

## Wisconsin Department of Transportation

January 8, 2016

### Division of Transportation Systems Development

Bureau of Project Development  
4802 Sheboygan Avenue, Rm 601  
P O Box 7916  
Madison, WI 53707-7916

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### NOTICE TO ALL CONTRACTORS:

**Proposal #23: Project 1170-00-74, WISC 2016 036**  
**Wausau - Merrill**  
**B-37-155, 158, 159**  
**USH 51**  
**Marathon County**

### Letting of January 12, 2016

This is Addendum No. 02, which provides for the following:

#### Special Provisions

Revised Special Provisions	
Article No.	Description
40	Temporary Wall Wire Faced Mechanically Stabilized Earth

#### Schedule of Items

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
204.0100	Removing Pavement	SY	760	110	870
305.0120	Base Aggregate Dense 1 ¼ Inch	TON	28,500	130	28,630
455.0105	Asphaltic Material PG58-28	TON	560	10	570
455.0605	Tack Coat	GAL	3,640	80	3,720
460.1103	HMA Pavement Type E-3	TON	8,155	75	8,230
603.8000	Concrete Barrier Temporary Precast Delivered	LF	13,625	800	14,425
603.8125	Concrete Barrier Temporary Precast Installed	LF	35,695	800	36,495
614.0905	Crash Cushions Temporary	EACH	5	2	7
643.0300	Traffic Control Drums	DAYS	56,365	-8,065	48,300
643.0420	Traffic Control Barricades Type III	DAYS	4,545	-2,090	2,455
643.0705	Traffic Control Warning Lights Type A	DAYS	9,090	-60	9,030
643.0715	Traffic Control Warning Lights Type C	DAYS	5,130	-145	4,985
643.0800	Traffic Control Arrow Boards	DAYS	425	-20	405
643.0900	Traffic Control Signs	DAYS	11,360	-205	11,155
646.0600	Removing Pavement Markings	LF	9,890	-3,690	6,200
649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	34,715	-14150	20,565
690.0250	Sawing Concrete	LF	52	225	277

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
415.0090	Concrete Pavement 9-Inch	SY	0	110	110

### Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
57	Traffic Control Overview 6A- changed sheet for the traffic now being on the outside lanes instead of the eastbound lanes
58	Traffic Control Stage 6A- redesigned and cadded sheet for traffic driving on the outside lanes
59	Traffic Control Overview 6B- changed sheet for the traffic now being on the inside lanes instead of the westbound lanes
60	Traffic Control Stage 6B- redesigned and cadded sheet for traffic driving on the inside lanes
71	Miscellaneous Quantities-changed removing pavement quantity
73	Miscellaneous Quantities-added concrete pavement 9-inch quantity, changed base aggregate 1 ¼ inch, asphaltic material PG58-28, tack coat, and HMA pavement type E-3 quantities
80	Miscellaneous Quantities- updated traffic control drums, traffic control barricades type III, traffic control warning lights type A, and traffic control signs quantities
81	Miscellaneous Quantities- updated traffic control drums, traffic control barricades type III, traffic control warning lights type A, traffic control arrow boards, traffic control warning lights type C, and traffic control signs quantities
82	Miscellaneous Quantities- updated removing pavement markings and temporary pavement marking removable tape 4-inch quantities
83	Miscellaneous Quantities- updated sawing concrete quantity
84	Miscellaneous Quantities- updated concrete barrier temporary precast delivered, concrete barrier temporary precast installed, and crash cushions temporary quantities
207	B-37-158 General Plan and Elevation- Revised temporary structure layout, revised list of drawings.
211	B-37-158 Temporary Structure- Revised temporary MSE wall layout, Added optional pier and pile for temporary bridge.
212	B-37-158 Subsurface Exploration- Revised temporary structure layout in subsurface exploration sheet.

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
10A	Typical Section-to show typical section on CTH WW
92A	Plan- to show permanent work on CTH WW
211A	B-37-158 Sheet 5A Temporary Structure (2 of 2)- Sheet was added to provide elevation and section of temporary wire faced wall.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

## **ADDENDUM NO. 02**

**1170-00-74**

**January 8, 2016**

### **Special Provisions**

#### **40. Temporary Wall Wire Faced Mechanically Stabilized Earth**

*Replace entire section titled **B.2 Design Requirements** with the following:*

##### **B.2 Design Requirements**

It is the responsibility of the contractor to supply a design and supporting documentation as required by this special provision for review by the department to show the proposed wall design is in compliance with the design specifications. Four copies of the following shall be submitted to the engineer for review and acceptance no later than 60 days from the date of notification to proceed with the project.

The design/shop plans shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design life shall be three years, or the length of time the temporary wall will be in service, whichever is greater. The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet.

The design of the Wire Faced MSE Walls shall be in compliance with the AASHTO LRFD Bridge Design Specifications 5th Edition 2010, (AASHTO LRFD) with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (Standard Specifications), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.6-1 LRFD.

Design and construct the walls according to the lines, grades, heights, and dimensions shown on the plans, as herein specified, and as directed by the department. If the wall is installed in front of a temporary bridge abutment or wing, it shall also be designed to resist the applied abutment/temporary bridge lateral forces. The lines, grades, heights, and dimensions shown on the plans shall be modified as required to accommodate the temporary bridge foundations, at no extra cost to the department.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, factored bearing resistance, global stability, and settlement shall be performed and submitted to the engineer along with calculations. Determine loads transferred from the temporary bridge to the temporary wire faced MSE wall and include these loads in the CDR calculations.

The design of the Wire Faced MSE Walls by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits.

The minimum embedment of the Wire Faced MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Frost depth shall not be considered. The wall facings shall be designed according to AASHTO 11.10.2.3. A fine metallic screen and a geotextile filter fabric shall be used at the front face of the wall to retain the fines of the soil mass.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life. The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of each wall section. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend 3 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6" and 12" below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Cutting or altering of the basic structural section of either the strip or grid at the site is prohibited unless approved by the Structures Design Section. A minimum clearance of 3" shall be maintained between any obstruction and reinforcement unless otherwise approved. Splicing steel reinforcement is not allowed unless approved by the Structures Design Section.

Submit the following to the engineer for review: complete design calculations, explanatory notes, supporting materials, specifications, and detailed plans and shop drawings for the proposed wall system. Sample analyses and hand output shall be submitted to verify the output by the software. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal stabilities as defined in AASHTO LRFD.

The wall submittal package shall be submitted electronically to the engineer and the Structures Design Section. Submit all required information no later than 30 days prior to beginning construction of the wall. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

*Replace entire section titled **B.3.1 Welded Wire Fabric** with the following:*

**B.3.1 General**

Provide steel reinforcement that meets the following requirements:

- **Welded Wire Fabric Soil Reinforcement**

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A-1064 and be welded into the finished configuration in accordance to ASTM A-1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- **Steel Reinforcing Strips and Tie Strips**

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM A-572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A-1011 Grade 50.

- **Welded Wire Fabric Facing Panels**

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A-1064 and be welded into the finished configuration in accordance to ASTM A-1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- **Fasteners**

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

- **Connector Pins and Mat Bars**

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A-82.

- **Metallic Screen**

Provide a steel metallic screen. The metallic screen should have an approximate opening of  $\frac{1}{4}$ " and be made of 0.025" (minimum) gauge wire.

- **Geotextile Fabric**

Geotextile fabric shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporate into the work.

*Replace entire section titled **C.1 Methods** with the following:*

**C.1 Excavation and Backfill**

Excavation and preparation of the foundation for the MSE wall and facing leveling pad or footing shall be in accordance to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it is should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Excavate below subgrade where unsuitable soils are encountered and backfill with suitable fill to attain external stability CDRs per AASHTO LRFD, at no cost to the department.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1pcf), or as modified as follows. If the gradation of the granular backfill is such that the P-200 material is less than 7% and the P-40 is less than 30%, a one-point Proctor test can be conducted in place of the 5-point Proctor. To complete this one-point test, compact the sample at a moisture content of 6%, then compute the actual (as-tested) sample moisture after completion of the test. Use Method B or D, and perform this test without removing oversize particles and without correction for coarse particles, as per AASHTO T224. The one-point as-tested moisture content represents the optimum moisture, and the measured one-point density represents the maximum wet density of the material. From these values, the maximum dry density can be computed.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall facing.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

*Replace entire section titled **E Payment** with the following:*

#### **E Payment**

No payment is associated with the work specified in this article Temporary Wall Wire Faced Mechanically Stabilized Earth. The cost of work required by Temporary Wall Wire Faced Mechanically Stabilized Earth is included in the Temporary Structure bid items and shall include supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, performing compaction testing; covering geotextile; removing and disposing of temporary wire faced MSE wall at the end of construction, restoring the ground to original conditions; and furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work. Any pay limits described in this special provision are applicable to the Temporary Structure bid item.

**Schedule of Items**

Attached, dated January 8, 2016, are the revised Schedule of Items Pages 1 – 15.

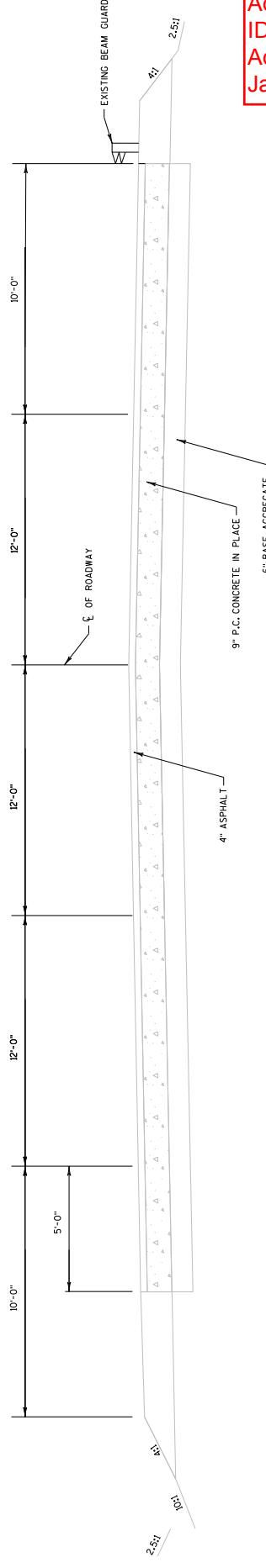
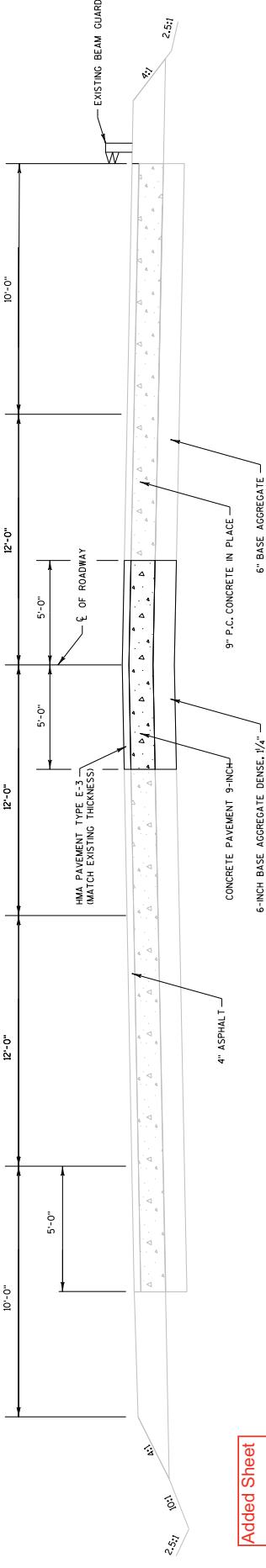
**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 57 - 60, 71, 73, 80 – 84, 207, 211, and 212.

