50 37

ASPH | 10:1 TAPER | 245 | 244 | 521 | 252 | 524 | 250

CONC DWY | STONE BORDER-FLOWERS | STONE BORDER | ASPH-DWY | FLOWERS | LAWN | 5" FLOWERS | FULL WALK | 4.2' BWS 4.2' BWS 4.2' BWS 4.2' BWS | 7' ENT

CONTROL POINTS

#223 | #231 | #301 | #309 | #319 | #357

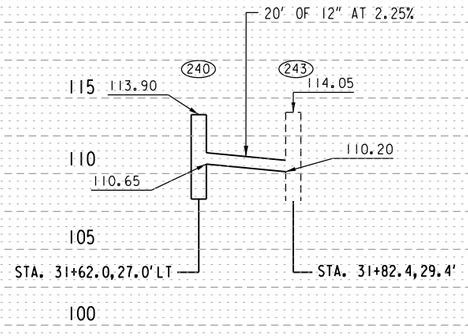
72.58 | 45 | 43.08 | 70 | 65 | 331.31

581-9975 | 581-9973-200 | 581-9973-100 | 581-9972 | 581-9971 | 581-9970

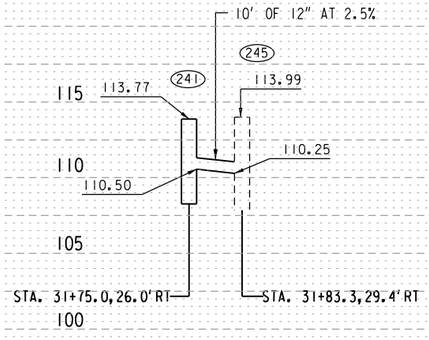
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 96 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 31-37.DGN

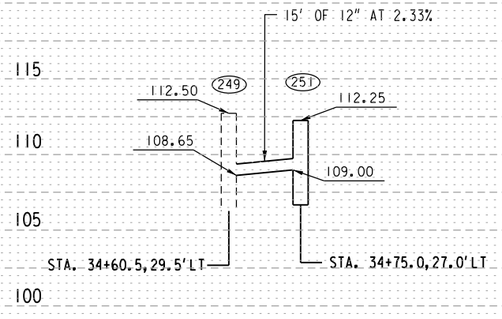
REVISED DATE: 08-04-2023 BY SLB



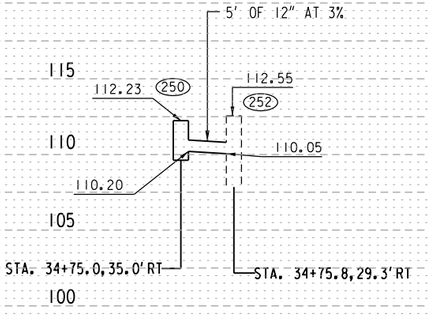

(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING WEST)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 97 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 31-37.DGN

REVISED DATE: 05-11-2023 BY SLB

2

N

EAST AVENUE

HOWARD AVENUE

S. GRIFFIN AVE.

S. WHITNALL AVE.

#3880 S. WHITNALL AVE.

#3902 S. WHITNALL AVE.

548-0086 62.53 #360

548-0505 155.42 #424

548-0905 48.05 #430

548-0906 50 #436

548-0385 60 #446

548-0384 60

BM - HYDRANT NE CORNER OF S. WHITNALL AVE. AND E. HOWARD AVE. 37+98.5 - 52.5'LT. ELEV = 110.14

BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58'LT. ELEV = 104.97

CAUTION FIBER OPTIC

CAUTION

CONTROL POINTS

| | | | | | |
|---|---|---|---|---|---|
| #419 | #423-425 | #431 | #437 | #441 | #445 |
| 40 | 40 | 40 | 40 | 40 | 40 |
| 581-9983 | 581-9984 | 581-9985 | 581-9986 | 581-9988 | 581-9989 |

| | | |
|---|---|---|
| #449 | #455 | #459 |
| 40 | 40 | 40 |
| 581-9990 | 581-9991 | 581-9992 |

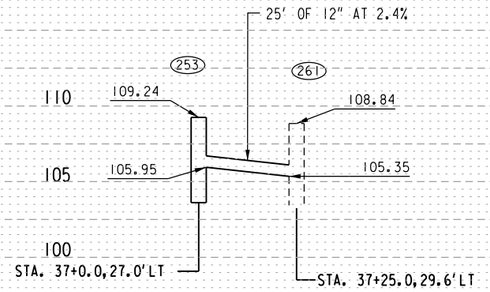
113.89

581-9982

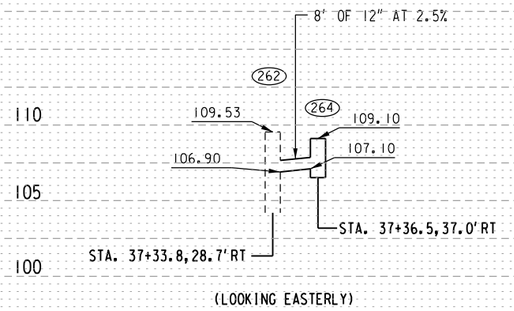
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 98 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 37-43.DGN

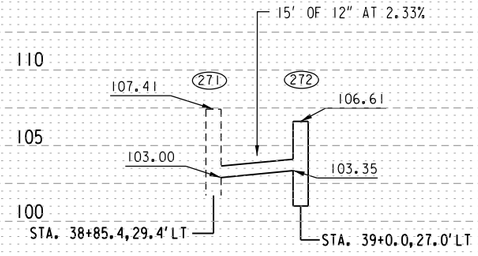
REVISED DATE: 08-04-2023 BY SLB



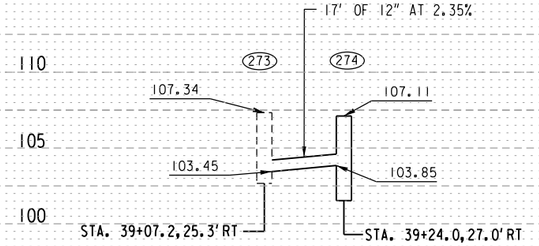

(LOOKING NORTHERLY)



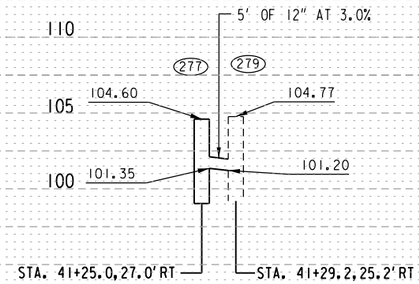

(LOOKING EASTERLY)



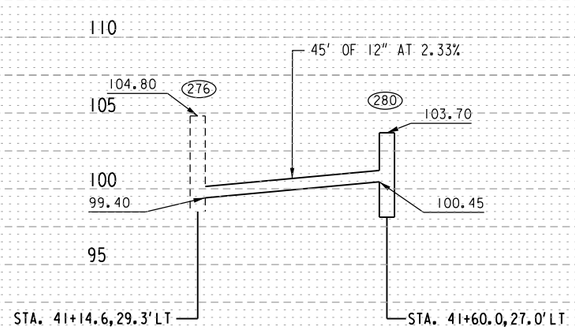

(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING NORTHERLY)




(LOOKING NORTHERLY)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 99 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 37-43.DGN

REVISED DATE: 05-11-2023 BY SLB

2

N

548-0364
172.13

548-0365-210
40.24

548-1101
908.35

EAST HOWARD AVENUE

#3884 S. GRIFFIN AVE.

WOODLAWN CEMETARY
#614

BM - HYDRANT NE CORNER
OF S. GRIFFIN AVE.
AND E. HOWARD AVE.
STA. 42+37 - 58'LT.
ELEV = 104.97

43 +50 44 +50 45 +50 46 +50 47 +50 48 +50 49

291 294 531 533 299 534 301 305 423 424 425 300 303 306 290 296 530 532 535

WOOD-CHIP

#467 50 581-9993

#473-475 71.27 581-0701

WE ENERGIES EASEMENT

#502 E. HOWARD AVE. 40

#501-503 44.73 581-0702

#507 48 581-0703

#515 48 581-0704

#521 48 581-0705

#529 60 581-9994

#535 68 581-9995-0

#545 50 581-9996

#603 50 581-9998

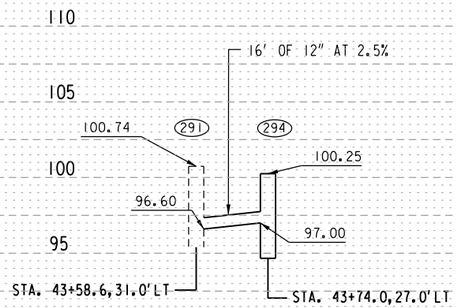
#611 50 581-9999

CAUTION

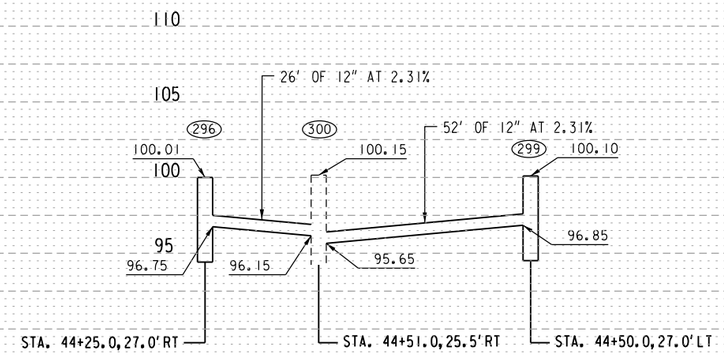
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 100 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 43-49 .DGN

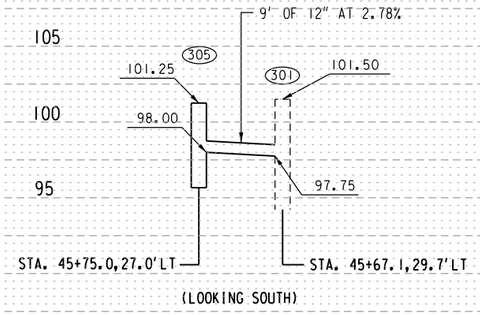
REVISED DATE: 04-25-2023 BY SLB




(LOOKING NORTHERLY)




(LOOKING NORTH) (LOOKING WEST)




(LOOKING SOUTH)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 101 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 43-49 .DGN

REVISED DATE: 05-11-2023 BY SLB

2

EAST HOWARD AVENUE

AVENUE

N

547-0917
44.56

547-0916
44.56

#808

#802

STANDARD BM - NW CORNER
OF S. PINE AVE.
AND E. HOWARD AVE.
53+76 - 60'LT.
ELEV - 95.94

BW HYD NW BOLT NEC
S. PINE AVE. &
E. HOWARD AVE.
54+32 - 38'LT.
ELEV: 97.80

BM - HYDRANT SE CORNER
OF S. TAYLOR AVE.
AND E. HOWARD AVE.
51+39 - 65'RT.
ELEV - 100.46

S. TAYLOR AVE.

S. PINE

#3905 S. PINE AVE.

#3904 S. TAYLOR AVE.

#611

#801

#809

CAUTION

CONTROL POINTS

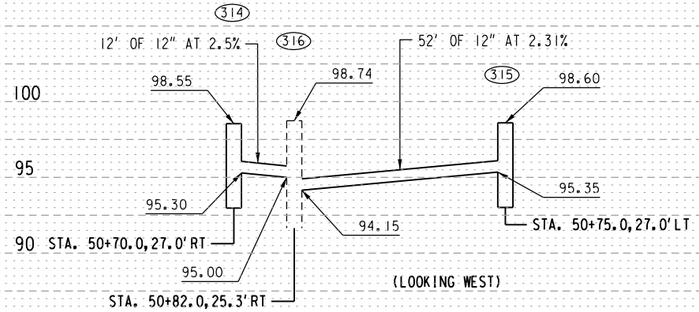
49 +50 50 +50 51 +50 52 +50 53 +50 54 +50 55

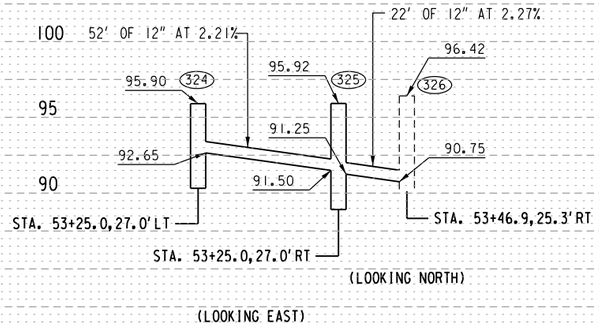
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 102 | E |
|---|---|---|---|---|---|---|

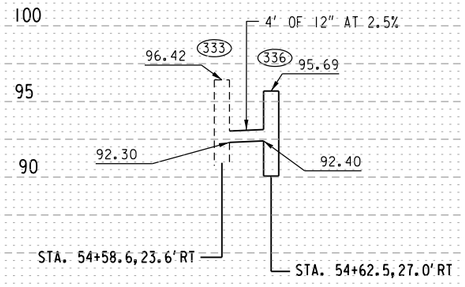
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 49-55.DGN

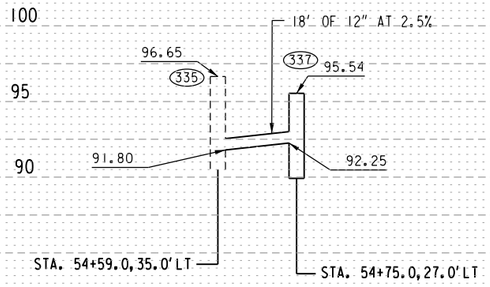
REVISED DATE: 04-25-2023 BY SLB

2




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 103 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 49-55.DGN

REVISED DATE: 05-11-2023 BY SLB

2

N

EAST HOWARD AVENUE

STREET

AVENUE

S. LENOX

S. LOGAN

CAUTION

CAUTION FIBER OPTIC

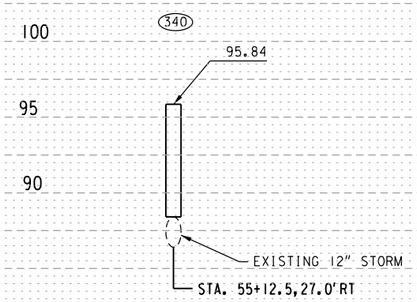
BM HYD NW BOLT SW CORNER
S. LENOX ST & E. HOWARD AVE.
57+10-50'RT.
ELEV: 99.46

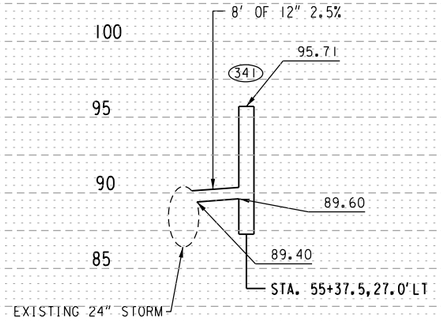
BM HYD NW BO
S. LOGAN AVE
60+75.5 - 5
ELEV: 103.0

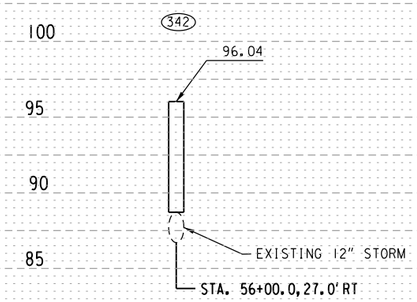
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 104 | E |
|---|---|---|---|---|---|---|

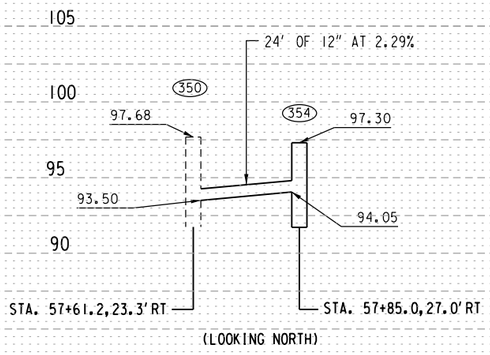
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 55-61.DGN

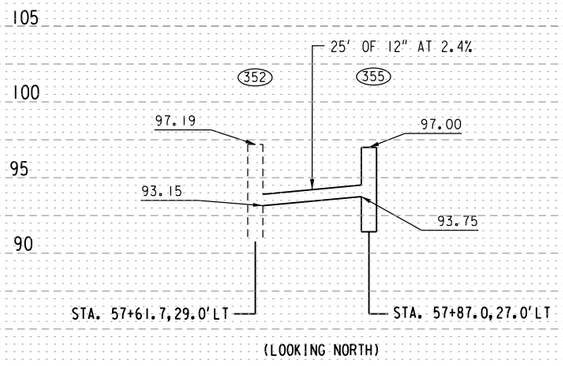
REVISED DATE: 08-04-2023 BY SLB




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 105 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 55-61.DGN

REVISED DATE: 05-11-2023 BY SLB

2

N

EAST HOWARD AVENUE

STREET

S. HERMAN

#3875 S. CLEMENT AVE.

BM HYD NW BOLT NE CORNER
S. LOGAN AVE. & E. HOWARD AVE.
60+75.5 - 50' LT.
ELEV: 103.01

BM HYD NW BOLT SW CORNER
S. HERMAN ST. & E. HOWARD AVE
63+75.5 -49.5' RT.
ELEV: 102.98

BM HYD NW B
S. CLEMENT
E. HOWARD A
67+51 - 57.
ELEV: 94.63

CAUTION FIBER OPTIC

CAUTION

547-0339 30 #1000-1002
547-0338 30 #1006
547-0337 45 #1010
547-0335 45 #1016
547-0334-110 60 #1022
547-0332-100 60 #1030
547-0354 40 #1100
547-0353 40 #1106
547-0352 40 #1112
547-0347-121 35 #1116
547-0347-111 127

582-9981 582-9983 582-1246-100 582-1245 582-1214-100 582-1214-100 582-1215-100 582-1217 582-1218 582-1219 582-9986

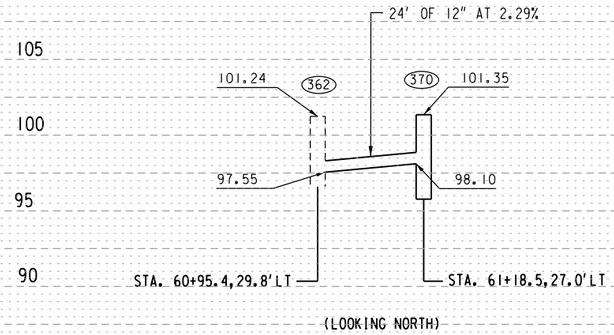
#1001 #1013 #1019 #1027 #1031 #1107 #1111 #1115 #1121 #1127

58 65.31 61.76 30 60 47 42.38 42 42 42 48

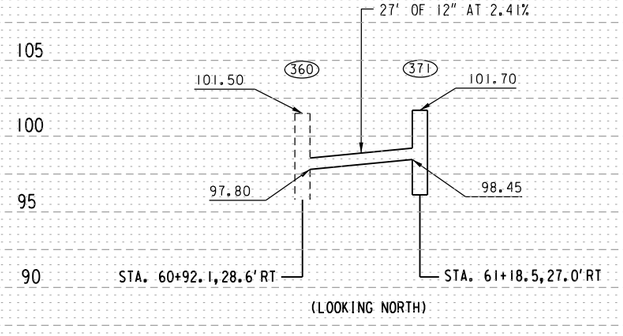
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 106 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 61-67.DGN

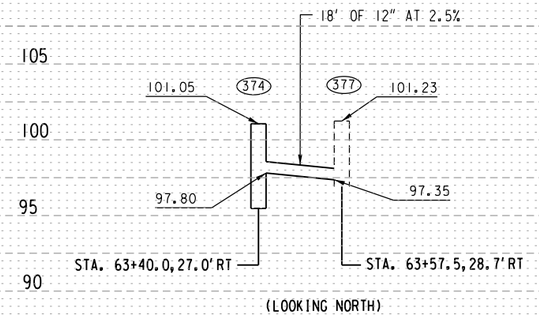
REVISED DATE: 08-04-2023 BY SDB



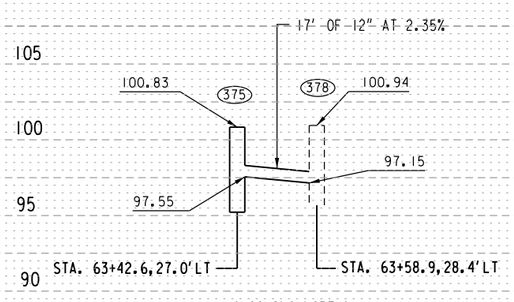

(LOOKING NORTH)




(LOOKING NORTH)




(LOOKING NORTH)




(LOOKING NORTH)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 107 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 61-67.DGN

REVISED DATE: 05-11-2023 BY SLB

2

N

EAST HOWARD AVENUE

AVENUE

547-0501-100-4
120

547-0502
45

30' ALLEY

#1200 E. HOWARD AVE.

#1224

FIBER OPTIC

CAUTION

FIBER OPTIC

END PROJECT
STA. 69+75.6 T/L
Y. = 362,005.16
X. = 2,563,689.63

BM HYD NW BOLT SW COR.
S. CLEMENT AVE. &
E. HOWARD AVE.
67+51 - 57.5'RT.
ELEV: 94.63

S. CLEMENT

#1141

#1213

47.61
582-1201

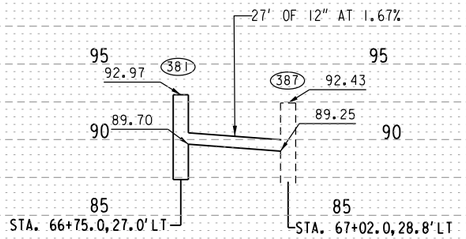
159.91
582-9987-100

30
582-9988

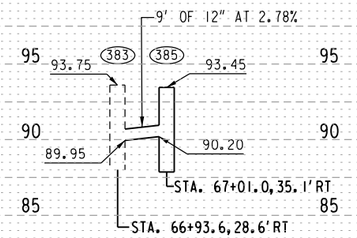
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | UTILITIES | SCALE FEET 0' 40' | SHEET NO: 108 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\UTIL 67-69.DGN

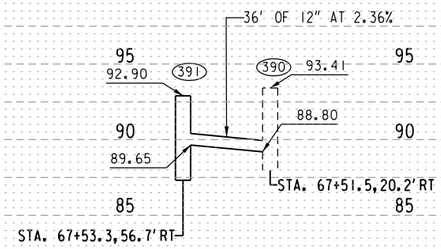
REVISED DATE: 08-04-2023 BY SLB



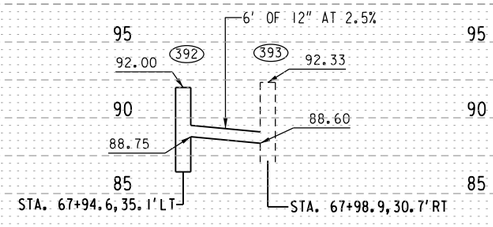

(LOOKING NORTH)



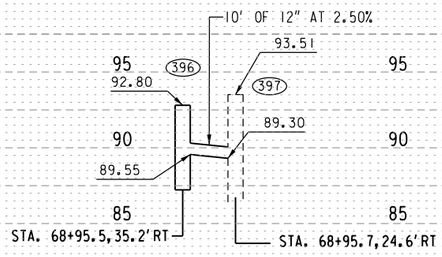

(LOOKING NORTHEAST)




(LOOKING NORTH)




(LOOKING NORTHEAST)




(LOOKING SOUTHERLY)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | DRAINAGE PROFILES | SCALE FEET | SHEET NO: 109 | E |
|---|---|---|---|---|---|---|

2

LEGEND

TYPE II / III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

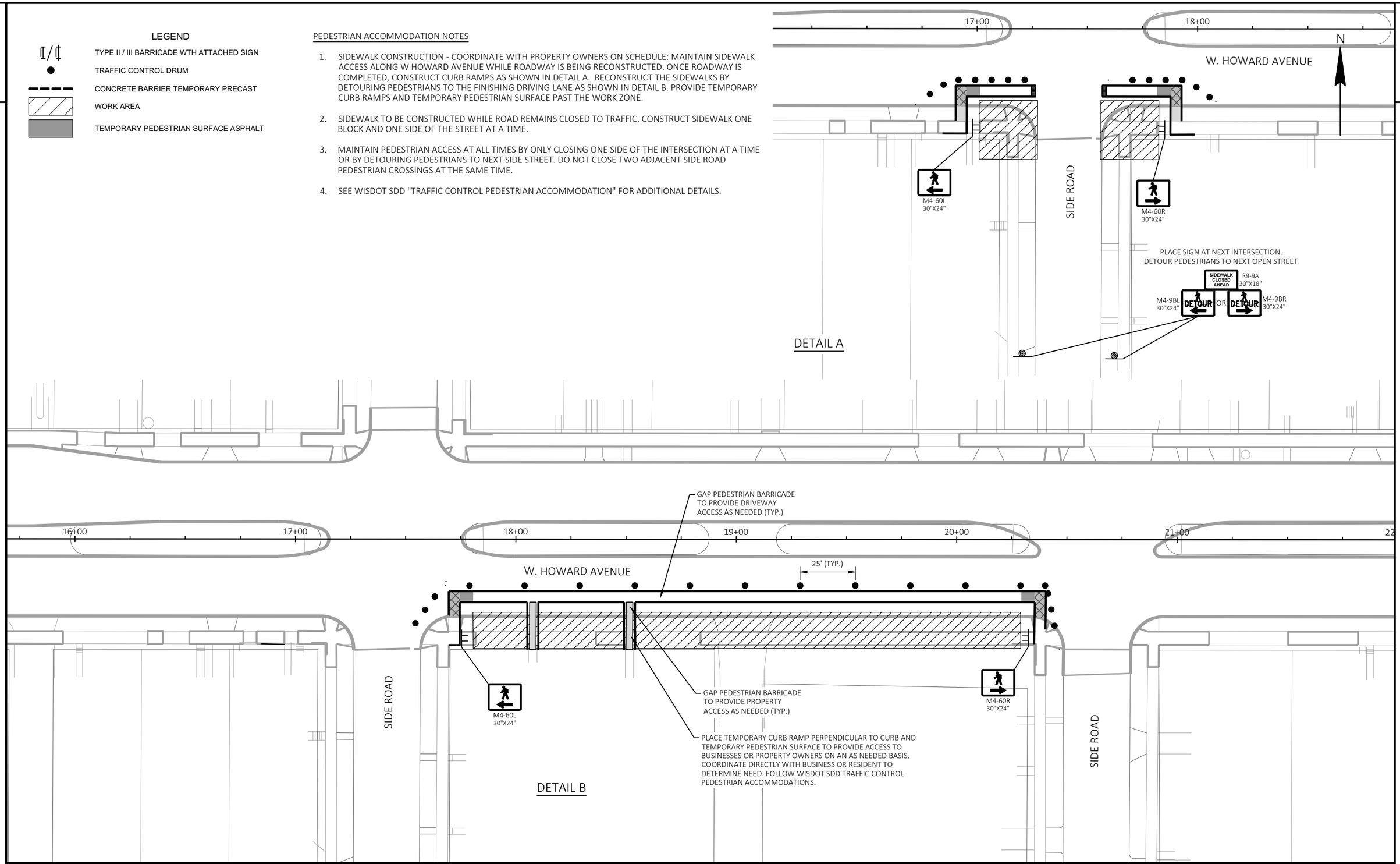
CONCRETE BARRIER TEMPORARY PRECAST

WORK AREA

TEMPORARY PEDESTRIAN SURFACE ASPHALT

PEDESTRIAN ACCOMMODATION NOTES

1. SIDEWALK CONSTRUCTION - COORDINATE WITH PROPERTY OWNERS ON SCHEDULE: MAINTAIN SIDEWALK ACCESS ALONG W HOWARD AVENUE WHILE ROADWAY IS BEING RECONSTRUCTED. ONCE ROADWAY IS COMPLETED, CONSTRUCT CURB RAMPS AS SHOWN IN DETAIL A. RECONSTRUCT THE SIDEWALKS BY DETOURING PEDESTRIANS TO THE FINISHING DRIVING LANE AS SHOWN IN DETAIL B. PROVIDE TEMPORARY CURB RAMPS AND TEMPORARY PEDESTRIAN SURFACE PAST THE WORK ZONE.
2. SIDEWALK TO BE CONSTRUCTED WHILE ROAD REMAINS CLOSED TO TRAFFIC. CONSTRUCT SIDEWALK ONE BLOCK AND ONE SIDE OF THE STREET AT A TIME.
3. MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES BY ONLY CLOSING ONE SIDE OF THE INTERSECTION AT A TIME OR BY DETOURING PEDESTRIANS TO NEXT SIDE STREET. DO NOT CLOSE TWO ADJACENT SIDE ROAD PEDESTRIAN CROSSINGS AT THE SAME TIME.
4. SEE WISDOT SDD "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL DETAILS.




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | SIDEWALK CLOSURE CONSTRUCTION DETAIL FOR AREAS NOT ADJACENT TO BIKE PATH | SHEET 110 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-CD.DWG
LAYOUT NAME - 025101_tc

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

TYPE II / III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

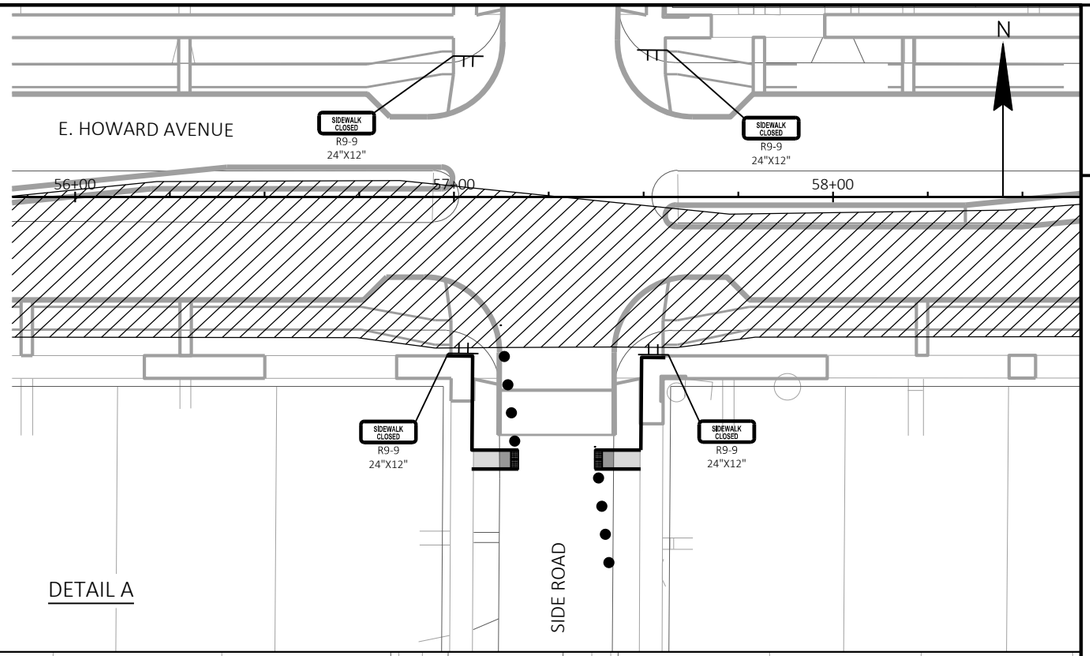
CONCRETE BARRIER TEMPORARY PRECAST

WORK AREA

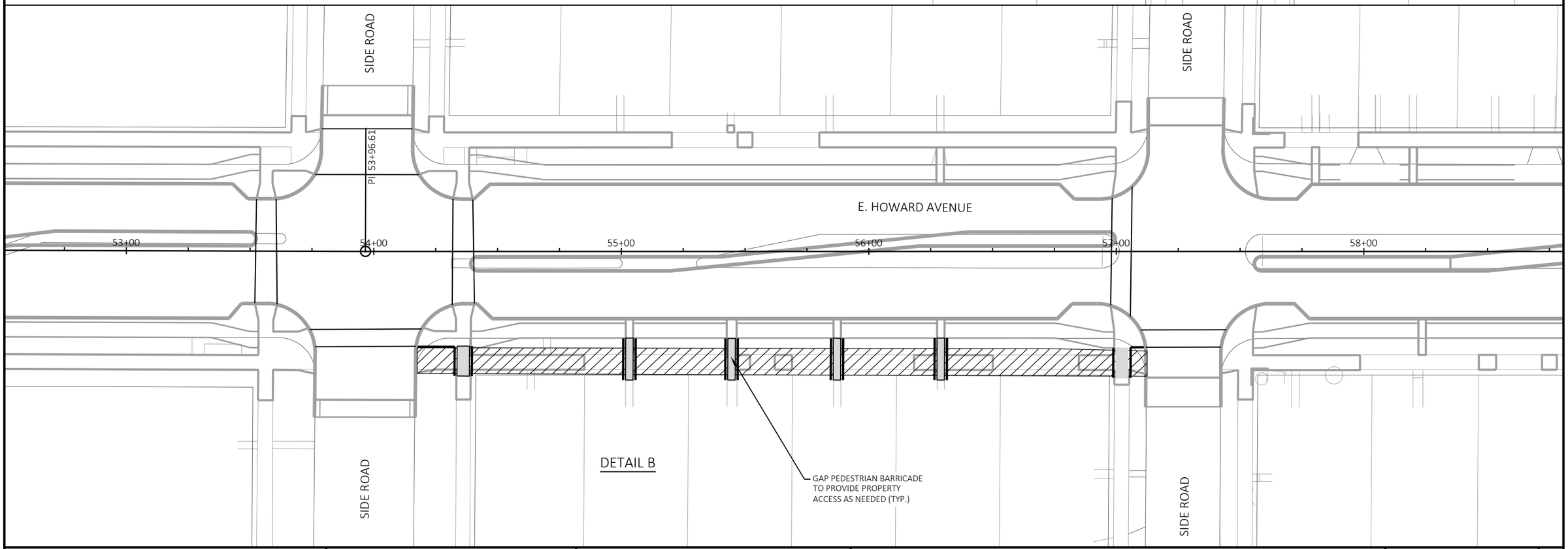
TEMPORARY PEDESTRIAN SURFACE ASPHALT

PEDESTRIAN ACCOMMODATION NOTES

1. SIDEWALK CONSTRUCTION - COORDINATE WITH PROPERTY OWNERS ON SCHEDULE: MAINTAIN SIDEWALK ACCESS ALONG E HOWARD AVENUE WHILE ROADWAY AND BIKE LANE ARE BEING RECONSTRUCTED AS SHOWN IN DETAIL A. ONCE ROADWAY IS COMPLETED, RECONSTRUCT THE SIDEWALKS BY DETOURING PEDESTRIANS TO THE FINISHING BIKE LANE AS SHOWN IN DETAIL B. PROVIDE TEMPORARY CURB RAMPS AND TEMPORARY PEDESTRIAN SURFACE PAST THE WORK ZONE.
2. MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES BY ONLY CLOSING ONE SIDE OF THE INTERSECTION AT A TIME OR BY DETOURING PEDESTRIANS TO NEXT SIDE STREET. DO NOT CLOSE TWO ADJACENT SIDE ROAD PEDESTRIAN CROSSINGS AT THE SAME TIME.
3. SEE WISDOT SDD "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL DETAILS.




DETAIL A




DETAIL B

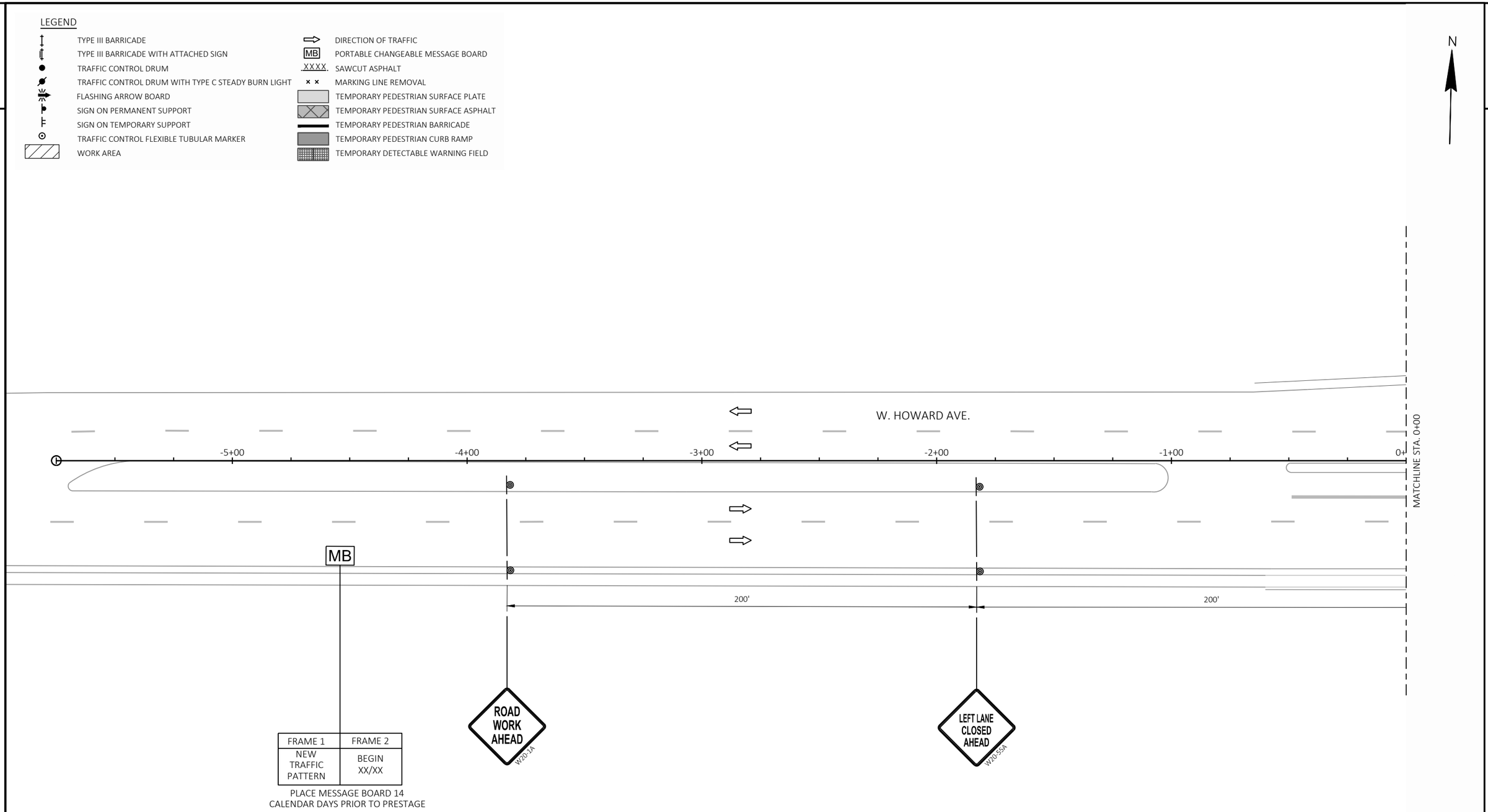
| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | SIDEWALK CLOSURE CONSTRUCTION DETAIL FOR AREAS ADJACENT TO BIKE PATH | SHEET 111 | E |
|---|---|---|---|---|---|


FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-CD.DWG
LAYOUT NAME - 025102_tc
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |




PLACE MESSAGE BOARD 14 CALENDAR DAYS PRIOR TO PRESTAGE

2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 112 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

500'

S. 6TH ST.

W. HOWARD AVE.

S. 5TH PL.

PLACE SIGN AT W SAVELAND AVE INTERSECTION

MATCHLINE STA. 0+00

MATCHLINE STA. 5+50

00 1+00 2+00 3+00 4+00 5+00

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

25' TYP.

200'

180' TAPER

LANE CLOSED
R11-2L
48"X30"

W4-2L
36"X36"

S. 6TH ST.

S. 5TH PL.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT W NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT W NORWICH STREET INTERSECTION

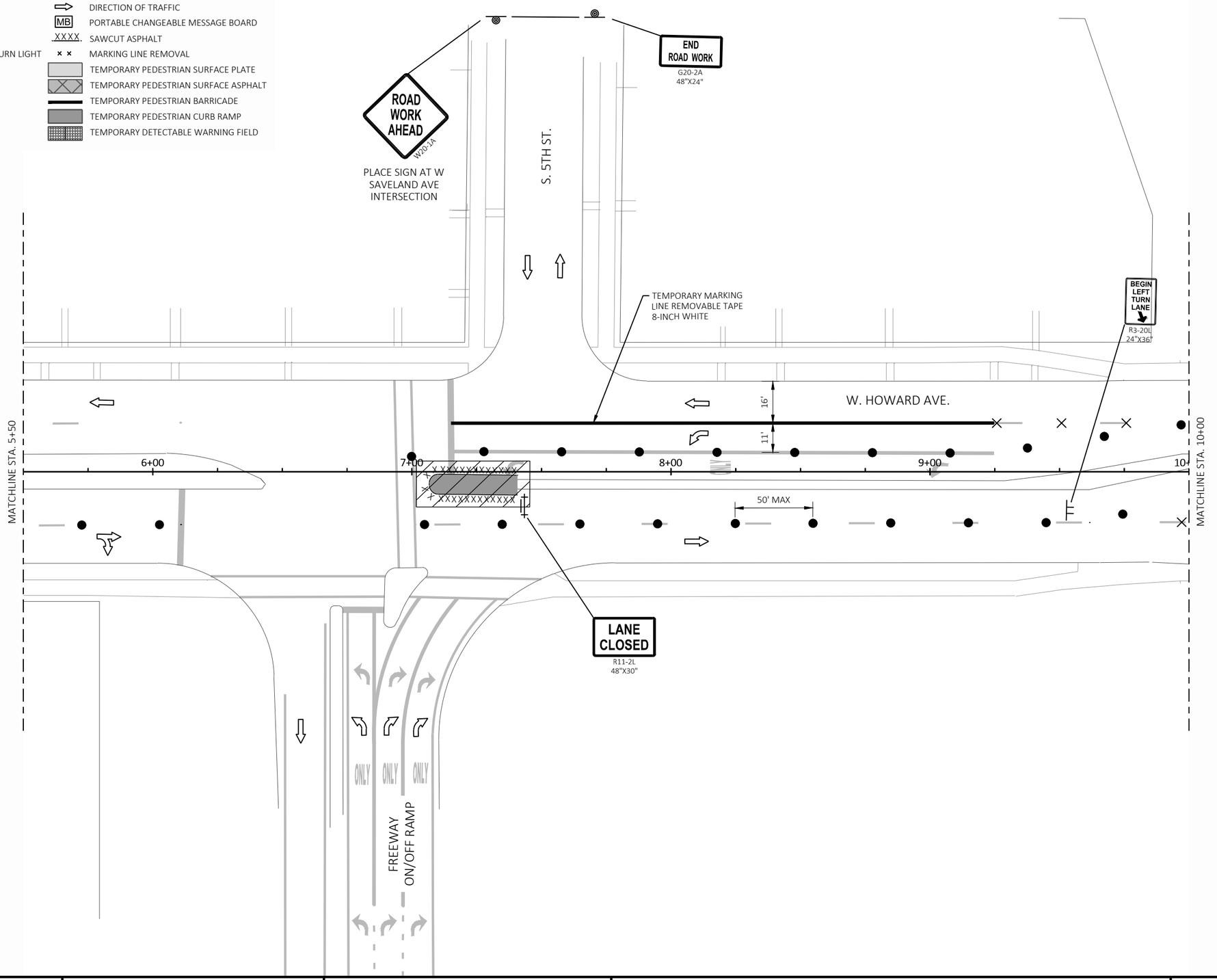
| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 113 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD



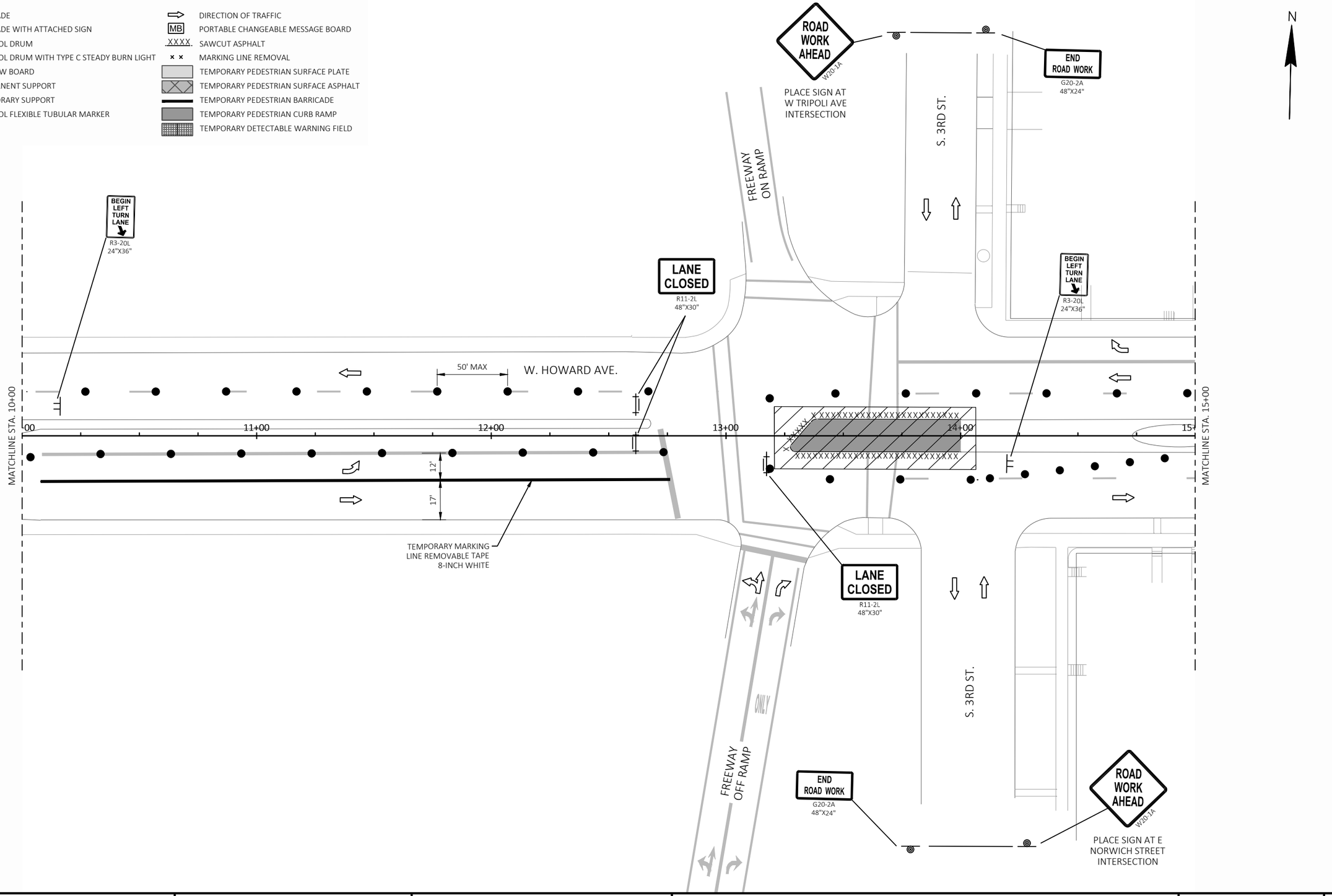

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 114 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD



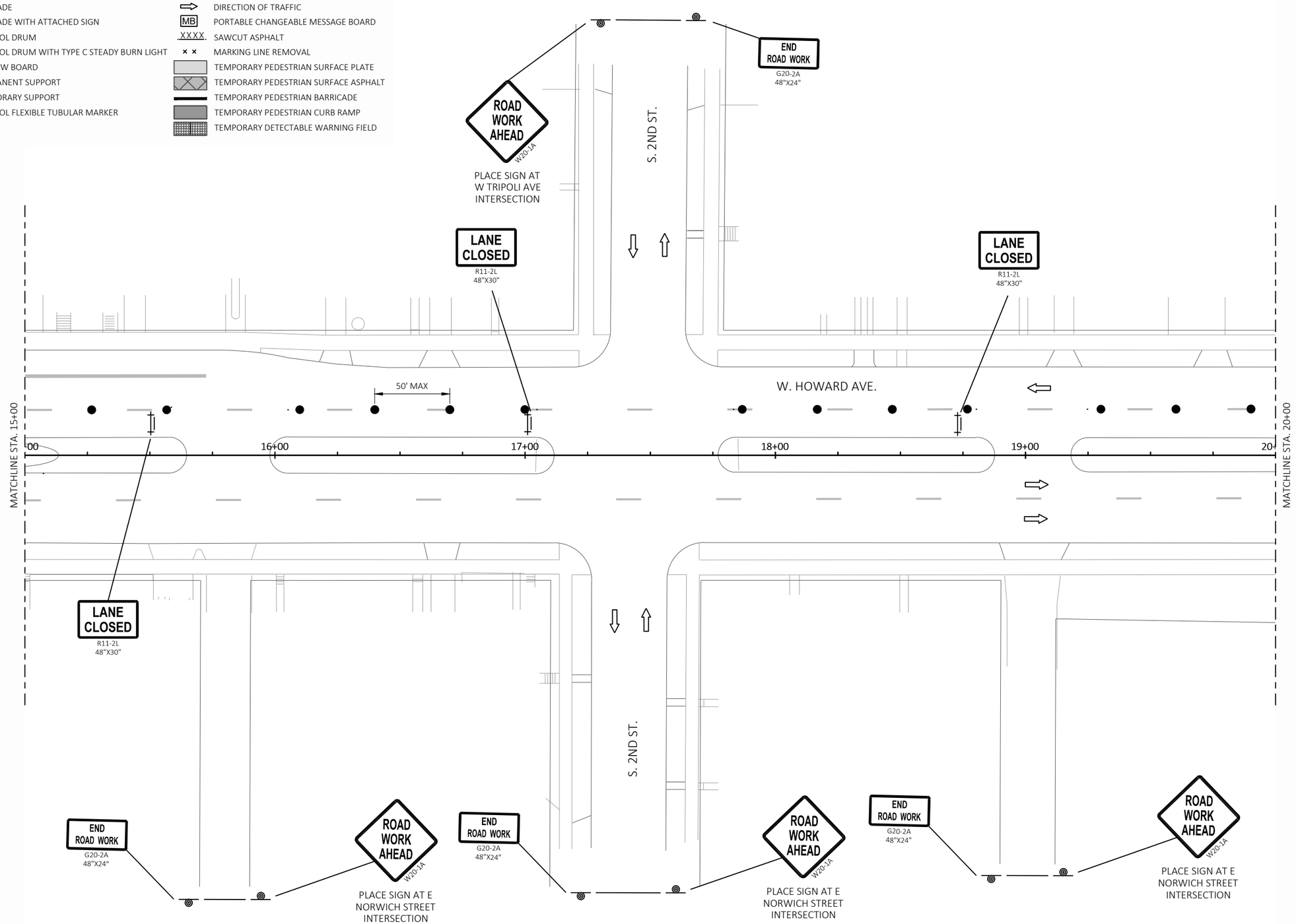

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 115 | E |
|---|---|---|---|---|---|

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 116 | E |
|---|---|---|---|---|---|

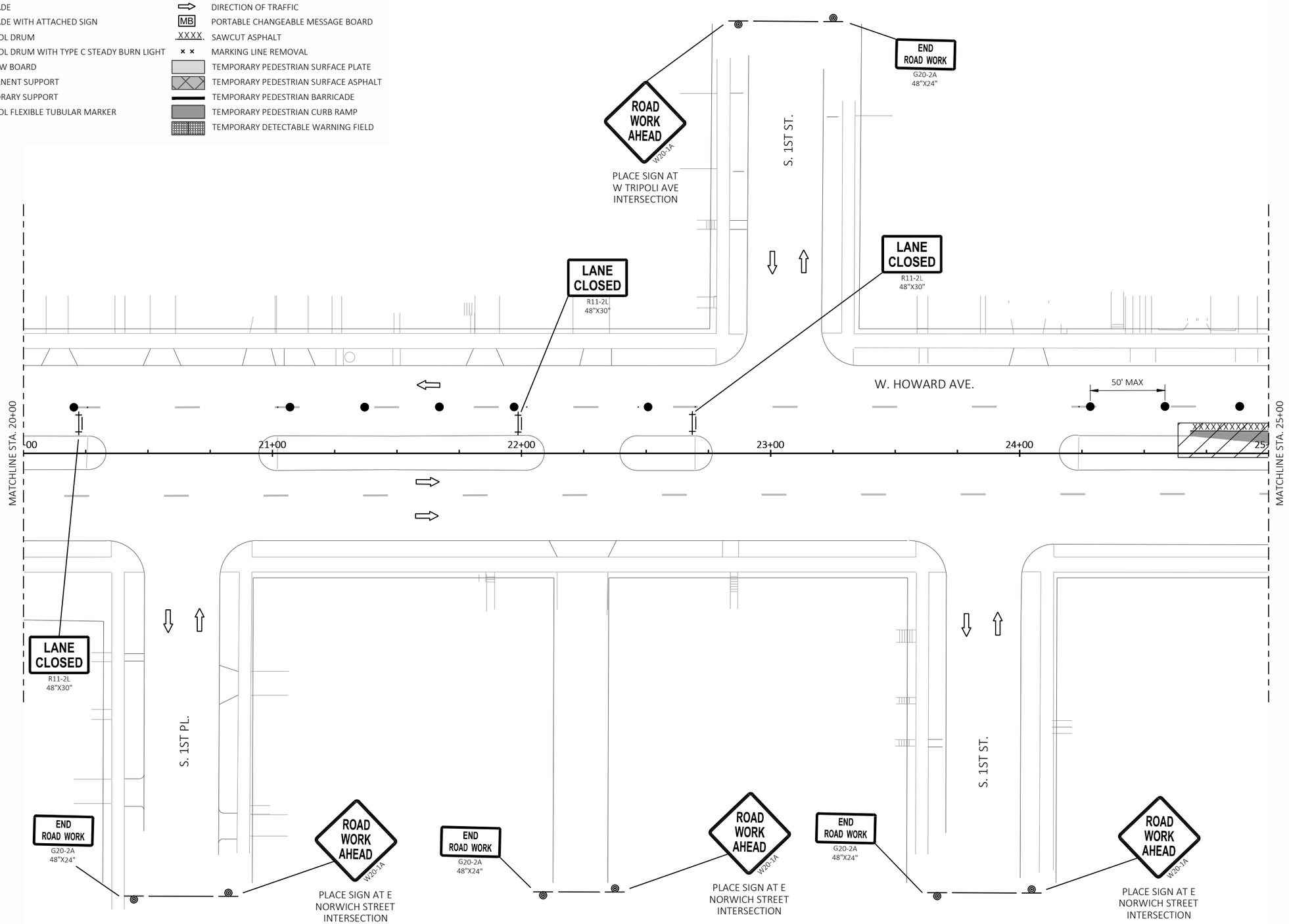
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 117 | E |
|---|---|---|---|---|---|

2

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

S. HOWELL AVE.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

N

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING
LINE REMOVABLE TAPE
8-INCH WHITE

BEGIN LEFT TURN LANE
R3-20L
24"X36"

50' MAX

E. HOWARD AVE.

19'

11'

MATCHLINE STA. 25+00

00

26+00

27+00

28+00

29+00

30

MATCHLINE STA. 30+00

W. HOWARD AVE.

ONLY

ONLY

S. HOWELL AVE.

ONLY

ONLY

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

LEGEND

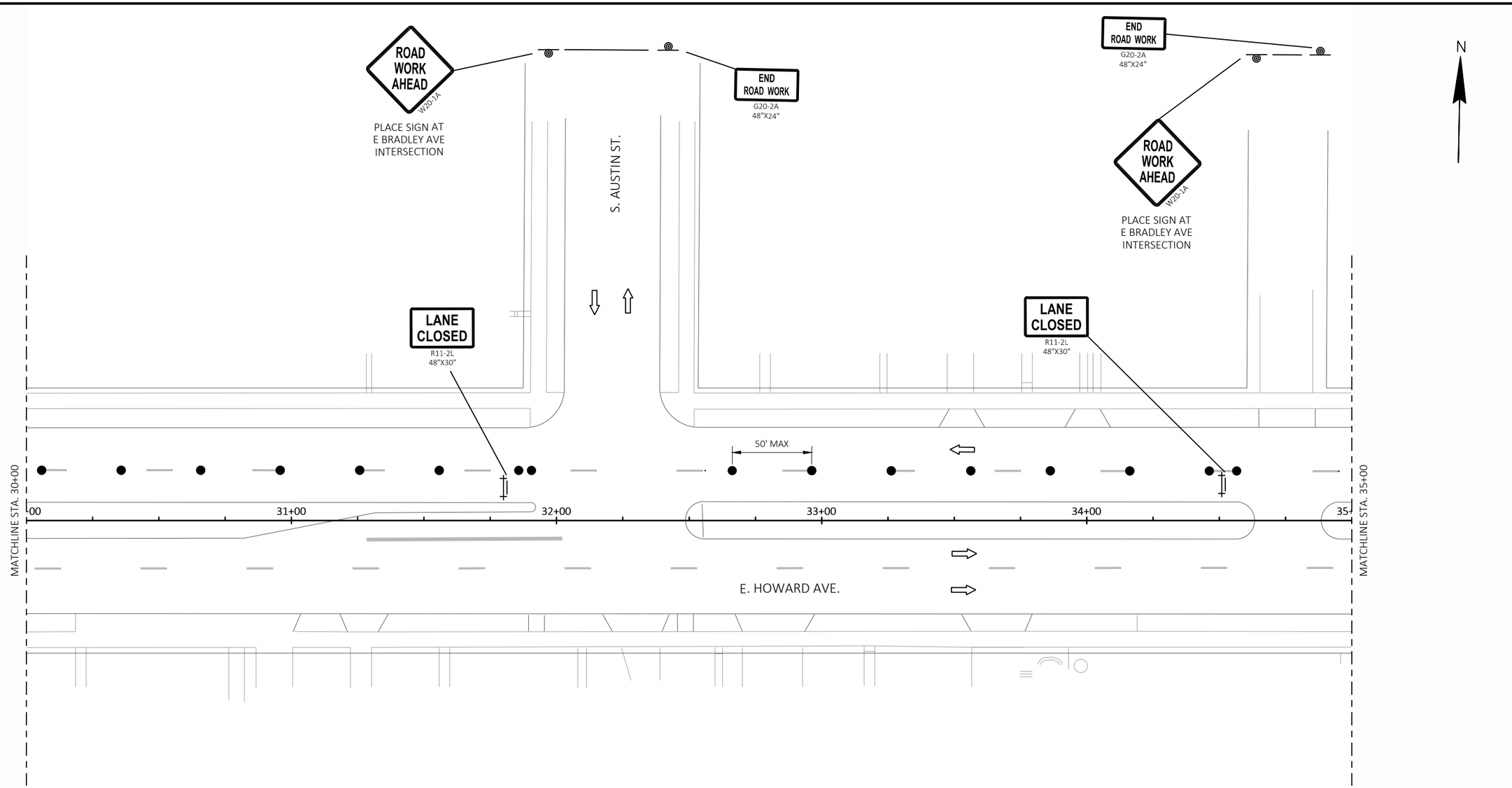
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 118 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



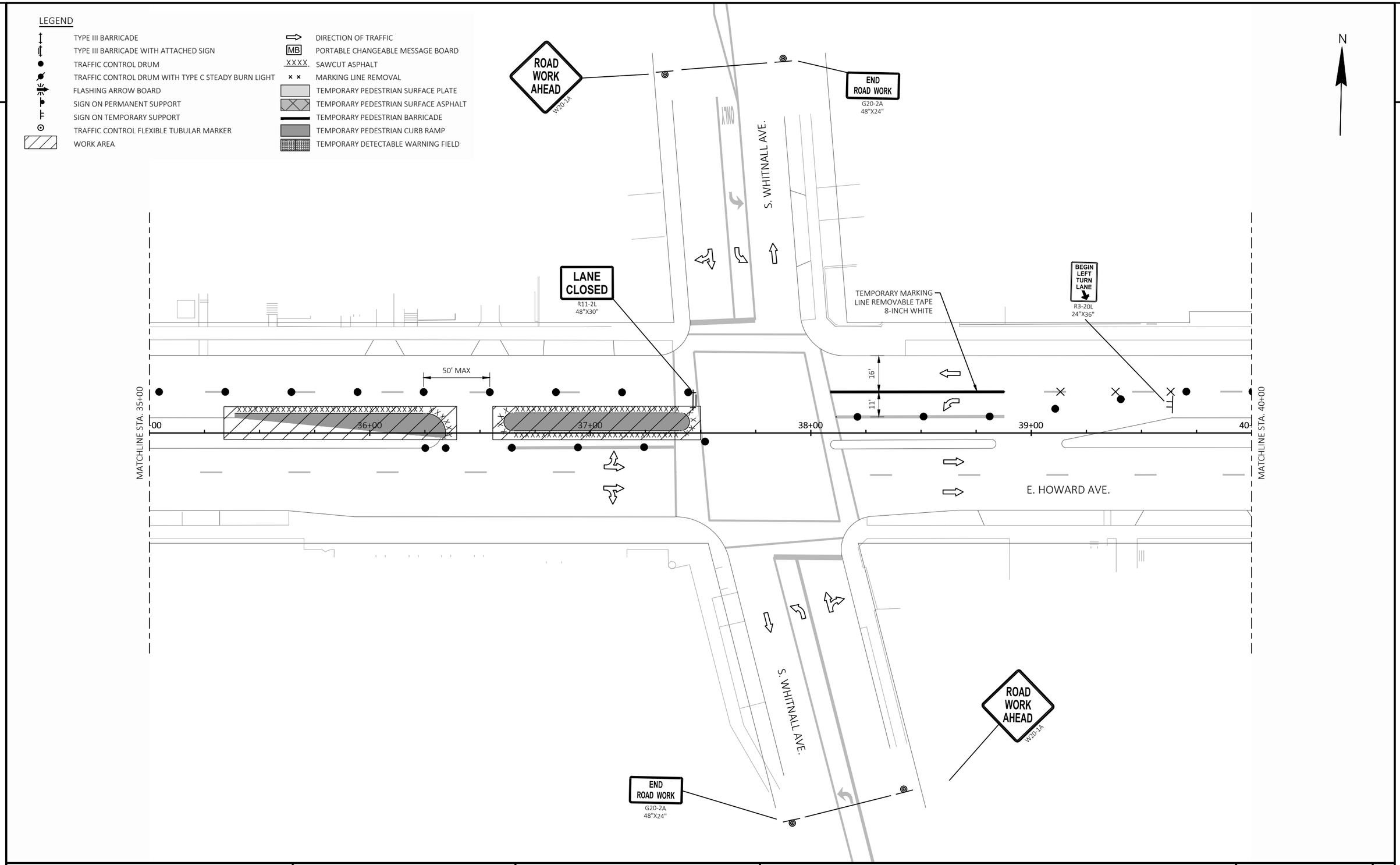

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 119 | E |
|---|---|---|---|---|---|

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- × × — MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

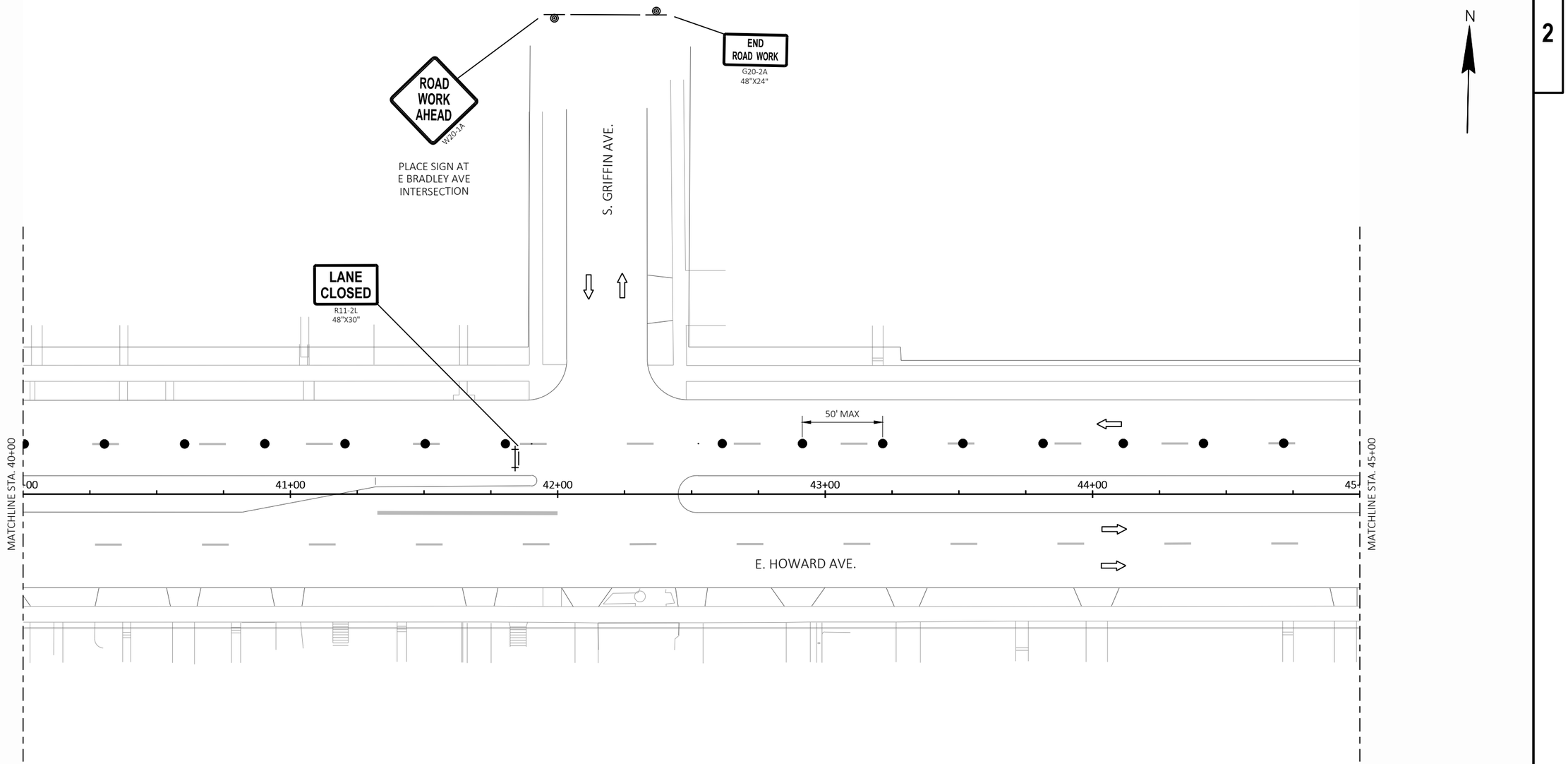



2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 120 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 09
PLOT DATE : 10/31/2023 6:42 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2




LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 121 | E |
|---|---|---|---|---|---|

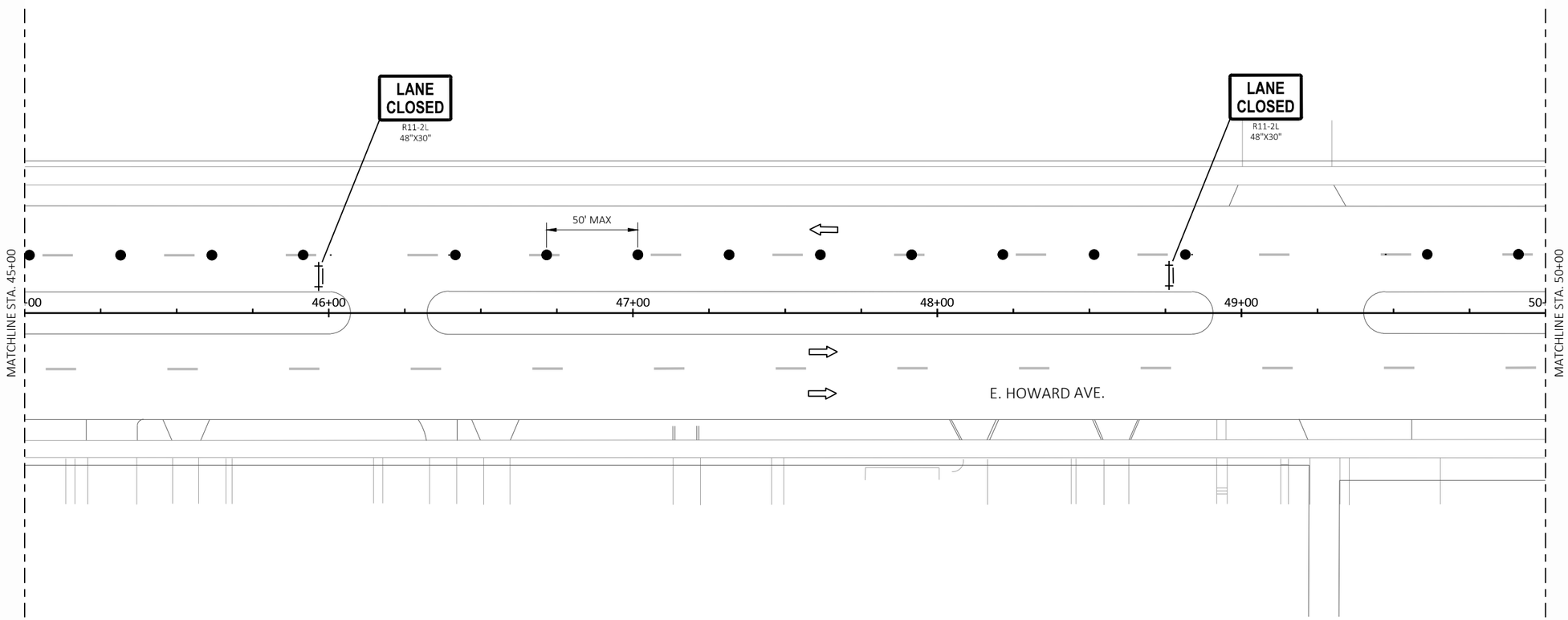
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 10
PLOT DATE : 10/31/2023 6:42 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N




2

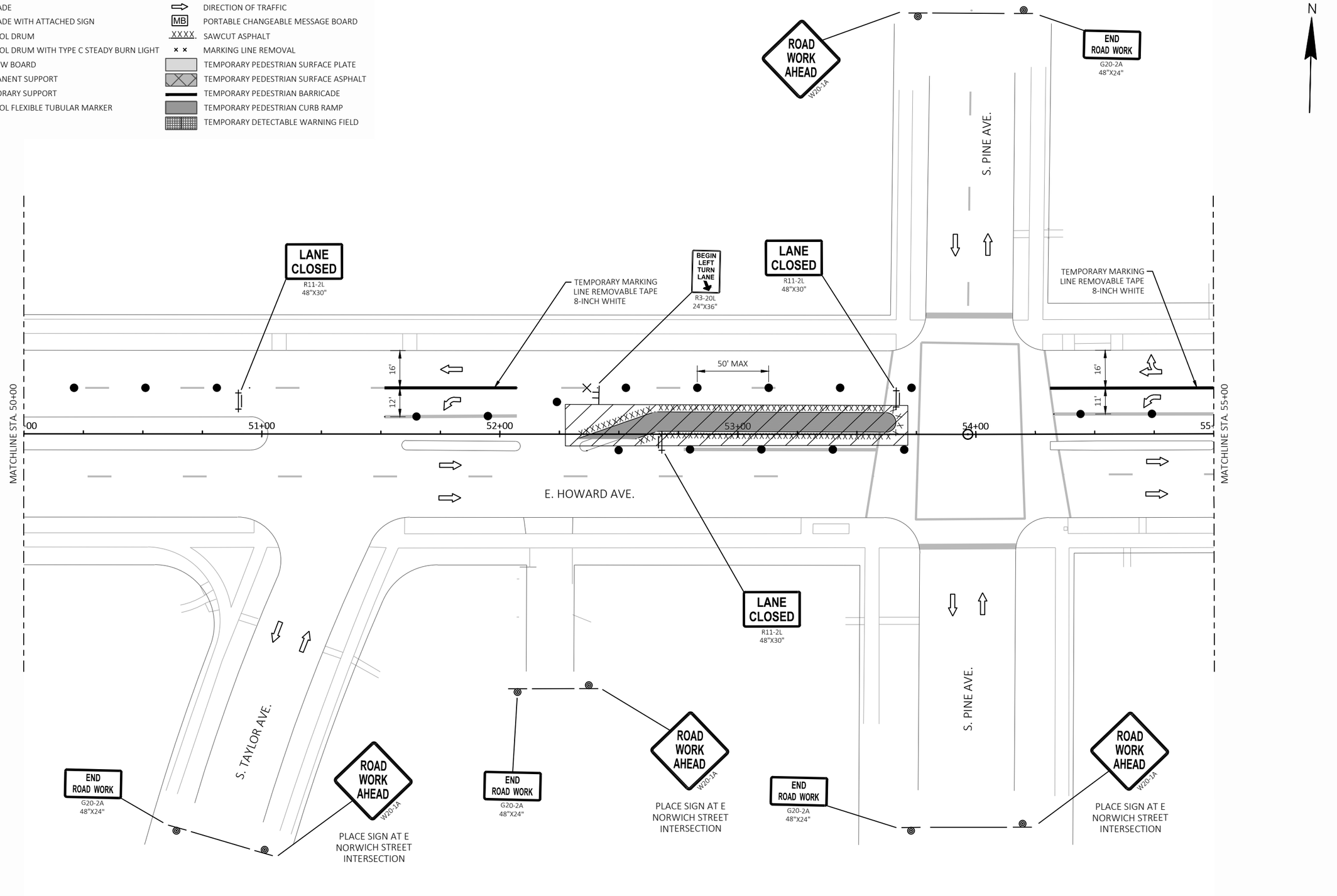
| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 122 | E |
|---|---|---|---|---|---|

FILE NAME : X:\MIL\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 11

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD



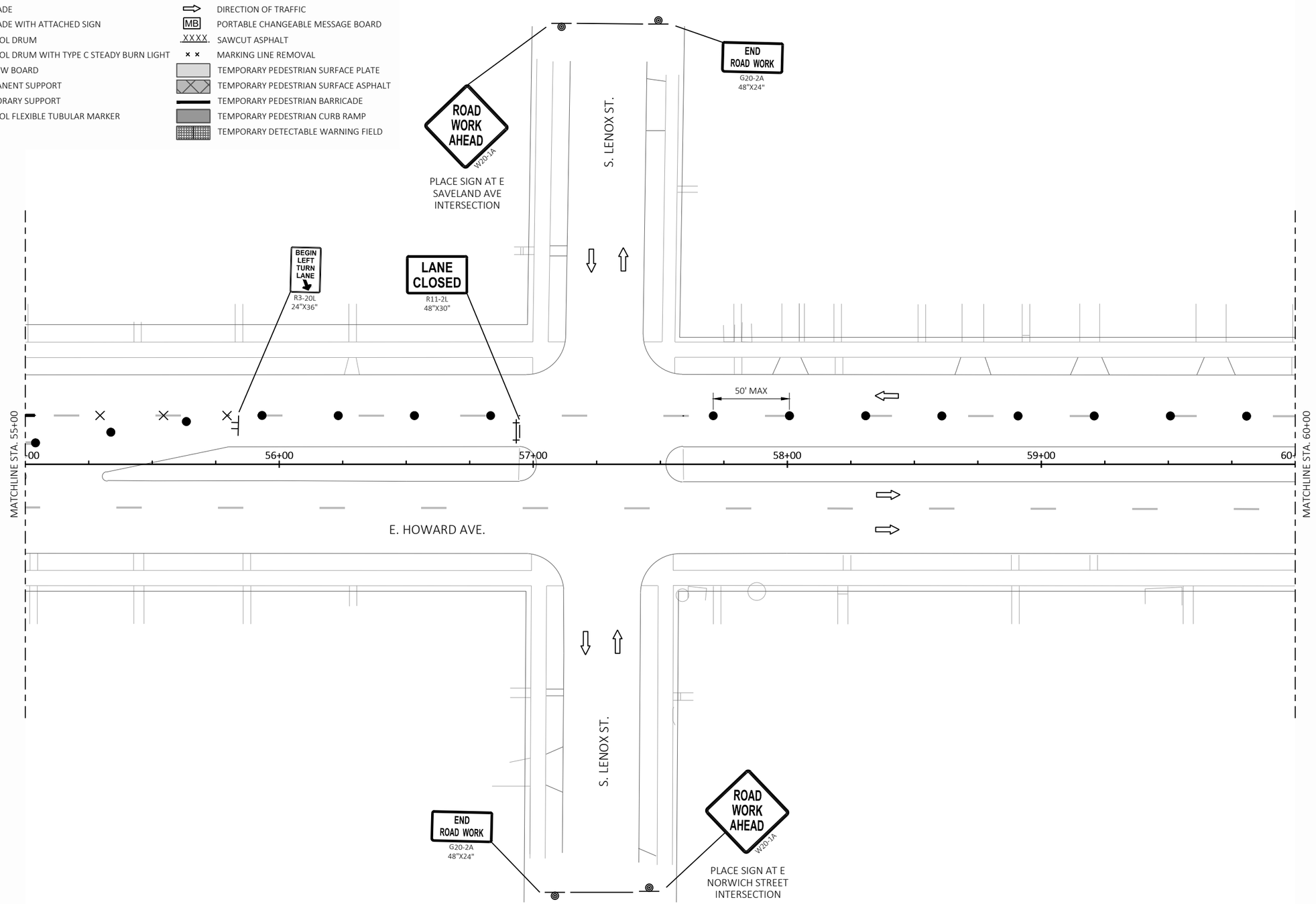

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 123 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 124 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 13
PLOT DATE : 10/31/2023 6:42 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E SAVELAND AVE INTERSECTION

S. LOGAN AVE.

LANE CLOSED
R11-2L
48"X30"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E SAVELAND AVE INTERSECTION

S. HERMAN ST.

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

N

50' MAX

MATCHLINE STA. 60+00

00

61+00

62+00

63+00

64+00

65+00

MATCHLINE STA. 65+50

E. HOWARD AVE.

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

S. LOGAN AVE.

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

S. HERMAN ST.

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 125 | E |
|---|---|---|---|---|---|

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

S. CLEMENT AVE.

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH WHITE (9' SKIP, 3' DASH)

NO PARKING HERE TO CORNER
R7-51L
18"X24"

200'

50' MAX

11'

11'

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+

MATCHLINE STA. 71+00

E. HOWARD AVE.

LANE CLOSED
R11-2L
48"X30"

S. CLEMENT AVE.

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

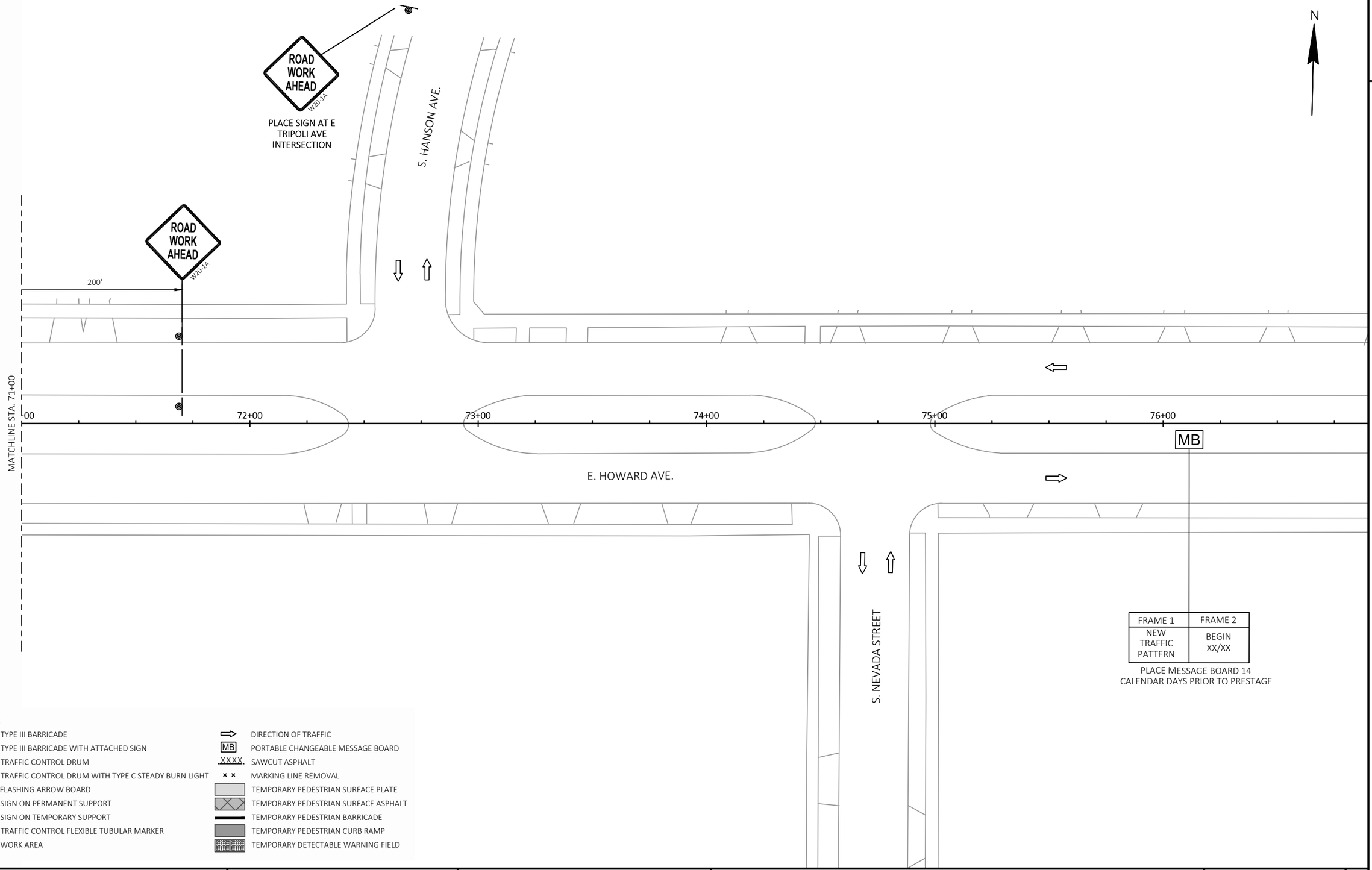
| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 126 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-PS.DWG
LAYOUT NAME - 15

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

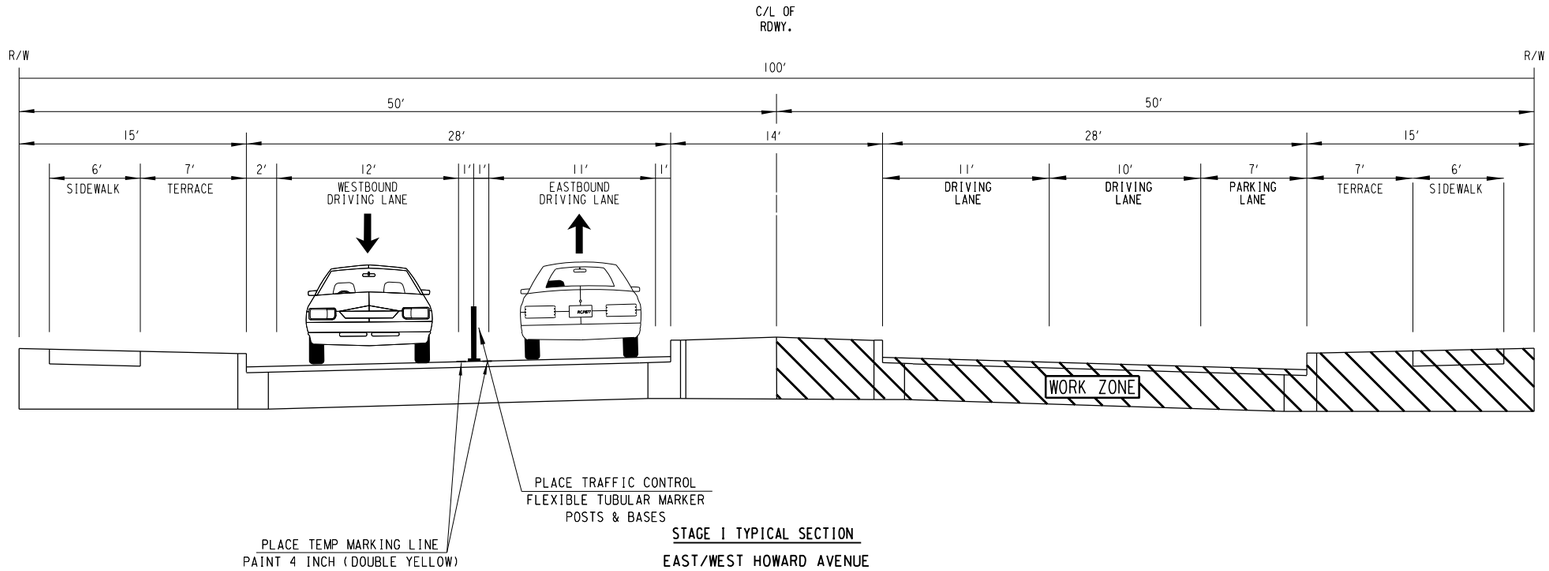



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - PRE STAGE | SHEET 127 | E |
|---|---|---|---|---|---|

# STAGE 1




**STAGE 1 TYPICAL SECTION**

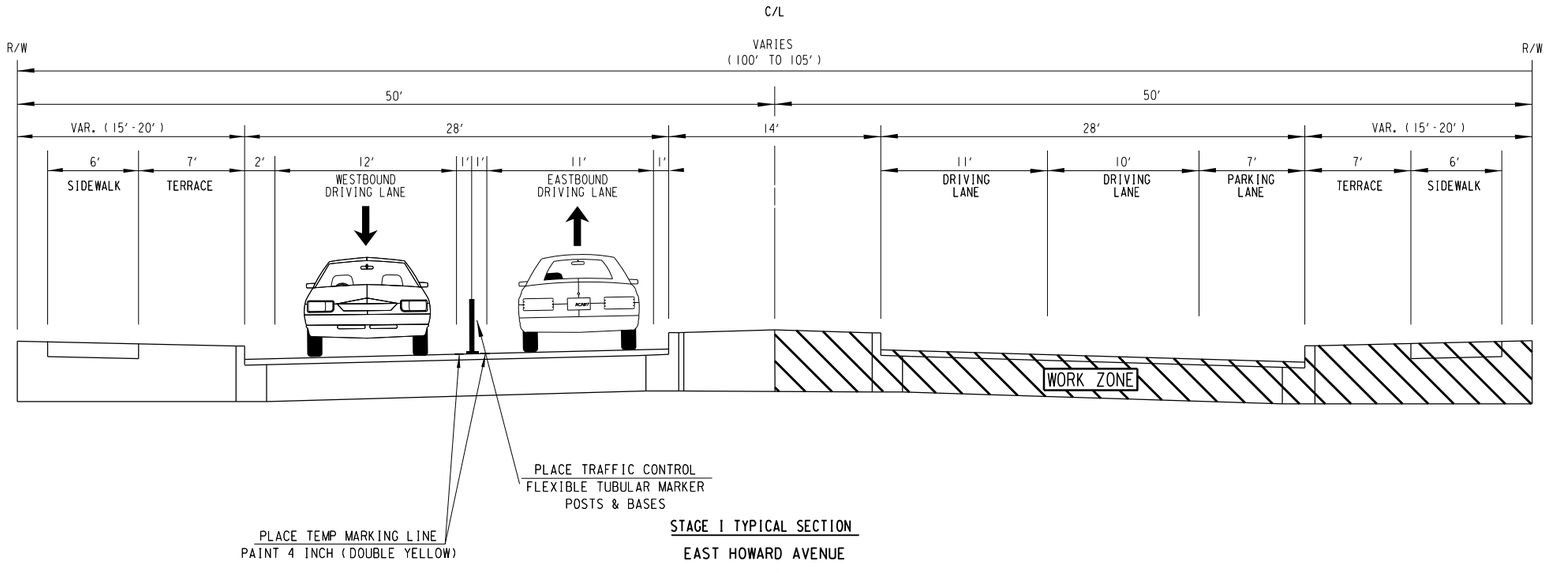
**EAST/WEST HOWARD AVENUE**

S. 6TH ST. TO S. HOWELL AVE

STA. 02+50 TO STA. 09+58

STA. 12+98 TO STA. 27+25

(LOOKING EAST)




**STAGE 1 TYPICAL SECTION**

**EAST HOWARD AVENUE**

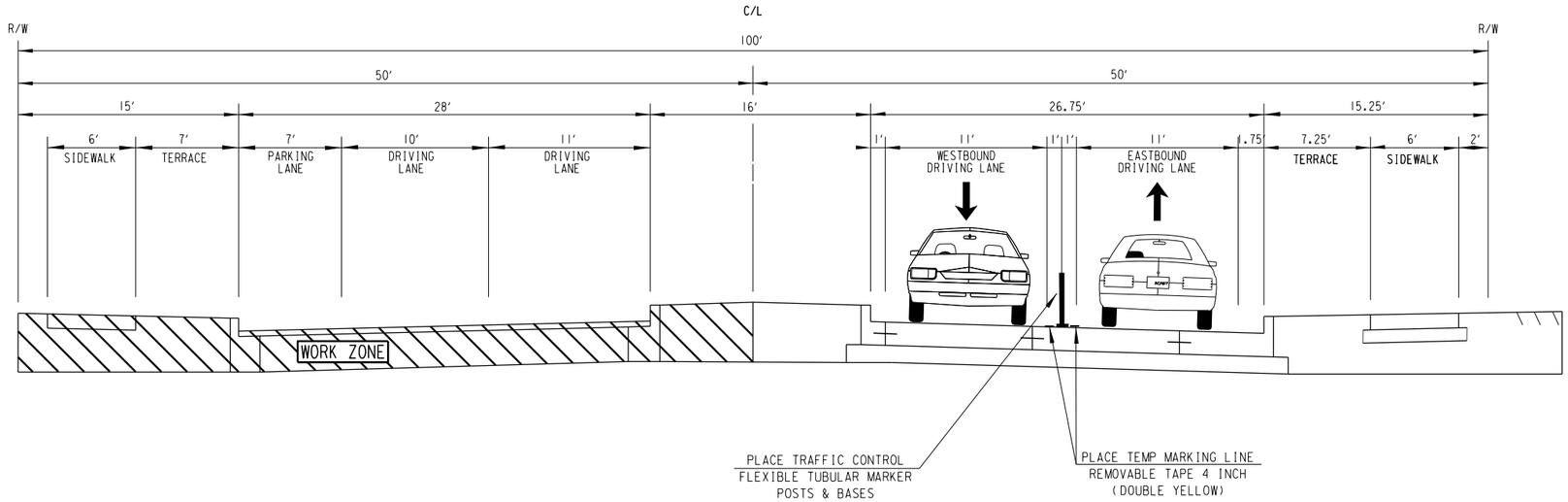
S. HOWELL AVE TO S. CLEMENT AVE.

STA. 27+25 TO STA. 69+76

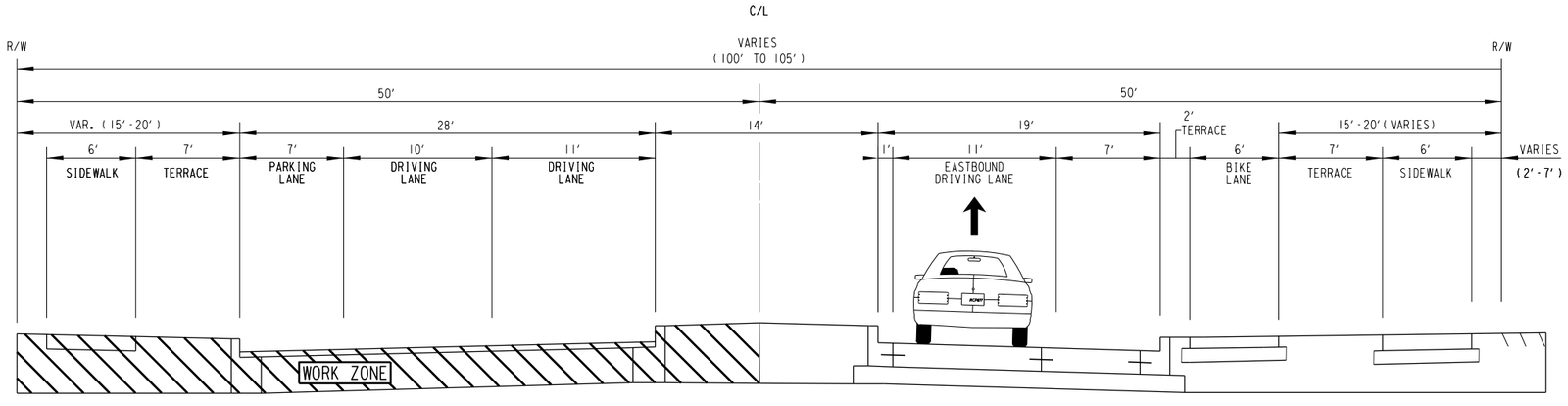
(LOOKING EAST)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL TYPICAL SECTIONS | SCALE FEET | SHEET NO: 128 | E |
|---|---|---|---|---|---|---|

# STAGE 2




STAGE II TYPICAL SECTION
EAST/WEST HOWARD AVENUE
S. 6TH ST. TO S. HOWELL AVE
STA. 02+50 TO STA. 09+58
STA. 12+98 TO STA. 27+25
(LOOKING EAST)




STAGE II TYPICAL SECTION
EAST HOWARD AVENUE
S. HOWELL AVE TO S. CLEMENT AVE.
STA. 27+25 TO STA. 69+76
(LOOKING EAST)

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL TYPICAL SECTIONS | SCALE FEET | SHEET NO: 129 | E |
|---|---|---|---|---|---|---|

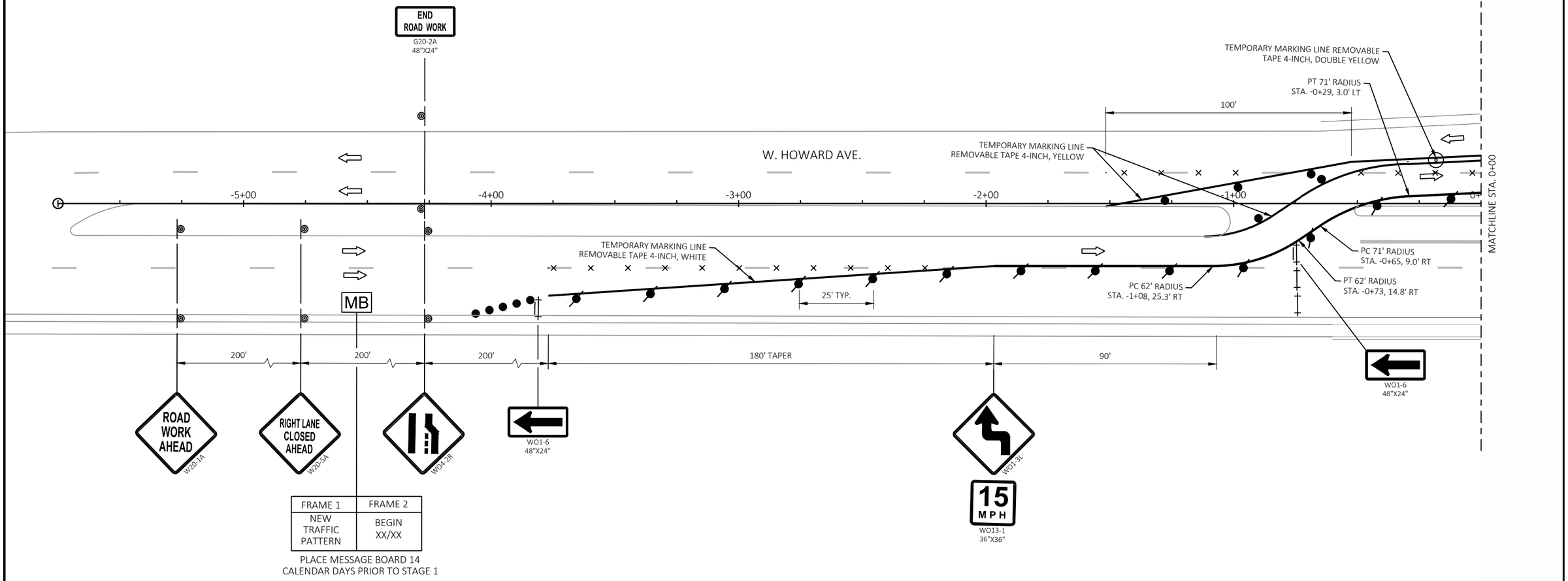
FILENAME: W:\BTE\CITYPAV\HOWARD - 6TH TO CLEMENT - 9-30-23\2395-05-71 - TRAFFIC - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE .DGN

REVISED DATE: 11-01-2023 BY JOZ

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 130 E |
|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

500'

S. 6TH ST.

M4-60R
30"X24"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH,
DOUBLE YELLOW

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

W. HOWARD AVE.

TEMPORARY MARKING LINE
PAINT 4-INCH, DOUBLE YELLOW

W10-3

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

STOP
R3-2
24"X24"

ROAD CLOSED
R11-2
48"X48"

PLACE SIGN AT W
SAVELAND AVE
INTERSECTION

S. 5TH PL.

25'
15'
17'
10'

MATCHLINE STA. 0+00

1+00
2+00
3+00
4+00
5+00

MATCHLINE STA. 5+50

ROAD CLOSED
R11-2
48"X30"

M4-60L
30"X24"

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

250'

S. 6TH ST.

ONLY
R3-8LF
36"X30"

250'

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

S. 5TH PL.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT W
NORWICH STREET
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 131 | E |
|---|---|---|---|---|---|

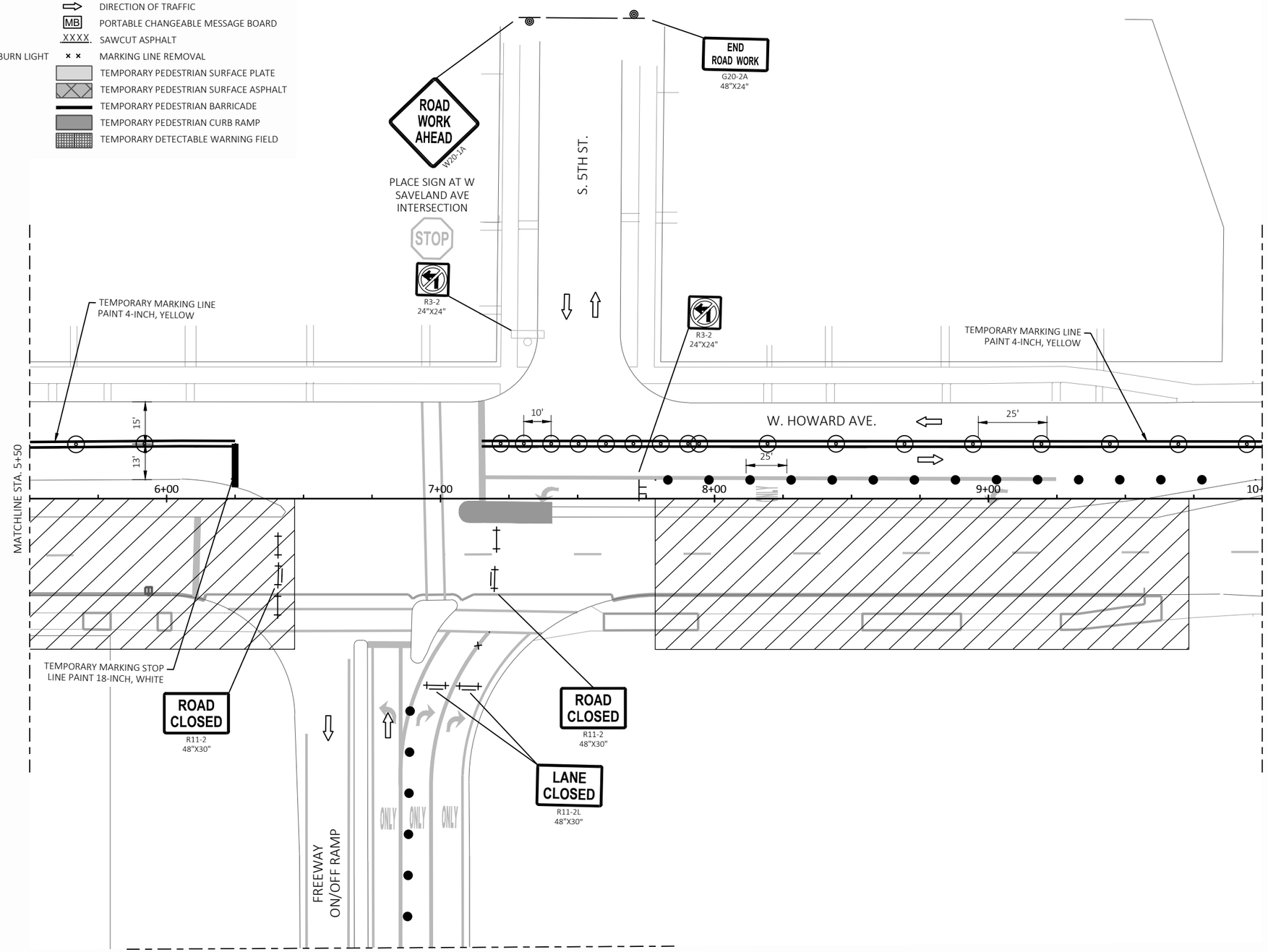
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 132 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1B.DWG
LAYOUT NAME - 03A

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MATCHLINE STA. 0+00

N

ONLY ONLY ONLY

LANE CLOSED
R11-2L
48"X30"

100'

ROAD WORK AHEAD
W20-1A

100'

RIGHT LANE CLOSED AHEAD
W20-5A

100'

W04-2R

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

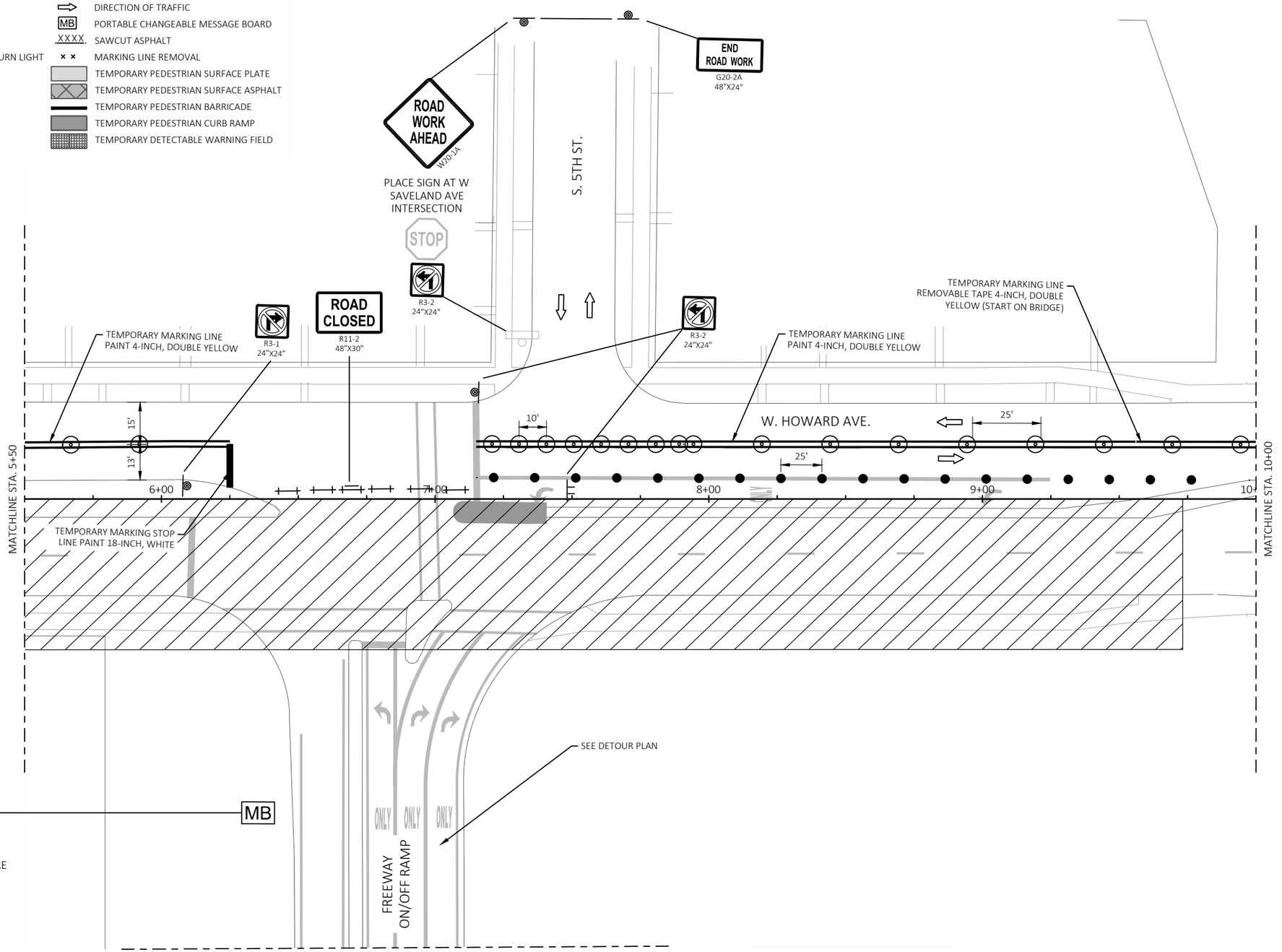
| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 133 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1B.DWG
LAYOUT NAME - 03A (2)

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

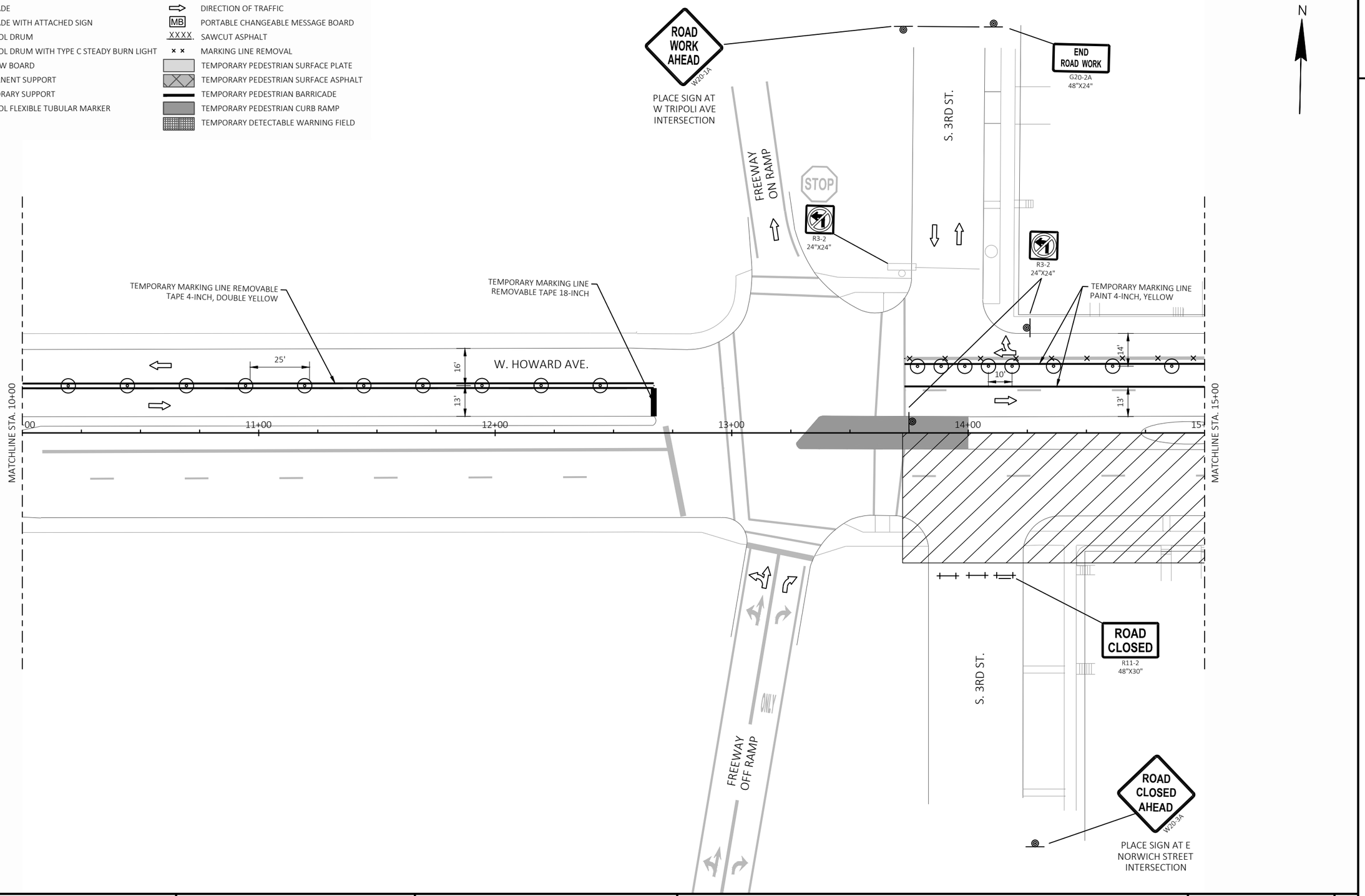
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD



LEGEND

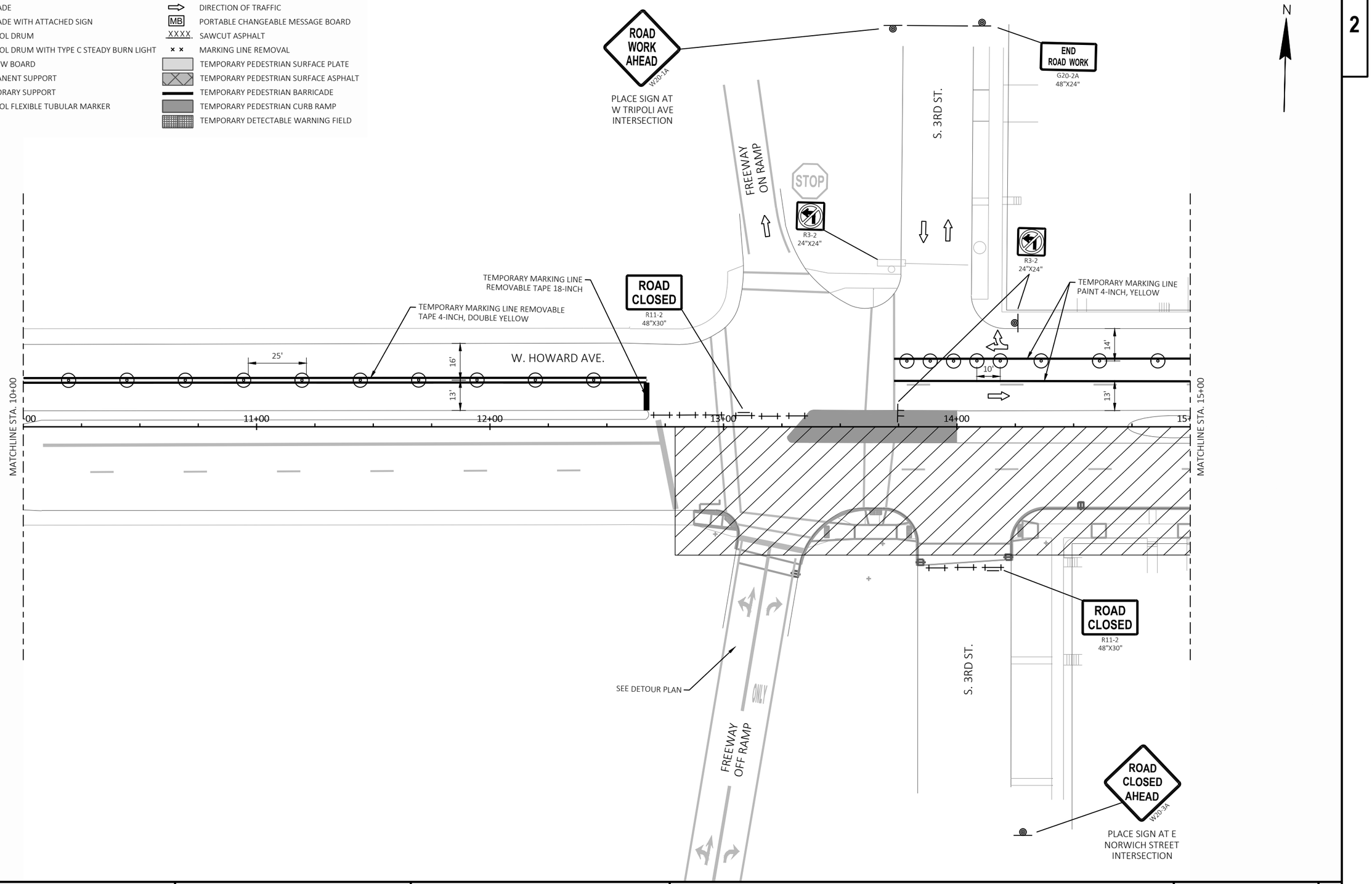
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 135 | E |
|---|---|---|---|---|---|

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- × × MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

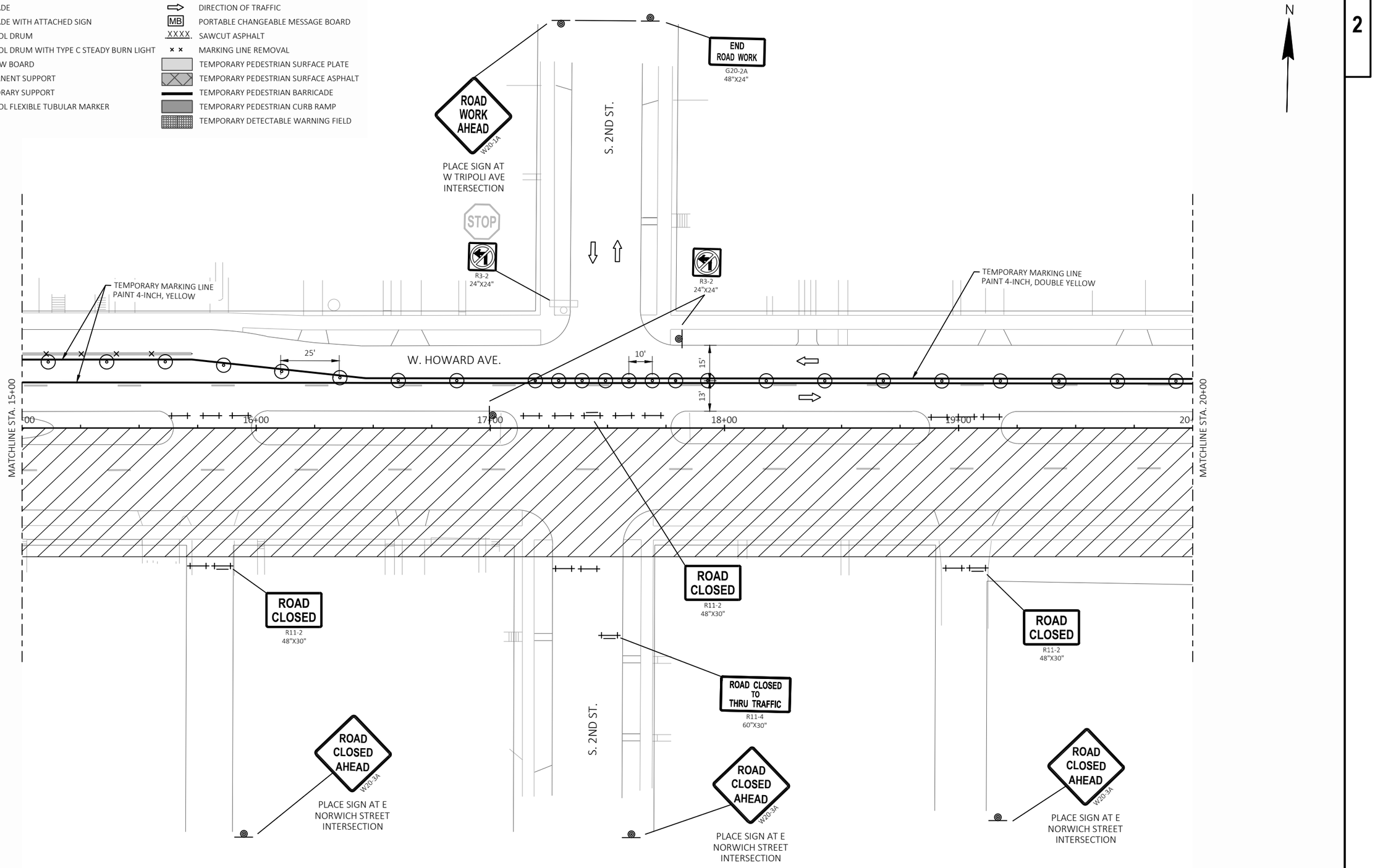



| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1B | SHEET 136 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1B.DWG
LAYOUT NAME - 04B
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD



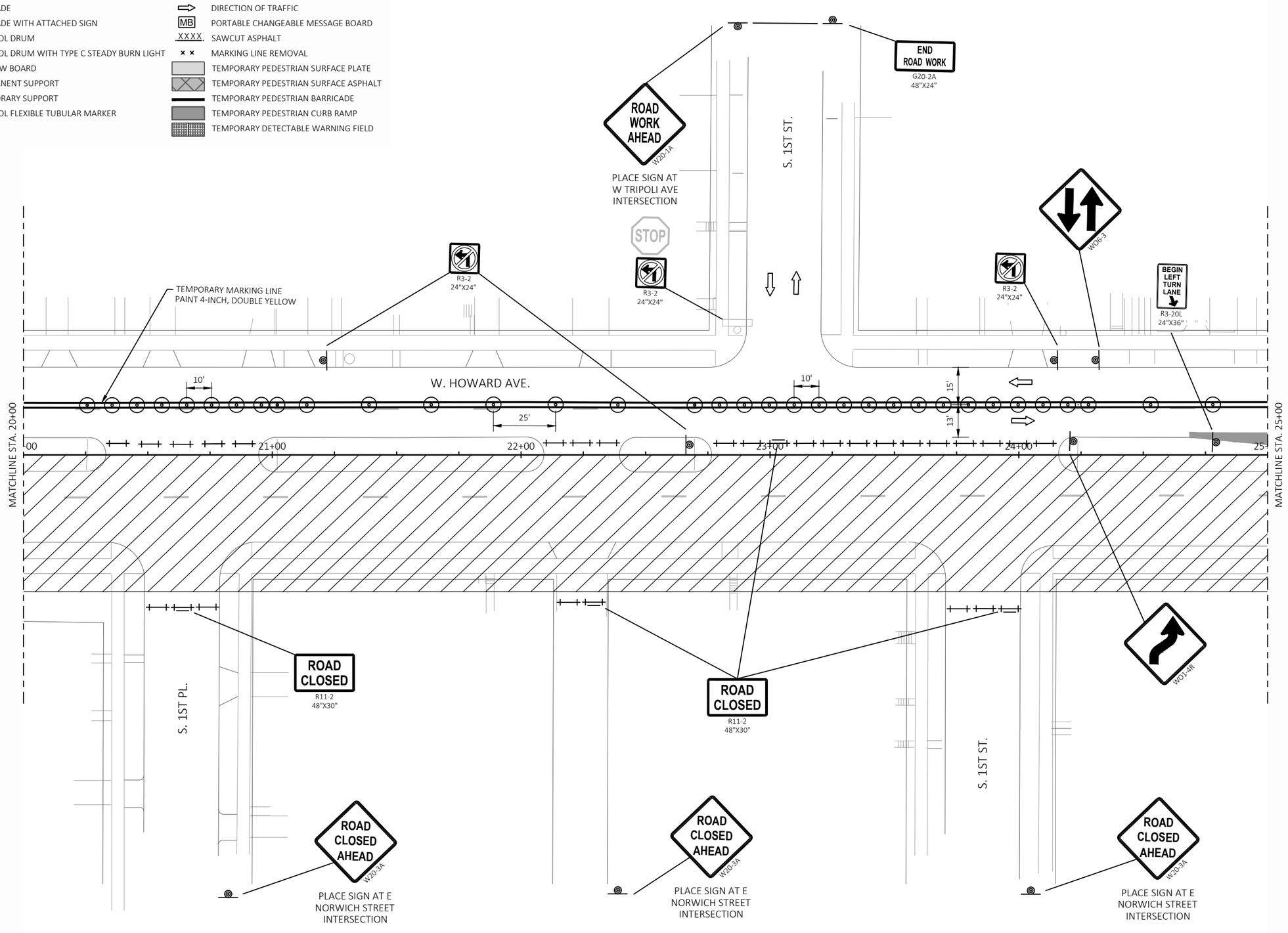

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 137 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 138 | E |
|---|---|---|---|---|---|

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

RIGHT SHOULDER CLOSED
W21-5A

ONLY ONLY
R3-8LAF
54"X30"

200'

100'

200'

S. HOWELL AVE.

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW

TEMPORARY MARKING STOP LINE PAINT, 18-INCH WHITE

W. HOWARD AVE.

+01

+61

13'

11'

11'

MATCHLINE STA. 25+00

00

26+00

27+00

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E BRADLEY AVE INTERSECTION

R3-2
24"X24"

TEMPORARY MARKING STOP LINE PAINT, 18-INCH WHITE

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

E. HOWARD AVE.

15'

11'

12'

+26

+86

28+00

29+00

30

MATCHLINE STA. 30+00

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

ROAD CLOSED
R11-2
48"X30"

M4-60R
30"X24"

M4-60L
30"X24"

W01-4L

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

S. HOWELL AVE.

ONLY ONLY

EXTEND DRUMS TO CLOSE OFF INSIDE LEFT TURN LANE

ONLY ONLY
R3-8LAF
54"X30"

RIGHT SHOULDER CLOSED
W21-5A

ROAD WORK AHEAD
W20-1A

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 139 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 07A

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ROAD WORK AHEAD
W20-1A

RIGHT SHOULDER CLOSED
W21-5A

R3-8LAF
54"X30"

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

200'

100'

200'

S. HOWELL AVE.

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP LINE PAINT, 18-INCH WHITE

W. HOWARD AVE.

13'

11'

11'

+61

25'

MATCHLINE STA. 25+00

26+00

27+00

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

M4-60L
30"X24"

M4-60R
30"X24"

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

EXTEND DRUMS TO CLOSE OFF INSIDE LEFT TURN LANE

ONLY ONLY

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E BRADLEY AVE INTERSECTION

R3-2
24"X24"

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

15'

11'

12'

+26

+86

28+00

29+00

30

MATCHLINE STA. 30+00

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

W01-4L

200'

100'

200'

R3-8LAF
54"X30"

RIGHT SHOULDER CLOSED
W21-5A

ROAD WORK AHEAD
W20-1A

S. HOWELL AVE.

ONLY ONLY

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1B | SHEET 140 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1B.DWG
LAYOUT NAME - 07B

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ROAD WORK AHEAD
W20-1A

RIGHT SHOULDER CLOSED
W21-5A

200'

100'

200'

R3-8LAF
54"X30"

LANE CLOSED
R11-2L
48"X30"

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

S. HOWELL AVE.

USE PLATES AS NEEDED TO COVER CUC TRENCH UNTIL PAVEMENT IS RESTORED

R3-2
24"X24"

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

W. HOWARD AVE.

13'

11'

11'

TEMPORARY MARKING STOP LINE PAINT, 18-INCH WHITE

MATCHLINE STA. 25+00

26+00

27+00

MONUMENT

28+00

29+00

30

MATCHLINE STA. 30+00

15'

11'

12'

25'

25'

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE

TEMPORARY MARKING LINE PAINT, 8-INCH WHITE

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

EXTEND DRUMS TO CLOSE OFF INSIDE LEFT TURN LANE

S. HOWELL AVE.

200'

100'

200'

R3-8LAF
54"X30"

RIGHT SHOULDER CLOSED
W21-5A

ROAD WORK AHEAD
W20-1A

W01-4L

#3870 S. HOWELL AVE.

#3915 S. HOWELL AVE.

549-0199
40

549-0132

548-0022
163

#116

#111
45

580-0901

65

580

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- × × MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SHEET 141 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1C.DWG
LAYOUT NAME - 07C

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

END ROAD WORK
G20-2A
48"X24"

CLOSE OUTSIDE LANE WHEN WORKING IN INTERSECTION

USE PLATES AS NEEDED TO COVER CUC TRENCH UNTIL PAVEMENT IS RESTORED

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

30'

180' LANE DROP

200'

200'

200'

W20-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

27+00

28+00

29+00

S. HOWELL AVE.

200'

100'

200'

ROAD WORK AHEAD
W20-1A

RIGHT SHOULDER CLOSED
W21-5A

ONLY | ONLY
R3-8LAF
54"X30"

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- × × — MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1D CUC CROSSING | SHEET 142 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 07A (2)
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

END ROAD WORK
G20-2A
48"X24"

CLOSE OUTSIDE LANE WHEN WORKING IN INTERSECTION

USE PLATES AS NEEDED TO COVER CUC TRENCH UNTIL PAVEMENT IS RESTORED

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

200' 200' 200' 180' LANE DROP 75'

ROAD WORK AHEAD
W20-1A

LEFT TWO LANES CLOSED AHEAD
W20-5SA

WO4-2L

19+61

25'

27+00

28+00

29+00

180' 90' 25' 180' LANE DROP 200' 200' 200'

WO4-2L

LEFT LANE CLOSED AHEAD
W20-5SA

ROAD WORK AHEAD
W20-1A

BEGIN LEFT TURN LANE
R3-20L
24"X36"

WO1-6
48"X24"

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

CLOSE LEFT TURN LANE

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | XXXX SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1E CUC CROSSING | SHEET 143 | E |
|---|---|---|---|---|---|

2

N

END ROAD WORK
G20-2A
48"X24"

CLOSE OUTSIDE LANE WHEN WORKING IN INTERSECTION

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

R3-1
24"X24"

R3-8LAF
54"X30"

RIGHT SHOULDER CLOSED
W21-5A

ROAD WORK AHEAD
W20-1A

27+00

28+00

29+00

200'

200'

200'

180' LANE DROP

50'

200'

100'

200'

USE PLATES AS NEEDED TO COVER CUC TRENCH UNTIL PAVEMENT IS RESTORED

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

RIGHT LANE CLOSED AHEAD
W20-5A

W04-2R

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1F CUC CROSSING | SHEET 144 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1C.DWG
LAYOUT NAME - 07C (2)
PLOT DATE : 10/31/2023 6:42 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E BRADLEY AVE INTERSECTION

END ROAD WORK
G20-2A
48"X24"

S. AUSTIN ST.

STOP
R1-1

R3-2
24"X24"

W06-3

TEMPORARY MARKING LINE
PAINT 4-INCH, DOUBLE YELLOW

E. HOWARD AVE.

15'
13'
10'
25'

MATCHLINE STA. 30+00

31+00
32+00
33+00
34+00
35

MATCHLINE STA. 35+00

MAINTAIN GAP IN MEDIAN TO MAINTAIN ACCESS TO SCHOOL PICK UP AND DROP OFF AREA AT STA. 37+00

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A & 1B | SHEET 145 | E |
|---|---|---|---|---|---|

2

N

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

S. AUSTIN ST.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

STOP

W6-3
36"X36"

R3-2
24"X24"

R3-2
24"X24"

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

E. HOWARD AVE.

15'
13'
10'
25'
15'
13'

MATCHLINE STA. 30+00

00 31+00 32+00 33+00 34+00 35

MATCHLINE STA. 35+00

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"X30"

MAINTAIN GAP IN MEDIAN TO MAINTAIN
ACCESS TO SCHOOL PICK UP AND DROP
OFF AREA AT STA. 37+00

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SHEET 146 | E |
|---|---|---|---|---|---|

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

548-0086
62.53
548-0505
155.42
548-09(
48.05
#3880 S. WHITNALL AVE.
#424
548-0088
60
548-0090-10-9
60
548-0085
65
#334-336
#342
#348
#360

500'

S. WHITNALL AVE.

BEGIN LEFT TURN LANE
R3-20L
24"X36"

W6-3
36"X36"

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

E. HOWARD AVE.

25'

13'

11'

11'

12'

11'

15'

13'

MATCHLINE STA. 35+00

00

36+00

37+00

38+00

39+00

40

MATCHLINE STA. 40+00

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

25'

CONSTRUCT DRIVEWAY ONE HALF AT A TIME

LANE CLOSED
R11-2L
48"X30"

W01-4R

ROAD CLOSED
R11-2
48"X30"

W01-4L

#419

#423-4(

113.89

581-9982

581-9983

581-9(

40

40

S. WHITNALL AVE.

500'

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 147 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1C.DWG
LAYOUT NAME - 09A

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

S. WHITNALL AVE.

500'

BEGIN LEFT TURN LANE
R3-20L
24"X36"

W06-3

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, DOUBLE YELLOW

TEMPORARY MARKING STOP
LINE PAINT 18-INCH, WHITE

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

TEMPORARY MARKING LINE
PAINT 4-INCH, DOUBLE YELLOW

E. HOWARD AVE.

MATCHLINE STA. 35+00

MATCHLINE STA. 40+00

00

36+00

37+00

38+00

39+00

40

+70

+30

+15

+75

11'

12'

13'

15'

25'

10'

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

W01-4R

STOP
R1-1

R3-2
24"X24"

ROAD CLOSED
R11-2
48"X30"

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP
LINE PAINT 18-INCH, WHITE

M4-60L
30"X24"

CONSTRUCT DRIVEWAY
ONE HALF AT A TIME

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

60' LANE SHIFT

W01-4L

S. WHITNALL AVE.

200'

NO PARKING ANY TIME
R7-1R
18"X24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1B | SHEET 148 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 09B

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48"X24"

350'

150'

S. WHITNALL AVE.

ONLY ONLY
R3-8xx
36"X30"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

W06-3

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

R3-2
24"X24"

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP
LINE PAINT 18-INCH, WHITE

ROAD CLOSED
R11-2
48"X30"

E. HOWARD AVE.

25'

+70

+30

11'

13'

12'

+15

+75

15'

MATCHLINE STA. 35+00

00

36+00

37+00

38+00

39+00

40

MATCHLINE STA. 40+00

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

CONSTRUCT DRIVEWAY
ONE HALF AT A TIME

ONLY ONLY
R3-8LF
36"X30"

WO1-4R

R3-1
24"X24"

M4-60L
30"X24"

W1-7
48"X24"

LANE CLOSED
R11-2L
48"X30"

M4-60R
30"X24"

S. WHITNALL AVE.

60' SHIFT

200'

240'

WO1-4L

NO PARKING ANY TIME
R7-1L
18"X24"

W1-4R
36"X36"

DO NOT CLOSE S. WHITNAL AVE AND
S. CLEMMENT AVE TO ONE WAY
TRAFFIC AT THE SAME TIME

LANE CLOSED
R11-2L
48"X30"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

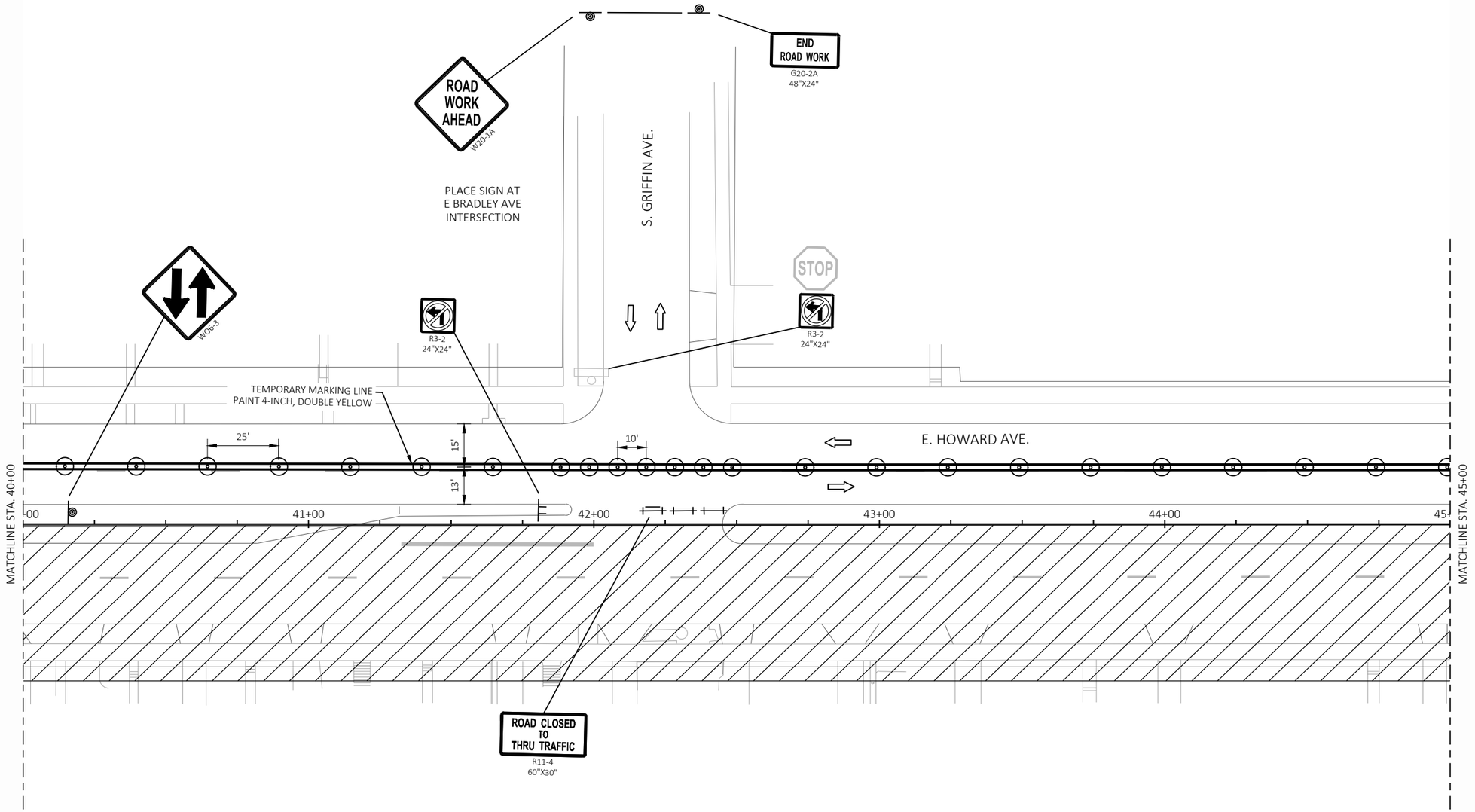
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SHEET 149 | E |
|---|---|---|---|---|---|

2

N




LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 150 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 10

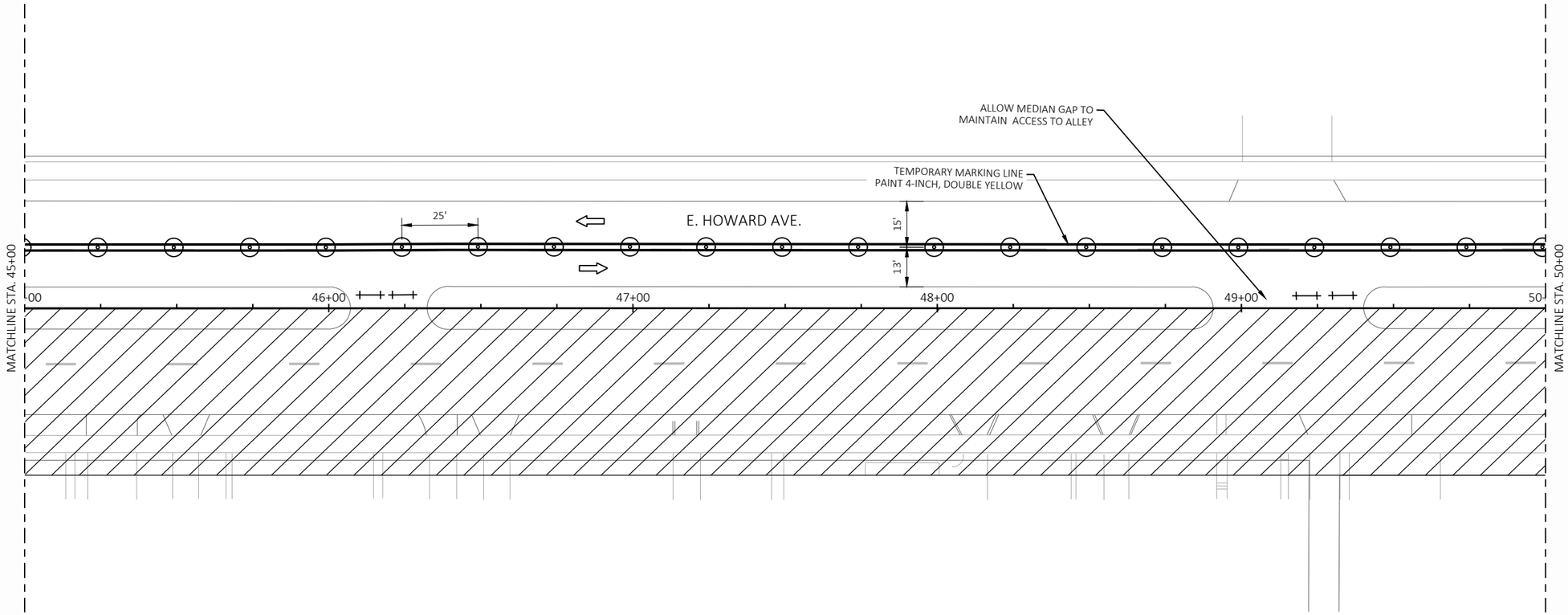
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N




2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 151 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 11

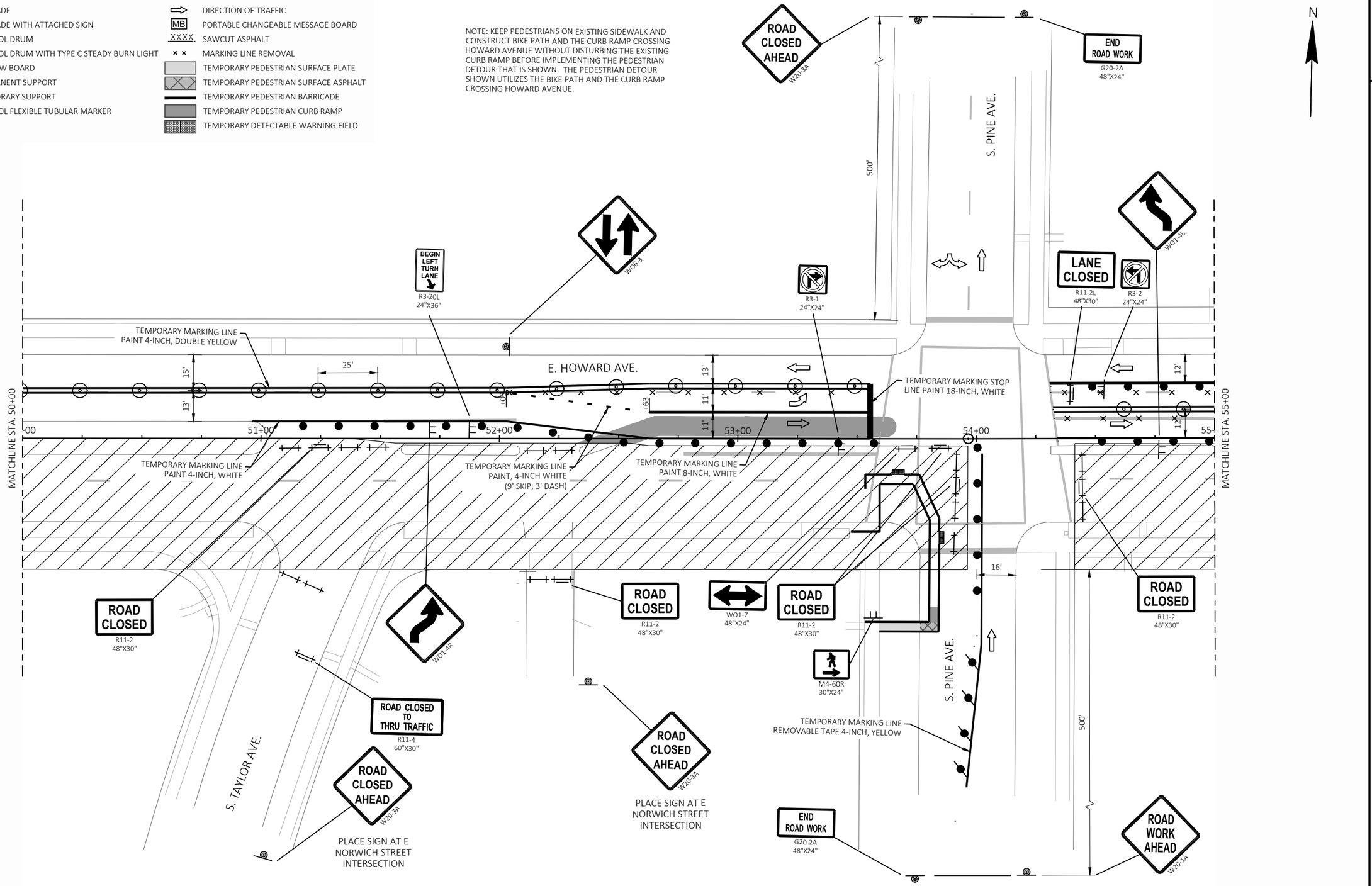
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.

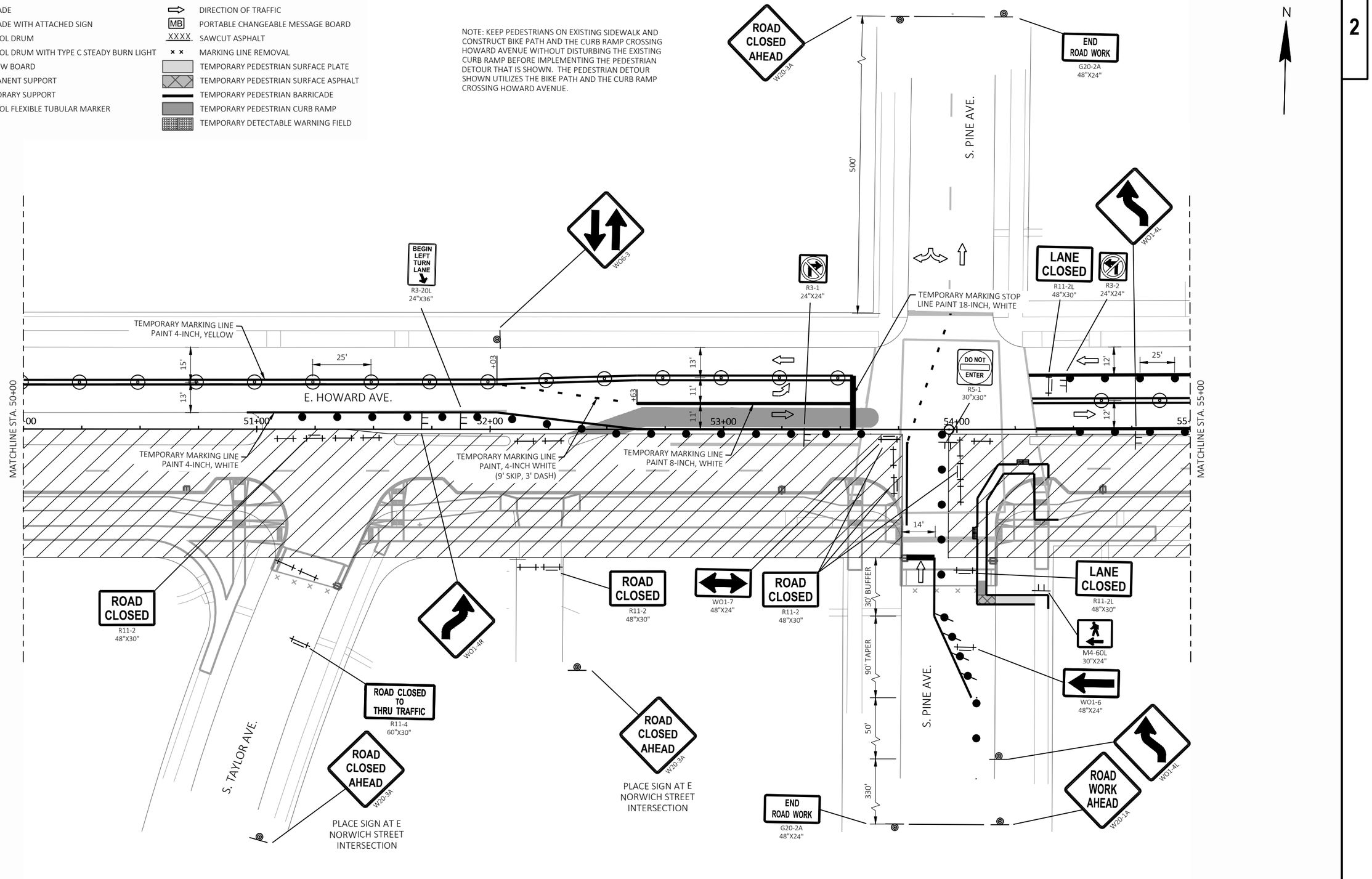



| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 152 | E |
|---|---|---|---|---|---|

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

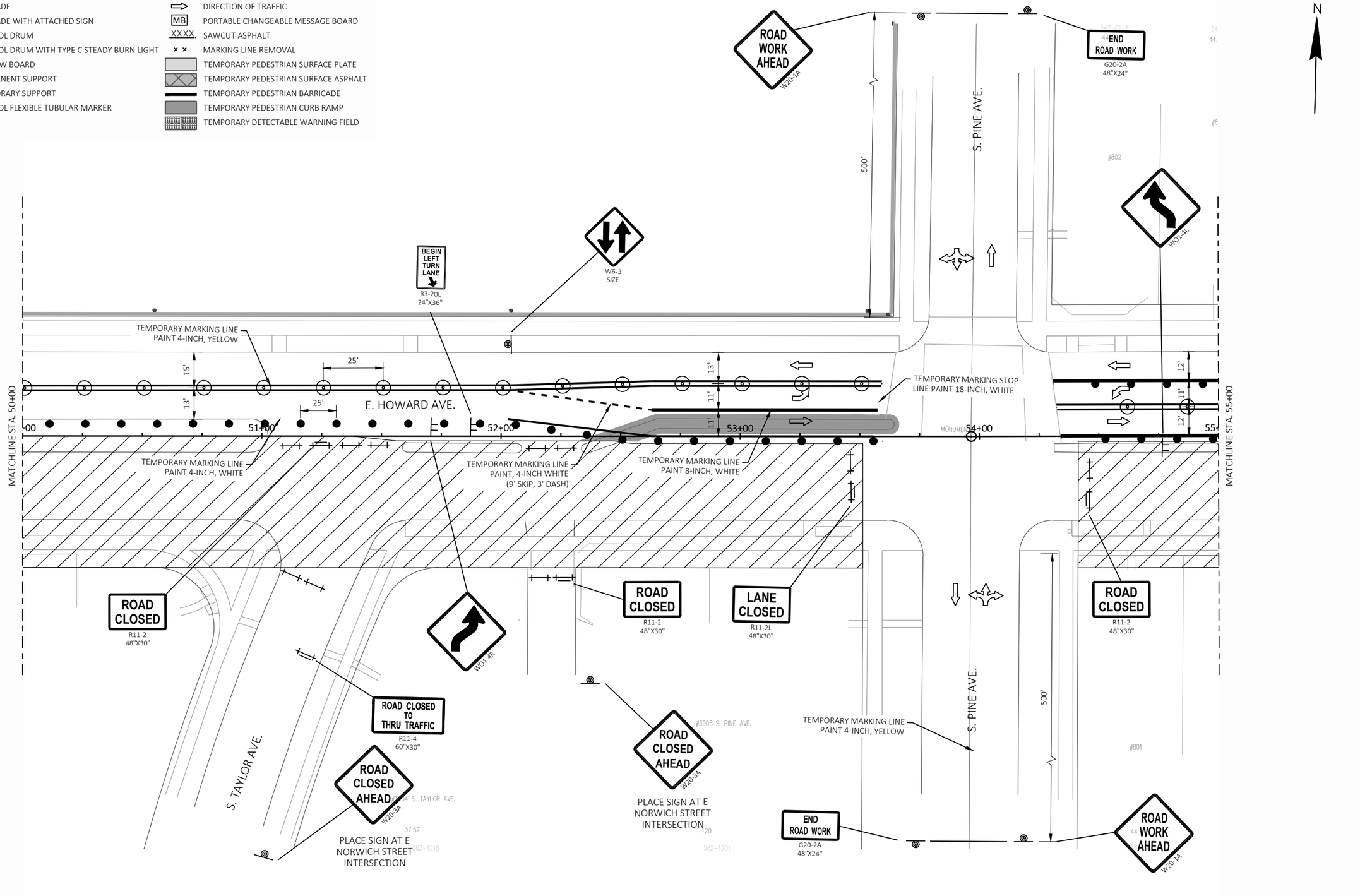
NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1B | SHEET 153 | E |
|---|---|---|---|---|---|

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SHEET 154 | E |
|---|---|---|---|---|---|

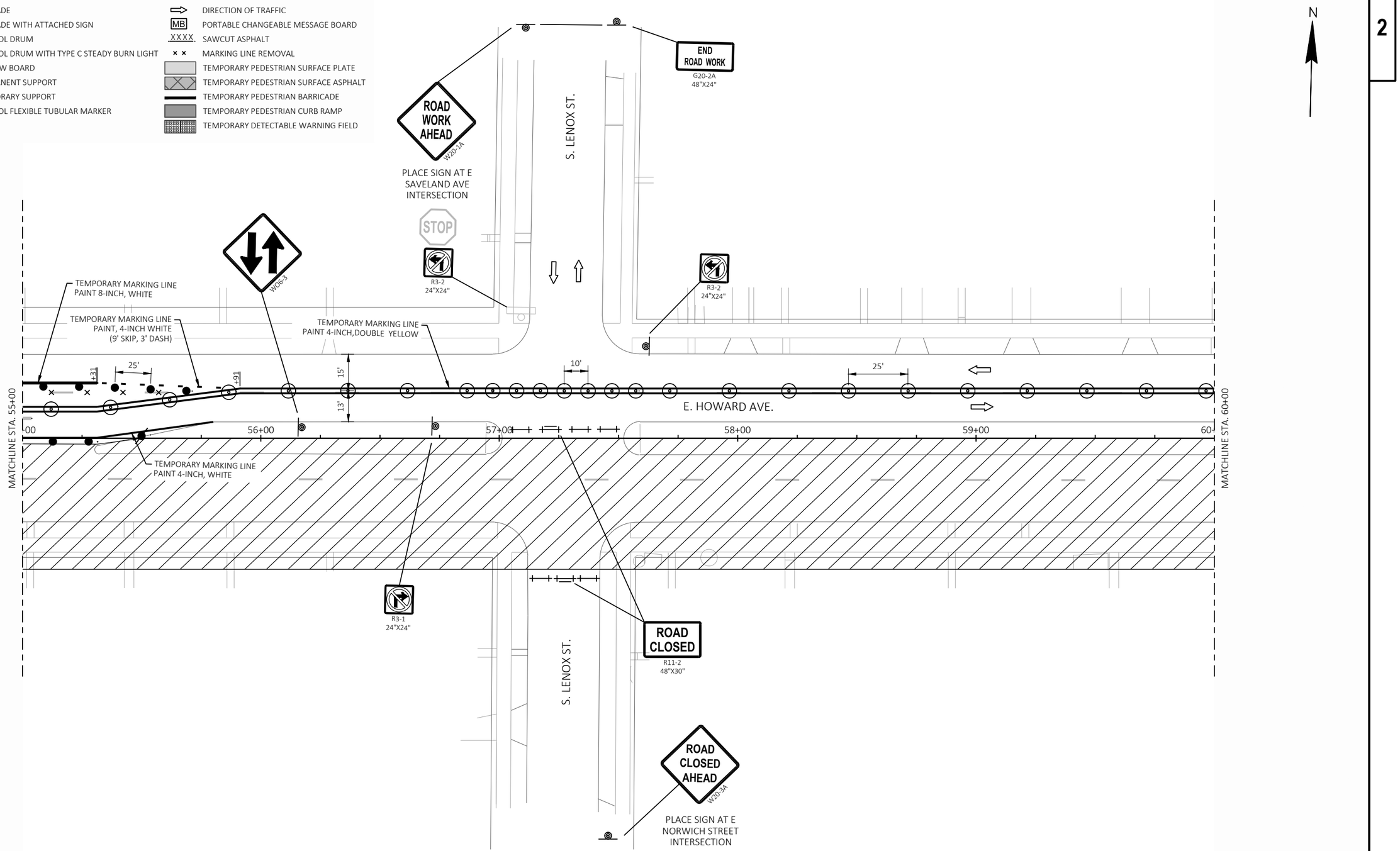
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1C.DWG
LAYOUT NAME - 12C

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 155 | E |
|---|---|---|---|---|---|

2

2

N

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E SAVELAND AVE INTERSECTION

S. LOGAN AVE.

STOP

R3-1
24"X24"

R3-2
24"X24"

R3-2
24"X24"

TEMPORARY MARKING LINE
PAINT 4-INCH, DOUBLE YELLOW

E. HOWARD AVE.

10'

25'

15'

13'

10'

+43

MATCHLINE STA. 60+00

00

61+00

62+00

63+00

64+00

65+00

MATCHLINE STA. 65+50

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E NORWICH STREET INTERSECTION

S. LOGAN AVE.

S. HERMAN ST.

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E SAVELAND AVE INTERSECTION

END ROAD WORK
G20-2A
48"X24"

S. HERMAN ST.

R3-2
24"X24"

W01-4R

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E NORWICH STREET INTERSECTION

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 156 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 14
PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48"X24"

500'

S. CLEMENT AVE.

E. HOWARD AVE.

W06-3

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW (END PAINT AT CONSTRUCTION LIMIT)

TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW

TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, DOUBLE YELLOW

MATCHLINE STA. 65+50

MATCHLINE STA. 71+00

66+00 67+00 68+00 69+00 70+00 71

13' 11' 11' +03 12' 25' +81 +61 11' 11' 25'

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

R3-1
24"X24"

M4-60L
30"X24"

WO1-7
48"X24"

LANE CLOSED
R11-2L
48"X30"

M4-60R
30"X24"

LANE CLOSED
R11-2L
48"X30"

DO NOT CLOSE S. CLEMENT AVE AND S. WHITNAL AVE TO ONE WAY TRAFFIC AT THE SAME TIME

WO1-6
48"X24"

END ROAD WORK
G20-2A
48"X24"

S. CLEMENT AVE.

13'

ROAD CLOSED
R11-2
48"X30"

90' LANE SHIFT

100'

200'

WO1-4L

WO1-4R

ROAD WORK AHEAD
W20-1A

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1A | SHEET 157 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 15A

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48"X24"

500'

S. CLEMENT AVE.

W06-3

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

W01-4L

W06-3

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

E. HOWARD AVE.

TEMPORARY MARKING LINE PAINT 4-INCH, YELLOW

13'

11'

12'

25'

DO NOT ENTER
R5-1
30"X30"

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+00

MATCHLINE STA. 71+00

TEMPORARY MARKING LINE PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE PAINT, 4-INCH WHITE (9' SKIP, 3' DASH)

TEMPORARY MARKING LINE PAINT 4-INCH, WHITE

R3-1
24"X24"

WO1-7
48"X24"

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

14'

30'

90' TAPER

50'

330'

M4-60R
30"X24"

M4-60L
30"X24"

WO1-6
48"X24"

WO1-4L

ROAD WORK AHEAD
W20-1A

DO NOT CLOSE S. CLEMENT AVE AND S. WHITNAL AVE TO ONE WAY TRAFFIC AT THE SAME TIME

S. CLEMENT AVE.

R3-2
24"X24"

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1B | SHEET 158 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1B.DWG
LAYOUT NAME - 15B
PLOT DATE : 10/31/2023 6:42 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

S. CLEMENT AVE.

500'

#3875 S. CLEMENT AVE.

#1116

#1200 E. HOWARD AVE.

#1224

547-0347-121
35

547-0347-
127

547-0501-100-4
120

547-0502
45

W06-3

W01-4L

W06-3

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

TEMPORARY MARKING STOP
LINE PAINT 18-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

E. HOWARD AVE.

13'

11'

12'

11'

12'

11'

11'

25'

25'

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+

MATCHLINE STA. 71+00

TEMPORARY MARKING LINE
PAINT 8-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, WHITE

TEMPORARY MARKING LINE
PAINT 4-INCH, YELLOW

TEMPORARY MARKING LINE
PAINT, 4-INCH WHITE
(9' SKIP, 3' DASH)

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

#1127

#1141

47.61

582-1201

#1213

159.91

582-9987-100

30

582-9988

S. CLEMENT AVE.

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SHEET 159 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1C.DWG
LAYOUT NAME - 15C

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E TRIPOLI AVE INTERSECTION

S. HANSON AVE.

STOP
R1-1

R3-2
24"X24"

W06-3

WO1-6
48"X24"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

LANE CLOSED
R11-2L
48"X30"

90' LANE SHIFT

200'

WO1-4R

200'

ROAD WORK AHEAD
W20-1A

E. HOWARD AVE.

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

11'

11'

PC 111' RADIUS
STA. 72+10, 22.7' LT

MATCHLINE STA. 71+00

00

72+00

73+00

74+00

75+00

76+00

MB

PT 111' RADIUS
STA. 72+63, 9.6' LT

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH, YELLOW

PC 124' RADIUS
STA. 72+83, 1.4' RT

PT 124' RADIUS
STA. 73+31, 15.3' RT

RIGHT TURN ONLY
R3-5R
24"X30"

WO1-6
48"X24"

WO1-3R

15 MPH
WO13-1
36"X36"

S. NEVADA STREET

END ROAD WORK
G20-2A
48"X24"

| FRAME 1 | FRAME 2 |
|---|---|
| NEW TRAFFIC PATTERN | BEGIN XX/XX |

PLACE MESSAGE BOARD 14
CALENDAR DAYS PRIOR TO STAGE 1

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1 | SHEET 160 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S1A.DWG
LAYOUT NAME - 16

PLOT DATE : 10/31/2023 6:42 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

1
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
RAMP CLOSED AHEAD
W20-53A

2
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
MO6-1 21"X21"

3
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
MO6-1 21"X21"

4
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
MO5-1R 21"X21"

5
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
MO6-1 21"X21"

6
MO4-5 24"X12"
M3-3 24"X12"
M3-2 24"X12"
M1-1 24"X24"
M1-1 24"X24"
TO
SOUTH EAST
INTERSTATE INTERSTATE
43 94
MO5-1L 21"X21"

7
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
RAMP CLOSED AHEAD
W20-53A

8
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO6-1 21"X21"

9
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO6-1 21"X21"

10
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO5-1R 21"X21"

11
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO6-1 21"X21"

12
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO5-1L 21"X21"

13
MO4-5 24"X12"
M1-94 54"X15"
TO
HOWARD AVE
MO5-2R 21"X21"

NOTE:

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXPECT THE BACKGROUND IS REFLECTIVE ORANGE.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE OF DIVIDED ROADWAY.

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN PLANS.

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

* DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.




2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | DETOUR PLAN - STAGE 1 | SHEET 161 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\027001_DT-S1.DWG
LAYOUT NAME - 01
PLOT DATE : 10/31/2023 6:43 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1IN = 750FT
WISDOT/CADDS SHEET 42

# Stage 1C

**LEGEND**

- DRUMS W/LIGHTS 30' SPACING
- TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING
- SIGN ON PERMANENT SUPPORT
- TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
- TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
- WORK AREA
- WORK DONE UNDER TRAFFIC
- MEDIAN ISLAND REMOVAL
- FLASHING ARROW BOARD

(A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
(B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
(C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
(D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
(E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
(G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
(H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
(I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
(J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
(SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
(T) TEMPORARY PEDESTRIAN CURB RAMP

SEE SHEETS 2 & 3
MATCH LINE A-A

300'

N

S. 5TH PL.
S. 5TH ST.
W. HOWARD AVE.
FREEWAY ON RAMP
S. 3RD ST.

R3-2
24" X24"

USE TEMPORARY REMOVABLE TAPE ON BRIDGE DECK & APPROACH

14' | 14' | 14' | 14' | 21' | 14'

G20-58
RAMP CLOSED
BEGINNING
XXX-XX
72" X36"

W020-3A
ROAD CLOSED AHEAD
36" X36"

R11-2R
RAMP CLOSED
48" X30"

FREEWAY ON/OFF RAMP

R11-2
ROAD CLOSED
48" X30"

COVER EXISTING EXIT SIGN

MATCH LINE C-C
SEE SHEETS 4, 5 & 6

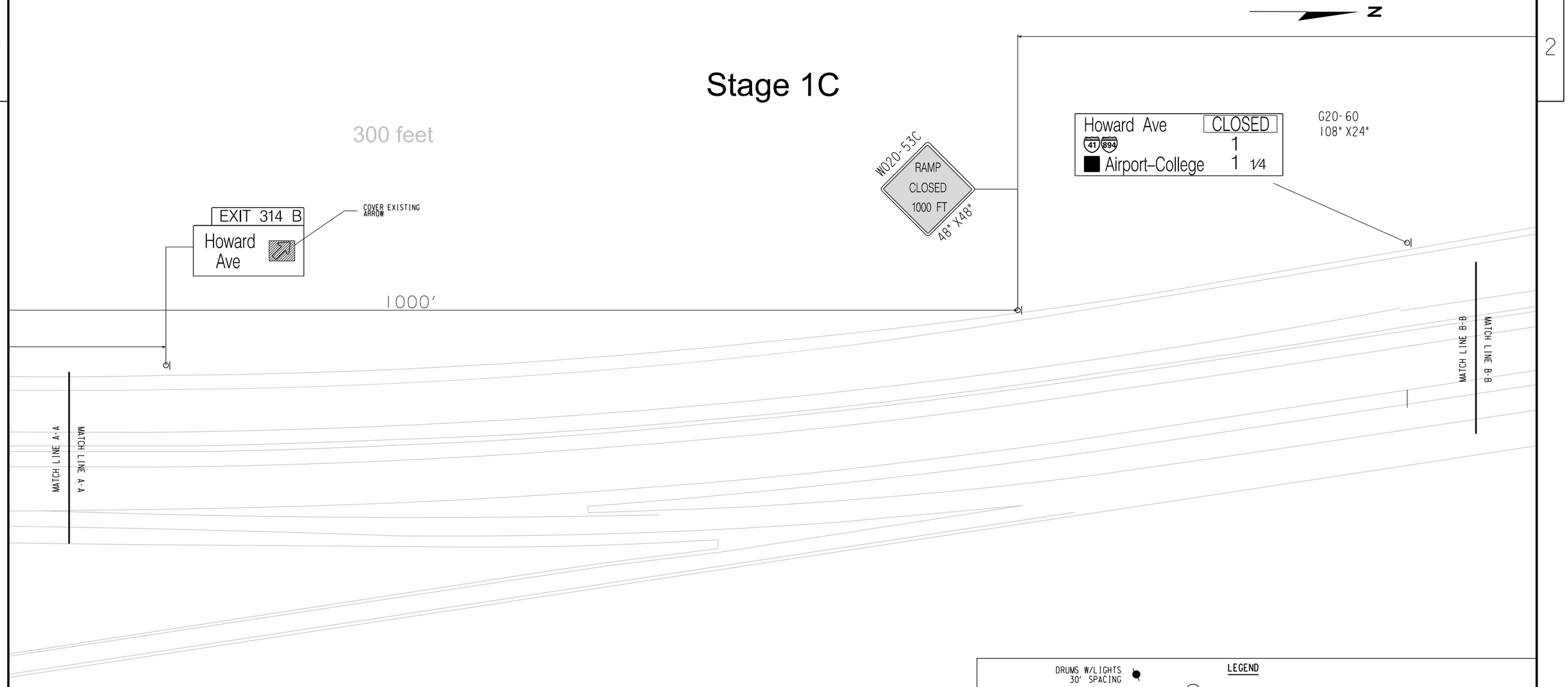
SHEET 1 OF 6

| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SCALE FEET 0' 80' | SHEET NO: 162 | E |
|---|---|---|---|---|---|---|

FILENAME: C:\USERS\JAORTIZ\DESKTOP\2395-05-71 - TRAFFIC - STAGE 1C RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

# Stage 1C




DRUMS W/LIGHTS 30' SPACING

TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS

TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

SIGN ON PERMANENT SUPPORT

TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)

TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)

WORK AREA

WORK DONE UNDER TRAFFIC

MEDIAN ISLAND REMOVAL

FLASHING ARROW BOARD

**LEGEND**

- (A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- (C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- (D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
- (E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
- (I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
- (J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
- (SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (T) TEMPORARY PEDESTRIAN CURB RAMP

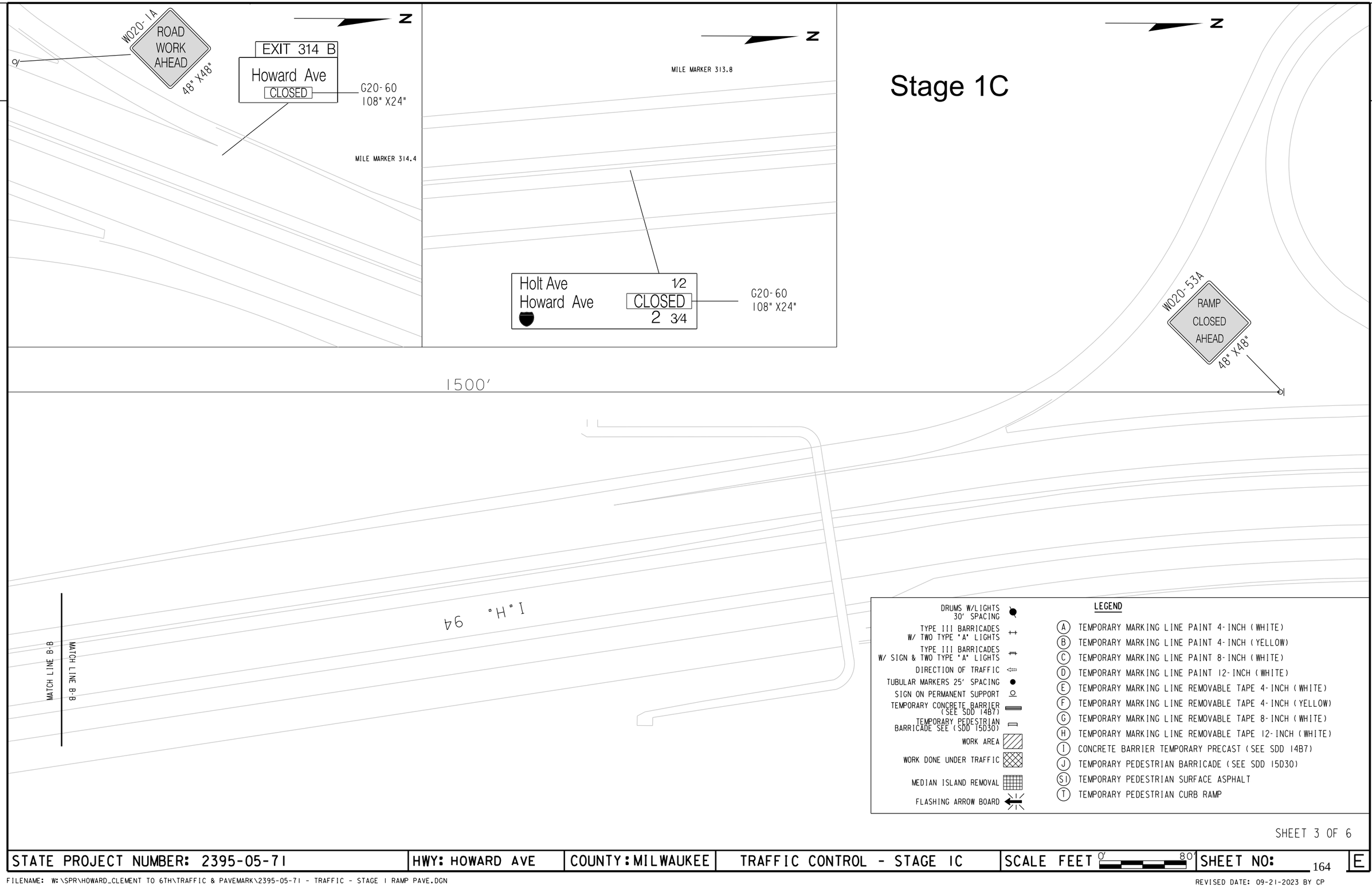


| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SCALE FEET 0' 80' | SHEET NO: 163 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - STAGE 1 RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

# Stage 1C




**LEGEND**

- DRUMS W/LIGHTS 30' SPACING
- TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING
- SIGN ON PERMANENT SUPPORT
- TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
- TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
- WORK AREA
- WORK DONE UNDER TRAFFIC
- MEDIAN ISLAND REMOVAL
- FLASHING ARROW BOARD

- (A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- (C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- (D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
- (E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
- (I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
- (J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
- (SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (T) TEMPORARY PEDESTRIAN CURB RAMP



| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SCALE FEET 0' 80' | SHEET NO: 164 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - STAGE 1 RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

# Stage 1C

N

EXIT 314 B
HOWARD AVENUE
CLOSED
G20-60
120" X30"

G20-58
RAMP CLOSED
BEGINNING
XXX-XX
72" X36"

MATCH LINE D-D

MATCH LINE C-C

R11-3-C
RAMP CLOSED
48" X30"

COVER EXISTING EXIT SIGN

DRUMS W/LIGHTS 30' SPACING
TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING
SIGN ON PERMANENT SUPPORT
TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
WORK AREA
WORK DONE UNDER TRAFFIC
MEDIAN ISLAND REMOVAL
FLASHING ARROW BOARD

LEGEND

(A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
(B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
(C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
(D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
(E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
(G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
(H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
(I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
(J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
(SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
(T) TEMPORARY PEDESTRIAN CURB RAMP

SHEET 4 OF 6

| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE IC | SCALE FEET 0' 80' | SHEET NO: 165 E |
|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - STAGE 1 RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

DRUMS W/LIGHTS 30' SPACING
TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING
SIGN ON PERMANENT SUPPORT
TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
WORK AREA
WORK DONE UNDER TRAFFIC
MEDIAN ISLAND REMOVAL
FLASHING ARROW BOARD

**LEGEND**

- (A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- (C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- (D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
- (E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
- (I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
- (J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
- (SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (T) TEMPORARY PEDESTRIAN CURB RAMP

Howard Ave CLOSED
Holt Ave 3/4
Becher–Mitchell 2 3/4
G20-60 108" X24"
MILE MARKER 316.0

EXIT 314 B
HOWARD AVENUE CLOSED
G20-60 108" X24"
MILE MARKER 316.2

N

EXIT 314 B
HOWARD AVENUE CLOSED
G20-60 108" X24"
EXIT ONLY

MATCH LINE E-E
MATCH LINE E-E

W020-53C
RAMP CLOSED 1000 FT
36" X36"

MATCH LINE D-D
MATCH LINE D-D

300'
600'
200'
1200'

MILE MARKER 315.6

# Stage 1C

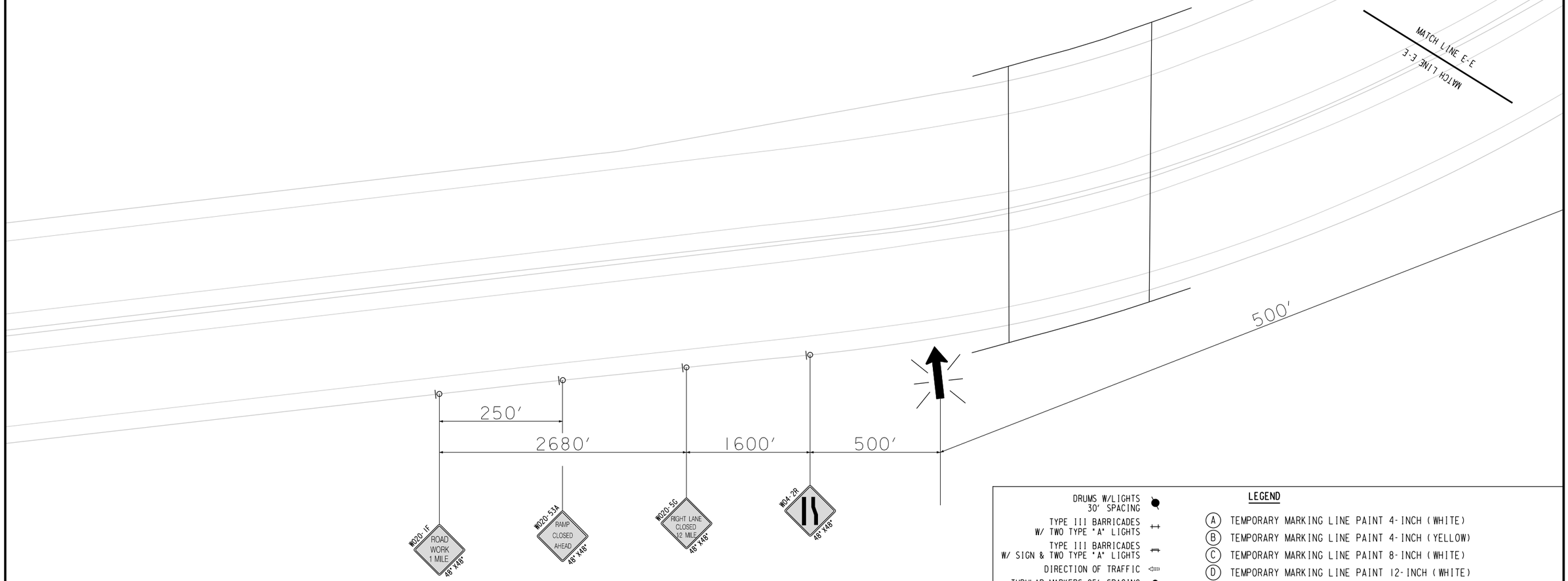
SHEET 5 OF 6

| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SCALE FEET 0' 80' | SHEET NO: 166 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - STAGE 1 RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

# Stage 1C




DRUMS W/LIGHTS 30' SPACING
TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING
SIGN ON PERMANENT SUPPORT
TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
WORK AREA
WORK DONE UNDER TRAFFIC
MEDIAN ISLAND REMOVAL
FLASHING ARROW BOARD

**LEGEND**

- (A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- (C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- (D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
- (E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
- (I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
- (J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
- (SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (T) TEMPORARY PEDESTRIAN CURB RAMP



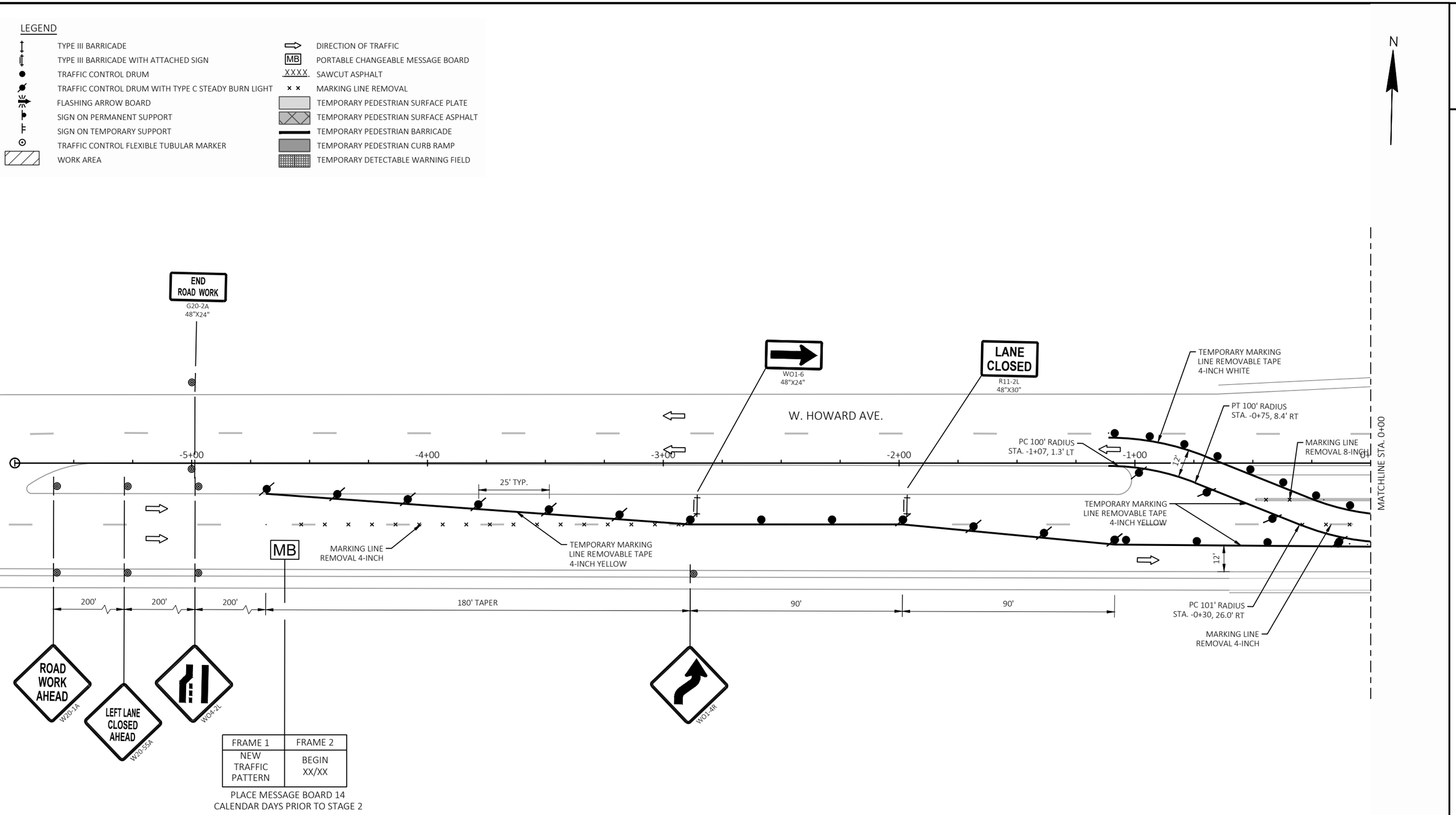
| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 1C | SCALE FEET 0' 80' | SHEET NO: 167 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - STAGE 1 RAMP PAVE.DGN

REVISED DATE: 09-21-2023 BY CP

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- × × MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| FRAME 1 | FRAME 2 |
|---|---|
| NEW TRAFFIC PATTERN | BEGIN XX/XX |

PLACE MESSAGE BOARD 14 CALENDAR DAYS PRIOR TO STAGE 2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

500'

S. 6TH ST.

ROAD CLOSED AHEAD W20-3A

PLACE SIGN AT W SAVELAND AVE INTERSECTION

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

S. 5TH PL.

LANE CLOSED R11-2L 48"X30"

ROAD CLOSED R11-2 48"X30"

R3-2 24"X24"

LANE CLOSED R11-2L 48"X30"

ROAD CLOSED R11-2 48"X30"

MATCHLINE STA. 0+00

00 1+00 2+00 3+00 4+00 5+00

MATCHLINE STA. 5+50

25' TYP.

13'

16'

10'

W. HOWARD AVE.

MARKING LINE REMOVAL 4-INCH

PT 100' RADIUS STA. 0+11, 33.7' RT

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

W6-3 36"X36"

R3-2 24"X24"

STOP

R3-2 24"X24"

ROAD CLOSED R11-2 48"X30"

S. 5TH PL.

500'

S. 6TH ST.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT W NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 169 | E |
|---|---|---|---|---|---|

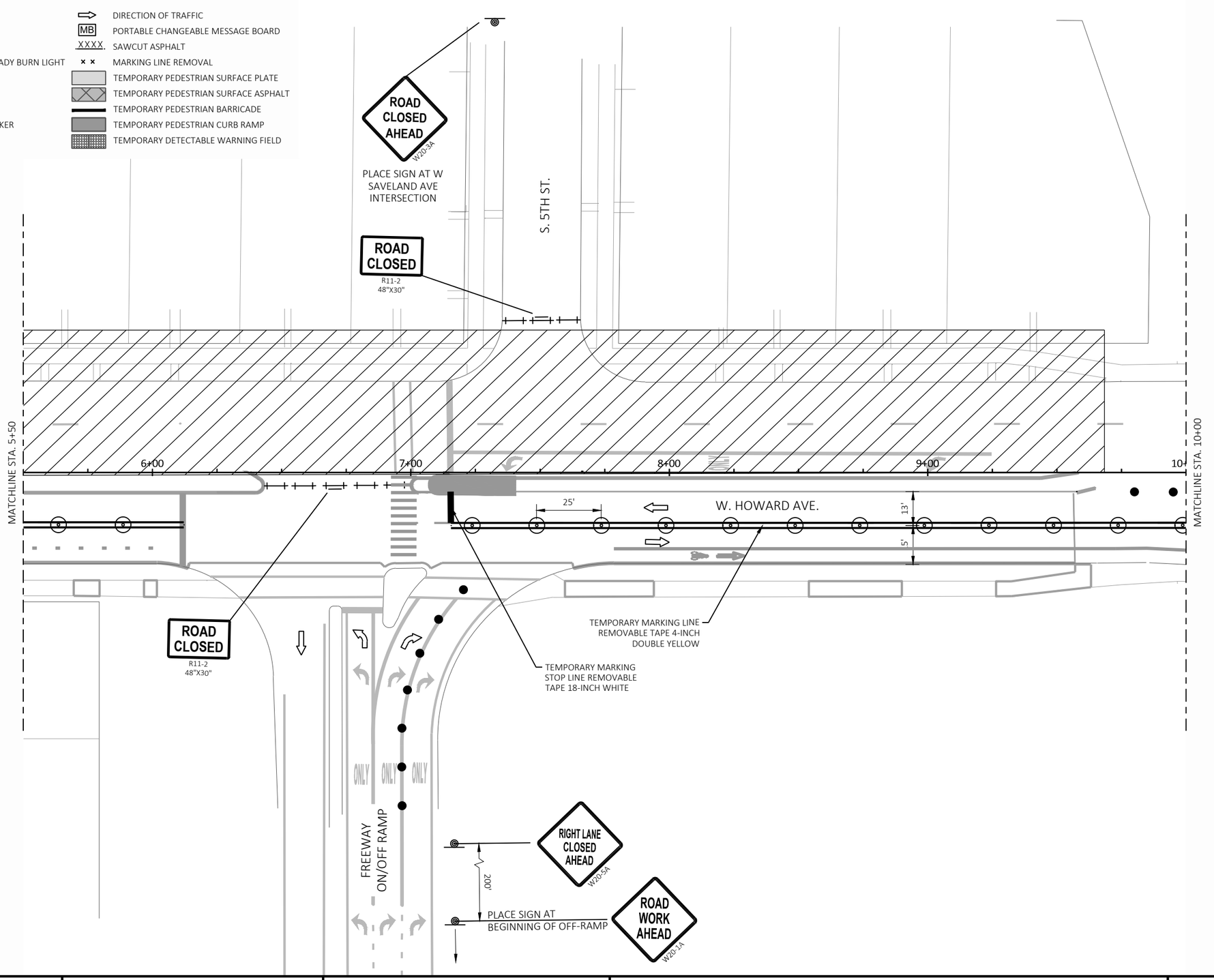
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 170 | E |
|---|---|---|---|---|---|

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N

2

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT W TRIPOLI AVE INTERSECTION

FREEWAY ON RAMP

S. 3RD ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SEE SPECIAL PROVISIONS FOR ON RAMP CLOSURE RESTRICTIONS

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

MATCHLINE STA. 10+00

00 11+00 12+00 13+00 14+00 15

MATCHLINE STA. 15+00

25' 25'

W. HOWARD AVE.

10' 13' 5'

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

STOP

R3-2
24"X24"

S. 3RD ST.

ONLY

FREEWAY OFF RAMP

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 171 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 04

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD CLOSED AHEAD W20-3A

PLACE SIGN AT W TRIPOLI AVE INTERSECTION

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

S. 2ND ST.

R3-2 24"X24"

MATCHLINE STA. 15+00

00 16+00 17+00 18+00 19+00 20

MATCHLINE STA. 20+00

10' 13' 15' 10' W. HOWARD AVE. 25' 10'

R3-2 24"X24"

STOP

R3-2 24"X24"

ROAD CLOSED R11-2 48"X30"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

R3-2 24"X24"

S. 2ND ST.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 172 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

2

ROAD CLOSED AHEAD W20-3A

PLACE SIGN AT W TRIPOLI AVE INTERSECTION

S. 1ST ST.

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

R3-2 24"X24"

MATCHLINE STA. 20+00

00 21+00 22+00 23+00 24+00 25

MATCHLINE STA. 25+00

13' 5' 10' 25' 10' 10'

W. HOWARD AVE.

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

ROAD CLOSED R11-2 48"X30"

STOP R1-1

R3-2 24"X24"

S. 1ST PL.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

R3-2 24"X24"

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

ROAD CLOSED R11-2 48"X30"

STOP

R3-2 24"X24"

S. 1ST ST.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

R3-2 24"X24"

W06-3

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 173 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 06

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

S. HOWELL AVE.

500'

M4-60R
30"X24"

M4-60L
30"X24"

ROAD CLOSED
R11-2
48"X30"

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

MATCHLINE STA. 25+00

00

26+00

27+00

28+00

29+00

30

MATCHLINE STA. 30+00

W. HOWARD AVE.

10'

25'

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
DOUBLE YELLOW

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
YELLOW (9' SKIP, 3' DASH)

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

ONLY

ONLY

S. HOWELL AVE.

500'

EXTEND LEFT TURN LANE
CLOSURE BACK TO THE
START OF THE TURN LANE

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

ONLY

ONLY

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2A | SHEET 174 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 07A

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT
W CRAWFORD AVE
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

S. HOWELL AVE.

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

MATCHLINE STA. 25+00

00

26+00

27+00

28+00

29+00

30

MATCHLINE STA. 30+00

25'

10'

E. HOWARD AVE.

LANE CLOSED
R11-2L
48"X30"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
DOUBLE YELLOW

STOP
R3-2
24"X24"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
YELLOW (9' SKIP, 3' DASH)

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

ONLY

ONLY

EXTEND LEFT TURN LANE
CLOSURE BACK TO THE
START OF THE TURN LANE

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

S. HOWELL AVE.

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

ONLY

ONLY

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2B | SHEET 175 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2B.DWG
LAYOUT NAME - 07B

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

500'

S. HOWELL AVE.

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT
E BRADLEY AVE
INTERSECTION

STOP
R1-1

R3-2
24"X24"

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

ROAD CLOSED
R11-2
48"X30"

KEEP ONE DRIVEWAY IN PLACE WHILE
THE OTHER IS BEING CONSTRUCTED

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

MATCHLINE STA. 25+00

00

26+00

27+00

28+00

29+00

30

MATCHLINE STA. 30+00

25'

E. HOWARD AVE.

10'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
DOUBLE YELLOW

LANE CLOSED
R11-2L
48"X30"

STOP
R3-2
24"X24"

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH
YELLOW (9' SKIP, 3' DASH)

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

ONLY

ONLY

EXTEND LEFT TURN LANE
CLOSURE BACK TO THE
START OF THE TURN LANE

S. HOWELL AVE.

500'

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E
NORWICH STREET
INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

ONLY

ONLY

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2C | SHEET 176 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2C.DWG
LAYOUT NAME - 07C

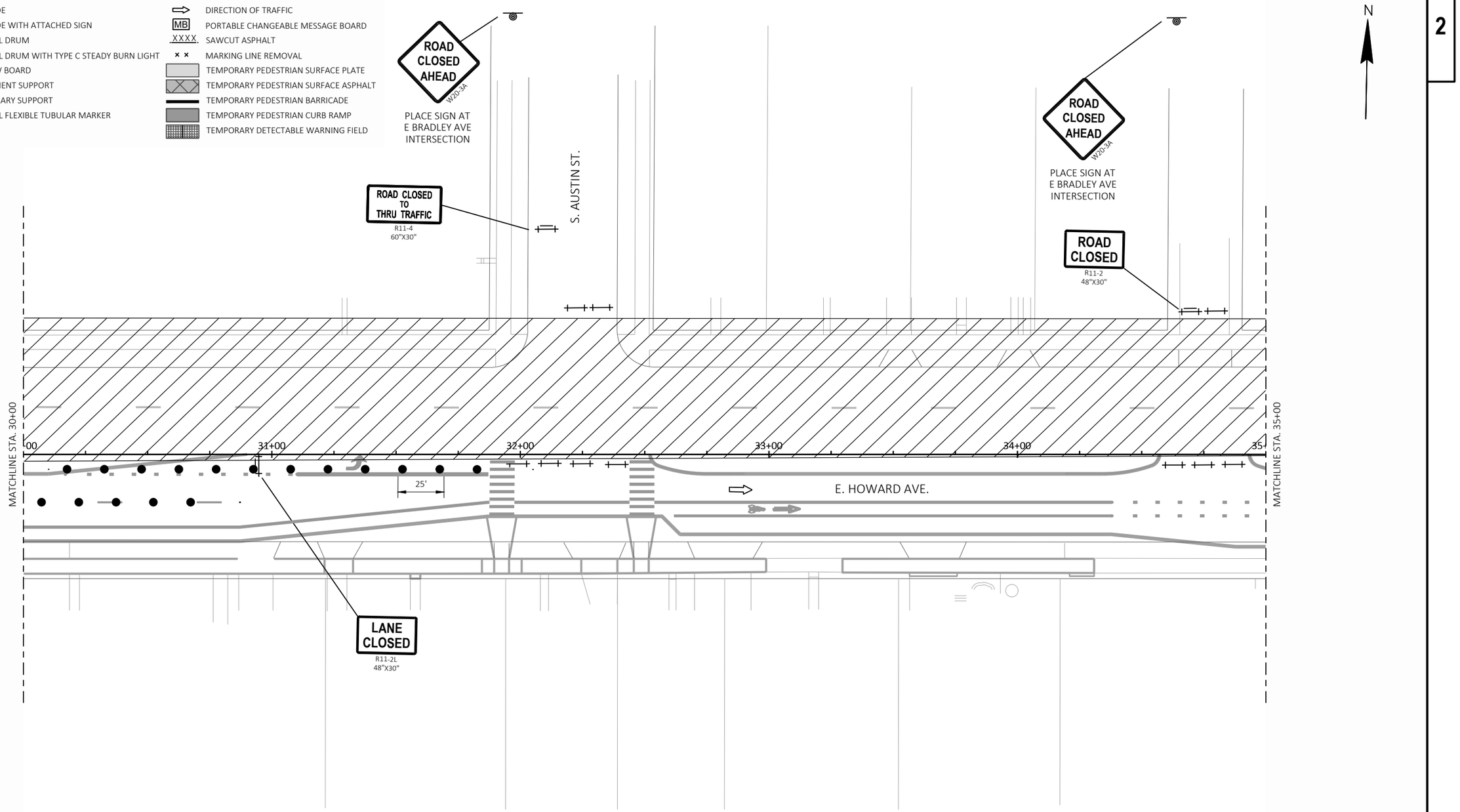
PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 177 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.

N

ROAD WORK AHEAD
W20-1A

W01-4R

200'

200'

40' LANE SHIFT

100'

15'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

DO NOT CLOSE S. WHITNAL AVE AND S. CLEMMENT AVE TO ONE WAY TRAFFIC AT THE SAME TIME

S. WHITNALL AVE.

LANE CLOSED
R11-2L
48"X30"

M4-60R
30"X24"

CONSTRUCT DRIVEWAY ONE HALF AT A TIME

ROAD CLOSED
R11-2
48"X30"

MATCHLINE STA. 35+00

36+00

37+00

38+00

39+00

40

MATCHLINE STA. 40+00

25'

E. HOWARD AVE.

R3-1
24"X24"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

500'

S. WHITNALL AVE.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500' PRIOR TO LEFT TURN LANE CLOSURE

EXTEND DRUMS TO CLOSE OFF LEFT TURN LANE

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2A | SHEET 178 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 09A

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.

ROAD WORK AHEAD
W20-1A

WO1-4L

200'

200'

END ROAD WORK
G20-2A
48"X24"

WO1-6
48"X24"

MARKING REMOVAL SPECIAL MARKING

S. WHITNALL AVE.

45' LANE SHIFT

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

MARKING REMOVAL LINE 4-INCH (DOUBLE)

MARKING REMOVAL SPECIAL MARKING

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE

LANE CLOSED
R11-2L
48"X30"

CONSTRUCT DRIVEWAY ONE HALF AT A TIME

ROAD CLOSED
R11-2
48"X30"

12'

14'

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH

MATCHLINE STA. 35+00

00

36+00

37+00

38+00

39+00

40

MATCHLINE STA. 40+00

25'

E. HOWARD AVE.

R3-1
24"X24"

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

R3-2
24"X24"

500'

S. WHITNALL AVE.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN 500' PRIOR TO LEFT TURN LANE CLOSURE

EXTEND DRUMS TO CLOSE OFF LEFT TURN LANE

N

2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2B | SHEET 179 | E |
|---|---|---|---|---|---|

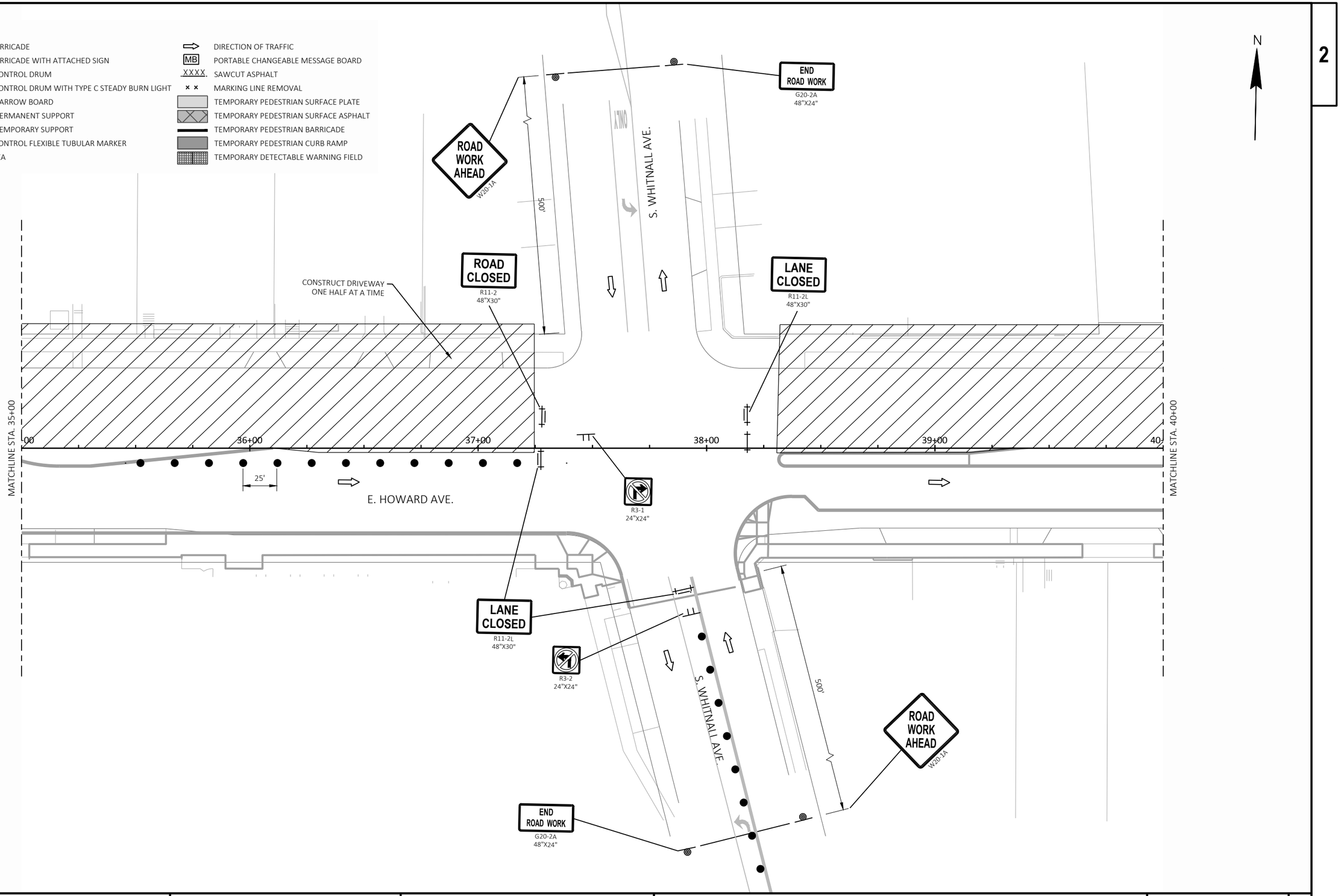
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2B.DWG
LAYOUT NAME - 09B

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2C | SHEET 180 | E |
|---|---|---|---|---|---|

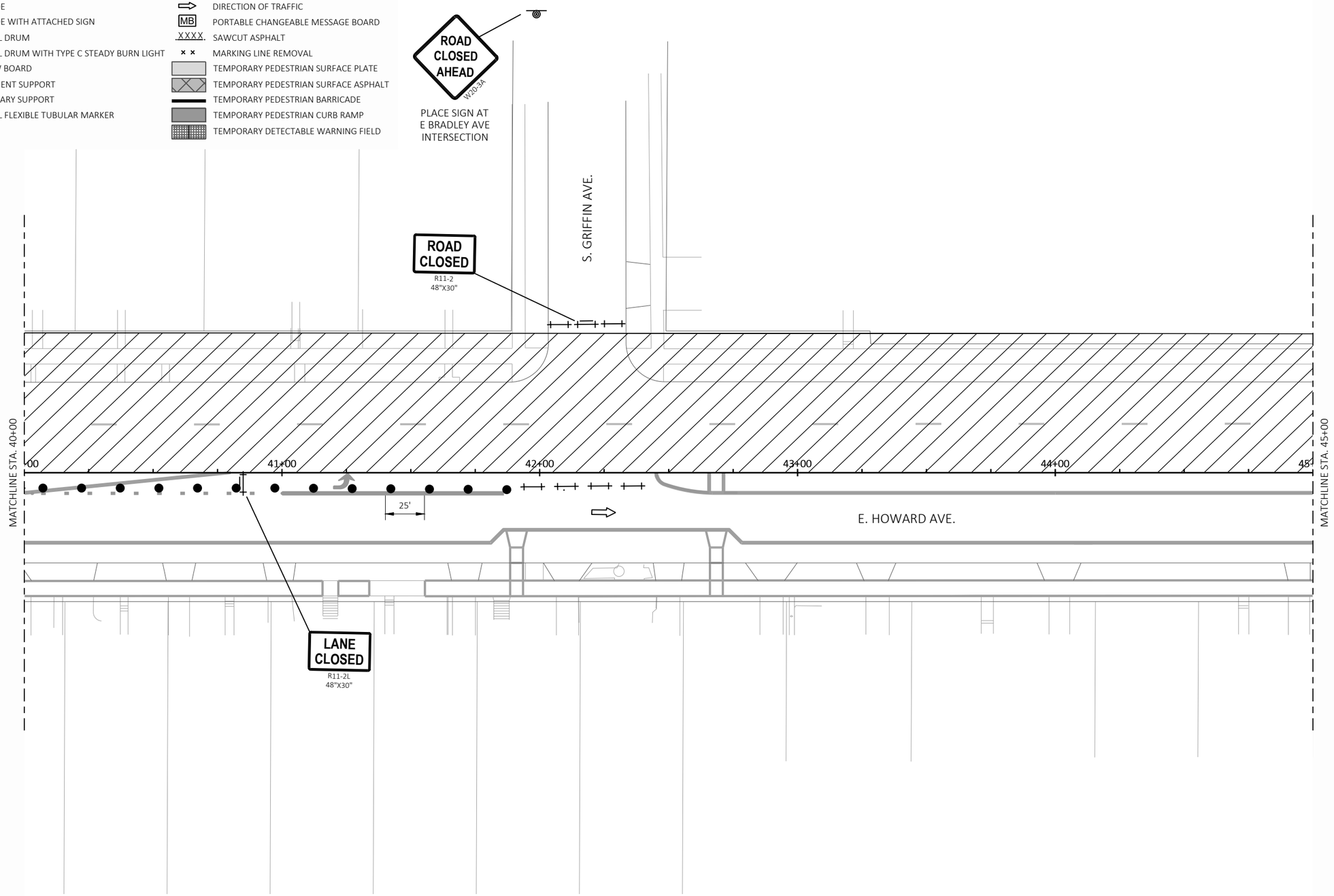
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2C.DWG
LAYOUT NAME - 09C

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 181 | E |
|---|---|---|---|---|---|

FILE NAME : X:\WL\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 10
PLOT DATE : 10/31/2023 6:43 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

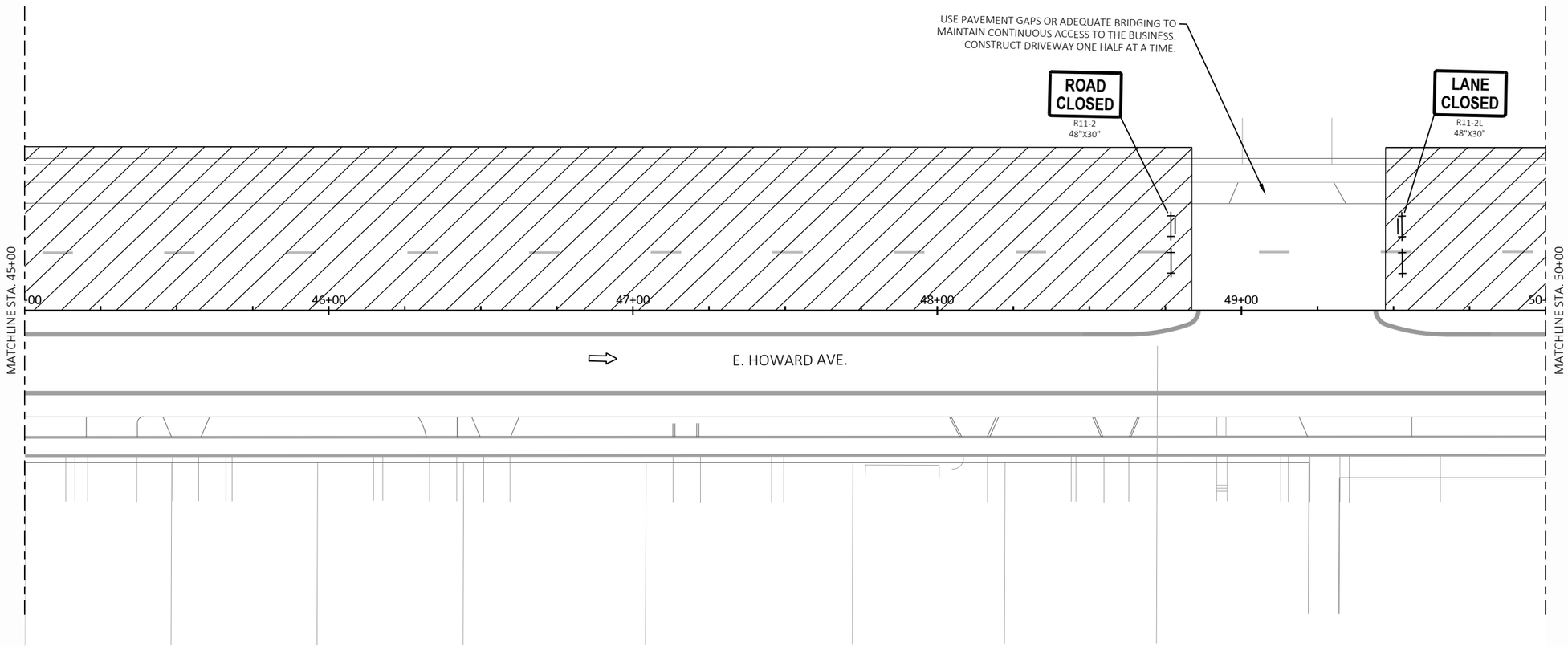
2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N

2




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 182 | E |
|---|---|---|---|---|---|

FILE NAME : X:\WL\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 11

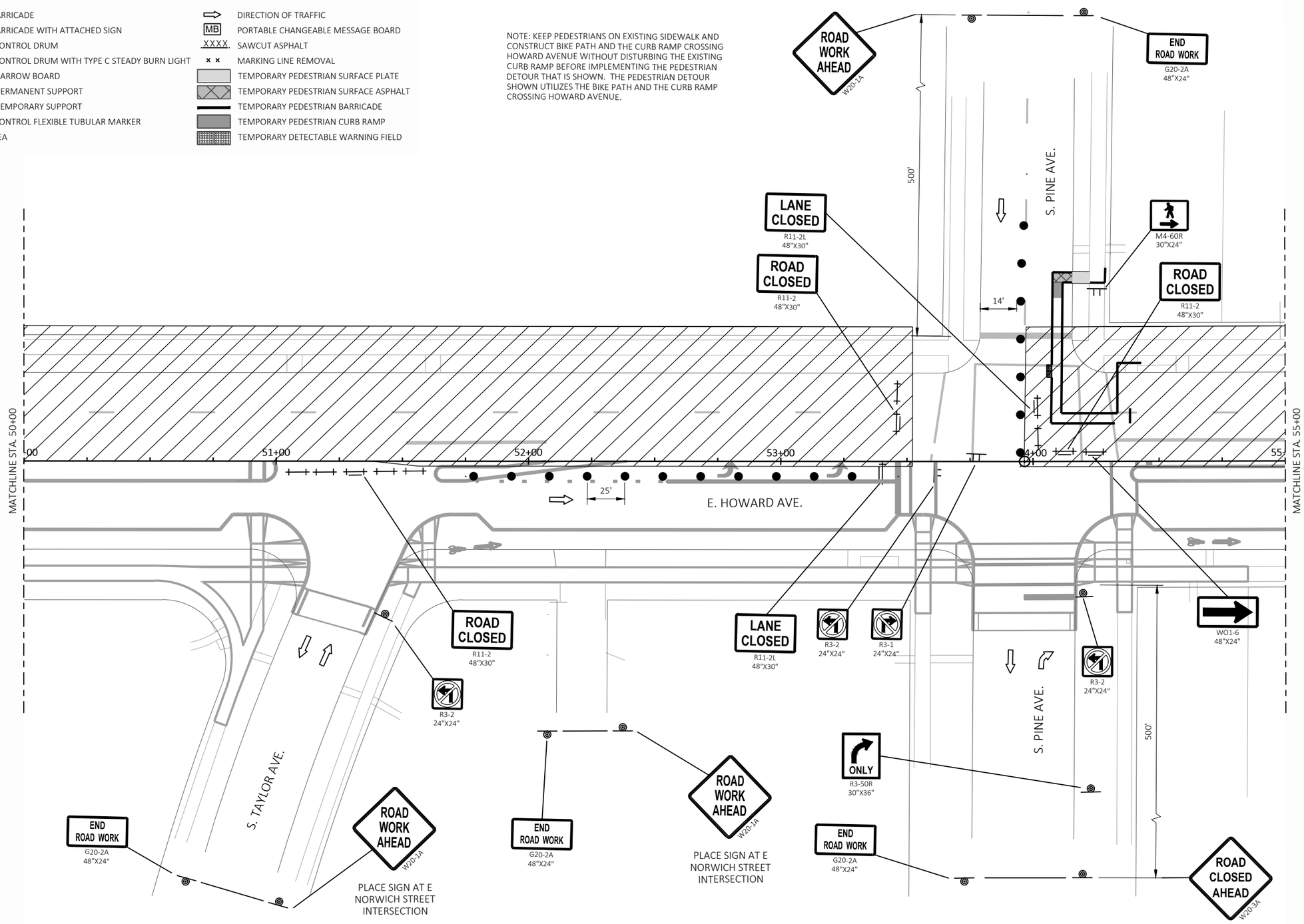
PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2A | SHEET 183 | E |
|---|---|---|---|---|---|

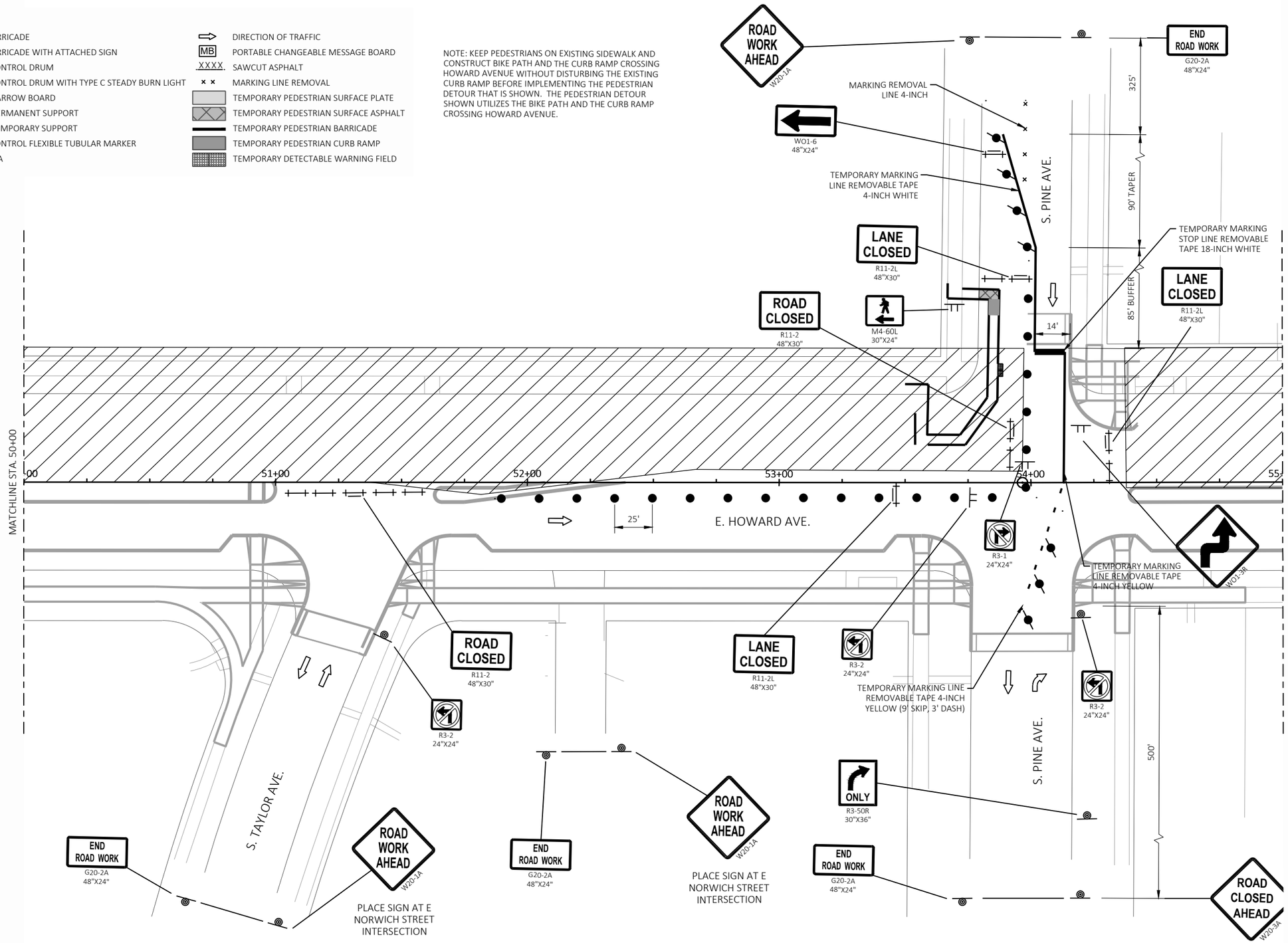
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 12A

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

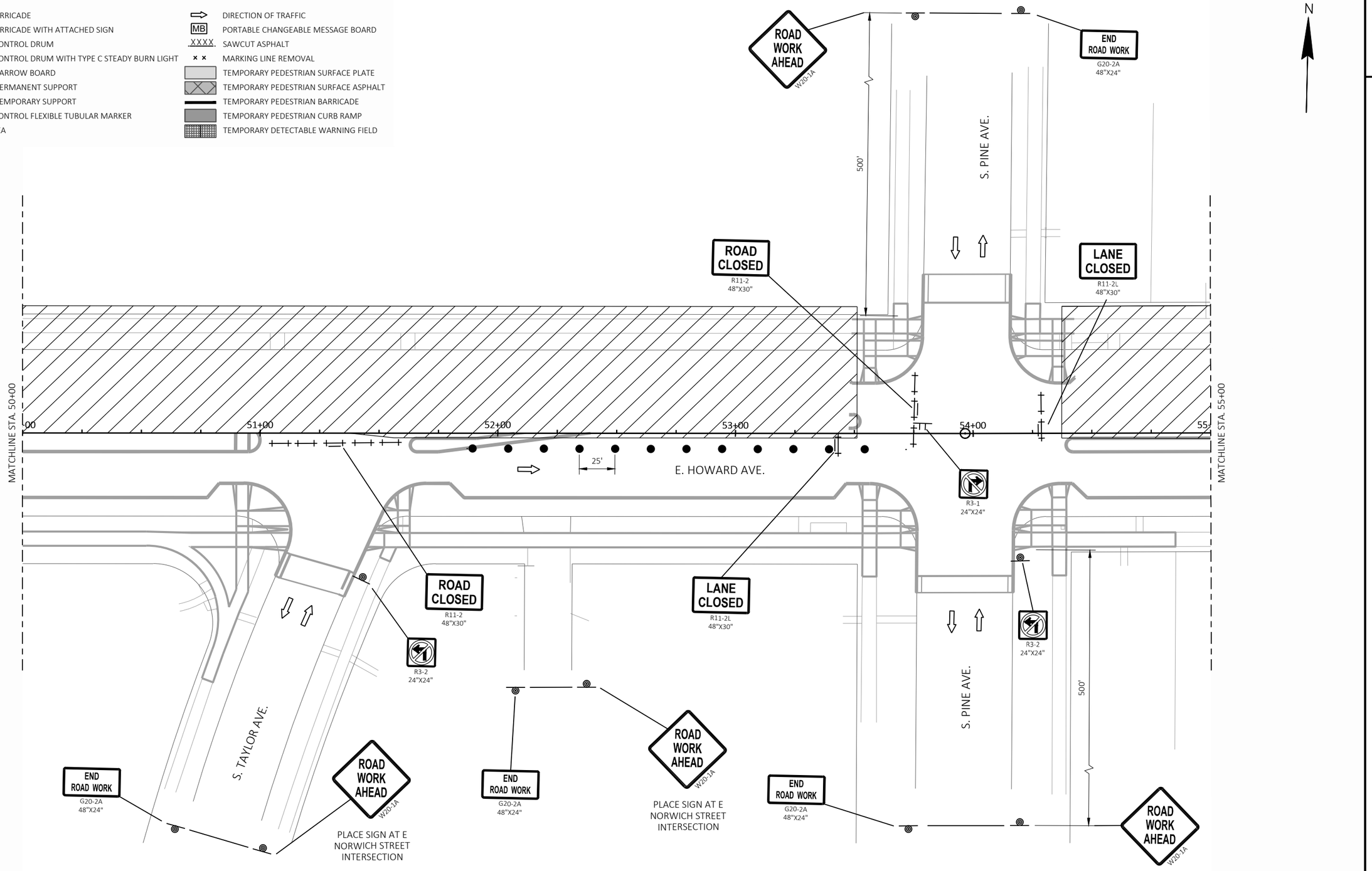
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2C | SHEET 185 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2C.DWG
LAYOUT NAME - 12C

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

2

ROAD CLOSED AHEAD
W20-3A
PLACE SIGN AT E SAVELAND AVE INTERSECTION

S. LENOX ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED
R11-2
48"X30"

MATCHLINE STA. 55+00

00 56+00 57+00 58+00 59+00 60+

MATCHLINE STA. 60+00

25' 25'

E. HOWARD AVE.

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

S. LENOX ST.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
PLACE SIGN AT E NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 186 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 13
PLOT DATE : 10/31/2023 6:43 PM
PLOT BY : BARRETT, WILL
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD CLOSED AHEAD
W20-3A
PLACE SIGN AT E SAVELAND AVE INTERSECTION

S. LOGAN AVE.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED
R11-2
48"X30"

S. HERMAN ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED AHEAD
W20-3A
PLACE SIGN AT E SAVELAND AVE INTERSECTION

MATCHLINE STA. 60+00

00 61+00 62+00 63+00 64+00 65+00

MATCHLINE STA. 65+50

25'

E. HOWARD AVE.

LANE CLOSED
R11-2L
48"X30"

S. LOGAN AVE.

R3-2
24"X24"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
PLACE SIGN AT E NORWICH STREET INTERSECTION

S. HERMAN ST.

R3-2
24"X24"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A
PLACE SIGN AT E NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 187 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 14

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

350'

S. CLEMENT AVE.

DO NOT CLOSE S. CLEMENT AVE AND S. WHITNAL AVE TO ONE WAY TRAFFIC AT THE SAME TIME

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

MARKING LINE REMOVAL WIDE

KEEP ONE DRIVEWAY IN PLACE WHILE THE OTHER IS BEING CONSTRUCTED.

ROAD CLOSED
R11-2
48"X30"

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+

MATCHLINE STA. 71+00

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE

12'

13'

14'

E. HOWARD AVE.

25'

11'

11'

WO1-6
48"X24"

WO1-7
48"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

R3-60R
30"X36"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

ROAD WORK AHEAD
W20-1A

350'

S. CLEMENT AVE.

END ROAD WORK
G20-2A
48"X24"

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2A | SHEET 188 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2A.DWG
LAYOUT NAME - 15A

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLACE SIGN AT E SAVELAND AVE INTERSECTION

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48"X24"

| FRAME 1 | FRAME 2 |
|---|---|
| ROAD TO CLOSE | BEGINS XX/XX |

PLACE MESSAGE BOARD 7 CALENDAR DAYS PRIOR TO CLOSING ROAD TO SOUTHBOUND TRAFFIC

MB

S. CLEMENT AVE.

PLACE SIGN AT ALLEY ENTRANCE

ROAD CLOSED
R11-2
48"X30"

DO NOT CLOSE S. CLEMENT AVE AND S. WHITNAL AVE TO ONE WAY TRAFFIC AT THE SAME TIME

NOTE: KEEP PEDESTRIANS ON EXISTING SIDEWALK AND CONSTRUCT BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE WITHOUT DISTURBING THE EXISTING CURB RAMP BEFORE IMPLEMENTING THE PEDESTRIAN DETOUR THAT IS SHOWN. THE PEDESTRIAN DETOUR SHOWN UTILIZES THE BIKE PATH AND THE CURB RAMP CROSSING HOWARD AVENUE.

N

KEEP ONE DRIVEWAY IN PLACE WHILE THE OTHER IS BEING CONSTRUCTED.

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

M4-60L
30"X24"

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+

MATCHLINE STA. 71+00

25'

12'

E. HOWARD AVE.

11'

11'

25'

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE

WO1-6
48"X24"

WO1-7
48"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

R3-60R
30"X36"

ROAD WORK AHEAD
W20-1A

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

350'

S. CLEMENT AVE.

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2B | SHEET 189 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2B.DWG
LAYOUT NAME - 15B

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

PLACE SIGN AT E SAVELAND AVE INTERSECTION

ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A
48"X24"

PLACE SIGN AT ALLEY ENTRANCE

ROAD CLOSED
R11-2
48"X30"

S. CLEMENT AVE.

90' LANE SHIFT

W01-4R

DO NOT CLOSE S. CLEMENT AVE AND S. WHITNAL AVE TO ONE WAY TRAFFIC AT THE SAME TIME

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

M4-60R
30"X24"

M4-60L
30"X24"

LANE CLOSED
R11-2L
48"X30"

KEEP ONE DRIVEWAY IN PLACE WHILE THE OTHER IS BEING CONSTRUCTED.

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

N

MATCHLINE STA. 65+50

66+00

67+00

68+00

69+00

70+00

71+

MATCHLINE STA. 71+00

25'

12'

WO1-6
48"X24"

WO1-7
48"X24"

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW

WO1-6
48"X24"

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH WHITE

25'

E. HOWARD AVE.

11'

11'

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

R3-60R
30"X36"

ROAD WORK AHEAD
W20-1A

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH DOUBLE YELLOW

S. CLEMENT AVE.

350'

END ROAD WORK
G20-2A
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2C | SHEET 190 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S2C.DWG
LAYOUT NAME - 15C

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT E TRIPOLI AVE INTERSECTION

S. HANSON AVE.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

WO1-3L

15 MPH
WO13-1
36"X36"

ROAD WORK AHEAD
W20-1A

200'

200'

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH WHITE

PT 100' RADIUS
STA. 73+33, 24.7' LT

MATCHLINE STA. 71+00

00

72+00

73+00

74+00

75+00

76+00

PC 100' RADIUS
STA. 72+10, 13.5' RT

PT 100' RADIUS
STA. 72+75, 8.8' LT

MB

E. HOWARD AVE.

25'

PT 100' RADIUS
STA. 72+62, 0.7' LT

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

MATCH LINE 76+50

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH YELLOW

TEMPORARY MARKING
LINE REMOVABLE TAPE
4-INCH DOUBLE YELLOW

S. NEVADA STREET

END ROAD WORK
G20-2A
48"X24"

| FRAME 1 | FRAME 2 |
|---|---|
| NEW TRAFFIC PATTERN | BEGIN XX/XX |

PLACE MESSAGE BOARD 14
CALENDAR DAYS PRIOR TO STAGE 2

LEGEND

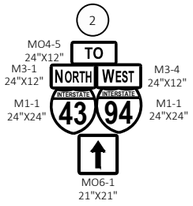
| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SHEET 191 | E |
|---|---|---|---|---|---|

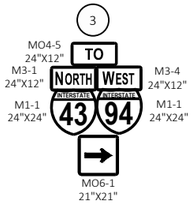
1



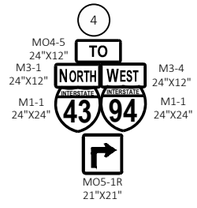

2



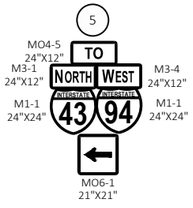

3



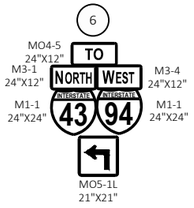

4




5




6




NOTE:

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

'WO' SIGNS ARE THE SAME AS 'W' SIGNS EXPECT THE BACKGROUND IS REFLECTIVE ORANGE.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE OF DIVIDED ROADWAY.

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN PLANS.

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

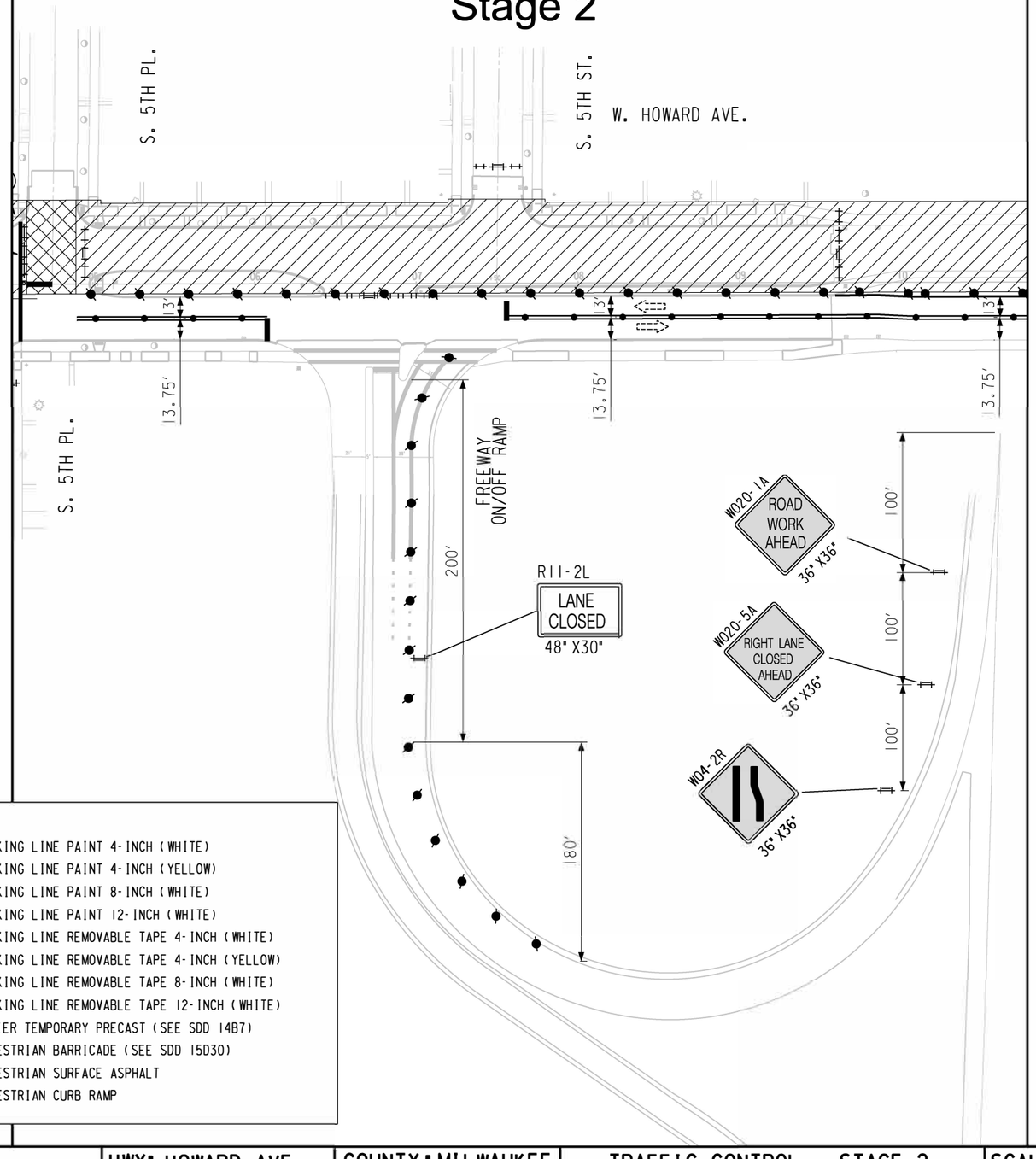
* DO NOT PLACE ANY ITEMS WITHIN 50 FEET OF RAILROAD RIGHT-OF-WAY.




2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | DETOUR PLAN - STAGE 2 | SHEET 192 | E |
|---|---|---|---|---|---|

# Stage 2




**LEGEND**

- DRUMS W/LIGHTS 30' SPACING
- TYPE III BARRICADES W/ TWO TYPE "A" LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE "A" LIGHTS
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING
- SIGN ON PERMANENT SUPPORT
- TEMPORARY CONCRETE BARRIER (SEE SDD 14B7)
- TEMPORARY PEDESTRIAN BARRICADE SEE (SDD 15D30)
- WORK AREA
- WORK DONE UNDER TRAFFIC
- MEDIAN ISLAND REMOVAL
- FLASHING ARROW BOARD

- (A) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- (C) TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- (D) TEMPORARY MARKING LINE PAINT 12-INCH (WHITE)
- (E) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (F) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (G) TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- (H) TEMPORARY MARKING LINE REMOVABLE TAPE 12-INCH (WHITE)
- (I) CONCRETE BARRIER TEMPORARY PRECAST (SEE SDD 14B7)
- (J) TEMPORARY PEDESTRIAN BARRICADE (SEE SDD 15D30)
- (SI) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (T) TEMPORARY PEDESTRIAN CURB RAMP

| STATE PROJECT NUMBER: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 2 | SCALE FEET 0 80 | SHEET NO: 193 E |
|---|---|---|---|---|---|

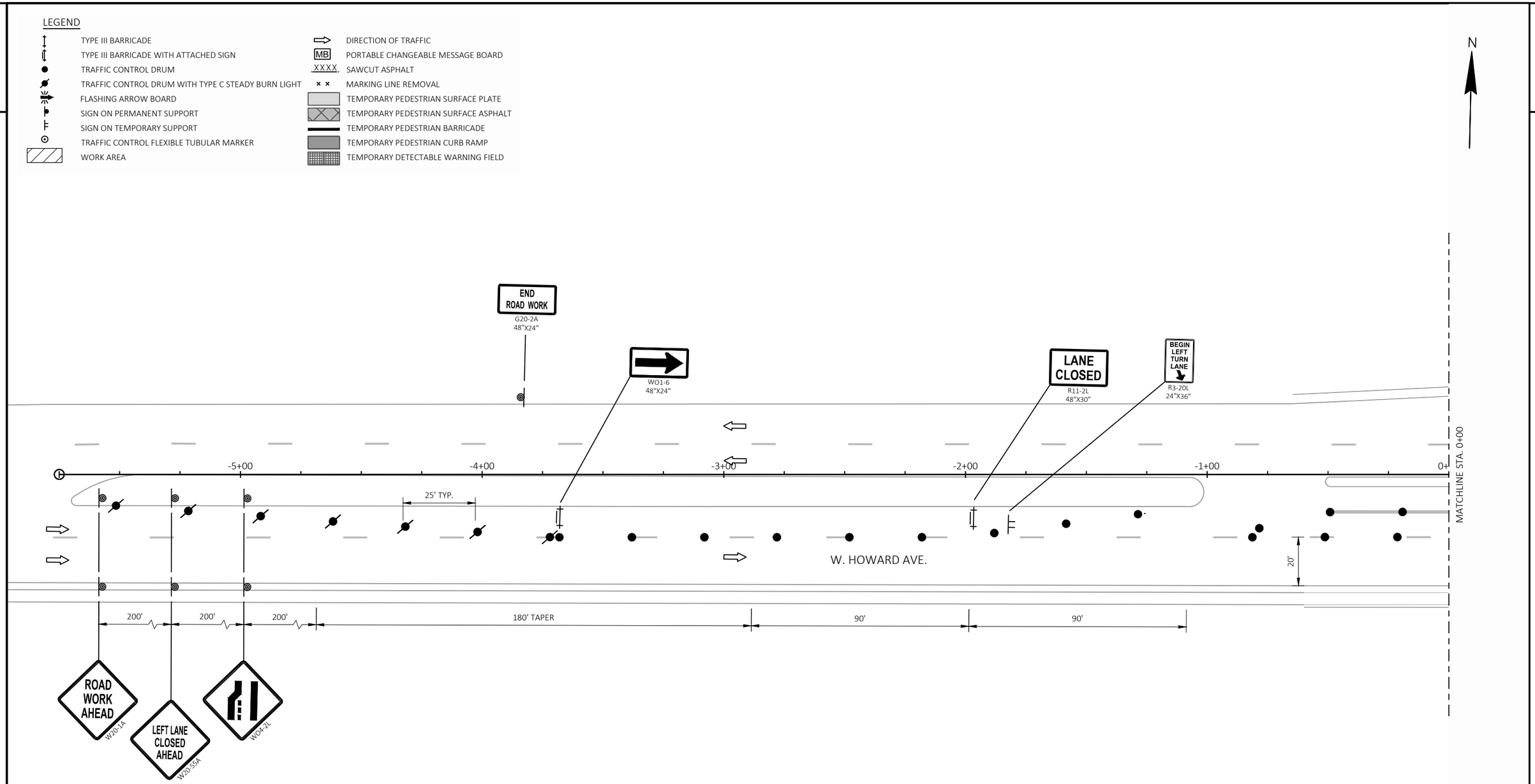
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - TRAFFIC - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE .DGN

REVISED DATE: 09-21-2023 BY CP

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 194 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

N

ROAD WORK AHEAD W20-1A

PLACE SIGN AT W WARNIMONT AVE INTERSECTION

END ROAD WORK G20-2A 48"X24"

500'

S. 6TH ST.

ROAD WORK AHEAD W20-1A

PLACE SIGN AT W SAVELAND AVE INTERSECTION

S. 5TH PL.

MATCHLINE STA. 0+00

00 1+00 2+00 3+00 4+00 5+00

MATCHLINE STA. 5+50

19'

25'

W. HOWARD AVE.

19'

LANE CLOSED R11-2L 48"X30"

BEGIN LEFT TURN LANE R3-20L 24"X36"

STOP

LANE CLOSED R11-2L 48"X30"

S. 6TH ST.

500'

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT W NORWICH STREET INTERSECTION

S. 5TH PL.

END ROAD WORK G20-2A 48"X24"

ROAD WORK AHEAD W20-1A

PLACE SIGN AT W NORWICH STREET INTERSECTION

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 195 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 02

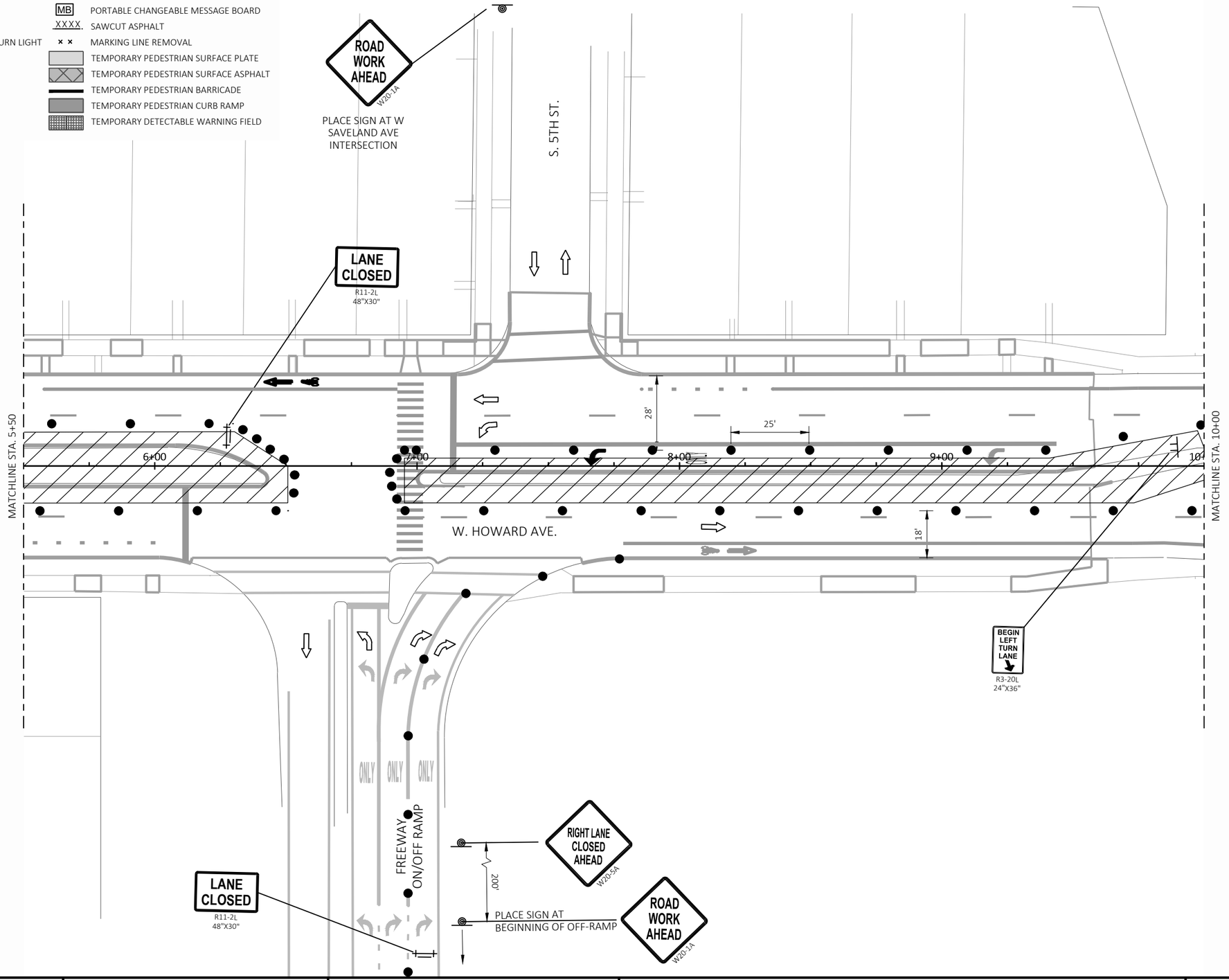
PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




N

2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 196 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

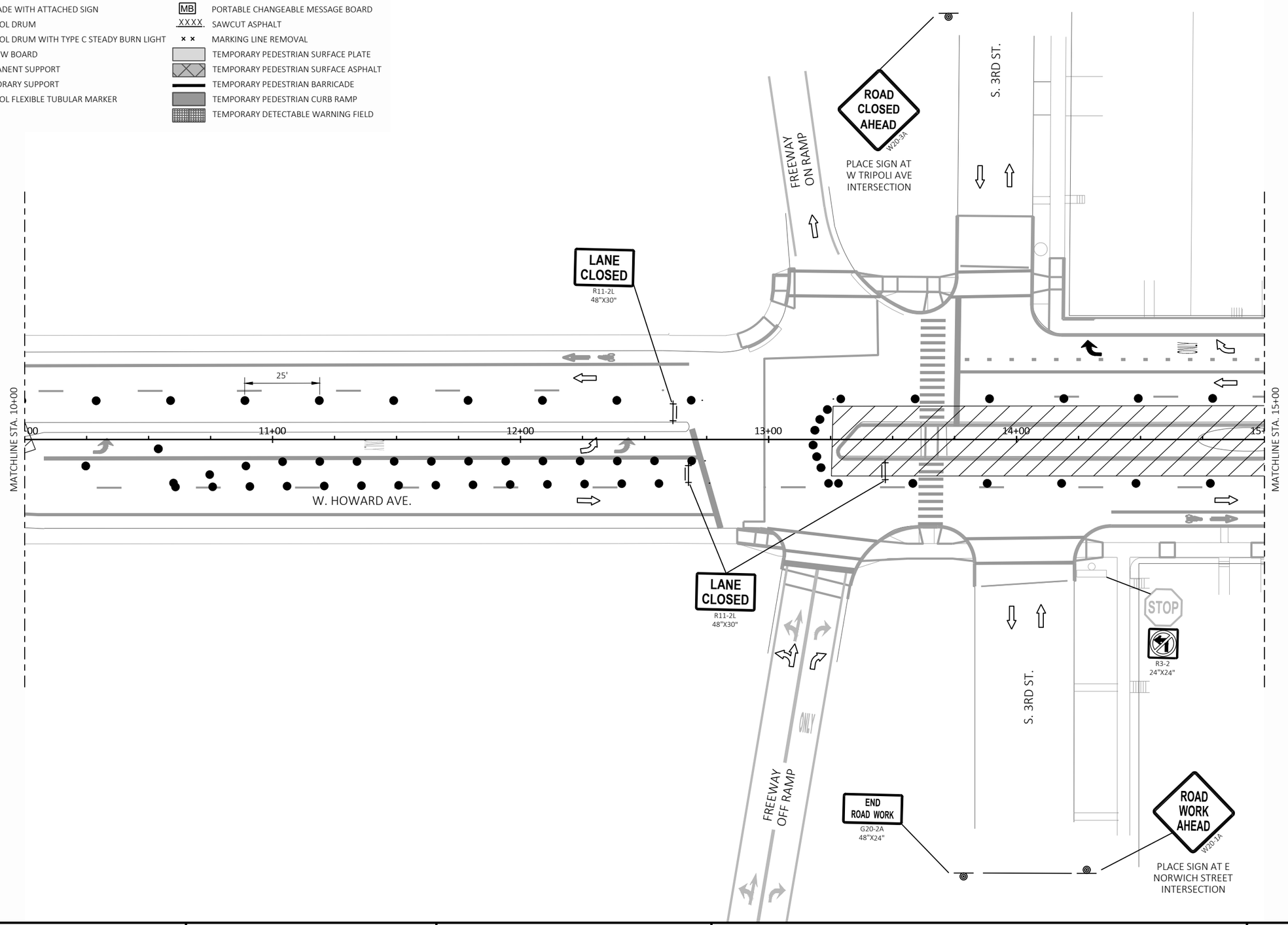
2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- SAWCUT ASPHALT (XXXX)
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

2




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 197 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 04

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

N

ROAD CLOSED AHEAD
W20-5A

PLACE SIGN AT W TRIPOLI AVE INTERSECTION

S. 2ND ST.

LANE CLOSED
R11-2L
48"X30"

25'

18'

17'

MATCHLINE STA. 15+00

00 16+00 17+00

18+00 19+00 20

MATCHLINE STA. 20+00

W. HOWARD AVE.

R3-2
24"X24"

STOP
R3-2
24"X24"

R3-2
24"X24"

S. 2ND ST.

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

2

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 198 | E |
|---|---|---|---|---|---|

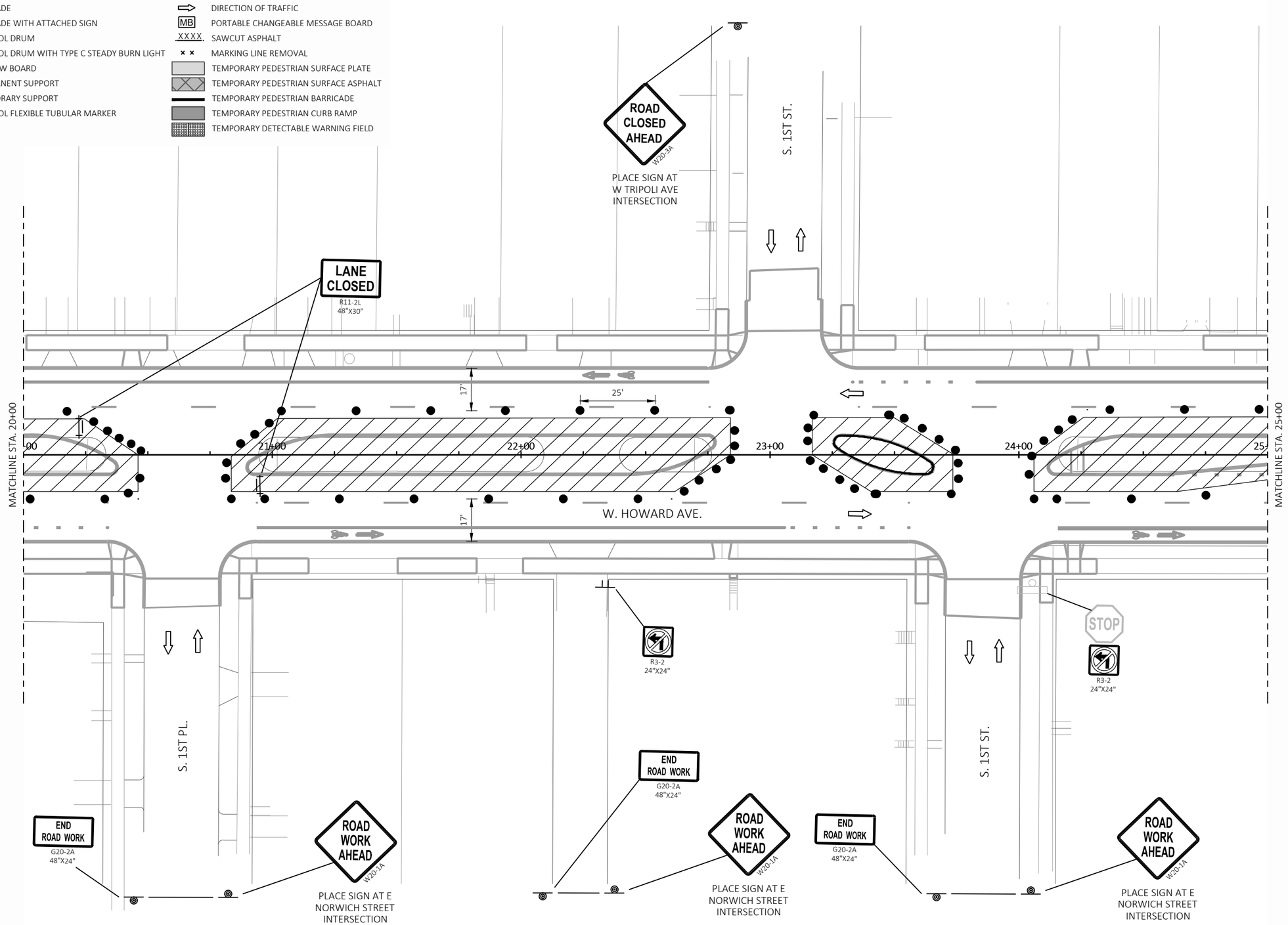
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX. SAWCUT ASPHALT
- MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD




| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 199 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 06

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

500'

S. HOWELL AVE.

LANE CLOSED
R11-2L
48"X30"

LANE CLOSED
R11-2L
48"X30"

E. HOWARD AVE.

25' TYP.

