

MAD

PROJECT ID: 1112-06-75

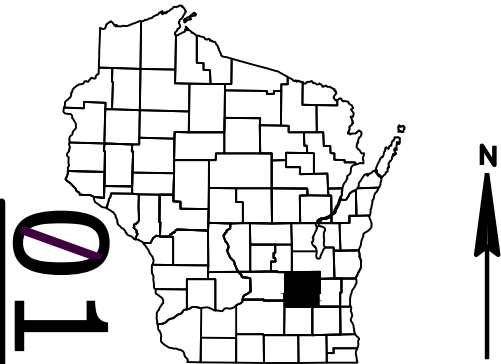
WITH: N/A

COUNTY: DODGE

MARCH 2025
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 SHEETS = 264



DESIGN DESIGNATION

A.A.D.T.	2025	=	21,600 - 23,200 VPD
A.A.D.T.	2045	=	25,500 - 27,600 VPD
D.H.V.		=	1,720
D.D.		=	48/52
T.		=	11.9% - 17.9%
DESIGN SPEED		=	70 MPH
ESALS		=	550,000 (RCUT TURN LANES ONLY)

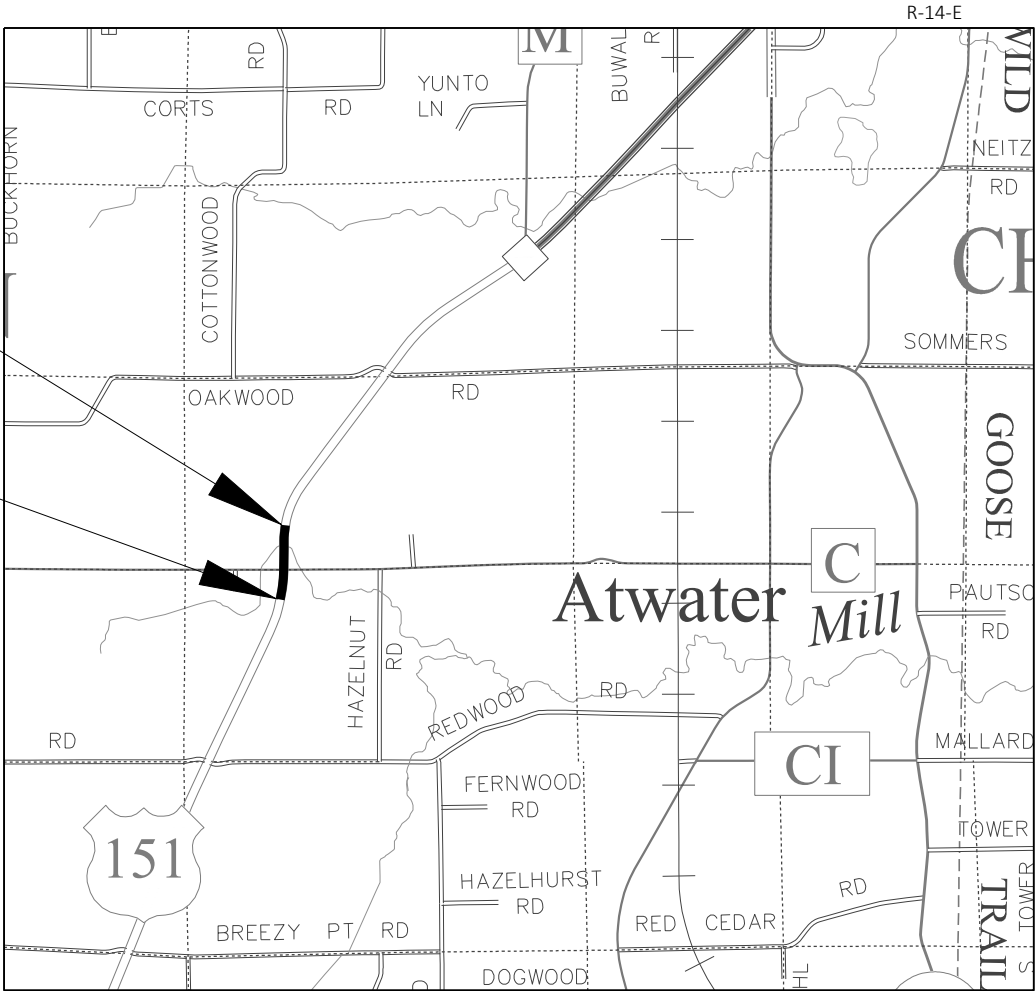
CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

END PROJECT
STA 2596+17.01 'NB'

BEGIN PROJECT
STA 2573+06.27 'NB'
Y: 760064.5422
X: 863740.7807



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.438 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DODGE COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18-WI

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1112-06-75	WISC 2025356	1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	MSA PROFESSIONAL SERVICES
Surveyor	MICKEY DOYLE
Designer	MATTHEW LAMB
Project Manager	MICHAEL BANASZAK
Regional Examiner	JUSTIN KUTSCHENREUTER
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 1/24/2025	(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS THAT ARE NOT MARKED ON THE PLAN TO BE REMOVED SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

HMA PAVEMENT AND WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A TRAVEL OR TURN LANE.

APPLY TACK COAT BETWEEN THE NEW LAYERS OF ASPHALT PAVEMENT AND THE VERTICAL SURFACE BETWEEN THE NEW ASPHALT PAVEMENT AND THE EXISTING CONCRETE PAVEMENT. THE APPLICATION RATE IS 0.05 GAL/SY OR AS DIRECTED BY THE ENGINEER.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

EXACT SIGN LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL SHEETS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

ALL PROPERTY LINES ON PLANS ARE APPROXIMATE.

CURB AND GUTTER PLAN GRADES AND RADII ARE AT THE FLANGE (FLAG) LINE UNLESS OTHERWISE NOTED.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN PAVING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAY SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER PAVEMENT DRIVEWAY AREA IS INSTALLED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, AND EROSION MAT INSTALLED AS SHOWN ON THE EROSION CONTROL PLAN OR AS DIRECTED BY THE FIELD ENGINEER.

THE LOCATION OF DRIVEWAYS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 88, NAVD (2012).

ALL USH 151 STATION VALUES REFERENCE THE 'NB' HORIZONTAL ALIGNMENT UNLESS SPECIFICALLY STATED OTHERWISE IN THE PLANS. ALL CTH C STATION VALUES REFERENCE THE 'C' HORIZONTAL ALIGNMENT UNLESS SPECIFICALLY STATED OTHERWISE IN THE PLANS.

ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTION
- CONSTRUCTION DETAIL
- INTERSECTION DETAIL
- PAVEMENT GRADES
- EROSION CONTROL
- STORM SEWER
- PIPE UNDERDRAIN LAYOUT
- PERMANENT SIGNING
- LIGHTING PLAN
- PAVEMENT MARKING
- CONSTRUCTION STAGING
- TRAFFIC CONTROL
- ALIGNMENT DETAILS

STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAVT	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND

ALIGNMENT NAME ABBREVIATIONS

'NB'	USH 151 NB INSIDE EDGE OF CONCRETE PAVEMENT
'SB'	USH 151 SB INSIDE EDGE OF CONCRETE PAVEMENT
'NBEP'	USH 151 NB OUTSIDE EDGE OF CONCRETE PAVEMENT
'SBEP'	USH 151 SB OUTSIDE EDGE OF CONCRETE PAVEMENT
'C'	CTH C

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N3760 CTH DJ
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Boreholes Log Summary

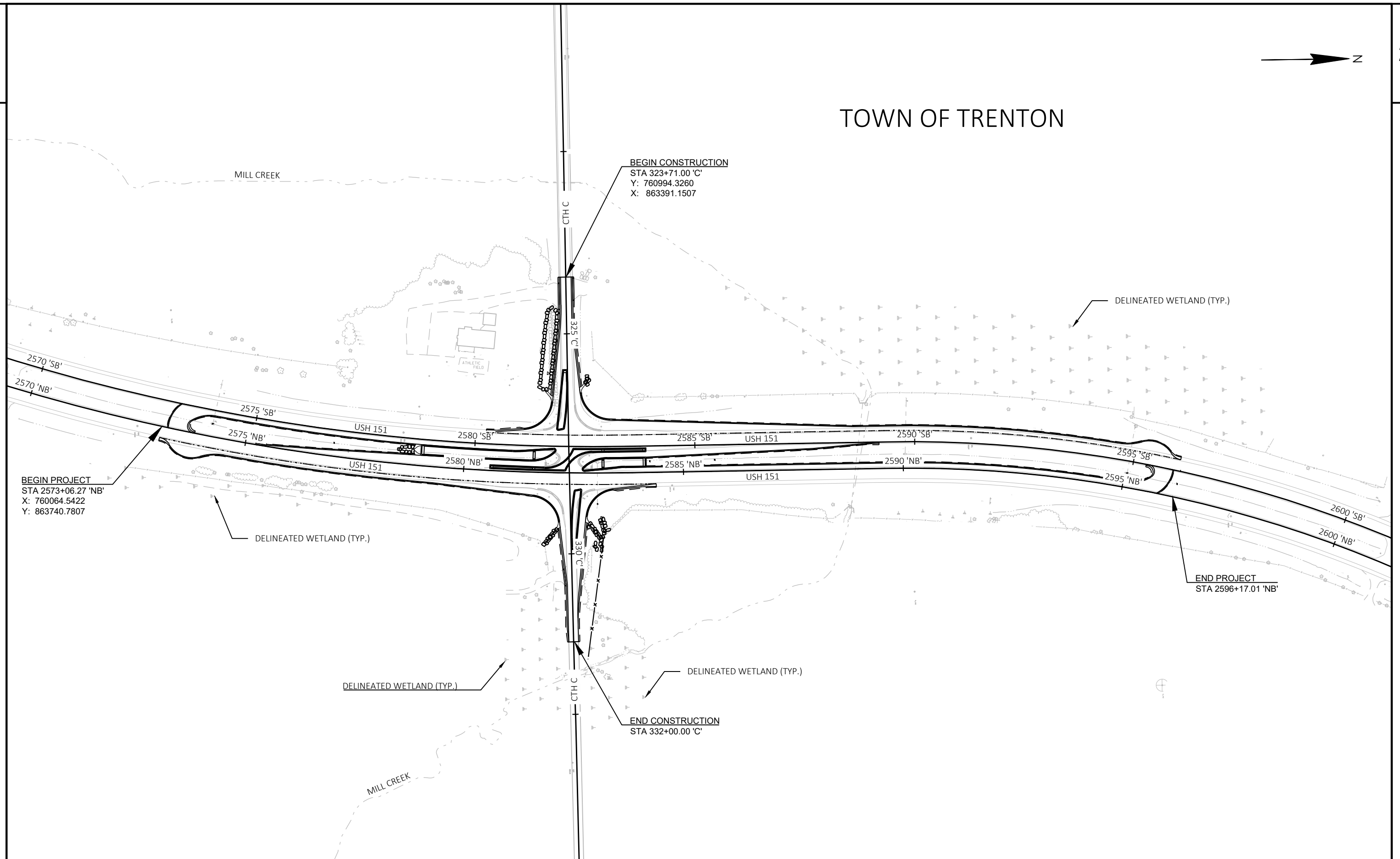
BH#	Northing	Easting	Topsoil (inches)	Depth, (Feet)	Water Table	Soil Type ¹
BH2	863815.8740	761892.7272	3.0	5.0	--	Clay, silt
BH3	863782.0229	761572.5666	3.5	5.0	--	Silt, clay
BH4	863815.2031	761389.1925	2.0	5.0	--	Clay, silt
BH6	863825.5658	761053.0609	2.0	5.0	--	Silt
BH7	863690.1508	761063.5213	6.0	10.0	--	Silt, sand & gravel
BH8 ²	863559.1509	760975.4642	-- ³	10.0	--	Silt, sand, possible rock
BH10	863719.4163	760928.6066	6.0	9.0	--	Silt, sand, Auger refusal @ 9'
BH11	863800.7817	760939.6585	7.5	5.0	--	Clay, sand
BH12	863790.0185	760633.6623	2.0	5.0	--	silt
BH13	863747.1054	760433.7540	2.0	5.0	--	clay
BH15	863788.6067	760117.0063	5.0	5.0	--	Sand, some silt
BH16	863862.3253	760657.5857	4.0	5.0	--	Clay, silt
BH17 ⁴	863976.3066	760974.7702	8.0	10.0	8.5'	Clay, silt
BH18	863908.5323	761041.2447	8.0	10.0	--	Silt, Gravel

1-- listing to show major constituents. for full finding, refer to field logs in the appendix.
2-- Auger hit refusal at 5 feet. Boreholes was wet at 2.5 feet! No water after completion of drilling.
3-- (-) = Not Encountered.
4-- Wet borehole at 10 feet
-- All boreholes were moist.



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

TOWN OF TRENTON



PROJECT NO: 1112-06-75

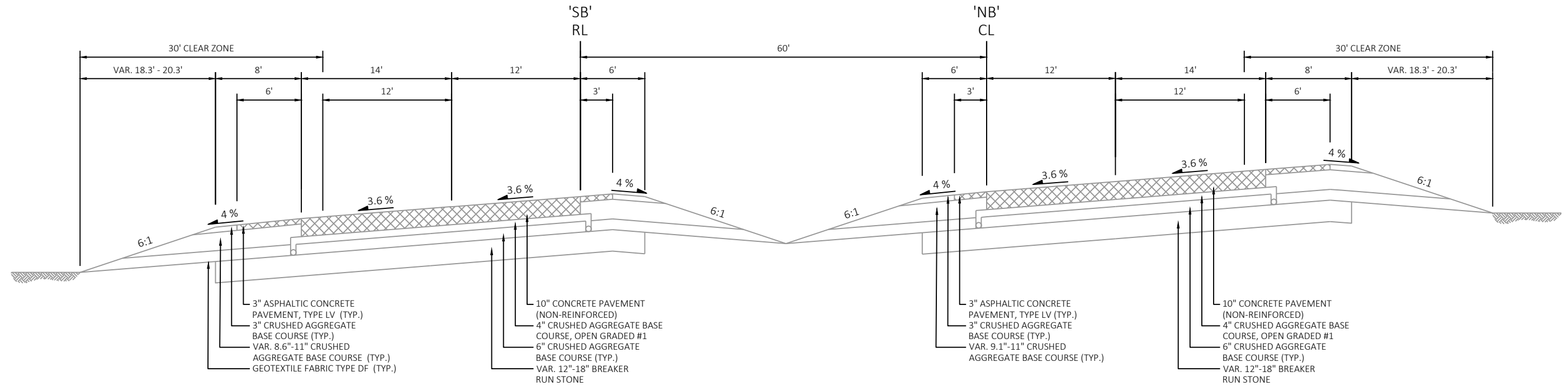
HWY: USH 151

COUNTY: DODGE

PROJECT OVERVIEW

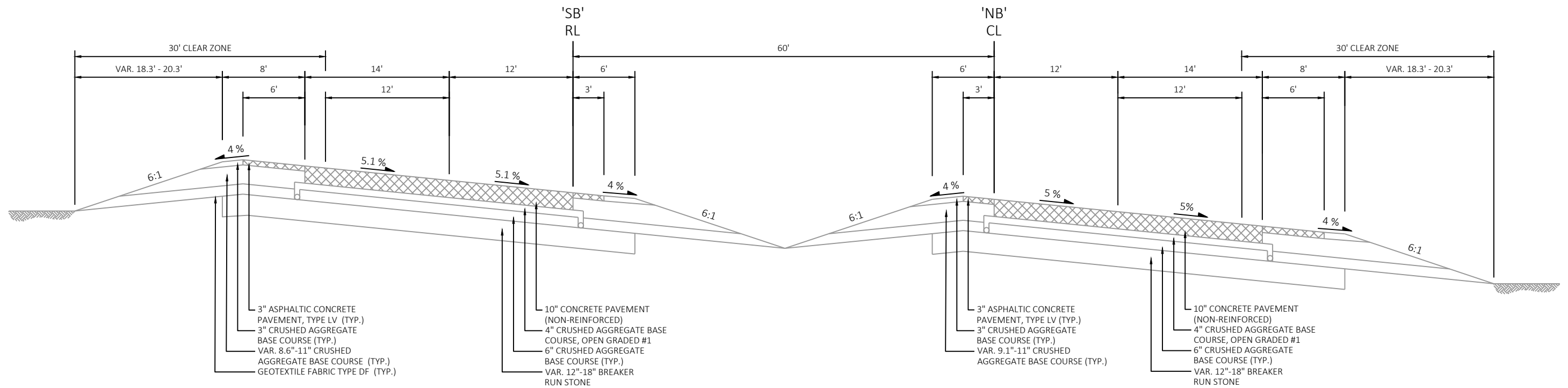
SHEET

E



EXISTING TYPICAL SECTION
USH 151 STA 2573+06.27 'NB' - 2582+40.67 'NB'

*PIPE UNDERDRAIN, 6-INCH,
MIN. 0.3% SLOPE

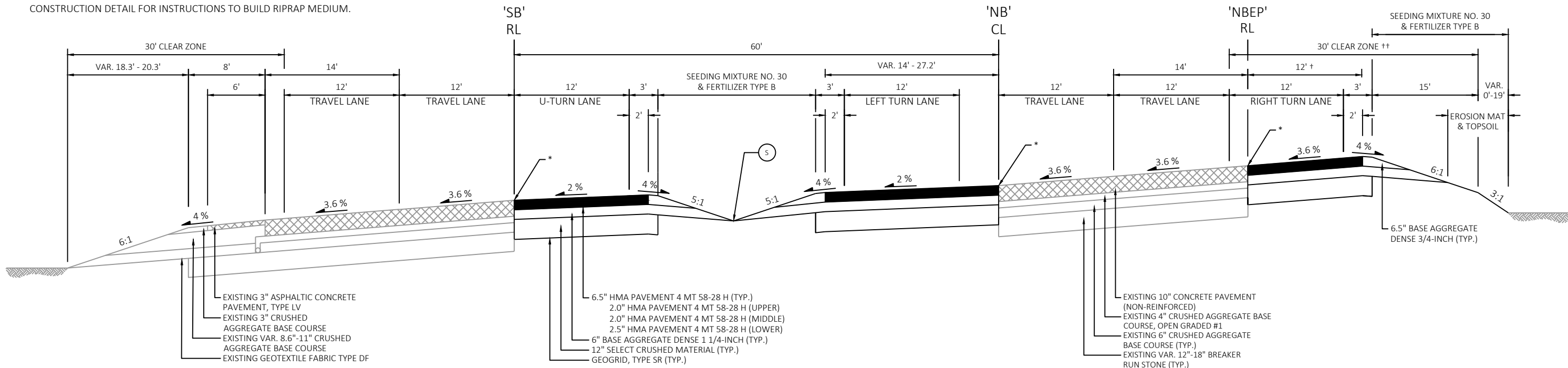


EXISTING TYPICAL SECTION
USH 151 STA 2582+40.67 'NB' - 2596+17.01 'NB'

FULL SUPERELEVATION SHOWN FOR TRAVEL LANES, BUT
SUPERELEVATION VARIES THROUGHOUT THE PROJECT.

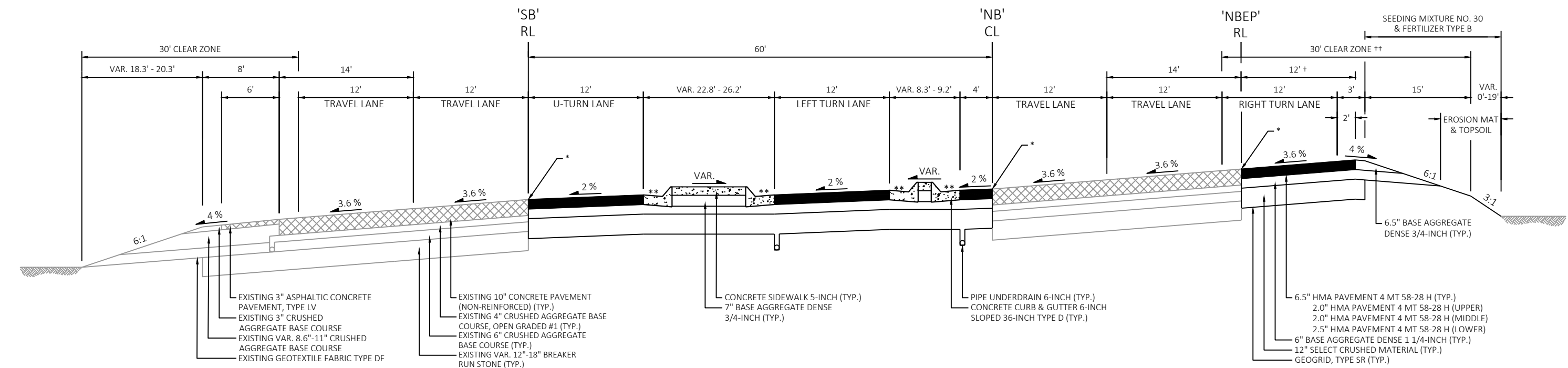
DESIGN NOTES

1. FULL SUPERELEVATION SHOWN FOR TURN AND TRAVEL LANES, BUT SUPERELEVATION VARIES THROUGHOUT THE PROJECT.
2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD FRENCH DRAIN AND PROPOSED LOCATIONS OF FRENCH DRAINS.
3. SEE CONSTRUCTION DETAIL FOR DESIGN SPECIFICATIONS OF PIPE UNDERDRAIN 6-INCH.
4. SEE PLAN AND PROFILE SHEETS FOR PROPOSED LOCATIONS OF RIPRAP MEDIUM AND CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD RIPRAP MEDIUM.



FINISHED TYPICAL SECTION

USH 151 STA 2573+06.27 'NB' - 2579+00.00 'NB'



FINISHED TYPICAL SECTION

USH 151 STA 2579+00.00 'NB' - 2582+40.67 'NB'

- Ⓢ AREAS OF SALVAGED TOPSOIL AND EROSION MAT NEEDED (SEE EROSION CONTROL SHEETS FOR MORE DETAILS)
† PAVEMENT WIDTH VARIES 0' - 29.0' FROM STA 2573+06.27 - STA 2581+58.77 'NB'
++ CLEAR ZONE IS 50' FROM STA 2573+01.26 - STA 2574+36.24 'NB'

- *POINT REFERRED TO ON PROFILE
**CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = -4.0%
***CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = 4.0%

PROJECT NO: 1112-06-75

HWY: USH 151

COUNTY: DODGE

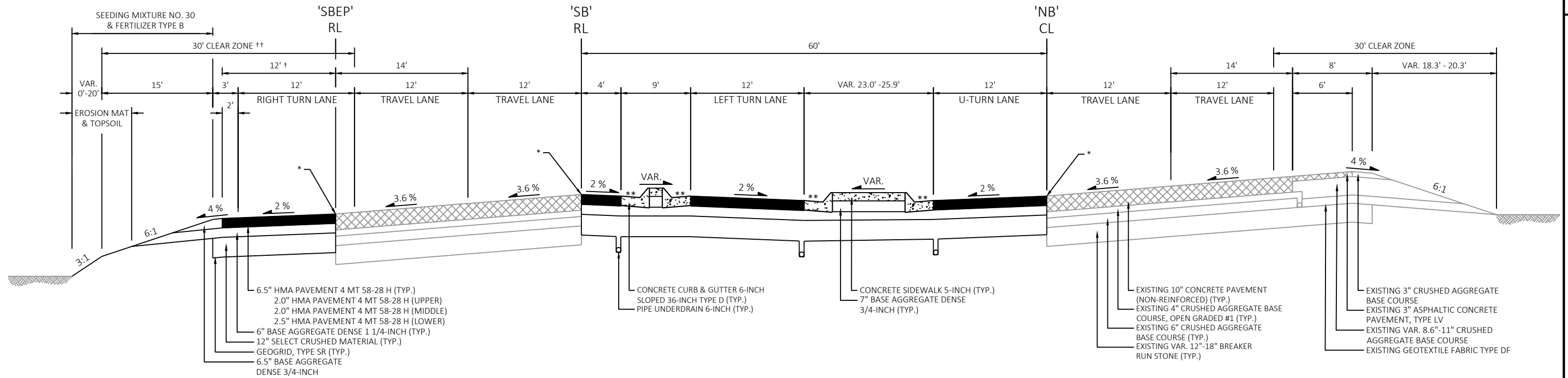
TYPICAL SECTION

SHEET

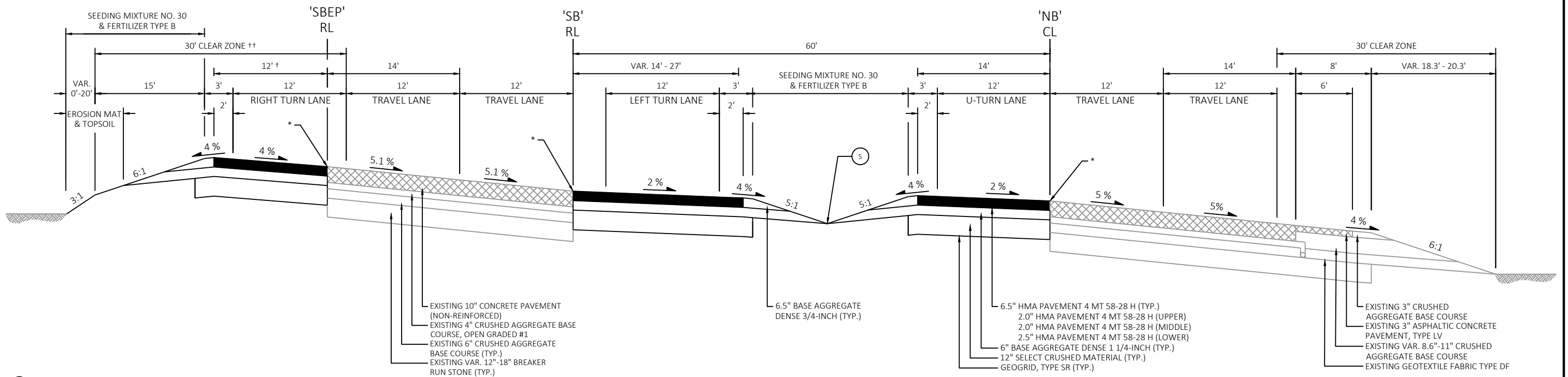
E

DESIGN NOTES

1. FULL SUPERELEVATION SHOWN FOR TURN AND TRAVEL LANES, BUT SUPERELEVATION VARIES THROUGHOUT THE PROJECT.
2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD FRENCH DRAIN AND PROPOSED LOCATIONS OF FRENCH DRAINS.
3. SEE CONSTRUCTION DETAIL FOR DESIGN SPECIFICATIONS OF PIPE UNDERDRAIN 6-INCH.



FINISHED TYPICAL SECTION
USH 151 STA 2582+40.67 'NB' - 2584+15.64 'NB'



FINISHED TYPICAL SECTION
USH 151 STA 2584+15.64 'NB' - 2596+17.01 'NB'

- Ⓢ AREAS OF SALVAGED TOPSOIL AND EROSION MAT NEEDED (SEE EROSION CONTROL SHEETS FOR MORE DETAILS)
- + PAVEMENT WIDTH VARIES 0' - 36.9' FROM STA 2594+89.75 - STA 2596+17.01 'NB'
- ++ CLEAR ZONE IS 53' AT LOON FROM STA 2594+89.75 - STA 2596+17.01 'NB'

- *POINT REFERRED TO ON PROFILE
- **CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = -4.0%
- ***CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = 4.0%

PROJECT NO: 1112-06-75

HWY: USH 151

COUNTY: DODGE

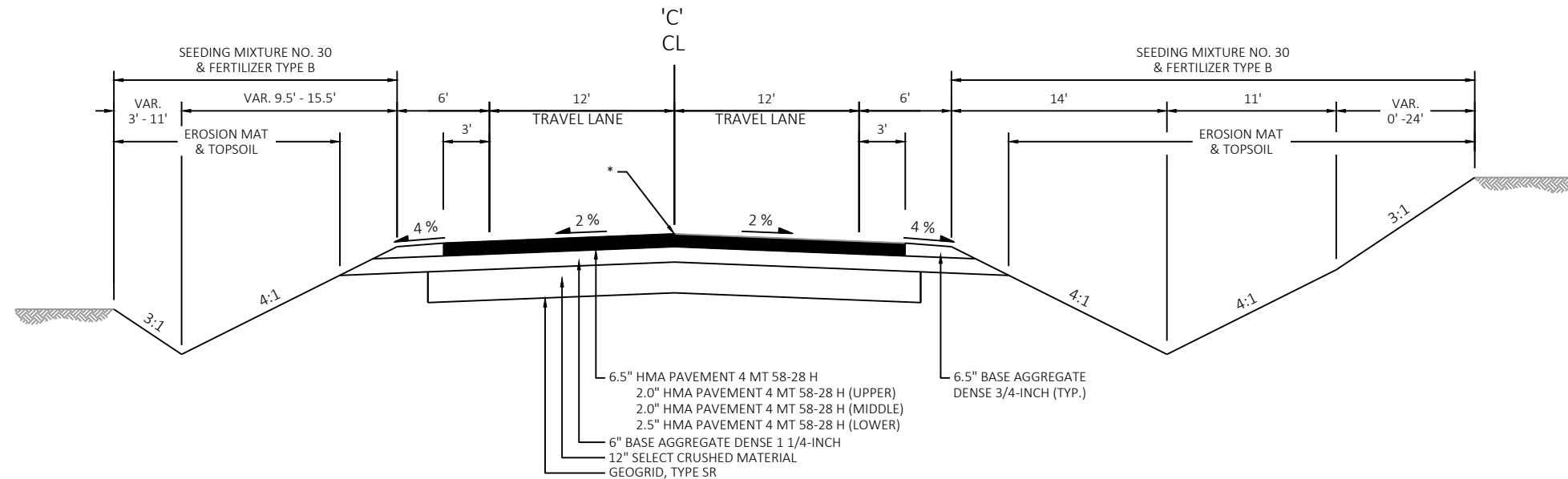
TYPICAL SECTION

SHEET

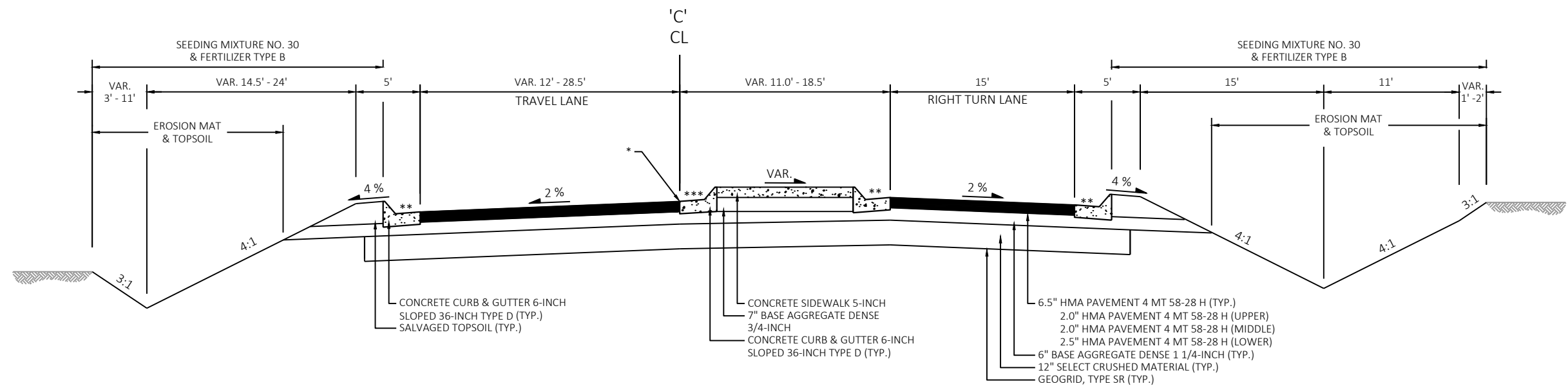
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DESIGN NOTES

1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD FRENCH DRAIN AND PROPOSED LOCATIONS OF FRENCH DRAINS.
2. SEE PLAN AND PROFILE SHEETS FOR PROPOSED LOCATIONS OF RIPRAP MEDIUM AND CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD RIPRAP MEDIUM.



FINISHED TYPICAL SECTION
CTH C WEST STA 323+71.00 'C' - 325+81.12 'C'



FINISHED TYPICAL SECTION
CTH C WEST STA 325+81.12 'C' - 327+30.22 'C'

*POINT REFERRED TO ON PROFILE
**CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = -4.0%
***CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = 4.0%

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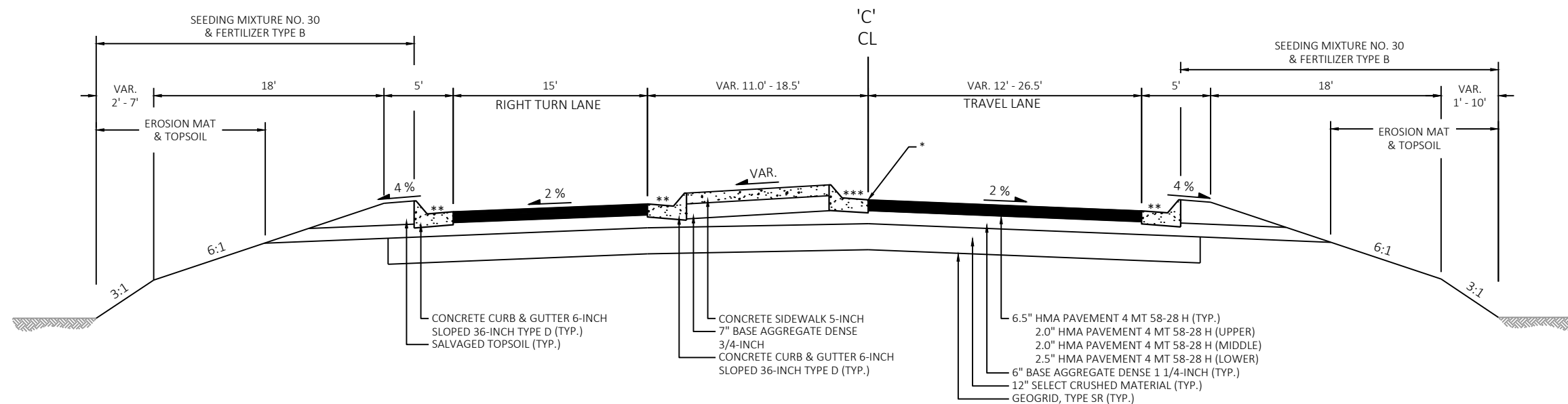
TYPICAL SECTION

SHEET

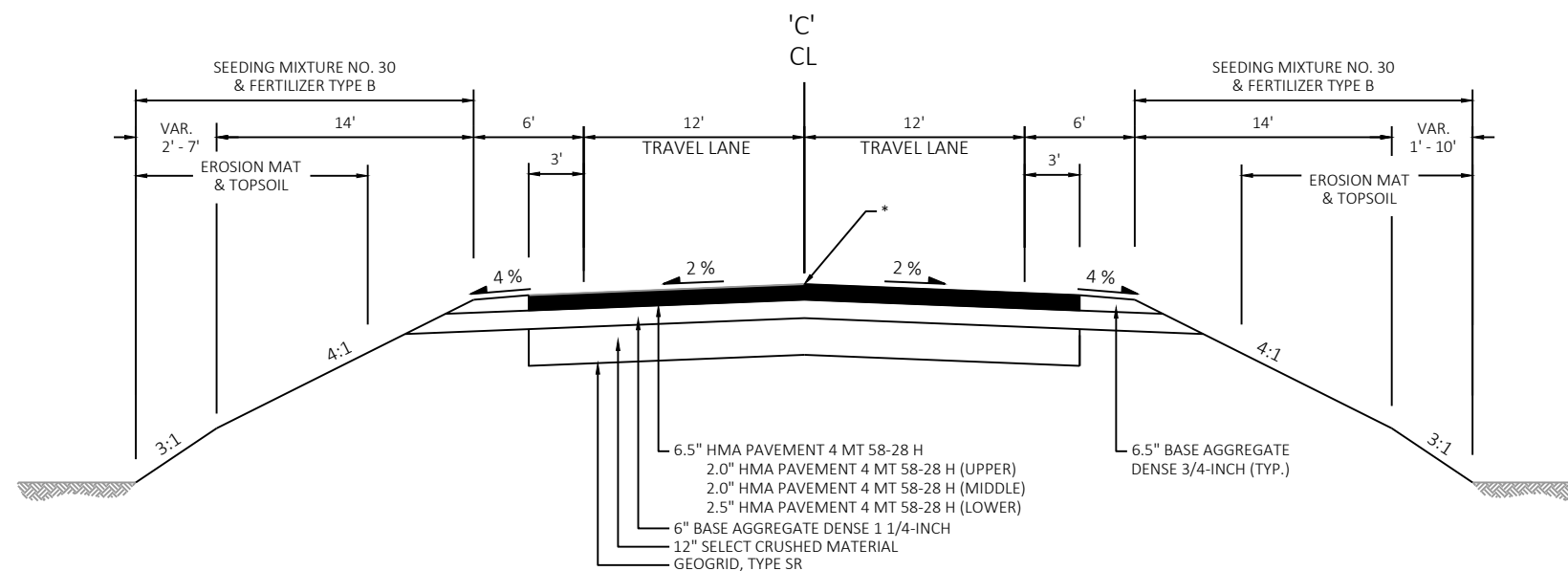
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DESIGN NOTES

1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD FRENCH DRAIN AND PROPOSED LOCATIONS OF FRENCH DRAINS.
2. SEE PLAN AND PROFILE SHEETS FOR PROPOSED LOCATIONS OF RIPRAP MEDIUM AND CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD RIPRAP MEDIUM.



FINISHED TYPICAL SECTION
CTH C EAST STA 328+42.29 'C' - 331+00.00 'C'



FINISHED TYPICAL SECTION
CTH C EAST STA 331+00.00 'C' - 332+00.00 'C'

*POINT REFERRED TO ON PROFILE
**CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = -4.0%
***CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D GUTTER PAN CROSS SLOPE = 4.0%

PROJECT NO: 1112-06-75

HWY: USH 151

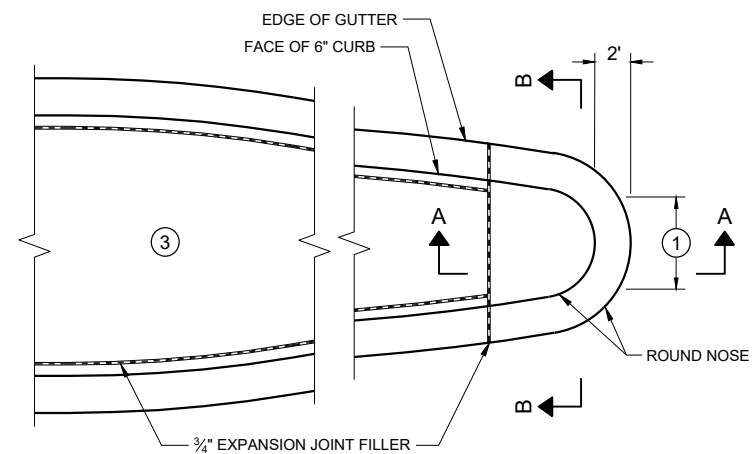
COUNTY: DODGE

TYPICAL SECTION

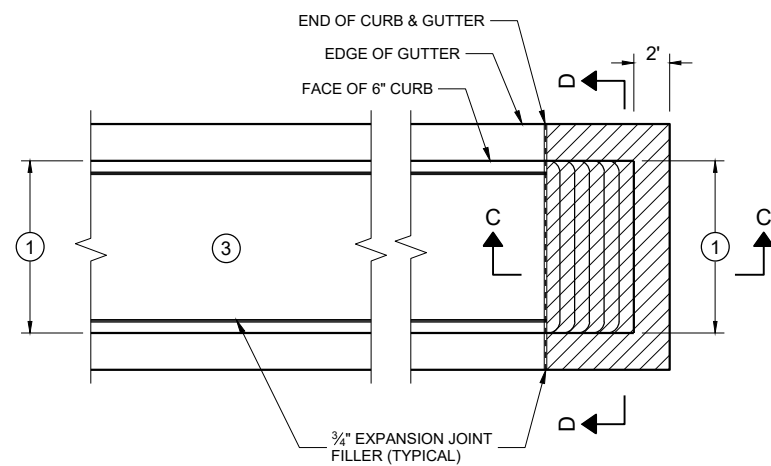
SHEET

E

- ① SEE INTERSECTION DETAILS FOR SPECIFIC WIDTHS AND RADII.
- ② DEPTH EQUAL TO ADJACENT PAVEMENT STRUCTURE. SEE FINISHED TYPICAL SECTIONS FOR DEPTHS OF INDIVIDUAL PAVEMENT LAYERS.
- ③ CONCRETE SIDEWALK 5-INCH
- ④ DEPTH EQUAL TO ADJACENT CONCRETE ISLAND STRUCTURE. SEE FINISHED TYPICAL SECTION FOR DEPTHS OF INDIVIDUAL CONCRETE ISLAND LAYERS.



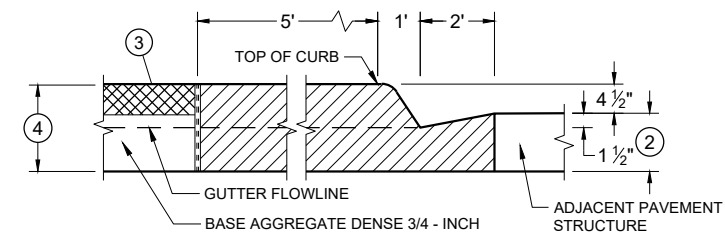
CONCRETE MEDIAN BLUNT NOSE DEPARTURE DETAIL



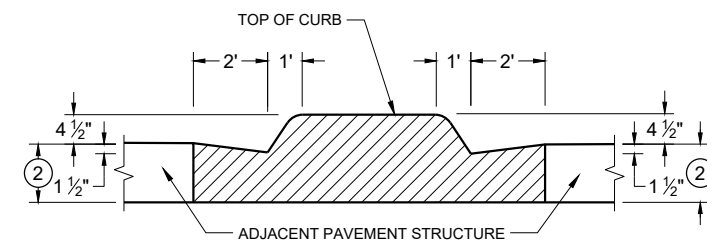
CONCRETE MEDIAN SLOPED NOSE APPROACH DETAIL

DESIGN NOTES

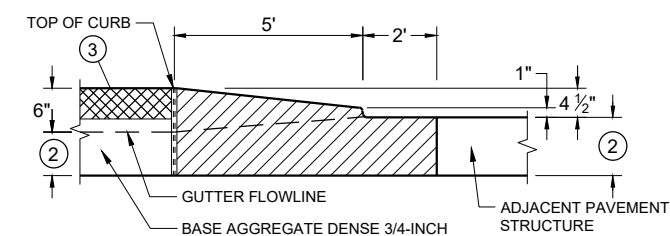
1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



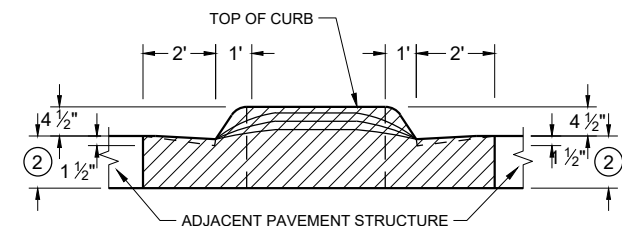
SECTION A - A



SECTION B - B

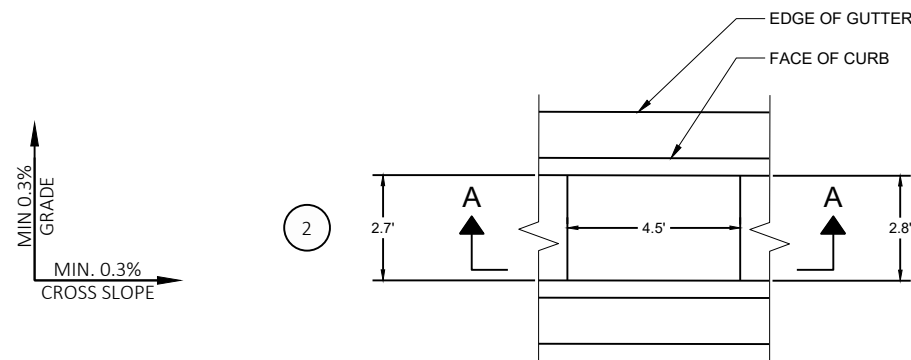
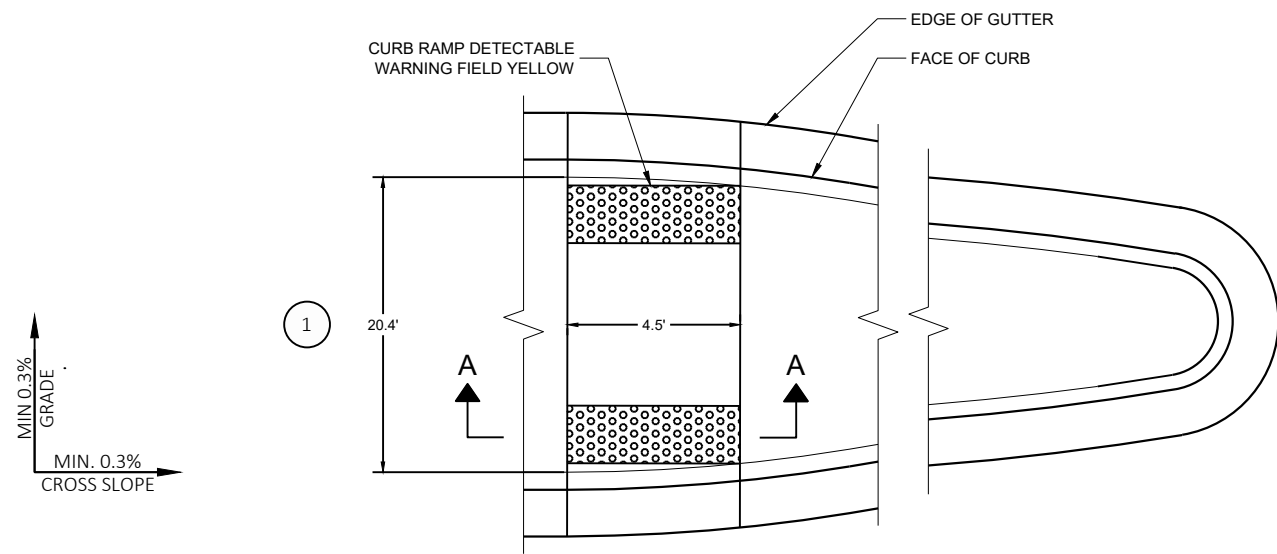


SECTION C - C

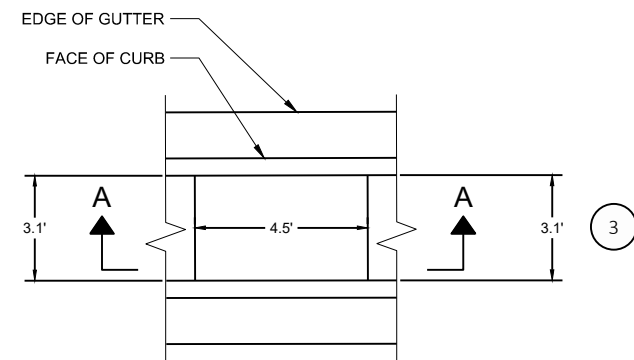
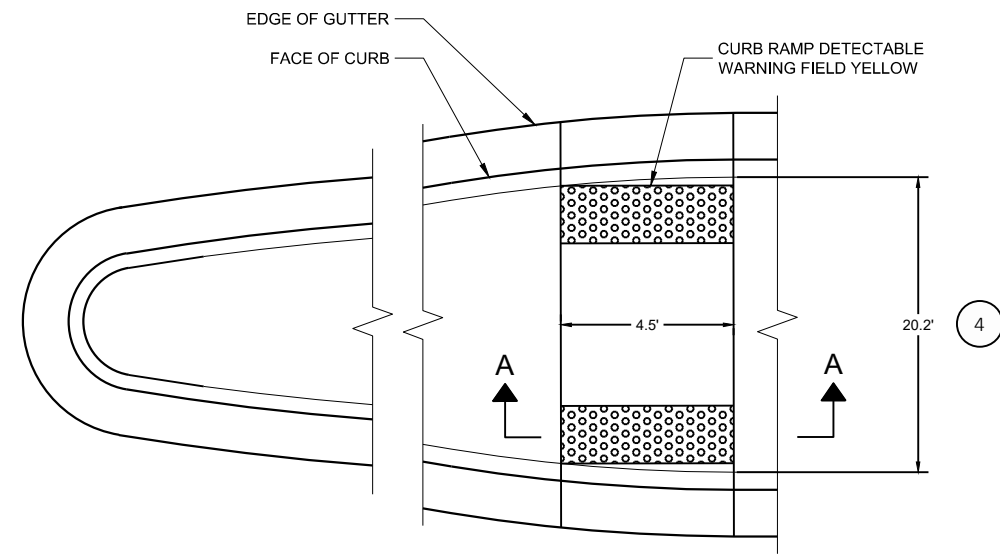
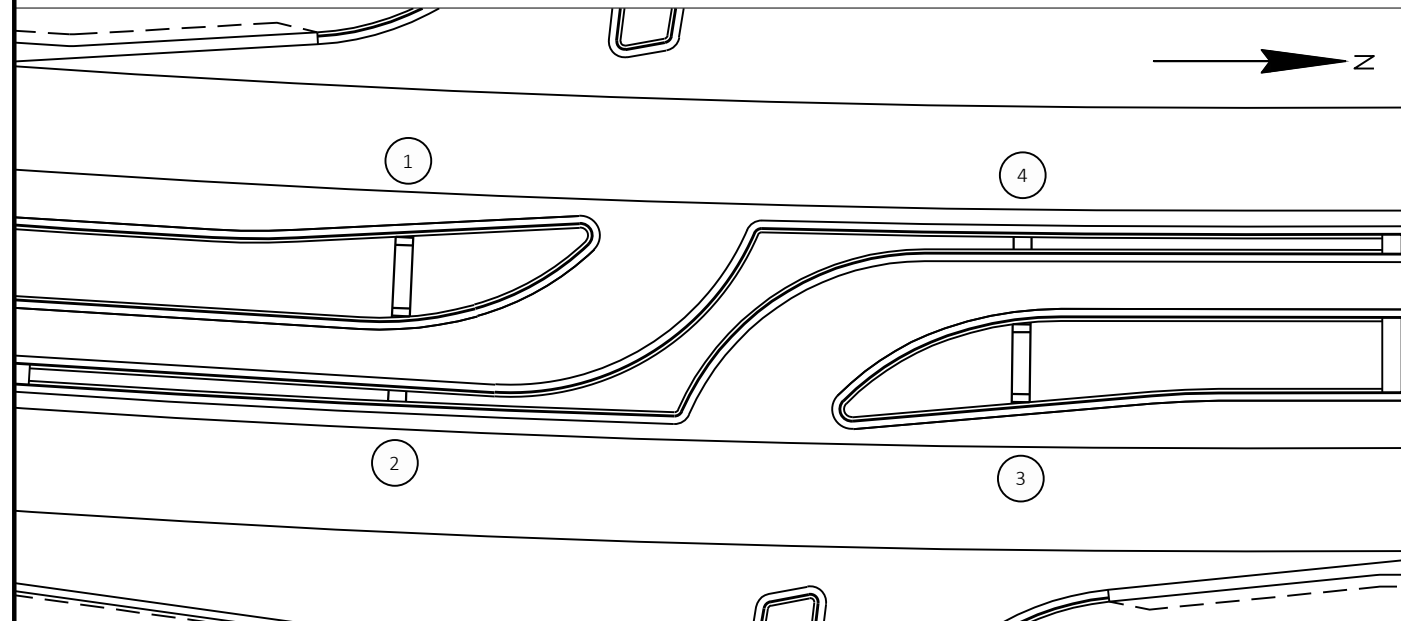


SECTION D - D

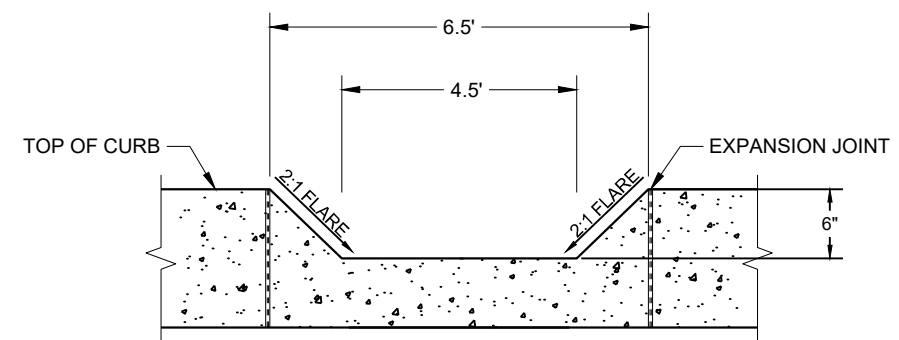
- DESIGN NOTES
- 1. THE CURB CUTS ARE NOT CURB RAMPS. DO NOT FOLLOW CURB RAMP STANDARD DETAIL DRAWINGS. CONSTRUCT CURB CUTS USING THIS CURB CUT DETAIL SHEET AND THE DATA POINTS PROVIDED IN THE INTERSECTION DETAIL SHEETS.
 - 2. MAINTAIN MINIMUM CROSS SLOPE AND GRADE OF 0.3% FOR CURB CUTS.



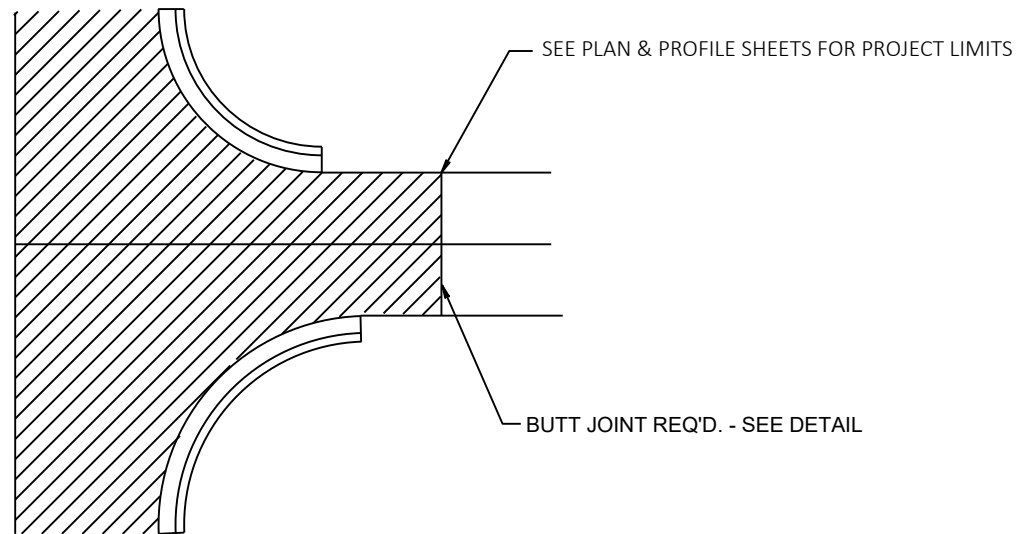
SOUTH CURB CUT DETAIL (PLAN VIEW)



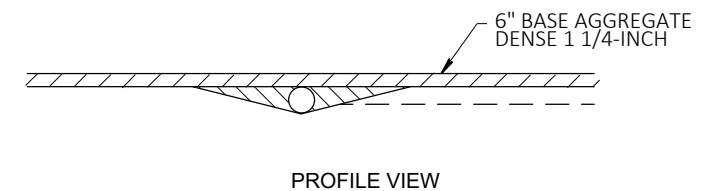
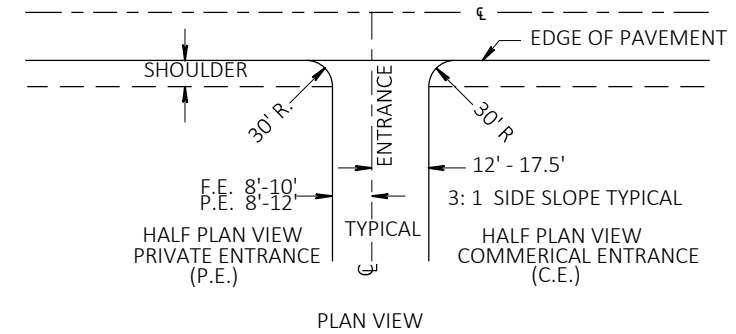
NORTH CURB CUT DETAIL (PLAN VIEW)



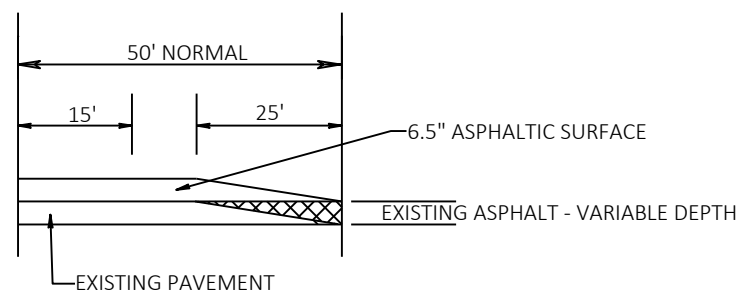
VIEW SECTION A - A



SIDE ROAD DETAIL



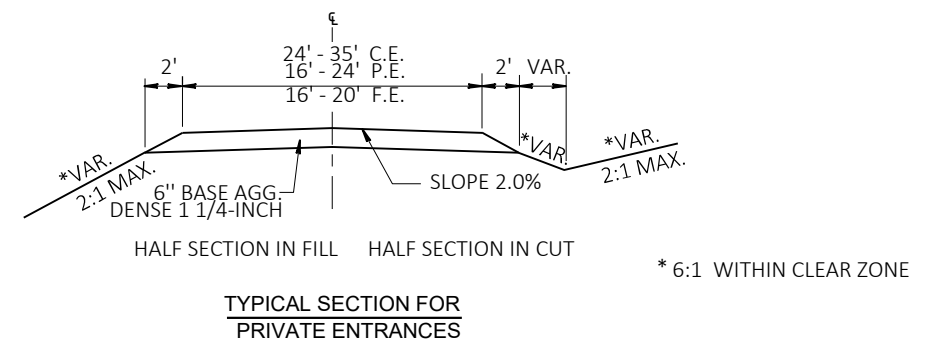
RURAL DRIVEWAY DETAIL

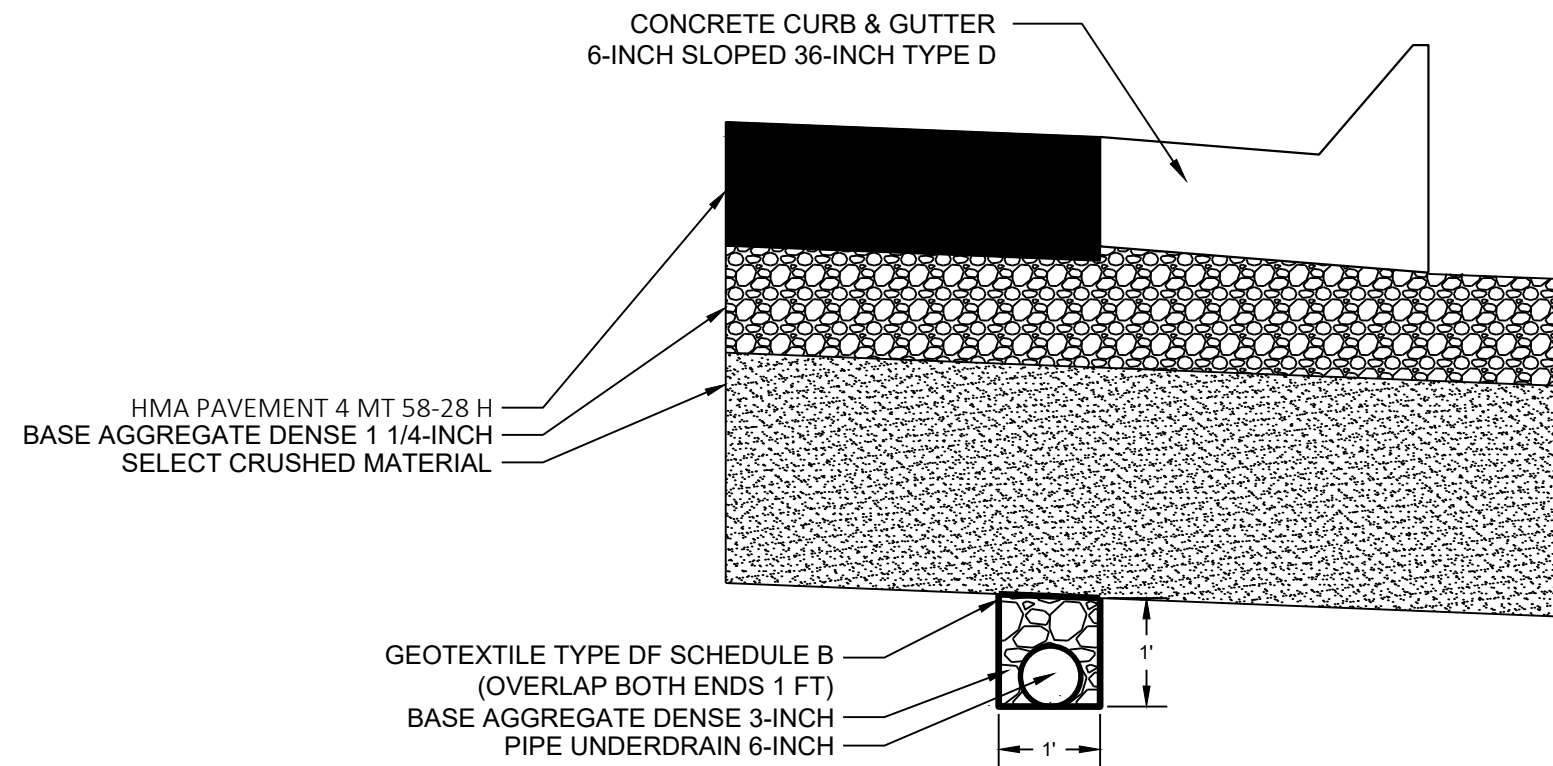


REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALTIC SURFACE, BUTT JOINTS' MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDE ROAD PAVING.

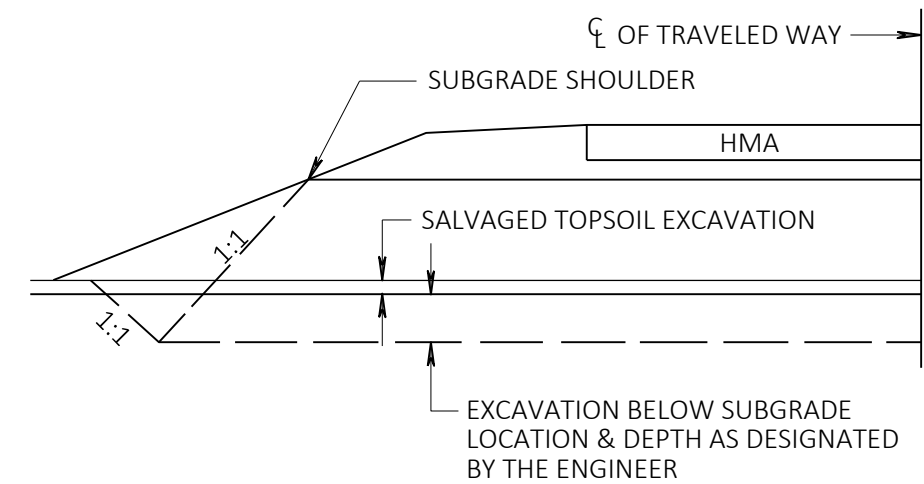
SIDEROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 3" MINIMUM AT JOINT

BUTT JOINT DETAIL

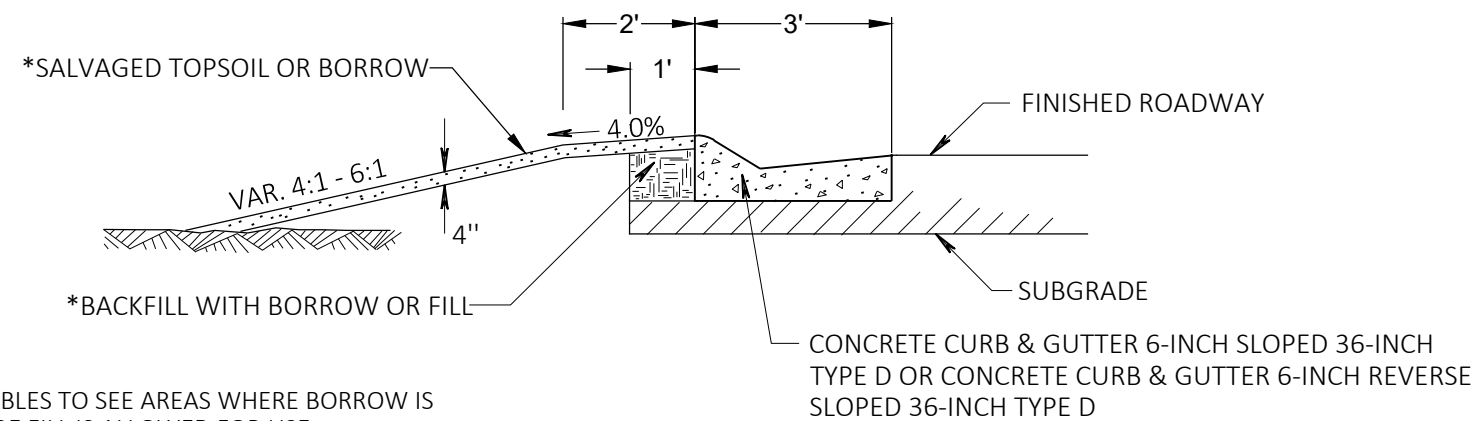




PIPE UNDERDRAIN 6-INCH DETAIL

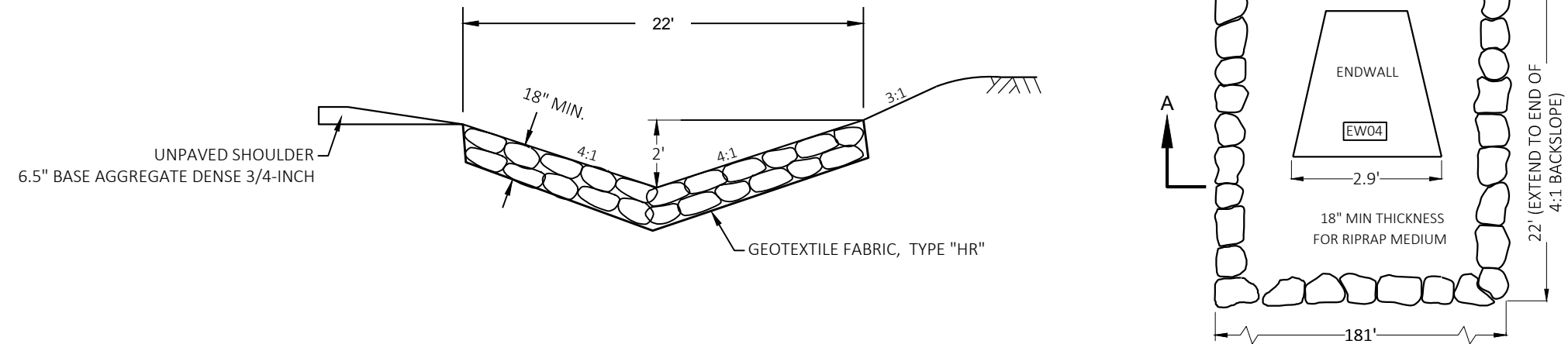


DETAIL FOR EXCAVATION BELOW SUBGRADE

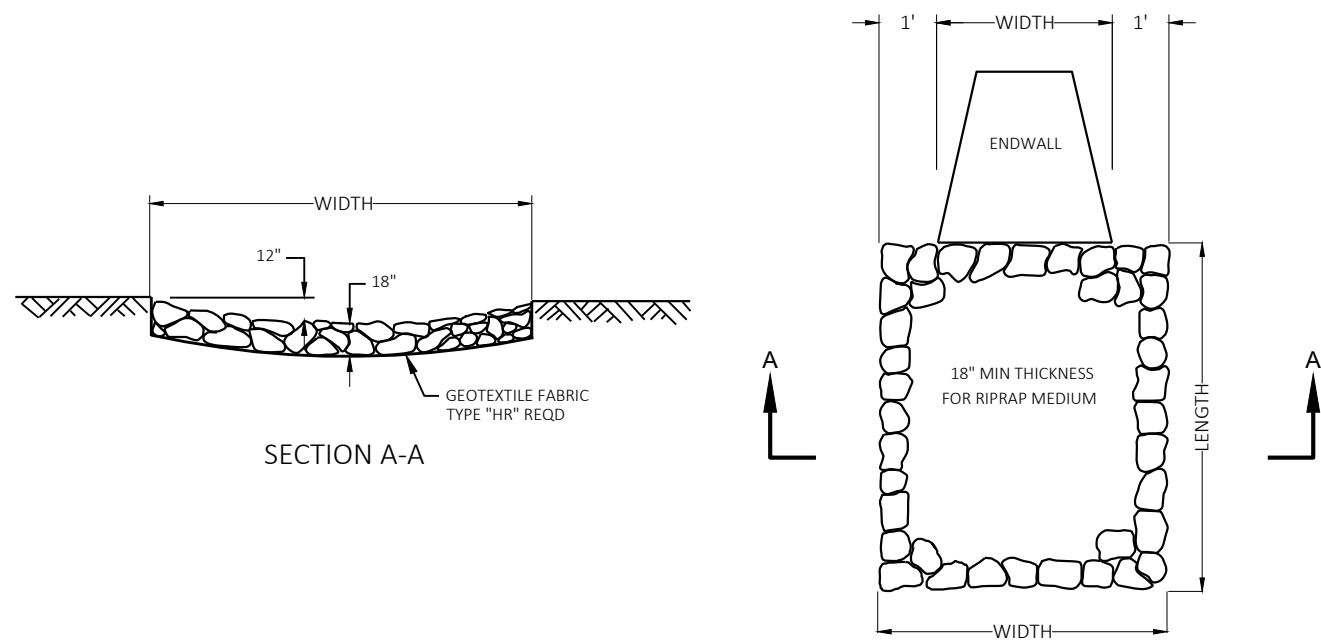


*SEE EARTHWORK TABLES TO SEE AREAS WHERE BORROW IS
REQUIRED AND WHERE FILL IS ALLOWED FOR USE.

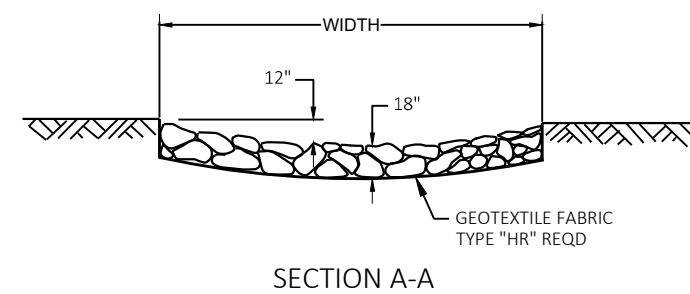
BERM DETAIL BEHIND CONCRETE CURB & GUTTER



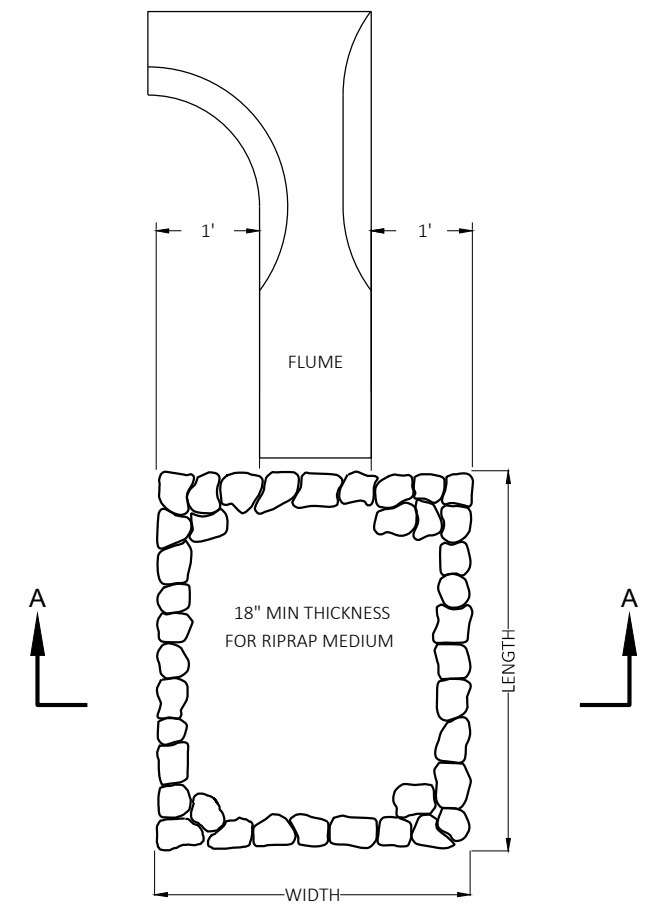
CTH C WEST (SOUTHWEST QUADRANT) DITCH WITH RIPRAP MEDIUM AND GEOTEXTILE FABRIC DETAIL
STA 324+42- STA 326+26 RT



RIPRAP MEDIUM TREATMENT AT ENDWALLS

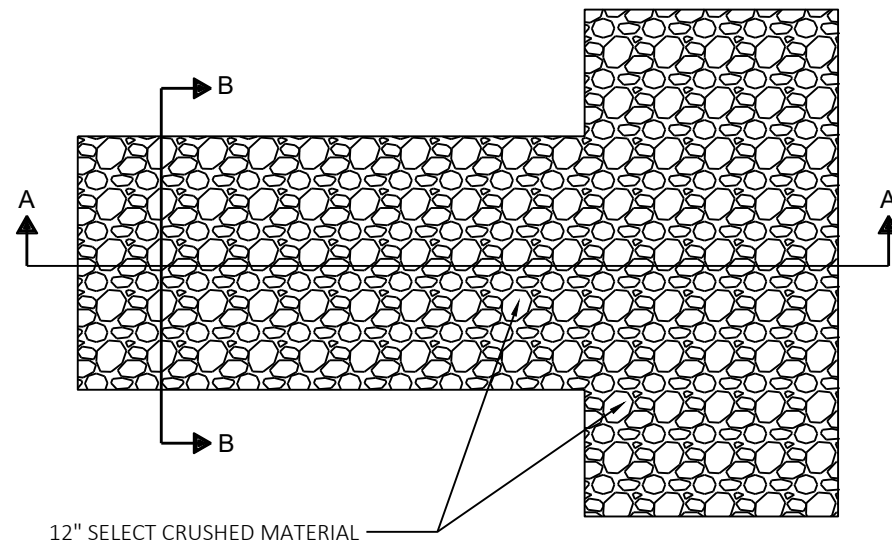


RIPRAP MEDIUM TREATMENT AT FLUMES



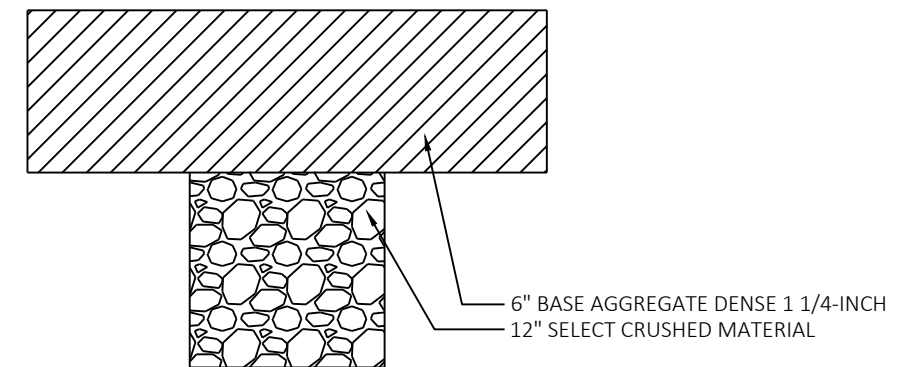
FRENCH DRAINS DETAIL

1. A FRENCH DRAIN IS TO BE CONSTRUCTED AT THE LOCATIONS PROVIDED BELOW (APPROXIMATELY EVERY 250 FT) OR AS DIRECTED BY THE FIELD ENGINEER.
2. EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM, SELECT CRUSHED MATERIAL.
3. DO NOT COVER FORESLOPE SELECT CRUSHED MATERIAL WITH TOP SOIL.

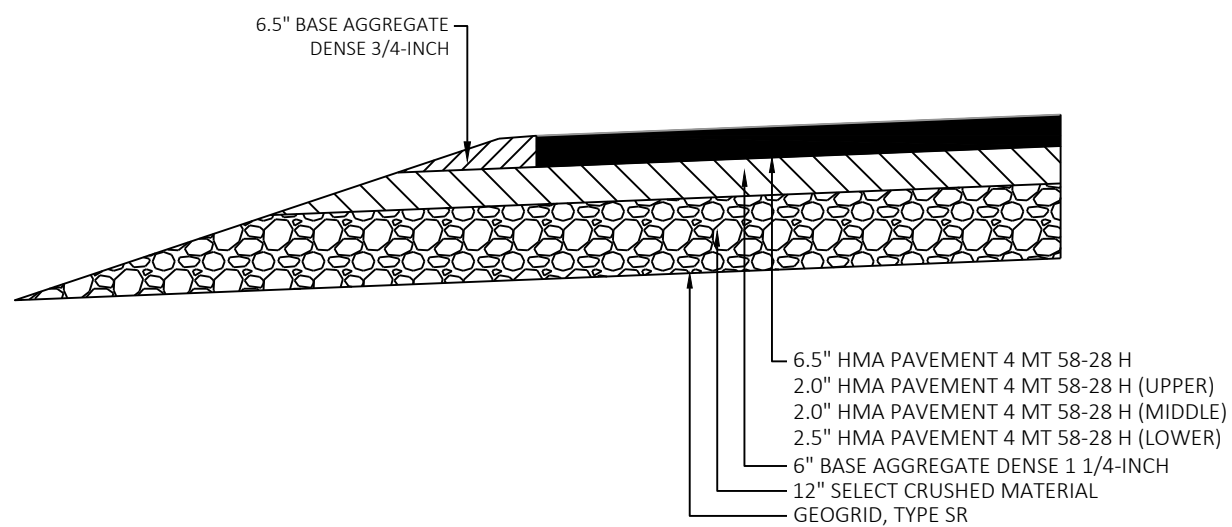


12" SELECT CRUSHED MATERIAL

PLAN VIEW

6" BASE AGGREGATE DENSE 1 1/4-INCH
12" SELECT CRUSHED MATERIAL

SECTION B-B

6.5" BASE AGGREGATE
DENSE 3/4-INCH6.5" HMA PAVEMENT 4 MT 58-28 H
2.0" HMA PAVEMENT 4 MT 58-28 H (UPPER)
2.0" HMA PAVEMENT 4 MT 58-28 H (MIDDLE)
2.5" HMA PAVEMENT 4 MT 58-28 H (LOWER)
6" BASE AGGREGATE DENSE 1 1/4-INCH
12" SELECT CRUSHED MATERIAL
GEOGRID, TYPE SR

SECTION A-A

USH 151 FRENCH DRAINS LOCATIONS

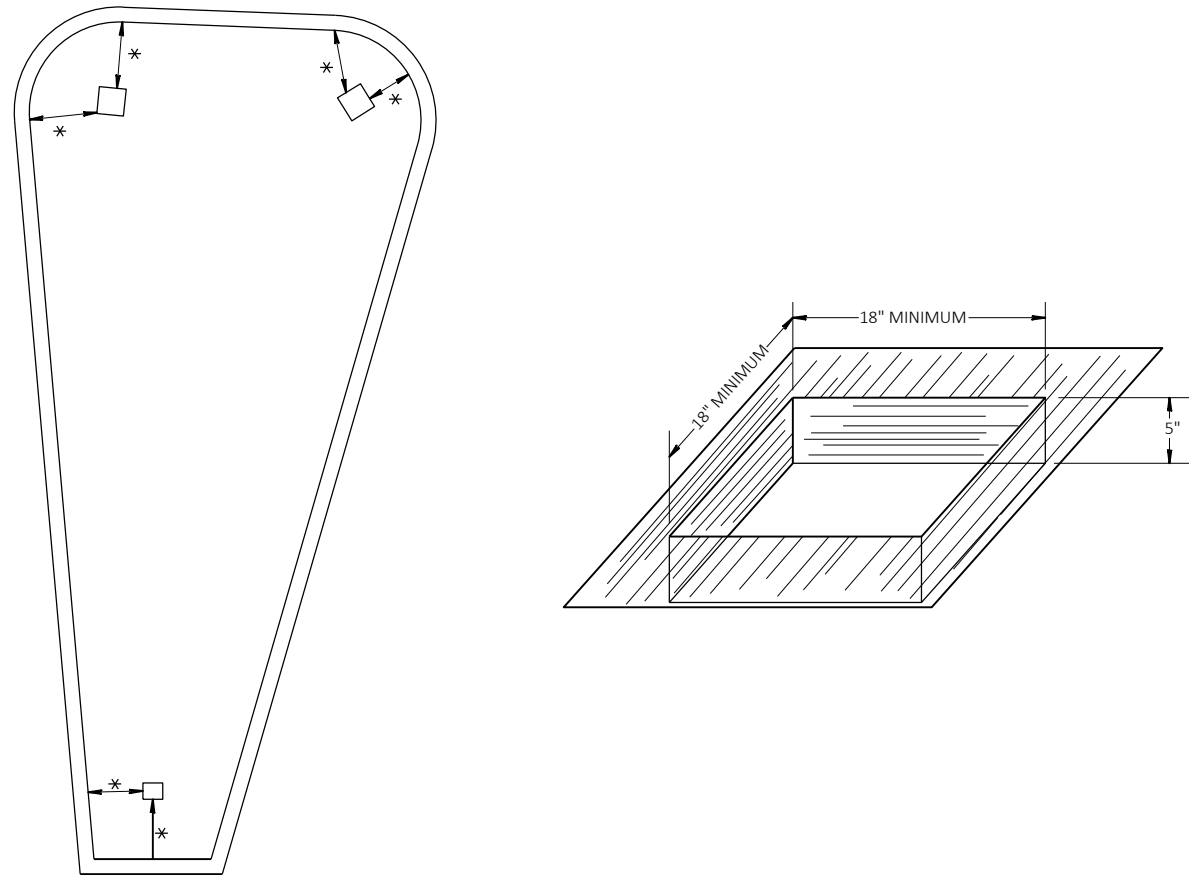
STA 2575+85.46 'NB' LT
STA 2578+33.60 'NB' LT
STA 2581+09.16 'NB' LT
STA 2583+34.56 'NB' LT
STA 2585+86.21 'NB' LT
STA 2585+86.34 'NB' LT
STA 2587+56.11 'NB' LT

CTH C FRENCH DRAINS LOCATIONS

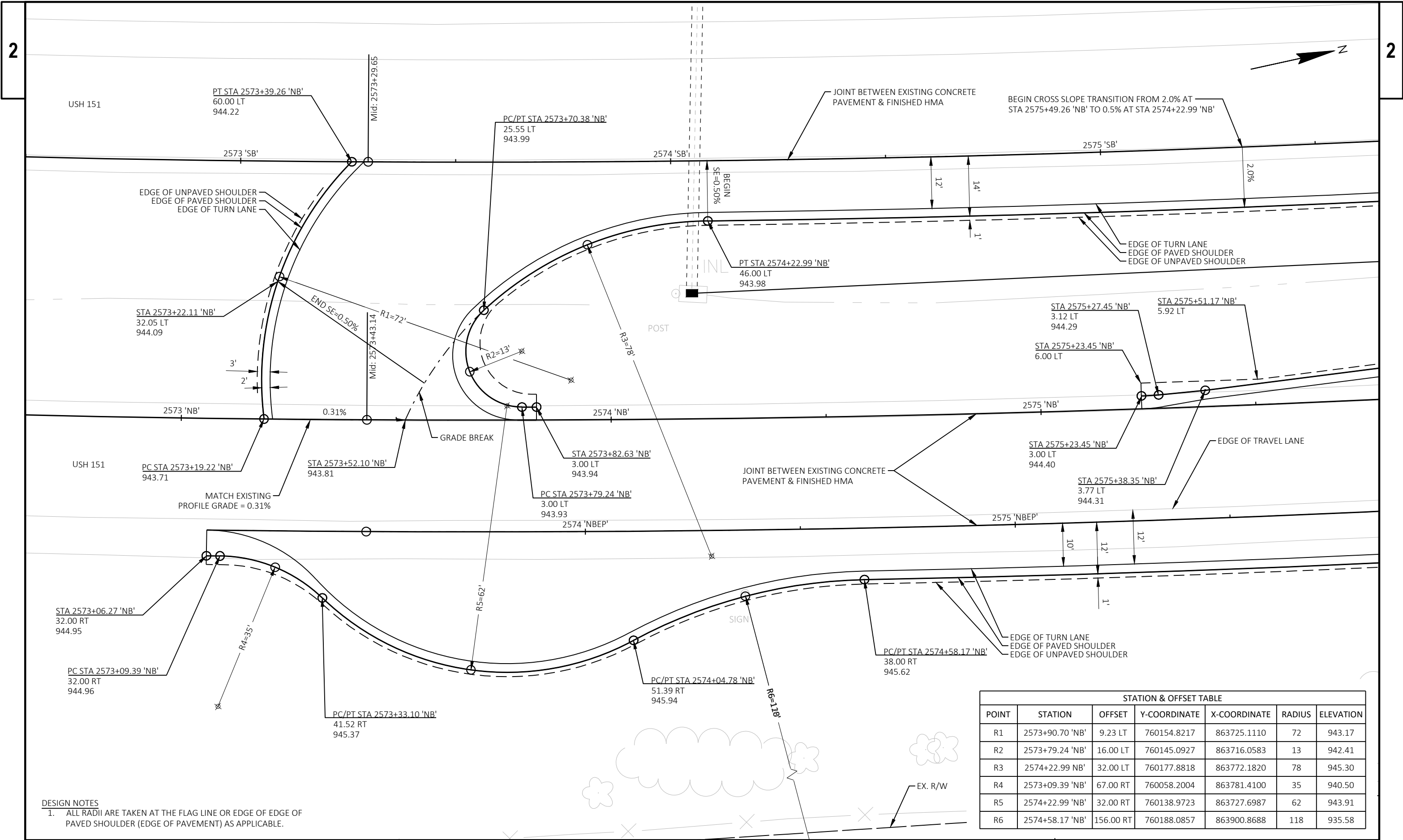
STA 324+60.00 'C' LT/RT
STA 331+00.00 'C' LT/RT

DESIGN NOTES

1. ALL SQUARED OPENINGS IN ISLAND FOR SIGN PLACEMENTS SHALL BE DETERMINED BY SIGN SIZE AND NUMBER.
2. A 2" MINIMUM FROM BACK OF CURB IS REQUIRED.
3. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR AFTER INSTALLATION TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

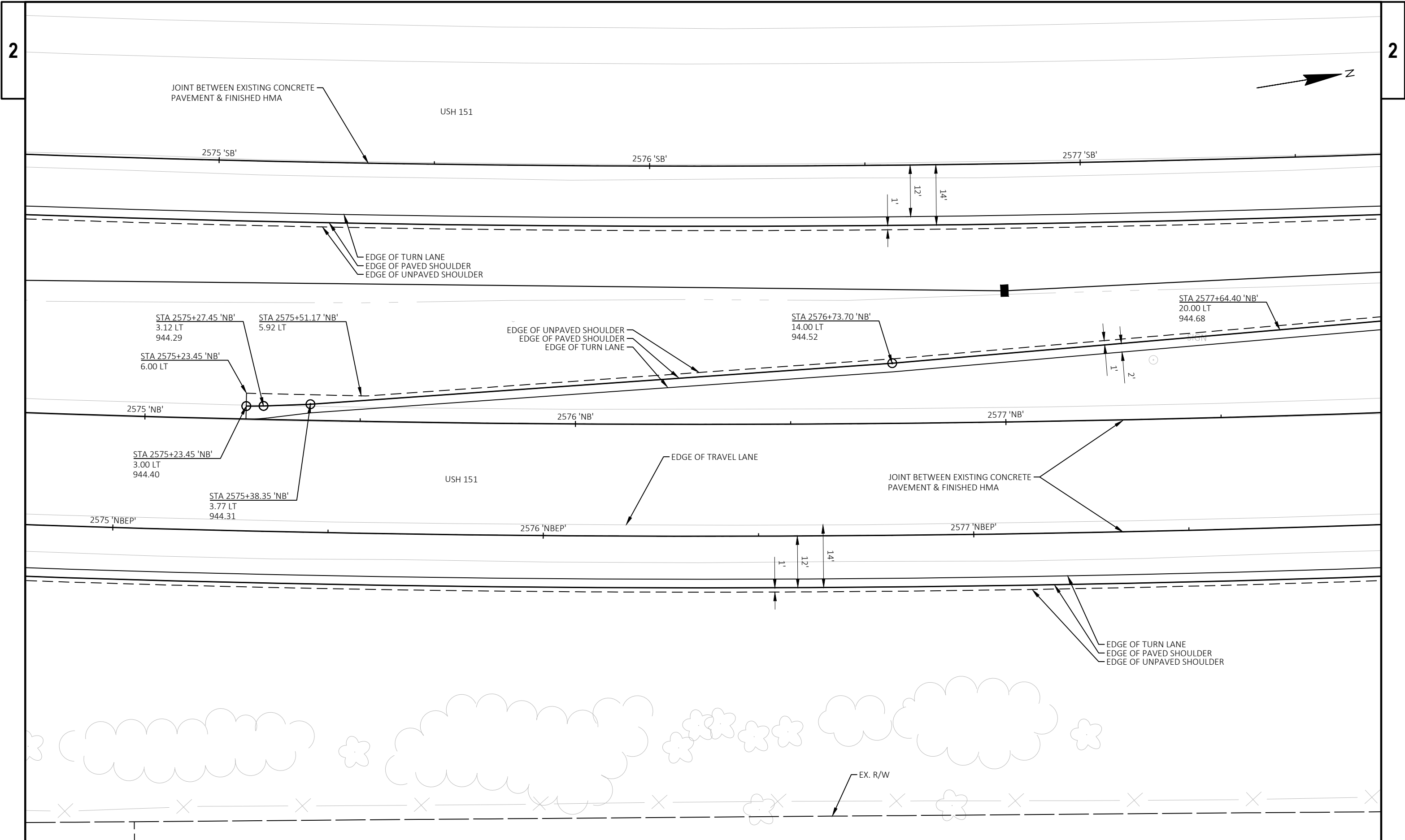


OPENINGS IN ISLAND FOR SIGN PLACEMENT DETAIL

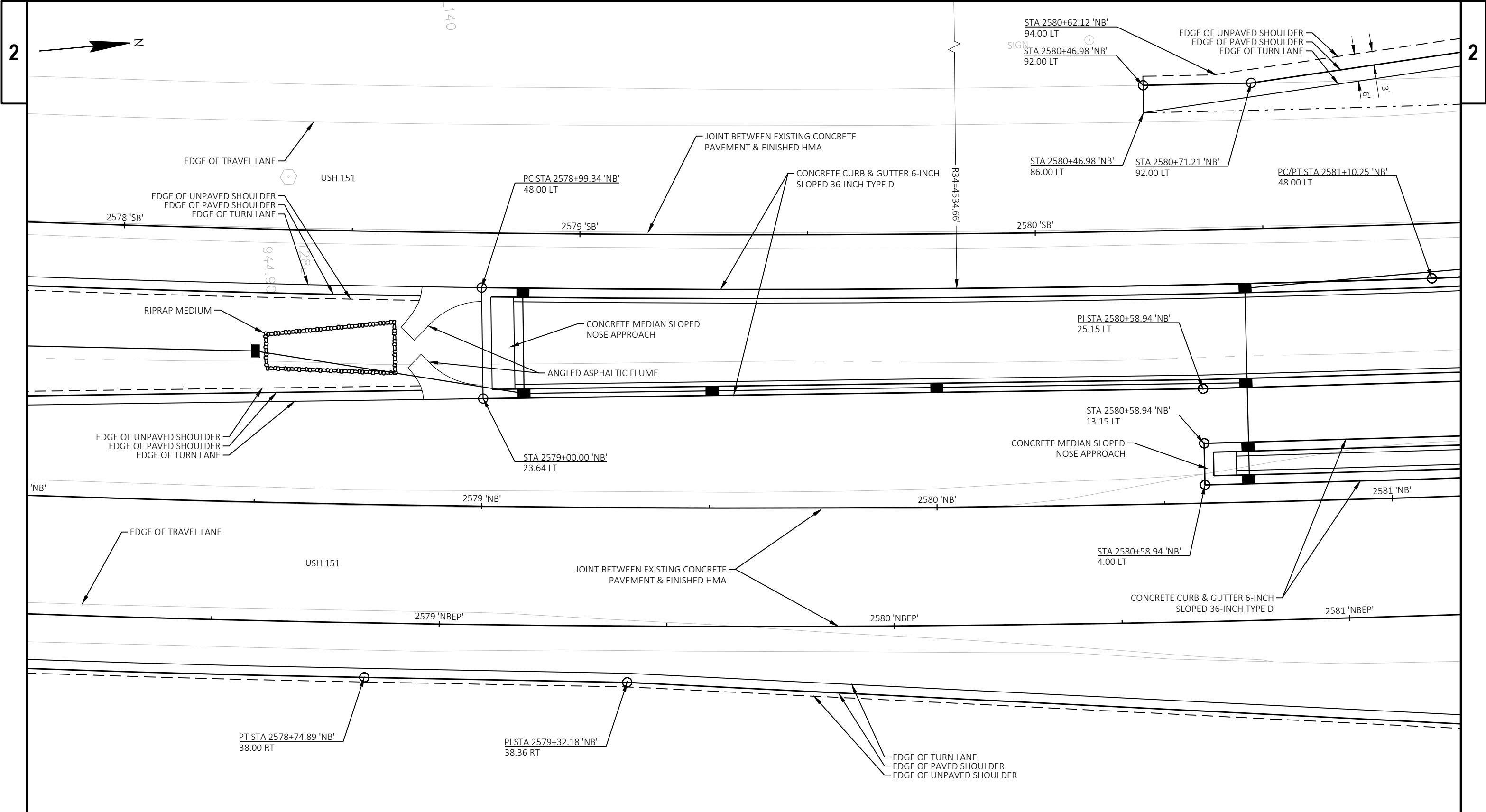


DESIGN NOTES
1. ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R1	2573+90.70 'NB'	9.23 LT	760154.8217	863725.1110	72	943.17
R2	2573+79.24 'NB'	16.00 LT	760145.0927	863716.0583	13	942.41
R3	2574+22.99 'NB'	32.00 LT	760177.8818	863772.1820	78	945.30
R4	2573+09.39 'NB'	67.00 RT	760058.2004	863781.4100	35	940.50
R5	2574+22.99 'NB'	32.00 RT	760138.9723	863727.6987	62	943.91
R6	2574+58.17 'NB'	156.00 RT	760188.0857	863900.8688	118	935.58

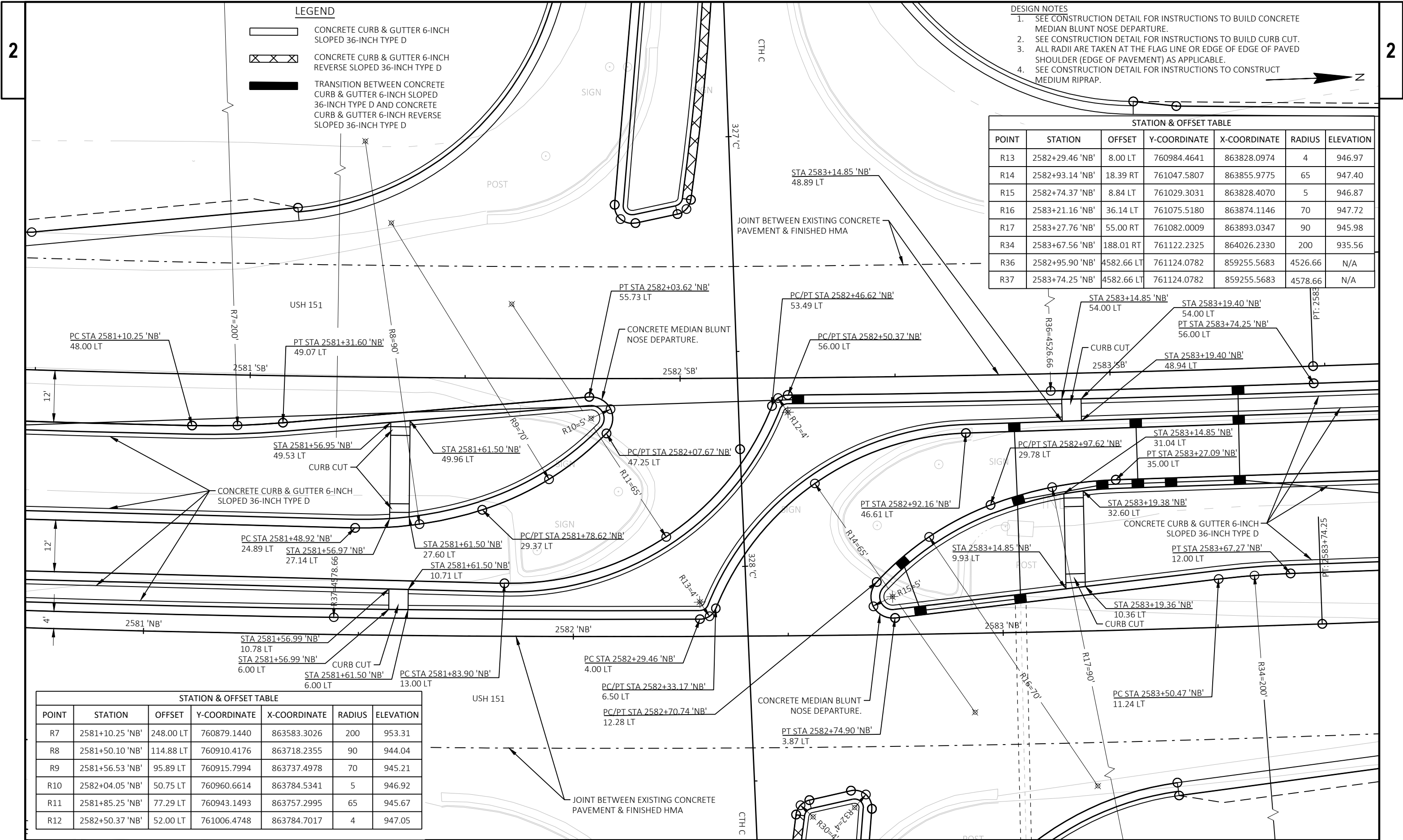


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	INTERSECTION DETAIL: USH 151 NB MEDIAN TURN LANES	SHEET	E
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STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R34	2583+74.25 'NB'	4582.66	761124.0782	869255.5683	4534.66	N/A

- DESIGN NOTES
- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN BLUNT NOSE APPROACH.
 - ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.



LEGEND

- CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CONCRETE CURB & GUTTER 6-INCH REVERSE SLOPED 36-INCH TYPE D
- TRANSITION BETWEEN CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D AND CONCRETE CURB & GUTTER 6-INCH REVERSE SLOPED 36-INCH TYPE D

DESIGN NOTES

- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN BLUNT NOSE DEPARTURE.
- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CURB CUT.
- ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.
- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO CONSTRUCT MEDIUM RIPRAP.

STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R13	2582+29.46 'NB'	8.00 LT	760984.4641	863828.0974	4	946.97
R14	2582+93.14 'NB'	18.39 RT	761047.5807	863855.9775	65	947.40
R15	2582+74.37 'NB'	8.84 LT	761029.3031	863828.4070	5	946.87
R16	2583+21.16 'NB'	36.14 LT	761075.5180	863874.1146	70	947.72
R17	2583+27.76 'NB'	55.00 RT	761082.0009	863893.0347	90	945.98
R34	2583+67.56 'NB'	188.01 RT	761122.2325	864026.2330	200	935.56
R36	2582+95.90 'NB'	4582.66 LT	761124.0782	859255.5683	4526.66	N/A
R37	2583+74.25 'NB'	4582.66 LT	761124.0782	859255.5683	4578.66	N/A

STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R7	2581+10.25 'NB'	248.00 LT	760879.1440	863583.3026	200	953.31
R8	2581+50.10 'NB'	114.88 LT	760910.4176	863718.2355	90	944.04
R9	2581+56.53 'NB'	95.89 LT	760915.7994	863737.4978	70	945.21
R10	2582+04.05 'NB'	50.75 LT	760960.6614	863784.5341	5	946.92
R11	2581+85.25 'NB'	77.29 LT	760943.1493	863757.2995	65	945.67
R12	2582+50.37 'NB'	52.00 LT	761006.4748	863784.7017	4	947.05

PROJECT NO: 1112-06-75

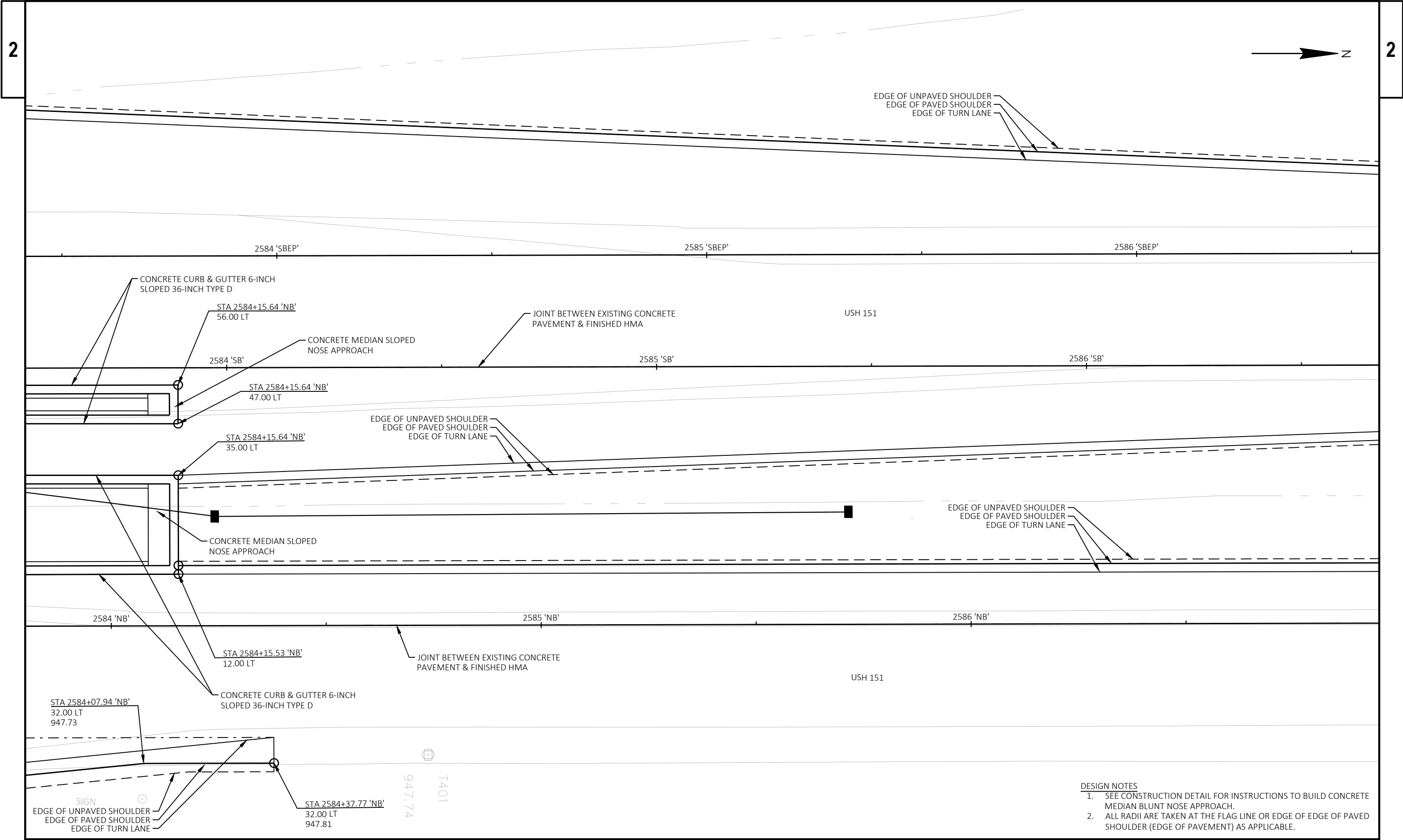
HWY: USH 151

COUNTY: DODGE

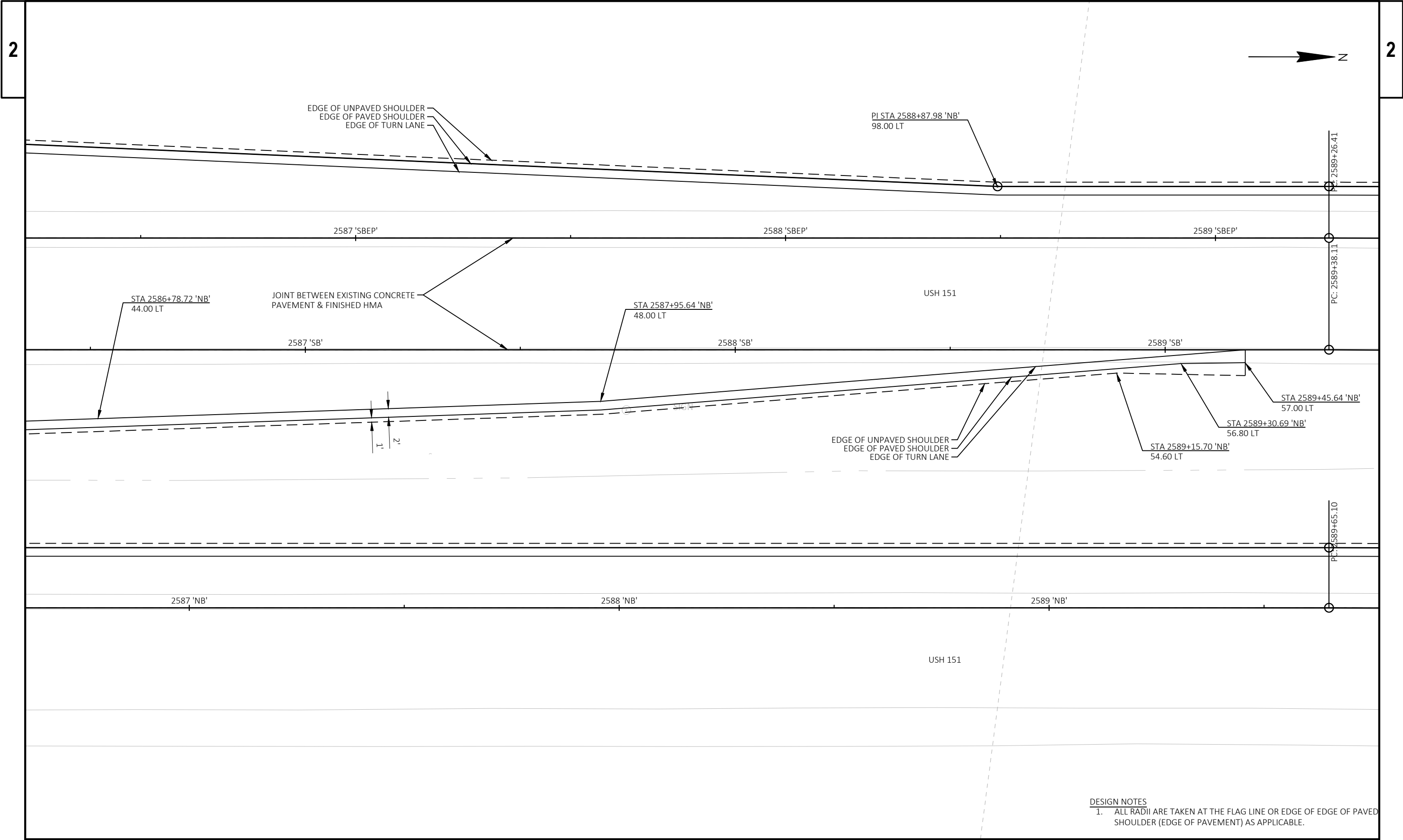
INTERSECTION DETAIL: USH 151 MEDIAN TURN LANES

SHEET

E

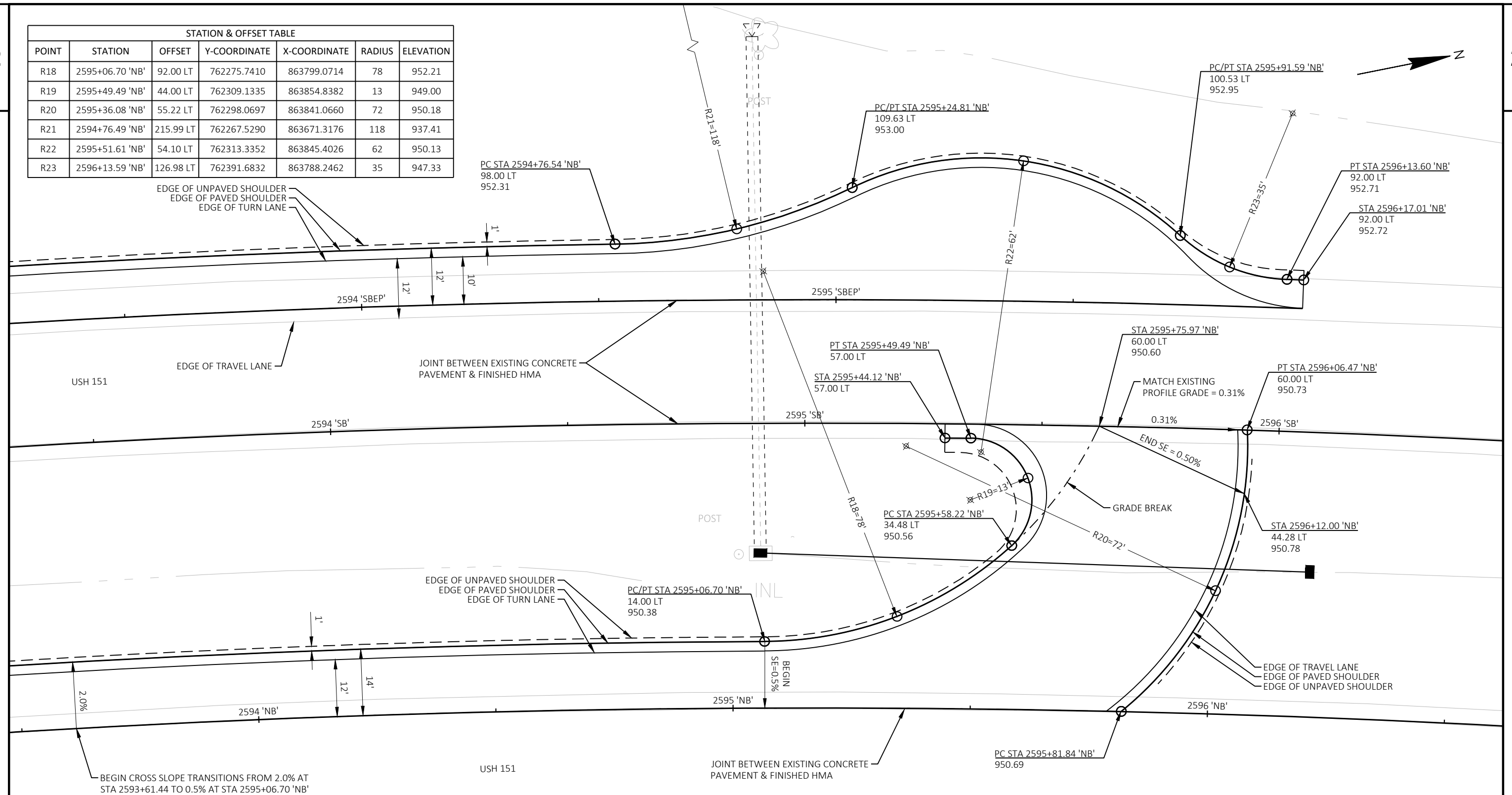


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	INTERSECTION DETAIL: USH 151 MEDIAN TURN LANES	SHEET	E
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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	INTERSECTION DETAIL: USH 151 MEDIAN TURN LANES	SHEET	E
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STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R18	2595+06.70 'NB'	92.00 LT	762275.7410	863799.0714	78	952.21
R19	2595+49.49 'NB'	44.00 LT	762309.1335	863854.8382	13	949.00
R20	2595+36.08 'NB'	55.22 LT	762298.0697	863841.0660	72	950.18
R21	2594+76.49 'NB'	215.99 LT	762267.5290	863671.3176	118	937.41
R22	2595+51.61 'NB'	54.10 LT	762313.3352	863845.4026	62	950.13
R23	2596+13.59 'NB'	126.98 LT	762391.6832	863788.2462	35	947.33



DESIGN NOTES

1. ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.

PROJECT NO: 1112-06-75

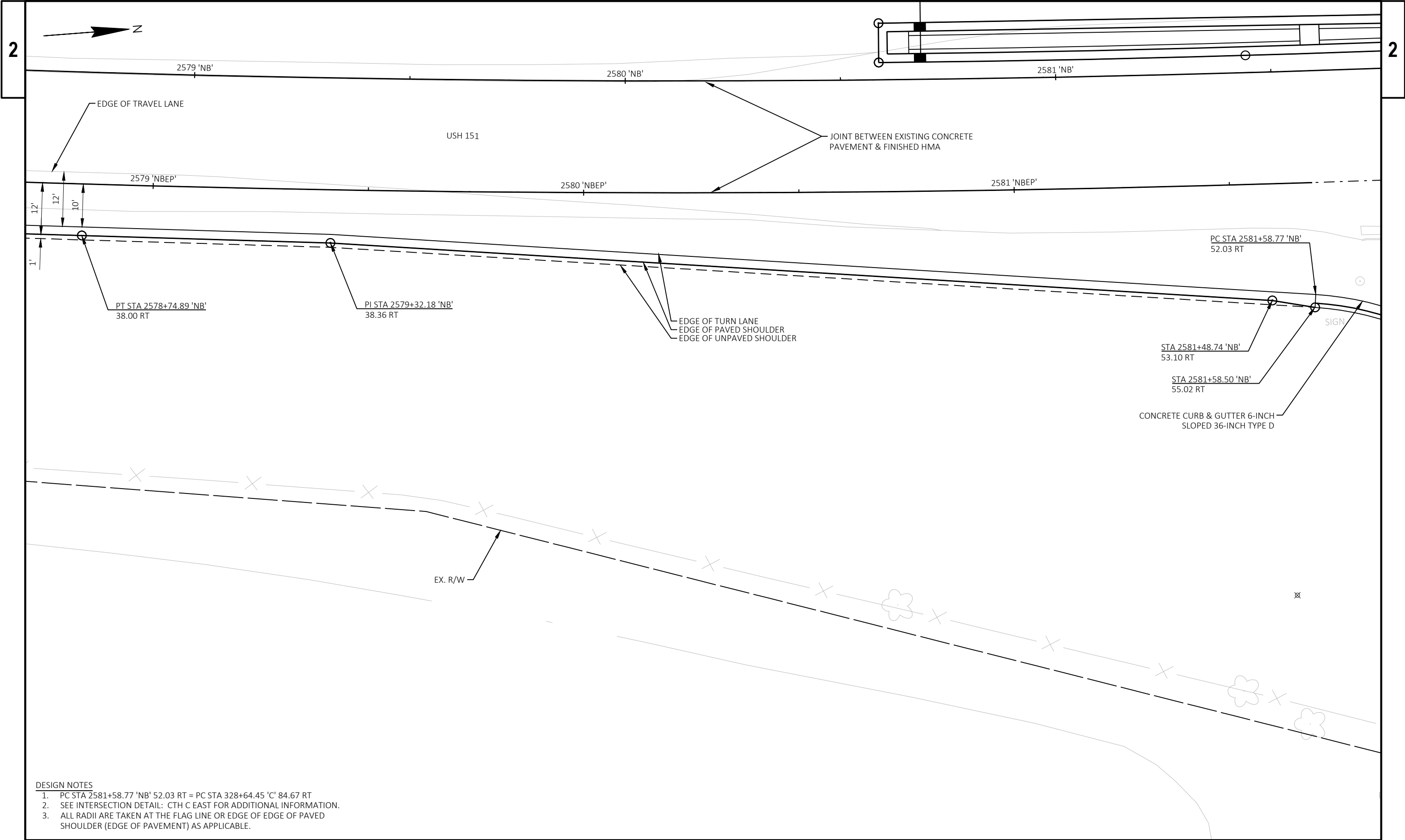
HWY: USH 151

COUNTY: DODGE

INTERSECTION DETAIL: USH 151 NB U-TURN LANE & USH 151 SB RIGHT TURN LANE

SHEET

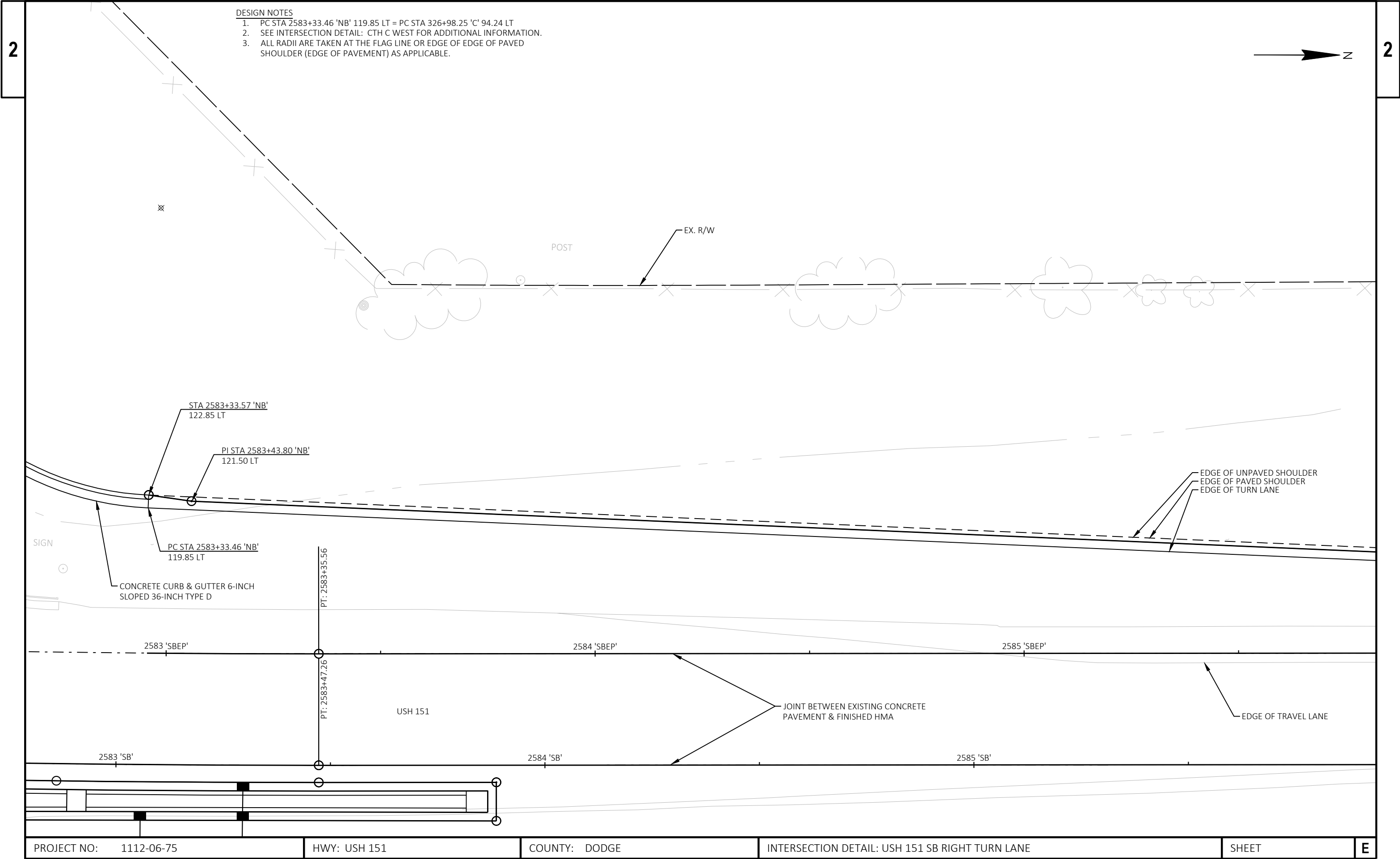
E



DESIGN NOTES

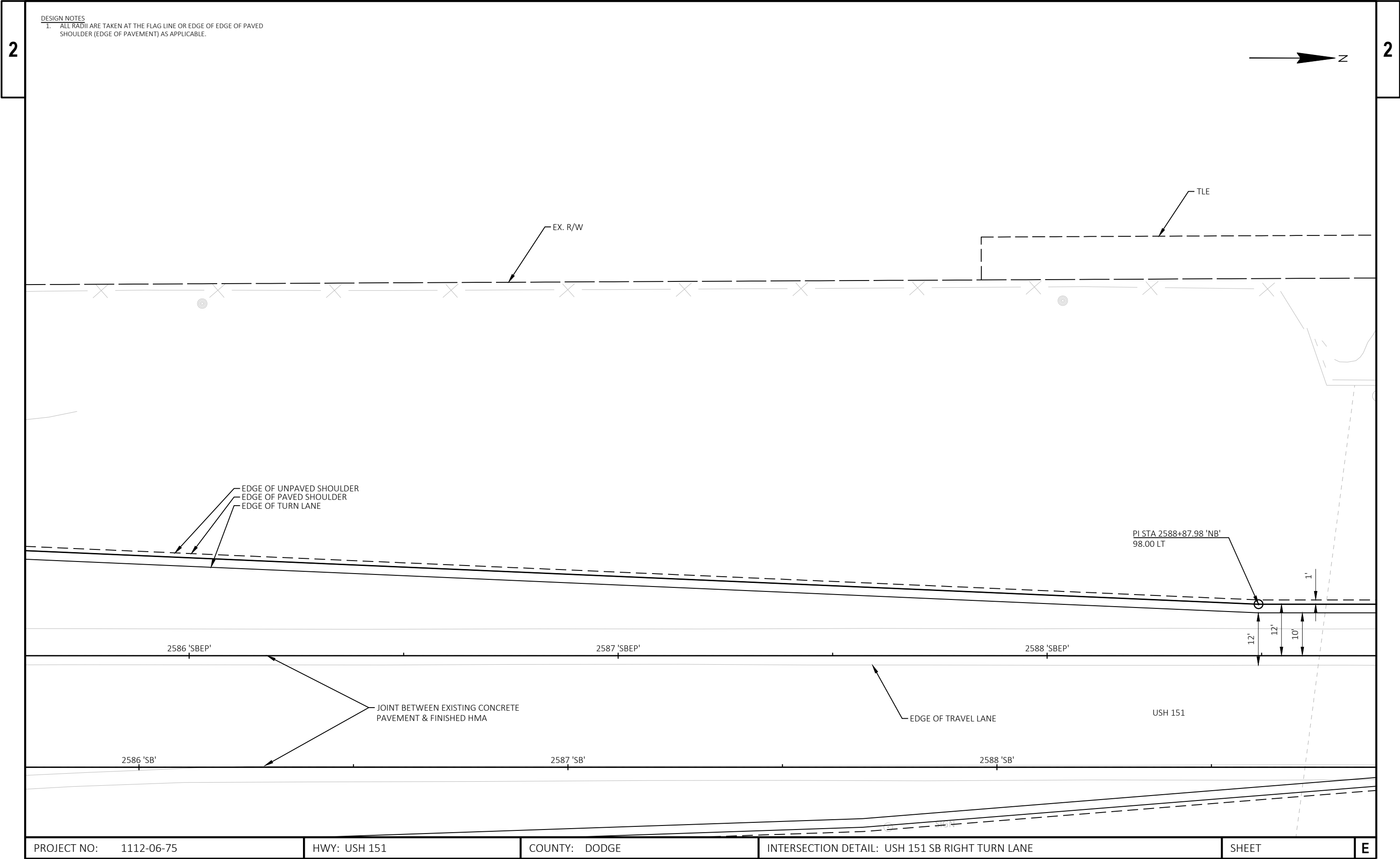
1. PC STA 2581+58.77 'NB' 52.03 RT = PC STA 328+64.45 'C' 84.67 RT
2. SEE INTERSECTION DETAIL: CTH C EAST FOR ADDITIONAL INFORMATION.
3. ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.

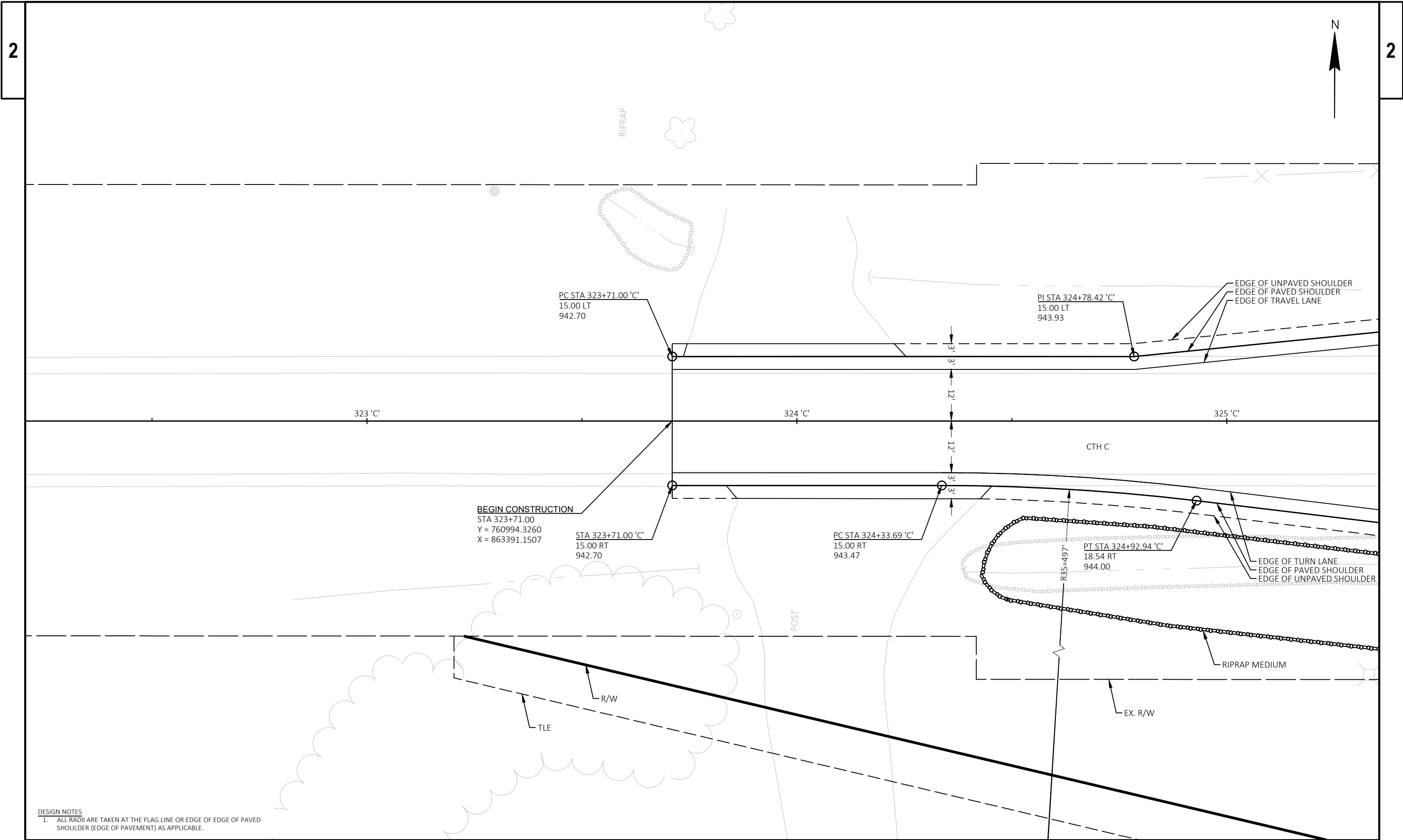
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	INTERSECTION DETAIL: USH 151 NB RIGHT TURN LANE	SHEET	E
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- DESIGN NOTES
1. PC STA 2583+33.46 'NB' 119.85 LT = PC STA 326+98.25 'C' 94.24 LT
 2. SEE INTERSECTION DETAIL: CTH C WEST FOR ADDITIONAL INFORMATION.
 3. ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.

PROJECT NO:	1112-06-75	HWY:	USH 151	COUNTY:	DODGE	INTERSECTION DETAIL:	USH 151 SB RIGHT TURN LANE	SHEET	E
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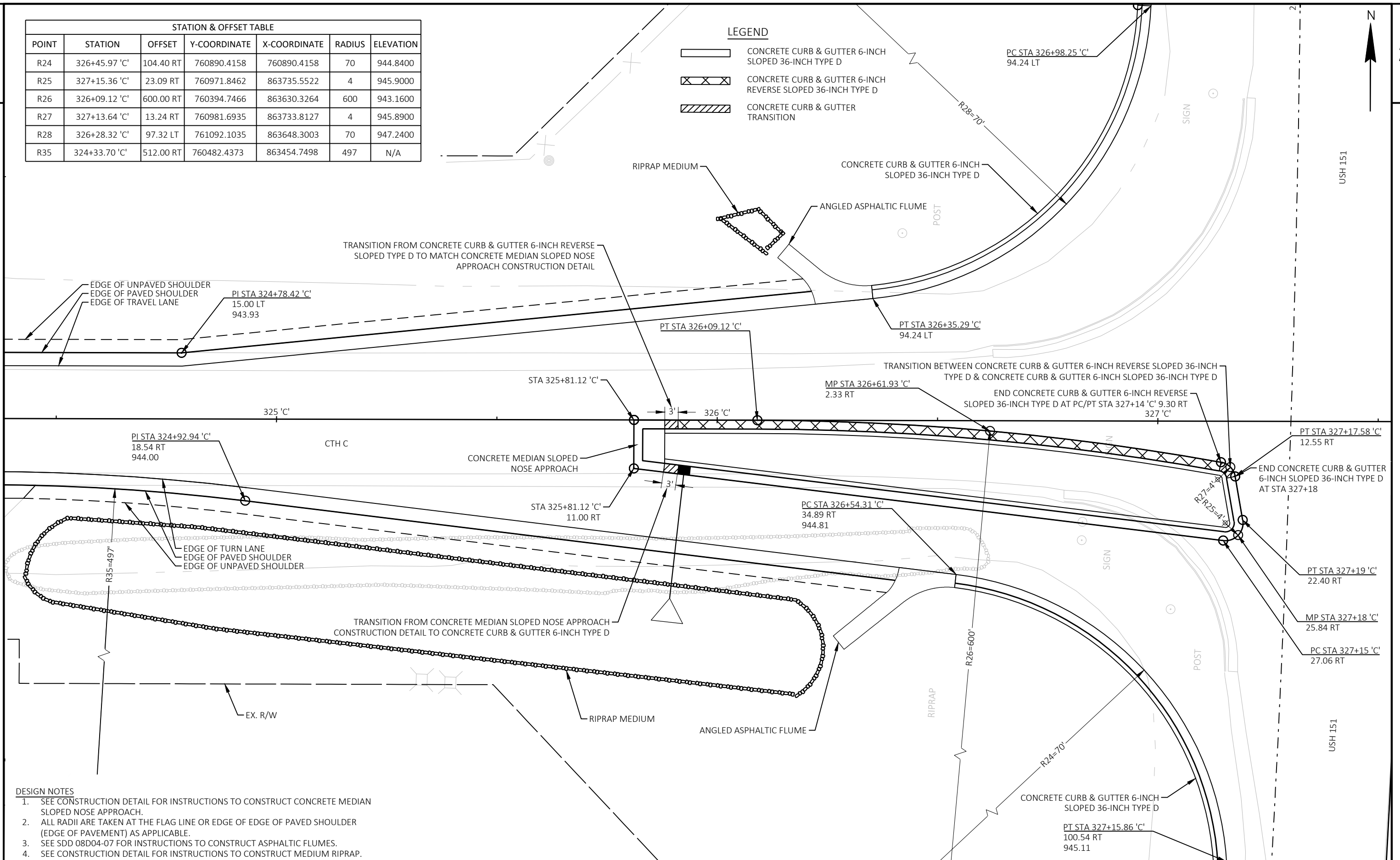
DESIGN NOTES
1. ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	INTERSECTION DETAIL: CTH C WEST	SHEET	E
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STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R24	326+45.97 'C'	104.40 RT	760890.4158	760890.4158	70	944.8400
R25	327+15.36 'C'	23.09 RT	760971.8462	863735.5522	4	945.9000
R26	326+09.12 'C'	600.00 RT	760394.7466	863630.3264	600	943.1600
R27	327+13.64 'C'	13.24 RT	760981.6935	863733.8127	4	945.8900
R28	326+28.32 'C'	97.32 LT	761092.1035	863648.3003	70	947.2400
R35	324+33.70 'C'	512.00 RT	760482.4373	863454.7498	497	N/A

LEGEND

- CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH TYPE D
- CONCRETE CURB & GUTTER 6-INCH
REVERSE SLOPED 36-INCH TYPE D
- CONCRETE CURB & GUTTER
TRANSITION



DESIGN NOTES

- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO CONSTRUCT CONCRETE MEDIAN SLOPED NOSE APPROACH.
- ALL RADII ARE TAKEN AT THE FLAG LINE OR EDGE OF EDGE OF PAVED SHOULDER (EDGE OF PAVEMENT) AS APPLICABLE.
- SEE SDD 08D04-07 FOR INSTRUCTIONS TO CONSTRUCT ASPHALTIC FLUMES.
- SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO CONSTRUCT MEDIUM RIPRAP.