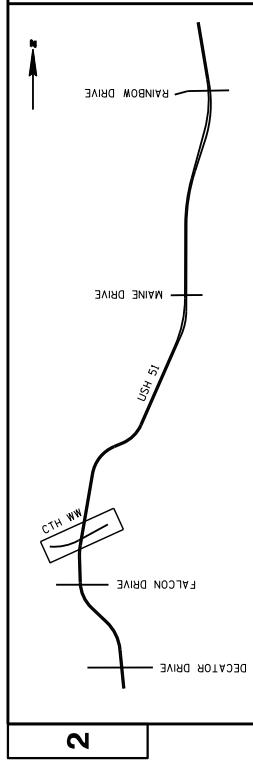
Added: 10A, 92A, and 211A.

END OF ADDENDUM



Addendum No. 02  
ID 1170-00-74  
Added Sheet 10A  
January 8, 2016

PROJECT NO: 1170-00-74	HWY: USH 51	COUNTY: MARATHON	FILE NAME : F:\NBM\1212\USH 51 Marathon Co Structures\Rooftops\Structures\1170-00-04\020301.tss.dgn	PILOT DATE : 07-JAN-2016 13:44	PILOT BY : cevern	PILOT SCALE : 10:1	SHEET 10A	E
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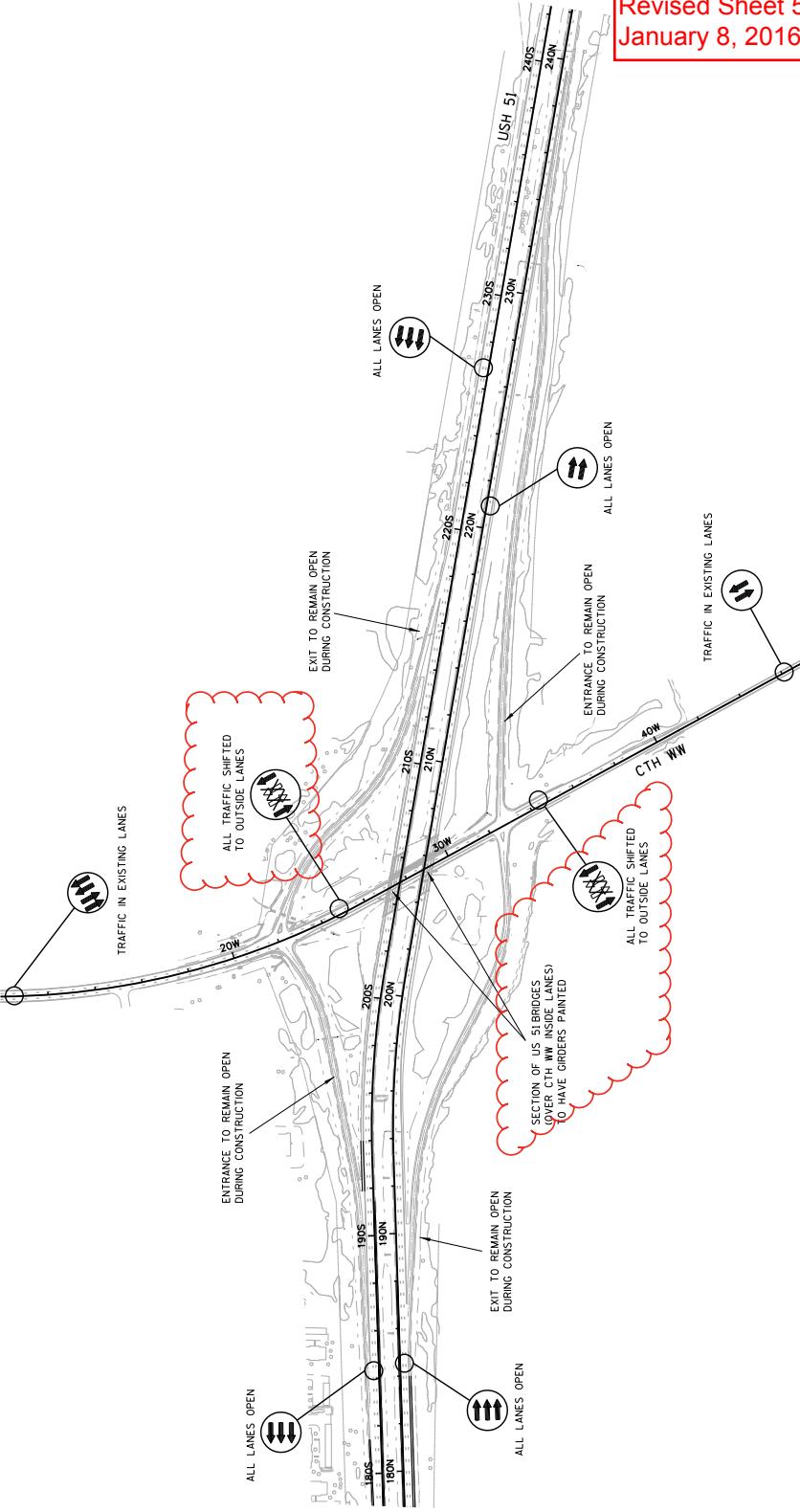


CONSTRUCTION STAGES 1-5 AND 6A STAGING FOR OPTIONAL PIER)

STAGE 1-5 - CONSTRUCTION: RE-DECK USH 51NB AND SB BRIDGES

STAGE 6A - CONSTRUCTION: PAINT USH 51 OVERPASS OVER INSIDE CTH WW LANES

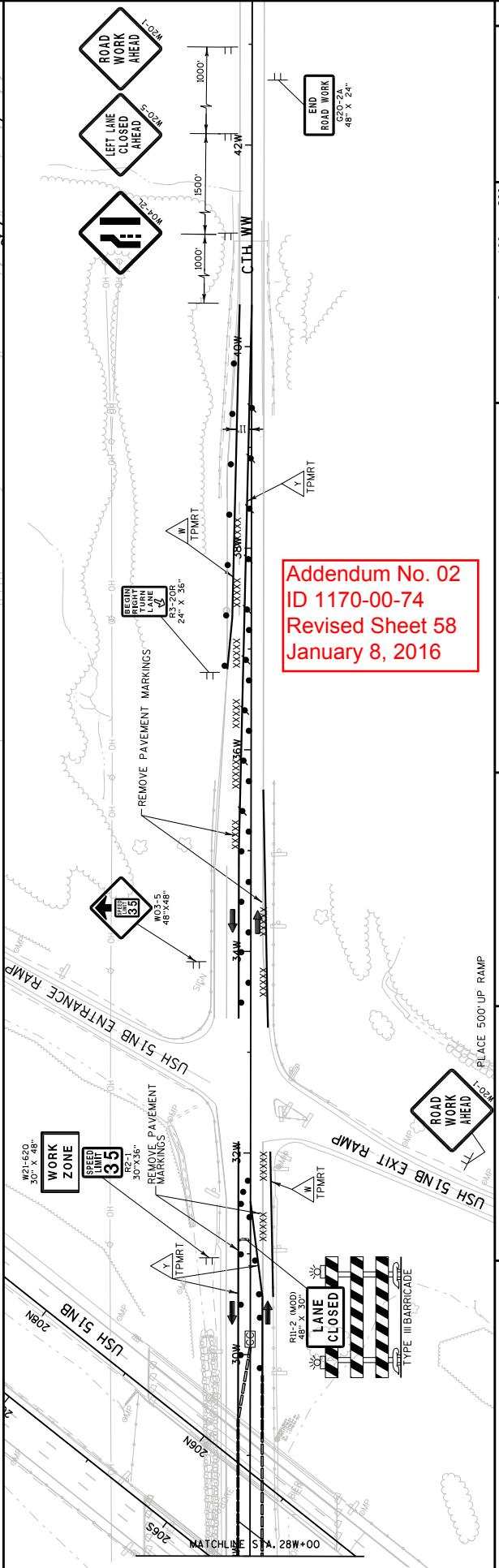
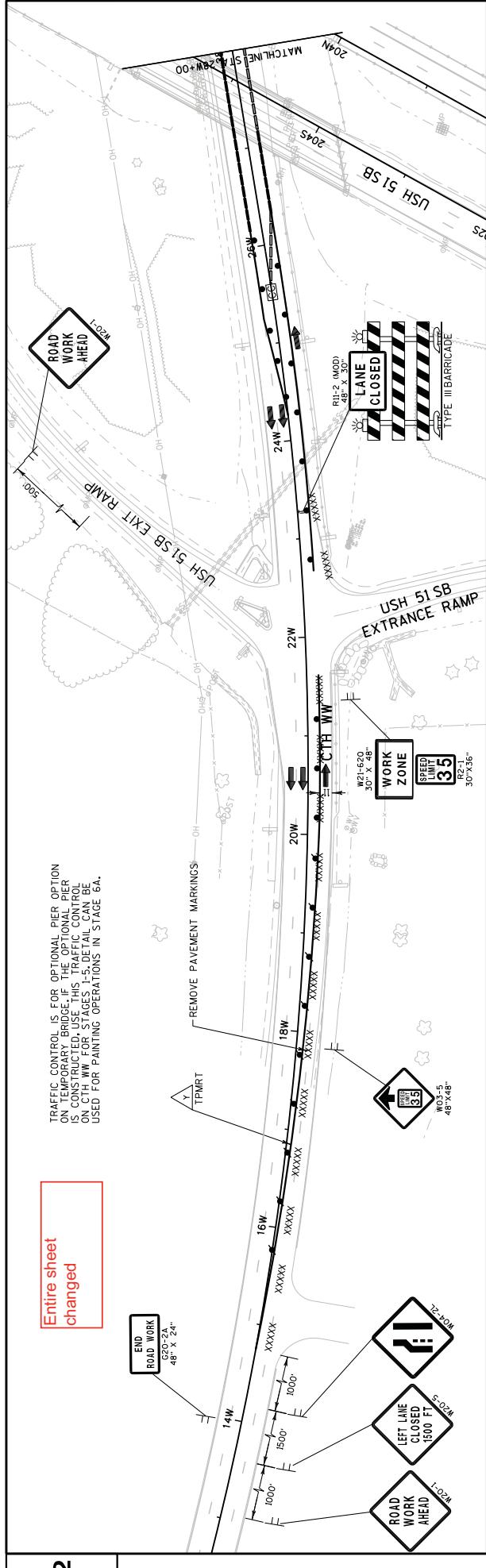
STAGE 6A - TRAFFIC: TRAFFIC SHIFTED TO OUTSIDE LANES



Addendum No. 02  
ID 1170-00-74  
Revised Sheet 57  
January 8, 2016

TRAFFIC CONTROL IS FOR OPTIONAL PIER OPTION  
ON TEEBOGAR RAMP. IF THE OPTIONAL PIER  
IS CONSTRUCTED, THIS IS THE OPTIONAL OUTLET  
ON CTH WNW FOR STAGES 1-5. PIER CAN BE  
USED FOR PAINTING OPERATIONS IN STAGE 6A.