25'

MATCHLINE STA. 25+00

00

26+00

27+00

28+00

29+00

30

MATCHLINE STA. 30+00

W. HOWARD AVE.

R3-2
24"X24"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PLACE SIGN AT E NORWICH STREET INTERSECTION

END ROAD WORK
G20-2A
48"X24"

ONLY

ONLY

S. HOWELL AVE.

500'

ROAD WORK AHEAD
W20-1A

ONLY

ONLY

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- XXXX — SAWCUT ASPHALT
- × × — MARKING LINE REMOVAL
- TEMPORARY PEDESTRIAN SURFACE PLATE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 200 | E |
|---|---|---|---|---|---|

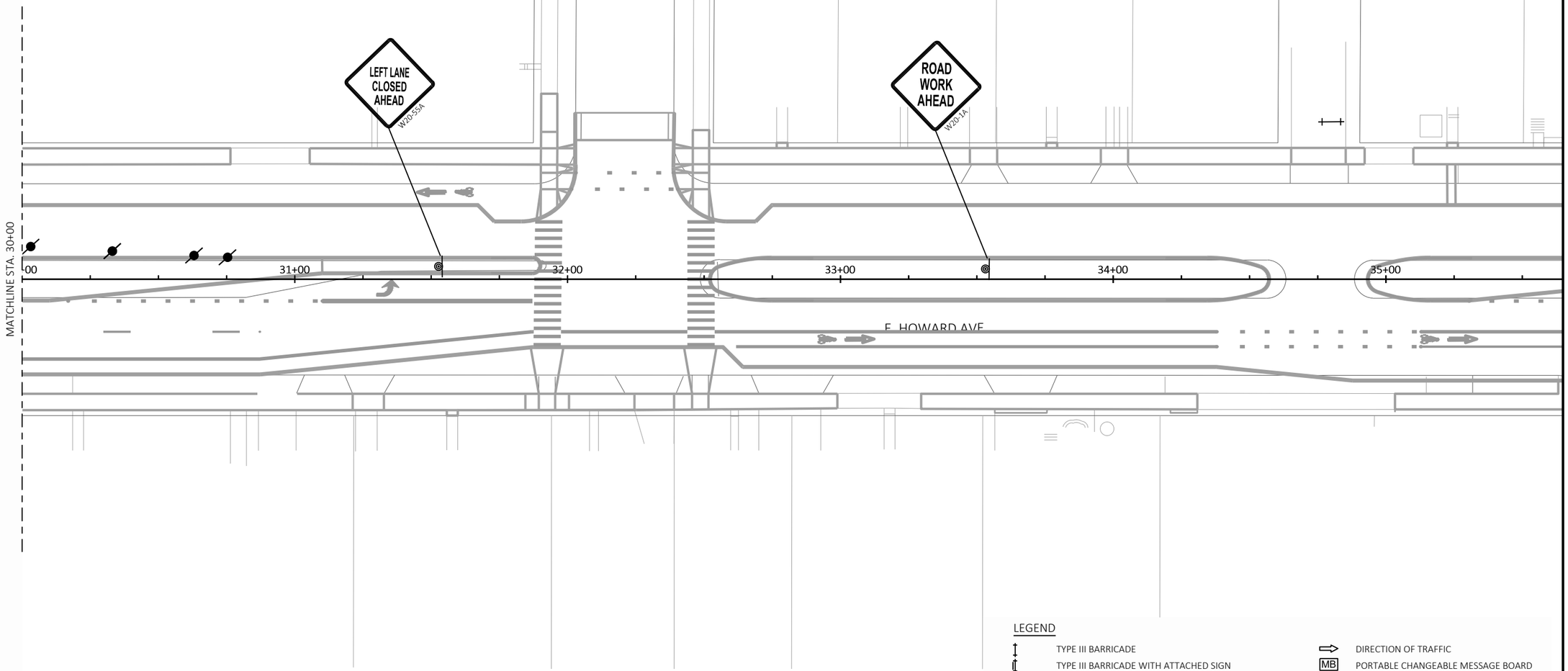
FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N




LEGEND

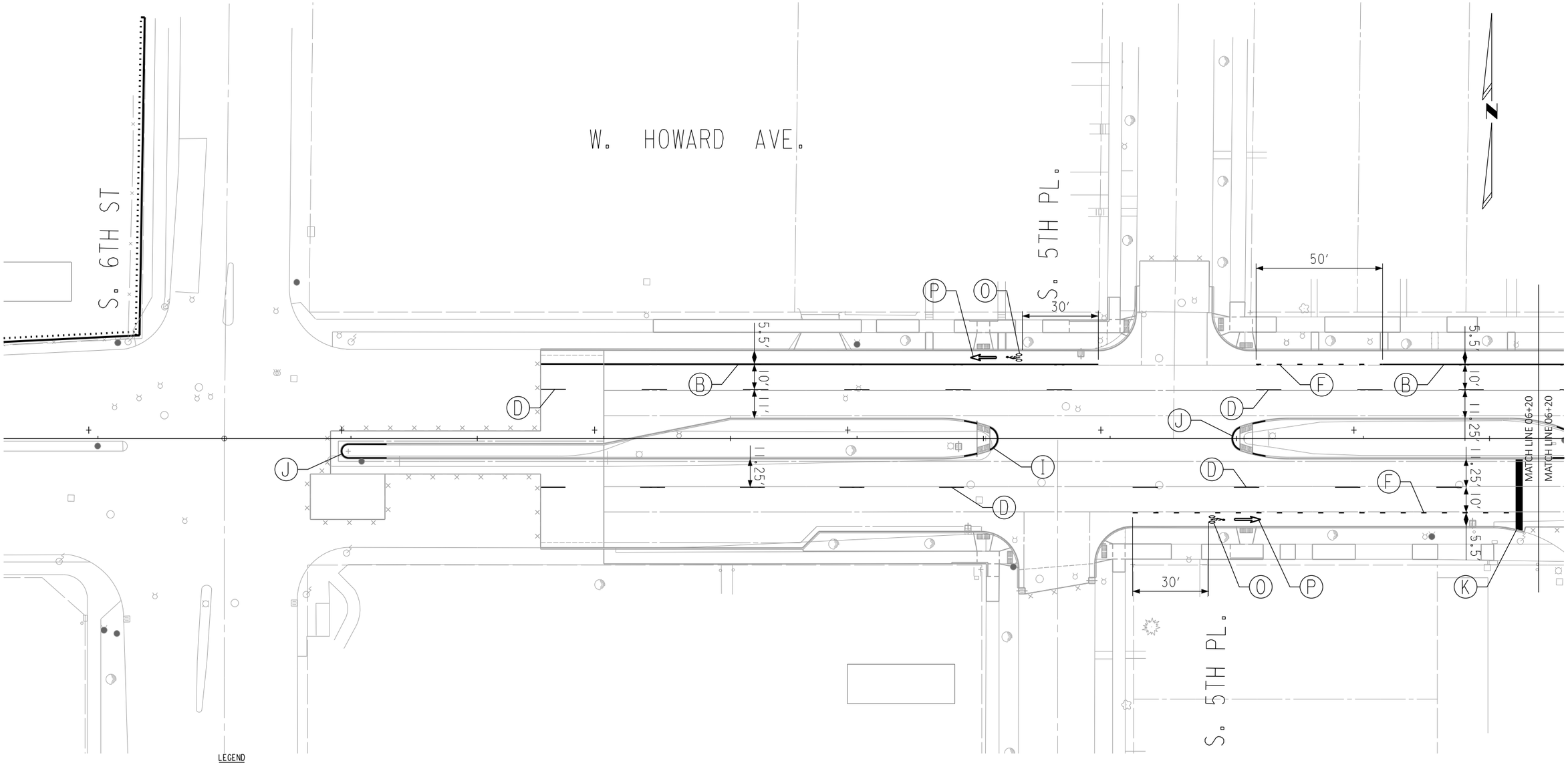
| | |
|---|---|
| TYPE III BARRICADE | DIRECTION OF TRAFFIC |
| TYPE III BARRICADE WITH ATTACHED SIGN | PORTABLE CHANGEABLE MESSAGE BOARD |
| TRAFFIC CONTROL DRUM | SAWCUT ASPHALT |
| TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT | MARKING LINE REMOVAL |
| FLASHING ARROW BOARD | TEMPORARY PEDESTRIAN SURFACE PLATE |
| SIGN ON PERMANENT SUPPORT | TEMPORARY PEDESTRIAN SURFACE ASPHALT |
| SIGN ON TEMPORARY SUPPORT | TEMPORARY PEDESTRIAN BARRICADE |
| TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER | TEMPORARY PEDESTRIAN CURB RAMP |
| WORK AREA | TEMPORARY DETECTABLE WARNING FIELD |

| PROJECT NO: 2395-05-71 | HWY: HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC CONTROL - STAGE 3 | SHEET 201 | E |
|---|---|---|---|---|---|

FILE NAME : X:\ML\2023\20230346\DESIGN\TRANSPORTATION\SHEETSPLAN\025100_TC-S3.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2023 6:43 PM PLOT BY : BARRETT, WILL PLOT NAME : PLOT SCALE : 1 IN:40 FT

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

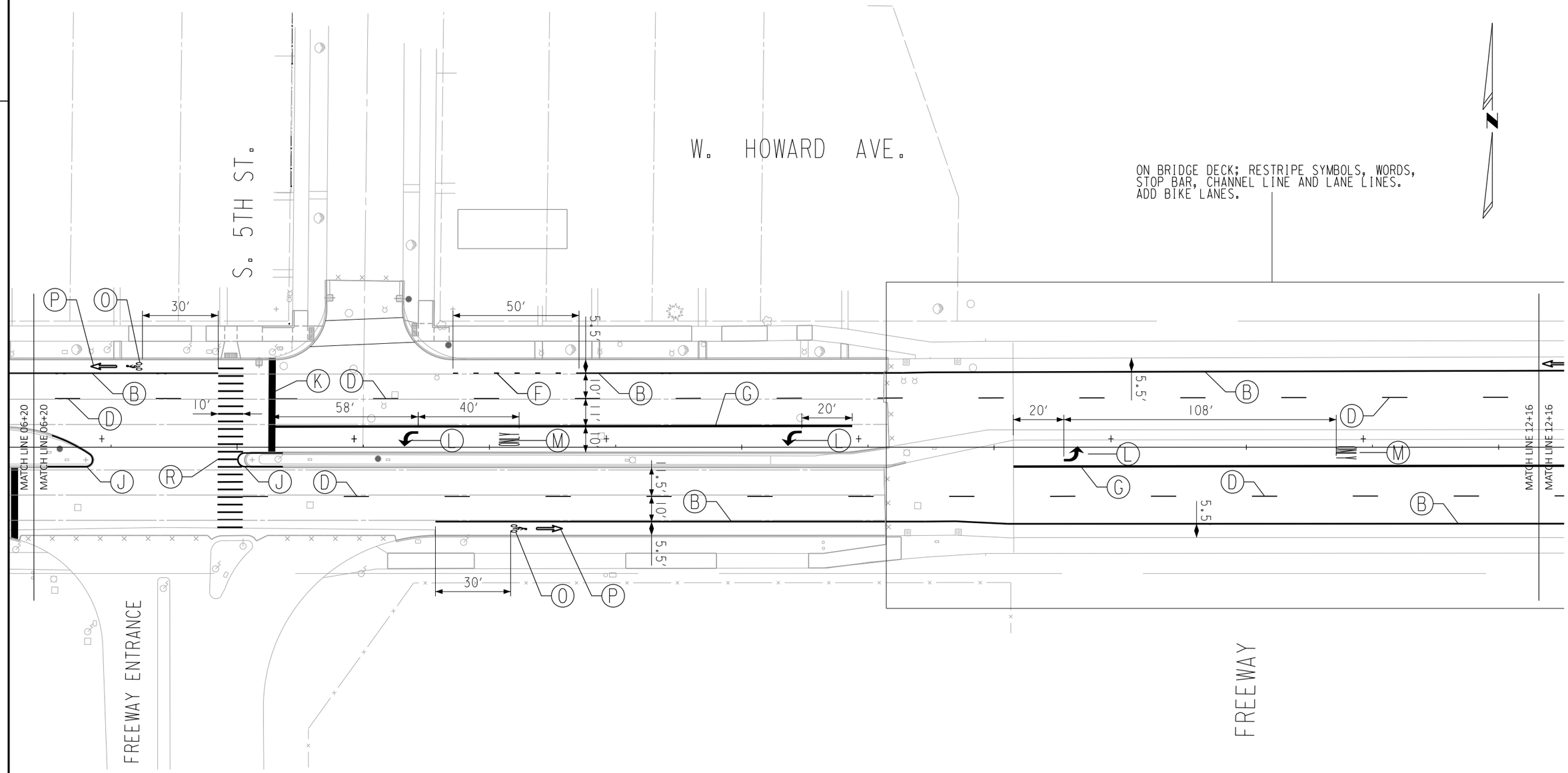


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 202 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

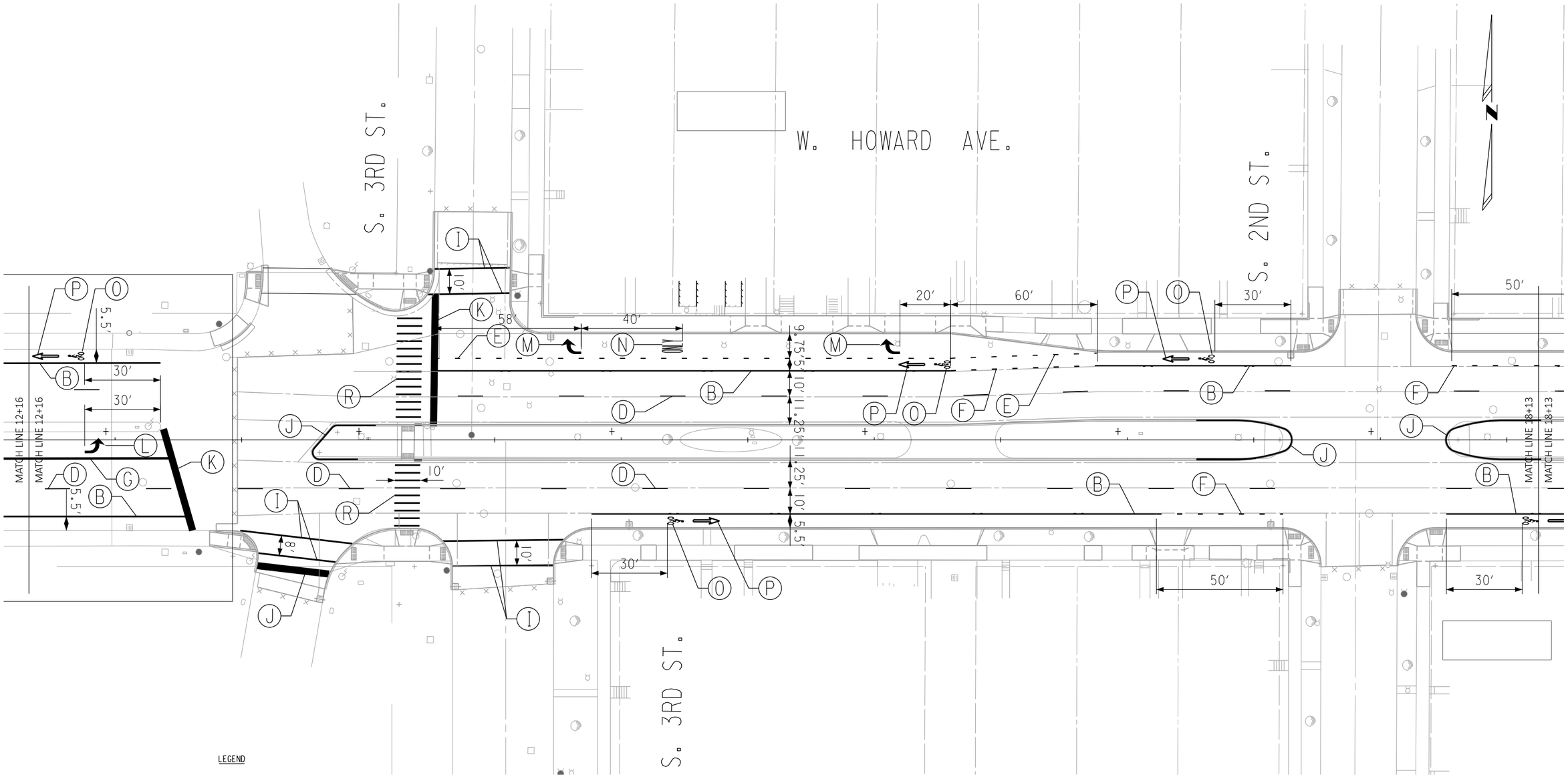


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 203 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2



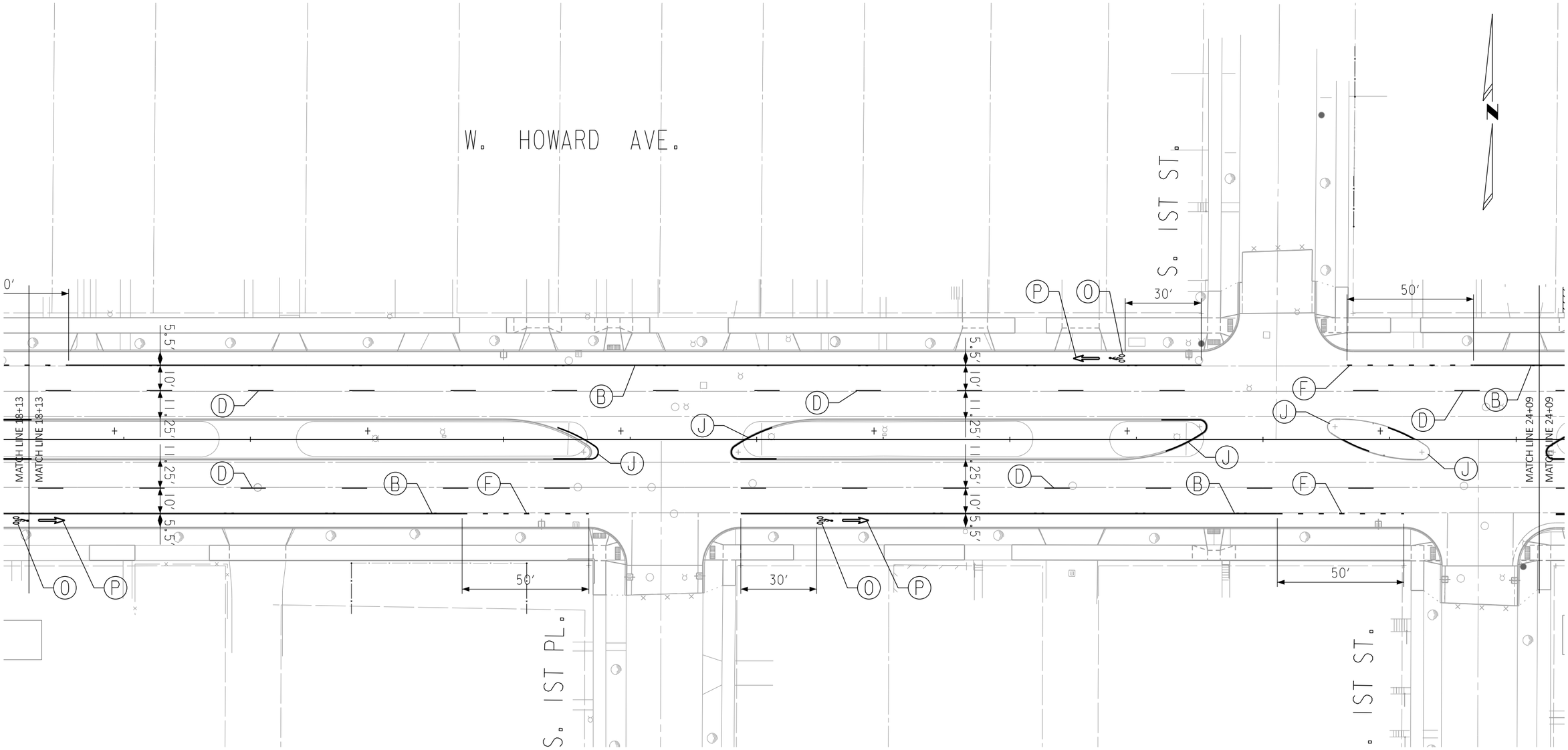

LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 204 | E |
|---|---|---|---|---|---|---|

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

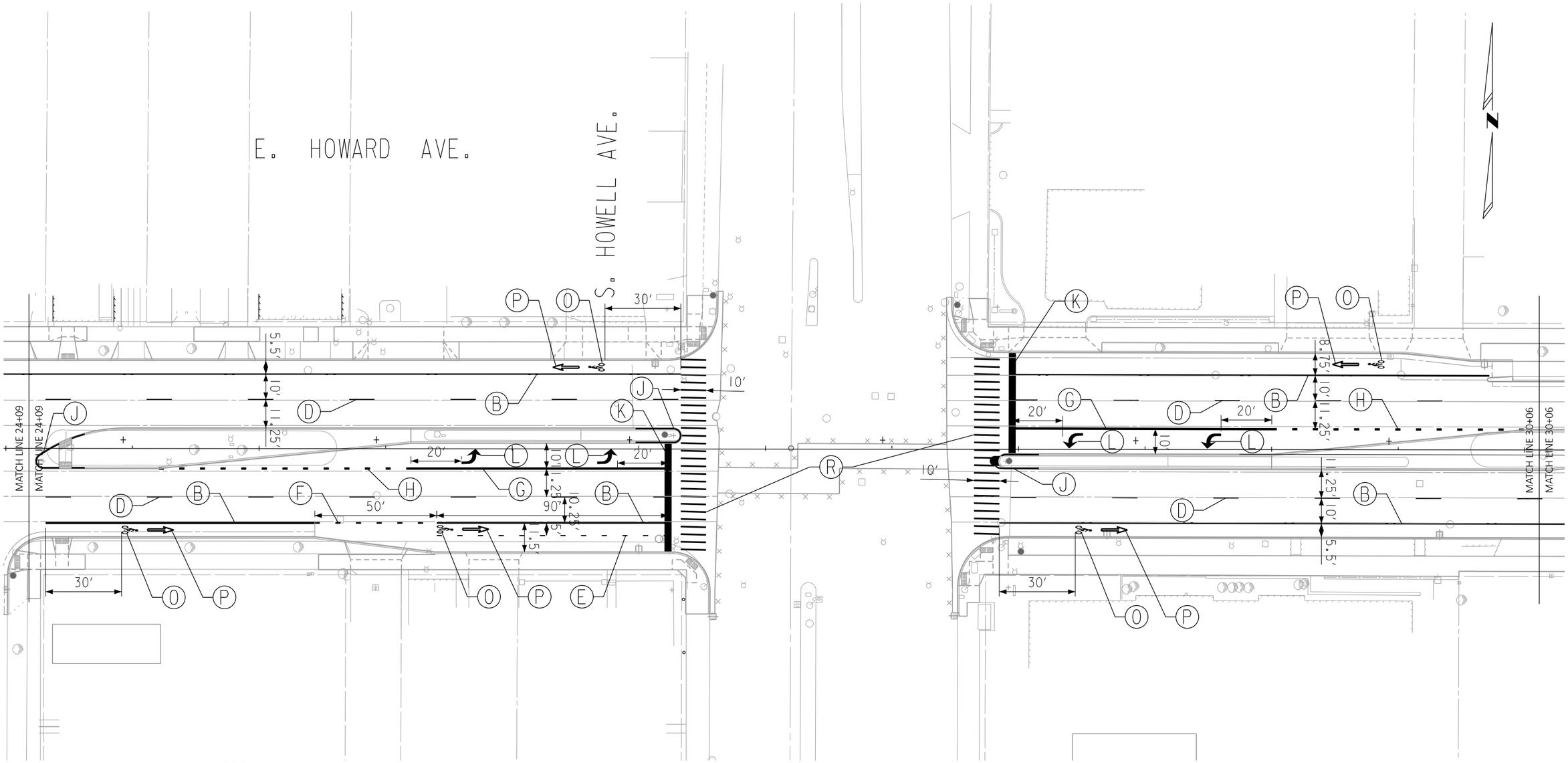


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 205 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

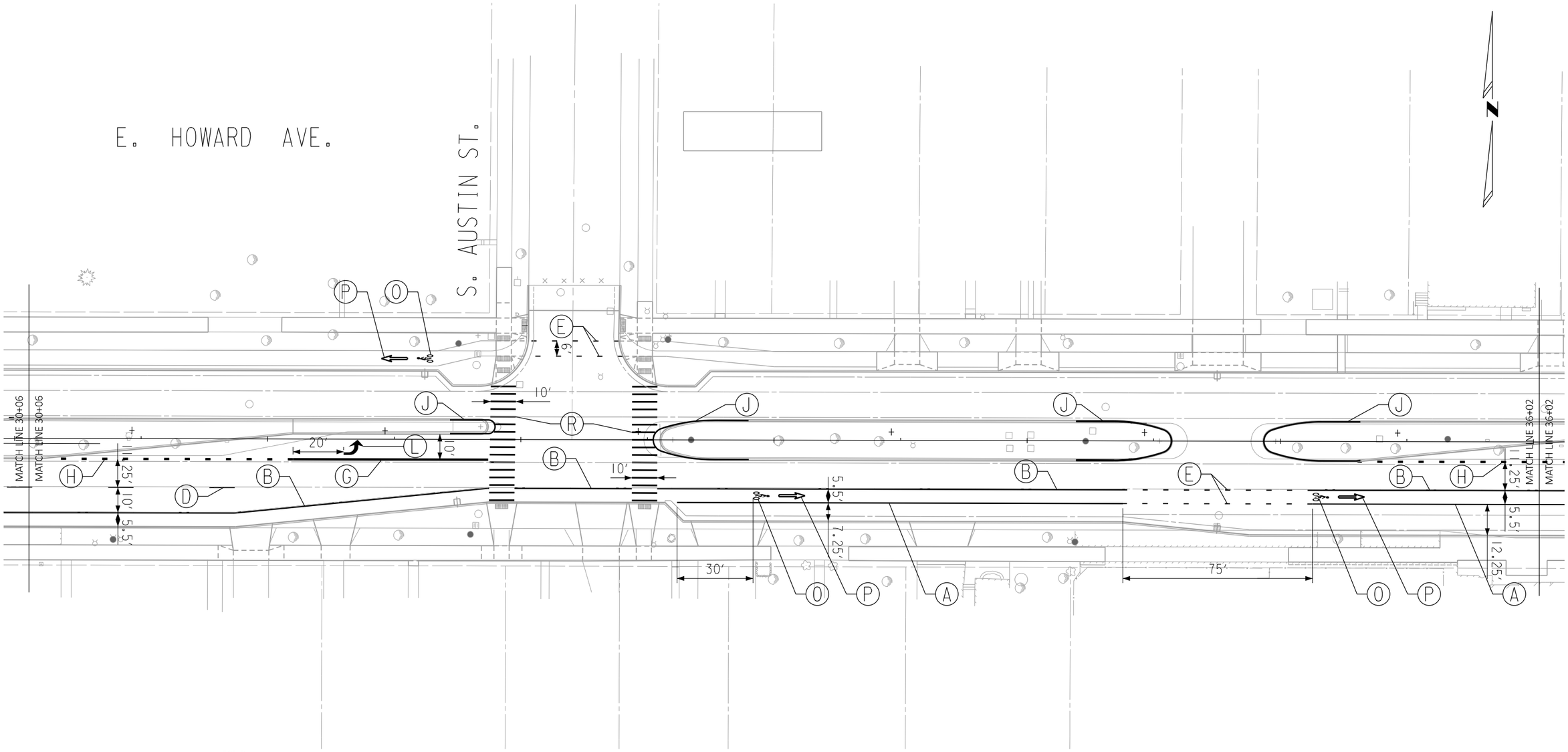


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 206 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

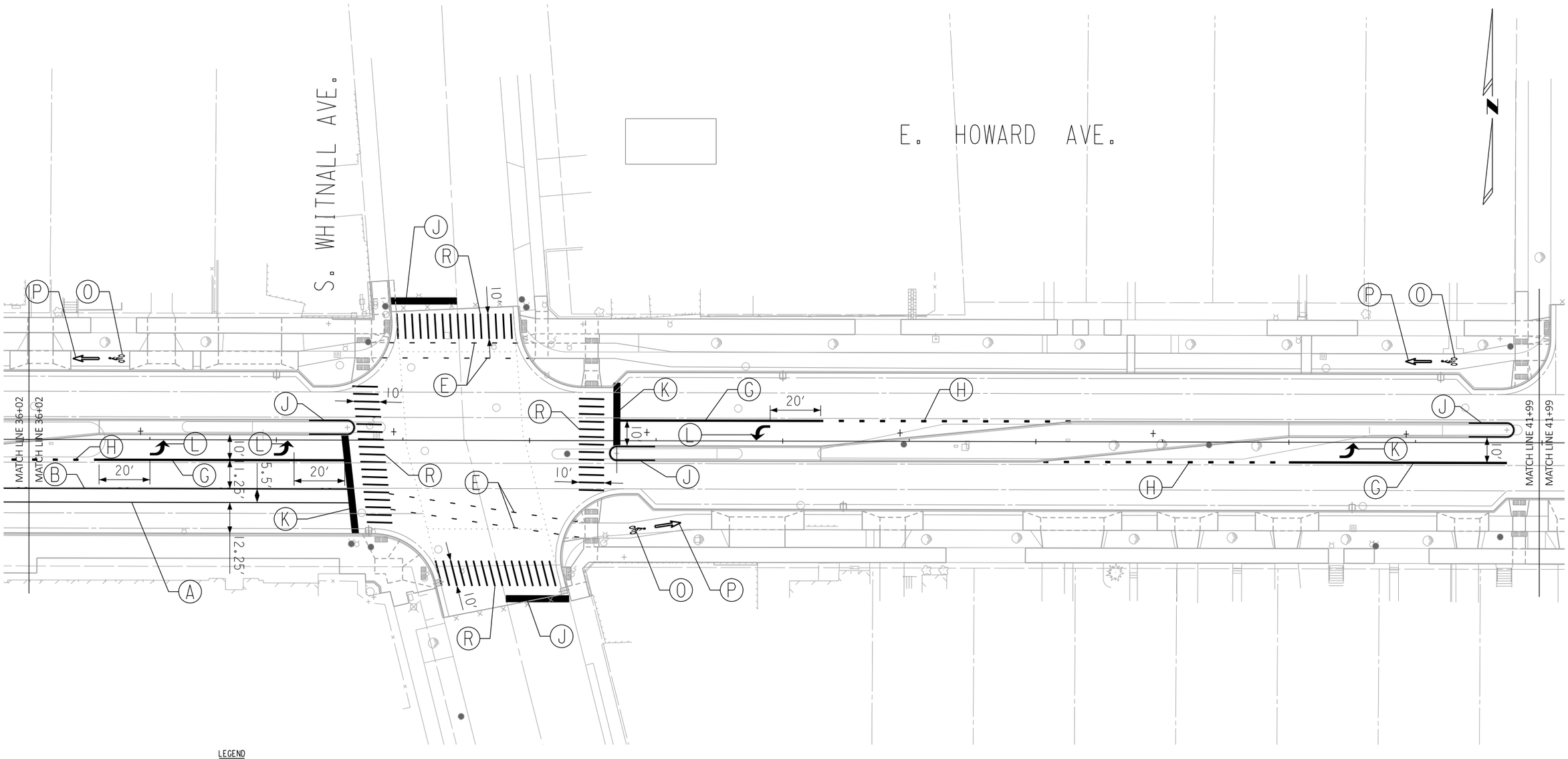


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 207 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

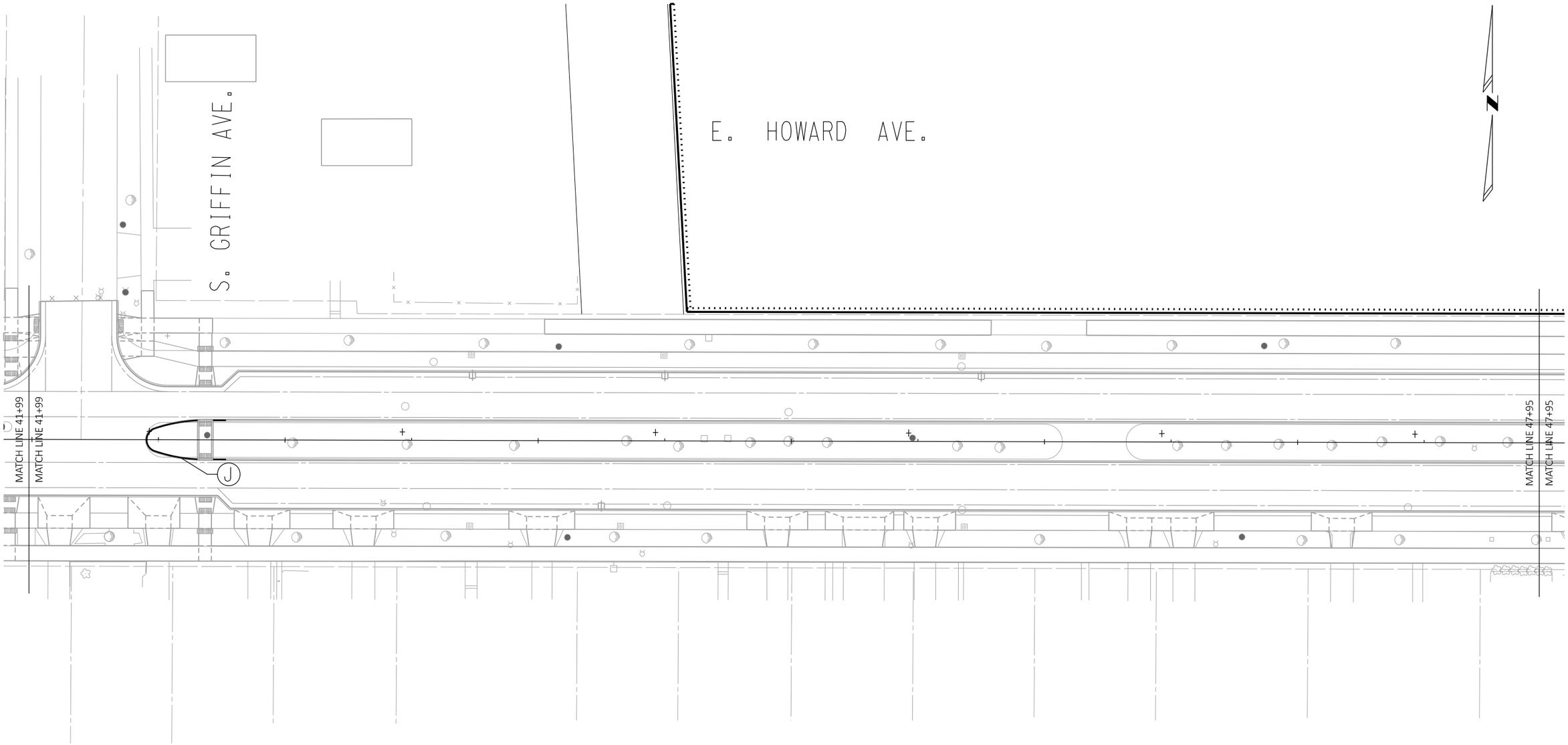
SHEET 7 OF 13

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 208 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

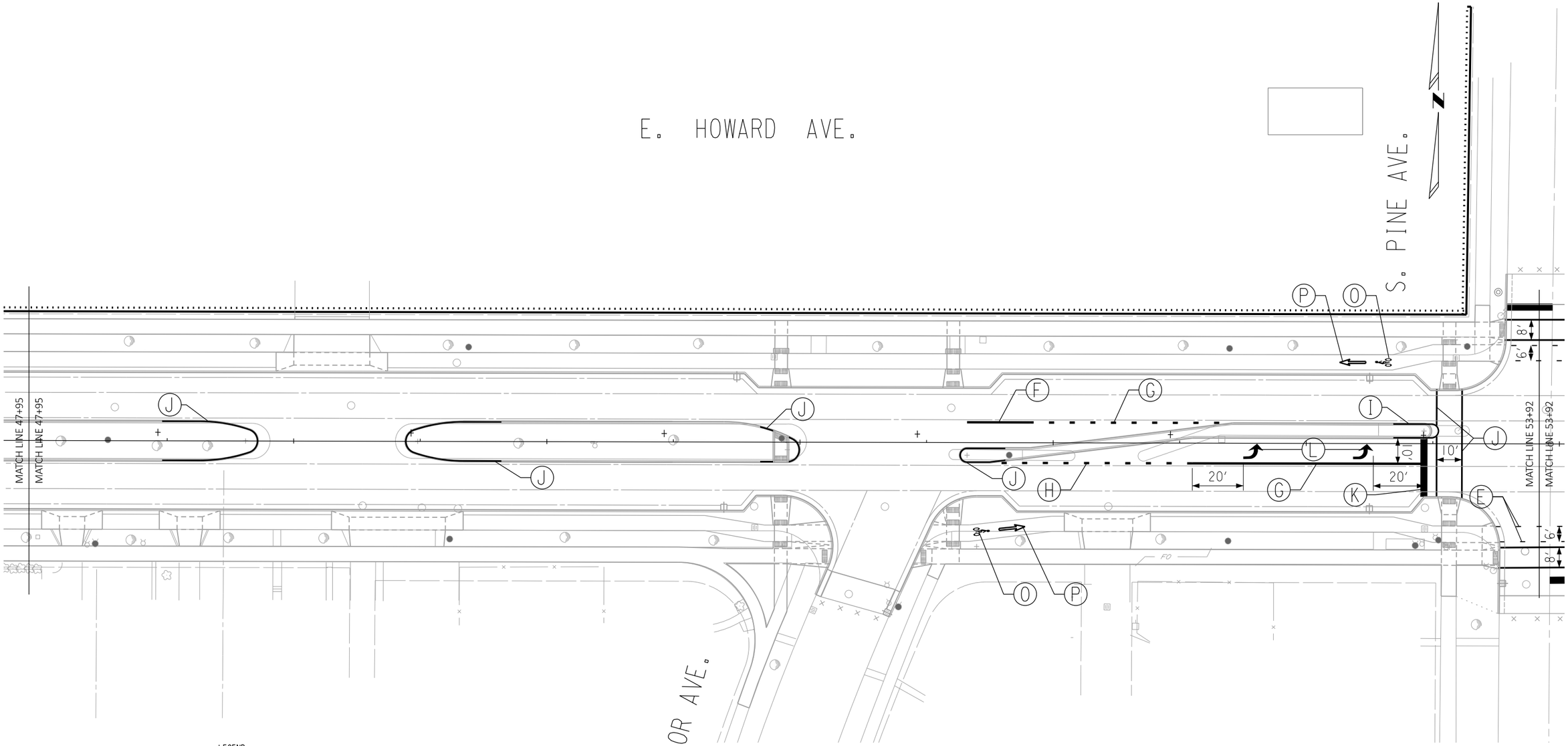
SHEET 8 OF 13

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 209 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

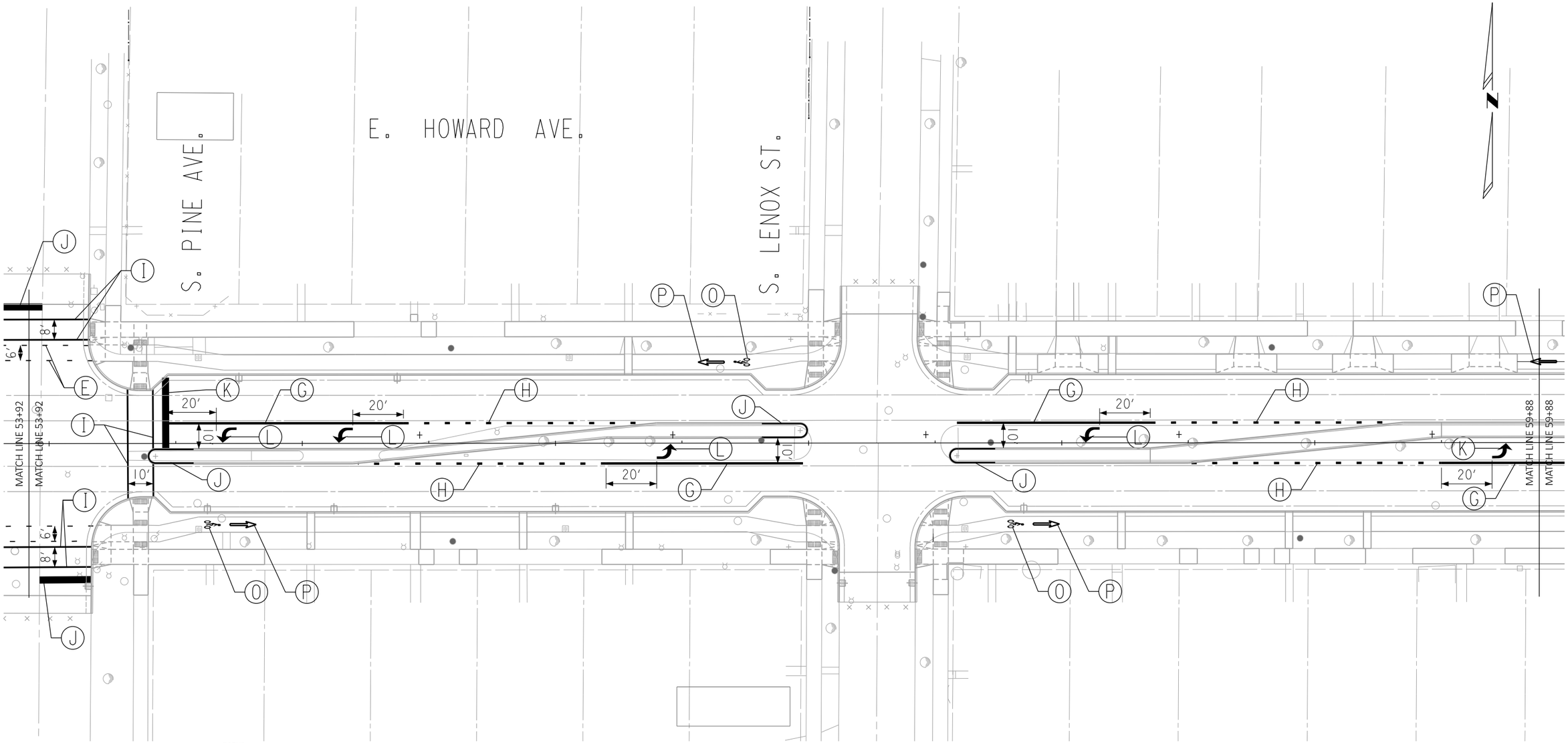


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 210 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2



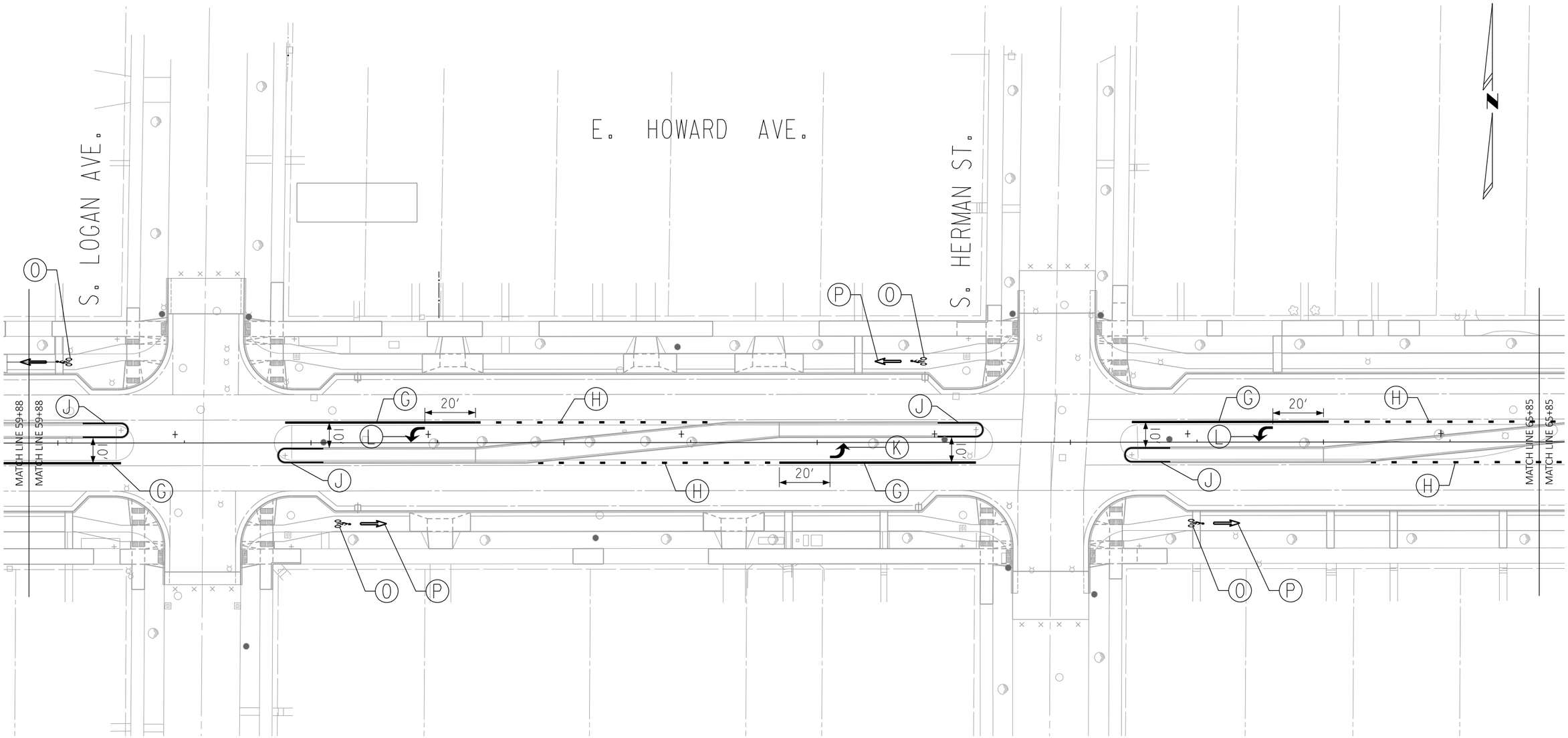

LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 211 | E |
|---|---|---|---|---|---|---|

2




LEGEND

- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
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- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
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- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

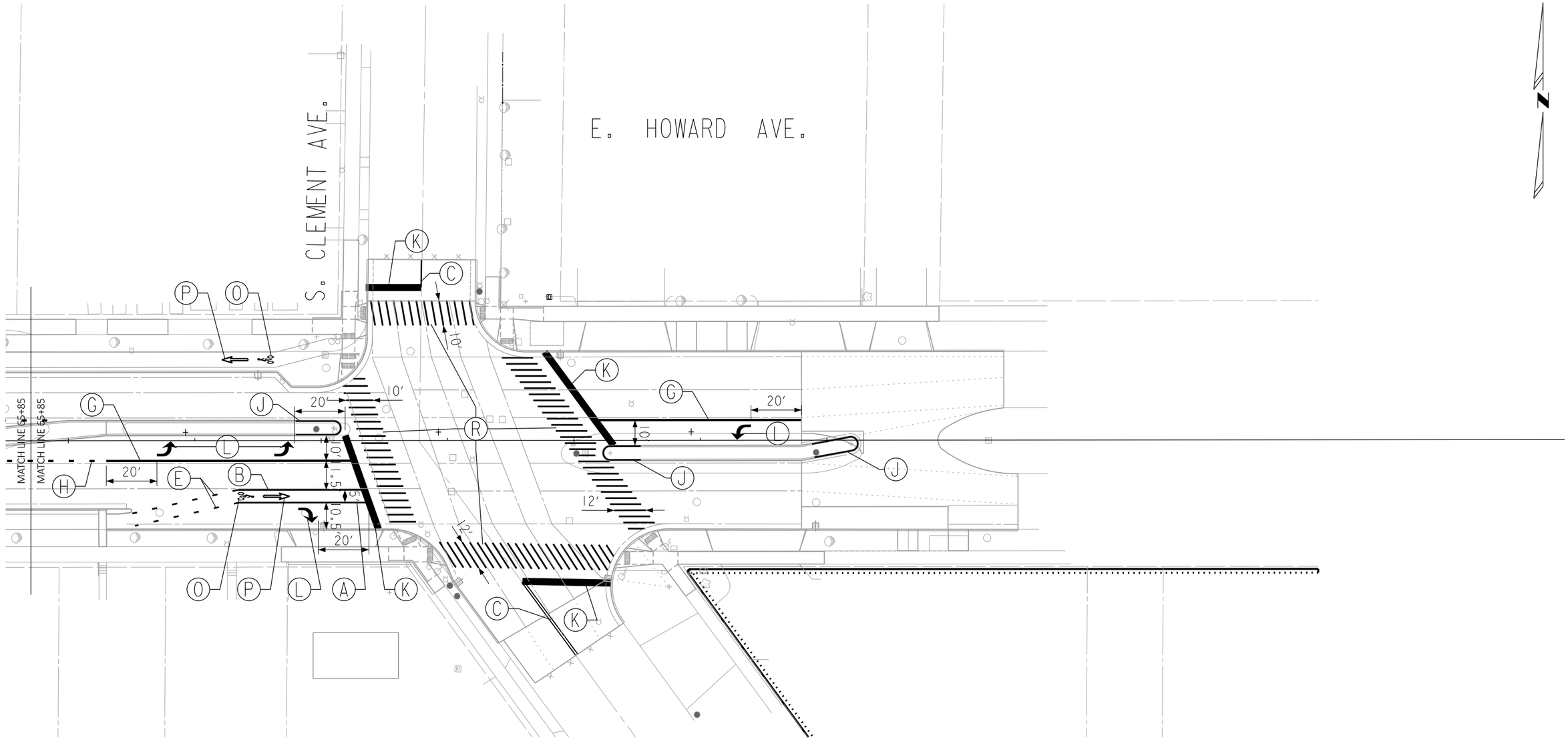


| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 212 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

2




LEGEND

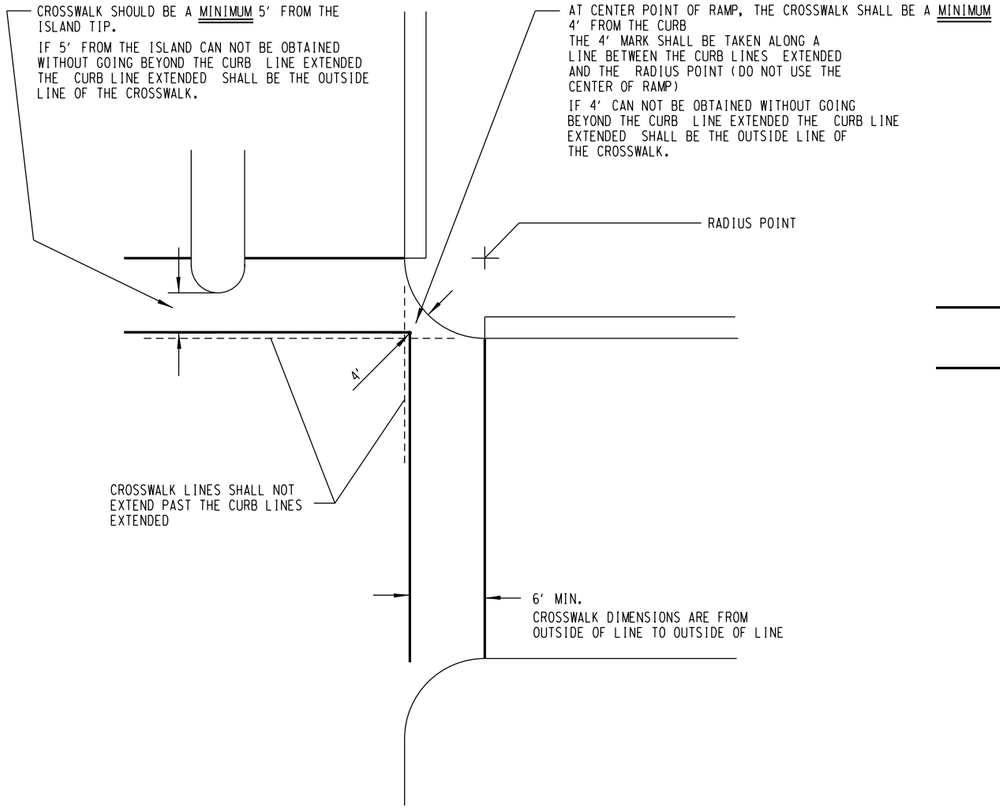
- (A) MARKING LINE EPOXY 4-INCH, WHITE
- (B) MARKING LINE EPOXY 6-INCH, WHITE
- (C) MARKING LINE EPOXY 4-INCH, YELLOW
- (D) MARKING LINE EPOXY 4-INCH, WHITE (30'SKIP, 10'LINE)
- (E) MARKING LINE EPOXY 4-INCH, WHITE (6'SKIP, 2'LINE)
- (F) MARKING LINE EPOXY 8-INCH, WHITE
- (G) MARKING LINE EPOXY 8-INCH, WHITE (6'SKIP, 2'LINE)
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH
- (I) MARKING ISLAND NOSE EPOXY, SEE DETAIL
- (J) MARKING STOP LINE EPOXY 24-INCH, WHITE
- (K) MARKING ARROW EPOXY, TYPE 2 (LEFT TURN)
- (L) MARKING ARROW EPOXY, TYPE 2 (RIGHT TURN)
- (M) MARKING WORD EPOXY, "ONLY"
- (N) MARKING SYMBOL EPOXY, BICYLCIST
- (O) MARKING ARROW EPOXY, BIKE LANE ARROW
- (P) MARKING CURB EPOXY, SEE DETAIL
- (R) MARKING CONTINENTAL CROSSWALK, SEE DETAIL

SHEET 12 OF 13

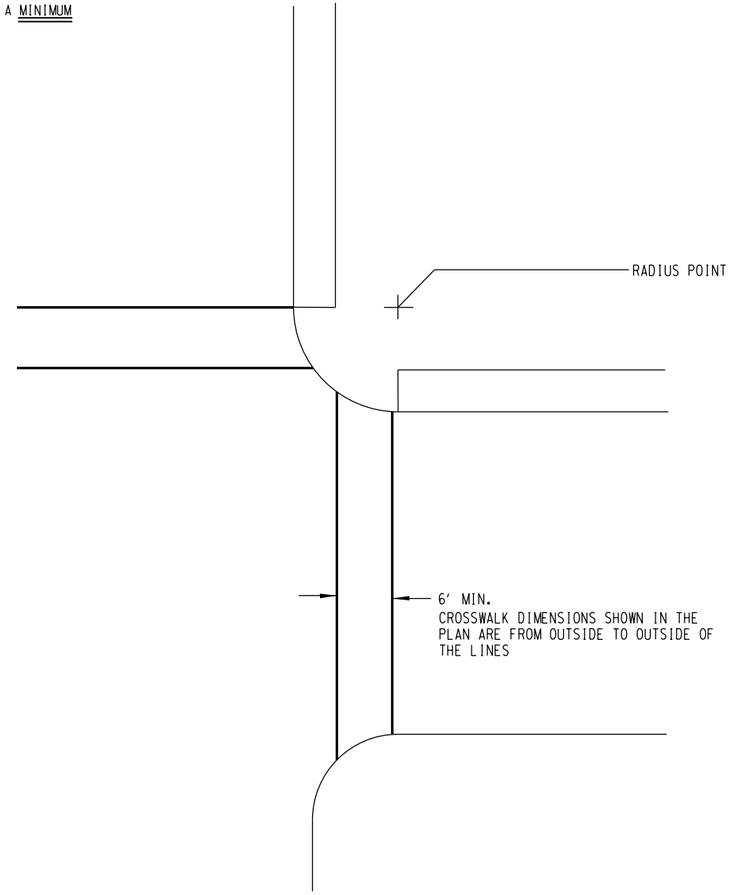
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING | SCALE FEET 0' 40' | SHEET NO: 213 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

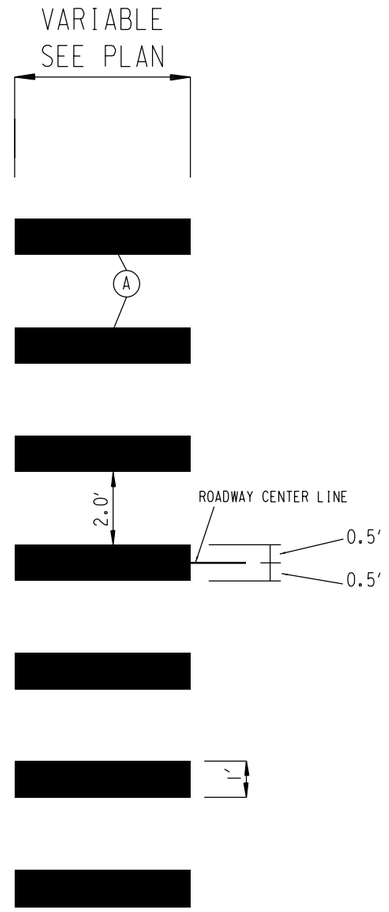
REVISED DATE: 08-11-2023 BY CP




TYPICAL CROSS WALK INSTALLATION
WITH TYPE 1 RAMP
(PLASTIC, EPOXY, PAINT)



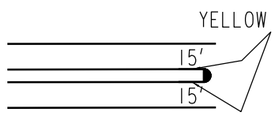

WITH TYPE 2 RAMP
(PLASTIC, EPOXY, PAINT)




CONTINENTAL CROSSWALK
DETAIL

NOTE: PAVEMENT MARKINGS SHOULD BE PARALLEL TO DIRECTION OF TRAVEL EVEN WHEN CROSSWALK IS SKEWED

## PLOWABLE ISLAND NOSE DETAIL (TYP.)




CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PAVEMENT MARKING DETAILS | SCALE FEET 0' 40' | SHEET NO: 214 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\TRAFFIC & PAVEMARK\2395-05-71 - PAVEMARK - W HOWARD AVE - S 6TH ST TO S CLEMENT AVE - DRAFT 1.DGN

REVISED DATE: 08-11-2023 BY CP

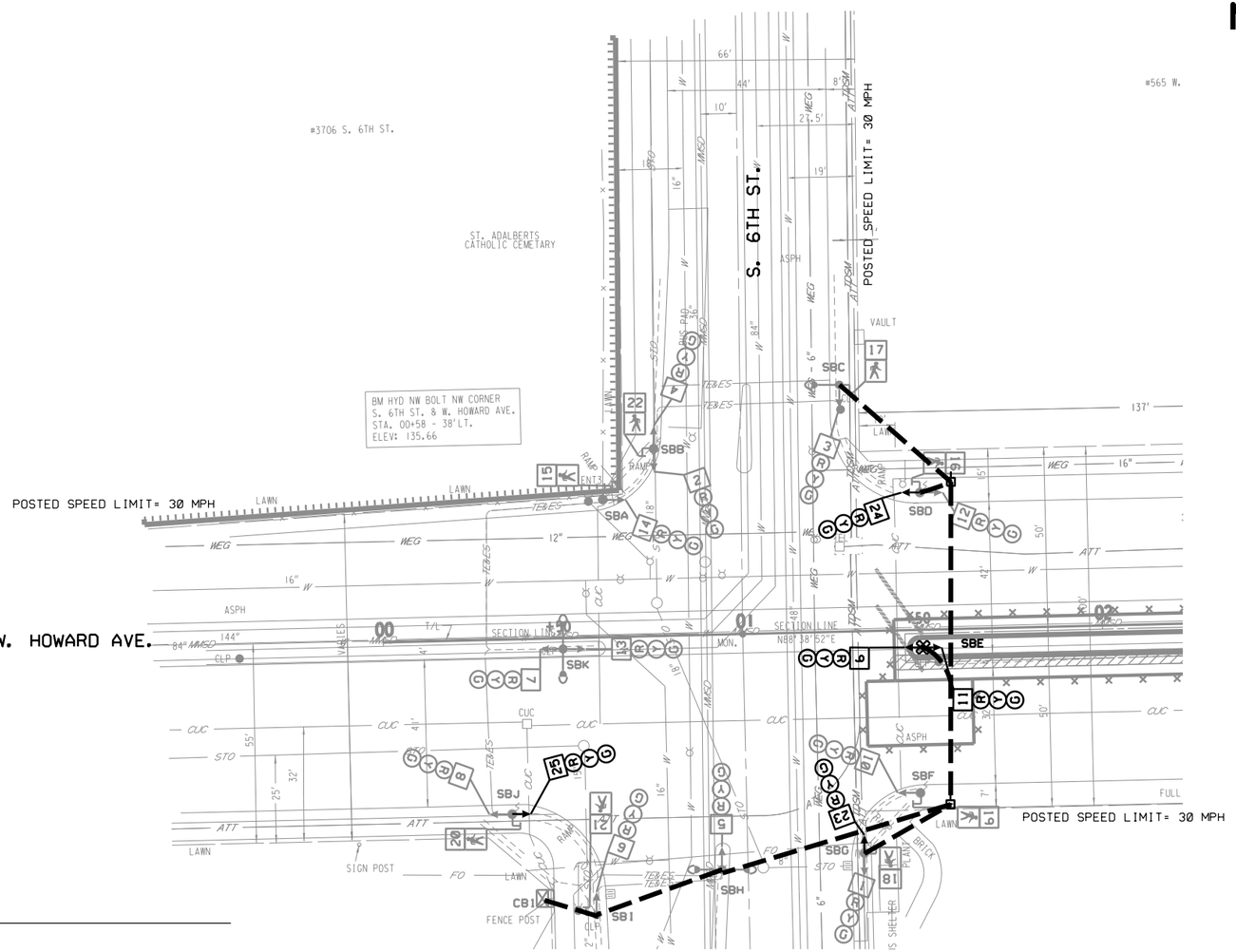
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING
ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
ALL SPECIAL CONDUIT HDPE

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

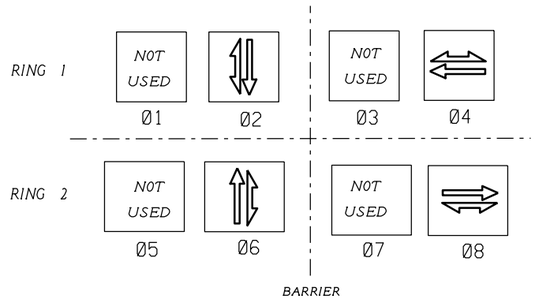
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 215 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 10:58 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| 02 | 4,5,6,23 | R |
| | | |
| 04 | 11,12,13,14,25 | R |
| | | |
| 06 | 1,2,3 | R |
| | | |
| 08 | 7,8,9,10,24 | R |
| 02P | 21,22 | |
| 04P | 15,16 | |
| 06P | 17,18 | |
| 08P | 19,20 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: | S. |
| SIGNAL SYSTEM *: | SS. . |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

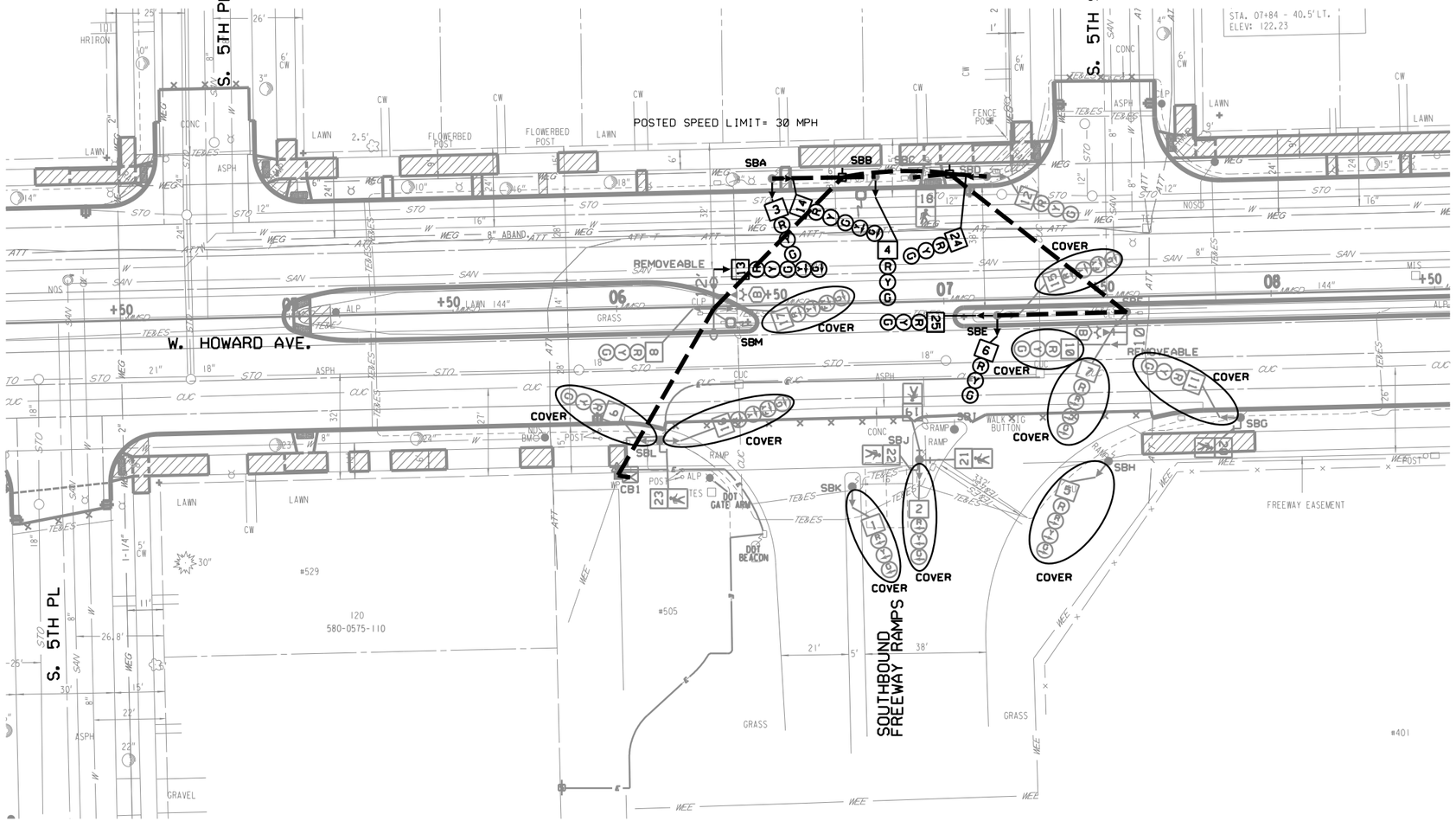
| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET 216 | E |
|---|---|---|---|---|---|




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

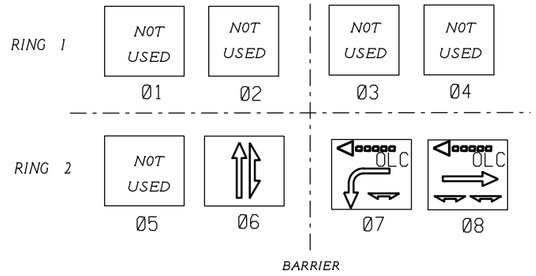
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 217 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 11:00 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| Ø6 | 3,4,6 | R |
| Ø7 | 12,13,14 | R |
| Ø8 | 8,24,25 | R |
| | | |
| Ø4P | 20,21 | |
| Ø6P | 18,19 | |
| Ø8P | 22,23 | |

SEQUENCE OF OPERATION







GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | | CHANNEL B |
|---|---|---|
| MOVEMENT | | ← → |
| PHASE | | 4·8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | PED | X |
| 7 | | | MAX | X |
| 8 | | | COORD. | X |

OVERLAPS

| |
|---|
| O.L. "C" · WB |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET 218 | E |
|---|---|---|---|---|---|

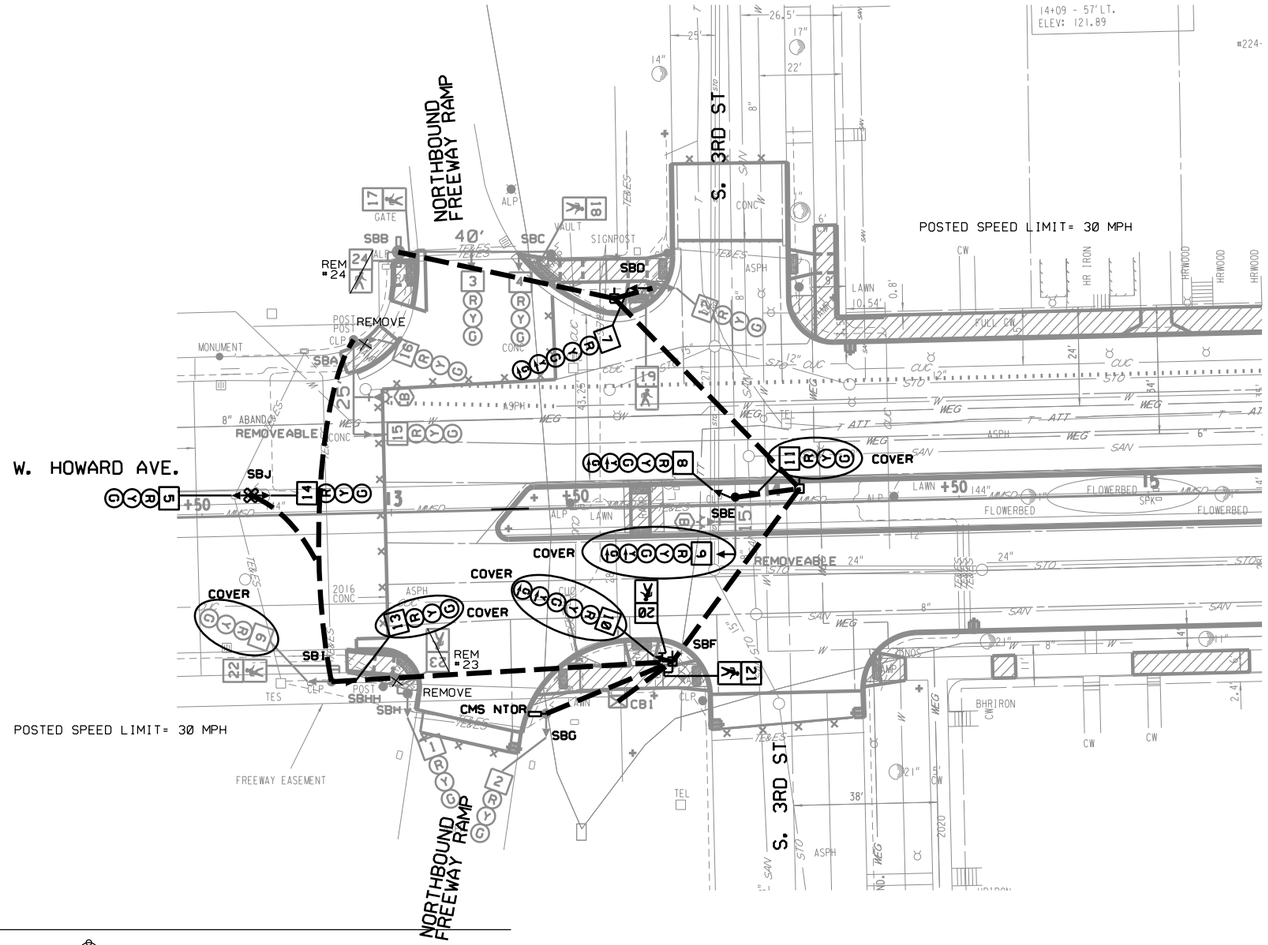
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
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- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
1. ALL LENSES ARE 12-INCH
2. GRAYSHADE REPRESENTS EXISTING
3. ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
4. ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

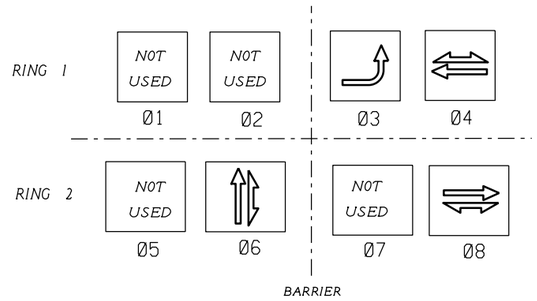
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 219 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgn PLOT DATE : 31-OCT-2023 11:02 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| | | |
| Ø3 | 7,8 | R |
| Ø4 | 12,14,15,16 | R |
| | | |
| Ø6 | 1,2,3,4 | R |
| | | |
| Ø8 | 5 | R |
| | | |
| Ø4P | 17,18 | |
| Ø6P | 19,20 | |
| Ø8P | 21,22 | |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | 61,62 | | | | |
| CALLED PHASE | | | | 6 | | | | |
| CALL OPTION | | | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL | |
|---|---|---|
| | | B |
| MOVEMENT | | ← → |
| PHASE | | 4•8 |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | MAX | X |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET 220 | E |
|---|---|---|---|---|---|

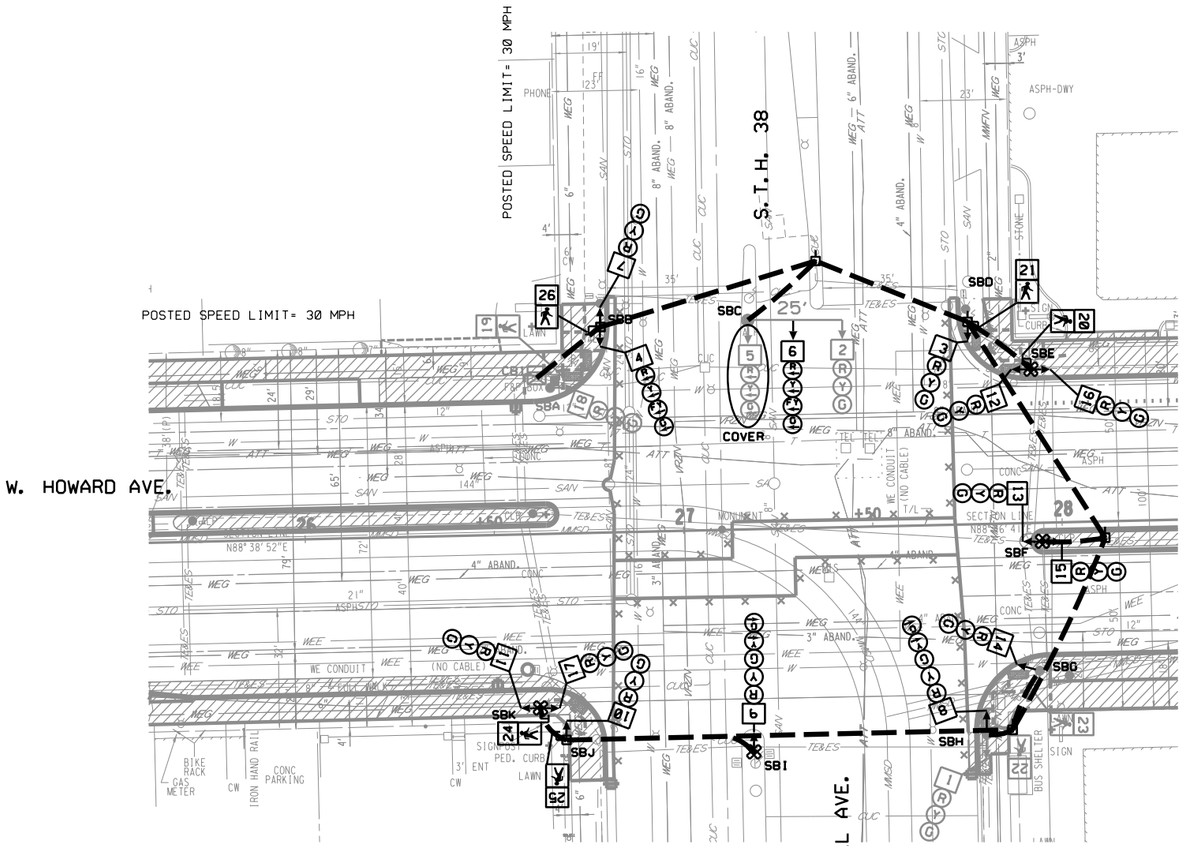
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E/W. HOWARD AV. & S. HOWELL AV. (STH 38)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 221 | E |
|---|---|---|---|---|---|---|

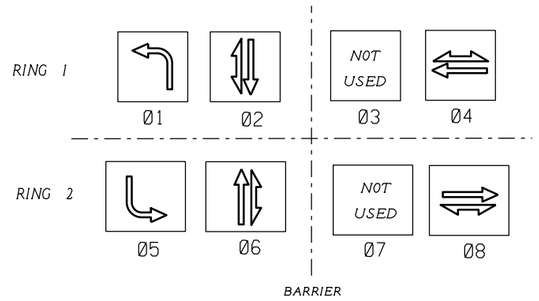
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 11:04 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 4.6 | R |
| Ø2 | 7.10 | R |
| | | |
| Ø4 | 15.16.17.18 | R |
| Ø5 | 8.9 | R |
| Ø6 | 1.2.3 | R |
| | | |
| Ø8 | 11.12.13.14 | R |
| Ø2P | 25.26 | |
| Ø4P | 19.20 | |
| Ø6P | 21.22 | |
| Ø8P | 23.24 | |

SEQUENCE OF OPERATION




DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | | 51 | | | | |
| CALLED PHASE | | 1 | | 5 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ← → |
| PHASE | 2-6 | 4-8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | MAX | X |
| 2 | | 6 | COORD. | X |
| 3 | | | | |
| 4 | | 8 | PED | X |
| 5 | | | | X |
| 6 | | 2 | COORD. | X |
| 7 | | | | |
| 8 | | 4 | PED | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL

E/W. HOWARD AV. & S. HOWELL AV. (STH 38)

LOCAL STREET

CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER

DESIGNED BY: CITY OF MILWAUKEE-DPW

REVISED BY:

PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET 222 | E |
|---|---|---|---|---|---|

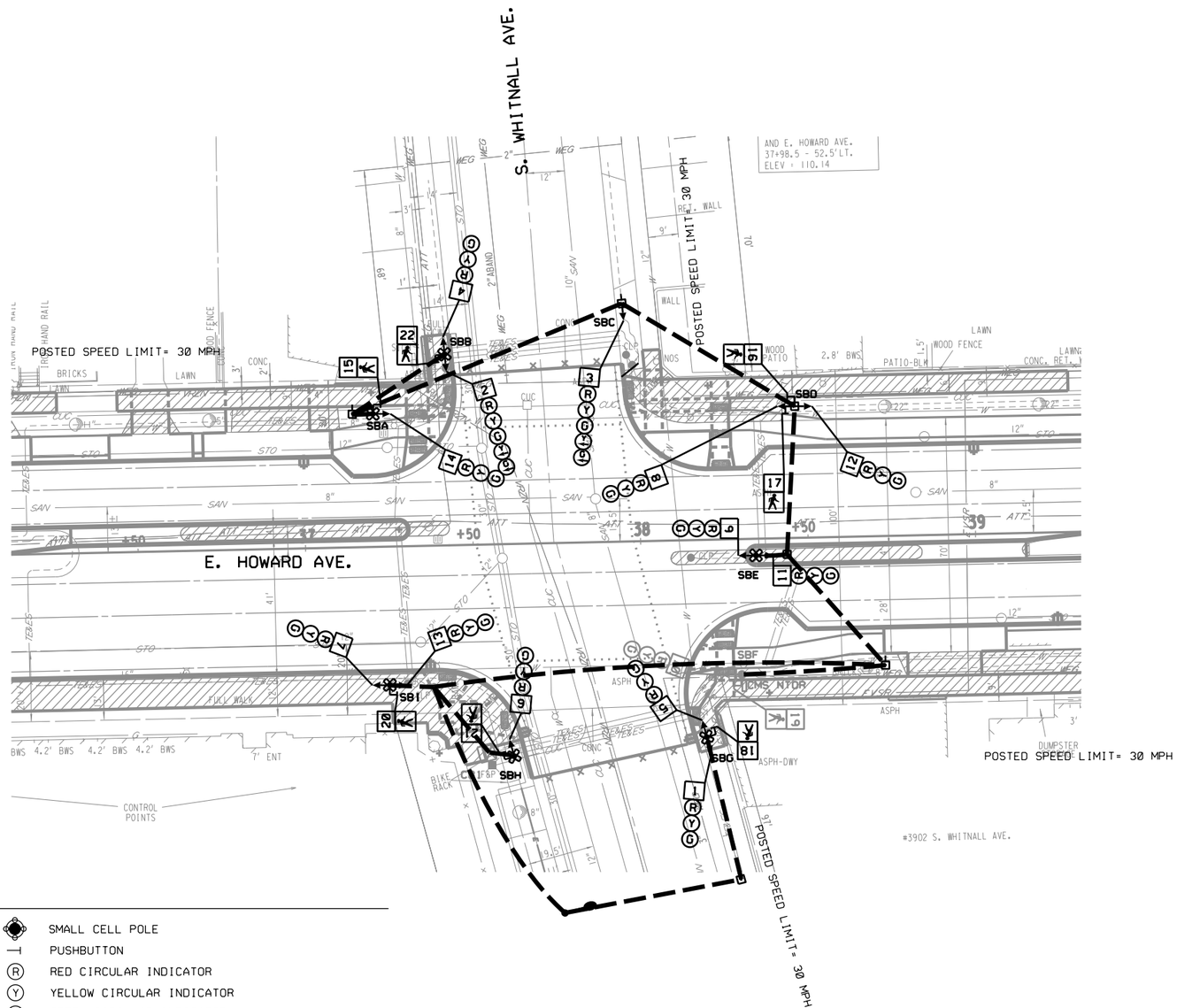
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
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- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

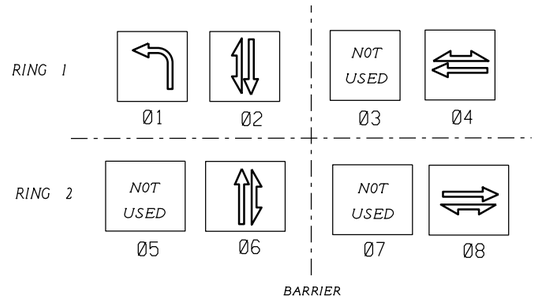
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 223 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 11:08 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 2,3 | R |
| Ø2 | 4,5,6 | R |
| OLA | CMS NTOR | |
| Ø4 | 12,13,14,15,16 | R |
| | | |
| Ø6 | 1 | R |
| | | |
| Ø8 | 7,8,9,10,11 | R |
| Ø2P | 23,24 | |
| Ø4P | 17,18 | |
| Ø6P | 19,20 | |
| Ø8P | 21,22 | |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | | | | | | |
| CALLED PHASE | | 1 | | | | | | |
| CALL OPTION | | X | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | 1 | | X |
| 2 | | 6 | PED | X |
| 3 | | OLA | | X |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

## OVERLAPS

| |
|---|
| O.L. "A" - EB NTOR |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:



| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET | E |
|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgn PLOT DATE : 31-OCT-2023 11:18 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

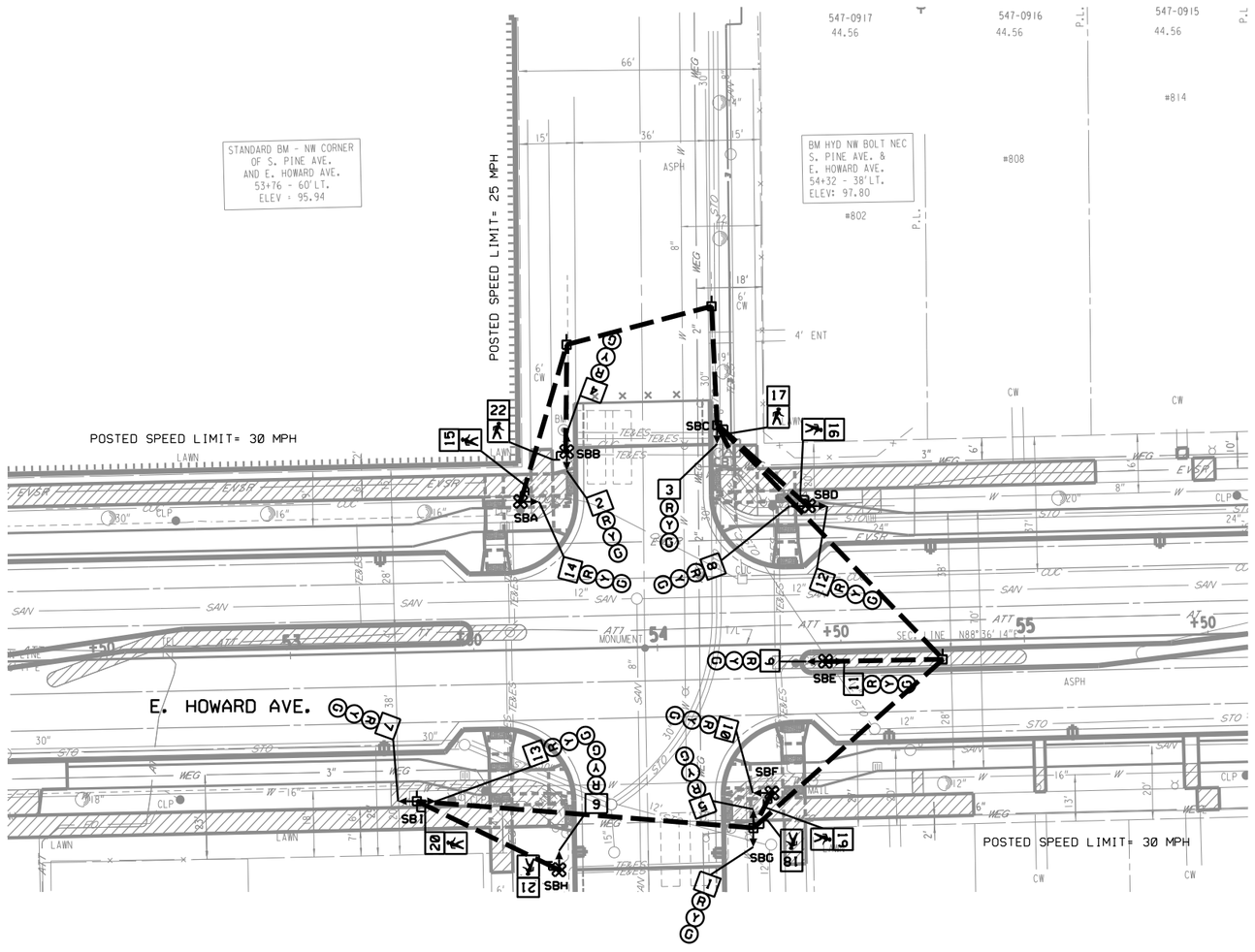
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




N

2

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (FA) (Y) YELLOW ARROW
- (G) (S) (S) GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

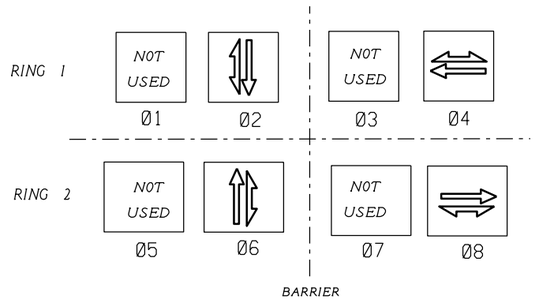
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 225 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgn PLOT DATE : 31-OCT-2023 11:09 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| 02 | 4,5,6 | R |
| | | |
| 04 | 12,13,14,15,16 | Y |
| | | |
| 06 | 1,2,3 | R |
| | | |
| 08 | 7,8,9,10,11 | Y |
| 02P | 23,24 | |
| 04P | 17,18 | |
| 06P | 19,20 | |
| 08P | 21,22 | |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 21,22 | | 61,62 | | | | |
| CALLED PHASE | | 2 | | 6 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS• . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø0 | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

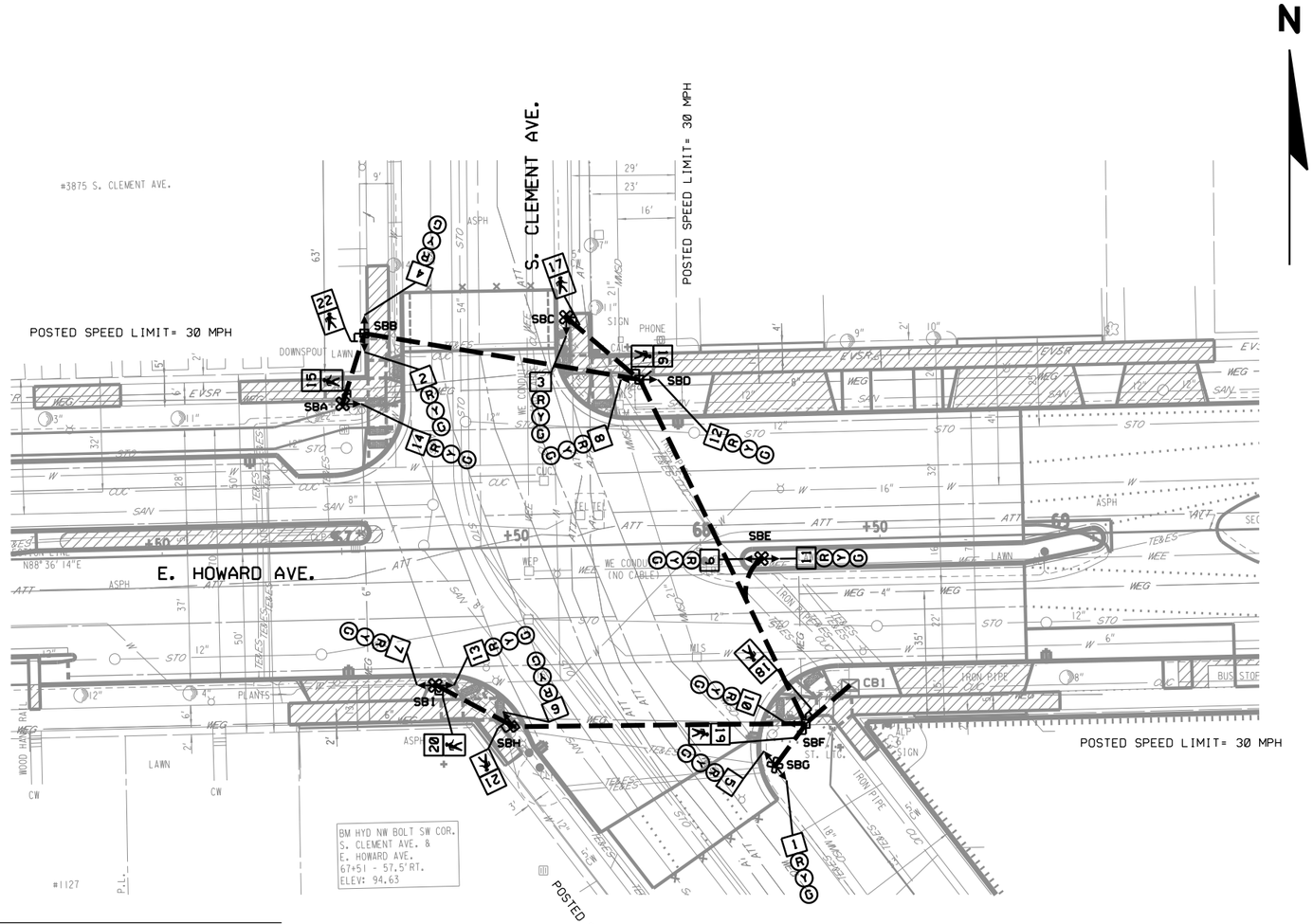
2

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PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R)(R) RED ARROW
- (Y)(Y)(Y) YELLOW ARROW
- (G)(G)(G) GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
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NOTES:
1. ALL LENSES ARE 12-INCH
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3. ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
4. ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

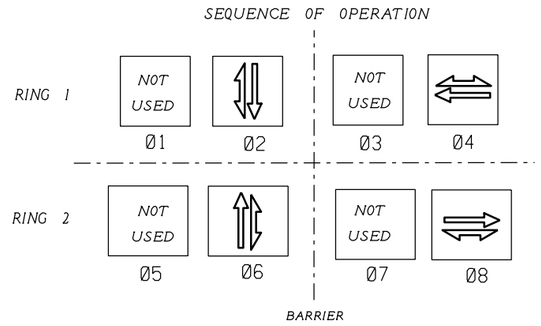
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 1 | SCALE, FEET 0 40 | SHEET 227 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 11:10 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| Ø2 | 4,5,6 | R |
| | | |
| Ø4 | 12,13,14,15,16 | Y |
| | | |
| Ø6 | 1,2,3 | R |
| | | |
| Ø8 | 7,8,9,10,11 | Y |
| Ø2P | 23,24 | |
| Ø4P | 17,18 | |
| Ø6P | 19,20 | |
| Ø8P | 21,22 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:



| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 1 | SHEET | E |
|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 1 No West Median.dgnPLOT DATE : 31-OCT-2023 11:16
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

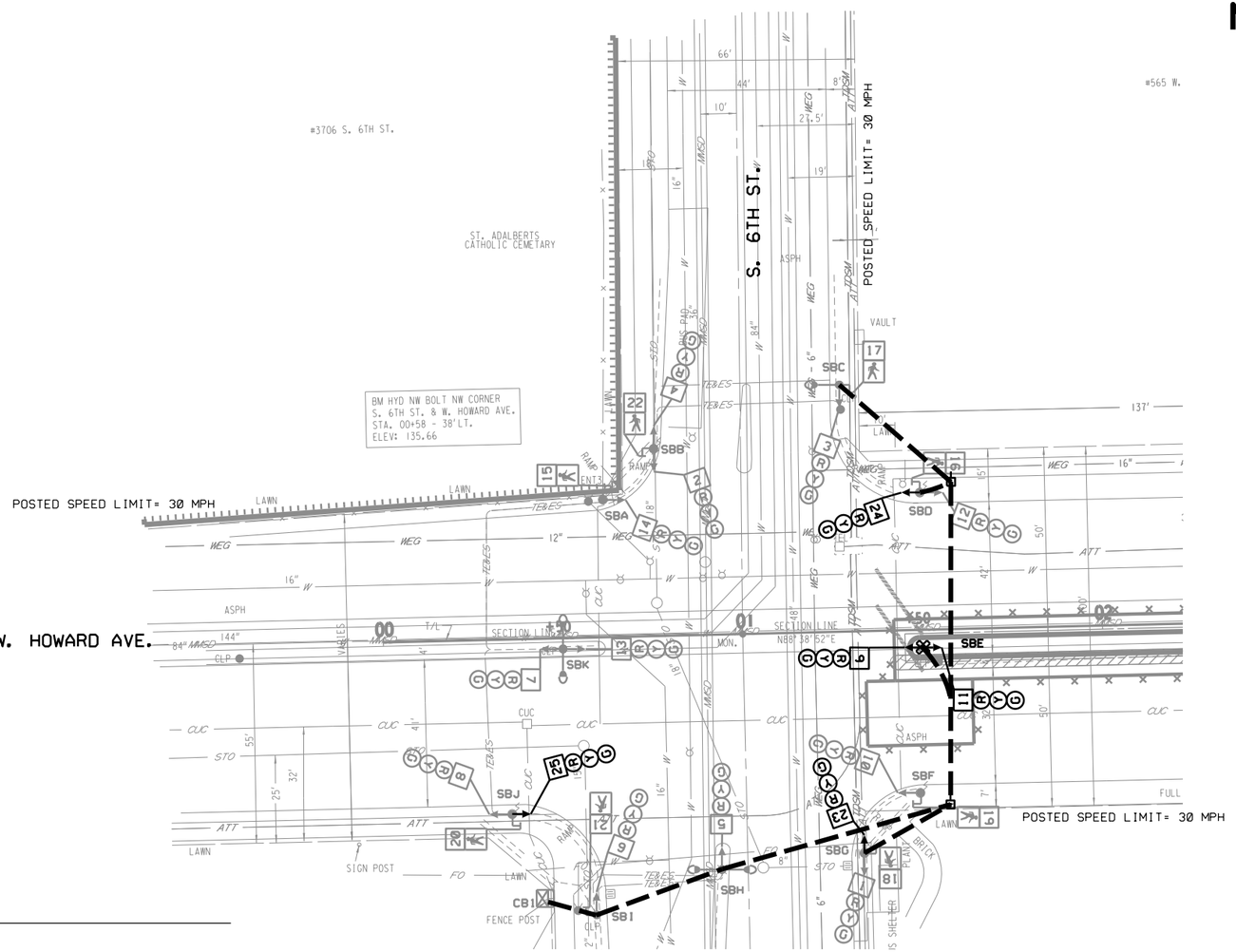
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING
ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
ALL SPECIAL CONDUIT HDPE

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

POSTED SPEED LIMIT= 30 MPH

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 229 | E |
|---|---|---|---|---|---|---|

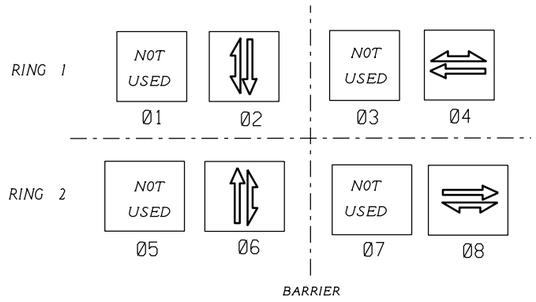
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn PLOT DATE : 31-OCT-2023 11:37 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| 02 | 4.5.6.23 | R |
| | | |
| 04 | 11.12.13.14.25 | R |
| | | |
| 06 | 1.2.3 | R |
| | | |
| 08 | 7.8.9.10.24 | R |
| 02P | 21.22 | |
| 04P | 15.16 | |
| 06P | 17.18 | |
| 08P | 19.20 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

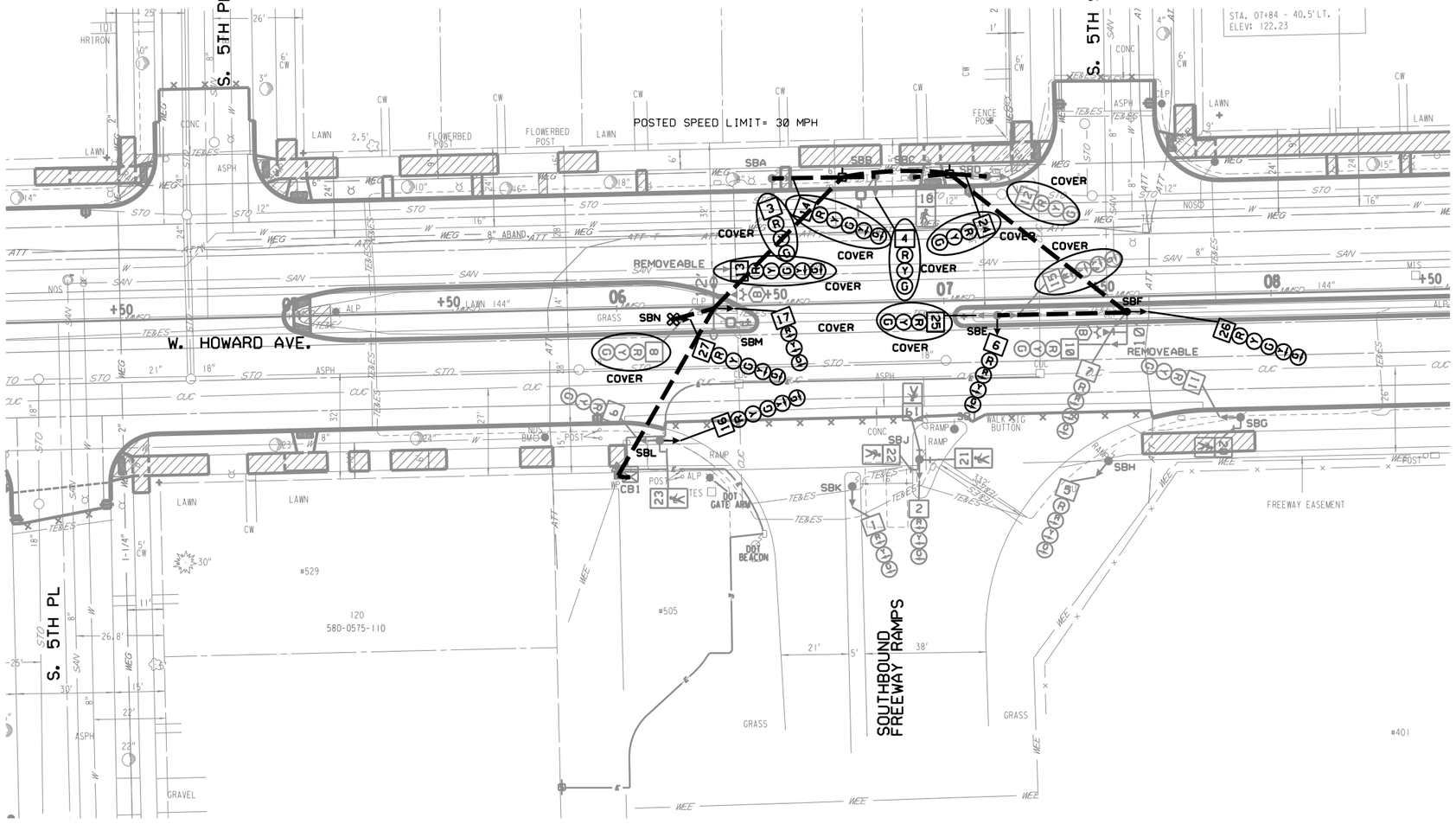
| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 2 | SHEET 230 | E |
|---|---|---|---|---|---|




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING
ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

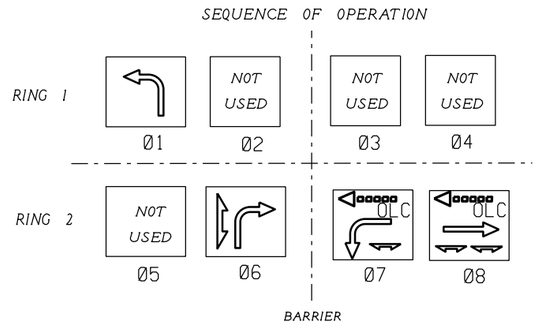
MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 231 | E |
|---|---|---|---|---|---|---|

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 1.2.17 | R |
| | | |
| | | |
| | | |
| | | |
| Ø6 | 5.6.7 | R |
| Ø7 | 16.26.27 | R |
| Ø8 | 9.10.11 | R |
| | | |
| Ø4P | 20.21 | |
| Ø6P | 18.19 | |
| Ø8P | 22.23 | |

SEQUENCE OF OPERATION




GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: | S. |
| SIGNAL SYSTEM *: | SS. . |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | | CHANNEL B |
|---|---|---|
| MOVEMENT | | ⇄ |
| PHASE | | 4-8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | 6 | MAX | X |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | 1 | PED | X |
| 7 | | | MAX | X |
| 8 | | | COORD. | X |

OVERLAPS

| |
|---|
| O.L. "C" = WB |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:



| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 2 | SHEET | E |
|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn
PLOT DATE : 31-OCT-2023 11:48
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

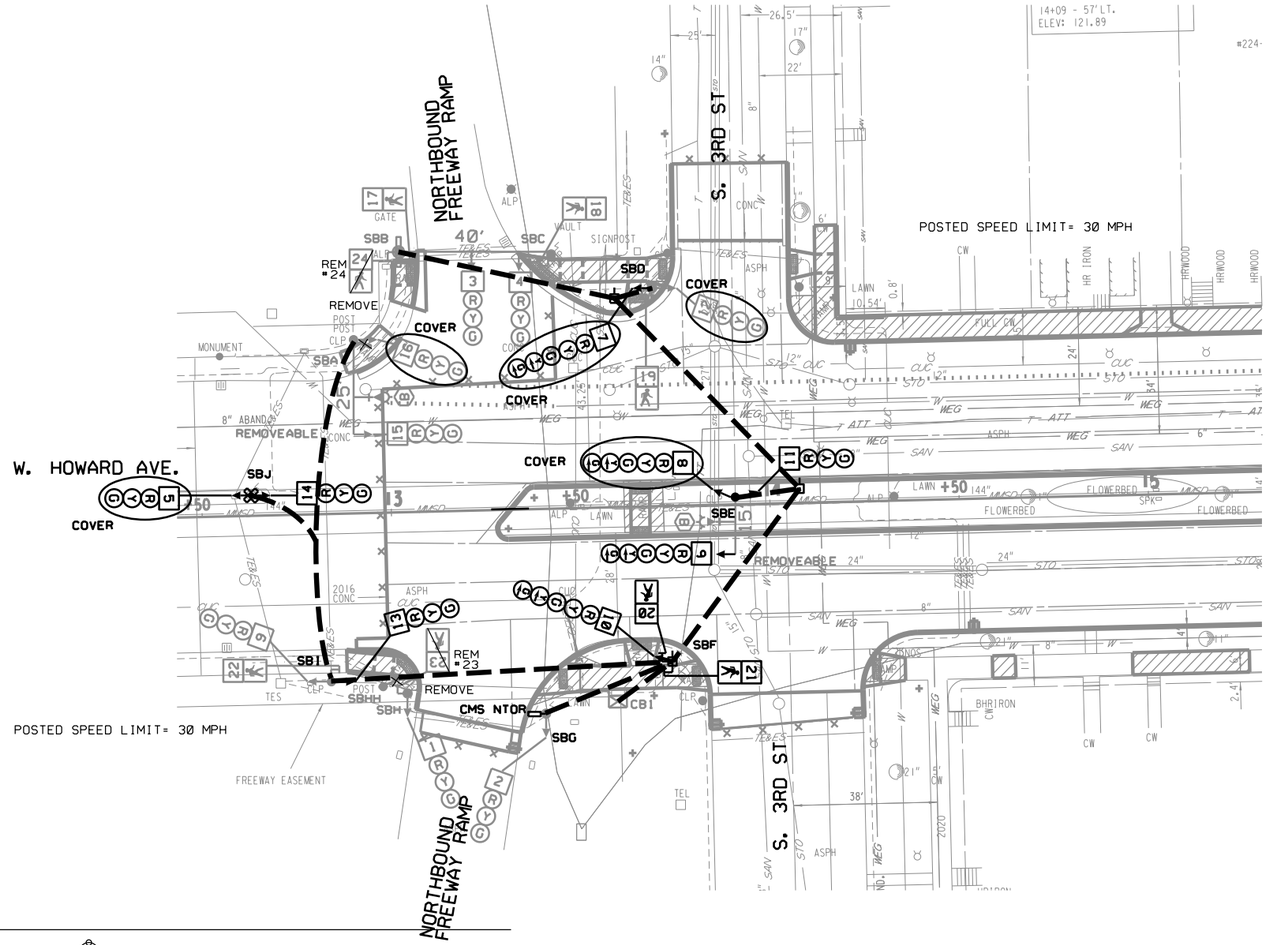
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

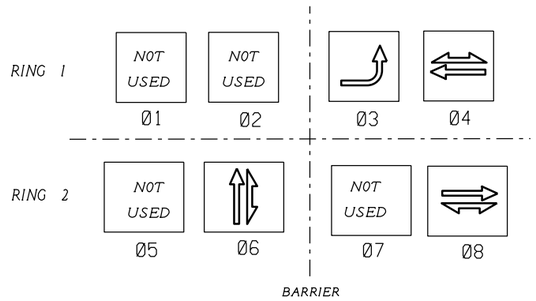
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 233 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn
PLOT DATE : 31-OCT-2023 11:38
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| | | |
| Ø3 | 9,10 | R |
| Ø4 | 11,13,14,15 | R |
| | | |
| Ø6 | 1,2,3,4 | R |
| | | |
| Ø8 | 6 | R |
| | | |
| Ø4P | 17,18 | |
| Ø6P | 19,20 | |
| Ø8P | 21,22 | |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | 61,62 | | | | |
| CALLED PHASE | | | | 6 | | | | |
| CALL OPTION | | | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PREEMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL B |
|---|---|
| MOVEMENT | ← → |
| PHASE | 4,8 |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | MAX | X |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

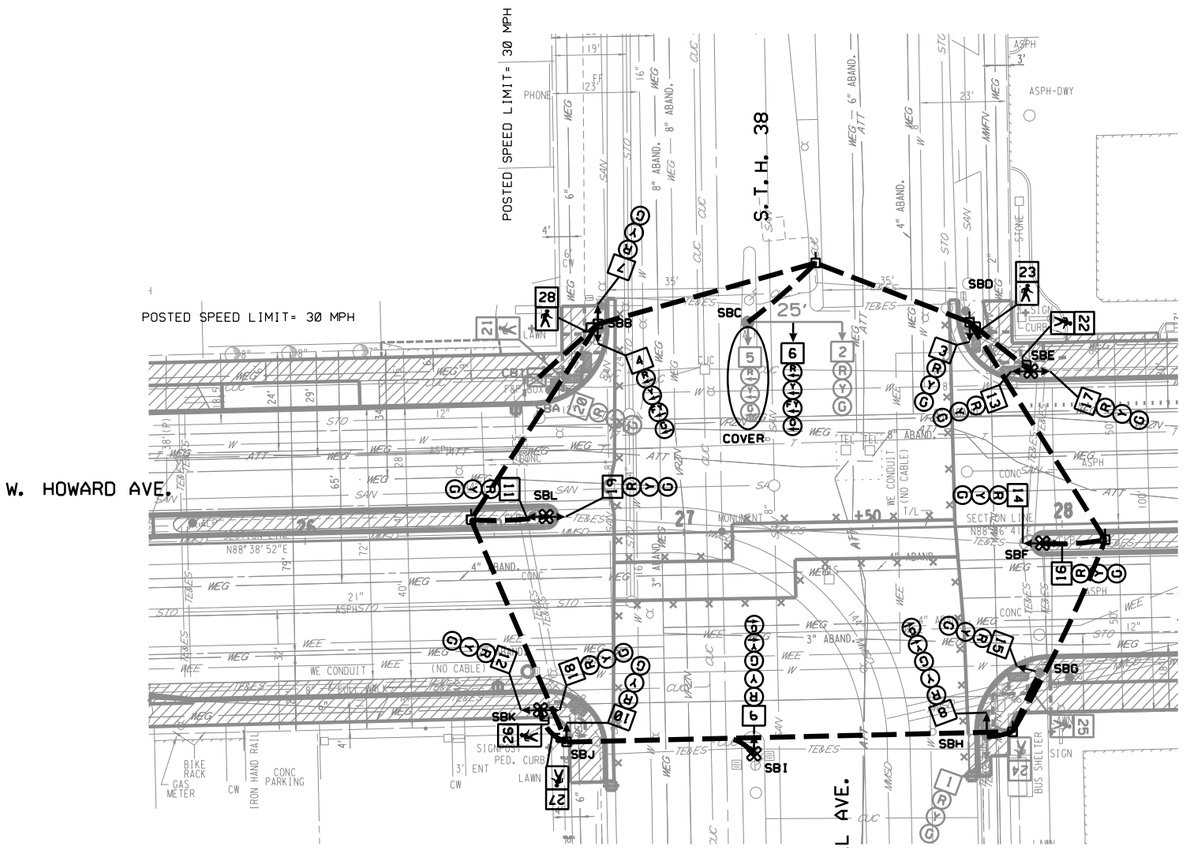
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E/W. HOWARD AV. & S. HOWELL AV. (STH 38)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 235 | E |
|---|---|---|---|---|---|---|

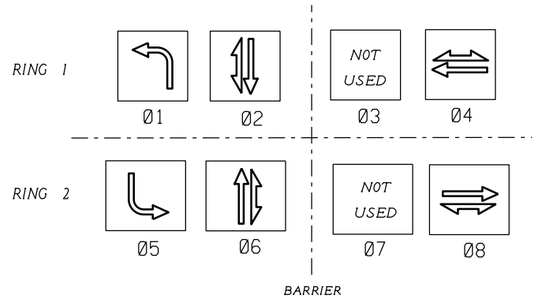
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn PLOT DATE : 31-OCT-2023 11:39 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 4,6 | R |
| Ø2 | 7,10 | R |
| | | |
| Ø4 | 16,17,18,19,20 | R |
| Ø5 | 8,9 | R |
| Ø6 | 1,2,3 | R |
| | | |
| Ø8 | 11,12,13,14,15 | R |
| Ø2P | 27,28 | |
| Ø4P | 21,22 | |
| Ø6P | 23,24 | |
| Ø8P | 25,26 | |

SEQUENCE OF OPERATION




GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | MAX | X |
| 2 | | 6 | COORD. | X |
| 3 | | | | |
| 4 | | 8 | PED | X |
| 5 | | | | X |
| 6 | | 2 | COORD. | X |
| 7 | | | | |
| 8 | | 4 | PED | X |

DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | | 51 | | | | |
| CALLED PHASE | | 1 | | 5 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ⇄ |
| PHASE | 2-6 | 4-8 |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL

E/W. HOWARD AV. & S. HOWELL AV. (STH 38)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 2 | SHEET 236 | E |
|---|---|---|---|---|---|

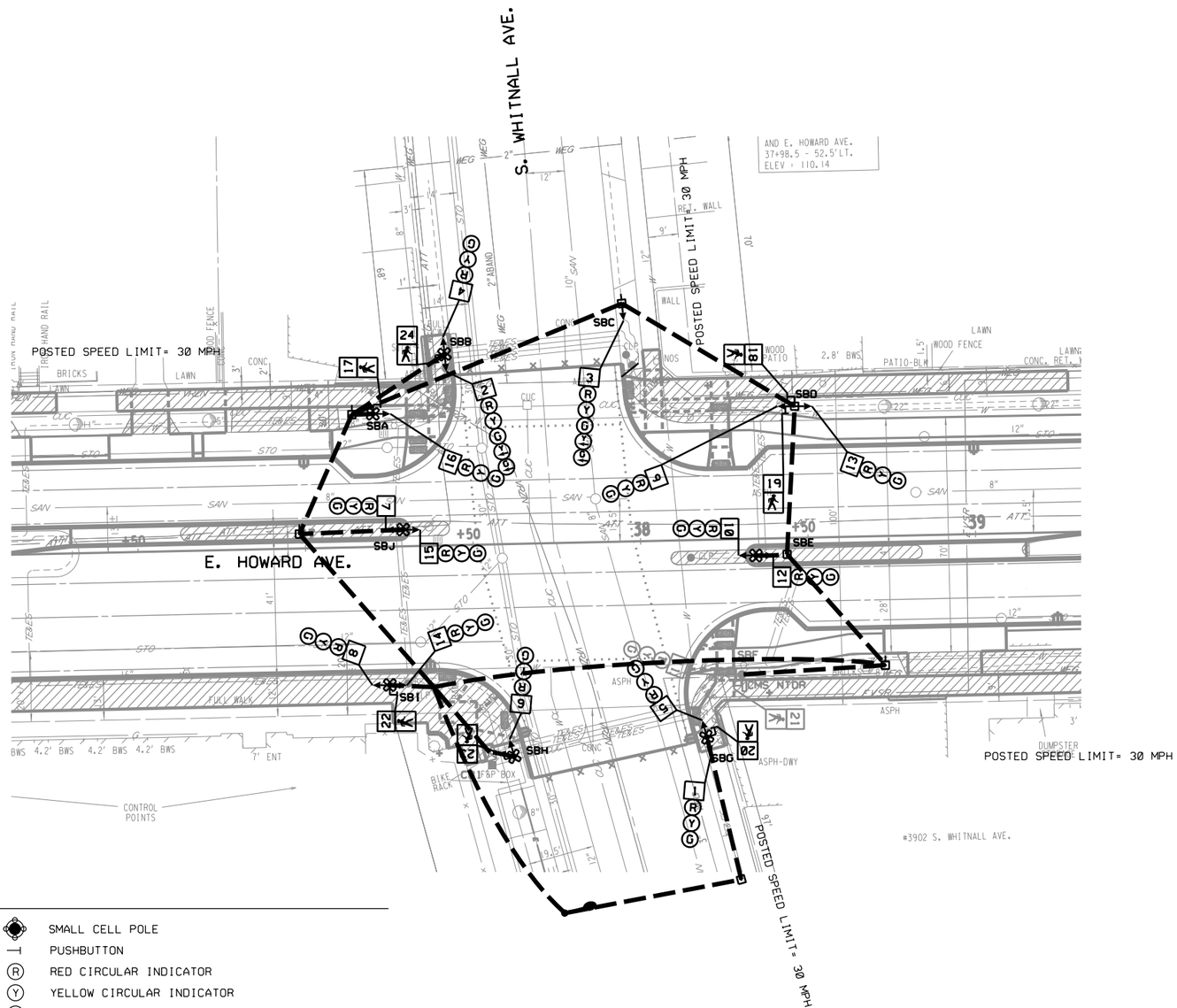
2

NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




N

2

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
1. ALL LENSES ARE 12-INCH
2. GRAYSHADE REPRESENTS EXISTING
3. ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
4. ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

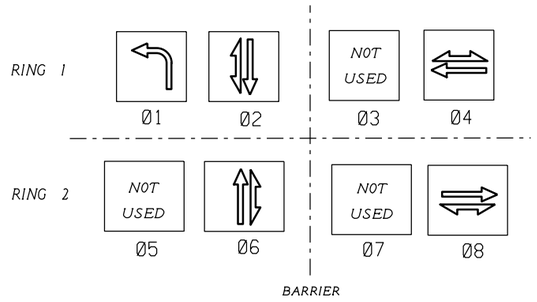
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 237 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn PLOT DATE : 31-OCT-2023 11:40 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| 01 | 2,3 | R |
| 02 | 4,5,6 | R |
| OLA | CMS NTOR | |
| 04 | 12,13,14,15,16 | R |
| | | |
| 06 | 1 | R |
| | | |
| 08 | 7,8,9,10,11 | R |
| 02P | 23,24 | |
| 04P | 17,18 | |
| 06P | 19,20 | |
| 08P | 21,22 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

### CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | 1 | | X |
| 2 | | 6 | PED | X |
| 3 | | OLA | | X |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

### OVERLAPS

O.L. "A" - EB NTOR

### DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | | | | | | |
| CALLED PHASE | | 1 | | | | | | |
| CALL OPTION | | X | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

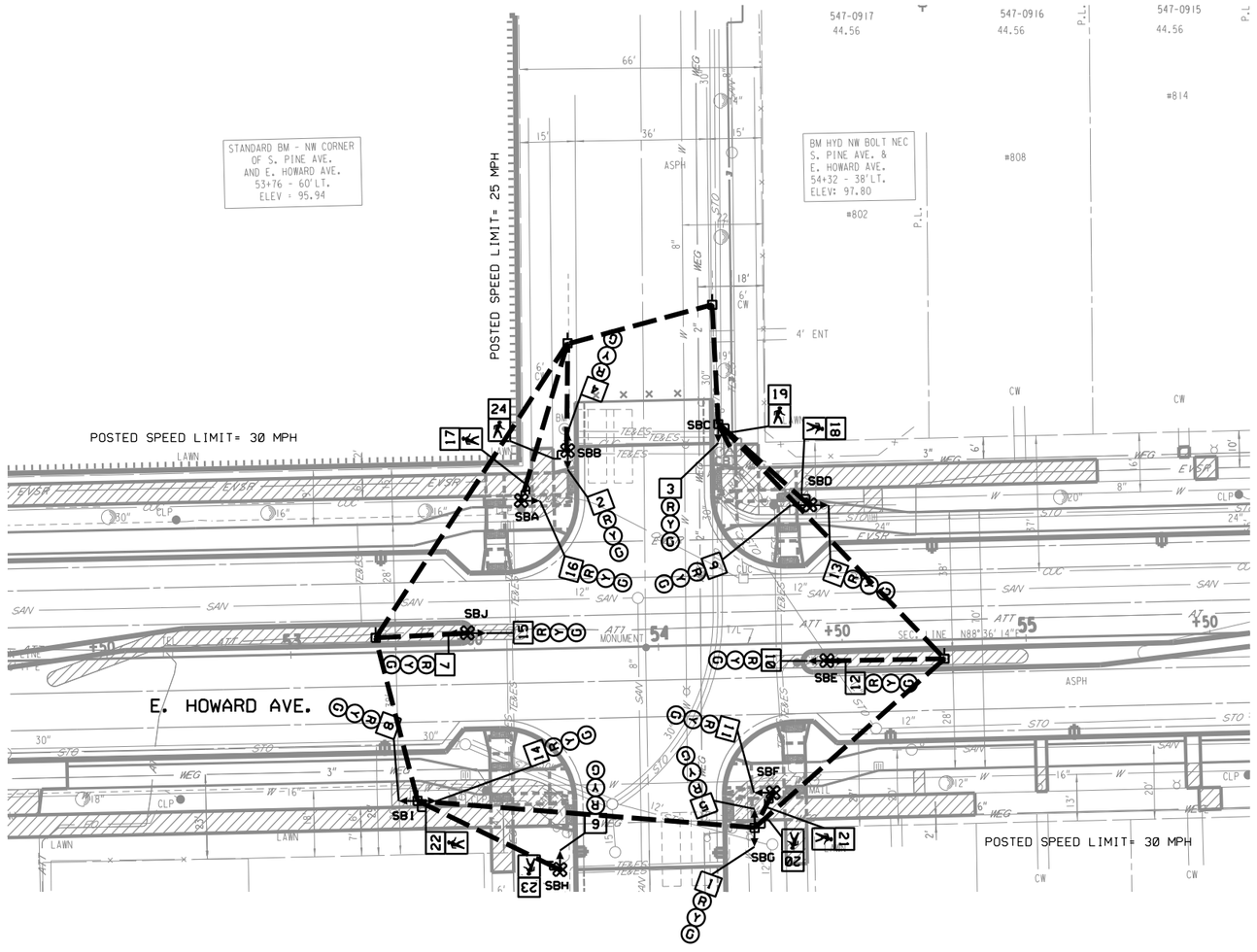
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

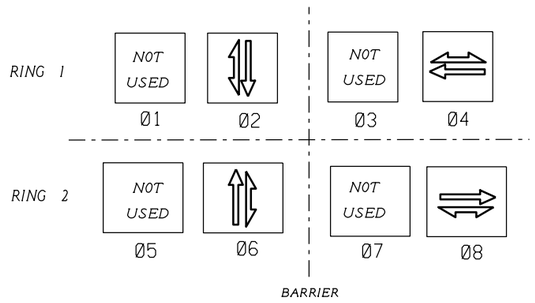
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 239 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn PLOT DATE : 31-OCT-2023 11:40 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| 02 | 4,5,6 | R |
| | | |
| 04 | 12,13,14,15,16 | Y |
| | | |
| 06 | 1,2,3 | R |
| | | |
| 08 | 7,8,9,10,11 | Y |
| 02P | 23,24 | |
| 04P | 17,18 | |
| 06P | 19,20 | |
| 08P | 21,22 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 21,22 | | 61,62 | | | | |
| CALLED PHASE | | 2 | | 6 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

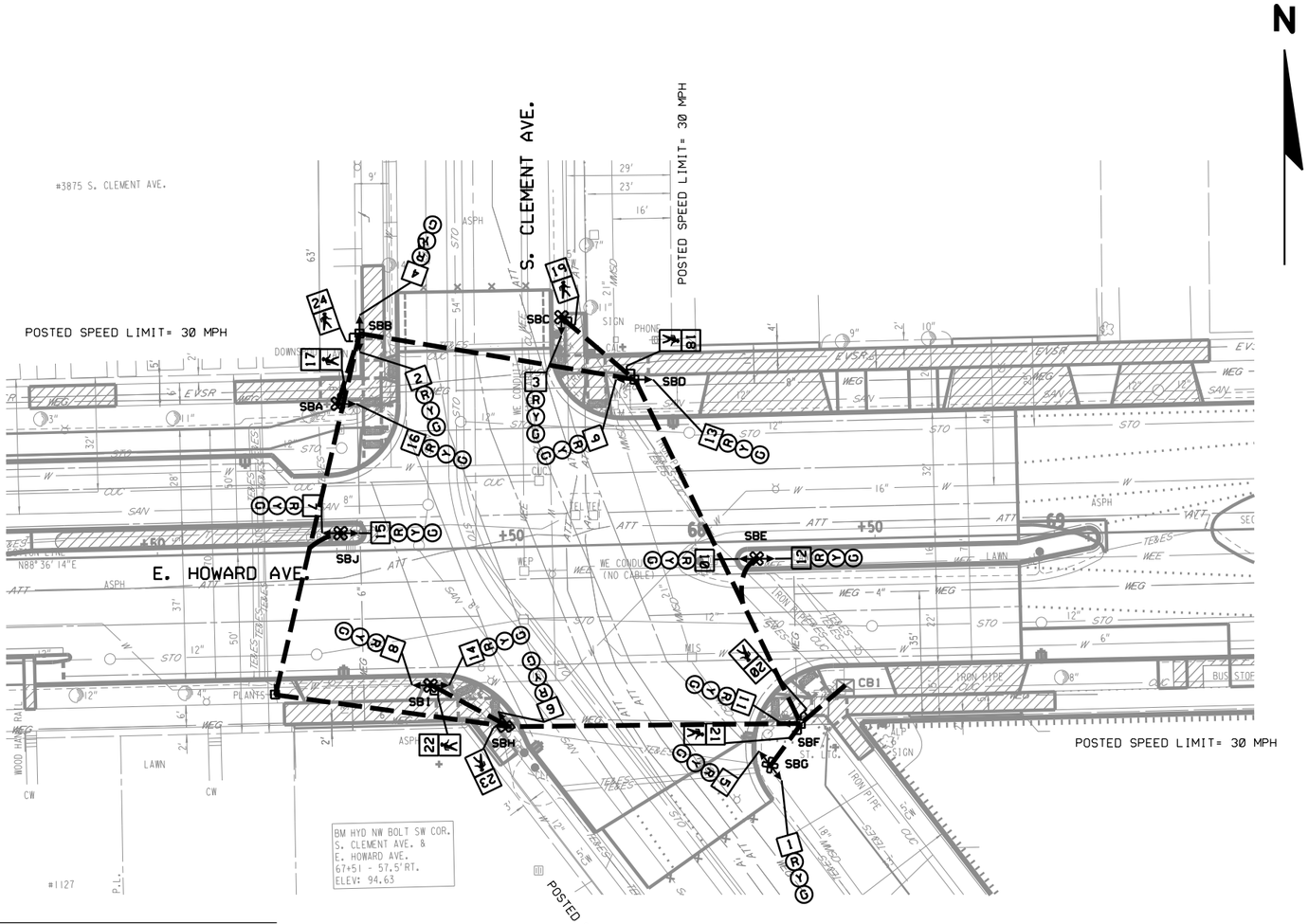
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (Y) (Y) YELLOW ARROW
- (G) (G) (G) GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
1. ALL LENSES ARE 12-INCH
2. GRAYSHADE REPRESENTS EXISTING
3. ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
4. ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

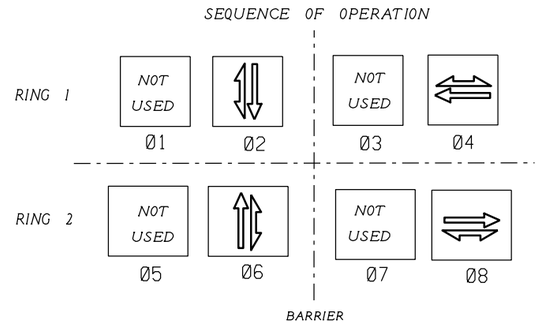
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TEMP. TRAFFIC SIGNAL PLAN-STAGE 2 | SCALE, FEET 0 40 | SHEET 241 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\2395-05-71 Temp Signals 6.6.23 Stage 2.dgn
PLOT DATE : 31-OCT-2023 11:41
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| Ø2 | 4.5.6 | R |
| | | |
| Ø4 | 12.13.14.15.16 | Y |
| | | |
| Ø6 | 1.2.3 | R |
| | | |
| Ø8 | 7.8.9.10.11 | Y |
| Ø2P | 23.24 | |
| Ø4P | 17.18 | |
| Ø6P | 19.20 | |
| Ø8P | 21.22 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | X |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS – STAGE 2 | SHEET 242 | E |
|---|---|---|---|---|---|

2

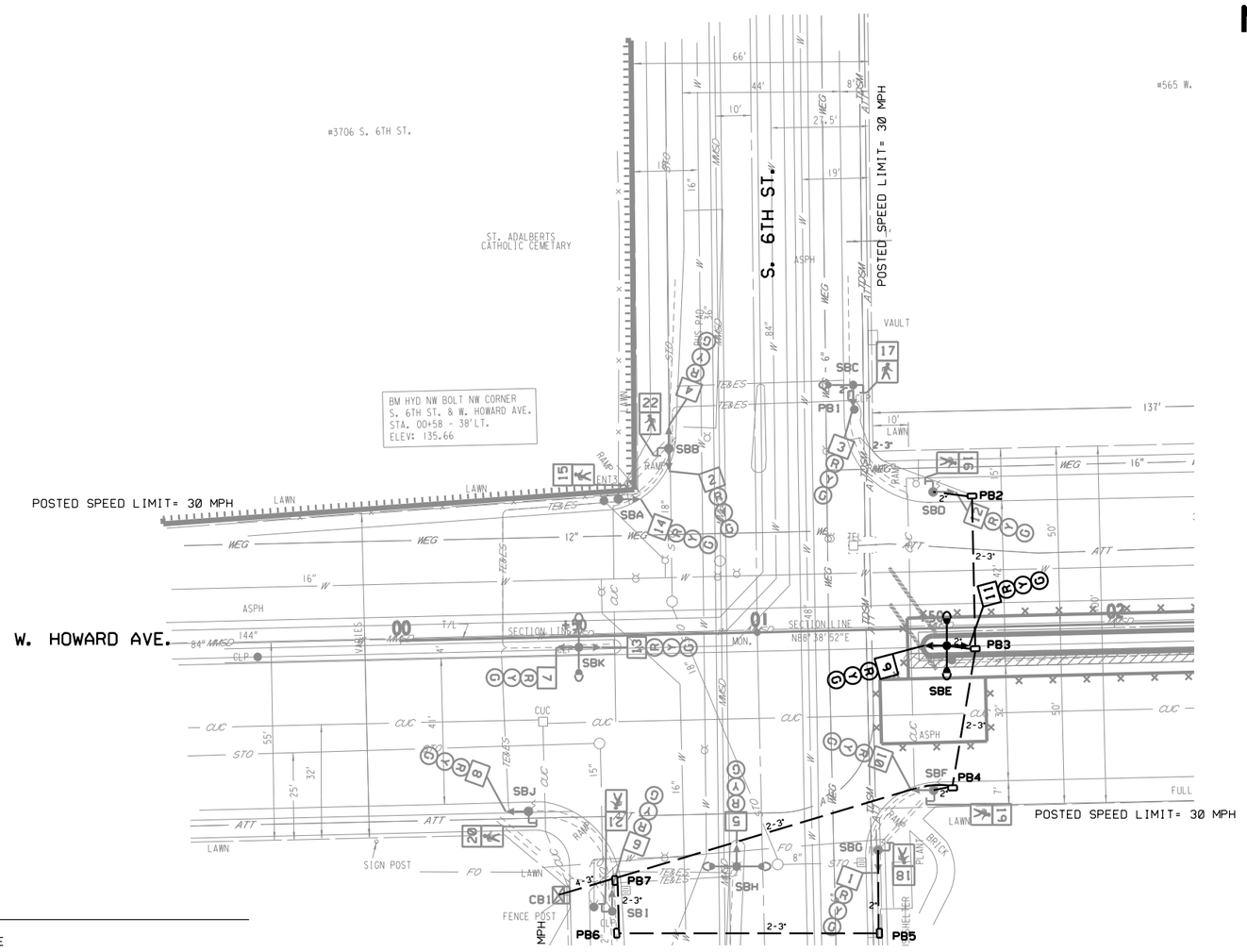
## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING
ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
ALL SPECIAL CONDUIT HDPE




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- APS VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) (R) RED ARROW
- (Y) (FY) (Y) YELLOW ARROW
- (G) (G) (G) GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

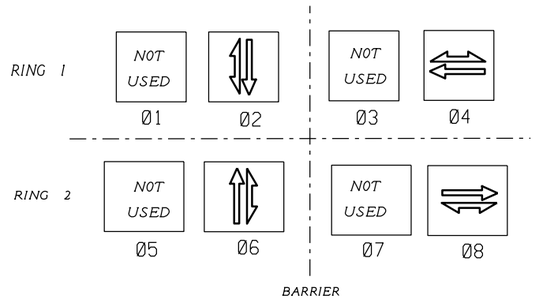
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 243 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn PLOT DATE : 30-OCT-2023 16:53 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| 02 | 4.5.6 | R |
| | | |
| 04 | 11.12.13.14 | R |
| | | |
| 06 | 1.2.3 | R |
| | | |
| 08 | 7.8.9.10 | R |
| 02P | 21.22 | |
| 04P | 15.16 | |
| 06P | 17.18 | |
| 08P | 19.20 | |

SEQUENCE OF OPERATION




GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | X |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / @ | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 6TH ST.
LOCAL STREET
CITY OF MILWAUKEE,MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 244 | E |
|---|---|---|---|---|---|---|

2

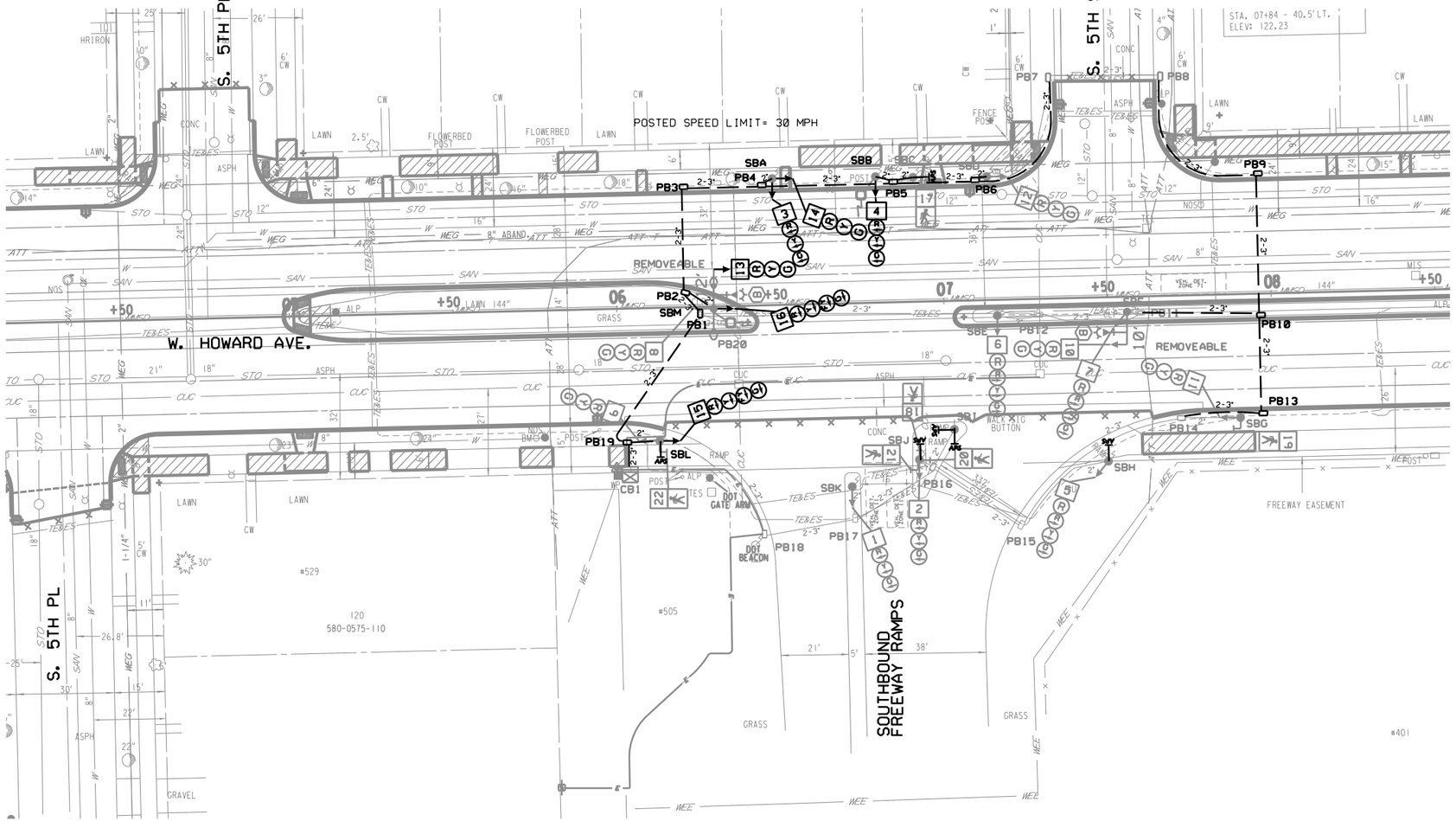
| | |
|---|---|
| **PROJECT ID:** | 2395-05-71 |
| **INTERSECTION:** | W. HOWARD AVE. & S. 6TH ST. |

| | | | |
|---|---|---|---|
| SIGNAL WIRE COLOR CODING | BLK-BLACK | RED-RED | GRN-GREEN |
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB__TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBD | | 9 | 12 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 16 | 4 | | | | | | | | BLU | BLK | | |
| SBE | | 12 | 9 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 11 | 4 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| SBF | | 9 | 10 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 19 | 8 | | | | | | | | BLU | BLK | | |
| SBG | | 9 | 1 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 18 | 6 | | | | | | | | BLU | BLK | | |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

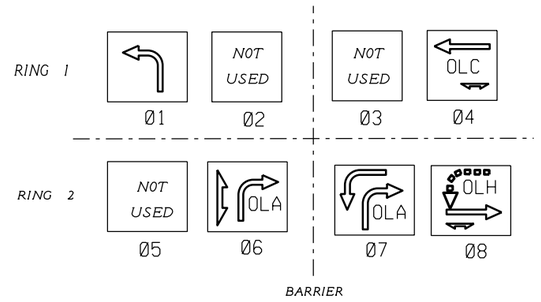


| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 246 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn
PLOT DATE : 30-OCT-2023 16:54
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 1,2,3,4 | R |
| | | |
| | | |
| OLC | 12,13,14 | R |
| | | |
| OLA | 5,6,7 | R |
| Ø7 | 15,16 | R |
| Ø8 | 8,9,10,11 | R |
| | | |
| Ø4P | 19,20 | |
| Ø6P | 17,18 | |
| Ø8P | 21,22 | |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | 71 | | | | | |
| CALLED PHASE | | 1 | 7 | | | | | |
| CALL OPTION | | X | X | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | X | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | X |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

### EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL | B |
|---|---|---|
| MOVEMENT | | ⇄ |
| PHASE | | 4-8 |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | X |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | X |
| 8 | | | COORD. | X |

## OVERLAPS

| | | | | |
|---|---|---|---|---|
| O.L. | "A" | - | NB | RT |
| O.L. | "C" | - | WB | |
| O.L. | "H" | - | WB | FYA |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 5TH ST.
(S/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 247 | E |
|---|---|---|---|---|---|---|

| | |
|---|---|
| **PROJECT ID:** | 2395-05-71 |
| **INTERSECTION:** | W. HOWARD AVE. & S. 5TH ST. |

| | | | |
|---|---|---|---|
| SIGNAL WIRE COLOR CODING | BLK-BLACK | RED-RED | GRN-GREEN |
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBA | | 9 | 3 | 1 | | | | RED/BLK | ORG/BLK | | GRN/BLK | | | | |
| | | | 14 | OLC | RED | ORG | GRN | | | | | | | | |
| SBB | | 9 | 4 | 1 | | | | RED | ORG | | GRN | | | | |
| SBC | | 9 | 17 | 6 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBD | | 9 | 12 | OLC | RED | ORG | GRN | | | | | | | | |
| SBE | | 9 | 6 | OLA | RED/BLK | | | RED | ORG | | GRN | | | | |
| SBF | | 12 | 7 | OLA | BLU/BLK | | | RED/BLK | ORG/BLK | | GRN/BLK | | | | |
| | | | 10 | 8 | RED | ORG | GRN | | | | | | | | |
| SBG | | 9 | 11 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 19 | 4 | | | | | | | | BLU | BLK | | |
| SBH | | 9 | 5 | OLA | RED/BLK | | | RED | ORG | | GRN | | | | |
| | | | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBI | | 9 | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| | | | APS | 6 | | | | | | | | | | | BLU |
| | | | PUSHBUTTON | 6 | | | | | | | | | | BLK | |
| SBJ | | 15 | 2 | 1 | | | | RED | ORG | | GRN | | | | |
| | | | 18 | 6 | | | | | | | | BLU | BLK | | |
| | | | 20 | 4 | | | | | | | | BLU/BLK | BLK/WHT | | |
| | | | 21 | 8 | | | | | | | | RED/BLK | ORG/BLK | | |
| | | | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBK | | 9 | 1 | 1 | | | | RED | ORG | | GRN | | | | |
| SBL | | 15 | 9 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 15 | 7 | | | | RED/BLK | ORG/BLK | BLU/BLK | GRN/BLK | | | | |
| | | | 22 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBM | | 15 | 8 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 13 | OLC | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 16 | 7 | | | | RED/WHT | BLU/WHT | BLU/BLK | GRN/WHT | | | | |
| | | | | | | | | | | | | | | | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBM |
| SBM | SBA |
| SBA | SBB |
| SBB | SBC |
| SBC | SBD |
| SBD | SBF |
| SBF | SBE |
| SBE | SBG |
| SBG | SBH |
| SBH | SBI |
| SBI | SBJ |
| SBJ | SBK |
| SBK | SBL |
| SBL | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBF |
| SBF | HEAD B |
| | |
| CB1 | SBM |
| SBM | HEAD B |
| | |
| | |
| | |
| | |
| | |
| | |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

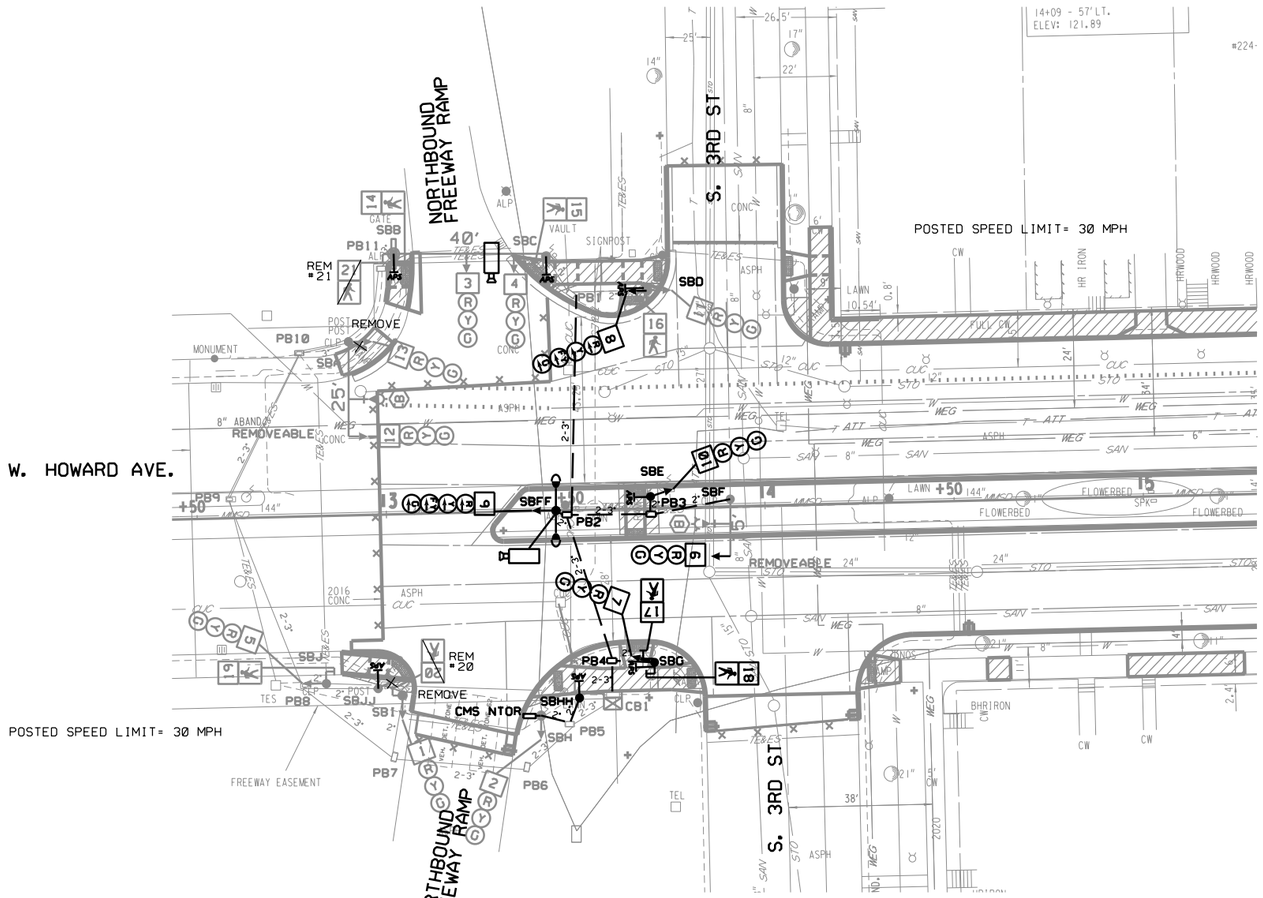
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




N

2

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- APS VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 249 | E |
|---|---|---|---|---|---|---|

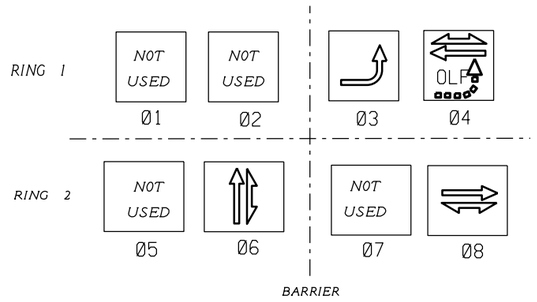
FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn
PLOT DATE : 30-OCT-2023 16:55
PLOT BY : vjacks
PLOT NAME :
PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| | | |
| 03 | 8,9 | R |
| 04 | 10,11,12,13 | R |
| | | |
| 06 | 1,2,3,4 | R |
| | | |
| 08 | 5,6,7 | R |
| | | |
| 04P | 14,15 | |
| 06P | 16,17 | |
| 08P | 18,19 | |

SEQUENCE OF OPERATION




DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | 31 | | | | | | | |
| CALLED PHASE | 3 | | | | | | | |
| CALL OPTION | X | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | X | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | 61,62 | | | | |
| CALLED PHASE | | | | 6 | | | | |
| CALL OPTION | | | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | X |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL | B |
|---|---|---|
| MOVEMENT | | ⇄ |
| PHASE | | 4,8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY Y / N | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | X |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | | | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

OVERLAPS

| |
|---|
| O.L. "F" - EB FYA |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
W. HOWARD AVE. & S. 3RD ST.
(N/B FREEWAY RAMPS)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 250 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4,14,23.dgn PLOT DATE : 31-OCT-2023 16:10 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

| PROJECT ID: | 2395-05-71 |
|---|---|
| INTERSECTION: | W. HOWARD AVE. & S. 3RD ST. |

| SIGNAL WIRE COLOR CODING | BLK-BLACK | RED-RED | GRN-GREEN |
|---|---|---|---|
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBB | | 15 | 3 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 4 | 6 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 14 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 4 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBC | | 9 | 15 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBD | | 15 | 8 | 3 | | | | RED/BLK | ORG/BLK | BLU/BLK | GRN/BLK | | | | |
| | | | 11 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 16 | 6 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBE | | 9 | 10 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | APS | 6 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBF | | 9 | 6 | 8 | RED | ORG | GRN | | | | | | | | |
| SBFF | | 9 | 9 | 3 | | | | RED | ORG | GRN//BLK | GRN | | | | |
| SBG | | 12 | 7 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 17 | 6 | | | | | | | | BLU | BLK | | |
| | | | 18 | 8 | | | | | | | | BLU/BLK | BLK/WHT | | |
| | | | APS | 6 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBHH | | 9 | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBH | | 9 | 2 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | LED SIGN | 6 | | | | | | | | | | | GRN/BLK |
| SBJJ | | 9 | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBHH |
| SBHH | SBH |
| SBH | SBI |
| SBI | SBJJ |
| SBJJ | SBJ |
| SBJ | SBA |
| SBA | SBB |
| SBB | SBC |
| SBC | SBD |
| SBD | SBFF |
| SBFF | SBE |
| SBE | SBF |
| SBF | SBG |
| SBG | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBA |
| SBA | HEAD B |
| | |
| CB1 | SBF |
| SBF | HEAD B |
| | |
| | |
| | |
| | |
| | |
| | |

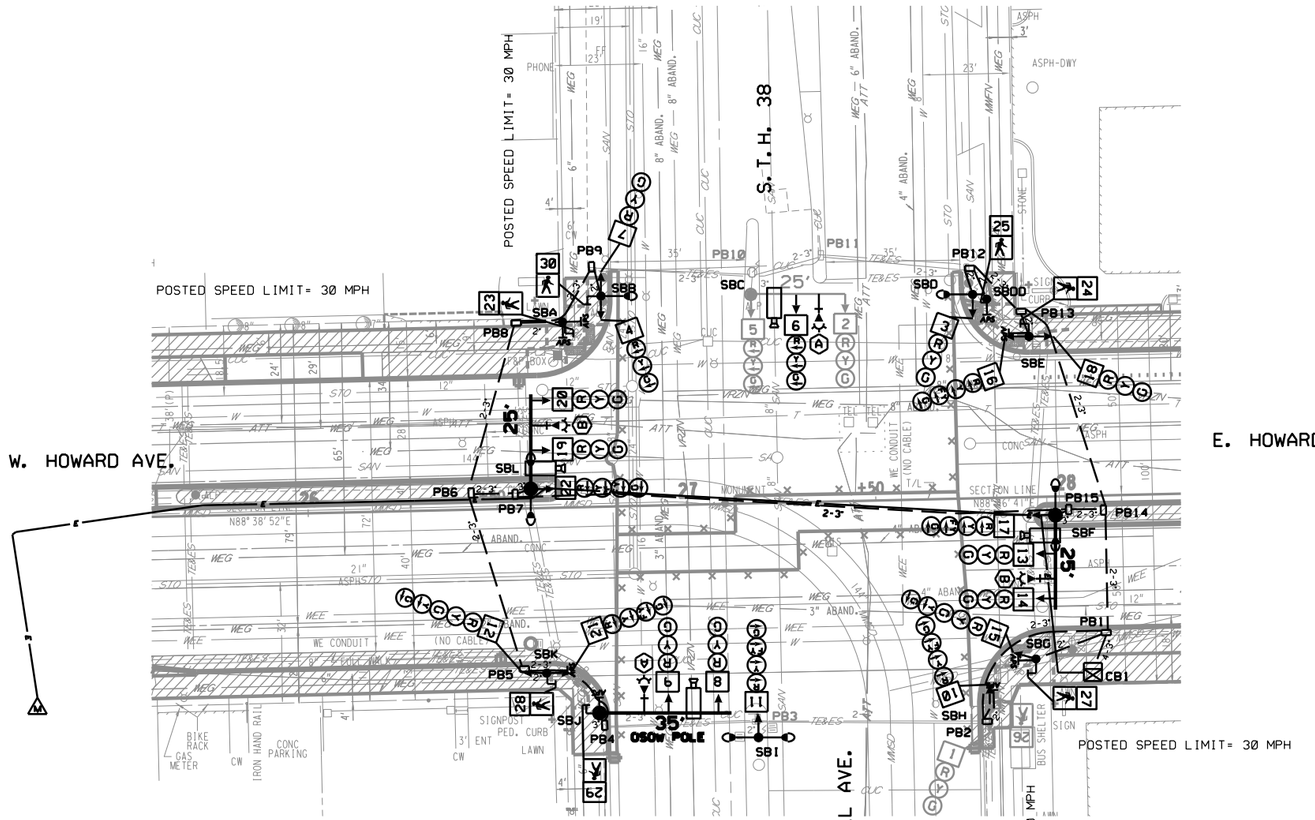
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL

E/W. HOWARD AV. & S. HOWELL AV. (STH 38)

LOCAL STREET

CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER

DESIGNED BY: CITY OF MILWAUKEE-DPW

REVISED BY:

PAGE 1 OF

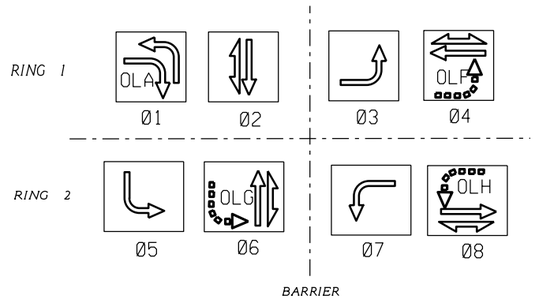
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 252 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn PLOT DATE : 30-OCT-2023 16:56 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| 01 | 4,5,6 | R |
| 02 | 7,8,9 | R |
| 03 | 16,17 | R |
| 04 | 18,19,20 | R |
| 05 | 10,11 | R |
| 06 | 1,2,3 | R |
| 07 | 21,22 | R |
| 08 | 12,13,14,15 | R |
| 02P | 29,30 | |
| 04P | 23,24 | |
| 06P | 25,26 | |
| 08P | 27,28 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | X |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / @ | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | X |
| 2 | | 6 | COORD. | X |
| 3 | | | | X |
| 4 | | 8 | PED | X |
| 5 | | | | X |
| 6 | | 2 | COORD. | X |
| 7 | | | | X |
| 8 | | 4 | PED | X |

## OVERLAPS

| | | | | |
|---|---|---|---|---|
| O.L. | "A" | = | EB | RT |
| O.L. | "F" | = | EB | FYA |
| O.L. | "G" | = | SB | FYA |
| O.L. | "H" | = | WB | FYA |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | 31 | 11 | 71 | 51 | | | | |
| CALLED PHASE | 3 | 1 | 7 | 5 | | | | |
| CALL OPTION | X | X | X | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | X | X | X | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ⇄ |
| PHASE | 2·6 | 4·8 |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E/W. HOWARD AV. & S. HOWELL AV. (STH 38)
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 253 | E |
|---|---|---|---|---|---|---|

**PROJECT ID:** 2395-05-71
**INTERSECTION:** E./W. HOWARD AVE. & S. HOWELL AVE.

| SIGNAL WIRE COLOR CODING | | | |
|---|---|---|---|
| | BLK-BLACK | RED-RED | GRN-GREEN |
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBA | | 12 | 23 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| | | | APS | 4 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 4 | | | | | | | | | | BLU/BLK | |
| SBB | | 12 | 4 | 1 | | | | RED/BLK | ORG/BLK | | GRN/BLK | | | | |
| | | | 7 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 30 | 2 | | | | | | | | BLU | BLK | | |
| SBC | | 15 | 2 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 5 | 1 | | | | RED/BLK | ORG/BLK | | GRN/BLK | | | | |
| | | | 6 | 1 | | | | RED/WHT | BLU/WHT | | GRN/WHT | | | | |
| SBD | | 12 | 3 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 25 | 6 | | | | | | | | BLU | BLK | | |
| | SBDD | 12 | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBE | | 15 | 16 | 3 | | | | RED/BLK | ORG/BLK | BLU/WHT | GRN/BLK | | | | |
| | | | 18 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 24 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBF | | 15 | 13 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 14 | 8 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 17 | 3 | | | | RED/WHT | BLU/WHT | BLU/BLK | GRN/WHT | | | | |
| SBG | | 12 | 15 | 8/OLA | RED | ORG | GRN | | ORG/BLK | | GRN/BLK | | | | |
| | | | 27 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBH | | 15 | 1 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 10 | 5 | | | | RED/BLK | ORG/BLK | BLU/WHT | GRN/BLK | | | | |
| | | | 26 | 6 | | | | | | | | BLU | BLK | | |
| | | | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBI | | 9 | 11 | 5 | | | | RED | ORG | GRN/BLK | GRN | | | | |
| SBJ | | 15 | 8 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 9 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 29 | 2 | | | | | | | | BLU | BLK | | |
| | | | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBK | | 15 | 12 | 8/OLA | RED | ORG | GRN | | ORG/BLK | | GRN/BLK | | | | |
| | | | 21 | 7 | | | | RED/WHT | BLU/WHT | BLU/BLK | GRN/WHT | | | | |
| | | | 28 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| SBL | | 15 | 19 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 20 | 4 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 22 | 7 | | | | RED/WHT | BLU/WHT | BLU/BLK | GRN/WHT | | | | |
| | | | | | | | | | | | | | | | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBG |
| SBG | SBH |
| SBH | SBI |
| SBI | SBJ |
| SBJ | SBK |
| SBK | SBL |
| SBL | SBA |
| SBA | SBB |
| SBB | SBC |
| SBC | SBD |
| SBD | SBDD |
| SBDD | SBE |
| SBE | SBF |
| SBF | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBC |
| SBC | HEAD A |
| | |
| CB1 | SBF |
| SBF | HEAD B |
| | |
| CB1 | SBJ |
| SBJ | HEAD A |
| | |
| CB1 | SBL |
| SBL | HEAD B |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

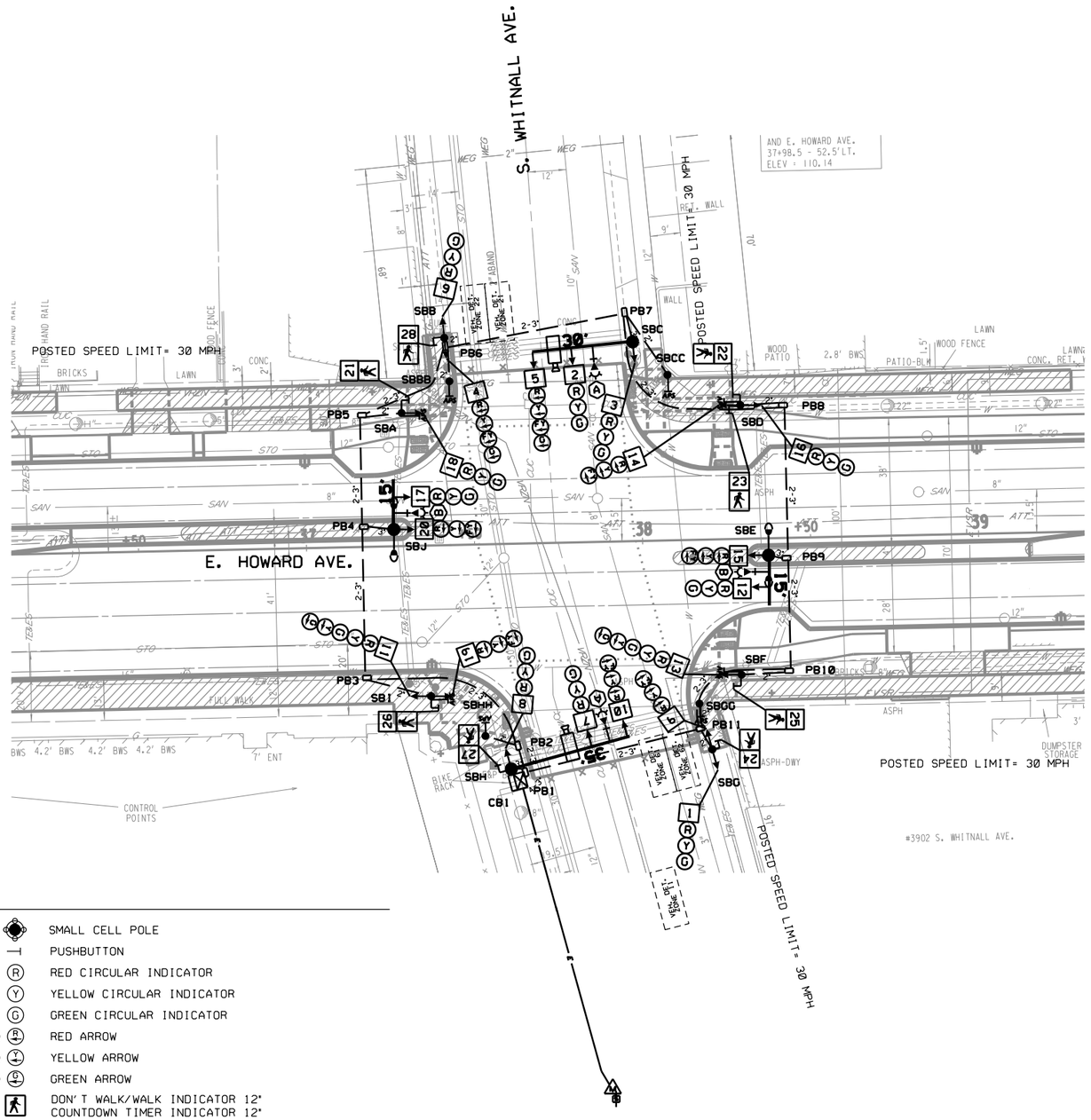
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




N

## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING
ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

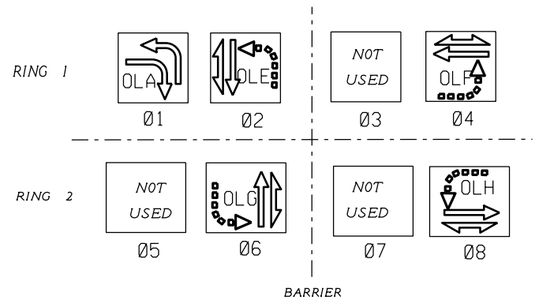
| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 255 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn PLOT DATE : 30-OCT-2023 16:57 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| 01 | 4,5 | R |
| 02 | 6,7,8 | R |
| OLF | 14,15 | R |
| 04 | 16,17,18 | R |
| OLG | 9,10 | R |
| 06 | 1,2,3 | R |
| OLH | 19,20 | R |
| 08 | 11,12,13 | R |
| 02P | 27,28 | |
| 04P | 21,22 | |
| 06P | 23,24 | |
| 08P | 25,26 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | X |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY Y / 0 | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | X |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

## OVERLAPS

| | | | | |
|---|---|---|---|---|
| O.L. | "A" | = | EB | RT |
| O.L. | "E" | = | NB | FYA |
| O.L. | "F" | = | EB | FYA |
| O.L. | "G" | = | SB | FYA |
| O.L. | "H" | = | WB | FYA |

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 11 | | | | | | |
| CALLED PHASE | | 1 | | | | | | |
| CALL OPTION | | X | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 21,22 | | 61,62 | | | | |
| CALLED PHASE | | 2 | | 6 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ⇄ |
| PHASE | 2-6 | 4-8 |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. WHITNALL AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 256 | E |
|---|---|---|---|---|---|---|

2

| PROJECT ID: | 2395-05-71 |
|---|---|
| INTERSECTION: | E. HOWARD AVE. & S. WHITNALL AVE. |

| SIGNAL WIRE COLOR CODING | BLK-BLACK | RED-RED | GRN-GREEN |
|---|---|---|---|
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBA | | 12 | 18 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 21 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| SBB | | 15 | 4 | 1 | | | | RED/BLK | ORG/BLK | BLU/BLK | GRN/BLK | | | | |
| | | | 6 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 28 | 2 | | | | | | | | BLU | BLK | | |
| | SBBB | 15 | APS | 4 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBC | | 15 | 2 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 3 | 6 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 5 | 1 | | | | RED/WHT | BLU/WHT | BLU/BLK | GRN/WHT | | | | |
| | SBCC | 15 | APS | 4 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBD | | 15 | 14 | OLF | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 16 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 22 | 4 | | | | | | | | BLU | BLK | | |
| | | | 23 | 6 | | | | | | | | BLU/BLK | BLK/WHT | | |
| | | | APS | 6 | | | | | | | | | | | RED/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBE | | 12 | 12 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 15 | OLF | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| SBF | | 12 | 13 | 8/OLA | RED | ORG | GRN | | ORG/BLK | | GRN/BLK | | | | |
| | | | 25 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBG | | 15 | 1 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 9 | OLG | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 24 | 6 | | | | | | | | BLU | BLK | | |
| | SBGG | 15 | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBH | | 15 | 7 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 8 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 10 | OLG | | | | RED/WHT | BLU/WHT | GRN/WHT | | | | | |
| | | | 27 | 2 | | | | | | | | BLU | BLK | | |
| | SBHH | 15 | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBI | | 15 | 11 | 8/OLA | RED | ORG | GRN | | ORG/BLK | | GRN/BLK | | | | |
| | | | 19 | OLH | | | | RED/BLK | BLU/WHT | GRN/WHT | | | | | |
| | | | 26 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| SBJ | | 12 | 17 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 20 | OLH | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBH |
| SBH | SBHH |
| SBHH | SBI |
| SBI | SBJ |
| SBJ | SBA |
| SBA | SBB |
| SBB | SBBB |
| SBBB | SBC |
| SBC | SBCC |
| SBCC | SBD |
| SBD | SBE |
| SBE | SBF |
| SBF | SBG |
| SBG | SBGG |
| SBGG | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBC |
| SBC | HEAD A |
| | |
| CB1 | SBE |
| SBE | HEAD B |
| | |
| CB1 | SBH |
| SBH | HEAD A |
| | |
| CB1 | SBJ |
| SBJ | HEAD B |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

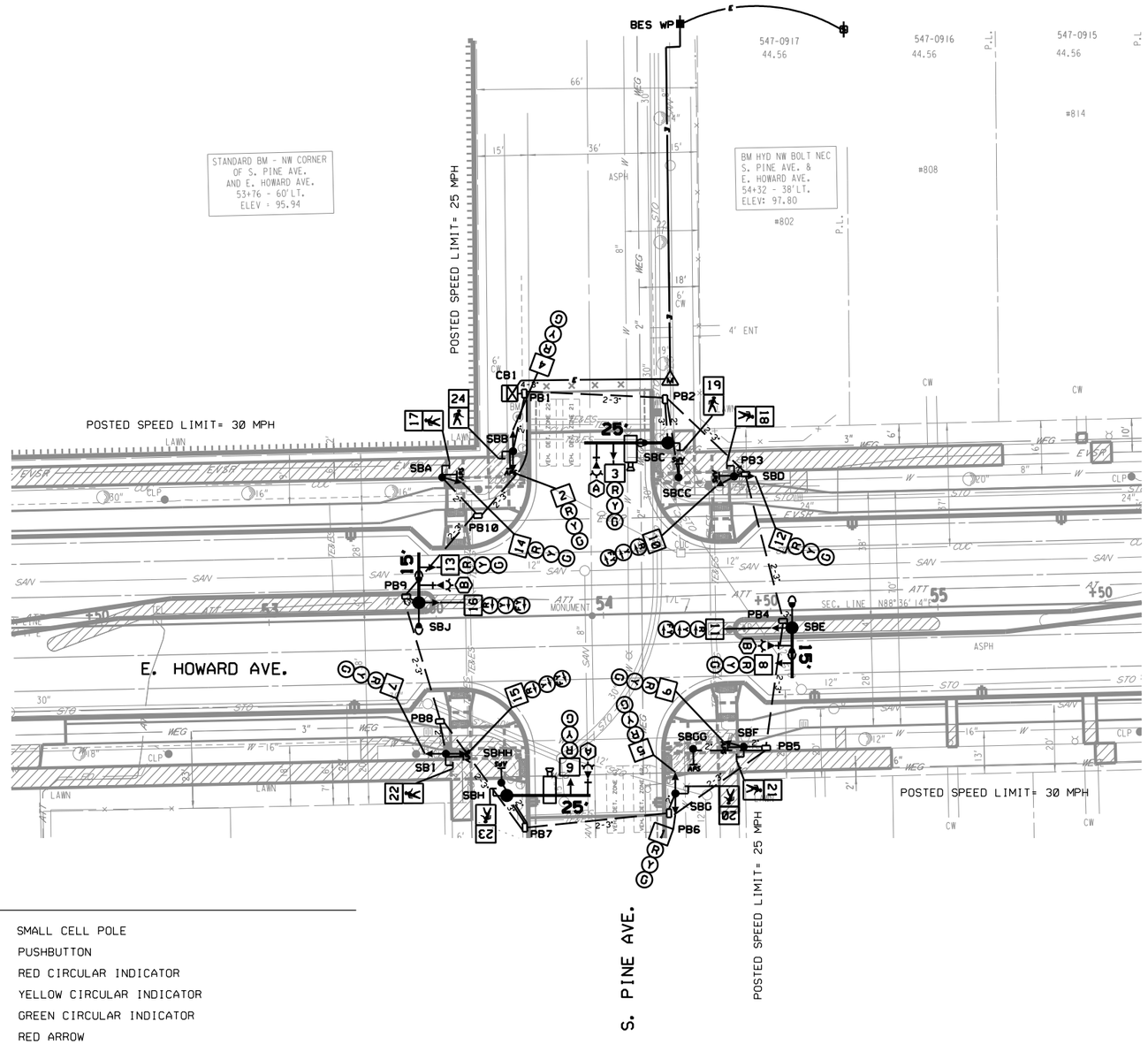
2

## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- MONOTUBE BASE, POLE, 45'-55' ARM
- MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12" COUNTDOWN TIMER INDICATOR 12"
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING
- ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
- ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

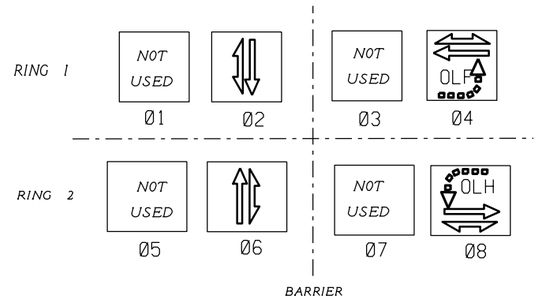
PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 258 | E |
|---|---|---|---|---|---|---|

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| | | |
| Ø2 | 4,5,6 | R |
| OLF | 10,11 | R |
| Ø4 | 12,13,14 | Y |
| | | |
| Ø6 | 1,2,3 | R |
| OLH | 15,16 | R |
| Ø8 | 7,8,9 | Y |
| Ø2P | 23,24 | |
| Ø4P | 17,18 | |
| Ø6P | 19,20 | |
| Ø8P | 21,22 | |

SEQUENCE OF OPERATION




DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | | | | | | | |
| CALLED PHASE | | | | | | | | |
| CALL OPTION | | | | | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | | | | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR | | 21,22 | | 61,62 | | | | |
| CALLED PHASE | | 2 | | 6 | | | | |
| CALL OPTION | | X | | X | | | | |
| DELAY TIME | | | | | | | | |
| EXTENTION OPTION | | X | | X | | | | |
| EXTEND TIME | | | | | | | | |
| USE ADDED INITIAL | | | | | | | | |
| CROSS SWITCH PHASE | | | | | | | | |

N

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR* | |
| CLOSED LOOP FIBER OPTIC* | |
| FIBER OPTIC | X |
| RADIO | |
| *LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM *: SS. | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ← → |
| PHASE | 2-6 | 4-8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY Y / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

OVERLAPS

O.L. "F" - EB FYA
O.L. "H" - WB FYA

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. PINE AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 259 | E |
|---|---|---|---|---|---|---|

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2395-05-71 Howard 6th to Clement\Veronica-2395-05-71 Signals 4.14.23.dgn PLOT DATE : 31-OCT-2023 10:00 PLOT BY : vjacks PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

| | |
|---|---|
| **PROJECT ID:** | 2395-05-71 |
| **INTERSECTION:** | E. HOWARD AVE. & S. PINE AVE. |

| | | | |
|---|---|---|---|
| SIGNAL WIRE COLOR CODING | BLK-BLACK | RED-RED | GRN-GREEN |
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBA | | 12 | 14 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 17 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| SBB | | 15 | 2 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 4 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 24 | 2 | | | | | | | | BLU | BLK | | |
| | | | APS | 4 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBC | | 12 | 3 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 19 | 6 | | | | | | | | BLU | BLK | | |
| | SBCC | 12 | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| SBD | | 15 | 10 | OLF | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 12 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 18 | 4 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBE | | 12 | 8 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 11 | OLF | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| SBF | | 12 | 9 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 21 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBG | | 12 | 1 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 5 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 20 | 6 | | | | | | | | BLU | BLK | | |
| SBGG | | 9 | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBH | | 12 | 6 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 23 | 2 | | | | | | | | BLU | BLK | | |
| | SBHH | 12 | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBI | | 15 | 7 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 15 | OLH | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 22 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 2 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| SBJ | | 12 | 13 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 16 | OLH | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBC |
| SBC | SBCC |
| SBCC | SBD |
| SBD | SBE |
| SBE | SBF |
| SBF | SBGG |
| SBGG | SBG |
| SBG | SBH |
| SBH | SBHH |
| SBHH | SBI |
| SBI | SBJ |
| SBJ | SBA |
| SBA | SBB |
| SBB | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBC |
| SBC | HEAD A |
| | |
| CB1 | SBE |
| SBE | HEAD B |
| | |
| CB1 | SBH |
| SBH | HEAD A |
| | |
| CB1 | SBJ |
| SBJ | HEAD B |
| | |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

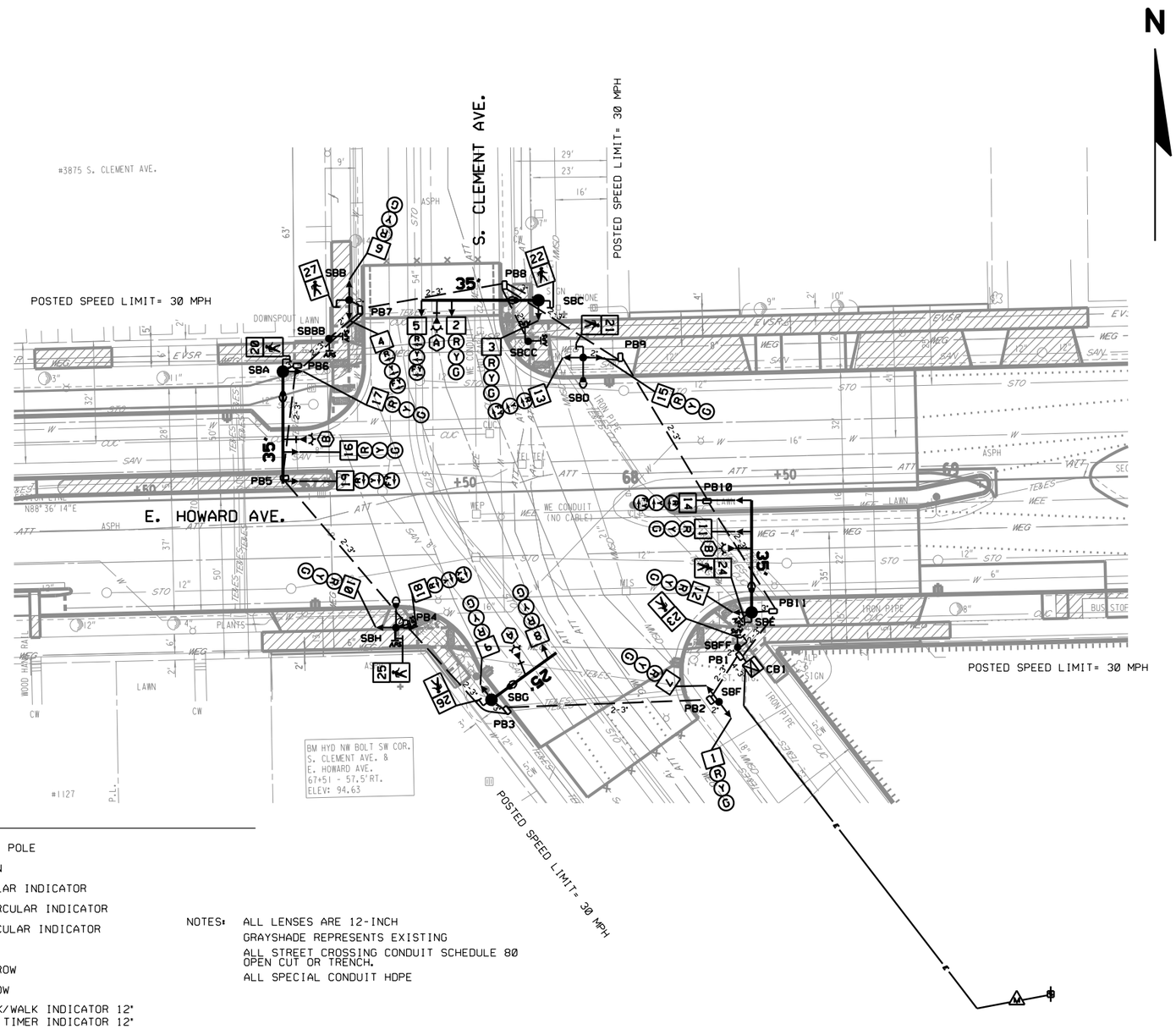
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## NOTE:

TYPICAL RECTANGLAR PULLBOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.




## LEGEND

- SERVICE POLE
- METER PEDESTAL
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CABLE-SERVICE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) TRAFFIC SIGNAL BASE, POLE, TRANSFORMER BASE, ARM
- (XX) MONOTUBE BASE, POLE, 45'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-40' ARM
- LUMINAIRE, LIGHT POLE
- CONFIRMATION LIGHT
- SIGNAL HEAD NUMBER
- TRAFFIC SIGNAL HEAD
- PULL BOX OR VAULT POLYMER CONCRETE
- VOICE AUDIBLE PUSHBUTTON
- SMALL CELL POLE
- PUSHBUTTON
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK/WALK INDICATOR 12"
  COUNTDOWN TIMER INDICATOR 12"
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY
- RADAR DETECTOR
- CHANGEABLE MESSAGE SIGN
- VIDEO CAMERA DETECTION

NOTES:
1. ALL LENSES ARE 12-INCH
2. GRAYSHADE REPRESENTS EXISTING
3. ALL STREET CROSSING CONDUIT SCHEDULE 80 OPEN CUT OR TRENCH.
4. ALL SPECIAL CONDUIT HDPE

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE, MILWAUKEE COUNTY

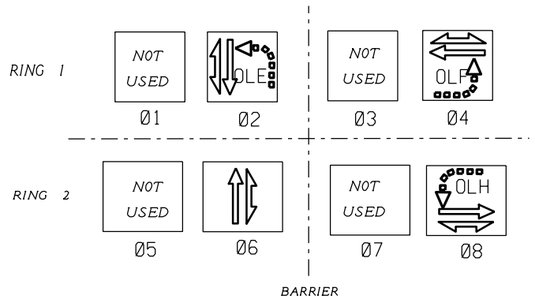
MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | TRAFFIC SIGNAL PLAN | SCALE, FEET 0 40 | SHEET 261 | E |
|---|---|---|---|---|---|---|

2

## SEQUENCE OF OPERATION




| | HEAD NUMBERS | FLASH |
|---|---|---|
| OLE | 4,5 | R |
| Ø2 | 6,7,8,9 | R |
| OLF | 13,14 | R |
| Ø4 | 15,16,17 | Y |
| | | |
| Ø6 | 1,2,3 | R |
| OLH | 18,19 | R |
| Ø8 | 10,11,12 | Y |
| Ø2P | 26,27 | |
| Ø4P | 20,21 | |
| Ø6P | 22,23 | |
| Ø8P | 24,25 | |

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

| TYPE OF INTERCONNECT COMMUNICATION | |
|---|---|
| NONE | |
| TBC | |
| CLOSED LOOP TWISTED PAIR• | |
| CLOSED LOOP FIBER OPTIC• | |
| FIBER OPTIC | X |
| RADIO | |
| •LOCATION OF MASTER CONTROLLER NO: S. | |
| SIGNAL SYSTEM •: SS. . | |

| TYPE OF PRE-EMPT | |
|---|---|
| NONE | |
| RAILROAD | |
| EMERGENCY VEHICLE | |
| GTT | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTOR | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE PREEMPTOR | CHANNEL A | CHANNEL B |
|---|---|---|
| MOVEMENT | ↓↑ | ⇄ |
| PHASE | 2-6 | 4-8 |

CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | 6 | PED | X |
| 3 | | | | |
| 4 | | 8 | COORD. | X |
| 5 | | | | |
| 6 | | 2 | PED | X |
| 7 | | | | |
| 8 | | 4 | COORD. | X |

OVERLAPS

| | | | | |
|---|---|---|---|---|
| O.L. | "E" | - | NB | FYA |
| O.L. | "F" | - | EB | FYA |
| O.L. | "H" | - | WB | FYA |

| TYPE OF LIGHTING | |
|---|---|
| BY OTHER AGENCY | |
| IN TRAFFIC SIGNAL CABINET | |
| IN SEPARATE LIGHTING CABINET | X |

TRAFFIC CONTROL SIGNAL
E. HOWARD AVE. & S. CLEMENT AVE.
LOCAL STREET
CITY OF MILWAUKEE,MILWAUKEE COUNTY

MUNICIPAL CONTACT: SCOTT REINBACHER
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY: PAGE 1 OF

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS | SCALE, FEET 0 40 | SHEET 262 | E |
|---|---|---|---|---|---|---|

2

| | |
|---|---|
| **PROJECT ID:** | 2395-05-71 |
| **INTERSECTION:** | E. HOWARD AVE. & S. CLEMENT AVE. |

| SIGNAL WIRE COLOR CODING | | | |
|---|---|---|---|
| | BLK-BLACK | RED-RED | GRN-GREEN |
| | WHT-WHITE | BLU-BLUE | ORG-ORANGE |

DATE: 7/24/2023

| CB TO | JUMPER | # OF COND. | HEAD NO. | PHASE | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | RED | YELLOW | GREEN | <RED | <YELLOW> | <FLASH YELLOW> | <GREEN> | D/WALK | WALK | | |
| SBA | | 15 | 16 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 17 | 4 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 19 | OLH | | | | RED/WHT | BLU/WHT | GRN/WHT | | | | | |
| | | | 20 | 4 | | | | | | | | BLU | BLK | | |
| SBBB | | 9 | APS | 2 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 2 | | | | | | | | | | WHT/BLK | |
| | | | APS | 4 | | | | | | | | | | | BLU |
| | | | PUSHBUTTON | 4 | | | | | | | | | | BLK | |
| SBB | | 12 | 4 | OLE | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 6 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 27 | 2 | | | | | | | | BLU | BLK | | |
| SBC | | 15 | 2 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 3 | 6 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 5 | OLE | | | | RED/WHT | BLU/WHT | GRN/WHT | | | | | |
| | | | 22 | 6 | | | | | | | | BLU | BLK | | |
| SBCC | | 9 | APS | 4 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 4 | | | | | | | | | | WHT/BLK | |
| | | | APS | 6 | | | | | | | | | | | BLU |
| | | | PUSHBUTTON | 6 | | | | | | | | | | BLK | |
| SBD | | 12 | 13 | OLF | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 15 | 4 | RED | ORG | GRN | | | | | | | | |
| | | | 21 | 4 | | | | | | | | BLU | BLK | | |
| SBE | | 15 | 11 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 12 | 8 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 14 | OLF | | | | RED/WHT | BLU/WHT | GRN/WHT | | | | | |
| | | | 24 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 6 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 6 | | | | | | | | | | WHT/BLK | |
| SBFF | | 9 | 23 | 6 | | | | | | | | BLU | BLK | | |
| | | | APS | 8 | | | | | | | | | | | GRN/BLK |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| SBF | | 9 | 1 | 6 | RED | ORG | GRN | | | | | | | | |
| | | | 7 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| SBG | | 12 | 8 | 2 | RED | ORG | GRN | | | | | | | | |
| | | | 9 | 2 | RED/BLK | ORG/BLK | GRN/BLK | | | | | | | | |
| | | | 26 | 2 | | | | | | | | BLU | BLK | | |
| SBH | | 15 | 10 | 8 | RED | ORG | GRN | | | | | | | | |
| | | | 18 | OLH | | | | RED/BLK | ORG/BLK | GRN/BLK | | | | | |
| | | | 25 | 8 | | | | | | | | BLU | BLK | | |
| | | | APS | 8 | | | | | | | | | | | BLK/WHT |
| | | | PUSHBUTTON | 8 | | | | | | | | | | WHT/BLK | |
| | | | APS | 2 | | | | | | | | | | | RED/WHT |
| | | | PUSHBUTTON | 2 | | | | | | | | | | BLU/BLK | |

| EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP | |
|---|---|
| FROM | TO |
| CB1 | SBF |
| SBF | SBG |
| SBG | SBH |
| SBH | SBA |
| SBA | SBBB |
| SBBB | SBB |
| SBB | SBC |
| SBC | SBCC |
| SBCC | SBD |
| SBD | SBE |
| SBE | SBFF |
| SBFF | CB1 |

| EMERGENCY VEHICLE PREEMPTION AND UF 2-12 CONFIRMATION | |
|---|---|
| FROM | TO |
| CB1 | SBA |
| SBA | HEAD B |
| | |
| CB1 | SBC |
| SBC | HEAD A |
| | |
| CB1 | SBE |
| SBE | HEAD B |
| | |
| CB1 | SBG |
| SBG | HEAD A |
| | |

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.
5. SPV.0090.307 IS WIRED FROM CONTROLLER CABINET TO METER PEDESTAL

ABANDON 3#4/1#8LTP CIR. T5S-D

#3706 S. 6TH ST.

ST. ADALBERTS CATHOLIC CEMETARY

ABANDON 3#4/1#8LTP CIR. T5S-D

#600
A31-D6.3S3,PED.

3#2/1#8LTP CIR. T5S-D

#3878
A26-6.2S3 B PED.

CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

CONTRACTOR TO LEAVE 3FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY.,CIR.T5S-D

#576
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - LUMINAIRE ARM SINGLE MEMBER 6-FT WP-MOUNT
SPV.0060.367 - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE)
RED WIRE IS HOT FOR LUMINAIRE
STA.01+58.7;40.9'LT.

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D

ABANDON CABLE 3#4/1#8LTP CIR. T5S-D 3-0 BOC

IN SERVICE 3#4/1#8LTP CIR. T5S-D 3-0 BOC

CONTRACTOR TO LEAVE 3FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY.,CIR.T5S-D

ABANDON CABLE 3#4/1#8LTP CIR. T5S-D AT WALK

#554 W. HOWARD AVE.

549-0037
120.28

549-0052

LIGHT POLE TO REMAIN INSERVICE, PROTECT AND ADJUST AROUND IT.
#3876
22'S6'AL.1LED2,B

#556 W. HOWARD AVE.

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D
SPV.0060.323 - 35 FT. WOOD POLE STA.05+13.9';37.9'LT.
SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D
SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D

SPV.0090.304
ELECTRICAL CABLE
TYPE 2#2/1#4 AL
CIR.T5S-D

SPV.0090.302
ELECTRICAL CABLE
TYPE 3#6AL, CIR.T5S-D

SECTION LINE
N88°38'52"E

W. HOWARD

SIGN POST
#3904
30'D6'AL.
BOLT DOWN,2S2

FENCE POST

ABANDON 3#4/1#8LTP CIR. T5S-D

ABANDON 3#8/1#8LTP CIR. T5S-D

#3929 S. 6TH ST.

#3917
26'S6'AL,BOLT DOWN,2S3 B, PED.

AT WALK
3#4/1#8LTP CIR. T5S-D

S. 6th

ANGLE POINT

#575
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.367 - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
BLACK WIRE IS HOT FOR LUMINAIRE
STA.01+56.5;48.7'RT.

204.9060.S.311 -REMOVING POLES
659.5000.S -LAMP,BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
A26-D6.3S3,PED,DIRECT BURY

CONTRACTOR TO LEAVE 3FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY.,CIR.T5S-D

#566
30'D8'AL.3S3,PED., BOLT DOWN
RED WIRE IS HOT FOR BOTH LUMINARES
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

#551-585 W. HOWARD AVE.

266.42

580-0577-100

#554
30'D8'AL.3S3,PED. BOLT DOWN
BLACK WIRE IS HOT FOR BOTH LUMINARES
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D

SPV.0060.323 - 35 FT. WOOD POLE STA.03+92.3';42.5'RT.

#3917
A21-6,1S2V,PED,B

3#6/1#8LTP, CIR. T5S-D
1' TO 3' OFF WALK

S. 5th

ABANDON CABLE 3#4/1#8LTP, CIR. T5S-D

204.9060.S.311 -REMOVING POLES
204.0195 - REMOVING CONCRETE BASES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#524
31'D8'AL.3S3,PED.BOLT DOWN

#522
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.367 - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
RED WIRE IS HOT FOR BOTH LUMINAIRES
STA.05+29.4';01.7'LT.

#529

SHEET 1 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 264 | E |
|---|---|---|---|---|---|

2

N

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL, CIR.T5S-D

#508 AT31R-D6.3S3,PED.,DIRECT BURY BLACK WIRE IS HOT FOR BOTH LUMINAIRES

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR.T5S-D

ABANDON CABLE 3#4/1#8LTP CIR.T5S-D

SPV.0060.323 - 35 FT. WOOD POLE STA.06+69.9';38.5'LT. FOR TRAFFIC SIGNALS

SPV.0060.323 - 35 FT. WOOD POLE STA.07+02.6';38.7'LT. FOR TRAFFIC SIGNALS

IN SERVICE ELECTRICAL CABLE 3#6 AL., CIR.T5S-D

S. 5th ST.

#3876 A21-6, 1LED2

ABANDON BALLAST 1H58W

#422 EXISTING 35 FT. WOOD POLE LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT LUMINAIRE UTILITY 3LED3 - MULTIPLE RED WIRE IS HOT FOR LUMINAIRE

ABANDON CABLE 1#8 CONC CIR. SR-1 BLACK WIRE

ABANDON CABLE CIR. SR-1 WHITE WIRE

IN SERVICE ELECTRICAL CABLE 3#6 AL, CIR.T5S-D

#408 EXISTING 35 FT. WOOD POLE LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT LUMINAIRE UTILITY 3LED3 - MULTIPLE

IN SERVICE ELECTRICAL CABLE 3#6 AL, CIR.T5S-D

#328 30'S8'AL,3LED3 BOLT DOWN

CONTRACTOR TO PROTECT AND ADJUST EXISTING CONDUIT AND PULL BOX WHICH IS TO REMAIN FOR TRAFFIC SIGNALS & LIGHTING

W. HOWARD AV.

ALLEY

ON RAMP

OFF RAMP

ABANDON CABLE 3#4/1#8LTP, CIR. T5S-D

3#4/1#8LTP SIG. SERVICE

WEP.CO W.P.#71T5526

STA.05+29.4';01.7'LT.

IN SERVICE ELECTRICAL CABLE 3#6 AL., CIR.T5S-D

#500 AT31'-D6.3S3, DIRECT BURY RED WIRE IS HOT FOR BOTH LUMINAIRES

ABANDON CABLE 3#6/1#8LTP, CIR. T5S-D

IN SERVICE ELECTRICAL CABLE 3#6 AL., CIR.T5S-D

204.9060.S,311.-REMOVING POLES 659.5000.S -LAMP BALLAST LED SWITCH DISPOSAL BY CONTRACTOR

#424 3TD6 AL.3S3,PED.,DIRECT BURY

FREEWAY EASEMENT

#421 EXISTING 35 FT. WOOD POLE LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT LUMINAIRE UTILITY 3LED3 - MULTIPLE BLACK WIRE IS HOT FOR LUMINAIRE

ABANDON CABLE 3#6/1#8LTP, CIR. T5S-D

IN SERVICE ELECTRICAL CABLE 3#6 AL., CIR.T5S-D

204.9060.S,311.-REMOVING POLES 659.5000.S -LAMP BALLAST LED SWITCH DISPOSAL BY CONTRACTOR

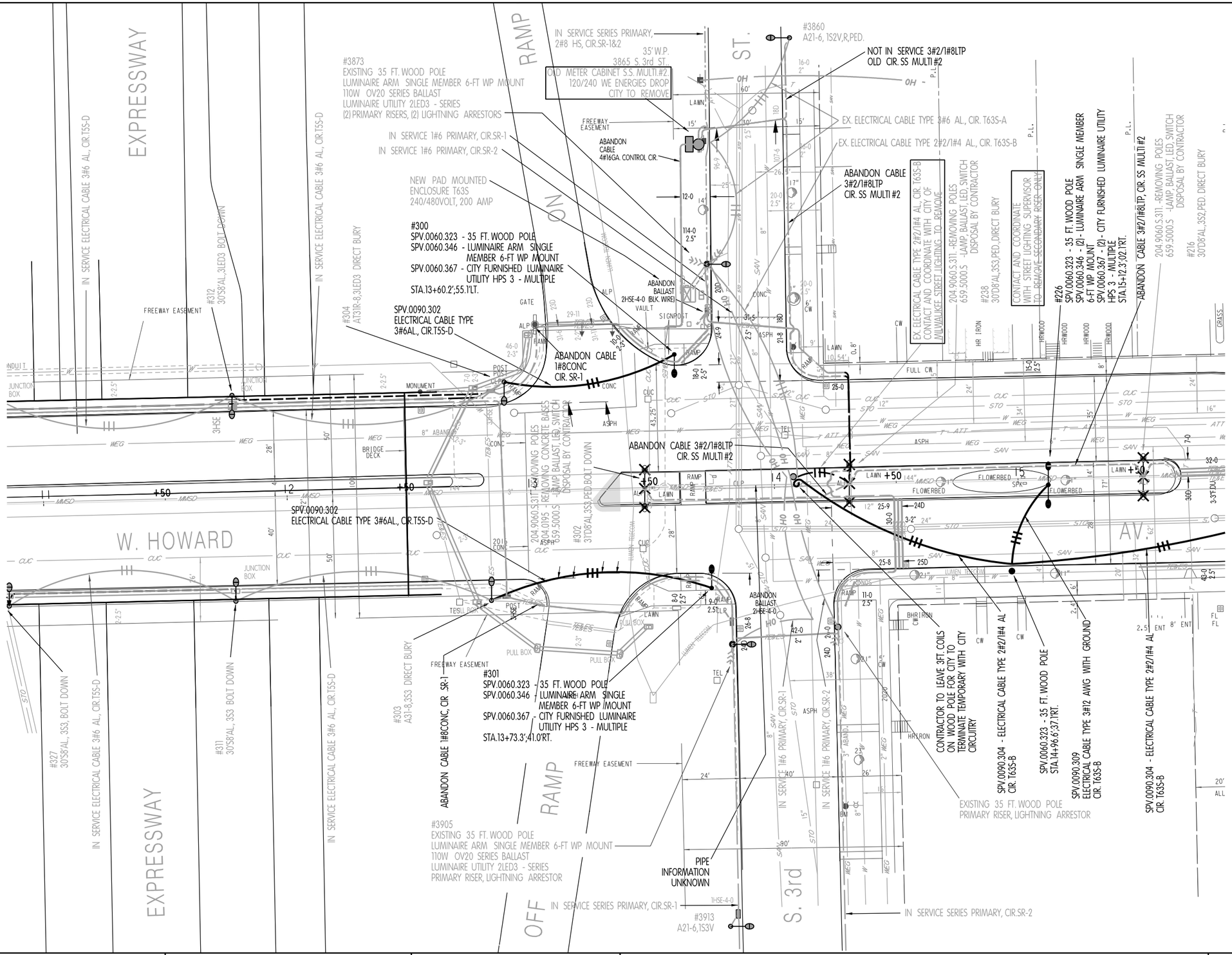
#406 3TD6 AL.3S3,PED.,DIRECT BURY

#405 EXISTING 35 FT. WOOD POLE LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT LUMINAIRE UTILITY 3LED3 - MULTIPLE RED WIRE IS HOT FOR LUMINAIRE

IN SERVICE ELECTRICAL CABLE 3#6 AL., CIR.T5S-D

SHEET 2 OF 13

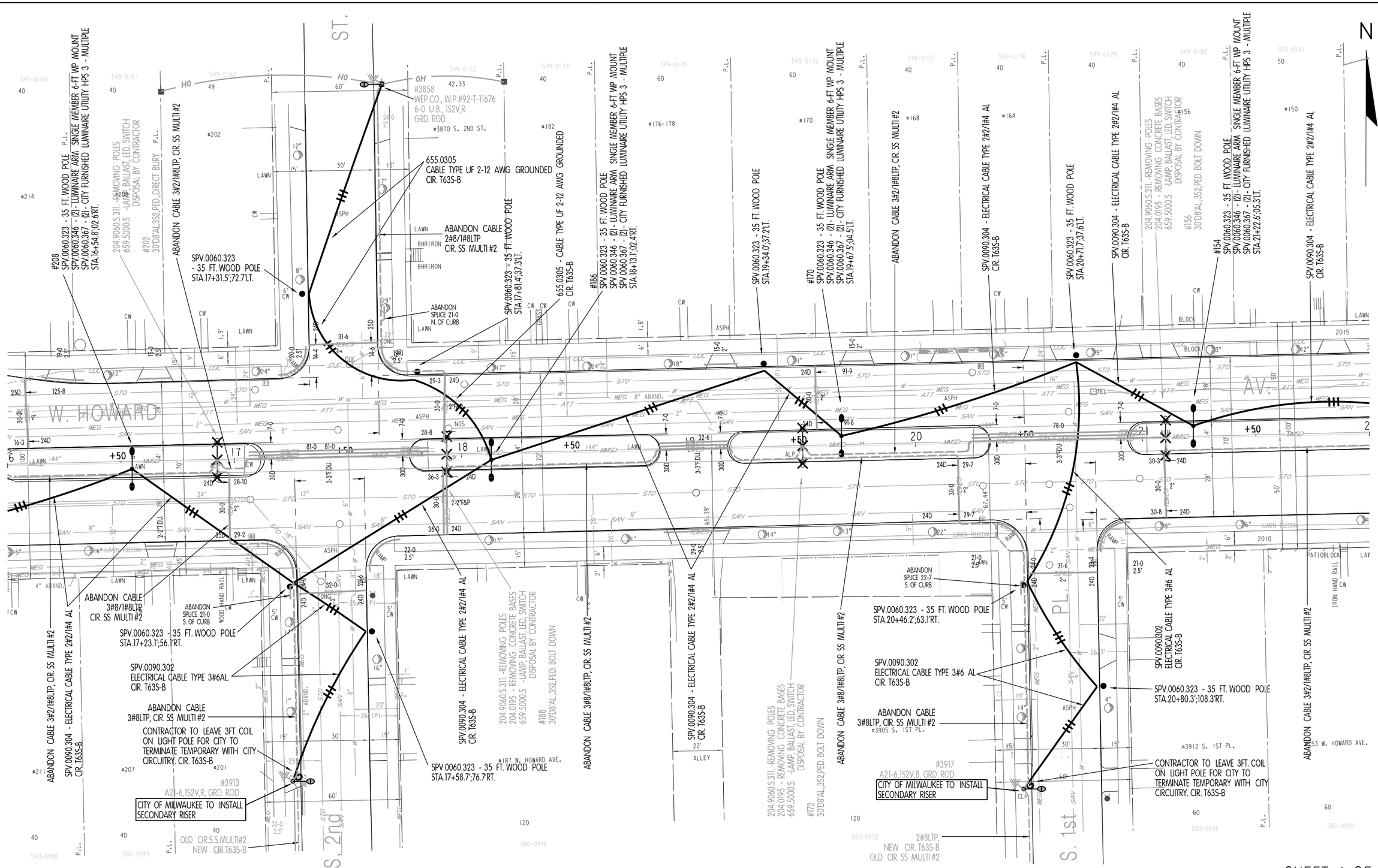
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 265 | E |
|---|---|---|---|---|---|




SHEET 3 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 266 | E |
|---|---|---|---|---|---|

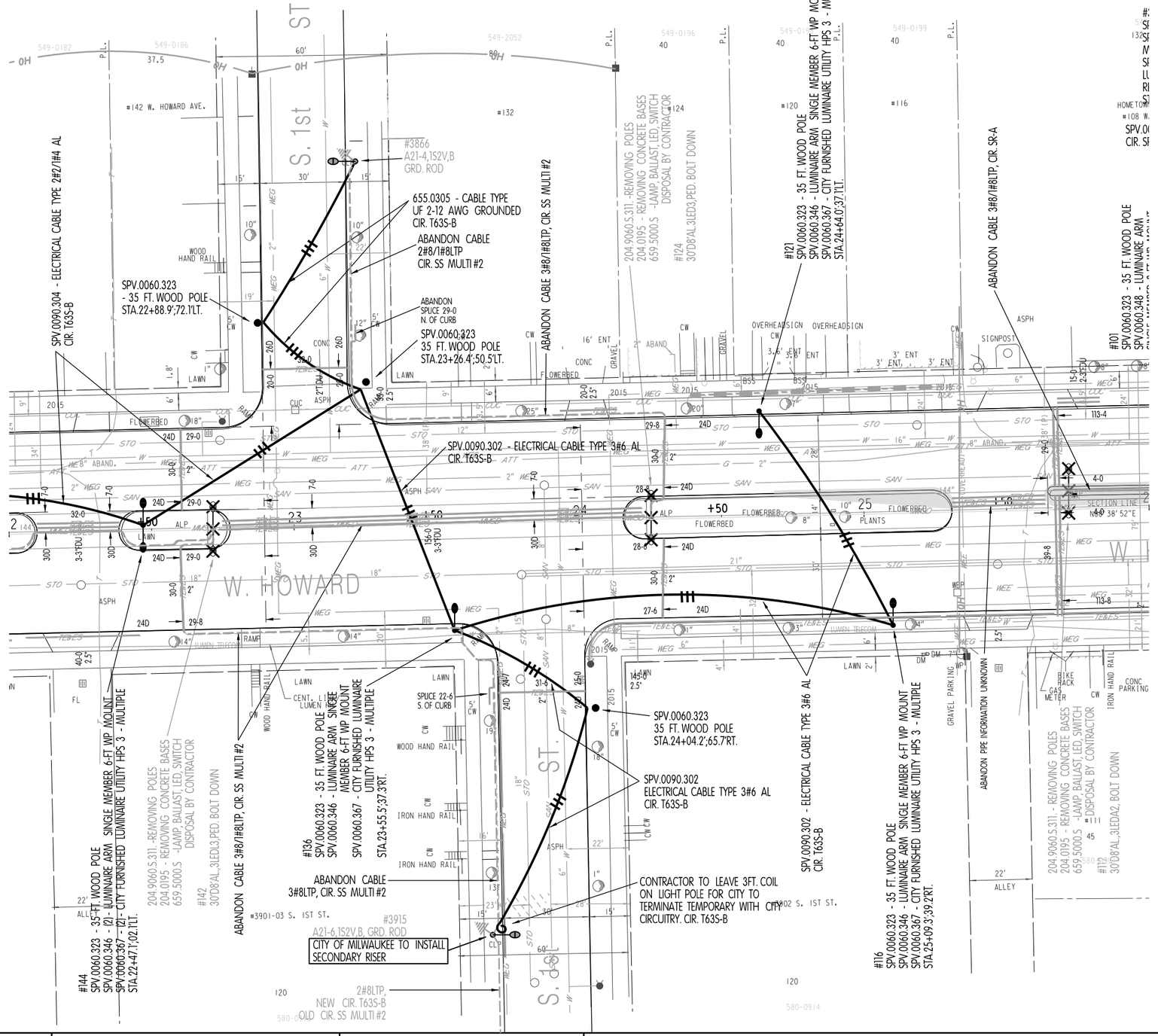
FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Overhead\e-wHoward Ave - 6th to Clement OH BG.dgn | PLOT DATE : 19-DEC-2023 13:50 | PLOT BY : dkozel | PLOT NAME : | PLOT SCALE : 1:40




SHEET 4 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 267 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Overhead\e-wHoward Ave - 6th to Clement OH BG.dgn
PLOT DATE : 19-DEC-2023 13:50
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42




SHEET 5 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 268 | E |
|---|---|---|---|---|---|

N

3#2/1#8LTP, CIR. T58S-B

#3876
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.348 - (2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
SPV.0060.367 - (2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE RED WIRE IS HOT FOR BOTH LUMINAIRES
STA.27+36.5';70.4'LT.

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6 AL CIR. SR-A

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#3879
31'S8'AL.3LEDA2,PED., DIRECT BURY

#101
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.348 - LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
SPV.0060.367 - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE RED WIRE IS HOT FOR LUMINAIRE BLACK WIRE IS HOT FOR LUMINAIRE
STA.26+54.6';48.9'LT.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#102
AT31'R-D6,3LED2,PED

#3362
30'08'AL.3LEDA2,PED
BOLT DOWN

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#3878
30'S6'AL.,3LEDA2,PED,B DIRECT BURY

SPV.0060.323
- 35 FT. WOOD POLE
STA.27+98.3; 49.5'LT.
FOR TRAFFIC SIGNALS

ABANDON CABLE 3#8/1#8LTP, CIR. SR-A

SPV.0060.323 - 35 FT. WOOD POLE
STA.28+74.3';40.0'LT.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#118
30'S6'AL.3LEDA2 B

ABANDON CABLE 3#12UF, CIR. T23S-2

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6 AL CIR. S.S.S. MULTI.#3-C

SPV.0090.302 ELECTRICAL CABLE TYPE 3#6 AL CIR. SR-A

3#2/1#8LTP CIR. SR-A

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#102
AT31'R-D6,3LEDA2,PED

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#3902
AT31'R-D6,3LEDA2,PED

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6 AL CIR. SR-A

#3901
SPV.0060.323
35 FT. WOOD POLE
SPV.0060.348
(2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
SPV.0060.367
(2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE RED WIRE IS HOT FOR BOTH LUMINAIRES
STA.26+68.8';54.6'RT.

SPV.0060.323
35 FT. WOOD POLE
STA.27+17.7';88.5'RT.

#3918
A31-D6,3LEDA2,PED
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

#3900
SPV.0060.323
35 FT. WOOD POLE
SPV.0060.348
LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
SPV.0060.367
CITY FURNISHED
LUMINAIRE UTILITY HPS 3 - MULTIPLE
BLACK WIRE IS HOT FOR LUMINAIRE
STA.27+85.6';54.6'RT.

CONTRACTOR TO LEAVE 3FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY. CIR. S.S.S.MULTI.#2

#106
SPV.0060.323
35 FT. WOOD POLE
SPV.0060.348
(2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
SPV.0060.367
(2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
RED WIRE IS HOT FOR BOTH LUMINAIRES
STA.28+11.2';04.2'RT.

ABANDON CABLE 3#8/1#8LTP, CIR. SR-A

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6 AL CIR. SR-A

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#117
31'S6'AL.,3LEDA2, PED.,R

#118
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.367 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
BLACK WIRE IS HOT FOR BOTH LUMINAIRES
STA.29+32.6';05.0'RT.

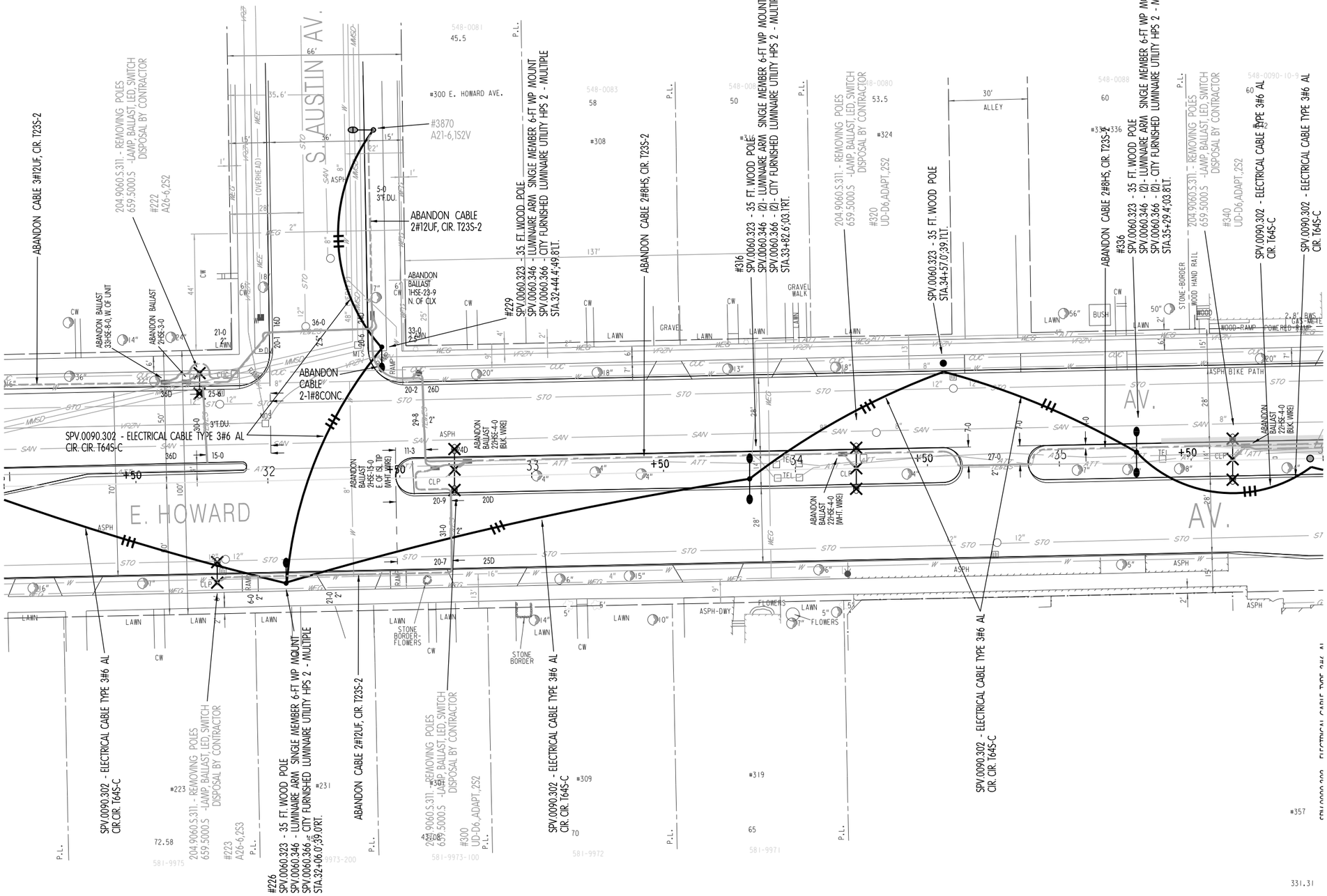
204.9060.S.311. - REMOVING POLES
204.0195 - REMOVING CONCRETE BASES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#200
30'D8'AL.352

#208
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.367 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
STA.30+75.1';02.3'LT.

W. HOWARD AV.
E. HOWARD AV.
S. HOWELL AV.
20' ALLEY

SHEET 6 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 269 | E |
|---|---|---|---|---|---|




SHEET 7 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 270 | E |
|---|---|---|---|---|---|

2

N

3#2/1#8LTP, CIR. SS MULTI #3 -B

#3859
A26-6,2S3,PED,R
SECONDARY RISER

3#2/1#8LTP, CIR. SS MULTI #3 -A

EXISTING ELECTRICAL CABLE TYPE 2#2/1#4 AL
CIR. T64S-B

EXISTING 35 FT. WOOD POLE

EX.ISTING ELECTRICAL CABLE TYPE 2#2/1#4 AL
CIR. T64S-B

EXISTING ELECTRICAL CABLE TYPE 2#2/1#4 AL
CIR. T64S-A

#3876
EXISTING 35 FT. WOOD POLE
LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
LUMINAIRE UTILITY HPS 2 - MULTIPLE
SECONDARY RISER

548-0086
62.53
ABANDON CABLE
3#2/1#8LTP,
CIR. SS MULTI #3 -B
#360

548-0505
155.42
#3880 S. WHITNALL AVE.

548-0085
65

548-0905
48.05
#424

548-0906
50
#430

548-0
60
#436

EXISTING 35 FT. WOOD POLE STA.35+95.7/L

ABANDON CABLE CIR. T23S-2

#358
EXISTING 35 FT. WOOD POLE
LUMINAIRE ARM SINGLE MEMBER
6-FT WP MOUNT
LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
#362
A31

204.9060.S.311.
REMOVING POLES
#3878
A31

SPV.0060.323 - 35 FT. WOOD POLE
STA.38+46.8';39.3'LT.
FOR TRAFFIC SIGNALS

SPV.0090.302 - ELECTRICAL CABLE
TYPE 3#6 AL
CIR. T64S-C

ABANDON CABLES
2-3#2/1#8LTP, CIR. SS MULTI#3 -A,B

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR

#418
#424-D6,2S2

SPV.0060.323 - 35 FT. WOOD POLE
STA.40+47.3';39.5'LT.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#430, P-D6,ADAPT,2S2

ABANDON CABLE
CIR. T23S-2

ABANDON CABLE
CIR. T23S-1

ABANDON CABLE
3#12UF, CIR. T23S-1

ABANDON
PIPE SIZE
UNKNOWN

ABANDON
BALLAST
3#SE-3-6

ABANDON
BALLAST
33#SE-34-0
E OF CURB

ABANDON
BALLAST
24#SE-2-6
E OF UNIT ON ISL

ABANDON
BALLAST
22#SE-5-0
E OF UNIT ON ISL

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#402
A31-D6,2S2

204.9060.S.314.
- REMOVE AERIAL CABLE

"NEW" EXISTING PAD MOUNTED
ENCLOSURE T64S
240/480VOLT, 200 AMP

CONTRACTOR TO LEAVE 3FT. COILS
ON POLE FOR CITY TO
TERMINATE TEMPORARY WITH CITY
CIRCUITRY

CITY OF MILWAUKEE TO INSTALL
SECONDARY RISER

#3909
A26-6,2S3,PED,R

SPV.0090.304
- ELECTRICAL CABLE TYPE 2#2/1#4 AL
CIR. T64S-C

SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.339 - SECONDARY RISER
STA.38+27.6';101.6'RT.

CITY OF MILWAUKEE TO INSTALL
SECONDARY RISER

CONTRACTOR TO LEAVE 3FT. COIL
ON WOOD POLE FOR CITY TO
TERMINATE TEMPORARY WITH CITY
CIRCUITRY. CIR. T64S-C

3#2/1#8LTP,
NEW CIR. T64S-C
OLD CIR. SS MULTI #3 -C

#3902 S. WHITNALL AVE.

#404
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2) - LUMINAIRE ARM
SPV.0060.367 - (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
STA.38+43.5';04.8'RT.

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL
CIR. CIR. T64S-C

204.9090.S.314. - REMOVE AERIAL CABLE

ABANDON CABLE 3#2/1#8LTP, CIR. SS MULTI#3 -C

35'W.P.
BREAKER CABINET
S.S. MULTI. #3

#423-424
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2) - LUMINAIRE ARM
SPV.0060.366 - (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE
STA.39+98.5';02.6'RT.

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6
CIR. CIR. T64S-C

#431

#437

SPV.0090.304 - ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR. T64S-C

SPV.0090.304
EXISTING ELECTRICAL CABLE TYPE 2#2/1#4 AL, CIR. T64S-A

SPV.0090.304
EXISTING ELECTRICAL CABLE TYPE 2#2/1#4 AL CIR. T64S-B

9#14LTP INTER

CONTROL POINTS

E. HOWARD AV.

WHITNALL ST.

SHEET 8 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 271 | E |
|---|---|---|---|---|---|

2

N

S. GRIFFIN AV.

E. HOWARD AV.

W. E. P. CO.

CIR. T23S-2

CIR. T23S-2

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5kV CIR. T23S-1&2

SPV.0060.323 - 35 FT. WOOD POLE STA.42+00.0';88.4'RT.

CITY OF MILWAUKEE TO INSTALL PRIMARY RISER, AND LIGHTNING ARRESTER

CONTRACTOR TO LEAVE 3FT. COIL ON WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2

#3884
A21-6,1S2V

CITY OF MILWAUKEE TO INSTALL PRIMARY RISER, AND LIGHTNING ARRESTER

CONTRACTOR TO LEAVE 3FT. COIL ON LIGHT POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2

ABANDON CABLE CIR. T23S-2

ABANDON CABLE CIR. T23S-1

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5kV CIR. T23S-1&2

CIR. T23S-2

CONTRACTOR TO LEAVE 3FT. COILS ON WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2

CITY OF MILWAUKEE TO INSTALL (2) PRIMARY RISERS, AND (2) LIGHTNING ARRESTERS

CONTRACTOR TO LEAVE 3FT. COILS AT BASE OF WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2.
CONTRACTOR TO PROTECT CABLE UNTIL CITY MAKES TERMINATING CONNECTIONS

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#478
P-6,ADAPT,2S2

652.0615 CONDUIT SPECIAL 3-INCH

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC

CONTRACTOR TO LEAVE 3FT. COILS AT BASE OF WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2.
CONTRACTOR TO PROTECT CABLE UNTIL CITY MAKES TERMINATING CONNECTIONS

CITY OF MILWAUKEE TO INSTALL (2) PRIMARY RISERS, AND (2) LIGHTNING ARRESTERS

CONTRACTOR TO LEAVE 3FT. COILS ON WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T23S 1&2

ABANDON CABLE CIR. T23S-1

ABANDON CABLE CIR. T23S-2

SPV.0060.323 - 35 FT. WOOD POLE STA.45+34.7';39.1'LT.

SPV.0090.301 - ELECTRICAL CABLE TYPE 1#6 AWG 5kV CIR. T23S-1&2

ABANDON CABLE 2#8LTP

ABANDON BALLAST 2HSE-4-0 W. OF UNIT S.S.

ABANDON BALLAST 2HSE-10-0 E. OF UNIT S.S.

IRON HAND RAIL
STEEL RAMP
IRON HAND RAIL

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#450, A26-6,2S2

CONTROL POINTS

SPV.0090.302 - ELECTRICAL CABLE TYPE 3#6 AL
CIR. CIR.T645-C

#448
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.366 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE
STA.41+53.5';05.3'LT.

ABANDON CABLE CIR. T23S-1

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#449
A26-6,2S2

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#456
P-D6,ADAPT,2S2

#458
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.368 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.42+96.7';03.6'LT.

SPV.0060.323 - 35 FT. WOOD POLE
STA.43+80.5';03.2'RT.

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#477
P-6,ADAPT,2S2

#480
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.368 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.44+63.5';03.0'RT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5kV CIR. T23S-1&2

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#506
P-D6,ADAPT,2S2

#508
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.368 - (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.45+91.4';03.0'LT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5kV CIR. T23S-1&2

SPV.0060.323 - 35 FT. WOOD POLE
STA.46+69.8';38.3'RT.

ABANDON CABLE 2#8LTP, CIR. T23S-1

204.9060,S.311 - REMOVING POLES
659.5000,S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR

#529
P-6,ADAPT,2S2

SHEET 9 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 272 | E |
|---|---|---|---|---|---|

2

2

N

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#528
P-6,ADAPT,2S2

ABANDON BALLAST 2HSE-4-0

ABANDON CABLE CIR. T23S-1

#532
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.366 - (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.47+48.0';03.1'RT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

ABANDON CABLE CIR. T23S-2

SPV.0060.323 - 35 FT. WOOD POLE
STA.48+22.1';38.6'LT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

#606
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.366 - (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.48+76.4';01.5'RT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#620
P-6,ADAPT,2S2

SPV.0060.323 - 35 FT. WOOD POLE
STA.49+90.5';38.6'LT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

#630
SPV.0060.323 - 35 FT. WOOD POLE
SPV.0060.346 - (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
SPV.0060.366 - (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL
STA.50+31.5';03.0'RT.

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#640
P-D6,ADAPT,2S2

ABANDON CABLE CIR. T23S-2

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

#704
A26-D6.2S2
SPV.0060.361 - CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS
22HSX - DOUBLE COIL

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#718
P-6,ADAPT,2S2

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#600
P-D6,ADAPT,2S2

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#621
P-6,ADAPT,2S2

ABANDON CABLE CIR. T23S-1

ABANDON CABLE
3#8LTP, CIR. T23S-1

SPV.0060.323 - 35 FT. WOOD POLE
STA.51+01.6';67.3'RT.

CONTRACTOR TO LEAVE 3FT. COIL
ON LIGHT POLE FOR CITY TO
TERMINATE TEMPORARY
WITH CITY CIRCUITRY., CIR.T23S 1&2

#3912
A21-6,1S2V
CITY OF MILWAUKEE TO INSTALL
SECONDARY RISER

2#12UF, CIR. T23S-1

ABANDON CABLE 3#12UF, CIR. T23S-1

SPV.0090.312 - ELECTRICAL CABLE
TYPE UF 3#12 AWG
CIR. T23S-1&2

ABANDON
BALLAST
1THSE-45-6
S. OF CURB

SPV.0060.323
35 FT. WOOD POLE
SPV.0060.337 - CITY FURNISHED
HIGH PRESSURE SODIUM
BALLASTS 1HSX - SINGLE COIL
STA.51+69.1';40.0'RT.

ABANDON BALLAST
22HSE-4-0
W. OF UNIT ON ISL.

ABANDON CABLE 3#12UF, CIR. T23S-1

ABANDON CABLE CIR. T23S-1

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR
#719
P-6,ADAPT,2S2

ABANDON BALLAST
2HSE-4-0

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

SPV.0090.301 - CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5KV
CIR. T23S-1&2

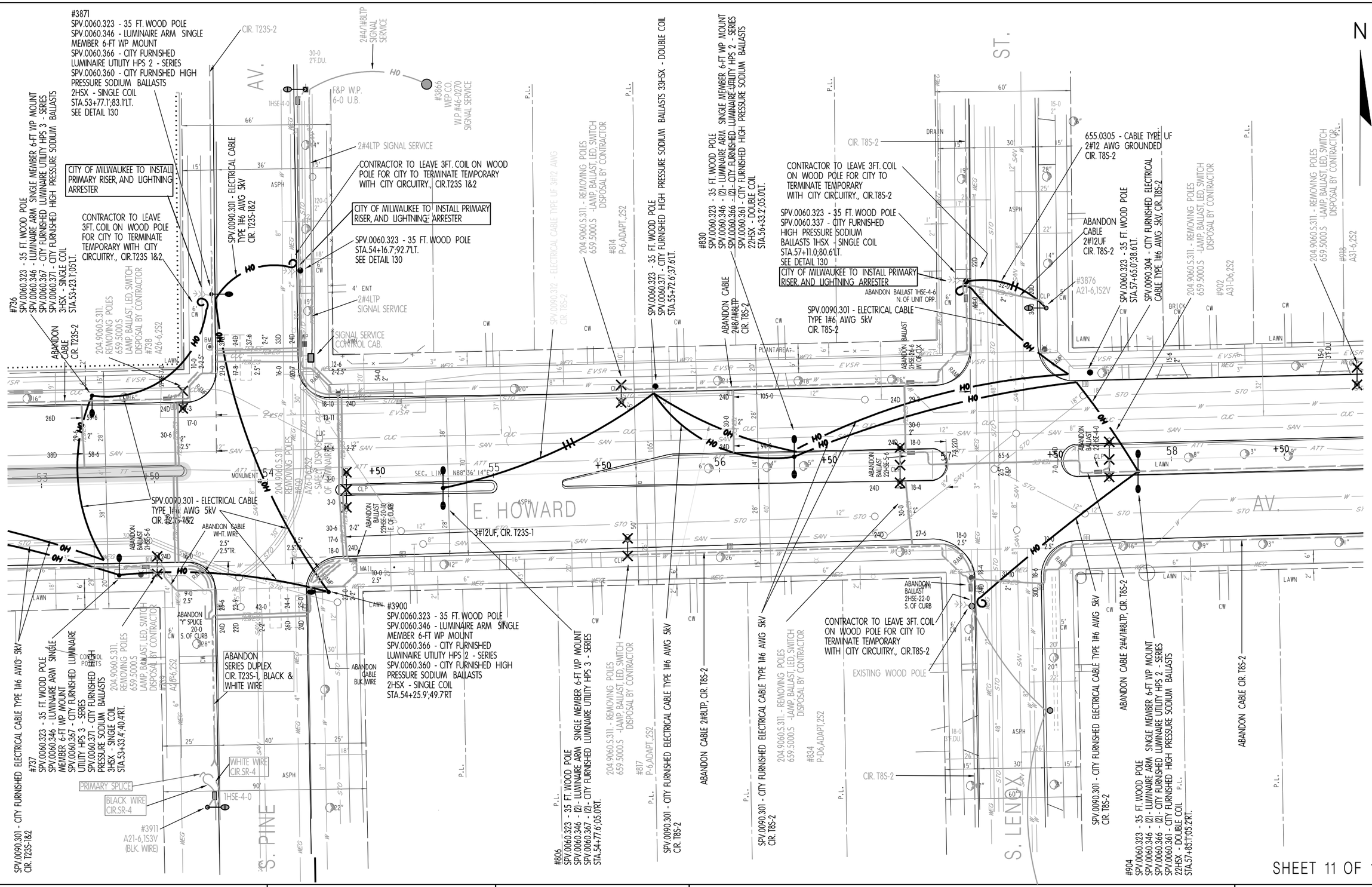
E. HOWARD

S. TAYLOR AV.

SECTION LINE
N88° 46' 41"E

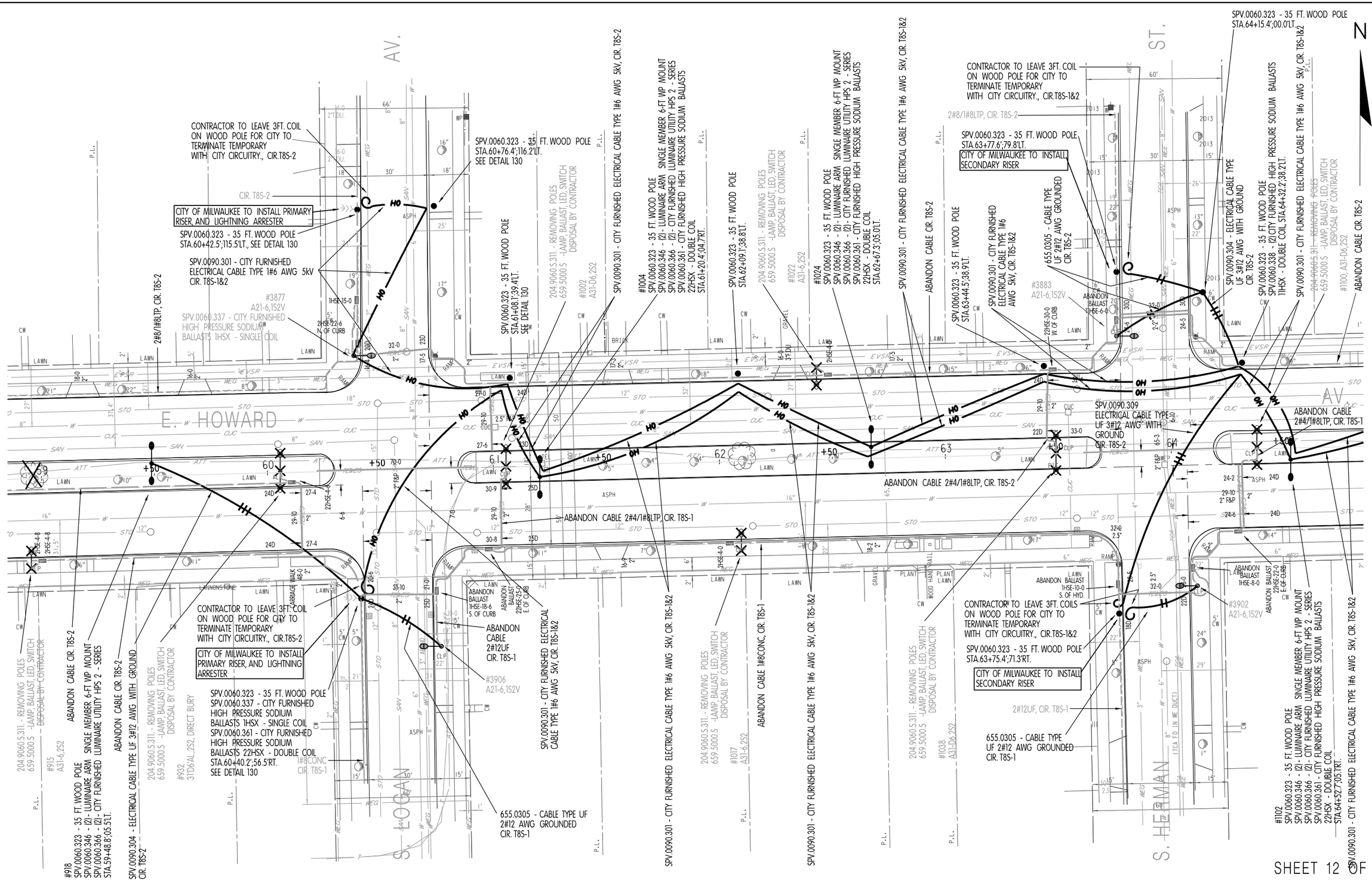
SHEET 10 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 273 | E |
|---|---|---|---|---|---|



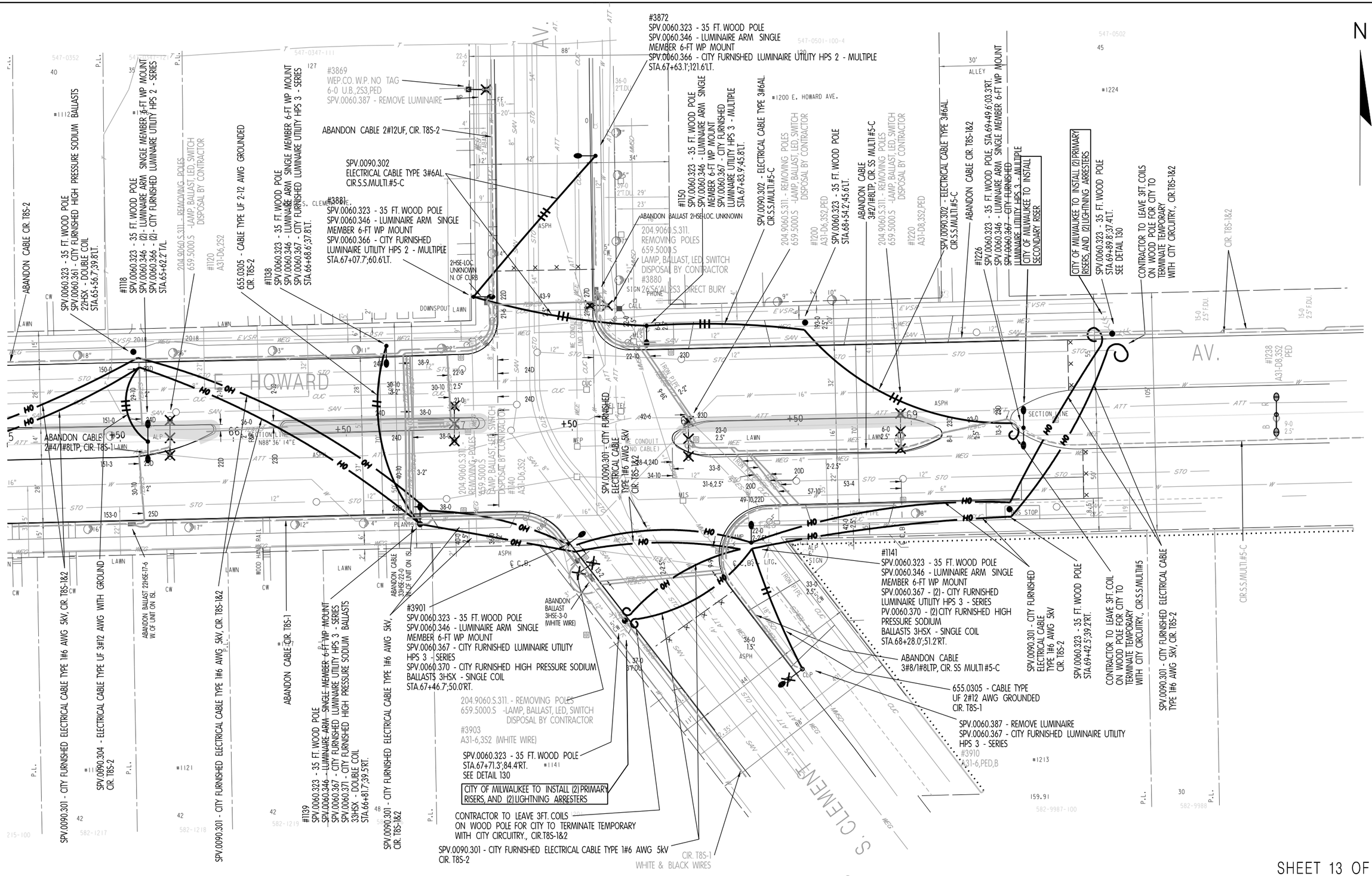

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 274 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Overhead\e-wHoward Ave - 6th to Clement OH BG.dgn | PLOT DATE : 19-DEC-2023 13:53 | PLOT BY : dkozel | PLOT NAME : | PLOT SCALE : 1:40




SHEET 12 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 275 | E |
|---|---|---|---|---|---|




SHEET 13 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - TEMPORARY OVERHEAD BY CONTRACTOR | SHEET NO. 276 | E |
|---|---|---|---|---|---|

2

N

ABANDON 3#4/1#8LTP CIR. T5S-D

#3706 S. 6TH ST.

3#2/1#8LTP CIR. T5S-D

#565 W. HOWARD AVE.

#554 W. HOWARD AVE.

#524 W. HOWARD AVE.

549-0037

120.28

549-0052

42

ST. ADALBERTS CATHOLIC CEMETARY

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3878
- A26-6,2S3 B, PED.
- SECONDARY RISER

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #576
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

#3876
22'S6'AL. 1LED2,B

204.9090.S.314. - REMOVE AERIAL CABLE
204.9060.S.311. - REMOVING POLES
-35 FT. WOOD POLE
204.9090.S.314. - REMOVE AERIAL CABLE

BM HYD NW BOLT NW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38' LT.
ELEV: 135.66

#600
A31-D6,3S3,PED.

ABANDON 3#4/1#8LTP CIR. T5S-D

ABANDON 3#4/1#8LTP CIR. T5S-D

ABANDON 3#8/1#8LTP CIR. T5S-D

#3929 S. 6TH ST.

#3917
26'S6'AL,BOLT DOWN,2S3 B, PED.

AT WALK
3#4/1#8LTP CIR. T5S-D

#3904
30'D6'AL.
BOLT DOWN,2S2

SIGN POST

FENCE POST

W. HOWARD

S. 6th

S. 5th

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #575
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.0195 - REMOVING CONCRETE BASES
204.9060.S.310. - REMOVING CITY INSTALLED POLES
-#566
-30'D8'AL,3S3,PED., BOLT DOWN
-SECONDARY RISER
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

#585 W. HOWARD AVE.

266.42

204.0195 - REMOVING CONCRETE BASES
204.9060.S.310. - REMOVING CITY INSTALLED POLES
-#534
-30'D8'AL,3S3,PED., BOLT DOWN
-SECONDARY RISER
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

BM HYD SW BOLT SW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38' RT.
ELEV: 135.45

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
-35 FT. WOOD POLE

#3917
A21-6,1S2V,PED,B

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #522
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

3#6/1#8LTP, CIR. T5S-D
1' TO 3' OFF WALK

#529

SHEET 1 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 277 | E |
|---|---|---|---|---|---|

2

N

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3876
- A21-6, 1LED2

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.310. - REMOVING CITY INSTALLED POLES
SPV.0060.387 - REMOVE LUMINAIRE
#422
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- LUMINAIRE UTILITY 3LED3 - MULTIPLE
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

204.9060.S.310. - REMOVING CITY INSTALLED POLES
SPV.0060.387 - REMOVE LUMINAIRE
#418
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- LUMINAIRE UTILITY 3LED3 - MULTIPLE
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

204.9060.S.310. - REMOVING CITY INSTALLED POLES
SPV.0060.387 - REMOVE LUMINAIRE
#408
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- LUMINAIRE UTILITY 3LED3 - MULTIPLE
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

204.9090.S.314. - REMOVE AERIAL CABLE

BM HYD NW BOLT NE CORNER
S. 5TH ST. & W. HOWARD AVE.
STA. 07+84 - 40.5' LT.
ELEV: 122.23

#508 AT3IR-D6,3S3,PED., DIRECT BURY

#500 AT3IR-D6,3S3, DIRECT BURY

#328 30'SSAL,3LED3 BOLT DOWN

#505

#401

#311

W. HOWARD

S. 5th ST.

ALLEY

ON RAMP

OFF RAMP

FREEWAY EASEMENT

SECTION LINE

BRIDGE DECK

JUNCTION BOX

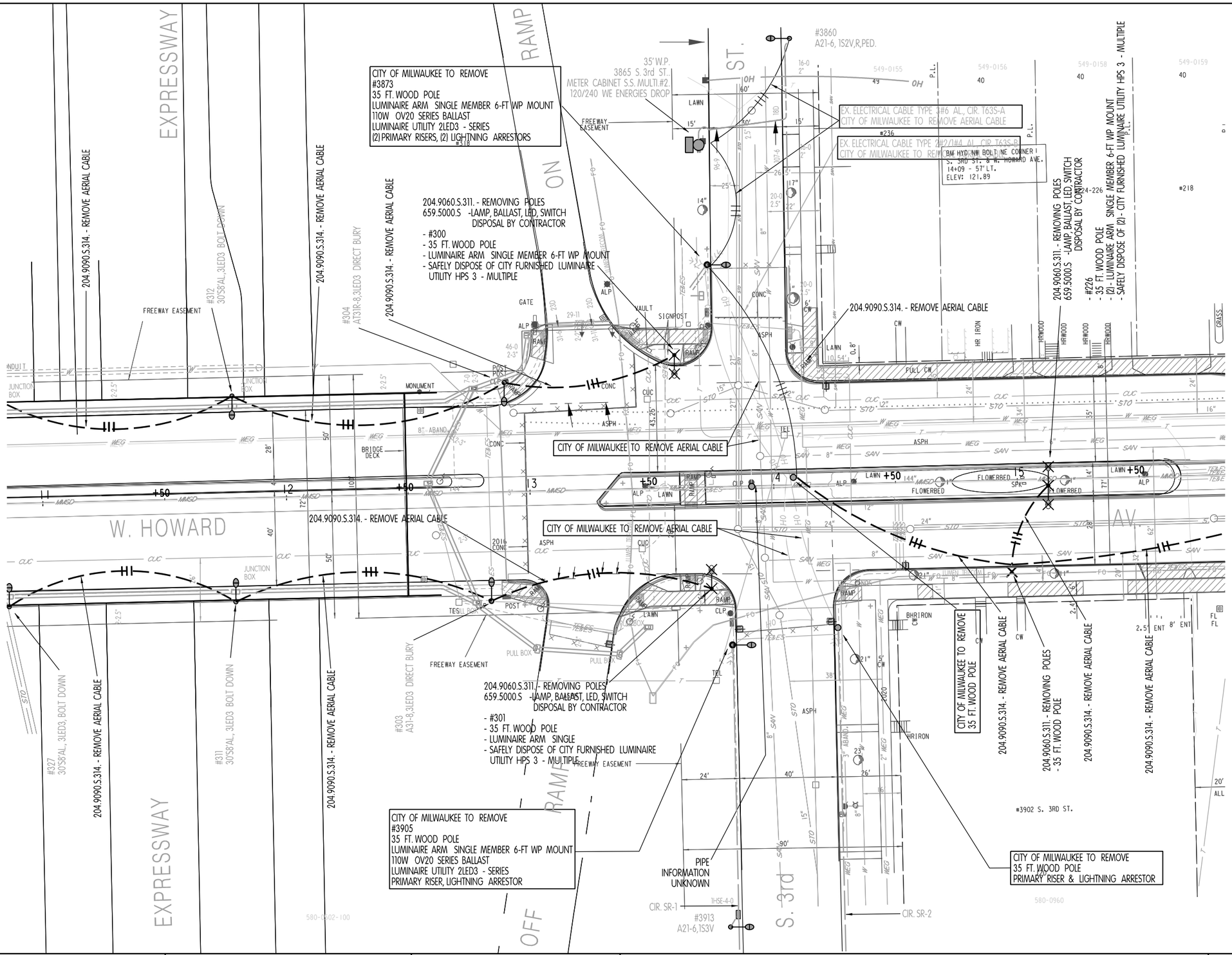
3#4/1#8 TP
SIG. SERVICE

WEP.CO
W.P.#71T5526

580-0527-100

SHEET 2 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 278 | E |
|---|---|---|---|---|---|




SHEET 3 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 279 | E |
|---|---|---|---|---|---|

2

N

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #208
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM, SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #186
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM, SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #170
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM, SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #154
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM, SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

#3858
WEP.CO., W.P.#92-T-11676
6-0 U.B., 1S2V,R
GRD. ROD

#3870 S. 2ND ST.