PROJECT NO: 1112-06-75

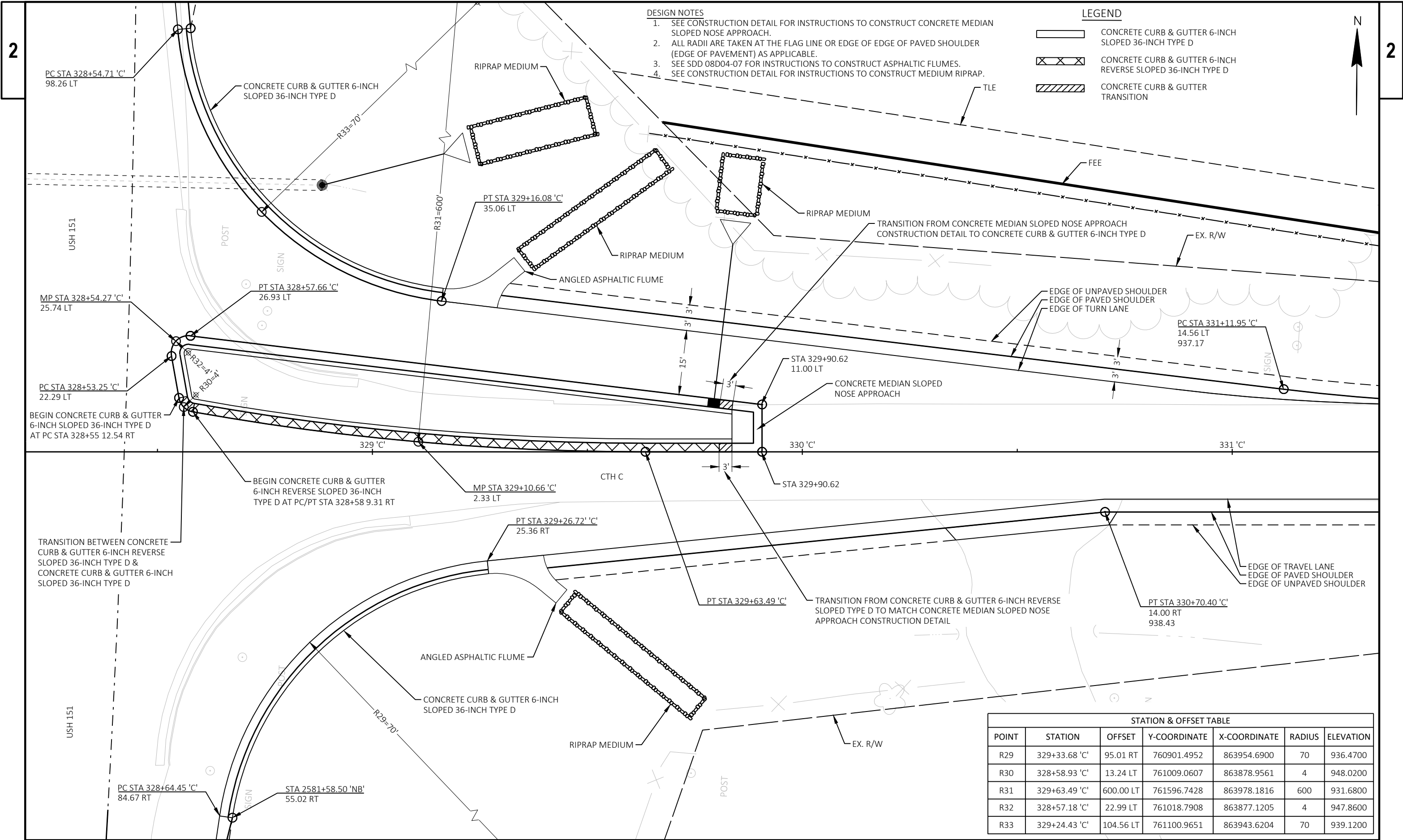
HWY: USH 151

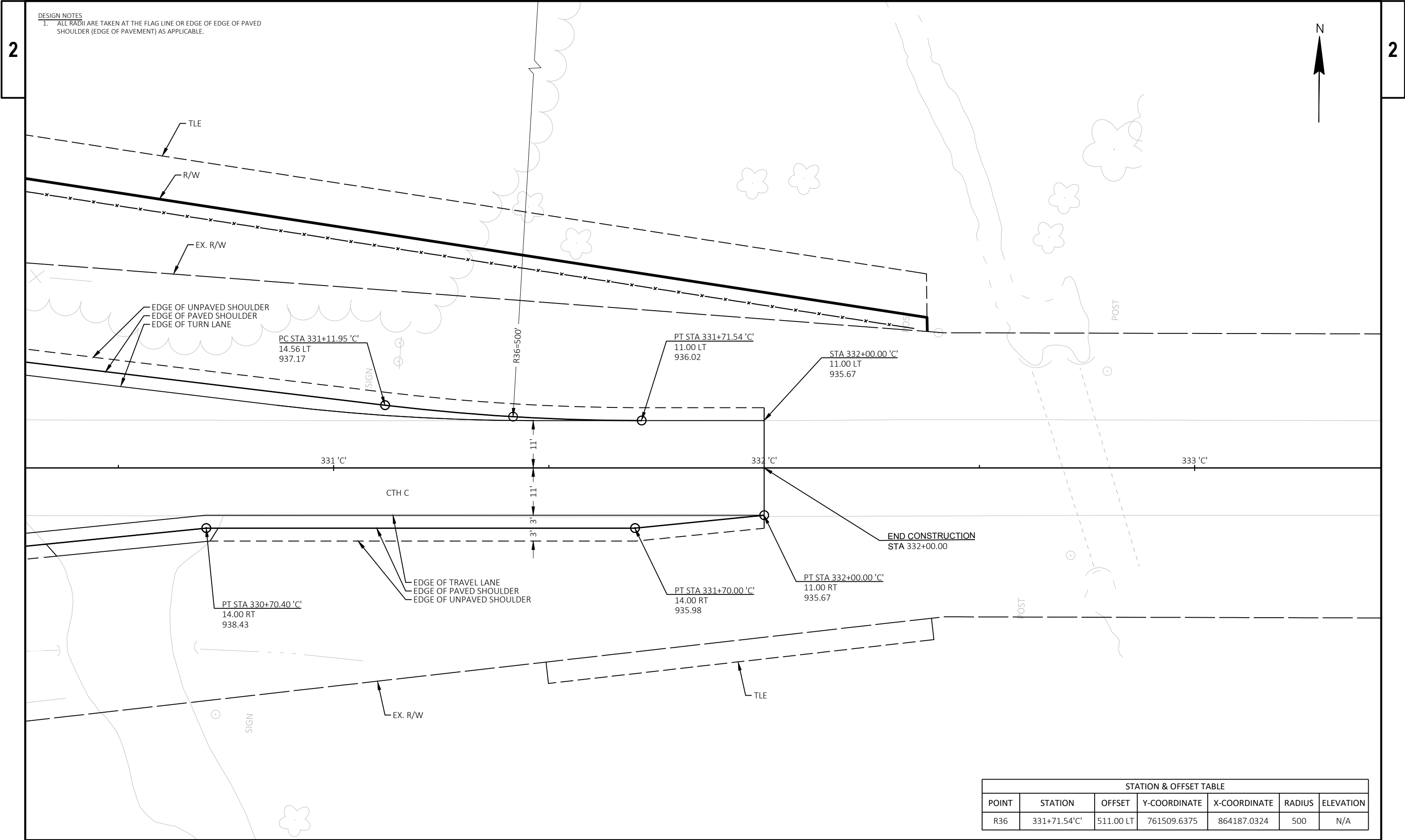
COUNTY: DODGE

INTERSECTION DETAIL: CTH C WEST

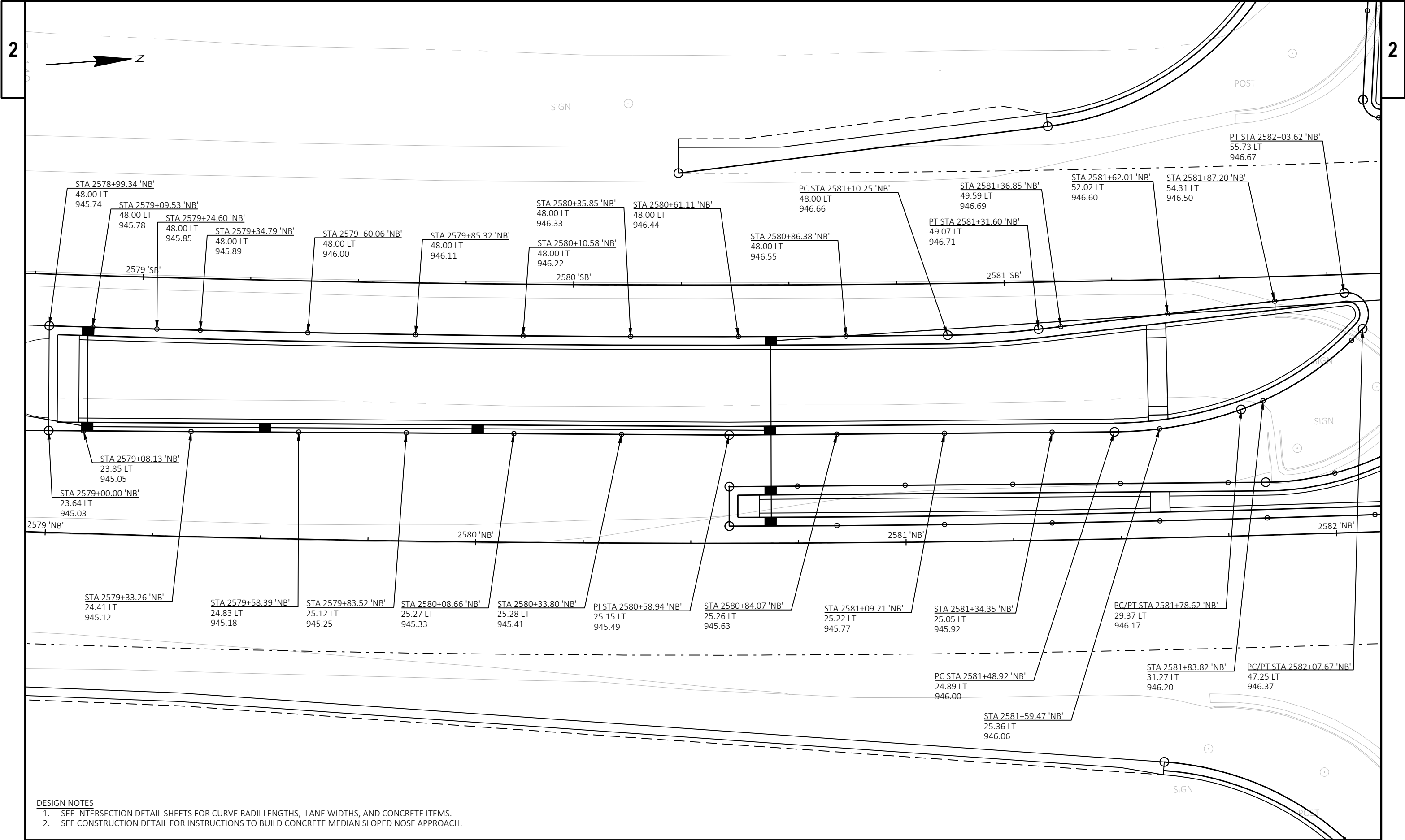
SHEET

E



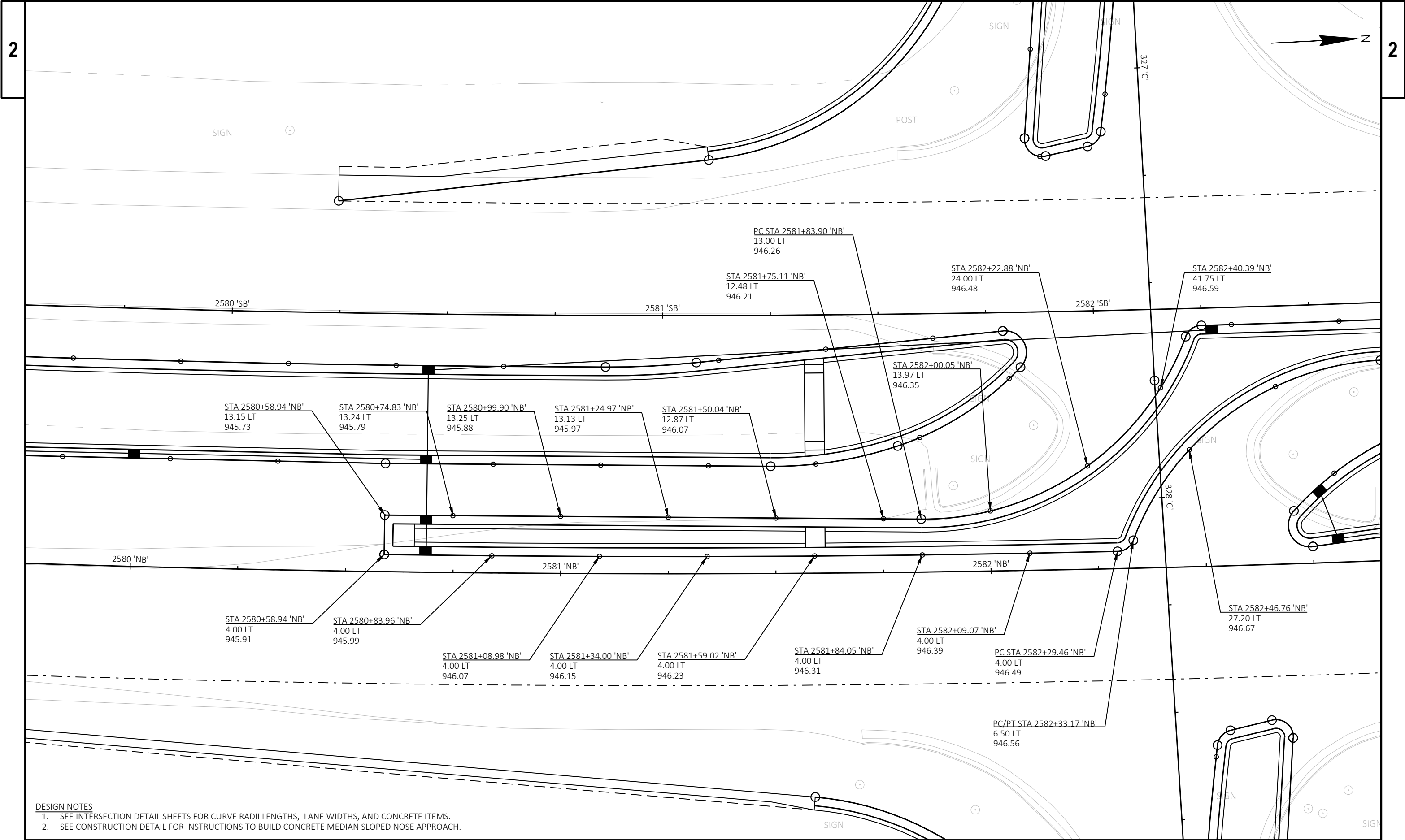


STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y-COORDINATE	X-COORDINATE	RADIUS	ELEVATION
R36	331+71.54'C'	511.00 LT	761509.6375	864187.0324	500	N/A



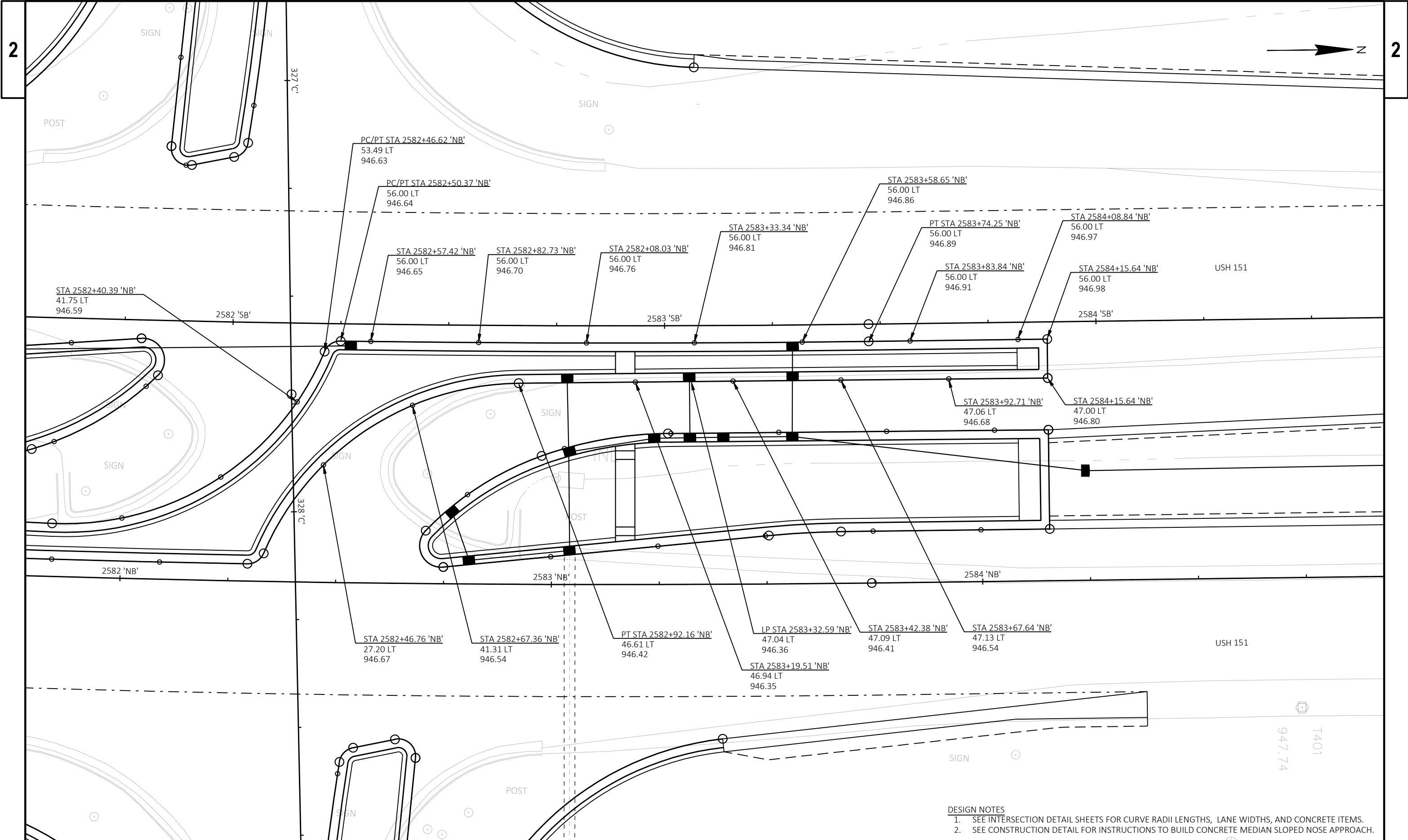
DESIGN NOTES
1. SEE INTERSECTION DETAIL SHEETS FOR CURVE RADII LENGTHS, LANE WIDTHS, AND CONCRETE ITEMS.
2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN SLOPED NOSE APPROACH.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PAVEMENT GRADES: USH 151 SOUTH MEDIAN ISLAND	SHEET E
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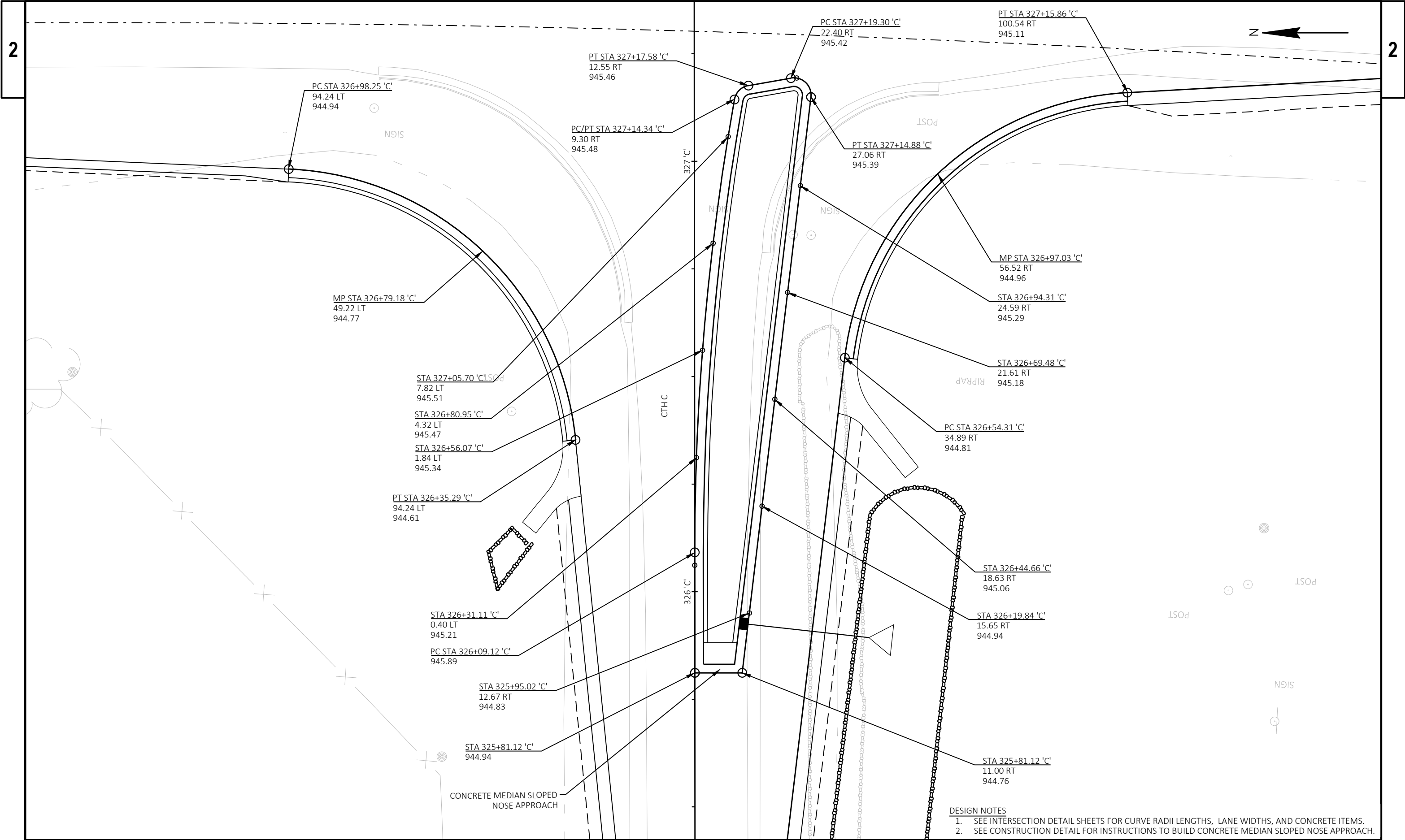
DESIGN NOTES
1. SEE INTERSECTION DETAIL SHEETS FOR CURVE RADII LENGTHS, LANE WIDTHS, AND CONCRETE ITEMS.
2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN SLOPED NOSE APPROACH.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PAVEMENT GRADES: USH 151 CENTER MEDIAN ISLAND	SHEET E
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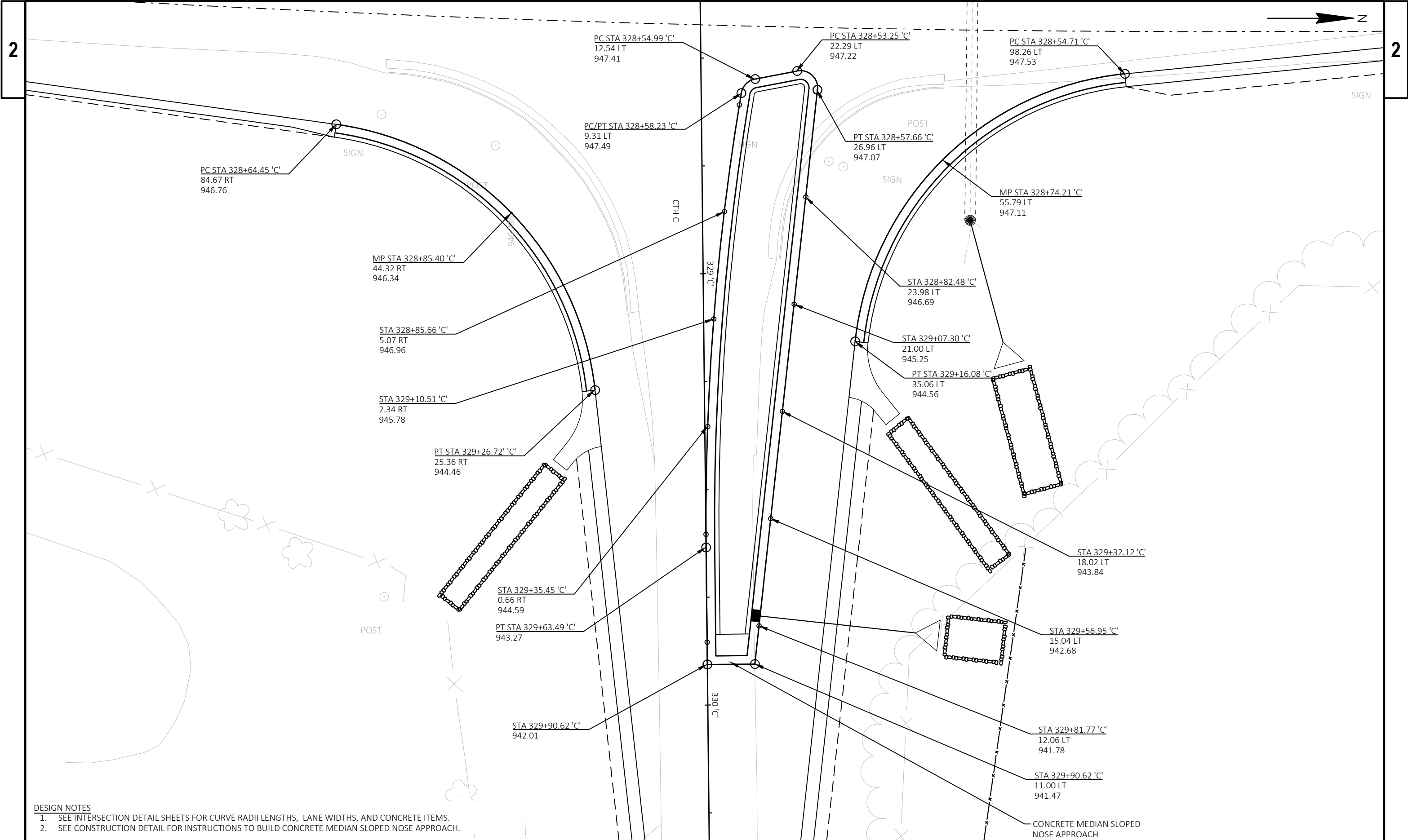
- DESIGN NOTES
- 1. SEE INTERSECTION DETAIL SHEETS FOR CURVE RADII LENGTHS, LANE WIDTHS, AND CONCRETE ITEMS.
 - 2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN SLOPED NOSE APPROACH.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PAVEMENT GRADES: USH 151 CENTER MEDIAN ISLAND	SHEET E
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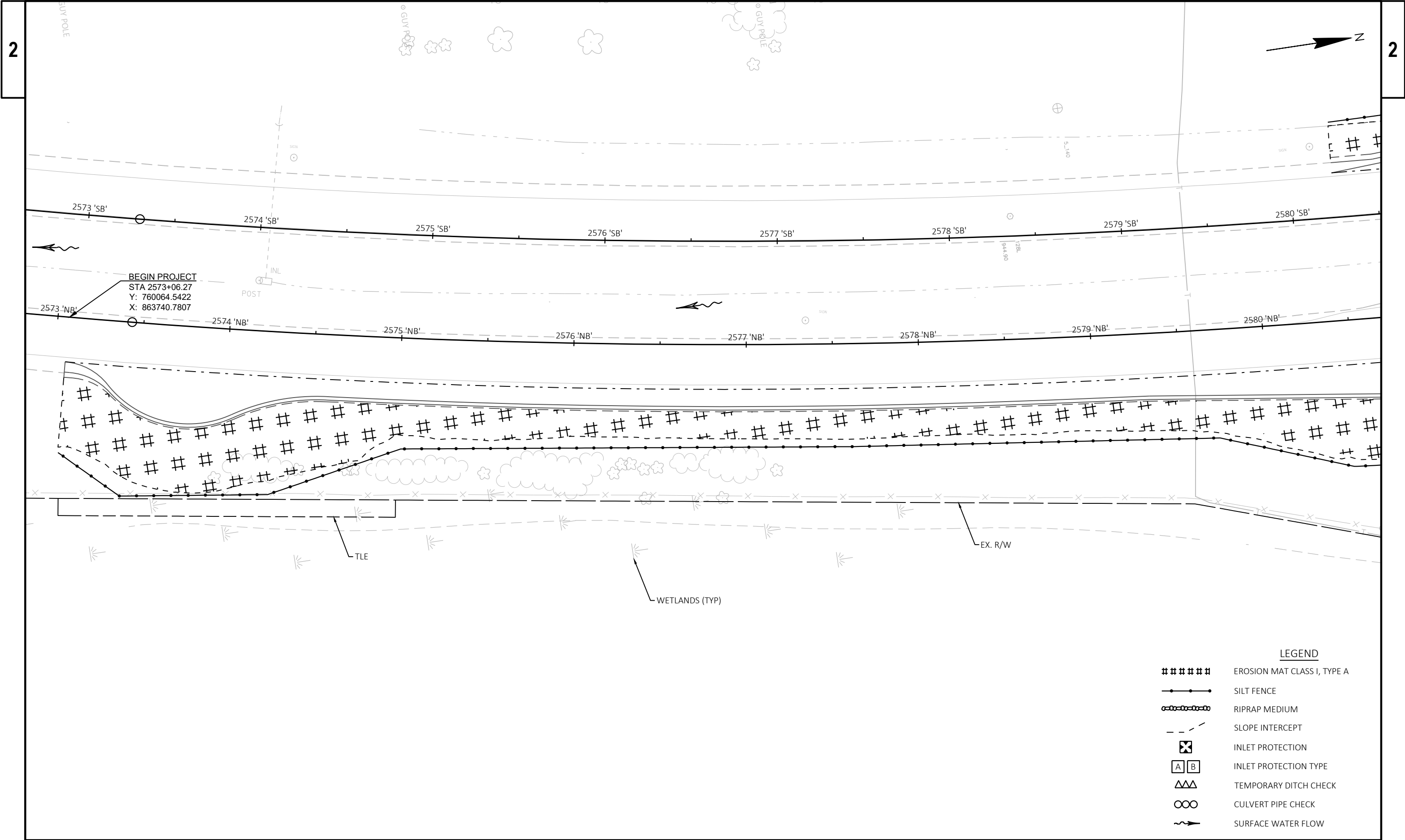
- DESIGN NOTES
1. SEE INTERSECTION DETAIL SHEETS FOR CURVE RADII LENGTHS, LANE WIDTHS, AND CONCRETE ITEMS.
 2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN SLOPED NOSE APPROACH.

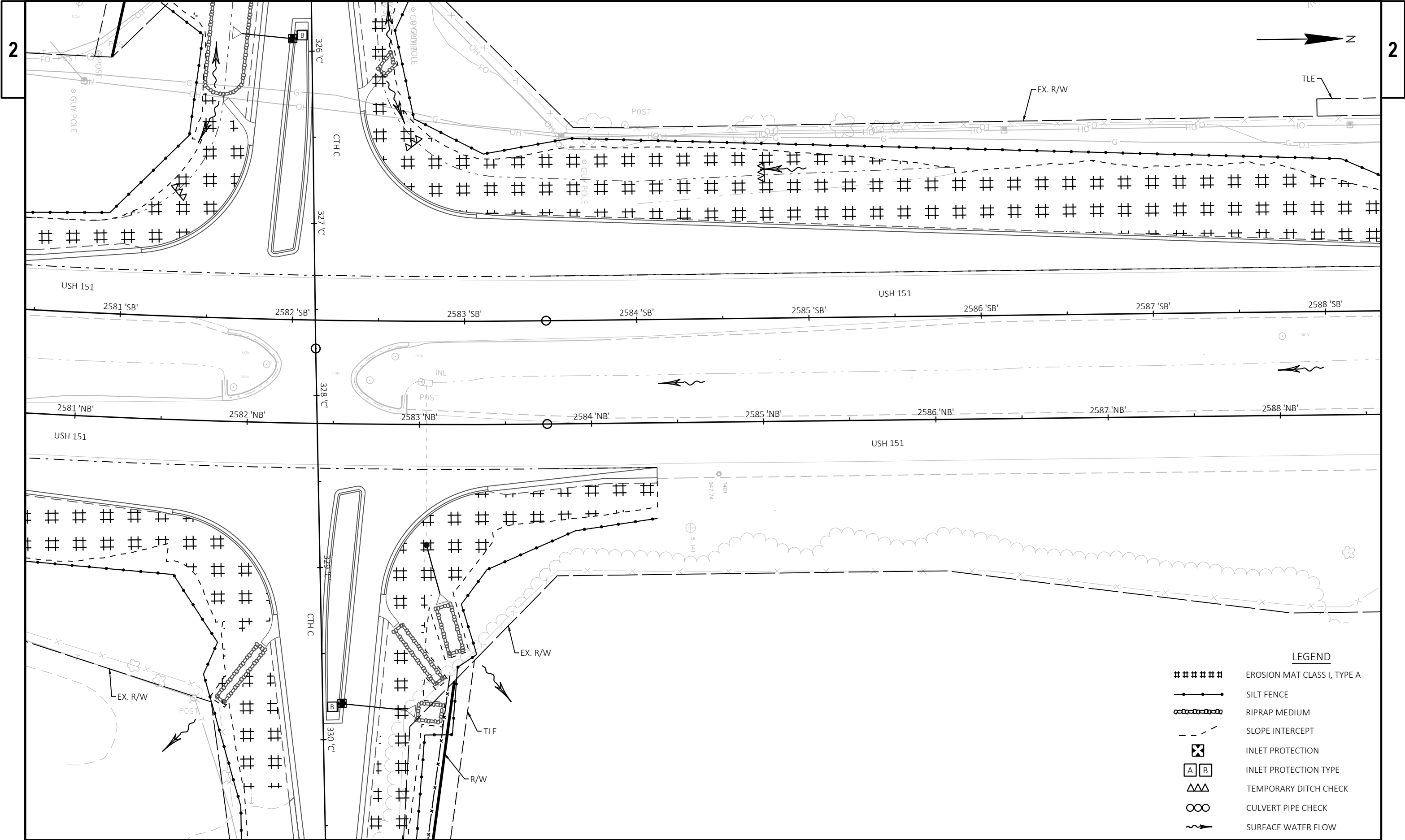
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PAVEMENT GRADES: CTH C WEST	SHEET	E
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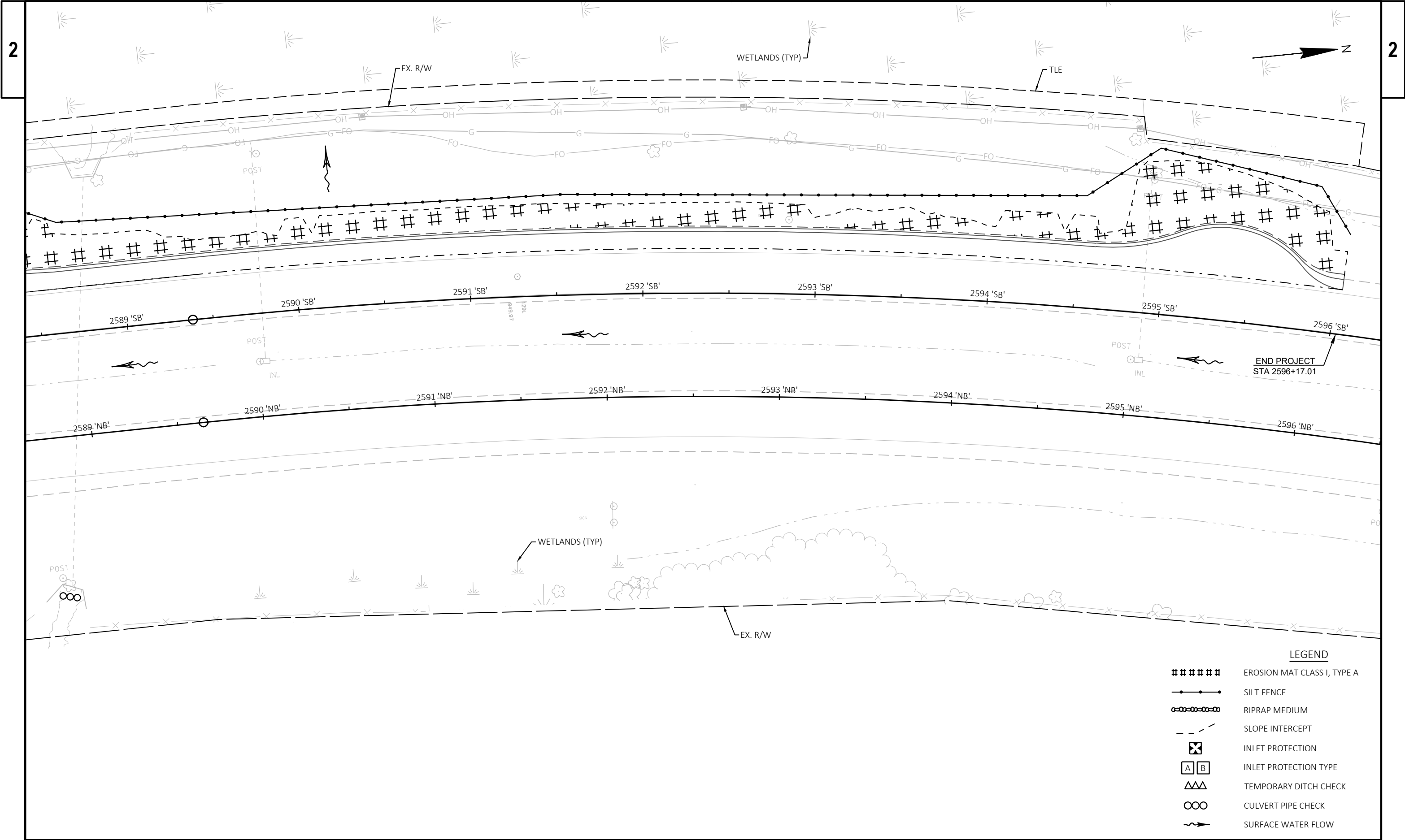
- DESIGN NOTES
- 1. SEE INTERSECTION DETAIL SHEETS FOR CURVE RADII LENGTHS, LANE WIDTHS, AND CONCRETE ITEMS.
 - 2. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD CONCRETE MEDIAN SLOPED NOSE APPROACH.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PAVEMENT GRADES: CTH C EAST	SHEET	E
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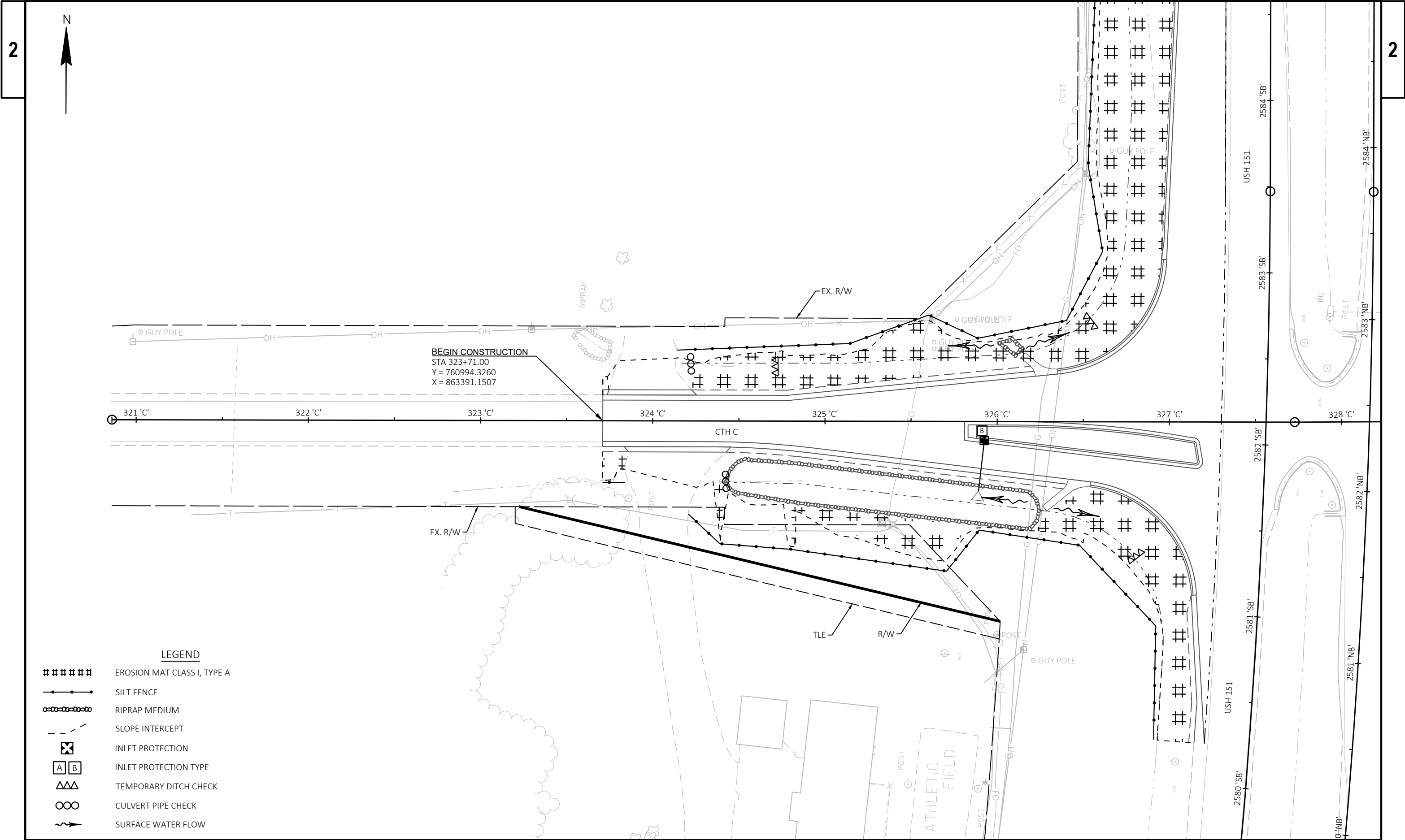




PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	EROSION CONTROL - STAGE 1	SHEET	E
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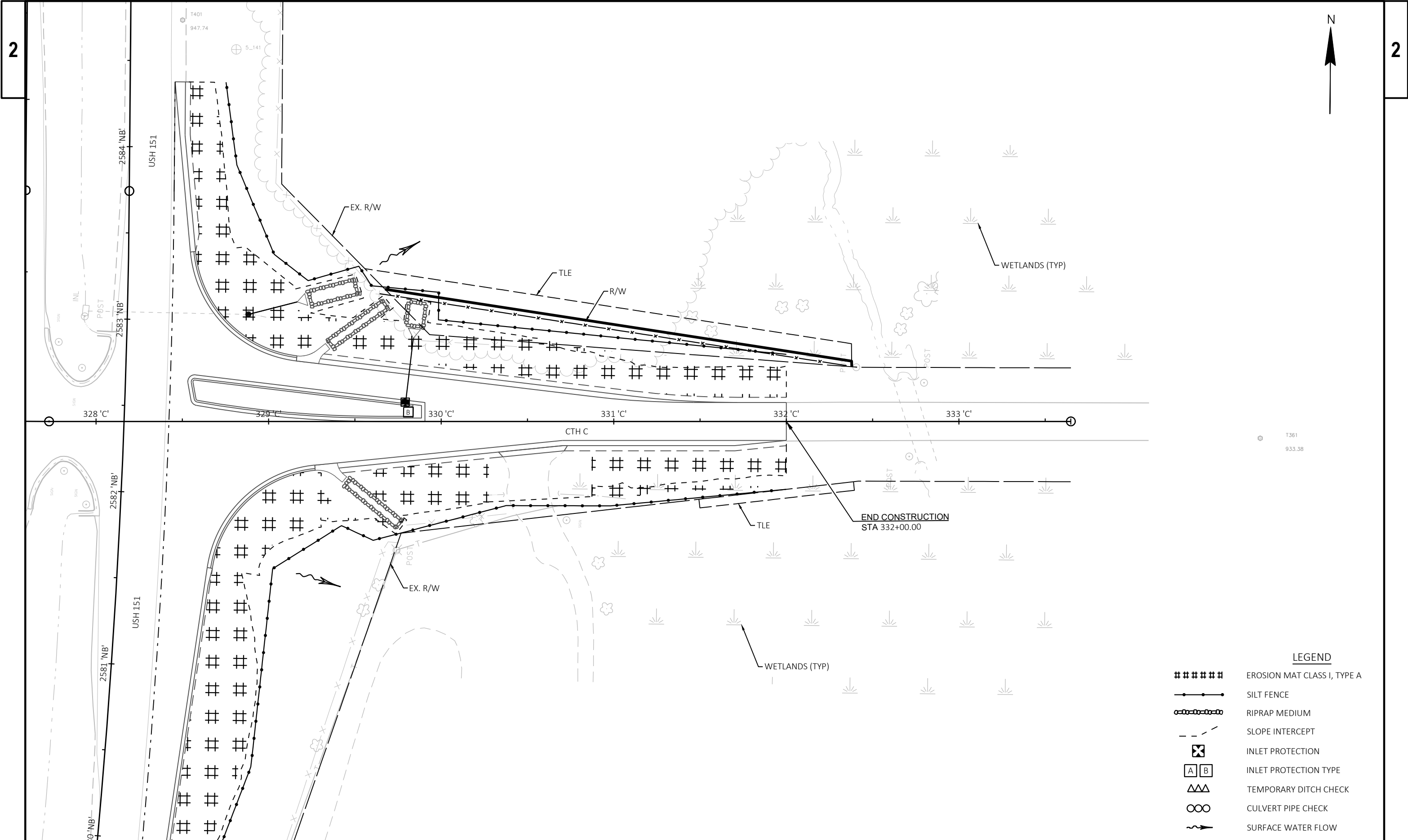


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	EROSION CONTROL - STAGE 1	SHEET	E
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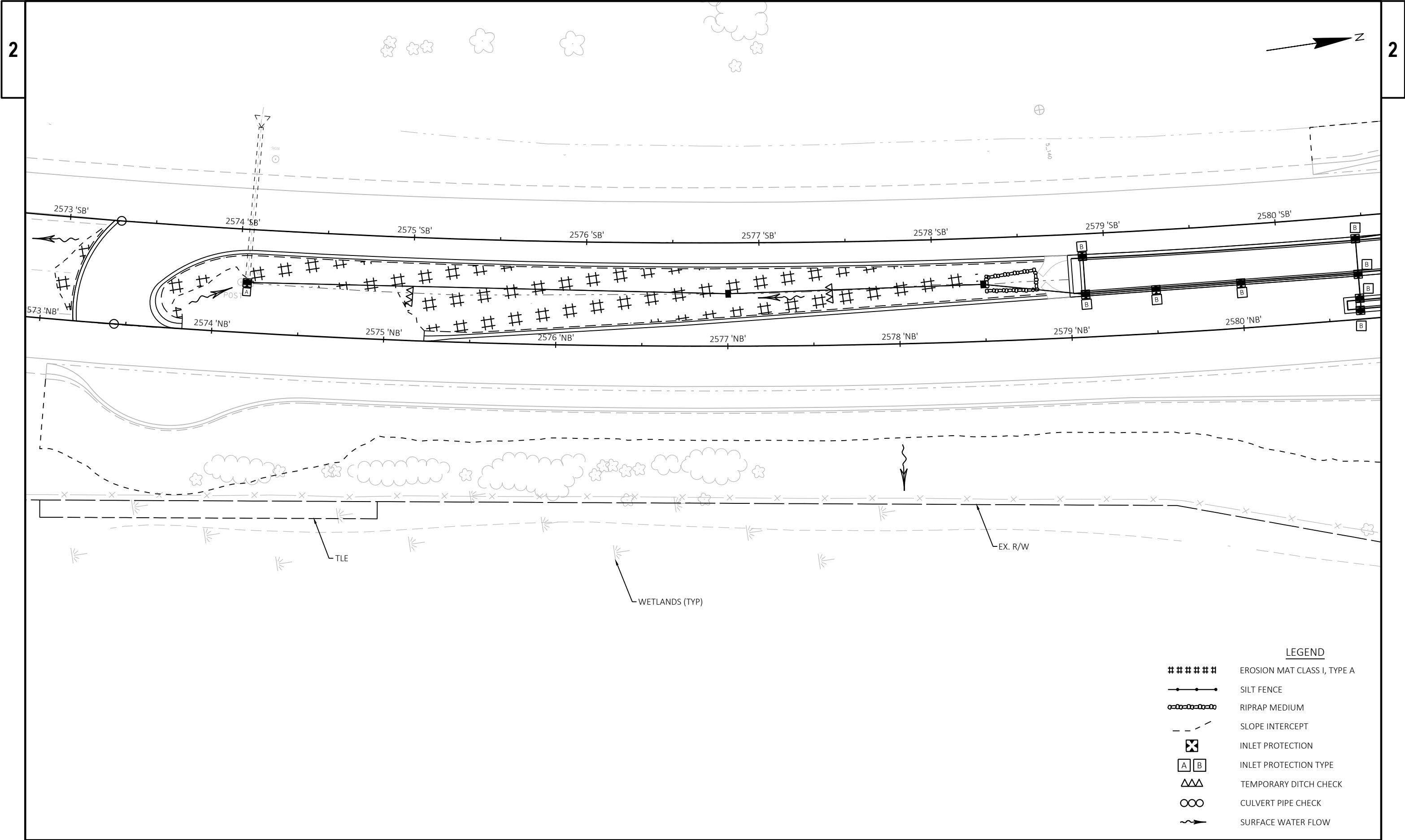


LEGEND

- ##### EROSION MAT CLASS I, TYPE A
- SILT FENCE
- RIPRAP MEDIUM
- - - SLOPE INTERCEPT
- ⊗ INLET PROTECTION
- [A] [B] INLET PROTECTION TYPE
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ~ SURFACE WATER FLOW

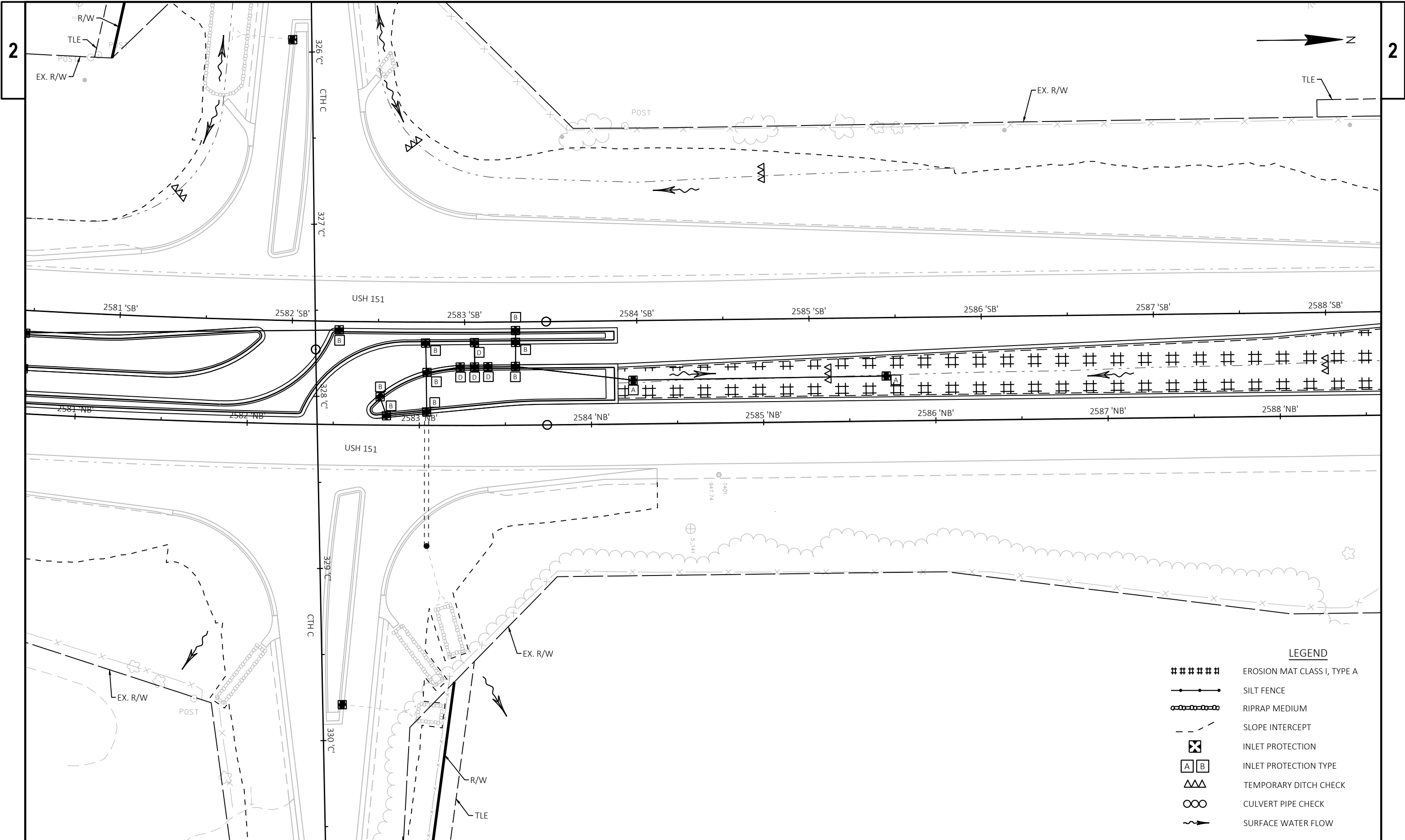


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	EROSION CONTROL - STAGE 1	SHEET	E
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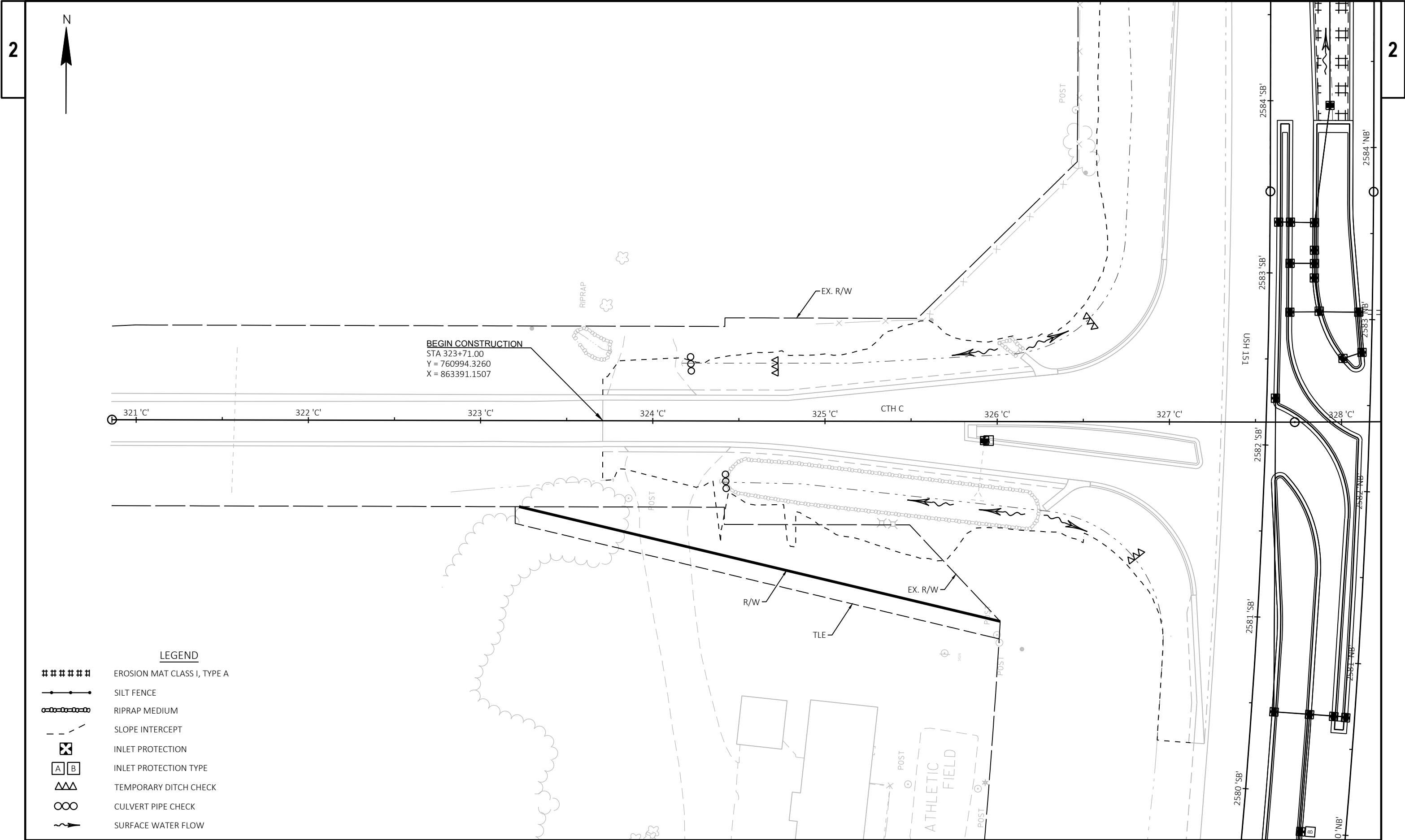
LEGEND

- #### EROSION MAT CLASS I, TYPE A
- SILT FENCE
- chain link RIPRAP MEDIUM
- - - SLOPE INTERCEPT
- X INLET PROTECTION
- A B INLET PROTECTION TYPE
- AAA TEMPORARY DITCH CHECK
- OO CULVERT PIPE CHECK
- wavy arrow SURFACE WATER FLOW



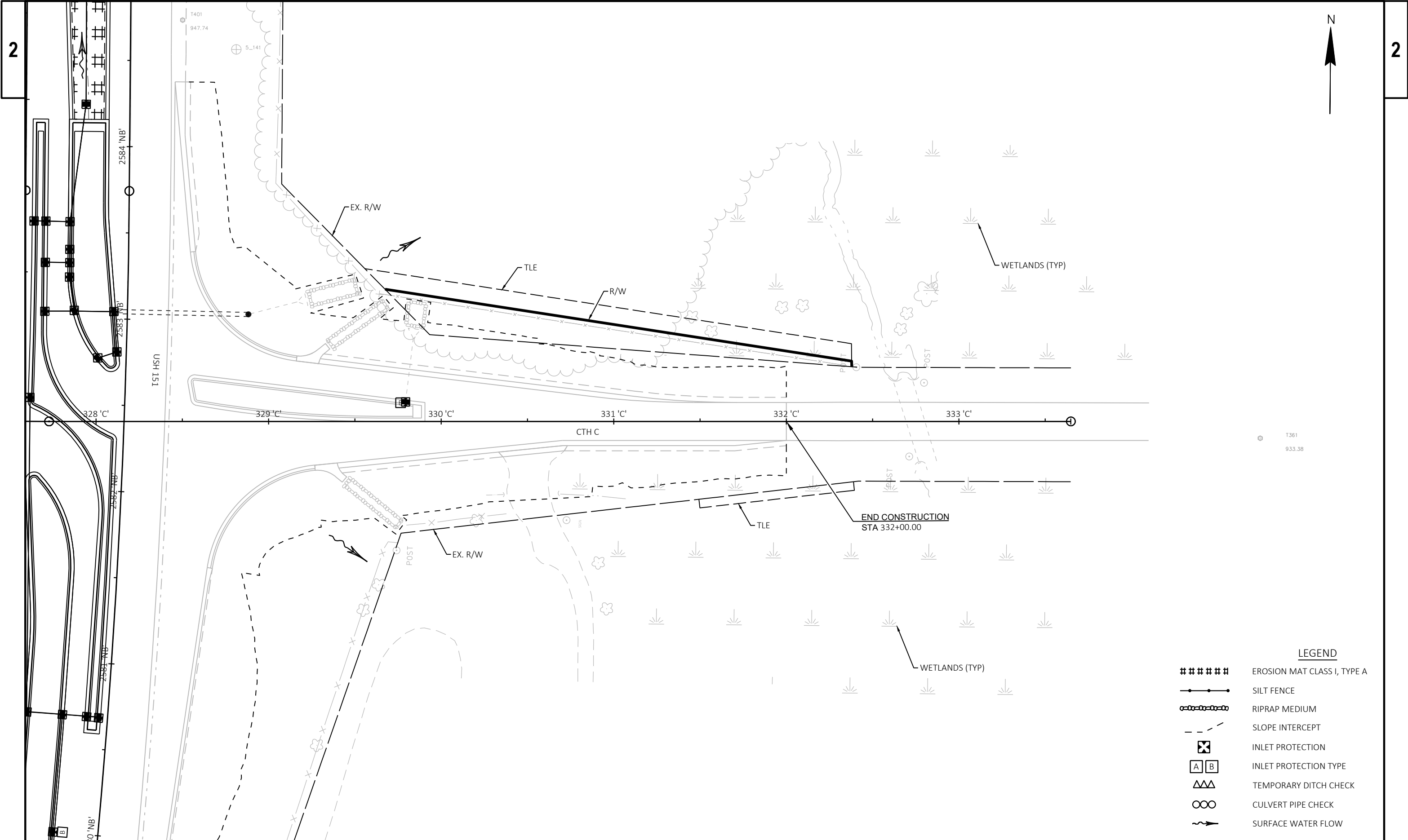
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LEGEND

- ##### EROSION MAT CLASS I, TYPE A
- SILT FENCE
- RIPRAP MEDIUM
- - - SLOPE INTERCEPT
- ⊗ INLET PROTECTION
- [A] [B] INLET PROTECTION TYPE
- △△△ TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- ~> SURFACE WATER FLOW



STORM SEWER STRUCTURES										
STRUCTURE	STATION	OFFSET	RIM ELEVATION	INVERT ELEVATION	DEPTH (FT)	CATCH BASINS	MANHOLES	INLETS	INLET COVERS	REMARKS
EW01	2574+22	119.56 LT	--	935.92	--	--	--	--	--	EXISTING ENDWALL TO REMAIN
1	2574+19	29.22 LT	941.00	937.14	3.86	--	--	MEDIAN 2 GRATE	MS	REMOVE EXISTING MEDIAN INLET. SEE NOTE 9.
2	2577+00	30.47 LT	942.32	938.69	3.63	--	--	MEDIAN 2 GRATE	MS	
3	2578+49	33.16 LT	943.22	939.31	3.91	--	--	MEDIAN 2 GRATE	MS	
4	2579+09	24.87 LT	945.05	940.00	4.09	6'	--	--	F	SUMP DEPTH OF 0' REQUIRED
5	2579+50	25.73 LT	945.16	940.50	3.70	--	--	2.5'x3'	F	
6	2580+00	26.31 LT	945.31	940.71	3.64	--	--	2.5'x3'	F	
7	2580+69	26.21 LT	945.54	941.00	3.58	--	--	2.5'x3'	F	
8	2580+69	47.00 LT	946.48	941.82	3.70	--	--	2.5'x3'	F	
9	2582+53	54.93 LT	946.64	942.65	3.03	--	--	2.5'x3'	F	
10	2579+08	47.00 LT	945.56	941.35	3.25	--	--	2.5'x3'	F	
11	2580+69	12.21 LT	945.76	941.89	2.91	--	--	2.5'x3'	F	
12	2580+69	5.00 LT	945.94	942.28	2.70	--	--	2.5'x3'	F	
EW02	2583+12	98.28 RT	--	939.59	--	--	--	--	--	APRON ENDWALL 24-INCH
13	2583+04	70.12 RT	946.80	939.72	5.84	--	4'	--	J	REMOVE EXISTING APRON ENDWALL. SEE NOTE 9.
14	2583+04	7.89 LT	946.50	940.40	5.14	5'	--	--	F	SUMP DEPTH OF 0' REQUIRED. SEE NOTE 9.
15	2583+04	30.74 LT	946.31	940.82	4.53	5'	--	--	F	SUMP DEPTH OF 0' REQUIRED
16	2583+24	33.92 LT	946.27	940.98	4.33	--	--	2.5'x3'	F	
17	2583+32	34.04 LT	946.26	941.13	4.17	--	--	2.5'x3'	F	
18	2583+40	34.08 LT	946.27	941.28	4.03	--	--	2.5'x3'	F	
19	2583+56	34.13 LT	946.30	941.45	3.89	5'	--	--	F	SUMP DEPTH OF 0' REQUIRED
20	2584+25	25.42 LT	945.41	941.79	3.62	--	--	MEDIAN 2 GRATE	MS	
21	2585+71	26.13 LT	944.90	942.39	2.51	--	--	MEDIAN 2 GRATE	MS	
22	2582+77	16.72 LT	946.45	942.26	3.23	--	--	2.5'x3'	F	
23	2582+81	5.50 LT	946.43	941.80	3.67	--	--	2.5'x3'	F	
24	2583+04	47.76 LT	946.39	941.87	3.56	--	--	2.5'x3'	F	
25	2583+56	48.13 LT	946.48	942.44	3.08	--	--	2.5'x3'	F	
26	2583+56	55.00 LT	946.86	942.87	3.03	--	--	2.5'x3'	F	
EW03	2595+05	141.46 LT	--	940.08	--	--	--	--	--	EXISTING ENDWALL TO REMAIN
27	2595+06	32.69 LT	946.92	941.71	5.21	--	--	MEDIAN 2 GRATE	MS	REMOVE EXISTING MEDIAN INLET. SEE NOTE 9.
28	2596+20	30.53 LT	947.99	944.00	3.99	--	--	MEDIAN 1 GRATE	MS	
29	325+93	11.36 RT	944.82	941.82	2.04	--	--	2.5'x3'	F	
EW04	325+89	40.44 RT	--	941.35	--	--	--	--	--	APRON ENDWALL 15-INCH
30	329+79	11.34 LT	941.86	938.86	2.04	--	--	2.5'x3'	F	
EW05	329+84	48.28 LT	--	938.50	--	--	--	--	--	APRON ENDWALL 15-INCH
31	2583+32	48.04 LT	946.36	942.16	3.24	--	--	2.5'x3'	F	

RUNOFF COEFFICIENT TABLE

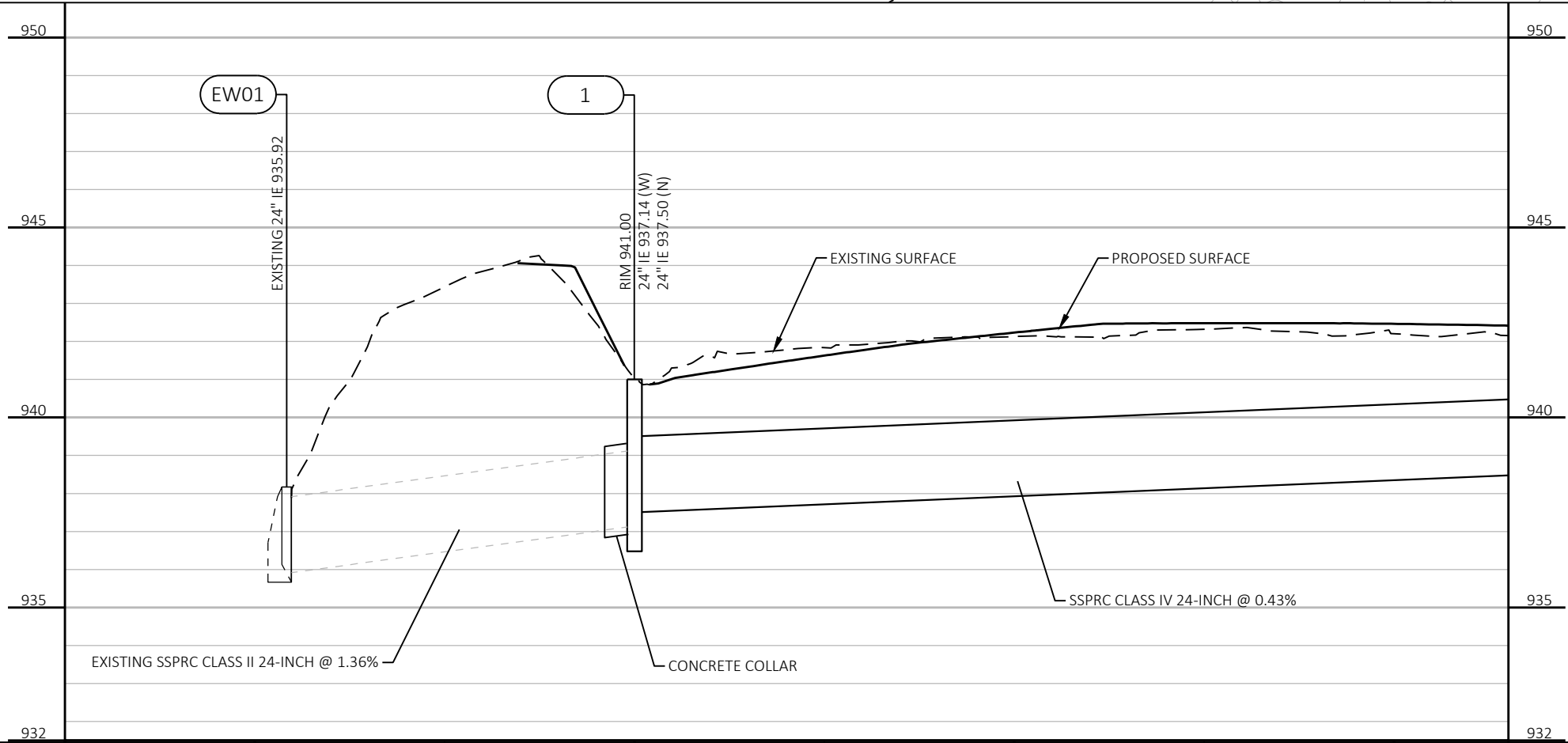
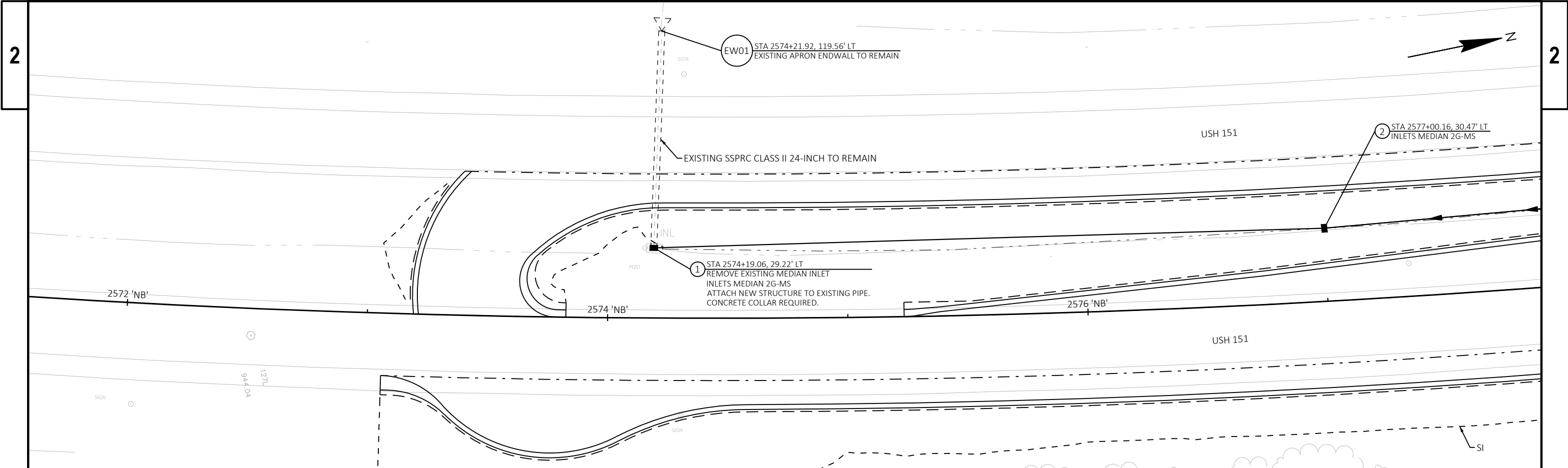
LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPETURF:			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

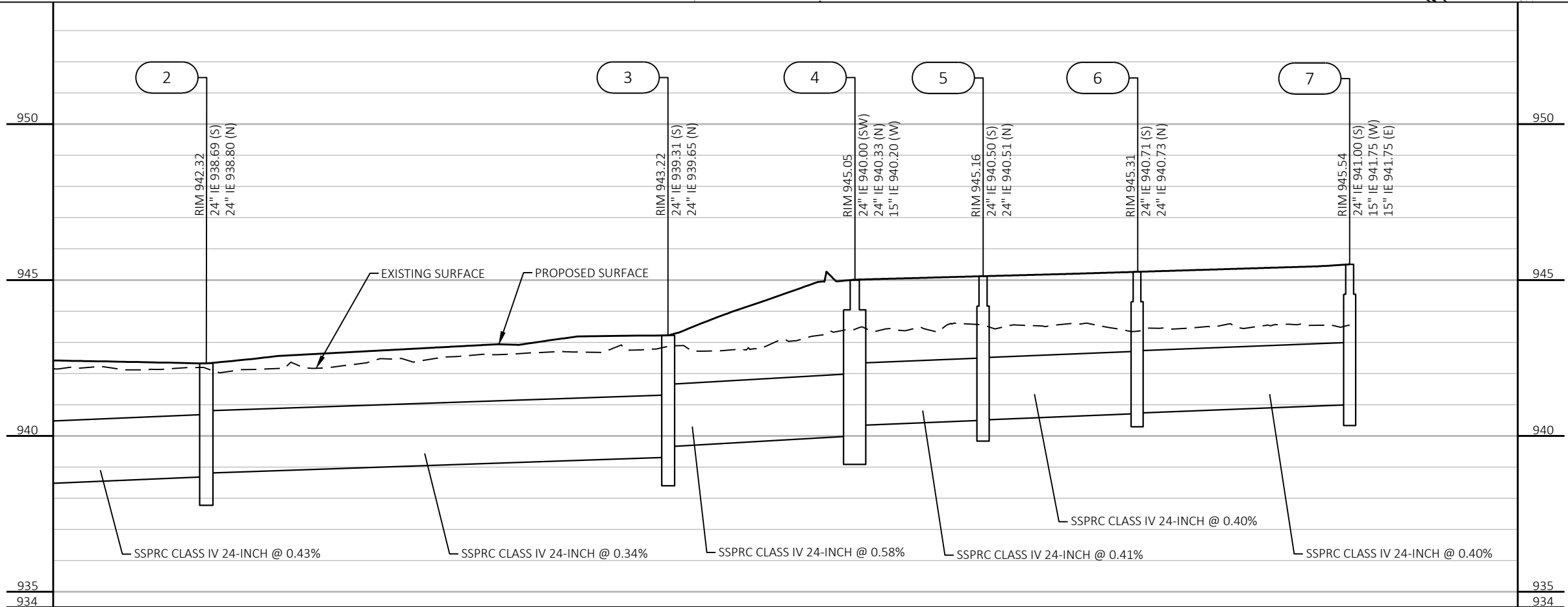
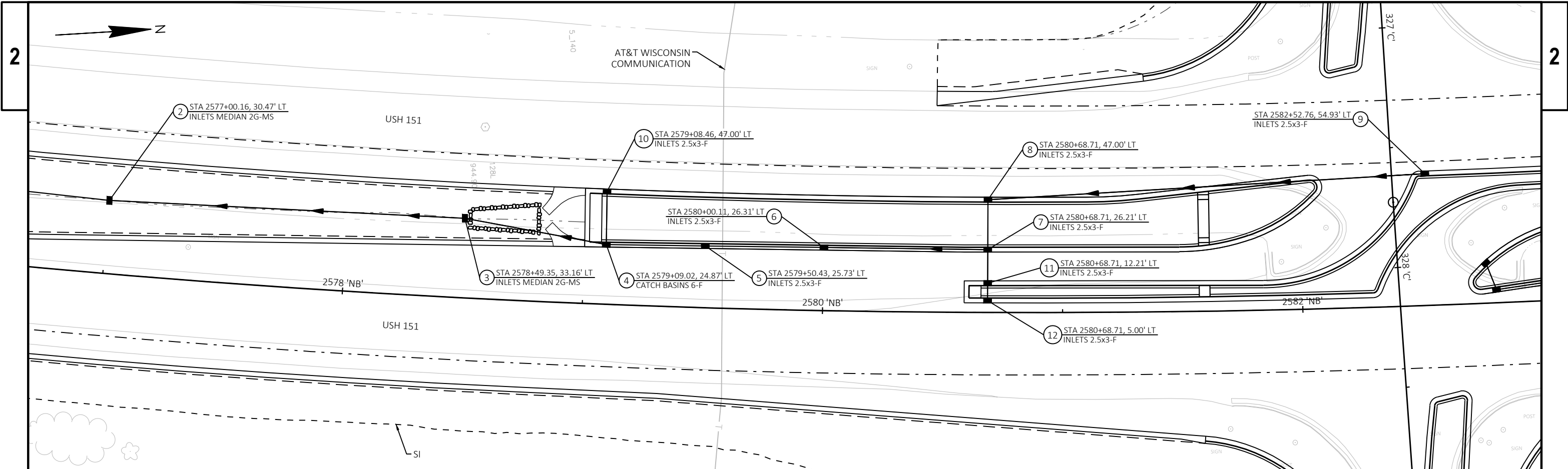
TOTAL PROJECT AREA = 7.80 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 7.80 ACRES

STORM SEWER PIPES							
STORM SEWER PIPE REINFORCED CONCRETE							
CLASS IV							
FROM	TO	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE (FT/FT)	15-INCH LF	24-INCH LF	REMARKS
1	EW01	937.14	935.92	0.0136	--	4	EXISTING 24" CULVERT & ENDWALL TO REMAIN
2	1	938.69	937.50	0.0043	--	279	
3	2	939.31	938.80	0.0034	--	148	
4	3	940.00	939.65	0.0058	--	60	
5	4	940.50	940.33	0.0041	--	41	
6	5	940.71	940.51	0.0040	--	49	
7	6	941.00	940.73	0.0040	--	68	
8	7	941.82	941.75	0.0034	21	--	
9	8	942.65	941.97	0.0037	182	--	
10	4	941.35	941.08	0.0123	22	--	
11	7	941.89	941.75	0.0100	14	--	
12	11	942.28	941.89	0.0111	7	--	
13	EW02	939.72	939.59	0.0045	--	29	6 JOINT TIES REQUIRED. SEE NOTE 7.
14	13	940.40	939.87	0.0068	--	8	PORTION OF EXISTING 24" CULVERT TO REMAIN
15	14	940.82	940.73	0.0039	--	23	
16	15	940.98	940.92	0.0030	--	20	
17	16	941.13	941.08	0.0060	--	8	
18	17	941.28	941.23	0.0065	--	8	
19	18	941.45	941.38	0.0044	--	16	
20	19	941.79	941.55	0.0035	--	69	
21	20	942.39	941.89	0.0034	--	147	
23	14	941.80	941.48	0.0138	23	--	
22	23	942.26	942.12	0.0116	12	--	
24	15	941.87	941.67	0.0120	17	--	
25	19	942.44	942.30	0.0100	14	--	
26	25	942.87	942.82	0.0073	7	--	
27	EW03	941.71	940.08	0.0149	--	4	EXISTING 24" CULVERT & ENDWALL TO REMAIN
28	27	944.00	942.46	0.0134	116	--	
29	EW04	941.82	941.35	0.0161	29	--	6 JOINT TIES REQUIRED. SEE NOTE 7.
30	EW05	938.86	938.50	0.0097	37	--	6 JOINT TIES REQUIRED. SEE NOTE 7.
31	17	942.16	941.98	0.0125	14	--	

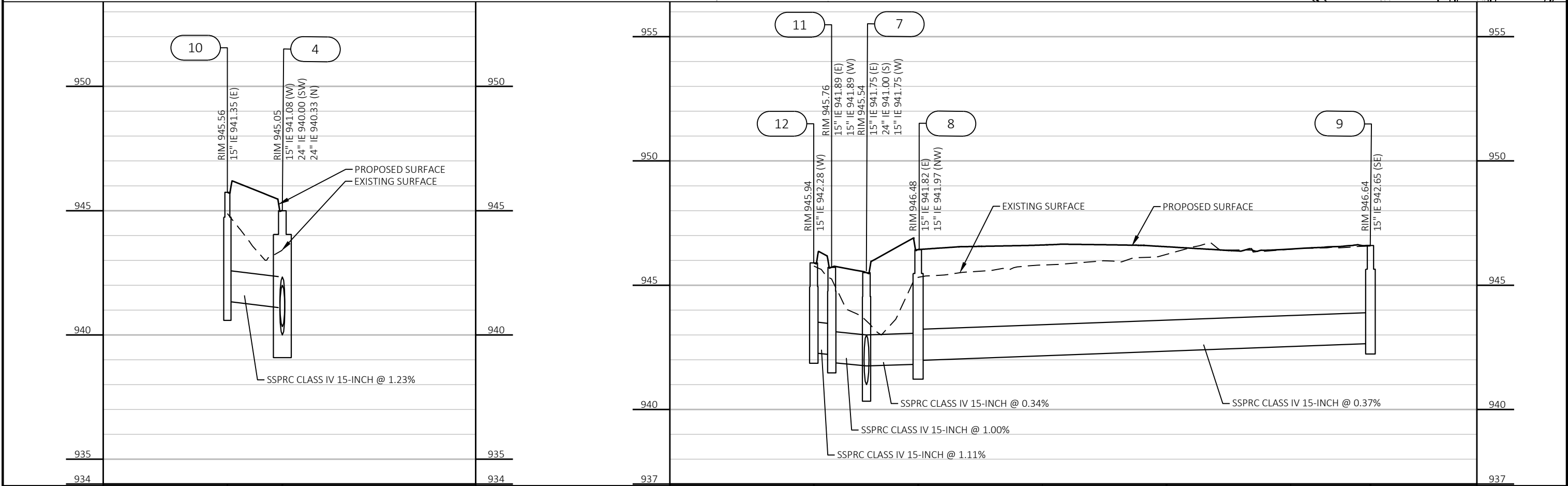
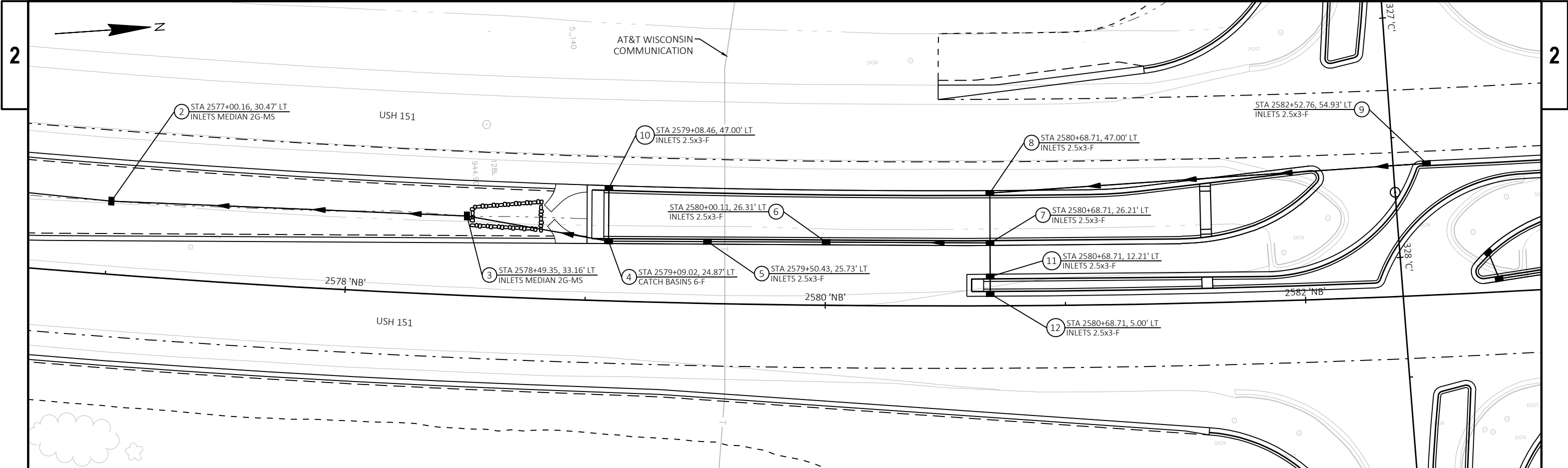
DESIGN NOTES

- ALL STATIONS AND OFFSETS ARE CENTERED ON THE STRUCTURE. RIM ELEVATIONS LOCATED ON CURB & GUTTER ARE TAKEN AT THE FLAG LINE. ALL OTHER RIM ELEVATIONS ARE TAKEN AT THE CENTER OF THE STRUCTURE. STATION AND OFFSET VALUES ARE BASED OFF THE 'NB' ALIGNMENT FOR THE STORM SEWER SYSTEMS LOCATED ON USH 151 AND THE 'C' ALIGNMENT FOR THE STORM SEWER SYSTEMS LOCATED ON CTH C.
- STATIONS, OFFSETS, AND ELEVATIONS FOR ALL ENDWALL LOCATIONS ARE TAKEN AT THE END OF THE PIPE.
- INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES MAY BE ADJUSTED BY THE FIELD ENGINEER TO FIT FIELD CONDITIONS.
- DEPTH:
MEDIAN INLETS 1 & 2 GRATE: RIM ELEVATION - INVERT ELEVATION.
CATCH BASINS, MANHOLES, AND INLETS 2.5' X 3': RIM ELEVATION - INVERT ELEVATION - COVER HEIGHT - 0.5' FOR ADJUSTING RINGS.
COVER HEIGHT FOR INLET COVERS TYPE F = 0.46'
COVER HEIGHT FOR MANHOLE COVERS TYPE J = 0.74'
- LOCATIONS AND DEPTHS OF EXISTING STRUCTURES AND PIPES SHALL BE FIELD VERIFIED.
- THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE FIELD ENGINEER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES.
- JOINT TIES ARE REQUIRED FOR THE APRON ENDWALL AND THE LAST TWO SECTIONS OF STORM SEWER PIPE INSTALLATIONS FOR NEW STORM SEWER INSTILLATION, SEE SDD. THE COST OF THESE TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.
- PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS.
- ATTACH NEW STRUCTURE TO EXISTING PIPE. CONCRETE COLLARS FOR PIPE REQUIRED. SMALL QUANTITY OF NEW PIPE ACCOUNTED FOR IN STORM SEWER PIPES TABLE TABLE TO AID IN CONNECTING OPERATION IF NEEDED.

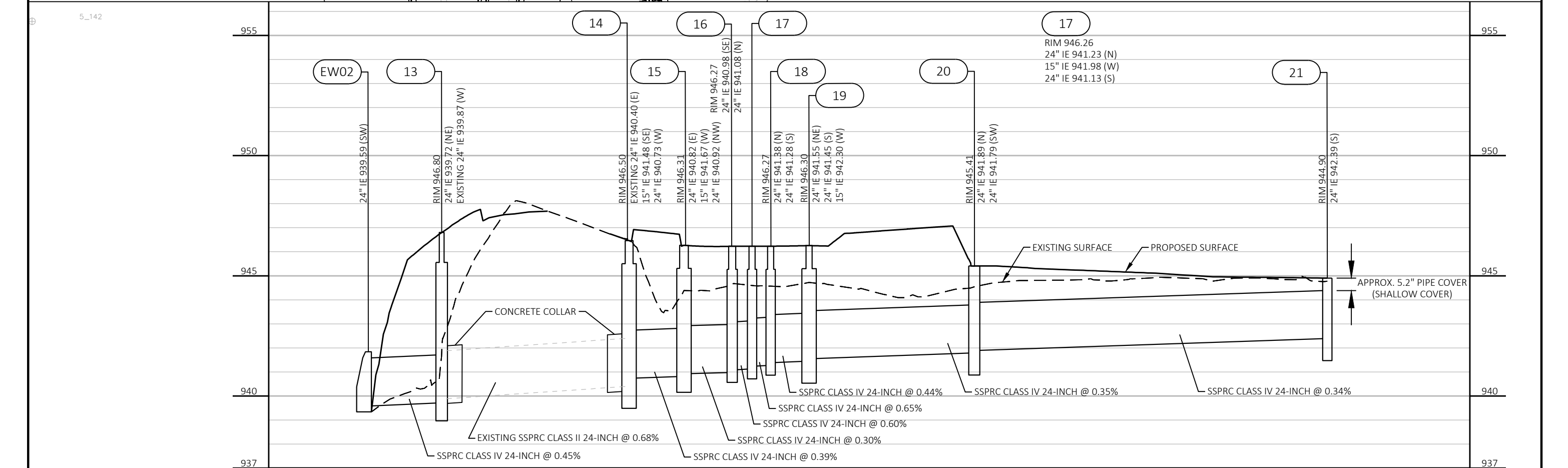
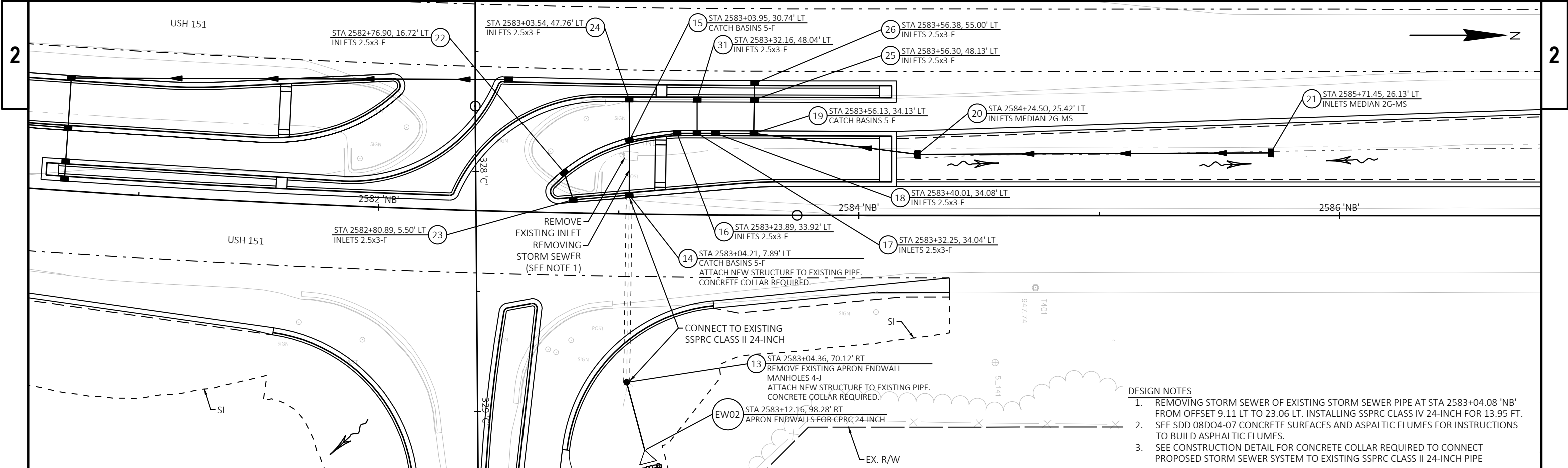




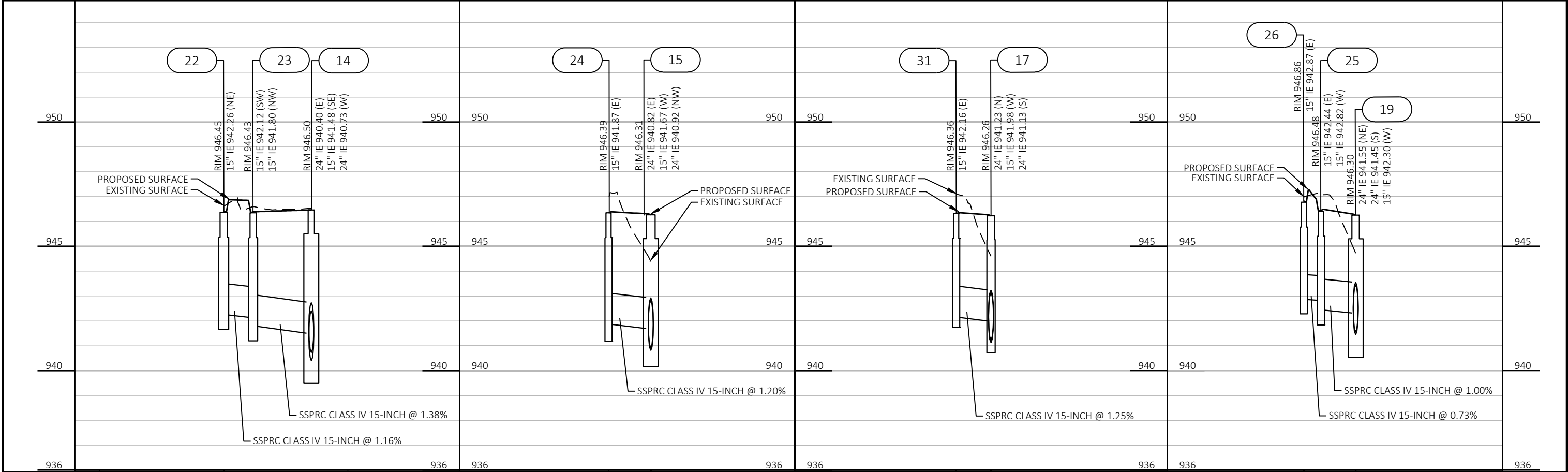
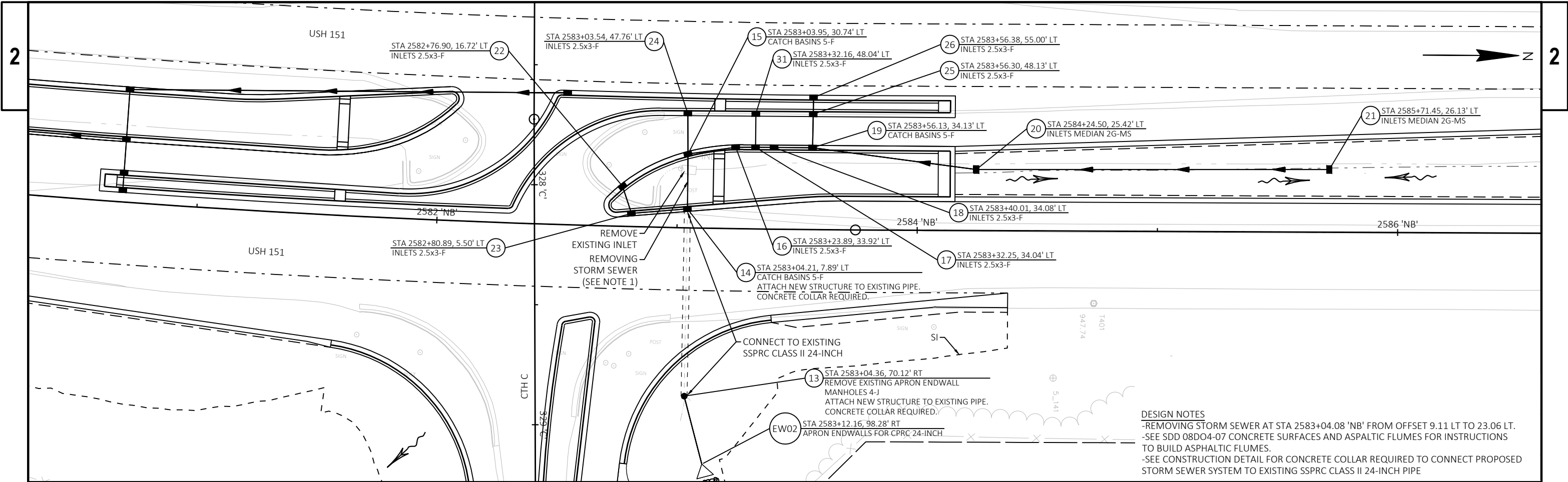
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	STORM SEWER	SHEET E
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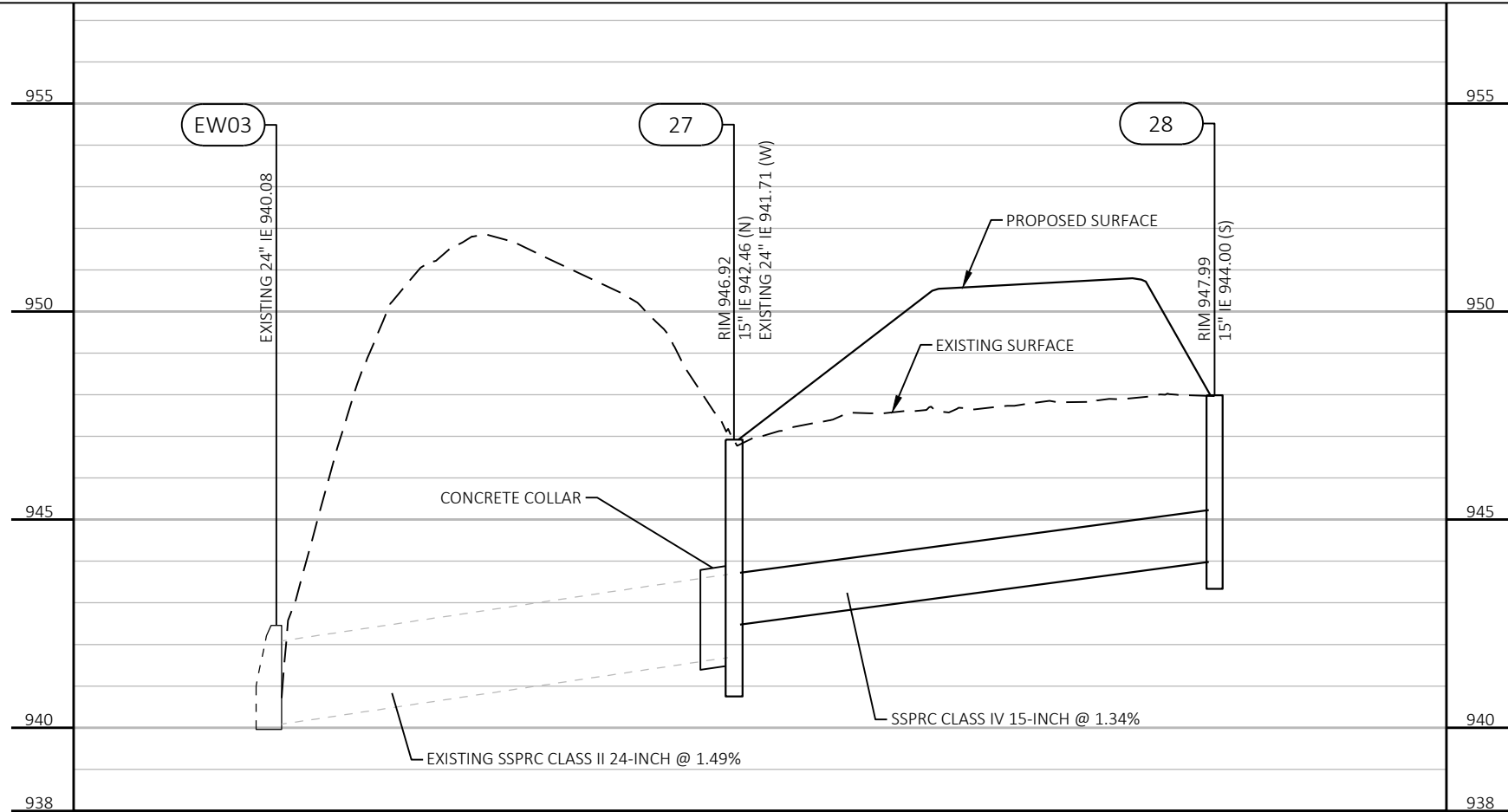
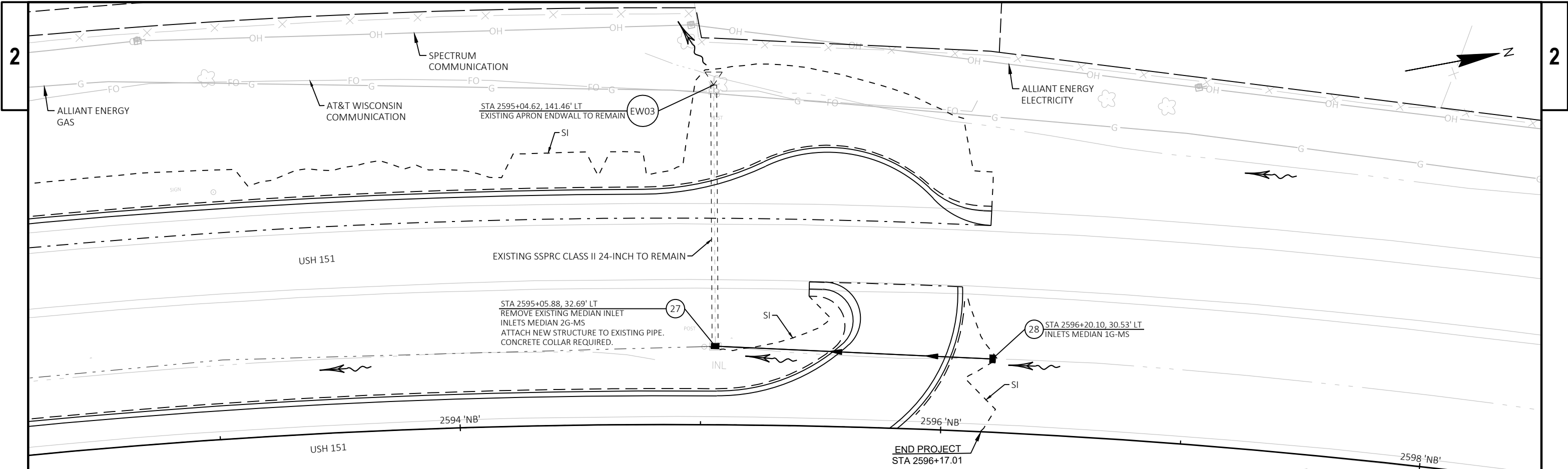
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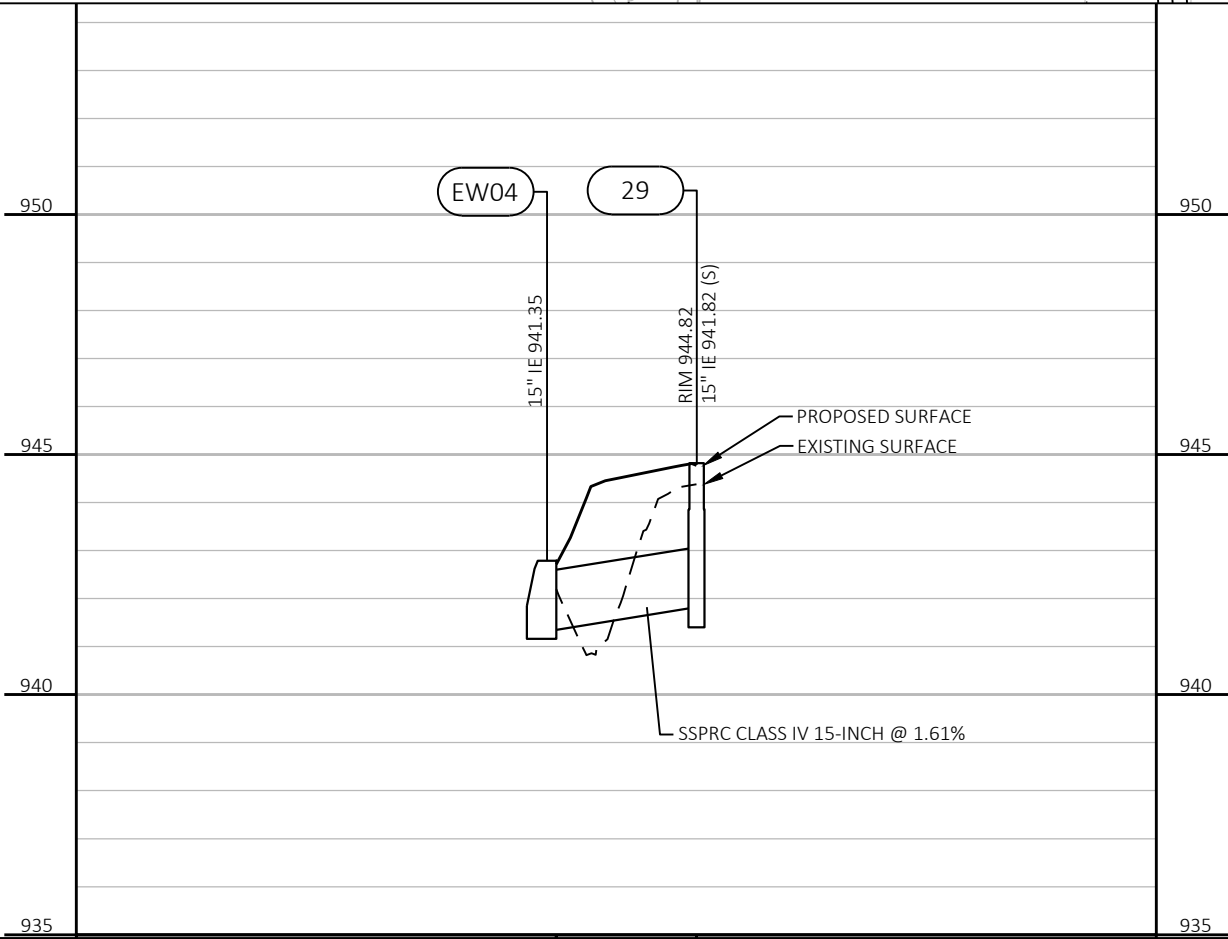
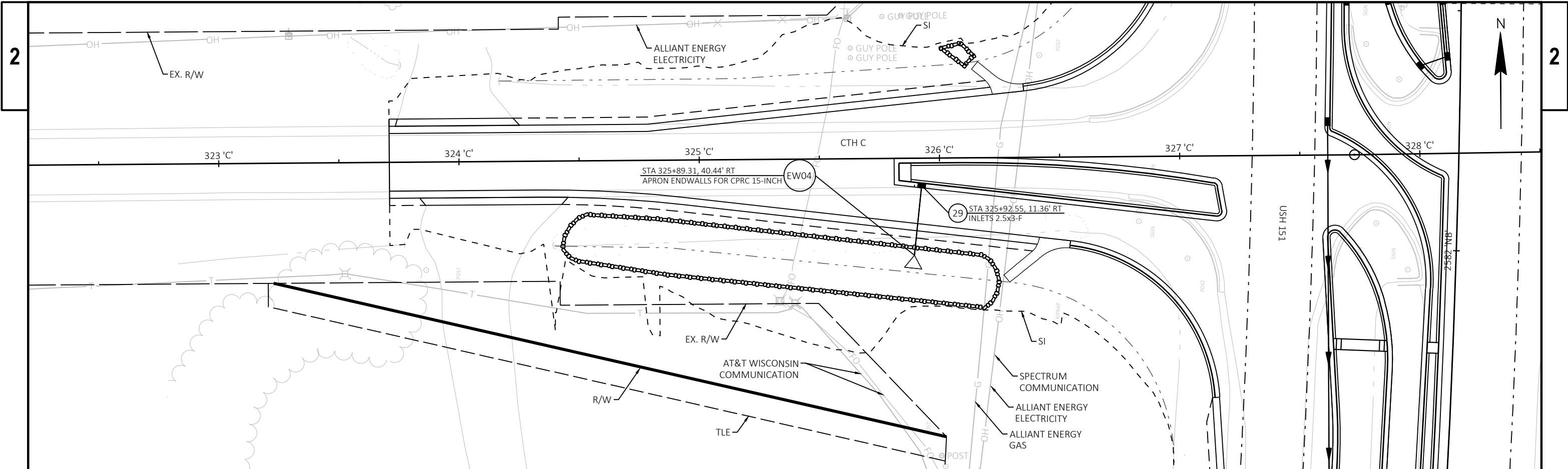


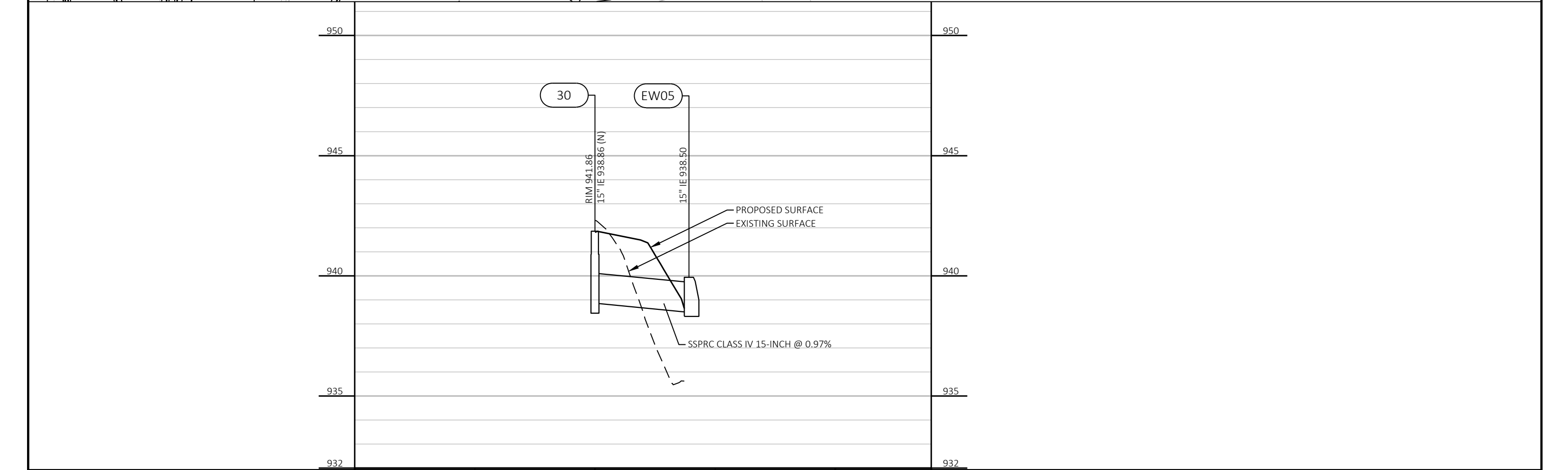
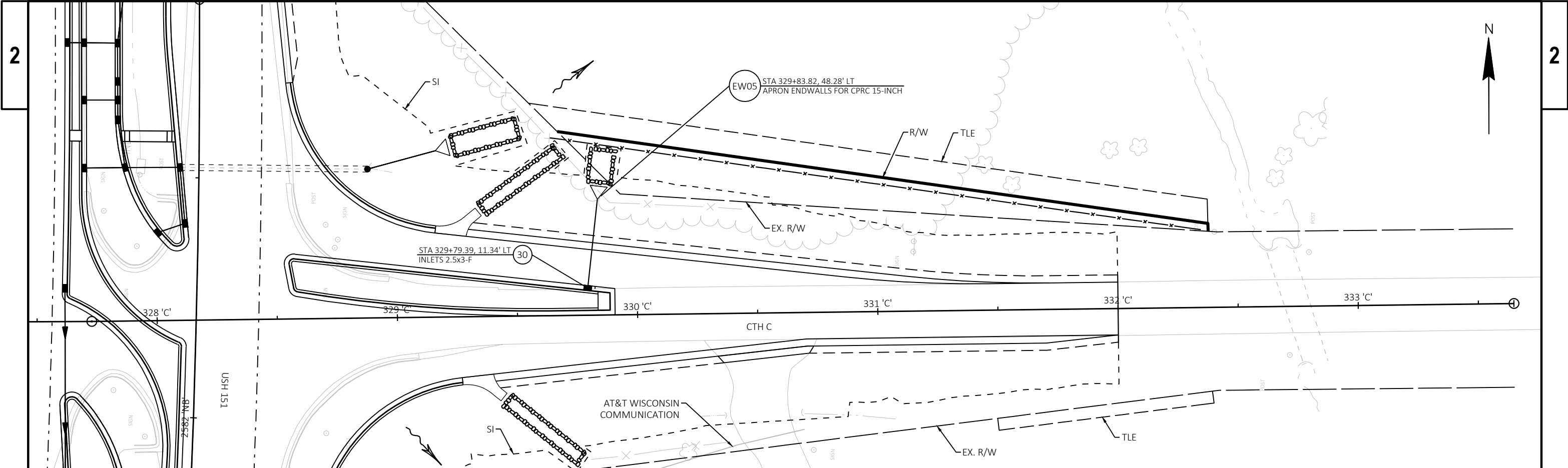
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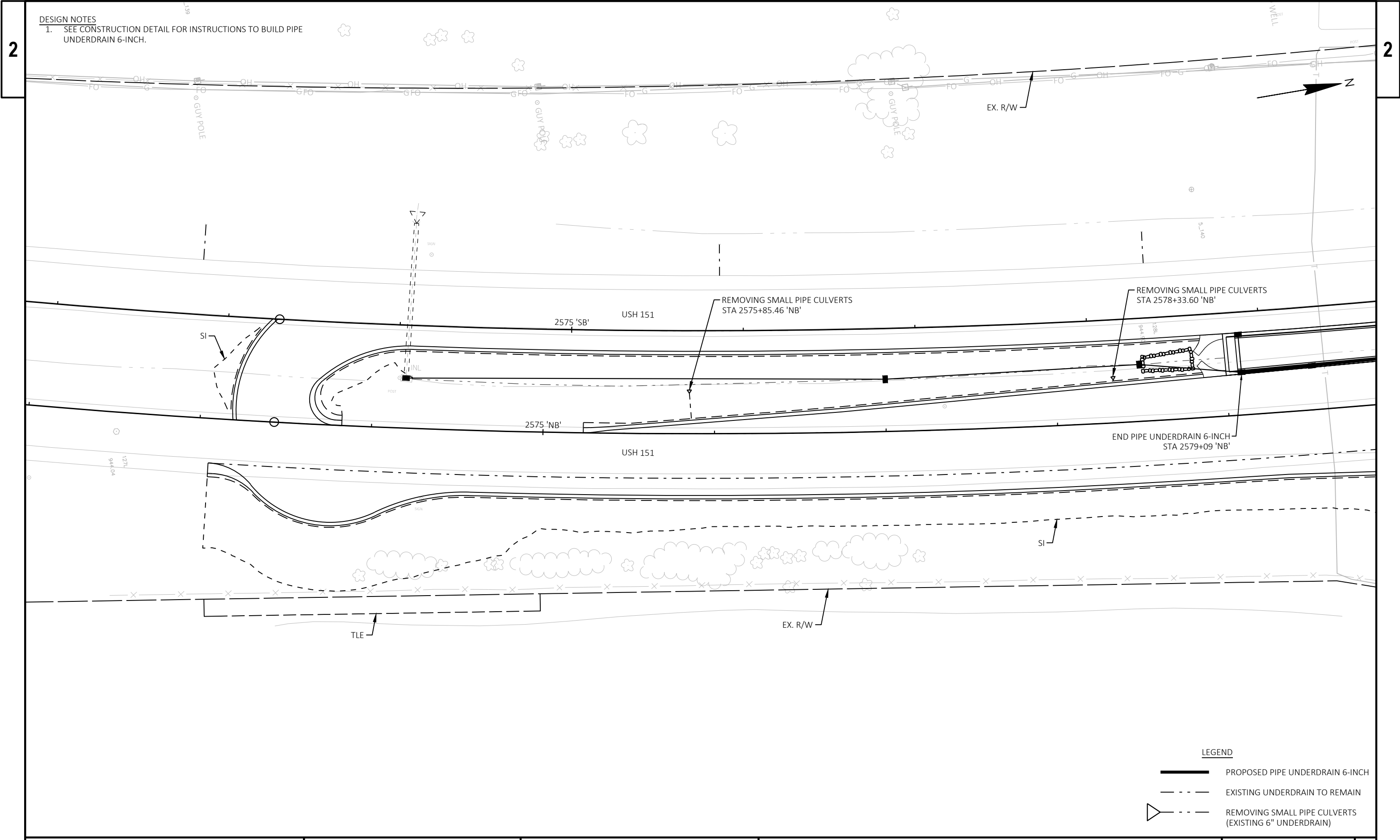


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	STORM SEWER	SHEET	E
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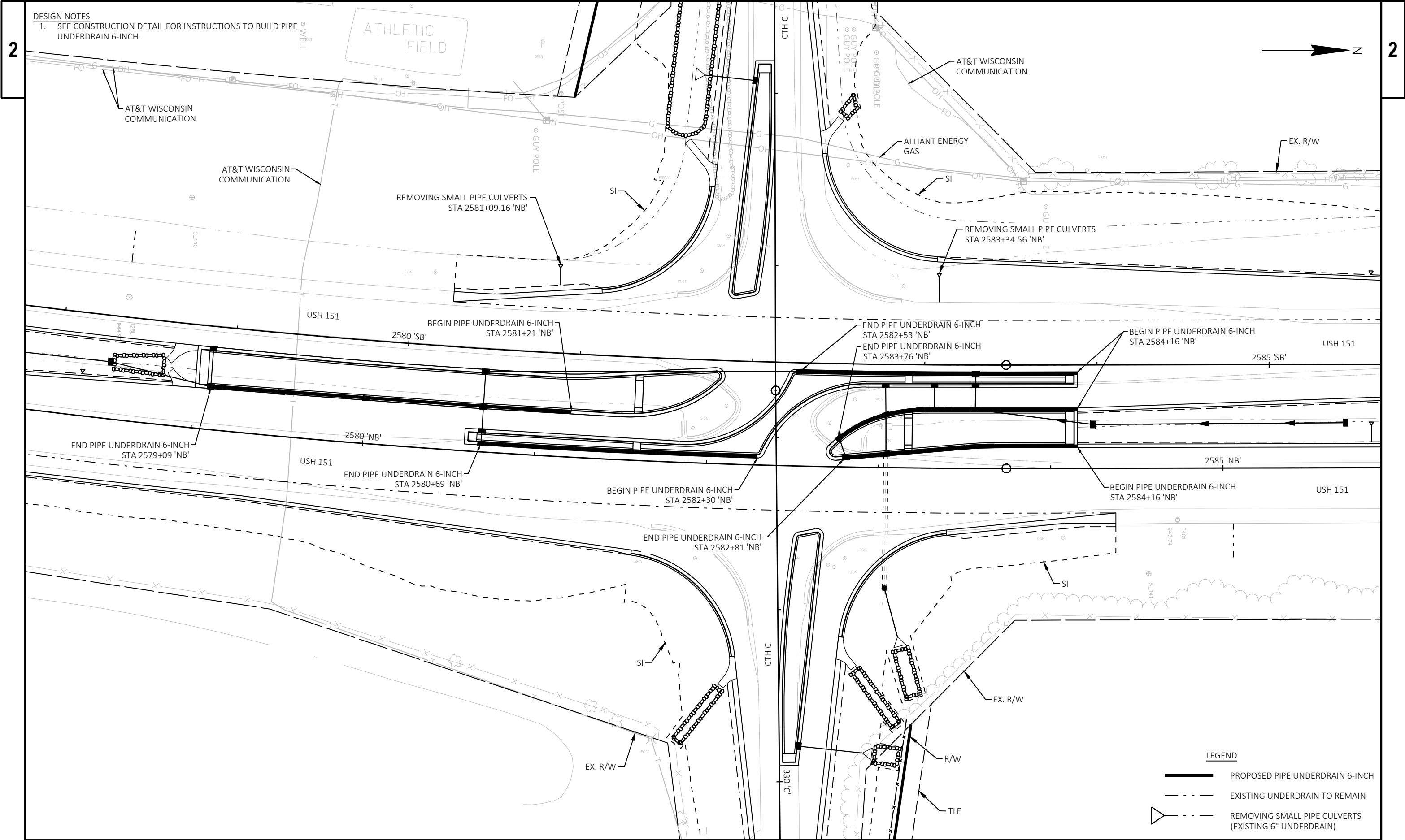
DESIGN NOTES
1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD PIPE UNDERDRAIN 6-INCH.

LEGEND

PROPOSED PIPE UNDERDRAIN 6-INCH

EXISTING UNDERDRAIN TO REMAIN

REMOVING SMALL PIPE CULVERTS
(EXISTING 6" UNDERDRAIN)



DESIGN NOTES
1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD PIPE UNDERDRAIN 6-INCH.

PROJECT NO: 1112-06-75

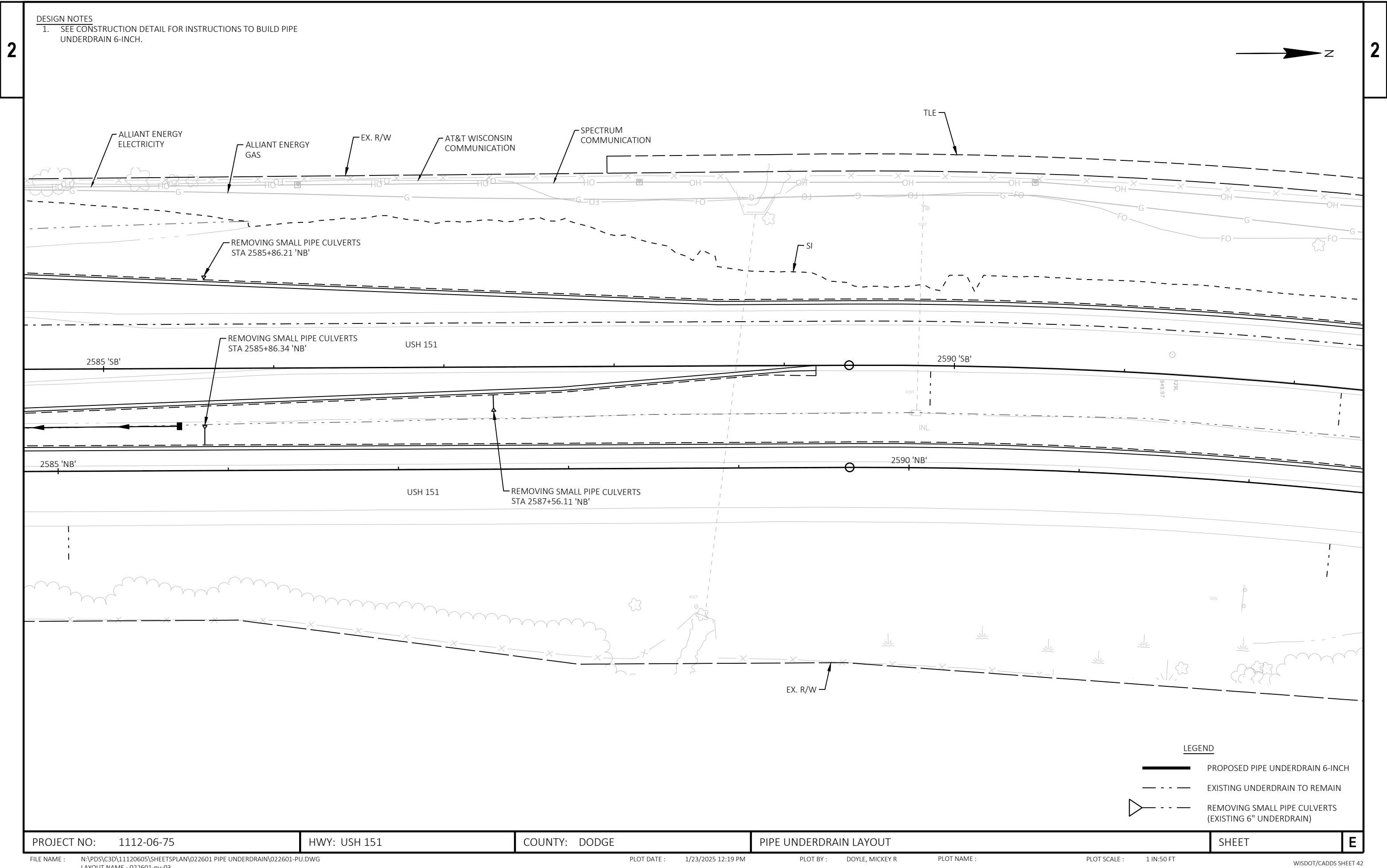
HWY: USH 151

COUNTY: DODGE

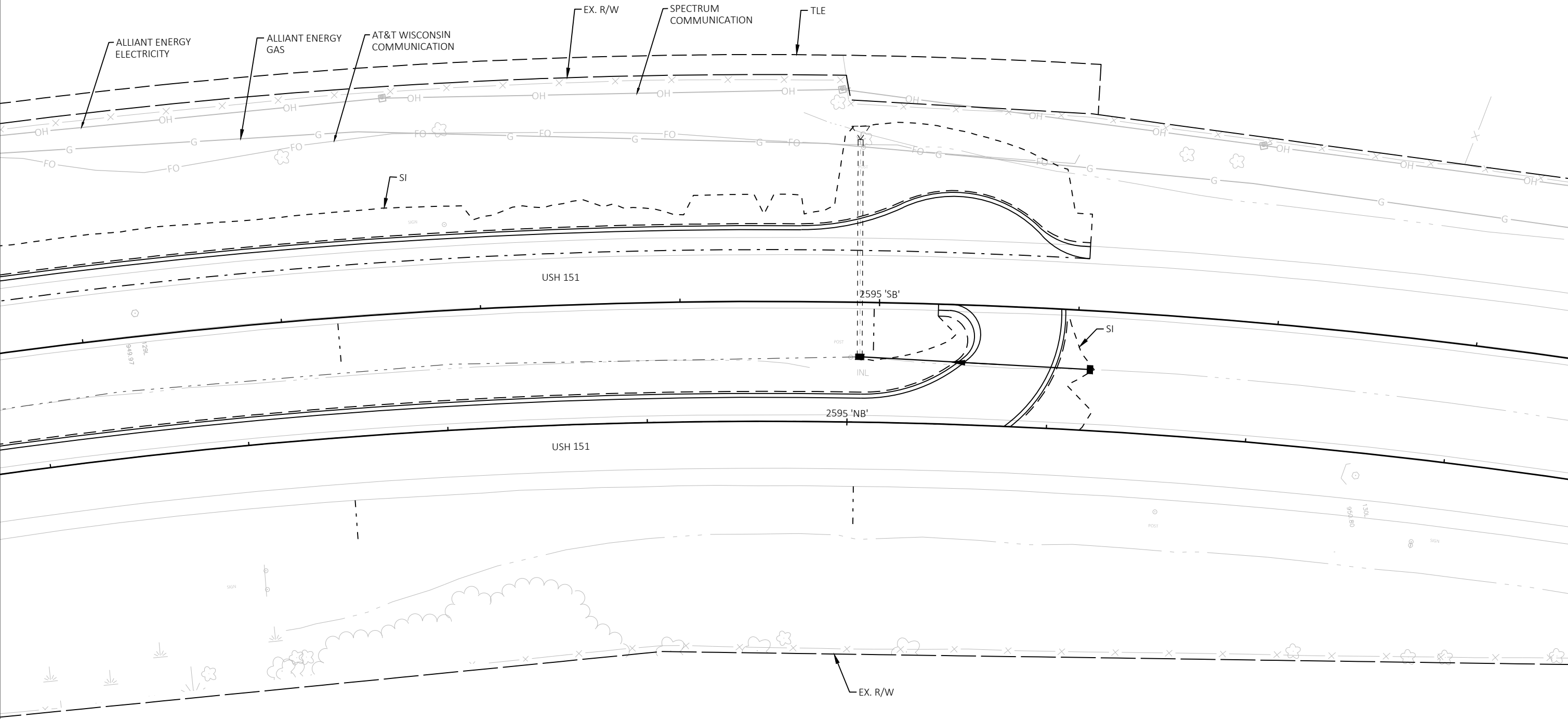
PIPE UNDERDRAIN LAYOUT

SHEET

E

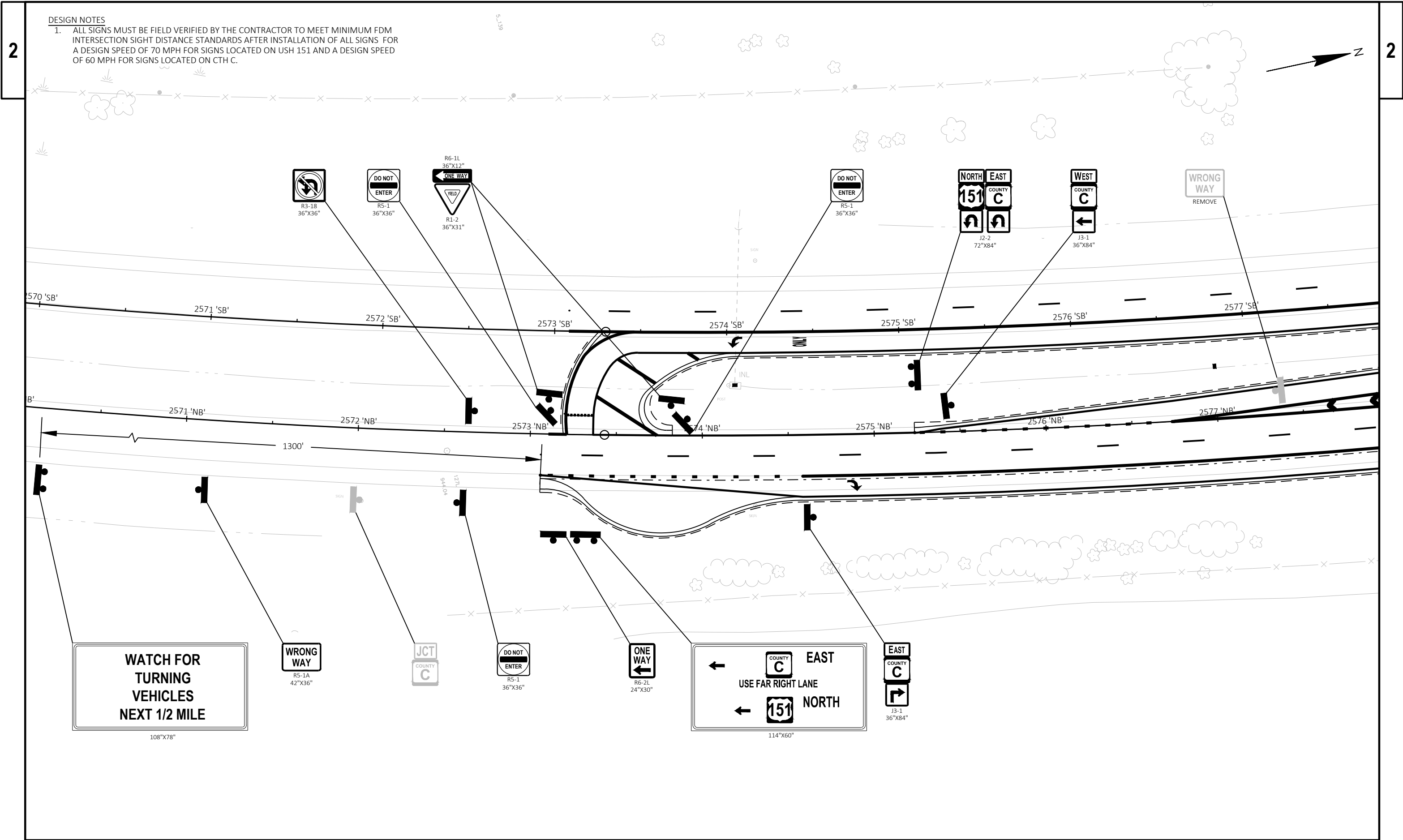


DESIGN NOTES
1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO BUILD PIPE UNDERDRAIN 6-INCH.



LEGEND

- PROPOSED PIPE UNDERDRAIN 6-INCH
- EXISTING UNDERDRAIN TO REMAIN
- REMOVING SMALL PIPE CULVERTS (EXISTING 6" UNDERDRAIN)

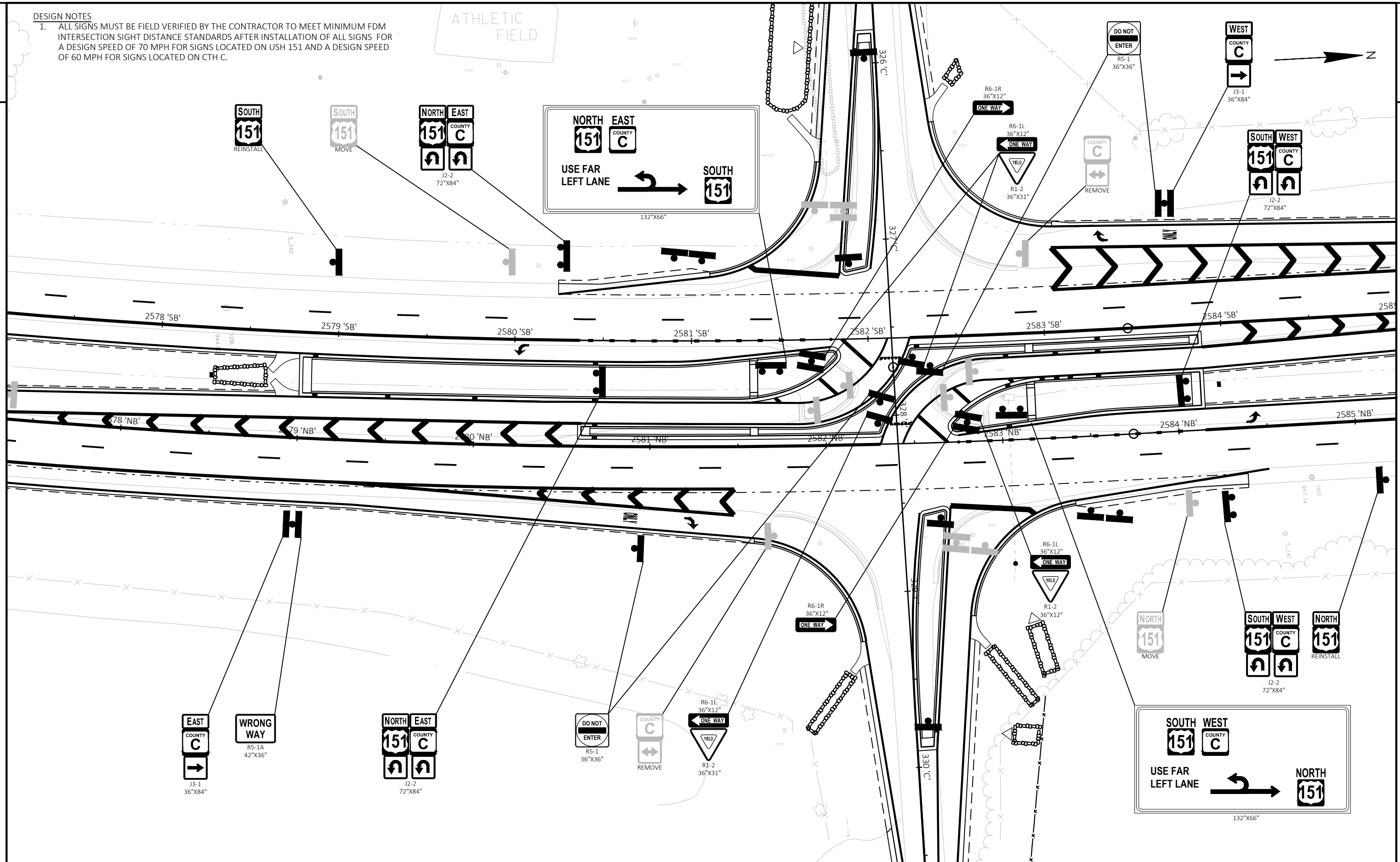


DESIGN NOTES

1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

DESIGN NOTES

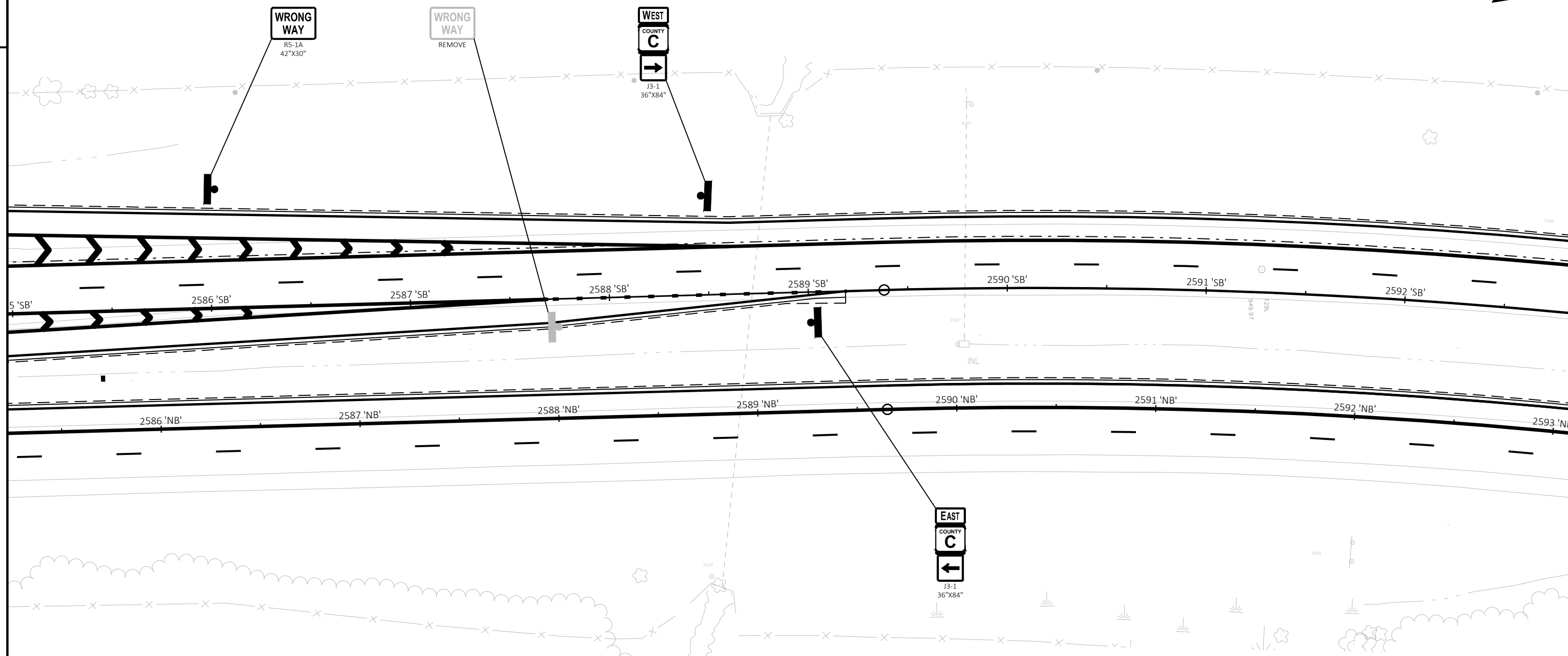
1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.



PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	PERMANENT SIGNING	SHEET E
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2

2



DESIGN NOTES

1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

PROJECT NO:	1112-06-75
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HWY: USH 151

COUNTY: DODGE

PERMANENT SIGNING

SHEET

E

FILE NAME : N:\PDS\C3D\11120605\SHEETSPLAN\023201 PERMANENT SIGNING\023201-PS.DWG
LAYOUT NAME - 02301-ps-03

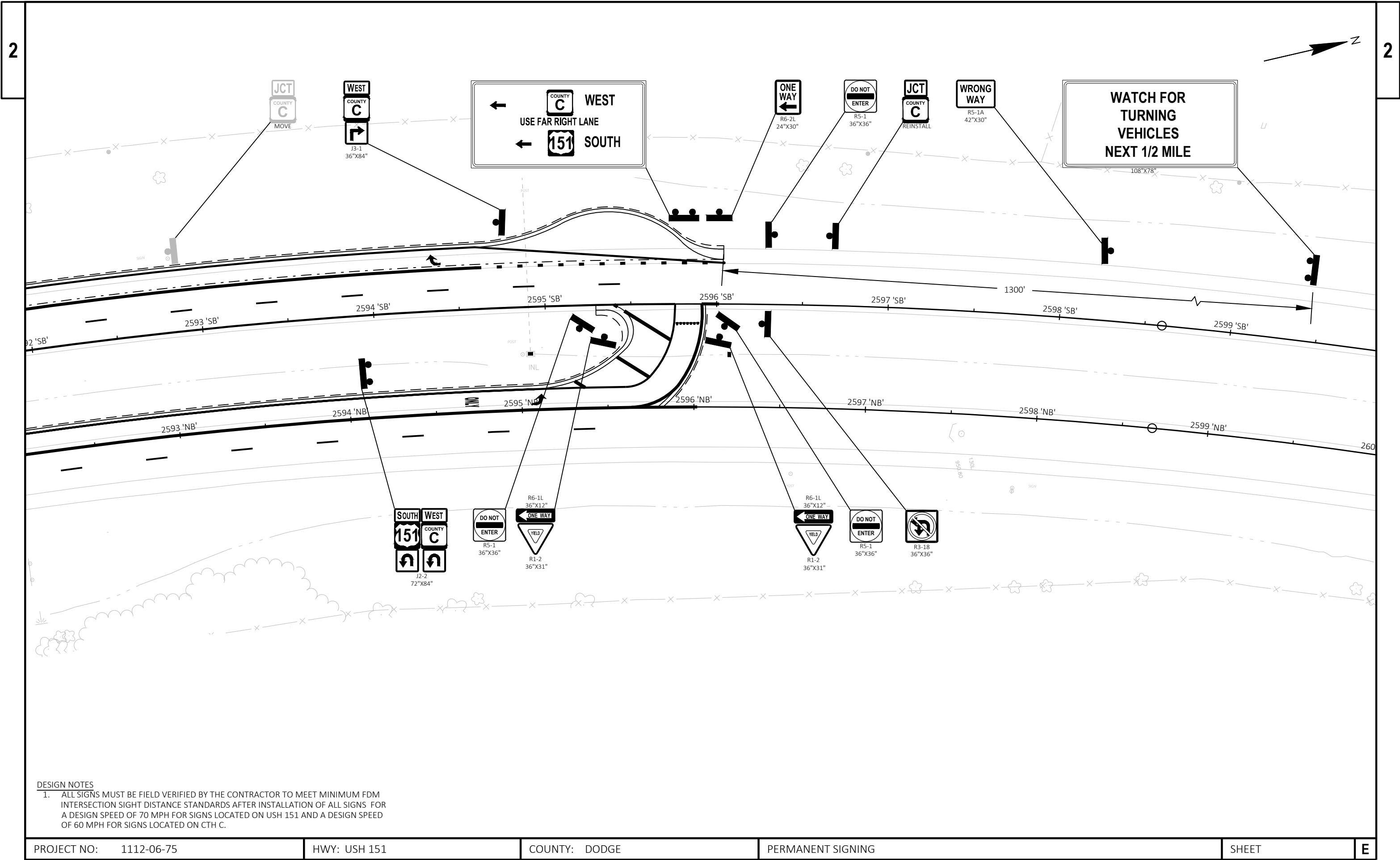
PLOT DATE : 1/23/2025 12:20 PM

PLOT BY : DOYLE, MICKEY R

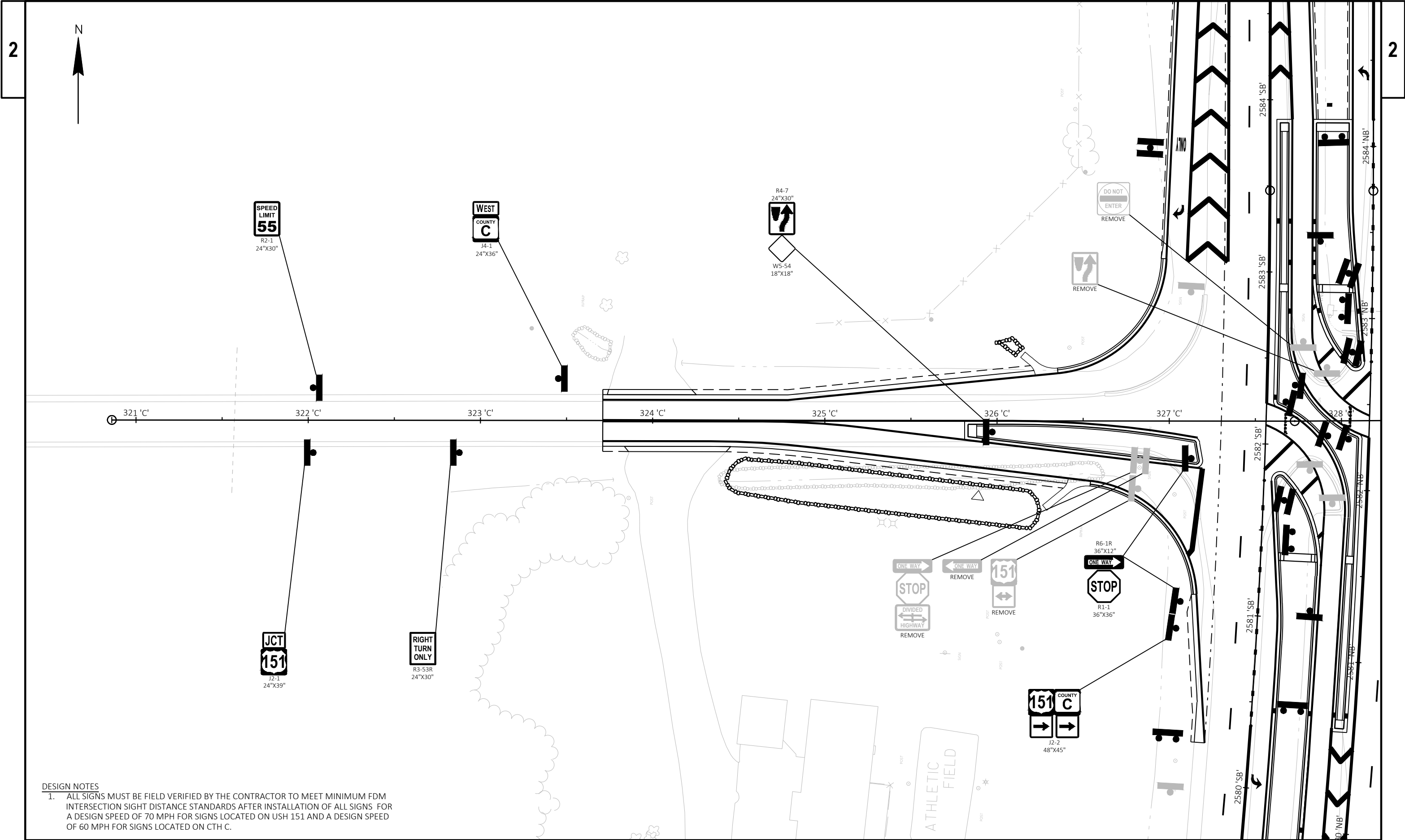
PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

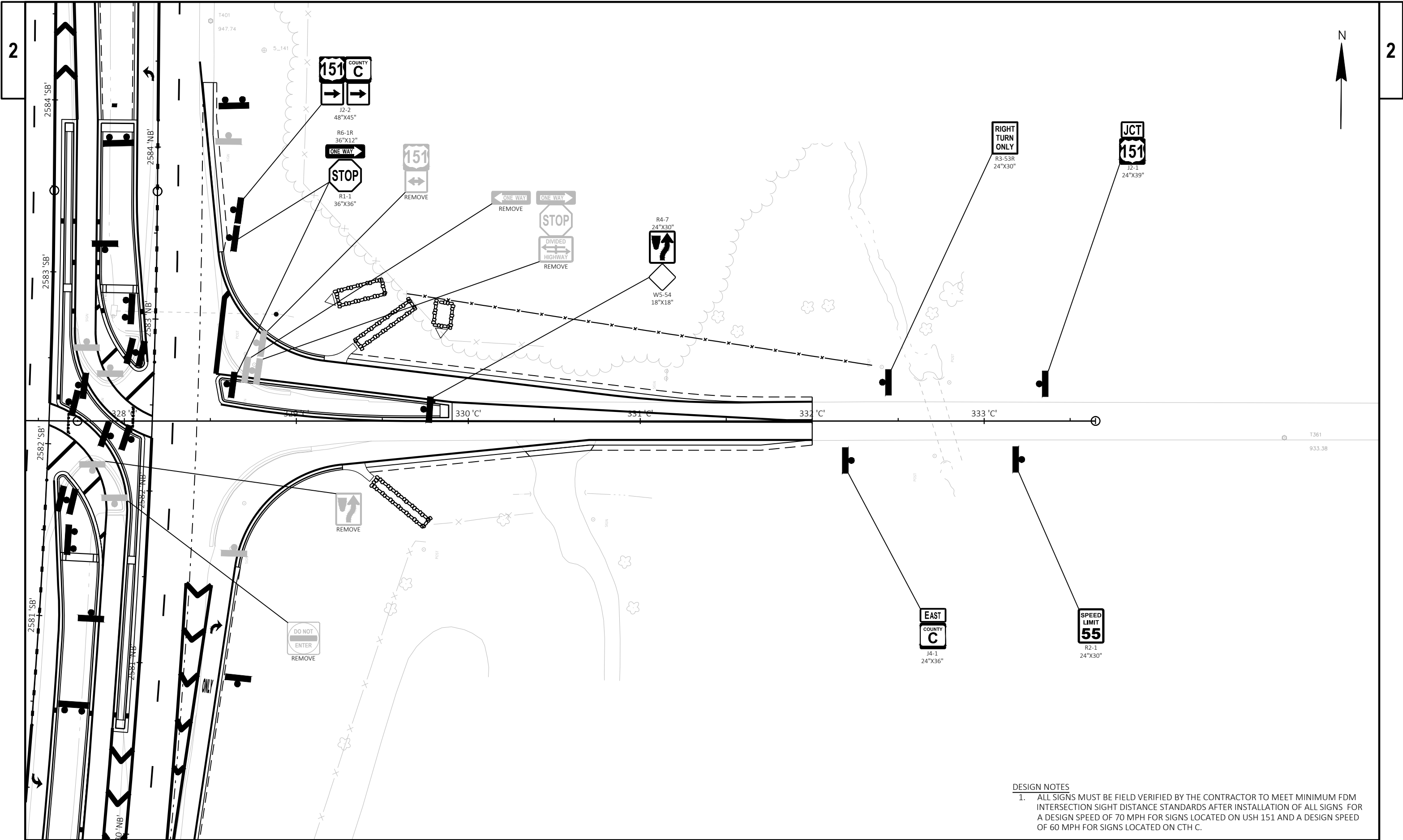


DESIGN NOTES
1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

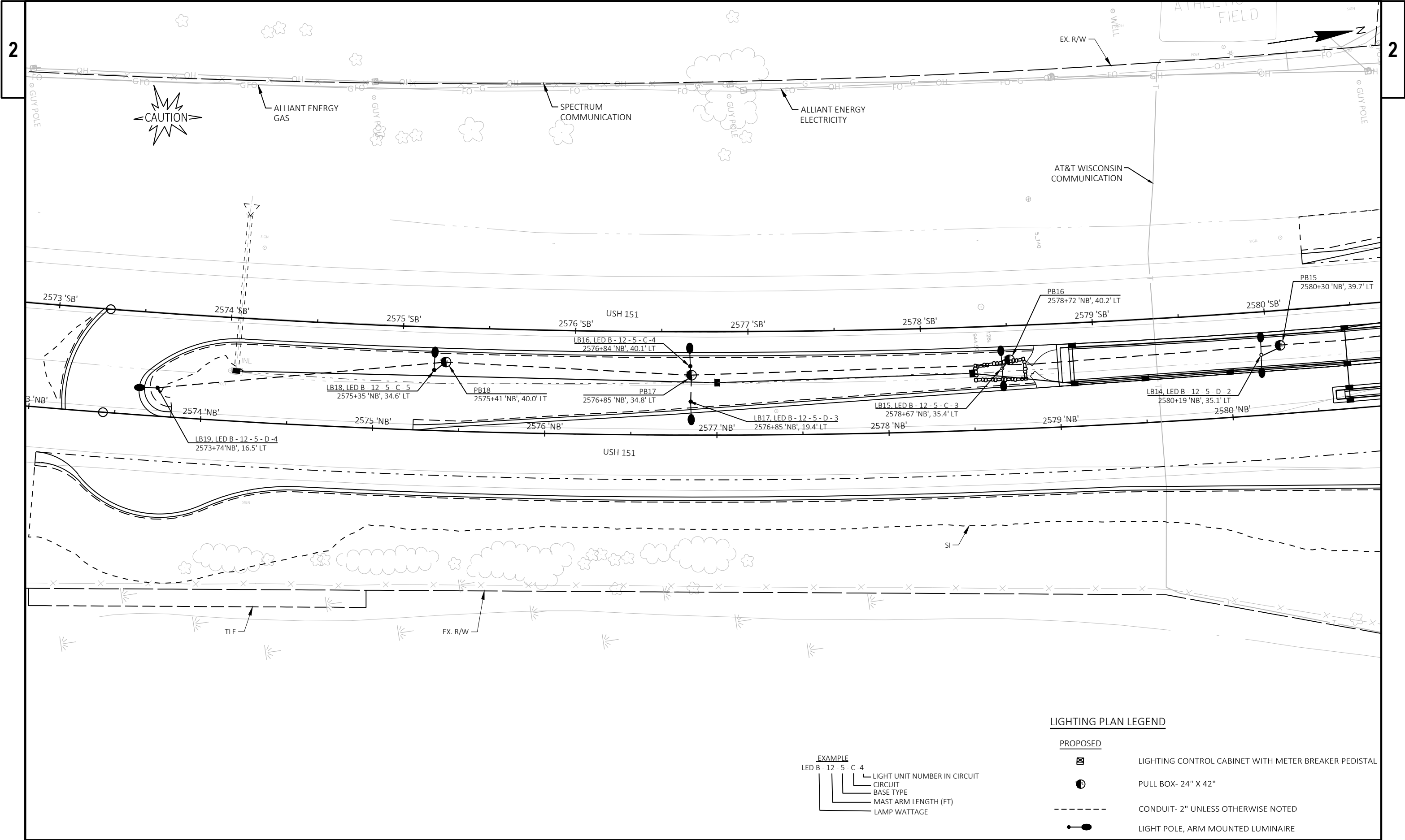


DESIGN NOTES
1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

PROJECT NO:	1112-06-75	HWY:	USH 151	COUNTY:	DODGE	PERMANENT SIGNING	SHEET	E
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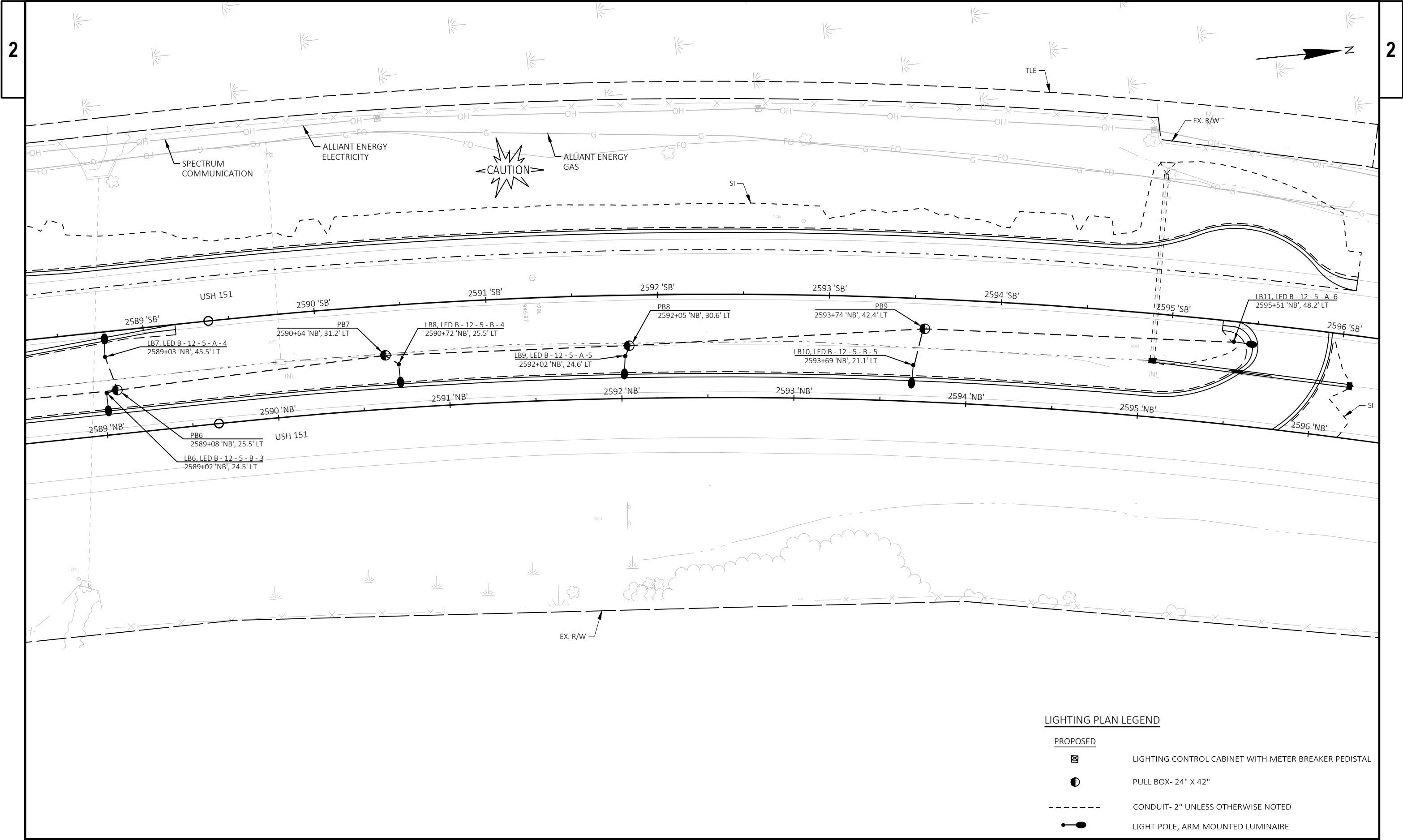
DESIGN NOTES
1. ALL SIGNS MUST BE FIELD VERIFIED BY THE CONTRACTOR TO MEET MINIMUM FDM INTERSECTION SIGHT DISTANCE STANDARDS AFTER INSTALLATION OF ALL SIGNS FOR A DESIGN SPEED OF 70 MPH FOR SIGNS LOCATED ON USH 151 AND A DESIGN SPEED OF 60 MPH FOR SIGNS LOCATED ON CTH C.