Entire sheet  
changed

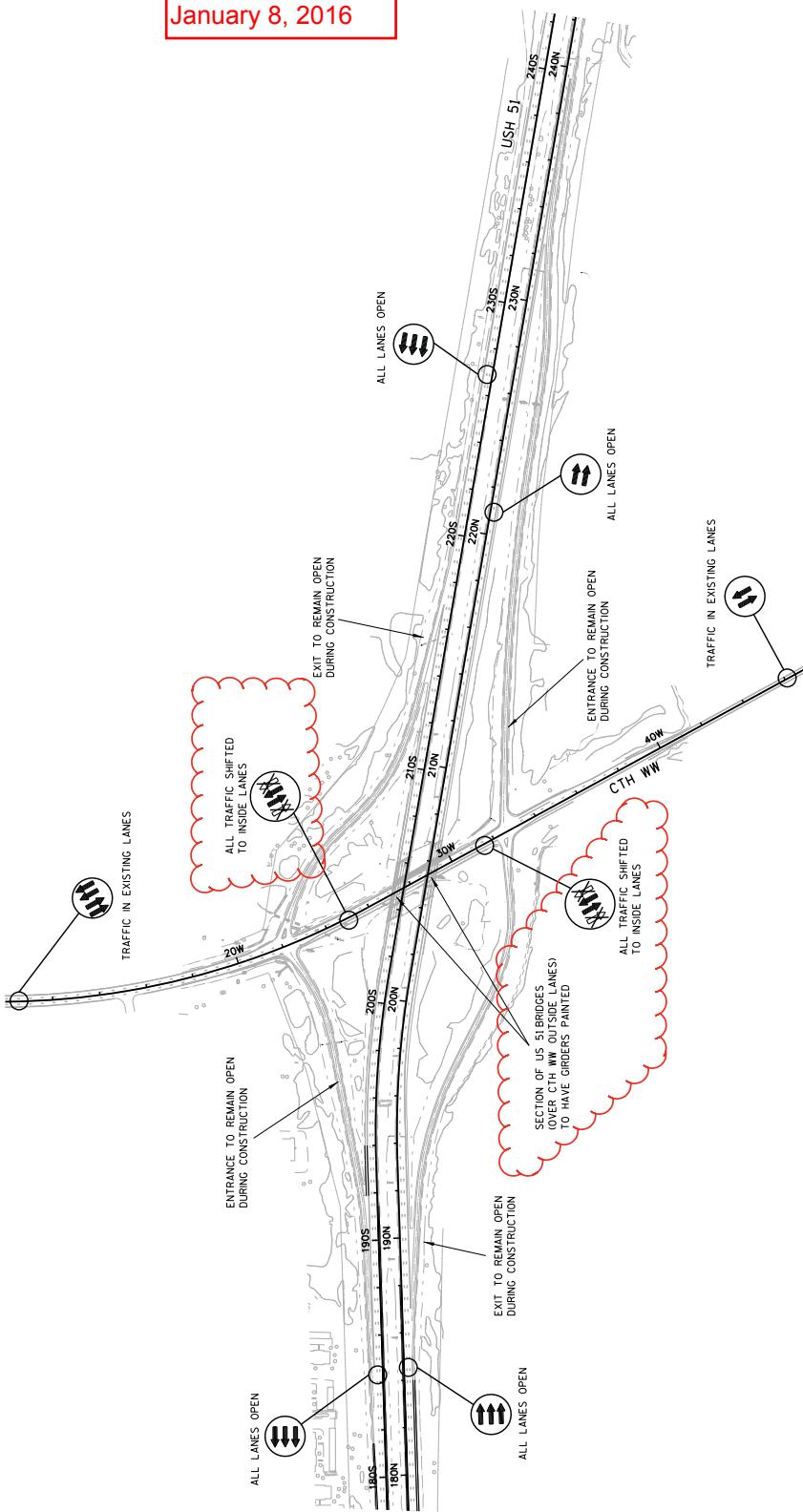
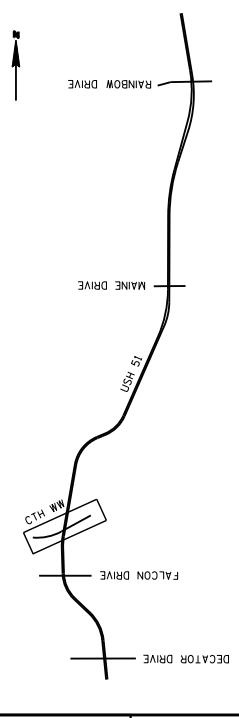


Addendum No. 02  
ID 1170-00-74  
Revised Sheet 58  
January 8, 2016

Addendum No. 02  
ID 1170-00-74  
Revised Sheet 59  
January 8, 2016

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CONSTRUCTION STAGE 6B  
STAGE 6B - CONSTRUCTION: PAINT USH 51 OVERPASS OVER OUTSIDE CTH WW LANES  
STAGE 6B - TRAFFIC: TRAFFIC SHIFTED TO INSIDE LANES



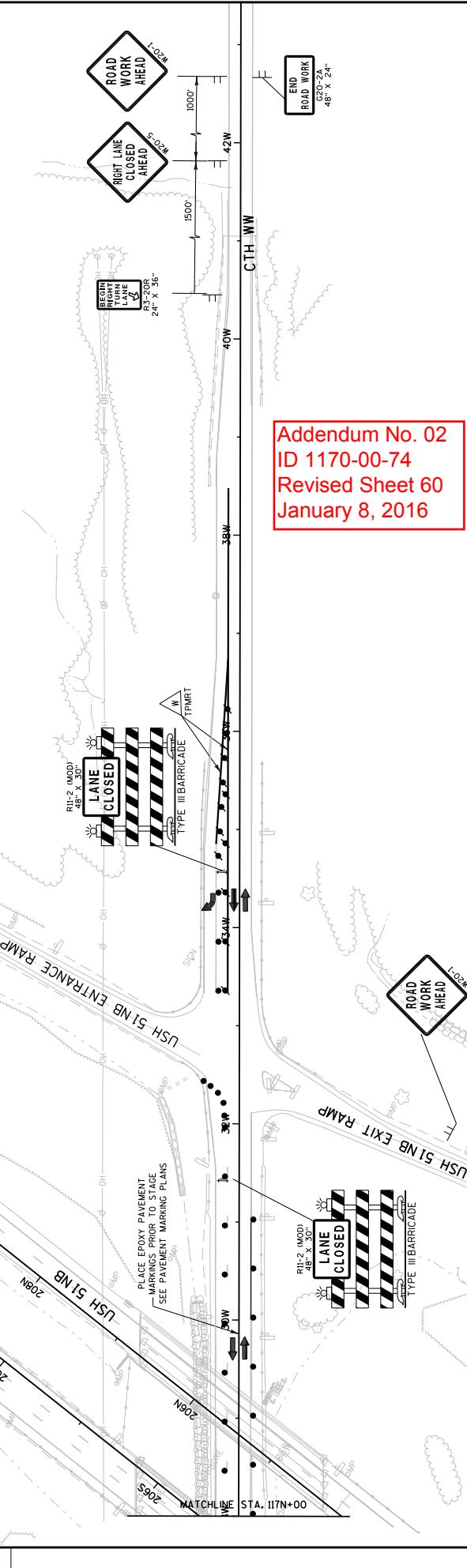
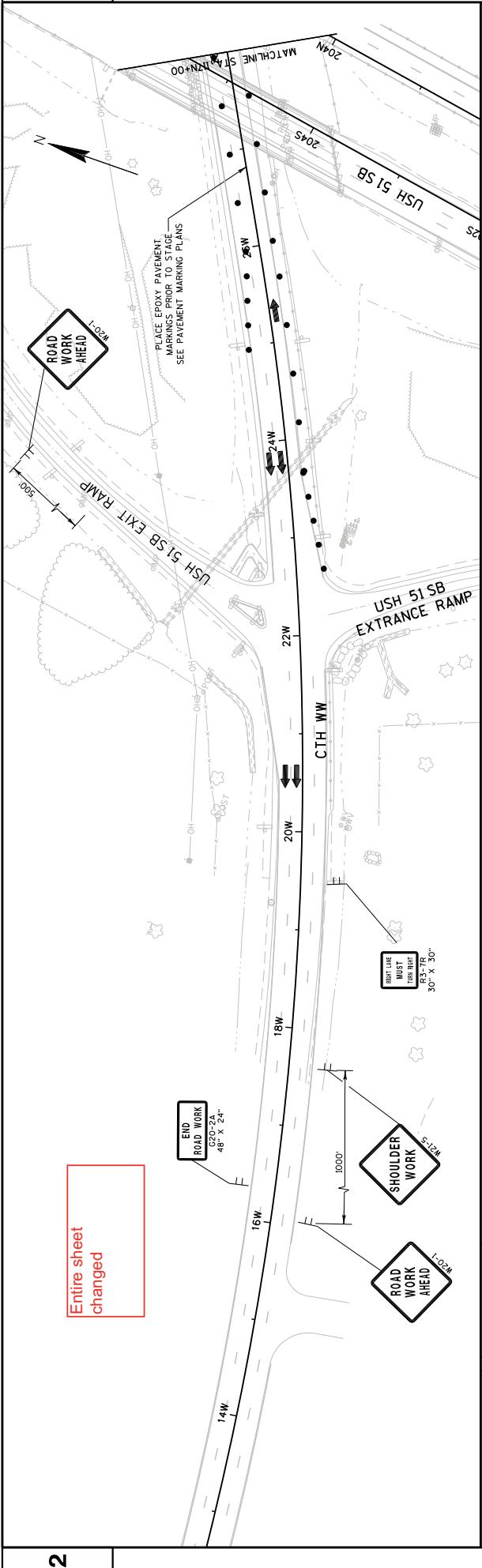
PROJECT NO: 1170-00-74  
FILE NAME : F:\NBM\1212 USH 51 Marathon Co Structures\rsrcdcs\1170-00-04\USH51.tcc.6B.dgn

PLOT DATE : 07-JAN-2016 12:37

SHEET 59

TRAFFIC CONTROL OVERVIEW - STAGE 6B  
PLOT BY : cervern  
PLOT SCALE : 500:1

WISDOT/CADD SHEET 42



PROJECT NO: 1170-00-74	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 6B	SCALE, FEET 0 100 200 300	SHEET 60	E
FILE NAME : F:\NBM\3212\USH 51 Marathon Co Structures\Structures\1170-00-0402602-168-74-rc.dgn	PLOT DATE : 07-JAN-2016 12:37	PLOT BY : cevern	PLOT NAME : 025602-168-74-1c	PLOT SCALE : 100:1	WINDOT/CADDIS SHEET 42	

Addendum No. 02  
ID 1170-00-74  
Revised Sheet 60  
January 8, 2016

CLEARING AND GRUBBING

CATEGORY	STAGE	LOCATION	STATION	STATION	STATION	CLEARING ID	GRUBBING ID
0010	1	CTH WM NB TEMP ROAD	15TNW+00	- 45TNW+00	LT	90	90

TOTALS 90 90

REMOVING GUARDRAIL

CATEGORY	STAGE	LOCATION	STA	TO	STA	LOCATION	LF
0010	2	USH 51 & DECAT DR	111N+00	-	112N+81	LT	180
	3		111N+00	-	112N+76	RT	175
		USH 51 & CTH WW					
2	2		201N+08	-	204N+13	LT	310
4	4		206S+03	-	206S+54	LT	50
			206S+47	-	209S+40	RT	300
		TOTAL					1,065

TOTAL 1,065

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STAGE	LOCATION	SY
0010	2	B-37-155 116N+29	11

REMOVING SURFACE DRAINS

CATEGORY	STAGE	LOCATION	EACH
2	2	B-37-158 200N+62	9
		208N+68	9
		B-37-159 200S+77	11
4	4	210S+47	11
		TOTAL	51

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STAGE	LOCATION	STA	TO	STA	LOCATION	SY
0010	1	USH 51 & DECATOR DR	103N+56	-	112N+52	1,000	

