Wisconsin Department of Transportation

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

April 18, 2016

NOTICE TO ALL CONTRACTORS:

Proposal #58: 1517-07-74
USH 10 – USH 10/STH 441
County CB – Oneida Street
I-41 (STH 441 - CTH II)
USH 10
Winnebago County

Letting of May 10, 2016

This is Addendum No. 01, which provides for the following:

Special Provisions

Revised Special Provisions	
Article No.	Description
1.2	Scope of Work
2.1	Prosecution and Progress
7.1	Traffic

Added Special Provisions	
Article No.	Description
7.10	Remove Traffic Signal (I41 NB and CTH II), Item SPV.0105.450; Remove Traffic Signal (I41 SB and CTH II), Item SPV.0105.451
12.13	Polyester Polymer Concrete Masonry, Item SPV.0025.700
12.14	Rapid Cure Polymer Overlay, Item SPV.0180.700
12.15	Sawing Pavement Deck Preparation Areas, Item SPV.0090.700
16.5	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2, Item SPV.0060.007; Words, Item SPV.0060.008.
17.5	Work by Others – Lighting/Signals
17.6	Junction Boxes Stainless Steel 8x8x4-Inch, Item SPV.0060.353

Schedule of Items

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
205.0100	Excavation Common	CY	88,526	185	88,711

305.0120	Base Aggregate Dense 1 ¼ - Inch	Ton	23,597	320	23,917
311.0110	Breaker Run	Ton	57,047	370	57,417
415.0100	Concrete Pavement 10-Inch	SY	13,270	66	13,336
601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	860	60	920
601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	2,241	-7	2,234
602.0410	Concrete Sidewalk 5-Inch	SF	2,175	220	2,395
603.8000	Concrete Barrier Temporary Precast Delivered	LF	20,610	2,000	22,610
603.8125	Concrete Barrier Temporary Precast Installed	LF	21,410	3,000	24,410
611.0530	Manhole Covers Type J	Each	16	1	17
614.0905	Crash Cushions Temporary	Each	17	3	20
620.0300	Concrete Median Sloped Nose	SF	158	-44	114
634.0614	Posts Wood 4x6x14	Each	14	-1	13
634.0616	Posts Wood 4x6x16	Each	26	6	32
637.2210	Signs Type II Reflective H	SF	496.18	58.88	555.06
637.2215	Sign Type II Reflective H Fold	SF	18.75	7.15	25.90
638.2602	Removing Signs Type II	Each	37	3	40
638.3000	Removing Small Sign Supports	Each	53	3	56
643.0300	Traffic Control Drums	Days	17,221	27,486	44,707
643.0420	Traffic Control Barricades Type III	Days	1,931	15	1,946
643.0715	Traffic Control Warning Lights Type C	Days	5,243	100	5,343
643.0900	Traffic Control Signs	Days	8,691	5,189	13,880
643.1050	Traffic Control Signs PCMS	Days	599	457	1,056
646.0103	Pavement Marking Paint 4-inch	LF	47,623	18,972	66,595
646.0106	Pavement Marking Epoxy 4-inch	LF	33,453	4,135	37,588
646.0123	Pavement Marking Paint 8-inch	LF	4,738	1,055	5,793
646.0600	Removing Pavement Marking	LF	80,734	33,814	114,548
646.0841.S	Pavement Marking Grooved Wet Reflective contract tape 4-inch	LF	7,961	105	8,066
646.0843.S	Pavement Marking Grooved Wet Reflective contract tape 8-inch	LF	5,951	413	6,364
647.0566	Pavement Marking Stopline Epoxy 18-Inch	LF	72	50	122
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	9,991	60	10,051
657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	Each	5	4	9
SPV.0035.001	Roadway Embankment	CY	50,312	-3,242	47,070
SPV.0060.201	Repositioning Traffic Control Devices For Mainline Closures	Each	48	20	68
SPV.0060.352	Pull Box Non-Conductive 24X42-Inch	Each	7	21	28

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
204.0195	Removing Concrete Bases	Each	0	5	5
509.0301	Preparation Decks Type 1	SY	0	15	15
611.0410	Reconstruction Inlets	Each	0	1	1
611.8115	Adjusting Inlet covers	Each	0	5	5
652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	0	200	200
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	0	150	150
652.0615	Conduit Special 3-Inch	LF	0	50	50

652.0800	Conduit Loop Detector	LF	0	140	140
654.0101	Concrete Bases Type 1	Each	0	1	1
654.0102	Concrete Bases Type 2	Each	0	2	2
654.0110	Concrete Bases Type 10	Each	0	4	4
654.0217	Control Cabinet Type 9 Special	Each	0	1	1
655.0230	Cable Traffic Signal 5-14 AWG	LF	0	3085	3085
655.0240	Cable Traffic Signal 7-14 AWG	LF	0	510	510
655.0260	Cable Traffic Signal 12-14 AWG	LF	0	570	570
655.0305	Cable Type UF 2-12 AWG Grounded	LF	0	1530	1530
655.0515	Electrical Wire Traffic Signals 10 AWG	LF	0	2090	2090
655.0610	Electrical Wire Lighting 12 AWG	LF	0	1200	1200
655.0700	Loop Detector Lead In Cable	LF	0	450	450
655.0800	Loop Detector Wire	LF	0	460	460
656.0200.450	Electrical Service Meter Breaker Pedestal (I 41 NB & CTH II)	LS	0	1	1
657.0100	Pedestal Bases	Each	0	1	1
657.0310	Pole Type 3	Each	0	2	2
657.0315	Pole Type 4	Each	0	2	2
657.0420	Traffic Signal Standards Aluminum 13-FT	Each	0	1	1
657.0585	Trombone Arms 15-FT	Each	0	2	2
657.0709	Luminaire Arms Truss Type 4-Inch Clamp 12-FT	Each	0	4	4
657.1350	Install Poles Type 10	Each	0	4	4
657.1530	Install Monotube Arms 30-FT	Each	0	4	4
657.1812	Install Luminaire Arms Steel 12-FT	Each	0	4	4
658.0110	Traffic Signal Face 3-12 Inch Vertical	Each	0	13	13
658.0115	Traffic Signal Face 4-12 Inch Vertical	Each	0	2	2
658.0155	Traffic Signal Face 3-12 Inch Horizontal	Each	0	2	2
658.0215	Backplates Signal Face 3 Section 12-Inch	Each	0	15	15
658.0220	Backplates Signal Face 4 Section 12-Inch	Each	0	2	2
658.0600	LED Modules 12-Inch Red Ball	Each	0	15	15
658.0605	LED Modules 12-Inch Yellow Ball	Each	0	15	15
658.0610	LED Modules 12-Inch Green Ball	Each	0	15	15
658.0615	LED Modules 12-Inch Red Arrow	Each	0	2	2
658.0620	LED Modules 12-Inch Yellow Arrow	Each	0	4	4
658.0625	LED Modules 12-Inch Green Arrow	Each	0	2	2
658.5069.450	Signal Mounting Hardware (I 41 SB & CTH II)	LS	0	1	1
658.5069.451	Signal Mounting Hardware (I 41 NB & CTH II)	LS	0	1	1
659.1120	Luminaires Utility LED-B	EACH	0	8	8
SPV.0025.700	Polyester Polymer Concrete Masonry	CF	0	20	20
SPV.0060.007	Pavement marking grooved arrows preformed thermoplastic type 2	Each	0	3	3
SPV.0060.008	Pavement marking grooved words preformed thermoplastic	Each	0	2	2
SPV.0090.700	Sawing Pavement Deck Preparation Areas	LF	0	272	272
SPV.0105.001	Survey Project	LS	0	1	1
SPV.0105.450	Remove Traffic Signal (I41 NB & CTH II)	LS	0	1	1
SPV.0105.451	Remove Traffic Signal (I41 SB & CTH II)	LS	0	1	1
SPV.0180.700	Rapid Cure Polymer Overlay	SY	0	1,300	1,300

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
650.4000	Construction Staking Storm Sewer	Each	85	-85	0
650.5500	Construction Staking Curb Gutter And Curb & Gutter	LF	1,350	-1,350	0
650.6500.001	Construction Staking Structure Layout (structure) B-70-129	LS	1	-1	0
650.6500.002	Construction Staking Structure Layout (structure) B-70-131	LS	1	-1	0
650.6500.003	Construction Staking Structure Layout (structure) R-70-106	LS	1	-1	0
650.6500.004	Construction Staking Structure Layout (structure) R-70-107	LS	1	-1	0
650.6500.005	Construction Staking Structure Layout (structure) B-70-132	LS	1	-1	0
650.6500.006	Construction Staking Structure Layout (structure) R-70-108	LS	1	-1	0
650.6500.007	Construction Staking Structure Layout (structure) R-70-109	LS	1	-1	0
650.6500.008	Construction Staking Structure Layout (structure) R-70-110	LS	1	-1	0
650.7000	Construction Staking Concrete Pavement	LF	15,000	-15,000	0
650.9910	Construction Staking Supplemental Control	LS	1	-1	0

Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
46	Plan Details (removal of note saying existing signals to remain)
59	Plan Details (Curve radius changed on WSW & WNW Ramp)
60	Plan Details (Curve radius changed on WNW Ramp)
73	Paving Grades (removal of note saying existing signals to remain)
85	Paving Grades (Curve radius changed on WSW & WNW Ramp)
86	Paving Grades (Curve radius changed on WNW Ramp)
100	Removal plan (removal of note saying existing signals to remain)
118	Temporary Erosion Control Plan (removal of note saying existing signals to remain)
125	Permanent Erosion Control Plan (removal of note saying existing signals to remain)
132	Storm Sewer (removal of note saying existing signals to remain and adding adjusting inlets)
188	Permanent Signing (Revisions due to Winchester intersection with IH 41)
191	Permanent Signing (Revisions due to Winchester intersection with IH 41)
200	Pavement Marking IH 41 SB (WNW Ramp pavement marking revision)
201	Pavement Marking IH 41 SB WNW Ramp pavement marking revision)
207	Stage Construction Plan – Stage 2 (Added a B-70-130 Overlay)
208	Stage Construction Plan – Stage 2 (Added a B-70-130 Overlay)
223	Traffic Control – Typical Section Stage 2A, 2B & 3 (added stage 3)
270	Miscellaneous Quantities (Add adjusting storm sewer quantities)
271	Miscellaneous Quantities (Updated earthwork quantities)
273	Miscellaneous Quantities (Updated pavement quantities)
278	Miscellaneous Quantities (Added Survey Project quantities)
280	Miscellaneous Quantities (Updated concrete curb and gutter quantities)
281	Miscellaneous Quantities (Updated sidewalk & TC LIP quantities)
282	Miscellaneous Quantities (Updated concrete median slope nose quantities)

285	Miscellaneous Quantities (Updated Traffic Control quantities)
286	Miscellaneous Quantities (Updated crash cushion quantities)
287	Miscellaneous Quantities (Updated temporary pavement marking quantities)
288	Miscellaneous Quantities (Updated pavement marking quantities)
292	Miscellaneous Quantities (Updated Junction box and conduit quantities)
293	Miscellaneous Quantities (Updated pull box quantities)
300	Miscellaneous Quantities (Updated signing quantities)
495	Structure B-70-131 (Revised shy distance and removed TCB to be anchored)
623	Earthwork (WSW Ramp)
624	Earthwork (WNW Ramp)
757	Cross Sections - Winchester SW Ramp (Curve radius changed on WSW Ramp)
758	Cross Sections - Winchester SW Ramp (Curve radius changed on WSW Ramp)
759	Cross Sections - Winchester NW Ramp (Curve radius changed on WNW Ramp)
760	Cross Sections - Winchester NW Ramp (Curve radius changed on WNW Ramp)
761	Cross Sections - Winchester NW Ramp (Curve radius changed on WNW Ramp)

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
45A	Construction Detail (Pull Box, Non-conductive)
140A	Storm Sewer (WNW Ramp)
187A	Lighting Plan (Underdeck lighting Winchester Road)
187B	Traffic Signal Plan – Winchester Road with WSW/WNW Ramps
187C	Traffic Signal Plan – Winchester Road with WSW/WNW Ramps
187D	Traffic Signal Plan – Winchester Road with WSE/WNE Ramps
187E	Traffic Signal Plan – Winchester Road with WSE/WNE Ramps
208A	Stage Construction Plan – Stage 3 (Added a Stage 3)
239A	TC Overview – Stage 3
239B	TC Mainline – Stage 3 Sheet 1 NB
239C	TC Mainline – Stage 3A Sheet 2 SB
239D	TC Mainline – Stage 3A Sheet 3 SB
239E	TC Mainline – Stage 3B Sheet 4 SB
239F	TC Mainline – Stage 3B Sheet 5 SB
301A	Miscellaneous Quantities (New Traffic Signal quantities)
301B	Miscellaneous Quantities (New Traffic Signal quantities)
301C	Miscellaneous Quantities (New Traffic Signal quantities)
301D	Miscellaneous Quantities (New Traffic Signal quantities)
301E	Miscellaneous Quantities (New Traffic Signal quantities)
301F	Miscellaneous Quantities (New Traffic Signal quantities)
301G	Miscellaneous Quantities (New Traffic Signal quantities)
343A	SDD – Concrete Control Cabinet Base, Type 9, Special
344A	SDD – Concrete Base Type 10
344B	SDD – Cabinet Service Installation (Meter Breaker Pedestal)
344C	SDD – Signal Control Cabinet
344D	SDD – Pole Mountings for Traffic Signals and Lighting Units, Type 3 (Heavy Duty)
344E	SDD – Pole Mountings for Traffic Signals and Lighting Units, Type 4
345A	SDD – Non-Freeway Lighting Unit Pole Wiring
345B	SDD – Traffic Signal Standard Poly Bracket Mountings (Typical) 13 Ft. or 15 Ft.
345C	SDD – Type 10 Pole 15’ – 30’ Monotube Arm
345D	SDD – General Notes and Hardware Details for Tyupe 9, 10, 12 & 13 Poles with Monotube Arms
413A	SDD – Traffic Control, Exit and Entrance Ramp Within Lane Closure
413B	SDD – Traffic Control, Exit Ramp Closure
413C	SDD – Traffic Control, Intersection Within Single Lane Closure
491A	Structure B-70-130

Deleted Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
244	Miscellaneous Quantities (duplicate sheet of 298)
245	Miscellaneous Quantities (duplicate sheet of 299)
289	Miscellaneous Quantities (deleted Construction Staking replaced by Survey Project)

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. 01

1517-07-74

April 18, 2016

Special Provisions

1.2 Scope of Work.

Replace entire article language with the following:

The work under this contract shall consist of common excavation, roadway embankment, base aggregate, concrete pavement, HMA pavement, storm sewer, bridges B-70-129, B-70-130, B-70-131, B-70-132, retaining walls, sign structures, erosion control, signing, pavement marking, lighting, traffic signals, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

2.1. Prosecution and Progress.

Replace section titled **Traffic/Construction Overview** *with the following:*

Follow the construction operations as outlined in the staging overview sheets and other plan details. Items listed below are not limited to, but only highlight construction activities, that are subject to interim completion dates, liquidated damages, or penalties.

Stage 1A
- Mill and pave median shoulder on IH 41 northbound and southbound
- Construct American Drive and Jameson Street
- Construct Pond 6
- Construct Pond 7
- Construct structures B-70-129, B-70-131, B-70-132

Stage 1B
- Construct median sign structures S-70-247, S-70-245, S-70-243, S-70-246, S-70-244
- Continue structures B-70-129, B-70-131, B-70-132
- Continue American Drive and Jameson Street construction
- Continue Pond 6 construction
- Continue Pond 7 construction
- Construct Storm Sewer across FES Ramp Structure 160 to 161.

Stage 2A
- Construct IH 41SB station 1247SB+13.05 to 1311SB+50.00
- Construct IH 41NB station 1263NB+99.67 to 1307NB+89.42
- Construct FWS Ramp
- Construct structures B-70-130, R-70-106, R-70-107, R-70-108, R-70-109, R-70-110
- Construct S-70-202
- Continue structures B-70-129, B-70-131, B-70-132 construction
- Continue structures S-70-247, S-70-245, S-70-243, S-70-246, S-70-244 construction

Stage 2B
- Construct WNE Ramp, WSW Ramp, and WNW Ramp
- Construct and complete traffic signals at Winchester Road with WNE/WSE and WSW/ WNW ramps
- Continue IH 41SB station 1233SB+64.52 to 1311SB+50.00 construction
- Continue IH 41NB station 1263NB+99.67 to 1307NB+89.42 construction
- Continue FWS Ramp construction
- Continue structures R-70-106, R-70-107, R-70-108, R-70-109, R-70-110 construction

- Continue structures B-70-129, B-70-131, B-70-132 construction
- Continue Structures S-70-247, S-70-245, S-70-243, S-70-202, S-70-246, S-70-244 construction
-

Stage 2C
- Construct IH 41NB station 1306NB+00.00 to 1310NB+84.86

Stage 3A
- Continue structures B-70-131, B-70-132 construction

Stage 3B
- Continue structures B-70-131, B-70-132 construction
- Construct IH 41NB station STA 1270NB+00 to 1271SB+00
- Construct IH 41SB station STA 1266NB+25 to1267SB+50

7.1 Traffic

Add the following to section titled **Local Street Work Restriction***:*

Coordinate the closures of American Drive with Valley Transit.

Replace section titled **Local Street Lane Closures** *with the following*

CTH II (Winchester Street)
Long Term Closure of WB CTH II Left Turn Lane under I-41 (for median pier build), current WB CTH II Left Thru Lane will become a combination Left/Thru movement
Off-Peak Right Lane Closures along CTH II (for island construction for both ramp intersections)
WB CTH II: 9:00 AM to 2:30 PM, 6:30 PM to 7:00 AM daily
EB CTH II: 8:30 AM to 4:00 PM, 5:30 PM to 7:00 AM daily
Full Closure Allowed of CTH II (for demo, girder pick/setting)
WB CTH II: 8:00 PM to 6:00 AM daily
EB CTH II: 7:00 PM to 6:00 AM daily
Green Bay Road: 6:00 PM to 6:30 AM daily

If the WNE, WSW and WSE ramps are all concurrently closed, signals shall be covered at the ramp intersections and let WNE Ramp traffic operate under a stop control condition.

CTH II (Winchester Street) signals shall be operational at all times except during stage 2B when the following ramps are closed
WNW Ramp 45 Day Closure,
WSW Ramp 30 day Closure
WNE Ramp 45 day Closure

Do not close CTH II WB right lane during off- peak hours concurrently with the long term WB CTH II left turn lane closure.
(NER441-20150117)

Add the following to the end of the article:

Prior to the erection of traffic signal poles and monotube arms, the contractor shall arrange and conduct a meeting between the contractor, the department, and on site project leader to coordinate traffic control requirements and restrictions for the installation of poles and monotube arms over live traffic lanes. Installation of poles, monotube arms and traffic signal modifications shall occur only during off-peak periods unless approved by the engineer.

7.10. Remove Traffic Signal (I41 NB and CTH II), Item SPV.0105.450; Remove Traffic Signal (I41 SB and CTH II), Item SPV.0105.451.

A Description

This work shall consist of removing some of the existing traffic signal equipment from the intersections of I41 and CTH II as shown in the plans and in accordance with the requirements of standard spec 657 and standard spec 658, standard detail drawings, and as hereinafter provided.

B (Vacant)

C Construction

After coordination with the NE Region Electrical Unit, the existing traffic signal equipment shall be disconnected from the concrete bases and transported off site to the electrical subcontractor facilities and/or to a recycling/garbage facility.

D Measurement

The department will measure Remove Traffic Signal (location) bid item as a single lump sum unit of work acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.450	Remove Traffic Signal (I41 NB and CTH II)	LS
SPV.0105.451	Remove Traffic Signal (I41 SB and CTH II)	LS

Payment for Remove Traffic Signal is full compensation for removal and transporting to the appropriate facility.

12.13. Polyester Polymer Concrete Masonry, Item SPV.0025.700.

A Description

This special provision describes furnishing and applying a polyester polymer concrete with a high molecular weight methacrylate (HMWM) resin prime coat, to the limits shown on the plans as a structural deck patching material.

B Materials

B.1 Primer

The high molecular weight methacrylate (HMWM) resin shall be low viscosity and have low odor, and shall meet the following requirements:

Property	Requirements[A]	Test Method
Viscosity	≤ 25 cps	ASTM D 2196 – Brookfield RVT
Specific Gravity	0.90 – 1.10	ASTM D 1475
Flash Point	≥ 180°F	ASTM D 3278
Tack-free Time	≤ 400 minutes	California Test Method 551
Vapor Pressure	≤ 1 mm Hg	ASTM D 323
Gel Time	10 – 150 min	ASTM C 881, para.11.2, mod.
Tensile Strength	≥ 2,000 psi (7 days)	ASTM D 638
Adhesive Strength	≥ 250 psi (24hrs)	ACI 503R, Append. A
Compressive Strength	≥ 3,000 psi (24hrs)	ASTM D 695

[A] Values are based on specimens or samples cured or aged and tested at 77°F

B.2 Resin

The material shall be a polyester polymer system composed of a two-component, 100 percent solids, thermosetting compound with the following properties:

Property	Requirements[B]	Test Method
Gel Time	10 – 25 min	ASTM C 881
Viscosity	1 – 5 poises	ASTM D 2196 – Brookfield RVT
Absorption	≤ 1 percent (24 hr)	ASTM D 570
Tensile Elongation	30 – 80 percent (7 days)	ASTM D 638
Tensile Strength	≥ 2,000 psi (7 days)	ASTM D 638
Permeability to Chloride ion	≤ 100 coulombs (28 days)	AASHTO T 277

[B] Values are based on specimens or samples cured or aged and tested at 75°F

B.3 Aggregates

The finishing sand aggregate shall be commercial quality dry blast sand. Furnish material conforming to the following: 95% passing the No. 8 sieve and at least 95% retained on the No. 20 sieve.

For mixing with the polyester polymer, furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Aggregate Properties:

Property	Requirements	Test Method
Moisture Content	≤ 0.2%	ASTM C566
Hardness	≥ 6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face and 80% with at least 2 fractured faces of material retained on No.16	ASTM 5821

Gradation:

Sieve Size	% Passing by Weight
3/8”	100
No. 4	70
No. 8	50
No. 16	44
No. 30	30
No. 50	5-20
No. 100	1
No. 200	0

B.4 Required Properties of Polyester Polymer Concrete Masonry System

The required properties of the polyester polymer concrete masonry system are listed in the table below:

Property	Requirements[C]	Test Method
Minimum Compressive Strength	1,000 psi (8 hrs) 5,000 psi (24 hrs)	ASTM C 579 Method B, Modified [D]
Thermal Compatibility	No delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi (24 hrs)	ACI 503R, Appendix A

[C] Based on samples cured or aged and tested at 75°F

[D] Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

Polyester polymer concrete shall a have minimum cure time according to subsection C.4 of this special provision.

B.5 Approval of Polyester Polymer System

A minimum of 20 working days prior to application, submit product data sheets and specifications from the manufacturer, and a certified test report to the engineer for approval. The engineer may request samples of the polymer and/or aggregate, prior to application, for the purpose of acceptance testing by the department.

For materials not pre-qualified, in addition to the above submittals, submit product history/reference projects and a certified test report from an independent testing laboratory showing compliance with the requirements of the specification.

The product history/reference projects consist of a minimum of 5 bridge/roadway locations where the proposed polyester polymer concrete masonry system has been applied in Wisconsin or in locations with similar climate – include contact names for the facility owner, current phone number or e-mail address, and a brief project description.

Product data sheets and specifications consist of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

C Construction

C.1 General

Perform work in accordance to standard specs 502 and 509 except as modified herein.

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and install the polyester polymer system according to the manufacturer’s instructions. The manufacturer's representative familiar with the polyester polymer system installation procedures shall be present at all times during surface preparation and material placement to provide quality assurance that the work is being performed properly.

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer’s recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

C.2 Surface Preparation

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ACI 503R, Appendix A of the ACI *Manual of Concrete Practice*. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inches or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare repair areas chipped under items Deck Preparation Type 1 or 2 by shotblasting as described above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the primer. Do not allow traffic on the bridge deck repair area surfaces between shotblasting and application of the primer. All deck area requiring deck preparation shall be patched using the Polyester Polymer Concrete Masonry item before ending the nightly lane closure. Do not

perform more deck preparation than can be patched within the lane closure period available, accounting for cure time.

Just prior to masonry placement, clean all dust, debris, and concrete fines from the repair area surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely.

Protect drains, expansion joints, access hatches, or other appurtenances on or near the bridge from damage by the shot and sand blasting operations and from material adhering and entering. Tape or form all construction joints to provide a clean straight edge.

The engineer may consider alternate surface preparation methods per the polyester polymer system manufacturer's recommendations. The engineer will approve the final surface cleanliness prior to the contractor placing the polyester polymer masonry.

Lightly sandblasting (breeze blast) the prepared repair surface if any of the following occurs:
If after shot blasting, the repair surface is exposed to rain or dew

C.3 Application of the Primer
Do not apply the primer if any of the restrictions listed in C.4 are present. Apply primer to the repair area surface within 5 minutes of mixing at approximately 1 gallon per 100 square feet. Use a squeegee, roller, broom, low pressure sprayer, etc. to distribute the material uniformly. Remove excess buildup. Wait a minimum of 15 minutes before placement of polyester polymer.

C.4 Application of the Polyester Polymer
Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the polyester polymer system if any of the following exists:

- Ambient air temperature is below 50°F
- Concrete surface temperature is below 50°F or above 100 °F
- Moisture content in the existing concrete surface exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance to ASTM D4263
- Rain is forecasted within 12 hours of completion
- Materials component temperatures below 50°F or above 99 °F
- Concrete age is less than 28 days unless approved by the engineer
- If gel time is 10 minutes or less at predicted high air temperature for the day

The polyester polymer concrete shall be placed within 120 minutes after the primer has been applied.

The polyester polymer concrete shall contain approximately 12 percent polyester resin by weight of dry aggregate; the exact percentage will be determined by the engineer during placement to enable proper finishing and texturing of the material surface.

The amount of initiator used in polyester polymer concrete shall be sufficient to produce an initial set time between 30 – 120 minutes during placement.

Apply and finish areas patched under the Polyester Polymer Concrete Masonry items to be flush with the adjacent existing deck surface.

Termination edges of material placement may require application and finishing by hand trowel. Finishing and texturing equipment shall be fitted with vibrators and tines or other means of consolidating and texturing the polyester concrete to the required compaction.

The finish sand shall be applied by either mechanical or hand dispersion immediately after strike-off, before gelling occurs. Apply at approximately 15 to 20 lbs per 100 square feet or until saturation as determined by the engineer.

Allow material to fully cure before allowing traffic on the bridge. Cure times will vary depending on product and ambient temperature; refer to manufacturer's recommendation. At a minimum wait 4 hours before allowing traffic on the treated area.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer as necessary. If required by the engineer, a minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

D Measurement
The department will measure Polyester Polymer Concrete Masonry by the cubic foot, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0025.700	Polyester Polymer Concrete Masonry	CF

Payment is full compensation for preparing the surface; for tensile bond testing; for providing and placing the polyester polymer concrete masonry; for cleanup; and for sweeping/vacuuming and disposing of excess materials.

12.14. Rapid Cure Polymer Overlay, Item SPV.0180.700.

A Description
This special provision describes furnishing and applying two layers of a multi-component polymer overlay system to the bridge decks shown on the plans. The minimum total thickness of the overlay system shall be ¼". Daytime lane closures will not be permitted, thus all work described in this special provision must be completed at night.

B Materials
B.1 General
Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders according to the specifications listed in this document.

B.2 Rapid Cure Polymer Resin
The polymer resin base and hardener shall be composed of two-component, 100% solids, 100% reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time [A]	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity [A]	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness [B]	60-80	ASTM D2240
Absorption [B]	1% maximum at 24 hr	ASTM D570

Tensile Elongation [B]	30% - 70% @ 7 days	ASTM D638
Tensile Strength [B]	>2000 psi @ 7 days	ASTM D638
Chloride Permeability [B]	<100 coulombs @ 28 days	AASHTO T277

[A] Uncured, mixed polymer binder
[B] Cured, mixed polymer binder

B.3 Aggregates
Furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Aggregate Properties:

Property	Requirement	Test Method
Moisture Content*	½ of the measured aggregate absorption, %	ASTM C566
Hardness	≥6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face & 80% with at least 2 fractured faces of material retained on No.16	ASTM 5821
Absorption	≤1%	ASTM C128

* Sampled and tested at the time of placement.

Gradation:

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

B.4 Minimum Required Properties of Overlay System
The minimum required properties of the overlay system are listed in the table below:

Property	Requirement	Test Method
Minimum Compressive Strength	1,000 psi @ 3 hrs 5,000 psi @ 24 hrs	ASTM C 579 Method B, Modified [A]
Thermal Compatibility	No Delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi @ 24 hrs	ASTM C 1583

[A] Prepare sample as per manufacturer's recommendation. Prepare specimen according to Method "B", 2" x 2" cube, using 2.75 parts of sand to one part of mixed polymer resin binder by volume. Sand shall meet ASTM C778, 20-30 sand.

B.5 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days prior to application, submit product data sheets and specifications from the manufacturer, and a certified test report to the engineer for approval. The engineer may request samples of the polymer and/or aggregate, prior to application, for the purpose of acceptance testing by the department.

In addition to the above submittals, submit product history/reference projects and a certified test report from an independent testing laboratory showing curing times required to achieve the requirements of section B.4 for the temperature ranges for which product approval is desired. Ambientand substrate temperatures of the test specimen must be documented. Epoxy materials shall be stored at a temperature that will allow for workability prior to application to the test specimen. Field application will not be allowed below the documented temperatures.

The product history/reference projects consist of a minimum of 5 bridge/roadway locations where the proposed overlay system has been applied in Wisconsin or in locations with a similar climate - include contact names for the facility owner, current phone number or e-mail address, and a brief description of the project.

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

C Construction

C.1 General

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer’s instructions. The manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly.

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer’s recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

C.2 Deck Preparation

C.2.1. Deck Repair

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to repair the concrete deck will be paid for under other items. Ensure that products used for deck patching are compatible with the polymer overlay system.

NOTE: Some polymer systems require concrete patch material to be in place a minimum of 28-days before overlaying - contact polymer manufacturer before completing deck patching/repair.

C.2.2 Surface Preparation

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface a profile meeting CSP 5, or greater, according to the International Concrete Repair Institute Technical Guideline No. 03732. For verification of adequate surface preparation, test the tensile bond strength according to ASTM C 1583. The prepared surface will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inches or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the overlay system.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 by sand blasting, using wire wheels, or other approved method.