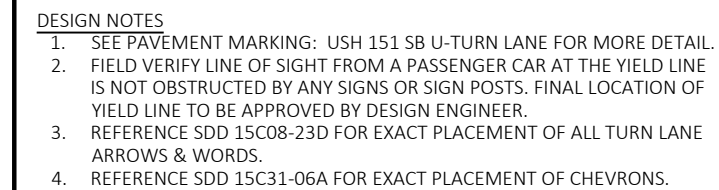


LIGHTING PLAN LEGEND	
PROPOSED	
	LIGHTING CONTROL CABINET WITH METER BREAKER PEDISTAL
	PULL BOX- 24" X 42"
	CONDUIT- 2" UNLESS OTHERWISE NOTED
	LIGHT POLE, ARM MOUNTED LUMINAIRE

EXAMPLE
LED B - 12 - 5 - C - 4
LIGHT UNIT NUMBER IN CIRCUIT
CIRCUIT
BASE TYPE
MAST ARM LENGTH (FT)
LAMP WATTAGE





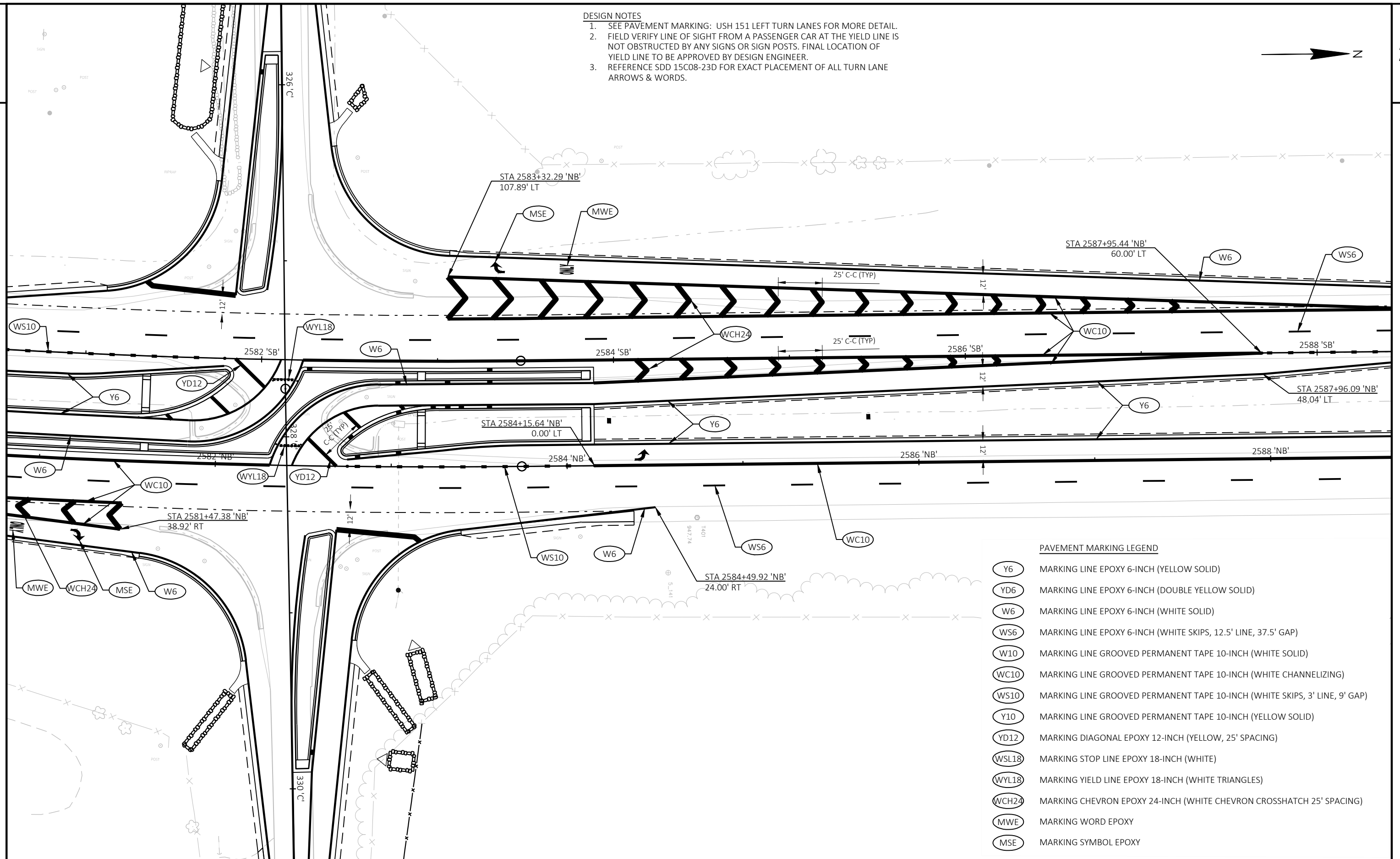


<u>PAVEMENT MARKING LEGEND</u>	
Y6	MARKING LINE EPOXY 6-INCH (YELLOW SOLID)
YD6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW SOLID)
W6	MARKING LINE EPOXY 6-INCH (WHITE SOLID)
WS6	MARKING LINE EPOXY 6-INCH (WHITE SKIPS, 12.5' LINE, 37.5' GAP)
W10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SOLID)
WC10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE CHANNELIZING)
WS10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SKIPS, 3' LINE, 9' GAP)
Y10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (YELLOW SOLID)
YD12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' SPACING)
WSL18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WYL18	MARKING YIELD LINE EPOXY 18-INCH (WHITE TRIANGLES)
WCH24	MARKING CHEVRON EPOXY 24-INCH (WHITE CHEVRON CROSSHATCH 25' SPACING)
MWE	MARKING WORD EPOXY
MSE	MARKING SYMBOL EPOXY

FILE NAME :	N:\PDS\C3D\11120605\SHEETS\PLAN\024501 PAVEMENT MARKING\024501-PM.DWG	PLOT DATE :	1/23/2025 12:20 PM	PLOT BY :	DOYLE, MICKEY R	PLOT NAME :		PLOT SCALE :	1 IN=50 FT	WISDOT/CADDs SHEET 42
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DESIGN NOTES

1. SEE PAVEMENT MARKING: USH 151 LEFT TURN LANES FOR MORE DETAIL.
2. FIELD VERIFY LINE OF SIGHT FROM A PASSENGER CAR AT THE YIELD LINE IS NOT OBSTRUCTED BY ANY SIGNS OR SIGN POSTS. FINAL LOCATION OF YIELD LINE TO BE APPROVED BY DESIGN ENGINEER.
3. REFERENCE SDD 15C08-23D FOR EXACT PLACEMENT OF ALL TURN LANE ARROWS & WORDS.



PAVEMENT MARKING LEGEND

Y6	MARKING LINE EPOXY 6-INCH (YELLOW SOLID)
YD6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW SOLID)
W6	MARKING LINE EPOXY 6-INCH (WHITE SOLID)
WS6	MARKING LINE EPOXY 6-INCH (WHITE SKIPS, 12.5' LINE, 37.5' GAP)
W10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SOLID)
WC10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE CHANNELIZING)
WS10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SKIPS, 3' LINE, 9' GAP)
Y10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (YELLOW SOLID)
YD12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' SPACING)
WYL18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WYL18	MARKING YIELD LINE EPOXY 18-INCH (WHITE TRIANGLES)
WCH24	MARKING CHEVRON EPOXY 24-INCH (WHITE CHEVRON CROSSHATCH 25' SPACING)
MWE	MARKING WORD EPOXY
MSE	MARKING SYMBOL EPOXY

PROJECT NO: 1112-06-75

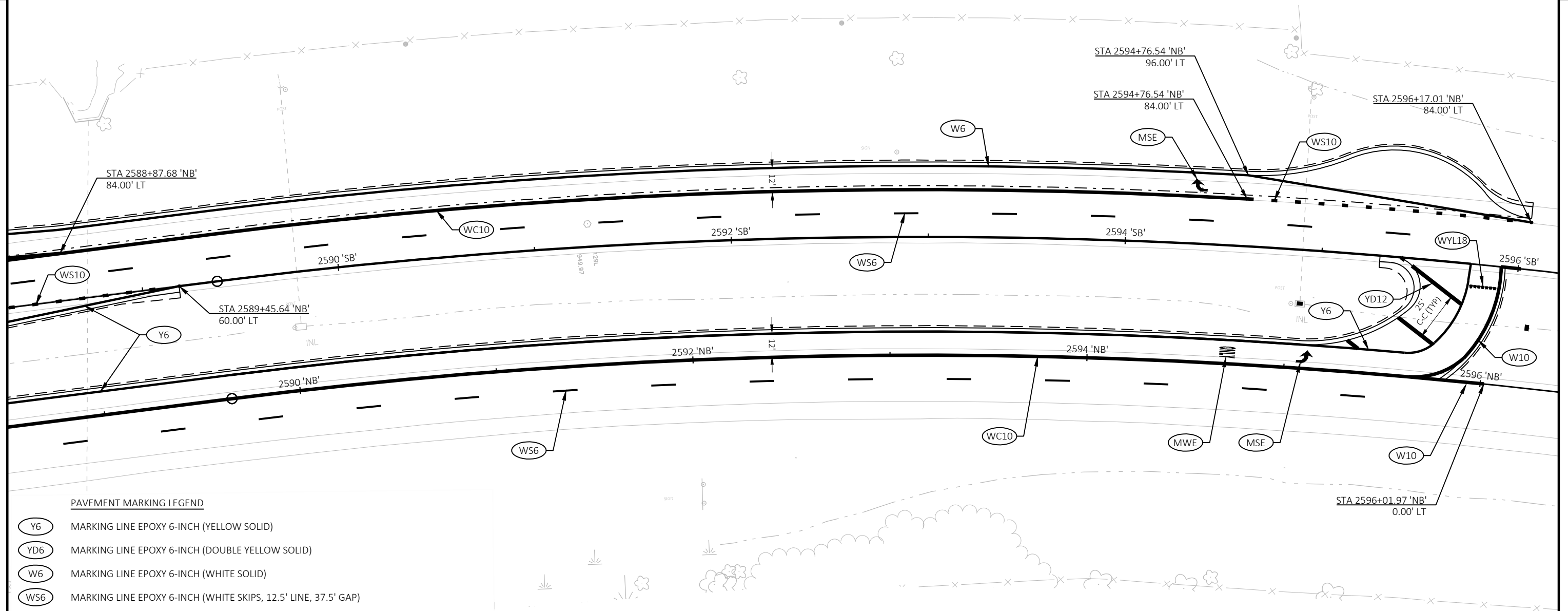
HWY: USH 151

COUNTY: DODGE

PAVEMENT MARKING

SHEET

E



PAVEMENT MARKING LEGEND

Y6	MARKING LINE EPOXY 6-INCH (YELLOW SOLID)
YD6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW SOLID)
W6	MARKING LINE EPOXY 6-INCH (WHITE SOLID)
WS6	MARKING LINE EPOXY 6-INCH (WHITE SKIPS, 12.5' LINE, 37.5' GAP)
W10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SOLID)
WC10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE CHANNELIZING)
WS10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SKIPS, 3' LINE, 9' GAP)
Y10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (YELLOW SOLID)
YD12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' SPACING)
WSL18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WYL18	MARKING YIELD LINE EPOXY 18-INCH (WHITE TRIANGLES)
WCH24	MARKING CHEVRON EPOXY 24-INCH (WHITE CHEVRON CROSSHATCH 25' SPACING)
MWE	MARKING WORD EPOXY
MSE	MARKING SYMBOL EPOXY

DESIGN NOTES

- SEE PAVEMENT MARKING: USH 151 NB U-TURN LANE FOR MORE DETAIL.
- FIELD VERIFY LINE OF SIGHT FROM A PASSENGER CAR AT THE YIELD LINE IS NOT OBSTRUCTED BY ANY SIGNS OR SIGN POSTS. FINAL LOCATION OF YIELD LINE TO BE APPROVED BY DESIGN ENGINEER.
- REFERENCE SDD 15C08-23D FOR EXACT PLACEMENT OF ALL TURN LANE ARROWS & WORDS.

PROJECT NO: 1112-06-75

HWY: USH 151

COUNTY: DODGE

PAVEMENT MARKING

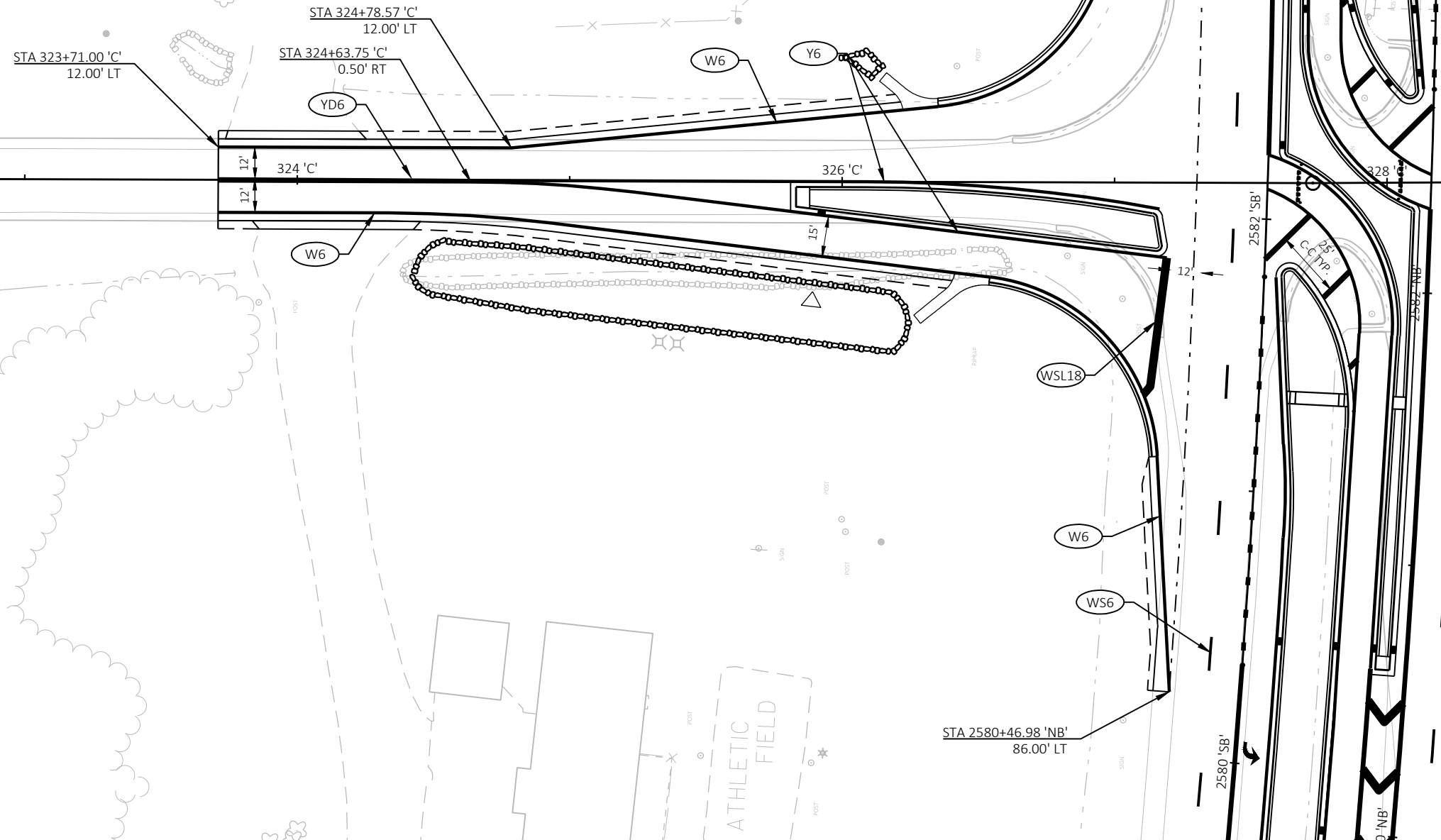
SHEET

E



DESIGN NOTES

1. FIELD VERIFY LINE OF SIGHT FROM A PASSENGER CAR AT THE YIELD LINE IS NOT OBSTRUCTED BY ANY SIGNS OR SIGN POSTS. FINAL LOCATION OF YIELD LINE TO BE APPROVED BY DESIGN ENGINEER.
2. REFERENCE SDD 15C08-23D FOR EXACT PLACEMENT OF ALL TURN LANE ARROWS & WORDS.
3. STOP LINE IS OFFSET 12 FT FROM THE EXISTING TRAVEL LANE.



PAVEMENT MARKING LEGEND

Y6	MARKING LINE EPOXY 6-INCH (YELLOW SOLID)
YD6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW SOLID)
W6	MARKING LINE EPOXY 6-INCH (WHITE SOLID)
WS6	MARKING LINE EPOXY 6-INCH (WHITE SKIPS, 12.5' LINE, 37.5' GAP)
W10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SOLID)
WC10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE CHANNELIZING)
WS10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (WHITE SKIPS, 3' LINE, 9' GAP)
Y10	MARKING LINE GROOVED PERMANENT TAPE 10-INCH (YELLOW SOLID)
YD12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 25' SPACING)
WSL18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WYL18	MARKING YIELD LINE EPOXY 18-INCH (WHITE TRIANGLES)
WCH24	MARKING CHEVRON EPOXY 24-INCH (WHITE CHEVRON CROSSHATCH 25' SPACING)
MWE	MARKING WORD EPOXY
MSE	MARKING SYMBOL EPOXY

PROJECT NO: 1112-06-75

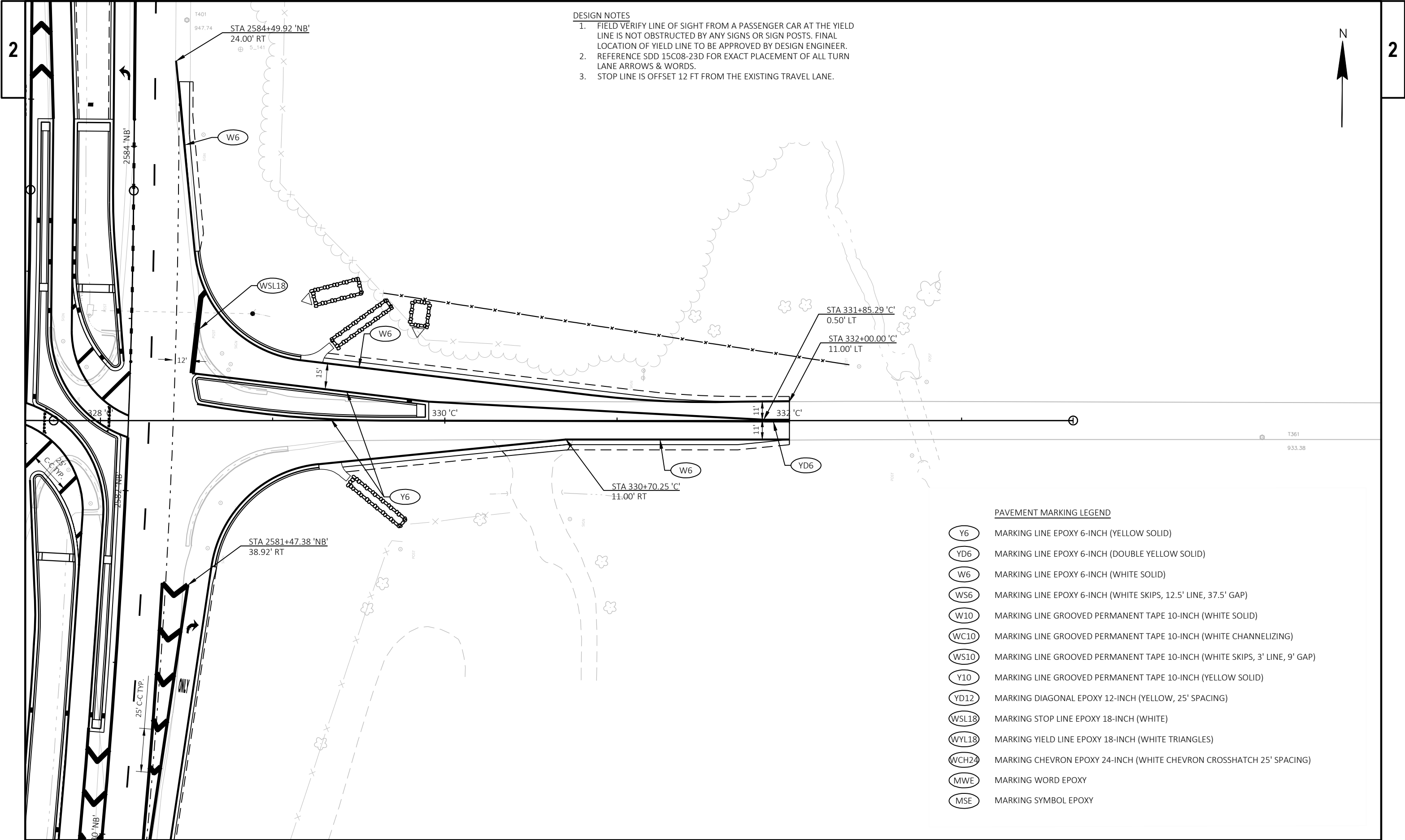
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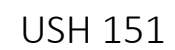
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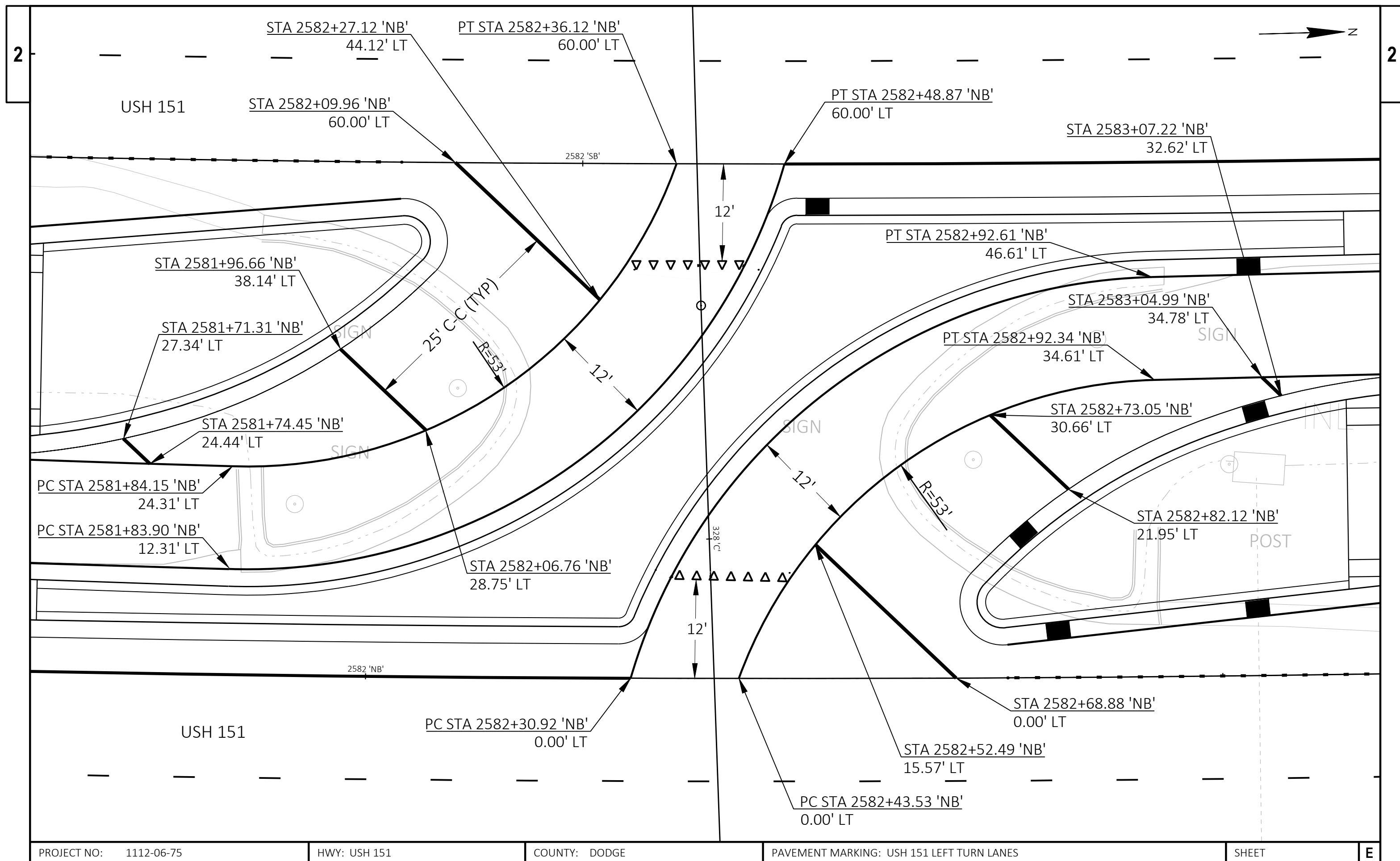
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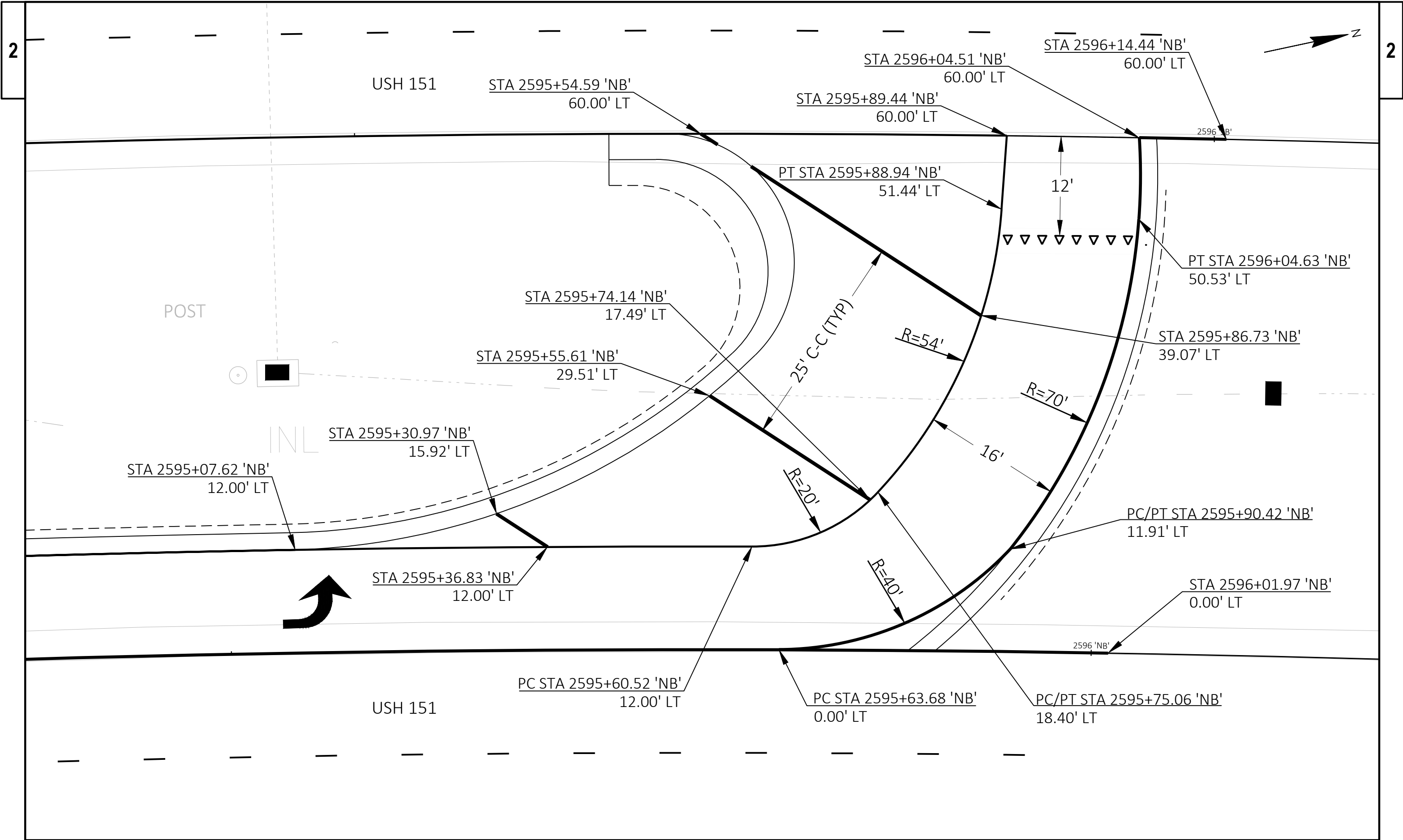
SHEET

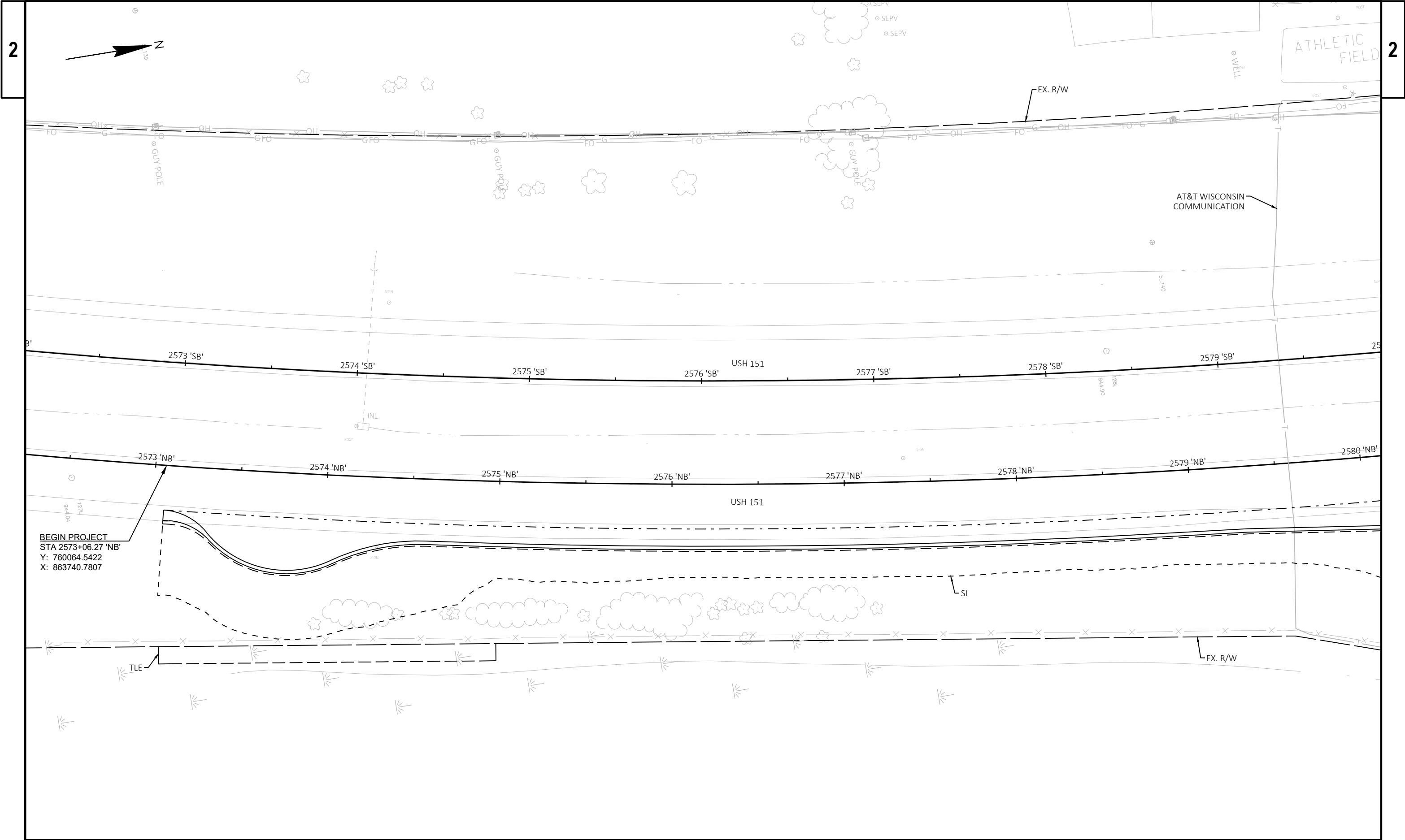
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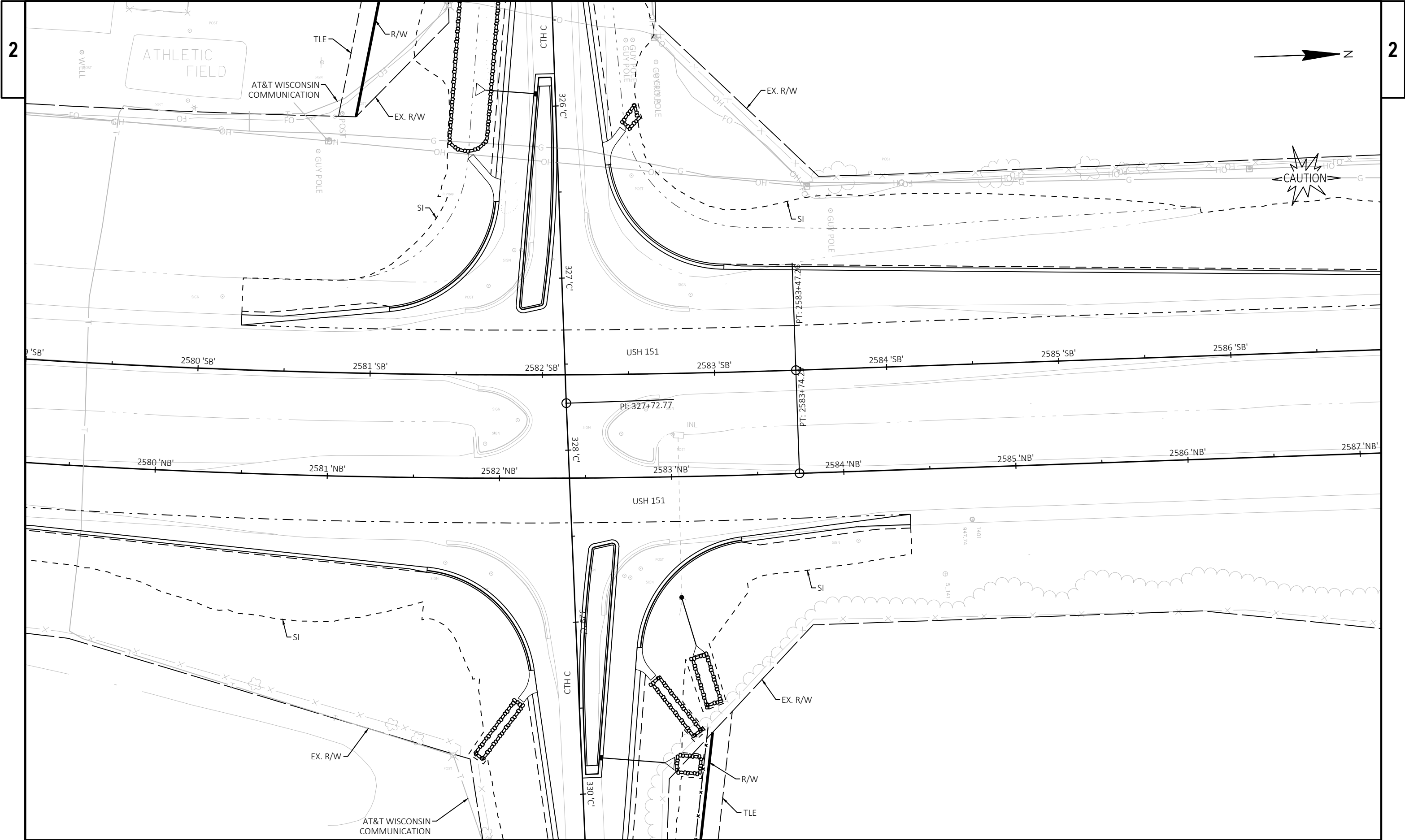




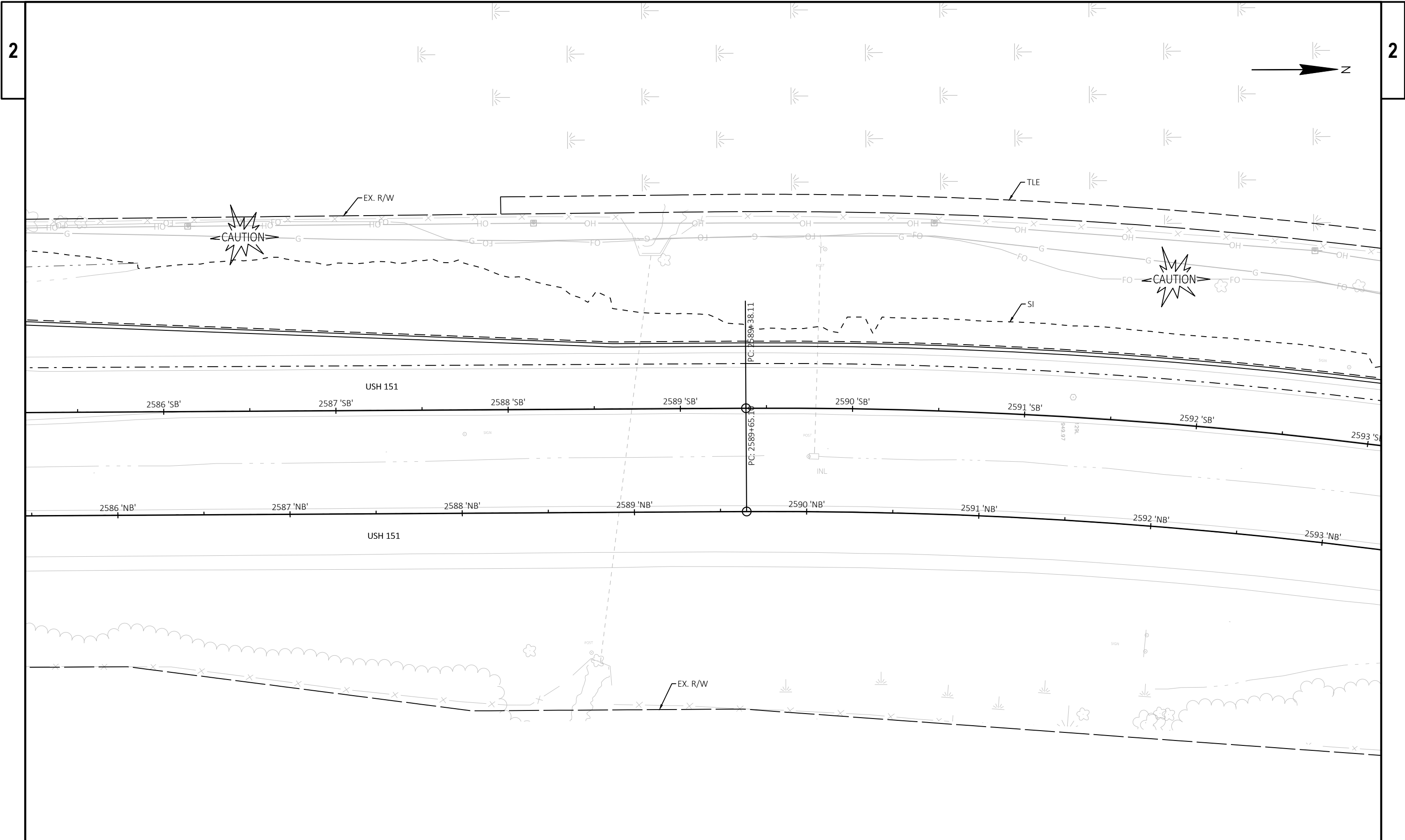


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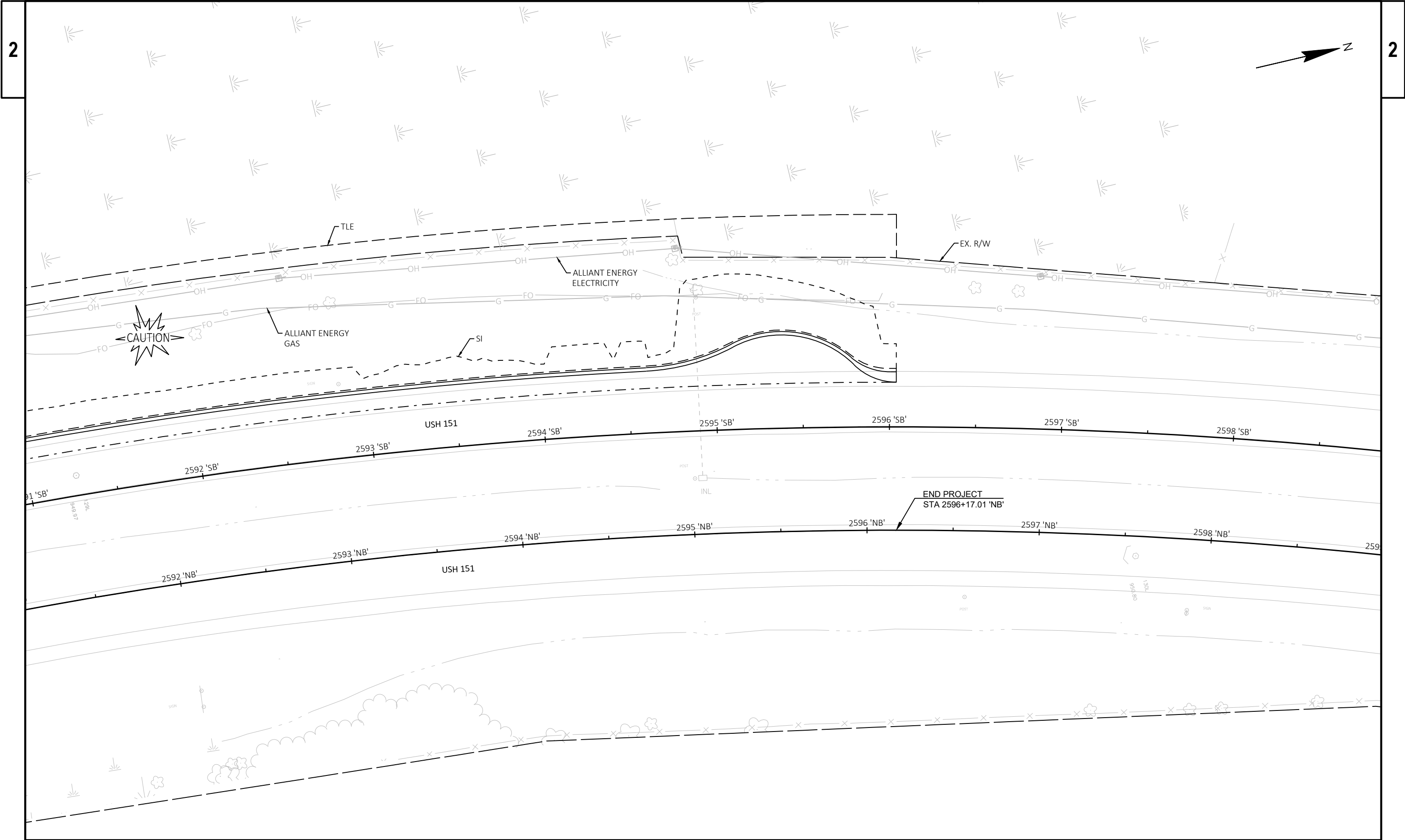
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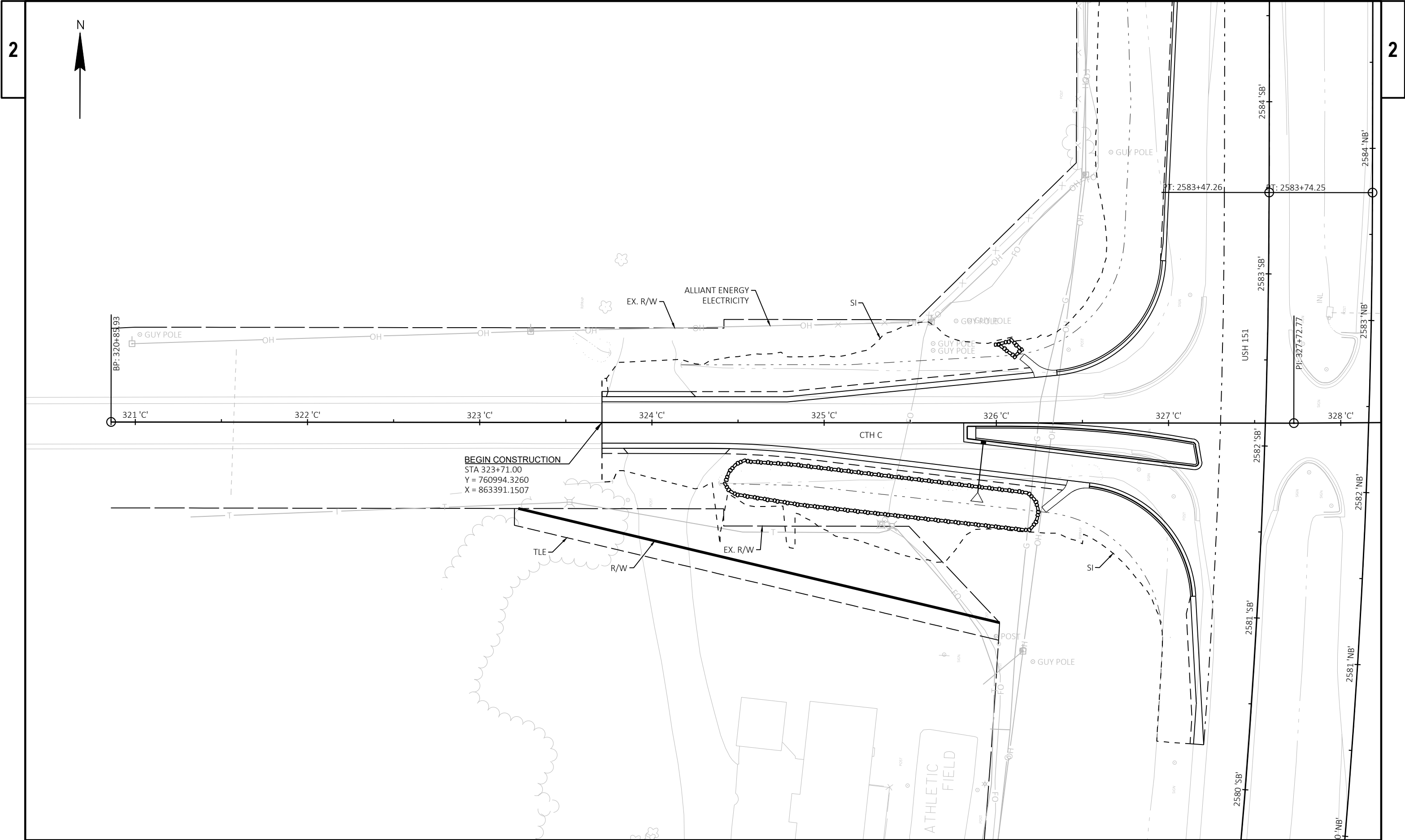
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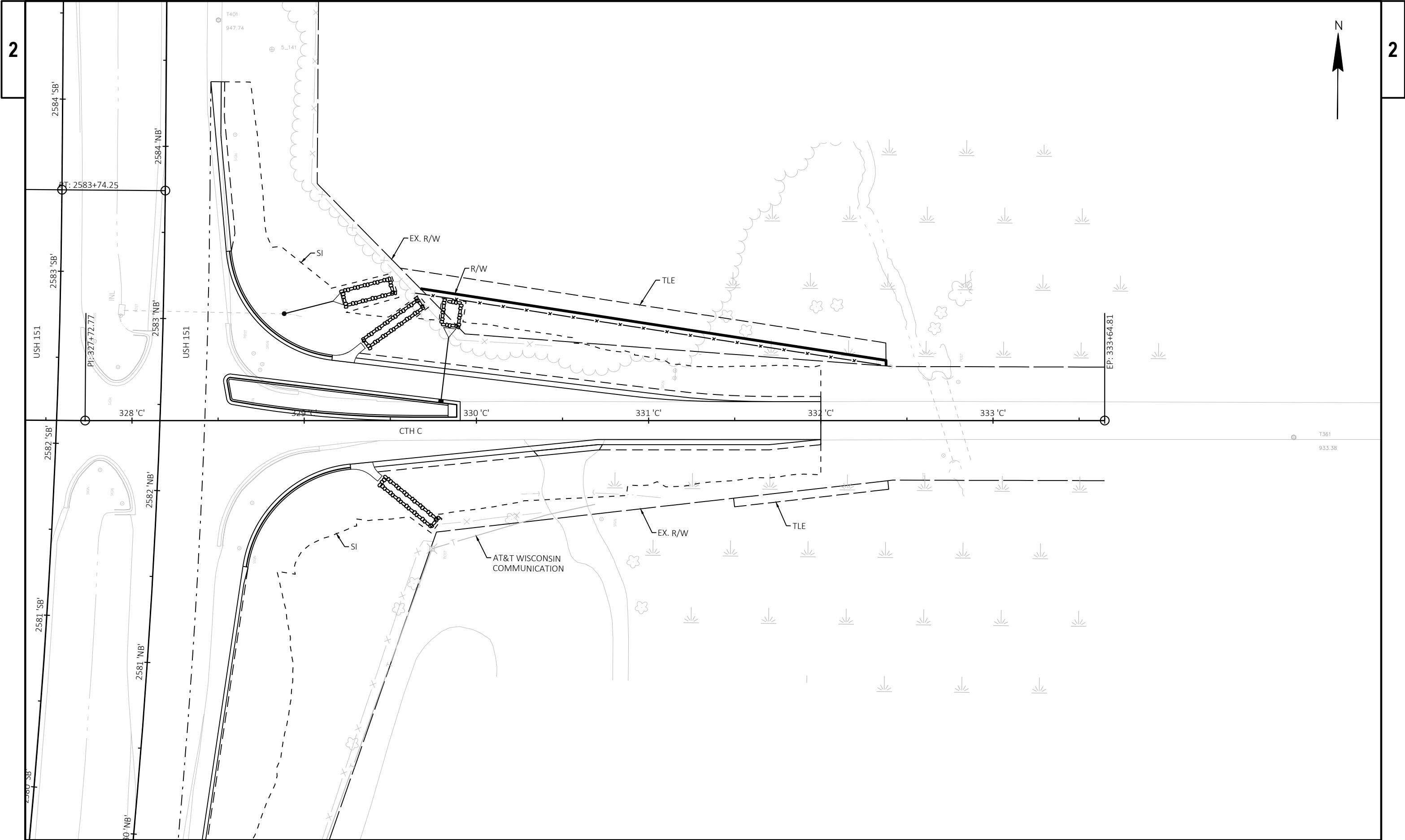
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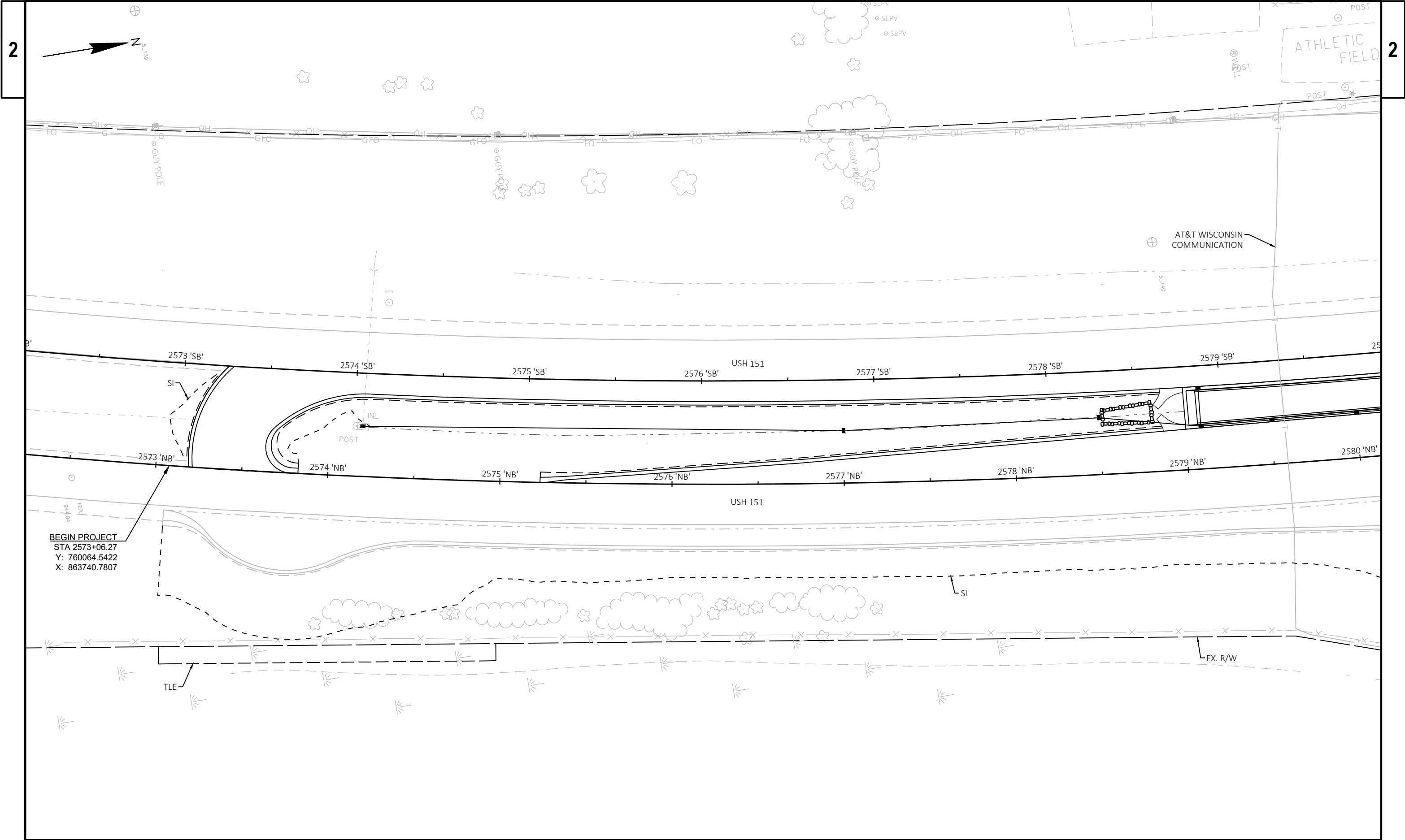
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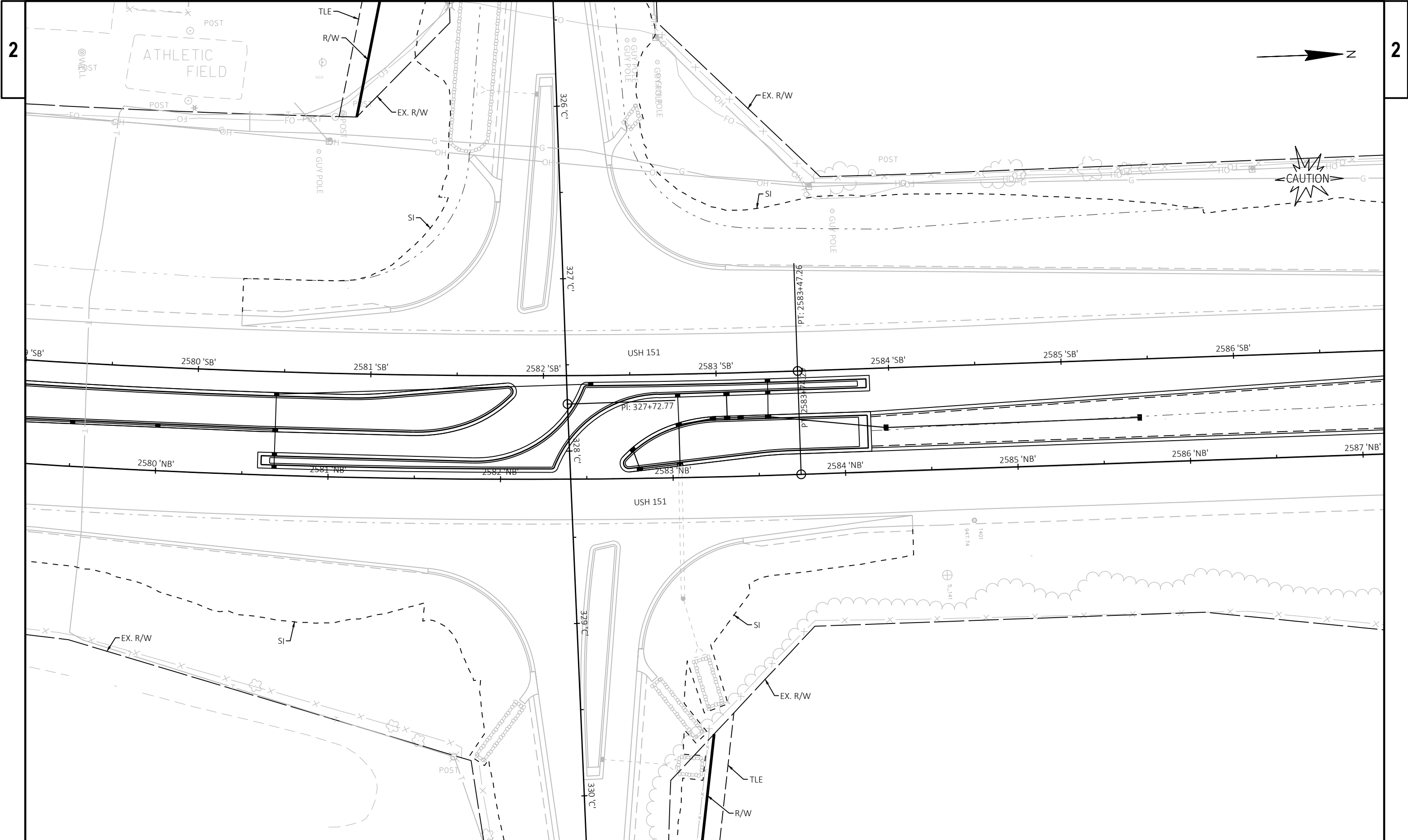
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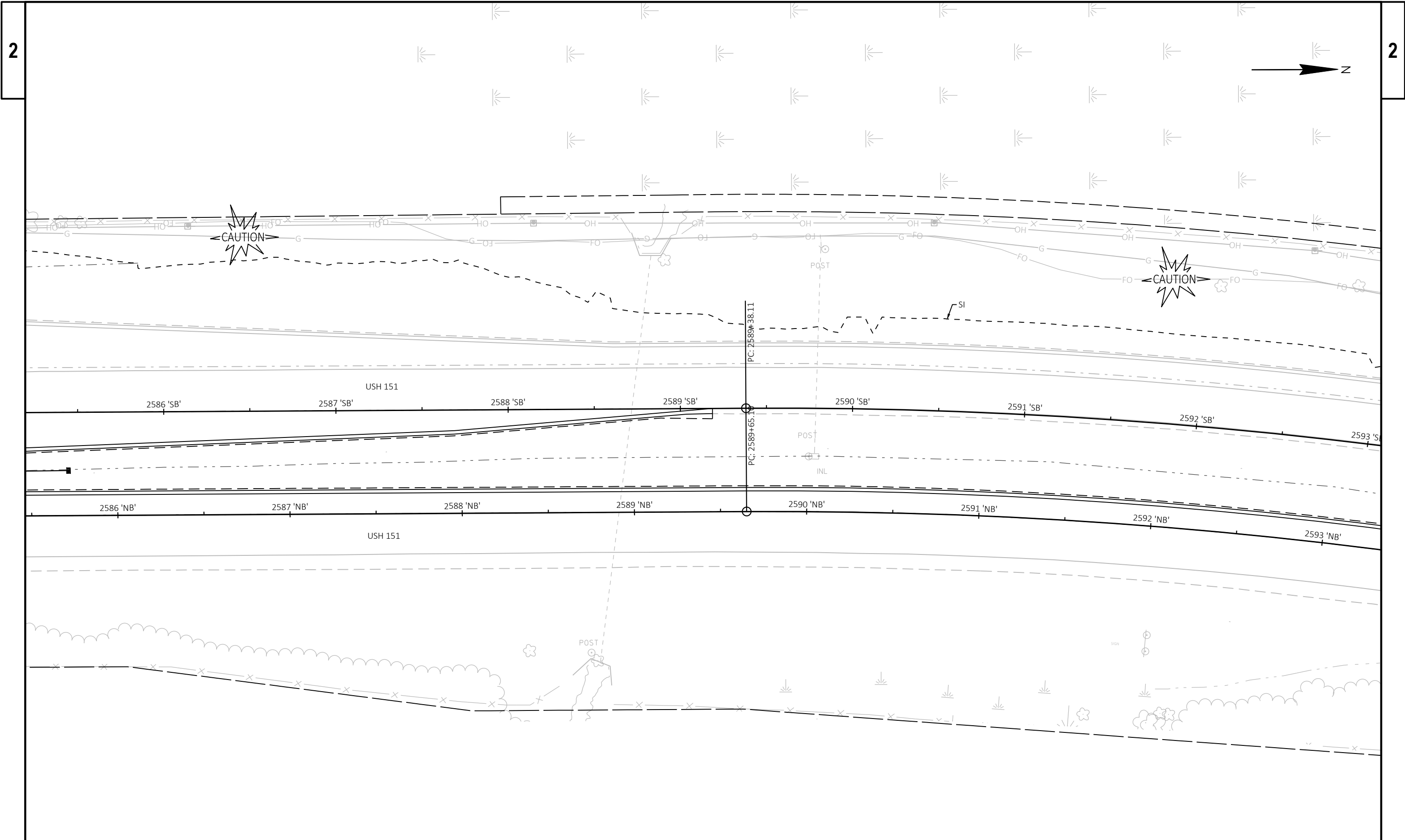
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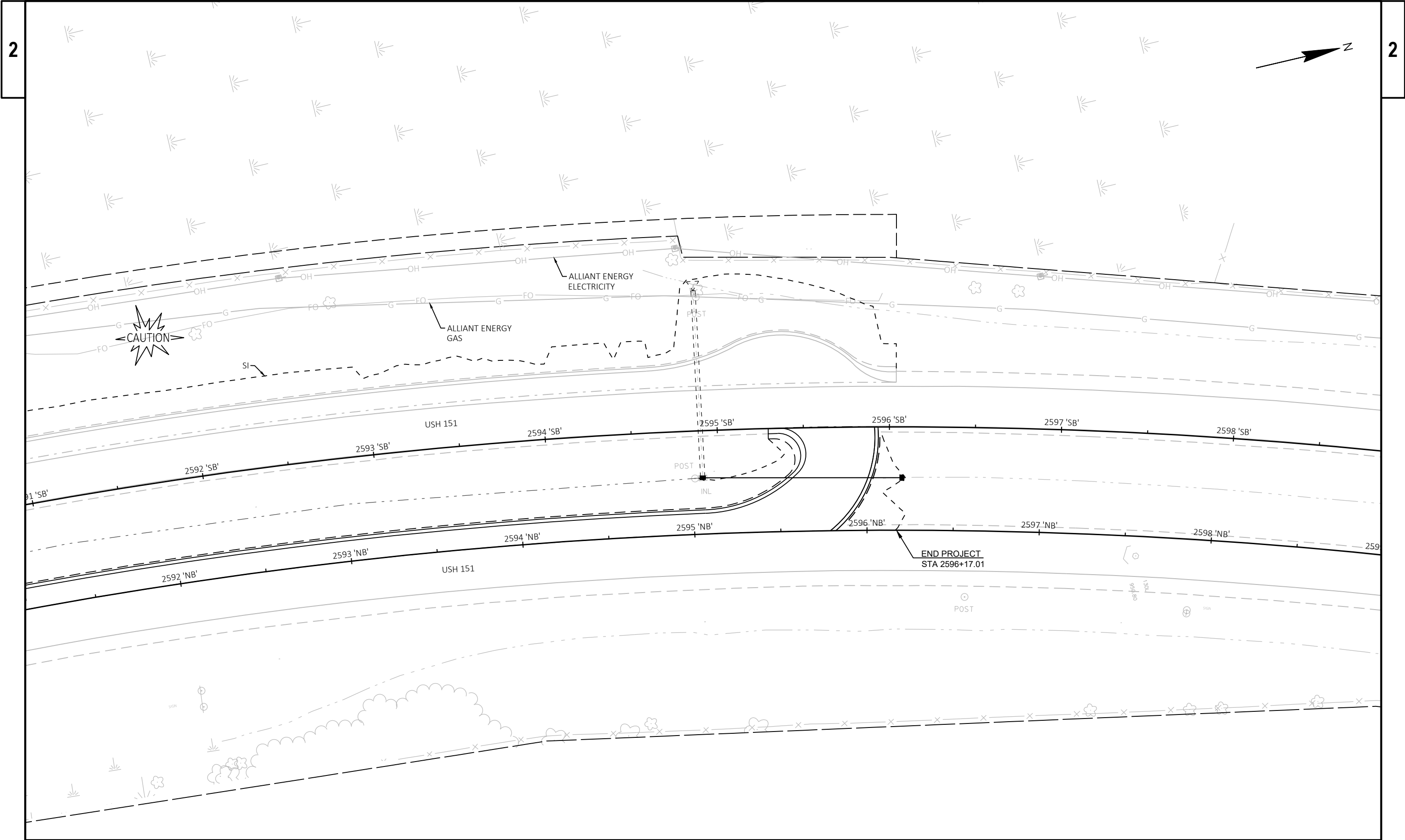
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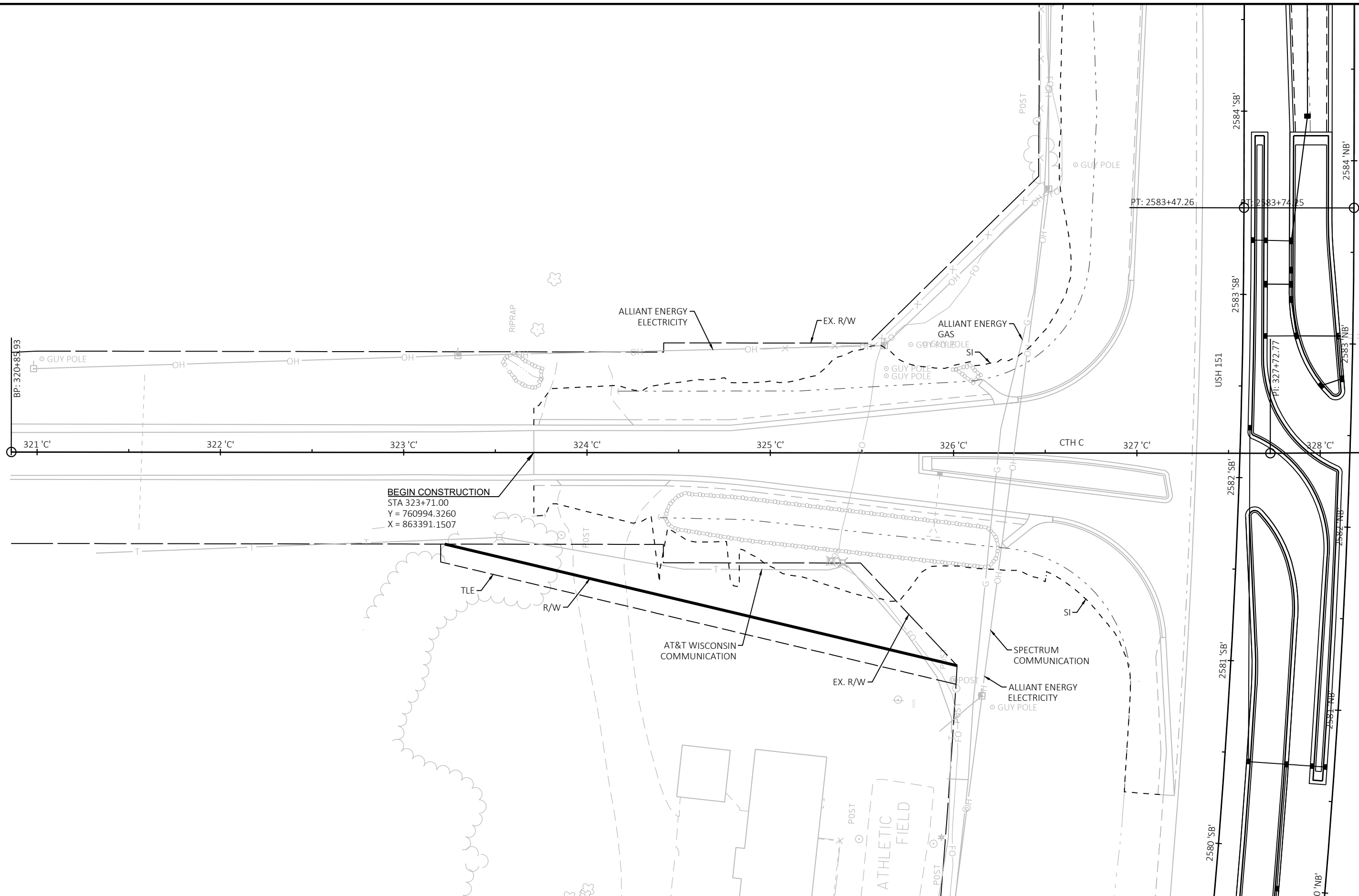
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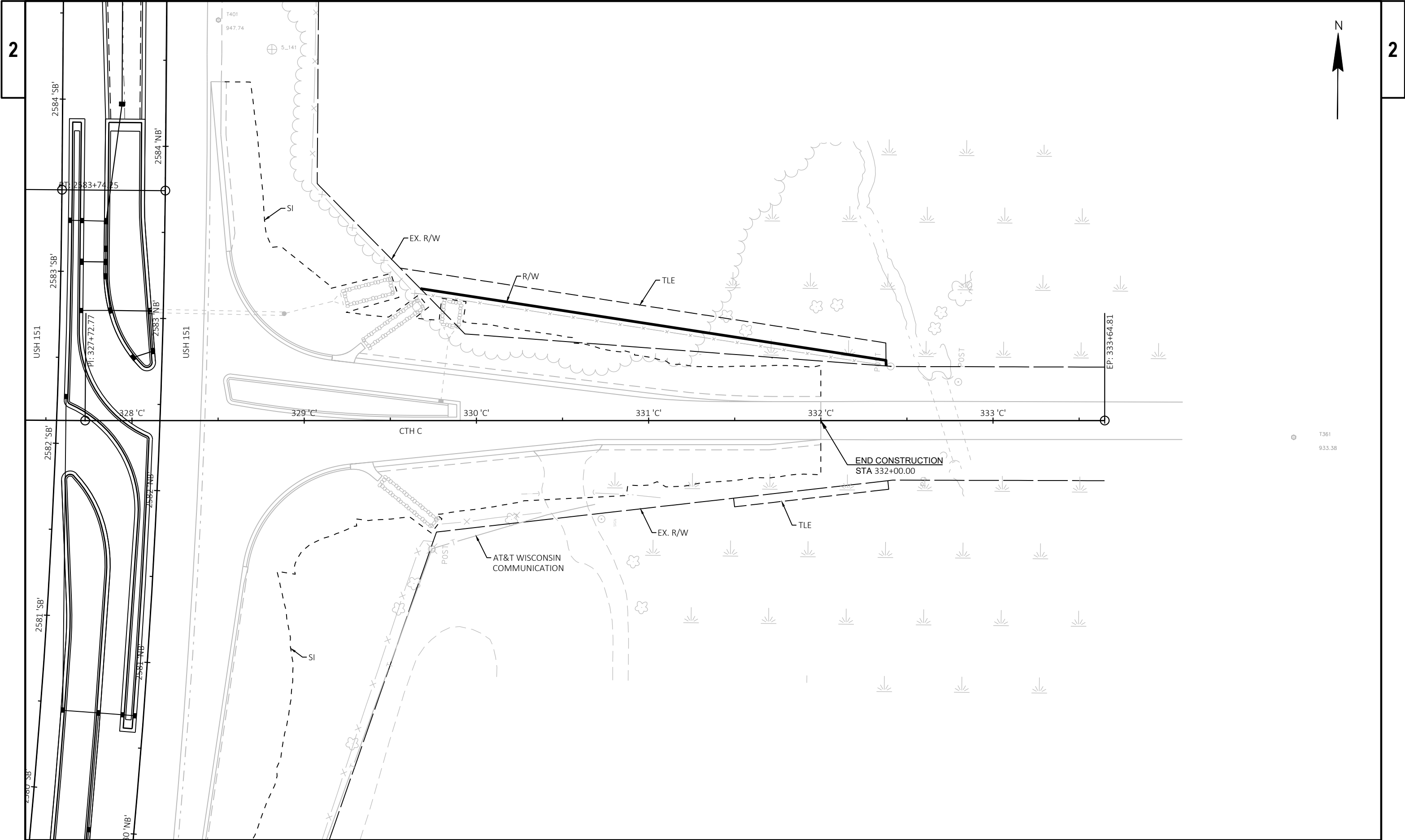
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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CONSTRUCTION STAGING - STAGE 2	SHEET	E
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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CONSTRUCTION STAGING - STAGE 2	SHEET	E
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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CONSTRUCTION STAGING - STAGE 2	SHEET	E
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TRAFFIC CONTROL STAGES

STAGE 1

USH 151 NB & SB OUTSIDE TRAVEL LANES AND CTH C WILL BE CLOSED DURING CONSTRUCTION OF USH 151 OUTSIDE TURN LANES AND CTH C.

STAGE 2

USH 151 NB & SB INSIDE TRAVEL LANES WILL BE CLOSED AND CTH C WILL BE RIGHT-IN, RIGHT-OUT ONLY DURING CONSTRUCTION OF THE USH 151 LEFT TURN AND U-TURN LANES. USH 151 OUTSIDE TURN LANES AND CTH C CONSTRUCTED DURING STAGE 1 WILL BE RESTRICTED TO RIGHT-IN, RIGHT-OUT FOR THROUGH TRAFFIC ONLY.

STAGE 3:

USH 151 NB & SB OUTSIDE SHOULDERS WILL BE CLOSED TO COMPLETE OPERATIONS FOR LIGHTING, PERMANENT SIGNING, AND ANY REMAINING RESTORATION OPERATIONS. ALL USH 151 TURN LANES AND CTH C WILL BE OPEN TO TRAFFIC.

TRAFFIC CONTROL NOTES

- 1. CTH C WILL BE CLOSED TO THROUGH TRAFFIC AT USH 151 FOR STAGES 1 AND 2. THERE WILL BE NO DETOUR ROUTE WHILE CTH C IS CLOSED.
- 2. PCMS WILL BE PLACED ON USH 151 AND CTH C 7 DAYS PRIOR TO THE START OF CONSTRUCTION TO NOTIFY MOTORISTS THAT CTH C WILL BE CLOSED FOR STAGE 1. PCMS WILL BE PLACED ON USH 151 AT THE START OF STAGE 2 FOR 7 DAYS TO NOTIFY MOTORISTS THAT CTH C EB & WB IS OPEN TO TRAFFIC.

TRAFFIC CONTROL SDD

SDD 15C02-09B BARRICADES AND SIGNS FOR VARIOUS CLOSURES

SDD 15D03-05 TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER

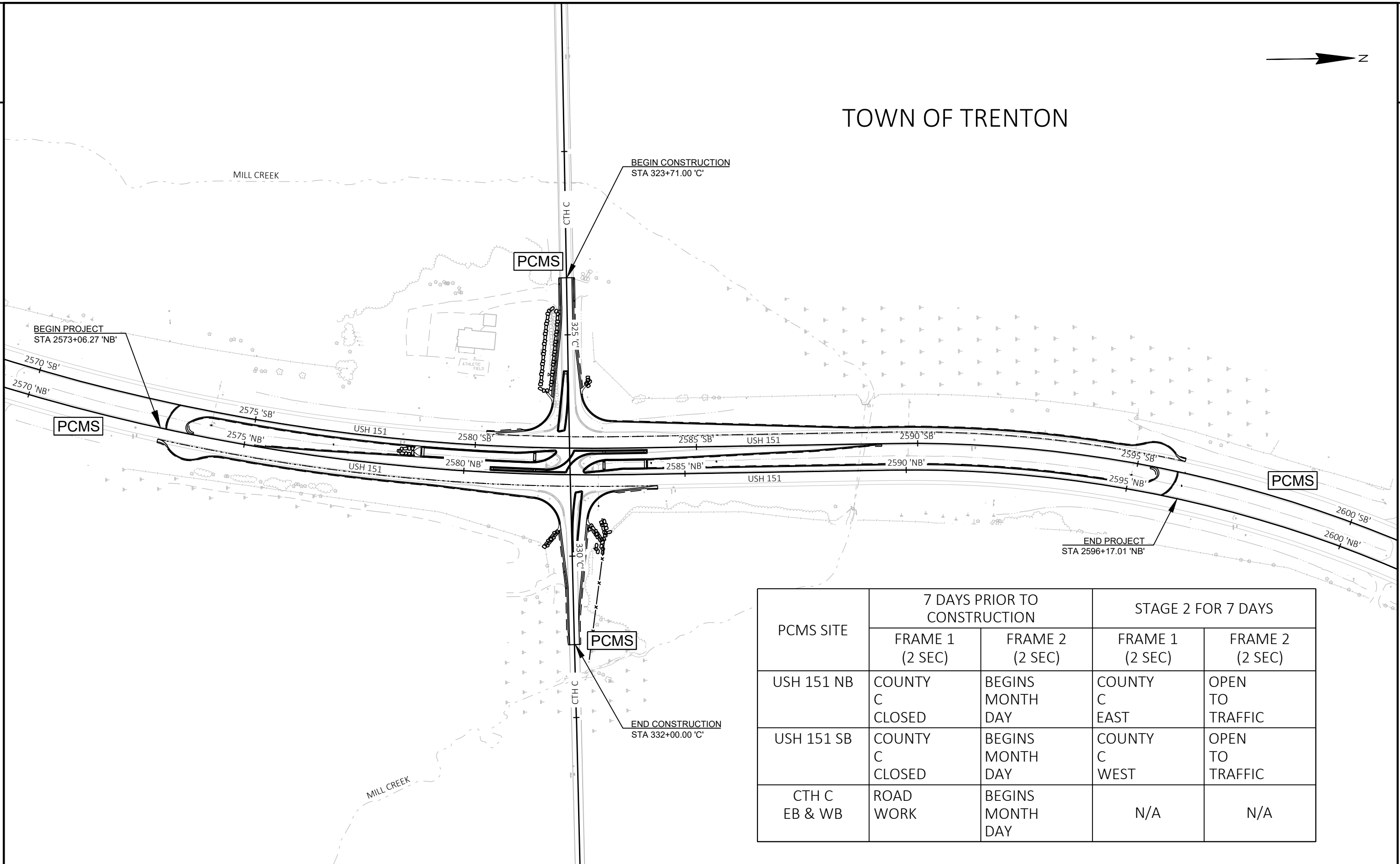
SDD 15D12-13A TRAFFIC CONTROL LANE CLOSURE FOR ADDITIONAL DETAILS.

SDD 15D27-03 TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH FOR CLOSURE OF PAVED SHOULDERS

SDD 15D47-03A TRAFFIC CONTROL INGRESS/EGRESS WITH BARRIER FOR CONSTRUCTION TRUCKS ENTERING AND EXITING THE WORK ZONE



TOWN OF TRENTON



PCMS SITE	7 DAYS PRIOR TO CONSTRUCTION		STAGE 2 FOR 7 DAYS	
	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)	FRAME 1 (2 SEC)	FRAME 2 (2 SEC)
USH 151 NB	COUNTY C CLOSED	BEGINS MONTH DAY	COUNTY C EAST	OPEN TO TRAFFIC
USH 151 SB	COUNTY C CLOSED	BEGINS MONTH DAY	COUNTY C WEST	OPEN TO TRAFFIC
CTH C EB & WB	ROAD WORK	BEGINS MONTH DAY	N/A	N/A

ADVANCED WARNING SIGNS

- ## LEGEND

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

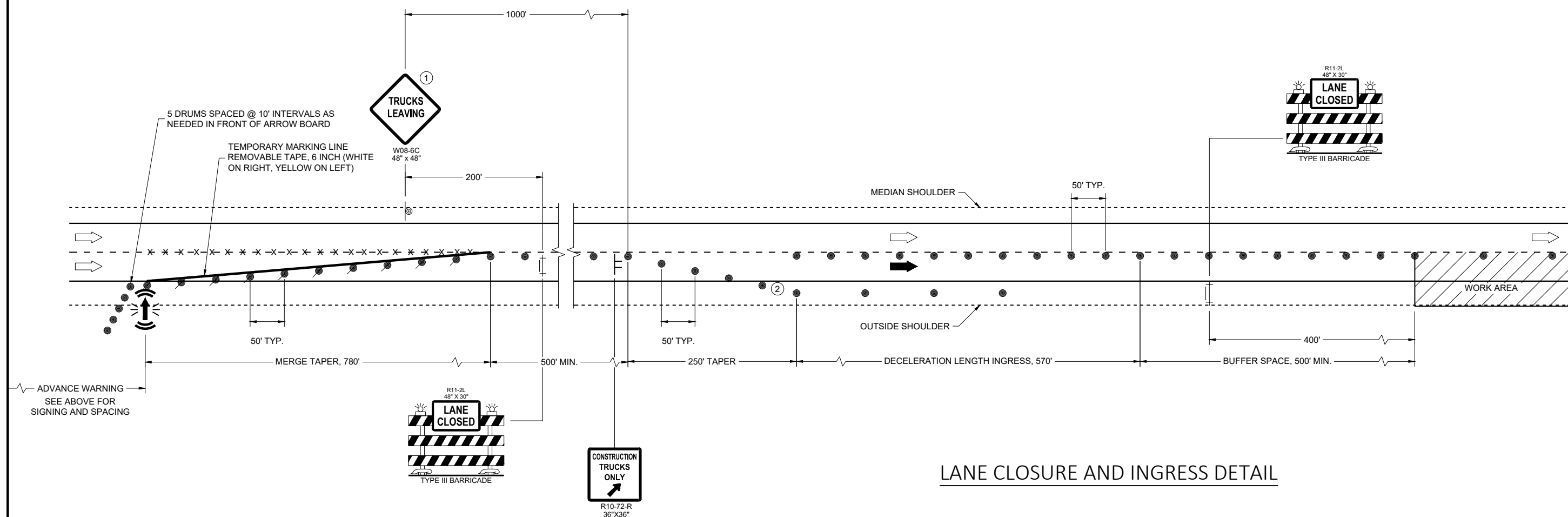
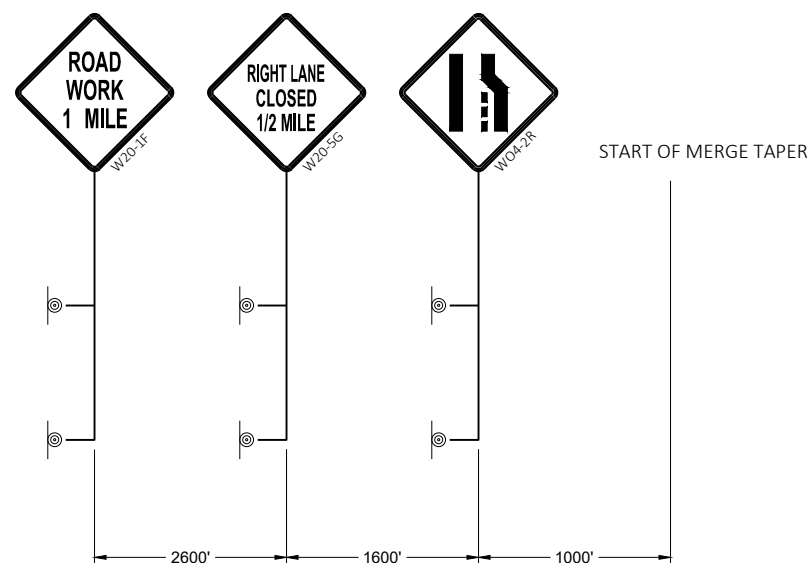
WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

THIS ACCESS DETAIL IS TYPICAL FOR RIGHT LANE ACCESS. FOR LEFT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

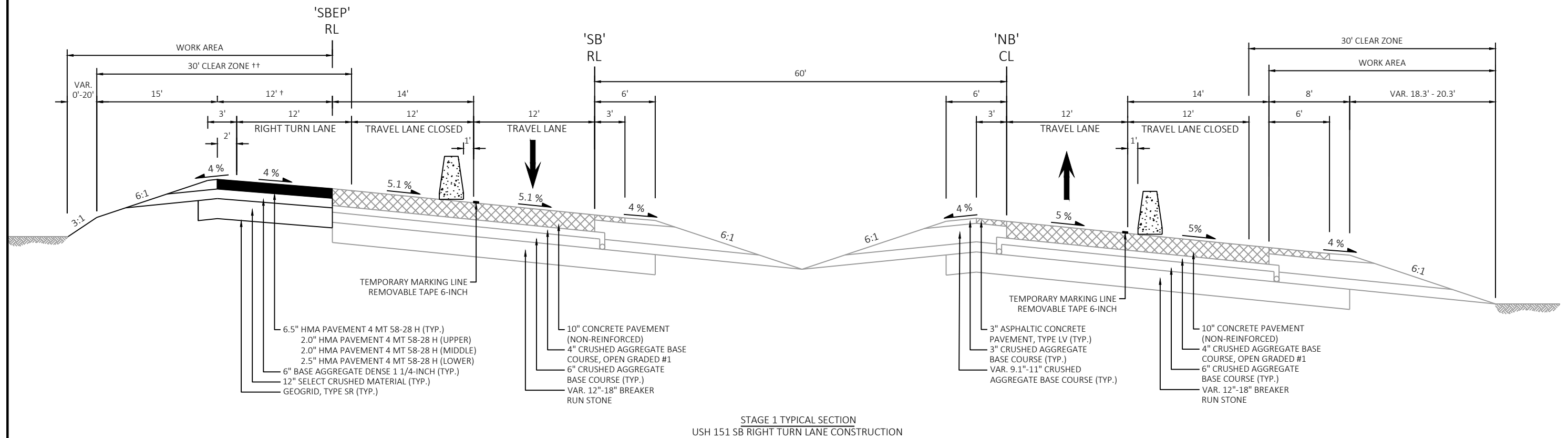
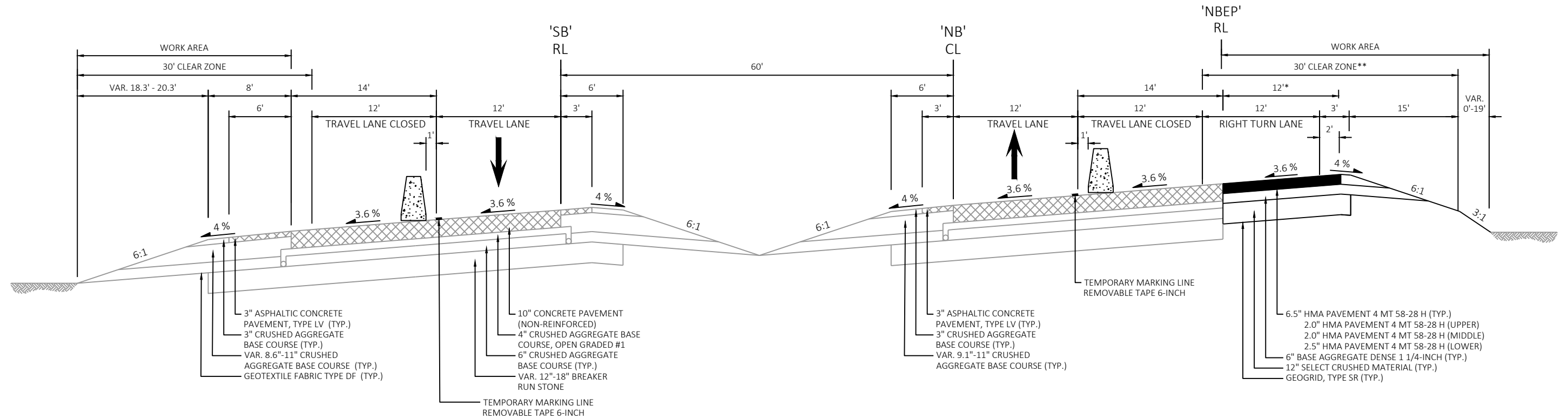
TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

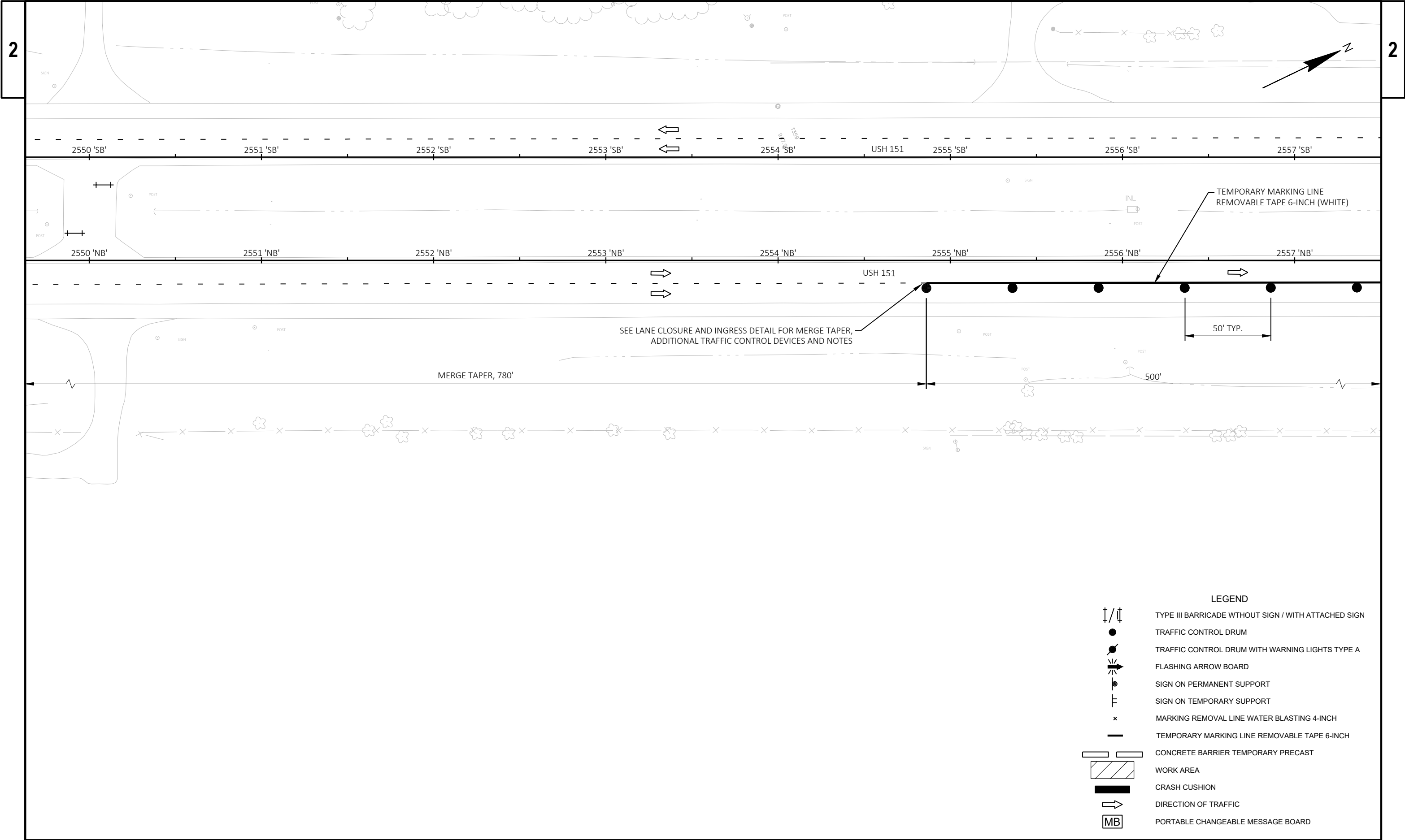
TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

- ① REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.
- ② WHEN INGRESS IS NOT IN USE, PLACE DRUMS WITH 50' SPACING ALONG THE LANE LINE OF THE ENTRANCE OF THE INGRESS.

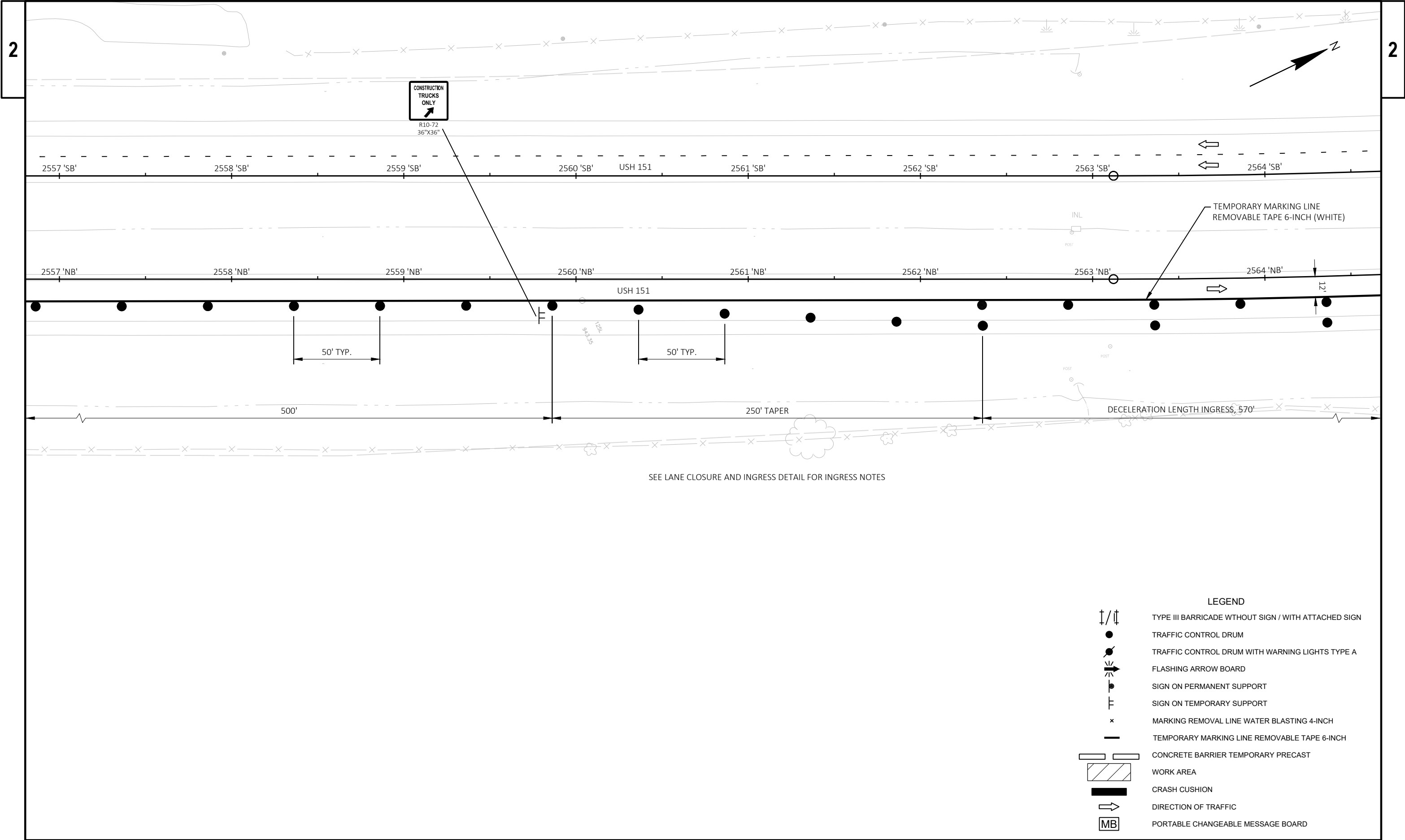


LANE CLOSURE AND INGRESS DETAIL

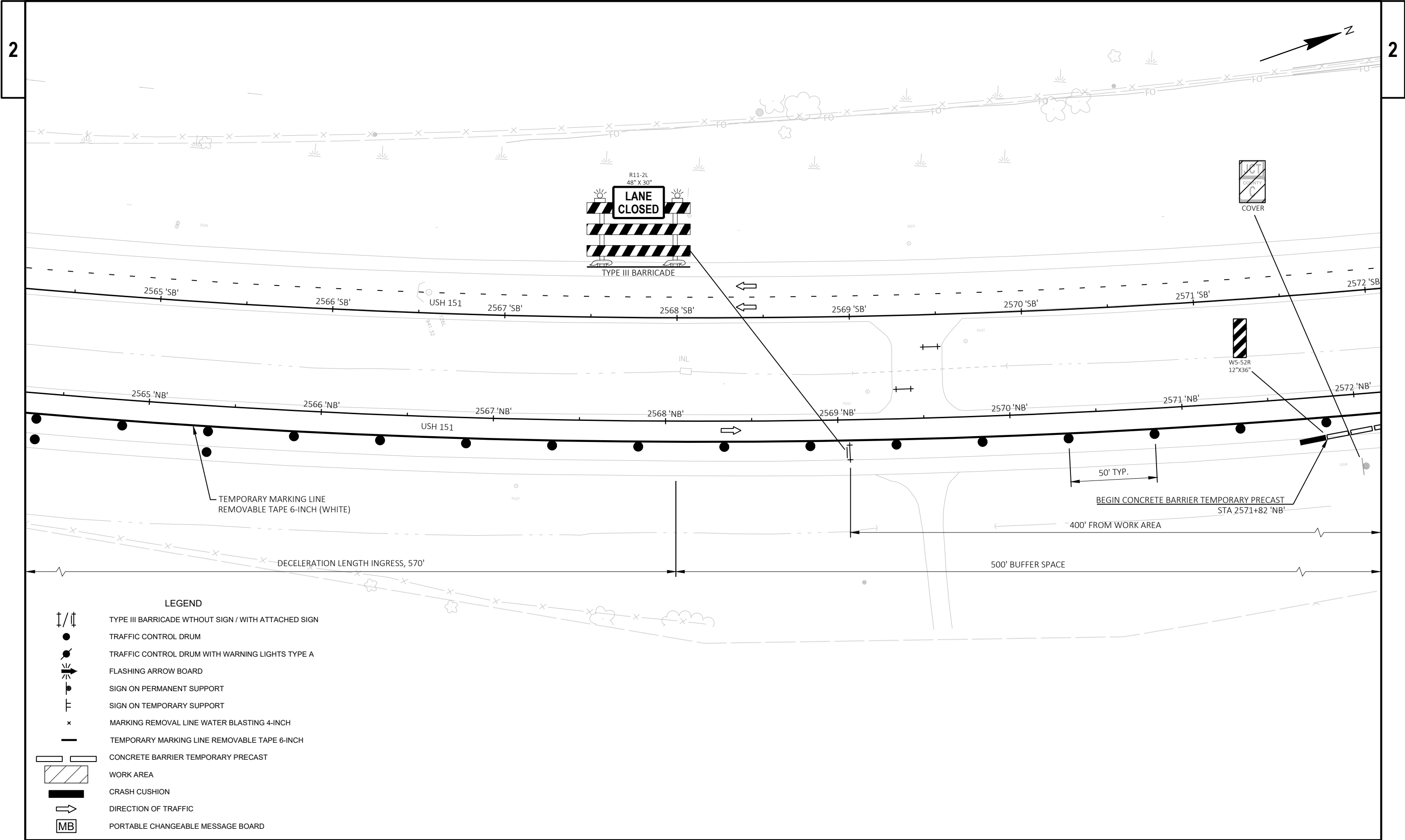


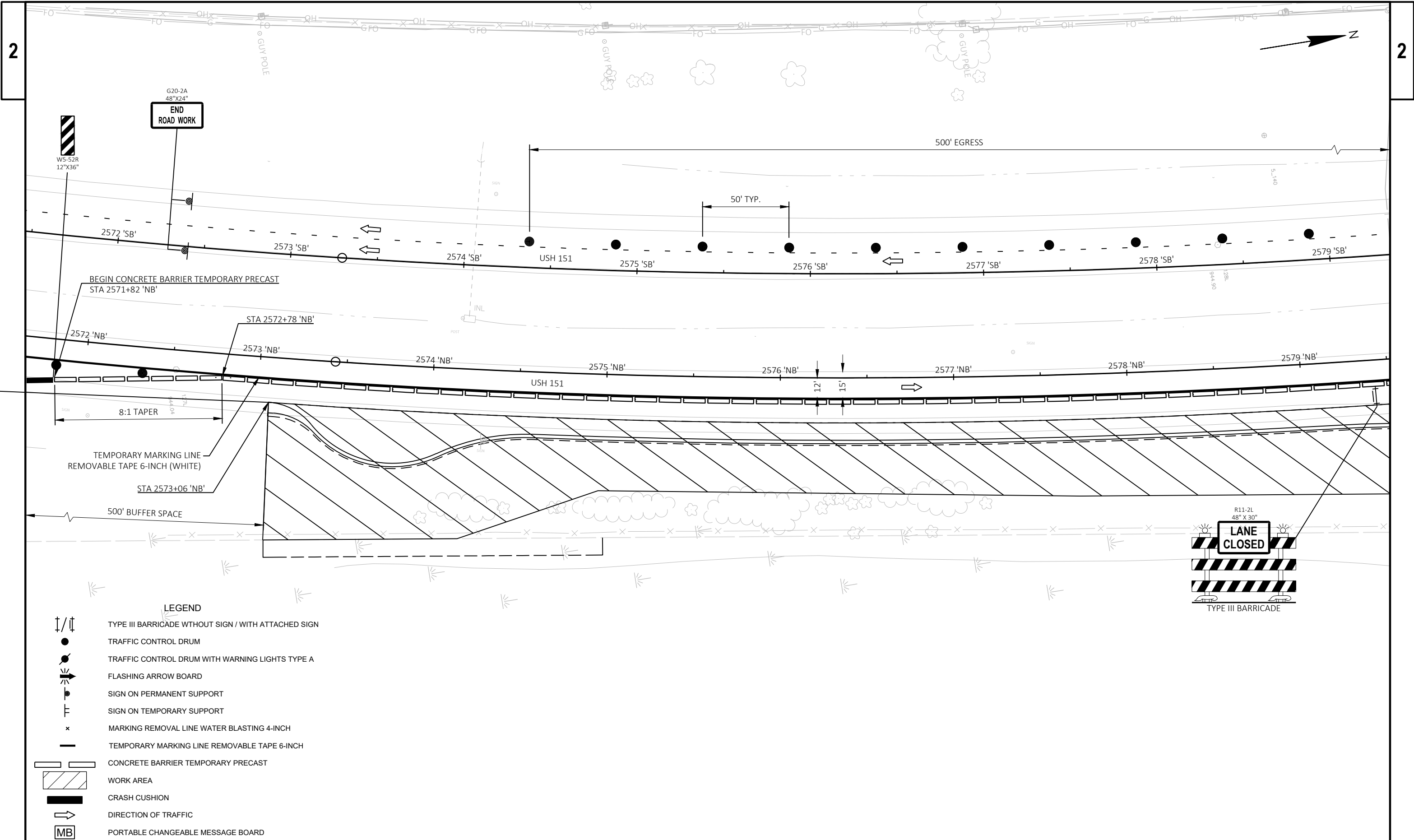


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 1	SHEET	E
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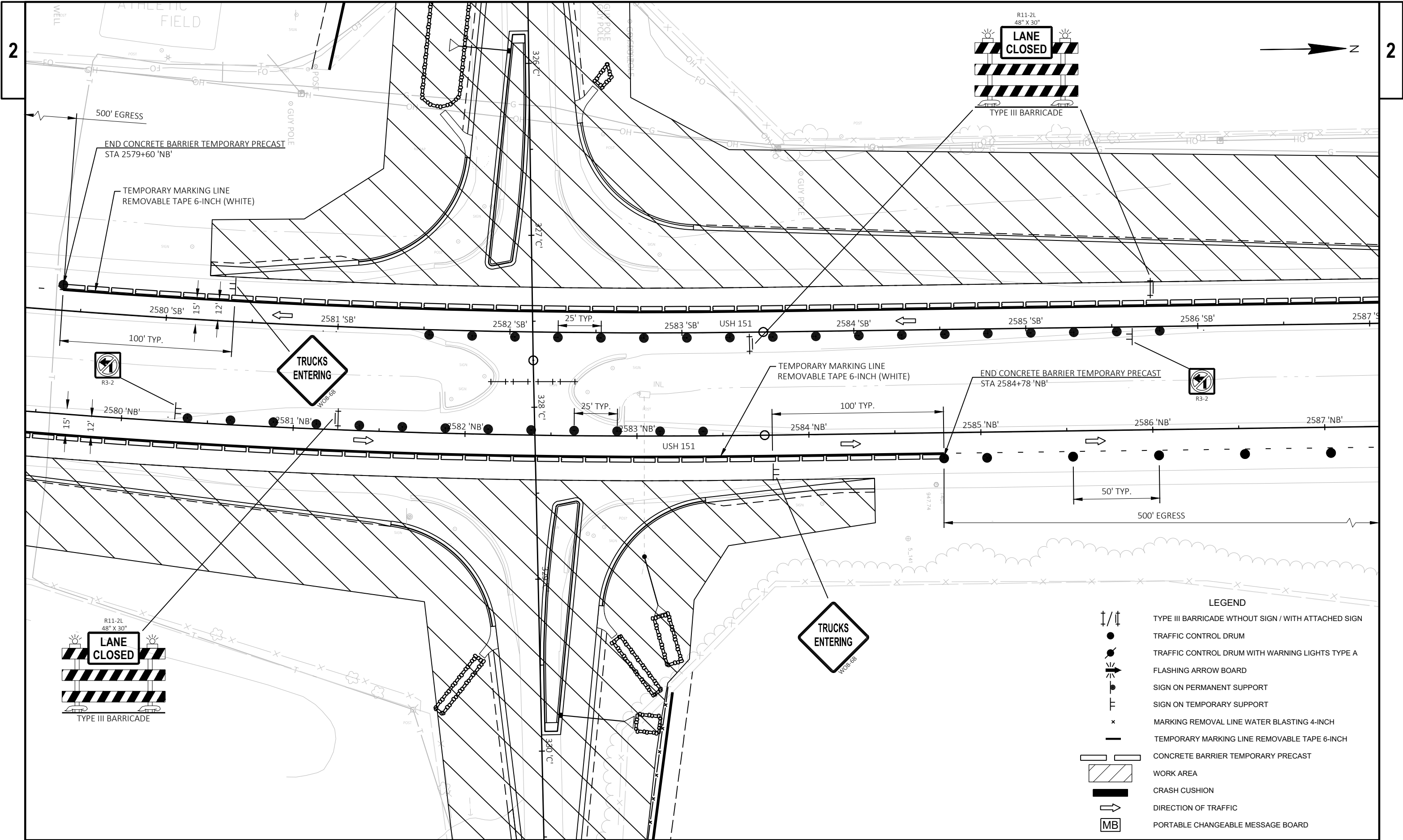


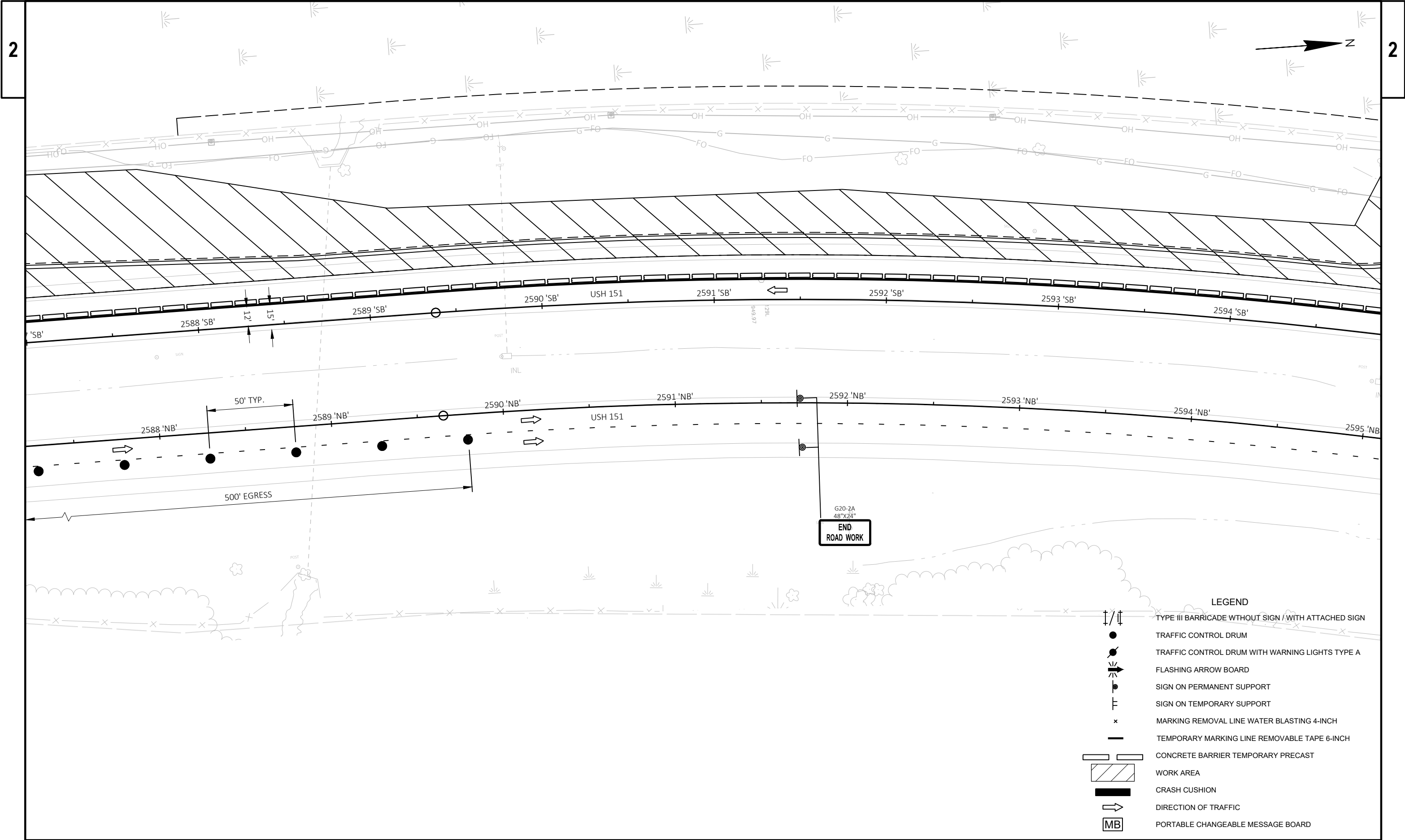
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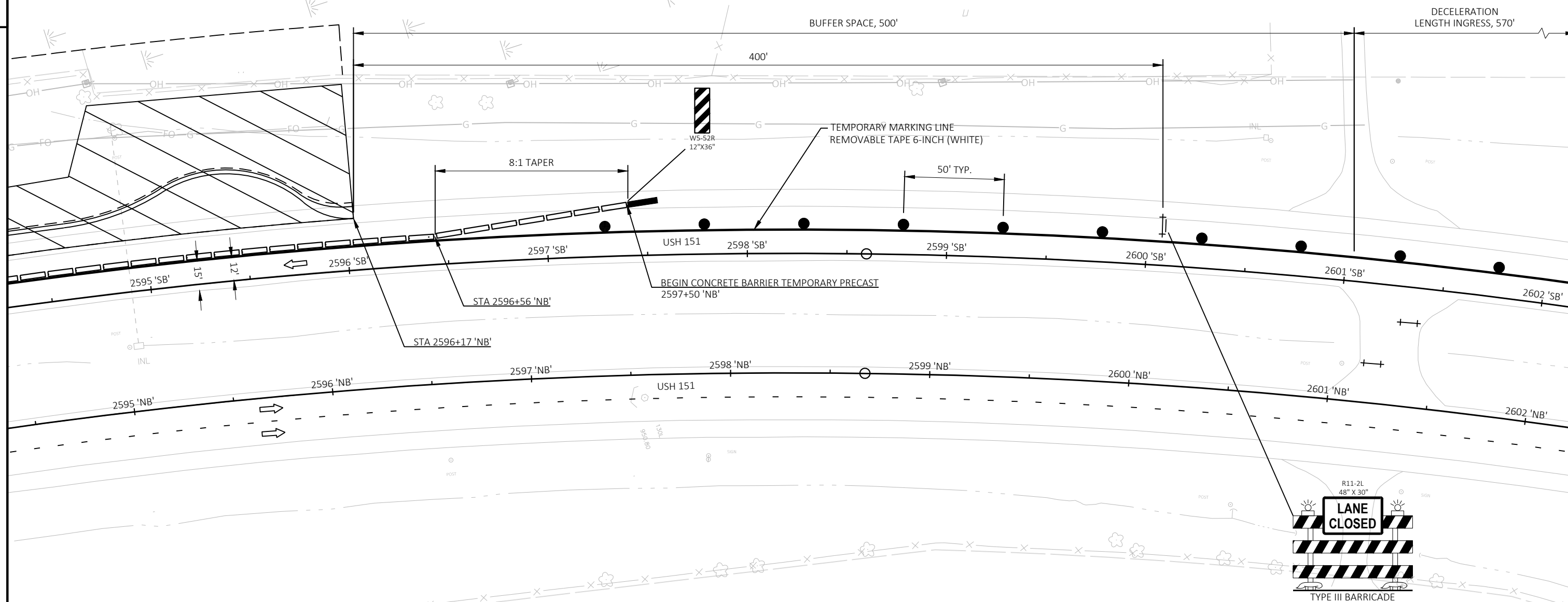




PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 1	SHEET	E
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LEGEND

- TYPE III BARRICADE WITHOUT SIGN / WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHTS TYPE A
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- MARKING REMOVAL LINE WATER BLASTING 4-INCH
- TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- CRASH CUSHION
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1112-06-75

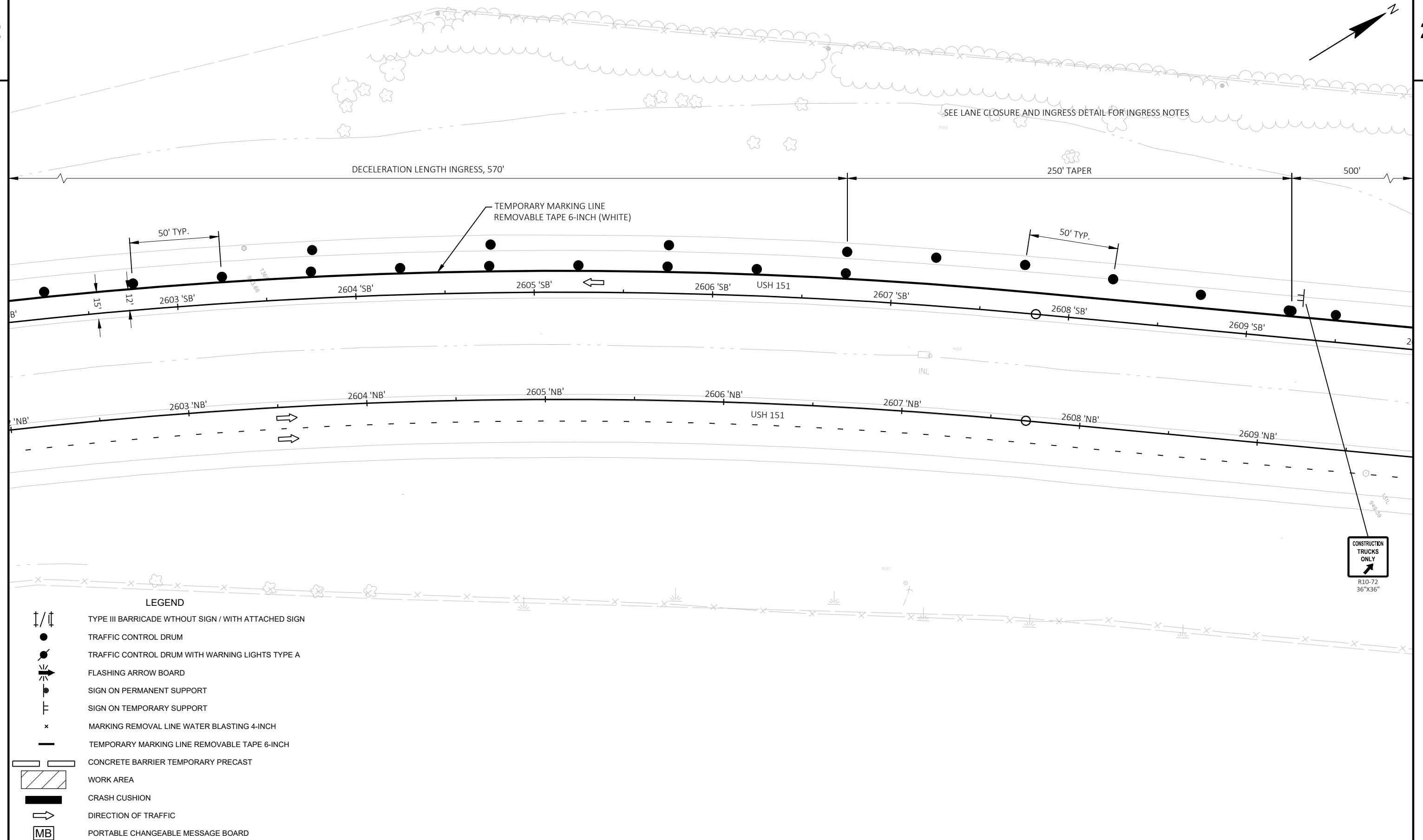
HWY: USH 151

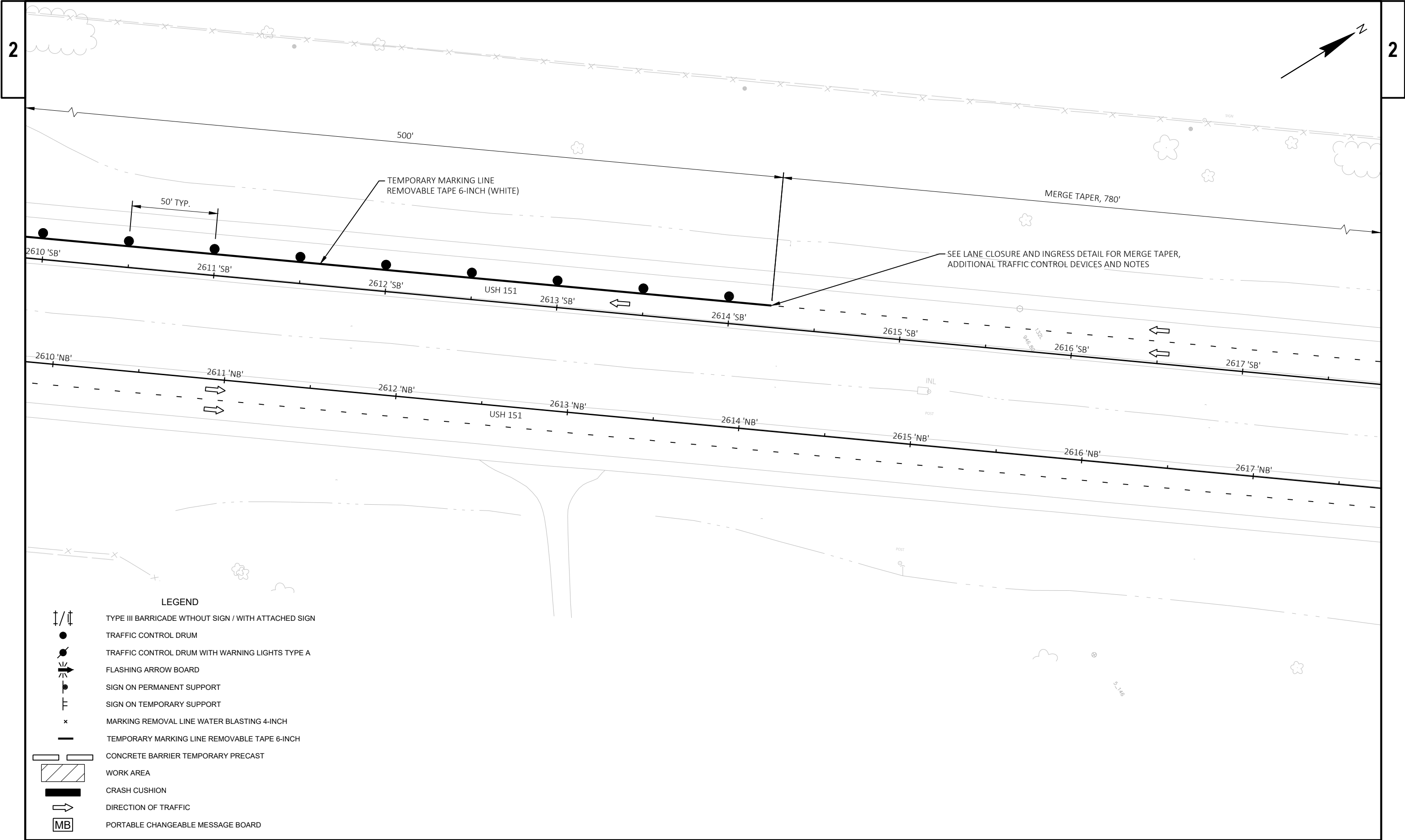
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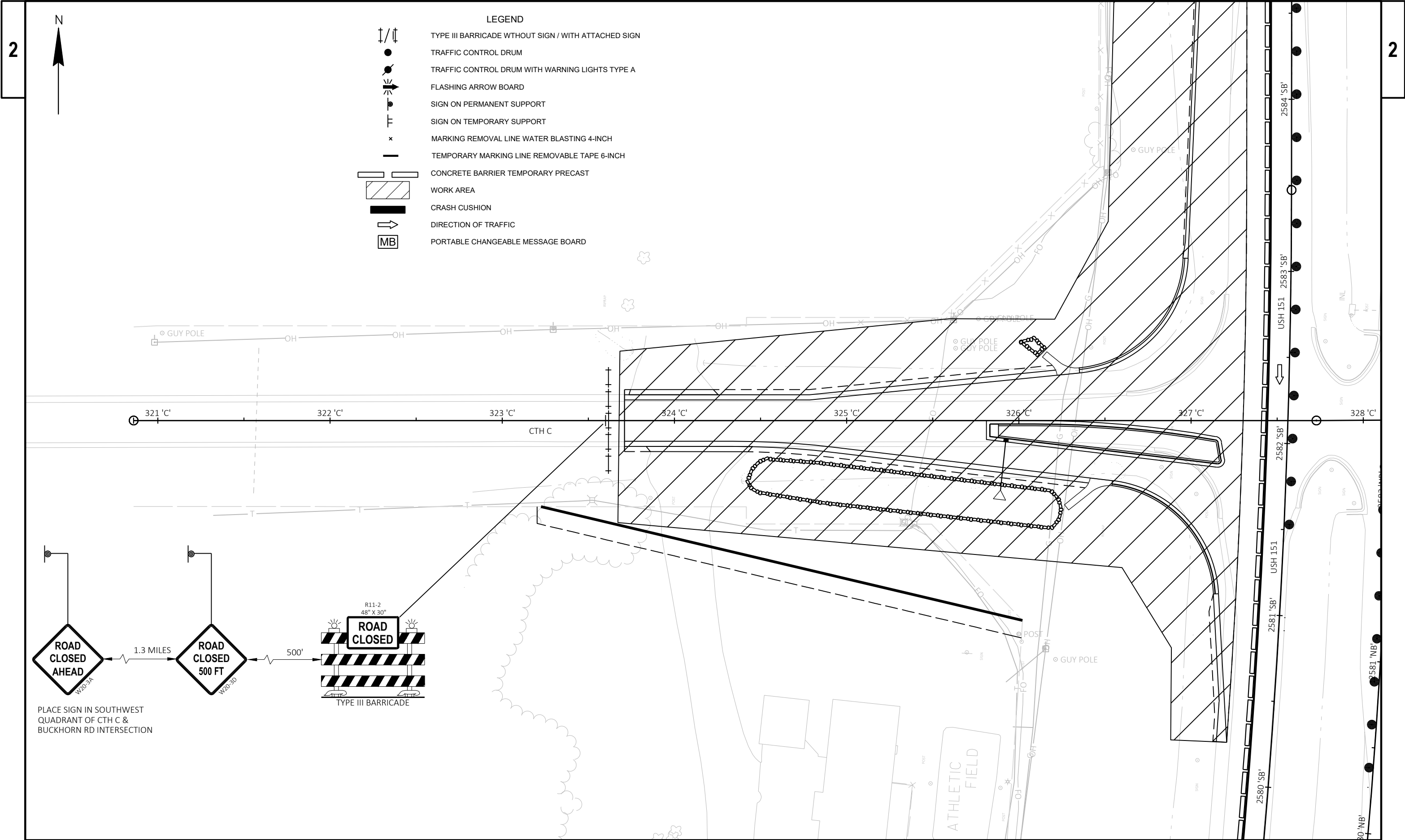
TRAFFIC CONTROL - STAGE 1

SHEET

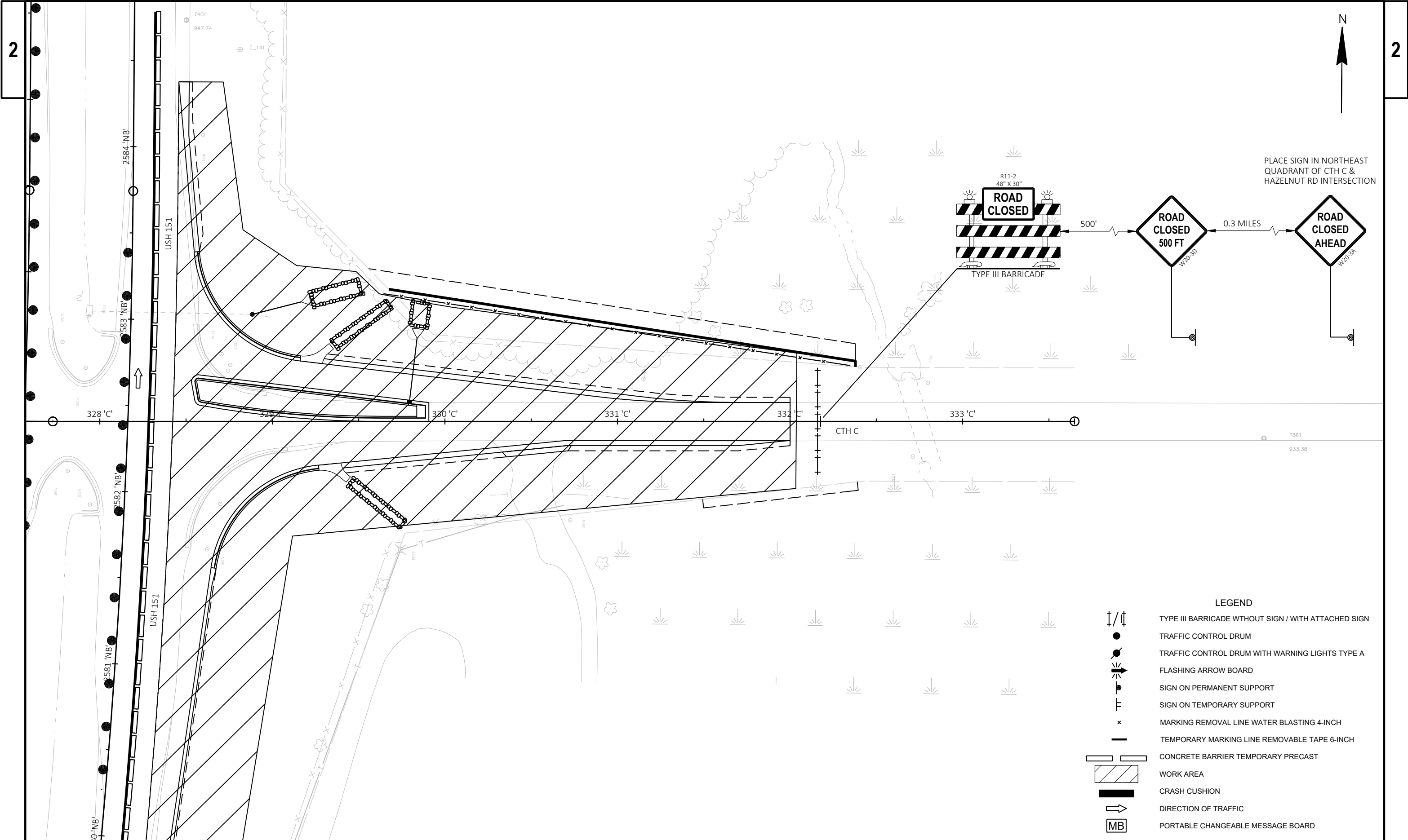
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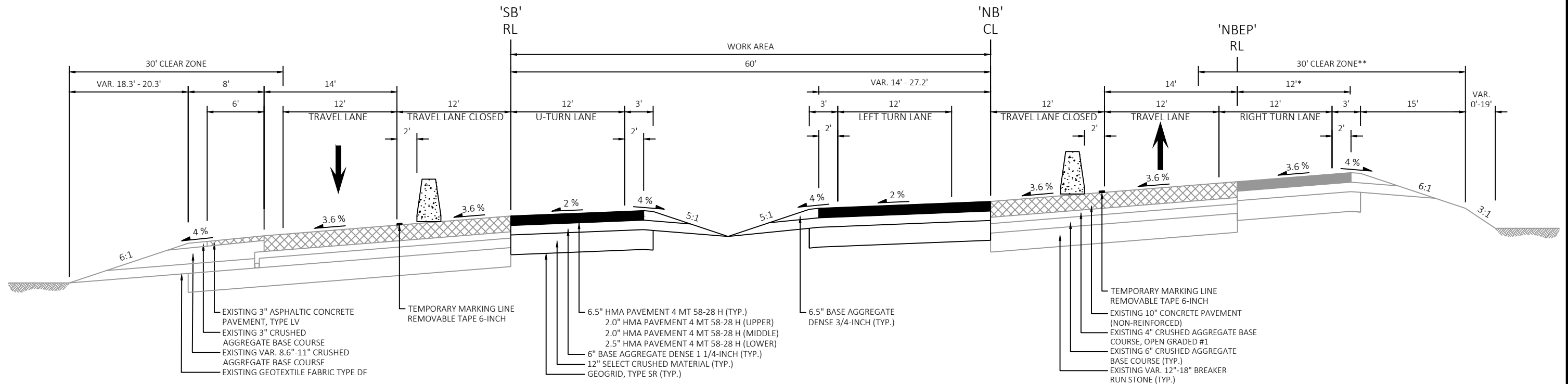