103N+56 - 112N+52 1,000

114N+66 - 119N+00 650

102N+00 - 112N+52 560

114N+66 - 119N+00 690

112N+52 165

114N+66 - 116N+29 145

REMOVING PAVEMENT

CATEGORY	STAGE	LOCATION	STA	TO	STA	LOCATION	SY
0010	2	USH 51 & DECATOR DR	200N+63	-	203N+90	1,490	

200N+63 - 203N+90 1,490

207N+33 - 208N+68 580

111TNW+70 - 26TNW+00 3,910

41TNW+00 - 55TNW+45 4,020

TOTAL

16,640

MISCELLANEOUS QUANTITIES

TOTAL

3

BASE AGGREGATE DENSE										CONCRETE PAVEMENT										CONCRETE SURFACE DRAINS									
CATEGORY	STAGE	LOCATION	STA	TO	STA	TON	305.0110 3.04-INCH	305.0120 1.14-INCH	CATEGORY	STAGE	LOCATION	STA	TO	STA	LOCATION	415.0090 9-INCH	415.0100 10-INCH	CATEGORY	STAGE	ROADWAY	LOCATION	416.1010 CY							
3	0010	USH 51 & DECATOR DR	114N+51	-	115N+00	15	--		0010	2	USH 51 & DECATOR DR	111N+00	-	112N+90	LT	--	510	5	USH 51	206S+61.70' RT	2.9								
1	2	111N+00	-	112N+90	15	125			3	3	111N+00	-	112N+90	RT	--	250	5		206N+90.40' LT	0.8									
2	2	114N+51	-	116N+29	10	--													207N+20.34' RT	1.1									
2	2	116N+29	-	119N+00	10	--																							
3	3	111N+00	-	112N+90	25	110																							
3	3	114N+51	-	116N+29	10	--																							
<u>USH 51 &amp; CTH WW</u>										<u>QTH WW</u>										TOTAL				5					
1	1	11TNW+70	-	37TNW+64	--	7,500				6A	QTH WW	27W+75	-	28W+75	--	110													
1	1	38TNW+94	-	55TNW+55	--	4,350																							
2	2	200N+62	-	203N+89	30	--																							
2	2	207N+33	-	208N+68	15	--																							
3	3	11TSW+70	-	26TSW+00	--	3,550																							
3	3	41TSW+00	-	55TSW+55	--	3,650																							
3	3	11TSW+70	-	203S+08	20	--																							
4	4	206S+78	-	210S+47	35	--																							
4	4	206S+70	-	210S+47	35	--																							
5	5	178N+58	-	186N+00	190	720																							
5	5	208N+68	-	222N+31	280	1,040																							
5	5	178S+64	-	188S+50	220	830																							
5	5	210S+47	-	222S+55	250	925																							
6A	6A	27W+75	-	28W+75	--	130																							
		UNDISTRIBUTED		280	5,700																								
		TOTAL			1,405	28,630																							
<u>CONCRETE PAVEMENT APPROACH SLAB</u>										<u>MISCELLANEOUS QUANTITIES</u>										TOTAL				840					
0010	2	USH 51	B-37-155 NB	B-37-158 NB	B-37-159 SB	183				4	205S+78	-	203S+08	14	150	--	250	--											
	2					267																							
	4					392																							
		TOTAL				842																							
<b>PROJECT NO: 1170-00-74</b>					<b>HWY: USH 51</b>					<b>COUNTY: MARATHON</b>					<b>FILE NAME : F:\\NM-321\\USH 51\\Marathon Co Structures\\roads\\cds11170-00-04\\030201.mqc.rpt</b>					<b>PLOT NAME : 030201_1.mqc</b>				<b>PLOT SCALE : 1:000000.000000</b>				<b>SHEET NO: 73</b>	
																								<b>E</b>					
																								<b>WISDOT CADDS SHEET 42</b>					

Addendum No. 02  
ID 1170-00-74  
Revised Sheet 73  
January 8, 2016

CATEGORY	LOCATION	STAGE DURATION DAYS	TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL						TRAFFIC CONTROL COVERING SIGNS TYPE II EACH <sup>*</sup>	TRAFFIC CONTROL SIGNS EACH <sup>*</sup>	** SPV/0045.01 PORTABLE CHANGEBLE MESSAGE SIGN (POMS)
				TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL LIGHTS	TRAFFIC CONTROL ARROW BOARDS	TRAFFIC CONTROL LIGHTS TYPE C	TRAFFIC CONTROL SIGNS EACH <sup>*</sup>	TRAFFIC CONTROL SIGNS EACH <sup>*</sup>			
<b>STAGE 1 AT DECATORDRIVE</b>												
0010	USH151NB, Sta. 601N+00 - 126N+00	643.0300	643.0420	643.0705	643.0800	643.0715	643.0900	643.0920	643.1050			
	USH151SB, Sta. 803N+00 - 126S+00	--	--	--	--	--	--	--	--	1	14	14
	<b>DECATORDRIB, Sta. 0D+00 - 67D+00</b>	60	300	4	20	8	40	--	--	--	--	--
	<b>DECATORDRWB, Sta. 0D+00 - 67D+00</b>	65	325	6	30	12	60	--	--	1	14	14
	<b>STAGE 1 AT CTHWW</b>	40										
	USH151NB, Sta. 126N+00 - 176N+00	10	400	--	--	10	400	1	40	4	160	--
	USH151SB, Sta. 176N+00 - 232N+00	--	--	--	--	--	--	--	2	80	--	--
	USH151SB, Sta. 126S+00 - 176S+00	4	160	--	--	--	--	1	40	8	320	--
	<b>CTHWWEB, Sta. 0W+00 - 67W+00</b>	32	1,280	1	40	11	440	--	--	9	360	--
	<b>CTHWWWB, Sta. 0W+00 - 67W+00</b>	31	1,240	1	40	11	440	--	--	10	400	--
	<b>STAGE 1 SUBTOTAL</b>	3,835		130	1,380	85	1,380	0	1,445	0	84	84
<b>STAGE 2 AT DECATORDRIVE</b>												
	USH151NB, Sta. 601N+00 - 126N+00	40	79	3,160	--	--	--	2	80	55	2,200	13
	USH151SB, Sta. 803N+00 - 126S+00	--	--	--	--	--	--	--	--	--	--	--
	<b>DECATORDRIB, Sta. 0D+00 - 67D+00</b>	60	2,400	4	160	8	320	--	--	7	280	--
	<b>DECATORDRWB, Sta. 0D+00 - 67D+00</b>	65	2,600	6	240	12	480	--	--	10	400	--
	<b>STAGE 2 AT CTHWW</b>	50										
	USH151NB, Sta. 126N+00 - 176N+00	46	2,300	4	200	8	400	--	--	7	350	10
	USH151NB, Sta. 176N+00 - 232N+00	14	700	11	550	14	700	--	--	10	500	1
	USH151SB, Sta. 126S+00 - 176S+00	--	--	--	--	--	--	--	--	--	--	--
	USH151SB, Sta. 126S+00 - 176S+00	13	650	--	--	--	--	1	50	--	7	350
	<b>CTHWWEB, Sta. 0W+00 - 67W+00</b>	32	1,600	1	50	11	550	--	--	9	450	--
	<b>CTHWWWB, Sta. 0W+00 - 67W+00</b>	31	1,550	1	50	11	550	--	--	10	500	--
	<b>STAGE 2 SUBTOTAL</b>	14,960		1,250	3,000	130	3,000	130	2,550	3,500	1	84
<b>STAGE 3 AT DECATORDRIVE</b>												
	USH151NB, Sta. 601N+00 - 126N+00	30	35	1,050	--	--	--	--	6	180	16	480
	USH151SB, Sta. 803N+00 - 126S+00	4	120	--	--	--	--	--	2	60	--	--
	<b>DECATORDRIB, Sta. 0D+00 - 67D+00</b>	60	1,800	4	120	8	240	--	--	7	210	--
	<b>DECATORDRWB, Sta. 0D+00 - 67D+00</b>	65	1,950	6	180	12	360	--	--	10	300	--
	<b>STAGE 3 AT CTHWW</b>	20										
	USH151NB, Sta. 126N+00 - 176N+00	--	57	1,140	--	--	--	1	20	--	4	80
	USH151NB, Sta. 176N+00 - 232N+00	--	--	--	--	--	--	1	20	--	2	40
	USH151SB, Sta. 126S+00 - 176S+00	57	1,140	--	--	--	--	1	20	--	8	160
	USH151SB, Sta. 126S+00 - 176S+00	13	260	--	--	--	--	1	20	--	9	180
	<b>CTHWWEB, Sta. 0W+00 - 67W+00</b>	32	640	1	20	11	220	--	--	10	200	--
	<b>CTHWWWB, Sta. 0W+00 - 67W+00</b>	31	620	1	20	11	220	--	--	10	200	--
	<b>STAGE 3 SUBTOTAL</b>	8,720		340	1,040	60	180	180	1,710	0	84	84

\* FOR INFORMATION ONLY

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CATEGORY	LOCATION	TRAFFIC CONTROL						** 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	** 643.1050 TRAFFIC CONTROL SIGNS POMS EACH*	SP/ 0045.01 PORTABLE CHANGEABLE MESSAGE SIGN (POMS) CELLULAR COMMUNICATIONS DAY				
		STAGE DURATION	TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL LIGHTS TYPE A	TRAFFIC CONTROL ARROW BOARDS	TRAFFIC CONTROL LIGHTS TYPE C							
STAGE 4 AT DECATOR DRIVE	5	35	176	--	--	1	5	6	30	16	80	--	1	14
USH151 NB, Sta. 60N+00 - 126N+00 STAGE 4 AT CTH WW BM	52	57	2,965	--	--	1	50	--	--	6	310	--	--	--
USH151 NB, Sta. 128N+00 - 176N+00 USH151 NB, Sta. 178N+00 - 232N+00 USH151 SB, Sta. 80S+00 - 126S+00 USH151 SB, Sta. 128S+00 - 176S+00 USH151 SB, Sta. 176S+00 - 243S+00 CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	4	210	--	--	--	--	--	--	2	105	--	--	--	
CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	--	--	--	--	--	--	--	--	4	210	--	--	--	
STAGE 4 SUBTOTAL		10,680	410	1,765	55	1,800	2,060	1	56	56	56			
STAGE 5	20	10	200	--	--	1	20	--	--	6	120	--	1	14
USH151 NB, Sta. 60N+00 - 126N+00 USH151 NB, Sta. 128N+00 - 176N+00 USH151 NB, Sta. 178N+00 - 232N+00 USH151 SB, Sta. 80S+00 - 126S+00 USH151 SB, Sta. 128S+00 - 176S+00 USH151 SB, Sta. 176S+00 - 243S+00 USH151 SB, Sta. 0W+00 - 67W+00 CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	54	1,080	--	--	--	--	--	--	2	40	--	--	--	
CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	--	--	--	--	--	--	--	--	2	40	--	--	--	
STAGE 5 SUBTOTAL		3,900	40	440	40	0	720	0	56	56	56			
STAGE 6A	15	--	--	--	--	--	--	--	4	60	--	--	--	
USH151 NB, Sta. N+00 - N+00 USH151 SB, Sta. S+00 - S+00 USH151 SB, Sta. S+00 - S+00 CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	32	480	1	15	11	165	--	--	4	60	--	--	--	
CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	31	465	1	15	11	165	--	--	9	135	--	1	14	
STAGE 6A SUBTOTAL		945	30	330	0	0	405	0	56	56	56			
STAGE 6B	15	--	--	--	--	--	--	--	4	60	--	--	--	
USH151 NB, Sta. N+00 - N+00 USH151 SB, Sta. S+00 - S+00 USH151 SB, Sta. S+00 - S+00 CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	20	300	--	--	--	--	--	--	5	75	--	--	--	
CTH WW EB, Sta. 0W+00 - 67W+00 CTH WW WB, Sta. 0W+00 - 67W+00	38	570	2	30	17	255	--	--	7	105	--	1	14	
STAGE 6B SUBTOTAL		870	30	255	0	0	300	0	56	56	56			
UNDISTRIBUTED	--	4,390	--	225	--	820	--	35	--	455	--	1,015	--	40
TOTALS		48,300	2,455	9,030	405	4,985	11,155	2	460	460	460			