W. HOWARD

ST.

AV.

BM HYD NW BOLT, CORNER
S. 2ND ST. & W. HOWARD AVE.
17+59 - 61'RT.
ELEV: 125.79

#187 W. HOWARD AVE.

#3913
A21-6,1S2V,R, GRD. ROD

CITY OF MILWAUKEE TO REMOVE SECONDARY RISER

#3905 S. 1ST PL.

#3917
A21-6,1S2V,R, GRD. ROD

CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

#3912 S. 1ST PL.

#153 W. HOWARD AVE.

2#8LTP, CIR. SS MULTI #2

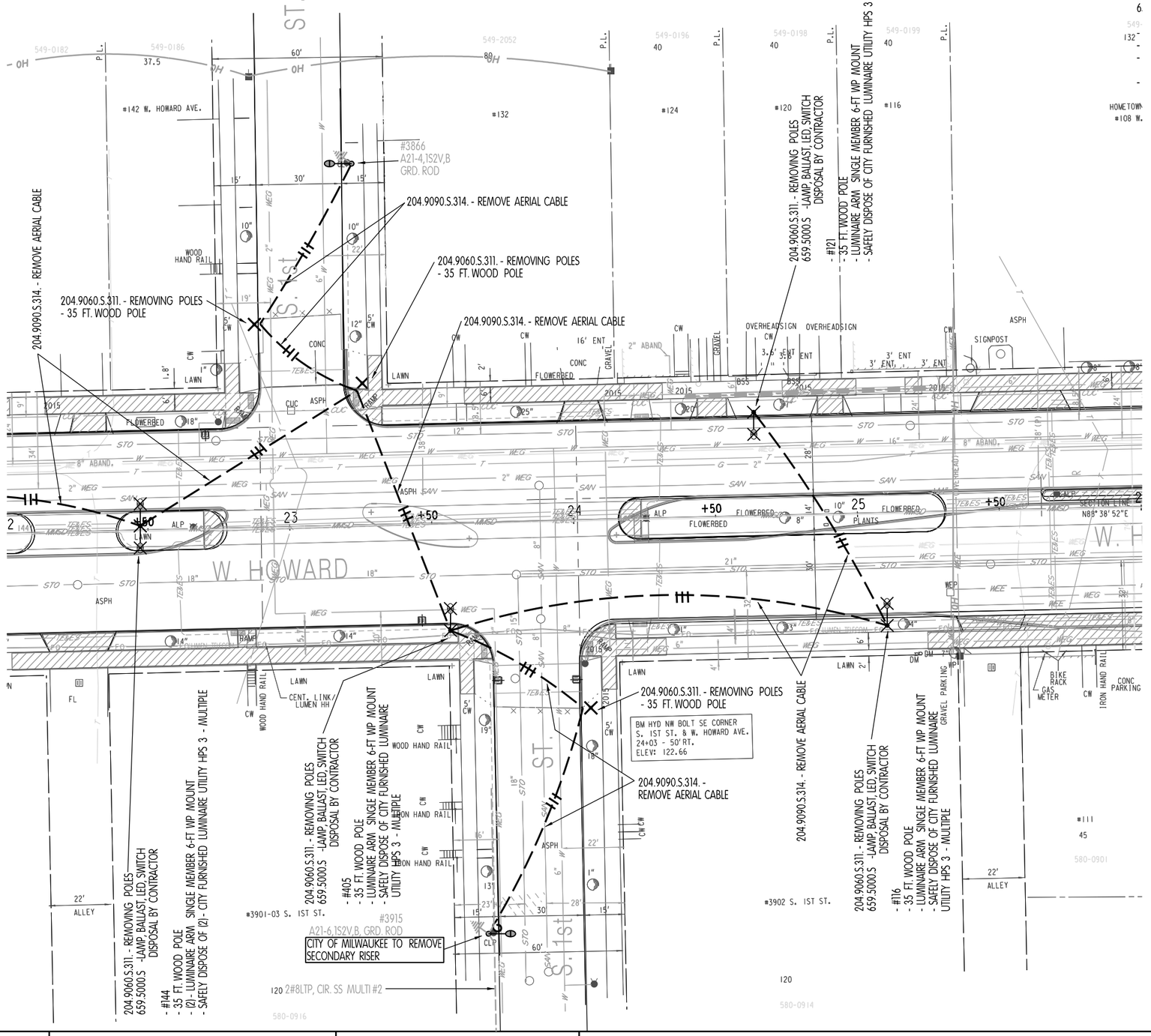
S. 2ND

S. 1ST

SHEET 4 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 280 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:41
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42




SHEET 5 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 281 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:42
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

N

3#2/1#8LTP, CIR. T58S-B

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3876
- 35 FT. WOOD POLE
- (2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
- SAFELY DISPOSE OF (2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

HOMETOWN GAS STATION
#108 W. HOWARD AVE.

#3362
3D08'AL,3LEDA2,PED
BOLT DOWN

#3870 S. HOWELL AVE.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #101
- 35 FT. WOOD POLE
- (LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311.
- REMOVING POLES
659.5000.S
- LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3901
- 35 FT. WOOD POLE
- (2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
- SAFELY DISPOSE OF (2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

#3915 S. HOWELL AVE.

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

#3918
A31-D6,3LEDA2,PED
CITY OF MILWAUKEE TO REMOVE SECONDARY RISER

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3900
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

#3912 S. HOWELL AVE.

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #106
- 35 FT. WOOD POLE
- (2) LUMINAIRE ARM SINGLE MEMBER 8-FT WP MOUNT
- SAFELY DISPOSE OF (2) CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #118
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #208
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

#203-213

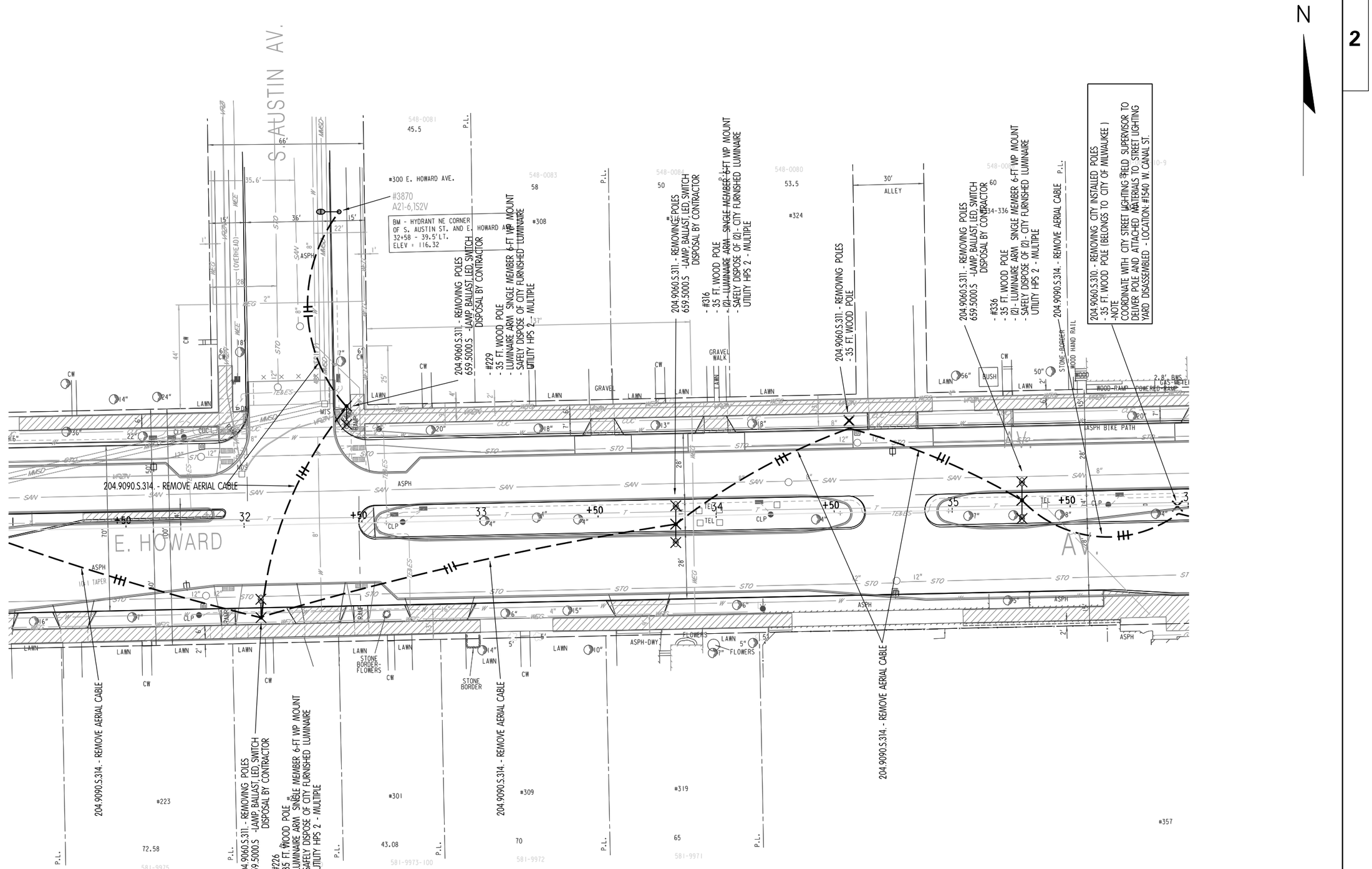
204.9090.S.314. - REMOVE AERIAL CABLE

#3870 S. AUS

SHEET 6 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 282 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:42
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42




331.31 SHEET 7 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 283 | E |
|---|---|---|---|---|---|

2

N

3#2/1#8LTP, CIR. SS MULTI #3 -B

#3859
A26-6,2S3,PED,R

3#2/1#8LTP, CIR. SS MULTI #3 -A

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.310. - REMOVING CITY INSTALLED POLES
- 35 FT. WOOD POLE (BELONGS TO CITY OF MILWAUKEE )
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATTERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

204.9090.S.314.
- REMOVE AERIAL CABLE

204.9060.S.310. - REMOVING CITY INSTALLED POLES
SPV.0060.387 - REMOVE LUMINAIRE
- #3876
- 35 FT. WOOD POLE (BELONGS TO CITY OF MILWAUKEE )
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE
- SECONDARY RISER
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATTERIALS TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

204.9060.S.310. - REMOVING CITY INSTALLED POLES
SPV.0060.387 - REMOVE LUMINAIRE
- #358
- 35 FT. WOOD POLE (BELONGS TO CITY OF MILWAUKEE )
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE
-NOTE
COORDINATE WITH CITY STREET LIGHTING FIELD SUPERVISOR TO DELIVER POLE AND ATTACHED MATERIAL TO STREET LIGHTING YARD DISASSEMBLED - LOCATION: #1540 W. CANAL ST.

BM - HYDRANT NE CORNER OF S. WHITNALL AVE. AND E. HOWARD AVE. 37+98.5 - 52.5'LT. ELEV = 110.14

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

CITY OF MILWAUKEE TO REMOVE ELECTRICAL CABLE TYPE 2#2/1#4 AL. CIR. S.S. MULTI #3-A,B,C

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #361
- A31-6,3S3

204.9090.S.314.
- REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3909
- A26-6,2S3,PED,R

EXISTING 35 FT. WP.
TO BE REMOVED BY CITY OF MILWAUKEE

9#14LTP INTER

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE
- SECONDARY RISER

204.9060.S.311. - REMOVING POLES
- #404
- 35 FT. WOOD POLE
- I2I - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #424
- 35 FT. WOOD POLE
- I2I - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

3#2/1#8LTP,
CIR. SS MULTI #3 -C

E. HOWARD AV.

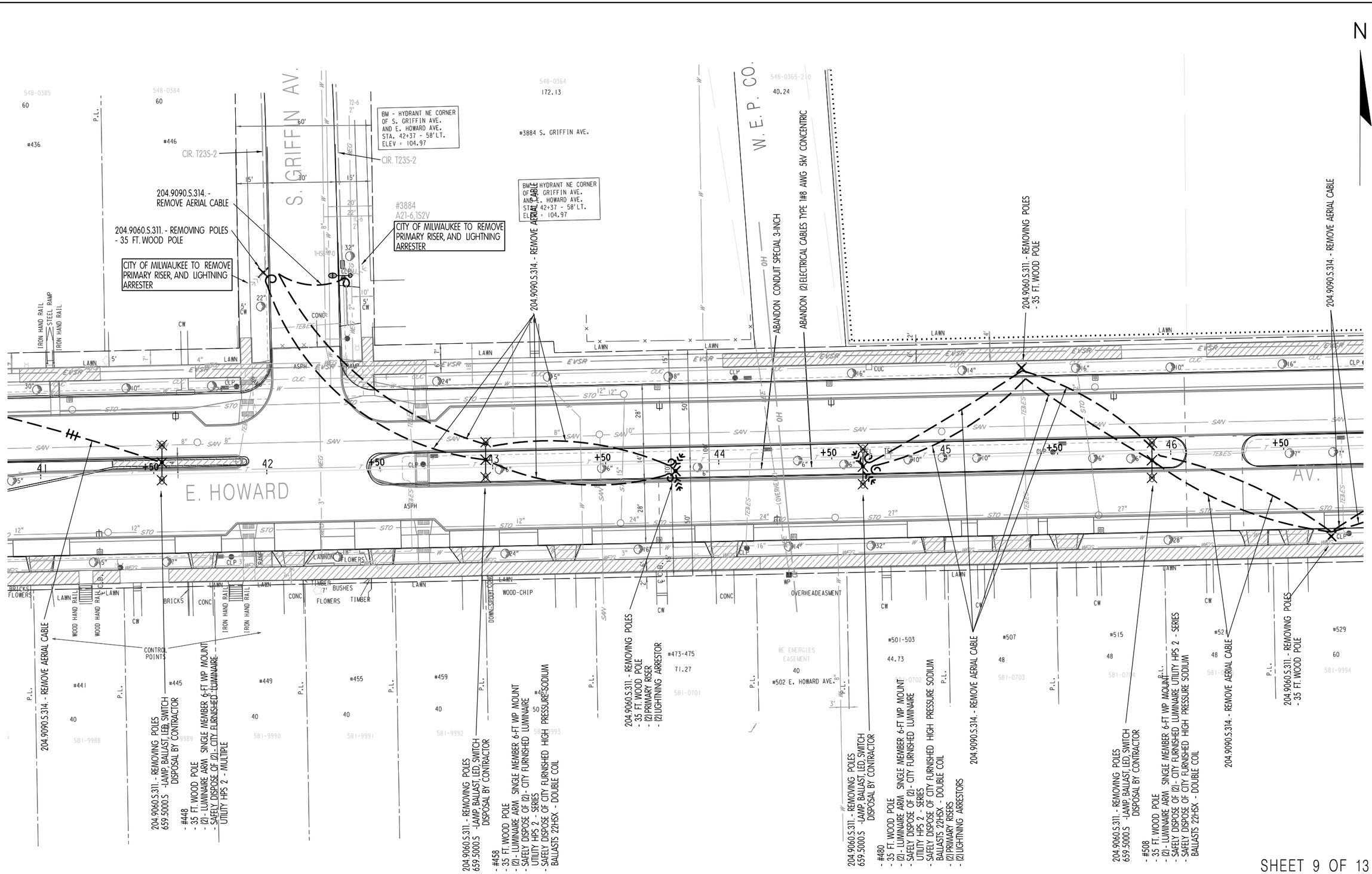
S. WHITNALL AV.

#3902 S. WHITNALL AVE.

SHEET 8 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 284 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:43
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42




SHEET 9 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 285 | E |
|---|---|---|---|---|---|

2

N

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #532
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #606
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

548-1101
908.35
WOODLAWN CEMETARY
#614

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #630
- 35 FT. WOOD POLE
- (2) - LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #704
- A26-D6.252
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

E. HOWARD

S. TAYLOR AV.

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 1HSX - SINGLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

BM - HYDRANT SE CORNER OF S. TAYLOR AVE. AND E. HOWARD AVE. 51+39 - 65' RT.

#3912
A21-6.1S2

CITY OF MILWAUKEE TO INSTALL SECONDARY RISER

#3904 S. TAYLOR AVE.
2#12UF, CIR. T23S-1

SECTION LINE N88°46'11"E

SHEET 10 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 286 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave – 6th to Clement\Removal of Temporary\e-wHoward Ave – 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:44
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

N

204.9060.S.311. - REMOVING POLES
- #3871
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 2- SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 2HSX - SINGLE COIL

204.9060.S.311. - REMOVING POLES
- #736
- 35 FT. WOOD POLE
- I2I- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL

STANDARD BM
TOP OF S. PINE AVE. AND E. HOWARD AVE.
53+76 - 50' RT.
ELEV = 100.00

CITY OF MILWAUKEE TO REMOVE PRIMARY RISER AND LIGHTNING ARRESTER

204.9090.S.314. - REMOVE AERIAL CABLE

CIR. T23S-2

F&P W.P. 6-0 U.B.

2#4/1#8LTP SIGNAL SERVICE

#3866 W.E.P.CO. W.P.#46-0270 SIGNAL SERVICE

2#4LTP SIGNAL SERVICE

BM HYD NW BOLT NEC S. PINE AVE. & E. HOWARD AVE. 54+32 - 38' LT. ELEV= 97.80

CITY OF MILWAUKEE TO REMOVE PRIMARY RISER, AND LIGHTNING ARRESTER

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

4' ENT

2#4LTP SIGNAL SERVICE

SIGNAL SERVICE CONTROL CAB.

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE
- CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 33HSX - DOUBLE COIL

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #830
- 35 FT. WOOD POLE
- I2I- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 1HSX - SINGLE COIL

CITY OF MILWAUKEE TO INSTALL PRIMARY RISER, AND LIGHTNING ARRESTER

204.9090.S.314. - REMOVE AERIAL CABLE

CIR. T8S-2

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3876
- A21-6,1S2V
- SAFELY DISPOSE OF (LUMINAIRE(S)

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

CONTROL POINTS

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #737
- 35 FT. WOOD POLE
- I2I- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL

905 S. PINE AVE.

ABANDON SERIES DUPLEX CIR. T23S-1, BLACK & WHITE WIRE

WHITE WIRE CIR.SR-4

1HSE-4-0

#3911 A21-6,1S3V (BLK. WIRE)

PRIMARY SPLICE

BLACK WIRE CIR.SR-4

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3900
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 2HSX - SINGLE COIL

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #806
- 35 FT. WOOD POLE
- I2I- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I- CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

CITY OF MILWAUKEE TO REMOVE WOOD POLE

BM HYD NW BOLT SW CORNER S. LENOX ST & E. HOWARD AVE. 57+10-50' RT. ELEV: 99.46

EXISTING 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #904
- 35 FT. WOOD POLE
- I2I- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF I2I- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

E. HOWARD AV.

S. PINE

S. LENOX ST.

CIR. T8S-2

#3901 S. LENOX ST.

SEC. LINE N88°36'14"E

MONUMENT

SHEET 11 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 287 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn
PLOT DATE : 20-DEC-2023 11:45
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

N

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

CITY OF MILWAUKEE TO INSTALL PRIMARY RISER, AND LIGHTNING ARRESTER

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. -
REMOVE AERIAL CABLE

CIR. T8S-2

#3877
A21-6,1S2V

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR

#1004
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR

#1024
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. -
REMOVE AERIAL CABLE

204.9090.S.314. -
REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

CITY OF MILWAUKEE TO REMOVE SECONDARY RISER

2#8/1#8LTP, CIR. T8S-2

#1030

#3883
A21-6,1S2V

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE
- SAFELY DISPOSE OF (2) CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 1THSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR

#1018
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES

204.9090.S.314. - REMOVE AERIAL CABLE

CITY OF MILWAUKEE TO REMOVE PRIMARY RISER, AND LIGHTNING ARRESTER

204.9060.S.311. - REMOVING POLES
659.5000.S
- LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- 35 FT. WOOD POLE
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 1HSX - SINGLE COIL
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

#3906
A21-6,1S2V

204.9090.S.314. -
REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

CITY OF MILWAUKEE TO REMOVE SECONDARY RISER

2#12UF, CIR. T8S-1

204.9090.S.314. -
REMOVE AERIAL CABLE

#3902
A21-6,1S2V

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH
DISPOSAL BY CONTRACTOR

#1102
- 35 FT. WOOD POLE
- (2)- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2)- CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

BM HYD NE BOLT NE CORNER
S. LOGAN AVE. & E. HOWARD AVE.
60+75.5 50'LT.
ELEV: 101.01

BM HYD NW BOLT SW CORNER
S. HERMAN ST. & E. HOWARD AVE
63+75.5 -49.5'RT.
ELEV: 102.98

E. HOWARD

AV.

ST.

S. LOGAN

S. HERMAN

SHEET 12 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 288 | E |
|---|---|---|---|---|---|

2

N

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3872
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE
#1200 E. HOWARD AVE.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3881
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
-- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 2 - MULTIPLE
#1175 S. CLEMENT AVE.

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- #1150
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1226
- 35 FT. WOOD POLE,
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - MULTIPLE

CITY OF MILWAUKEE TO REMOVE SECONDARY RISER

CITY OF MILWAUKEE TO REMOVE (2) PRIMARY RISERS, AND (2) LIGHTNING ARRESTERS

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

CIR. T8S-1&2

#3869
WEP.CO. W.P. NO TAG
6-0 U.B.

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1112
- 35 FT. WOOD POLE
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM - DOUBLE COIL
BALLASTS 2HSX

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1116
- #1118
- 35 FT. WOOD POLE
- (2) LUMINAIRE ARM - SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 2 - SERIES

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1138
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1141
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF (2) CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
#1139
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - DOUBLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- #3901
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

CITY OF MILWAUKEE TO INSTALL (2) PRIMARY RISERS, AND (2) LIGHTNING ARRESTERS

204.9090.S.314. - REMOVE AERIAL CABLE

CIR. T8S-1
WHITE & BLACK WIRES

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
659.5000.S -LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR
- #3910
- 35 FT. WOOD POLE
- LUMINAIRE ARM SINGLE MEMBER 6-FT WP MOUNT
- SAFELY DISPOSE OF (2) - CITY FURNISHED LUMINAIRE UTILITY HPS 3 - SERIES
- SAFELY DISPOSE OF (2) CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL

204.9090.S.314. - REMOVE AERIAL CABLE

204.9060.S.311. - REMOVING POLES
- 35 FT. WOOD POLE

204.9090.S.314. - REMOVE AERIAL CABLE

#3910
A31-6,3LED2,PED,B

#1238
A31-D8,3S2
PED

CIR. T8S-1&2

CIR.S.S.MULTI.#5-C

BM HYD NW BOLT SW COR. S. CLEMENT AVE. & E. HOWARD AVE.
67+51 - 57.5' RT.
ELEV: 94.63

E. HOWARD AV.

S. CLEMENT AV.

SHEET 13 OF 13

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - REMOVAL OF TEMPORARY BY CONTRACTOR | SHEET NO. 289 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Removal of Temporary\e-wHoward Ave - 6th to Clement Removal of OH.dgn PLOT DATE : 20-DEC-2023 11:45 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

3#4/1#8LTP CIR. T5S-D

3#2/1#8LTP CIR. T5S-D

3#4/1#8LTP CIR. T5S-D

#3876
POLES TYPE 26-AL, STA.01+28.4'; 68.6'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 2LED3

EXISTING PULL BOX

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T5S-D

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T5S-D

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T5S-D

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH STA.02+63.8'; 01.3'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#564
CONCRETE BASES TYPE 5, (WISDOT) STA.02+67.0'; 03.3'RT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2)- LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES

3#4/1#8LTP CIR. T5S-D, 3-0 BOC
TO BE ABANDON ONLY AFTER THE UNDERGROUND IS ENERGIZED.

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T5S-D

#600
A31-D6,3S3,PED.

#3878
A26-6,2S3 B, PED.
TO BE REMOVED WITH TEMPORARY OVERHEAD

#620
A31-D8,3S3,PED.

#620
A31-D8

SIGN POST
#3904
30'D6'AL.
BOLT DOWN,2S2

FENCE POST

ABANDON 3#4/1#8LTP CIR. T5S-D

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

#580
CONCRETE BASES TYPE 5, (WISDOT) STA.01+52.8'; 05.0'RT
TRANSFORMER BASE BREAKAWAY WITH
11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2)- LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES

#566
30'D8'AL,3S3,PED., BOLT DOWN
TO BE REMOVED WITH TEMPORARY OVERHEAD

W. HOWARD

S. 6th ST.

SECTION LINE N88° 38' 52"E

SHEET 1 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 290 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Underground\Howard Ave - 6th to Clement UG.dgn PLOT DATE : 28-AUG-2023 17:45 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 1:30

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T5S-D

#552
CONCRETE BASES TYPE 5, (WISDOT) STA.03+95.3; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3)
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES

#3876
22'S6'AL. 1LED2,B

112 SPV.0060.302
PULL BOXES 13-INCH X 24-INCH X 24-INCH
STA.03+93.0'; 05.2'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#554
30'D8'AL.3S3,PED, BOLT DOWN
TO BE REMOVED WITH TEMPORARY OVERHEAD

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH
STA.03+90.1'; 38.3'RT

112 SPV.0060.302
PULL BOXES
13-INCH X 24-INCH X 24-INCH
STA.04+12.3'; 64.5'RT

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T5S-D

#526
CONCRETE BASES TYPE 5, (WISDOT)
STA.05+14.2'; T/L
TRANSFORMER BASE BREAKAWAY WITH
11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH
STA.05+22.0'; 06.0'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#4/1#8 XLP, CIR.T5S-D

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

#508
AT31R-D6.3S3,PED.,DIRECT BURY
- (2) REMOVE LUMINAIRE
- (2) LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

CONDUIT RIGID NONMETALLIC SCH.40 2-INCH, ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

CONDUIT RIGID NONMETALLIC SCH.40 2-INCH, ON TRAFFIC SIGNAL PLAN

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

CONNECT CONDUITS TO EXISTING PULL BOX

EXISTING 35 FT. WOOD POLE

EXISTING CONDUIT

EXISTING PULL BOX

#3876
POLES TYPE 26-AL, STA.07+69.5'; 63.4'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC
CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 1LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE

#3876
A21-6, 1S2V-SERIES,
TO BE REMOVED WITH
TEMPORARY OVERHEAD

108

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.T63S-A

#500
AT31R-D6.3S3,PED.,DIRECT BURY
- (2) REMOVE LUMINAIRE
- (2) LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES

EXISTING PULL BOX
- SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.T63S-A

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

EXISTING CABLE CIR.T5S-D

EXISTING PULL BOX

EXISTING 35 FT. WOOD POLE

EXISTING CONDUIT

#3876
22'S6'AL. 1LED2,B

#3876
A21-6, 1S2V-SERIES,
TO BE REMOVED WITH
TEMPORARY OVERHEAD

#3876
POLES TYPE 26-AL, STA.07+69.5'; 63.4'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC
CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 1LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE

108

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

112 PULL BOXES 17-INCH X 30-INCH X 24-INCH
ON TRAFFIC SIGNAL PLAN

N

S. 5th PL.

S. 5th St.

W. HOWARD

AV.

SHEET 2 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 291 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

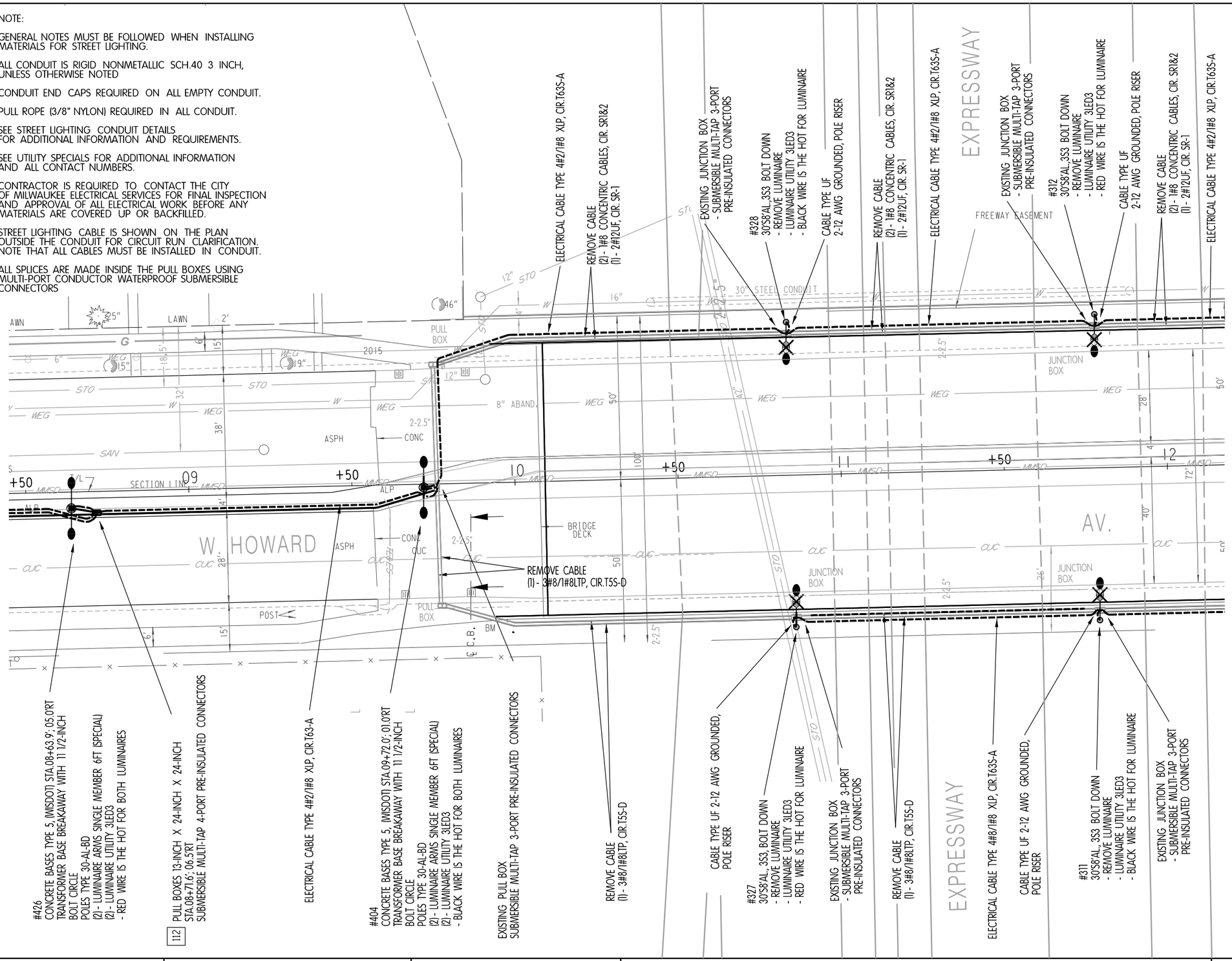
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS




SHEET 3 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 292 | E |
|---|---|---|---|---|---|


FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave – 6th to Clement\SL Underground\Howard Ave – 6th to Clement UG.dgn
PLOT DATE : 28-AUG-2023 17:48
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:30
WISDOT/CADDS SHEET 42

NOTE:

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ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

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ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.T63S-A

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

EXISTING PULL BOX
- SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

REMOVE CABLE

#302
CONCRETE BASES TYPE 5, (WISDOT) STA.13+44.7'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES

SPV.0060.302
112 PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.13+52.6'; 04.7'RT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

108 PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.13+82.0'; 49.8'RT

#3901
POLES TYPE 26-AL, STA.13+80.3'; 52.9'RT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL), LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH LUMINAIRE UTILITY 2LED3, - BLACK WIRE IS THE HOT FOR LUMINAIRE

113 PULL BOXES 13-INCH X 24-INCH X 24-INCH STA.13+81.4'; 68.1'RT

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.SR-1

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.SR-1

113 PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.14+24.8'; 60.6'RT

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.SR-2

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.14+24.8'; 50.4'RT

PULL BOXES
17-INCH X 30-INCH X 24-INCH, STA.14+36.9'; 05.0'RT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.14+39.5'; 36.4'RT

112 PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.14+46.3'; 36.4'RT

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-D

#303
A31-8' 3S3 DIRECT BURY
- REMOVE LUMINAIRE
- LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR LUMINAIRE

#304
AT31R-8' 3S3 DIRECT BURY
- REMOVE LUMINAIRE
- LUMINAIRE UTILITY 3LED3- BLACK WIRE IS THE HOT FOR LUMINAIRE

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

REMOVE CABLE

EXISTING PULL BOX
- SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

CONTRACTOR TO LEAVE 3FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.SR 1&2

113 PULL BOXES 17-INCH X 30-INCH X 24-INCH STA.13+75.0'; 93.7'LT

#3877
POLES TYPE 26-AL, STA.13+76.6'; 71.9'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 2LED3
- RED WIRE IS THE HOT FOR LUMINAIRE

NEW STREET LIGHTING ENCLOSURE T63S
240/480 VOLT, 200 AMP, SINGLE PHASE, BY CITY

CONTRACTOR TO LEAVE 15FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH ENCLOSURE T63S

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-A

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-B

ABANDON 2-2" CONDUIT

ABANDON CABLE 4#16GA. CONTROL CIR.

35 W.P.
3865 S. 3rd ST.
METER CABINET S.S. MULTI #2
120/240 WE ENERGIES DROP

PULL BOXES
17-INCH X 30-INCH X 24-INCH, STA.13+75.2'; 68.8'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS 112

PULL BOXES 13-INCH X 24-INCH X 24-INCH STA.14+07.9'; 93.4'LT 112

PULL BOXES 17-INCH X 30-INCH X 24-INCH STA.14+07.7'; 68.9'LT 112

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63-C 112

ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.SR-1&2

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63-D

PULL BOXES 13-INCH X 24-INCH X 24-INCH STA.14+20.4'; 50.4'LT 112

PULL BOXES 17-INCH X 30-INCH X 24-INCH STA.14+36.8'; 43.5'LT 112

#238
CONCRETE BASES TYPE 5, (WISDOT) STA.14+46.8'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T63S-D

PULL BOXES
13-INCH X 24-INCH, STA.14+59.6'; 43.4'LT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC CIR.SR-1&2

ABANDON CABLE 3#2/1#8LTP CIR. SS MULTI #2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG, 5kV CONCENTRIC CIR.SR-1

#3860
A21-6, 152V,R,RED

IN SERVICE 3#2/1#8LTP CIR. SS MULTI #2

W. HOWARD

S. 3rd

ST.

N

SHEET 4 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 293 | E |
|---|---|---|---|---|---|

NOTE:

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ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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N

#216
CONCRETE BASES TYPE 5, (WISDOT) STA.15+50.8'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T63S-C

PULL BOXES 17-INCH X 30-INCH X 24-INCH, STA.15+55.1'; 05.6'RT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS [112]

[108] PULL BOXES 13-INCH X 24-INCH X 24-INCH
STA.17+34.2'; 194.9'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#3841
POLES TYPE 22-AL, STA.17+32.2'; 192.2'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 1LED2
- RED WIRE IS THE HOT FOR LUMINAIRE

#3875
POLES TYPE 22-AL, STA.17+31.2'; 57.9'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 1LED2
- RED WIRE IS THE HOT FOR LUMINAIRE

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63-C

CONDUIT SPECIAL 3-INCH

CONDUIT SPECIAL 3-INCH

CONDUIT SPECIAL 3-INCH

ABANDON CABLE 2#8/1#8LTP CIR.SS MULTI #2

PULL BOXES 13-INCH X 24-INCH X 24-INCH
STA.17+33.2'; 55.3'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS [108]

#188
CONCRETE BASES TYPE 5, (WISDOT) STA.17+90.9'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T63S-C

#204
CONCRETE BASES TYPE 5, (WISDOT) STA.16+70.9'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T63S-D

PULL BOXES 17-INCH X 30-INCH X 24-INCH, STA.16+78.5'; 05.8'RT
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS [112]

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.16+81.0'; 36.1'RT [112]

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.17+25.6'; 57.1'RT [112]

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T63S-D

ABANDON CABLE 3#8LTP CIR.SS MULTI #2

CONDUIT SPECIAL 3-INCH

SPLICE 21-0 S. OF CURB

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-D

#3913

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.17+25.3'; 138.9'RT [112]

PULL BOXES 17-INCH X 30-INCH X 24-INCH, STA.17+88.2'; 05.3'RT
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.17+65.1'; 52.1'LT [112]

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.17+88.2'; 36.3'LT [112]

#3858

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-D

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-D

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T63S-D

W. HOWARD AV.

S. 2nd ST.

ALLEY

E. ROW OF ALLEY

LAWN +50

16 +50

17 +50

18 +50

SHEET 5 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 294 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

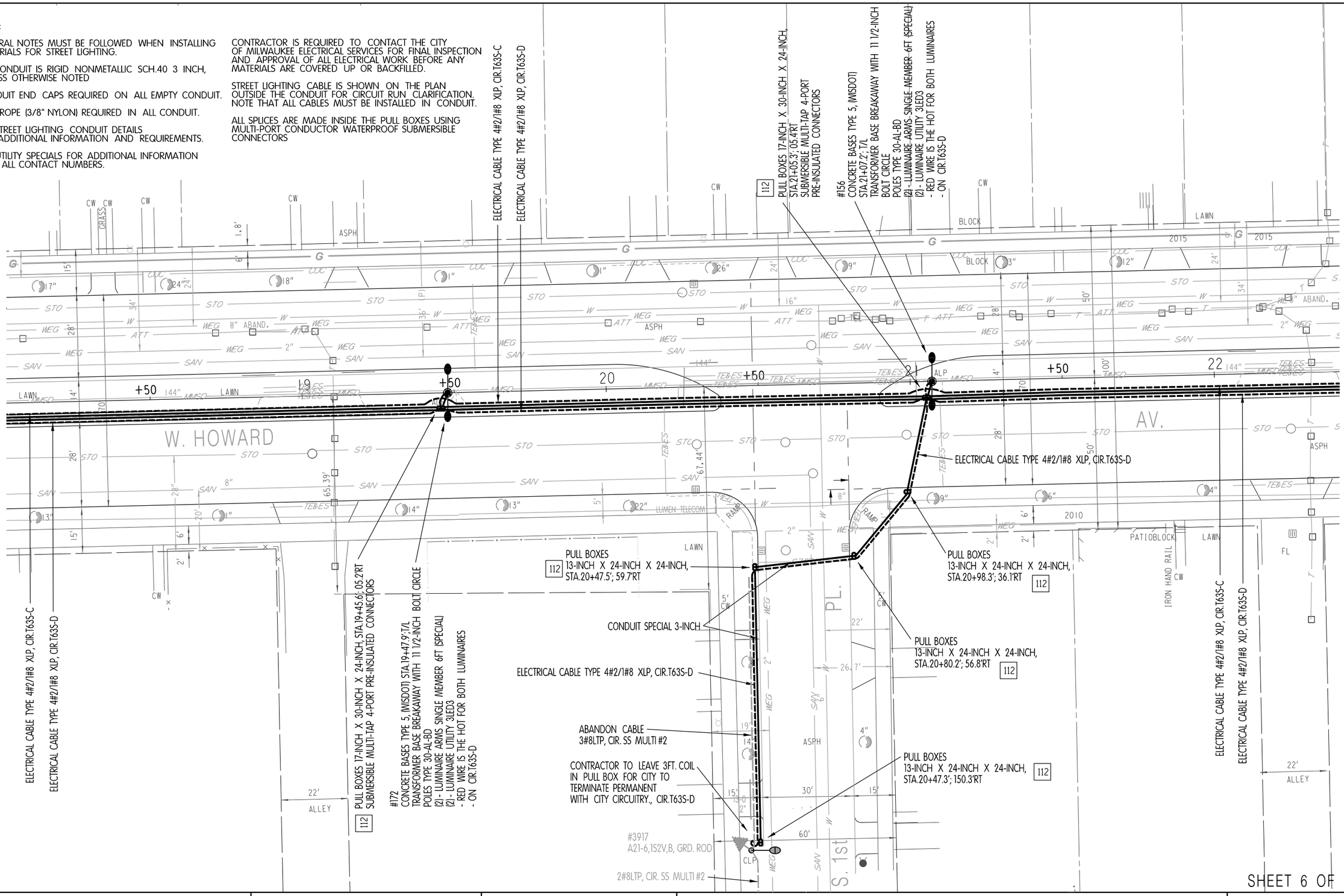
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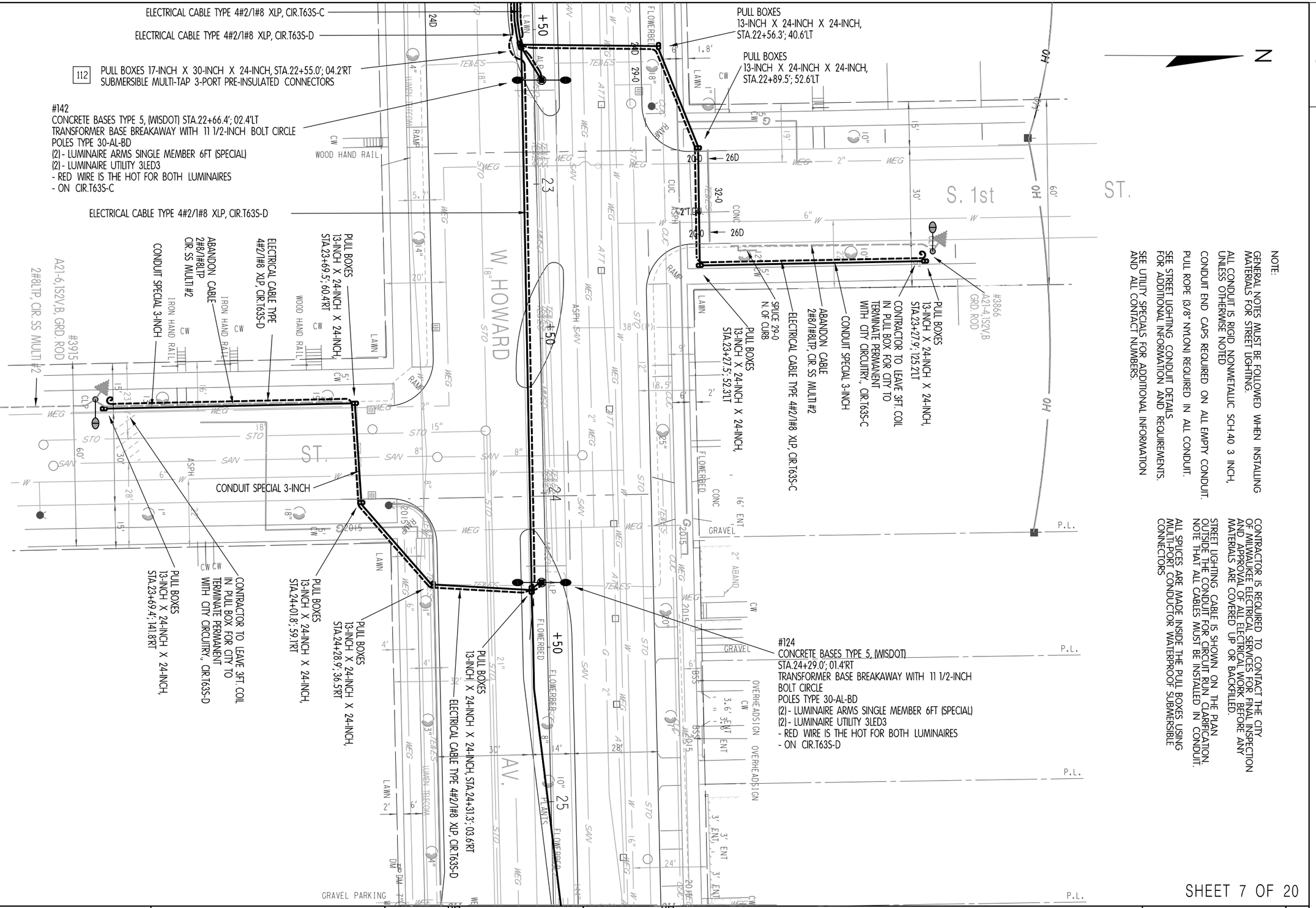
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| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 295 | E |
|---|---|---|---|---|---|




SHEET 7 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 296 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Underground\Howard Ave - 6th to Clement UG.dgn
PLOT DATE : 28-AUG-2023 17:50
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:30
WISDOT/CADDS SHEET 42

NOTE:

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N

#112
CONCRETE BASES TYPE 5, (WISDOT) STA.25+70.7', 05.0'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T63S-C

ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.SR-A

#3902
STEEL MONOTUBE POLE
(2) - LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.SR-A

ELECTRICAL CABLE TYPE 4#6/1#8 XLP, CIR.SR-A

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.SR-A

EXISTING PULL BOX

3#6/1#8LTP CIR.SR-A

REMOVE CABLE

#3918
A3I-D6,3LED4,2,PED

S. HOWELL

W. HOWARD AV.

E. HOWARD AV.

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

EXISTING PULL BOX SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.SR-A

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

REMOVE CABLE

PULL BOXES 13-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

REMOVE CABLE

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS IN PULL BOX

#102
STEEL MONOTUBE POLE
(2) - LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.SR-A

PULL BOXES 13-INCH X 24-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

#102
STEEL MONOTUBE POLE
(2) - LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.SR-A

#3879
CONCRETE BASES TYPE 5 (WISDOT) STA 26+78.6', 55.1'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.SR-A

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

3#2/1#8LTP, CIR. T58S-B

#3882
30'DB'AL 3LED4,2,PED
BOLT DOWN

AV.

#3878
CONCRETE BASES TYPE 5 (WISDOT) STA.27+76.8', 53.8'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.SR-A

REMOVING PULL BOXES ON TRAFFIC SIGNAL PLAN

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

#102
STEEL MONOTUBE POLE
(2) - LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.SR-A

ELECTRICAL CABLE TYPE 4#6/1#8 XLP, CIR.SR-A

PROPOSED TRAFFIC SIGNAL CONTROL CABINET SEE SIGNAL PLAN FOR LOCATION

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

PULL BOXES 17-INCH X 30-INCH X 24-INCH, ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS IN PULL BOX

SHEET 8 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 297 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Underground\Howard Ave - 6th to Clement UG.dgn
PLOT DATE : 28-AUG-2023 17:51
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:30
WISDOT/CADDS SHEET 42

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

#118
CONCRETE BASES TYPE 5, (WISDOT) STA.28+97.8'; 05.0'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.SK-A

#200
CONCRETE BASES TYPE 5, (WISDOT)
STA.30+42.4'; T/L
TRANSFORMER BASE BREAKAWAY
WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
(2) - LUMINAIRE ARMS SINGLE
MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 3LED3
SUBMERSIBLE MULTI-TAP 3-PORT
PRE-INSULATED CONNECTORS IN
TRANSFORMER BASE
- RED WIRE IS THE HOT FOR
BOTH LUMINAIRES
- ON CIR.T645-A

#222
CONCRETE BASES TYPE 5, (WISDOT) STA.31+77.5'; 05.0'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH
BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED
CONNECTORS IN TRANSFORMER BASE
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T645-A

#3870, A21-6,1S2V
LIQUIDTIGHT FLEXIBLE
NONMETALLIC CONDUIT 1 1/2-INCH

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.32+41.5'; 127.9'LT
SUBMERSIBLE MULTI-TAP 3-PORT
PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE
4#2/1#8 XLP, CIR.T645-A

ABANDON CABLE
2#12UF, CIR. T23S-2

CONDUIT SPECIAL 3-INCH

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.32+41.0'; 55.3'LT

ELECTRICAL CABLE TYPE 4#8/1#8 XLP, CIR.SK-A

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T645-B

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T645-B

PULL BOXES 13-INCH X 24-INCH X 24-INCH,
STA.32+65.2'; T/L
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED
CONNECTORS

#300
CONCRETE BASES TYPE 5, (WISDOT)
STA.32+65.2'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH
BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T645-A

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T645-B

CONTROL POINTS

E. HOWARD

S. AUSTIN AV.

20' ALLEY

N

SHEET 9 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 298 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

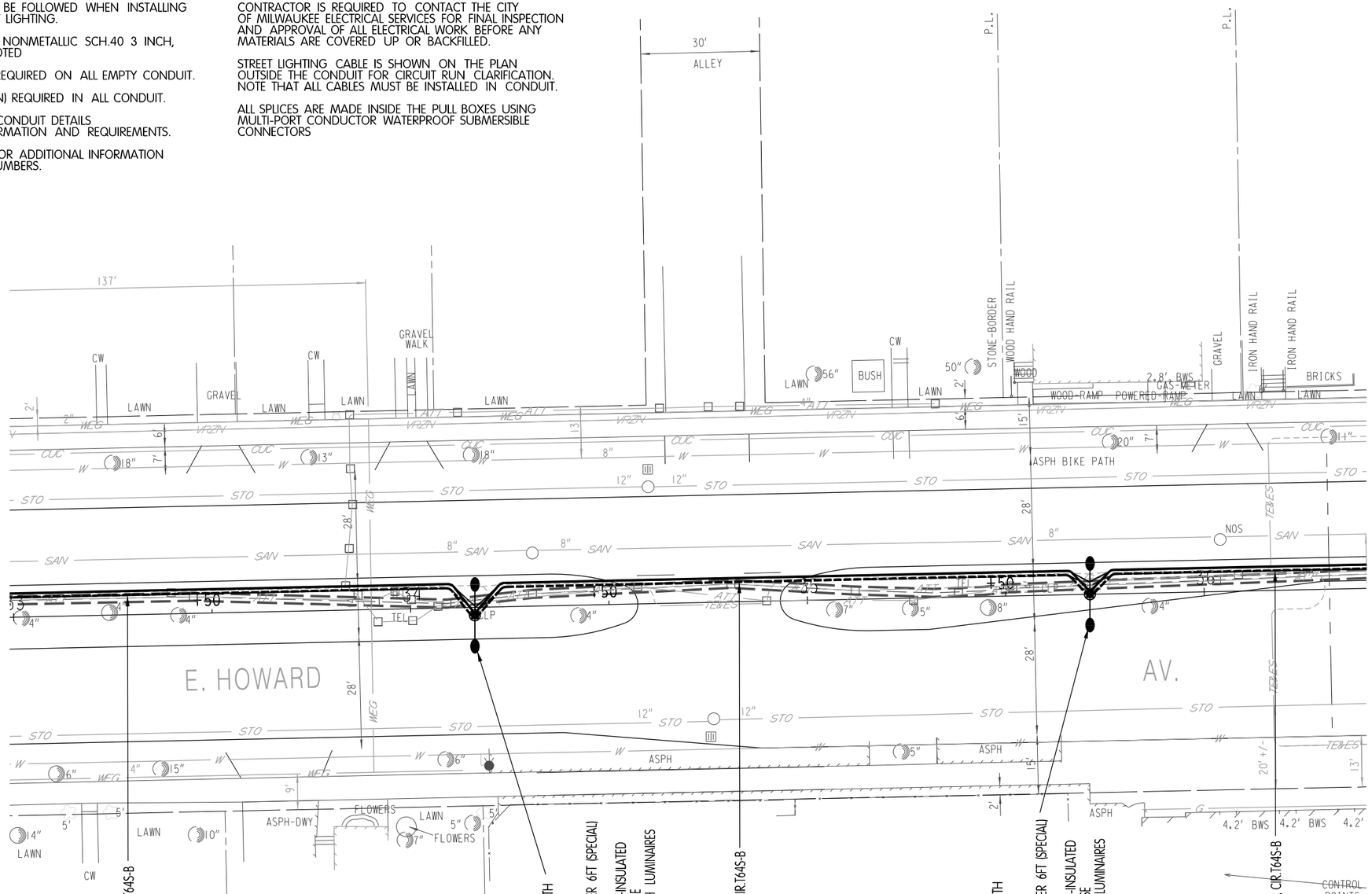
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

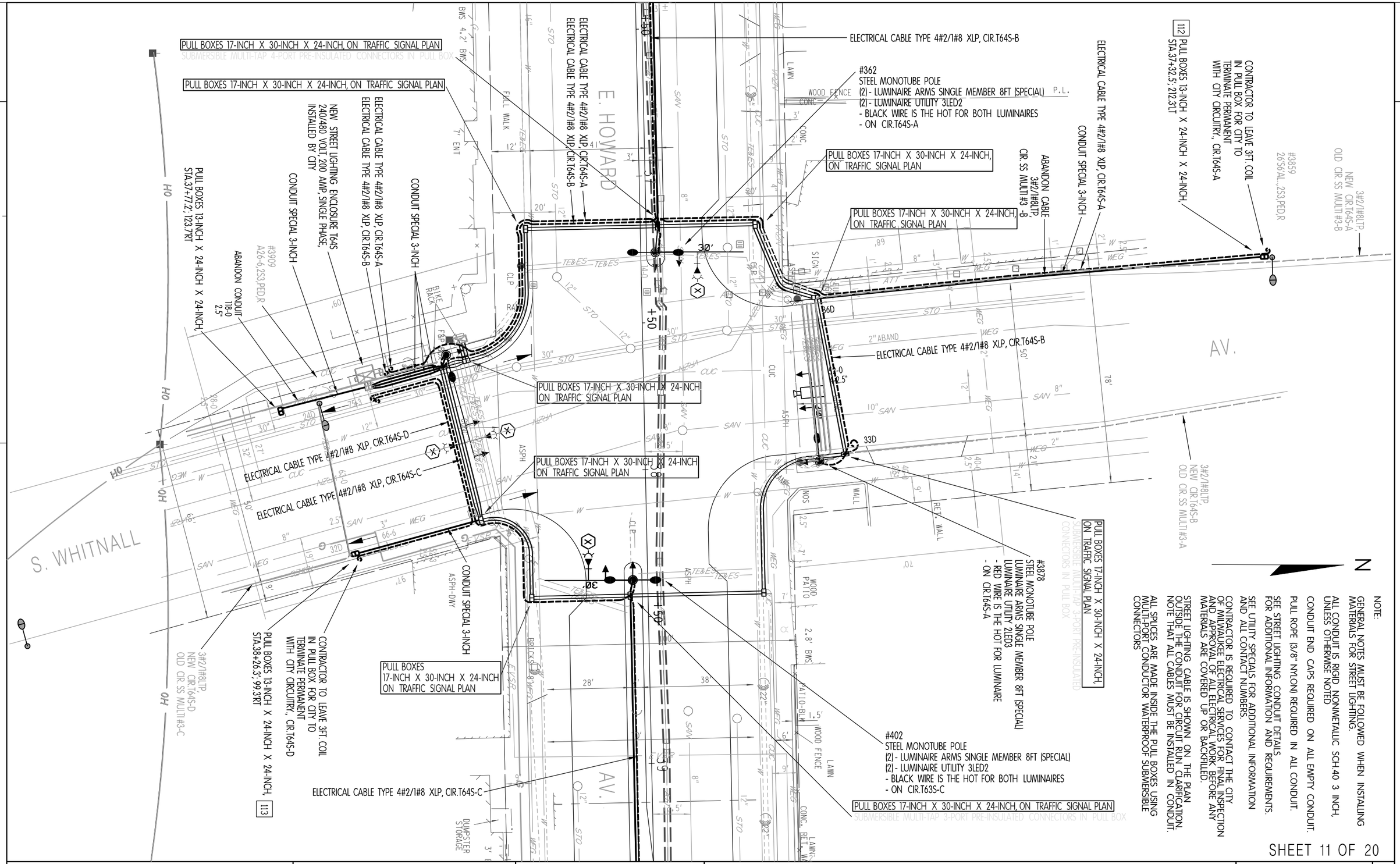
ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

N




SHEET 10 OF 20

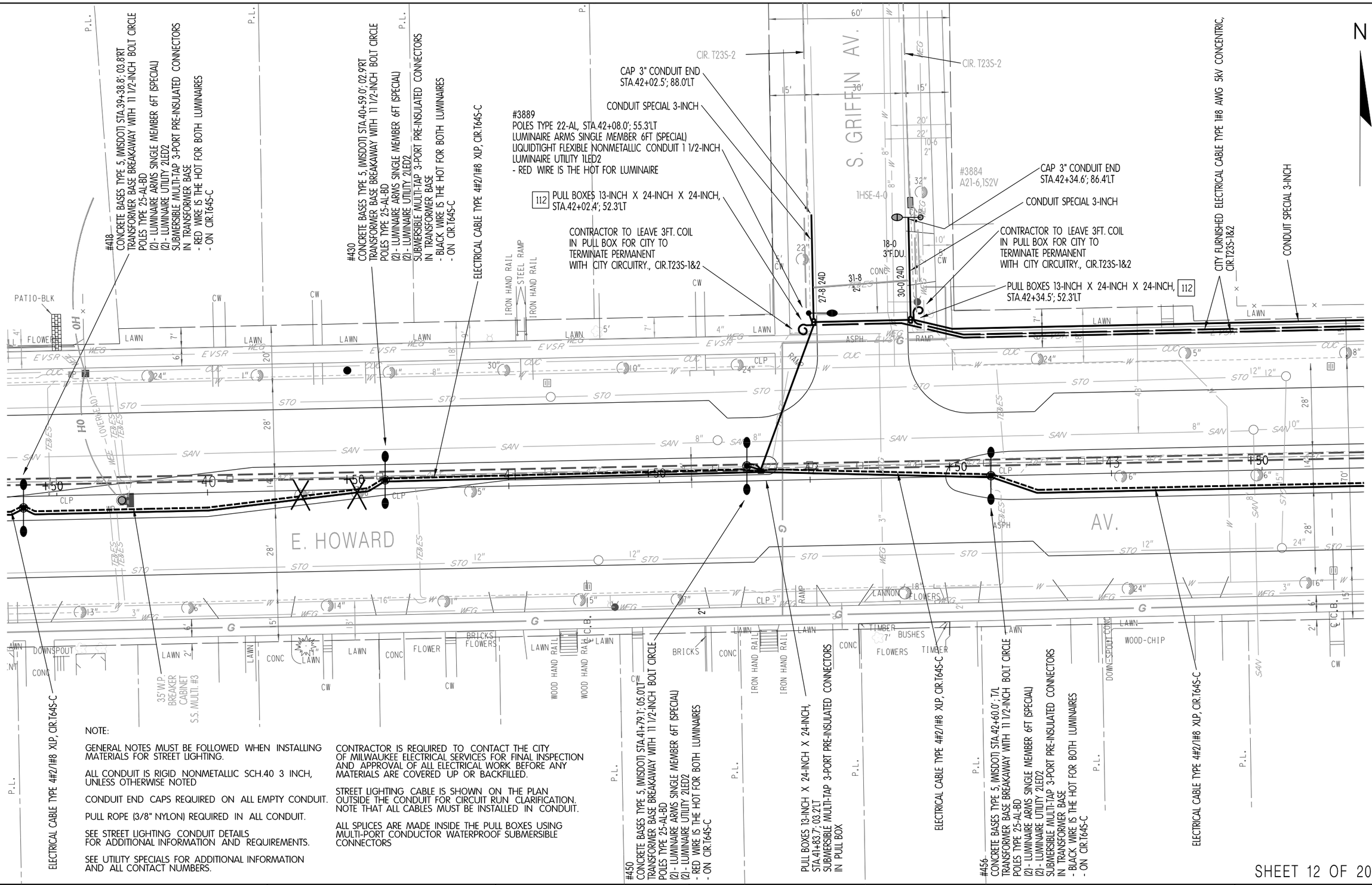
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 299 | E |
|---|---|---|---|---|---|




SHEET 11 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 300 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\SL Underground\Howard Ave - 6th to Clement UG.dgn
PLOT DATE : 28-AUG-2023 17:53
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:30
WISDOT/CADDS SHEET 42




NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

SHEET 12 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 301 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

N

W. E. P. CO.

E. HOWARD AV.

CONDUIT SPECIAL 3-INCH

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T23S-1&2

PULL BOXES 13-INCH X 24-INCH X 24-INCH, 112
STA.46+20.3', 49.1LT

CONDUIT SPECIAL 3-INCH

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#478
CONCRETE BASES TYPE 5, (WISDOT) STA.44+0.0', T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS
IN TRANSFORMER BASE
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T64S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#506
CONCRETE BASES TYPE 5, (WISDOT) STA.45+40.1', T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS
IN TRANSFORMER BASE
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T64S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#530
CONCRETE BASES TYPE 5, (WISDOT) STA.46+80.1', T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS
IN TRANSFORMER BASE
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T64S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#600
CONCRETE BASES TYPE 5, (WISDOT) STA.48+20.1', T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2) - LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS
IN TRANSFORMER BASE
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T64S-C

SHEET 13 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 302 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

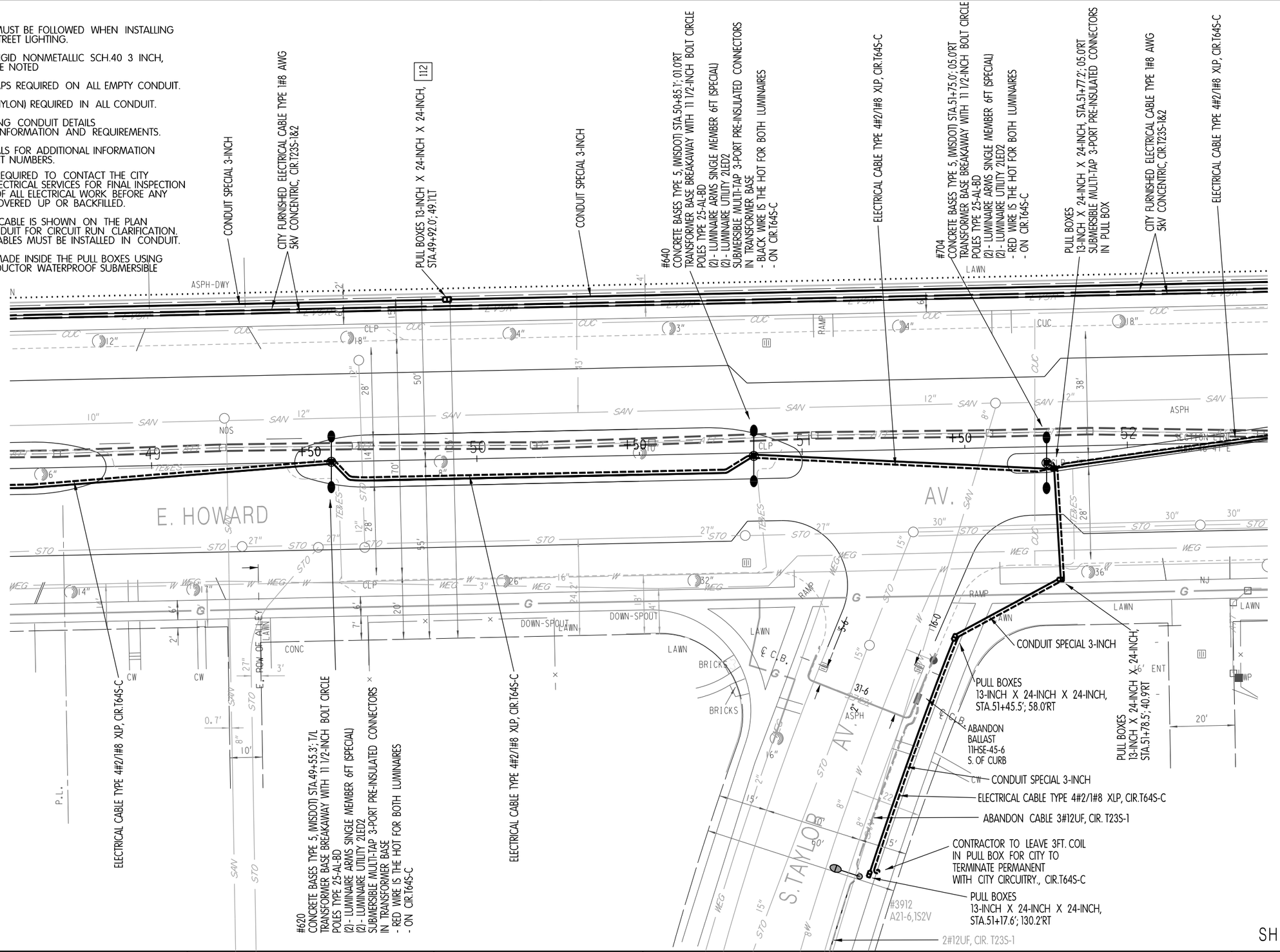
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS




SHEET 14 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 303 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

CITY FORCES TO PERFORM TWO PRIMARY SPLICES THIS WORK NEEDS TO BE COORDINATED WITH THE CITY WHEN THE CONTRACOR REMOVES THE TEMPORARY OVERHEAD.

CITY FORCES TO INSTALL UNDERGROUND 100W HIGH PRESSURE SODIUM SERIES BALLAST THIS WORK NEEDS TO BE COORDINATED WITH THE CITY WHEN THE CONTRACOR REMOVES THE TEMPORARY OVERHEAD.

CITY FORCES TO FURNISHED AND INSTALL ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.SR-4

CONDUIT SPECIAL 3-INCH

STA. 53+74'.67'.0'RT.

STA. 53+74'.577.7RT.

CITY FORCES TO REMOVE THSE-17-0, S. OF UNIT #3966, (BLK WIRE)

WHITE WIRE NEW CIR.SR-4 OLD CIR.T23S-1

BLACK WIRE NEW CIR.SR-4 OLD CIR.T23S-1

#3911 A21-6,153/ (BLK WIRE)

THSE-4-0

ABANDON CABLE SERIES DUPLEX CIR. T23S-1, BLACK & WHITE WIRE

#3966 A21-6

28LTP

1HSE-25-0 N. OF UNIT #3983

28UP

HYD.

24D 43-3 42-0 2" 42-10 23D 28-0 3"F.DU. 2.5"

45-4 24D 17-6 2"

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#3901 STEEL MONOTUBE POLE LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) LUMINAIRE UTILITY 1LED2 - BLACK WIRE IS THE HOT FOR LUMINAIRE - ON CIR.T64S-C

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

#800 STEEL MONOTUBE POLE (2)- LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL) (2)- LUMINAIRE UTILITY 2LED2 - BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T64S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

#718 CONCRETE BASES TYPE 5, (WISDOT) STA.52+73.0'; 05.0'LT TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE POLES TYPE 25-AL-BD (2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) (2)- LUMINAIRE UTILITY 2LED2 SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN TRANSFORMER BASE - BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T64S-C

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T23S-1&2

CONDUIT SPECIAL 3-INCH

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS IN PULL BOX 112

#738 STEEL MONOTUBE POLE (2)- LUMINAIRE ARMS SINGLE MEMBER 8FT (SPECIAL) (2)- LUMINAIRE UTILITY 2LED2 - RED WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T64S-C

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T23S-1&2

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.53+64.9'; 49.0'LT

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.53+77.7'; 79.4'LT 113

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

CIR. T23S-2

CONDUIT SPECIAL 3-INCH

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T23S-1&2

CONDUIT SPECIAL 3-INCH

#3866 WEP.CO. W.P. 6'U.B., 1S2V

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.54+17.0'; 87.9'LT 113

CONTRACTOR TO LEAVE 3FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T23S-1&2

2#4/1#8LTP SIGNAL SERVICE

WEP.CO. W.P.#46-0270 SIGNAL SERVICE

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN PULL BOX

#3872 STEEL MONOTUBE POLE LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) LUMINAIRE UTILITY 1LED2 - RED WIRE IS THE HOT FOR LUMINAIRE - ON CIR.T64S-C

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

PULL BOXES 17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS IN PULL BOX

E. HOWARD

S. PINE

AV.

SEC. LINE N88°36'14"E

SHEET 15 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 304 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

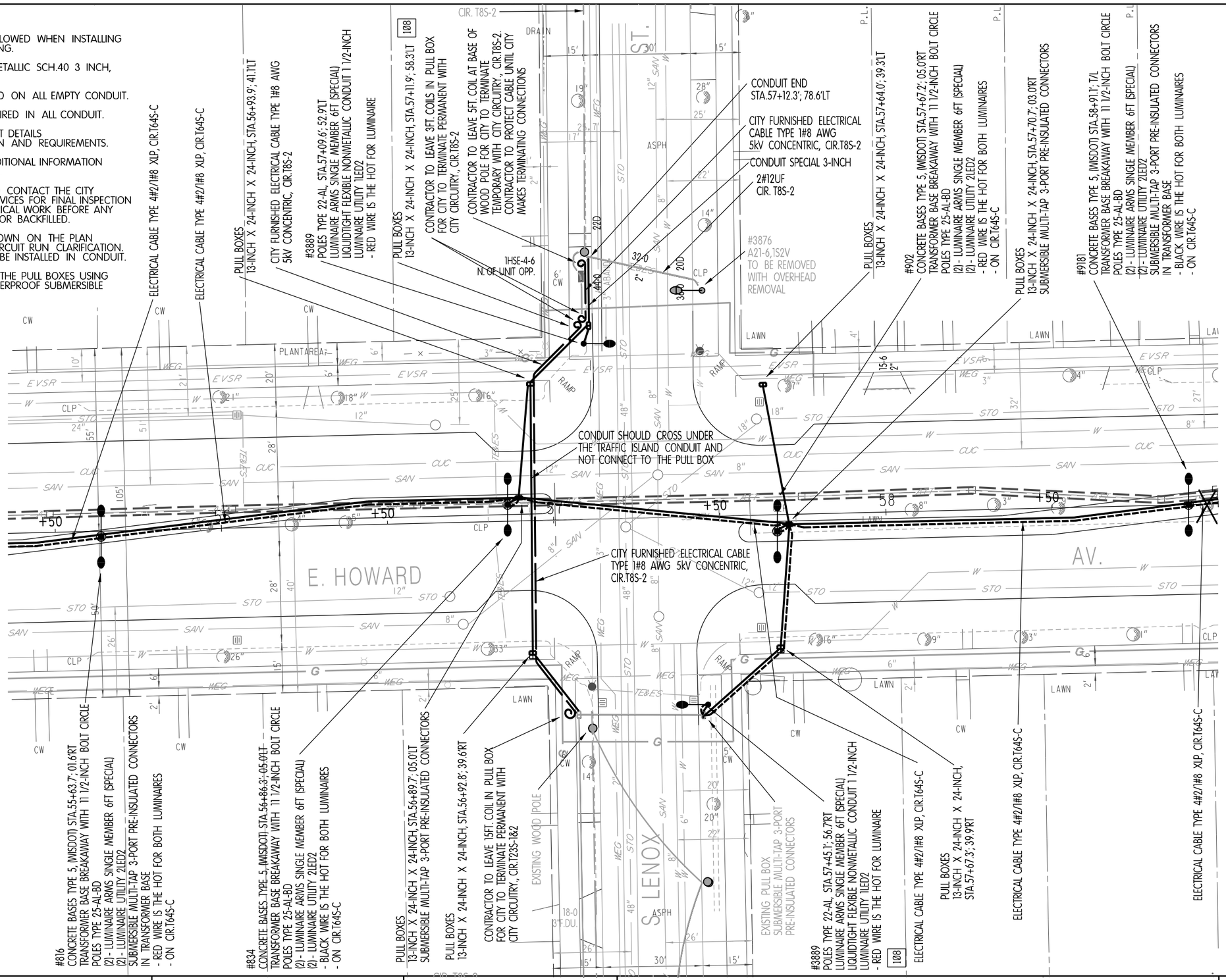
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS




SHEET 16 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 305 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

N

CONTRACTOR TO LEAVE 5FT. COIL AT BASE OF WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T8S-2. CONTRACTOR TO PROTECT CABLE UNTIL CITY MAKES TERMINATING CONNECTIONS

CIR. T8S-2

CONDUIT END STA.60+43.1'; 113.5'LT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-2

CONDUIT SPECIAL 3-INCH

#932
CONCRETE BASES TYPE 5, (WISDOT) STA.60+15.0'; 05.0'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2)- LUMINAIRE UTILITY 2LED2
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T64S-C

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.60+13.7'; 37.4'LT

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.60+42.4'; 57.3'LT

CONTRACTOR TO LEAVE 3FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-2

1HSE-15-0

#3877
A21-6,1S2V

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.60+74.6'; 56.8'LT

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.61+00.0'; 39.1'LT

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.60+95.5'; 07.0'RT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-2

E. HOWARD

AV.

S. LOGAN

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T64S-C

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.60+19.5'; 07.0'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.60+19.5'; 39.6'RT

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.60+40.6'; 52.3'RT

CONTRACTOR TO LEAVE 5FT. COIL IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

CITY FURNISHED, ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-1

1#8CONC
CIR T8S-1

CABLE TYPE UF 2#12 AWG GROUNDED, CIR. T8S-1

CONDUIT SPECIAL 3-INCH

#3906
A21-6,1S2V

PULL BOXES
13-INCH X 24-INCH X 24-INCH,
STA.60+73.8'; 75.4'RT

CONTRACTOR TO LEAVE 3FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.60+73.9'; 52.5'RT

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.60+99.7'; 38.0'RT

#1002
CONCRETE BASES TYPE 5, (WISDOT) STA.61+05.1'; 05.0'RT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2)- LUMINAIRE UTILITY 2LED2
- RED WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T65S-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

#1020
CONCRETE BASES TYPE 5, (WISDOT) STA.62+27.4'; T/L
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 25-AL-BD
(2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
(2)- LUMINAIRE UTILITY 2LED2
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS
IN TRANSFORMER BASE
- BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES
- ON CIR.T65S-C

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-1

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

SHEET 17 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 306 | E |
|---|---|---|---|---|---|

FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave – 6th to Clement\SL Underground\Howard Ave – 6th to Clement UG.dgn
PLOT DATE : 28-AUG-2023 17:56
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:30
WISDOT/CADDS SHEET 42

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

N

CONTRACTOR TO LEAVE 5FT. COIL AT BASE OF WOOD POLE FOR CITY TO TERMINATE TEMPORARY WITH CITY CIRCUITRY., CIR.T8S-2. CONTRACTOR TO PROTECT CABLE UNTIL CITY MAKES TERMINATING CONNECTIONS

CONDUIT END STA.63+79.0', 78.0'LT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T6SS-C

CONTRACTOR TO LEAVE 3FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-2

CONDUIT SPECIAL 3-INCH

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.63+78.6'; 55.4'LT

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.64+11.1'; 55.2'LT

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.64+32.6'; 38.6'LT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T6SS-C

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.63+48.7'; 07.0'LT SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.63+48.7'; 37.6'LT

#3883 A21-6,1S2V

CONDUIT SPECIAL 3-INCH

CONDUIT SHOULD CROSS UNDER THE TRAFFIC ISLAND CONDUIT AND NOT CONNECT TO THE PULL BOX

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.64+28.1'; 03.0'RT SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#1120 A31-D6

SECTION LINE N88° 36' 14"E

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

#1038 CONCRETE BASES TYPE 5, (WISDOT) STA.63+53.8'; 05.0'LT TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE POLES TYPE 25-AL-BD (2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) (2) - LUMINAIRE UTILITY 2LED2 - RED WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T6SS-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T6SS-C

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.63+48.7'; 37.5'RT

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.63+76.2'; 55.8'RT

CONTRACTOR TO LEAVE 5FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

CONDUIT END STA.63+76.2'; 70.0'RT

2#12UF, CIR. T8S-1

CABLE TYPE UF 2#12 AWG GROUNDED, CIR. T8S-1

CONDUIT SPECIAL 3-INCH

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

#3902 A21-6,1S2V

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.64+08.3'; 55.8'RT

CONTRACTOR TO LEAVE 3FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.64+29.1'; 39'RT

#1100 CONCRETE BASES TYPE 5, (WISDOT) STA.64+34.7'; 05.0'RT TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE POLES TYPE 25-AL-BD (2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) (2) - LUMINAIRE UTILITY 2LED2 - BLACK WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T6SS-C

#1120 CONCRETE BASES TYPE 5, (WISDOT) STA.65+72.0'; 01.0'LT TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE POLES TYPE 25-AL-BD (2) - LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) (2) - LUMINAIRE UTILITY 2LED2 SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS IN TRANSFORMER BASE - RED WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T6SS-C

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T6SS-C

E. HOWARD

S. HERMAN

AV.

SHEET 18 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 307 | E |
|---|---|---|---|---|---|

NOTE:
GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

#1143
CONCRETE BASES TYPE 5, (WISDOT) STA.67+26.2'; 41.6'RT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE

#3905
STEEL MONOTUBE POLE
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 2LED3
- RED WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.T65S-C

#3910
A31-6 PED.B.
REMOVE LUMINAIRE
LUMINAIRE UTILITY 3LED2
- RED WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.T65S-C

CIR. T8S-1
WHITE & BLACK WIRES

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.67+71.0'; 82.6'RT

CONTRACTOR TO LEAVE 5FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

CONDUIT SPECIAL 3-INCH

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.68+52.0'; 105.5'RT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

#1143
STEEL MONOTUBE POLE
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.68+49.8'; 36.5'RT

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.66+81.1'; 36.4'LT

#1140
STEEL MONOTUBE POLE
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.T65S-C

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 4-PORT PRE-INSULATED CONNECTORS

2#12UF, CIR. T8S-2

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

CONDUIT SPECIAL 3-INCH

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#3870
CONCRETE BASES TYPE 5, (WISDOT) STA.67+86.5'; 41.3'LT
TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE
POLES TYPE 30-AL-BD
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LUMINAIRE UTILITY 3LED2
- BLACK WIRE IS THE HOT FOR LUMINAIRE

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T65S-C

#3880
STEEL MONOTUBE POLE
LUMINAIRE ARMS STEEL 15-FT
LUMINAIRE UTILITY 2LED3
- RED WIRE IS THE HOT FOR LUMINAIRE
- ON CIR.T65S-C

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.67+62.6'; 125.3'LT
SUBMERSIBLE MULTI-TAP 3-PORT PRE-INSULATED CONNECTORS

#3870
POLES TYPE 26-AL, STA.67+63.9'; 129.4'LT
LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL)
LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH
LUMINAIRE UTILITY 2LED3
- BLACK WIRE IS THE HOT FOR LUMINAIRE

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.68+56.9'; 36.5'LT

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC, CIR.T8S-1

CONDUIT SPECIAL 3-INCH

PULL BOXES
13-INCH X 24-INCH X 24-INCH, STA.68+22.4'; 74.4'RT

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

PULL BOXES
17-INCH X 30-INCH X 24-INCH ON TRAFFIC SIGNAL PLAN

CONDUIT (NO CABLE)

CONDUIT (NO CABLE)

CONDUIT SPECIAL 3-INCH

HOWARD

S. CLEMENT

AV.

AV.

SHEET 19 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 308 | E |
|---|---|---|---|---|---|

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING.

ALL CONDUIT IS RIGID NONMETALLIC SCH.40 3 INCH, UNLESS OTHERWISE NOTED

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

STREET LIGHTING CABLE IS SHOWN ON THE PLAN OUTSIDE THE CONDUIT FOR CIRCUIT RUN CLARIFICATION. NOTE THAT ALL CABLES MUST BE INSTALLED IN CONDUIT.

ALL SPLICES ARE MADE INSIDE THE PULL BOXES USING MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE CONNECTORS

N

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-2

CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5KV CONCENTRIC, CIR.T8S-1

CONTRACTOR TO LEAVE 5FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1&2

113

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.69+86.4', 36.6'LT

CIR. T8S-1&2

#1238 A31-D8,3S2 PED

15-0 2.5" F.D.U.

15-0 2.5" F.D.U.

46-0 2.5"

TE&ES

EVSP

WEG

STO

W

ATT

70

105'

SECTION LINE

33-0

23'D

9-0 2.5"

E. HOWARD AV.

50'

BUS STOP

8.5'

19'

G

ELECTRICAL CABLE TYPE 4#2/1#8 XLP, CIR.T6S-C

CONTRACTOR TO LEAVE 5FT. COILS IN PULL BOX FOR CITY TO TERMINATE PERMANENT WITH CITY CIRCUITRY., CIR.T8S-1

113

PULL BOXES 13-INCH X 24-INCH X 24-INCH, STA.69+48.6', 03.9'RT

#1220 CONCRETE BASES TYPE 5, (WISDOT) STA.69+51.9', T/L TRANSFORMER BASE BREAKAWAY WITH 11 1/2-INCH BOLT CIRCLE POLES TYPE 25-AL-BD (2)- LUMINAIRE ARMS SINGLE MEMBER 6FT (SPECIAL) (2)- LUMINAIRE UTILITY 2LED2 - RED WIRE IS THE HOT FOR BOTH LUMINAIRES - ON CIR.T6S-C

CIR.S.S.MULTI.#5-C

SHEET 20 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - PERMANENT UNDERGROUND BY CONTRACTOR | SHEET NO. 309 | E |
|---|---|---|---|---|---|

# LEGEND

- UTILITY POLE
- EXISTING S.L. WOOD POLE
- EX. POLE WITH COBRA STYLE LUMINAIRE
- EX. POLE WITH POST TOP DECORATIVE STYLE LUMINAIRE
- EX. POLE WITH DECORATIVE STYLE LUMINAIRE
- PROPOSED S.L. WOOD POLE
- PR. POLE WITH COBRA STYLE LUMINAIRE
- PR. POLE WITH POST TOP DECORATIVE STYLE LUMINAIRE
- PR. POLE WITH DECORATIVE STYLE LUMINAIRE
- PR. BRACKET ARM AND COBRA STYLE LUMINAIRE
- EX. POLE WITH LUMINAIRE REPLACEMENT
- REPLACE POLE AND BRACKET ARM, EX. LUMINAIRE IS TO BE TRANSFERED FROM OLD POLE
- REMOVE POLE
- REMOVE POLE COMPLETE
- EXISTING WALL PACK LUMINAIRE
- PROPOSED WALL PACK LUMINAIRE
- PROPOSED TRANSFORMER BREAKAWAY BASE ON CONCRETE BASE OR BRIDGE BLISTER
- EXISTING OVERHEAD PRIMARY CABLE
- EXISTING OVERHEAD SECONDARY CABLE
- PROPOSED TEMPORARY OVERHEAD PRIMARY CABLE
- PROPOSED TEMPORARY OVERHEAD SECONDARY CABLE
- REMOVAL OF TEMPORARY OVERHEAD CABLE
- PR. UNDERGROUND 240/480V SECONDARY CABLE - INSTALLED IN CONDUIT
- PR. UNDERGROUND 120V/20A OUTLET CIRCUIT - INSTALLED IN CONDUIT
- PR. UNDERGROUND CONDUIT
- EX. UNDERGROUND PRIMARY CABLE
- EX. UNDERGROUND SECONDARY CABLE
- EX. CONDUIT
- EX. OV20 SERIES LED BALLAST
- PR. OV20 SERIES LED BALLAST
- EX. MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE SPLICE
- PR. MULTI-PORT CONDUCTOR WATERPROOF SUBMERSIBLE SPLICE

- EXISTING PULL BOX
- EXISTING JUNCTION BOX
- REMOVE PULL BOX
- EXISTING LIGHTNING ARRESTOR
- EX. GROUND & TEST
- EX. GROUND ROD
- EXISTING PAD MOUNT STREET LIGHTING ENCLOSURE 240/480V 200A METERED
- EXISTING 120V 100A 1PH METERED OUTLET SERVICE CABINET
- EX. RED WIRE / BLACK WIRE - STREET LIGHT TERMINATION
- EX. RED WIRE / BLACK WIRE - OUTLET CIRCUIT TERMINATION
- SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

- PROPOSED PULL BOX
- PROPOSED JUNCTION BOX
- PROPOSED LIGHTNING ARRESTOR
- PROPOSED GROUND & TEST
- PROPOSED GROUND ROD
- PROPOSED PAD MOUNT STREET LIGHTING ENCLOSURE 240/480V 200A METERED
- PROPOSED 120V 100A 1PH METERED OUTLET SERVICE CABINET
- PROPOSED RED WIRE / BLACK WIRE - STREET LIGHT TERMINATION
- PROPOSED RED WIRE / BLACK WIRE - OUTLET CIRCUIT TERMINATION

SHEET 1 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

REVISION BY: dkozel REVISION DATE: 17-MAR-2023 06:20
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.17-2023

## NON-LED LUMINAIRE DESCRIPTION BREAKDOWN

1 S 2 V

- (C)=FULL CUT OFF, (V)=VERTICAL BURN
- (1)=TYPE 1 REFRACTOR, (2)=TYPE 2 REFRACTOR, (3)=TYPE 3 REFRACTOR, (5)=TYPE 5 REFRACTOR (6)=TYPE 6 REFRACTOR, (8)=TYPE 8 REFRACTOR
- (S)=HIGH PRESSURE SODIUM, (M)=MERCURY VAPOR, (H)=METAL HALIDE, (RS)=HIGH PRESSURE SODIUM RETROFIT, (LS) LOW PRESSURE SODIUM
- (0)=70W, (1)=100W, (2)=150W, (2)=175W ONLY WITH (M), (3)=250W, (3)=215W ONLY WITH (RS) (4)=400W, (4)=360W ONLY WITH (RS) (5)=200W

## SCREW-IN LAMP LED LUMINAIRE DESCRIPTION BREAKDOWN (FOR DECORATIVE FIXTURES)

S 2 LED 3

- (1)=TYPE 1 REFRACTOR, (2)=TYPE 2 REFRACTOR, (3)=TYPE 3 REFRACTOR, (5)=TYPE 5 REFRACTOR (6)=TYPE 6 REFRACTOR, (8)=TYPE 8 REFRACTOR
- (LED)=LIGHT EMITTING DIODE
- (0)=36W, (1)=45W, (2)=54W, (3)=80W
- (S)=SCREW IN LAMP

## LED LUMINAIRE DESCRIPTION BREAKDOWN (COBRA STYLE FIXTURE)

2 LED 3

- (1)=TYPE 1 REFRACTOR, (2)=TYPE 2 REFRACTOR, (3)=TYPE 3 REFRACTOR, (5)=TYPE 5 REFRACTOR (6)=TYPE 6 REFRACTOR, (8)=TYPE 8 REFRACTOR
- (LED)=LIGHT EMITTING DIODE
- (0)=36W, (1)=50W, (2)=90W, (3)=135W

## LIGHTING CABLE & CIRCUIT IDENTIFICATION

3#2/1#8XLP, CIR.N.S.#7 MULTI.-B

- CIRCUIT
- LIGHTING CONTROL CABINET
- INSULATION: LTP = LOW THERMAL PLASTIC OR XLP = CROSS LINKED POLYETHYLENE
- GROUNDING CONDUCTOR SIZE AWG
- NUMBER OF GROUNDING CONDUCTORS
- SEPARATOR BETWEEN NON-GROUNDING AND GROUNDING CONDUCTORS
- NON-GROUNDING CONDUCTOR SIZE AWG
- NUMBER OF NON-GROUNDING CONDUCTORS

## LIGHTING UNIT IDENTIFICATION

STATION - OFFSET

#1942 - 30-AL-BD(T)-S6-_2LED2, NL-R, _L-_

- HOT WIRE
- LUMINAIRE #2
- DIRECTION: N,S,E,&W
- HOT WIRE
- LUMINAIRE #1
- DIRECTION: N,S,E,&W
- LUMINAIRE LIGHT DISTRIBUTION (OPTICS)
- LUMINAIRE TYPE SOURCE
- LUMINAIRE WATTAGE EQUIVALENT 0-70W, 1-100W, 2-150W, 3-250W
- S - SCREW IN LED LAMP
- LUMINAIRE ARM LENGTH
- NUMBER LUMINAIRE ARM S - SINGLE OR D - DOUBLE
- (T) - TRANSFORMER BASE BREAKAWAY
- POLE INSTALLATION: BOLT DOWN -BD OR DIRECT BURY -DB
- POLE TYPE
- POLE HEIGHT
- PLAQUE (POLE ADDRESS)

SHEET 2 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

REVISION BY: dkozel REVISION DATE: 12-DEC-2022 09:34
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

## STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

STREET LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTIONS 652 TO 657 AND 659 EXCEPT:

ALL CHANGES OR ANY DEVIATIONS FROM PLANS MUST BE APPROVED BY STREET LIGHTING ENGINEERING.

1 DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2 THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED APPROVAL.

3 LOCATIONS OF THE HDPE AND NONMETALLIC PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE CITY OF MILWAUKEE DPW STREET LIGHTING, APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED TO ILLUSTRATE AS BUILT CONDITIONS.

4 CONDUIT INSTALLED BEHIND CURB AND UNDER DRIVEWAYS SHALL BE INSTALLED AT A DISTANCE OF MINIMUM OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND MINIMUM 24 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.

5 DEPTH OF CONDUIT INSTALLED BELOW STREETS, HIGHWAYS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE) IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED APPROVAL.

6 CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.

7 WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH, OR BORE MULTIPLE CONDUITS TOGETHER AT THE SAME TIME.

8 CONDUIT INSTALLATION THAT REQUIRE TRENCHING SHALL NOT BE BACKFILLED PRIOR TO INSPECTION ON THE CONDUIT.

9 ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE STREET LIGHTING ENGINEER.

10 BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

11 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

12 PRIOR TO CONDUIT ACCEPTANCE, ALL OPEN CONDUIT ENDS, AND UN-TERMINATED CONDUITS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

13 ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. APPROVED LABEL FIRMLY ATTACHED.

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 CONDUIT RUNS SHALL BE THE SAME SIZE CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR PULL BOX TO CONCRETE BASE, OR BASE-TO-BASE ETC.).

16 UNLESS THE CONDUIT IS DESIGNED AND SHOWN WITH BENDS ON THE PLANS, ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO CONCRETE BASE, AND PULL BOX TO ENCLOSURE. OTHERWISE IT MUST BE APPROVED BY THE STREET LIGHTING ENGINEER.

## STREET LIGHTING GENERAL NOTES:

17 MINIMUM CONDUIT CLEARANCES FOR CONDUIT CROSSINGS AND PULL BOXES FROM THE FOLLOWING:
FIRE HYDRANTS: 6-FT TREE TRUNKS: 10-FT END OF DRIVEWAY FLARES: 6-FT
UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED AND WILL BE CONSIDERED INCIDENTAL TO THE BID ITEM BEING INSTALLED. COORDINATE ALL WORK NEAR GAS LINES WITH WE ENERGIES.

19 TYPICAL RECTANGULAR PULL BOXES / VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

20 TYPICAL CONDUIT INSTALLATION FROM THE PULL BOX TO A DIRECT BURIED STREET LIGHT POLE IS AS FOLLOWS: USE A NYLON LIQUIDTIGHT CONNECTOR (UL APPROVED) TO CONNECT THE 1 1/2-INCH LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT LFNC-B (UL APPROVED) TO THE PULL BOX AND CONNECT TO STREET LIGHT POLE BY STUBBING UP A MINIMUM OF 6 INCHES OF THE LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC-B) INTO THE CABLE SLOT.

21 ALL CONDUITS AND JUNCTION BOXES EMBEDDED IN STRUCTURE SHALL BE PAID UNDER STRUCTURE PAY ITEMS. CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EMBEDDED CONDUITS.

22 AT EVERY BRIDGE JOINT, EXPANSION/DEFLECTION FITTINGS MUST BE USED TO PREVENT DAMAGE TO CONDUIT AND LIGHTING CIRCUITS. THIS ITEM IS INCIDENTAL TO THE CONDUIT BID ITEM, AND SHALL BE PAID UNDER STRUCTURE PAY ITEMS.

23 THE SUPPORT CHANNELS FOR INSTALLATION OF CONDUITS, LUMINAIRES, JUNCTION BOXES AND ENCLOSURES SHALL BE STAINLESS STEEL UNISTRUT P1000 SERIES OR APPROVED EQUAL, CHANNELS SHALL BE SLOTTED OR PERFORATED.

24 ALL HDPE OR NONMETALLIC PVC CONDUITS THAT CONNECT TO PULL BOXES REQUIRE A PVC END BELL CONNECTOR INSIDE THE PULL BOX

25 PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

26 PROVIDE 3 INCH PVC SCHEDULE 40 CONDUIT ELBOWS IN ALL GROUND MOUNTED CONCRETE LIGHT BASES FOR CABLE IN DUCT TYPE INSTALLATION. THIS WORK IS INCIDENTAL TO CONCRETE BASES PAY ITEMS.

27 AT EACH SIGNAL STANDARD BASE PROVIDE 2 INCH PVC SCHEDULE 40 CONDUIT FROM PULL BOX TO SIGNAL STANDARD BASE. INSTALLATION OF PULL BOX AND CONDUIT ARE INCIDENTAL TO SIGNAL STANDARD BASE INSTALLATION WORK.

28 CONDUCTOR COLORS: 240/480, 1 PHASE - BLACK (HOT) /WHITE (NEUTRAL) // RED (HOT) /GRAY (NEUTRAL) / GREEN (GROUND)

29 INSTALL COMMON GROUND CONDUCTOR IN CONDUIT WHERE MULTIPLE BRANCH CIRCUITS CONDUCTORS ARE INSTALLED IN SAME CONDUIT AND SPLICE THE GROUND CONDUCTOR WITH TAP CONNECTOR IN PULLBOX.

30 PROVIDE MINIMUM WIRES / CONDUCTOR(S) SLACK AS NOTED BELOW:
PULL BOXES: SEE DETAIL 142
- CONNECTED WIRES TO LIGHT POLE IN PULL BOX MUST BE EXTENDED MINIMUM 3 FT. BEYOND TOP OF PULL BOX
- UNCONNECTED WIRES THAT BY PASS THROUGH PULL BOX MUST HAVE A MINIMUM OF 6 FT. SLACK COIL LEFT INSIDE PULL BOX

EMBEDDED JUNCTION BOXES IN PARAPIT WALL :
- CONNECTED WIRES IN JUNCTION BOX EXTEND MINIMUM 2 FT. BEYOND TOP OF JUNCTION BOX
- UNCONNECTED WIRES IN JUNCTION BOX LEAVE MINIMUM OF 4 FT. SLACK COIL IN JUNCTION BOX

DISTRIBUTION CENTER/LOAD CENTER: EXTEND 10-FT.
BREAK AWAY TRANSFORMER BASE: EXTEND 2-FT.

31 UNDERGROUND WIRE & CONDUIT SHOWN ON PLANS TO BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.

32 LIGHT POLES INSTALLED BEHIND THE CURB NEED TO BE SET 30 INCHES BACK FROM FACE OF CURB TO CENTER OF POLE, SO TO MEET THE MINIMUM DISTANCE OF 24 INCHES FROM THE CURB FACE TO THE CURB SIDE FACE OF THE POLE.

33 ON ALL NEW STREET LIGHT POLES A PLAQUE WITH THE POLE NUMBER AS SHOWN ON THE PLANS SHALL BE AFFIXED ONTO THE POLE SHAFT AS PART OF POLE INSTALLATION.

SHEET 3 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

REVISION BY: dkozel REVISION DATE: 12-DEC-2022 09:08
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

## STREET LIGHTING GENERAL NOTES:

34 ALL WIRE CONNECTIONS REQUIRE ANTI-OXIDANT TO BE APPLIED TO THE CONNECTIONS

35 ALL HARDWARE NUT AND BOLT CONNECTIONS REQUIRE ANTI SEIZE TO BE APPLIED TO THEM

36 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/ VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - NEAL KARWEIK (OFFICE 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

37 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONCRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - NEAL KARWEIK (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
STREET LIGHTING - STEVEN RHODA (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

38 CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS FOR ALL WORK BEING DONE DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE (.PDF FORMAT) COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE CITY OF MILWAUKEE DPW ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

39 CONTRACTOR TO DELIVER THE FOLLOWING REMOVED STREET LIGHTING MATERIALS:
-ALUMINUM AND WOOD POLES
-LUMINAIRE BRACKET ARMS
-LUMINAIRES
-BREAKAWAY TRANSFORMER PEDESTALS
-WIRING PEDESTALS ( GREEN IN COLOR )
TO CITY OF MILWAUKEE STREET LIGHTING YARD AT 1540 W. CANAL ST.
CALL RICO LOPEZ AT 414-286-5983 ( CANAL OFFICE ) OR 414-286-6123 ( DPW FIELD OFFICE ) OR DISPATCHER AT 414-286-5944
THREE (3) WORKING DAYS BEFORE TO COORDINATE DELIVERY OF MATERIALS

40 CONTRACTOR WILL BE RESPONSIBLE FOR THE DISPOSAL OF CONCRETE POLES, CONCRETE BASES, AND WIRING.

41 CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

42 ONLY WHEN THE CITY OF MILWAUKE IS FURNISHING MATERIALS FOR A PROJECT THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE STREET LIGHTING SHOP YARD CONTACT PERSON FOUR (4) WORKING DAYS BEFORE, AND WILL NEED TO PROVIDE THE EXACT QUANTITY OF MATERIALS NEEDED. THE ADVANCE NOTICE WILL ALLOW THE SHOP TO GATHER THE REQUEST ITEMS FOR THE CONTRACTOR TO PICK UP AND SIGN FOR TAKING POSSESSION OF THE MATERIALS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MATERIALS THAT THEY TAKE POSSESSION OF AND FOR THE ANY RETURNING OF ANY UNSED MATERIALS BACK TO THE SHOP IN GOOD CONDITION. IF ANY MATERIALS COME BACK DAMAGED OR BROKEN THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING THE BROKEN OR DAMAGED ITEMS.

STREET LIGHTING SHOP YARD CONTACT PERSON:
NEAL KARWEIK 414-286-5943 (OFFICE) 414-708-4245 (CELL)
ALL THE MATERIALS MUST BE EITHER PICKED OR DROPPED OFF ALL AT ONE TIME.
THE STREET LIGHTING SHOP YARD HOURS FOR PICKING UP MATERIALS IS FROM 8AM TO 2PM: MONDAY THROUGH FRIDAY.

CONTRACTOR MUST BE OUT OF THE SHOP YARD BY 2PM NO LATER.

## STREET LIGHTING GENERAL NOTES:

### AS-BUILT GUIDELINES:

PROVIDE AS-BUILT DRAWINGS DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE PDF COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

UPON PROJECT COMPLETION, FOLLOW THE WISDOT REQUIREMENTS PER CMM 165.12 AS-BUILT PLANS, THE PROJECT ENGINEER AND/OR ELECTRICAL CONTRACTOR SHALL SUBMIT AN ELECTRONIC AS-BUILT PLAN. ANY CHANGES FROM THE AS-LET PLAN THAT WERE BUILT INTO THE PROJECT SHOULD BE RECORDED IN RED USING ADOBE ACROBAT PROFESSIONAL OR EQUIVALENT SOFTWARE. DO NOT SCAN FIELD NOTES TO CREATE THE DIGITAL AS-BUILT PLAN.

IF THERE IS A STRUCTURE DRAWING, INCLUDE ALL STRUCTURES DRAWING SHEETS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSERT ANY ADDENDUM OR REPLACEMENT DRAWING SHEETS. TO DO THIS, RENUMBER THEM SIMILARLY TO THE ORIGINAL DRAWING SHEET.
FOR EXAMPLE:
REVISED SHEET 5 WOULD REPLACE SHEET 5. HOWEVER, ALL THE ORIGINAL SHEETS SHALL REMAIN IN THE AS-BUILT. IF THE SHEET HAS BEEN REPLACED CROSS IT OUT WITH AN X AND INDICATE THE NUMBER OF ITS REPLACEMENT SHEET. IF ADDITIONAL SHEETS WERE ADDED, INSERT THEM IN THE ORIGINAL LOCATION AND LABEL THEM WITH THE PREVIOUS SHEET NUMBER FOLLOWED BY AN "A", "B", "C", ETC.

NOTE THE SHEET CHANGES ON THE TITLE SHEET UNDER THE ORDER OF SHEETS.

THE TITLE SHEET OF THE AS-BUILT DRAWING SHOULD INCLUDE THE FOLLOWING INFORMATION:
AS-BUILT DRAWING
SUPERVISOR:
PROJECT MANAGER:
CONTRACTOR LEADER:
CONTRACTOR COMAPNY:
WORK STARTED:
WORK COMPLETED:

LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHEREVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONS MAY BE SHOWN ON SUPPLEMENTAL NON-DRAWING SHEETS.

- LOCATE AND CLEARLY LABEL ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO DIRECTIONS. SWING TIES SHOULD BE MADE FROM THE OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3').
  ALL VERTICAL DISTANCES SHALL BE TO THE NEAREST INCH (I.E., 24")
- SHOW LOCATION AND ELEVATIONS ON CONDUIT AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS MAY BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED CONSTRUCTION DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
- TYPICAL SERVICE INSTALLATION DETAILS WITH DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- NO ARBITRARY MARK-UPS WILL BE PERMITTED.

IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET WITH ALL OTHER REQUIRED AS-BUILT INFORMATION.

BY MAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER
TONY KOTECKI
841 NORTH BROADWAY, ROOM 701
MILWAUKEE, WISCONSIN 53202

BY EMAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER
TONY KOTECKI
AKOTEC@MILWAUKEE.GOV

SHEET 4 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 12-DEC-2022 09:18
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

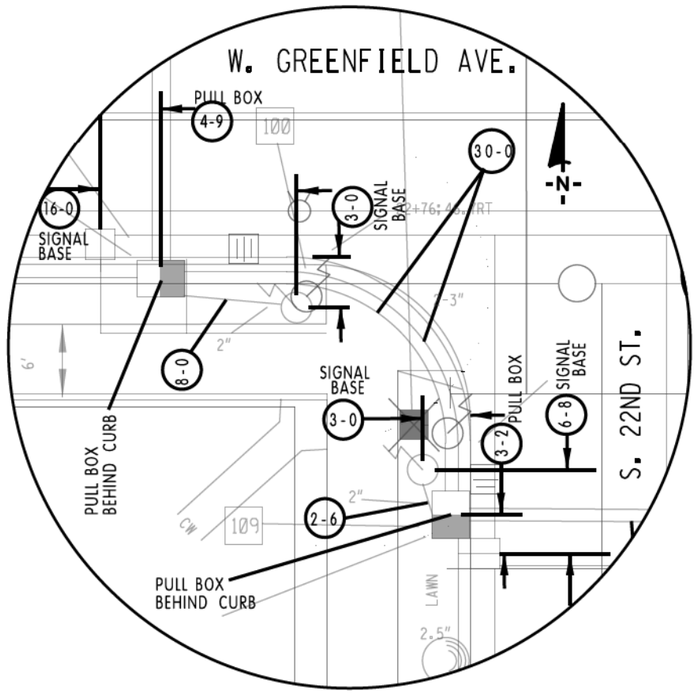
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 313 | E |
|---|---|---|---|---|---|

# USE RED INK TO DO AS-BUILTS

## RECORD RETENTION GUIDELINES:

- CONTRACTOR TO LOCATE AND CLEARLY DIMENSION ALL OF THERE NEWLY INSTALLED CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO (2) DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (I.E. 24").
- SHOW LOCATION AND ELEVATIONS OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
- DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET.

SUPERVISOR: _____
PROJECT MANAGER: _____
CONTRACTOR LEADER: _____
CONTRACTOR COMPANY: _____
WORK STARTED: _____
WORK COMPLETED: _____




FIELD RECORD EXAMPLE DETAIL NOT TO SCALE

TYPICAL DIMENSIONING OF CONDUIT, PULL BOXES, AND CONCRETE BASES

## MEASURING GUIDE LINES

IF CONDUIT IS NOT PLACED DIRECTLY BEHIND THE CURB IN THE ISLANDS & SIDE TERRACE AREAS, A MEASURED DISTANCE FROM THE FACE OF CURB TO THE CONDUIT WILL NEED TO BE PROVIDED.

PROVIDE A MEASURED DISTANCE OF UNINTERRUPTED CONDUIT RUNS

USE PERMANENT OBJECTS LIKE HYDRANTS, CATCH BASINS, OR EVEN CURB FACE LINES EXTENED TO MEASURE OFF WHEN LOCATING CONDUIT, PULL BOXES AND CONCRETE BASES.

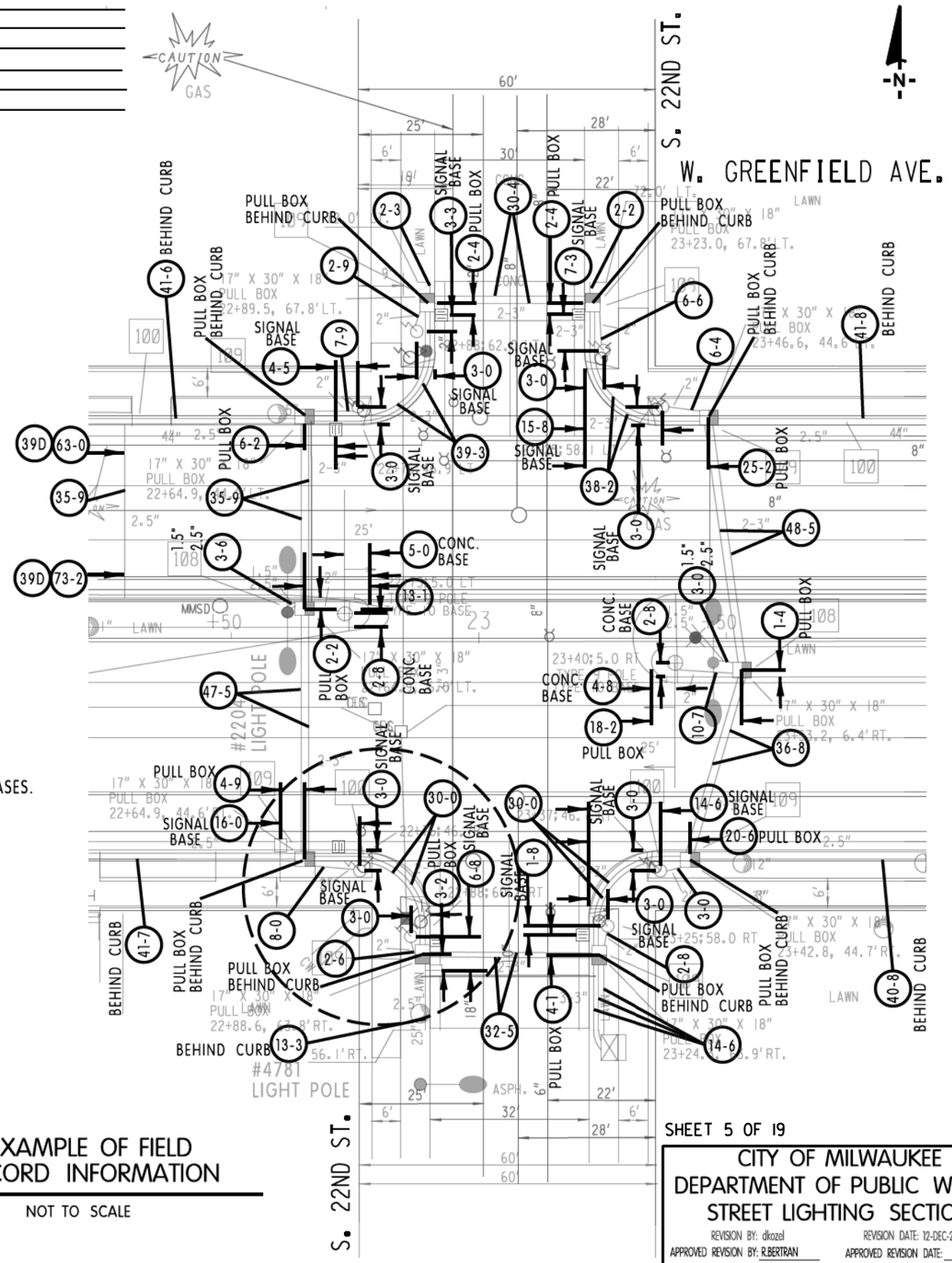
MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

(39D) MEANS = CONDUIT IS 39" DEEP

(48-5) MEANS = LENGTH OF CONDUIT IS 48.5 FT. LONG (MEASURED TO NEAREST TENTH OF A FOOT)

OR

(25-6) MEANS = DISTANCE OF 25.6 FT. BETWEEN PERMANENT OBJECT OR CURB FACE TO CONDUIT, PULL BOX, AND CONCRETE BASE (MEASURED TO NEAREST TENTH OF A FOOT)




EXAMPLE OF FIELD RECORD INFORMATION

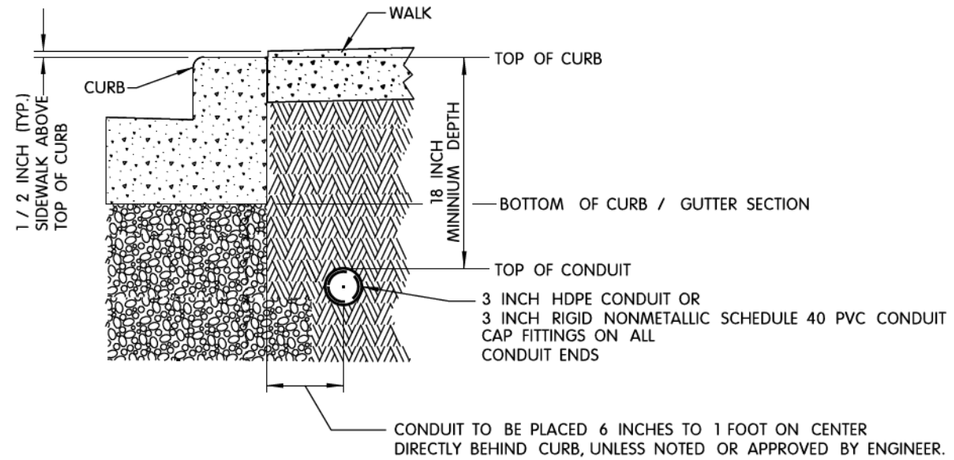
NOT TO SCALE

SHEET 5 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 12-DEC-2022 09:26
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 314 | E |
|---|---|---|---|---|---|

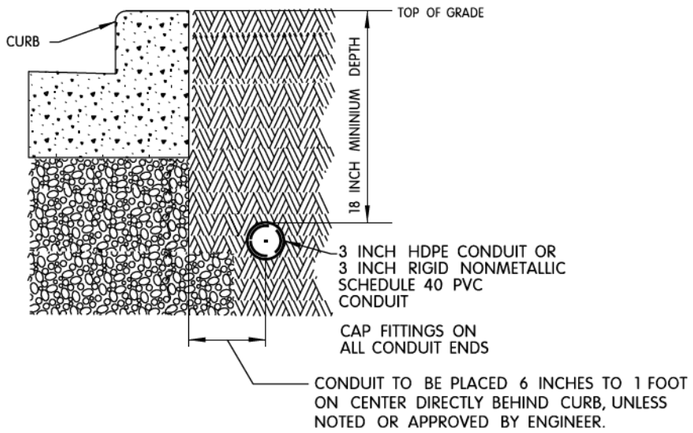
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.




100 DETAIL "A" NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB UNDER WALK

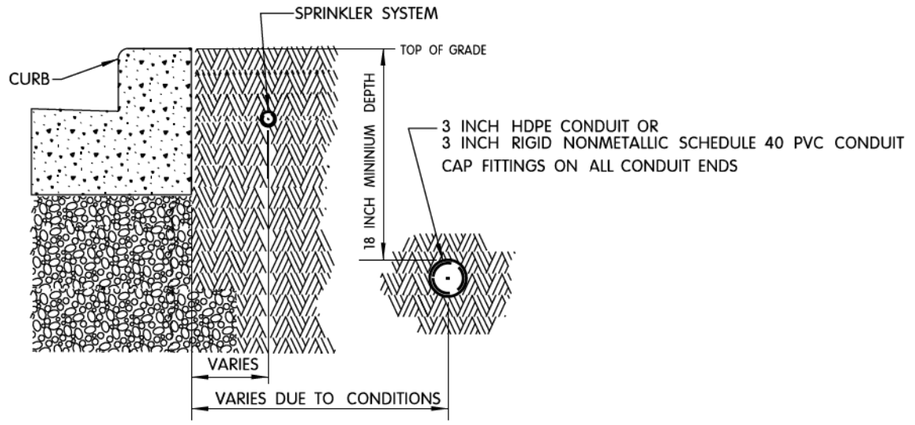
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.




100 DETAIL "B" NOT TO SCALE

TYPICAL CONDUIT INSTALLATION
BEHIND CURB IN GRASS AREA

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.




100 DETAIL "C" NOT TO SCALE

TYPICAL CONDUIT INSTALLATION WITH
OTHER UTILITIES BEHIND CURB

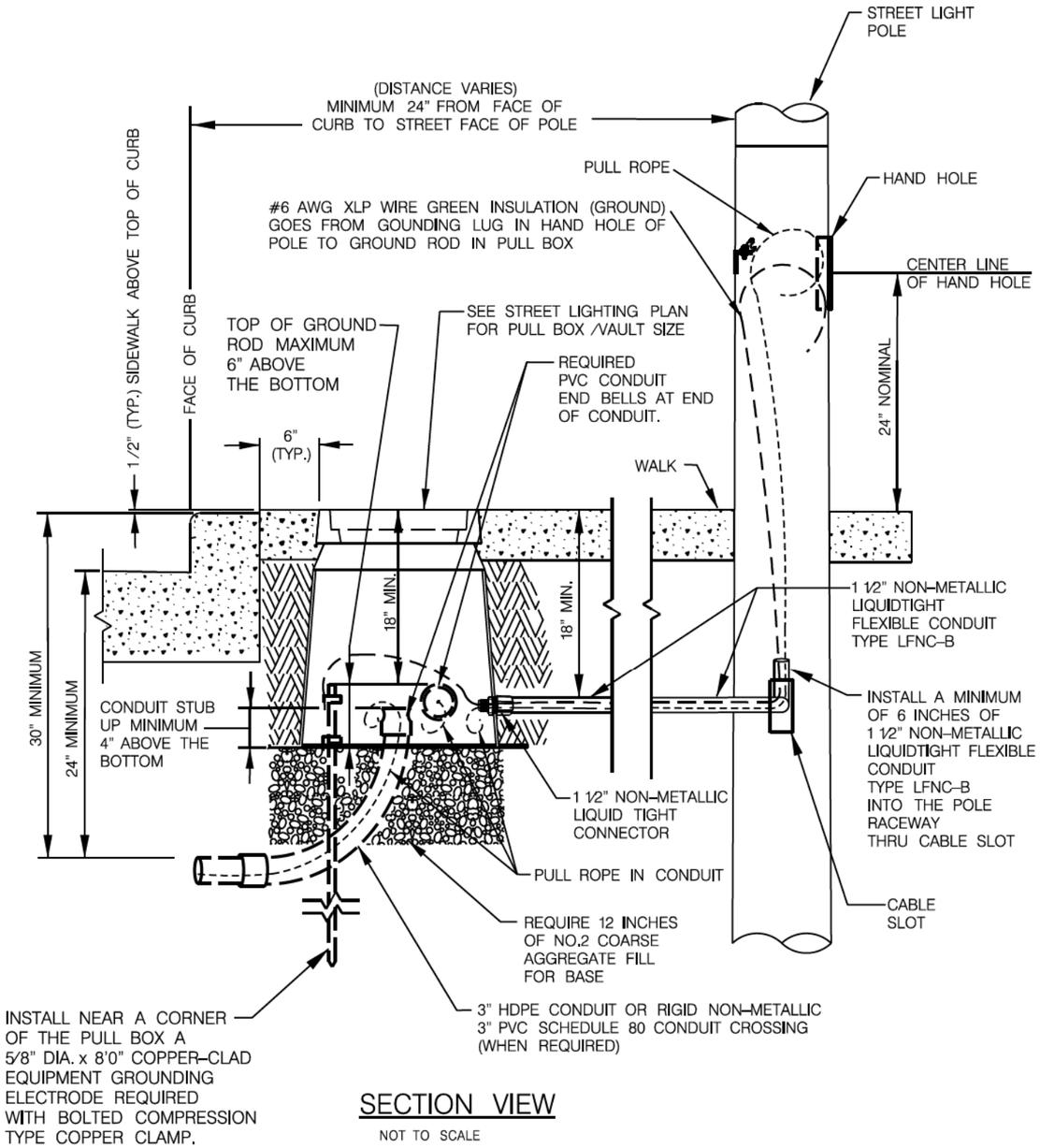
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 6 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

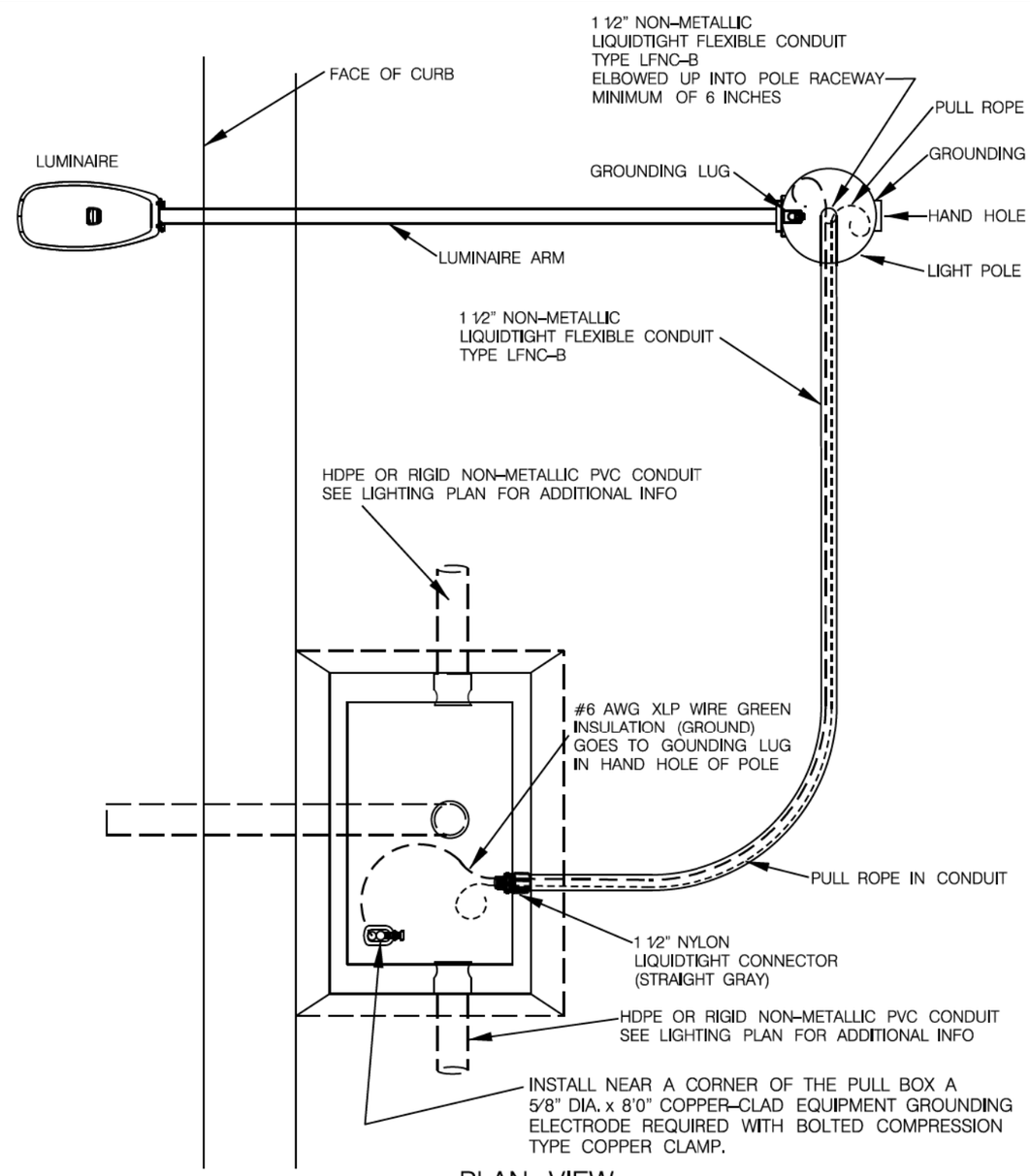
REVISION BY: dkozel REVISION DATE: 12-DEC-2022 09:38
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 315 | E |
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SECTION VIEW

NOT TO SCALE




PLAN VIEW

NOT TO SCALE

108

DETAIL VERSION

# TYPICAL CONDUIT INSTALLATION FROM PULL BOX /VAULT TO DIRECT BURIED POLE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

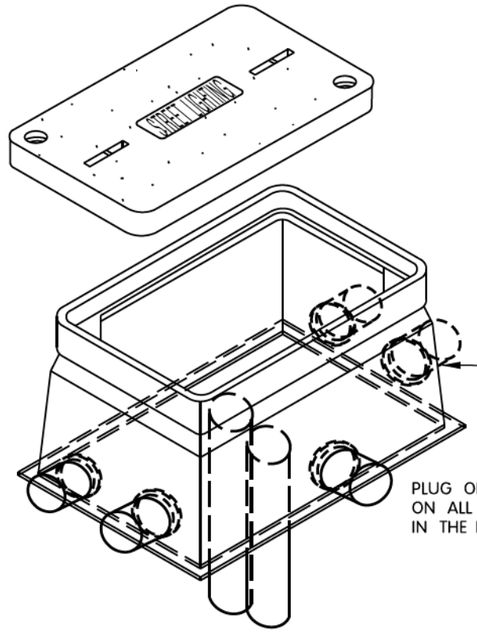


CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

REVISION BY: dkozel REVISION DATE: 17-MAR-2023 06:25
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.17-2023



FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave - 6th to Clement\Details\Howard Ave - 6th to Clement Details.dgn PLOT DATE : 7-AUG-2023 11:06 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

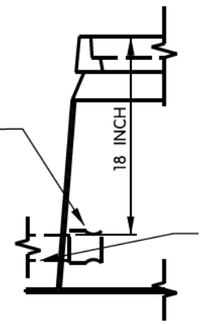


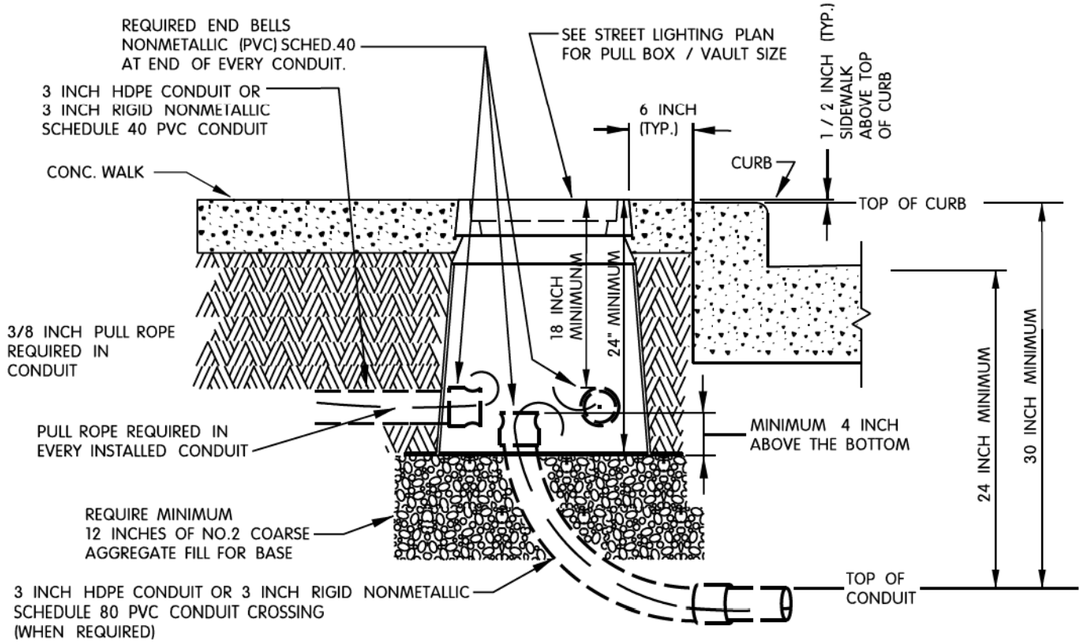

HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 PENTA BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

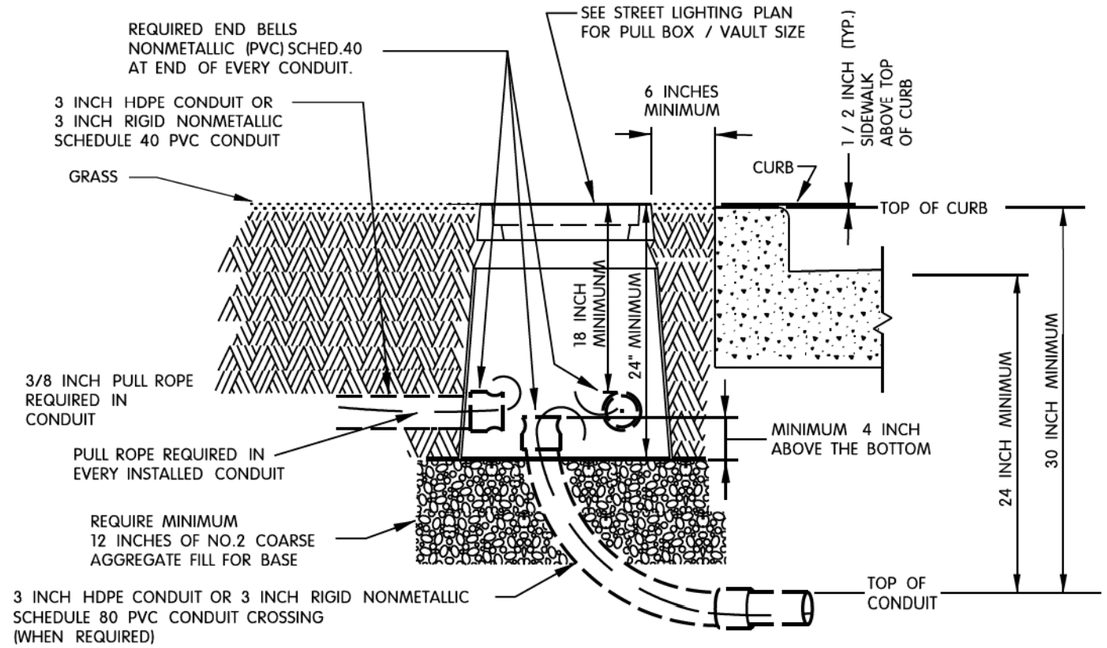
PULL BOX / VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)

REQUIRED END BELLS
NONMETALLIC (PVC) SCHED.40
AT END OF EVERY CONDUIT.

PLUG OR CAP FITTINGS
ON ALL UNUSED CONDUITS
IN THE ENCLOSURE



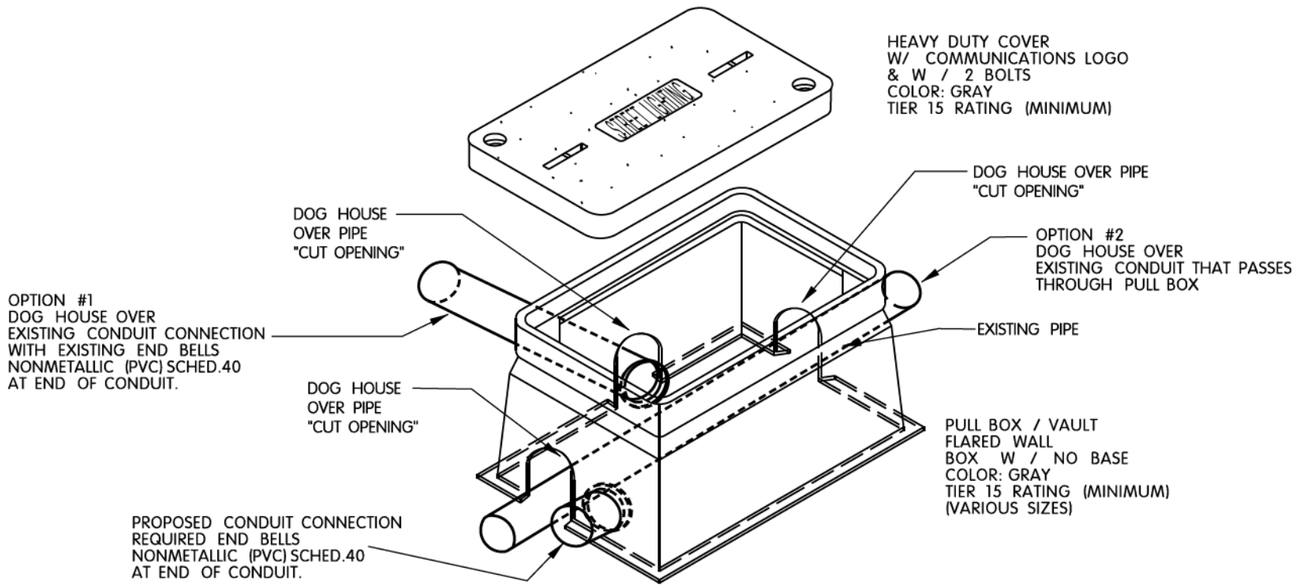

112 DETAIL — NOT TO SCALE

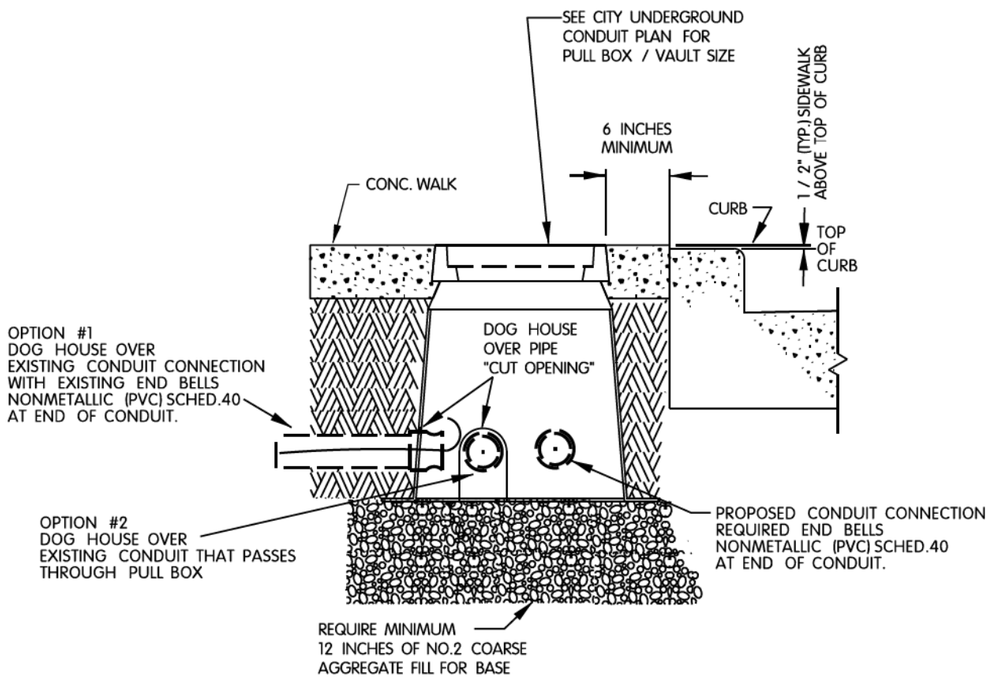
TYPICAL PULL BOX / VAULT INSTALLATION
IN EITHER PAVEMENT OR GRASS AREAS

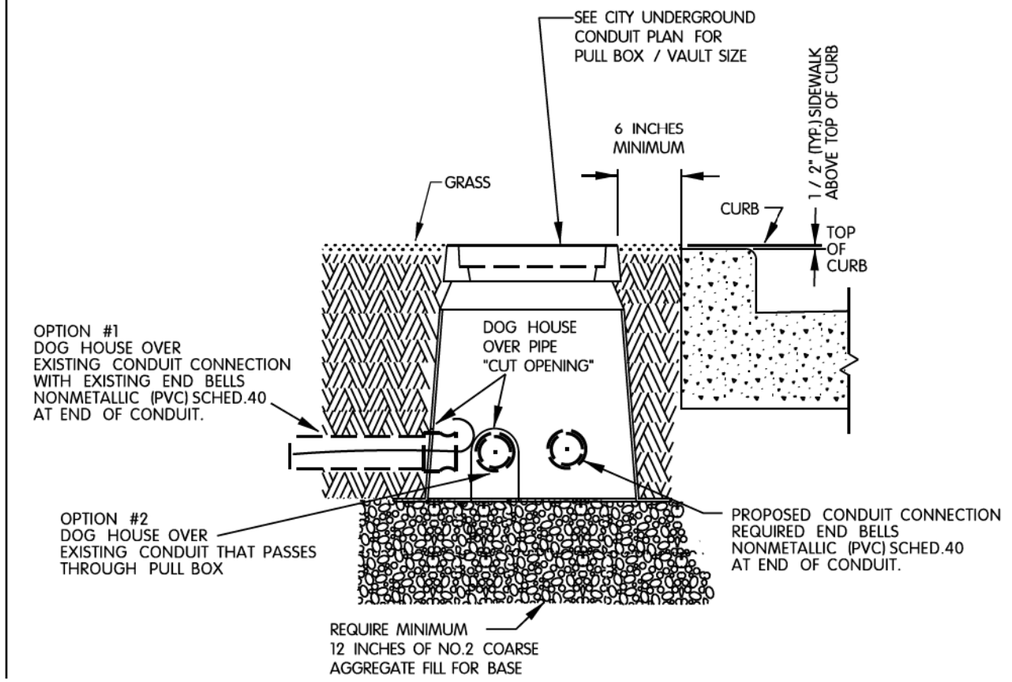
SHEET 8 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel — REVISION DATE: 12-DEC-2022 09:42
APPROVED REVISION BY: R.BERTRAN — APPROVED REVISION DATE: DEC.12-2022

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.




113 DETAIL FOR TYPES OF DOG HOUSING OVER EXISTING CONDUIT — NOT TO SCALE

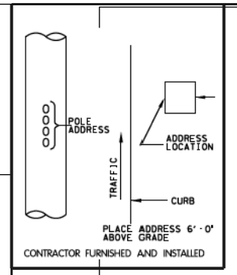
TYPICAL PULL BOX / VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

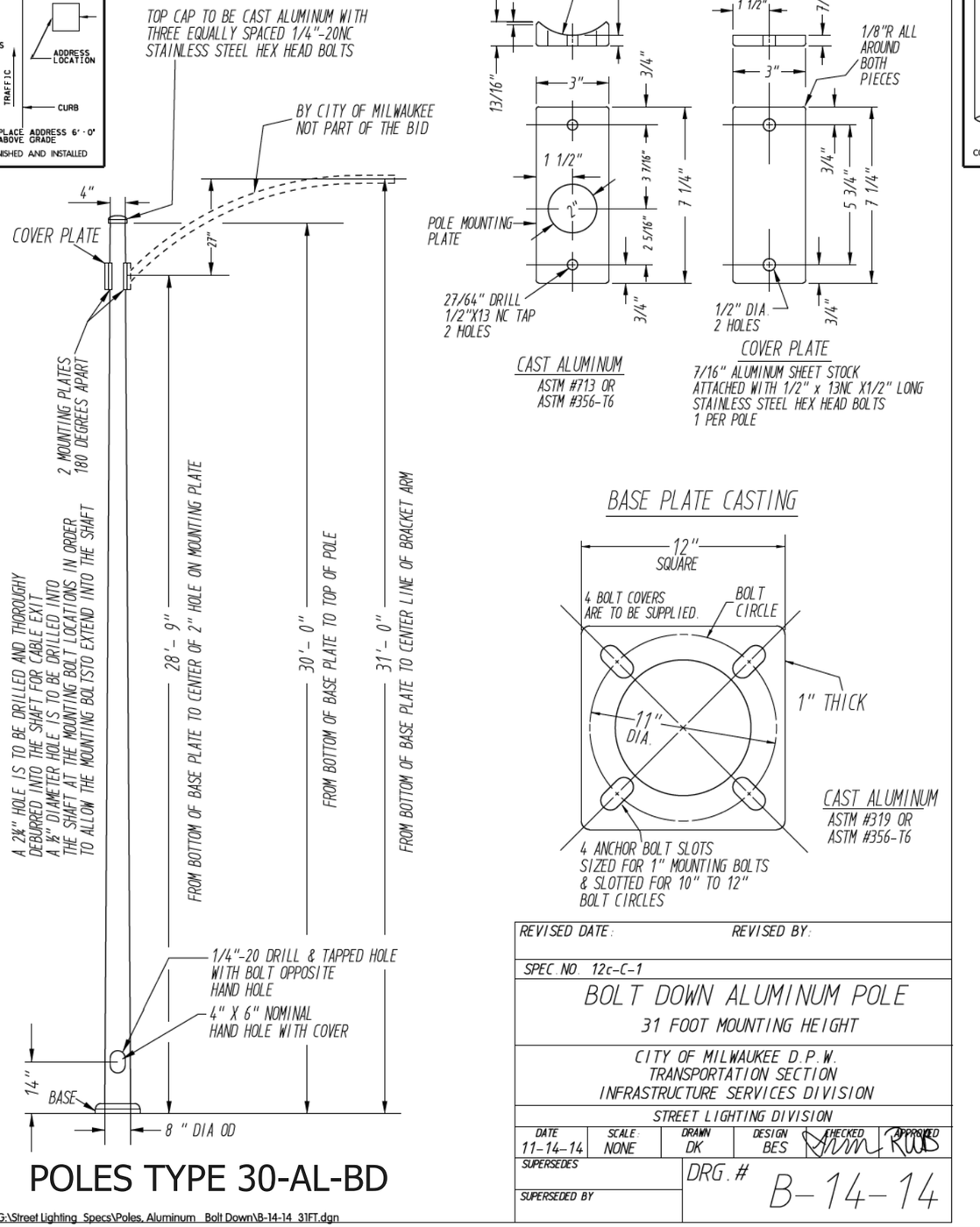
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 9 OF 19

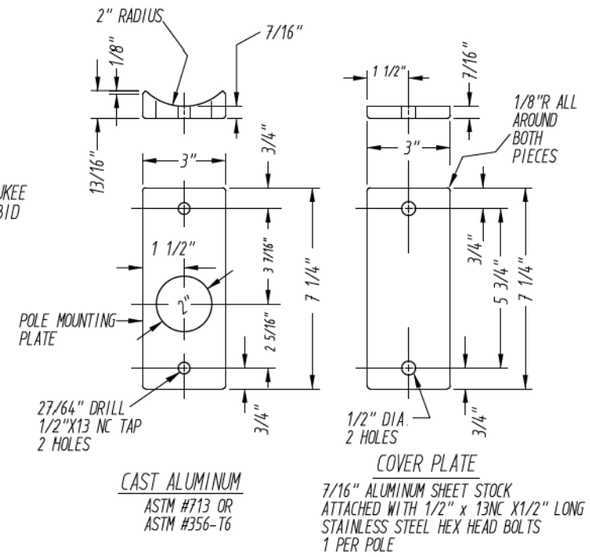
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 3-MAR-2023 11:43
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.01-2023

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 318 | E |
|---|---|---|---|---|---|




# POLES TYPE 30-AL-BD




CAST ALUMINUM
ASTM #713 OR
ASTM #356-T6

COVER PLATE
7/16" ALUMINUM SHEET STOCK ATTACHED WITH 1/2" x 13NC X1/2" LONG STAINLESS STEEL HEX HEAD BOLTS
1 PER POLE

## BASE PLATE CASTING




CAST ALUMINUM
ASTM #319 OR
ASTM #356-T6

| REVISED DATE: | REVISED BY: |
|---|---|
| SPEC. NO. 12c-C-1 | |

BOLT DOWN ALUMINUM POLE
31 FOOT MOUNTING HEIGHT

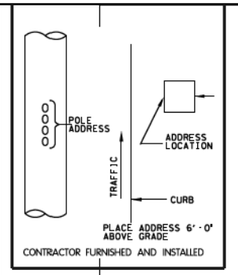
CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

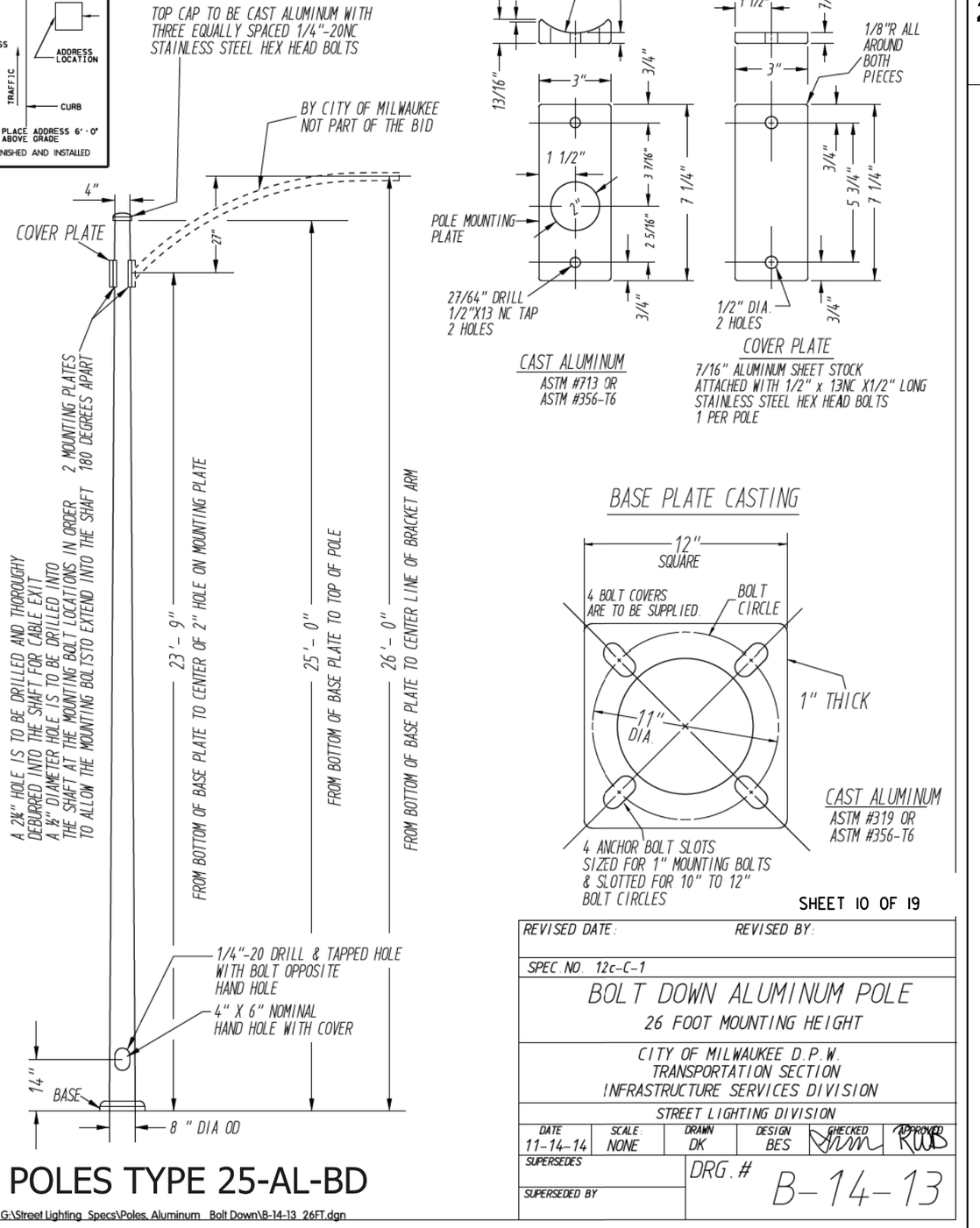
| DATE | SCALE: | DRAWN | DESIGN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-14-14 | NONE | DK | BES | | |

SUPERSEDES
SUPERSEDED BY

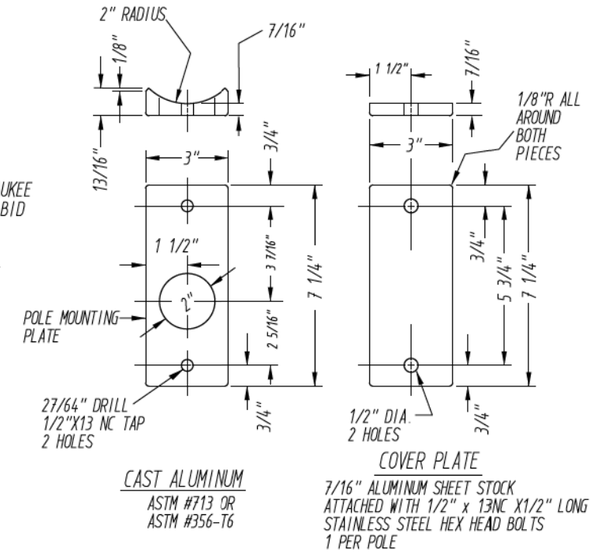
DRG. # B-14-14

G:\Street Lighting Specs\Poles, Aluminum Bolt Down\B-14-14 31FT.dgn




# POLES TYPE 25-AL-BD




CAST ALUMINUM
ASTM #713 OR
ASTM #356-T6

COVER PLATE
7/16" ALUMINUM SHEET STOCK ATTACHED WITH 1/2" x 13NC X1/2" LONG STAINLESS STEEL HEX HEAD BOLTS
1 PER POLE

## BASE PLATE CASTING




CAST ALUMINUM
ASTM #319 OR
ASTM #356-T6

SHEET 10 OF 19

| REVISED DATE: | REVISED BY: |
|---|---|
| SPEC. NO. 12c-C-1 | |

BOLT DOWN ALUMINUM POLE
26 FOOT MOUNTING HEIGHT

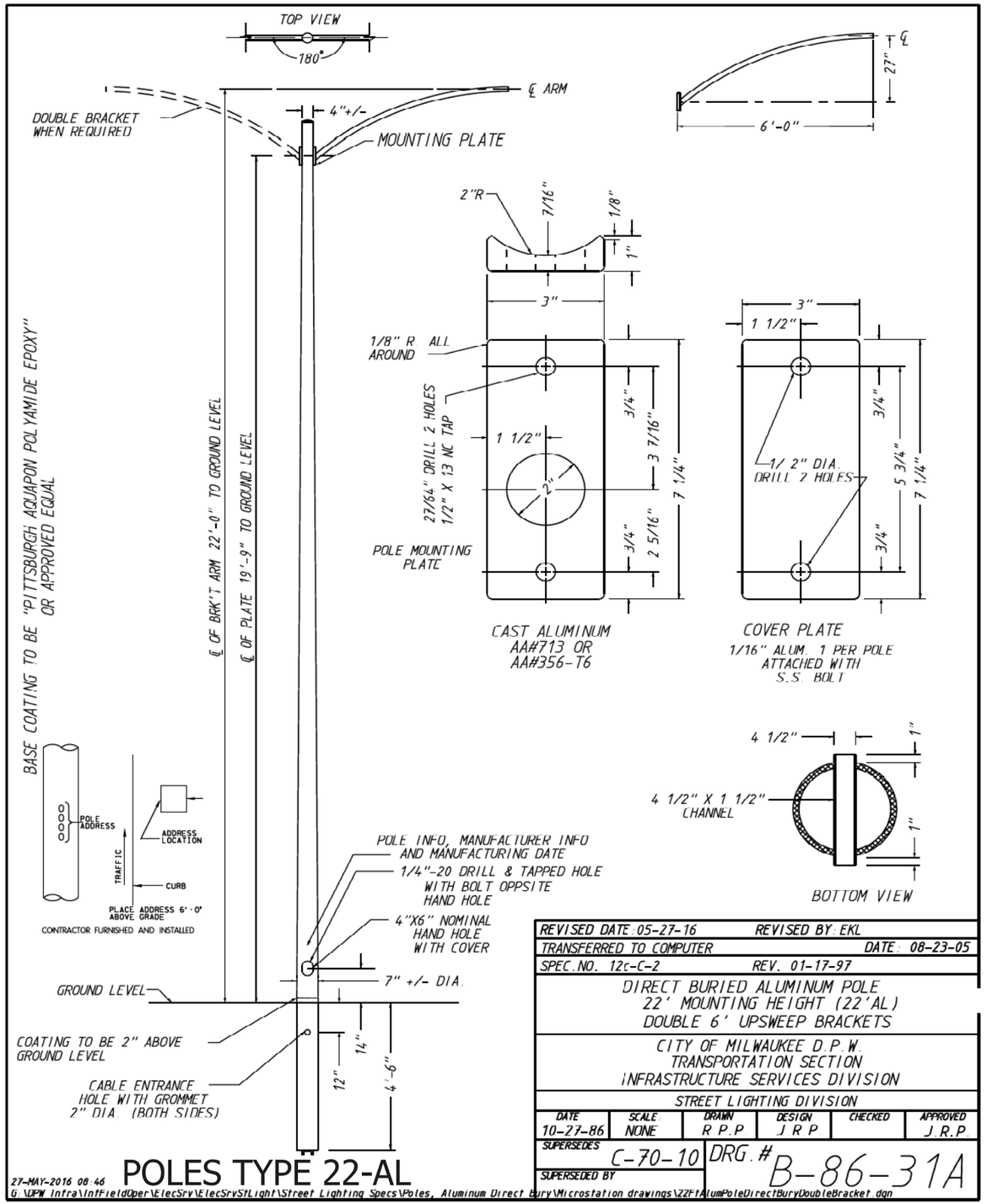
CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION
STREET LIGHTING DIVISION

| DATE | SCALE: | DRAWN | DESIGN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-14-14 | NONE | DK | BES | | |

SUPERSEDES
SUPERSEDED BY

DRG. # B-14-13

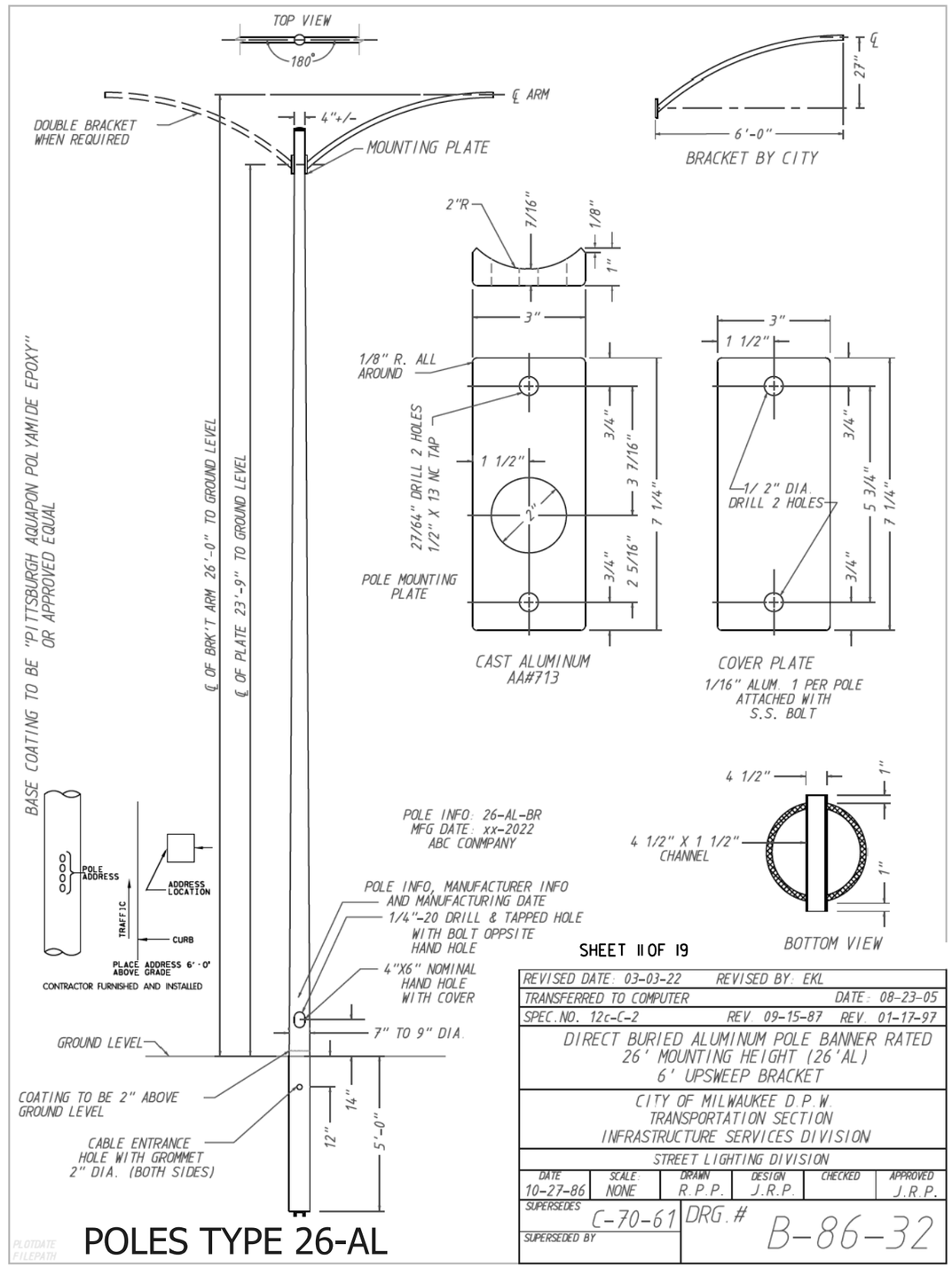
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| | | | | | |
|---|---|---|---|---|---|
| REVISED DATE: 05-27-16 | REVISED BY: EKL | | | | |
| TRANSFERRED TO COMPUTER | | DATE: 08-23-05 | | | |
| SPEC. NO. 12c-C-2 | REV. 01-17-97 | | | | |
| DIRECT BURIED ALUMINUM POLE<br>22' MOUNTING HEIGHT (22'AL)<br>DOUBLE 6' UPSWEEP BRACKETS | | | | | |
| CITY OF MILWAUKEE D.P.W.<br>TRANSPORTATION SECTION<br>INFRASTRUCTURE SERVICES DIVISION | | | | | |
| STREET LIGHTING DIVISION | | | | | |
| DATE: 10-27-86 | SCALE: NONE | DRAWN: R.P.P. | DESIGN: J.R.P. | CHECKED: | APPROVED: J.R.P. |
| SUPERSEDES: C-70-10 | | DRG.# B-86-31A | | | |
| SUPERSEDED BY: | | | | | |

27-MAY-2016 08:46
G:\DPW Infra\InfFieldOper\ElecSrv\ElecSrvStLight\Street Lighting Specs\Poles, Aluminum Direct Bury\Microstation drawings\22FtAlumPoleDirectBuryDoubleBracket.dgn

# POLES TYPE 22-AL

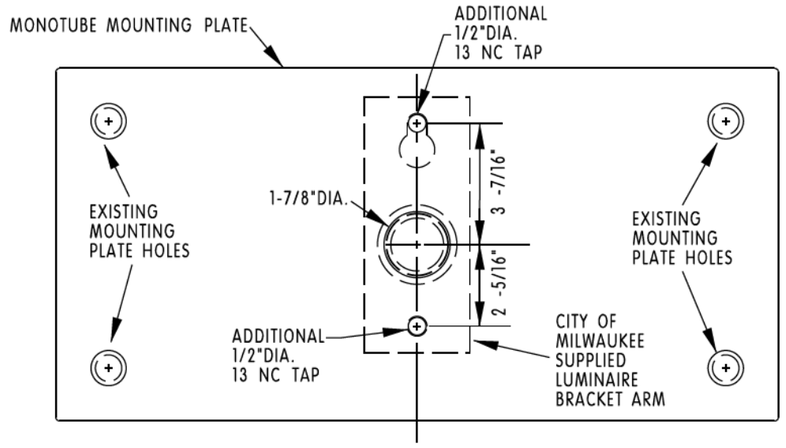



SHEET 11 OF 19

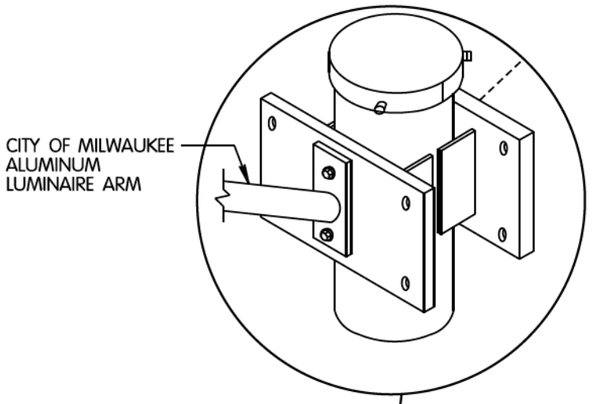
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| TRANSFERRED TO COMPUTER | | DATE: 08-23-05 | | | |
| SPEC. NO. 12c-C-2 | REV. 09-15-87 | REV. 01-17-97 | | | |
| DIRECT BURIED ALUMINUM POLE BANNER RATED<br>26' MOUNTING HEIGHT (26'AL)<br>6' UPSWEEP BRACKET | | | | | |
| CITY OF MILWAUKEE D.P.W.<br>TRANSPORTATION SECTION<br>INFRASTRUCTURE SERVICES DIVISION | | | | | |
| STREET LIGHTING DIVISION | | | | | |
| DATE: 10-27-86 | SCALE: NONE | DRAWN: R.P.P. | DESIGN: J.R.P. | CHECKED: | APPROVED: J.R.P. |
| SUPERSEDES: C-70-61 | | DRG.# B-86-32 | | | |
| SUPERSEDED BY: | | | | | |

PLOTDATE
FILEPATH

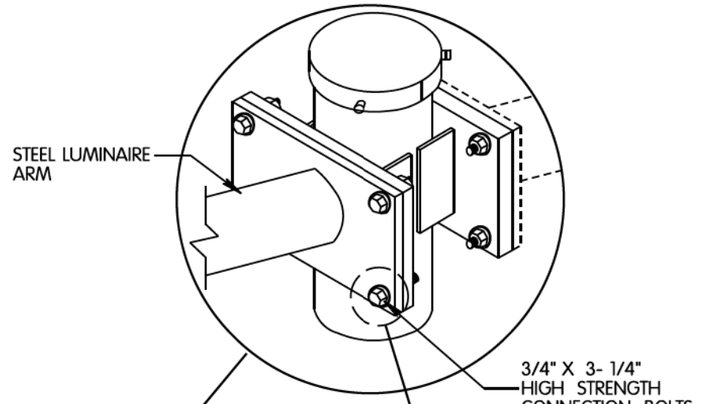
# POLES TYPE 26-AL



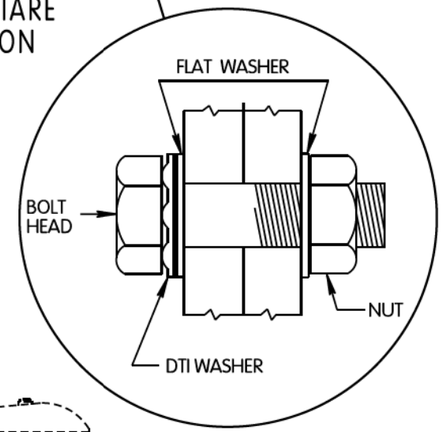

ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE
NOT TO SCALE



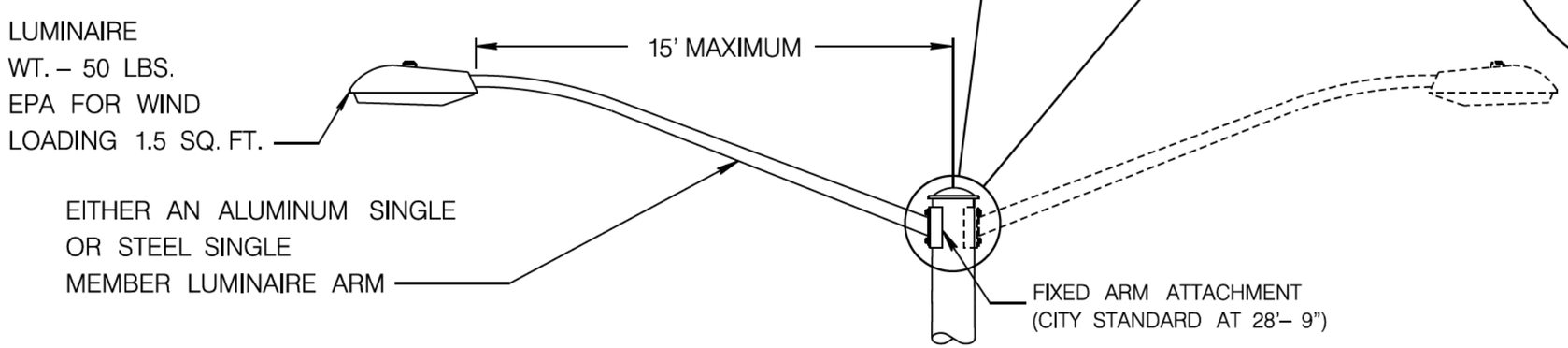

ALUMINUM LUMINIARE ARM OPTION




STEEL LUMINIARE ARM OPTION




RECOMMENDED BOLT ASSEMBLY DETAIL

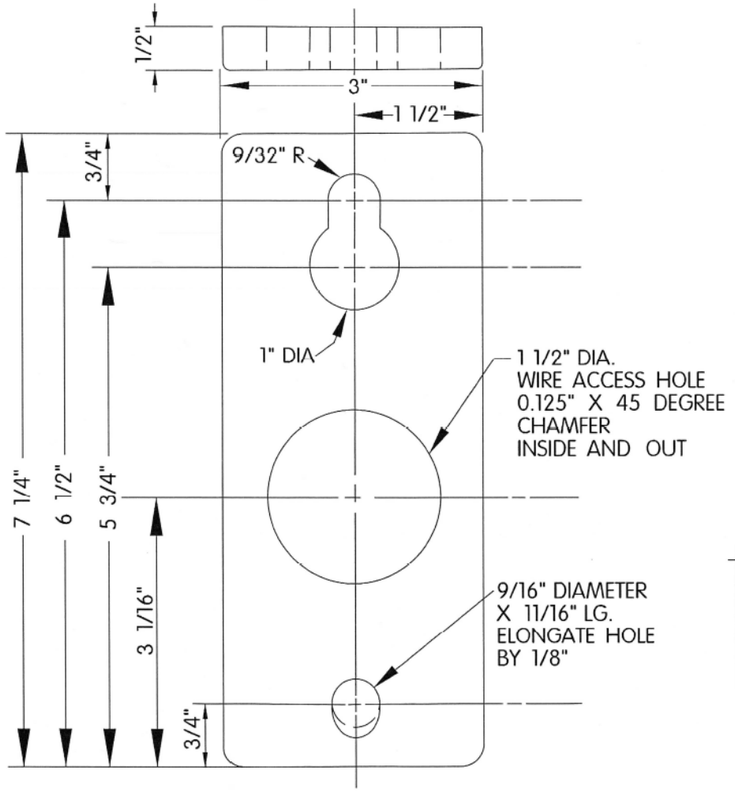



140 DETAIL — NOT TO SCALE

ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR
POLES: TYPE 10
TYPE 13 SPECIAL
TYPE 13

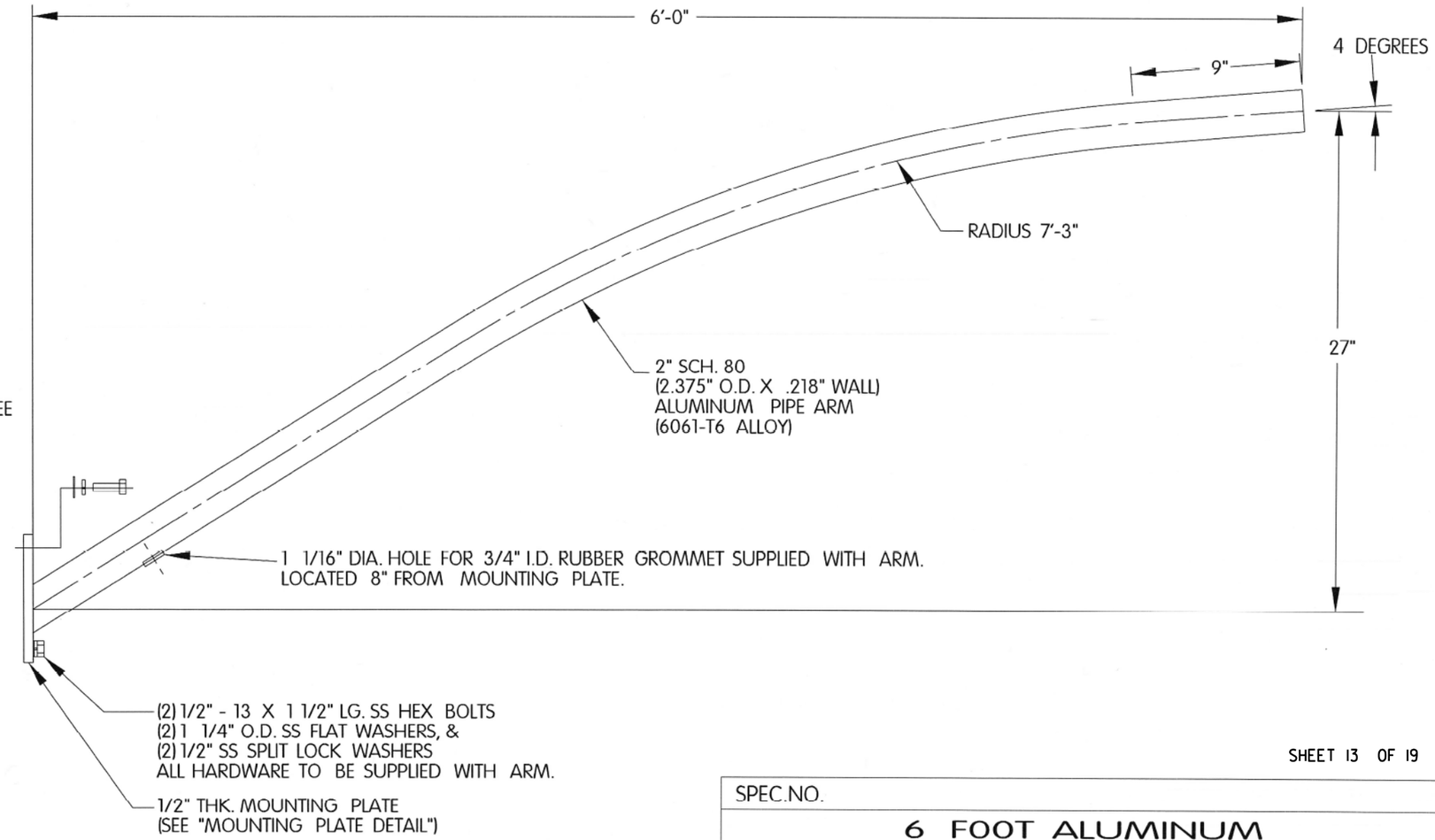
SHEET 12 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 23-MAR-2023 07:53
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.03-2023




MOUNTING PLATE DETAIL "ES #436"
1/2" THK. ALUMINUM
(6061-T6 ALLOY)

NOTE:
1" I.D. RUBBER GROMMET PROVIDED
FOR USE IN POLE SHAFT




SHEET 13 OF 19

SPEC.NO.

# 6 FOOT ALUMINUM UPSWEEP BRACKET

6'-0" X 27" X 2.4 SGL PIPE 3" X 7.25" PLMT
MATERIAL: ALUMINUM ALLOY, FINISH: SATIN

CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION

STREET LIGHTING DIVISION

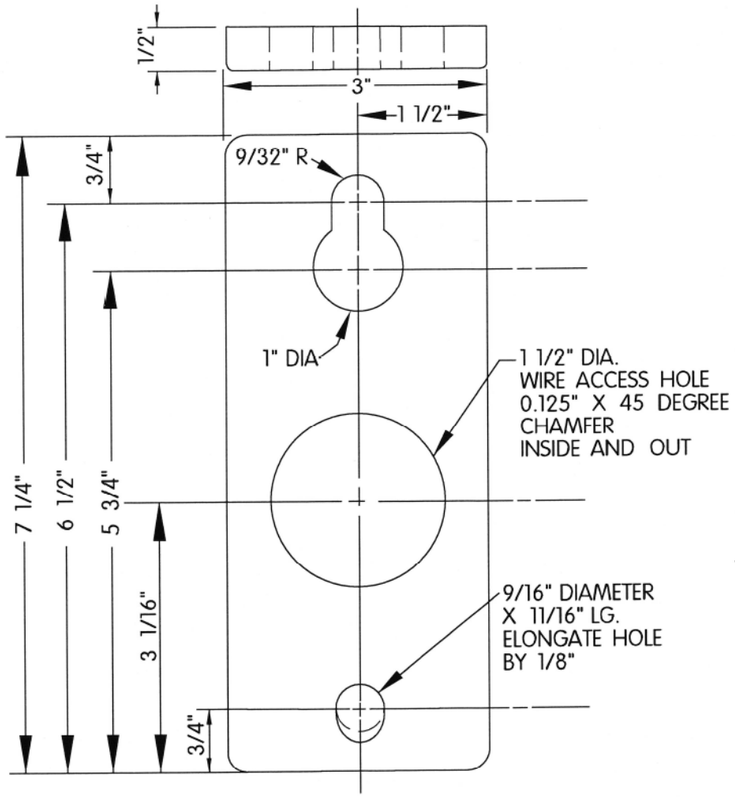
| DATE | SCALE: | DRAWN | DESIGN | CHECKED | APPROVED |
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SUPERSEDES C-80-2

SUPERSEDED BY

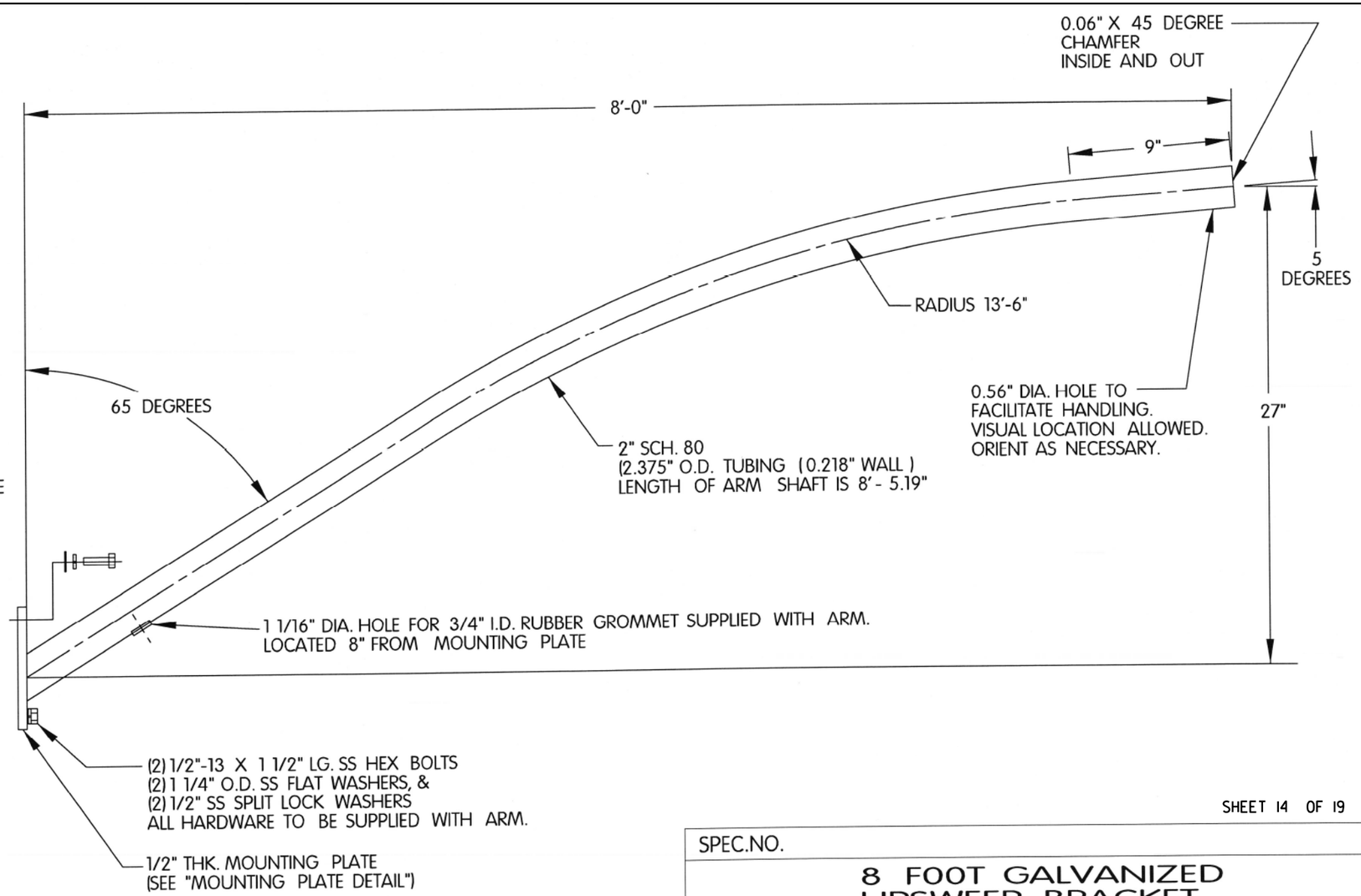
DRG.# C-87-76

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 322 | E |
|---|---|---|---|---|---|




MOUNTING PLATE
DETAIL "ES #436"
1/2" THK. PLATE
ASTM A36

NOTE:
1" I.D. RUBBER GROMMET PROVIDED
FOR USE IN POLE SHAFT




| MATERIAL INFO | | | FINISH INFO |
|---|---|---|---|
| COMPONENT | ASTM DESIGNATION | MIN YIELD (KSI) | BASE COAT: HOT DIP GALVANIZED TO ASTM A123 |
| PIPE ARM | A501, A513, A618 | 36 | PRIME COAT: |
| SIMPLEX PLATE | A36 | 36 | FINISH COAT: |
| CONNECTING BOLTS | TYPE 304 | | COLOR: |
| | | | SPEC: |

SHEET 14 OF 19

SPEC.NO.

# 8 FOOT GALVANIZED UPSWEEP BRACKET

8'-0" X 27" X 2.4 SGL PIPE 3" X 7.25" PLMT
GALVANIZED

CITY OF MILWAUKEE D.P.W.
TRANSPORTATION SECTION
INFRASTRUCTURE SERVICES DIVISION

STREET LIGHTING DIVISION

| DATE | SCALE: | DRAWN | DESIGN | CHECKED | APPROVED |
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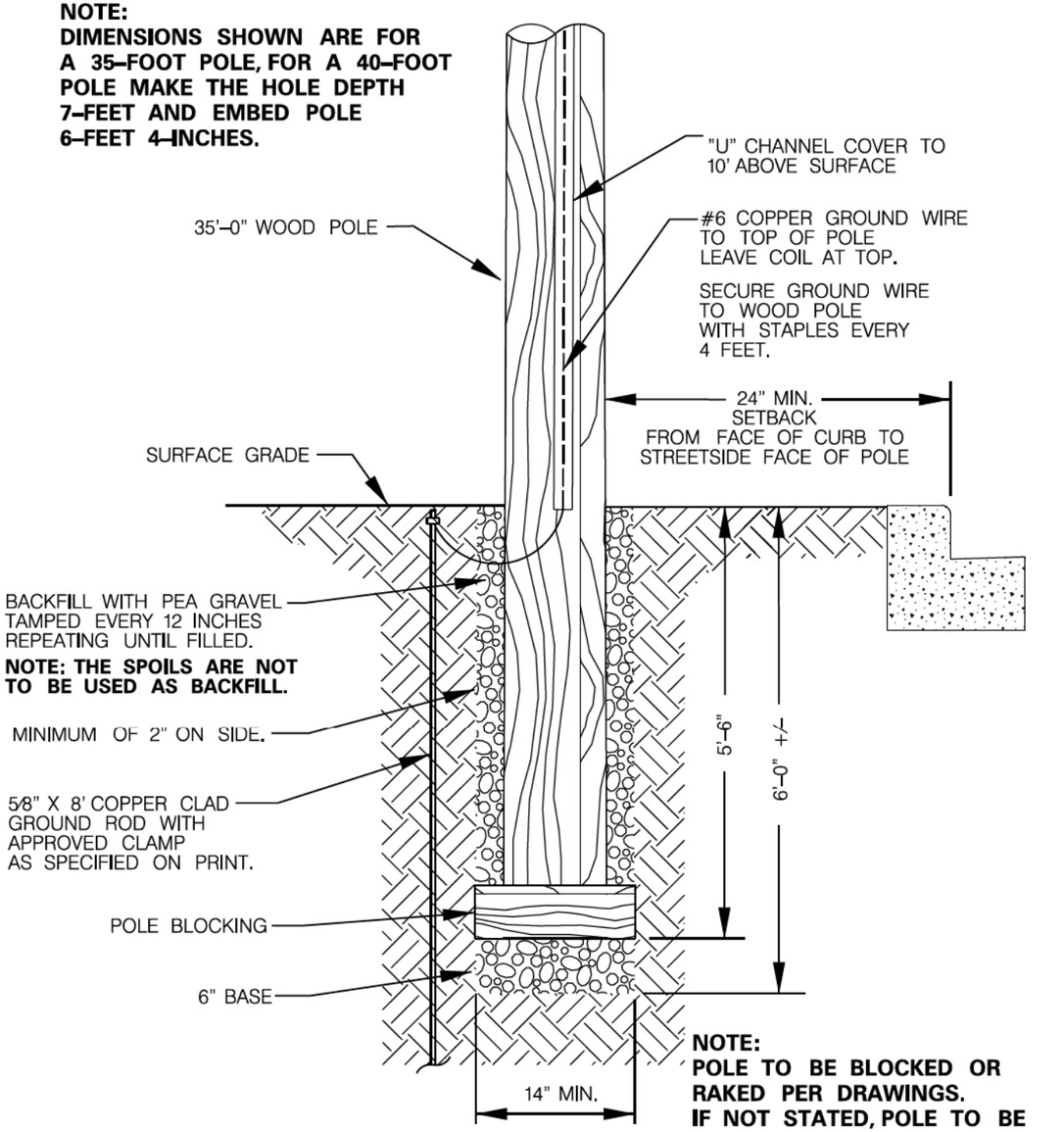
SUPERSEDES

SUPERSEDED BY

DRG.# C-22-26

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 323 | E |
|---|---|---|---|---|---|

**NOTE:**
**DIMENSIONS SHOWN ARE FOR A 35–FOOT POLE, FOR A 40–FOOT POLE MAKE THE HOLE DEPTH 7–FEET AND EMBED POLE 6–FEET 4–INCHES.**




**NOTE:**
**POLE TO BE BLOCKED OR RAKED PER DRAWINGS.**
**IF NOT STATED, POLE TO BE PERPENDICULAR WITH GROUND**

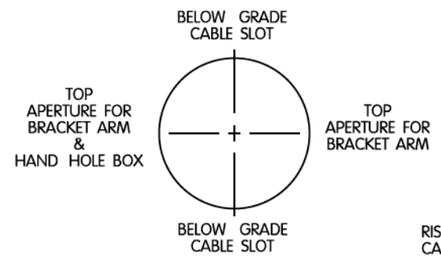
130A DETAIL NOT TO SCALE

TYPICAL 35 FT.WOOD POLE INSTALLATION

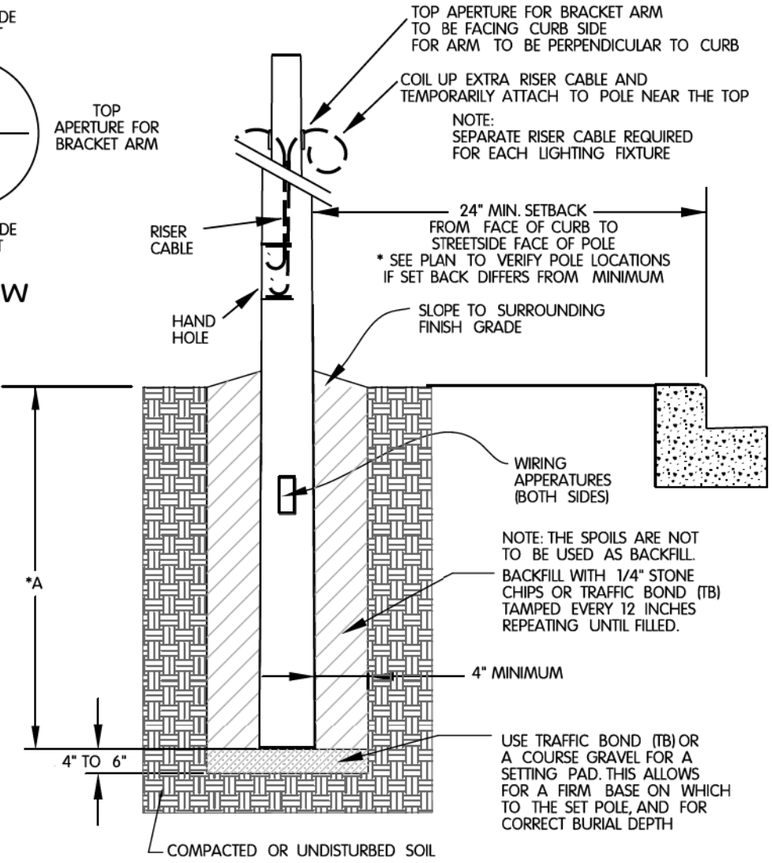
SEE NOTE FOR 40 FOOT POLE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 18-MAY-2023 13:53
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022




TOP VIEW




| Aluminum Pole Burial Depth Chart |
|---|
| FOR DIMENSION *A USE THE FOLLOWING BURIAL DEPTHS DEPENDING ON THE LENGTH OF THE POLE. |
| 21 FT. AL. = 26 FT. POLE LENGTH<br>BURIED DEPTH = 5 FT. |
| 26 FT. AL. = 31 FT. POLE LENGTH<br>BURIED DEPTH = 5 FT. - 6 INCHES |
| 31 FT. AL. = 36 FT. 10 INCHES POLE LENGTH<br>BURIED DEPTH = 6 FT. - 4 INCHES |

| RISER CABLE LENGTH CHART |
|---|
| INTERNAL RISER CABLE IS COPPER 2#12UF WITH GROUND |
| 21 FT. = 30 FT. OF CABLE |
| 26 FT. = 35 FT. OF CABLE |
| 31 FT. = 40 FT. OF CABLE |

130B DETAIL NOT TO SCALE

TYPICAL ALUMINUM POLE INSTALLATION

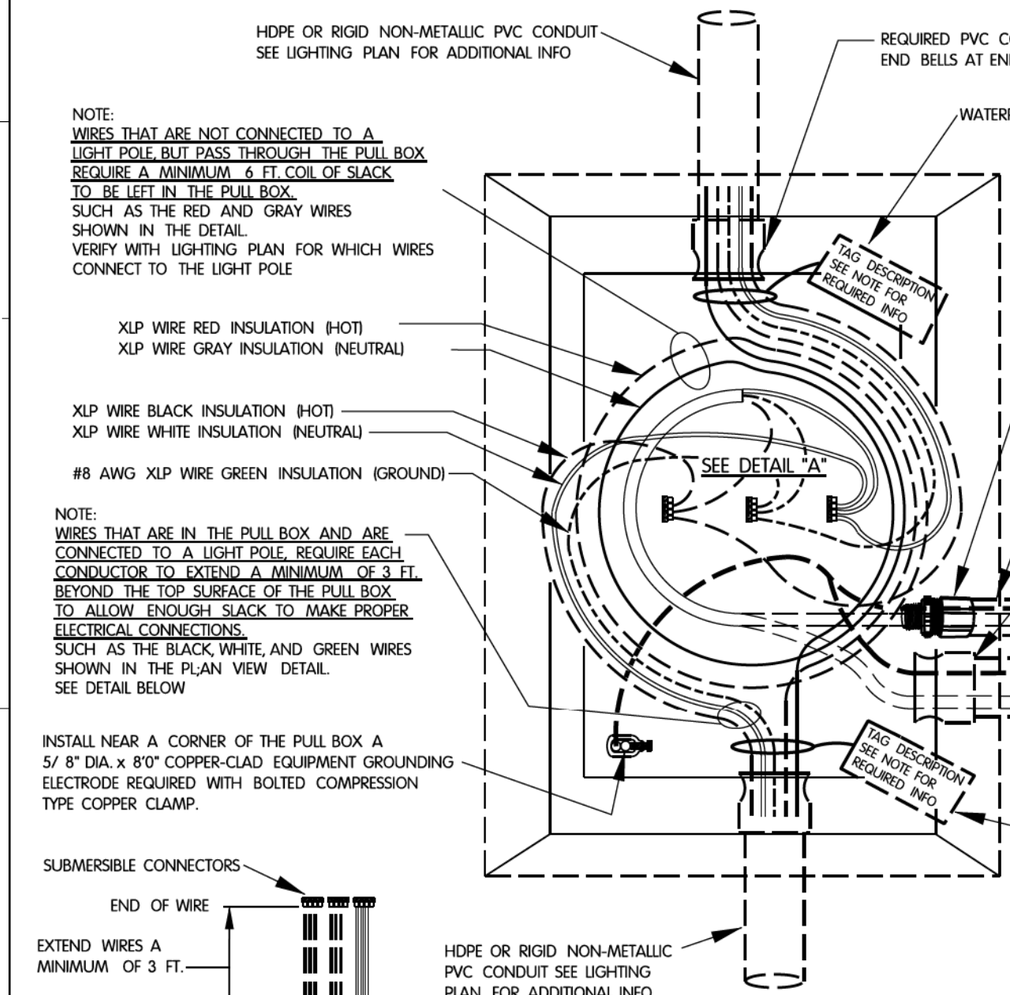
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 15 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 18-MAY-2023 13:53
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: DEC.12-2022

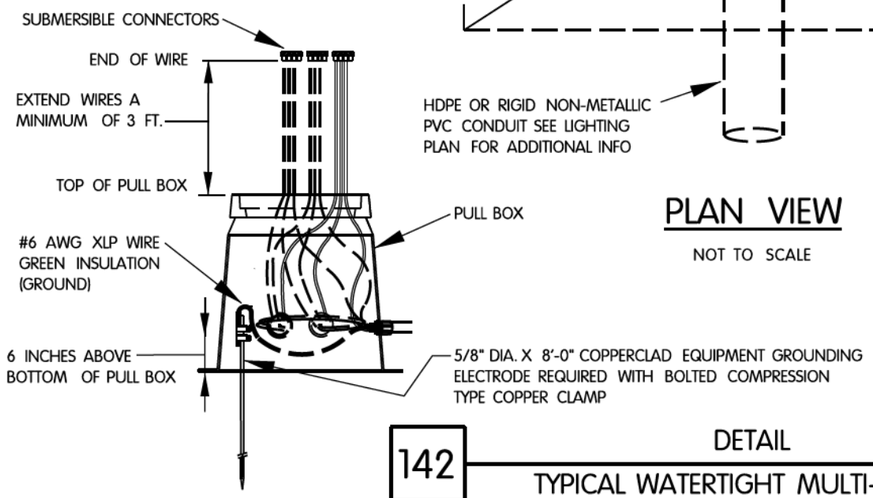



FILE NAME : W:\bes_WisDot\2023\(2395-05-01) e-wHoward Ave – 6th to Clement\Details\Howard Ave – 6th to Clement Details.dgn PLOT DATE : 7-AUG-2023 11:13 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42




## PLAN VIEW

NOT TO SCALE




**USE WHEN CONNECTING TO DIRECT BURIED POLE**

USE 1 1/2 INCH NYLON LIQUIDTIGHT CONNECTOR (STRAIGHT GRAY)
WHEN CONNECTING 1 1/2 INCH NONMETALLIC LIQUIDTIGHT FLEXIBLE CONDUIT TO A PULL BOX.

USE 1 1/2 INCH NONMETALLIC LIQUIDTIGHT FLEXIBLE CONDUIT TYPE LFNC-B WHEN CONNECTING TO A DIRECT BURIED POLE.

**USE WHEN CONNECTING TO CONCRETE LIGHT BASE**

USE PVC CONDUIT END BELLS WHEN CONECTING RIGID NONMETALLIC CONDUIT TO A PULL BOX.

USE RIGID NONMETALLIC CONDUIT SCHEDULE 40 TO CONNECT TO CONCRETE LIGHT BASE.

#6 AWG XLP WIRE GREEN INSULATION (GROUND) GOES TO GOUNDING LUG IN HAND HOLE OF POLE

RISER CABLE
2#12 AWG "UF" TYPE WITH GROUND
NOTE - ONE RISER CABLE RUN PER LUMINIAIRE ON POLE

WATERPROOF CABLE TAG

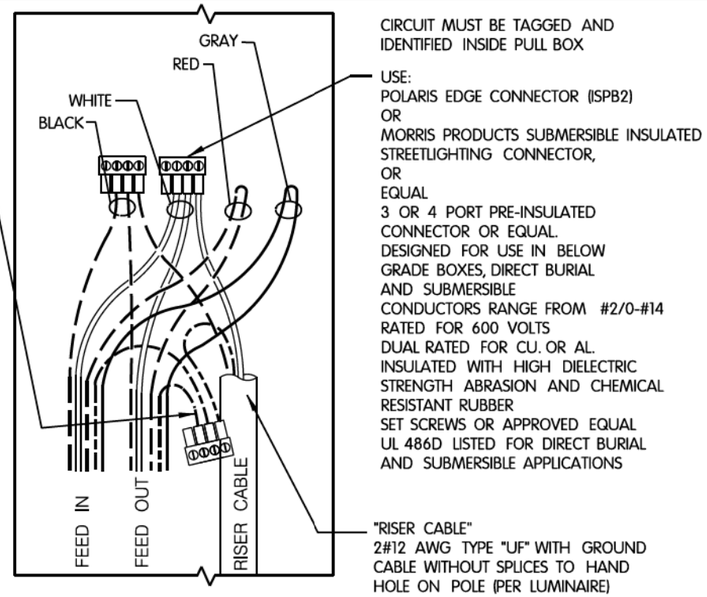
REQUIRED WATERPROOF TAGGING:

WHEN THERE IS MORE THAN ONE CIRCUIT, BUNDLE THE CIRCUIT CONDUCTORS WITH NYLON CABLE TIES OR ENGINEER APPROVED ELECTRICAL TAPE AT ACCESS POINTS.

AT EACH PULL BOX, IDENTIFY THE LINE SIDE OF EACH CIRCUIT WITH AN ATTACHED TAG USING A FADE-RESISTANT WATERPROOF BLACK MARKER PEN AND PROVIDE THE FOLLOWING INFO:

CIRCUIT ID: (CIR.WD-E)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (STREET NAME)
SIDE OF STREET LIGHT UNIT IS ON: (N,S,E,OR W)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (1,2,3,4,5)
DIRECTION FROM THE NEAREST CROSSING STREET: (N,S,E,OR W)
NAME OF THE NEAREST CROSSING STREET: (STREET NAME)

EXAMPLE OF TAG INFO:
CIR.WD-E,
LINE SIDE FROM: W. CANAL ST. / N. / 1 / W. /OF POTAWATOMI CIR.




## DETAIL "A"

CONNECTIONS WITHIN PULL BOX
NOT TO SCALE

## NOTES:

WHEN WIRING A LUMINAIRE EITHER
BLACK (HOT) WITH WHITE (NEUTRAL) GO TOGETHER
OR
RED (HOT) WITH GRAY (NEUTRAL) GO TOGETHER

ALL WIRE CONNECTIONS REQUIRE ANTI-OXIDANT TO BE APPLIED TO THE CONNECTIONS

ALL HARDWARE NUT AND BOLT CONNECTIONS REQUIRE ANTI SEIZE TO BE APPLIED TO THEM

PULL ROPE SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS (.PDF FORMAT) FOR ALL THE WORK BEING DONE.

PROVIDE MINIMUM WIRE SLACK FOR PULL BOXES: 3-FT
ONE WAY IN OR OUT

PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP MANAGERS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK. THESE NAMES AND NUMBERS CAN BE FOUND ON THE STREET LIGHTING GENERAL NOTES SHEET

142 DETAIL

## TYPICAL WATERTIGHT MULTI-PORT CONNECTIONS

SPLICING CONDUCTORS WITHIN THE PULL BOX

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 16 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 3-MAR-2023 15:12
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.03-2023

## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL 142 IN CONJUNCTION WITH THIS DETAIL FOR ELECTRICAL WIRING.

USE EITHER THE POLARIS EDGE (ISPB2) OR MORRIS PRODUCT SUBMERSIBLE INSULATED CONNECTOR OR ELSE AN EQUAL CONNECTOR THAT IS 3 or 4 PORT PRE-INSULATED, THAT IS DESIGNED FOR USE IN BELOW GRADE BOXES, DIRECT BURIAL, AND SUBMERSIBLE. THE CONDUCTORS RANGE FROM #2/0 - #14 RATED FOR 600 VOLTS DUAL RATED FOR CU. or AL.

USE A WATERPROOF IN-LINE FUSE HOLDER ASSEMBLY THAT NEEDS TO BE 600 VOLT RATED, AND UP TO 30 AMPS, 1-POLE BREAKAWAY, WITH COPPER SET SCREW TERMINALS FOR LOAD, AND WIRE SIZE RANGE #12 TO #8 AWG.
PROVIDE A FAST ACTING 5 AMP 250 VOLT FUSES, FROM THE RECOMMENDED FUSE LIST FROM THE IN-LINE FUSE HOLDER MANUFACTURER.

USE WATERPROOF AND TEAR RESISTANT CABLE TAGS/LABELS AT EACH PULL BOX, TO IDENTIFY THE LINE SIDE OF EACH CIRCUIT USING A FADE-RESISANT WATERPROOF BLACK MARKER PEN AND PROVIDE THE FOLLOWING INFO:

CIRCUIT ID: (CIR.WD-E)
LINE SIDE COMING FROM UNTIL STREET LIGHT UNIT IS ON: ( STREET NAME )
SIDE OF STREET LIGHT UNIT IS ON: ( N,S,E,or W )
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: ( 1,2,3,4,5 )
DIRECTION FROM THE NEAREST CROSSING STREET: ( N,S,E,or W )
NAME OF THE NEAREST CROSSING STREET: ( STREET NAME )

EXAMPLE OF TAG INFO:

CIR.WD-E,
LINE SIDE FROM: W. CANAL ST. / N. / 1 / W. /OF POTAWATOMI CIR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

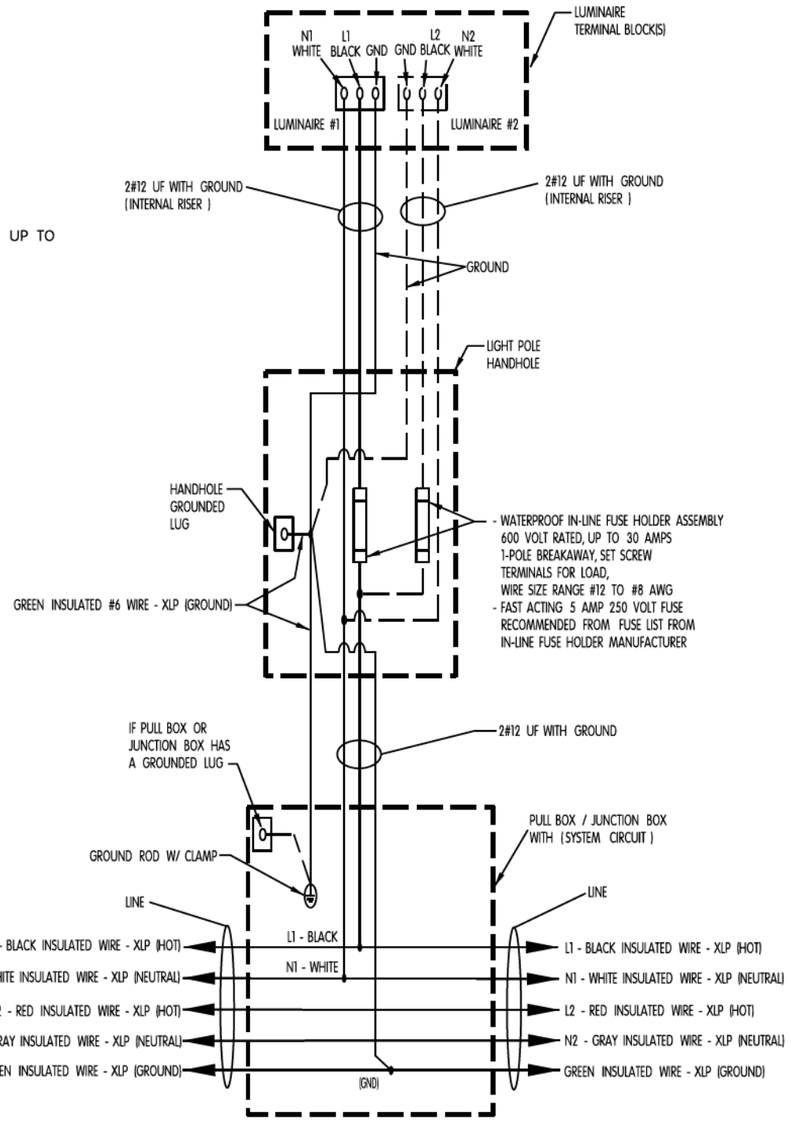
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

USE 2#12UF WITH GROUND FROM THE PULL BOX / JUNCTION BOX TO THE POLE HANDHOLE

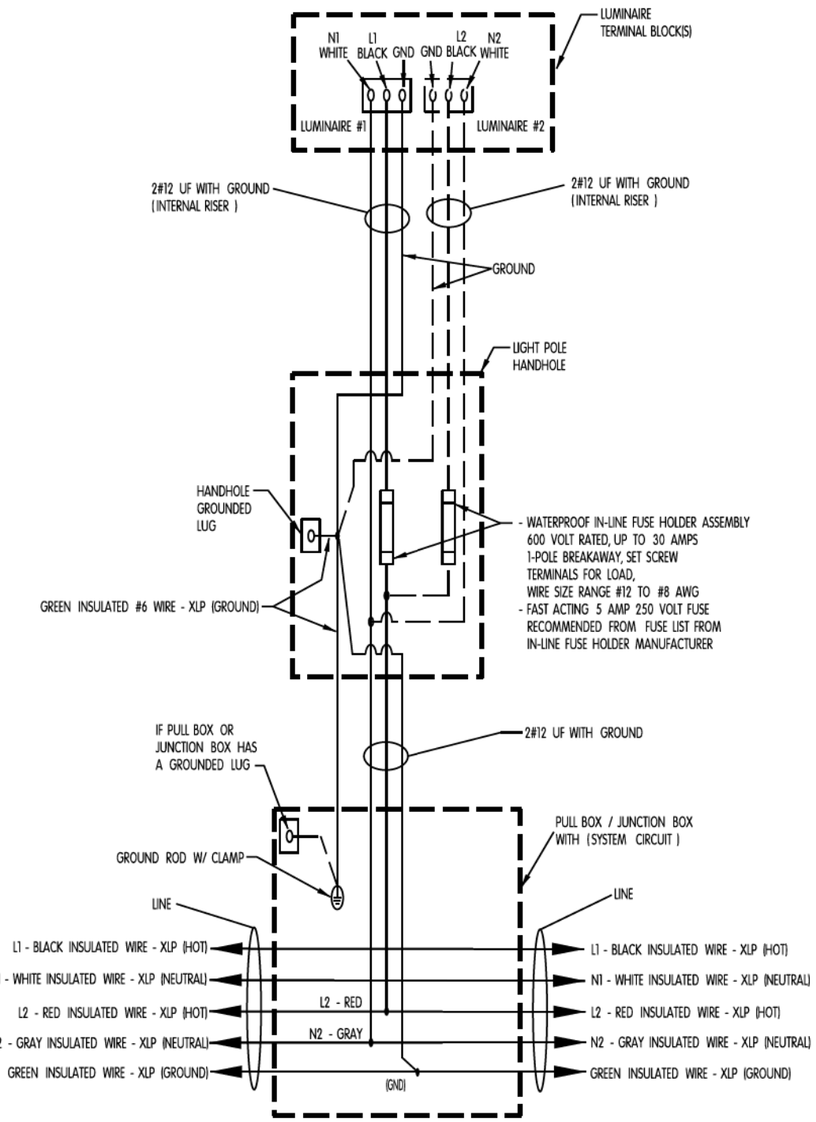
THE INTENT OF THE PULL BOX / JUNCTION BOX SPLICES AS SHOWN IN THIS DETAIL IS FOR LIGHTING SYSTEMS WITH HEAVY LINE WIRE TOO LARGE TO PULL THROUGH THE CONDUIT INTO THE POLE HANDHOLE, DUE TO CONDUIT FILL REQUIREMENTS OF N.E.C. AND / OR THE STIFF NESS OF THE WIRE COMPARED TO THE NUMBER OF BENDS IN THE CONDUIT.

## LEGEND

| | |
|---|---|
| BLACK & RED | UNGROUNDED SYSTEM CIRCUIT CONDUCTORS (L1 & L2) |
| WHITE & GRAY (N) | GROUNDED SYSTEM CIRCUIT CONDUCTORS (N1 & N2) |
| GREEN (GND) | EQUIPMENT GROUNDING CONDUCTOR |
| | HANDHOLE GROUNDED LUG |
| | SINGLE-POLE (1P) FUSE ASSEMBLY |
| | UNFUSED LUMINAIRE |
| | TERMINAL |
| | SPLICE |
| | CONDUCTOR |
| | GROUND ROD |




TYPICAL WIRING DIAGRAM - FOR BLACK (L1 ) AND WHITE (N1 )
TWO SEPARATE NEUTRALS SYSTEM
240 / 480VAC 4 WIRE



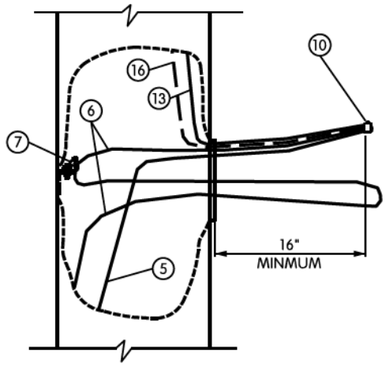

TYPICAL WIRING DIAGRAM - FOR RED (L2 ) AND GRAY (N2 )
TWO SEPARATE NEUTRALS SYSTEM
240 / 480VAC 4 WIRE

145 ELECTRICAL DETAILS STRUCTURE MOUNT
LIGHT POLES SEPARATED NEUTRALS SYSTEM
NOT TO SCALE

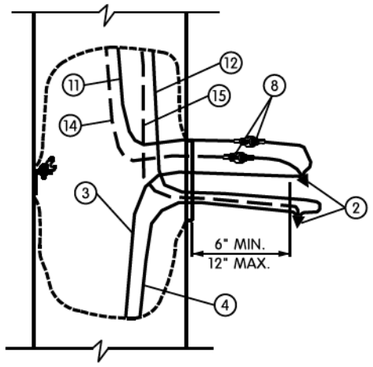
SHEET 17 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 4-JUL-2023 09:01
APPROVED REVISION BY: E.K. LEE APPROVED REVISION DATE: MAR.14-2023

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 326 | E |
|---|---|---|---|---|---|

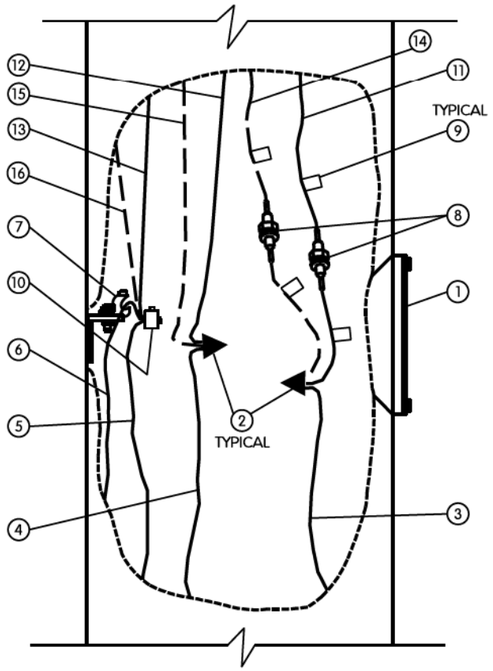



EQUIPMENT GROUNDING
CONDUCTOR SLACK




UNGROUNDED CONDUCTOR SLACK
(AND GROUNDED NEUTRAL SLACK
IN GROUNDED NEUTRAL SYSTEM)

## TYPICAL CONDUCTOR SLACK AT HANDHOLES

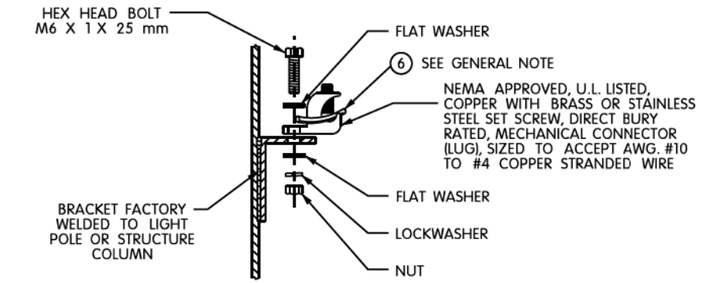



## CUTAWAY HANDHOLE DETAIL

SEPARATED NEUTRAL SYSTEMS
SINGLE PHASE

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE TYPICAL CONDUCTOR SLACK AT HANDHOLES ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. SYSTEM UNGROUNDED LINE WIRE
4. SYSTEM GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. RISER UNGROUNDED POLE WIRE - LUMINAIRE #1
12. RISER GROUNDED POLE WIRE - LUMINAIRE #1
13. RISER EQUIPMENT GROUNDING POLE WIRE - LUMINAIRE #1
14. RISER UNGROUNDED POLE WIRE - LUMINAIRE #2
15. RISER GROUNDED POLE WIRE - LUMINAIRE #2
16. RISER EQUIPMENT GROUNDING POLE WIRE - LUMINAIRE #2




## HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

| KEY | CONDUCTOR | COLOR |
|---|---|---|
| 3 | UNGROUNDED LINE WIRE | BLACK OR RED |
| 4 | GROUNDED LINE WIRE | WHITE OR GRAY |
| 5 | SYSTEM GROUNDING LINE WIRE | GREEN |
| 6 | GROUNDING ELECTRODE CONDUCTOR | GREEN |
| 11 | UNGROUNDED POLE WIRE | * |
| 12 | GROUNDED POLE WIRE | WHITE |
| 13 | EQUIPMENT GROUNDING POLE WIRE | GREEN |

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING,



- 600 VOLT RATED, UP TO 30 AMPS 1-POLE BREAKAWAY, SET SCREW TERMINALS FOR LOAD, WIRE SIZE RANGE #12 TO #8 AWG
- FAST ACTING 5 AMP 250 VOLT FUSE RECOMMENDED FROM FUSE LIST FROM IN-LINE FUSE HOLDER MANUFACTURER

## WATERPROOF IN-LINE FUSE HOLDER ASSEMBLY

## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

CIRCUIT TAGS SHALL BE INSTALLED IN ALL THE PULL BOXES AND WHERE INDICATED ON THE PLANS AND SPECIAL PROVISIONS.

146 ELECTRICAL HANDHOLE WIRING DETAIL — NOT TO SCALE

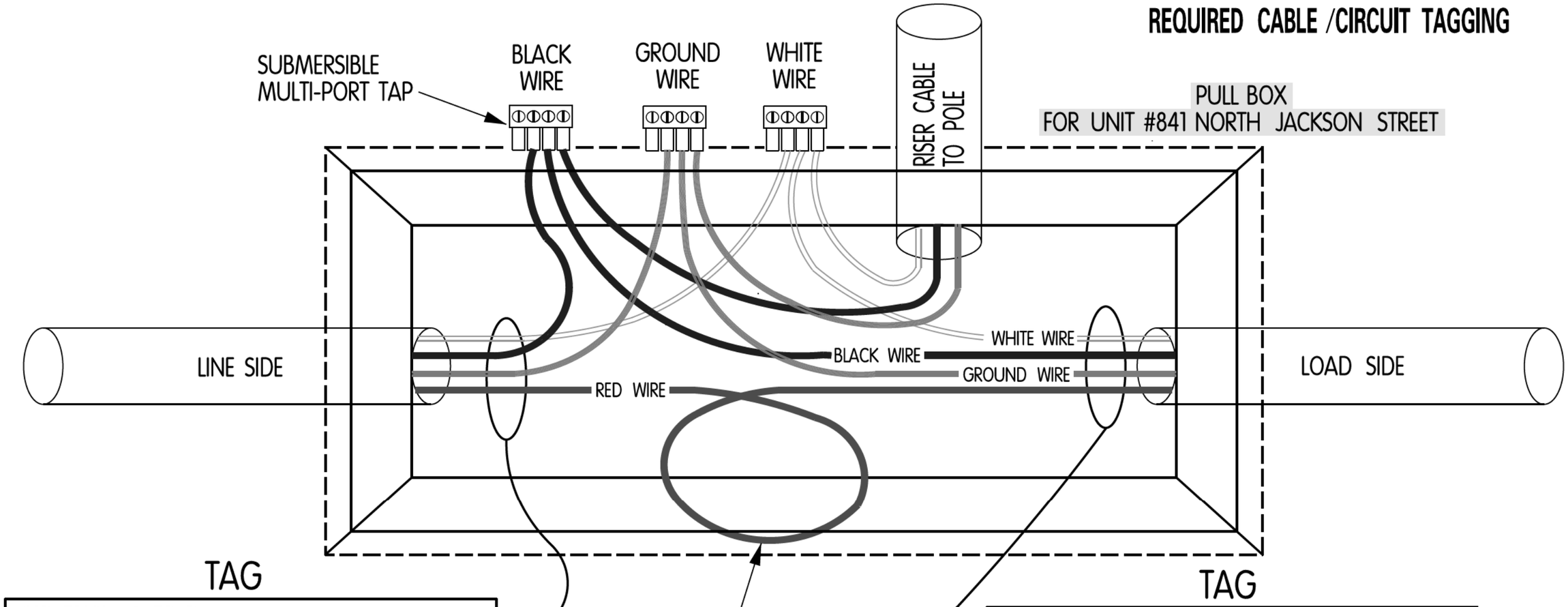
SHEET 18 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION

REVISION BY: dkozel — REVISION DATE: 25-JUL-2023 15:39
APPROVED REVISION BY: E.K. LEE — APPROVED REVISION DATE: MAR.17-2023

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE. | COUNTY: MILWAUKEE | STREET LIGHTING - GENERAL NOTES & DETAILS | SHEET 327 | E |
|---|---|---|---|---|---|

# REQUIRED CABLE /CIRCUIT TAGGING




TAG

**CIR. ENCL.#3 EB-R**
**N. JACKSON ST./W /4 /S / E.WELLS ST..**

TAG

**CIR. ENCL.#3 EB-R**
**N. JACKSON ST./W /6 /N /E.KILBOURN AVE.**

## TAG DESCRIPTION BREAKDOWN - LINE SIDE

CIRCUIT ID: (CIR. ENCL.#3 EB-R)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (N. JACKSON ST.)
SIDE OF STREET LIGHT UNIT IS ON: (WEST SIDE)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (COMING FROM UNIT 4)
DIRECTION FROM THE NEAREST CROSSING STREET: (TO THE SOUTH)
NAME OF THE NEAREST CROSSING STREET: (E. WELLS ST.)

## TAG DESCRIPTION BREAKDOWN - LOAD SIDE

CIRCUIT ID: (CIR. ENCL.#3 EB-R)
LINE SIDE COMING FROM UNIT STREET LIGHT UNIT IS ON: (N. JACKSON ST.)
SIDE OF STREET LIGHT UNIT IS ON: (WEST SIDE)
NUMBER OF STREET LIGHTING UNITS FROM NEAREST CROSSING STREET: (GOING TO UNIT 6)
DIRECTION FROM THE NEAREST CROSSING STREET: (TO THE NORTH)
NAME OF THE NEAREST CROSSING STREET: (E. KILBOURN AVE.)

147 DETAIL

TYPICAL SCHEMATIC AND TAGGING

SHEET 19 OF 19

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
STREET LIGHTING SECTION
REVISION BY: dkozel REVISION DATE: 23-MAR-2023 08:46
APPROVED REVISION BY: R.BERTRAN APPROVED REVISION DATE: MAR.23-2023

| STATE PROJECT NUMBER |
|---|
| 2395 - 05 - 71 |

SAW CONCRETE FOR 4' WIDE REMOVAL
REMOVE EXISTING CONCRETE PAVEMENT.
INSTALL CONDUIT PACKAGE. PLACE 8"
CONCRETE BASE WITH TIE BARS (30"C-C)
AND DOWEL BARS (15"C-C)
PLACE 3.5" ASPHALT PAVEMENT

BM HYD NW BOLT NW CORNER
S. 6TH ST. & W. HOWARD AVE.
STA. 00+58 - 38'LT.
ELEV: 135.66

#3706 S. 6TH ST.

ST. ADALBERTS
CATHOLIC CEMETARY

S. 6TH ST.

W. HOWARD AVE.

S. 5TH PL.

171'
4-4" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS

29'
2-3" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS

205'
4-4" PVC CONDUIT
CEMENT ENCASED

EXIST. CUC MANHOLE #600
STA. 00+39.4, 23.6' RT.

ADJUST COVER
EXIST. CUC MANHOLE #601
STA. 03+98.3, 24.3' RT.

BM HYD NW BOLT SW CORNER
S. 5TH PL. & W. HOWARD AVE.
04+12 - 51'RT.
ELEV: 129.45

SEE DETAIL "A"

DETAIL "A"

45°,
5' RAD. HUB
STA. 01+38.8,
19.1'RT.

SAW CUT
DUCTS 1.2'
BEFORE
RAD. AND
CONNECT TO
PROP. DUCTS

#3929 S. 6TH ST.

#535 W. HOWARD AVE

#529

NOTES:

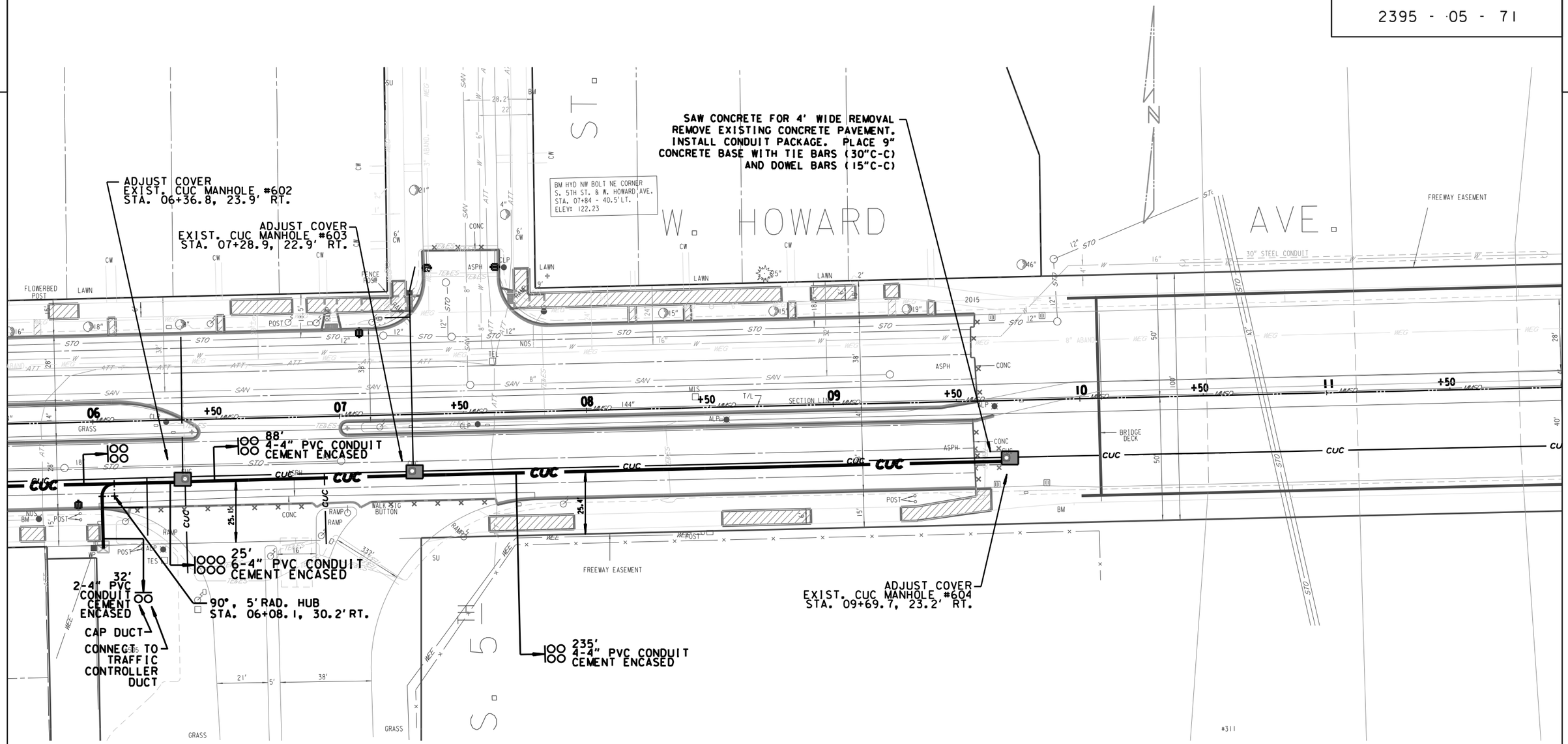
1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

| | |
|---|---|
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ▣ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 329 | E |
|---|---|---|---|---|---|---|

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |




NOTES:

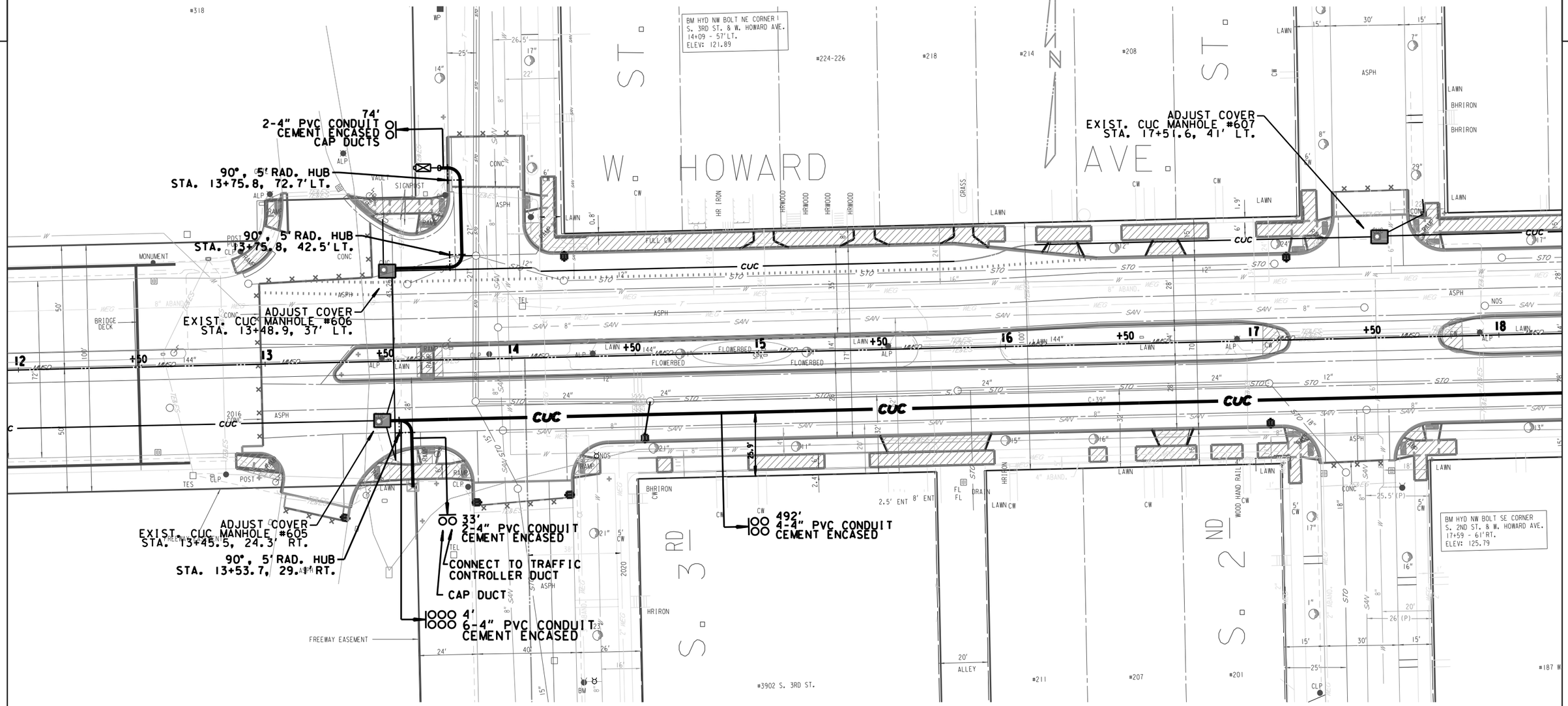
1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

| | |
| --- | --- |
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ◻ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 330 | E |
| --- | --- | --- | --- | --- | --- | --- |

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |




NOTES:

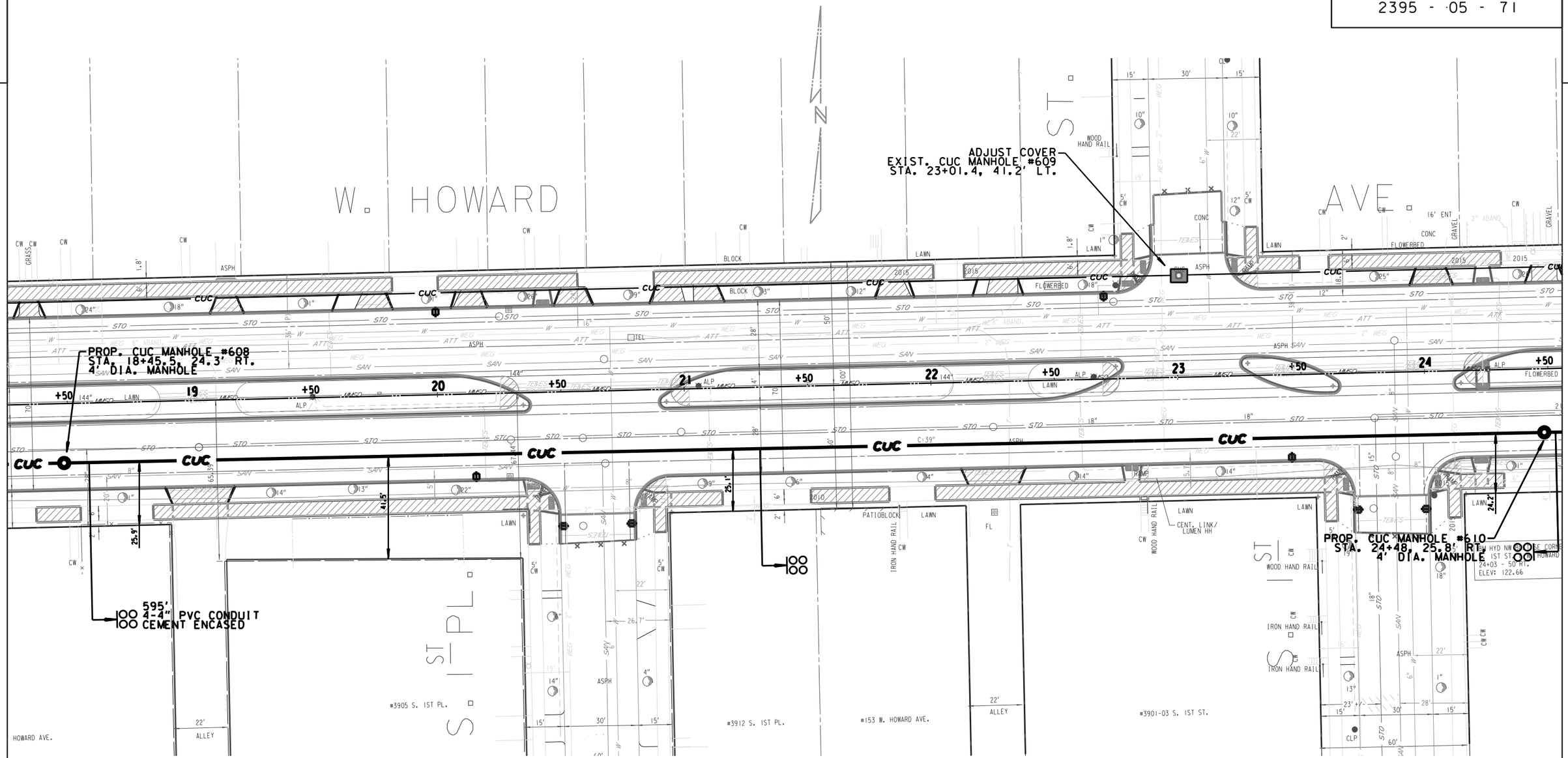
1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

| | |
| --- | --- |
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ▣ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 331 | E |
| --- | --- | --- | --- | --- | --- | --- |

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |




NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
6) REMOVE ABANDONED CONDUIT FROM MANHOLE WALL AND INSTALL THE PROPOSED CONDUIT INTO THE MANHOLE AT THE SAME LOCATION.

LEGEND

| | |
| --- | --- |
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ▣ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 332 | E |
| --- | --- | --- | --- | --- | --- | --- |

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |

EXIST. CUC MANHOLE #612
STA. 27+06.7, 41.9' LT.

REMOVE EXISTING CONCRETE PAVEMENT JOINT-TO-JOINT FOR REMOVAL OF CONDUIT AND MANHOLE #611.
INSTALL PROP. NEW 5' "DOGHOUSE" MANHOLE #611 OVER CONDUIT.
INSTALL CONDUIT PACKAGE.
CONCRETE PAVEMENT TO BE REPLACED JOINT-TO-JOINT.

88'
8-4" PVC CONDUIT
CEMENT ENCASED

258'
4-4" PVC CONDUIT
CEMENT ENCASED

133'
6-4" PVC CONDUIT
CEMENT ENCASED

22.5°, 12.5' RAD. HUB
STA. 24+76.0, 12.6' RT.

22.5°, 12.5' RAD. HUB
STA. 27+09.9, 0.4' RT.

22.5°, 12.5' RAD. HUB
STA. 30+00.9, 3.6' RT.

90°, 12.5' RAD. HUB
STA. 27+94.0, 13.7' RT.

22.5°, 12.5' RAD. HUB
STA. 27+41.1, 13' RT.

90°, 10' RAD. HUB
STA. 29+27.2, 11.2' RT.

22.5°, 12.5' RAD. HUB
STA. 29+62.5, 13.1' RT.

22.5°, 12.5' RAD. HUB
STA. 25+18.4, 24.6' RT.

256'
4-4" PVC CONDUIT
CEMENT ENCASED

PROP. CUC MANHOLE #611
STA. 27+05.7, 12.8' RT.
5' DIA. "DOGHOUSE" MANHOLE

CONNECT TO TRAFFIC CONTROLLER DUCT

PROPOSED TRAFFIC CONTROL CABINET BY OTHERS

57'
2-4" PVC CONDUIT
CEMENT ENCASED

CAP DUCT

54'
2-4" PVC CONDUIT
CEMENT ENCASED

CAP DUCTS

BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.
ELEV: 120.48

#108 W. HOWARD AVE.
#3902 S. 1ST ST.
#3915 S. HOWELL AVE.
#3912 S. HOWELL AVE.
#203-213
#111

E/W. HOWARD AVE.
S. HOWELL AVE.

NOTES:

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LEGEND

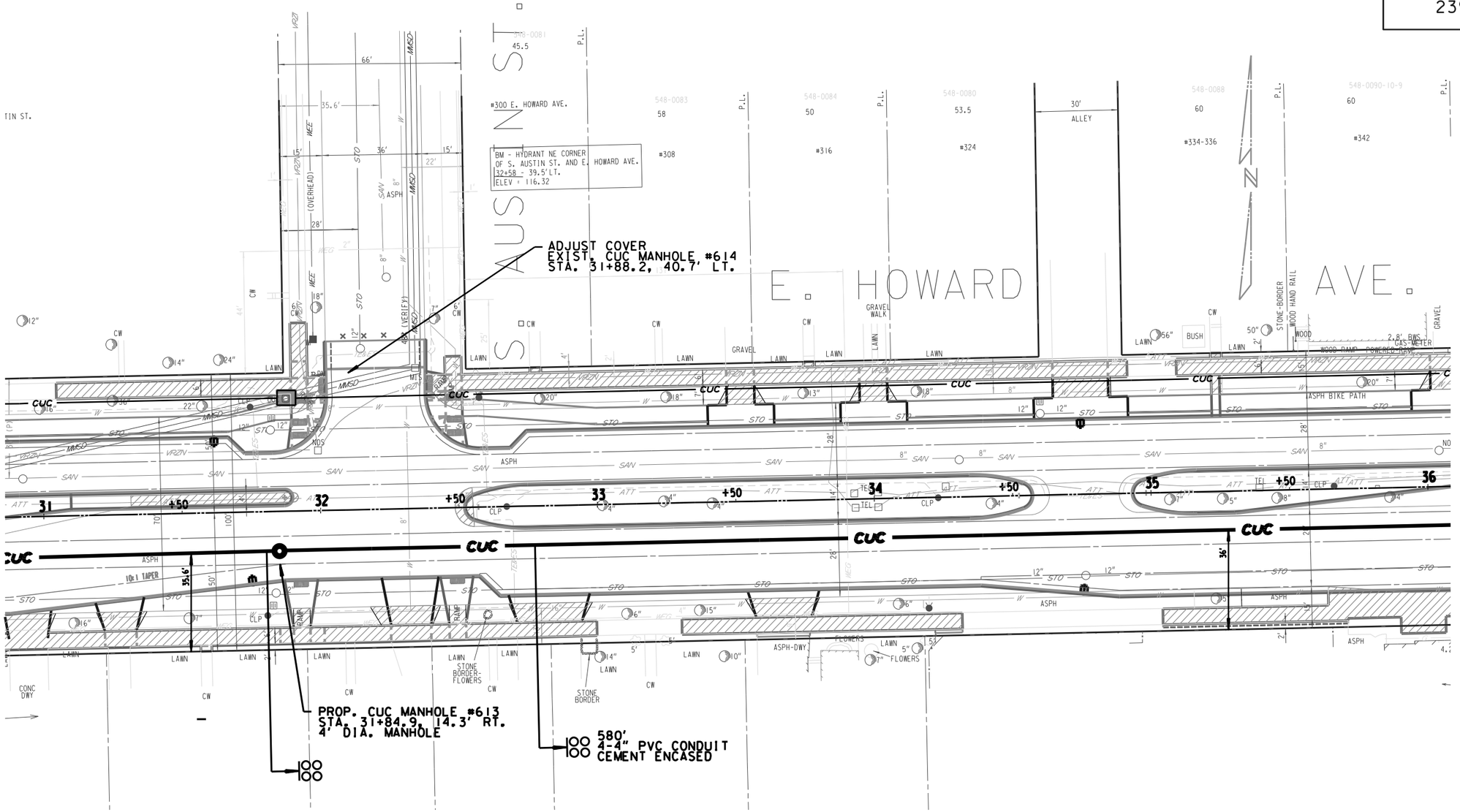
| | |
| --- | --- |
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ▣ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 333 | E |
| --- | --- | --- | --- | --- | --- | --- |

STATE PROJECT NUMBER

2395 - 05 - 71

2




NOTES:

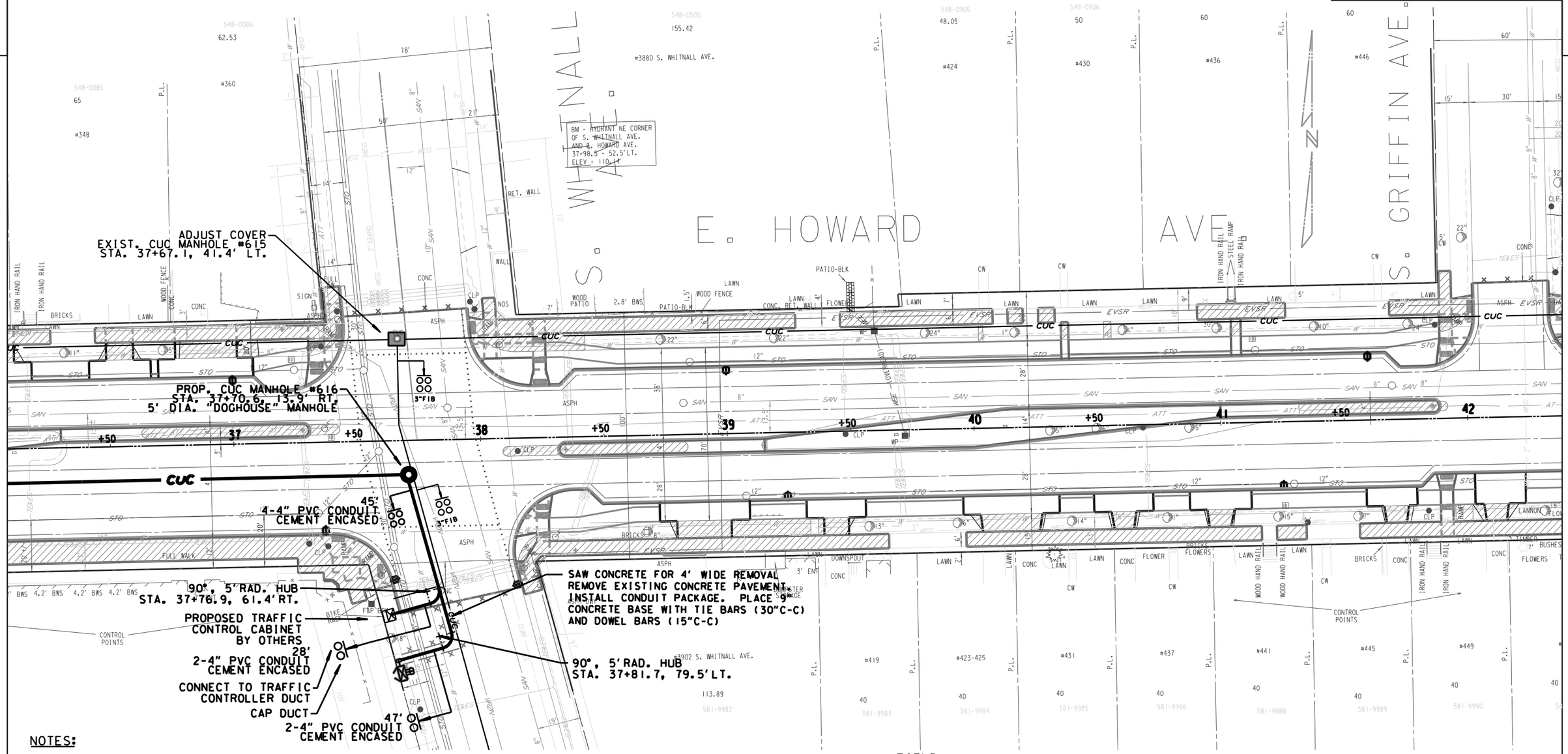
1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

| | |
|---|---|
| — CUC — | PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED. |
| ● | PROPOSED CUC MANHOLE |
| ◻ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 334 | E |
|---|---|---|---|---|---|---|

| STATE PROJECT NUMBER |
|---|
| 2395 - 05 - 71 |




NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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LEGEND

| | |
|---|---|
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| ● | PROPOSED CUC MANHOLE |
| ▣ | EXISTING CUC MANHOLE |
| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 335 | E |
|---|---|---|---|---|---|---|

| STATE PROJECT NUMBER |
|---|
| 2395 - 05 - 71 |

2

2

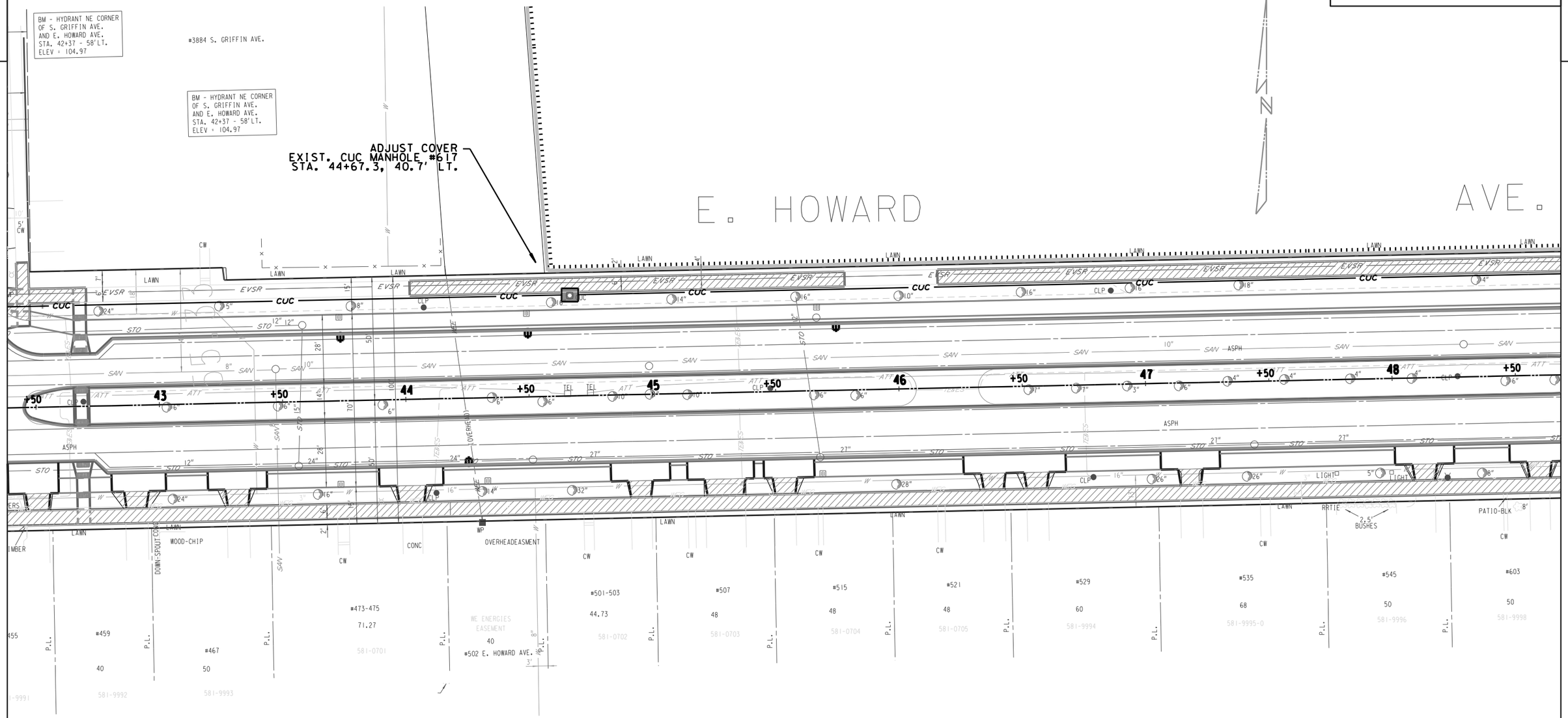
BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58' LT. ELEV = 104.97

#3884 S. GRIFFIN AVE.

BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58' LT. ELEV = 104.97

ADJUST COVER
EXIST. CUC MANHOLE #617
STA. 44+67.3, 40.7' LT.