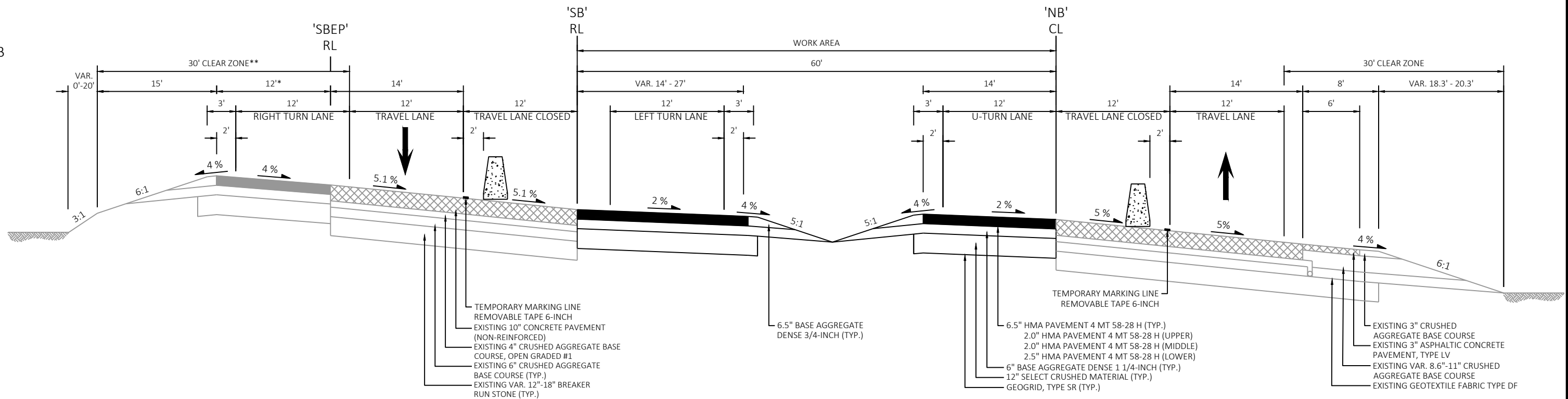
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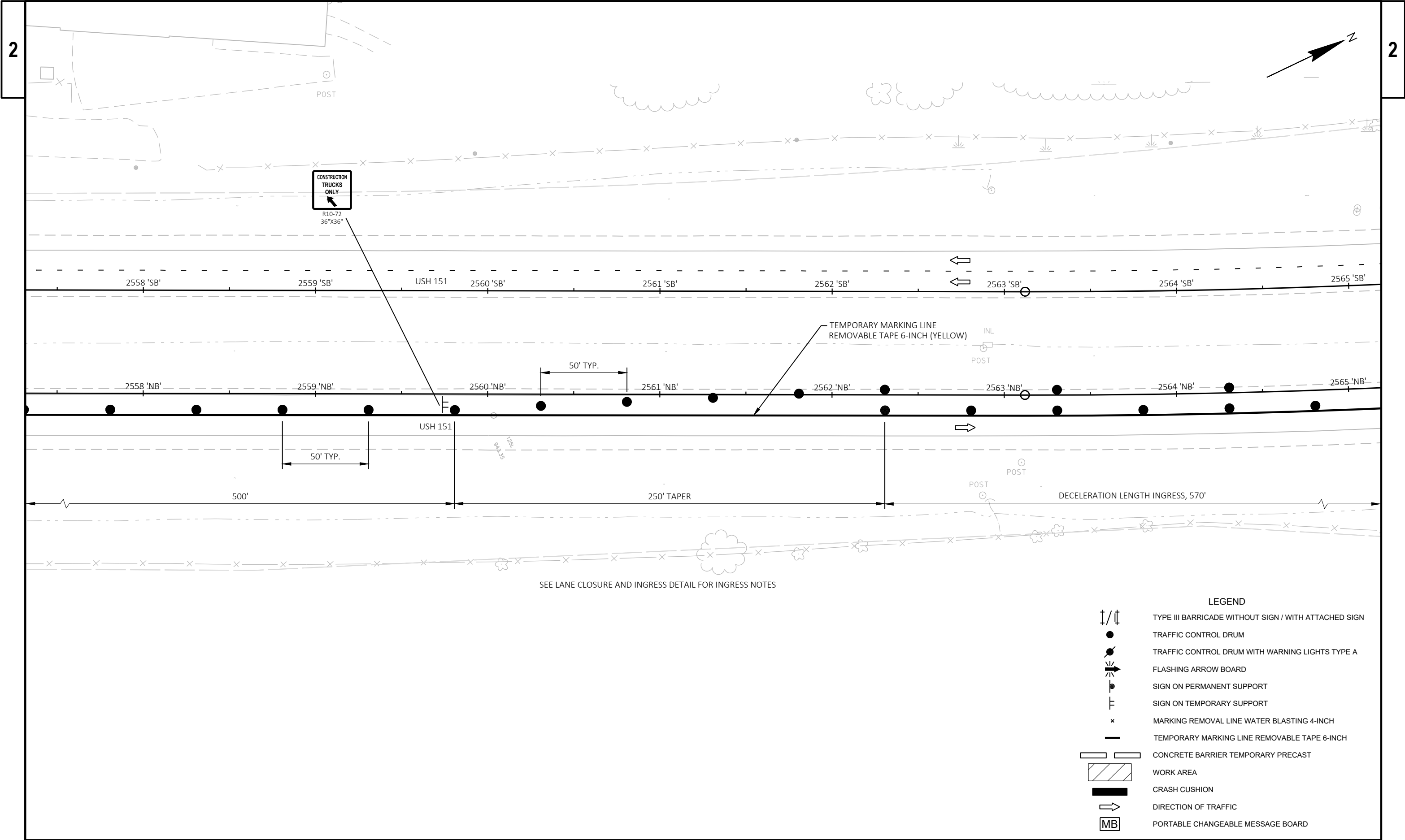


STAGE 2 TYPICAL SECTION
USH 151 NB LEFT TURN LANE CONSTRUCTION
USH 151 SB U-TURN LANE CONSTRUCTION

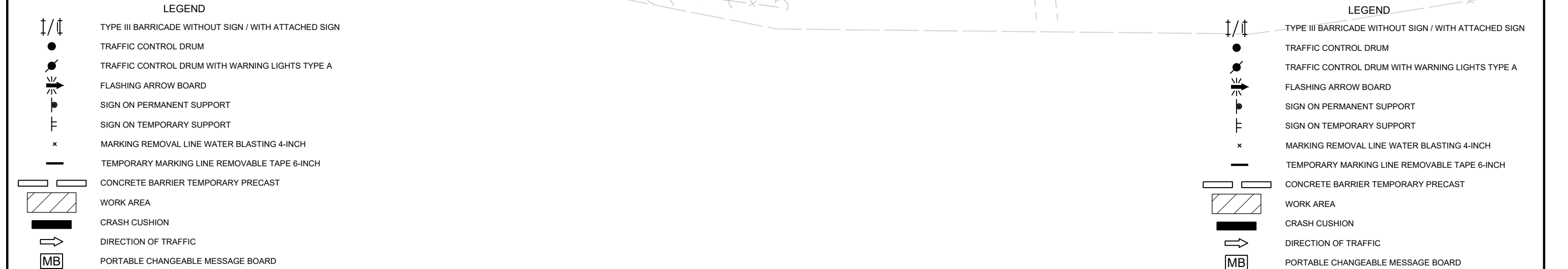
B

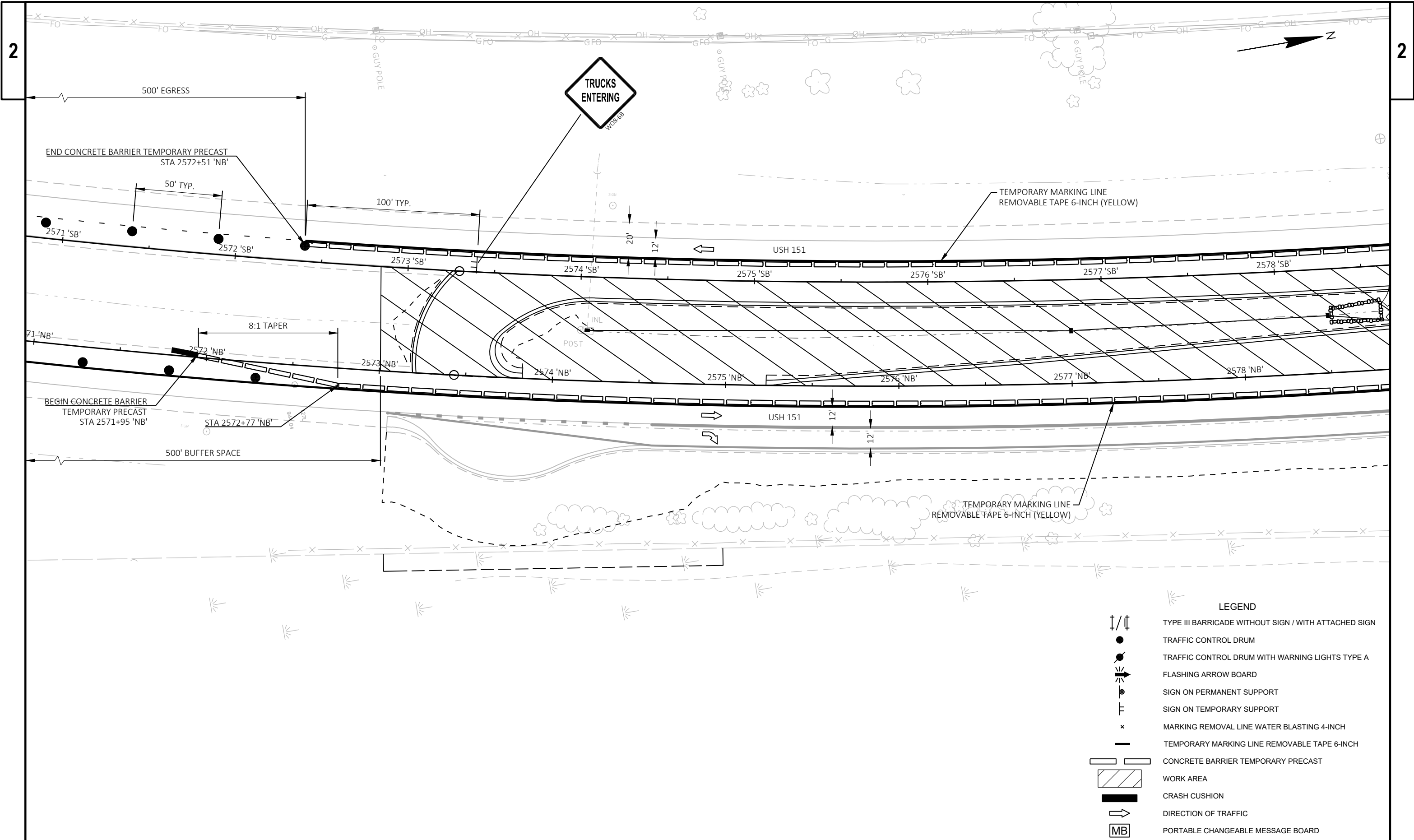


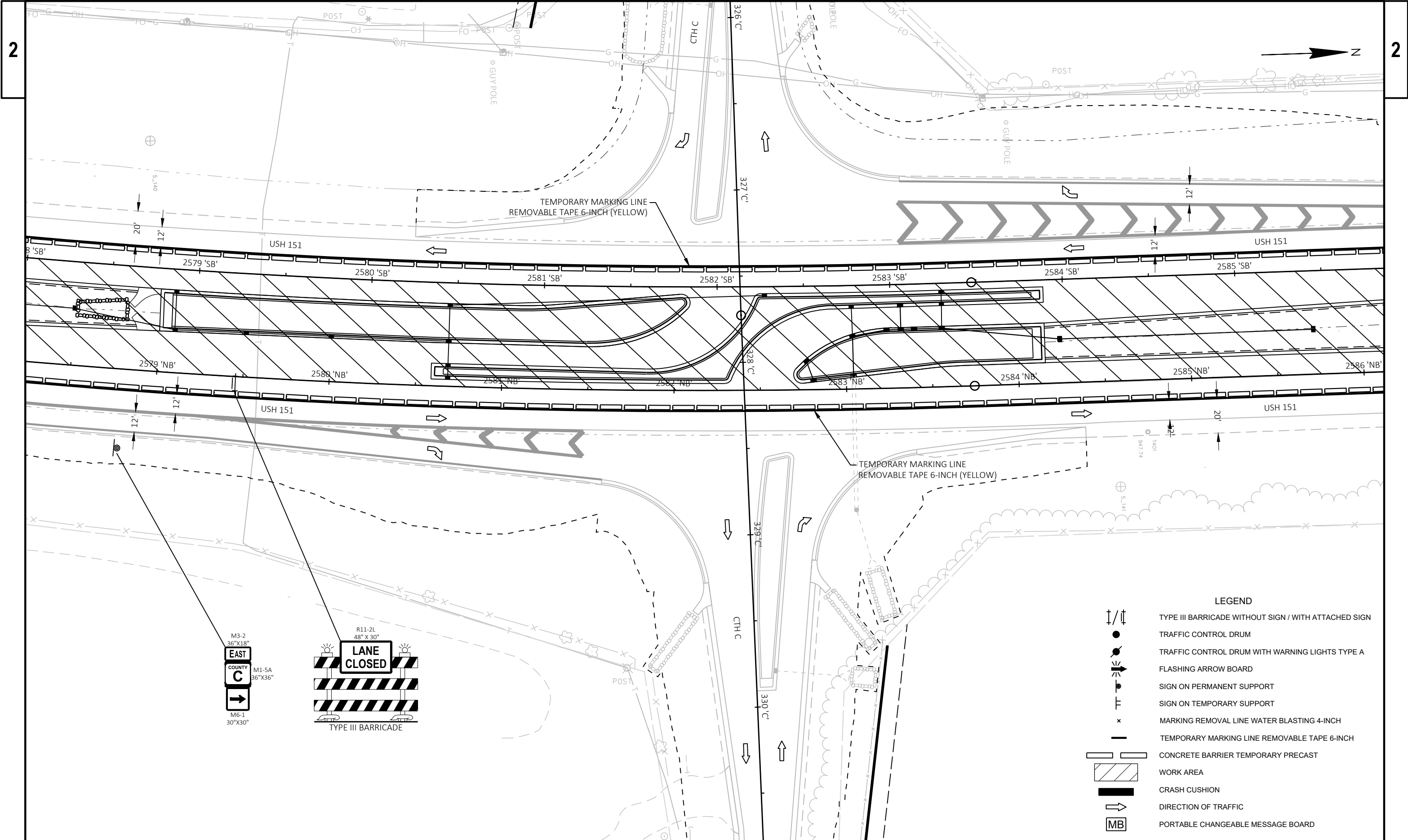
STAGE 2 TYPICAL SECTION
USH 151 NB U-TURN LANE CONSTRUCTION
USH 151 SB LEFT TURN LANE CONSTRUCTION

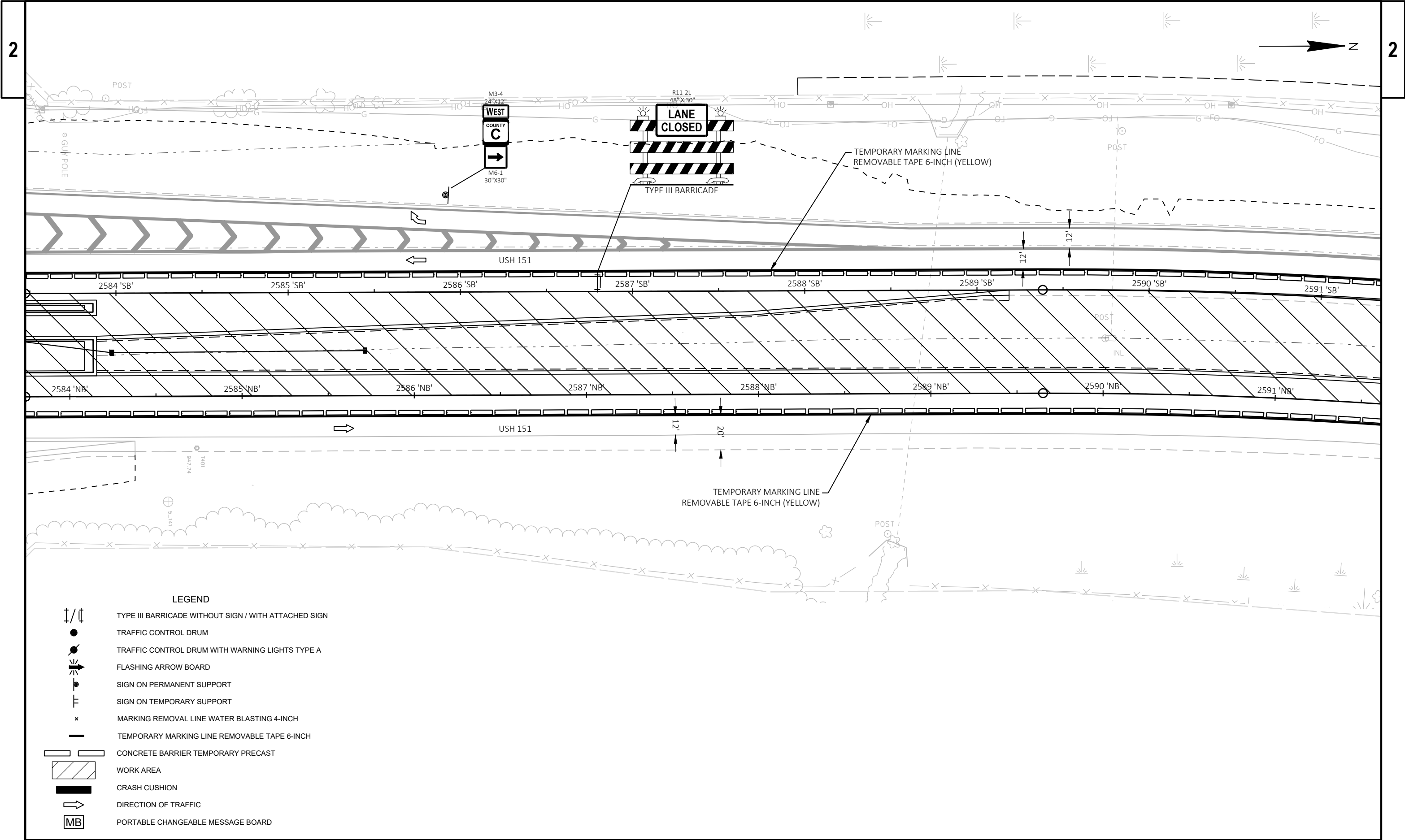


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 2	SHEET	E
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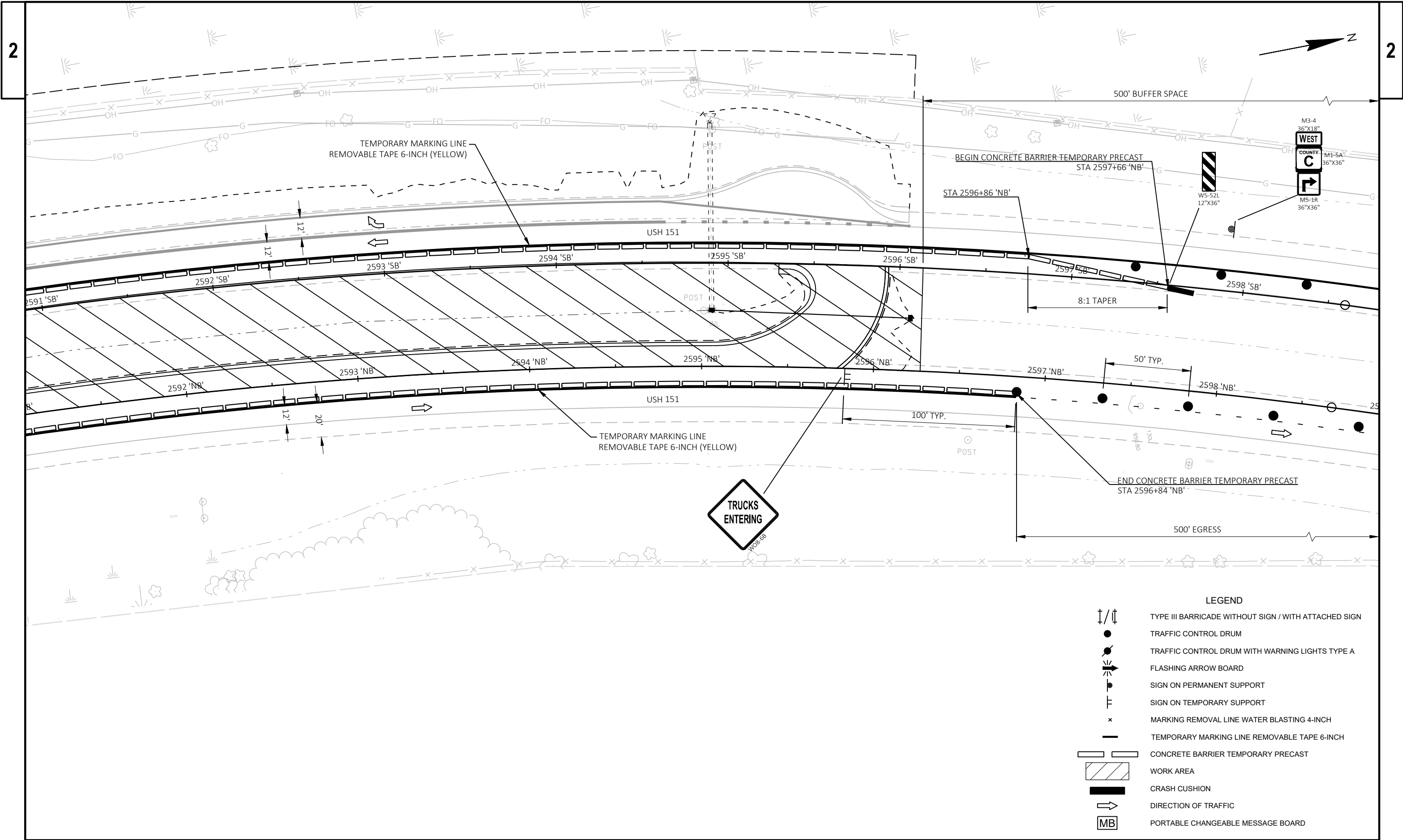


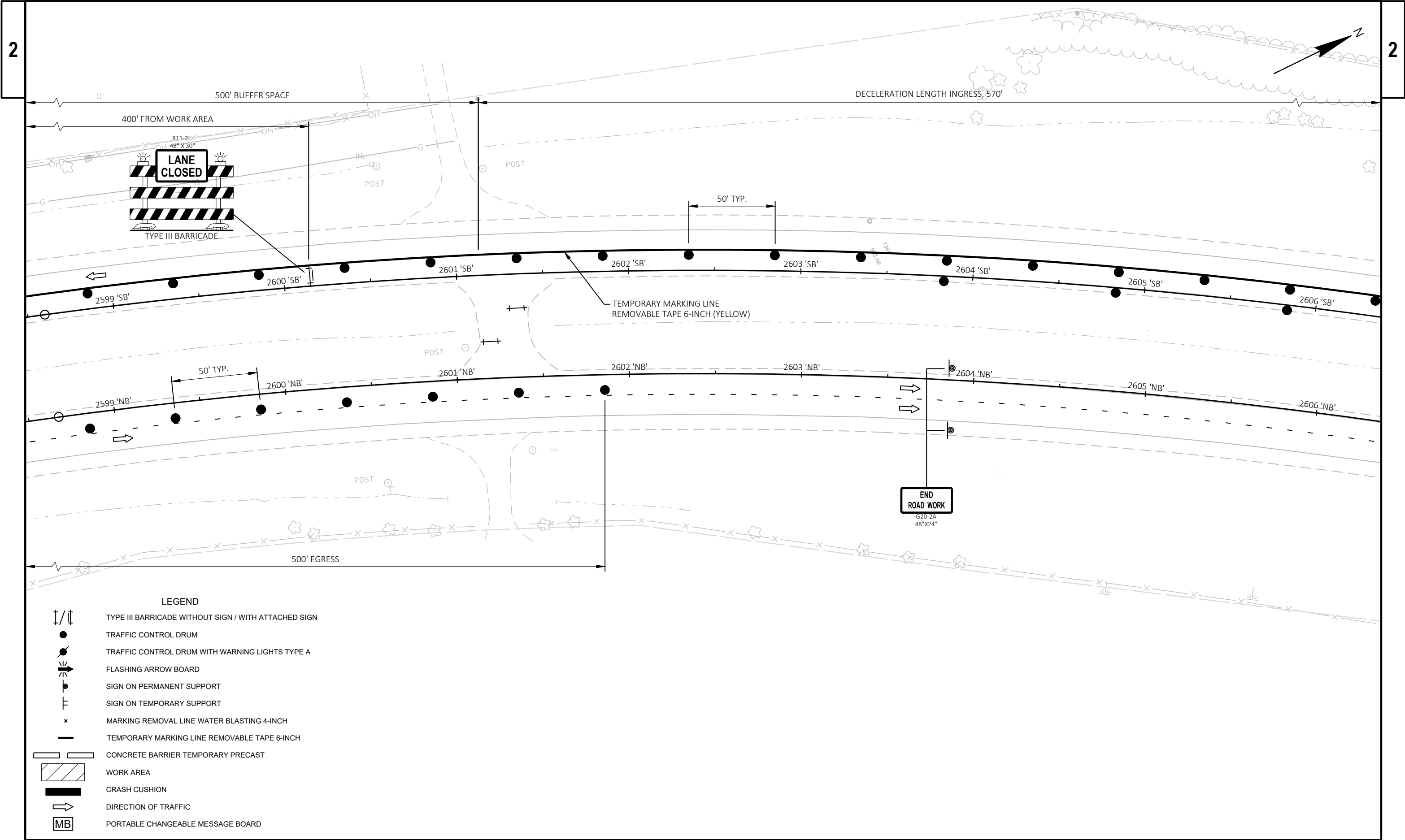


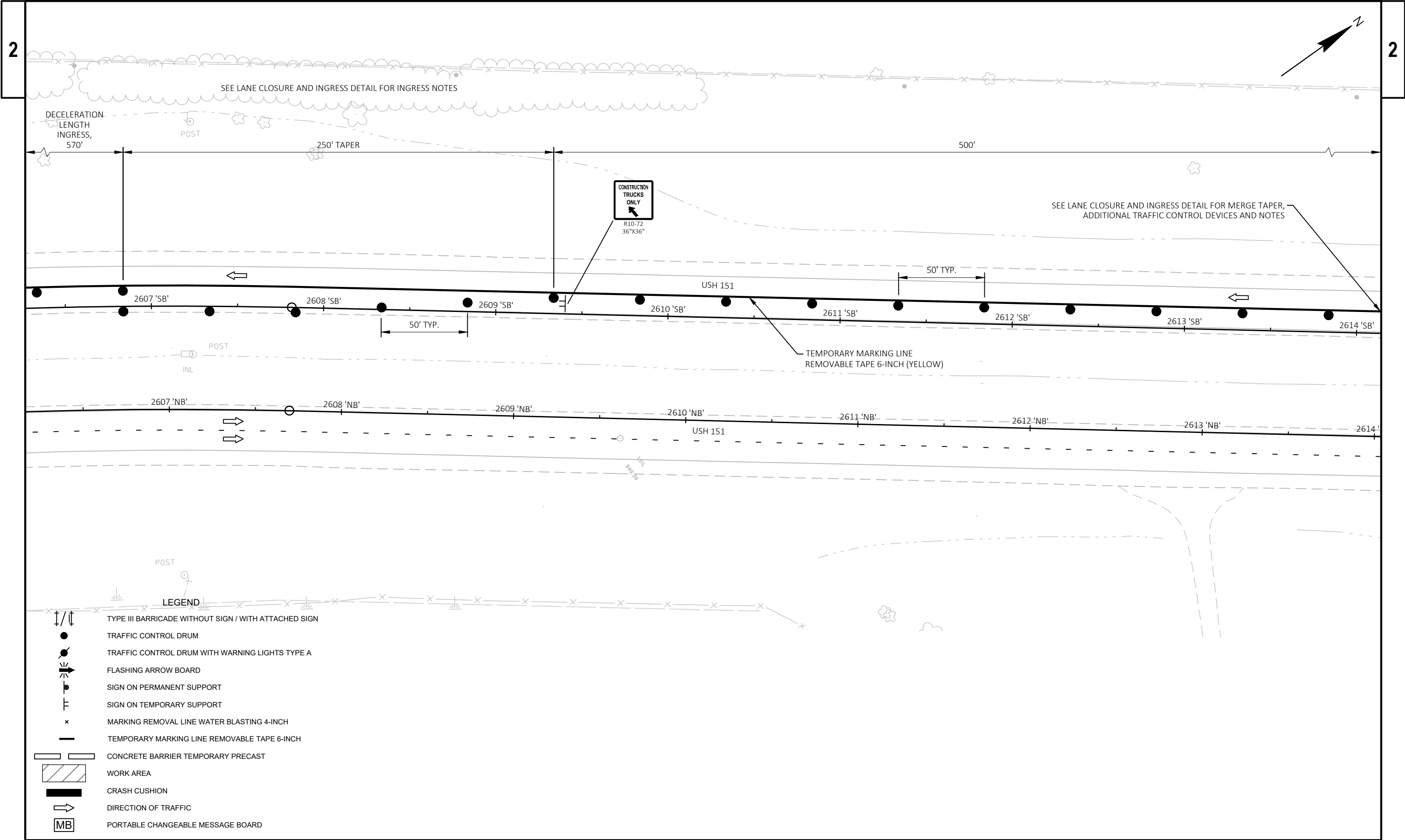




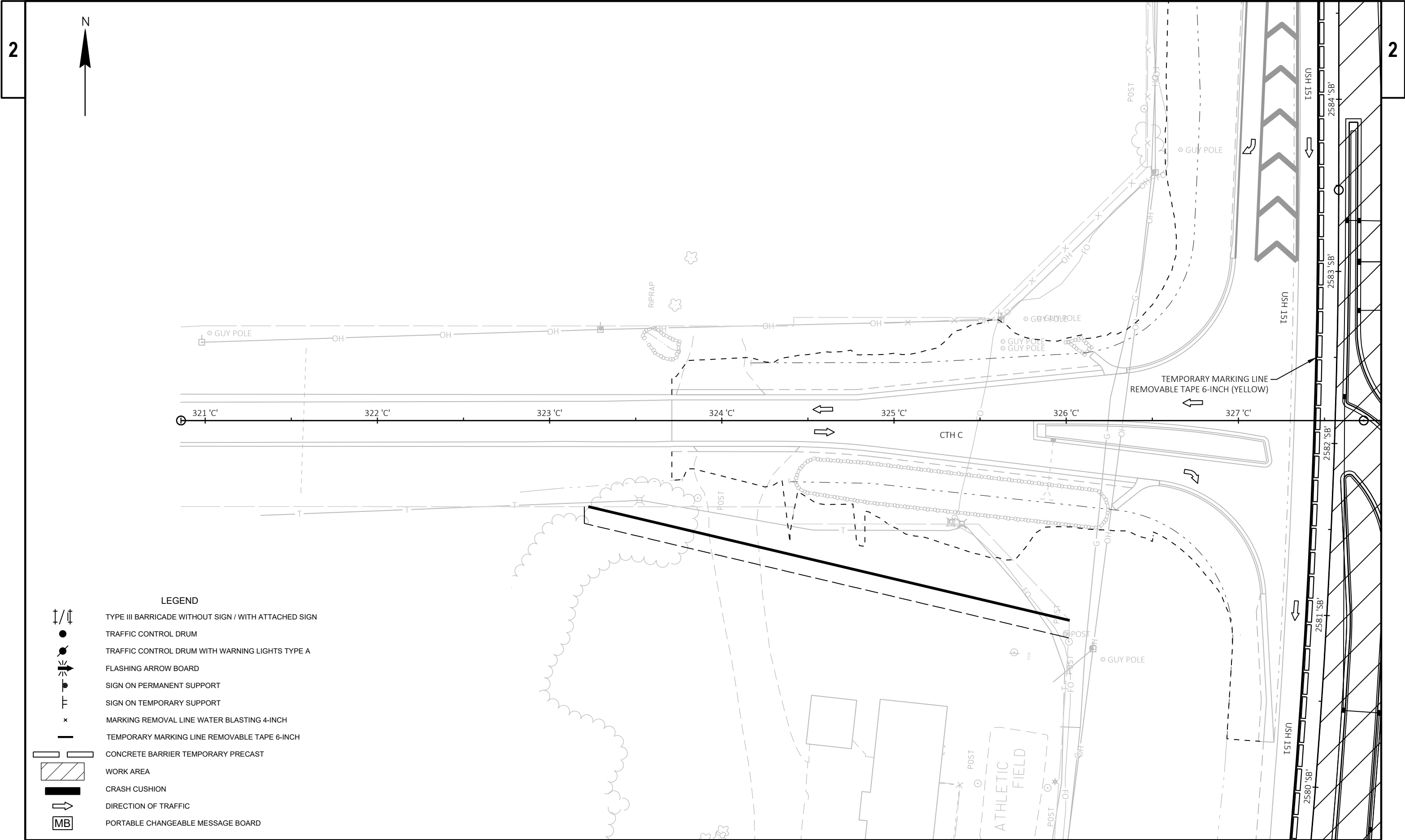
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 2	SHEET	E
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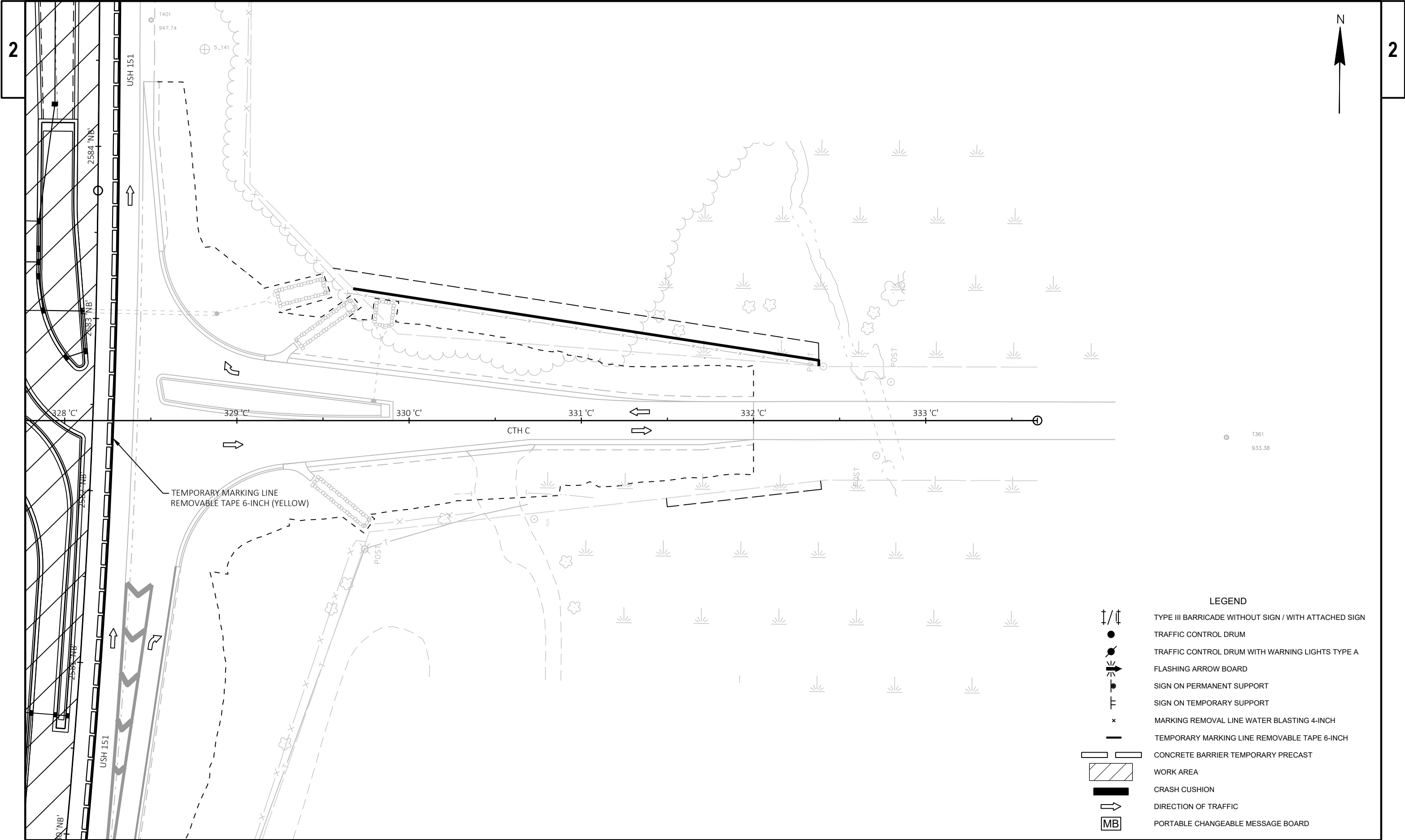




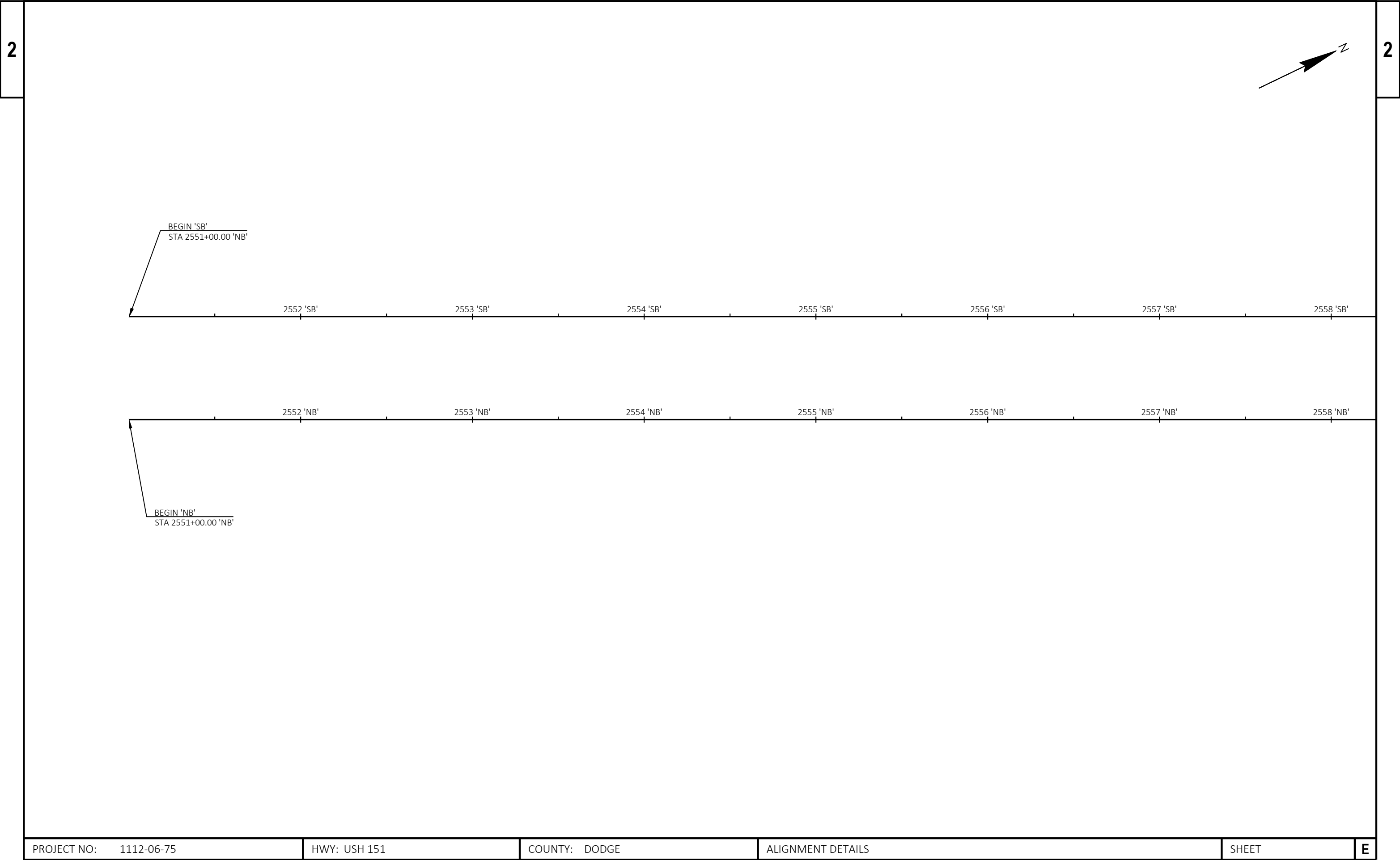


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 2	SHEET	E
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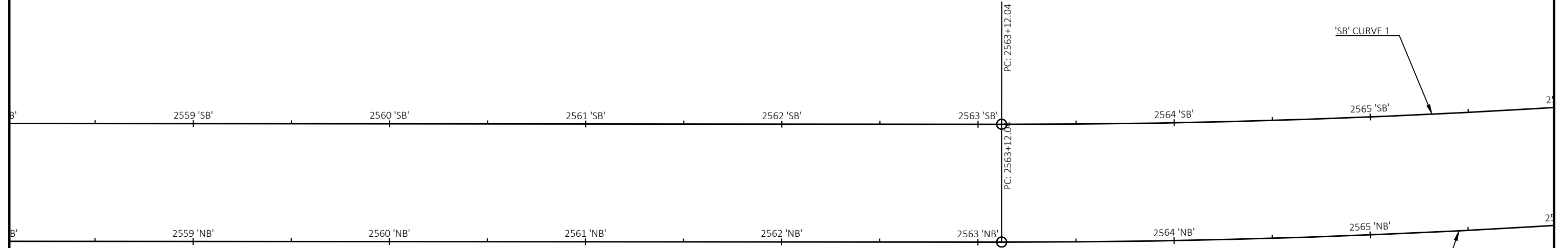


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	TRAFFIC CONTROL - STAGE 2	SHEET	E
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2