\* FOR INFORMATION ONLY  
\*\* ADDITIONAL QUANTITIES LISTED ELSEWHERE  
SEE SDD "LANE CLOSURE SPEEDS GREATER THAN 40 MPH" FOR PLACEMENT OF TRAFFIC CONTROL DEVICES

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**3**

<u>TEMPORARY PAVEMENT MARKINGS</u>						
CATEGORY		ROADWAY	STAGE	PAVEMENT MARKINGS	PAVEMENT MARKINGS	TEMPORARY PAVEMENT MARKING PAINT 4-INCH
0010	USH 51		1	--	--	646.0600 REMOVING PAVEMENT MARKINGS
			2	2,300	--	647.0955 REMOVING ARROWS EACH
			3	1,700	--	649.0402 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
			4	1,440	--	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
			5	--	--	8-INCH WHITE LF
		CTH WW	6A	760	1	BLACK LF
			6B	--	--	WHITE LF
			TOTALS	6,200	1	22,400
						20,565
						2,220

PAVEMENT MARKING ITEMS

<u>PAVEMENT MARKING ITEMS</u>						
CATEGORY		STAGE	LOCATION	STA TO STA	STA TO STA	REFLECTIVE TAPE
0010	USH 51 & DECATOR DR		100N+00 - 126N+00	2,430	2,375	4-INCH DASHED
			USH 51 & CTH WW	--	--	4-INCH DASHED
			178N+00 - 223N+00	4,500	4,560	GROOVED WET EPOXY
			178S+00 - 223S+00	4,500	4,625	REFLECTIVE TAPE EPOXY
			CTH WW	--	--	4-INCH DASHED EPOXY
			14W+52 - 21W+64	1,430	1,300	4-INCH DASHED EPOXY
			19W+89 RT TURN LANE	--	195	TYPE 2 EPOXY
			22W+57 - 32W+12	1,910	1,950	WHITE LF
			33W+29 - 40W+44	1,420	1,430	WHITE LF
			TOTALS	32,430	350	425
						3,590
						2
						1

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TRAFFIC CONTROL DETOUR 1170-00-74**3**

CATEGORY		LOCATION	STA TO STA	STA TO STA	STA TO STA
0010	CTH WW		1	1	

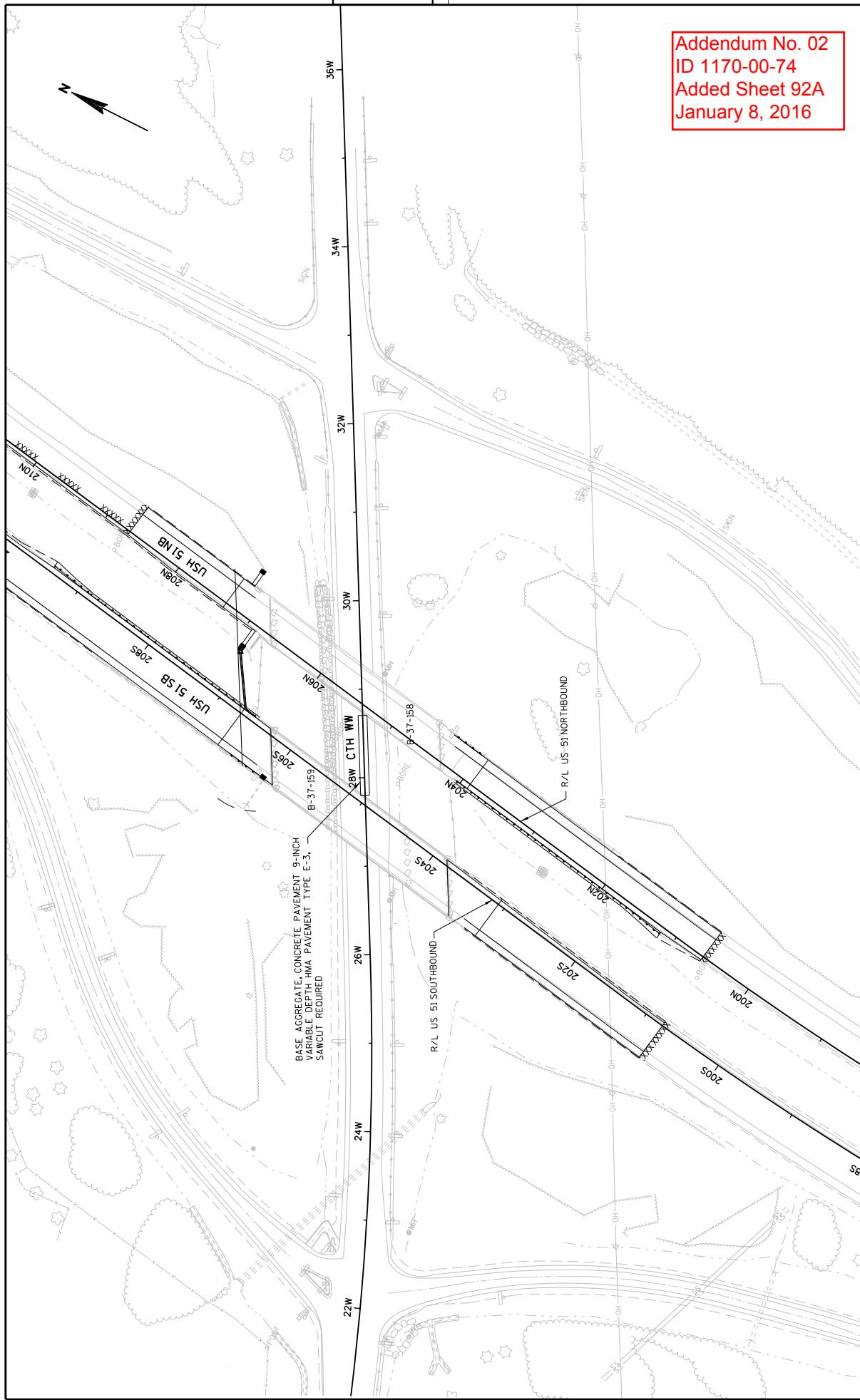


## CONCRETE BARRIER &amp; CRASH CUSHIONS TEMPORARY

CATEGORY	STAGE	ROADWAY STA - STA	TEMPORARY PRECAST DELIVERED LF	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	CRASH CUSHION TEMPORARY PRECAST INSTALLED LF	BACK WIDTH EACH	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	1	USH 51 177N+50 - 222N+50	--	4,500	4,500	--	1	4	OM-3L	TL-3	UNIDIRECTIONAL	R
	1	USH 51 178S+50 - 223S+50	--	4,500	4,500	--	1	4	OM-3L	TL-3	UNIDIRECTIONAL	R
	1	USH 51 223S+50	--	--	--	1	2	2	OM-3C	TL-3	BIDIRECTIONAL	L&R
	1	CTH WW 25W+50	--	--	--	1	2	2	OM-3C	TL-3	BIDIRECTIONAL	L&R
	1	CTH WW 30W+15	--	--	--	1	2	2	OM-3C	TL-3	BIDIRECTIONAL	L&R
	1	CTH WW 25W+00 - 31W+00	800	800	--	--	--	--	--	--	--	--
	2	USH 51 109N+50 - 116N+00	650	620	--	--	--	--	--	--	--	--
	2	USH 51 101TNW+50 - 55TNW+50	50	4,550	1	4	4	4	OM-3R	TL-3	UNIDIRECTIONAL	L
	2	USH 51 15TNW+65 - 49TNW+50	3,400	3,400	--	--	--	--	--	--	--	--
	2	USH 51 182N+75 - 188N+00	525	525	--	1	4	4	OM-3C	TL-3	UNIDIRECTIONAL	L&R
	3	USH 51 109N+50 - 116N+00	--	650	--	--	--	--	--	--	--	--
	3	USH 51 177N+50 - 222N+50	--	4,500	--	--	--	--	--	--	--	--
	4	USH 51 111SW+50 - 56TSW+60	--	4500	--	--	--	--	--	--	--	--
	4	USH 51 117SW+50 - 52TSW+00	--	3450	--	--	1	4	OM-3C	TL-3	UNIDIRECTIONAL	L&R
	4	USH 51 52TSW+00	--	--	--	--	--	--	--	--	--	--
	5	USH 51 178S+50 - 223S+50	--	4,500	--	--	--	--	--	--	--	--
TOTALS			14,425	36,495	7							

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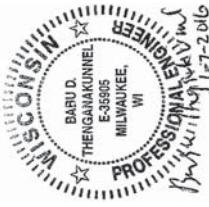
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Added Sheet 92A  
January 8, 2016