E. HOWARD AVE.




NOTES:

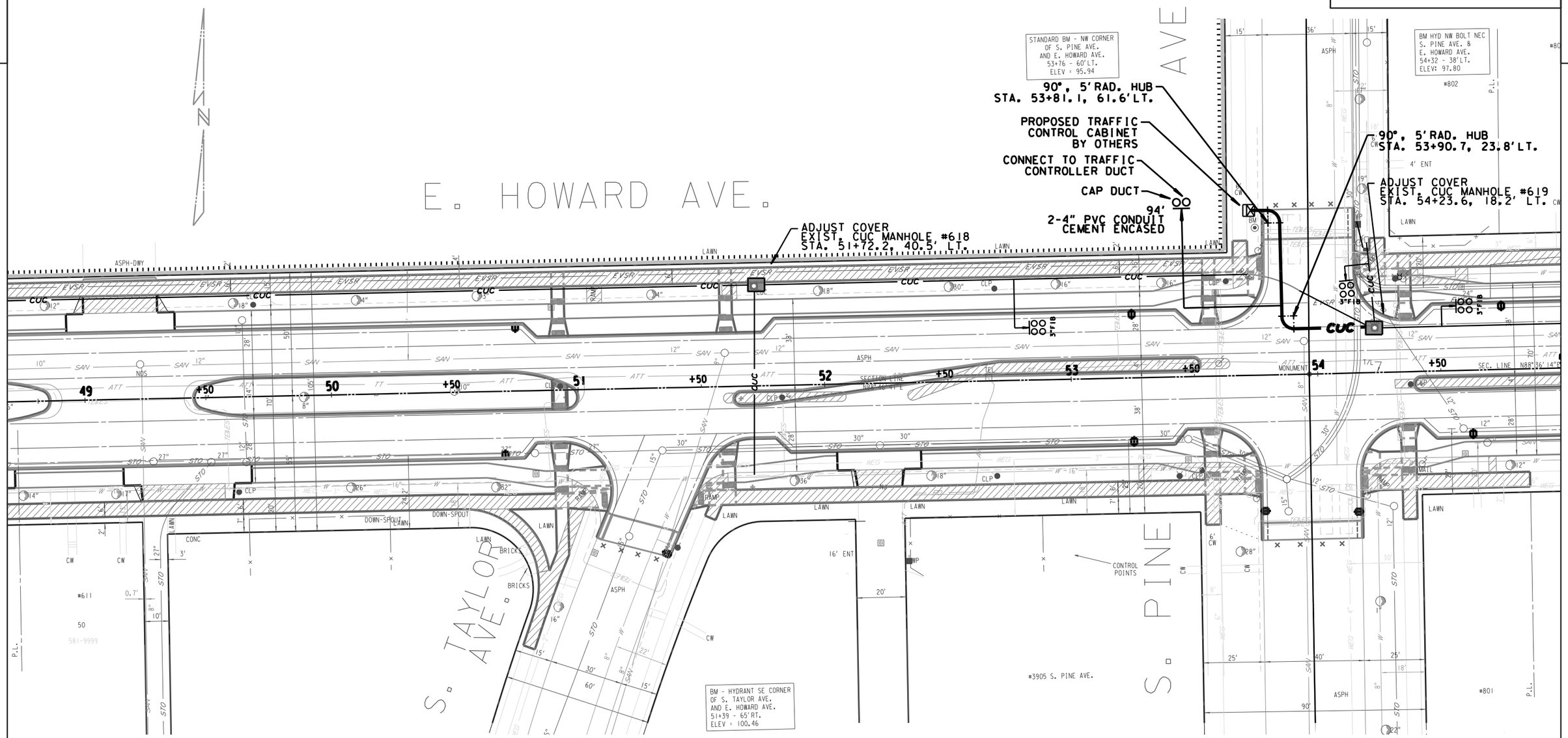
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LEGEND

| | |
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| ● | PROPOSED CUC MANHOLE |
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| — cuc — | EXISTING CONDUIT |
| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 336 | E |
|---|---|---|---|---|---|---|

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |




NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
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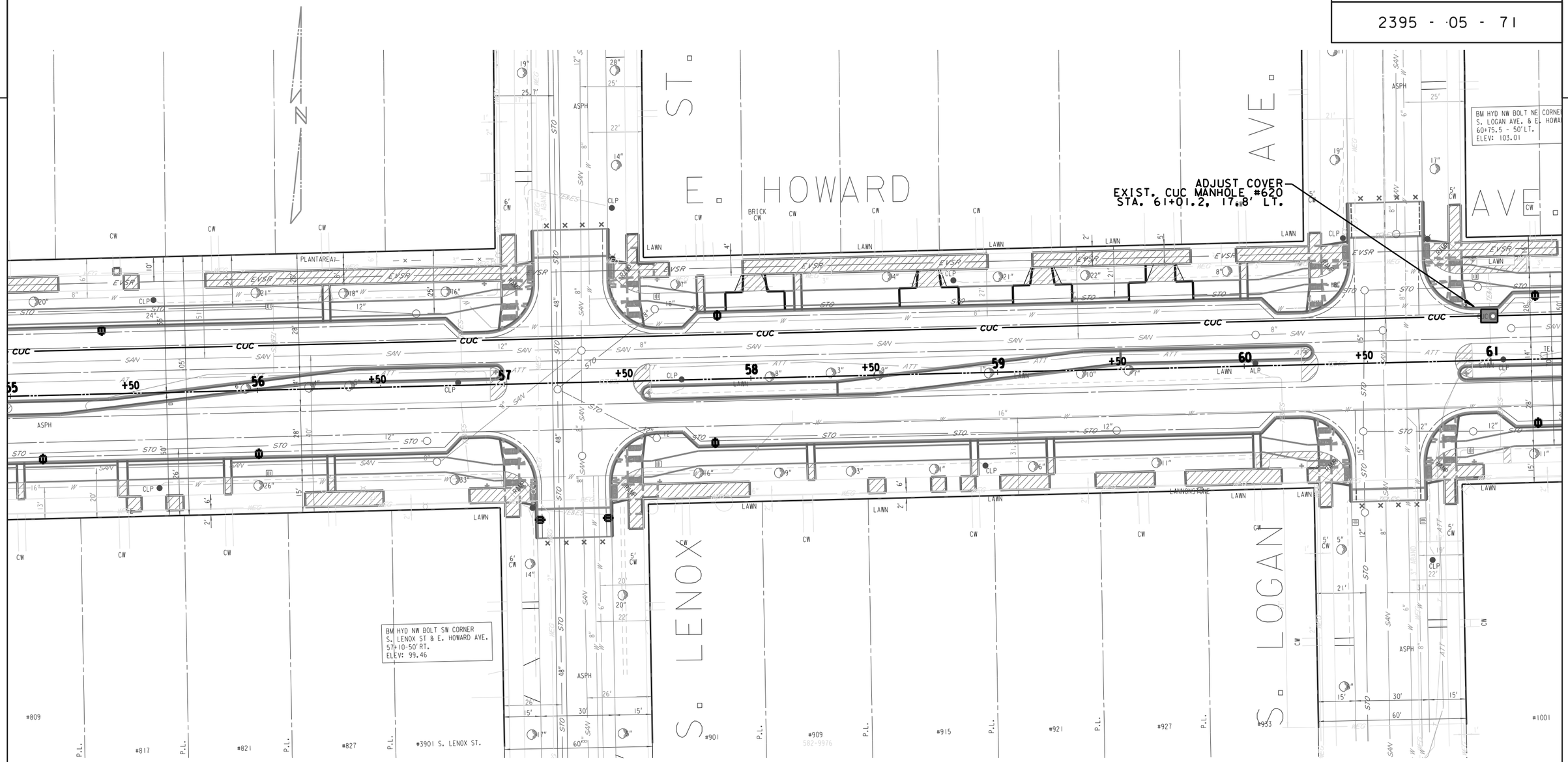
| | |
| --- | --- |
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| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 337 | E |
| --- | --- | --- | --- | --- | --- | --- |

| STATE PROJECT NUMBER |
|---|
| 2395 - 05 - 71 |

2

2




NOTES:

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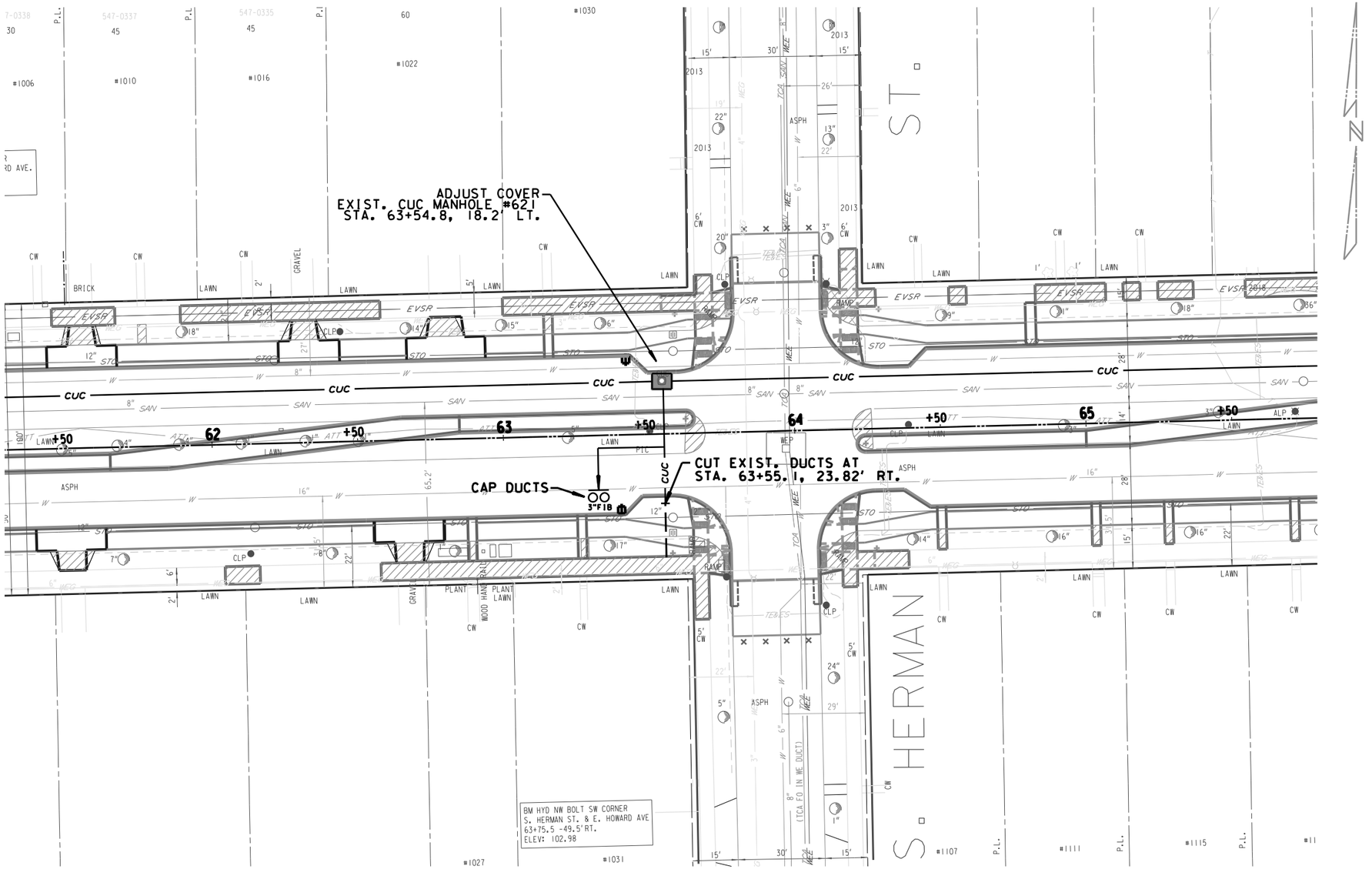
LEGEND

| | |
|---|---|
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| — — — - | ABANDONED CONDUIT |

| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 338 | E |
|---|---|---|---|---|---|---|

| STATE PROJECT NUMBER |
| --- |
| 2395 - 05 - 71 |

2




NOTES:

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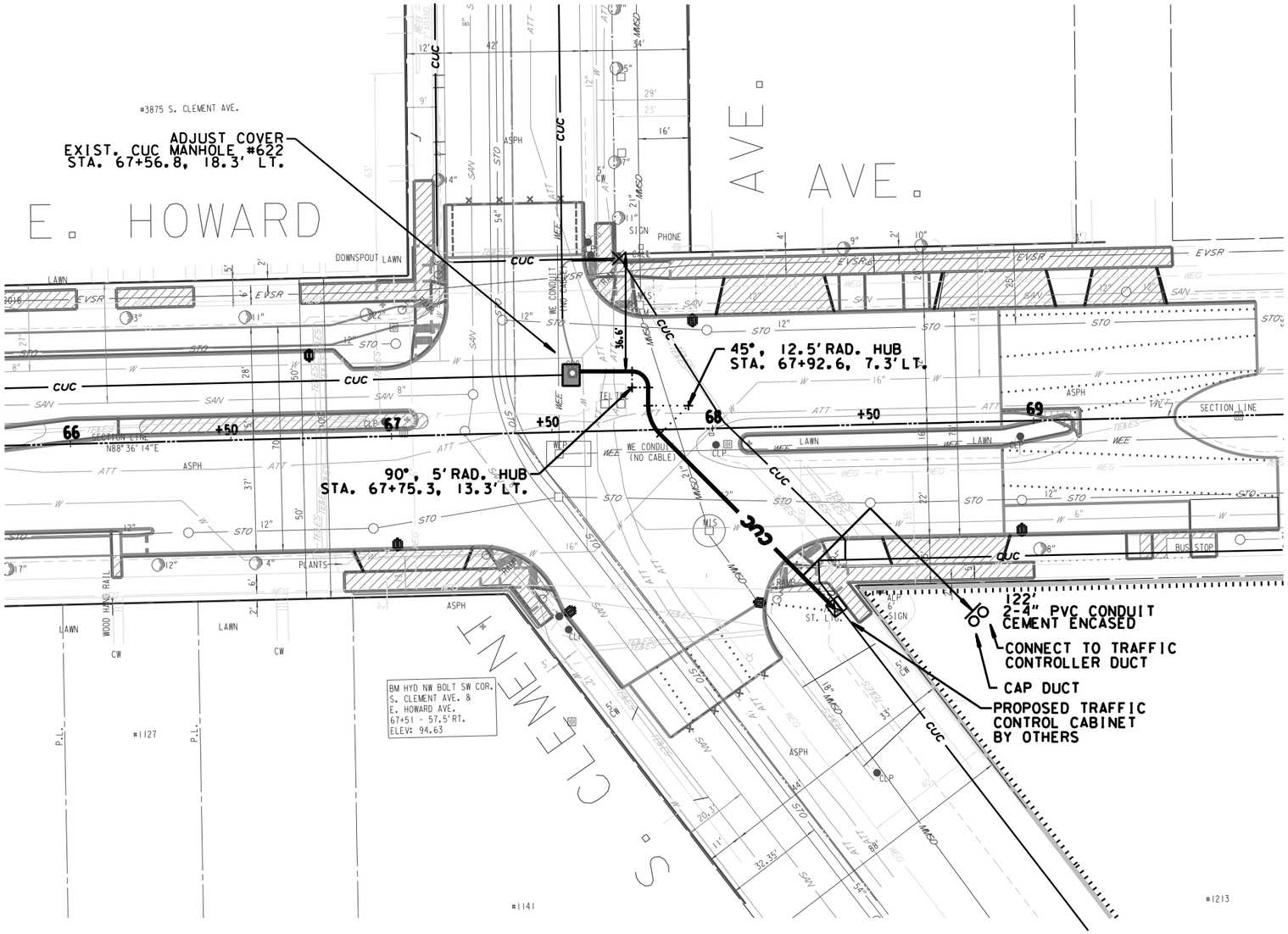
| | |
| --- | --- |
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| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 339 | E |
| --- | --- | --- | --- | --- | --- | --- |

STATE PROJECT NUMBER

2395 - 05 - 71






NOTES:

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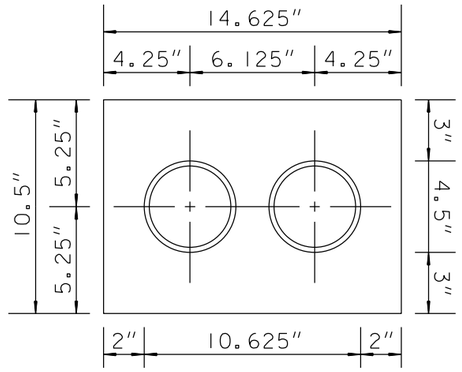
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| STATE PROJECT NO.: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CITY UNDERGROUND CONDUIT DESIGN (CUC) | SCALE: 0' 40' | SHEET: 340 | E |
|---|---|---|---|---|---|---|

STATE PROJECT NUMBER

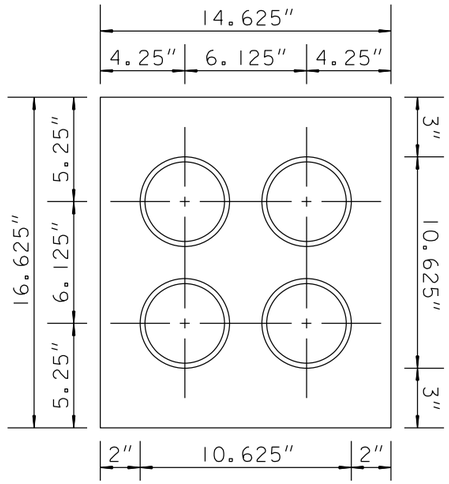
2395 - 05 - 71

2




2-DUCT CROSS SECTION VIEW

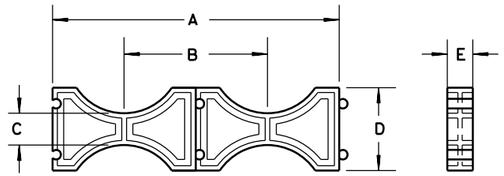
N.T.S.



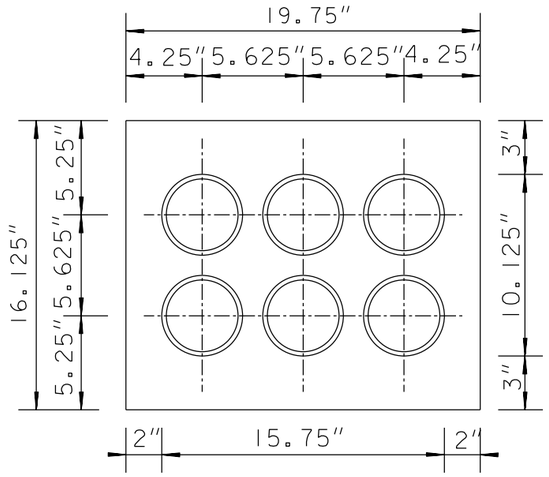

4-DUCT CROSS SECTION VIEW

N.T.S.

| COND. | 3" | 4" |
|---|---|---|
| A | 10" | 12 ¼" |
| B | 5" | 6 ⅛" |
| C | 1 ½" | 1 ½" |
| D | 5.13" | 6.13" |
| E | 1" | 1" |

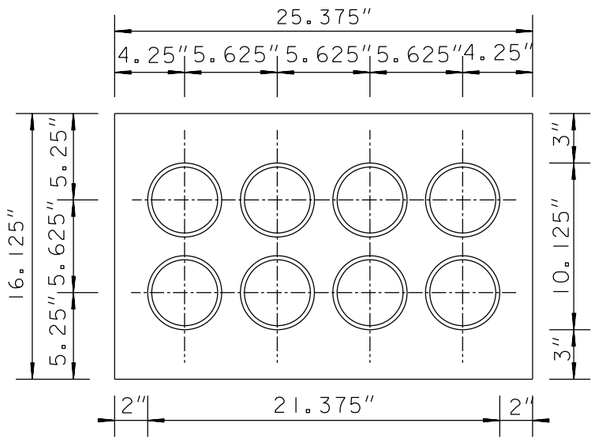



INTERMEDIATE SPACER DETAIL




6-DUCT CROSS SECTION VIEW

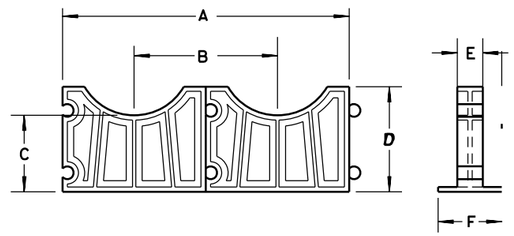
N.T.S.




8-DUCT CROSS SECTION VIEW

N.T.S.

| COND. | 3" | 4" |
|---|---|---|
| A | 10 ¼" | 12 ¼" |
| B | 5.13" | 6.13" |
| C | 3" | 3" |
| D | 4 ¾" | 5.31" |
| E | 1" | 1" |
| F | 3" | 3" |



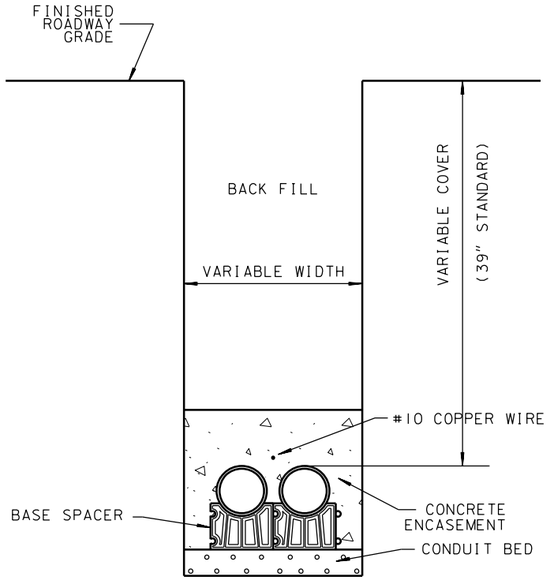

BASE SPACER DETAIL

INTERMEDIATE AND BASE SPACER DETAIL

N.T.S.

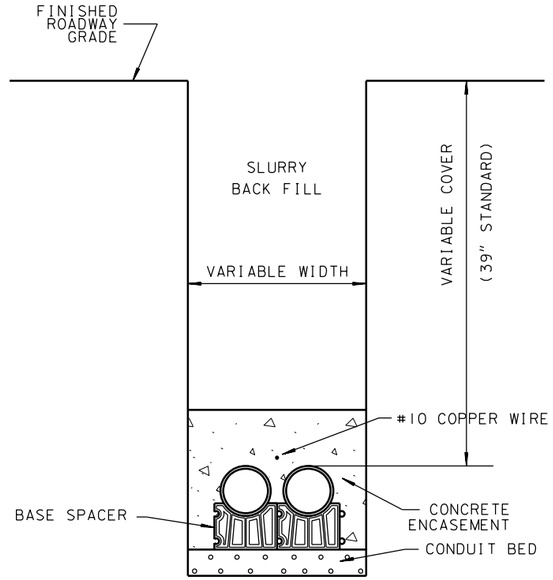
STATE PROJECT NUMBER

2395 - 05 - 71



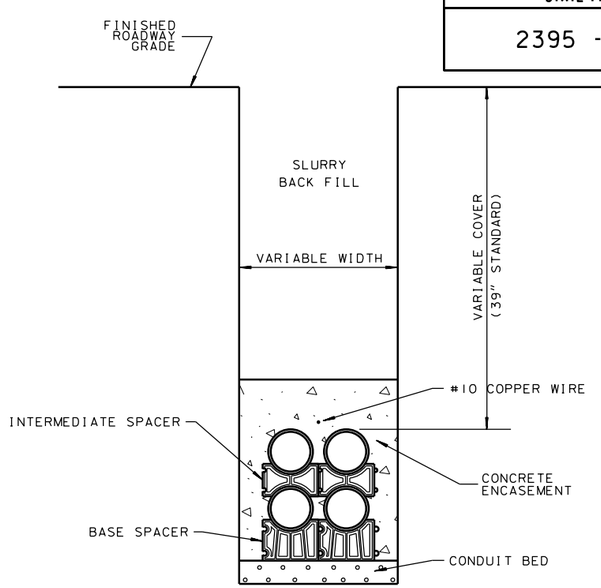

## 2-DUCT CROSS SECTION VIEW IN GRASS & SIDEWALK AREA

N.T.S.



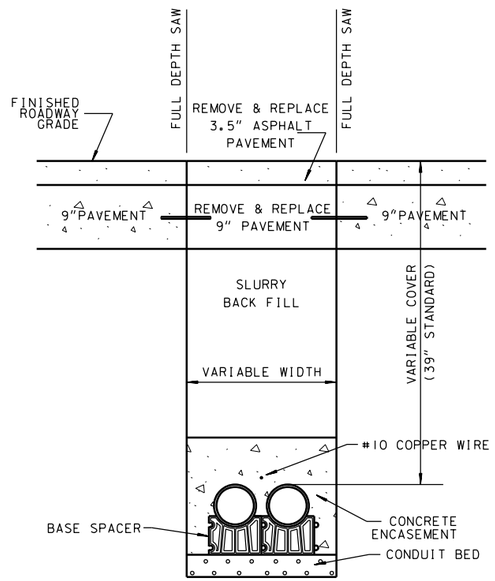

## 2-DUCT CROSS SECTION VIEW IN ROADWAY RECONSTRUCTION

N.T.S.



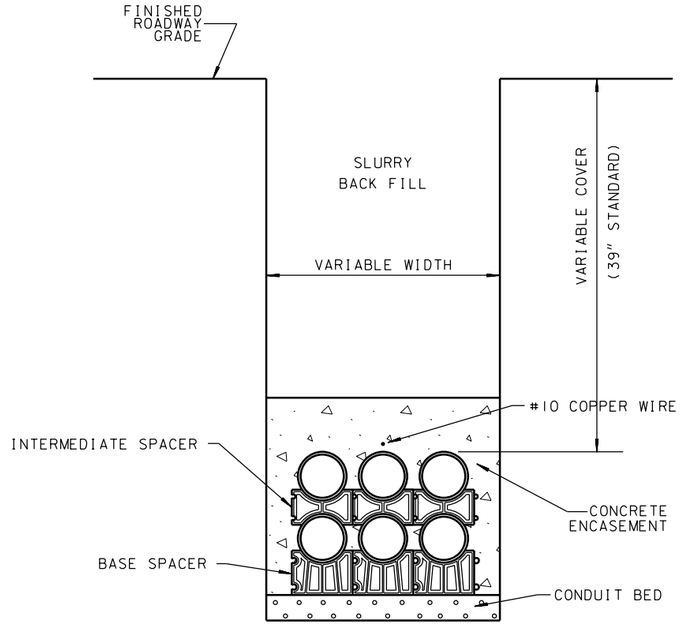

## 4-DUCT CROSS SECTION VIEW IN ROADWAY RECONSTRUCTION

N.T.S.



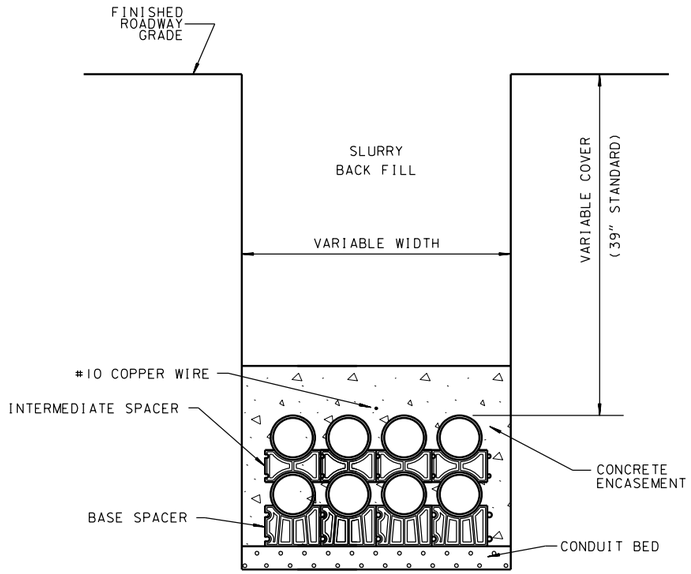

## 2-DUCT TRENCH CROSS SECTION VIEW IN ASPHALT OVER CONCRETE

N.T.S.



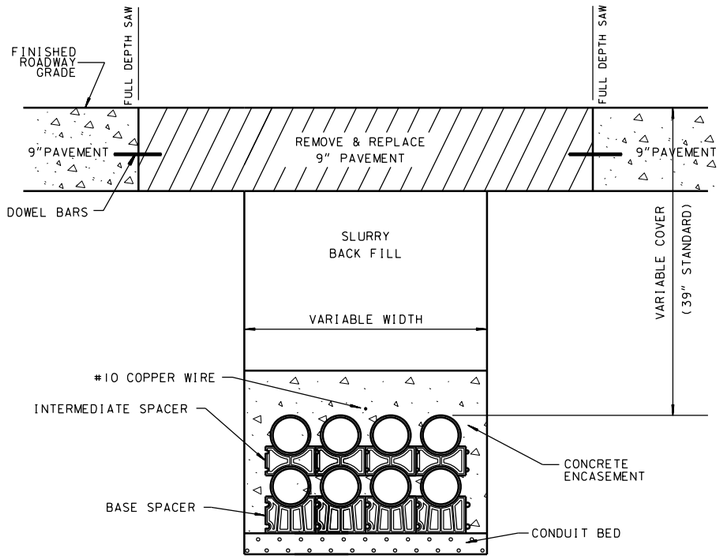

## 6-DUCT CROSS SECTION VIEW IN ROADWAY RECONSTRUCTION

N.T.S.



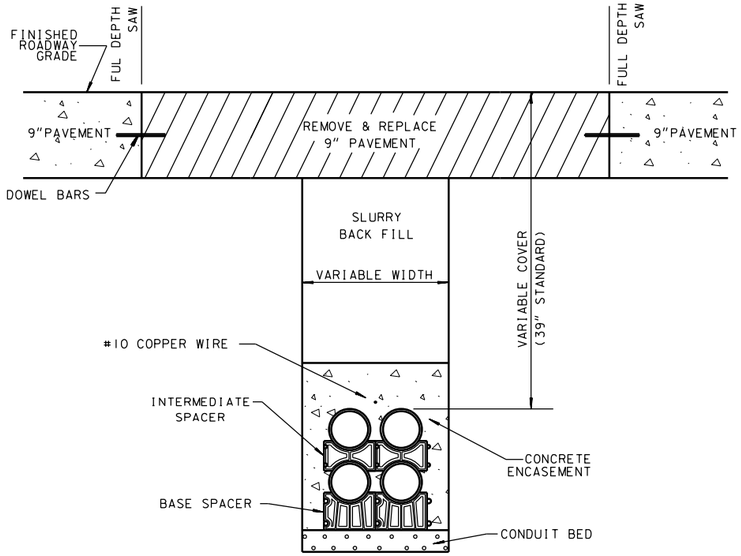

## 8-DUCT CROSS SECTION VIEW IN ROADWAY RECONSTRUCTION

N.T.S.



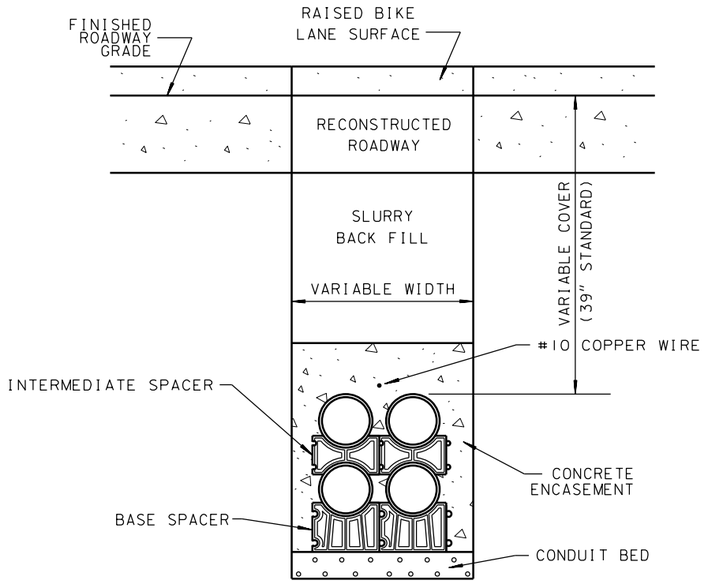

## 8-DUCT TRENCH CROSS SECTION VIEW IN CONCRETE PAVEMENT JOINT-TO-JOINT

N.T.S.




## 4-DUCT TRENCH CROSS SECTION VIEW IN CONCRETE PAVEMENT JOINT-TO-JOINT

N.T.S.



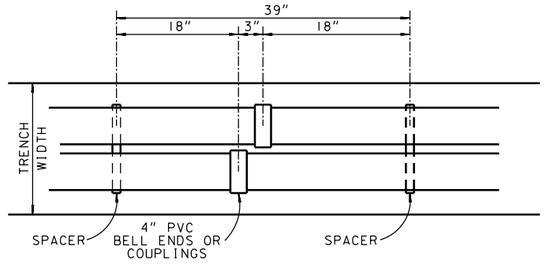

## 4-DUCT TRENCH CROSS SECTION VIEW IN RAISED BIKE LANE

N.T.S.

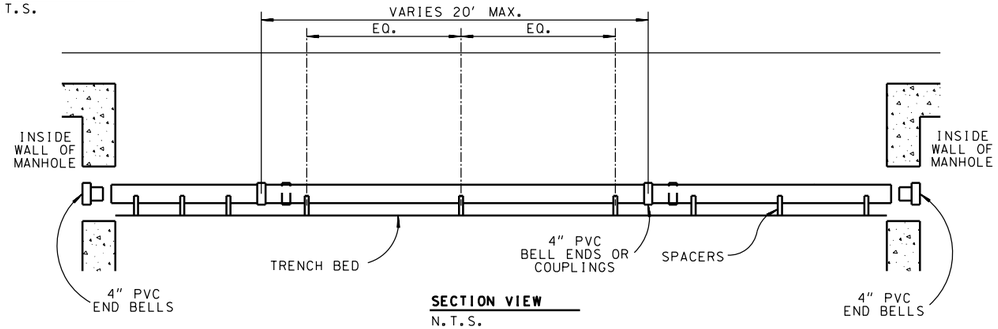
STATE PROJECT NUMBER: 2395 - 05 - 71

STATE PROJECT NUMBER
2395 - 05 - 71

2



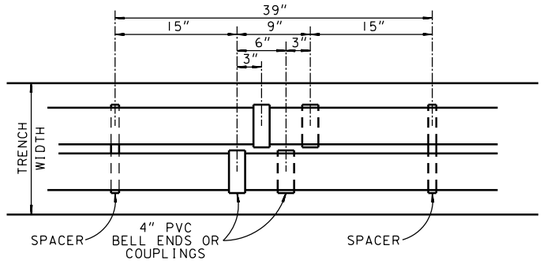

**PLAN VIEW**
N.T.S.



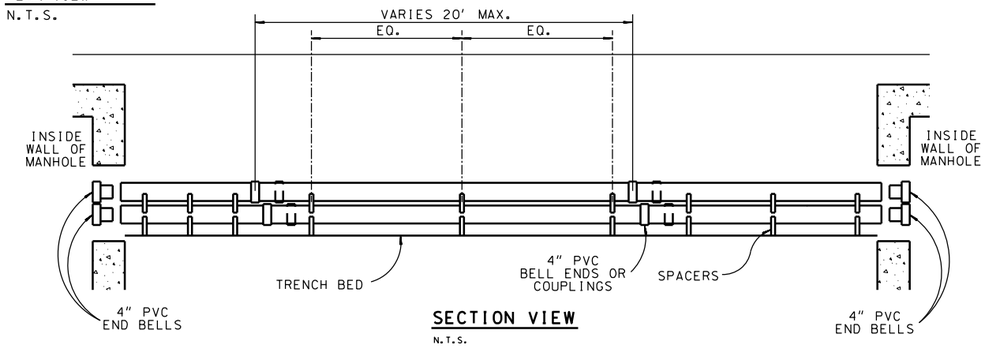

**SECTION VIEW**
N.T.S.

## 2-DUCT INSTALLATION DETAIL

N.T.S.



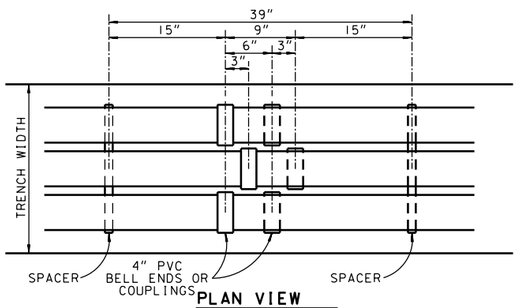

**PLAN VIEW**
N.T.S.



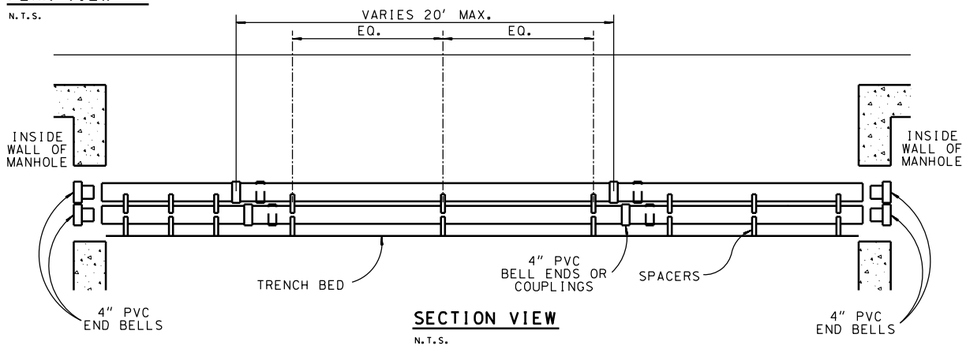

**SECTION VIEW**
N.T.S.

## 4-DUCT INSTALLATION DETAIL

N.T.S.



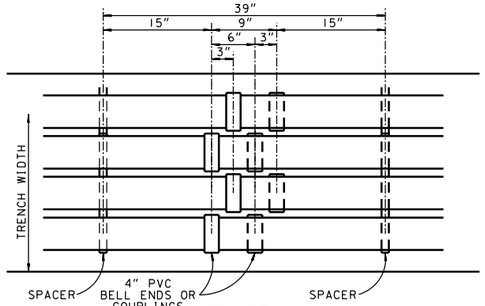

**PLAN VIEW**
N.T.S.



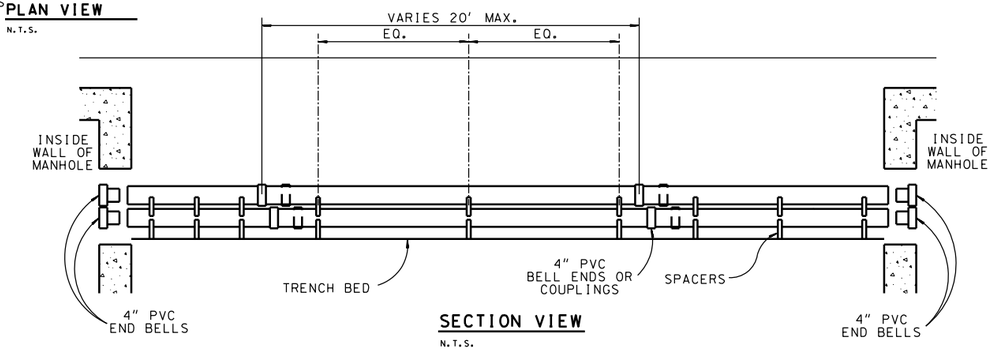

**SECTION VIEW**
N.T.S.

## 6-DUCT INSTALLATION DETAIL

N.T.S.




**PLAN VIEW**
N.T.S.




**SECTION VIEW**
N.T.S.

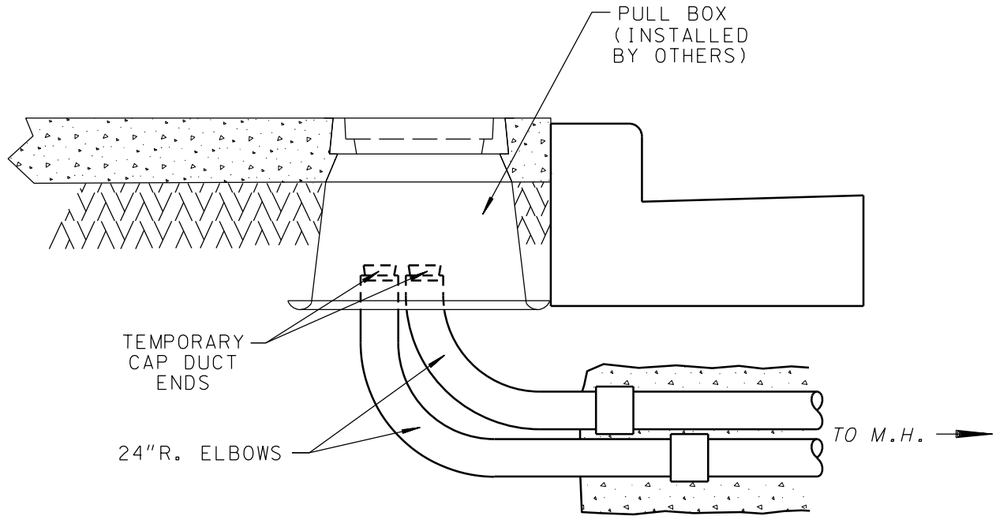
## 8-DUCT INSTALLATION DETAIL

N.T.S.



FILE NAME : W:\ugd\Conduit Work Files\uconduit\2022\E&W HOWARD AVE\dgn\Details
PLOT DATE: 08292023
PLOT BY: HAZEM RAMADAN
PLOT SCALE: 40
WISDOT/Cadds sheets

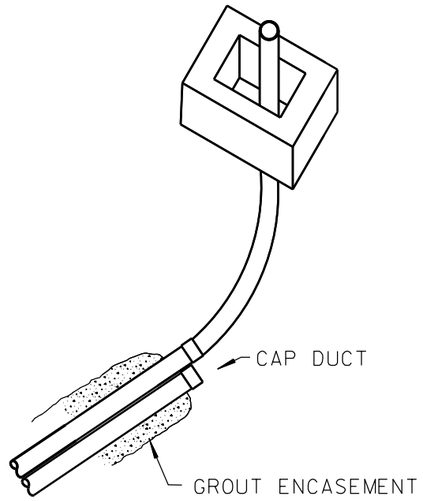
2

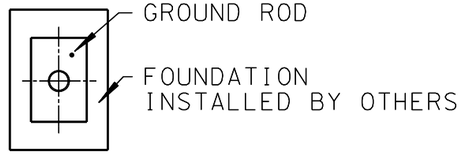


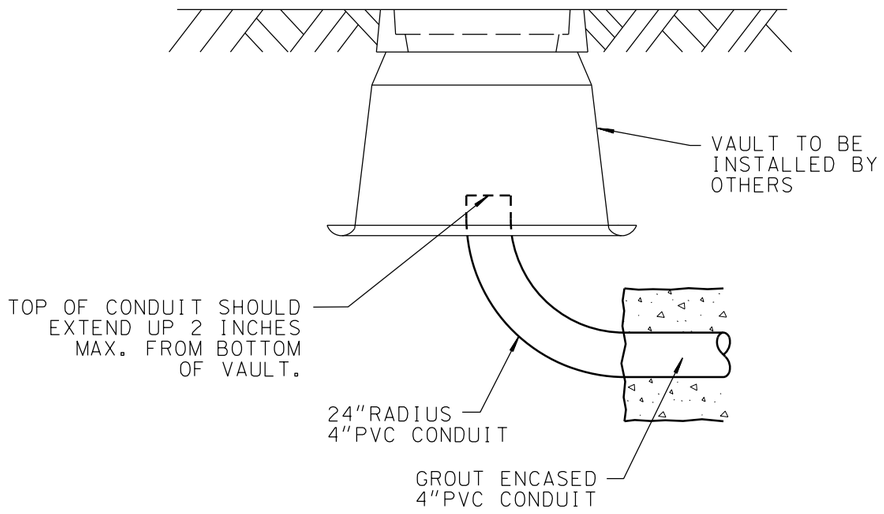

**TRAFFIC PULL BOX**

## TYPICAL CONDUIT TRAFFIC PULL BOX ENTRY

N.T.S.

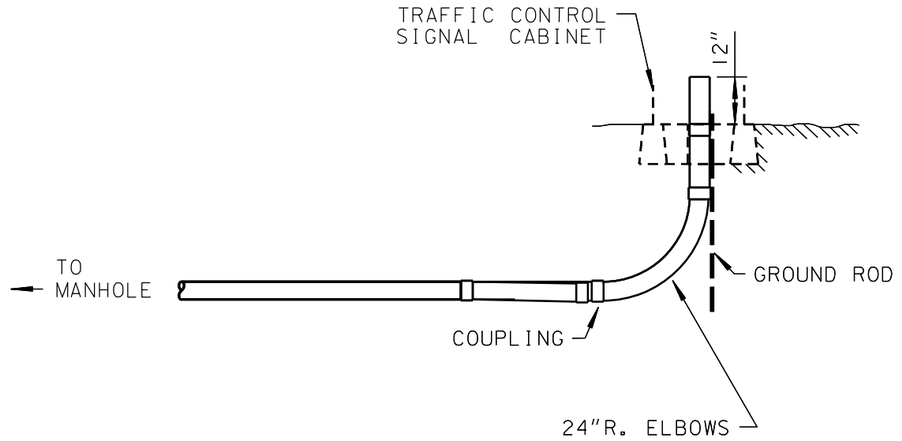



## TYPICAL CONDUIT - VAULT ENTRY

N.T.S.

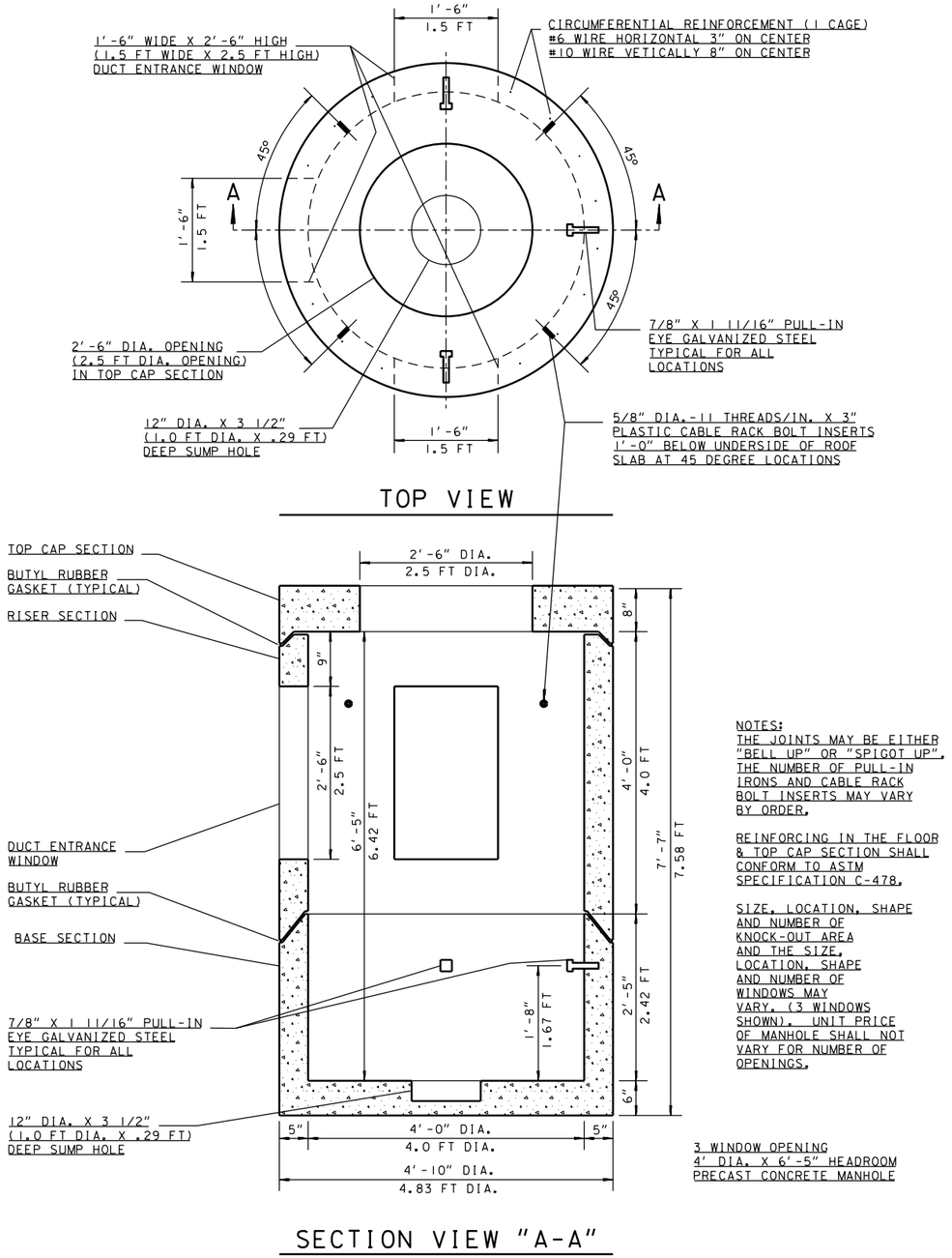



## TRAFFIC CONTROL CABINET

N.T.S.

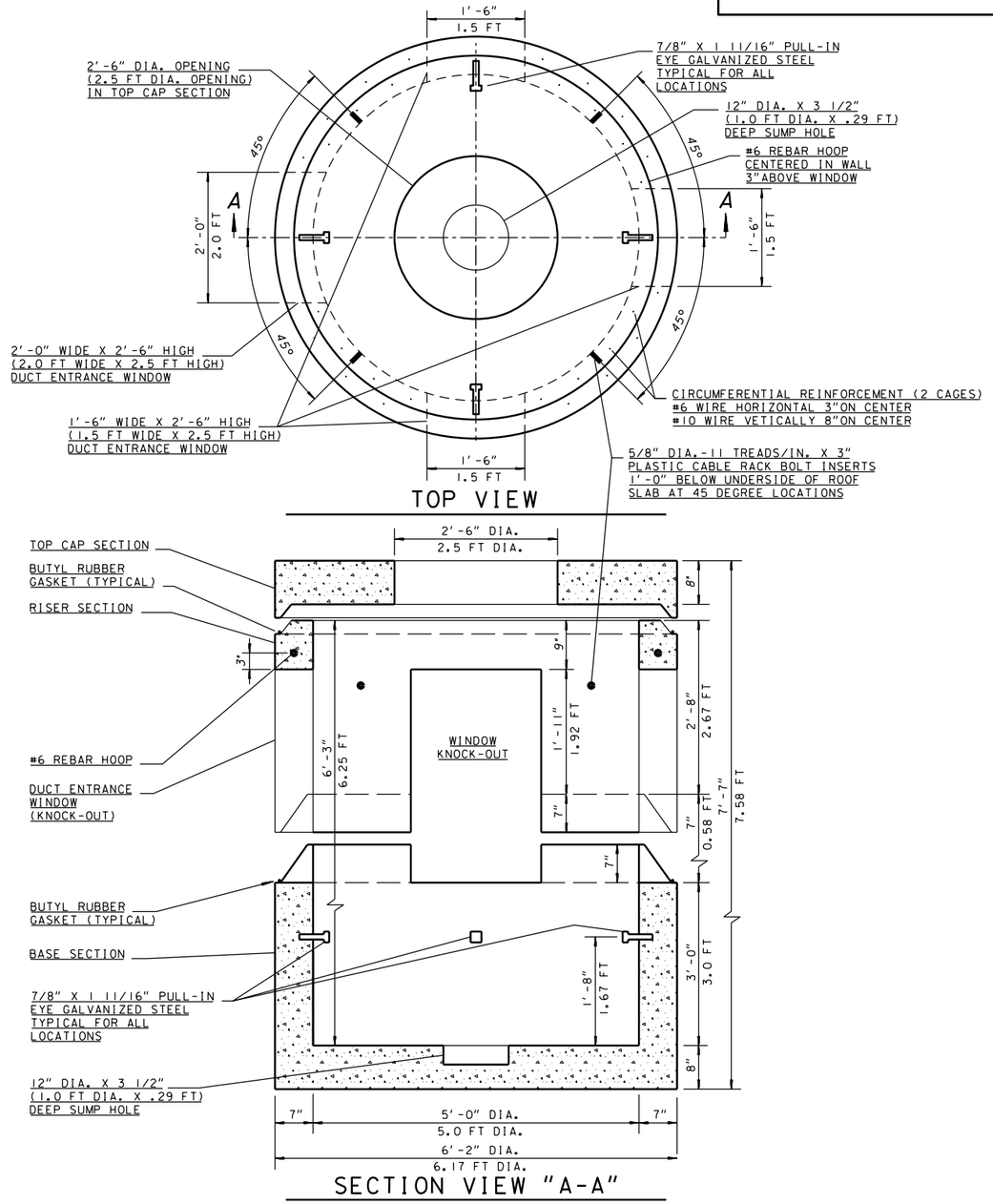


FILE NAME : W:\ugd\Conduit Work Files\uconduit\2022\E&W HOWARD AVE\dgn\Details
PLOT DATE: 08/29/2023
PLOT BY: HAZEM RAMADAN
PLOT SCALE: 40
WISDOT/Cadds sheets




## 4' DIAMETER STANDARD TYPE CUC MANHOLE

N.T.S.




N.T.S.

## 5' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE

N.T.S.

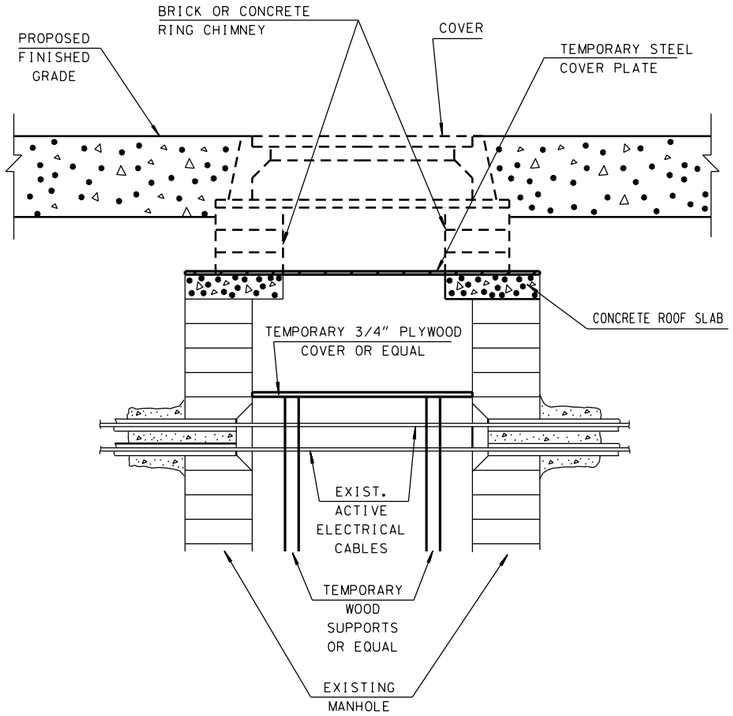
STATE PROJECT NUMBER

2395 - 05 - 71

STATE PROJECT NUMBER

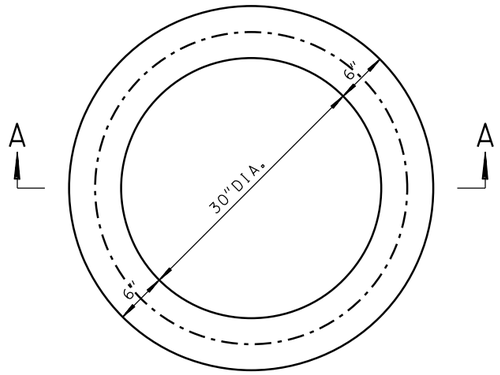
2395 - 05 - 71



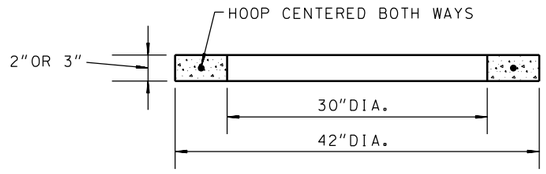



## BLOCK OR PRECAST MANHOLE

## ADJUSTING CUC MANHOLES




PLAN




SECTION A-A

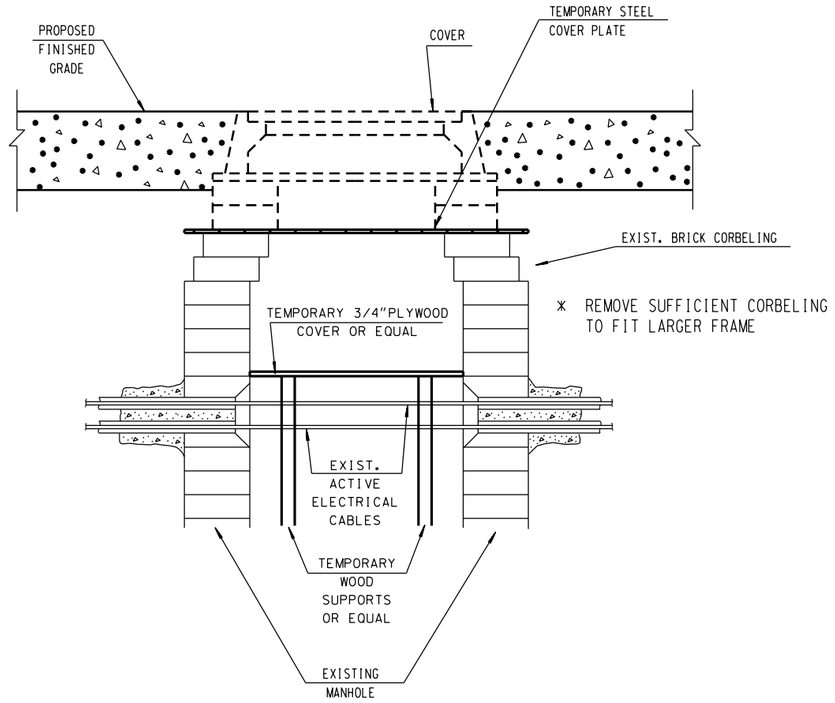
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

## CONCRETE ADJUSTING RING




## BRICK ROUND MANHOLE

## ADJUSTING CUC MANHOLES

# ADJUSTING CUC MANHOLES

N.T.S.

2

2

N

1-1

SOUTH EAST
INTERSTATE INTERSTATE
43 94

REMOVE

W. HOWARD AV.

S 6TH ST.

00 +50 01 MON. section line N88°38'52"e +50 02 +50 03 +5

SIGN POST

FENCE POST

SPEED LIMIT 30

REMOVE

1-2

SCALE, FEET 0 30

SHEET 1 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 348 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42




2-1

TO BE REMOVED BY OTHERS




2-2

TO BE REMOVED BY OTHERS




2-3

TO BE REMOVED BY OTHERS



2-4

REMOVE




2-5

TO BE REMOVED BY OTHERS




2-6

REMOVE




2-7

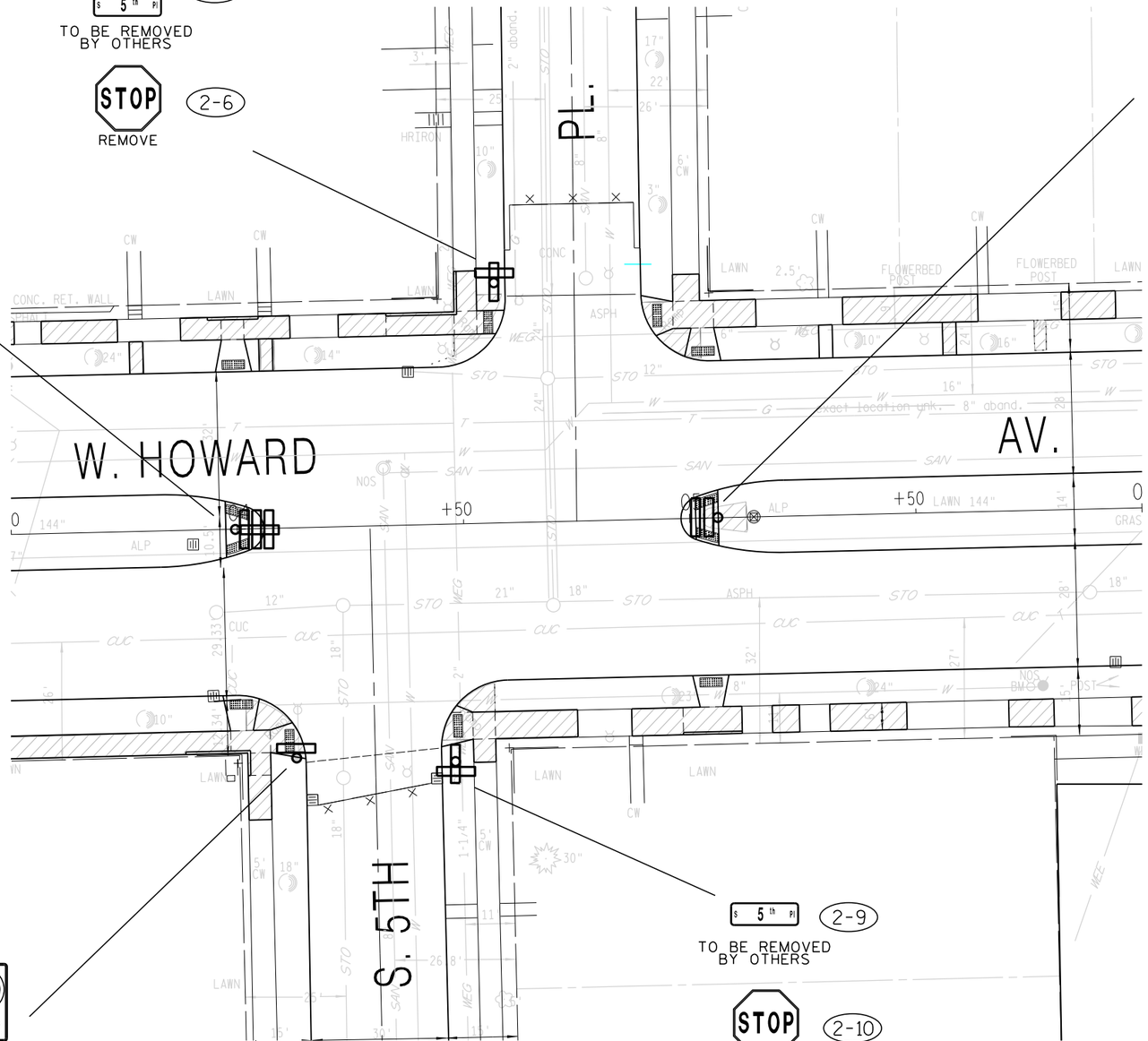
REMOVE



2-8

REMOVE







R5-23T
24" X 12"

2-11




2-9

TO BE REMOVED BY OTHERS



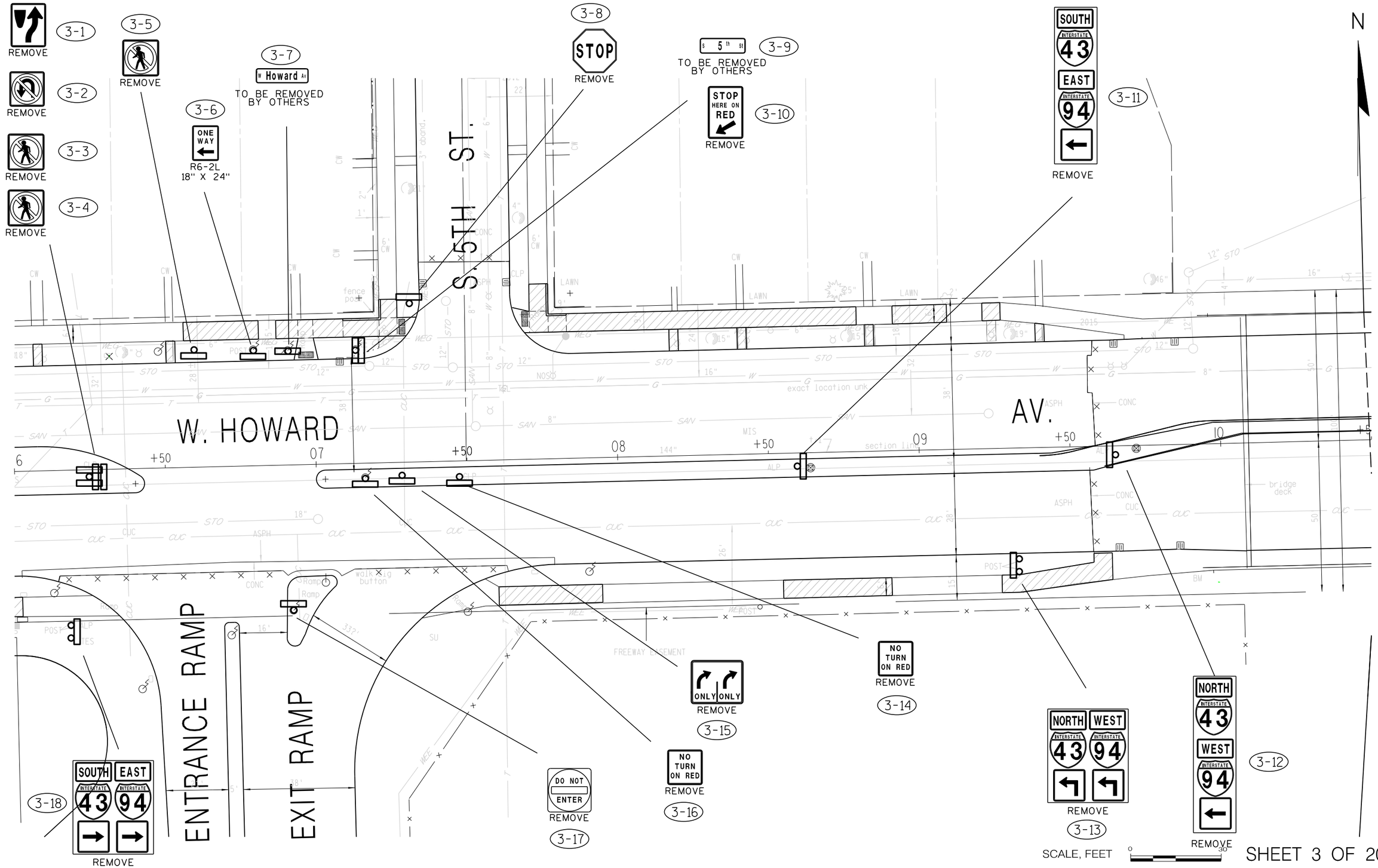

2-10

REMOVE

SCALE, FEET 0 30

SHEET 2 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 349 | E |
|---|---|---|---|---|---|




SHEET 3 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 350 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

UNDERPASS

ENTRANCE RAMP

ST.

AV.

W. HOWARD

143 / 194

EXIT RAMP

S. 3RD

4-1 REMOVE

4-2 STOP HERE ON RED REMOVE

4-3 REMOVE

4-4 NORTH INTERSTATE 43 WEST INTERSTATE 94 REMOVE

4-5 REMOVE

4-6 S 3rd St TO BE REMOVED BY OTHERS

4-7 ONE WAY REMOVE

4-8 STOP REMOVE

4-9 REMOVE

4-10 CITY OF MILWAUKEE NIGHT PARKING ORDINANCE TO BE REMOVED BY OTHERS

4-11 NO ENGINE BRAKING EXCEPT IN EMERGENCY TO BE REMOVED BY OTHERS

4-12 REMOVE

4-13 REMOVE

4-14 REMOVE

4-15 STOP REMOVE

4-16 W Howard Av TO BE REMOVED BY OTHERS

4-17 S 3rd St TO BE REMOVED BY OTHERS

4-18 3 TONS OR OVER REMOVE

4-19 STOP HERE ON RED R10-6R 24" X 36"

4-20 R10-4BR 6" X 8"

4-21 W Howard Av TO BE REMOVED BY OTHERS

4-22 REMOVE

4-23 REMOVE

4-24 REMOVE

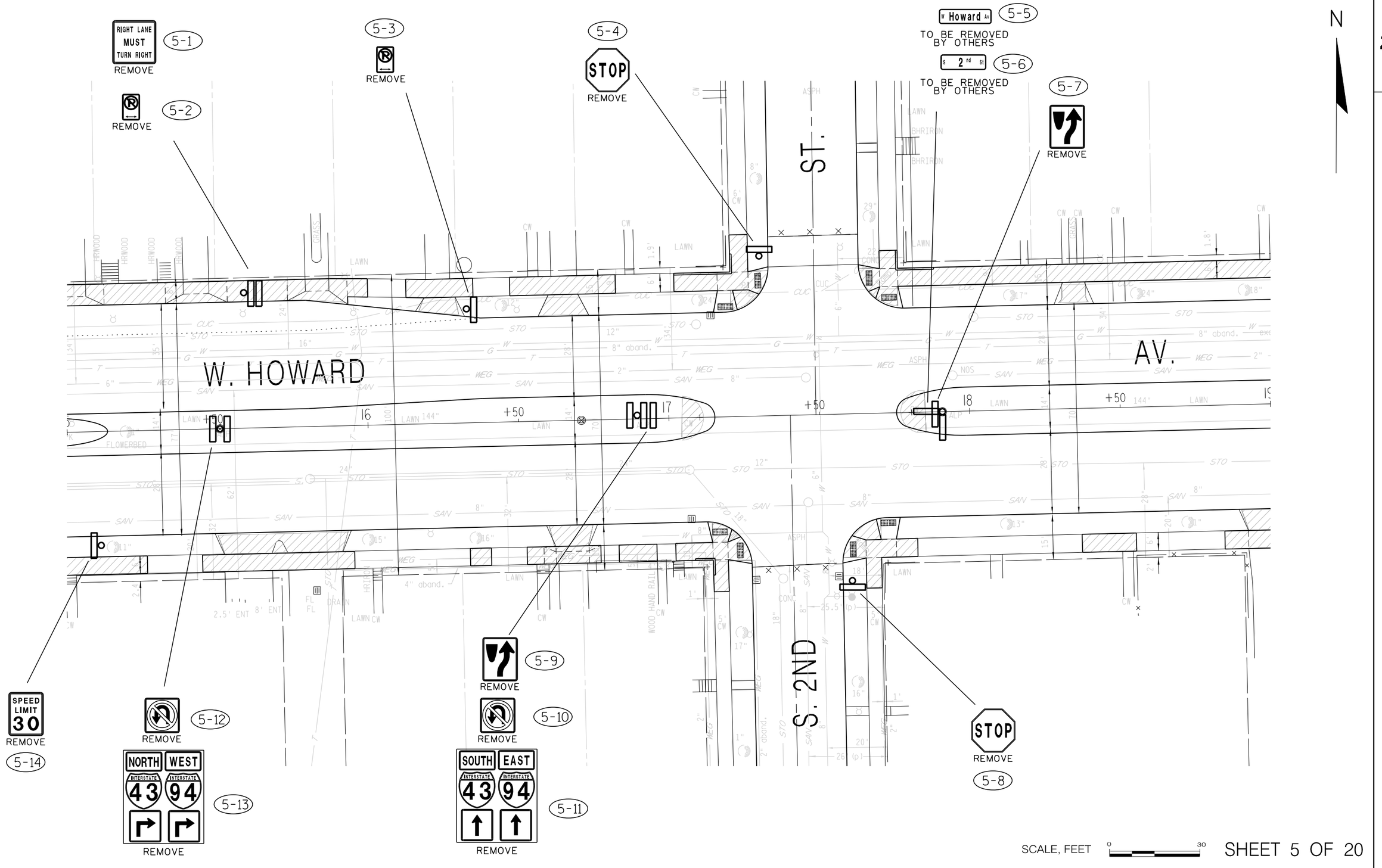
SCALE, FEET

SHEET 4 OF 20 SHEETS

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 351 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42




SCALE, FEET 0 30

SHEET 5 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 352 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

CHURCH SIGN 6-1

TO BE REMOVED BY OTHERS

6-2

REMOVE

W. HOWARD

AV.

S. 1ST PL.

JCT INTERSTATE 43 INTERSTATE 94 6-5

REMOVE

S 1 ST PL 6-3

TO BE REMOVED BY OTHERS

STOP 6-4

REMOVE

SCALE, FEET 0 30

SHEET 6 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 353 | E |
|---|---|---|---|---|---|

2

N

JCT 38 7-1
REMOVE

CHURCH SIGN 7-2
TO BE REMOVED BY OTHERS

CHURCH SIGN 7-3
TO BE REMOVED BY OTHERS

W Howard Av 7-4
TO BE REMOVED BY OTHERS

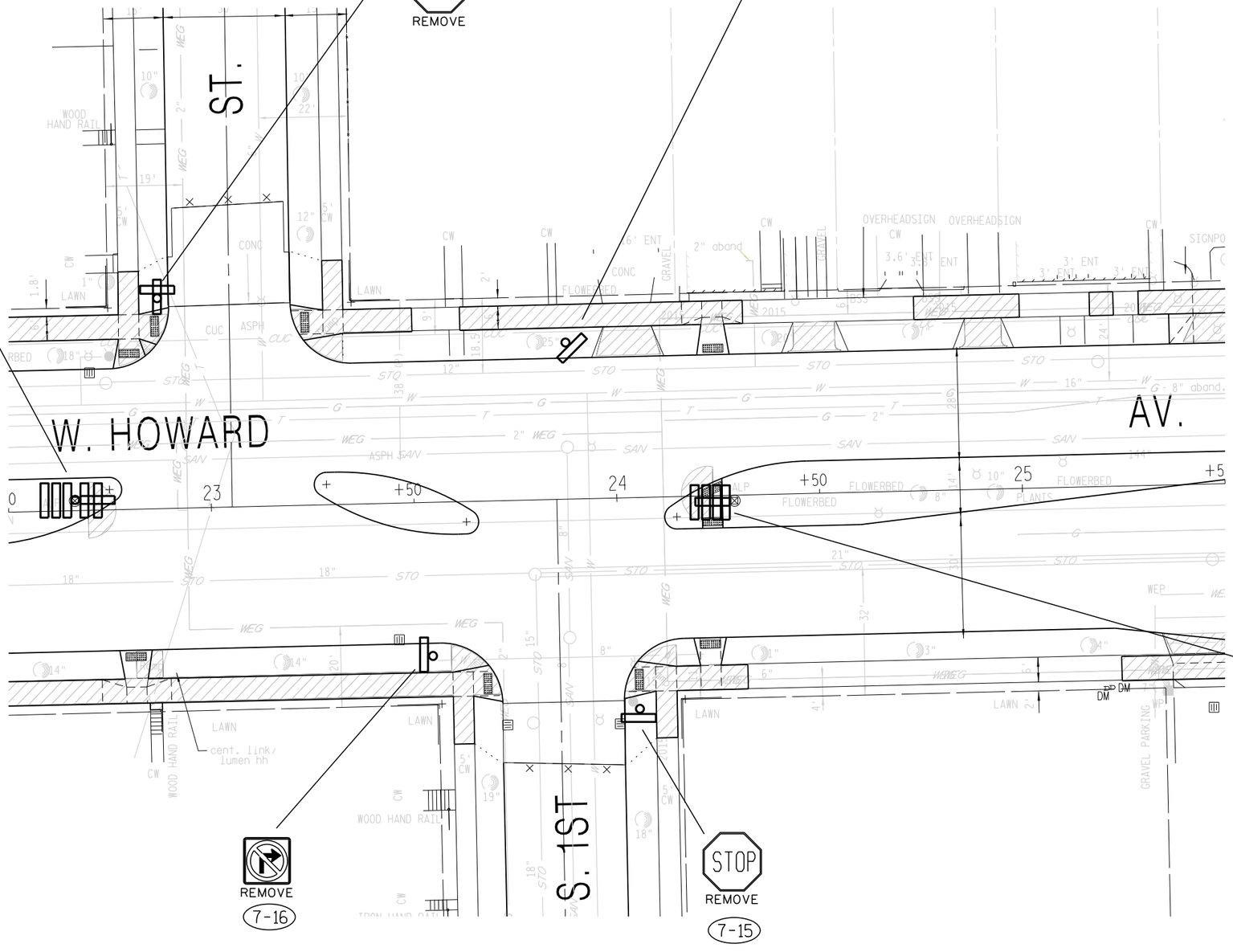
CHURCH SIGN 7-5
TO BE REMOVED BY OTHERS

7-6
REMOVE

S 1ST ST 7-7
TO BE REMOVED BY OTHERS

STOP 7-8
REMOVE

7-9
REMOVE




38 7-10
REMOVE

W Howard Av 7-11
TO BE REMOVED BY OTHERS

7-12
REMOVE

7-13
REMOVE

7-14
REMOVE

SCALE, FEET 0 30

SHEET 7 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 354 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N

W. HOWARD AV.

E. HOWARD AV.

S. HOWELL AV.

8-1
REMOVE

LEFT TURN YIELD ON FLASHING YELLOW ARROW
8-2
REMOVE

8-3
REMOVE

8-4
W Howard Av
TO BE REMOVED BY OTHERS

8-5
LEFT TURN YIELD ON FLASHING YELLOW ARROW
REMOVE

8-6
38
REMOVE

R7-1D
12" X 18"
8-13

R7-1D
12" X 18"
8-12

LEFT TURN YIELD ON FLASHING YELLOW ARROW
8-10
REMOVE

8-11
REMOVE

W Howard Av
TO BE REMOVED BY OTHERS
8-9

3 TONS OR OVER
REMOVE
8-8

ONLY
REMOVE
8-7

SCALE, FEET 0 30

SHEET 8 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 355 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N

9-1 JCT 38 REMOVE

9-2 S Austin St TO BE REMOVED BY OTHERS

9-3 SPEED LIMIT 30 REMOVE

9-4 END SCHOOL ZONE REMOVE

9-5 STOP REMOVE

9-6 S Austin St TO BE REMOVED BY OTHERS

9-7 W Howard Av TO BE REMOVED BY OTHERS

9-8 REMOVE

E. HOWARD

S. AUSTIN ST.

AV.

9-16 REMOVE

9-14 REMOVE

9-17 AHEAD REMOVE

9-15 AHEAD REMOVE

9-13 REMOVE

9-11 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT REMOVE

9-12 FINES HIGHER REMOVE

9-9 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT REMOVE

9-10 FINES HIGHER REMOVE

SCALE, FEET 0 30

SHEET 9 OF 20

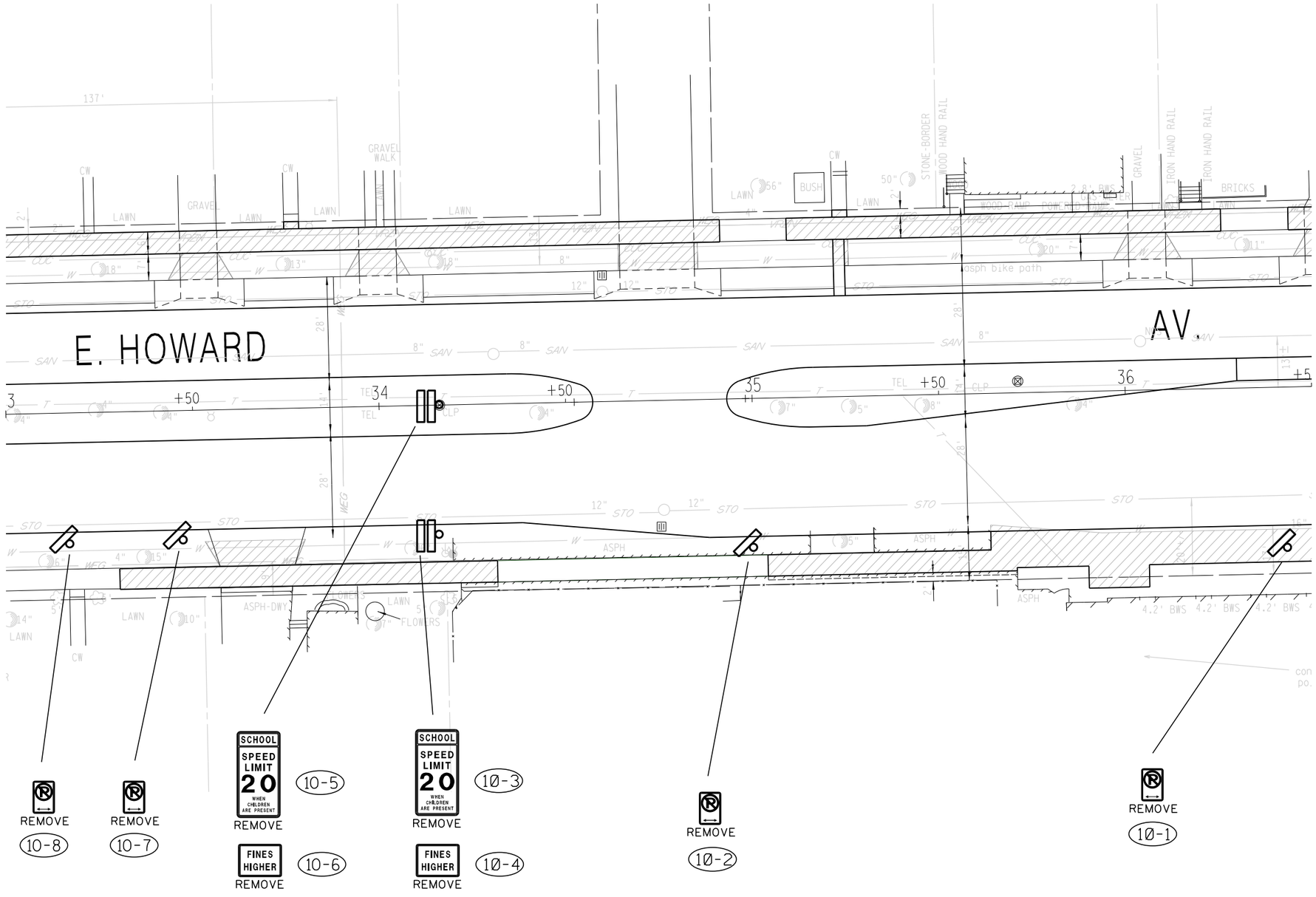
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 356 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




SCALE, FEET 0 30

SHEET 10 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 357 | E |
|---|---|---|---|---|---|

2

N

11-1
LEFT TURN YIELD TO PEDESTRIANS
REMOVE

11-2
W Howard Av
TO BE REMOVED BY OTHERS

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
REMOVE
11-3

FINES HIGHER
REMOVE
11-4

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
REMOVE
11-5

FINES HIGHER
REMOVE
11-6

SPEED LIMIT 30
REMOVE
11-7

END SCHOOL ZONE
REMOVE
11-8

3 TONS OR OVER
REMOVE
11-9

REMOVE
11-10

E. HOWARD

AV.

S. WHITNALL AV.

SCALE, FEET 0 30

SHEET 11 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 358 | E |
|---|---|---|---|---|---|

2

N

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
12-1
REMOVE

FINES HIGHER
12-2
REMOVE

SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
12-3
REMOVE

FINES HIGHER
12-4
REMOVE

W Howard Av
12-5
TO BE REMOVED BY OTHERS

12-6
REMOVE

AHEAD
12-7
REMOVE

12-8
STOP
REMOVE

W Howard Av
12-9
TO BE REMOVED BY OTHERS

S Griffin Av
12-10
TO BE REMOVED BY OTHERS

12-11
REMOVE

E. HOWARD

S. GRIFFIN AV.

AV.

12-12
REMOVE

AHEAD
12-13
REMOVE

SCALE, FEET 0 30

SHEET 12 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 359 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

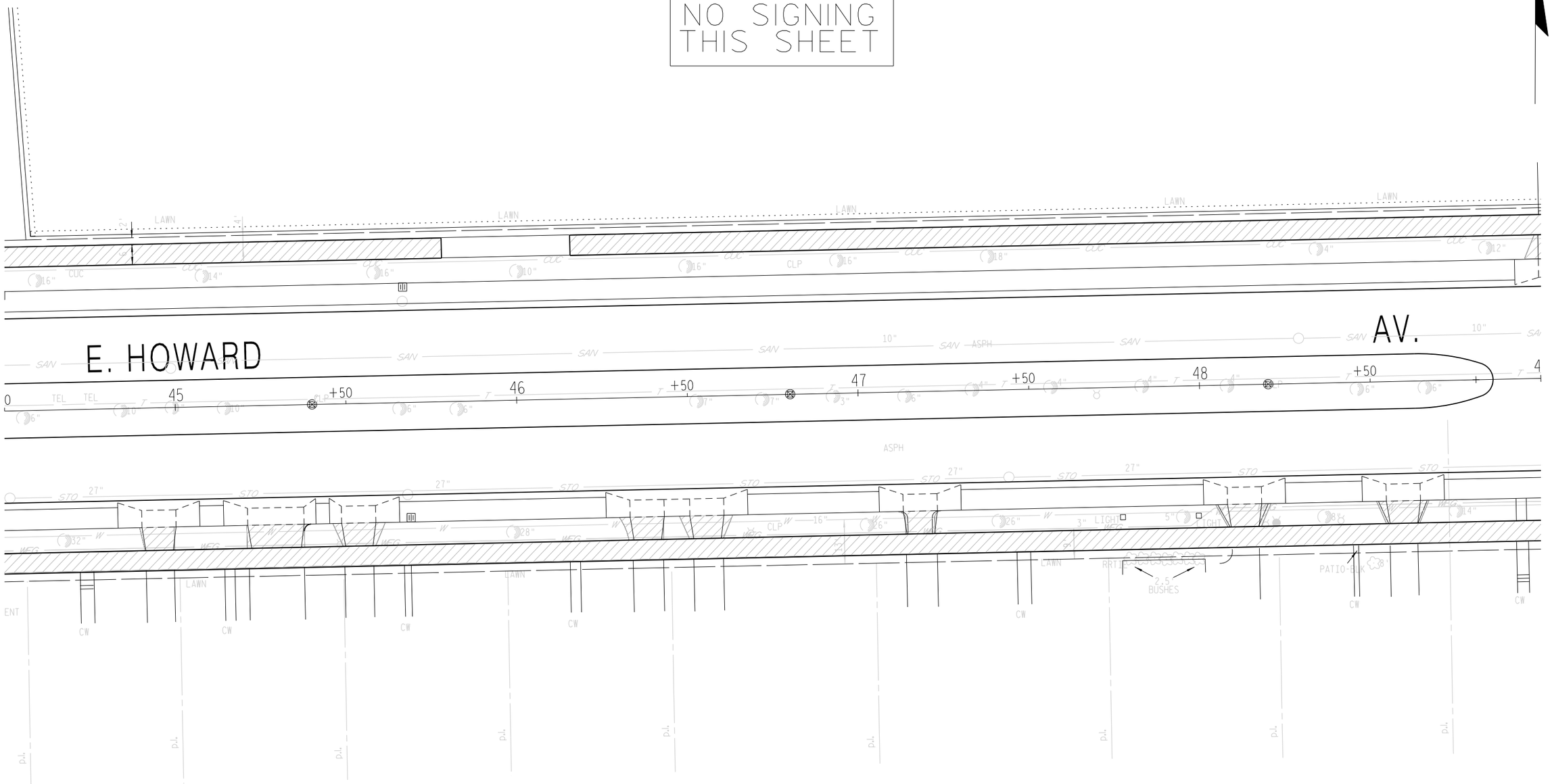
WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING
THIS SHEET




SCALE, FEET 0 30

SHEET 13 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 360 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

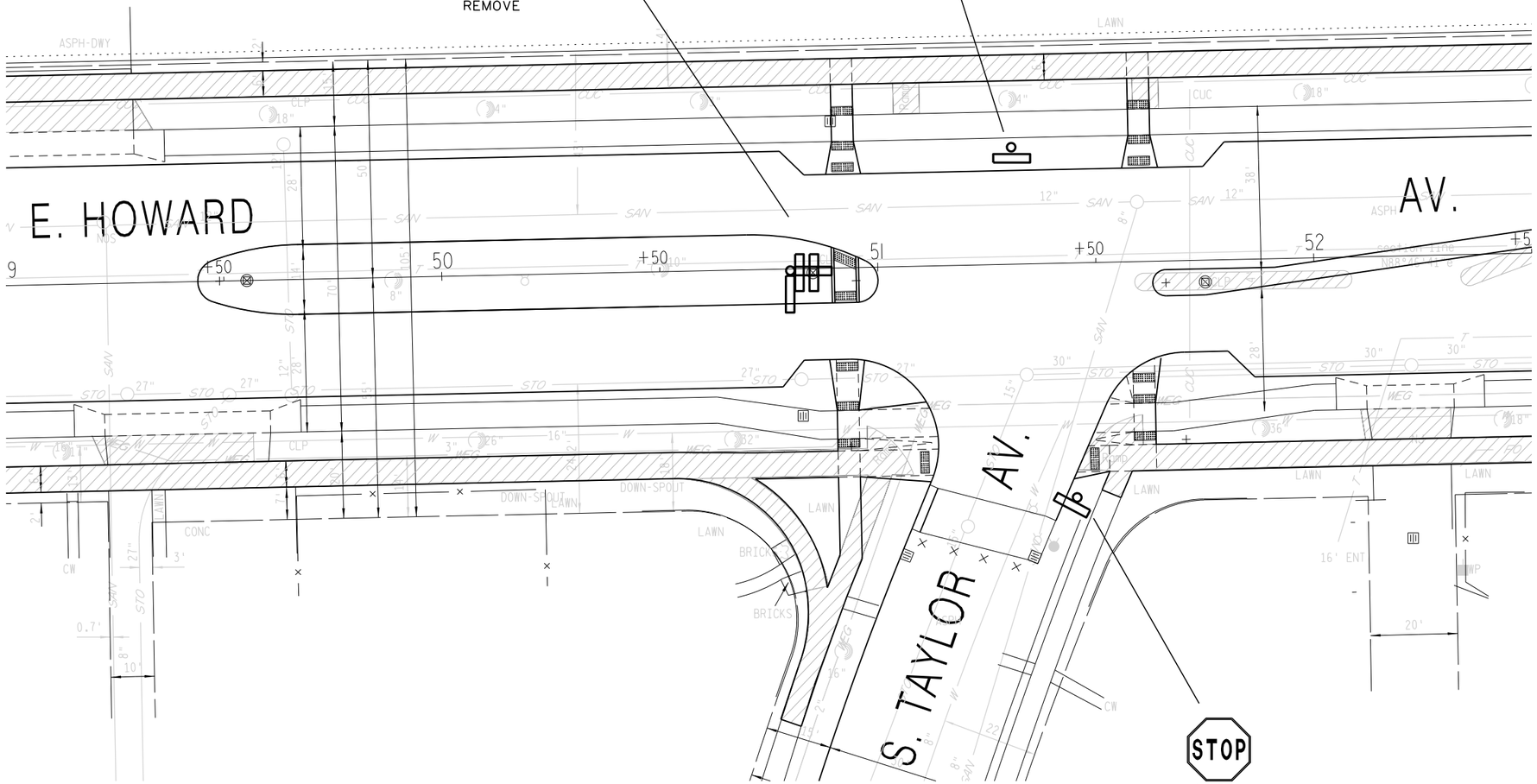
S Taylor Av 14-1
TO BE REMOVED BY OTHERS

W Howard Av 14-2
TO BE REMOVED BY OTHERS

14-3
REMOVE

14-4
REMOVE

14-5
REMOVE




SCALE, FEET 0 30

SHEET 14 OF 20

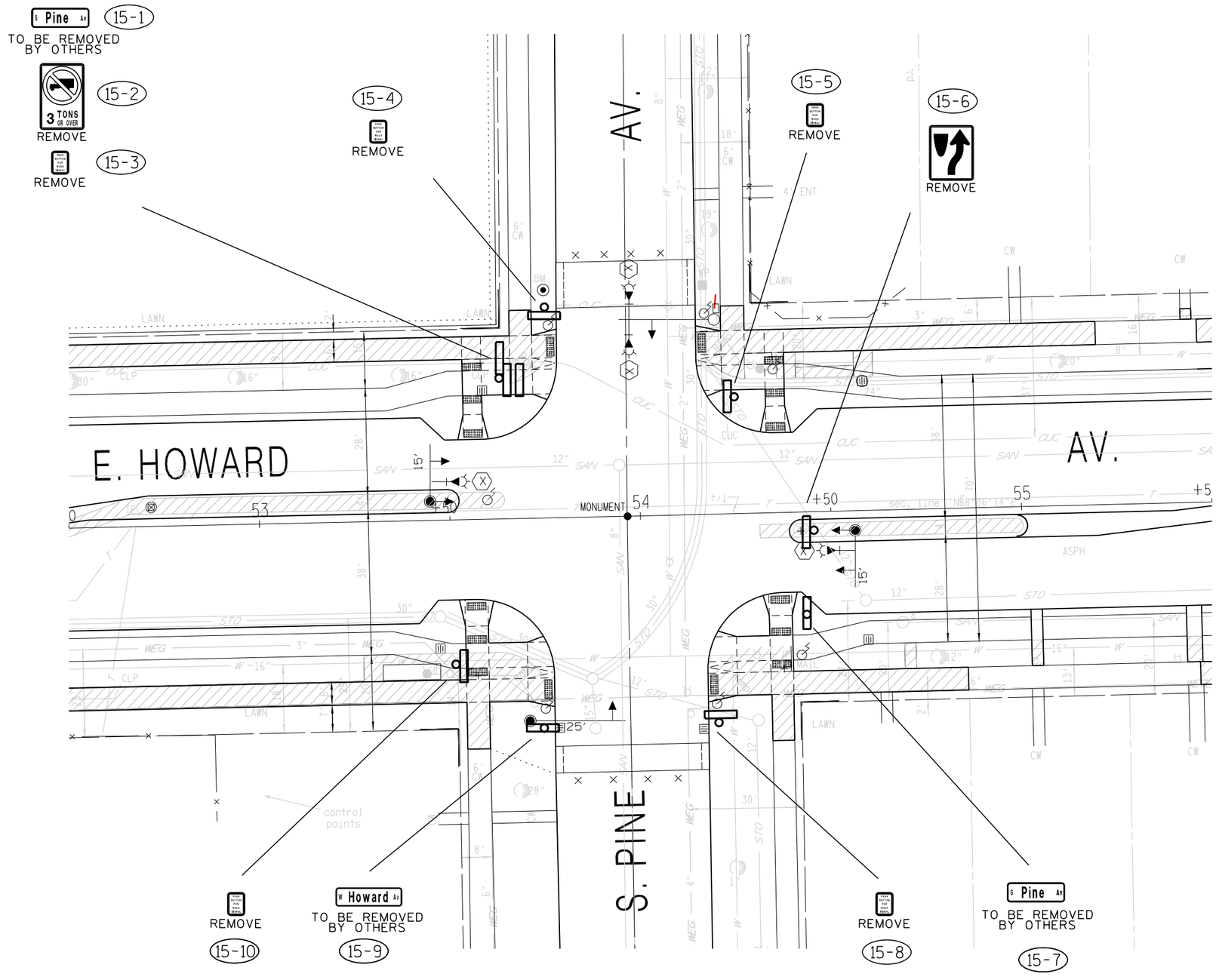
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 361 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




SCALE, FEET 0 30

SHEET 15 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 362 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N

W Howard Av 16-1

TO BE REMOVED BY OTHERS

16-2

REMOVE

16-3

S Lennox Av

TO BE REMOVED BY OTHERS

16-4

STOP

REMOVE

E. HOWARD

ST.

AV.

S. LENOX

SPEED LIMIT 30

REMOVE

16-7

S Lennox Av

TO BE REMOVED BY OTHERS

16-6

REMOVE

16-5

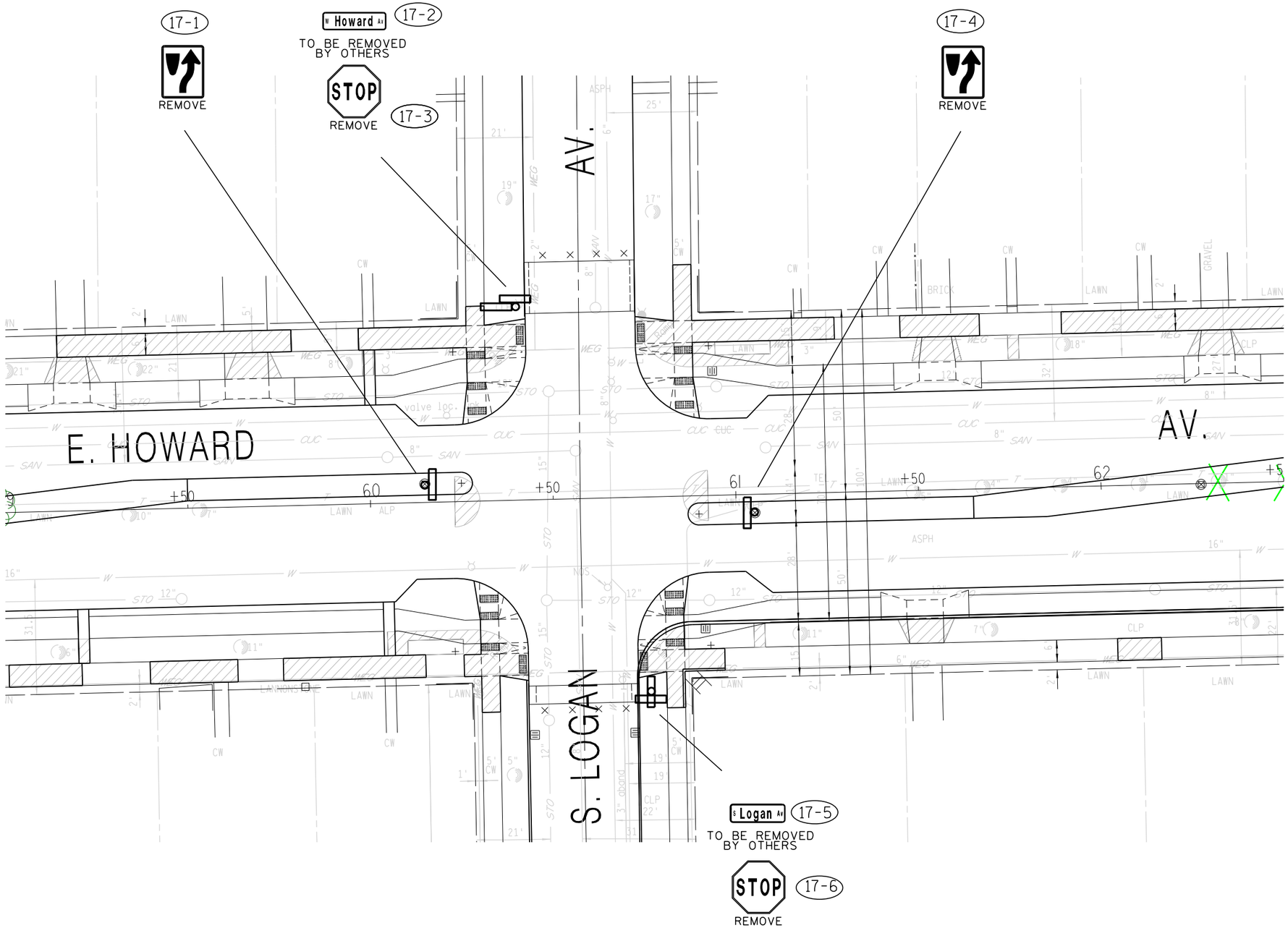
SCALE, FEET 0 30

SHEET 16 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 363 | E |
|---|---|---|---|---|---|

2

N




SCALE, FEET 0 30

SHEET 17 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 364 | E |
|---|---|---|---|---|---|

2

N

18-1
REMOVE

18-2
S Herman St
TO BE REMOVED BY OTHERS

18-3
STOP
REMOVE

18-4
S Herman St
TO BE REMOVED BY OTHERS

18-5
W Howard Av
TO BE REMOVED BY OTHERS

18-6
REMOVE

E. HOWARD

ST.

AV.

S. HERMAN

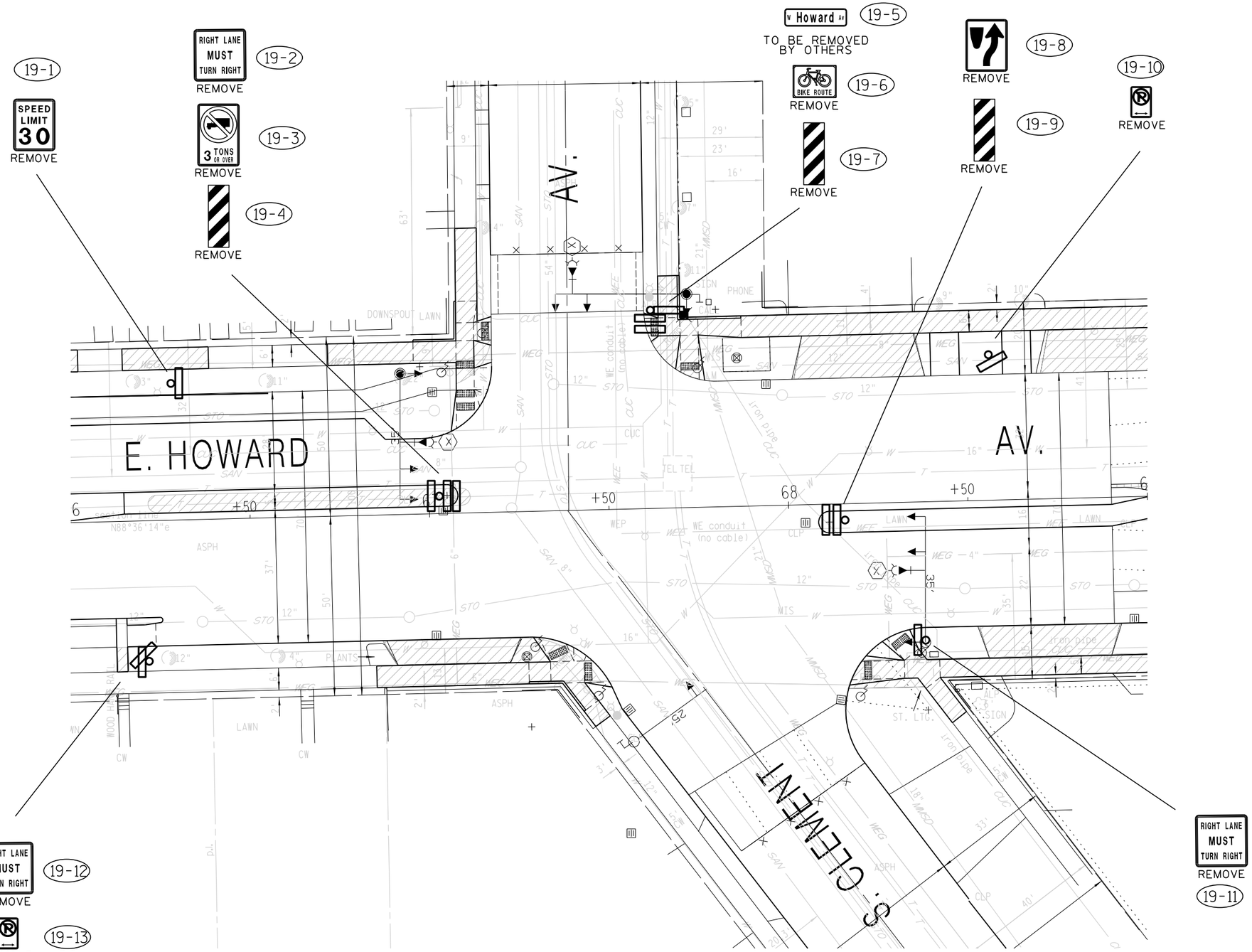
18-8
STOP
REMOVE

18-7
RIGHT LANE MUST TURN RIGHT
REMOVE

SCALE, FEET 0 30

SHEET 18 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 365 | E |
|---|---|---|---|---|---|




SHEET 19 OF 20

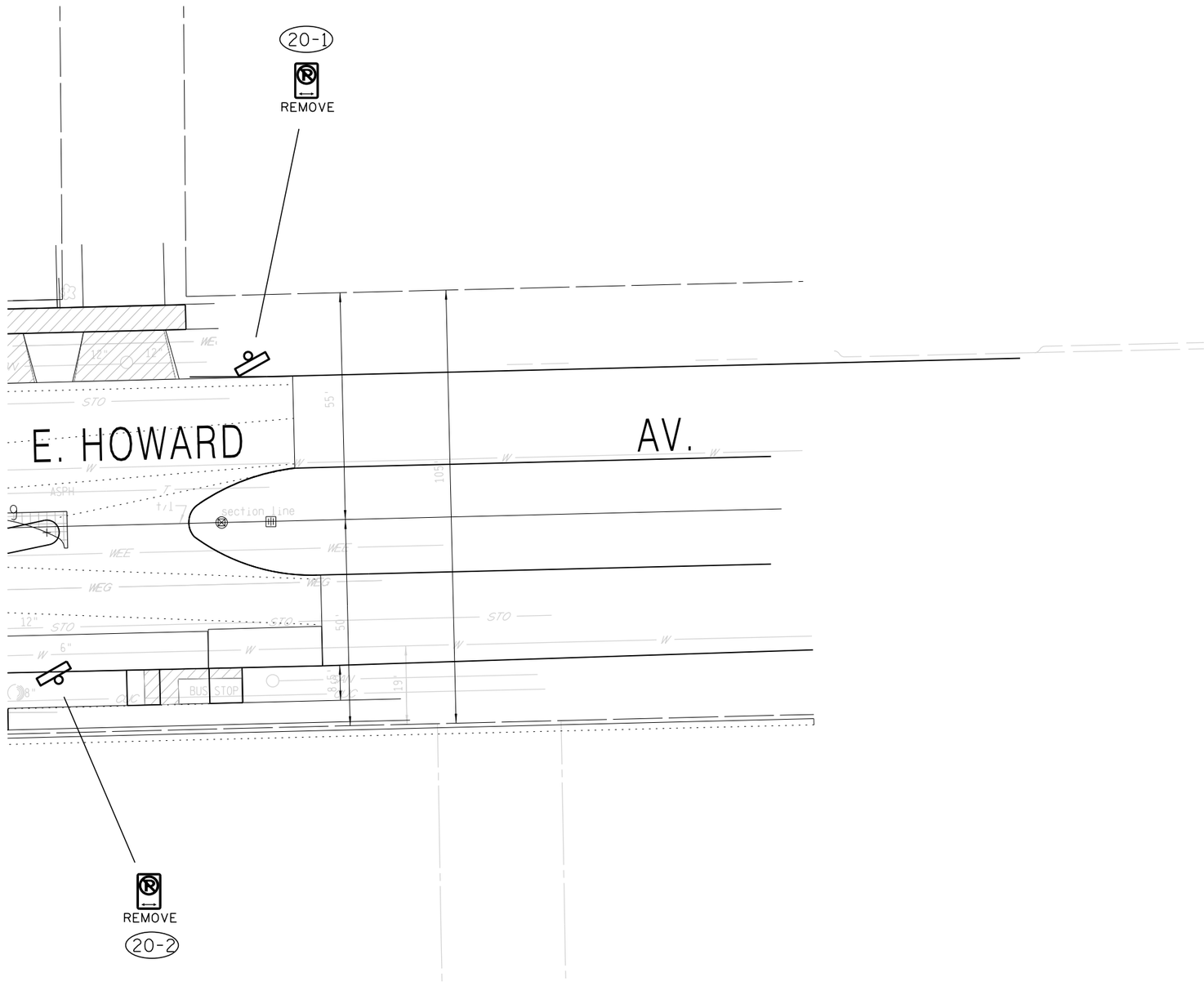
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 366 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




SCALE, FEET 0 30

SHEET 20 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN REMOVAL PLAN | SHEET NO. 367 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N

1-1
R4-7
24" X 30"

1-2
SPEED LIMIT 30
R2-1
24" X 30"

1-3
R7-1D MOD
12" X 18"

W. HOWARD

S 9TH ST.

AV.

00 01 02 03

+50

section line

N88°38'52"e

137'

10' LAWN

LAWN

GRAVEL

ASPHALT

WEG

STO

CUC

ASPH

TDSH

VAULT

CLP

Ramp

BUS PAD

SIGN POST

FENCE POST

BUS SHELTER

BRICK

PLAIN

full CW

POLE

FLOWERBED

SPEED LIMIT 30
R2-1
24" X 30"
1-6

1-4
R7-1L MOD
12" X 18"

1-5
W5-52R
12" X 36"

LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

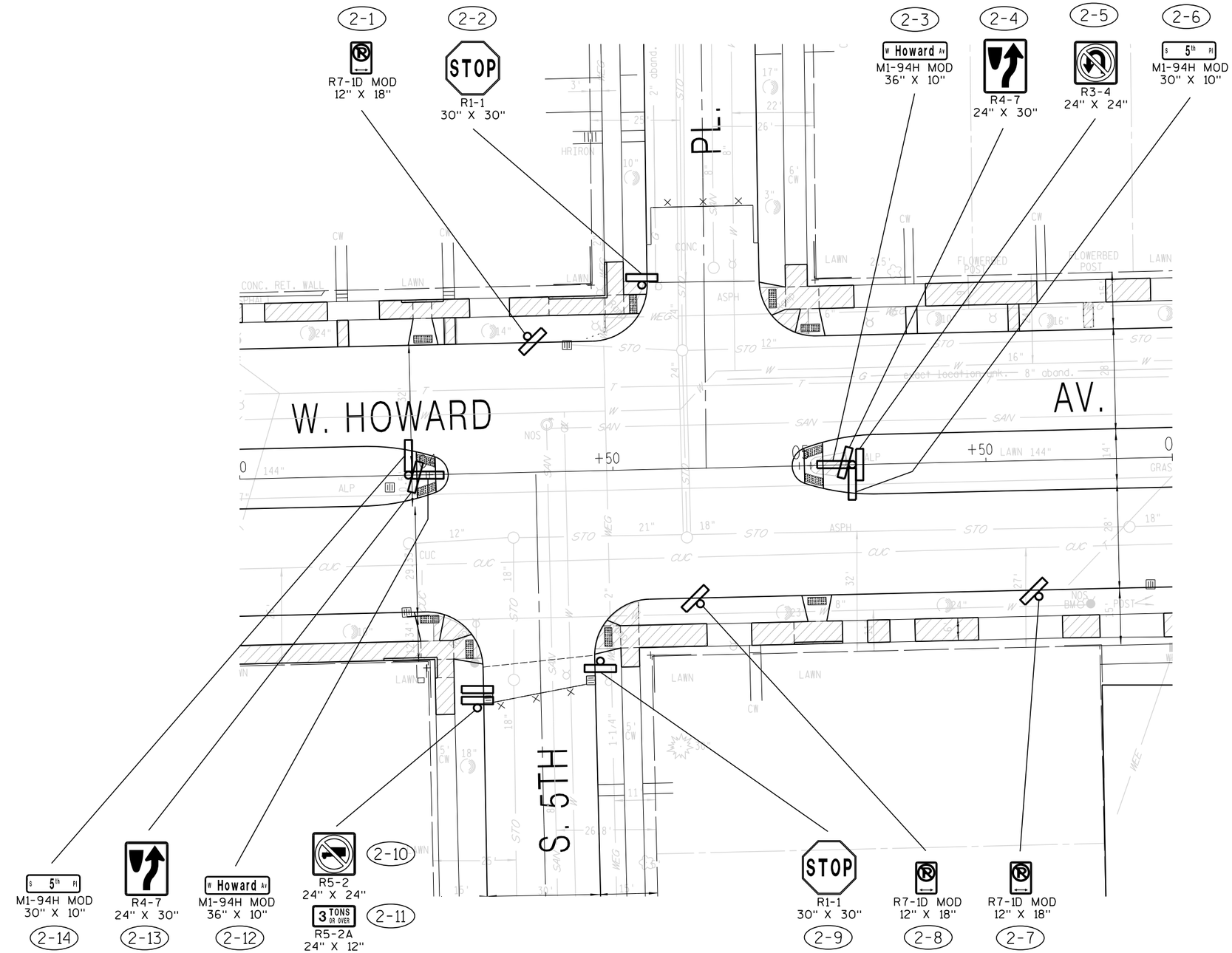
SHEET 1 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 368 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N




LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 2 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 369 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

3-1
R4-7
24" X 30"

3-2
R7-1D MOD
12" X 18"

3-3
M1-94H MOD
30" X 10"

3-4
R1-1
30" X 30"

3-5
M1-94H MOD
36" X 10"

3-6
R3-5R
30" X 36"

3-7
R7-1D MOD
12" X 18"

3-8
R7-1D MOD
12" X 18"

S. 5TH ST.

W. HOWARD

AV.

ENTRANCE RAMP

EXIT RAMP

FREEWAY EASEMENT

exact location unk.

3-11
R3-4
24" X 24"

3-10
R7-1D MOD
12" X 18"

3-9
R7-1D MOD
12" X 18"

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 3 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 370 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

UNDERPASS

W. HOWARD

143 / 194

ENTRANCE RAMP

EXIT RAMP

S. 3RD ST.

AV.

FREEWAY EASEMENT

4-1
R4-7
24" X 30"

4-2
W Howard Av
M1-94H MOD
36" X 10"

4-3
S 3rd St
M1-94H MOD
30" X 10"

4-4
STOP
R1-1
30" X 30"

4-5
ONE WAY
R6-2R
18" X 24"

4-6
R7-1D MOD
12" X 18"

4-14
S 3rd St
M1-94H MOD
30" X 10"

4-13
W Howard Av
M1-94H MOD
36" X 10"

4-11
R5-2
24" X 24"

4-12
3 TONS OR OVER
R5-2A
24" X 12"

4-10
STOP
R1-1
30" X 30"

4-9
ONLY
R3-5R
30" X 36"

4-8
R7-1D MOD
12" X 18"

4-7
SPEED LIMIT 30
R2-1
24" X 30"

LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 4 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 371 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

5-1 BEGIN RIGHT TURN LANE R3-20R 24" X 36"

5-2 R7-1D MOD 12" X 18"

5-3 STOP R1-1 30" X 30"

5-4 STOP R1-1 30" X 30"

5-5 W Howard Av M1-94H MOD 36" X 10"

5-6 R4-7 24" X 30"

5-7 S 2nd St M1-94H MOD 30" X 10"

5-8 R7-1D MOD 12" X 18"

W. HOWARD

ST.

AV.

S. 2ND

5-13 R7-1D MOD 12" X 18"

5-12 R4-7 24" X 30"

5-10 STOP R1-1 30" X 30"

5-11 STOP R1-1 30" X 30"

5-9 R7-1D MOD 12" X 18"

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 5 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 372 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

6-1
R7-1D MOD
12" X 18"

6-2
R4-7
24" X 30"

6-3
W Howard Av
M1-94H MOD
36" X 10"

6-4
S 1ST PL
M1-94H MOD
30" X 10"

6-5
R7-1D MOD
12" X 18"

6-6
R7-1D MOD
12" X 18"

W. HOWARD

AV.

S. 1ST PL.

6-9
R7-1D MOD
12" X 18"

6-8
R1-1
30" X 30"
STOP

6-7
R7-1D MOD
12" X 18"

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 6 OF 20

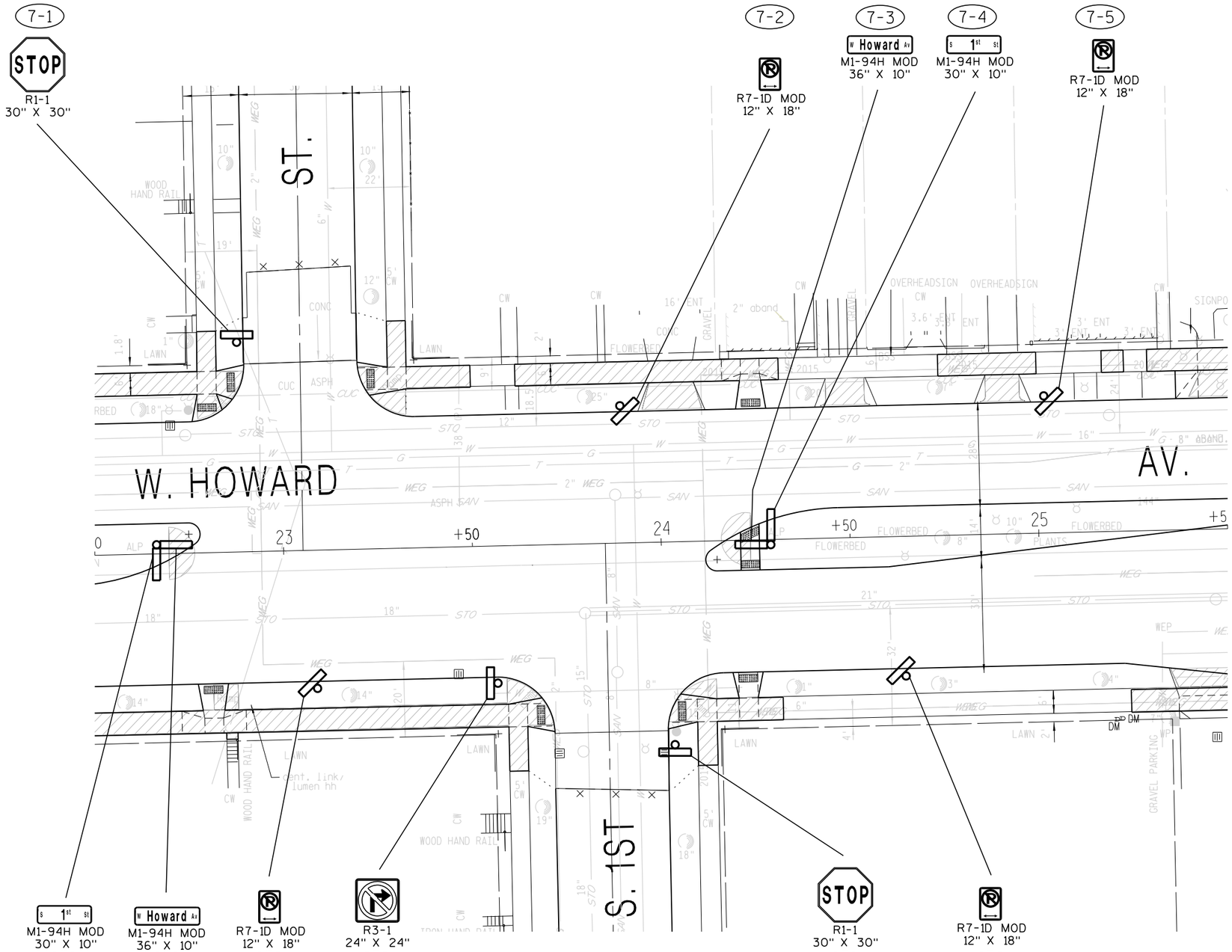
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 373 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




LEGEND

(XXX) SIGN NUMBER

SIGN

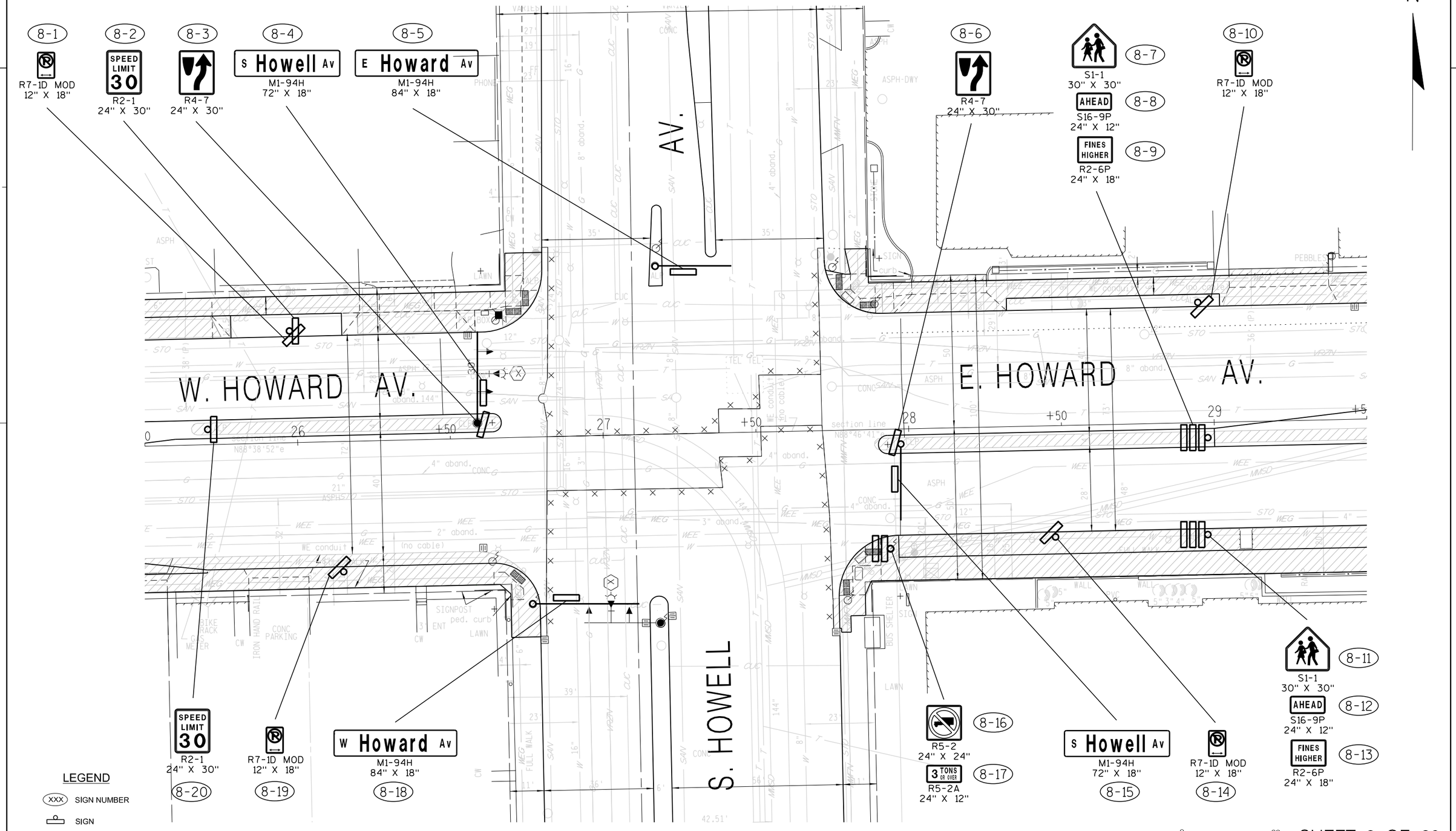
SCALE, FEET 0 30

SHEET 7 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 374 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42




SHEET 8 OF 20

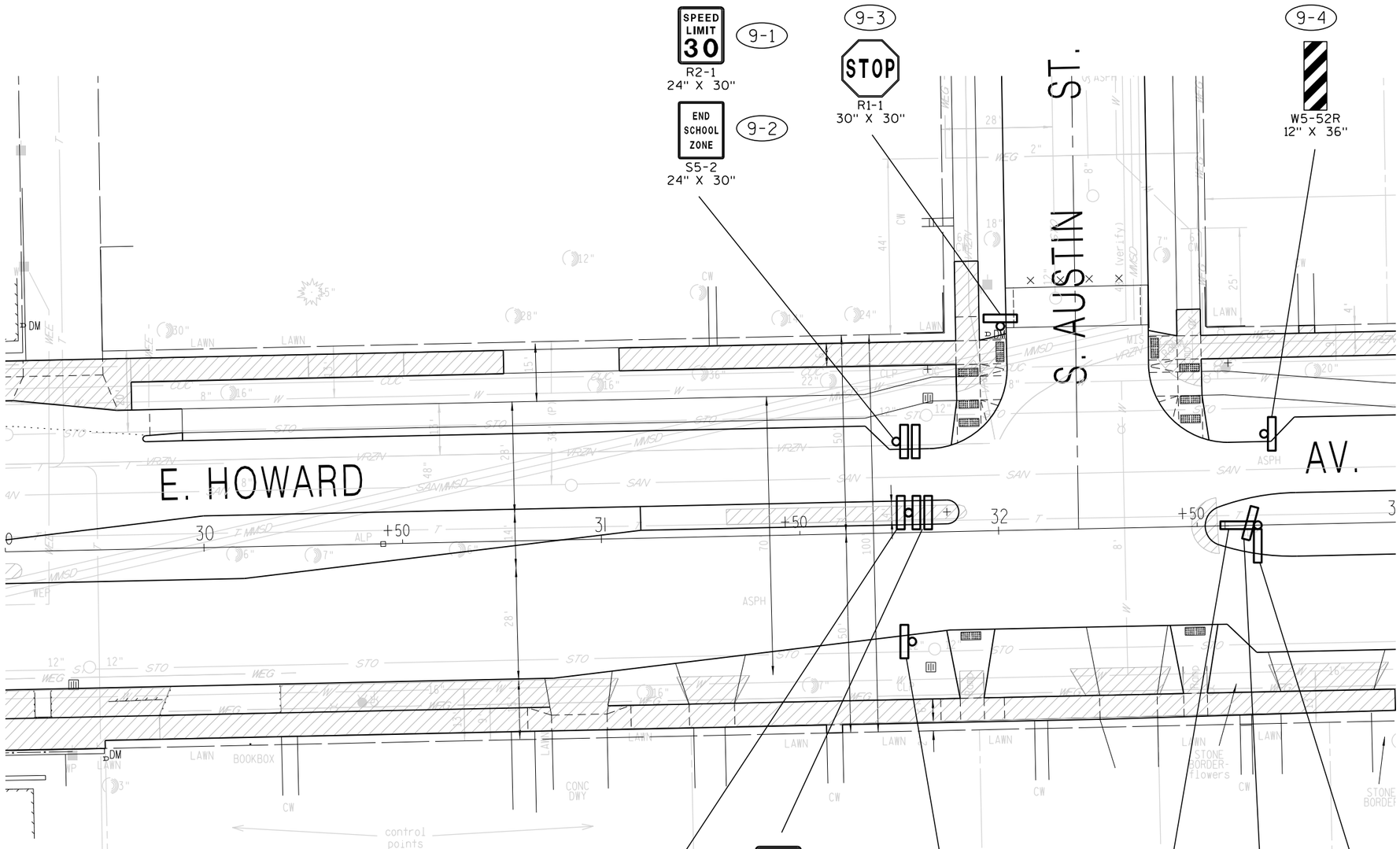
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 375 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 9 OF 20

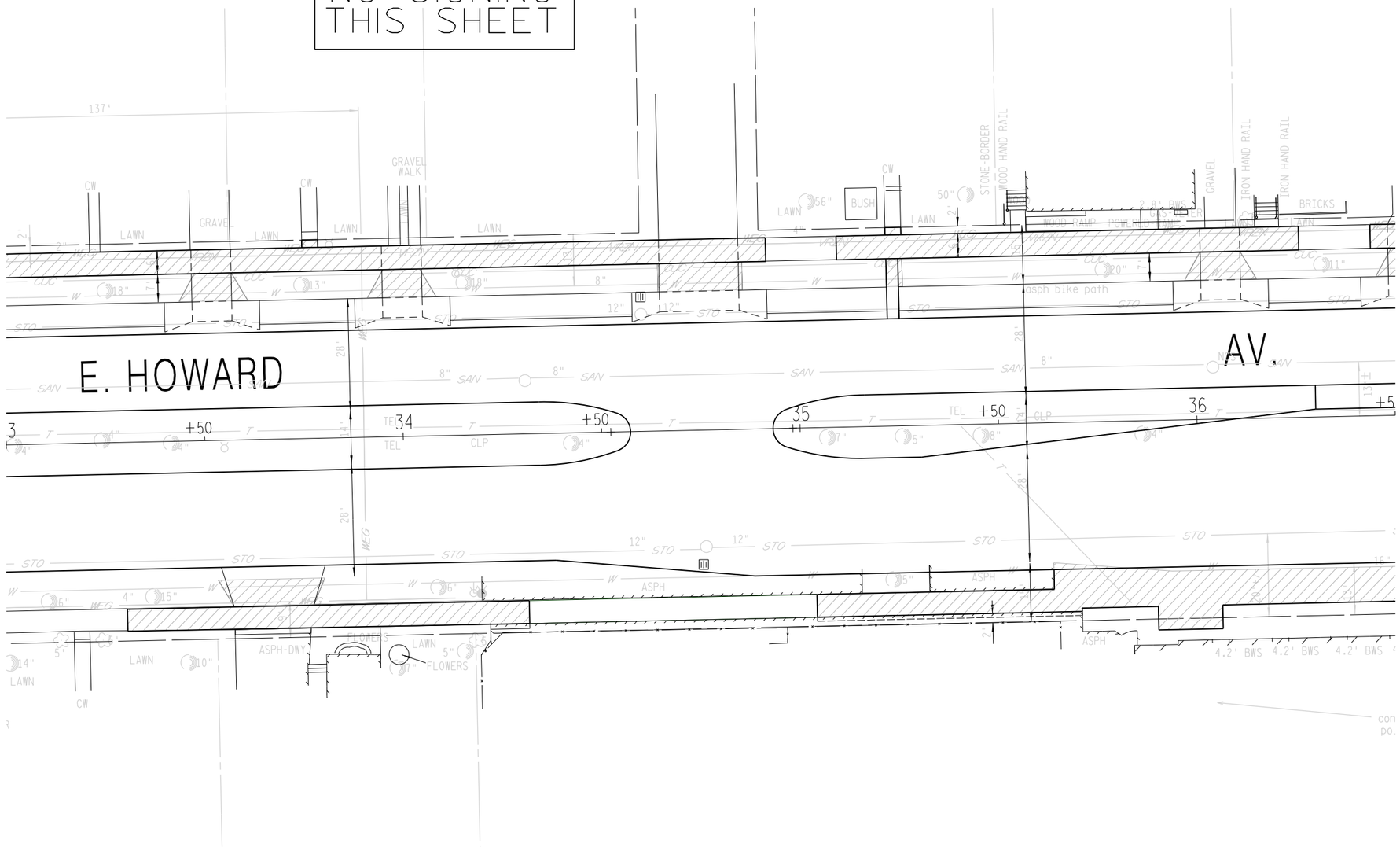
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 376 | E |
|---|---|---|---|---|---|

2

2

N

NO SIGNING THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 10 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 377 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

11-1
S Whitnall Av
M1-94H
84" X 18"

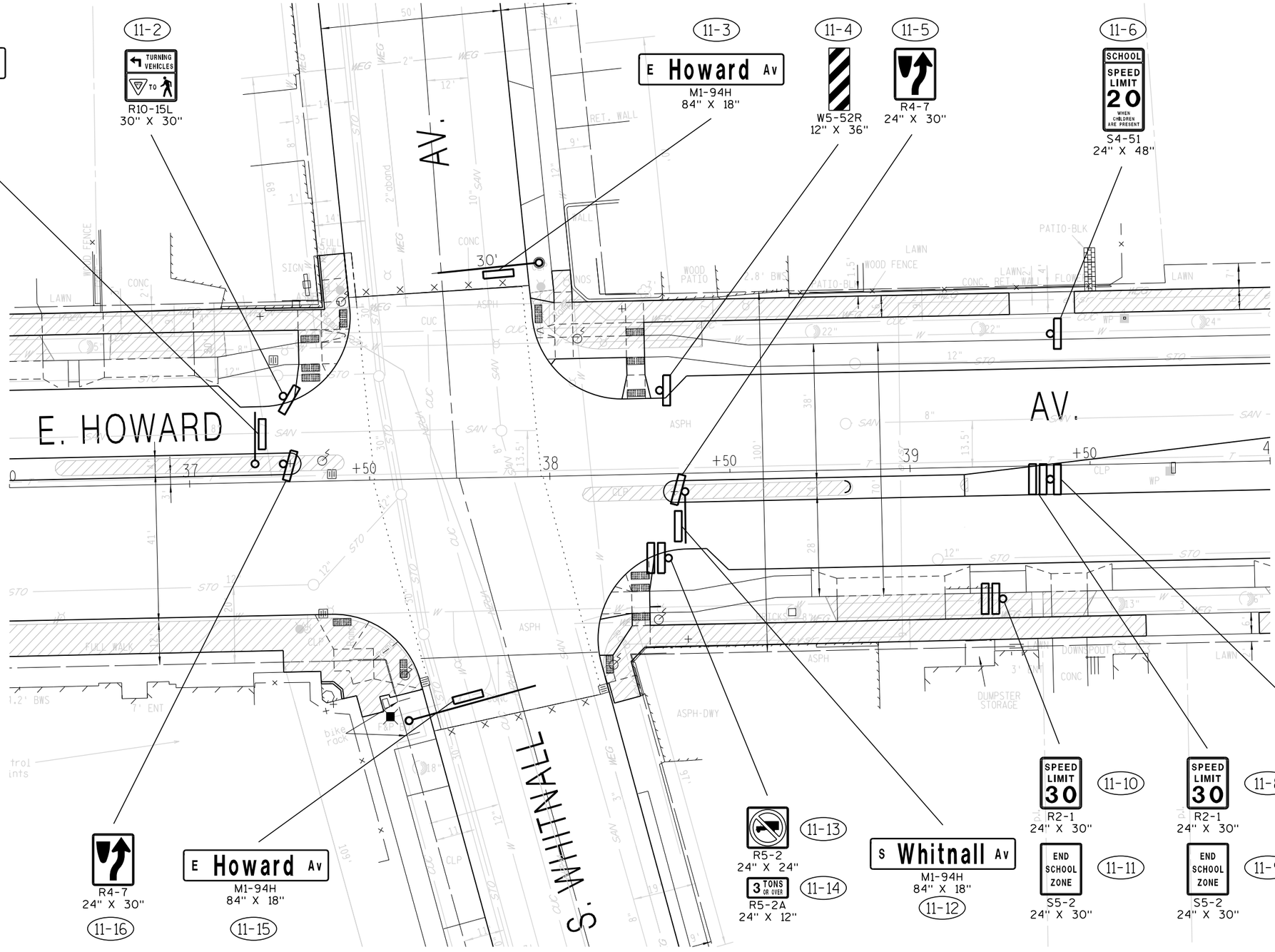
11-2
TURNING VEHICLES
TO
R10-15L
30" X 30"

11-3
E Howard Av
M1-94H
84" X 18"

11-4
W5-52R
12" X 36"

11-5
R4-7
24" X 30"

11-6
SCHOOL
SPEED LIMIT 20
WHEN CHILDREN ARE PRESENT
S4-51
24" X 48"




11-16
R4-7
24" X 30"

11-15
E Howard Av
M1-94H
84" X 18"

11-13
R5-2
24" X 24"

11-14
3 TONS OR OVER
R5-2A
24" X 12"

11-12
S Whitnall Av
M1-94H
84" X 18"

11-10
SPEED LIMIT 30
R2-1
24" X 30"

11-11
END SCHOOL ZONE
S5-2
24" X 30"

11-8
SPEED LIMIT 30
R2-1
24" X 30"

11-9
END SCHOOL ZONE
S5-2
24" X 30"

11-7
SCHOOL
SPEED LIMIT 20
WHEN CHILDREN ARE PRESENT
S4-51
24" X 48"

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 11 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 378 | E |
|---|---|---|---|---|---|

2

N

12-1
S1-1
30" X 30"

12-2
AHEAD
S16-9P
24" X 12"

122-3
FINES HIGHER
R2-6P
24" X 18"

12-4
STOP
R1-1
30" X 30"

12-5
W5-52R
12" X 36"

S. GRIFFIN AV.

E. HOWARD

AV.

12-10
S1-1
30" X 30"

12-11
AHEAD
S16-9P
24" X 12"

12-12
FINES HIGHER
R2-6P
24" X 18"

control points

12-9
W5-52R
12" X 36"

12-8
E Howard Av
M1-94H MOD
36" X 10"

12-7
R4-7
24" X 30"

12-6
S Griffen Av
M1-94H MOD
36" X 10"

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 12 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 379 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

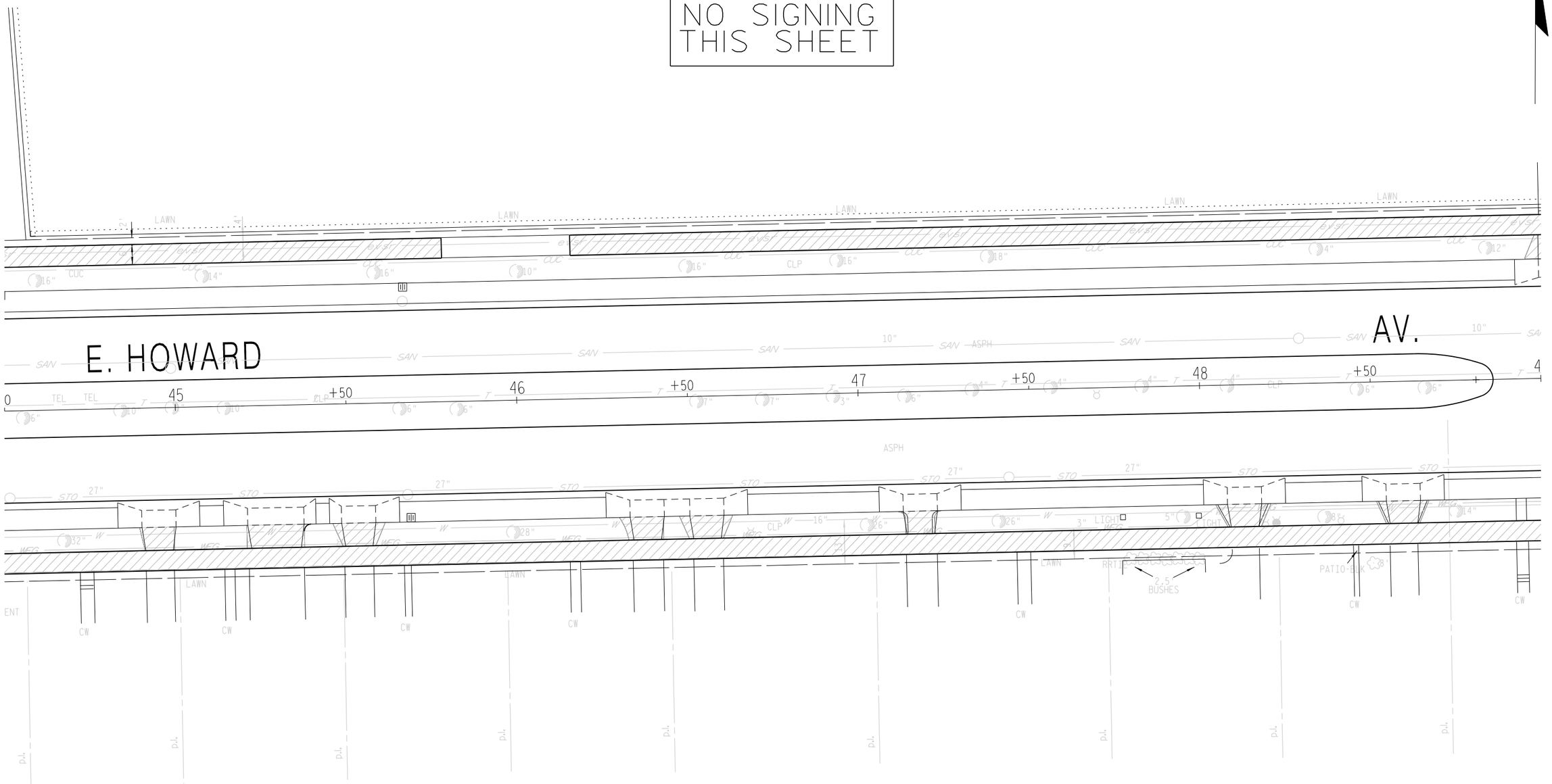
WISDOT/CADDS SHEET 42

2

2

NO SIGNING
THIS SHEET

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 13 OF 20

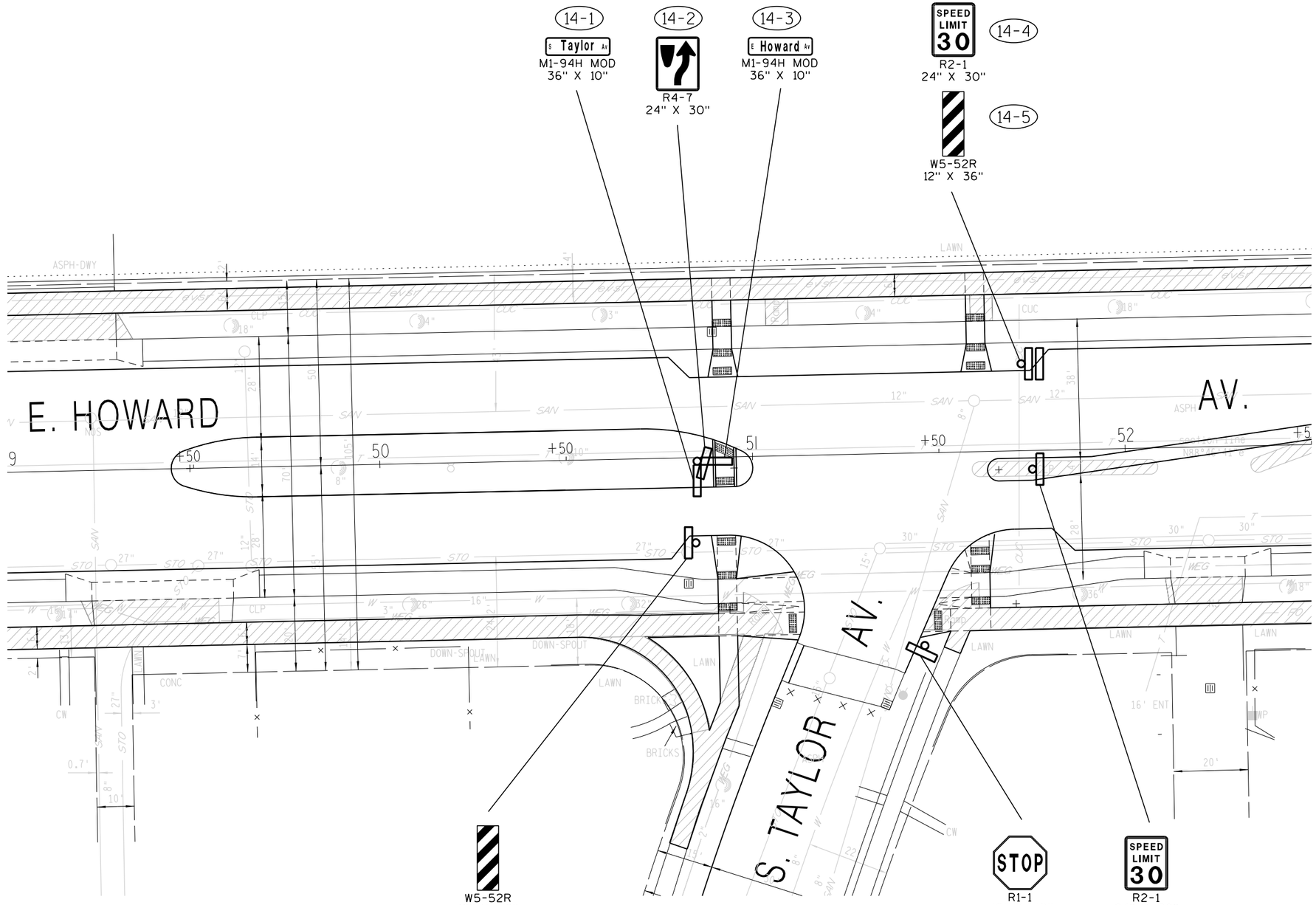
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 380 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 14 OF 20

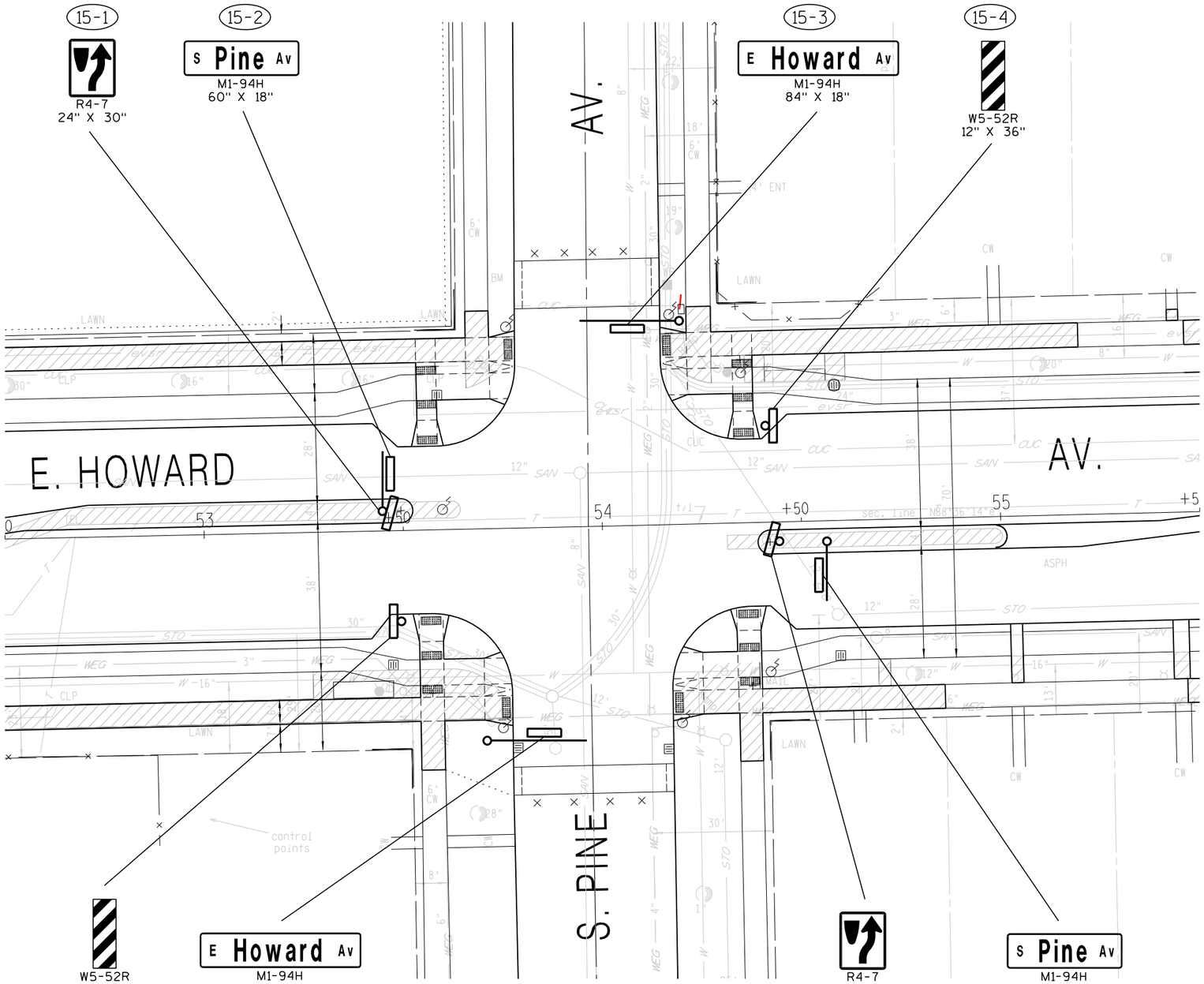
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 381 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 15 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 382 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

16-1 SPEED LIMIT 30 R2-1 24" X 30"

16-2 R4-7 24" X 30"

16-3 STOP R1-1 30" X 30"

16-4 STOP R1-1 30" X 30"

16-5 W5-52R 12" X 36"

E. HOWARD

ST.

AV.

S. LENOX

16-11 SPEED LIMIT 30 R2-1 24" X 30"

16-12 W5-52R 12" X 36"

16-9 STOP R1-1 30" X 30"

16-10 STOP R1-1 30" X 30"

16-8 E Howard Av M1-94H MOD 36" X 10"

16-7 R4-7 24" X 30"

16-6 S Lenox St M1-94H MOD 30" X 10"

LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 16 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 383 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

17-1
R4-7
24" X 30"

17-2 STOP
R1-1
30" X 30"

17-3 STOP
R1-1
30" X 30"

17-4
W5-52R
12" X 36"

E. HOWARD

AV.

AV.

S. LOGAN

W5-52R
12" X 36"
17-10

STOP 17-8
R1-1
30" X 30"

STOP 17-9
R1-1
30" X 30"

R4-7
24" X 30"
17-7

E Howard Av
M1-94H MOD
36" X 10"
17-6

S Logan Av
M1-94H MOD
30" X 10"
17-5

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 17 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 384 | E |
|---|---|---|---|---|---|

2

N

18-1
S Herman St
M1-94H MOD
36" X 10"

18-2
R4-7
24" X 30"

18-3
E Howard Av
M1-94H MOD
36" X 10"

18-4
STOP
R1-1
30" X 30"

18-5
STOP
R1-1
30" X 30"

18-6
SPEED LIMIT 30
R2-1
24" X 30"

18-7
W5-52R
12" X 36"

E. HOWARD

ST.

AV.

S. HERMAN

18-12
W5-52R
12" X 36"

18-10
STOP
R1-1
30" X 30"

18-11
STOP
R1-1
30" X 30"

18-9
R4-7
24" X 30"

18-8
SPEED LIMIT 30
R2-1
24" X 30"

LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 18 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 385 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

19-1
S Clement Av
M1-94H
84" X 18"

19-2
R5-2
24" X 24"

19-3
3 TONS OR OVER
R5-2A
24" X 12"

19-4
W5-52R
12" X 36"

19-5
E Howard Av
M1-94H
84" X 18"

19-6
W5-52R
12" X 36"

E. HOWARD

AV.

AV.

S. CLEMENT

19-10
R5-2
24" X 24"

19-11
3 TONS OR OVER
R5-2A
24" X 12"

E Howard Av
M1-94H
84" X 18"
19-9

S Clement Av
M1-94H
84" X 18"
19-8

R4-7
24" X 30"
19-7

LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 19 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 386 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$....plotuser....$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

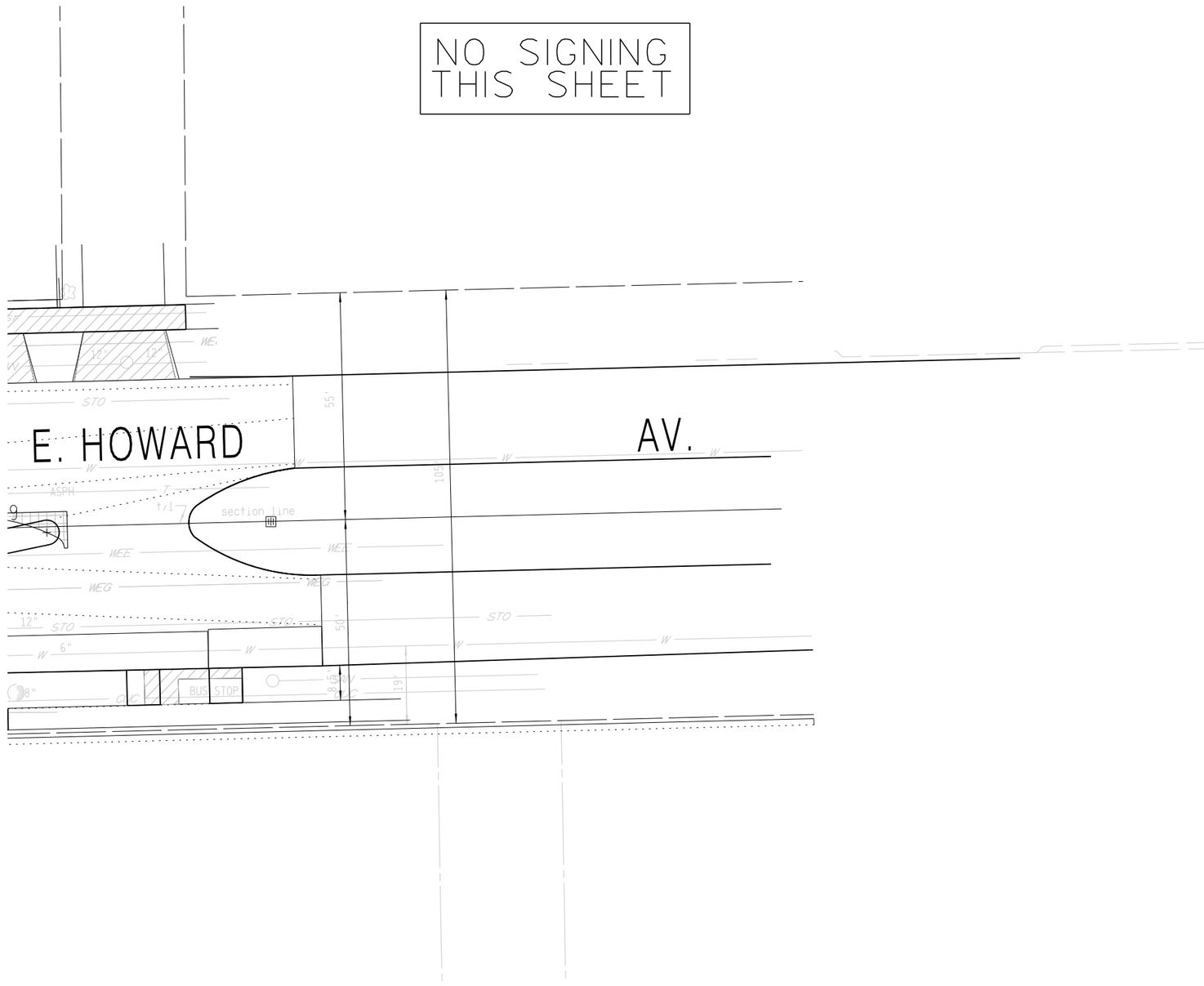
WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING
THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

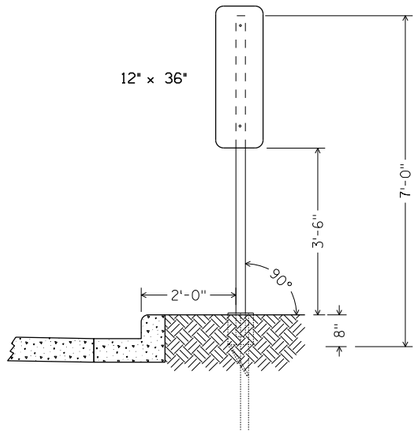
SHEET 20 OF 20

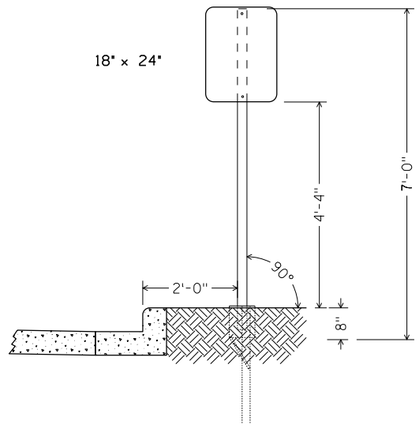
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN INSTALLATION PLAN | SHEET NO. 387 | E |
|---|---|---|---|---|---|

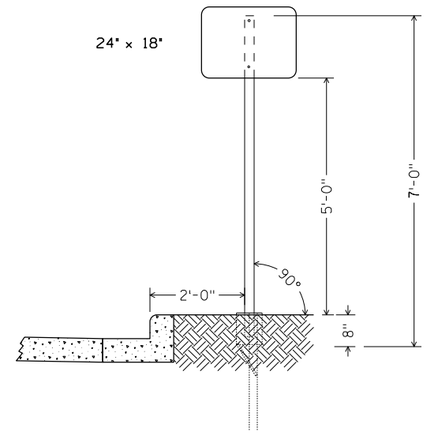
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WISDOT/CADDS SHEET 42

2

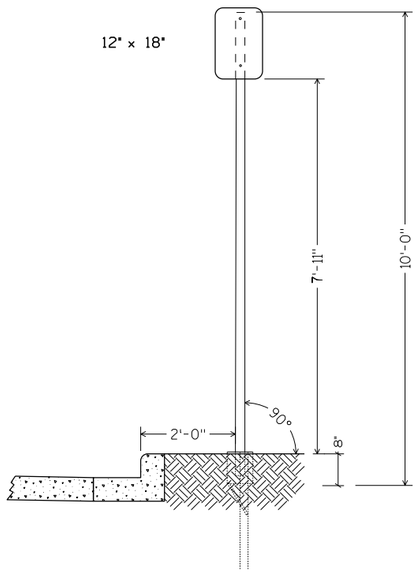


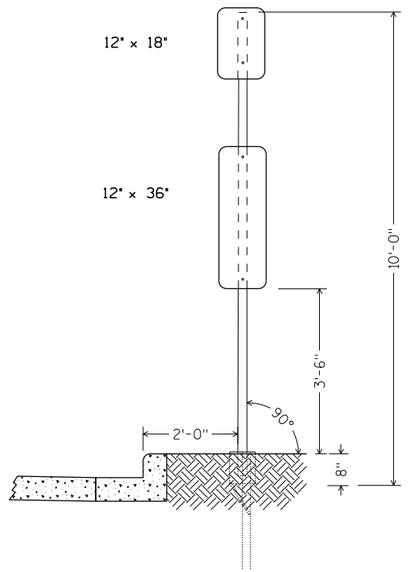



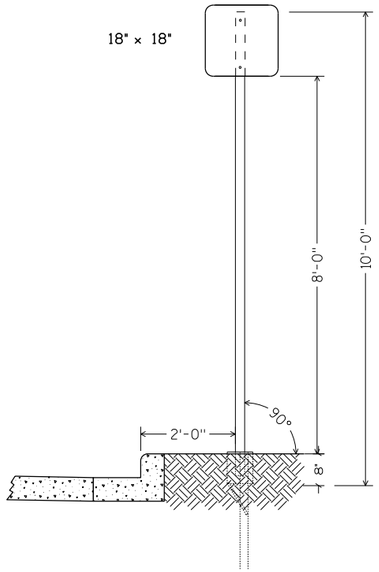



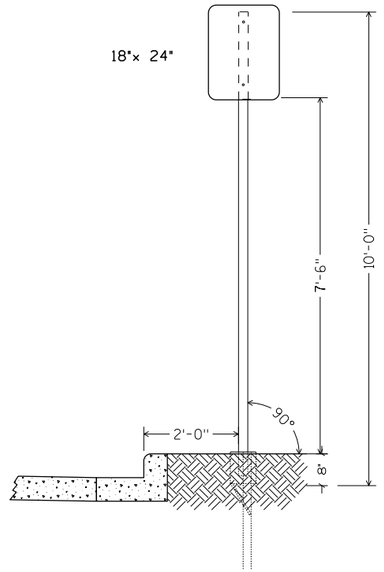

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 7'–0" PIPE ASSEMBLIES | SHEET 388 | E |
|---|---|---|---|---|---|

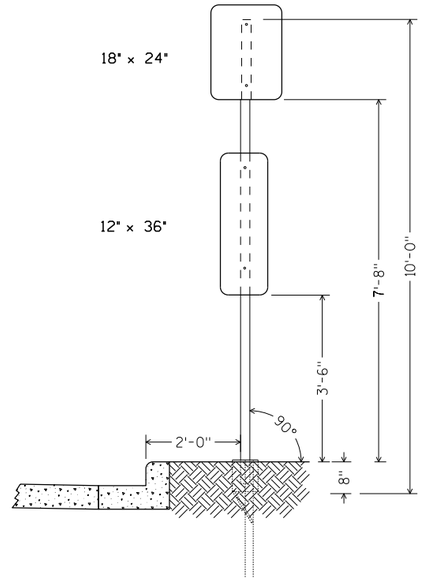
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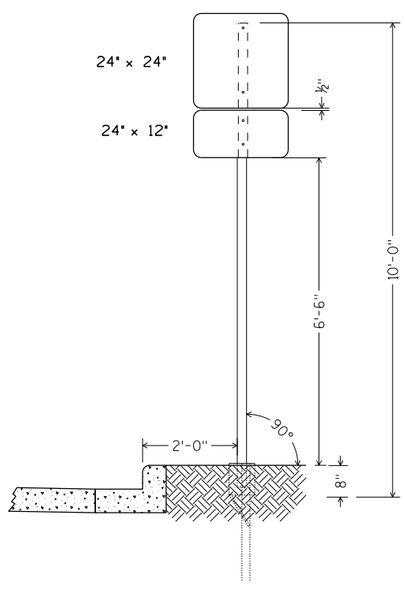


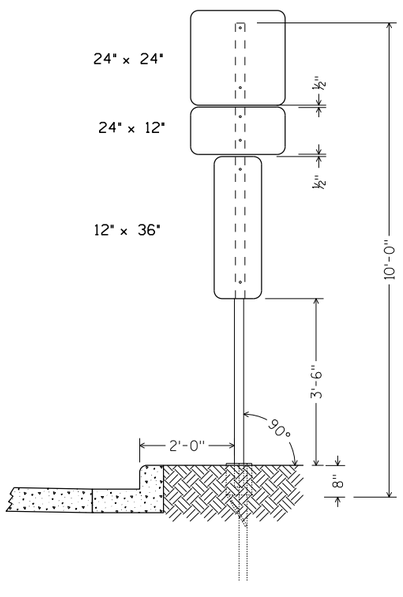



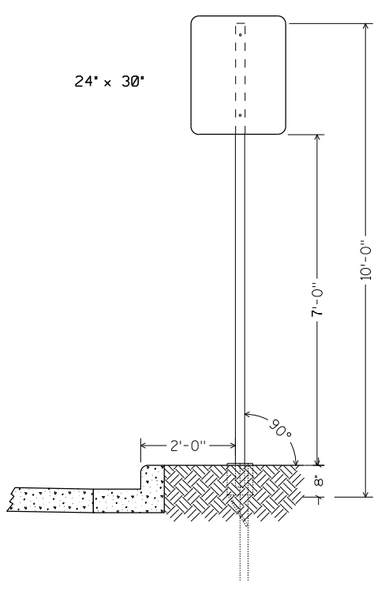



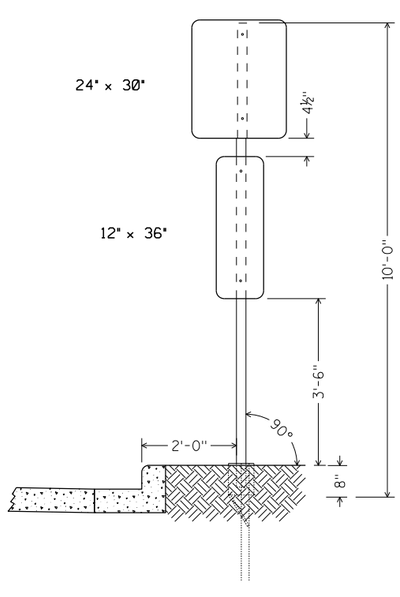



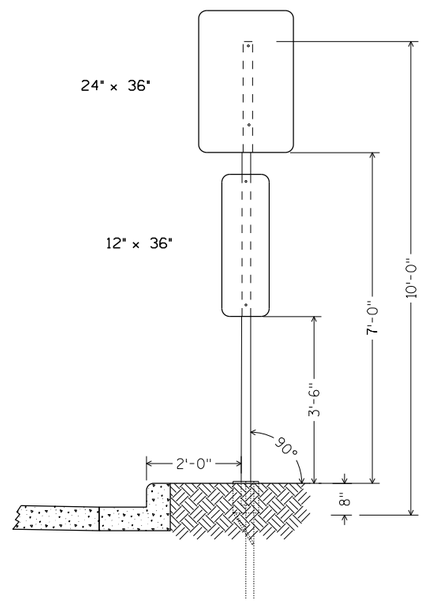



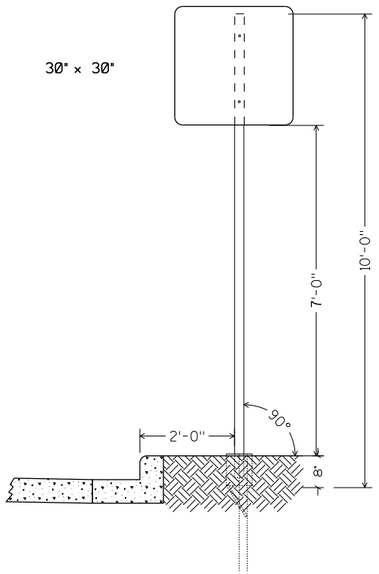



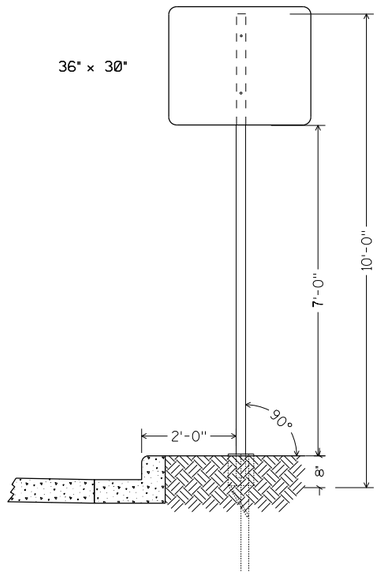



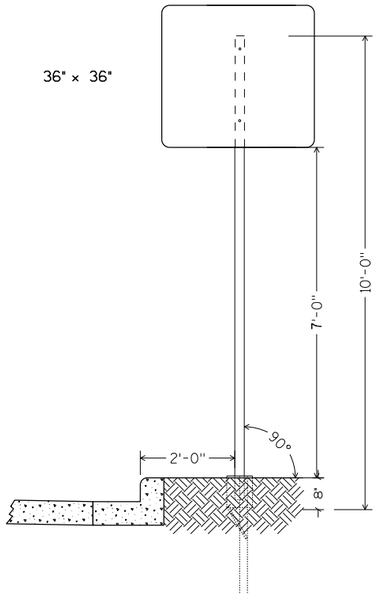



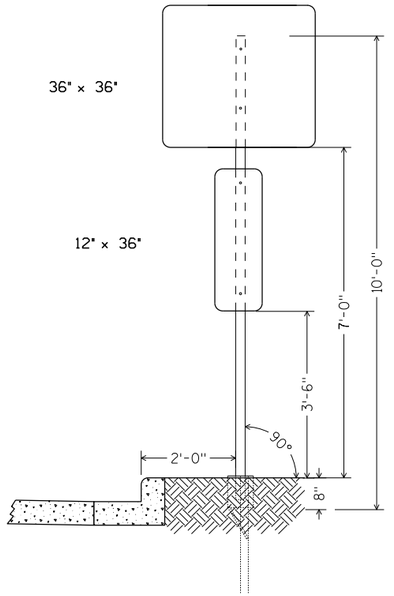

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 10'–0" PIPE ASSEMBLIES | SHEET 389 | E |
|---|---|---|---|---|---|

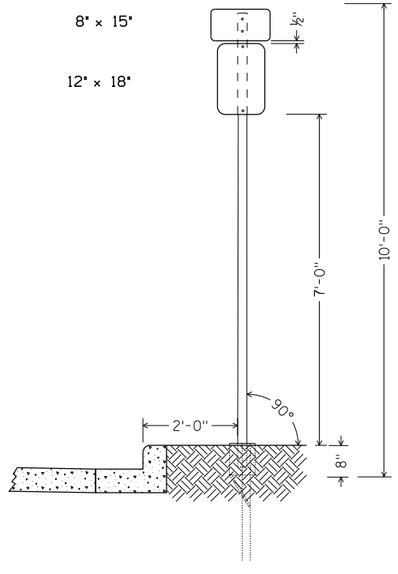
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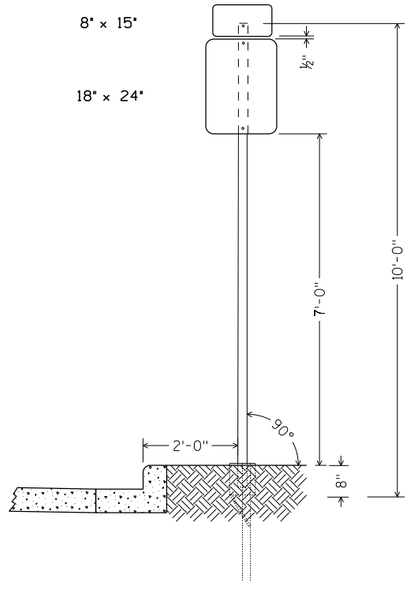


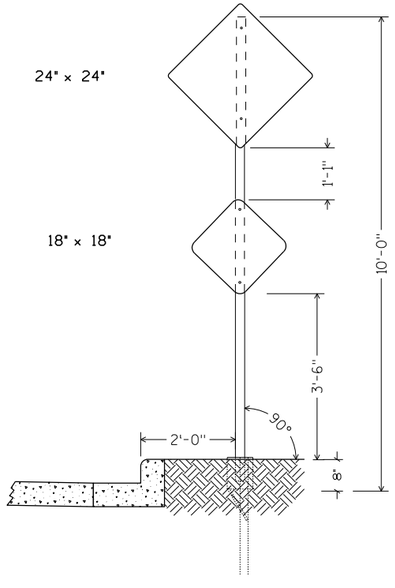



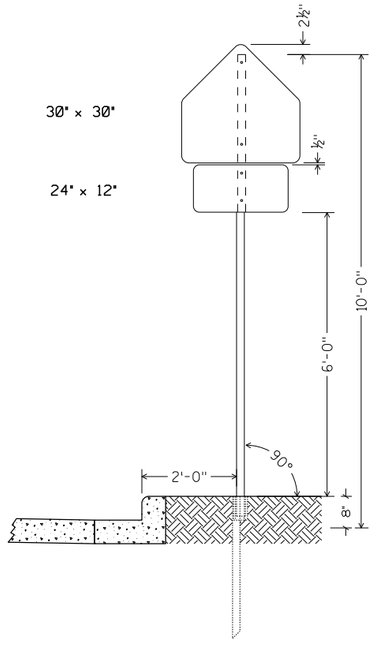



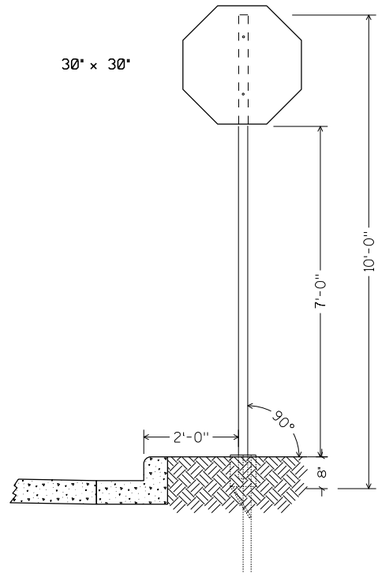



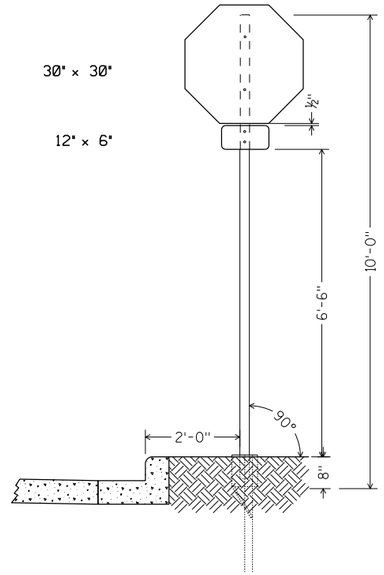



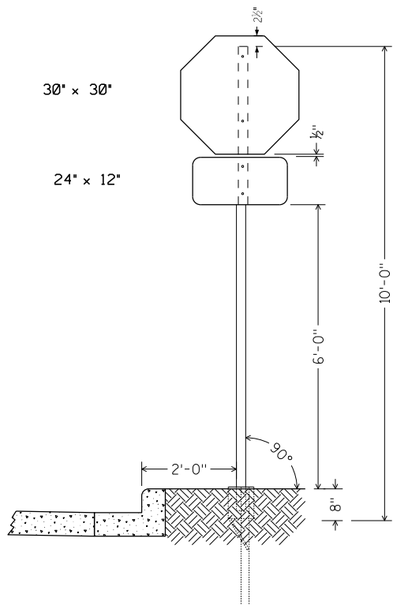



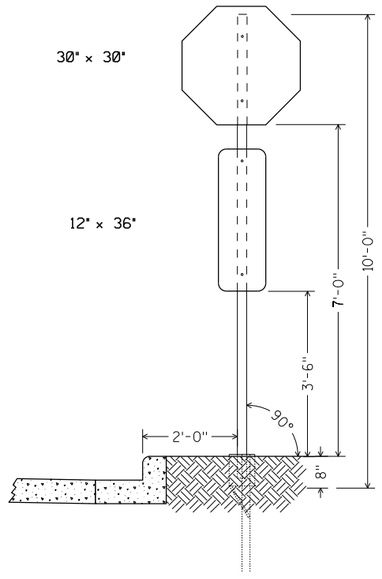

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 10'–0" PIPE ASSEMBLIES | SHEET 390 | E |
|---|---|---|---|---|---|

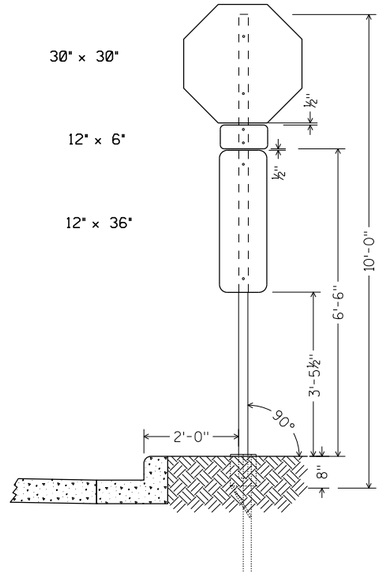
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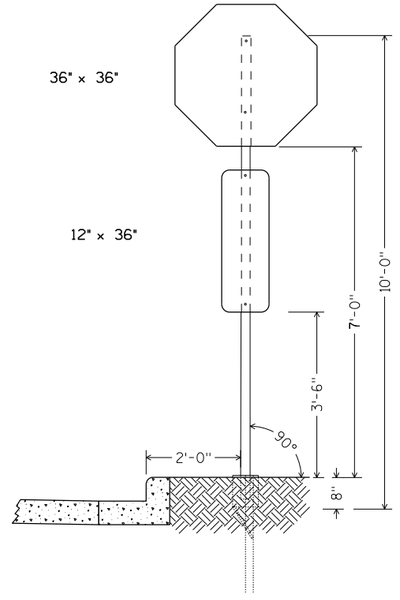


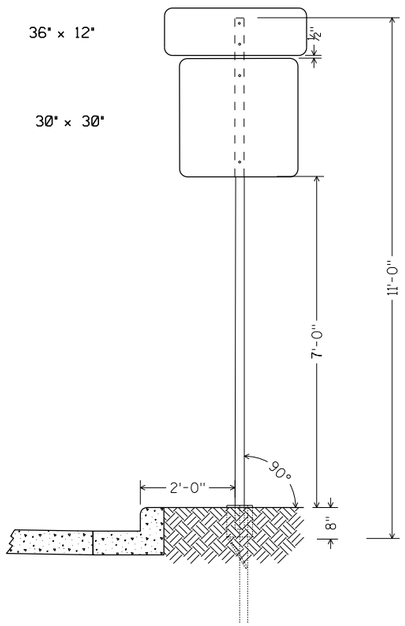



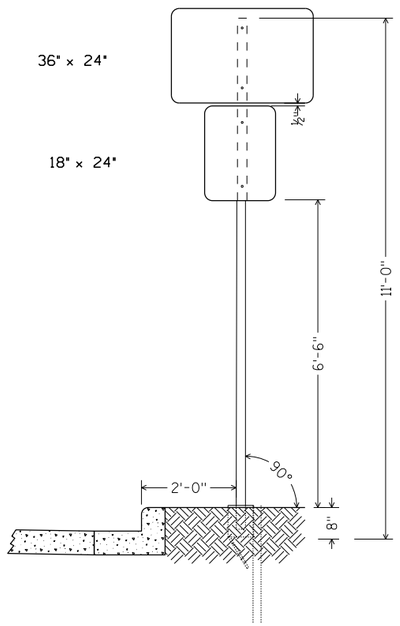



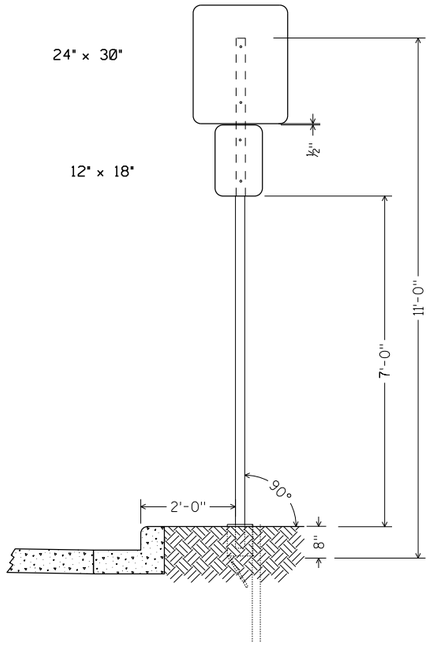



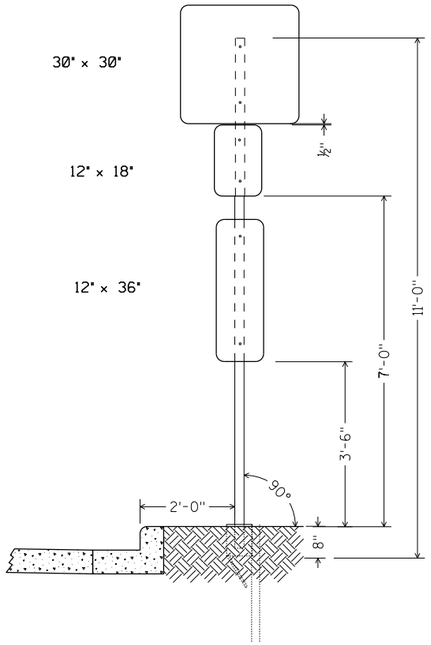



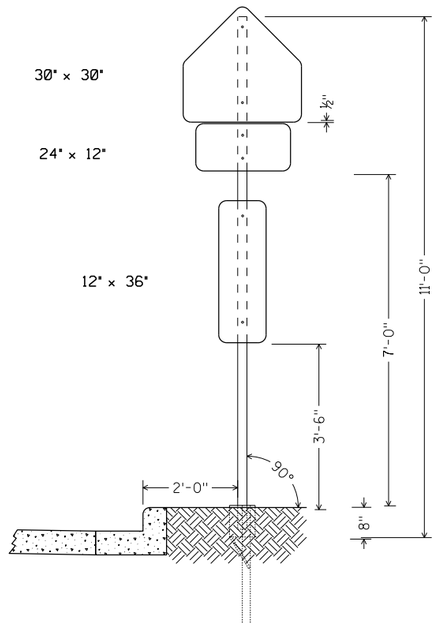

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 10'–0" PIPE ASSEMBLIES | SHEET 391 | E |
|---|---|---|---|---|---|

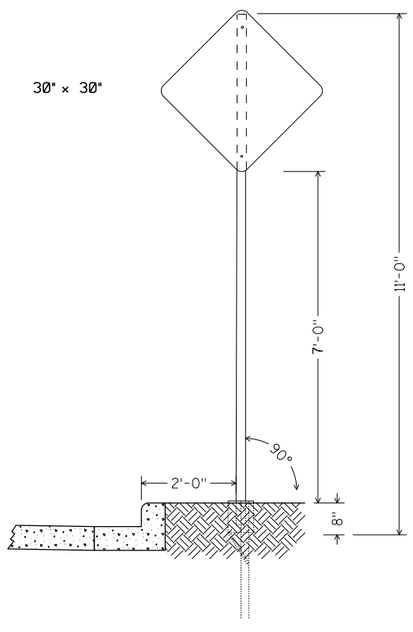


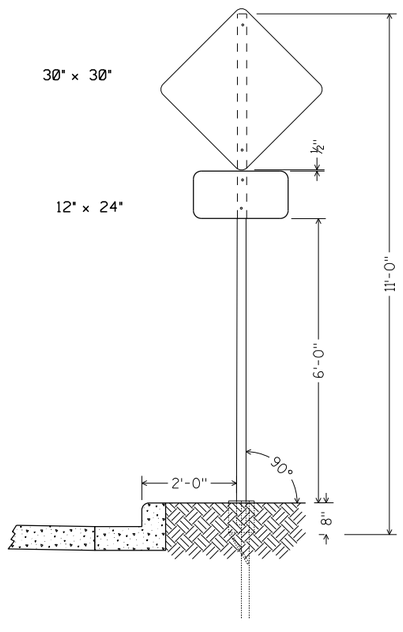



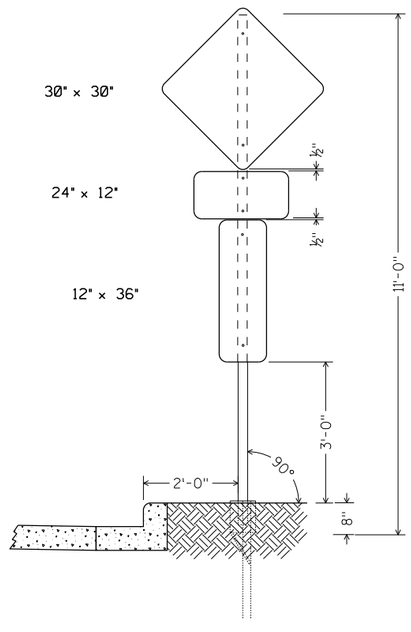



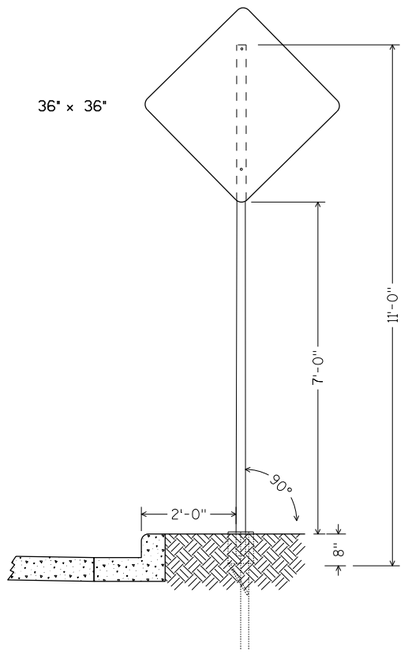



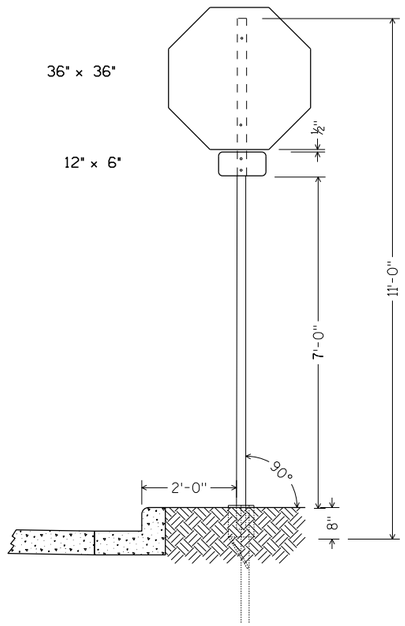



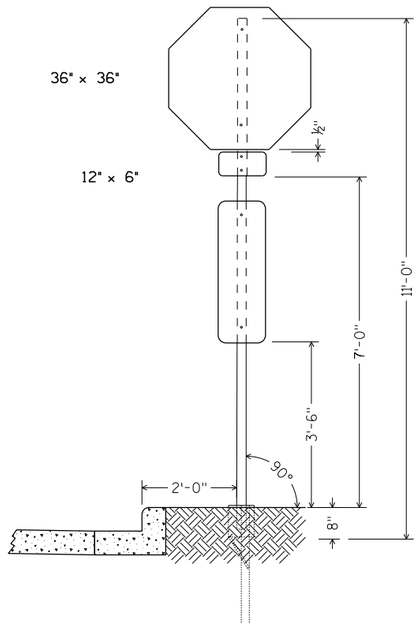



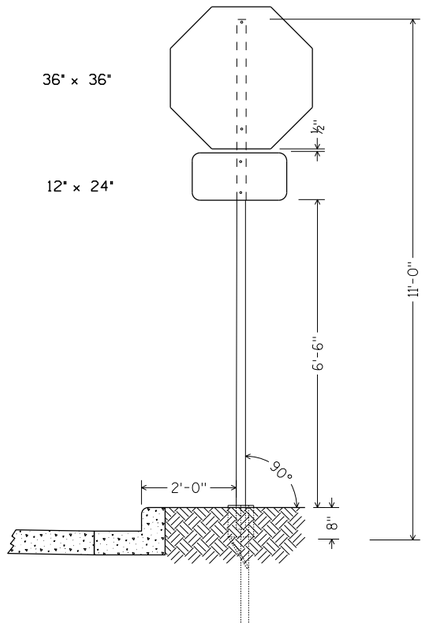



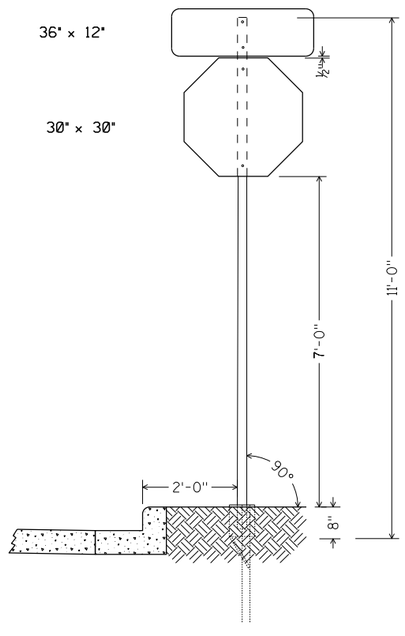

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 11'–0" PIPE ASSEMBLIES | SHEET 392 | E |
|---|---|---|---|---|---|

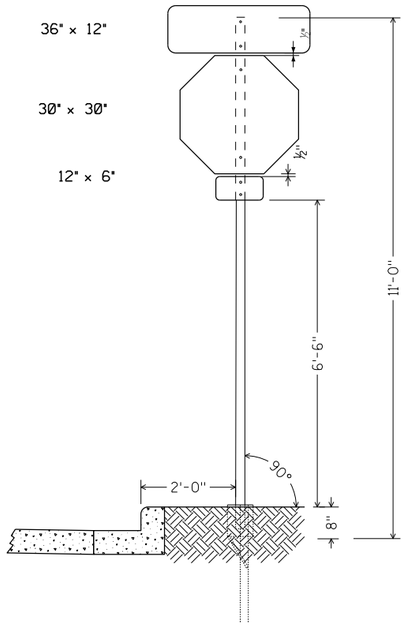
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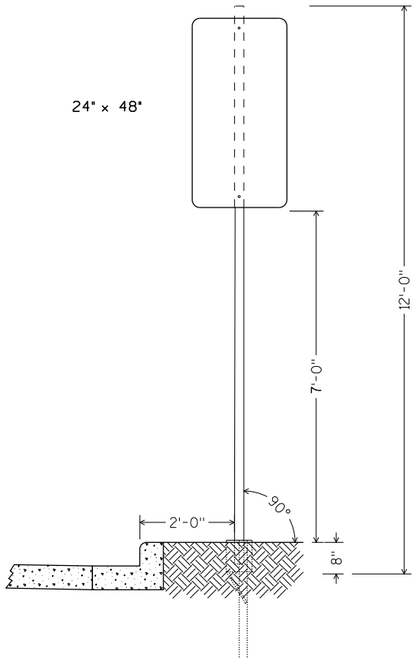



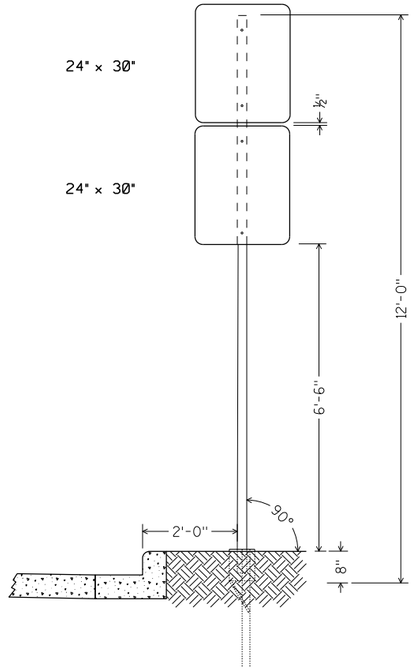



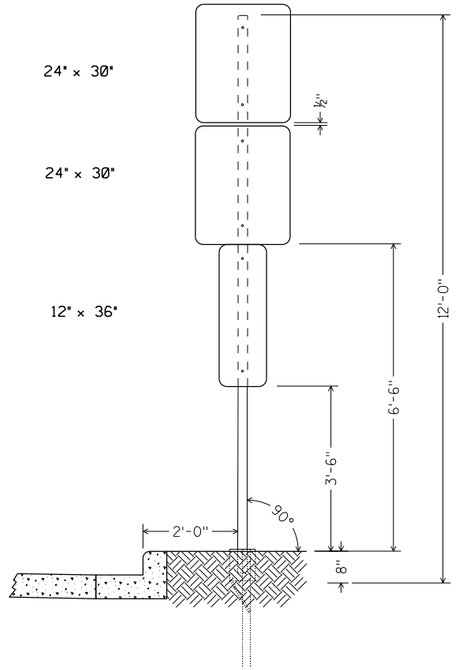



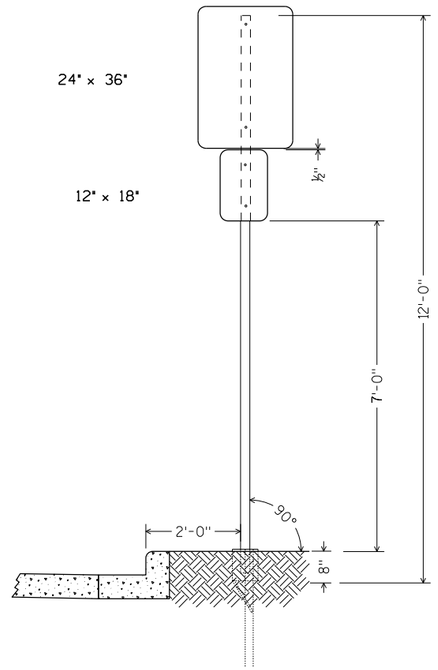



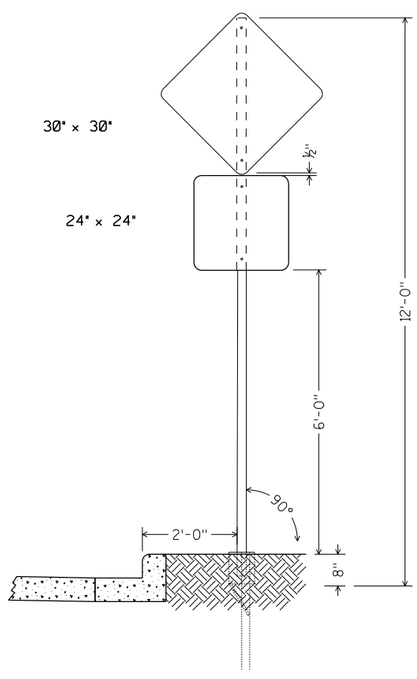

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 11'–0" PIPE ASSEMBLIES | SHEET 393 | E |
|---|---|---|---|---|---|

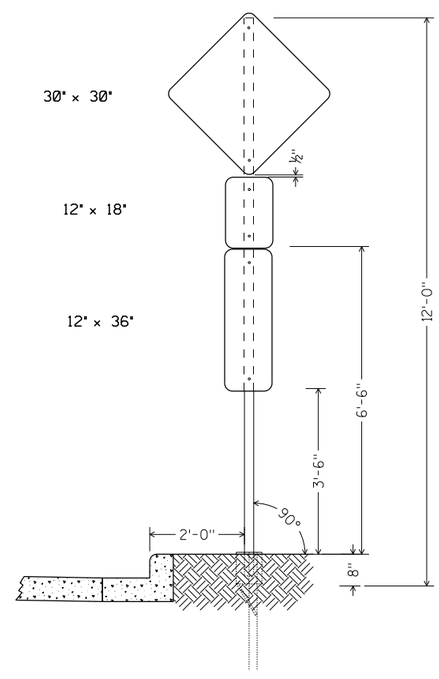


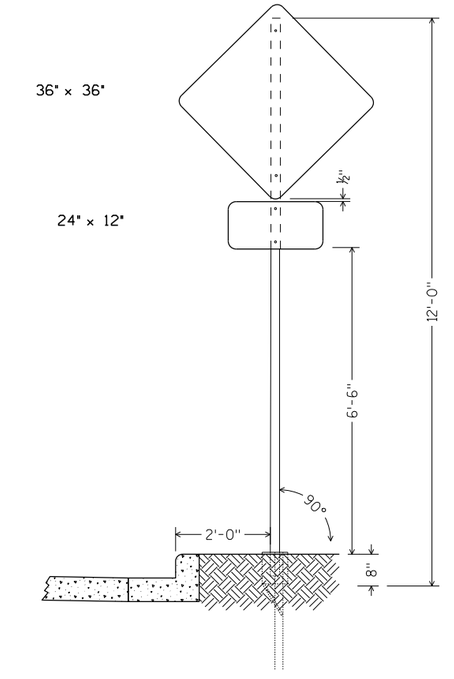



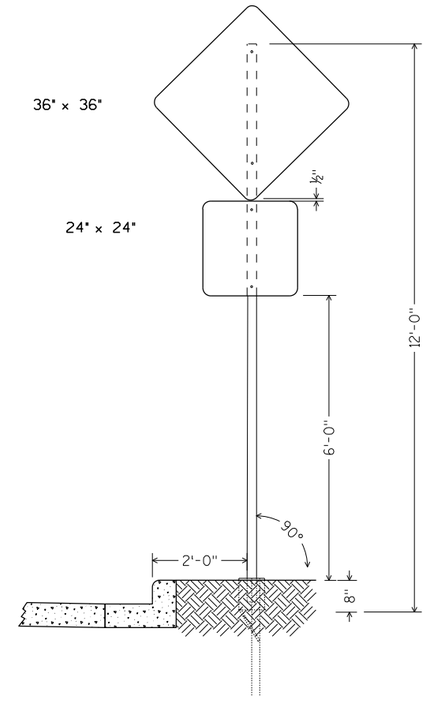



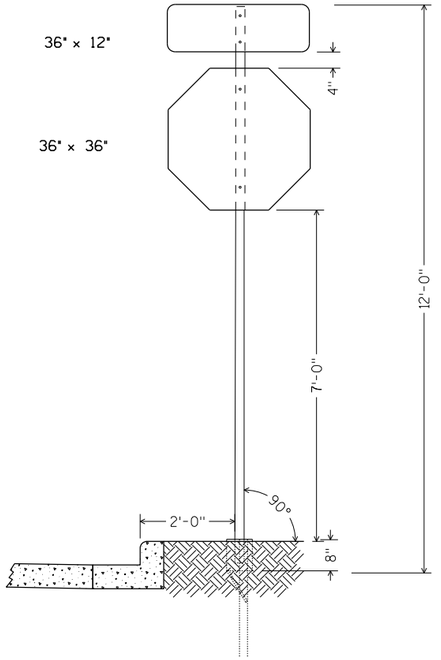



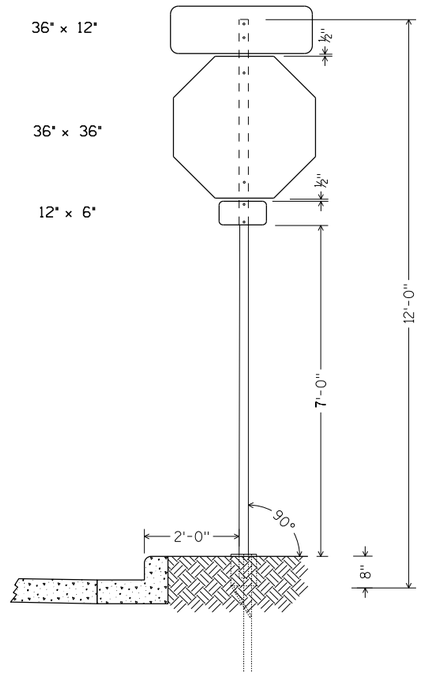



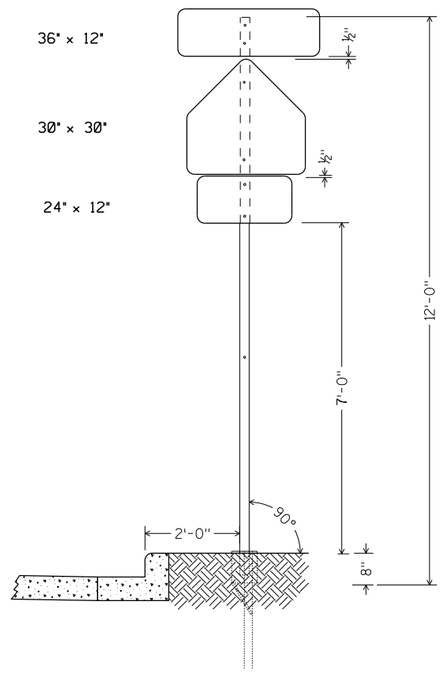



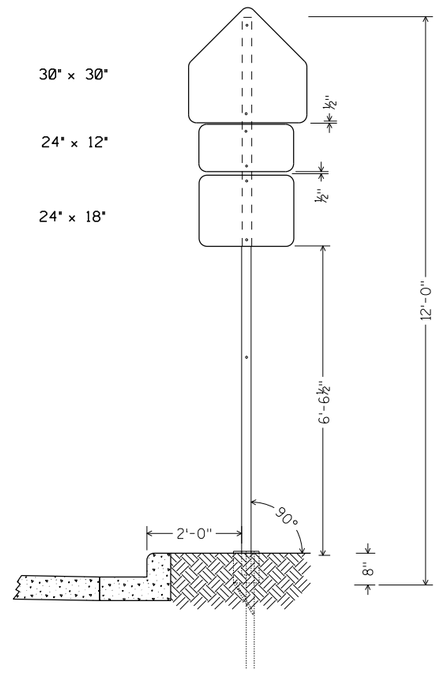




| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 12'–0" PIPE ASSEMBLIES | SHEET 394 | E |
|---|---|---|---|---|---|



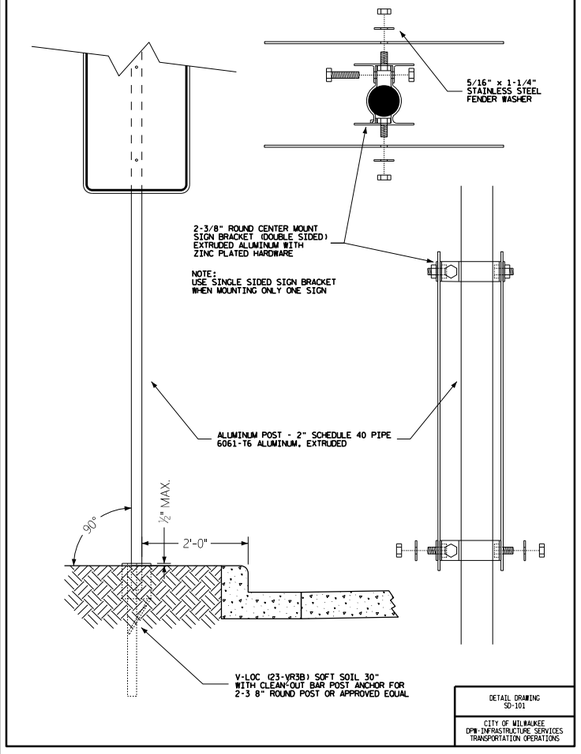



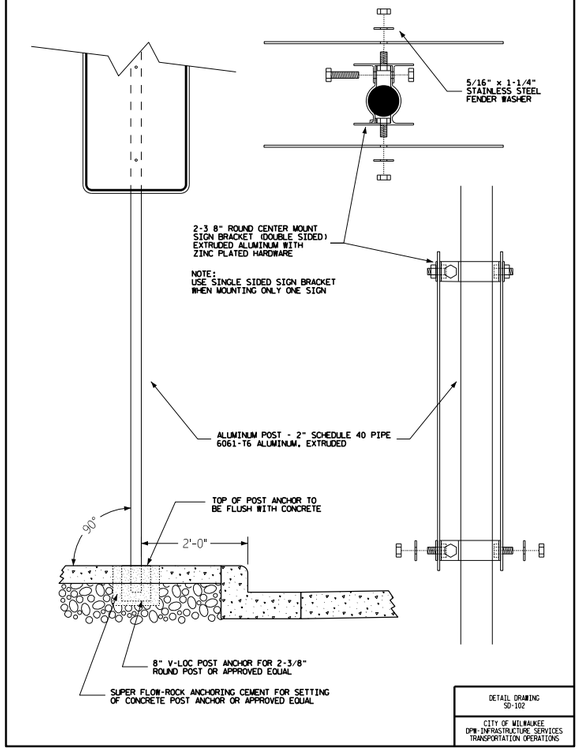

| PROJECT NO: 2395–05–71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | 12'–0" PIPE ASSEMBLIES | SHEET 395 | E |
|---|---|---|---|---|---|

2

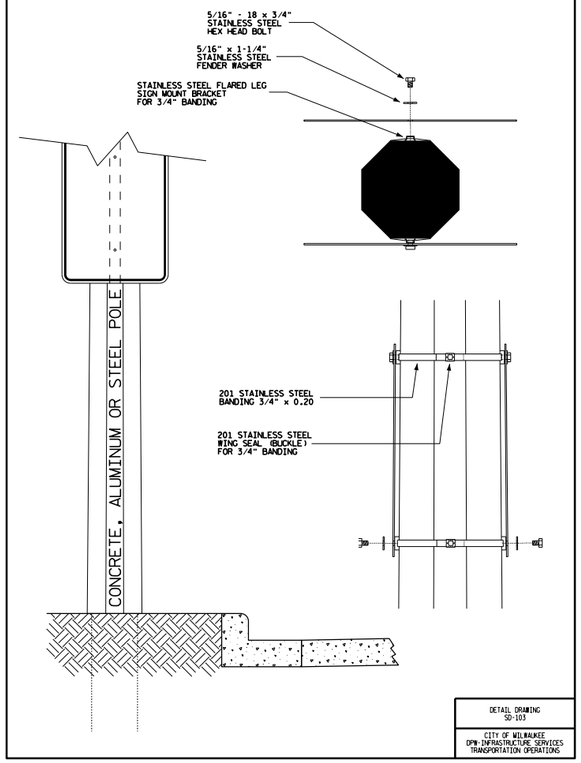
## ROUND ALUMINUM SIGN POST SYSTEM FOR SOFT SURFACE INSTALLATION



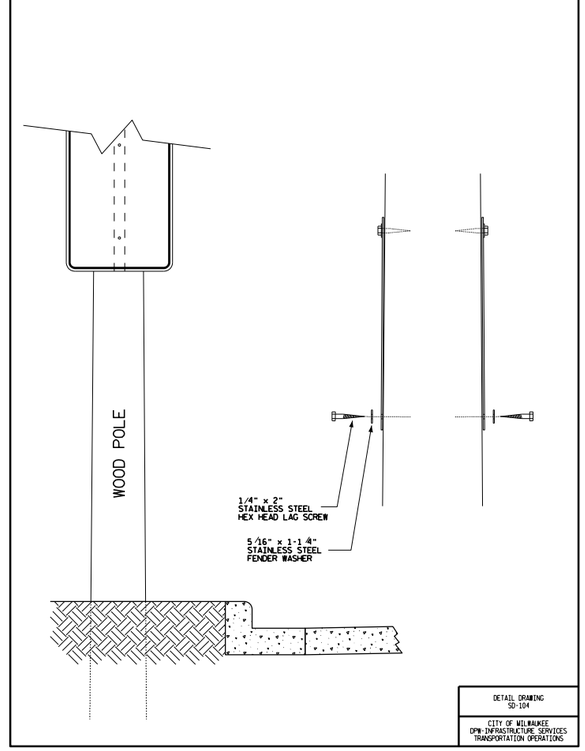

## ROUND ALUMINUM SIGN POST SYSTEM FOR CONCRETE INSTALLATION




## EXISTING CONCRETE, ALUMINUM OR STEEL POLE SIGN SYSTEM INSTALLATION

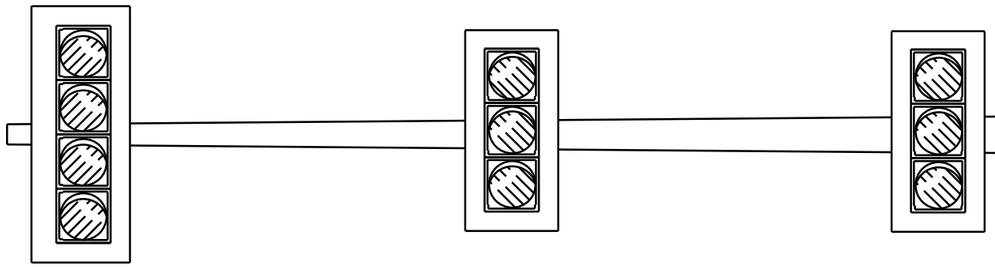



## EXISTING WOOD POLE SIGN SYSTEM INSTALLATION

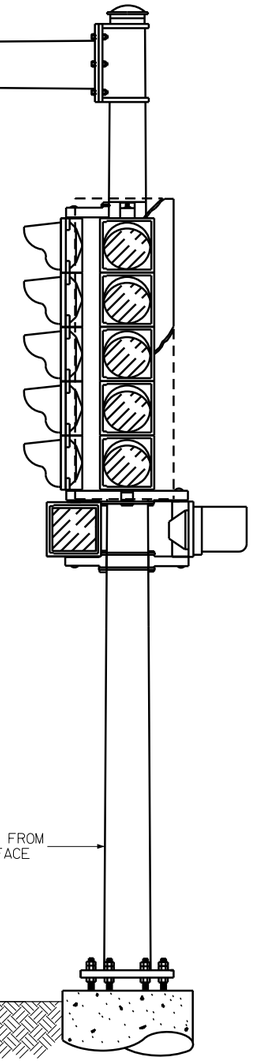



GENERAL NOTES:
1) 3' MINIMUM CLEARANCE BETWEEN ROUND ALUMINUM SIGN POST INSTALLATION AND FIRE HYDRANT.
2) 6' MINIMUM CLEARANCE BETWEEN ROUND ALUMINUM SIGN POST INSTALLATION AND TREE.

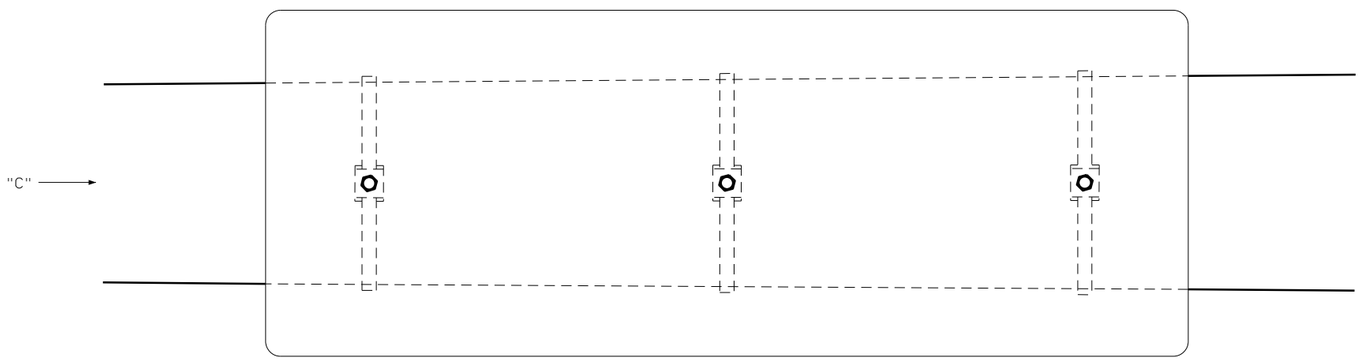
2



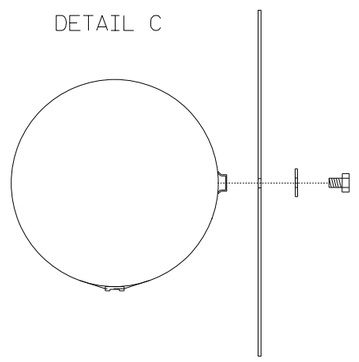
STREET NAME SIGN (VARIABLE LENGTH)

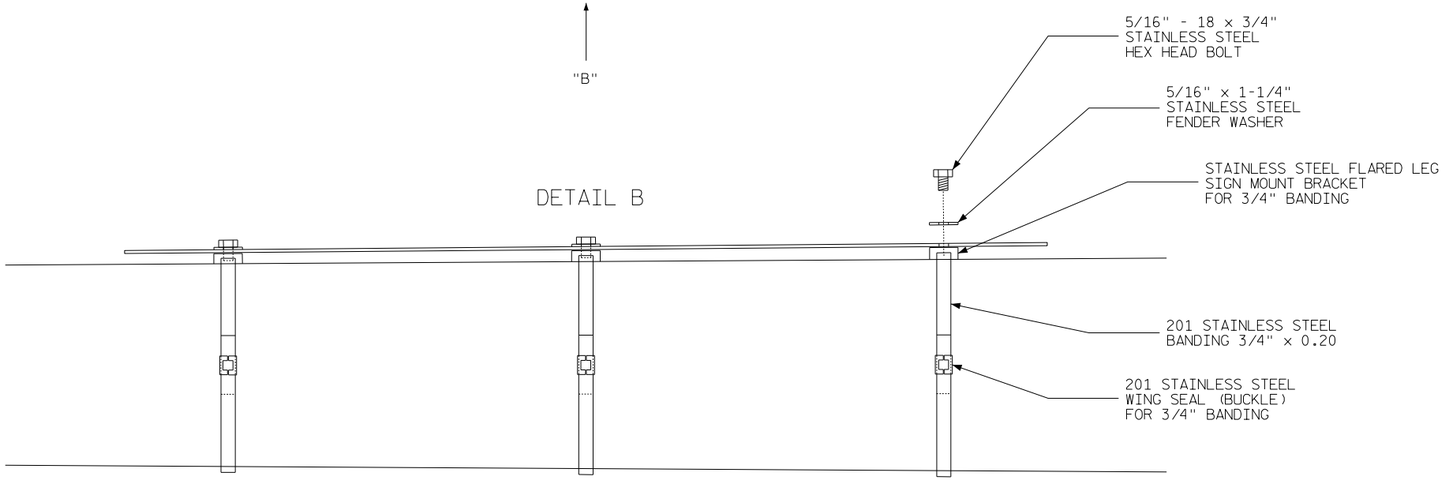


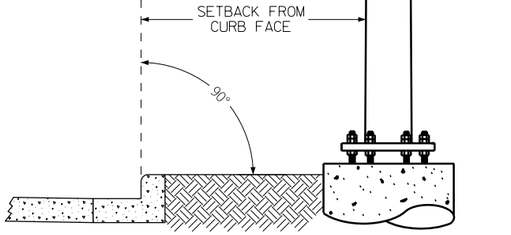
DETAIL A




DETAIL C






| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | STREET NAME SIGN INSTALLATION ON MAST ARM | SHEET 397 | E |
|---|---|---|---|---|---|

2

N

1-1

SOUTH EAST
INTERSTATE 43 INTERSTATE 94

J2-2
48" X 57"

W. HOWARD AV.

S 6TH ST.

00 +50 01 MON. section line N88°38'52"e +50 02 +50 03 +5

SIGN POST

FENCE POST

LEGEND

XXX SIGN NUMBER

SIGN

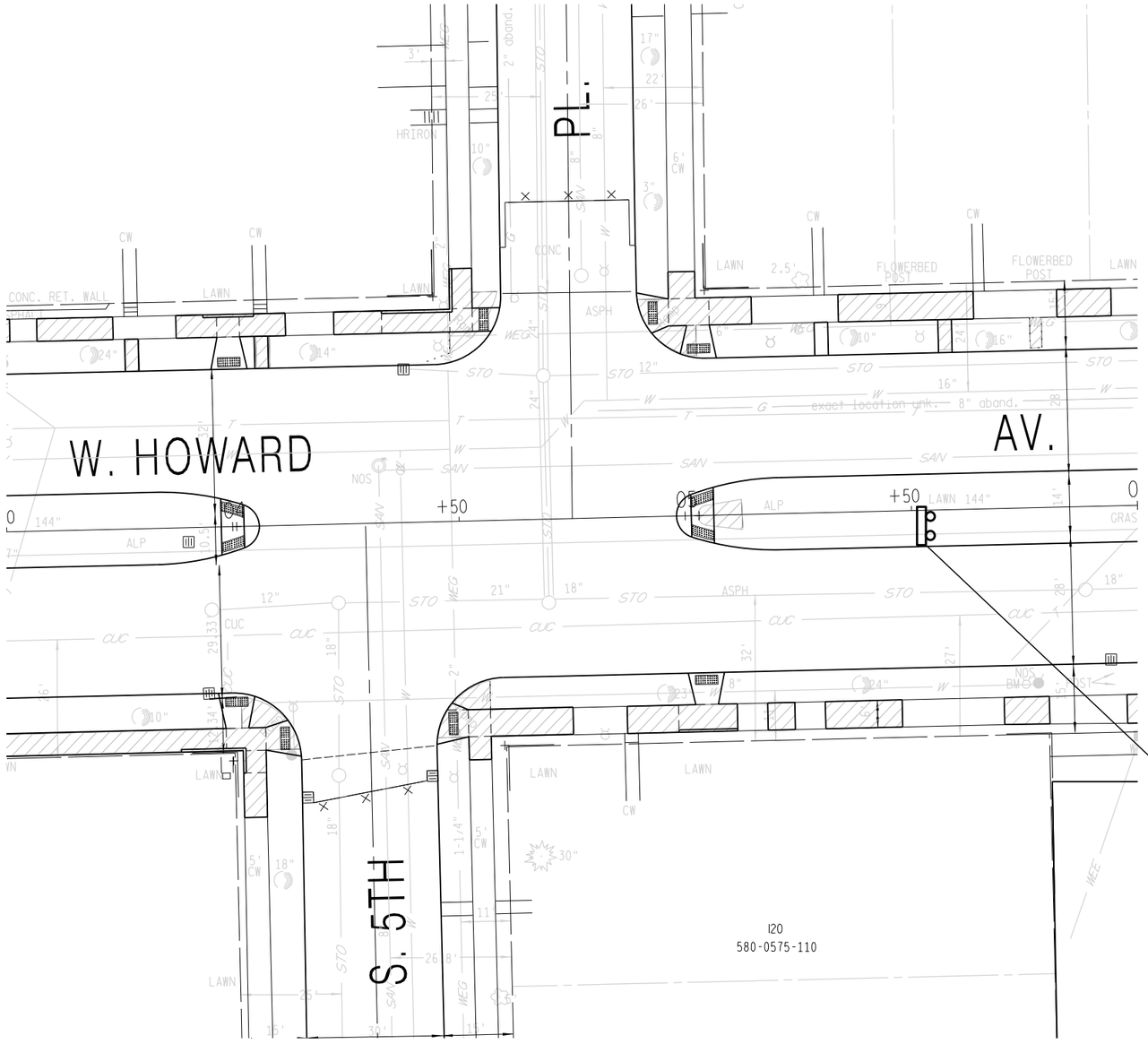
SCALE, FEET 0 30

SHEET 1 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 398 | E |
|---|---|---|---|---|---|

2

N







J3-2
48" X 57"

2-1

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 2 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 399 | E |
|---|---|---|---|---|---|

2

3-1

SOUTH INTERSTATE 43 | EAST INTERSTATE 94

J3-2
48" X 57"

3-2

NORTH INTERSTATE 43 WEST INTERSTATE 94

JV
24" X 91"

3-3

SOUTH INTERSTATE 43 EAST INTERSTATE 94

JV
24" X 91"

N

S. 5TH ST.

W. HOWARD

AV.

ENTRANCE RAMP

EXIT RAMP

FREEWAY EASEMENT

NORTH INTERSTATE 43 WEST INTERSTATE 94

J2-2
48" X 57"

3-4

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 3 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 400 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

4-1

SOUTH EAST
INTERSTATE 43 INTERSTATE 94

J2-2
48" X 57"

4-2

NORTH WEST
INTERSTATE 43 INTERSTATE 94

J3-2
48" X 57"

N

UNDERPASS

ENTRANCE RAMP

ST.

AV.

W. HOWARD

I43 / I94

EXIT RAMP

S. 3RD

FREEWAY EASEMENT

30" steel conduit

MONUMENT

exact location unk.

8" aband.

bridge deck

GATE

VAULT

SIGNPOST

ALP

POST

CLP

CONC

ASPH

LAWN

FLOWERBED

FULL CW

HR IRON

BHRIRON

HRIRON

CW

TES

TEL

SAN

STO

WEG

2016 CONC

2020

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 4 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 401 | E |
|---|---|---|---|---|---|

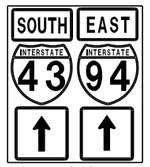
2

5-1




J2-2
48" X 57"

5-2




J2-2
48" X 57"

N

W. HOWARD

ST.

AV.

S. 2ND

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 5 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 402 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

N

6-1

JCT
INTERSTATE 43
INTERSTATE 94

JV
24" X 63"

W. HOWARD

AV.

S. 1ST PL.

JCT
38

J1-1
24" X 63"

6-2

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 6 OF 20

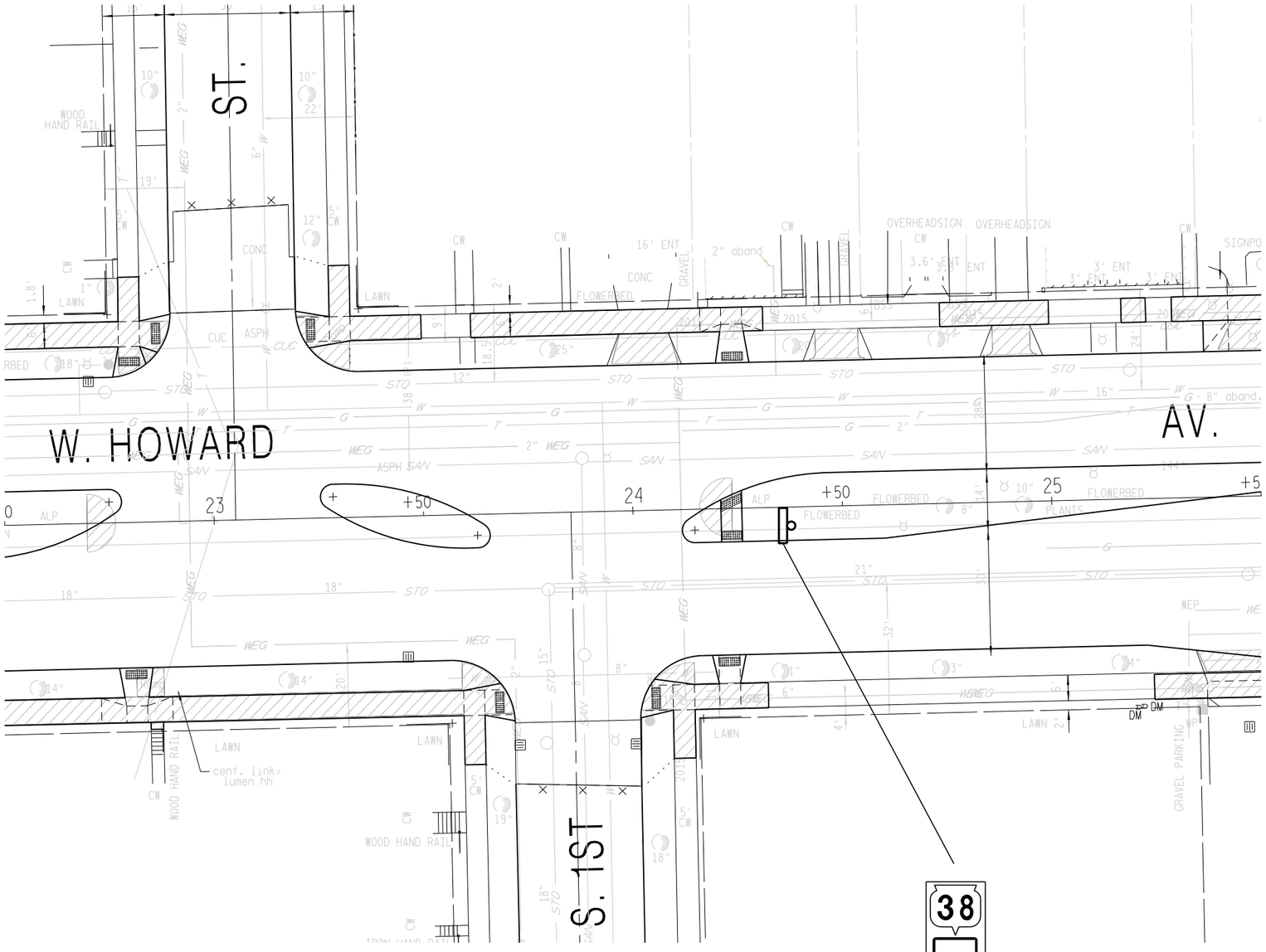
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 403 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 7 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 404 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

NO SIGNING THIS SHEET

N

W. HOWARD AV.

E. HOWARD AV.

S. HOWELL AV.

MONUMENT

section line

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 8 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 405 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

9-1

38

J13-1
24" X 45"

E. HOWARD

S. AUSTIN ST.

AV.

30

31

32

+50

control points

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 9 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 406 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

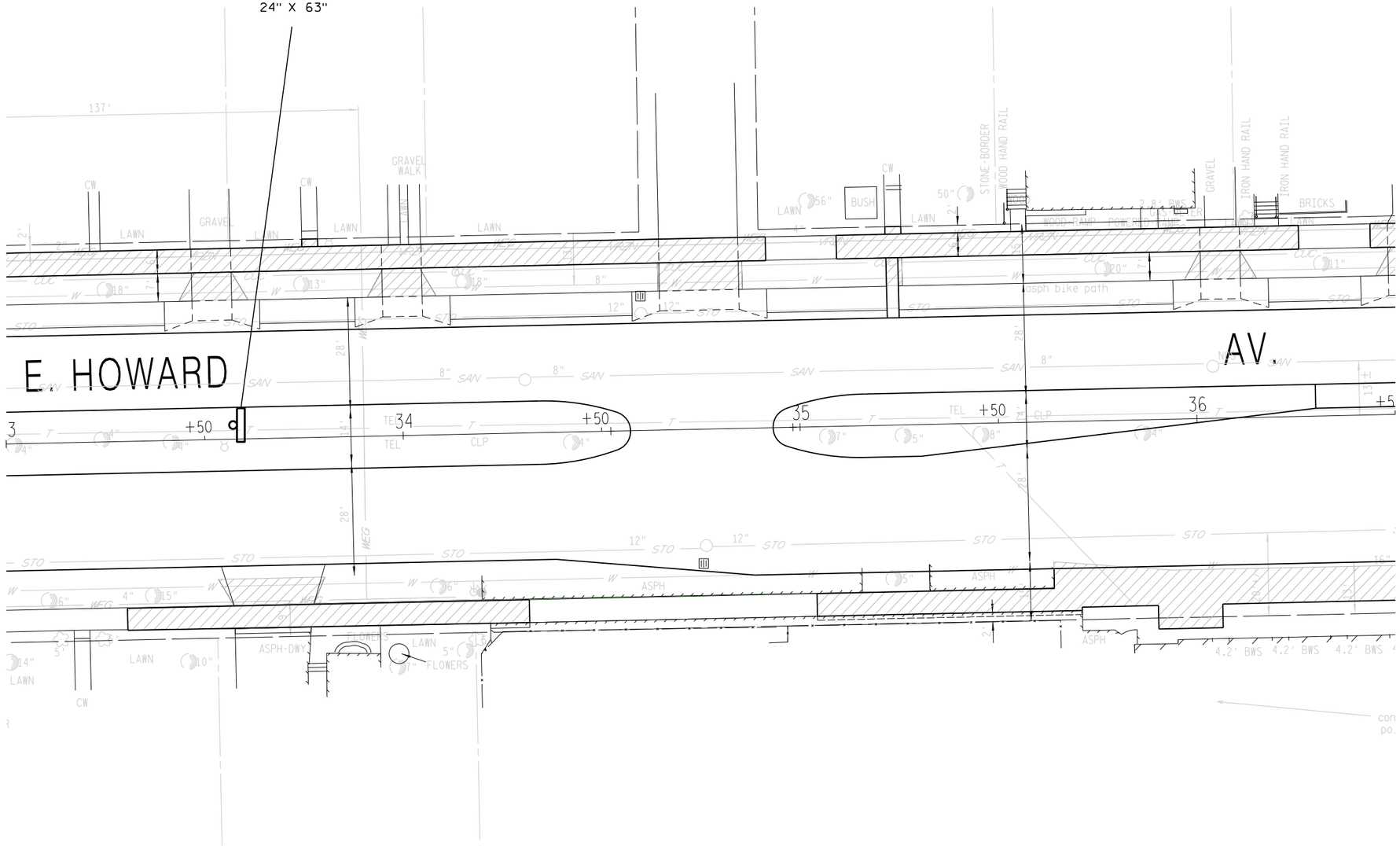
2

N

10-1

JCT 38

J1-1
24" X 63"




LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 10 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 407 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING THIS SHEET

E. HOWARD

AV.

AV.