2



```
'SB' CURVE 1 DATA
PI STA = 2573+47.178
Y = 760,093.7899
X = 863,779.3355
DELTA = 25°47'00"(LT)
D = 1.2669°
T = 1,035.138'
L = 2035.22'
R = 4522.66'
PC STA = 2563+12.04
Y = 759,161.2234
X = 863,330.0811
PT STA = 2583+47.26
Y = 761,128.9269
X = 863,778.2257
BK = N25° 43' 19.08"E
AH = N0° 03' 41.14"W
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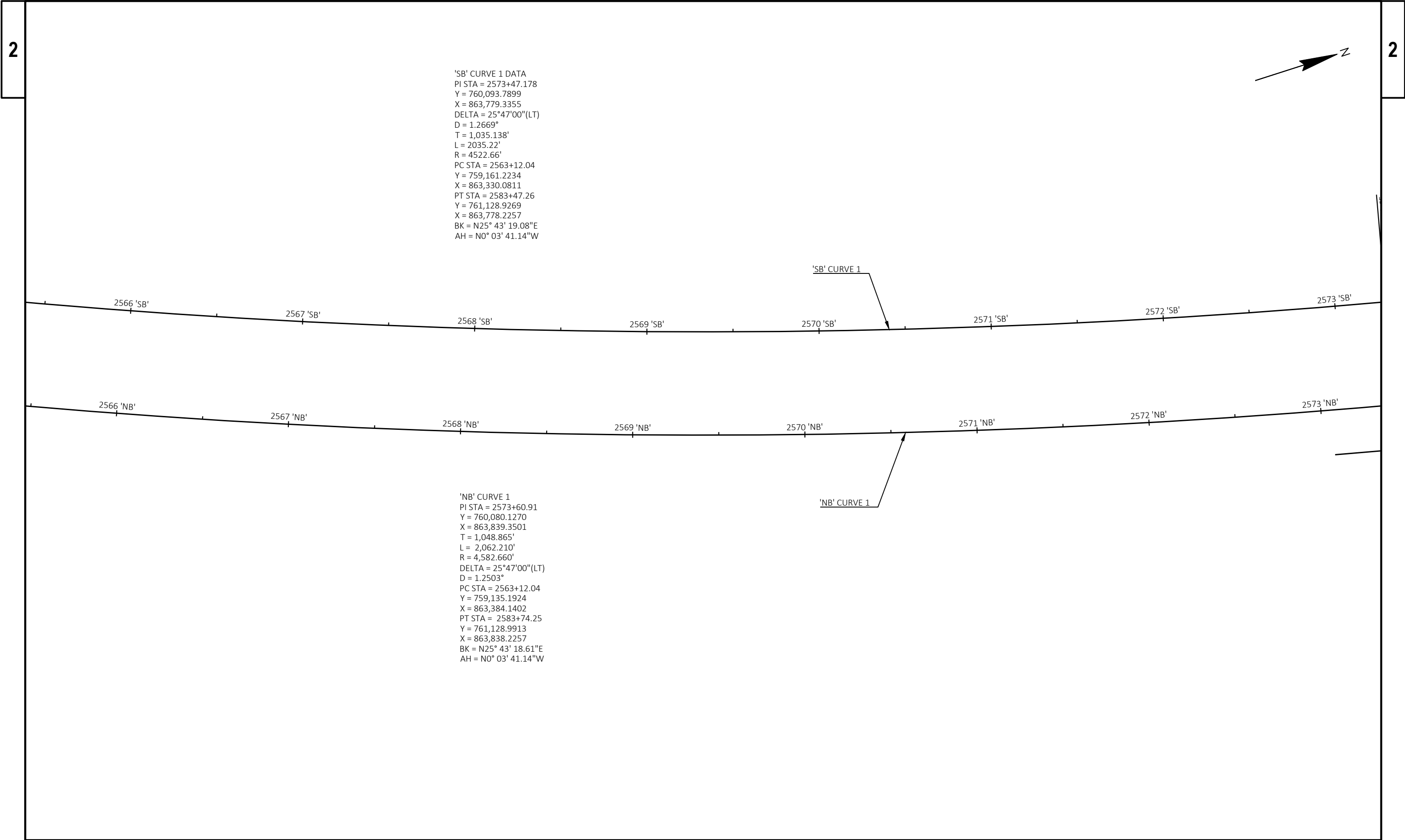
'SB' CURVE 1

2565 'SB'

2565 'NB'

'NB' CURVE 1 /

'NB' CURVE 1
PI STA = 2573+60.91
Y = 760,080.1270
X = 863,839.3501
T = 1,048.865'
L = 2,062.210'
R = 4,582.660'
DELTA = 25°47'00"(LT)
D = 1.2503"
PC STA = 2563+12.04
Y = 759,135.1924
X = 863,384.1402
PT STA = 2583+74.25
Y = 761,128.9913
X = 863,838.2257
BK = N25°43' 18.61"E
AH = N0°03'41.14"W



'SB' CURVE 1 DATA
PI STA = 2573+47.178
Y = 760,093.7899
X = 863,779.3355
DELTA = 25°47'00"(LT)
D = 1.2669°
T = 1,035.138'
L = 2035.22'
R = 4522.66'
PC STA = 2563+12.04
Y = 759,161.2234
X = 863,330.0811
PT STA = 2583+47.26
Y = 761,128.9269
X = 863,778.2257
BK = N25° 43' 19.08"E
AH = N0° 03' 41.14"W

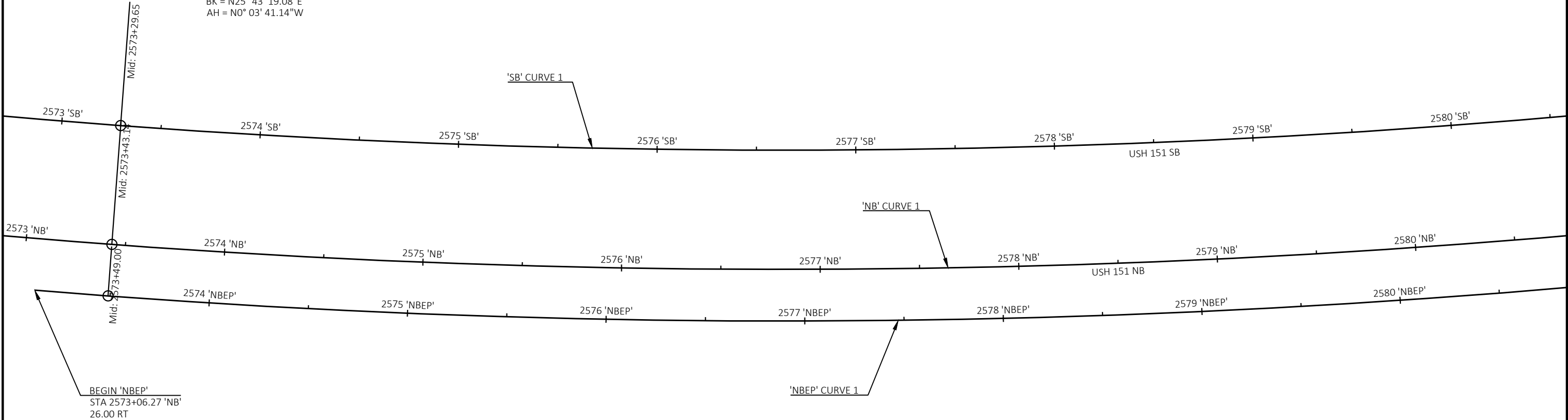
'SB' CURVE 1

'NB' CURVE 1
PI STA = 2573+60.91
Y = 760,080.1270
X = 863,839.3501
T = 1,048.865'
L = 2,062.210'
R = 4,582.660'
DELTA = 25°47'00"(LT)
D = 1.2503°
PC STA = 2563+12.04
Y = 759,135.1924
X = 863,384.1402
PT STA = 2583+74.25
Y = 761,128.9913
X = 863,838.2257
BK = N25° 43' 18.61"E
AH = N0° 03' 41.14"W

'NB' CURVE 1

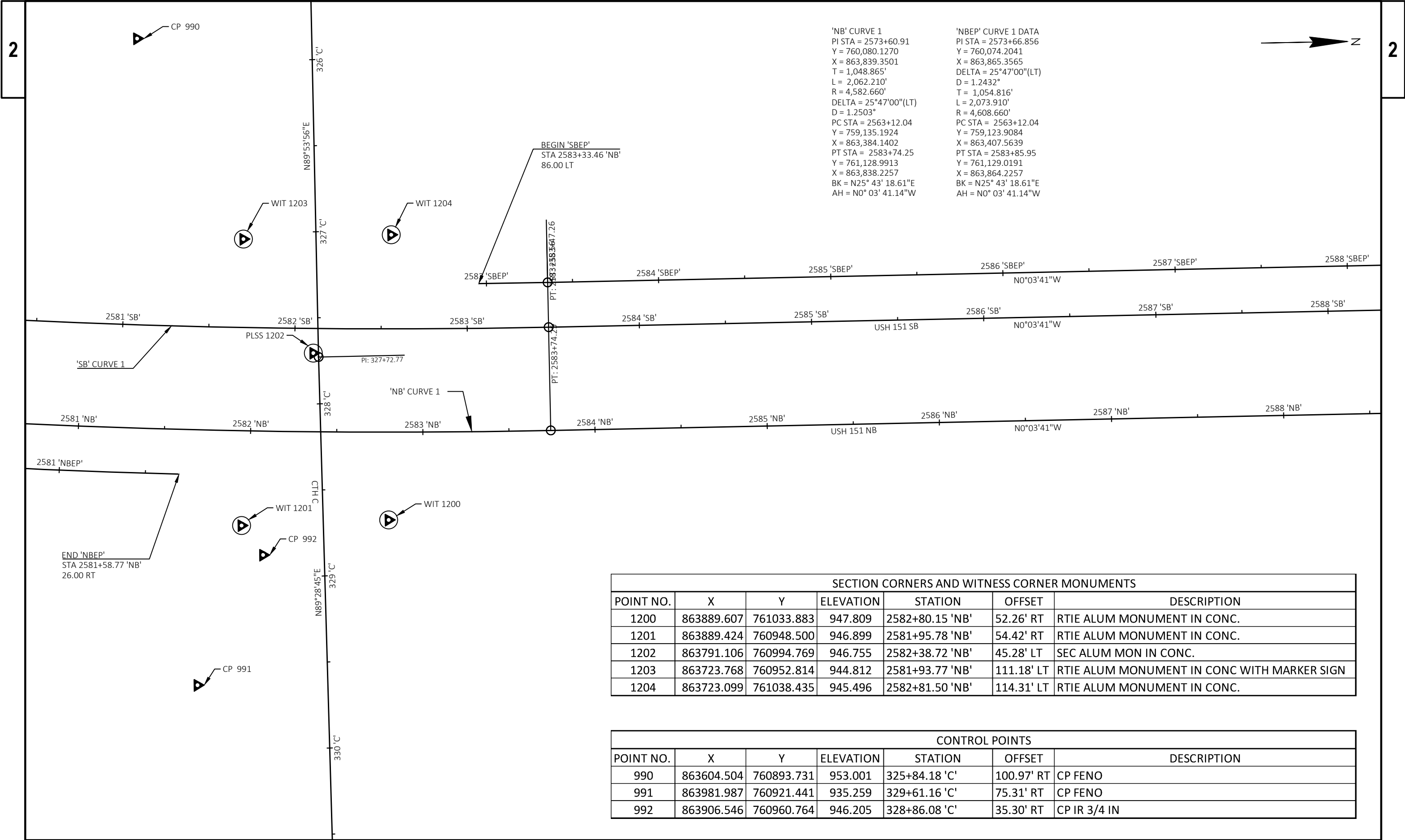
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	ALIGNMENT DETAILS	SHEET	E
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'SB' CURVE 1 DATA
PI STA = 2573+47.178
Y = 760,093.7899
X = 863,779.3355
DELTA = 25°47'00"(LT)
D = 1.2669°
T = 1,035.138'
L = 2035.22'
R = 4522.66'
PC STA = 2563+12.04
Y = 759,161.2234
X = 863,330.0811
PT STA = 2583+47.26
Y = 761,128.9269
X = 863,778.2257
BK = N25° 43' 19.08"E
AH = N0° 03' 41.14"W



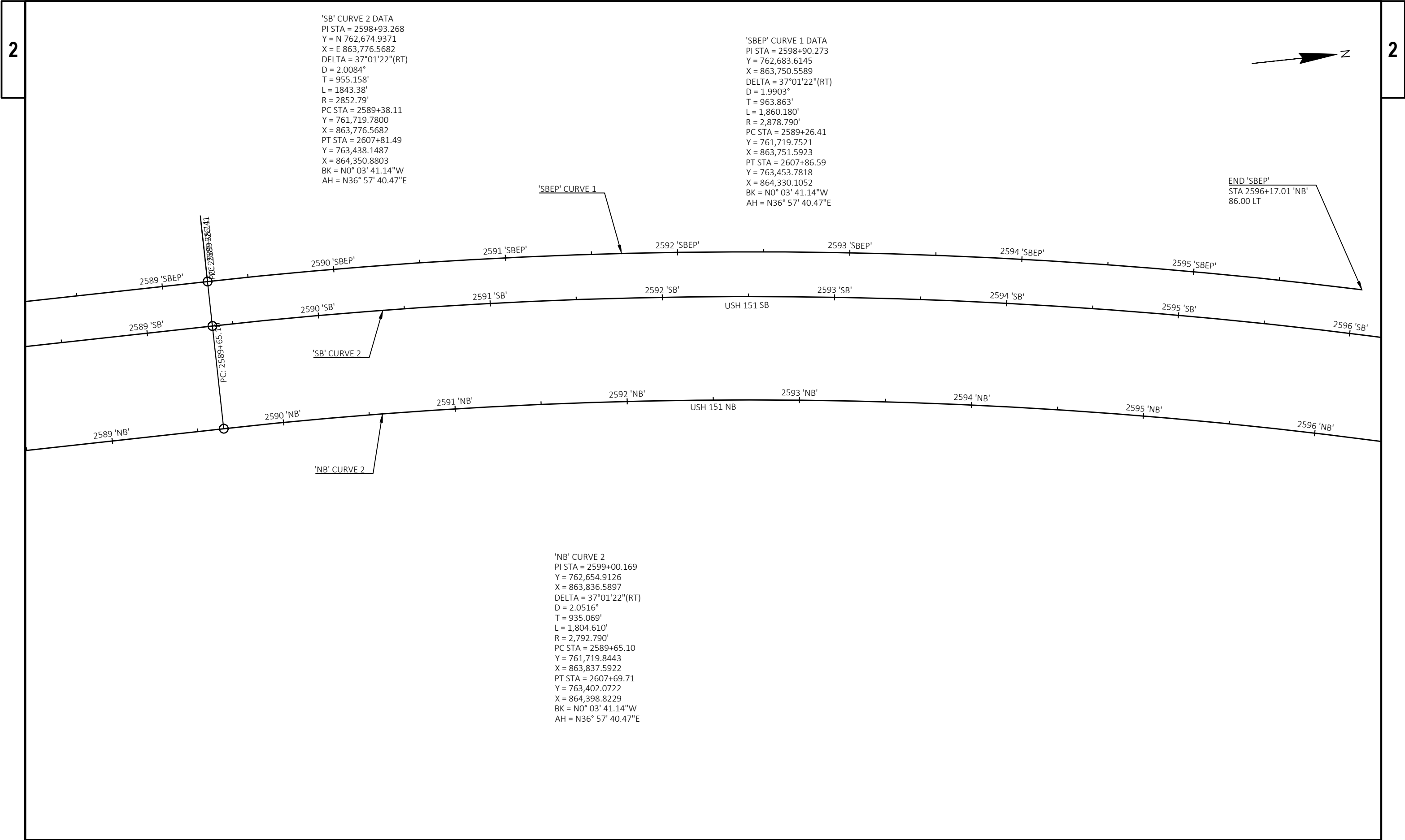
'NB' CURVE 1
PI STA = 2573+60.91
Y = 760,080.1270
X = 863,839.3501
T = 1,048.865'
L = 2,062.210'
R = 4,582.660'
DELTA = 25°47'00"(LT)
D = 1.2503°
PC STA = 2563+12.04
Y = 759,135.1924
X = 863,384.1402
PT STA = 2583+74.25
Y = 761,128.9913
X = 863,838.2257
BK = N25° 43' 18.61"E
AH = N0° 03' 41.14"W

'NBEP' CURVE 1 DATA
PI STA = 2573+66.856
Y = 760,074.2041
X = 863,865.3565
DELTA = 25°47'00"(LT)
D = 1.2432°
T = 1,054.816'
L = 2,073.910'
R = 4,608.660'
PC STA = 2563+12.04
Y = 759,123.9084
X = 863,407.5639
PT STA = 2583+85.95
Y = 761,129.0191
X = 863,864.2257
BK = N25° 43' 18.61"E
AH = N0° 03' 41.14"W

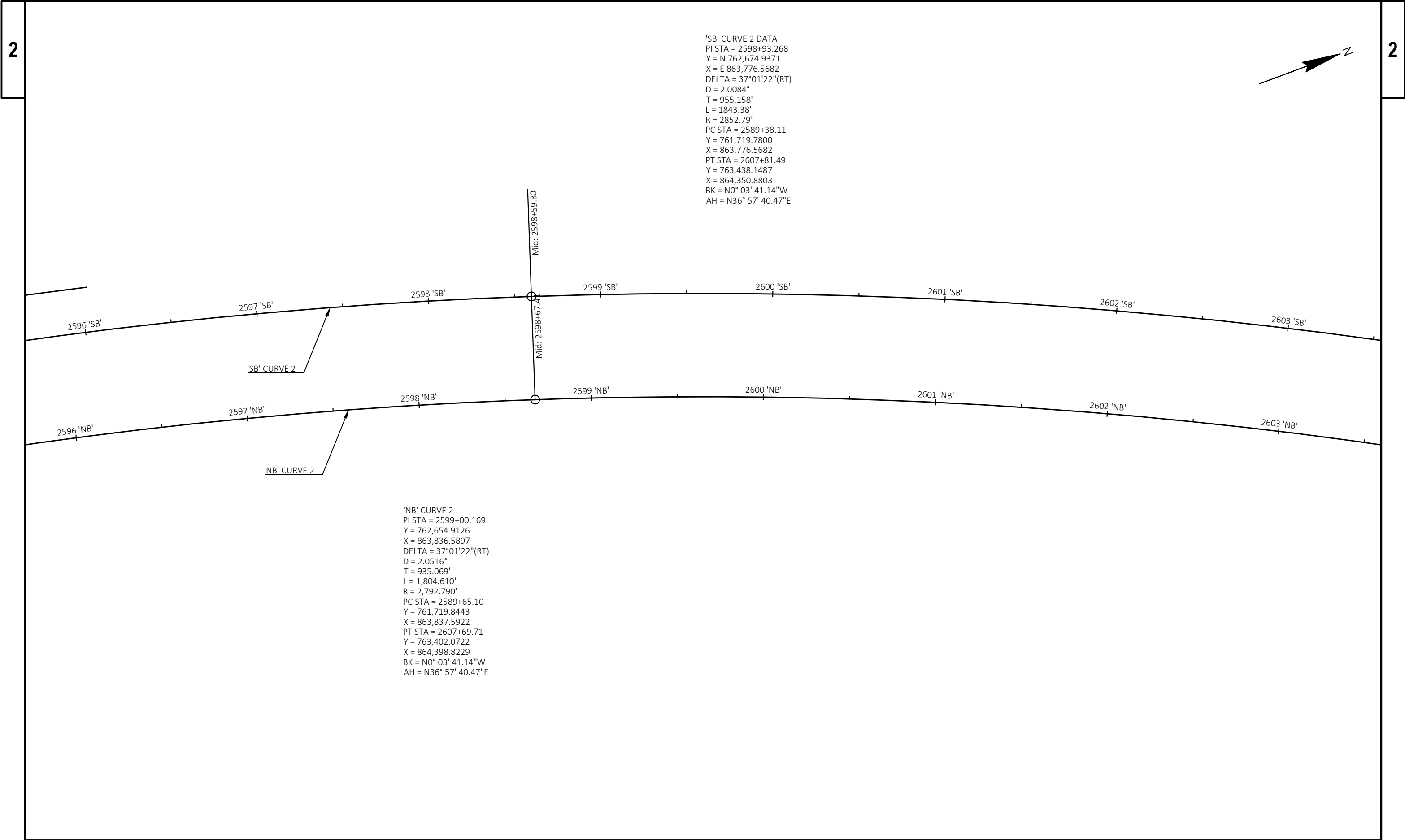


SECTION CORNERS AND WITNESS CORNER MONUMENTS						
POINT NO.	X	Y	ELEVATION	STATION	OFFSET	DESCRIPTION
1200	863889.607	761033.883	947.809	2582+80.15 'NB'	52.26' RT	RTIE ALUM MONUMENT IN CONC.
1201	863889.424	760948.500	946.899	2581+95.78 'NB'	54.42' RT	RTIE ALUM MONUMENT IN CONC.
1202	863791.106	760994.769	946.755	2582+38.72 'NB'	45.28' LT	SEC ALUM MON IN CONC.
1203	863723.768	760952.814	944.812	2581+93.77 'NB'	111.18' LT	RTIE ALUM MONUMENT IN CONC WITH MARKER SIGN
1204	863723.099	761038.435	945.496	2582+81.50 'NB'	114.31' LT	RTIE ALUM MONUMENT IN CONC.

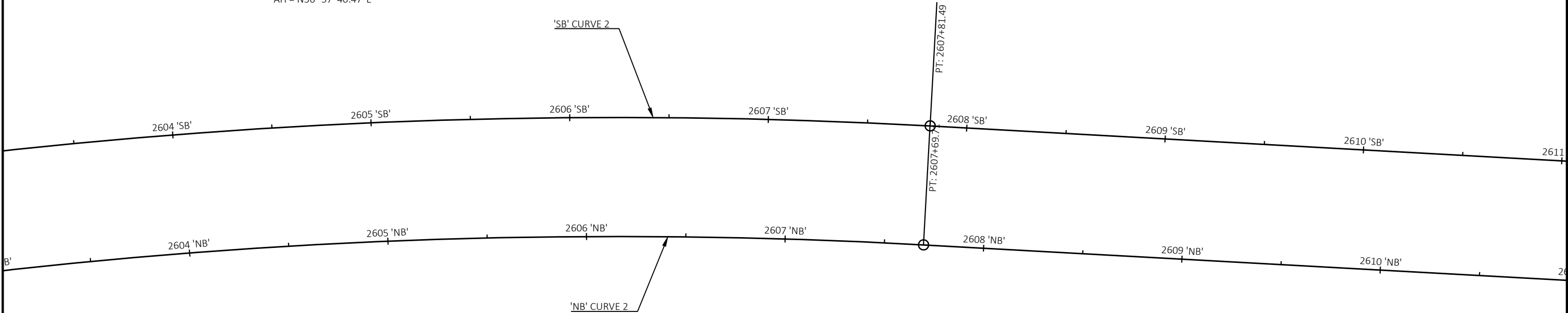
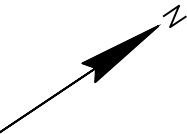
CONTROL POINTS						
POINT NO.	X	Y	ELEVATION	STATION	OFFSET	DESCRIPTION
990	863604.504	760893.731	953.001	325+84.18 'C'	100.97' RT	CP FENO
991	863981.987	760921.441	935.259	329+61.16 'C'	75.31' RT	CP FENO
992	863906.546	760960.764	946.205	328+86.08 'C'	35.30' RT	CP IR 3/4 IN



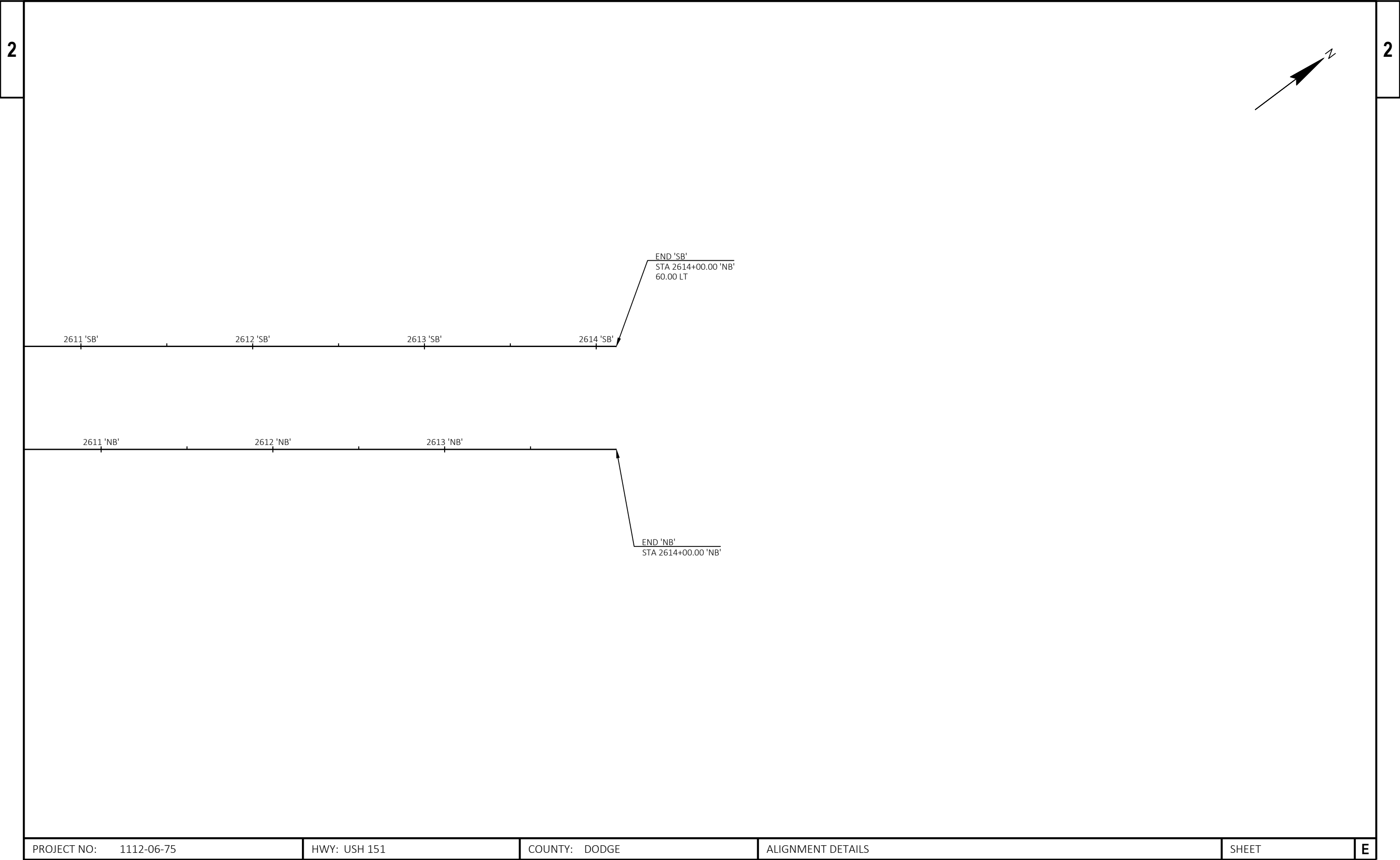
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	ALIGNMENT DETAILS	SHEET	E
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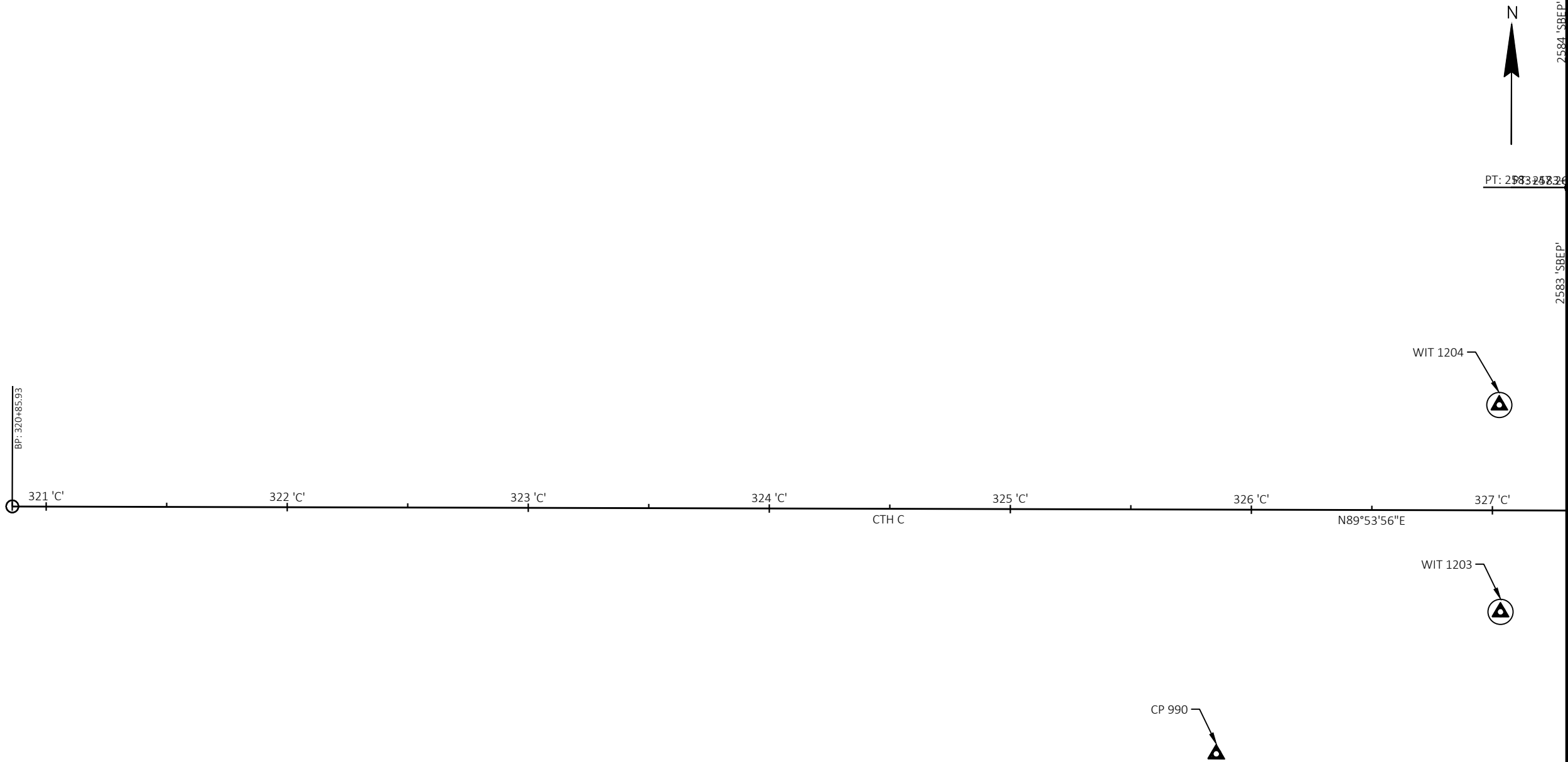
'SB' CURVE 2 DATA
PI STA = 2598+93.268
Y = N 762,674.9371
X = E 863,776.5682
DELTA = 37°01'22"(RT)
D = 2.0084°
T = 955.158'
L = 1843.38'
R = 2852.79'
PC STA = 2589+38.11
Y = 761,719.7800
X = 863,776.5682
PT STA = 2607+81.49
Y = 763,438.1487
X = 864,350.8803
BK = N0° 03' 41.14"W
AH = N36° 57' 40.47"E



'NB' CURVE 2
PI STA = 2599+00.169
Y = 762,654.9126
X = 863,836.5897
DELTA = 37°01'22"(RT)
D = 2.0516°
T = 935.069'
L = 1,804.610'
R = 2,792.790'
PC STA = 2589+65.10
Y = 761,719.8443
X = 863,837.5922
PT STA = 2607+69.71
Y = 763,402.0722
X = 864,398.8229
BK = N0° 03' 41.14"W
AH = N36° 57' 40.47"E

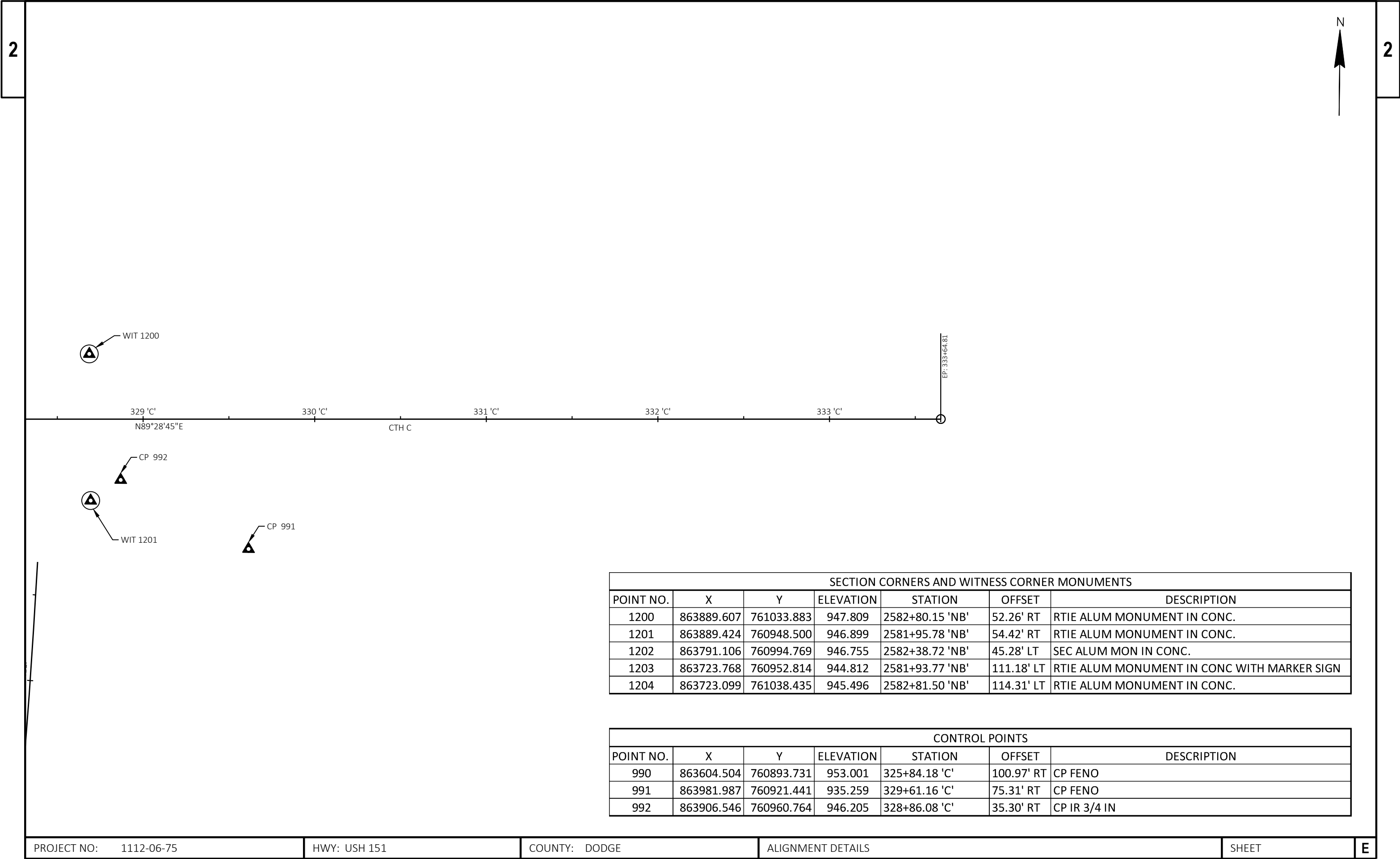


PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	ALIGNMENT DETAILS	SHEET	E
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SECTION CORNERS AND WITNESS CORNER MONUMENTS						
POINT NO.	X	Y	ELEVATION	STATION	OFFSET	DESCRIPTION
1200	863889.607	761033.883	947.809	2582+80.15 'NB'	52.26' RT	RTIE ALUM MONUMENT IN CONC.
1201	863889.424	760948.500	946.899	2581+95.78 'NB'	54.42' RT	RTIE ALUM MONUMENT IN CONC.
1202	863791.106	760994.769	946.755	2582+38.72 'NB'	45.28' LT	SEC ALUM MON IN CONC.
1203	863723.768	760952.814	944.812	2581+93.77 'NB'	111.18' LT	RTIE ALUM MONUMENT IN CONC WITH MARKER SIGN
1204	863723.099	761038.435	945.496	2582+81.50 'NB'	114.31' LT	RTIE ALUM MONUMENT IN CONC.

CONTROL POINTS						
POINT NO.	X	Y	ELEVATION	STATION	OFFSET	DESCRIPTION
990	863604.504	760893.731	953.001	325+84.18 'C'	100.97' RT	CP FENO
991	863981.987	760921.441	935.259	329+61.16 'C'	75.31' RT	CP FENO
992	863906.546	760960.764	946.205	328+86.08 'C'	35.30' RT	CP IR 3/4 IN



Estimate Of Quantities

1112-06-75

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	3.000	3.000
0004	203.0100	Removing Small Pipe Culverts	EACH	7.000	7.000
0006	204.0150	Removing Curb & Gutter	LF	660.000	660.000
0008	204.0170	Removing Fence	LF	100.000	100.000
0010	204.0180	Removing Delineators and Markers	EACH	1.000	1.000
0012	204.0220	Removing Inlets	EACH	3.000	3.000
0014	204.0245	Removing Storm Sewer (size) 01. 24-Inch	LF	14.000	14.000
0016	204.9060.S	Removing (item description) 01. Removing Apron Endwalls	EACH	1.000	1.000
0018	205.0100	Excavation Common	CY	10,490.000	10,490.000
0020	208.0100	Borrow	CY	758.000	758.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,420.000	3,420.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,943.000	7,943.000
0026	312.0110	Select Crushed Material	TON	12,701.000	12,701.000
0028	455.0605	Tack Coat	GAL	1,542.000	1,542.000
0030	460.2000	Incentive Density HMA Pavement	DOL	3,540.000	3,540.000
0032	460.6424	HMA Pavement 4 MT 58-28 H	TON	5,524.000	5,524.000
0034	465.0315	Asphaltic Flumes	SY	67.000	67.000
0036	520.1015	Apron Endwalls for Culvert Pipe 15-Inch	EACH	2.000	2.000
0038	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	1.000	1.000
0040	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0042	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	2,731.000	2,731.000
0044	602.0410	Concrete Sidewalk 5-Inch	SF	11,751.000	11,751.000
0046	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	36.000	36.000
0048	603.8000	Concrete Barrier Temporary Precast Delivered	LF	5,030.000	5,030.000
0050	603.8125	Concrete Barrier Temporary Precast Installed	LF	8,170.000	8,170.000
0052	606.0200	Riprap Medium	CY	289.000	289.000
0054	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	510.000	510.000
0056	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	990.000	990.000
0058	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0060	611.0615	Inlet Covers Type F	EACH	23.000	23.000
0062	611.0642	Inlet Covers Type MS	EACH	7.000	7.000
0064	611.1005	Catch Basins 5-FT Diameter	EACH	3.000	3.000
0066	611.1006	Catch Basins 6-FT Diameter	EACH	1.000	1.000
0068	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0070	611.3253	Inlets 2.5x3-FT	EACH	19.000	19.000
0072	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0074	611.3902	Inlets Median 2 Grate	EACH	6.000	6.000
0076	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0078	616.0100	Fence Woven Wire (height) 01. 4 FT	LF	280.000	280.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	620.0300	Concrete Median Sloped Nose	SF	622.000	622.000
0084	625.0500	Salvaged Topsoil	SY	105.000	105.000
0086	628.1504	Silt Fence	LF	3,636.000	3,636.000
0088	628.1520	Silt Fence Maintenance	LF	3,636.000	3,636.000
0090	628.1905	Mobilizations Erosion Control	EACH	11.000	11.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0094	628.2002	Erosion Mat Class I Type A	SY	13,857.000	13,857.000
0096	628.7005	Inlet Protection Type A	EACH	6.000	6.000
0098	628.7010	Inlet Protection Type B	EACH	19.000	19.000

Estimate Of Quantities

1112-06-75

Line	Item	Item Description	Unit	Total	Qty
0100	628.7020	Inlet Protection Type D	EACH	4.000	4.000
0102	628.7504	Temporary Ditch Checks	LF	228.000	228.000
0104	628.7555	Culvert Pipe Checks	EACH	30.000	30.000
0106	628.7560	Tracking Pads	EACH	2.000	2.000
0108	629.0210	Fertilizer Type B	CWT	10.000	10.000
0110	630.0130	Seeding Mixture No. 30	LB	257.000	257.000
0112	630.0500	Seed Water	MGAL	702.000	702.000
0114	633.5200	Markers Culvert End	EACH	3.000	3.000
0116	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	121.000	121.000
0118	637.2210	Signs Type II Reflective H	SF	1,526.000	1,526.000
0120	638.2102	Moving Signs Type II	EACH	3.000	3.000
0122	638.2602	Removing Signs Type II	EACH	18.000	18.000
0124	638.3000	Removing Small Sign Supports	EACH	12.000	12.000
0126	642.5001	Field Office Type B	EACH	1.000	1.000
0128	643.0300	Traffic Control Drums	DAY	25,868.000	25,868.000
0130	643.0420	Traffic Control Barricades Type III	DAY	3,008.000	3,008.000
0132	643.0705	Traffic Control Warning Lights Type A	DAY	6,016.000	6,016.000
0134	643.0715	Traffic Control Warning Lights Type C	DAY	5,120.000	5,120.000
0136	643.0800	Traffic Control Arrow Boards	DAY	344.000	344.000
0138	643.0900	Traffic Control Signs	DAY	6,708.000	6,708.000
0140	643.0920	Traffic Control Covering Signs Type II	EACH	1.000	1.000
0142	643.1050	Traffic Control Signs PCMS	DAY	42.000	42.000
0144	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	17,316.000	17,316.000
0146	643.5000	Traffic Control	EACH	1.000	1.000
0148	645.0120	Geotextile Type HR	SY	600.000	600.000
0150	645.0220	Geogrid Type SR	SY	18,230.000	18,230.000
0152	646.2020	Marking Line Epoxy 6-Inch	LF	10,709.000	10,709.000
0154	646.4050	Marking Line Grooved Permanent Tape 10-Inch	LF	6,822.000	6,822.000
0156	646.5020	Marking Arrow Epoxy	EACH	6.000	6.000
0158	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0160	646.6120	Marking Stop Line Epoxy 18-Inch	LF	101.000	101.000
0162	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	4.000	4.000
0164	646.7120	Marking Diagonal Epoxy 12-Inch	LF	222.000	222.000
0166	646.7220	Marking Chevron Epoxy 24-Inch	LF	723.000	723.000
0168	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	800.000	800.000
0170	650.4000	Construction Staking Storm Sewer	EACH	34.000	34.000
0172	650.4500	Construction Staking Subgrade	LF	6,876.000	6,876.000
0174	650.5000	Construction Staking Base	LF	6,876.000	6,876.000
0176	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,728.000	2,728.000
0178	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0180	650.8501	Construction Staking Electrical Installations (project) 01. 1112-06-75	EACH	1.000	1.000
0182	650.9911	Construction Staking Supplemental Control (project) 01. 1112-06-75	EACH	1.000	1.000
0184	650.9920	Construction Staking Slope Stakes	LF	3,655.000	3,655.000
0186	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,678.000	2,678.000
0188	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	49.000	49.000
0190	652.0605	Conduit Special 2-Inch	LF	1,268.000	1,268.000
0192	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	20.000	20.000
0194	654.0105	Concrete Bases Type 5	EACH	20.000	20.000
0196	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000

Estimate Of Quantities

1112-06-75

Line	Item	Item Description	Unit	Total	Qty
0198	655.0610	Electrical Wire Lighting 12 AWG	LF	3,900.000	3,900.000
0200	655.0615	Electrical Wire Lighting 10 AWG	LF	20,304.000	20,304.000
0202	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. STA 2581+71 125.6 LT	EACH	1.000	1.000
0204	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	20.000	20.000
0206	657.0322	Poles Type 5-Aluminum	EACH	20.000	20.000
0208	657.0710	Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	EACH	26.000	26.000
0210	659.1120	Luminaires Utility LED B	EACH	26.000	26.000
0212	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0214	690.0150	Sawing Asphalt	LF	52.000	52.000
0216	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0218	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0220	SPV.0060	Special 01. Site Mowing	EACH	16.000	16.000
0222	SPV.0060	Special 02. Public Land Survey System Monuments	EACH	5.000	5.000
0224	SPV.0060	Special 03. Right of Way Monuments	EACH	8.000	8.000
0226	SPV.0090	Special 01. Special Pipe Underdrain 6-Inch	LF	808.000	808.000

GRUBBING

						201.0205	REMARKS
						GRUBBING	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	STA	
STAGE 1							
0010	CTH C	329+70	-	332+00	LT	3	--
TOTAL 0010						3	

REMOVALS

						203.0100	204.0150	204.0170	204.0180	204.0220	204.0245	204.9060.S.01	REMARKS
						REMOVING SMALL PIPE CULVERTS EACH	REMOVING CURB & GUTTER LF	REMOVING FENCE LF	REMOVING DELINEATORS AND MARKERS EACH	REMOVING INLETS EACH	REMOVING STORM SEWER (SIZE) (01. 24-INCH) LF	REMOVING APRON ENDWALLS EACH	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION								
STAGE 1													
0010	USH 151	2573+06	-	2581+57	RT	--	170	--	--	--	--	--	NB RT LANE
0010	USH 151	2583+04			RT	--	--	--	1	--	--	1	24" APRON ENDWALL
0010	USH 151	2583+34	-	2596+17	LT	--	--	--	--	--	--	--	SB RT LANE
0010	CTH C	323+71	-	327+30	LT/RT	--	160	--	--	--	--	--	CTH C WEST
0010	CTH C	328+42	-	332+00	LT/RT	--	160	100	--	--	--	--	CTH C EAST
STAGE 2													
0010	USH 151	2573+18	-	2596+08	LT	7	170	--	--	3	14	--	MEDIAN
TOTAL 0010						7	660	100	1	3	14	1	

BASE AGGREGATE ITEMS

						305.0110	305.0120	312.0110	645.0220	REMARKS
						BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	SELECT CRUSHED MATERIAL TON	GEOGRID TYPE SR SY	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION					
STAGE 1										
0010	USH 151	2573+06	-	2581+57	RT	170	710	1,000	1,580	NB RT LANE
0010	USH 151	2583+34	-	2596+17	LT	260	1,200	1,740	2,750	SB RT LANE
0010	CTH C	323+71	-	327+30	LT/RT	420	1,050	1,700	2,680	CTH C WEST AND ISLAND
0010	CTH C	328+42	-	332+00	LT/RT	460	980	1,550	2,450	CTH C EAST AND ISLAND
STAGE 2										
0010	USH 151	2575+23	-	2582+50	LT	770	840	1,460	2,300	NB LT LANE AND SOUTH MEDIAN ISLAND
0010	USH 151	2582+29	-	2589+46	LT	480	860	1,190	1,880	SB LT LANE AND NORTH MEDIAN ISLAND
0010	USH 151	2582+62	-	2596+08	LT	240	1,030	1,520	2,400	NB UT LANE
0010	USH 151	2573+19	-	2582+18	LT	130	650	1,010	1,590	SB UT LANE
0010	USH 151	2580+59	-	2582+29	LT	--	30	50	80	NB PAVED SHOULDER
0010	USH 151	2582+50	-	2584+16	LT	--	30	50	80	SB PAVED SHOULDER
0010	USH 151	2580+59	-	2584+16	LT	240	190	280	440	CENTER MEDIAN ISLAND
0010	PROJECT	2573+06	-	2596+08	LT/RT	250	373	1,151	--	UNDISTRIBUTED
TOTAL 0010						3,420	7,943	12,701	18,230	

3

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (6)	MASS ORDINATE +/- (7)	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION (3)				FACTOR 1.25			
STAGE 1											
DIVISION 1											
USH 151	2573+50 - 2582+15	RT	1,080	0	1,080	0	507	634	-634	634	USH 151 NB RT LANE
DIVISION 1 SUBTOTAL			1,080	0	1,080	0	507	634	-634	634	
DIVISION 2											
CTH C	328+45 - 332+00	LT/RT	1,257	0	1,257	0	826	1,033	-1,033	1,033	CTH C EAST
DIVISION 2 SUBTOTAL			1,253	0	1,257	0	826	1,033	-1,033	1,033	
DIVISION 3											
USH 151	2582+45 - 2596+00	LT	1,933	0	76	1,857	1,128	1,410	447	0	USH 151 SB RT LANE
DIVISION 3 SUBTOTAL			1,933	0	76	1,857	1,128	1,410	447	0	
DIVISION 4											
CTH C	324+00 - 327+50	LT/RT	1,423	0	160	1,263	118	148	1,116	0	CTH C WEST
DIVISION 4 SUBTOTAL			1,423	0	160	1,263	118	148	1,116	0	
STAGE 2											
DIVISION 5											
USH 151	2574+50 - 2595+00	LT	4,221	0	4,221	0	522	653	-653	653	USH 151 MEDIAN
DIVISION 5 SUBTOTAL			4,221	0	4,221	0	522	653	-653	653	
PROJECT											
UNDISTRIBUTED	2573+50 - 2596+00	LT/RT		580							
GRAND TOTAL			9,910	580	6,794	3,120	3,101	3,876	-756	758	
TOTAL COMMON EXC			10,490								

NOTES:

(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 CRUSHED MATERIAL. EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. EBS EXPECTED TO BE USED OUTSIDE THE 1:1'S

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL (0% CUT REUSED FOR DIVISIONS 1-2, 5, 100% CUT REUSED FOR DIVISIONS 3-4)

(6) EXPANDED FILL FACTOR = 1.25

DEPENDING ON SELECTIONS:

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR

$$\text{EXPANDED FILL} = (\text{UNEXPANDED FILL} - \text{EXPANDED ROCK} - \text{REDUCED EBS}) * \text{FILL FACTOR}$$

OR

$$\text{EXPANDED FILL} = (\text{UNEXPANDED FILL} - \text{EXPANDED ROCK} - \text{REDUCED MARSH}) * \text{FILL FACTOR}$$

OR

$$\text{EXPANDED FILL} = (\text{UNEXPANDED FILL} - \text{EXPANDED ROCK}) * \text{FILL FACTOR}$$

(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 WITHIN THE DIVISION.

(8) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	MISCELLANEOUS QUANTITIES	SHEET:	E
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ASPHALTIC PAVEMENT ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	TACK COAT GAL	455.0605 HMA PAVEMENT 4 MT 58-28 H TON	460.6424 ASPHALTIC FLUMES SY	REMARKS
STAGE 1									
0010	USH 151	2573+06	-	2581+57	RT	152	538	--	NB RT LANE
0010	USH 151	2583+34	-	2596+17	LT	265	946	--	SB RT LANE
0010	CTH C	323+71	-	327+30	LT/RT	230	837	27	CTH C WEST & DRIVEWAYS
0010	CTH C	328+42	-	332+00	LT/RT	205	746	20	CTH C EAST & DRIVEWAY
STAGE 2									
0010	USH 151	2575+23	-	2582+50	LT	150	536	9	NB LT LANE
0010	USH 151	2582+29	-	2589+46	LT	138	493	--	SB LT LANE
0010	USH 151	2582+62	-	2596+08	LT	230	820	--	NB UT LANE
0010	USH 151	2573+19	-	2582+18	LT	155	553	11	SB UT LANE
0010	USH 151	2580+59	-	2582+29	LT	9	28	--	NB MEDIAN PAVED SHOULDER
0010	USH 151	2582+50	-	2584+16	LT	8	27	--	SB MEDIAN PAVED SHOULDER
TOTAL 0010						1,542	5,524	67	

CULVERT PIPE ITEMS

						520.1015	520.1024		
						APRON ENDWALLS FOR CULVERT PIPE 15-INCH	APRON ENDWALLS FOR CULVERT PIPE 24-INCH		
CATEGORY	ROADWAY	STATIO N	TO	STATION	LOCATION	EACH	EACH	REMARKS	
	STAGE 1								
0010	CTH C	325+86	-	325+86	RT	1	--	CTH C WEST	
0010	CTH C	329+23	-	329+23	LT	--	1	CTH C EAST	
0010	CTH C	329+87	-	329+87	LT	1	--	CTH C EAST	
					TOTAL				
					0010	2	1		

CONCRETE ITEMS

						601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	602.0410 CONCRETE SIDEWALK 5-INCH	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	620.0300 CONCRETE MEDIAN SLOPED NOSE	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	LF	SF	SF	SF	REMARKS
	STAGE 1									
0010	CTH C	326+54	-	327+16	RT	98	--	--	--	SOUTHWEST QUADRANT
0010	CTH C	325+81	-	327+19	RT	302	1,378	--	80	WEST ISLAND
0010	CTH C	326+35	-	326+98	LT	100	--	--	--	NORTHWEST QUADRANT
0010	CTH C	328+64	-	329+27	RT	93	--	--	--	SOUTHEAST QUADRANT
0010	CTH C	328+53	-	329+91	LT	301	1,360	--	81	EAST ISLAND
0010	CTH C	328+55	-	329+16	LT	96	0	--	--	NORTHEAST QUADRANT
0010	STAGE 2									
0010	USH 151	2580+59	-	2582+09	LT	650	5,034	18	171	SOUTH MEDIAN ISLAND
0010	USH 151	2580+59	-	2584+16	LT	764	1,680	--	128	CENTER MEDIAN ISLAND
0010	USH 151	2582+70	-	2584+16	LT	327	2,299	18	162	NORTH MEDIAN ISLAND
TOTAL 0010						2,731	11,751	36	622	

CONCRETE BARRIER

						603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	LF	LF	REMARKS
0010	STAGE 1							
	USH 151	2573+06	-	2596+17	LT/RT	5,030	3,140	--
0010	STAGE 2							
	USH 151	2573+06	-	2596+17	LT/RT	--	5,030	--
TOTAL 0010						5,030	8,170	

RIPRAP MEDIUM								
606.0200 645.0120 RIPRAP MEDIUM GEOTEXTILE CY TYPE HR								
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION			REMARKS
STAGE 1								
0010	CTH C	324+42	-	326+26	RT	222	450	CTH C WEST
0010	CTH C	326+00	-	326+16	LT	4	10	CTH C WEST
0010	CTH C	329+21	-	329+54	LT	15	30	CTH C EAST
0010	CTH C	329+33	-	329+70	LT	13	30	CTH C EAST
0010	CTH C	329+79	-	329+90	LT	8	20	CTH C EAST
0010	CTH C	329+43	-	329+78	RT	13	30	CTH C EAST
STAGE 2								
0010	USH 151	2578+51	-	2578+82	LT	14	30	USH 151
TOTAL 0010						289	600	

FENCE ITEM								
616.0100 FENCE WOVEN WIRE (4 FT)								
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	LF		REMARKS
STAGE 1								
0010	CTH C	328+42	-	332+00	LT/RT	280		CTH C EAST
TOTAL 0010						280		

STORM SEWER																
520.8000 608.0415 608.0424 611.0530 611.0615 611.0642 611.1005 611.1006 611.2004 611.3253 611.3901 611.3902 SPV.0090.01 CONCRETE STORM SEWER PIPE STORM SEWER PIPE STORM SEWER PIPE MANHOLE COVERS INLET COVERS INLET COVERS CATCH BASINS CATCH BASINS MANHOLES INLETS 2.5X3- INLETS MEDIAN 1 INLETS MEDIAN 2 SPECIAL (0.1 PIPE UNDERDRAIN 6- COLLARS REINFORCED CONCRETE REINFORCED CONCRETE TYPE J TYPE F TYPE MS 5-FT DIAMETER 6-FT DIAMETER 4-FT DIAMETER FT GRATE GRATE INCH WITH GEOTEXTILE FABRIC FOR PIPE CLASS IV 15-INCH CLASS IV 24-INCH EACH EACH EACH EACH EACH EACH EACH EACH EACH EACH EACH AND AGGREGATE) EACH LF LF LF LF LF LF LF LF LF LF LF LF LF LF LF LF																
0010	USH 151	PROJECT	4	510	990	1	23	7	3	1	1	19	1	6	808	
TOTAL 0010			4	510	990	1	23	7	3	1	1	19	1	6	808	

*REFERENCE STORM SEWER DATA TABLE IN STORM SEWER SHEETS

CRASH CUSHION TEMPORARY								
614.0905								
CRASH CUSION								
CATEGORY	ROADWAY	STATION	LOCATION	TEMPORARY EACH	BACK WIDTH FT	SIGN PLATE	CRASH TEST LEVEL	CRASH CUSHION SHIELDS
STAGE 1								
0010	USH 151	2571+82 'NB'	RT	1	2	W05-52R	TL-3	BLUNT END OF CONCRETE BARRIER TEMPORARY PRECAST
0010	USH 151	2597+50 'NB'	LT	1	2	W05-52R	TL-3	BLUNT END OF CONCRETE BARRIER TEMPORARY PRECAST
STAGE2								
0010	USH 151	2571+95 'NB'	LT	1	2	W05-52L	TL-3	BLUNT END OF CONCRETE BARRIER TEMPORARY PRECAST
0010	USH 151	2597+66 'NB'	LT	1	2	W05-52L	TL-3	BLUNT END OF CONCRETE BARRIER TEMPORARY PRECAST
TOTAL 0010				4				

TRAFFIC CONTROL ITEMS																			
CATEGORY	ROADWAY	643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.0920		643.1050		643.5000	REMARKS
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE II		TRAFFIC CONTROL SIGNS PCMS		TRAFFIC CONTROL	
		NO. DEVICES	DAY	NO. DEVICES	DAY	NO. DEVICES	DAY	NO. DEVICES	DAY	NO. DEVICES	DAY	NO. DEVICES	DAY	NO. DEVICES	DAY	EACH	NO. DEVICES	DAY	
0010	STAGE 1 USH 151	172	11,696	28	1,904	56	3,808	32	2,176	2	136	39	2,652	1		4	28	--	--
0010	STAGE 2 USH 151	141	12,972	12	1,104	24	2,208	32	2,944	2	184	42	3,864	--		2	14	--	--
0010	STAGE 3 USH 151	100	1,200		--		--	--	--	2	24	16	192	--		--	--	--	--
0010	UNDISTRIBUTED		--		--		--		--		--		--	--		--	--	1	--
		25,868		3,008		6,016		5,120		344		6,708		1		42		1	

PAVEMENT MARKING ITEMS																	
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	646.5020	646.5120	646.6120	646.6220	646.7120	646.7220	646.9010	643.3180	646.4050	646.2020	REMARKS	
						MARKING ARROW EPOXY EACH	MARKING WORD EPOXY EACH	MARKING STOP LINE EPOXY 18- INCH LF	MARKING YIELD LINE EPOXY 18- INCH EACH	MARKING DIAGONAL EPOXY 12-INCH LF	MARKING CHEVRON EPOXY 24-INCH LF	MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH LF	MARKING LINE GROOVED PERMANENT TAPE 10-INCH LF	MARKING LINE EPOXY 6-INCH LF		
0010	STAGE 1 USH 151	2547+06	-	2584+78	RT	--	--	--	--	--	--	200	3778	--	--	--	
0010	USH 151	2579+60	-	2621+92	LT	--	--	--	--	--	--	200	4272	--	--	--	
0010	STAGE 2 USH 151	2547+01	-	2596+84	RT	--	--	--	--	--	--	200	4985	--	--	--	
0010	USH 151	2572+52	-	2622+02	LT	--	--	--	--	--	--	200	4281	--	--	--	
0010	STAGE 3 USH 151	2573+06	-	2581+57	RT	2	1	--	--	--	81	--	--	957	861	NB RT LANE	
0010	USH 151	2583+34	-	2596+17	LT	2	1	--	--	--	336	--	--	1,751	1,306	SB RT LANE	
0010	USH 151	2575+24	-	2582+47	LT	0	0	--	1	42	195	--	--	983	1,076	NB LT LANE	
0010	USH 151	2582+33	-	2589+46	LT	0	0	--	1	34	111	--	--	963	922	SB LT LANE	
0010	USH 151	2582+75	-	2596+02	LT	2	1	--	1	69	--	--	--	1,313	1,397	NB UT LANE	
0010	USH 151	2573+21	-	2582+04	LT	0	0	--	1	77	--	--	--	855	940	SB UT LANE	
0010	CTH C	323+71	-	327+20	LT/RT	0	0	52	--	--	--	--	--	--	1,505	CTH C WEST	
0010	CTH C	328+53	-	332+00	LT/RT	0	0	49	--	--	--	--	--	--	1,552	CTH C EAST	
0010	USH 151	2573+06	-	2596+17	RT	--	--	--	--	--	--	--	--	--	575	NB TRAVEL LANE	
0010	USH 151	2573+07	-	2596+18	LT	--	--	--	--	--	--	--	--	--	575	SB TRAVEL LANE	
TOTAL 0010						6	3	101	4	222	723	800	17,316	6,822	10,709		

RESTORATION ITEMS										
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	625.0500	629.0210	630.0130	630.0500	REMARKS
						SALVAGED TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL	
	STAGE 1									
0010	USH 151 / CTH C	2573+06	-	2584+38	RT	52	3	27	196	--
0010	USH 151 / CTH C	2580+47	-	2596+17	LT	53	4	53	254	--
0010	STAGE 2		-							
0010	USH 151	2573+06	-	2582+40	LT	--	1	100	84	--
0010	USH 151	2582+40	-	2596+19	LT	--	2	77	168	--
TOTAL 0010						105	10	257	702	

EROSION CONTROL																	
						628.1504	628.1520	628.1905	628.1910	628.2002	628.7005	628.701	628.702	628.7504	628.7555	628.7560	633.5200
									MOBILIZATIONS EMERGENCY EROSION CONTROL		INLET PROTECTION TYPE A	INLET PROTECTION TYPE B	INLET PROTECTION TYPE D	TEMPORARY DITCH CHECKS	CULVERT PIPE CHECKS	TRACKING PADS	MARKERS CULVERT END
CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	LF	LF	EACH	EACH	SY	EACH	EACH	EACH	LF	EACH	EACH	EACH
STAGE 1																	
0010	USH 151 / CTH C	2573+06	-	2584+38	LT/RT	1,617	1,617	2	--	4,241	--	--	--	60	4	2	2
0010	USH 151 / CTH C	2584+38	-	2596+17	LT/RT	2,019	2,019	2	--	5,072	--	--	--	--	26	--	1
STAGE 2																	
0010	USH 151	2573+06	-	2582+40	LT	--	--	2	--	1,449	--	--	--	40	--	--	--
0010	USH 151	2582+40	-	2596+19	LT	--	--	2	--	2,895	--	--	--	82	--	--	--
0010	UNDISTRIBUTED	N/A	-	N/A	PROJECT	--	--	3	6	200	6	19	4	46	6	--	--
TOTAL 0010						3,636	3,636	11	6	13,857	6	19	4	228	30	2	3

PERMANENT SIGNING ITEMS

												637.2210	634.0616				
												SIGNS TYPE II	POSTS WOOD 4X6-				
												REFLECTIVE H	INCH X 16-FT				
												SIGN SIZE					
CATEGORY	ROADWAY	LOCATION	SIGN CODE	SIGN MESSAGE	MESSAGE LINE 1	MESSAGE LINE 2	MESSAGE LINE 3	MESSAGE LINE 4	INCH	X	INCH	SF	EACH	REMARKS			
0010	USH 151	RT	--	--	WATCH FOR	TURNING	VEHICLES	NEXT 1/2 MILE	108	X	78	58.50	2	NB RT LANE			
0010	USH 151	RT	R5-1A	WRONG WAY	--	--	--	--	42	X	36	10.50	1	NB RT LANE			
0010	USH 151	RT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	NB RT LANE			
0010	USH 151	RT	R6-2L	ONE WAY	--	--	--	--	24	X	30	5.00	1	NB RT LANE			
0010	USH 151	RT	--	--	EAST	USE FAR RIGHT LANE	NORTH	--	114	X	60	47.50	2	NB RT LANE			
0010	USH 151	RT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	NB RT LANE			
0010	USH 151	RT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	NB RT LANE			
0010	USH 151	RT	R5-1A	WRONG WAY	--	--	--	--	42	X	36	10.50	1	NB RT LANE			
0010	USH 151	RT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	NB RT LANE			
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	SB RT LANE			
0010	USH 151	LT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	SB RT LANE			
0010	USH 151	LT	R5-1A	WRONG WAY	--	--	--	--	42	X	30	8.75	1	SB RT LANE			
0010	USH 151	LT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	SB RT LANE			
0010	USH 151	LT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	SB RT LANE			
0010	USH 151	LT	--	--	WEST	USE FAR RIGHT LANE	SOUTH	--	114	X	60	47.50	2	SB RT LANE			
0010	USH 151	LT	R6-2L	ONE WAY	--	--	--	--	24	X	30	5.00	1	SB RT LANE			
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	SB RT LANE			
0010	USH 151	LT	R5-1A	WRONG WAY	--	--	--	--	42	X	30	8.75	1	SB RT LANE			
0010	USH 151	LT	--	--	WATCH FOR	TURNING	VEHICLES	NEXT 1/2 MILE	108	X	78	58.50	1	SB RT LANE			
0010	CTH C	RT	J2-1	DIRECTIONAL ASSEMBLY	--	--	--	--	24	X	39	6.50	1	CTH C WEST			
0010	CTH C	LT	R2-1	--	--	--	--	--	24	X	30	5.00	1	CTH C WEST			
0010	CTH C	RT	R3-53-R	RIGHT TURN ONLY	--	--	--	--	24	X	30	5.00	1	CTH C WEST			
0010	CTH C	LT	J4-1	DIRECTIONAL ASSEMBLY	--	--	--	--	24	X	36	6.00	1	CTH C WEST			
0010	CTH C	RT	R4-7	--	--	--	--	--	24	X	30	5.00	1	CTH C WEST			