STATE PROJECT NUMBER  
1170-00-74

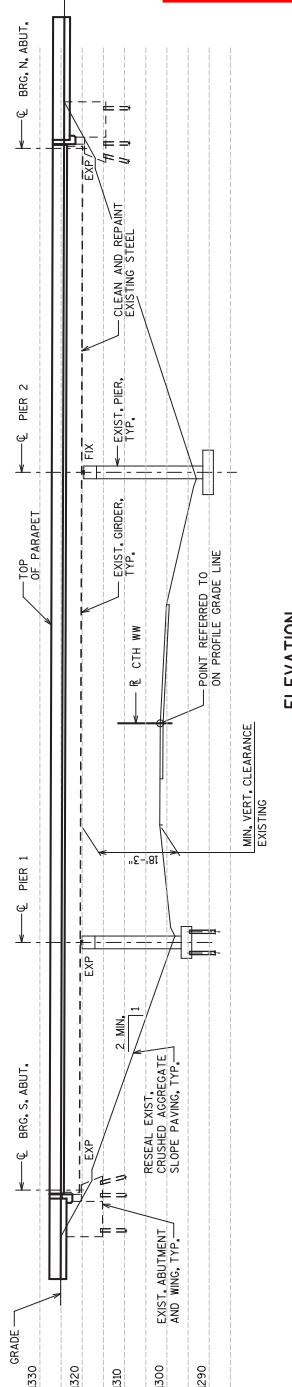
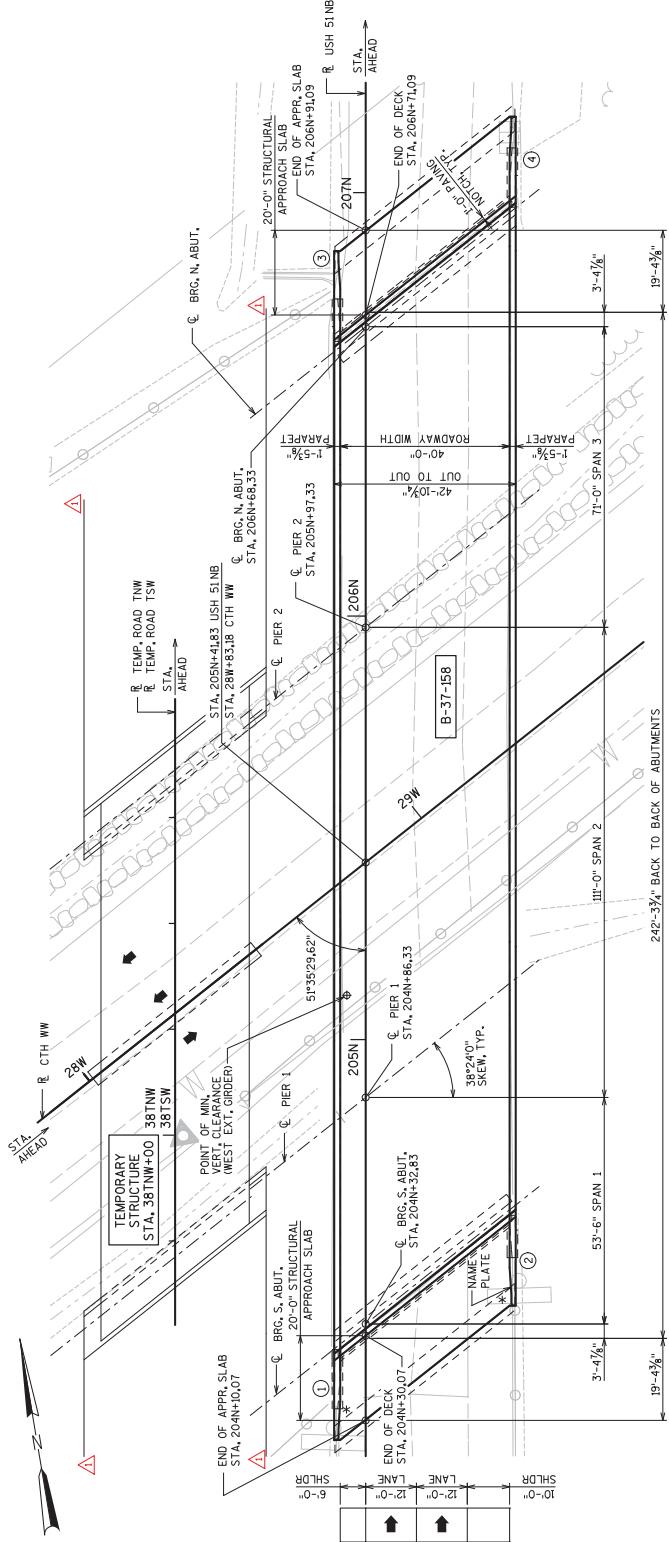
LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. TYPICAL SECTION
3. GENERAL NOTES AND QUANTITIES
4. WINGWALL REMOVAL
5. TEMPORARY STRUCTURE (2 OF 2)
6. SUBSURFACE EXPLORATION
7. SUPERSTRUCTURE PLAN
8. SUPERSTRUCTURE DETAILS
9. BILL OF BAR'S
10. DECK ELEVATIONS
11. EXPANSION JOINT DETAILS (1 OF 2)
12. EXPANSION JOINT DETAILS (2 OF 2)
13. STRUCTURAL APPROACH SLAB DETAILS
14. PAVING BLOCK APPROACH SLAB DETAILS
15. SINGLE SLOPE PARAPET 32SS



*William C. Dulan* F.A.S.E. 01/08/16  
BARU D.  
THEIGANAKUNNEL  
PROFESSIONAL ENGINEER  
E-30905  
MILWAUKEE,  
WI

Addendum No. 02  
ID 1170-00-74  
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January 8, 2016



DESIGN DATA

LIVE LOAD

DESIGN LOAD: HS-20  
INVENTORY RATING: HS-18  
OPERATIONAL RATINGS: HS-31  
WISCONSIN STANDARD PERMIT  
VEHICLE LOAD (WHS-SPV2) ..... 230 KIPS  
C.T.H. WW  
A.D.T. = 19,000 (2015)  
A.D.T. = 24,300 (2035)  
R.D.S. = 70 MPH

R.D.S. CONSTRUCTION = 35 MPH

MATERIAL PROPERTIES

CONCRETE MASONRY  
APPROACH SLAB ..... f<sub>c</sub> = 4,000 psi  
OTHER ..... f<sub>c</sub> = 4,000 psi  
HIGH STRENGTH BAR STEEL  
REINFORCEMENT, GRADE 60 ..... f<sub>y</sub> = 60,000 psi

STRUCTURE B-37-158  
US 51 NB OVER CTH WW  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

ACCEPTED DATE  
CHIEF STRUCTURES DESIGN ENGINEER  
DATE

STRUCTURE B-37-158  
US 51 NB OVER CTH WW  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
207

ID: 1170-00-04 SEPTEMBER 2015

8

BLOOM COMPANIES, LLC  
Engineering, Environment and Geology  
10501 Research Drive • Milwaukee, WI 53228  
Phone: (414) 771-3390 Fax: (414) 771-4490

GENERAL PLAN AND ELEVATION  
207

GENERAL PLAN AND ELEVATION  
207

SHEET 1 OF 16

GENERAL PLAN AND ELEVATION  
207

SHEET 1 OF 16

GENERAL PLAN AND ELEVATION  
207

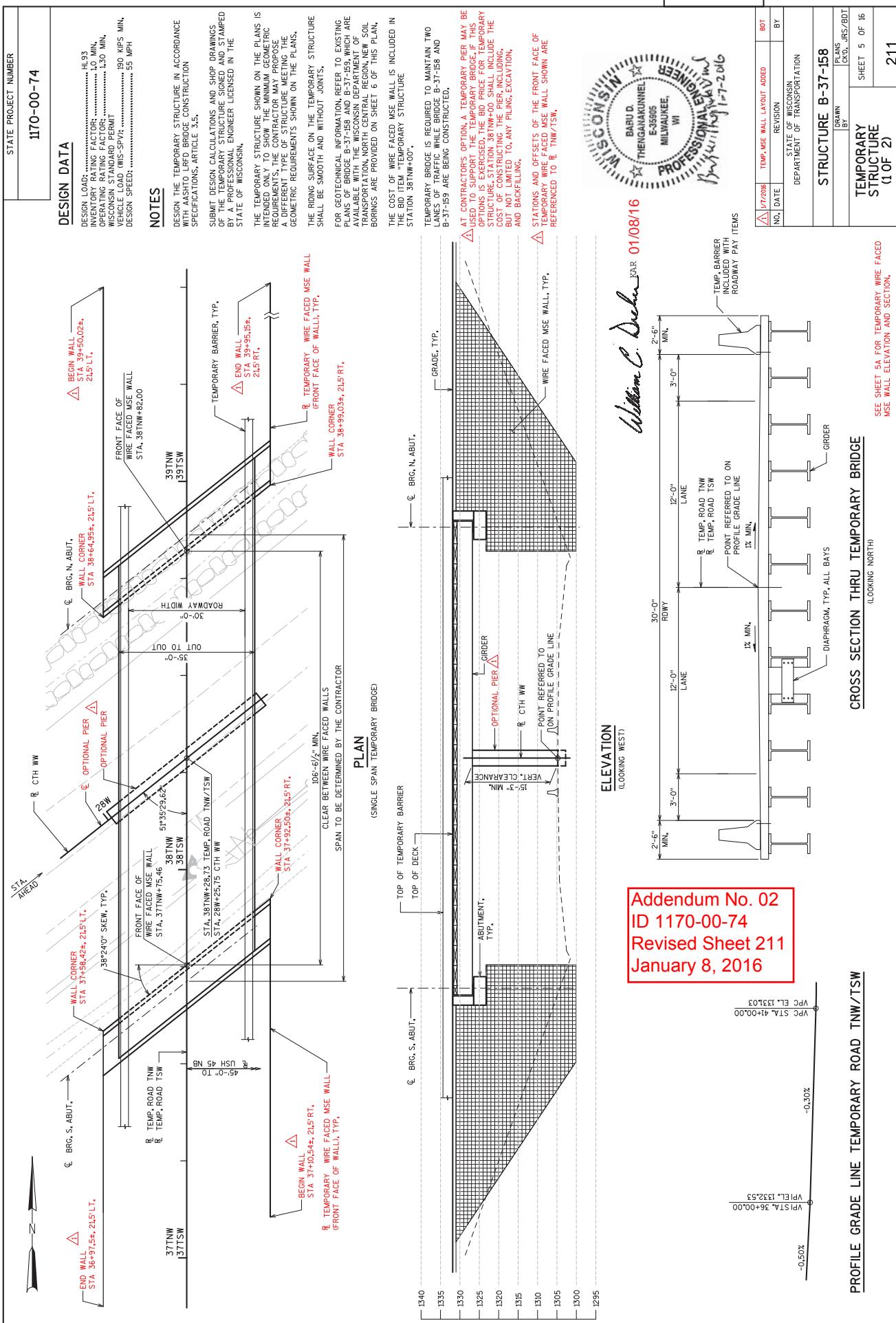
SHEET 1 OF 16

GENERAL PLAN AND ELEVATION  
207

SHEET 1 OF 16

GENERAL PLAN AND ELEVATION  
207

8



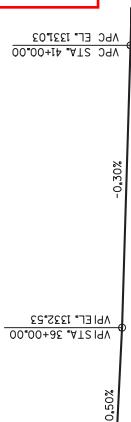
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 ID 1170-00-74  
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 January 8, 2016



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8

**PROFILE GRADE LINE TEMPORARY ROAD TNW/TSW**



8

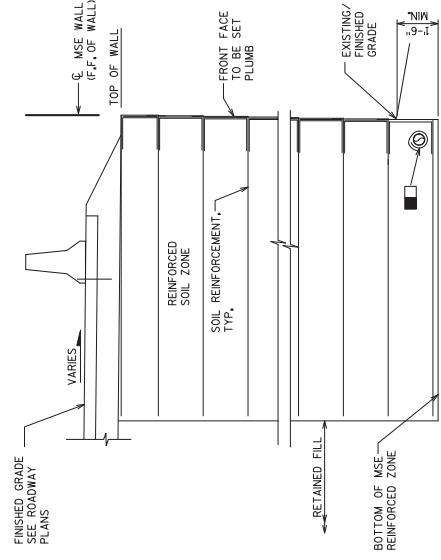
STATE PROJECT NUMBER	1170-00-74
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**NOTES**

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN THE MSE WALL FOR THE LOADS TRANSFERRED BY THE TEMPORARY BRIDGE AND A LIVE LOAD SURCHARGE OF 240 PSF.