S. WHITNALL

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 11 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 408 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING THIS SHEET

S. GRIFFIN AV.

E. HOWARD

AV.

control points

71.27

WE ENERGIES EASEMENT

40

581-0701

40

50

LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 12 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 409 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

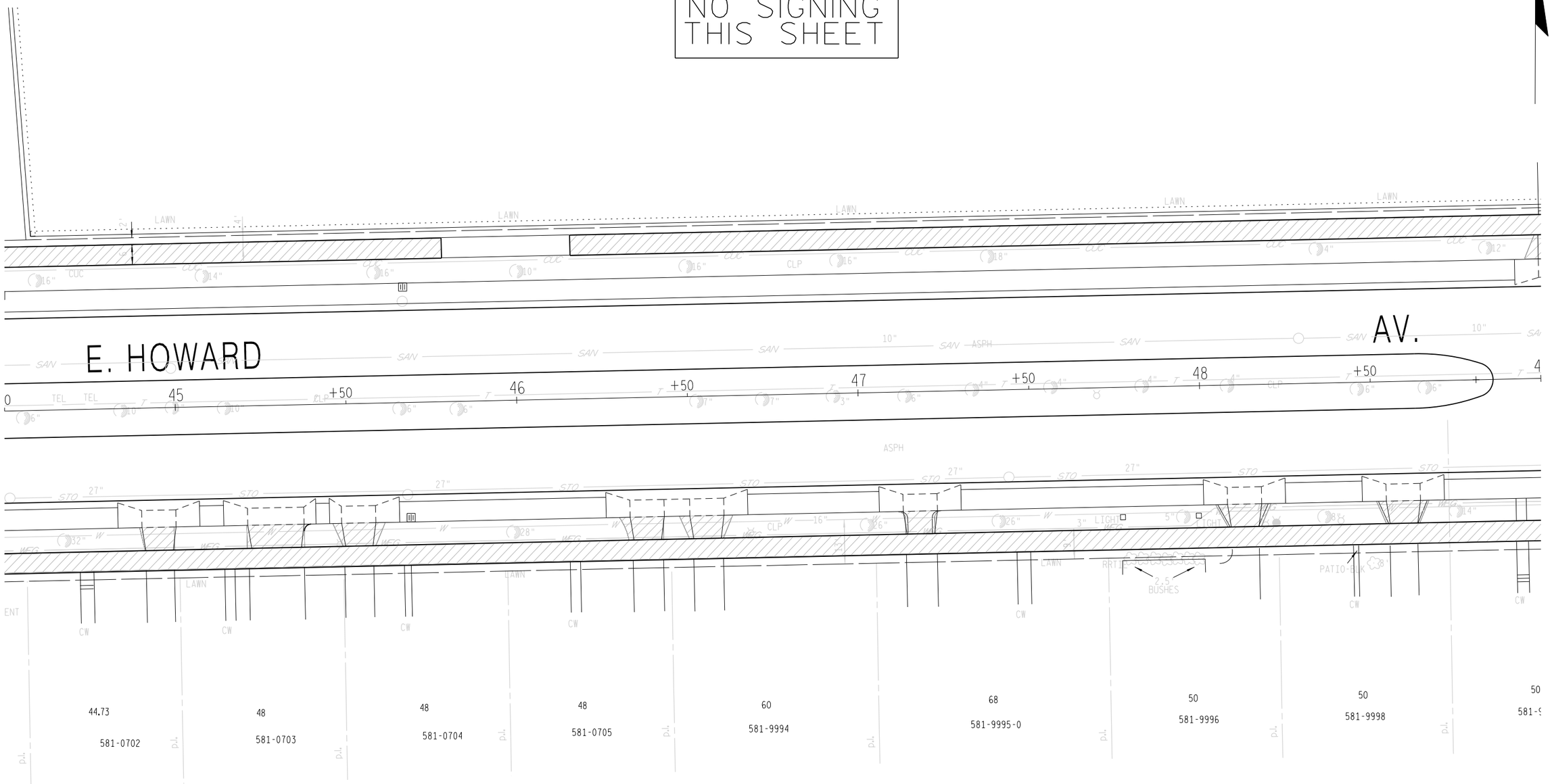
WISDOT/CADDS SHEET 42

2

2

NO SIGNING
THIS SHEET

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 13 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 410 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

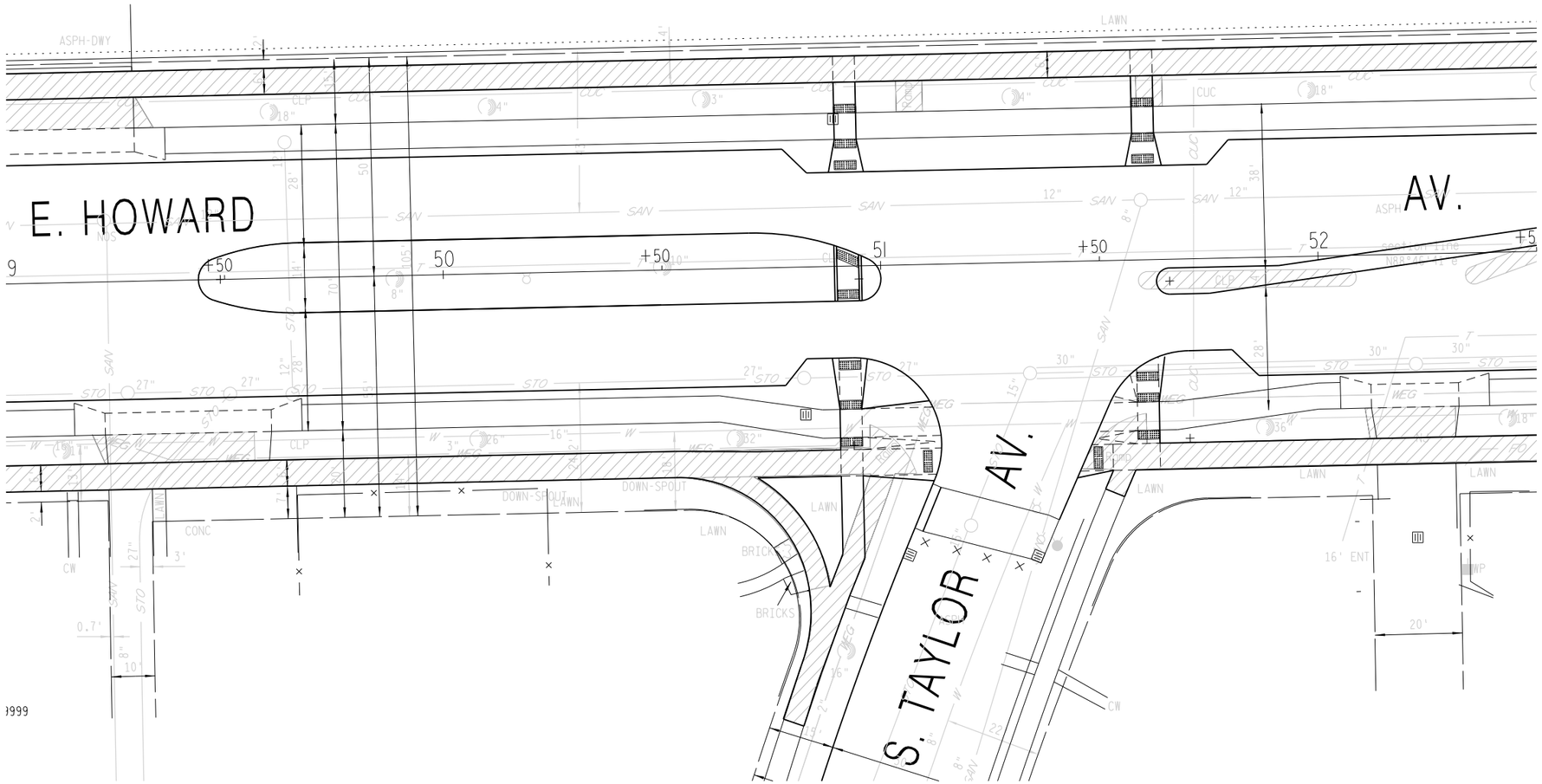
WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING
THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 14 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 411 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

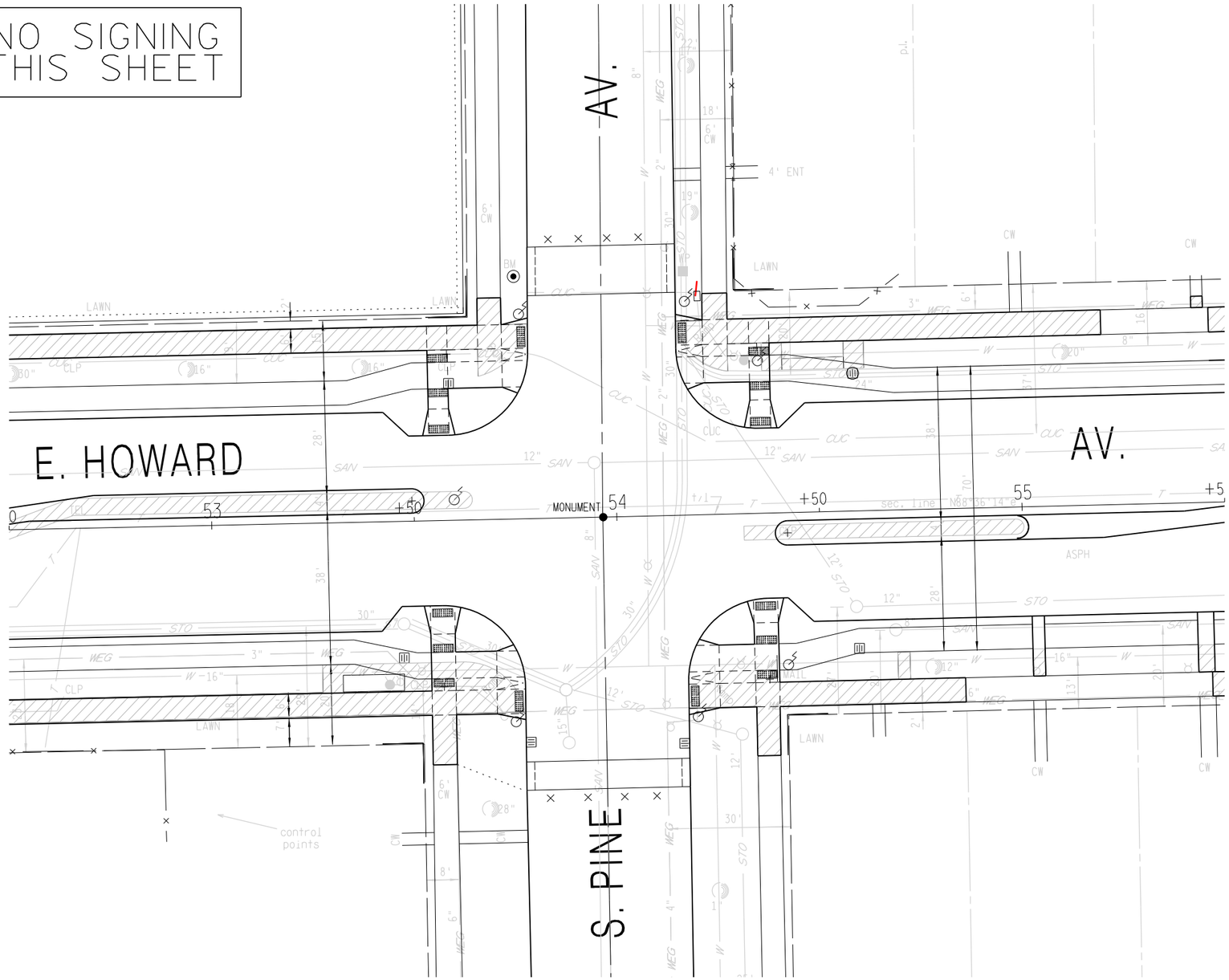
WISDOT/CADDS SHEET 42

2

2

NO SIGNING
THIS SHEET

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 15 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 412 | E |
|---|---|---|---|---|---|

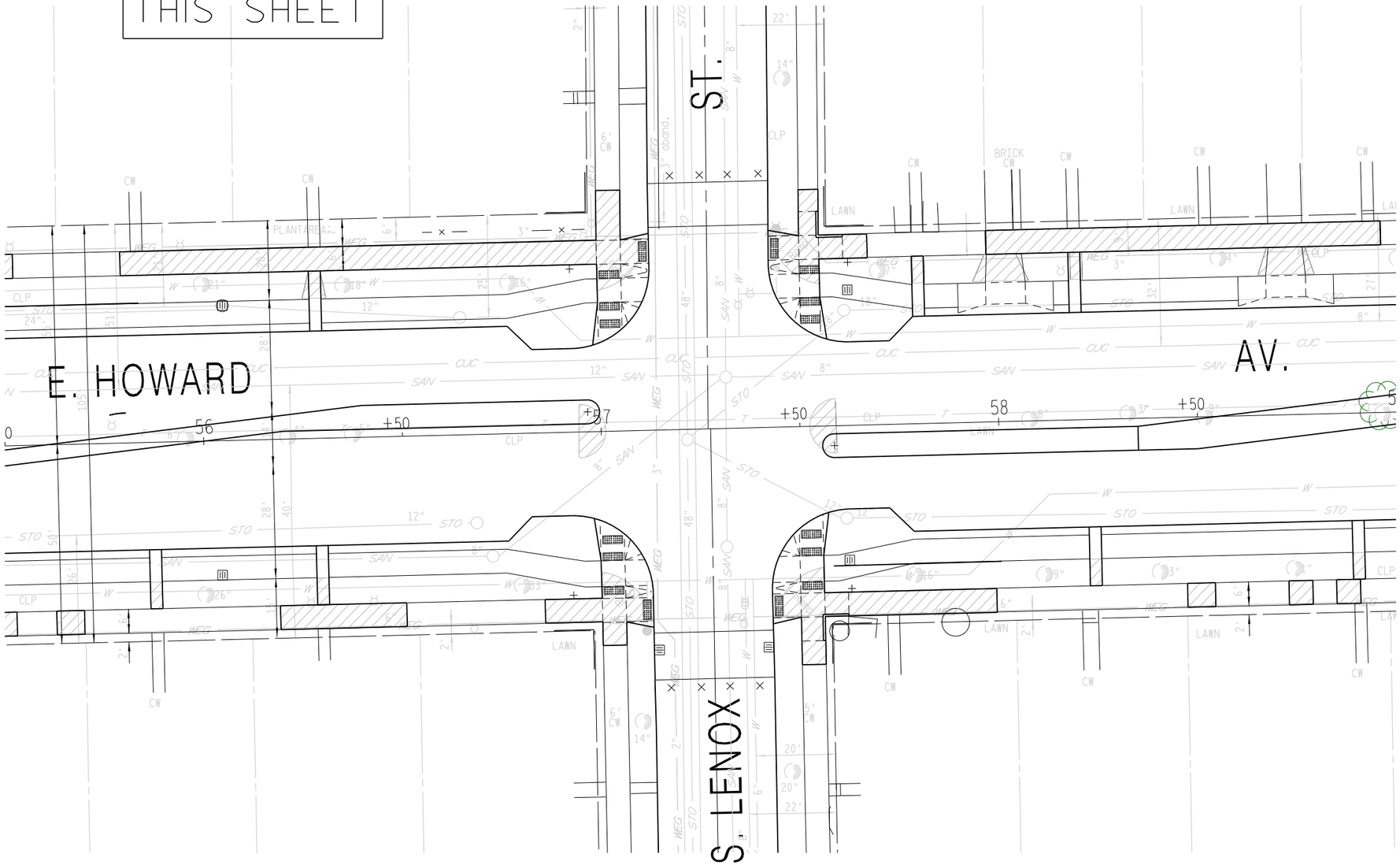
FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

NO SIGNING
THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 16 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 413 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

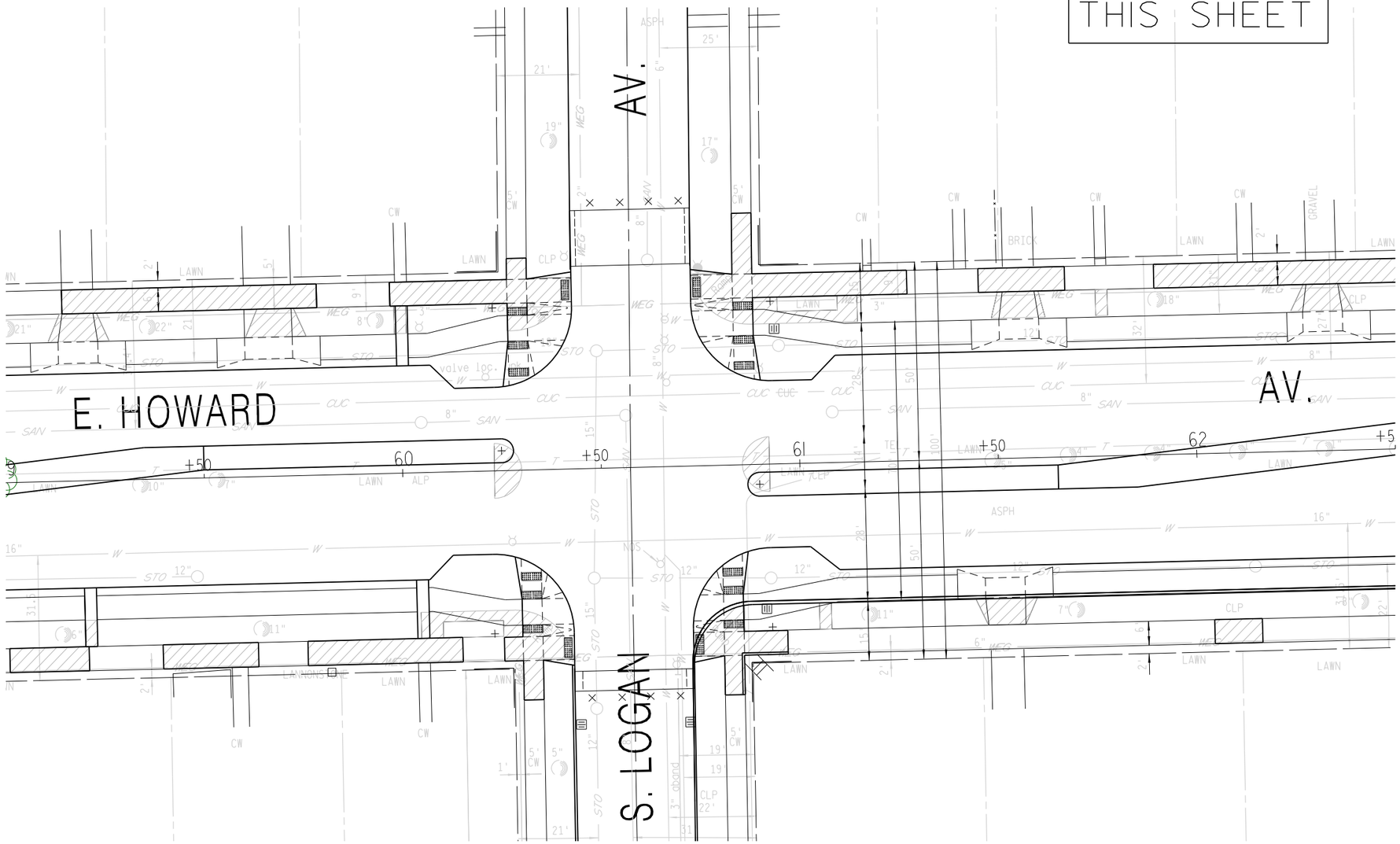
WISDOT/CADDS SHEET 42

2

2

N

NO SIGNING THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 17 OF 20

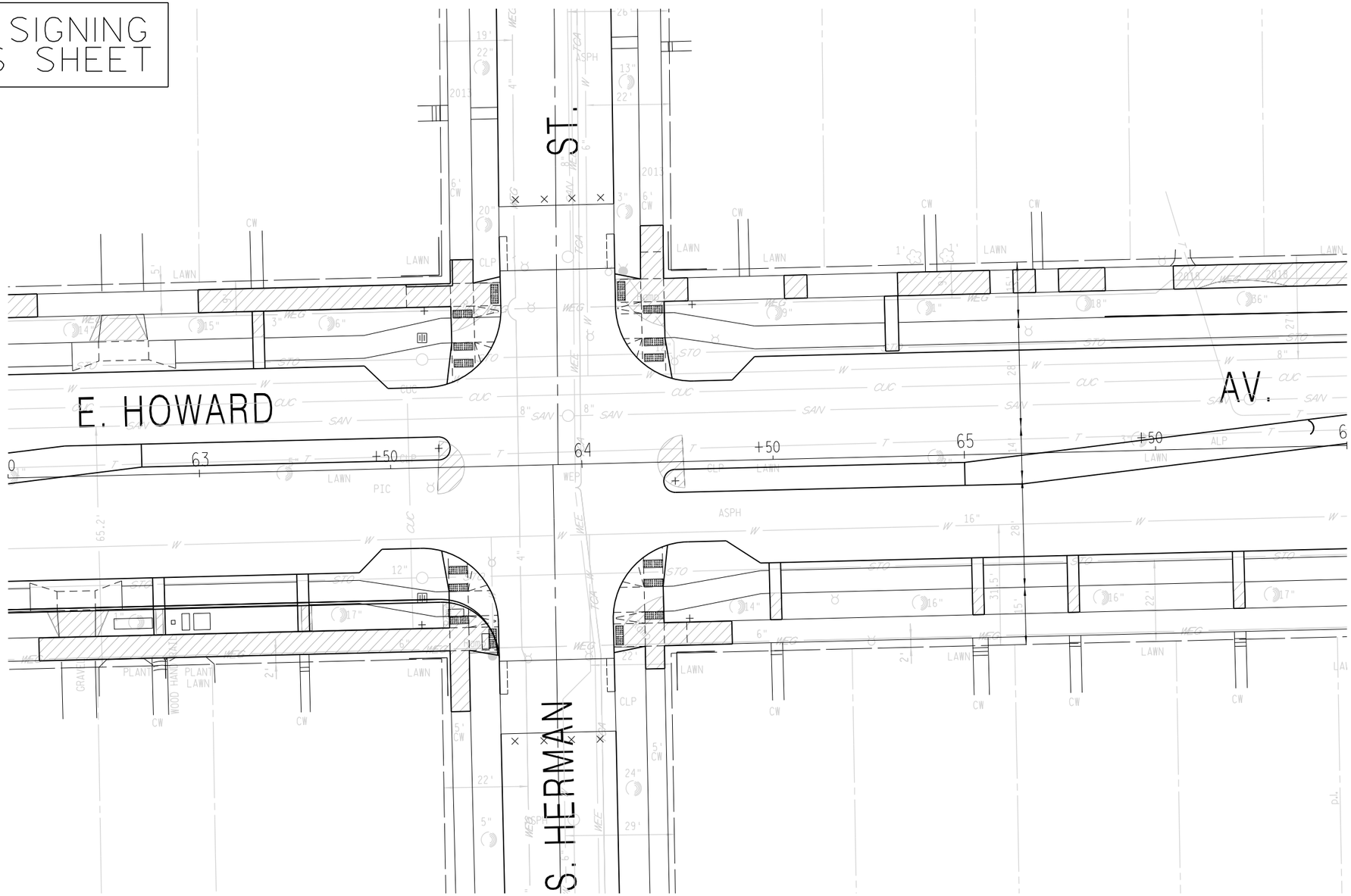
| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 414 | E |
|---|---|---|---|---|---|

2

2

NO SIGNING
THIS SHEET

N




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 18 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 415 | E |
|---|---|---|---|---|---|

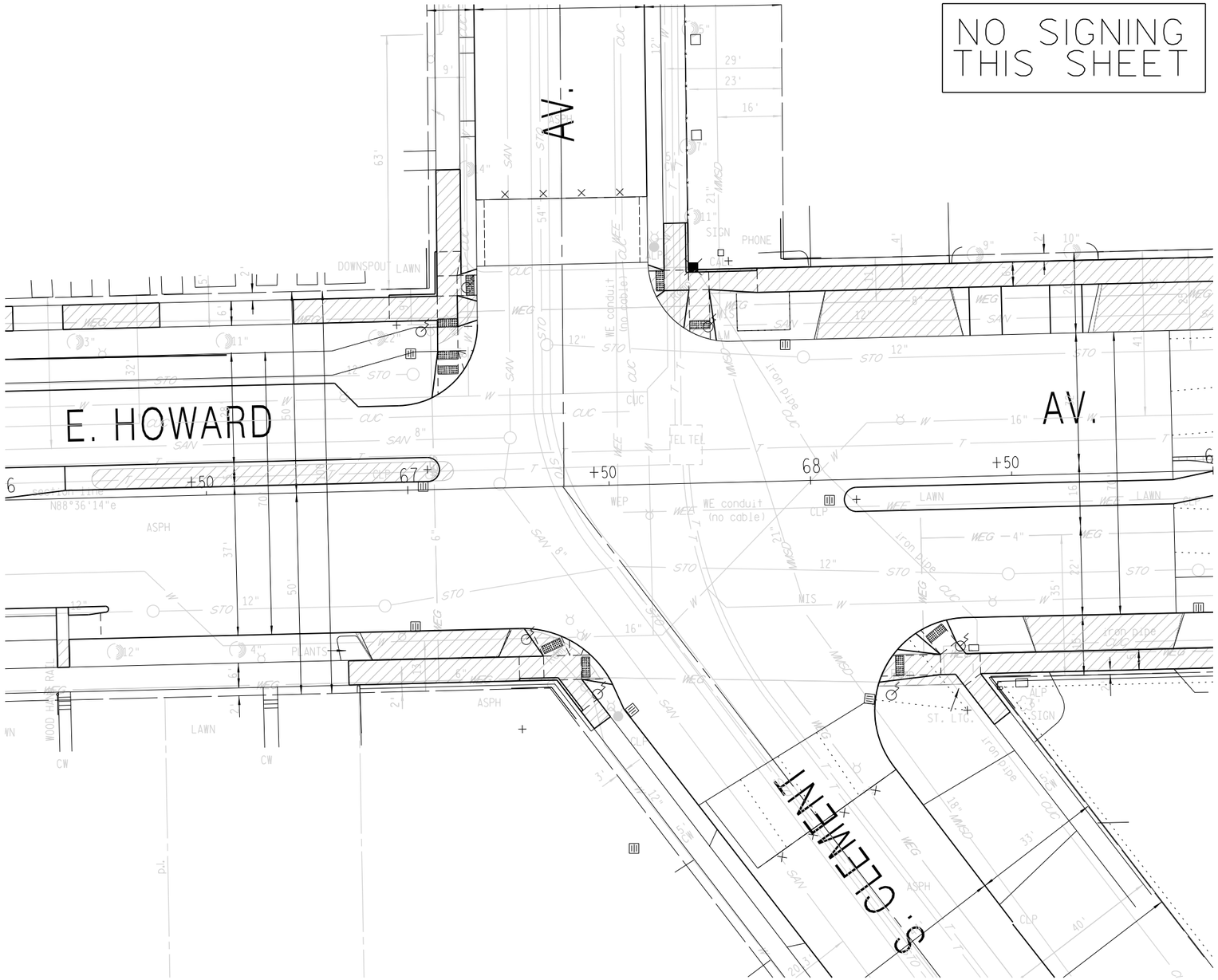
FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

N

NO SIGNING THIS SHEET




LEGEND

(XXX) SIGN NUMBER

SIGN

SCALE, FEET 0 30

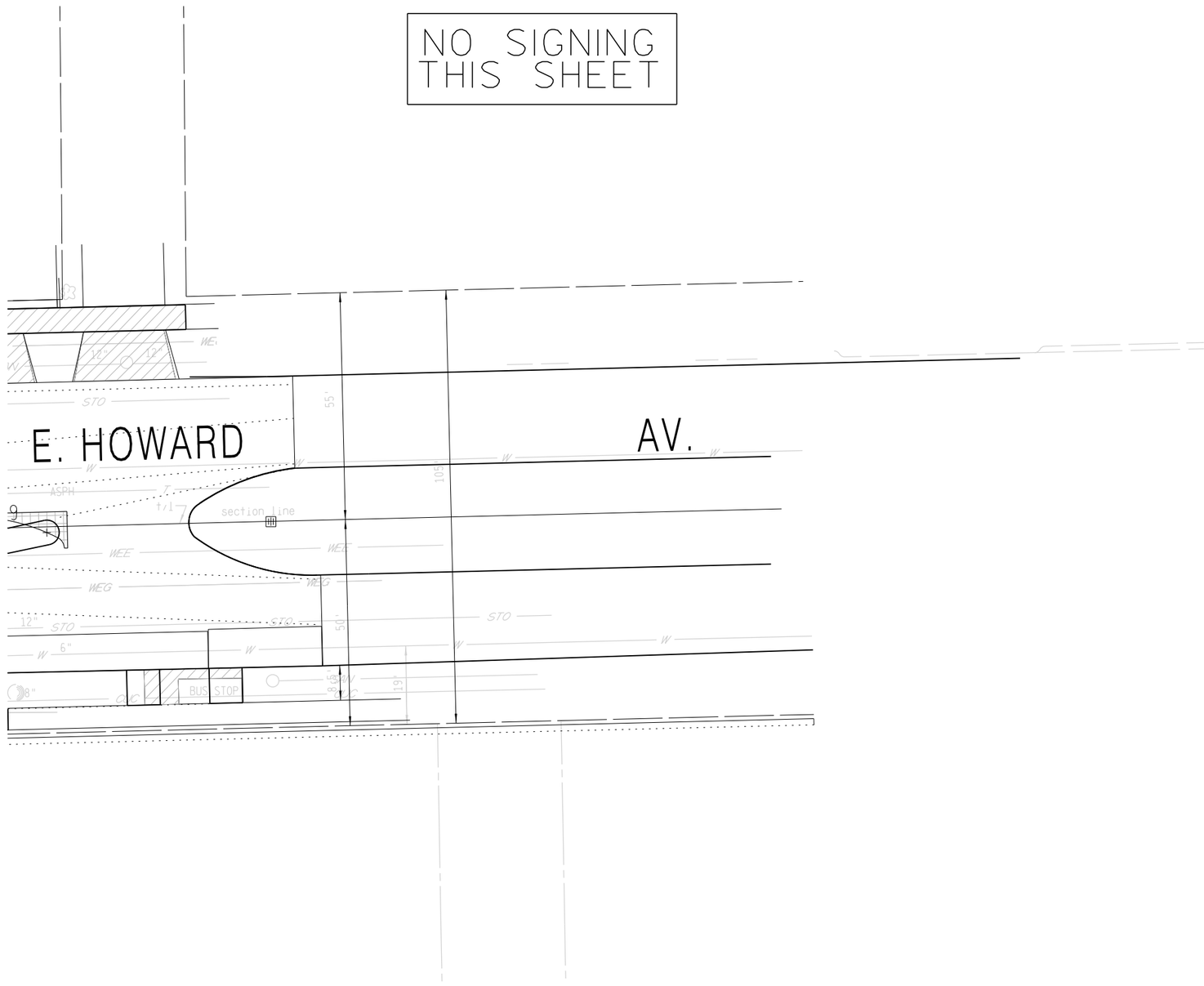
SHEET 19 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 416 | E |
|---|---|---|---|---|---|

2

N

NO SIGNING
THIS SHEET




LEGEND

XXX SIGN NUMBER

SIGN

SCALE, FEET 0 30

SHEET 20 OF 20

| PROJECT NO. 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | ROUTE MARKER INSTALLATION PLAN | SHEET NO. 417 | E |
|---|---|---|---|---|---|

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

## Estimate Of Quantities

2395-05-71

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0002 | 201.0220 | Grubbing | ID | 1,348.000 | 1,348.000 |
| 0004 | 204.0100 | Removing Concrete Pavement | SY | 48,568.000 | 48,568.000 |
| 0006 | 204.0115 | Removing Asphaltic Surface Butt Joints | SY | 1,290.000 | 1,290.000 |
| 0008 | 204.0150 | Removing Curb & Gutter | LF | 720.000 | 720.000 |
| 0010 | 204.0155 | Removing Concrete Sidewalk | SY | 7,509.000 | 7,509.000 |
| 0012 | 204.0195 | Removing Concrete Bases | EACH | 38.000 | 38.000 |
| 0014 | 204.0215 | Removing Catch Basins | EACH | 21.000 | 21.000 |
| 0016 | 204.0255 | Abandoning Catch Basins | EACH | 33.000 | 33.000 |
| 0018 | 204.9060.S | Removing (item description) 001. Traffic Signals W Howard Ave & S 6th St | EACH | 1.000 | 1.000 |
| 0020 | 204.9060.S | Removing (item description) 002. Traffic Signals W Howard Ave & 3rd St | EACH | 1.000 | 1.000 |
| 0022 | 204.9060.S | Removing (item description) 003. Traffic Signals W Howard Ave S Howell Ave | EACH | 1.000 | 1.000 |
| 0024 | 204.9060.S | Removing (item description) 004. Traffic Signals W Howard Ave & S Whitnall Ave | EACH | 1.000 | 1.000 |
| 0026 | 204.9060.S | Removing (item description) 005. Traffic Signals W Howard Ave & S Pine Ave | EACH | 1.000 | 1.000 |
| 0028 | 204.9060.S | Removing (item description) 006. Traffic Signals W Howard Ave & S Clement Ave | EACH | 1.000 | 1.000 |
| 0030 | 204.9060.S | Removing (item description) 310. City Installed Wood Poles | EACH | 10.000 | 10.000 |
| 0032 | 204.9060.S | Removing (item description) 311. Poles | EACH | 184.000 | 184.000 |
| 0034 | 204.9090.S | Removing (item description) 001. Aerial Cable | LF | 18,415.000 | 18,415.000 |
| 0036 | 205.0100 | Excavation Common | CY | 45,536.000 | 45,536.000 |
| 0038 | 205.0501.S | Excavation, Hauling, and Disposal of Petroleum Contaminated Soil | TON | 90.000 | 90.000 |
| 0040 | 213.0100 | Finishing Roadway (project) 001. 2395-05-71 | EACH | 1.000 | 1.000 |
| 0042 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 26,280.000 | 26,280.000 |
| 0044 | 320.0155 | Concrete Base 9-Inch | SY | 102.000 | 102.000 |
| 0046 | 415.0090 | Concrete Pavement 9-Inch | SY | 35,446.000 | 35,446.000 |
| 0048 | 416.0610 | Drilled Tie Bars | EACH | 454.000 | 454.000 |
| 0050 | 416.0620 | Drilled Dowel Bars | EACH | 149.000 | 149.000 |
| 0052 | 455.0605 | Tack Coat | GAL | 80.000 | 80.000 |
| 0054 | 465.0105 | Asphaltic Surface | TON | 1,327.000 | 1,327.000 |
| 0056 | 465.0125 | Asphaltic Surface Temporary | TON | 210.000 | 210.000 |
| 0058 | 601.0322 | Concrete Curb & Gutter 22-Inch | LF | 220.000 | 220.000 |
| 0060 | 601.0331 | Concrete Curb & Gutter 31-Inch | LF | 12,547.000 | 12,547.000 |
| 0062 | 601.0600 | Concrete Curb Pedestrian | LF | 650.000 | 650.000 |
| 0064 | 602.0410 | Concrete Sidewalk 5-Inch | SF | 77,367.000 | 77,367.000 |
| 0066 | 602.0420 | Concrete Sidewalk 7-Inch | SF | 130.000 | 130.000 |
| 0068 | 602.0515 | Curb Ramp Detectable Warning Field Natural Patina | SF | 1,840.000 | 1,840.000 |
| 0070 | 602.0815 | Concrete Driveway 7-Inch | SY | 1,730.000 | 1,730.000 |
| 0072 | 602.0820 | Concrete Driveway 8-Inch | SY | 560.000 | 560.000 |
| 0074 | 602.0865 | Concrete Driveway HES 7-Inch | SY | 230.000 | 230.000 |
| 0076 | 602.1000 | Concrete Loading Zone | SF | 560.000 | 560.000 |
| 0078 | 608.0412 | Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch | LF | 1,077.000 | 1,077.000 |
| 0080 | 611.2004 | Manholes 4-FT Diameter | EACH | 2.000 | 2.000 |
| 0082 | 611.3225 | Inlets 2x2.5-FT | EACH | 3.000 | 3.000 |
| 0084 | 611.8120.S | Cover Plates Temporary | EACH | 41.000 | 41.000 |
| 0086 | 618.0100 | Maintenance and Repair of Haul Roads (project) 001. 2395-05-71 | EACH | 1.000 | 1.000 |
| 0088 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0090 | 620.0100 | Concrete Corrugated Median | SF | 340.000 | 340.000 |
| 0092 | 620.0300 | Concrete Median Sloped Nose | SF | 280.000 | 280.000 |
| 0094 | 621.0100 | Landmark Reference Monuments | EACH | 3.000 | 3.000 |
| 0096 | 624.0100 | Water | MGAL | 120.000 | 120.000 |
| 0098 | 625.0100 | Topsoil | SY | 11,800.000 | 11,800.000 |
| 0100 | 628.1905 | Mobilizations Erosion Control | EACH | 12.000 | 12.000 |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0102 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 6.000 | 6.000 |
| 0104 | 628.7005 | Inlet Protection Type A | EACH | 85.000 | 85.000 |
| 0106 | 628.7010 | Inlet Protection Type B | EACH | 93.000 | 93.000 |
| 0108 | 628.7020 | Inlet Protection Type D | EACH | 8.000 | 8.000 |
| 0110 | 631.0300 | Sod Water | MGAL | 359.000 | 359.000 |
| 0112 | 631.1000 | Sod Lawn | SY | 11,800.000 | 11,800.000 |
| 0114 | 632.0101 | Trees (species, root, size) 001. DAWN REDWOOD 4" CAL B&B | EACH | 4.000 | 4.000 |
| 0116 | 632.0101 | Trees (species, root, size) 002. SUNBURST HONEYLOCUST 3" CAL B&B | EACH | 11.000 | 11.000 |
| 0118 | 632.0101 | Trees (species, root, size) 003. RUBY RED HORSECHESTNUT 3" CAL B&B | EACH | 6.000 | 6.000 |
| 0120 | 632.0101 | Trees (species, root, size) 004. RASPBERRY SPEAR CRABAPPLE 3" CAL B&B | EACH | 3.000 | 3.000 |
| 0122 | 632.0101 | Trees (species, root, size) 005. AUTUMN BLAZE MAPLE 4" B&B | EACH | 8.000 | 8.000 |
| 0124 | 632.0101 | Trees (species, root, size) 006. FRONTIER ELM 4" B&B | EACH | 16.000 | 16.000 |
| 0126 | 632.0101 | Trees (species, root, size) 007. APOLLO SUGAR MAPLE 4" CAL B&B | EACH | 5.000 | 5.000 |
| 0128 | 632.0101 | Trees (species, root, size) 008. PACIFIC SUNSET MAPLE 4" CAL B&B | EACH | 5.000 | 5.000 |
| 0130 | 632.0101 | Trees (species, root, size) 009. AUTUMN BLAZE PEAR 4" CAL B&B | EACH | 12.000 | 12.000 |
| 0132 | 632.0101 | Trees (species, root, size) 010. AUTUMN BRILLIANCE SERVICEBERRY 4" CAL B&B | EACH | 2.000 | 2.000 |
| 0134 | 632.0101 | Trees (species, root, size) 011. KENTUCKY COFFEETREE 4" CAL B&B | EACH | 1.000 | 1.000 |
| 0136 | 632.0101 | Trees (species, root, size) 012. JAPANESE TREE LILAC 3" CAL B&B | EACH | 4.000 | 4.000 |
| 0138 | 632.0101 | Trees (species, root, size) 013. UPRIGHT ENGLISH OAK 4" CAL B&B | EACH | 2.000 | 2.000 |
| 0140 | 632.0101 | Trees (species, root, size) 014. CRIMSON CLOUD HAWTHORN 4" CAL B&B | EACH | 2.000 | 2.000 |
| 0142 | 632.0101 | Trees (species, root, size) 015. IRONWOOD 4" CAL B&B | EACH | 1.000 | 1.000 |
| 0144 | 632.0101 | Trees (species, root, size) 016. JARMIN MARILEE CRABAPPLE 4" CAL B&B | EACH | 4.000 | 4.000 |
| 0146 | 632.0101 | Trees (species, root, size) 017. GOLDEN RAINDROPS CRABAPPLE 4" CAL B&B | EACH | 4.000 | 4.000 |
| 0148 | 632.0101 | Trees (species, root, size) 018. PURPLE PRINCE CRABAPPLE 4" CAL B&B | EACH | 3.000 | 3.000 |
| 0150 | 632.0201 | Shrubs (species, root, size) 001. Catmint Blue Wonder 2 GAL CG | EACH | 40.000 | 40.000 |
| 0152 | 632.0201 | Shrubs (species, root, size) 002. Hydrangea Annabelle 3 GAL CG | EACH | 40.000 | 40.000 |
| 0154 | 632.0201 | Shrubs (species, root, size) 003. Rose Knockout Red 4 GAL CG | EACH | 44.000 | 44.000 |
| 0156 | 632.9101 | Landscape Planting Surveillance and Care Cycles | EACH | 10.000 | 10.000 |
| 0158 | 634.0616 | Posts Wood 4x6-Inch X 16-FT | EACH | 11.000 | 11.000 |
| 0160 | 634.0618 | Posts Wood 4x6-Inch X 18-FT | EACH | 2.000 | 2.000 |
| 0162 | 637.2220 | Signs Type II Reflective SH | SF | 1,099.500 | 1,099.500 |
| 0164 | 637.2230 | Signs Type II Reflective F | SF | 38.800 | 38.800 |
| 0166 | 638.2602 | Removing Signs Type II | EACH | 141.000 | 141.000 |
| 0168 | 638.3000 | Removing Small Sign Supports | EACH | 5.000 | 5.000 |
| 0170 | 642.5201 | Field Office Type C | EACH | 1.000 | 1.000 |
| 0172 | 643.0300 | Traffic Control Drums | DAY | 59,046.000 | 59,046.000 |
| 0174 | 643.0420 | Traffic Control Barricades Type III | DAY | 29,043.000 | 29,043.000 |
| 0176 | 643.0500 | Traffic Control Flexible Tubular Marker Posts | EACH | 724.000 | 724.000 |
| 0178 | 643.0600 | Traffic Control Flexible Tubular Marker Bases | EACH | 724.000 | 724.000 |
| 0180 | 643.0715 | Traffic Control Warning Lights Type C | DAY | 27,776.000 | 27,776.000 |
| 0182 | 643.0800 | Traffic Control Arrow Boards | DAY | 35.000 | 35.000 |
| 0184 | 643.0900 | Traffic Control Signs | DAY | 37,323.000 | 37,323.000 |
| 0186 | 643.1050 | Traffic Control Signs PCMS | DAY | 408.000 | 408.000 |
| 0188 | 643.3105 | Temporary Marking Line Paint 4-Inch | LF | 13,337.000 | 13,337.000 |
| 0190 | 643.3150 | Temporary Marking Line Removable Tape 4-Inch | LF | 10,874.000 | 10,874.000 |
| 0192 | 643.3205 | Temporary Marking Line Paint 8-Inch | LF | 845.000 | 845.000 |
| 0194 | 643.3250 | Temporary Marking Line Removable Tape 8-Inch | LF | 987.000 | 987.000 |
| 0196 | 643.3805 | Temporary Marking Stop Line Paint 18-Inch | LF | 126.000 | 126.000 |
| 0198 | 643.3850 | Temporary Marking Stop Line Removable Tape 18-Inch | LF | 134.000 | 134.000 |
| 0200 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0202 | 644.1410 | Temporary Pedestrian Surface Asphalt | SF | 1,201.000 | 1,201.000 |
| 0204 | 644.1430 | Temporary Pedestrian Surface Plate | SF | 8,007.000 | 8,007.000 |
| 0206 | 644.1601 | Temporary Pedestrian Curb Ramp | DAY | 777.000 | 777.000 |
| 0208 | 644.1605 | Temporary Pedestrian Detectable Warning Field | SF | 440.000 | 440.000 |
| 0210 | 644.1810 | Temporary Pedestrian Barricade | LF | 16,075.000 | 16,075.000 |
| 0212 | 646.1020 | Marking Line Epoxy 4-Inch | LF | 2,192.000 | 2,192.000 |
| 0214 | 646.2040 | Marking Line Grooved Wet Ref Epoxy 6-Inch | LF | 4,235.000 | 4,235.000 |
| 0216 | 646.3020 | Marking Line Epoxy 8-Inch | LF | 2,272.000 | 2,272.000 |
| 0218 | 646.5020 | Marking Arrow Epoxy | EACH | 62.000 | 62.000 |
| 0220 | 646.5120 | Marking Word Epoxy | EACH | 3.000 | 3.000 |
| 0222 | 646.5220 | Marking Symbol Epoxy | EACH | 33.000 | 33.000 |
| 0224 | 646.8220 | Marking Island Nose Epoxy | EACH | 39.000 | 39.000 |
| 0226 | 646.9000 | Marking Removal Line 4-Inch | LF | 1,087.000 | 1,087.000 |
| 0228 | 646.9100 | Marking Removal Line 8-Inch | LF | 464.000 | 464.000 |
| 0230 | 650.4500 | Construction Staking Subgrade | LF | 13,500.000 | 13,500.000 |
| 0232 | 650.7000 | Construction Staking Concrete Pavement | LF | 13,500.000 | 13,500.000 |
| 0234 | 650.8501 | Construction Staking Electrical Installations (project) 001. 2395-05-71 | EACH | 1.000 | 1.000 |
| 0236 | 650.9000 | Construction Staking Curb Ramps | EACH | 142.000 | 142.000 |
| 0238 | 650.9500 | Construction Staking Sidewalk (project) 001. 2395-05-71 | EACH | 11,780.000 | 11,780.000 |
| 0240 | 650.9911 | Construction Staking Supplemental Control (project) 001. 2395-05-71 | EACH | 1.000 | 1.000 |
| 0242 | 652.0225 | Conduit Rigid Nonmetallic Schedule 40 2-Inch | LF | 635.000 | 635.000 |
| 0244 | 652.0235 | Conduit Rigid Nonmetallic Schedule 40 3-Inch | LF | 13,710.000 | 13,710.000 |
| 0246 | 652.0335 | Conduit Rigid Nonmetallic Schedule 80 3-Inch | LF | 3,375.000 | 3,375.000 |
| 0248 | 652.0615 | Conduit Special 3-Inch | LF | 3,675.000 | 3,675.000 |
| 0250 | 653.0905 | Removing Pull Boxes | EACH | 9.000 | 9.000 |
| 0252 | 654.0101 | Concrete Bases Type 1 | EACH | 34.000 | 34.000 |
| 0254 | 654.0105 | Concrete Bases Type 5 | EACH | 49.000 | 49.000 |
| 0256 | 654.0110 | Concrete Bases Type 10 | EACH | 10.000 | 10.000 |
| 0258 | 654.0120 | Concrete Bases Type 10-Special | EACH | 5.000 | 5.000 |
| 0260 | 655.0230 | Cable Traffic Signal 5-14 AWG | LF | 5,450.000 | 5,450.000 |
| 0262 | 655.0250 | Cable Traffic Signal 9-14 AWG | LF | 3,520.000 | 3,520.000 |
| 0264 | 655.0260 | Cable Traffic Signal 12-14 AWG | LF | 4,145.000 | 4,145.000 |
| 0266 | 655.0270 | Cable Traffic Signal 15-14 AWG | LF | 3,790.000 | 3,790.000 |
| 0268 | 655.0305 | Cable Type UF 2-12 AWG Grounded | LF | 5,110.000 | 5,110.000 |
| 0270 | 655.0515 | Electrical Wire Traffic Signals 10 AWG | LF | 5,360.000 | 5,360.000 |
| 0272 | 655.0900 | Traffic Signal EVP Detector Cable | LF | 3,715.000 | 3,715.000 |
| 0274 | 657.0100 | Pedestal Bases | EACH | 34.000 | 34.000 |
| 0276 | 657.0255 | Transformer Bases Breakaway 11 1/2-Inch Bolt Circle | EACH | 49.000 | 49.000 |
| 0278 | 657.0350 | Poles Type 10 | EACH | 10.000 | 10.000 |
| 0280 | 657.0352 | Poles Type 10-Special | EACH | 5.000 | 5.000 |
| 0282 | 657.0405 | Traffic Signal Standards Aluminum 3.5-FT | EACH | 11.000 | 11.000 |
| 0284 | 657.0420 | Traffic Signal Standards Aluminum 13-FT | EACH | 15.000 | 15.000 |
| 0286 | 657.0425 | Traffic Signal Standards Aluminum 15-FT | EACH | 6.000 | 6.000 |
| 0288 | 657.0430 | Traffic Signal Standards Aluminum 10-FT | EACH | 2.000 | 2.000 |
| 0290 | 657.0515 | Monotube Arms 15-FT | EACH | 4.000 | 4.000 |
| 0292 | 657.0525 | Monotube Arms 25-FT | EACH | 5.000 | 5.000 |
| 0294 | 657.0530 | Monotube Arms 30-FT | EACH | 1.000 | 1.000 |
| 0296 | 657.0536 | Monotube Arms 35-FT-Special | EACH | 5.000 | 5.000 |
| 0298 | 657.0815 | Luminaire Arms Steel 15-FT | EACH | 1.000 | 1.000 |
| 0300 | 658.0173 | Traffic Signal Face 3S 12-Inch | EACH | 71.000 | 71.000 |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0302 | 658.0174 | Traffic Signal Face 4S 12-Inch | EACH | 12.000 | 12.000 |
| 0304 | 658.0175 | Traffic Signal Face 5S 12-Inch | EACH | 4.000 | 4.000 |
| 0306 | 658.0412 | Pedestrian Signal Face 12-Inch | EACH | 33.000 | 33.000 |
| 0308 | 658.5070 | Signal Mounting Hardware (location) 001. S 6TH ST | EACH | 1.000 | 1.000 |
| 0310 | 658.5070 | Signal Mounting Hardware (location) 002. S 5TH ST | EACH | 1.000 | 1.000 |
| 0312 | 658.5070 | Signal Mounting Hardware (location) 003. S 3RD ST | EACH | 1.000 | 1.000 |
| 0314 | 658.5070 | Signal Mounting Hardware (location) 004. S HOWELL AVE | EACH | 1.000 | 1.000 |
| 0316 | 658.5070 | Signal Mounting Hardware (location) 005. S WHITNALL AVE | EACH | 1.000 | 1.000 |
| 0318 | 658.5070 | Signal Mounting Hardware (location) 006. S PINE AVE | EACH | 1.000 | 1.000 |
| 0320 | 658.5070 | Signal Mounting Hardware (location) 007. S CLEMENT AVE | EACH | 1.000 | 1.000 |
| 0322 | 659.5000.S | Lamp, Ballast, LED, Switch Disposal by Contractor | EACH | 200.000 | 200.000 |
| 0324 | 661.0201 | Temporary Traffic Signals for Intersections (location) 001. S 6TH ST | EACH | 1.000 | 1.000 |
| 0326 | 661.0201 | Temporary Traffic Signals for Intersections (location) 002. S 5th ST | EACH | 1.000 | 1.000 |
| 0328 | 661.0201 | Temporary Traffic Signals for Intersections (location) 003. S 3RD ST | EACH | 1.000 | 1.000 |
| 0330 | 661.0201 | Temporary Traffic Signals for Intersections (location) 004. S HOWELL AVE | EACH | 1.000 | 1.000 |
| 0332 | 661.0201 | Temporary Traffic Signals for Intersections (location) 005. S WHITNALL AVE | EACH | 1.000 | 1.000 |
| 0334 | 661.0201 | Temporary Traffic Signals for Intersections (location) 006. S PINE AVE | EACH | 1.000 | 1.000 |
| 0336 | 661.0201 | Temporary Traffic Signals for Intersections (location) 007. S CLEMENT AVE | EACH | 1.000 | 1.000 |
| 0338 | 674.0300 | Remove Cable | LF | 960.000 | 960.000 |
| 0340 | 690.0150 | Sawing Asphalt | LF | 2,379.000 | 2,379.000 |
| 0342 | 690.0250 | Sawing Concrete | LF | 2,199.000 | 2,199.000 |
| 0344 | 715.0715 | Incentive Flexural Strength Concrete Pavement | DOL | 10,550.000 | 10,550.000 |
| 0346 | 715.0720 | Incentive Compressive Strength Concrete Pavement | DOL | 10,550.000 | 10,550.000 |
| 0348 | ASP.1T0A | On-the-Job Training Apprentice at $5.00/HR | HRS | 2,400.000 | 2,400.000 |
| 0350 | ASP.1T0G | On-the-Job Training Graduate at $5.00/HR | HRS | 10,740.000 | 10,740.000 |
| 0352 | SPV.0060 | Special 001. Adjusting Water Service Boxes | EACH | 92.000 | 92.000 |
| 0354 | SPV.0060 | Special 002. Water Main Protection | EACH | 8.000 | 8.000 |
| 0356 | SPV.0060 | Special 015. Signature Beds | EACH | 2.000 | 2.000 |
| 0358 | SPV.0060 | Special 050. Utility Line Opening (ULO) | EACH | 71.000 | 71.000 |
| 0360 | SPV.0060 | Special 100. Adjusting Sanitary Manholes | EACH | 41.000 | 41.000 |
| 0362 | SPV.0060 | Special 101. Inlet Covers Type MS 55 | EACH | 1.000 | 1.000 |
| 0364 | SPV.0060 | Special 102. Inlet Covers Type  MS 57 | EACH | 72.000 | 72.000 |
| 0366 | SPV.0060 | Special 103. Manhole Covers Type MS 58-A | EACH | 97.000 | 97.000 |
| 0368 | SPV.0060 | Special 112. Storm Inlet Type 45A | EACH | 50.000 | 50.000 |
| 0370 | SPV.0060 | Special 201. Install City Precast Controller Base | EACH | 4.000 | 4.000 |
| 0372 | SPV.0060 | Special 205. ATC Controller and Cabinet Installed | EACH | 4.000 | 4.000 |
| 0374 | SPV.0060 | Special 212. Fiber Optic Patch Panel | EACH | 7.000 | 7.000 |
| 0376 | SPV.0060 | Special 213. Ethernet Switch | EACH | 7.000 | 7.000 |
| 0378 | SPV.0060 | Special 215. Electrical Service Pedestal | EACH | 4.000 | 4.000 |
| 0380 | SPV.0060 | Special 218. EVP 1 Direction Detector | EACH | 16.000 | 16.000 |
| 0382 | SPV.0060 | Special 221. EVP Phase Selector Card 4 Channel | EACH | 4.000 | 4.000 |
| 0384 | SPV.0060 | Special 223. EVP Confirmation Light | EACH | 16.000 | 16.000 |
| 0386 | SPV.0060 | Special 225. Vehicular Video Detection System-2 Cameras | EACH | 3.000 | 3.000 |
| 0388 | SPV.0060 | Special 227. Vehicular Video Detection System-4 Cameras | EACH | 1.000 | 1.000 |
| 0390 | SPV.0060 | Special 228. Electrical Riser | EACH | 3.000 | 3.000 |
| 0392 | SPV.0060 | Special 267. Pedestrian Countdown Signal Face 12-Inch | EACH | 33.000 | 33.000 |
| 0394 | SPV.0060 | Special 268. Voice Instruction Audible Pushbutton | EACH | 45.000 | 45.000 |
| 0396 | SPV.0060 | Special 269. Voice Instruction Audible Control Unit | EACH | 6.000 | 6.000 |
| 0398 | SPV.0060 | Special 280. Round Aluminum Sign Post System in Soft Surface 7-Foot | EACH | 13.000 | 13.000 |
| 0400 | SPV.0060 | Special 281. Round Aluminum Sign Post System in Soft Surface 10-Foot | EACH | 56.000 | 56.000 |

## Estimate Of Quantities

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0402 | SPV.0060 | Special 283. Round Aluminum Sign Post System in Soft Surface 12-Foot | EACH | 13.000 | 13.000 |
| 0404 | SPV.0060 | Special 285. Round Aluminum Sign Post System in Concrete Surface 10-Foot | EACH | 3.000 | 3.000 |
| 0406 | SPV.0060 | Special 291. Street Name Sign Mounting Hardware on Mast Arm | EACH | 16.000 | 16.000 |
| 0408 | SPV.0060 | Special 292. 24" X 24" Blankout Sign "No Turn On Red" | EACH | 1.000 | 1.000 |
| 0410 | SPV.0060 | Special 293. Removing Sign Post Assembly and Type II Signage | EACH | 51.000 | 51.000 |
| 0412 | SPV.0060 | Special 302. Pull Boxes 13-Inch X 24-Inch X 24-Inch | EACH | 88.000 | 88.000 |
| 0414 | SPV.0060 | Special 303. Pull Boxes 17-Inch X 30-Inch X 24-Inch | EACH | 75.000 | 75.000 |
| 0416 | SPV.0060 | Special 315. Poles Type 22-AL | EACH | 5.000 | 5.000 |
| 0418 | SPV.0060 | Special 316. Poles Type 26-AL | EACH | 5.000 | 5.000 |
| 0420 | SPV.0060 | Special 320. Poles Type 25-AL-BD | EACH | 25.000 | 25.000 |
| 0422 | SPV.0060 | Special 321. Poles Type 30-AL-BD | EACH | 21.000 | 21.000 |
| 0424 | SPV.0060 | Special 323. 35-FT Wood Pole | EACH | 100.000 | 100.000 |
| 0426 | SPV.0060 | Special 337. City Furnished High Pressure Sodium Ballasts 1HSX – Single Coil | EACH | 4.000 | 4.000 |
| 0428 | SPV.0060 | Special 338. City Furnished High Pressure Sodium Ballasts 11HSX – Double Coil | EACH | 2.000 | 2.000 |
| 0430 | SPV.0060 | Special 342. Submersible Multitap 3 Port Pre-Insulated Connector | EACH | 261.000 | 261.000 |
| 0432 | SPV.0060 | Special 343. Submersible Multitap 4 Port Pre-Insulated Connector | EACH | 69.000 | 69.000 |
| 0434 | SPV.0060 | Special 345. Luminaire Arms Single Member 6-FT. (Special) | EACH | 109.000 | 109.000 |
| 0436 | SPV.0060 | Special 346. Luminaire Arms Single Member 6-Ft (WP Mount) | EACH | 81.000 | 81.000 |
| 0438 | SPV.0060 | Special 347. Luminaire Arms Single Member 8-Ft (SPECIAL) | EACH | 15.000 | 15.000 |
| 0440 | SPV.0060 | Special 348. Luminaire Arms Single Member 8-Ft (WP Mount) | EACH | 8.000 | 8.000 |
| 0442 | SPV.0060 | Special 360. City Furnished High Pressure Sodium Ballasts 2HSX – Single Coil | EACH | 2.000 | 2.000 |
| 0444 | SPV.0060 | Special 361. City Furnished High Pressure Sodium Ballasts 22HSX – Double Coil | EACH | 14.000 | 14.000 |
| 0446 | SPV.0060 | Special 366. City Furnished Luminaire Utility HPS 2 Multiple | EACH | 13.000 | 13.000 |
| 0448 | SPV.0060 | Special 367. City Furnished Luminaire Utility HPS 3 Multiple | EACH | 39.000 | 39.000 |
| 0450 | SPV.0060 | Special 368. City Furnished Luminaire Utility HPS 2 Series | EACH | 28.000 | 28.000 |
| 0452 | SPV.0060 | Special 369. City Furnished Luminaire Utility HPS 3 Series | EACH | 10.000 | 10.000 |
| 0454 | SPV.0060 | Special 370.  City Furnished High Pressure Sodium Ballasts 3HSX – Single Coil | EACH | 5.000 | 5.000 |
| 0456 | SPV.0060 | Special 371. City Furnished High Pressure Sodium Ballasts 33HSX – Double Coil | EACH | 2.000 | 2.000 |
| 0458 | SPV.0060 | Special 374. Luminaire Utility 1LED2 | EACH | 8.000 | 8.000 |
| 0460 | SPV.0060 | Special 375. Luminaire Utility 2LED2 | EACH | 58.000 | 58.000 |
| 0462 | SPV.0060 | Special 376. Luminaire Utility 3LED2 | EACH | 9.000 | 9.000 |
| 0464 | SPV.0060 | Special 377. Luminaire Utility 2LED3 | EACH | 7.000 | 7.000 |
| 0466 | SPV.0060 | Special 379. Luminaire Utility 3LED3 | EACH | 54.000 | 54.000 |
| 0468 | SPV.0060 | Special 387. Remove Luminaire | EACH | 19.000 | 19.000 |
| 0470 | SPV.0060 | Special 400. Adjusting CUC Manhole Cover | EACH | 17.000 | 17.000 |
| 0472 | SPV.0060 | Special 401. 4' Diameter Manhole Type CUC | EACH | 3.000 | 3.000 |
| 0474 | SPV.0060 | Special 413. 5' Diameter "Doghouse" Manhole Type CUC Installed Over Conduit | EACH | 2.000 | 2.000 |
| 0476 | SPV.0060 | Special 425. Installing Conduit Into Existing Manhole | EACH | 11.000 | 11.000 |
| 0478 | SPV.0060 | Special 426. Sawing Concrete Encased Duct Package | EACH | 1.000 | 1.000 |
| 0480 | SPV.0060 | Special 427. Sawing and Removal of Concrete Encased Duct Package | EACH | 1.000 | 1.000 |
| 0482 | SPV.0090 | Special 001.  Concrete Curb and Gutter Integral 19-Inch | LF | 10,620.000 | 10,620.000 |
| 0484 | SPV.0090 | Special 240. Electrical Cable Type 3#4/1#8 XLP | LF | 730.000 | 730.000 |
| 0486 | SPV.0090 | Special 300. City Furnished Electrical Cable Type 1#8 AWG 5kV Concentric | LF | 5,990.000 | 5,990.000 |
| 0488 | SPV.0090 | Special 301. City Furnished Electrical Cable Type 1#6 AWG 5kV | LF | 7,090.000 | 7,090.000 |
| 0490 | SPV.0090 | Special 302. Electrical Cable Type 3#6 AL | LF | 3,735.000 | 3,735.000 |
| 0492 | SPV.0090 | Special 304. Electrical Cable Type 2#2/1#4 AL | LF | 3,380.000 | 3,380.000 |
| 0494 | SPV.0090 | Special 309. Electrical Cable Type 3#12 AWG with Ground | LF | 620.000 | 620.000 |
| 0496 | SPV.0090 | Special 319. Liquidtight Flexible Nonmetallic Conduit 1 1/2-INCH | LF | 100.000 | 100.000 |
| 0498 | SPV.0090 | Special 321. Electrical Cable Type 4#8/1#8 XLP | LF | 925.000 | 925.000 |
| 0500 | SPV.0090 | Special 322. Electrical Cable Type 4#6/1#8 XLP | LF | 150.000 | 150.000 |

2395-05-71

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0502 | SPV.0090 | Special 324. Electrical Cable Type 4#2/1#8 XLP | LF | 12,710.000 | 12,710.000 |
| 0504 | SPV.0090 | Special 402. 2-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60 | LF | 570.000 | 570.000 |
| 0506 | SPV.0090 | Special 404. 4-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60 | LF | 2,925.000 | 2,925.000 |
| 0508 | SPV.0090 | Special 406. 6-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60 | LF | 162.000 | 162.000 |
| 0510 | SPV.0090 | Special 408. 8-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60 | LF | 88.000 | 88.000 |
| 0512 | SPV.0090 | Special 422. Duct Removal from Concrete Encased Duct Package | LF | 1.000 | 1.000 |
| 0514 | SPV.0090 | Special 704. Marking Crosswalk Epoxy Transverse Line 12-Inch | LF | 549.000 | 549.000 |
| 0516 | SPV.0090 | Special 705. Marking Crosswalk Epoxy Block Style 12-Inch | LF | 2,884.000 | 2,884.000 |
| 0518 | SPV.0090 | Special 706. Marking Stop Line Epoxy 24-Inch | LF | 623.000 | 623.000 |
| 0520 | SPV.0180 | Special 001. Joint Sealing | SY | 48,260.000 | 48,260.000 |

## GRUBBING

CATEGORY 0010

| STATION | LOCATION | 201.0220 GRUBBING ID |
|---|---|---|
| STA 03+46 | MEDIAN | 8 |
| STA 03+67 | LT | 25 |
| STA 03+76 | RT | 11 |
| STA 04+92 | RT | 24 |
| STA 08+34 | LT | 20 |
| STA 08+78 | LT | 22 |
| STA 14+54 | RT | 24 |
| STA 14+66 | MEDIAN | 3 |
| STA 15+15 | RT | 11 |
| STA 15+19 | MEDIAN | 3 |
| STA 16+35 | RT | 21 |
| STA 17+09 | LT | 24 |
| STA 18+10 | RT | 14 |
| STA 19+62 | RT | 13 |
| STA 20+02 | RT | 25 |
| STA 22+62 | LT | 20 |
| STA 23+80 | LT | 26 |
| STA 24+39 | LT | 22 |
| STA 24+74 | MEDIAN | 9 |
| STA 24+92 | MEDIAN | 10 |
| STA 30+06 | MEDIAN | 6 |
| STA 30+27 | MEDIAN | 7 |
| STA 30+85 | MEDIAN | 6 |
| STA 30+96 | LT | 16 |
| STA 31+00 | LT | 16 |
| STA 31+09 | RT | 17 |
| STA 31+56 | LT | 19 |
| STA 32+80 | LT | 21 |
| STA 33+25 | LT | 18 |
| STA 33+41 | MEDIAN | 1 |
| STA 33+75 | LT | 13 |
| STA 34+15 | LT | 20 |
| STA 34+41 | MEDIAN | 4 |
| STA 35+06 | MEDIAN | 9 |
| STA 35+26 | MEDIAN | 4 |

CONTINUED

| STATION | LOCATION | 201.0220 GRUBBING ID |
|---|---|---|
| STA 35+46 | MEDIAN | 9 |
| STA 35+85 | MEDIAN | 4 |
| STA 38+65 | RT | 8 |
| STA 39+22 | LT | 22 |
| STA 39+82 | LT | 22 |
| STA 40+31 | MEDIAN | 5 |
| STA 40+50 | MEDIAN | 7 |
| STA 40+86 | MEDIAN | 6 |
| STA 41+77 | LT | 21 |
| STA 41+77 | RT | 21 |
| STA 42+31 | RT | 18 |
| STA 42+76 | LT | 22 |
| STA 42+77 | LT | 18 |
| STA 43+10 | RT | 23 |
| STA 43+50 | MEDIAN | 7 |
| STA 43+90 | MEDIAN | 6 |
| STA 44+27 | RT | 13 |
| STA 44+58 | MEDIAN | 7 |
| STA 44+64 | RT | 32 |
| STA 45+65 | MEDIAN | 7 |
| STA 45+82 | MEDIAN | 7 |
| STA 46+51 | MEDIAN | 7 |
| STA 48+45 | MEDIAN | 7 |
| STA 48+65 | MEDIAN | 7 |
| STA 49+79 | LT | 18 |
| STA 50+50 | MEDIAN * | 6 |
| STA 50+50 | MEDIAN * | 5 |
| STA 50+50 | MEDIAN * | 6 |
| STA 50+63 | RT | 30 |
| STA 51+84 | RT | 32 |
| STA 52+52 | LT | 30 |
| STA 53+39 | LT | 16 |
| STA 55+85 | MEDIAN | 6 |
| STA 55+95 | RT | 26 |
| STA 56+26 | MEDIAN | 4 |

CONTINUED

| STATION | LOCATION | 201.0220 GRUBBING ID |
|---|---|---|
| STA 56+36 | MEDIAN | 6 |
| STA 56+76 | LT | 18 |
| STA 56+76 | RT | 36 |
| STA 57+70 | LT | 10 |
| STA 57+79 | RT | 18 |
| STA 58+07 | MEDIAN | 10 |
| STA 58+32 | MEDIAN | 4 |
| STA 58+50 | MEDIAN | 11 |
| STA 58+96 | MEDIAN | 1 |
| STA 59+00 | LT | 21 |
| STA 59+33 | MEDIAN | 11 |
| STA 59+52 | MEDIAN | 7 |
| STA 59+92 | LT | 9 |
| STA 61+15 | RT | 13 |
| STA 61+50 | MEDIAN | 6 |
| STA 61+66 | MEDIAN | 5 |
| STA 61+89 | MEDIAN | 6 |
| STA 62+10 | MEDIAN | 1 |
| STA 62+23 | MEDIAN | 1 |
| STA 62+50 | MEDIAN | 1 |
| STA 63+00 | LT | 17 |
| STA 63+23 | MEDIAN | 4 |
| STA 63+34 | RT | 21 |
| STA 63+35 | LT | 7 |
| STA 64+38 | RT | 16 |
| STA 64+50 | LT | 12 |
| STA 64+91 | MEDIAN | 1 |
| STA 65+44 | MEDIAN | 4 |
| STA 65+73 | LT | 40 |
| STA 66+52 | LT | 12 |
| STA 66+92 | LT | 22 |
| | **TOTAL** | **1,348** |

* MULTI-STEM FLOWERING CRABAPPLE TREE

## REMOVAL ITEMS

CATEGORY 0010

| STATION | TO | STATION | LOCATION | 204.0100 * REMOVING CONCRETE PAVEMENT SY | 204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY | 204.0150 REMOVING CURB & GUTTER LF | 204.0155 REMOVING CONCRETE SIDEWALK SY |
|---|---|---|---|---|---|---|---|
| STA 00+00 | - | STA 06+00 | RT | 1,390 | 20 | 200 | 172 |
| STA 06+00 | - | STA 11+00 | RT | 1,300 | - | - | 178 |
| STA 11+00 | - | STA 15+00 | RT | 860 | 40 | 30 | 64 |
| STA 15+00 | - | STA 19+00 | RT | 1,530 | - | - | 169 |
| STA 19+00 | - | STA 25+00 | RT | 2,270 | 30 | 50 | 326 |
| STA 25+00 | - | STA 31+00 | RT | 2,030 | - | - | 676 |
| STA 31+00 | - | STA 37+00 | RT | 2,220 | - | - | 412 |
| STA 37+00 | - | STA 43+00 | RT | 2,510 | - | - | 482 |
| STA 43+00 | - | STA 49+00 | RT | 2,070 | - | - | 381 |
| STA 49+00 | - | STA 55+00 | RT | 2,420 | 30 | 30 | 583 |
| STA 55+00 | - | STA 61+00 | RT | 2,210 | 60 | 30 | 286 |
| STA 61+00 | - | STA 67+00 | RT | 2,150 | 60 | 20 | 170 |
| STA 67+00 | - | STA 73+00 | RT | 1,030 | 310 | 20 | 162 |
| | | | SUBTOTALS | 23,990 | 550 | 380 | 4,061 |
| STA 00+00 | - | STA 06+00 | LT | 1,470 | - | - | 157 |
| STA 06+00 | - | STA 11+00 | LT | 1,540 | - | - | 161 |
| STA 11+00 | - | STA 15+00 | LT | 910 | - | 70 | 137 |
| STA 15+00 | - | STA 19+00 | LT | 1,550 | 30 | 20 | 208 |
| STA 19+00 | - | STA 25+00 | LT | 2,320 | 80 | 20 | 352 |
| STA 25+00 | - | STA 31+00 | LT | 2,170 | 80 | 20 | 237 |
| STA 31+00 | - | STA 37+00 | LT | 2,210 | 40 | 20 | 364 |
| STA 37+00 | - | STA 43+00 | LT | 2,390 | - | 10 | 321 |
| STA 43+00 | - | STA 49+00 | LT | 1,980 | - | - | 303 |
| STA 49+00 | - | STA 55+00 | LT | 2,400 | 50 | 20 | 412 |
| STA 55+00 | - | STA 61+00 | LT | 2,240 | 80 | 50 | 322 |
| STA 61+00 | - | STA 67+00 | LT | 2,160 | 50 | 20 | 278 |
| STA 67+00 | - | STA 73+00 | LT | 930 | 330 | 90 | 196 |
| | | | SUBTOTALS | 24,270 | 740 | 340 | 3,448 |
| | | | **GRAND TOTALS** | **48,260** | **1,290** | **720** | **7,509** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

EARTH WORK SUMMARY

| Excavation Common (1) (item # 205.0100) | | Salvaged/Unusable Pavement Material (4) | Available Material (5) | Unexpanded Fill | Expanded Fill (6) | Mass Ordinate +/- (7) | Waste | Borrow(8) |
|---|---|---|---|---|---|---|---|---|
| Cut (2) | EBS Excavation (3) | | | | 1.20 Factor | | | |
| CY | CY | CY | CY | CY | CY | CY | CY | CY |
| 41,851 | 3,685 | 17,441 | 24,410 | 3,907 | 4,688 | 19,722 | 37,163 | 0 |
| **TOTAL COMMON EXC: 45,536** | | | | | | | | |

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Expanded Fill. Factor = 1.20
7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material.
8) To be bid as part of base aggregated dense 1-1/4"

## CONTAMINATED SOILS

CATEGORY 0010 — 205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

| STATION | TO | STATION | LOCATION | TON |
|---|---|---|---|---|
| STA 25+50 | - | STA 31+50 | RT | 20 |
| STA 38+50 | - | STA 44+50 | RT | 18 |
| STA 66+50 | - | STA 70+50 | RT | 18 |
| STA 31+50 | - | STA 38+50 | LT | 34 |
| | | | **TOTAL** | **90** |

## EXCAVATION COMMON

CATEGORY 0010 — 205.0100 EXCAVATION COMMON

| LOCATION | CY |
|---|---|
| STA 00+00 - STA 73+00 | 41,851 |
| UNDISTRIBUTED EBS | 3,685 |
| **TOTAL** | **45,536** |

## BASE AGGREGATE DENSE

CATEGORY 0010 — 305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH

| LOCATION | TON |
|---|---|
| UNDISTRIBUTED EBS | 7,370 |
| **TOTAL** | **7,370** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## FINISHING ROADWAY

CATEGORY 0010 — 213.0100 FINISHING ROADWAY (PROJECT) 001. 2395-05-71

| LOCATION | EACH |
|---|---|
| E/W HOWARD AVENUE | 1 |
| **TOTAL** | **1** |

## HMA PAVEMENT

CATEGORY 0010 — 465.0125 ASPHALTIC SURFACE TEMPORARY

| STATION TO STATION | TON |
|---|---|
| HOWARD AVENUE | |
| 0+00 - 77+00 | 210 |
| **TOTALS** | **210** |

## ROADWAY CONSTRUCTION ITEMS

| CATEGORY 0010 | | | | 305.0120 * | 320.0155 * | 415.0090 * | 416.0610 * | 601.0322 | 601.0331 | 601.0600 | 602.0410 | 602.0420 | 602.0515 | 602.0815 | 602.0820 | 602.0865 | 602.1000 | 620.0100 | 620.0300 | SPV.0090.001 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | BASE AGGREGATE DENSE 1-1/4 INCH | CONCRETE BASE 9-INCH | CONCRETE PAVEMENT 9-INCH | DRILLED TIE BARS | CONCRETE CURB & GUTTER 22-INCH | CONCRETE CURB & GUTTER 31-INCH | CONCRETE CURB PEDESTRIAN | CONCRETE SIDEWALK 5-INCH | CONCRETE SIDEWALK 7-INCH | CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA | CONCRETE DRIVEWAY 7-INCH | CONCRETE DRIVEWAY 8-INCH | CONCRETE DRIVEWAY HES 7-INCH | CONCRETE LOADING ZONE | CONCRETE CORRUGATED MEDIAN | CONCRETE MEDIAN SLOPED NOSE | CONCRETE CURB & GUTTER INTEGRAL 19-INCH |
| **STATION** | **TO** | **STATION** | **LOCATION** | TON | SY | SY | EACH | LF | LF | LF | SF | SF | SF | SY | SY | SY | SF | SF | SF | SF |
| STA 00+00 | - | STA 06+00 | RT | 570 | 50 | 1,150 | 40 | - | 340 | 40 | 2,030 | - | 60 | - | - | - | - | - | - | 370 |
| STA 06+00 | - | STA 11+00 | RT | 520 | - | 1,150 | 50 | - | 210 | - | 1,970 | - | - | - | - | - | - | - | 20 | 310 |
| STA 11+00 | - | STA 15+00 | RT | 330 | - | 800 | 10 | 20 | 180 | 50 | 560 | - | 60 | - | - | - | - | - | - | 150 |
| STA 15+00 | - | STA 19+00 | RT | 520 | - | 1,060 | 10 | - | 390 | 10 | 1,120 | 130 | 40 | 80 | - | - | - | - | 30 | 340 |
| STA 19+00 | - | STA 25+00 | RT | 990 | - | 2,130 | - | 30 | 600 | 30 | 2,780 | - | 80 | 50 | - | - | - | 170 | 40 | 420 |
| STA 25+00 | - | STA 31+00 | RT | 910 | - | 1,440 | 40 | - | 530 | 50 | 7,240 | - | 30 | 70 | - | - | - | - | - | 500 |
| STA 31+00 | - | STA 37+00 | RT | 910 | - | 1,840 | - | - | 450 | - | 3,720 | - | 20 | 80 | - | - | - | - | - | 490 |
| STA 37+00 | - | STA 43+00 | RT | 940 | - | 1,670 | 10 | - | 600 | 30 | 3,595 | - | 130 | 290 | 60 | - | - | - | 30 | 410 |
| STA 43+00 | - | STA 49+00 | RT | 770 | - | 1,030 | - | - | 600 | - | 3,930 | - | - | 270 | - | - | - | - | - | 600 |
| STA 49+00 | - | STA 55+00 | RT | 960 | - | 1,660 | - | - | 657 | 20 | 4,710 | - | 170 | 110 | - | - | 280 | - | 40 | 420 |
| STA 55+00 | - | STA 61+00 | RT | 880 | - | 1,540 | - | - | 670 | 40 | 3,900 | - | 160 | - | - | - | - | - | - | 510 |
| STA 61+00 | - | STA 67+00 | RT | 770 | - | 1,480 | - | - | 640 | - | 3,000 | - | 80 | 60 | 20 | - | - | - | 10 | 530 |
| STA 67+00 | - | STA 73+00 | RT | 400 | 20 | 870 | 20 | - | 250 | 20 | 1,310 | - | 40 | - | 80 | - | - | - | 10 | 140 |
| | | | SUBTOTALS | 9,470 | 70 | 17,820 | 180 | 50 | 6,117 | 290 | 39,865 | 130 | 870 | 1,010 | 160 | 0 | 280 | 170 | 180 | 5,190 |
| STA 00+00 | - | STA 06+00 | LT | 540 | - | 1,140 | 20 | 20 | 380 | 50 | 1,420 | - | 60 | 10 | - | - | - | - | - | 370 |
| STA 06+00 | - | STA 11+00 | LT | 610 | - | 1,380 | 20 | 10 | 370 | 40 | 1,480 | - | 30 | - | - | - | - | - | - | 310 |
| STA 11+00 | - | STA 15+00 | LT | 390 | - | 860 | 40 | 40 | 190 | 70 | 1,400 | - | 70 | 20 | - | - | - | - | - | 150 |
| STA 15+00 | - | STA 19+00 | LT | 570 | - | 1,160 | - | 30 | 390 | 50 | 1,850 | - | 40 | 60 | - | - | - | - | 30 | 340 |
| STA 19+00 | - | STA 25+00 | LT | 920 | - | 1,930 | - | 20 | 590 | - | 2,960 | - | 50 | 120 | - | - | - | 170 | 20 | 420 |
| STA 25+00 | - | STA 31+00 | LT | 740 | - | 1,440 | 40 | - | 530 | - | 2,400 | - | 40 | - | 270 | - | - | - | 10 | 500 |
| STA 31+00 | - | STA 37+00 | LT | 870 | - | 1,320 | - | 20 | 610 | - | 3,642 | - | 80 | 200 | - | - | - | - | - | 600 |
| STA 37+00 | - | STA 43+00 | LT | 930 | - | 1,710 | 20 | - | 650 | 50 | 3,280 | - | 170 | - | - | - | - | - | 40 | 540 |
| STA 43+00 | - | STA 49+00 | LT | 730 | - | 1,030 | - | - | 600 | - | 3,560 | - | - | - | - | - | - | - | - | 600 |
| STA 49+00 | - | STA 55+00 | LT | 900 | - | 1,490 | - | - | 640 | 10 | 4,780 | - | 130 | 60 | - | - | 280 | - | - | 420 |
| STA 55+00 | - | STA 61+00 | LT | 950 | - | 1,540 | - | 30 | 630 | 10 | 5,490 | - | 160 | 110 | - | - | - | - | - | 510 |
| STA 61+00 | - | STA 67+00 | LT | 900 | - | 1,490 | - | - | 640 | 30 | 4,130 | - | 80 | 80 | - | - | - | - | - | 530 |
| STA 67+00 | - | STA 73+00 | LT | 390 | - | 860 | 10 | - | 210 | 50 | 1,110 | - | 60 | 60 | 130 | - | - | - | - | 140 |
| | | | SUBTOTALS | 9,440 | 0 | 17,350 | 150 | 170 | 6,430 | 360 | 37,502 | 0 | 970 | 720 | 400 | 0 | 280 | 170 | 100 | 5,430 |
| | | | UNDISTRIBUTED | - | - | - | - | - | - | - | - | - | - | - | - | 230 | - | - | - | - |
| | | | **GRAND TOTALS** | **18,910** | **70** | **35,170** | **330** | **220** | **12,547** | **650** | **77,367** | **130** | **1,840** | **1,730** | **560** | **230** | **560** | **340** | **280** | **10,620** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

| EXISTING AND PROPOSED SEWER STRUCTURES | | | | | | | | SEWER PIPES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STRUCTURE NUMBER | STRUCTURE TYPE | STATION | CENTERLINE OFFSET | COVER ELEV. | DEPTH$_A$ (FT) | FRAME & COVER | STRUCTURE REMARKS | FROM STRUCTURE | TO STRUCTURE | PIPE SIZE (IN) | PLAN LENGTH (FT) | INVERTS INLET | INVERTS OUTLET | SLOPE (FT/FT) | PIPE MATERIAL | PIPE REMARKS |
| 103 | EXISTING MANHOLE | 1+04.2 | 65.0'RT | 134.08 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 105 | STORM INLET TYPE 45A | 3+90.2 | 3.1'RT | 128.31 | 5.59 | MS57 | REPLACE EXISTING | 105 | 108 | 12 | 16 | 125.05 | 124.65 | 0.02500 | CL IV RCP | |
| 106 | STORM INLET TYPE 45A | 3+93.9 | 36.8'RT | 127.10 | 7.33 | MS57 | REPLACE EXISTING | 106 | 108 | 12 | 17 | 122.10 | 121.00 | 0.06471 | CL IV RCP | Crossing CUC |
| 108 | EXISTING MANHOLE | 3+95.0 | 18.3'RT | 127.97 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 109 | EXISTING STORM INLET | 4+13.9 | 60.2'RT | 127.24 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 110 | EXISTING MANHOLE | 4+22.2 | 55.5'RT | 126.95 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 111 | EXISTING MANHOLE | 4+23.0 | 17.4'RT | 127.50 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 112 | STORM INLET TYPE 45A | 4+38.5 | 35.1'LT | 126.23 | 5.61 | MS57 | REPLACE EXISTING | 112 | 114 | 12 | 31 | 122.95 | 122.25 | 0.02258 | CL IV RCP | |
| 113 | EXISTING STORM INLET | 4+44.1 | 56.1'RT | 126.43 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 114 | EXISTING MANHOLE | 4+69.4 | 31.7'LT | 126.38 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 115 | EXISTING MANHOLE | 4+69.5 | 18.4'RT | 126.60 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 116 | EXISTING MANHOLE | 5+88.1 | 18.4'RT | 123.78 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 117 | STORM INLET TYPE 45A | 5+93.4 | 34.7'RT | 122.88 | 7.36 | MS57 | REPLACE EXISTING | 117 | 116 | 12 | 16 | 117.85 | 117.50 | 0.02187 | CL IV RCP | Crossing CUC |
| 130 | EXISTING MANHOLE | 7+00.2 | 18.2'RT | 120.77 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 131 | STORM INLET TYPE 45A | 7+08.7 | 35.1'LT | 120.35 | 5.58 | MS57 | REPLACE EXISTING | 131 | 132 | 12 | 10 | 117.10 | 116.85 | 0.02500 | CL IV RCP | |
| 132 | EXISTING MANHOLE | 7+18.4 | 32.2'LT | 120.10 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 133 | STORM INLET TYPE 45A | 7+35.5 | 59.2'LT | 119.50 | 5.58 | MS57 | REPLACE EXISTING | 133 | 134 | 12 | 10 | 116.25 | 116.00 | 0.02500 | CL IV RCP | CAUTION! 3" GAS LINE! |
| 134 | EXISTING MANHOLE | 7+44.3 | 53.1'LT | 119.75 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 135 | EXISTING MANHOLE | 7+46.1 | 31.1'LT | 119.93 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 136 | STORM INLET TYPE 45A | 7+65.6 | 58.9'LT | 119.55 | 5.58 | MS57 | REPLACE EXISTING | 136 | 134 | 12 | 21 | 116.30 | 115.80 | 0.02381 | CL IV RCP | |
| 154 | EXISTING STORM INLET | 13+32.1 | 63.2'RT | 118.88 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 155 | EXISTING MANHOLE | 13+58.3 | 31.0'LT | 119.76 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 156 | EXISTING STORM INLET | 13+83.2 | 58.0'RT | 119.86 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 157 | EXISTING MANHOLE | 13+84.9 | 17.1'RT | 120.65 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 158 | EXISTING MANHOLE | 13+86.4 | 41.9'LT | 119.30 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 159 | EXISTING MANHOLE | 14+01.1 | 52.9'RT | 120.64 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 160 | EXISTING MANHOLE | 14+21.8 | 31.0'LT | 120.42 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 161 | STORM INLET TYPE 45A | 14+22.2 | 42.0'LT | 119.74 | 7.37 | MS57 | REPLACE EXISTING | 161 | 160 | 12 | 10 | 114.70 | 114.45 | 0.02500 | CL IV RCP | Crossing CUC |
| 162 | EXISTING STORM INLET | 14+23.3 | 55.8'RT | 120.17 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 163 | STORM INLET TYPE 45A | 14+53.1 | 34.8'RT | 120.84 | 7.37 | MS57 | REPLACE EXISTING | 163 | 164 | 12 | 15 | 115.80 | 115.45 | 0.02333 | CL IV RCP | Typo on 11-15 file: should be 121.17 C |
| 164 | EXISTING MANHOLE | 14+55.6 | 18.8'RT | 121.34 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 165 | EXISTING MANHOLE | 15+80.3 | 17.4'RT | 123.50 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 170 | EXISTING MANHOLE | 17+06.5 | 17.4'RT | 123.49 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 171 | STORM INLET TYPE 45A | 17+06.8 | 34.8'RT | 123.00 | 7.33 | MS57 | REPLACE EXISTING | 171 | 170 | 12 | 17 | 118.00 | 117.60 | 0.02353 | CL IV RCP | Crossing CUC |
| 172 | EXISTING MANHOLE | 17+09.8 | 31.0'LT | 122.47 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 173 | STORM INLET TYPE 45A | 17+14.6 | 35.1'LT | 122.25 | 5.58 | MS57 | REPLACE EXISTING | 173 | 172 | 12 | 6 | 119.00 | 118.85 | 0.02500 | CL IV RCP | 3" curb |
| 177 | EXISTING MANHOLE | 18+02.0 | 31.2'LT | 121.87 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 178 | EXISTING MANHOLE | 19+02.9 | 19.0'RT | 122.13 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 179 | STORM INLET TYPE 45A | 20+00.0 | 34.7'LT | 120.67 | 5.60 | MS57 | PROPOSED | 179 | 191 | 12 | 26 | 117.40 | 116.80 | 0.02308 | CL IV RCP | Caution: Tree, Caution: being constructed over storm main |
| 190 | STORM INLET TYPE 45A | 20+15.0 | 34.8'RT | 121.00 | 7.33 | MS57 | PROPOSED | 190 | 193 | 12 | 20 | 116.00 | 115.00 | 0.05000 | CL IV RCP | Crossing CUC |
| 191 | EXISTING MANHOLE | 20+25.8 | 31.1'LT | 120.81 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 193 | EXISTING MANHOLE | 20+29.3 | 18.9'RT | 121.58 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 194 | EXISTING MANHOLE | 20+57.8 | 54.5'RT | 121.84 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 195 | EXISTING STORM INLET | 20+48.6 | 54.4'RT | 121.45 | | MS57 | ADJUST ONLY | | | | | | | | | Part of ramp into project limits. CAUTION! 2" Gas |
| 196 | EXISTING MANHOLE | 20+58.5 | 18.9'RT | 121.62 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 197 | EXISTING STORM INLET | 20+78.7 | 54.0'RT | 121.20 | | MS57 | ADJUST ONLY | | | | | | | | | Part of ramp into project limits |
| 198 | EXISTING MANHOLE | 20+98.4 | 17.4'RT | 121.50 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 199 | STORM INLET TYPE 45A | 22+70.8 | 35.1'LT | 119.35 | 5.58 | MS57 | REPLACE EXISTING | 199 | 200 | 12 | 5 | 116.10 | 115.95 | 0.03000 | CL IV RCP | |
| 200 | EXISTING MANHOLE | 22+74.7 | 31.2'LT | 119.58 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 201 | STORM INLET TYPE 45A | 23+45.6 | 34.7'RT | 119.50 | 7.33 | MS57 | REPLACE EXISTING | 201 | 204 | 12 | 37 | 114.50 | 113.15 | 0.03649 | CL IV RCP | Crossing CUC |
| 202 | STORM INLET TYPE 45A | 23+70.7 | 55.3'RT | 119.95 | 5.58 | MS57 | REPLACE EXISTING | 202 | 203 | 12 | 7 | 116.70 | 116.50 | 0.02857 | CL IV RCP | |
| 203 | EXISTING MANHOLE | 23+78.1 | 55.0'RT | 120.23 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 204 | EXISTING MANHOLE | 23+79.4 | 18.4'RT | 120.06 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 205 | STORM INLET TYPE 45A | 24+00.7 | 55.7'RT | 119.96 | 5.59 | MS57 | REPLACE EXISTING | 205 | 203 | 12 | 22 | 116.70 | 116.20 | 0.02273 | CL IV RCP | Watch out for WGV |
| 210 | EXISTING MANHOLE | 25+19.3 | 30.8'LT | 118.37 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 211 | EXISTING MANHOLE | 25+46.5 | 18.6'RT | 118.81 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 212 | 2'x2.5' INLET | 26+50.0 | 41.0'RT | 117.83 | 2.61 | MS57 | WISDOT 2'x2.5' | 212 | 217 | 12 | 42 | 115.80 | 114.85 | 0.02262 | CL IV RCP | Caution: Water Main and TE&ES |
| 213 | STORM INLET TYPE 45A | 26+58.9 | 35.1'LT | 117.15 | 5.58 | MS57 | REPLACE EXISTING | 213 | 215 | 12 | 7 | 113.90 | 113.70 | 0.02857 | CL IV RCP | |
| 215 | EXISTING MANHOLE | 26+62.6 | 31.1'LT | 117.38 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 216 | EXISTING STORM INLET | 26+78.1 | 66.5'RT | 118.40 | | MS57 | ADJUST ONLY | | | | | | | | | Edge of Project |
| 217 | EXISTING MANHOLE | 26+85.8 | 18.0'RT | 118.27 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 218 | EXISTING MANHOLE | 27+70.9 | 57.6'LT | 119.60 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |

[A]DEPTH = COVER ELEVATION – LOWEST PIPE INVERT ELEVATION + SUMP (FOR STORM INLET)

CONTINUED

| EXISTING AND PROPOSED SEWER STRUCTURES | | | | | | | | SEWER PIPES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STRUCTURE NUMBER | STRUCTURE TYPE | STATION | CENTERLINE OFFSET | COVER ELEV. | DEPTH$_A$ (FT) | FRAME & COVER | STRUCTURE REMARKS | FROM STRUCTURE | TO STRUCTURE | PIPE SIZE (IN) | PLAN LENGTH (FT) | INVERTS INLET | INVERTS OUTLET | SLOPE (FT/FT) | PIPE MATERIAL | PIPE REMARKS |
| 221 | EXISTING STORM INLET | 27+76.1 | 66.0'RT | 118.50 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 222 | EXISTING MANHOLE | 27+93.4 | 29.1'RT | 118.04 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 223 | STORM INLET TYPE 45A | 28+35.4 | 35.0'RT | 117.14 | 8.57 | MS57 | PROPOSED | 223 | Direct Connect at 28+35, 29.1' RT | 12 | 6 | 110.90 | 110.70 | 0.03333 | CL IV RCP | |
| 224 | EXISTING MANHOLE | 28+77.8 | 29.3'LT | 116.42 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 226 | EXISTING MANHOLE | 29+51.1 | 29.5'LT | 115.88 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 227 | EXISTING STORM INLET | 29+66.4 | 35'RT | 114.95 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 228 | EXISTING MANHOLE | 29+70.6 | 29.4'RT | 115.38 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 230 | STORM INLET TYPE 45A | 29+84.0 | 35.0'LT | 115.34 | 5.62 | MS57 | PROPOSED | 230 | 226 | 12 | 33 | 112.05 | 111.30 | 0.02273 | CL IV RCP | Passes over telephone |
| 240 | STORM INLET TYPE 45A | 31+62.0 | 27.0'LT | 113.90 | 5.58 | MS57 | PROPOSED | 240 | 243 | 12 | 20 | 110.65 | 110.20 | 0.02250 | CL IV RCP | Passes over telephone |
| 241 | STORM INLET TYPE 45A | 31+75.0 | 26.0'RT | 113.77 | 5.60 | MS57 | PROPOSED | 241 | 245 | 12 | 10 | 110.50 | 110.25 | 0.02500 | CL IV RCP | |
| 243 | EXISTING MANHOLE | 31+82.4 | 29.4'LT | 114.05 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 245 | EXISTING MANHOLE | 31+83.3 | 29.4'RT | 113.99 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 246 | EXISTING MANHOLE | 32+15.6 | 58.2'LT | 113.61 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 249 | EXISTING MANHOLE | 34+60.5 | 29.5'LT | 112.50 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 250 | 2'x2.5' INLET | 34+75.0 | 35.0'RT | 112.23 | 2.61 | MS57 | WISDOT 2'X2.5' | 250 | 252 | 12 | 5 | 110.20 | 110.05 | 0.03000 | CL IV RCP | Caution: Water Main |
| 251 | STORM INLET TYPE 45A | 34+75.0 | 27.0' LT | 112.25 | 5.58 | MS55 | PROPOSED, IN ALLEY ACCESS | 251 | 249 | 12 | 15 | 109.00 | 108.65 | 0.02333 | CL IV RCP | |
| 252 | EXISTING MANHOLE | 34+75.8 | 29.3'RT | 112.55 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 253 | STORM INLET TYPE 45A | 37+00.0 | 27.0' LT | 109.24 | 5.62 | MS57 | PROPOSED | 253 | 261 | 12 | 25 | 105.95 | 105.35 | 0.02400 | CL IV RCP | |
| 261 | EXISTING MANHOLE | 37+25.0 | 29.6'LT | 108.84 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 262 | EXISTING MANHOLE | 37+33.8 | 28.7'RT | 109.53 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 264 | 2'x2.5' INLET | 37+36.5 | 37.0'RT | 109.10 | 2.58 | MS57 | WISDOT 2'x2.5' | 264 | 262 | 12 | 8 | 107.10 | 106.90 | 0.02500 | CL IV RCP | Caution: Water Main |
| 266 | EXISTING MANHOLE | 37+53.2 | 28.8'LT | 108.85 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 267 | EXISTING MANHOLE | 37+58.7 | 4.2'RT | 109.62 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 268 | EXISTING STORM INLET | 37+63.0 | 56.6'RT | 108.60 | | MS57 | ADJUST ONLY | | | | | | | | | Edge of Proposed |
| 269 | EXISTING MANHOLE | 37+64.1 | 43.1'RT | 108.99 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 270 | EXISTING STORM INLET | 38+14.9 | 59.0'RT | 108.55 | | MS57 | ADJUST ONLY | | | | | | | | | Edge of Proposed |
| 271 | EXISTING MANHOLE | 38+85.4 | 29.4'LT | 107.41 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 272 | STORM INLET TYPE 45A | 39+00.0 | 27.0'LT | 106.61 | 5.59 | MS57 | PROPOSED | 272 | 271 | 12 | 15 | 103.35 | 103.00 | 0.02333 | CL IV RCP | |
| 273 | EXISTING MANHOLE | 39+07.2 | 25.3'RT | 107.34 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 274 | STORM INLET TYPE 45A | 39+24.0 | 27.0'RT | 107.11 | 5.59 | MS57 | PROPOSED | 274 | 273 | 12 | 17 | 103.85 | 103.45 | 0.02353 | CL IV RCP | |
| 276 | EXISTING MANHOLE | 41+14.6 | 29.3'LT | 104.80 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 277 | STORM INLET TYPE 45A | 41+25.0 | 27.0'RT | 104.60 | 5.58 | MS57 | PROPOSED | 277 | 279 | 12 | 5 | 101.35 | 101.20 | 0.03000 | CL IV RCP | |
| 279 | EXISTING MANHOLE | 41+29.2 | 25.2'RT | 104.77 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 280 | STORM INLET TYPE 45A | 41+60.0 | 27.0'LT | 103.70 | 5.58 | MS57 | PROPOSED | 280 | 276 | 12 | 45 | 100.45 | 99.40 | 0.02333 | CL IV RCP | |
| 290 | EXISTING MANHOLE | 43+56.0 | 26.0'RT | 100.75 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 291 | EXISTING MANHOLE | 43+58.6 | 31.0'LT | 100.74 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 294 | STORM INLET TYPE 45A | 43+74.0 | 27.0'LT | 100.25 | 5.58 | MS57 | PROPOSED | 294 | 291 | 12 | 16 | 97.00 | 96.60 | 0.02500 | CL IV RCP | |
| 296 | STORM INLET TYPE 45A | 44+25.0 | 27.0'RT | 100.01 | 5.59 | MS57 | PROPOSED | 296 | 300 | 12 | 26 | 96.75 | 96.15 | 0.02308 | CL IV RCP | |
| 299 | STORM INLET TYPE 45A | 44+50.0 | 27.0'LT | 100.10 | 5.58 | MS57 | PROPOSED | 299 | 300 | 12 | 52 | 96.85 | 95.65 | 0.02308 | CL IV RCP | Typo: both measurements G |
| 300 | EXISTING MANHOLE | 44+51.0 | 25.5'RT | 100.15 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 301 | EXISTING MANHOLE | 45+67.1 | 29.7'LT | 101.50 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 303 | EXISTING MANHOLE | 45+67.5 | 27.0'RT | 101.58 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 305 | STORM INLET TYPE 45A | 45+75.0 | 27.0'LT | 101.25 | 5.58 | MS57 | PROPOSED | 305 | 303 | 12 | 53 | 98.00 | 96.80 | 0.02264 | CL IV RCP | |
| 306 | EXISTING MANHOLE | 47+43.7 | 25.6'RT | 103.23 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 310 | EXISTING MANHOLE | 49+27.3 | 25.4'RT | 101.09 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 311 | EXISTING MANHOLE | 49+50.7 | 26.2'RT | 100.75 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 312 | EXISTING MANHOLE | 49+64.4 | 31.0'LT | 100.19 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 313 | EXISTING MANHOLE | 49+65.0 | 26.5'RT | 100.45 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 314 | STORM INLET TYPE 45A | 50+70.0 | 27.0'RT | 98.55 | 5.58 | MS57 | PROPOSED | 314 | 316 | 12 | 12 | 95.30 | 95.00 | 0.02500 | CL IV RCP | |
| 315 | STORM INLET TYPE 45A | 50+75.0 | 27.0'LT | 98.60 | 5.58 | MS57 | PROPOSED | 315 | 316 | 12 | 52 | 95.35 | 94.15 | 0.02308 | CL IV RCP | |
| 316 | EXISTING MANHOLE | 50+82.0 | 25.3'RT | 98.74 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 320 | EXISTING MANHOLE | 51+19.4 | 59.9'RT | 98.07 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 321 | EXISTING MANHOLE | 51+33.6 | 25.4'RT | 98.32 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 322 | EXISTING STORM INLET | 51+35.7 | 67.7'RT | 97.32 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 323 | EXISTING MANHOLE | 52+21.9 | 25.1'RT | 97.39 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 324 | STORM INLET TYPE 45A | 53+25.0 | 27.0'RT | 95.92 | 7.00 | MS57 | PROPOSED | 324 | 325 | 12 | 22 | 91.25 | 90.75 | 0.02273 | CL IV RCP | Draining two basins in sequence |
| 325 | EXISTING MANHOLE | 53+46.9 | 25.3'RT | 96.42 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 326 | STORM INLET TYPE 45A | 53+25.0 | 27.0'LT | 95.90 | 5.58 | MS57 | PROPOSED | 326 | 324 | 12 | 52 | 92.65 | 91.50 | 0.02212 | CL IV RCP | |
| 327 | EXISTING STORM INLET | 53+76.5 | 55.1'RT | 96.05 | | MS57 | ADJUST ONLY | | | | | | | | | |

[A]DEPTH = COVER ELEVATION – LOWEST PIPE INVERT ELEVATION + SUMP (FOR STORM INLET)

CONTINUED

| EXISTING AND PROPOSED SEWER STRUCTURES | | | | | | | | SEWER PIPES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STRUCTURE NUMBER | STRUCTURE TYPE | STATION | CENTERLINE OFFSET | COVER ELEV. | $DEPTH_A$ (FT) | FRAME & COVER | STRUCTURE REMARKS | FROM STRUCTURE | TO STRUCTURE | PIPE SIZE (IN) | PLAN LENGTH (FT) | INVERTS INLET | INVERTS OUTLET | SLOPE (FT/FT) | PIPE MATERIAL | PIPE REMARKS |
| 328 | EXISTING MANHOLE | 53+86.5 | 42.4'RT | 96.61 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 329 | EXISTING MANHOLE | 53+87.0 | 55.5'RT | 96.58 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 330 | EXISTING STORM INLET | 54+16.6 | 56.3'RT | 96.00 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 331 | EXISTING MANHOLE | 54+16.9 | 41.2'LT | 95.37 | | MS58-A | SEE INTERSECTION DETAILS | | | | | | | | | |
| 332 | EXISTING MANHOLE | 54+29.7 | 54.4'RT | 96.73 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 333 | EXISTING MANHOLE | 54+58.6 | 23.6'RT | 96.42 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 335 | MANHOLE CONVERSION | 54+59.0 | 35.0'LT | 96.65 | X | MS58-A | RECONSTRUCT TO MANHOLE | | | | | | | | | Prepare to receive drain from 337 |
| 336 | STORM INLET TYPE 45A | 54+62.5 | 27.0'RT | 95.69 | 5.62 | MS57 | PROPOSED | 336 | 333 | 12 | 4 | 92.40 | 92.30 | 0.02500 | CL IV RCP | |
| 337 | STORM INLET TYPE 45A | 54+75.0 | 27.0'LT | 95.54 | 5.62 | MS57 | PROPOSED | 337 | 335 | 12 | 18 | 92.25 | 91.80 | 0.02500 | CL IV RCP | |
| 340 | 4-FT MANHOLE | 55+12.5 | 27.0'RT | 95.84 | 7.43 | MS57 | PROPOSED | 340 | 340 | Special | | | | | | |
| 341 | STORM INLET TYPE 45A | 55+37.5 | 27.0'LT | 95.71 | 8.44 | MS57 | PROPOSED | 341 | Direct Connect at 55+37.5, 35' LT | 12 | 8 | 89.60 | 89.40 | 0.02500 | CL IV RCP | |
| 342 | 4-FT MANHOLE | 56+00.0 | 27.0'RT | 96.04 | 7.31 | MS57 | PROPOSED | 342 | 342 | Special | | | | | | |
| 344 | MANHOLE CONVERSION | 56+05.5 | 35.0'LT | | X | MS58-A | REPLACE FRAME WITH LID | 344 | 344 | Special | | | | | | |
| 345 | EXISTING MANHOLE | 56+65.1 | 29.5'LT | 96.73 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 346 | EXISTING MANHOLE | 56+68.2 | 22.2'RT | 96.62 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 347 | EXISTING STORM INLET | 57+12.1 | 55.3'RT | 96.50 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 348 | EXISTING MANHOLE | 57+21.6 | 2.6'RT | 97.75 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 349 | EXISTING STORM INLET | 57+42.1 | 55.3'RT | 96.70 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 350 | EXISTING MANHOLE | 57+61.2 | 23.3'RT | 97.68 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 352 | EXISTING MANHOLE | 57+61.7 | 29.0'LT | 97.19 | | MS58-A | RAISE BEHIND CURB | | | | | | | | | |
| 354 | STORM INLET TYPE 45A | 57+85.0 | 27.0'RT | 97.30 | 5.58 | MS57 | PROPOSED | 354 | 350 | 12 | 24 | 94.05 | 93.50 | 0.02292 | CL IV RCP | |
| 355 | STORM INLET TYPE 45A | 57+87.0 | 27.0'LT | 97.00 | 5.58 | MS57 | PROPOSED | 355 | 352 | 12 | 25 | 93.75 | 93.15 | 0.02400 | CL IV RCP | |
| 356 | EXISTING MANHOLE | 59+47.7 | 24.8'RT | 99.86 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 357 | EXISTING MANHOLE | 60+47.5 | 27.6'RT | 101.05 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 358 | EXISTING MANHOLE | 60+49.5 | 29.6'LT | 101.00 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 360 | EXISTING MANHOLE | 60+92.1 | 28.6'RT | 101.50 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 362 | EXISTING MANHOLE | 60+95.4 | 29.8'LT | 101.24 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 370 | STORM INLET TYPE 45A | 61+18.5 | 27.0'LT | 101.35 | 5.58 | MS57 | PROPOSED | 370 | 362 | 12 | 24 | 98.10 | 97.55 | 0.02292 | CL IV RCP | |
| 371 | STORM INLET TYPE 45A | 61+18.5 | 27.0'RT | 101.70 | 5.58 | MS57 | PROPOSED | 371 | 360 | 12 | 27 | 98.45 | 97.80 | 0.02407 | CL IV RCP | |
| 372 | EXISTING MANHOLE | 62+14.0 | 28.7'RT | 102.79 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 373 | EXISTING MANHOLE | 62+22.1 | 28.4'LT | 102.34 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 374 | STORM INLET TYPE 45A | 63+40.0 | 27.0'RT | 101.05 | 5.58 | MS57 | PROPOSED | 374 | 377 | 12 | 18 | 97.80 | 97.35 | 0.02500 | CL IV RCP | |
| 375 | STORM INLET TYPE 45A | 63+42.6 | 27.0'LT | 100.83 | 5.61 | MS57 | PROPOSED | 375 | 378 | 12 | 17 | 97.55 | 97.15 | 0.02353 | CL IV RCP | |
| 377 | EXISTING MANHOLE | 63+57.5 | 28.7'RT | 101.23 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 378 | EXISTING MANHOLE | 63+58.9 | 28.4'LT | 100.94 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 380 | EXISTING MANHOLE | 66+36.0 | 28.5'RT | 94.45 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 381 | STORM INLET TYPE 45A | 66+75.0 | 27.0'LT | 92.97 | 5.60 | MS57 | PROPOSED | 381 | 387 | 12 | 27 | 89.70 | 89.25 | 0.01667 | CL IV RCP | Protect and support TE&ES |
| 383 | EXISTING MANHOLE | 66+93.6 | 28.6'RT | 93.75 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 385 | STORM INLET TYPE 45A | 67+01.0 | 35.1'RT | 93.45 | 5.58 | MS57 | REPLACE EXISTING | 385 | 383 | 12 | 9 | 90.20 | 89.95 | 0.02778 | CL IV RCP | |
| 387 | EXISTING MANHOLE | 67+02.0 | 28.8'LT | 92.43 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 389 | EXISTING MANHOLE | 67+35.3 | 35.3'LT | 92.39 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 390 | EXISTING MANHOLE | 67+51.5 | 20.2'RT | 93.41 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 391 | STORM INLET TYPE 45A | 67+53.3 | 56.7'RT | 92.90 | 5.58 | MS57 | REPLACE EXISTING | 391 | 390 | 12 | 36 | 89.65 | 88.80 | 0.02361 | CL IV RCP | Edge of project |
| 392 | STORM INLET TYPE 45A | 67+94.6 | 35.1'LT | 92.00 | 5.58 | MS57 | REPLACE EXISTING | 392 | 393 | 12 | 6 | 88.75 | 88.60 | 0.02500 | CL IV RCP | |
| 393 | EXISTING MANHOLE | 67+98.9 | 30.7'LT | 92.33 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 394 | EXISTING STORM INLET | 68+14.6 | 54.8'RT | 92.85 | | MS57 | ADJUST ONLY | | | | | | | | | |
| 395 | EXISTING MANHOLE | 68+48.5 | 24.4'RT | 93.70 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |
| 396 | STORM INLET TYPE 45A | 68+95.5 | 35.2'RT | 92.80 | 5.58 | MS57 | REPLACE EXISTING | 396 | 397 | 12 | 10 | 89.55 | 89.30 | 0.02500 | CL IV RCP | Protect and support 6" water main |
| 397 | EXISTING MANHOLE | 68+95.7 | 24.6'RT | 93.51 | | MS58-A | NEW FRAME & LID ONLY | | | | | | | | | |

ALL ITEMS CATEGORY 0010

| SPV.0060.101 INLET COVERS TYPE MS55 | SPV.0060.102 INLET COVERS TYPE MS57 | SPV.0060.103* MANHOLE COVERS TYPE MS58-A | SPV.0060.112 STORM INLET TYPE 45A | 611.2004 MANHOLES 4-FT DIAMETER | 611.3225 INLETS 2X2.5 | 608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH |
|---|---|---|---|---|---|---|
| EACH | EACH | EACH | EACH | EACH | EACH | LF |
| 1 | 72 | 56 | 50 | 2 | 3 | 1077 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE
ALL ITEMS CATEGORY 0010
[A]DEPTH = COVER ELEVATION – LOWEST PIPE INVERT ELEVATION + SUMP (FOR STORM INLET)

## SANITARY SEWER STRUCTURES

| STRUCTURE NUMBER | STATION | CENTERLINE OFFSET | COVER ELEV | SPV.0060.100 ADJUSTING SANITARY MANHOLE EACH | SPV.0060.103* MANHOLE COVERS TYPE MS-58A EACH |
|---|---|---|---|---|---|
| 401 | 4+32.6 | 12.7'LT | | 1 | 1 |
| 402 | 4+78.3 | 53.7'LT | 126.13 | 1 | 1 |
| 403 | 7+53.2 | 11.4'LT | 120.20 | 1 | 1 |
| 404 | 9+23.3 | 11.6'LT | 118.65 | 1 | 1 |
| 405 | 13+94.7 | 12.6'LT | 120.39 | 1 | 1 |
| 406 | 13+95.7 | 29.2'RT | 120.58 | 1 | 1 |
| 407 | 17+45.7 | 29.1'RT | 123.14 | 1 | 1 |
| 408 | 17+45.8 | 12.4'LT | 123.16 | 1 | 1 |
| 409 | 17+87.3 | 8.8'LT | | 1 | 1 |
| 410 | 20+67.3 | 29.4'RT | 121.49 | 1 | 1 |
| 411 | 20+67.8 | 12.8'LT | 121.34 | 1 | 1 |
| 412 | 23+87.6 | 34.2'RT | 119.90 | 1 | 1 |
| 413 | 23+88.1 | 12.8'LT | 119.74 | 1 | 1 |
| 414 | 26+80.6 | 12.5'LT | 117.94 | 1 | 1 |
| 416 | 27+75.2 | 14.4'LT | 117.91 | 1 | 1 |
| 417 | 30+92.7 | 13.7'LT | 115.45 | 1 | 1 |
| 418 | 34+31.0 | 13.4'LT | 113.54 | 1 | 1 |
| 419 | 36+05.9 | 13.2'LT | | 1 | 1 |
| 420 | 37+86.9 | 12.9'LT | 109.20 | 1 | 1 |
| 421 | 38+82.4 | 12.8'LT | 108.13 | 1 | 1 |
| 422 | 41+69.6 | 13.7'LT | 104.65 | 1 | 1 |
| 423 | 43+47.5 | 13.5'LT | 101.40 | 1 | 1 |
| 424 | 44+98.9 | 11.5'LT | 101.46 | 1 | 1 |
| 425 | 48+29.3 | 13.2'LT | 102.91 | 1 | 1 |
| 426 | 49+22.7 | 14.1'LT | | 1 | 1 |
| 427 | 51+59.8 | 13.7'LT | 98.02 | 1 | 1 |
| 428 | 53+94.7 | 13.5'LT | 96.70 | 1 | 1 |
| 429 | 54+68.1 | 29.6' RT | 96.07 | 1 | 1 |
| 430 | 56+72.0 | 30.7' RT | 96.62 | 1 | 1 |
| 431 | 57+30.9 | 29.8'RT | 97.38 | 1 | 1 |
| 432 | 57+31.6 | 12.9'LT | 97.75 | 1 | 1 |
| 433 | 60+04.9 | 12.6'LT | 100.84 | 1 | 1 |
| 434 | 60+56.4 | 13.2'LT | 101.53 | 1 | 1 |
| 435 | 61+08.4 | 12.8'LT | 102.10 | 1 | 1 |
| 436 | 63+96.7 | 12.7'LT | 101.25 | 1 | 1 |
| 437 | 65+74.9 | 12.7'LT | 97.14 | 1 | 1 |
| 438 | 67+22.9 | 1'LT | 93.16 | 1 | 1 |
| 439 | 67+25.7 | 12.4'LT | 92.93 | 1 | 1 |
| 440 | 67+78.1 | 38.9' LT | 92.40 | 1 | 1 |
| 441 | 69+29.8 | 39.4'LT | 93.10 | 1 | 1 |
| 442 | 69+63.3 | 38.7'RT | 93.52 | 1 | 1 |
| | | | TOTALS | 41 | 41 |

ALL ITEMS CATEGORY 0020
*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## STORM CATCH BASIN REMOVALS

| STRUCTURE NUMBER | STATION | OFFSET | 204.0215 REMOVING CATCH BASINS EACH | 204.0255 ABANDONING CATCH BASINS EACH |
|---|---|---|---|---|
| 501 | 3+90.2 | 3.1'RT | 1 | 0 |
| 502 | 3+94.0 | 37.9'RT | 1 | 0 |
| 503 | 4+38.5 | 35.0'LT | 1 | 0 |
| 504 | 5+93.4 | 35.2'RT | 1 | 0 |
| 505 | 7+08.7 | 35.1'LT | 1 | 0 |
| 506 | 7+35.5 | 59.2'LT | 1 | 0 |
| 507 | 7+65.5 | 58.9'LT | 1 | 0 |
| 508 | 14+22.2 | 42.1'LT | 1 | 0 |
| 509 | 14+53.1 | 34.9'RT | 1 | 0 |
| 510 | 17+06.8 | 35.0'RT | 1 | 0 |
| 511 | 17+14.6 | 35.1'RT | 1 | 0 |
| 512 | 20+28.6 | 35.0'RT | 0 | 1 |
| 513 | 20+29.7 | 35.1'LT | 0 | 1 |
| 514 | 22+70.8 | 35.1'LT | 1 | 0 |
| 515 | 23+45.6 | 35.2'RT | 1 | 0 |
| 516 | 23+70.6 | 55.3'RT | 1 | 0 |
| 517 | 24+06.9 | 55.7'RT | 1 | 0 |
| 518 | 26+56.5 | 35.0'LT | 1 | 0 |
| 519 | 26+59.9 | 37.2'LT | 0 | 1 |
| 520 | 29+46.8 | 38.1'LT | 0 | 1 |
| 521 | 31+82.2 | 35.1'RT | 0 | 1 |
| 522 | 31+82.9 | 35.1'LT | 0 | 1 |
| 523 | 34+60.5 | 35.1'LT | 0 | 1 |
| 524 | 34+74.9 | 36.0'RT | 1 | 0 |
| 525 | 37+24.1 | 35.0'LT | 0 | 1 |
| 526 | 37+36.3 | 38.0'RT | 1 | 0 |
| 527 | 37+39.5 | 3.1'LT | 0 | 1 |
| 528 | 41+13.4 | 35.2'LT | 0 | 1 |
| 529 | 41+25.4 | 35.2'RT | 0 | 1 |
| 530 | 43+73.0 | 35.1'RT | 0 | 1 |
| 531 | 43+73.6 | 35.1'LT | 0 | 1 |
| 532 | 44+32.5 | 35.0'RT | 0 | 1 |
| 533 | 44+49.6 | 35.1'LT | 0 | 1 |
| 534 | 45+67.4 | 35.0'LT | 0 | 1 |
| 535 | 45+68.3 | 35.0'RT | 0 | 1 |
| 536 | 50+82.2 | 35.1'RT | 0 | 1 |
| 537 | 50+89.8 | 34.9'LT | 0 | 1 |
| 538 | 53+46.8 | 34.9'RT | 0 | 1 |
| 539 | 53+59.2 | 35.0'LT | 0 | 1 |
| 540 | 54+59.0 | 35.1'RT | 0 | 1 |
| 541 | 56+03.9 | 35.0'RT | 0 | 1 |
| 542 | 57+61.7 | 35.1'RT | 0 | 1 |
| 543 | 57+62.8 | 35.3'LT | 0 | 1 |
| 544 | 60+90.9 | 35.1'RT | 0 | 1 |
| 545 | 60+94.4 | 35.3'LT | 0 | 1 |
| 546 | 63+57.46 | 35.2'RT | 0 | 1 |
| 547 | 63+59.1 | 35.2'LT | 0 | 1 |
| 548 | 67+01.3 | 34.9'RT | 1 | 0 |
| 549 | 67+01.6 | 35.1'LT | 0 | 1 |
| 550 | 67+03.8 | 1.9'LT | 0 | 1 |
| 551 | 67+53.3 | 56.7'RT | 1 | 0 |
| 552 | 67+94.6 | 35.0'LT | 1 | 0 |
| 553 | 68+4.6 | 5.0'RT | 0 | 1 |
| 554 | 68+95.5 | 35.1'RT | 0 | 1 |
| | | | 21 | 33 |

ALL ITEMS CATEGORY 0010

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## ASPHALT ITEMS

| CATEGORY 0010 | | | | 455.0605 | 465.0105 * |
|---|---|---|---|---|---|
| | | | | TACK COAT | ASPHALTIC SURFACE |
| **STATION** | **TO** | **STATION** | **LOCATION** | GAL | TON |
| STA 00+00 | - | STA 06+00 | RT | - | - |
| STA 06+00 | - | STA 11+00 | RT | - | - |
| STA 11+00 | - | STA 15+00 | RT | - | 10 |
| STA 15+00 | - | STA 19+00 | RT | - | - |
| STA 19+00 | - | STA 25+00 | RT | - | 50 |
| STA 25+00 | - | STA 31+00 | RT | - | 43 |
| STA 31+00 | - | STA 37+00 | RT | - | 37 |
| STA 37+00 | - | STA 43+00 | RT | - | 56 |
| STA 43+00 | - | STA 49+00 | RT | - | 74 |
| STA 49+00 | - | STA 55+00 | RT | - | 96 |
| STA 55+00 | - | STA 61+00 | RT | - | 108 |
| STA 61+00 | - | STA 67+00 | RT | - | 10 |
| STA 67+00 | - | STA 73+00 | RT | 20 | 50 |
| | | | SUBTOTALS | 20 | 534 |
| STA 00+00 | - | STA 06+00 | LT | - | - |
| STA 06+00 | - | STA 11+00 | LT | - | - |
| STA 11+00 | - | STA 15+00 | LT | - | - |
| STA 15+00 | - | STA 19+00 | LT | - | 10 |
| STA 19+00 | - | STA 25+00 | LT | 10 | 10 |
| STA 25+00 | - | STA 31+00 | LT | 10 | 42 |
| STA 31+00 | - | STA 37+00 | LT | - | 91 |
| STA 37+00 | - | STA 43+00 | LT | - | 101 |
| STA 43+00 | - | STA 49+00 | LT | - | 136 |
| STA 49+00 | - | STA 55+00 | LT | - | 124 |
| STA 55+00 | - | STA 61+00 | LT | 10 | 105 |
| STA 61+00 | - | STA 67+00 | LT | - | 111 |
| STA 67+00 | - | STA 73+00 | LT | 30 | 60 |
| | | | SUBTOTALS | 60 | 790 |
| | | | **GRAND TOTALS** | **80** | **1,324** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## COVER PLATES TEMPORARY

| CATEGORY 0020 | 611.8120.S COVER PLATES TEMPORARY |
|---|---|
| LOCATION | EACH |
| E/W HOWARD AVENUE | 41 |
| TOTAL | 41 |

## MOBILIZATION

| CATEGORY 0010 | 619.1000 MOBILIZATION |
|---|---|
| **LOCATION** | EACH |
| PROJECT 2395-05-71 | 1 |
| **TOTAL** | **1** |

## MONUMENTS

| CATEGORY 0010 | 621.0100 LANDMARK REFERENCE MONUMENTS |
|---|---|
| LOCATION | EACH |
| UNDISTRIBUTED | 3 |
| TOTAL | 3 |

## WATER

| CATEGORY 0010 | 624.0100 WATER |
|---|---|
| LOCATION | MGAL |
| PROJECT 2395-05-71 | 120 |
| TOTAL | 120 |

## MOBILIZATION EROSION CONTROL

| CATEGORY 0010 | 628.1905 MOBILIZATIONS EROSION CONTROL | 628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL |
|---|---|---|
| **LOCATION** | EACH | EACH |
| PROJECT 2395-05-71 | 12 | 6 |
| **TOTALS** | **12** | **6** |

## INLET PROTECTION

| CATEGORY 0010 | 628.7005 INLET PROTECTION TYPE A | 628.7010 INLET PROTECTION TYPE B | 628.7020 INLET PROTECTION TYPE D |
|---|---|---|---|
| **LOCATION** | EACH | EACH | EACH |
| E/W HOWARD AVENUE | 85 | 93 | 8 |
| **TOTALS** | **85** | **93** | **8** |

## LANDSCAPE ITEMS

| CATEGORY 0010 | | | | 625.0100 TOPSOIL | 631.0300 SOD WATER | 631.1000 SOD LAWN |
|---|---|---|---|---|---|---|
| **STATION** | **TO** | **STATION** | **LOCATION** | SY | MGAL | SY |
| STA 00+00 | - | STA 06+00 | RT | 430 | 10 | 430 |
| STA 06+00 | - | STA 11+00 | RT | 160 | 4 | 160 |
| STA 11+00 | - | STA 15+00 | RT | 210 | 5 | 210 |
| STA 15+00 | - | STA 19+00 | RT | 490 | 11 | 490 |
| STA 19+00 | - | STA 25+00 | RT | 740 | 17 | 740 |
| STA 25+00 | - | STA 31+00 | RT | 180 | 4 | 180 |
| STA 31+00 | - | STA 37+00 | RT | 300 | 7 | 300 |
| STA 37+00 | - | STA 43+00 | RT | 410 | 9 | 410 |
| STA 43+00 | - | STA 49+00 | RT | 920 | 21 | 920 |
| STA 49+00 | - | STA 55+00 | RT | 420 | 9 | 420 |
| STA 55+00 | - | STA 61+00 | RT | 450 | 10 | 450 |
| STA 61+00 | - | STA 67+00 | RT | 470 | 11 | 470 |
| STA 67+00 | - | STA 73+00 | RT | 140 | 3 | 140 |
| | | | SUBTOTALS | 5,320 | 119 | 5,320 |
| STA 00+00 | - | STA 06+00 | LT | 460 | 21 | 460 |
| STA 06+00 | - | STA 11+00 | LT | 250 | 9 | 250 |
| STA 11+00 | - | STA 15+00 | LT | 180 | 10 | 180 |
| STA 15+00 | - | STA 19+00 | LT | 490 | 11 | 490 |
| STA 19+00 | - | STA 25+00 | LT | 680 | 3 | 680 |
| STA 25+00 | - | STA 31+00 | LT | 320 | 119 | 320 |
| STA 31+00 | - | STA 37+00 | LT | 570 | 10 | 570 |
| STA 37+00 | - | STA 43+00 | LT | 560 | 6 | 560 |
| STA 43+00 | - | STA 49+00 | LT | 1,090 | 4 | 1,090 |
| STA 49+00 | - | STA 55+00 | LT | 590 | 11 | 590 |
| STA 55+00 | - | STA 61+00 | LT | 560 | 15 | 560 |
| STA 61+00 | - | STA 67+00 | LT | 580 | 7 | 580 |
| STA 67+00 | - | STA 73+00 | LT | 150 | 13 | 150 |
| | | | SUBTOTALS | 6,480 | 240 | 6,480 |
| | | | **GRAND TOTALS** | **11,800** | **359** | **11,800** |

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## TREE ITEMS

CATEGORY 0010

| LOCATION | 632.0101.001 * DAWN REDWOOD 4" CAL. B&B EACH | 632.0101.002 SUNBURST HONEYLOCUST 3" CAL. B&B EACH | 632.0101.003 RUBY RED HORSECHESTNUT 3" CAL. B&B EACH | 632.0101.004 RASPBERRY SPEAR CRABAPPLE 3" CAL. B&B EACH | 632.0101.005 AUTUMN BLAZE MAPLE 4" CAL. B&B EACH | 632.0101.006 FRONTIER ELM 4" CAL. B&B EACH | 632.0101.007 APOLLO SUGAR MAPLE 4" CAL. B&B EACH | 632.0101.008 PACIFIC SUNSET MAPLE 4" CAL. B&B EACH | 632.0101.009 AUTUMN BLAZE PEAR 4" CAL. B&B EACH |
|---|---|---|---|---|---|---|---|---|---|
| E/W HOWARD AVENUE | 1 | 11 | 6 | 3 | 8 | 16 | 5 | 5 | 12 |
| **TOTALS** | **1** | **11** | **6** | **3** | **8** | **16** | **5** | **5** | **12** |

| LOCATION | 632.0101.010 AUTUMN BRILLIANCE SERVICEBERRY 4" CAL. B&B EACH | 632.0101.011 KENTUCKY COFFEETREE 4" CAL. B&B EACH | 632.0101.012 JAPANESE TREE LILAC 3" CAL. B&B EACH | 632.0101.013 UPRIGHT ENGLISH OAK 4" CAL. B&B EACH | 632.0101.014 CRIMSON CLOUD HAWTHORN 4" CAL. B&B EACH | 632.0101.015 IRONWOOD 4" CAL. B&B EACH | 632.0101.016 * JARMIN MARILEE CRABAPPLE 4" CAL. B&B EACH | 632.0101.017 GOLDEN RAINDROPS CRABAPPLE 4" CAL. B&B EACH | 632.0101.018 PURPLE PRINCE CRABAPPLE 4" CAL. B&B EACH |
|---|---|---|---|---|---|---|---|---|---|
| E/W HOWARD AVENUE | 2 | 1 | 4 | 2 | 2 | 1 | 1 | 4 | 3 |
| **TOTALS** | **2** | **1** | **4** | **2** | **2** | **1** | **1** | **4** | **3** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## SIGNATURE BEDS

CATEGORY 0010

| LOCATION | SPV.0060.015 SIGNATURE BEDS EACH |
|---|---|
| SIGNATURE BED #1 (TYPE 3) | 1 |
| SIGNATURE BED #2 (TYPE 3) | 1 |
| **TOTAL** | **2** |

## SIGNATURE BED ITEMS

CATEGORY 0010

| LOCATION | 632.0101.001 * DAWN REDWOOD 4" CAL. B&B EACH | 632.0101.016 * JARMIN MARILEE CRABAPPLE 4" CAL. B&B EACH | 632.0201.001 CATMINT BLUE WONDER 2 GAL CG EACH | 632.0201.002 HYDRANGEA ANNABELLE 3 GAL CG EACH | 632.0201.003 ROSE KNOCKOUT RED 4 GAL CG EACH |
|---|---|---|---|---|---|
| SIGNATURE BED #1 (TYPE 3) | 3 | 0 | 20 | 20 | 22 |
| SIGNATURE BED #2 (TYPE 3) | 0 | 3 | 20 | 20 | 22 |
| **TOTALS** | **3** | **3** | **40** | **40** | **44** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## PLANTING SURVEILLANCE AND CARE CYCLES

CATEGORY 0010

| LOCATION | 632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH |
|---|---|
| E/W HOWARD AVENUE | 10 |
| TOTAL | 10 |

## TREE PLANTING CHART

| COMMON NAME | SCIENTIFIC NAME | LOCATIONS | SIZE PLANTED | ROOT ZONE MODE | PLANT HOLE (MIN SIZE) DIA. | PLANT HOLE (MIN SIZE) DEPTH | BRACE OR GUY | FERT. UNITS REQUIRED | MULCH RING DIAMETER | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| DAWN REDWOOD | METASEQUOIA GLYPTOSTROBOIDES | SIGNATURE BED #1 (TYPE 3) - STA 14+60 TO STA 15+30 MEDIAN - REQUIRE 3 DAWN REDWOODS<br>STA 44+64 RT | 4" cal. | B&B | 54" | 24" | BRACE | 3 EACH | 48" | SPECIMEN QUALITY, STRAIGHT TRUNK |
| SUNBURST HONEYLOCUST | GLEDITSIA TRIACANTHOS 'INERMIS' | STA 16+05 MEDIAN<br>STA 16+30 MEDIAN<br>STA 16+55 MEDIAN<br>STA 30+04 RT<br>STA 30+96 LT<br>STA 42+31 RT<br>STA 52+94 RT<br>STA 56+42 LT<br>STA 59+00 LT<br>STA 59+43 RT<br>STA 59+85 LT | 3"cal. | B&B | 36" | 24" | BRACE | 3 EACH | 48" | SPECIMEN QUALITY |
| RUBY RED HORSECHESTNUT | AESCULUS CARNEA | STA 15+80 MEDIAN<br>STA 16+80 MEDIAN<br>STA 35+20 MEDIAN<br>STA 35+40 LT<br>STA 38+65 RT<br>STA 41+77 RT | 3"cal. | B&B | 54" | 24" | BRACE | 3 EACH | 48" | SPECIMEN QUALITY |
| RASPBERRY SPEAR CRABAPPLE | MALUS SPECIES | STA 29+70 MEDIAN<br>STA 30+00 MEDIAN<br>STA 30+30 MEDIAN | 3"cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| AUTUMN BLAZE MAPLE | ACER FREEMANII "AUTUMN BLAZE" | STA 3+67 LT<br>STA 3+76 RT<br>STA 8+34 LT<br>STA 9+31 LT<br>STA 19+00 LT<br>STA 19+62 RT<br>STA 33+25 LT<br>STA 34+15 LT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| FRONTIER ELM | ULMUS PARVIFOLIA "FRONTIER" | STA 18+15 MEDIAN<br>STA 18+16 RT<br>STA 18+40 MEDIAN<br>STA 18+65 MEDIAN<br>STA 18+95 MEDIAN<br>STA 19+20 MEDIAN<br>STA 43+10 RT<br>STA 43+50 MEDIAN<br>STA 43+85 MEDIAN<br>STA 44+20 MEDIAN<br>STA 44+55 MEDIAN<br>STA 45+35 MEDIAN<br>STA 56+58 RT<br>STA 64+56 LT<br>STA 65+72 LT<br>STA 66+54 LT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |

(CONTINUED ON NEXT PAGE)

## TREE PLANTING CHART (CONTINUED)

| COMMON NAME | SCIENTIFIC NAME | LOCATIONS | SIZE PLANTED | ROOT ZONE MODE | PLANT HOLE (MIN SIZE) DIA. | PLANT HOLE (MIN SIZE) DEPTH | BRACE OR GUY | FERT. UNITS REQUIRED | MULCH RING DIAMETER | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| APOLLO SUGAR MAPLE | ACER SACCHARUM "APOLLO" | STA 2+95 MEDIAN<br>STA 3+27 MEDIAN<br>STA 3+57 MEDIAN<br>STA 24+60 MEDIAN<br>STA 55+23 RT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| PACIFIC SUNSET MAPLE | ACER TRUNCATUM | STA 39+22 LT<br>STA 39+80 MEDIAN<br>STA 39+82 LT<br>STA 40+20 MEDIAN<br>STA 40+50 MEDIAN | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| AUTUMN BLAZE PEAR | PYRUS CALLERYANA | STA 5+44 MEDIAN<br>STA 5+75 MEDIAN<br>STA 6+04 MEDIAN<br>STA 15+15 RT<br>STA 16+35 RT<br>STA 22+05 LT<br>STA 22+62 LT<br>STA 23+80 LT<br>STA 30+10 MEDIAN<br>STA 33+75 LT<br>STA 43+77 LT<br>STA 55+95 RT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY, CLUMP FORM |
| AUTUMN BRILLIANCE SERVICEBERRY | AMELANCHIER LAEVIS | STA 17+00 LT<br>STA 47+70 LT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| KENTUCKY COFFEETREE | GYMNOCLADUS DIOICUS | STA 63+34 RT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| JAPANESE TREE LILAC | SYRINGA RETICULATA" IVORY SILK" | STA 04+92 RT<br>STA 16+86 RT<br>STA 31+25 LT<br>STA 45+10 RT | 3"cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| UPRIGHT ENGLISH OAK | QUERCUS ROBUR "CRIMSON SPIRE" | STA 51+84 RT<br>STA 63+40 LT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| CRIMSON CLOUD HAWTHORN | CRATAEGUS LAEVIGATA | STA 48+00 LT<br>STA 63+00 LT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| IRONWOOD | CARPINUS CAROLINIANA | STA 19+95 RT | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| JARMIN MARILEE CRABAPPLE | MALUS SPECIES | SIGNATURE BED #2 (TYPE 3) -<br>STA 21+52 TO STA 22+21 MEDIAN-<br>REQUIRE 3 JARMIN MARILEE CRABAPPLES<br>STA 48+80 MEDIAN | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| GOLDEN RAINDROPS CRABAPPLE | MALUS SPECIES | STA 33+55 MEDIAN<br>STA 33+85 MEDIAN<br>STA 34+10 MEDIAN<br>STA 50+50 MEDIAN | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |
| PURPLE PRINCE CRABAPPLE | MALUS SPECIES | STA 45+80 MEDIAN<br>STA 46+15 MEDIAN<br>STA 46+50 MEDIAN | 4" cal. | B&B | 54" | 24" | GUY | 4 EACH | 48" | SPECIMEN QUALITY |

CATEGORY 0010

## ROUTE MARKER INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | 634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH | 634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH | 637.2220 * SIGNS TYPE II REFLECTIVE H SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1-1 | J2-2 | ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 2-1 | J3-2 | DIRECTIONAL ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 3-1 | J3-2 | DIRECTIONAL ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 3-2 | JV | ANY VERTICAL CONFIGURED J-PANEL | 24 | X | 91 | - | - | 15.2 | ATTACH TO LIGHT POLE |
| 3-3 | JV | ANY VERTICAL CONFIGURED J-PANEL | 24 | X | 91 | - | - | 15.2 | ON POLE WITH 3-2 |
| 3-4 | J2-2 | ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 4-1 | J2-2 | ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 4-2 | J3-2 | DIRECTIONAL ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 5-1 | J2-2 | ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 5-2 | J2-2 | ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL) | 48 | X | 57 | 1 | - | 19.0 | |
| 6-1 | JV | ANY VERTICAL CONFIGURED J-PANEL | 24 | X | 63 | - | 1 | 10.5 | |
| 6-2 | J1-1 | JUNCTION OR END ASSEMBLY | 24 | X | 63 | - | 1 | 10.5 | |
| 7-1 | J13-1 | DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL) | 24 | X | 45 | 1 | - | 7.5 | |
| 9-1 | J13-1 | DIRECTIONAL WITHOUT CARDINAL (1 HEADED ROUTE PANEL) | 24 | X | 45 | 1 | - | 7.5 | |
| 10-1 | J1-1 | JUNCTION OR END ASSEMBLY | 24 | X | 63 | 1 | - | 10.5 | |
| | | PROJECT TOTALS | | | | 11 | 2 | 228.9 | |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## TERRACE MOUND SIGN INSTALLATION

CATEGORY 0010

| STATION | LOCATION | SIGN CODE | MESSAGE | INCHES | x | INCHES | SPV.0060.283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12.0 FEET EACH | 637.2220 * SIGNS TYPE II REFLECTIVE SH SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| STA 04+50 | LT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 04+50 | LT | R9-3BL | ← USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| STA 04+53 | RT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 04+53 | RT | R9-3BL | ← USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| STA 20+90 | RT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 20+90 | RT | R9-3BL | ← USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| STA 23+28 | LT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 23+28 | LT | R9-3BR | → USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| STA 23+60 | RT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 23+60 | RT | R9-3BR | → USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| STA 23+70 | RT | R9-3-A | (NO PEDESTRIAN CROSSING SYMBOL) | 18 | x | 18 | 1 | 2.25 | |
| STA 23+70 | RT | R9-3BL | ← USE CROSSWALK | 18 | x | 12 | - | 1.50 | ON POLE WITH R9-3-A |
| | | | | | | **TOTALS** | **6** | **22.5** | |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CATEGORY 0010

# SIGN INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7. 0 FEET EACH | SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10. 0 FEET EACH | SPV . 0060. 283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12. 0 FEET EACH | SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10. 0 FEET EACH | SPV . 0060. 291 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM EACH | 637. 2220 * SIGNS TYPE II REFLECTIVE SH SF | 637. 2230 SIGNS TYPE II REFLECTIVE F SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-1 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 1-2 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 1-3 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 1-4 | R7-1D MOD | (NO PARKING SYMBOL) ← | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 1-5 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | - | - | - | - | - | 3. 0 | - | ON POST WITH 1-4 |
| 1-6 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | 1 | - | 5. 0 | - | - |
| 2-1 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 2-2 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 2-3 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 2-4 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 2-3 |
| 2-5 | R3-4 | NO U TURN | 24 | X | 24 | - | - | - | - | - | 4. 0 | - | ON POLE WITH 2-3 |
| 2-6 | M1-94H MOD | S 5TH PL | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 2-3 |
| 2-7 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 2-8 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 2-9 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 2-10 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | 1 | - | - | - | 6. 3 | - | - |
| 2-11 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 6. 3 | - | ON POST WITH 2-10 |
| 2-12 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 2-13 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 2-12 |
| 2-14 | M1-94H MOD | S 5TH PL | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 2-12 |
| 3-1 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 3-2 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | - | - | 1. 5 | - | ATTACH TO SIGNAL POLE |
| 3-3 | M1-94H MOD | S 5TH ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ATTACH TO SIGNAL POLE |
| 3-4 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 3-5 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 3-6 | R3-5R | RIGHT TURN ONLY | 30 | X | 36 | - | - | - | - | - | 7. 5 | - | ON POLE WITH 3-5 |
| 3-7 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 3-8 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 3-9 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 3-10 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | - | - | 1. 5 | - | ATTACH TO SIGNAL POLE |
| 3-11 | R3-4 | NO U TURN | 24 | X | 24 | - | - | - | - | - | 4. 0 | - | ATTACH TO SIGNAL POLE |
| 4-1 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 4-2 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 4-1 |
| 4-3 | M1-94H MOD | S 3RD ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ATTACH TO LIGHT POLE |
| 4-4 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POLE WITH 4-3 |
| 4-5 | R6-2R | ONE WAY → | 18 | X | 24 | - | - | - | - | - | 3. 0 | - | ON POLE WITH 4-3 |
| 4-6 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | 1 | - | 1. 5 | - | - |
| 4-7 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 4-8 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | - | - | 1. 5 | - | ON POST WITH 4. 7 |
| 4-9 | R3-5R | RIGHT TURN ONLY | 30 | X | 36 | - | 1 | - | - | - | 7. 5 | - | - |
| 4-10 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 4-11 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | - | - | - | - | 4. 0 | - | ATTACH TO LIGHT POLE |
| 4-12 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 2. 0 | - | ON POLE WITH 4-11 |
| 4-13 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 4-11 |
| 4-14 | M1-94H MOD | S 3RD ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 4-11 |

CATEGORY 0010

# SIGN INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7. 0 FEET EACH | SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10. 0 FEET EACH | SPV . 0060. 283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12. 0 FEET EACH | SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10. 0 FEET EACH | SPV . 0060. 291 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM EACH | 637. 2220 * SIGNS TYPE II REFLECTIVE SH SF | 637. 2230 SIGNS TYPE II REFLECTIVE F SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-1 | R3-20R | BEGIN RIGHT TURN LANE ↙ | 24 | X | 36 | - | 1 | - | - | - | 6. 0 | - | - |
| 5-2 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | - | - | 1. 5 | - | ON POST WITH 5-1 |
| 5-3 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 5-4 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 5-3 |
| 5-5 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 5-6 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 5-5 |
| 5-7 | M1-94H MOD | S 2ND ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 5-5 |
| 5-8 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 5-9 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 5-10 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 5-11 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 5-10 |
| 5-12 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 5-13 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 6-1 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 6-2 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 6-3 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 6-4 | M1-94H MOD | S 1ST ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 6-3 |
| 6-5 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 6-6 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 6-7 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 6-8 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 6-9 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 7-1 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 7-2 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 7-3 | W5-52L | OBJECT MARKER - LEFT MOUNT | 12 | X | 36 | - | - | - | - | - | 3. 0 | - | ON POST WITH 7-2 |
| 7-4 | W5-52L | OBJECT MARKER - LEFT MOUNT | 12 | X | 36 | - | 1 | - | - | - | 3. 0 | - | - |
| 7-5 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POST WITH 7-4 |
| 7-6 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 7-7 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 7-8 | M1-94H MOD | S 1ST ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 7-7 |
| 7-9 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 7-10 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 7-11 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 7-12 | R3-1 | NO RIGHT TURN | 24 | X | 24 | - | 1 | - | - | - | 4. 0 | - | - |
| 7-13 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 7-14 | M1-94H MOD | W HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 7-15 | M1-94H MOD | S 1ST ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ON POLE WITH 7-14 |

3

CATEGORY 0010

# SIGN INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7. 0 FEET EACH | SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10. 0 FEET EACH | SPV . 0060. 283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12. 0 FEET EACH | SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10. 0 FEET EACH | SPV . 0060. 291 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM EACH | 637. 2220 * SIGNS TYPE II REFLECTIVE SH SF | 637. 2230 SIGNS TYPE II REFLECTIVE F SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8-1 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 8-2 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POST WITH 8-1 |
| 8-3 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO MAST ARM POLE |
| 8-4 | M1-94H | S HOWELL AV | 72 | X | 18 | - | - | - | - | 1 | 9. 0 | - | - |
| 8-5 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 8-6 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO MAST ARM POLE |
| 8-7 | S1-1 | (SCHOOL ZONE SYMBOL) | 30 | X | 30 | - | - | - | - | - | - | 6. 3 | ATTACH TO LIGHT POLE |
| 8-8 | S16-9P | AHEAD | 24 | X | 12 | - | - | - | - | - | - | 2. 0 | ON POLE WITH 8-7 |
| 8-9 | R2-6P | FINES HIGHER | 24 | X | 18 | - | - | - | - | - | 3. 0 | - | ON POLE WITH 8-7 |
| 8-10 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 8-11 | S1-1 | (SCHOOL ZONE SYMBOL) | 30 | X | 30 | - | - | 1 | - | - | - | 6. 3 | - |
| 8-12 | S16-9P | AHEAD | 24 | X | 12 | - | - | - | - | - | - | 2. 0 | ON POST WITH 8-12 |
| 8-13 | R2-6P | FINES HIGHER | 24 | X | 18 | - | - | - | - | - | 3. 0 | - | ON POST WITH 8-12 |
| 8-14 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | 1 | - | - | - | 1. 5 | - | - |
| 8-15 | M1-94H | S HOWELL AV | 72 | X | 18 | - | - | - | - | 1 | 9. 0 | - | - |
| 8-16 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | - | - | - | - | 4. 0 | - | ATTACH TO SIGNAL POLE |
| 8-17 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 2. 0 | - | ON POLE WITH 8-17 |
| 8-18 | M1-94H | W HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 8-19 | R7-1D MOD | (NO PARKING SYMBOL) ↔ | 12 | X | 18 | - | - | - | 1 | - | 1. 5 | - | - |
| 8-20 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 9-1 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | 1 | - | - | 5. 0 | - | - |
| 9-2 | S5-2 | END SCHOOL SONE | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POST WITH 9-1 |
| 9-3 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 9-4 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 9-5 | M1-94H MOD | S AUSTIN ST | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 9-6 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 9-5 |
| 9-7 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 9-5 |
| 9-8 | S4-51 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 24 | X | 48 | - | - | 1 | - | - | 6. 6 | 1. 4 | - |
| 9-9 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 9-10 | S5-2 | END SCHOOL SONE | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 9-9 |
| 9-11 | S4-51 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 24 | X | 48 | - | - | - | - | - | 6. 6 | 1. 4 | ON POLE WITH 9-9 |
| 11-1 | M1-94H | S WHITNALL AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 11-2 | R10-15L | LEFT TURNING VEHICLES YIELD TO PEDESTRIANS | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 11-3 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 11-4 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 11-5 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO MAST ARM POLE |
| 11-6 | S4-51 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 24 | X | 48 | - | - | 1 | - | - | 6. 6 | 1. 4 | - |
| 11-7 | S4-51 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 24 | X | 48 | - | - | - | - | - | 6. 6 | 1. 4 | ATTACH TO LIGHT POLE |
| 11-8 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 11-7 |
| 11-9 | S5-2 | END SCHOOL SONE | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 11-7 |
| 11-10 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | 1 | - | - | 5. 0 | - | - |
| 11-11 | S5-2 | END SCHOOL SONE | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POST WITH 11-0 |
| 11-12 | M1-94H | S WHITNALL AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 11-13 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | 1 | - | - | - | 4. 0 | - | - |
| 11-14 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 2. 0 | - | ON POST WITH 11-13 |
| 11-15 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 11-16 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |

CATEGORY 0010

# SIGN INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7. 0 FEET EACH | SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10. 0 FEET EACH | SPV . 0060. 283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12. 0 FEET EACH | SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10. 0 FEET EACH | SPV . 0060. 291 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM EACH | 637. 2220 * SIGNS TYPE II REFLECTIVE SH SF | 637. 2230 SIGNS TYPE II REFLECTIVE F SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-1 | S1-1 | (SCHOOL ZONE SYMBOL) | 30 | X | 30 | - | - | 1 | - | - | - | 6. 3 | - |
| 12-2 | S16-9P | AHEAD | 24 | X | 12 | - | - | - | - | - | - | 2. 0 | ON POST WITH 12-1 |
| 12-3 | R2-6P | FINES HIGHER | 24 | X | 18 | - | - | - | - | - | 3. 0 | - | ON POST WITH 12-1 |
| 12-4 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 12-5 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 12-6 | M1-94H MOD | S GRIFFEN AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 12-7 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 12-6 |
| 12-8 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 12-6 |
| 12-9 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 12-10 | S1-1 | (SCHOOL ZONE SYMBOL) | 30 | X | 30 | - | - | - | - | - | - | 6. 3 | ATTACH TO LIGHT POLE |
| 12-11 | S16-9P | AHEAD | 24 | X | 12 | - | - | - | - | - | - | 2. 0 | ON POLE WITH 12-10 |
| 12-12 | R2-6P | FINES HIGHER | 24 | X | 18 | - | - | - | - | - | 3. 0 | - | ON POLE WITH 12-10 |
| 14-1 | M1-94H MOD | S TAYLOR AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ATTACH TO LIGHT POLE |
| 14-2 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 14-1 |
| 14-3 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 14-1 |
| 14-4 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 14-5 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | ON POST WITH 14-4 |
| 14-6 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 14-7 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 14-8 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 15-1 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO MAST ARM POLE |
| 15-2 | M1-94H | S PINE AV | 60 | X | 18 | - | - | - | - | 1 | 7. 5 | - | - |
| 15-3 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 15-4 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 15-5 | M1-94H | S PINE AV | 60 | X | 18 | - | - | - | - | 1 | 7. 5 | - | - |
| 15-6 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 15-7 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 15-8 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 16-1 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 16-2 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 16-1 |
| 16-3 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ATTACH TO LIGHT POLE |
| 16-4 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POLE WITH 16-3 |
| 16-5 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 16-6 | M1-94H MOD | S LENOX ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ATTACH TO LIGHT POLE |
| 16-7 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 16-6 |
| 16-8 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 16-6 |
| 16-9 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ATTACH TO LIGHT POLE |
| 16-10 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POLE WITH 16-9 |
| 16-11 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 16-12 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | - | - | - | - | - | 3. 0 | - | ON POST WITH 16-11 |

CATEGORY 0010

# SIGN INSTALLATION

| SIGN NO. | SIGN CODE | MESSAGE | SIZE INCHES | X | SIZE INCHES | SPV . 0060. 280 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 7. 0 FEET EACH | SPV . 0060. 281 ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 10. 0 FEET EACH | SPV . 0060. 283 * ROUND ALUMINUM SIGN POST SYSTEM IN SOFT SURFACE 12. 0 FEET EACH | SPV . 0060. 285 ROUND ALUMINUM SIGN POST SYSTEM IN CONCRETE SURFACE 10. 0 FEET EACH | SPV . 0060. 291 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM EACH | 637. 2220 * SIGNS TYPE II REFLECTIVE SH SF | 637. 2230 SIGNS TYPE II REFLECTIVE F SF | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17-1 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 17-2 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 17-3 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 17-2 |
| 17-4 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 17-5 | M1-94H MOD | S LOGAN AV | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ATTACH TO LIGHT POLE |
| 17-6 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 17-5 |
| 17-7 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 17-8 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 17-9 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 17-8 |
| 17-10 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 18-1 | M1-94H MOD | S HERMAN ST | 30 | X | 10 | - | - | - | - | - | 2. 1 | - | ATTACH TO LIGHT POLE |
| 18-2 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 18-1 |
| 18-3 | M1-94H MOD | E HOWARD AV | 36 | X | 10 | - | - | - | - | - | 2. 5 | - | ON POLE WITH 18-1 |
| 18-4 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 18-5 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 18-4 |
| 18-6 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 18-7 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | - | - | - | - | - | 3. 0 | - | ON POST WITH 18-6 |
| 18-8 | R2-1 | SPEED LIMIT 30 | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ATTACH TO LIGHT POLE |
| 18-9 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | - | - | - | - | 5. 0 | - | ON POLE WITH 18-8 |
| 18-10 | R1-1 | STOP | 30 | X | 30 | - | 1 | - | - | - | 6. 3 | - | - |
| 18-11 | R1-1 | STOP | 30 | X | 30 | - | - | - | - | - | 6. 3 | - | ON POST WITH 18-10 |
| 18-12 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 19-1 | M1-94H | S CLEMENT AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 19-2 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | - | 1 | - | - | 4. 0 | - | - |
| 19-3 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 2. 0 | - | ON POST WITH 19-2 |
| 19-4 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | - | - | - | - | - | 3. 0 | - | ON POST WITH 19-2 |
| 19-5 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 19-6 | W5-52R | OBJECT MARKER - RIGHT MOUNT | 12 | X | 36 | 1 | - | - | - | - | 3. 0 | - | - |
| 19-7 | R4-7 | (KEEP RIGHT SYMBOL) | 24 | X | 30 | - | 1 | - | - | - | 5. 0 | - | - |
| 19-8 | M1-94H | S CLEMENT AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 19-9 | M1-94H | E HOWARD AV | 84 | X | 18 | - | - | - | - | 1 | 10. 5 | - | - |
| 19-10 | R5-2 | (NO TRUCKS SYMBOL) | 24 | X | 24 | - | - | - | - | - | 4. 0 | - | ATTACH TO MAST ARM POLE |
| 19-11 | R5-2A | 3 TONS OR OVER | 24 | X | 12 | - | - | - | - | - | 2. 0 | - | ON POLE WITH 19-10 |
| | | PROJECT TOTALS | | | | 13 | 56 | 7 | 3 | 16 | 848. 1 | 38. 8 | |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CATEGORY 0010

# REMOVING SIGNS

| SIGN NO. | DESCRIPTION | 638.2602 REMOVE SIGNS TYPE II EACH | 638.3000 REMOVE SMALL SIGN SUPPORTS EACH | SPV.0060.293 REMOVE SIGN POST ASSEMBLY & TYPE II SIGNAGE EACH | REMARKS |
|---|---|---|---|---|---|
| 1-1 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 1-2 | SPEED LIMIT 30 | 1 | - | 1 | - |
| 2-1 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 2-2 | CITY OF MILWAUKEE NIGHT ORDINANCE | - | - | - | TO BE REMOVED BY OTHERS |
| 2-3 | NO ENGINE BRAKING EXCEPT IN EMERGENCY | - | - | - | TO BE REMOVED BY OTHERS |
| 2-4 | KEEP RIGHT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 2-5 | S 5TH ST | - | - | - | TO BE REMOVED BY OTHERS |
| 2-6 | STOP | 1 | - | - | - |
| 2-7 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 2-8 | KEEP RIGHT | 1 | - | - | ON POLE WITH 2-7 |
| 2-9 | S 5TH ST | - | - | - | TO BE REMOVED BY OTHERS |
| 2-10 | STOP | 1 | - | - | - |
| 2-11 | NO TRUCKING 3 TONS OR OVER | 1 | - | 1 | - |
| 3-1 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 3-2 | NO U TURN | 1 | - | - | ON POLE WITH 3-1 |
| 3-3 | NO PED CROSSING | 1 | - | - | ON POLE WITH 3-1 |
| 3-4 | NO PED CROSSING | 1 | - | - | ON POLE WITH 3-1 |
| 3-5 | NO PED CROSSING | 1 | - | - | ON SIGNAL POLE |
| 3-6 | ONE WAY ← | 1 | - | 1 | ON WOOD POST |
| 3-7 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 3-8 | STOP | 1 | - | 1 | - |
| 3-9 | S 5TH ST | - | - | - | TO BE REMOVED BY OTHERS |
| 3-10 | STOP HERE ON RED | 1 | - | - | ON SIGNAL POLE |
| 3-11 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 3-12 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 3-13 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | 2 | - | - |
| 3-14 | NO TURN ON RED | 1 | - | - | ON CONCRETE POLE |
| 3-15 | 90 RA ONLY / 90 RA ONLY | 1 | - | 1 | - |
| 3-16 | NO TURN ON RED | 1 | - | - | ON SIGNAL POLE |
| 3-17 | DO NOT ENTER | 1 | - | - | ON SIGNAL POLE |
| 3-18 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | 2 | - | - |
| 4-1 | NO LEFT TURN / NO U TURN | 1 | - | 1 | - |
| 4-2 | STOP HERE ON RED | 1 | - | - | ON POST WITH 4-1 |
| 4-3 | YELLOW TARGET | 1 | - | 1 | - |
| 4-4 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | 1 | - | - |
| 4-5 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | ON ALUMINUM POLE |
| 4-6 | S 3RD ST | - | - | - | TO BE REMOVED BY OTHERS |
| 4-7 | ONE WAY → | 1 | - | - | - |
| 4-8 | STOP | 1 | - | - | ON CONCRETE LIGHT POLE |
| 4-9 | NO PED CROSSING | 1 | - | 1 | - |
| 4-10 | CITY OF MILWAUKEE NIGHT ORDINANCE | - | - | - | TO BE REMOVED BY OTHERS |
| 4-11 | NO ENGINE BRAKING EXCEPT IN EMERGENCY | - | - | - | TO BE REMOVED BY OTHERS |
| 4-12 | NO PED CROSSING | 1 | - | - | ON ALUMINUM POLE |
| 4-13 | NO PED CROSSING | 1 | - | - | ON ALUMINUM POLE |
| 4-14 | NO PED CROSSING | 1 | - | 1 | - |
| 4-15 | STOP | 1 | - | 1 | - |
| 4-16 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 4-17 | S 3RD ST | - | - | - | TO BE REMOVED BY OTHERS |
| 4-18 | NO TRUCKING 3 TONS OR OVER | 1 | - | - | ON CONCRETE LIGHT POLE |

# REMOVING SIGNS

CATEGORY 0010

| SIGN NO. | DESCRIPTION | 638.2602 REMOVE SIGNS TYPE II EACH | 638.3000 REMOVE SMALL SIGN SUPPORTS EACH | SPV.0060.293 REMOVE SIGN POST ASSEMBLY & TYPE II SIGNAGE EACH | REMARKS |
|---|---|---|---|---|---|
| 4-19 | STOP HERE ON RED | 1 | - | - | ON SIGNAL POLE |
| 4-20 | PUSH BUTTON FOR PED SIGNAL | 1 | - | - | ON SIGNAL POLE |
| 4-21 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 4-22 | KEEP RIGHT | 1 | - | - | - |
| 4-23 | PUSH BUTTON FOR PED SIGNAL | 1 | - | 1 | - |
| 4-24 | NO RIGHT TURN | 1 | - | - | ON CONCRETE POLE |
| 5-1 | RIGHT LANE MUST TURN RIGHT | 1 | - | 1 | - |
| 5-2 | NO PARKING ↔ | 1 | - | - | ON POST WITH 5-1 |
| 5-3 | NO PARKING ↔ | 1 | - | 1 | - |
| 5-4 | STOP | 1 | - | 1 | - |
| 5-5 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 5-6 | S 2ND ST | - | - | - | TO BE REMOVED BY OTHERS |
| 5-7 | KEEP RIGHT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 5-8 | STOP | 1 | - | 1 | - |
| 5-9 | KEEP RIGHT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 5-10 | NO U TURN | 1 | - | - | ON ALUMINUM POLE WITH 5-9 |
| 5-11 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM POLE WITH 5-9 |
| 5-12 | NO U TURN | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 5-13 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM POLE WITH 5-12 |
| 5-14 | SPEED LIMIT 30 | 1 | - | 1 | - |
| 6-1 | CHURCH SIGN | - | - | - | TO BE REMOVED BY OTHERS |
| 6-2 | KEEP RIGHT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 6-3 | S 1ST ST | - | - | - | TO BE REMOVED BY OTHERS |
| 6-4 | STOP | 1 | - | - | - |
| 6-5 | WIS DOT INTERSTATE 43 & 94 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 7-1 | WIS DOT STH 38 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 7-2 | CHURCH SIGN | - | - | - | TO BE REMOVED BY OTHERS |
| 7-3 | CHURCH SIGN | - | - | - | TO BE REMOVED BY OTHERS |
| 7-4 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 7-5 | CHURCH SIGN | - | - | - | TO BE REMOVED BY OTHERS |
| 7-6 | KEEP RIGHT | 1 | - | - | ON ALUMINUM POLE WITH 7-1 |
| 7-7 | S 1ST ST | - | - | - | TO BE REMOVED BY OTHERS |
| 7-8 | STOP | 1 | - | - | - |
| 7-9 | NO PARKING ↔ | 1 | - | 1 | - |
| 7-10 | WIS DOT STH 38 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 7-11 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 7-12 | LIBRARY | - | - | - | ON ALUMINUM POLE WITH 7-10 |
| 7-13 | RIGHT ARROW | - | - | - | ON ALUMINUM POLE WITH 7-10 |
| 7-14 | KEEP RIGHT | 1 | - | - | ON ALUMINUM POLE WITH 7-10 |
| 7-15 | STOP | 1 | - | 1 | - |
| 7-16 | NO RIGHT TURN | 1 | - | 1 | - |
| 8-1 | NO PARKING ↔ | 1 | - | 1 | - |
| 8-2 | LEFT TURN YIELD ON FLASHING YELLOW ARROW | 1 | - | - | ON CONCRETE LIGHT POLE |
| 8-3 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE WITH 8-2 |

# REMOVING SIGNS

CATEGORY 0010

| SIGN NO. | DESCRIPTION | 638.2602 REMOVE SIGNS TYPE II EACH | 638.3000 REMOVE SMALL SIGN SUPPORTS EACH | SPV.0060.293 REMOVE SIGN POST ASSEMBLY & TYPE II SIGNAGE EACH | REMARKS |
|---|---|---|---|---|---|
| 8-4 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 8-5 | LEFT TURN YIELD ON FLASHING YELLOW ARROW | 1 | - | - | ON CONCRETE LIGHT POLE |
| 8-6 | WIS DOT STH 38 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 8-7 | RIGHT TURN ONLY | 1 | - | 1 | - |
| 8-8 | NO TRUCKS 3 TONS OR OVER | 1 | - | 1 | - |
| 8-9 | S HOWELL AV | - | - | - | TO BE REMOVED BY OTHERS |
| 8-10 | LEFT TURN YIELD ON FLASHING YELLOW ARROW | 1 | - | - | ON CONCRETE LIGHT POLE |
| 8-11 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 8-12 | NO PARKING ↔ | 1 | - | 1 | - |
| 8-13 | NO PARKING ↔ | 1 | - | 1 | - |
| 9-1 | WIS DOT STH 38 ROUTE PANEL | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 9-2 | S AUSTIN ST | - | - | - | TO BE REMOVED BY OTHERS |
| 9-3 | SPEED LIMIT 30 | 1 | - | - | ON CONCRETE LIGHT POLE |
| 9-4 | END SCHOOL ZONE | 1 | - | - | ON CONCRETE LIGHT POLE WITH 9-2 |
| 9-5 | STOP | 1 | - | 1 | - |
| 9-6 | S AUSTIN ST | - | - | - | TO BE REMOVED BY OTHERS |
| 9-7 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 9-8 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 9-9 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | 1 | - |
| 9-10 | FINES HIGHER | 1 | -- | - | - |
| 9-11 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | 1 | - |
| 9-12 | FINES HIGHER | 1 | - | - | - |
| 9-13 | NO PARKING ↔ | 1 | - | 1 | - |
| 9-14 | PEDESTRIAN | 1 | - | 1 | - |
| 9-15 | AHEAD | 1 | - | - | - |
| 9-16 | PEDESTRIAN | 1 | - | 1 | - |
| 9-17 | AHEAD | 1 | - | - | - |
| 10-1 | NO PARKING ↔ | 1 | - | 1 | - |
| 10-2 | NO PARKING ↔ | 1 | - | 1 | - |
| 10-3 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | 1 | - |
| 10-4 | FINES HIGHER | 1 | - | - | - |
| 10-5 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | 1 | - |
| 10-6 | FINES HIGHER | 1 | - | - | - |
| 10-7 | NO PARKING ↔ | 1 | - | 1 | - |
| 10-8 | NO PARKING ↔ | 1 | - | 1 | - |
| 11-1 | LEFT TURN YIELD TO PEDESTRIANS | 1 | - | - | ON CONCRETE LIGHT POLE |
| 11-2 | W HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 11-3 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 11-4 | FINES HIGHER | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 11-5 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | - | ON WOOD POLE |
| 11-6 | FINES HIGHER | 1 | - | - | ON WOOD POLE |
| 11-7 | SPEED LIMIT 30 | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 11-8 | END SCHOOL ZONE | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 11-9 | NO TRUCKING 3 TONS OR OVER | 1 | - | 1 | - |

# REMOVING SIGNS

CATEGORY 0010

| SIGN NO. | DESCRIPTION | 638.2602 REMOVE SIGNS TYPE II EACH | 638.3000 REMOVE SMALL SIGN SUPPORTS EACH | SPV.0060.293 REMOVE SIGN POST ASSEMBLY & TYPE II SIGNAGE EACH | REMARKS |
|---|---|---|---|---|---|
| 11-10 | KEEP RIGHT | 1 | - | - | ON SIGNAL POLE |
| 12-1 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 12-2 | FINES HIGHER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 12-3 | SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT | 1 | - | 1 | - |
| 12-4 | FINES HIGHER | 1 | - | - | - |
| 12-5 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 12-6 | PEDESTRIAN | 1 | - | - | ON CONCRETE LIGHT POLE |
| 12-7 | AHEAD | 1 | - | - | ON CONCRETE LIGHT POLE |
| 12-8 | STOP | 1 | - | 1 | - |
| 12-9 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 12-10 | S GRIFFIN AV | - | - | - | TO BE REMOVED BY OTHERS |
| 12-11 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 12-12 | PEDESTRIAN | 1 | - | 1 | - |
| 12-13 | AHEAD | 1 | - | - | - |
| 14-1 | S TAYLOR AV | - | - | - | TO BE REMOVED BY OTHERS |
| 14-2 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 14-3 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 14-4 | HAZARD MARKER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 14-5 | YELLOW TARGET | 1 | - | 1 | - |
| 14-6 | STOP | 1 | - | 1 | - |
| 15-1 | S PINE AV | - | - | - | TO BE REMOVED BY OTHERS |
| 15-2 | NO TRUCKING 3 TONS OR OVER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 15-3 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | ON CONCRETE LIGHT POLE WITH 15-2 |
| 15-4 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | ON SIGNAL POLE |
| 15-5 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | - |
| 15-6 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 15-7 | S PINE AV | - | - | - | TO BE REMOVED BY OTHERS |
| 15-8 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | ON SIGNAL POLE |
| 15-9 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 15-10 | PUSH BUTTON FOR WALK SIGNAL | 1 | - | - | ON CONCRETE LIGHT POLE |
| 16-1 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 16-2 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 16-3 | S LENNOX ST | - | - | - | TO BE REMOVED BY OTHERS |
| 16-4 | STOP | 1 | - | 1 | - |
| 16-5 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 16-6 | S LENNOX ST | - | - | - | TO BE REMOVED BY OTHERS |
| 16-7 | SPEED LIMIT 30 | 1 | - | 1 | - |
| 17-1 | KEEP RIGHT | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 17-2 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 17-3 | STOP | 1 | - | - | ON CONCRETE LIGHT POLE |
| 17-4 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 17-5 | S LOGAN AV | - | - | - | TO BE REMOVED BY OTHERS |
| 17-6 | STOP | 1 | - | - | - |
| 18-1 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |

# REMOVING SIGNS

CATEGORY 0010

| SIGN NO. | DESCRIPTION | 638.2602 REMOVE SIGNS TYPE II EACH | 638.3000 REMOVE SMALL SIGN SUPPORTS EACH | SPV.0060.293 REMOVE SIGN POST ASSEMBLY & TYPE II SIGNAGE EACH | REMARKS |
|---|---|---|---|---|---|
| 18-2 | S HERMAN ST | - | - | - | TO BE REMOVED BY OTHERS |
| 18-3 | STOP | 1 | - | - | ON CONCRETE LIGHT POLE |
| 18-4 | S HERMAN ST | - | - | - | TO BE REMOVED BY OTHERS |
| 18-5 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 18-6 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 18-7 | RIGHT LANE MUST TURN RIGHT | 1 | - | 1 | - |
| 18-8 | STOP | 1 | - | 1 | - |
| 19-1 | SPEED LIMIT 30 | 1 | - | 1 | - |
| 19-2 | RIGHT LANE MUST TURN RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 19-3 | NO TRUCKING 3 TONS OR OVER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 19-4 | HAZARD MARKER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 19-5 | E HOWARD AV | - | - | - | TO BE REMOVED BY OTHERS |
| 19-6 | BIKE ROUTE | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 19-7 | HAZARD MARKER | 1 | - | - | ON ALUMINUM LIGHT POLE |
| 19-8 | KEEP RIGHT | 1 | - | - | ON CONCRETE LIGHT POLE |
| 19-9 | HAZARD MARKER | 1 | - | - | ON CONCRETE LIGHT POLE |
| 19-10 | NO PARKING ↔ | 1 | - | 1 | - |
| 19-11 | RIGHT LANE MUST TURN RIGHT | 1 | - | - | ON SIGNAL POLE |
| 19-12 | RIGHT LANE MUST TURN RIGHT | 1 | - | 1 | - |
| 19-13 | NO PARKING ↔ | 1 | - | - | - |
| 20-1 | NO PARKING ↔ | 1 | - | 1 | - |
| 20-2 | NO PARKING ↔ | 1 | - | 1 | - |
| PROJECT TOTALS | | 141 | 5 | 51 | |

## FIELD OFFICE

| CATEGORY 0010 | 642.5201 |
|---|---|
| | FIELD OFFICE TYPE C |
| **LOCATION** | EACH |
| PROJECT 2395-05-71 | 1 |
| **TOTAL** | **1** |

## ADJUSTING WATER VALVES

| CATEGORY 0020 | SPV.0060.001 | SPV.0060.002 |
|---|---|---|
| | ADJUSTING WATER SERVICE BOXES | WATER MAIN PROTECTION |
| **LOCATION** | EACH | EACH |
| E/W HOWARD AVENUE | 92 | 8 |
| **TOTALS** | **92** | **8** |

## UTILITY LINE OPENING

| CATEGORY 0010 | SPV.0060.050 UTILITY LINE OPENING (ULO) |
|---|---|
| LOCATION | EACH |
| UNDISTRIBUTED | 71 |
| TOTAL | 71 |

## JOINT SEALING

| CATEGORY 0010 | SPV.0180.001 JOINT SEALING |
|---|---|
| LOCATION | SY |
| E/W HOWARD AVENUE | 48,260 |
| TOTAL | 48,260 |

## TRAFFIC CONTROL

| CATEGORY 0010 | | 643.0300 TRAFFIC CONTROL DRUMS | | 643.0420 TRAFFIC CONTROL BARRICADES TYPE III | | 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C | | 643.0800 TRAFFIC CONTROL ARROW BOARDS | | 643.0900 TRAFFIC CONTROL SIGNS | | 643.1050 TRAFFIC CONTROL SIGNS PCMS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **STAGE** | DURATION DAYS | EACH | DAY | EACH | DAY | EACH | DAY | EACH | DAY | EACH | DAY | EACH | DAY |
| HOWARD AVENUE | | | | | | | | | | | | | |
| PRE STAGE | 7 | 250 | 1,750 | 27 | 189 | 66 | 462 | 1 | 7 | 117 | 819 | 2 | 14 |
| STAGE 1 | 64 | 296 | 18,944 | 199 | 12,736 | 164 | 10,496 | - | - | 230 | 14,720 | 3 | 192 |
| STAGE 1 CUC | 14 | 58 | 812 | 9 | 126 | 23 | 322 | - | - | 21 | 294 | - | - |
| STAGE 1 DETOURS | 14 | 37 | 518 | 1 | 14 | 14 | 196 | 2 | 28 | 38 | 532 | - | - |
| STAGE 2 | 94 | 345 | 32,430 | 167 | 15,698 | 167 | 15,698 | - | - | 196 | 18,424 | 2 | 188 |
| STAGE 2 DETOURS | 14 | 15 | 210 | 4 | 56 | - | - | - | - | 113 | 1,582 | 1 | 14 |
| STAGE 3 | 14 | 313 | 4,382 | 16 | 224 | 43 | 602 | - | - | 68 | 952 | - | - |
| **TOTALS** | **235** | | **59,046** | | **29,043** | | **27,776** | | **35** | | **37,323** | | **408** |

## TRAFFIC CONTROL (CONTINUED)

| CATEGORY 0010 | 643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS | 643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES |
|---|---|---|
| **STAGE** | EACH | EACH |
| HOWARD AVENUE | | |
| STAGE 1A | 319 | 319 |
| STAGE 1B | 146 | 146 |
| STAGE 1C | 95 | 95 |
| STAGE 2A | 136 | 136 |
| STAGE 2B | 14 | 14 |
| STAGE 2C | 14 | 14 |
| **TOTALS** | **724** | **724** |

## TEMPORARY PAVEMENT MARKING

| CATEGORY 0010 | 643.3105 TEMPORARY MARKING LINE PAINT 4-INCH | | 643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH | | 643.3205 TEMPORARY MARKING LINE PAINT 8-INCH | 643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH | 643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH | 643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH |
|---|---|---|---|---|---|---|---|---|
| | (WHITE) | (YELLOW) | (WHITE) | (YELLOW) | (WHITE) | | | |
| **STAGE** | LF | LF | LF | LF | LF | LF | LF | LF |
| HOWARD AVENUE | | | | | | | | |
| PRESTAGE | - | - | 181 | - | - | 987 | - | - |
| STAGE 1A | 1,521 | 11,816 | 443 | 2,021 | 845 | - | 126 | 12 |
| STAGE 1B | - | - | 170 | 247 | - | - | - | 25 |
| STAGE 1C | - | - | - | 133 | - | - | - | 20 |
| STAGE 2A | - | - | 303 | 6,695 | - | - | - | 54 |
| STAGE 2B | - | - | 234 | 367 | - | - | - | 23 |
| STAGE 2C | - | - | - | 80 | - | - | - | - |
| SUBTOTALS | 1,521 | 11,816 | 1,331 | 9,543 | 845 | 987 | 126 | 134 |
| **TOTALS** | **13,337** | | **10,874** | | **845** | **987** | **126** | **134** |

## TRAFFIC CONTROL

CATEGORY 0010

| LOCATION | 643.5000 TRAFFIC CONTROL EACH |
|---|---|
| PROJECT 2395-05-71 | 1 |
| TOTAL | 1 |

## TEMPORARY PEDESTRIAN FACILITIES

CATEGORY 0010

| STAGE | 644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF | 644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF | 644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY | 644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF | 644.1810 TEMPORARY PEDESTRIAN BARRICADE LF |
|---|---|---|---|---|---|
| HOWARD AVE | | | | | |
| STAGE 1 | 517 | 3,632 | 322 | 190 | 6,799 |
| STAGE 2 | 684 | 4,375 | 455 | 250 | 9,276 |
| **TOTALS** | **1,201** | **8,007** | **777** | **440** | **16,075** |

## MARKING REMOVAL

CATEGORY 0010

| STATION TO STATION | 646.9000 MARKING REMOVAL LINE 4-INCH LF | 646.9100 MARKING REMOVAL LINE 8-INCH LF |
|---|---|---|
| HOWARD AVENUE | | |
| PRESTAGE | 132 | - |
| STAGE 1A | 452 | 435 |
| STAGE 1B | 21 | - |
| STAGE 1C | - | - |
| STAGE 2A | 252 | 29 |
| STAGE 2B | 141 | - |
| STAGE 2C | 89 | - |
| **TOTALS** | **1,087** | **464** |

## SAWING

CATEGORY 0010

| STATION TO STATION | 690.0150 * SAWING ASPHALT LF |
|---|---|
| ENTERPRISE AVENUE | |
| 0+00 - 77+00 | 1,459 |
| **TOTAL** | **1,459** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

## PAVEMENT MARKING

CATEGORY 0010

| LOCATION | 646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF | 646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF | 646.2020 MARKING LINE EPOXY 6-INCH (WHITE) LF | 646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF | 646.5020 MARKING ARROW EPOXY EACH | 646.5120 MARKING WORD EPOXY EACH | 646.5220 MARKING SYMBOL EPOXY EACH | 646.8220 MARKING ISLAND NOSE EPOXY EACH | SPV.0090.704 MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH LF | SPV.0090.705 MARKING CROSSWALK EPOXY BLOCK STYLE 12-INCH LF | SPV.0090.706 MARKING STOP LINE EPOXY 24-INCH LF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E/W HOWARD AVENUE | 2,102 | 90 | 4,235 | 2,272 | 62 | 3 | 33 | 39 | 549 | 2,884 | 623 |
| TOTALS | 2,192 | | 4,235 | 2,272 | 62 | 3 | 33 | 39 | 549 | 2,884 | 623 |

## CONSTRUCTION STAKING

| CATEGORY 0010 | | | | 650.4500 | 650.7000 | 650.9000 | 650.9500 |
|---|---|---|---|---|---|---|---|
| | | | | CONSTRUCTION STAKING SUBGRADE | CONSTRUCTION STAKING CONCRETE PAVEMENT | CONSTRUCTION STAKING CURB RAMPS | CONSTRUCTION STAKING SIDEWALK (PROJECT) 01. 2395-05-71 |
| **STATION** | **TO** | **STATION** | **LOCATION** | LF | LF | EACH | LF |
| STA 00+00 | - | STA 06+00 | RT | 375 | 375 | 6 | 150 |
| STA 06+00 | - | STA 11+00 | RT | 500 | 500 | 0 | 40 |
| STA 11+00 | - | STA 15+00 | RT | 400 | 400 | 6 | 0 |
| STA 15+00 | - | STA 19+00 | RT | 400 | 400 | 4 | 70 |
| STA 19+00 | - | STA 25+00 | RT | 600 | 600 | 8 | 310 |
| STA 25+00 | - | STA 31+00 | RT | 600 | 600 | 5 | 550 |
| STA 31+00 | - | STA 37+00 | RT | 600 | 600 | 3 | 740 |
| STA 37+00 | - | STA 43+00 | RT | 600 | 600 | 9 | 770 |
| STA 43+00 | - | STA 49+00 | RT | 600 | 600 | 0 | 1,200 |
| STA 49+00 | - | STA 55+00 | RT | 600 | 600 | 11 | 770 |
| STA 55+00 | - | STA 61+00 | RT | 600 | 600 | 8 | 200 |
| STA 61+00 | - | STA 67+00 | RT | 600 | 600 | 5 | 580 |
| STA 67+00 | - | STA 73+00 | RT | 275 | 275 | 4 | 110 |
| | | | SUBTOTALS | 6,750 | 6,750 | 69 | 5,490 |
| STA 00+00 | - | STA 06+00 | LT | 375 | 375 | 6 | 110 |
| STA 06+00 | - | STA 11+00 | LT | 500 | 500 | 3 | 100 |
| STA 11+00 | - | STA 15+00 | LT | 400 | 400 | 7 | 80 |
| STA 15+00 | - | STA 19+00 | LT | 400 | 400 | 4 | 260 |
| STA 19+00 | - | STA 25+00 | LT | 600 | 600 | 6 | 340 |
| STA 25+00 | - | STA 31+00 | LT | 600 | 600 | 5 | 530 |
| STA 31+00 | - | STA 37+00 | LT | 600 | 600 | 5 | 980 |
| STA 37+00 | - | STA 43+00 | LT | 600 | 600 | 11 | 520 |
| STA 43+00 | - | STA 49+00 | LT | 600 | 600 | 0 | 1,060 |
| STA 49+00 | - | STA 55+00 | LT | 600 | 600 | 9 | 880 |
| STA 55+00 | - | STA 61+00 | LT | 600 | 600 | 8 | 580 |
| STA 61+00 | - | STA 67+00 | LT | 600 | 600 | 5 | 680 |
| STA 67+00 | - | STA 73+00 | LT | 275 | 275 | 4 | 170 |
| | | | SUBTOTALS | 6,750 | 6,750 | 73 | 6,290 |
| | | | **GRAND TOTALS** | **13,500** | **13,500** | **142** | **11,780** |

## CONSTRUCTION STAKING (CONTINUED)

| CATEGORY 0010 | 650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (2395-05-71) |
|---|---|
| LOCATION | EACH |
| PROJECT 2395-05-71 | 1 |
| TOTAL | 1 |

## SAWING EXISTING PAVEMENT

| CATEGORY 0010 | | | | 690.0150 * | 690.0250 * |
|---|---|---|---|---|---|
| | | | | SAWING ASPHALT | SAWING CONCRETE |
| **STATION** | **TO** | **STATION** | **LOCATION** | LF | LF |
| STA 00+00 | - | STA 06+00 | RT | 30 | 30 |
| STA 06+00 | - | STA 11+00 | RT | - | 190 |
| STA 11+00 | - | STA 15+00 | RT | 60 | 120 |
| STA 15+00 | - | STA 19+00 | RT | 30 | 30 |
| STA 19+00 | - | STA 25+00 | RT | 60 | 60 |
| STA 25+00 | - | STA 31+00 | RT | - | 140 |
| STA 31+00 | - | STA 37+00 | RT | 40 | - |
| STA 37+00 | - | STA 43+00 | RT | - | 50 |
| STA 43+00 | - | STA 49+00 | RT | - | - |
| STA 49+00 | - | STA 55+00 | RT | 60 | 70 |
| STA 55+00 | - | STA 61+00 | RT | 50 | 60 |
| STA 61+00 | - | STA 67+00 | RT | 30 | 30 |
| STA 67+00 | - | STA 73+00 | RT | 120 | 80 |
| | | | SUBTOTALS | 480 | 860 |
| STA 00+00 | - | STA 06+00 | LT | - | 30 |
| STA 06+00 | - | STA 11+00 | LT | - | 70 |
| STA 11+00 | - | STA 15+00 | LT | 30 | 240 |
| STA 15+00 | - | STA 19+00 | LT | 30 | 30 |
| STA 19+00 | - | STA 25+00 | LT | 10 | 60 |
| STA 25+00 | - | STA 31+00 | LT | 60 | 130 |
| STA 31+00 | - | STA 37+00 | LT | 30 | 40 |
| STA 37+00 | - | STA 43+00 | LT | - | 100 |
| STA 43+00 | - | STA 49+00 | LT | - | - |
| STA 49+00 | - | STA 55+00 | LT | 60 | 40 |
| STA 55+00 | - | STA 61+00 | LT | 50 | 60 |
| STA 61+00 | - | STA 67+00 | LT | 30 | 30 |
| STA 67+00 | - | STA 73+00 | LT | 140 | 70 |
| | | | SUBTOTALS | 440 | 900 |
| | | | **GRAND TOTALS** | **920** | **1,760** |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

**CATEGORY 0010**

# CITY UNDERGROUND CONDUIT

## MISCELLANEOUS QUANTITIES

| LOCATION | | | SPV.0060.400 ADJUSTING CUC MANHOLE COVER EACH | SPV.0060.401 4' DIAMETER MANHOLE TYPE CUC EACH | SPV.0060.413 5' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC (INSTALLED OVER CONDUIT) EACH | SPV.0060.425 INSTALLING CONDUIT INTO EXISTING MANHOLE EACH | SPV.0060.426 SAWING CONCRETE ENCASED DUCT PACKAGE EACH | SPV.0060.427 SAWING AND REMOVAL OF CONCRETE ENCASED DUCT PACKAGE EACH | SPV.0090.402 2 DUCT CONDUIT CEMENT ENCASED 4- INCH RIGID NONMETALLIC CONDUIT DB-60 LF | SPV.0090.404 4 DUCT CONDUIT CEMENT ENCASED 4- INCH RIGID NONMETALLIC CONDUIT DB-60 LF | SPV.0090.406 6 DUCT CONDUIT CEMENT ENCASED 4- INCH RIGID NONMETALLIC CONDUIT DB-60 LF | SPV.0090.408 8 DUCT CONDUIT CEMENT ENCASED 4- INCH RIGID NONMETALLIC CONDUIT DB-60 LF | SPV.0090.422 DUCT REMOVAL FROM CONCRETE ENCASED DUCT PACKAGE EACH | 204.0100* REMOVING CONCRETE PAVEMENT SY | 320.0155* CONCRETE BASE 9-INCH SY | 415.009* CONCRETE PAVEMENT 9-INCH SY | 416.061* DRILLED TIE BARS EACH | 416.0620 DRILLED DOWEL BARS EACH | 465.0105* ASPHALTIC SURFACE TONS | 690.0250* SAWING CONCRETE LF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STA 01+38.80, 23.5' RT | TO | PROPOSED STREET LIGHTING VAULT | | | | | 1 | 1 | 29 | | | | 1 | 32 | 32 | | 46 | 20 | 3 | 62 |
| PROPOSED STREET LIGHTING VAULT | - | STA 01+60.80, 6.0' RT | | | | | | | | | | | | | | | | | | |
| WEST PAVING LIMITS | TO | MANHOLE 601 | | | | | | | | 171 | | | | | | | | | | |
| WEST PAVING LIMITS | - | STA 02+25.00, 22.7' RT | | | | | | | | | | | | | | | | | | |
| MANHOLE 601 | - | STA 03+98.30, 24.3' RT | 1- NEW COVER | | | 2 | | | | | | | | | | | | | | |
| MANHOLE 601 | TO | STA 06+08.10, 25.2' RT | | | | | | | | 205 | | | | | | | | | | |
| STA 06+08.10, 25.2' RT | TO | EXISTING TRAFFIC CONTROL CABINET | | | | | | | 32 | | | | | | | | | | | |
| EXISTING TRAFFIC CONTROL CABINET | - | STA 06+03.00, 51.4' RT | | | | | | | | | | | | | | | | | | |
| STA 06+08.10, 25.2' RT | TO | MANHOLE 602 | | | | | | | | | 25 | | | | | | | | | |
| MANHOLE 602 | - | STA 06+36.80, 23.9' RT | 1- NEW COVER | | | 2 | | | | | | | | | | | | | | |
| MANHOLE 602 | TO | MANHOLE 603 | | | | | | | | 88 | | | | | | | | | | |
| MANHOLE 603 | - | STA 07+28.90, 22.9' RT | 1- NEW COVER | | | 2 | | | | | | | | | | | | | | |
| MANHOLE 603 | TO | WEST OF BRIDGE PAVING LIMITS | | | | | | | | 224 | | | | | | | | | | |
| WEST OF BRIDGE PAVING LIMITS | - | STA 09+56.80, 24.26' RT | | | | | | | | | | | | | | | | | | |
| WEST OF BRIDGE PAVING LIMITS | TO | MANHOLE 604 | | | | | | | | 11 | | | | 12 | | 12 | 8 | 16 | | 30 |
| MANHOLE 604 | - | STA 09+69.70, 23.2' RT | 1- NEW COVER | | | 1 | | | | | | | | | | | | | | |
| MANHOLE 605 | TO | STA 13+53.70, 24.1' RT | | | | | | | | | 4 | | | | | | | | | |
| STA 13+53.70, 24.1' RT | TO | EXISTING TRAFFIC CONTROL CABINET | | | | | | | 33 | | | | | | | | | | | |
| EXISTING TRAFFIC CONTROL CABINET | - | STA 13+58.70, 51.3' RT | | | | | | | | | | | | | | | | | | |
| STA 13+53.70, 24.1' RT | TO | MANHOLE 608 | | | | | | | | 492 | | | | | | | | | | |
| MANHOLE 606 | TO | PROPOSED STREET LIGHTING VAULT | | | | | | | 74 | | | | | | | | | | | |
| PROPOSED STREET LIGHTING VAULT | - | STA 13+72.40, 77.7' LT | | | | | | | | | | | | | | | | | | |
| MANHOLE 605 | - | STA 13+45.50, 24.3' RT | 1- NEW COVER | | | 1 | | | | | | | | | | | | | | |
| MANHOLE 606 | - | STA 13+48.90, 37.0' LT | 1- NEW COVER | | | 1 | | | | | | | | | | | | | | |
| MANHOLE 607 | - | STA 17+51.60, 41.0' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 608 | - | STA 18+45.50, 24.3' RT | | 1 | | | | | | | | | | | | | | | | |
| MANHOLE 608 | TO | MANHOLE 610 | | | | | | | | 595 | | | | | | | | | | |
| MANHOLE 609 | - | STA 23+01.40, 41.2' RT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 610 | - | STA 24+48.00, 25.8' RT | | 1 | | | | | | | | | | | | | | | | |
| MANHOLE 610 | TO | EAST OF HOWELL PAVING LIMITS | | | | | | | | 234 | | | | | | | | | | |
| EAST OF HOWELL PAVING LIMITS | - | STA 26+81.40, 11.3' RT | | | | | | | | | | | | | | | | | | |
| EAST OF HOWELL PAVING LIMITS | TO | MANHOLE 611 | | | | | | | | 22 | | | | 76 | | 76 | 9 | 26 | | 82 |
| MANHOLE 611 | - | STA 27+05.70, 12.8' RT | | | 1 | | | | | | | | | | | | | | | |
| MANHOLE 612 | - | STA 27+06.70, 41.9' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 611 | TO | WEST OF HOWELL PAVING LIMITS | | | | | | | | | | 66 | | 147 | | 147 | 47 | 57 | | 173 |
| WEST OF HOWELL PAVING LIMITS | - | STA 27+71.90, 1.2' RT | | | | | | | | | | | | | | | | | | |
| WEST OF HOWELL PAVING LIMITS | TO | STA 27+94.00, 1.2' RT | | | | | | | | | | 22 | | | | | | | | |
| STA 27+94.00, 1.2' LT | TO | PROPOSED TRAFFIC CONTROL CABINET | | | | | | | 57 | | | | | | | | | | | |
| PROPOSED TRAFFIC CONTROL CABINET | - | STA 28+06.30, 47.4' RT | | | | | | | | | | | | | | | | | | |
| STA 27+94.00, 1.2' LT | TO | STA 29+27.20, 1.2' LT | | | | | | | | | 133 | | | | | | | | | |
| STA 29+27.20, 1.2' LT | TO | LIBRARY CONNECTION | | | | | | | 54 | | | | | | | | | | | |
| LIBRARY CONNECTION | - | STA 29+37.00, 48.3' RT | | | | | | | | | | | | | | | | | | |
| STA 29+27.00, 9.3' LT | TO | MANHOLE 613 | | | | | | | | 258 | | | | | | | | | | |
| MANHOLE 613 | - | STA 31+84.90, 14.3' RT | | 1 | | | | | | | | | | | | | | | | |
| MANHOLE 614 | - | STA 31+88.20, 40.7' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 615 | - | STA 37+67.10, 41.4' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 613 | TO | MANHOLE 616 | | | | | | | | 580 | | | | | | | | | | |
| MANHOLE 616 | - | STA 37+70.60, 13.9' RT | | | 1 | | | | | | | | | | | | | | | |
| MANHOLE 616 | TO | STA 37+81.80, 60.1' RT | | | | | | | | 45 | | | | | | | | | | |
| STA 37+81.80, 60.1' RT | TO | PROPOSED TRAFFIC CONTROL CABINET | | | | | | | 28 | | | | | | | | | | | |
| PROPOSED TRAFFIC CONTROL CABINET | - | STA 37+62.20, 70.6' RT | | | | | | | | | | | | | | | | | | |
| STA 37+81.80, 60.1' RT | TO | PROPOSED STREET LIGHTING VAULT | | | | | | | 47 | | | | | 41 | | 41 | 14 | 30 | | 92 |
| PROPOSED STREET LIGHTING VAULT | - | STA 37+64.90, 89.1' RT | | | | | | | | | | | | | | | | | | |
| MANHOLE 617 | - | STA 44+67.30, 40.7' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 618 | - | STA 51+72.20, 40.5' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 619 | TO | PROPOSED TRAFFIC CONTROL CABINET | | | | | | | 94 | | | | | | | | | | | |
| PROPOSED TRAFFIC CONTROL CABINET | - | STA 53+74.20, 66.9' LT | | | | | | | | | | | | | | | | | | |
| MANHOLE 619 | - | STA 54+23.60, 18.2' LT | 1- NEW COVER | | | 1 | | | | | | | | | | | | | | |
| MANHOLE 620 | - | STA 61+01.20, 17.8' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 621 | - | STA 63+54.80, 18.2' LT | 1- NEW COVER | | | | | | | | | | | | | | | | | |
| MANHOLE 622 | TO | PROPOSED TRAFFIC CONTROL CABINET | | | | | | | 122 | | | | | | | | | | | |
| MANHOLE 622 | - | STA 67+92.60, 7.3' LT | 1- NEW COVER | | | 1 | | | | | | | | | | | | | | |
| PROPOSED TRAFFIC CONTROL CABINET | - | STA 68+36.60, 57.0' RT | | | | | | | | | | | | | | | | | | |
| TOTAL | | | 17 | 3 | 2 | 11 | 1 | 1 | 570 | 2925 | 162 | 88 | 1 | 308 | 32 | 276 | 124 | 149 | 3 | 439 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CATEGORY 0010

## TEMPORARY STREET LIGHTING ITEMS

| | Std.Bid Item No. | Description | Unit | Quantity |
|---|---|---|---|---|
| - | 650.8501 * | CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 2395-05-71 | EACH | 0.5 |
| - | 204.0195 * | REMOVING CONCRETE BASES | EACH | 9 |
| - | 204.9060.S.311. * | REMOVING POLES | EACH | 67 |
| - | 204.9090.S.100. * | REMOVE AERIAL CABLE | LF | 280 |
| - | 652.0615 * | CONDUIT SPECIAL 3-INCH | LF | 85 |
| - | 655.0305 * | CABLE TYPE UF 2-12 AWG GROUNDED | LF | 795 |
| - | 659.5000.S * | LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR | EACH | 106 |
| - | SPV.0060.323 | 35 FT. WOOD POLE | EACH | 100 |
| - | SPV.0060.337 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 1HSX - SINGLE COIL | EACH | 4 |
| - | SPV.0060.338 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 11HSX - DOUBLE COIL | EACH | 2 |
| - | SPV.0060.346 | LUMINAIRE ARMS SINGLE MEMBER 6-FT. WP MOUNT | EACH | 81 |
| - | SPV.0060.348 | LUMINAIRE ARMS SINGLE MEMBER 8-FT. WP MOUNT | EACH | 8 |
| - | SPV.0060.360 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 2HSX - SINGLE COIL | EACH | 2 |
| - | SPV.0060.361 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 22HSX - DOUBLE COIL | EACH | 14 |
| - | SPV.0060.366 | CITY FURNISHED LUMINAIRE UTILITY HPS 2 MULTIPLE | EACH | 13 |
| - | SPV.0060.367 | CITY FURNISHED LUMINAIRE UTILITY HPS 3 MULTIPLE | EACH | 39 |
| - | SPV.0060.368 | CITY FURNISHED LUMINAIRE UTILITY HPS 2 SERIES | EACH | 28 |
| | SPV.0060.369 | CITY FURNISHED LUMINAIRE UTILITY HPS 3 SERIES | EACH | 10 |
| - | SPV.0060.370 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 3HSX - SINGLE COIL | EACH | 5 |
| - | SPV.0060.371 | CITY FURNISHED HIGH PRESSURE SODIUM BALLASTS 33HSX - DOUBLE COIL | EACH | 2 |
| - | SPV.0060.387 * | REMOVING LUMINAIRE | EACH | 2 |
| - | SPV.0090.300 * | CITY FURNISHED ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC | LF | 190 |
| - | SPV.0090.301 | CITY FURNISHED ELECTRICAL CABLE TYPE 1#6 AWG 5kV | LF | 7,090 |
| - | SPV.0090.302 | ELECTRICAL CABLE TYPE 3#6 AL. | LF | 3,735 |
| - | SPV.0090.304 | ELECTRICAL CABLE TYPE 2#2/1#4 AL. | LF | 3,380 |
| - | SPV.0090.309 | ELECTRICAL CABLE TYPE 3#12 AWG WITH GROUND | LF | 620 |

* ADDITIONAL QUANTITIES LISTED ELSWHERE

CATEGORY 0010

## PERMANENT STREET LIGHTING ITEMS

| | Std.Bid Item No. | Description | Unit | Quantity |
|---|---|---|---|---|
| - | 650.8501 * | CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) | EACH | 0.5 |
| - | 652.0235 * | CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH | LF | 11,365 |
| - | 652.0615 * | CONDUIT SPECIAL 3-INCH | LF | 3,590 |
| - | 653.0905 | REMOVING PULL BOXES | EACH | 9 |
| - | 654.0105 | CONCRETE BASES TYPES 5 | EACH | 49 |
| - | 655.0305 * | CABLE TYPE UF 2-12 AWG GROUNDED | LF | 600 |
| - | 657.0255 | TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE | EACH | 49 |
| - | 657.0815 | LUMINAIRE ARMS STEEL 15-FT | EACH | 1 |
| - | 674.0300 | REMOVE CABLE | LF | 960 |
| - | SPV.0060.302 | PULL BOXES 13-INCH X 24-INCH X 24-INCH | EACH | 88 |
| - | SPV.0060.303 * | PULL BOXES 17-INCH X 30-INCH X 24-INCH | EACH | 12 |
| - | SPV.0060.315 | POLES TYPE 22-AL | EACH | 5 |
| - | SPV.0060.316 | POLES TYPE 26-AL | EACH | 5 |
| - | SPV.0060.320 | POLES TYPE 25-AL-BD | EACH | 25 |
| - | SPV.0060.321 | POLES TYPE 30-AL-BD | EACH | 21 |
| - | SPV.0060.342 | SUBMERSIBLE MULTITAP 3 PORT PRE-INSULATED CONNECTOR | EACH | 261 |
| - | SPV.0060.343 | SUBMERSIBLE MULTITAP 4 PORT PRE-INSULATED CONNECTOR | EACH | 69 |
| - | SPV.0060.345 | LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL) | EACH | 109 |
| - | SPV.0060.347 | LUMINAIRE ARMS SINGLE MEMBER 8-FT. (SPECIAL) | EACH | 15 |
| - | SPV.0060.374 | LUMINAIRE UTILITY 1LED2 | EACH | 8 |
| - | SPV.0060.375 | LUMINAIRE UTILITY 2LED2 | EACH | 58 |
| - | SPV.0060.376 | LUMINAIRE UTILITY 3LED2 | EACH | 9 |
| - | SPV.0060.377 | LUMINAIRE UTILITY 2LED3 | EACH | 7 |
| - | SPV.0060.379 | LUMINAIRE UTILITY 3LED3 | EACH | 54 |
| - | SPV.0060.387 * | REMOVE LUMINAIRE | EACH | 11 |
| - | SPV.0090.300 * | ELECTRICAL CABLE TYPE 1#8 AWG 5kV CONCENTRIC | LF | 5,800 |
| - | SPV.0090.319 | LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT 1 1/2-INCH | LF | 100 |
| - | SPV.0090.321 | ELECTRICAL CABLE TYPE 4#8/1#8 XLP | LF | 925 |
| - | SPV.0090.322 | ELECTRICAL CABLE TYPE 4#6/1#8 XLP | LF | 150 |
| - | SPV.0090.324 | ELECTRICAL CABLE TYPE 4#2/1#8 XLP | LF | 12,710 |

* ADDITIONAL QUANTITIES LISTED ELSWHERE

CATEGORY 0010

## REMOVAL OF TEMPORARY STREET LIGHTING ITEMS

| | Std.Bid Item No. | Description | Unit | Quantity |
|---|---|---|---|---|
| - | 204.0195 * | REMOVING CONCRETE BASES | EACH | 2 |
| - | 204.9060.S.310. | REMOVING CITY INSTALLED WOOD POLES | EACH | 10 |
| - | 204.9060.S.311. * | REMOVING POLES | EACH | 117 |
| - | 204.9090.S.100. * | REMOVE AERIAL CABLE | EACH | 18,135 |
| - | 659.5000.S * | LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR | EACH | 94 |
| - | SPV.0060.387 * | REMOVE LUMINAIRE | EACH | 6 |

* ADDITIONAL QUANTITIES LISTED ELSWHERE

CATEGORY 0010

TRAFFIC SIGNALS W. HOWARD AVE. & S. 6TH ST.

| LOCATION | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH |
|---|---|---|
| 00+44'EB, 72' R | 1 | 1 |
| SUBTOTAL | 1 | 1 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB2 | 01+60'EB, 37' L | 1 |
| PB3 | 01+61'EB, 6' R | 1 |
| PB4 | 01+55'EB, 45' R | 1 |
| PB5 | 01+34'EB, 85' R | 1 |
| PB6 | 00+61'EB, 83' R | 1 |
| PB7 | 00+60'EB, 69' R | 1 |
| | SUBTOTAL | 6 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH |
|---|---|---|
| 9 | SBE | 1 |
| 11 | SBE | 1 |
| | SUBTOTAL | 2 |

| | 658.5070.001 SIGNAL MOUNTING HARDWARE 6TH EACH |
|---|---|
| SUBTOTAL | 1 |

| | 661.0201.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 6TH EACH |
|---|---|
| SUBTOTAL | 1 |

| | 204.9060.S.001 REMOVING TRAFFIC SIGNALS 6TH EACH |
|---|---|
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS W. HOWARD AVE. & S. 6TH ST.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| PB2 | TO | SBD | 15 | | |
| PB2 | TO | PB3 | | | 90 |
| PB3 | TO | SBE | 10 | | |
| PB3 | TO | PB4 | | | 80 |
| PB4 | TO | SBF | 5 | | |
| PB4 | TO | PB7 | | | 195 |
| PB7 | TO | CB1 | | 70 | |
| PB7 | TO | PB6 | | 30 | |
| PB6 | TO | PB5 | | | 150 |
| PB5 | TO | SBG | 25 | | |
| | | SUBTOTAL | 55 | 100 | 515 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 170 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 510 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 180 |

CATEGORY 0010

TRAFFIC SIGNALS W. HOWARD AVE. & S. 5TH ST.

3

| SIGNAL BASE NUMBER | SPV.0060.228 ELECTRICAL RISER EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH |
|---|---|---|
| SBC | | 1 |
| SBF | 1 | |
| SBH | | 1 |
| SBI | | 2 |
| SBJ | | 1 |
| SBL | | 1 |
| SBM | 1 | |
| SUBTOTAL | 2 | 6 |

| LOCATION | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|
| 6+4'EB, 51' R | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 |

3

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH |
|---|---|---|---|
| 3 | SBA | 1 | |
| 4 | SBB | 1 | |
| 13 | SBM | 1 | |
| 14 | SBA | 1 | |
| 15 | SBL | | 1 |
| 16 | SBM | | 1 |
| | SUBTOTAL | 4 | 2 |

| 658.5070.002 SIGNAL MOUNTING HARDWARE 5TH EACH | |
|---|---|
| SUBTOTAL | 1 |

| 661.0201.002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 5TH EACH | |
|---|---|
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS W. HOWARD AVE. & S. 5TH ST.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| PB1 | TO | PB2 | | 20 | |
| PB2 | TO | SBM | 10 | | |
| PB2 | TO | PB3 | | | 65 |
| PB3 | TO | PB4 | | 50 | |
| PB4 | TO | SBA | 5 | | |
| PB4 | TO | PB5 | | 85 | |
| PB5 | TO | SBB | 10 | | |
| PB5 | TO | SBC | 10 | | |
| PB5 | TO | PB6 | | 55 | |
| PB6 | TO | SBD | 5 | | |
| PB6 | TO | PB7 | | 95 | |
| PB8 | TO | PB9 | | 105 | |
| PB9 | TO | PB10 | | | 90 |
| PB10 | TO | PB11 | | 75 | |
| PB10 | TO | PB13 | | | 60 |
| PB13 | TO | PB14 | | 55 | |
| CB1 | TO | PB19 | | 25 | |
| PB19 | TO | SBL | 10 | | |
| PB19 | TO | PB1 | | | 100 |
| | | SUBTOTAL | 50 | 565 | 315 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB1 | 6+26'EB, 2' R | 1 |
| PB2 | 6+21'EB, 4' L | 1 |
| PB3 | 6+21'EB, 37' L | 1 |
| PB4 | 6+44'EB, 37' L | 1 |
| PB5 | 7+16'WB, 37' L | 1 |
| PB6 | 7+10'EB, 37' L | 1 |
| PB9 | 8+4'WB, 37' L | 1 |
| PB10 | 8+3'WB, 7' R | 1 |
| PB13 | 8+2'WB, 37' R | 1 |
| PB19 | 6+3'EB, 41' R | 1 |
| | SUBTOTAL | 10 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 665 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 1415 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 680 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 270 |
| 655.0305 | CABLE TYPE UF 2-12 AWG GROUNDED | 490 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 1100 |
| 655.0900 | TRAFFIC SIGNAL EVP DETECTOR CABLE | 490 |

CATEGORY 0010

TRAFFIC SIGNALS W. HOWARD AVE. & S. 3RD ST.

3

| SIGNAL BASE NUMBER | 657.0100 PEDESTAL BASES EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH | SPV.0060.228 ELECTRICAL RISER EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH | SPV.0060.292 24"x24" BLANKOUT SIGN NO TURN ON RED EACH |
|---|---|---|---|---|---|---|
| SBB | | | | | 1 | |
| SBC | | | | | 1 | |
| SBD | | | | | 1 | |
| SBE | 1 | | 1 | | 1 | |
| SBF | | | | 1 | | |
| SBFF | | | | | | |
| SBG | 1 | | 1 | | 1 | |
| SBHH | 1 | 1 | | | 1 | |
| SBH | | | | | | 1 |
| SBJJ | | | | | 1 | |
| SUBTOTAL | 3 | 1 | 2 | 1 | 7 | 1 |

| | 658.5070.003 SIGNAL MOUNTING HARDWARE 3RD EACH |
|---|---|
| SUBTOTAL | 1 |

| | 661.0201.003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 3RD EACH |
|---|---|
| SUBTOTAL | 1 |

| | 204.9060.S.002 REMOVING TRAFFIC SIGNALS 3RD EACH |
|---|---|
| SUBTOTAL | 1 |

| SIGNAL BASE NO. | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH |
|---|---|---|
| SBE | 13+70'EB, 3' L | 1 |
| SBG | 13+71'EB, 41' R | 1 |
| SBHH | 13+51'EB, 50' R | 1 |
| | SUBTOTAL | 3 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH |
|---|---|---|---|---|---|
| 6 | SBF | 1 | | | |
| 7 | SBG | 1 | | | |
| 8 | SBD | | 1 | | |
| 9 | SBFF | | 1 | | |
| 10 | SBE | 1 | | | |
| 17 | SBG | | | 1 | 1 |
| 18 | SBG | | | 1 | 1 |
| | SUBTOTAL | 3 | 2 | 2 | 2 |

| LOCATION | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|
| 13+60'EB, 51'R | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 |

TRAFFIC SIGNALS W. HOWARD AVE. & S. 3RD ST.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| PB1 | TO | PB2 | | | 120 |
| PB2 | TO | SBFF | 5 | | |
| PB2 | TO | PB3 | | 50 | |
| PB3 | TO | SBE | 5 | | |
| PB3 | TO | SBF | 25 | | |
| PB2 | TO | PB4 | | | 85 |
| PB4 | TO | SBG | 15 | | |
| PB4 | TO | CB1 | | 25 | |
| PB5 | TO | SBHH | 10 | | |
| PB5 | TO | SBH | 10 | | |
| | | SUBTOTAL | 70 | 75 | 205 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 570 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 710 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 60 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 420 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 730 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB2 | 13+48'EB, 1' R | 1 |
| PB3 | 13+70'EB, 1' R | 1 |
| PB4 | 13+60'EB, 40' R | 1 |
| | SUBTOTAL | 3 |

| SIGNAL BASE NO. | LOCATION | 204.0195 REMOVING CONCRETE BASES EACH |
|---|---|---|
| SBE | 13+70'EB, 3' L | 1 |
| SBG | 13+71'EB, 41' R | 1 |
| | SUBTOTAL | 2 |

| | SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM- 2 CAMERAS EACH |
|---|---|
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS E./W. HOWARD AVE. & S. HOWELL AVE.

| SIGNAL BASE NUMBER | 657.0100 PEDESTAL BASES EACH | 657.0350 POLES TYPE 10 EACH | 657.0352 POLES TYPE 10-SPECIAL EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH | 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH | 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH | 657.0525 MONOTUBE ARMS 25-FT EACH | 657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH | SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH | SPV.0060.223 EVP CONFIRMATION LIGHT EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SBA | 1 | | | | | 1 | | | | | 2 |
| SBC | | | | | | | | | 1 | 1 | |
| SBDD | 1 | | | 1 | | | | | | | 1 |
| SBE | 1 | | | | 1 | | | | | | 1 |
| SBF | | 1 | | | | | 1 | | 1 | 1 | |
| SBG | 1 | | | | 1 | | | | | | 1 |
| SBH | | | | | | | | | | | 1 |
| SBJ | | | 1 | | | | | 1 | 1 | 1 | 1 |
| SBK | 1 | | | | 1 | | | | | | 1 |
| SBL | | 1 | | | | | 1 | | 1 | 1 | |
| SUBTOTAL | 5 | 2 | 1 | 1 | 3 | 1 | 2 | 1 | 4 | 4 | 8 |

| LOCATION | SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH | SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|---|---|---|
| 28+8'EB, 47' R | 1 | 1 | 1 | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 | 1 | 1 | 1 |

| LOCATION | SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH |
|---|---|
| 25+29'EB, 49' R | 1 |
| SUBTOTAL | 1 |

| | 658.5070.004 SIGNAL MOUNTING HARDWARE HOWELL EACH | 661.0201.004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS HOWELL EACH | 204.9060.S.003 REMOVING TRAFFIC SIGNALS HOWELL EACH |
|---|---|---|---|
| SUBTOTAL | 1 | 1 | 1 |

| SIGNAL BASE NO. | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH | 654.0110 CONCRETE BASES TYPE 10 EACH | 654.0120 CONCRETE BASE TYPE 10 SPECIAL EACH |
|---|---|---|---|---|
| SBA | 26+67'EB, 49' L | 1 | | |
| SBDD | 28+21'WB, 52' L | 1 | | |
| SBE | 28+10'WB, 43' L | 1 | | |
| SBF | 28+3'WB, 5' R | | 1 | |
| SBG | 28+8'WB, 43' R | 1 | | |
| SBJ | 27+23'WB, 55' R | | | 1 |
| SBK | 26+63'EB, 44' R | 1 | | |
| SBL | 26+58'EB, 5' L | | 1 | |
| | SUBTOTAL | 5 | 2 | 1 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH | 658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH |
|---|---|---|---|---|---|---|
| 3 | SBD | 1 | | | | |
| 4 | SBB | 1 | | | | |
| 6 | SBC | 1 | | | | |
| 7 | SBB | 1 | | | | |
| 8 | SBJ | 1 | | | | |
| 9 | SBJ | 1 | | | | |
| 10 | SBH | | 1 | | | |
| 11 | SBI | | 1 | | | |
| 12 | SBK | | | 1 | | |
| 13 | SBF | 1 | | | | |
| 14 | SBF | 1 | | | | |
| 15 | SBG | | | 1 | | |
| 16 | SBE | | 1 | | | |
| 17 | SBF | | 1 | | | |
| 18 | SBE | 1 | | | | |
| 19 | SBL | 1 | | | | |
| 20 | SBL | 1 | | | | |
| 21 | SBK | | 1 | | | |
| 22 | SBL | | 1 | | | |
| 23 | SBA | | | | 1 | 1 |
| 24 | SBE | | | | 1 | 1 |
| 25 | SBD | | | | 1 | 1 |
| 27 | SBG | | | | 1 | 1 |
| 28 | SBK | | | | 1 | 1 |
| 29 | SBJ | | | | 1 | 1 |
| 30 | SBB | | | | 1 | 1 |
| | SUBTOTAL | 11 | 6 | 2 | 7 | 7 |

CATEGORY 0010

TRAFFIC SIGNALS E./W. HOWARD AVE. & S. HOWELL AVE.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| CB1 | TO | PB1 | | 50 | |
| PB1 | TO | SBG | 20 | | |
| PB1 | TO | PB2 | | 95 | |
| PB2 | TO | SBH | 5 | | |
| PB4 | TO | SBJ | | 5 | |
| PB4 | TO | PB5 | | 65 | |
| PB5 | TO | SBK | 10 | | |
| PB5 | TO | PB6 | | | 100 |
| PB6 | TO | PB7 | | 25 | |
| PB7 | TO | SBL | | 5 | |
| PB7 | TO | PB15 | | | 295 |
| PB6 | TO | PB8 | | | 95 |
| PB8 | TO | SBA | 15 | | |
| PB8 | TO | PB9 | | 60 | |
| PB9 | TO | SBB | 10 | | |
| PB12 | TO | SBD | 10 | | |
| PB12 | TO | SBDD | 10 | | |
| PB12 | TO | PB13 | | 40 | |
| PB13 | TO | SBE | 10 | | |
| PB13 | TO | PB14 | | | 120 |
| PB14 | TO | PB15 | | 20 | |
| PB15 | TO | SBF | | 5 | |
| PB14 | TO | PB1 | | | 65 |
| | | SUBTOTAL | 90 | 370 | 675 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 1125 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 140 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 1005 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 1160 |
| 655.0305 | CABLE TYPE UF 2-12 AWG GROUNDED | 945 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 930 |
| 655.0900 | TRAFFIC SIGNAL EVP DETECTOR CABLE | 945 |
| SPV.0090.240 | ELECTRICAL CABLE 3 #4/ 1#8 XLP | 385 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB1 | 28+11'EB, 36' R | 1 |
| PB2 | 28+20'WB, 59' R | 1 |
| PB4 | 27+22'WB, 58' R | 1 |
| PB5 | 26+57'EB, 43' R | 1 |
| PB6 | 26+43'EB, 4' L | 1 |
| PB7 | 26+55'EB, 4' L | 1 |
| PB8 | 26+55'EB, 49' L | 1 |
| PB9 | 26+75'EB, 63' L | 1 |
| PB12 | 28+25'WB, 61' L | 1 |
| PB13 | 28+12'WB, 49' L | 1 |
| PB14 | 28+10'EB, 4' R | 1 |
| PB15 | 28+1'EB, 4' R | 1 |
| | SUBTOTAL | 12 |

| SIGNAL BASE NO. | LOCATION | 204.0195 REMOVING CONCRETE BASES EACH |
|---|---|---|
| SBA | 26+67'EB, 49' L | 1 |
| SBE | 28+10'WB, 43' L | 1 |
| SBG | 28+8'WB, 43' R | 1 |
| SBJ | 27+23'WB, 55' R | 1 |
| SBK | 26+63'EB, 44' R | 1 |
| | SUBTOTAL | 5 |

| | SPV.0060.227 VEHICULAR VIDEO DETECTION SYSTEM- 4 CAMERAS EACH |
|---|---|
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. WHITNALL AVE.

| SIGNAL BASE NUMBER | 657.0100 PEDESTAL BASES EACH | 657.0350 POLES TYPE 10 EACH | 657.0352 POLES TYPE 10-SPECIAL EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH | 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH | 657.0515 MONOTUBE ARMS 15-FT EACH | 657.0530 MONOTUBE ARMS 30-FT EACH | 657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH | SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH | SPV.0060.223 EVP CONFIRMATION LIGHT EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBA | 1 | | | | 1 | | | | | | | 1 |
| SBB | 1 | | | | | 1 | | | | | | |
| SBBB | 1 | | | 1 | | | | | | | | 1 |
| SBC | | 1 | | | | | | 1 | | 1 | 1 | |
| SBCC | 1 | | | 1 | | | | | | | | 1 |
| SBD | 1 | | | | 1 | | | | | | | 1 |
| SBE | | 1 | | | | | 1 | | | 1 | 1 | |
| SBF | 1 | | | | | 1 | | | | | | 1 |
| SBG | 1 | | | | 1 | | | | | | | |
| SBGG | 1 | | | 1 | | | | | | | | 1 |
| SBH | | | 1 | | | | | | 1 | 1 | 1 | |
| SBHH | 1 | | | 1 | | | | | | | | 1 |
| SBI | 1 | | | | | 1 | | | | | | 1 |
| SBJ | | 1 | | | | | 1 | | | 1 | 1 | |
| SUBTOTAL | 10 | 3 | 1 | 4 | 3 | 3 | 2 | 1 | 1 | 4 | 4 | 8 |

| SIGNAL BASE NO. | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH | 654.0110 CONCRETE BASES TYPE 10 EACH | 654.0120 CONCRETE BASE TYPE 10 SPECIAL EACH |
|---|---|---|---|---|
| SBA | 37+28'EB, 40' L | 1 | | |
| SBB | 37+41'EB, 62' L | 1 | | |
| SBBB | 37+42'EB, 49' L | 1 | | |
| SBC | 38+3'WB, 59' L | | 1 | |
| SBCC | 38+7'EB, 49' L | 1 | | |
| SBD | 38+29'EB, 40' L | 1 | | |
| SBE | 38+38'EB, 5' R | | 1 | |
| SBF | 38+29'EB, 41' R | 1 | | |
| SBG | 38+21'EB, 62' R | 1 | | |
| SBGG | 38+17'EB, 49' R | 1 | | |
| SBH | 37+61'EB, 67' R | | | 1 |
| SBHH | 37+53'EB, 57' R | 1 | | |
| SBI | 37+37'EB, 45' R | 1 | | |
| SBJ | 37+26'EB, 5' L | | 1 | |
| | SUBTOTAL | 10 | 3 | 1 |

| LOCATION | SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH | SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|---|---|---|
| 37+64'EB, 71' R | 1 | 1 | 1 | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 | 1 | 1 | 1 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH | 658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH |
|---|---|---|---|---|---|---|
| 1 | SBG | 1 | | | | |
| 2 | SBC | 1 | | | | |
| 3 | SBC | 1 | | | | |
| 4 | SBB | | 1 | | | |
| 5 | SBC | | 1 | | | |
| 6 | SBB | 1 | | | | |
| 7 | SBH | 1 | | | | |
| 8 | SBH | 1 | | | | |
| 9 | SBG | 1 | | | | |
| 10 | SBH | 1 | | | | |
| 11 | SBI | | | 1 | | |
| 12 | SBE | 1 | | | | |
| 13 | SBF | | | 1 | | |
| 14 | SBD | 1 | | | | |
| 15 | SBE | 1 | | | | |
| 16 | SBD | 1 | | | | |
| 17 | SBJ | 1 | | | | |
| 18 | SBA | 1 | | | | |
| 19 | SBI | 1 | | | | |
| 20 | SBJ | 1 | | | | |
| 21 | SBA | | | | 1 | 1 |
| 22 | SBD | | | | 1 | 1 |
| 23 | SBD | | | | 1 | 1 |
| 24 | SBG | | | | 1 | 1 |
| 25 | SBF | | | | 1 | 1 |
| 26 | SBI | | | | 1 | 1 |
| 27 | SBH | | | | 1 | 1 |
| 28 | SBB | | | | 1 | 1 |
| | SUBTOTAL | 16 | 2 | 2 | 8 | 8 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. WHITNALL AVE.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| CB1 | TO | PB1 | | 20 | |
| PB1 | TO | SBH | | 5 | |
| PB1 | TO | PB2 | | 20 | |
| PB2 | TO | SBHH | 15 | | |
| PB2 | TO | PB3 | | 115 | |
| PB3 | TO | SBI | 25 | | |
| PB3 | TO | PB4 | | | 95 |
| PB4 | TO | SBJ | | 10 | |
| PB4 | TO | PB5 | | | 70 |
| PB5 | TO | SBA | 15 | | |
| PB5 | TO | PB6 | | 75 | |
| PB6 | TO | SBBB | 15 | | |
| PB6 | TO | SBB | 5 | | |
| PB6 | TO | PB7 | | | 110 |
| PB7 | TO | SBC | | 10 | |
| PB7 | TO | SBCC | 25 | | |
| PB7 | TO | PB8 | | 140 | |
| PB8 | TO | SBD | 15 | | |
| PB8 | TO | PB9 | | | 95 |
| PB9 | TO | SBE | | 10 | |
| PB9 | TO | PB10 | | | 70 |
| PB10 | TO | SBF | 15 | | |
| PB10 | TO | PB11 | | 80 | |
| PB11 | TO | SBGG | 10 | | |
| PB11 | TO | SBG | 10 | | |
| PB11 | TO | PB1 | | | 110 |
| | | SUBTOTAL | 150 | 485 | 550 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB1 | 37+65'EB, 68' R | 1 |
| PB2 | 37+63'EB, 60' R | 1 |
| PB3 | 37+18'EB, 39' R | 1 |
| PB4 | 37+17'EB, 6' L | 1 |
| PB5 | 37+17'EB, 39' L | 1 |
| PB6 | 37+41'EB, 59' L | 1 |
| PB7 | 38+5'WB, 68' L | 1 |
| PB8 | 38+42'EB, 40' L | 1 |
| PB9 | 38+43'EB, 6' R | 1 |
| PB10 | 38+44'EB, 39' R | 1 |
| PB11 | 38+17'EB, 56' R | 1 |
| | SUBTOTAL | 11 |

| | SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM- 2 CAMERAS EACH | 204.9060.S.004 REMOVING TRAFFIC SIGNALS WHITNALL EACH |
|---|---|---|
| SUBTOTAL | 1 | 1 |

| | 658.5070.005 SIGNAL MOUNTING HARDWARE WHITNALL EACH | 661.0201.005 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS WHITNALL EACH |
|---|---|---|
| SUBTOTAL | 1 | 1 |

| SIGNAL BASE NO. | LOCATION | 204.0195 REMOVING CONCRETE BASES EACH |
|---|---|---|
| SBB | 37+41'EB, 62' L | 1 |
| SBD | 38+29'EB, 40' L | 1 |
| SBF | 38+29'EB, 41' R | 1 |
| SBG | 38+21'EB, 62' R | 1 |
| SBH | 37+61'EB, 67' R | 1 |
| SBJ | 37+26'EB, 5' L | 1 |
| | SUBTOTAL | 6 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 1035 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 590 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 1025 |
| 655.0305 | CABLE TYPE UF 2-12 AWG GROUNDED | 770 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 945 |
| 655.0900 | TRAFFIC SIGNAL EVP DETECTOR CABLE | 770 |
| SPV.0090.240 | ELECTRICAL CABLE 3 #4/ 1#8 XLP | 115 |

| LOCATION | SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH |
|---|---|
| 38+9'WB, 163' R | 1 |
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. PINE AVE.

| SIGNAL BASE NUMBER | 657.0100 PEDESTAL BASES EACH | 657.035 POLES TYPE 10 EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH | 657.0515 MONOTUBE ARMS 15-FT EACH | 657.0525 MONOTUBE ARMS 25-FT EACH | SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH | SPV.0060.223 EVP CONFIRMATION LIGHT EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH |
|---|---|---|---|---|---|---|---|---|---|
| SBA | 1 | | | 1 | | | | | 1 |
| SBB | 1 | | | 1 | | | | | 1 |
| SBC | | 1 | | | | 1 | 1 | 1 | |
| SBCC | 1 | | 1 | | | | | | 1 |
| SBD | 1 | | | 1 | | | | | 1 |
| SBE | | 1 | | | 1 | | 1 | 1 | |
| SBF | 1 | | | 1 | | | | | 1 |
| SBG | 1 | | | 1 | | | | | |
| SBGG | 1 | | 1 | | | | | | 1 |
| SBH | | 1 | | | | 1 | 1 | 1 | |
| SBHH | 1 | | 1 | | | | | | 1 |
| SBI | 1 | | | 1 | | | | | 1 |
| SBJ | | 1 | | | 1 | | 1 | 1 | |
| SUBTOTAL | 9 | 4 | 3 | 6 | 2 | 2 | 4 | 4 | 8 |

| SIGNAL BASE NO. | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH | 654.0110 CONCRETE BASES TYPE 10 EACH |
|---|---|---|---|
| SBA | 53+52'EB, 42' L | 1 | |
| SBB | 53+73'EB, 50' L | 1 | |
| SBC | 54+19'EB, 51' L | | 1 |
| SBCC | 54+22'EB, 41' L | 1 | |
| SBD | 54+39'EB, 41' L | 1 | |
| SBE | 54+56'EB, 5' R | | 1 |
| SBF | 54+42'EB, 40' R | 1 | |
| SBG | 54+22'EB, 54' R | 1 | |
| SBGG | 54+27'EB, 41' R | 1 | |
| SBH | 53+71'EB, 53' R | | 1 |
| SBHH | 53+69'EB, 49' R | 1 | |
| SBI | 53+53'EB, 40' R | 1 | |
| SBJ | 53+45'EB, 5' L | | 1 |
| | SUBTOTAL | 9 | 4 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH |
|---|---|---|---|---|
| 1 | SBG | 1 | | |
| 2 | SBB | 1 | | |
| 3 | SBC | 1 | | |
| 4 | SBB | 1 | | |
| 5 | SBG | 1 | | |
| 6 | SBH | 1 | | |
| 7 | SBI | 1 | | |
| 8 | SBE | 1 | | |
| 9 | SBF | 1 | | |
| 10 | SBD | 1 | | |
| 11 | SBE | 1 | | |
| 12 | SBD | 1 | | |
| 13 | SBJ | 1 | | |
| 14 | SBA | 1 | | |
| 15 | SBI | 1 | | |
| 16 | SBJ | 1 | | |
| 17 | SBA | | 1 | 1 |
| 18 | SBD | | 1 | 1 |
| 19 | SBC | | 1 | 1 |
| 20 | SBG | | 1 | 1 |
| 21 | SBF | | 1 | 1 |
| 22 | SBI | | 1 | 1 |
| 23 | SBH | | 1 | 1 |
| 24 | SBB | | 1 | 1 |
| | SUBTOTAL | 16 | 8 | 8 |

| LOCATION | SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH | SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|---|---|---|
| 53+73'EB, 67'L | 1 | 1 | 1 | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 | 1 | 1 | 1 |

| | SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM- 2 CAMERAS EACH |
|---|---|
| SUBTOTAL | 1 |

| | 658.5070.006 SIGNAL MOUNTING HARDWARE PINE EACH | 661.0201.006 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS PINE EACH | 204.9060.S.005 REMOVING TRAFFIC SIGNALS PINE EACH |
|---|---|---|---|
| SUBTOTAL | 1 | 1 | 1 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. PINE AVE.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| CB1 | TO | PB1 | | 15 | |
| PB1 | TO | SBB | 20 | | |
| PB1 | TO | PB2 | | | 90 |
| PB2 | TO | SBC | | 15 | |
| PB2 | TO | SBCC | 25 | | |
| PB2 | TO | PB3 | | 70 | |
| PB3 | TO | SBD | 5 | | |
| PB3 | TO | PB4 | | | 95 |
| PB4 | TO | SBE | | 5 | |
| PB4 | TO | PB5 | | | 80 |
| PB5 | TO | SBF | 10 | | |
| PB5 | TO | SBGG | 25 | | |
| PB5 | TO | PB6 | | 75 | |
| PB6 | TO | SBG | 10 | | |
| PB6 | TO | PB7 | | | 90 |
| PB7 | TO | SBH | | 15 | |
| PB7 | TO | SBHH | 20 | | |
| PB7 | TO | PB8 | | 85 | |
| PB8 | TO | SBI | 10 | | |
| PB8 | TO | PB9 | | | 80 |
| PB9 | TO | SBJ | | 5 | |
| PB9 | TO | PB10 | | | 65 |
| PB10 | TO | SBA | 20 | | |
| PB10 | TO | PB1 | | 85 | |
| | | SUBTOTAL | 145 | 370 | 500 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB1 | 53+76'EB, 67' L | 1 |
| PB2 | 54+18'EB, 64' L | 1 |
| PB3 | 54+42'EB, 41' L | 1 |
| PB4 | 54+54'EB, 3' R | 1 |
| PB5 | 54+49'EB, 41' R | 1 |
| PB6 | 54+20'EB, 60' R | 1 |
| PB7 | 53+76'EB, 63' R | 1 |
| PB8 | 53+51'EB, 31' R | 1 |
| PB9 | 53+41'EB, 7' L | 1 |
| PB10 | 53+62'EB, 31' L | 1 |
| | SUBTOTAL | 10 |

| SIGNAL BASE NO. | LOCATION | 204.0195 REMOVING CONCRETE BASES EACH |
|---|---|---|
| SBB | 53+73'EB, 50' L | 1 |
| SBC | 54+19'EB, 51' L | 1 |
| SBD | 54+39'EB, 41' L | 1 |
| SBF | 54+42'EB, 40' R | 1 |
| SBG | 54+22'EB, 54' R | 1 |
| SBH | 53+71'EB, 53' R | 1 |
| SBJ | 53+45'EB, 5' L | 1 |
| | SUBTOTAL | 7 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 930 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 205 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 1100 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 285 |
| 655.0305 | CABLE TYPE UF 2-12 AWG GROUNDED | 690 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 875 |
| 655.0900 | TRAFFIC SIGNAL EVP DETECTOR CABLE | 690 |
| SPV.0090.240 | ELECTRICAL CABLE 3 #4/ 1#8 XLP | 65 |

| LOCATION | SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH |
|---|---|
| 54+20'EB, 70' L | 1 |
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. CLEMENT AVE.

| SIGNAL BASE NUMBER | 657.0100 PEDESTAL BASES EACH | 657.0350 POLES TYPE 10 EACH | 657.0352 POLES TYPE 10-SPECIAL EACH | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH | 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH | 657.0525 MONOTUBE ARMS 25-FT EACH | 657.0536 MONOTUBE ARMS 35-FT SPECIAL EACH | SPV.0060.218 EVP 1 DIRECTION DETECTOR EACH | SPV.0060.223 EVP CONFIRMATION LIGHT EACH | SPV.0060.268 VOICE AUDIBLE PUSHBUTTON EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SBA | | | 1 | | | | | 1 | 1 | 1 | |
| SBB | 1 | | | | 1 | | | | | | |
| SBBB | 1 | | | 1 | | | | | | | 2 |
| SBC | | | 1 | | | | | 1 | 1 | 1 | |
| SBCC | 1 | | | 1 | | | | | | | 2 |
| SBD | 1 | | | | 1 | | | | | | |
| SBE | | | 1 | | | | | 1 | 1 | 1 | 1 |
| SBF | 1 | | | | 1 | | | | | | |
| SBFF | 1 | | | | | 1 | | | | | 1 |
| SBG | | 1 | | | | | 1 | | 1 | 1 | |
| SBH | 1 | | | | 1 | | | | | | 2 |
| SUBTOTAL | 7 | 1 | 3 | 2 | 4 | 1 | 1 | 3 | 4 | 4 | 8 |

| SIGNAL BASE NO. | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH | 654.0110 CONCRETE BASES TYPE 10 EACH | 654.0120 CONCRETE BASE TYPE 10 SPECIAL EACH |
|---|---|---|---|---|
| SBA | 67+8'WB, 39' L | | | 1 |
| SBB | 67+12'EB, 61' L | 1 | | |
| SBBB | 67+6'EB, 49' L | 1 | | |
| SBC | 67+72'EB, 59' L | | | 1 |
| SBCC | 67+68'EB, 47' L | 1 | | |
| SBD | 68+14'WB, 41' L | 1 | | |
| SBE | 68+32'EB, 40' R | | | 1 |
| SBF | 68+28'EB, 67' R | 1 | | |
| SBFF | 68+34'EB, 50' R | 1 | | |
| SBG | 67+57'EB, 65' R | | 1 | |
| SBH | 67+27'EB, 42' R | 1 | | |
| | SUBTOTAL | 7 | 1 | 3 |

| LOCATION | SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE EACH | SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED EACH | SPV.0060.212 FIBER OPTIC PATCH PANEL EACH | SPV.0060.213 ETHERNET SWITCH EACH | SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL EACH | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT EACH |
|---|---|---|---|---|---|---|
| 68+38'EB, 57' R | 1 | 1 | 1 | 1 | 1 | 1 |
| SUBTOTAL | 1 | 1 | 1 | 1 | 1 | 1 |

| | 658.5070.007 SIGNAL MOUNTING HARDWARE CLEMENT EACH | 661.0201.007 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS CLEMENT EACH | 204.9060.S.006 REMOVING TRAFFIC SIGNALS CLEMENT EACH |
|---|---|---|---|
| SUBTOTAL | 1 | 1 | 1 |

| SIGNAL HEAD NUMBER | SIGNAL BASE NUMBER | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH EACH |
|---|---|---|---|---|
| 1 | SBF | 1 | | |
| 2 | SBC | 1 | | |
| 3 | SBC | 1 | | |
| 4 | SBB | 1 | | |
| 5 | SBC | 1 | | |
| 6 | SBB | 1 | | |
| 7 | SBF | 1 | | |
| 8 | SBG | 1 | | |
| 9 | SBG | 1 | | |
| 10 | SBH | 1 | | |
| 11 | SBE | 1 | | |
| 12 | SBE | 1 | | |
| 13 | SBD | 1 | | |
| 14 | SBE | 1 | | |
| 15 | SBD | 1 | | |
| 16 | SBA | 1 | | |
| 17 | SBA | 1 | | |
| 18 | SBH | 1 | | |
| 19 | SBA | 1 | | |
| 20 | SBA | | 1 | 1 |
| 21 | SBD | | 1 | 1 |
| 22 | SBC | | 1 | 1 |
| 23 | SBFF | | 1 | 1 |
| 24 | SBE | | 1 | 1 |
| 25 | SBH | | 1 | 1 |
| 26 | SBG | | 1 | 1 |
| 27 | SBB | | 1 | 1 |
| | SUBTOTAL | 19 | 8 | 8 |

CATEGORY 0010

TRAFFIC SIGNALS E. HOWARD AVE. & S. CLEMENT AVE.

| LOC. | TO | LOC. | 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF |
|---|---|---|---|---|---|
| CB1 | TO | PB1 | | 25 | |
| PB1 | TO | SBFF | 5 | | |
| PB1 | TO | PB2 | | 35 | |
| PB2 | TO | SBF | 5 | | |
| PB2 | TO | PB3 | | | 130 |
| PB3 | TO | SBG | | 10 | |
| PB3 | TO | PB4 | | 90 | |
| PB4 | TO | SBH | 5 | | |
| PB4 | TO | PB5 | | | 120 |
| PB5 | TO | PB6 | | | 75 |
| PB6 | TO | SBA | | 5 | |
| PB6 | TO | PB7 | | 60 | |
| PB7 | TO | SBBB | 15 | | |
| PB7 | TO | SBB | 10 | | |
| PB7 | TO | PB8 | | | 95 |
| PB8 | TO | SBC | | 15 | |
| PB8 | TO | SBCC | 20 | | |
| PB8 | TO | PB9 | | 90 | |
| PB9 | TO | SBD | 15 | | |
| PB9 | TO | PB10 | | | 110 |
| PB10 | TO | PB11 | | | 85 |
| PB11 | TO | SBE | | 10 | |
| PB11 | TO | PB1 | | 40 | |
| | | SUBTOTAL | 75 | 380 | 615 |

SUMMARY OF MAJOR ITEMS FOR TRAFFIC SIGNAL CABLING

| | DESCRIPITON | L.F |
|---|---|---|
| 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG | 955 |
| 655.0250 | CABLE TRAFFIC SIGNAL 9-14 AWG | 540 |
| 655.0260 | CABLE TRAFFIC SIGNAL 12-14 AWG | 530 |
| 655.0270 | CABLE TRAFFIC SIGNAL 15-14 AWG | 630 |
| 655.0305 | CABLE TYPE UF 2-12 AWG GROUNDED | 820 |
| 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 780 |
| 655.0900 | TRAFFIC SIGNAL EVP DETECTOR CABLE | 820 |
| SPV.0090.240 | ELECTRICAL CABLE 3 #4/ 1#8 XLP | 165 |

| PULL BOX NO. | LOCATION | SPV.0060.303 PULLBOXES 17-INCHX30-INCHX24-INCH EACH |
|---|---|---|
| PB1 | 68+35'EB, 53' R | 1 |
| PB2 | 68+25'EB, 67' R | 1 |
| PB3 | 67+62'EB, 68' R | 1 |
| PB4 | 67+30'EB, 41' R | 1 |
| PB5 | 67+8'WB, 6' L | 1 |
| PB6 | 67+4'WB, 41' L | 1 |
| PB7 | 67+16'EB, 58' L | 1 |
| PB8 | 67+61'EB, 65' L | 1 |
| PB9 | 68+3'WB, 41' L | 1 |
| PB10 | 68+24'EB, 4' R | 1 |
| PB11 | 68+45'EB, 39' R | 1 |
| | SUBTOTAL | 11 |

| SIGNAL BASE NO. | LOCATION | 204.0195 REMOVING CONCRETE BASES EACH |
|---|---|---|
| SBA | 67+8'WB, 39' L | 1 |
| SBB | 67+12'EB, 61' L | 1 |
| SBD | 68+14'WB, 41' L | 1 |
| SBE | 68+32'EB, 40' R | 1 |
| SBF | 68+28'EB, 67' R | 1 |
| SBG | 67+57'EB, 65' R | 1 |
| SBH | 67+27'EB, 42' R | 1 |
| | SUBTOTAL | 7 |

| LOCATION | SPV.0060.215 ELECTRICAL SERVICE PEDESTAL EACH |
|---|---|
| 69+21'EB, 162' R | 1 |
| SUBTOTAL | 1 |

CATEGORY 0010

TRAFFIC SIGNALS TOTALS

| 204.0195 * REMOVING CONCRETE BASES | 204.9060.S.001 REMOVING TRAFFIC SIGNALS 6TH | 204.9060.S.002 REMOVING TRAFFIC SIGNALS 3RD | 204.9060.S.003 REMOVING TRAFFIC SIGNALS HOWELL | 204.9060.S.004 REMOVING TRAFFIC SIGNALS WHITNALL | 204.9060.S.005 REMOVING TRAFFIC SIGNALS PINE | 204.9060.S.006 REMOVING TRAFFIC SIGNALS CLEMENT | 654.0101 CONCRETE BASES TYPE 1 | 654.0110 CONCRETE BASES TYPE 10 | 654.0120 CONCRETE BASES TYPE 10 SPECIAL | 659.5000.S LAMP, BALLAST LED, SWITCH DISPOSAL BY CONTRACTOR |
|---|---|---|---|---|---|---|---|---|---|---|
| EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH |
| 27 | 1 | 1 | 1 | 1 | 1 | 1 | 34 | 10 | 5 | 72 |

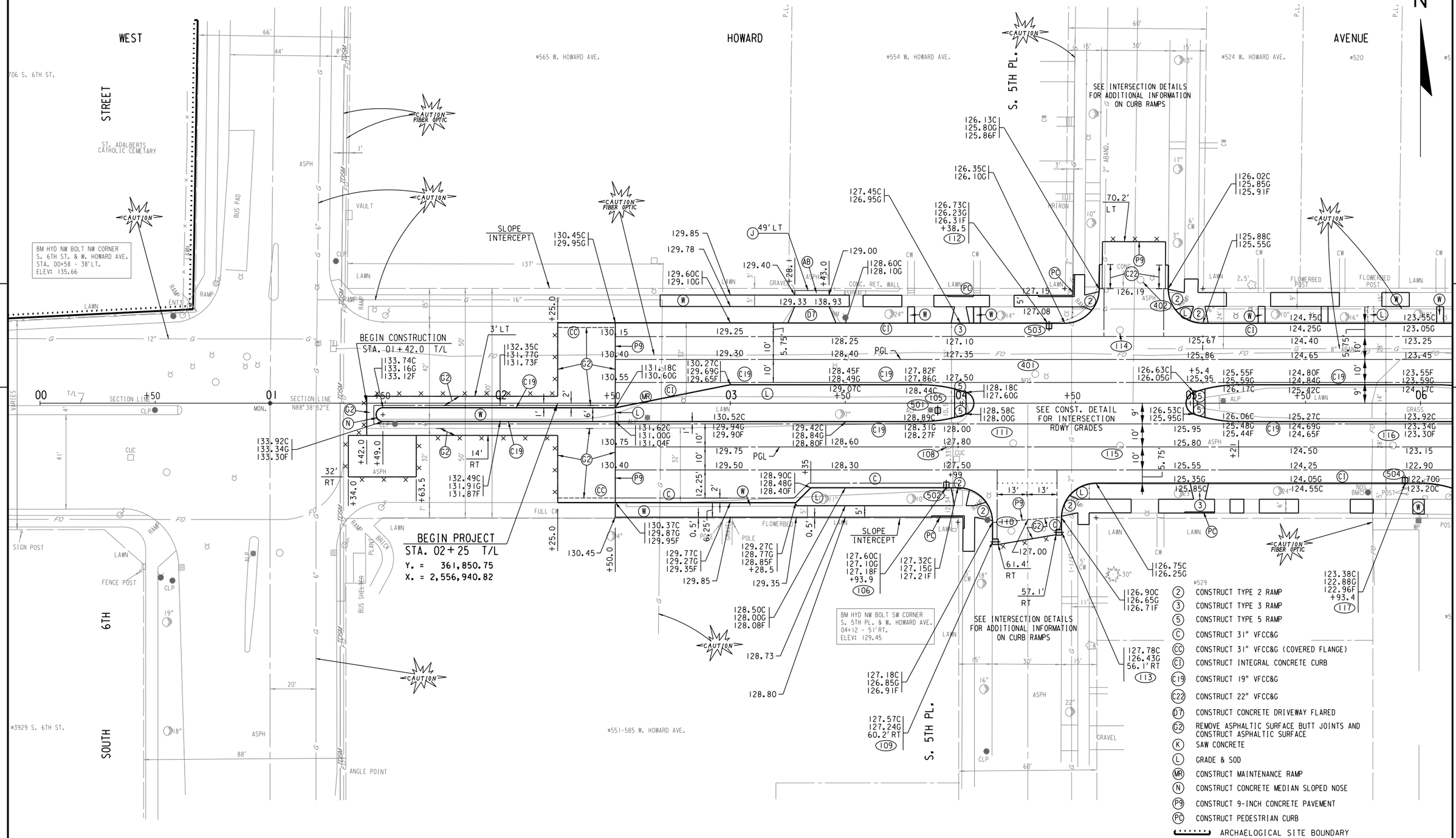
| 657.0100 PEDESTAL BASES | 657.0350 POLES TYPE 10 | 657.0352 POLES TYPE 10 SPECIAL | 657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT | 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT | 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT | 657.0515 MONOTUBE ARMS 15-FT | 657.0525 MONOTUBE ARMS 25-FT | 657.0530 MONOTUBE ARMS 30-FT | 657.0536 MONOTUBE ARMS 35-FT SPECIAL | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH | 658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH | 658.0412 PEDESTRIAN SIGNAL FACE 12-INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH |
| 34 | 10 | 5 | 11 | 15 | 6 | 2 | 4 | 5 | 1 | 5 | 71 | 12 | 4 | 33 |

| 658.5070.001 SIGNAL MOUNTING HARDWARE 6TH | 658.5070.002 SIGNAL MOUNTING HARDWARE 5TH | 658.5070.003 SIGNAL MOUNTING HARDWARE 3RD | 658.5070.004 SIGNAL MOUNTING HARDWARE HOWELL | 658.5070.005 SIGNAL MOUNTING HARDWARE WHITNALL | 658.5070.006 SIGNAL MOUNTING HARDWARE PINE | 658.5070.007 SIGNAL MOUNTING HARDWARE CLEMENT | 661.0201.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 6TH | 661.0201.002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 5TH | 661.0201.003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS 3RD | 661.0201.004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS HOWELL | 661.0201.005 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS WHITNALL | 661.0201.006 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS PINE | 661.0201.007 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS CLEMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| SPV.0060.201 INSTALL CITY PRECAST CONTROLLER BASE | SPV.0060.205 ATC CONTROLLER AND CABINET INSTALLED | SPV.0060.212 FIBER OPTIC PATCH PANEL | SPV.0060.213 ETHERNET SWITCH | SPV.0060.215 ELECTRICAL SERVICE PEDESTAL | SPV.0060.218 EVP 1 DIRECTION DETECTOR | SPV.0060.221 EVP PHASE SELECTOR CARD 4 CHANNEL | SPV.0060.223 EVP CONFIRMATION LIGHT | SPV.0060.225 VEHICULAR VIDEO DETECTION SYSTEM- 2 CAMERAS | SPV.0060.227 VEHICULAR VIDEO DETECTION SYSTEM - 4 CAMERAS | SPV.0060.228 ELECTRICAL RISER | SPV.0060.267 PEDESTRIAN COUNTDOWN SIGNAL FACE 12-INCH | SPV.0060.268 VOICE INSTRUCTION AUDIBLE PUSHBUTTON | SPV.0060.269 VOICE INSTRUCTION AUDIBLE CONTROL UNIT | SPV.0060.292 24"x24" BLANKOUT SIGN NO TURN ON RED | SPV.0060.303 * PULLBOXES 17-INCHX30-INCHX24-INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH | EACH |
| 4 | 4 | 7 | 7 | 4 | 16 | 4 | 16 | 3 | 1 | 3 | 33 | 45 | 6 | 1 | 63 |

| 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH | 652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH | 652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH | 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG | 655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG | 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG | 655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG | 655.0305 * CABLE TYPE UF 2-12 AWG GROUNDED | 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG | 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE | SPV.0090.240 ELECTRICAL CABLE 3 #4/1#8 XLP |
|---|---|---|---|---|---|---|---|---|---|---|
| LF | LF | LF | LF | LF | LF | LF | LF | LF | LF | LF |
| 635 | 2345 | 3375 | 5450 | 3520 | 4145 | 3790 | 3715 | 5360 | 3715 | 730 |

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

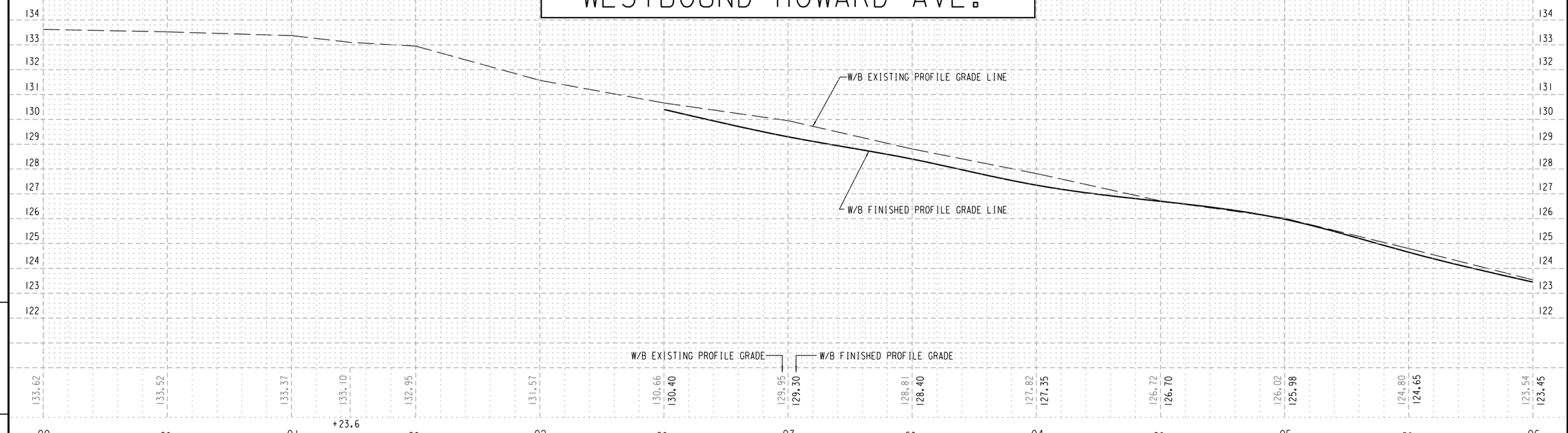



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 468 | E |
|---|---|---|---|---|---|---|

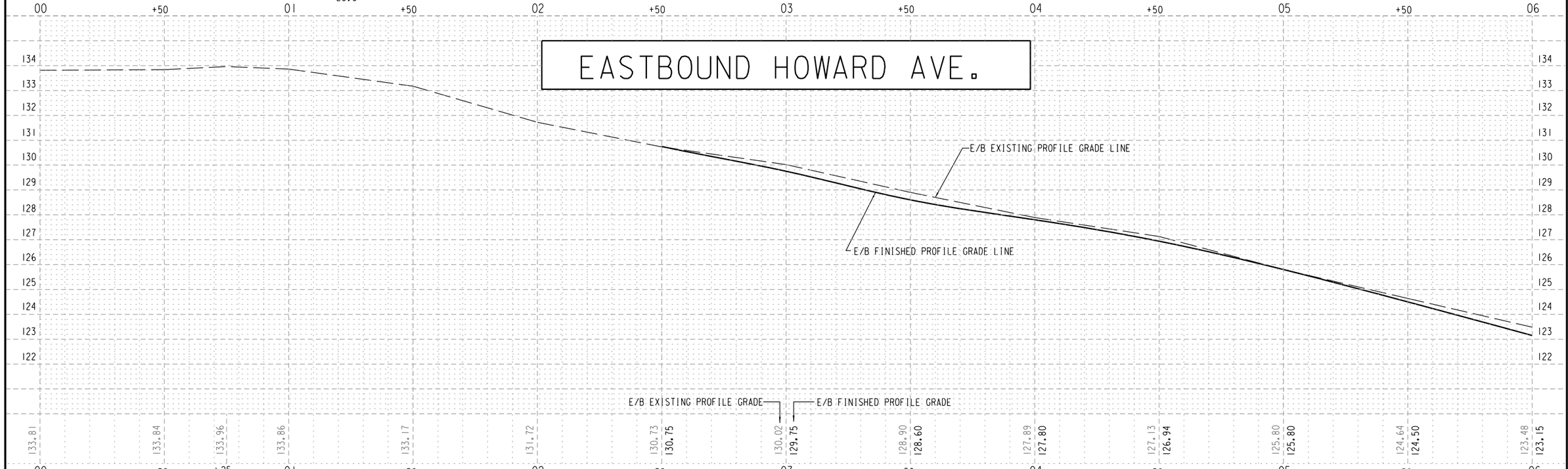
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



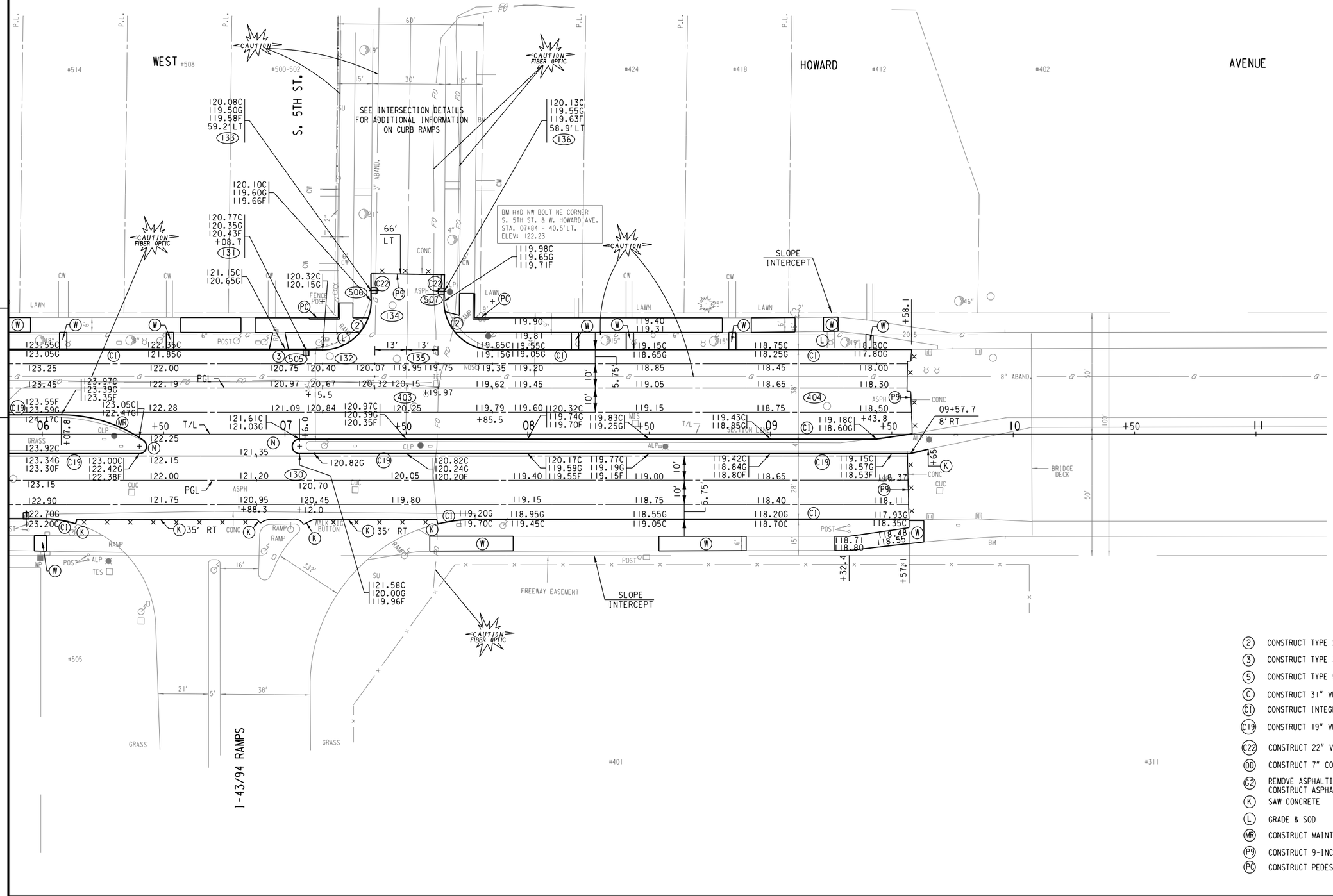

# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 469 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\00-06.DGN

REVISED DATE: 08-12-2022 BY SDB



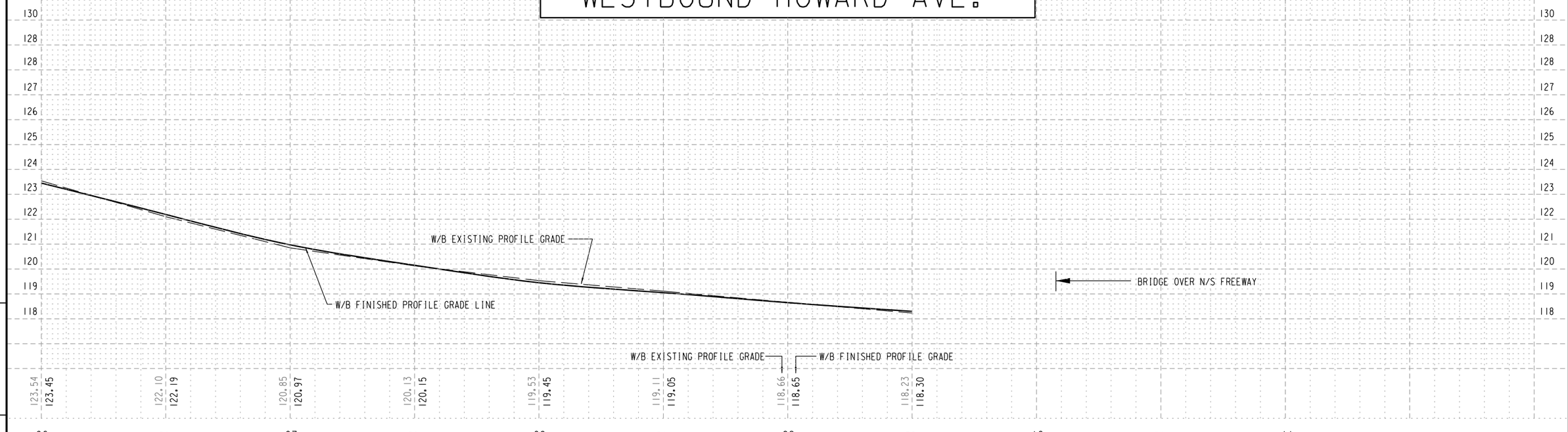

(2) CONSTRUCT TYPE 2 RAMP
(3) CONSTRUCT TYPE 3 RAMP
(5) CONSTRUCT TYPE 5 RAMP
(C) CONSTRUCT 31" VFCC&G
(CI) CONSTRUCT INTEGRAL CONCRETE CURB
(C19) CONSTRUCT 19" VFCC&G
(C22) CONSTRUCT 22" VFCC&G
(DD) CONSTRUCT 7" CONCRETE DEPRESSED DRIVEWAY
(G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE
(K) SAW CONCRETE
(L) GRADE & SOD
(MR) CONSTRUCT MAINTENANCE RAMP
(P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT
(PC) CONSTRUCT PEDESTRIAN CURB

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 470 | E |
|---|---|---|---|---|---|---|

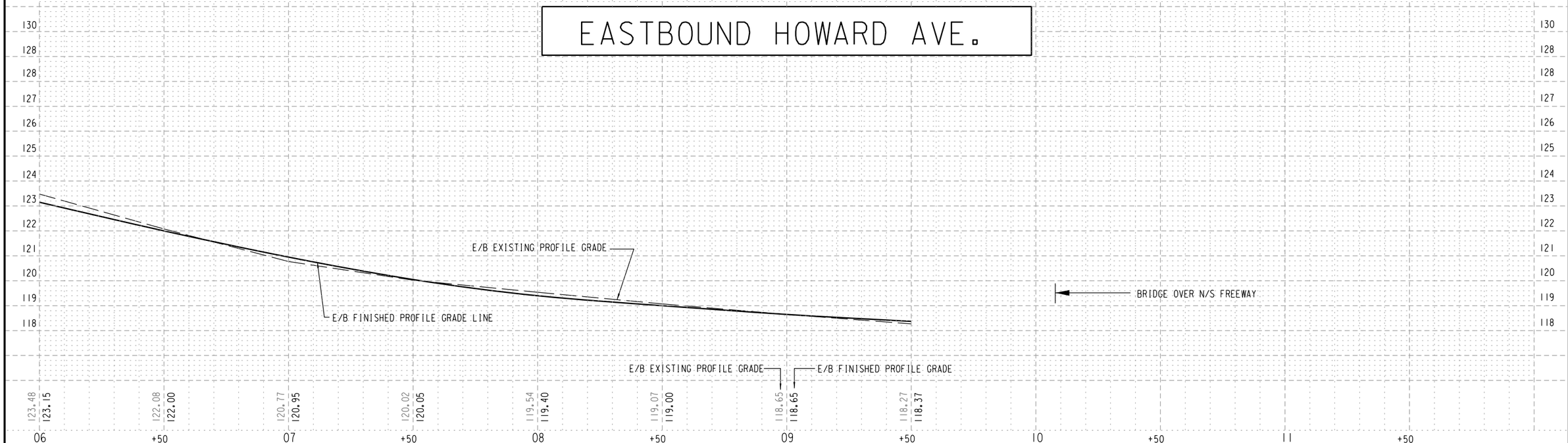
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



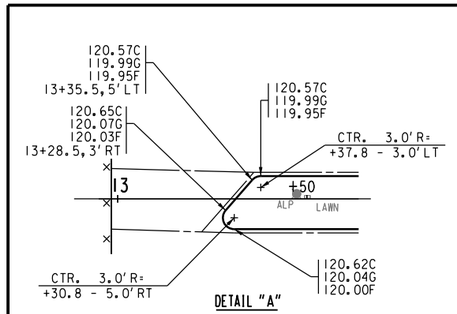

# EASTBOUND HOWARD AVE.

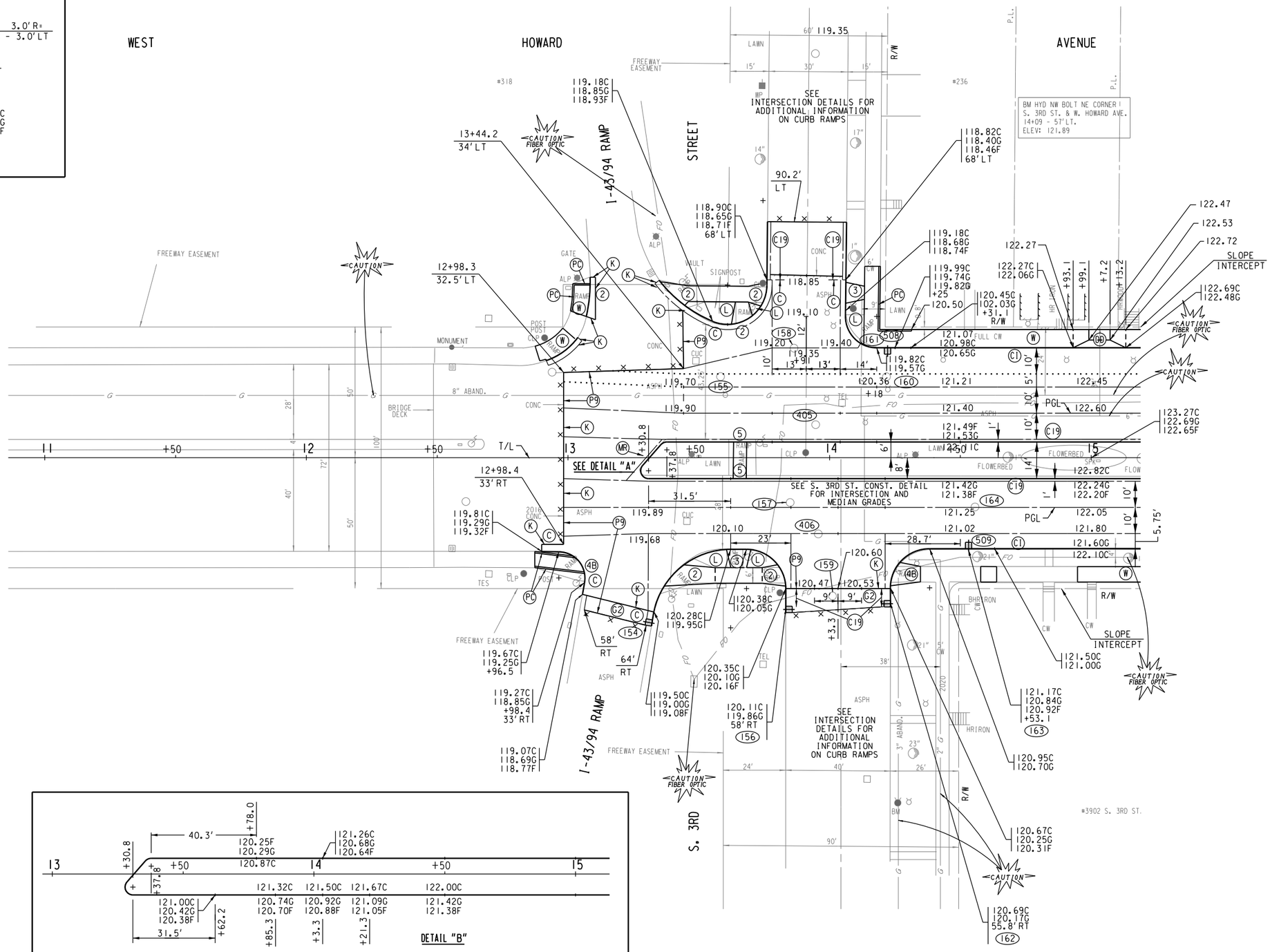



| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 471 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\06-11.DGN

REVISED DATE: 03-28-2022 BY SDB




| | |
|---|---|
| (2) | CONSTRUCT TYPE 2 RAMP |
| (3) | CONSTRUCT TYPE 3 RAMP |
| (4B) | CONSTRUCT TYPE 4B RAMP |
| (5) | CONSTRUCT TYPE 5 RAMP |
| (C) | CONSTRUCT 31" VFCC&G |
| (CI) | CONSTRUCT INTEGRAL CONCRETE CURB |
| (C19) | CONSTRUCT 19" VFCC&G |
| (DD) | CONSTRUCT 7" CONCRETE DEPRESSED DRIVEWAY |
| (G2) | REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE |
| (K) | SAW CONCRETE |
| (L) | GRADE & SOD |
| (MR) | CONSTRUCT MAINTENANCE RAMP |
| (P9) | CONSTRUCT 9-INCH CONCRETE PAVEMENT |
| (PC) | CONSTRUCT PEDESTRIAN CURB |
| (W) | CONSTRUCT 5" CONCRETE WALK |

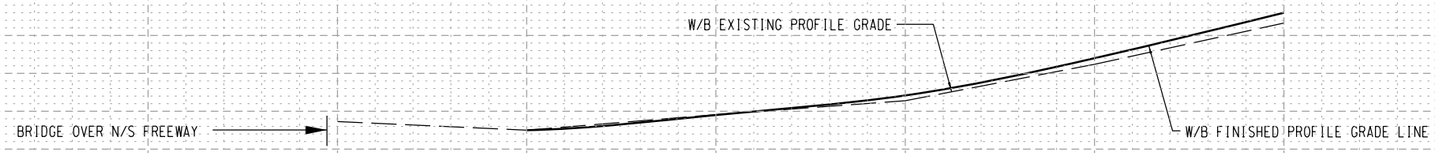



| | | | | | |
|---|---|---|---|---|---|
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 472 E |

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\11-15.DGN

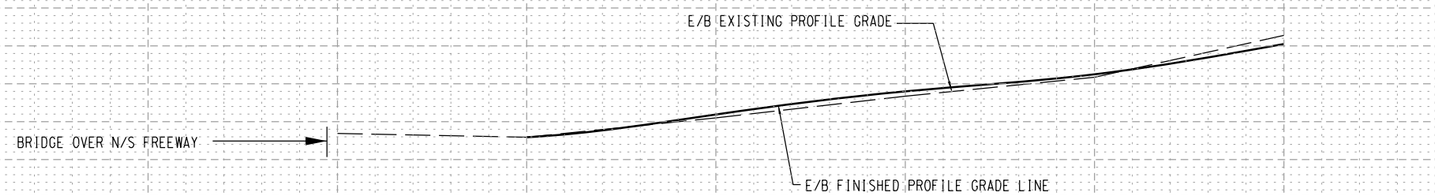
REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




| | 12 | +50 | 13 | +50 | 14 | +50 | 15 |
|---|---|---|---|---|---|---|---|
| W/B EXISTING PROFILE GRADE | | 119.73 | 119.50 | 119.91 | 120.28 | 121.24 | 122.33 |
| W/B FINISHED PROFILE GRADE | | | 119.50 | 119.90 | 120.42 | 121.40 | 122.60 |

# EASTBOUND HOWARD AVE.

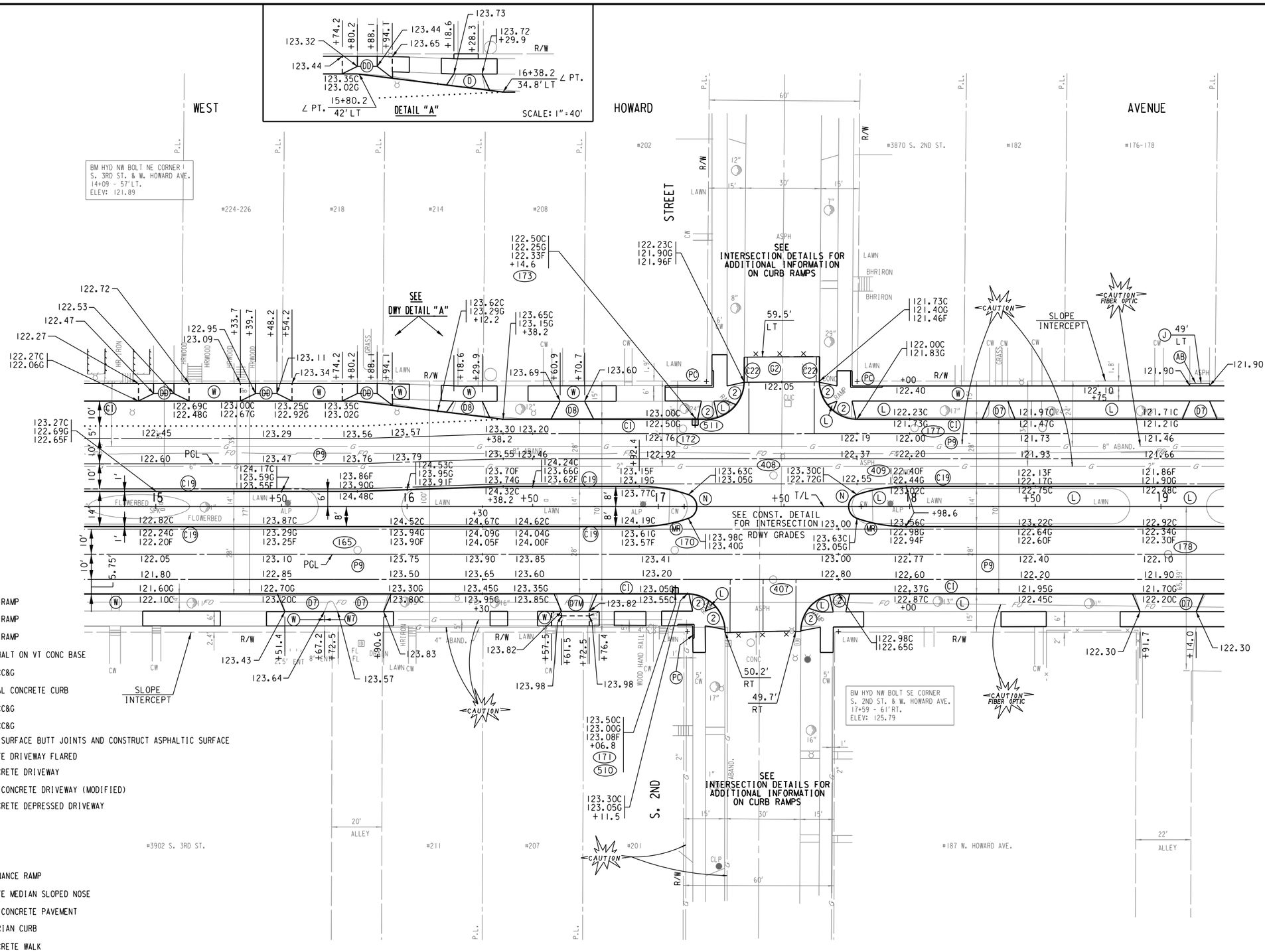



| | 12 | +50 | 13 | +50 | 14 | +50 | 15 | +50 |
|---|---|---|---|---|---|---|---|---|
| E/B EXISTING PROFILE GRADE | | 119.69 | 119.59 | 120.10 | 120.67 | 121.17 | 122.28 | |
| E/B FINISHED PROFILE GRADE | | | 119.59 | 120.19 | 120.80 | 121.25 | 122.05 | |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 473 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\11-15.DGN

REVISED DATE: 03-28-2022 BY SDB



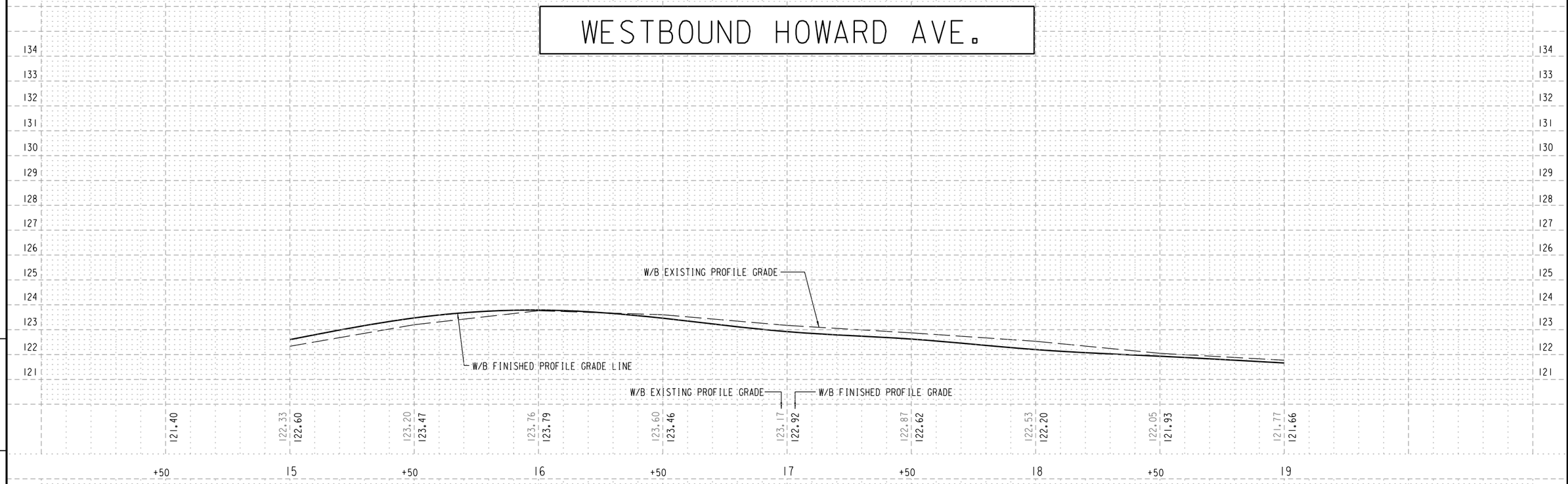

(2) CONSTRUCT TYPE 2 RAMP
(3) CONSTRUCT TYPE 3 RAMP
(5) CONSTRUCT TYPE 5 RAMP
(AB) CONSTRUCT 2" ASPHALT ON VT CONC BASE
(C) CONSTRUCT 31" VFCC&G
(C1) CONSTRUCT INTEGRAL CONCRETE CURB
(C19) CONSTRUCT 19" VFCC&G
(C22) CONSTRUCT 22" VFCC&G
(G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE
(D8) CONSTRUCT CONCRETE DRIVEWAY FLARED
(D7) CONSTRUCT 7" CONCRETE DRIVEWAY
(D7M) CONSTRUCT FLARED CONCRETE DRIVEWAY (MODIFIED)
(DD) CONSTRUCT 7" CONCRETE DEPRESSED DRIVEWAY
(J) SAW ASPHALT
(K) SAW CONCRETE
(L) GRADE & SOD
(MR) CONSTRUCT MAINTENANCE RAMP
(N) CONSTRUCT CONCRETE MEDIAN SLOPED NOSE
(P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT
(PC) CONSTRUCT PEDESTRIAN CURB
(W) CONSTRUCT 5" CONCRETE WALK
(W7) CONSTRUCT 7" CONCRETE WALK

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 474 | E |
|---|---|---|---|---|---|---|

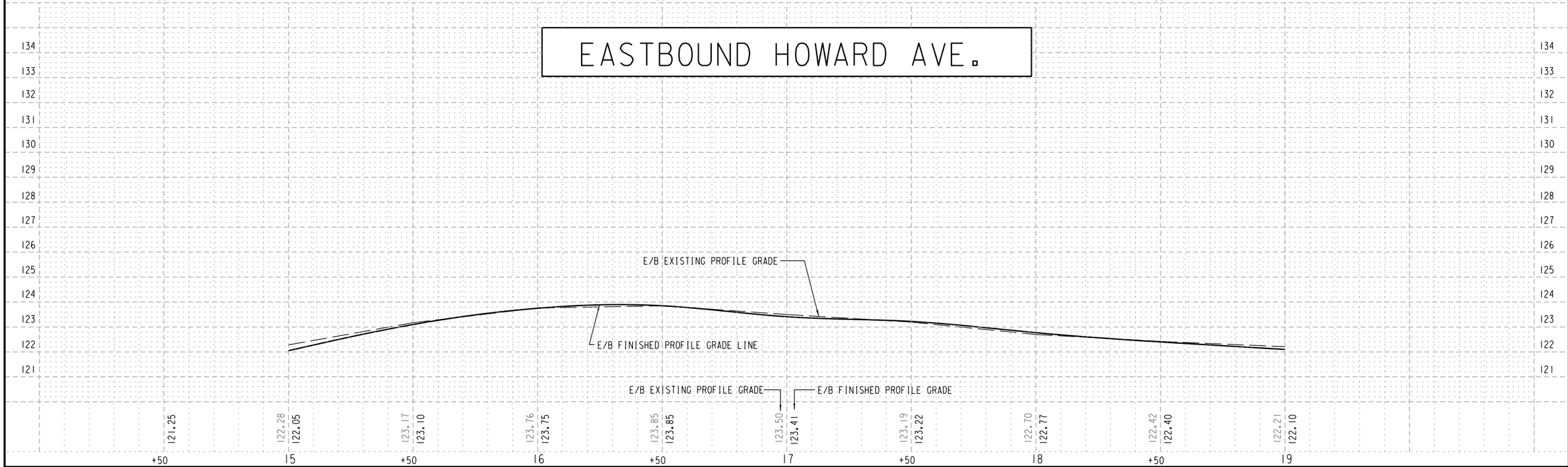
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\15-19.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 475 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\15-19.DGN

REVISED DATE: - - BY

N

WEST

HOWARD

AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR INTERSECTION RDWY GRADES

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SLOPE INTERCEPT

SLOPE INTERCEPT

CAUTION

CAUTION FIBER OPTIC

S. IST ST.

S. IST PL.

S. IST ST.

#142 W. HOWARD AVE.