Just prior to overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of moisture and oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If any prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (breeze blast) the exposed surfaces.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Create a transitional area approaching transverse expansion joints and ends of the deck using the shotblasting machine or other approved method. Remove 5/16" to 3/8" of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

C.3 Application of the Overlay

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

a. Ambient air temperature is below the minimum submitted as acceptable as part of the requirements of section B.5;
b. Deck temperature is below the minimum submitted as acceptable as part of the requirements of section B.5;
c. Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance with ASTM D4263;
d. Rain is forecasted during the minimum curing times submitted as acceptable as part of the requirements of section B.5;
e. Materials component temperatures below 50°F or above 99°F;
f. Concrete age is less than 28 days unless approved by the engineer.
g. The deck or ambient temperature is forecast to exceed 100°F.
h. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a method that can provide a uniform, consistent coverage of aggregate. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but will require additional applications before opening to traffic.

The binder must be blended and mixed to the ratio under the manufacturer's recommendations (+/- 2 percent by volume). The binder must be continuously applied once blended. The application

equipment must be capable of applying the minimum binder spread rate. For each start and stop operation of the continuous proportioning equipment the contractor must perform ratio checks to verify that any variance of the ratios of the 2 components is no greater than ± 2%. If the variance exceeds this limit, purge the equipment of any remaining materials prior to resuming operations.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times provided under B.5. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Prior to applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer. If required by the engineer, a minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

C.4 Application Rates
Apply the polymer overlay in two separate courses in accordance with the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate [A] (GAL/100 SF)	Aggregate [B] (LBS/SY)
1	2.5	10+
2	5.0	14+

[A] The minimum total applications rate is 7.5 GAL/100 SF.
[B] Application of aggregate shall be of sufficient quantity to completely cover the polymer.

For Automated Continuous application vehicle with continuous pumping and proportioning devices that blend the binder within a controlled system; the contractor must provide to the Field Inspector a daily log noting the following for each piece of equipment:

1. Each start and stop
2. The number of gallons placed
3. The area covered

For manual application: The contactor is to establish a grid system along the length of the project and provide to the Field Inspector a daily log of the number of gallons placed in each grid.

C.5 Minimum Curing Periods
As a minimum, cure the coating based on the cure times provided under section B.5

C.6 Repair of Polymer Overlay
Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete prior to placement of polymer overlay; and place the polymer overlay according to section C.3.

D Measurement
The department will measure Polymer Overlay in area by the square yard acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.700	Rapid Cure Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials. Concrete Deck Repair will be paid for separately.

12.15. Sawing Pavement Deck Preparation Areas, Item SPV.0090.700.

A Description

This special provision describes sawing the boundaries of the existing concrete on the bridge deck that has been sounded and marked for deck preparation. These boundaries will be at least 2-inches and not greater than 6-inches outside of the unsound or disintegrated areas of concrete, as directed or marked by the engineer in the field.

B (Vacant)

C Construction

Make the saw cuts, a minimum of 1-inch in depth, at the locations marked.

Use a diamond blade for sawing that will allow the concrete to be sawed dry. Upon completion of the daily sawing, remove the dust deposits from the deck.

D Measurement

The department will measure Sawing Pavement Deck Preparation Areas by the linear foot acceptably completed.

The department will not measure for payment over-cuts, cuts made beyond the limits marked in the field.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.700	Sawing Pavement Deck Preparation Areas	LF

Payment is full compensation for making all saw cuts and debris removal.

16.5 Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2, Item SPV.0060.007; Words, Item SPV.0060.008.

A Description

This special provision describes work in accordance with standard spec 646, and as hereinafter provided.

A.1

The markings must be a resilient white, yellow, or other color thermoplastic product, wherein every other shaped portion contains glass beads or abrasives with a minimum hardness of 7 (Mohs scale). The marking must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, etc. Lines, legends and symbols are capable of being affixed to bituminous and/ or Portland cement concrete pavements by the use of the normal heat of a propane torch.

A.2

The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

A.3
The marking shall not have minimum ambient and road temperature requirements for application, storage, or handling.

B Materials
Must be composed of an ester modified resin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates , pigments, binders abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manuel on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-70 (98), with the exception of the relevant differences due to the material being supplied in a performed state.

B.1 Graded Glass Beads
B.1.1
The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be clear and transparent. Not more than twenty Percent (20%) consists of irregular fused spheroids, or silica. The index of refraction shall not be less than 1.50.
B.1.2
The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2lb. (+/- 20%) per 11 sq ft. The surface beads and abrasives must be applied so that every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7(Mohs scale).These factory applied coated surface beads shall have the following specifications:

1) Minimum 80% rounds
2) Minimum refractive index of 1.5
3) Minimum SiO_2 content of 70%;
4) Maximum iron content of 0.1%;

Size Gradation		Retained, %	Passing, %
US Mesh	Um		
12	1700	0-2%	98 – 100%
14	1400	0 – 6%	94 – 100%
16	1180	1 – 21%	79 – 99%
18	1000	28 – 62%	38 – 72%
20	850	62 – 71%	29 – 38%
30	600	67 – 77%	23 – 33%
50	300	86 – 95%	5 – 14%
80	200	97 – 100%	0 – 3%

B.2 Pigments
B.2.1 White
The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

B.2.2 Red, Blue, and Yellow
The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

B.2.3 Other Colors
The pigments must be heavy-metal free.

B.3 Heating Indicators

The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper bead embedment has been achieved and a post–application visual cue that the installation procedures have been followed.

B.4 Skid Resistance
The surface of the preformed retroreflective materials, wherein every other shaped portion contains glass beads, or abrasives with a hardness of 7 (Mohs scale), shall upon application provide a minimum skid resistance value of 60 BPN when tested according to ASTM: E 303.

B.5 Thickness
The material must be supplied at a minimum thickness of 90 mils (2.29 mm).

B.6 Retroreflectivity
The preformed retroreflective marking materials upon application shall exhibit adequate and uniform nighttime retroreflectivity. The marking materials shall have the following retroreflectivity as measured using a Delta LTL 2000 or LTL-X Retroreflectometer.

White preformed reflective marking materials-minimum of 275 med-m^{-2}-lx^{-1}

Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected

B.7 Environmental Resistance
The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

B.8 Abrasives
The material must have a factory applied surface adhesives, wherein every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7(Mohs scale).

C Application
C.1
Location of Pavement Marking Grooved Preformed Thermoplastic Arrows Type X and Pavement Marking Grooved Preformed Thermoplastic Words shall be approved by project engineer prior to installations.

Apply preformed marking as the manufacturer specifies, the pavement shall be grooved to receive the preformed material and the leading edge of all installations shall be heated and beveled; provide the engineer with the manufacturer's specifications. Cut groove to a depth of 100 mils +/- 10 mils. The groove may be 0 to 4 inches from the perimeter of the special marking. The engineer will evaluate the performance of the preformed marking as specified in standard spec 646.3.3.4.

C.2 Asphalt
The Materials shall be applied using the propane torch method recommended by the manufacturer. The material must be able to be applied without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

C.3 Portland Concrete
The same application procedure shall be used as described under section C2. However a compatible sealer may be applied before application to assure proper adhesion.

D Measurement

The department will measure the Pavement Marking Grooved Preformed Thermoplastic Arrows, (Type) and Pavement Marking Grooved Preformed Thermoplastic Words by the each acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.007	Pavement Marking Grooved Preformed Thermoplastic Arrows, Type 2	Each
SPV.0060.008	Pavement Marking Grooved Preformed Thermoplastic Words	Each

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the pavement marking; and for removing temporary pavement marking, if necessary.
(NER441-20141017)

17.5 Work by Others – Lighting/Signals.

On IH 41 and CTH II ramps, the Wisconsin Department of Transportation Northeast Region Electrical Unit will perform the following work:

- Furnish monotube poles, arms and steel luminaire arms
- Provide and install new traffic signal cabinets
- Terminate all cables/wire in the traffic signal cabinets
- Salvage existing traffic signal cabinet

17.6. Junction Boxes Stainless Steel 8x8x4-Inch, Item SPV.0060.353.

A Description

This special provision describes furnishing and installing a new Nema 4x rated Stainless Steel junction boxes in the size, quantity, and locations shown on the plans.

B Materials

B.1 General

Furnish all new equipment that has high quality workmanship. All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), and Underwriter's Laboratory Inc. (UL). All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply.

B.2 Junction Boxes

Furnish all necessary Junction Boxes where needed and as shown on the plans. Install Junction Boxes with covers, gaskets, and hardware. Furnish stainless steel hardware for the covers.

Furnish box covers that have a continuous formed, seamless, urethane, oil-resistant gasket. Place the gasket directly onto the junction box cover.

Provide Type 316 stainless steel junction and pull boxes, not less than 14 gauge with all seams continuously welded with stainless steel weld wire and ground smooth. Provide exterior surfaces having a smooth polished finish. Provide junction box in conformance with UL 50 and NEMA Type 4X. Furnish box suitable for surface mounting when specified for attachment to a structure, complete with external stainless steel mounting lugs or brackets welded to the box. Furnish an overlapping stainless steel cover that is secured to the box with a continuous stainless steel hinge and a minimum of four captive stainless steel clamps utilizing captive stainless steel hex-head bolts or deep slotted stainless steel screws.

B.3 Hardware and Accessories
Provide all necessary hardware, brackets, straps, bolts, elbows, conduit bodies, fittings etc. necessary to install the junction boxes in an acceptable and professional manner. Provide all stainless steel hardware and accessories.

Furnish grounding lugs and mechanical connectors UL or NRTL listed and approved for copper wire. Use stainless steel for mechanical connections to the junction box. Provide engineer-approved protection that totally and permanently seals connections with a silicone or rubberized caulk.

B.4 Acceptable Manufacturers
Acceptable manufacturers are Appleton Electric, Austin Electrical Enclosures, Crouse Hinds (Eaton), Hoffman, Hubbell Wiegmann, Hammond Manufacturing, or approved equal.

C Construction
C.1 General
Comply with all local codes, all laws applying to electrical installations in effect and with the regulations of the latest edition of the National Electrical Code (NEC), where such regulations do not conflict with the laws in effect and with the requirements of the utility company. Protect electrical equipment from damage during construction prior to final acceptance.

Mount the junction boxes in such a manner that they are accessible for maintenance. Contact and coordinate both the work required and the timing of the installation with other construction activities. Furnish and install all materials and work, even if not specifically shown, as part of the work to construct a fully functional system as described herein and as shown on the plans.

C.2 Installation
Do not fasten supports to structural steel or concrete deck girders. Do not drill any holes in any structural steel or concrete members without prior written approval of engineer. All mounting bolts, nuts, washers, screws and other hardware used for fastening junction boxes, outlet boxes, conduit clamps, and similar devices shall be type 304 stainless steel. Use hexagonal bolt heads and nuts with spring lock washers under all nuts. Use minimum 3/8-inch diameter bolts.

Exposed junction boxes on structures shall be installed on 1/2 in. long stainless steel or brass spacers with the hinge on the side of the box and the cover lying in the vertical plane when closed. The exact orientation shall be as shown on the plans or as directed by the Engineer. Care shall be taken to assure proper orientation of mounting lugs.

Attach junction boxes to structure using proper fasteners. Use toggle bolts or hollow wall fasteners in hollow masonry, plaster, or gypsum board partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion anchor on concrete surfaces; sheet metal screws in sheet metal studs; and wood screws in wood construction. Attachment to steel or concrete shall be by stainless steel straps or hangers held at not less than two points by galvanized bolts or lag screws. Concrete inserts shall be fabricated from stainless steel. Install surface-mounted cabinets and panelboards with a minimum of four anchors. Do not use powder-actuated anchors. Do not drill or weld structural steel members.

D Measurement
The department will measure Junction Boxes Stainless Steel 8x8x4-Inch per each unit acceptably completed. This measurement includes all items described here and shown on the plans including all hardware and accessories.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT

SPV.0060.353	Junction Boxes Stainless Steel 8x8x4-Inch	EACH

Payment for the Junction Boxes bid items is full compensation for providing Nema 4x rated stainless steel junction boxes with all materials including grounding lugs, stainless steel mounting hardware, conduit connection adapters and couplings, wiring if required, supports, and grout when necessary. Include the installation of new stainless steel junction boxes with all supports, hardware, connections to existing and proposed conduits, and mounting accessories.

Schedule of Items
Attached, dated April 18, 2016, are the revised Schedule of Items Pages 1-33.

Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 46, 59, 60, 73, 85, 86, 100, 118, 125, 132,188, 191, 200, 201 207, 208, 223, 270, 271, 273, 278, 280, 281, 282, 285, 286, 287, 288, 292, 293, 300, 495, 623, 624, and 757 - 761.
Added: 45A, 140A, 187A - 187E, 208A, 239A - 239F, 301A - 301G, 343A, 344A-344E, 345A – 345D, 413A – 413C, and 491A.

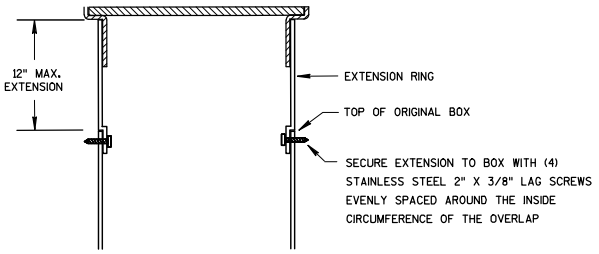
END OF ADDENDUM

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

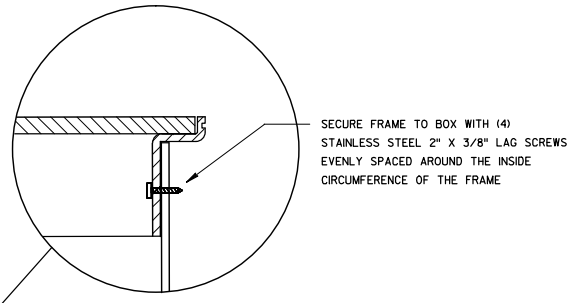
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

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

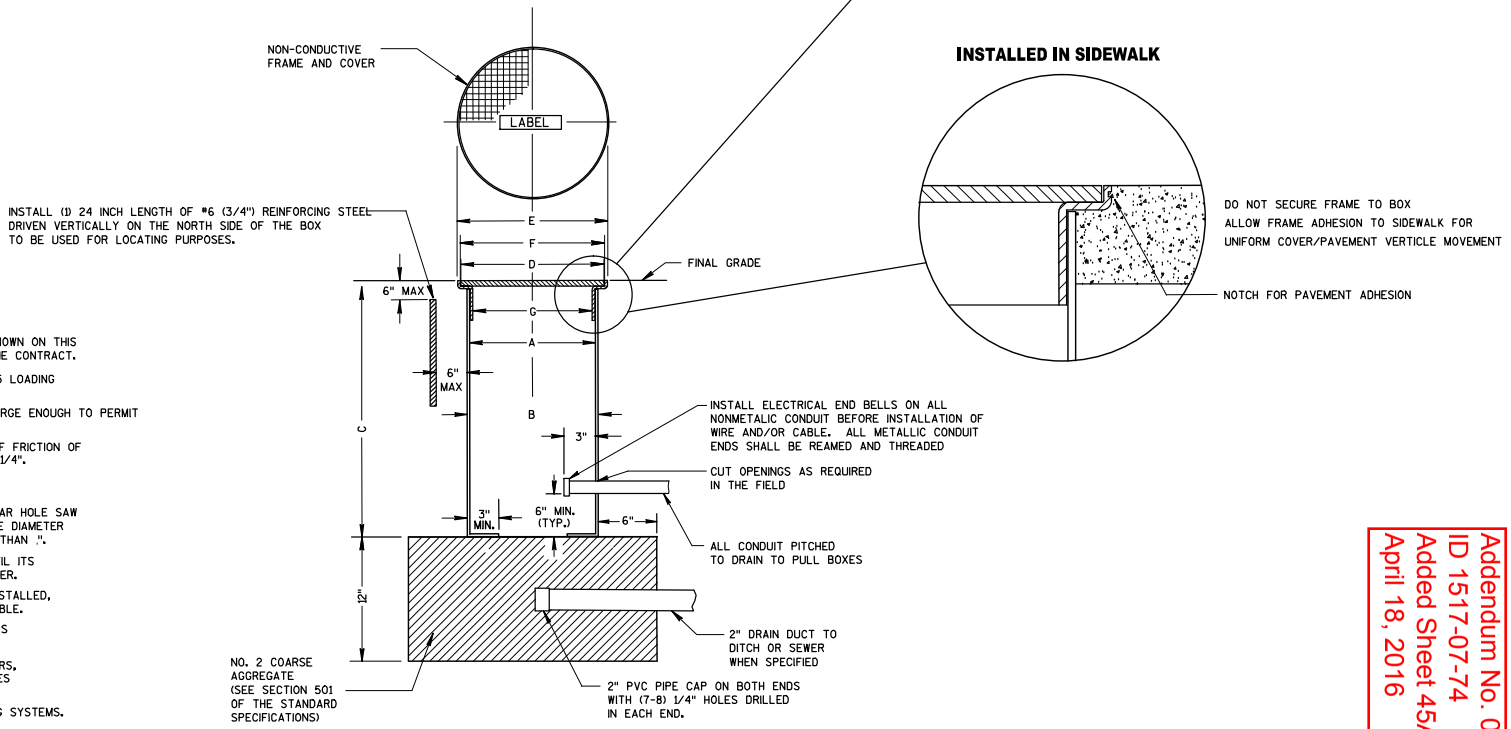


BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



NON-CONDUCTIVE PULL BOX

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 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

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 ".

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.

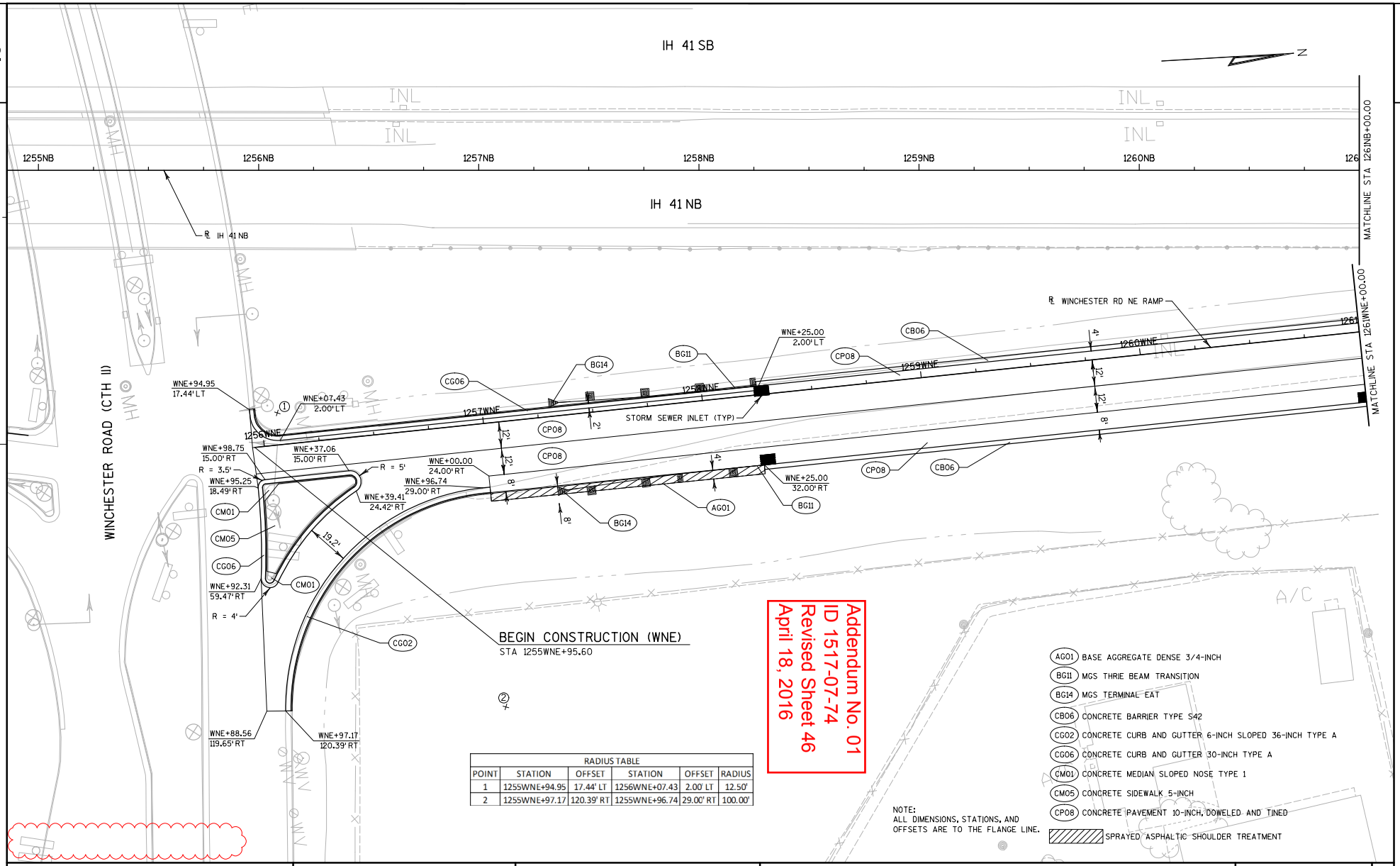
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

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 OR LIGHTING SYSTEMS. "WISDOT COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS,

Addendum No. 01
ID 1517-07-74
Added Sheet 45A
April 18, 2016

PROJECT NO: 1517-07-74	HWY: 141	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL- PULL BOX, NON-CONDUCTIVE	SHEET 45A	E



RADIUS TABLE					
POINT	STATION	OFFSET	STATION	OFFSET	RADIUS
1	1255WNE+94.95	17.44' LT	1256WNE+07.43	2.00' LT	12.50'
2	1255WNE+97.17	120.39' RT	1255WNE+96.74	29.00' RT	100.00'

Addendum No. 01
ID 1517-07-74
Revised Sheet 46
April 18, 2016

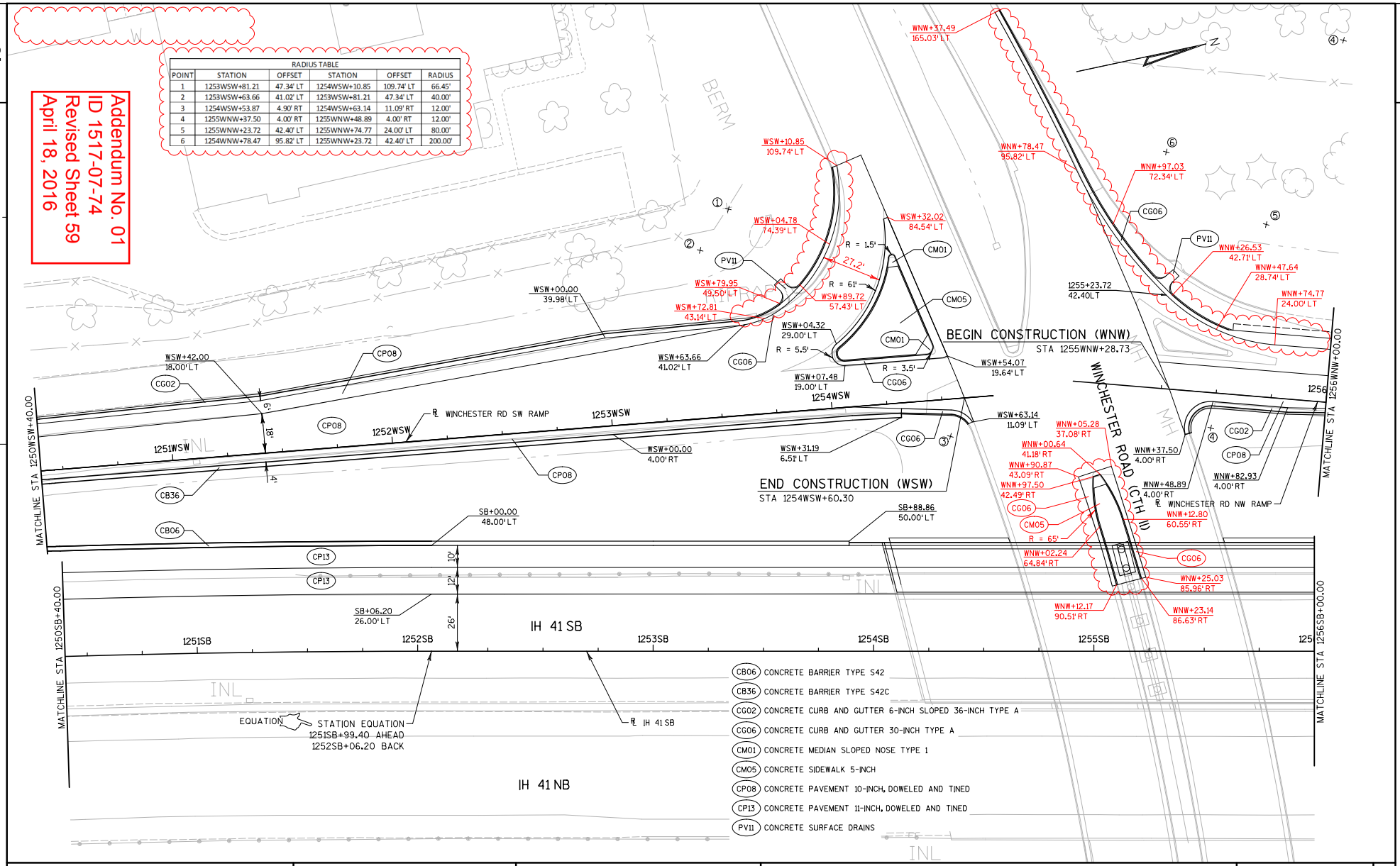
NOTE:
ALL DIMENSIONS, STATIONS, AND OFFSETS ARE TO THE FLANGE LINE.