0010	CTH C	RT	W5-54	--	--	--	--	--	18	X	18	2.25	1	CTH C WEST			
0010	CTH C	RT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	CTH C WEST			
0010	CTH C	RT	R1-1	STOP	--	--	--	--	36	X	36	9.00	1	CTH C WEST			
0010	CTH C	RT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	CTH C WEST			
0010	CTH C	RT	R1-1	STOP	--	--	--	--	36	X	36	9.00	1	CTH C WEST			
0010	CTH C	RT	J2-2	DIRECTIONAL ASSEMBLY	--	--	--	--	48	X	45	15.00	1	CTH C WEST			
0010	CTH C	LT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	CTH C EAST			
0010	CTH C	LT	R1-1	STOP	--	--	--	--	36	X	36	9.00	1	CTH C EAST			
0010	CTH C	LT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	CTH C EAST			
0010	CTH C	LT	R1-1	STOP	--	--	--	--	36	X	36	9.00	1	CTH C EAST			
0010	CTH C	LT	R4-7	--	--	--	--	--	24	X	30	5.00	1	CTH C EAST			
0010	CTH C	LT	W5-54	--	--	--	--	--	18	X	18	2.25	1	CTH C EAST			
0010	CTH C	RT	J4-1	--	--	--	--	--	24	X	36	6.00	1	CTH C EAST			
0010	CTH C	LT	R3-53-R	--	--	--	--	--	24	X	30	5.00	1	CTH C EAST			
0010	CTH C	RT	R2-1	--	--	--	--	--	24	X	30	5.00	1	CTH C EAST			
0010	CTH C	LT	J2-1	--	--	--	--	--	24	X	39	6.50	1	CTH C EAST			
SUBTOTAL 0010												524.00	43				

PERMANENT SIGNING ITEMS (CONTINUED)

CATEGORY	ROADWAY	LOCATION	SIGN CODE	SIGN MESSAGE	MESSAGE LINE 1	MESSAGE LINE 2	MESSAGE LINE 3	MESSAGE LINE 4	SIGN SIZE			637.2210 SIGNS TYPE II REFLECTIVE H	634.0616 POSTS WOOD 4X6- INCH X 16-FT	REMARKS
									INCH	X	INCH	SF	EACH	
0010	USH 151	LT	R3-18	--	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	J2-2	DIRECTIONAL ASSEMBLY	--	--	--	--	72	X	84	42.00	2	MEDIAN
0010	USH 151	LT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	2	MEDIAN
0010	USH 151	LT	J2-2	DIRECTIONAL ASSEMBLY	--	--	--	--	72	X	84	42.00	2	MEDIAN
0010	USH 151	LT	--	--	NORTH	EAST	USE FAR LEFT LANE	SOUTH	132	X	66	60.50	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	--	--	SOUTH	WEST	USE FAR LEFT LANE	NORTH	132	X	66	60.50	1	MEDIAN
0010	USH 151	LT	R6-1R	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	J2-2	DIRECTIONAL ASSEMBLY	--	--	--	--	72	X	84	42.00	1	MEDIAN
0010	USH 151	LT	J3-1	DIRECTIONAL ASSEMBLY	--	--	--	--	36	X	84	21.00	1	MEDIAN
0010	USH 151	LT	J2-2	DIRECTIONAL ASSEMBLY	--	--	--	--	72	X	84	42.00	1	MEDIAN
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R6-1L	ONE WAY	--	--	--	--	36	X	12	3.00	1	MEDIAN
0010	USH 151	LT	R1-2	YIELD	--	--	--	--	36	X	31	7.75	1	MEDIAN
0010	USH 151	LT	R5-1	DO NOT ENTER	--	--	--	--	36	X	36	9.00	1	MEDIAN
0010	USH 151	LT	R3-18	--	--	--	--	--	36	X	36	9.00	1	MEDIAN
SUBTOTAL 0010												478.25	35	
TOTAL 0010												1,526	121	

SIGN REMOVAL ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	638.2102	638.2602	638.3000	REMARKS
						MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
	STAGE 1								
0010	USH 151	2573+06	-	2581+57	RT	1	1	1	NB RT LANE
0010	USH 151	2583+34	-	2596+17	LT	2	1	1	SB RT LANE
0010	CTH C	323+71	-	327+30	LT/RT	--	5	2	CTH C WEST
0010	CTH C	328+42	-	332+00	LT/RT	--	5	2	CTH C EAST
	STAGE 2		-						
0010	USH 151	2573+19	-	2582+50	LT	--	3	3	MEDIAN
0010	USH 151	2582+50	-	2596+08	LT	--	3	3	MEDIAN
TOTAL 0010						3	18	12	

CONSTRUCTION STAKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.6000	650.8501	650.9911	650.9920	REMARKS
						CONSTRUCTION STAKING STORM SEWER	CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	CONSTRUCTION STAKING PIPE CULVERTS	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1112-06-75)	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1112-06-75)	CONSTRUCTION STAKING SLOPE STAKES	
						EACH	LF	LF	LF	EACH	EACH	EACH	LF	
	STAGE 1													
0010	USH 151	2573+06	-	2581+57	RT	--	851	851	--	--	--	--	--	NB RT LANE
0010	USH 151	2583+34	-	2596+17	LT	--	1,283	1,283	--	--	--	--	--	SB RT LANE
0010	CTH C	323+71	-	327+30	LT/RT	--	359	359	500	--	--	--	--	CTH C WEST
0010	CTH C	328+42	-	332+00	LT/RT	--	358	358	488	--	--	--	--	CTH C EAST
	STAGE 2		-											
0010	USH 151	2575+23	-	2582+50	LT	--	727	727	--	--	--	--	--	NB LT LANE
0010	USH 151	2582+29	-	2589+46	LT	--	717	717	--	--	--	--	--	SB LT LANE
0010	USH 151	2582+62	-	2596+08	LT	--	1,346	1,346	--	--	--	--	--	NB UT LANE
0010	USH 151	2573+19	-	2582+18	LT	--	899	899	--	--	--	--	--	SB UT LANE
0010	USH 151	2580+59	-	2582+29	LT	--	170	170	--	--	--	--	--	NB MEDIAN PAVED SHOULDER
0010	USH 151	2582+50	-	2584+16	LT	--	166	166	--	--	--	--	--	SB MEDIAN PAVED SHOULDER
0010	USH 151	2573+19		2596+08	LT/RT	--	--	--	1,740	3	--	--	--	MEDIAN
	PROJECT													
0010	USH 151	2573+19		2596+08	LT/RT	34	--	--	--	--	1	1	3,655	--
TOTAL 0010						34	6,876	6,876	2,728	3	1	1	3,655	

ELECTRICAL CONDUIT

				652.0225	652.0235	652.0615	REMARKS
				CONDUIT RIGID NONMETALLIC SCHEDULE 40 2- INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3- INCH	CONDUIT SPECIAL 3-INCH	
CATEGORY	STATION	TO	STATION	LF	LF	LF	
0010	2581+56	-	2581+71		49		LC to PB13
0010	2583+15	-	2583+30			158	PB1 to PB2
0010	2583+30	-	2584+85	156			PB2 to PB3
0010	2584+85	-	2584+80	11			PB3 to LB1
0010	2584+85	-	2586+04	120			PB3 to PB4
0010	2586+04	-	2586+02	6			PB4 to LB2
0010	2586+04	-	2586+00	14			PB4 to LB3
0010	2586+04	-	2587+59	156			PB4 to PB5
0010	2587+59	-	2587+55	5			PB5 to LB4
0010	2587+59	-	2587+55	15			PB5 to LB5
0010	2587+59	-	2589+08	150			PB5 to PB6
0010	2589+08	-	2589+02	7			PB6 to LB6
0010	2589+08	-	2589+03	21			PB6 to LB7
0010	2589+08	-	2590+64	157			PB6 to PB7
0010	2590+64	-	2590+72	10			PB7 to LB8
0010	2590+64	-	2592+05	142			PB7 to PB8
0010	2592+05	-	2592+02	7			PB8 to LB9
0010	2592+05	-	2593+74	170			PB8 to PB9
0010	2593+74	-	2593+69	22			PB9 to LB10
0010	2593+74	-	2595+51	178			PB9 to LB11
0010	2583+30	-	2582+54			163	PB2 to PB10
0010	2582+54	-	2581+75			159	PB10 to PB14
0010	2582+54	-	2582+40	23			PB10 to LB13
0010	2583+30	-	2583+14	244			PB2 to PB11
0010	2583+14	-	2582+20	198			PB11 to PB12
0010	2582+20	-	2582+22	9			PB12 to LB12
0010	2582+20	-	2581+71			105	PB12 to PB13
0010	2581+71	-	2581+75			165	PB13 to PB14
0010	2581+75	-	2580+30	146			PB14 to PB15
0010	2580+30	-	2580+19	12			PB15 to LB14
0010	2580+30	-	2578+72	159			PB15 to PB16
0010	2578+72	-	2578+67	7			PB16 to LB15
0010	2578+72	-	2576+85	188			PB16 to PB17
0010	2576+85	-	2576+84	6			PB17 to LB16
0010	2576+85	-	2576+85	16			PB17 to LB17
0010	2576+85	-	2575+41	145			PB17 to PB18
0010	2575+41	-	2575+35	9			PB18 to LB18
0010	2575+41	-	2573+74	169			PB18 to LB19
0010	2581+75	-	2581+92			257	PB14 to PB19
0010	2581+92	-	2582+59			148	PB19 to PB20
0010	2582+59	-	2582+59	0			PB20 to LB20
0010	2582+59	-	2583+15			113	PB20 to PB1
TOTAL 0010				2,678	49	1,268	

PULL BOXES

						653.0164
						PULL BOXES NON- CONDUCTIVE 24X42-INCH
CATEGORY	STATION	OFFSET (FT)	LOCATION	EACH	REMARKS	
0010	2583+15	59	RIGHT	1	PB1	
0010	2583+30	18	LEFT	1	PB2	
0010	2584+85	20	LEFT	1	PB3	
0010	2586+04	25	LEFT	1	PB4	
0010	2587+59	26	LEFT	1	PB5	
0010	2589+08	26	LEFT	1	PB6	
0010	2590+64	31	LEFT	1	PB7	
0010	2592+05	31	LEFT	1	PB8	
0010	2593+74	42	LEFT	1	PB9	
0010	2583+14	139	LEFT	1	PB11	
0010	2582+20	108	LEFT	1	PB12	
0010	2581+75	44	LEFT	1	PB14	
0010	2580+30	40	LEFT	1	PB15	
0010	2578+72	40	LEFT	1	PB16	
0010	2576+85	35	LEFT	1	PB17	
0010	2575+41	40	LEFT	1	PB18	
0010	2581+92	84	RIGHT	1	PB19	
0010	2582+59	52	RIGHT	1	PB20	
0010	2581+71	126	LEFT	1	PB13	
0010	2582+54	47	LEFT	1	PB10	
TOTAL 0010				20		

ELECTIRCAL CABINET

								654.0224	656.0201.01	659.2124
								CONCRETE CONTROL CABINET BASES TYPE L24	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) (STA 2581+56 119-LT)	LIGHTING CONTROL CABINETS 120/240 24- INCH
CATEGORY	STATION	OFFSET (FT)	LOCATION	EACH	EACH	EACH	REMARKS			
0010	2581+56	119	LEFT	1	1	1	LIGHTING CABINET			
TOTAL 0010				1	1	1				

ELECTRICAL WIRING						
			655.0610		655.0615	
			ELECTRICAL WIRE		ELECTRICAL WIRE	
			LIGHTING 12 AWG		LIGHTING 10 AWG	
CATEGORY	STATION	TO STATION	LF	LF	REMARKS	
0010	2581+56	- 2593+74		4,821	LC to PB9	
0010	2593+74	- 2595+51		576	PB9 to LB11	
0010	2581+56	- 2593+69		4,776	LC to LB10	
0010	2581+56	- 2578+72		5,193	LC to PB16	
0010	2576+85	- 2575+35		534	PB17 to LB18	
0010	2581+56	- 2573+74		4,404	LC to LB19	
0010	2584+80		300		LB1 Up Pole	
0010	2586+02		150		LB2 Up Pole	
0010	2586+00		150		LB3 Up Pole	
0010	2587+55		150		LB4 Up Pole	
0010	2587+55		150		LB5 Up Pole	
0010	2589+02		150		LB6 Up Pole	
0010	2589+03		150		LB7 Up Pole	
0010	2590+72		150		LB8 Up Pole	
0010	2592+02		150		LB9 Up Pole	
0010	2593+69		150		LB10 Up Pole	
0010	2595+51		150		LB11 Up Pole	
0010	2582+22		300		LB12 Up Pole	
0010	2582+40		300		LB13 Up Pole	
0010	2580+19		300		LB14 Up Pole	
0010	2578+67		300		LB15 Up Pole	
0010	2576+84		150		LB16 Up Pole	
0010	2576+85		150		LB17 Up Pole	
0010	2575+35		150		LB18 Up Pole	
0010	2573+74		150		LB19 Up Pole	
0010	2582+59		300		LB20 Up Pole	
TOTAL 0010			3,900	20,304		

LIGHT POLES AND BASES									

SAWING ITEMS							
				690.0150			
				SAWING			
				ASPHALT			
CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	LF	REMARKS	
STAGE 1							
0010	CTH C	323+71 -	323+71	LT/RT	30	--	
0010	CTH C	332+00 -	332+00	LT/RT	22	--	
TOTAL 0010					52		

SITE MOWING		
SPV.0060.01 SITE MOWING		
CATEGORY	LOCATION	EACH
0010	STAGE 1 - PROJECT	10
	STAGE 2 - PROJECT	2
	STAGE 3 - PROJECT	-
	UNDISTRIBUTED	4
TOTAL		16

PUBLIC LAND SURVEY SYSTEM MONUMENTS

SPV.0060.02 PUBLIC LAND SURVEY SYSTEM MONUMENTS				
CATEGORY	STATION	OFFSET	EACH	REMARKS
0010	2582+80.15 'NB'	52.26' RT	1	WITNESS CORNER MONUMENT
0010	2581+95.78 'NB'	54.42' RT	1	WITNESS CORNER MONUMENT
0010	2581+95.78 'NB'	45.28' LT	1	SECTION CORNER
0010	2581+93.77 'NB'	111.18' LT	1	WITNESS CORNER MONUMENT
0010	2582+81.50 'NB'	114.31' LT	1	WITNESS CORNER MONUMENT
TOTAL			5	

RIGHT OF WAY MONUMENTS

SPV.0060.03 RIGHT OF WAY MONUMENTS			
CATEGORY	LOCATION	EACH	REMARKS
0010	PROJECT	4	POINTS 103, 107, 118, 1125 WITHIN PROXIMITY OF SLOPE INTERCEPTS. SEE PLAT FOR POINT LOCATION INFORMATION.
	UNDISTRIBUTED	4	
TOTAL		8	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

1112-06-25

BEAVER DAM - FOND DU LAC

CTH C INTERSECTION

USH 151
Dodge County

CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL	CONVENTIONAL ABBREVIATIONS
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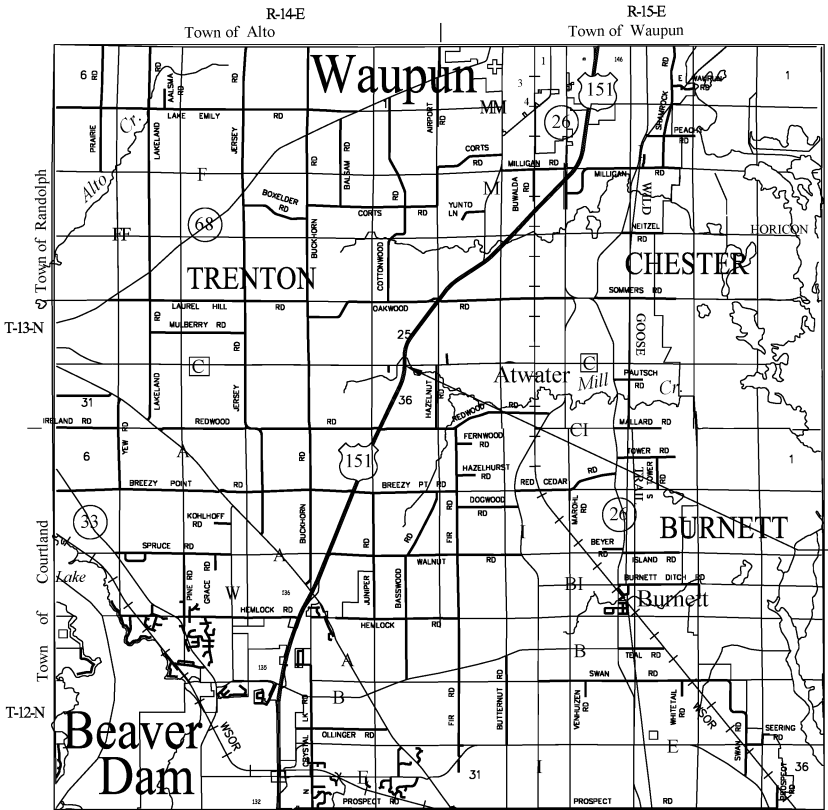
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED	TLE
GRID NORTH	GN	EASEMENT	
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	---



LAYOUT

0 1 MI

SCALE

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1112-06-25

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DODGE COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 1112-06-25 -4. 01
SHEET 2 OF 3

TRANSPORTATION PROJECT PLAT NO: 1112-06-25 - 4.01

THAT PART OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, AND PART OF THE NORTHEAST OF THE SOUTHWEST QUARTER OF SECTION 25, AND PART OF LOT 1 CSM #2290 LOCATED IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER, OF SECTION 25, AND PART OF LOT 1 CSM #7065 AND LOT 1 CSM #7078 LOCATED IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 36, AND PART OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 36, ALL IN TOWNSHIP 13 NORTH, RANGE 14 EAST, TOWN OF TRENTON, DODGE COUNTY, WISCONSIN.

- RELOCATION ORDER: USH 151, BEAVER DAM - FOND DU LAC, (CTH C INTERSECTION), DODGE COUNTY TO PROPER ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE. THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.
- TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS Laid OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
 2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DODGE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPICALLY 3" X 2" IRON REBAR, UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON

EXISTING HIGHWAY RIGHT-OF-WAY ON USH 151 SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: TTP 1111-08-21, RW PLAT F 017.2 (46) AND CSM #7078, CSM #2290

EXISTING HIGHWAY RIGHT-OF-WAY ON CTH 'C' SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: DODGE COUNTY RW PROJECT #A13-095, TTP 1111-08-21, RW PLAT F 017.2 (46), CSM #2290, CSM #7065 AND CSM #7078

EXISTING ACCESS CONTROL SHOWN HEREIN BASED ON RW PLAT 1111-08-21

SIXTEENTH LINES WERE ESTABLISHED BY SECTION BREAKDOWN OF OBSERVED PLUS MONUMENTS

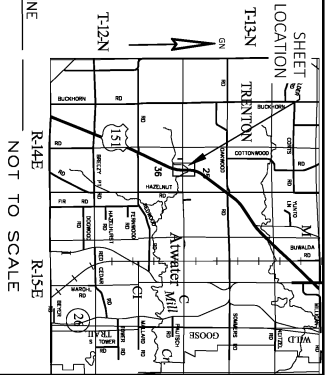
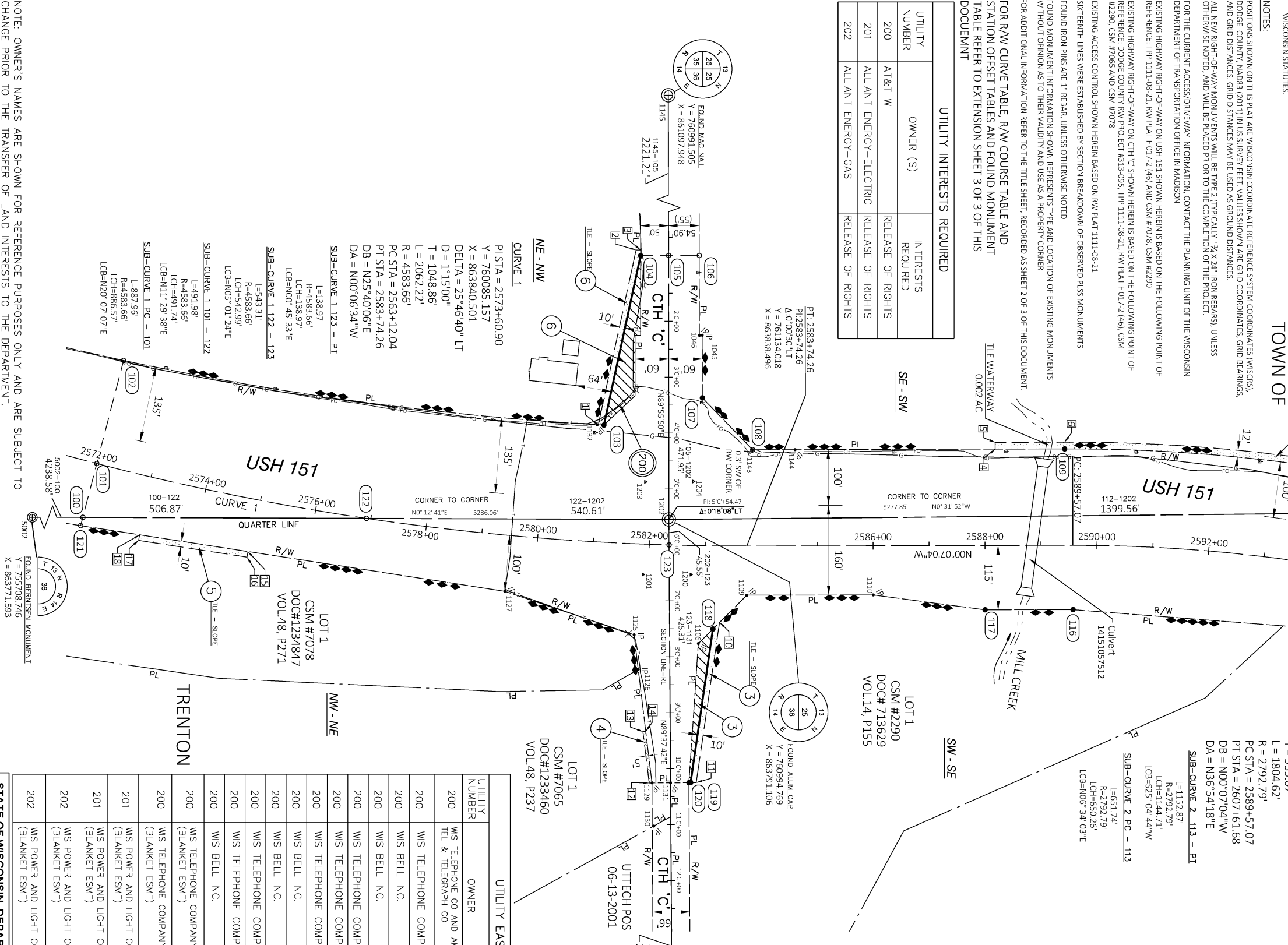
FOUND IRON PINS ARE 1" REBAR, UNLESS OTHERWISE NOTED

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER

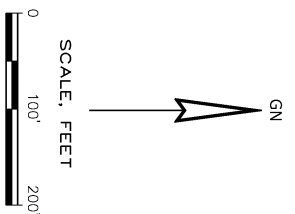
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3 OF THIS DOCUMENT.

FOR R/W CURVE TABLE, R/W COURSE TABLE AND STATION OFFSET TABLE AND FOUND MONUMENT TABLE REFER TO EXTENSION SHEET 3 OF 3 OF THIS DOCUMENT

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
200	AT&T WI	RELEASE OF RIGHTS
201	ALLIANT ENERGY- ELECTRIC	RELEASE OF RIGHTS
202	ALLIANT ENERGY- GAS	RELEASE OF RIGHTS



RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1112-06-25 - 4.01
SHEET 1 OF 3



UTILITY EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	PARCEL
200	WIS TELEPHONE CO AND AMER TEL & TELEGRAPH CO	DOC# 475978	1
200	WIS TELEPHONE COMPANY	DOC# 522302	1
200	WIS BELL INC.	DOC# 667861	1
200	WIS BELL INC.	DOC# 803969	1
200	WIS TELEPHONE COMPANY	DOC# 415534	2
200	WIS TELEPHONE COMPANY	DOC# 475982	2
200	WIS TELEPHONE COMPANY	DOC# 522470	2
200	WIS BELL INC.	DOC# 667860	2
200	WIS BELL INC.	DOC# 806966	4&5
200	WIS TELEPHONE COMPANY	DOC# 351761	5
200	WIS TELEPHONE COMPANY	DOC# 521467	6
200	WIS BELL INC.	DOC# 806969	6
200	WIS TELEPHONE COMPANY	DOC# 42411280	6
200	WIS TELEPHONE COMPANY	DOC# 407803	6
201	WIS POWER AND LIGHT COMP. (BLANKET ESMT)	DOC# 347746	1
201	WIS POWER AND LIGHT COMP. (BLANKET ESMT)	DOC# 347736	2
202	WIS POWER AND LIGHT COMP. (BLANKET ESMT)	DOC# 314072	2&3
202	WIS POWER AND LIGHT COMP. (BLANKET ESMT)	DOC# 314055	4&5

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JOERG FELDBINDER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Joerg Feldbinder* DATE: 12/15/23
PRINT NAME: JOERG FELDBINDER
REGISTRATION NUMBER: S-2991
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION SW REGION
SIGNATURE: *Chris Plamasch* DATE: 12/15/23
PRINT NAME: CHRIS PLAMASCH

TRANSPORTATION PROJECT PLAT NO: 1112-06-25 - 4.01
EXTENSION SHEET

RELOCATION ORDER: USH 151, BEAVER DAM - FOND DU LAC, (CTH C INTERSECTION), DODGE COUNTY

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS),
DODGE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS,
AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3 OF THIS DOCUMENT.

R/W – USH 151 ALIGNMENT

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
100	2572+00.00	99.31' RT
101	2572+00.00	0.00' RT
102	2572+00.00	190.53' LT
103	2581+06.94	209.14' LT
107	2582+90.52	264.18' LT
108	2583+84.96	172.02' LT
109	2589+42.64	172.29' LT
110	2594+92.71	171.76' LT
111	2596+08.81	158.29' LT
112	2596+08.81	137.19' LT
113	2596+08.81	0.00' RT
114	2596+08.81	114.31' RT
115	2594+00.00	115.00' RT
116	2589+57.06	115.00' RT
117	2588+00.00	115.00' RT
118	2583+15.34	148.69' RT
121	2572+00.00	114.64' RT
122	2576+91.98	0.00' RT
123	2582+35.29	0.00' RT
1109	2583+73.70	88.46' RT
1110	2586+00.10	87.87' RT
1125	2581+79.32	162.64' RT
1127	2579+50.16	100.19' RT
1142	2594+94.81	160.50' LT

R/W –CTH 'C' ALIGNMENT

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
104	0+82.52 'C'	50.00' RT
105	0+82.52 'C'	0.00' RT
106	0+82.52 'C'	54.90' LT
119	10+25.32 'C'	35.69' LT
120	10+25.32 'C'	32.72' LT
1045	2+25.24 'C'	60.10' LT
1046	2+25.41 'C'	54.90' LT
1129	10+25.32 'C'	33.28' RT
1131	10+25.32 'C'	0.00' RT

R/W COURSE TABLE

FROM PT #	TO PT #	BEARING	DISTANCE
100	101	N75° 25' 53"W	99.31'
101	102	N75° 25' 53"W	190.53'
102	103	SEE CURVE TABLE	
103	104	N77° 47' 49"W	310.20'
104	105	N00° 04' 10"W	50.00'
105	106	N00° 04' 10"W	54.90'
106	1046	N89° 55' 50"E	142.89'
1046	1045	N01° 51' 45"W	5.20'
1045	107	N89° 55' 50"E	111.93'
107	108	N45° 55' 32"E	129.04'
108	109	N00° 08' 44"W	557.68'
109	110	SEE CURVE TABLE	
110	1142	N89° 43' 41"E	11.48'
1142	111	N13° 08' 01"E	120.52'
111	112	S76° 44' 49"E	21.10'
112	113	S76° 44' 49"E	137.19'
113	114	S76° 44' 49"E	114.31'
114	115	S10° 54' 45"W	200.19'
115	116	S04° 25' 32"W	424.26'
116	117	S00° 07' 04"E	157.06'
117	1110	S07° 36' 36"W	201.73'
1110	1109	S00° 15' 59"E (N00° 57' 48"W)	226.43' (226.11')
1109	118	S44° 54' 31"E	84.92'
118	119	S81° 43' 40"E	277.70'
119	120	S00° 22' 21"E	2.97'
120	1131	S00° 22' 21"E	32.72'
1131	1129	S00° 22' 21"E (N00° 22' 27"W)	33.28' (33.00')
1129	1125	S83° 06' 33"W (N82° 09' 08"E)	266.86' (266.68')
1125	1127	S18° 35' 43"W (N17° 49' 15"W)	243.84' (243.70')
1127	121	S08° 48' 15"W	767.02'
121	100	N75° 25' 53"W	15.33'

TLE – USH 151 ALIGNMENT

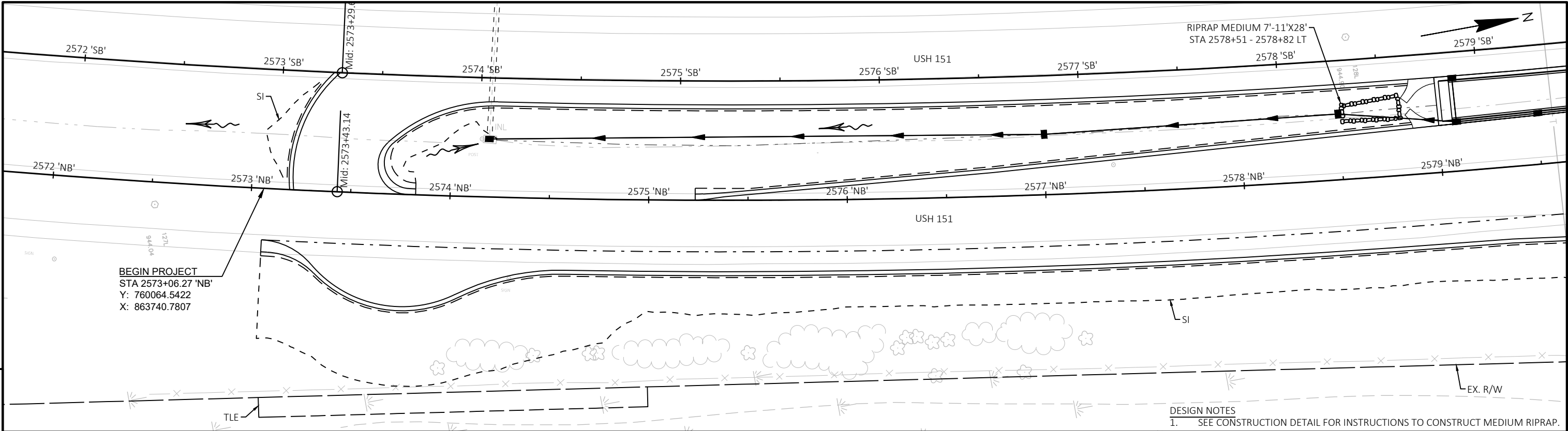
STATION & OFFSET TABLE		
POINT	STATION	OFFSET
1	2580+96.34	209.14' LT
2	2581+51.84	524.88' LT
3	2581+60.93	525.24' LT
4	2588+18.53	172.23' LT
5	2588+18.48	184.23' LT
6	2589+42.62	184.29' LT
7	2595+25.54	183.73' LT
8	2596+32.26	182.34' LT
9	2596+32.26	156.42' LT
10	2583+26.68	136.75' RT
11	2582+90.77	423.82' RT
12	2582+13.98	426.47' RT
13	2582+00.65	335.17' RT
14	2582+05.25	334.39' RT
15	2574+95.16	94.13' RT
16	2574+95.51	104.12' RT
17	2573+04.44	115.33' RT
18	2573+03.68	105.36' RT

COORDINATE TABLE – FOUND SURVEY MONUMENTS

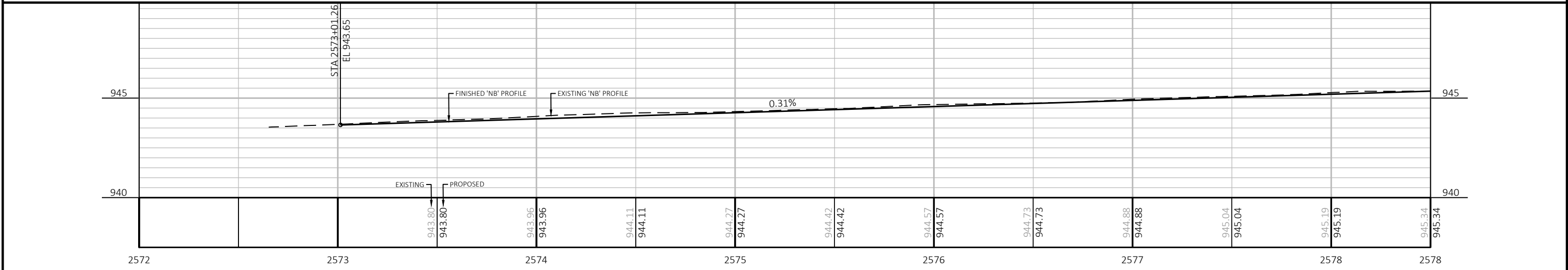
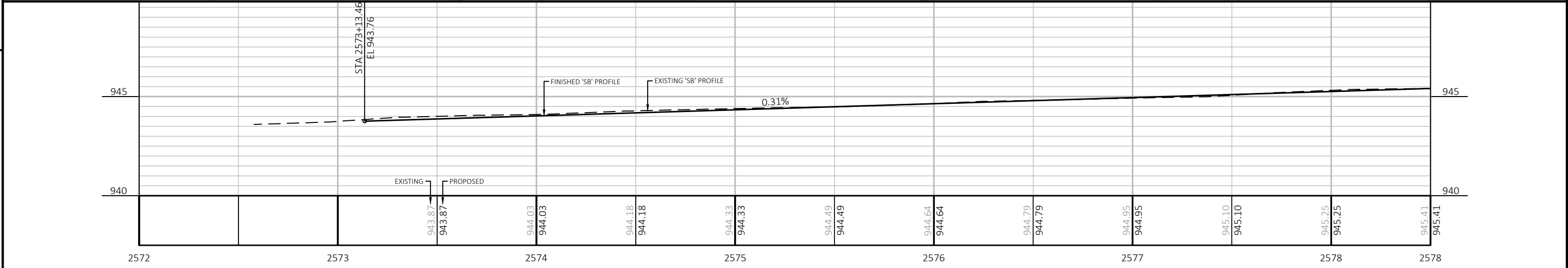
POINT #	Y COORDS	X COORDS	MONUMENT TYPE
1045	761054.467	863461.812	IP 3/4IN IR
1046	761049.270	863461.981	IP 1IN
1106	761047.379	864013.020	IP 3/4IN IR W PL CAP
1109	761133.611	863926.958	IP 3/4IN IR
1110	761360.040	863925.905	IP 3/4IN IR W PL CAP
1125	760932.526	863997.234	IP 3/4IN IR W PL CAP
1126	760939.695	864059.324	IP 3/4IN IR
1127	760701.417	863919.478	IP 3/4IN IR W PL CAP
1129	760964.544	864262.169	IP 3/4IN IR NO CAP PINCUSHIONED
1130	760967.714	864339.365	IP 1IN
1131	760997.823	864261.953	IP PK NAIL
1132	760866.596	863621.715	IP 3/4IN IR W PL CAP
1139	762318.332	863738.428	IP 3/4IN IR W PL CAP
1142	762281.743	863730.209	IP 3/4IN IR W PL CAP
1143	761144.164	863666.249	IP 1IN
1144	761220.190	863666.268	IP 3/4IN IR W PL CAP
1200	761033.883	863889.607	ALUM MON IN CONC
1201	760948.500	863889.424	ALUM MON IN CONC WITH MARKER SIGN
1203	760952.814	863723.768	ALUM MON IN CONC WITH MARKER SIGN
1204	761038.435	863723.099	ALUM MON IN CONC

R/W CURVE TABLE

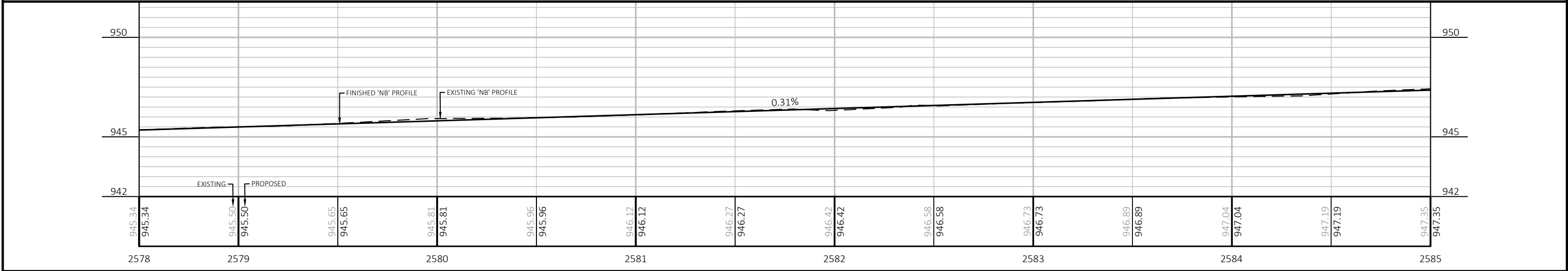
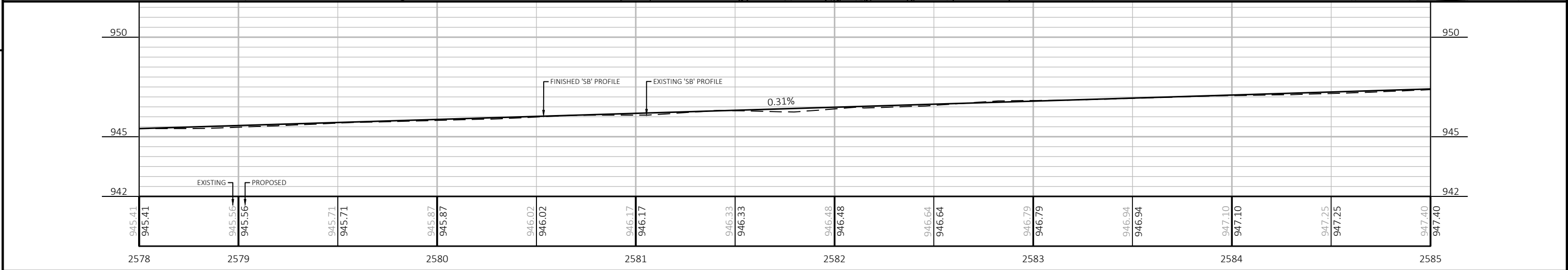
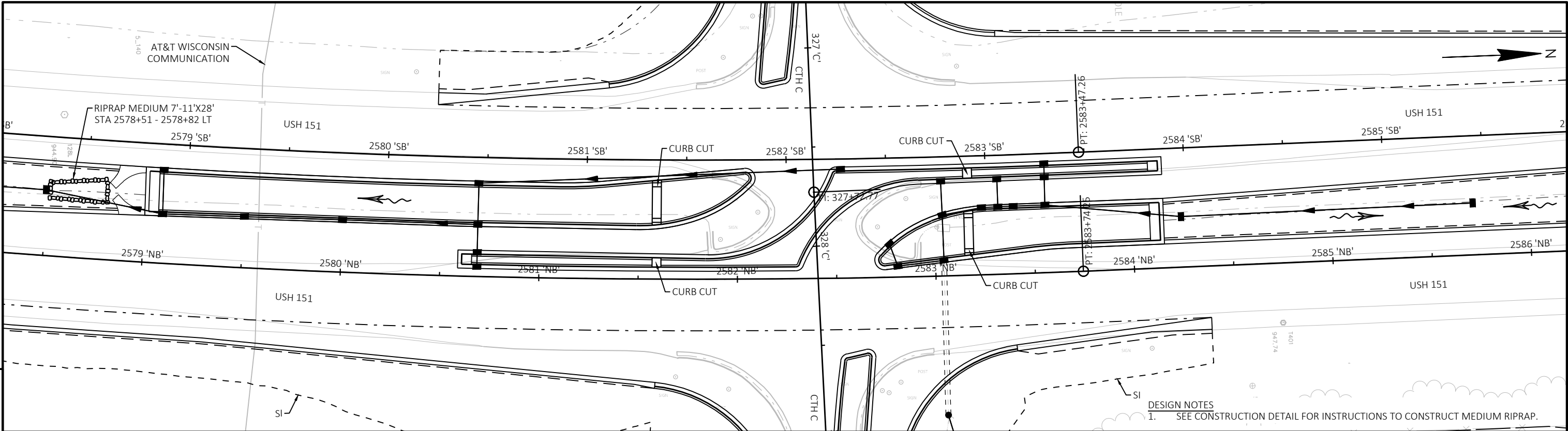
FROM PT #	TO PT #	LCB	LCH	L	R
102	103	N07° 40' 32"E	866.19'	867.05'	5594.58'
109	110	N05° 17' 33"E	582.13'	583.07'	2964.79'



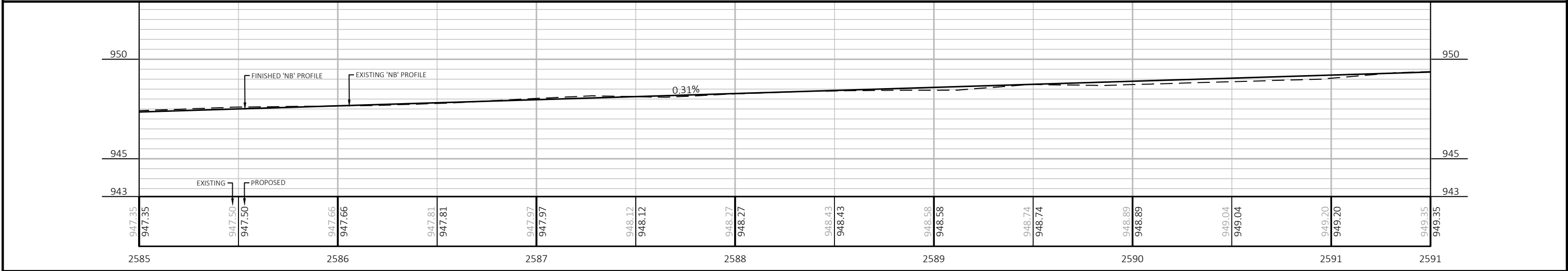
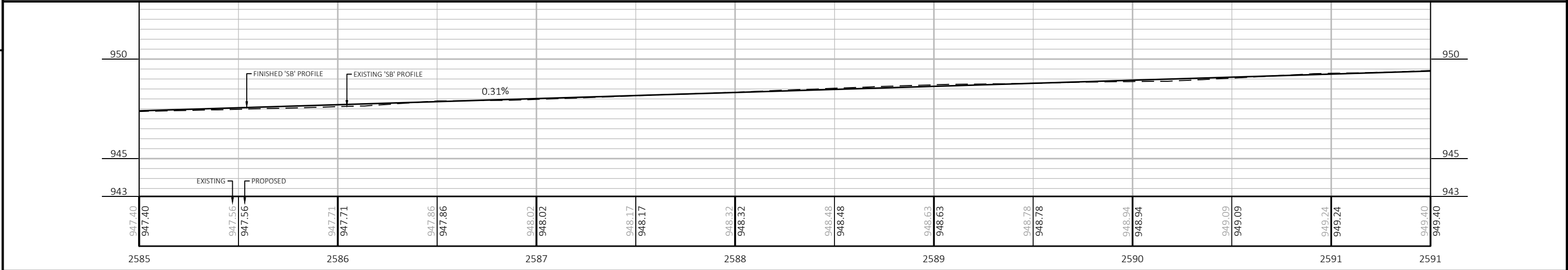
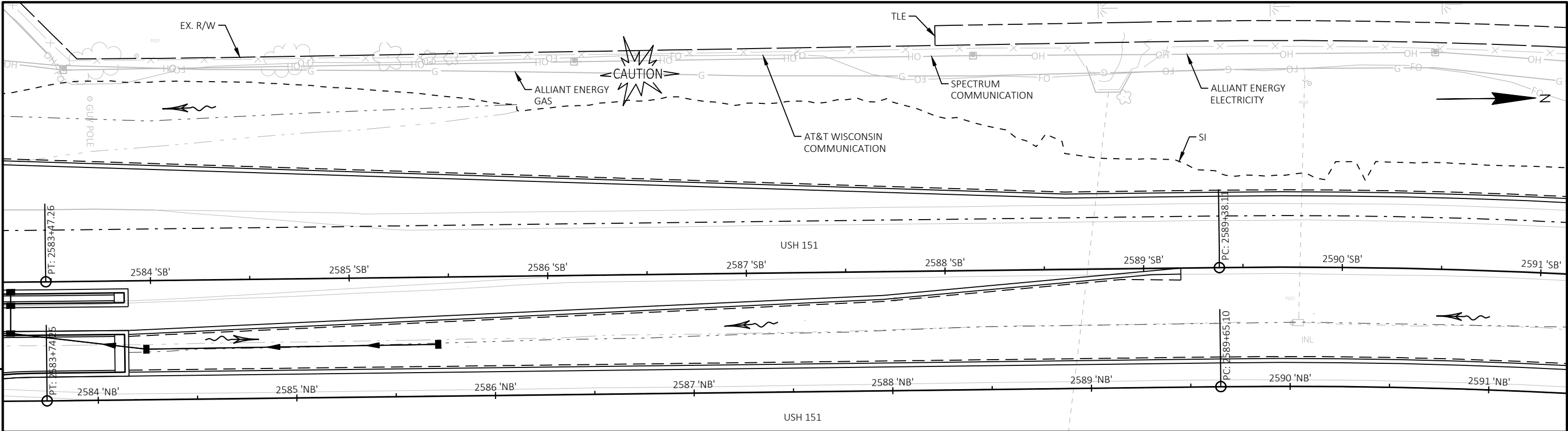
DESIGN NOTES
1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO CONSTRUCT MEDIUM RIPRAP.



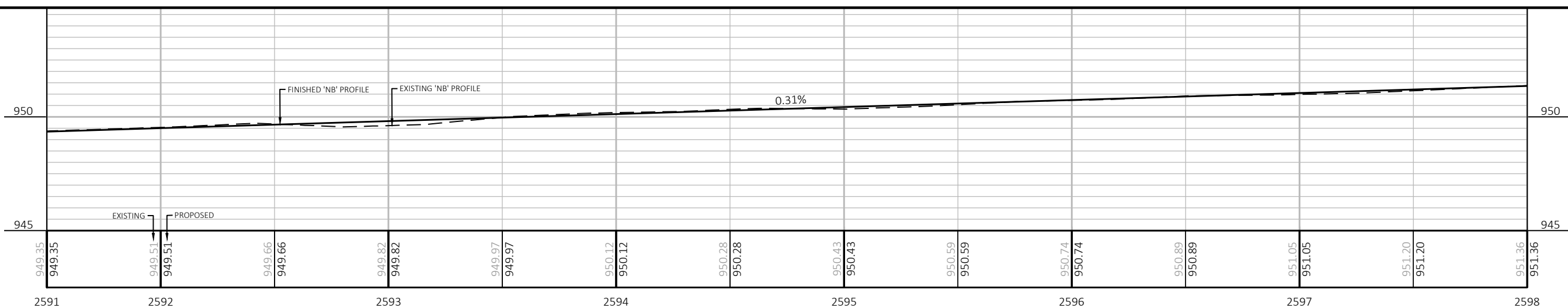
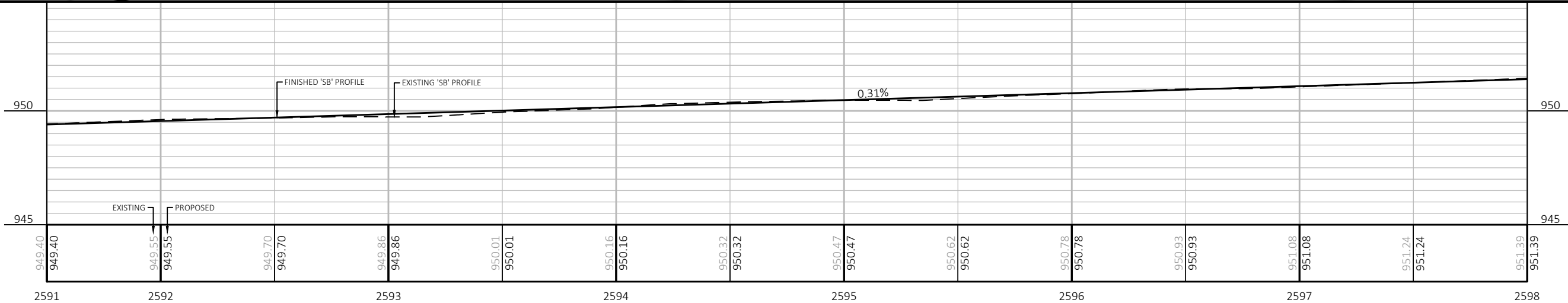
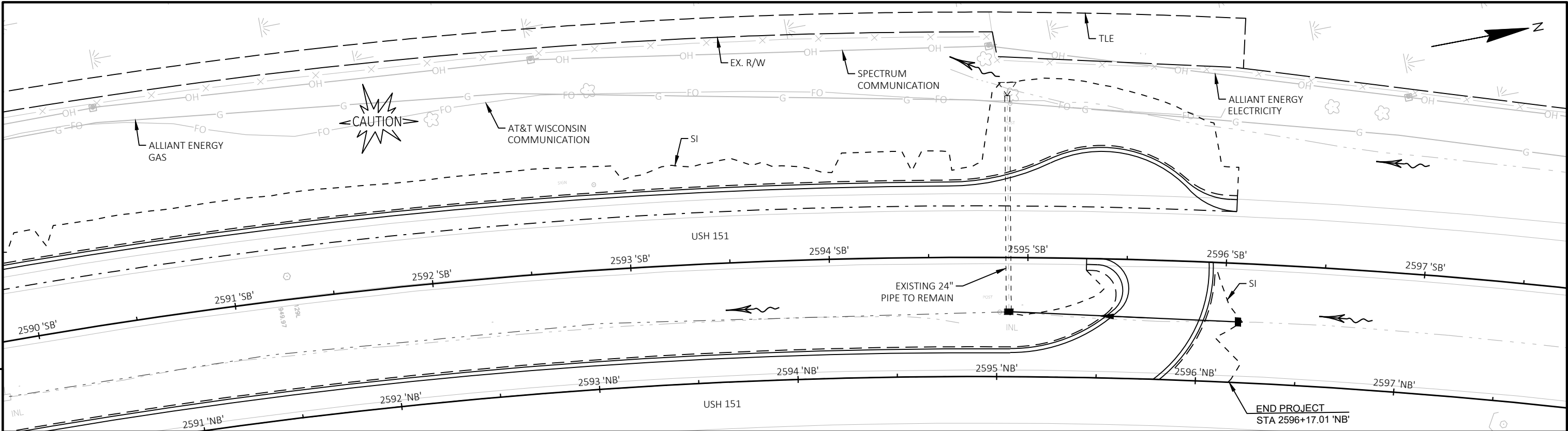
PROJECT NO:	1112-06-75	HWY:	USH 151	COUNTY:	DODGE	PLAN AND PROFILE:	USH 151	SHEET	E
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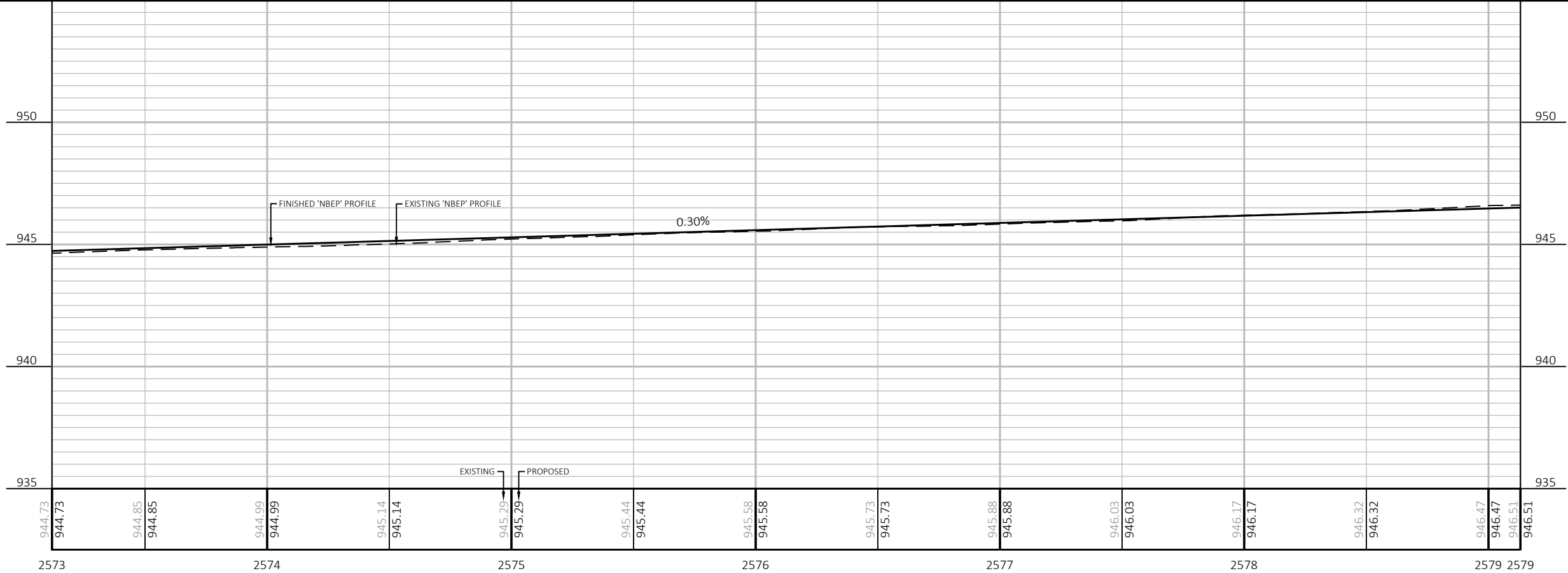
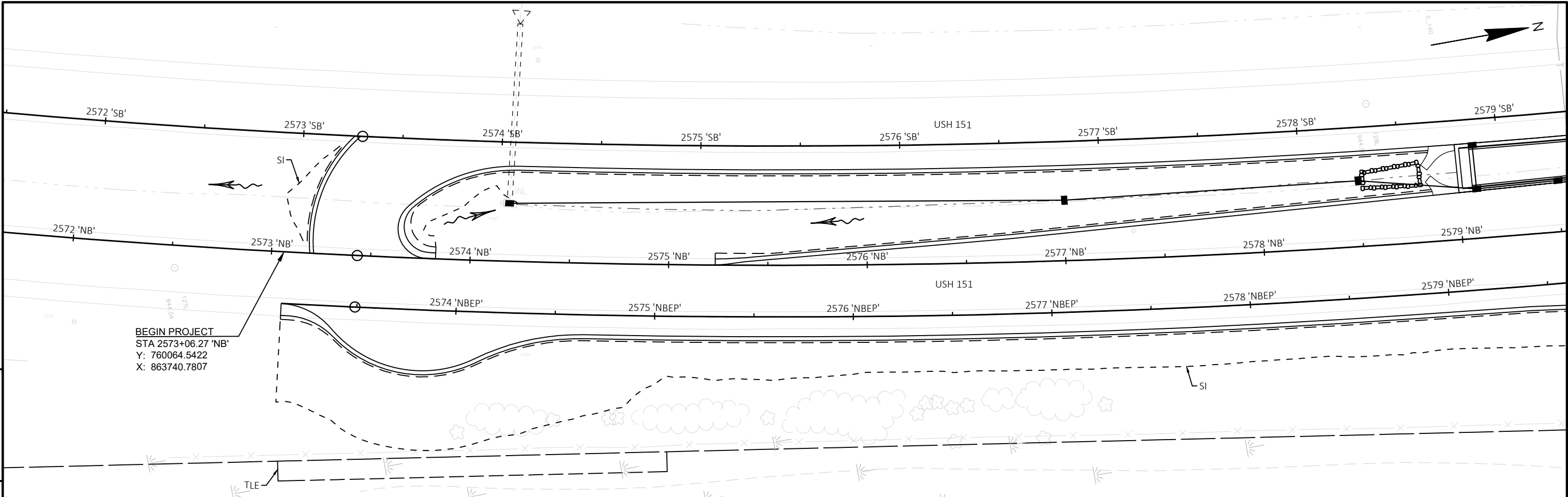


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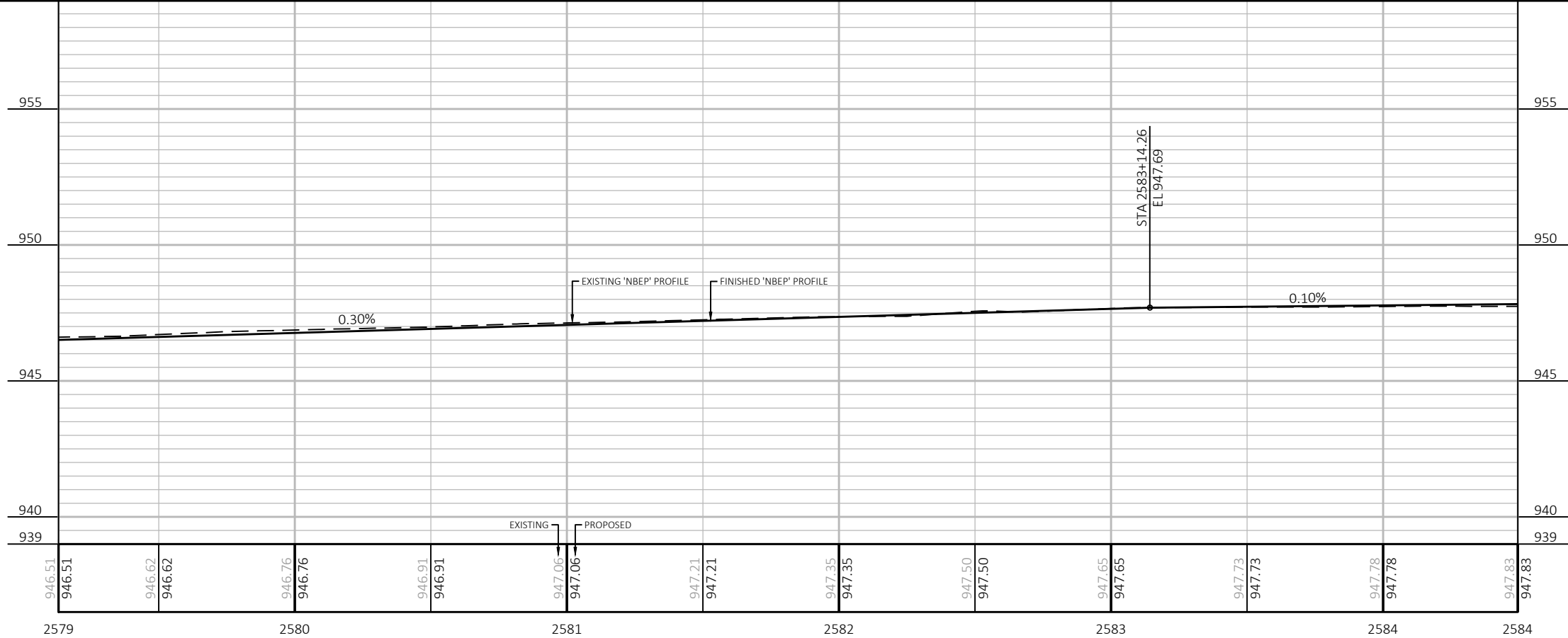
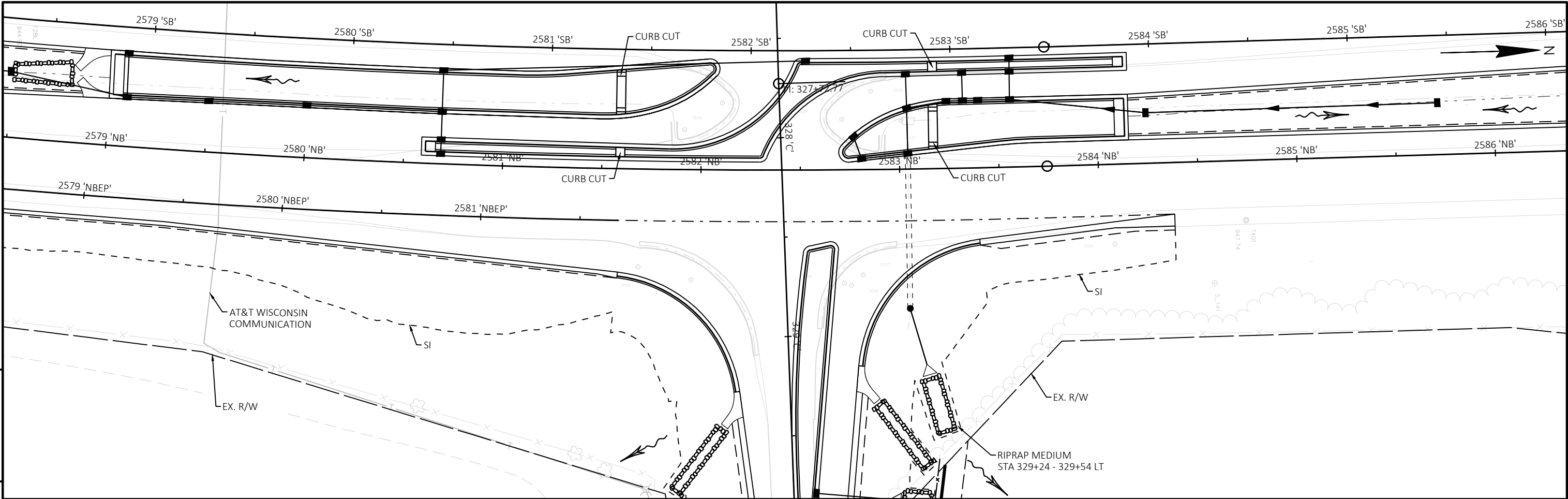


PROJECT NO:	1112-06-75	HWY:	USH 151	COUNTY:	DODGE	PLAN AND PROFILE:	USH 151	SHEET	E
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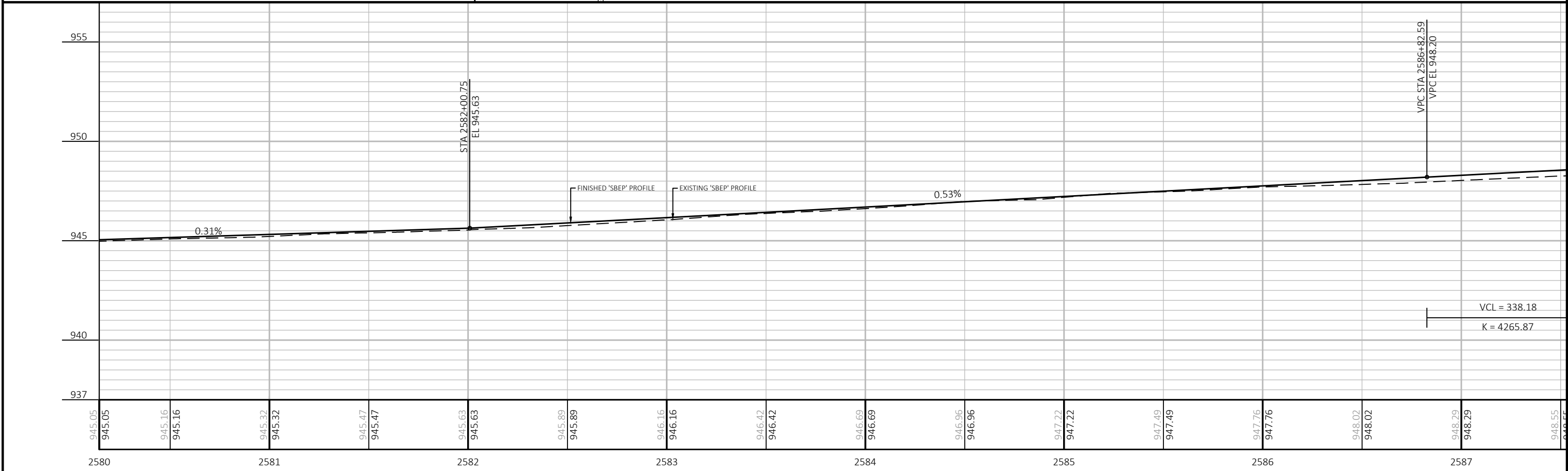
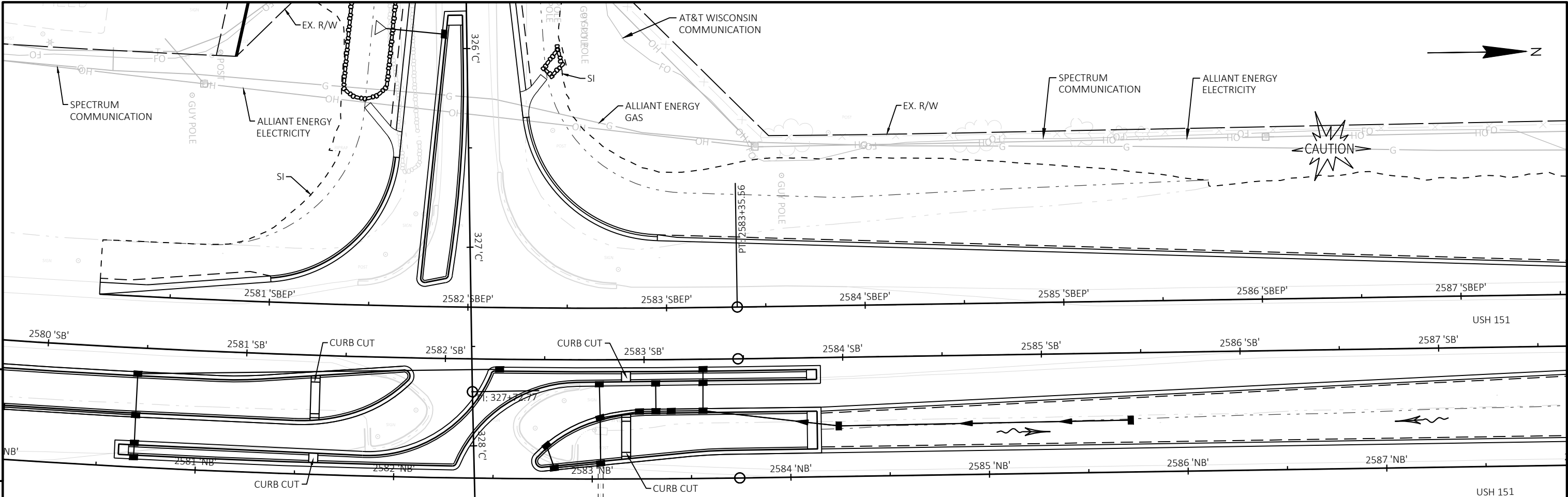




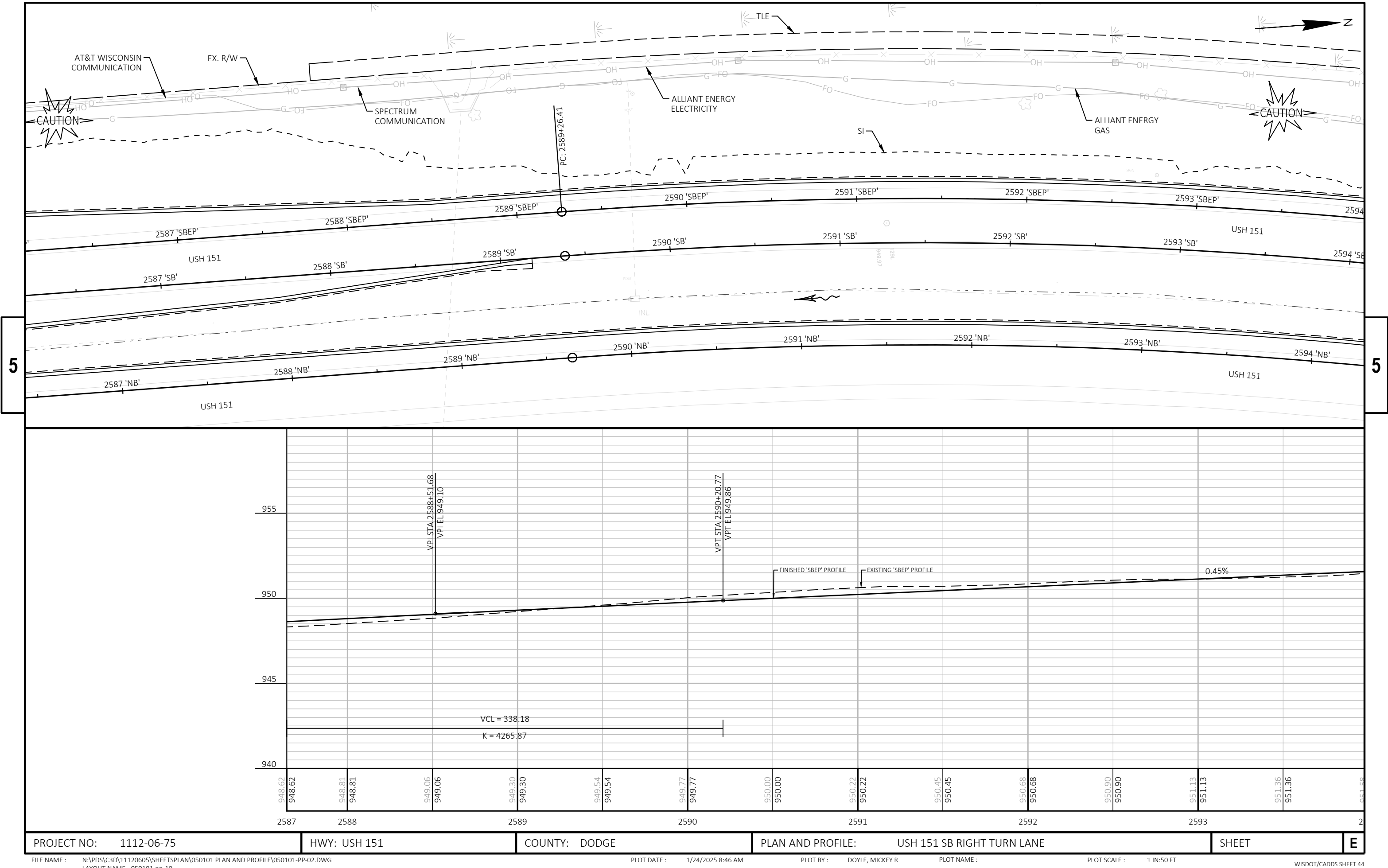
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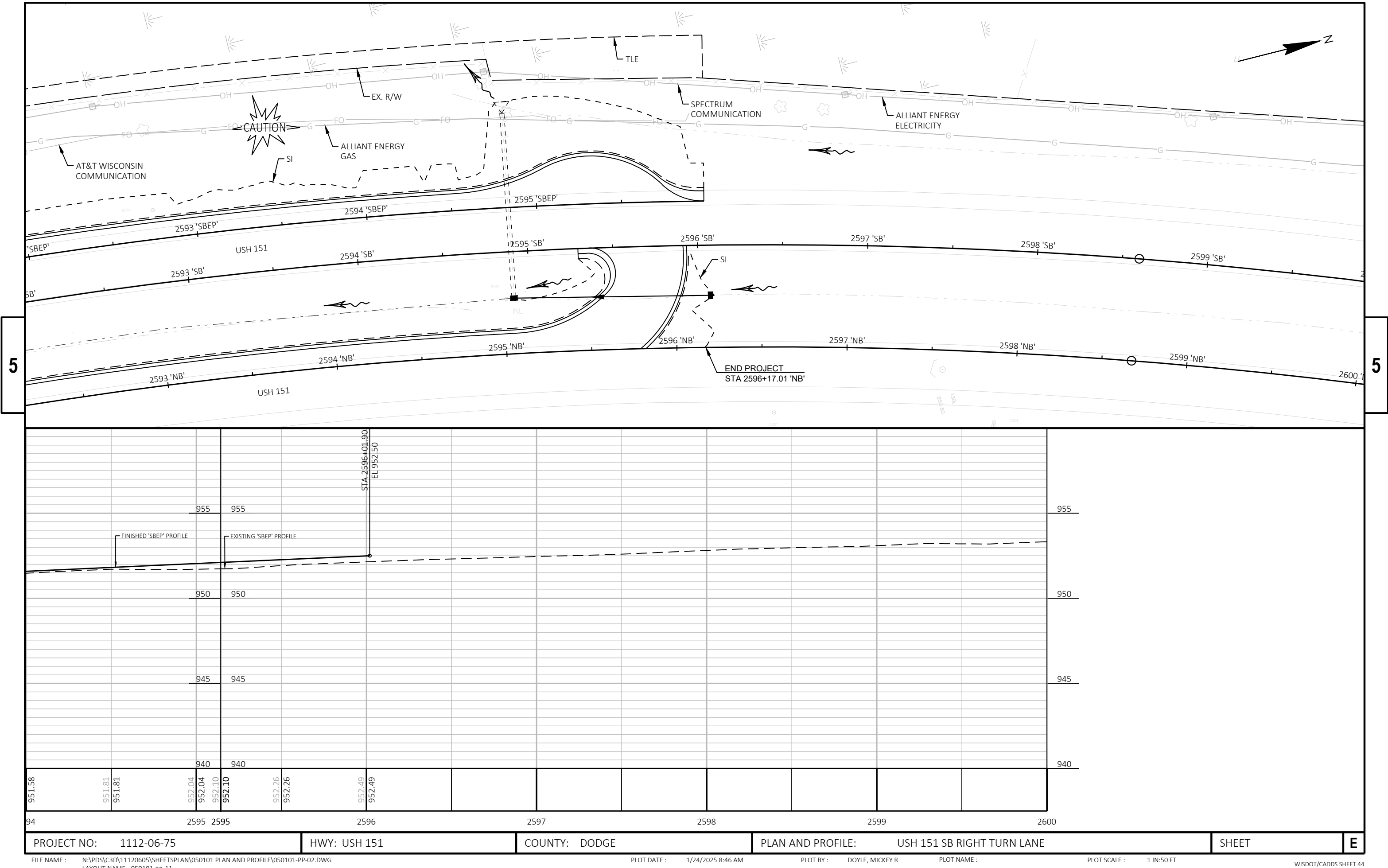


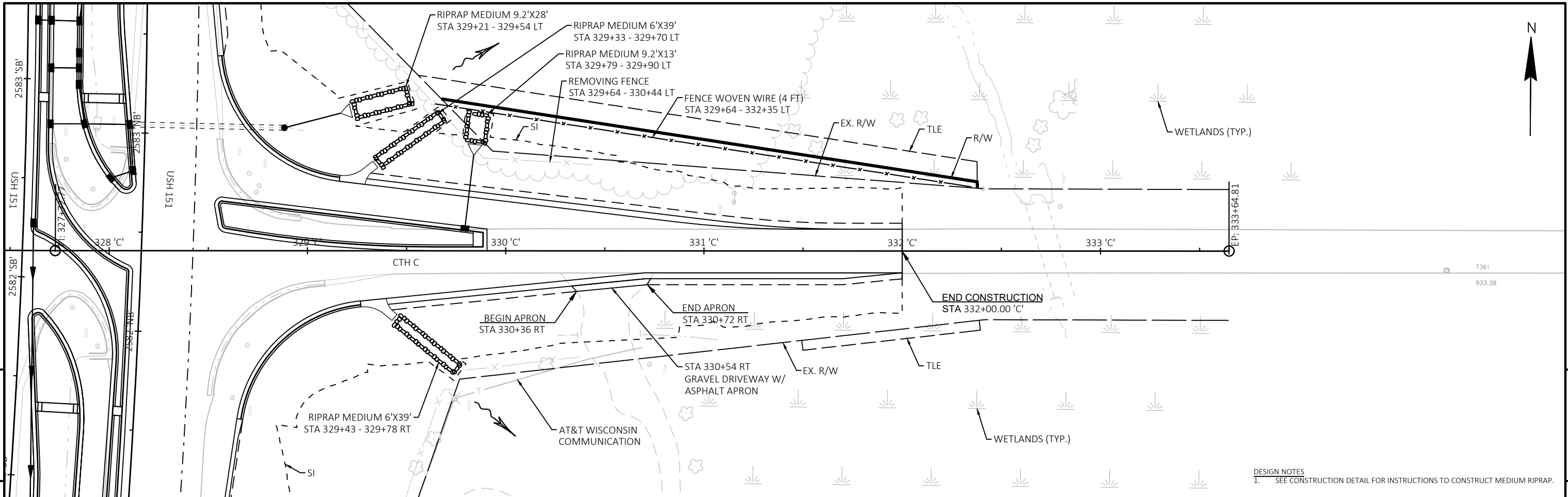
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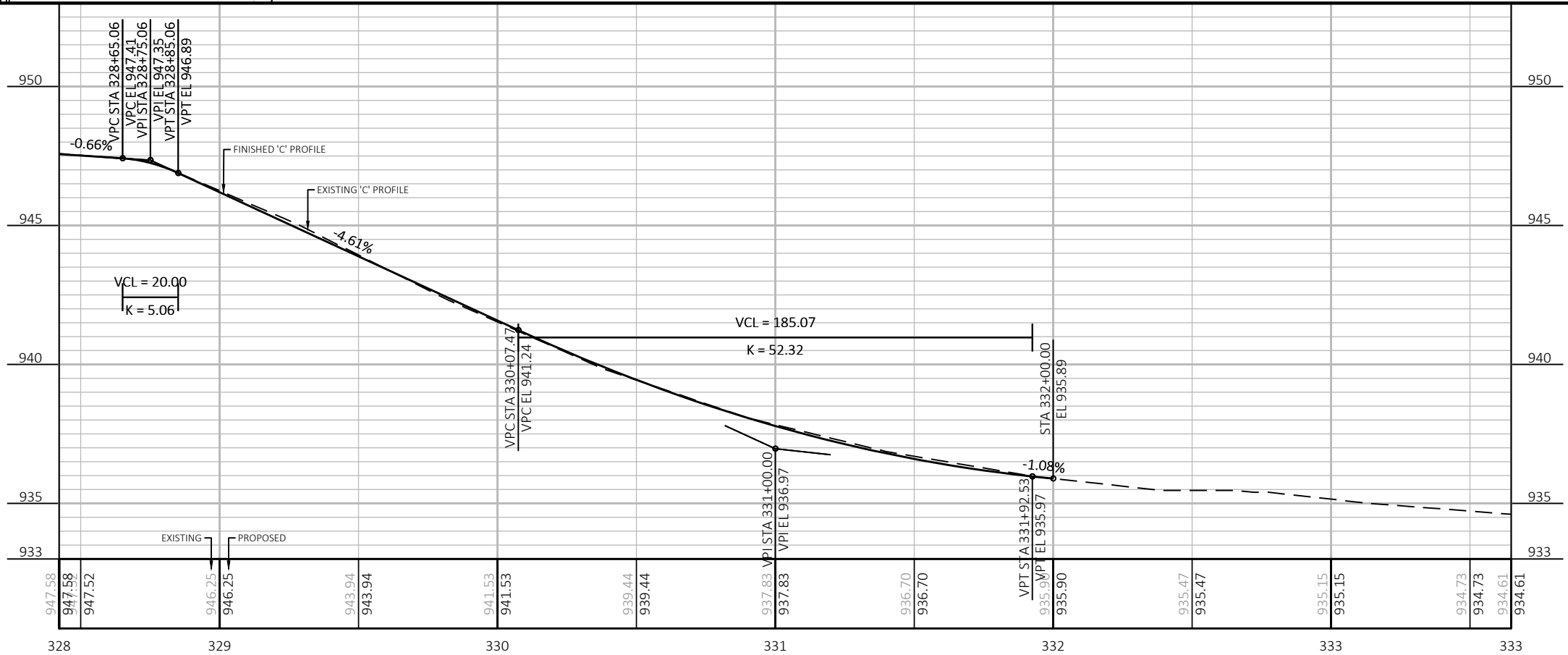
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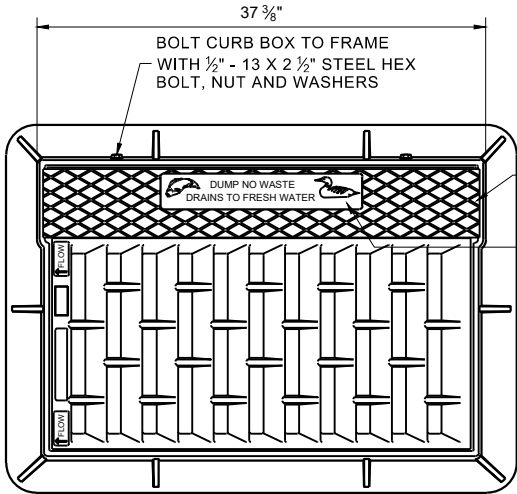


DESIGN NOTES
1. SEE CONSTRUCTION DETAIL FOR INSTRUCTIONS TO CONSTRUCT MEDIUM RIPRAP.



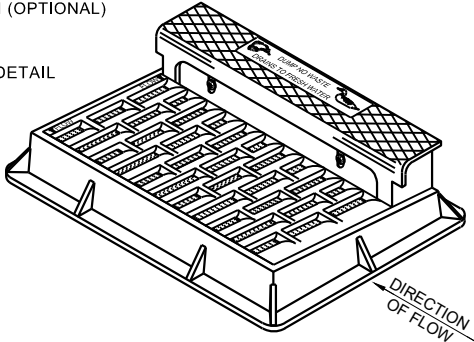
Standard Detail Drawing List

08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08C09-02	INLETS MEDIAN 3 AND 4 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
13C19-03	HMA LONGITUDINAL JOINTS
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C20-02	YIELD MARKING
15C31-06C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C31-07C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

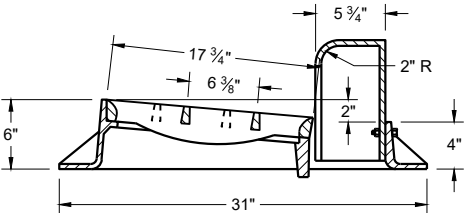
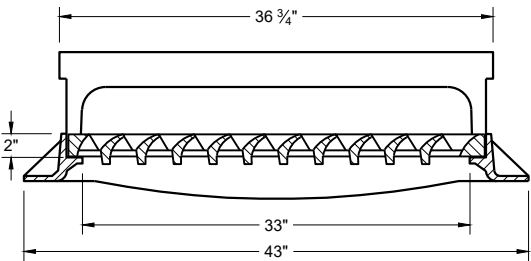
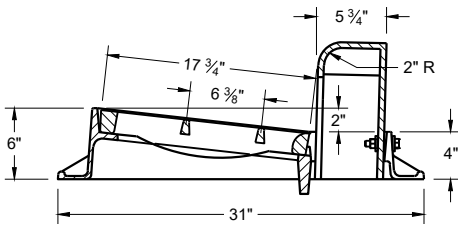
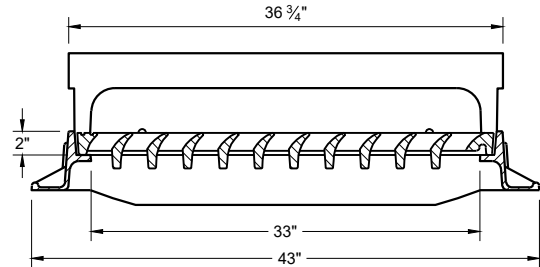
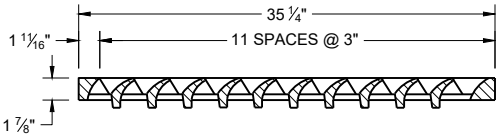


NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)
SEE LOGO DETAIL



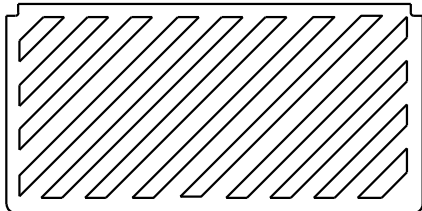
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



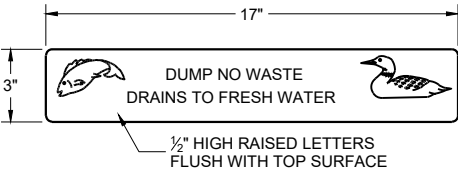
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

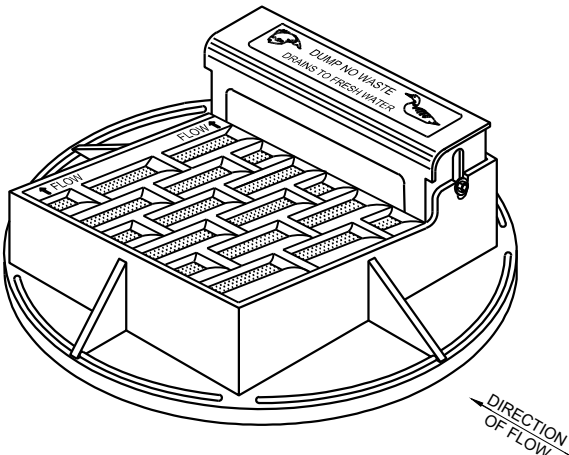
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

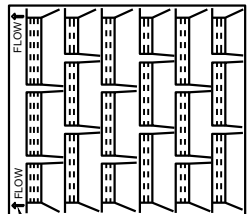


LOGO DETAIL

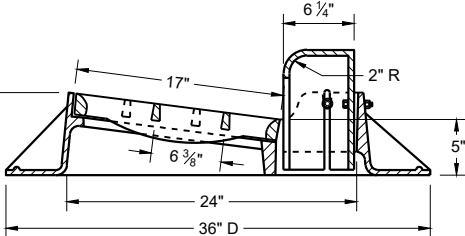
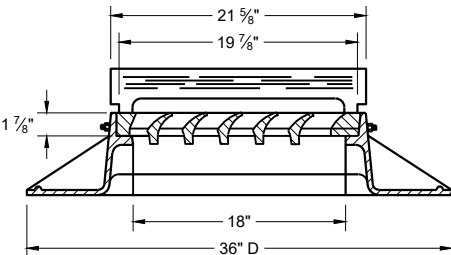
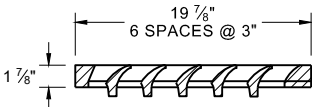


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

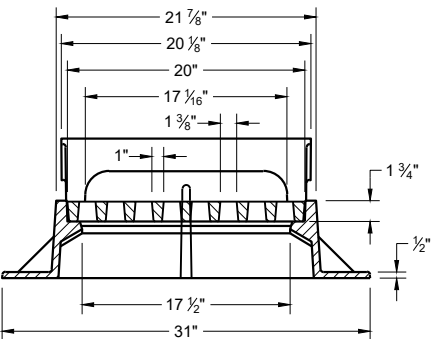
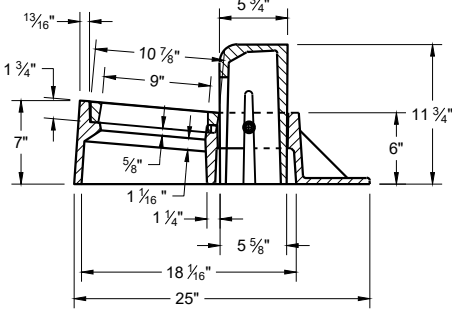
NOTE: EITHER CASTING IS ACCEPTABLE



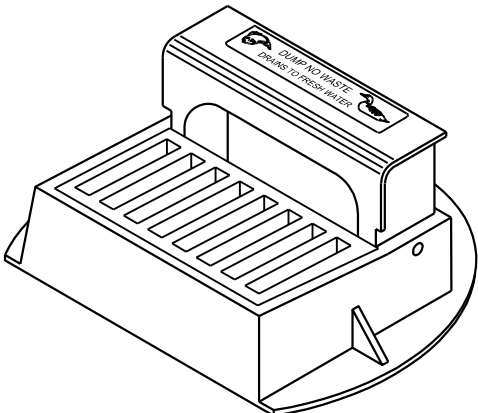
DIRECTION OF FLOW ARROWS



TYPE "A"



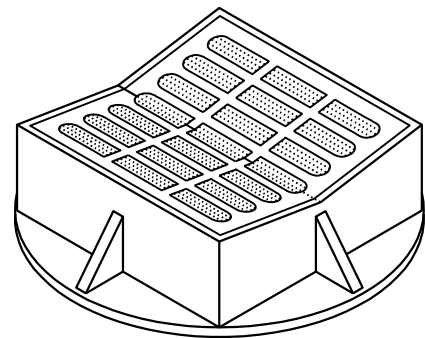
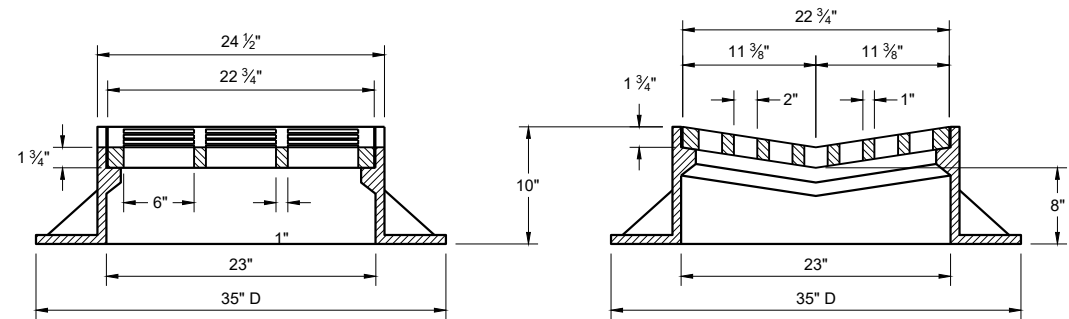
TYPE "Z"



**INLET COVERS
TYPES A, H, A-S, H-S AND Z**

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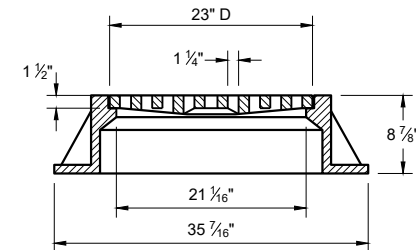
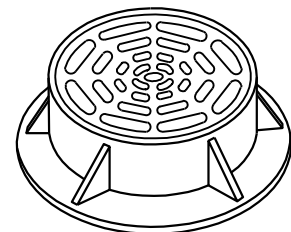
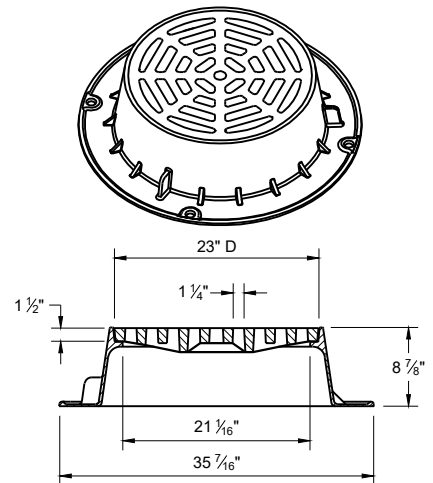
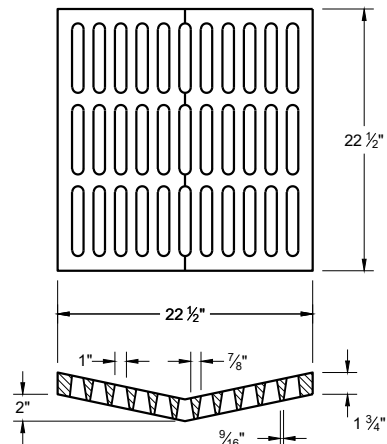
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DATE ROADWAY STANDARDS DEVELOPMENT
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TYPE "B"

**ALTERNATIVE GRATE FOR
TYPE "B" COVER**

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE
NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

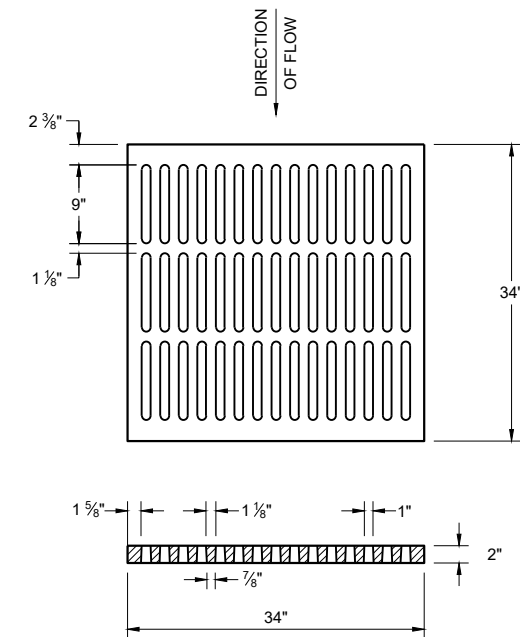
NOTE: EITHER CASTING IS ACCEPTABLE

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.

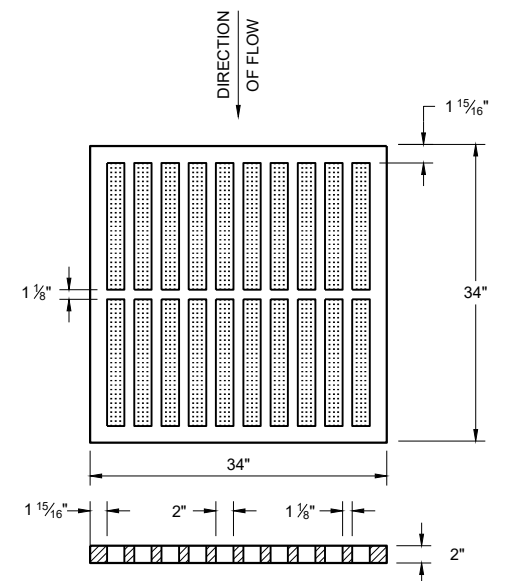
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



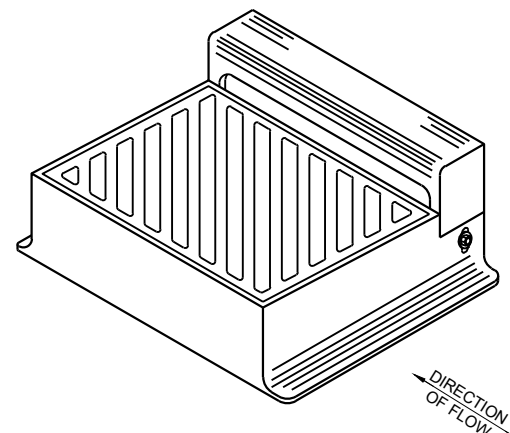
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

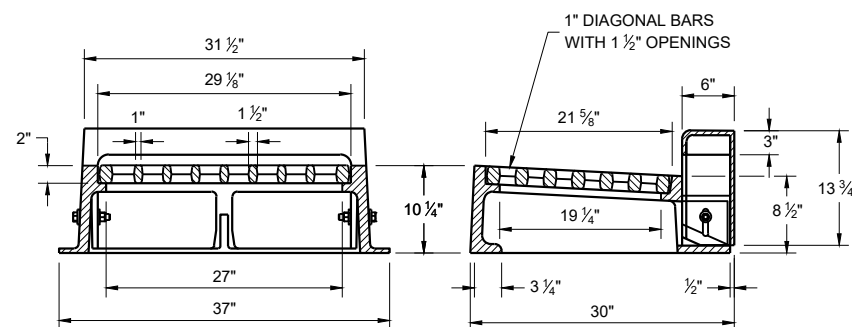


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

**INLET COVERS
TYPES B, B-A, C,
MS, MS-A AND WM**

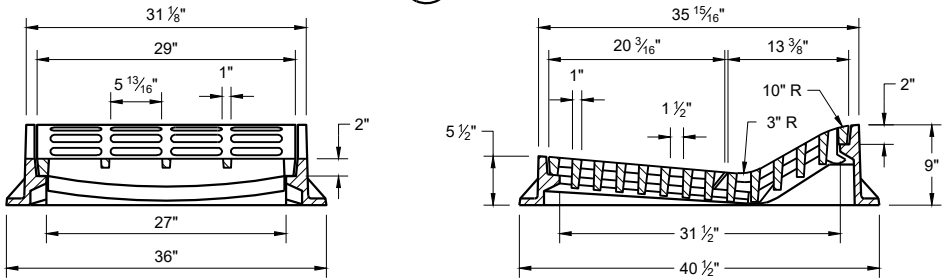
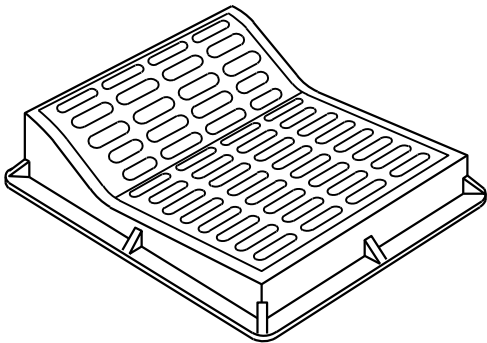
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FHWA UNIT SUPERVISOR

GENERAL NOTES

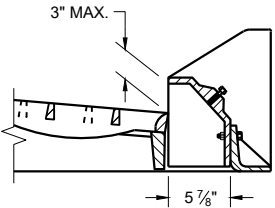
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

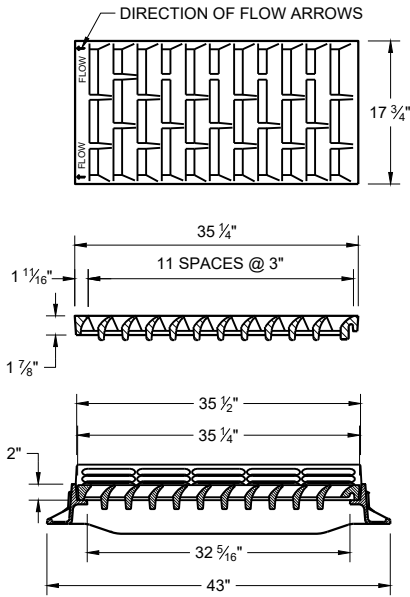


ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

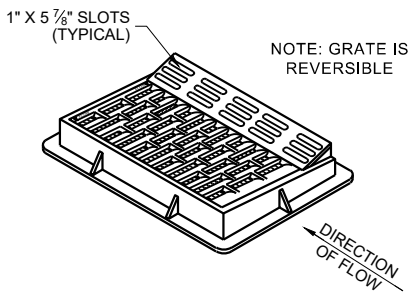
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.

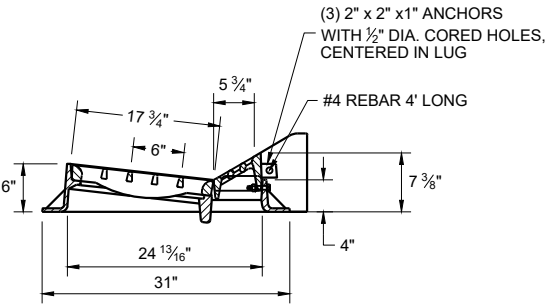


TYPE "HM"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

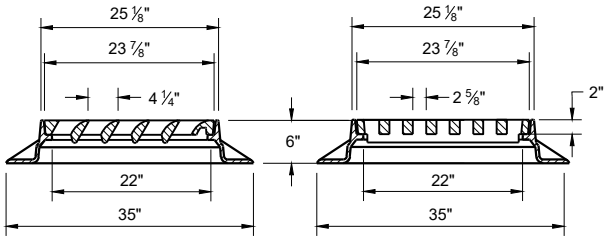
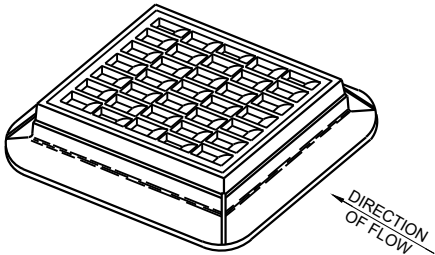


NOTE: GRATE IS REVERSIBLE

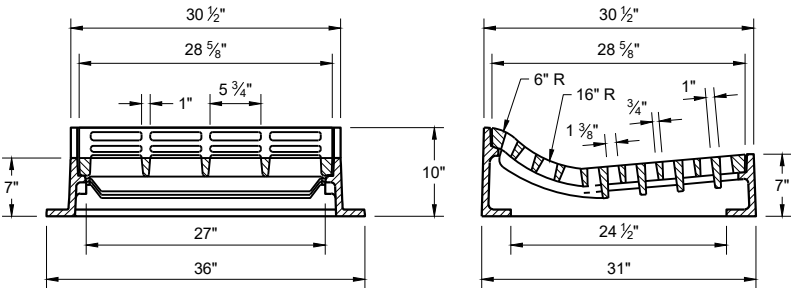
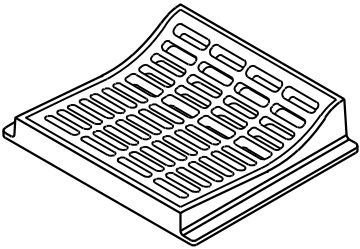


NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



TYPE "S"



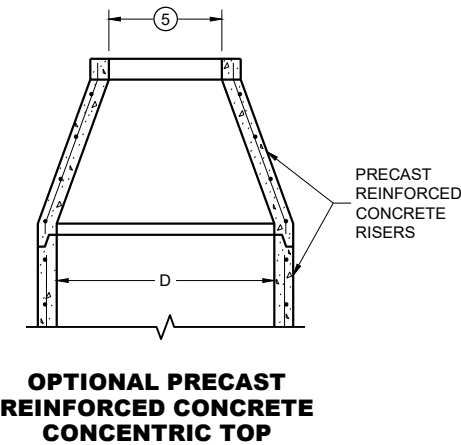
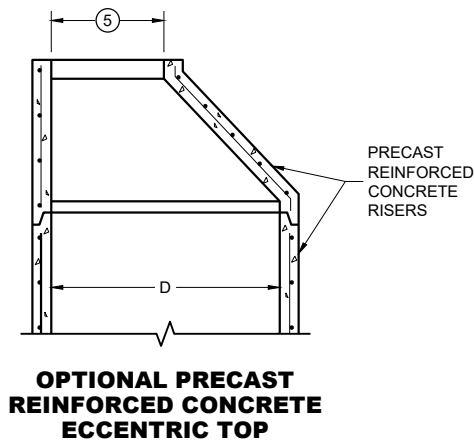
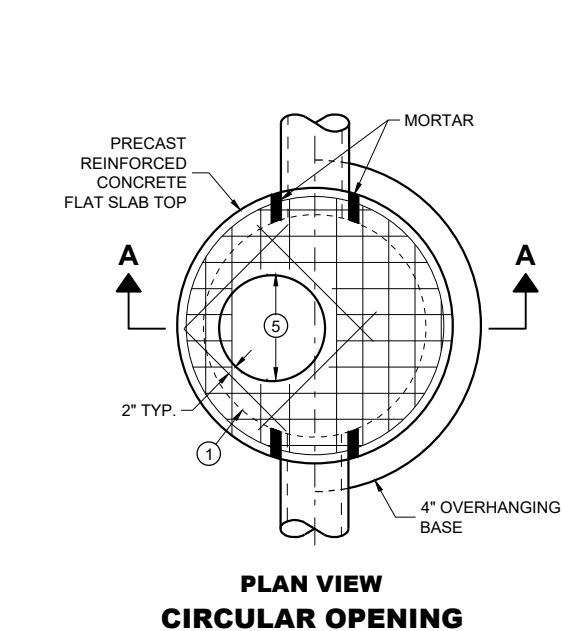
TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

INLET COVERS
TYPES F, HM, HM-S, S, T,
HM-GJ AND HM-GJ-S

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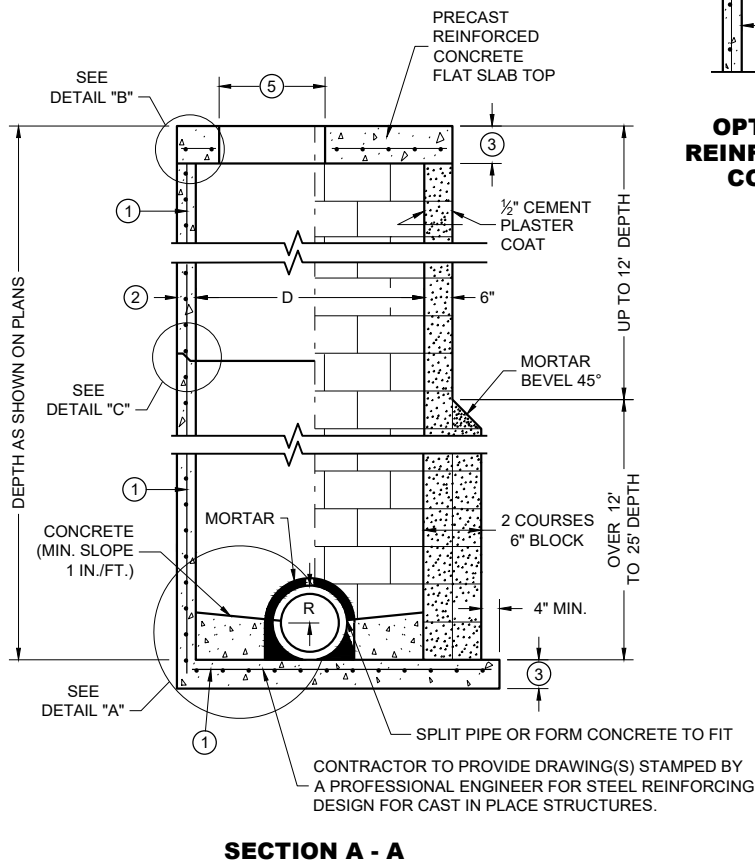
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	MANHOLE COVER TYPE	C	ALL JS	K	L	M
2 DIA.	5	X	X		X	
3 DIA.				X		X

PIPE MATRIX

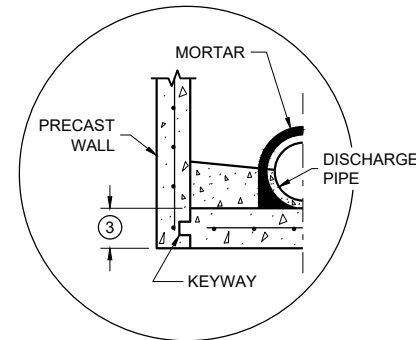
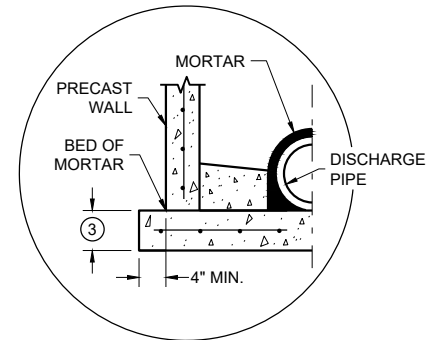
MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

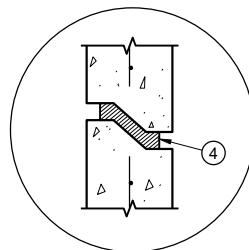
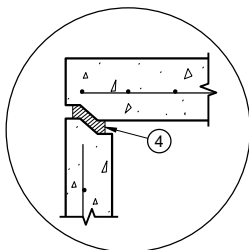
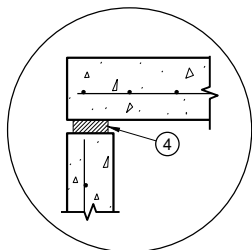


**PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE**

**CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE**

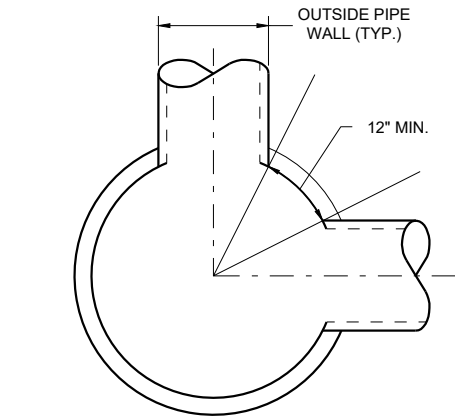


DETAIL "A"



DETAIL "B"

DETAIL "C"



DETAIL "D"

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 IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 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.

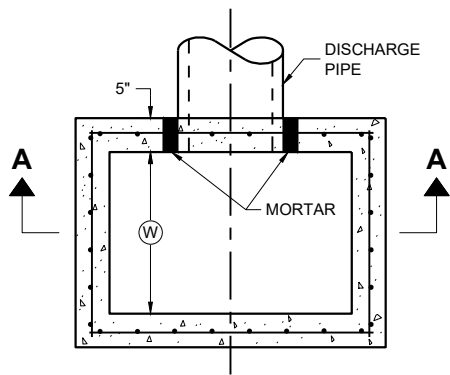
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 1 FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES 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 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- 5 SEE MANHOLE COVER OPENING MATRIX.

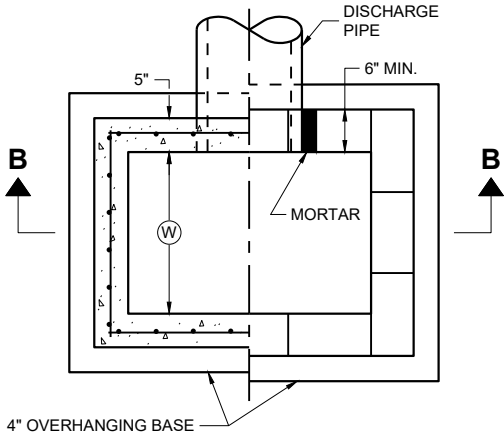
**MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

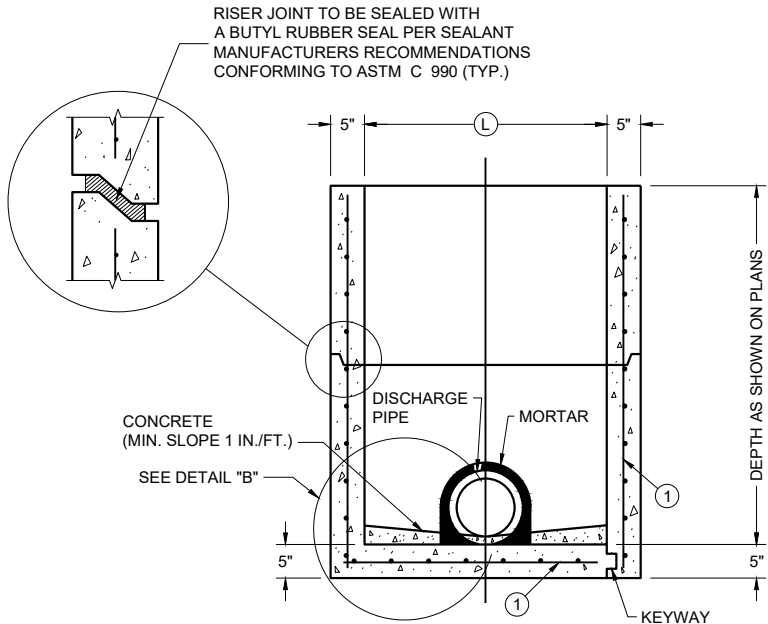
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PLAN VIEW



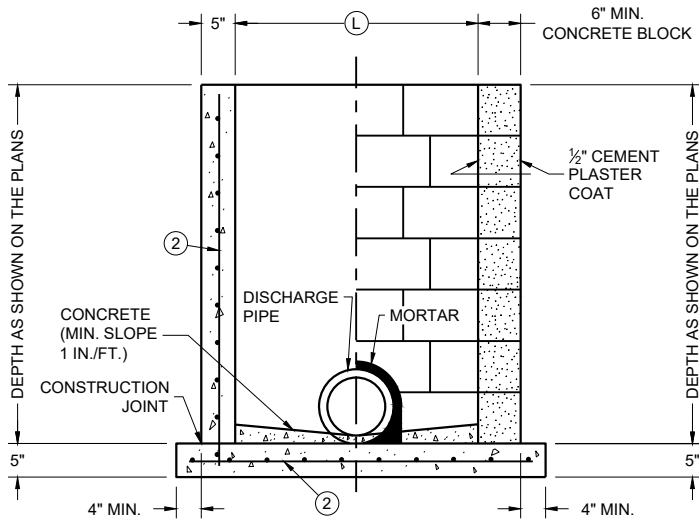
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

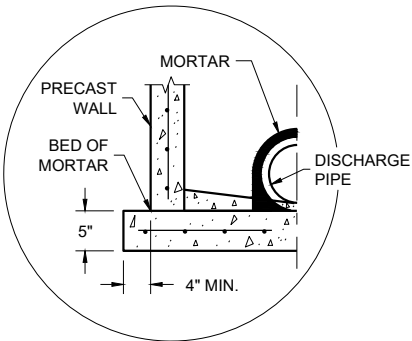
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

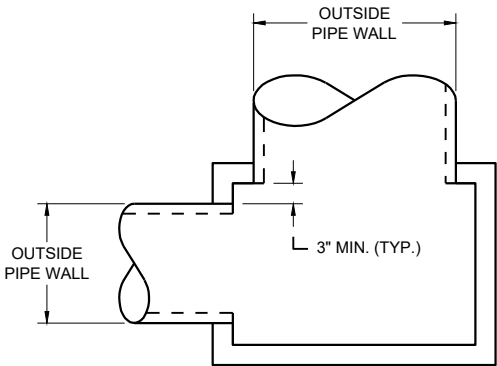
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

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" 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 AND REINFORCED CONCRETE BASES 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.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

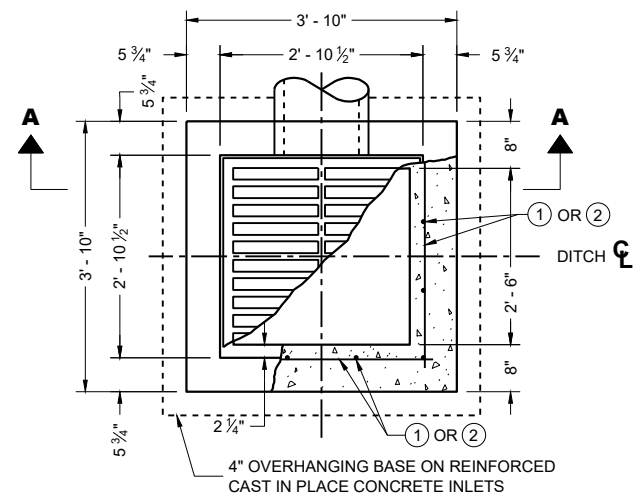
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

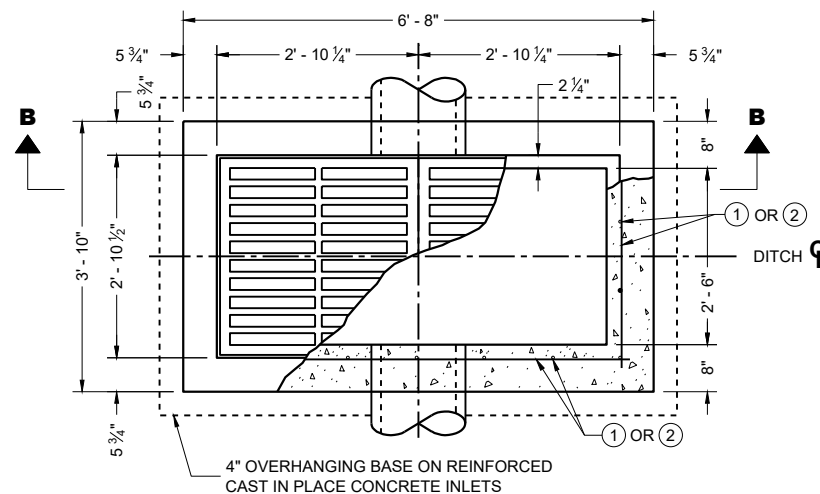
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
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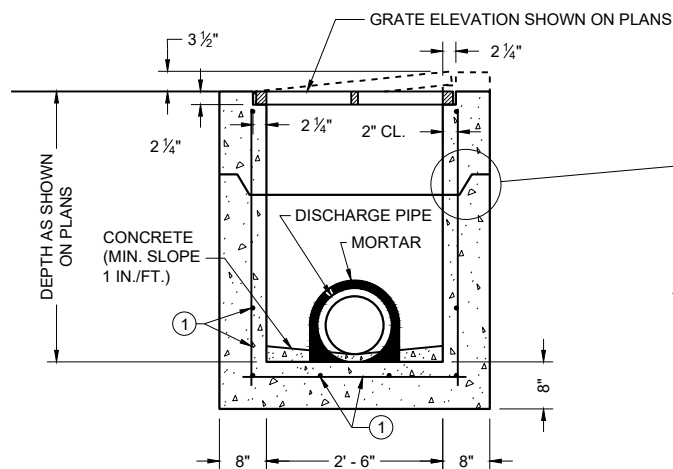
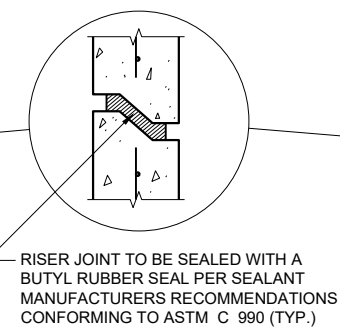
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



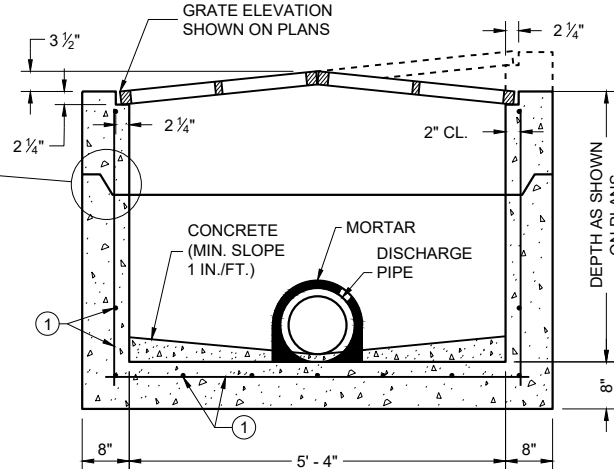
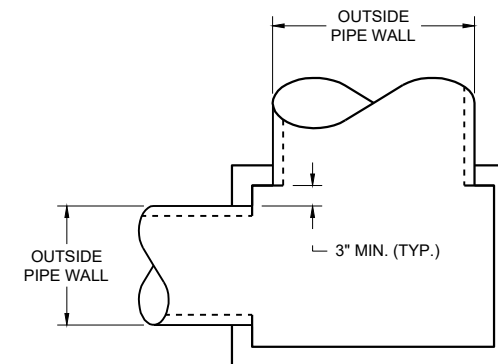
PLAN VIEW



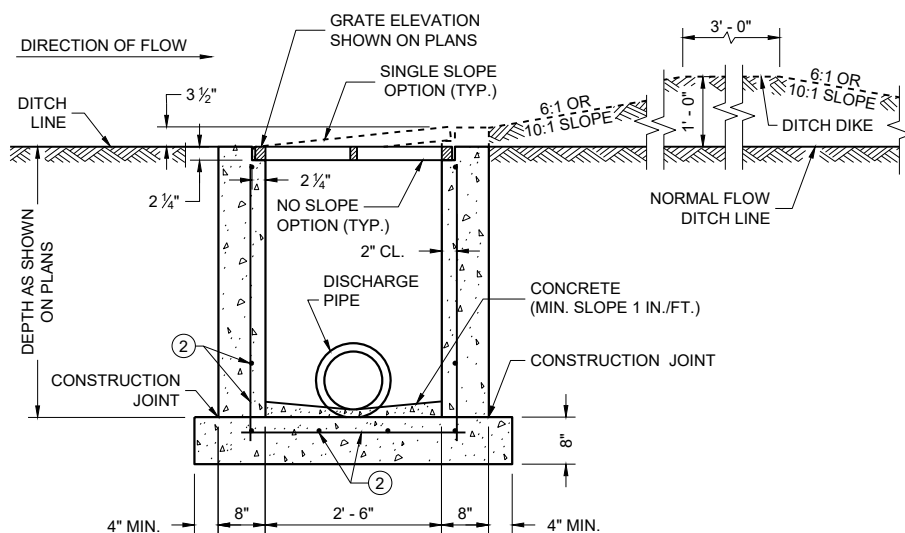
PLAN VIEW

PRECAST REINFORCED CONCRETE
SECTION A - A

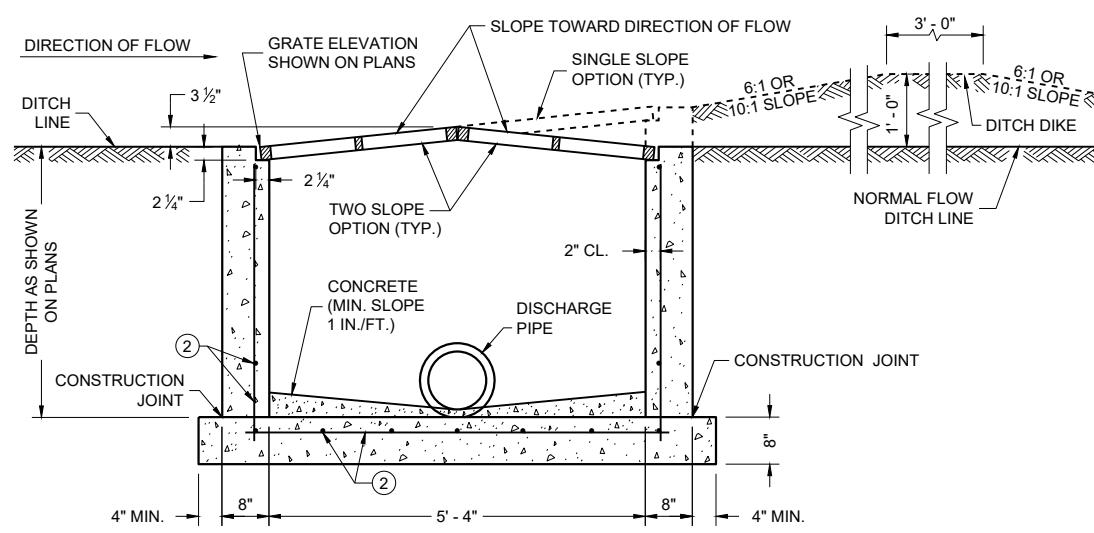
RISER JOINT TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.)

PRECAST REINFORCED CONCRETE
SECTION B - B

DETAIL "A"

REINFORCED CAST IN PLACE CONCRETE
SECTION A - A

INLETS MEDIAN 1 GRATE

REINFORCED CAST IN PLACE CONCRETE
SECTION B - B

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" 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 AND REINFORCED CONCRETE BASES 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.

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

INLETS
MEDIAN 1 AND 2 GRATE

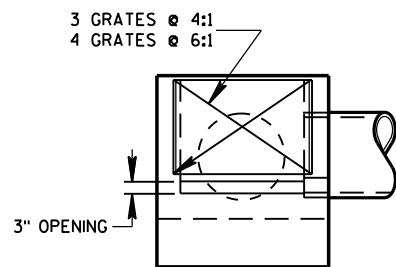
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

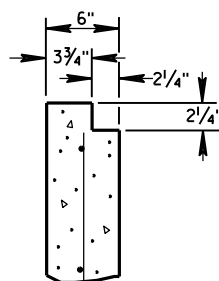
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

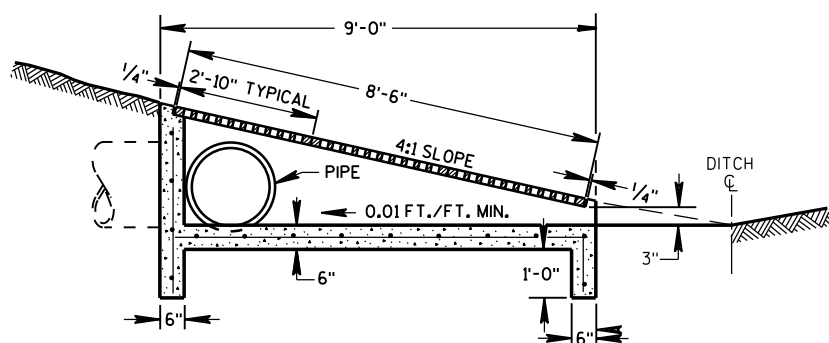
FHWA



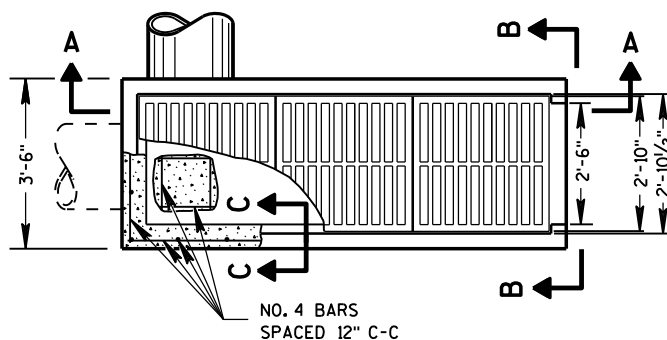
SECTION B-B



SECTION C-C

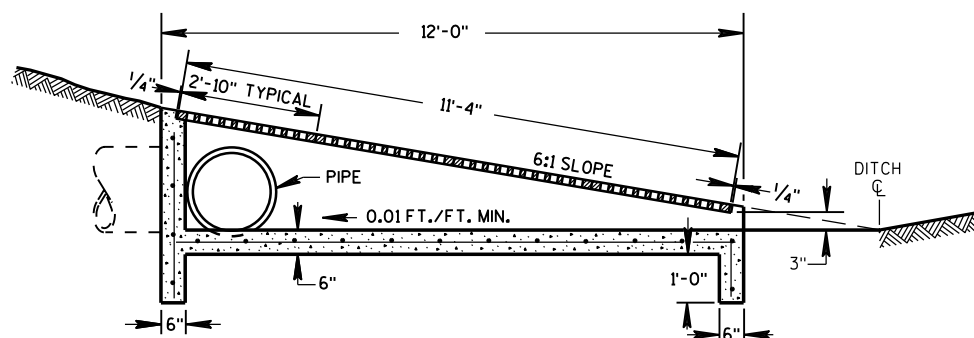


SECTION A-A

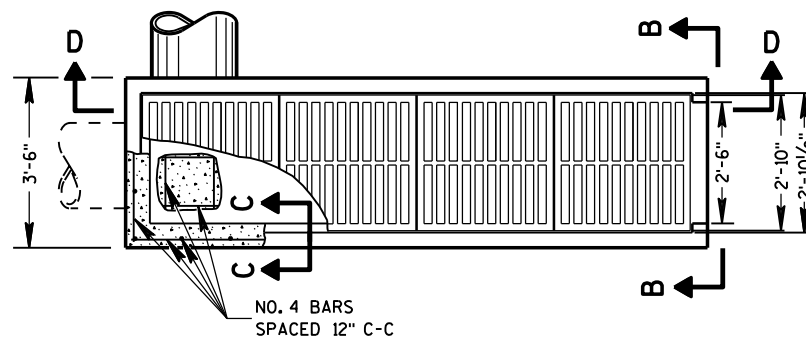


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



PLAN VIEW

INLETS MEDIAN 4 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 3G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

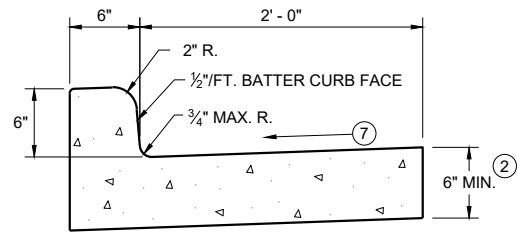
BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

INLETS MEDIAN 3 AND 4 GRATE

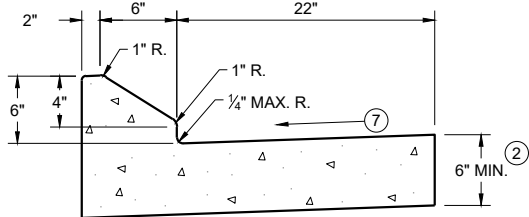
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

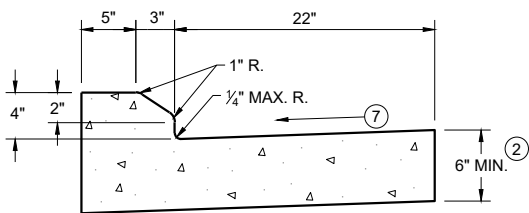
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



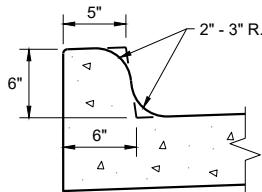
TYPES A^① & D



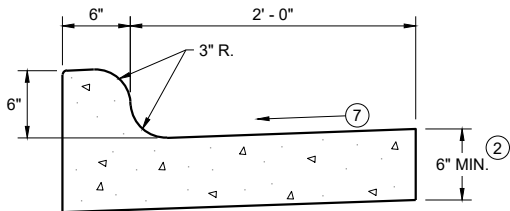
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

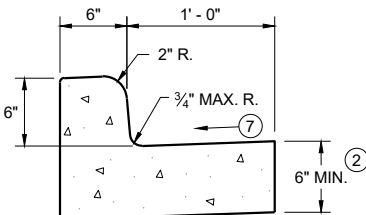


TYPES K^① & L
(OPTIONAL CURB SHAPE)



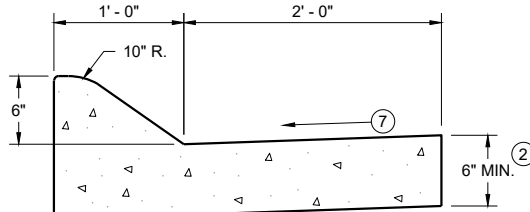
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

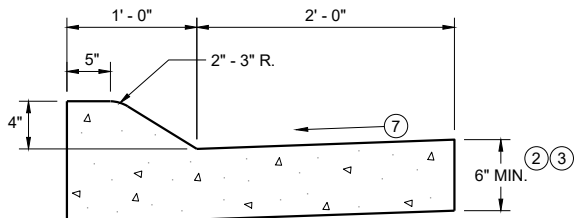