#3905 S. IST PL.

#3912 S. IST PL.

#153 W. HOWARD AVE.

#3901-03 S. IST ST.

#3902 S. IST ST.

BM HYD NW BOLT SE CORNER S. IST ST. & W. HOWARD AVE. 24+03 - 50'RT. ELEV: 122.66

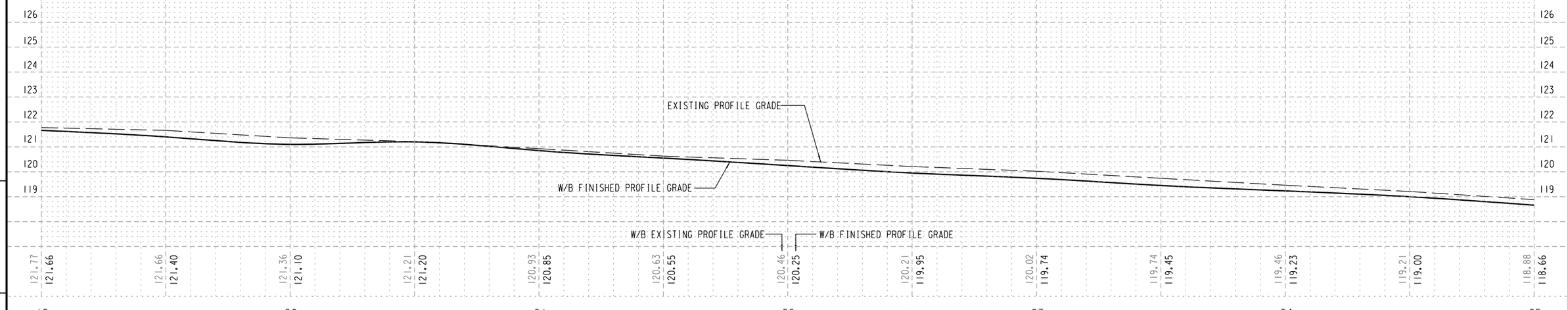
(2) CONSTRUCT TYPE 2 RAMP
(3) CONSTRUCT TYPE 3 RAMP
(5) CONSTRUCT TYPE 5 RAMP
(AB) CONSTRUCT 2" ASPHALT ON VT CONC BASE
(C) CONSTRUCT 31" VFCC&G
(CI) CONSTRUCT INTEGRAL CONCRETE CURB
(C19) CONSTRUCT 19" VFCC&G
(C22) CONSTRUCT 22" VFCC&G
(CM) CONSTRUCT CORRUGATED MEDIAN
(D) CONSTRUCT CONCRETE DRIVEWAY ???
(D7) CONSTRUCT 7" CONCRETE DRIVEWAY FLARED
(D7M) CONSTRUCT FLARED CONCRETE DRIVEWAY (MODIFIED)
(DD) CONSTRUCT 7" CONCRETE DEPRESSED DRIVEWAY
(G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE
(J) SAW ASPHALT
(K) SAW CONCRETE
(L) GRADE & SOD
(MR) CONSTRUCT MAINTENANCE RAMP
(PC) CONSTRUCT PEDESTRIAN CURB
(W) CONSTRUCT 5" CONCRETE WALK
(P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT
(PC) CONSTRUCT PEDESTRIAN CURB
(W) CONSTRUCT 5" CONCRETE WALK

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 476 | E |
|---|---|---|---|---|---|---|

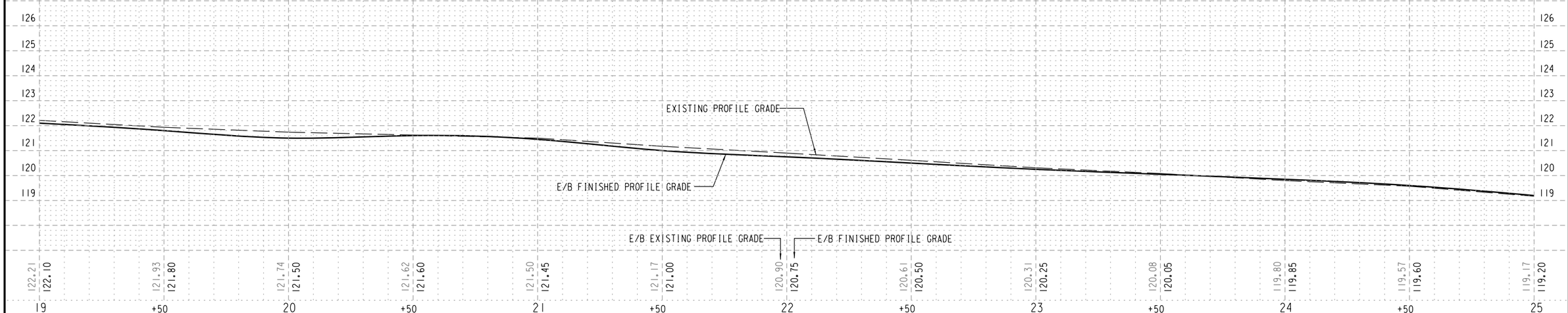
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\19-25.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



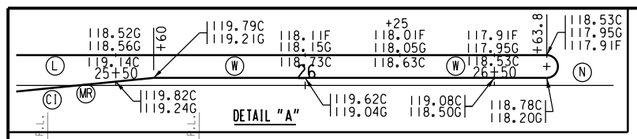

# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 477 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\19-25.DGN

REVISED DATE: 03-25-2022 BY SDB




WEST HOWARD AVENUE

EAST HOWARD AVENUE

#116

#108 W. HOWARD AVE.
HOMETOWN GAS STATION

#3870 S. HOWELL AVE.

#3870 S. AUSTIN ST.

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE DETAIL "A"

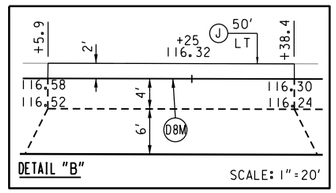
SEE DETAIL "B"

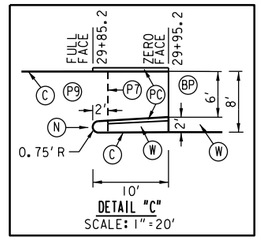
SEE DETAIL "C"

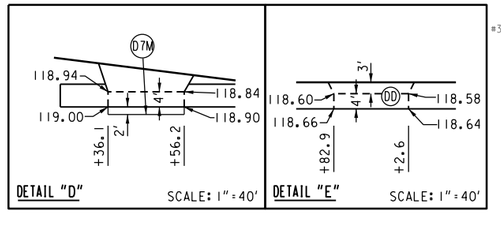
SEE DETAIL "D"

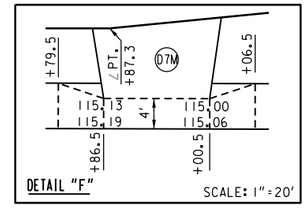
SEE DETAIL "E"

SEE DETAIL "F"




BM HYD NW BOLT SE CORNER
S. HOWELL AVE. & E. HOWARD AVE.
28+01 - 40.5' RT.
ELEV: 120.48

#3915 S. HOWELL AVE.

#3912 S. HOWELL AVE.

#111

#203-213

S. HOWELL

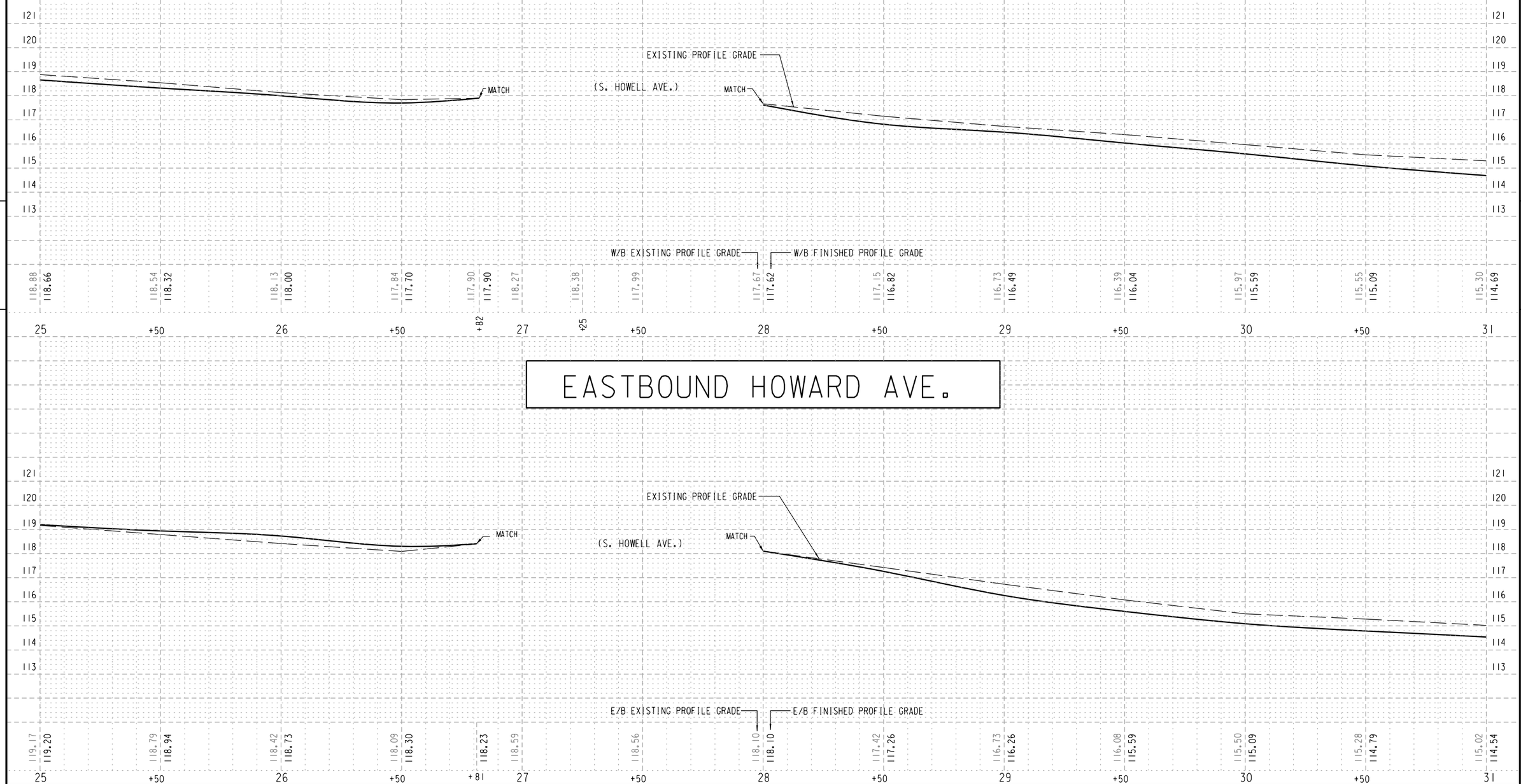
- (1A) CONSTRUCT TYPE 1A RAMP
- (2) CONSTRUCT TYPE 2 RAMP
- (AB) CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE
- (BP) CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE
- (C) CONSTRUCT 31" VFCC&G
- (C1) CONSTRUCT INTEGRAL CONCRETE CURB
- (DD) DEPRESSED CONCRETE DRIVEWAY (MODIFIED)
- (D7) CONSTRUCT 7" CONCRETE DRIVEWAY FLARED
- (D7M) CONSTRUCT FLARED CONCRETE DRIVEWAY (MODIFIED)
- (D8) CONSTRUCT 8" CONCRETE DRIVEWAY FLARED
- (D8M) CONSTRUCT FLARED CONCRETE DRIVEWAY (MODIFIED)
- (J) SAW ASPHALT
- (K) SAW CONCRETE
- (L) GRADE & SOD
- (M) MATCH PROPOSED TO EXISTING
- (MR) CONSTRUCT MAINTENANCE RAMP
- (N) CONSTRUCT CONCRETE MEDIAN SLOPED NOSE
- (P7) CONSTRUCT 7-INCH CONCRETE PAVEMENT
- (P8) CONSTRUCT 8-INCH CONCRETE PAVEMENT
- (P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT
- (PC) CONSTRUCT PEDESTRIAN CURB
- (W) CONSTRUCT 5" CONCRETE WALK

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 478 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\25-31.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.

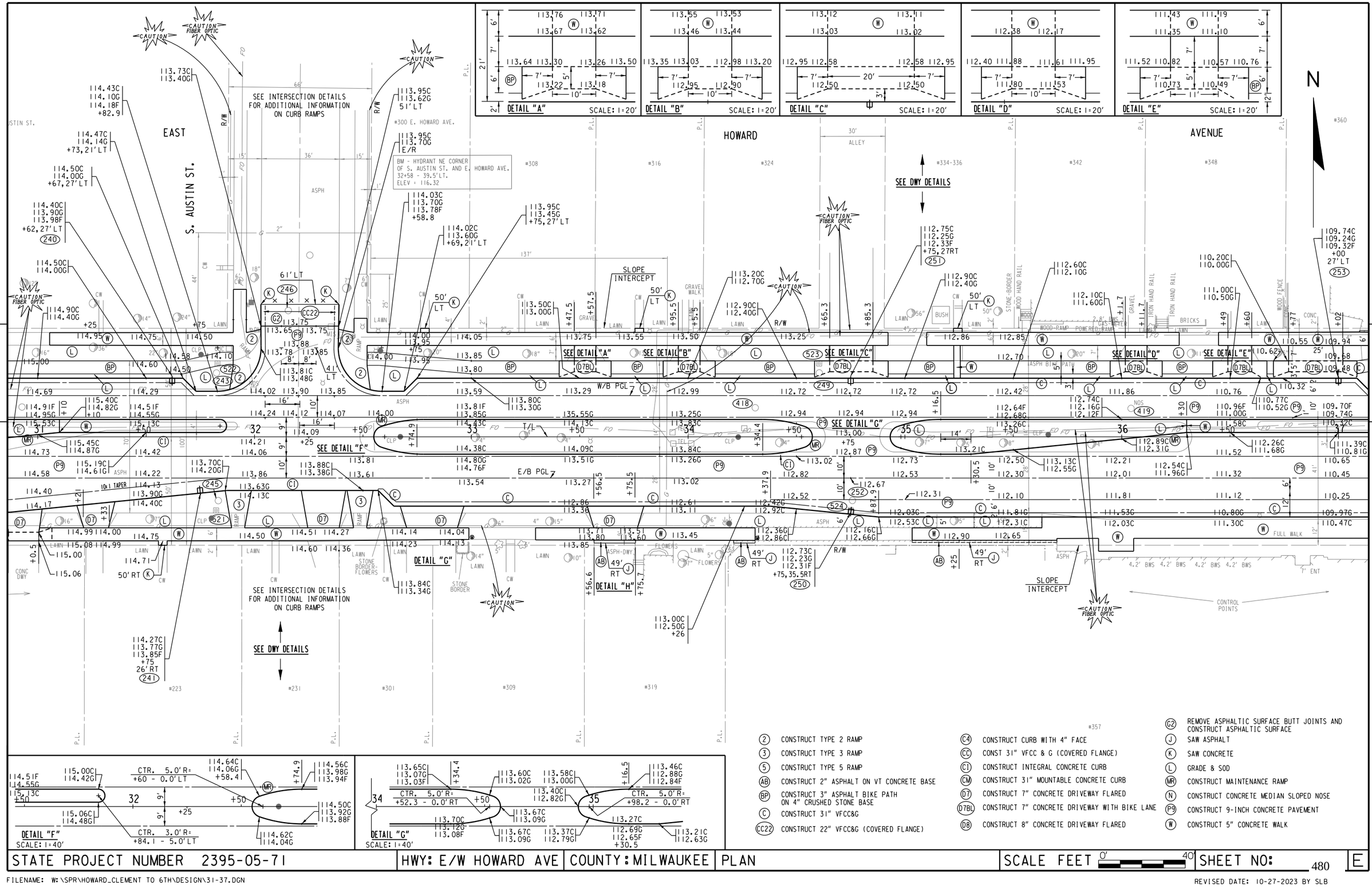



# EASTBOUND HOWARD AVE.

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 479 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\25-31.DGN

REVISED DATE: 04-25-2023 BY SDB




DETAIL "F"
SCALE: 1=40'



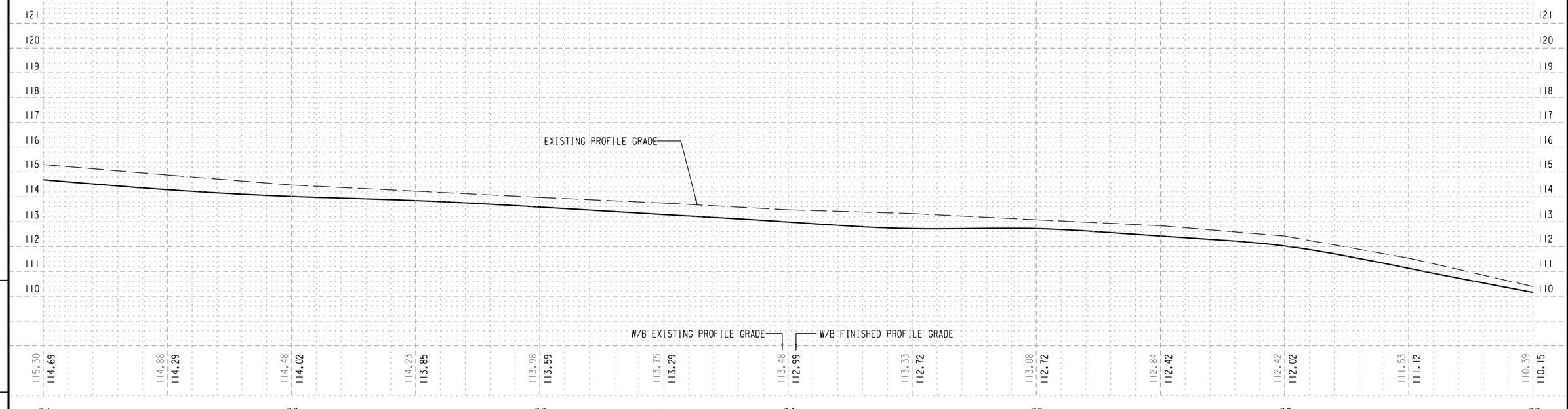

| | |
|---|---|
| (2) | CONSTRUCT TYPE 2 RAMP |
| (3) | CONSTRUCT TYPE 3 RAMP |
| (5) | CONSTRUCT TYPE 5 RAMP |
| (AB) | CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE |
| (BP) | CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE |
| (C) | CONSTRUCT 31" VFCC&G |
| (CC22) | CONSTRUCT 22" VFCC&G (COVERED FLANGE) |
| (C4) | CONSTRUCT CURB WITH 4" FACE |
| (CC) | CONST 31" VFCC & G (COVERED FLANGE) |
| (CI) | CONSTRUCT INTEGRAL CONCRETE CURB |
| (CM) | CONSTRUCT 31" MOUNTABLE CONCRETE CURB |
| (D7) | CONSTRUCT 7" CONCRETE DRIVEWAY FLARED |
| (D7BL) | CONSTRUCT 7" CONCRETE DRIVEWAY WITH BIKE LANE |
| (D8) | CONSTRUCT 8" CONCRETE DRIVEWAY FLARED |
| (G2) | REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE |
| (J) | SAW ASPHALT |
| (K) | SAW CONCRETE |
| (L) | GRADE & SOD |
| (MR) | CONSTRUCT MAINTENANCE RAMP |
| (N) | CONSTRUCT CONCRETE MEDIAN SLOPED NOSE |
| (P9) | CONSTRUCT 9-INCH CONCRETE PAVEMENT |
| (W) | CONSTRUCT 5" CONCRETE WALK |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 480 | E |
|---|---|---|---|---|---|---|

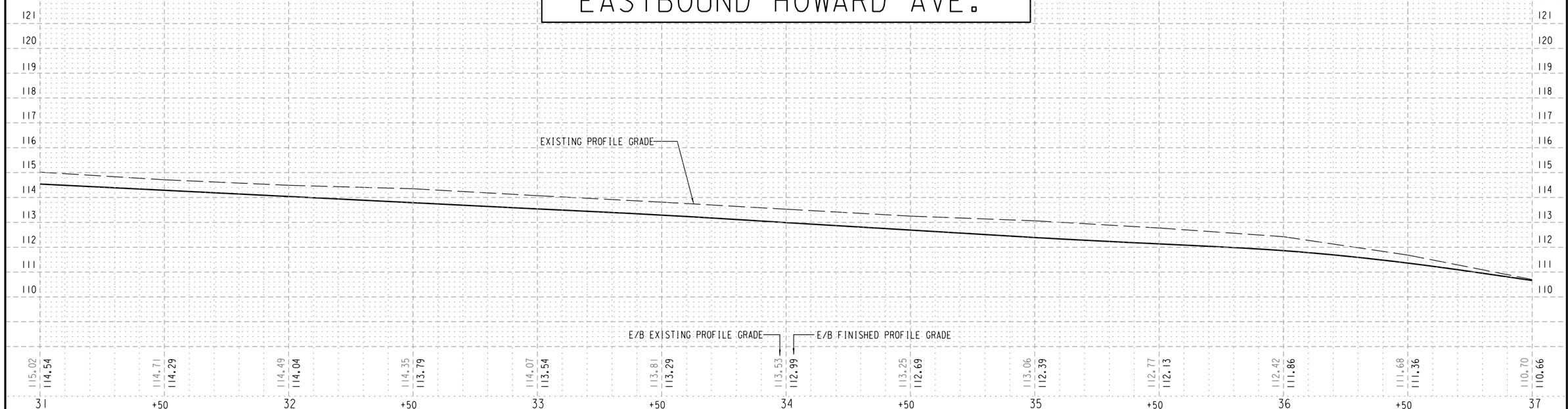
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\31-37.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



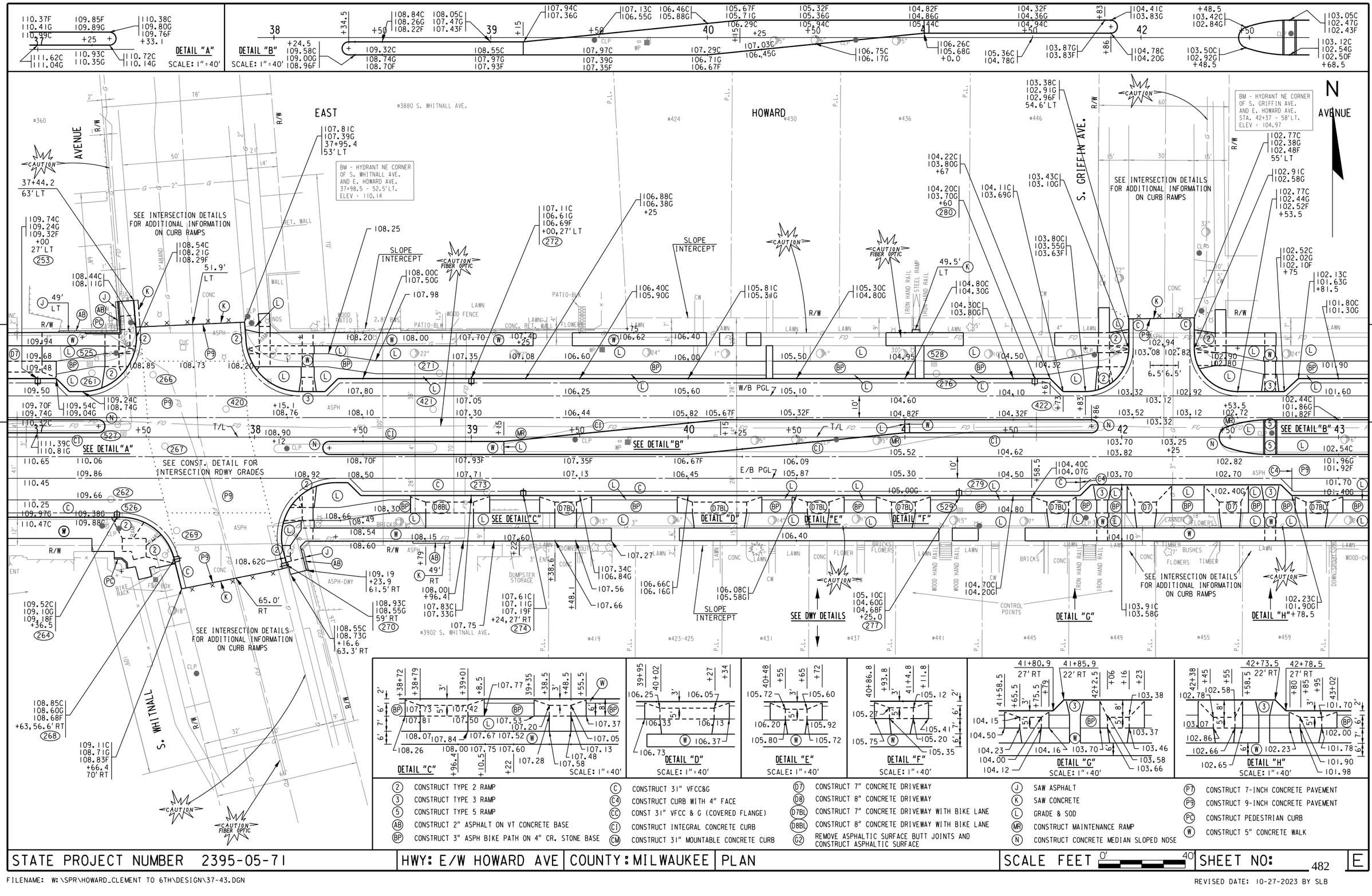

# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 481 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\31-37.DGN

REVISED DATE: 03-29-2022 BY SDB



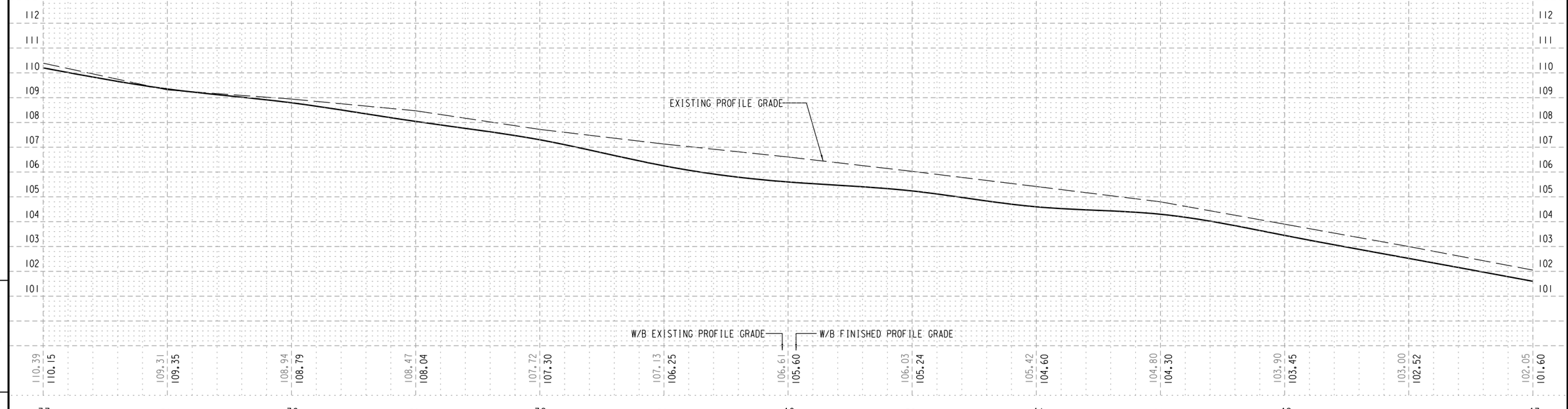

| | |
|---|---|
| (2) | CONSTRUCT TYPE 2 RAMP |
| (3) | CONSTRUCT TYPE 3 RAMP |
| (5) | CONSTRUCT TYPE 5 RAMP |
| (AB) | CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE |
| (BP) | CONSTRUCT 3" ASPH BIKE PATH ON 4" CR. STONE BASE |
| (C) | CONSTRUCT 31" VFCC&G |
| (C4) | CONSTRUCT CURB WITH 4" FACE |
| (CC) | CONST 31" VFCC & G (COVERED FLANGE) |
| (CI) | CONSTRUCT INTEGRAL CONCRETE CURB |
| (CM) | CONSTRUCT 31" MOUNTABLE CONCRETE CURB |
| (D7) | CONSTRUCT 7" CONCRETE DRIVEWAY |
| (D8) | CONSTRUCT 8" CONCRETE DRIVEWAY |
| (D7BL) | CONSTRUCT 7" CONCRETE DRIVEWAY WITH BIKE LANE |
| (D8BL) | CONSTRUCT 8" CONCRETE DRIVEWAY WITH BIKE LANE |
| (G2) | REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE |
| (J) | SAW ASPHALT |
| (K) | SAW CONCRETE |
| (L) | GRADE & SOD |
| (MR) | CONSTRUCT MAINTENANCE RAMP |
| (N) | CONSTRUCT CONCRETE MEDIAN SLOPED NOSE |
| (P7) | CONSTRUCT 7-INCH CONCRETE PAVEMENT |
| (P9) | CONSTRUCT 9-INCH CONCRETE PAVEMENT |
| (PC) | CONSTRUCT PEDESTRIAN CURB |
| (W) | CONSTRUCT 5" CONCRETE WALK |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 482 | E |
|---|---|---|---|---|---|---|

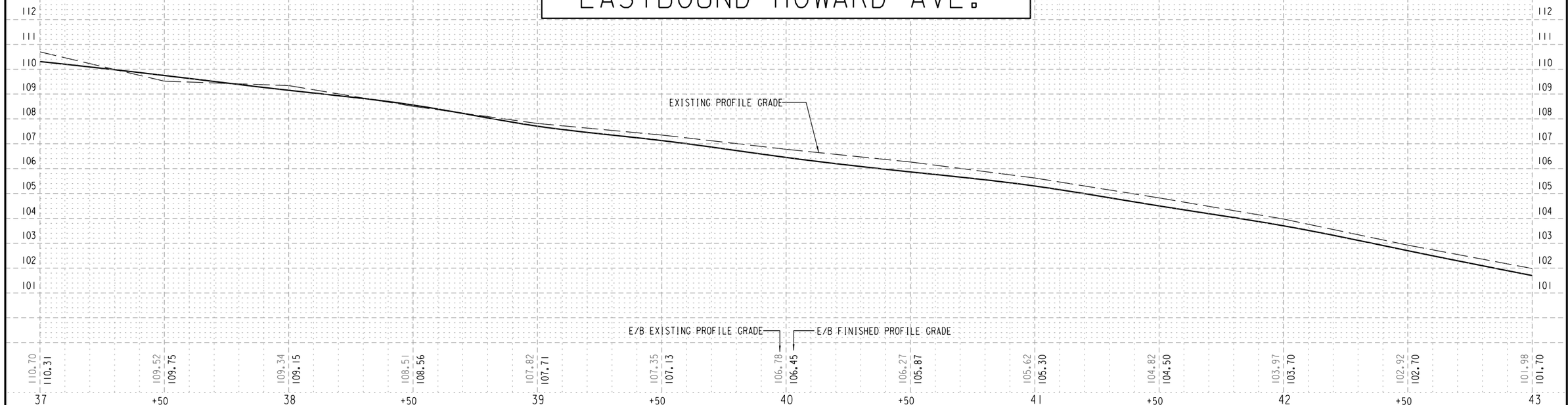
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\37-43.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 483 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\37-43.DGN

REVISED DATE: 05-05-2022 BY SDB

EAST HOWARD AVENUE

N

#3884 S. GRIFFIN AVE.

WOODLAWN CEMETARY #614

BM - HYDRANT NE CORNER OF S. GRIFFIN AVE. AND E. HOWARD AVE. STA. 42+37 - 58'LT. ELEV = 104.97

SLOPE INTERCEPT

SEE DWY DETAILS

SEE DETAIL "A"

SEE DETAIL "B"

SEE DETAIL "C"

SEE DETAIL "D"

SEE DETAIL "E"

SEE DETAIL "F"

SEE DETAIL "G"

CAUTION

#473-475 #467 #501-503 #502 E. HOWARD AVE. #507 #515 #521 #529 #535 #545 #603 #611

W/B PGL

E/B PGL

T/L

R/W

DETAIL "A" SCALE: 1"=20'

DETAIL "B" SCALE: 1"=20'

DETAIL "C" SCALE: 1"=20'

DETAIL "D" SCALE: 1"=20'

DETAIL "E" SCALE: 1"=20'

DETAIL "F" SCALE: 1"=20'

DETAIL "G" SCALE: 1"=20'

(AB) CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE

(BP) CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE

(C) CONSTRUCT 31" VFCC&G

(CC) CONST 31" VFCC & G (COVERED FLANGE)

(CI) CONSTRUCT INTEGRAL CONCRETE CURB

(D7BL) CONSTRUCT 7" CONCRETE DRIVEWAY WITH BIKE LANE

(D8BL) CONSTRUCT 8" CONCRETE DRIVEWAY WITH BIKE LANE

(G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE

(J) SAW ASPHALT

(K) SAW CONCRETE

(L) GRADE & SOD

(MR) CONSTRUCT MAINTENANCE RAMP

(N) CONSTRUCT CONCRETE MEDIAN SLOPED NOSE

(P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT

(W) CONSTRUCT 5" CONCRETE WALK

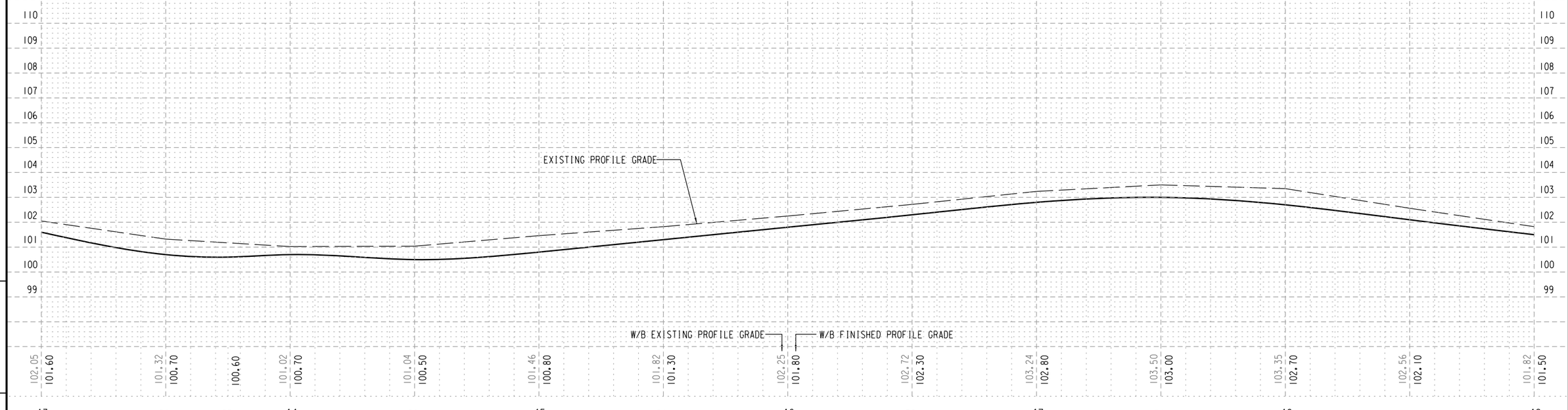
ARCHAELOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 484 | E |
|---|---|---|---|---|---|---|

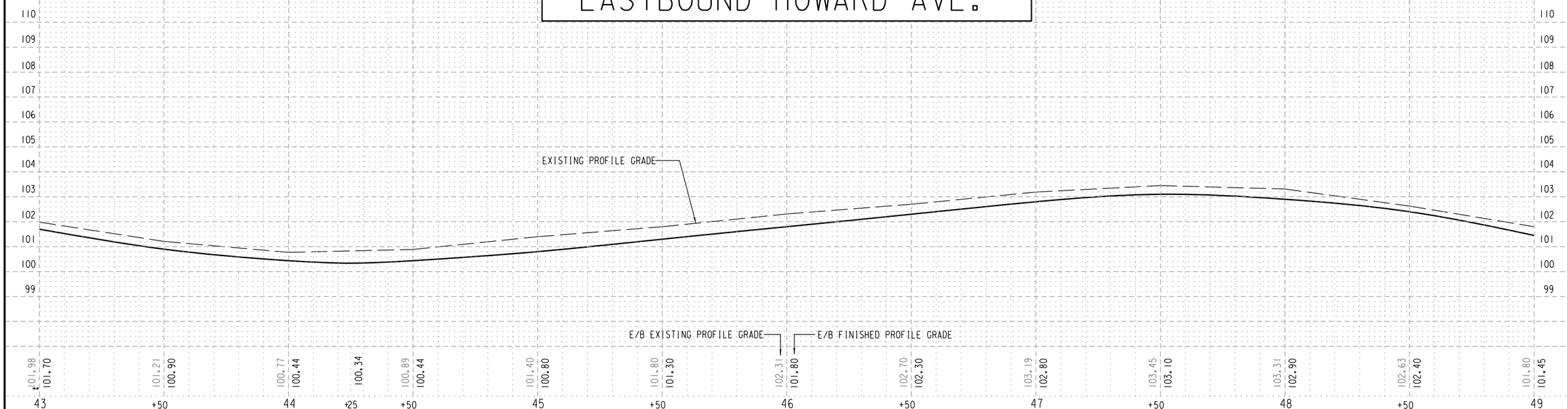
FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\43-49.DGN

REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



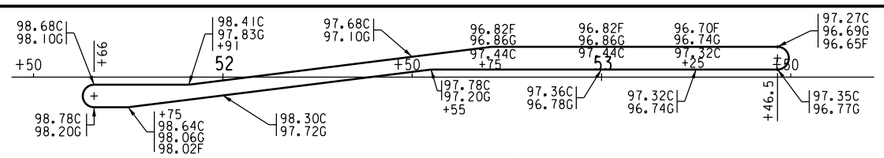

# EASTBOUND HOWARD AVE.



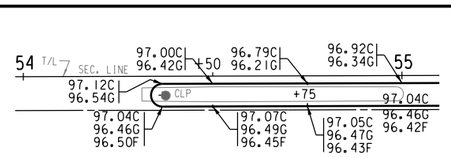

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 485 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\43-49.DGN

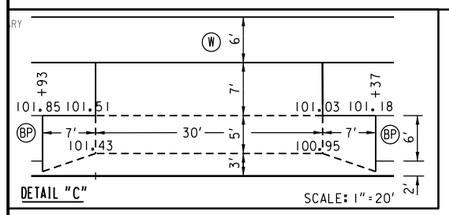
REVISED DATE: 05-04-2022 BY SDB



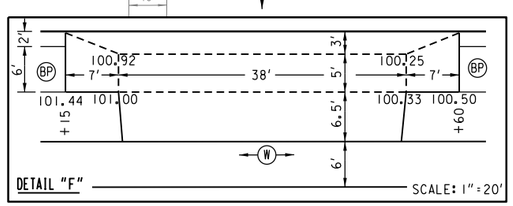

DETAIL "A" SCALE: 1"=40'



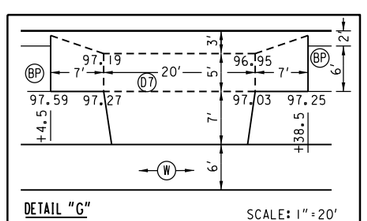

DETAIL "B" SCALE: 1"=40'




DETAIL "C" SCALE: 1"=20'




DETAIL "F" SCALE: 1"=20'




DETAIL "G" SCALE: 1"=20'

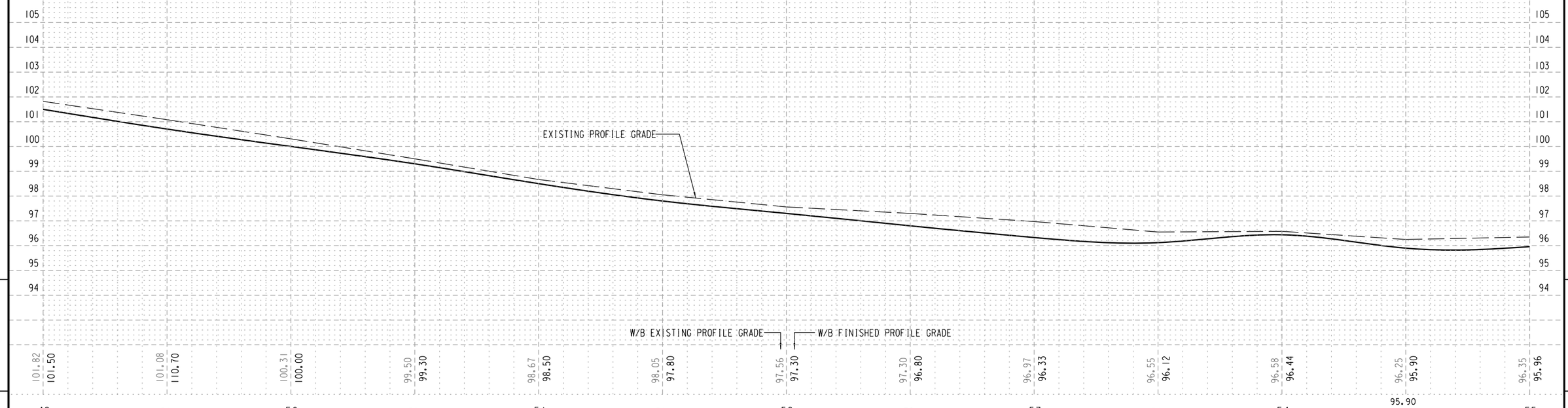
- (2) CONSTRUCT TYPE 2 RAMP
- (3) CONSTRUCT TYPE 3 RAMP
- (5) CONSTRUCT TYPE 5 RAMP
- (AB) CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE
- (BP) CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE
- (C) CONSTRUCT 31" VFCC&G
- (CC) CONST 31" VFCC & G (COVERED FLANGE)
- (CI) CONSTRUCT INTEGRAL CONCRETE CURB
- (D7BL) CONSTRUCT 7" CONCRETE DRIVEWAY WITH BIKE LANE
- (G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE
- (J) SAW ASPHALT
- (K) SAW CONCRETE
- (L) GRADE & SOD
- (LZ) CONSTRUCT CONC. LOAD ZONE W/ 7" FACE
- (MR) CONSTRUCT MAINTENANCE RAMP
- (N) CONSTRUCT CONCRETE MEDIAN SLOPED NOSE
- (P7) CONSTRUCT 7-INCH CONCRETE PAVEMENT
- (P9) CONSTRUCT 9-INCH CONCRETE PAVEMENT
- (PC) CONSTRUCT PEDESTRIAN CURB
- (W) CONSTRUCT 5" CONCRETE WALK
- ARCHAEOLOGICAL SITE BOUNDARY

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 486 | E |
|---|---|---|---|---|---|---|

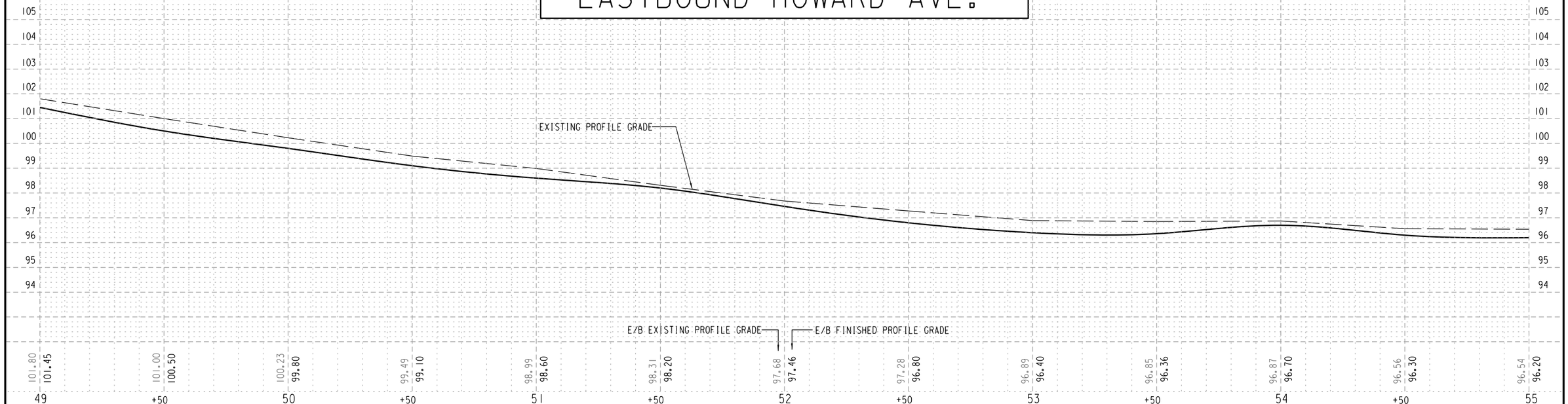
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.



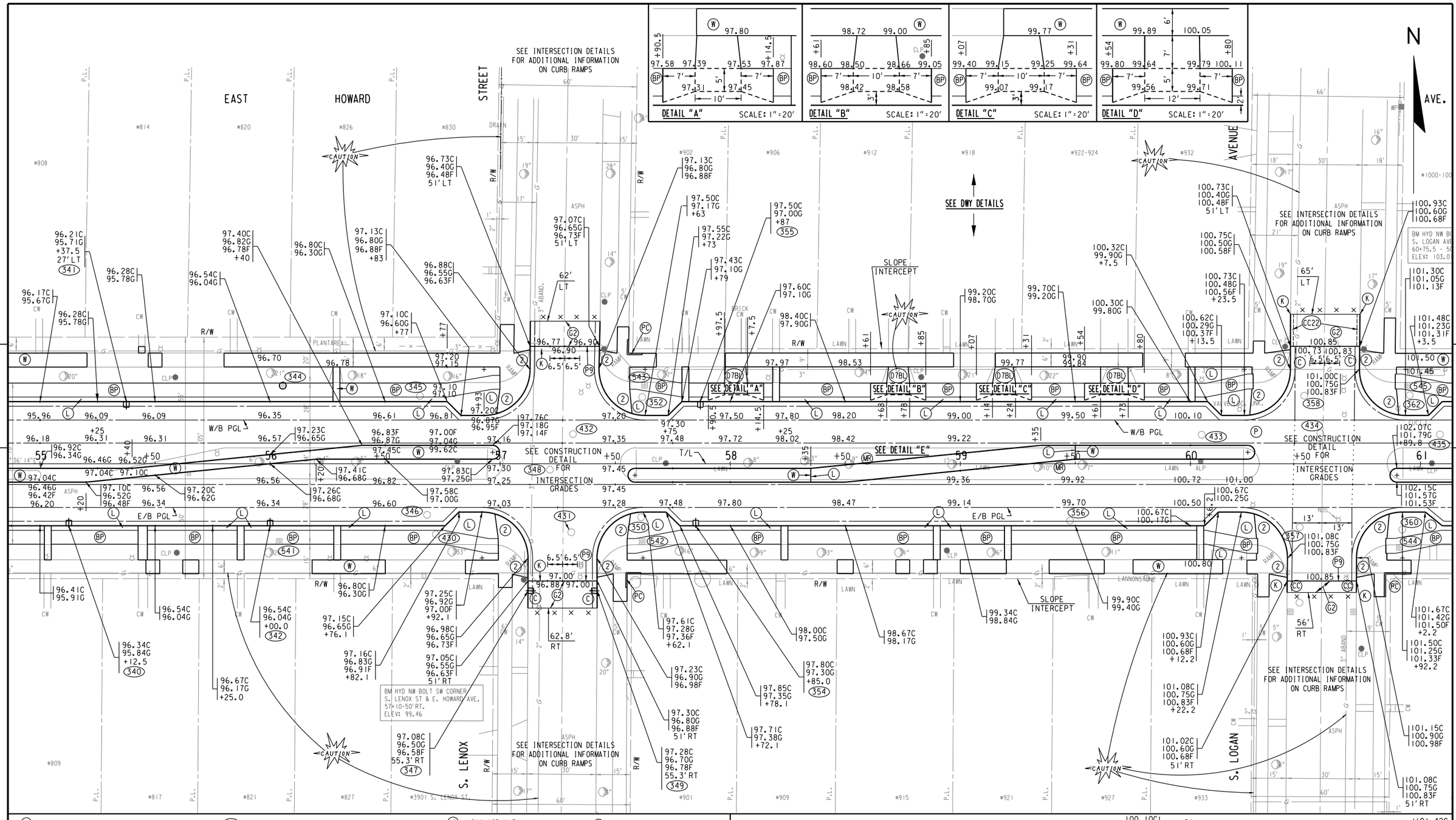

# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 487 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\49-55.DGN

REVISED DATE: 05-04-2022 BY SDB



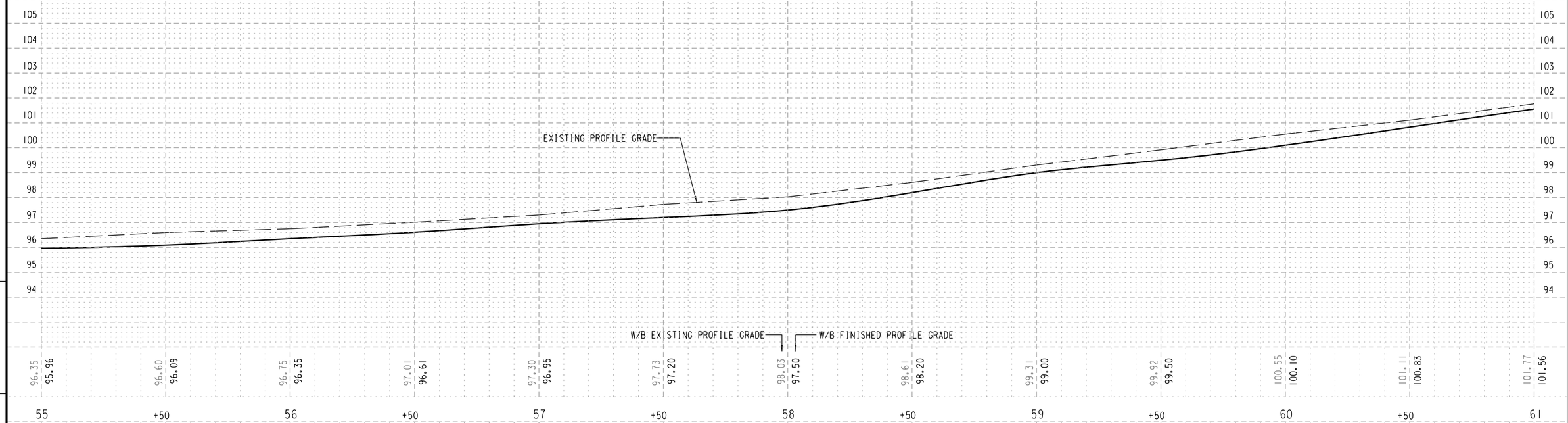

| | |
|---|---|
| (2) | CONSTRUCT TYPE 2 RAMP |
| (AB) | CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE |
| (BP) | CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE |
| (C) | CONSTRUCT 31" VFCC&G |
| (CC) | CONST 31" VFCC & G (COVERED FLANGE) |
| (CC2) | CONSTRUCT 22" VFCC&G (COVERED FLANGE) |
| (C1) | CONSTRUCT INTEGRAL CONCRETE CURB |
| (D7BL) | CONSTRUCT 7" CONCRETE DRIVEWAY WITH BIKE LANE |
| (D8BL) | CONSTRUCT 8" CONCRETE DRIVEWAY WITH BIKE LANE |
| (G2) | REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE |
| (J) | SAW ASPHALT |
| (K) | SAW CONCRETE |
| (L) | GRADE & SOD |
| (MR) | CONSTRUCT MAINTENANCE RAMP |
| (N) | CONSTRUCT CONCRETE MEDIAN SLOPED NOSE |
| (P9) | CONSTRUCT 9-INCH CONCRETE PAVEMENT |
| (PC) | CONST. PEDESTRIAN CURB |
| (W) | CONSTRUCT 5" CONCRETE WALK |

| | | | | | |
|---|---|---|---|---|---|
| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 488 E |

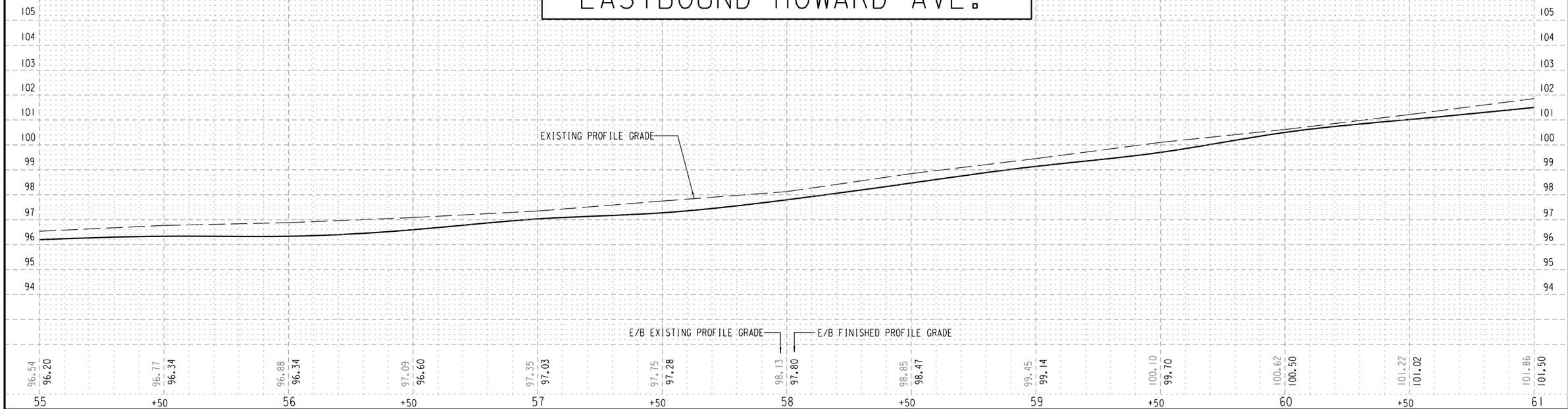
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 489 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\55-61.DGN

REVISED DATE: 05-04-2022 BY SDB

EAST HOWARD AVENUE

STREET

N

SEE DWY DETAILS

SEE DETAIL "A"

SEE DETAIL "B"

SEE DETAIL "C"

SEE DETAIL "D"

SEE DETAIL "E"

SEE DETAIL "F"

SEE DETAIL "G"

SEE DETAIL "H"

SEE CONST. DETAIL FOR INTERSECTION GRADES

SLOPE INTERCEPT

CAUTION

W/B PGL 7

E/B PGL 7

T/L

S. HERMAN

BM HYD NW BOLT NE CORNER
S. LOGAN AVE. & E. HOWARD AVE.
60+75.5 - 50' LT.
ELEV: 103.01

BM HYD NW BOLT SW CORNER
S. HERMAN ST. & E. HOWARD AVE
63+75.5 -49.5' RT.
ELEV: 102.98

DETAIL "A" SCALE: 1"=20'

DETAIL "B" SCALE: 1"=20'

DETAIL "C" SCALE: 1"=20'

DETAIL "D" SCALE: 1"=40'

DETAIL "E" SCALE: 1"=40'

DETAIL "F" SCALE: 1"=20'

DETAIL "G" SCALE: 1"=40'

DETAIL "H" SCALE: 1"=40'

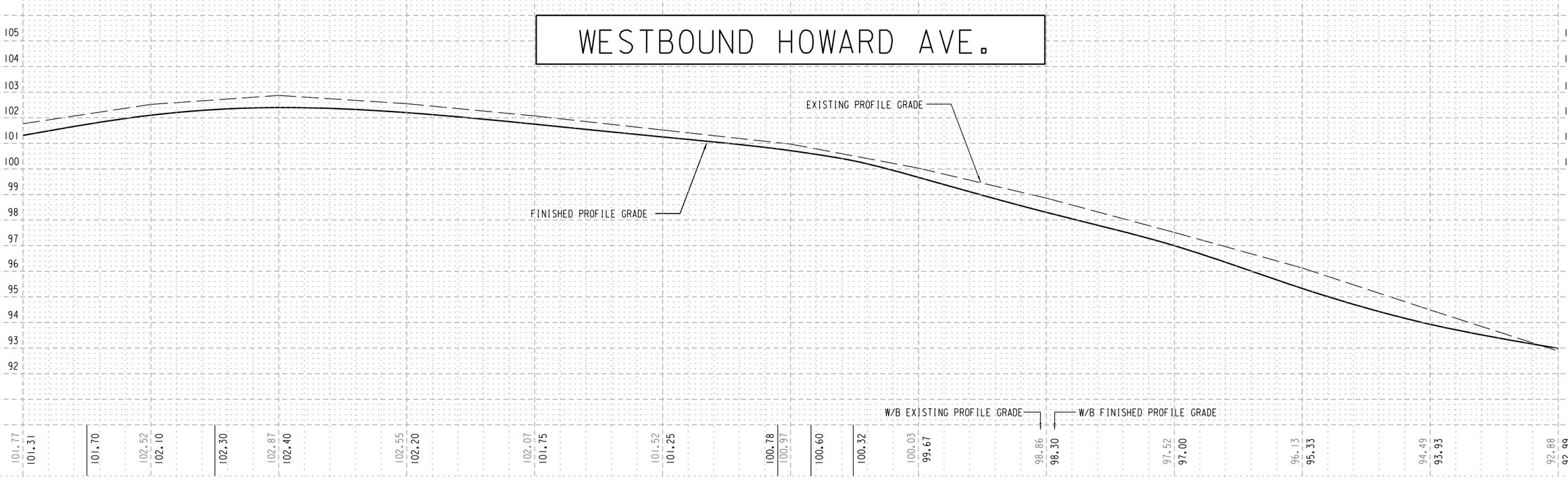
(2) CONST. TYPE 2 RAMP
(AB) CONST. 2" ASPHALT ON VT CONC. BASE
(BP) CONST. 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE
(C) CONST. 31" VFCC&G
(CC) CONST. 31" VFCC & G (COV. FLANGE)
(C1) CONST. INTEGRAL CONC. CURB
(D7BL) CONST. 7" CONC. DRIVEWAY WITH BIKE LANE
(D8BL) CONST. 8" CONC. DRIVEWAY WITH BIKE LANE
(G2) REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE
(J) SAW ASPHALT
(K) SAW CONCRETE
(L) GRADE & SOD
(MR) CONST. MAINTENANCE RAMP
(N) CONST. CONCRETE MEDIAN SLOPED NOSE
(P7) CONST. 7-INCH CONC. PAV'T
(P9) CONST. 9-INCH CONC. PAV'T
(PC) CONST. PEDESTRIAN CURB
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| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 490 | E |
|---|---|---|---|---|---|---|

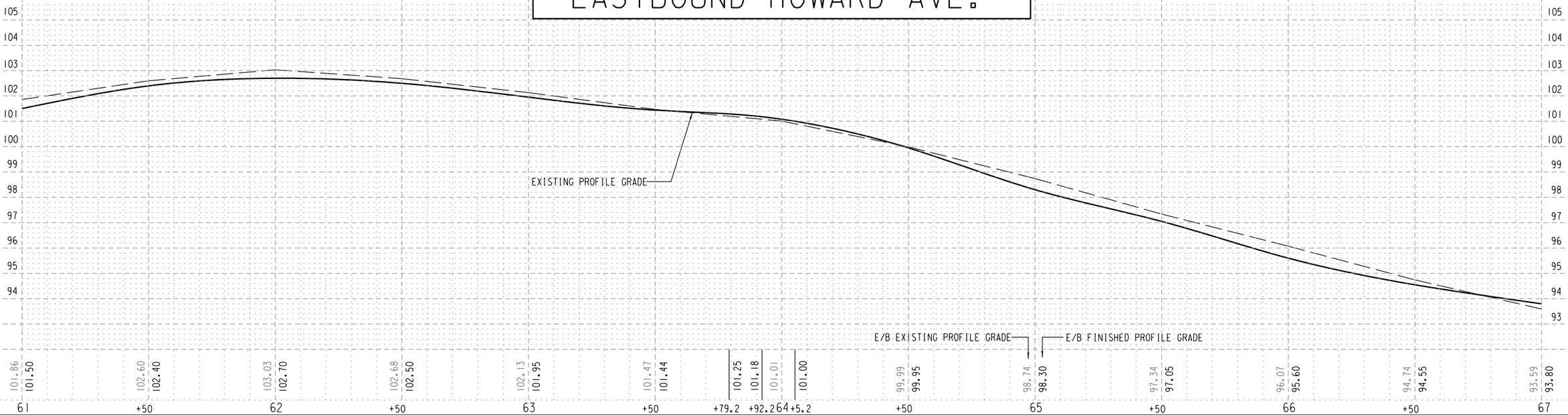
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 491 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\61-67.DGN

REVISED DATE: 05-04-2022 BY SDB

EAST HOWARD AVENUE

#1200 E. HOWARD AVE. #1224

547-0501-100-4 547-0502

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE DETAIL "A"

SEE DETAIL "B"

SEE CONSTRUCTION DETAIL FOR INTERSECTION GRADES

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

S. CLEMENT AVENUE

SLOPE INTERCEPT

SLOPE INTERCEPT

END PROJECT
STA. 69+75.6 T/L
Y. = 362,005.16
X. = 2,563,689.63

BM HYD NW BOLT SW COR. S. CLEMENT AVE. & E. HOWARD AVE. 67+51 - 57.5'RT. ELEV: 94.63

W/B PGL

E/B PGL

T/L

SECTION LINE

R/W

DETAIL "A"
SCALE: 1"=40'

DETAIL "B"
SCALE: 1"=40'

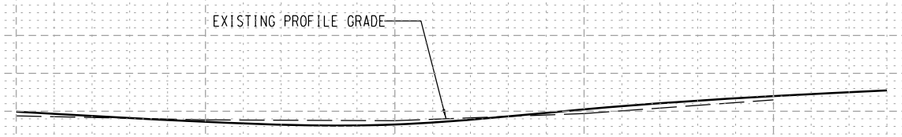
| | |
|---|---|
| (2) | CONSTRUCT TYPE 2 RAMP |
| (AB) | CONSTRUCT 2" ASPHALT ON VT CONCRETE BASE |
| (BP) | CONSTRUCT 3" ASPHALT BIKE PATH ON 4" CRUSHED STONE BASE |
| (C) | CONSTRUCT 31" VFCC&G |
| (CC) | CONST 31" VFCC & G (COVERED FLANGE) |
| (CI) | CONSTRUCT INTEGRAL CONCRETE CURB |
| (D7) | CONSTRUCT 7" CONCRETE DRIVEWAY |
| (D8) | CONSTRUCT 8" CONCRETE DRIVEWAY |
| (G2) | REMOVE ASPHALTIC SURFACE BUTT JOINTS AND CONSTRUCT ASPHALTIC SURFACE |
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| (N) | CONSTRUCT CONCRETE MEDIAN SLOPED NOSE |
| (P9) | CONSTRUCT 9-INCH CONCRETE PAVEMENT |
| (PC) | CONST. PEDESTRIAN CURB |
| (W) | CONSTRUCT 5" CONCRETE WALK |
| | ARCHAELOGICAL SITE BOUNDARY |

| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PLAN | SCALE FEET 0' 40' | SHEET NO: 492 | E |
|---|---|---|---|---|---|---|

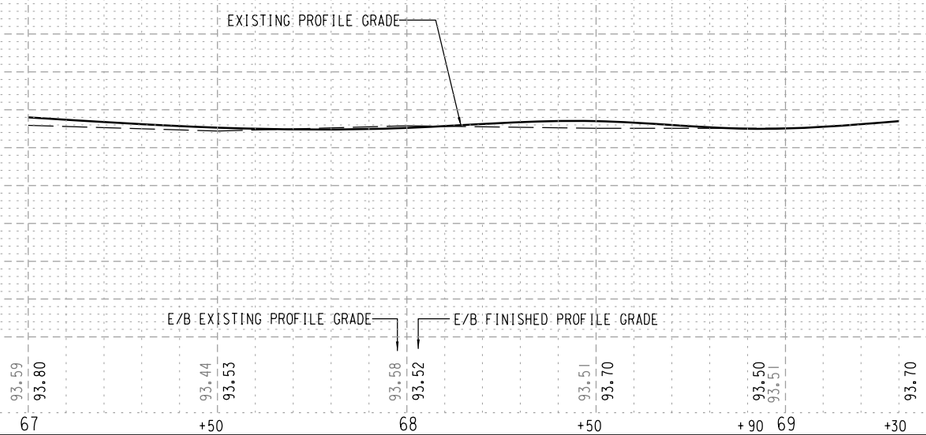
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REVISED DATE: 10-27-2023 BY SLB

# WESTBOUND HOWARD AVE.




# EASTBOUND HOWARD AVE.




| STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | PROFILE | SCALE FEET | SHEET NO: 493 | E |
|---|---|---|---|---|---|---|

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\67-69.DGN

REVISED DATE: 05-04-2022 BY SDB

# Standard Detail Drawing List

| | |
|---|---|
| 08B09-03 | MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER |
| 08C07-02 | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT |
| 08D05-20A | CURB RAMPS TYPES 1 AND 1-A |
| 08D05-20B | CURB RAMPS TYPES 2 AND 3 |
| 08D05-20C | CURB RAMPS TYPES 4A AND 4A1 |
| 08D05-20D | CURB RAMPS TYPE 4B AND 4B1 |
| 08D05-20E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8 |
| 08D05-20F | CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS |
| 08D05-20G | CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES |
| 08D16-11 | CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES |
| 08D18-03 | DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y |
| 08D19-03 | DRIVEWAY AND SIDEWALK RAMPS TYPE Z |
| 08D20-01 | DRIVEWAYS WITH CURB  & GUTTER RETURNS |
| 08E10-02 | INLET PROTECTION TYPE A, B, C AND D |
| 08F04-08 | JOINT TIES FOR CONCRETE PIPE  AND CONCRETE COLLAR DETAIL |
| 09B02-10 | CONDUIT |
| 09C02-09 | CONCRETE BASES, TYPES 1, 2,  5, & 6 |
| 09C03-04 | TRANSFORMER/PEDESTAL BASES |
| 09C11-10 | CONCRETE BASE TYPE 10 |
| 09C15-01 | CONCRETE BASE TYPE 10 SPECIAL |
| 09C16-01 | CONCRETE BASE TYPE 10 SPECIAL EXTENSION |
| 09E01-15G | HARDWARE DETAILS FOR POLE MOUNTINGS |
| 09E03-06 | NON-FREEWAY LIGHTING UNIT POLE WIRING |
| 09E06-05 | TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT. |
| 09E07-06 | TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS |
| 09E08-09E | TYPE 10 POLE 15'-30' MONOTUBE ARM |
| 09E08-09F | TYPE 10 SPECIAL POLE 35' MONOTUBE ARM |
| 09G01-04A | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04B | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04C | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04D | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04E | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04F | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04G | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 11B01-05 | CONCRETE CORRUGATED MEDIAN |
| 11B02-02 | CONCRETE MEDIAN NOSE |
| 13C01-19 | CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES |
| 13C15-08A | CONCRETE BASE |
| 13C15-08B | CONCRETE BASE |
| 13C18-07A | CONCRETE PAVEMENT JOINTING |
| 13C18-07B | CONCRETE PAVEMENT STEEL REINFORCEMENT |
| 13C18-07C | CONCRETE PAVEMENT JOINT TYPES |
| 13C18-07D | CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES |
| 13C18-08F | CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER |
| 14A02-01 | TREE PLANTING DETAIL |
| 15C02-08A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES |
| 15C02-08B | BARRICADES AND SIGNS FOR VARIOUS CLOSURES |
| 15C02-08C | DETOUR SIGNING FOR MAINLINE CLOSURES |
| 15C03-05 | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES |
| 15C07-15A | PAVEMENT MARKING SYMBOLS |
| 15C07-15B | PAVEMENT MARKING WORDS |
| 15C07-15C | PAVEMENT MARKING ARROWS |
| 15C07-15E | PAVEMENT MARKING FOR BIKE LANES |
| 15C08-23A | PERMANENT LONGITUDINAL PAVEMENT MARKINGS |
| 15C08-23B | TEMPORARY LONGITUDINAL PAVEMENT MARKING |
| 15C08-23C | PAVEMENT MARKING (TURN LANES) |
| 15C08-23D | PAVEMENT MARKING (TURN LANES) |
| 15C11-10A | CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST |
| 15C11-10B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 15C18-07A | MEDIAN ISLAND MARKING PAVEMENT MARKINGS |
| 15C18-07B | MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE |
| 15C29-07A | BICYCLE LANE MARKING |
| 15C33-04 | STOP LINE AND CROSSWALK PAVEMENT MARKING |
| 15C35-05A | PAVEMENT MARKING (INTERSECTIONS) |
| 15D30-08A | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-08B | TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION |
| 15D30-08C | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |

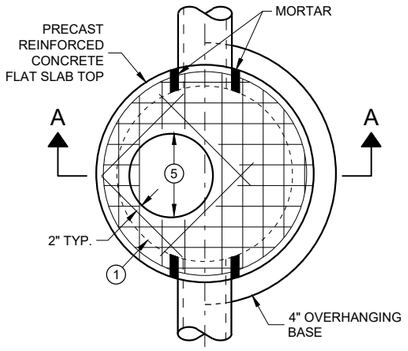
6

# Standard Detail Drawing List

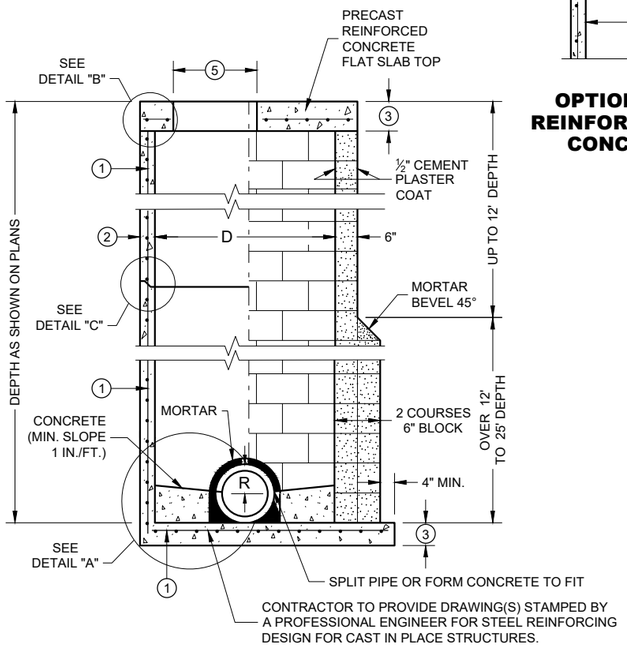
16A01-07 LANDMARK REFERENCE MONUMENTS AND COVERS



6



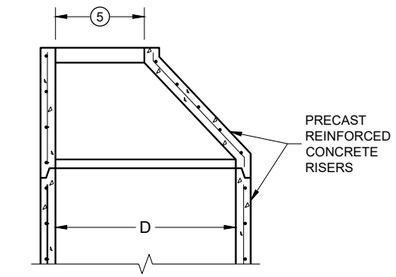

**PLAN VIEW**
**CIRCULAR OPENING**



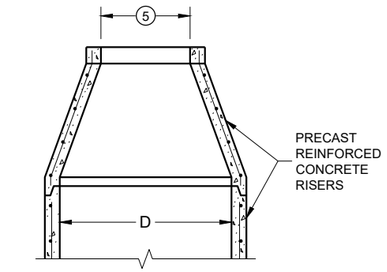

**SECTION A - A**

**PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE**

**CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE** (1)




**OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP**




**OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP**

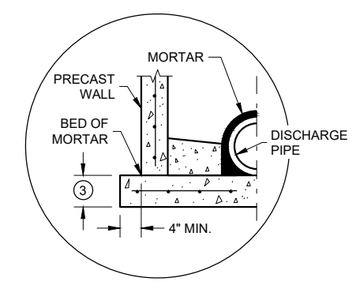
## MANHOLE COVER OPENING MATRIX

| OPENING SIZE (FT.) \ MANHOLE COVER TYPE | C | ALL J'S | K | L | M |
|---|---|---|---|---|---|
| 2 DIA. | X | X | | X | |
| 3 DIA. | | | X | | X |

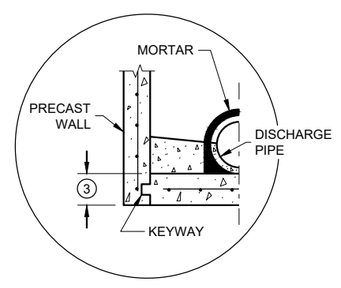
## PIPE MATRIX

| MANHOLE SIZE (DIA.) | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES | | MINIMUM WALL THICKNESS (IN) | MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS |
|---|---|---|---|---|
| | 180° SEPARATION (IN) | 90° SEPARATION (IN) | | |
| 3-FT | 15 | 12 | 4 | 6 |
| 4-FT | 24 | 18 | 4 | 6 |
| 5-FT | 36 | 24 | 5 | 8 |
| 6-FT | 42 | 36 | 6 | 8 |
| 7-FT | 48 | 36/42* | 7 | 8 |
| 8-FT | 60 | 42 | 8 | 8 |
| 9-FT | 66 | 54 | 9 | 10 |
| 10-FT | 72 | 60 | 10 | 10 |

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

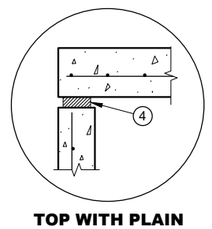



**SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION**

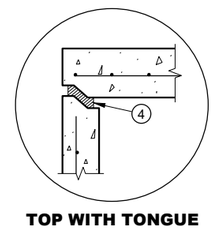



**PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION**

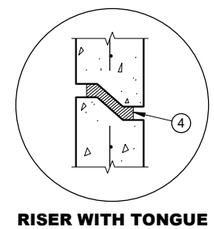
**DETAIL "A"**




**TOP WITH PLAIN END JOINT**




**TOP WITH TONGUE AND GROOVE JOINT**




**RISER WITH TONGUE AND GROOVE JOINT**

**DETAIL "B"** **DETAIL "C"**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

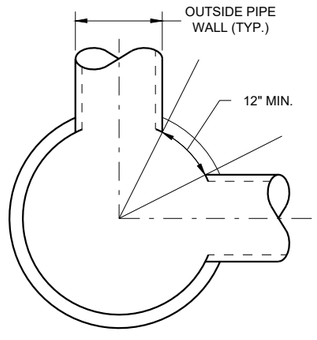
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

(5) SEE MANHOLE COVER OPENING MATRIX.




**MINIMUM HORIZONTAL PIPE SEPARATION**

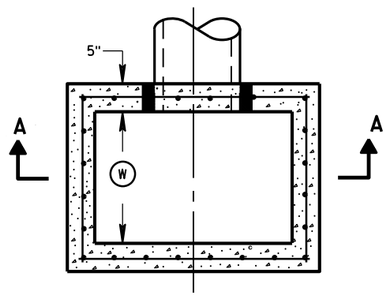
**MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER**

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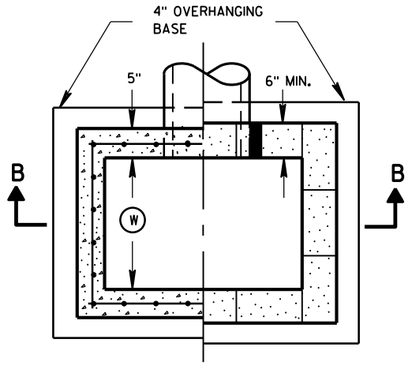
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
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FHWA

**MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER**

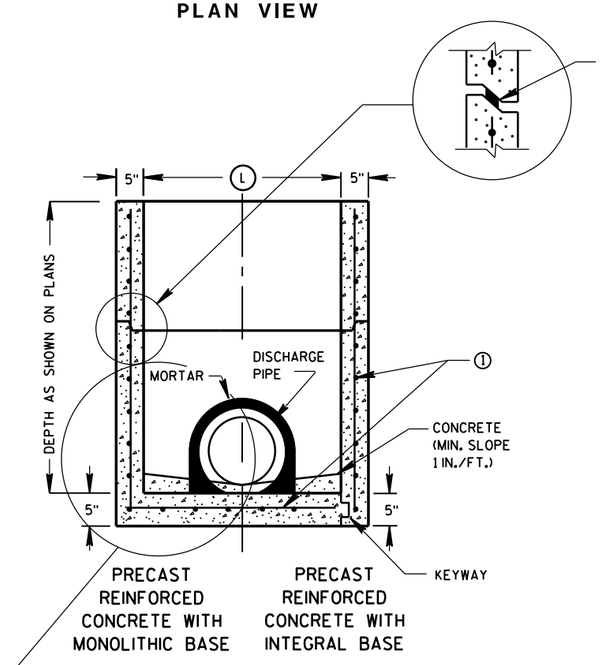

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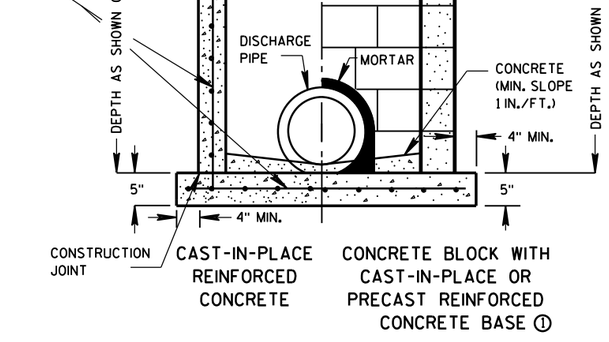

PLAN VIEW



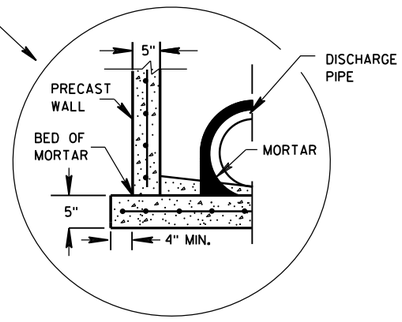

PLAN VIEW




SECTION A-A




SECTION B-B




SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

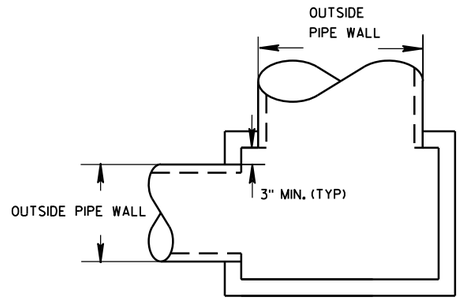
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

## INLET COVER MATRIX

| INLET SIZE | | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | WIDTH Ⓦ (FT) | LENGTH Ⓛ (FT) | | | | | | | | | |
| 2X2-FT | 2 | 2 | X | X | | | | X | | X | |
| 2X2.5-FT | 2 | 2.5 | | | X | | | X | X | X | X |
| 2X3-FT | 2 | 3 | | | | | X | | | | |
| 2.5X3-FT | 2.5 | 3 | | | | X | | | | | |

## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER | |
|---|---|---|
| | WIDTH (IN) | LENGTH (IN) |
| 2X2-FT | 12 | 12 |
| 2X2.5-FT | 12 | 18 |
| 2X3-FT | 12 | 24 |
| 2.5X3-FT | 18 | 24 |



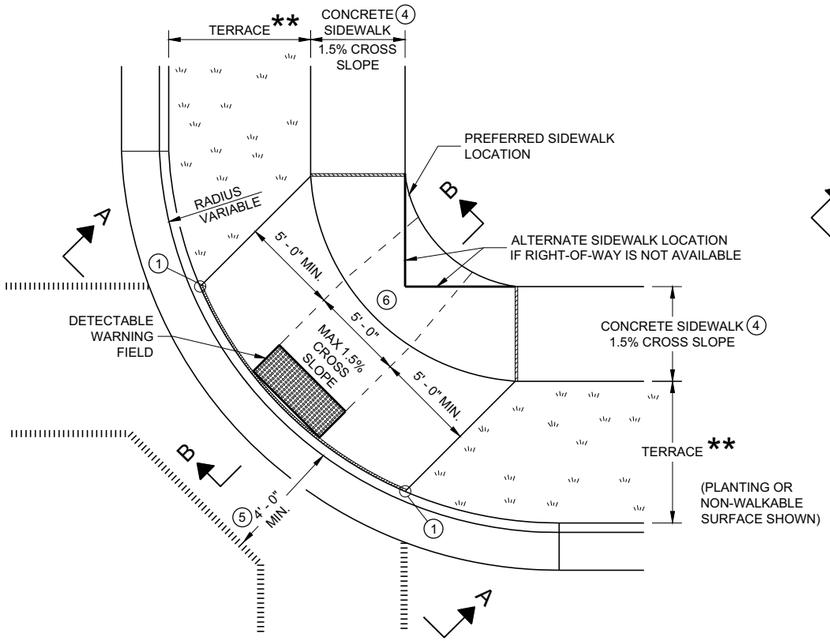

DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

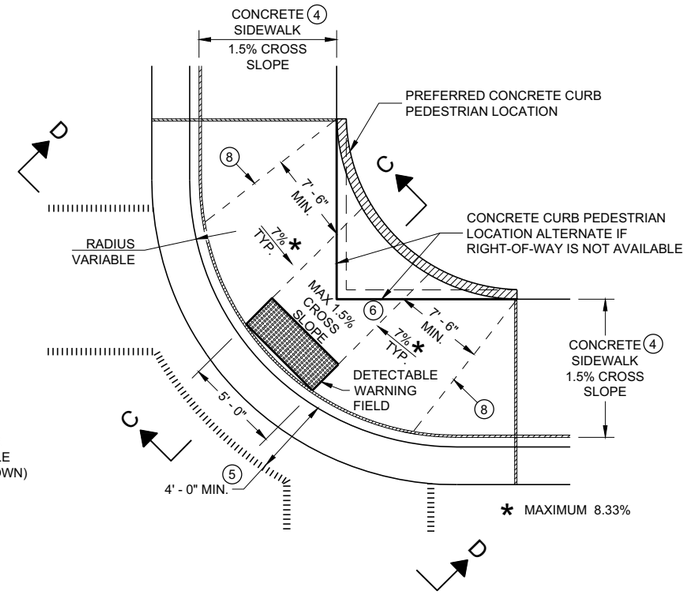
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT




**PLAN VIEW**

## CURB RAMP TYPE 1

**(CENTER OF CORNER RADIUS)**




**PLAN VIEW**

## CURB RAMP TYPE 1 - A

**(NO TERRACE)**

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

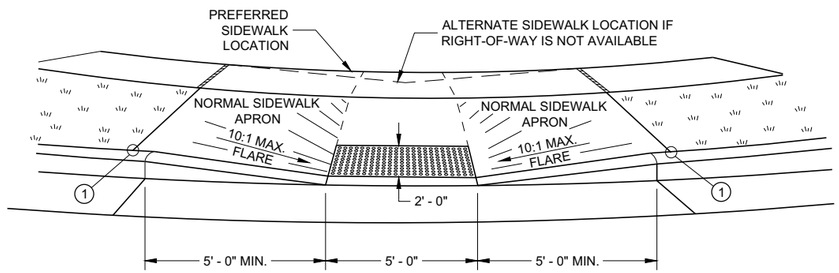
(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

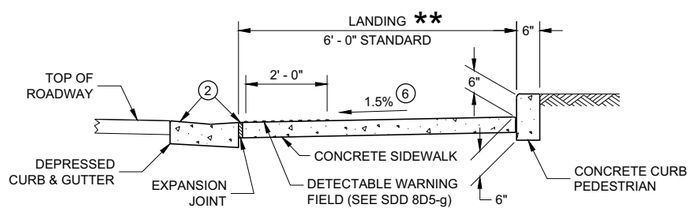
(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.




**VIEW A - A FOR TYPE 1**

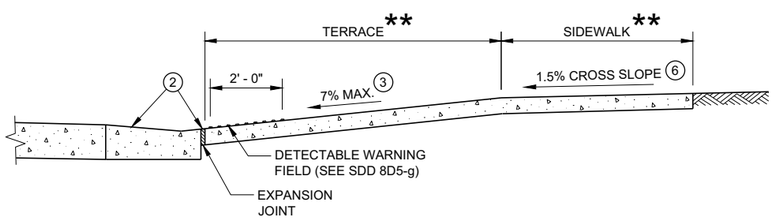



**SECTION C - C FOR TYPE 1 - A**

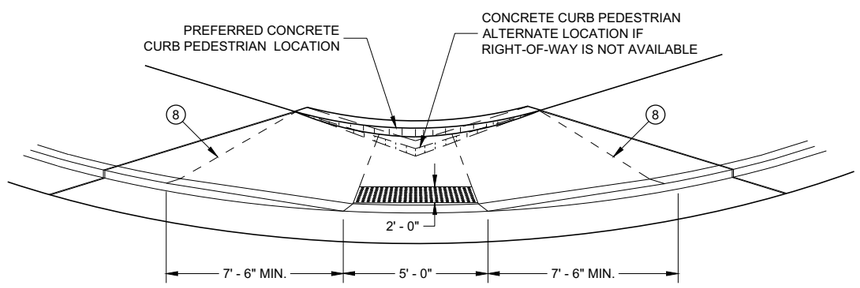
## LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

** WIDTH SHOWN ELSEWHERE IN THE PLANS




**SECTION B - B FOR TYPE 1**




**VIEW D - D FOR TYPE 1 - A**

**CURB RAMPS**
**TYPE 1 AND 1-A**

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DEPARTMENT OF TRANSPORTATION

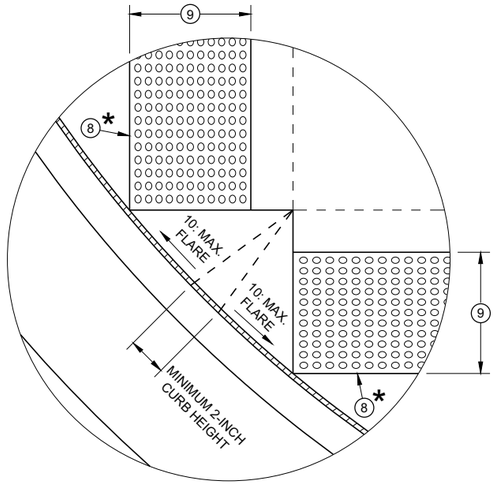




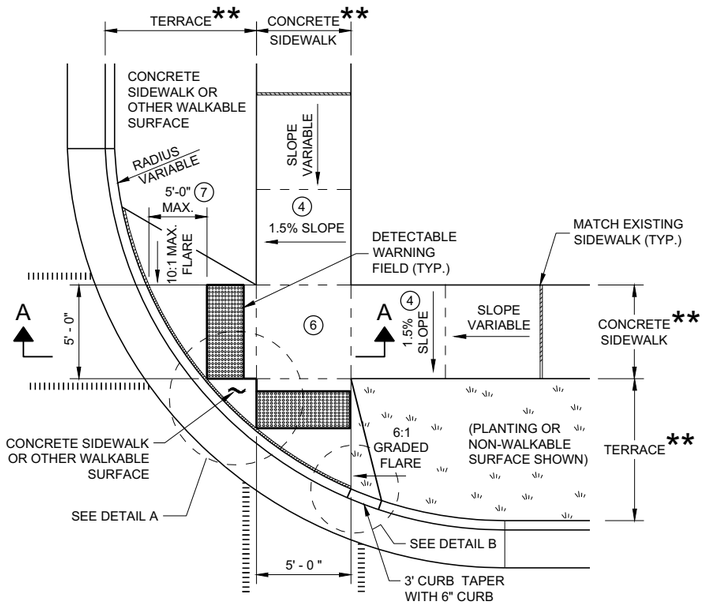
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SDD 08D05 - 20a




**DETAIL A**




**PLAN VIEW**
**CURB RAMP TYPE 2**
**(CENTER OF CORNER RADIUS)**

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

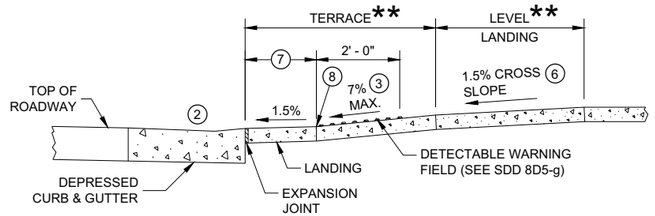
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

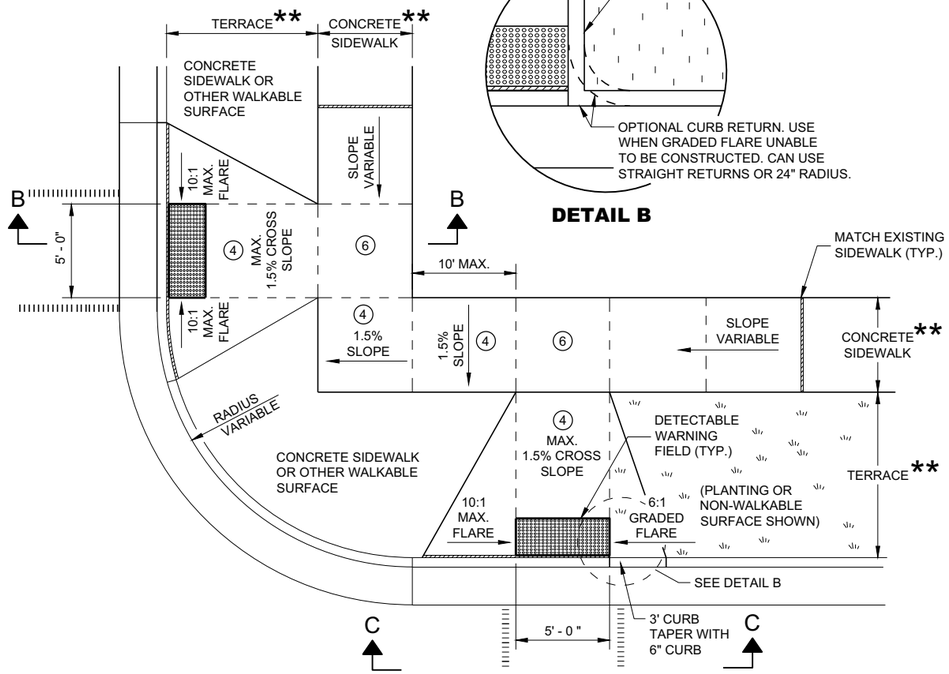
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



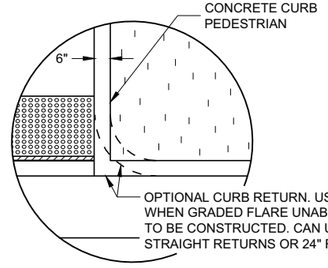

**SECTION A - A FOR TYPE 2**

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

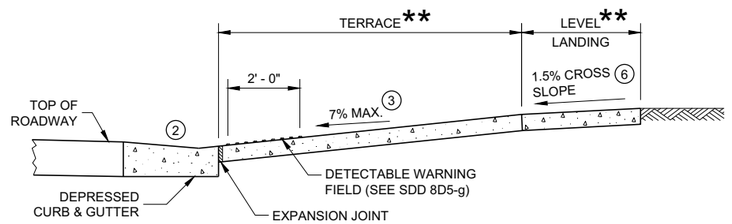
** WIDTH SHOWN ELSEWHERE IN THE PLANS




**PLAN VIEW**
**CURB RAMP TYPE 3**
**(OUTSIDE OF CROSSWALK AREA)**



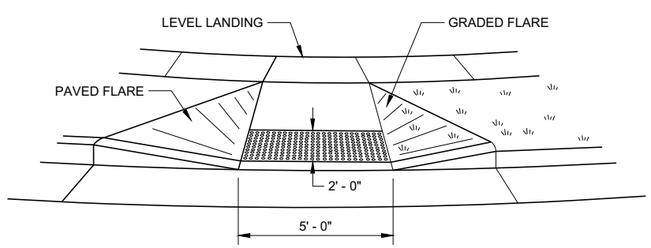

**DETAIL B**




**SECTION B - B FOR TYPE 3**

## LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)




**VIEW C - C FOR TYPE 3**

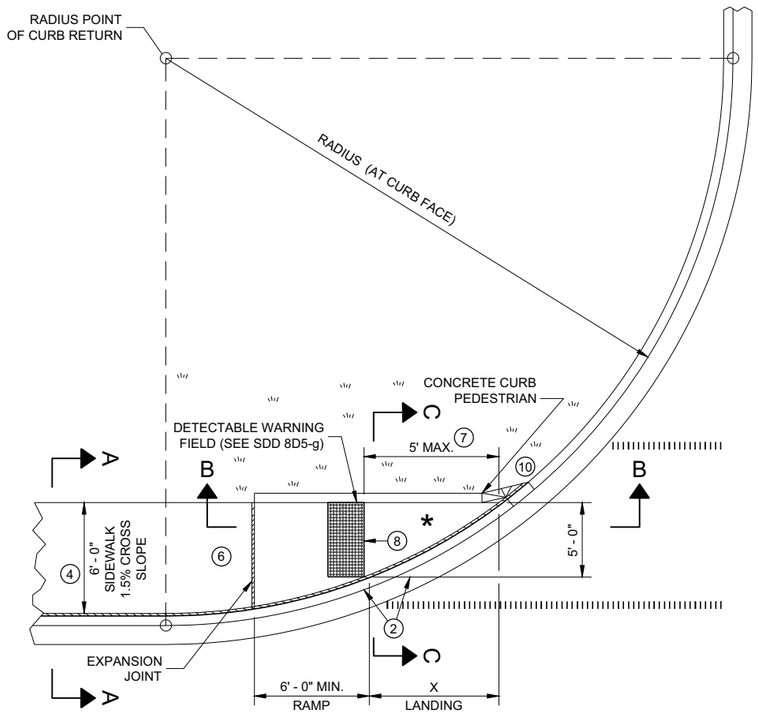
**CURB RAMPS TYPE 2 AND 3**

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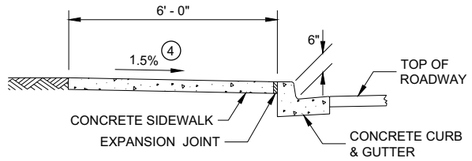



**PLAN VIEW**

**CURB RAMP TYPE 4A**

| RADIUS (AT CURB FACE) | X |
|---|---|
| 10 FEET | 4' - 7" |
| 15 FEET | 6' - 5½" |

INTERMEDIATE RADII CAN BE INTERPOLATED




**SECTION A - A FOR TYPE 4A**

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

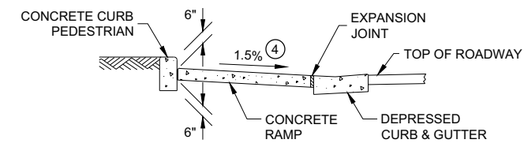
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

## LEGEND

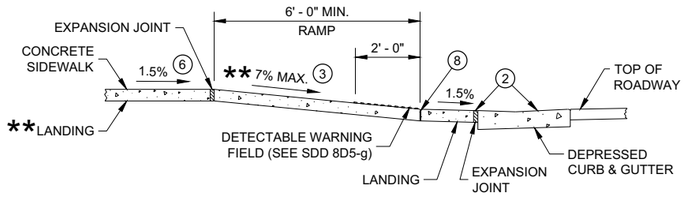
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



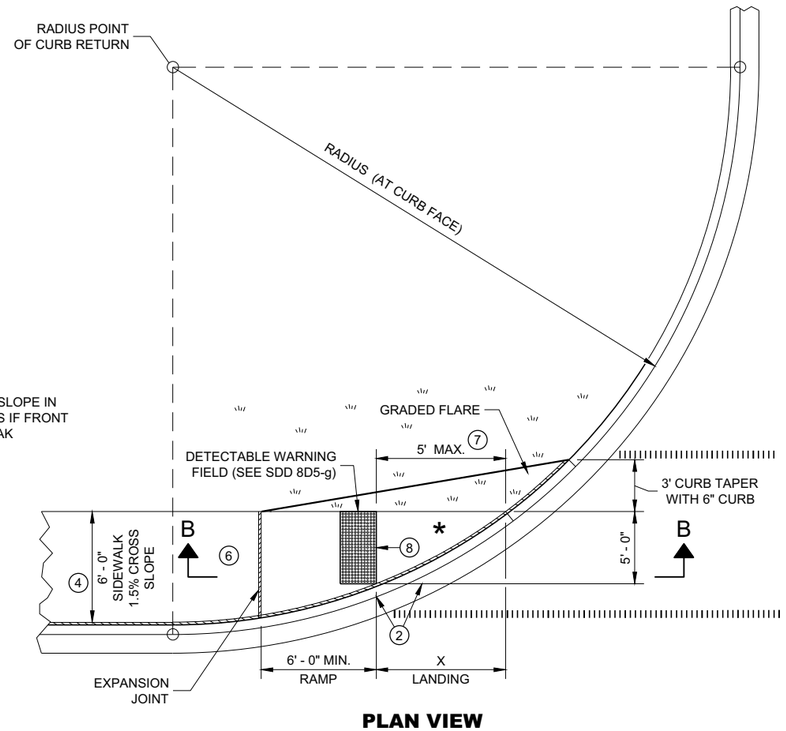

**SECTION C - C FOR TYPE 4A**




**SECTION B - B FOR TYPE 4A AND TYPE 4A1**

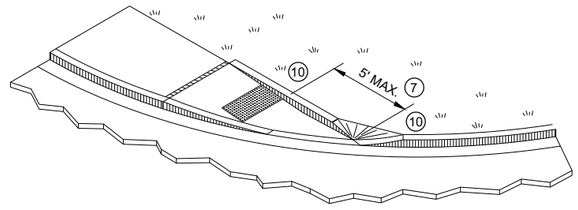
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

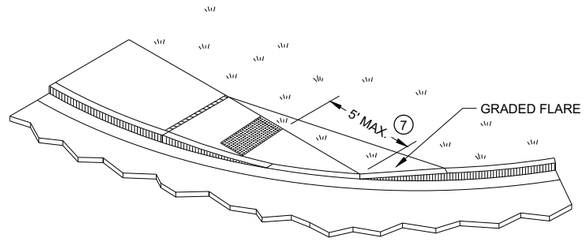



**PLAN VIEW**

**CURB RAMP TYPE 4A1**




**ISOMETRIC VIEW FOR TYPE 4A**




**ISOMETRIC VIEW FOR TYPE 4A1**

**CURB RAMPS**
**TYPE 4A AND 4A1**

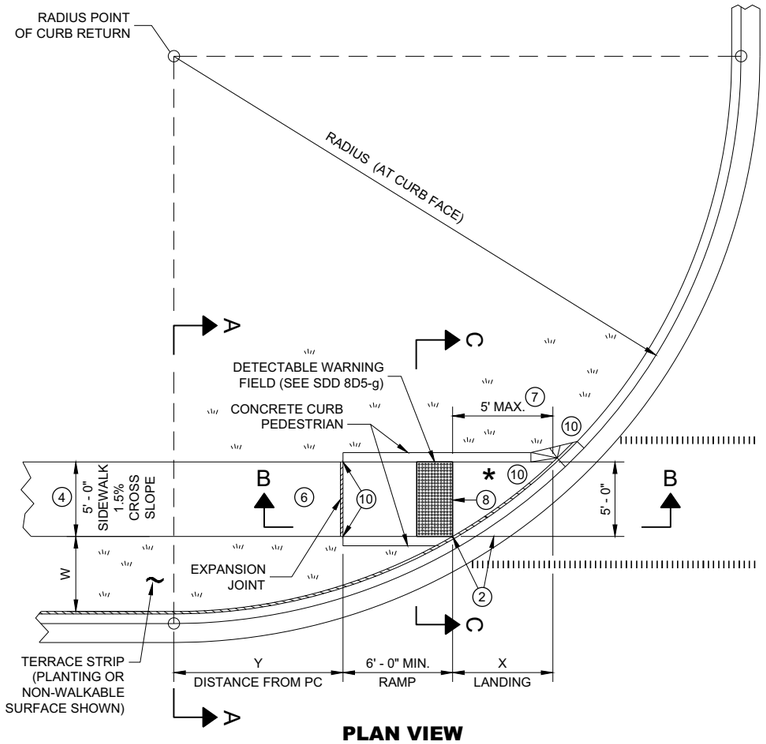
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20c

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6




**PLAN VIEW**

**CURB RAMP TYPE 4B**

| RADIUS (AT CURB FACE) | W = 3' - 0" | | W = 4' - 0" | | W = 5' - 0" | | W = 6' - 0" | | W = 7' - 0" | | W = 8' - 0" | | W = 9' - 0" | | W = 10' - 0" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y |
| 10 FEET | 2' - 10 ¼" | 0' - 5" | 2' - 1" | 1' - 4 ½" | 1' - 5" | 2' - 1" | 0' - 10" | 2' - 7 ½" | 0' - 3 ¼" | 3' - 0 ¼" | | | | | | |
| 15 FEET | 4' - 6 ¾" | 2' - 1 ¾" | 3' - 9" | 3' - 5 ¾" | 3' - 1 ¼" | 4' - 6" | 2' - 6 ¾" | 5' - 4 ½" | 2' - 1" | 6' - 1" | 1' - 8" | 6' - 8 ½" | 1' - 3 ¼" | 7' - 2 ½" | 0' - 10 ¾" | 7' - 7 ¼" |
| 20 FEET | 5' - 9 ¾" | 3' - 6 ½" | 4' - 11 ½" | 5' - 1 ¾" | 4' - 3 ¼" | 6' - 5 ½" | 3' - 8 ¾" | 7' - 7" | 3' - 3" | 8' - 6 ½" | 2' - 10" | 9' - 4 ½" | 2' - 5 ½" | 10' - 1 ¼" | 2' - 1 ¼" | 10' - 9" |
| 30 FEET | | | 6' - 9 ¼" | 7' - 11 ¼" | 6' - 0 ¼" | 9' - 8" | 5' - 5" | 11' - 1 ¾" | 4' - 10 ¾" | 12' - 5 ¾" | 4' - 5 ½" | 13' - 7 ¾" | 4' - 0 ¾" | 14' - 8 ½" | 3' - 8 ½" | 15' - 8 ¼" |
| 40 FEET | | | | | | | | | 6' - 1 ¾" | 15' - 8 ½" | 5' - 8" | 17' - 2" | 5' - 3" | 18' - 5 ¾" | 4' - 10 ¾" | 19' - 8 ¼" |
| 50 FEET | | | | | | | | | | | | | | | 5' - 10 ¼" | 23' - 2" |

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH




**SECTION C - C FOR TYPE 4B**

## LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

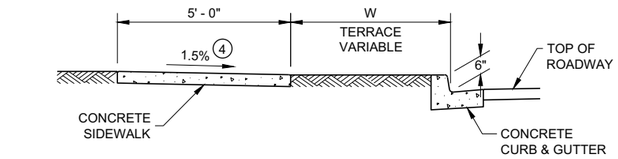
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

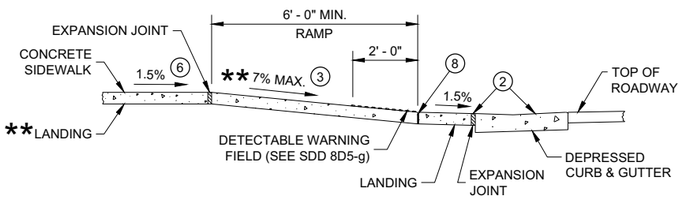
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



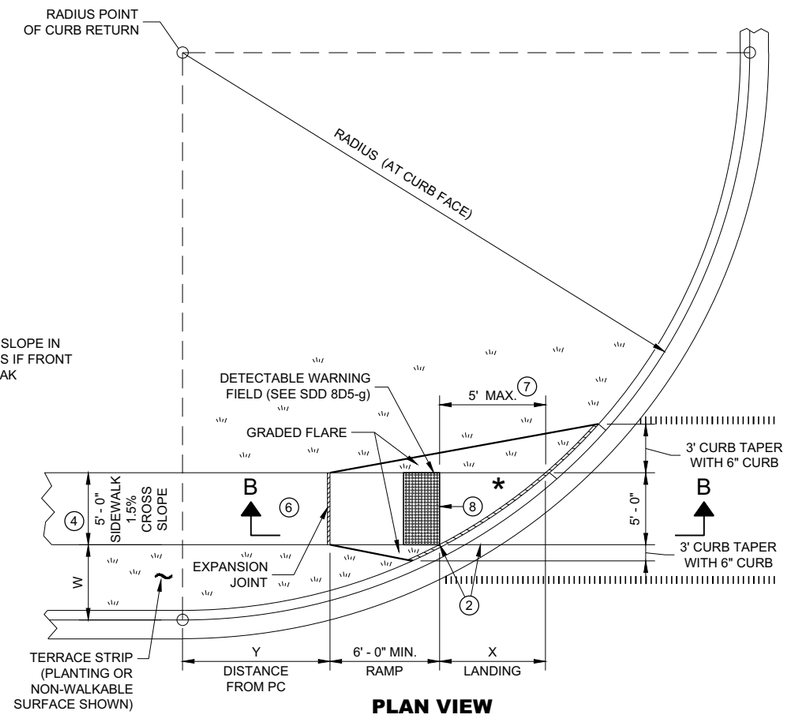

**SECTION A - A FOR TYPE 4B**




**SECTION B - B FOR TYPE 4B AND TYPE 4B1**

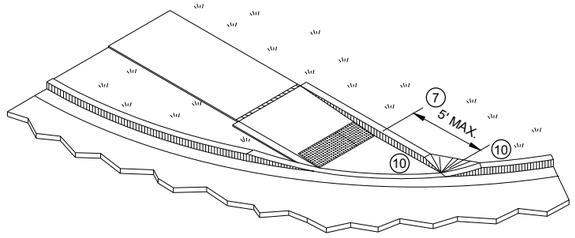
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

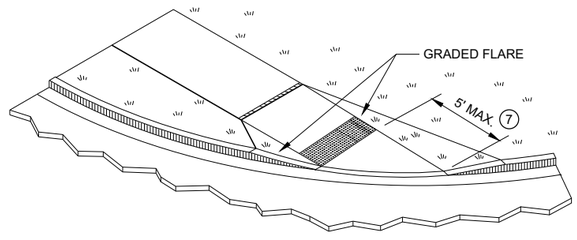



**PLAN VIEW**

**CURB RAMP TYPE 4B1**




**ISOMETRIC VIEW FOR TYPE 4B**




**ISOMETRIC VIEW FOR TYPE 4B1**

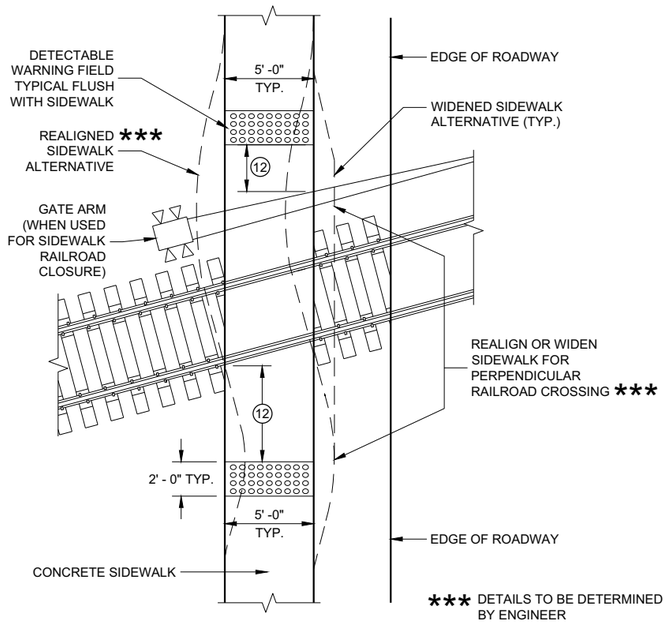
**CURB RAMPS**
**TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



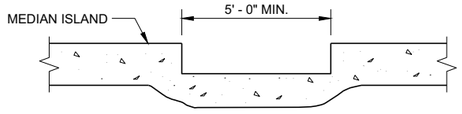

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SDD 08D05 - 20d

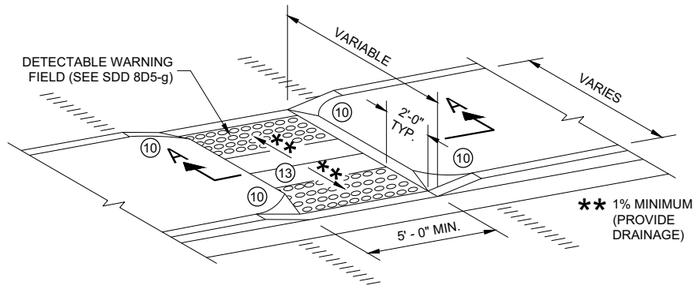



## CURB RAMP TYPE 8

### DETECTABLE WARNINGS AT RAILROAD CROSSING




### SECTION A - A FOR TYPE 5




## CURB RAMP TYPE 5

### MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

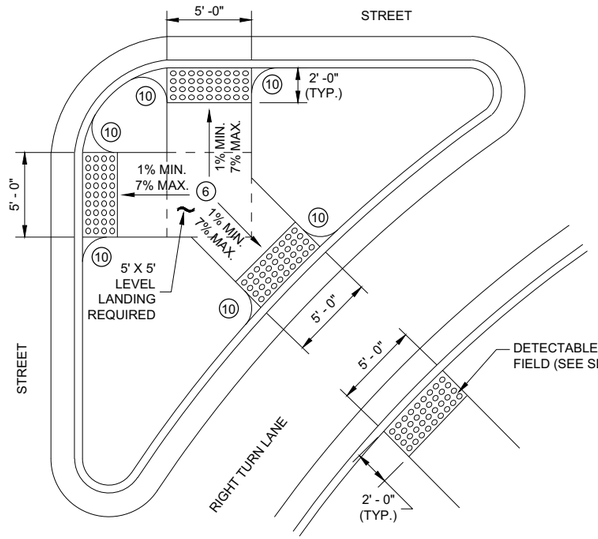
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

## LEGEND

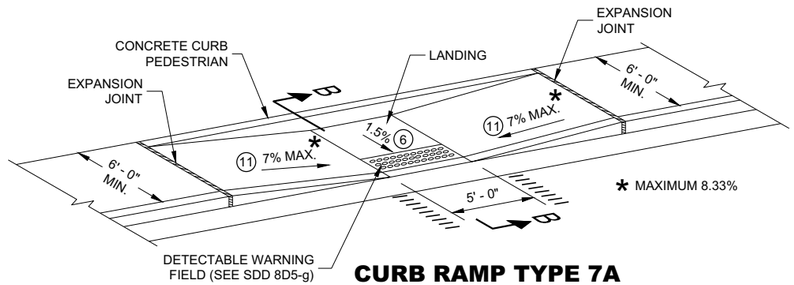
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)




## CURB RAMP TYPE 6

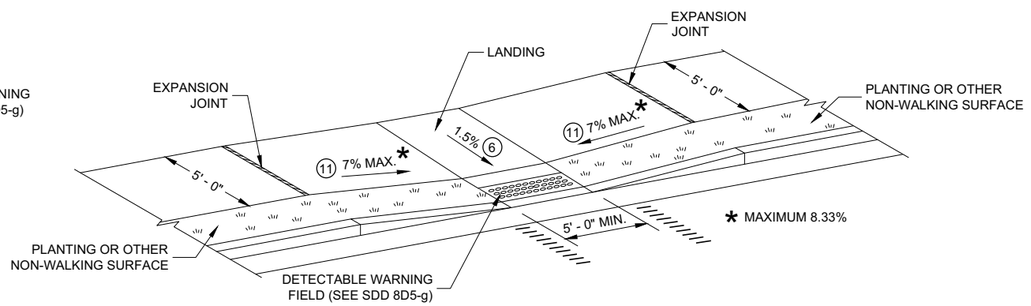
### DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS




## CURB RAMP TYPE 7A

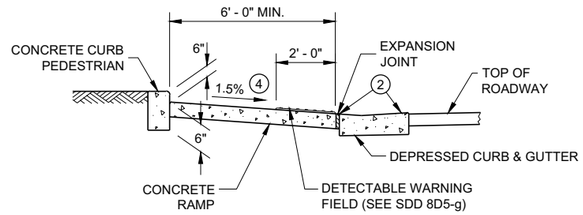
### MID BLOCK CROSSING




## CURB RAMP TYPE 7B

### MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

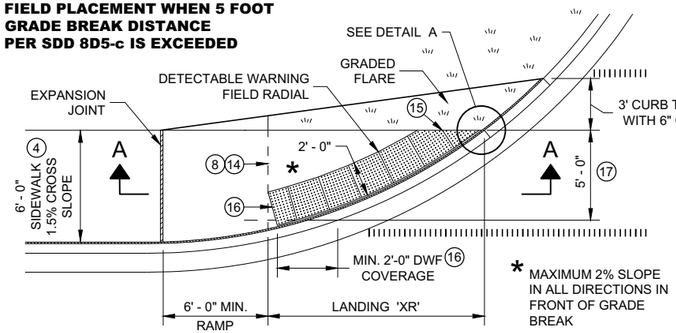



### SECTION B - B FOR TYPE 7A

**CURB RAMPS TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

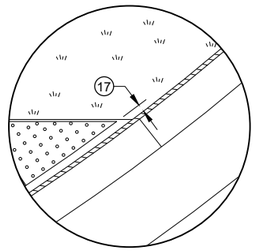
**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED**



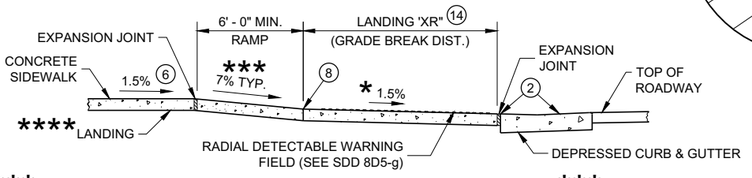

**PLAN VIEW**

## CURB RAMP TYPE 4A1

**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**DETAIL A**

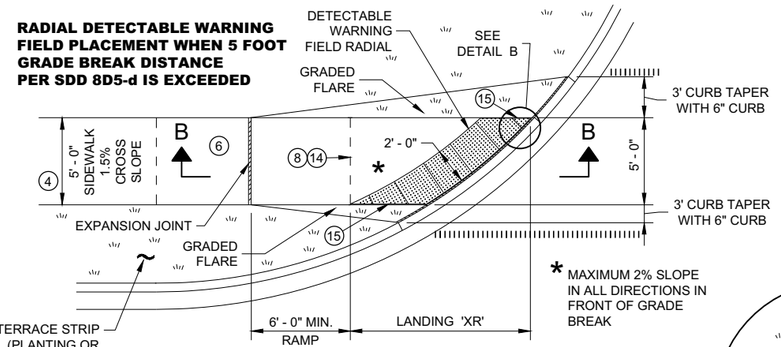



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

## SECTION A - A FOR TYPE 4A1

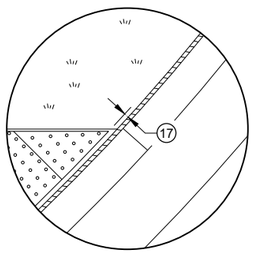
**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED**



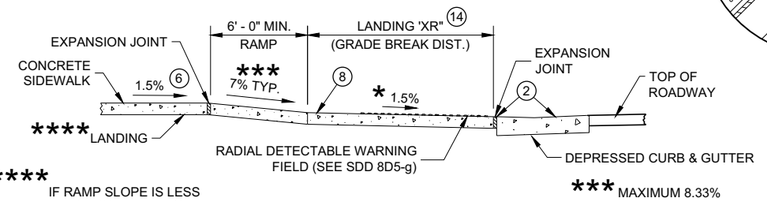

**PLAN VIEW**

## CURB RAMP TYPE 4B1

**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**DETAIL B**




**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

## SECTION B - B FOR TYPE 4B1

## LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

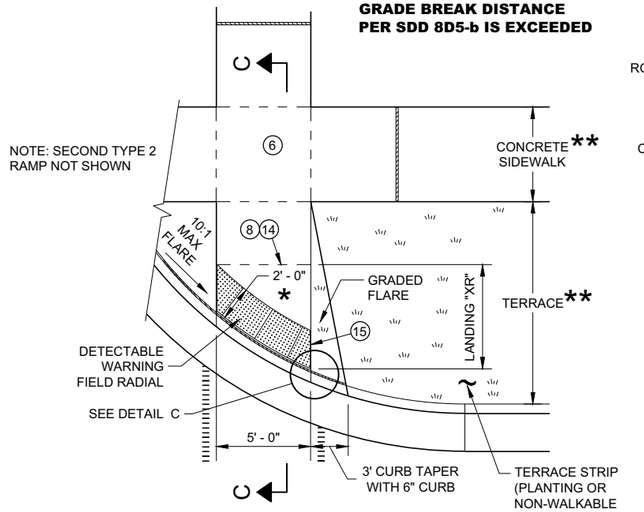
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED**

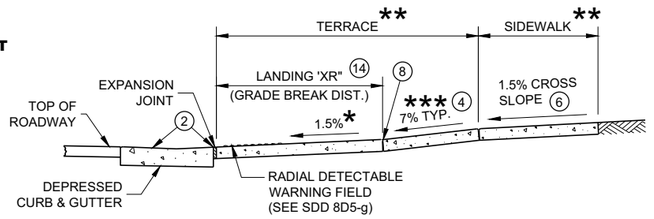



**PLAN VIEW**

## CURB RAMP TYPE 2

**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

**(ON LINE WITH SIDEWALK)**

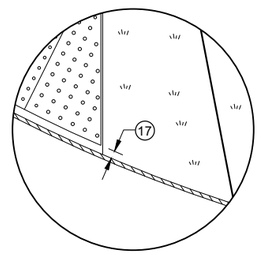



## SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



**DETAIL C**

**CURB RAMPS**
**RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

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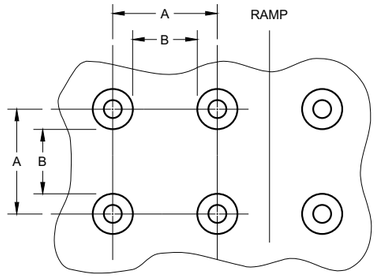
503

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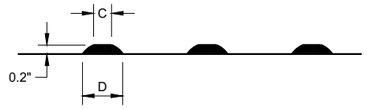
SDD 08D05 - 20f

| | MIN. | MAX. |
|---|---|---|
| A | 1.6" | 2.4" |
| B | 0.65" | 1.5" |
| C | * | * |
| D | 0.9" | 1.4" |

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

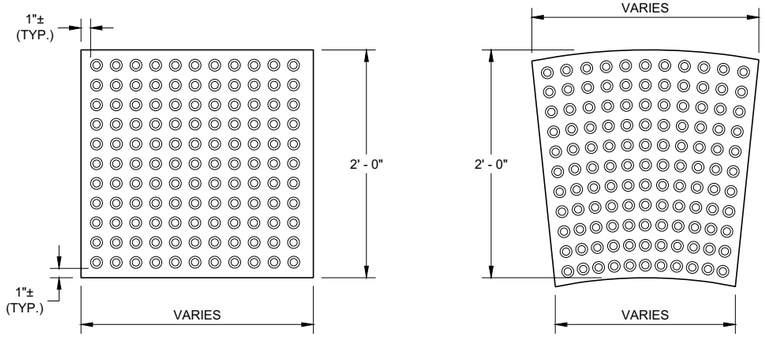



**PLAN VIEW**




**ELEVATION VIEW**

## TRUNCATED DOMES
### DETECTABLE WARNING PATTERN DETAIL




**RECTANGULAR PLATES**

**RADIAL PLATES**

**PLAN VIEW**
**DETECTABLE WARNING FIELDS (TYPICAL)**

## GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

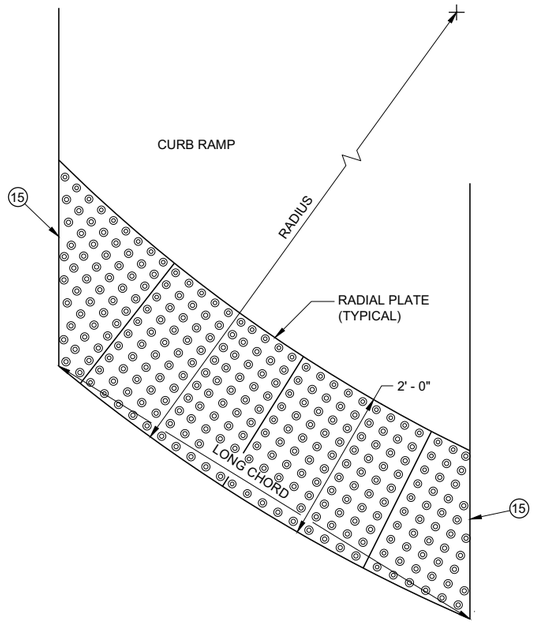
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

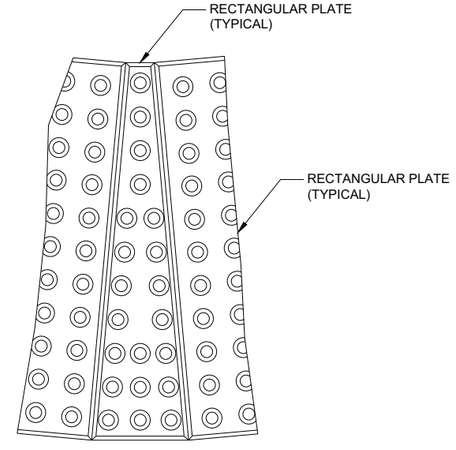
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.




**PLAN VIEW**
**RADIAL DETECTABLE WARNING FIELD ATTRIBUTES**




**PLAN VIEW**
**RADIAL WEDGE PLATE CONNECTION DETAIL**

6

6

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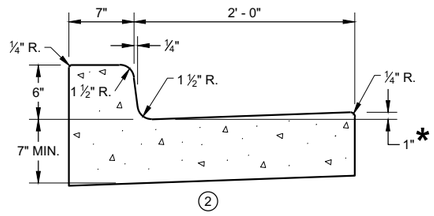
SDD 08D05 - 20g

**CURB RAMPS**
**RECTANGULAR AND RADIAL**
**DETECTABLE WARNING PLATES**

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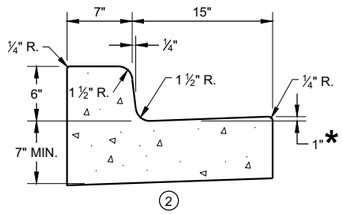
APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

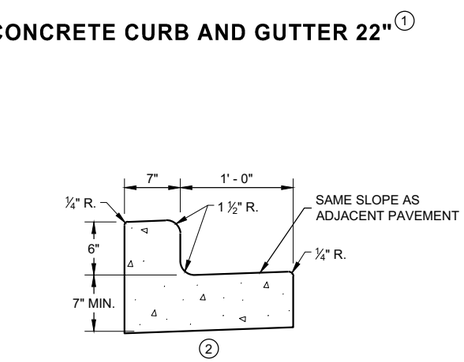



## CONCRETE CURB AND GUTTER 31" ①

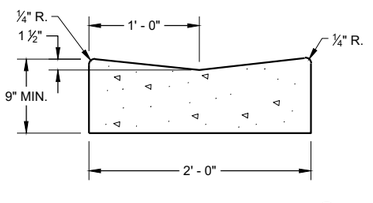
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



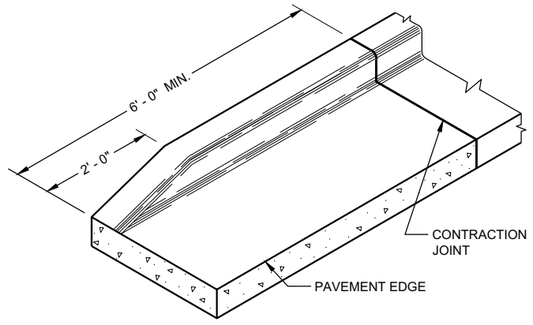

## CONCRETE CURB AND GUTTER 22" ①



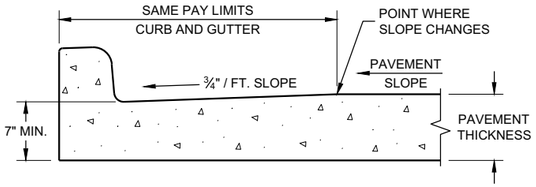

## CONCRETE CURB AND GUTTER 19" ①



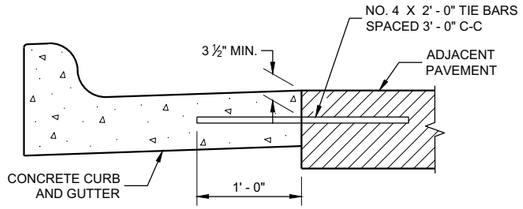

## CONCRETE GUTTER 24" ①



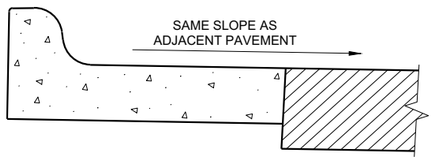

## END SECTIONCURB AND GUTTER




## PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER




## TYPICAL TIE BAR LOCATION ①




## HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

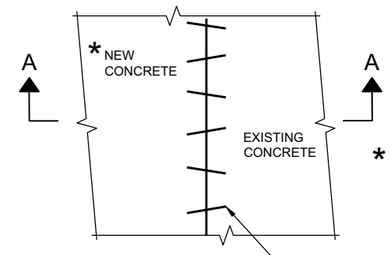
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

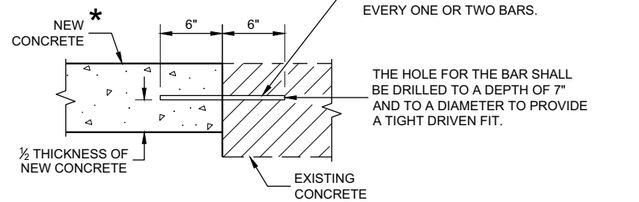
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS




## PLAN VIEW

*EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.




## SECTION A - A

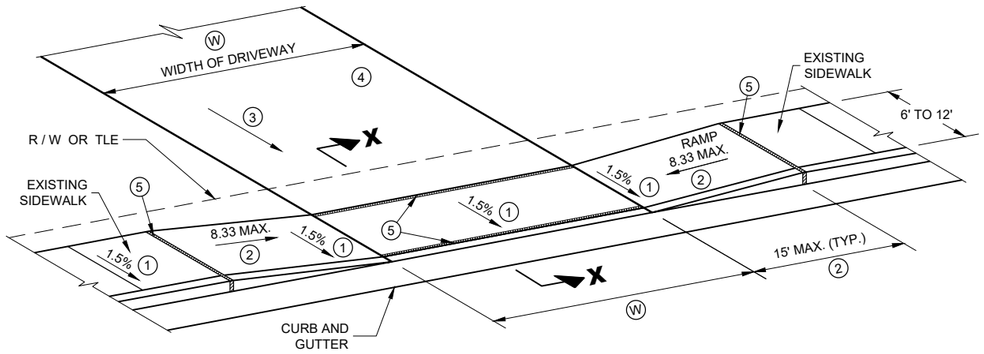
## PAVEMENT TIES

**CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES**

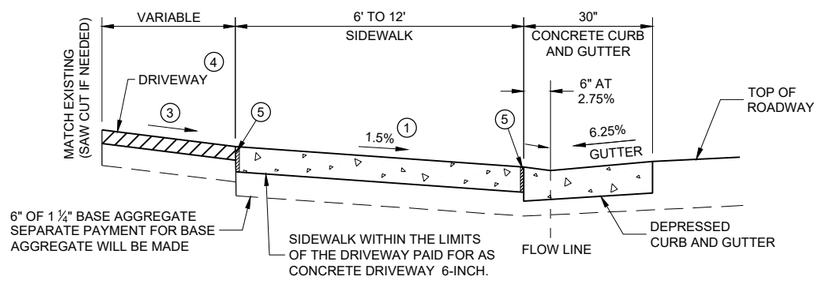
**(For Optional use in Milwaukee Co. Only)**

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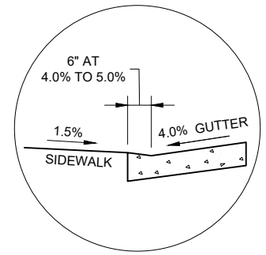
APPROVED
February 2020
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER
505
FHWA



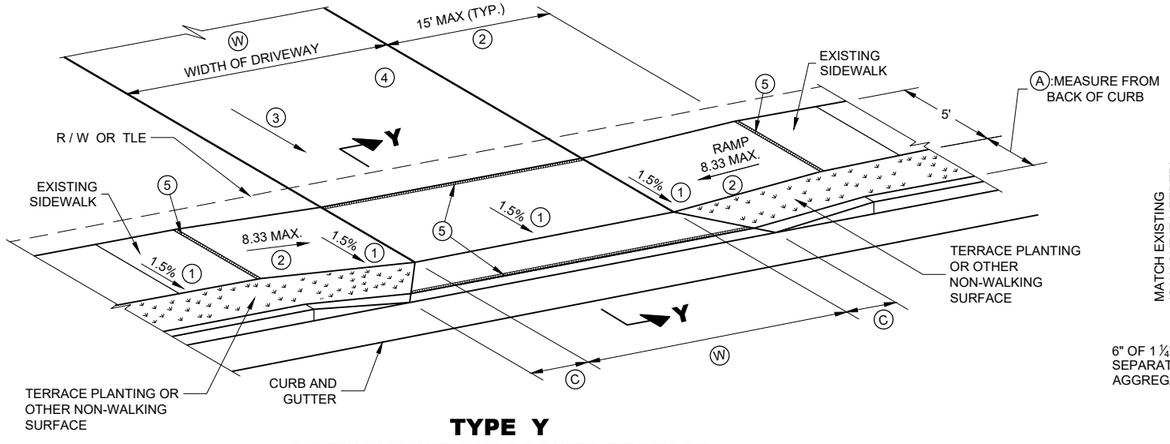

**TYPE X**
**SIDEWALK ABUTS CURB AND GUTTER**
**TERRACE VARIES 0 TO 3 FEET**




**SECTION X - X**




**SECTION X - X**
**4% GUTTER SLOPE**



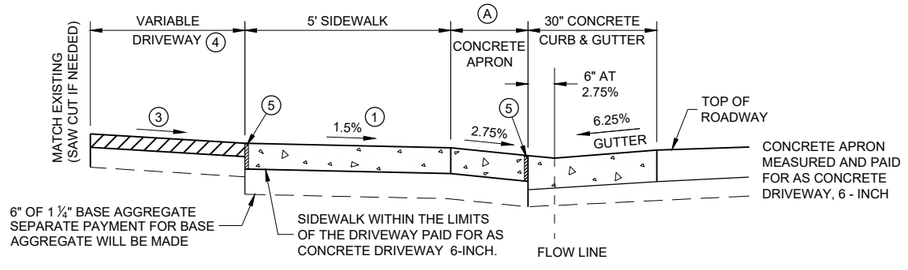

**TYPE Y**
**SIDEWALK WITH NARROWER TERRACE**
**TERRACE VARIES 4 TO 6 FEET**

W: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

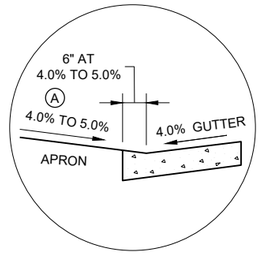
16' MIN. - 35' MAX. COMMERCIAL (CE)

**TABLE Y**

| Ⓐ FEET | Ⓒ FEET |
|---|---|
| 3.5' | 2.0' |
| 4.5' | 3.0' |
| 5.5' | 3.5' |




NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS




**SECTION Y - Y**
**4% GUTTER SLOPE**

**SECTION Y - Y**
**DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER**
**(URBAN AND SUBURBAN)**

## GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ ½" EXPANSION JOINT FILLER

**DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y**

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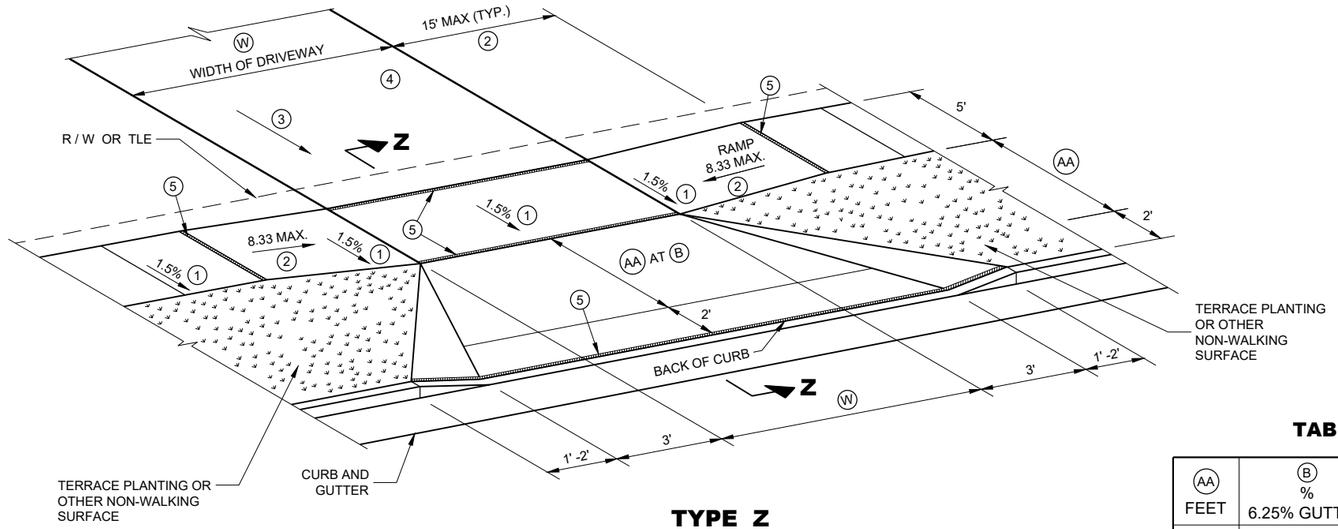
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**TYPE Z**
**SIDEWALK WITH WIDER TERRACE**
**TERRACE VARIES 7 TO 12 FEET**

## GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

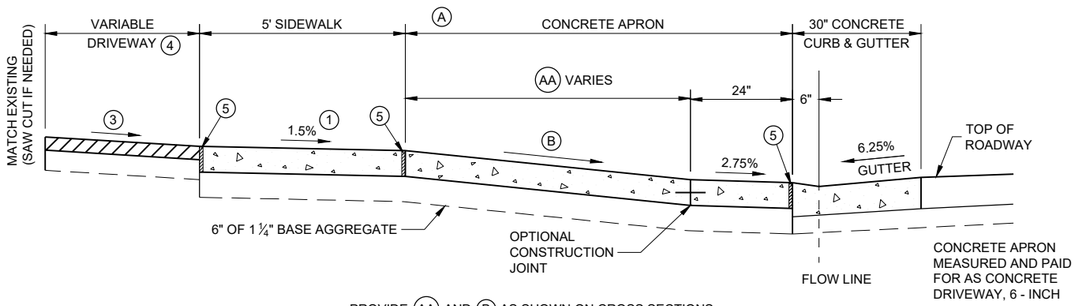
(5) ½" EXPANSION JOINT FILLER.

**TABLE Z**

| (AA) FEET | (B) % 6.25% GUTTER | (B) % 4% GUTTER |
|---|---|---|
| 4.5' | 11.5% | 9% TO 11.5% |
| 5.5' | 9% TO 11.5% | 8% TO 11.5% |
| 6.5' | 8% TO 11.5% | 6% TO 11.5% |
| 7.5' | 7% TO 11.5% | 6% TO 11.5% |
| 8.5' | 6% TO 11.5% | 5% TO 11.5% |
| 9.5' | 5% TO 11.5% | 4% TO 11.5% |

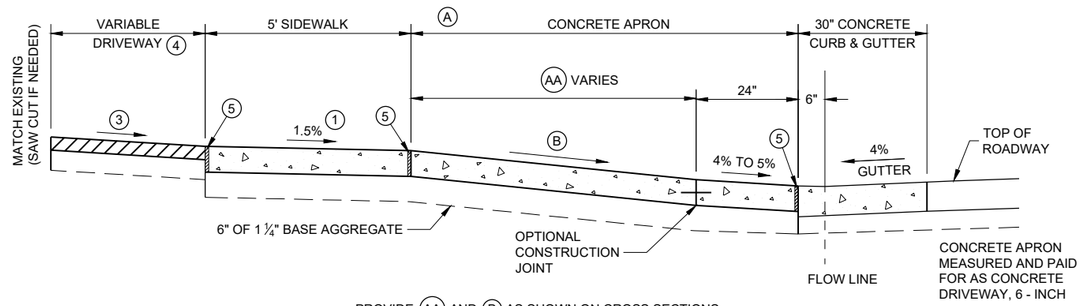
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)




PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

**6.25% GUTTER SLOPE**




PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

**4% GUTTER SLOPE**

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

**SECTION Z - Z**

**DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER**

**(URBAN AND SUBURBAN)**

**DRIVEWAY AND SIDEWALK RAMPS TYPE Z**

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## GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

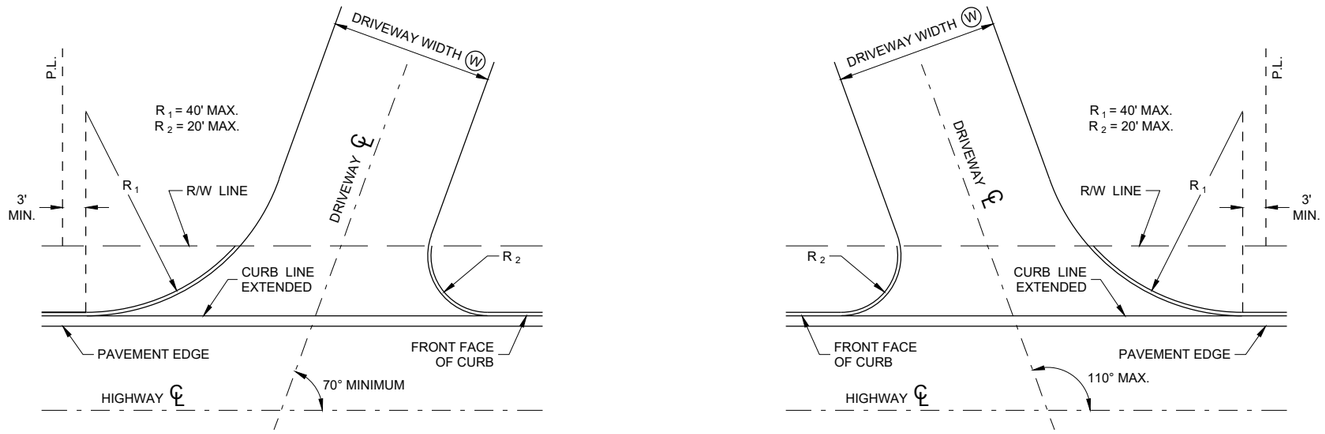
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

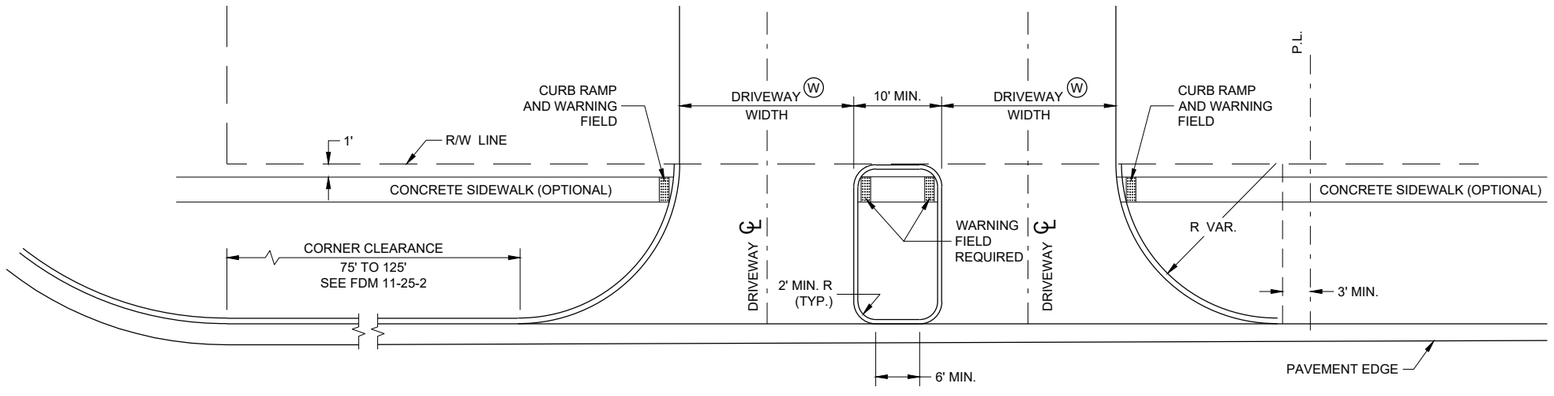
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)




## SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

### SIDEWALK NOT SHOWN




## DRIVEWAY LOCATION AND SPACING DETAILS

### SIDEWALK SHOWN

**DRIVEWAYS WITH CURB AND GUTTER RETURNS**

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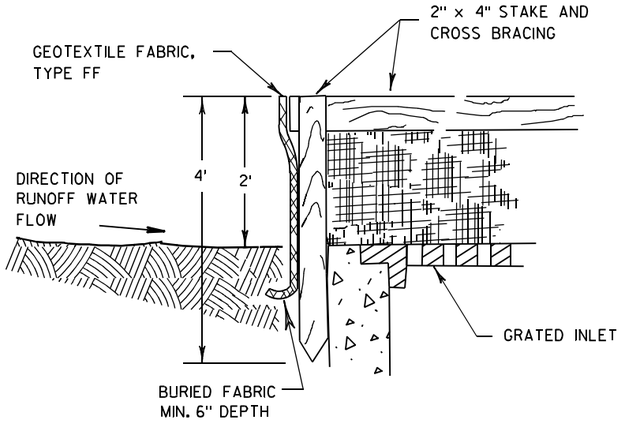
APPROVED
00-00-00 — DATE
/S/ <AUTHOR> — ROADWAY STANDARDS DEVE ENGINEER

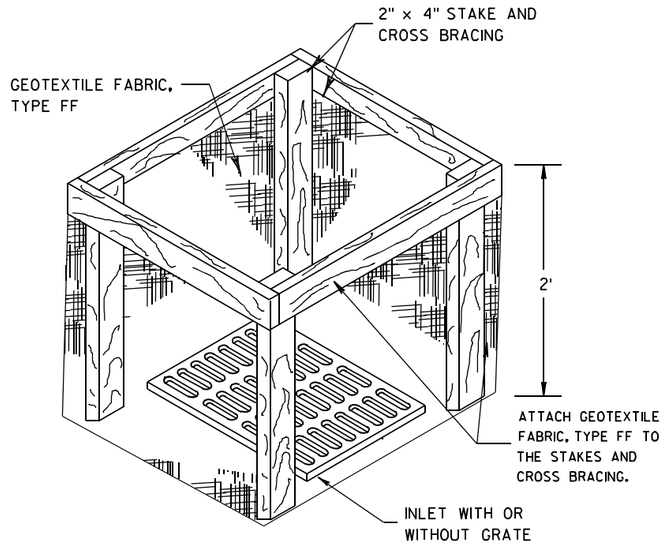
FHWA



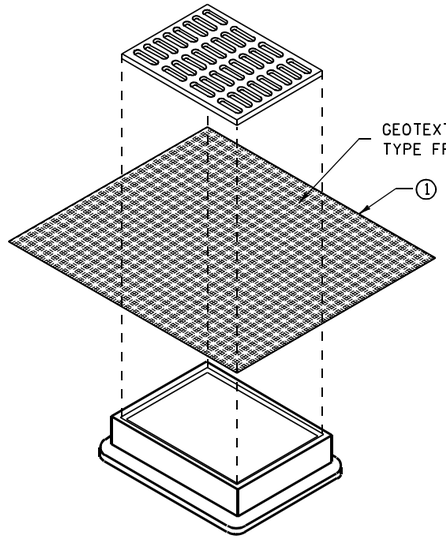

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SDD 08D20 - 01



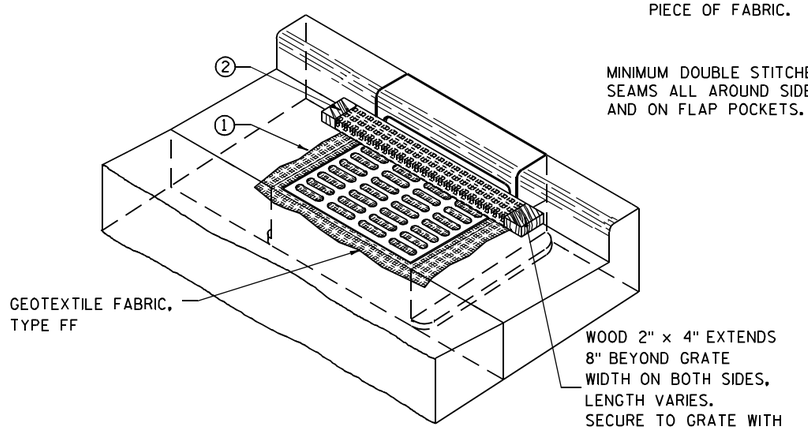




## INLET PROTECTION, TYPE A

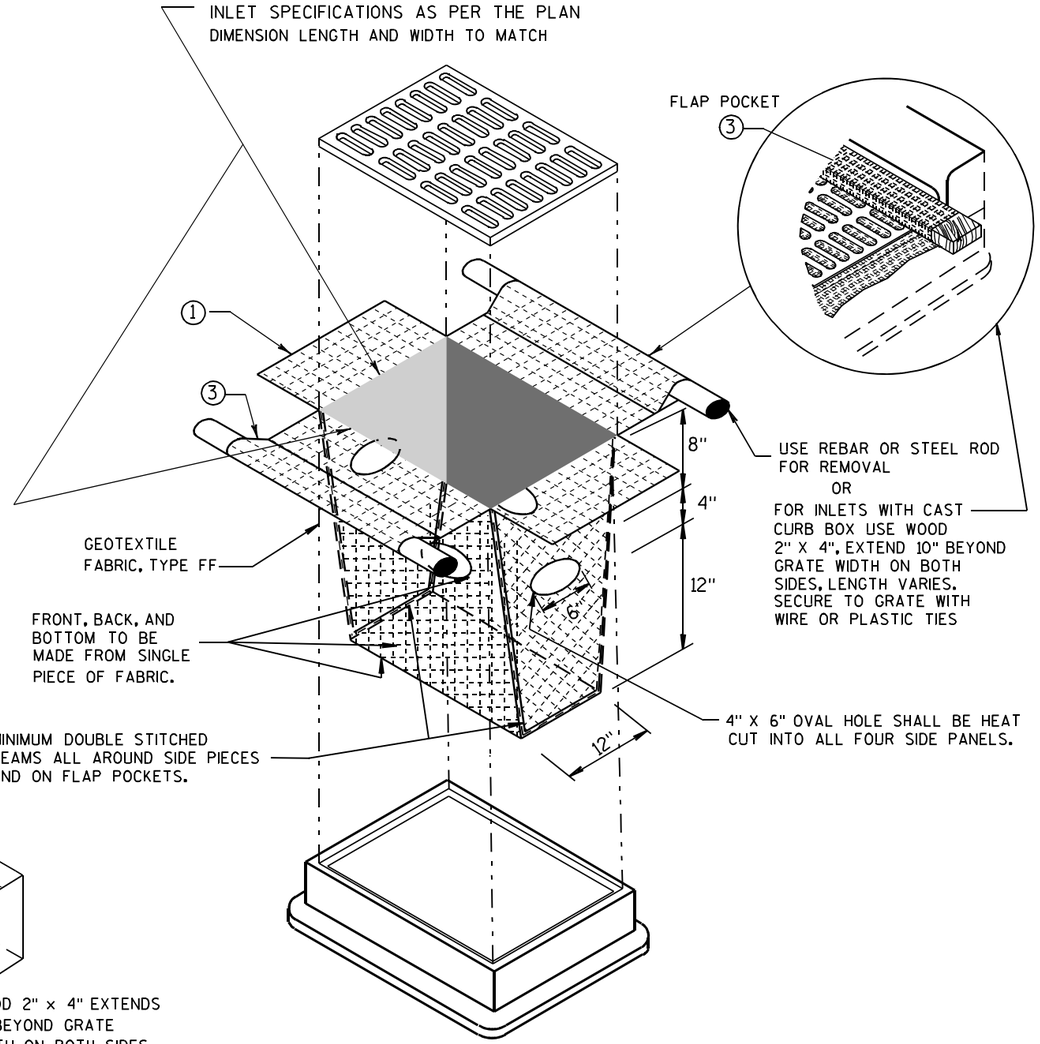



## INLET PROTECTION, TYPE B
## (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)




## INLET PROTECTION, TYPE C (WITH CURB BOX)




## INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ② )

## GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

## INSTALLATION NOTES

### TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

### TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

**INLET PROTECTION**
**TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

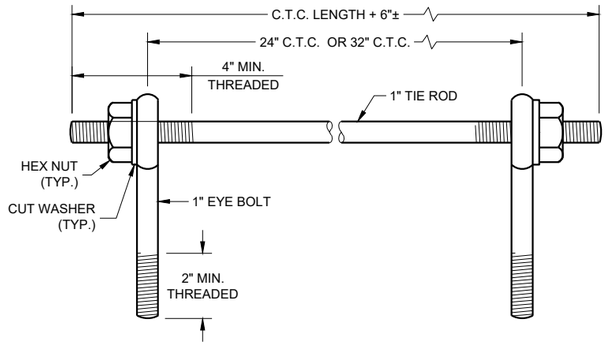


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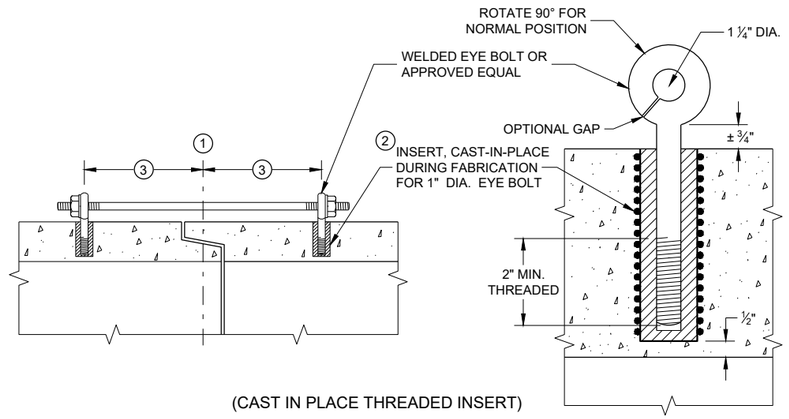
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2




**EYE BOLTS AND TIE ROD**




(CAST IN PLACE THREADED INSERT)

**LONGITUDINAL SECTIONS**

# EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

## GENERAL NOTES

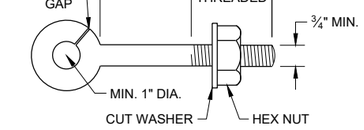
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

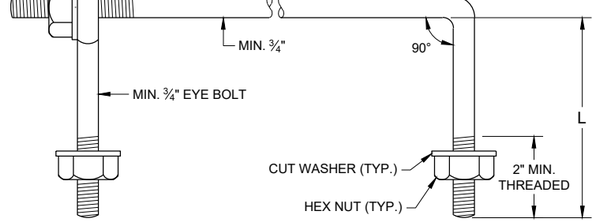
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1. CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
2. THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
3. HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
5. OPENING TO BE ROD DIAMETER PLUS 1 INCH.
6. LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
7. EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

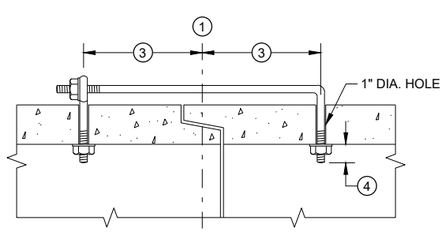



**EYE BOLT** (7)

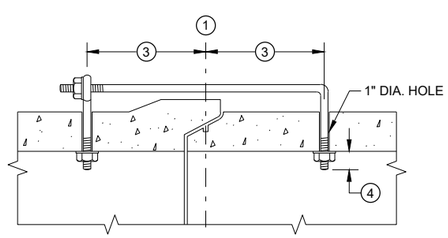
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.




**EYE BOLT AND TIE ROD**




(TONGUE AND GROOVE PIPE)




(MODIFIED BELL PIPE)

**LONGITUDINAL SECTION**

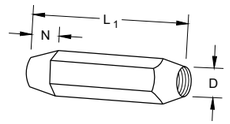
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

# EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

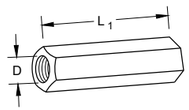
ADJUSTABLE TIE ROD TABLE

| PIPE DIAMETER | TIE ROD DIAMETER | D | $L_1$ | N |
|---|---|---|---|---|
| 12 - 60 | ⅝ | ⅝ | 5 | ½ |
| 66 - 84 | ¾ | ¾ | 5 | ½ |
| 90 - 144 | 1 | 1 | 7 | 1 7/16 |

DIMENSIONS SHOWN ARE IN INCHES



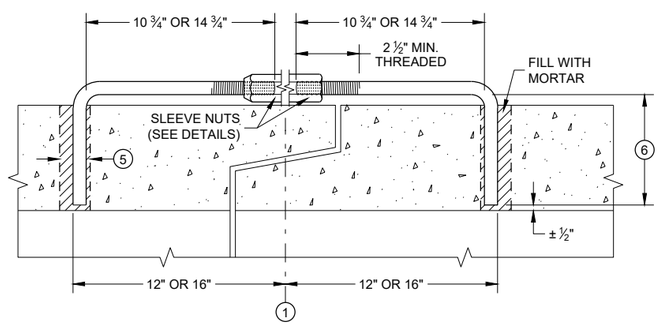

TAPERED




PLAIN

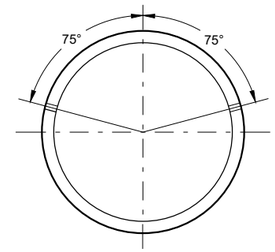
RIGHT AND LEFT THREADS

**SLEEVE NUTS**



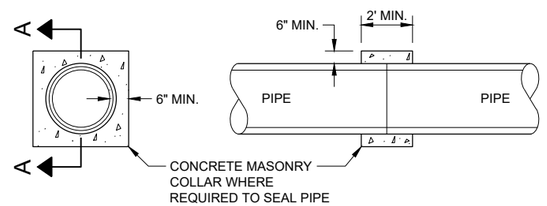

**LONGITUDINAL SECTION**

# ADJUSTABLE TIE ROD (ALTERNATE NO. 3)




PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

**TRANSVERSE SECTION**




**SECTION A - A**

# CONCRETE COLLAR DETAIL

**JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

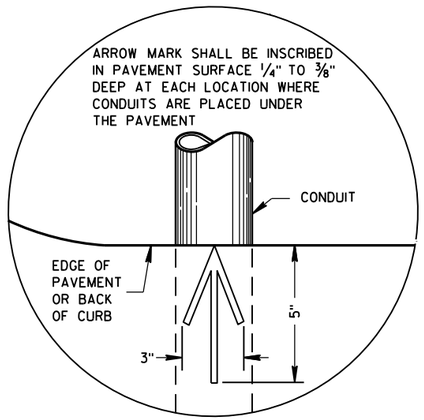
APPROVED
November 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



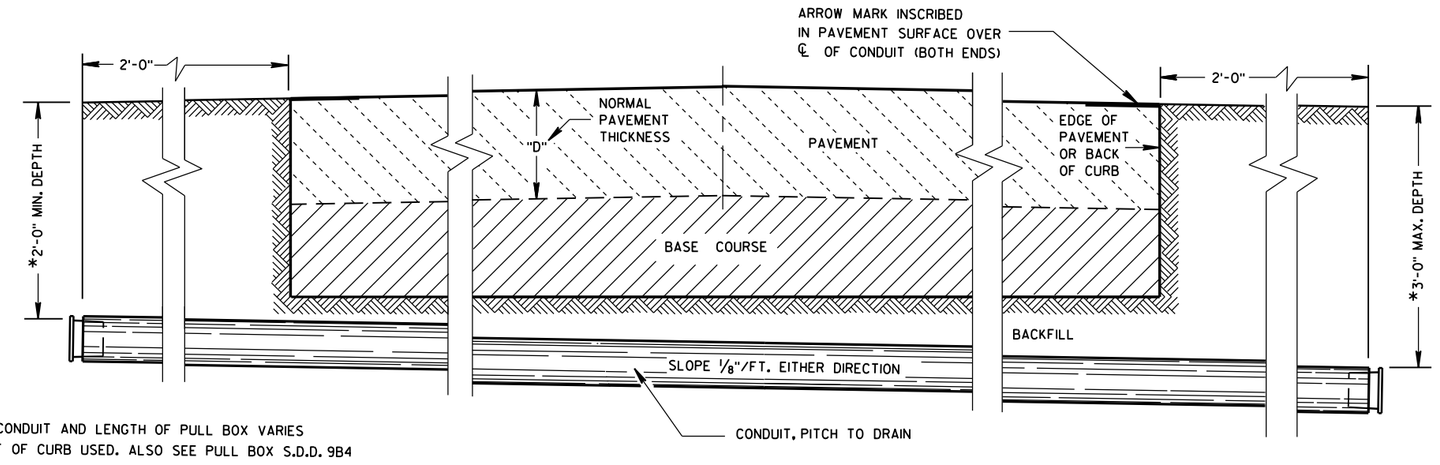
SDD 08F04 - 08

SDD 08F04 - 08




**PLAN VIEW**

## ARROW MARK




*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

**SIDE ELEVATION**

## DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

# CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

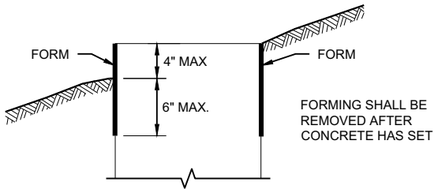
APPROVED
March, 2017
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA




6

S.D.D. 9 B 2-10

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE




## FORMING DETAIL

| QUANTITY REQUIREMENTS | CONCRETE BASE TYPE | | |
|---|---|---|---|
| | 1 | 2 | 5 & 6 |
| APPROX. CUBIC YARDS OF CONCRETE | 0.40 | 0.57 | 0.40 |
| LBS. OF HOOP BAR STEEL | NONE | 23 | 16 |
| LBS. OF VERTICAL BAR STEEL | NONE | 60 | 18 |

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

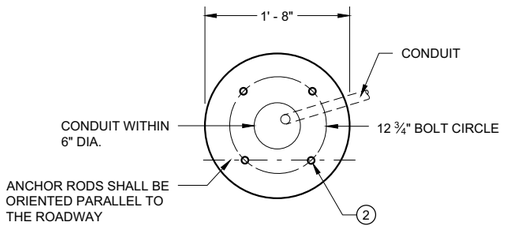
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

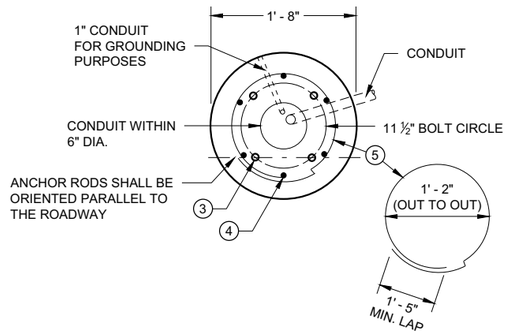
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

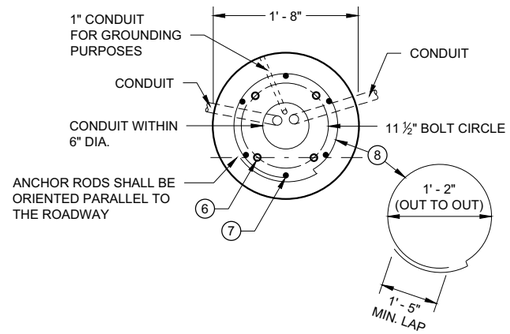
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).




1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

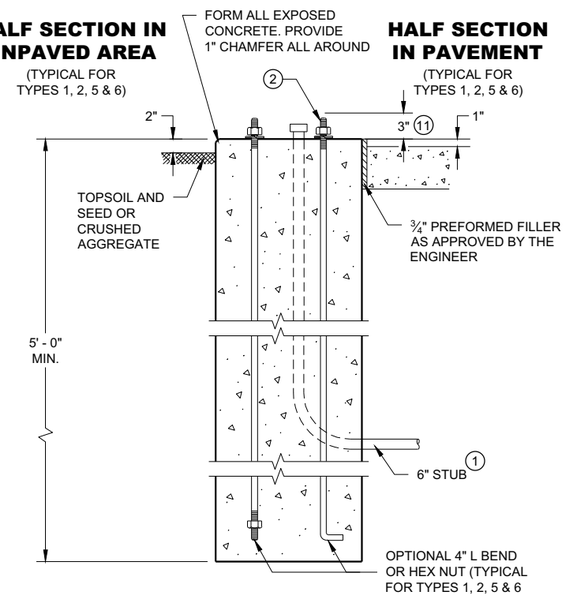
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

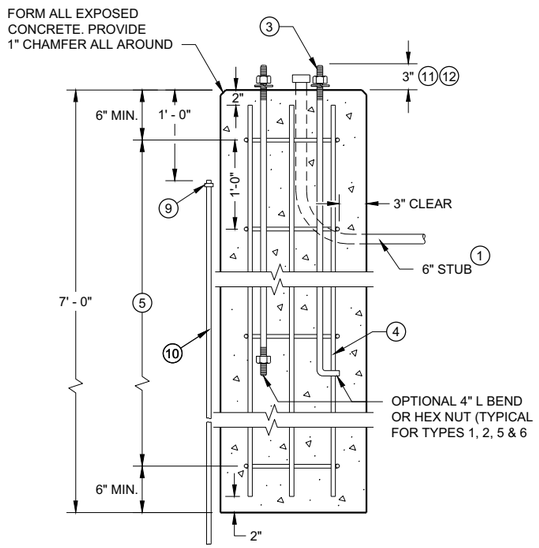
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

**HALF SECTION IN UNPAVED AREA**
(TYPICAL FOR TYPES 1, 2, 5 & 6)

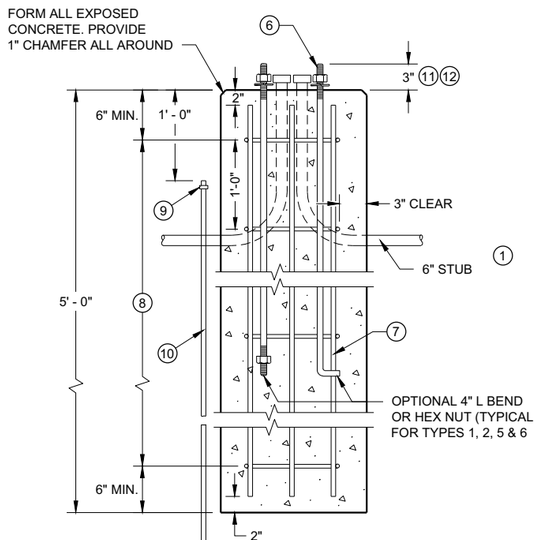
**HALF SECTION IN PAVEMENT**
(TYPICAL FOR TYPES 1, 2, 5 & 6)




**TYPE 1**




**TYPE 2**




**TYPE 5 & 6**

## CONCRETE BASES

**CONCRETE BASES TYPES 1, 2, 5, & 6**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 512
FHWA

SDD 09C02 - 09


SDD 09C02 - 09
6

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

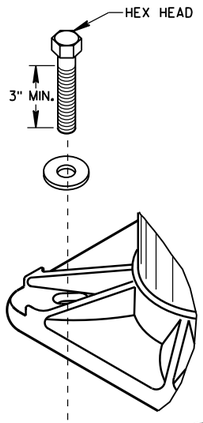
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

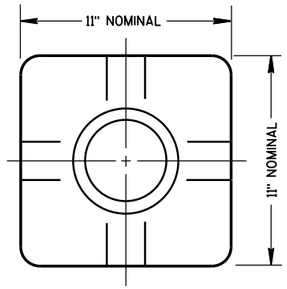
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

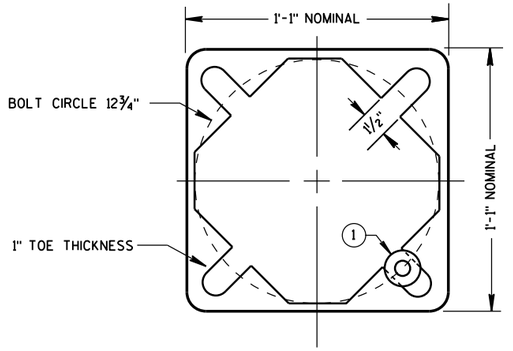
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

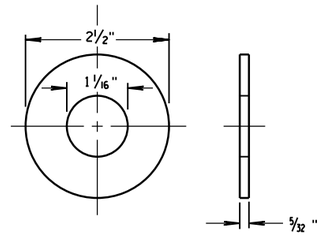



TOP VIEW
(PEDESTAL BASE)

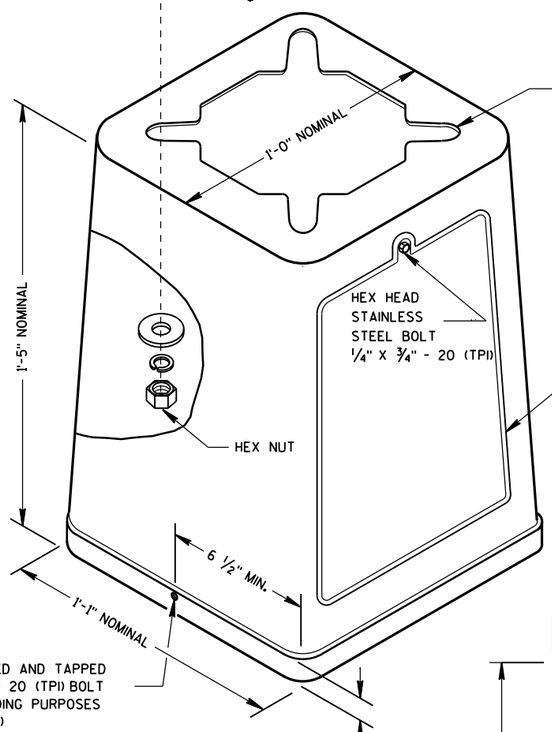



BOTTOM VIEW
(PEDESTAL BASE)

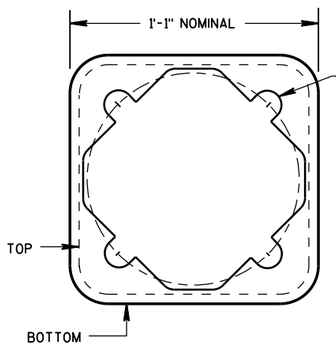



ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

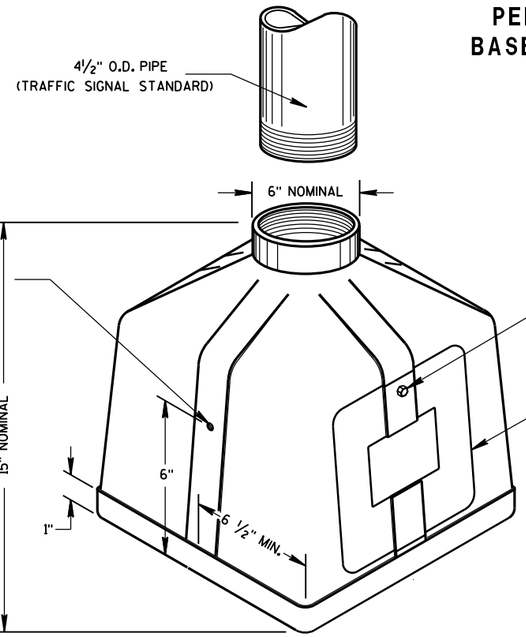
**PEDESTAL BASE WASHER** (1)



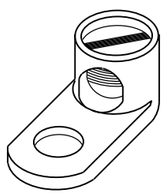

ISOMETRIC VIEW




BOTTOM VIEW
(TRANSFORMER BASE)

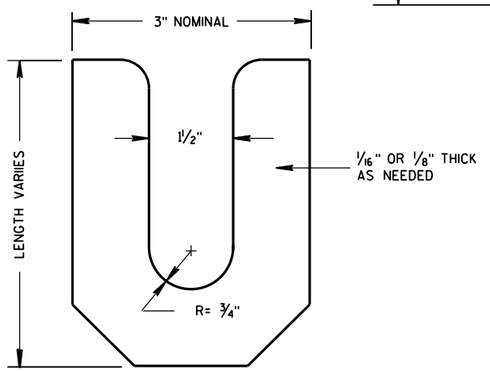



ISOMETRIC VIEW
**PEDESTAL BASE**



**TYPICAL MECHANICAL CONNECTOR LUG**
TO BE FURNISHED WITH EACH BASE

**TRANSFORMER BASE**
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES




**LEVELING SHIM**

**TRANSFORMER/PEDESTAL BASES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA




6

S.D.D. 9 C 3-4

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

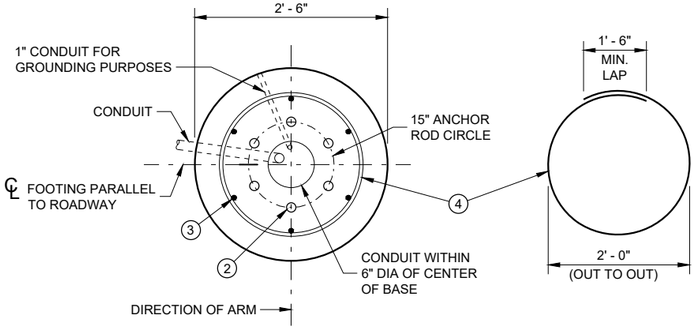
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

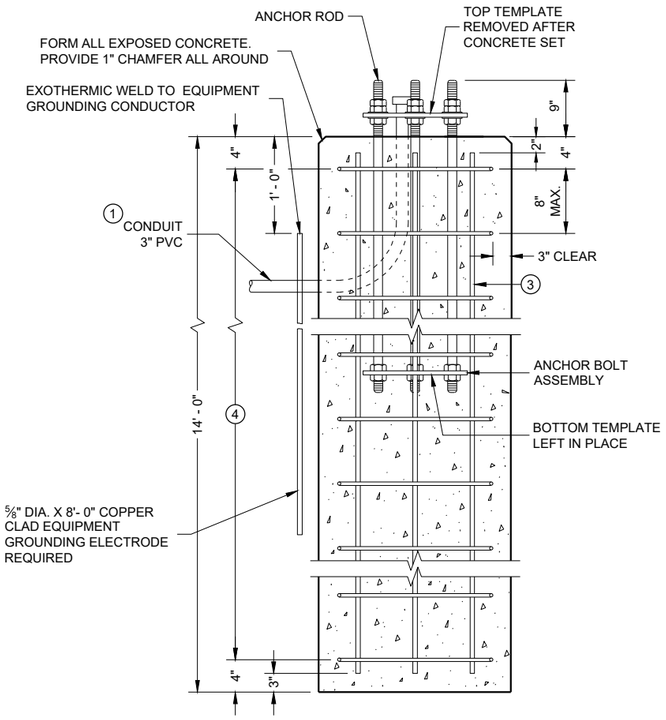
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 ( IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

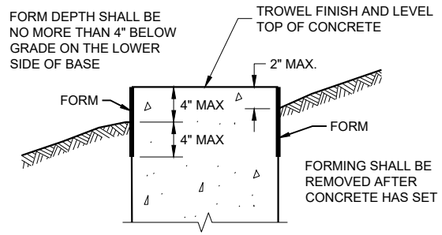
| QUANTITY REQUIREMENTS | |
|---|---|
| APPROX. CUBIC YARDS OF CONCRETE | 2.5 |
| LBS. OF HOOP BAR STEEL | 172 |
| LBS. OF VERTICAL BAR STEEL | 122 |



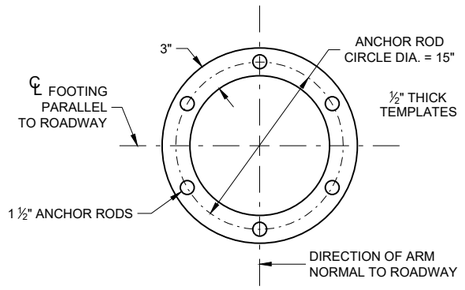




## CONCRETE BASE, TYPE 10
### (FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

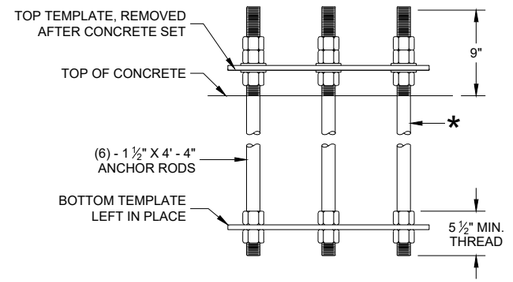
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.




## FORMING DETAIL




## TOP AND BOTTOM TEMPLATE




## ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

**CONCRETE BASE TYPE 10**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA



6

SDD 09C11 - 10

6

SDD 09C11 - 10

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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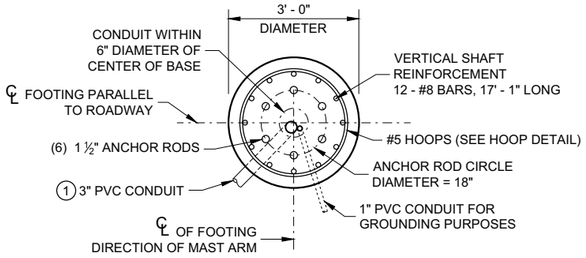
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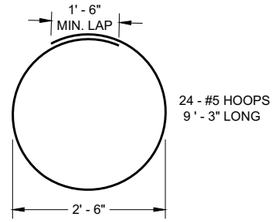
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

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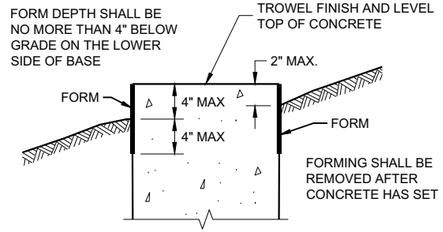
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 ( IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



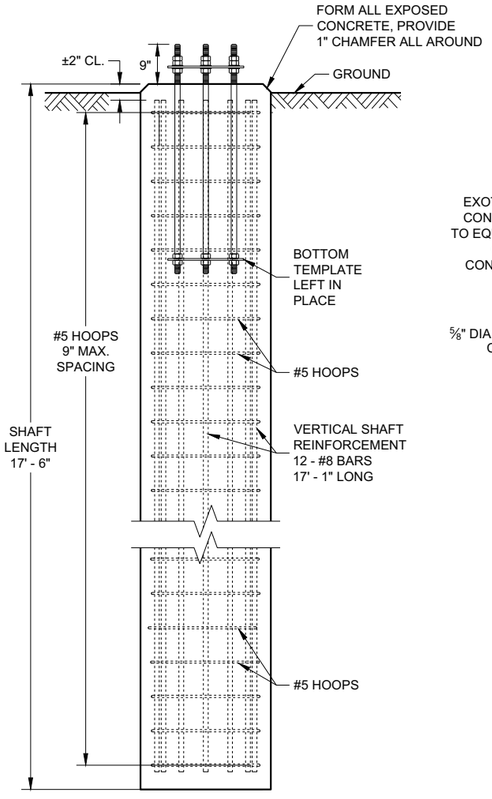

**PLAN VIEW**



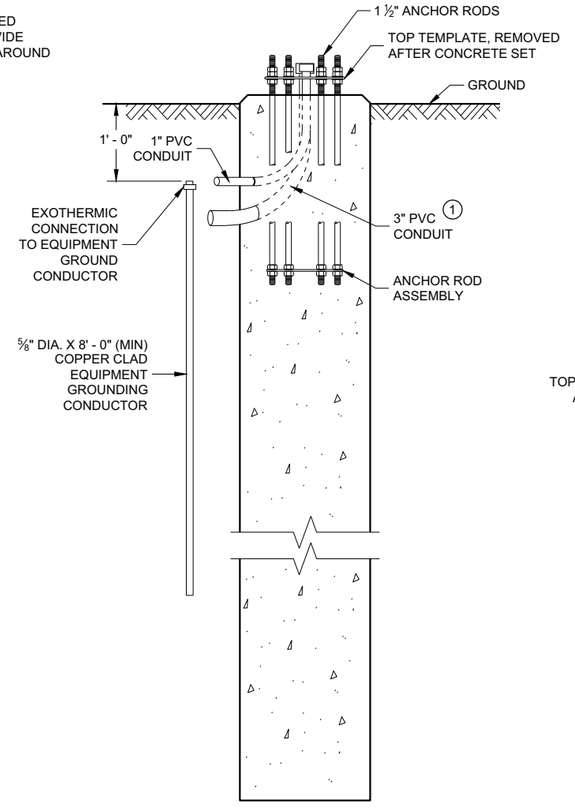

**HOOP DETAIL**



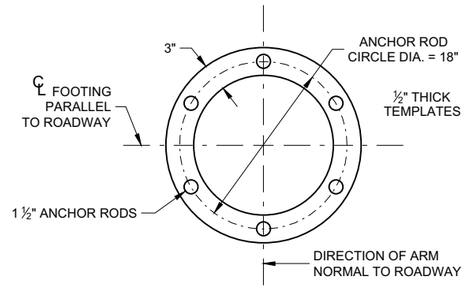

**FORMING DETAIL**



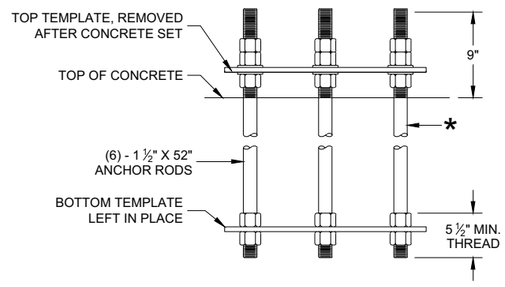

**ELEVATION VIEW**
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)




**SIDE VIEW**
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)




**TOP AND BOTTOM TEMPLATE**




**ANCHOR ROD ASSEMBLY DETAILS**

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

## CONCRETE BASE, TYPE 10 SPECIAL
## (FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

**CONCRETE BASE TYPE 10 SPECIAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA



6

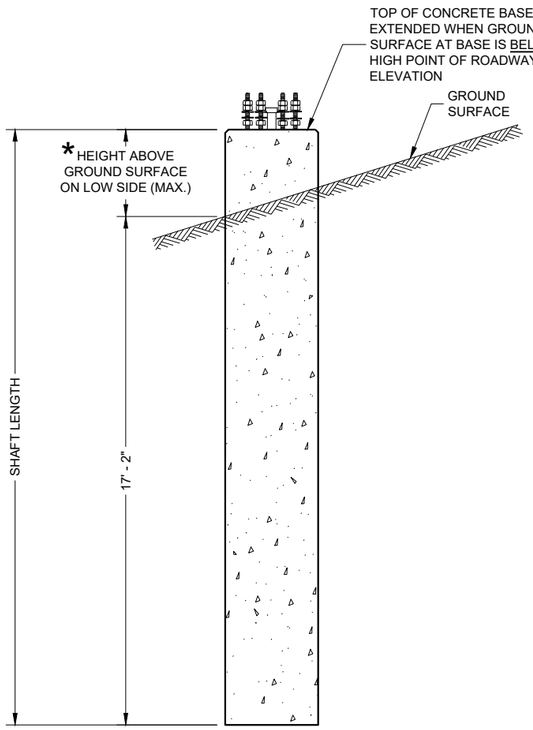
SDD 09C15 - 01

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SDD 09C15 - 01

## REINFORCEMENT AND CONCRETE QUANTITIES
## ADJUSTED FOR EXTENDED TYPE 10 SPECIAL CONCRETE BASE

| HEIGHT INCREASE REQUIRED | *HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAX.) | SHAFT LENGTH | LENGTH OF #8 VERTICAL REINF. | NO. OF #5 HOOPS | CU. YD. OF CONCRETE | LBS. OF HOOP BAR STEEL | LBS. OF VERTICAL STEEL |
|---|---|---|---|---|---|---|---|
| >0" TO 6" | 10" | 18' - 0" | 17' - 7" | 25 | 4.7 | 241 | 563 |
| >6" TO 1' - 0" | 1' - 4" | 18' - 6" | 18' - 1" | 25 | 4.8 | 241 | 579 |
| >1' - 0" TO 1' - 6" | 1' - 10" | 19' - 0" | 18' - 7" | 26 | 5.0 | 251 | 595 |
| >1' - 6" TO 2 - 0" | 2' - 4" | 19' - 6" | 19' - 1" | 27 | 5.1 | 260 | 611 |




**CONCRETE BASE TYPE 10 SPECIAL (EXTENDED)**

**CONCRETE BASE TYPE 10 SPECIAL EXTENSION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 516

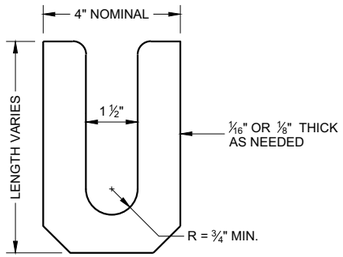
FHWA

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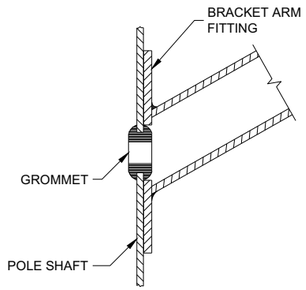
SDD 09C16-01

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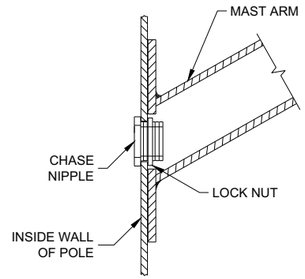
SDD 09C16-01




**LEVELING SHIM** (1)
SHALL BE ALUMINUM




**TYPICAL APPLICATION OF GROMMET IN POLE SHAFT**




**TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT**

## GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

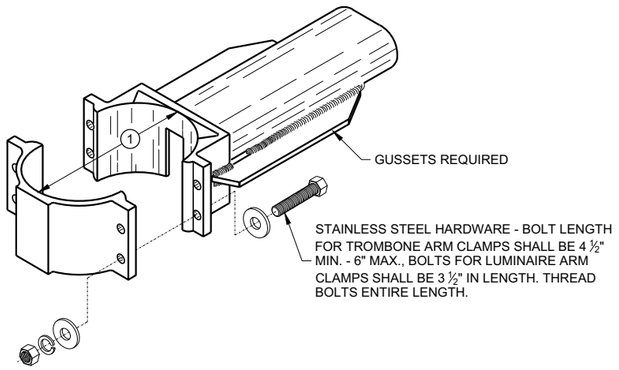
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

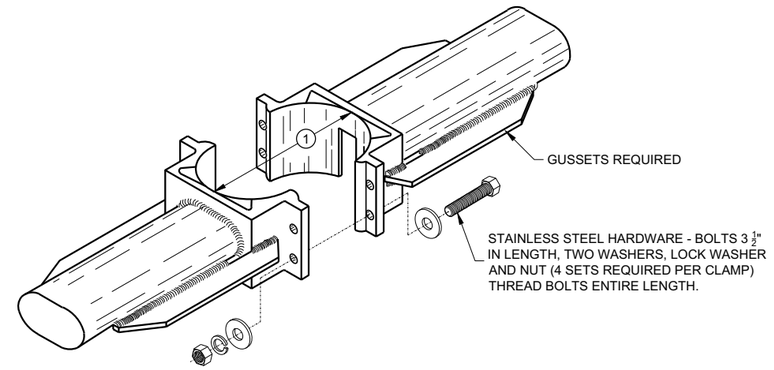
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

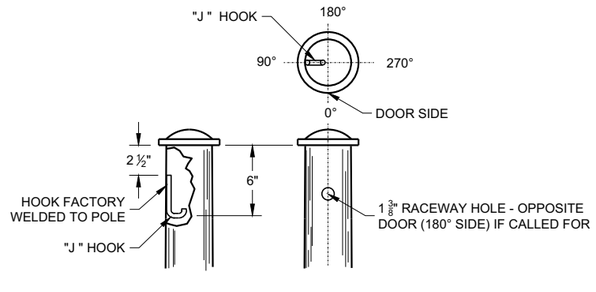
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



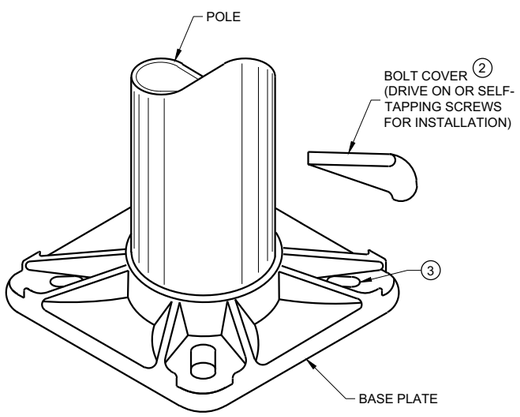

**TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP**



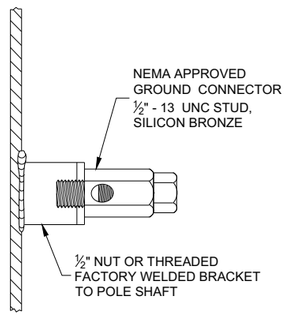

**TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS**

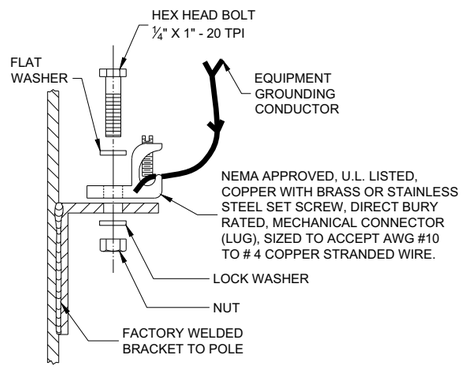


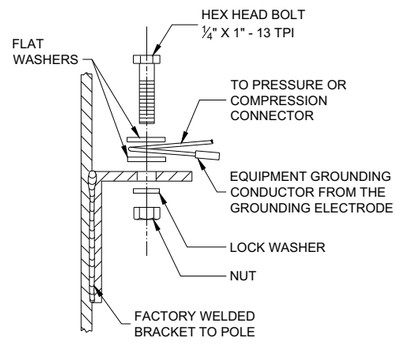

**TYPICAL "J" HOOK LOCATION**




**BASE PLATE**




**TYPICAL GROUNDING CONNECTIONS**
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

**HARDWARE DETAILS FOR POLE MOUNTING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 517

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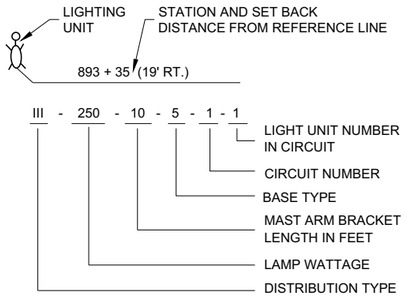

6
SDD 09E01 - 15g

## GENERAL NOTES

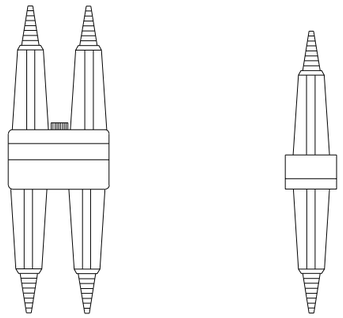
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



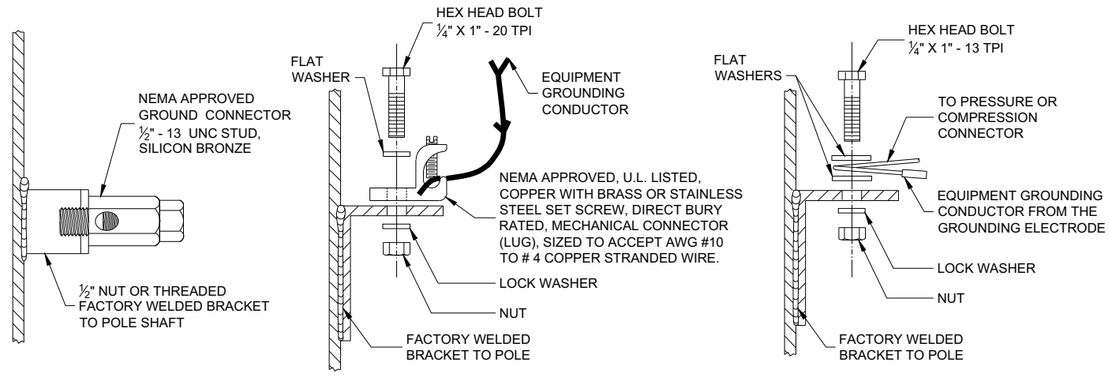

**LIGHTING UNIT CODE**
**(TYPICAL)**



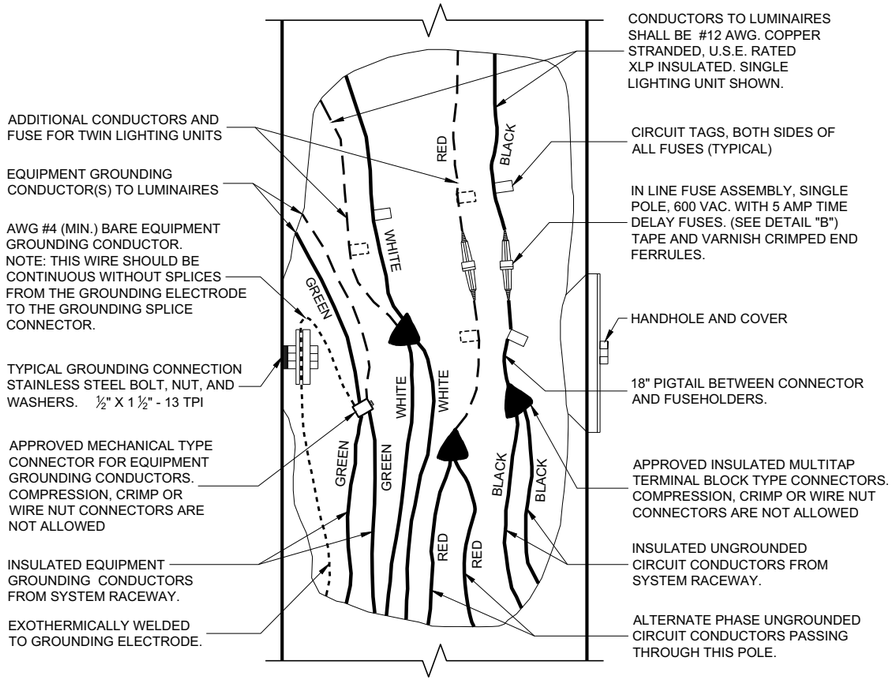
**DETAIL "A"**
**BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT**



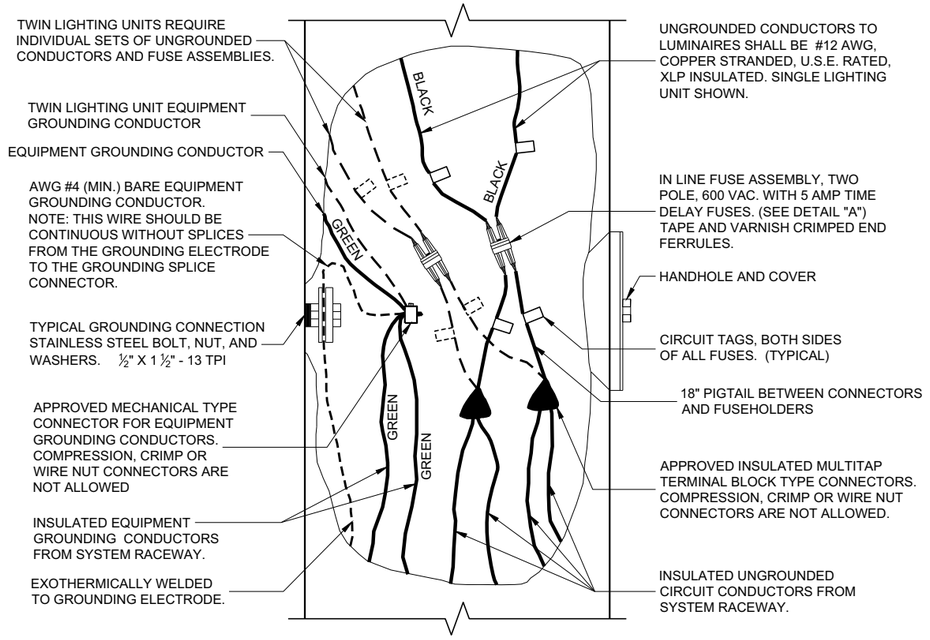
**DETAIL "B"**
**BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT**




**TYPICAL GROUNDING CONNECTIONS**
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL




**3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR**




**2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR**

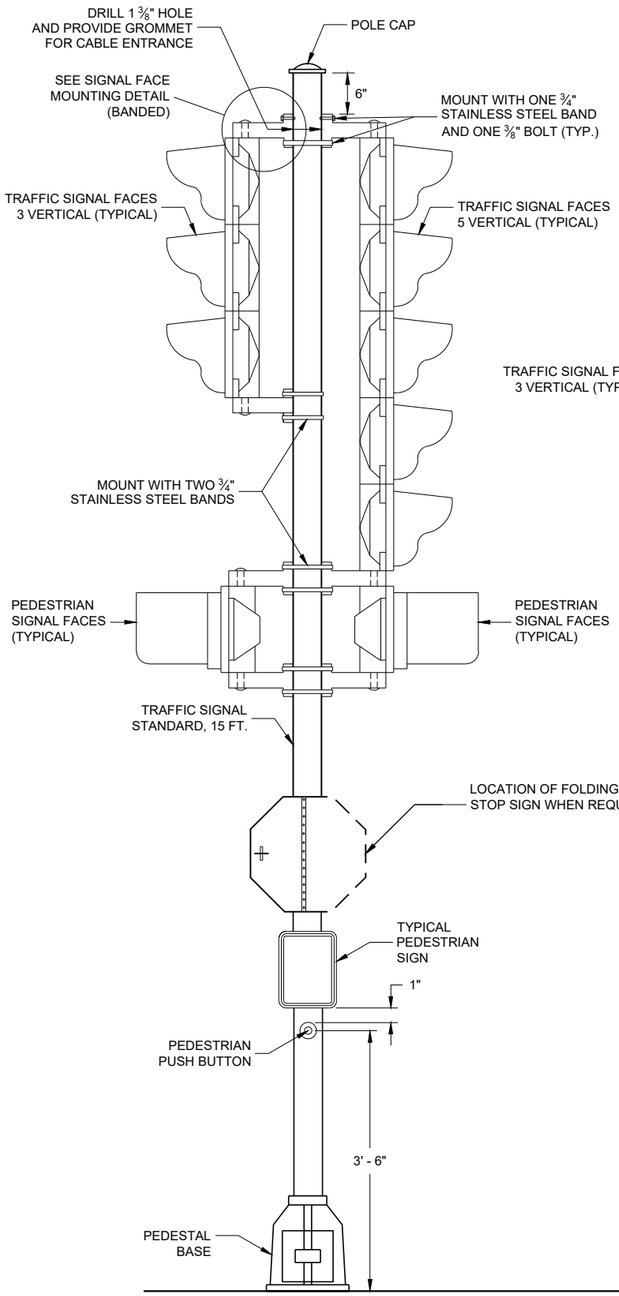
**NON - FREEWAY LIGHTING UNIT POLE WIRING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

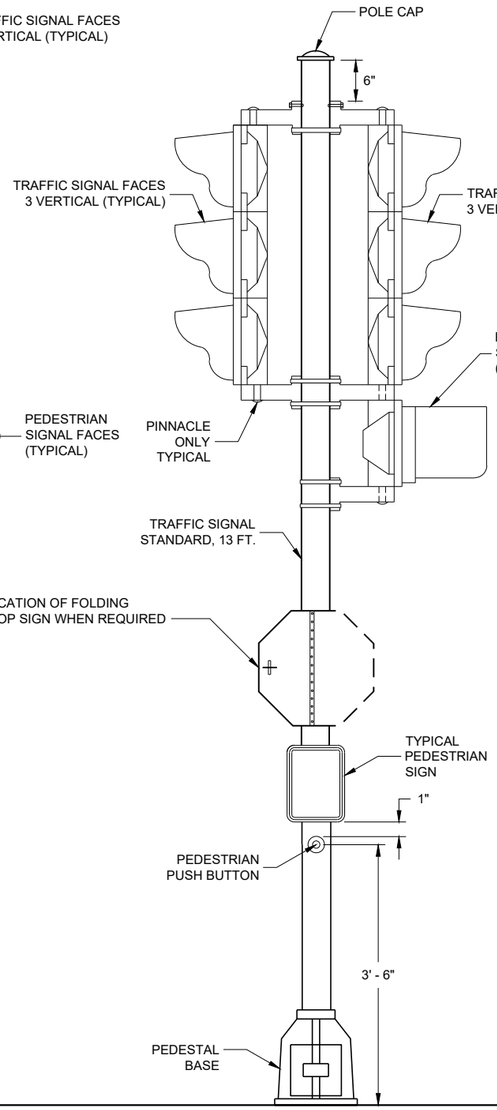
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 518

FHWA

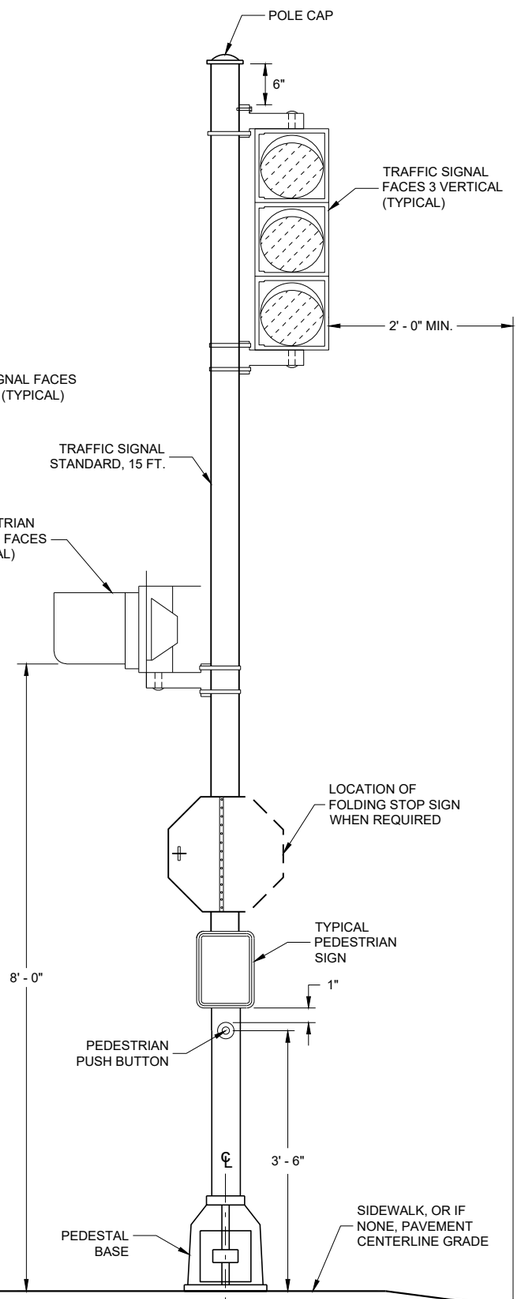

6
SDD 09E03 - 06




**TRAFFIC SIGNAL STANDARD - 15 FT.**




**TRAFFIC SIGNAL STANDARD - 13 FT.**




**TRAFFIC SIGNAL TANDARD - 15 FT.**
**3M MOUNTING (TYPICAL)**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

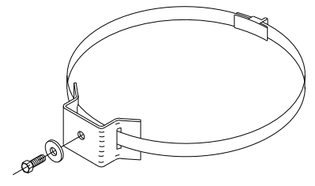
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

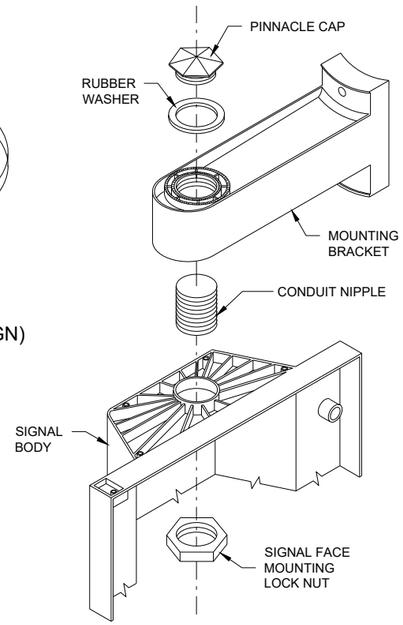
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



**TYPICAL SIGN MOUNTING BAND**
(TOP AND BOTTOM OF SIGN)




**SIGNAL FACE MOUNTING DETAIL (BANDED)**

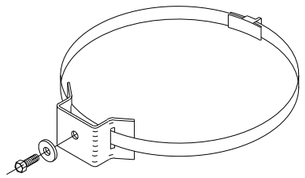
**TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

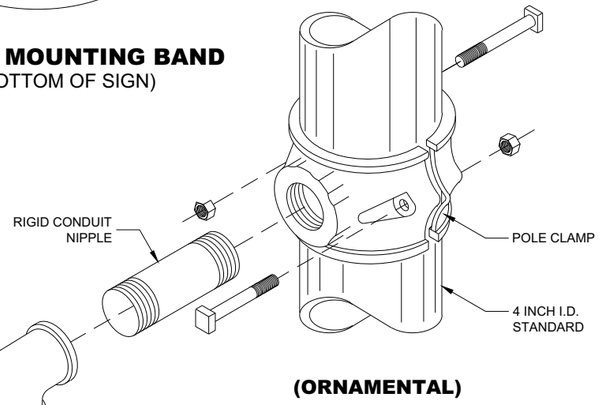
APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 519

FHWA

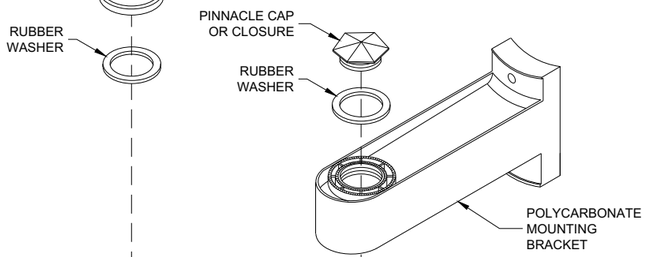

6
SDD 09E06 - 05



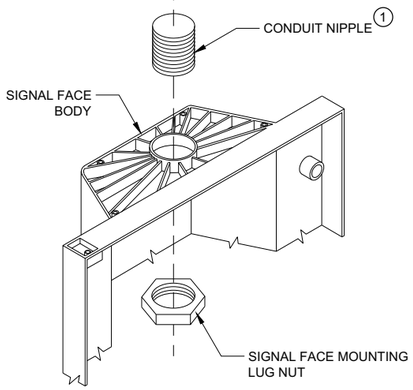
**TYPICAL SIGN MOUNTING BAND**
(TOP AND BOTTOM OF SIGN)



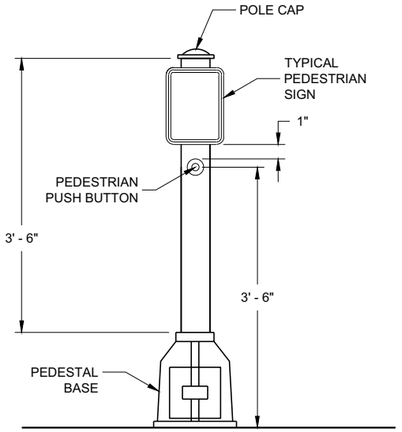

**(ORNAMENTAL)**




**(BANDED)**




**SIGNAL FACE MOUNTING DETAILS**




**PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

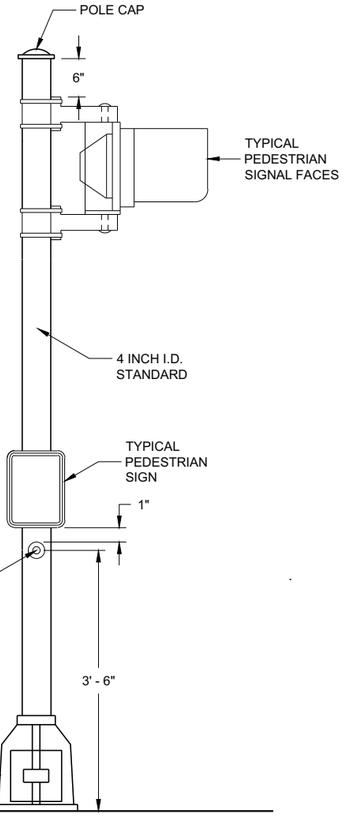
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

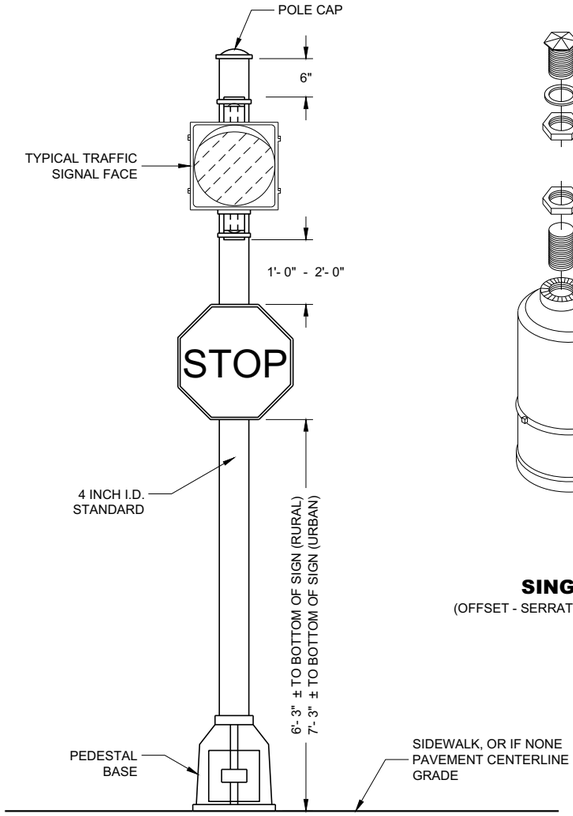
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

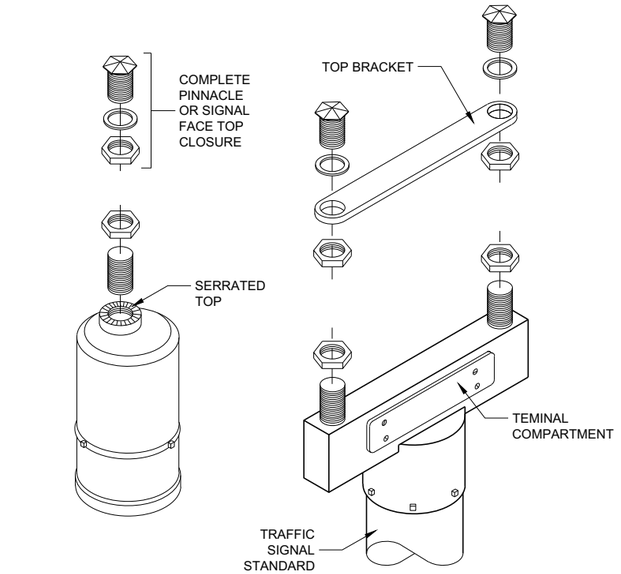
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.




**PEDESTRIAN FACE STANDARD - 10 FT.**
(WALK - DON'T WALK)




**STANDARD FLASHER**
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED




**SINGLE**
(OFFSET - SERRATED MOUNTING)

**DOUBLE**
(SERRATED MOUNTING)

**SLIPFITTERS**

**TRAFFIC SIGNAL STANDARD**
**PEDESTRIAN AND FLASHER**
**TYPICAL MOUNTING DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

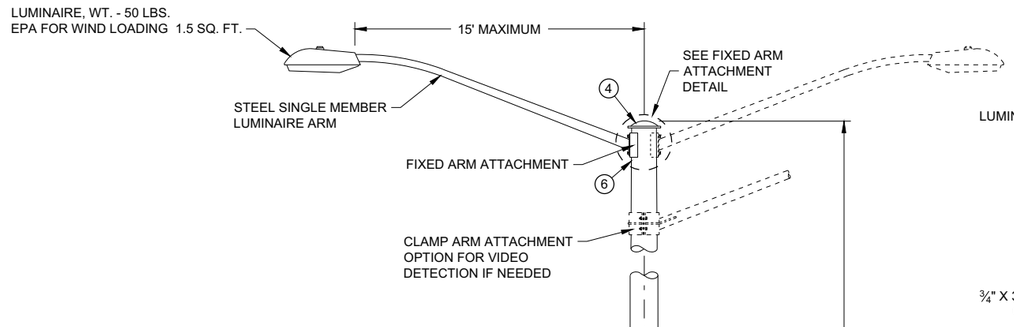
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 520

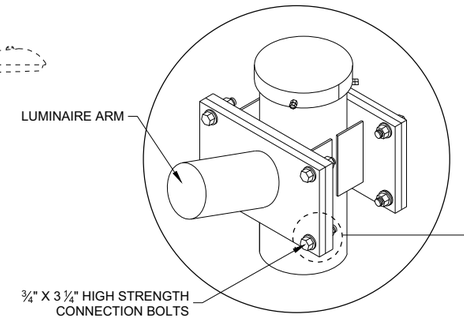
FHWA



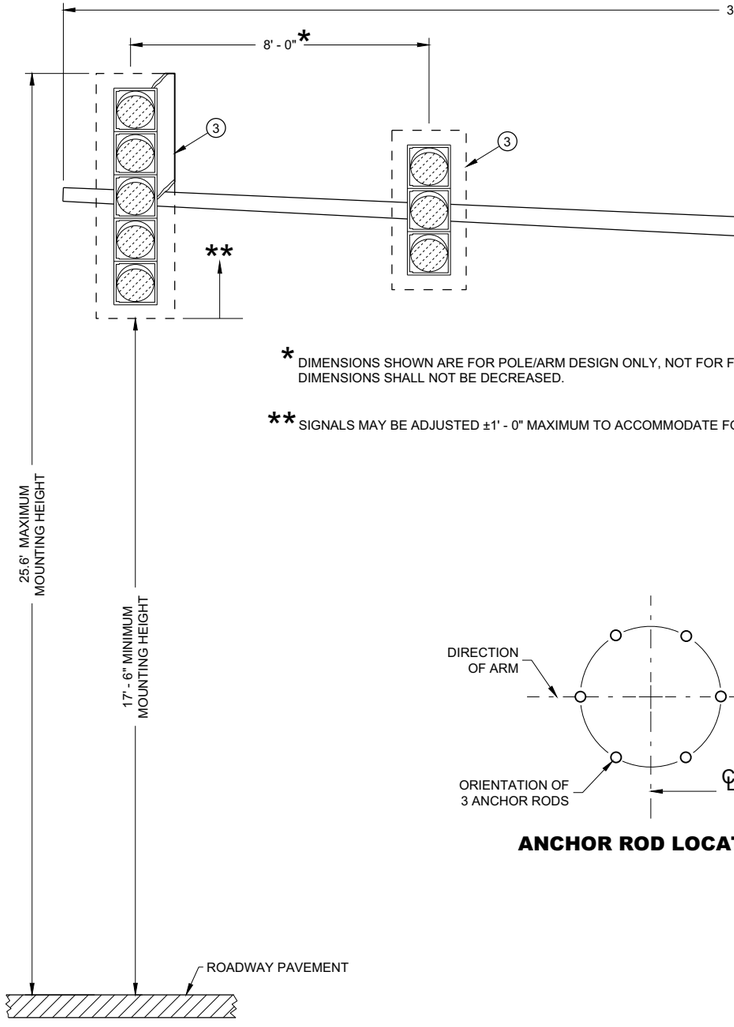
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SDD 09E07 - 06



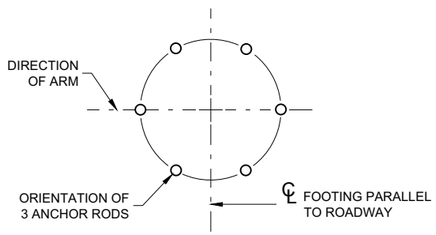




**FIXED ARM ATTACHMENT DETAIL**

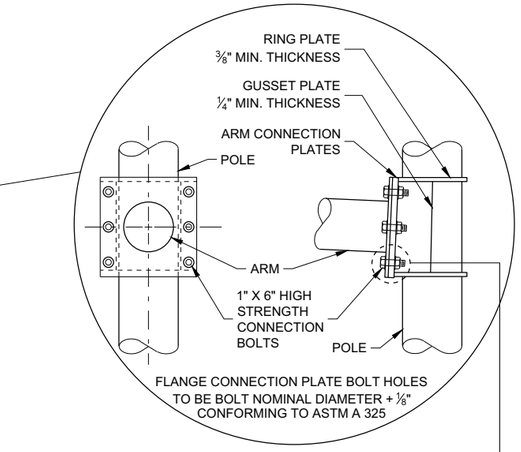



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

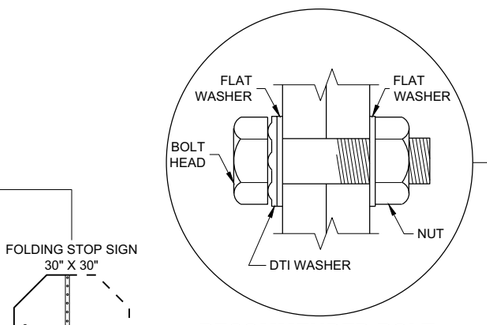
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



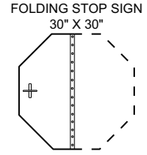

**ANCHOR ROD LOCATION**




**6 BOLT ARM CONNECTION DETAIL**




**RECOMMENDED BOLT ASSEMBLY DETAIL**




**TYPE 10 POLE**
**15' - 30' MONOTUBE ARM**
(MAXIMUM LOAD)

**TYPE 10 POLE**
**15' - 30 MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 521

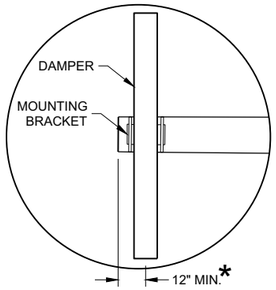
FHWA

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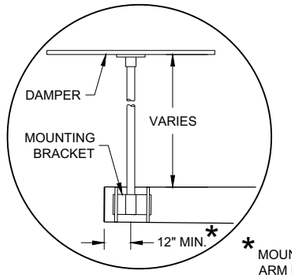
SDD 09E08 - 09e

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SDD 09E08 - 09e

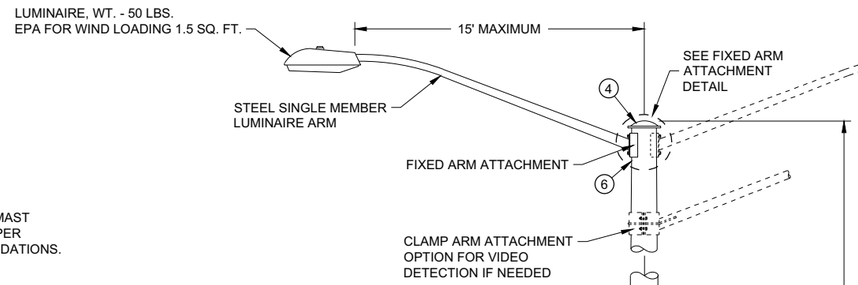


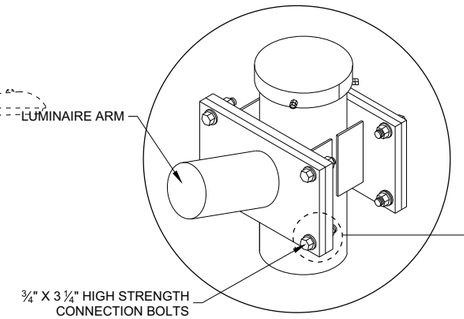

**DUMBBELL VIBRATION DAMPER**



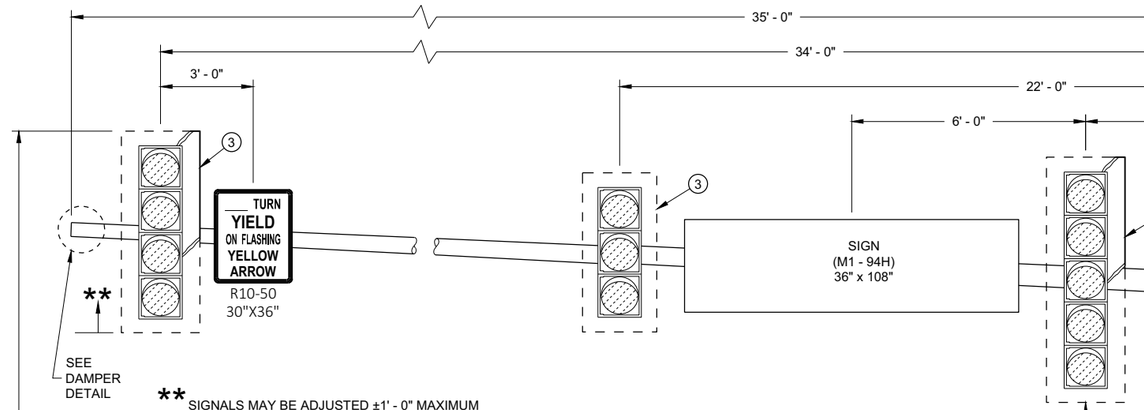

**FLAT VIBRATION DAMPER**

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

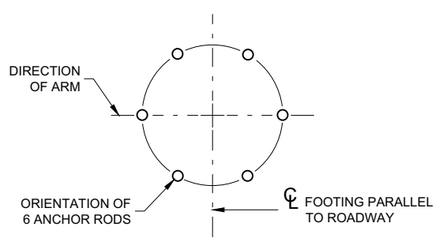


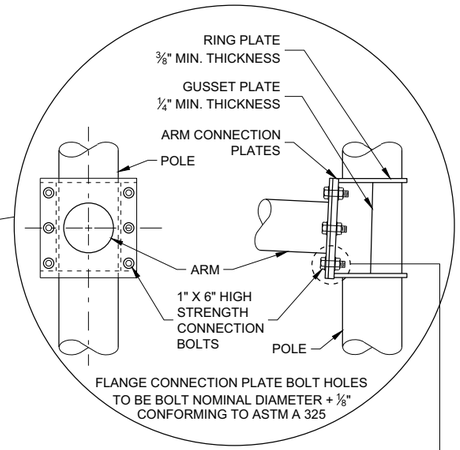

**FIXED ARM ATTACHMENT DETAIL**



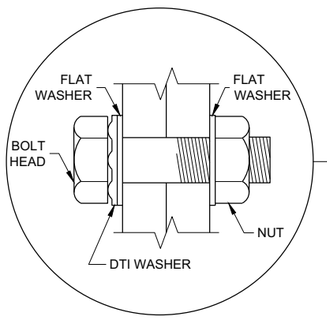

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE




**ANCHOR ROD LOCATION**




**6 BOLT ARM CONNECTION DETAIL**




**RECOMMENDED BOLT ASSEMBLY DETAIL**

**TYPE 10 SPECIAL POLE**
**35' MONOTUBE ARM**
(MAXIMUM LOAD)

**TYPE 10 SPECIAL POLE**
**35' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

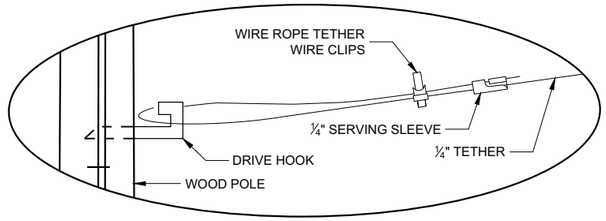
APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 522

FHWA


6
SDD 09E08 - 09f

| MINIMUM POLE LENGTHS | POLE BURIAL DEPTHS |
|---|---|
| 25' | 5' |
| 30' | 6' |
| 35' | 7' |
| 40' | 8' |
| 45' | 9' |

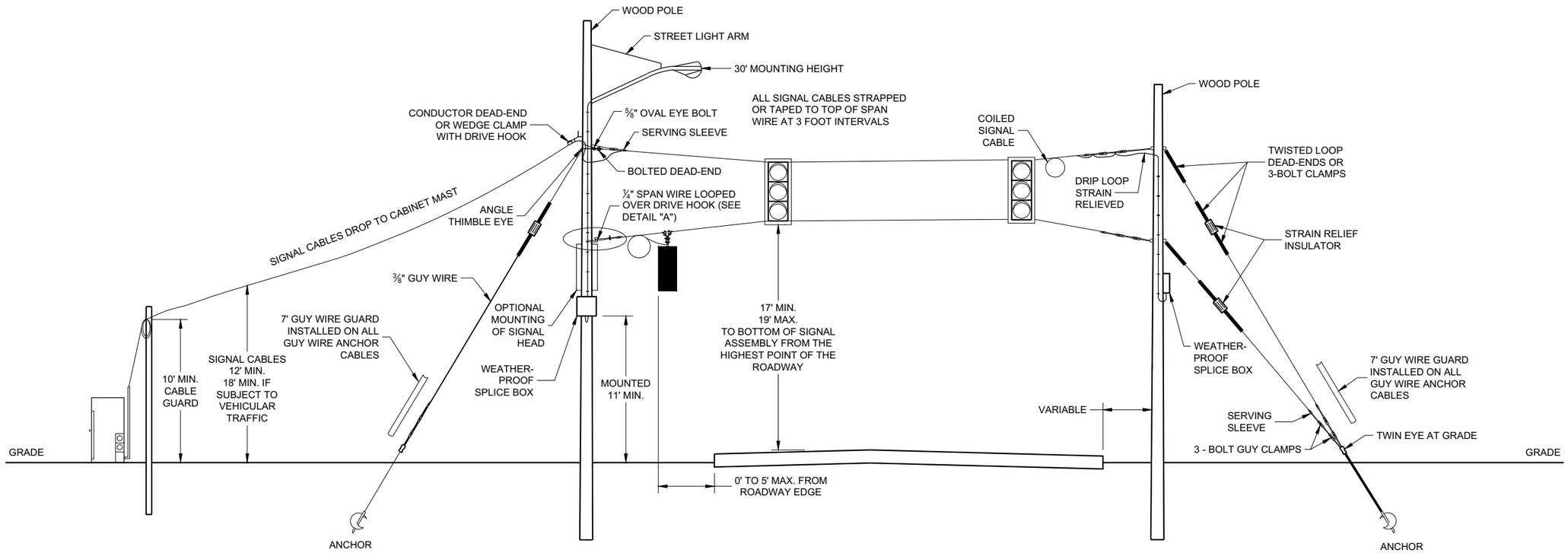



**DETAIL "A"**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.




**SPAN WIRE**
**TEMPORARY SIGNALS**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGI
523
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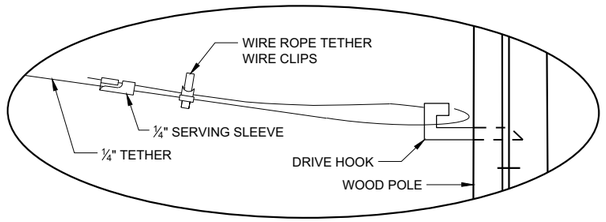
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SDD09G01 - 04a

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SDD09G01 - 04a

| MINIMUM POLE LENGTHS | CLASS | POLE BURIAL DEPTHS |
|---|---|---|
| 25' | V | 5' |
| 30' | V | 6' |
| 35' | IV | 7' |
| 40' | IV | 8' |
| 45' | IV | 9' |

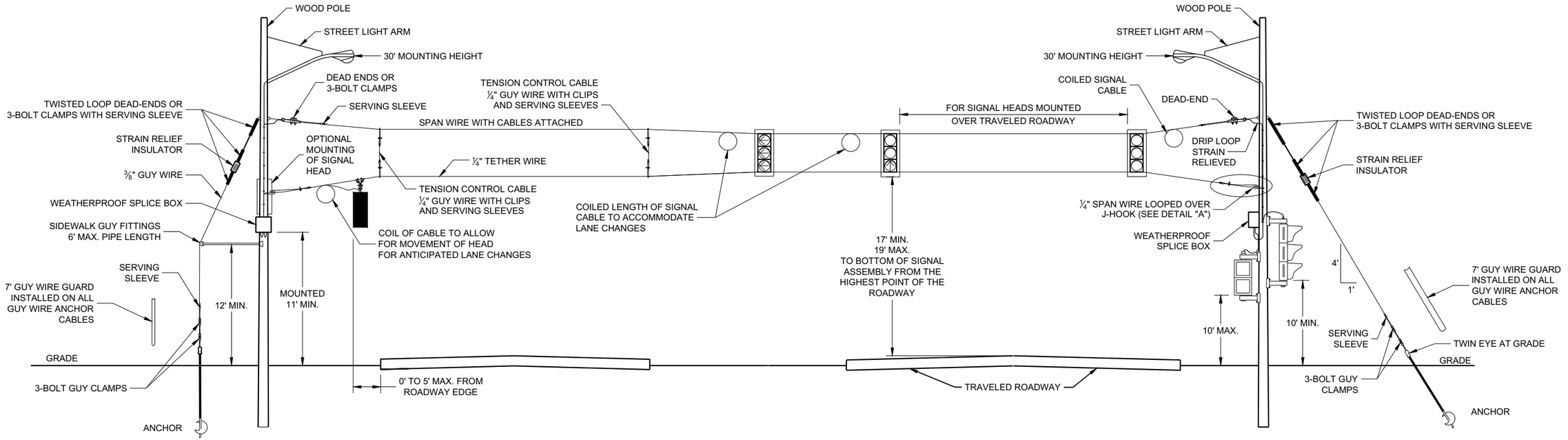



**DETAIL "A"**

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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**SPAN WIRE**
**TEMPORARY SIGNALS**
**4 LANE ROADWAYS**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015
DATE

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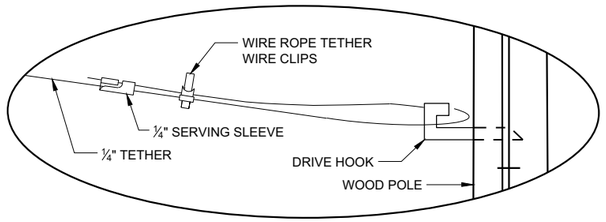
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SDD09G01 - 04b

SDD09G01 - 04b

| MINIMUM POLE LENGTHS | CLASS | POLE BURIAL DEPTHS |
|---|---|---|
| 25' | V | 5' |
| 30' | V | 6' |
| 35' | IV | 7' |
| 40' | IV | 8' |
| 45' | IV | 9' |

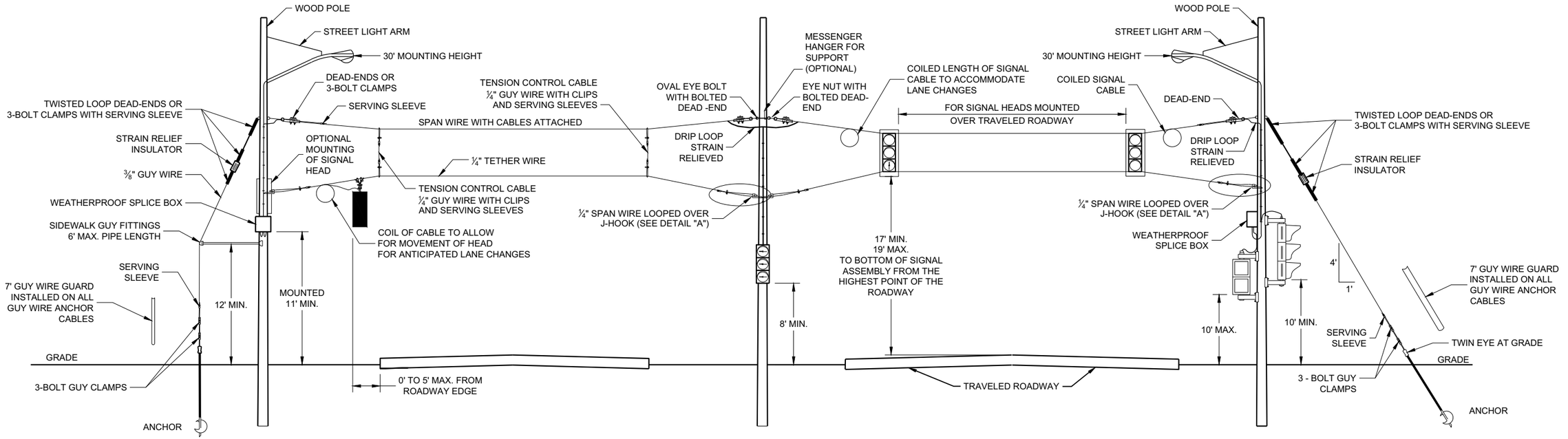



**DETAIL "A"**

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**SPAN WIRE**
**TEMPORARY SIGNALS**
**4 LANE ROADWAYS**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 525

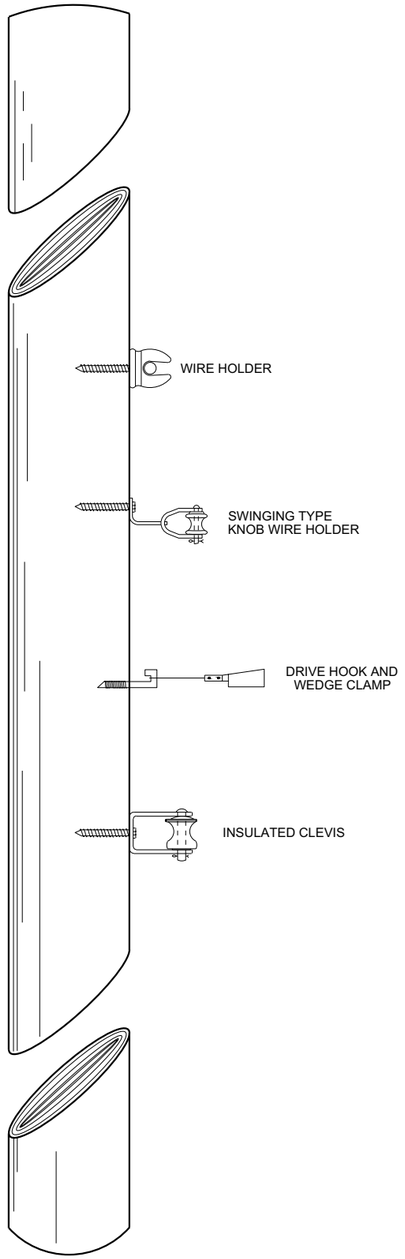
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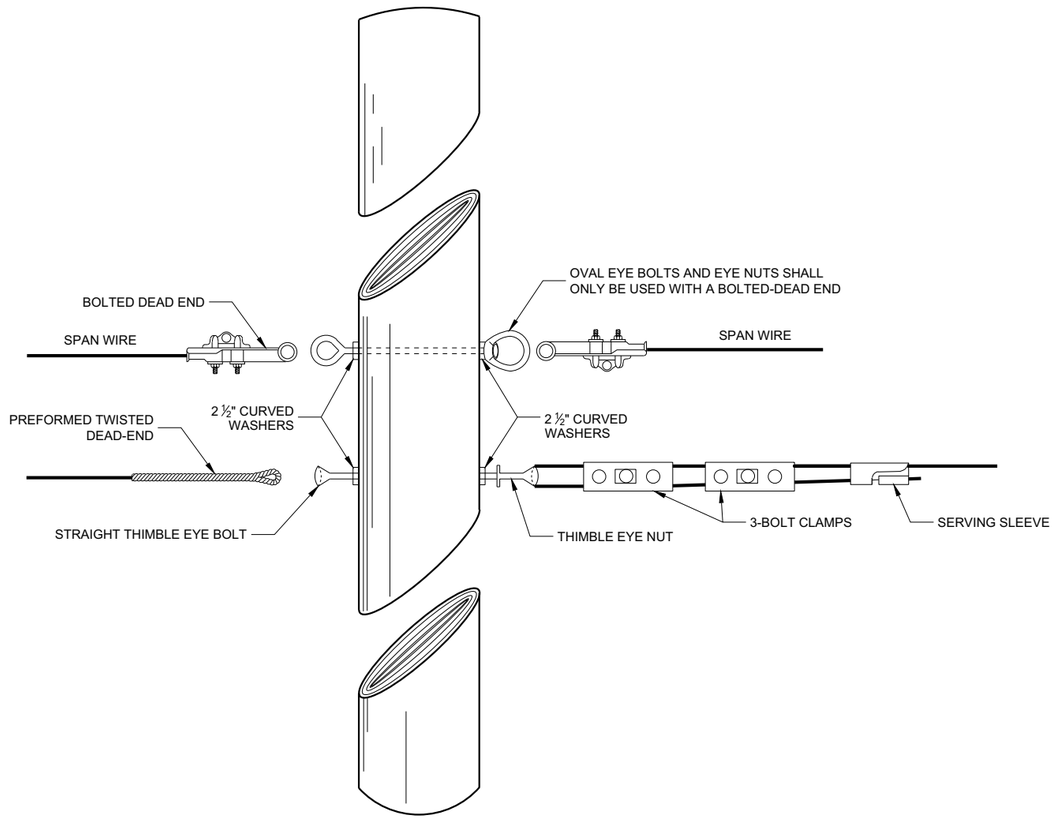
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# SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA



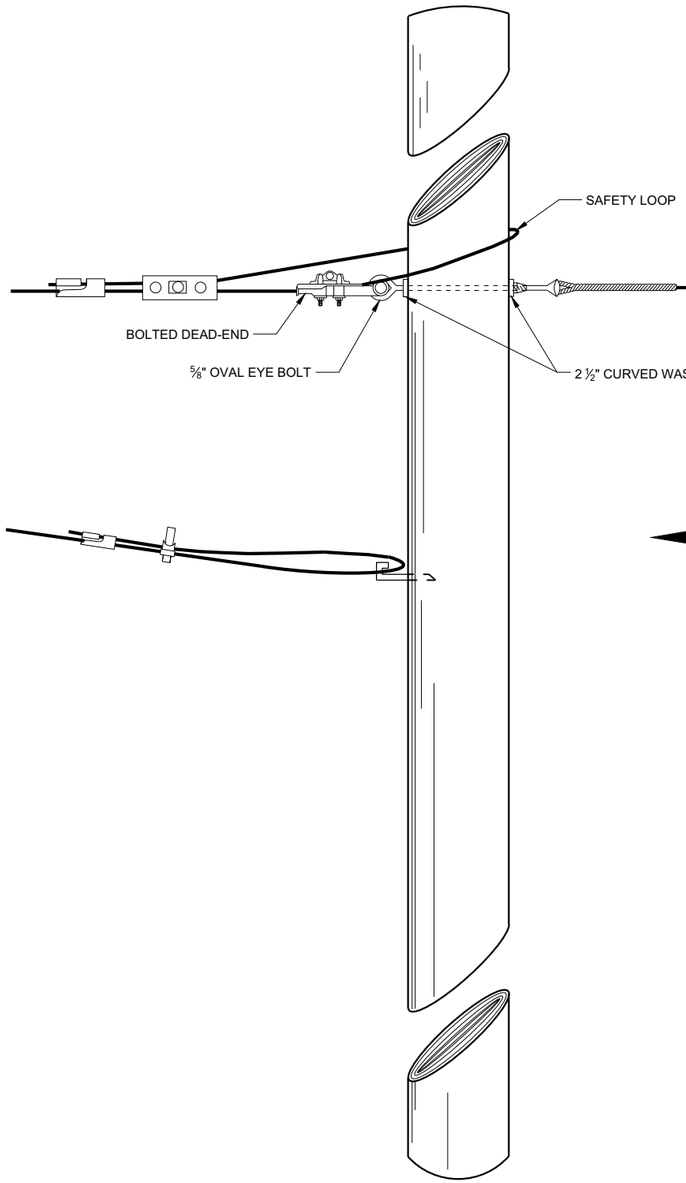
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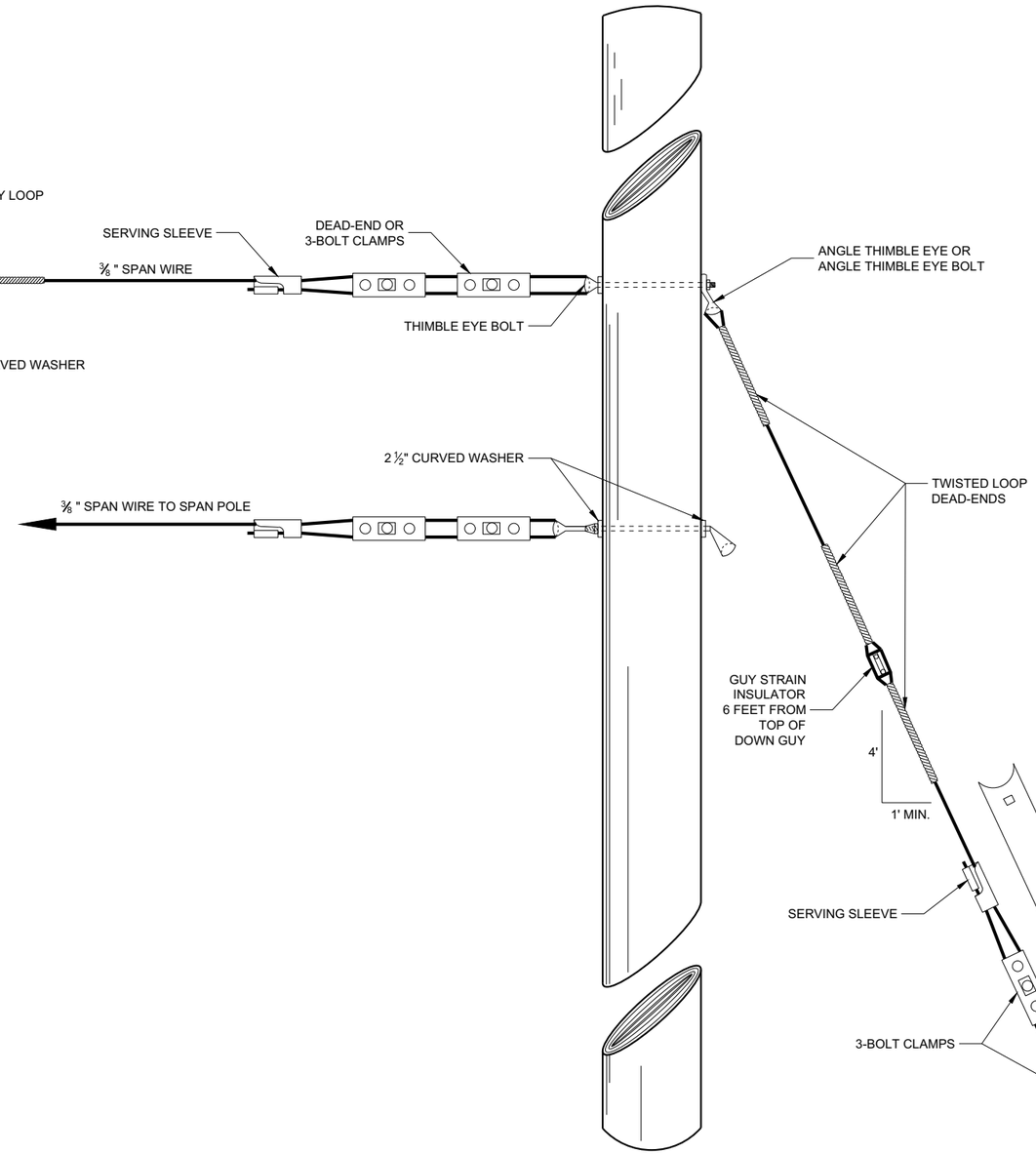
SDD 09G01 - 4d

## GENERAL NOTES

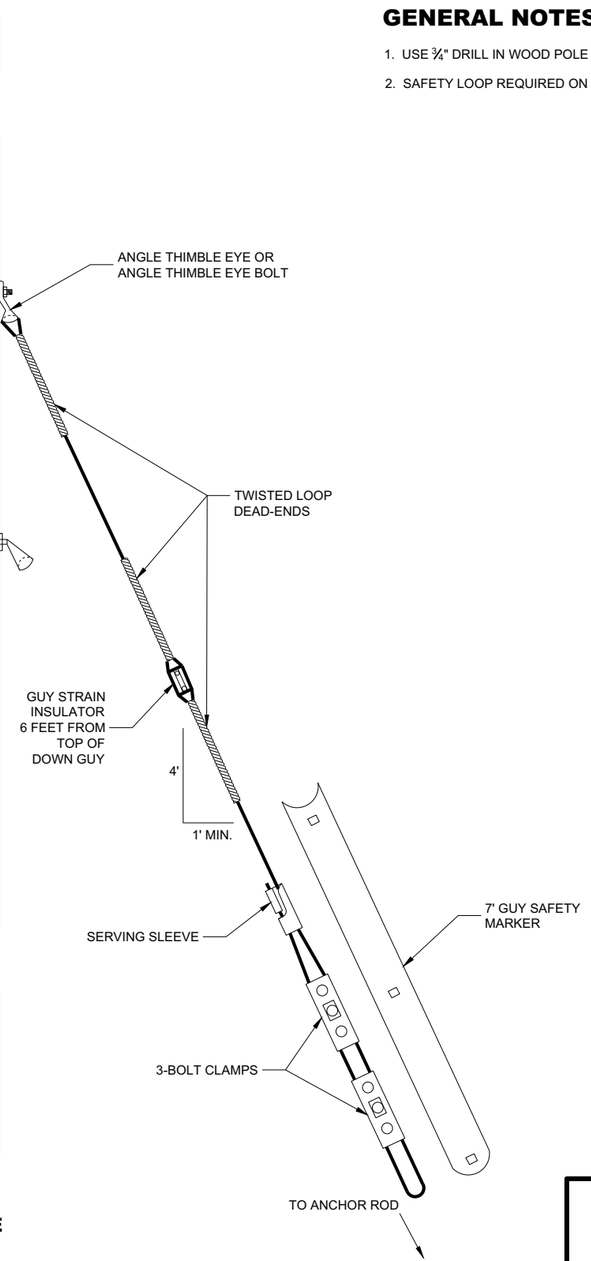
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.