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- BG11 MGS THRIE BEAM TRANSITION
- BG14 MGS TERMINAL EAT
- CB06 CONCRETE BARRIER TYPE S42
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG06 CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CM05 CONCRETE SIDEWALK 5-INCH
- CP08 CONCRETE PAVEMENT 10-INCH, DOWELED AND TIED
- SPRAYED ASPHALTIC SHOULDER TREATMENT

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PLAN DETAILS - IH 41 NORTHBOUND	SHEET 46	E

Addendum No. 01
ID 1517-07-74
Revised Sheet 59
April 18, 2016

RADIUS TABLE					
POINT	STATION	OFFSET	STATION	OFFSET	RADIUS
1	1253WSW+81.21	47.34' LT	1254WSW+10.85	109.74' LT	66.45'
2	1253WSW+63.66	41.02' LT	1253WSW+81.21	47.34' LT	40.00'
3	1254WSW+53.87	4.90' RT	1254WSW+63.14	11.09' RT	12.00'
4	1255WNW+37.50	4.00' RT	1255WNW+48.89	4.00' RT	12.00'
5	1255WNW+23.72	42.40' LT	1255WNW+74.77	24.00' LT	80.00'
6	1254WNW+78.47	95.82' LT	1255WNW+23.72	42.40' LT	200.00'



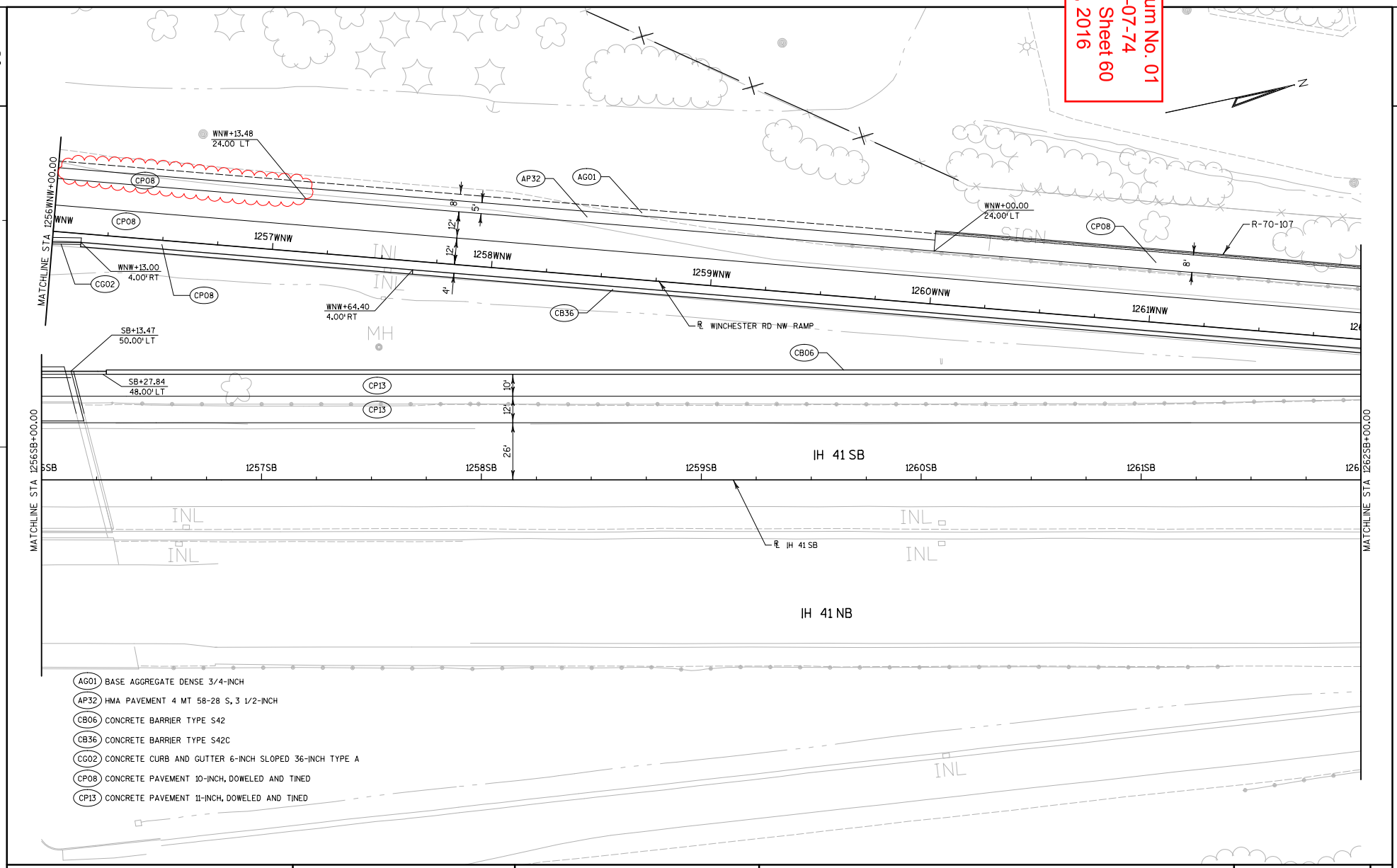
CB06	CONCRETE BARRIER TYPE S42
CB36	CONCRETE BARRIER TYPE S42C
CG02	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG06	CONCRETE CURB AND GUTTER 30-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM05	CONCRETE SIDEWALK 5-INCH
CP08	CONCRETE PAVEMENT 10-INCH, DOWELED AND TINED
CP13	CONCRETE PAVEMENT 11-INCH, DOWELED AND TINED
PV11	CONCRETE SURFACE DRAINS

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PLAN DETAILS - IH 41 SOUTHBOUND	SHEET 59	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021213_pd.dgn PLOT DATE : 4/7/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

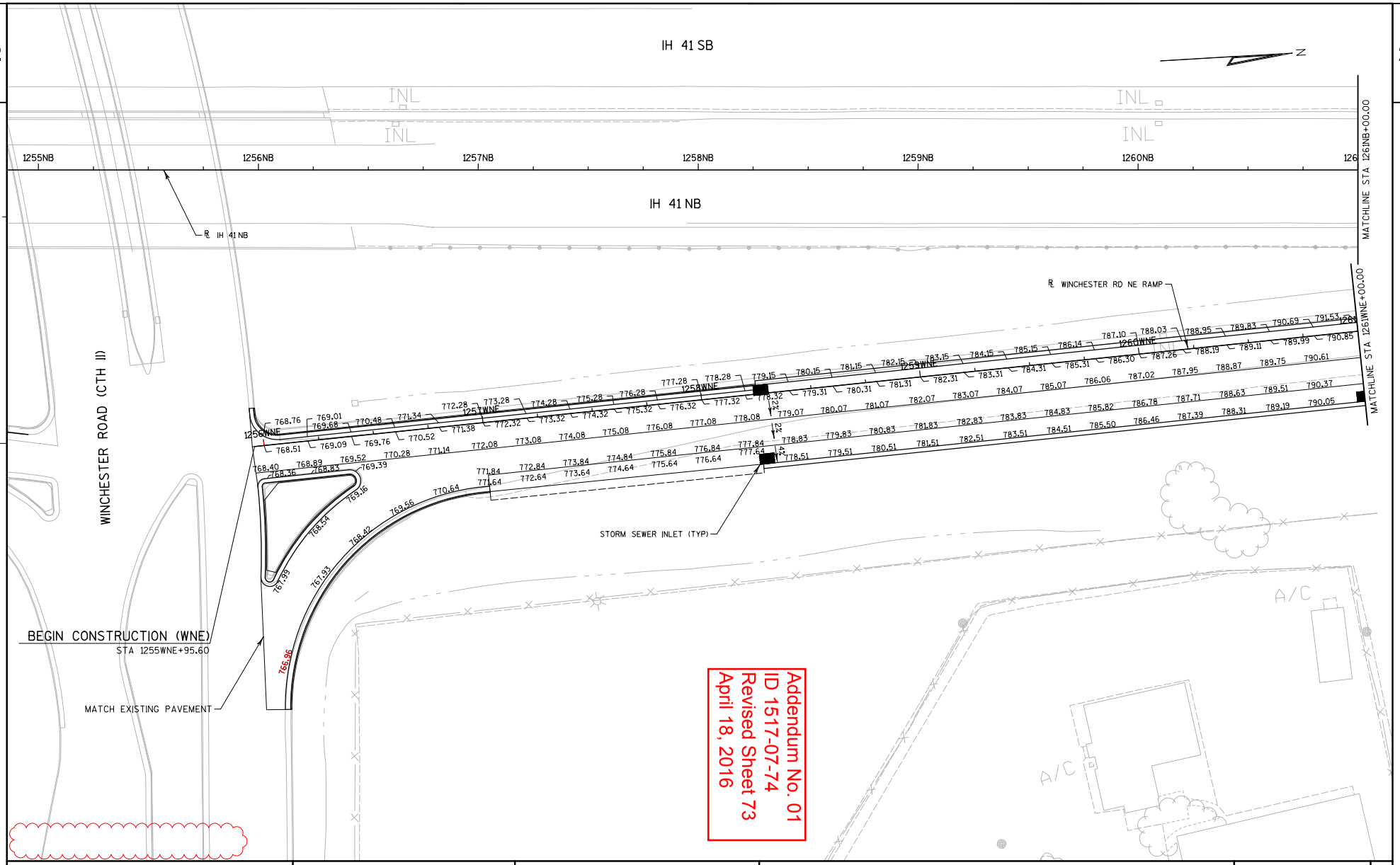
Addendum No. 01
ID 1517-07-74
Revised Sheet 60
April 18, 2016



AG01 BASE AGGREGATE DENSE 3/4-INCH
AP32 HMA PAVEMENT 4 MT 58-28 S, 3 1/2-INCH
CB06 CONCRETE BARRIER TYPE S42
CB36 CONCRETE BARRIER TYPE S42C
CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CP08 CONCRETE PAVEMENT 10-INCH, DOWELED AND TINED
CP13 CONCRETE PAVEMENT 11-INCH, DOWELED AND TINED

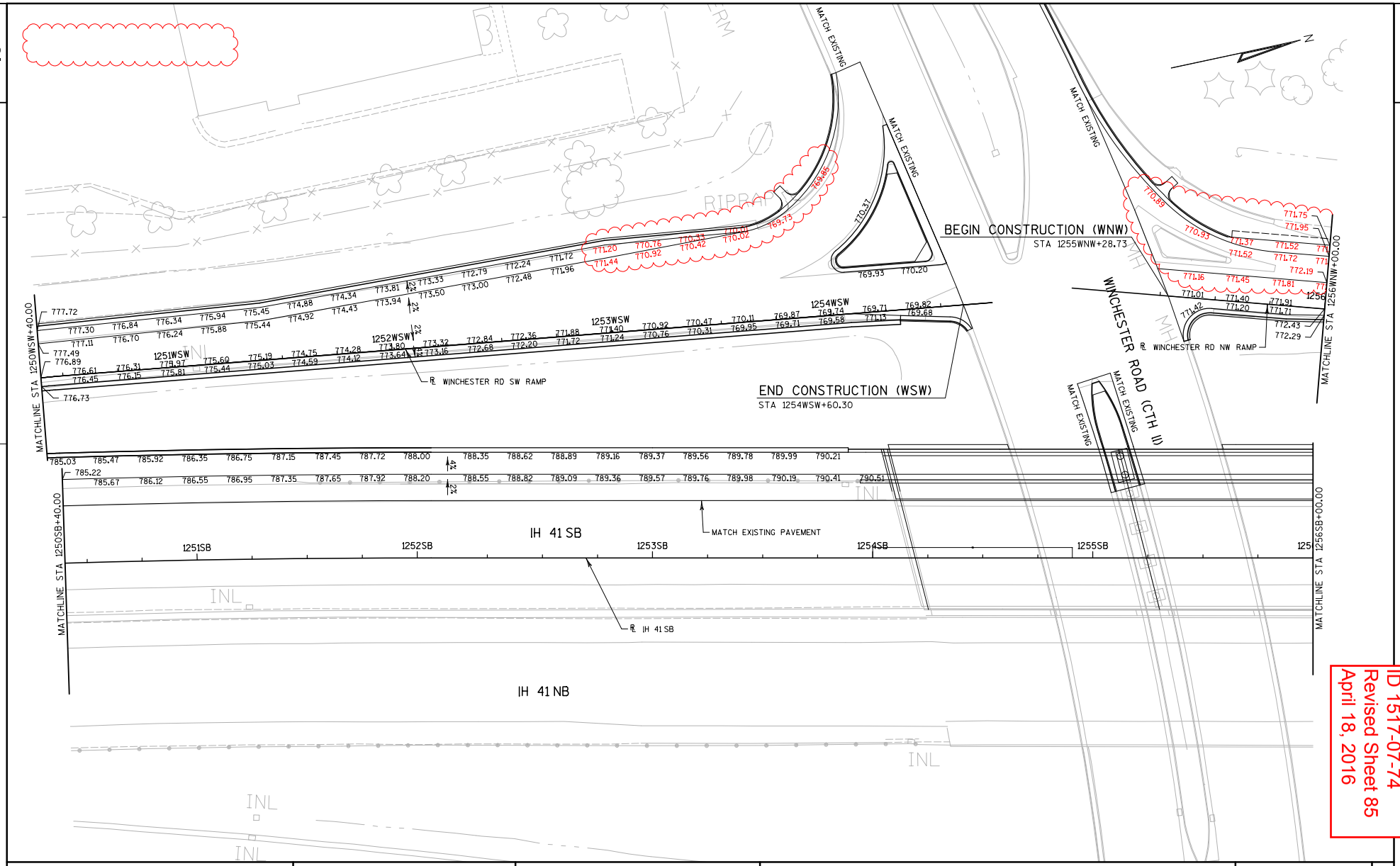
PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PLAN DETAILS - IH 41 SOUTHBOUND	SHEET 60	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021214_pd.dgn PLOT DATE : 4/7/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 40.0000 sf / in.



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PAVING GRADES - IH 41 NORTHBOUND	SHEET 73	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021281_pg.dgn PLOT DATE : 4/7/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 40.0000 sf / in.

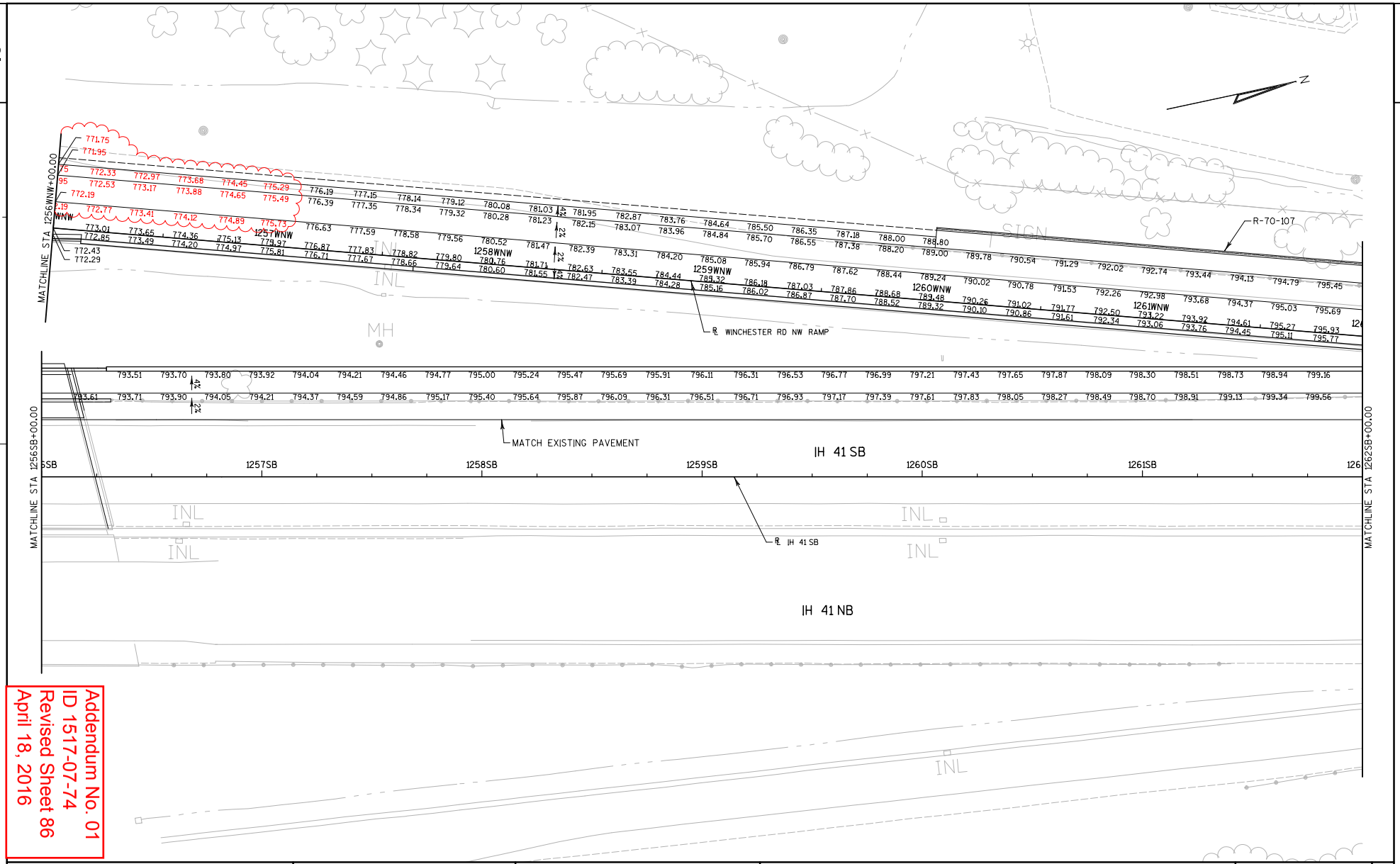


Addendum No. 01
ID 1517-07-74
Revised Sheet 85
April 18, 2016

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PAVING GRADES - IH 41 SOUTHBOUND	SHEET 85	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021293_pg.dgn PLOT DATE : 4/7/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

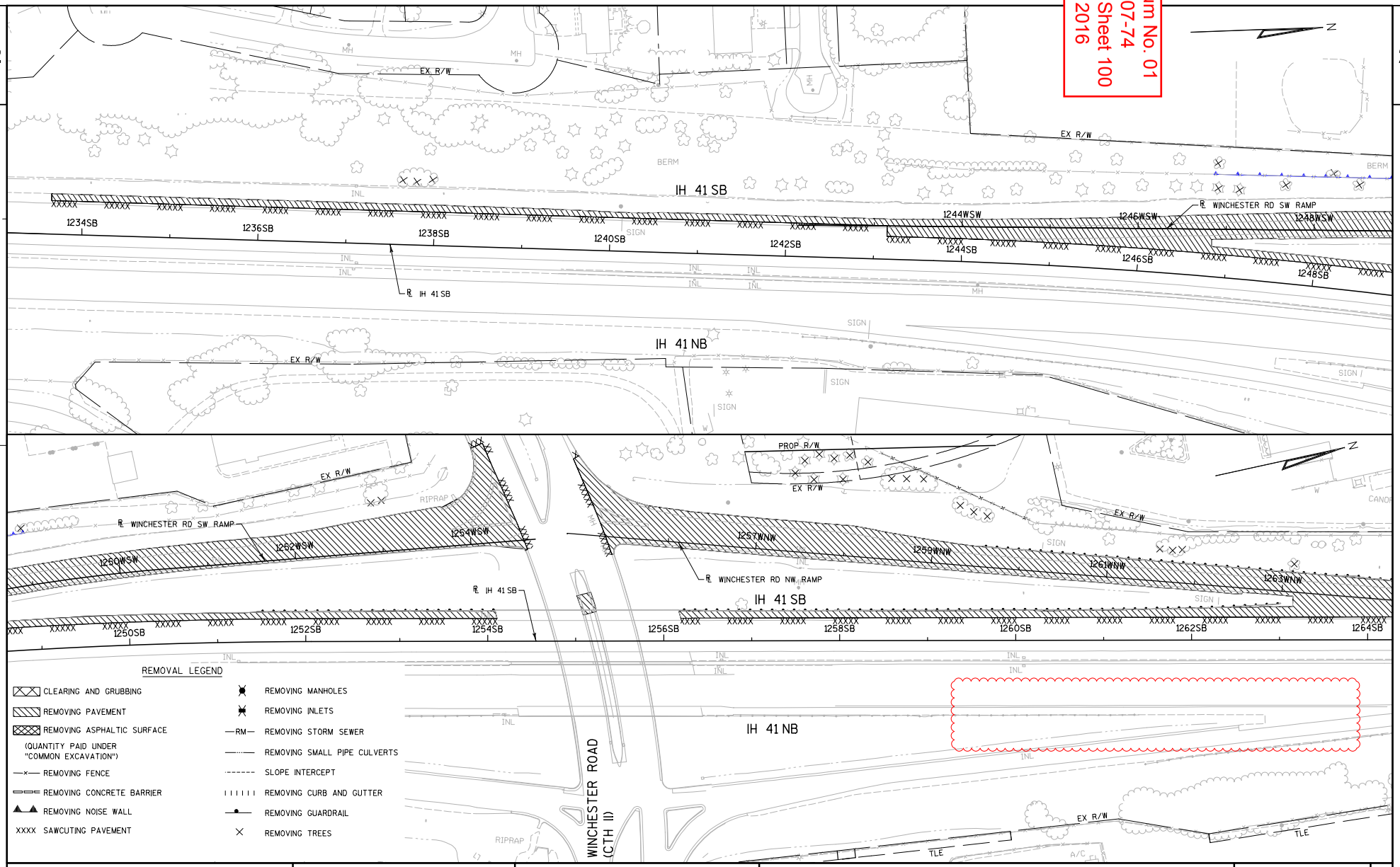


Addendum No. 01
ID 1517-07-74
Revised Sheet 86
April 18, 2016

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PAVING GRADES - IH 41 SOUTHBOUND	SHEET 86	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021294_pg.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 40.0000 sf / in.

Addendum No. 01
ID 1517-07-74
Revised Sheet 100
April 18, 2016



REMOVAL LEGEND

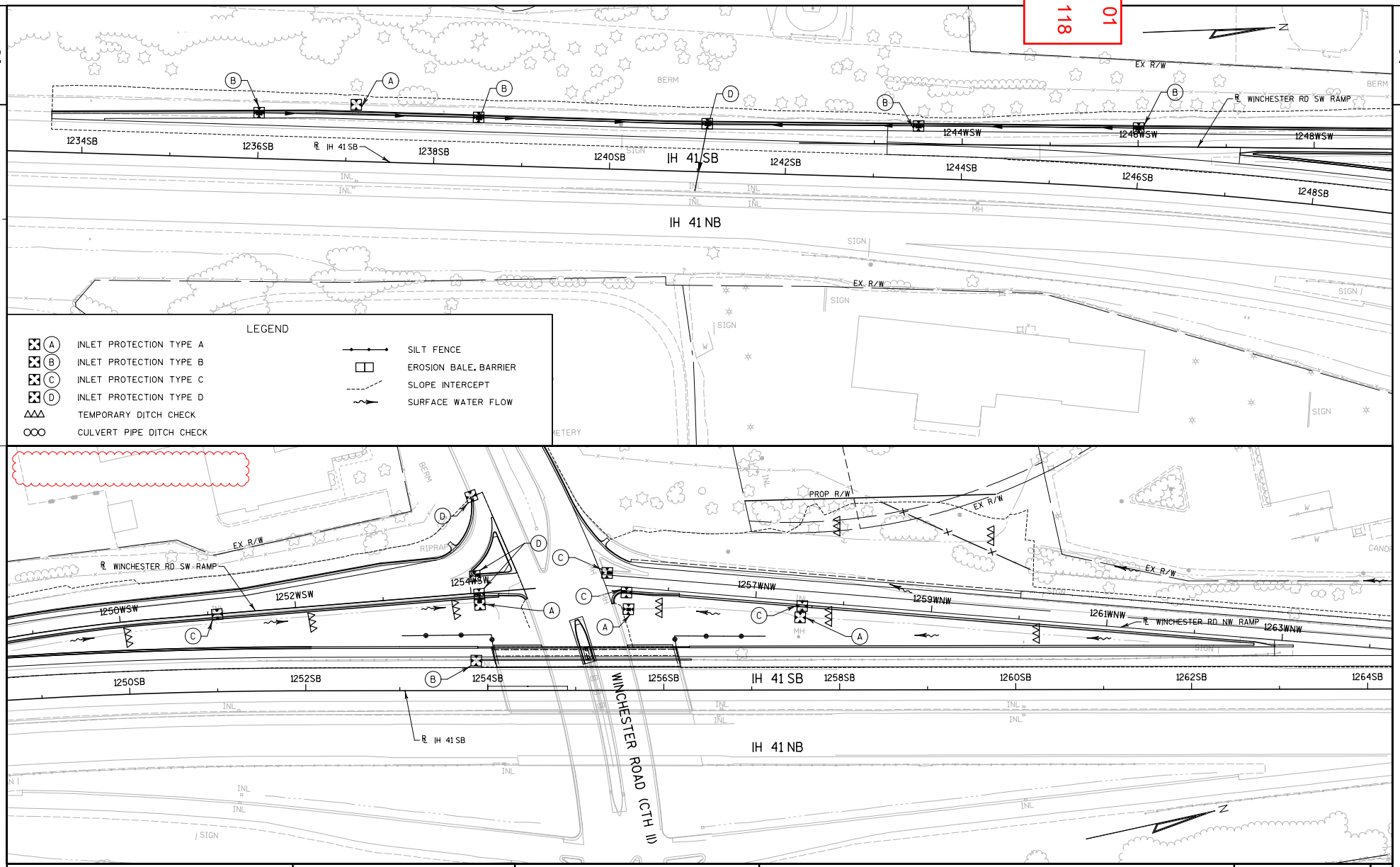
- CLEARING AND GRUBBING
- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE
- (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- REMOVING NOISE WALL
- XXXX SAWCUTING PAVEMENT
- REMOVING MANHOLES
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERTS
- SLOPE INTERCEPT
- REMOVING CURB AND GUTTER
- REMOVING GUARDRAIL
- REMOVING TREES

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	REMOVAL PLAN SHEET 1 - IH 41 SOUTHBOUND	SHEET 100	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\021354_rm.dgn PLOT DATE : 4/7/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

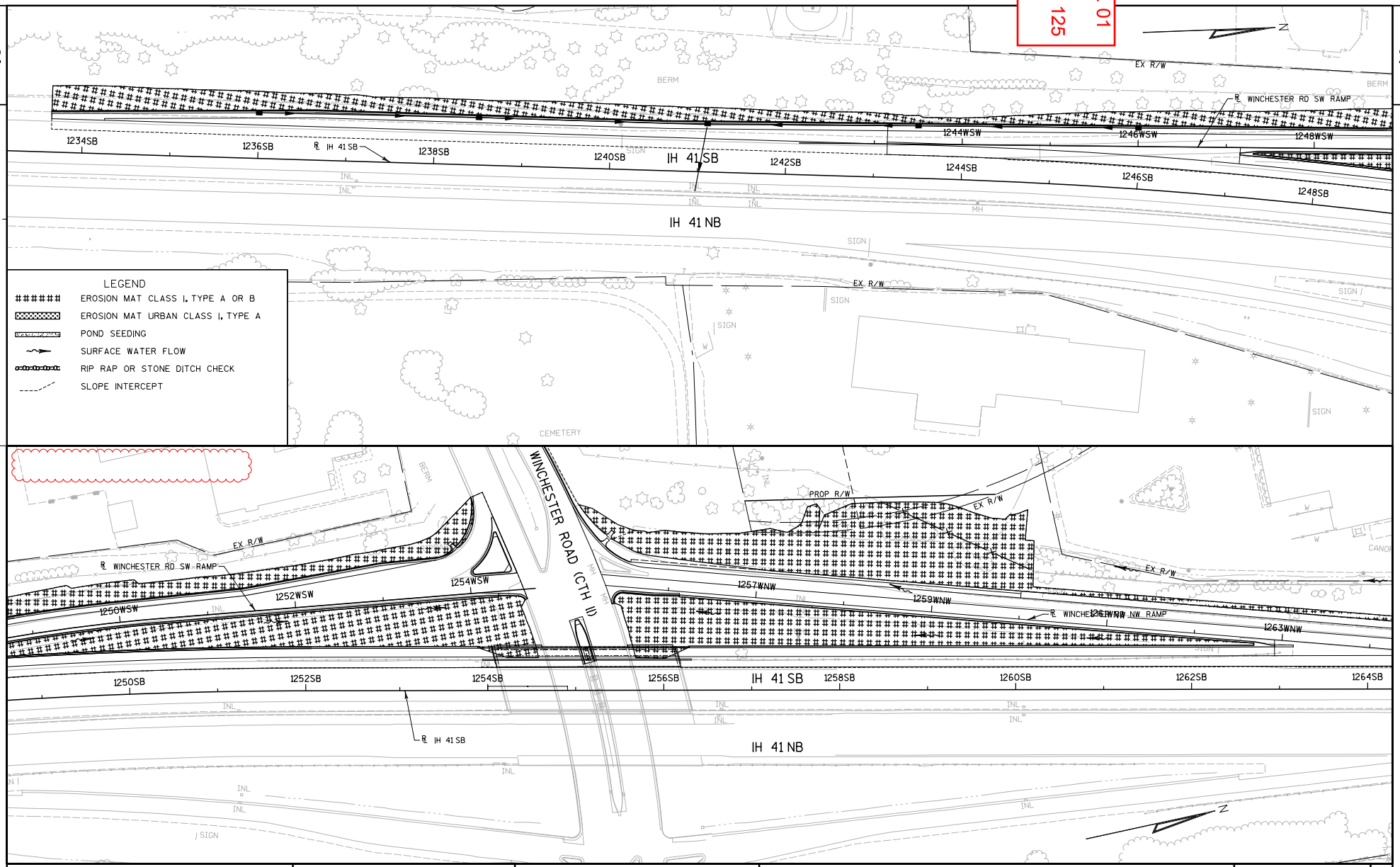
Addendum No. 01
ID 1517-07-74
Revised Sheet 118
April 18, 2016



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TEMPORARY EROSION CONTROL SHEET 1 - IH 41 SB	SHEET 118	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\022004_ec_temp.dgn PLOT DATE : 4/8/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 100.0000 sf / in.

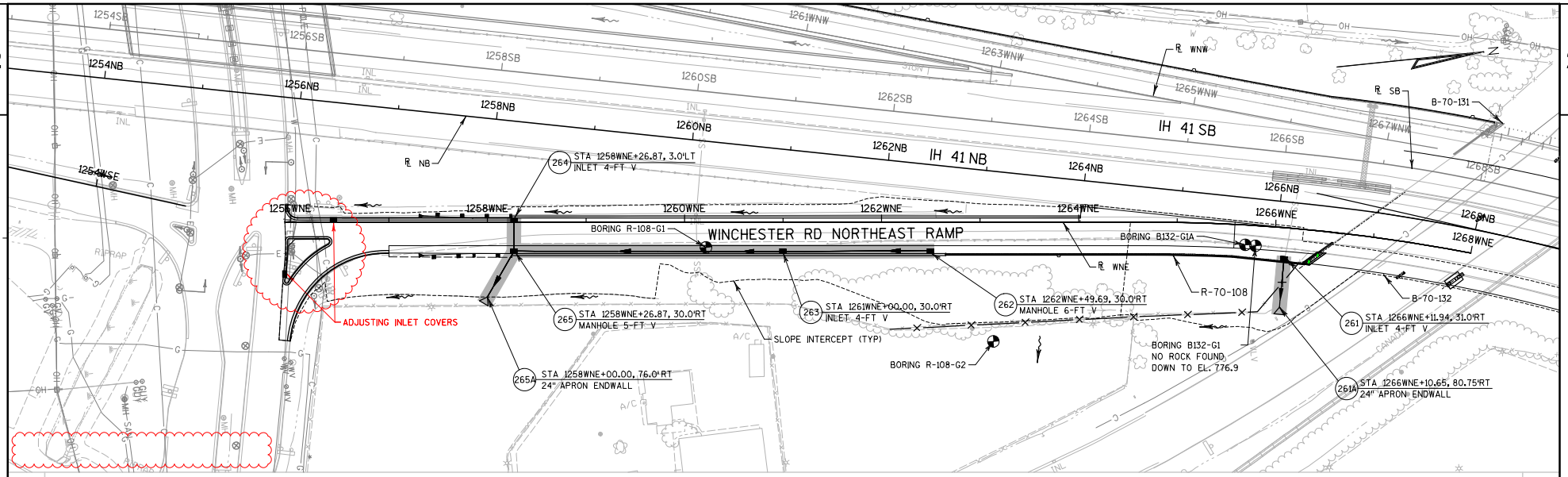
Addendum No. 01
ID 1517-07-74
Revised Sheet 125
April 18, 2016

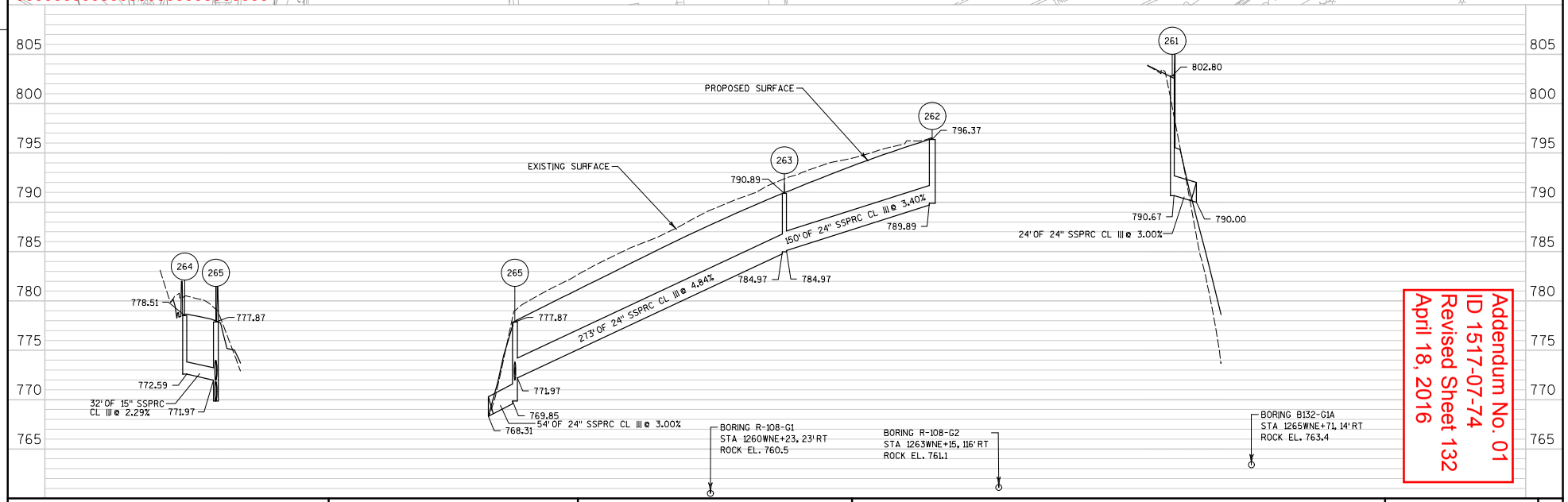


PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PERMANENT EROSION CONTROL PLAN SHEET 1 - IH 41 SB	SHEET 125	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\022011_ec.dgn PLOT DATE : 4/8/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

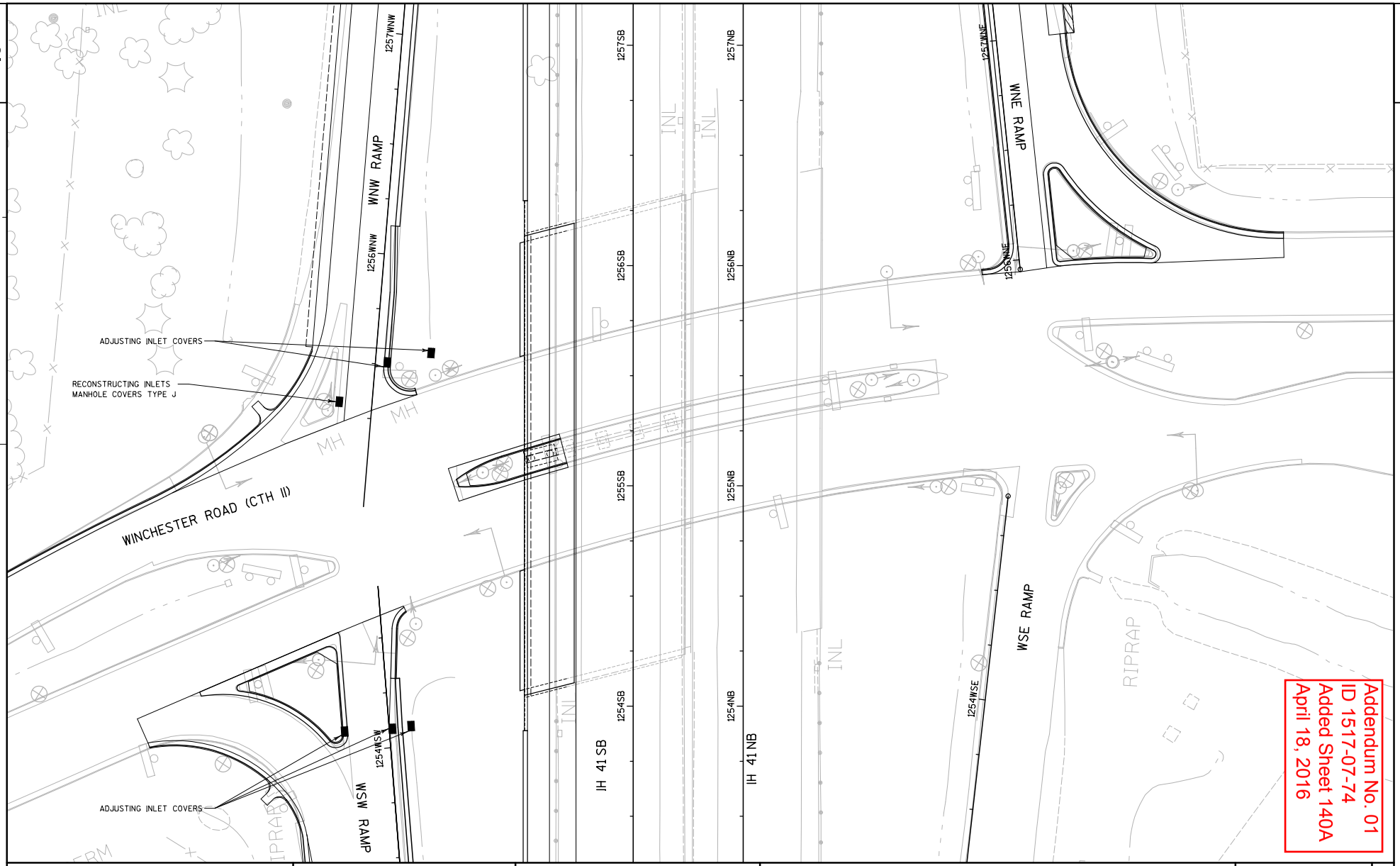




Addendum No. 01
ID 1517-07-74
Revised Sheet 132
April 18, 2016

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	STORM SEWER STAGE 2 - IH 41 NORTHBOUND	SHEET 132	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\022505_ss.dgn PLOT DATE : 4/8/2016 PLOT BY : Erin_Swanson PLOT NAME : PLOT SCALE : 100.0000 sf / in.