**SECTION THRU TEMPORARY WIRE FACED MSE WALL**

(AT TEMPORARY BRIDGE APPROACH)



*William C. Deiter*, KAR 01/08/16  
REV 001  
NO. DATE  
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**STRUCTURE B-37-158**

DRAWN BY TAL PLANS JRS/BDT  
Ckd. JRS/BDT  
SHEET 5A OF 16

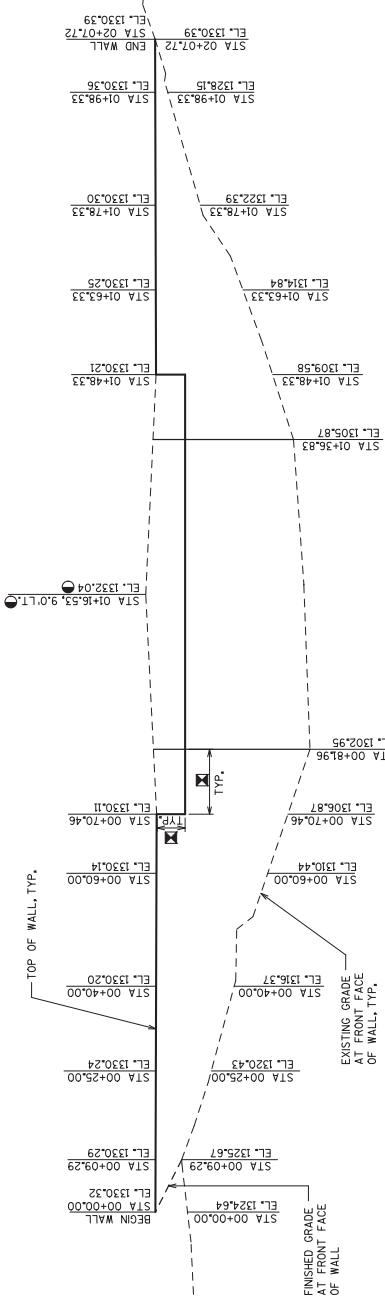
211A

Addendum No. 02

ID 1170-00-74

Added Sheet 211A

January 8, 2016



**TEMPORARY MSE WALL ELEVATION AT SOUTH ABUTMENT**

(LOOKING AT FRONT FACE OF WALL)

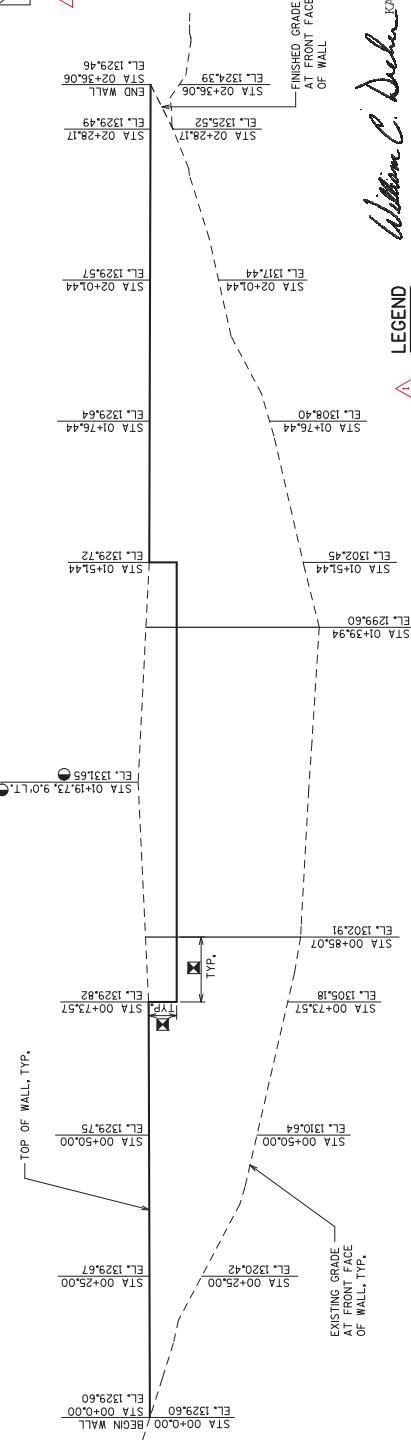
STATIONS MEASURED ALONG & TEMPORARY MSE WALL (FRONT FACE OF WALL)

**SOIL PARAMETERS - BORING 10**

SOIL DESCRIPTION	SOIL UNIT WEIGHT (PSF)	ESTIMATED PROPERTIES	ESTIMATED PROPERTIES		
			FROZEN COHESION (PSF)	FRIGID COHESION (PSF)	IGNORE
FILL MATERIAL: LEAN CLAY WITH MUCKY TOP SOIL	1303.1	120	1000	10	
FILL MATERIAL: SANDY SILT CLAY	1300.8	130	1000	10	
FILL MATERIAL: SILTY CLAY	1287.8	126	800	5	
NATIVE SANDY SILT	1295.3	131.5	2000	15	
NATIVE POORLY GRADED GRAVEL WITH SILT AND SAND	1284.6	135	0	38	
GRANITE	1294.5	140	0	43	

**SOIL PARAMETERS - BORING 11**

SOIL DESCRIPTION	BOTTOM ELEVATION (FT)	SOIL UNIT WEIGHT (IMPSI)	ESTIMATED PROPERTIES	FRICITION COHESION (PSF)	FRICITION ANGLE (DEGREES)
BASE COURSE MATERIAL: SILTY SAND WITH GRAVEL	1301.6	130	1301.6 (IMOSI)	0	30
NATIVE SANDY SILT	1300.8	130	1300.8 (IMOSI)	0	31
NATIVE SANDY SILT	1300.2	138	1300.2 (SATURATED)	0	31
NATIVE SILTY SAND WITH GRAVEL	1298.9	135	1298.9 (SATURATED)	0	31
NATIVE SILTY GRAVEL WITH SAND	1297.4	140	1297.4 (SATURATED)	0	37



**TEMPORARY MSE WALL ELEVATION AT NORTH ABUTMENT**

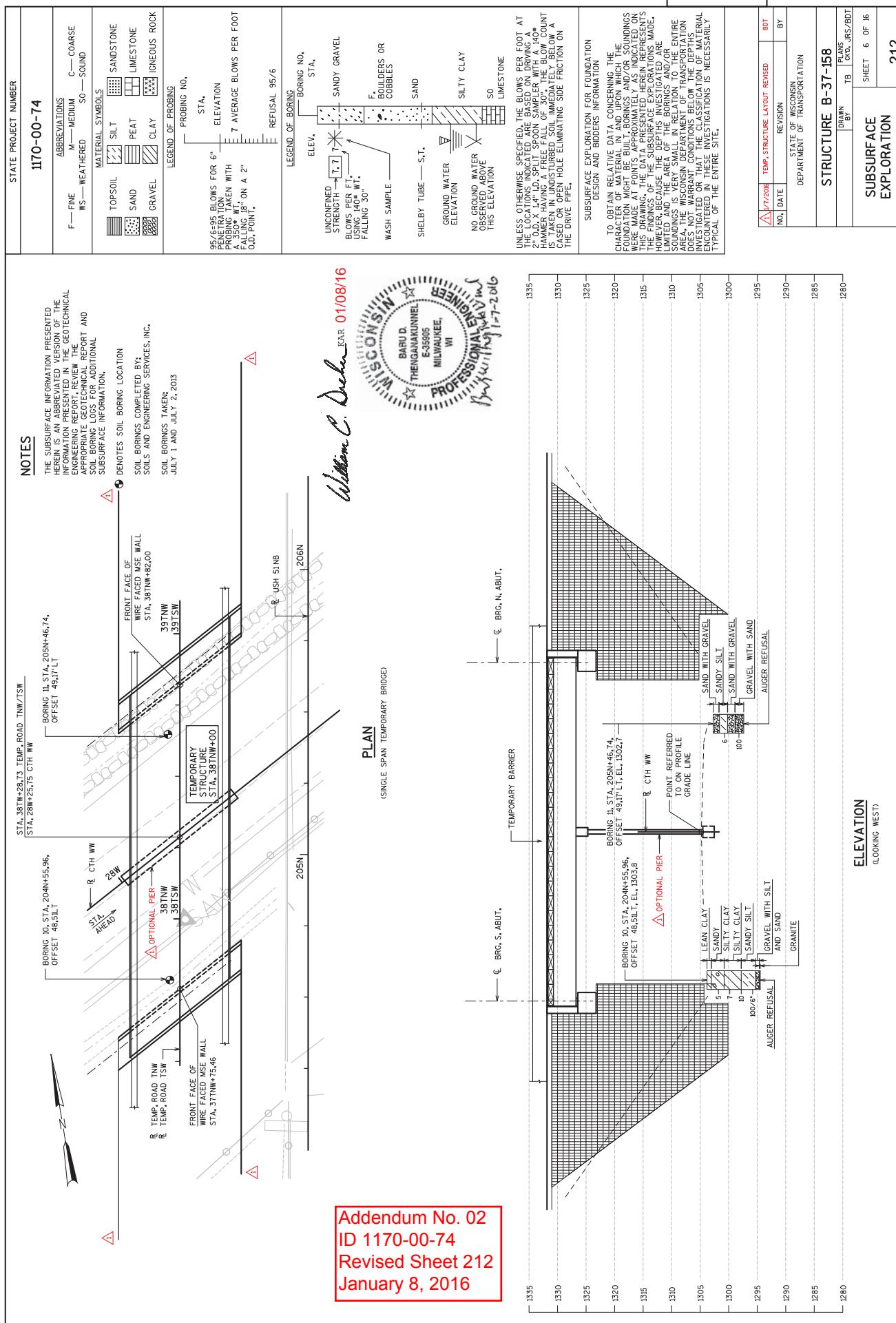
(LOOKING AT FRONT FACE OF WALL)

STATIONS MEASURED ALONG & TEMPORARY MSE WALL (FRONT FACE OF WALL)

① STATIONS AND ELEVATIONS AT PAVING BLOCK CROWNS FOR A BACK TO BACK DIMENSION OF 12'-6" BETWEEN PAVING BLOCKS, MODIFY THESE VALUES FOR THE ACTUAL BACK TO BACK DIMENSION BETWEEN PAVING BLOCKS, AFTER DESIGNING THE TEMPORARY STRUCTURE.

☒ THESE DIMENSIONS TO BE DETERMINED BY THE CONTRACTOR AFTER DESIGNING THE TEMPORARY STRUCTURE.

□ PIPE UNDERDRAIN WRAPPED 6- INCH, SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.



Wisconsin Department of Transportation

PAGE: 1  
DATE: 01/08/16  
REVISED:

SCHEDULE OF ITEMS

CONTRACT: PROJECT(S): FEDERAL ID(S):  
20160112023 1170-00-74 WISC 2016036

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	BID AMOUNT DOLLARS
---------	------------------	----------------------------	--------------------	--------------------

SECTION 0001 Roadway Items

0010	201.0120 Clearing	ID	90.000	.	.
0020	201.0220 Grubbing	ID	90.000	.	.
0030	203.0200 Removing Old Structure (station) 01. 113N+60	LUMP	LUMP	.	.
0040	203.0200 Removing Old Structure (station) 02. 205N+50	LUMP	LUMP	.	.
0050	203.0200 Removing Old Structure (station) 03. 205s+00	LUMP	LUMP	.	.
0060	203.0225.S Debris Containment (structure) 01. B-37-155	LUMP	LUMP	.	.
0070	203.0225.S Debris Containment (structure) 02. B-37-158	LUMP	LUMP	.	.
0080	203.0225.S Debris Containment (structure) 03. B-37-159	LUMP	LUMP	.	.
0090	204.0100 Removing Pavement	SY	870.000	.	.
0100	204.0115 Removing Asphaltic Surface Butt Joints	SY	51.000	.	.

Wisconsin Department of Transportation PAGE: 2

DATE: 01/08/16

REVISED:

CONTRACT: PROJECT(S): FEDERAL ID(S):  
20160112023 1170-00-74 WISC 2016036

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS   CTS	BID AMOUNT DOLLARS   CTS
0110	204.0120 Removing Asphaltic Surface Milling	16,640.000 SY	.	.
0120	204.0165 Removing Guardrail	1,065.000 LF	.	.
0130	204.0190 Removing Surface Drains	1.000 EACH	.	.
0140	204.0210 Removing Manholes	2.000 EACH	.	.
0150	204.0220 Removing Inlets	6.000 EACH	.	.
0160	204.0245 Removing Storm Sewer (size) 01. 12-Inch	266.800 LF	.	.
0170	204.9060.S Removing (item description) 01. Apron Endwalls	8.000 EACH	.	.
0180	205.0100 Excavation Common	37,233.000 CY	.	.
0190	205.0200 Excavation Rock	1,950.000 CY	.	.
0200	206.1000 Excavation for Structures Bridges (structure) 01. B-37-155	LUMP	LUMP	.