SPAN WIRE POLE




GUY POLE




**TYPICAL DEAD-ENDINGS OR GUYING**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

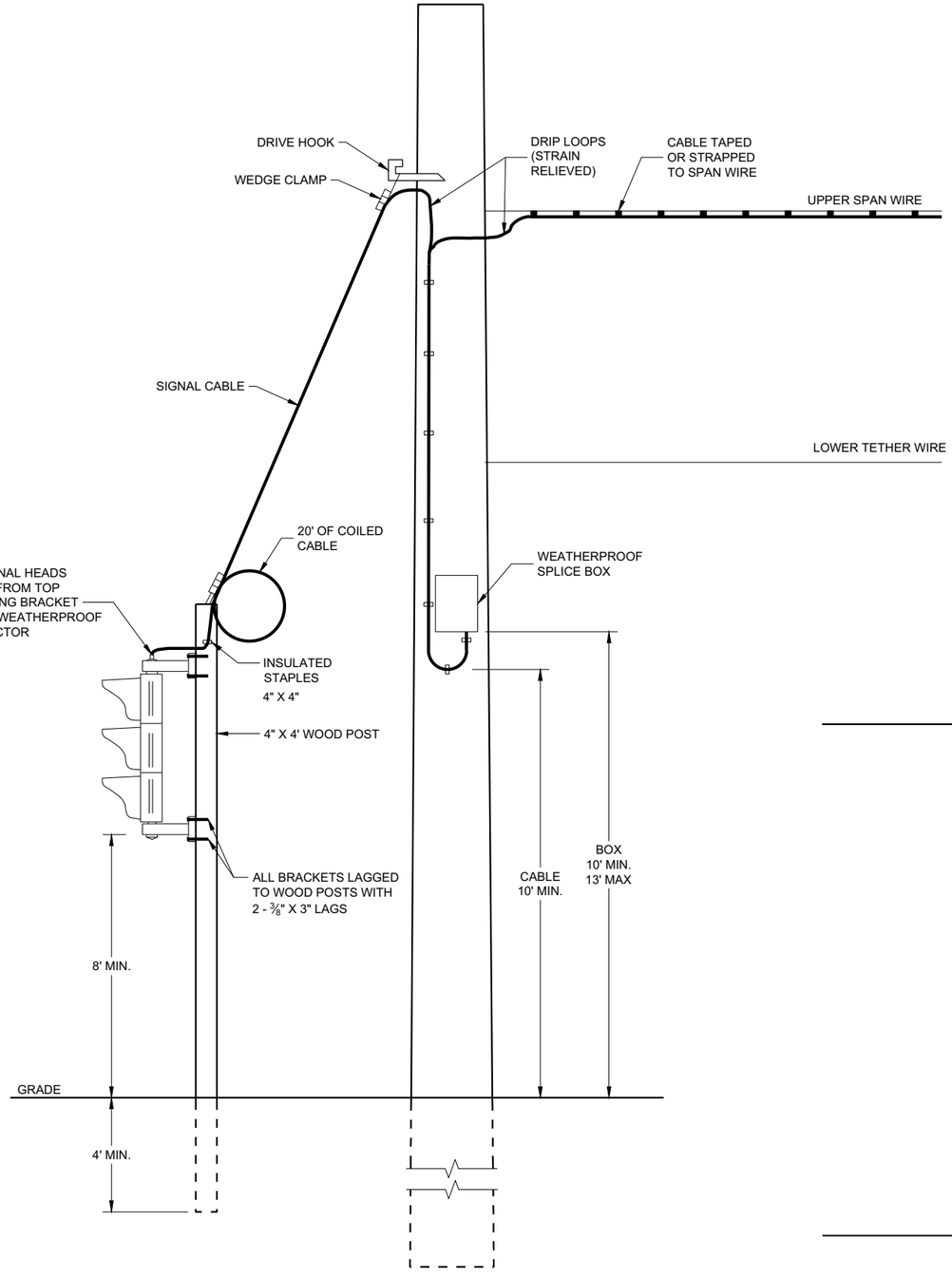
STATE OF WISCONSIN
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June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
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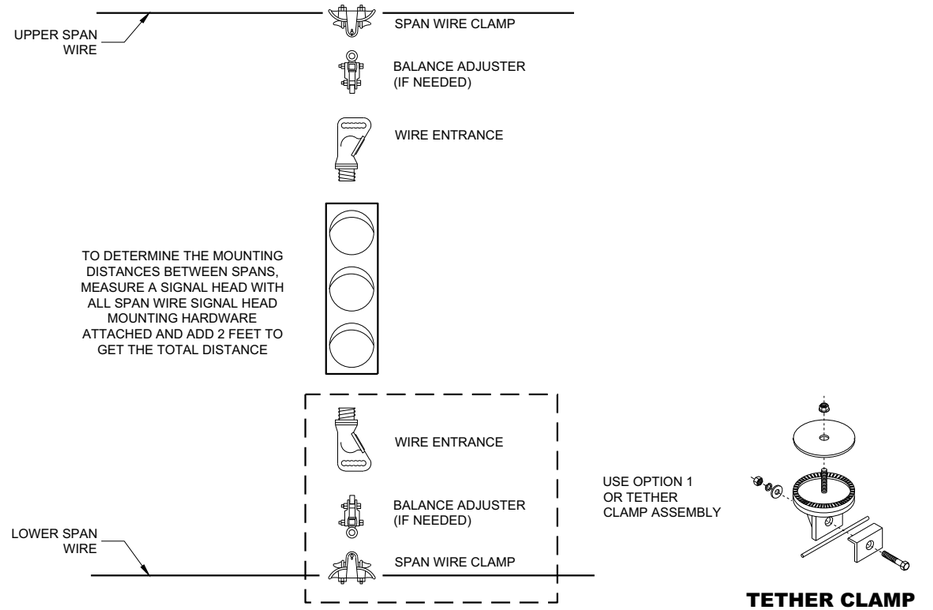



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SDD 09G01 - 4e




**TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL**



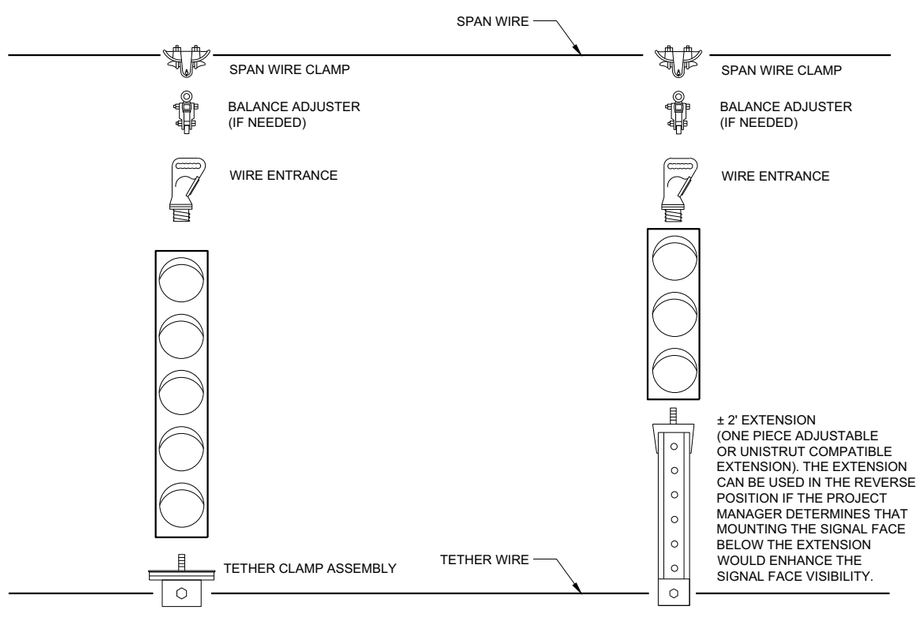

**OPTION 1**

USE OPTION 1 OR TETHER CLAMP ASSEMBLY



**TETHER CLAMP ASSEMBLY OPTION**

**TYPICAL SPAN WIRE MOUNTING HARDWARE**




**5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

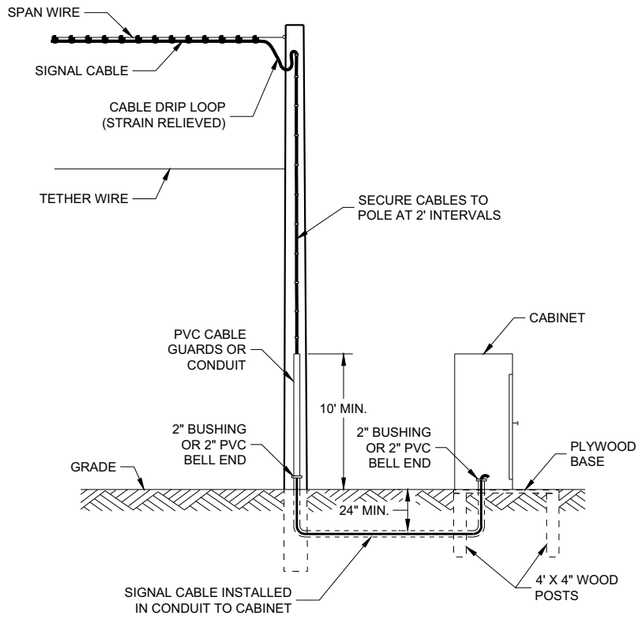
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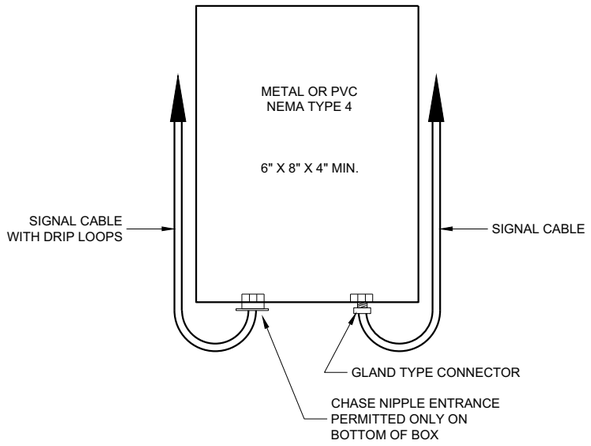




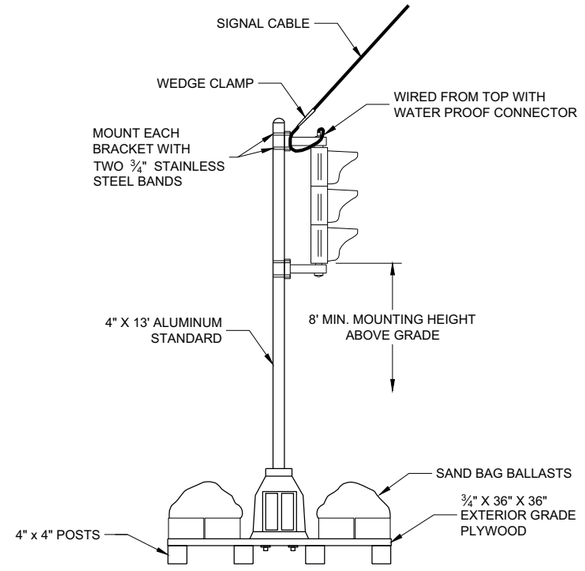
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SDD 09G01 - 4f

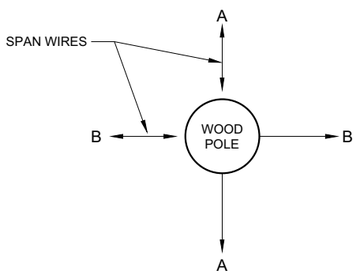



**SPLICE BOX**

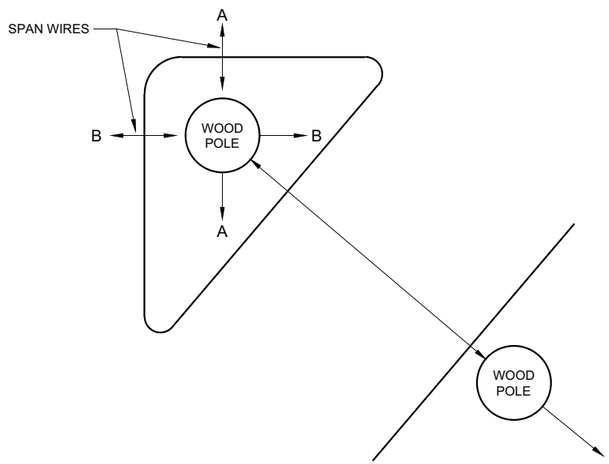



**TYPICAL SKID TYPE TEMPORARY**

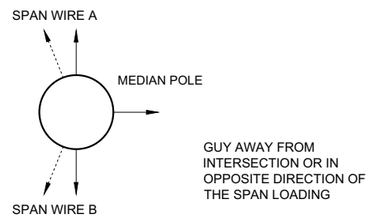



ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

**CORNER POLES**




**ISLAND POLES**




GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

**MEDIAN POLES**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

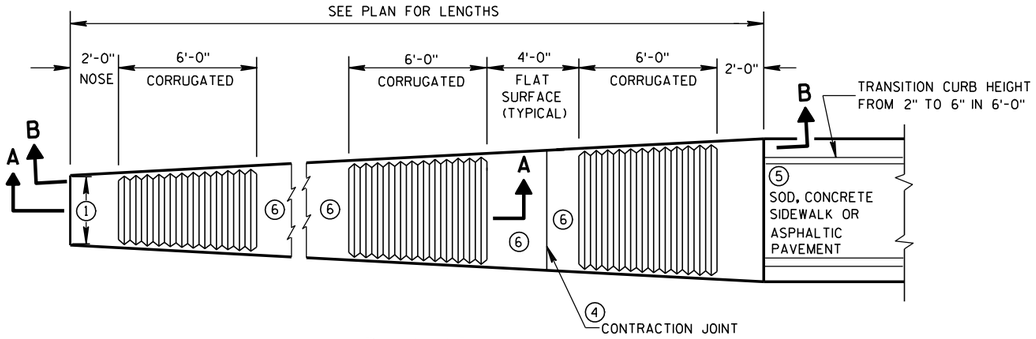
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA



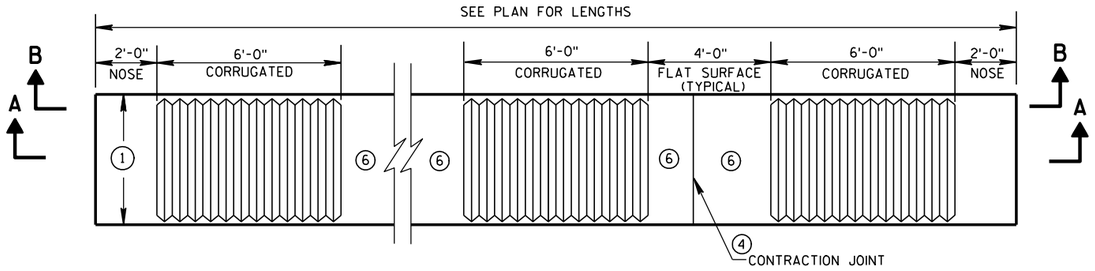
SDD 09G01 - 4g

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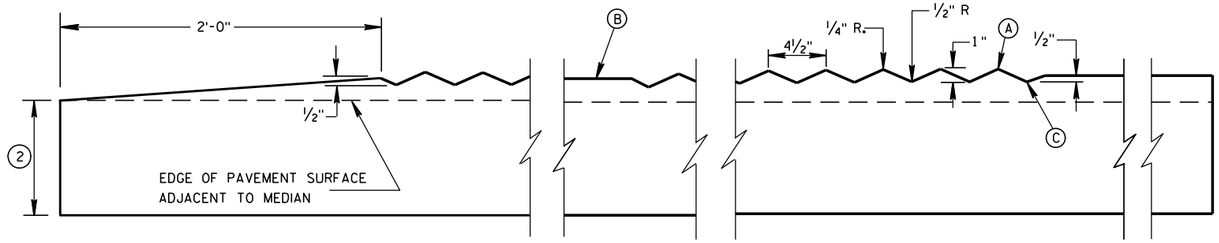

PLAN VIEW

## VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN




PLAN VIEW

## UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN




SECTION A-A

## LONGITUDINAL SECTION

## GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

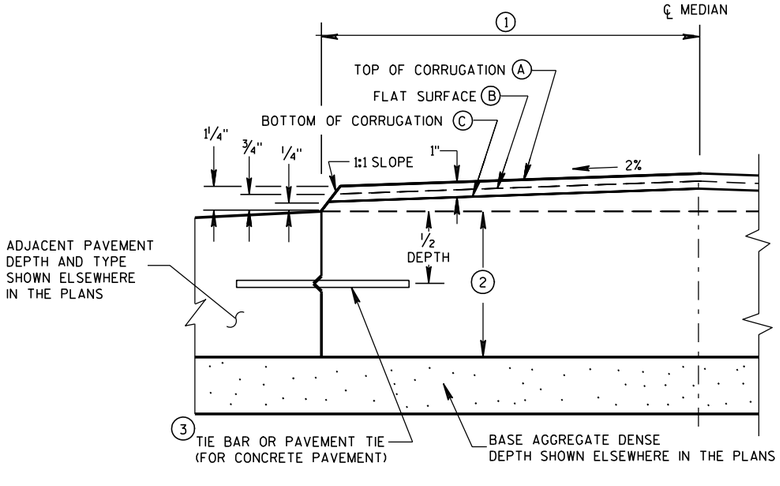
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

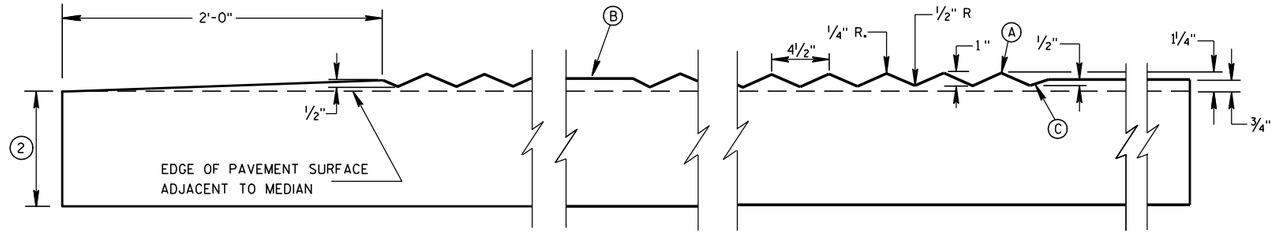
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.




HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT




SECTION B-B

## LONGITUDINAL SECTION

## CONCRETE CORRUGATED MEDIAN

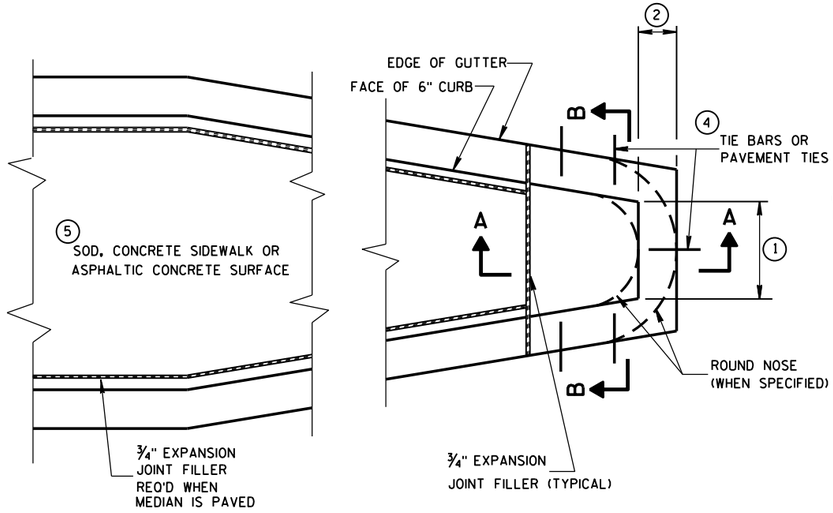
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

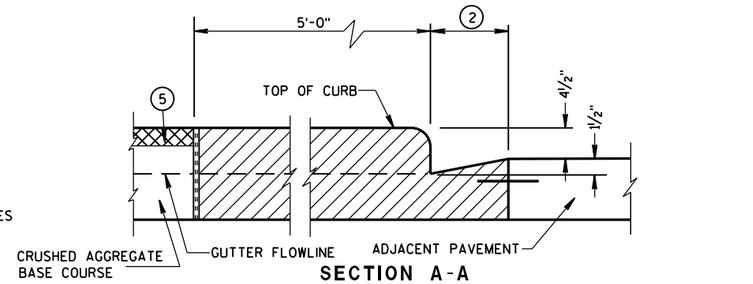
APPROVED

12/17/07
DATE

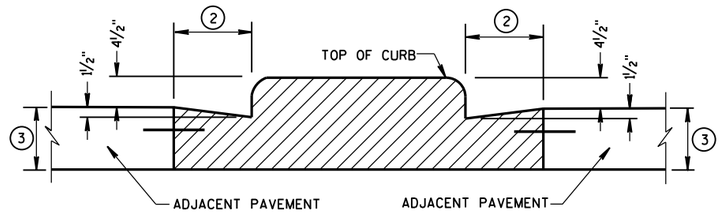
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA




SECTION A-A




SECTION B-B

## CONCRETE MEDIAN BLUNT NOSE DETAIL

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

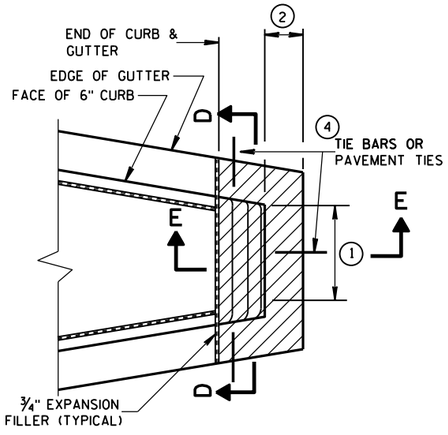
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

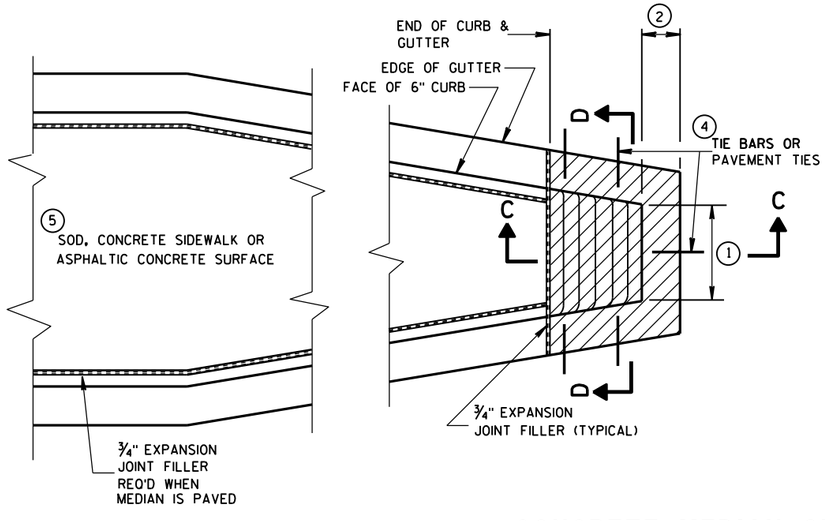
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

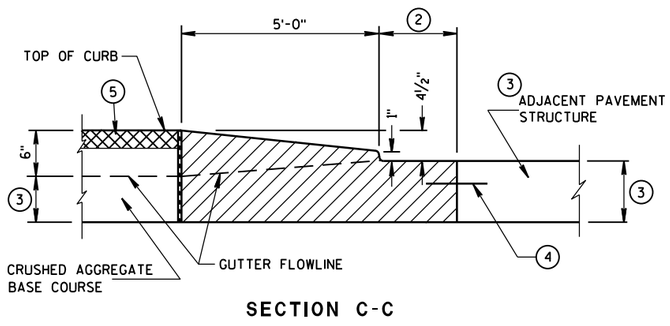
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

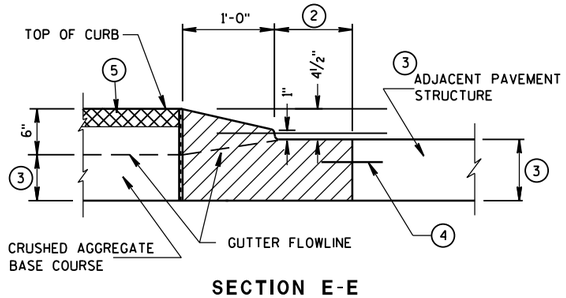



## CONCRETE MEDIAN SLOPED NOSE TYPE 1

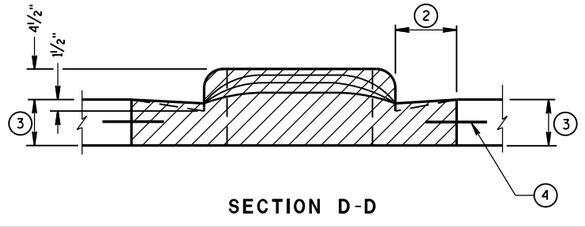



SECTION C-C




SECTION E-E

## CONCRETE MEDIAN SLOPED NOSE TYPE 2




SECTION D-D

## CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

531

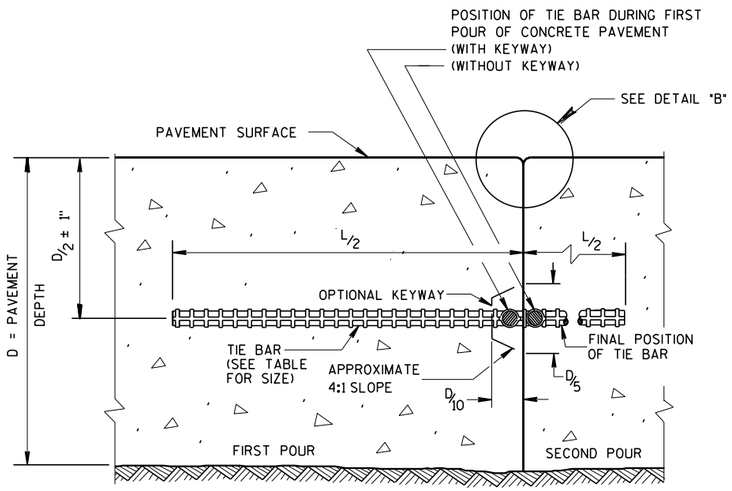
FHWA

6

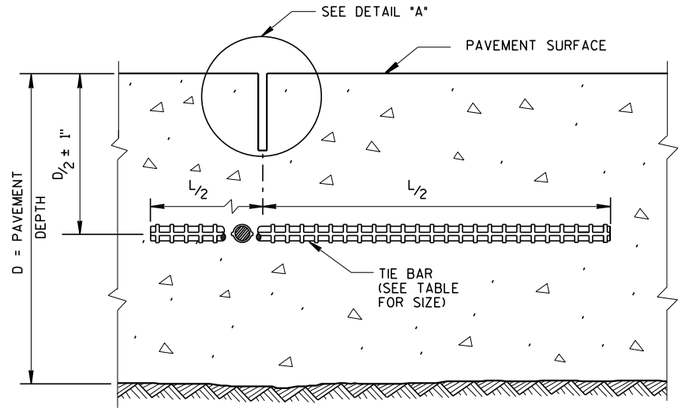
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2




## CONSTRUCTION JOINT




## SAWED JOINT

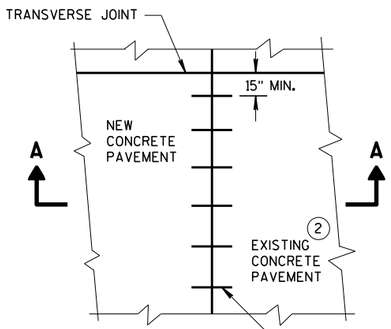
## GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

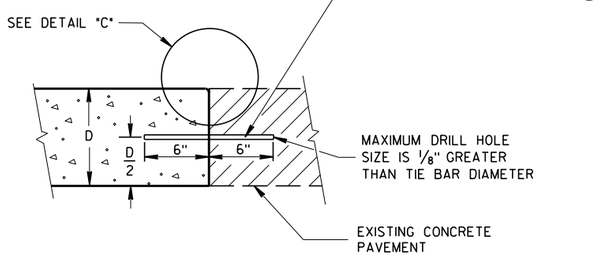
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

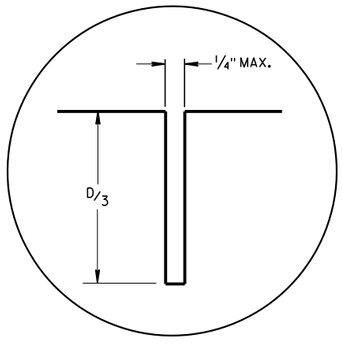



PLAN VIEW

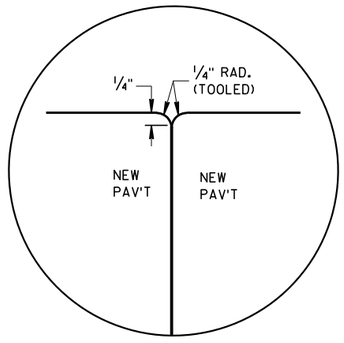



SECTION A-A

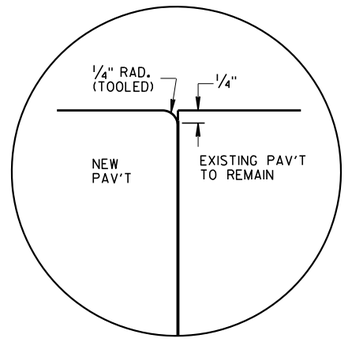
## LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT




## DETAIL "A"




## DETAIL "B"



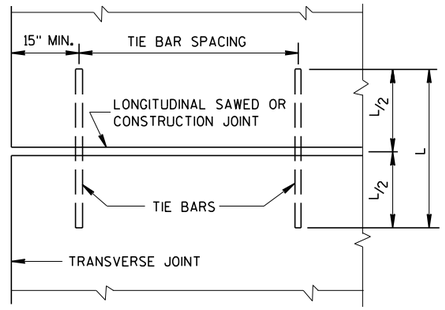

## DETAIL "C"

### TIE BAR TABLE

| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 1/2" | NO. 4 | 30" | 36" |
| ≥ 10 1/2" | NO. 5 | 36" | 36" |
| | NO. 4 * | 30" | 24" ** |

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.




PLAN VIEW
SHOWING LOCATION OF TIE BARS

## CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

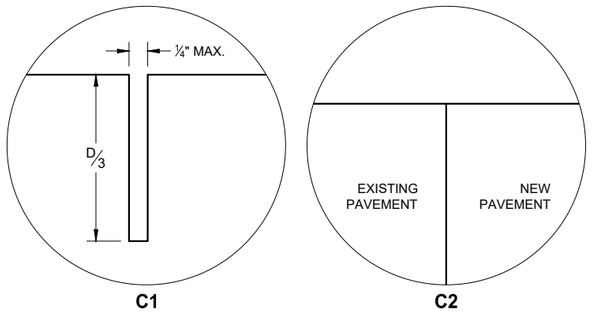
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

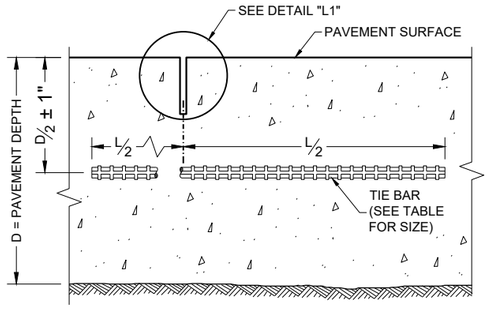




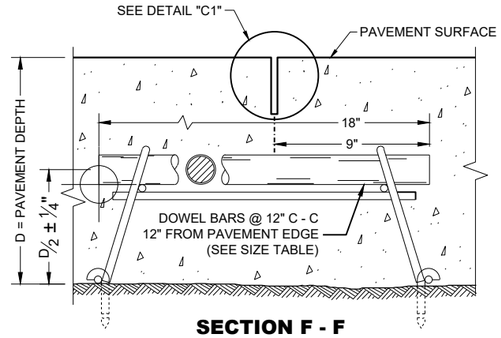
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S.D.D. 13 C 1-19




**TRANSVERSE JOINTS**




**SECTION C - C**
**SAWED JOINT**




**SECTION F - F**
**CONTRACTION JOINT**

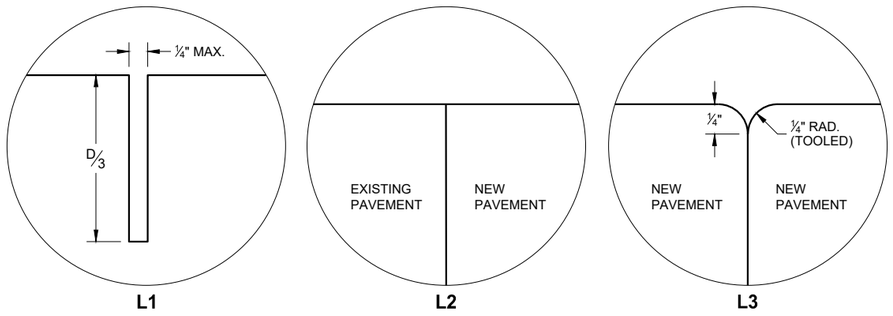
## GENERAL NOTES

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

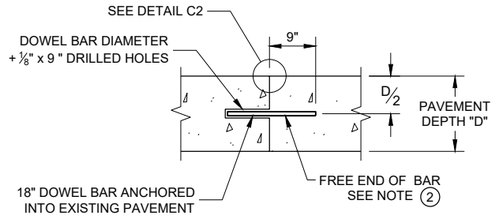
PROVIDE A MIMIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

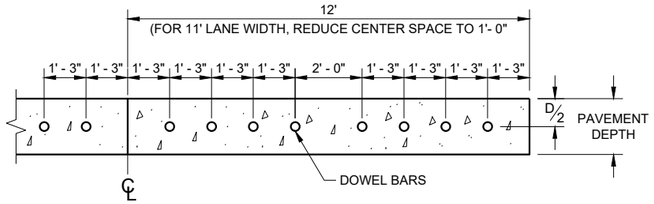
(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



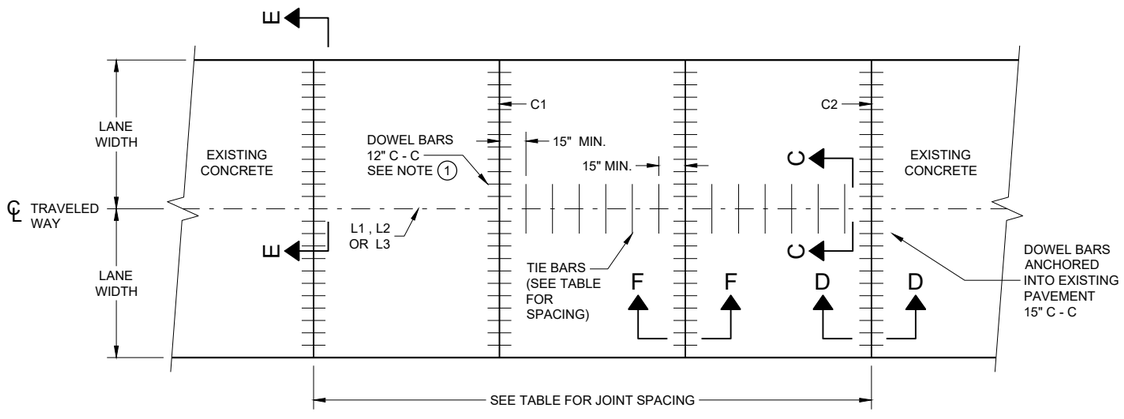

**LONGITUDINAL JOINTS**




**SECTION D - D**




**SECTION E - E**
**SPACING OF DOWEL BARS**
**ANCHORED INTO EXISTING PAVEMENT**




**PLAN VIEW**
**CONCRETE BASE**
**CONTRACTION JOINT LOCATIONS**

### TIE BAR TABLE

| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 ½" | NO. 4 | 30" | 36" |
| ≥ 10 ½" | NO. 5 | 36" | 36" |
| | NO. 4* | 30" | 24"** |

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

### PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

| PAVEMENT DEPTH (D) | DOWEL BAR DIAMETER | CONTRACTION JOINT SPACING |
|---|---|---|
| 6", 6 ½" | NONE | 12' |
| 7", 7 ½" | 1" | 14' |
| 8" & ABOVE | 1 ¼" | 15' |

**CONCRETE BASE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

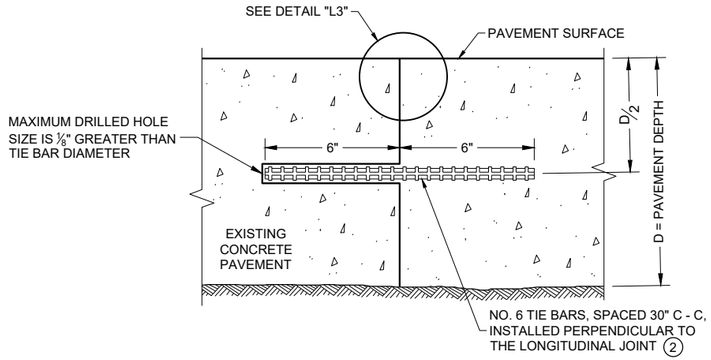



6


SDD 13C15 - 08a

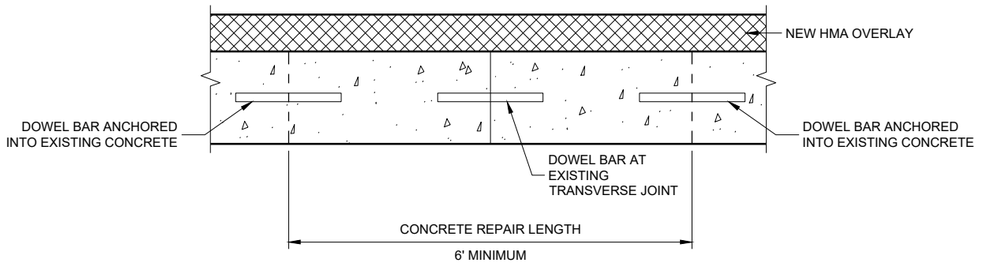
## GENERAL NOTES

1. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.
2. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
3. PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

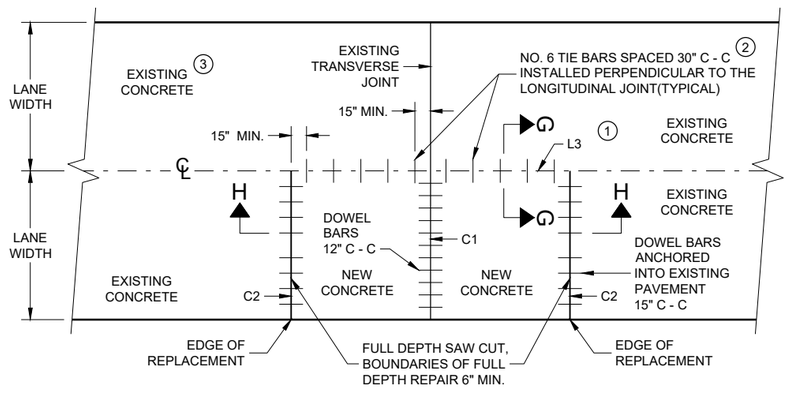



**SECTION G - G**

**TIE BARS ANCHORED INTO EXISTING PAVEMENT**




**SECTION H - H**




**PLAN VIEW**

**SINGLE LANE CONCRETE BASE REPAIR**

6

SDD 13C15 - 08b

**CONCRETE BASE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

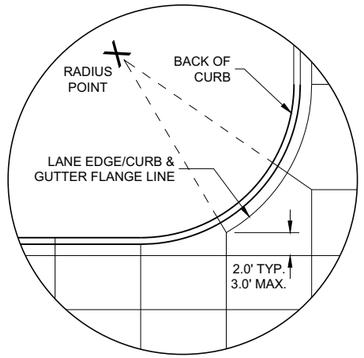
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

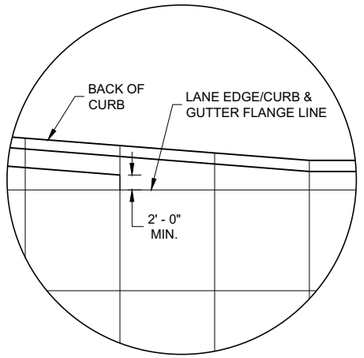


6

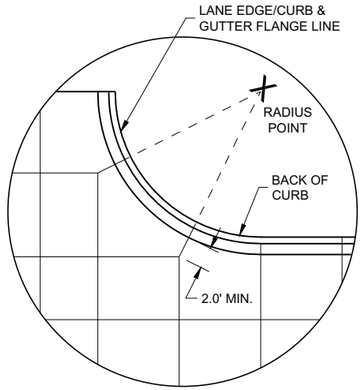
SDD 13C15 - 08b



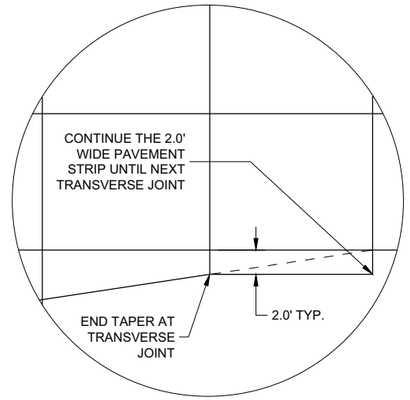

**DETAIL "A"**




**DETAIL "B"**




**DETAIL "C"**




**DETAIL "D"**

## GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

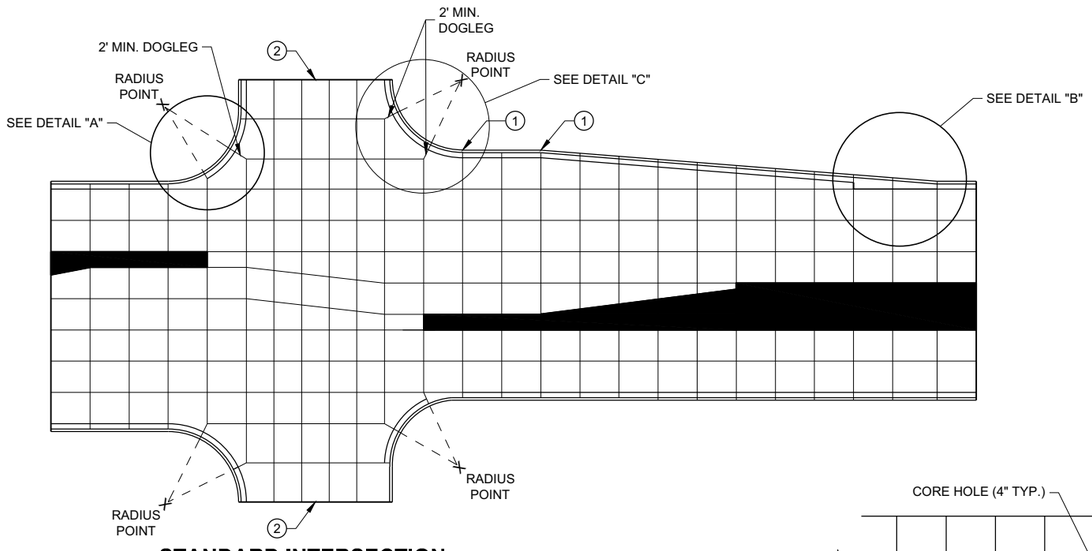
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



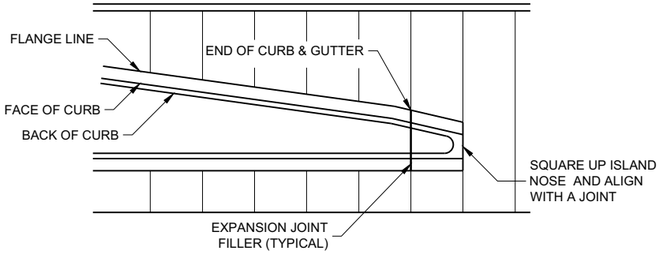

**STANDARD INTERSECTION**

PAVEMENT DEPTH AND JOINT SPACING TABLE

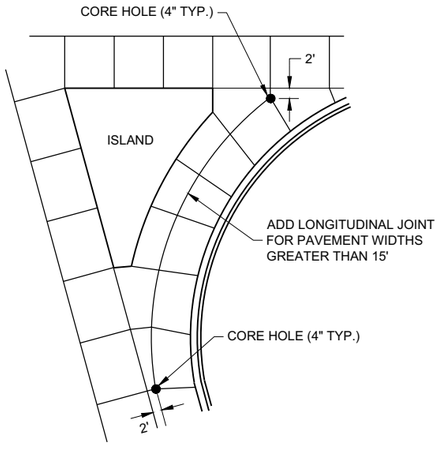
| PAVEMENT DEPTH (D) | CONTRACTION JOINT SPACING |
|---|---|
| 6", 6 ½" | 12' |
| 7", 7 ½" | 14' |
| 8" & ABOVE | 15' |




**SKEWED INTERSECTION**




**APPROACH TO MEDIAN**




**LARGE RIGHT TURN**

**CONCRETE PAVEMENT JOINTING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6

SDD 13C18 - 07a

6

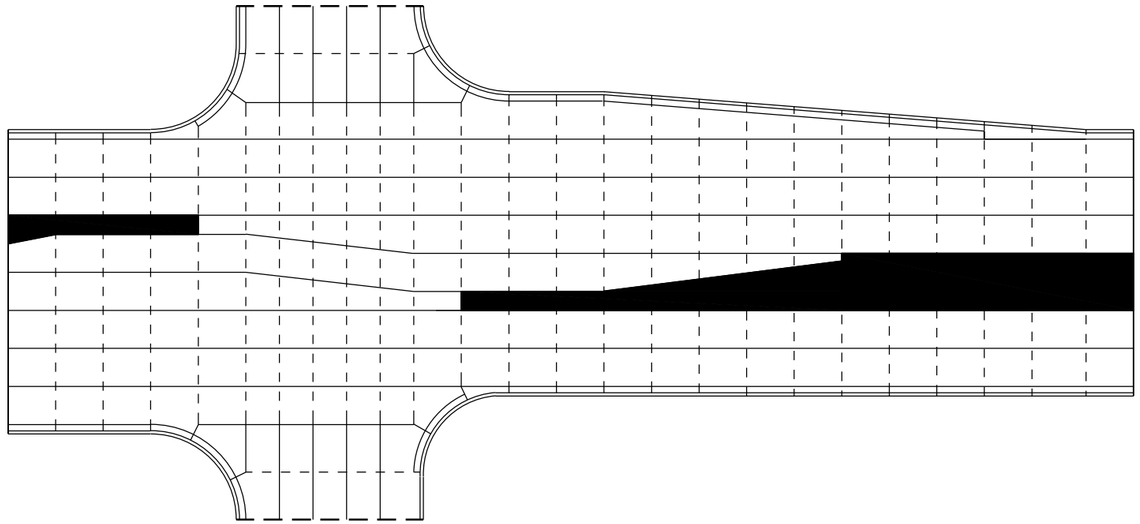
SDD 13C18 - 07a

## LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

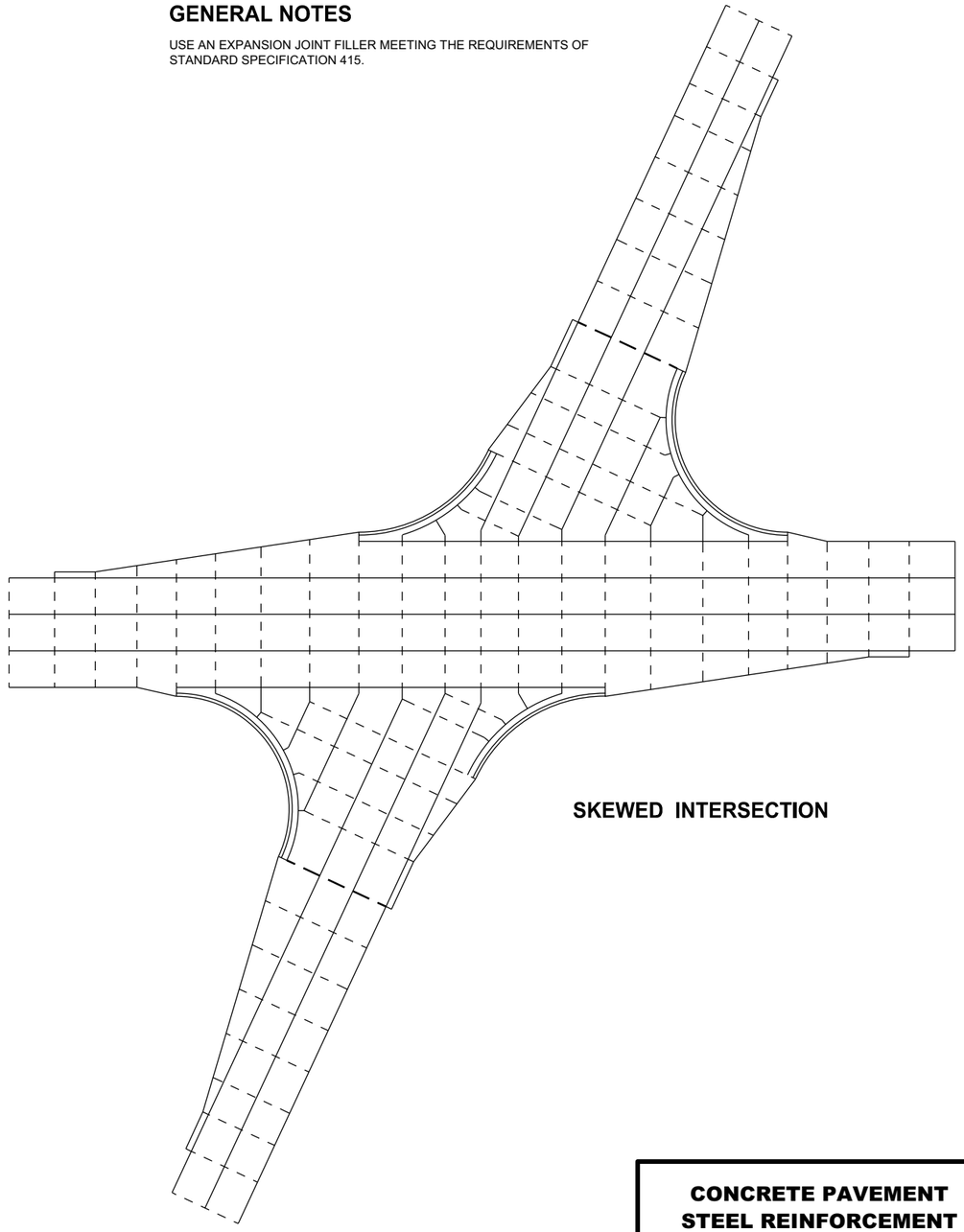
TIED JOINT



STANDARD INTERSECTION

## GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

SDD 13C18 - 07b

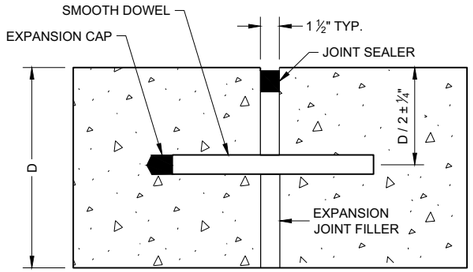
**CONCRETE PAVEMENT**
**STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

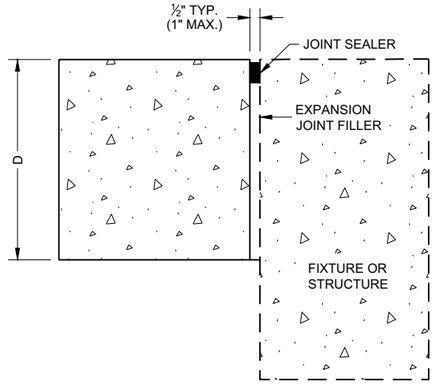


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SDD 13C18 - 07b




DOWELED TRANSVERSE (1)




UNTIED - LONGITUDINAL

## EXPANSION JOINTS

### TIE BAR TABLE

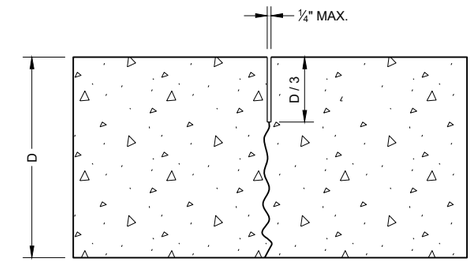
| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 ½" | NO. 4 | 30" | 36" |
| ≥ 10 ½" | NO. 5 | 36" | 36" |
| | NO. 4* | 30" | 24"** |

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

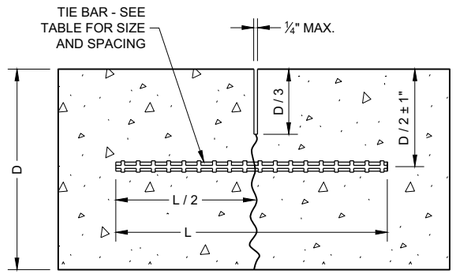
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

### GENERAL NOTES

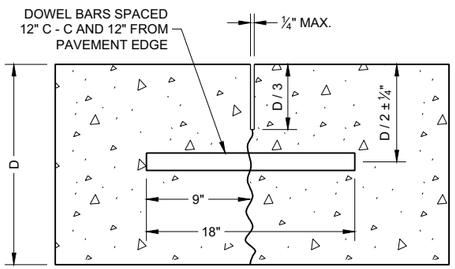
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.




UNDOWELED TRANSVERSE

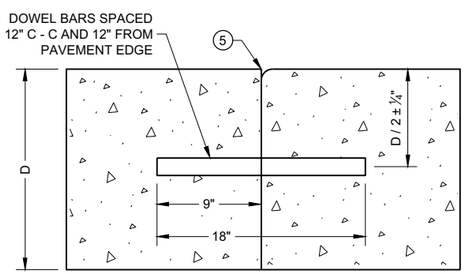



TIED LONGITUDINAL

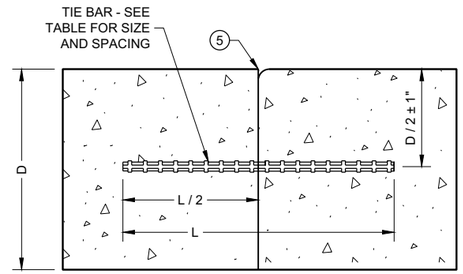



DOWELED TRANSVERSE

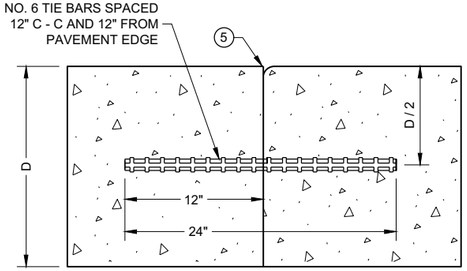
## CONTRACTION JOINTS (2)



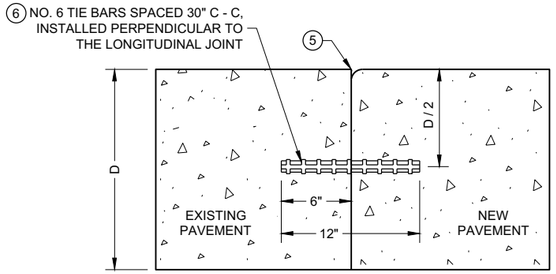

DOWELED TRANSVERSE (3)




TIED LONGITUDINAL




TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)




TIED LONGITUDINAL TO EXISTING

## CONSTRUCTION JOINTS (4)

# CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

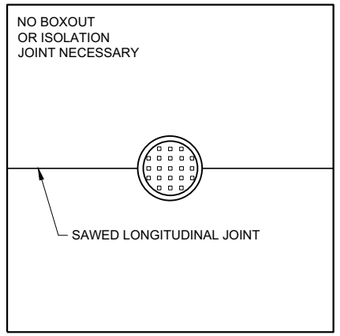




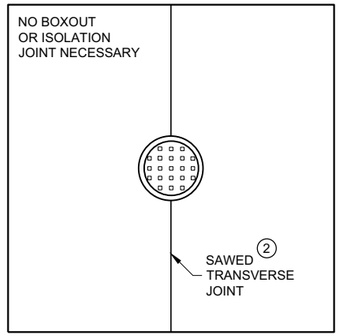
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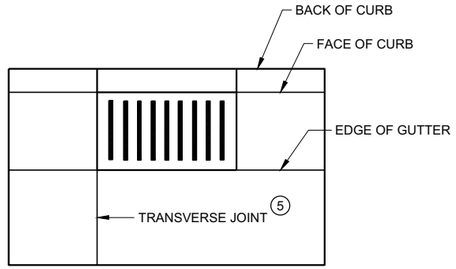
SDD 13C18 - 07c




**MANHOLE WITH LONGITUDINAL JOINT**



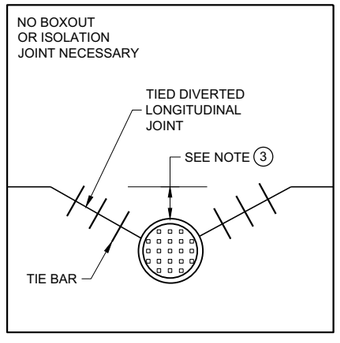

**MANHOLE WITH TRANSVERSE JOINT**



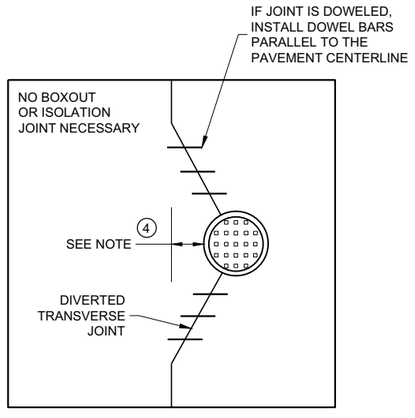

**INLET WITH TRANSVERSE JOINT**

## GENERAL NOTES

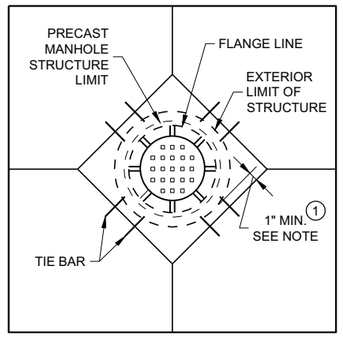
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.




**MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT**




**MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT**




**DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS**

**CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

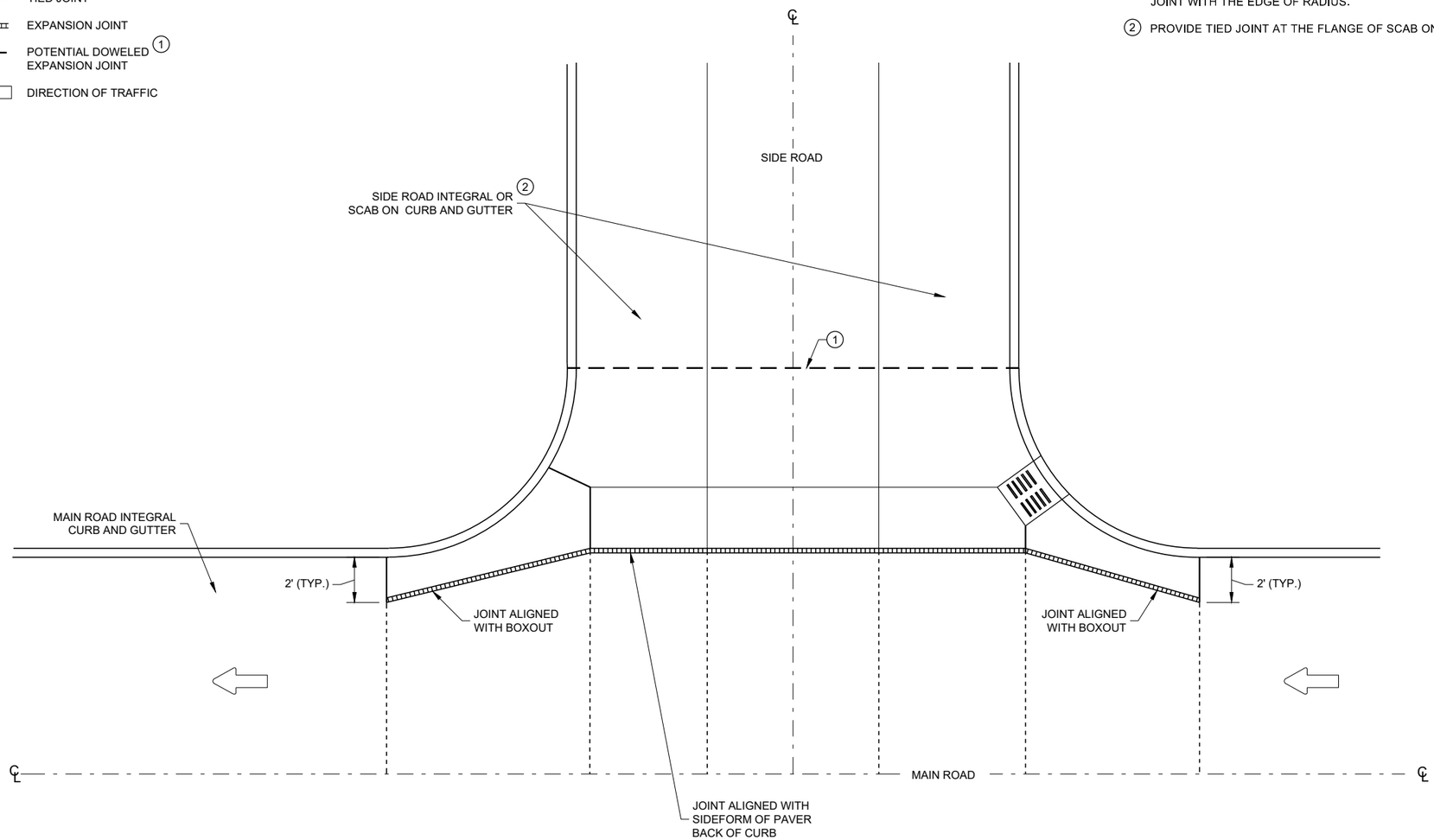



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SDD 13C18 - 07d

## LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC




## GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

**INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER**

**CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

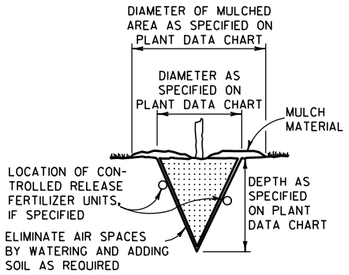


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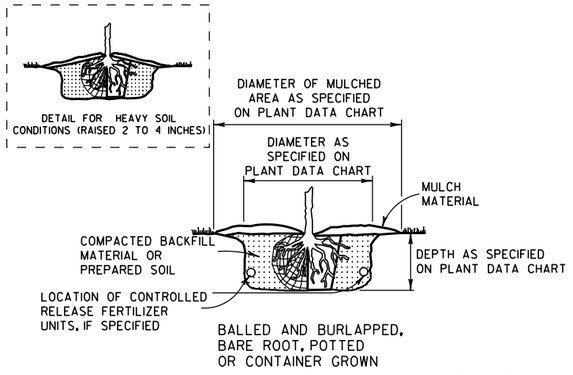
SDD 13C18 - 08f

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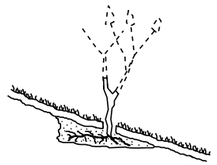
SDD 13C18 - 08f




MACHINE MOVED

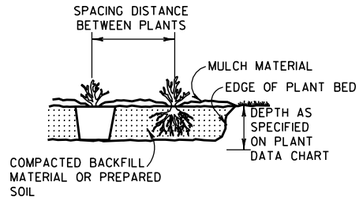



BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



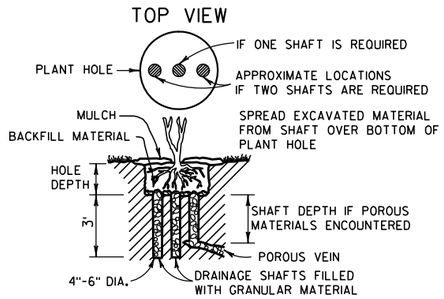
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



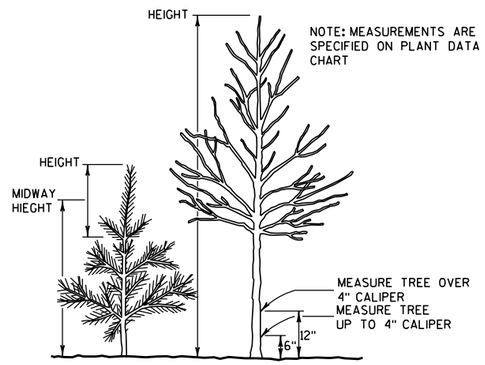

PREPARED BED (BARE ROOT AND POTTED)

## PLANTING

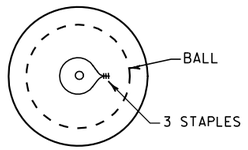



NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

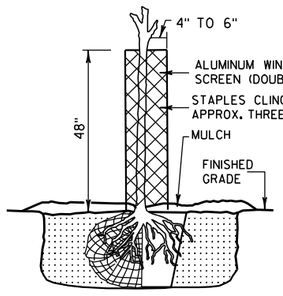
## DRAINING



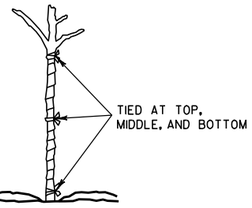

## MEASURING



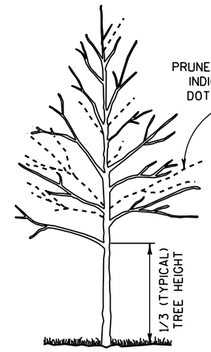

TOP VIEW




## RODENT PROTECTION




## WRAPPING




TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

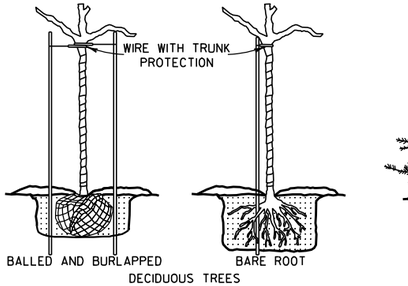


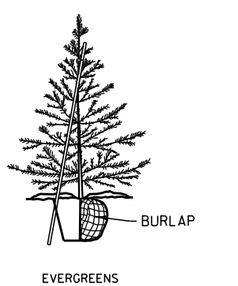

SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

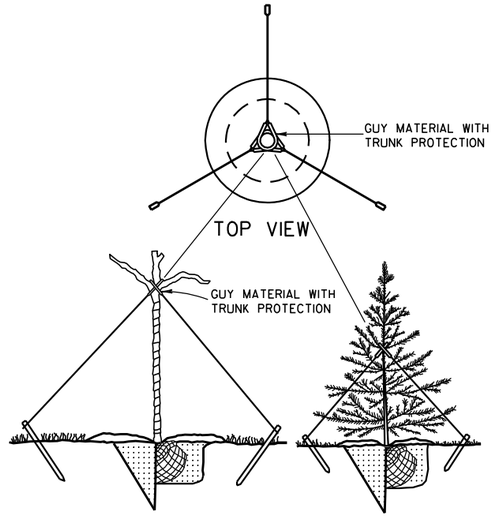
## PRUNING



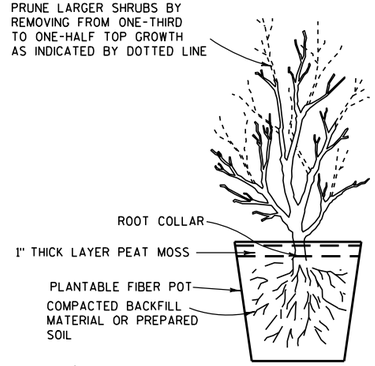

NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

## BRACING




## GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE




## POTTING

## NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

# TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

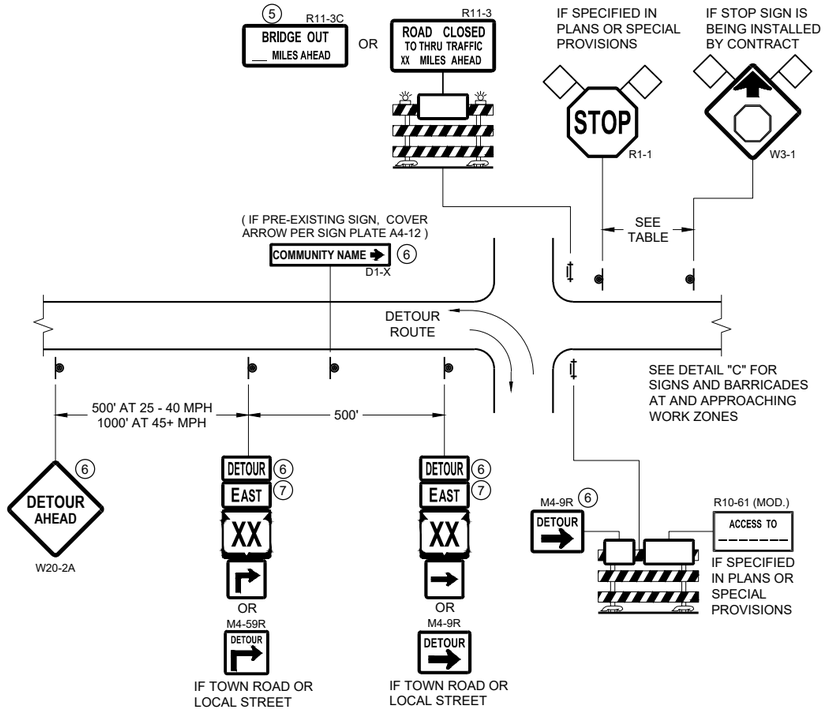
APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA





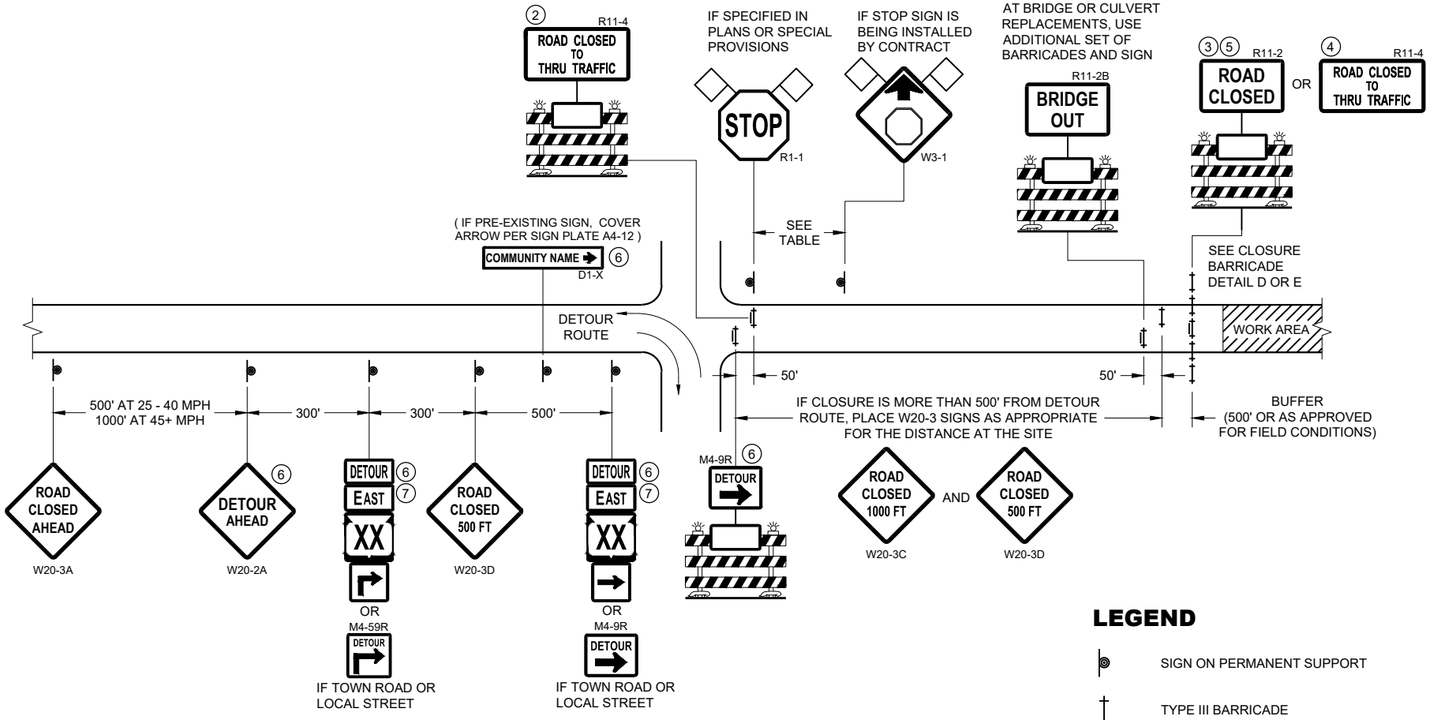
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S.D.D. 14 A 2-1



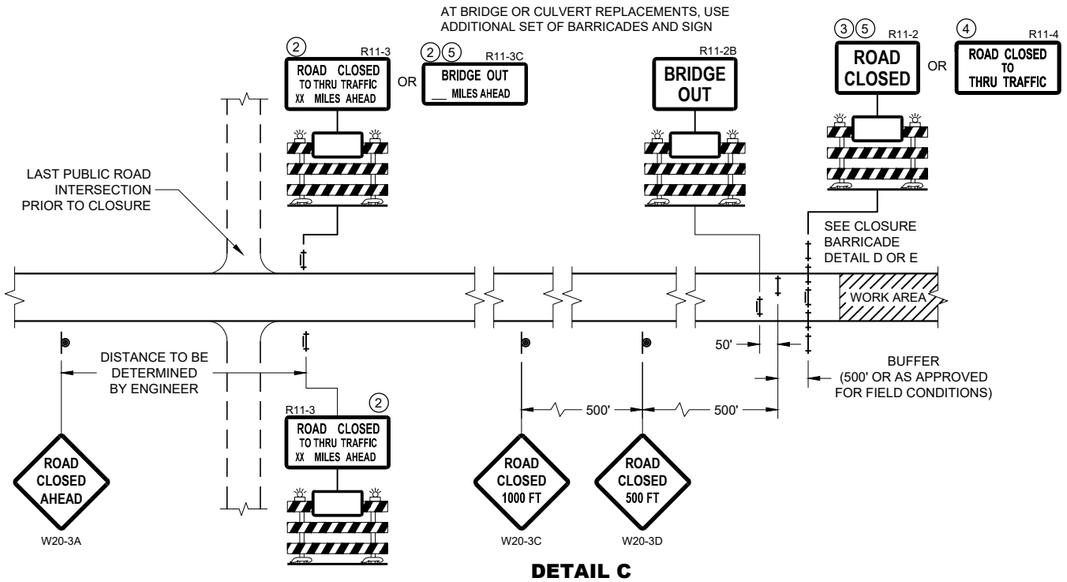

## DETAIL A
## MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )




## DETAIL B
## MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )




## DETAIL C
## MAINLINE CLOSURE, NO POSTED DETOUR

| SPEED LIMIT (MPH) | "STOP AHEAD" ADVANCE WARNING DISTANCE (FT) |
|---|---|
| 25 | 200 |
| 30 | 200 |
| 35 | 350 |
| 40 | 350 |
| 45 | 500 |
| 50 | 550 |
| 55 | 750 |

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

## BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

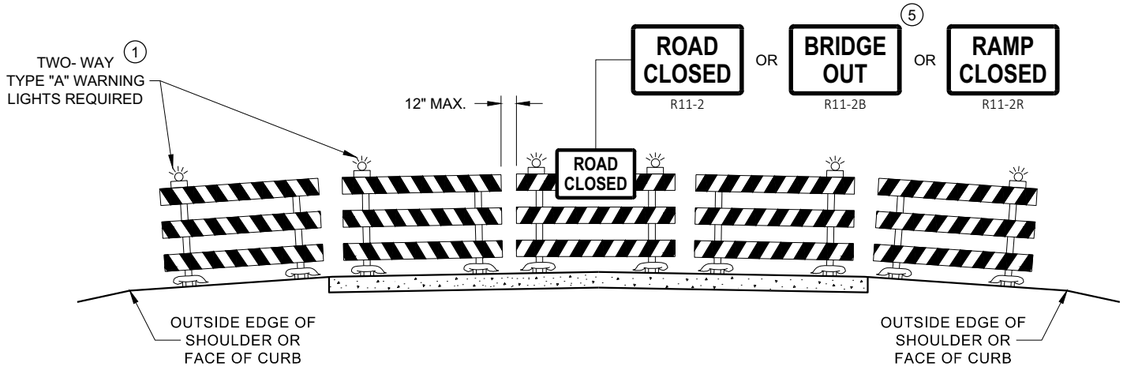
FHWA



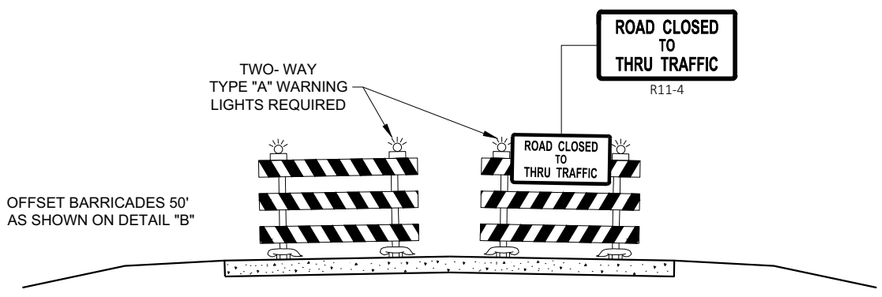
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SDD 15C02 - 08a

SDD 15C02 - 08a




**DETAIL D**
**ROAD CLOSURE BARRICADE DETAIL**
**APPROACH VIEW**




**DETAIL E**
**LANE CLOSURE BARRICADE DETAIL**
**APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

## GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS FOR VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA




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SDD 15C02 - 08b

**THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.**

## LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- XX — M1 - 6
- COUNTY / X — M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

## GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST *

DETOUR ROUTE

WORK AREA

DETOUR NEXT X MILES *
G20-51

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59L DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

MATCH POINT

M4-59L DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-9R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59R DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETAIL F**
**DETOUR SIGNING**

# DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

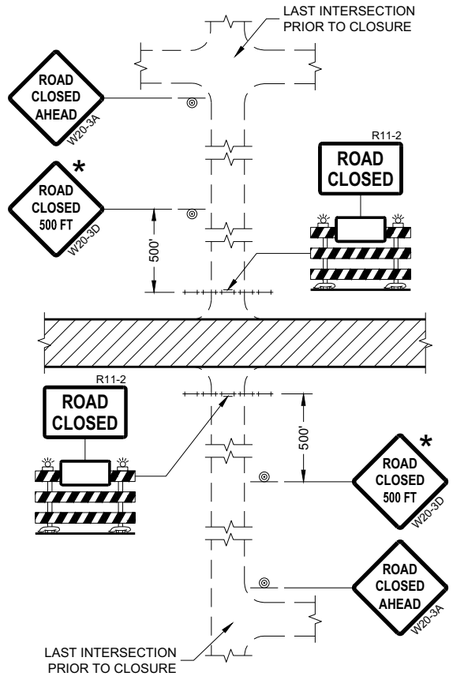
FHWA



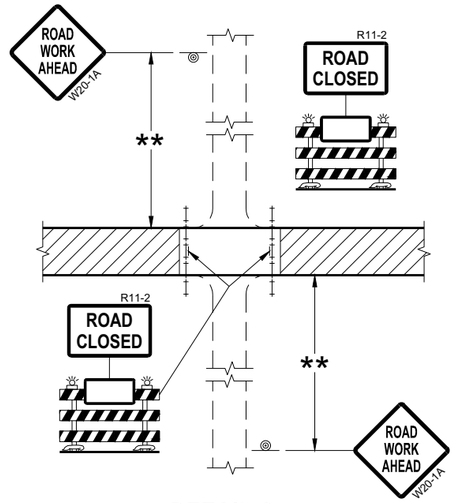


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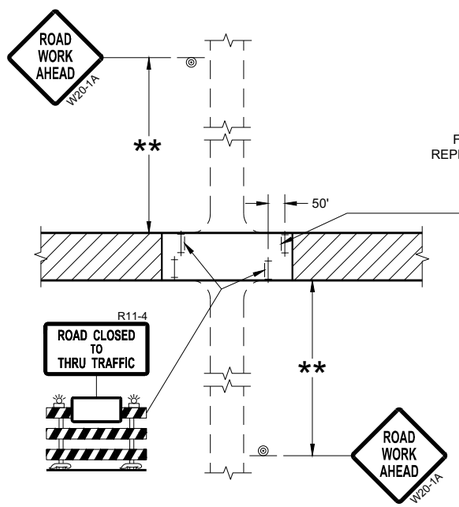
SDD 15C02 - 08c



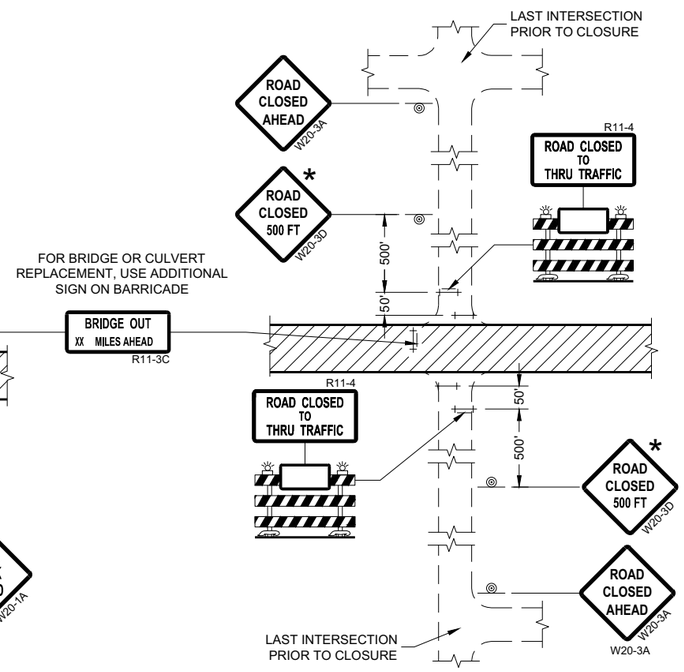

**DETAIL 1**
(NO ACCESS TO PROJECT)




**DETAIL 2**
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)




**DETAIL 3**
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)




**DETAIL 4**
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

## GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS FOR SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



6

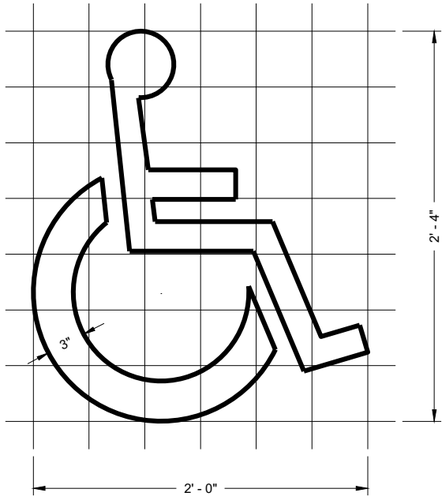
SDD 15C03 - 05

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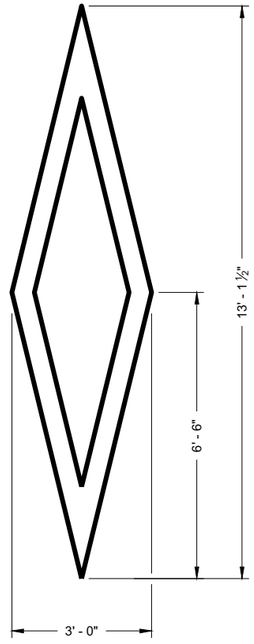
SDD 15C03 - 05

## GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.




**HANDICAP SYMBOL**




**PREFERENTIAL LANE SYMBOL**

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

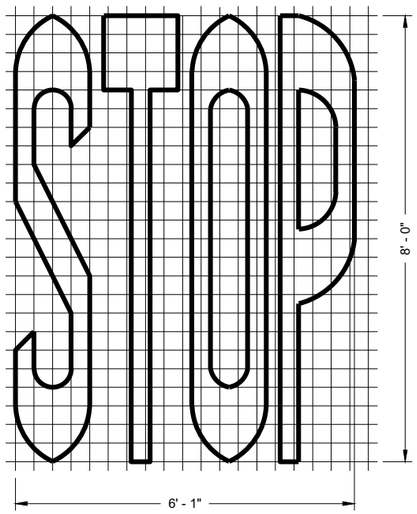
**PAVEMENT MARKING SYMBOLS**

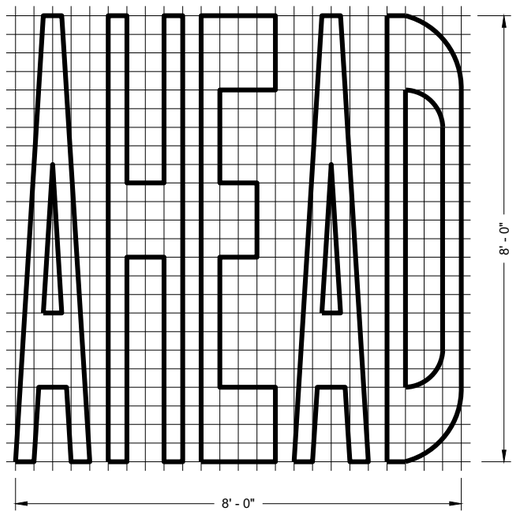
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

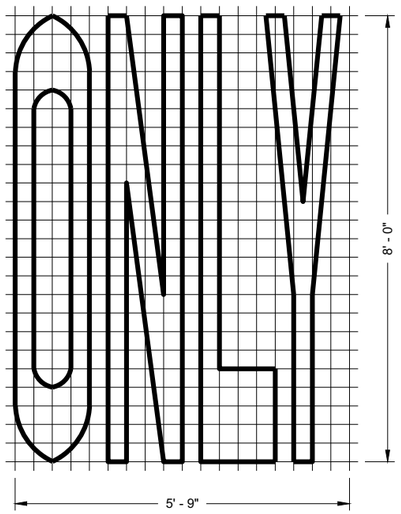
APPROVED
November 2019
DATE

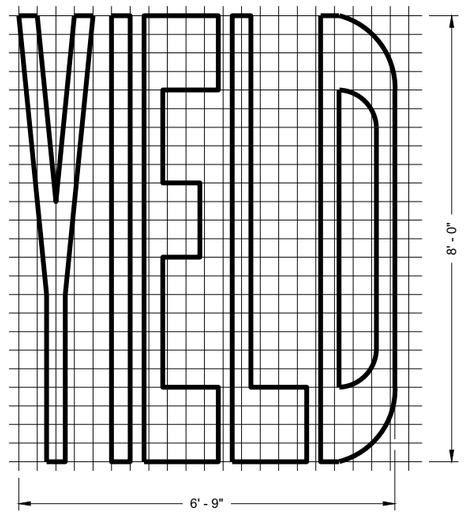
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

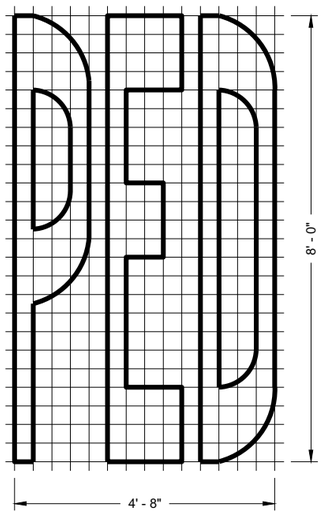
FHWA

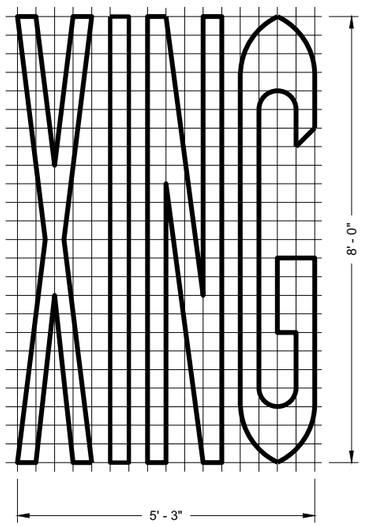


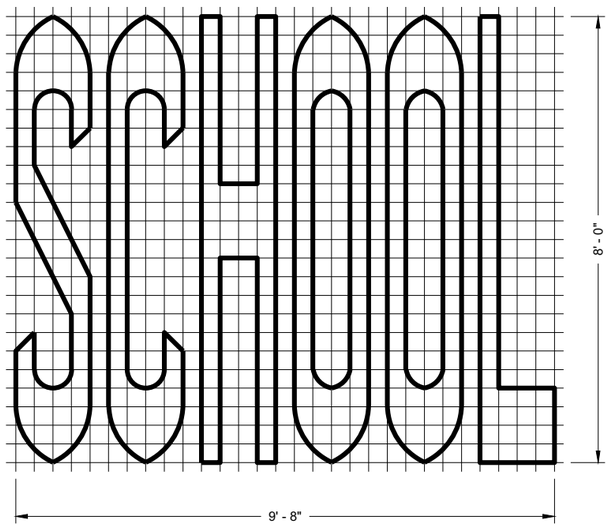



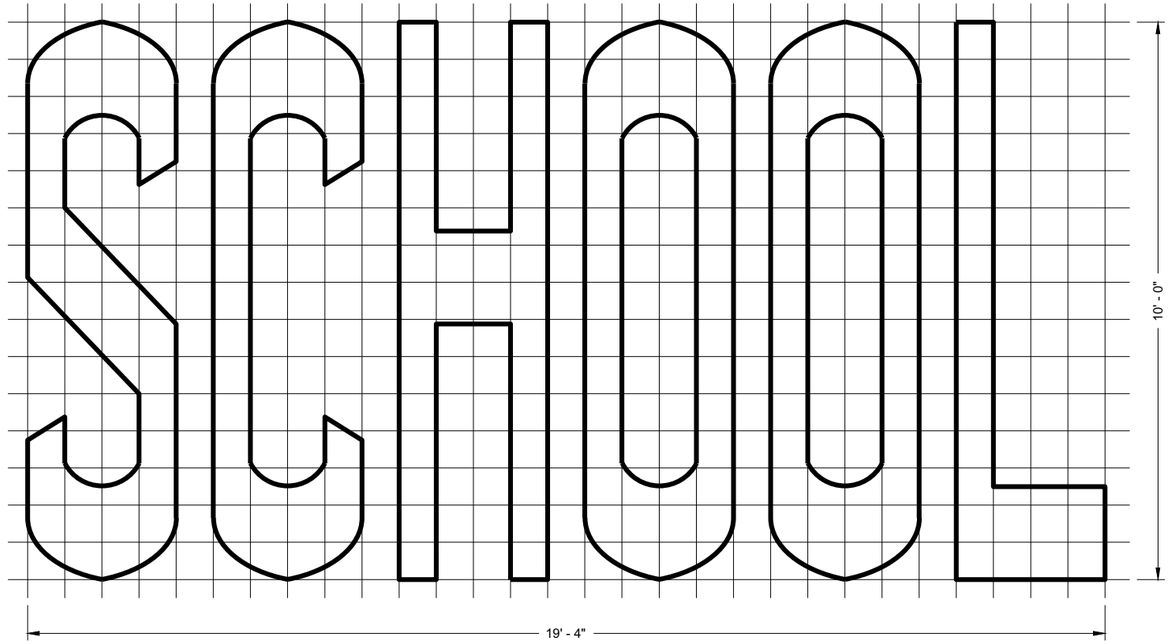




**SINGLE LANE**




**TWO - LANE**

## GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

**PAVEMENT MARKING WORDS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA



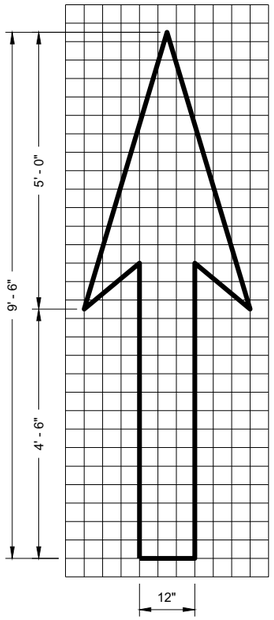
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SDD 15C07 - 15b

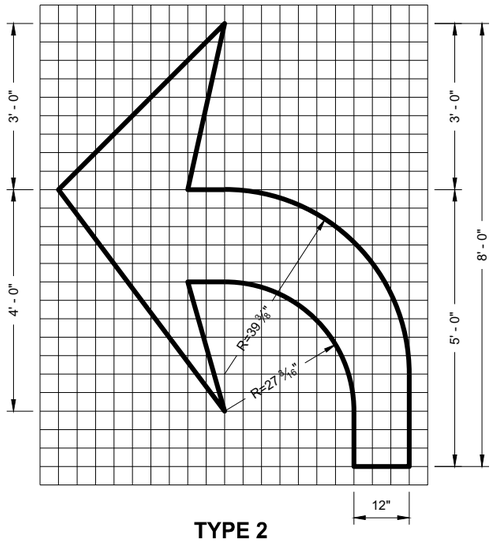
SDD 15C07 - 15b

## GENERAL NOTES

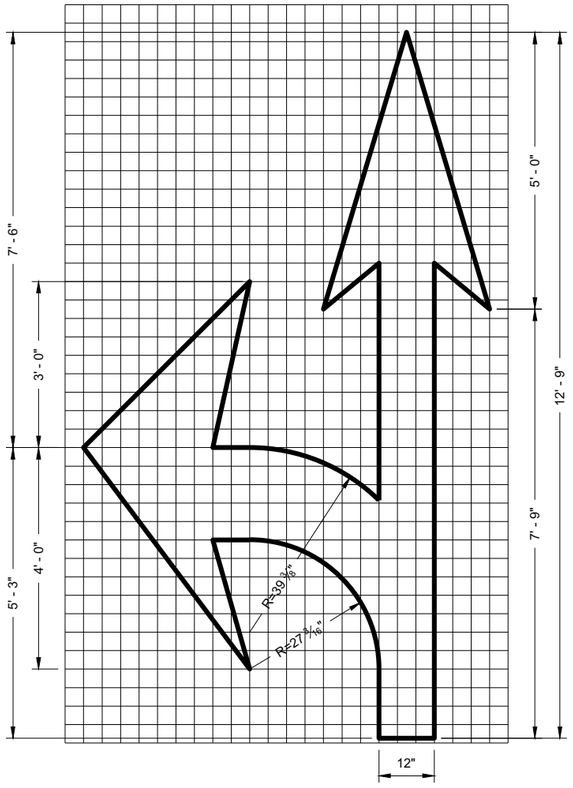
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



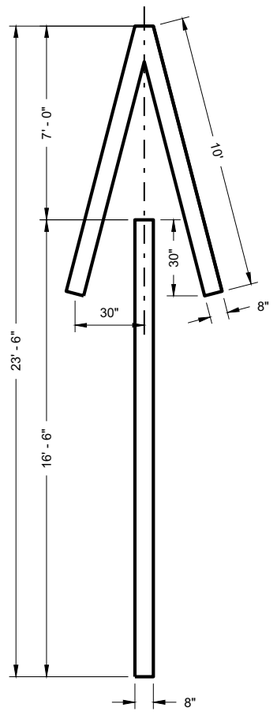

TYPE 1



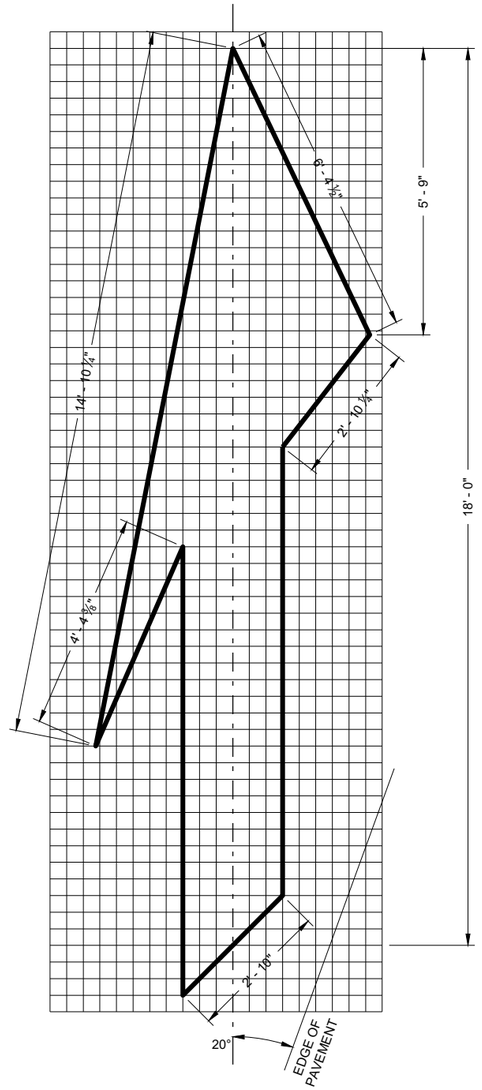

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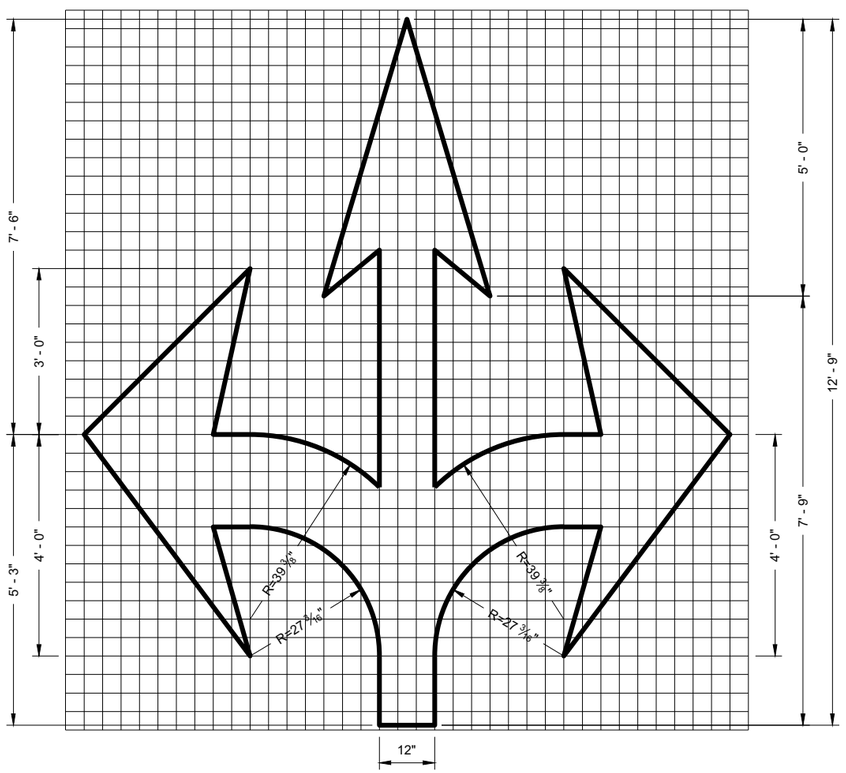

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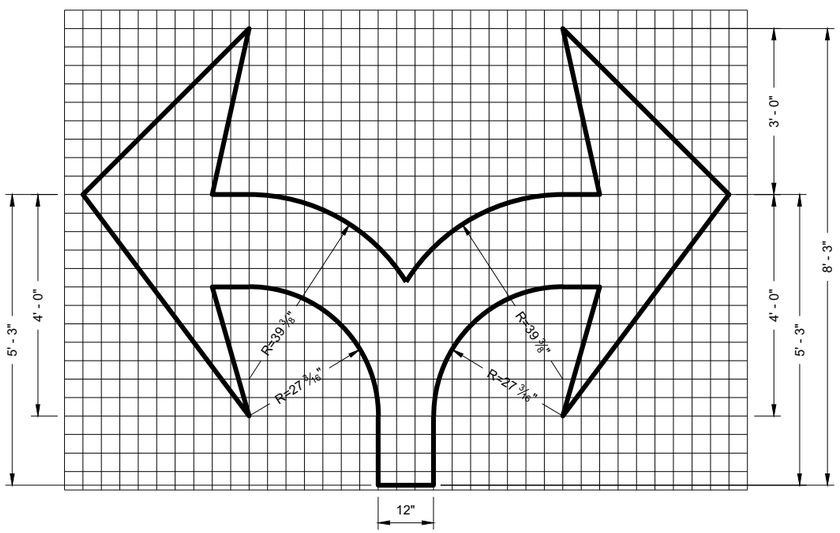

TYPE 4




TYPE 5 LANE DROP ARROW




TYPE 6




TYPE 7

**PAVEMENT MARKING ARROWS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA



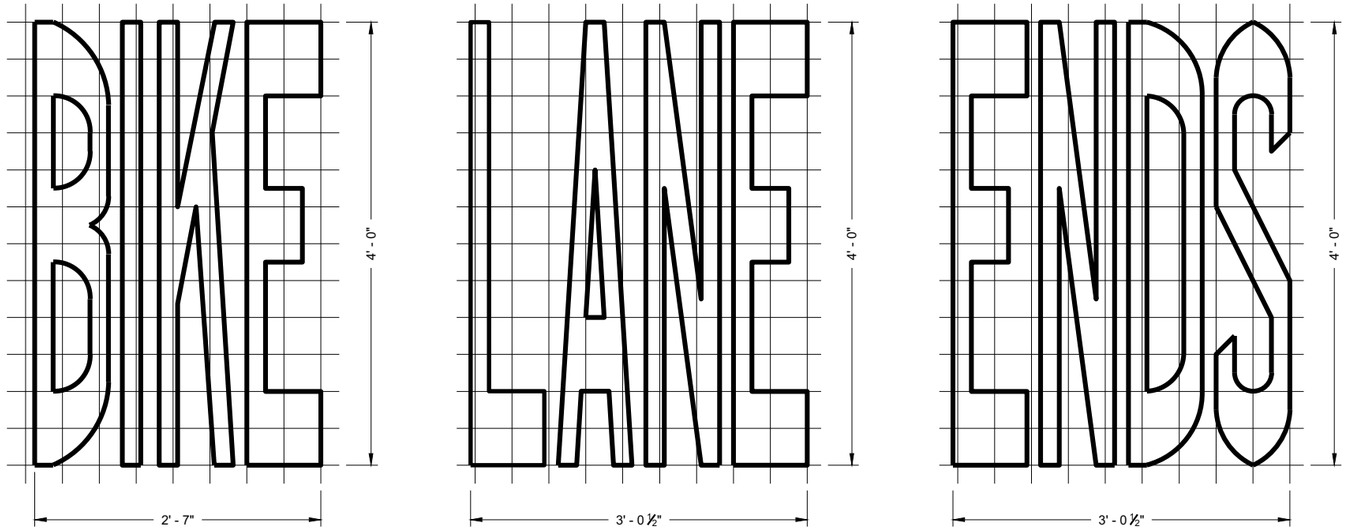
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SDD 15C07 - 15c

6

SDD 15C07 - 15c

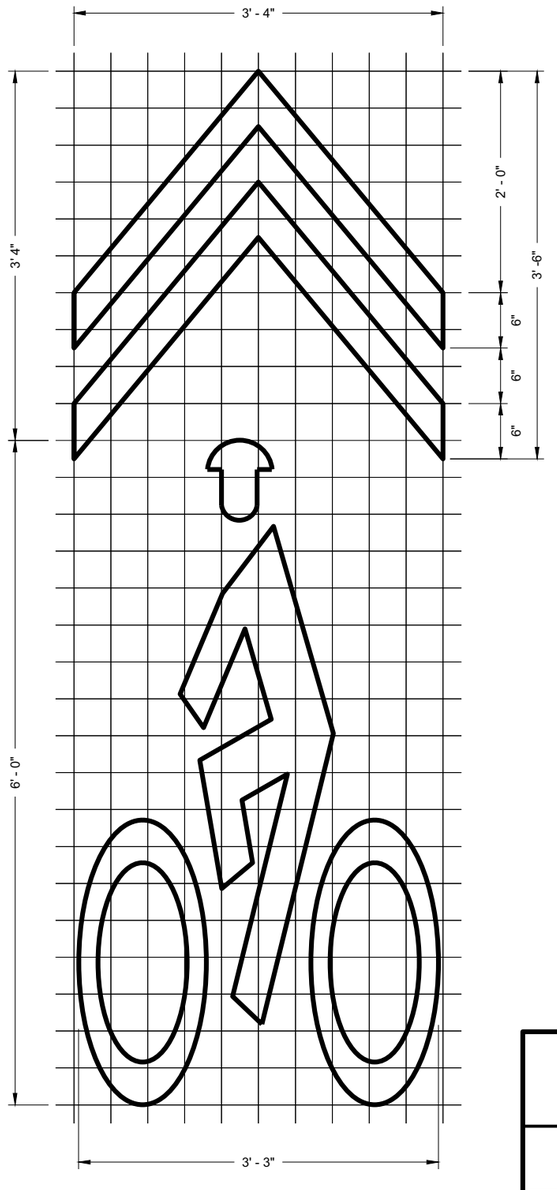
# SDD 15C7-e Pavement Marking For Bike Lanes

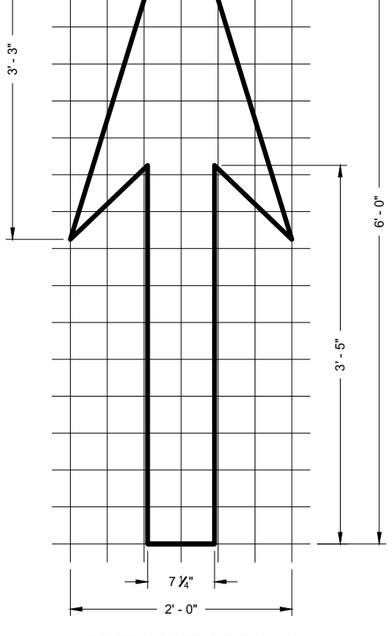



**BIKE LANE WORDS**

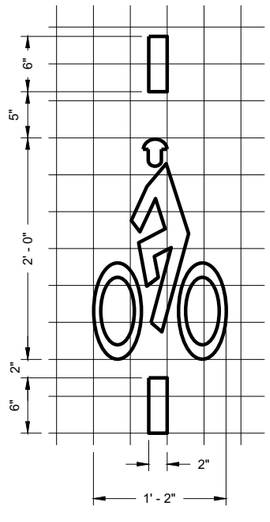
## GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

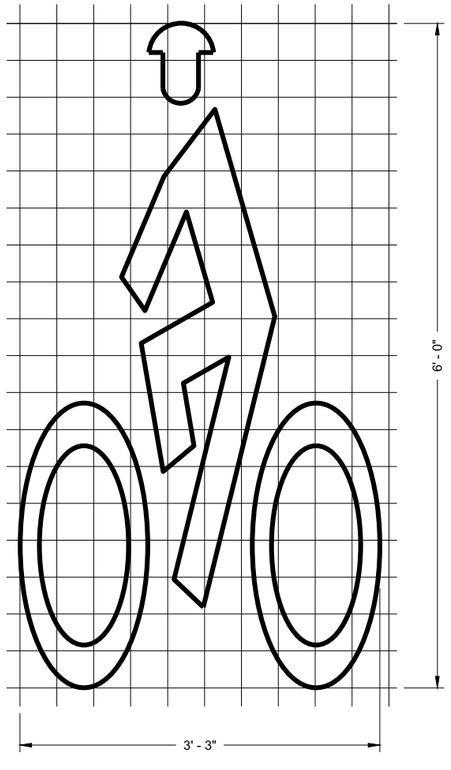



**BIKE LANE ARROW**




**BICYCLE DETECTOR PAVEMENT MARKING**




**BIKE LANE SYMBOL**




**BIKE LANE SYMBOL FOR SHARED LANE**

**PAVEMENT MARKING FOR BIKE LANES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA





6



SDD 15C07 - 15e

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

## GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

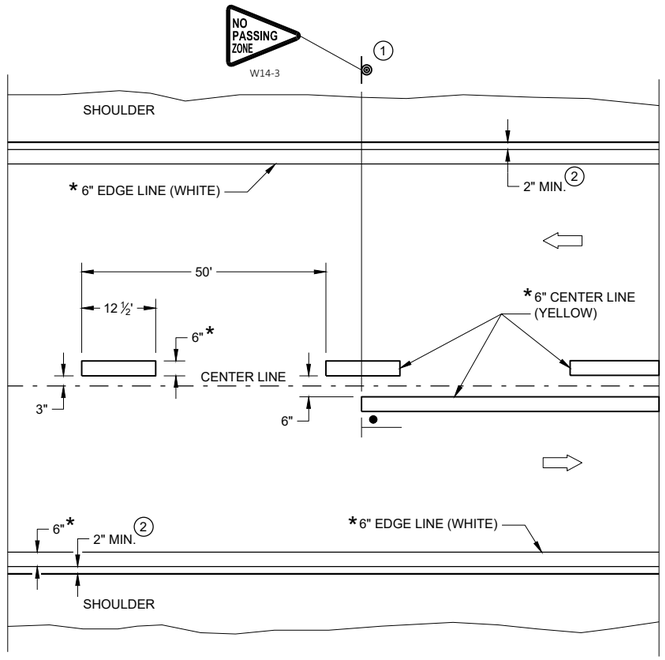
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

## LEGEND

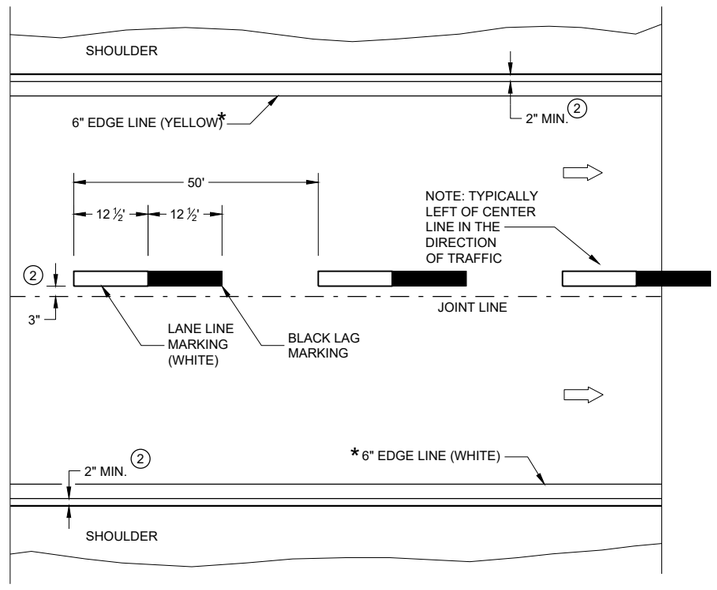
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC




TWO WAY TRAFFIC




ONE WAY TRAFFIC

**PERMANENT PAVEMENT MARKING**

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

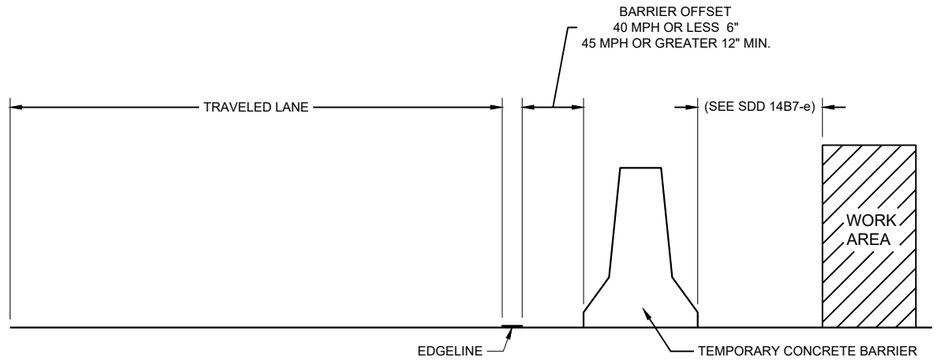
APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER
FHWA





6

SDD 15C08-23a




**TEMPORARY BARRIER OFFSET FROM EDGELINE**

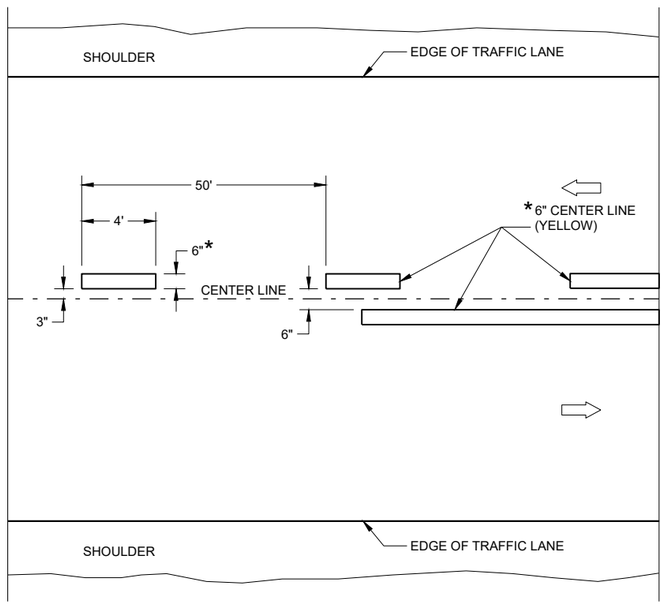
## GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

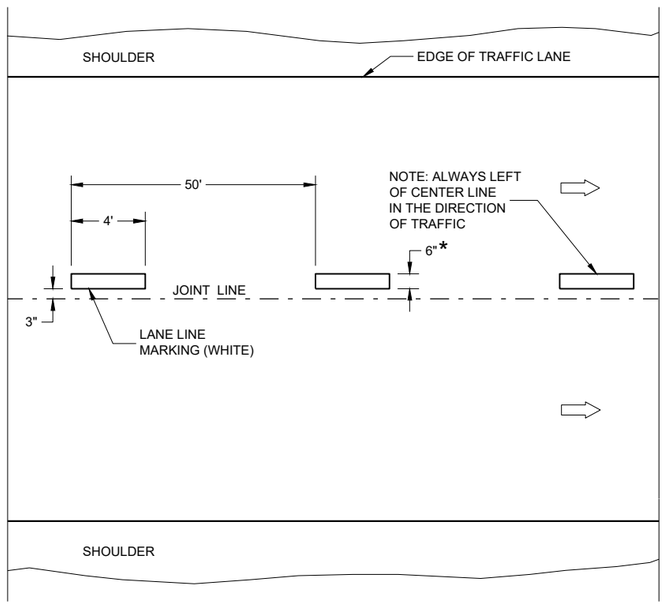
## LEGEND

⇨ DIRECTION OF TRAFFIC

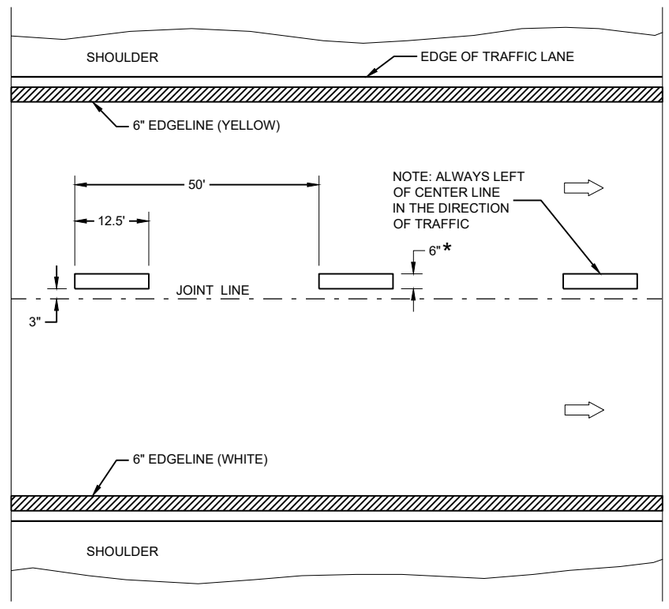
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES




**TWO WAY TRAFFIC**




**ONE WAY TRAFFIC**




**FREEWAYS AND EXPRESSWAYS**

**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA



6

SDD 15C08-23b

6

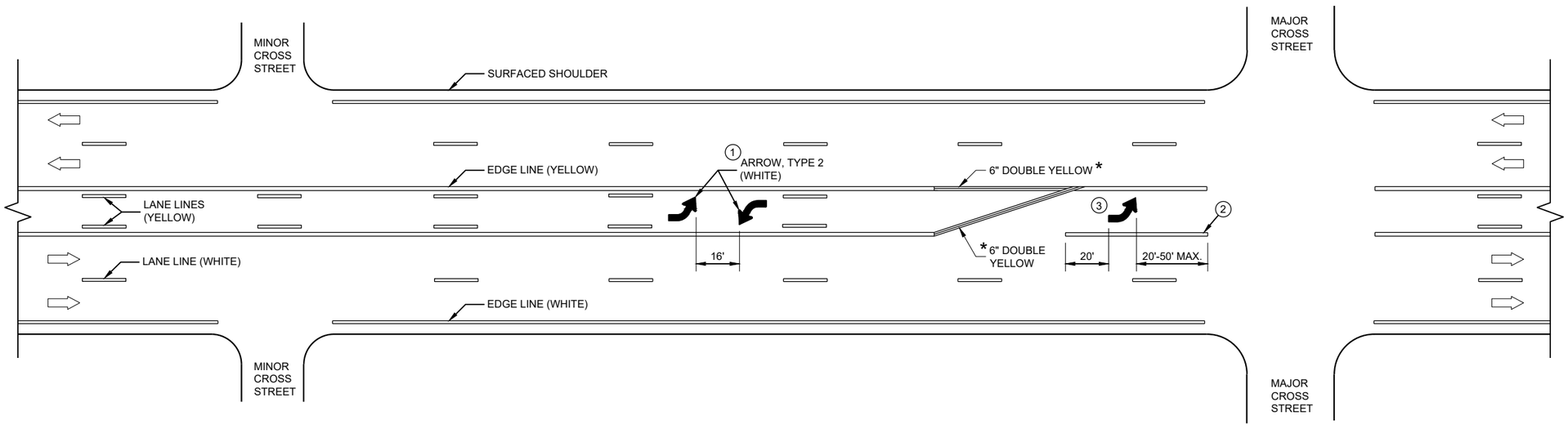
SDD 15C08-23b

## GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES




**TWO WAY LEFT TURN LANE**

6

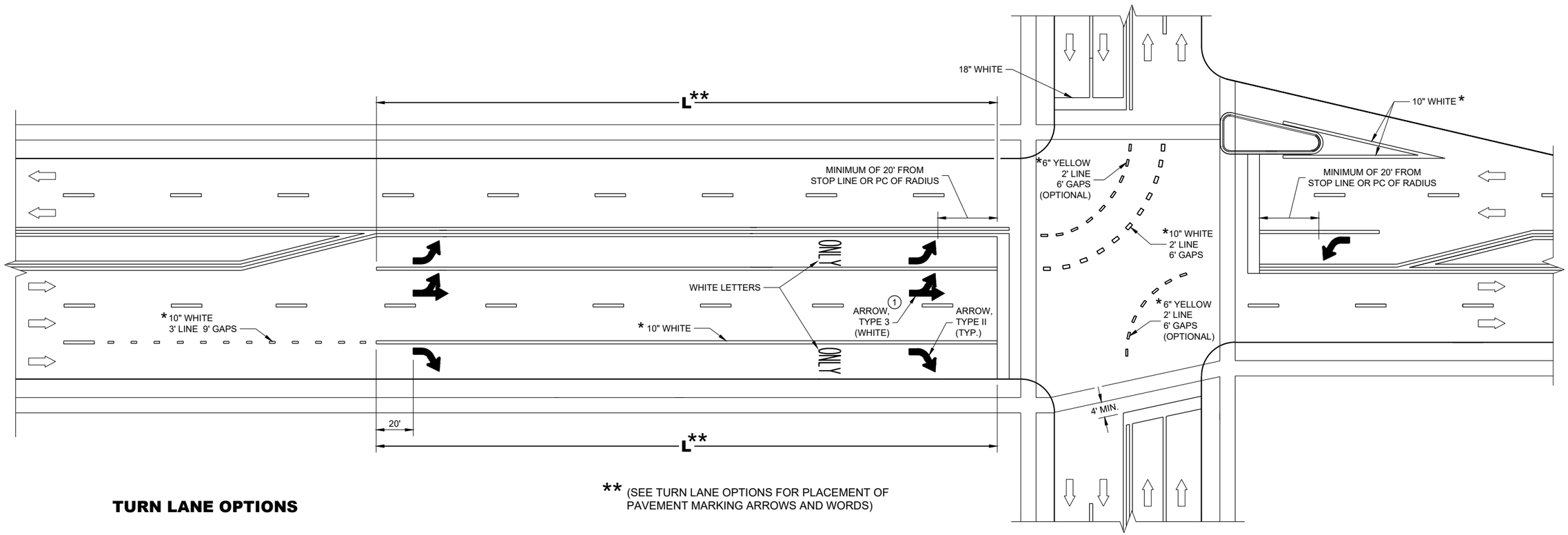
SDD 15C08-23c

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 551

6

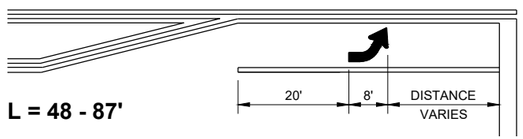
SDD 15C08-23c



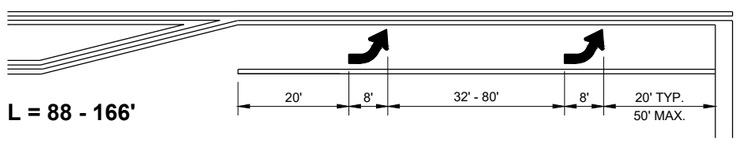

** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

## TURN LANE OPTIONS

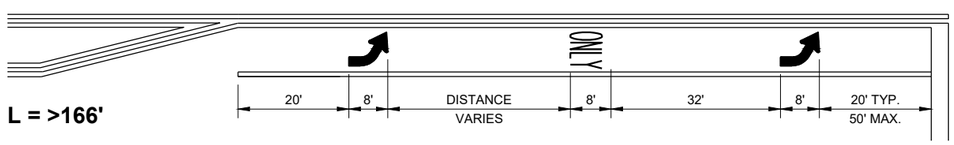
LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS




**L = 48 - 87'**




**L = 88 - 166'**




**L = >166'**

## GENERAL NOTES

1. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

**L** = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING (TURN LANES)**

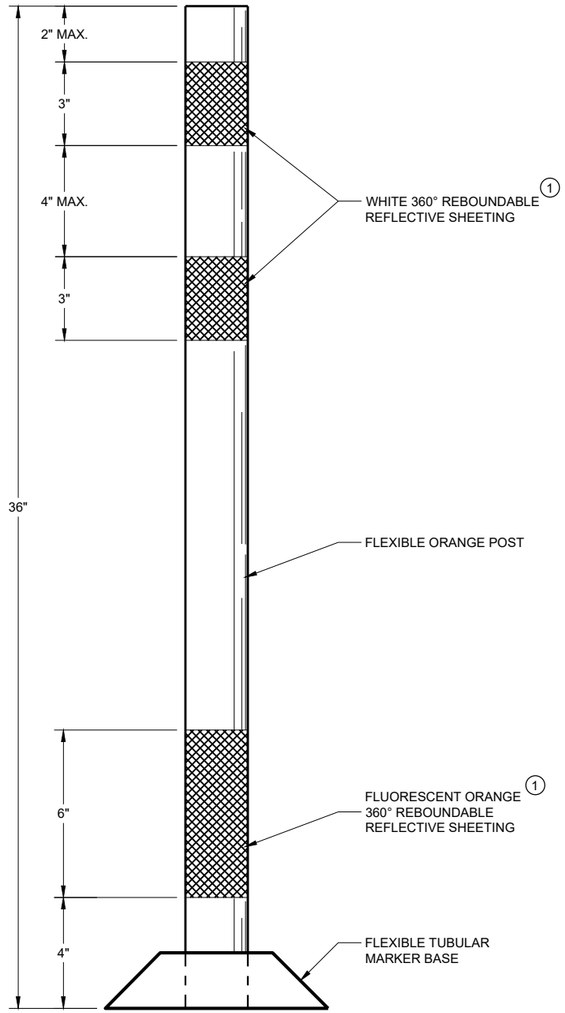
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6

SDD 15C08-23d

SDD 15C08-23d




**FLEXIBLE TUBULAR MARKER POST WORK ZONE**

## GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

**CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



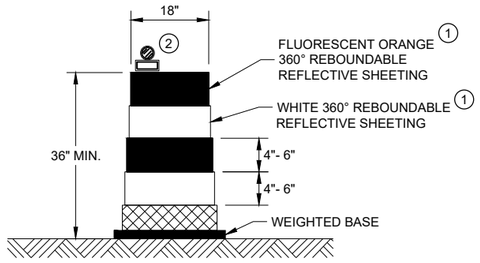
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SDD 15C11 - 10a

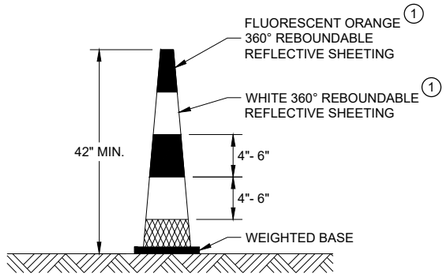
## GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.




### DRUM

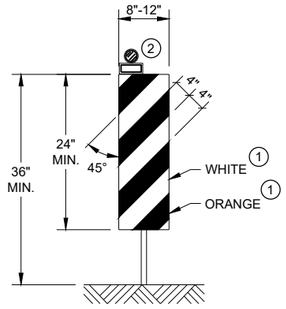
BALLAST WIDTHS
RANGE FROM 24"-36"




### 42" CONE

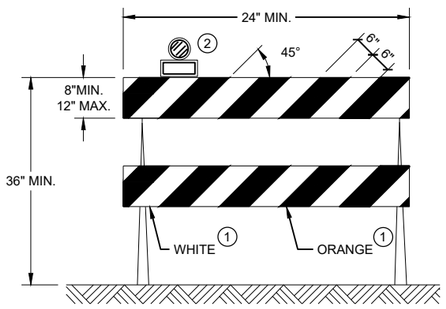
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



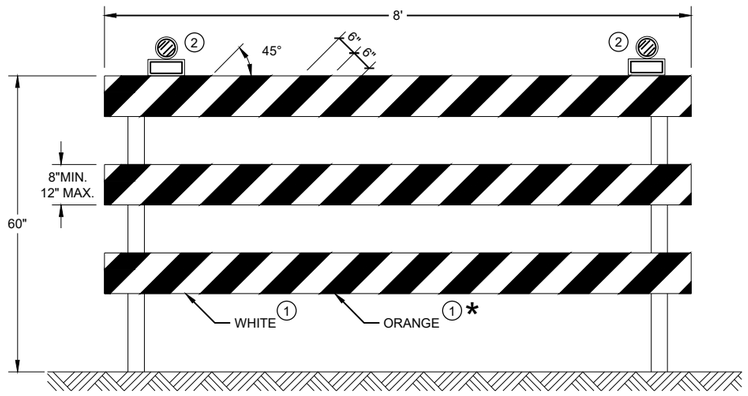

### VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

## CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

554

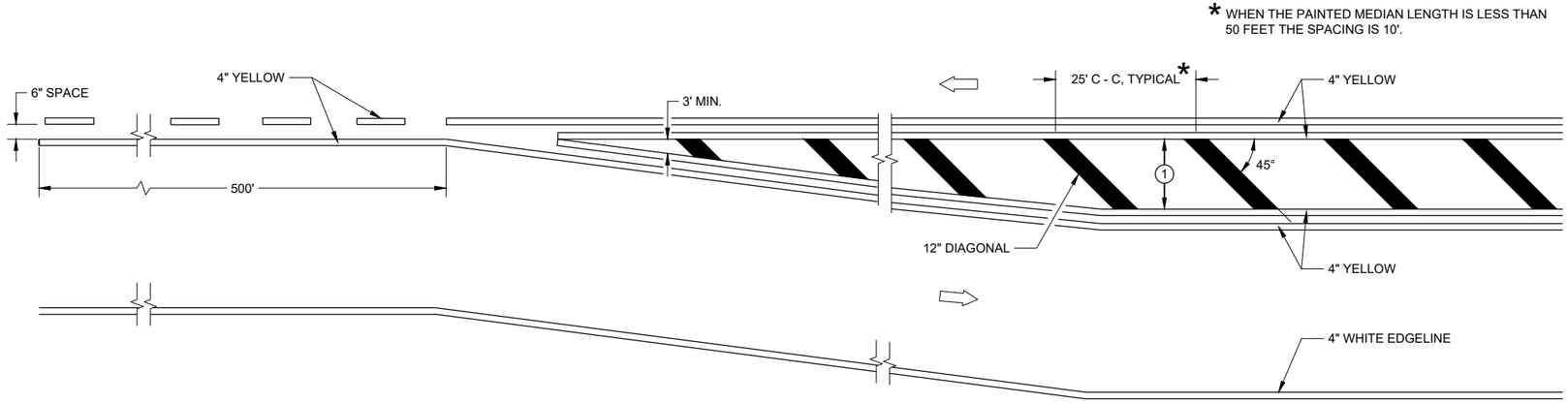
FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

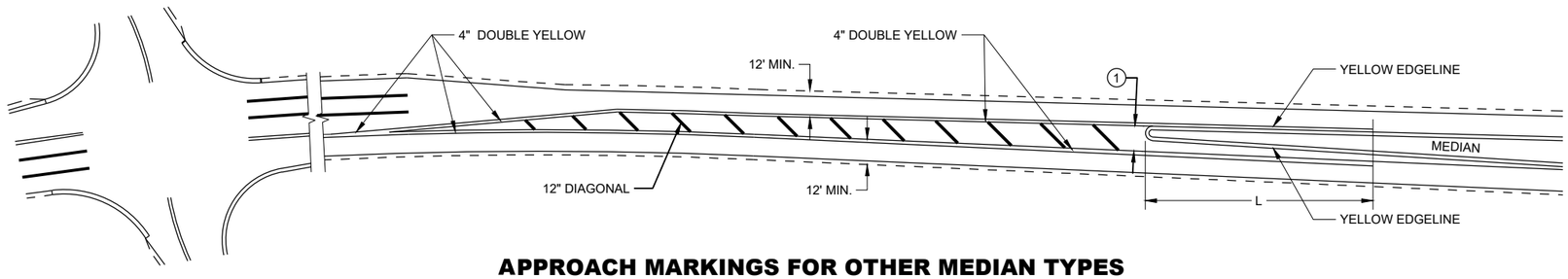



**MEDIAN ISLAND DETAIL**

## GENERAL NOTES

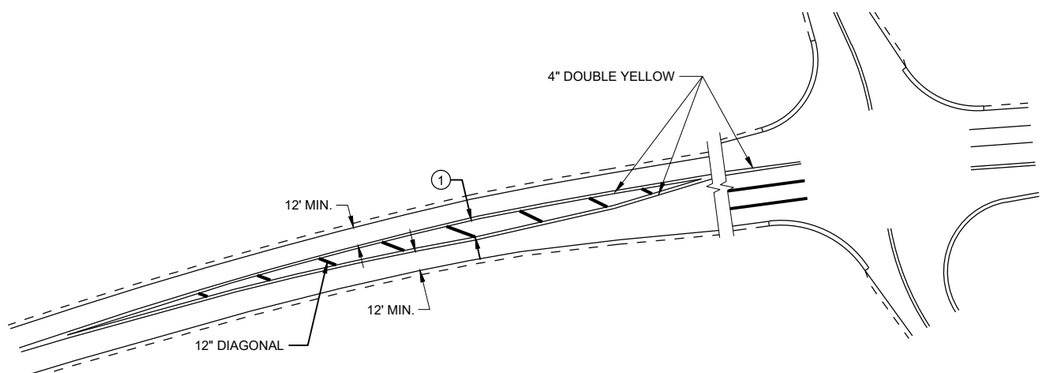
1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL




**APPROACH MARKINGS FOR OTHER MEDIAN TYPES**

| SPEED LIMIT | L |
|---|---|
| <35 MPH | 5' |
| 35> MPH | 50' |




**NON-APPROACH MARKINGS**

6

SDD 15C18 - 07a

**MEDIAN ISLAND PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2022
DATE

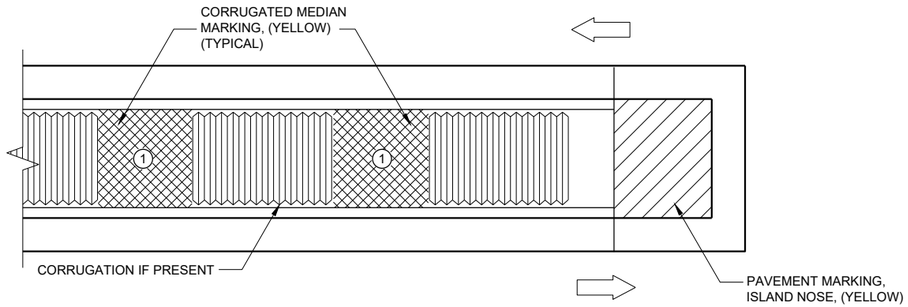
/S/ Jeannie Silver
STATE SIGNING AND MAF ENGINEER

555

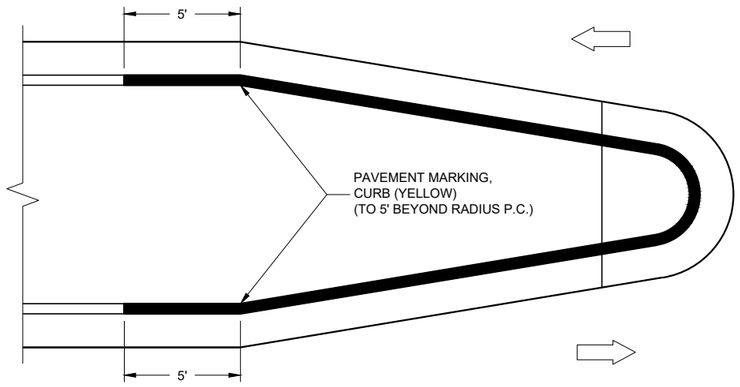
FHWA

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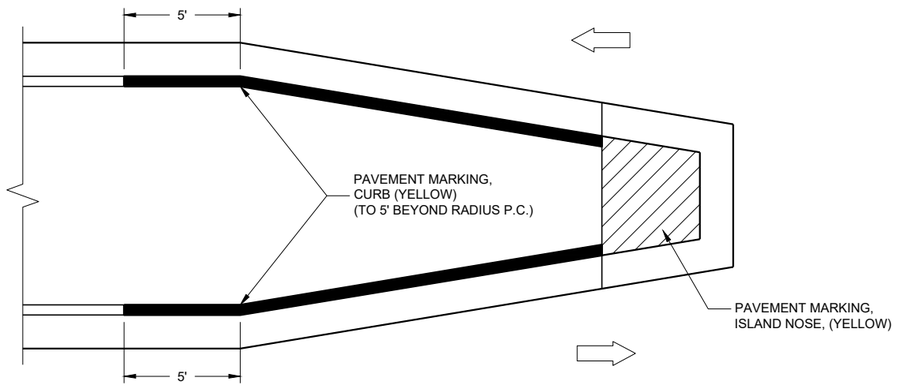
SDD 15C18 - 07a




**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**




**MEDIAN ISLAND WITH ROUND BLUNT NOSE**




**MEDIAN ISLAND WITH SLOPED NOSE**

## TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

## GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS, MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAF ENGINEER

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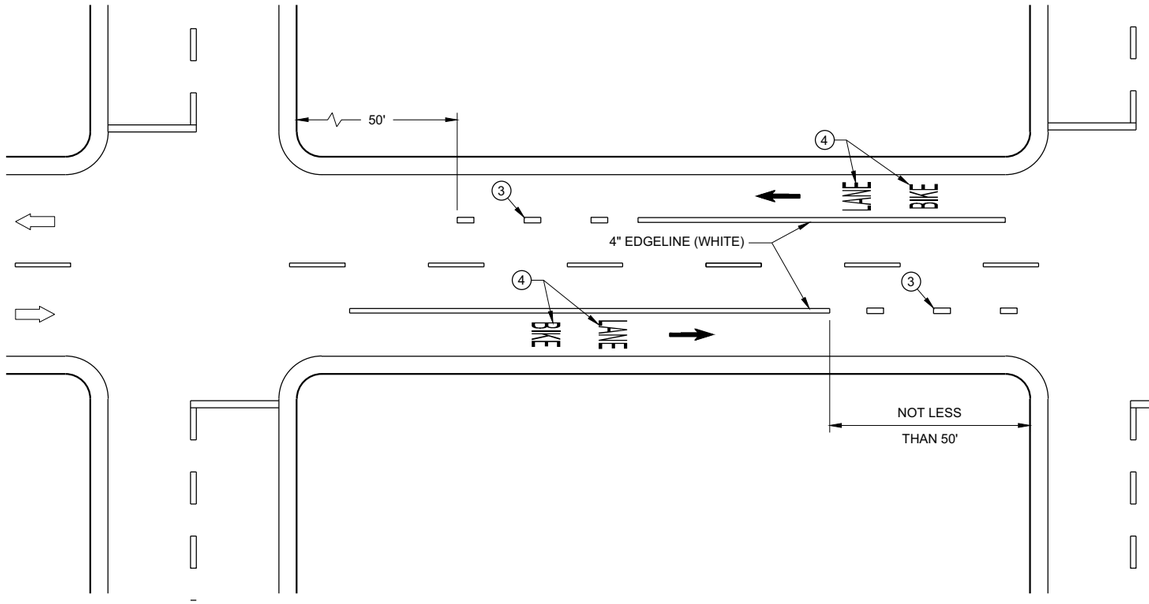


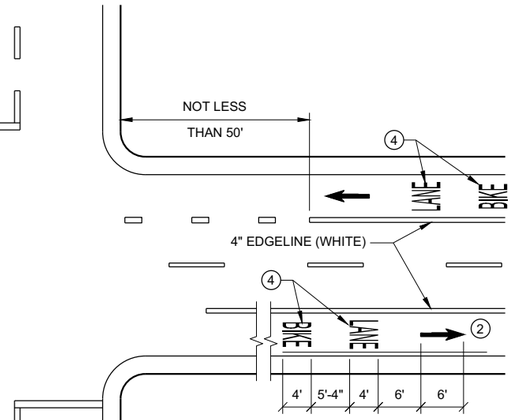
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SDD 15C18 - 07b

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SDD 15C18 - 07b



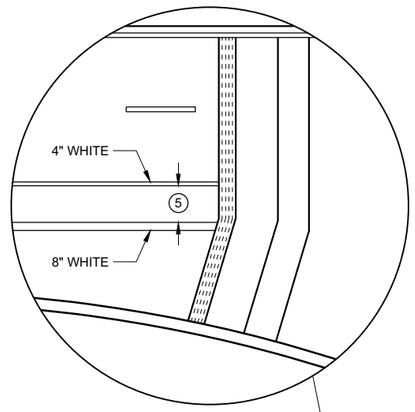




## GENERAL NOTES

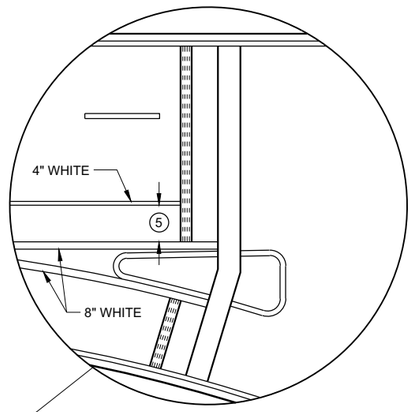
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

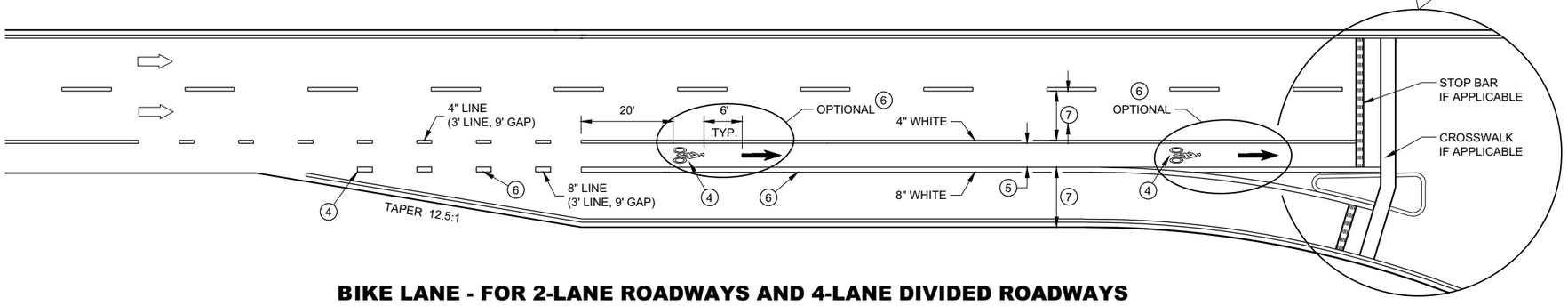
**DESIGNATED BIKE LANE - NO PARKING**




**4 LANE DIVIDED WITHOUT ISLAND**




**4 LANE DIVIDED WITH ISLAND**




**BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS**
**(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)**

**BIKE LANE MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

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6

SDD 15C29 - 07a

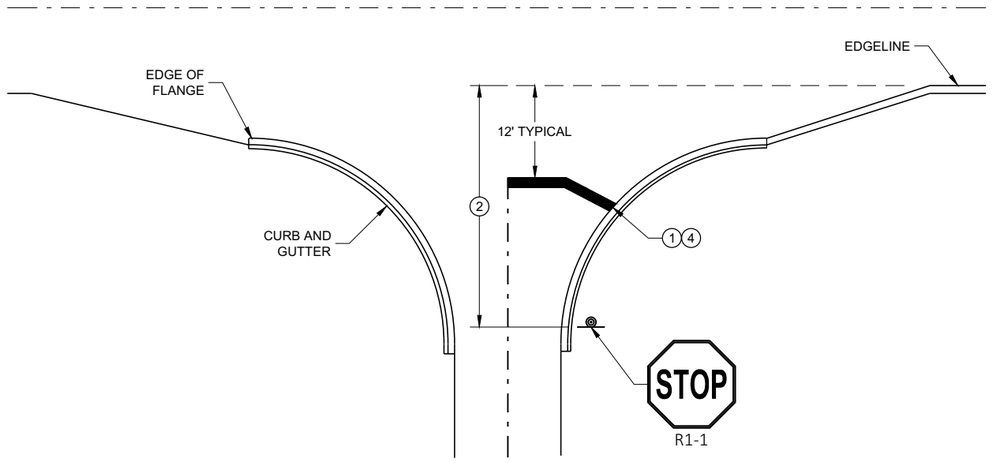
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SDD 15C29 - 07a

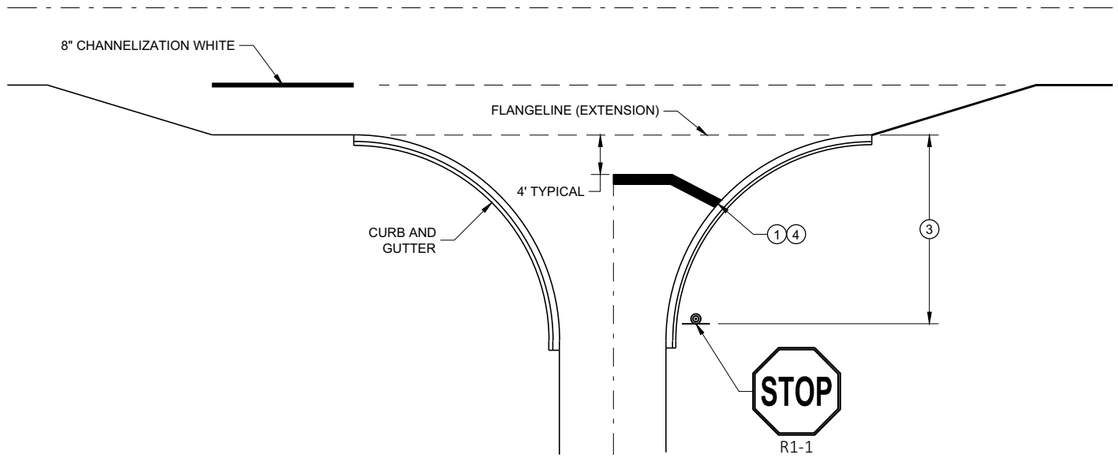
## GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

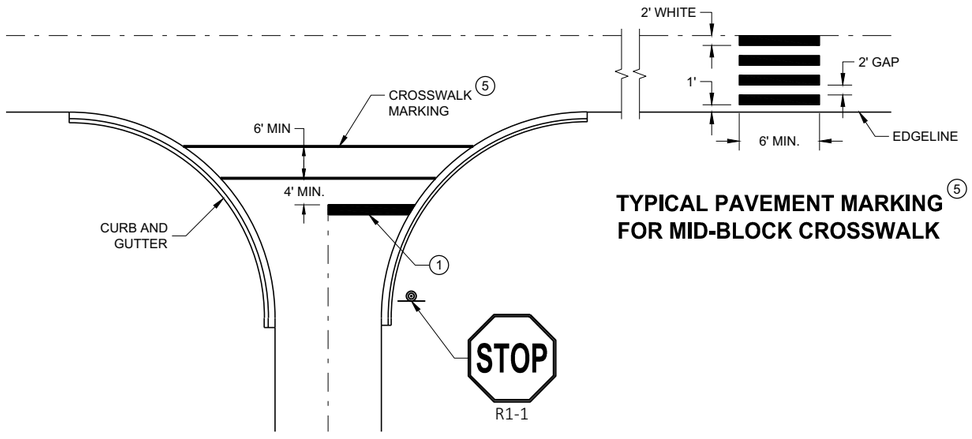
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.




**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**

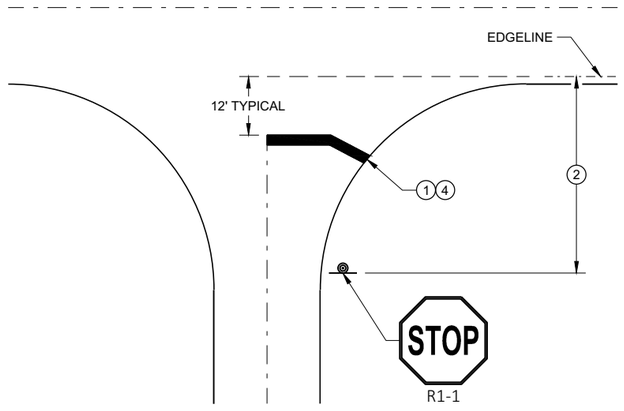



**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**




**TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK** 5

**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**




**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

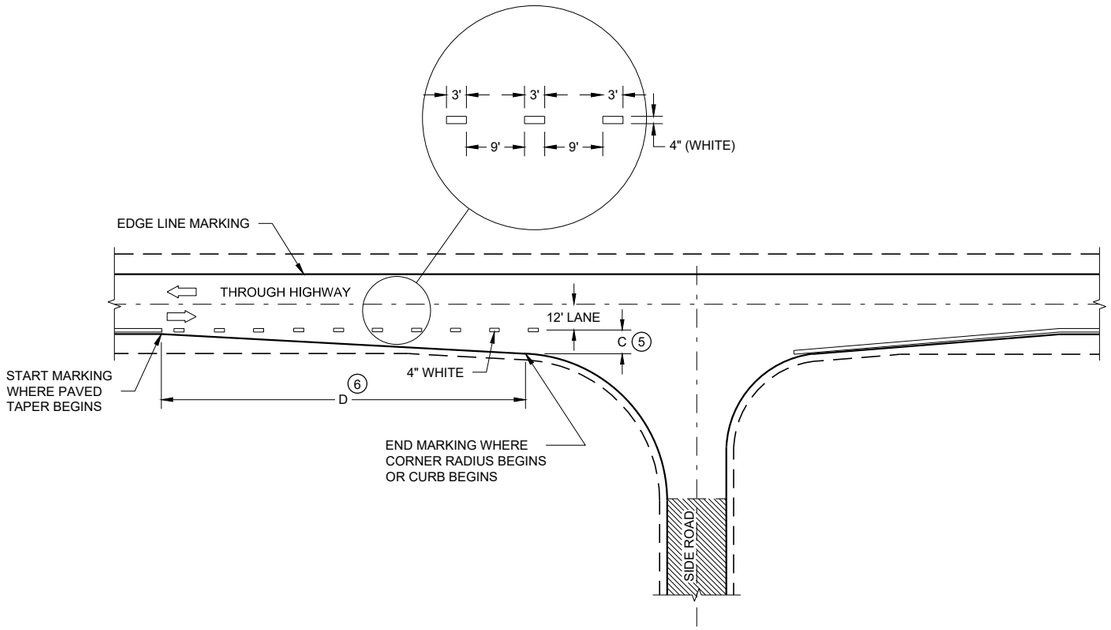


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SDD 15C33 - 04

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SDD 15C33 - 04




## MINOR INTERSECTION

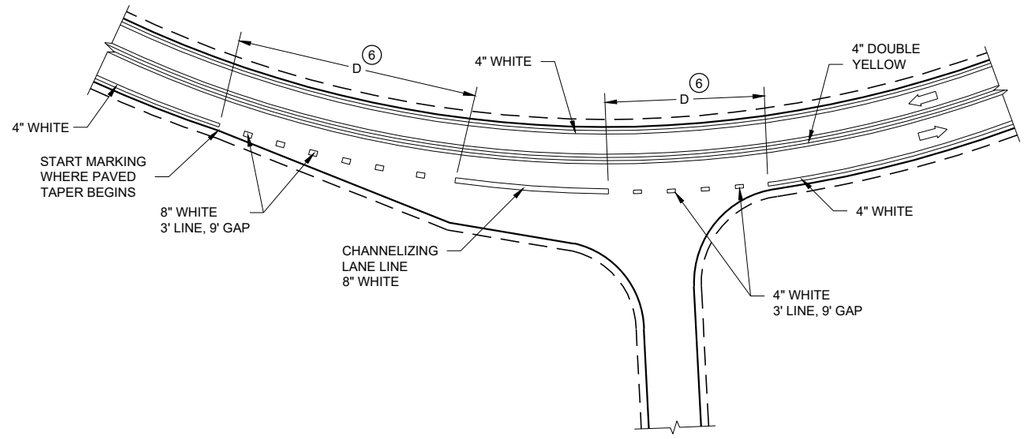
## GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

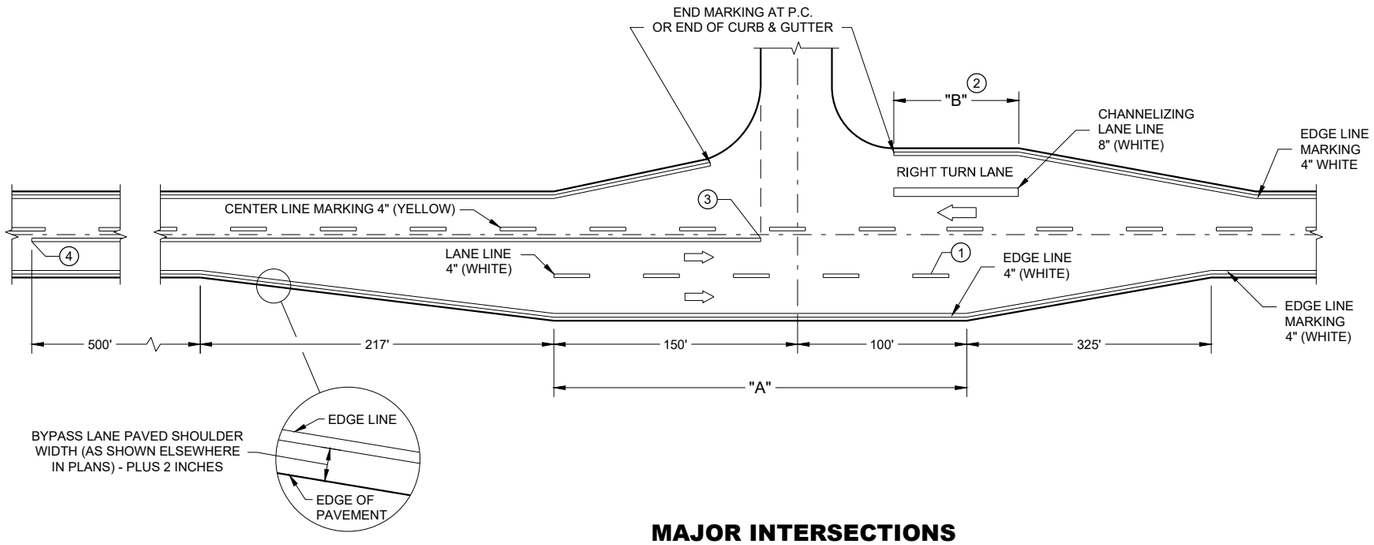
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

## LEGEND

DIRECTION OF TRAVEL




## INTERSECTION ON OUTSIDE OF CURVE




## MAJOR INTERSECTIONS

## (INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

**PAVEMENT MARKING (INTERSECTIONS)**

## GENERAL NOTES

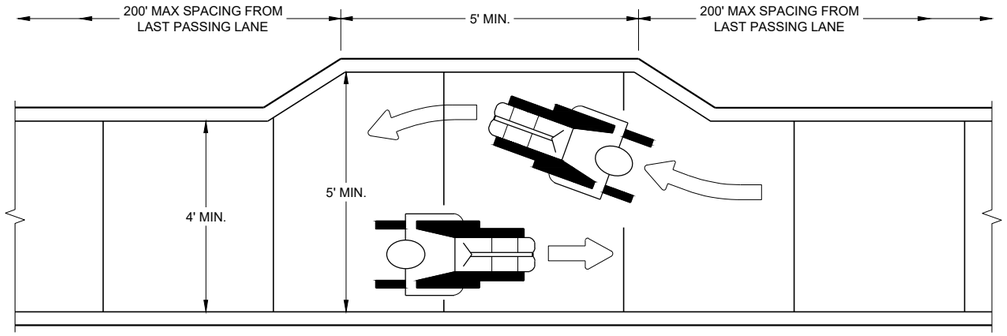
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

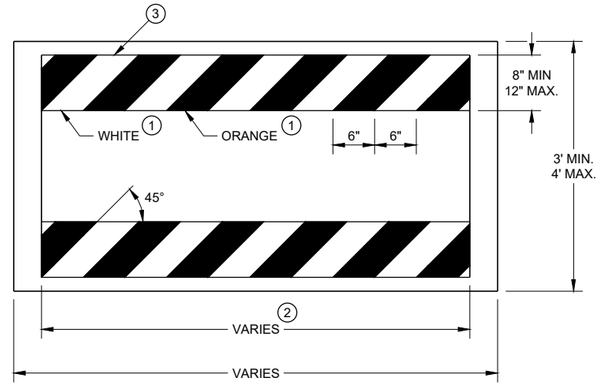
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

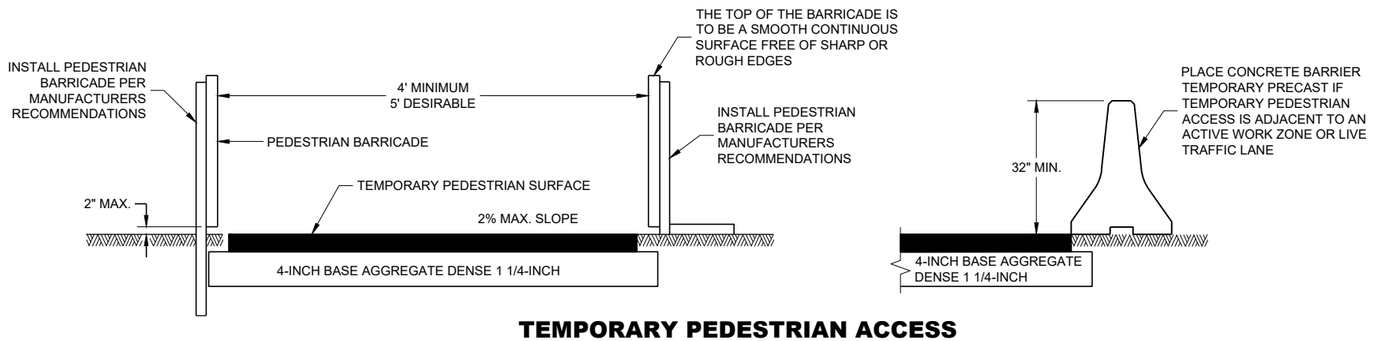
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.




**NARROW SIDEWALK PASSING DETAIL**




**TEMPORARY PEDESTRIAN BARRICADE***




**TEMPORARY PEDESTRIAN ACCESS**

6

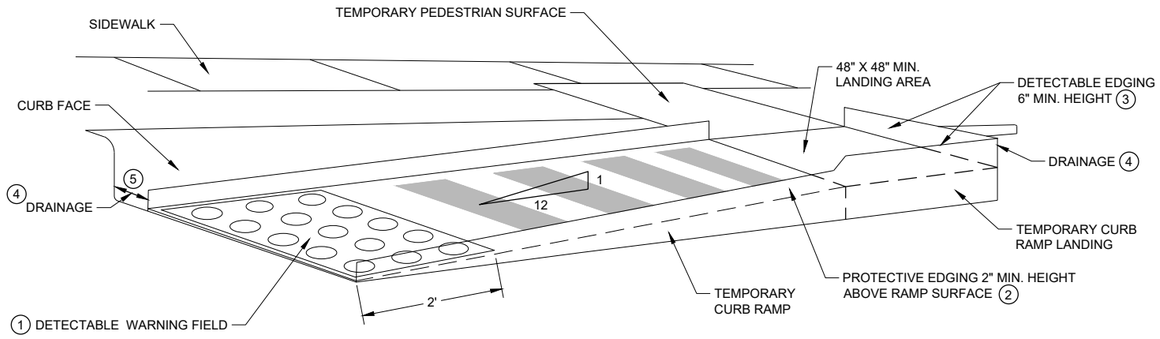
6

SDD 15D30 - 08a

SDD 15D30 - 08a

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 560




**PERSPECTIVE VIEW**

## GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

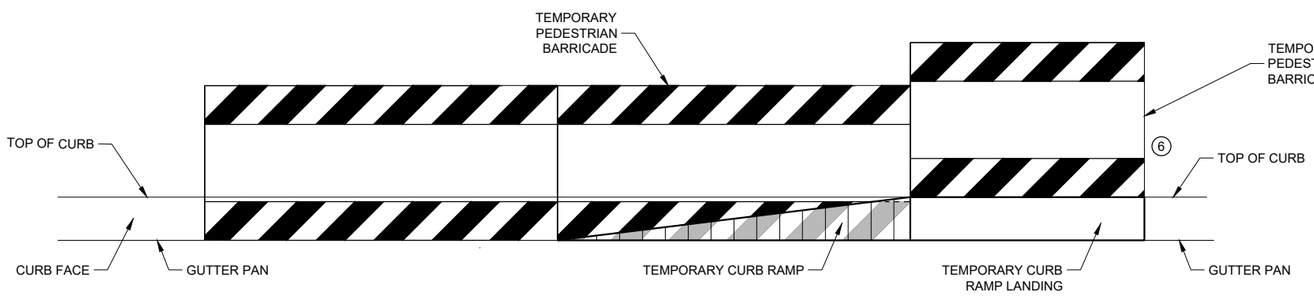
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

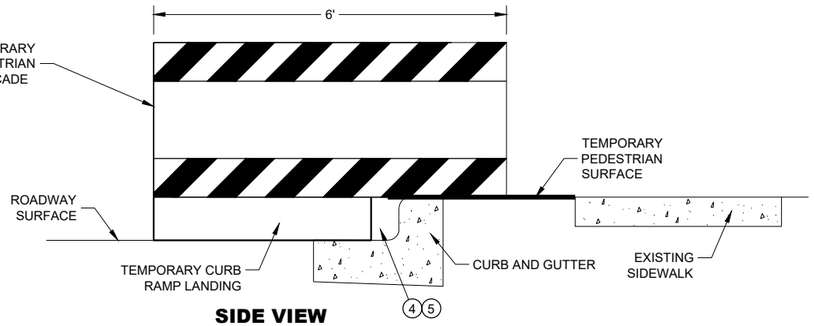
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.




**FRONT VIEW**




**SIDE VIEW**

## TEMPORARY CURB RAMP PARALLEL TO CURB

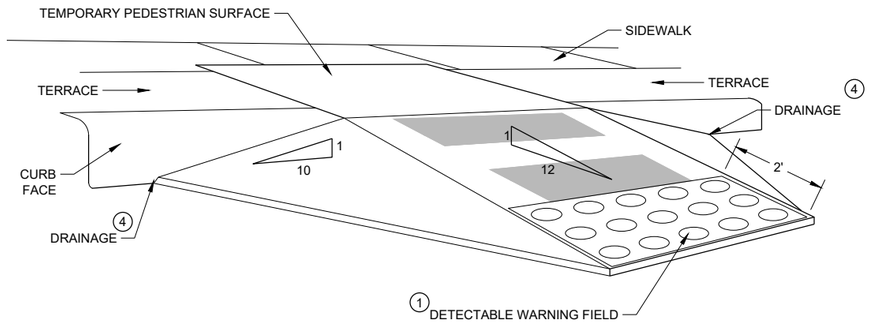
**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

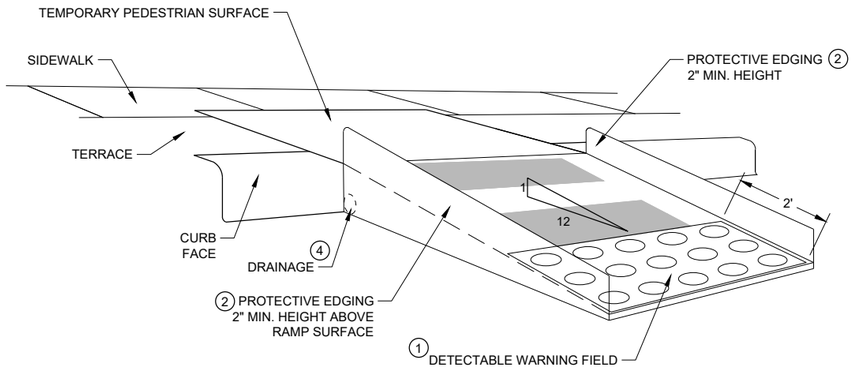



6


SDD 15D30 - 08b




**WITH SIDE APRON** (5)




**WITH PROTECTIVE EDGE**

## TEMPORARY CURB RAMP PERPENDICULAR TO CURB

## GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

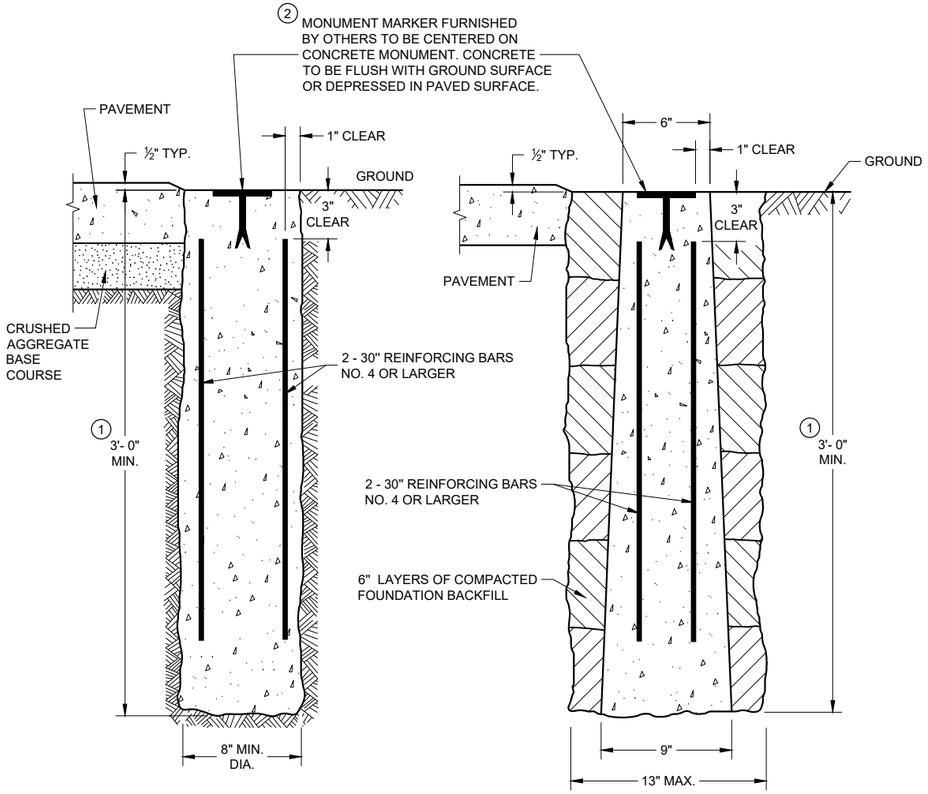
(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.


6


SDD 15D30 - 08c

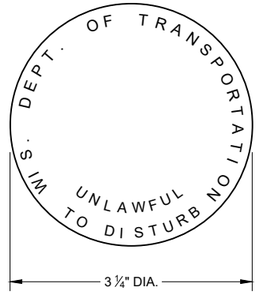
**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



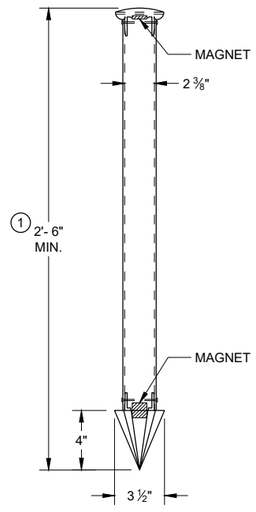

**CAST-IN-PLACE** **PRECAST**

## CONCRETE MONUMENTS
### TYPE A

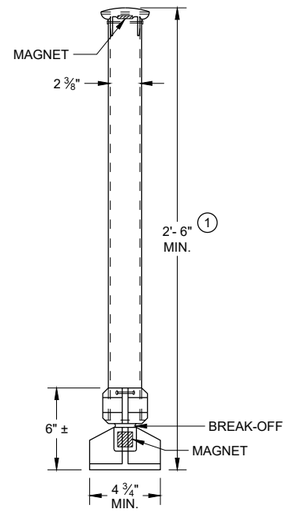



② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

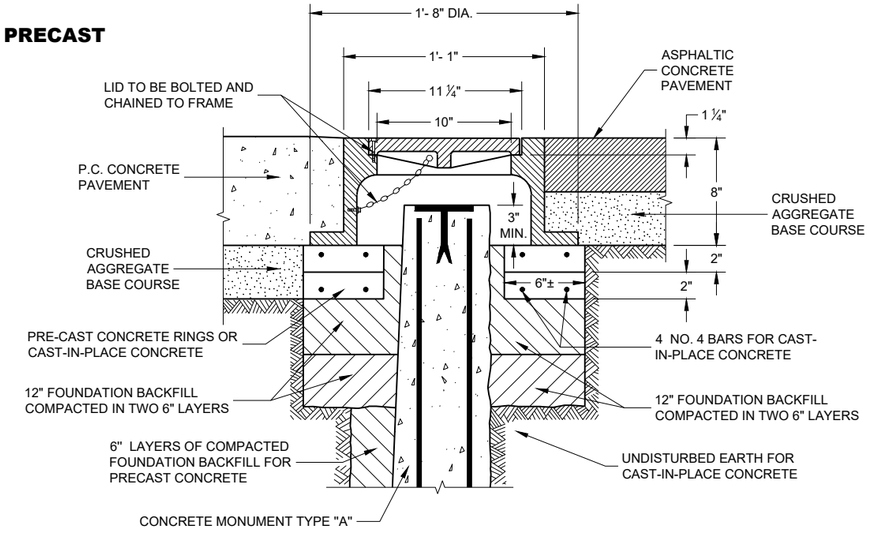



**TYPE C**
**DRIVEN MONUMENT**




**TYPE D**
**NON-DRIVEN**
**BREAK-OFF MONUMENT**

## ALUMINUM MONUMENTS
(INCLUDES MARKER)




## CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

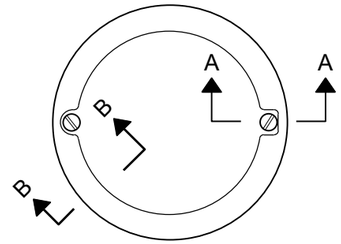
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

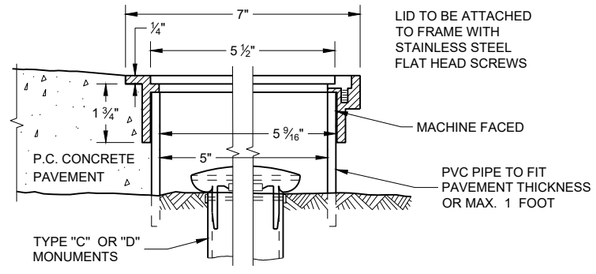
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.




**TOP VIEW**




**SECTION B-B** **SECTION A-A**

## ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

## LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Raymond A. Kumapayii
CHIEF SURVEYING AND MA
ENGINEER

FHWA

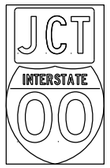


6

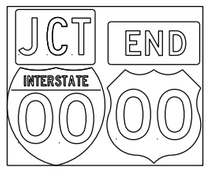
SDD 16A01 - 07

SDD 16A01 - 07

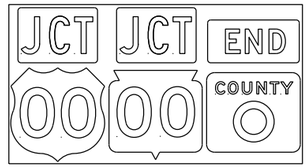
# TYPICAL ASSEMBLIES



J1-1



J1-2



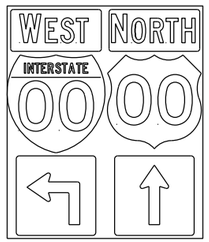
J1-3



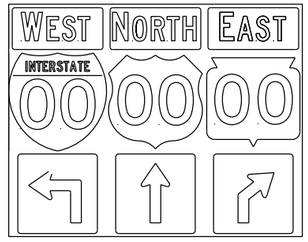
JR1-1



J2-1



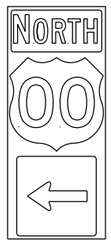
J2-2



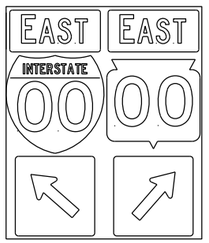
J2-3



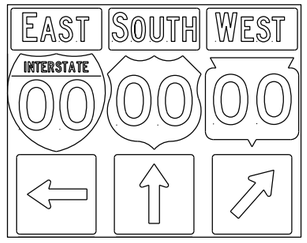
JV
( Typical Vertical J-Assembly
See Note 10 and 11 )



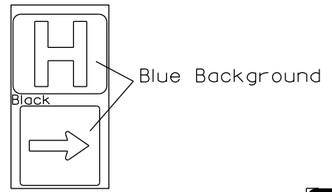
J3-1



J3-2



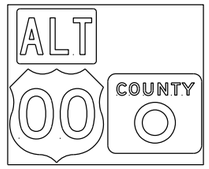
J3-3



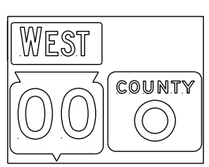
JH-1



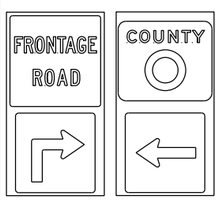
J4-1



J4-2



J4-2



J12-1



J13-1



J32-1



J33-1



J22-1



J23-1



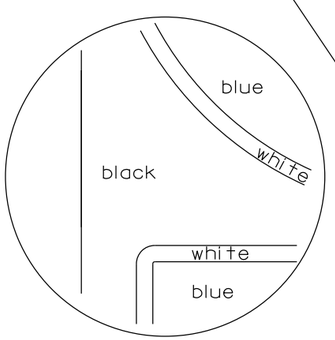
JR13-1

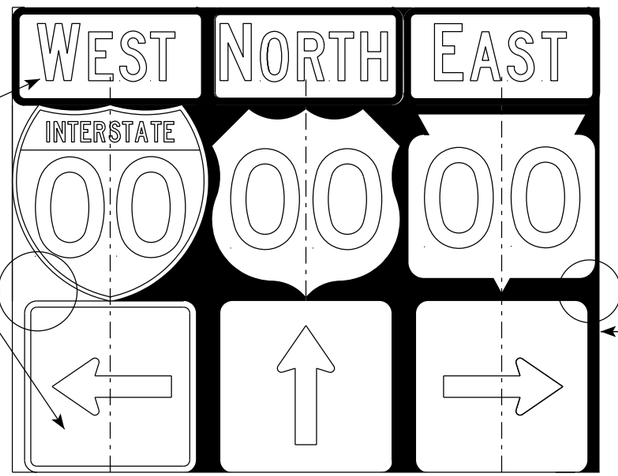


JR23-1



JR99-1




NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

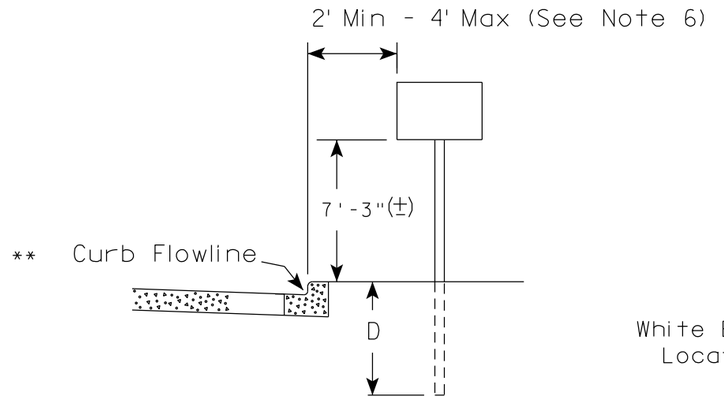
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

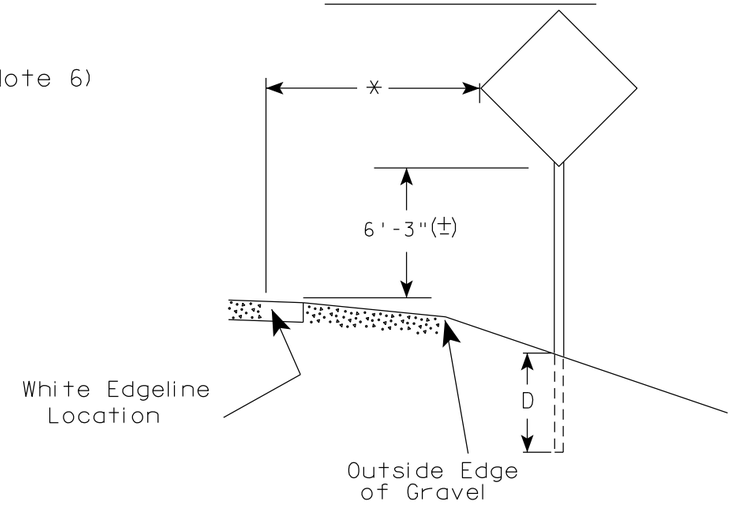
PROJECT NO:

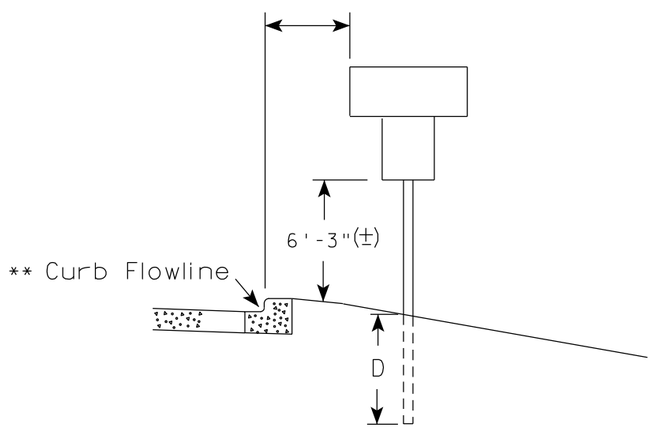
SHEET NO: 564 E

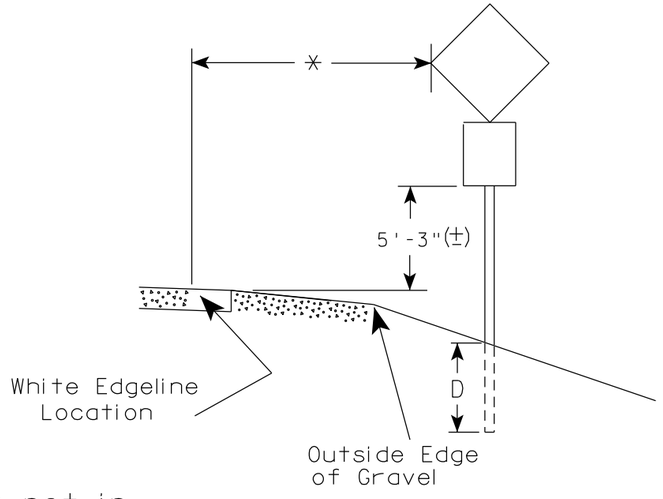
## URBAN AREA




## RURAL AREA (See Note 2)




** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

### POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq.Ft.) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

### GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

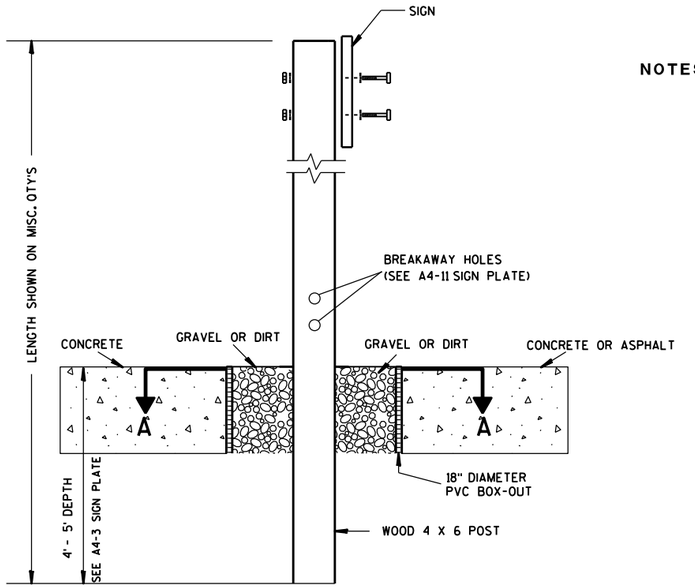
# TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

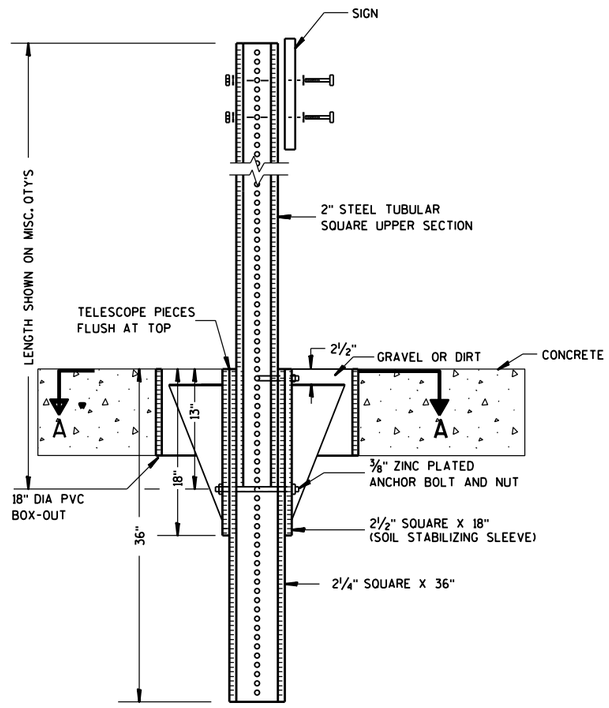
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 565 | E |
|---|---|---|---|---|---|




**ELEVATION VIEW**

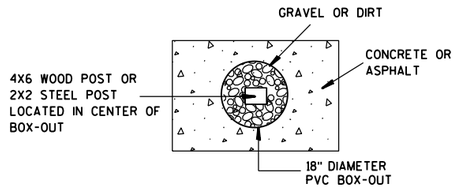
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.




**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**




**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

# SIGN POST BOX-OUTS A4-3B

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

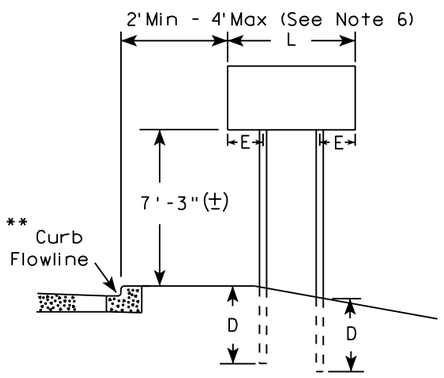
DATE 1/27/14 PLATE NO. A4-3B.1

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

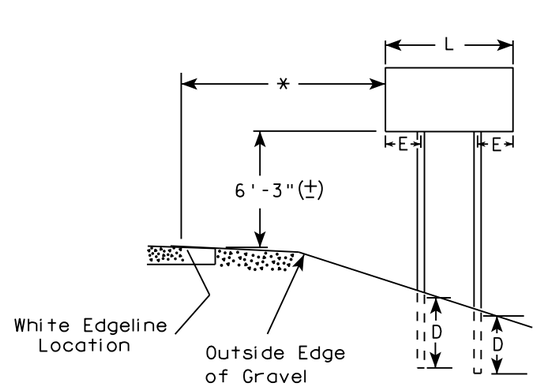


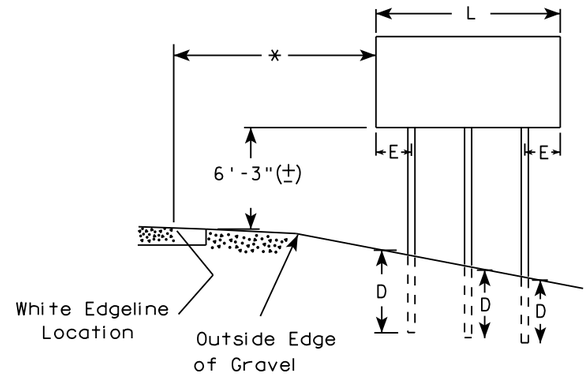
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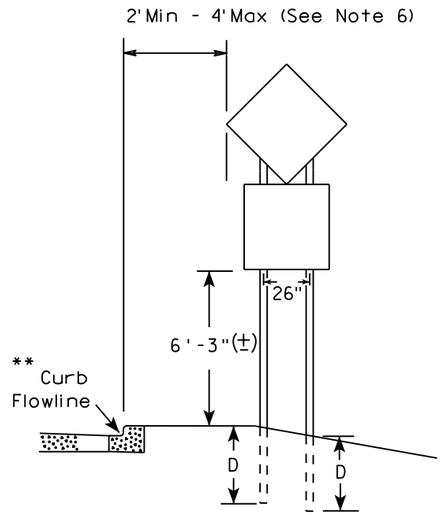
## URBAN AREA



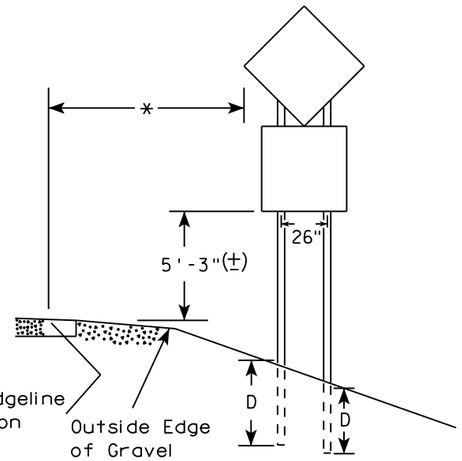

## RURAL AREA (See Note 3)




48" DIAMOND WARNING SIGN




48" DIAMOND WARNING SIGN

| SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED) | | |
|---|---|---|
| | L | E |
| *** | Greater than 48" Less than 60" | 12" |
| | 60" to 108" | L/5 |

| SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED) | |
|---|---|
| L | E |
| Greater than 108" to 144" | 12" |

### GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

### POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq. Ft. ) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

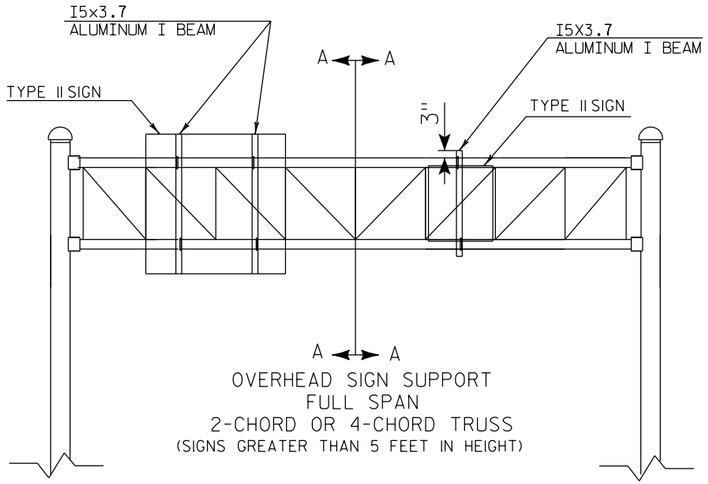
**TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS**

*WISCONSIN DEPT OF TRANSPORTATION*

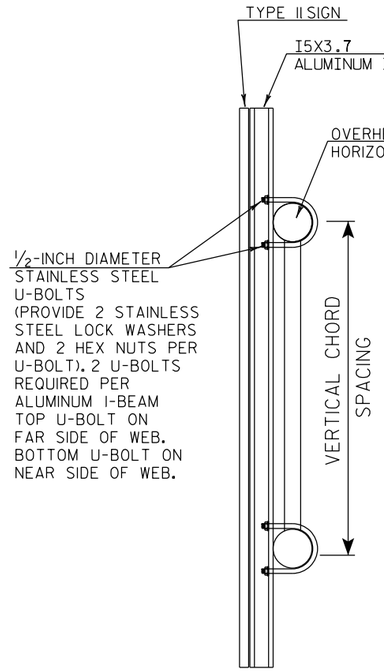
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

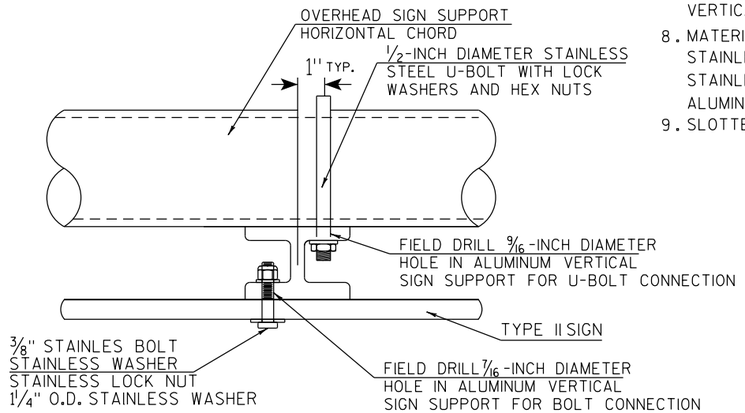
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 567 | E |
|---|---|---|---|---|---|




OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



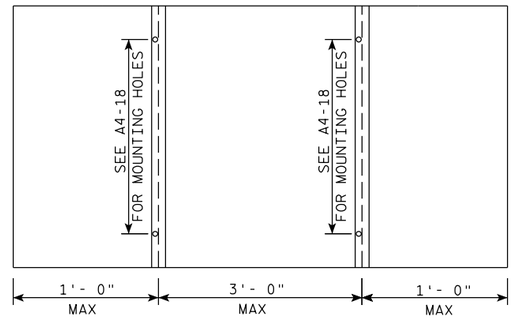

CUT SECTION A-A



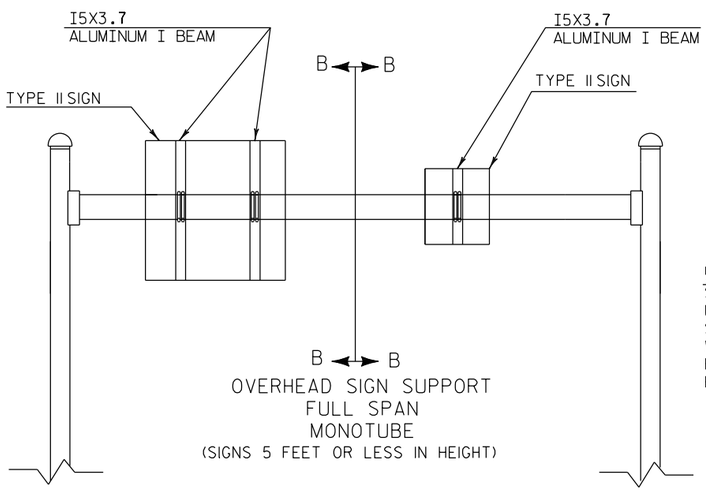

TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

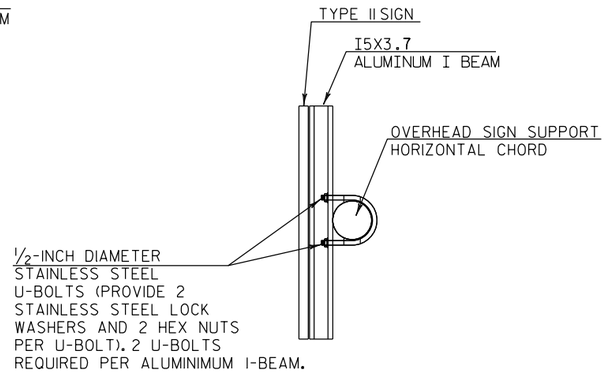
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



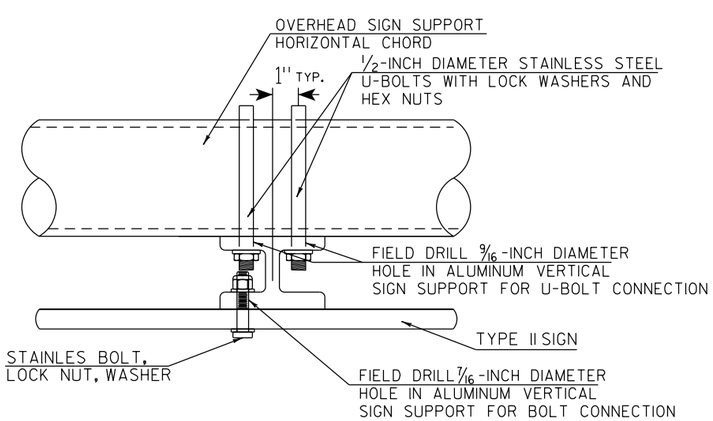

SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



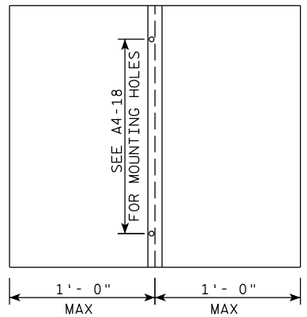

OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)




CUT SECTION B-B




TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW




SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

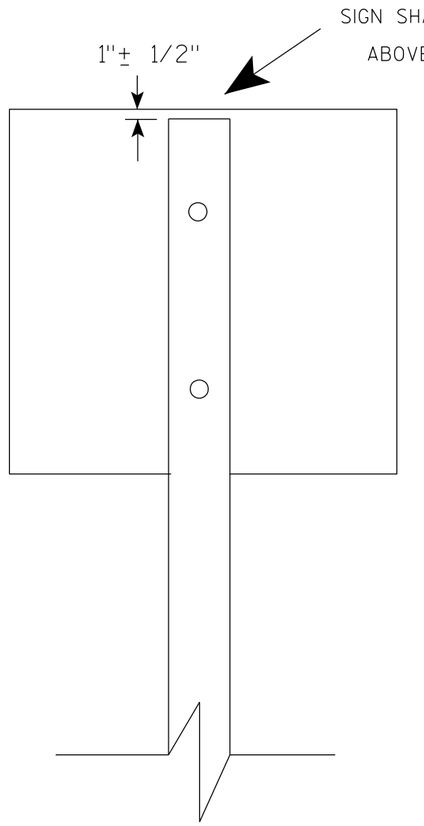
TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

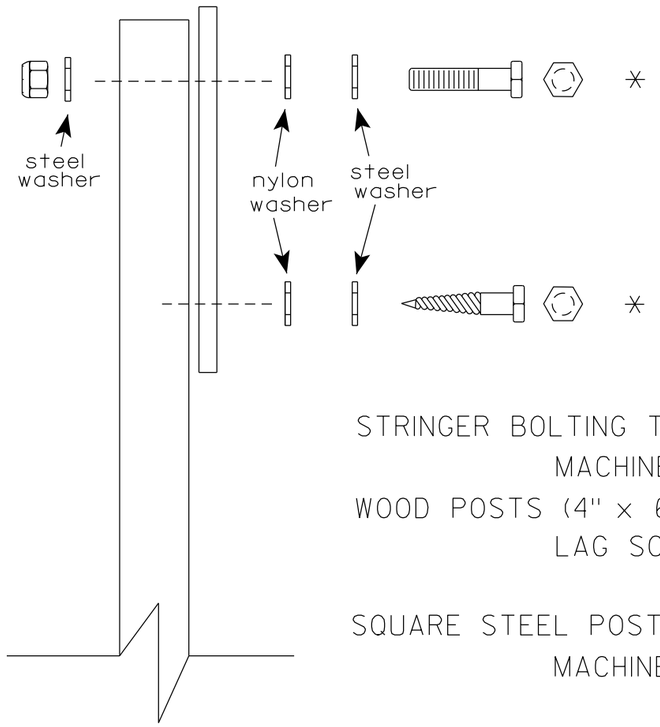
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 568 | E |
|---|---|---|---|---|---|




Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

# ATTACHMENT OF SIGNS TO POSTS

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

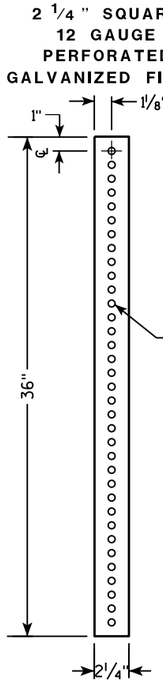
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

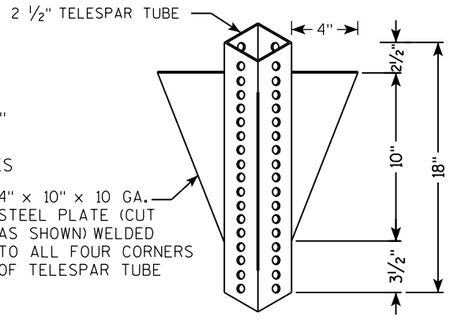
SHEET NO: 569 E

## TELESCOPIC TUBING ANCHORS
## TWO PIECE SYSTEM

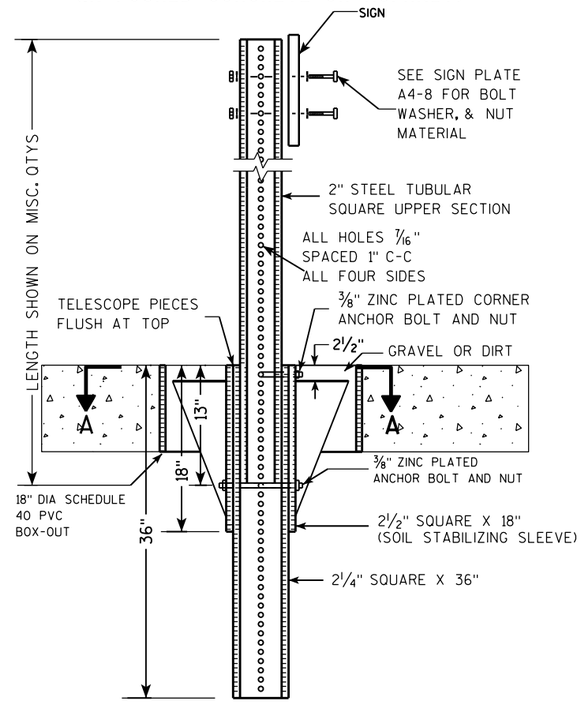
**2 1/4 " SQUARE**
**12 GAUGE**
**PERFORATED**
**GALVANIZED FINISH**



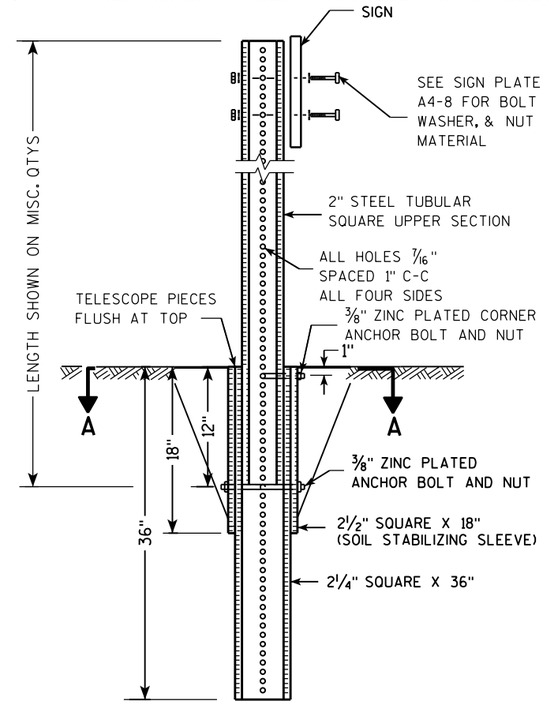

**2 1/2 " SQUARE**
**12 GAUGE**
**OMNI-DIRECTIONAL**
**PERFORATED**
**SOIL STABILIZING SLEEVE**
**GALVANIZED FINISH**

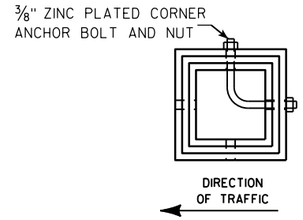



## DETAIL OF TUBULAR STEEL SIGN POST
**(IN POURED CONCRETE OR ASPHALT)**




## DETAIL OF TUBULAR STEEL SIGN POST
**(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**




**SECTION A-A**

| Area of Sign Installation (Sq. Ft.) | Number of Required Posts |
|---|---|
| 9 or less | 1 |
| Greater than 9 less than or equal to 18 | 2 |
| Greater than 18 less than or equal to 27 | 3 |

**Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).**

TUBULAR STEEL
SIGN POST
A4-9

*WISCONSIN DEPT OF TRANSPORTATION*

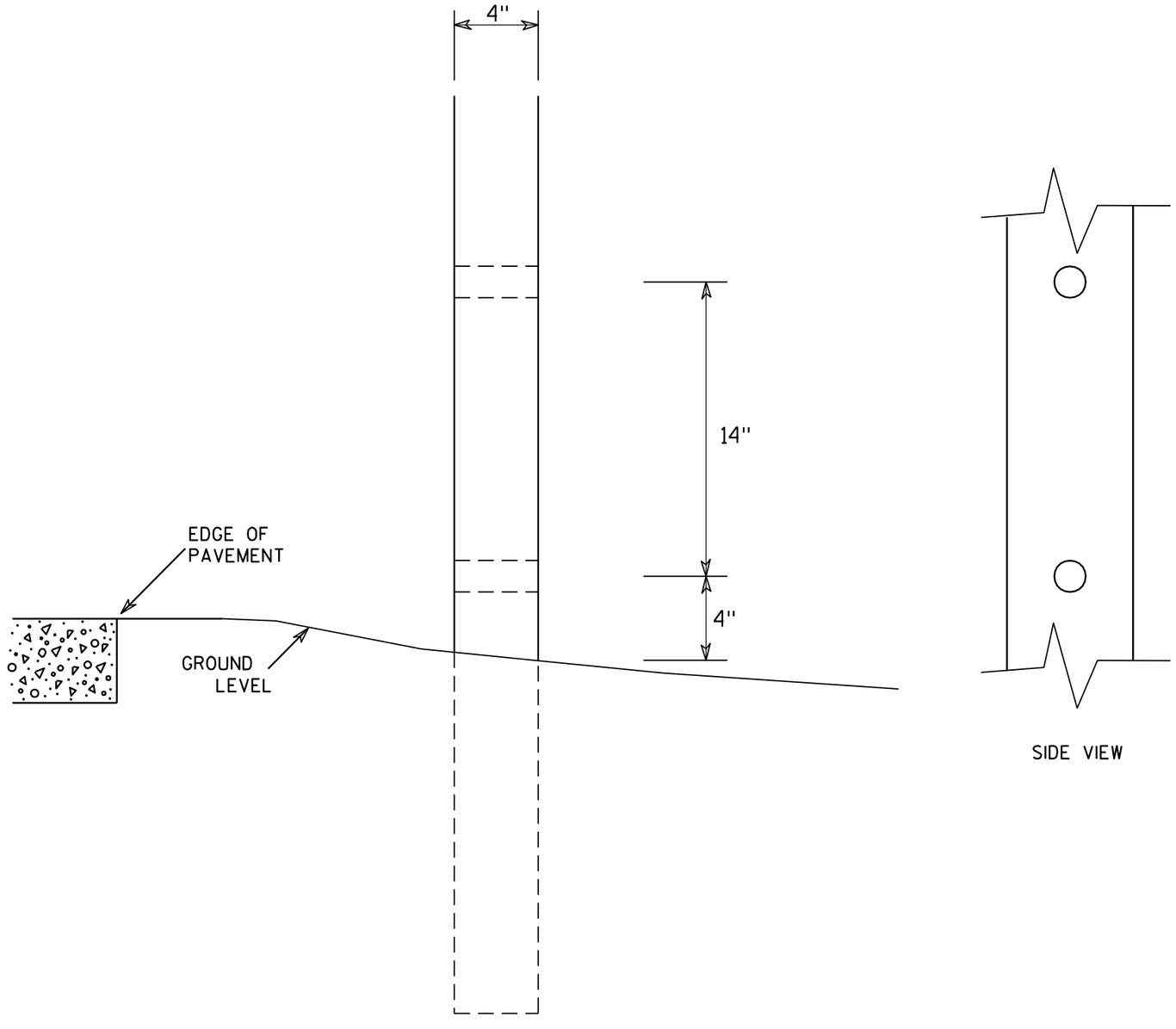
APPROVED Matthew R Rauch
*for* State Traffic Engineer

DATE 2/05/15 PLATE 570 A4-9.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42






SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

# 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

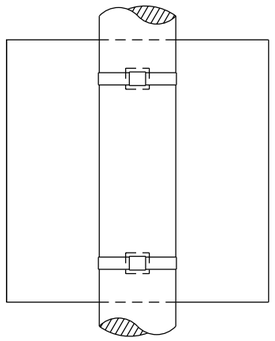
APPROVED Chester J Spang for State Traffic Engineer

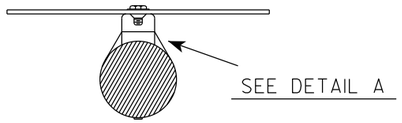
DATE 3/27/97 PLATE NO. A4-11.2

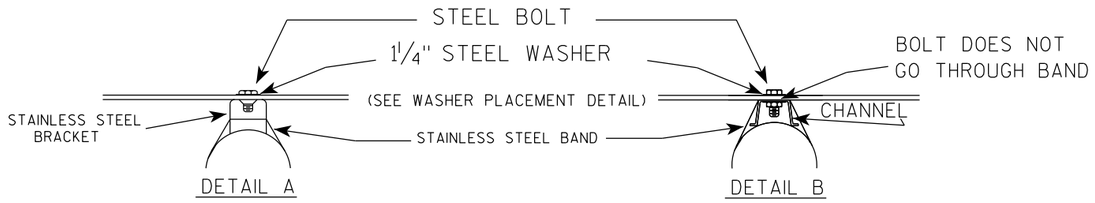
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 571 | E |
|---|---|---|---|---|---|

# BANDING

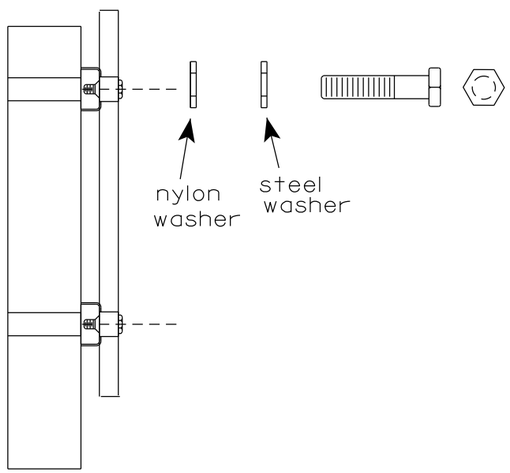
SINGLE SIGN






WASHER PLACEMENT

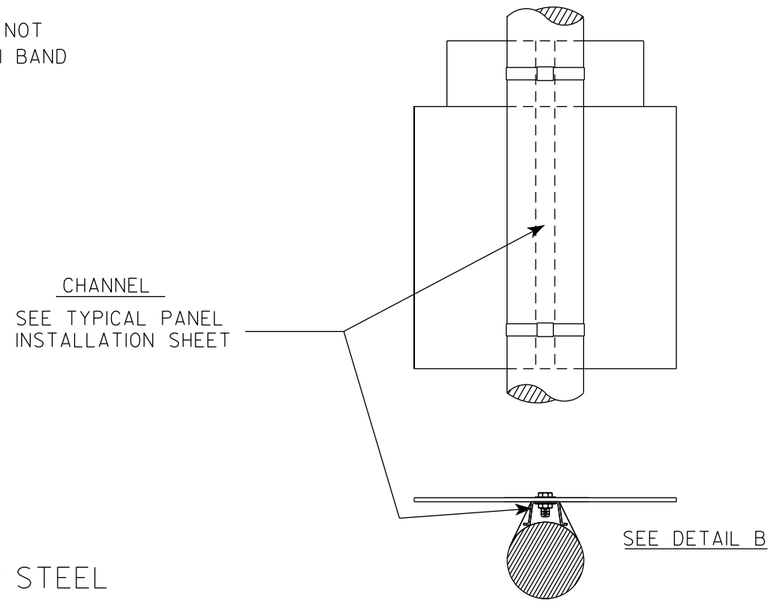



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY




STANDARD SIGN
SIGN BANDING DETAILS

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

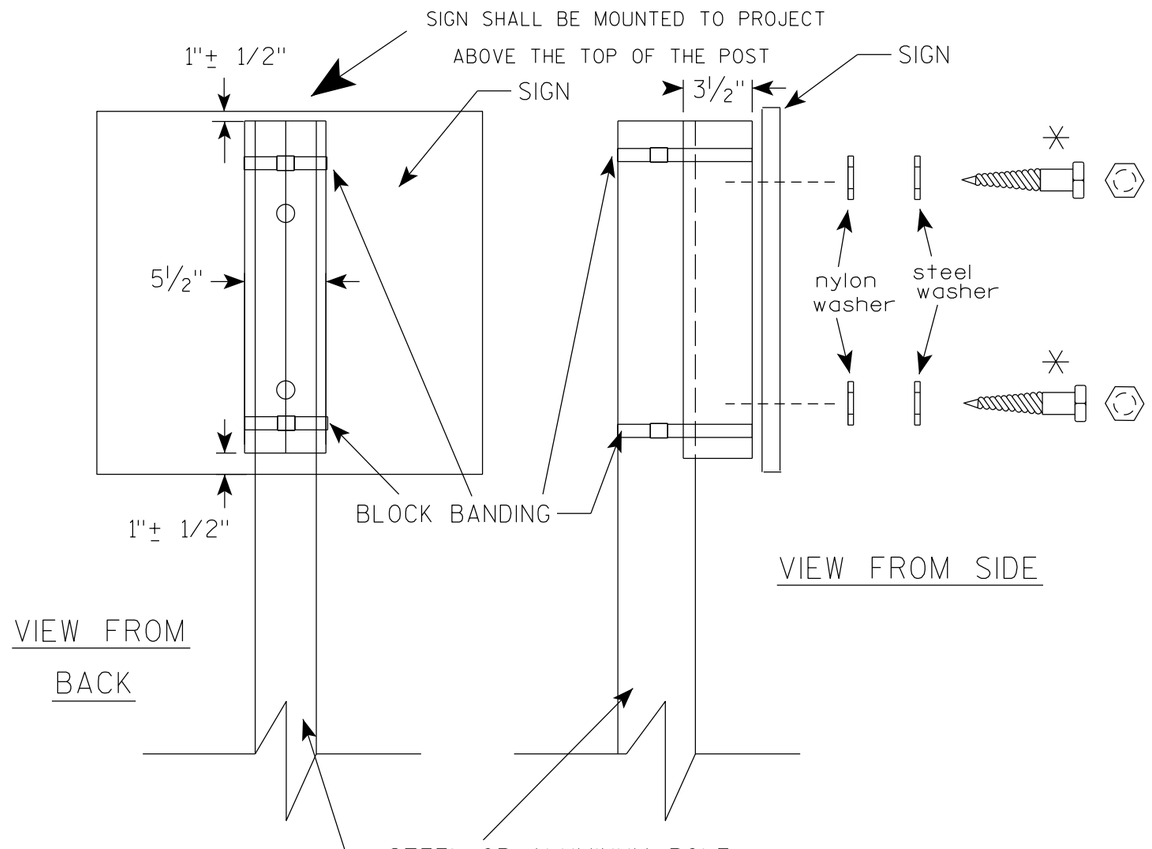
DATE 6/10/19 PLATE NO. A5-9.4

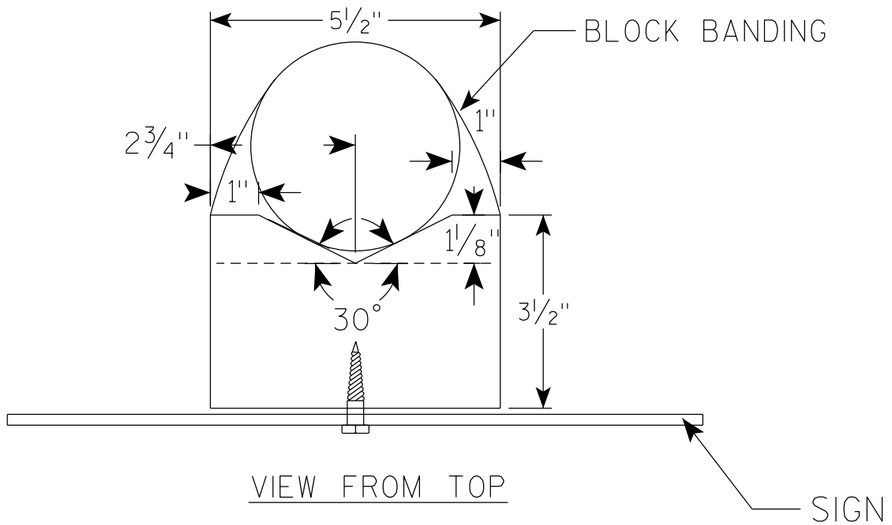
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 572 | E |
|---|---|---|---|---|---|

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7




## GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

# BLOCK BANDING DETAIL ( V-BLOCK OPTION )

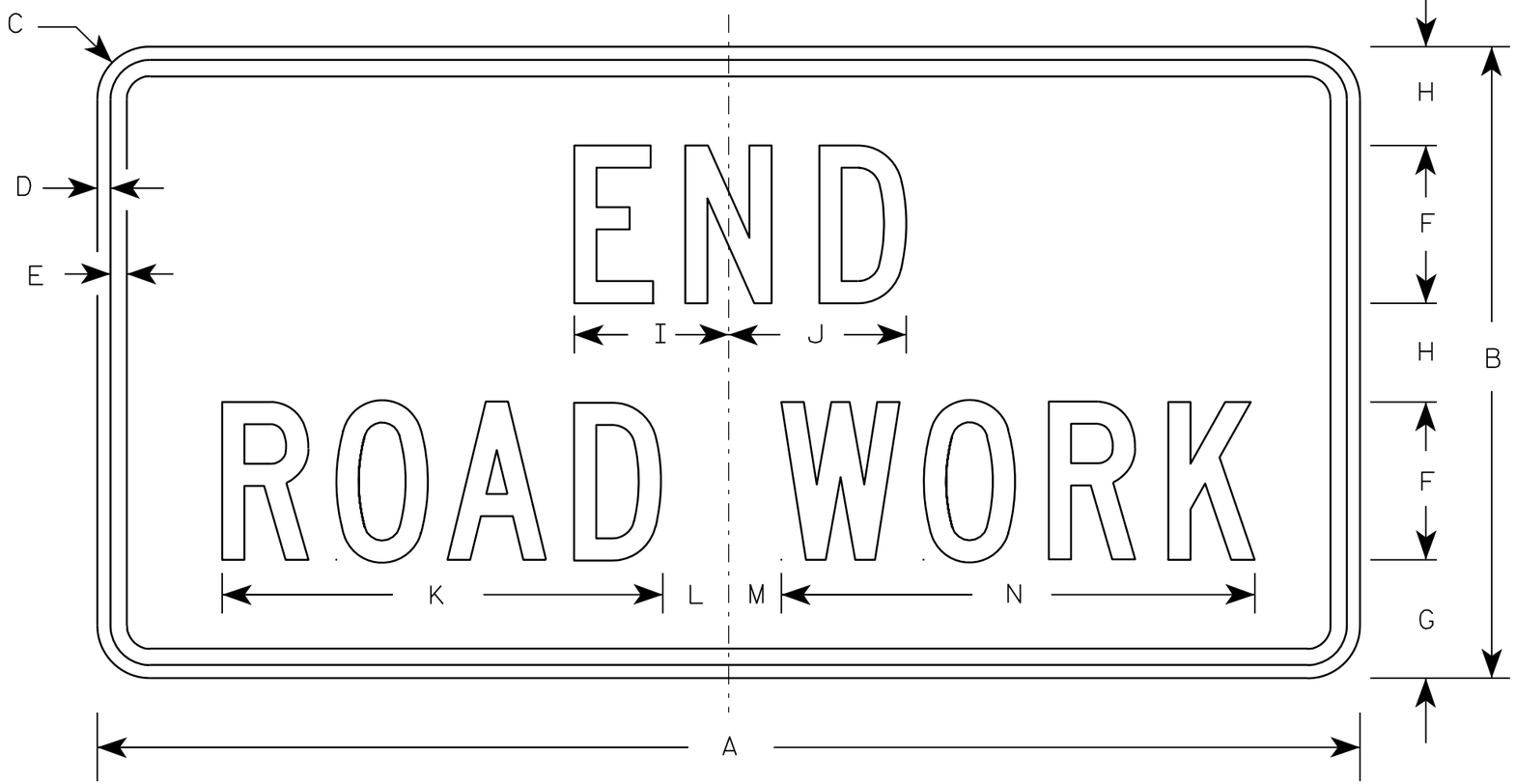
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 573 E




G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

| SIZE | |
|---|---|
| 1 | 900 mm X 450 mm |
| 2 | 1200 mm X 600 mm |
| 3 | 1200 mm X 600 mm |
| 4 | 1200 mm X 600 mm |
| 5 | 1200 mm X 600 mm |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. | Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 4 | 3 3/4 | 2 1/2 | 4 1/8 | 4 1/8 | 11 1/8 | 2 | 1 | 12 1/8 | | | | | | | | | | | | | 4.5 | 0.41 |
| 2 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 3 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 4 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 5 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |

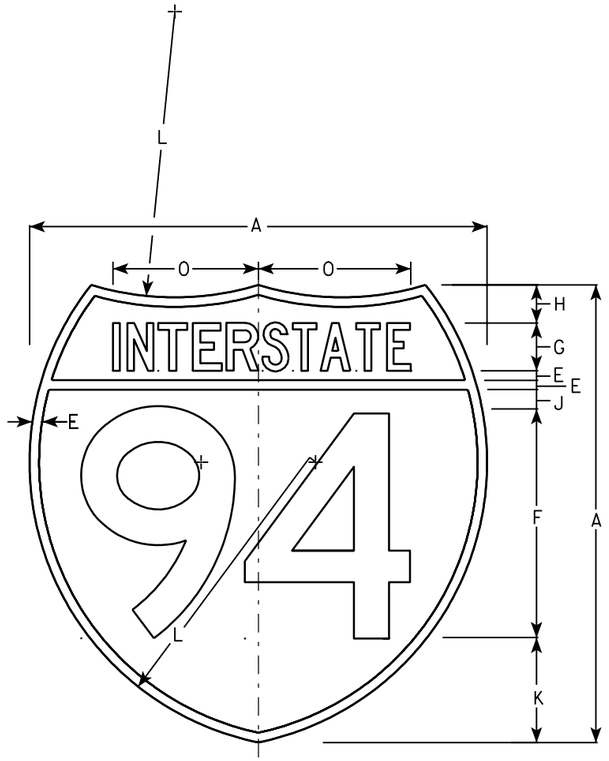
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

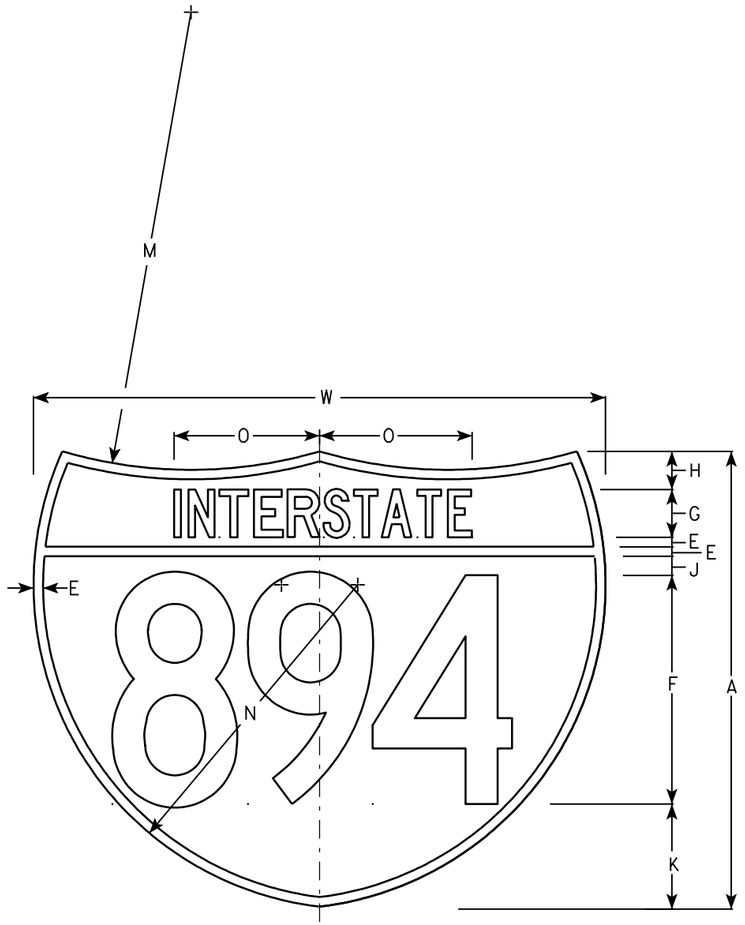
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 574 | E |
|---|---|---|---|---|---|




M1-1




M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

| SIZE | M1-1 | SIZE | M1-1A |
|---|---|---|---|
| 1 | | | |
| 2 | 600 mm X 600 mm | 2 | 600 mm X 750 mm |
| 3 | 900 mm X 900 mm | 3 | 900 mm X 1125 mm |
| 4 | 900 mm X 900 mm | 4 | 900 mm X 1125 mm |
| 5 | 900 mm X 900 mm | 5 | 900 mm X 1125 mm |

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | M1-1 Area sq. ft. | M1-1A Area sq. ft. | M1-1 Area m2 | M1-1A Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | | | 1/2 | 12 | 2 1/2 | 2 | | 1 | 5 1/2 | 15 | 24 | 17 | 7 7/8 | | | | | | | | 30 | | | 3.13 | 3.91 | .36 | .46 |
| 3 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |
| 4 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |
| 5 | 36 | | | | 3/4 | 18 | 3 3/4 | 3 | | 1 1/2 | 8 1/4 | 22 1/2 | 36 | 25 1/2 | 11 3/4 | | | | | | | | 45 | | | 7.03 | 8.79 | .81 | 1.05 |

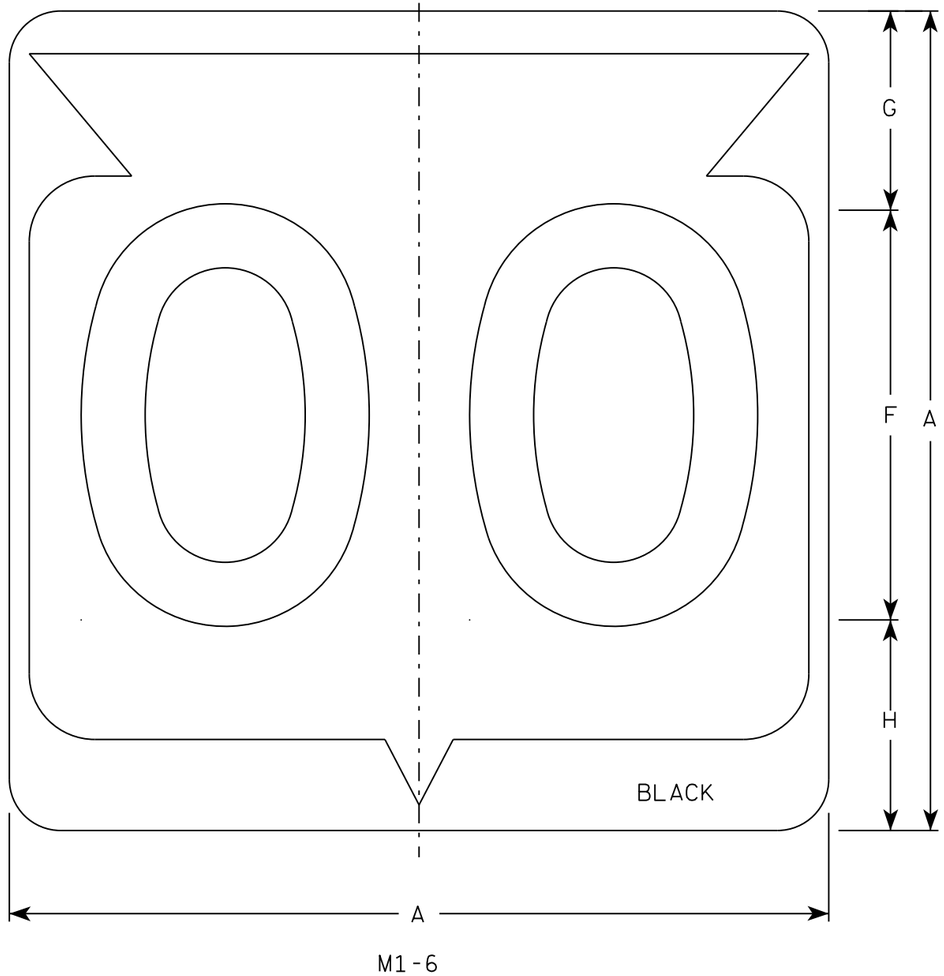
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

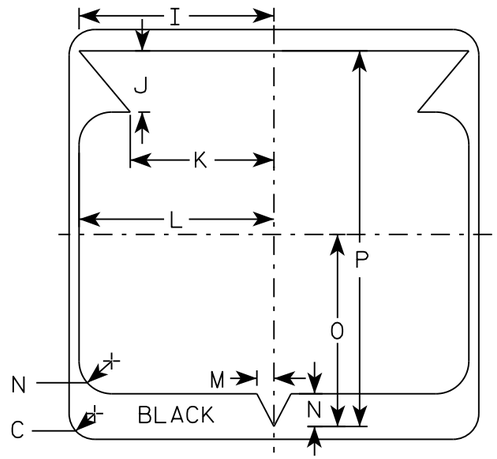
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 575 | E |
|---|---|---|---|---|---|




M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | 1 1/2 | | | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8 | 11 1/2 | 1 | 1 7/8 | 11 1/4 | 21 7/8 | | | | | | | | | | | 4.0 |
| 3 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 |
| 5 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 |

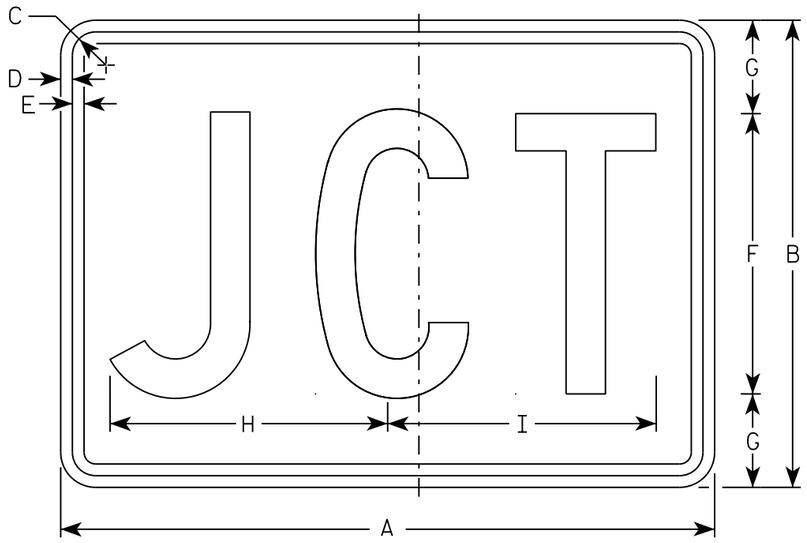
# STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

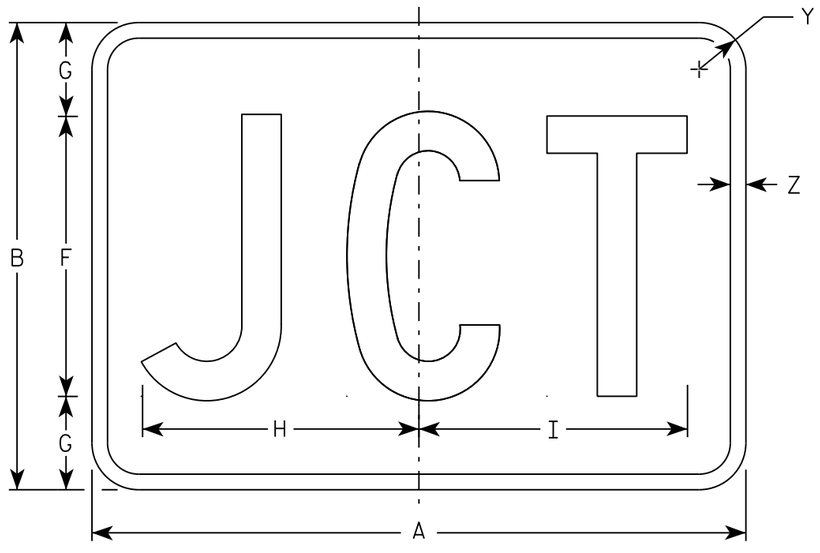
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 576 | E |
|---|---|---|---|---|---|




M2-1
MM2-1
MP2-1




MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9 | 3 | 8 7/8 | 8 5/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 2.20 |
| 3 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 4 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 5 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

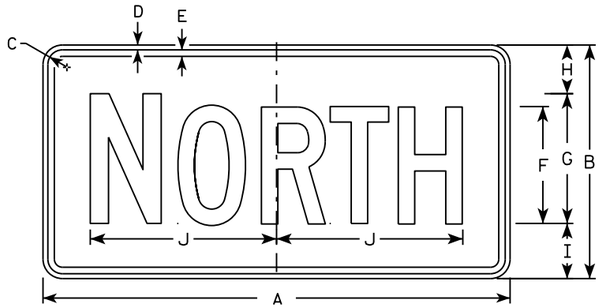
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 577 12-1.12

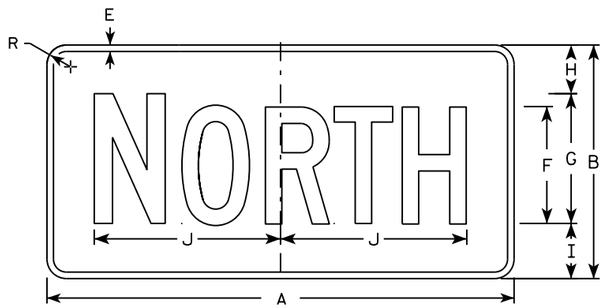
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000




M3-1
MM3-1
MP3-1



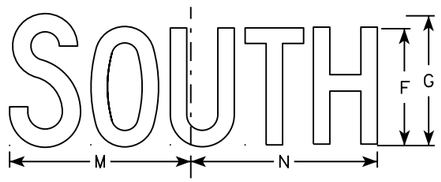

MB3-1
MK3-1
MN3-1



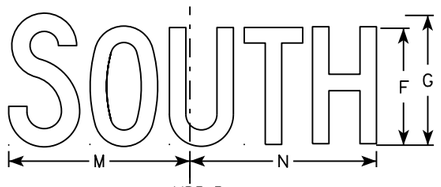

M3-2
MM3-2
MP3-2



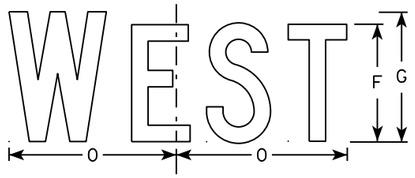

MB3-2
MK3-2
MN3-2



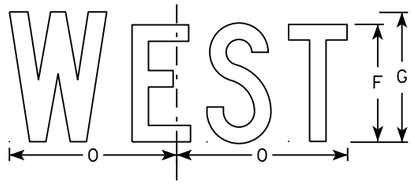

M3-3
MM3-3
MP3-3




MB3-3
MK3-3
MN3-3




M3-4
MM3-4
MP3-4




MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7 | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8 | 10 1/4 | 9 3/4 | 8 3/4 | | | 1 1/2 | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

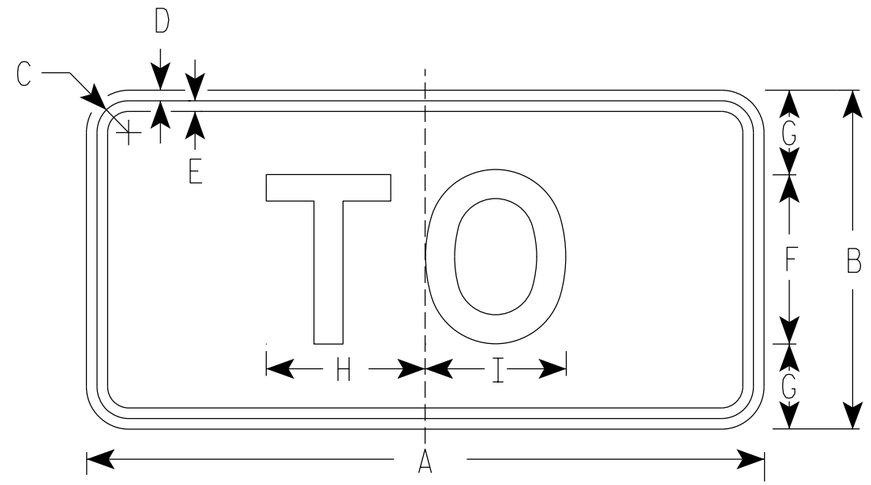
APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

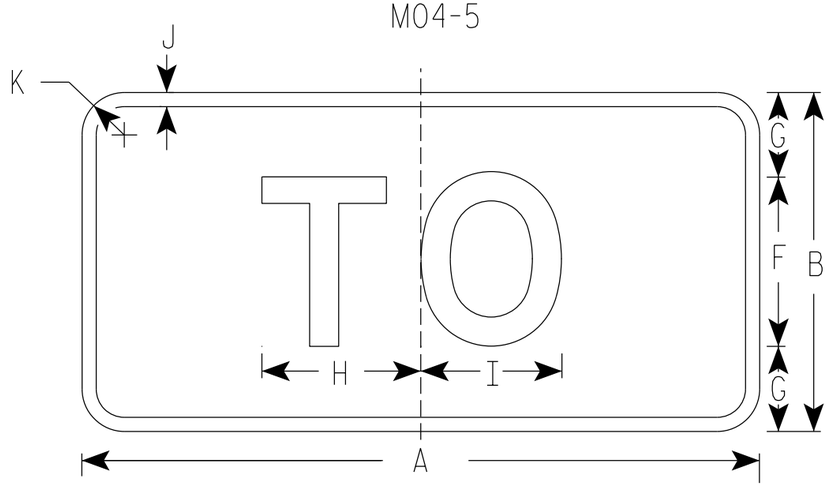


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000




M4-5
MM4-5
MP4-5
MO4-5




MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   MO4-5 Background - Orange Type F Reflective
   Message - Black

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 5 3/8 | 5 1/4 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |

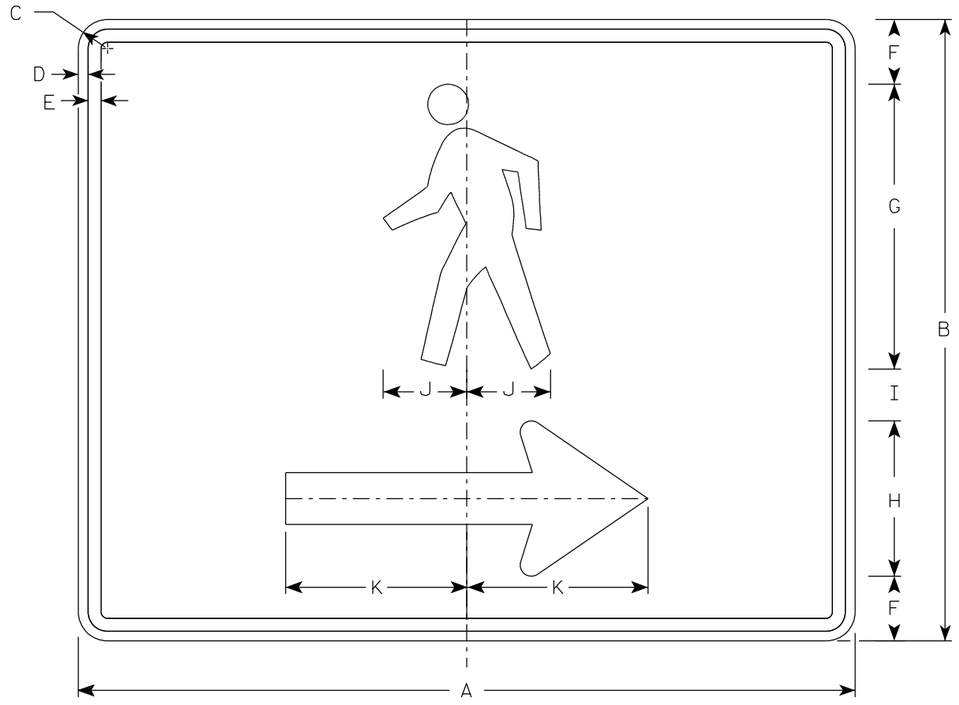
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

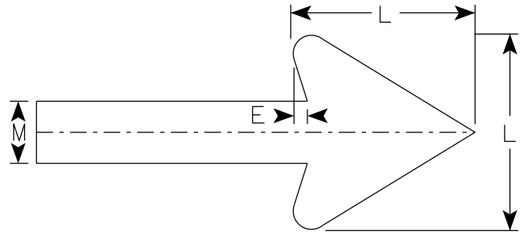
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 579 | E




M4-60R

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 30 | 24 | 1 1/8 | 3/8 | 1/2 | 2 1/2 | 11 | 6 | 2 | 3 1/4 | 7 | 6 | 2 | | | | | | | | | | | | | | 5.00 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

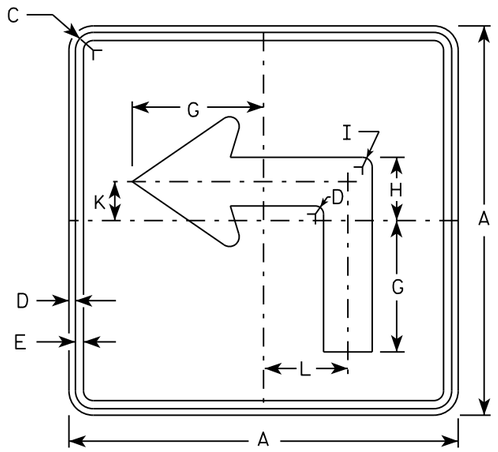
STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

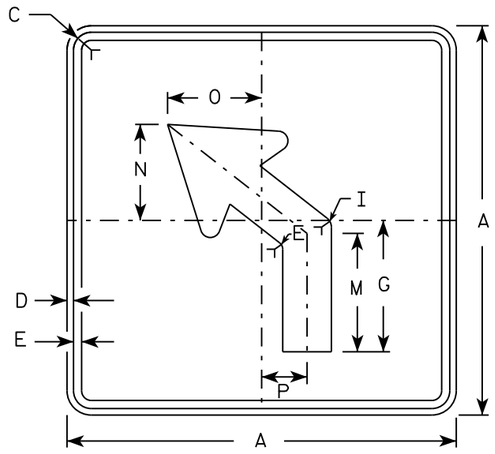
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/16/2021 PLATE NO. M4-60.1

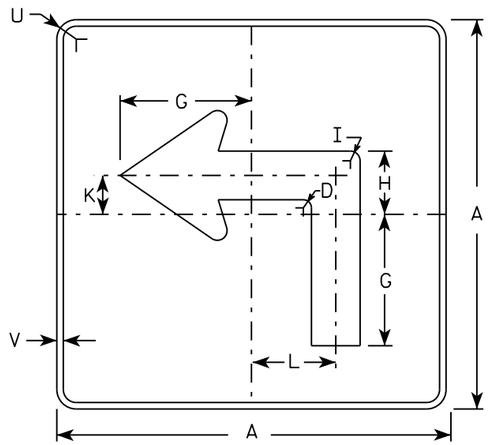
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 580 | E



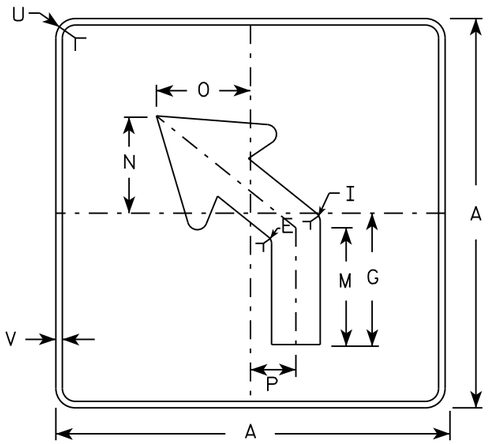

M5-1L
MM5-1L
MO5-1L
MP5-1L



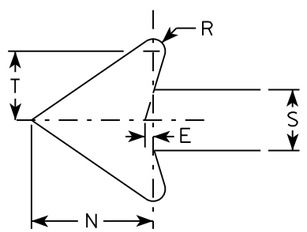

M5-2L
MM5-2L
MO5-2L
MP5-2L




MB5-1L
MK5-1L
MN5-1L
MR5-1L




MB5-2L
MK5-2L
MN5-2L
MR5-2L




NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 | 3 3/8 | 5/8 | | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5 | 2 1/2 | | 1/2 | 2 5/8 | 3 | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

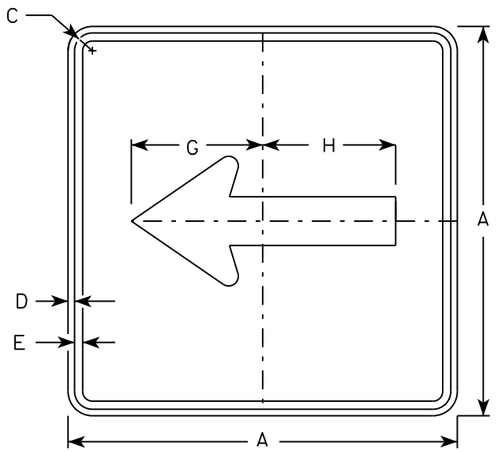
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M5-1.13

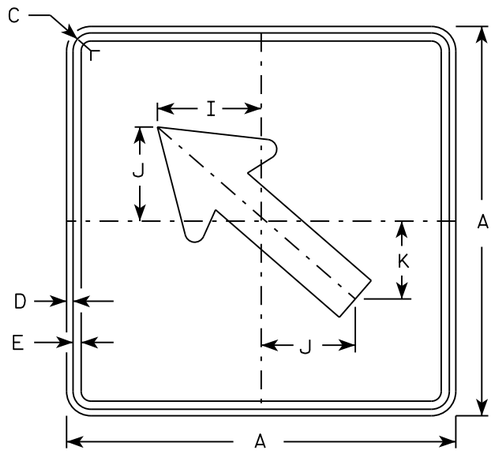


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



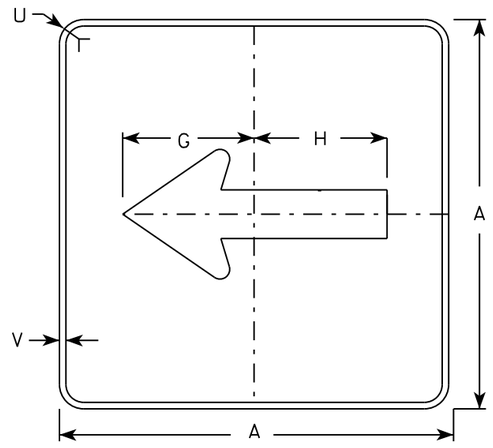

M6-1
MM6-1
MO6-1
MP6-1



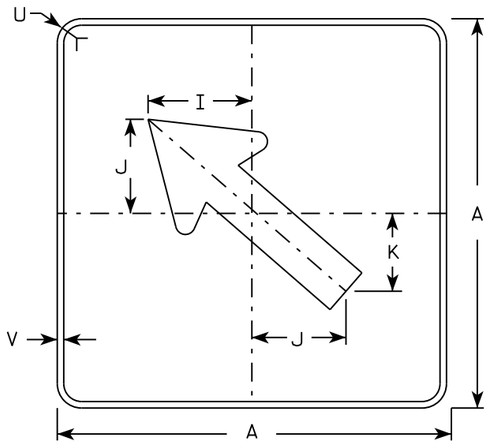

M6-2
MM6-2
MO6-2
MP6-2

NOTES

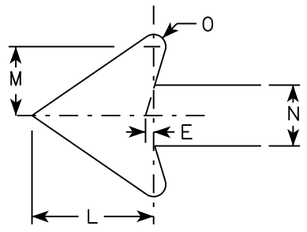
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow




MB6-1
MK6-1
MN6-1
MR6-1




MB6-2
MK6-2
MN6-2
MR6-2




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 7 1/8 | 5 5/8 | 5 | 4 1/4 | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |

# STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

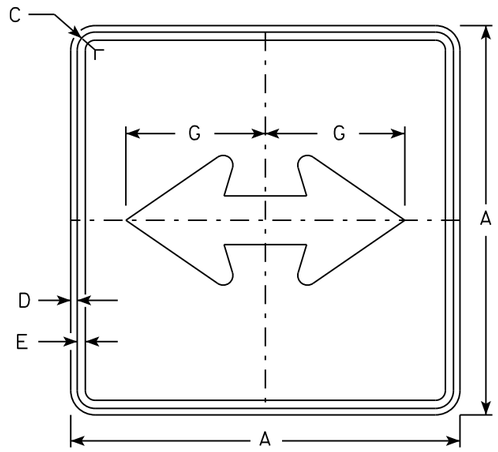
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLAT 582 M6-1.15

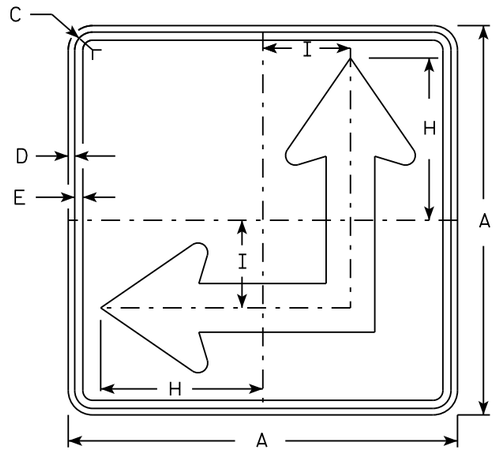
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



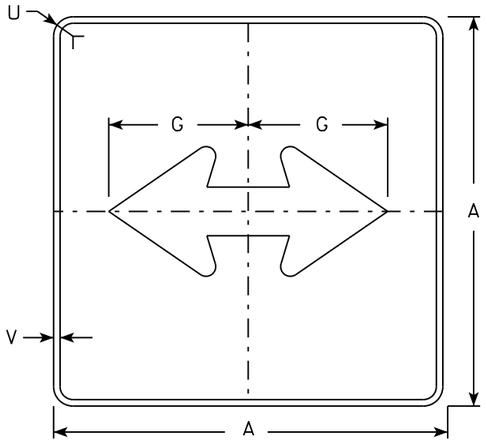

M6-4
MM6-4
MO6-4
MP6-4



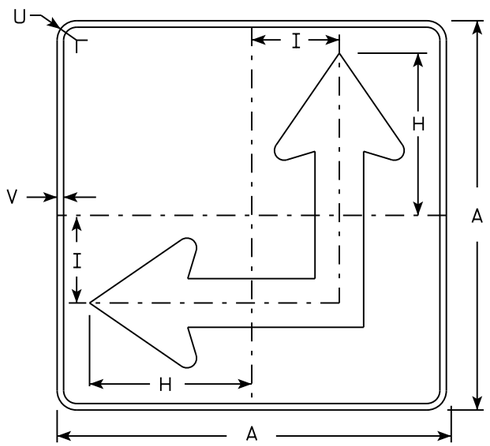

M6-6
MM6-6
MO6-6
MP6-6

NOTES

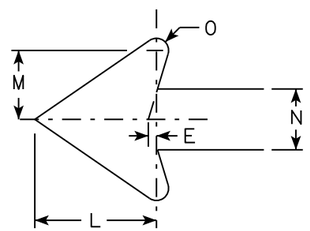
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.