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	STORM SEWER - WNW RAMP & WSW RAMP	SHEET 140A	E

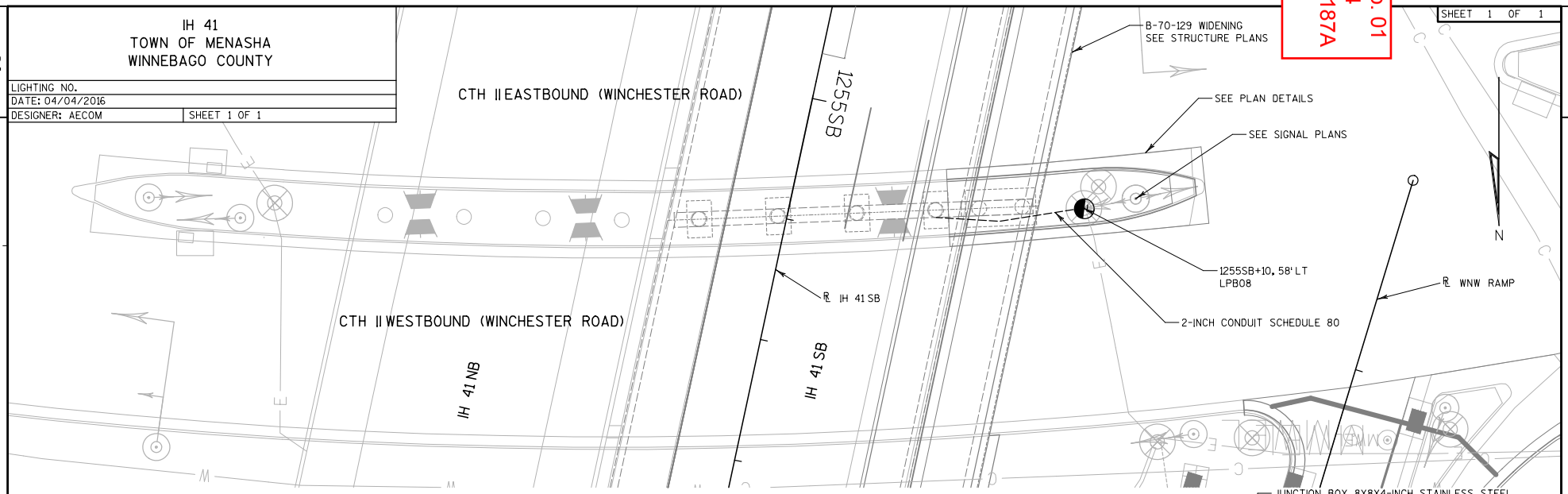
FILE NAME : \\S1102K306\Projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\022514_ss.dgn PLOT DATE : 4/8/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

Addendum No. 01
ID 1517-07-74
Added Sheet 187A
April 18, 2016

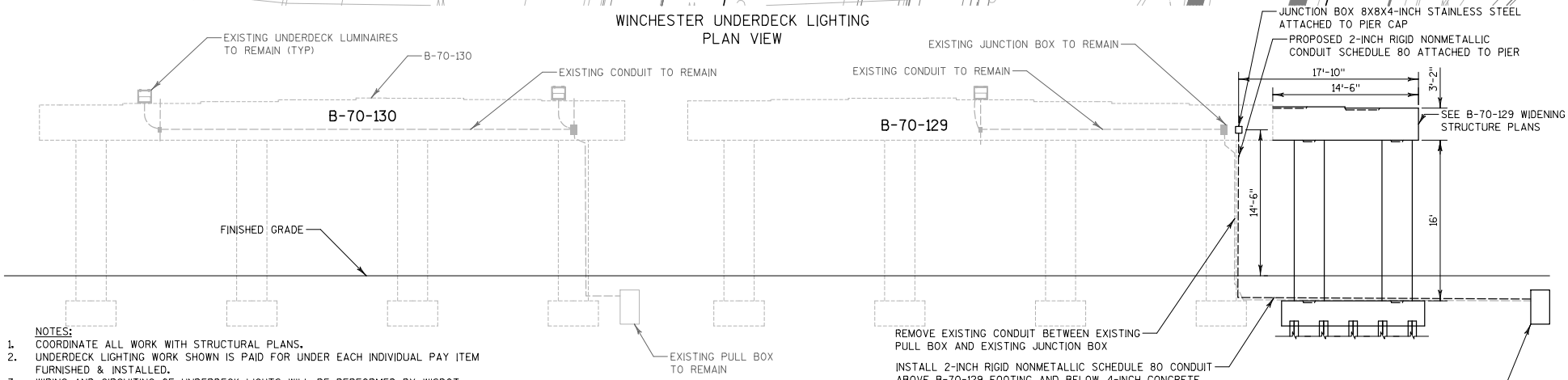
IH 41
TOWN OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO.
DATE: 04/04/2016
DESIGNER: AECOM | SHEET 1 OF 1

SHEET 1 OF 1



WINCHESTER UNDERDECK LIGHTING
PLAN VIEW



NOTES:
1. COORDINATE ALL WORK WITH STRUCTURAL PLANS.
2. UNDERDECK LIGHTING WORK SHOWN IS PAID FOR UNDER EACH INDIVIDUAL PAY ITEM FURNISHED & INSTALLED.
3. WIRING AND CIRCUITING OF UNDERDECK LIGHTS WILL BE PERFORMED BY WISDOT.
4. ALL UNDERDECK LIGHTING WORK TO CONFORM TO WISDOT STANDARDS AND SPECIFICATIONS.
5. FOLLOW WISDOT SDD 10A15 FOR UNDERDECK LIGHTING FOR ALL DETAILS NOT SHOWN HERE.
6. NEW UNDERDECK LUMINAIRES WILL BE FURNISHED AND INSTALLED BY WISDOT.
7. FURNISH AND INSTALL LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUITS BETWEEN RIGID CONDUITS CROSSING MOVING BRIDGE SECTIONS. COST IS INCLUDED IN THE COST OF THE RIGID CONDUIT.

WINCHESTER UNDERDECK LIGHTING ELEVATION
(LOOKING SOUTH)
NOT TO SCALE

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	LIGHTING PLAN - WINCHESTER UNDERDECK LIGHTING	SHEET 187A	E

Addendum No. 01
ID 1517-07-74
Added Sheet 187B
April 18, 2016

LEGEND

- PULL BOX 24" X 42"
- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD. PEDESTAL MOUNT
- SIGNAL POLE. MAST-ARM. TRANSFORMER MOUNT
- LUMINAIRE. (under permit)
- CONTROL CABINET BASE
- 3" CONDUIT (2" from PB to T1/T2 concrete base)
- LOOP DETECTOR (In 1" Conduit)
- LOOP DETECTOR (In 1" Conduit W/12" PULL BOX)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION
- SIGNAL POLE. MONOTUBE ARM 40'

CONFIGURATION WITH HEAD NUMBERS		
3-H	3-V	4-VLP
R Y G 10	R Y G 3, 4, 5 6, 7, 8 9, 11, 12	R Y FY G 1, 2

NOTE

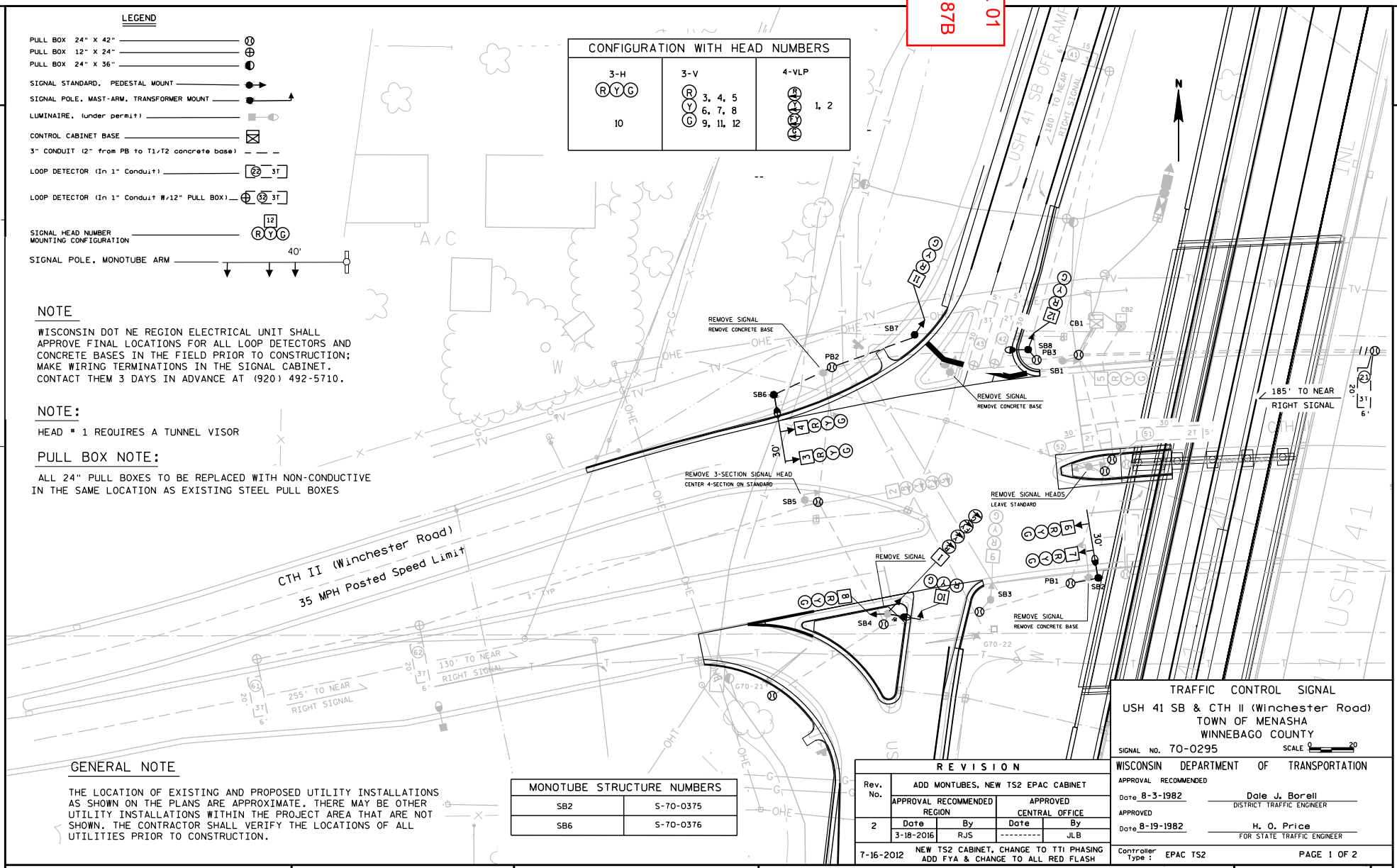
WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

NOTE:

HEAD # 1 REQUIRES A TUNNEL VISOR

PULL BOX NOTE:

ALL 24" PULL BOXES TO BE REPLACED WITH NON-CONDUCTIVE IN THE SAME LOCATION AS EXISTING STEEL PULL BOXES



GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

MONOTUBE STRUCTURE NUMBERS	
SB2	S-70-0375
SB6	S-70-0376

REVISION				
Rev. No.	ADD MONTUBES, NEW TS2 EPAC CABINET			
	APPROVAL RECOMMENDED REGION		APPROVED CENTRAL OFFICE	
	Date	By	Date	By
2	3-18-2016	RJS	---------	JLB
7-16-2012	NEW TS2 CABINET, CHANGE TO TTI PHASING ADD FYA & CHANGE TO ALL RED FLASH			

TRAFFIC CONTROL SIGNAL
USH 41 SB & CTH II (Winchester Road)
TOWN OF MENASHA
WINNEBAGO COUNTY
SIGNAL NO. 70-0295 SCALE 0 20

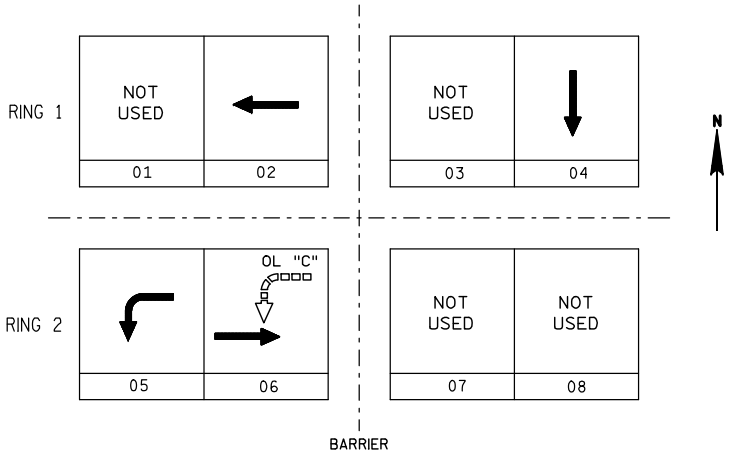
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
Date 8-3-1982 Dale J. Borell DISTRICT TRAFFIC ENGINEER
APPROVED
Date 8-19-1982 H. O. Price FOR STATE TRAFFIC ENGINEER
Controller Type : EPAC TS2 PAGE 1 OF 2

PROJECT NO: 1517-07-74	HWY: USH 41	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 187B_____	E

FILE NAME : F:\D3_TRAFFI\S70-0295,REV2.DWG PLOT DATE : Apr 07, 2016 - 2:22pm PLOT BY : dotmxt PLOT NAME : L70-0295, constr PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
01		
02	3, 4, 5	R
03		
04	9, 10, 11, 12	R
05	1, 2	-
06	6, 7, 8	R
07		
08		
02P		
04P		
06P		
08P		
OLA		
OLB		
OLC	1, 2	R ←
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2			MIN	x
3				
4				x
5				x
6			MIN	x
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
CELL MODEM	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	x
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	x
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S70-0295
SIGNAL SYSTEM #:	SS70-0002

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
3M	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

RACK # 1

DETECTOR CHANNEL	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	41	43	51	61			
ASSIGNED PHASE	2	4	4	5	6			
OPERATION MODE	Veh	Veh	Veh	Veh	Veh			
SWITCH TO PHASE								
EXTEND								
DELAY								
DETECTOR CHANNEL	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)		42		52	62			
ASSIGNED PHASE		4		5	6			
OPERATION MODE		Veh		Veh	Veh			
SWITCH TO PHASE								
EXTEND								
DELAY								

RACK # 2

DETECTOR CHANNEL	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR #(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH TO PHASE								
EXTEND								
DELAY								
DETECTOR CHANNEL	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR #(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH TO PHASE								
EXTEND								
DELAY								

OVERLAP SPECIAL

	Protected	Permissive
OL "A"		
OL "B"		
OL "C"	5	6
OL "D"		

GENERAL NOTES:

1. PROVIDE FOR HAND CONTROL.

Addendum No. 01
ID 1517-07-74
Added Sheet 187C
April 18, 2016

I41 SB & CTH II (Winchester Rd.)
TOWN OF MENASHA
WINNEBAGO COUNTY

SIGNAL NO. 70-0295

Controller Type: EPAC TS2

Date: ----------

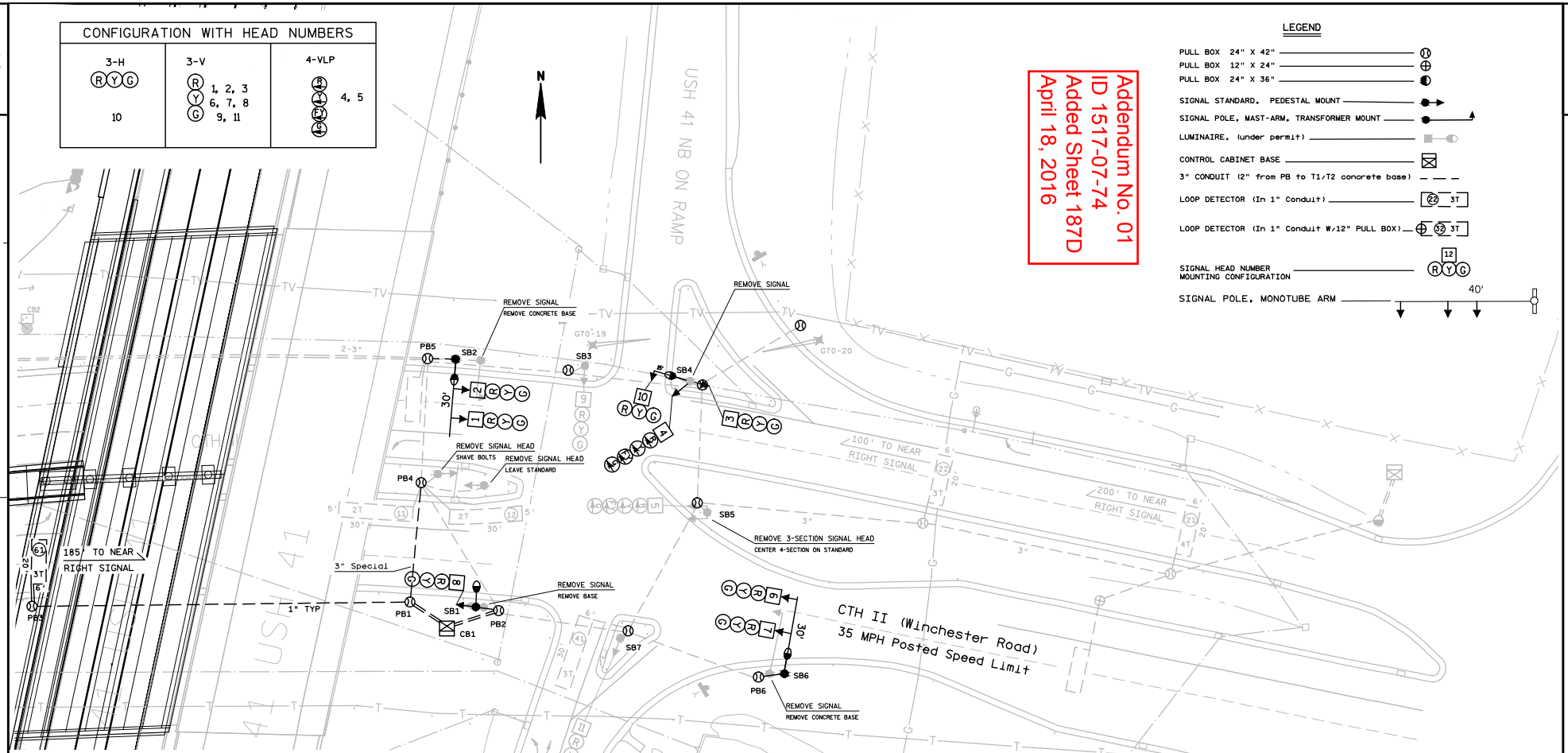
PROJECT NO: 1517-07-74	HWY: USH 41	COUNTY: WINNEBAGO	SEQUENCE OF OPERATIONS S70-0295	SHEET NO: 2 of 2	E

CONFIGURATION WITH HEAD NUMBERS		
3-H R Y G 10	3-V R 1, 2, 3 Y 6, 7, 8 G 9, 11	4-VLP 4, 5

Addendum No. 01
ID 1517-07-74
Added Sheet 187D
April 18, 2016

LEGEND

- PULL BOX 24" X 42"
- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MAST-ARM, TRANSFORMER MOUNT
- LUMINAIRE, (under permit)
- CONTROL CABINET BASE
- 3" CONDUIT (2" from PB to T1/T2 concrete base)
- LOOP DETECTOR (In 1" Conduit) 22 3T
- LOOP DETECTOR (In 1" Conduit W/12" PULL BOX) 32 3T
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION 12 R Y G
- SIGNAL POLE, MONOTUBE ARM 40'



NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTE:

HEAD * 4 REQUIRES A TUNNEL VISOR

PULL BOX NOTE:

ALL 24" PULL BOXES TO BE REPLACED WITH NON-CONDUCTIVE IN THE SAME LOCATION AS EXISTING STEEL PULL BOXES

MONOTUBE STRUCTURE NUMBERS	
SB2	S-70-0373
SB6	S-70-0374

TRAFFIC CONTROL SIGNAL

USH 41 NB & CTH II (Winchester Road)
TOWN OF MENASHA
WINNEBAGO COUNTY

SIGNAL NO. 70-2015 SCALE 0 20

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date 3-18-2016 ROBERT J. SCHUURMANS
REGION TRAFFIC ENGINEER

APPROVED

Date --------- JOANNA L. BUSH
STATE TRAFFIC ENGINEER

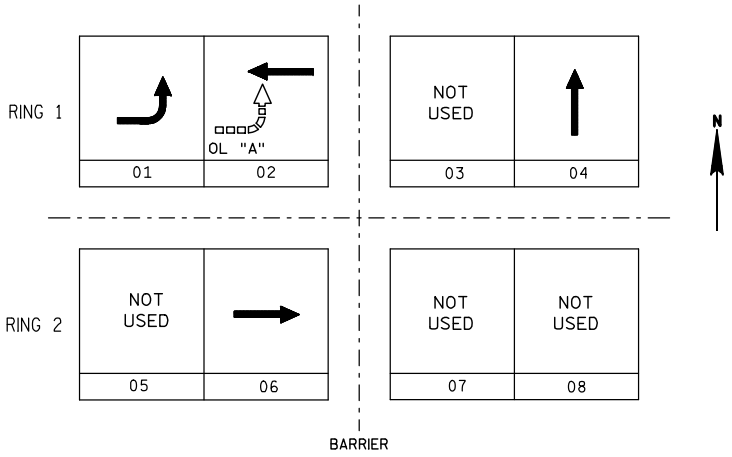
Controller Type : EPAC TS2

PROJECT NO: 1517-07-74	HWY: USH 41	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 187D -----	E

FILE NAME : F:\D3_TRAFFI\S70-2015, REV1.DWG PLOT DATE : Apr 01, 2016 - 10:45am PLOT BY : dotmxt PLOT NAME : L70-2015, constr PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
01	4, 5, 9	-
02	1, 2, 3	R
03		
04	10, 11, 12	R
05		
06	6, 7, 8	R
07		
08		
02P		
04P		
06P		
08P		
OLA	4, 5, 9	R ←
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2			MIN	X
3				
4				X
5				
6			MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
CELL MODEM	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S70-0295
SIGNAL SYSTEM #:	SS70-0002

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
3M	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

RACK # 1

DETECTOR CHANNEL	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	11	21	41	61				
ASSIGNED PHASE	1	2	4	6				
OPERATION MODE	Veh	Veh	Veh	Veh				
SWITCH TO PHASE								
EXTEND								
DELAY								
DETECTOR CHANNEL	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	12	22						
ASSIGNED PHASE	1	2						
OPERATION MODE	Veh	Veh						
SWITCH TO PHASE								
EXTEND								
DELAY								

RACK # 2

DETECTOR CHANNEL	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR #(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH TO PHASE								
EXTEND								
DELAY								
DETECTOR CHANNEL	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR #(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH TO PHASE								
EXTEND								
DELAY								

OVERLAP SPECIAL

	Protected	Permissive
OL "A"	1	2
OL "B"		
OL "C"		
OL "D"		

GENERAL NOTES:

1. PROVIDE FOR HAND CONTROL.

Addendum No. 01
ID 1517-07-74
Added Sheet 187E
April 18, 2016

I41 NB & CTH II (Winchester Rd.)
TOWN OF MENASHA
WINNEBAGO COUNTY

SIGNAL NO. 70-2015

Controller Type: EPAC TS2

Date: ----------

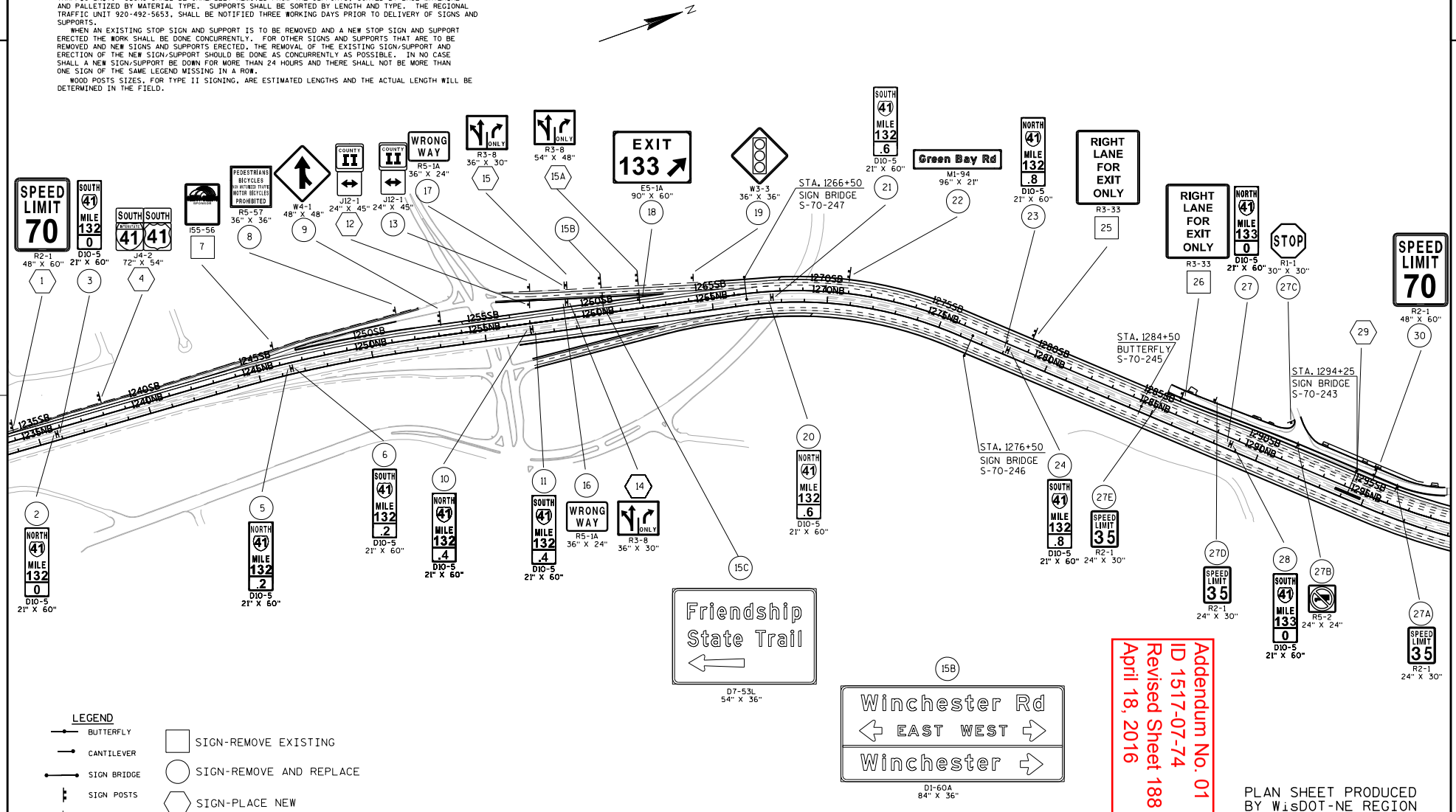
PROJECT NO: 1517-07-74	HWY: USH 41	COUNTY: WINNEBAGO	SEQUENCE OF OPERATIONS S70-2015	SHEET NO: 2 of 2	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