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0210	206.1000 Excavation for Structures Bridges (structure) 02. B-37-158	LUMP	LUMP	.
0220	206.1000 Excavation for Structures Bridges (structure) 03. B-37-159	LUMP	LUMP	.
0230	208.0100 Borrow	CY 20,307.000	.	.
0240	210.0100 Backfill Structure	CY 192.000	.	.
0250	211.0400 Prepare Foundation for Asphaltic Shoulders	STA 19.000	.	.
0260	213.0100 Finishing Roadway (project) 01. 1170-00-74	EACH 1.000	.	.
0270	305.0110 Base Aggregate Dense 3/4-Inch	TON 1,405.000	.	.
0280	305.0120 Base Aggregate Dense 1 1/4-Inch	TON 28,630.000	.	.
0290	415.0100 Concrete Pavement 10-Inch	SY 760.000	.	.
0300	415.0410 Concrete Pavement Approach Slab	SY 842.000	.	.

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0310	416.1010 Concrete Surface Drains	5.000 CY	.	.
0320	455.0105 Asphaltic Material PG58-28	570.000 TON	.	.
0330	455.0605 Tack Coat	3,720.000 GAL	.	.
0340	460.1103 HMA Pavement Type E-3	8,230.000 TON	.	.
0350	460.1110 HMA Pavement Type E-10	1,270.000 TON	.	.
0360	460.2000 Incentive Density HMA Pavement	580.000 DOL	1.00000	580.00
0370	460.4000 HMA Cold Weather Paving	840.000 TON	.	.
0380	460.4110.S Reheating HMA Pavement Longitudinal Joints	4,100.000 LF	.	.
0390	465.0400 Asphaltic Shoulder Rumble Strips	9,820.000 LF	.	.
0400	502.0100 Concrete Masonry Bridges	1,534.000 CY	.	.
0410	502.3100 Expansion Device (structure) 01. B-37-158	LUMP	LUMP	.

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0420	502.3100 Expansion Device (structure) 02. B-37-159	LUMP	LUMP	.
0430	502.3200 Protective Surface Treatment	SY	87.000	.
0440	502.3210 Pigmented Surface Sealer	SY	621.000	.
0450	502.5002 Masonry Anchors Type L No. 4 Bars	EACH	27.000	.
0460	502.5005 Masonry Anchors Type L No. 5 Bars	EACH	390.000	.
0470	502.6110 Masonry Anchors Type S 3/4-Inch	EACH	11.000	.
0480	505.0600 Bar Steel Reinforcement HS Coated Structures	LB	325,770.000	.
0490	505.0800.S Bar Steel Reinforcement HS Stainless Structures	LB	4,720.000	.
0500	505.0904 Bar Couplers No. 4	EACH	16.000	.
0510	505.0905 Bar Couplers No. 5	EACH	531.000	.
0520	505.0906 Bar Couplers No. 6	EACH	24.000	.

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0530 8	505.0908 Bar Couplers No.	24.000 EACH	.	.
0540	506.4000 Steel Diaphragms (structure) 01. B-37-155	14.000 EACH	.	.
0550	509.5100.S Polymer Overlay	3,867.000 SY	.	.
0560	516.0500 Rubberized Membrane Waterproofing	58.000 SY	.	.
0570	517.0900.S Preparation and Coating of Top Flanges (structure) 01. B-37-158	LUMP	LUMP	.
0580	517.0900.S Preparation and Coating of Top Flanges (structure) 02. B-37-159	LUMP	LUMP	.
0590	517.1800.S Structure Repainting Recycled Abrasive (structure) 01. B-37-158	LUMP	LUMP	.
0600	517.1800.S Structure Repainting Recycled Abrasive (structure) 02. B-37-159	LUMP	LUMP	.
0610	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-37-158	LUMP	LUMP	.

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0620	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-37-159	LUMP	LUMP	.
0630	517.6001.S Portable Decontamination Facility	EACH 2.000	.	.
0640	520.8000 Concrete Collars for Pipe	EACH 1.000	.	.
0650	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH 1.000	.	.
0660	522.0312 Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF 236.800	.	.
0670	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH 7.000	.	.
0680	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH 1.000	.	.
0690	603.8000 Concrete Barrier Temporary Precast Delivered	LF 14,425.000	.	.
0700	603.8125 Concrete Barrier Temporary Precast Installed	LF 36,495.000	.	.
0710	604.9015.S Reseal Crushed Aggregate Slope Paving	SY 2,303.000	.	.

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0720	606.0200 Riprap Medium	CY	3.000	.
0730	611.0600 Inlet Covers Type A	EACH	1.000	.
0740	611.0642 Inlet Covers Type MS	EACH	2.000	.
0750	611.2004 Manholes 4-FT Diameter	EACH	2.000	.
0760	611.3220 Inlets 2x2-FT	EACH	1.000	.
0770	611.3901 Inlets Median 1 Grate	EACH	2.000	.
0780	611.8115 Adjusting Inlet Covers	EACH	2.000	.
0790	611.8120.S Cover Plates Temporary	EACH	2.000	.
0800	611.9710 Salvaged Inlet Covers	EACH	2.000	.
0810	614.0150 Anchor Assemblies for Steel Plate Beam Guard	EACH	6.000	.
0820	614.0905 Crash Cushions Temporary	EACH	7.000	.

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0830	614.2300 MGS Guardrail 3 LF	665.000	.	.
0840	614.2500 MGS Thrie Beam Transition LF	234.000	.	.
0850	614.2610 MGS Guardrail Terminal EAT EACH	2.000	.	.
0860	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1170-00-74	1.000 EACH	.	.
0870	619.1000 Mobilization EACH	1.000	.	.
0880	624.0100 Water MGAL	990.000	.	.
0890	625.0100 Topsoil SY	46,500.000	.	.
0900	627.0200 Mulching SY	46,500.000	.	.
0910	628.1504 Silt Fence LF	5,680.000	.	.
0920	628.1520 Silt Fence Maintenance LF	5,680.000	.	.
0930	628.1905 Mobilizations Erosion Control EACH	6.000	.	.

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0940	628.1910 Mobilizations Emergency Erosion Control	6.000 EACH	.	.
0950	628.7005 Inlet Protection Type A	6.000 EACH	.	.
0960	628.7504 Temporary Ditch Checks	2,890.000 LF	.	.
0970	628.7555 Culvert Pipe Checks	55.000 EACH	.	.
0980	628.7570 Rock Bags	15.000 EACH	.	.
0990	629.0210 Fertilizer Type B	41.000 CWT	.	.
1000	630.0130 Seeding Mixture No. 30	1,155.000 LB	.	.
1010	633.0100 Delineator Posts Steel	8.000 EACH	.	.
1020	633.0500 Delineator Reflectors	8.000 EACH	.	.
1030	633.5200 Markers Culvert End	2.000 EACH	.	.
1040	638.2602 Removing Signs Type II	4.000 EACH	.	.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS   CTS	BID AMOUNT DOLLARS   CTS
1050	638.3000 Removing Small Sign Supports	4.000 EACH	.	.
1060	642.5001 Field Office Type B	1.000 EACH	.	.
1070	643.0100 Traffic Control (project) 01. 1170-00-74	1.000 EACH	.	.
1080	643.0300 Traffic Control Drums	48,300.000 DAY	.	.
1090	643.0420 Traffic Control Barricades Type III	2,455.000 DAY	.	.
1100	643.0500 Traffic Control Flexible Tubular Marker Posts	100.000 EACH	.	.
1110	643.0600 Traffic Control Flexible Tubular Marker Bases	100.000 EACH	.	.
1120	643.0705 Traffic Control Warning Lights Type A	9,030.000 DAY	.	.
1130	643.0715 Traffic Control Warning Lights Type C	4,985.000 DAY	.	.
1140	643.0800 Traffic Control Arrow Boards	405.000 DAY	.	.
1150	643.0900 Traffic Control Signs	11,155.000 DAY	.	.

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1160	643.0910 Traffic Control Covering Signs Type I	2.000 EACH	.	.
1170	643.0920 Traffic Control Covering Signs Type II	4.000 EACH	.	.
1180	643.1050 Traffic Control Signs PCMS	460.000 DAY	.	.
1190	643.2000 Traffic Control Detour (project) 01. 1170-00-74	1.000 EACH	.	.
1200	643.3000 Traffic Control Detour Signs	4,366.000 DAY	.	.
1210	645.0120 Geotextile Fabric Type HR	28.000 SY	.	.
1220	646.0106 Pavement Marking Epoxy 4-Inch	33,000.000 LF	.	.
1230	646.0126 Pavement Marking Epoxy 8-Inch	350.000 LF	.	.
1240	646.0600 Removing Pavement Markings	6,200.000 LF	.	.
1250	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	425.000 LF	.	.

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1260	646.0881.S Pavement Marking Grooved Wet Reflective Tape 4-Inch	3,015.000 LF	.	.
1270	647.0166 Pavement Marking Arrows Epoxy Type 2	2.000 EACH	.	.
1280	647.0356 Pavement Marking Words Epoxy	1.000 EACH	.	.
1290	647.0955 Removing Pavement Markings Arrows	1.000 EACH	.	.
1300	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	20,565.000 LF	.	.
1310	649.0402 Temporary Pavement Marking Paint 4-Inch	22,400.000 LF	.	.
1320	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	2,220.000 LF	.	.
1330	650.4000 Construction Staking Storm Sewer	16.000 EACH	.	.
1340	650.4500 Construction Staking Subgrade	7,143.000 LF	.	.
1350	650.5000 Construction Staking Base	11,544.000 LF	.	.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS   CTS	BID AMOUNT DOLLARS   CTS
1360	650.6500 Construction Staking Structure Layout (structure) 01. B-37-155	LUMP	LUMP	.
1370	650.6500 Construction Staking Structure Layout (structure) 02. B-37-158	LUMP	LUMP	.
1380	650.6500 Construction Staking Structure Layout (structure) 03. B-37-159	LUMP	LUMP	.
1390	650.7000 Construction Staking Concrete Pavement	320.000 LF	.	.
1400	650.8000 Construction Staking Resurfacing Reference	1,330.000 LF	.	.
1410	650.9910 Construction Staking Supplemental Control (project) 01. 1170-00-74	LUMP	LUMP	.
1420	650.9920 Construction Staking Slope Stakes	7,143.000 LF	.	.
1430	690.0150 Sawing Asphalt	7,300.000 LF	.	.
1440	690.0250 Sawing Concrete	277.000 LF	.	.
1450	715.0415 Incentive Strength Concrete Pavement	500.000 DOL	1.00000	500.00

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1460	715.0502 Incentive Strength Concrete Structures	9,204.000 DOL	1.00000	9204.00
1470	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,400.000 HRS	5.00000	12000.00
1480	ASP.1T0G On-the-Job Training Graduate at \$.00/HR	2,760.000 HRS	5.00000	13800.00
1490	SPV.0045 Special 01. Portable Changeable Message Sign (Pcms) Cellular Communications	460.000 DAY	.	.
1500	SPV.0060 Special 01. Concrete Riser For Inlet Median	2.000 EACH	.	.
1510	SPV.0060 Special 04. Abutment End Repair	3.000 EACH	.	.
1520	SPV.0060 Special 05. Cleaning And Painting Bearings	44.000 EACH	.	.
1530	SPV.0090 Special 01. Salvage and Reinstall Beamguard	805.000 LF	.	.
1540	SPV.0105 Special 02. Temporary Structure Station 38TNW+00	LUMP	LUMP	.
1550	415.0090 Concrete Pavement 9-Inch	110.000 SY	.	.
	SECTION 0001 TOTAL			.
	TOTAL BID			.