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

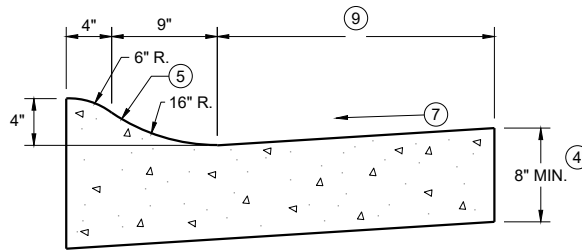


6" SLOPED CURB TYPES A^① & D



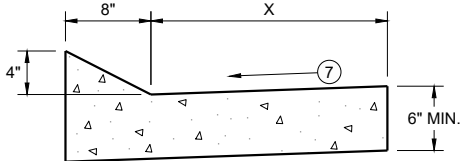
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

TBT & TBTT	X
30"	22"
36"	28"

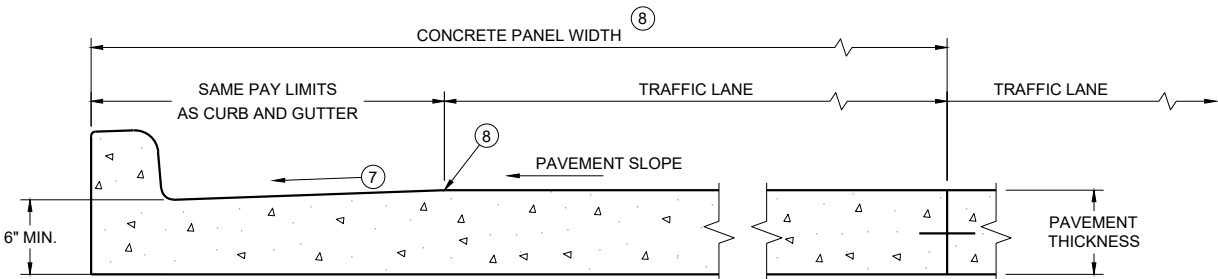


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

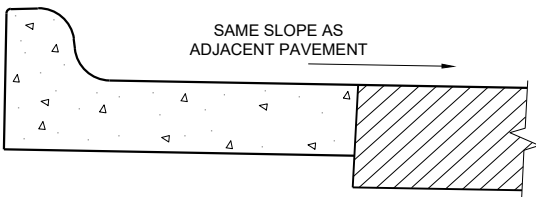
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(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.

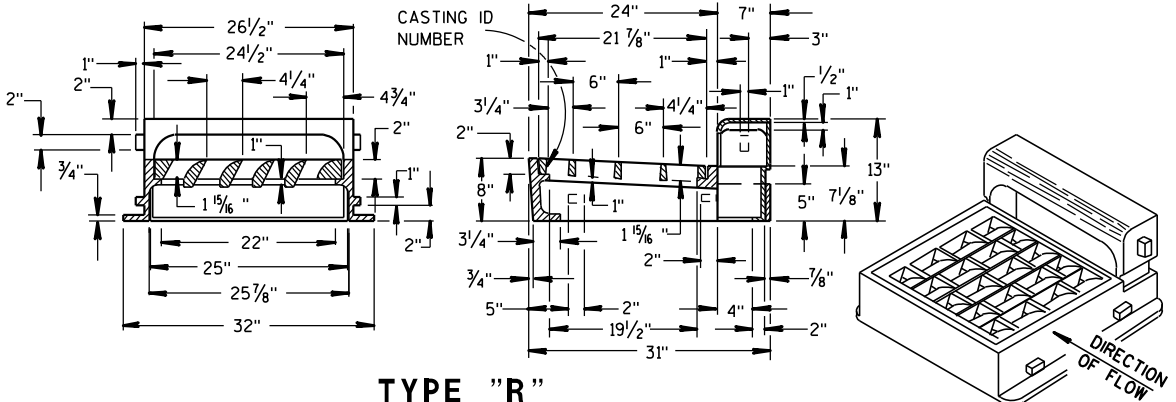
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

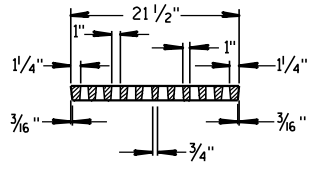
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

INLET COVERS



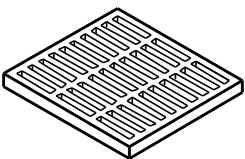
TYPE "R"

SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



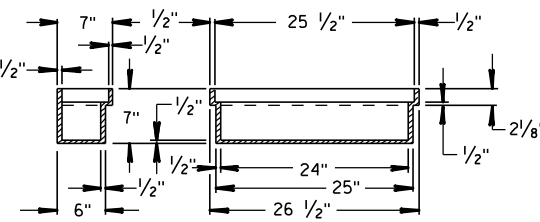
GRATE FOR TYPE "R" INLET COVER

(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)



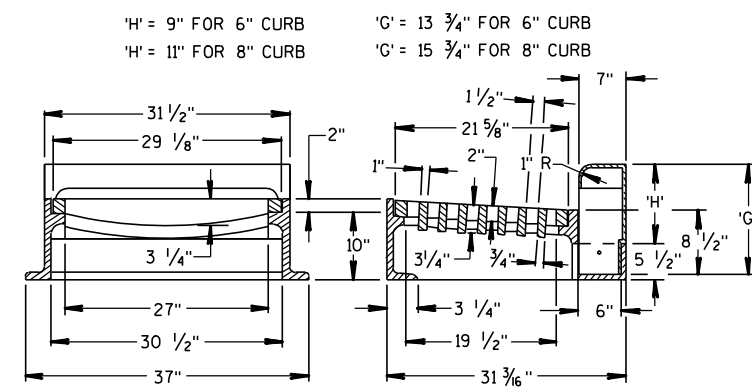
NOTE:
CURB PLUG USED IN PLACE
OF CURB BOX IN ABSENCE
OF CONC. CURB. FILL TO
TOP WITH CONCRETE.

(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.



SECTION B-B SECTION A-A
SPECIAL CURB PLUG "P"

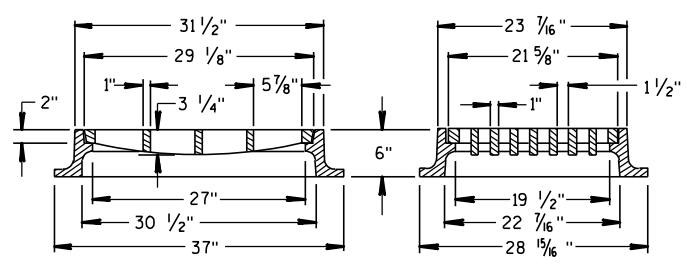
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)



TYPE "W"

(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.

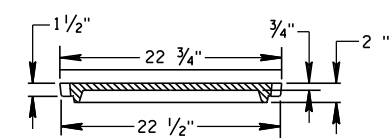
ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"



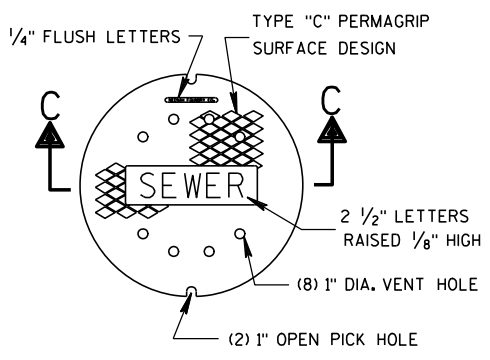
TYPE "X"

(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C



TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

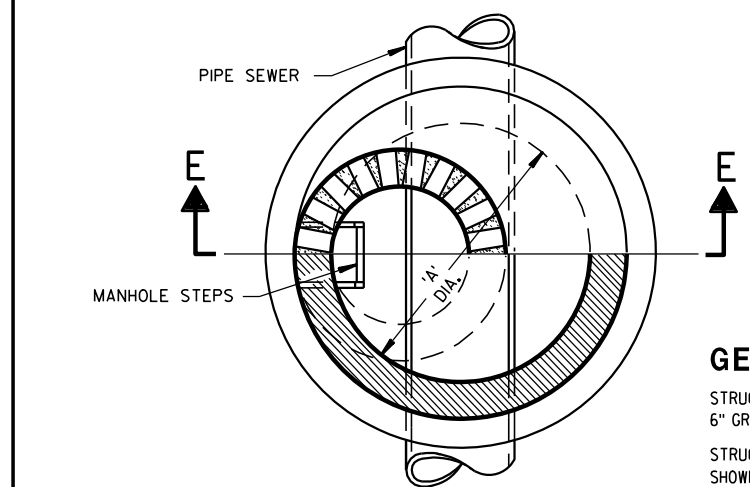
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"*
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

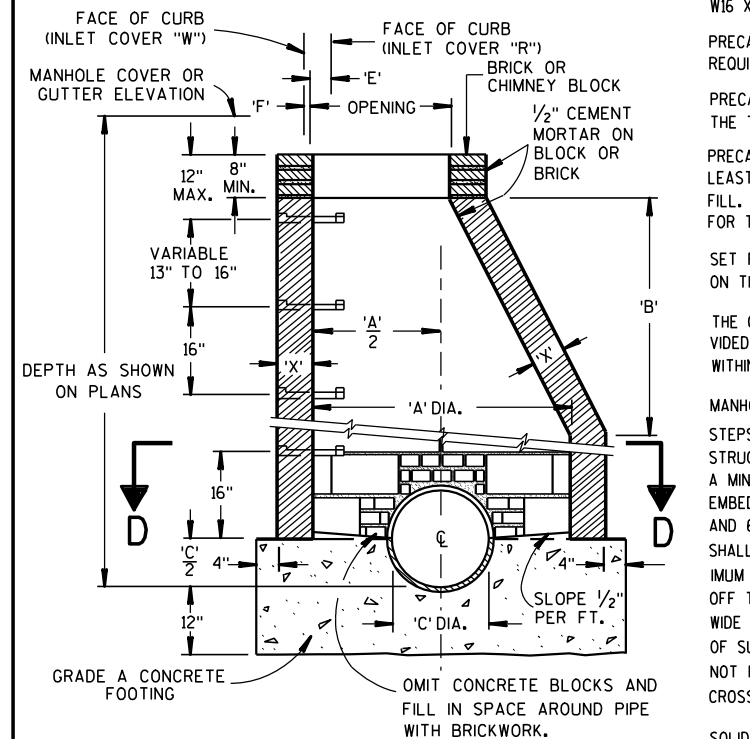
* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED
16" ABOVE THE BENCH.

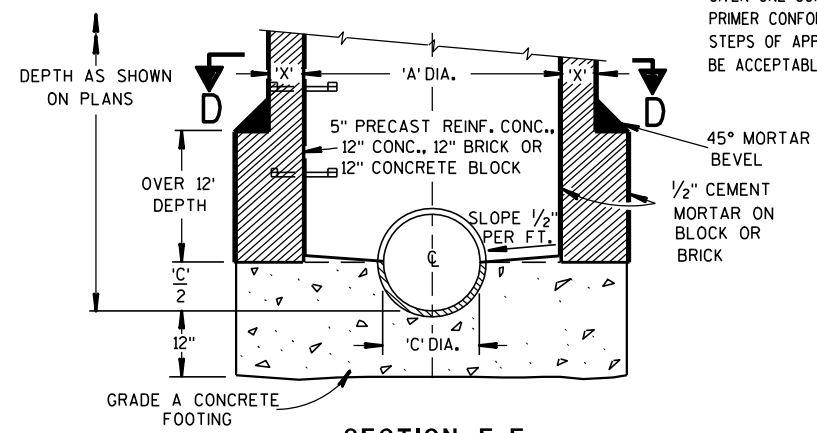
MANHOLE



HALF SECTION D-D



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

TABLE OF OPENING DIMENSIONS

COVER	TYPE	DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"	—
"X"	INLET	1'-10" X 2'-6"	—	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—	—

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

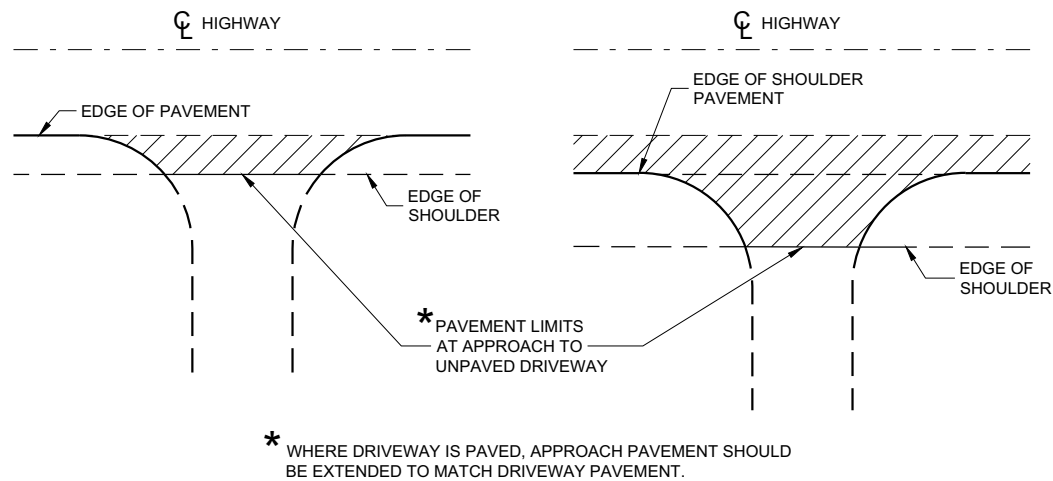
STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

MANHOLES,
MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

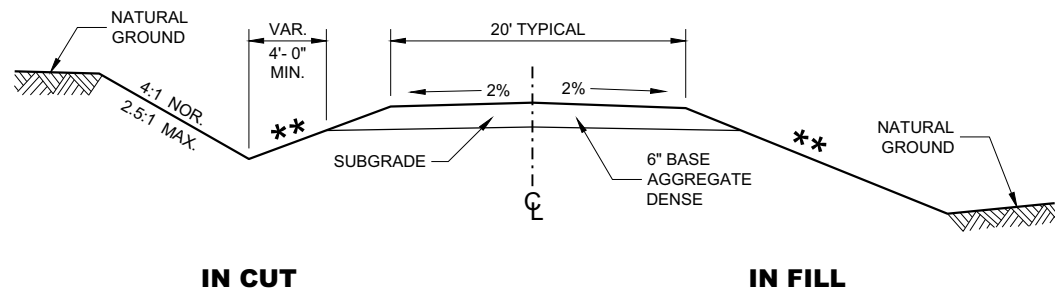
APPROVED
4/12/2011
DATE
/S/ Jerry H. Zogg
ROADSIDE STANDARDS DEVELOPMENT
ENGINEER
FHWA



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

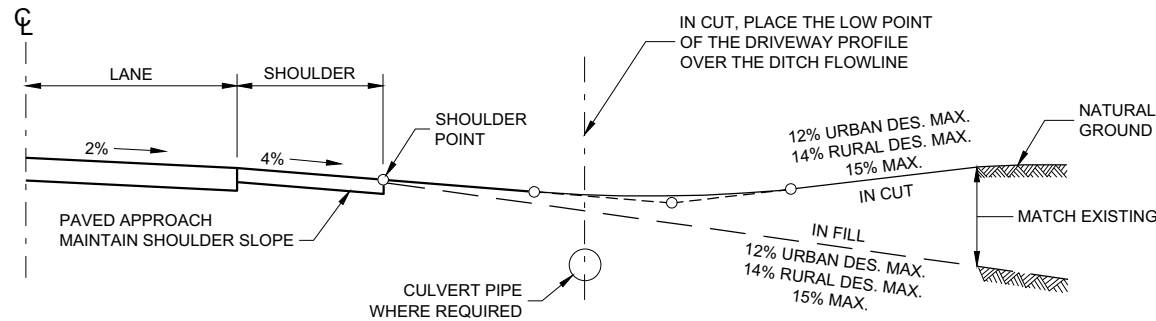
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



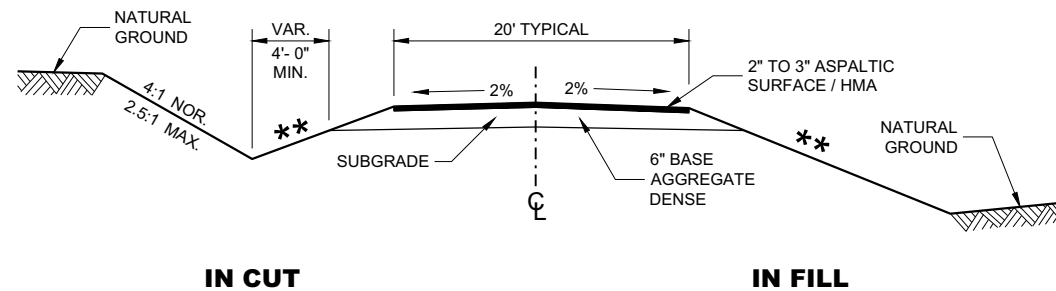
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES



**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

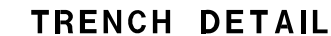
**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

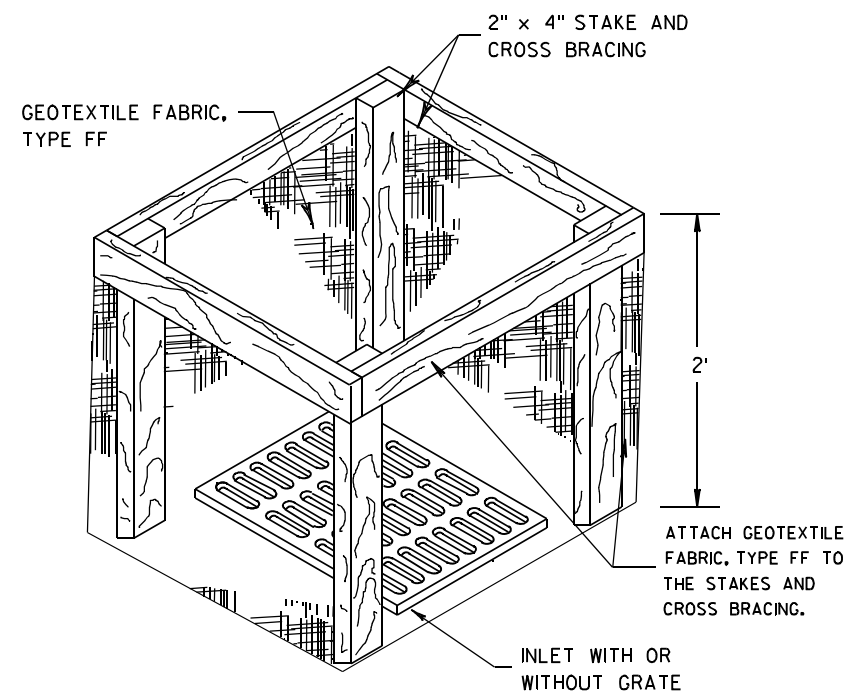
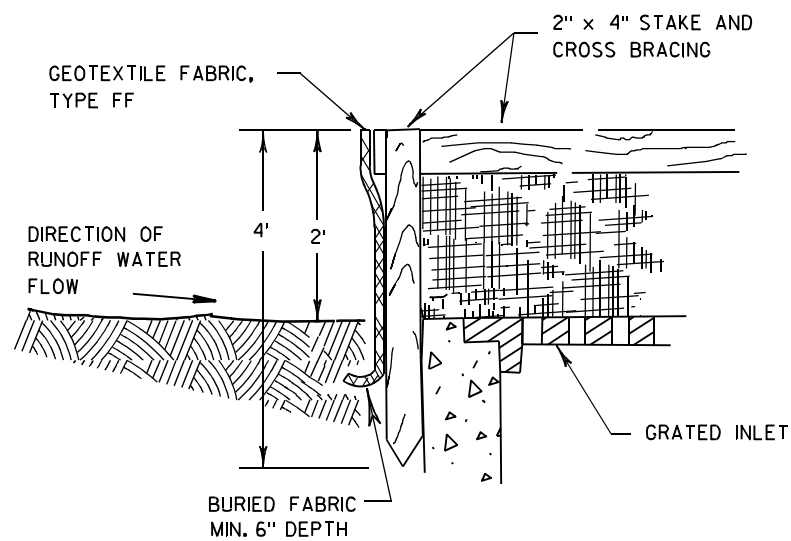
APPROVED
December 2017
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05	/S/ Beth Canestra
DATE	CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

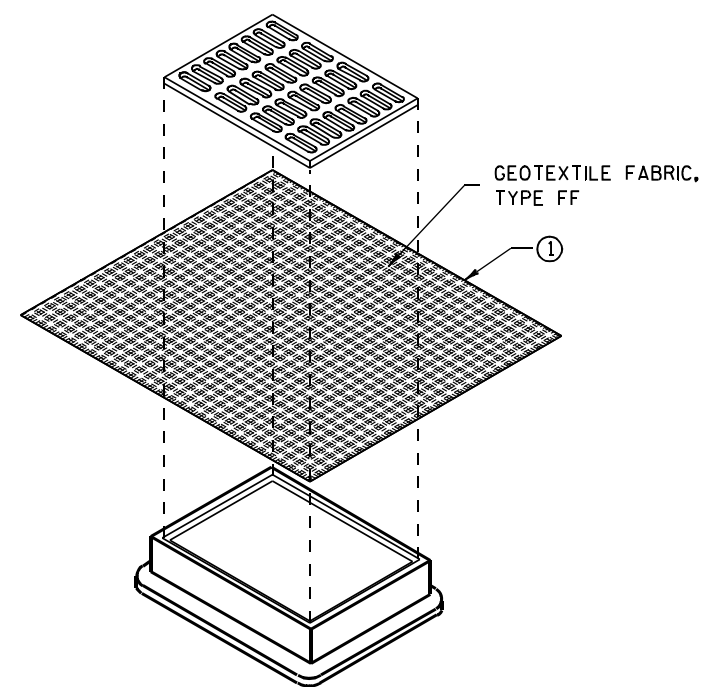
GENERAL NOTES

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.

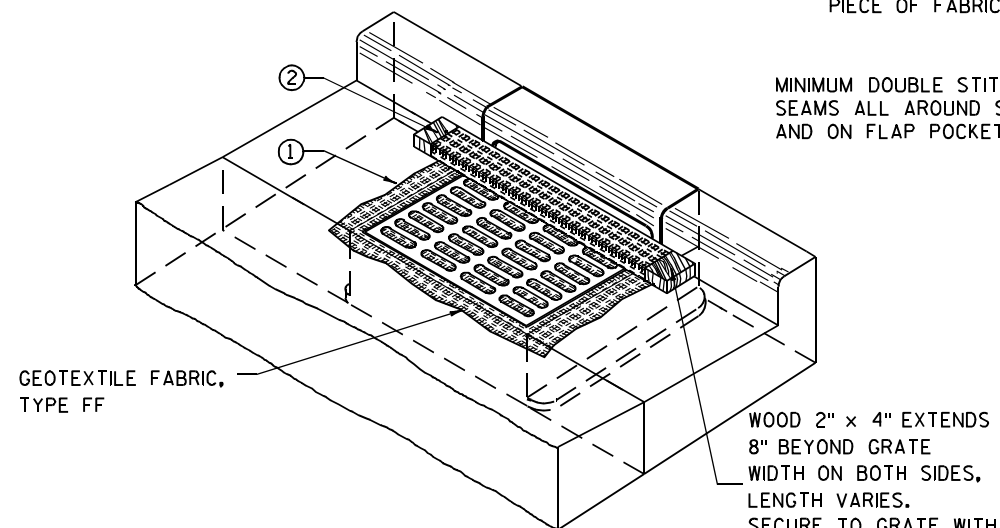
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

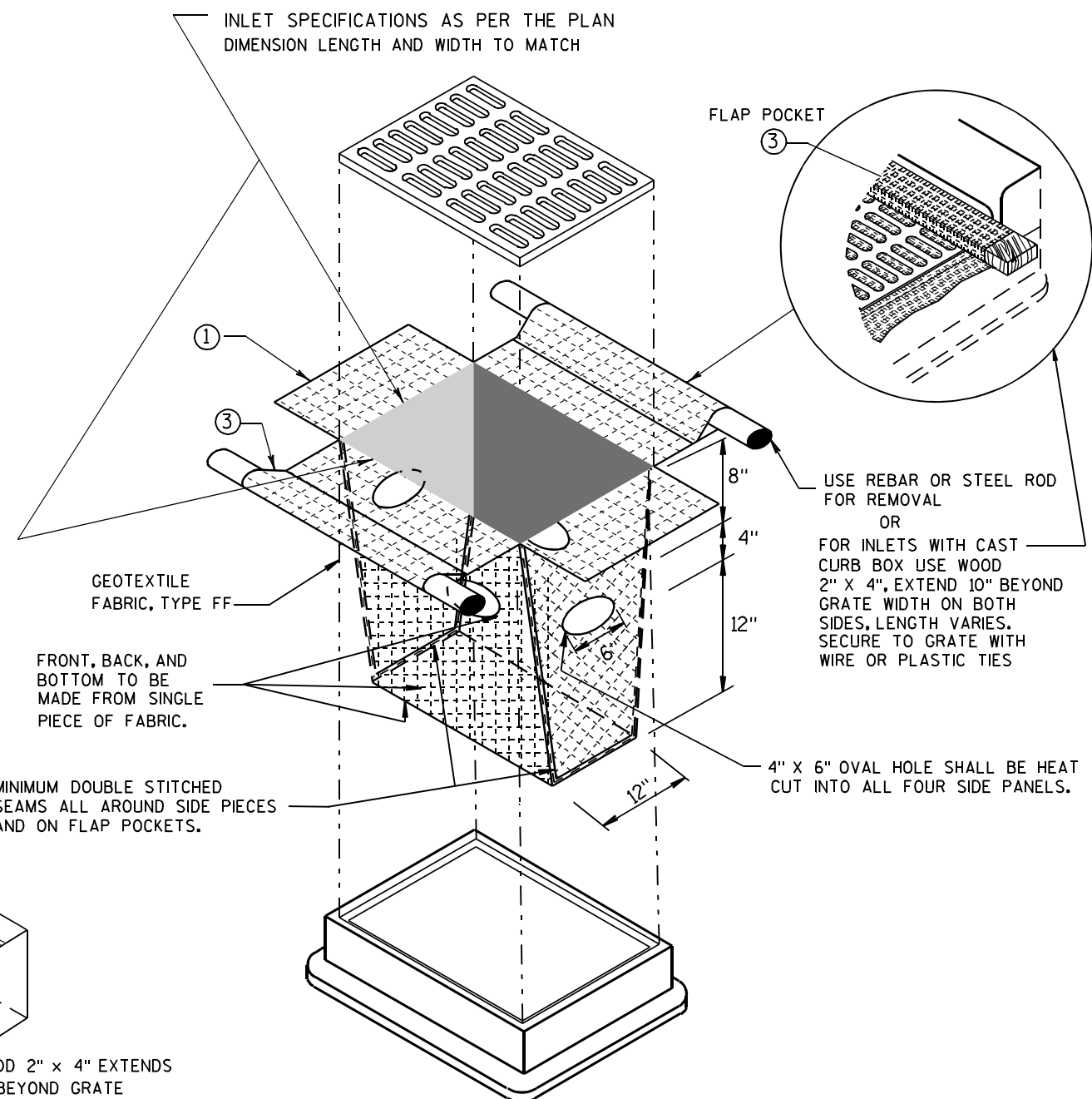
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.

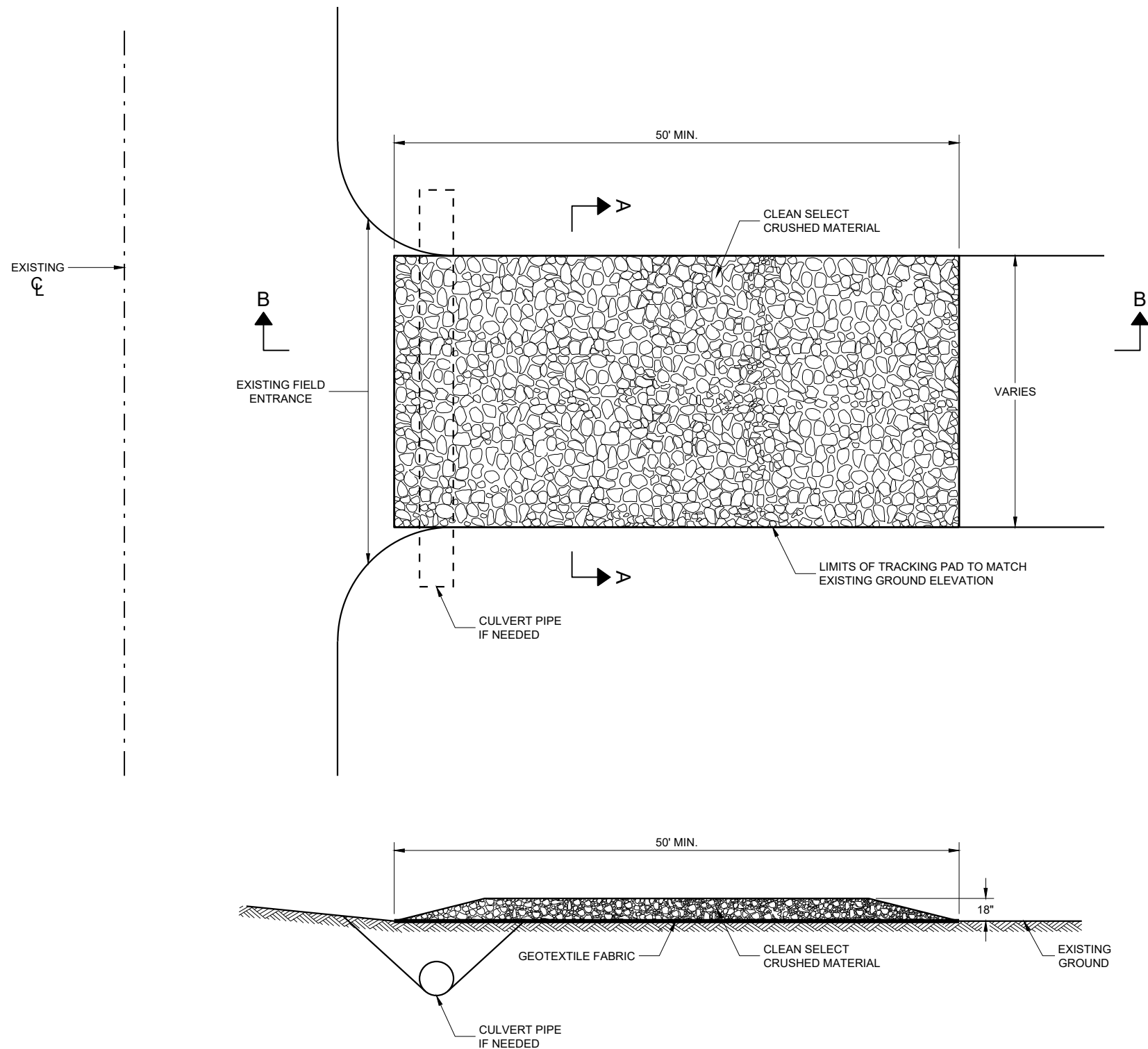
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

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	



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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

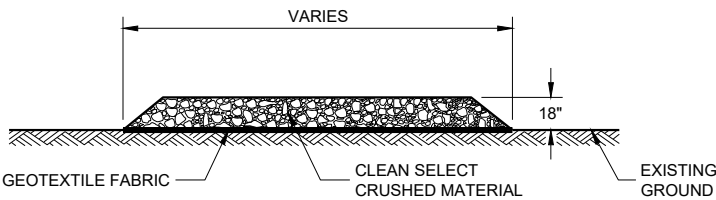
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

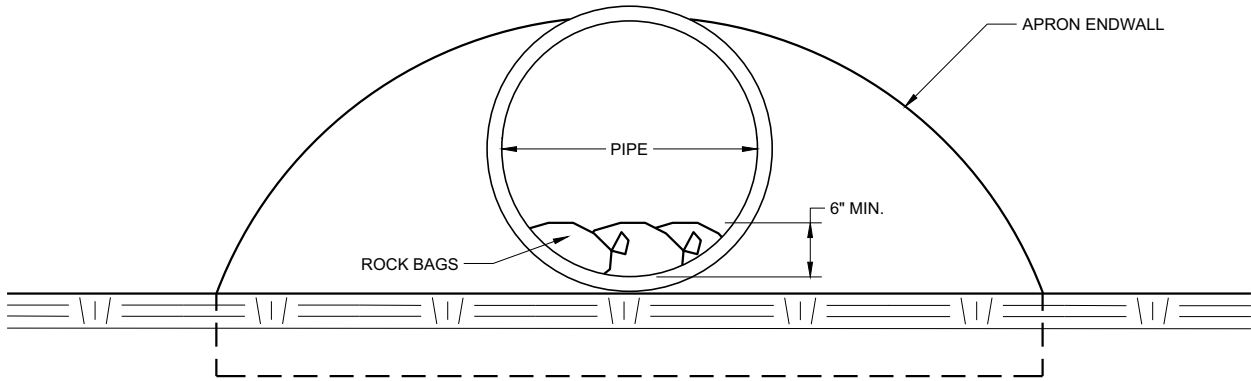
DATE

FHWA

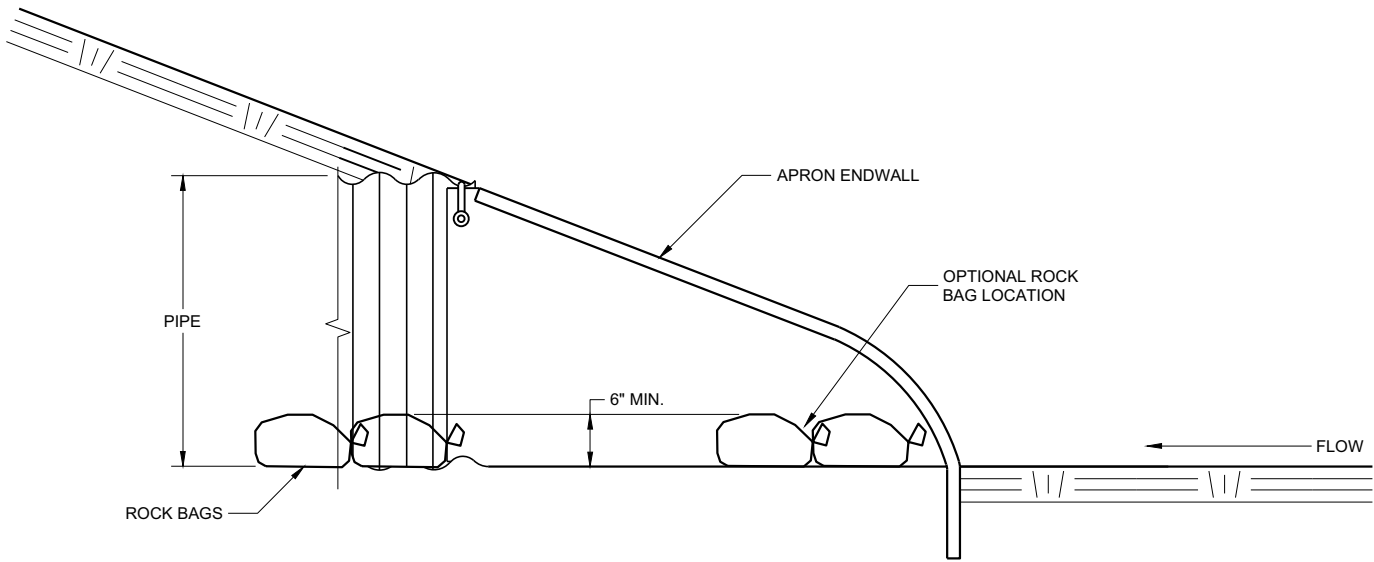
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



END VIEW



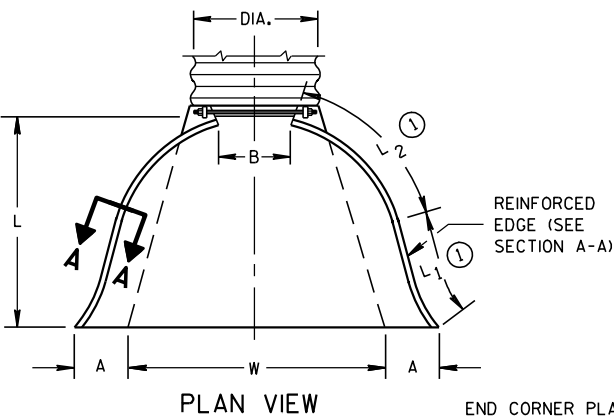
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

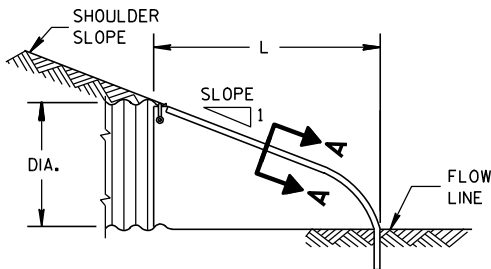
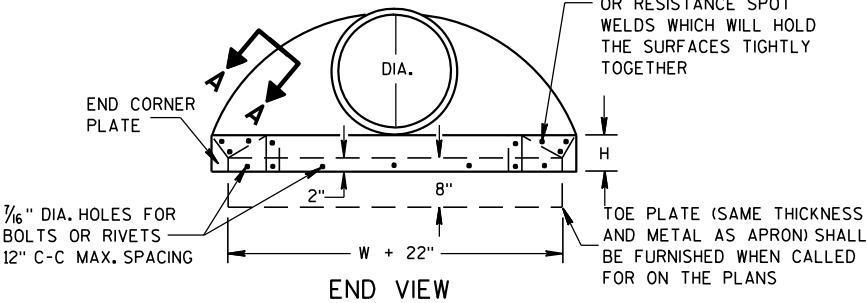
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
FHWA	

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2	Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



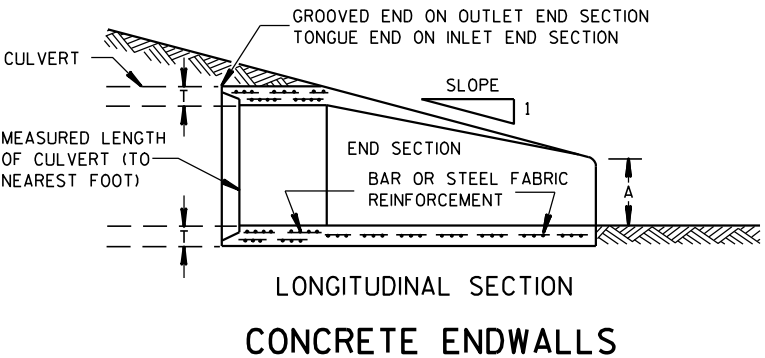
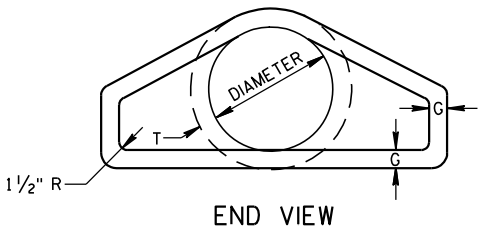
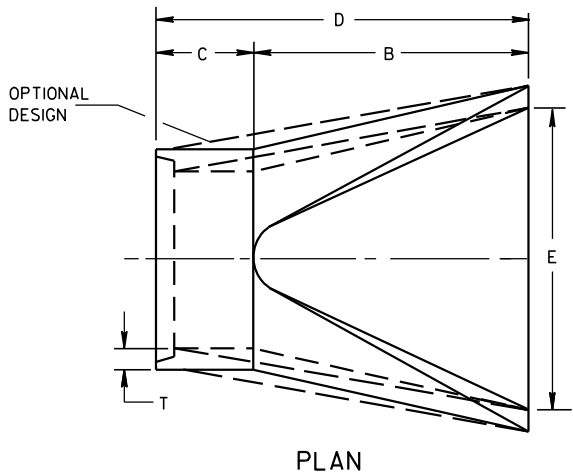
END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER



SIDE ELEVATION
METAL ENDWALLS

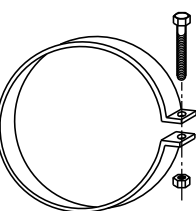
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1				
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1				
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1				
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1				
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1				
48	5	24	72	26	98	84	5	3 to 1				
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1				
60	6	30-35	60	39	99	96	5	2 to 1				
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1				
72	7	24-36	78	21	99	108	6	2 to 1				
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1				
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1				
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1				

* MINIMUM
** MAXIMUM

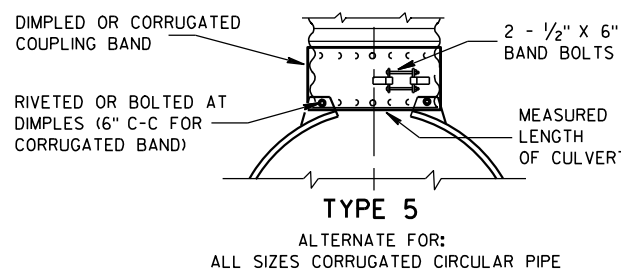
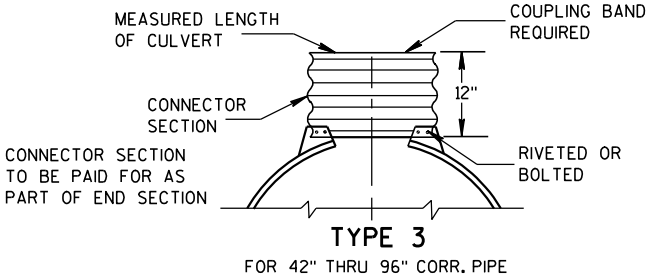
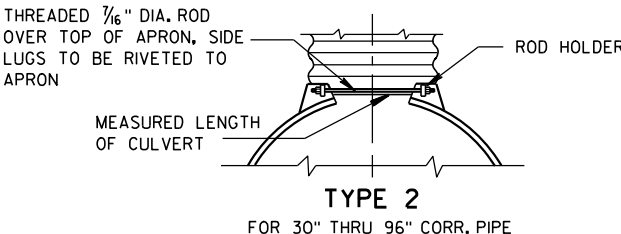
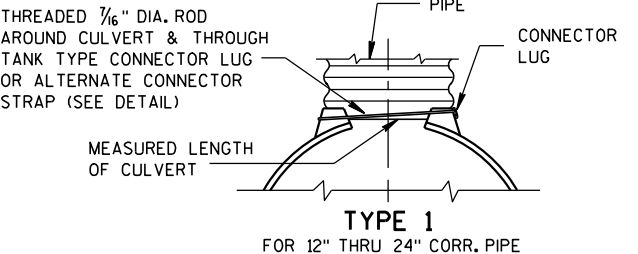


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



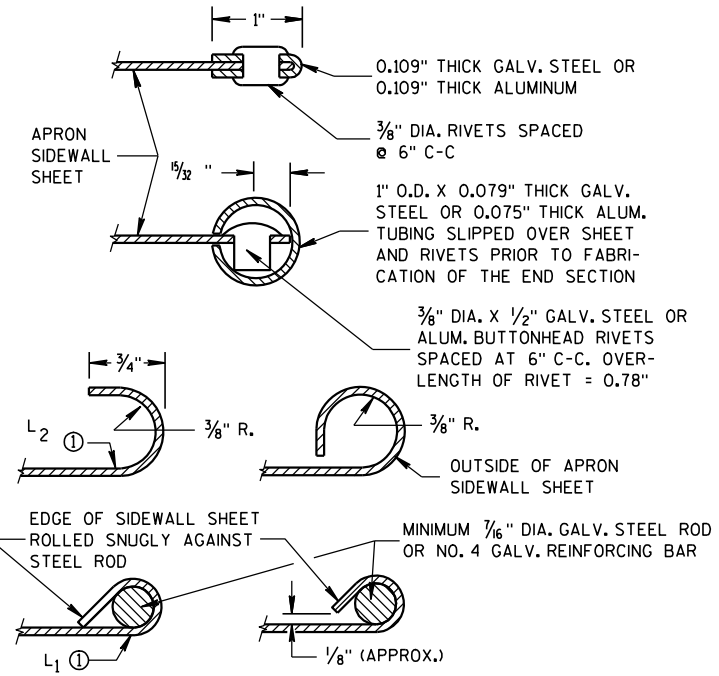
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE
ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5
AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL
CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO
CIRCUMFERENTIAL CORRUGATIONS AT EACH END
USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL
OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR
ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE
OF THE SAME METAL.

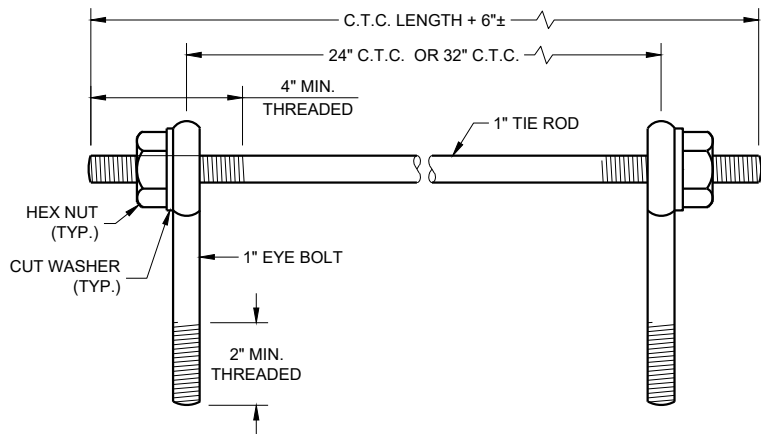
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE
PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS
FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS.
FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED
EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH
GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE
ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM
NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT
TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT
TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

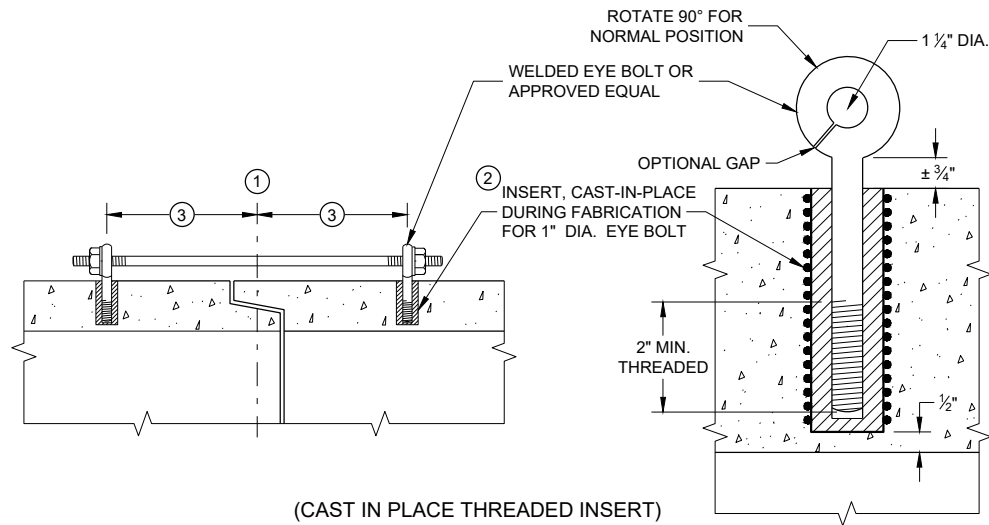
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED
INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

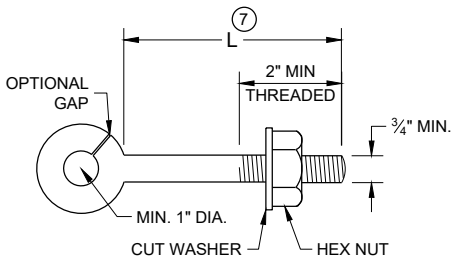
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

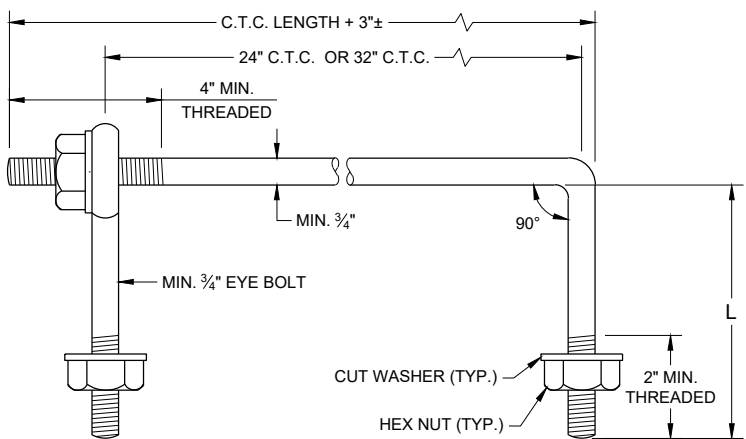
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

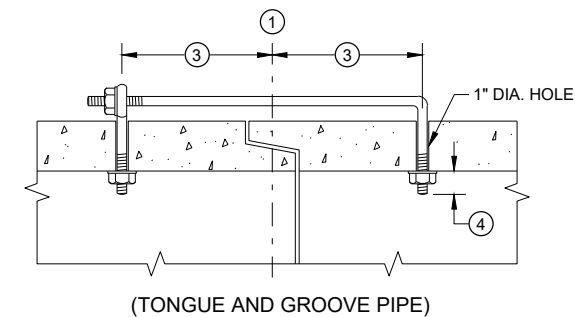


EYE BOLT 7

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

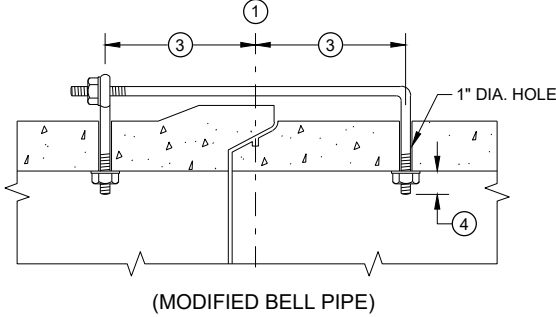


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

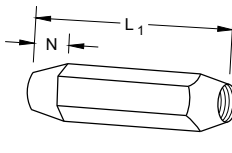


(MODIFIED BELL PIPE)

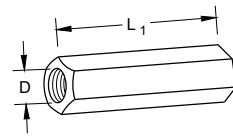
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

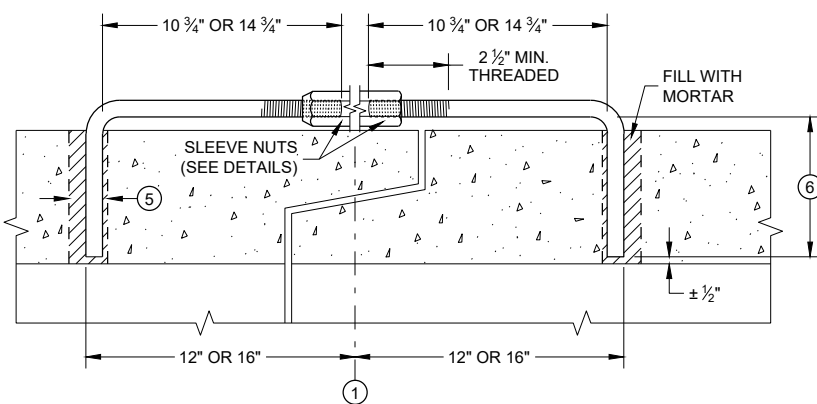


TAPERED



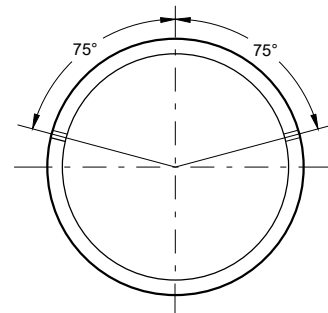
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



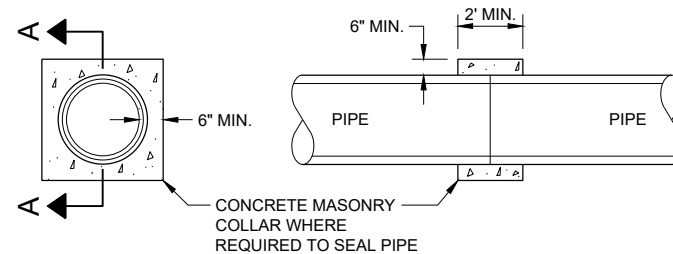
LONGITUDINAL SECTION

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



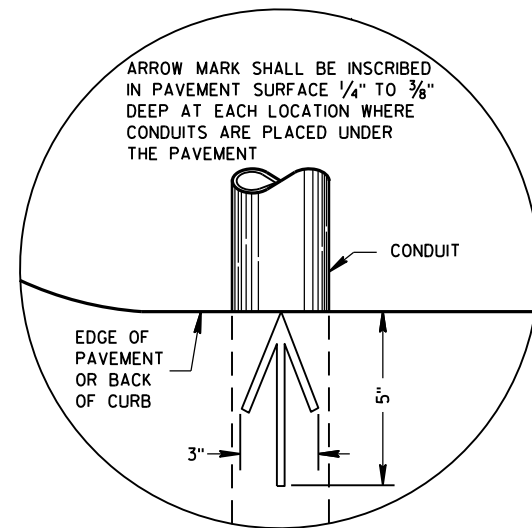
SECTION A - A

CONCRETE COLLAR DETAIL

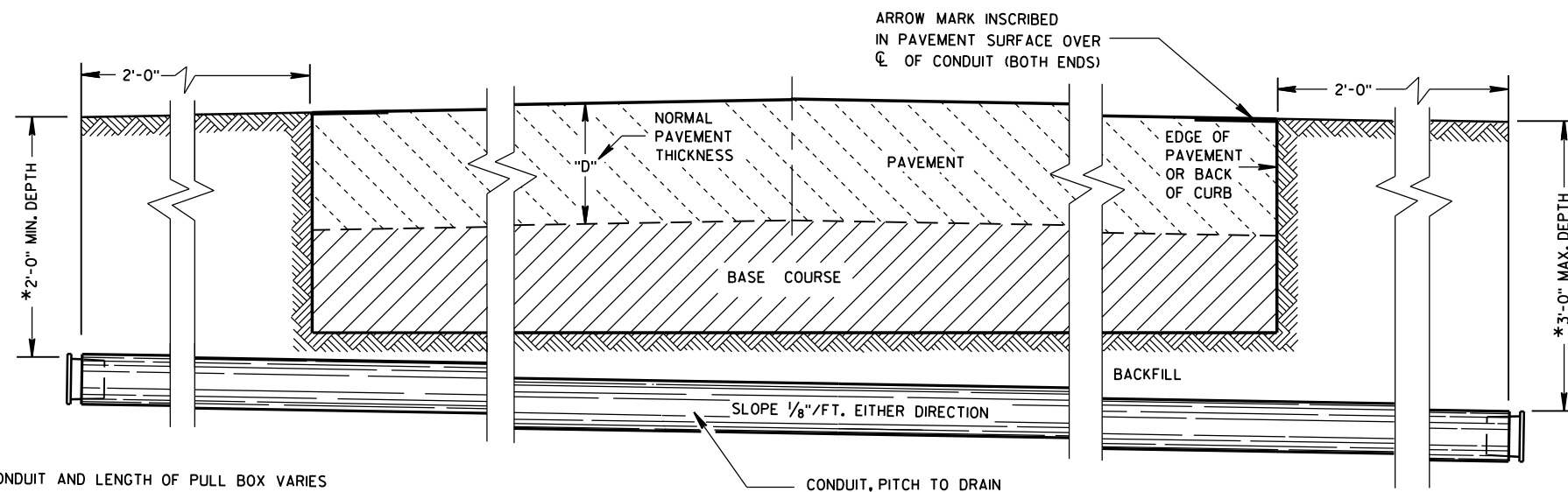
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

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

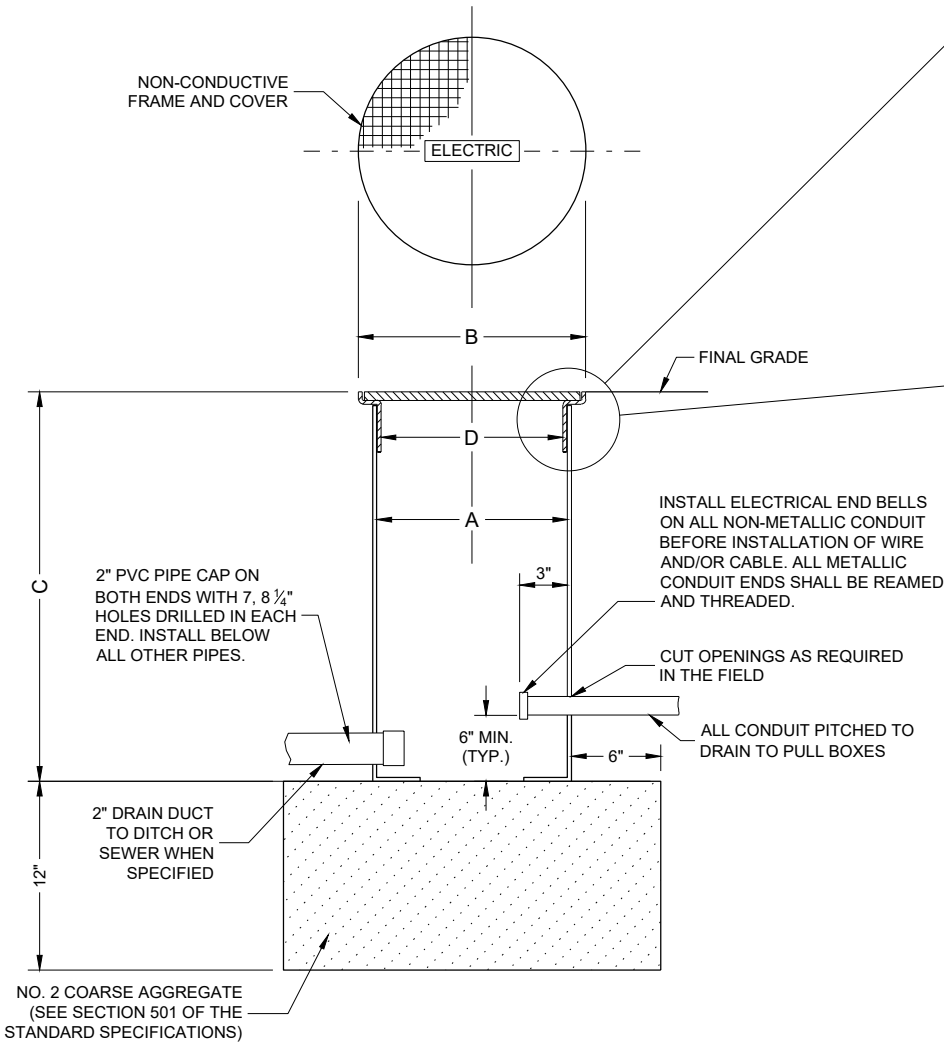
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March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
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TABLE OF NOMINAL DIMENSIONS
AND WEIGHTS

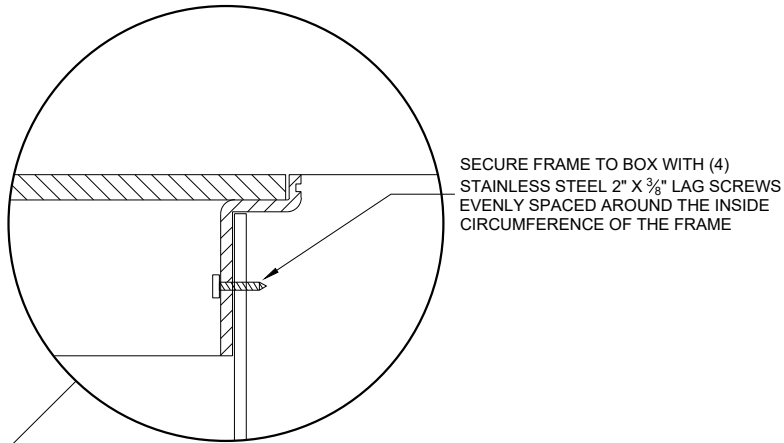
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS*			
COVER		50	50
BOX ONLY		75	85

*THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

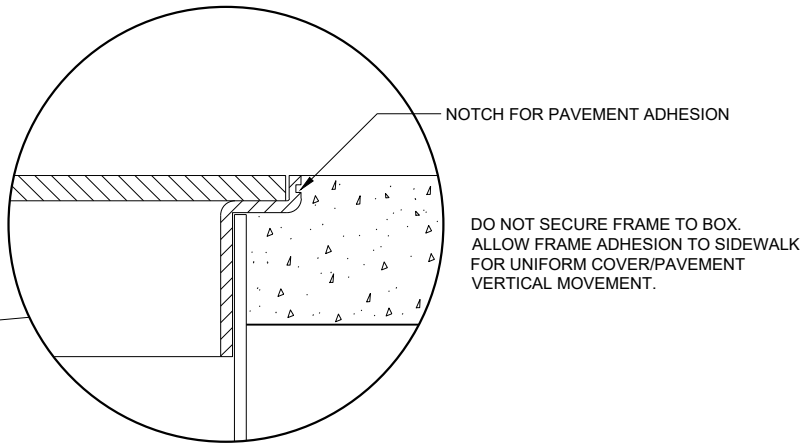
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



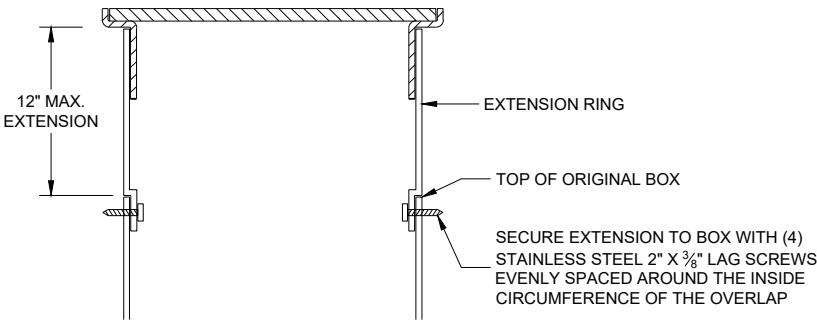
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD
OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

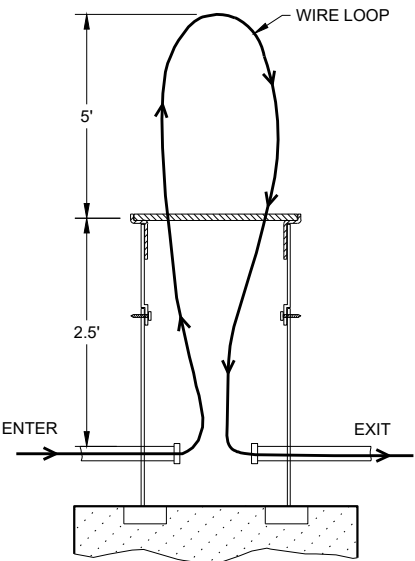
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



MEASUREMENT DETAIL FOR
WIRE/CABLE IN THE PULL BOX

PULL BOXES
NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA

FORM

4" MAX

6" MAX.

FORM

FORMING SHALL BE REMOVED AFTER CONCRETE HAS SET

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

- ① THE MINIMUM DEPTH OF CONDUIT EXISTING TO 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 5/8" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ⑪ ANY ANCHOR ROD PROJECTION SHORTER THAN $2\frac{3}{4}$ " OR LONGER THAN $3\frac{1}{4}$ " SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑫ FOR NON - BREAKAWAY INSTALLATIONS, $4\frac{1}{2}$ " $\pm$ ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

(TYPICAL FOR TYPES 1, 2, 5 & 6)

2"

TOPSOIL AND SEED OR CRUSHED AGGREGATE

5' - 0" MIN.

3"

1"

11

3/4" PREFORMED FILLER AS APPROVED BY THE ENGINEER

1

6" STUB

OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6)

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

3"

6" MIN.

1' - 0"

2"

1' - 0"

3" CLEAR

6" STUB

7' - 0"

6" MIN.

2"

OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6)

Diagram illustrating the vertical formwork assembly with dimensions and components:

- Overall height: 7' - 0"
- Top section height: 1' - 0"
- Bottom section height: 6" MIN.
- Top flange thickness: 2"
- Bottom flange thickness: 2"
- Clearance from top: 3"
- Clearance from bottom: 6" MIN.
- Clearance from side: 3" CLEAR
- Stub length: 6" STUB
- Optional 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6)

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

6" MIN.

1' - 0"

2"

1' - 0"

3"

3" CLEAR

6" STUB

5' - 0"

6" MIN.

2"

OPTIONAL 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6)

Diagram illustrating the vertical assembly of a pipe section, showing dimensions and components:

- Overall height: 5' - 0"
- Top section height: 1' - 0"
- Bottom section height: 6" MIN.
- Top flange thickness: 2"
- Bottom flange thickness: 2"
- Clearance from top flange: 3"
- Clearance from bottom flange: 3" CLEAR
- Stub length: 6" STUB
- Optional 4" L BEND OR HEX NUT (TYPICAL FOR TYPES 1, 2, 5 & 6)

TYPE 5 & 6

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

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.

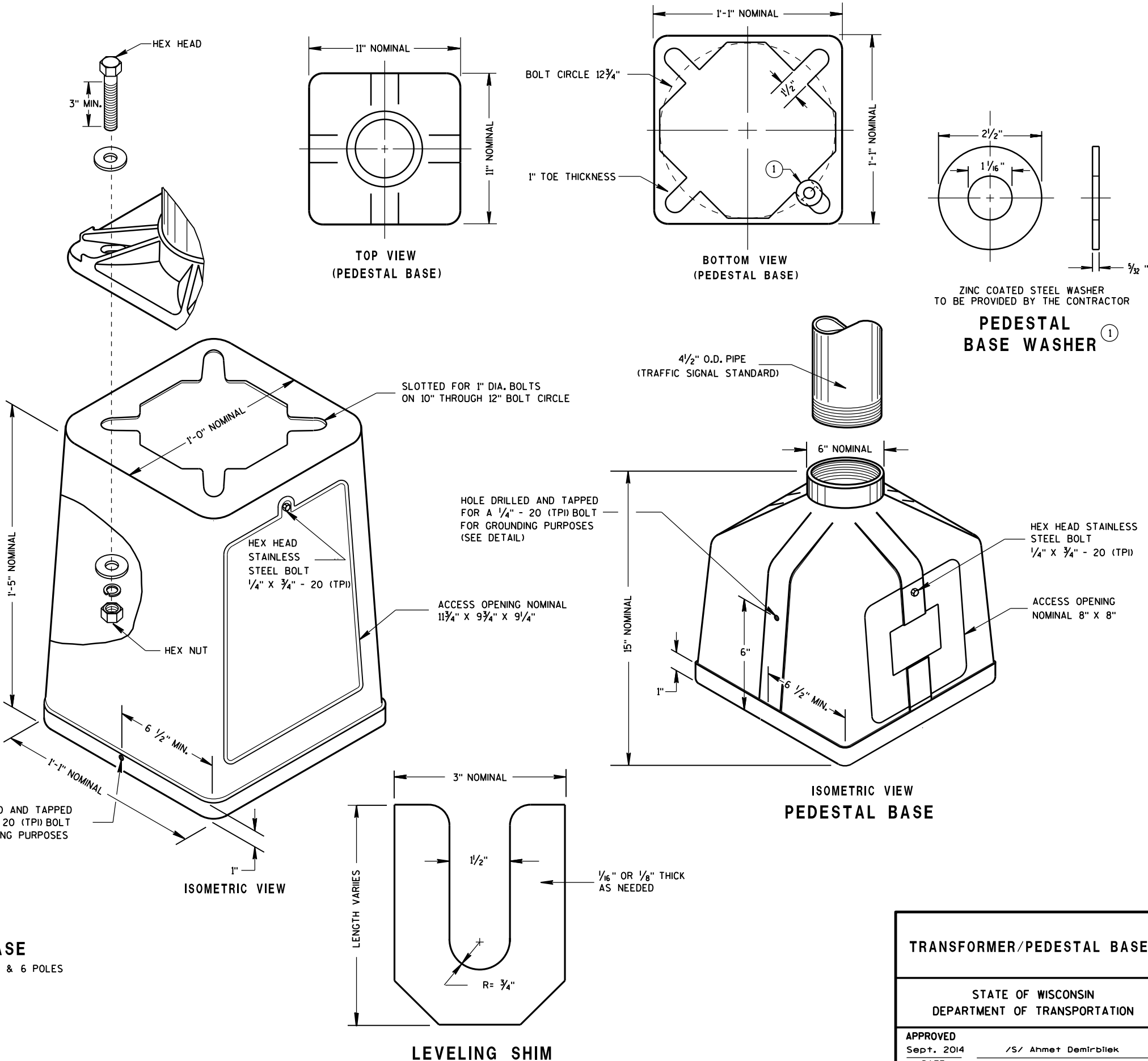
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



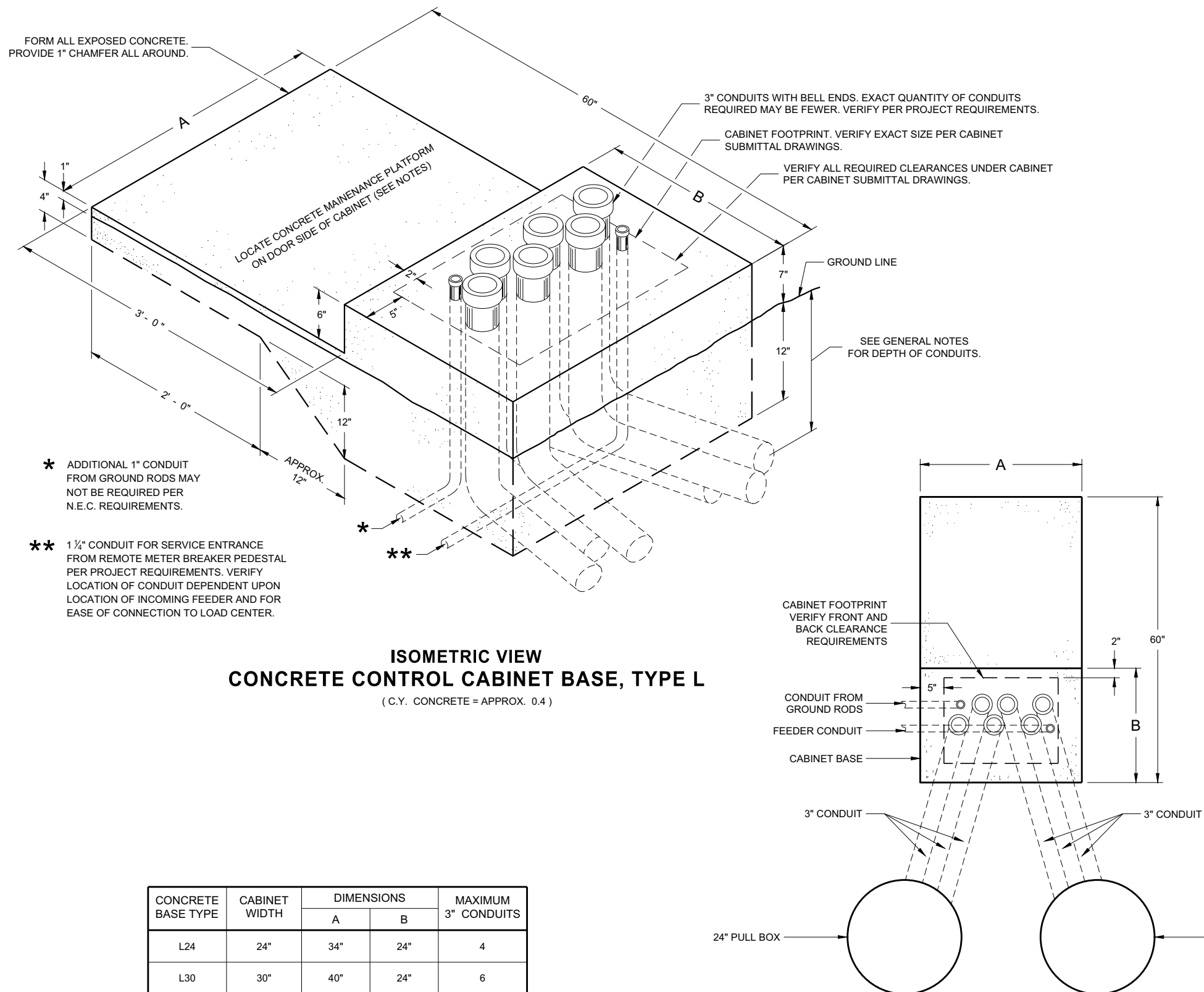
TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER
FHWA



**PLAN VIEW
CONCRETE CONTROL CABINET BASE, TYPE L**

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

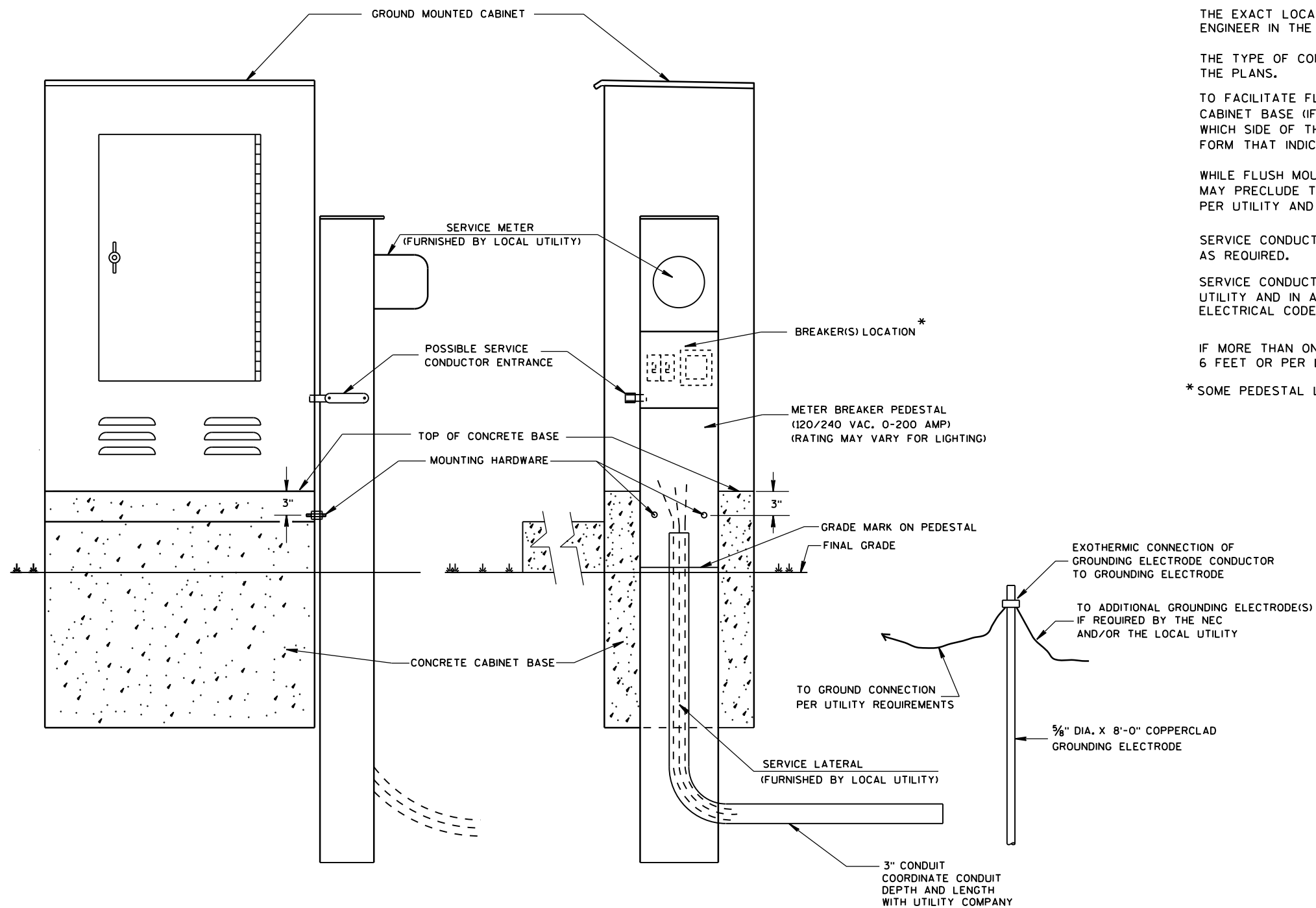
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

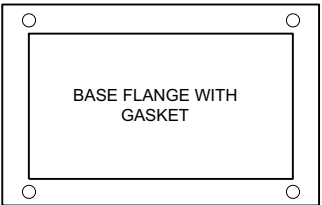
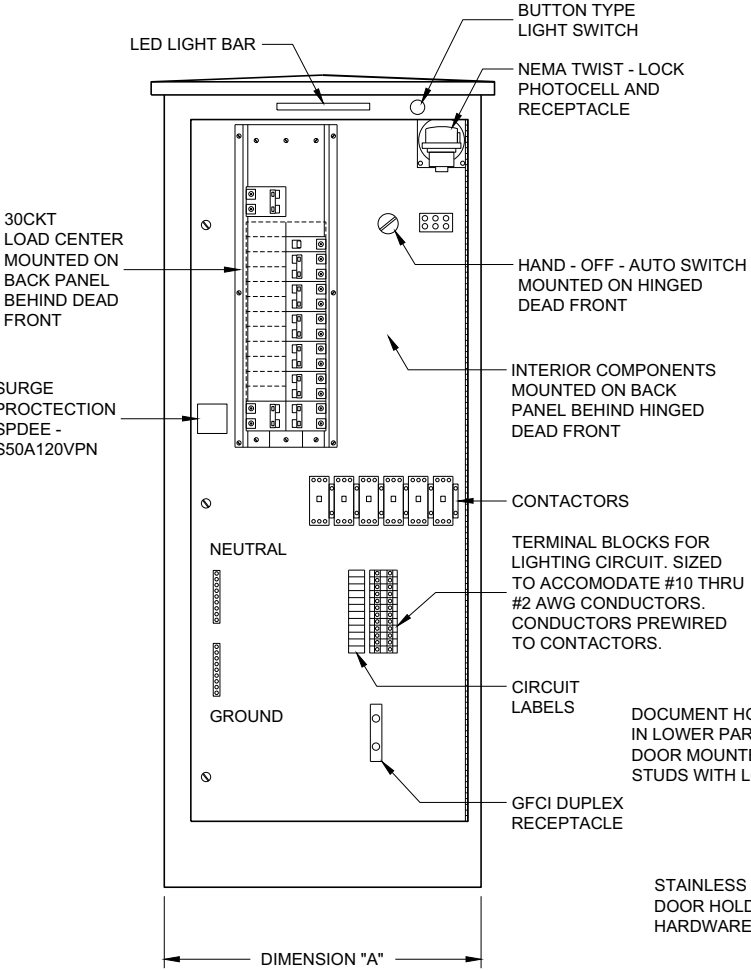
STATE OF WISCONSIN
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APPROVED
Sept. 2014
DATE

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STATE ELECTRICAL ENGINEER

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FRONT INTERIOR
ELEVATION



LIGHTING CONTROL CABINET

SIDE VIEW

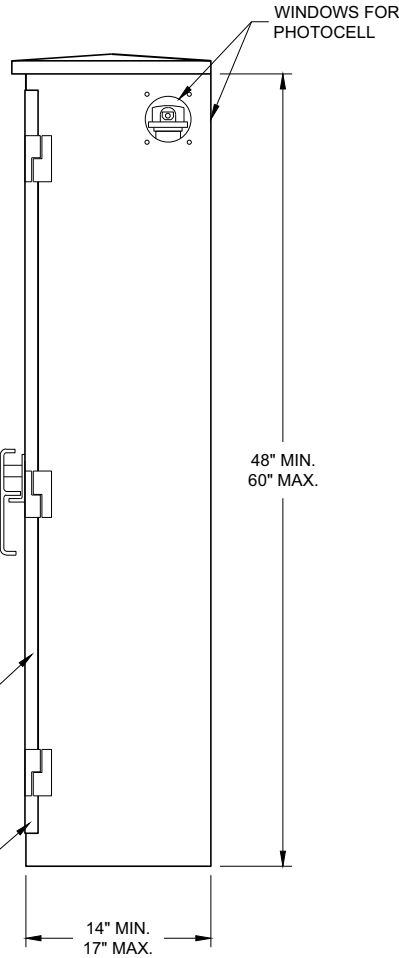
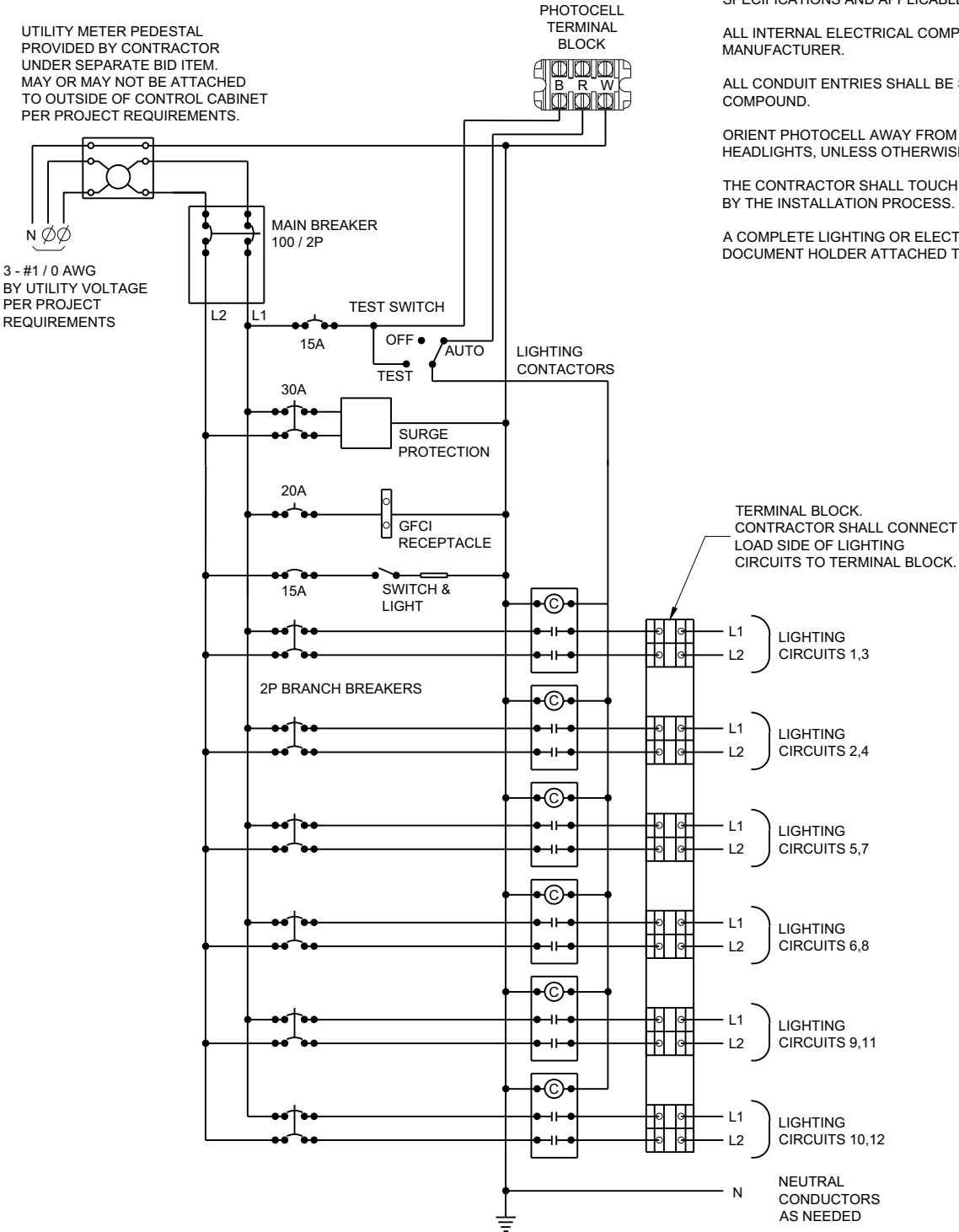


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

UTILITY METER PEDESTAL PROVIDED BY CONTRACTOR UNDER SEPARATE BID ITEM. MAY OR MAY NOT BE ATTACHED TO OUTSIDE OF CONTROL CABINET PER PROJECT REQUIREMENTS.



CONTROL CABINET SCHEMATIC

GENERAL NOTES

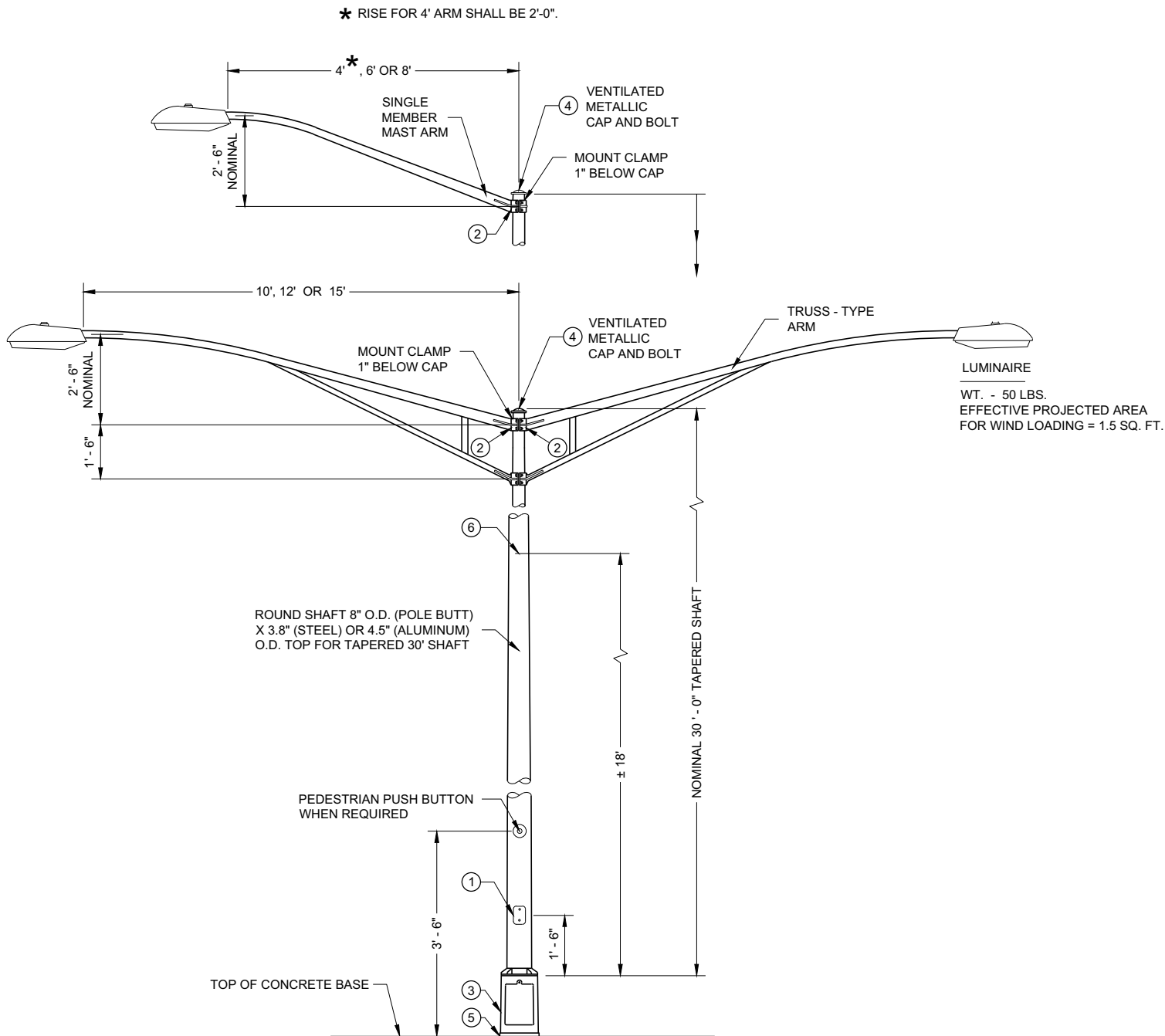
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
- ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINET MANUFACTURER.
- ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.
- ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.
- THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.
- A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET
120 / 240 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

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**TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY**

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVEING INSIDE THE POLE IS NOT ACCEPTABLE.

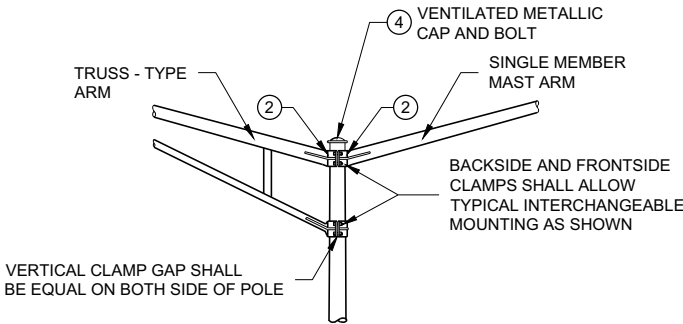
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 3/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 3/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑥ INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

**POLE MOUNTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)**

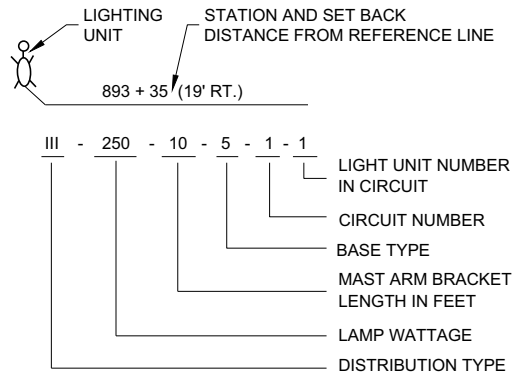
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

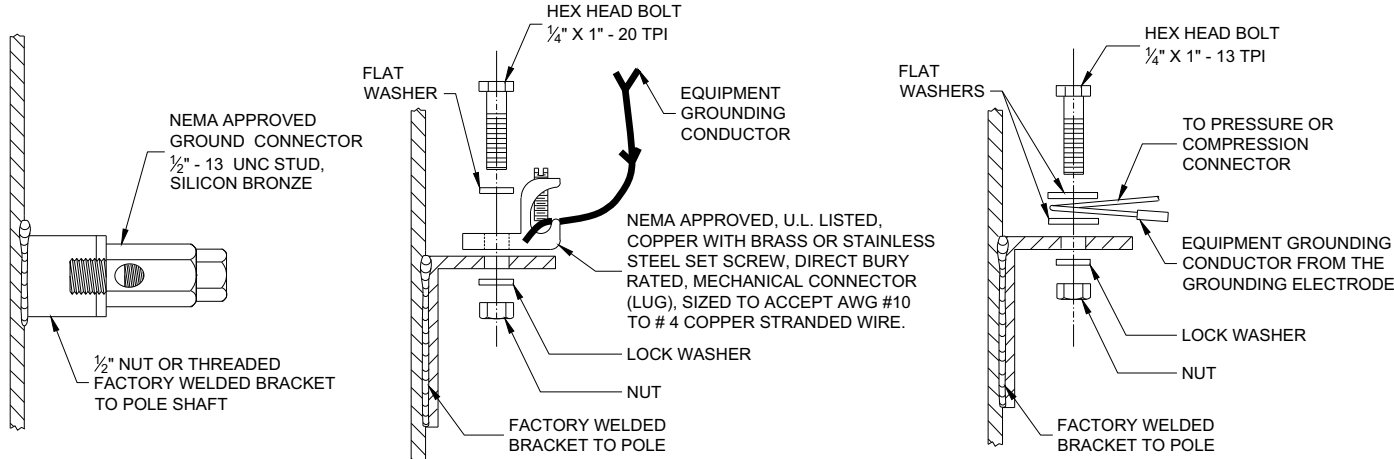
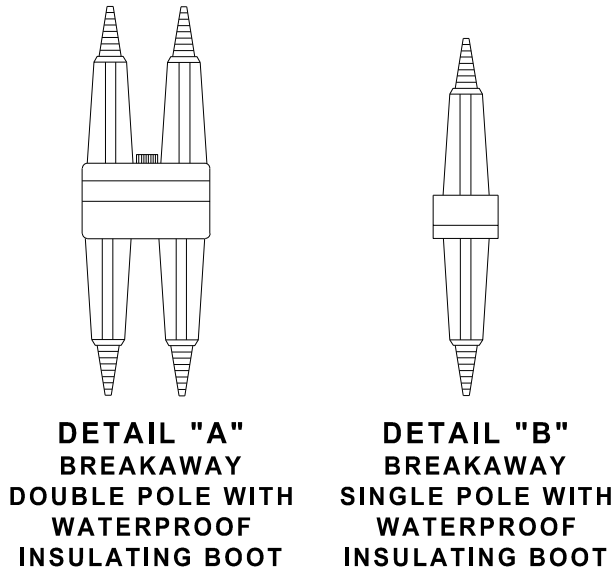
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.



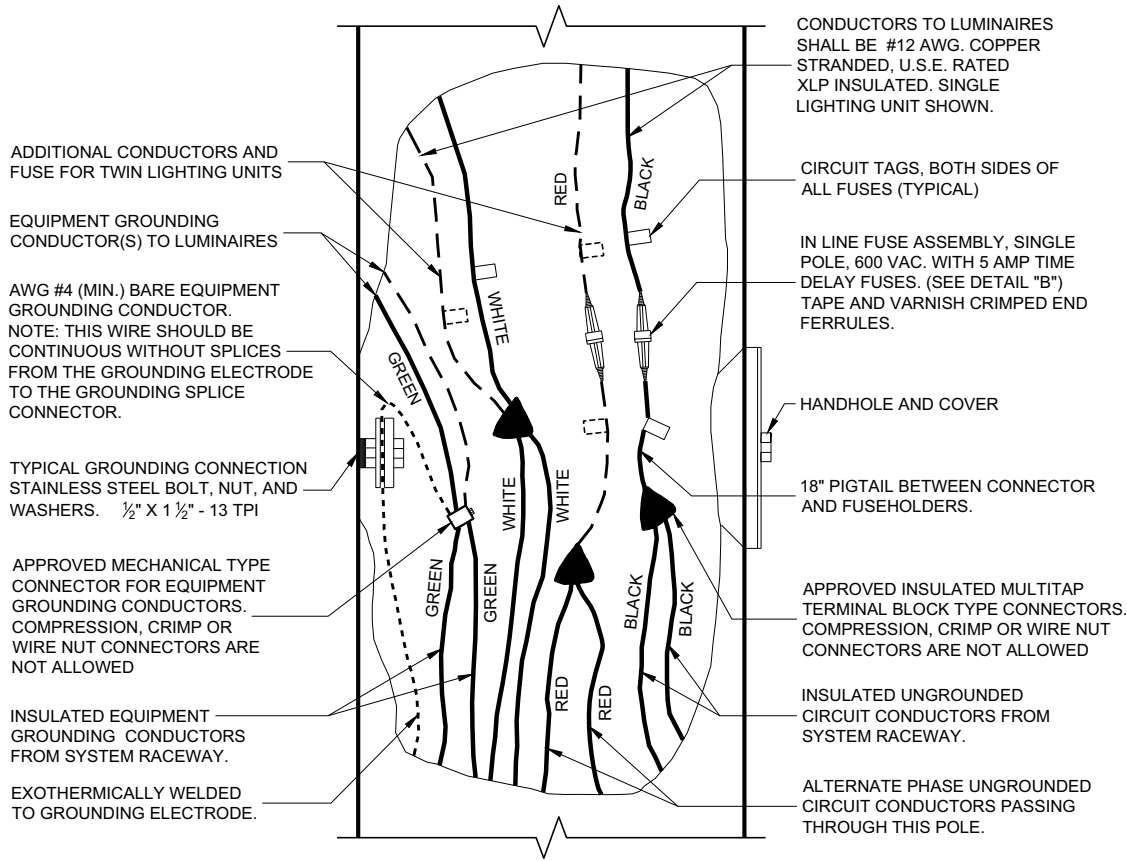
LIGHTING UNIT CODE
(TYPICAL)



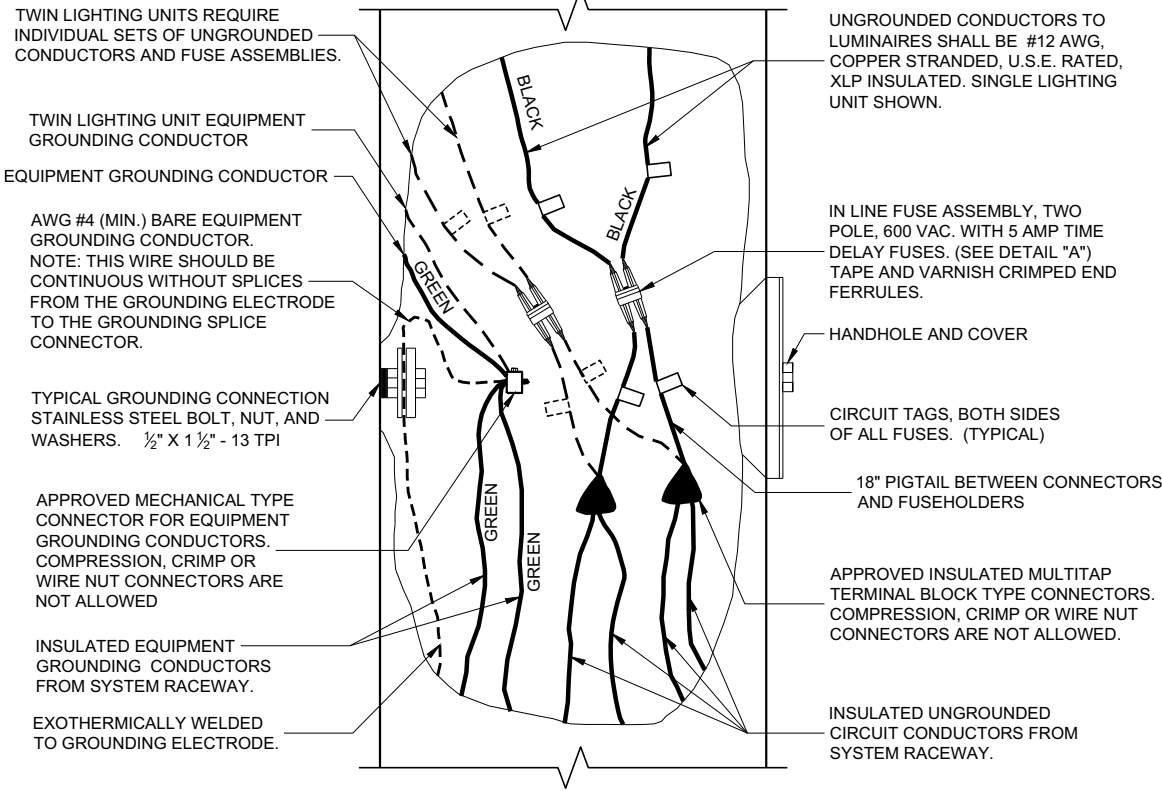
TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

6

SDD 09E03 - 06



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

6

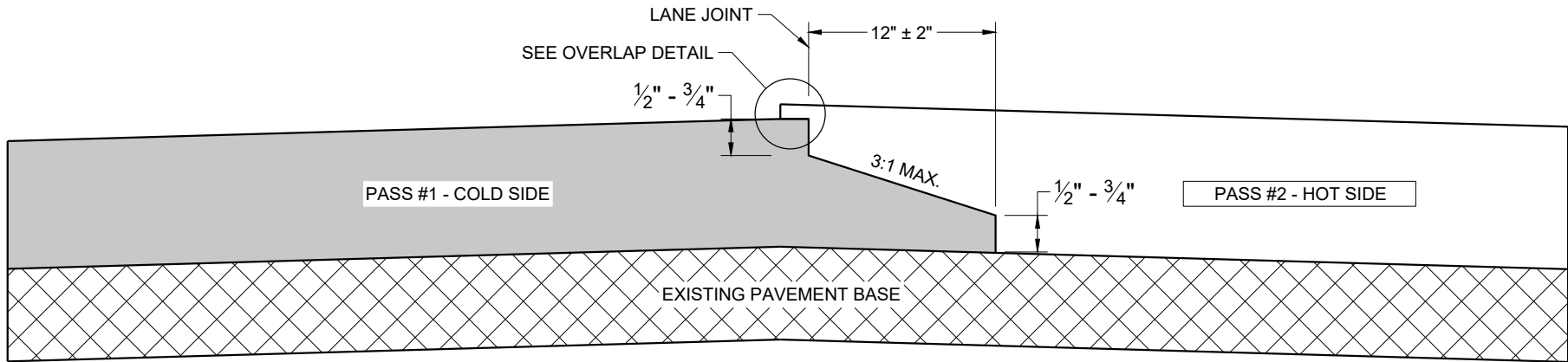
SDD 09E03 - 06

NON - FREEWAY LIGHTING UNIT
POLE WIRING

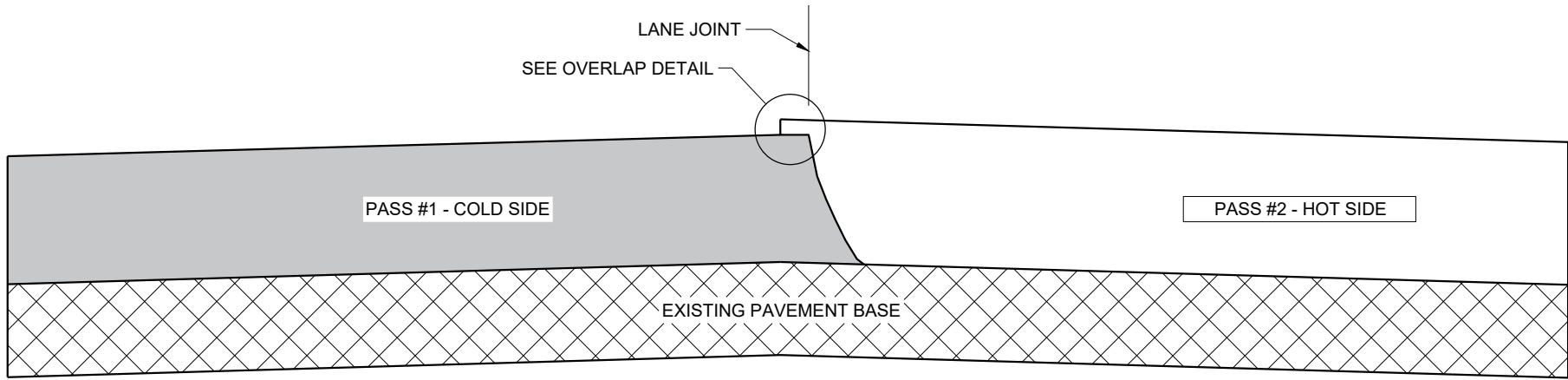
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

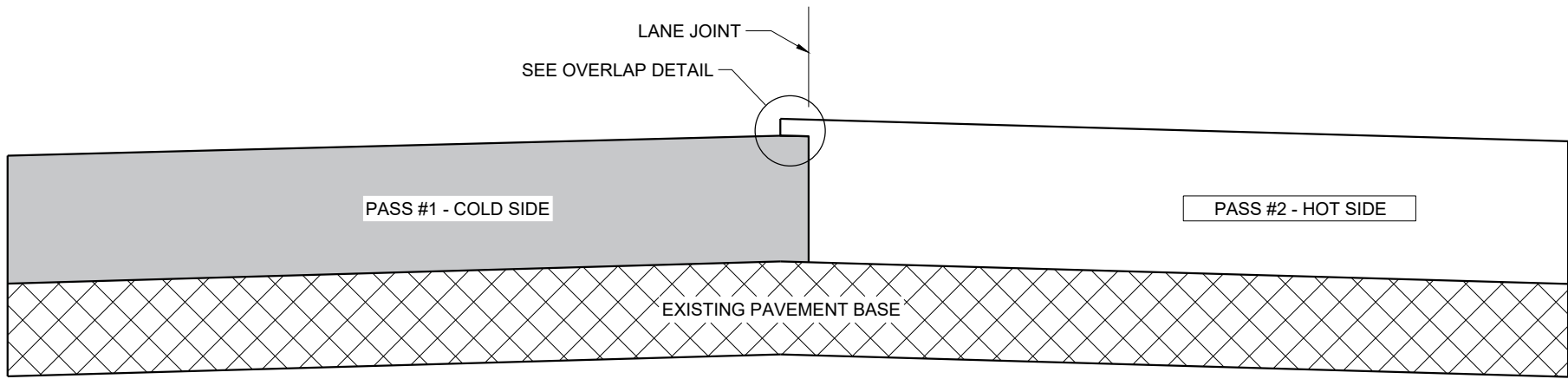
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

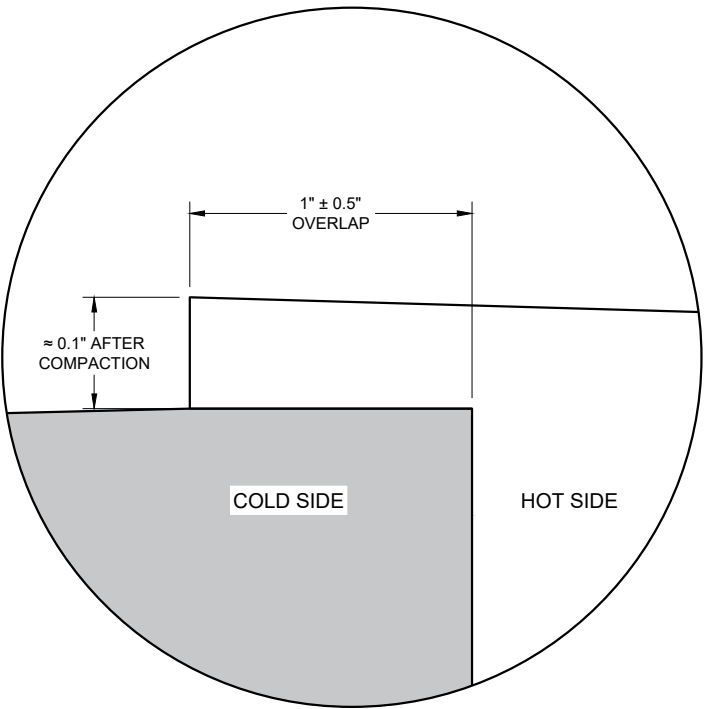
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

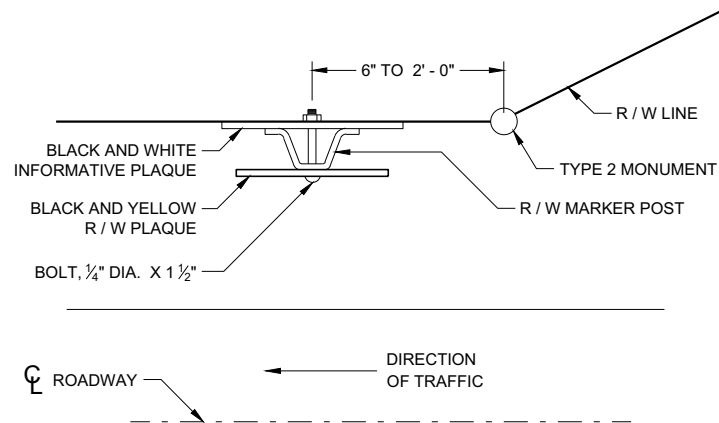


OVERLAP DETAIL (TYPICAL)

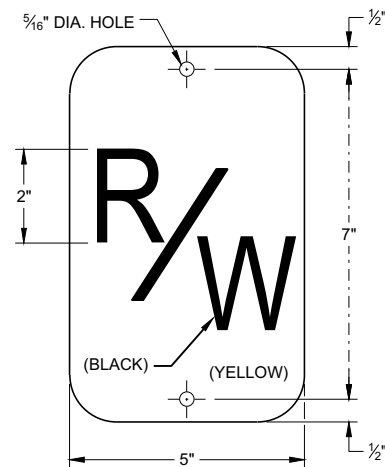
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA

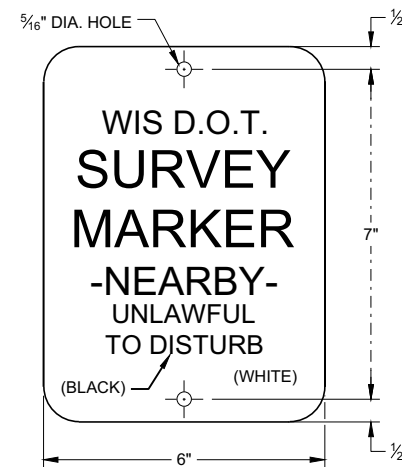


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

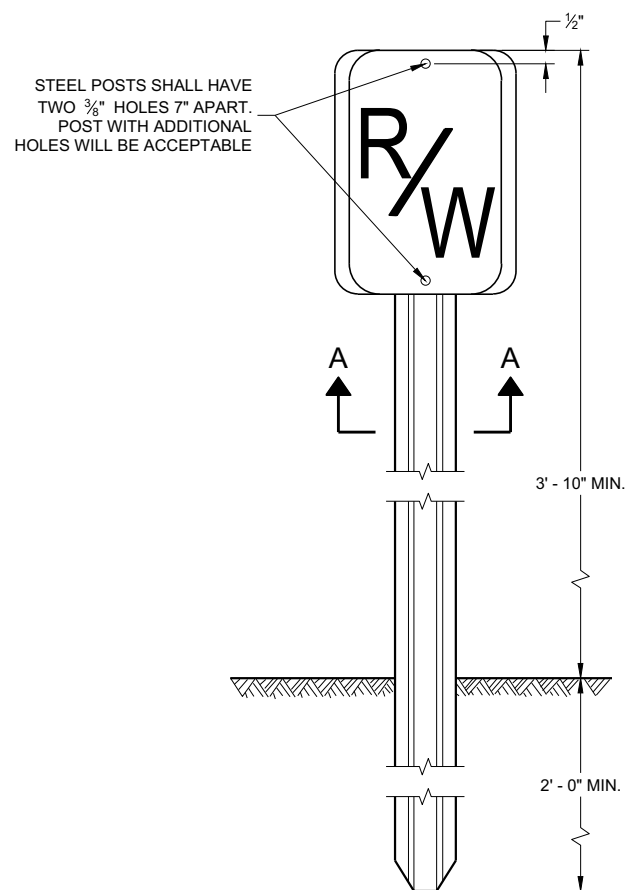
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

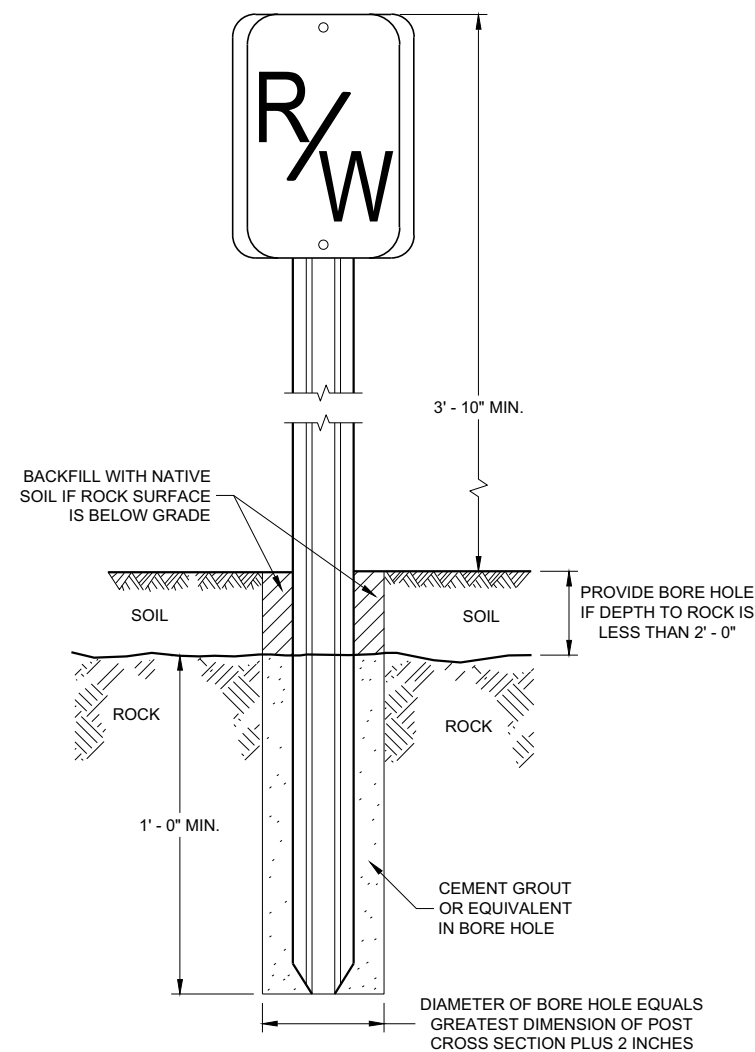
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

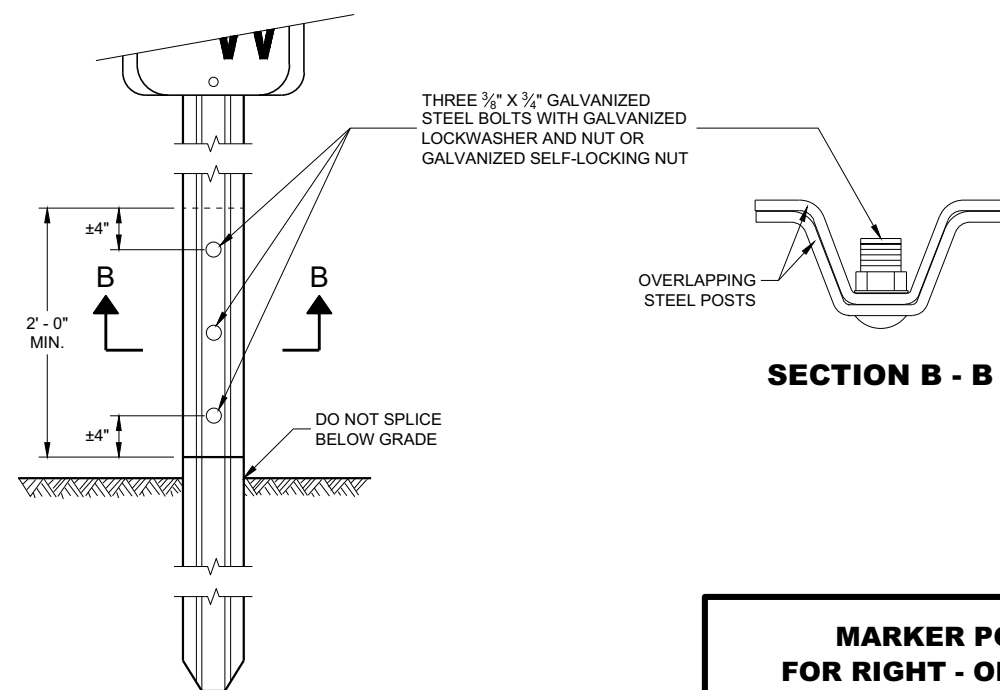
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



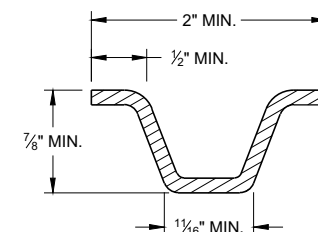
**FRONT VIEW
STEEL MARKER POST**



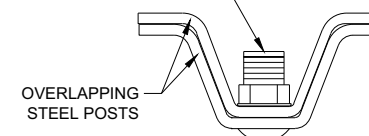
**FRONT VIEW
ROCK INSTALLATION ①**



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

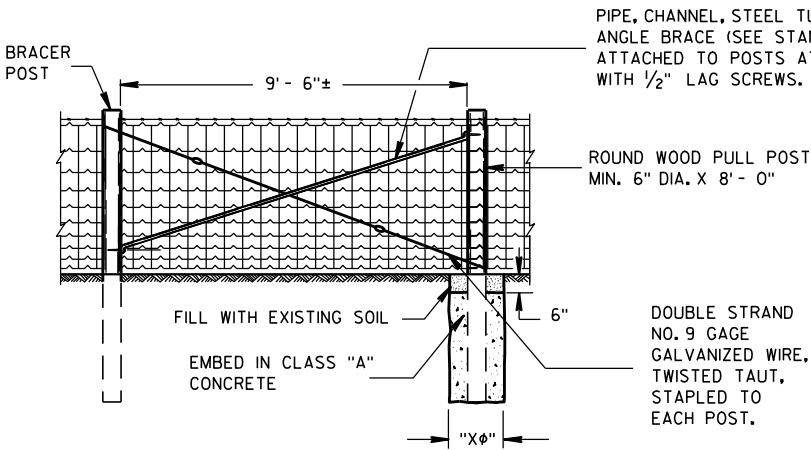
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016
DATE
/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING
ENGINEER

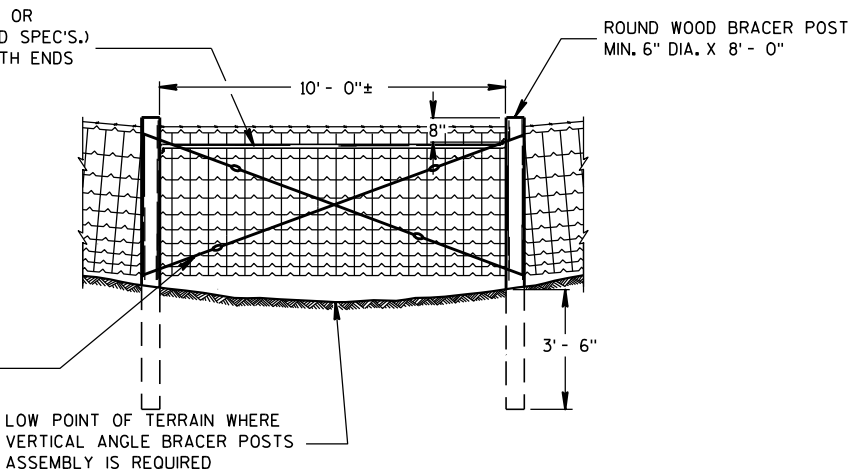
FHWA

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

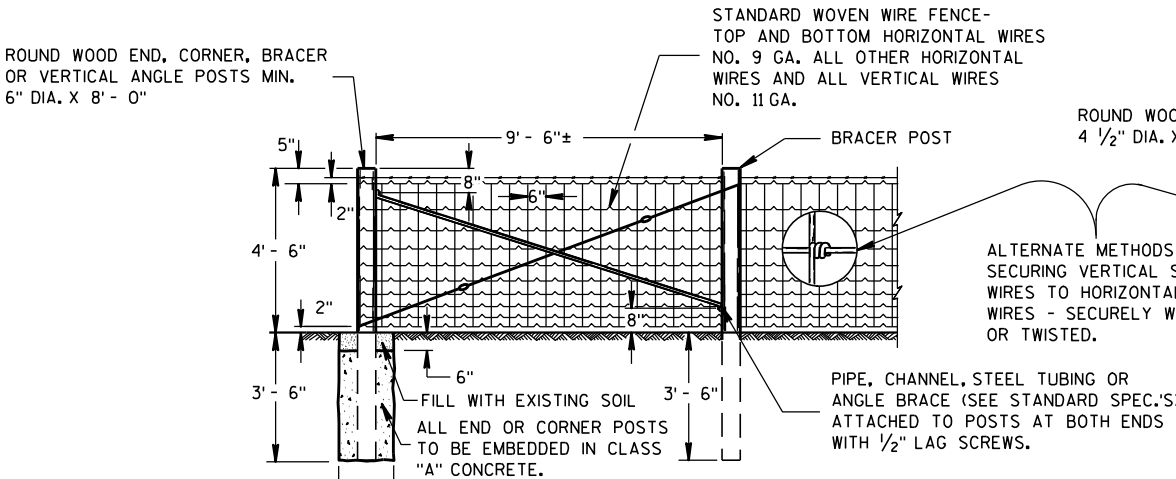
GENERAL NOTES

"Xφ" = DIAMETER OF THE POST PLUS 12".

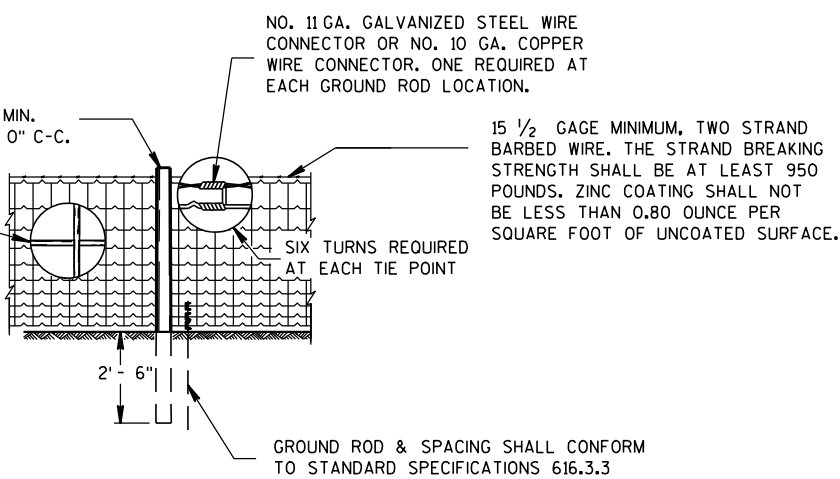
FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.

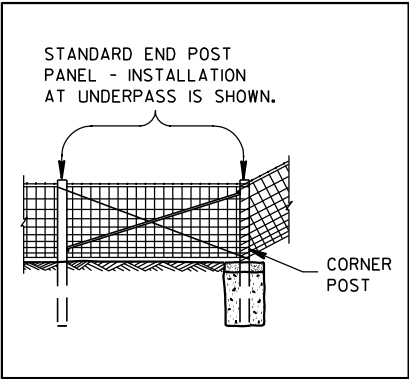


END OR CORNER POSTS ASSEMBLY

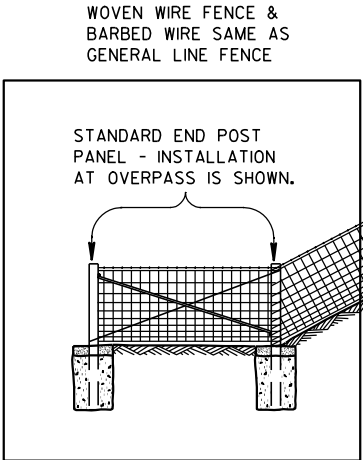


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



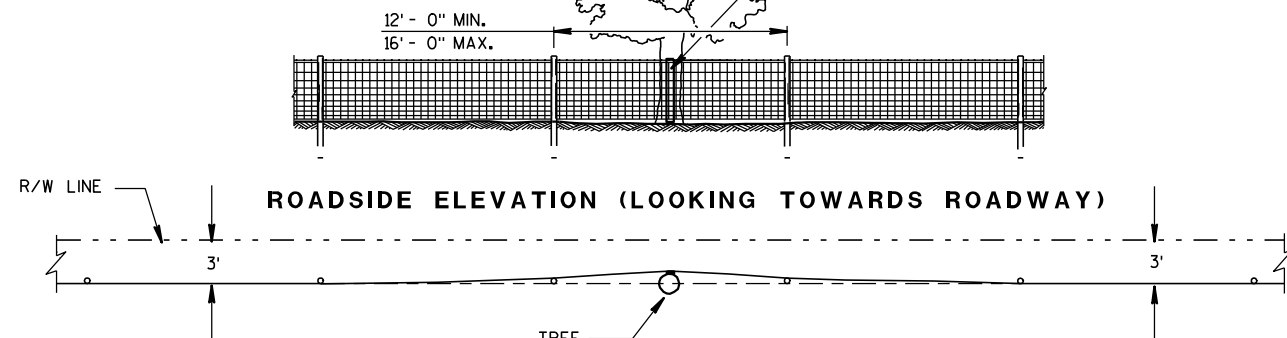
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

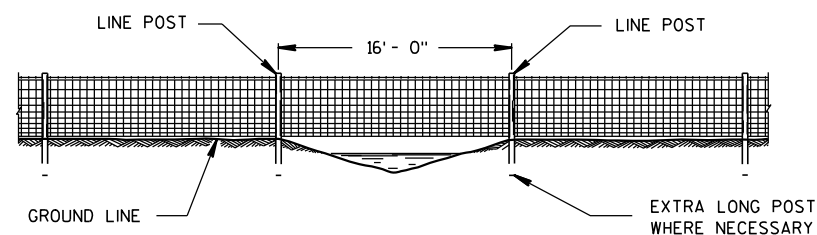
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

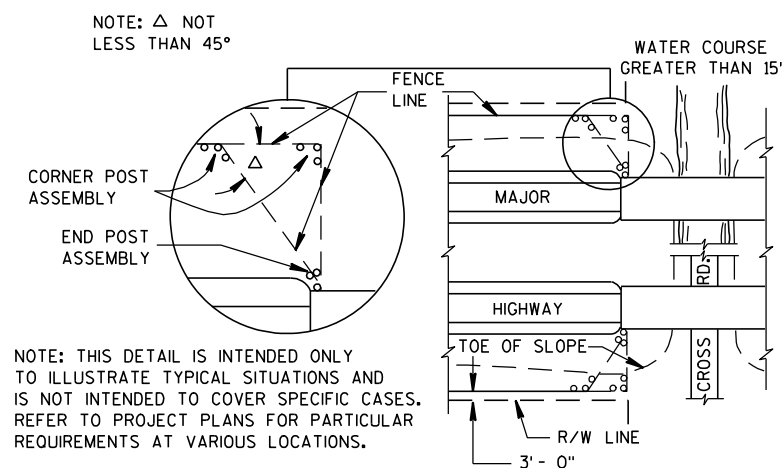
2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.



PLAN VIEW
FENCE DESIGN AT TREES REMAINING
IN NORMAL FENCE LINE

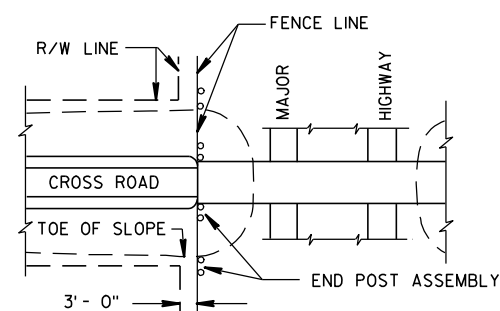


FENCE CONSTRUCTION OVER STREAM
COURSES OF 15 FT. OR LESS IN WIDTH

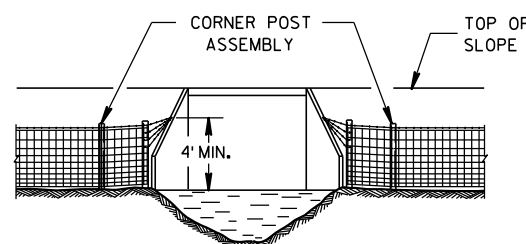


PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE
CROSSING OF GREATER THAN 15 FT. IN WIDTH

FENCE LOCATION AT STRUCTURES

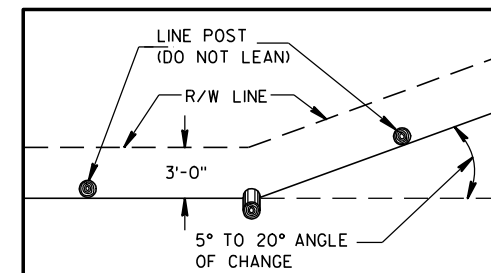
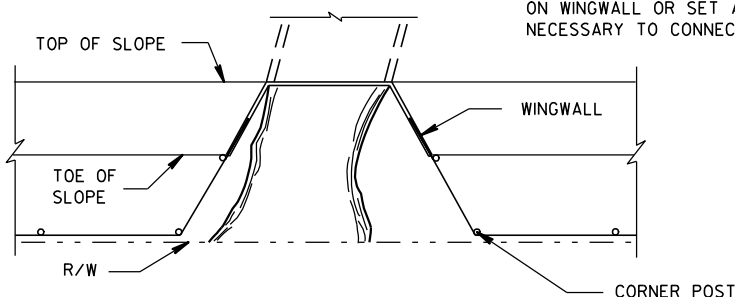


PLAN VIEW
MAJOR HIGHWAY UNDERPASS

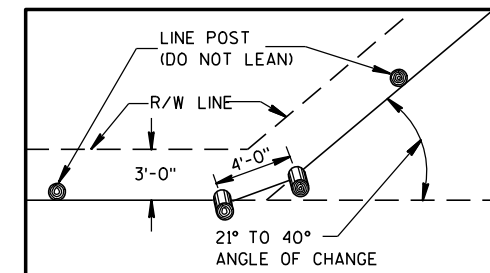


FENCE INSTALLATION TO WINGWALLS

NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



PLAN VIEW
SINGLE POST CORNER

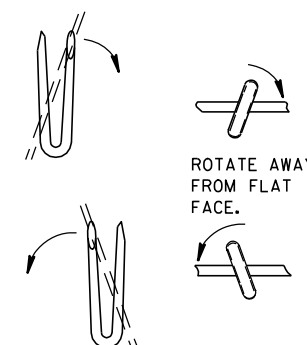


PLAN VIEW
DOUBLE POST CORNER

RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



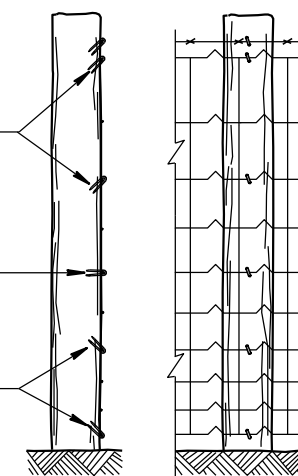
LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

STAPLES SLOPED DOWNWARD FOR SUSTAINED GRADES AND OVER KNOLLS.

STAPLES LEVEL FOR LEVEL GROUND.

SLOPE UPWARDS WHEN FENCE TENDS TO LIFT.



END ELEVATION
FARM SIDE ELEVATION
FENCE MOUNTING DETAIL

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

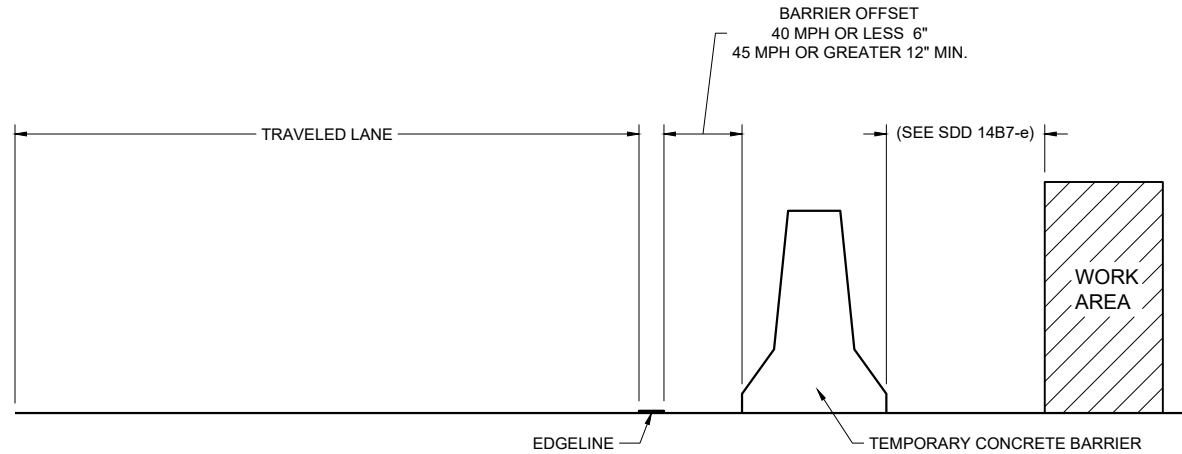
APPROVED

4/4/2008

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TEMPORARY BARRIER OFFSET FROM EDGE LINE

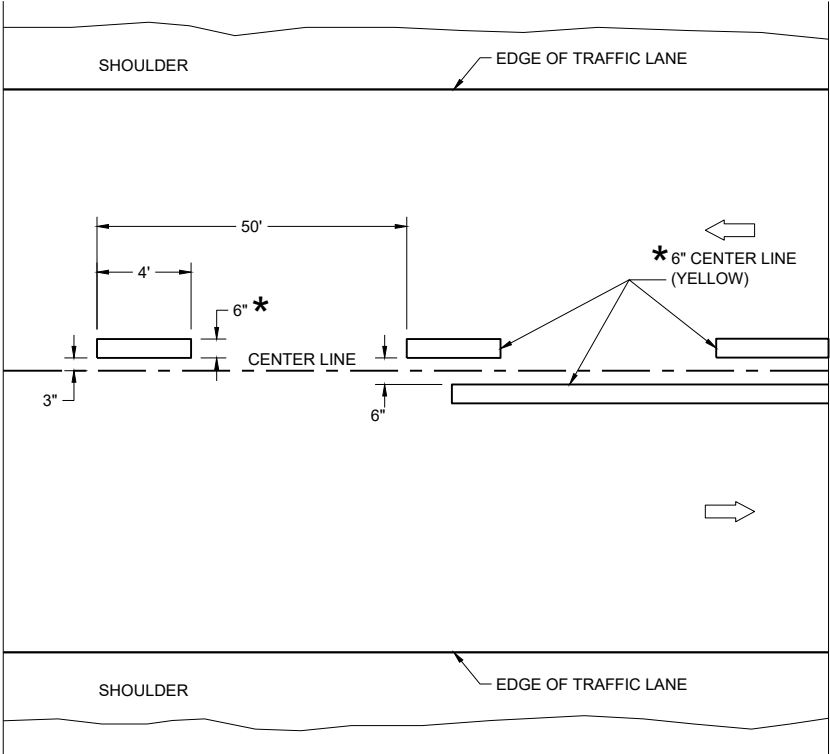
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

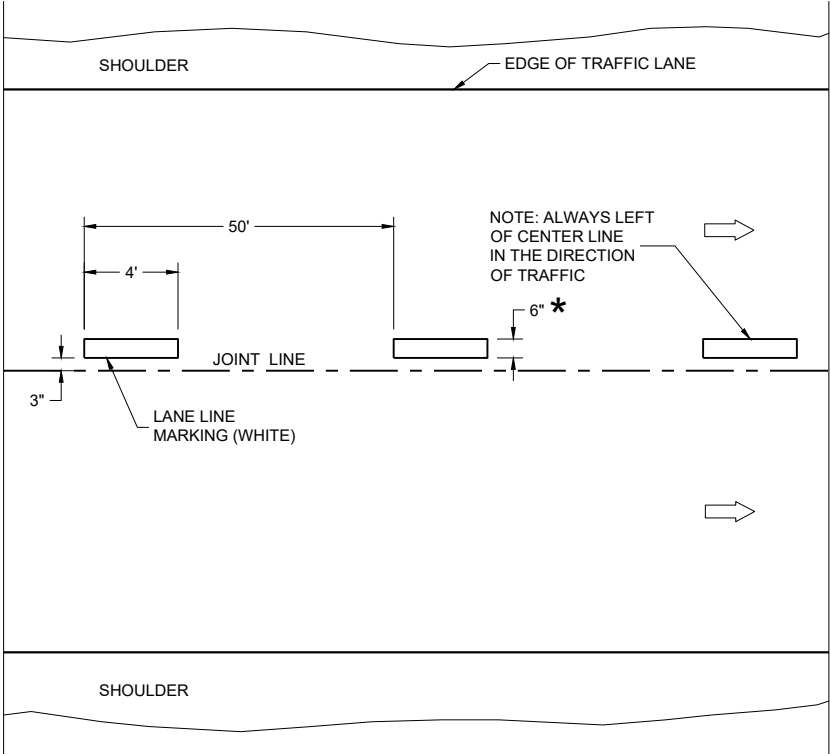
LEGEND

DIRECTION OF TRAFFIC

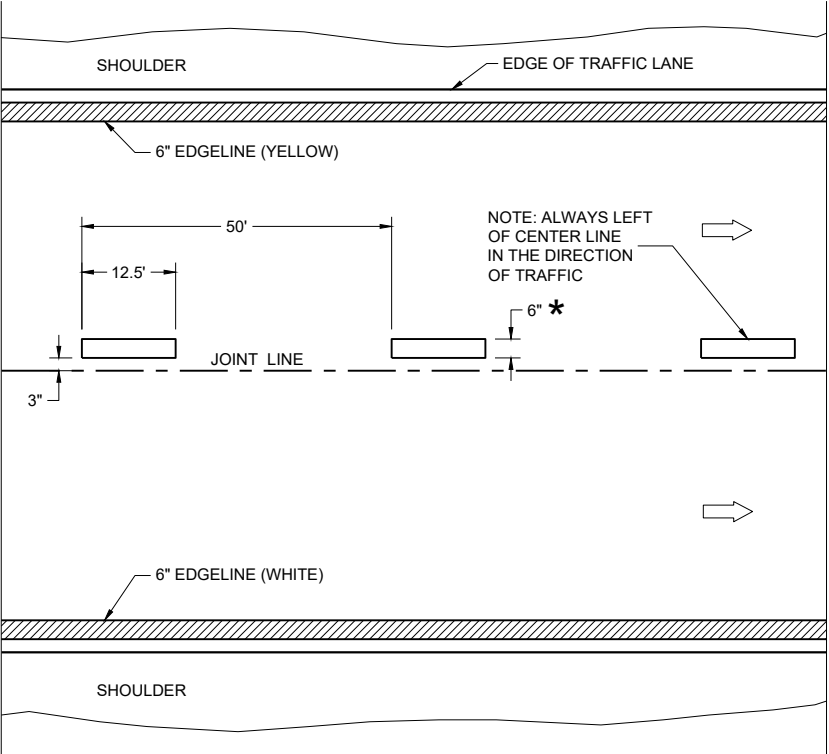
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



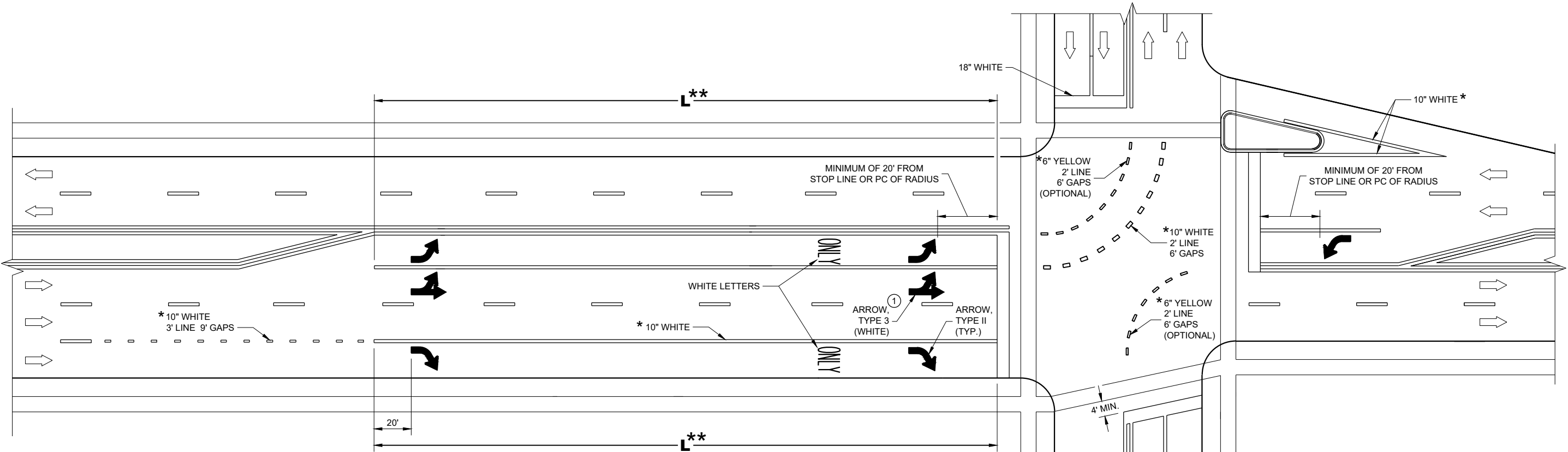
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

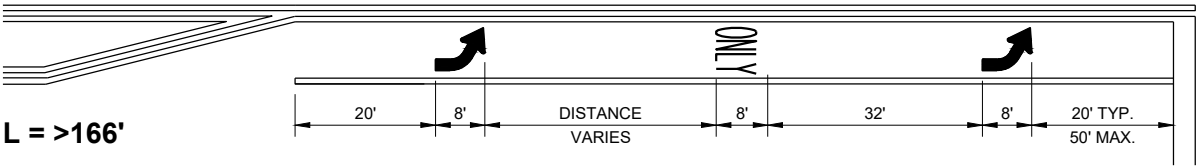
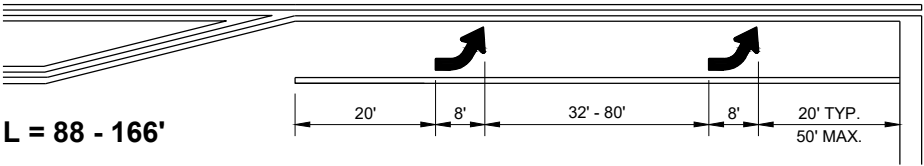
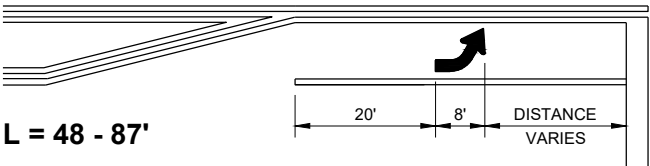
TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

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.

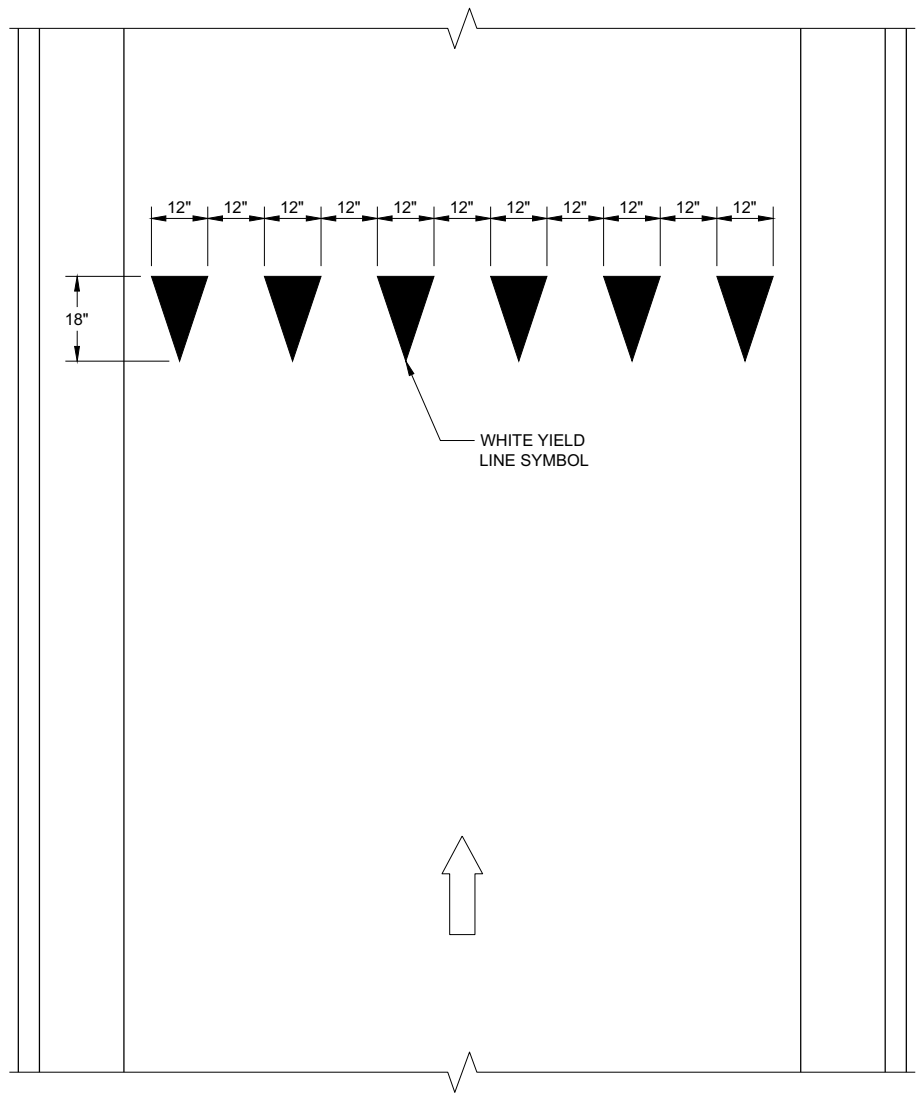
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING
(TURN LANES)

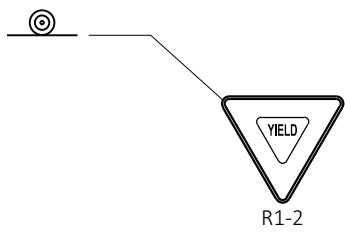
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



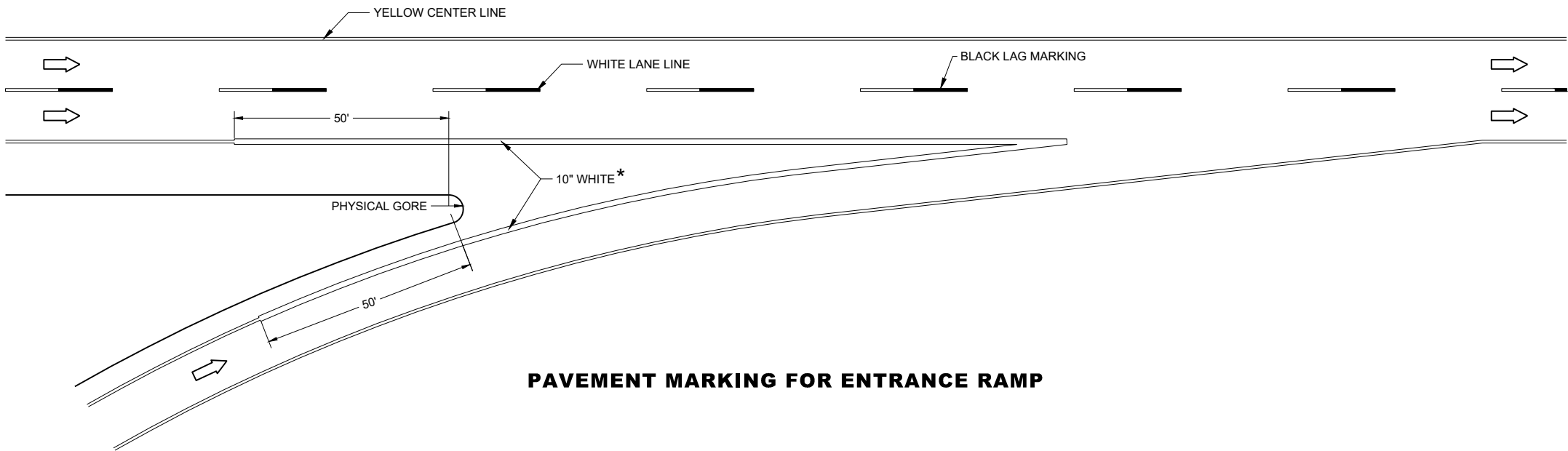
YIELD LINE

LEGEND

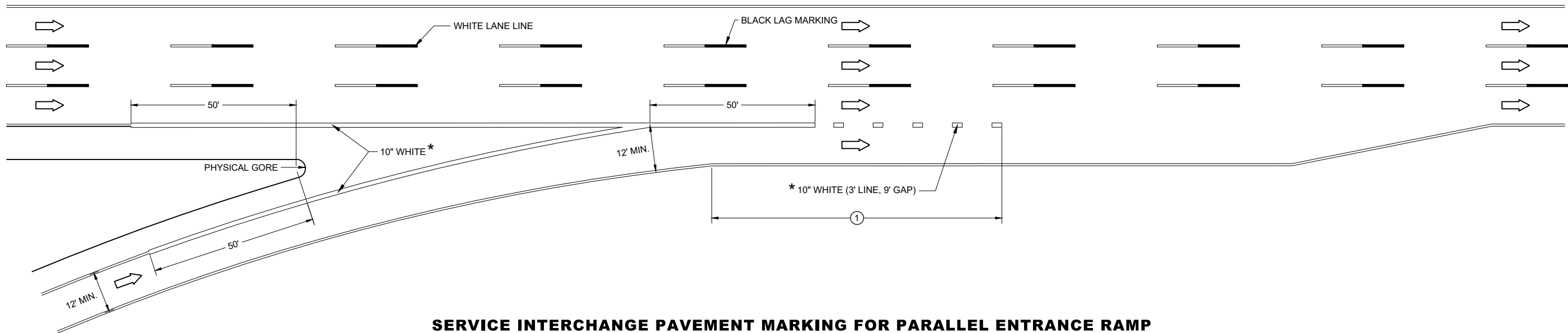
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAVEL



YIELD MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-81-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER



PAVEMENT MARKING FOR ENTRANCE RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

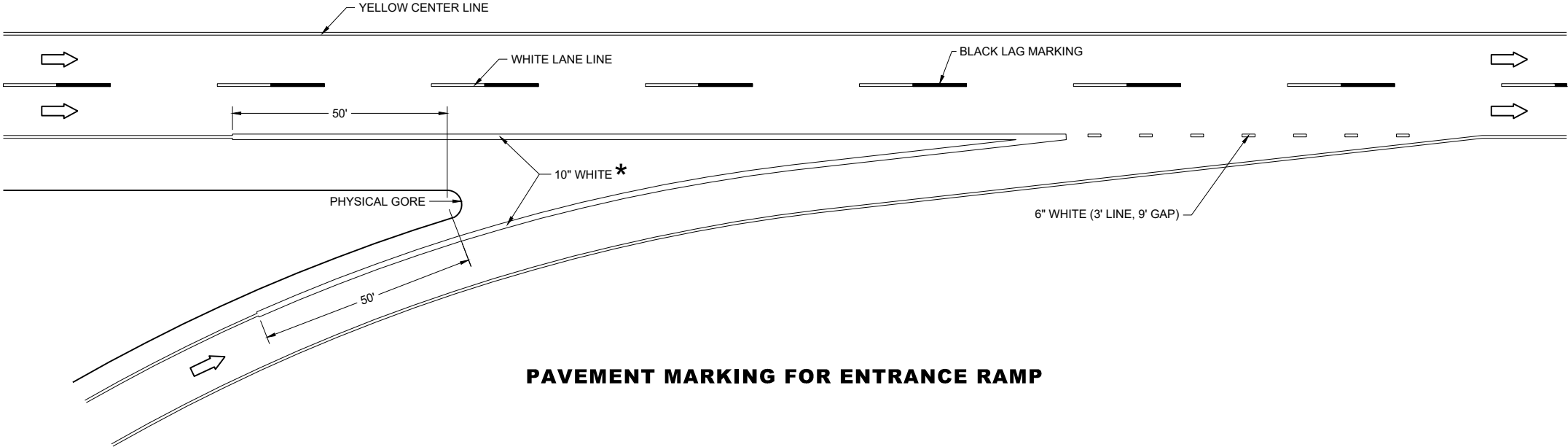
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

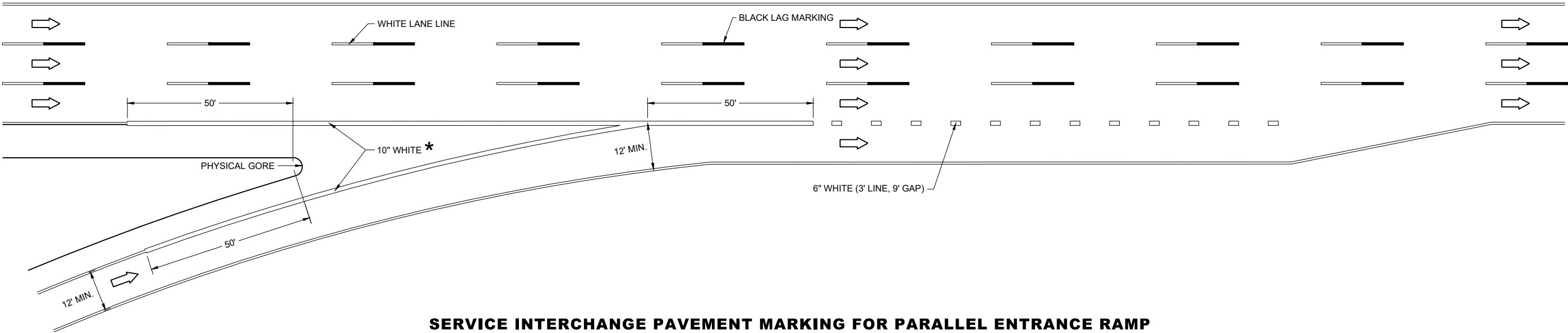
LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



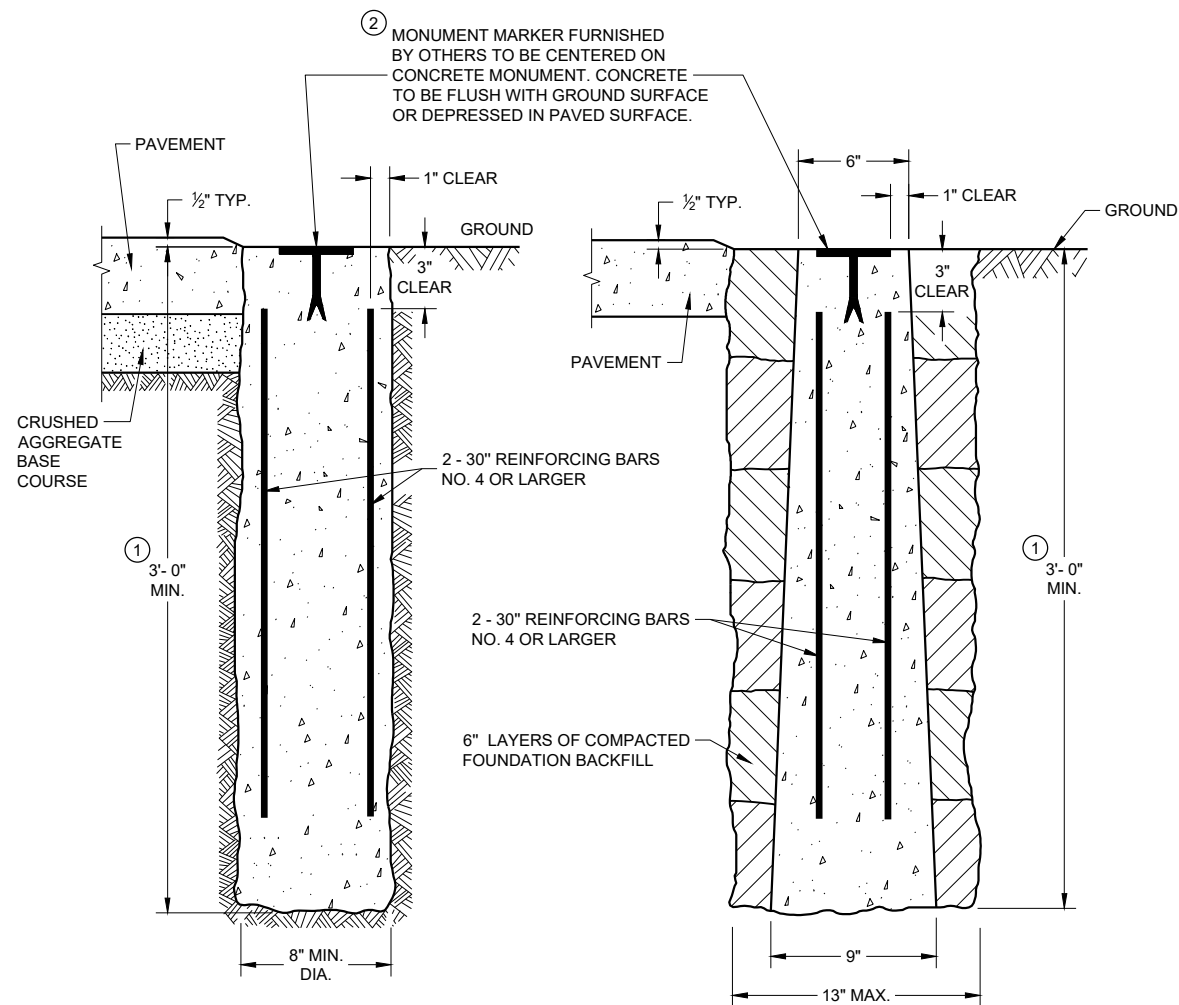
PAVEMENT MARKING FOR ENTRANCE RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

PAVEMENT MARKING,
ENTRANCE RAMP AND
PARALLEL ENTRANCE RAMP

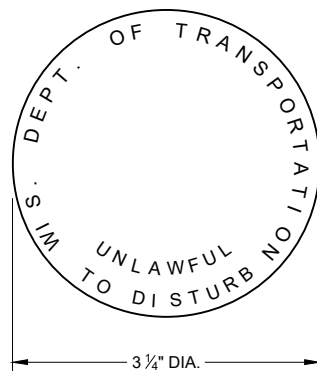
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



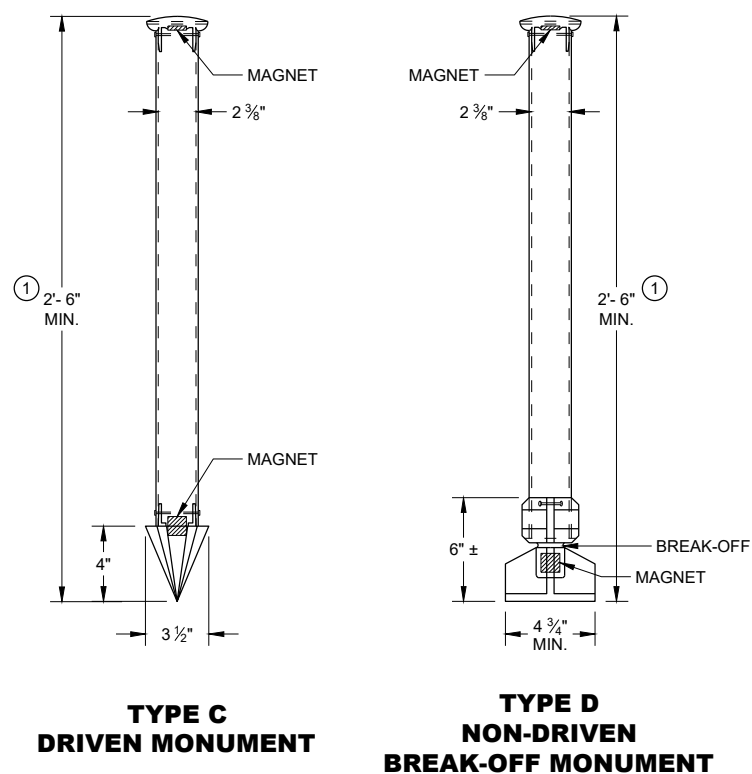
CAST-IN-PLACE

PRECAST

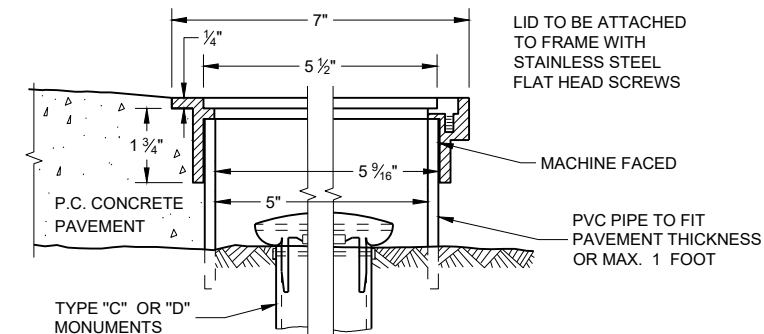
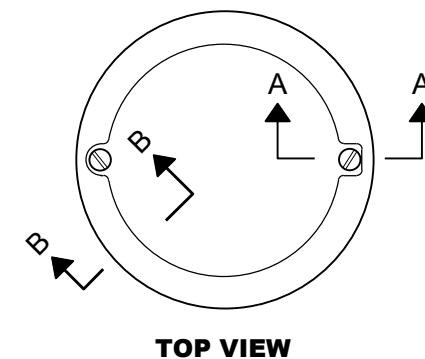
CONCRETE MONUMENTS TYPE A



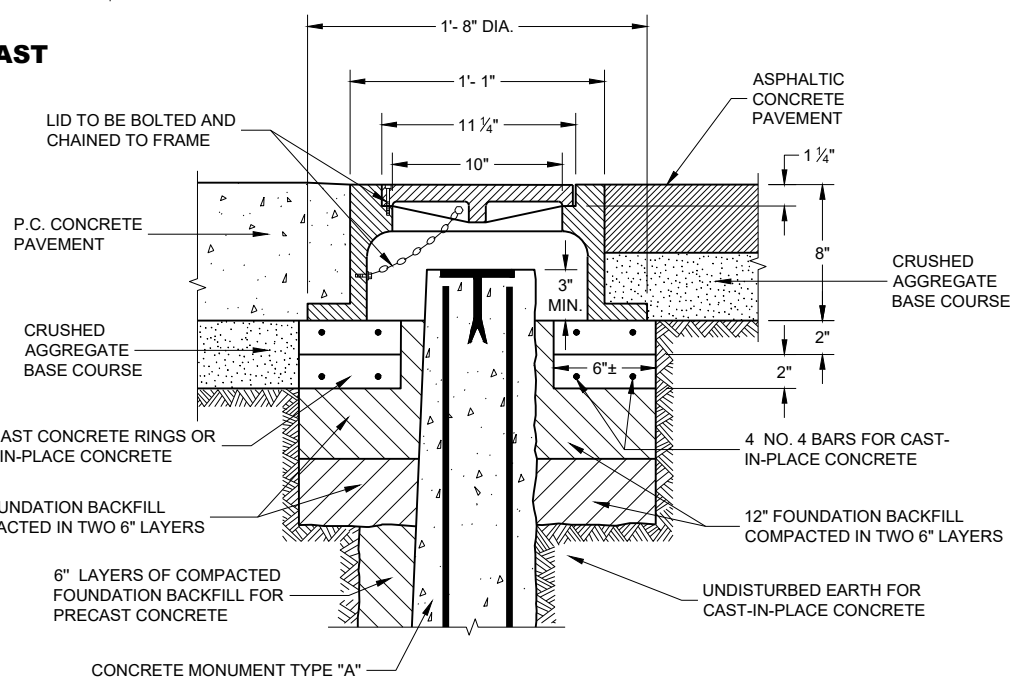
② **WIS DOT MONUMENT
MARKER LOGO**
FOR TYPES "A", "C" & "D"



ALUMINUM MONUMENTS (INCLUDES MARKER)



SECTION B-B **SECTION A-A**
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



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.

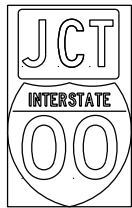
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.

LANDMARK REFERENCE MONUMENTS AND COVERS

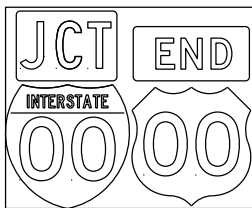
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Raymond A. Kumapayii
CHIEF SURVEYING AND MAPPING
ENGINEER
FHWA

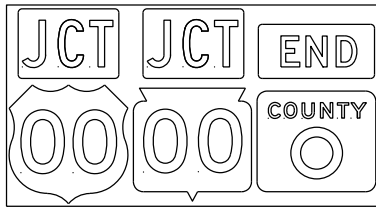
TYPICAL ASSEMBLIES



J1-1



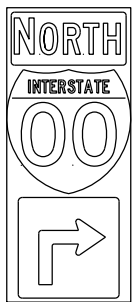
J1-2



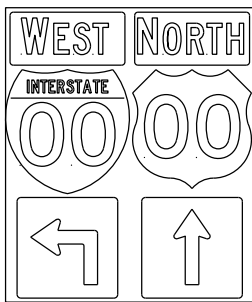
J1-3



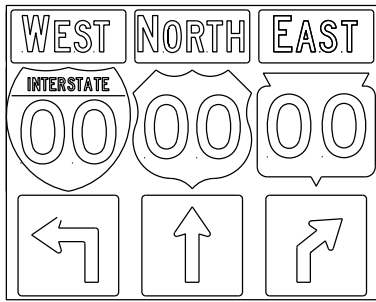
JR1-1



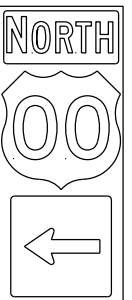
J2-1



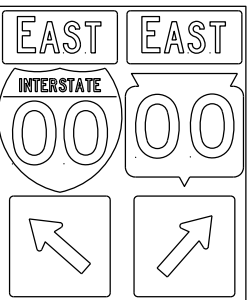
J2-2



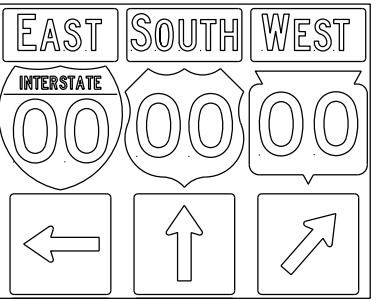
J2-3



J3-1



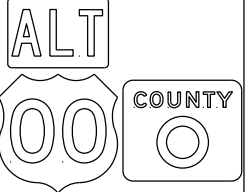
J3-2



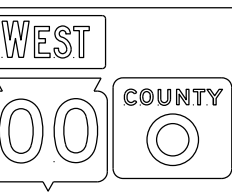
J3-3



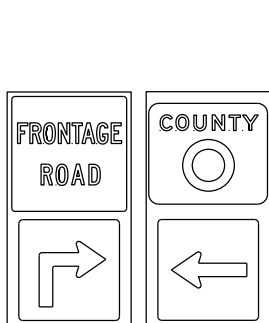
J4-1



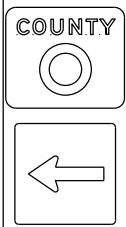
J4-2



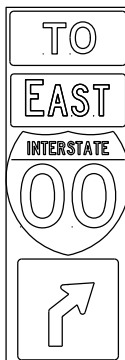
J4-2



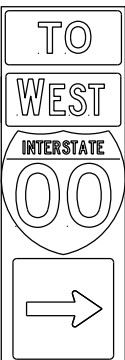
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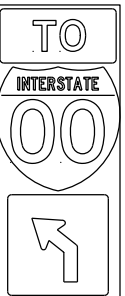
J13-1



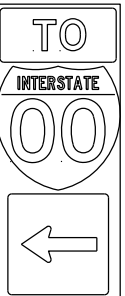
J32-1



J33-1



J22-1



J23-1



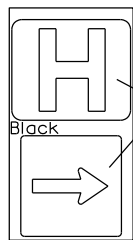
JR13-1



JR23-1



JR99-1

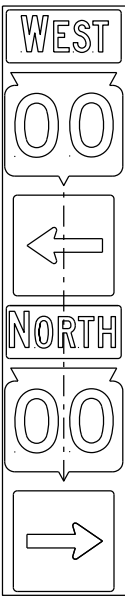
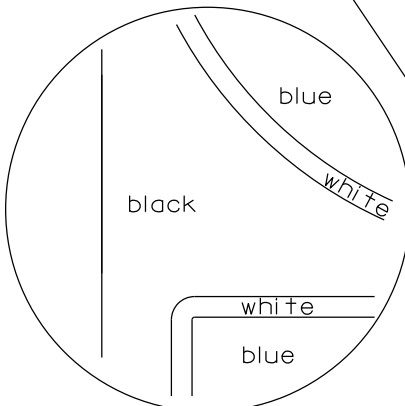


JH-1

Blue Background

Black

blue background with interstate

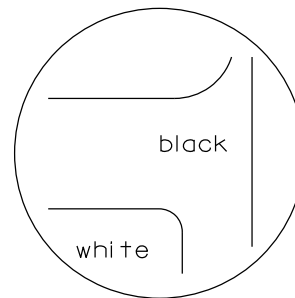
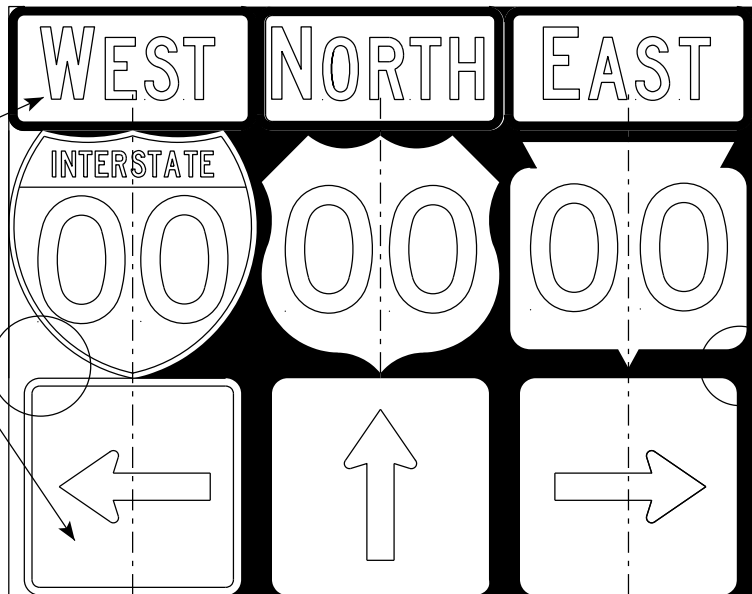


JV

(Typical Vertical J-Assembly
See Note 10 and 11)

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
Background - Black Non-reflective
Message - see Note 4
3. Message Series - See Note 4
4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
5. 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.
6. 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.
7. 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.
8. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (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.
9. All Vertical J Assemblies are given a Sign Code of JV
10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.



black background

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

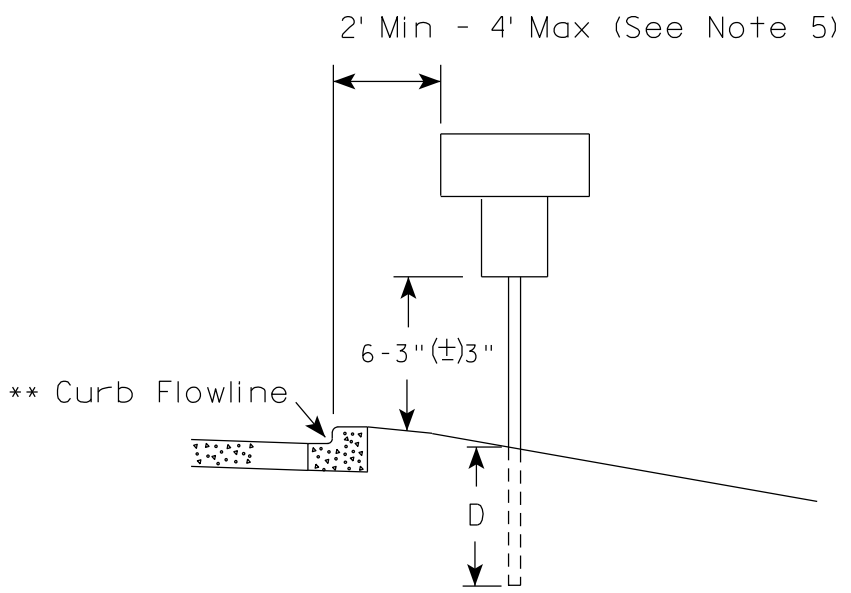
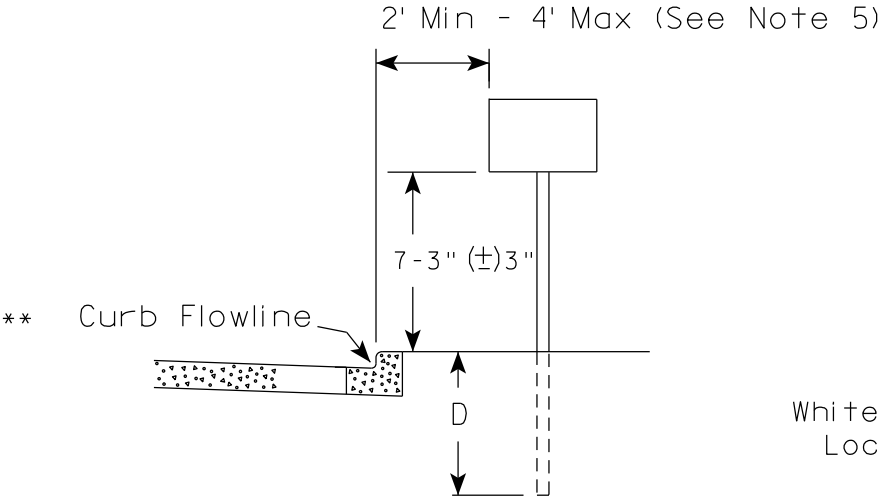
DATE 6/7/23 PLATE NO. A2-1S.10

PROJECT NO:

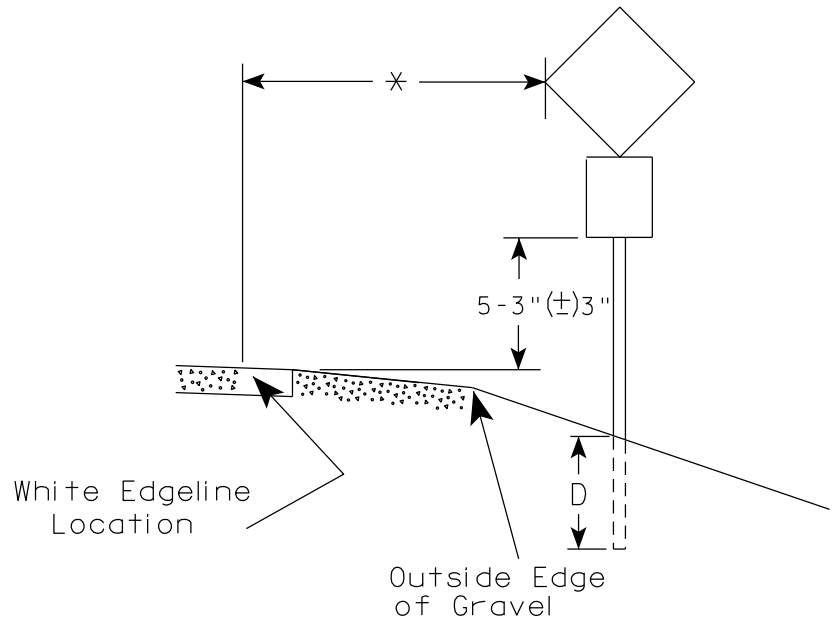
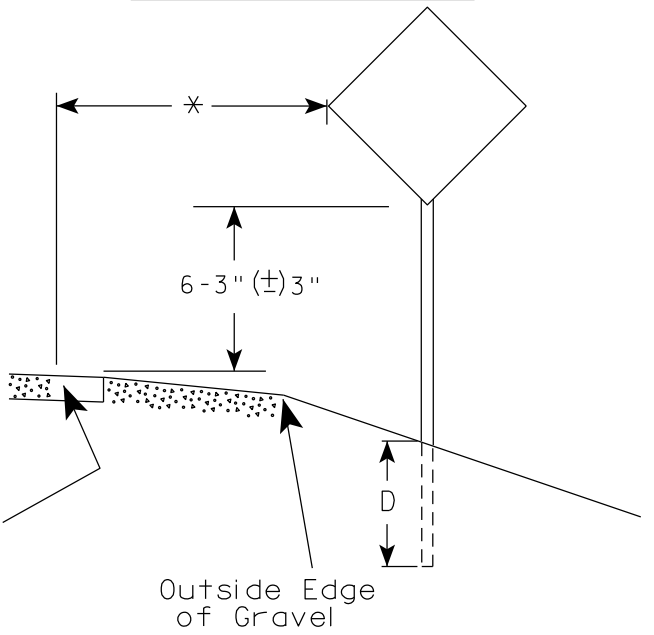
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the 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.

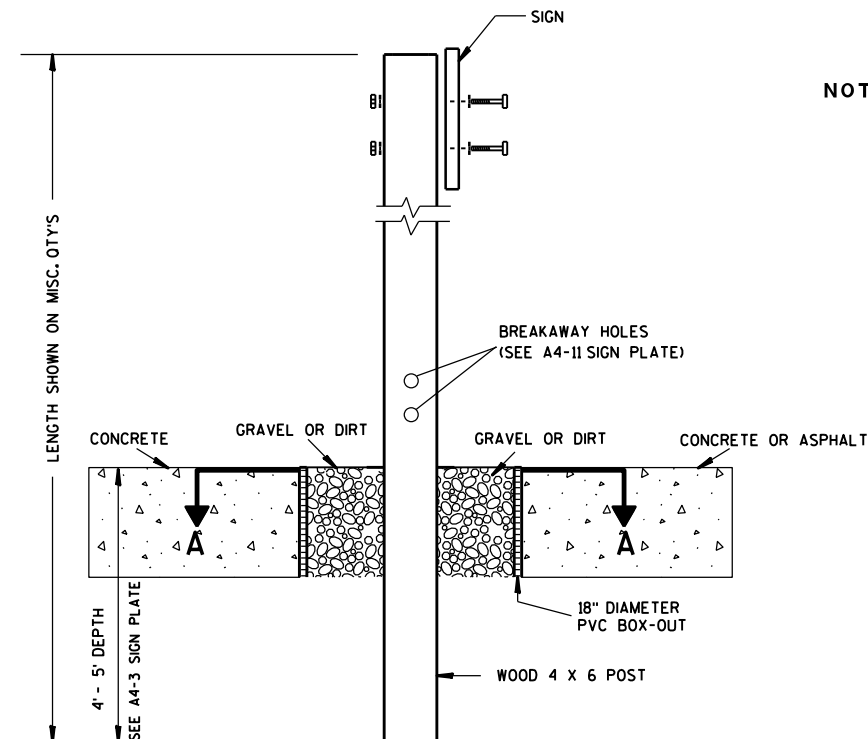
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

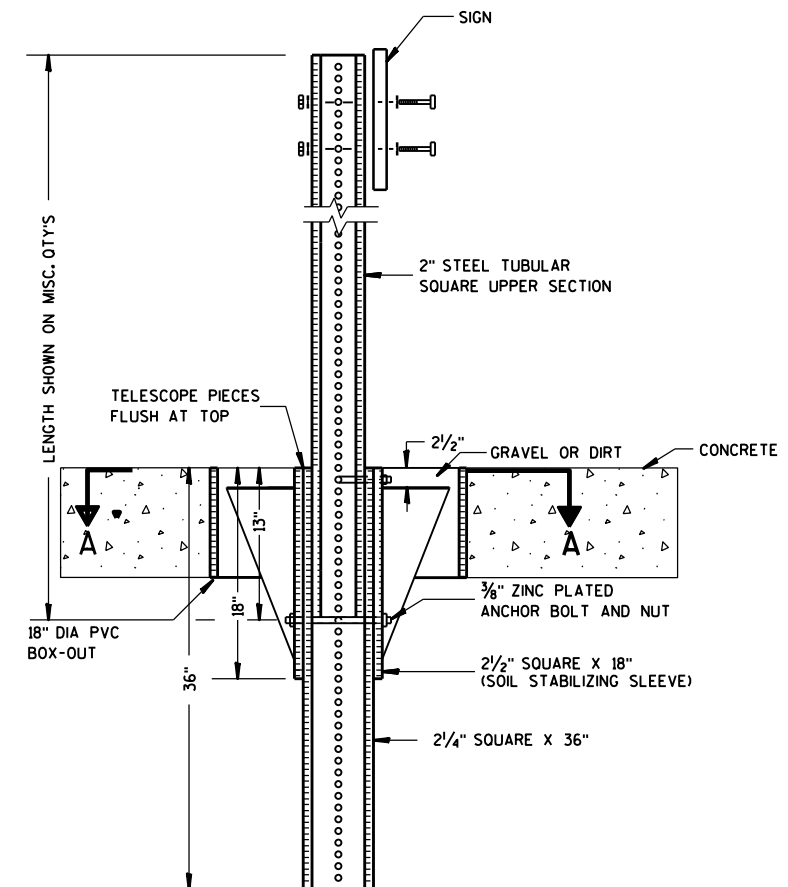
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

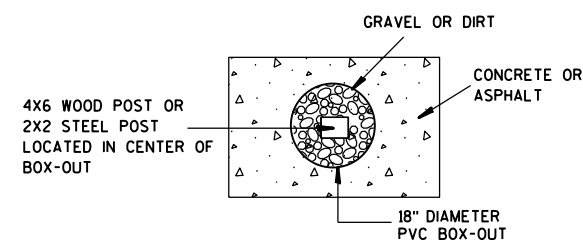
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

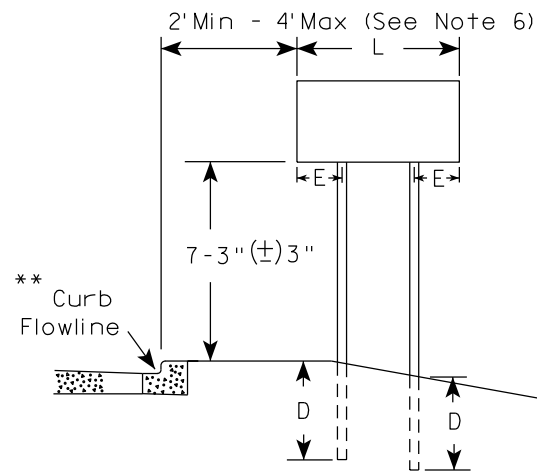
SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

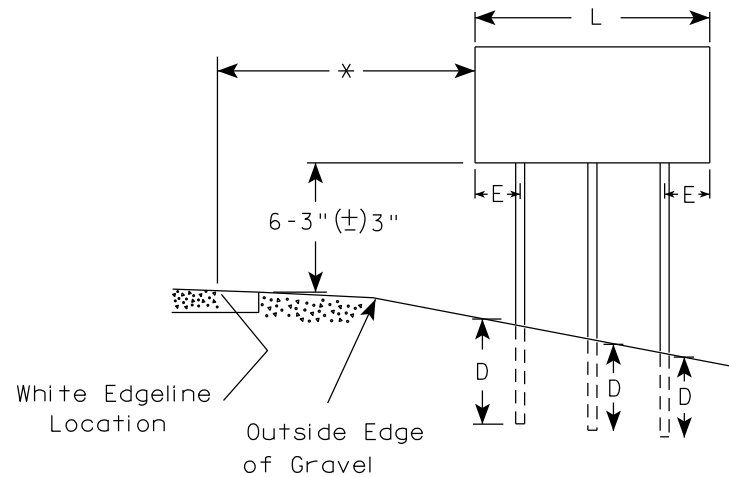
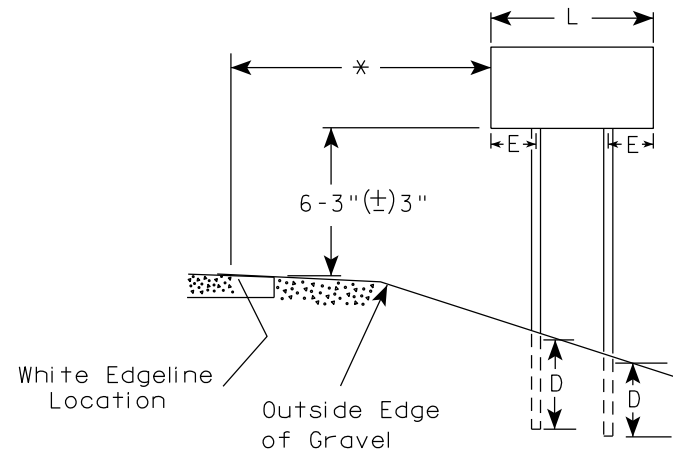
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

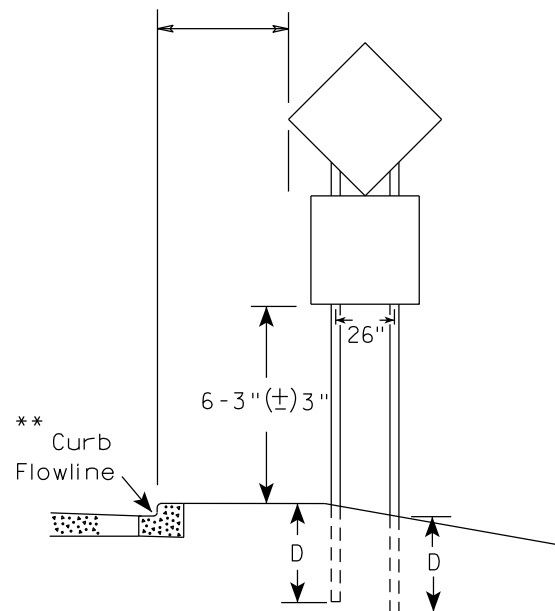
URBAN AREA



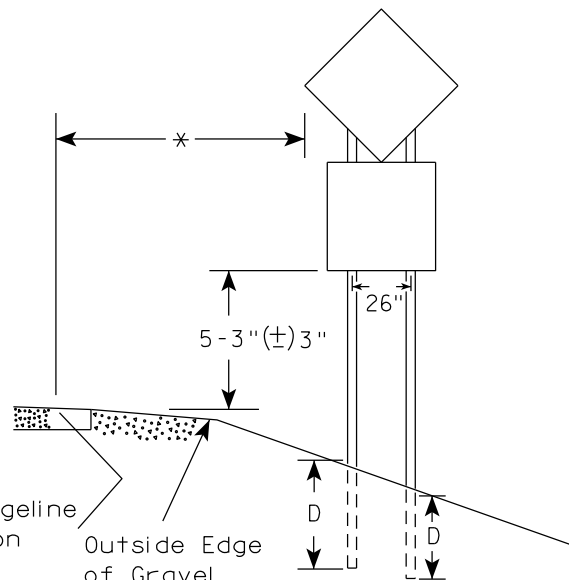
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



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"

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 12/6/23 PLATE NO. A4-4.16

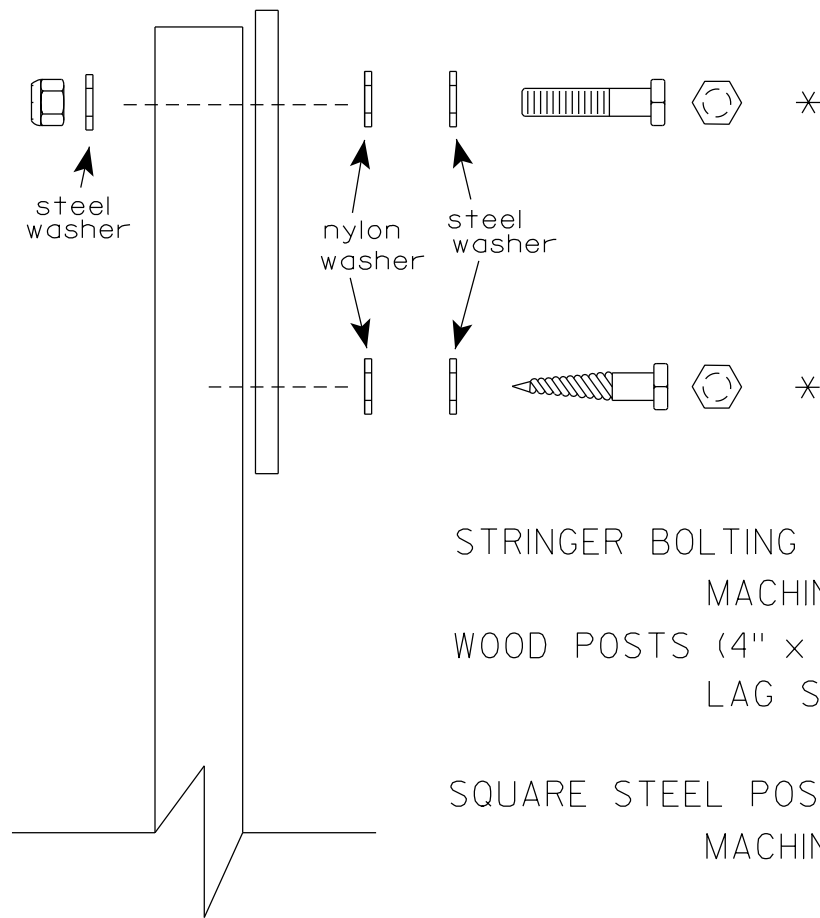
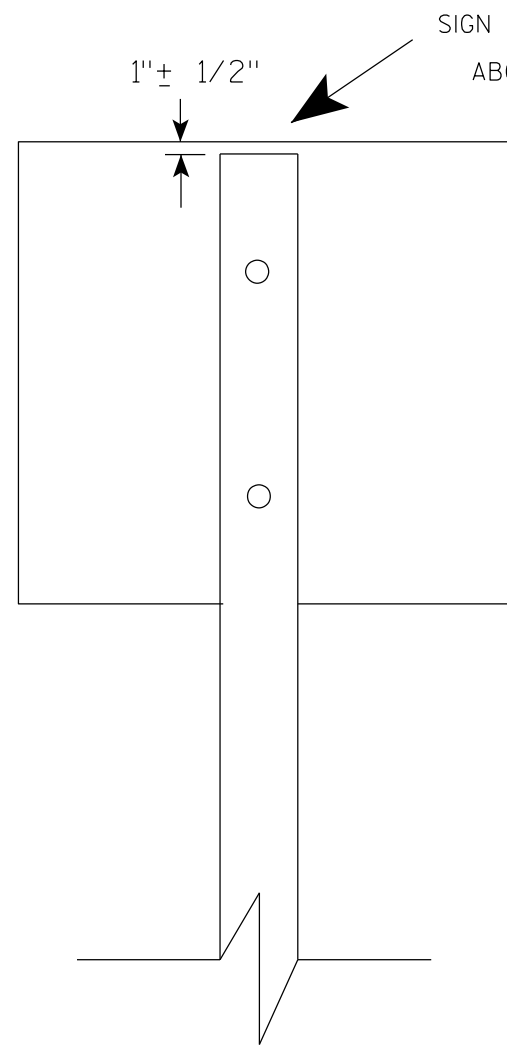
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

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.

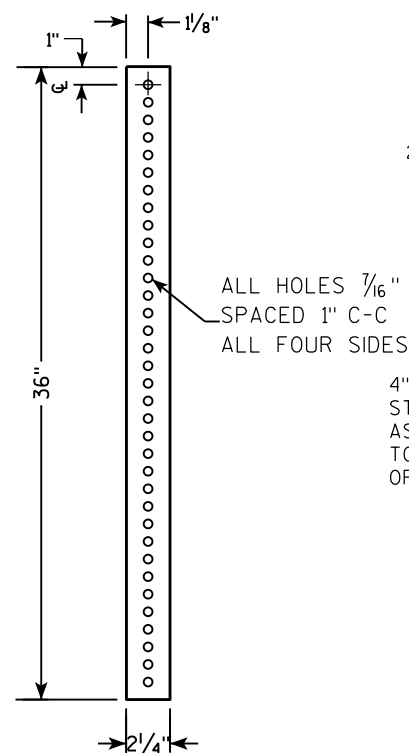
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

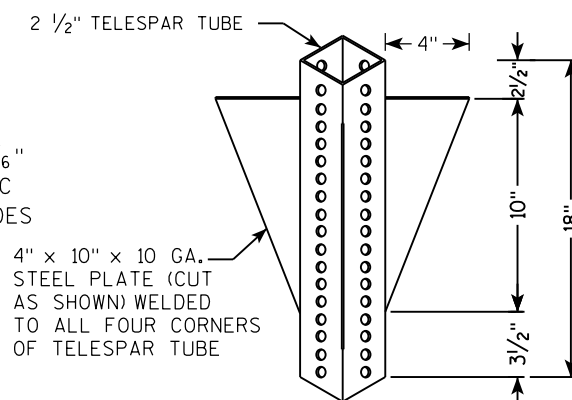
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



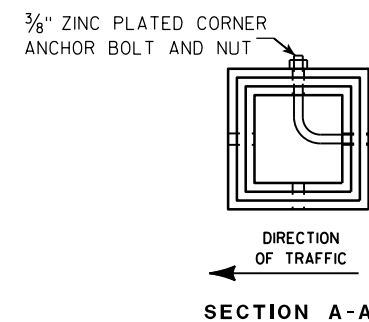
TECHNICAL DRAWING OF A SIGN POST ASSEMBLY.

Labels and Dimensions:

- SIGN**: Points to the sign plate at the top.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Points to the hardware on the sign.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: Points to the upper part of the post.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Points to the holes in the post.
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Points to the anchor bolt in the sleeve.
- 2 1/2" GRAVEL OR DIRT**: Points to the layer between the sleeve and the post.
- $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT**: Points to the anchor bolt in the post.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: Points to the sleeve around the post.
- 2 1/4" SQUARE X 36"**: Points to the main post section.
- 18" DIA SCHEDULE 40 PVC BOX-OUT**: Points to the main post section.
- TELESCOPE PIECES FLUSH AT TOP**: Points to the top of the post.
- 36"**: Dimension for the main post section.
- 18"**: Dimension for the sleeve.
- 13"**: Dimension for the gravel/dirt layer.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- Dimensions:**
 - Overall height: LENGTH SHOWN ON MISC. Q'TYS
 - Section A-A: 36" (total), 18" (upper), 12" (lower)
 - Section B-B: 1"
- Components and Materials:**
 - SIGN
 - SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 - 2" STEEL TUBULAR SQUARE UPPER SECTION
 - ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C
 - ALL FOUR SIDES
 - $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 - $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
 - 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 - 2 1/4" SQUARE X 36"
- Assembly Notes:**
 - TELESCOPE PIECES FLUSH AT TOP



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 Matthaeus R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

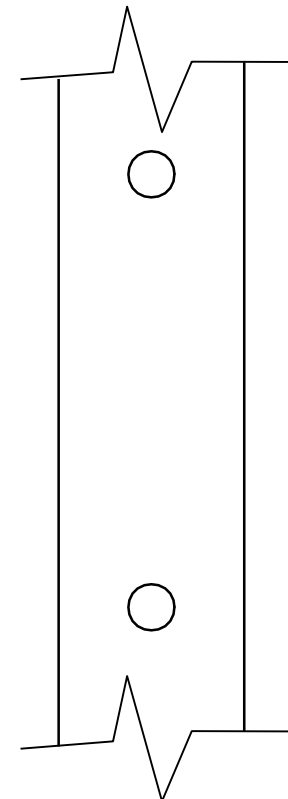
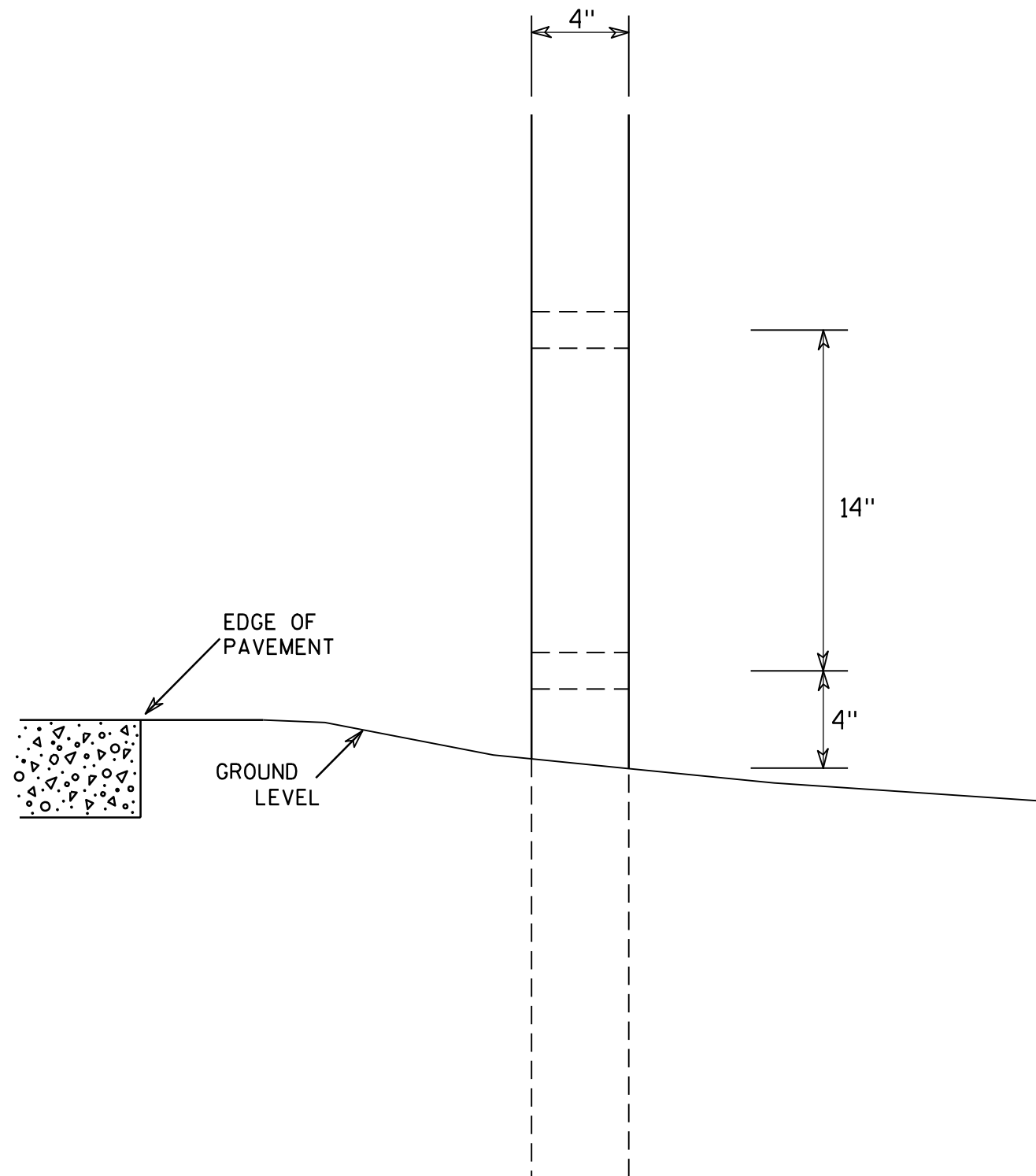
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

T



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.

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

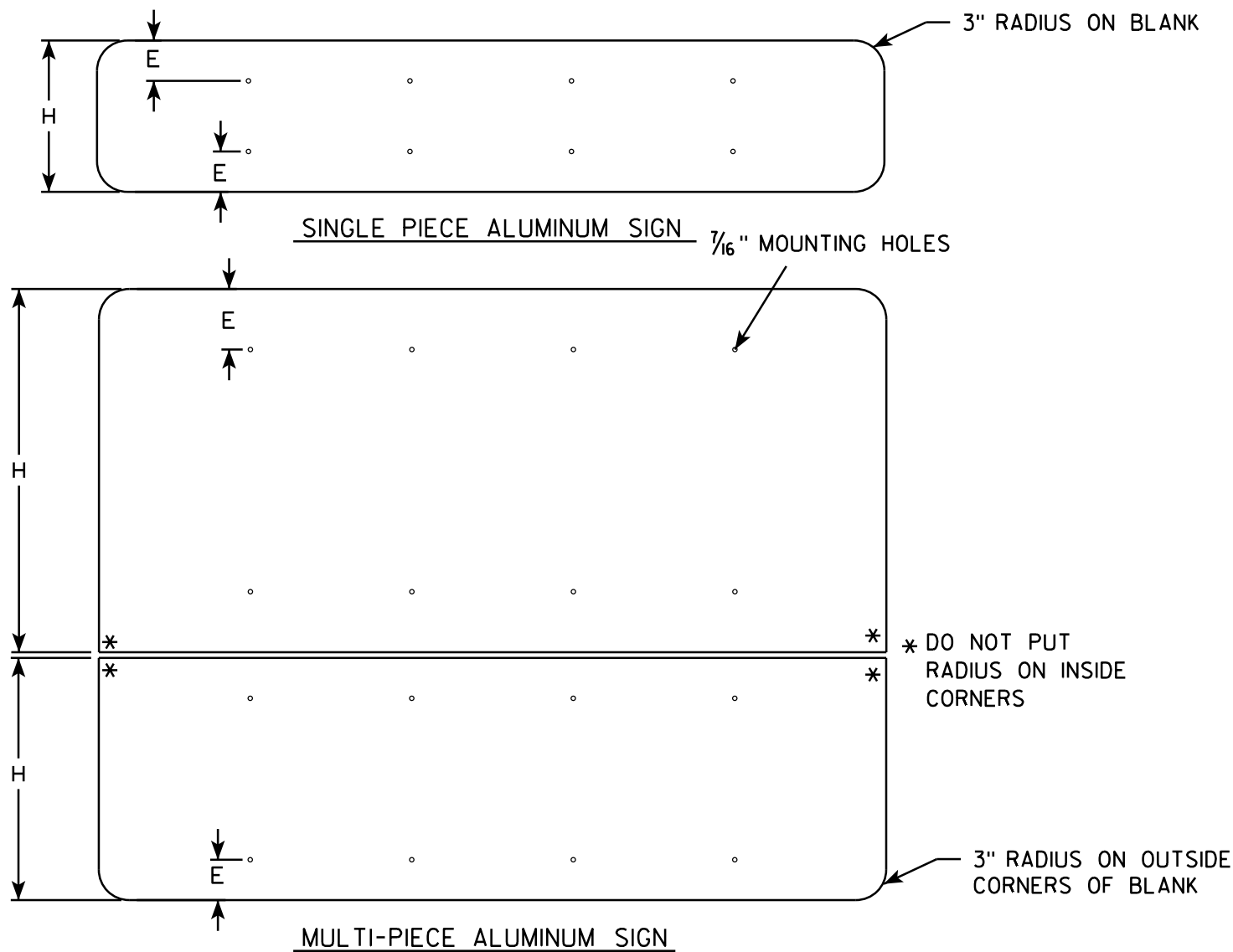
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

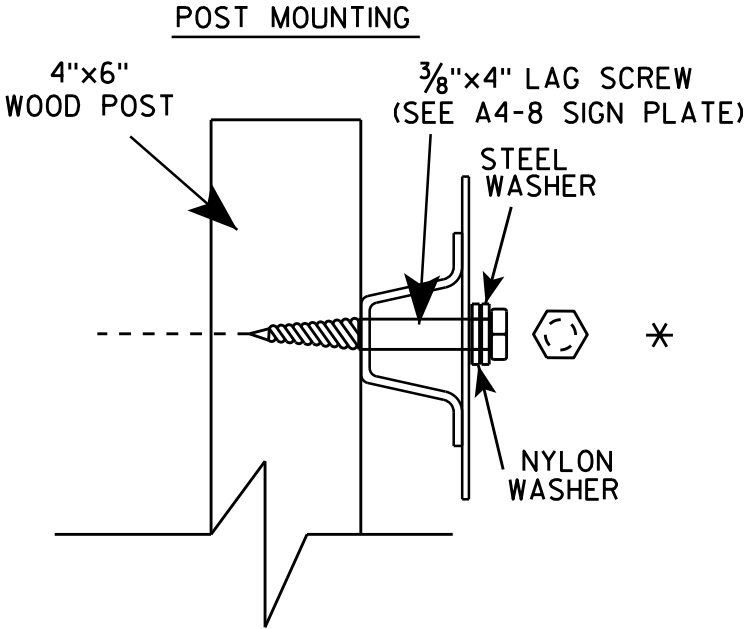
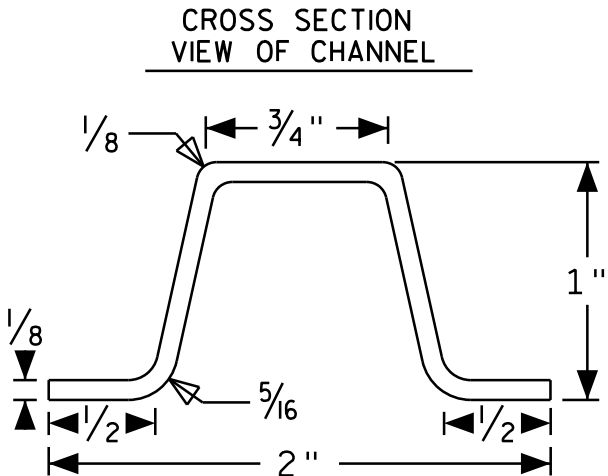
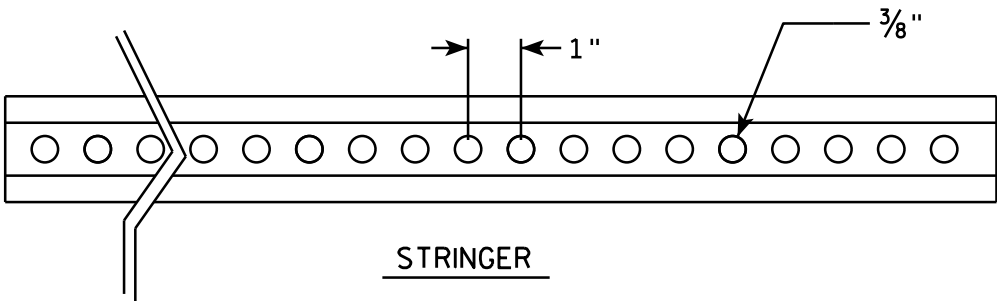
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER
MOUNTING REQUIREMENTS

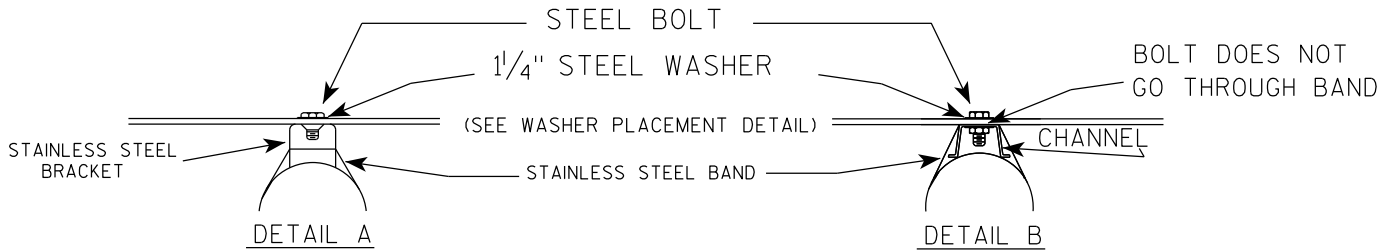
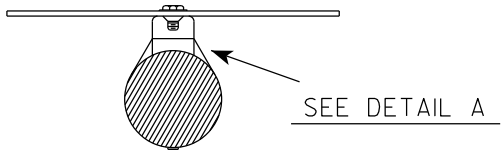
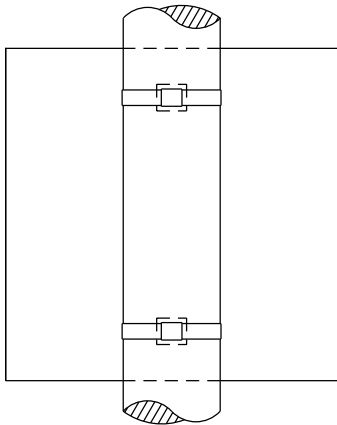
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

BANDING

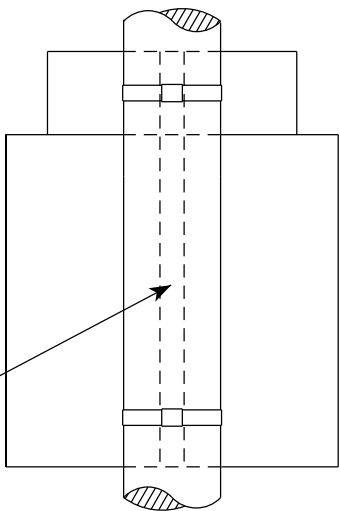
SINGLE SIGN



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 $\frac{3}{4}$ " 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

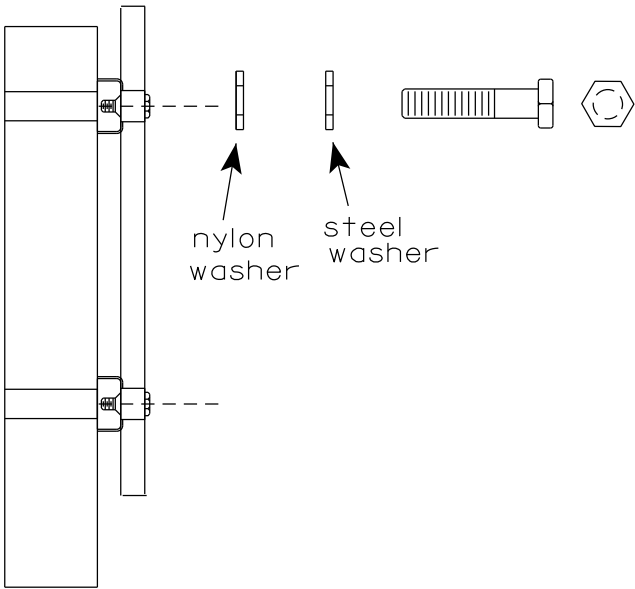
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

WASHER PLACEMENT

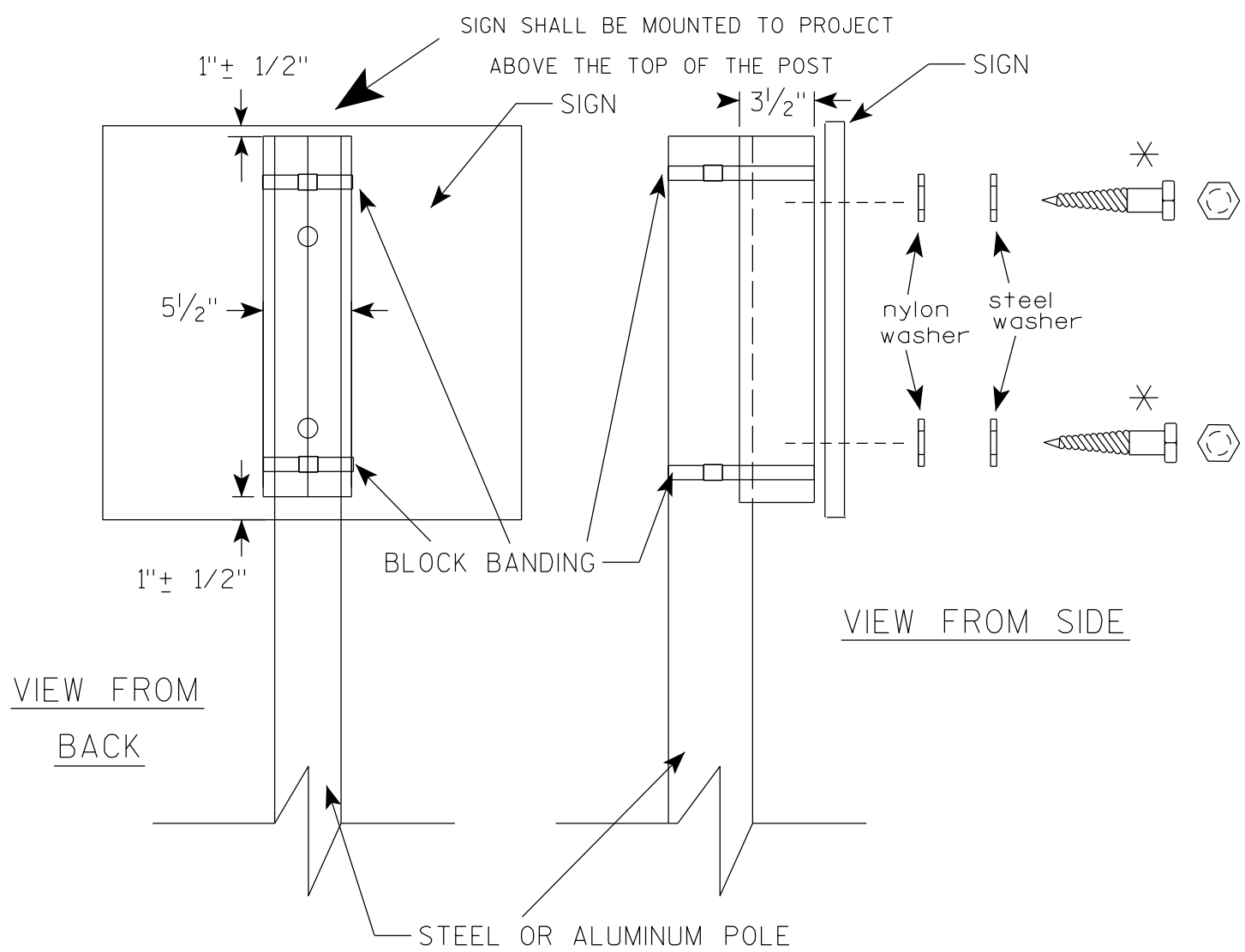


WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

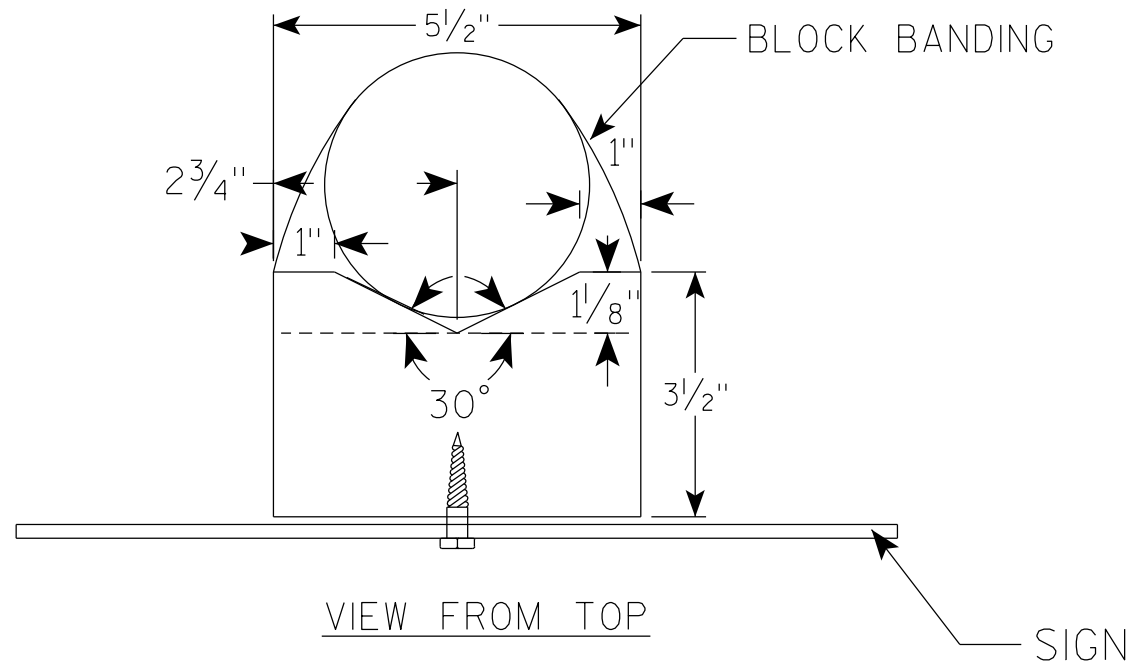
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

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, $\frac{3}{4}$ " 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 NORMALLY 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

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:

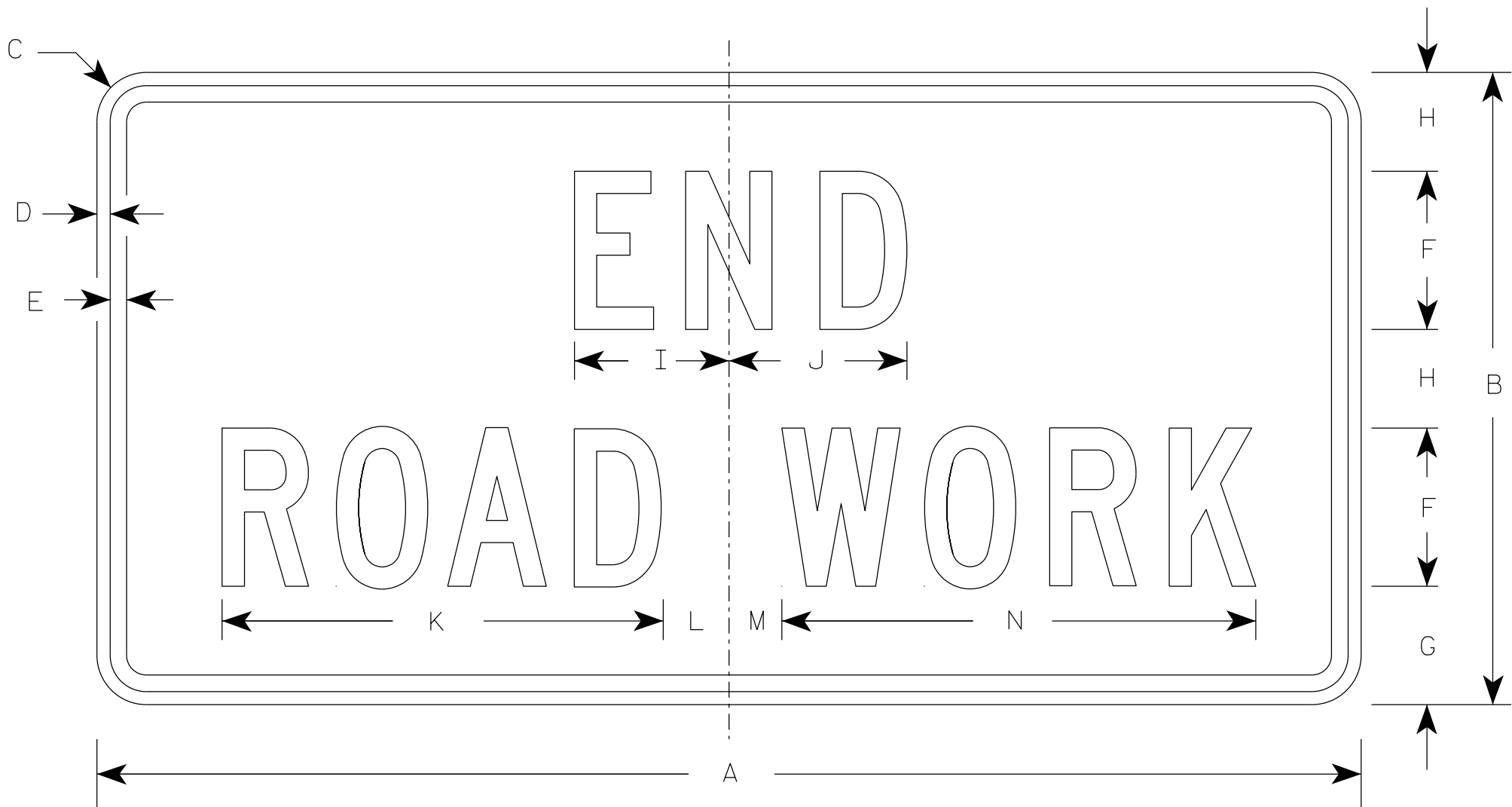
E

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.



G20-2A

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	18	1 1/2	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
2	48	24	1 7/8	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
2M	48	24	1 7/8	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
3	48	24	1 7/8	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
4	48	24	1 7/8	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
5	48	24	1 7/8	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

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

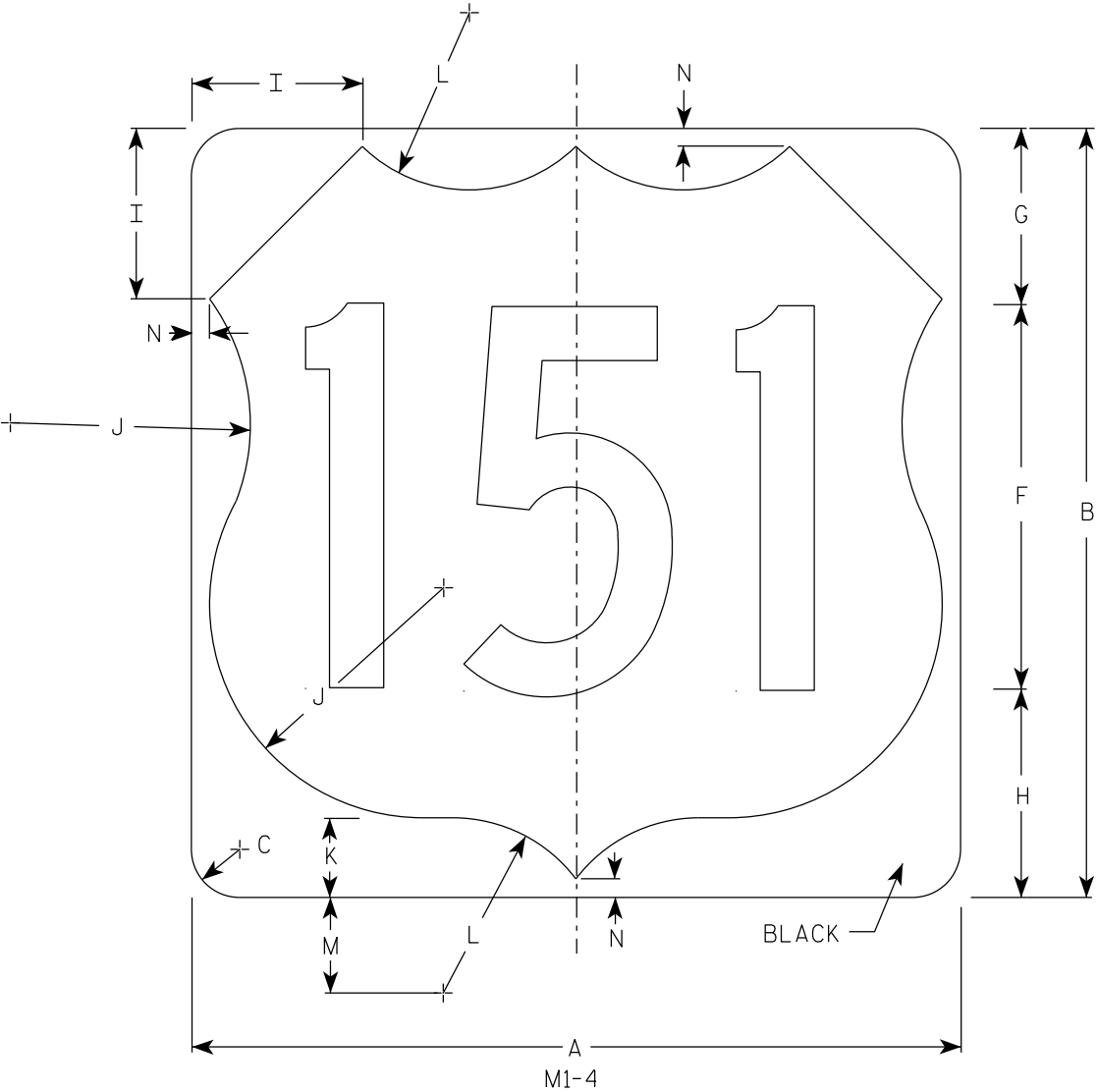
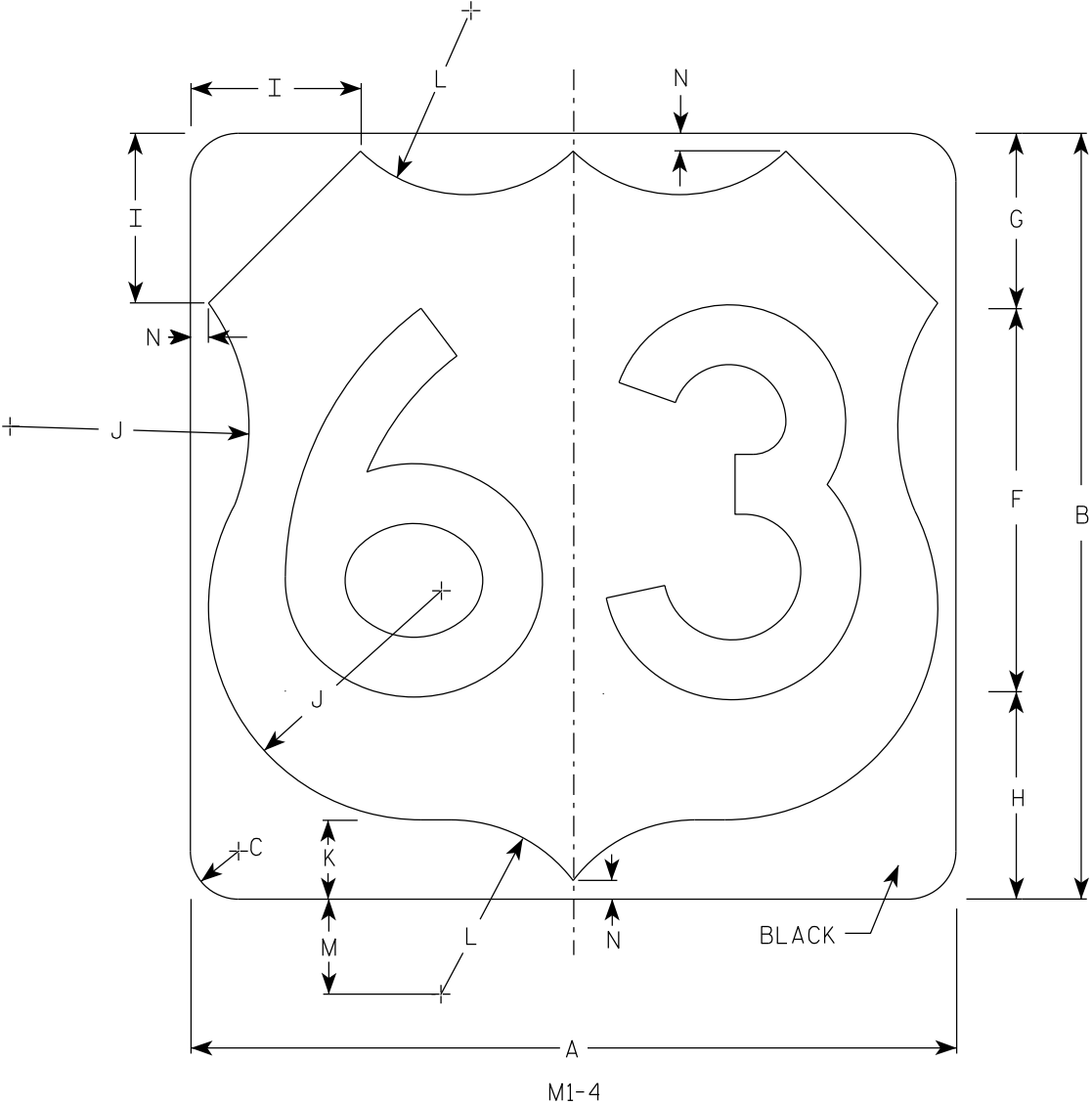
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
2M	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

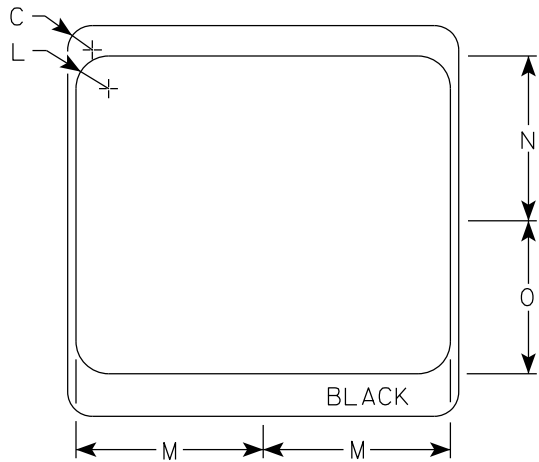
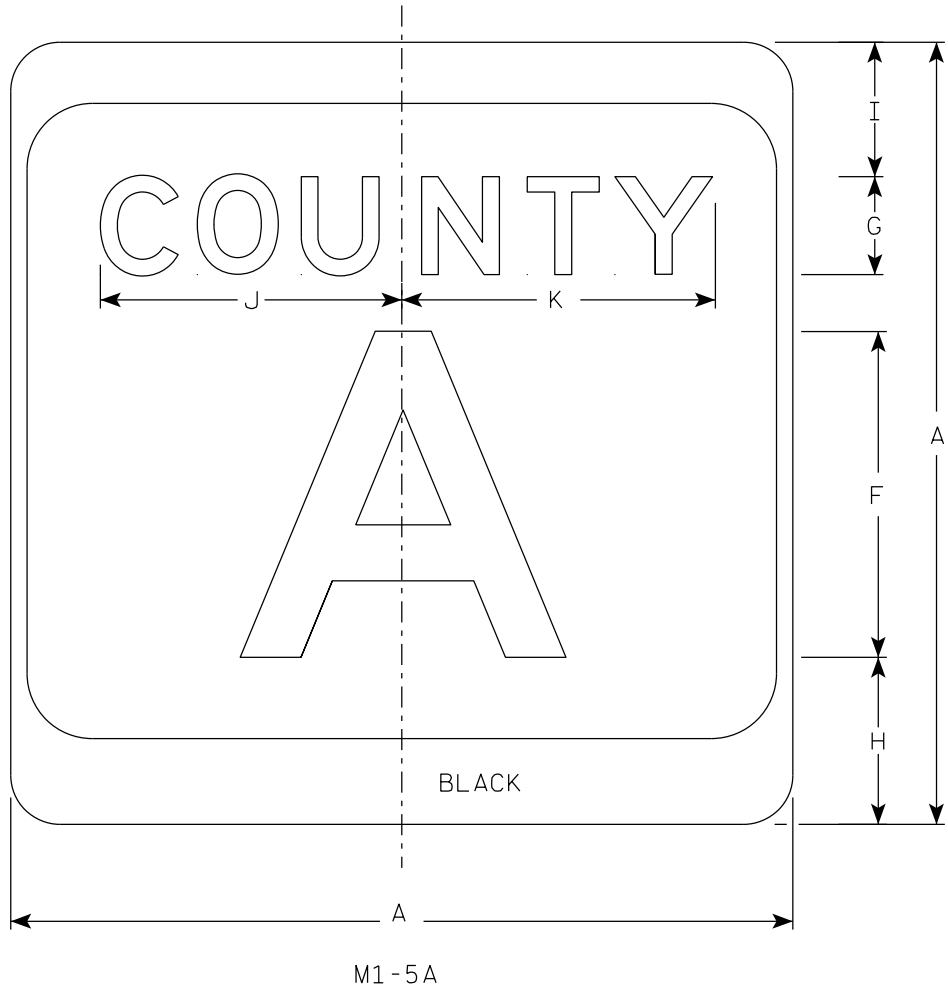
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

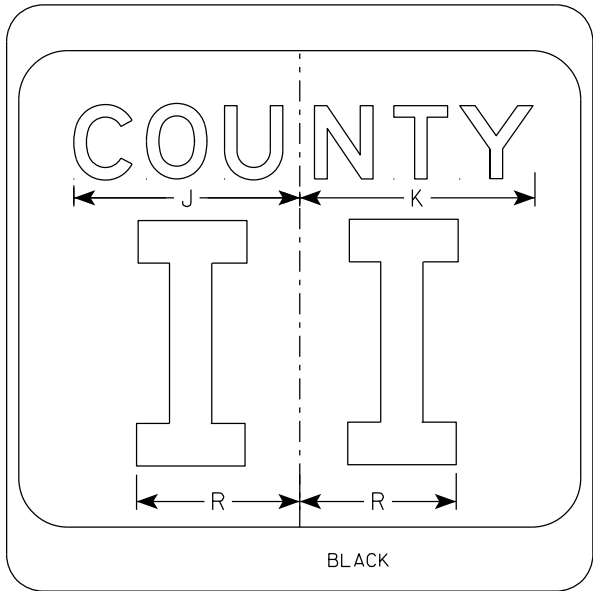
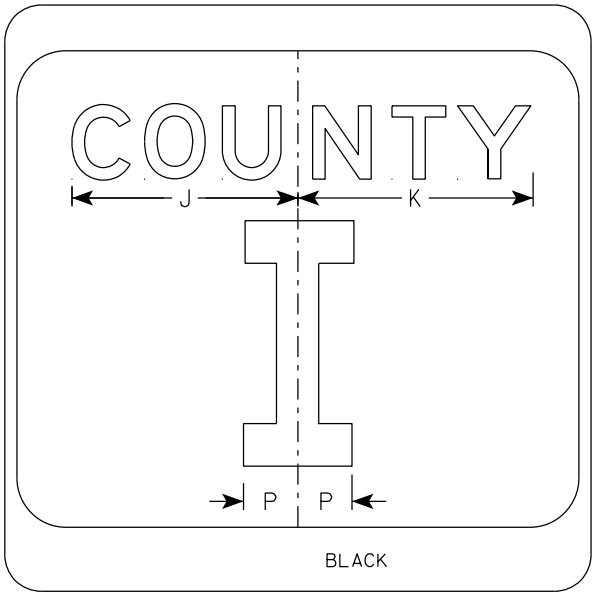
DATE 12/20/22 PLATE NO. M1-4.11

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center 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		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

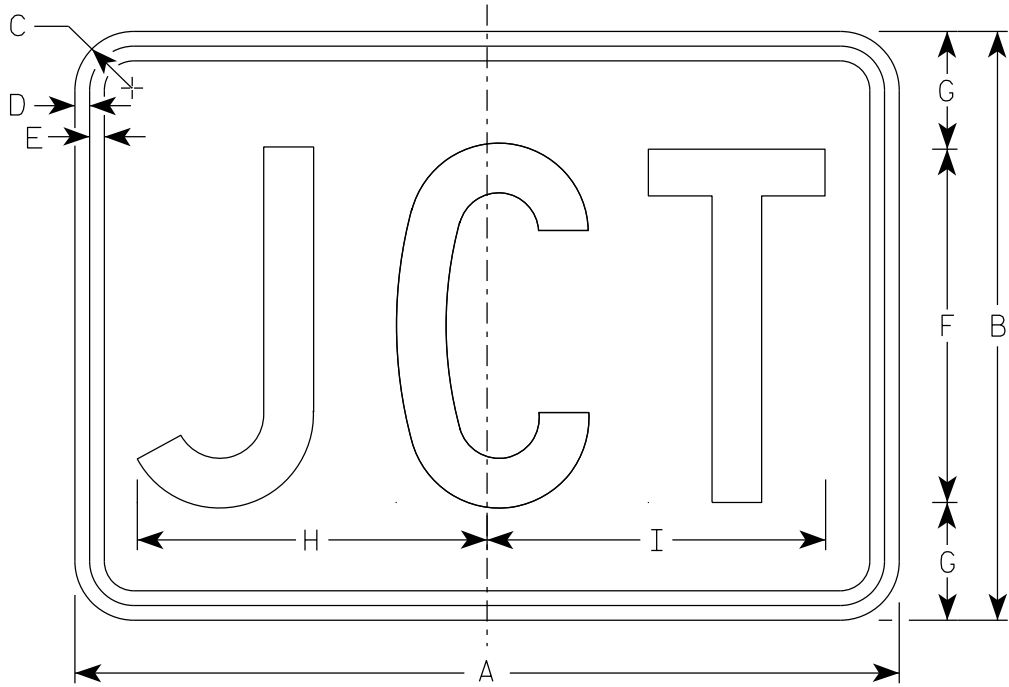
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

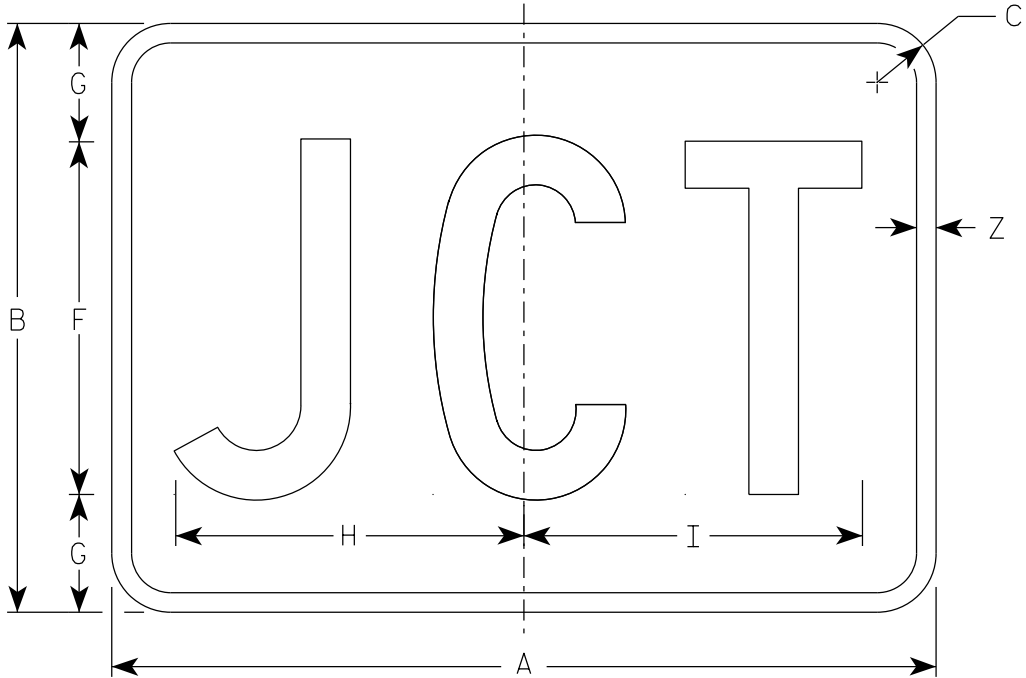
DATE 11/8/2022 PLATE NO. M1-5A.9

7

7



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. 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																											
2S	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
2M	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
3	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