LEGEND

- BUTTERFLY
- CANTILEVER
- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS

- SIGN-REMOVE EXISTING
- SIGN-REMOVE AND REPLACE
- SIGN-PLACE NEW

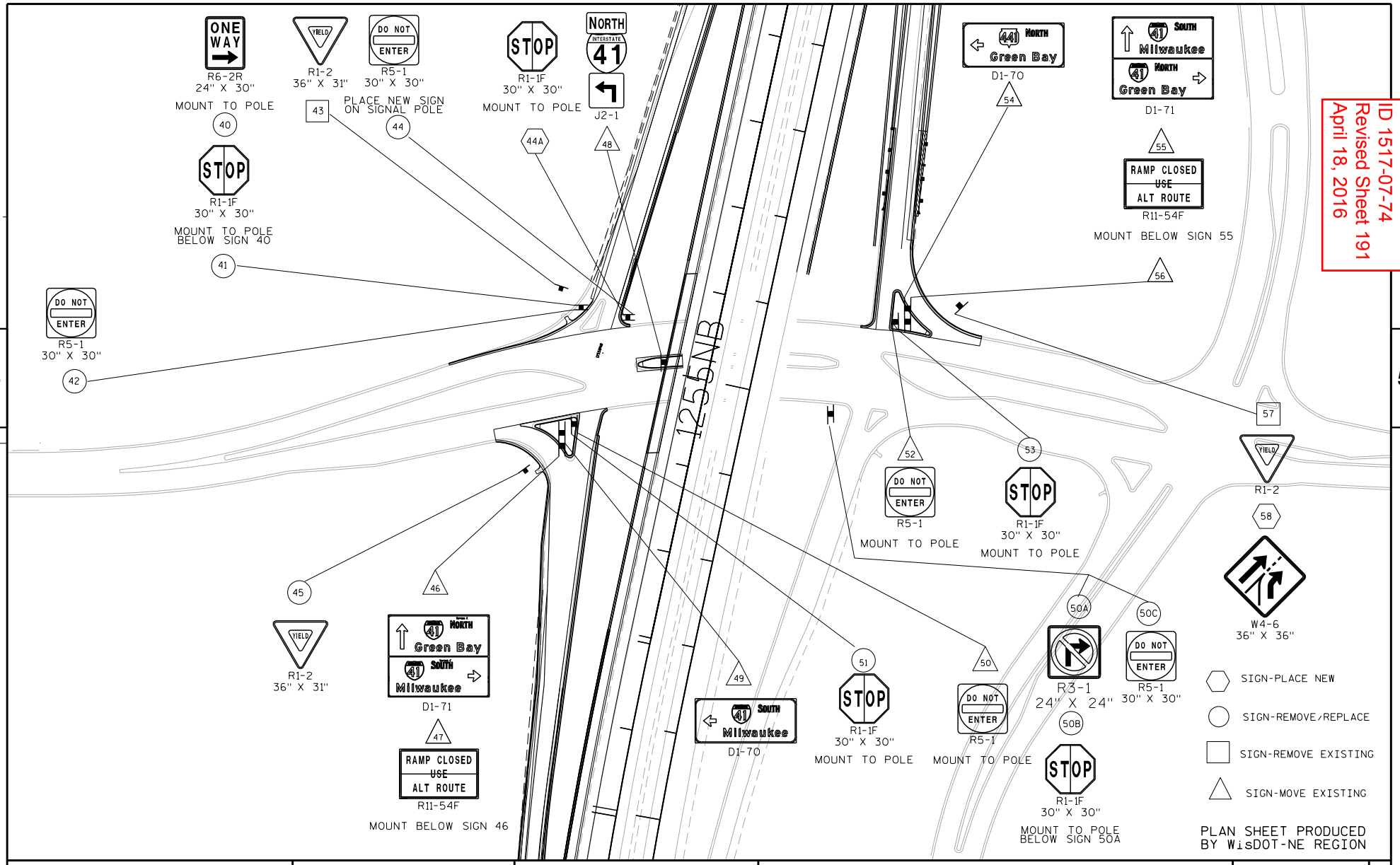
Addendum No. 01
ID 1517-07-74
Revised Sheet 188
April 18, 2016

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 188	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1517-07-74 STH 441-USH 10 Winnebago Cty\023202_ps.dgn PLOT DATE : 08-APR-2016 12:57 PLOT BY : dotets PLOT NAME : PLOT SCALE : 400:1

WISDOT/CADDS SHEET 42



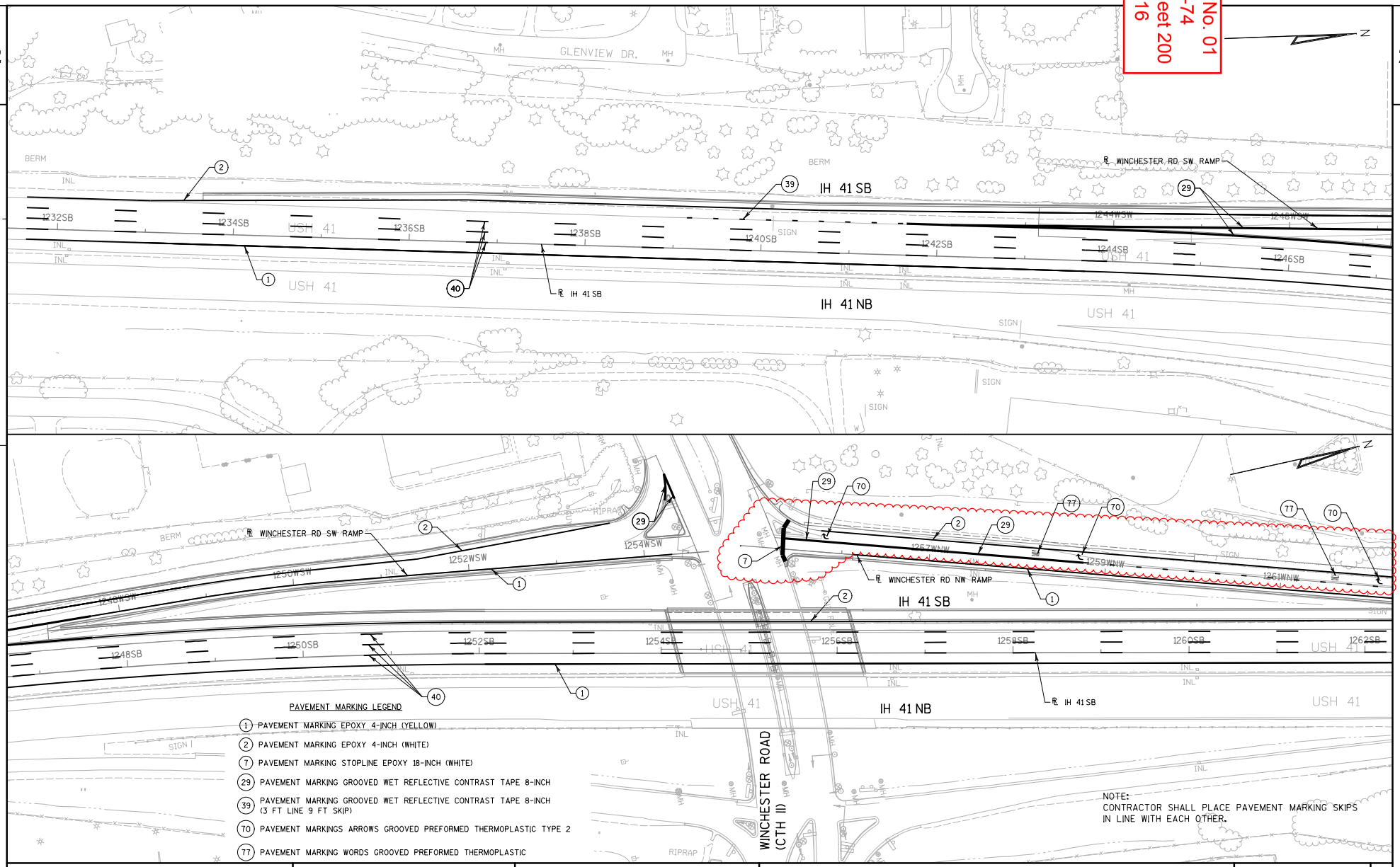
Addendum No. 01
ID 1517-07-74
Revised Sheet 191
April 18, 2016

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PERMANANT SIGNING	SHEET 191	E

FILE NAME : \\GRERTOVFILPI01\N3Public\spo\traffic\SIGNING\Projects\1517-07-74 STH 441-USH 10 Winnebago Cty\023207_ps.dgn PLOT DATE : 08-APR-2016 12:57 PLOT BY : dotets PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 44

Addendum No. 01
ID 1517-07-74
Revised Sheet 200
April 18, 2016



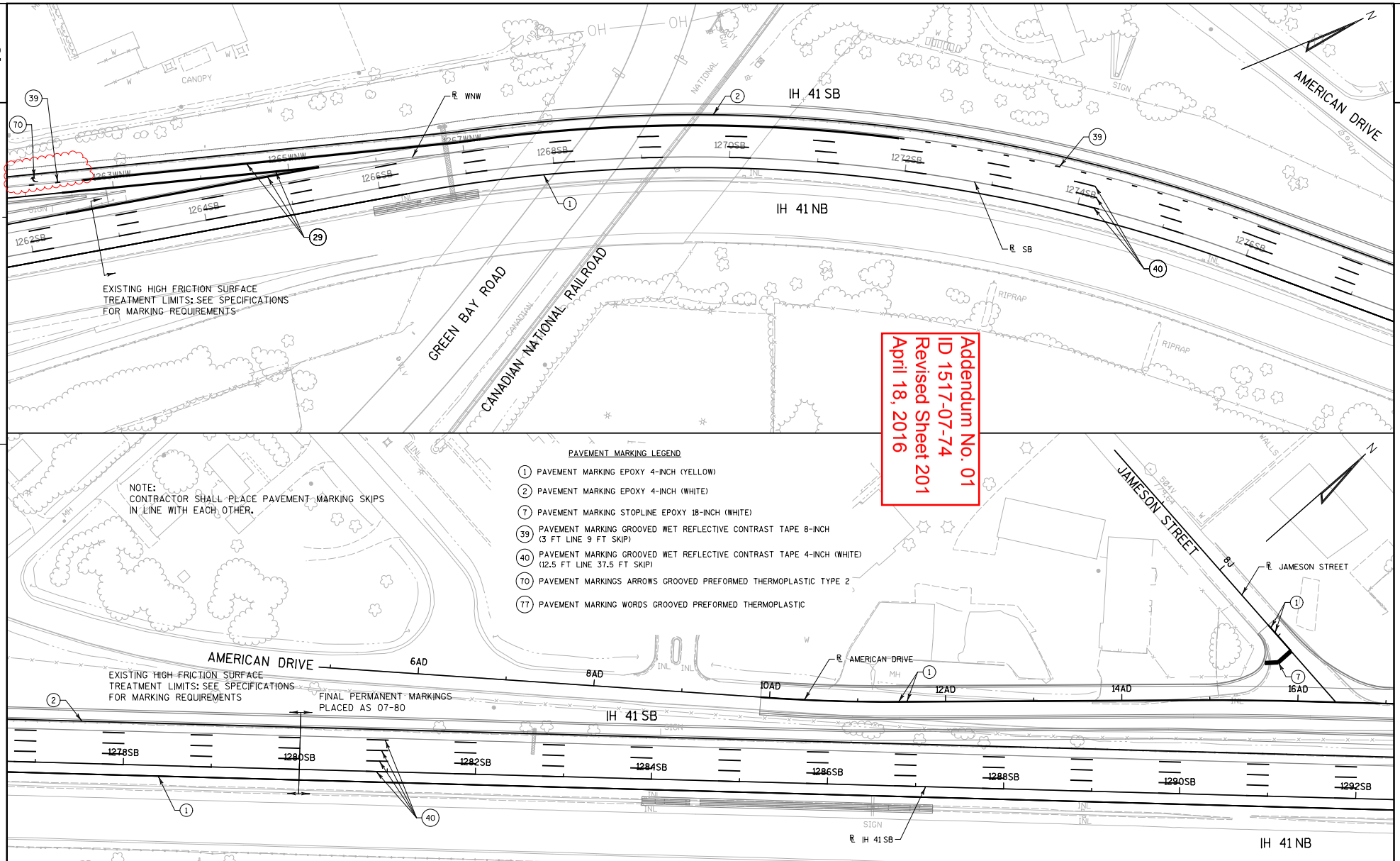
PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(7) PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
(29) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH
(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3 FT LINE 9 FT SKIP)
(70) PAVEMENT MARKINGS ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2
(77) PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC

NOTE:
CONTRACTOR SHALL PLACE PAVEMENT MARKING SKIPS IN LINE WITH EACH OTHER.

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PAVEMENT MARKING SHEET 1 - IH 41 SOUTHBOUND	SHEET 200	E

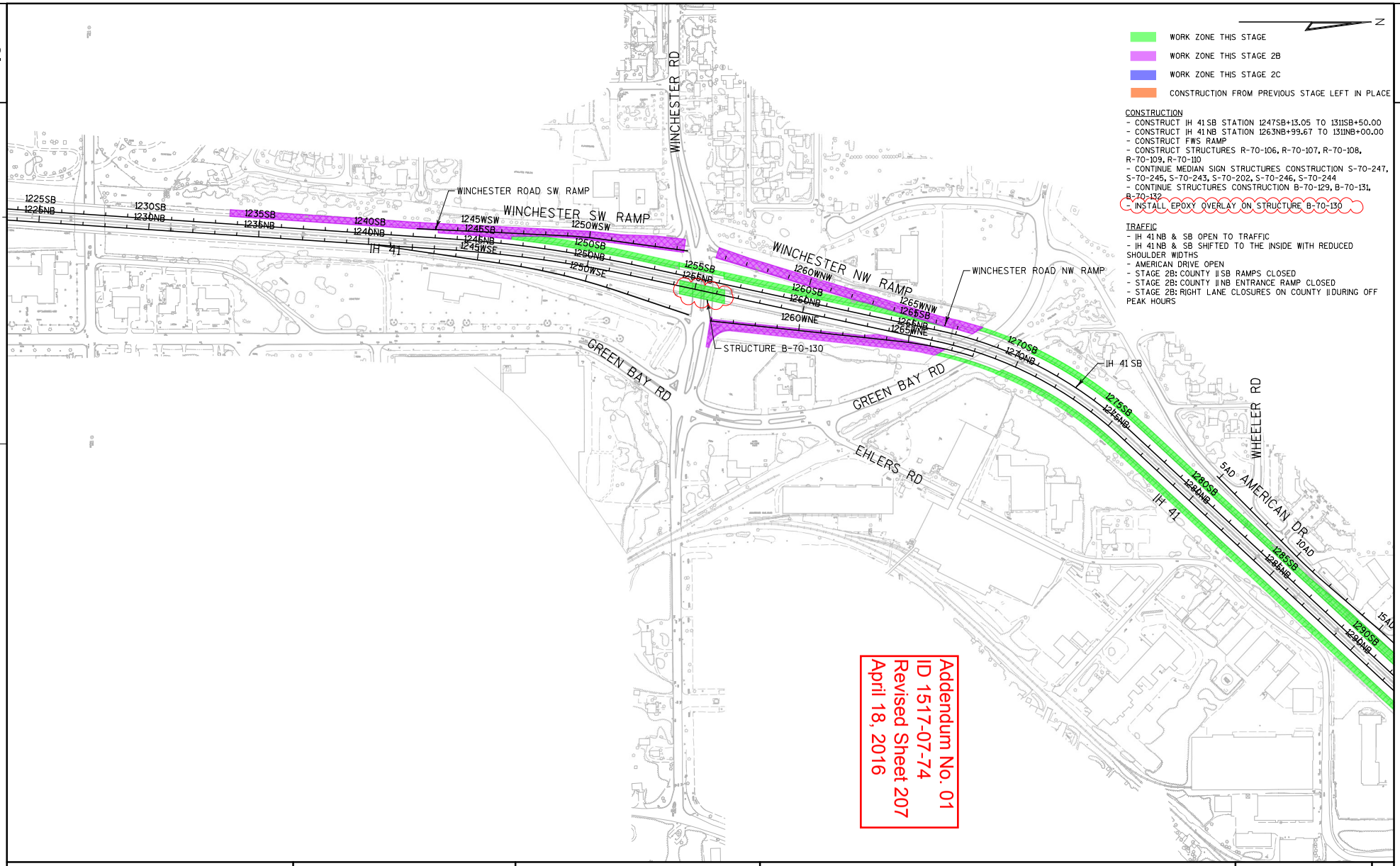
FILE NAME : \\S1102K306\Projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\024505_pm.dgn PLOT DATE : 4/8/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	PAVEMENT MARKING SHEET 2 - IH 41 SOUTHBOUND	SHEET 201	E

FILE NAME : \\S1102K306\Projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\024506_pm.dgn PLOT DATE : 4/8/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 100.0000 sf / in.

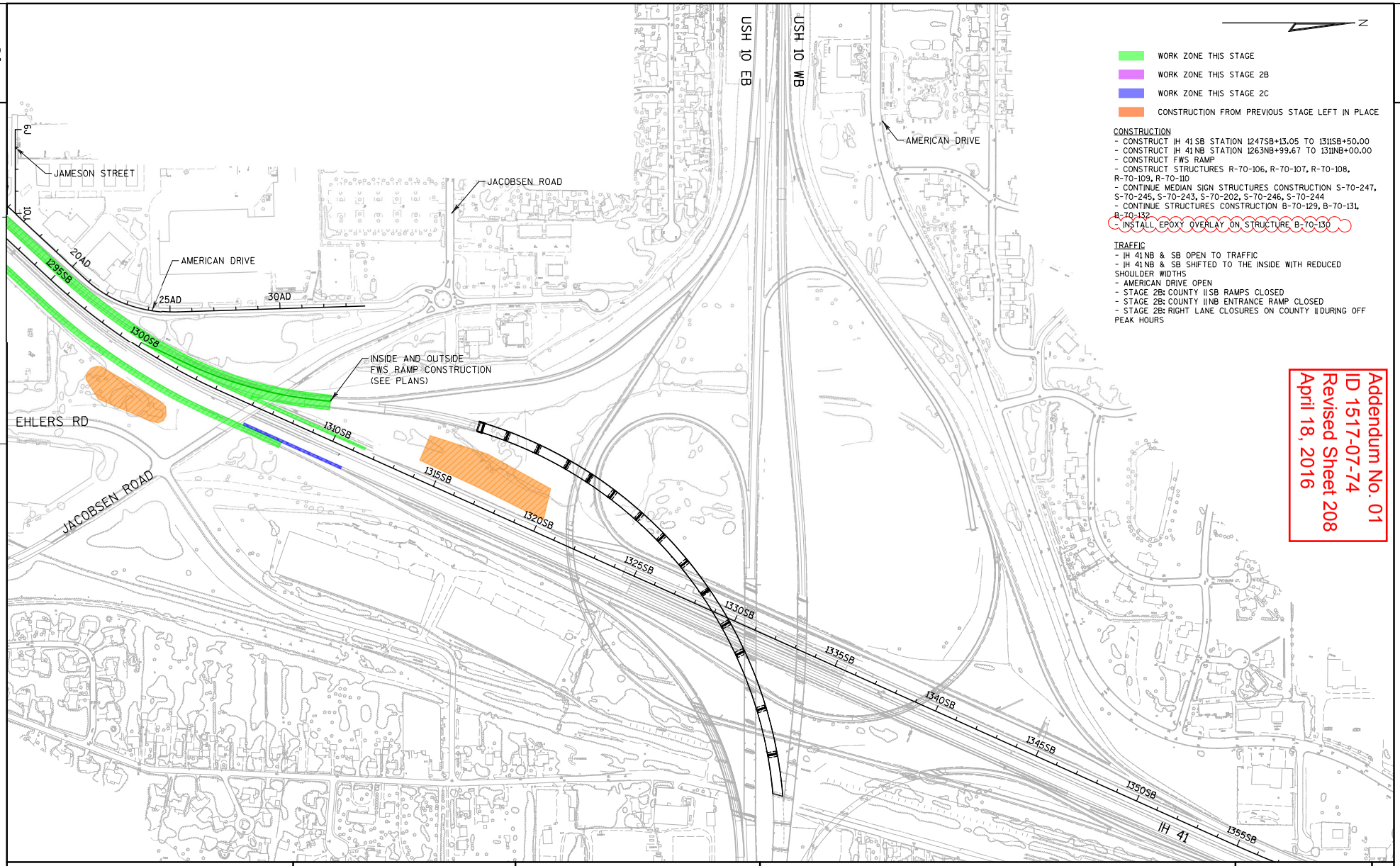
WISDOT/CADDS SHEET 42



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	STAGE CONSTRUCTION PLAN - STAGE 2	SHEET 207	E

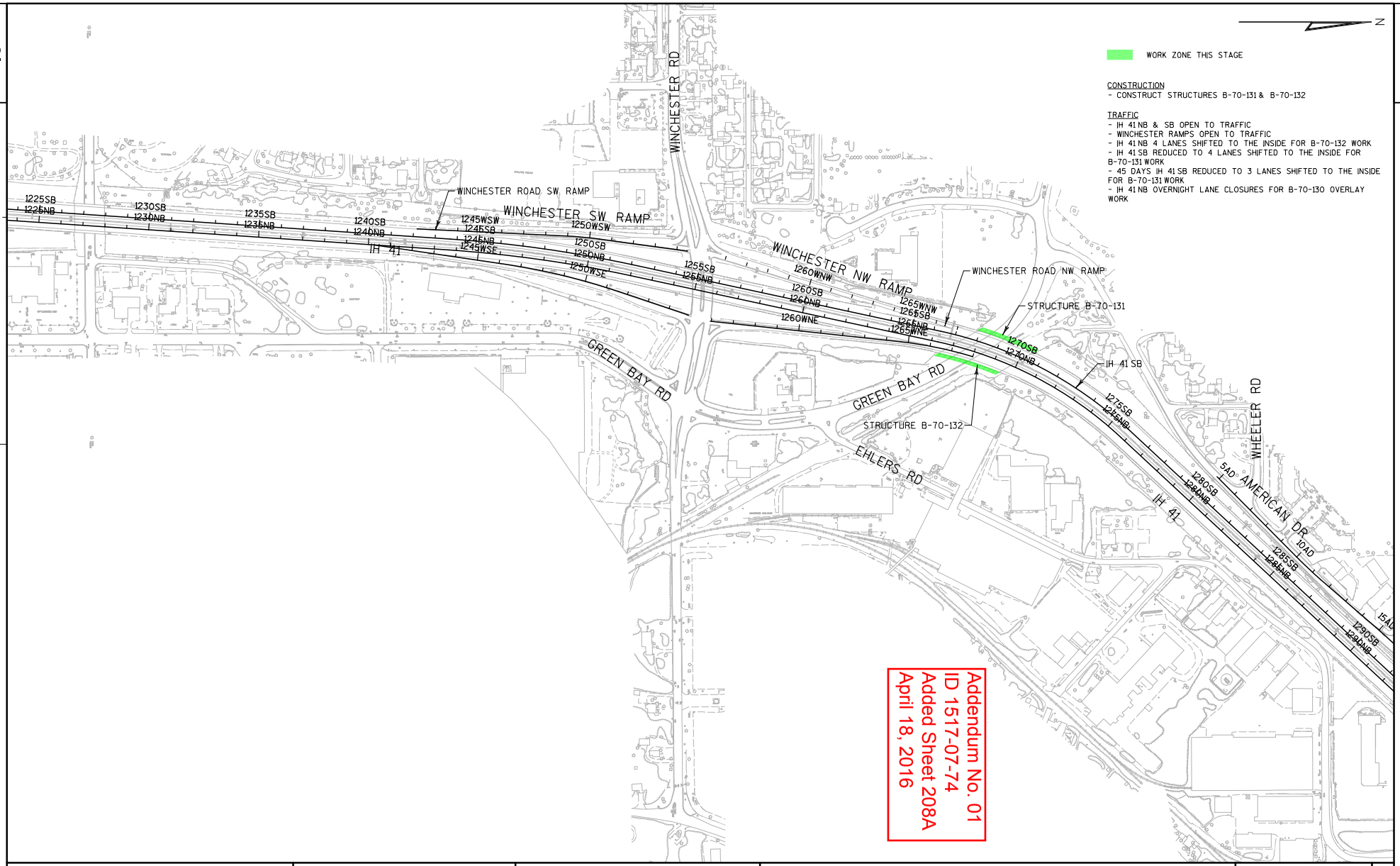
FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\025005_cs2.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 400.0000 sf / in.

WISDOT/CADDS SHEET 42



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	STAGE CONSTRUCTION PLAN - STAGE 2	SHEET 208	E

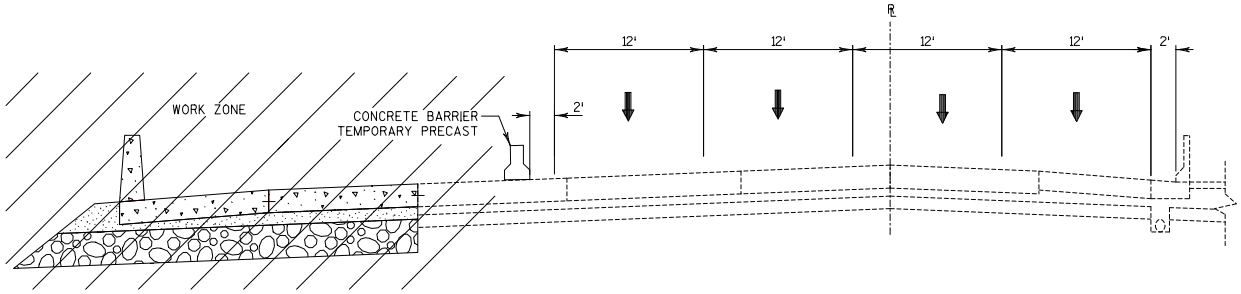
FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\025006_cs2.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 400.0000 sf / in.



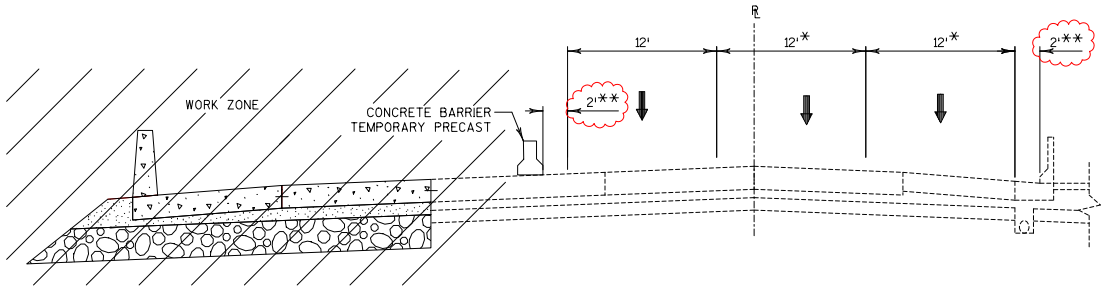
PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	STAGE CONSTRUCTION PLAN - STAGE 3	SHEET 208A	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\025007_cs3.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 400.0000 sf / in.