MB6-4
MK6-4
MN6-4
MR6-4




MB6-6
MK6-6
MN6-6
MR6-6




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 8 3/4 | 4 1/4 | | | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

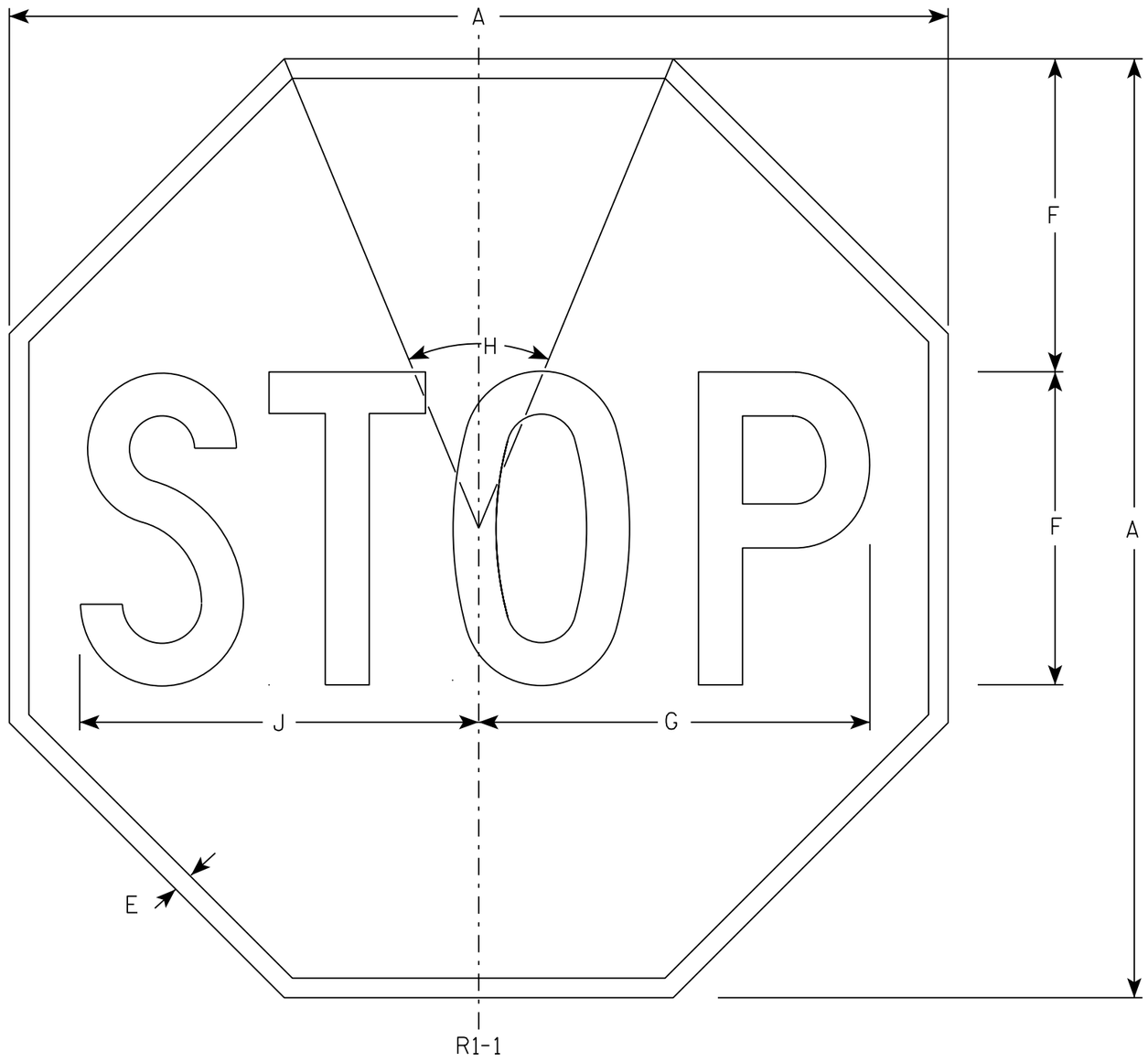
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE 583 M6-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000




NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | | | 5/8 | 10 | 12 1/2 | 45° | | 12 3/4 | | | | | | | | | | | | | | | | | 5.18 |
| 2S | 30 | | | | 5/8 | 10 | 12 1/2 | 45° | | 12 3/4 | | | | | | | | | | | | | | | | | 5.18 |
| 2M | 36 | | | | 3/4 | 12 | 15 | 45° | | 15 3/8 | | | | | | | | | | | | | | | | | 7.46 |
| 3 | 36 | | | | 3/4 | 12 | 15 | 45° | | 15 3/8 | | | | | | | | | | | | | | | | | 7.46 |
| 4 | 48 | | | | 1 | 16 | 20 | 45° | | 20 1/2 | | | | | | | | | | | | | | | | | 13.25 |
| 5 | 48 | | | | 1 | 16 | 20 | 45° | | 20 1/2 | | | | | | | | | | | | | | | | | 13.25 |
| 6 | 18 | | | | 3/8 | 6 | 7 3/4 | 45° | | 7 3/4 | | | | | | | | | | | | | | | | | 1.86 |
| 7 | 12 | | | | 1/4 | 4 | 5 | 45° | | 5 1/8 | | | | | | | | | | | | | | | | | 0.78 |

STANDARD SIGN

R1-1

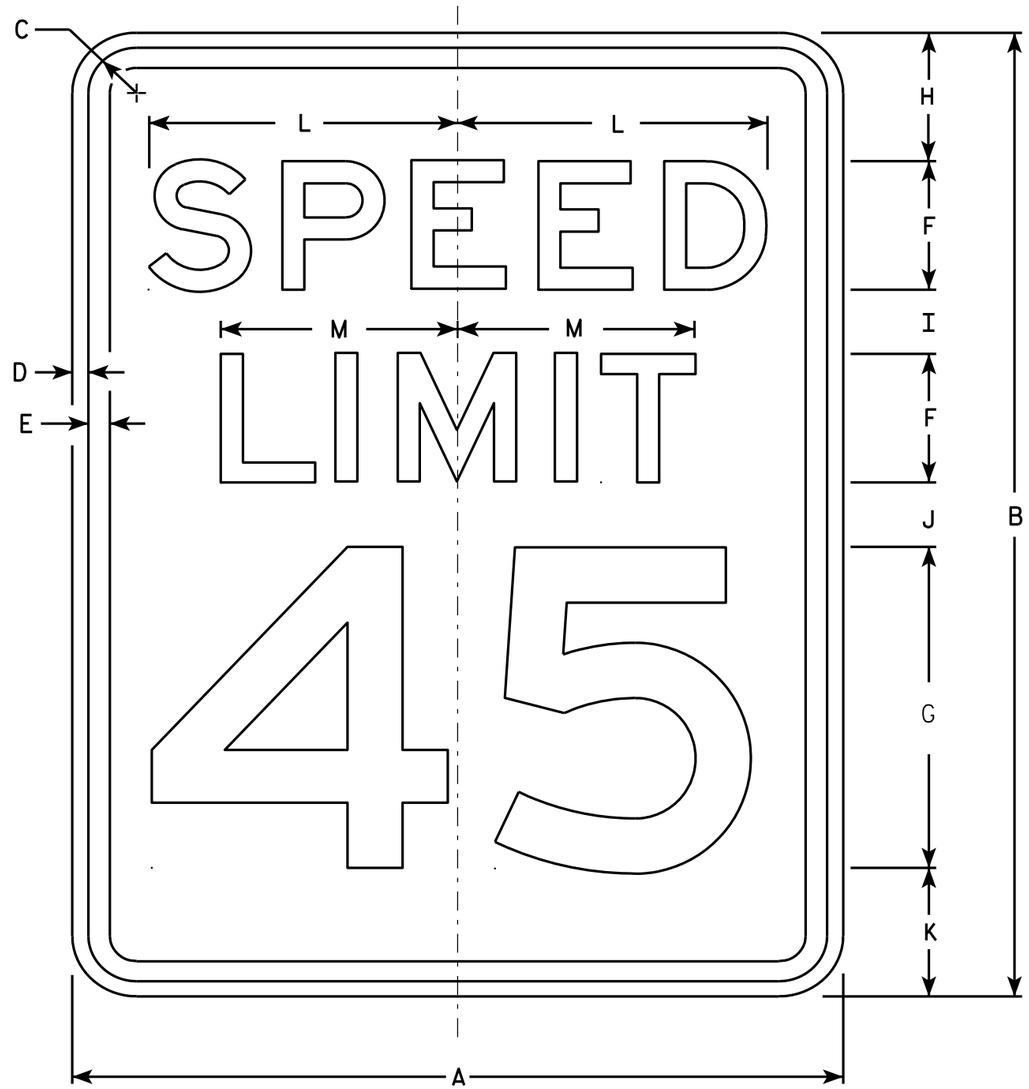
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch

*for* State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 584 | E |
|---|---|---|---|---|---|




R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8 | 3 | 2 | 2 | 3 | 7 1/4 | 5 1/2 | | | | | | | | | | | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8 | 7 3/8 | | | | | | | | | | | | | | 5.0 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4 | 12 | 9 1/4 | | | | | | | | | | | | | | 7.5 |
| 3 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 | | | | | | | | | | | | | | 20.0 |

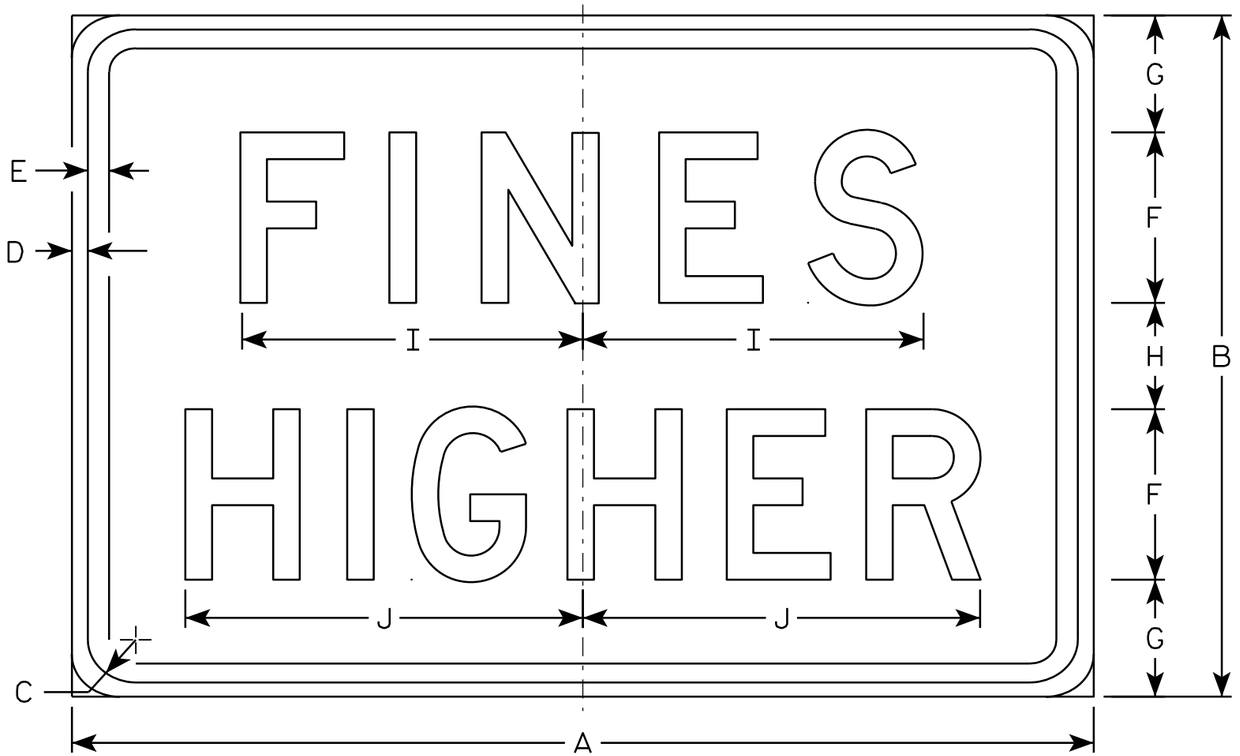
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 585 | E |
|---|---|---|---|---|---|




R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 18 | 1 1/8 | 3/8 | 3/8 | 4 | 3 1/2 | 3 | 7 5/8 | 9 1/4 | | | | | | | | | | | | | | | | | 3.0 |
| 2M | 24 | 18 | 1 1/8 | 3/8 | 3/8 | 4 | 3 1/2 | 3 | 7 5/8 | 9 1/4 | | | | | | | | | | | | | | | | | 3.0 |
| 3 | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/8 | 3 3/4 | 12 | 14 | | | | | | | | | | | | | | | | | 6.0 |
| 4 | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/8 | 3 3/4 | 12 | 14 | | | | | | | | | | | | | | | | | 6.0 |
| 5 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 15 1/8 | 19 | | | | | | | | | | | | | | | | | 12.0 |

STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

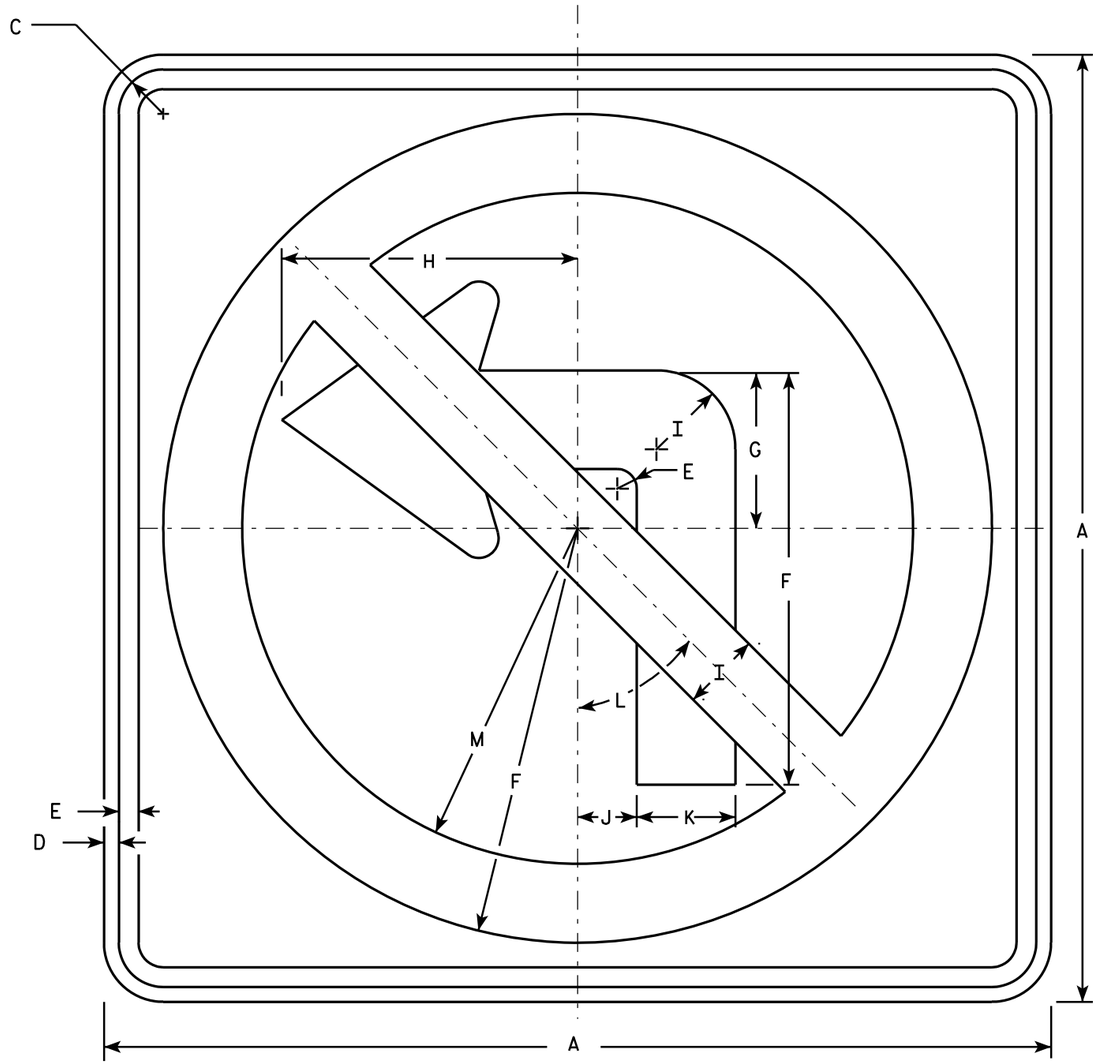
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 586 | E



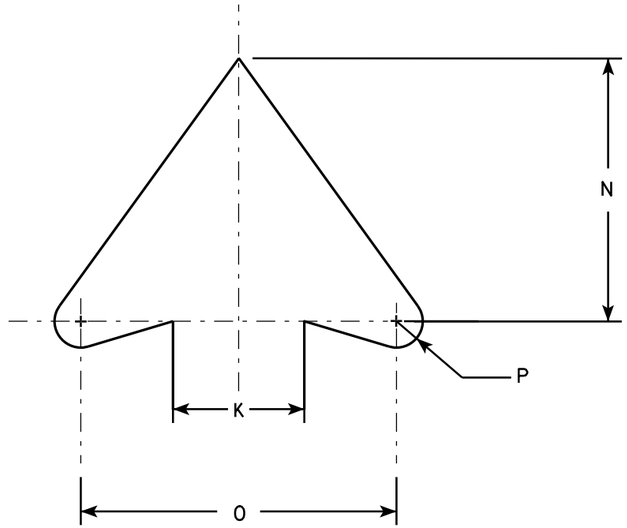

7




R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2S | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 21 | 8 | 15 | 4 | 3 | 5 | 45° | 17 | 10 | 12 | 1 | | | | | | | | | | | 16.0 |

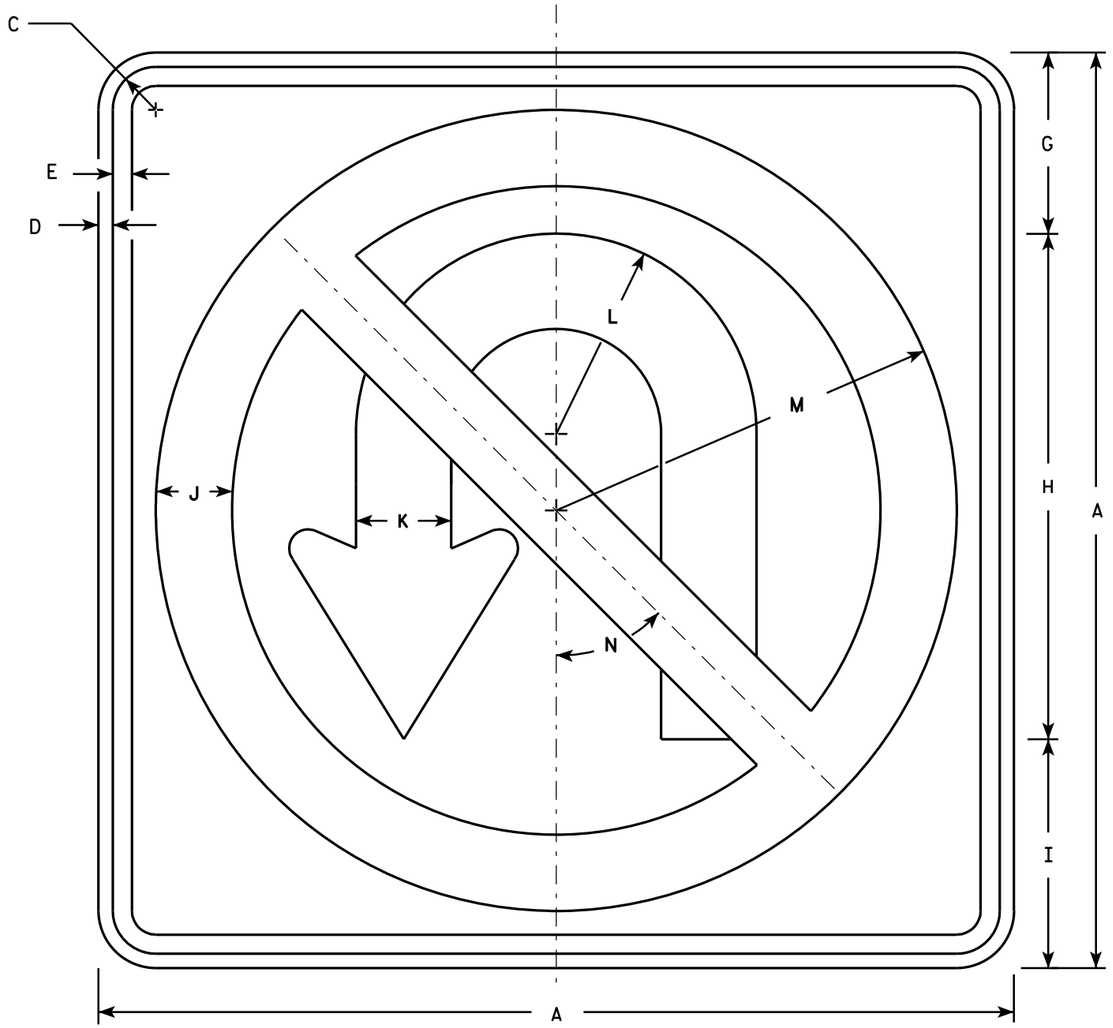
# STANDARD SIGN
# R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

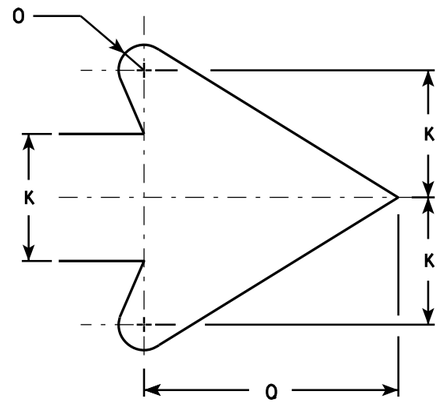
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 587 | E |
|---|---|---|---|---|---|




R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | | 1 1/8 | 3/8 | 1/2 | | 4 3/4 | 13 1/4 | 6 | 2 | 2 1/2 | 5 1/4 | 10 1/2 | 45° | 1/2 | | 5 | | | | | | | | | | 4.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | | 7 1/8 | 19 7/8 | 9 | 3 | 3 3/4 | 7 7/8 | 15 3/4 | 45° | 3/4 | | 7 5/8 | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 7 1/8 | 19 7/8 | 9 | 3 | 3 3/4 | 7 7/8 | 15 3/4 | 45° | 3/4 | | 7 5/8 | | | | | | | | | | 9.0 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | | 7 1/8 | 19 7/8 | 9 | 3 | 3 3/4 | 7 7/8 | 15 3/4 | 45° | 3/4 | | 7 5/8 | | | | | | | | | | 9.0 |
| 5 | 36 | | 1 5/8 | 5/8 | 3/4 | | 7 1/8 | 19 7/8 | 9 | 3 | 3 3/4 | 7 7/8 | 15 3/4 | 45° | 3/4 | | 7 5/8 | | | | | | | | | | 9.0 |

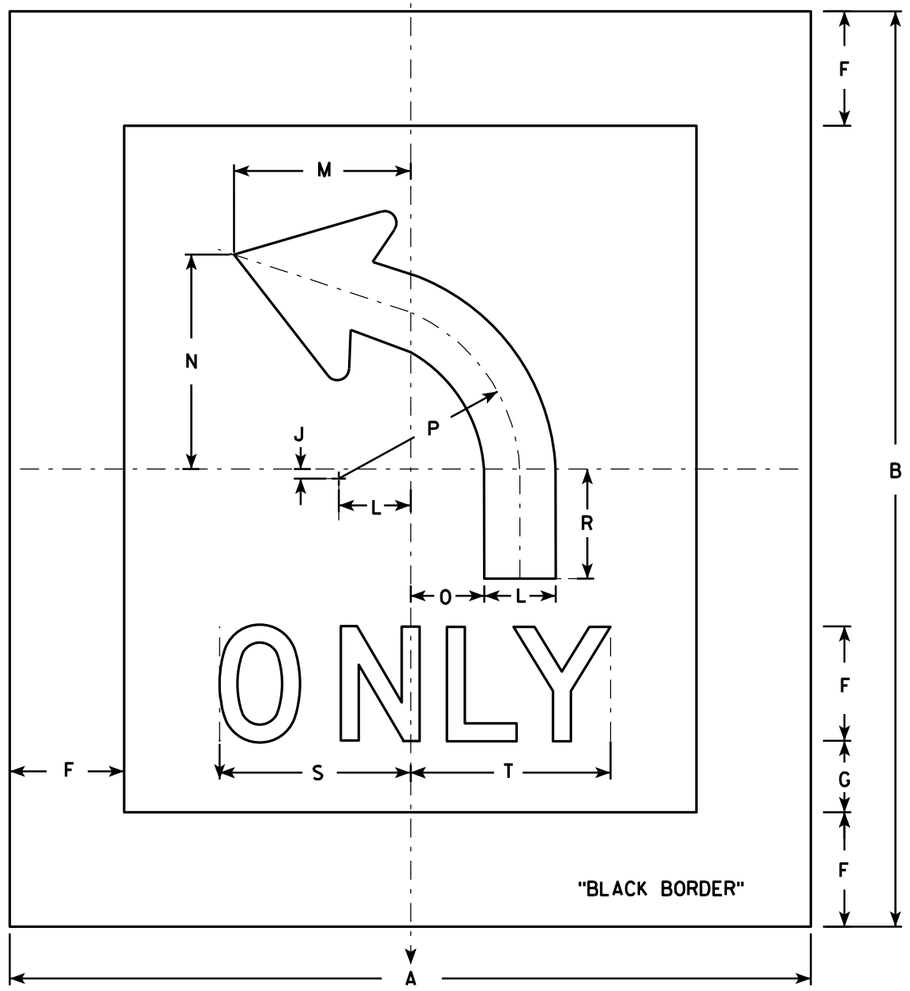
# STANDARD SIGN
# R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

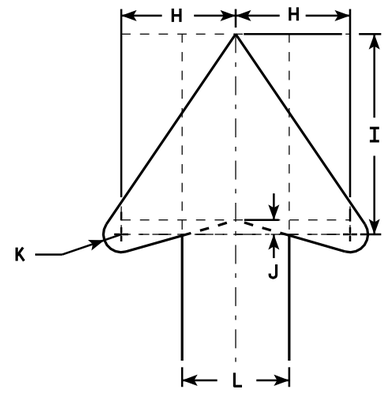
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 588 | E |
|---|---|---|---|---|---|




R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 42 | 48 | | | | 6 | 3 3/4 | 4 | 7 | 1/2 | 5/8 | 3 3/4 | 9 1/4 | 11 1/4 | 3 7/8 | 9 1/2 | | 5 3/4 | 10 | 10 1/2 | | | | | | | 1.26 |
| 2M | 42 | 48 | | | | 6 | 3 3/4 | 4 | 7 | 1/2 | 5/8 | 3 3/4 | 9 1/4 | 11 1/4 | 3 7/8 | 9 1/2 | | 5 3/4 | 10 | 10 1/2 | | | | | | | 1.26 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

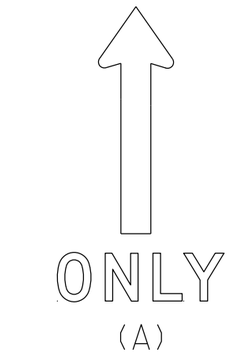
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

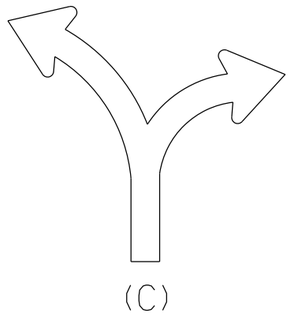
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 589 | E

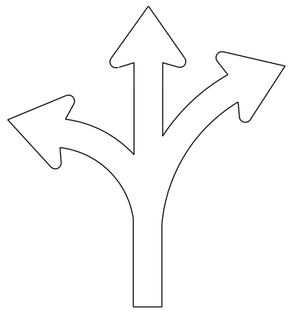


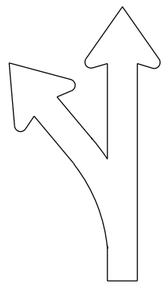
(A)

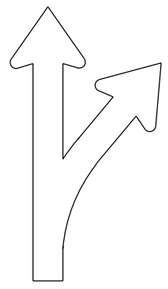


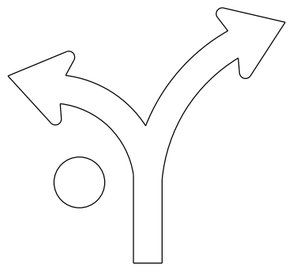
(B)

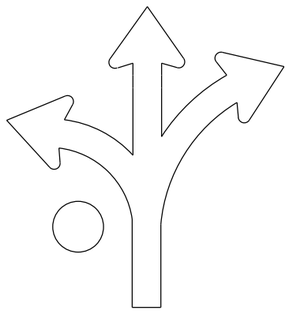

(C)

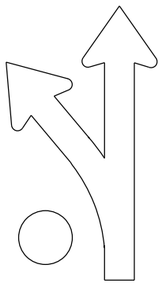

(D)

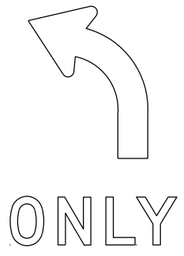

(E)


(F)

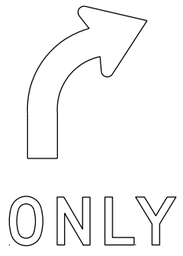

(G)


(H)

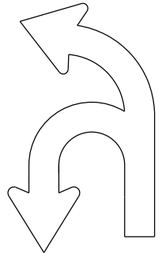

(I)



(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

| | | |
|---|---|---|
| 1 Letter = | 3.75 sq ft | for Size 2 |
| | 6.0 sq ft | for Size 3 |
| | 10.0 sq ft | for Size 4 or 5 |
| 2 Letters = | 7.5 sq ft | for Size 2 |
| | 12.0 sq ft | for Size 3 |
| | 20.0 sq ft | for Size 4 or 5 |
| 3 Letters = | 11.25 sq ft | for Size 2 |
| | 18.0 sq ft | for Size 3 |
| | 30.0 sq ft | for Size 4 or 5 |
| 4 Letters = | 15.0 sq ft | for Size 2 |
| | 24.0 sq ft | for Size 3 |
| | 40.0 sq ft | for Size 4 or 5 |
| 5 Letters = | 18.75 sq ft | for Size 2 |
| | 30.0 sq ft | for Size 3 |
| | 50.0 sq ft | for Size 4 or 5 |
| 6 Letters = | 22.5 sq ft | for Size 2 |
| | 36.0 sq ft | for Size 3 |
| | 60.0 sq ft | for Size 4 or 5 |

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

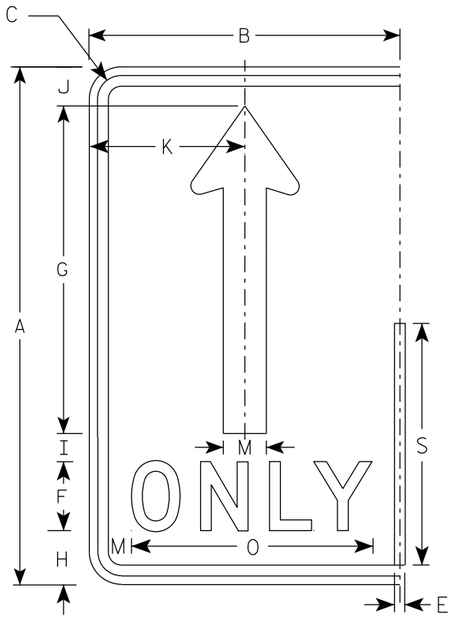
7

PROJECT NO:

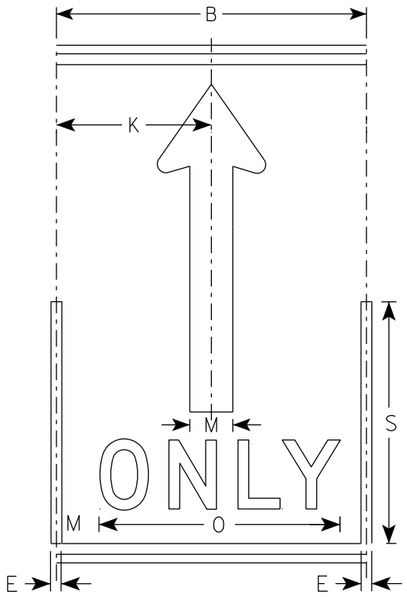
SHEET NO: 590 E

NOTES

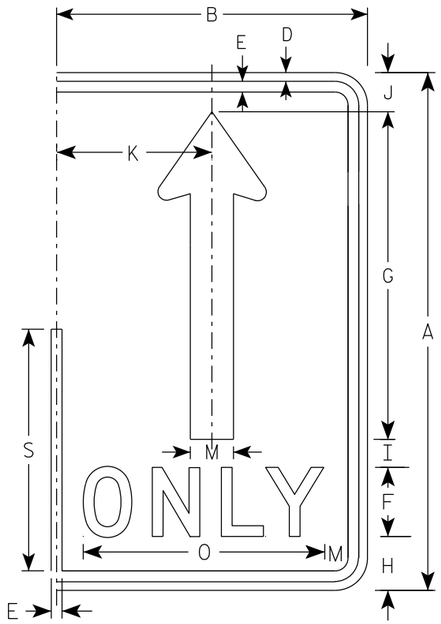
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



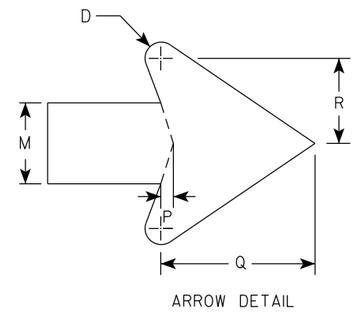

(A)




(A)




(A)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 19 | 3 1/8 | 1 5/8 | 2 1/4 | 9 | | 2 1/2 | | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 19 | 3 1/8 | 1 5/8 | 2 1/4 | 9 | | 2 1/2 | | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 22 3/4 | 3 3/4 | 1 3/4 | 2 3/4 | 12 | | 3 | | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 30 3/8 | 5 1/8 | 2 7/8 | 3 5/8 | 15 | | 4 | | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 30 3/8 | 5 1/8 | 2 7/8 | 3 5/8 | 15 | | 4 | | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

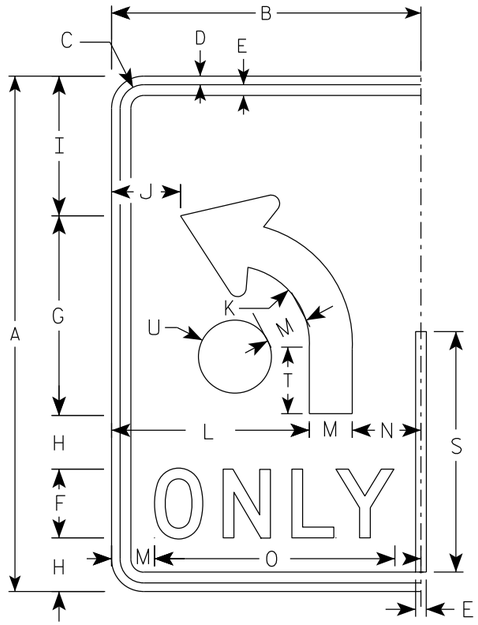
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

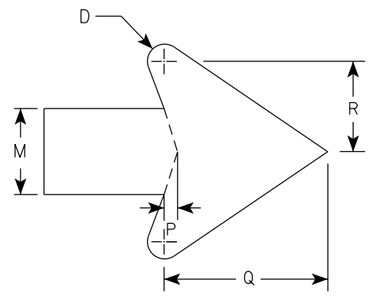
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 591 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D




(B)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | 2 1/8 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | 2 1/8 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | 6 | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | 2 1/2 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | 3 3/8 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | 3 3/8 | | | | | | 10.0 |

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

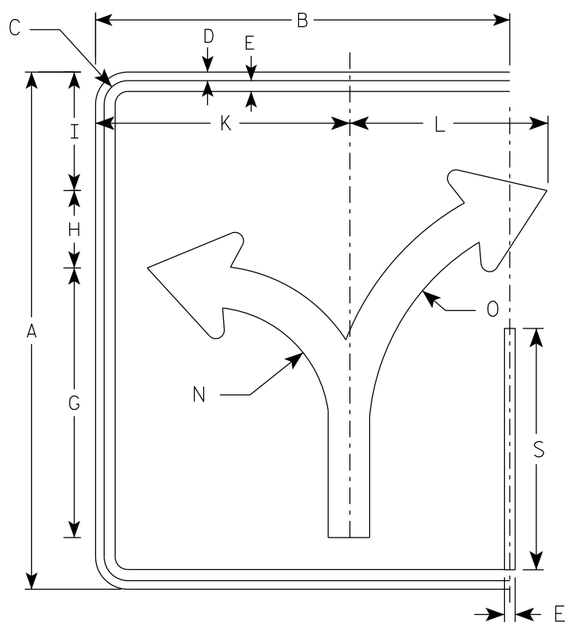
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

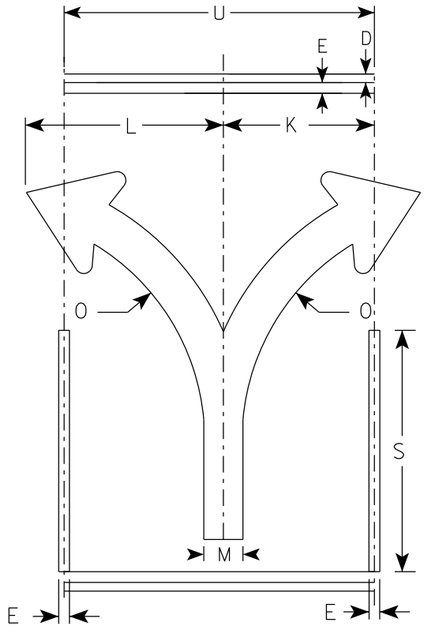
SHEET NO: 592 E

NOTES

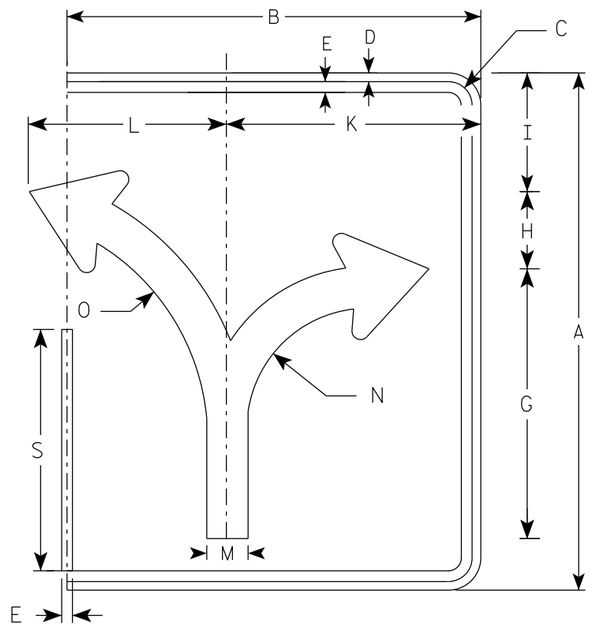
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



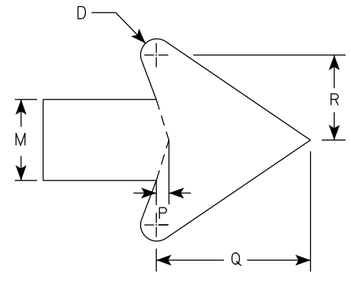

(C)




(C)




(C)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | ENDS Area sq. ft. | MIDDLE Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 8 1/4 | | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 24 | | | | | | 7.5 | 6.0 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

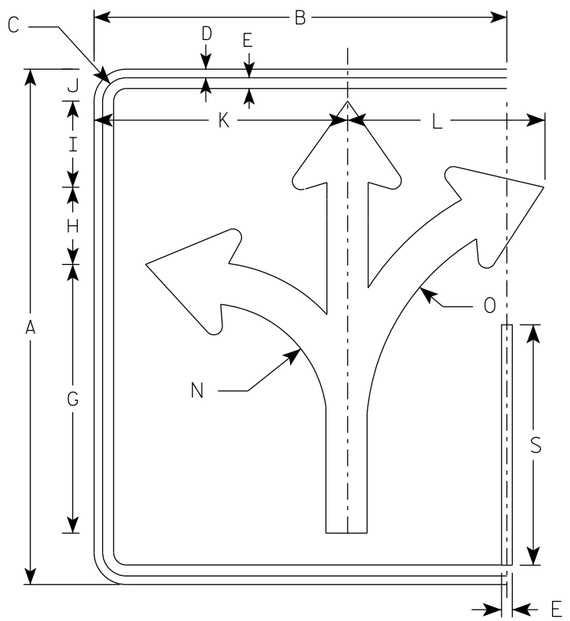
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

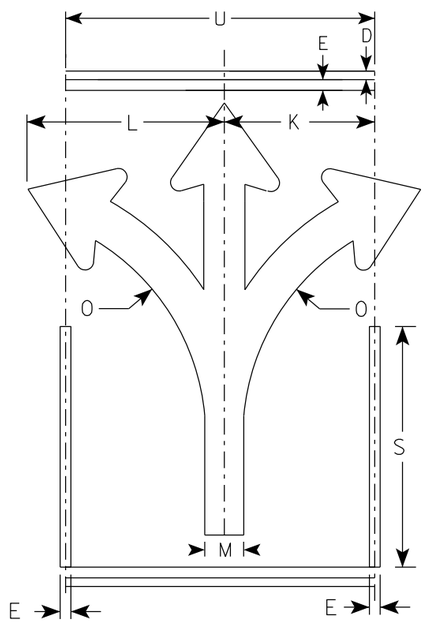
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 593 | E

NOTES

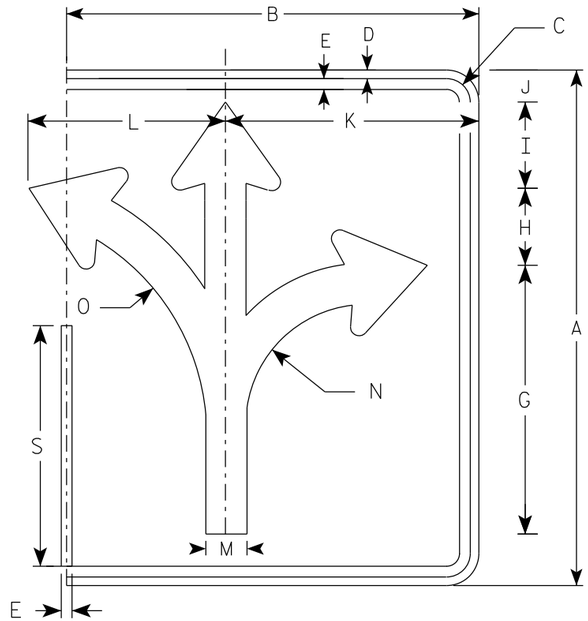
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



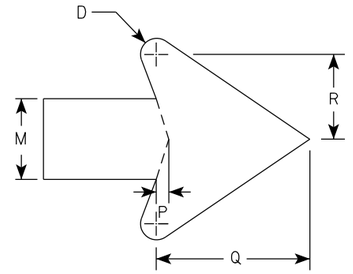

(D)




(D)




(D)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | ENDS Area sq. ft. | MIDDLE Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 6 | 2 1/4 | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 24 | | | | | | 7.5 | 6.0 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

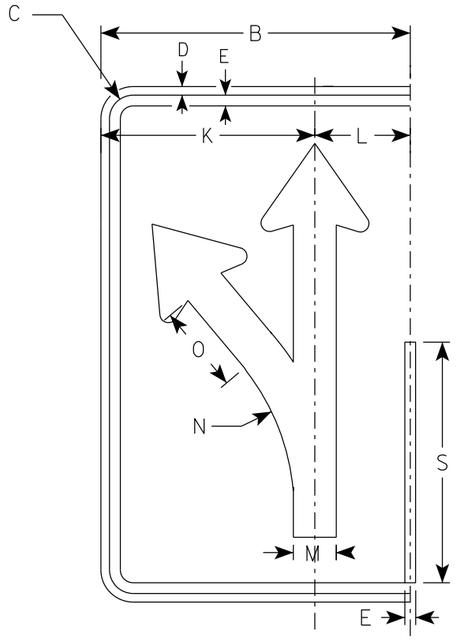
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

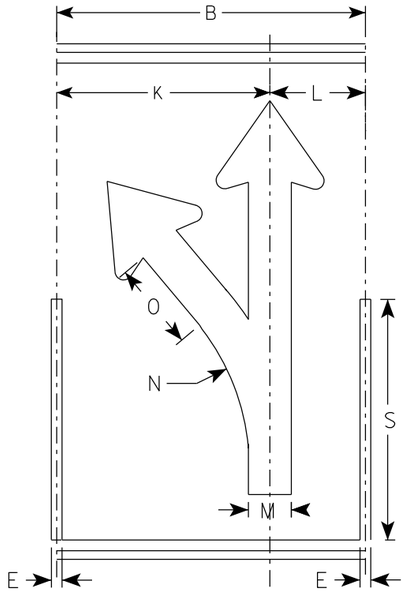
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 594 | E

NOTES

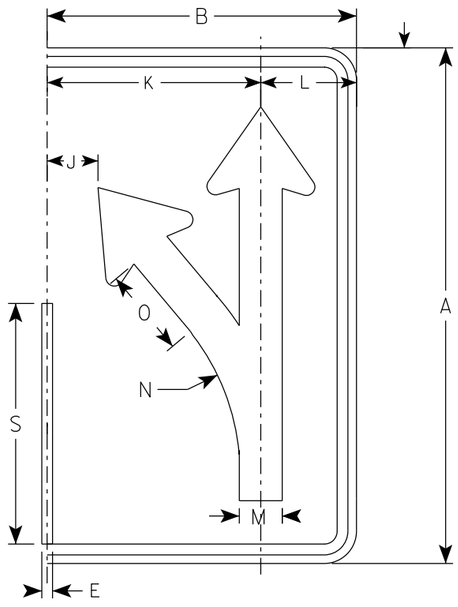
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



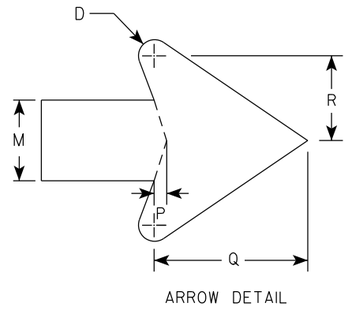

(E)




(E)




(E)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

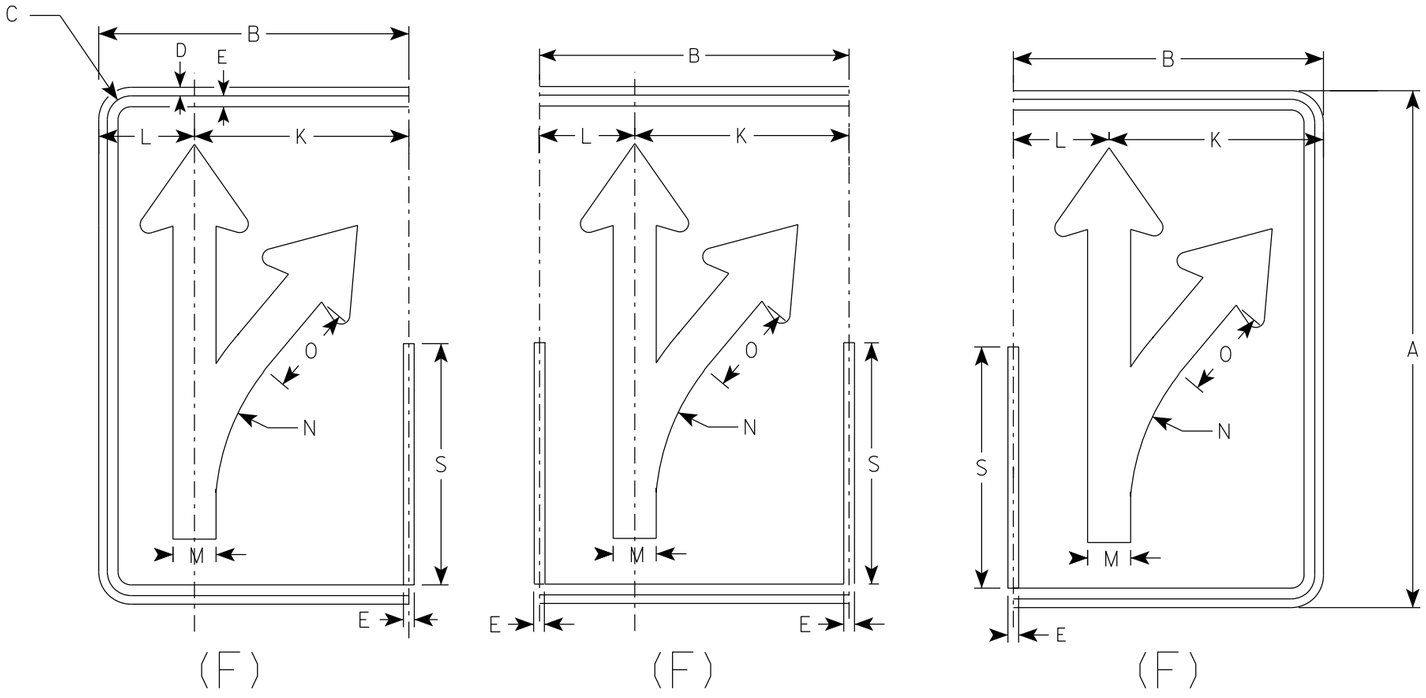
APPROVED Matthew R Rauch
For State Traffic Engineer

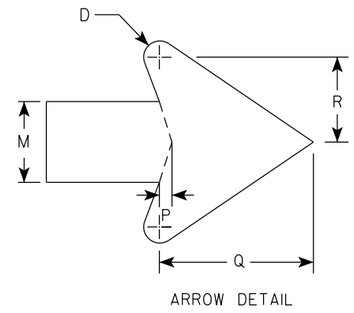
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 595 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 596 | E

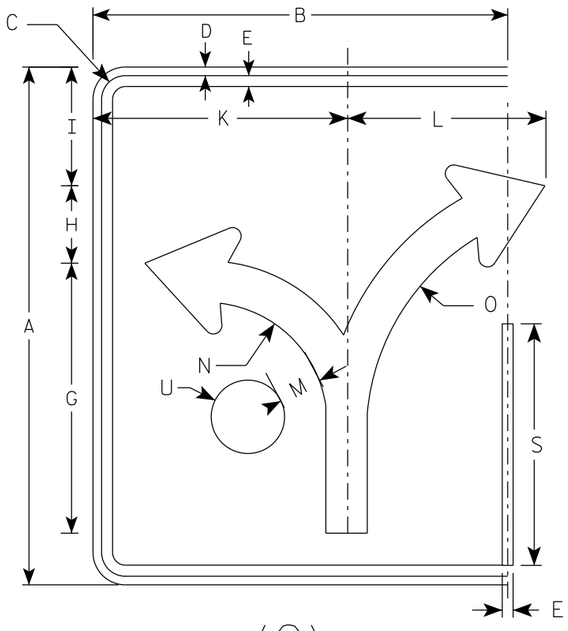




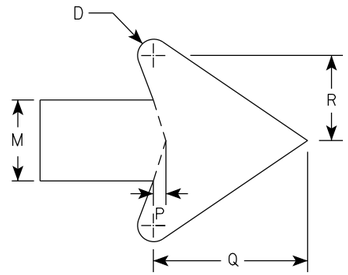
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(G)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 8 1/4 | | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 2 1/2 | | | | | | 7.5 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

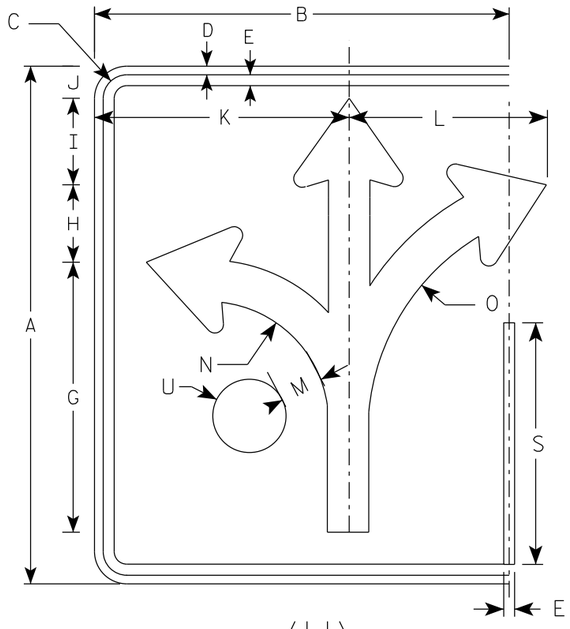
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

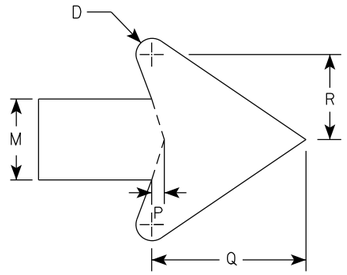
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 597 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(H)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 6 | 3 1/8 | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 2 1/2 | | | | | | 7.5 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |

STANDARD SIGN
R3-8 (H) Arrow

*WISCONSIN DEPT OF TRANSPORTATION*

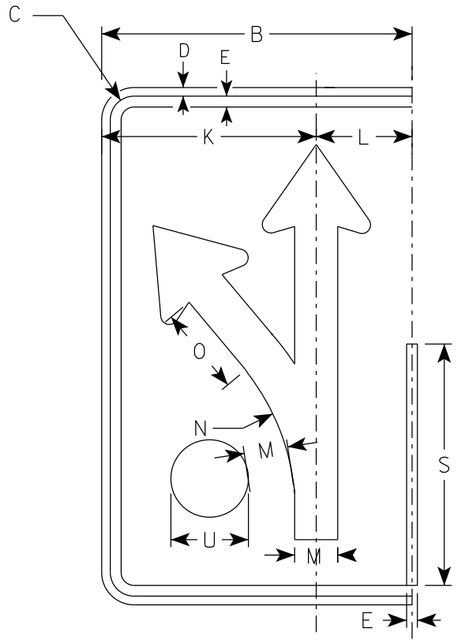
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

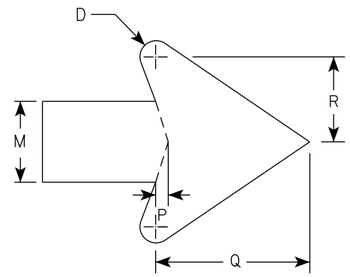
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 598 | E |
|---|---|---|---|---|---|

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(I)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | 2 1/8 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | 2 1/8 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | 2 1/2 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | 3 3/8 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | 3 3/8 | | | | | | 10.0 |

# STANDARD SIGN
## R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

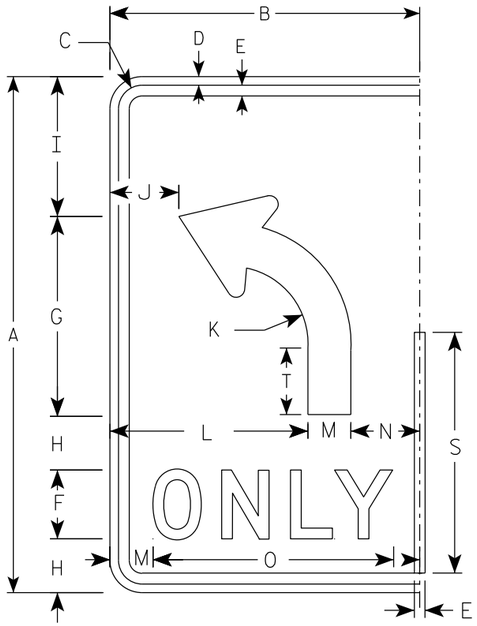
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

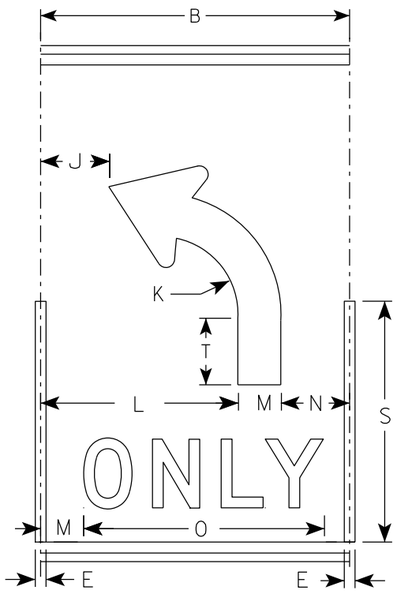
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 599 | E

NOTES

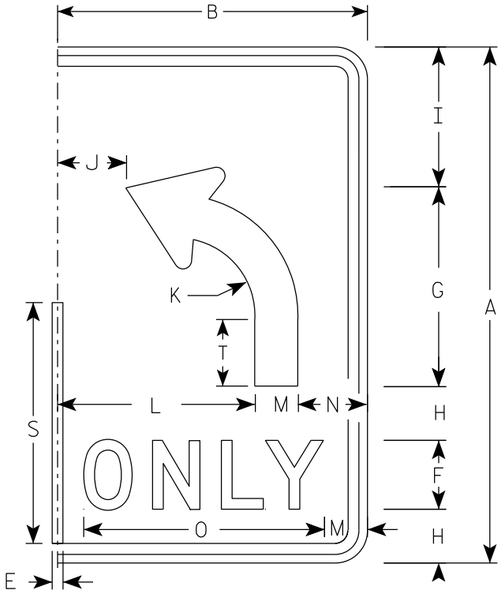
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



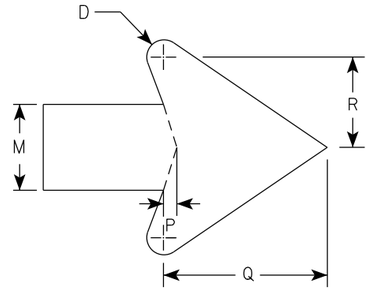

(L)




(L)




(L)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

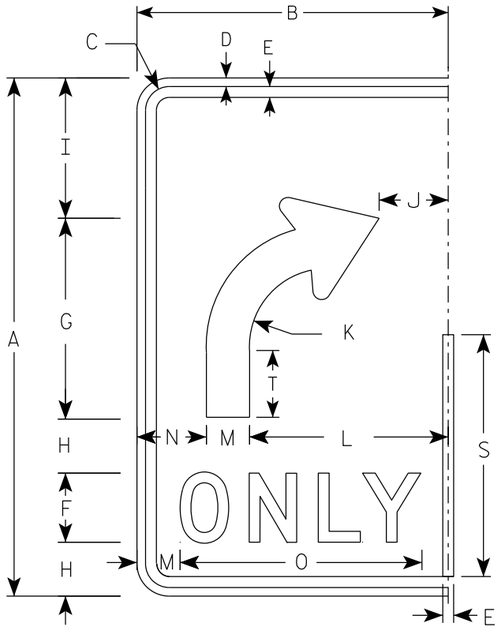
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

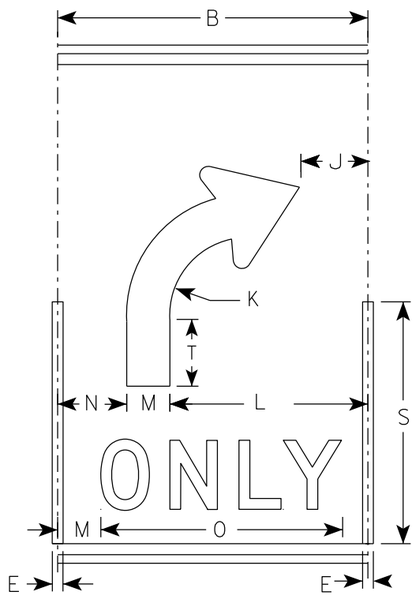
SHEET NO: 600 E

## NOTES

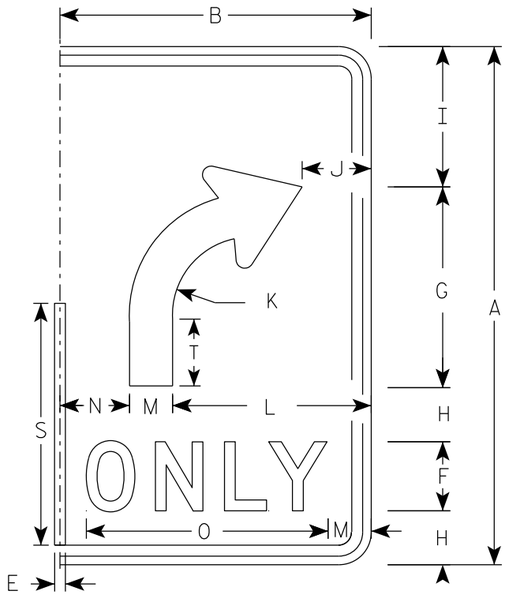
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



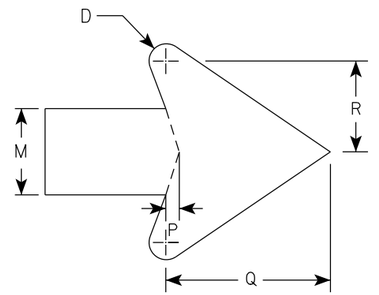

(R)




(R)




(R)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | 6 | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |

# STANDARD SIGN
## R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

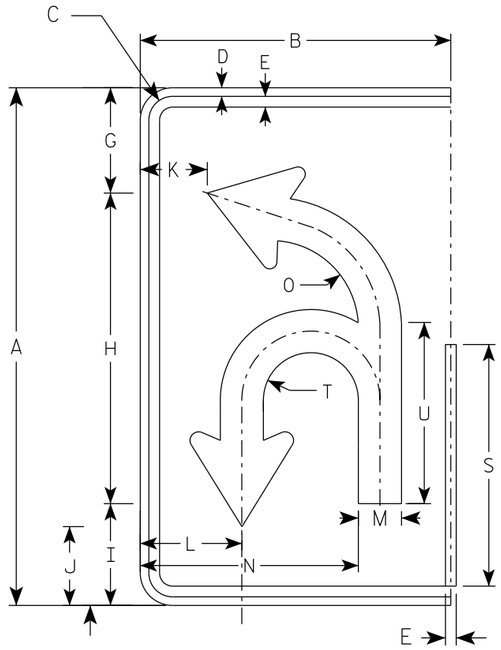
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

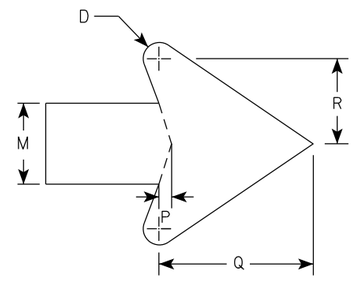
SHEET NO: 601 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(U)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 6 1/8 | 18 | 5 7/8 | 4 5/8 | 3 7/8 | 5 7/8 | 2 1/2 | 12 5/8 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | 2 3/4 | 10 1/2 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 6 1/8 | 18 | 5 7/8 | 4 5/8 | 3 7/8 | 5 7/8 | 2 1/2 | 12 5/8 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | 2 3/4 | 10 1/2 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 21 5/8 | 7 1/8 | 5 1/2 | 5 7/8 | 8 1/4 | 3 | 16 3/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 3 1/4 | 12 5/8 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 28 3/4 | 9 3/8 | 7 1/4 | 6 7/8 | 10 | 4 | 20 7/8 | 8 1/8 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 4 3/8 | 16 3/4 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 28 3/4 | 9 3/8 | 7 1/4 | 6 7/8 | 10 | 4 | 20 7/8 | 8 1/8 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 4 3/8 | 16 3/4 | | | | | | 10.0 |

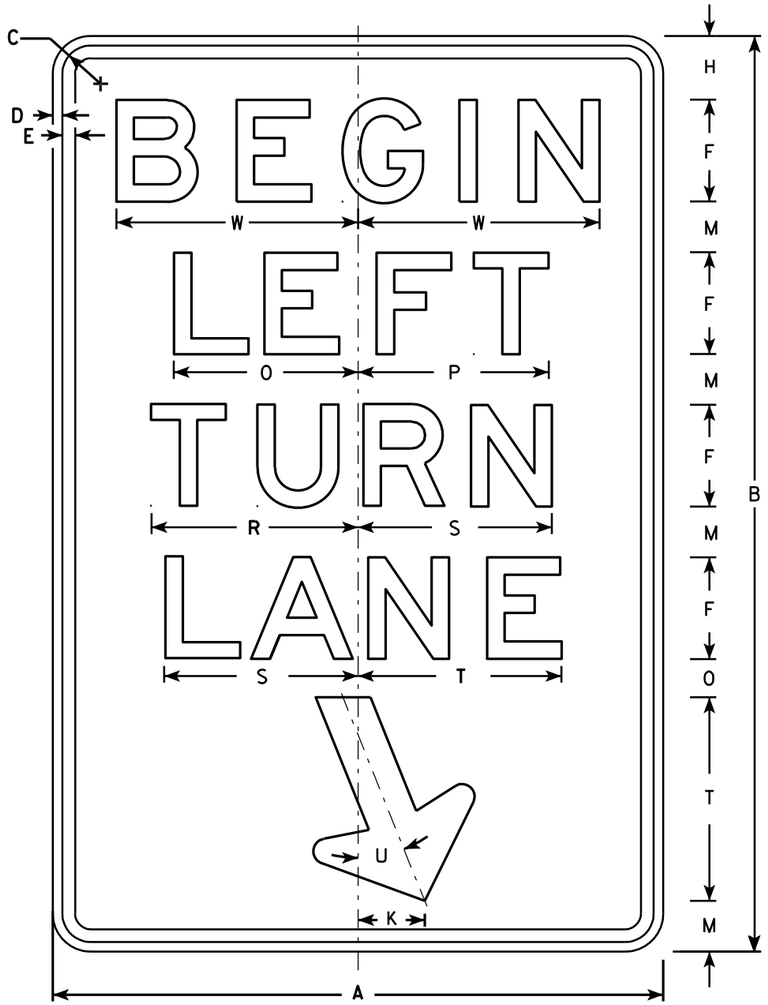
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

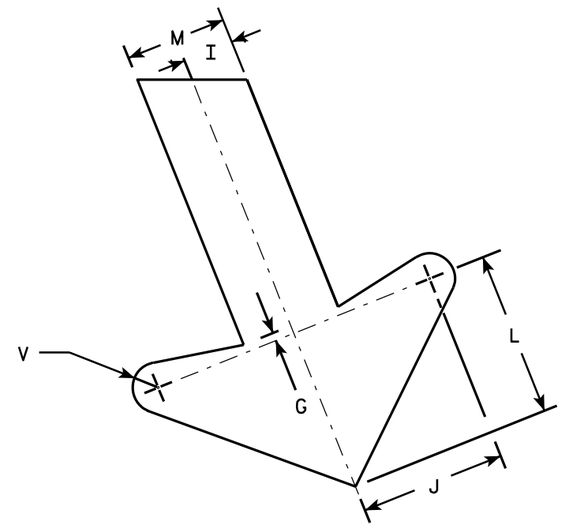
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 602 | E




R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 4 | 1/4 | 2 1/2 | 1 | 2 7/8 | 2 5/8 | 3 1/4 | 2 | 1 1/2 | 7 1/4 | 7 1/2 | | 8 1/8 | 7 5/8 | 8 | 22° | 1/2 | 9 1/2 | | | | 6.0 |
| 2M | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 4 | 1/4 | 2 1/2 | 1 | 2 7/8 | 2 5/8 | 3 1/4 | 2 | 1 1/2 | 7 1/4 | 7 1/2 | | 8 1/8 | 7 5/8 | 8 | 22° | 1/2 | 9 1/2 | | | | 6.0 |
| 3 | 36 | 54 | 1 3/4 | 1/2 | 5/8 | 6 | 3/8 | 3 3/4 | 1 1/2 | 4 1/4 | 4 | 4 7/8 | 3 | 2 1/4 | 10 7/8 | 11 1/4 | | 12 1/4 | 11 1/2 | 12 | 22° | 3/4 | 13 1/4 | | | | 13.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

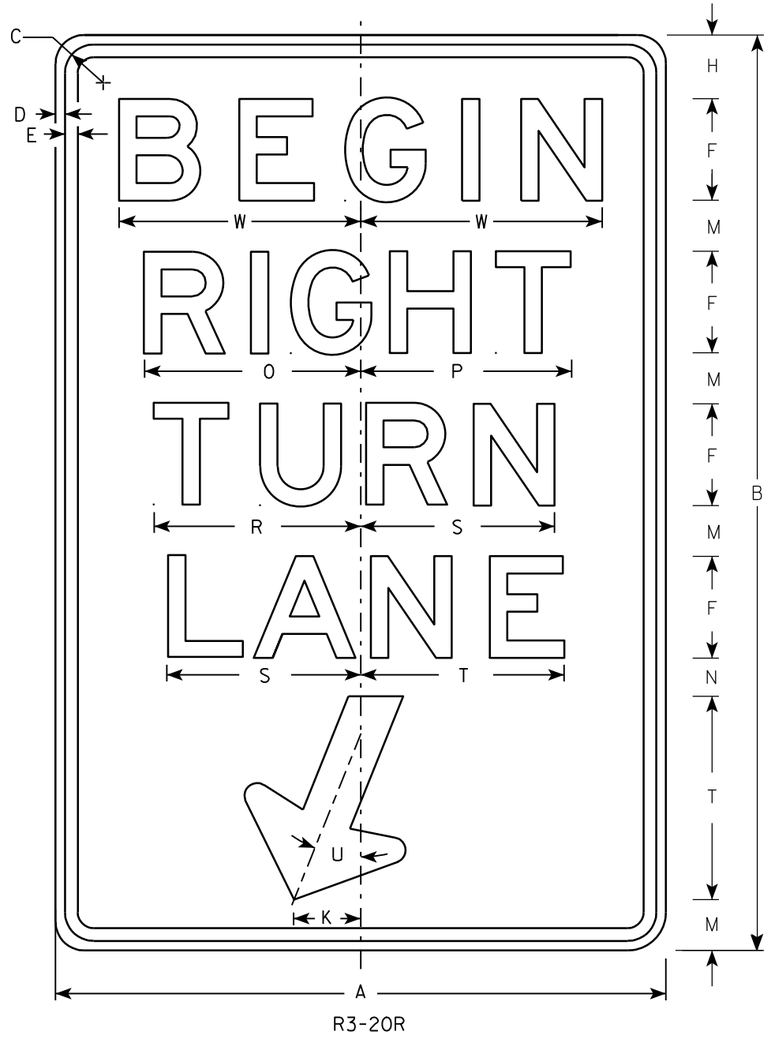
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

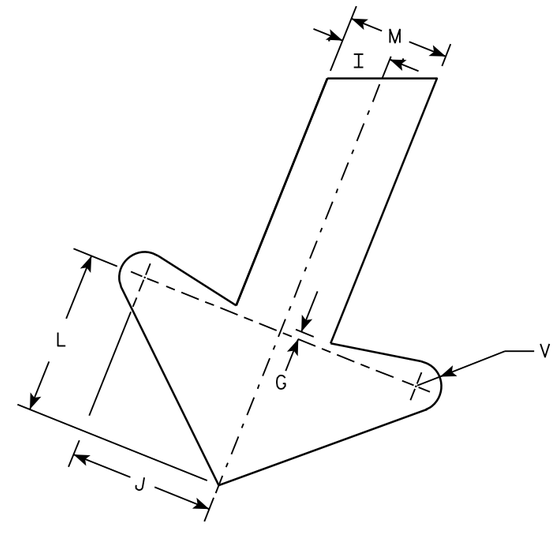
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 603 | E




R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 4 | 1/4 | 2 1/2 | 1 | 2 7/8 | 2 5/8 | 3 1/4 | 2 | 1 1/2 | 8 1/2 | 8 1/4 | | 8 1/8 | 7 5/8 | 8 | 22° | 1/2 | 9 1/2 | | | | 6.0 |
| 2M | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 4 | 1/4 | 2 1/2 | 1 | 2 7/8 | 2 5/8 | 3 1/4 | 2 | 1 1/2 | 8 1/2 | 8 1/4 | | 8 1/8 | 7 5/8 | 8 | 22° | 1/2 | 9 1/2 | | | | 6.0 |
| 3 | 36 | 54 | 1 3/4 | 1/2 | 5/8 | 6 | 3/8 | 3 3/4 | 1 1/2 | 4 1/4 | 4 | 4 7/8 | 3 | 2 1/4 | 12 3/4 | 12 1/2 | | 12 1/4 | 11 1/2 | 12 | 22° | 3/4 | 13 1/4 | | | | 13.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

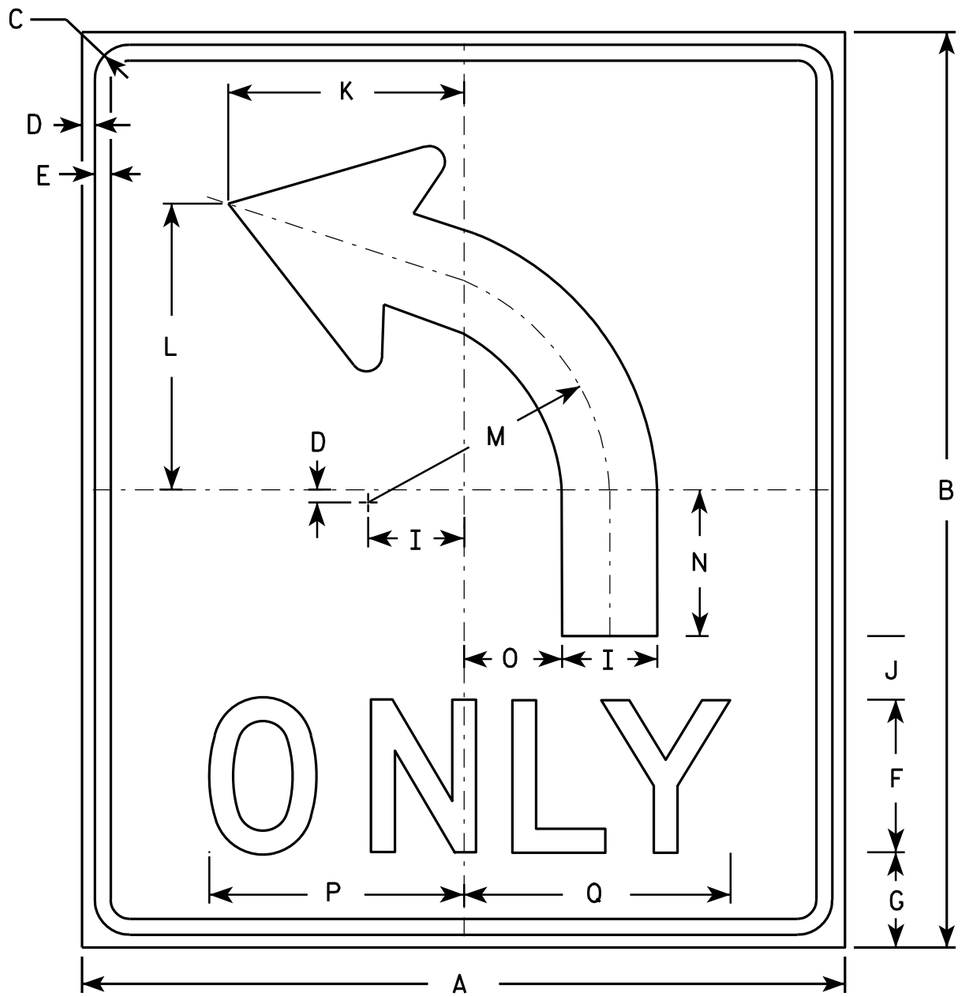
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

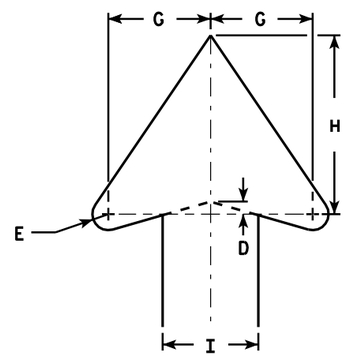
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 604 | E




R3-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-50R is the same as R3-50L except curved portion of arrow points right.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 6 | 4 | 7 | 3 3/4 | 2 1/2 | 9 1/4 | 11 1/4 | 9 1/2 | 5 3/4 | 3 7/8 | 10 | 10 1/2 | | | | | | | | | | 7.5 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 6 | 4 | 7 | 3 3/4 | 2 1/2 | 9 1/4 | 11 1/4 | 9 1/2 | 5 3/4 | 3 7/8 | 10 | 10 1/2 | | | | | | | | | | 7.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

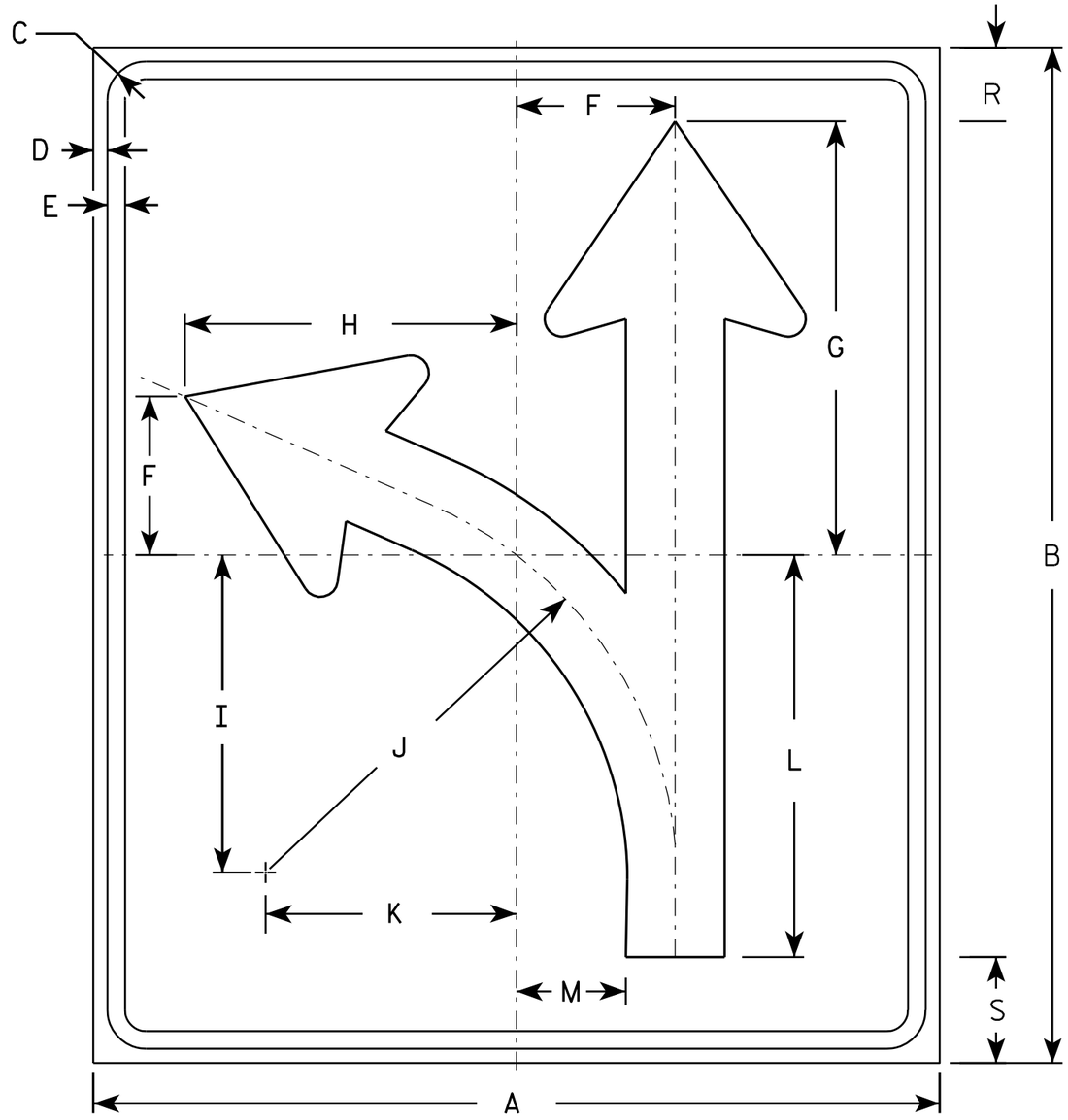
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 605 | E |
|---|---|---|---|---|---|

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R350.DGN PLOT DATE : 24-MAR-2011 13:40 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

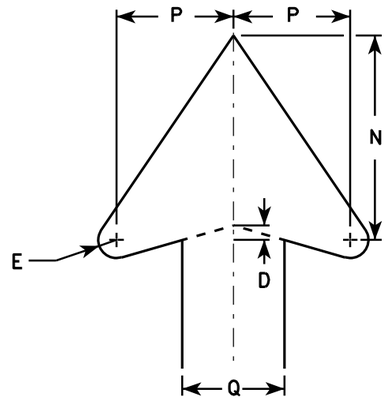
7




R3-60L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. R3-60R is the same as R3-60L except curved portion of arrow points to right.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 5/8 | 15 3/8 | 11 1/4 | 5 3/8 | 14 1/2 | 8 7/8 | 14 1/4 | 3 7/8 | 7 | | 4 | 3 1/2 | 2 5/8 | 3 3/4 | | | | | | | | 7.5 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 5/8 | 15 3/8 | 11 1/4 | 5 3/8 | 14 1/2 | 8 7/8 | 14 1/4 | 3 7/8 | 7 | | 4 | 3 1/2 | 2 5/8 | 3 3/4 | | | | | | | | 7.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

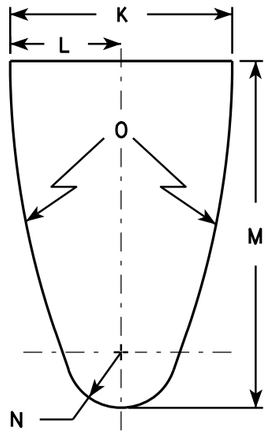
STANDARD SIGN
R3-60

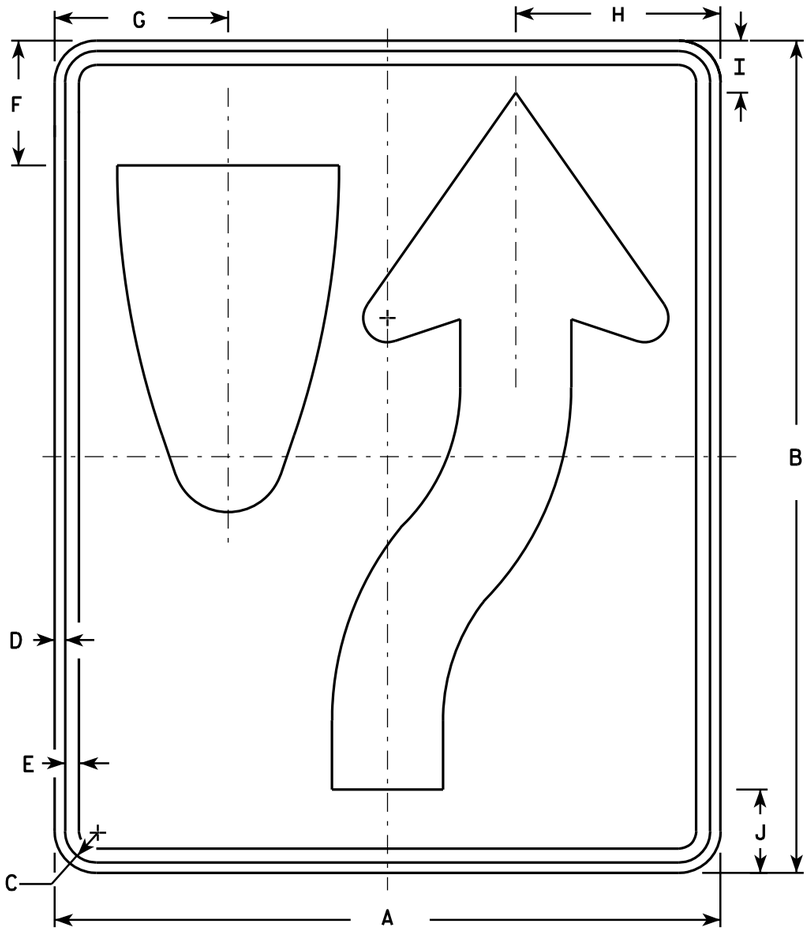
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R3-60.3

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 606 | E |
|---|---|---|---|---|---|

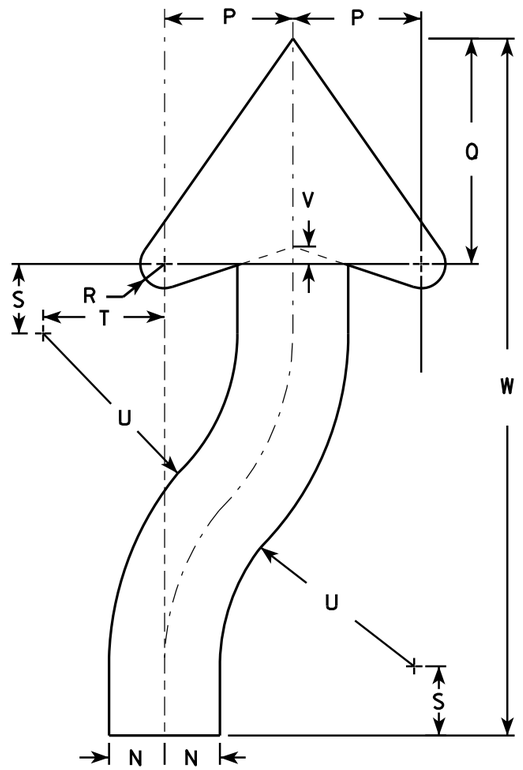



R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 3/8 | 4 3/4 | 5 1/2 | 1 3/8 | 2 1/4 | 6 | 3 | 9 3/8 | 1 1/2 | 22 1/2 | 3 1/2 | 6 1/8 | 5/8 | 1 7/8 | 3 1/4 | 6 3/4 | 1/2 | 20 3/8 | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 3 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 4 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 9 | 12 1/2 | 14 3/4 | 3 3/4 | 6 | 16 | 8 | 25 | 4 | 60 | 9 1/4 | 16 1/4 | 1 5/8 | 5 | 8 3/4 | 18 | 1 1/4 | 50 1/4 | | | | 20.0 |

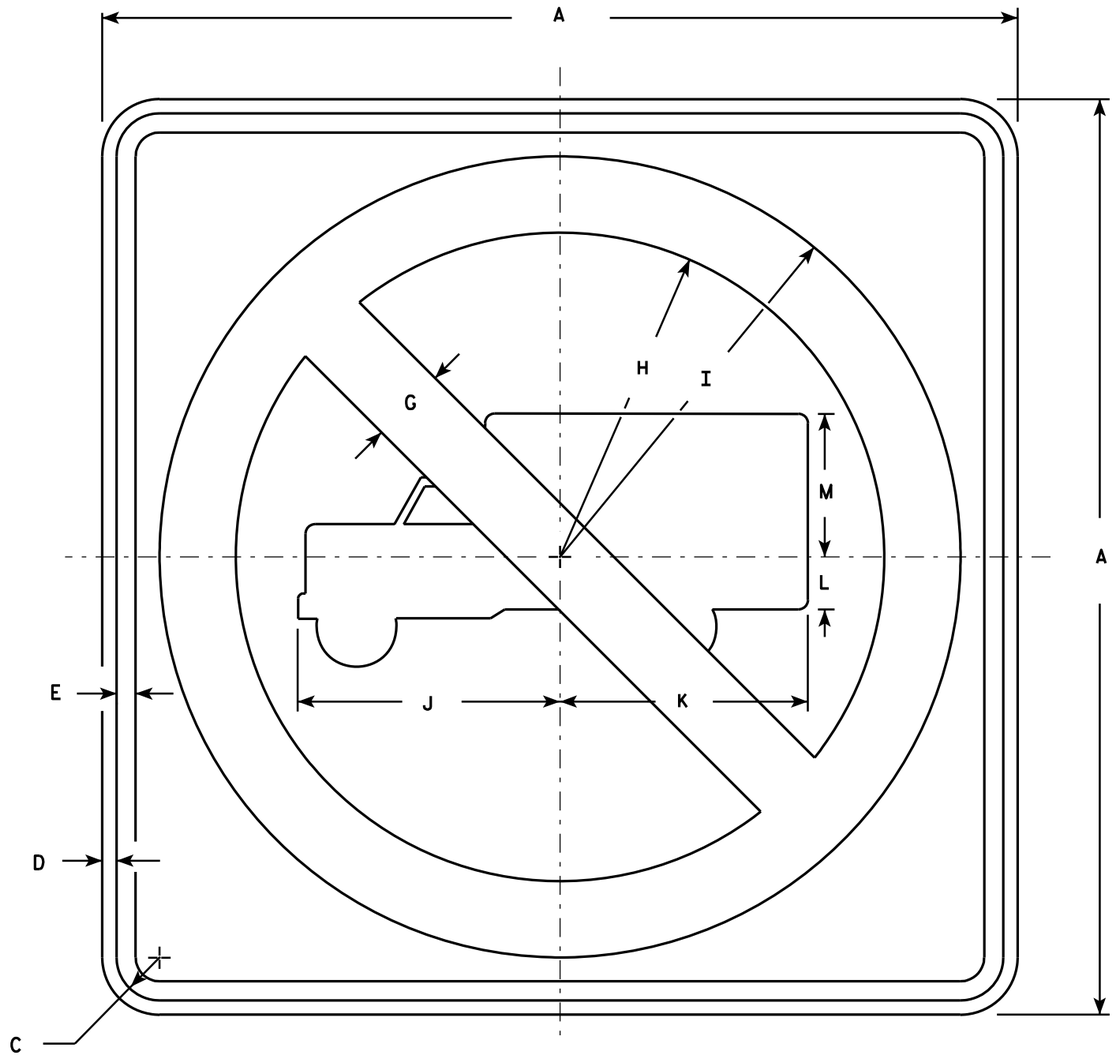
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 607 | E |
|---|---|---|---|---|---|




R5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | | 1 1/8 | 3/8 | 1/2 | | 2 | 8 1/2 | 10 1/2 | 6 7/8 | 6 1/2 | 1 3/8 | 3 3/4 | | | | | | | | | | | | | | 4.0 |
| 2M | 24 | | 1 1/8 | 3/8 | 1/2 | | 2 | 8 1/2 | 10 1/2 | 6 7/8 | 6 1/2 | 1 3/8 | 3 3/4 | | | | | | | | | | | | | | 4.0 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 2 1/2 | 10 5/8 | 13 1/8 | 8 1/2 | 8 1/8 | 1 5/8 | 4 3/4 | | | | | | | | | | | | | | 6.25 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | | 3 | 12 3/4 | 15 3/4 | 10 1/4 | 9 3/4 | 2 | 5 3/4 | | | | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 4 | 17 | 21 | 13 5/8 | 13 | 2 5/8 | 7 5/8 | | | | | | | | | | | | | | 16.0 |

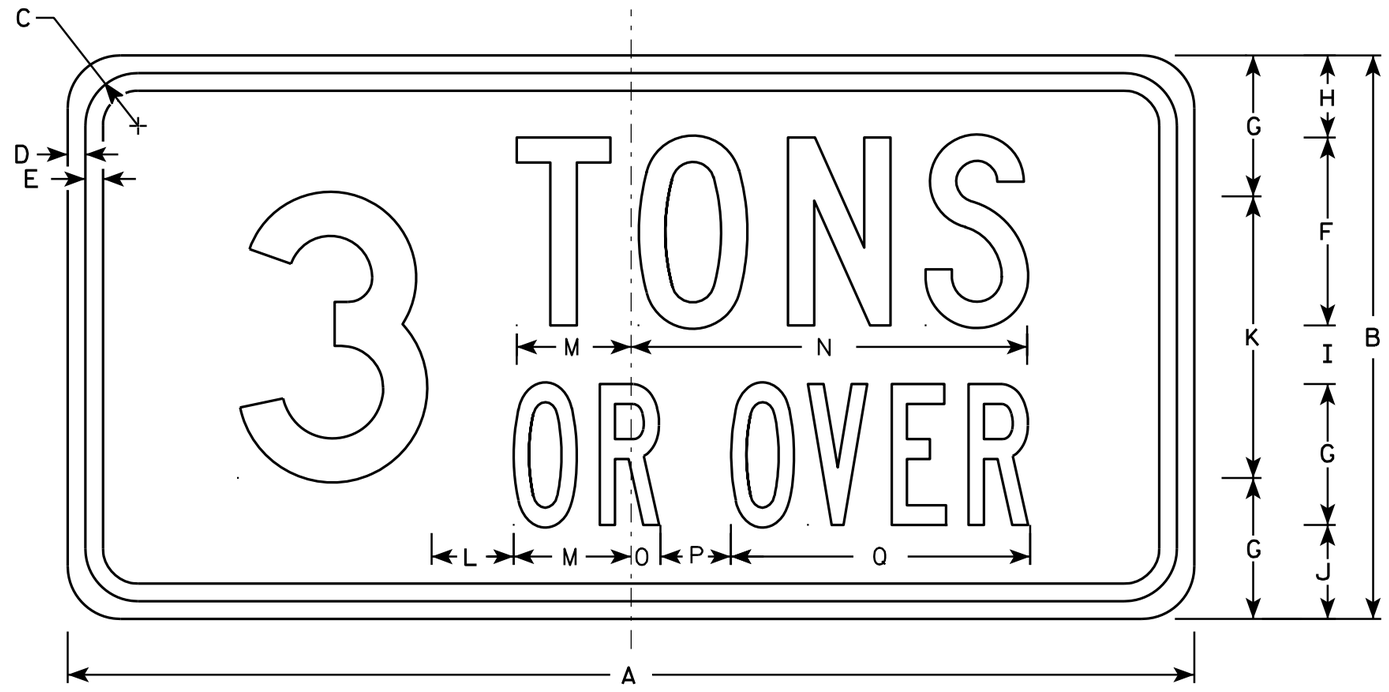
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 608 | E |
|---|---|---|---|---|---|




R5-2A

## NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series "C"
   Line 2 is Series "B"
   Numeral is Series "D"
6. Substitute appropriate numerals.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 4 | 3 | 1 3/4 | 1 1/4 | 2 | 6 | 1 3/4 | 2 1/2 | 8 1/2 | 5/8 | 1 1/2 | 6 3/8 | | | | | | | | | | 2.0 |
| 2M | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 4 | 3 | 1 3/4 | 1 1/4 | 2 | 6 | 1 3/4 | 2 1/2 | 8 1/2 | 5/8 | 1 1/2 | 6 3/8 | | | | | | | | | | 2.0 |
| 3 | 30 | 15 | 1 1/8 | 3/8 | 1/2 | 5 | 4 | 2 1/8 | 1 3/8 | 2 1/2 | 7 | 2 1/4 | 3 1/8 | 10 1/2 | 1 | 2 3/8 | 8 1/2 | | | | | | | | | | 2.25 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 6 | 5 | 2 5/8 | 1 3/8 | 3 | 9 | 2 1/2 | 3 3/4 | 12 5/8 | 1 3/8 | 3 1/8 | 10 1/2 | | | | | | | | | | 4.5 |
| 5 | 48 | 24 | 1 3/8 | 3/8 | 5/8 | 8 | 6 | 3 1/2 | 2 1/2 | 4 | 12 | 3 1/2 | 4 7/8 | 16 7/8 | 1 1/4 | 3 | 12 3/4 | | | | | | | | | | 8.0 |

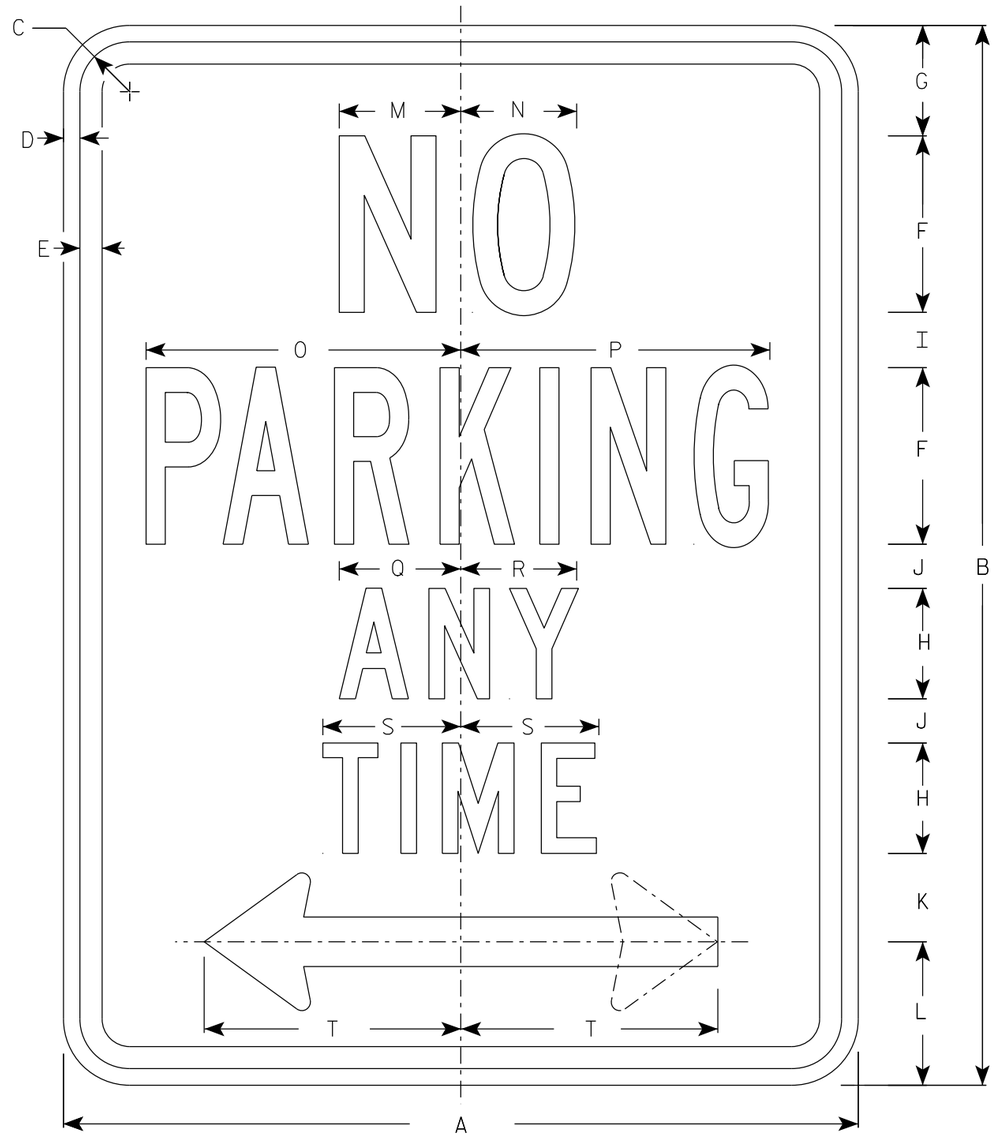
STANDARD SIGN
R5-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2A.7

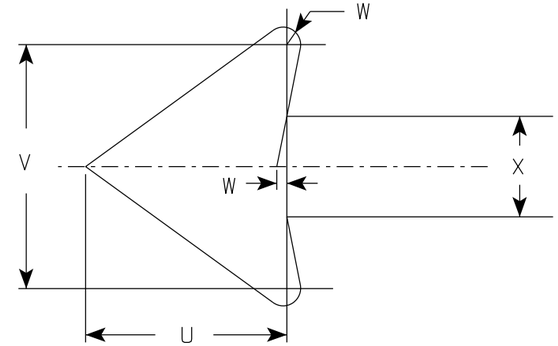
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 609 | E |
|---|---|---|---|---|---|




R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 1 7/8 | 2 | 7/8 | 5/8 | 1 1/2 | 2 1/2 | 2 | 2 | 4 7/8 | 4 7/8 | 2 1/4 | 2 1/8 | 2 1/2 | 3 7/8 | 1 1/2 | 1 3/4 | 1/8 | 3/4 | | | 1.5 |
| 2S | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 1/2 | 2 1/2 | 1 1/4 | 1 | 2 | 3 1/4 | 2 3/4 | 2 5/8 | 7 1/8 | 7 | 2 3/4 | 2 5/8 | 3 1/8 | 5 7/8 | 2 1/4 | 2 5/8 | 1/4 | 1 1/8 | | | 3.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 3 | 2 | 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3 | 3 1/2 | 1/4 | 1 1/2 | | | 5.0 |
| 3 | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 3 | 2 | 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3 | 3 1/2 | 1/4 | 1 1/2 | | | 5.0 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

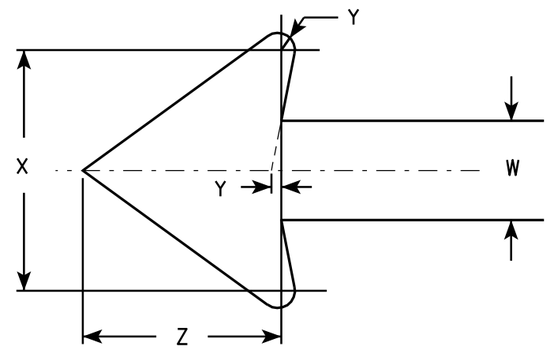
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 610 E




R7-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-51D (double arrow)
   R7-51R (right arrow)
   R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 1 7/8 | 2 | 7/8 | 5/8 | 1 1/2 | 2 1/2 | 2 | 2 | 4 7/8 | 4 7/8 | 4 7/8 | 5/8 | 1 3/4 | 2 1/2 | 4 3/8 | 3 7/8 | 3/4 | 1 3/4 | 1/8 | 1 1/2 | 1.5 |
| 2S | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 1/2 | 2 1/2 | 1 1/4 | 1 | 2 | 3 1/4 | 2 3/4 | 2 5/8 | 7 1/8 | 7 | 5 3/4 | 1 1/8 | 1 1/2 | 3 1/8 | 5 1/2 | 5 7/8 | 1 1/8 | 2 5/8 | 1/4 | 2 1/4 | 3.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 3 | 2 | 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 7 1/8 | 1 1/4 | 2 | 3 3/4 | 6 1/2 | 7 3/4 | 1 1/2 | 3 1/2 | 1/4 | 3 | 5.0 |
| 3 | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 3 | 2 | 1 1/4 | 2 1/2 | 4 | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 7 1/8 | 1 1/4 | 2 | 3 3/4 | 6 1/2 | 7 3/4 | 1 1/2 | 3 1/2 | 1/4 | 3 | 5.0 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

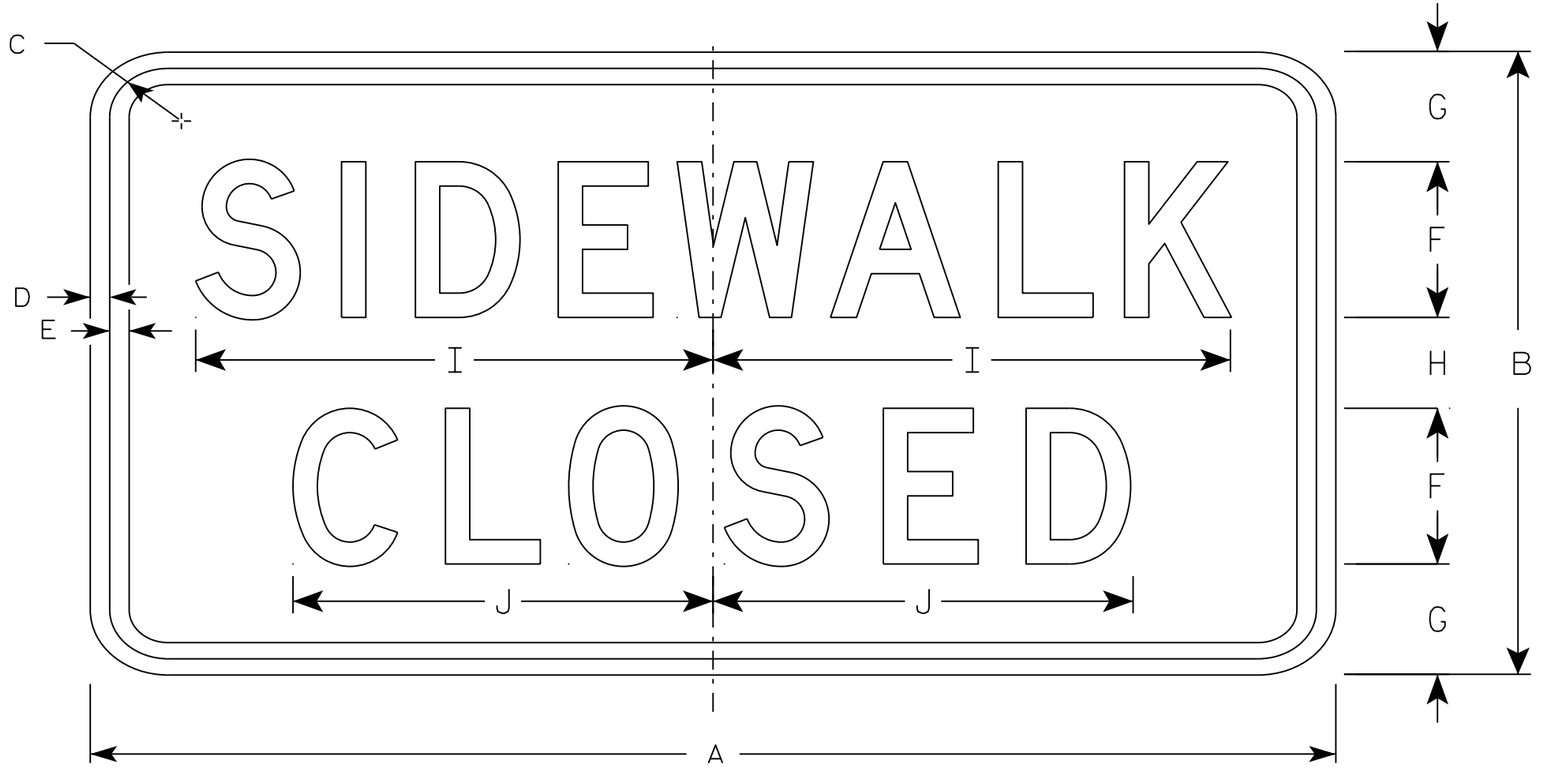
STANDARD SIGN
R7-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-51.6

| PROJECT NO: | HWY: | COUNTY: | | | SHEET NO: 611 | E |
|---|---|---|---|---|---|---|




R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 12 | 1 3/4 | 1/2 | 1/2 | 3 | 2 1/8 | 1 3/4 | 10 | 8 1/8 | | | | | | | | | | | | | | | | | 2.0 |
| 2M | 24 | 12 | 1 3/4 | 1/2 | 1/2 | 3 | 2 1/8 | 1 3/4 | 10 | 8 1/8 | | | | | | | | | | | | | | | | | 2.0 |
| 3 | 30 | 18 | 1 3/4 | 1/2 | 1/2 | 4 | 3 1/2 | 3 | 12 1/2 | 10 1/4 | | | | | | | | | | | | | | | | | 3.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

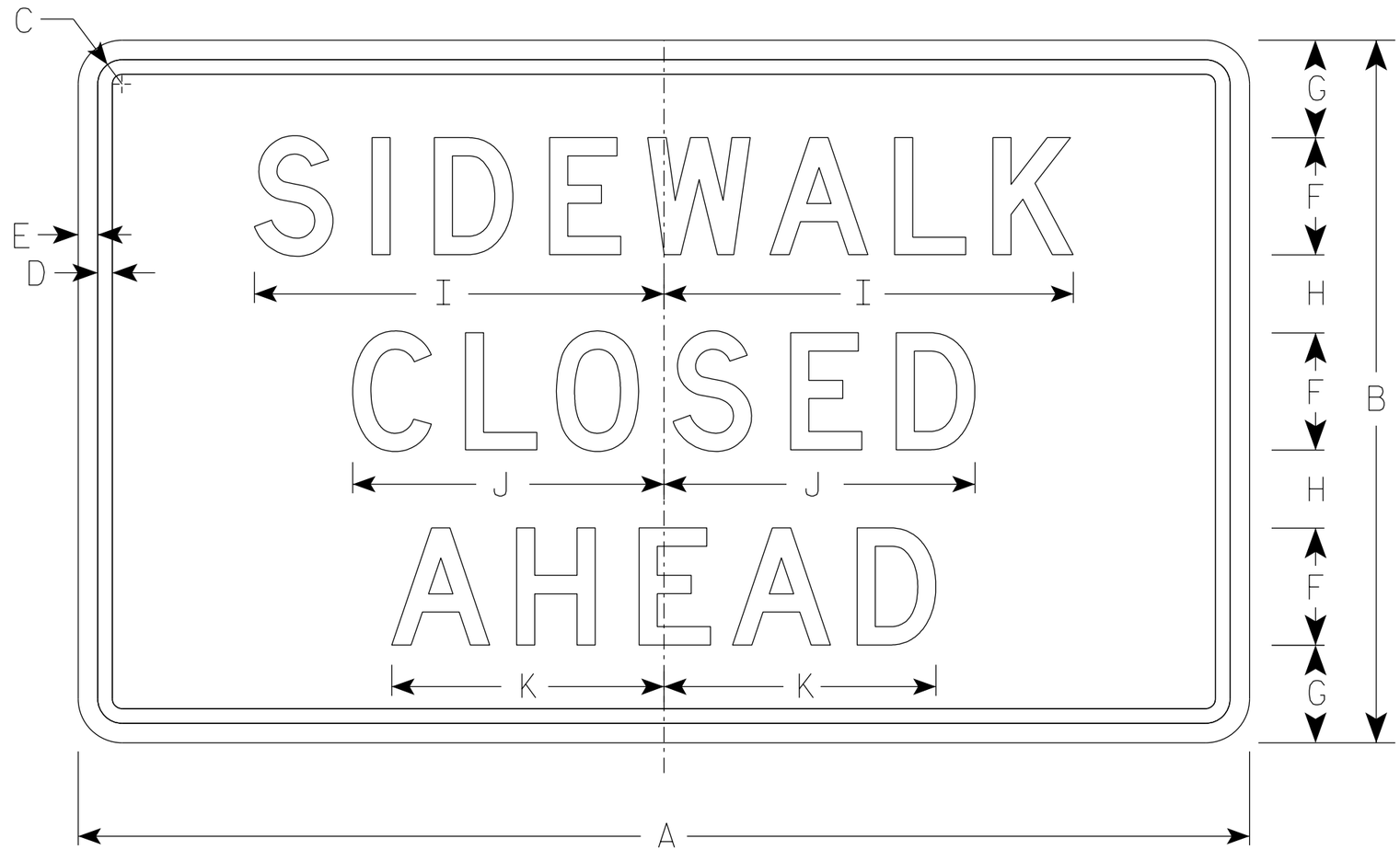
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 612 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000




R9-9A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 3 | 2 1/2 | 2 | 10 1/2 | 8 | 7 | | | | | | | | | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 3 | 2 1/2 | 2 | 10 1/2 | 8 | 7 | | | | | | | | | | | | | | | | 3.75 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

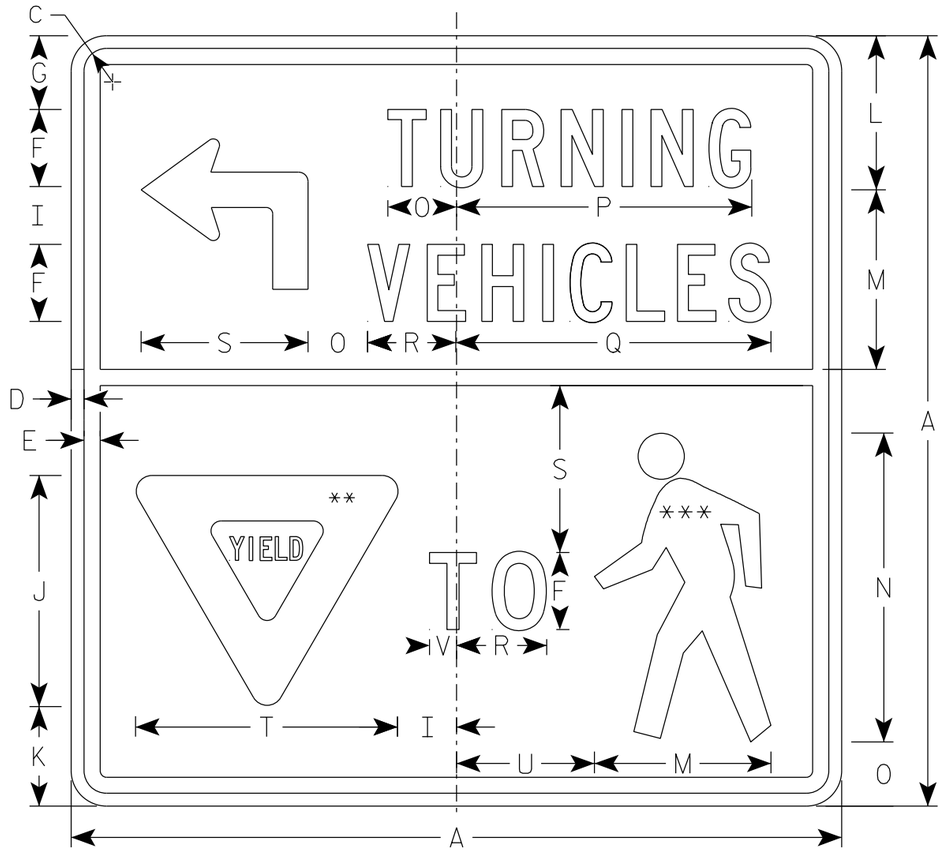
STANDARD SIGN
R9-9A

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
*For* State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 613 | E




R10-15L

## NOTES

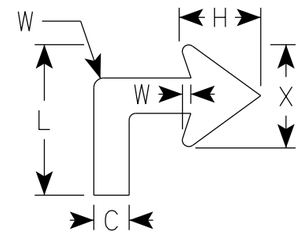
1. Sign is Type II - See Note 2 for Sheeting Type

2. Color:
   - Background - Top Half - Yellow (Type F Reflective)
     Bottom Half - White (Type SH Reflective)
   - Message - Black
   - Yield Symbol - Red on White (Type SH Reflective)
   - Ped Symbol - Black on White (Type SH Reflective)

3. Message Series - C except "TO" Series D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 3 | 2 7/8 | 3 | 2 1/4 | 9 | 3 7/8 | 6 | 7 | 12 | 2 1/2 | 11 1/2 | 12 1/4 | 3 1/2 | 6 1/2 | 10 1/4 | 5 3/8 | 1 | 3/8 | 4 | | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | 3 | 2 7/8 | 3 | 2 1/4 | 9 | 3 7/8 | 6 | 7 | 12 | 2 1/2 | 11 1/2 | 12 1/4 | 3 1/2 | 6 1/2 | 10 1/4 | 5 3/8 | 1 | 3/8 | 4 | | | 6.25 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R10-15L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/2020 PLATE NO. R10-15L.2

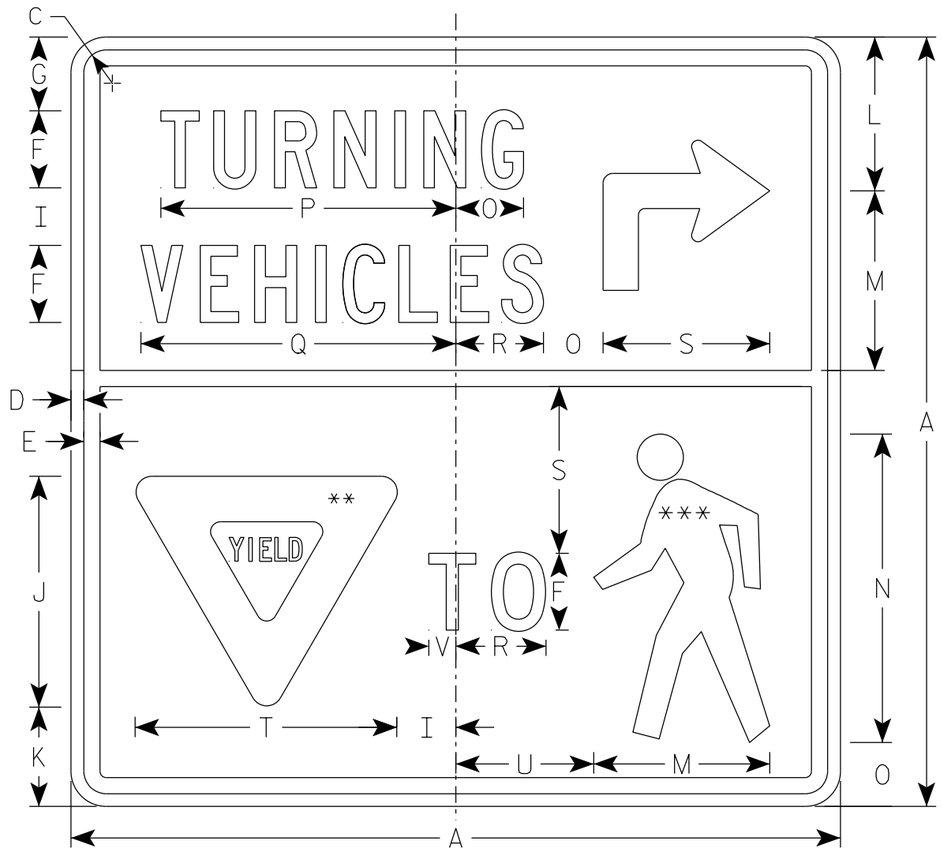
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1015L.DGN PLOT DATE : 28-JULY-2020 10:45 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7




R10-15R

## NOTES

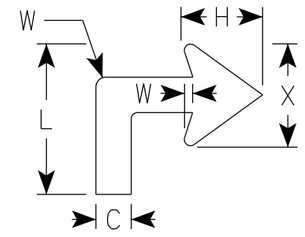
1. Sign is Type II - See Note 2 for Sheeting Type

2. Color:
   - Background - Top Half - Yellow (Type F Reflective)
     Bottom Half - White (Type SH Reflective)
   - Message - Black
   - Yield Symbol - Red on White (Type SH Reflective)
   - Ped Symbol - Black on White (Type SH Reflective)

3. Message Series - C except "TO" Series D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 3 | 2 7/8 | 3 | 2 1/4 | 9 | 3 7/8 | 6 | 7 | 12 | 2 1/2 | 11 1/2 | 12 1/4 | 3 1/2 | 6 1/2 | 10 1/4 | 5 3/8 | 1 | 3/8 | 4 | | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | 3 | 2 7/8 | 3 | 2 1/4 | 9 | 3 7/8 | 6 | 7 | 12 | 2 1/2 | 11 1/2 | 12 1/4 | 3 1/2 | 6 1/2 | 10 1/4 | 5 3/8 | 1 | 3/8 | 4 | | | 6.25 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

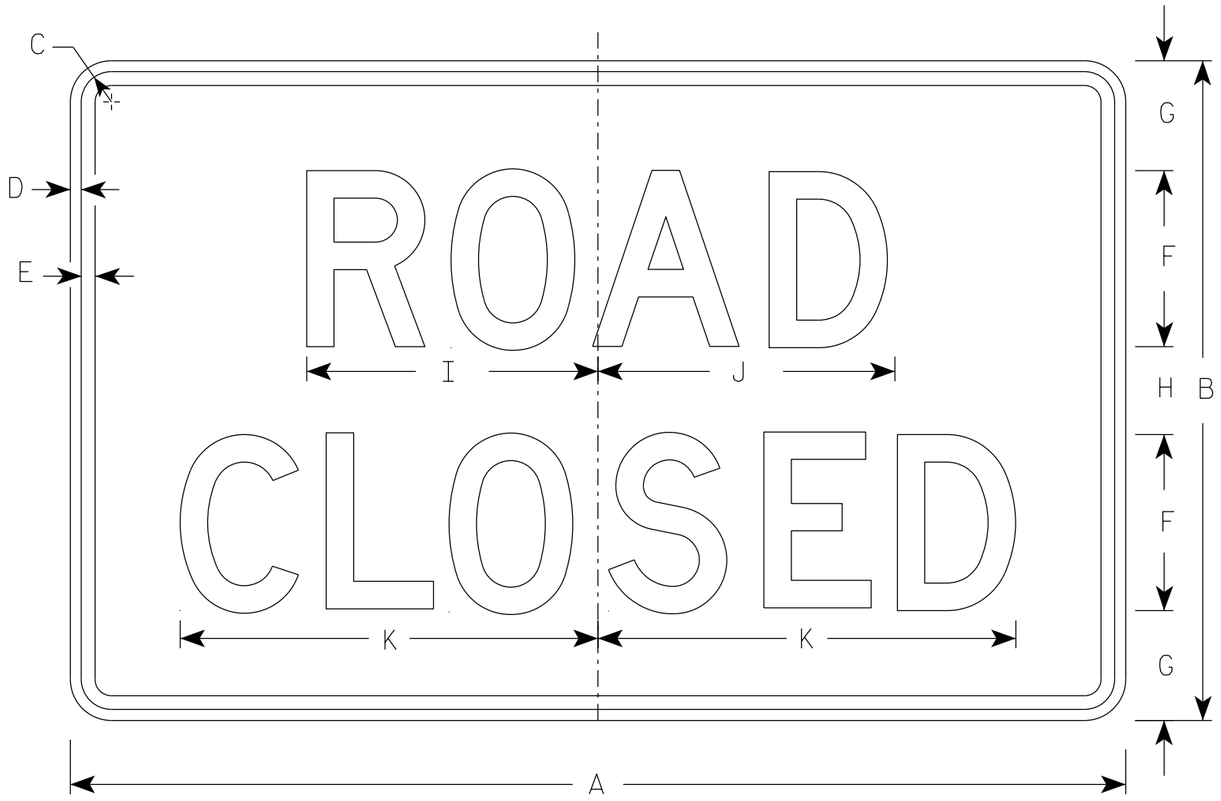
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/2020 PLATE NO. R10-15R.2

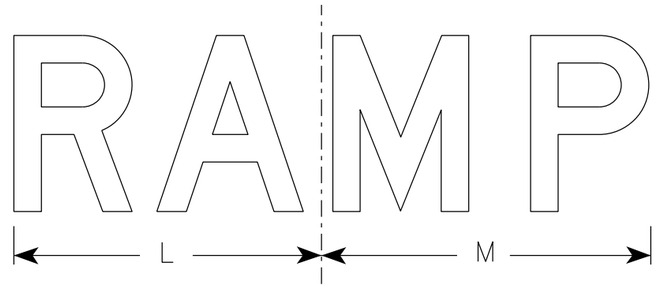
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



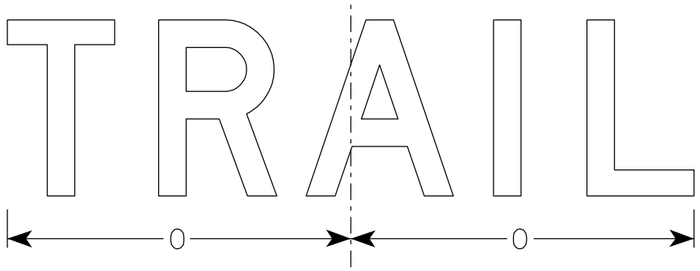

R11-2

NOTES

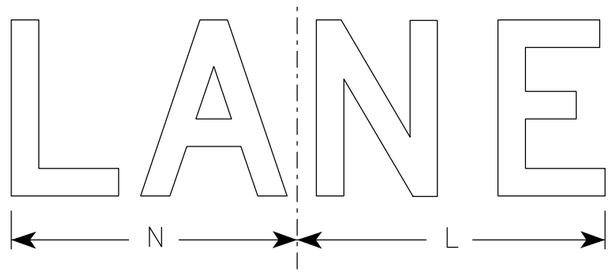
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.




R11-2R




R11-2T




R11-2L

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 2M | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 3 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 4 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 5 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |

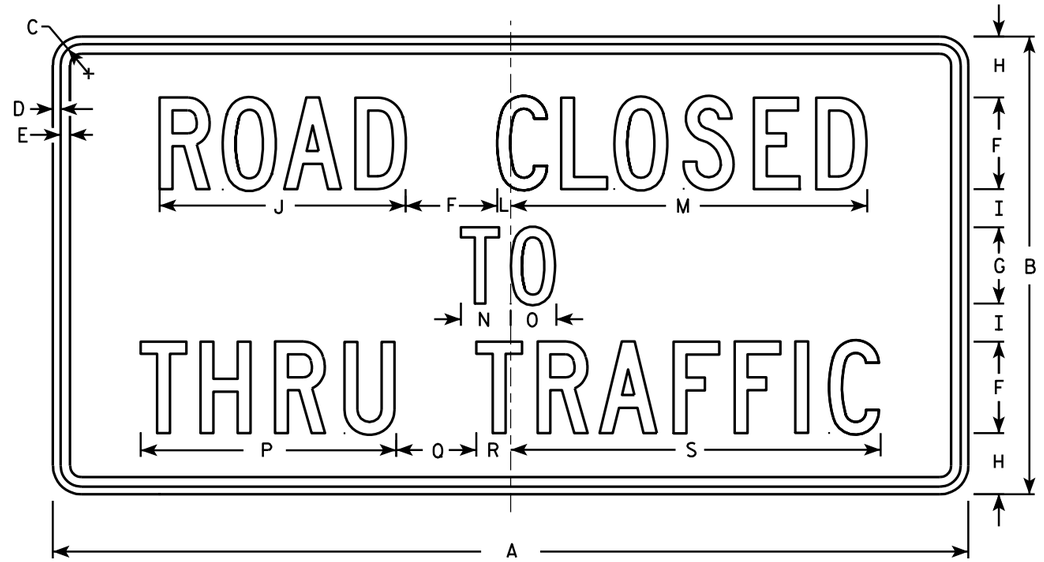
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 616 | E |
|---|---|---|---|---|---|




R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 | | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 | | | | | | | | 12.5 |
| 2M | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 | | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 | | | | | | | | 12.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

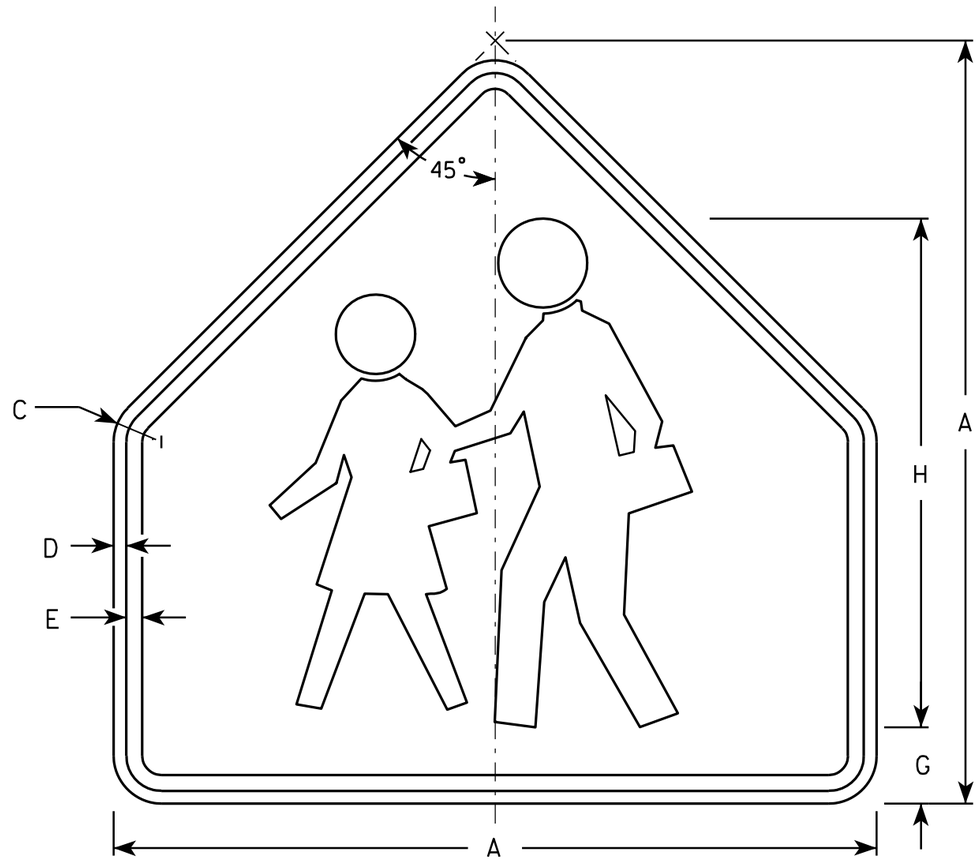
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 617 | E


7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R114.DGN PLOT DATE : 01-APR-2011 14:11 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000 WISDOT/CADDS SHEET 42




S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | | 3 | 20 | | | | | | | | | | | | | | | | | | | 4.69 |
| 2 | 36 | | 1 5/8 | 5/8 | 3/4 | | 3 1/2 | 24 | | | | | | | | | | | | | | | | | | | 6.75 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 3 1/2 | 24 | | | | | | | | | | | | | | | | | | | 6.75 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 4 3/4 | 32 | | | | | | | | | | | | | | | | | | | 12 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

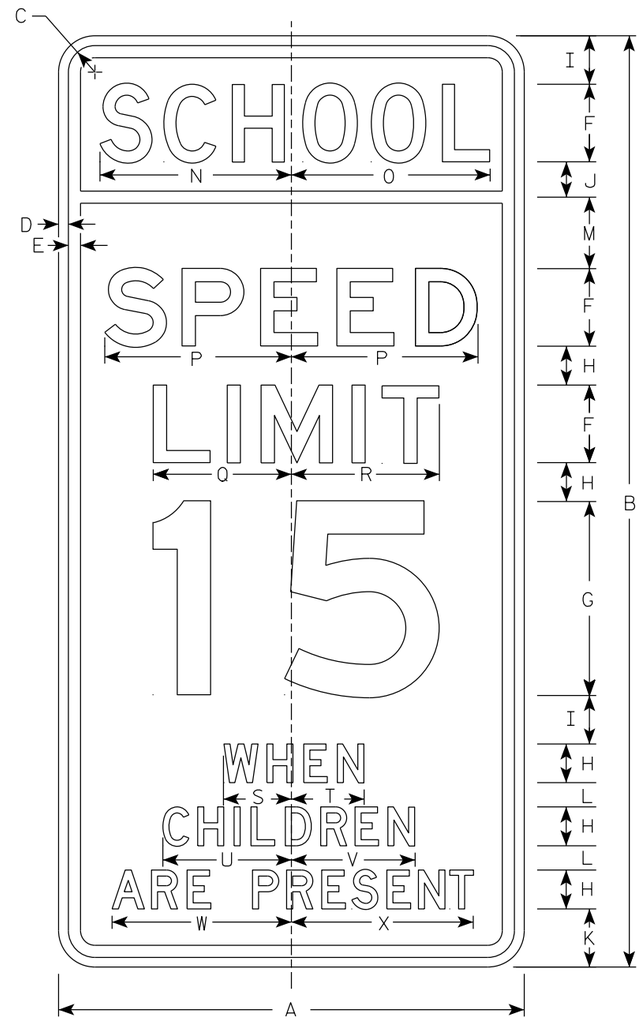
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 618 | E |
|---|---|---|---|---|---|




S4-51

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color:
   Background - See Note 4
   Message - Black
3. Message Series - See Note 5
4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
   Lower panel background - White - Type SH Reflective
5. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
6. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 48 | 1 3/8 | 1/2 | 5/8 | 4 | 10 | 2 | 2 1/2 | 1 3/4 | 3 | 1 1/4 | 3 3/4 | 9 7/8 | 10 1/4 | 9 5/8 | 7 1/8 | 7 5/8 | 3 1/2 | 3 3/8 | 6 5/8 | 6 3/8 | 9 1/4 | 9 3/8 | | | 8.00 |
| 3 | 36 | 72 | 2 1/4 | 3/4 | 1 | 6 | 15 | 3 | 3 3/4 | 2 3/4 | 4 1/2 | 1 7/8 | 5 1/2 | 15 | 15 1/4 | 14 1/2 | 11 1/4 | 11 1/2 | 5 1/2 | 5 3/4 | 10 | 9 3/4 | 14 | 14 1/8 | | | 18.00 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

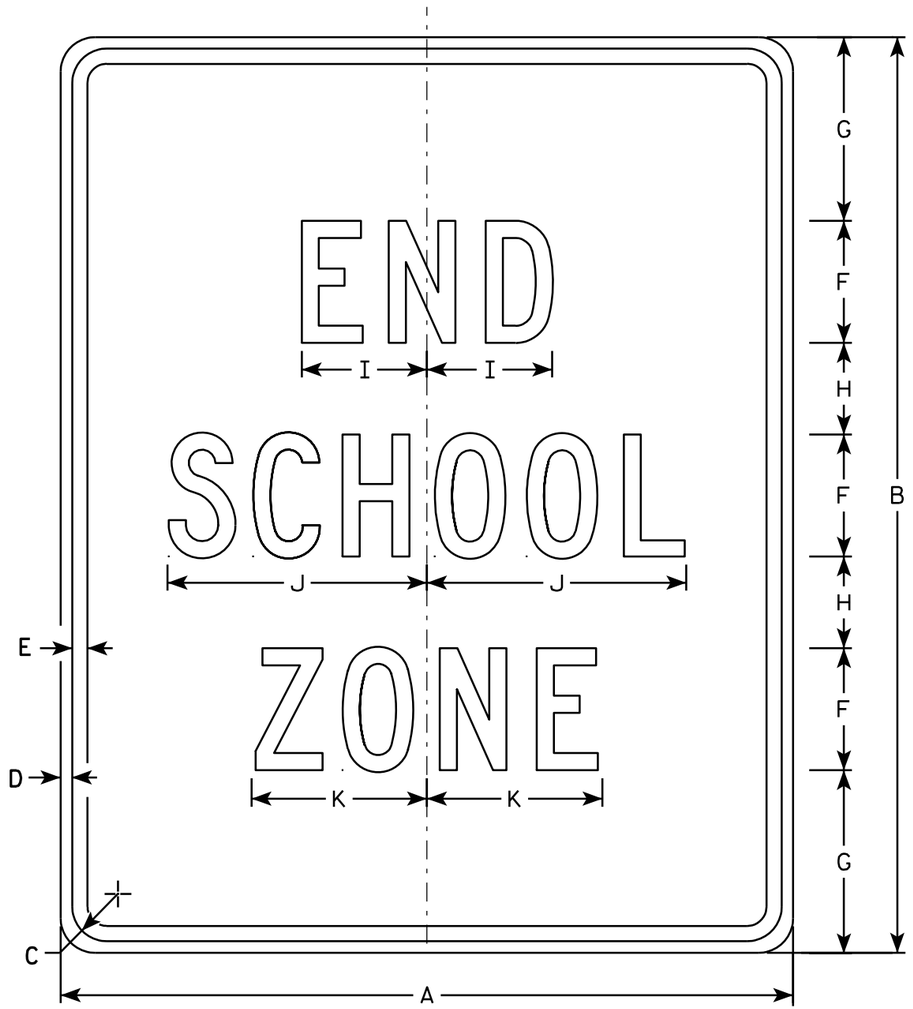
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. S4-51.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 619 E




S5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 6 | 3 | 4 1/8 | 8 1/2 | 5 3/4 | | | | | | | | | | | | | | | | 5.0 |
| 3 | 36 | 42 | 1 5/8 | 5/8 | 3/4 | 6 | 7 | 5 | 6 1/8 | 12 5/8 | 8 5/8 | | | | | | | | | | | | | | | | 10.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

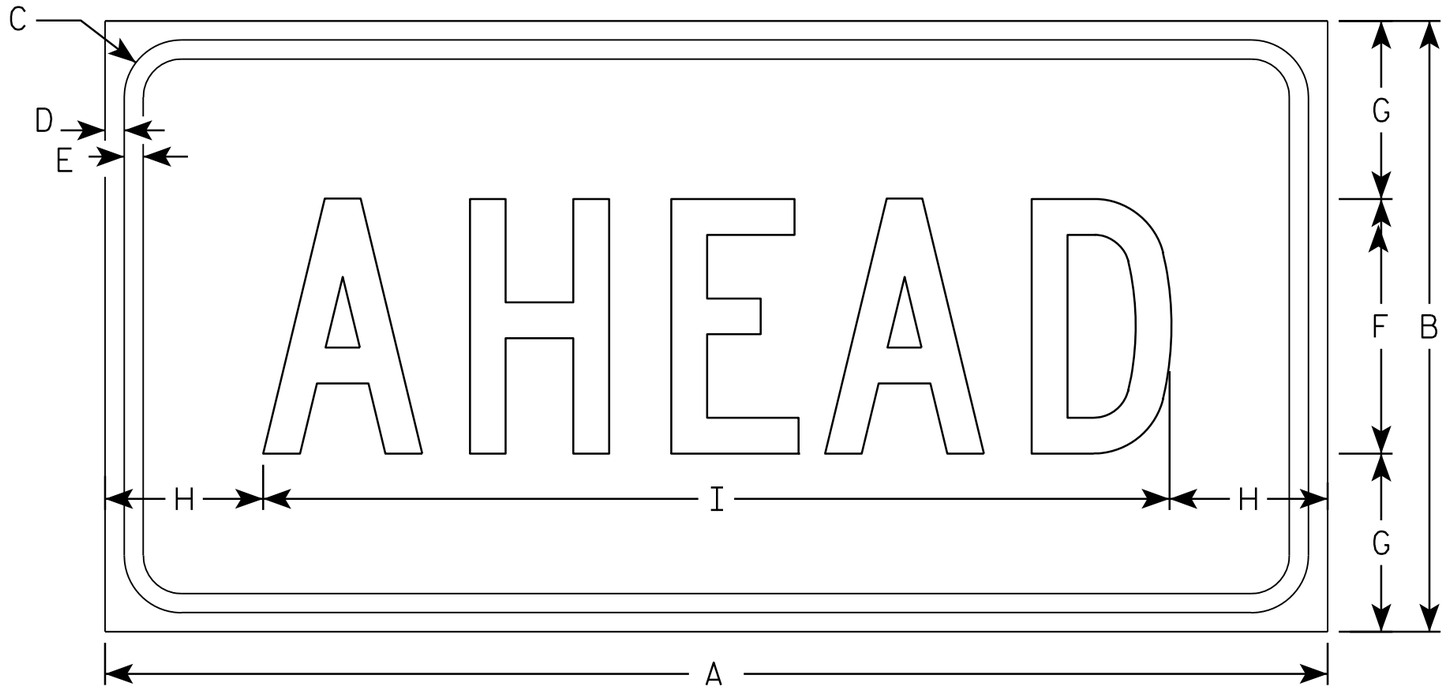
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 620 | E




7




S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 5 | 3 1/2 | 3 1/8 | 17 3/4 | | | | | | | | | | | | | | | | | | 2.0 |
| 2S | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 5 1/2 | 2 3/4 | 24 1/2 | | | | | | | | | | | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 5 1/2 | 2 3/4 | 24 1/2 | | | | | | | | | | | | | | | | | | 3.75 |
| 3 | 30 | 18 | 1 1/8 | 3/8 | 1/2 | 7 | 3 1/2 | 2 3/4 | 24 1/2 | | | | | | | | | | | | | | | | | | 3.75 |
| 4 | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 10 | 7 | 6 1/8 | 35 3/4 | | | | | | | | | | | | | | | | | | 8.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

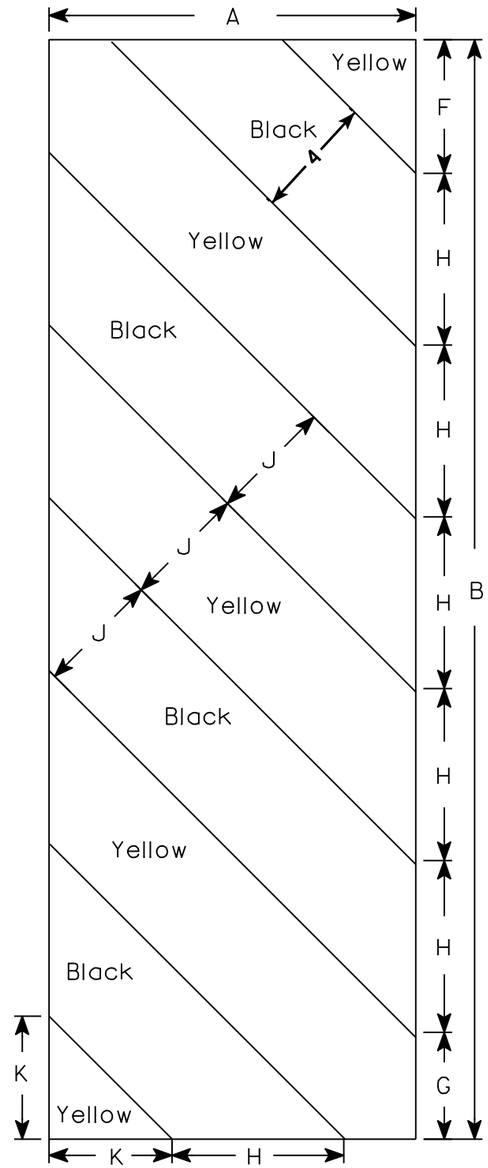
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

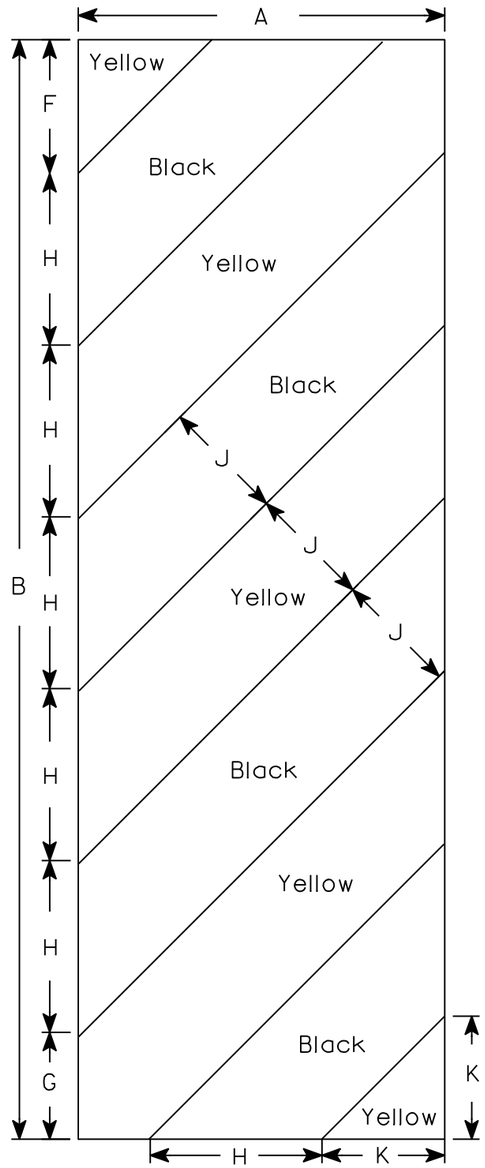
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 621 | E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000




W5-52L




W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 12 | 36 | | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 2M | 12 | 36 | | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 3 | 18 | 54 | | | | 6 | 5 1/2 | 8 1/2 | 45° | 6 | 6 9/16 | | | | | | | | | | | | | | | | 6.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN

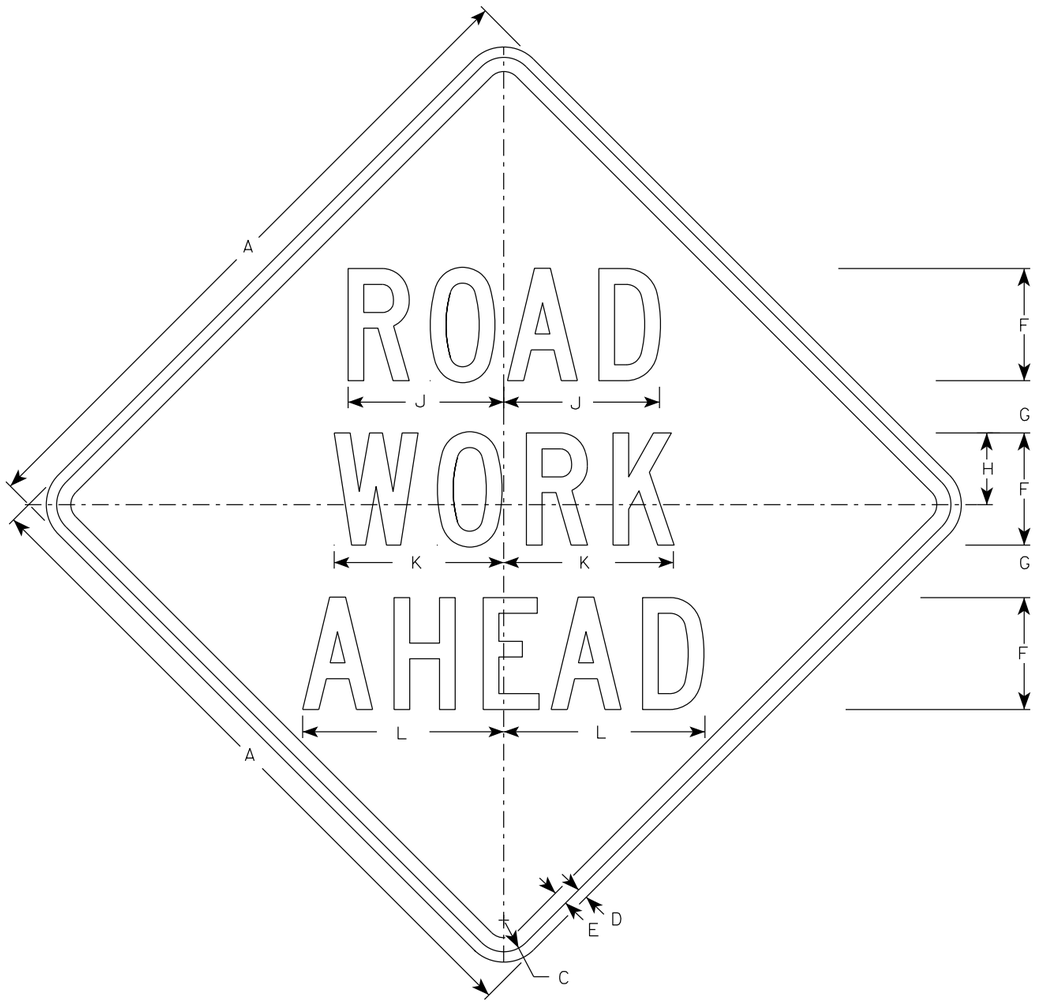
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

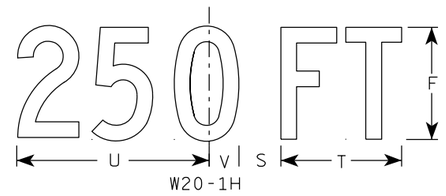
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

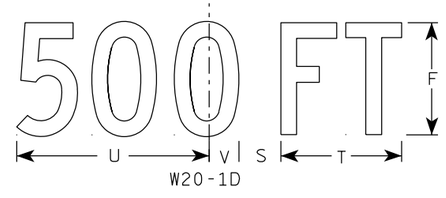
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 622 | E |
|---|---|---|---|---|---|




W20-1A



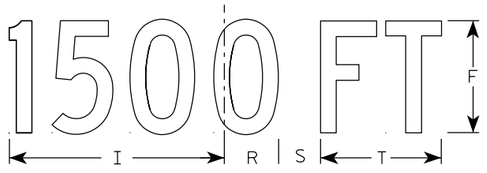

W20-1H




W20-1D



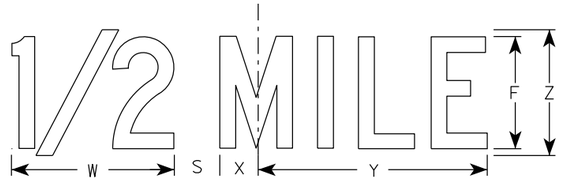

W20-1C



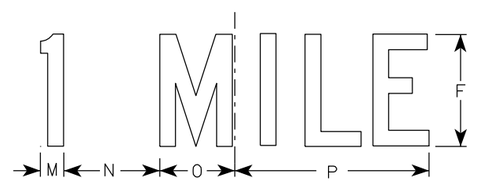

W20-1B

NOTES

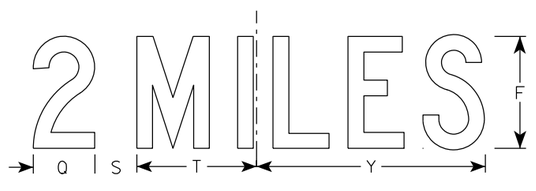
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




W20-1G




W20-1F




W20-1E

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 2 5/8 | 3 1/4 | 10 1/8 | 7 | 7 5/8 | 8 7/8 | 1 1/8 | 4 1/2 | 3 1/2 | 9 | 3 1/4 | 2 1/2 | 2 1/4 | 5 5/8 | 9 | 1 3/8 | 8 | 1 3/4 | 10 3/4 | 6 | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

SHEET NO: E

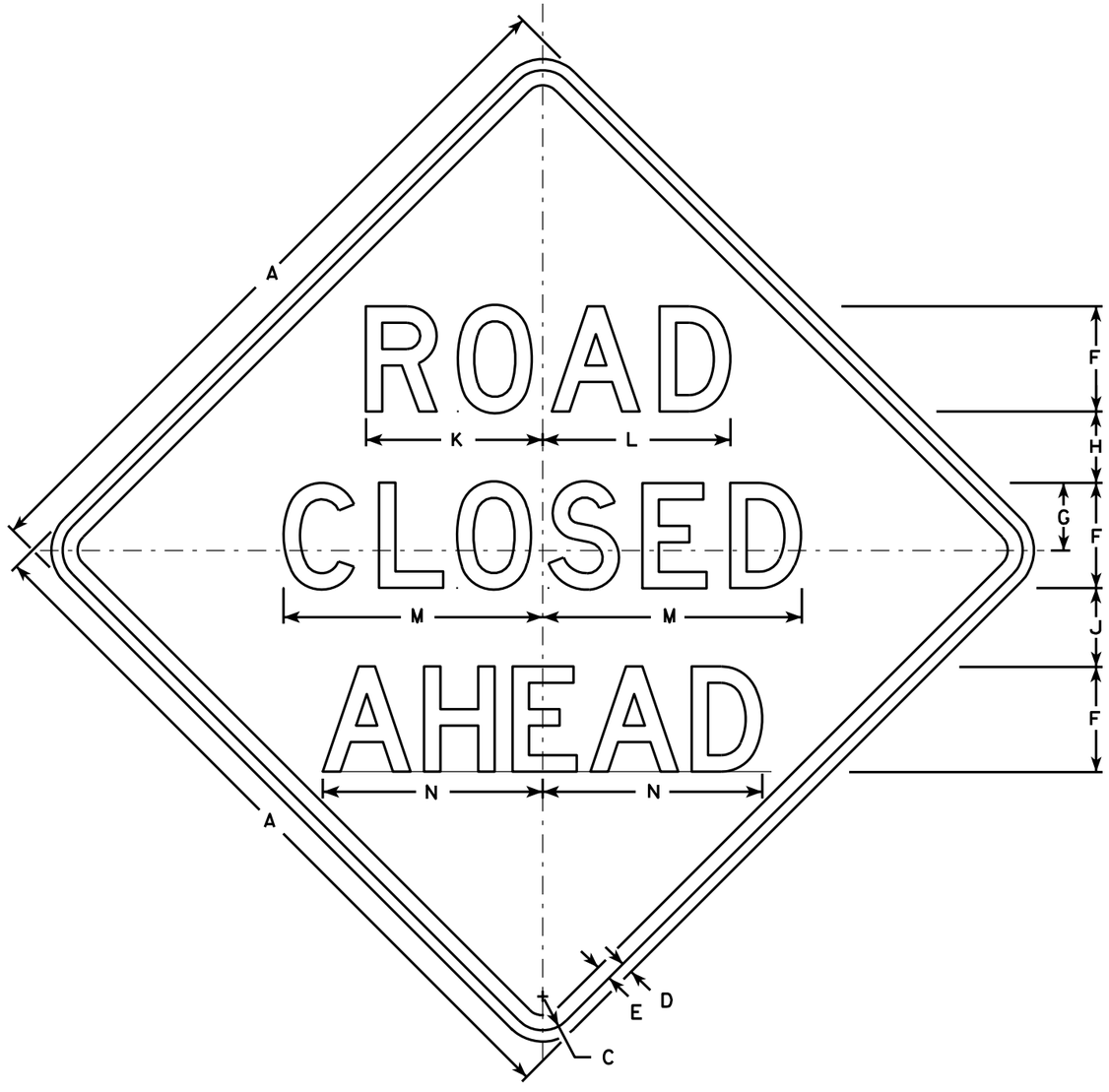


FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

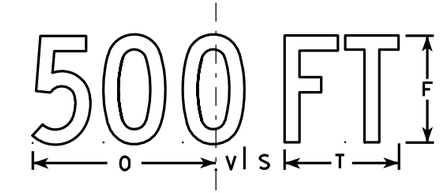
WISDOT/CADDS SHEET 42

7

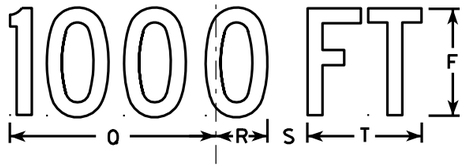
7



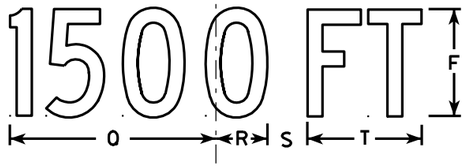

W20-3A



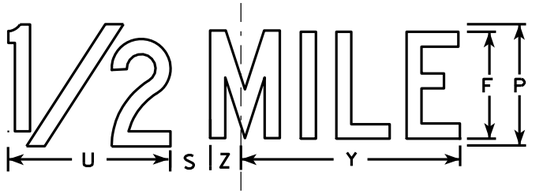

W20-3D



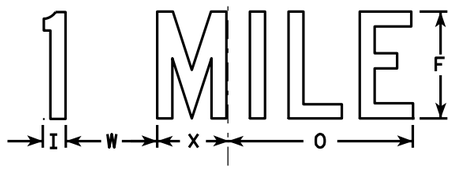

W20-3C




W20-3B




W20-3G




W20-3F

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 3 3/8 | 3 1/2 | 1 1/8 | 4 | 8 3/8 | 8 7/8 | 12 1/2 | 11 | 9 | 6 | 10 1/8 | 2 1/2 | 1 7/8 | 5 5/8 | 8 | 1 3/8 | 4 1/2 | 3 1/2 | 10 3/4 | 1 3/4 | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |

STANDARD SIGN
W20-3A, B, C, D, F & G

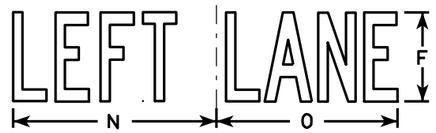
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

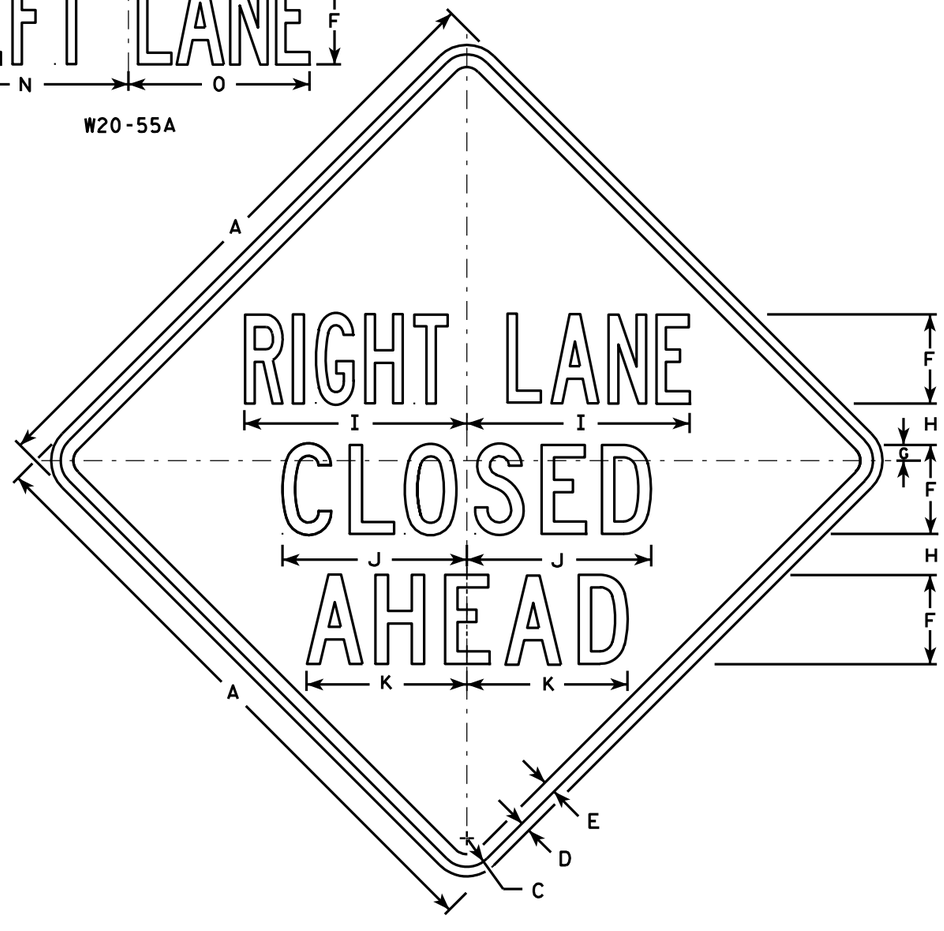
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 624 | E



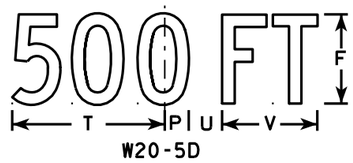

W20-56A



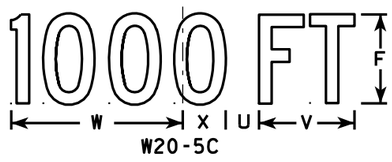

W20-55A



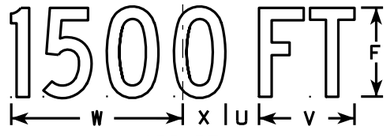

W20-5A




W20-5D




W20-5C




W20-5B




W20-5G




W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 6 | 1 5/8 | 5/8 | 3/4 | 5 | 1/8 | 2 1/2 | 13 1/8 | 10 3/4 | 9 1/2 | 14 1/4 | 13 5/8 | 12 | 12 | 1 3/8 | 1 1/8 | 4 1/2 | 3 1/2 | 9 | 1 1/8 | 5 5/8 | 10 1/8 | 2 1/2 | 1 3/4 | 8 | 9.0 |
| 2S | 48 | 8 | 2 1/4 | 3/4 | 1 | 7 | 1 1/4 | 3 1/4 | 17 1/2 | 14 3/8 | 12 5/8 | 19 | 18 3/8 | 16 | 14 1/4 | 1 7/8 | 1 1/2 | 6 | 4 5/8 | 12 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 2 3/8 | 10 5/8 | 16.0 |
| 2M | 48 | 8 | 2 1/4 | 3/4 | 1 | 7 | 1 1/4 | 3 1/4 | 17 1/2 | 14 3/8 | 12 5/8 | 19 | 18 3/8 | 16 | 14 1/4 | 1 7/8 | 1 1/2 | 6 | 4 5/8 | 12 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 2 3/8 | 10 5/8 | 16.0 |
| 3 | 48 | 8 | 2 1/4 | 3/4 | 1 | 7 | 1 1/4 | 3 1/4 | 17 1/2 | 14 3/8 | 12 5/8 | 19 | 18 3/8 | 16 | 14 1/4 | 1 7/8 | 1 1/2 | 6 | 4 5/8 | 12 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 2 3/8 | 10 5/8 | 16.0 |
| 4 | 48 | 8 | 2 1/4 | 3/4 | 1 | 7 | 1 1/4 | 3 1/4 | 17 1/2 | 14 3/8 | 12 5/8 | 19 | 18 3/8 | 16 | 14 1/4 | 1 7/8 | 1 1/2 | 6 | 4 5/8 | 12 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 2 3/8 | 10 5/8 | 16.0 |
| 5 | 48 | 8 | 2 1/4 | 3/4 | 1 | 7 | 1 1/4 | 3 1/4 | 17 1/2 | 14 3/8 | 12 5/8 | 19 | 18 3/8 | 16 | 14 1/4 | 1 7/8 | 1 1/2 | 6 | 4 5/8 | 12 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 2 3/8 | 10 5/8 | 16.0 |

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

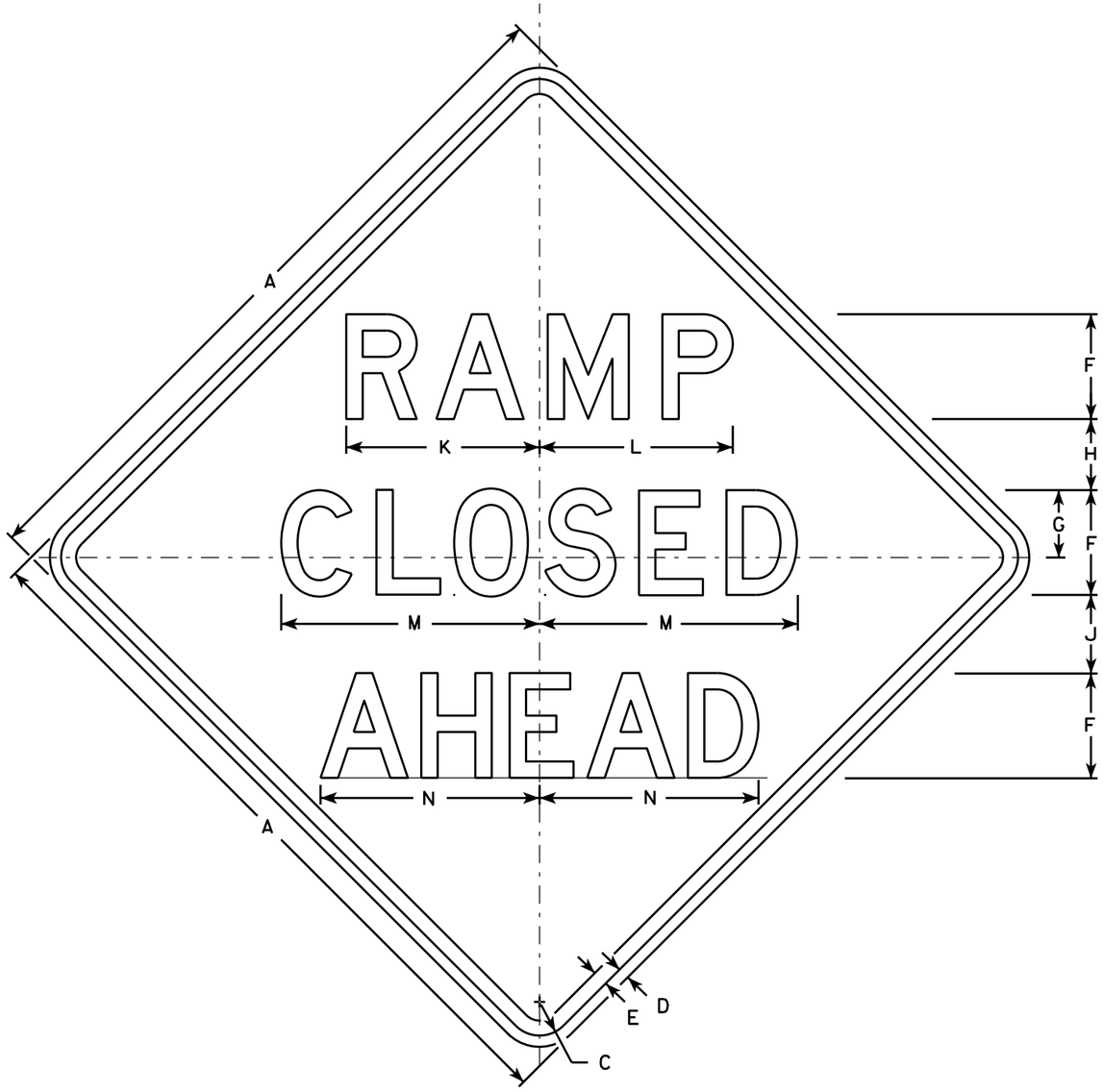
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

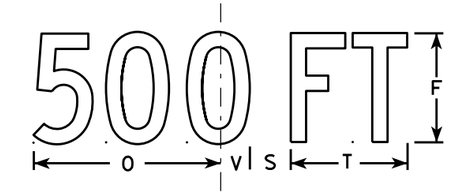
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 625 | E |
|---|---|---|---|---|---|



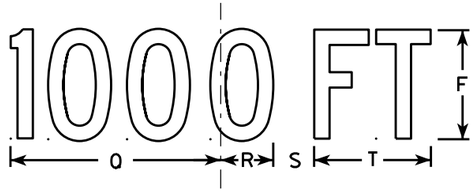
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



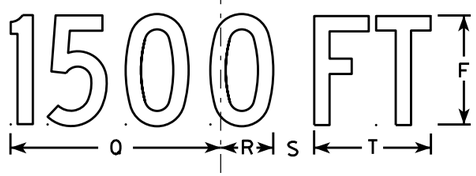

W20-53A



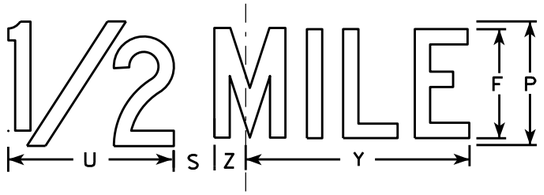

W20-53D




W20-53C




W20-53B




W20-53G




W20-53F

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 3 3/8 | 3 1/2 | 1 1/8 | 4 | 9 1/4 | 9 1/4 | 12 1/2 | 11 | 9 | 6 | 10 1/8 | 2 1/2 | 1 7/8 | 5 5/8 | 8 | 1 3/8 | 4 1/2 | 3 1/2 | 10 3/4 | 1 3/4 | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 12 7/8 | 12 7/8 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 12 7/8 | 12 7/8 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 12 7/8 | 12 7/8 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 12 7/8 | 12 7/8 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 12 7/8 | 12 7/8 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

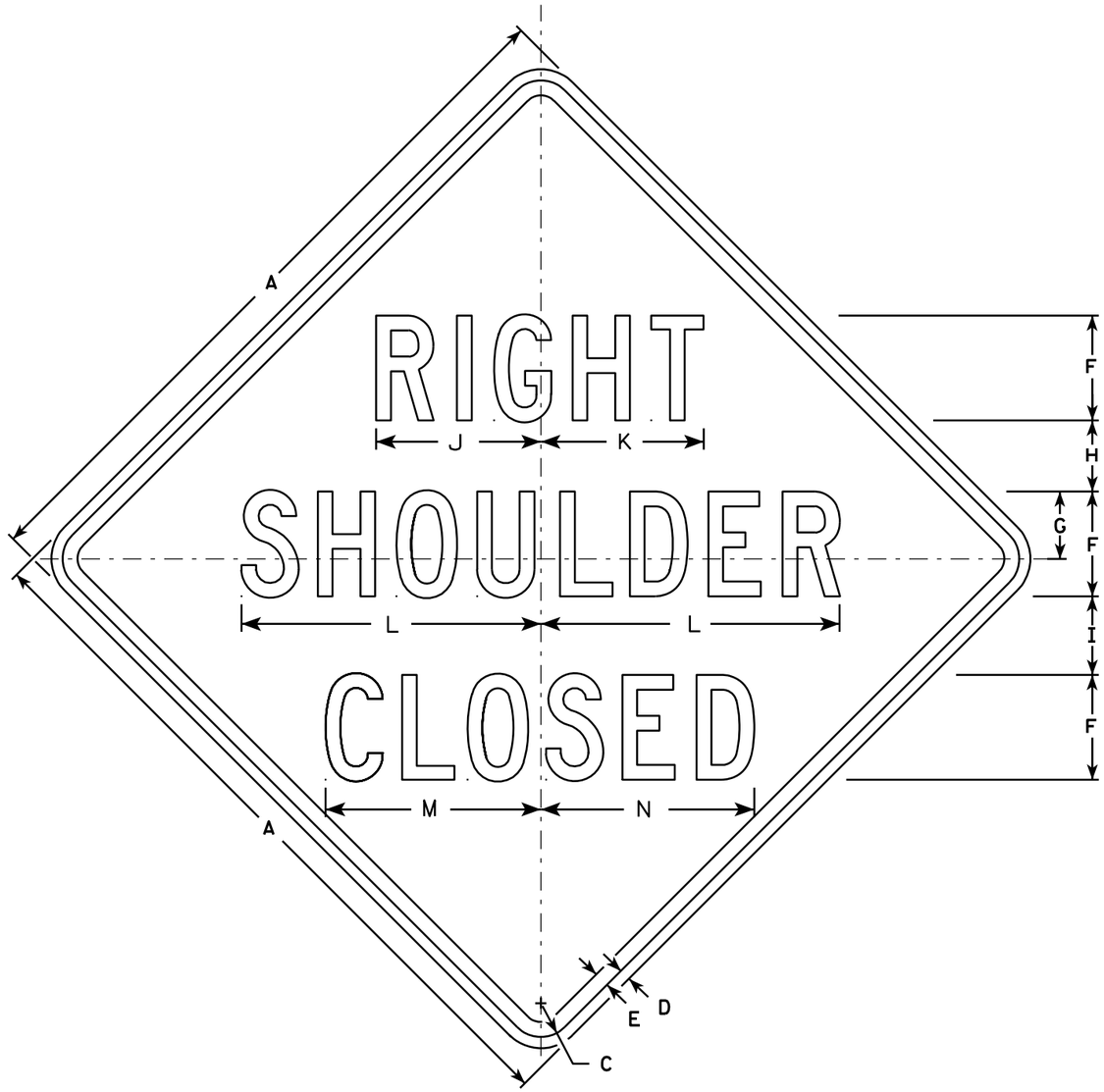
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

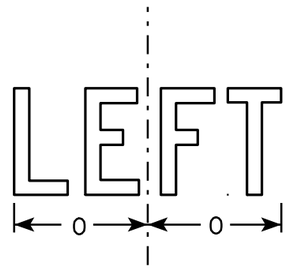


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42




W21-5A




W21-5AL

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 3 3/8 | 3 1/2 | 4 | 7 7/8 | 7 3/4 | 14 1/4 | 10 1/4 | 10 1/8 | 6 1/4 | | | | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 5 1/4 | 11 | 10 7/8 | 20 | 14 3/8 | 14 1/4 | 8 3/4 | | | | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 5 1/4 | 11 | 10 7/8 | 20 | 14 3/8 | 14 1/4 | 8 3/4 | | | | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 5 1/4 | 11 | 10 7/8 | 20 | 14 3/8 | 14 1/4 | 8 3/4 | | | | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 5 1/4 | 11 | 10 7/8 | 20 | 14 3/8 | 14 1/4 | 8 3/4 | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 5 1/4 | 11 | 10 7/8 | 20 | 14 3/8 | 14 1/4 | 8 3/4 | | | | | | | | | | | | 16.0 |

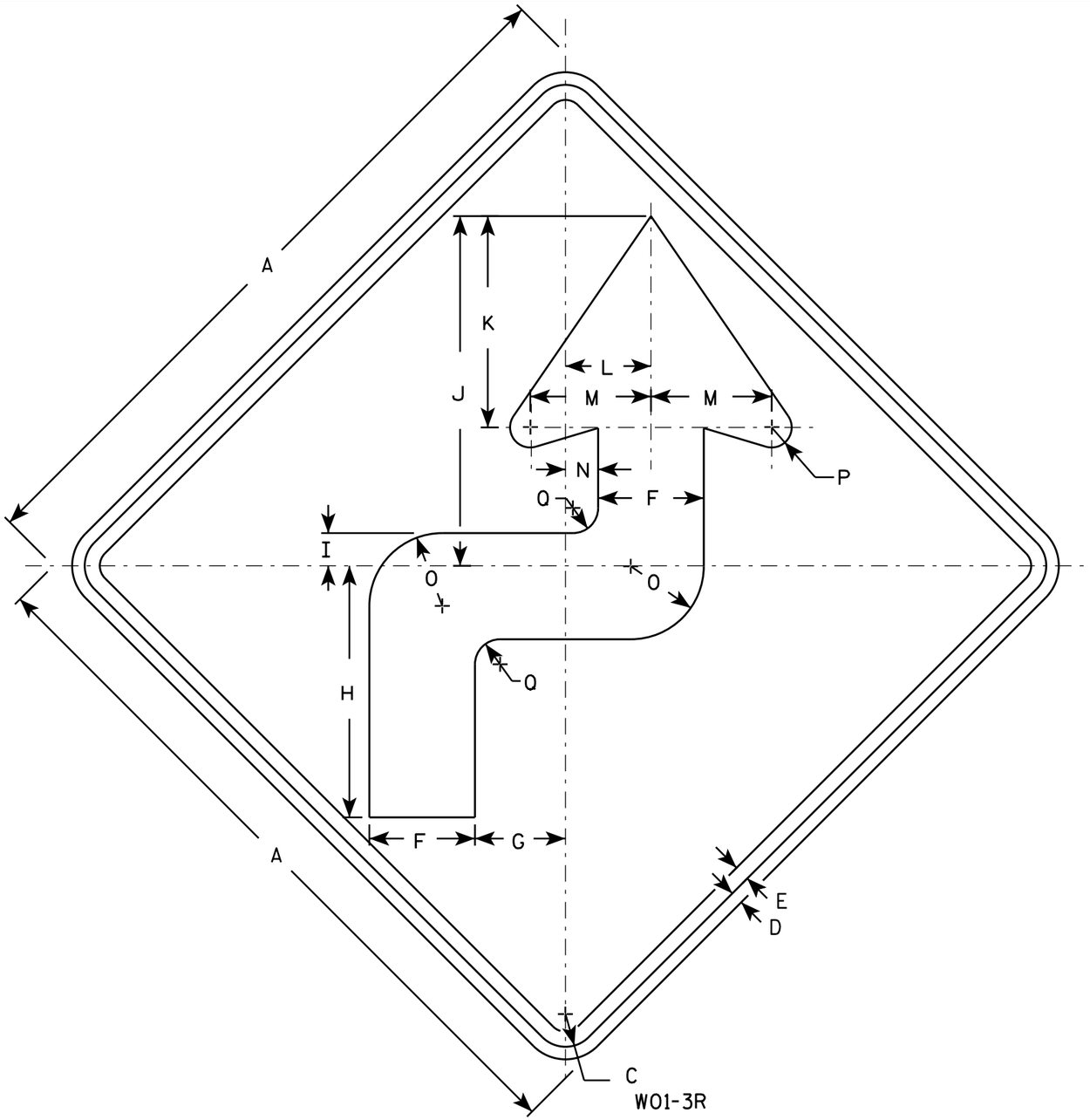
STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 627 | E




NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-3L is the same as W01-3R except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4 1/2 | 12 1/2 | 1 5/8 | 17 3/8 | 10 1/2 | 4 1/4 | 6 | 1 5/8 | 3 5/8 | 1 | 1 1/4 | | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 6 | 16 5/8 | 2 1/4 | 23 1/4 | 14 | 5 5/8 | 8 | 2 1/8 | 4 7/8 | 1 1/4 | 1 5/8 | | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 6 | 16 5/8 | 2 1/4 | 23 1/4 | 14 | 5 5/8 | 8 | 2 1/8 | 4 7/8 | 1 1/4 | 1 5/8 | | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 6 | 16 5/8 | 2 1/4 | 23 1/4 | 14 | 5 5/8 | 8 | 2 1/8 | 4 7/8 | 1 1/4 | 1 5/8 | | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 6 | 16 5/8 | 2 1/4 | 23 1/4 | 14 | 5 5/8 | 8 | 2 1/8 | 4 7/8 | 1 1/4 | 1 5/8 | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 6 | 16 5/8 | 2 1/4 | 23 1/4 | 14 | 5 5/8 | 8 | 2 1/8 | 4 7/8 | 1 1/4 | 1 5/8 | | | | | | | | | | 16.0 |

STANDARD SIGN
W01-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-3.1

628

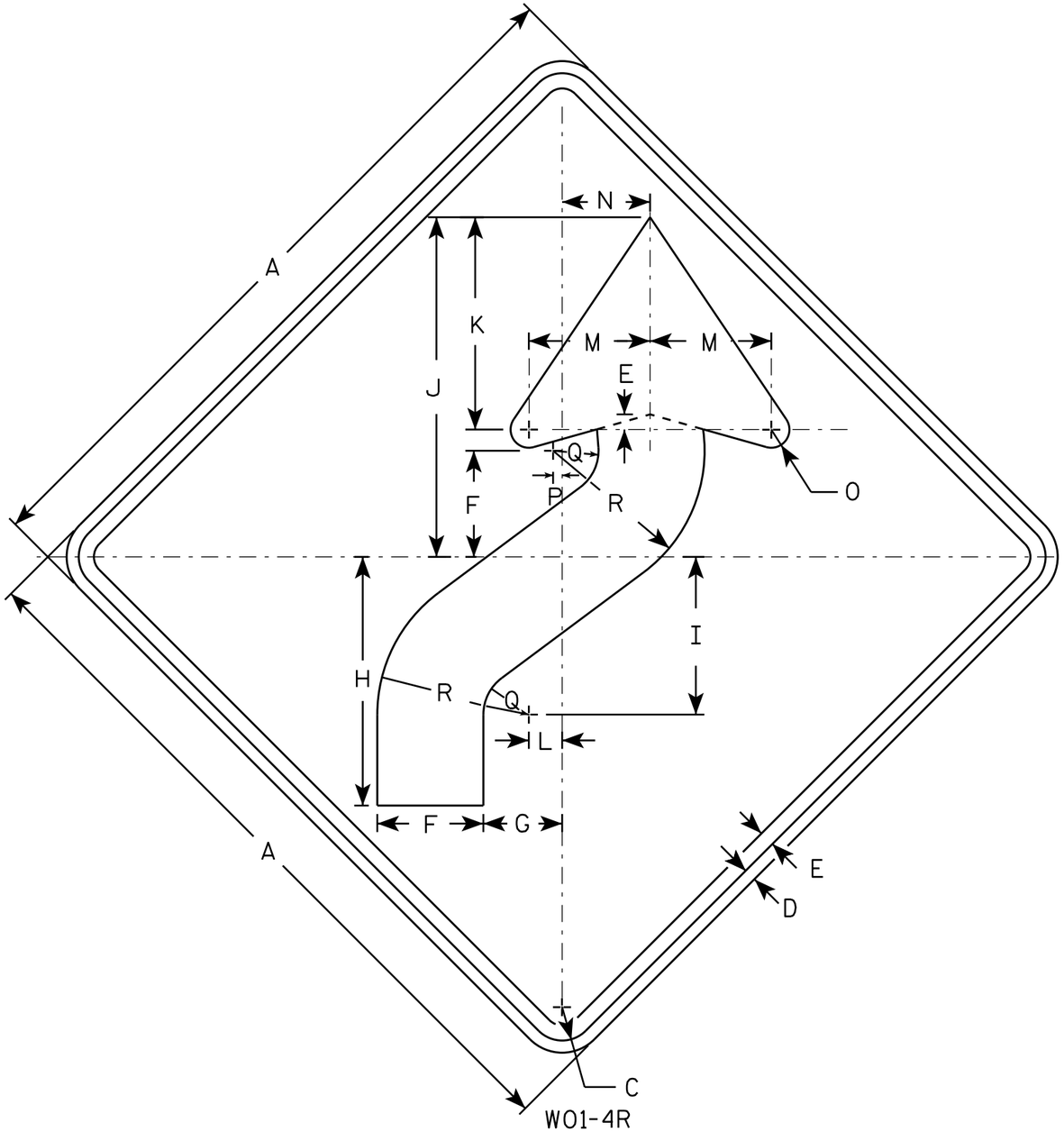
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W013.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.567217:1.000000

WISDOT/CADDS SHEET 42

7

7




W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4 | 12 3/8 | 7 7/8 | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1 | 1/2 | 2 1/4 | 7 1/2 | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |

# STANDARD SIGN
# W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

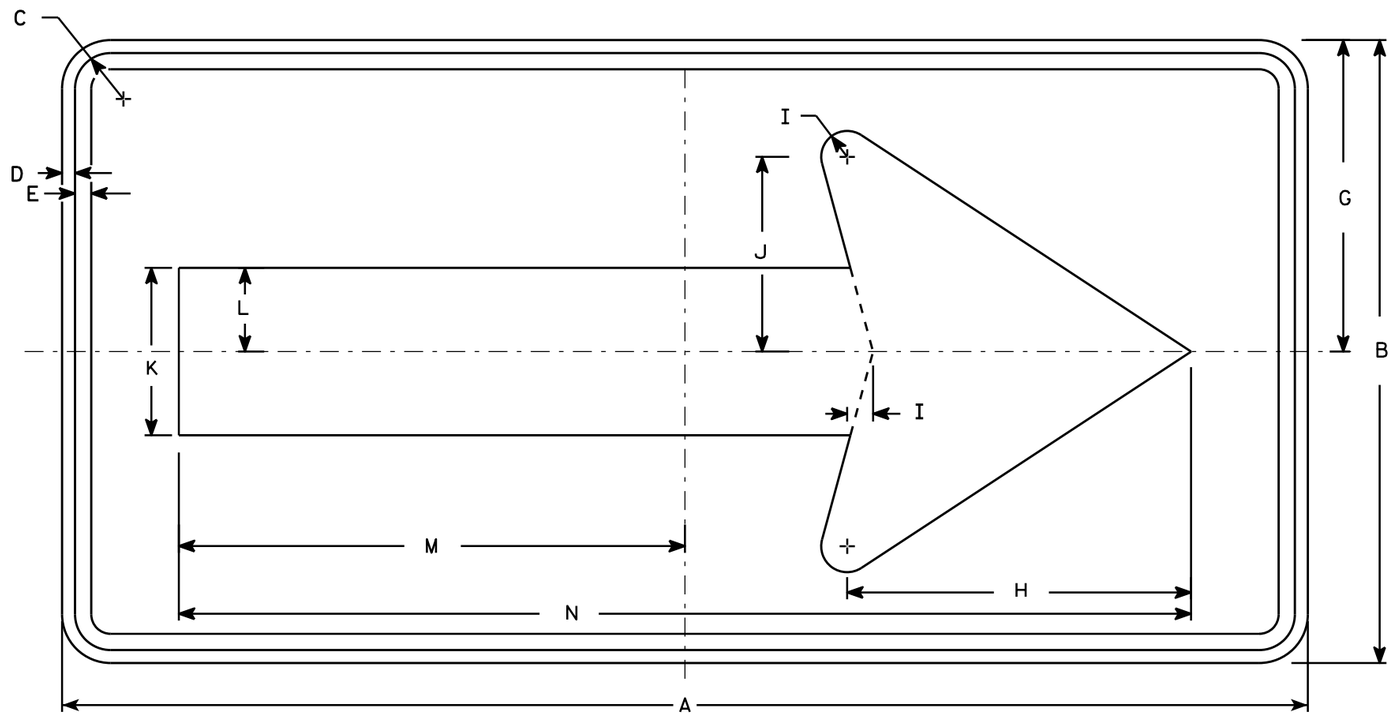
DATE 11/18/13 PLATE NO W01-4.1



PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42


7




W01-6

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 2M | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 3 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 4 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 5 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |

# STANDARD SIGN
# W01-6

WISCONSIN DEPT OF TRANSPORTATION

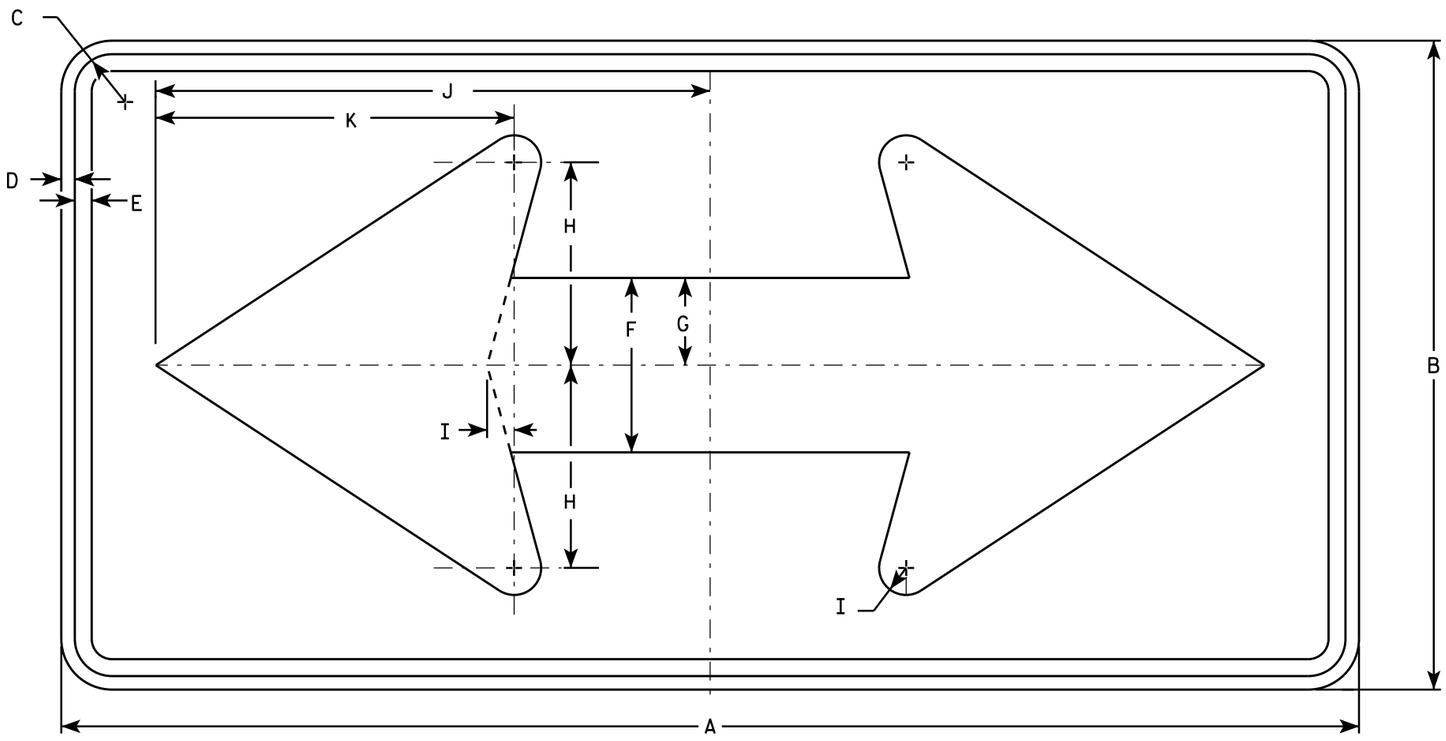
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1



PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42




W01-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1 | 20 1/2 | 13 1/4 | | | | | | | | | | | | | | | | 8.0 |
| 2M | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1 | 20 1/2 | 13 1/4 | | | | | | | | | | | | | | | | 8.0 |
| 3 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 4 | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 | | | | | | | | | | | | | | | | 12.5 |
| 4 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 4 | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 | | | | | | | | | | | | | | | | 12.5 |
| 5 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 4 | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 | | | | | | | | | | | | | | | | 12.5 |

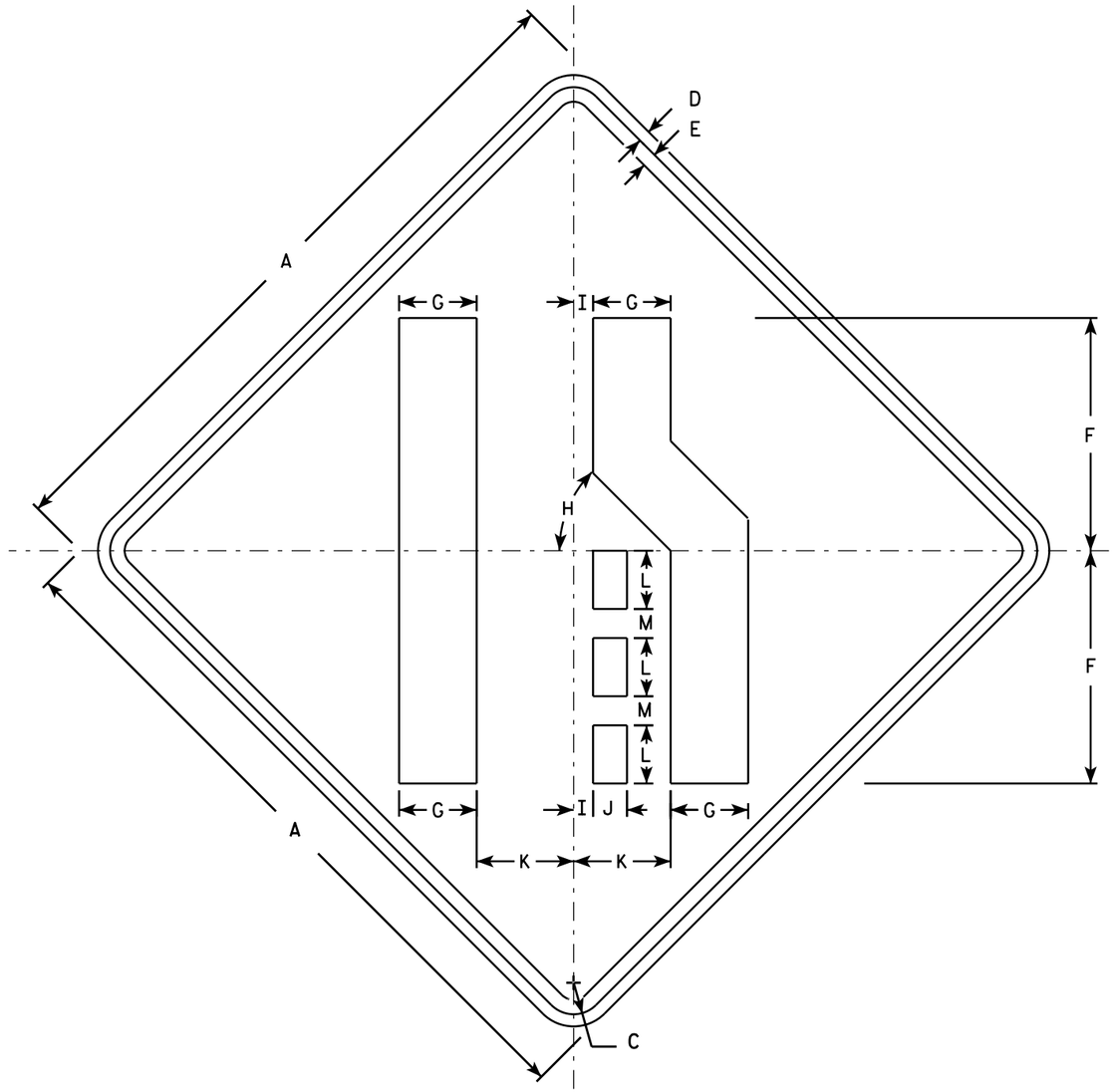
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1631 W01-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E




W04-2R

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 4 | 45° | 1 | 1 3/4 | 5 | 3 | 1 1/2 | | | | | | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |

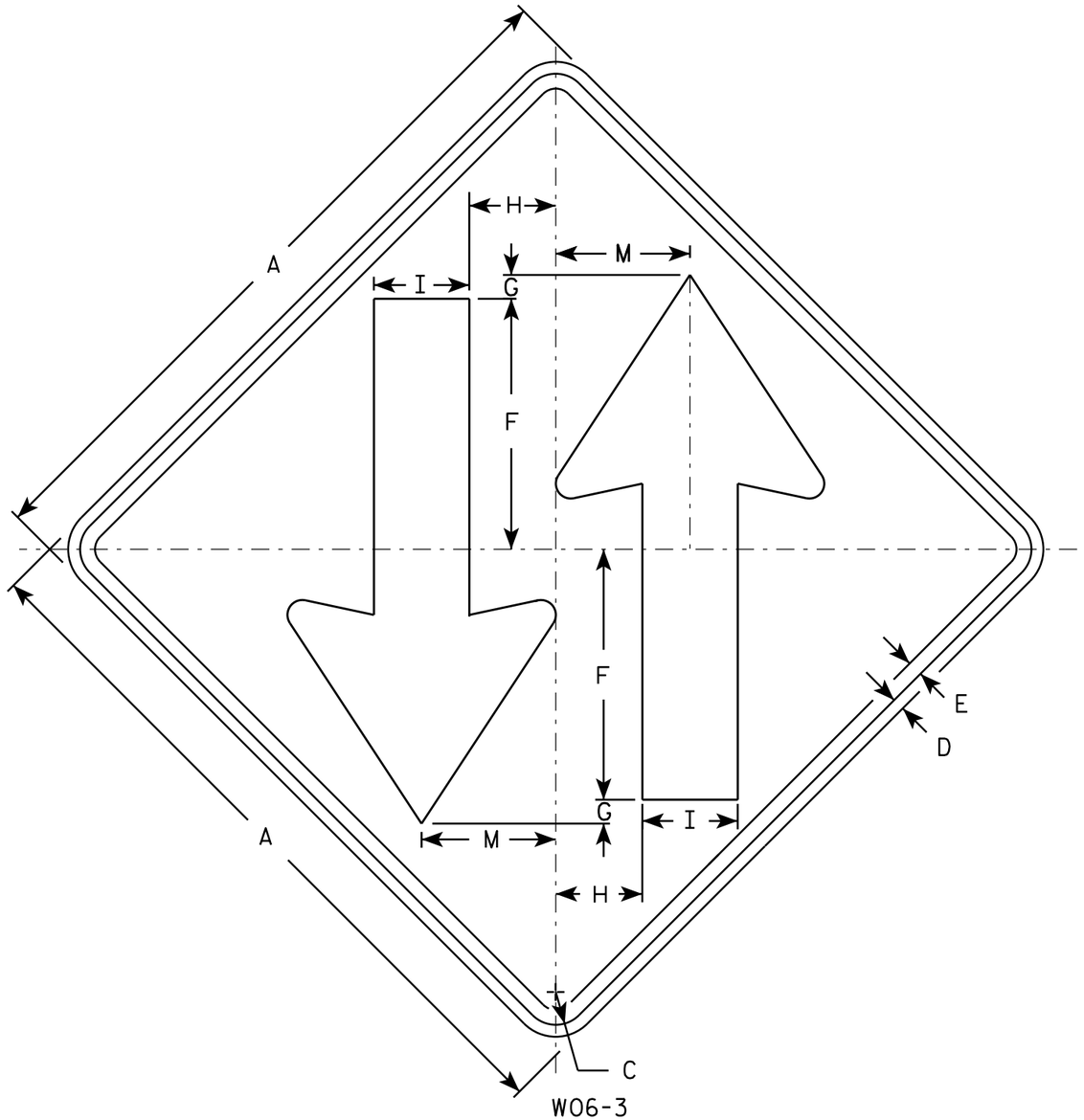
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 632 W04-2.1

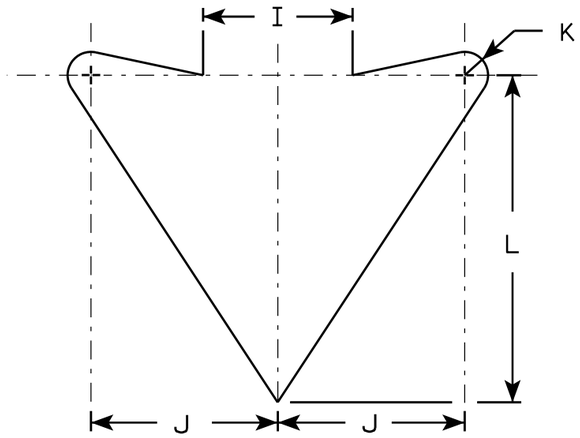
PROJECT NO: | SHEET NO: E




W06-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 1 | 4 1/4 | 5 | 6 | 3/4 | 10 1/2 | 6 3/4 | | | | | | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 15 1/2 | 1 | 6 | 6 | 8 | 1 | 14 | 9 | | | | | | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 15 1/2 | 1 | 6 | 6 | 8 | 1 | 14 | 9 | | | | | | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 15 1/2 | 1 | 6 | 6 | 8 | 1 | 14 | 9 | | | | | | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 15 1/2 | 1 | 6 | 6 | 8 | 1 | 14 | 9 | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 15 1/2 | 1 | 6 | 6 | 8 | 1 | 14 | 9 | | | | | | | | | | | | | | 16.0 |

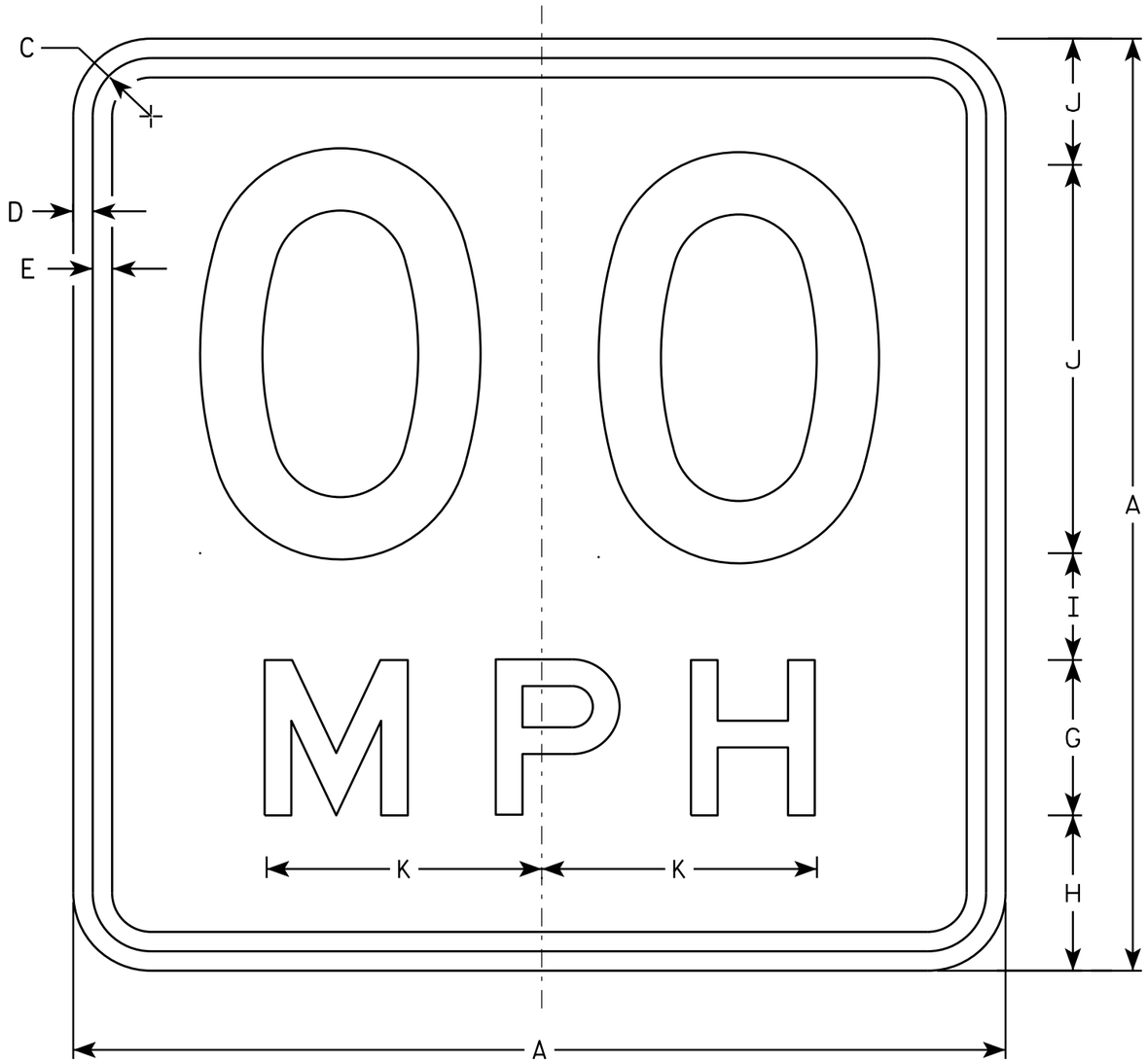
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 633 W06-3.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E




W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 | 4 | 4 | 2 3/4 | 3 1/4 | 7 1/8 | | | | | | | | | | | | | | | | 4.00 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| 5 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |

STANDARD SIGN
W013-1

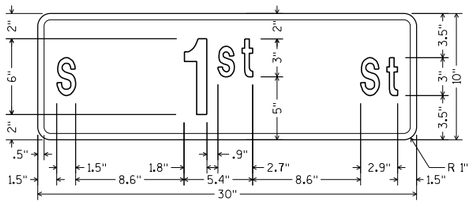
WISCONSIN DEPT OF TRANSPORTATION

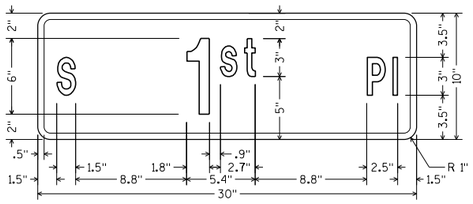
APPROVED Matthew R Rauch
for State Traffic Engineer

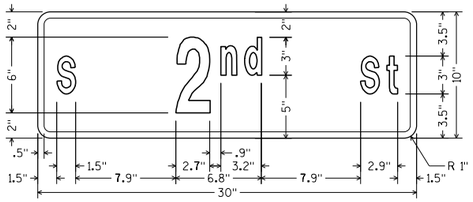
DATE 11/21/13 PLATE 634 W013-1.1

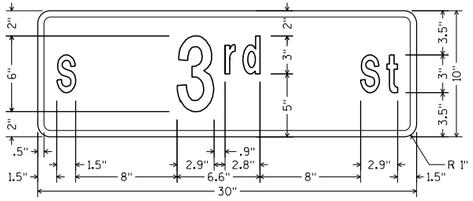
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

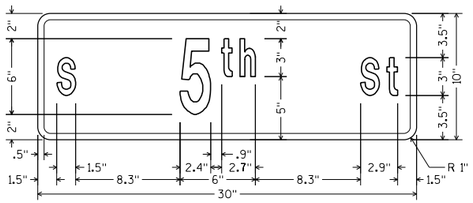
# Message Series - B

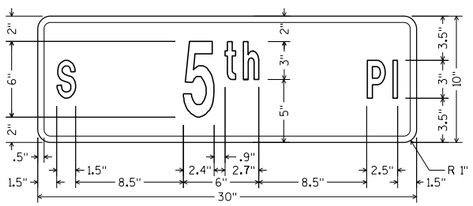


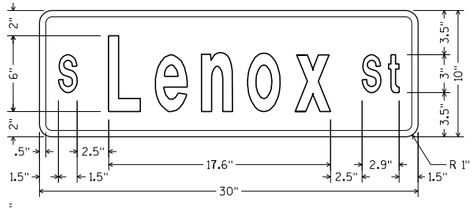



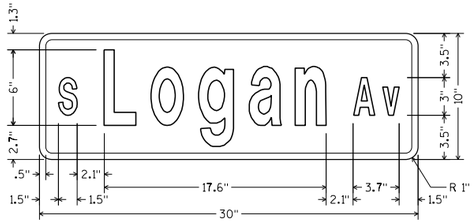



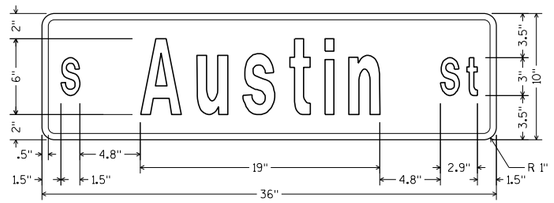



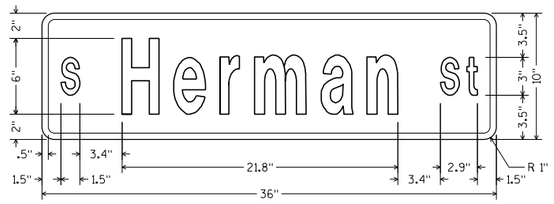



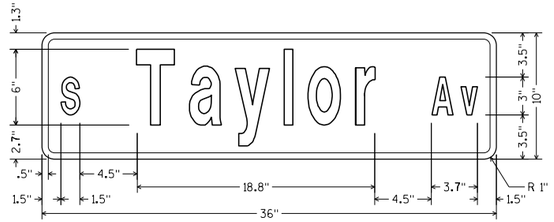



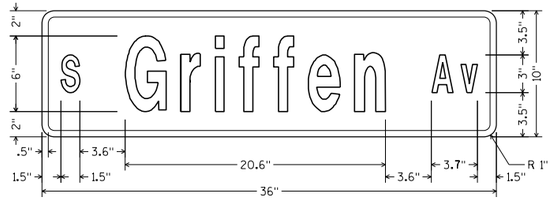

NOTES

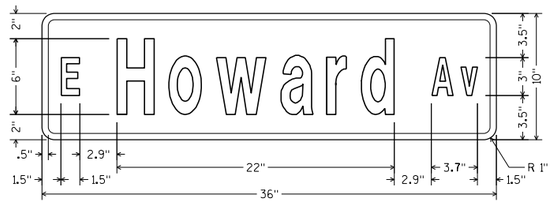
1. All Signs Type II
   - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. All Signs 1/2 Inch White Border
4. All Signs 1 Inch Radius

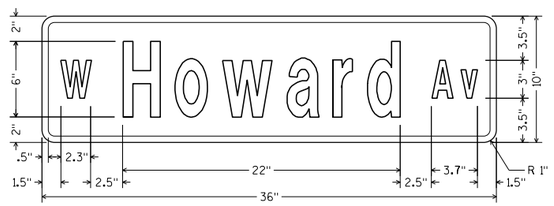


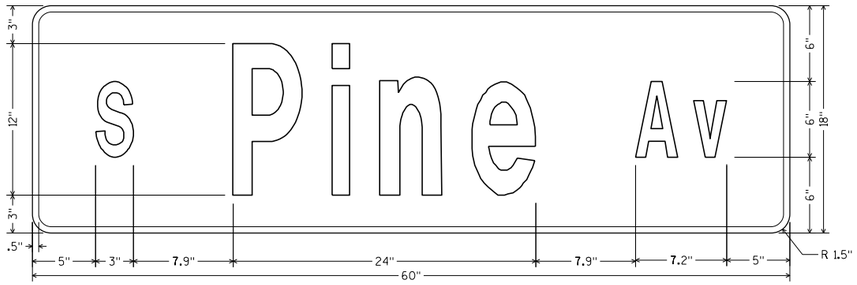



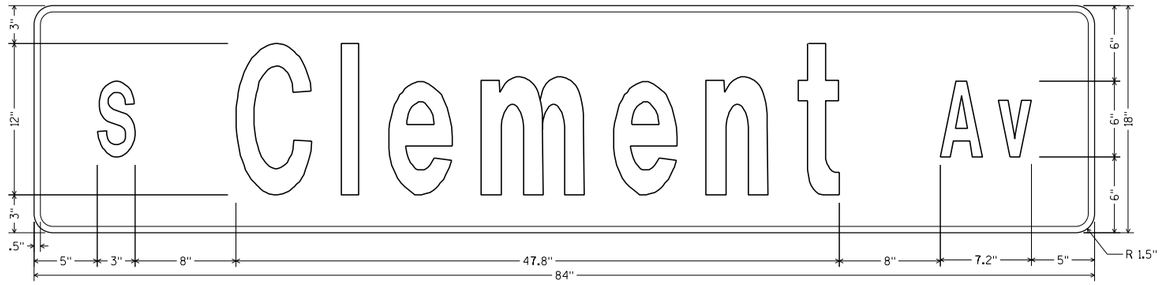



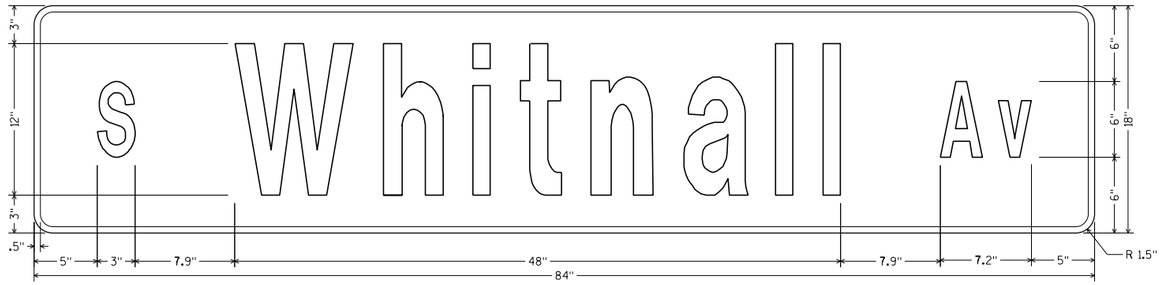



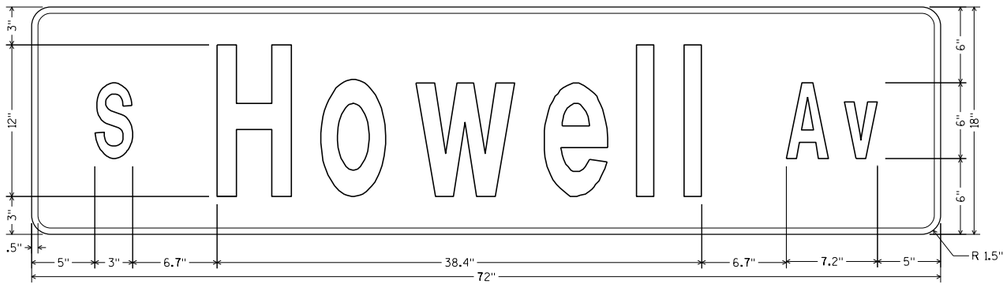



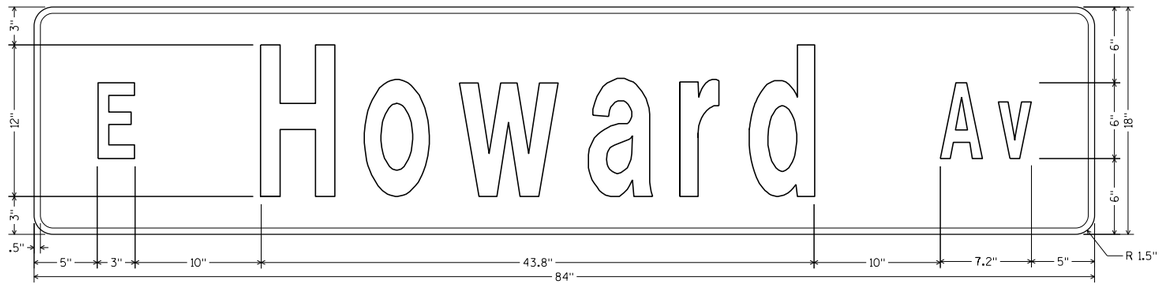
# Message Series - C

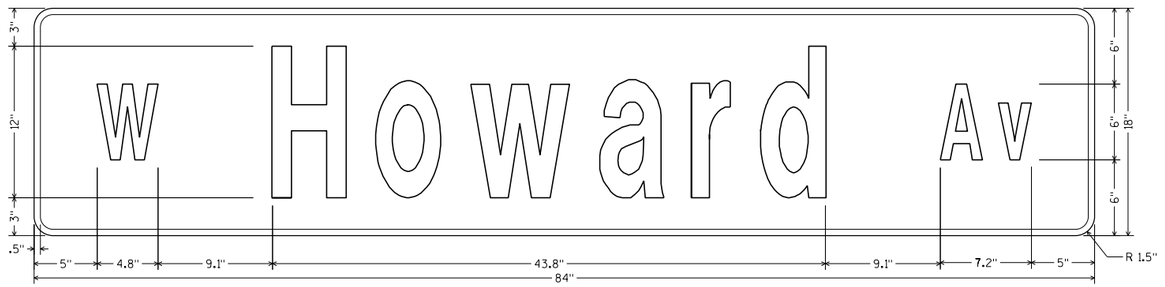



## NOTES

1. All Signs Type II
   - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. All Signs 1/2 Inch White Border
4. All Signs 1 Inch Radius

7

7

| PROJECT NO: 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | SIGN DETAILS | SHEET 636 | E |
|---|---|---|---|---|---|

| STATION | CUT C.Y. | CUT C.F. | FILL (-) C.Y. | FILL (-) C.F. |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| 2+00 | 85 | 2295 | 20 | 454 |
| 2+50 | 186 | 5011 | 1 | 27 |
| 3+00 | 195 | 5252 | 15 | 338 |
| 3+50 | 189 | 5103 | 11 | 243 |
| 4+00 | 212 | 5711 | 0 | |
| 4+50 | 236 | 6367 | 0 | |
| 5+00 | 162 | 4371 | 14 | 324 |
| 5+50 | 157 | 4234 | 7 | 162 |
| 6+00 | 163 | 4390 | 7 | 162 |
| 6+50 | 174 | 4693 | 0 | |
| 7+00 | 164 | 4425 | 5 | 108 |
| 7+50 | 217 | 5848 | 6 | 130 |
| 8+00 | 181 | 4876 | 3 | 76 |
| 8+50 | 183 | 4938 | 3 | 76 |
| 9+00 | 216 | 5837 | 4 | 86 |
| 9+50 | 0 | | 0 | |
| 10+00 | 0 | | 0 | |
| 10+50 | 0 | | 0 | |
| 11+00 | 0 | | 0 | |
| 11+50 | 0 | | 0 | |
| 12+00 | 0 | | 0 | |
| 12+50 | 0 | | 0 | |
| 13+00 | 182 | 4906 | 1 | 27 |
| 13+50 | 280 | 7560 | 4 | 81 |
| 14+00 | 155 | 4177 | 5 | 108 |
| 14+50 | 149 | 4026 | 4 | 81 |
| 15+00 | 169 | 4568 | 4 | 81 |
| 15+50 | 184 | 4979 | 39 | 869 |
| 16+00 | 158 | 4271 | 5 | 103 |
| 16+50 | 159 | 4298 | 7 | 151 |
| 17+00 | 152 | 4093 | 2 | 54 |
| 17+50 | 206 | 5557 | 0 | |
| 18+00 | 154 | 4166 | 7 | 151 |
| 18+50 | 156 | 4209 | 16 | 354 |
| 19+00 | 156 | 4209 | 24 | 535 |
| 19+50 | 152 | 4091 | 16 | 351 |
| 20+00 | 162 | 4374 | 12 | 270 |
| 20+50 | 188 | 5073 | 3 | 70 |
| 21+00 | 162 | 4379 | 5 | 119 |
| 21+50 | 168 | 4528 | 6 | 130 |
| 22+00 | 189 | 5114 | 49 | 1107 |
| 22+50 | 178 | 4817 | 6 | 135 |
| 23+00 | 205 | 5538 | 28 | 632 |
| | | | | |
| SUB-TOTAL | 6384 | 172284 | 339 | 7595 |

| | | | | |
|---|---|---|---|---|
| 23+50 | 207 | 5578 | 12 | 278 |
| 24+00 | 164 | 4415 | 12 | 259 |
| 24+50 | 168 | 4541 | 11 | 254 |
| 25+00 | 177 | 4787 | 17 | 373 |
| 25+50 | 199 | 5362 | 16 | 351 |
| 26+00 | 188 | 5065 | 14 | 324 |
| 26+50 | 108 | 2916 | 7 | 162 |
| 27+00 | 0 | | 0 | |
| 27+50 | 104 | 2819 | 0 | |
| 28+00 | 196 | 5287 | 25 | 572 |
| 28+50 | 204 | 5513 | 25 | 572 |
| 29+00 | 204 | 5497 | 36 | 799 |
| 29+50 | 174 | 4685 | 30 | 683 |
| 30+00 | 182 | 4917 | 34 | 756 |
| 30+50 | 187 | 5036 | 30 | 675 |
| 31+00 | 210 | 5665 | 48 | 1072 |
| 31+50 | 225 | 6067 | 95 | 2138 |
| 32+00 | 246 | 6634 | 52 | 1161 |
| 32+50 | 188 | 5068 | 85 | 1922 |
| 33+00 | 183 | 4944 | 46 | 1037 |
| 33+50 | 184 | 4957 | 46 | 1037 |
| 34+00 | 188 | 5079 | 52 | 1161 |
| 34+50 | 216 | 5837 | 29 | 648 |
| 35+00 | 186 | 5019 | 41 | 932 |
| 35+50 | 196 | 5279 | 43 | 972 |
| 36+00 | 216 | 5824 | 43 | 959 |
| 36+50 | 216 | 5821 | 32 | 716 |
| 37+00 | 202 | 5462 | 43 | 959 |
| 37+50 | 248 | 6693 | 0 | |
| 38+00 | 198 | 5335 | 63 | 1418 |
| 38+50 | 205 | 5527 | 52 | 1172 |
| 39+00 | 200 | 5387 | 57 | 1277 |
| 39+50 | 216 | 5827 | 62 | 1385 |
| 40+00 | 196 | 5292 | 62 | 1385 |
| 40+50 | 210 | 5675 | 61 | 1369 |
| 41+00 | 230 | 6207 | 60 | 1339 |
| 41+50 | 216 | 5843 | 64 | 1447 |
| 42+00 | 218 | 5889 | 40 | 899 |
| 42+50 | 194 | 5225 | 72 | 1612 |
| 43+00 | 181 | 4898 | 58 | 1304 |
| 43+50 | 173 | 4679 | 56 | 1258 |
| 44+00 | 184 | 4965 | 54 | 1223 |
| 44+50 | 197 | 5330 | 59 | 1326 |
| 45+00 | 191 | 5152 | 61 | 1377 |
| 45+50 | 187 | 5044 | 60 | 1350 |
| 46+00 | 181 | 4892 | 67 | 1499 |
| 46+50 | 179 | 4838 | 58 | 1310 |
| 47+00 | 181 | 4892 | 59 | 1318 |
| | | | | |
| SUB-TOTAL | 9103 | 245664 | 2049 | 46040 |

| | | | | |
|---|---|---|---|---|
| 47+50 | 182 | 4906 | 60 | 1358 |
| 48+00 | 178 | 4811 | 59 | 1323 |
| 48+50 | 173 | 4671 | 55 | 1247 |
| 49+00 | 207 | 5594 | 57 | 1288 |
| 49+50 | 175 | 4712 | 64 | 1434 |
| 50+00 | 167 | 4506 | 63 | 1409 |
| 50+50 | 161 | 4342 | 80 | 1790 |
| 51+00 | 215 | 5808 | 52 | 1161 |
| 51+50 | 191 | 5160 | 83 | 1858 |
| 52+00 | 210 | 5662 | 73 | 1644 |
| 52+50 | 225 | 6078 | 69 | 1544 |
| 53+00 | 225 | 6078 | 68 | 1539 |
| 53+50 | 274 | 7403 | 60 | 1350 |
| 54+00 | 187 | 5049 | 60 | 1350 |
| 54+50 | 205 | 5546 | 55 | 1242 |
| 55+00 | 209 | 5654 | 70 | 1577 |
| 55+50 | 212 | 5732 | 57 | 1274 |
| 56+00 | 213 | 5759 | 57 | 1288 |
| 56+50 | 209 | 5646 | 75 | 1679 |
| 57+00 | 251 | 6774 | 31 | 702 |
| 57+50 | 222 | 6002 | 61 | 1366 |
| 58+00 | 220 | 5937 | 64 | 1442 |
| 58+50 | 215 | 5802 | 55 | 1239 |
| 59+00 | 214 | 5778 | 57 | 1283 |
| 59+50 | 210 | 5659 | 59 | 1331 |
| 60+00 | 198 | 5343 | 65 | 1460 |
| 60+50 | 246 | 6629 | 49 | 1107 |
| 61+00 | 206 | 5573 | 57 | 1277 |
| 61+50 | 209 | 5643 | 57 | 1277 |
| 62+00 | 189 | 5106 | 53 | 1188 |
| 62+50 | 181 | 4895 | 56 | 1256 |
| 63+00 | 182 | 4906 | 34 | 756 |
| 63+50 | 240 | 6477 | 55 | 1242 |
| 64+00 | 180 | 4863 | 56 | 1256 |
| 64+50 | 202 | 5449 | 55 | 1229 |
| 65+00 | 218 | 5883 | 58 | 1296 |
| 65+50 | 221 | 5975 | 58 | 1296 |
| 66+00 | 221 | 5967 | 44 | 999 |
| 66+50 | 209 | 5630 | 33 | 743 |
| 67+00 | 228 | 6153 | 26 | 594 |
| 67+50 | 284 | 7655 | 0 | |
| 68+00 | 177 | 4776 | 0 | |
| 68+50 | 135 | 3648 | 0 | |
| 69+00 | 47 | 1274 | 0 | 3 |
| 69+50 | 0 | | 0 | |
| 70+00 | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| SUB-TOTAL | 8923 | 240914 | 2300 | 51697 |

| | | | | |
|---|---|---|---|---|
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | 0 | | 0 | |
| | | | | |
| | | | | |
| | | | | |
| SUB-TOTAL | 0 | 0 | 0 | 0 |
| | | | | |
| TOTAL | 24410 | 658862 | 4688 | 105332 |

9

9

STATE PROJECT NUMBER 2395-05-71 | HWY: E/W HOWARD AVE | COUNTY: MILWAUKEE | CUT-FILL TABLE | SCALE FEET 0' 40' | SHEET NO: 637 | E

FILENAME: W:\SPR\HOWARD_CLEMENT TO 6TH\DESIGN\CUT-FILL TABLE.DGN

REVISED DATE: 11-22-2023 BY JC

**Wisconsin Department of Transportation**

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through innovation and exceptional service.

http://www.dot.wisconsin.gov