4	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
5	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40

PROJECT NO:

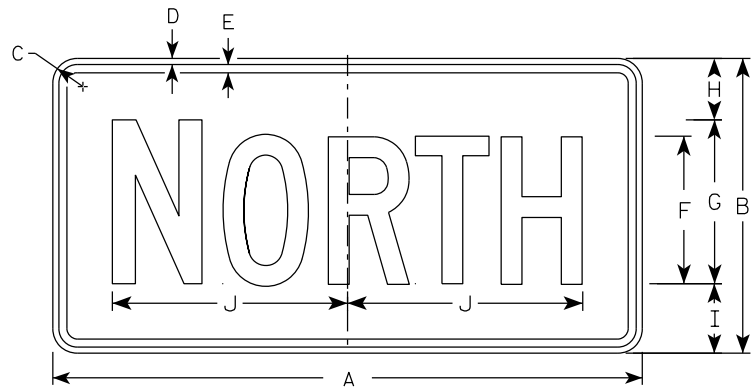
HWY:

COUNTY:

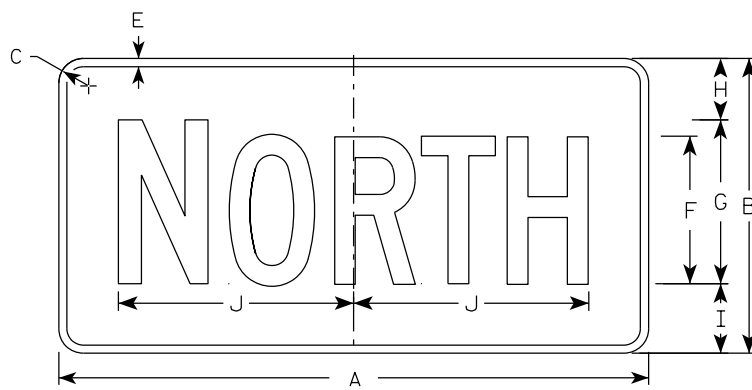
SHEET NO:

E

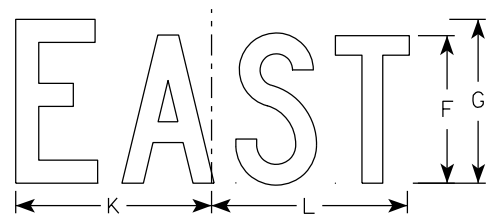
7



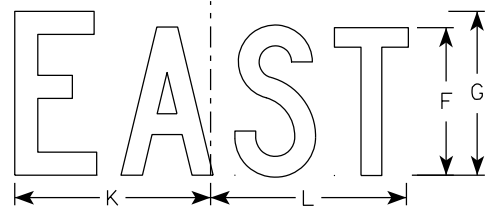
M3-1
MM3-1
MP3-1



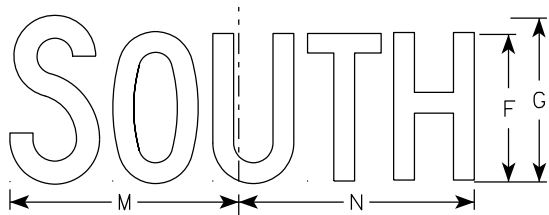
MB3-1
MK3-1
MN3-1



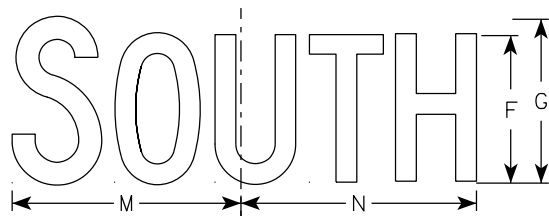
M3-2
MM3-2
MP3-2



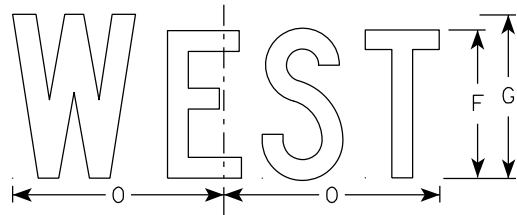
MB3-2
MK3-2
MN3-2



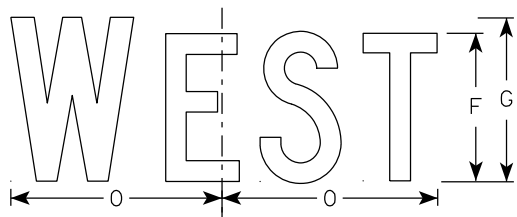
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

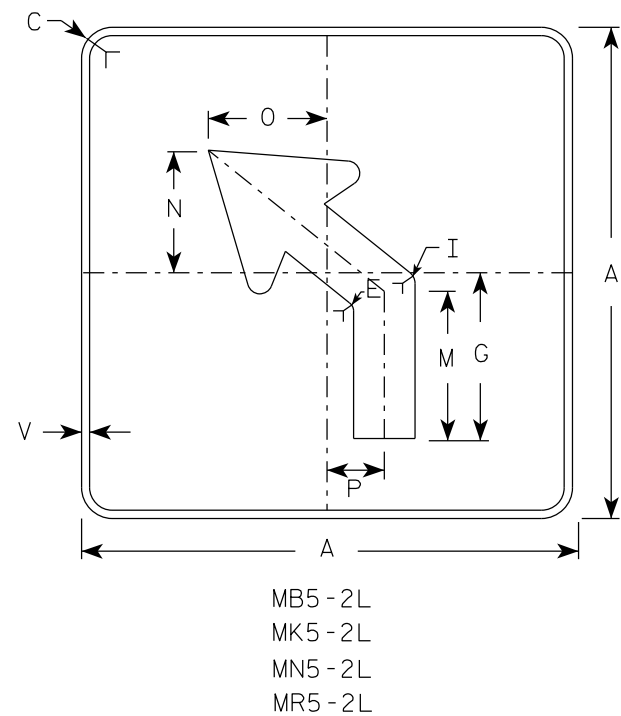
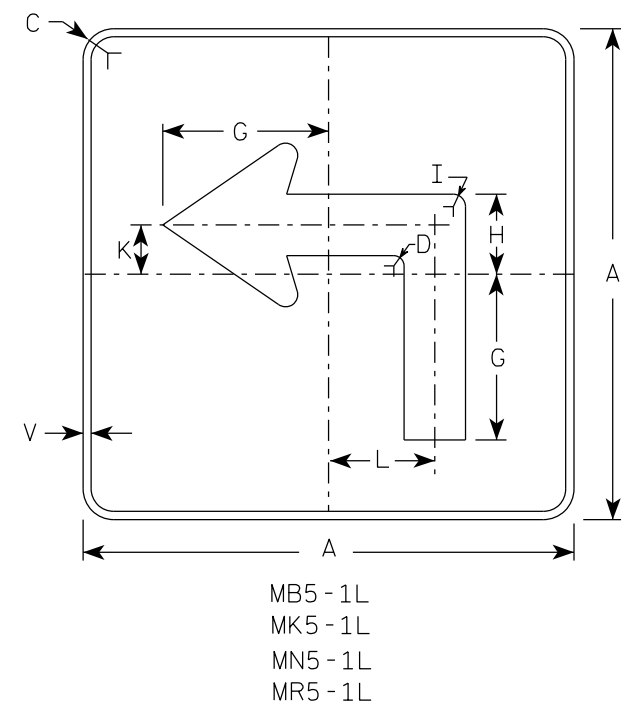
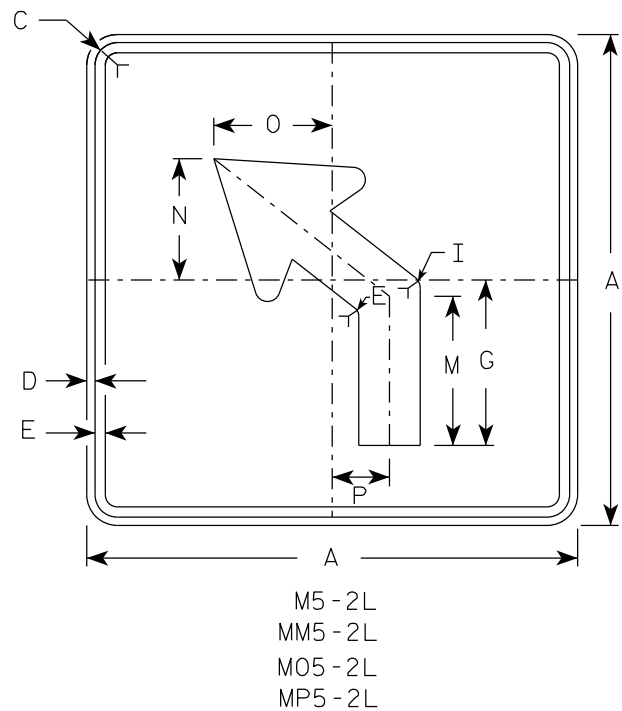
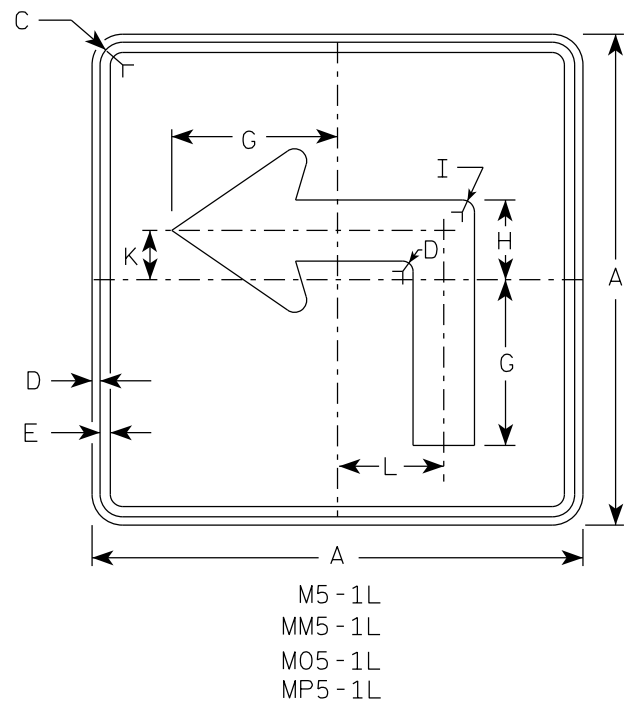
- All Signs Type II - Type H Reflective
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru 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
- Note the first letter of each direction is larger than the remainder of the message.

7

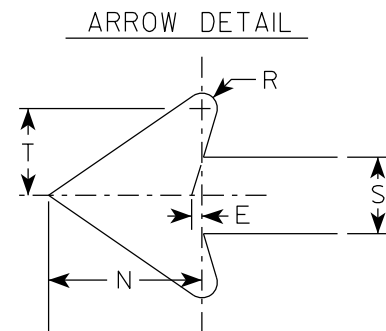
7

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 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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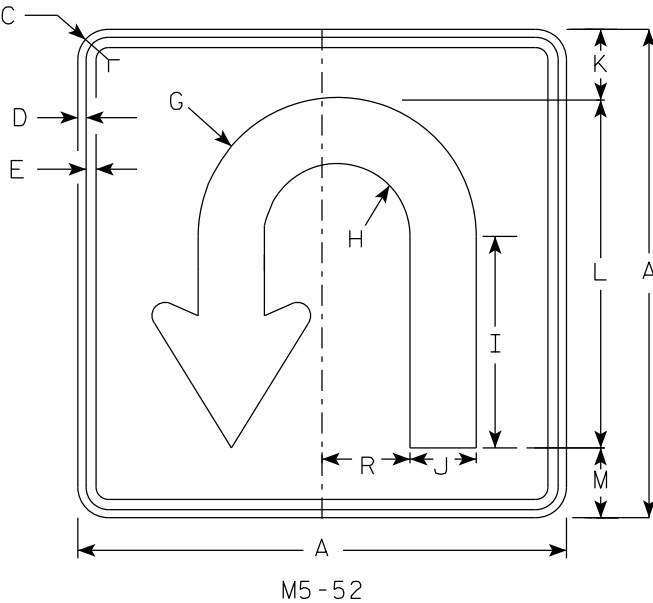
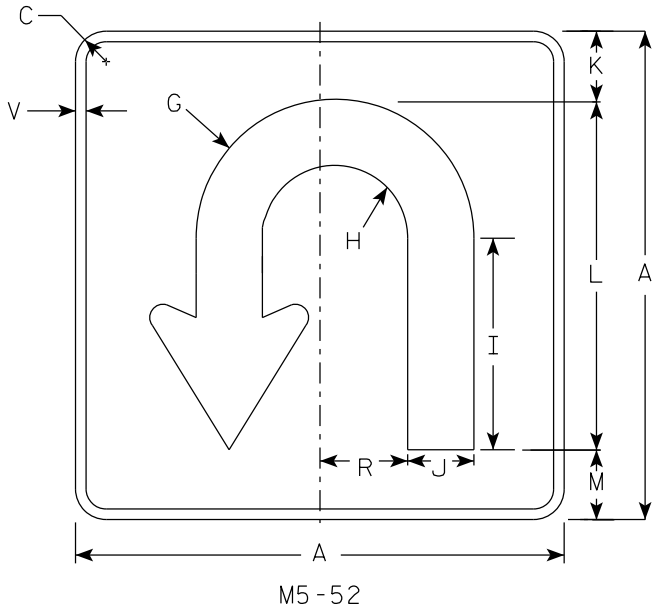


- NOTES
- Signs are Type II - Type H reflective except as shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - | | | |
|-----------|-------|---|
| 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 |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
 - M5-1R same as M5-1L except arrow points right.
 - M5-2R same as M5-2L except arrow tilts right.

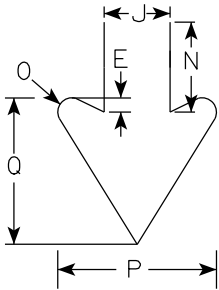


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	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		1/2					6.25
4	30		1 7/8	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		1/2					6.25
5	30		1 7/8	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		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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- NOTES
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See Note 4
Message - See note 4
 - M5-52 Background - White
Message - Black
MB5-52 Background - Blue
Message - White
MK5-52 Background - Green
Message - White
MM5-52 Background - White
Message - Green
MN5-52 Background - Brown
Message - White
M05-52 Background - Orange - Type F Reflective
Message - Black
MP5-52 Background - White
Message - Blue
MR5-52 Background - Brown
Message - Yellow



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	21		1 1/2	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4				1/2					3.06
2M	21		1 1/2	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4				1/2					3.06
3	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25
4	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25
5	30		1 7/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4				5/8					6.25

PROJECT NO:

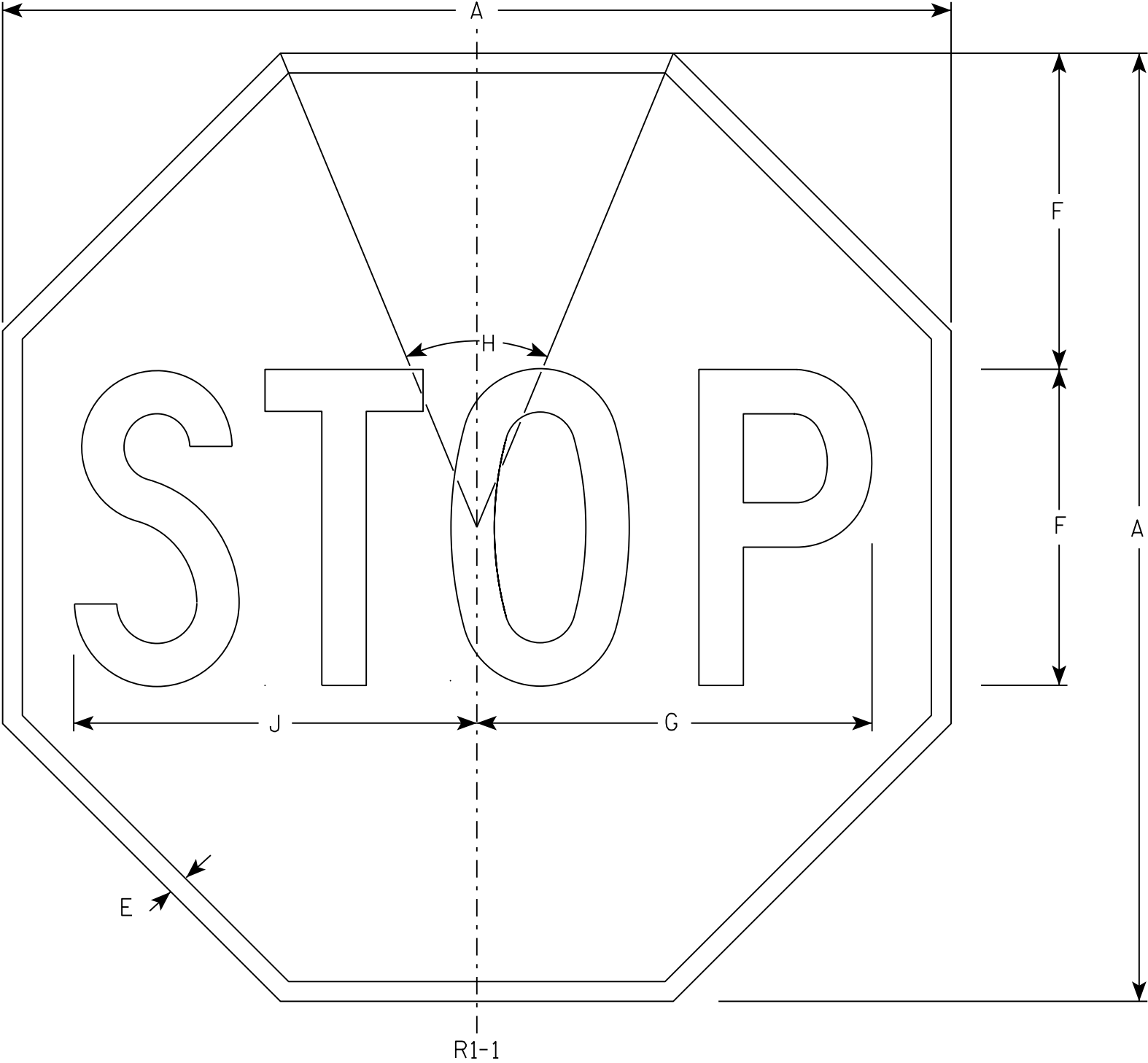
HWY:

COUNTY:

SHEET NO:

E

7



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

7

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

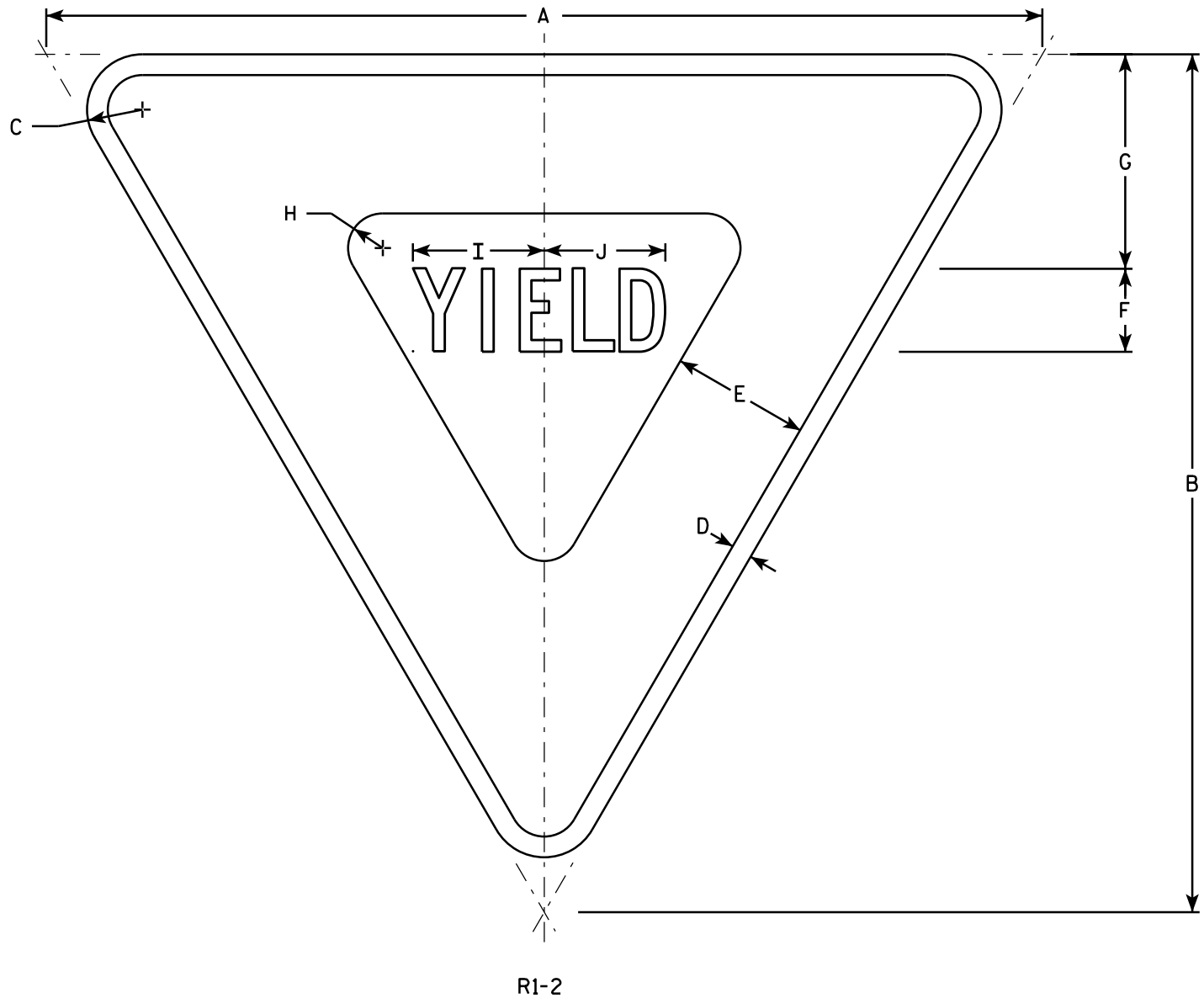
STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



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 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. The border strip and word message are reflectorized red.

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	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN

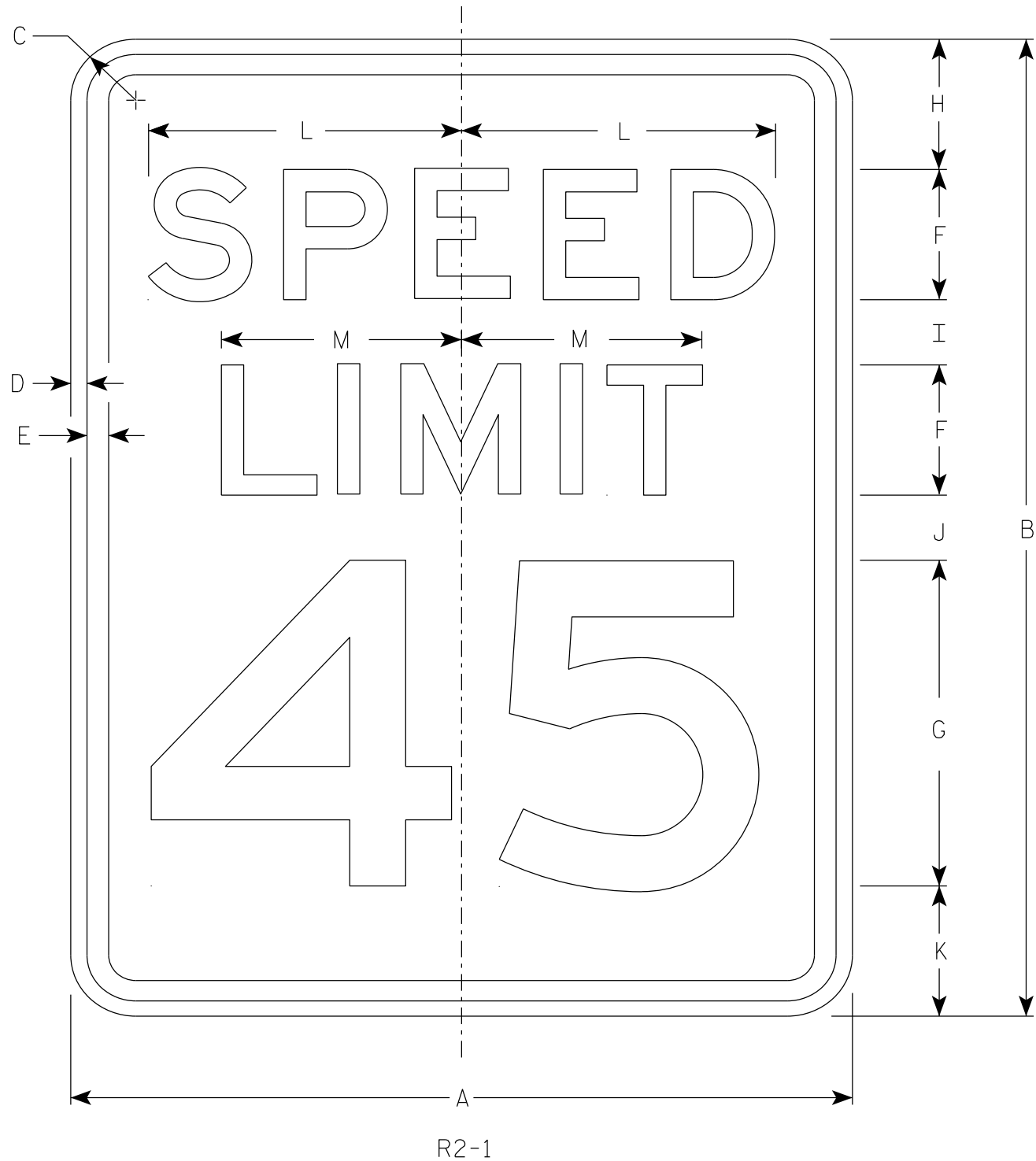
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/13/14 PLATE NO. R1-2.12

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

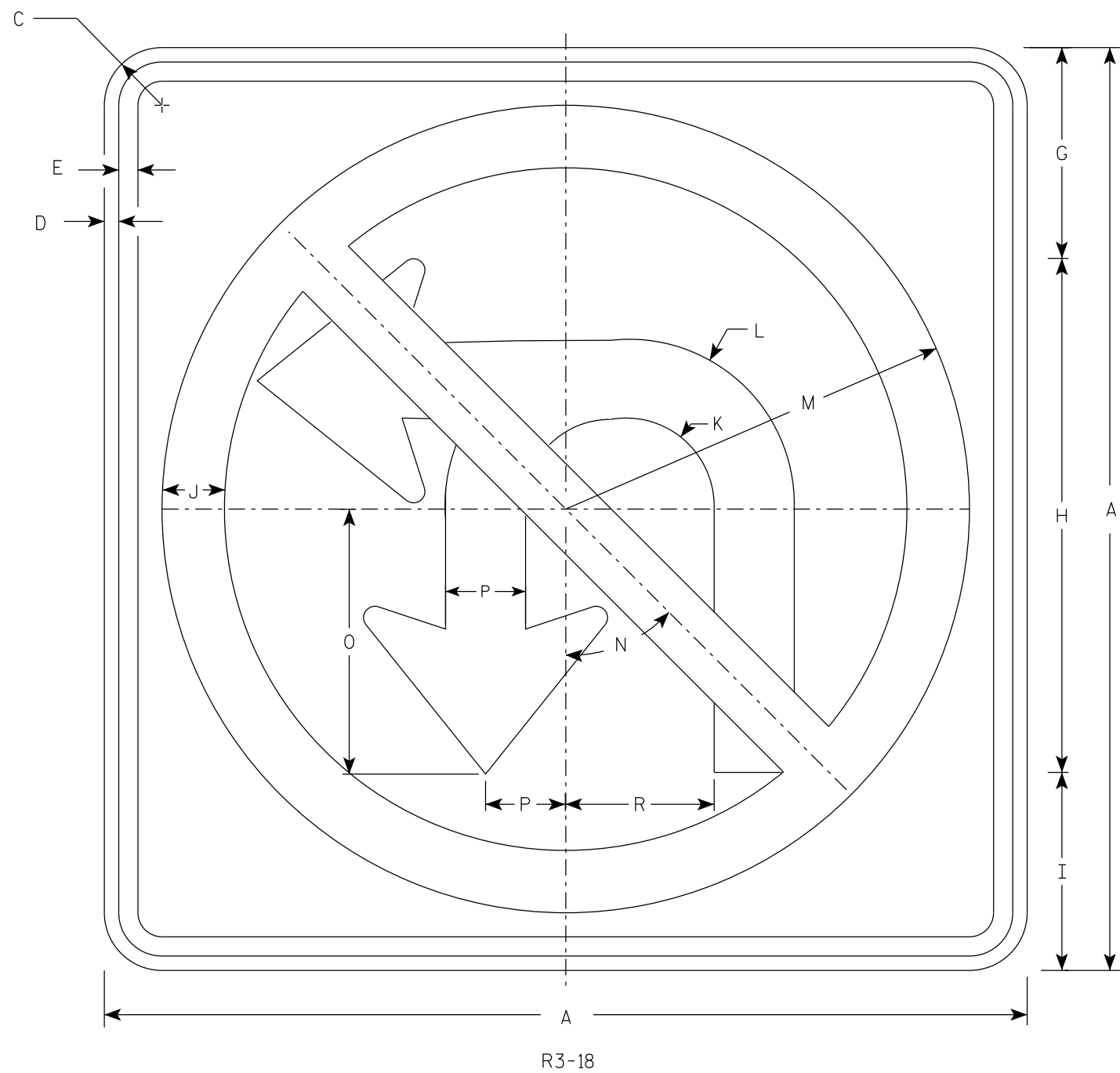
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	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 2/1/23 PLATE NO. R2-1.14



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

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 1/2	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		2 1/4	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		2 1/4	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		2 1/4	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

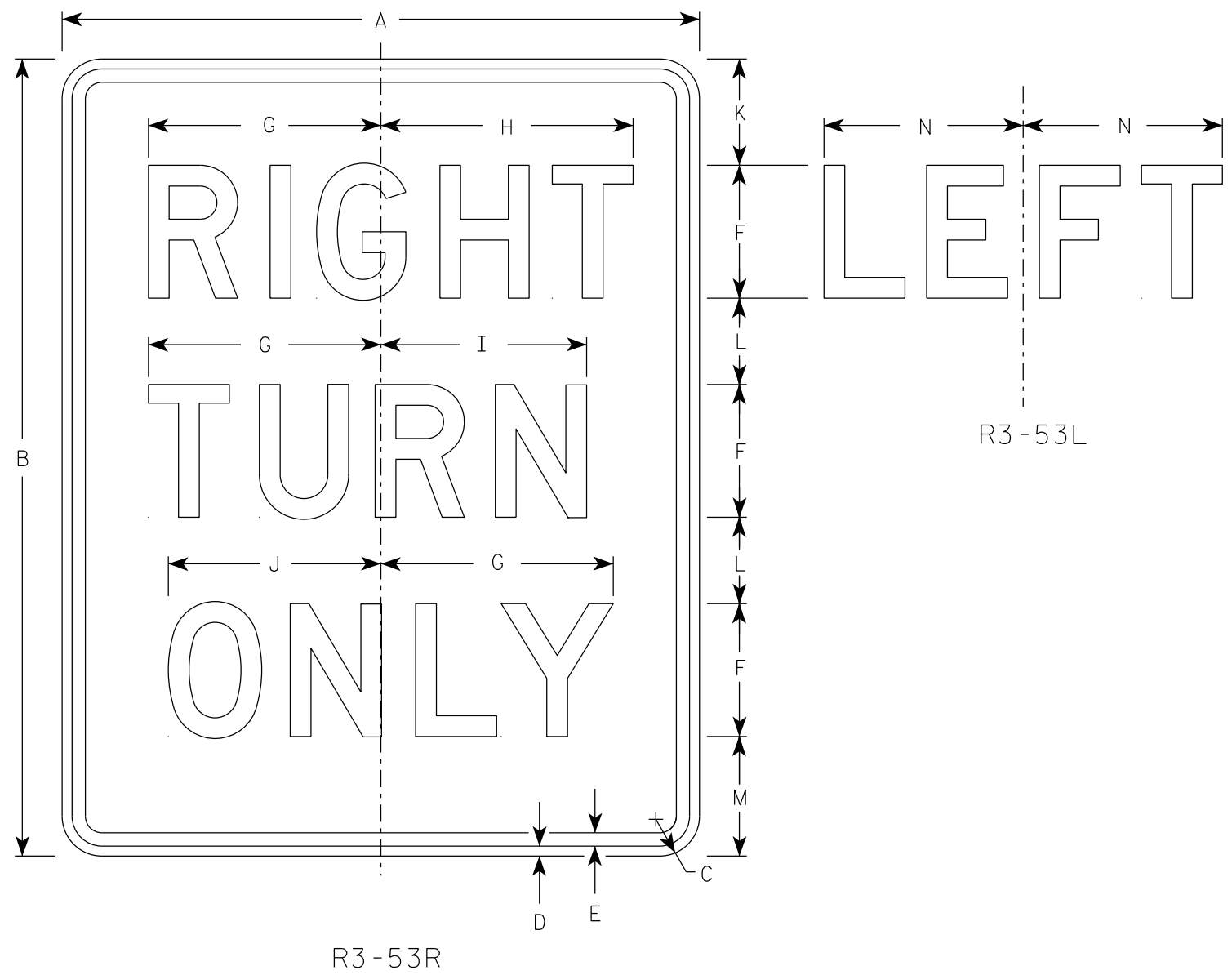
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-18.3

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. R3-53L same as R3-53R except LEFT is substituted for RIGHT

7

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	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/2	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

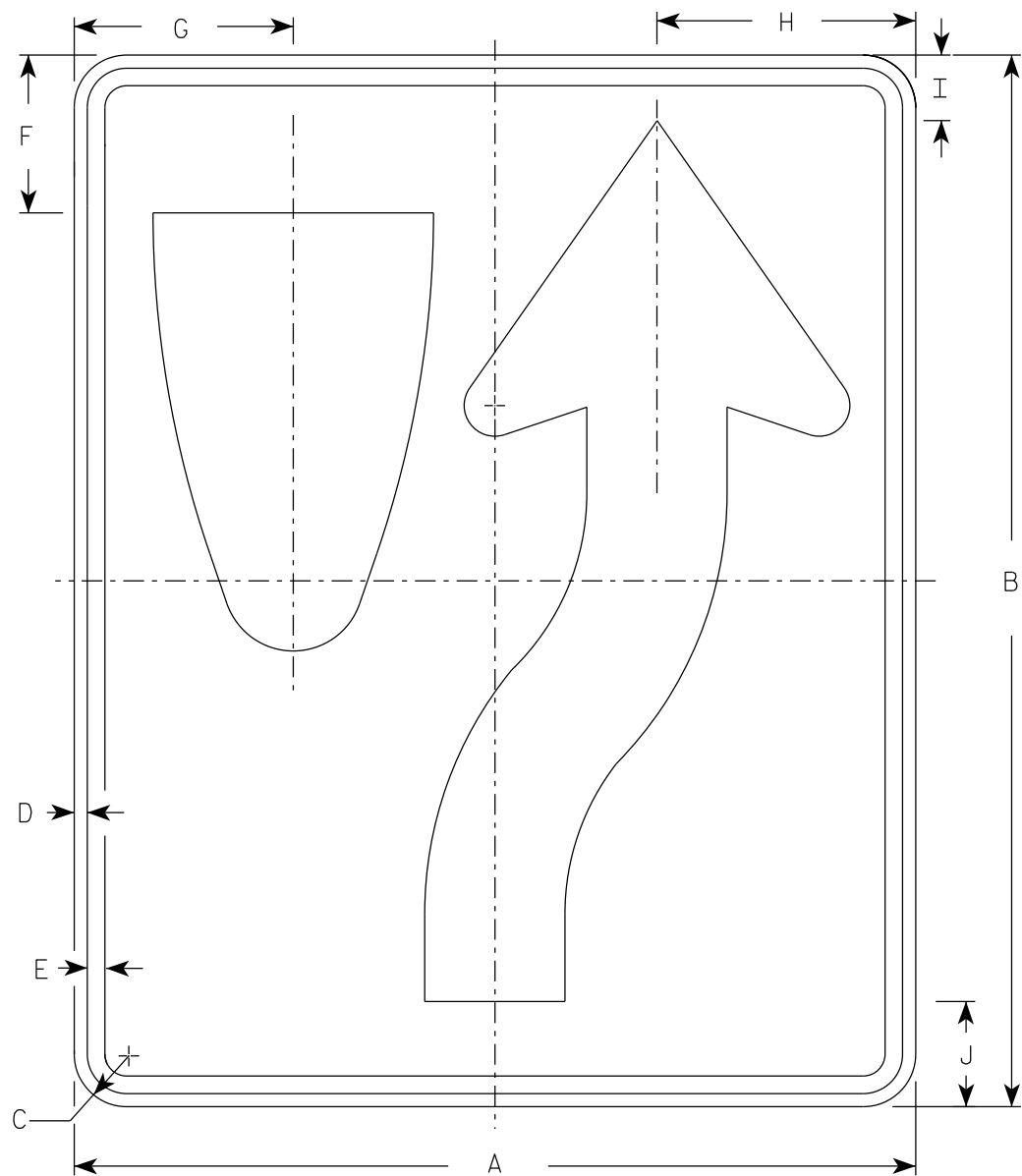
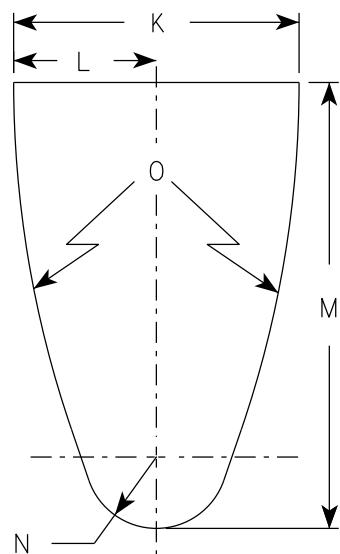
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-53.9

DIVIDER DETAIL

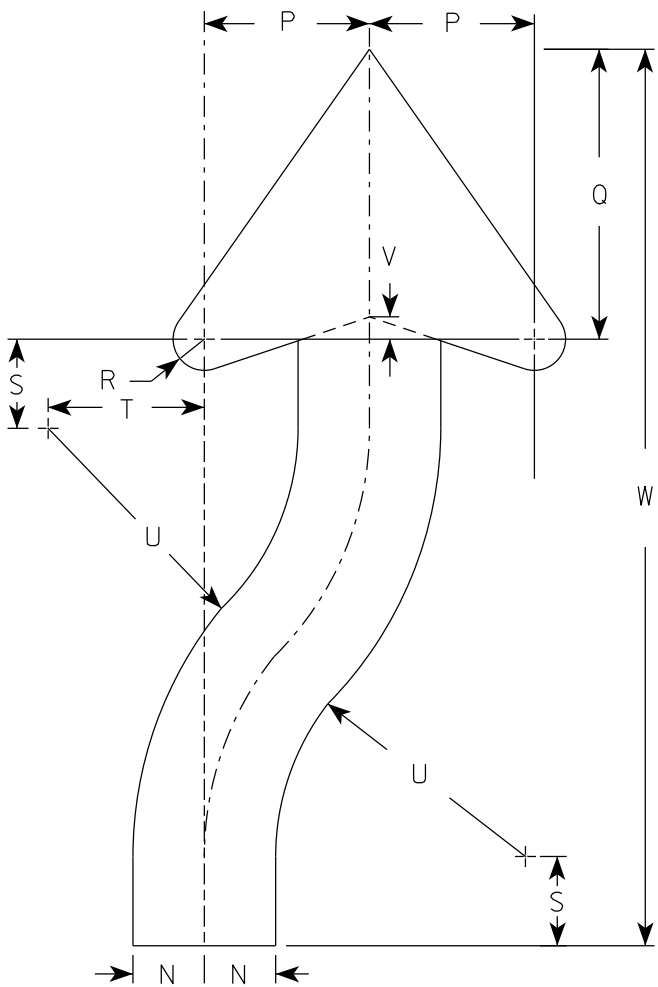


R4-7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. 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 1/2	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 1/2	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 1/2	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 7/8	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 7/8	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	3	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

PROJECT NO:

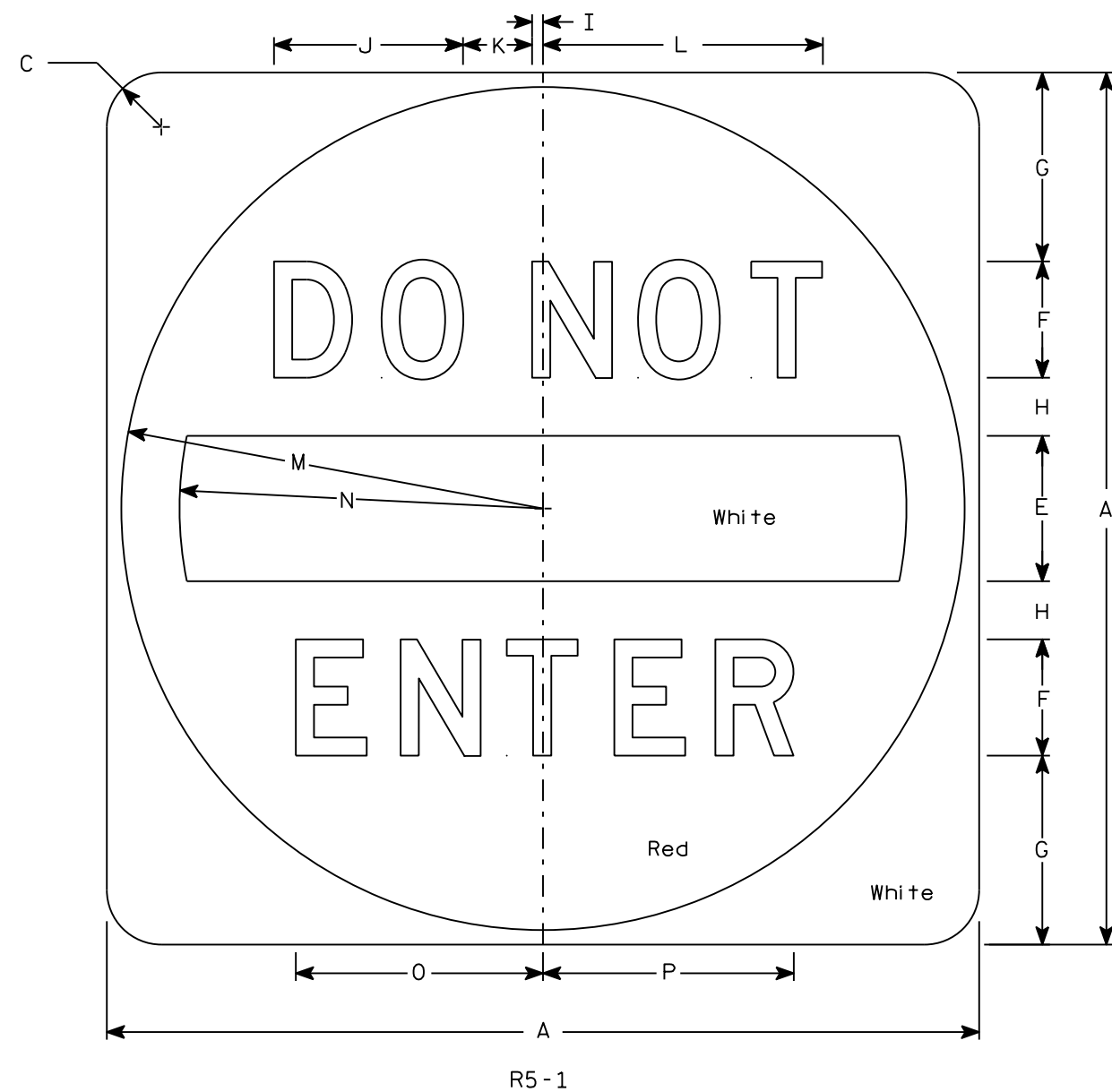
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

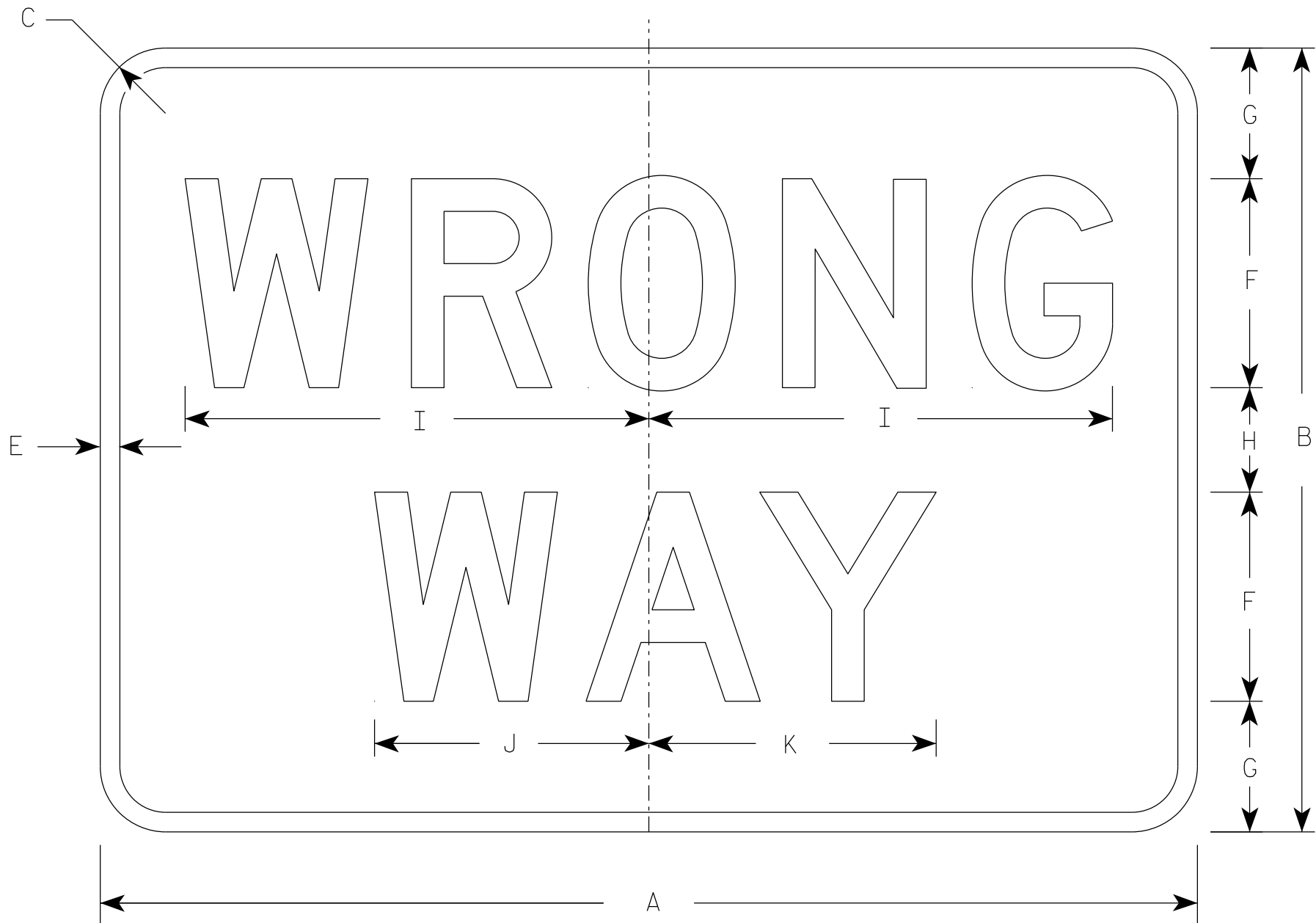
1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

7

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 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.25
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN R5-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16

7



R5-1A

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - Red
 - Message - White
- 3. Message Series - D

7

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	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	1 1/2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

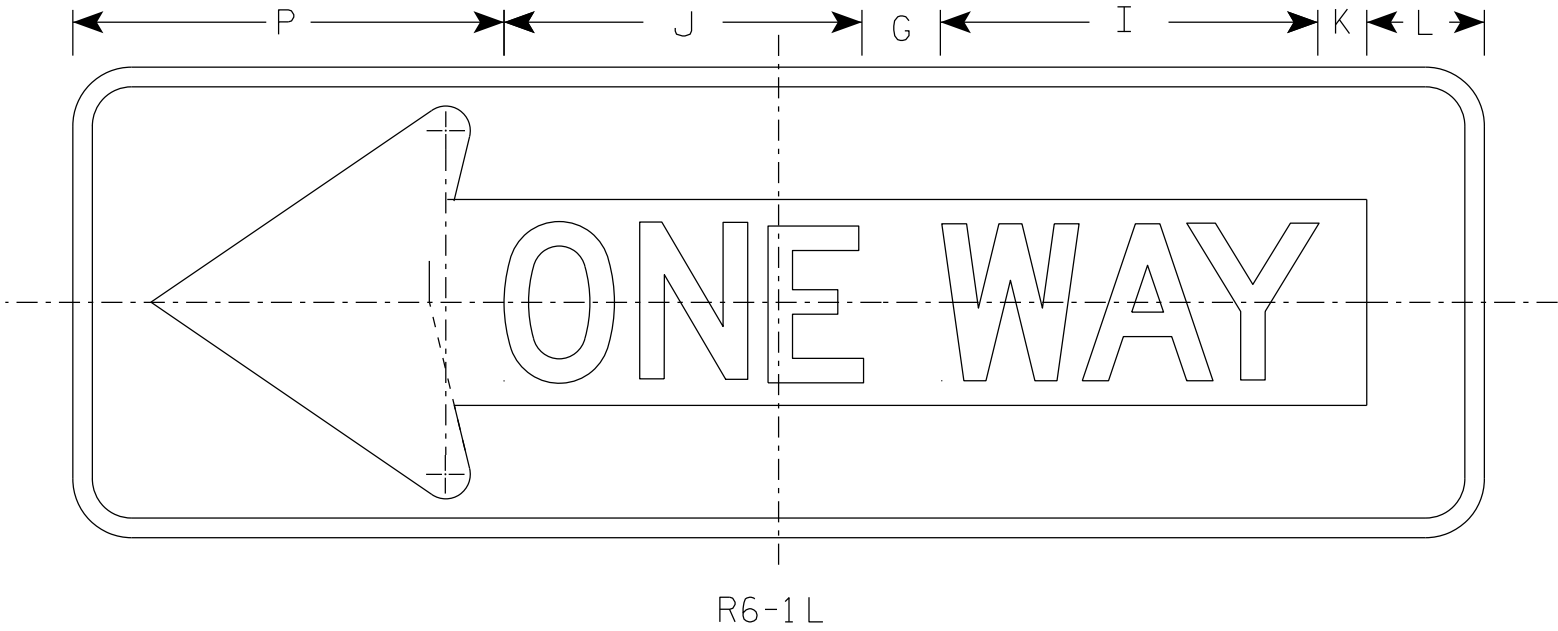
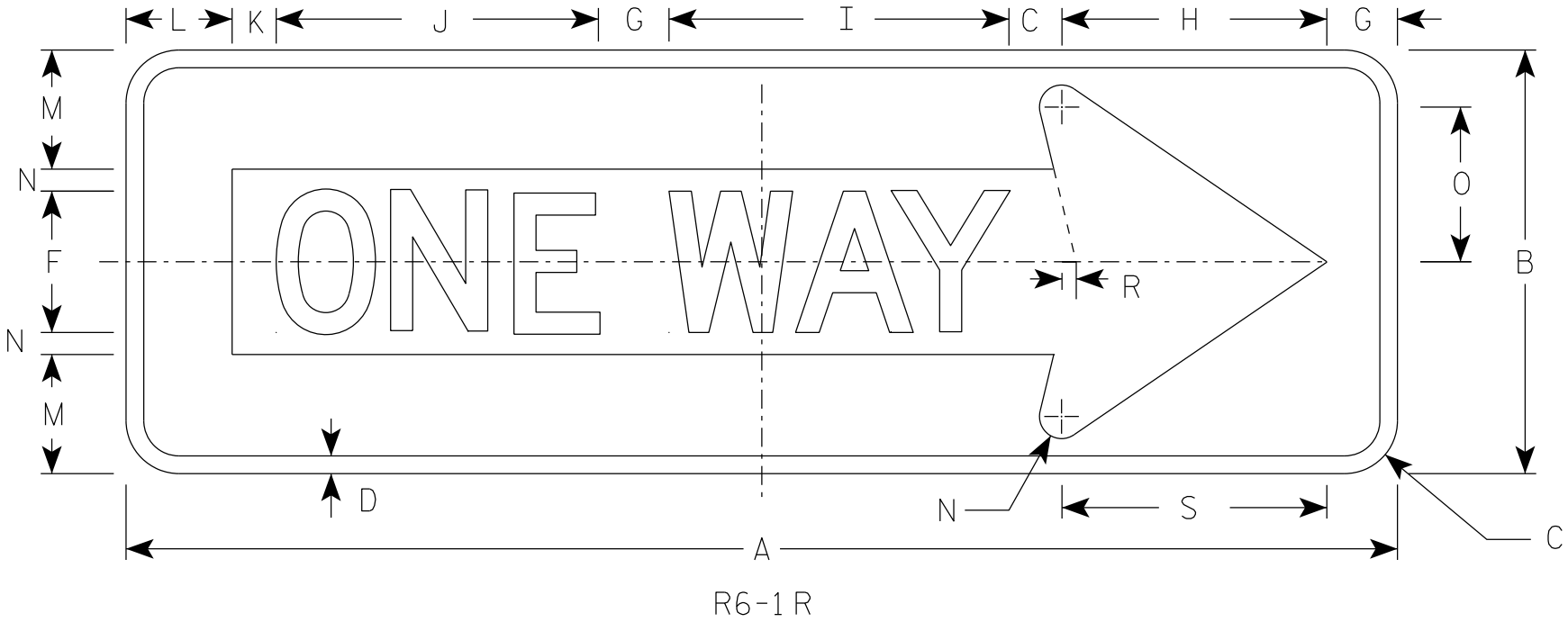
E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - Black

Message - Black Legend & White Arrow & Border
3. Message Series - D



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	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

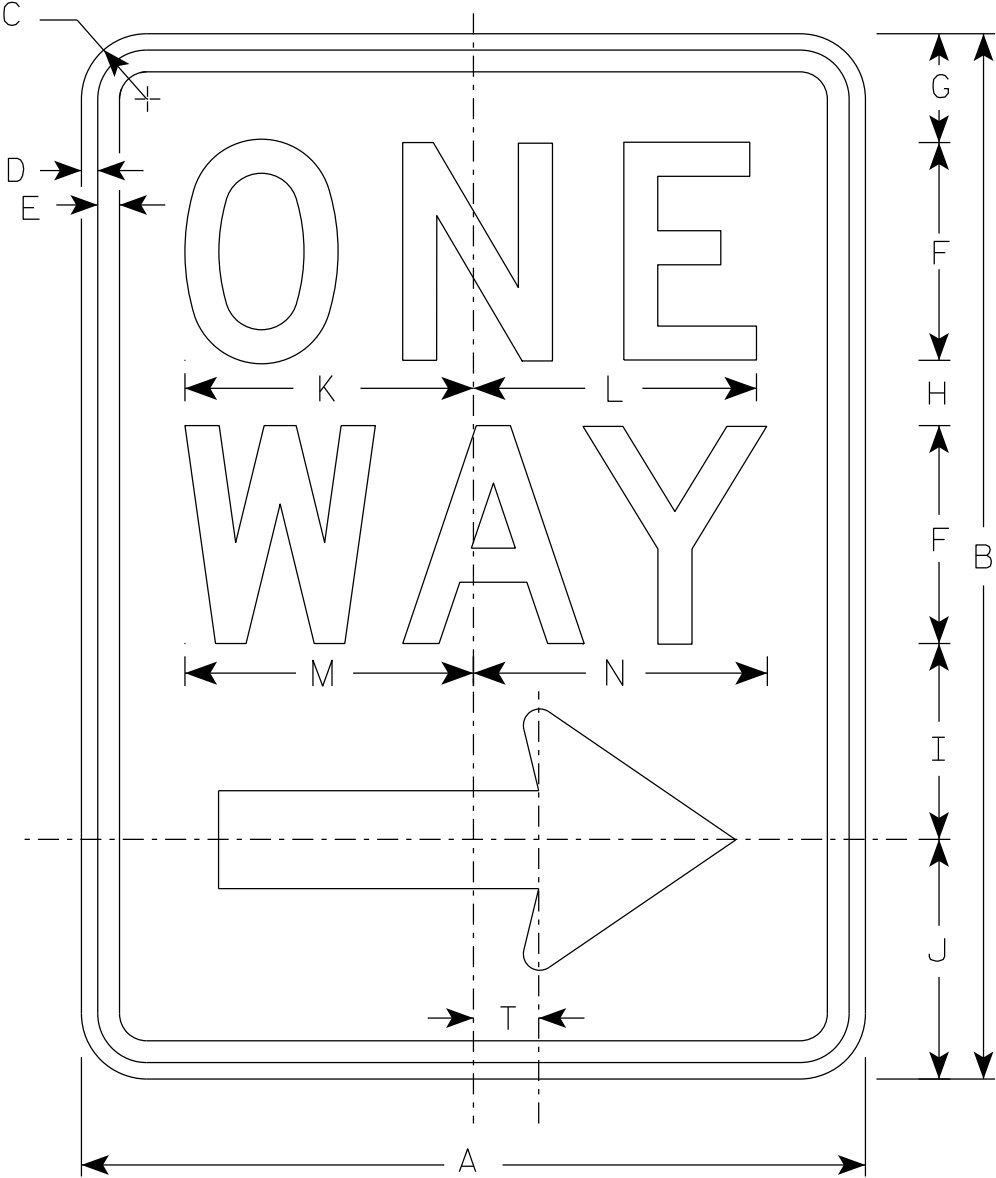
STANDARD SIGN
R6-1 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/30/23 PLATE NO. R6-1.4

7

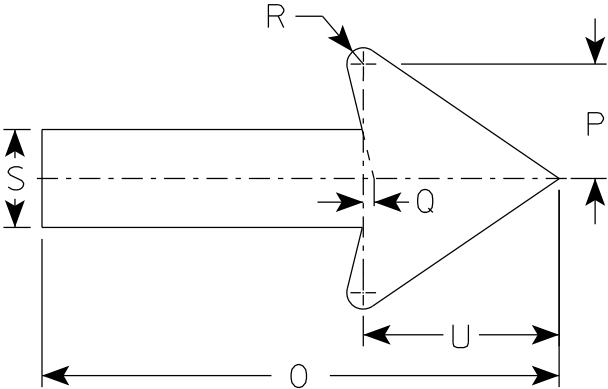


R6 - 2R

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. R6-2L same as R6-2R except arrow points to the left.

Arrow Detail



7

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
1	18	24	1 1/2	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	36	1 1/2	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 7/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

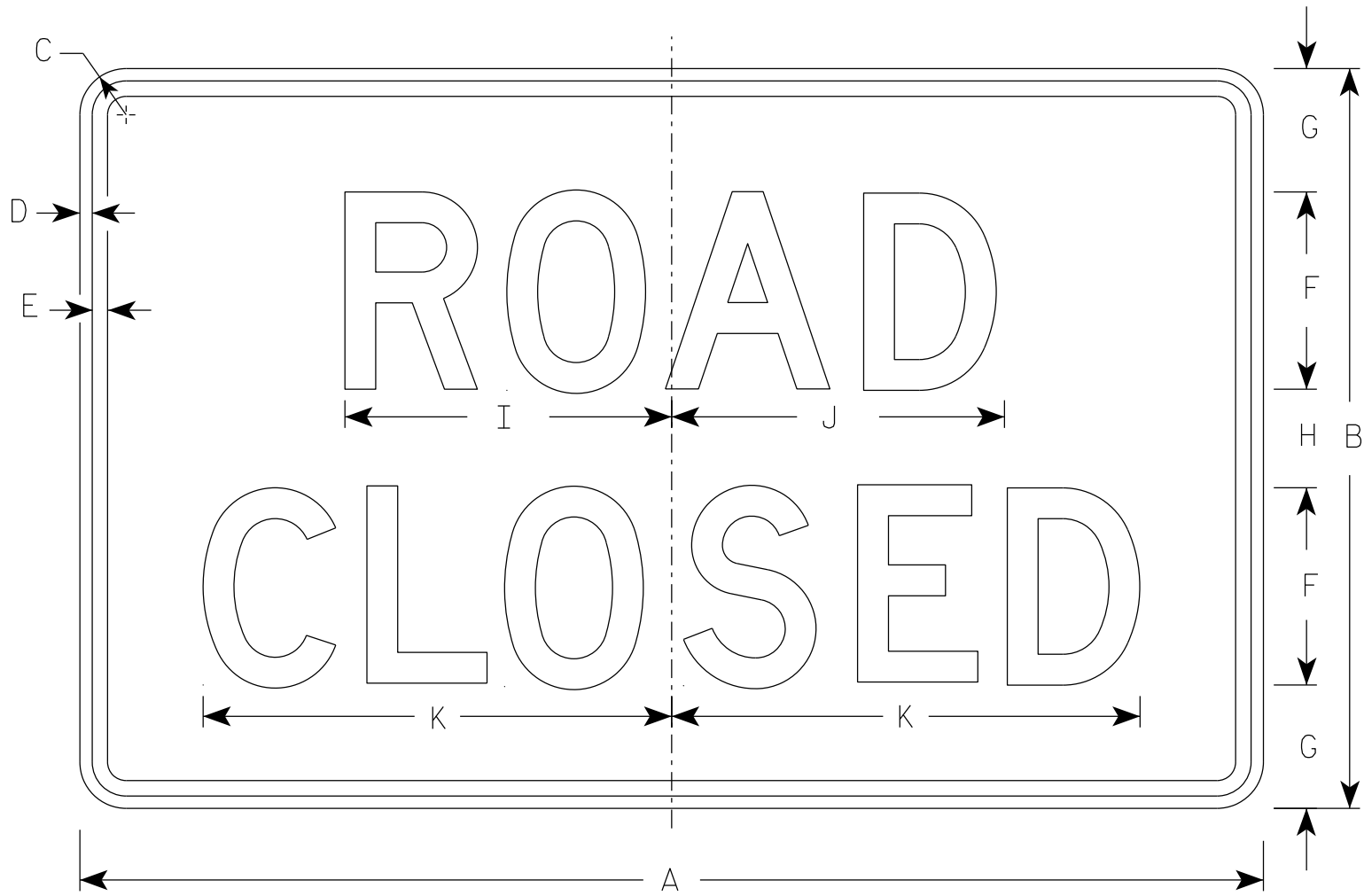
PROJECT NO:

HWY:

COUNTY:

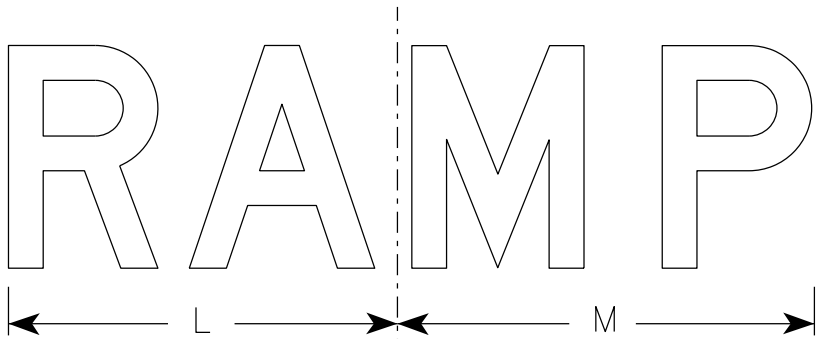
SHEET NO:

E

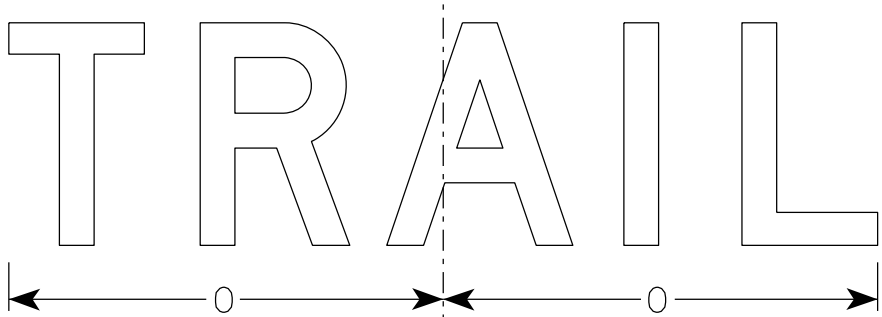


R11-2

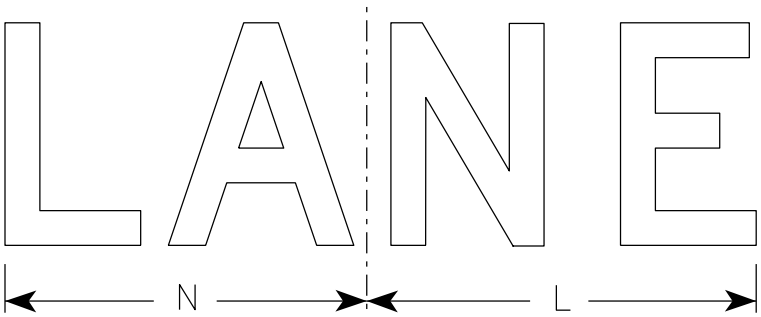
- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. Modify 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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

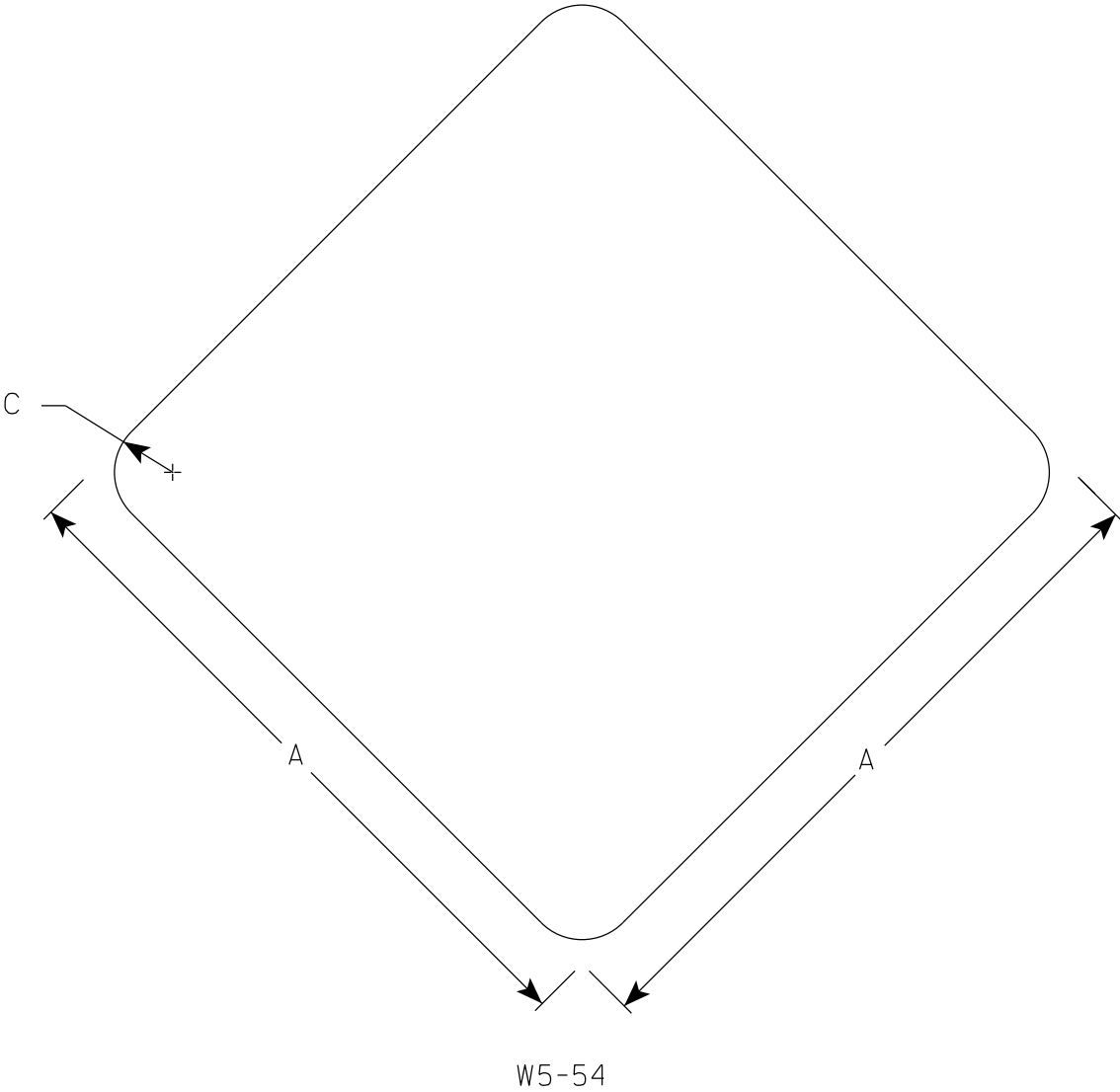
STANDARD SIGN R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 2/5/24	PLATE NO. R11-2.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - 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	12		1 1/2																								1.0
2S	18		1 1/2																								2.25
2M	18		1 1/2																								2.25
3																											
4																											
5																											

STANDARD SIGN
W5-54

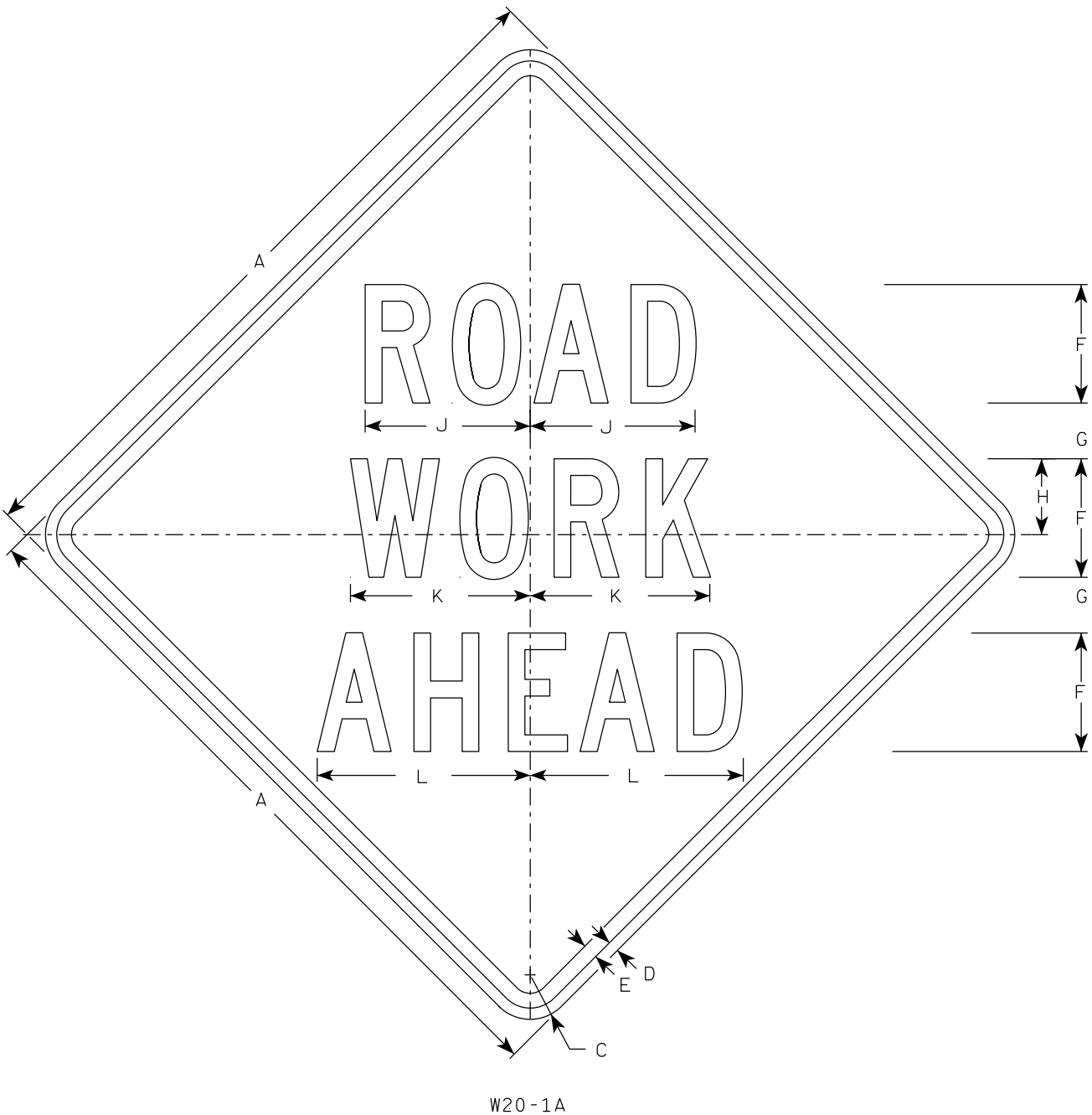
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

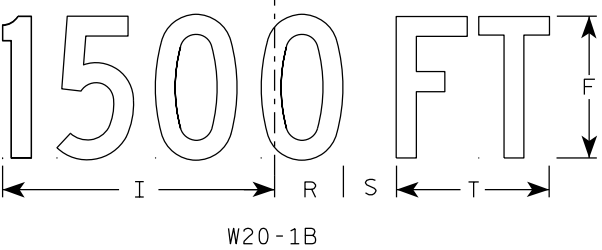
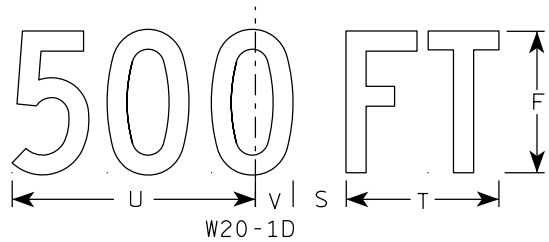
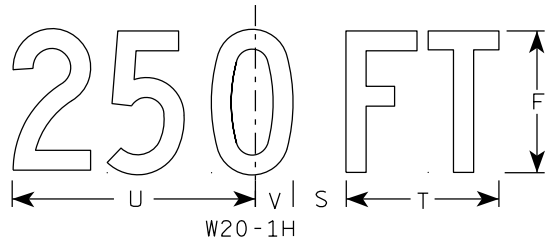
Matthew R. Rauch

for State Traffic Engineer

DATE 3/5/2024PLATE NO. W5-54.9

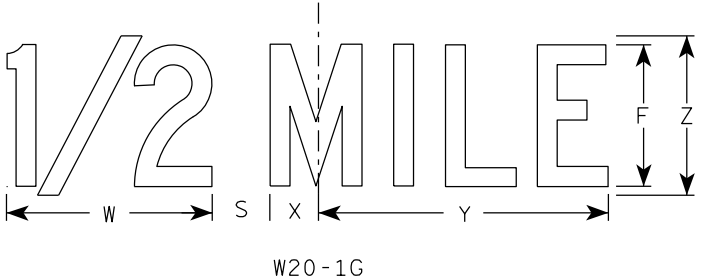


W20-1A

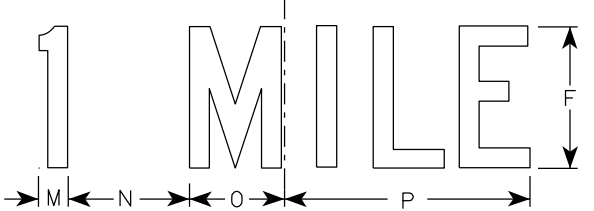


W20-1B

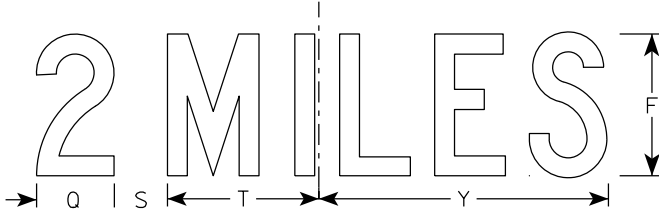
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

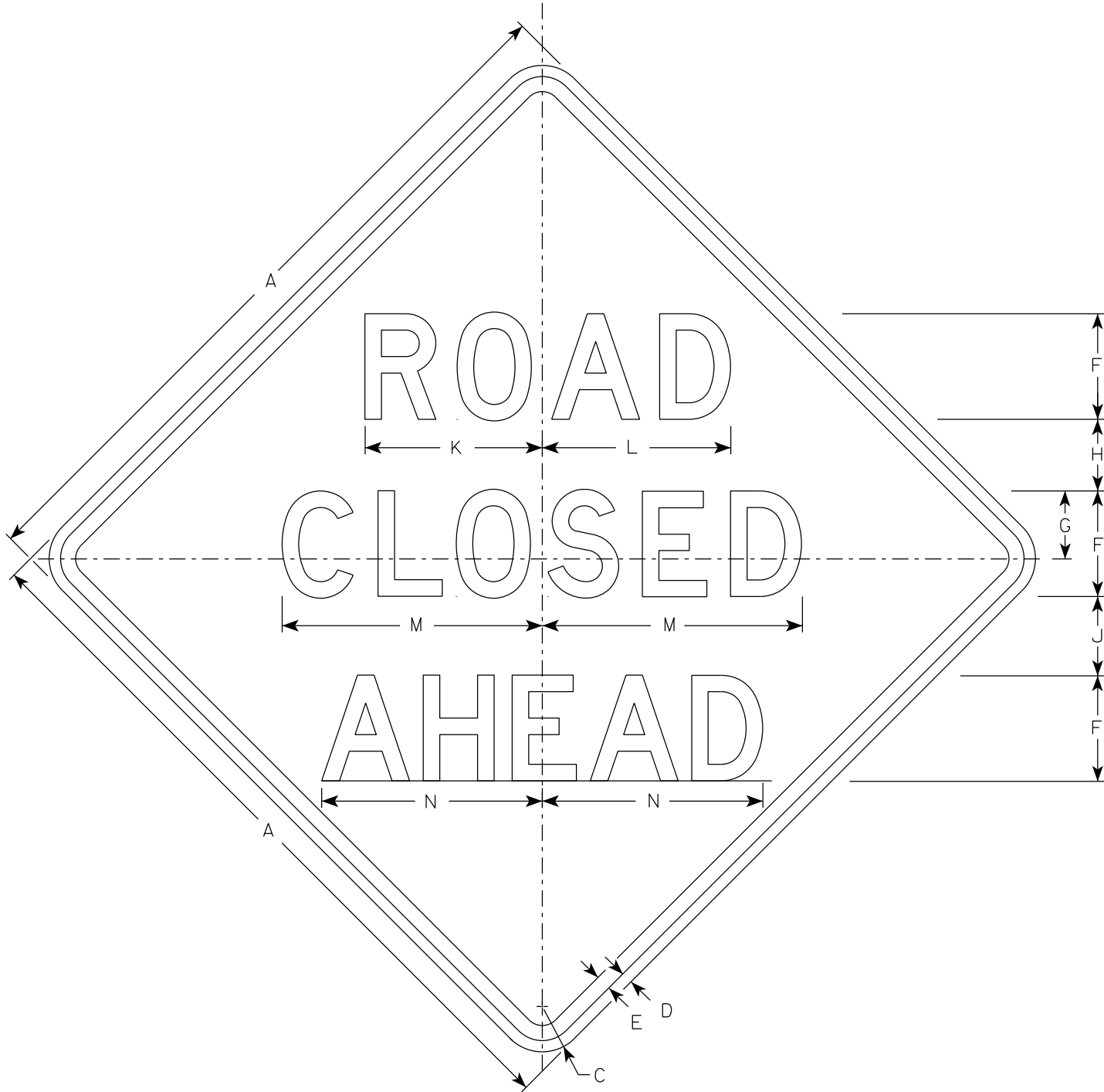
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	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		3	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		3	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		3	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

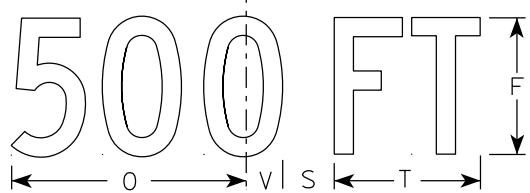
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

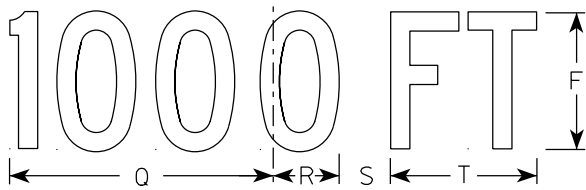
DATE 1/10/2024 PLATE NO. W20-1.12



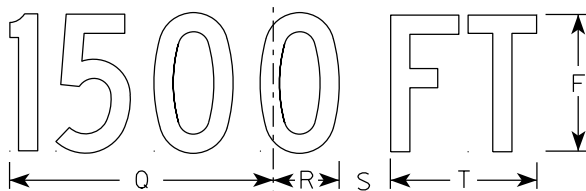
W20-3A



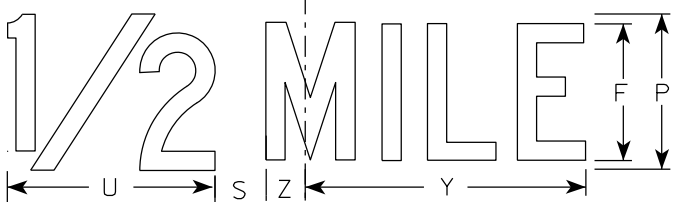
W20-3D



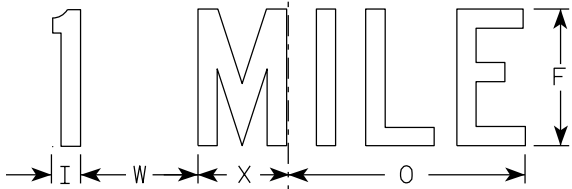
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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.

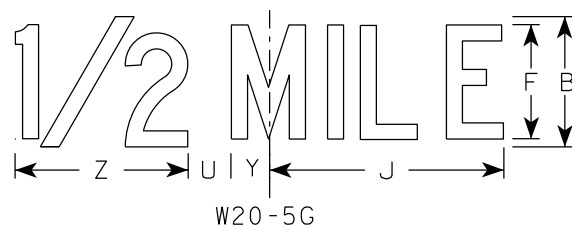
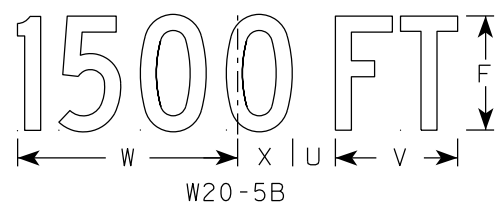
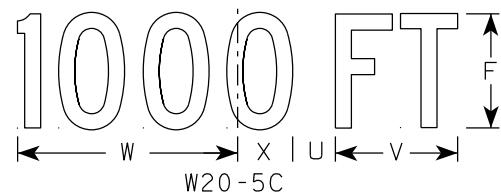
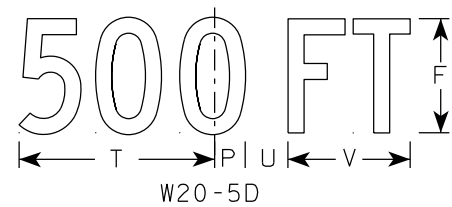
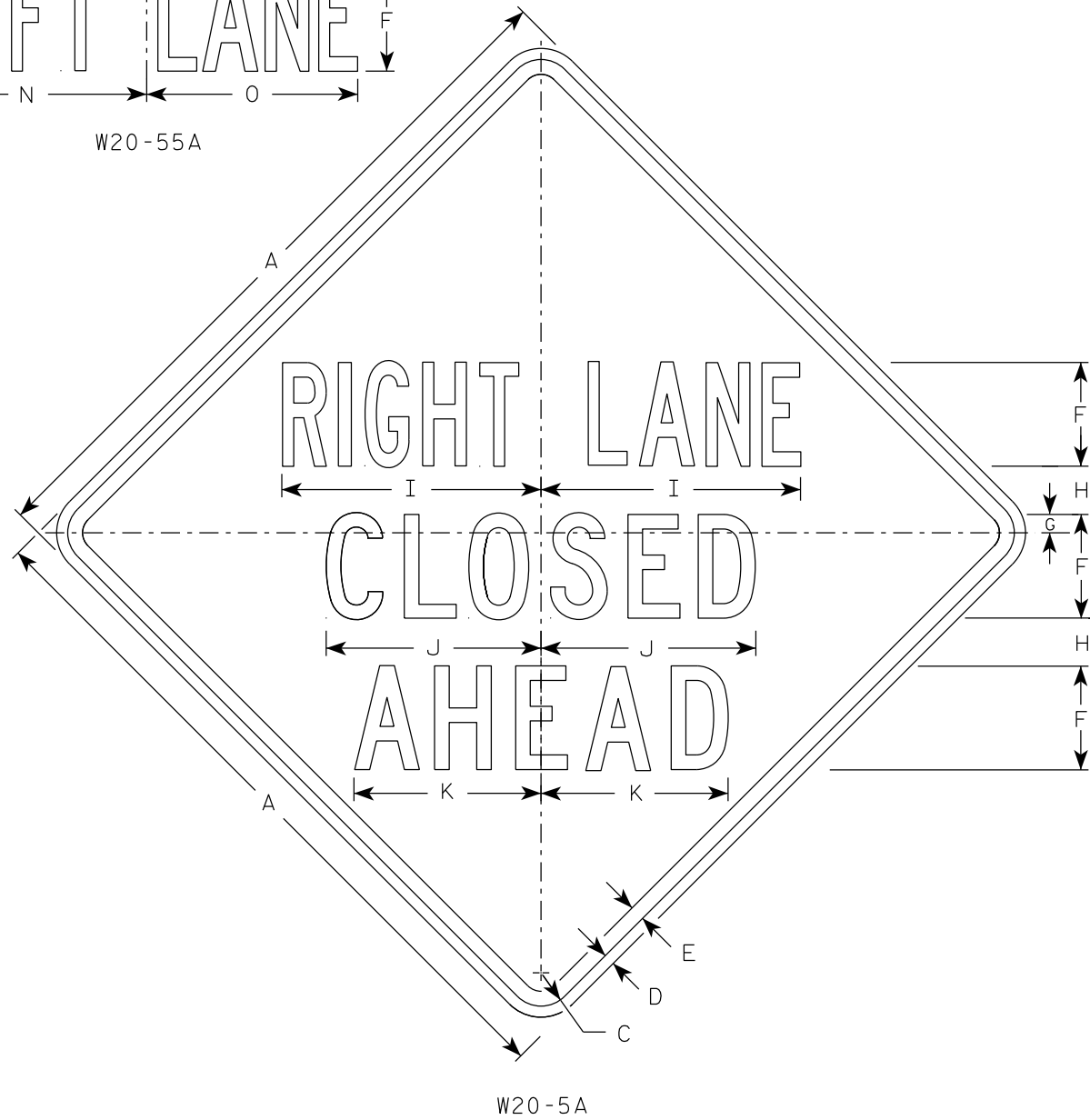
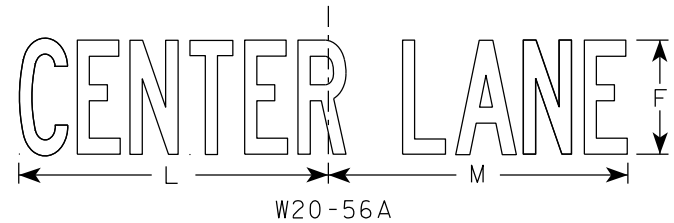
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	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		3	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		3	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		3	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 1/10/2024 PLATE NO. W20-3.8



NOTES

1. Sign is Type II - Type F Reflective
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.

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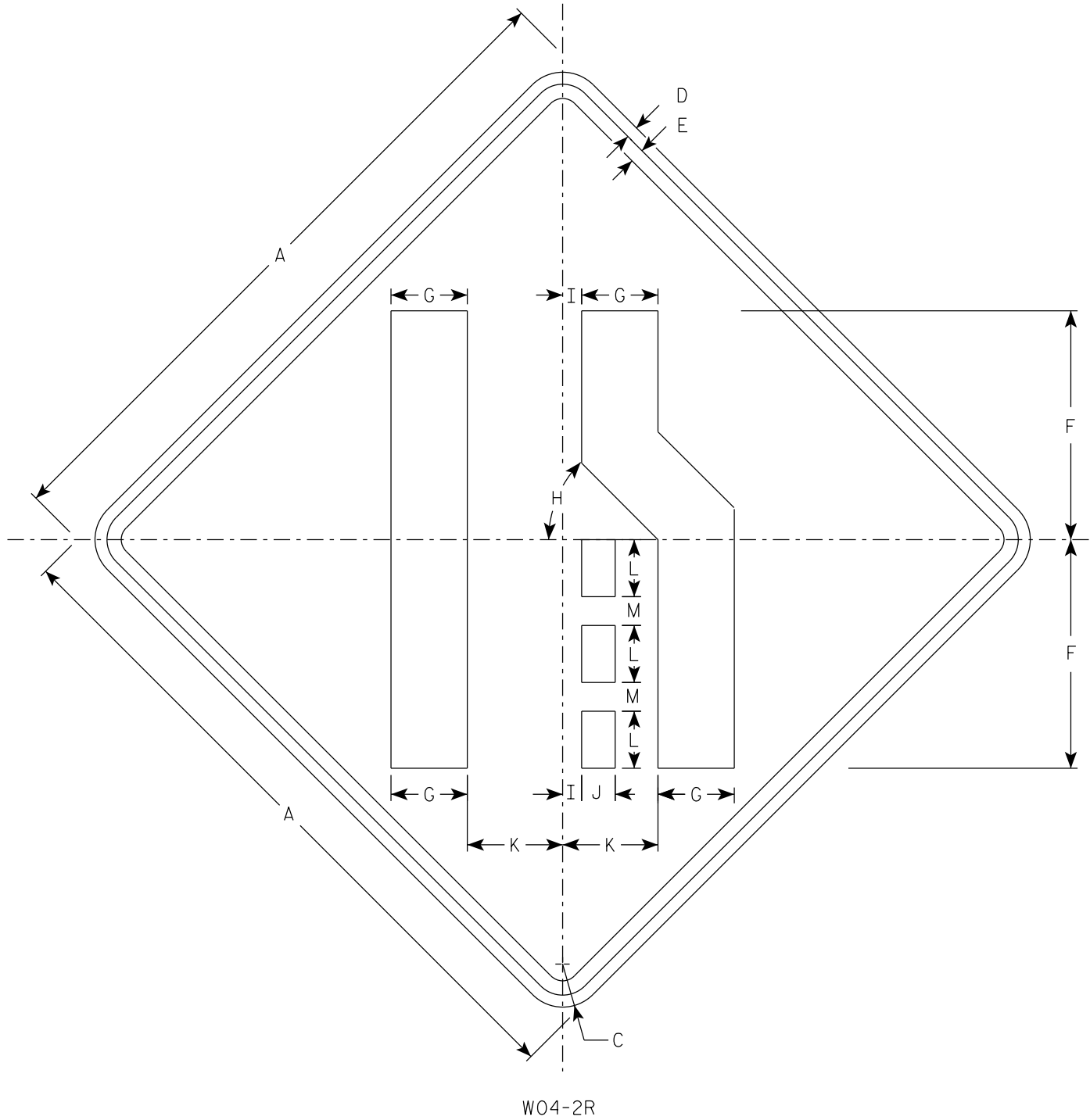
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	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	3	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	3	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	3	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

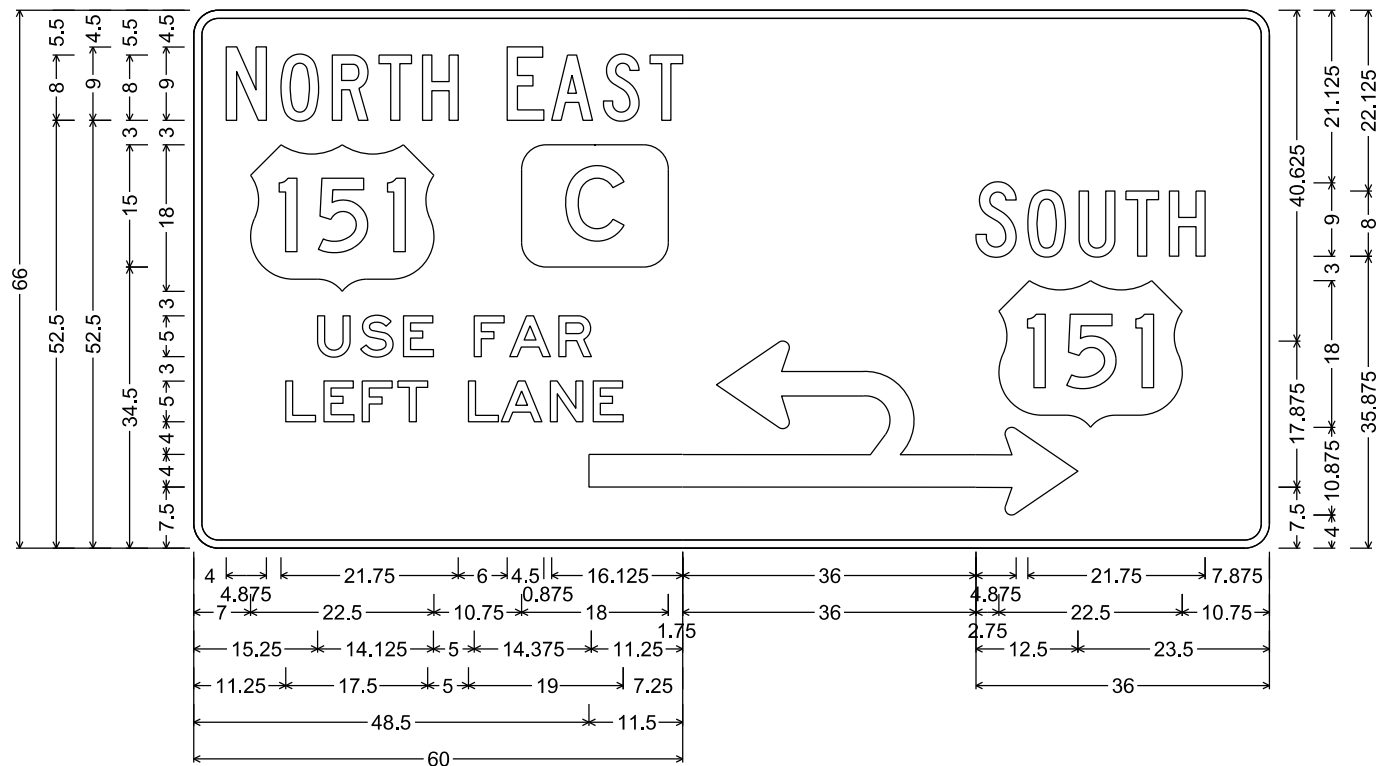
DATE 3/27/24 PLATE NO. W20-5.12



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. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

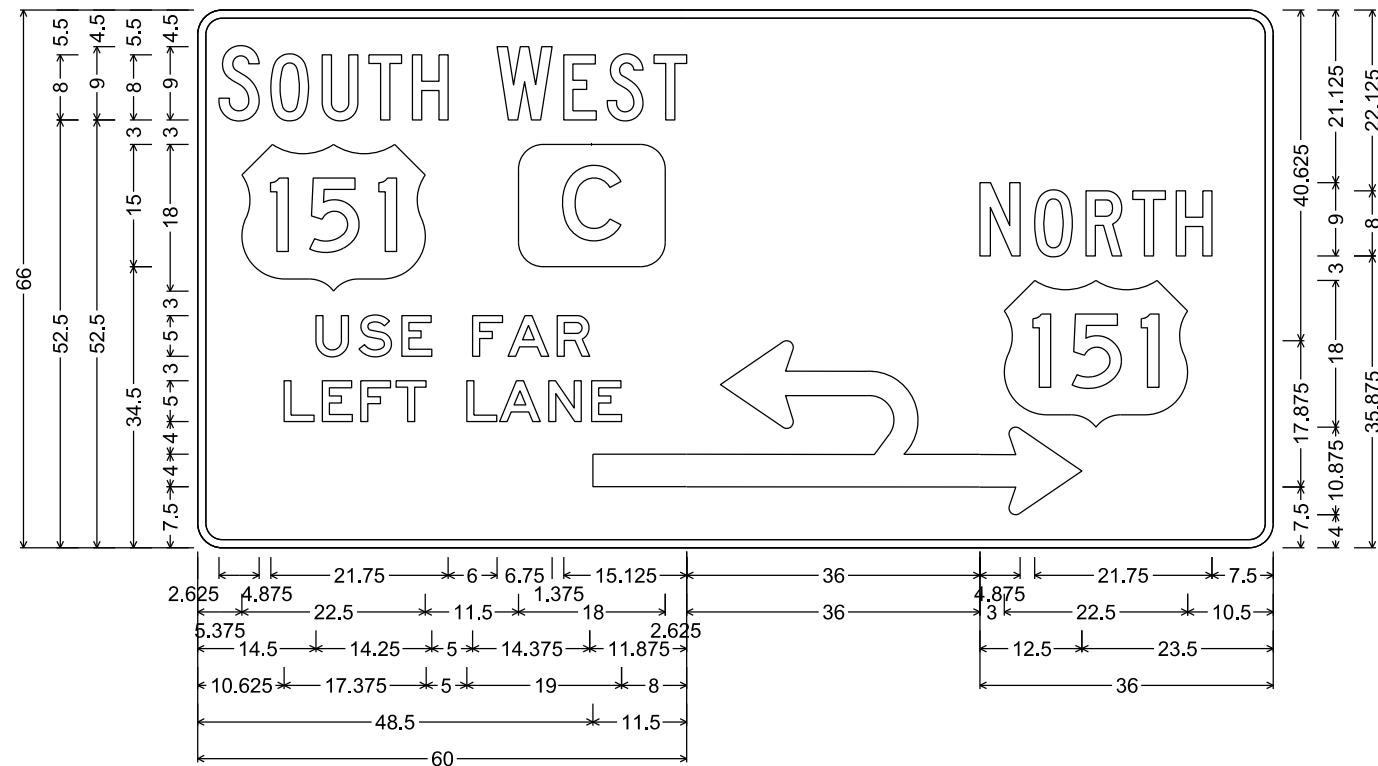
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0



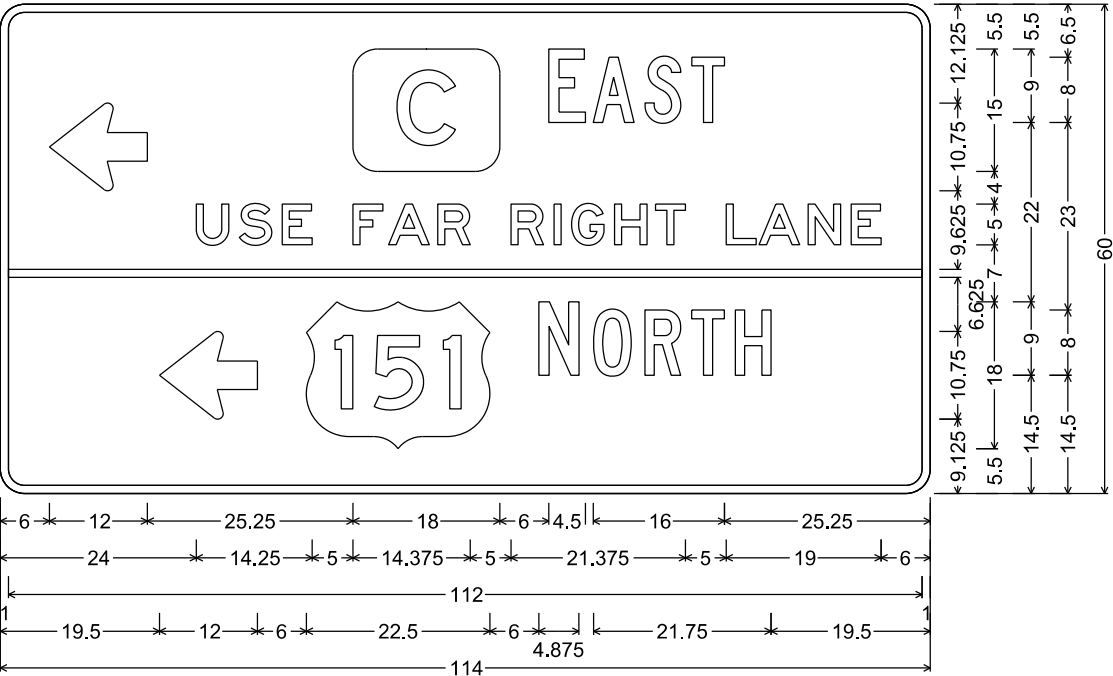
D1-82; 3.000" Radius, 1.000" Border
"NORTH", C; "EAST", C; "SOUTH", C

NOTES

- 1. All Signs Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - E except as noted



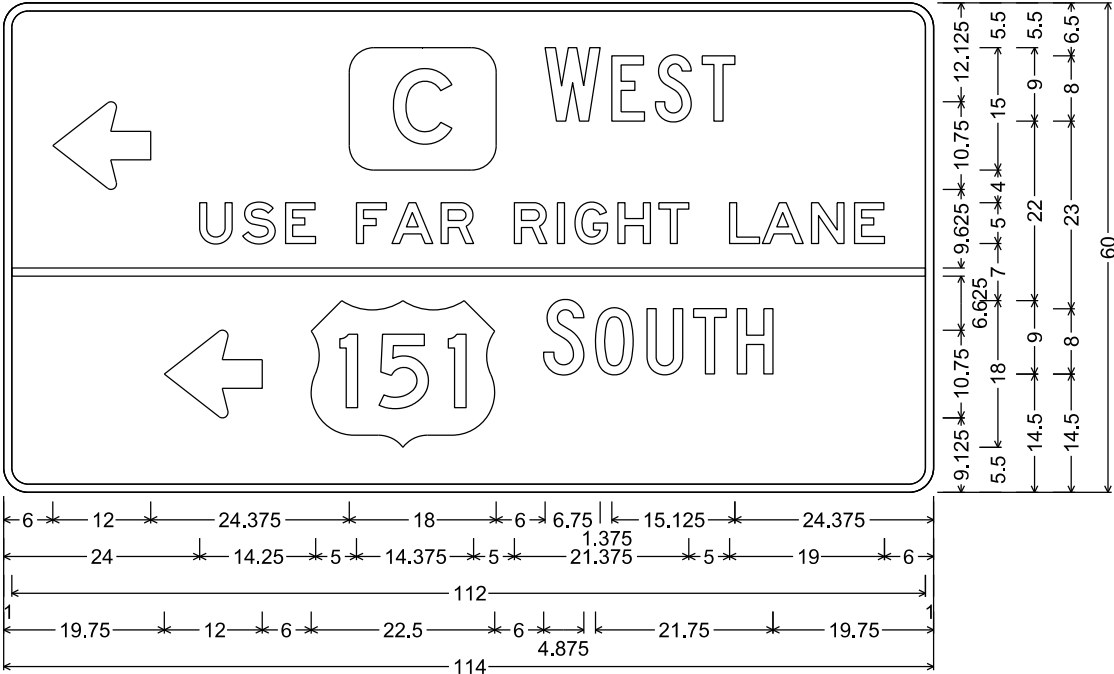
D1-82; 3.000" Radius, 1.000" Border
"SOUTH", C; "WEST", C; "NORTH", C



D1-81; 3.000" Radius, 1.000" Border
"NORTH", C

NOTES

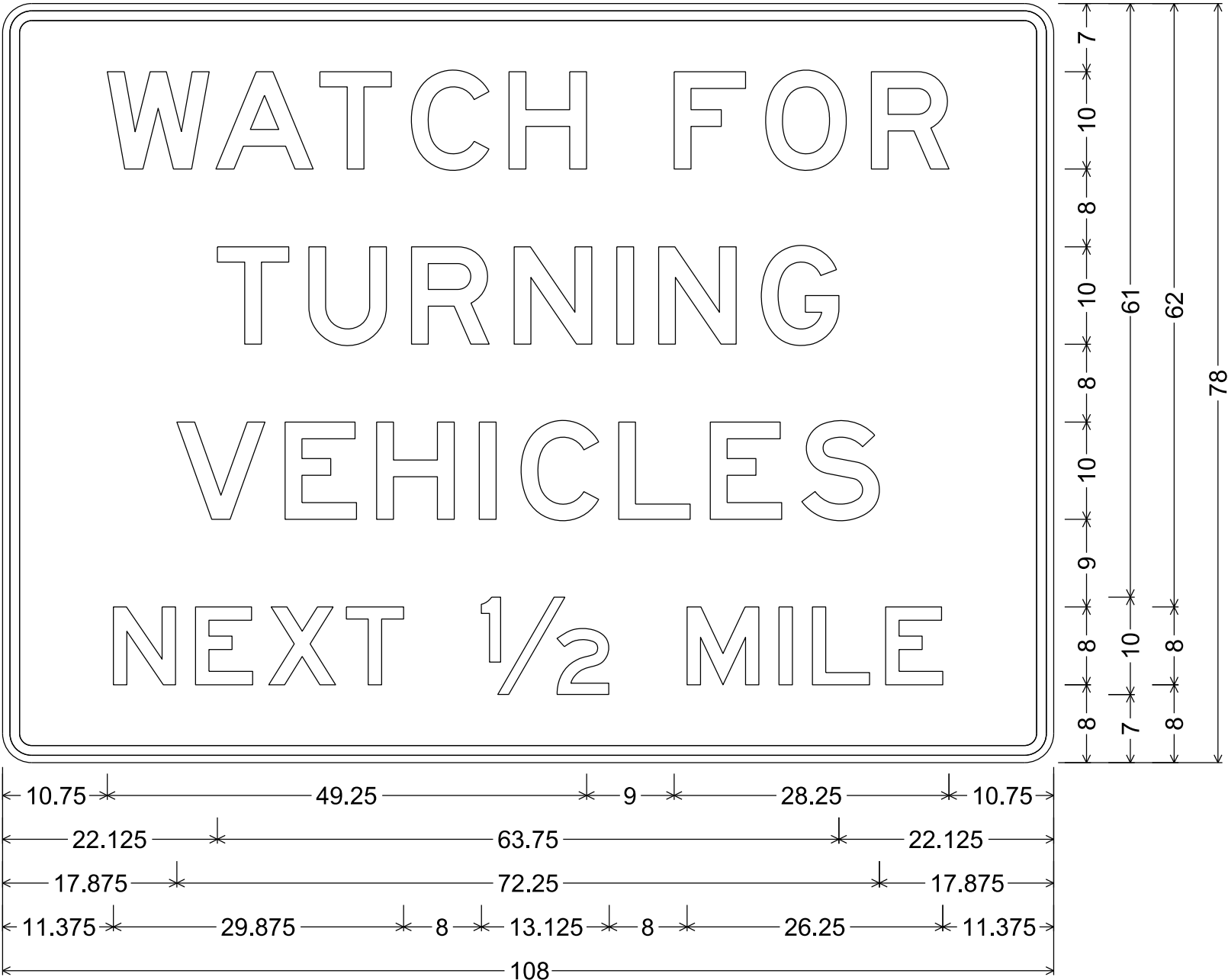
- 1. All Signs Type II - Type H Reflective
- 2. Color:
 - Background - Green
 - Message - White
- 3. Message Series - E except as noted



D1-81; 3.000" Radius, 1.000" Border
"SOUTH", C

NOTES

- 1. Sign is Type II- Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Message Series - E



3.000" Radius, 1.000" Border, 0.750" Indent

7

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DIVISION 1 - USH 151 NB RT LANE

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDNATE*
2573+50.00	257350.00	0.00	33.34	1.50	123.99	0.00	0	0	0	0	0	0	0	0	0
2574+00.00	257400.00	50.00	31.60	1.50	134.06	0.00	60	3	239	0	60	299	0	0	-299
2574+50.00	257450.00	50.00	24.45	1.50	23.11	0.00	52	3	146	0	112	481	0	0	-481
2575+00.00	257500.00	50.00	24.99	1.50	1.80	0.00	46	3	23	0	158	510	0	0	-510
2575+50.00	257550.00	50.00	25.70	1.50	3.27	0.00	47	3	5	0	205	516	0	0	-516
2576+00.00	257600.00	50.00	26.02	1.50	0.10	0.00	48	3	3	0	253	520	0	0	-520
2576+50.00	257650.00	50.00	26.78	1.50	0.52	0.00	49	3	1	0	302	521	0	0	-521
2577+00.00	257700.00	50.00	28.57	1.50	0.01	0.00	51	3	0	0	353	521	0	0	-521
2577+50.00	257750.00	50.00	29.07	1.50	0.00	0.00	53	3	0	0	406	521	0	0	-521
2578+00.00	257800.00	50.00	26.04	1.50	1.08	0.00	51	3	1	0	457	523	0	0	-523
2578+50.00	257850.00	50.00	25.72	1.50	1.06	0.00	48	3	2	0	505	525	0	0	-525
2579+00.00	257900.00	50.00	27.28	1.50	0.15	0.00	49	3	1	0	554	526	0	0	-526
2579+50.00	257950.00	50.00	28.42	1.50	0.62	0.00	52	3	1	0	606	528	0	0	-528
2580+00.00	258000.00	50.00	33.08	1.50	2.99	0.00	57	3	3	0	663	531	0	0	-531
2580+50.00	258050.00	50.00	40.93	1.50	21.05	0.00	69	3	22	0	732	559	0	0	-559
2581+00.00	258100.00	50.00	52.79	1.50	22.86	0.00	87	3	41	0	819	610	0	0	-610
2581+35.00	258135.00	35.00	61.32	1.50	3.04	0.00	74	2	17	0	893	631	0	0	-631
2581+40.00	258140.00	5.00	62.38	1.50	2.13	0.00	11	0.3	0	0	904	631	0	0	-631
2581+45.00	258145.00	5.00	63.31	1.50	1.53	0.00	12	0.3	0	0	916	631	0	0	-631
2581+50.00	258150.00	5.00	65.24	1.50	0.38	0.00	12	0.3	0	0	928	631	0	0	-631
2581+55.00	258155.00	5.00	68.05	1.50	0.05	0.00	12	0.3	0	0	940	631	0	0	-631
2581+60.00	258160.00	5.00	79.13	1.50	4.47	0.00	14	0.3	0	0	954	631	0	0	-631
2581+65.00	258165.00	5.00	82.02	1.50	4.91	0.00	15	0.3	1	0	969	633	0	0	-633
2581+70.00	258170.00	5.00	86.67	1.50	2.25	0.00	16	0.3	1	0	985	634	0	0	-634
2581+75.00	258175.00	5.00	90.92	1.50	0.00	0.00	16	0.3	0	0	1001	634	0	0	-634
2581+80.00	258180.00	5.00	88.15	1.50	0.00	0.00	17	0.3	0	0	1018	634	0	0	-634
2581+85.00	258185.00	5.00	81.57	1.50	0.00	0.00	16	0.3	0	0	1034	634	0	0	-634
2581+90.00	258190.00	5.00	69.72	1.50	0.00	0.00	14	0.3	0	0	1048	634	0	0	-634
2581+95.00	258195.00	5.00	54.04	1.50	0.00	0.00	11	0.3	0	0	1059	634	0	0	-634
2582+00.00	258200.00	5.00	38.74	1.50	0.00	0.00	9	0.3	0	0	1068	634	0	0	-634
2582+05.00	258205.00	5.00	25.86	1.50	0.00	0.00	6	0.3	0	0	1074	634	0	0	-634
2582+10.00	258210.00	5.00	13.82	1.50	0.00	0.00	4	0.3	0	0	1078	634	0	0	-634
2582+15.00	258215.00	5.00	2.60	1.50	0.00	0.00	2	0.3	0	0	1080	634	0	0	-634

COLUMN TOTALS: 1,080 52 507

*MASS ORDNATE: 0% CUT REUSED

DIVISION 2 - CTH C EAST

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDINATE*
328+45.00	32845.00	0.00	113.69	7.33	0.00	0.00	0	0	0	0	0	0	0	0	0
328+50.00	32850.00	5.00	136.39	7.33	0.00	0.00	23	1	0	0	23	0	0	0	0
328+55.00	32855.00	5.00	158.99	7.33	0.00	0.00	27	1	0	0	50	0	0	0	0
328+60.00	32860.00	5.00	179.44	7.33	0.00	0.00	31	1	0	0	81	0	0	0	0
328+65.00	32865.00	5.00	207.68	7.33	0.00	0.00	36	1	0	0	117	0	0	0	0
328+70.00	32870.00	5.00	227.66	7.33	0.00	0.00	40	1	0	0	157	0	0	0	0
328+75.00	32875.00	5.00	225.78	7.33	0.00	0.00	42	1	0	0	199	0	0	0	0
328+80.00	32880.00	5.00	210.33	7.33	0.69	0.00	40	1	0	0	239	0	0	0	0
328+85.00	32885.00	5.00	186.85	7.33	17.92	0.00	37	1	2	0	276	3	0	0	-3
328+90.00	32890.00	5.00	163.05	7.33	68.21	0.00	32	1	8	0	308	13	0	0	-13
328+95.00	32895.00	5.00	145.41	7.33	127.18	0.00	29	1	18	0	337	35	0	0	-35
329+00.00	32900.00	5.00	132.73	7.33	145.99	0.00	26	1	25	0	363	66	0	0	-66
329+05.00	32905.00	5.00	122.51	7.33	152.18	0.00	24	1	28	0	387	101	0	0	-101
329+10.00	32910.00	5.00	113.88	7.33	154.93	0.00	22	1	28	0	409	136	0	0	-136
329+15.00	32915.00	5.00	114.25	7.33	153.82	0.00	21	1	29	0	430	173	0	0	-173
329+20.00	32920.00	5.00	113.62	7.33	131.06	0.00	21	1	26	0	451	205	0	0	-205
329+25.00	32925.00	5.00	112.11	7.33	133.69	0.00	21	1	25	0	472	236	0	0	-236
329+50.00	32950.00	25.00	103.25	7.33	135.36	0.00	100	7	125	0	572	393	0	0	-393
330+00.00	33000.00	50.00	82.24	7.33	120.99	0.00	172	14	237	0	744	689	0	0	-689
330+50.00	33050.00	50.00	68.48	7.33	59.28	0.00	140	14	167	0	884	898	0	0	-898
331+00.00	33100.00	50.00	70.29	7.33	20.32	0.00	128	14	74	0	1012	990	0	0	-990
331+50.00	33150.00	50.00	67.88	7.33	6.74	0.00	128	14	25	0	1140	1021	0	0	-1021
332+00.00	33200.00	50.00	58.76	7.33	2.97	0.00	117	14	9	0	1257	1033	0	0	-1033
COLUMN TOTALS							1,257	93	826	0					

*MASS ORDINATE: 0% CUT REUSED

DIVISION 3 - USH 151 SB RT LANE

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDINATE*
2582+60.00	258260.00	0.00	1.68	1.50	0.00	0.00	0	0	0	0	0	0	0	0	0
2582+65.00	258265.00	5.00	13.65	1.50	0.00	0.00	1	0	0	0	1	0	0	0	1
2582+70.00	258270.00	5.00	25.13	1.50	0.00	0.00	4	0	0	0	5	0	0	0	5
2582+75.00	258275.00	5.00	36.23	1.50	0.00	0.00	6	0	0	0	11	0	0	0	11
2582+80.00	258280.00	5.00	48.79	1.50	0.00	0.00	8	0	0	0	19	0	0	0	19
2582+85.00	258285.00	5.00	62.44	1.50	0.00	0.00	10	0	0	0	29	0	0	0	29
2582+90.00	258290.00	5.00	62.74	1.50	0.00	0.00	12	0	0	0	41	0	0	0	41
2582+95.00	258295.00	5.00	58.44	1.50	0.00	0.00	11	0	0	0	52	0	0	0	52
2583+00.00	258300.00	5.00	64.22	1.50	0.00	0.00	11	0	0	0	63	0	0	0	63
2583+05.00	258305.00	5.00	76.50	1.50	0.00	0.00	13	0	0	0	76	0	0	0	76
2583+10.00	258310.00	5.00	92.64	1.50	0.00	0.00	16	0	0	0	92	0	0	0	92
2583+15.00	258315.00	5.00	110.03	1.50	0.00	0.00	19	0	0	0	111	0	0	0	111
2583+20.00	258320.00	5.00	118.12	1.50	0.00	0.00	21	0	0	0	132	0	0	0	132
2583+25.00	258325.00	5.00	112.99	1.50	0.01	0.00	21	0	0	0	153	0	0	0	153
2583+30.00	258330.00	5.00	110.39	1.50	0.00	0.00	21	0	0	0	174	0	0	0	174
2583+35.00	258335.00	5.00	91.03	1.50	0.10	0.00	19	0	0	0	193	0	0	0	193
2583+50.00	258350.00	15.00	87.91	1.50	3.38	0.00	50	1	1	0	243	1	0	0	241
2584+00.00	258400.00	50.00	90.95	1.50	26.22	0.00	166	3	27	0	409	35	0	0	370
2584+50.00	258450.00	50.00	83.49	1.50	34.24	0.00	162	3	56	0	571	105	0	0	459
2585+00.00	258500.00	50.00	71.09	1.50	36.14	0.00	143	3	65	0	714	186	0	0	518
2585+50.00	258550.00	50.00	52.58	1.50	45.87	0.00	115	3	76	0	829	281	0	0	535
2586+00.00	258600.00	50.00	33.08	1.50	54.27	0.00	79	3	93	0	908	398	0	0	495
2586+50.00	258650.00	50.00	31.42	1.50	66.09	0.00	60	3	111	0	968	536	0	0	413
2587+00.00	258700.00	50.00	29.62	1.50	58.74	0.00	57	3	116	0	1025	681	0	0	322
2587+50.00	258750.00	50.00	26.48	1.50	49.59	0.00	52	3	100	0	1077	806	0	0	246
2588+00.00	258800.00	50.00	22.01	1.50	42.88	0.00	45	3	86	0	1122	914	0	0	180
2588+50.00	258850.00	50.00	20.62	1.50	21.78	0.00	39	3	60	0	1161	989	0	0	141
2589+00.00	258900.00	50.00	20.37	1.50	9.99	0.00	38	3	29	0	1199	1025	0	0	140
2589+50.00	258950.00	50.00	22.85	1.50	3.89	0.00	40	3	13	0	1239	1041	0	0	161
2590+00.00	259000.00	50.00	25.79	1.50	0.64	0.00	45	3	4	0	1284	1046	0	0	198
2590+50.00	259050.00	50.00	34.33	1.50	0.00	0.00	56	3	1	0	1340	1048	0	0	250
2591+00.00	259100.00	50.00	34.42	1.50	0.00	0.00	64	3	0	0	1404	1048	0	0	311
2591+50.00	259150.00	50.00	35.75	1.50	0.00	0.00	65	3	0	0	1469	1048	0	0	373
2592+00.00	259200.00	50.00	33.51	1.50	0.00	0.00	64	3	0	0	1533	1048	0	0	434
2592+50.00	259250.00	50.00	33.12	1.50	0.00	0.00	62	3	0	0	1595	1048	0	0	493
2593+00.00	259300.00	50.00	30.82	1.50	0.00	0.00	59	3	0	0	1654	1048	0	0	549
2593+50.00	259350.00	50.00	23.62	1.50	2.02	0.00	50	3	2	0	1704	1050	0	0	593
2594+00.00	259400.00	50.00	22.80	1.50	0.87	0.00	43	3	3	0	1747	1054	0	0	629
2594+50.00	259450.00	50.00	29.36	1.50	0.00	0.00	48	3	1	0	1795	1055	0	0	673
2595+00.00	259500.00	50.00	24.13	1.50	12.67	0.00	50	3	12	0	1845	1070	0	0	705
2595+50.00	259550.00	50.00	26.24	1.50	134.08	0.00	47	3	136	0	1892	1240	0	0	579
2596+00.00	259600.00	50.00	17.95	1.50	13.03	0.00	41	3	136	0	1933	1410	0	0	447
COLUMN TOTALS							1,933	76	1,128	0					

*MASS ORDINATE: 100% CUT REUSED

DIVISION 4 - CTH C WEST

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDINATE*
323+71.00	32400.00	0.00	61.23	12.50	0.00	0.00	0	0	0	0	0	0	0	0	0
324+00.00	32400.00	29.00	61.23	12.50	0.00	0.00	66	13	0	0	66	0	0	0	53
324+50.00	32450.00	50.00	74.93	12.50	3.52	0.00	126	23	3	0	192	4	0	0	152
325+00.00	32500.00	50.00	85.22	12.50	15.03	0.00	148	23	17	0	340	25	0	0	256
325+50.00	32550.00	50.00	160.96	12.50	22.19	0.00	228	23	34	0	568	68	0	0	419
326+00.00	32600.00	50.00	85.31	12.50	25.78	0.00	228	23	44	0	796	123	0	0	569
326+40.00	32640.00	40.00	128.53	12.50	0.91	0.00	158	19	20	0	954	148	0	0	683
326+45.00	32645.00	5.00	144.71	12.50	0.32	0.00	25	2	0	0	979	148	0	0	706
326+50.00	32650.00	5.00	154.82	12.50	0.25	0.00	28	2	0	0	1007	148	0	0	732
326+55.00	32655.00	5.00	185.42	12.50	0.05	0.00	32	2	0	0	1039	148	0	0	762
326+60.00	32660.00	5.00	208.78	12.50	0.04	0.00	36	2	0	0	1075	148	0	0	796
326+65.00	32665.00	5.00	210.88	12.50	0.08	0.00	39	2	0	0	1114	148	0	0	833
326+70.00	32670.00	5.00	187.72	12.50	0.22	0.00	37	2	0	0	1151	148	0	0	868
326+75.00	32675.00	5.00	162.38	12.50	0.44	0.00	32	2	0	0	1183	148	0	0	898
326+80.00	32680.00	5.00	138.68	12.50	0.43	0.00	28	2	0	0	1211	148	0	0	924
326+85.00	32685.00	5.00	117.51	12.50	1.29	0.00	24	2	0	0	1235	148	0	0	946
326+90.00	32690.00	5.00	118.07	12.50	1.10	0.00	22	2	0	0	1257	148	0	0	966
326+95.00	32695.00	5.00	132.43	12.50	0.47	0.00	23	2	0	0	1280	148	0	0	987
327+00.00	32700.00	5.00	137.90	12.50	0.00	0.00	25	2	0	0	1305	148	0	0	1010
327+05.00	32705.00	5.00	125.85	12.50	0.00	0.00	24	2	0	0	1329	148	0	0	1032
327+10.00	32710.00	5.00	107.48	12.50	0.00	0.00	22	2	0	0	1351	148	0	0	1052
327+15.00	32715.00	5.00	94.75	12.50	0.00	0.00	19	2	0	0	1370	148	0	0	1069
327+20.00	32720.00	5.00	113.52	12.50	0.00	0.00	19	2	0	0	1389	148	0	0	1086
327+25.00	32725.00	5.00	98.74	12.50	0.00	0.00	20	2	0	0	1409	148	0	0	1104
327+30.00	32730.00	5.00	56.80	12.50	0.00	0.00	14	2	0	0	1423	148	0	0	1116

COLUMN TOTALS

1,423

160

118

0

*MASS ORDINATE: 100% CUT REUSED

DIVISION 5 - USH 151 MEDIAN

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.00	REDUCED EBS IN FILL 1.00	MASS ORDINATE*
2574+00.00	257400.00	0.00	18.30	0.00	7.97	0.00	0	0	0	0	0	0	0	0	0
2574+25.00	257425.00	50.00	60.49	0.00	20.38	0.00	73	0	26	0	73	33	0	0	-33
2574+50.00	257450.00	50.00	33.34	0.75	0.13	0.00	87	1	19	0	160	56	0	0	-56
2575+00.00	257500.00	50.00	29.88	0.75	1.45	0.00	59	1	1	0	219	58	0	0	-58
2575+50.00	257550.00	50.00	44.27	0.75	8.37	0.00	69	1	9	0	288	69	0	0	-69
2576+00.00	257600.00	50.00	48.10	0.75	8.70	0.00	86	1	16	0	374	89	0	0	-89
2576+50.00	257650.00	50.00	49.86	0.75	13.81	0.00	91	1	21	0	465	115	0	0	-115
2577+00.00	257700.00	50.00	52.00	0.75	13.85	0.00	94	1	26	0	559	148	0	0	-148
2577+50.00	257750.00	50.00	54.79	0.75	15.06	0.00	99	1	27	0	658	181	0	0	-181
2578+00.00	257800.00	50.00	55.93	0.75	14.93	0.00	103	1	28	0	761	216	0	0	-216
2578+50.00	257850.00	50.00	55.94	0.75	13.02	0.00	104	1	26	0	865	249	0	0	-249
2579+00.00	257900.00	50.00	64.36	0.75	0.01	0.00	111	1	12	0	976	264	0	0	-264
2579+50.00	257950.00	50.00	61.80	0.75	0.57	0.00	117	1	1	0	1093	265	0	0	-265
2580+00.00	258000.00	50.00	57.45	0.75	0.92	0.00	110	1	1	0	1203	266	0	0	-266
2580+50.00	258050.00	50.00	56.06	0.75	1.75	0.00	105	1	2	0	1308	269	0	0	-269
2581+00.00	258100.00	50.00	58.84	0.75	3.71	0.00	106	1	5	0	1414	275	0	0	-275
2581+50.00	258150.00	50.00	60.09	0.75	3.15	0.00	110	1	6	0	1524	283	0	0	-283
2582+00.00	258200.00	50.00	115.18	0.75	0.00	0.00	162	1	3	0	1686	286	0	0	-286
2582+50.00	258250.00	50.00	128.84	0.75	0.00	0.00	226	1	0	0	1912	286	0	0	-286
2583+00.00	258300.00	50.00	90.47	0.75	0.38	0.00	203	1	0	0	2115	286	0	0	-286
2583+50.00	258350.00	50.00	87.58	0.75	1.93	0.00	165	1	2	0	2280	289	0	0	-289
2584+00.00	258400.00	50.00	83.68	0.75	2.05	0.00	159	1	4	0	2439	294	0	0	-294
2584+50.00	258450.00	50.00	75.55	0.75	9.00	0.00	147	1	10	0	2586	306	0	0	-306
2585+00.00	258500.00	50.00	69.07	0.75	9.69	0.00	134	1	17	0	2720	328	0	0	-328
2585+50.00	258550.00	50.00	65.57	0.75	9.40	0.00	125	1	18	0	2845	350	0	0	-350
2586+00.00	258600.00	50.00	60.48	0.75	12.80	0.00	117	1	21	0	2962	376	0	0	-376
2586+50.00	258650.00	50.00	56.97	0.75	12.59	0.00	109	1	24	0	3071	406	0	0	-406
2587+00.00	258700.00	50.00	55.91	0.75	14.84	0.00	105	1	25	0	3176	438	0	0	-438
2587+50.00	258750.00	50.00	54.28	0.75	12.13	0.00	102	1	25	0	3278	469	0	0	-469
2588+00.00	258800.00	50.00	54.09	0.75	10.69	0.00	100	1	21	0	3378	495	0	0	-495
2588+50.00	258850.00	50.00	51.43	0.75	8.89	0.00	98	1	18	0	3476	518	0	0	-518
2589+00.00	258900.00	50.00	44.88	0.75	7.62	0.00	89	1	15	0	3565	536	0	0	-536
2589+50.00	258950.00	50.00	29.70	0.75	1.12	0.00	69	1	8	0	3634	546	0	0	-546
2590+00.00	259000.00	50.00	27.54	0.75	1.89	0.00	53	1	3	0	3687	550	0	0	-550
2590+50.00	259050.00	50.00	25.09	0.75	4.67	0.00	49	1	6	0	3736	558	0	0	-558
2591+00.00	259100.00	50.00	27.72	0.75	2.88	0.00	49	1	7	0	3785	566	0	0	-566
2591+50.00	259150.00	50.00	30.15	0.75	1.81	0.00	54	1	4	0	3839	571	0	0	-571
2592+00.00	259200.00	50.00	29.97	0.75	2.12	0.00	56	1	4	0	3895	576	0	0	-576
2592+50.00	259250.00	50.00	29.82	0.75	0.61	0.00	55	1	3	0	3950	580	0	0	-580
2593+00.00	259300.00	50.00	29.26	0.75	2.75	0.00	55	1	3	0	4005	584	0	0	-584
2593+50.00	259350.00	50.00	32.18	0.75	1.07	0.00	57	1	4	0	4062	589	0	0	-589
2594+00.00	259400.00	50.00	32.56	0.75	2.75	0.00	60	1	4	0	4122	594	0	0	-594
2594+50.00	259450.00	50.00	32.54	0.75	5.87	0.00	60	1	8	0	4182	604	0	0	-604
2595+00.00	259500.00	50.00	31.03	0.75	4.39	0.00	59	1	10	0	4241	616	0	0	-616
2595+50.00	2595+50.00	50.00	25.96	0.00	26.43	0.00	53	1	29	0	4294	653	0	0	-653

COLUMN TOTALS

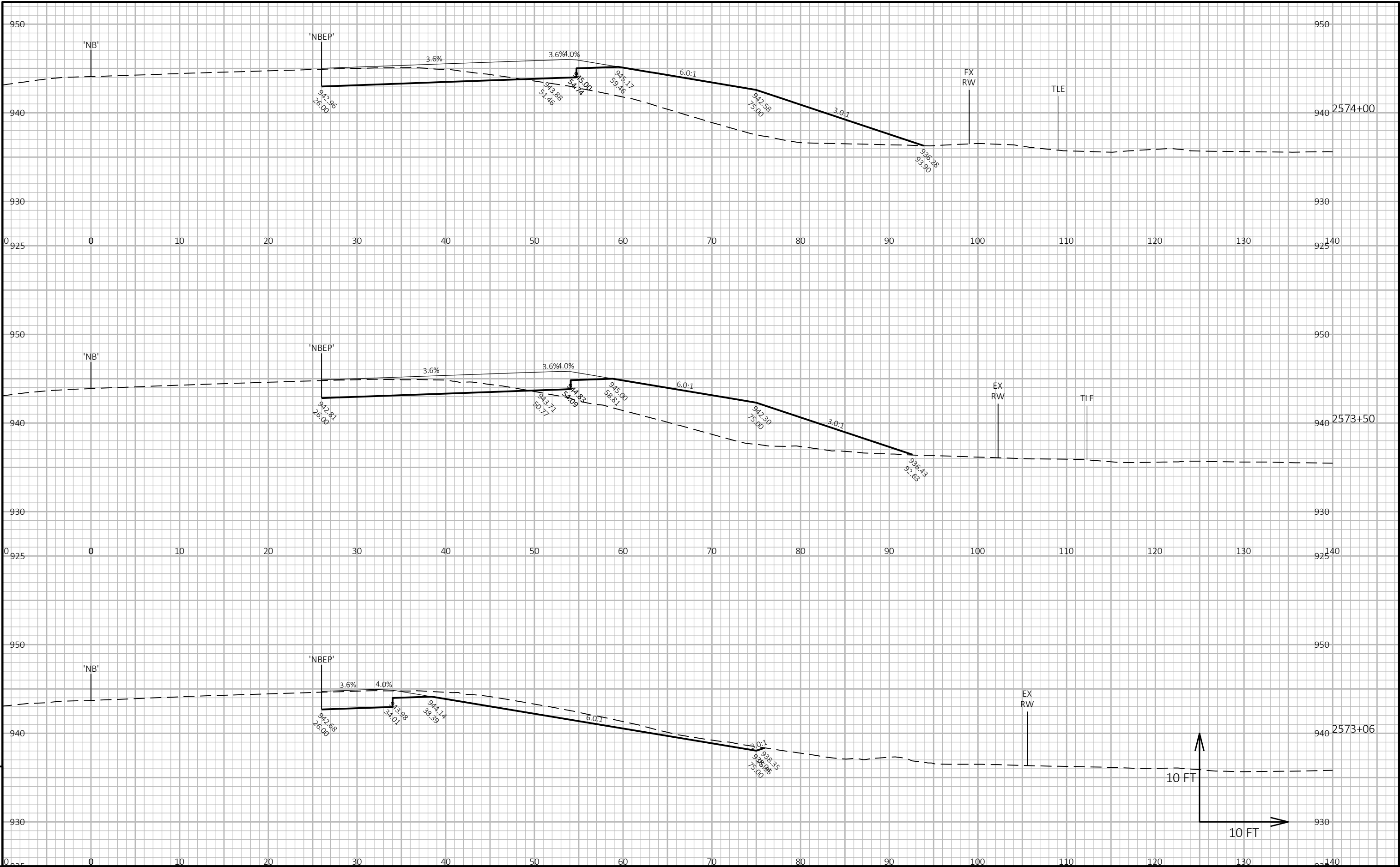
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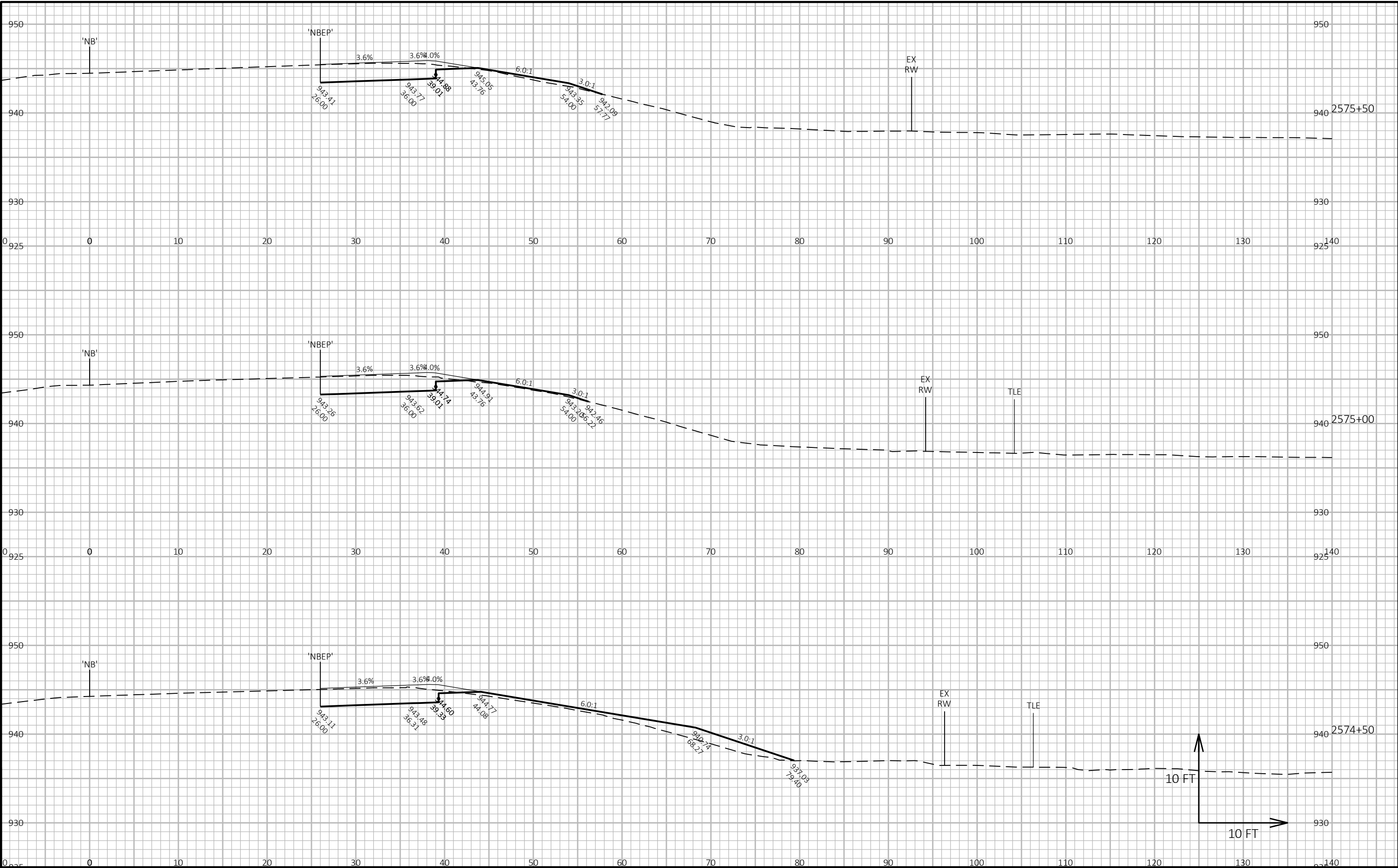
*MASS ORDINATE: 0% CUT REUSED



9

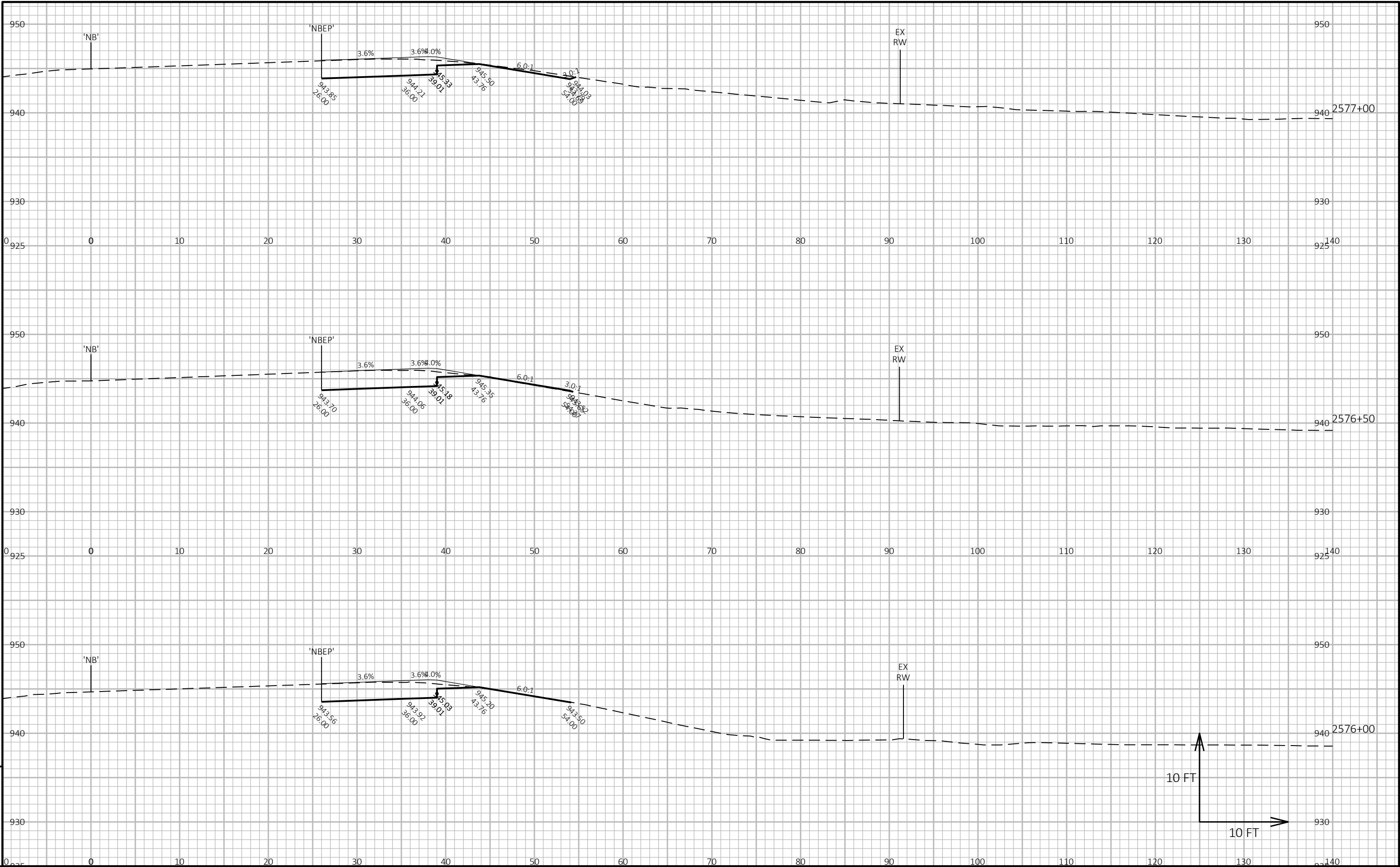
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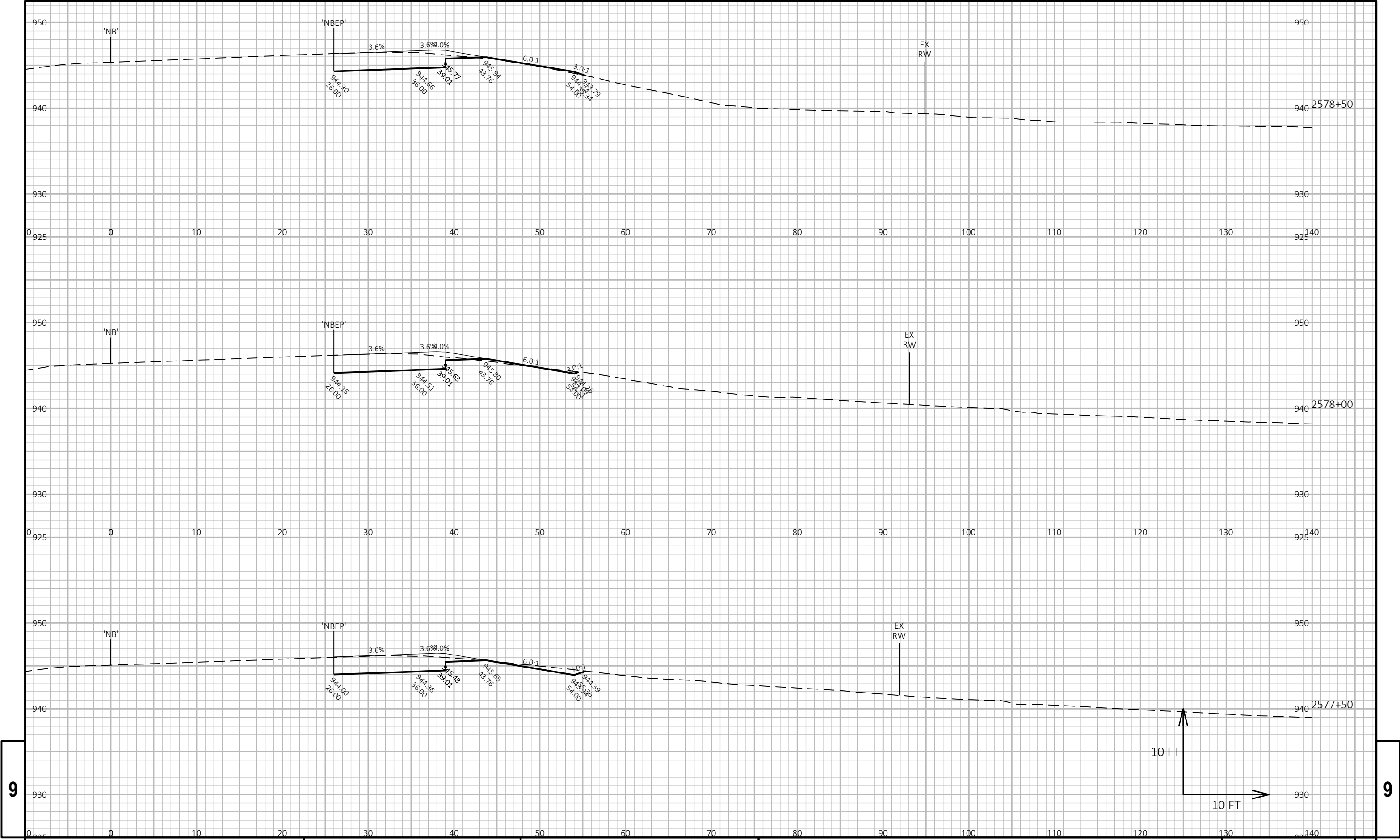
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CROSS SECTIONS: USH 151 NB RIGHT TURN LANE	SHEET	E
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9

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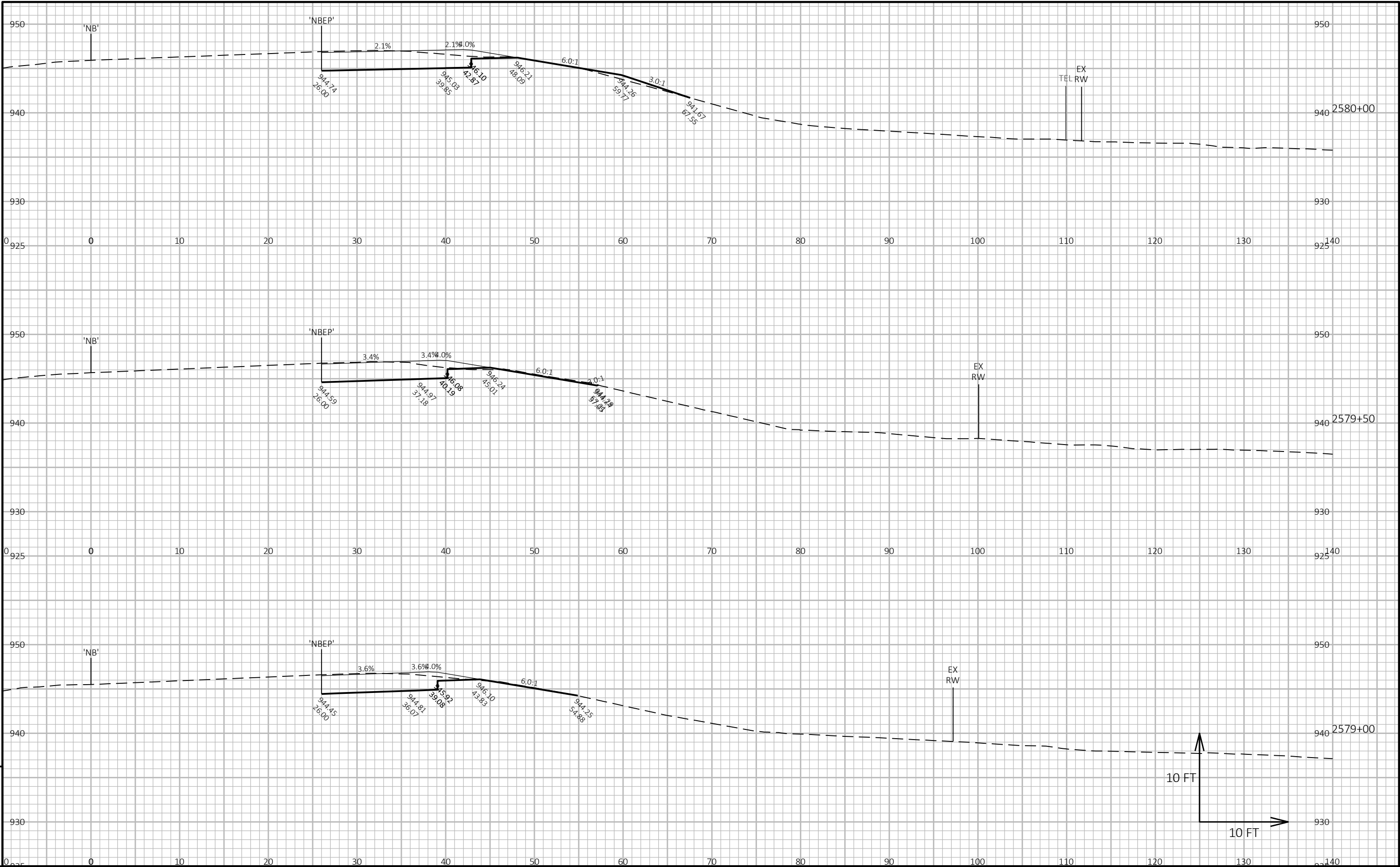


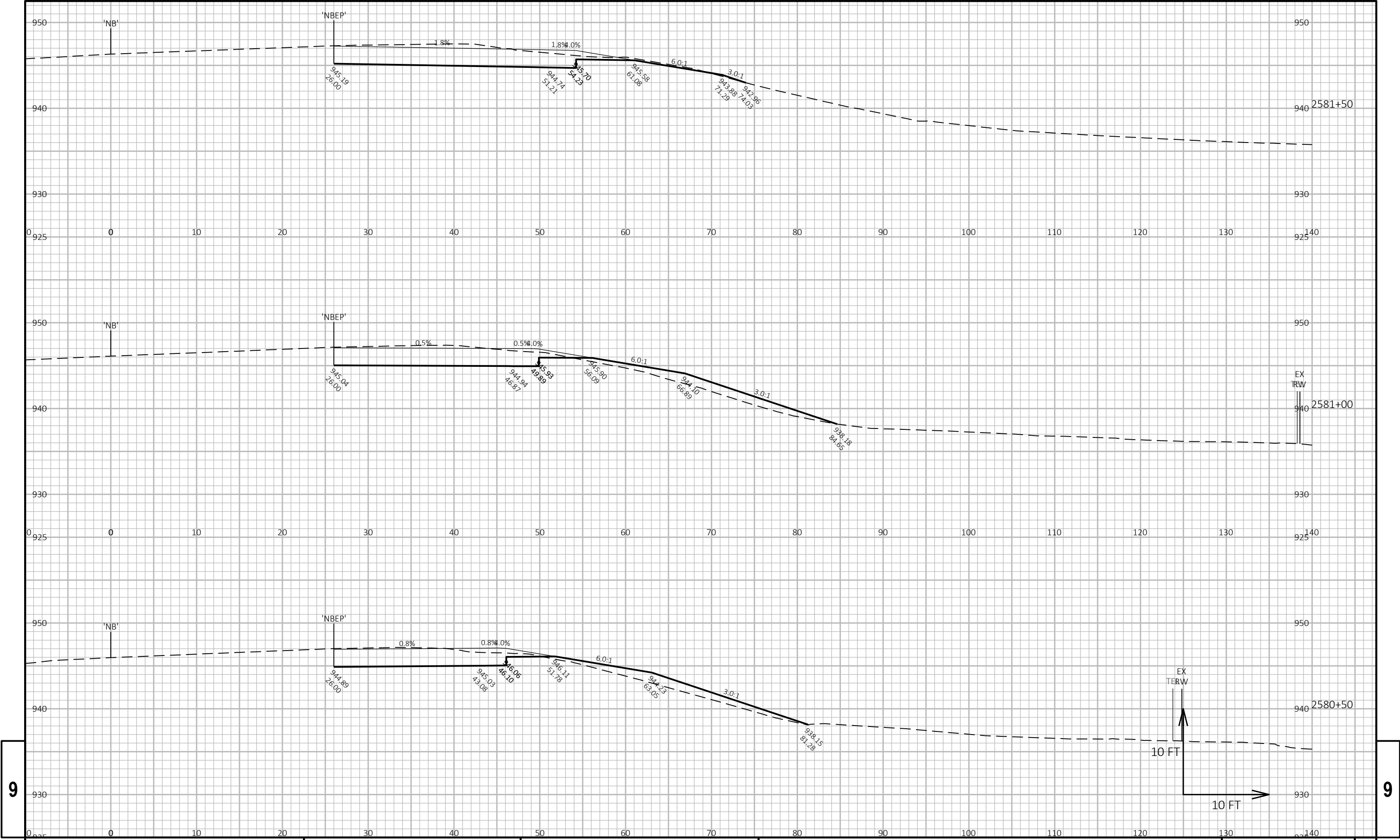


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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CROSS SECTIONS: USH 151 NB RIGHT TURN LANE	SHEET	E
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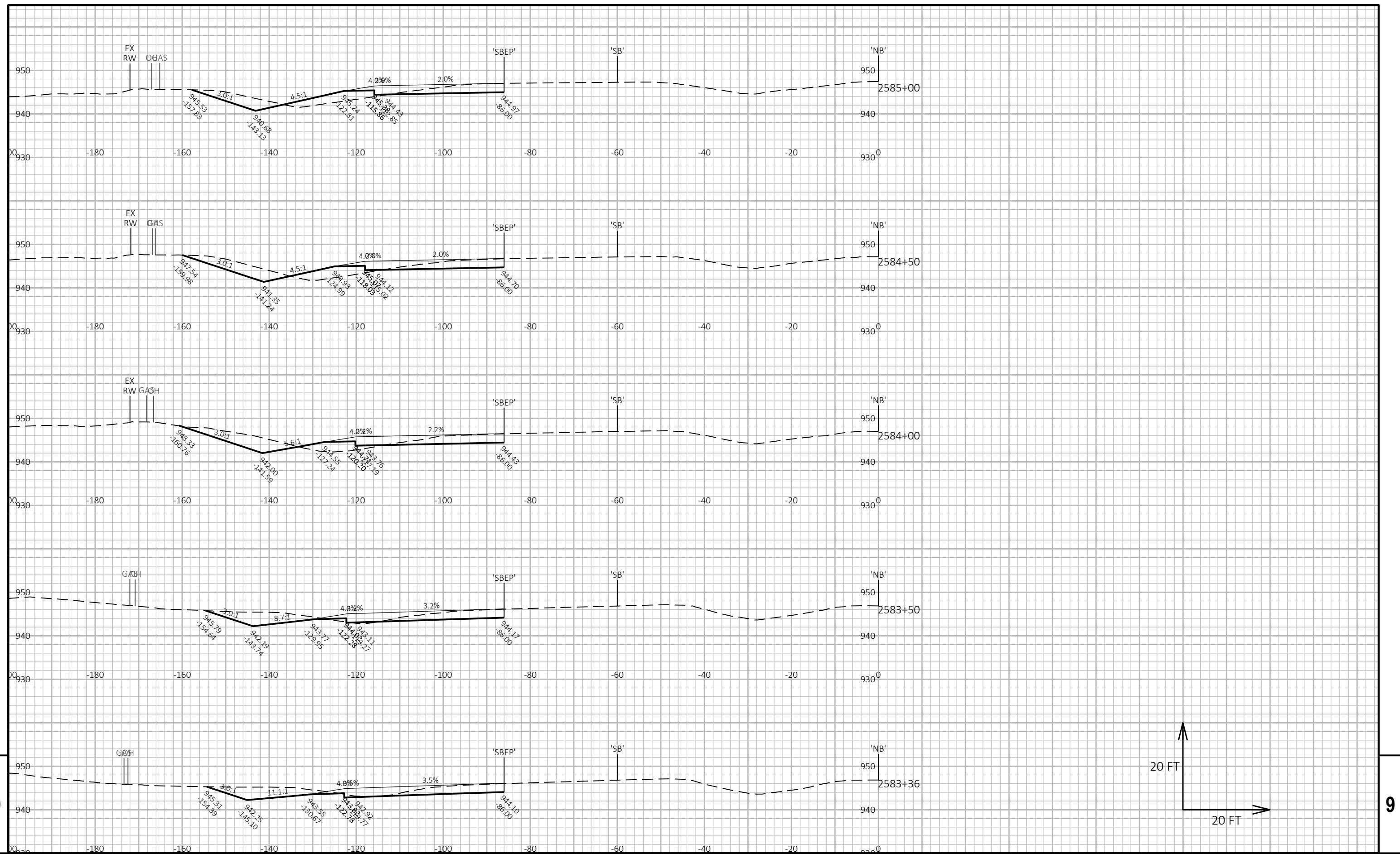




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PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CROSS SECTIONS: USH 151 NB RIGHT TURN LANE	SHEET E
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PROJECT NO:	1112-06-75
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HWY: USH 151

COUNTY: DODGE

CROSS SECTIONS: USH 151 SB RIGHT TURN LANE

SHEET

1

FILE NAME : N:\PDS\C3D\11120605\SHEETSPLAN\090201 X-SECTIONS\090201-XS.DWG
LAYOUT NAME - 090201-xs-24

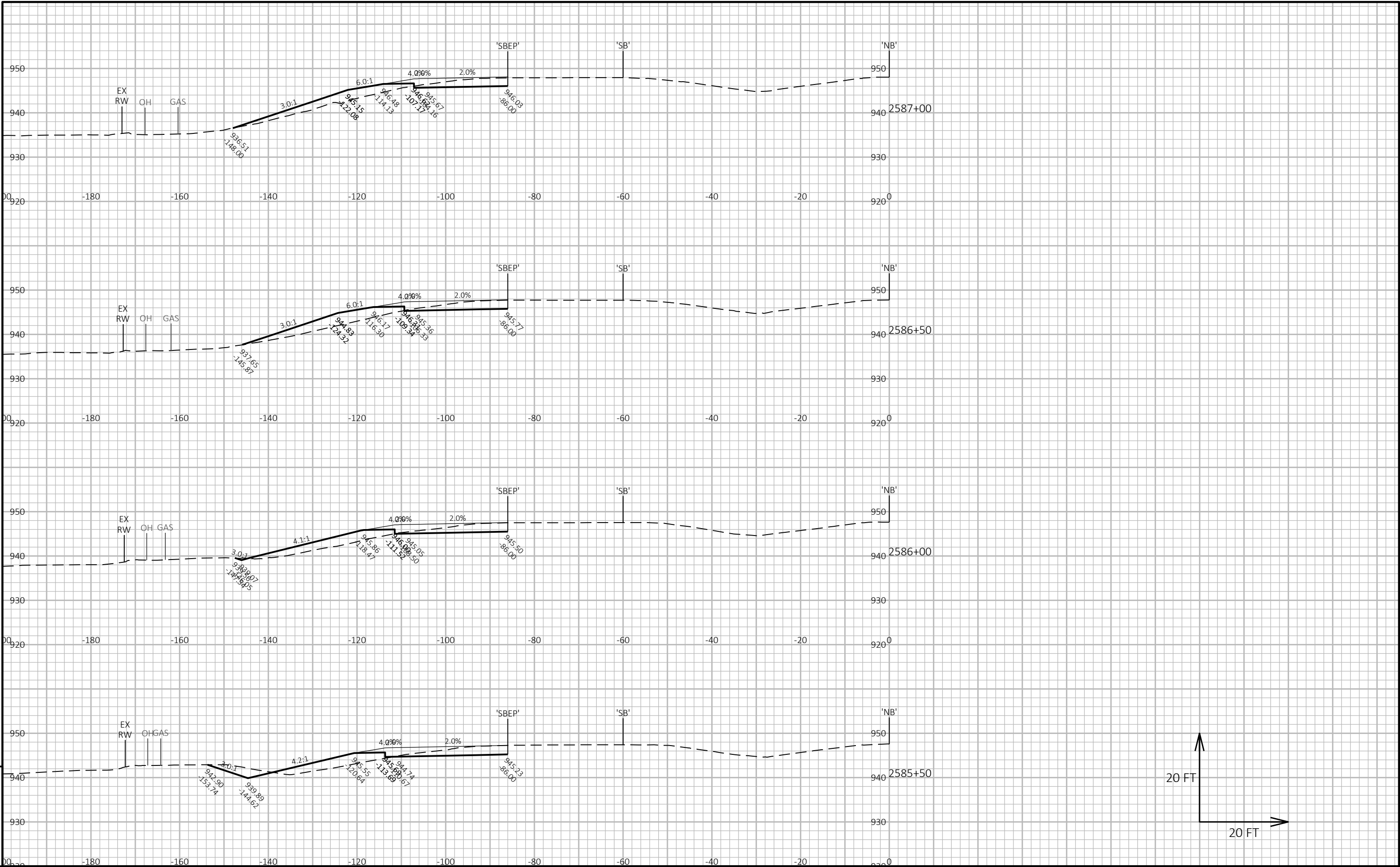
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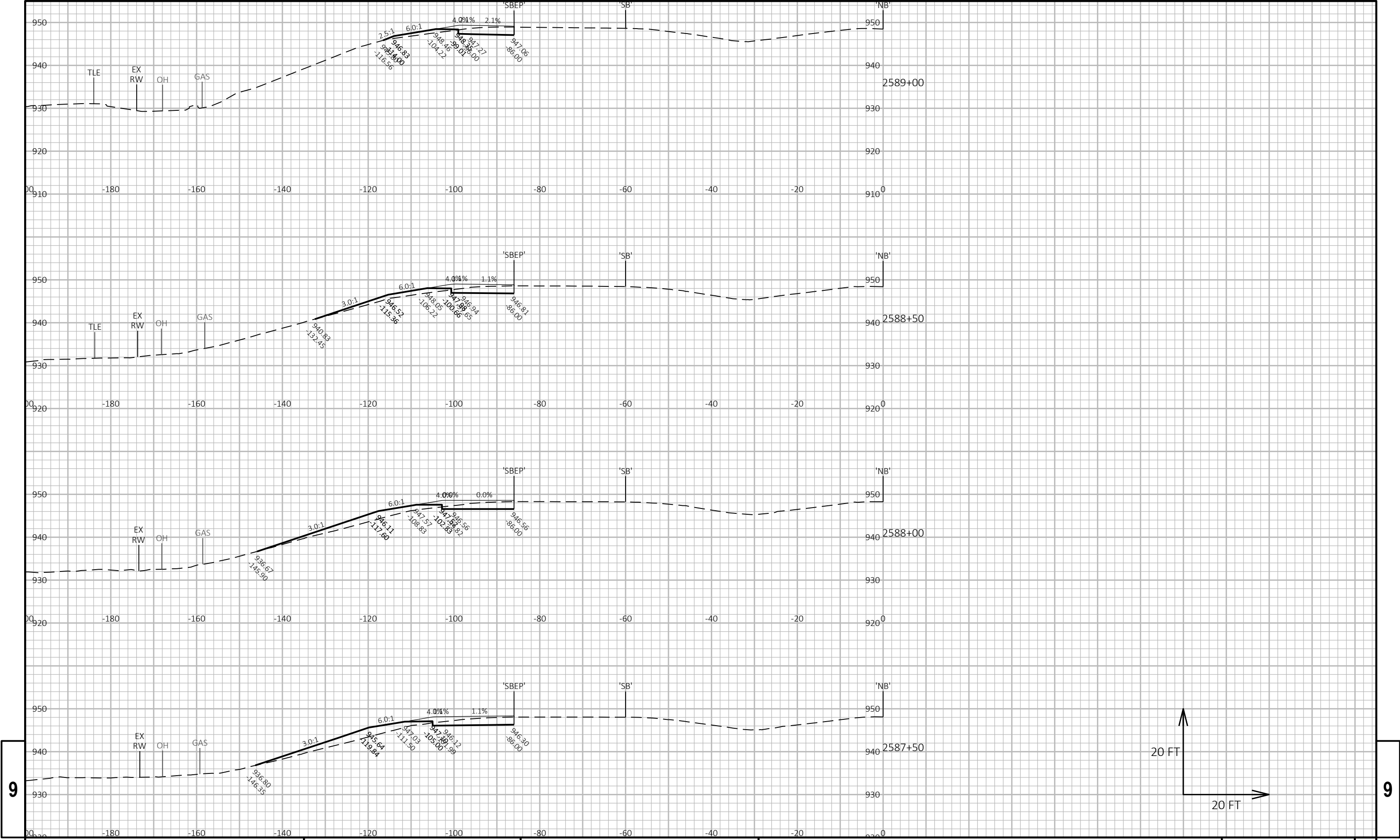
PLOT BY : DOYLE, MICKEY R

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

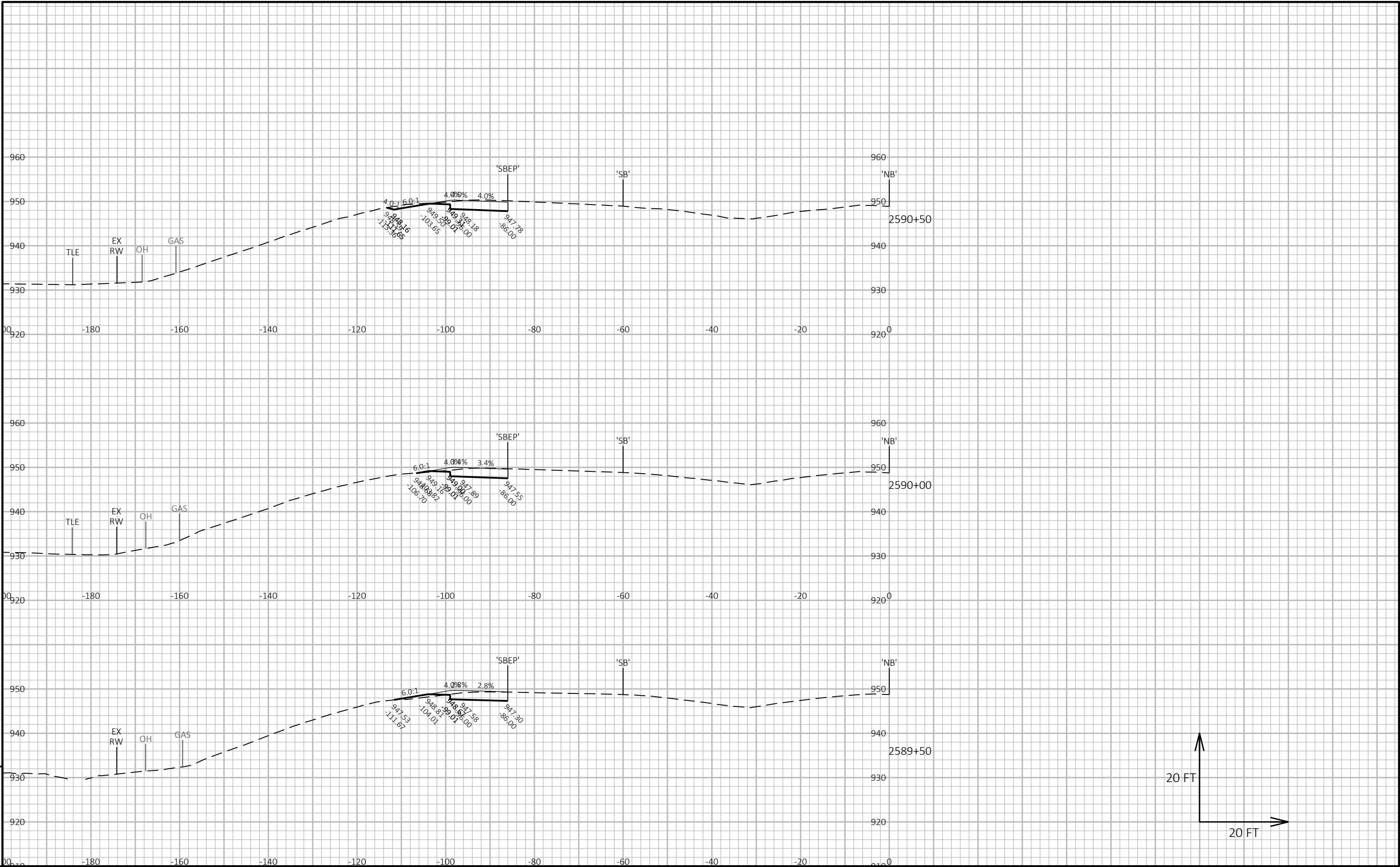


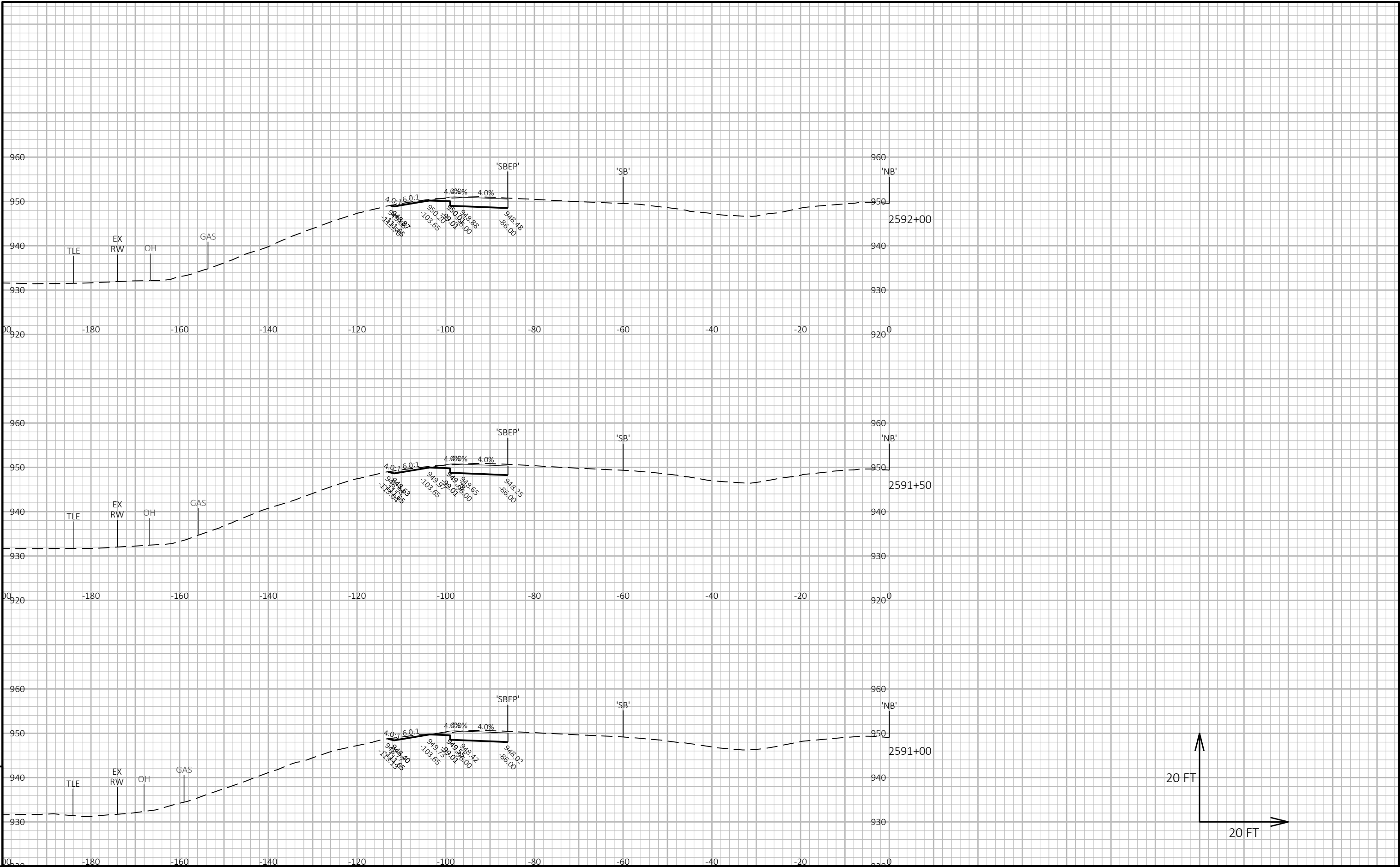


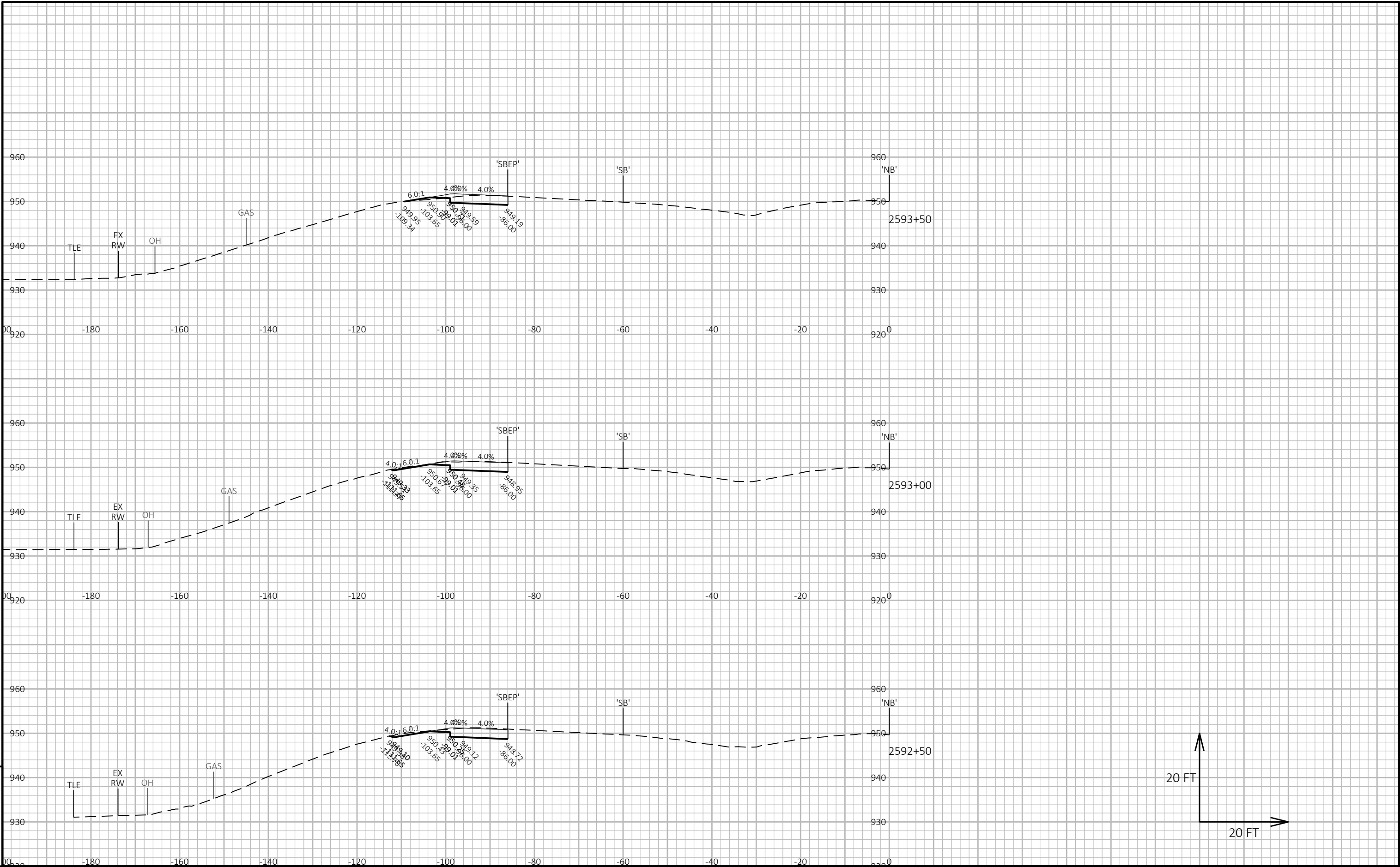
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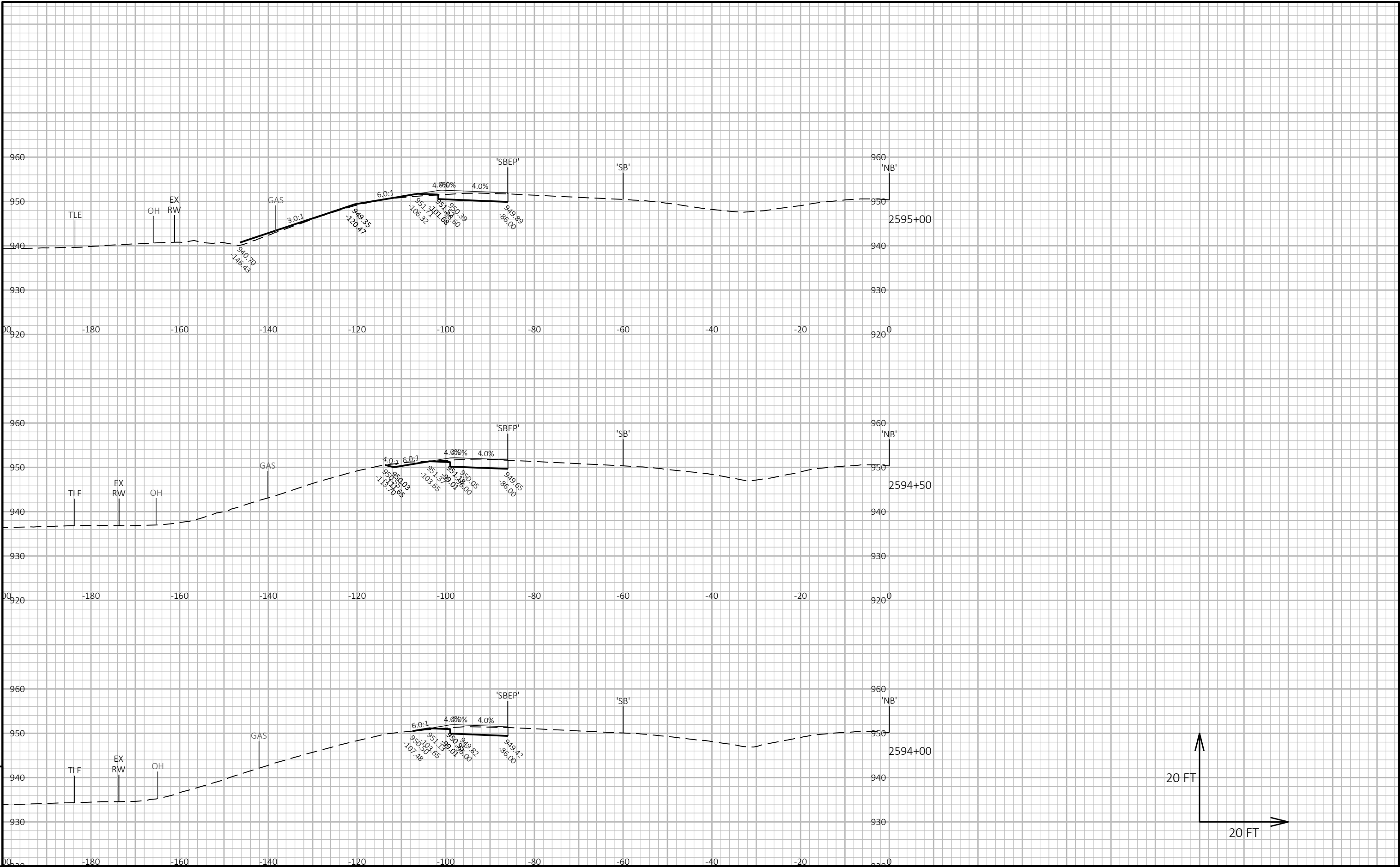
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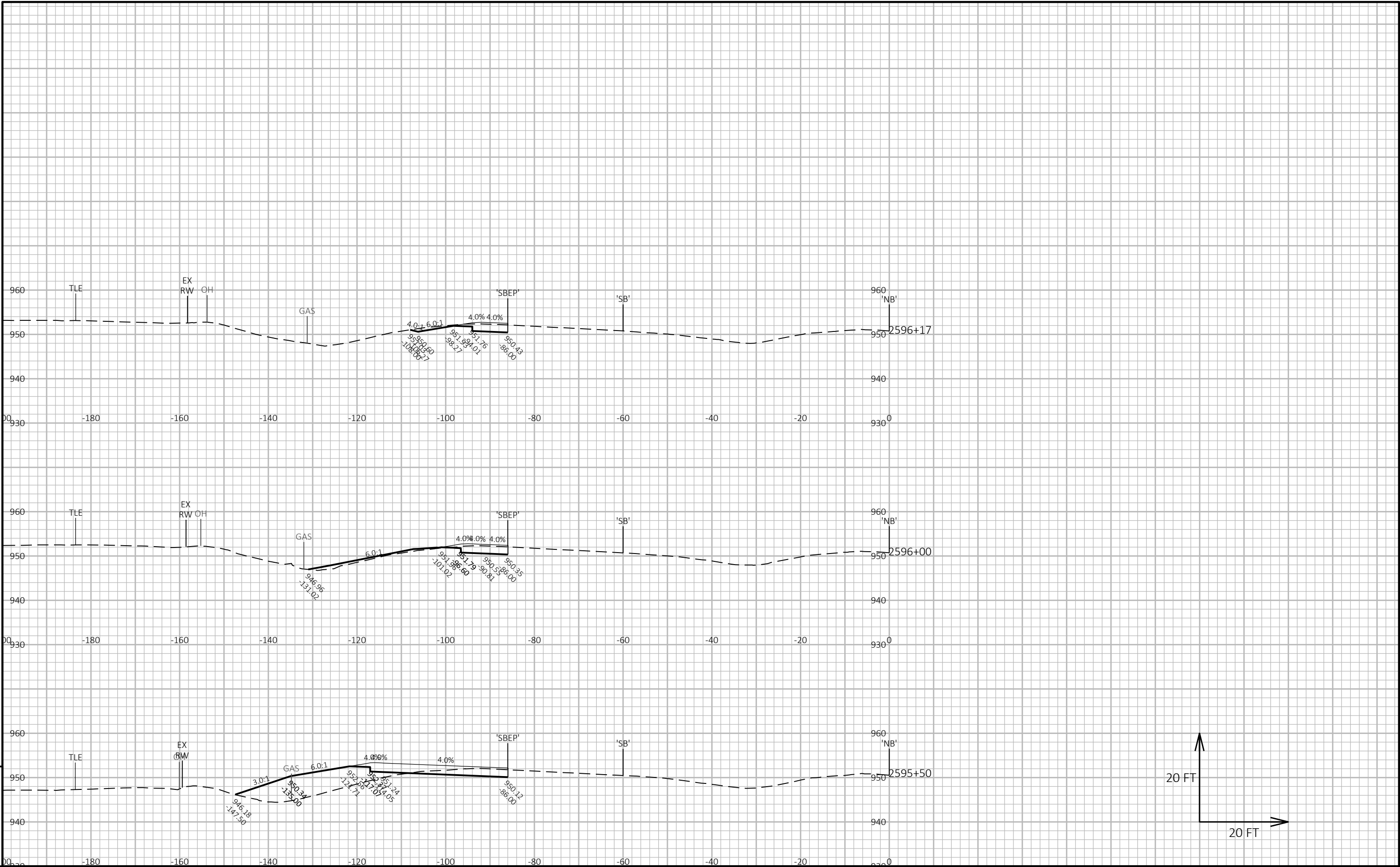
PROJECT NO:	1112-06-75	HWY:	USH 151	COUNTY:	DODGE	CROSS SECTIONS:	USH 151 SB RIGHT TURN LANE	SHEET	E
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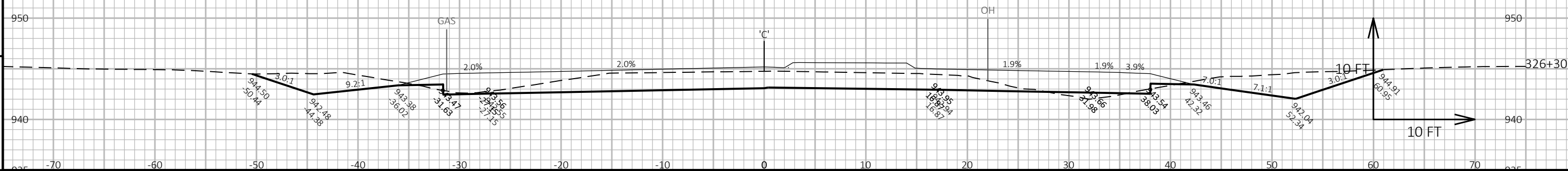






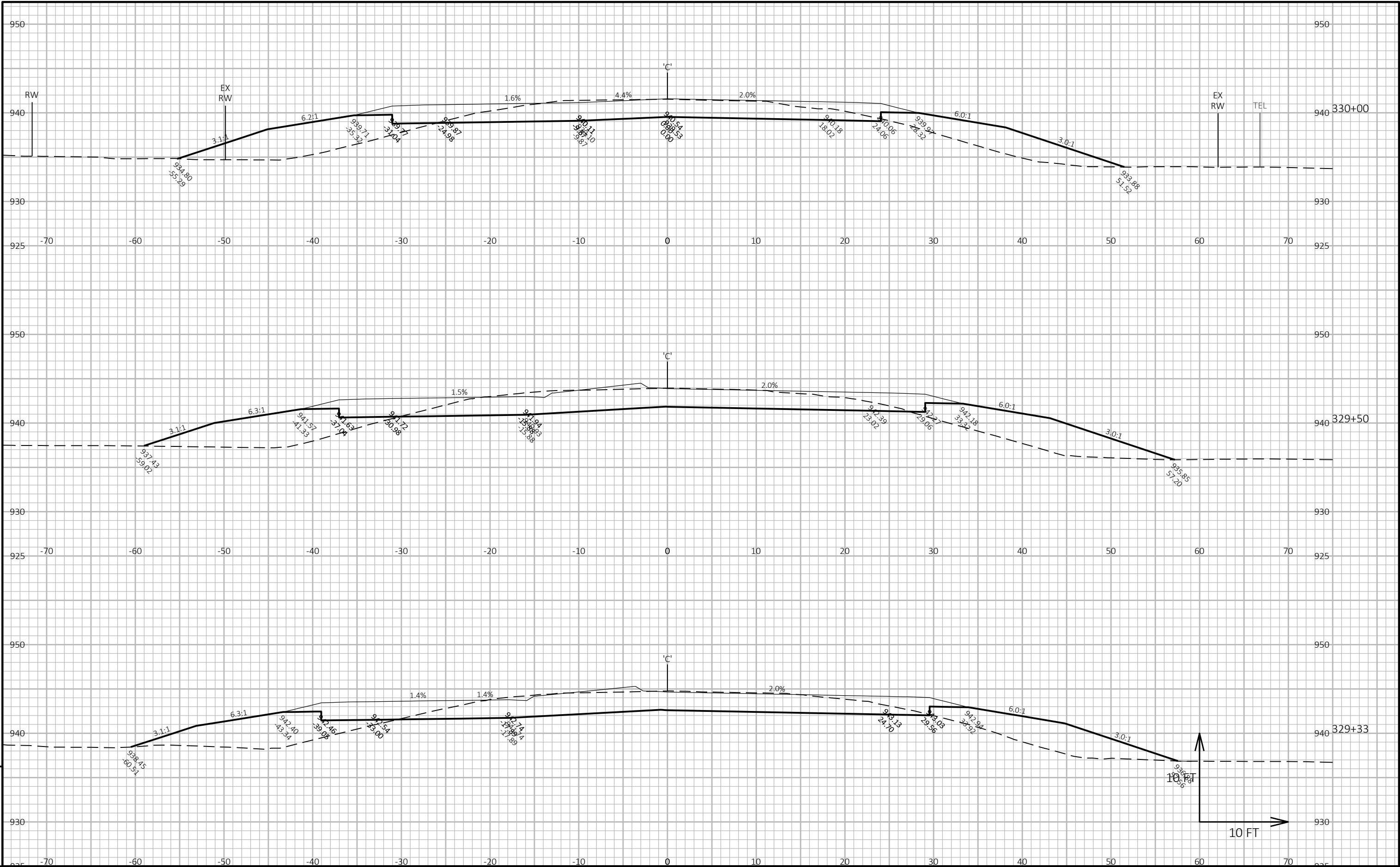
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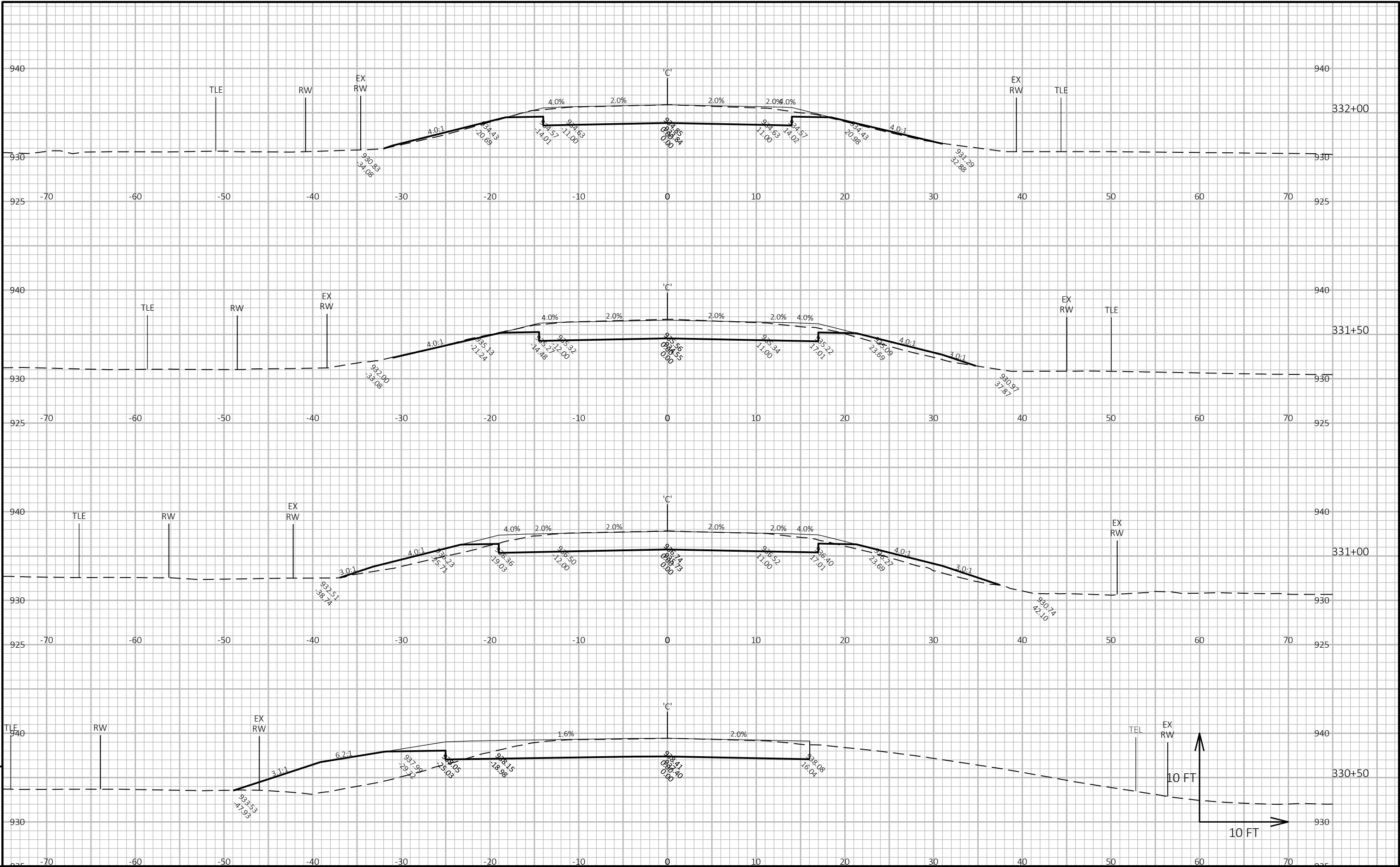
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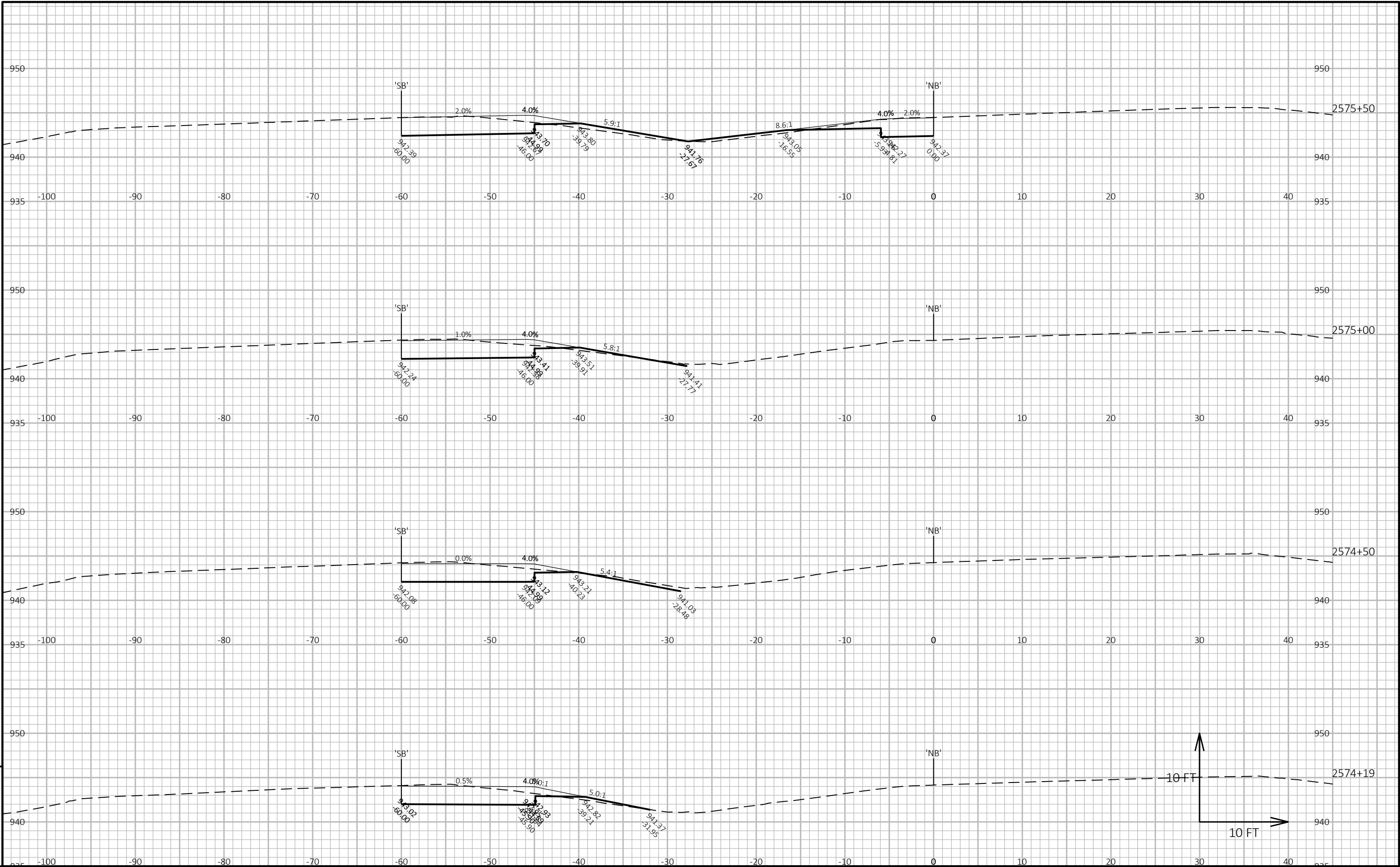


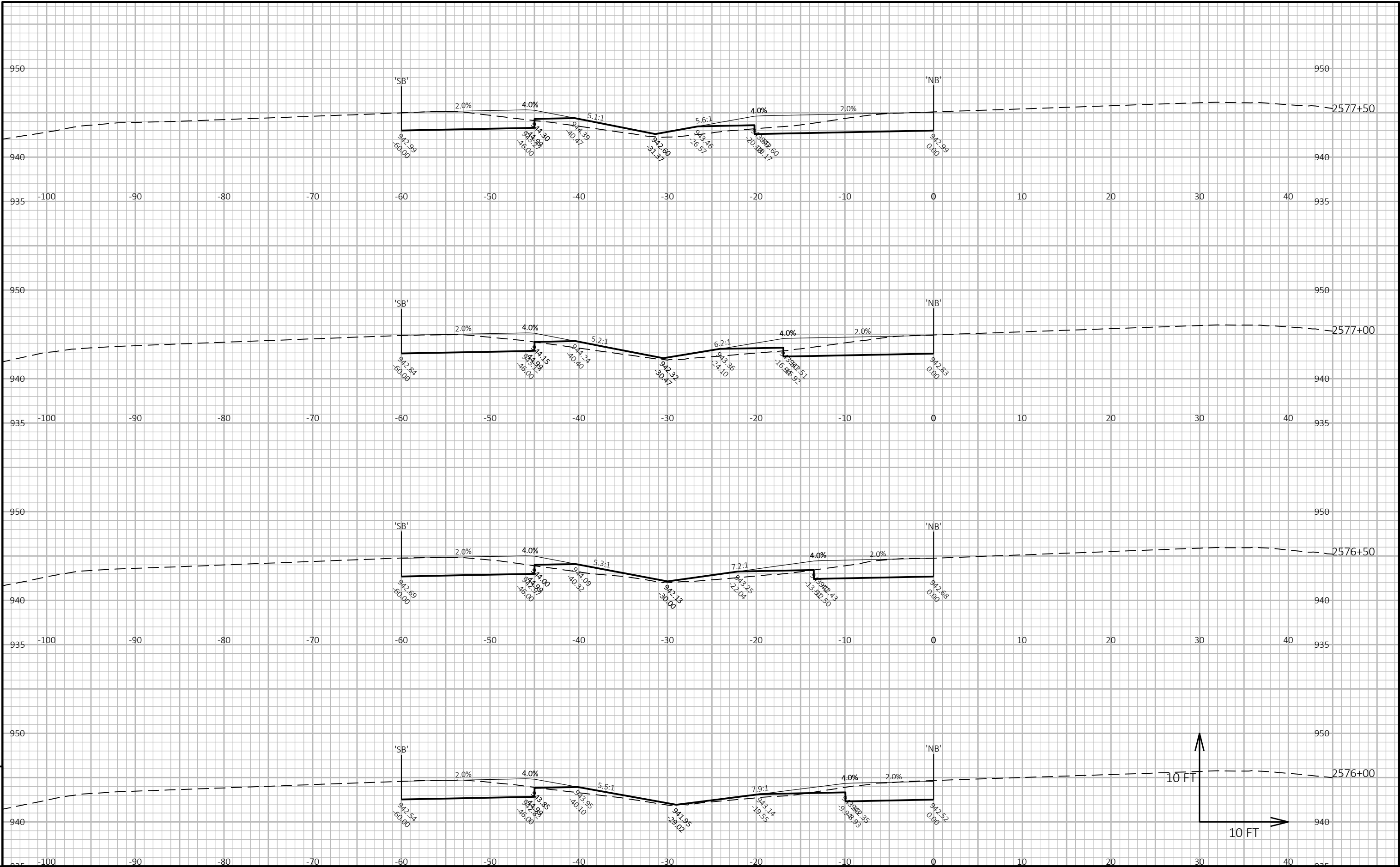
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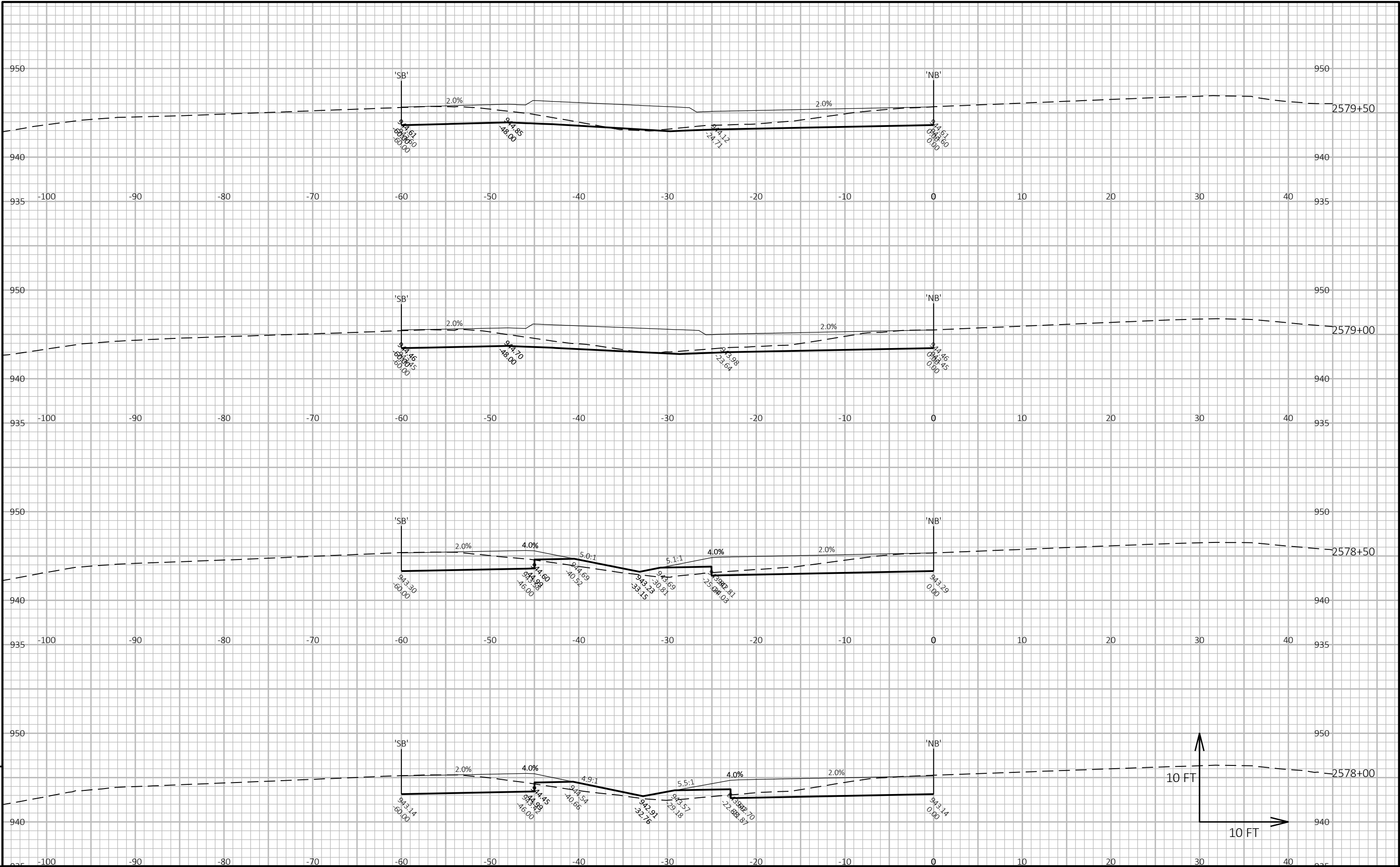
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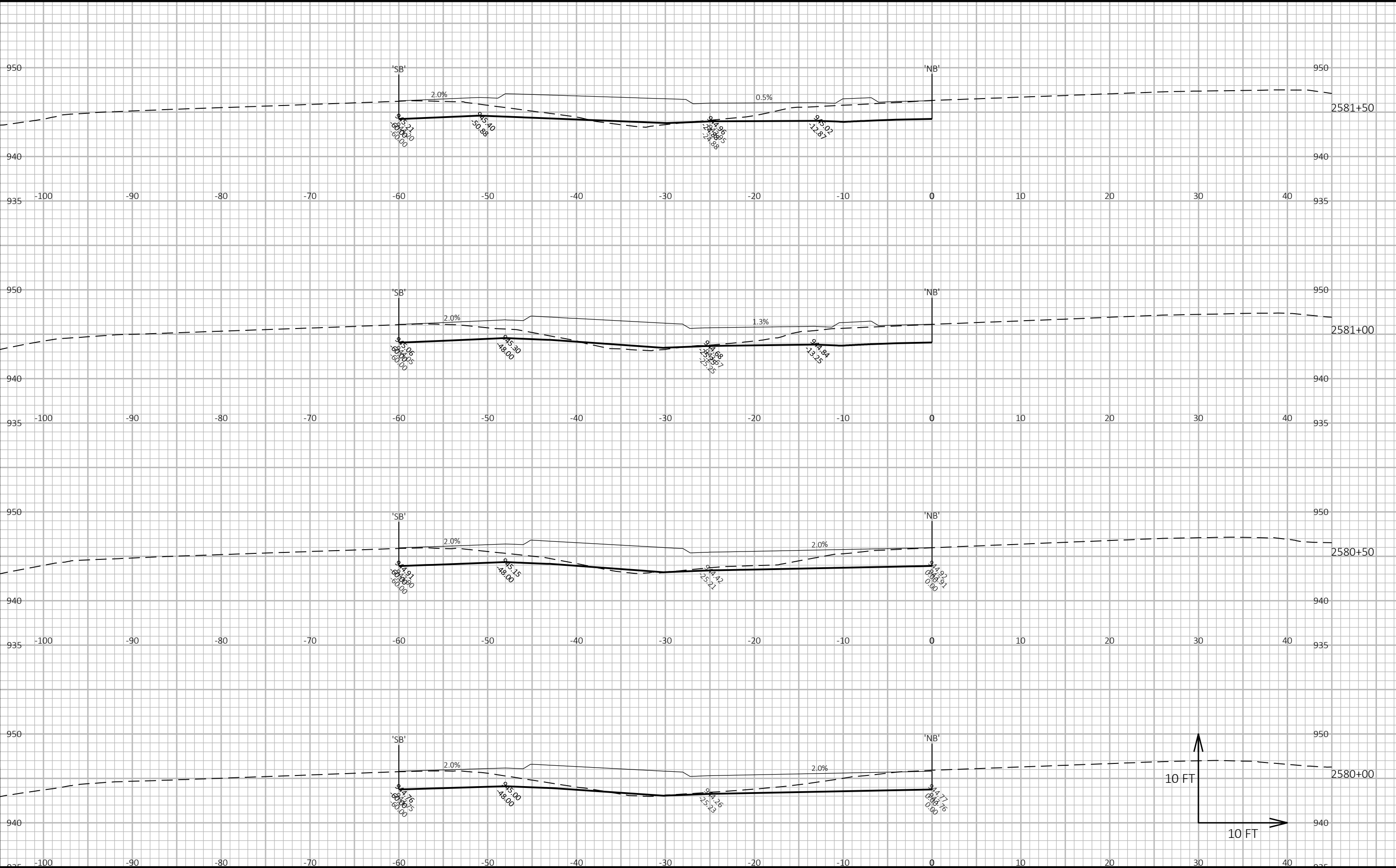








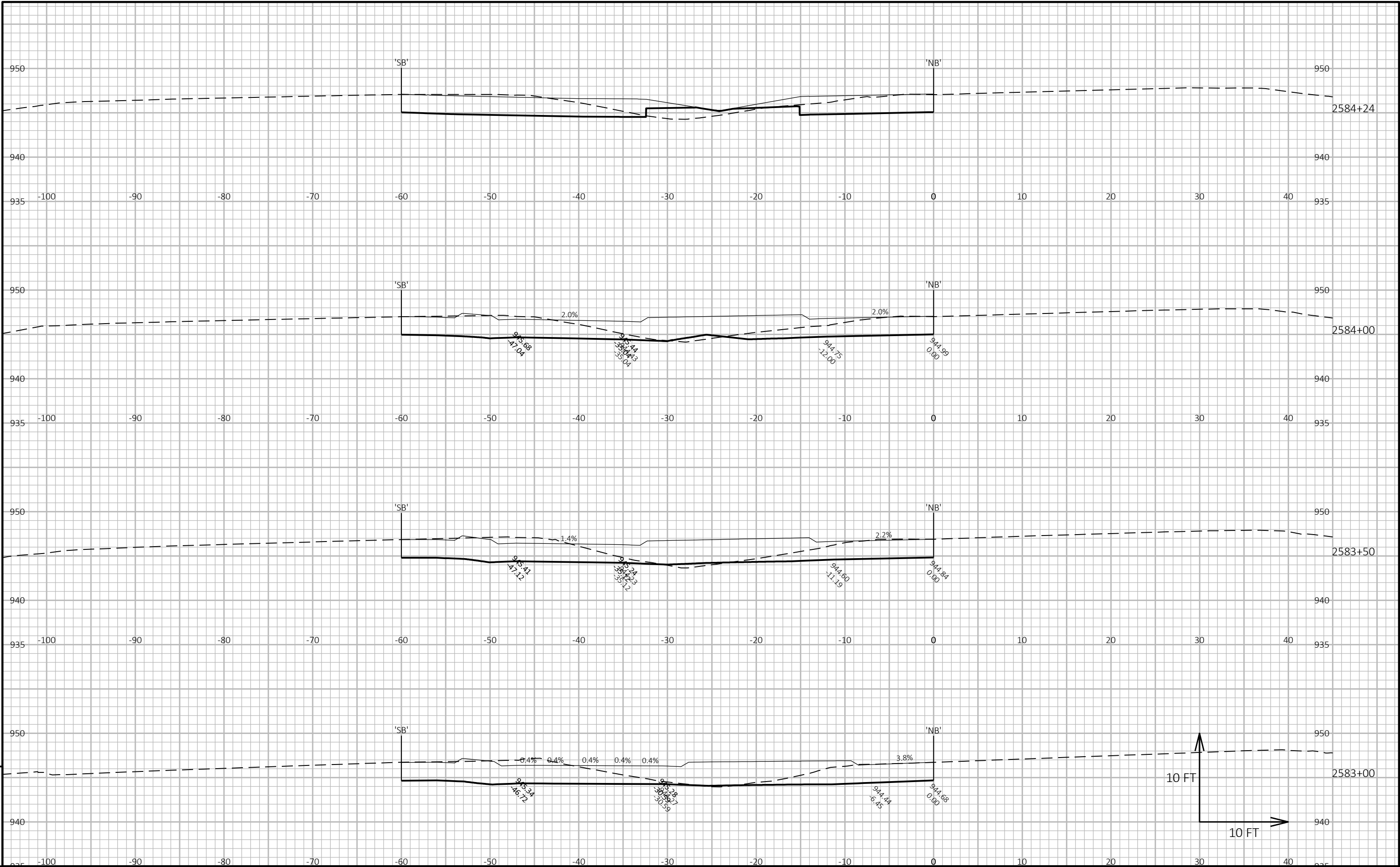


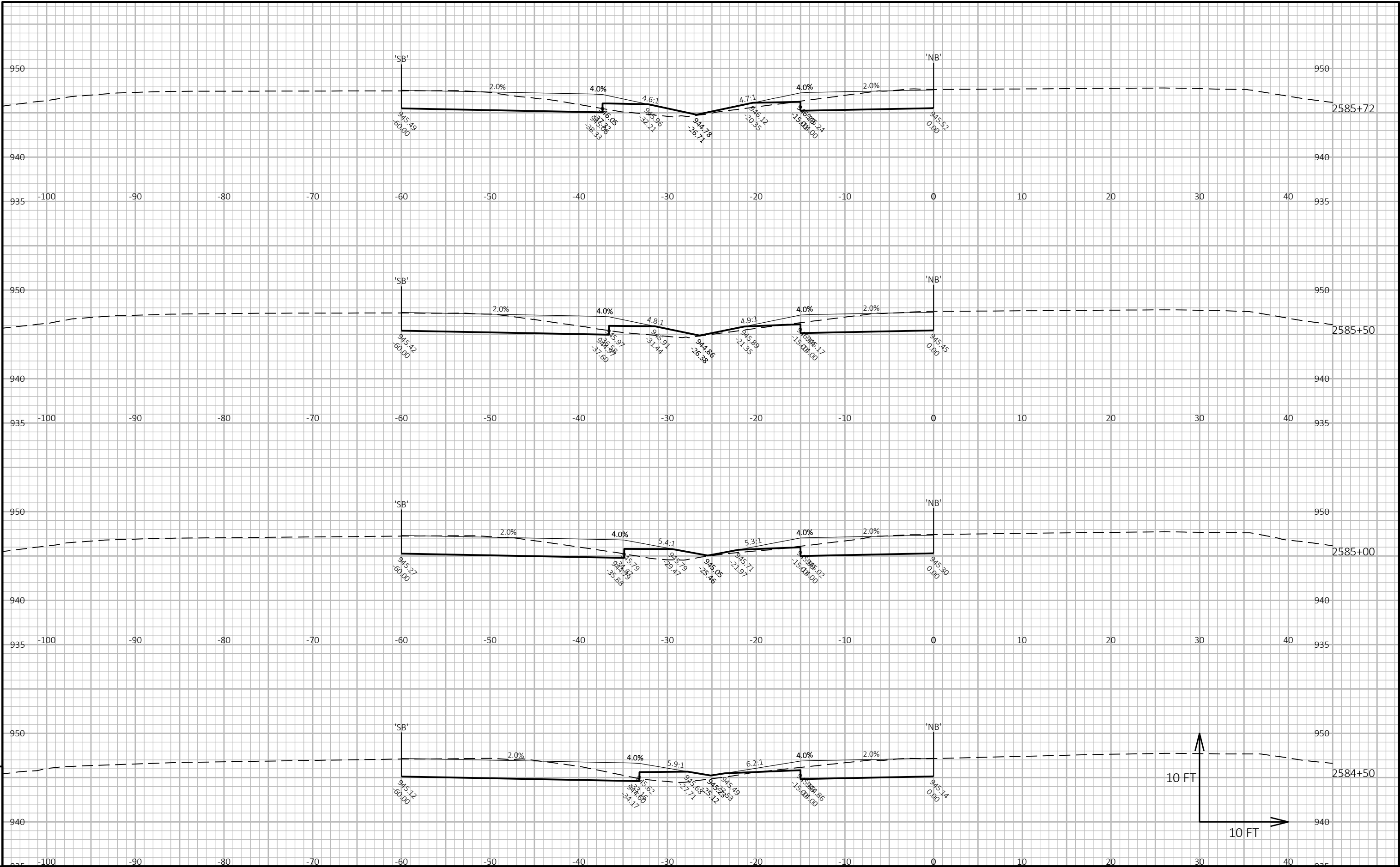


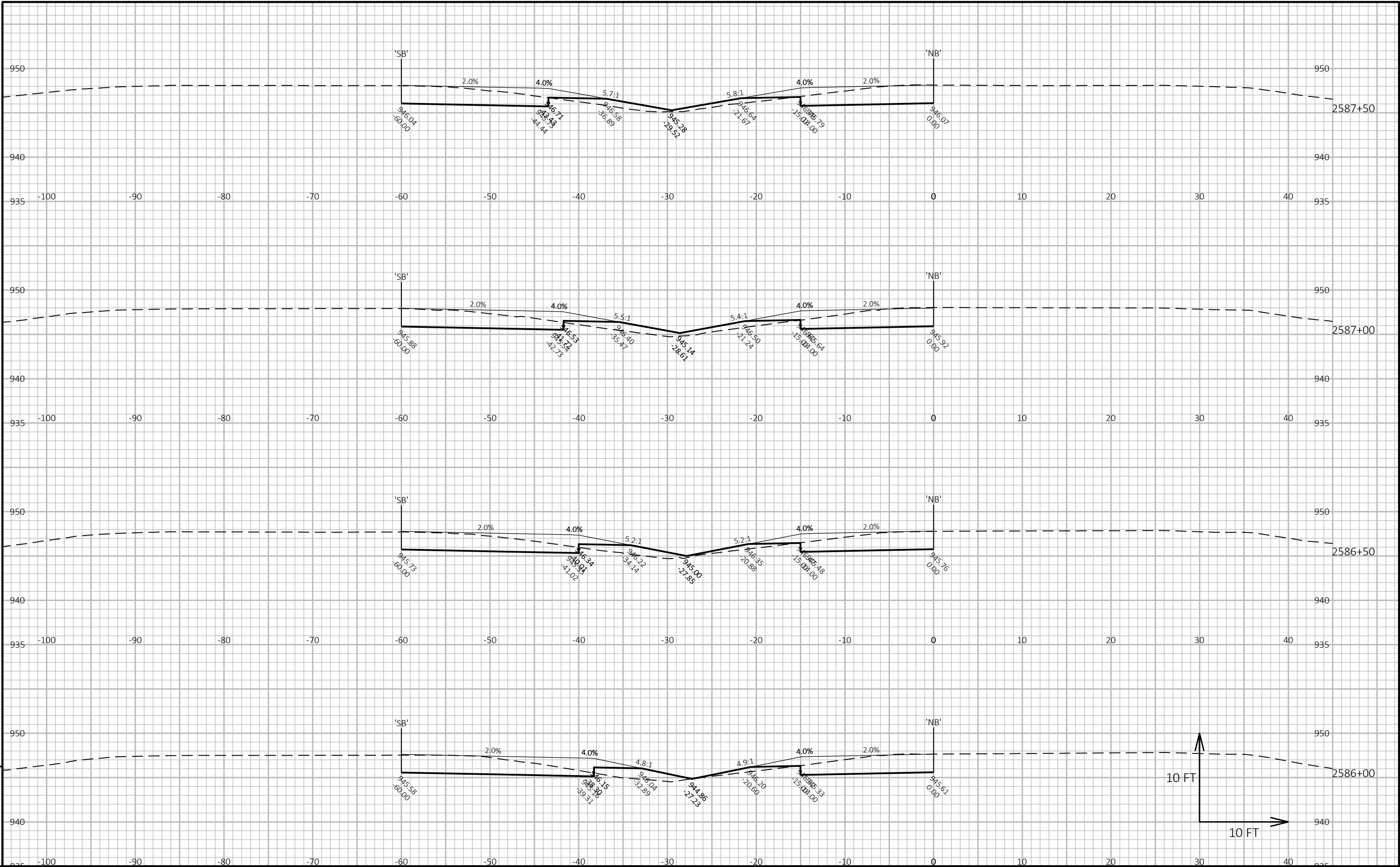
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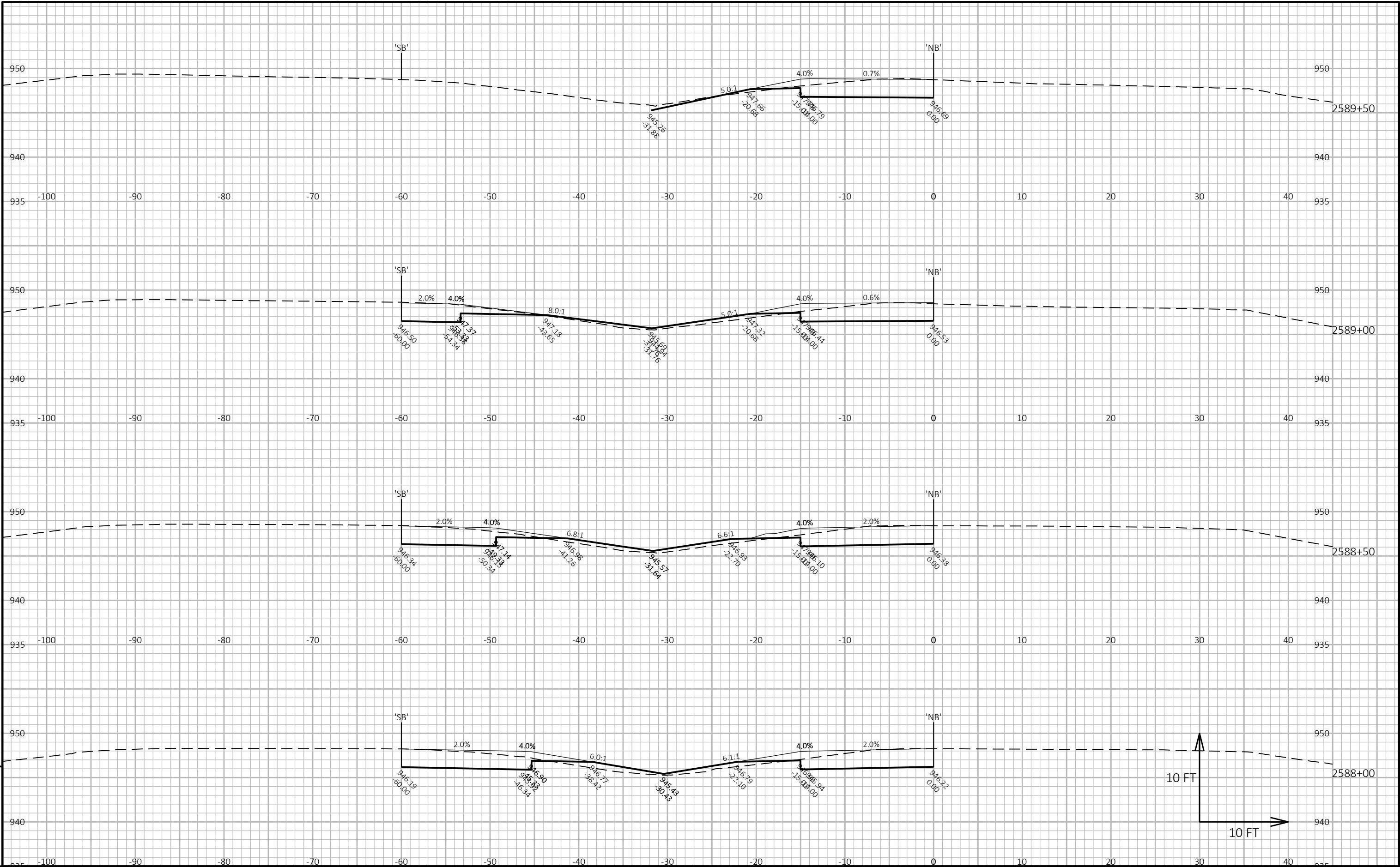
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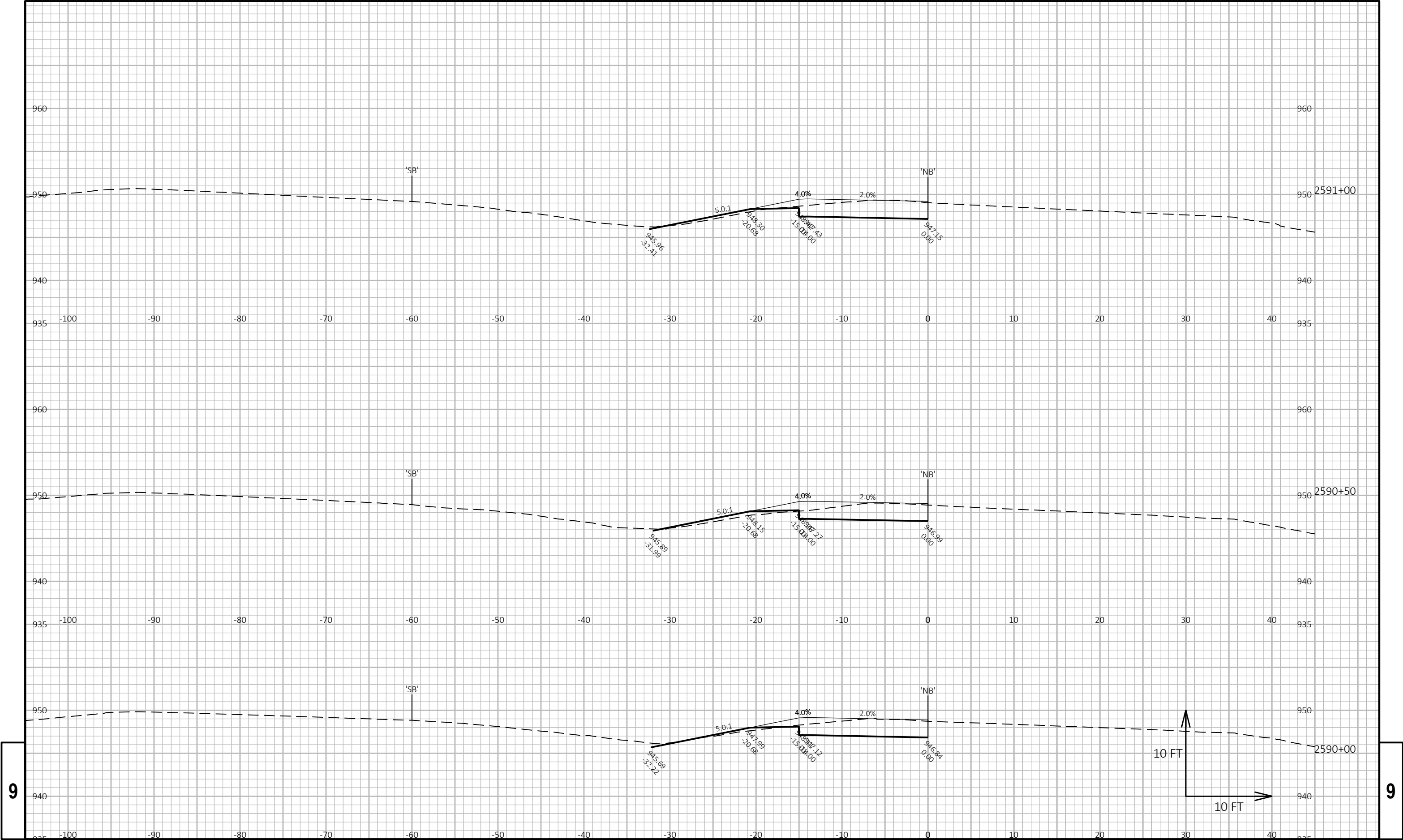
PROJECT NO: 1112-06-75	HWY: USH 151	COUNTY: DODGE	CROSS SECTIONS: USH 151 MEDIAN TURN LANES	SHEET E
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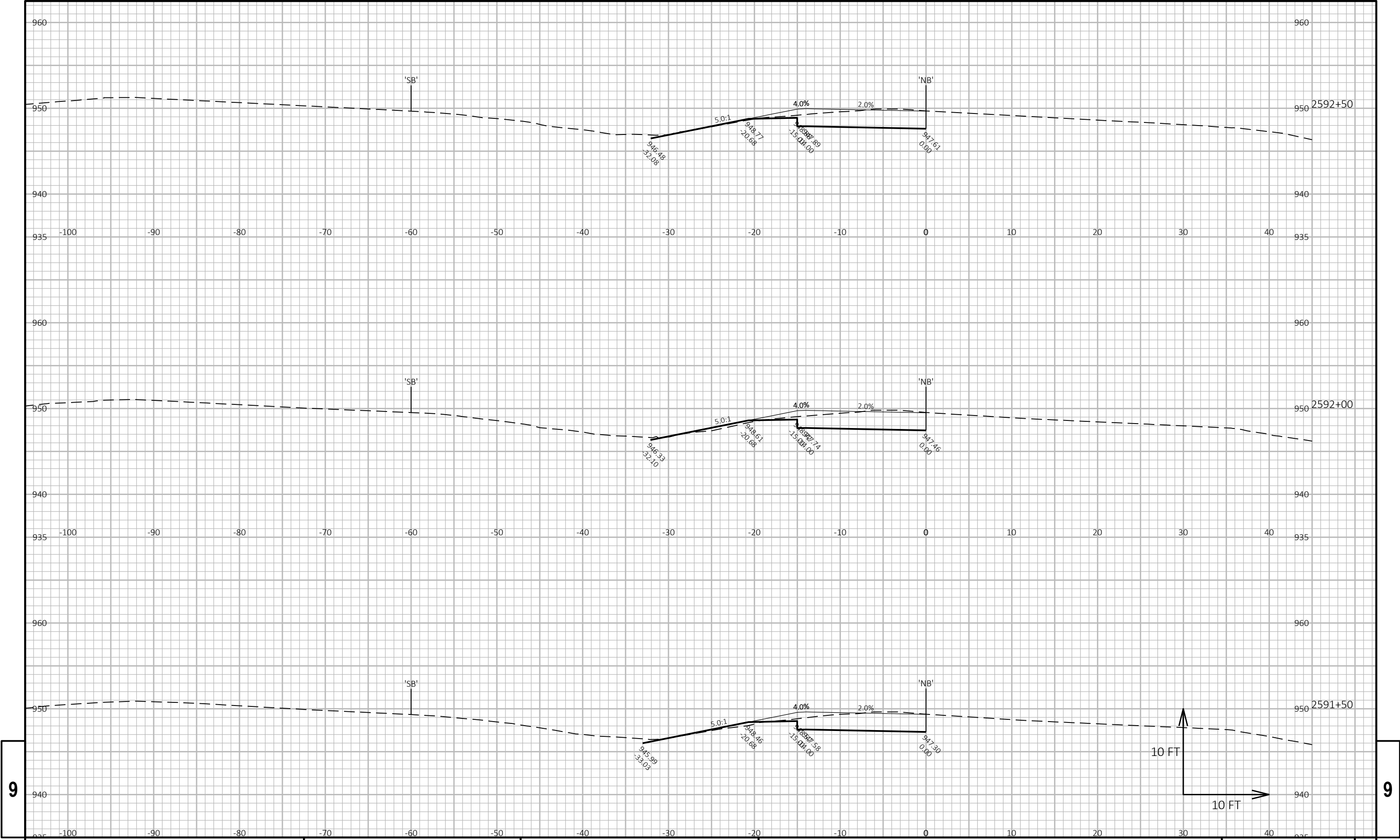




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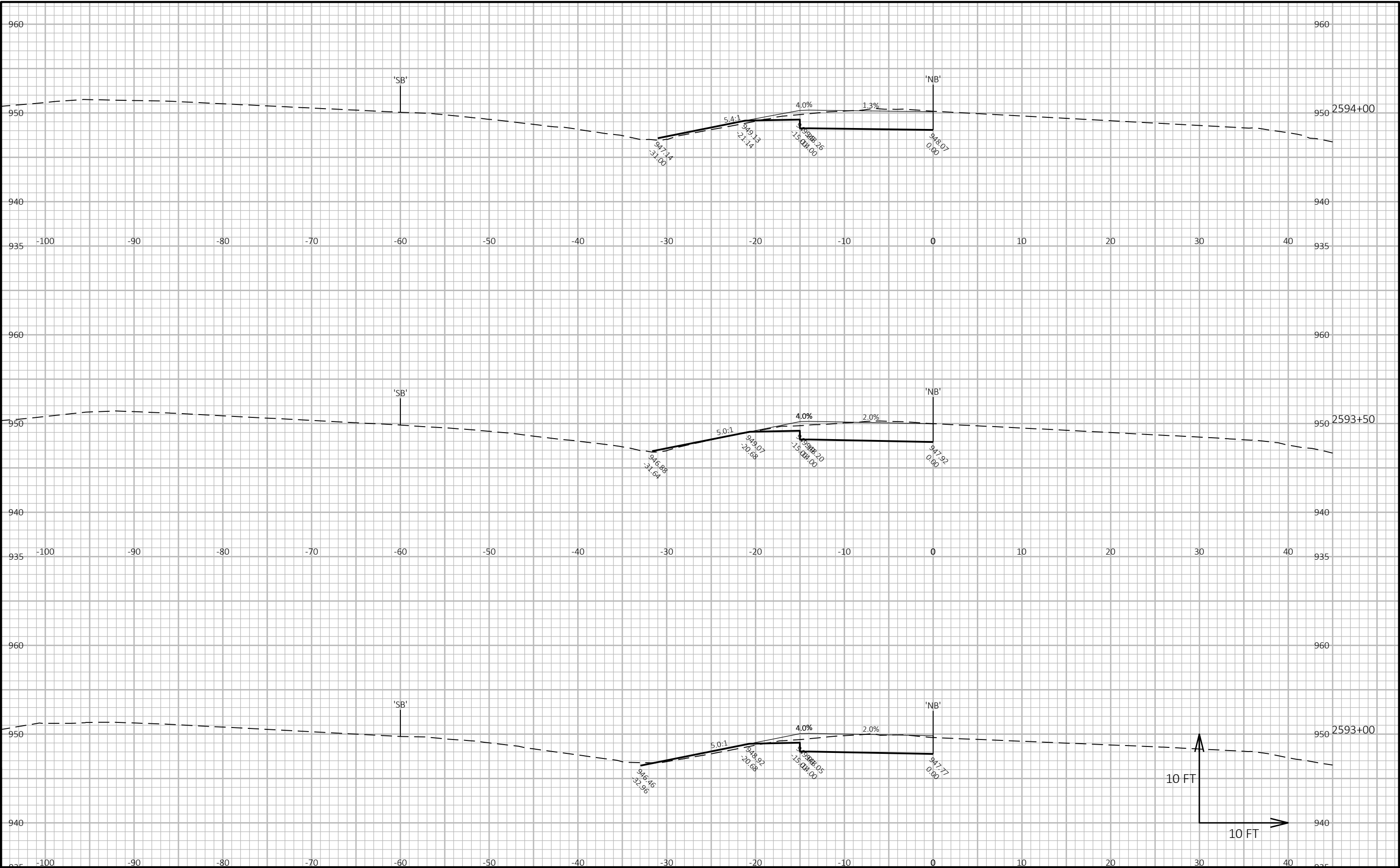
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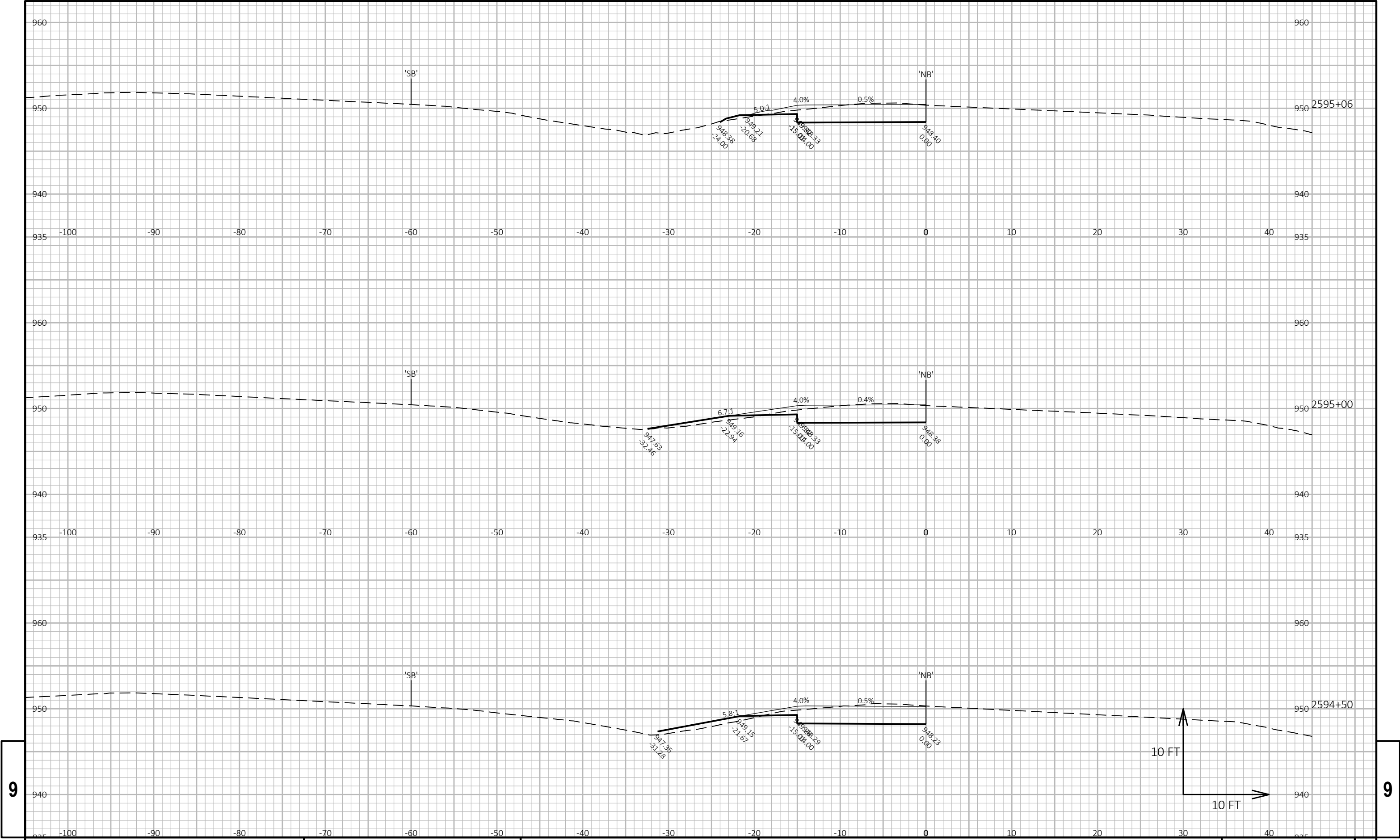
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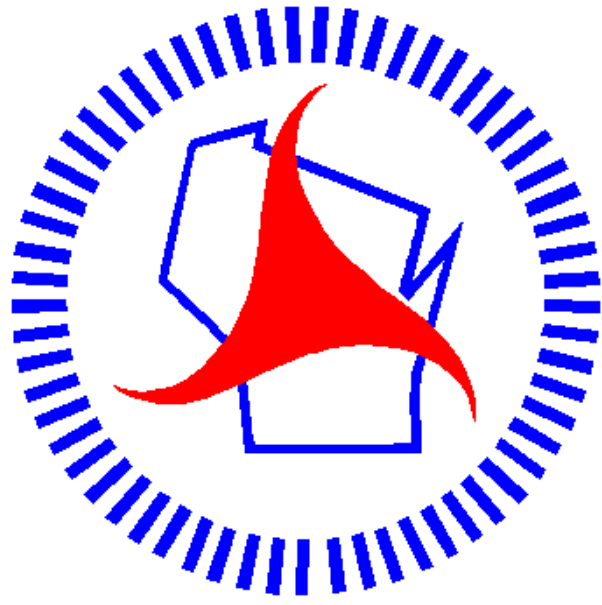
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