WISDOT/CADDS SHEET 42



TYPICAL SECTION DURING CONSTRUCTION
IH 41 SB
LANE SHIFTS - FOUR LANES OPEN



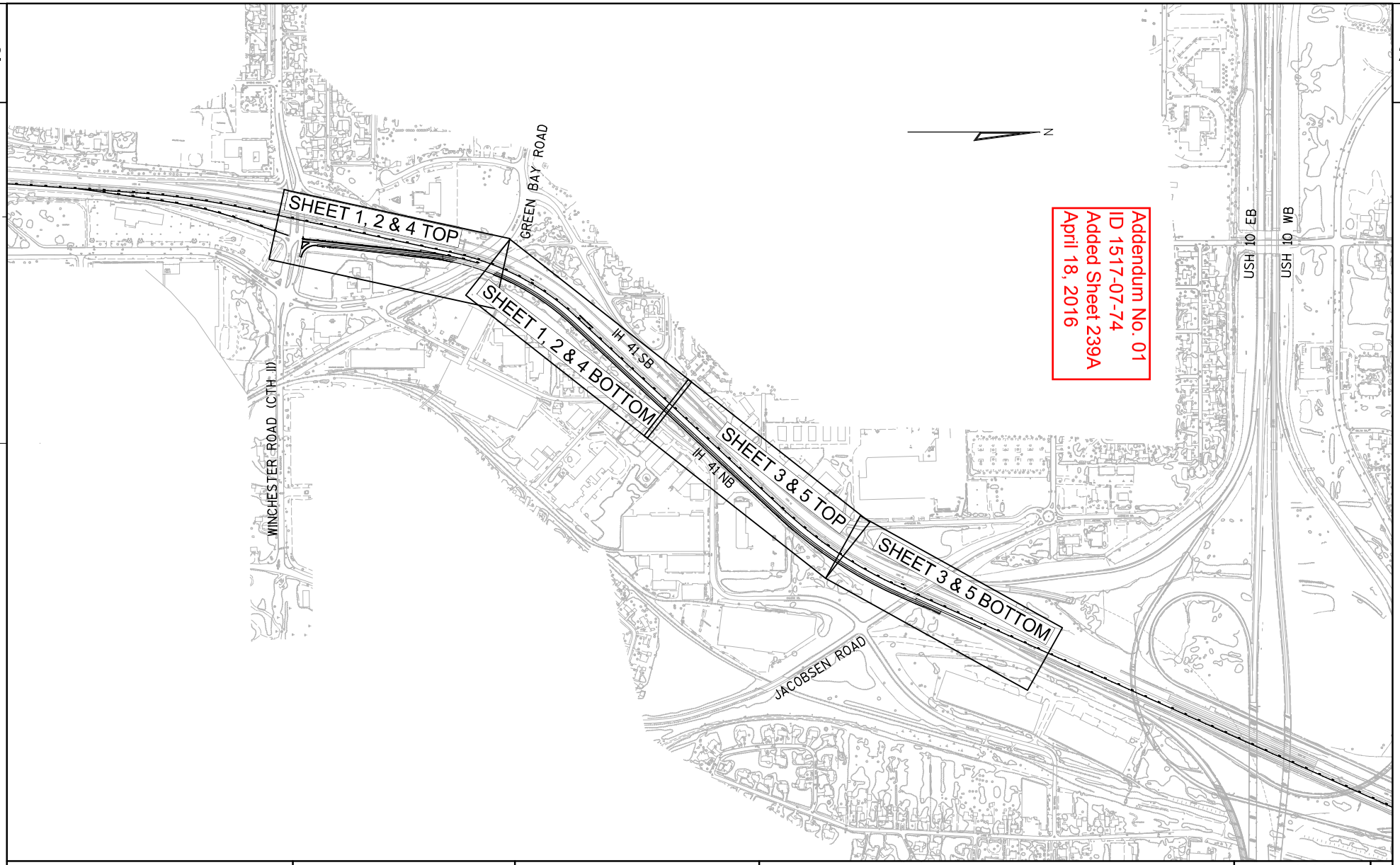
TYPICAL SECTION DURING CONSTRUCTION
IH 41 SB
LANE SHIFTS - THREE LANES OPEN

* REDUCE LANE WIDTH TO 11' AT STRUCTURE B-70-131 DURING STAGE 3B CONSTRUCTION
** REDUCE SHOULDER WIDTH TO 1' AT STRUCTURE B-70-131 DURING STAGE 3B CONSTRUCTION

Addendum No. 01
ID 1517-07-74
Revised Sheet 223
April 18, 2016

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL - TYPICAL SECTION STAGE 2A, 2B & 3	SHEET 223	E

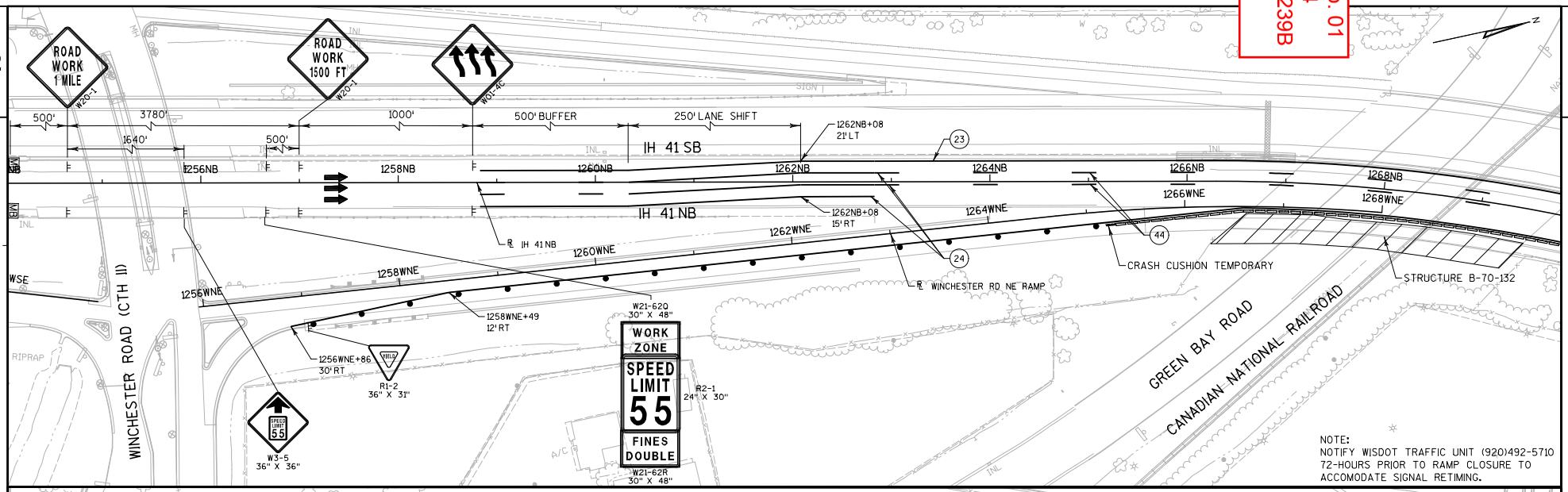
FILE NAME : \\S1102K306\Projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\025222_tc2.dgn PLOT DATE : 4/6/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 10.0000 sf / in.
WISDOT/CADDS SHEET 42

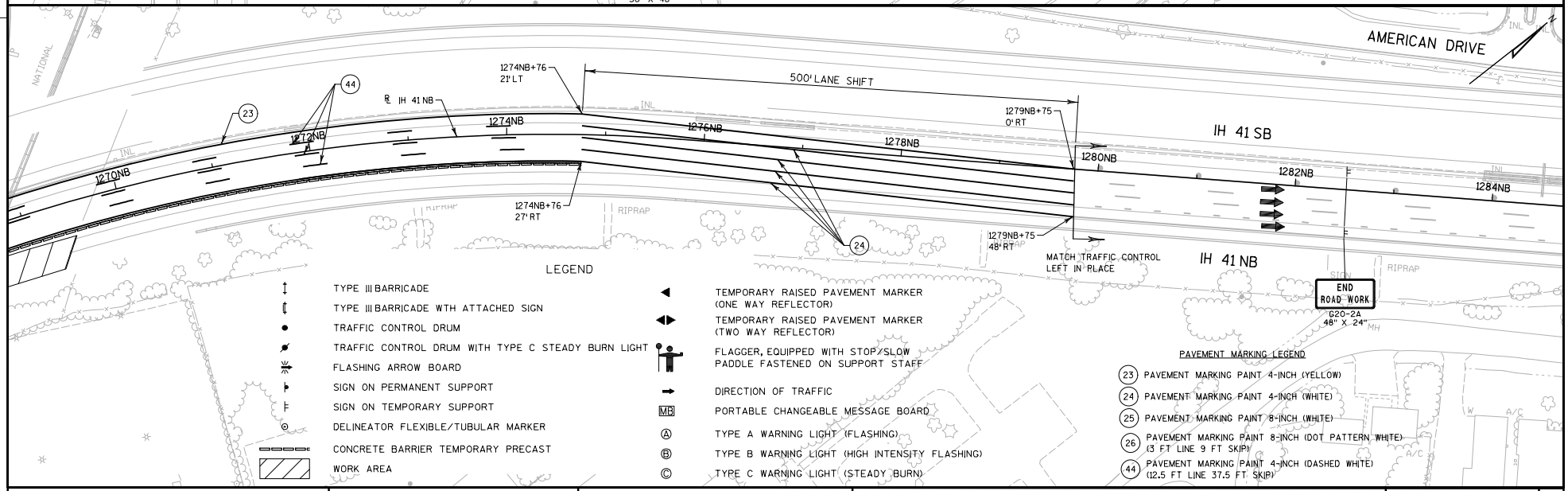


PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL OVERVIEW - STAGE 3	SHEET 239A	E

FILE NAME : \\S1102K306\projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\025239_tc3.dgn PLOT DATE : 4/7/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 600.0000 sf / in.

Addendum No. 01
ID 1517-07-74
Added Sheet 239B
April 18, 2016





LEGEND

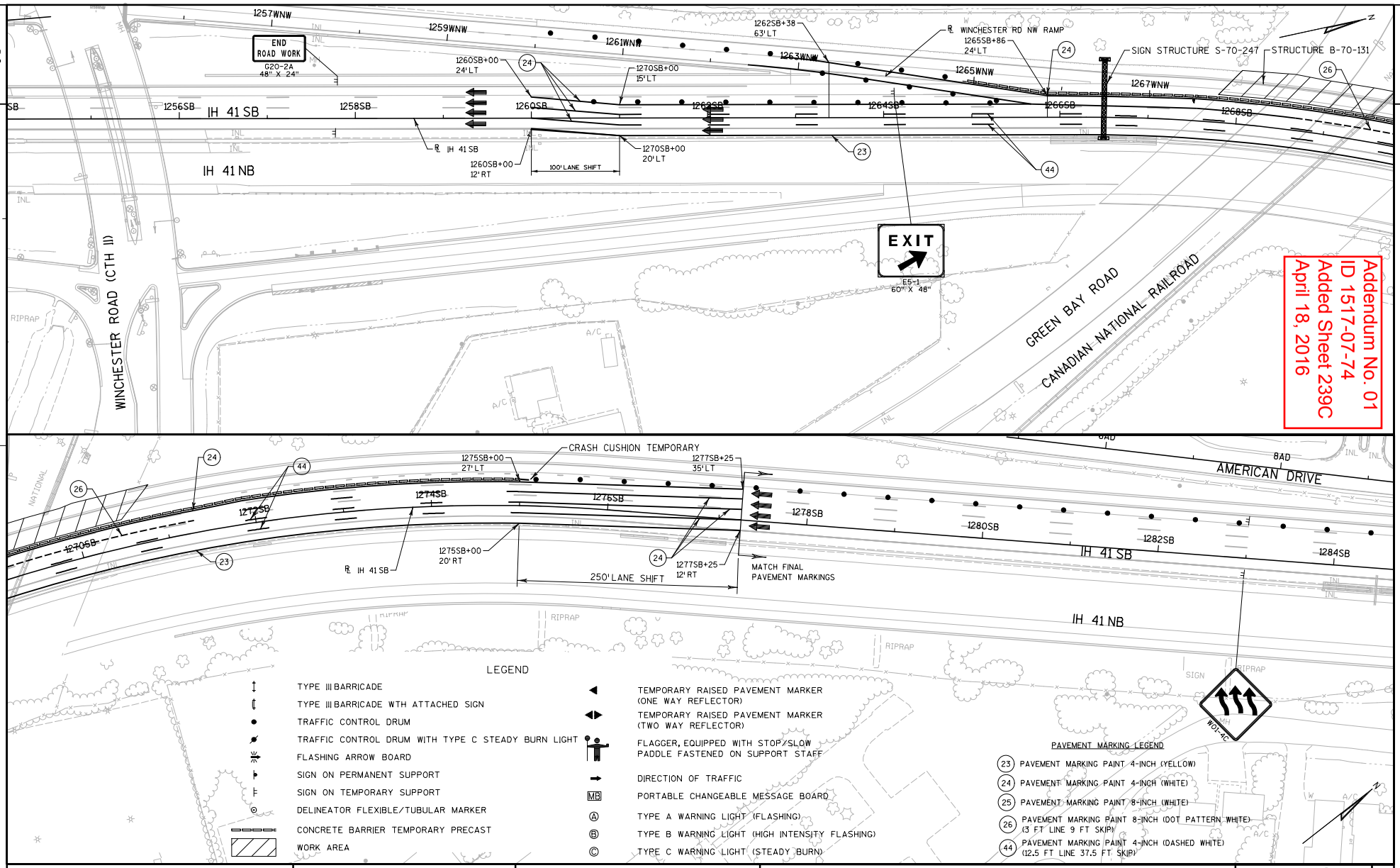
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)

PAVEMENT MARKING LEGEND

- (23) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (24) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (25) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (26) PAVEMENT MARKING PAINT 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (44) PAVEMENT MARKING PAINT 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

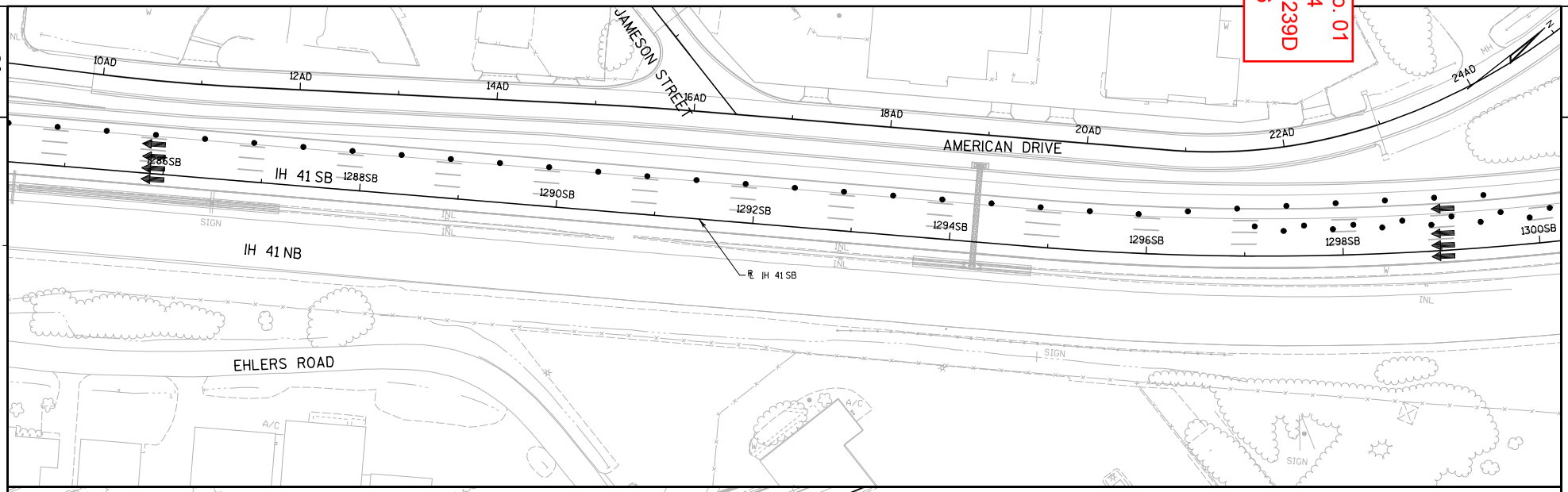
PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3: SHEET 1 - B-70-132 WORK	SHEET 239B	E

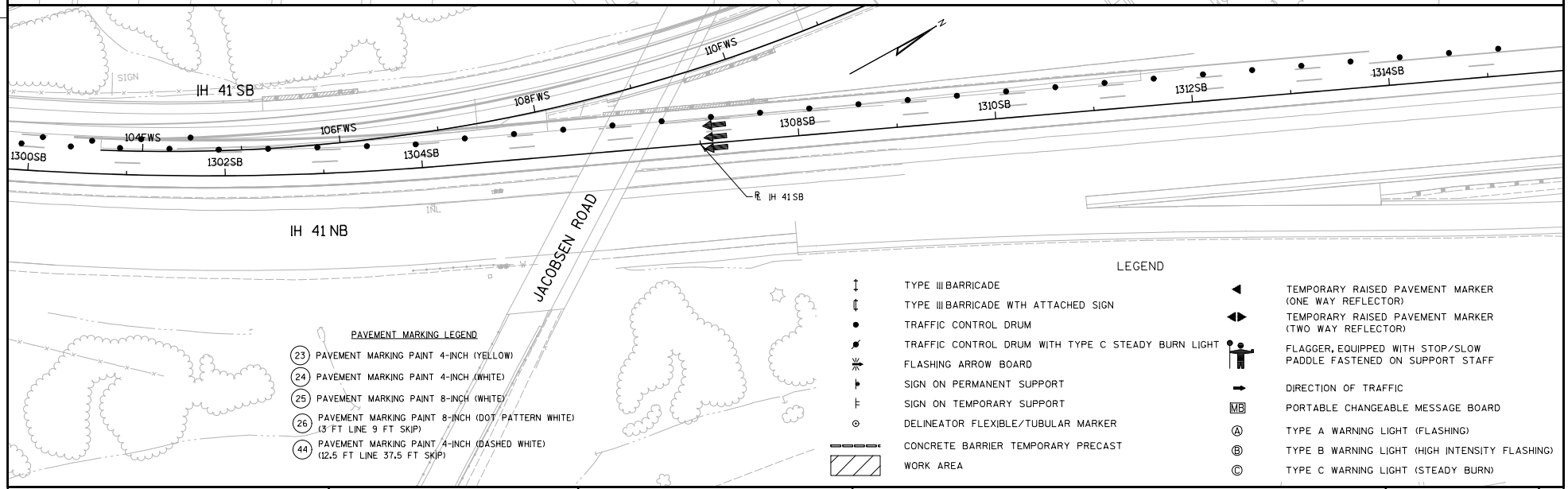
FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\025240_tc3.dgn
PLOT DATE : 4/8/2016
PLOT BY : Erin_Swanson
PLOT NAME :
PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3A: SHEET 2 - B-70-131 WORK	SHEET 239C	E

Addendum No. 01
ID 1517-07-74
Added Sheet 239D
April 18, 2016





PAVEMENT MARKING LEGEND

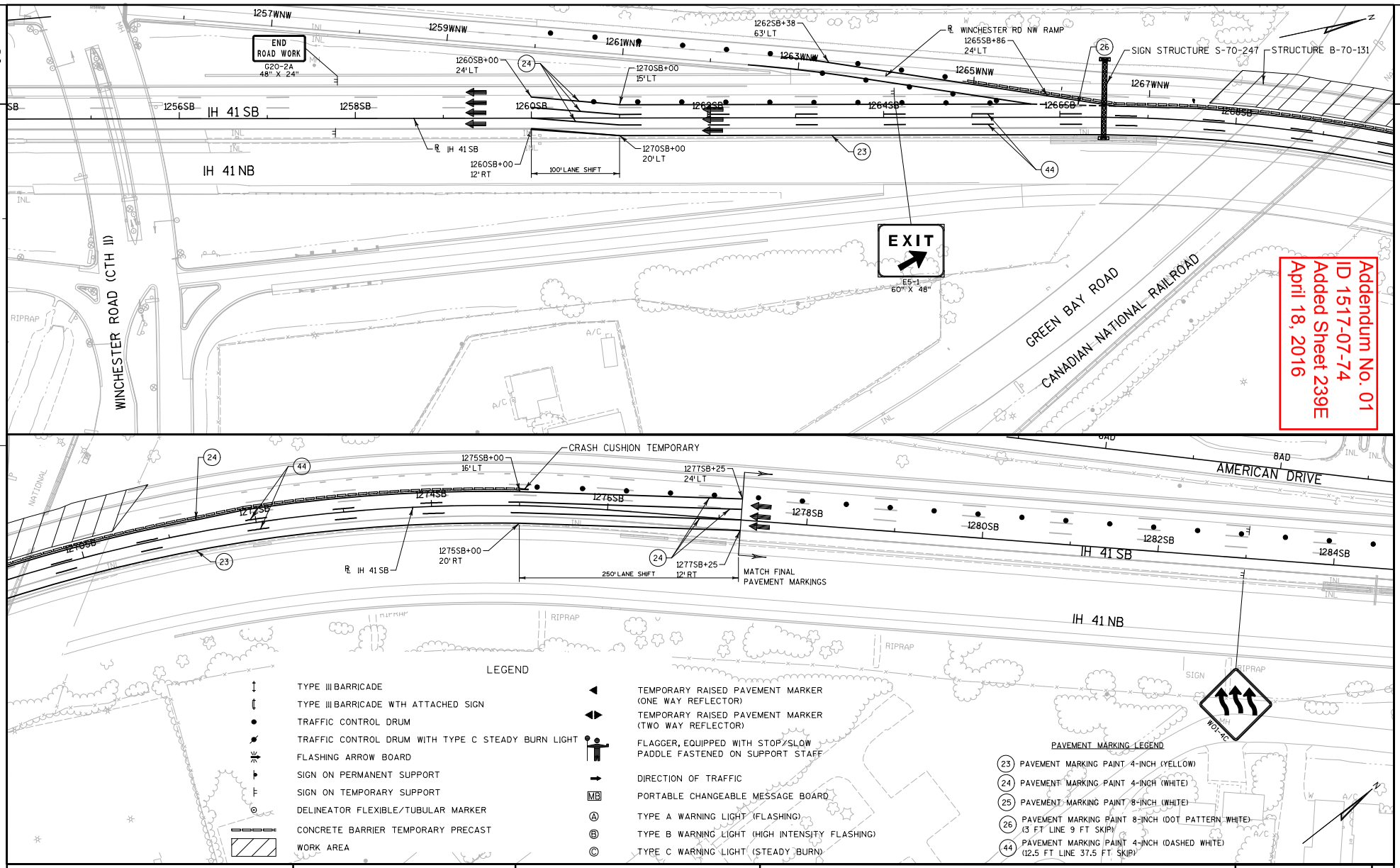
(23) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
(24) PAVEMENT MARKING PAINT 4-INCH (WHITE)
(25) PAVEMENT MARKING PAINT 8-INCH (WHITE)
(26) PAVEMENT MARKING PAINT 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(44) PAVEMENT MARKING PAINT 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

LEGEND

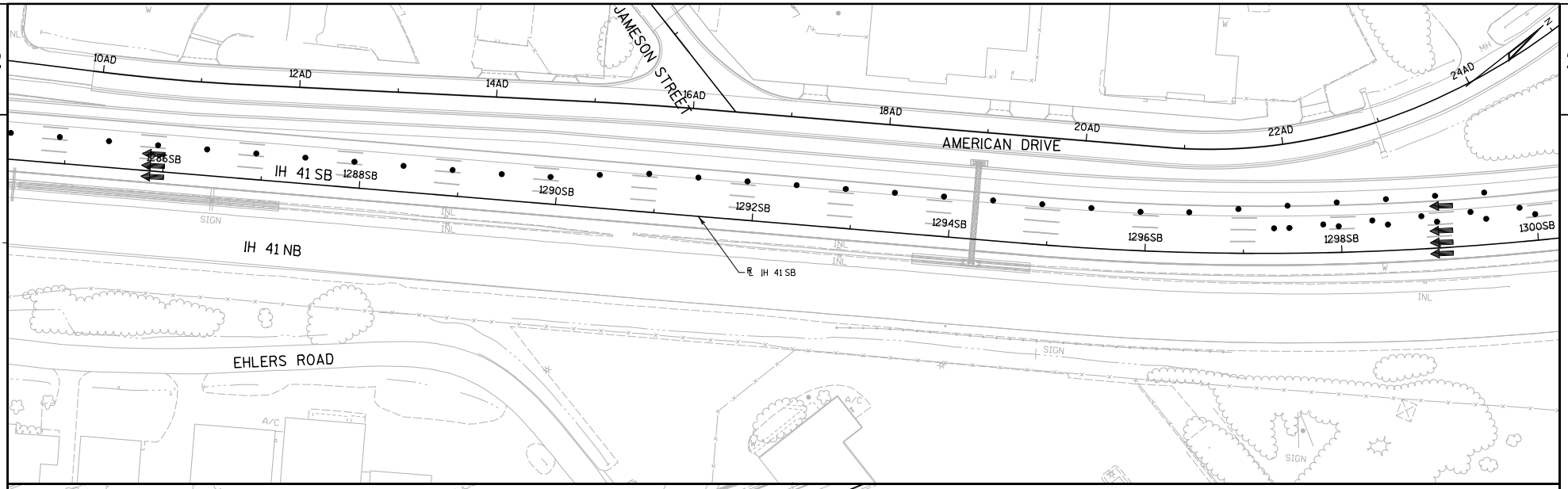
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- Ⓑ TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- Ⓒ TYPE C WARNING LIGHT (STEADY BURN)

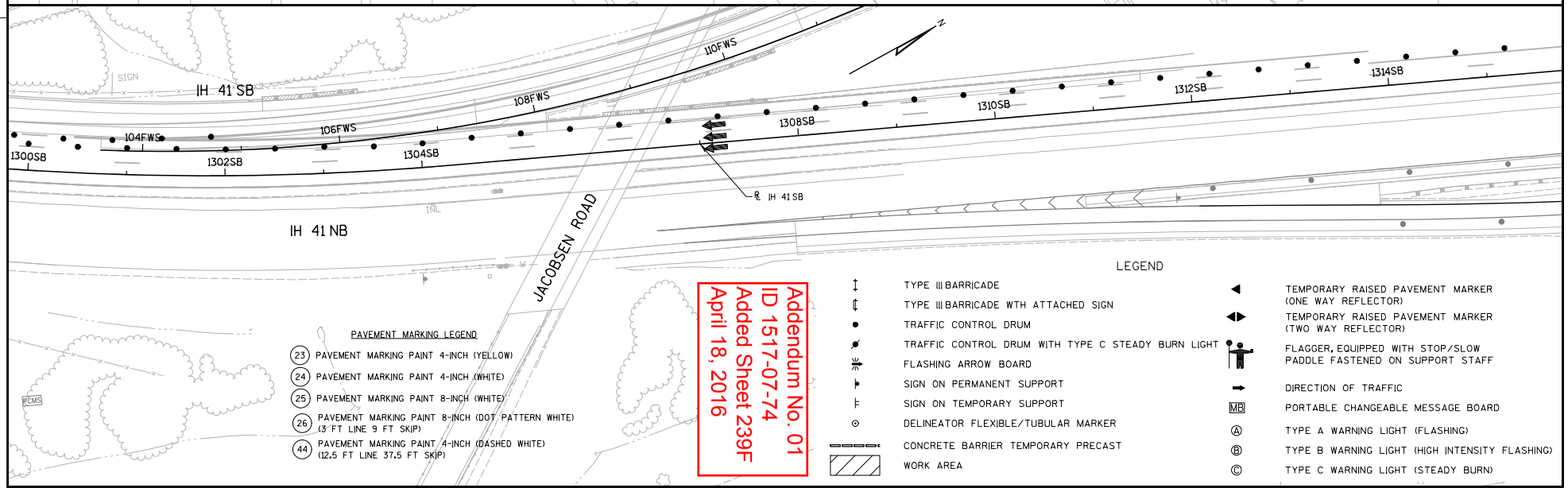
PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3A: SHEET 3 - B-70-131 WORK	SHEET 239D	E

FILE NAME : \\S1102K306\projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\025242_tc3.dgn PLOT DATE : 4/7/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3B: SHEET 4 - B-70-131 WORK	SHEET 239E	E





PAVEMENT MARKING LEGEND

(23) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
(24) PAVEMENT MARKING PAINT 4-INCH (WHITE)
(25) PAVEMENT MARKING PAINT 8-INCH (WHITE)
(26) PAVEMENT MARKING PAINT 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(44) PAVEMENT MARKING PAINT 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PCMS

Addendum No. 01
ID 1517-07-74
Added Sheet 239F
April 18, 2016

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- Ⓑ TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- Ⓒ TYPE C WARNING LIGHT (STEADY BURN)

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3B: SHEET 5 - B-70-131 WORK	SHEET 239F	E

FILE NAME : \\S1102K306\projects\Transportation\US 10 WIS 441\CADD\sheets\15170774\025244_tc3.dgn PLOT DATE : 4/7/2016 PLOT BY : nick_becker PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

REMOVING STORM SEWER

LOCATION	STATION	OFFSET	-	STATION	OFFSET	204.0220 REMOVING INLETS EACH	204.0245.001 REMOVING STORM SEWER 12-INCH - 18-INCH LF	204.0245.002 REMOVING STORM SEWER 21-INCH - 30-INCH LF	204.9060.S.002 REMOVING ENDWALLS EACH
WNE RAMP	1266WNE+10	81' RT	-	1266WNE+14	30' RT	-	52	-	1
	1288NB+92					-	-	-	1
	1292NB+90					-	-	-	1
	1298NB+95					-	-	-	1
	1303NB+85	72' RT	-	1303NB+95	56' RT	-	-	14	1
SOUTHBOUND	124FWS+40	RT				1	-	-	-
AMERICAN DRIVE	15AD+30	LT				1	-	-	-
	18AD+00	LT				1	-	-	-
	22AD+00	LT				1	-	-	-
	UNDISTRIBUTED					-	150	-	-
	TOTAL					4	202	14	5

ADJUSTING STORM SEWER

LOCATION	STATION	OFFSET	611.8115 ADJUSTING INLET COVERS EACH	611.0410 RECONSTRUCTING INLETS EACH	611.0530 MANHOLES COVER TYPE J EACH
WNW RAMP	1255WNW+31	15' LT	-	1	1
	1255WNW+51	5' RT	1	-	-
	1255WNW+57	15' RT	1	-	
WSW RAMP	1254WSW+09	20' LT	1	-	-
	1254WSW+08	5' RT	1	-	-
	1254WSW+08	10' RT	1	-	-
	TOTAL		5	1	1

Addendum No. 01
ID 1517-07-74
Revised Sheet 270
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

3

3

EARTHWORK

Category	Stage	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Excavation Rock (CY) 205.0200	Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)				
1000	1	9A+90 to 22A+97	American Drive (AD)	3,723	0	100	267	267	3,456
		8J+83 to 9J+73	Jameson (J)	306	0	100	1	1	305
			Pond 6	27,152	0	15,000	105	105	27,047
1000	1	N/A	Pond 7	1,865	0	0	2,620	2,620	-755
				33,046	0	15,200	2,993	2,993	30,053
	Stage 1 Subtotal			33,046		15,200		2,993	
1000	2	1264NB+00to 1307NB+89	IH 41 NB	12,985	0	0	18,719	18,719	-5,734
		1255WNE+96 to 1264WNE+53	WNE	6,502	0	0	1,261	1,261	5,241
	2	1233SB+68 to 1321SB+00	IH 41 SB	21,731	0	0	19,937	19,937	1,793
	2B	1244WSW+51 to 1254WSW+33	WSW	4,332	0	0	571	571	3,760
	2B	1255WNW+57 to 1265WNW+67	WNW	3,120	0	0	3,433	3,433	-313
	2	105FWS+00 to 112FWS+00	FWS	6,996	0	0	155	155	6,841
		CV-22 to CV-23, CV-26 to CV-33	ITS VAULTS, CONDUIT	0	0	200	0	0	0
		1286SB to 1310SB (SB, AD, FWS)	LIGHTING BASES AND CONDUIT	0	0	200	0	0	0
		UNDISTRIBUTED	UNDISTRIBUTED	0	0	2,000	0	0	0
				55,665	0	2,400	44,077	44,077	11,589
	Stage 2 Subtotal			55,665		2,400		44,077	
	Project 1517-07-74 Total			88,711		17,600		47,070	

1) Excavation Common = Cut + EBS Excavation.
2) Cut volume includes concrete and asphaltic surface material.
3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.
4) Roadway Embankment = Fill
5) The Mass Ordinate: A positive quantity indicates an excess of material and a negative quantity indicates a shortage of material.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

Addendum No. 01
ID 1517-07-74
Revised Sheet 271
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

PAVEMENT

LOCATION	STA	-	STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	320.0155 CONCRETE BASE 9-INCH SY	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0110 CONCRETE PAVEMENT 11-INCH SY	416.0610 DRILLED TIE BARS EACH	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	455.0605 TACK COAT GAL	465.0120 ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY
NORTHBOUND	1250NB+00		1260NB+00	40	1013	2193	0	0	0	2576	0	20	0	0	0	0
	1260NB+00		1270NB+00	0	1200	3011	0	0	0	2648	145	145	0	0	0	0
	1270NB+00		1280NB+00	0	1073	2760	0	0	0	0	2406	445	0	0	0	0
	1280NB+00		1290NB+00	0	1101	2785	0	0	0	0	2445	445	0	0	0	0
	1290NB+00		1300NB+00	0	928	2415	0	0	0	0	2465	445	0	0	0	0
	1300NB+00		1310NB+85	36	851	2838	0	0	0	0	2470	516	17	10	0	0
SOUTHBOUND	1233SB+00		1240SB+00	0	557	1167	0	0	0	0	963	285	0	0	0	0
	1240SB+00		1250SB+00	0	1874	4221	316	0	0	1712	1873	450	37	10	0	0
	1250SB+00		1260SB+00	0	2945	6505	0	0	0	3670	1964	460	43	10	0	0
	1260SB+00		1270SB+00	0	1632	4087	217	0	0	2730	1377	350	26	10	0	0
	1270SB+00		1280SB+00	0	1242	3059	0	0	0	0	2411	440	0	0	0	0
	1280SB+00		1290SB+00	0	1346	3334	0	0	0	0	2704	445	0	0	0	0
	1290SB+00		1300SB+00	29	1702	4286	0	0	0	0	3741	445	0	0	0	0
	1300SB+00		1310SB+00	473	3187	6568	292	0	0	0	3960	480	308	50	0	0
	1310SB+00		1320SB+00	282	969	2069	0	0	0	0	0	0	226	30	0	0
	1320SB+00		1330SB+00	29	89	207	0	0	0	0	0	0	24	10	0	0
AMERICAN DRIVE	9AD+90		22AD+96.98	0	2185	5851	0	289	0	0	0	0	1508	130	31	146
BARRIER WORK AT	S-70-244			0	6	16	0	0	5	0	0	0	0	0	0	0
SIGN STRUCTURES	S-70-246			0	17	45	0	0	27	0	0	0	0	0	0	0
TOTAL				889	23,917	57,417	825	289	32	13,336	28,924	5,371	2,189	260	31	146

Addendum No. 01
ID 1517-07-74
Revised Sheet 273
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

TEMPORARY SHORING

LOCATION	STA	STA	511.1100 TEMPORARY SHORING SF
MH 123A TO MH 128	1288NB+50	1298NB+00	7600
PROJECT 1517-07-74 TOTAL			7600

APRON ENDWALL FOR STRUCTURE B-70-131

LOCATION	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	633.5200 MARKERS CULVERT END EACH
B-70-131 N. ABUTMENT	1	1
PROJECT 1517-07-74 TOTAL	1	1

STORM SEWER ROCK EXCAVATION

LOCATION	STATION	-	STATION	LENGTH LF	WIDTH LF	DEPTH LF	608.0005 STORM SEWER ROCK EXCAVATION CY
IH 41 NB	1290+40	-	1293+00	260	5.2	1.0	51
IH 41 NB	1293+00	-	1296+00	300	5.2	2.3	130
IH 41 NB	1296+00	-	1299+00	300	5.2	3.5	203
IH 41 SB	1288+50	-	1290+50	200	4.5	2.0	67
IH 41 SB	1290+50	-	1293+50	300	4.5	4.0	200
IH 41 SB	1293+50	-	1296+66	316	5.2	5.3	323
IH 41 SB	1296+66	-	1299+50	284	5.2	2.0	110
IH 41 SB	1299+50		1314+20	1,470	5.2	4.0	1,133
AMERICAN	10+65	-	23+12	1,247	5.5	2.0	509
TOTAL							2,726

SURVEY PROJECT

SPV.0105.001
SURVEY PROJECT

LOCATION	LS
UNDISTRIBUTED	1
PROJECT 1517-07-74 TOTAL	1

Addendum No. 01
ID 1517-07-74
Revised Sheet 278
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

CONCRETE CURB & GUTTER

LOCATION	STA	-	STA	OFFSET	601.0409 30-INCH TYPE A LF	601.0411 30-INCH TYPE D LF	601.0555 6-INCH SLOPED 36-INCH TYPE A LF	601.0557 6-INCH SLOPED 36-INCH TYPE D LF
					CONCRETE CURB & GUTTER			
SOUTHBOUND	1233SB+00		1240SB+00		-	-	636	-
	1240SB+00		1250SB+00		-	-	1000	-
	1250SB+00		1260SB+00		425	-	448	-
	1260SB+00		1270SB+00		-	-	-	-
	1270SB+00		1280SB+00		-	-	-	-
	1280SB+00		1290SB+00		-	-	-	-
	1290SB+00		1300SB+00		-	-	-	-
	1300SB+00		1310SB+00		-	-	-	295
WNE	1250SB+00		1260NB+00		390		150	
AMERICAN DRIVE	9AD+90		22AD+96.98		-	1350	-	-
WINCHESTER ROAD	MEDIAN				105	-	-	-
TOTAL					920	1350	2234	295

ASPHALTIC FLUMES & SURFACE DRAINS

LOCATION	STATION	OFFSET	465.0315 ASPHALTIC FLUMES SY	606.0200* RIPRAP MEDIUM CY	416.1010 CONCRETE SURFACE DRAINS CY
AMERICAN DRIVE	22AD+96.98	16' LT	10	1	-
AMERICAN DRIVE	22AD+96.98	16' RT	8	2	-
WSW RAMP	1253WSW+83.00	50' LT	-	2	1
WNW RAMP	1255WNW+30	55' LT	-	2	1
TOTAL			18	7	2

Addendum No. 01
ID 1517-07-74
Revised Sheet 280
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

CONCRETE SIDEWALK

LOCATION	STA	-	STA	602.0410 CONCRETE SIDEWALK 5-INCH SF
WNE	1250SB+00		1260NB+00	840
WSW	1254WSW+00		1254WSW+45	890
WINCHESTER	MEDIAN			445
MEDIAN	B-70-129			220
TOTAL				2395

GUARDRAIL ITEMS

LOCATION	STATION	-	STATION	OFFSET	614.1000 MGS GUARDRAIL TEMPORARY LF	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT EACH	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY
RAMP WNE	1257WNE+32		1258WNE+25	LT	-	-	-	40	1	-	-
RAMP WNE	1257WNE+32		1258WNE+25	RT	-	-	-	40	1	-	54
RAMP FWS	105FWS+24	-	106FWS+24	LT	-	-	-	40	1	-	49
RAMP FWS	109FWS+53	-	110FWS+50	RT	-	-	-	40	1	-	65
IH 41 SB	1305SB+86	-	1307SB+68	LT	-	-	113	-	1	1	74
IH 41 SB	1312SB+20	-	1322SB+78	LT	927	1	-	-	-	-	-
TOTAL					927	1	113	160	5	1	242

TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP

STAGE	LOCATION	SPV.0060.200 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	NO. OF CLOSURES	REMARKS
1	FWS RAMP	1	1	PIPE INSTALLATION
2	MAINLINE - WIDENING	6	6	WNE, WSW, WNW, FWS, FNE RAMPS
	TOTALS	7		

TRAFFIC CONTROL LEFT IN PLACE

STAGE	LOCATION	SPV.0060.201 REPOSITIONING TRAFFIC CONTROL DEVICES FOR MAINLINE CLOSURES EACH	SPV.0060.202 MAINTAIN CRASH CUSHION TEMPORARY LEFT IN PLACE EACH	SPV.0090.200 MAINTAIN CONCRETE BARRIER TEMPORARY LEFT IN PLACE LF
1A	MAINLINE - MEDIAN RUMBLE STRIPS	7	-	-
1B	MAINLINE - MEDIAN SIGN STRUCTURES	21	-	-
2A	MAINLINE - WIDENING	10	-	-
2B	MAINLINE - WIDENING	10	-	-
2C	MAINLINE - NB PAVEMENT	-	1	1,405
3A	MAINLINE - GREEN BAY ROAD STRUCTURES	10	-	-
3B	MAINLINE - GREEN BAY ROAD STRUCTURES	10	-	-
	TOTALS	68	1	1,405

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY LF
UNDISTRIBUTED	10000
PROJECT 1517-07-74 TOTAL	10000

Addendum No. 01
ID 1517-07-74
Revised Sheet 281
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

FILE NAME: P:\TRANSPORTAION\US 10 WIS 441\CADD\SHEETS\15170776\030201_mq.PPT ORIGINATOR: JESSICA MEDDAUGH ORIG. DATE: JANUARY 31, 2014 PLOTTED DATE: 4/8/2016 11:28 AM

FENCE CHAIN LINK

LOCATION	STATION	OFFSET	STATION	OFFSET	616.0206 FENCE CHAIN LINK 6-FT LF
WNE RAMP	1262WNE+09	108.95' RT	1266WNE+27	34.38' RT	439
IH 41 NB	1270NB+49	150.00' RT	1280NB+00	121.28' RT	907
IH 41 NB	1280NB+00	121.28' RT	1289NB+63	74.10' RT	967
IH 41 NB	1296NB+24	79.58' RT	1303NB+74	210.00'RT	932
WINCHESTER RD NW RAMP	1258WNW+33.54	119.67' LT	1260WNW+08.22	56.97' LT	190
IH 41 SB	1267SB+94.89	60.00' LT	1268SB+45.10	11.43' LT	90
IH 41 SB	1270SB+74.45	62.00' LT	1285SB+30.92	75.96' LT	1,620
AMERICAN DR	14AD+78.00	26.48' LT	8J+80.09	30.00' RT	85
IH 41 SB	1298SB+49.84	100.00' LT	1303SB+95.15	127.00' LT	525
TOTAL					5,755

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
PROJECT 1517-07-74	1
TOTAL	1

WATER

LOCATION	624.0100 WATER MGAL
AGGREGATE COMPACTION	71
EARTHWORK COMPACTION	207
DUST CONTROL	500
PROJECT 1517-07-74 TOTAL	778

CONCRETE MEDIAN SLOPED NOSE

LOCATION	STA	-	STA	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
WNE				
	1256WNE+00		18' RT	32
	1255WNE+95		60' RT	21
WSW				
	1254WSW+46		22' LT	41
	1254WSW+33		64' LT	20
WNW				
	1255WNW+50		18' LT	0
	1255WNW+20		30' LT	0
TOTAL				114

Addendum No. 01
ID 1517-07-74
Revised Sheet 282
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

Addendum No. 01
ID 1517-07-74
Revised Sheet 285
April 18, 2016

3

3

TRAFFIC CONTROL

		643.0300		643.0420		643.0715		643.0800		643.0900		643.0920		643.1050		603.8000	603.8125			
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE II	NUMBER OF CYCLES	TRAFFIC CONTROL SIGNS PCMS		CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	NO. OF CLOSURES	REMARKS	
		EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	EACH	EACH	DAYS	LF	LF			
STAGE	LOCATION																			
1A	MAINLINE - MEDIAN SB	120	840	9	63	15	105	2	14	25	175	0	0	1	7	0	0	1	7	DAYS
	MAINLINE - MEDIAN NB	125	875	8	56	15	105	2	14	26	182	0	0	1	7	0	0	1	7	DAYS
	AMERICAN	0	0	6	42	12	84	0	0	6	42	0	0	0	0	0	0	1	7	DAYS
	WINCHESTER RD - B-70-129	12	84	2	14	0	0	0	0	6	42	0	-	0	0	0	0	1	7	DAYS
1B	MAINLINE - S-70-247	100	3,000	6	180	30	900	4	120	42	1,260	0	-	2	60	1,000	1,000	1	30	DAYS
	MAINLINE - S-70-245	100	3,000	6	180	30	900	4	120	42	1,260	0	-	2	60	1,400	1,400	1	30	DAYS
	MAINLINE - S-70-243	100	3,000	6	180	30	900	4	120	42	1,260	0	-	2	60	1,000	1,000	1	30	DAYS
	WINCHESTER RD - B-70-129	12	360	2	60	0	0	0	0	6	180	0	-	0	0	0	0	1	30	DAYS
1	MAINLINE NB S-40-246	50	1,500	3	90	15	450	2	60	21	630	0	-	1	30	1,000	1,000	1	30	DAYS
	AMERICAN	0	0	6	180	12	360	0	0	6	180	0	-	0	0	0	0	1	30	DAYS
2	MAINLINE NB	0	0	0	0	0	0	0	0	15	900	0	-	2	120	4,030	4,030	1	60	DAYS
2	MAINLINE SB - WIDENING & FWS OUTISDE	10	600	1	60	0	0	0	0	11	660	0	-	2	120	8,400	8,400	1	60	DAYS
2B	NB WINCHESTER RAMP	28	840	4	120	8	240	0	0	22	660	3	1	2	60	775	1,175	1	30	DAYS
2B	SB WINCHESTER RAMPS	20	600	13	390	18	540	0	0	8	240	5	1	0	0	450	850	1	30	DAYS
2	FWS INSIDE	30	900	0	0	0	0	0	0	3	90	0	-	0	0	1,150	1,150	1	30	DAYS
2	B-70-130 EPOXY OVERLAY 1 LANE CLOSURE	45	135	2	6	13	39	2	6	13	39	0	-	0	0	0	0	1	3	DAYS
2	B-70-130 EPOXY OVERLAY 2 LANE CLOSURE	83	166	4	8	26	52	3	6	18	36	0	-	0	0	0	0	1	2	DAYS
2C	MAINLINE NB @ FWN RAMP	0	0	0	0	0	0	0	0	0	0	0	-	0	0	1,405	1,405	1	9	DAYS
3	MAINLINE NB	17	3,587	0	0	0	0	0	0	17	3,587	0	-	2	422	1,000	1,000	1	211	DAYS
3A	MAINLINE SB - 4 LANES	100	16,600	0	0	0	0	0	0	5	830	0	-	0	0	1,000	1,000	1	166	DAYS
3B	MAINLINE SB - 3 LANES	100	4,500	0	0	0	0	0	0	5	225	0	-	0	0	0	1,000	1	45	DAYS
	SIDE ROAD CLOSURE B-70-129	0	0	8	56	10	70	0	0	8	56	0	-	2	14	0	0	1	7	DAYS
	SIDE ROAD CLOSURE B-70-131	4	28	6	42	8	56	0	0	6	42	0	-	0	0	0	0	1	7	DAYS
	SIDE ROAD CLOSURE B-70-132	4	28	6	42	8	56	0	0	6	42	0	-	0	0	0	0	1	7	DAYS
	SUBTOTAL		40,643		1,769		4,857		460		12,618	8			960	22,610	24,410			
	UNDISTRIBUTED (10%)		4,064		177		486		46		1,262				96					
	TOTALS		44,707		1,946		5,343		506		13,880	8			1,056	22,610	24,410			

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

Addendum No. 01
ID 1517-07-74
Revised Sheet 286
April 18, 2016

3

CRASH CUSHION

STAGE	LOCATION	STATION	OFFSET	STATION	OFFSET	614.0805 CRASH CUSHION PERMANENT LOW MAINTENANCE EACH	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
1B	MAINLINE - S-70-247	1265SB+90	25' RT	1267SB+11	25' RT		2	2	OM-3C (W05-58M)	TL-3	Bidirectional	L and R	Barrier removed for sign structure construction
1B	MAINLINE - S-70-245	1283SB+90	25' RT	1287SB+20	25' RT		2	2	OM-3C (W05-58M)	TL-3	Bidirectional	L and R	Barrier removed for sign structure construction
1B	MAINLINE - S-70-243	1293SB+65	25' RT	1294SB+85	25' RT	-	2	2	OM-3C (W05-58M)	TL-3	Bidirectional	L and R	Barrier removed for sign structure construction
1	MAINLINE - S-40-246	1275NB+90	25' LT	1277NB+10	25' LT	-	2	2	OM-3L (W05-58L)	TL-3	Unidirectional	R	Barrier removed for sign structure construction
2	MAINLINE NB	1269NB+51	30' RT			-	1	2	OM-3R (W05-58R)	TL-3	Unidirectional	L	Temporary barrier
2	MAINLINE SB - WIDENING & FWS OUTISDE	112FWS+57	34'LT			-	1	2	OM-3L (W05-58L)	TL-3	Unidirectional	R	Temporary barrier
2	NB WINCHESTER RAMP	1262NB+73	36' LT	1269NB+51	30' RT	-	2	2	OM-3C (W05-58M)	TL-3	Unidirectional	L and R	Temporary barrier
2	SB WINCHESTER RAMPS	1242WSW+43	1' RT	1266WNW+25	11' RT	-	2	2	OM-3R (W05-58R)	TL-3	Unidirectional	L	Temporary barrier
2	FWS INSIDE	103FWS+57	48' LT	113FWS+77	28' LT	-	2	2	OM-3L (W05-58L)	TL-3	Unidirectional	R	Temporary barrier
2C	MAINLINE NB @ FWN RAMP	1303NB+15	24' RT			-	1	2	OM-3R (W05-58R)	TL-3	Unidirectional	L	Temporary barrier
	WINCHESTER RD NW RAMP	1262SB+94.34	48' LT			1	-	2	OM-3C (W05-58M)	TL-3	Unidirectional	L and R	Permanent barrier in ramp gore
3	MAINLINE B-70-132	1265WNE+20	14' RT			-	1	2	OM-3R (W05-58R)	TL-3	Unidirectional	L	Temporary barrier
3A	MAINLINE B-70-131	1275SB+00	19' LT			-	1	2	OM-3R (W05-58R)	TL-3	Unidirectional	R	Temporary barrier
3B	MAINLINE B-70-131	1275SB+00	29' LT			-	1	2	OM-3R (W05-58R)	TL-3	Unidirectional	R	Temporary barrier
	TOTAL					1	20						

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE 1517-07-74

LOCATION	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE 1517-07-74 DAYS
PROJECT 1517-07-74	411
PROJECT 1517-07-74 TOTAL	411

FIELD OFFICE

LOCATION	642.5401 FIELD OFFICE TYPE D EACH
PROJECT 1517-07-74	1
PROJECT 1517-07-74 TOTAL	1

TRAFFIC CONTROL FIXED MESSAGE SIGN

LOCATION	643.1000 TRAFFIC CONTROL FIXED MESSAGE SIGN SF
STA 1266WNW+50, LT	350
PROJECT 1517-07-74 TOTAL	350

*QUANTITIY SHOWN ELSEWHERE

Addendum No. 01
ID 1517-07-74
Revised Sheet 287
April 18, 2016

TEMPORARY PAVEMENT MARKING

LOCATION	STA	-	STA	646.0103 PAVEMENT MARKING PAINT 4-INCH YELLOW LF	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE LF	646.0103 PAVEMENT MARKING PAINT 4-INCH DASH WHITE LF	646.0123 PAVEMENT MARKING PAINT 8-INCH LF	646.0600* REMOVING PAVEMENT MARKING LF
STAGE 2 - IH 41 NB								
	1250NB+00	-	1260NB+00	8	30	-	-	375
	1260NB+00	-	1270NB+00	1013	1583	359	-	2790.5
	1270NB+00	-	1280NB+00	1004	980	726	-	1750
	1280NB+00	-	1290NB+00	1000	1000	750	-	1750
	1290NB+00	-	1300NB+00	1000	1000	750	-	1750
	1300NB+00	-	1310NB+00	998	1428	594	379	2173.5
	1310NB+00	-	1320NB+00	253	422	-	172	719
STAGE 2 - IH 41 SB								
	1233SB+00	-	1240SB+00	836	1435	477	-	2926
	1240SB+00	-	1250SB+00	1245	1258	560	1065	3858
	1250SB+00	-	1260SB+00	1575	1579	504	-	4299
	1260SB+00	-	1270SB+00	1251	1259	563	1006	3157
	1270SB+00	-	1280SB+00	1023	1038	773	-	2835
	1280SB+00	-	1290SB+00	1000	1000	750	-	2750
	1290SB+00	-	1300SB+00	1004	995	709	-	2750
	1300SB+00	-	1310SB+00	1435	1455	492	1056	3404
	1310SB+00	-	1314SB+50	1050	1082	125	-	1350
STAGE 3 - IH 41 NB								
	1257NB+00	-	1260NB+00	-	315	-	-	630
	1260NB+00	-	1270NB+00	975	1745	365	1055	8280
	1270NB+00	-	1280NB+00	985	2475	357	-	7634
STAGE 3A - IH 41 SB								
	1260NB+00	-	1270NB+00	1000	1820	460	-	3280
	1270NB+00	-	1280NB+00	750	1260	225	-	2235
STAGE 3B - IH 41 SB								
	1260NB+00	-	1270NB+00	1000	2120	470	-	6870
	1270NB+00	-	1280NB+00	750	1520	380	-	4885
WINCHESTER								
	1233SB+00	-	1240SB+00	-	100	-	-	-
	1240SB+00	-	1250SB+00	-	200	-	-	175
	1250SB+00	-	1260SB+00	-	-	-	-	-
	1260SB+00	-	1270SB+00	-	750	-	-	502
	1270SB+00	-	1280SB+00	-	1032	-	-	-
FWS								
	1280SB+00	-	1290SB+00	-	1000	-	-	200
	1290SB+00	-	1300SB+00	-	1000	250	-	625
	1300SB+00	-	1310SB+00	700	1220	-	1060	2450
	1310SB+00	-	1320SB+00	-	-	-	-	-
	1320SB+00	-	1330SB+00	-	-	-	-	-
SUBTOTAL				21,855	34,101	10,639	5,793	76,402
TOTAL					66,595			

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

Addendum No. 01
ID 1517-07-74
Revised Sheet 288
April 18, 2016

3

3

PAVEMENT MARKING

			646.0106 PAVEMENT MARKING EPOXY 4-INCH		646.0126 PAVEMENT MARKING EPOXY 8-INCH	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH 12.5' LINE 37.5' SKIP	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH		647.0566 PAVEMENT MARKING STOPLINE EPOXY 18-INCH	SPV.0060.007 PAVEMENT MARKING GROOVED ARROWS PREFORMED THERMOPLASTIC TYPE 2	SPV.0060.008 PAVEMENT MARKING GROOVED WORDS PREFORMED THERMOPLASTIC	646.0600* REMOVING PAVEMENT MARKING
			YELLOW	WHITE	WHITE	DASHED WHITE	SOLID WHITE	SKIP DASHED WHITE	WHITE	WHITE	WHITE	
LOCATION	STA	STA	LF	LF	LF	LF	LF	LF	LF	EACH	EACH	LF
NORTHBOUND	B-70-130		210	210	-	105	-	-	-	-	-	-
	1258NB+00	1270NB+00	717	1729	-	269	400	0	-	-	-	2801
	1270NB+00	1280NB+00	25	985	-	745	-	0	-	-	-	2984
	1280NB+00	1290NB+00	1000	1000	-	500	-	250	-	-	-	2750
	1290NB+00	1300NB+00	999	1008	-	502	-	252	-	-	-	2750
	1300NB+00	1310NB+00	999	1008	-	502	527	154	-	-	-	3441
SOUTHBOUND	1233SB+00	1240SB+00	835	835	-	627	-	22	-	-	-	2750
	1240SB+00	1250SB+00	1232	1270	-	751	1152	42	-	-	-	2825
	1250SB+00	1260SB+00	1826	1776	-	844	272	0	37	-	-	2515
	1260SB+00	1270SB+00	1240	1352	-	819	1326	53	-	-	-	2510
	1270SB+00	1280SB+00	1025	1045	-	774	205	260	-	-	-	2570
	1280SB+00	1290SB+00	1000	1000	-	750	-	250	-	-	-	2500
	1290SB+00	1300SB+00	1005	990	-	602	-	266	-	-	-	3620
	1300SB+00	1311SB+50	1470	2257	1010	-	-	-	-	-	-	4130
WNE	1256WNE+00	1268WNE+00	-	1130	-	276	520	-	-	-	-	-
WNW	1255WNW+28	1267WNW+00	630	1120	-	-	345	68	50	3	2	-
WSW	1244WSW+00	1245WSW+60	665	1300	-	-	-		-	-	-	-
AMERICAN	9AD+90	22AD+96.98	2695	-	-	-	-	-	35	-	-	-
SUBTOTAL			17,573	20,015	1,010	8,066	4,747	1,617	122	3	2	38,146
TOTAL			37,588				6,364					

*QUANTITIY SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

BASES

WIS 441 Lighting - Contract 1517-07-74

CATEGORY		LOCATION	STATION	SPV.0060.353 JUNCTION BOXES STAINLESS STEEL 8X8X4-INCH	JUNCTION BOXES 18X6X6-INCH	654.0107 CONCRETE BASES TYPE 7	SPV.0060.350 CONCRETE BASES TYPE 7 ON STEEP SLOPES	SPV.0060.351 ANCHOR BOLT COVER SHROUD
				EACH			EACH	EACH
1100	RAMP WNE	SLB101	STA 1263+80		-	-	STR	1
		SLB102	STA 1266+19		-	-	STR	1
	IH 41 NB	SLB103	STA 1269+41		-	-	STR	1
		SLB104	STA 1272+27		-	-	1	1
		SLB105	STA 1275+13		-	-	1	1
		SLB106	STA 1277+90		-	-	1	1
		SLB107	STA 1280+65		-	-	1	1
		SLB108	STA 1283+41		-	-	1	1
		SLB109	STA 1286+15		-	-	1	1
		SLB110	STA 1288+90		-	-	1	1
		SLB111	STA 1291+65		-	-	STR	1
		SLB112	STA 1294+40		-	-	STR	1
		SLB113	STA 1297+11		-	-	1	1
		SLB114	STA 1299+80		-	-	1	1
		SLB115	STA 1302+50		-	-	1	1
		SLB116	STA 1305+00		-	-	1	1
	RAMP WNW	SLB117	STA 1262+19		-	STR	-	1
		SLB118	STA 1264+94		-	STR	-	1
		SLB119	STA 1267+80		-	STR	-	1
	IH 41 SB	SLB120	STA 1270+85		-	1	-	1
		SLB121	STA 1273+00		-	-	1	1
		SLB122	STA 1275+64		-	-	1	1
		SLB123	STA 1278+11		-	-	1	1
		SLB124	STA 1280+85		-	-	1	1
		SLB125	STA 1283+60		-	-	1	1
		SLB126	STA 1286+35		-	-	1	1
		SLB127	STA 1289+10		-	1	-	1
		SLB128	STA 1291+85		-	1	-	1
		SLB129	STA 1294+61		-	-	1	1
		SLB130	STA 1297+43		-	-	1	1
		SLB131	STA 1300+25		-	-	1	1
		SLB132	STA 105+93		-	-	1	1
		SLB133	STA 108+97		-	1	-	1
		SLB134	STA 111+82		-	-	1	1
	JUNCTION BOXES EMBEDDED- IH 41 NB	LJB01	STA 1265NB+18		STR	-	-	-
		LJB02	STA 1267NB+80		STR	-	-	-
		LJB03	STA 1290NB+26		STR	-	-	-
		LJB04	STA 1293NB+02		STR	-	-	-
		LJB05	STA 1295NB+75		STR	-	-	-
	IH 41 SB	LJB06	STA 1261SB+20		STR	-	-	-
		LJB07	STA 1263SB+56		STR	-	-	-
		LJB08	STA 1266SB+20		STR	-	-	-
		LJB09	STA 1269SB+31		STR	-	-	-
	CTH II (WINCHESTER ROAD)	LJB10	STA 1255SB+18	1		-	-	-
PROJECT TOTAL				1		4	22	34

CONDUIT

WIS 441 Lighting - Contract 1517-07-74

CATEGORY	SYSTEM	POLE	FROM (POLE LOCATION)	POLE	TO (POLE LOCATION)	# OF CONDUITS	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH
							LF	LF
1100	RAMP WNE	LPB01	STA 1262+58	SLB101	STA 1263+80	1	STR	-
		SLB101	STA 1263+80	LJB01	STA 1265+18	1	STR	-
		LJB01	STA 1265+18	SLB102	STA 1266+19	1	STR	-
		SLB102	STA 1266+19	LJB02	STA 1267+80	1	STR	-
		LJB02	STA 1267+80	SLB103	STA 1269+41	1	STR	-
	IH 41 NORTHBOUND	SLB103	STA 1269+41	LPB02	STA 1270+80	1	STR	-
		LPB02	STA 1270+80	SLB104	STA 1272+27	1	147	-
		SLB104	STA 1272+27	SLB105	STA 1275+13	1	286	-
		SLB105	STA 1275+13	SLB106	STA 1277+90	1	277	-
		SLB106	STA 1277+90	SLB107	STA 1280+65	1	275	-
		SLB107	STA 1280+65	SLB108	STA 1283+41	1	276	-
		SLB108	STA 1283+41	SLB109	STA 1286+15	1	274	-
		SLB109	STA 1286+15	SLB110	STA 1288+90	1	275	-
		SLB110	STA 1288+90	LPB03	STA 1289+52	1	62	-
		LPB03	STA 1289+52	LJB03	STA 1290+26	1	STR	-
		LJB03	STA 1290+26	SLB111	STA 1291+65	1	STR	-
		SLB111	STA 1291+65	LJB04	STA 1293+02	1	STR	-
		LJB04	STA 1293+02	SLB112	STA 1294+40	1	STR	-
		SLB112	STA 1294+40	LJB05	STA 1295+75	1	STR	-
		LJB05	STA 1295+75	LPB04	STA 1296+69	1	STR	-
		LPB04	STA 1296+69	SLB113	STA 1297+11	1	42	-
		SLB113	STA 1297+11	SLB114	STA 1299+80	1	269	-
		SLB114	STA 1299+80	SLB115	STA 1302+50	1	270	-
		SLB115	STA 1302+50	SLB116	STA 1305+00	1	250	-
		SLB116	STA 1305+00	ELPB01	STA 1307+90	1	290	-
		LPB05	STA 1259+95	LJB06	STA 1261+20	1	STR	-
	RAMP WNW	LJB06	STA 1261+20	SLB117	STA 1262+19	1	STR	-
		SLB117	STA 1262+19	LJB07	STA 1263+56	1	STR	-
		LJB07	STA 1263+56	SLB118	STA 1264+94	1	STR	-
		SLB118	STA 1264+94	LJB08	STA 1266+20	1	STR	-
		LJB08	STA 1266+20	SLB119	STA 1267+80	1	STR	-
	IH 41 SOUTHBOUND	SLB119	STA 1267+80	LJB09	STA 1269+31	1	STR	-
		LJB09	STA 1269+31	LPB06	STA 1270+90	1	STR	-
		LPB06	STA 1270+90	SLB120	STA 1270+85	1	STR	-
		LPB06	STA 1270+90	SLB121	STA 1273+00	1	210	-
		SLB121	STA 1273+00	SLB122	STA 1275+64	1	264	-
		SLB122	STA 1275+64	SLB123	STA 1278+11	1	247	-
		SLB123	STA 1278+11	SLB124	STA 1280+85	1	274	-
		SLB124	STA 1280+85	SLB125	STA 1283+60	1	275	-
		SLB125	STA 1283+60	SLB126	STA 1286+35	1	275	-
		SLB126	STA 1286+35	SLB127	STA 1289+10	1	275	-
		SLB127	STA 1289+10	SLB128	STA 1291+85	1	275	-
		SLB128	STA 1291+85	SLB129	STA 1294+61	1	276	-
		SLB129	STA 1294+61	SLB130	STA 1297+43	1	282	-
		SLB130	STA 1297+43	LPB07	STA 1298+50	1	107	-
		LPB07	STA 1298+50	SLB131	STA 1300+25	1	175	-
		SLB131	STA 1300+25	SLB132	STA 105+93	1	275	-
		SLB132	STA 105+93	SLB133	STA 108+97	1	304	-
		SLB133	STA 108+97	SLB134	STA 111+82	1	285	-
		SLB134	STA 111+82	ELPB02	STA 112+00	1	18	-
	CTH II (WINCHESTER ROAD)	LPB07	STA 1255SB+10	LJB10	STA 1255SB+18	1	-	48
PROJECT TOTAL							6810	48

Addendum No. 01
ID 1517-07-74
Revised Sheet 292
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

3

3

PULL BOXES

WIS 441 Lighting - Contract 1517-07-74

CATEGORY	DESCRIPTION	STATION	OFFSET		SPV.0060.352 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
1100					
IH 41 NB	LPB01	STA 1262NB+58	37.00	RT	1
	LPB02	STA 1270NB+80	65.00	RT	1
	LPB03	STA 1289NB+52	65.00	RT	1
	LPB04	STA 1296NB+69	65.00	RT	1
IH 41 SB	LPB05	STA 1259SB+95	39.00	LT	1
	LPB06	STA 1270SB+90	65.00	LT	1
	LPB07	STA 1298SB+50	77.00	LT	1
CTH II (WINCHESTER)	LPB08	STA 1255SB+10	58.00	LT	1
PROJECT TOTAL					8

Addendum No. 01
ID 1517-07-74
Revised Sheet 293
April 18, 2016

ALL ITEMS ARE CATEGORY **1000** UNLESS OTHERWISE SPECIFIED.

ERECTION & REMOVAL OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2215 SIGN TYPE II REF. H FOLD.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2101 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SPV.0165.950 SIGN BLANKS LEFT-IN-PLACE S.F.	REMARKS
1	I-41, S. OF CTH II/WINCHESTER RD	R2-1	48" X 60"	20.00	---	---	---	---	2	---	---	---	---	70 MPH
2	"	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 132.0
3	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 132.0, MOUNT TO BACK OF SIGN #2, PART OF REMOVAL FOR SIGN #2
4	"	J4-2	72" X 54"	27.00	---	---	---	---	1	---	---	---	---	SOUTH INTERSTATE 41, SOUTH USH 41
5	"	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 132.2
6	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 132.2, MOUNT TO BACK OF SIGN #5, PART OF REMOVAL FOR SIGN #5
7	"	I55-56	---	---	---	---	---	---	---	---	1	1	---	
8	I-41, ON-RAMP FROM CTH II	R5-57	36" X 36"	9.00	---	---	1	---	---	---	1	1	---	
9	I-41, S. OF CTH II/WINCHESTER RD	W4-1	48" X 48"	---	---	16.00	---	2	---	---	1	2	---	
10	I-41, N. OF CTH II/WINCHESTER RD	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 132.4
11	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 132.4, MOUNT TO BACK OF SIGN #10, PART OF REMOVAL FOR SIGN #10
12	I-41, OFF-RAMP TO CTH II	J12-1	24" X 45"	7.50	---	---	---	1	---	---	---	---	---	CTH II, SEE PLAN SHEET
13	"	J12-1	24" X 45"	7.50	---	---	---	1	---	---	1	1	---	CTH II, SEE PLAN SHEET
14	"	R3-8	36" X 30"	7.50	---	---	1	---	---	---	---	---	---	
15	"	R3-8	36" X 30"	7.50	---	---	1	---	---	---	---	---	---	
15A	"	R3-8	54" X 48"	18.00	---	---		2						
15B	"	D1-60A	84" X 36"	21.00				2			1	2		WINCHESTER ROAD, WINCHESTER
15C	"	D7-53L	54" X 36"	13.50				2			1	1		
16	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	1	1	---	MOUNT ON BACK OF SIGN #14
17	"	R5-1A	36" X 24"	6.00	---	---	---	---	---	---	1	1	---	MOUNT ON BACK OF SIGN #15
18	"	E5-1A	90" X 60"	37.50	---	---	---	---	2	---	1	2	---	EXIT 133
19	"	W3-3	36" X 36"	---	---	9.00	---	1	---	---	1	1	---	
20	I-41, N. OF CTH II/WINCHESTER RD	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 132.6
21	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 132.6, MOUNT TO BACK OF SIGN #20, PART OF REMOVAL FOR SIGN #20
22	"	M1-94	96" X 21"	14.00	---	---	2	---	---	---	1	2	---	
23	"	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 132.8
24	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 132.8, MOUNT TO BACK OF SIGN #23, PART OF REMOVAL FOR SIGN #23
25	"	R3-33	---	---	---	---	---	---	---	---	1	2	---	
26	"	R3-33	---	---	---	---	---	---	---	---	1	2	---	
27	"	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 133.0
27A	AMERICAN DR	R2-1	24" X 30"	5.00	---	---	---	1	---	---	1	1	---	35 MPH
27B	"	R5-2	24" X 24"	4.00	---	---	---	1	---	---	1	1	---	
27C	JAMESON ST	R1-1	30" X 30"	5.18	---	---	1	---	---	---	1	1	---	
27D	AMERICAN DR	R2-1	24" X 30"	5.00	---	---	---	1	---	---	1	1	---	35 MPH
27E	"	R2-1	24" X 30"	5.00	---	---	---	1	---	---	1	1	---	35 MPH
28	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 133.0, MOUNT TO BACK OF SIGN #27, PART OF REMOVAL FOR SIGN #27
29	"	---	72" X 90"	---	---	---	---	---	---	---	---	---	45.00	SIGN BLANK, MOUNT ON SIGN BRIDGE S-70-243 NEXT TO E7-2 TYPE I SIGN, CENTERED OVER FAR RIGHT LANE
30	"	R2-1	48" X 60"	20.00	---	---	---	---	2	---	1	2	---	70 MPH
31	"	J4-2	72" X 54"	27.00	---	---	---	2	---	---	---	---	---	SOUTH INTERSTATE 41, SOUTH USH 41
32	I-41, S. OF USH 10	D10-5	21" X 60"	8.75	---	---	---	1	---	---	1	1	---	NORTH MILE 133.2
33	"	D10-5	21" X 60"	8.75	---	---	---	---	---	---	---	---	---	SOUTH MILE 133.2, MOUNT TO BACK OF SIGN #32, PART OF REMOVAL FOR SIGN #32
34	"	---	72" X 90"	---	---	---	---	---	---	---	---	---	45.00	SIGN BLANK, MOUNT ON SIGN CANTILEVER S-70-202 CENTERED OVER RIGHT LANE
35	"	W4-3R	48" X 48"	---	---	16.00	---	2	---	---	1	2	---	
36	"	M1-94	90" X 21"	13.13	---	---	2	---	---	---	1	2	---	
37	FSE RAMP	D10-5R	21" X 72"	10.50	---	---	---	---	---	---	---	---	---	RAMP MILE 133.6 S-E
38	FSE RAMP	D10-5R	21" X 72"	10.50	---	---	---	---	---	---	---	---	---	RAMP MILE 133.8 S-E
39	FSE RAMP	D10-5R	21" X 72"	10.50	---	---	---	---	---	---	---	---	---	RAMP MILE 134.0 S-E
40	IH 41, SB EXIT RAMP TO CTH II, ISLAND	R6-2R	24" X 30"	5.00	---	---	---	---	---	---	1	---	---	MOUNT TO SIGNAL POLE
41	"	R1-1F	30" X 30"	---	5.18	---	---	---	---	---	---	---	---	MOUNT BELOW SIGN 40, INCLUDED IN SIGN 40 REMOVAL
42	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 40, INCLUDED IN SIGN 40 REMOVAL
43	IH 41, SB EXIT RAMP TO CTH II	R1-2	---	0.00	---	---	0	---	---	---	1	1	---	
44	"	R5-1	30" X 30"	6.25	---	---	1	---	---	---	1	1	---	PLACE NEW SIGN ON SIGNAL POLE
44A	"	R1-1F	30" X 30"	---	5.18	---	---	---	---	---	---	---	---	MOUNT TO SIGNAL POLE
45	CTH II, SB ENTRANCE RAMP TO IH 41	R1-2	36" X 31"	3.88	---	---	1	---	---	---	1	1	---	
46	CTH II, SB ENTR. RAMP TO IH 41, ISLAND	D1-71	---	---	---	---	---	---	---	1	---	2	---	REMOVE AND REINSTALL
47	"	R11-54F	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT BELOW SIGN 46
48	CTH II MEDIAN, WEST OF IH 41	J2-1	---	---	---	---	---	---	---	1	---	1	---	REMOVE AND REINSTALL
49	CTH II, SB ENTR. RAMP TO IH 41, ISLAND	D1-70	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT TO BACK OF SIGN 46
50	"	R5-1	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT TO SIGNAL POLE
50A	CTH II	R3-1	24" X 24"	4.00	---	---	---	---	---	---	1	---	---	MOUNT TO SIGNAL POLE
50B	"	R1-1F	30" X 30"	---	5.18	---	---	---	---	---	---	---	---	INCLUDED IN SIGN 50A REMOVAL
50C	"	R5-1	30" X 30"	6.25	---	---	---	---	---	---	---	---	---	INCLUDED IN SIGN 50A REMOVAL
51	"	R1-1F	30" X 30"	---	5.18	---	---	---	---	---	---	---	---	MOUNT TO SIGNAL POLE
52	CTH II, NB ENTR. RAMP TO IH 41, ISLAND	R5-1	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT TO SIGNAL POLE
53	"	R1-1F	30" X 30"	---	5.18	---	---	---	---	---	---	---	---	MOUNT TO SIGNAL POLE
54	"	D1-70	---	---	---	---	---	---	2	1	---	2	---	REMOVE AND REINSTALL
55	"	D1-71	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT TO BACK OF SIGN 54
56	"	R11-54F	---	---	---	---	---	---	---	1	---	---	---	REMOVE AND REINSTALL, MOUNT BELOW SIGN 55
57	CTH II, NB ENTR. RAMP TO IH 41	R1-2	---	---	---	---	---	---	---	---	1	1	---	REMOVE YIELD SIGN
58	"	W4-6	36" X 36"	---	---	9.00	---	1	---	---	---	---	---	
60	I-41 NB, N. OF CTH II	W4-3R	48" X 48"	---	---	16.00	---	2	---	---	1	2	---	
61	"	R5-57	36" X 36"	9.00	---	---	1	---	---	---	1	1	---	
62	"	M1-94	96" X 21"	14.00	---	---	---	2	---	---	1	2	---	GREEN BAY RD, SEE SIGN DETAIL SHEET
63	"	J4-2	72" X 54"	27.00	---	---	---	---	2	---	1	1	---	NORTH INTERSTATE 41, NORTH USH 41
64	"	R2-1	48" X 60"	20.00	---	---	---	---	2	---	1	2	---	70 MPH
65	"	M1-94	90" X 21"	13.13	---	---	2	---	---	---	1	2	---	JACOBSEN RD, SEE SIGN DETAIL SHEET
	PROJECT TOTALS			**555.06**	**25.90**	**66.00**	**13**	**32**	**15**	**9**	**40**	**56**	**90.00**	

PLAN SHEET PRODUCED

BY WisDOT - NE REGION

Addendum No. 01
ID 1517-07-74
Revised Sheet 300
April 18, 2016

Conduit Rigid Nonmetallic Schedule 40

Location I 41 NB & CTH II (S70-2015)		652.0210 1-Inch	652.0225 2-Inch	652.0235 3-Inch	652.0615 3-Inch Special
FROM	TO	LF	LF	LF	LF
CB1	PB1			40	
CB1	PB2			40	
PB1	PB3	200			
PB1	PB4				50
PB2	SB1		10		
PB5	SB2			10	
PB6	SB6			10	
	TOTALS	200	10	100	50

Conduit Rigid Nonmetallic Schedule 40

Location I 41 SB & CTH II (S70-0295)		652.0225 2-Inch	652.0235 3-Inch
FROM	TO	LF	LF
PB1	SB2		20
PB2	SB6		30
PB2	SB7	40	
PB3	SB8	10	
	TOTALS	50	50

Pull Boxes, Non-Conductive

LOCATION	SPV.0060.352 24x42-Inch EACH
I 41 NB & CTH II (S70-2015)	11
TOTALS	11

Pull Boxes, Non-Conductive

LOCATION	SPV.0060.352 24x42-Inch EACH
I 41 SB & CTH II (S70-0295)	10
TOTALS	10

Removing Concrete Bases

LOCATION	204.0195 EACH
I 41 NB & CTH II (S70-2015)	3
TOTAL	3

Removing Concrete Bases

LOCATION	204.0195 EACH
I 41 SB & CTH II (S70-0295)	2
TOTAL	2

Addendum No. 01
ID 1517-07-74
Added Sheet 301A
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

Loop Detectors

LOCATION	LOOP NO.	# OF TURNS	652.0800 Conduit LF	655.0700 Lead In Cable LF	655.0800 Wire LF
I 41 NB & CTH II (S70-2015)	61	3	70	230	230
		TOTALS	70	230	230

Loop Detectors

LOCATION	LOOP NO.	# OF TURNS	652.0800 Conduit LF	655.0700 Lead In Cable LF	655.0800 Wire LF
I 41 SB & CTH II (S70-0295)	21	3	70	220	230
		TOTALS	70	220	230

Concrete Bases

LOCATION	654.0102 Type 2 EACH	654.0110 Type 10 EACH	654.0217 Control Cabinet Type 9 Special EACH
I 41 NB & CTH II (S70-2015)	1	2	1
TOTALS	1	2	1

Concrete Bases

LOCATION	654.0101 Type 1 EACH	654.0102 Type 2 EACH	654.0110 Type 10 EACH
I 41 SB & CTH II (S70-0295)	1	1	2
TOTALS	1	1	2

Electrical Wire Traffic Signals 10 AWG

LOCATION
I 41 NB & CTH II (S70-2015)

FROM	TO	655.0515 (Equipment Grounding Conductor) (Green) LF
CB1	SB2	180
SB2	SB3	120
SB3	SB4	120
SB4	SB5	110
SB5	SB6	190
SB6	SB7	120
SB7	SB1	120
SB1	CB1	60
	TOTAL	960

Electrical Wire Traffic Signals 10 AWG

LOCATION
I 41 SB & CTH II (S70-0295)

FROM	TO	655.0515 (Equipment Grounding Conductor) (Green) LF
CB1	SB1	60
SB1	SB2	210
SB2	SB3	110
SB3	SB4	110
SB4	SB5	120
SB5	SB6	140
SB6	SB7	100
SB7	SB8	190
SB8	CB1	90
	TOTAL	1,130

Addendum No. 01
ID 1517-07-74
Added Sheet 301B
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

TRAFFIC SIGNALS

LOCATION	656.0200 Electrical Service Meter Breaker Pedestal (I 41 NB & CTH II) LS	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle EACH	657.0310 Pole Type 3 EACH	657.0315 Pole Type 4 EACH	657.0585 Trombone Arms 15-FT	657.1350 Install Poles Type 10 EACH
I 41 NB & CTH II (S70-2015)	1	2	1	1	1	2
TOTALS	1	2	1	1	1	2

TRAFFIC SIGNALS

LOCATION	657.1530 Install Monotube Arms 30-FT EACH	658.0110 Traffic Signal Face 3-12 Inch Vertical EACH	658.0115 Traffic Signal Face 4-12 Inch Vertical EACH	658.0155 Traffic Signal Face 3-12 Inch Horizontal EACH	658.0600 LED Modules 12-Inch Red Ball EACH	658.0605 LED Modules 12-Inch Yellow Ball EACH
I 41 NB & CTH II (S70-2015)	2	6	1	1	7	7
TOTALS	2	6	1	1	7	7

TRAFFIC SIGNALS

LOCATION	658.0610 LED Modules 12-Inch Green Ball EACH	658.0615 LED Modules 12-Inch Red Arrow EACH	658.0620 LED Modules 12-Inch Yellow Arrow EACH	658.0625 LED Modules 12-Inch Green Arrow EACH	658.5069 Signal Mounting Hardware (I41 NB & CTH II) LS	SPV.0105.451 Remove Traffic Signal (I41 NB & CTH II) LS
I 41 NB & CTH II (S70-2015)	7	1	2	1	1	1
TOTALS	7	1	2	1	1	1

Addendum No. 01
ID 1517-07-74
Added Sheet 301C
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

TRAFFIC SIGNALS

LOCATION	657.0100 Pedestal Bases EACH	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle EACH	657.031 Pole Type 3 EACH	657.0315 Pole Type 4 EACH	657.0420 Traffic Signal Standards Aluminum 13-FT EACH	657.0585 Trombone Arms 15-FT EACH
I 41 SB & CTH II (S70-0295)	1	2	1	1	1	1
TOTALS	1	2	1	1	1	1

TRAFFIC SIGNALS

LOCATION	657.1350 Install Poles Type 10 EACH	657.1530 Install Monotube Arms 30-FT EACH	658.0110 Traffic Signal Face 3-12 Inch Vertical EACH	658.0115 Traffic Signal Face 4-12 Inch Vertical EACH	658.0155 Traffic Signal Face 3-12 Inch Horizontal EACH	658.0600 LED Modules 12-Inch Red Ball EACH
I 41 SB & CTH II (S70-0295)	2	2	7	1	1	8
TOTALS	2	2	7	1	1	8

TRAFFIC SIGNALS

LOCATION	658.0605 LED Modules 12-Inch Yellow Ball EACH	658.0610 LED Modules 12-Inch Green Ball EACH	658.0615 LED Modules 12-Inch Red Arrow EACH	658.0620 LED Modules 12-Inch Yellow Arrow EACH	658.0625 LED Modules 12-Inch Green Arrow EACH	658.5069 Signal Mounting Hardware (I41 SB & CTH II) LS
I 41 SB & CTH II (S70-0295)	8	8	1	2	1	1
TOTALS	8	8	1	2	1	1

TRAFFIC SIGNALS

LOCATION	SPV.0105.02 Remove Traffic Signal (I41 SB & CTH II) LS
I 41 SB & CTH II (S70-0295)	1
TOTALS	1

Addendum No. 01
ID 1517-07-74
Added Sheet 301D
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

FILE NAME: P:\TRANSPORTAION\US 10 WIS 441\CADD\SHEETS\15170776\030201_mq.PPT ORIGINATOR: JESSICA MEDDAUGH ORIG. DATE: JANUARY 31, 2014 PLOTTED DATE: 4/8/2016 1:53 PM

TRAFFIC SIGNAL CABLE

I 41 NB & CTH II (S70-2015)	655.0230	655.0240	655.0260		655.0230 Base to Head	655.0240 Base to Head	658.0215 Backplates	658.0220 Backplates
	5-14 AWG	7-14 AWG	12-14 AWG	HEAD NO.	5-14 AWG	7-14 AWG	Signal Face 3 Section 12-Inch	Signal Face 4 Section 12-Inch
From CB1 to	LF	LF	LF		LF	LF	EACH	EACH
SB1	60			8	20		1	
SB2	180			1	60		1	
				2	50		1	
SB3	250			9				
SB4			260	4		20		1
				3	20		1	
SB4	260			10	40		1	
SB5		200		5				
SB6	200			6	60		1	
				7	50		1	
SB7	130			11	15			
Sub Total	1,080	200	260		315	20	7	1
TOTALS	1,395	220	260				7	1

Signal Indication		Conductor Color
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White
Yellow Flashing Arrow	=	White w/Black
Green Arrow	=	Blue w/Black

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

NOTE: If there is a back to back 3 section with ball indications, then use solid colored conductors for NB & EB, and tracer conductors for SB & WB.

NOTE: Lead-in Cable shall be pulled in separately from other cables/wires and enter the Control Cabinet in a separate conduit if provided.

Addendum No. 01
ID 1517-07-74
Added Sheet 301E
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

TRAFFIC SIGNAL CABLE

I 41 SB & CTH II (S70-0295)	655.0230	655.0240	655.0260		655.0230 Base to Head	655.0240 Base to Head	658.0215 Backplates Signal Face	658.0220 Backplates Signal Face
	5-14 AWG	7-14 AWG	12-14 AWG	HEAD NO.	5-14 AWG	7-14 AWG	3 Section 12-Inch	4 Section 12-Inch
From CB1 to	LF	LF	LF		LF	LF	EACH	EACH
SB1	60			5				
SB2	210			6	60		1	
				7	50		1	
SB3	250			9				
SB4			310	1		20		1
				8	20		1	
SB4	310			10	40		1	
SB5		270		2				
SB6	220			3	60		1	
				4	50		1	
SB7	240			11	15		1	
SB8	90			12	15		1	
Sub Total	1,380	270	310		310	20	8	1
TOTALS	1,690	290	310				8	1

Signal Indication		Conductor Color
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White
Yellow Flashing Arrow	=	White w/Black
Green Arrow	=	Blue w/Black

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

NOTE: If there is a back to back 3 section with ball indications, then use solid colored conductors for NB & EB, and tracer conductors for SB & WB.

NOTE: Lead-in Cable shall be pulled in separately from other cables/wires and enter the Control Cabinet in a separate conduit if provided.

Addendum No. 01
ID 1517-07-74
Added Sheet 301F
April 18, 2016

ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.

3

Lighting Summary

LOCATION	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT EACH	657.1812 Install Luminaire Arms Steel 12-FT EACH	659.1120 Luminaires Utility LED-B EACH
I 41 NB & CTH II (S70-2015)	2	2	4
TOTALS	2	2	4

Signal Lighting Cable

LOCATION
I 41 NB & CTH II (S70-2015)

FROM	TO	655.0305 Type UF 2-12 AWG Grounded LF
CB1	SB1	60
CB1	SB2	180
CB1	SB4	260
CB1	SB6	200
	TOTAL	700

Electrical Wire Lighting 12 AWG

LOCATION
I 41 NB & CTH II (S70-2015)
120 Volt System

FROM	TO	655.0610 LF
SB1	Luminaire	150
SB2	Luminaire	150
SB4	Luminaire	150
SB6	Luminaire	150
	TOTAL	600

Lighting Summary

LOCATION	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT EACH	657.1812 Install Luminaire Arms Steel 12-FT EACH	659.1120 Luminaires Utility LED-B EACH
I 41 SB & CTH II (S70-0295)	2	2	4
TOTALS	2	2	4

Signal Lighting Cable

LOCATION
I 41 SB & CTH II (S70-0295)

FROM	TO	655.0305 Type UF 2-12 AWG Grounded LF
CB1	SB2	210
CB1	SB4	310
CB1	SB6	220
CB1	SB8	90
	TOTAL	830

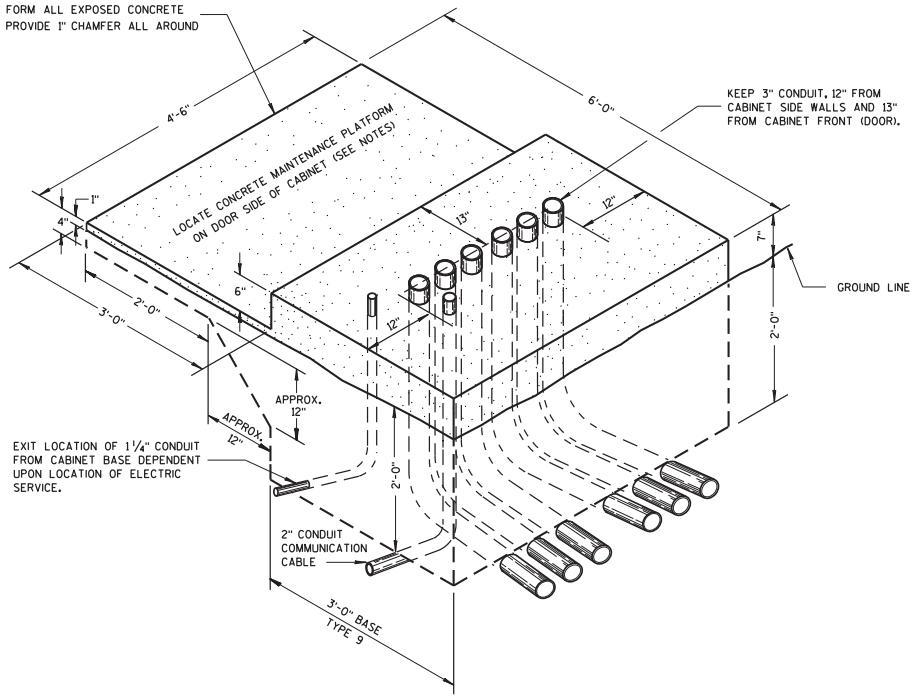
Electrical Wire Lighting 12 AWG

LOCATION
I 41 SB & CTH II (S70-0295)
120 Volt System

FROM	TO	655.0610 LF
SB2	Luminaire	150
SB4	Luminaire	150
SB6	Luminaire	150
SB8	Luminaire	150
	TOTAL	600

Addendum No. 01
ID 1517-07-74
Added Sheet 301G
April 18, 2016

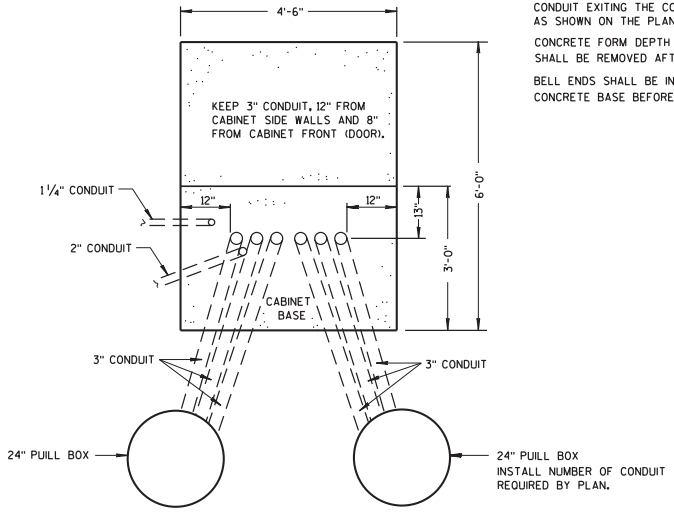
ALL ITEMS ARE CATEGORY **1300** UNLESS OTHERWISE SPECIFIED.



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC 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.

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

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

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

MINIMUM BENDING RADIUS OF CONDUIT = 6 X 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 NONMETALLIC 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 NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" 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.

Addendum No. 01
ID 1517-07-74
Added Sheet 343A
April 18, 2016

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

6

S.D.D. 9 C 6-7

S.D.D. 9 C 6-7

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

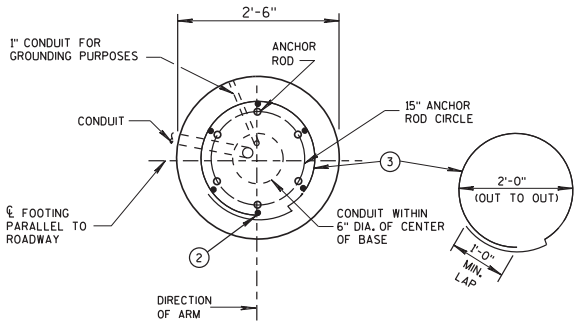
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

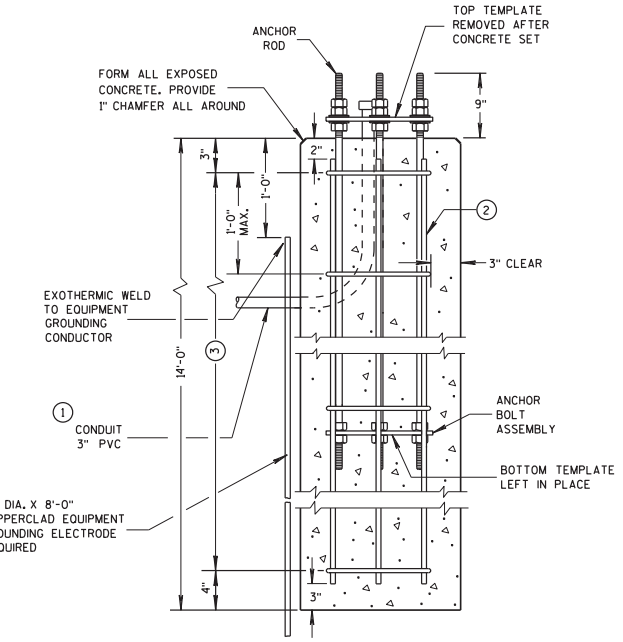
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" MAX. C-C.

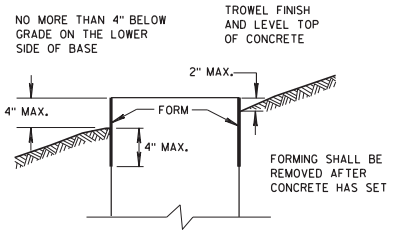
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



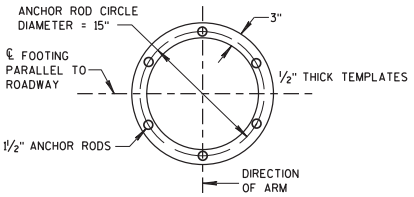


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

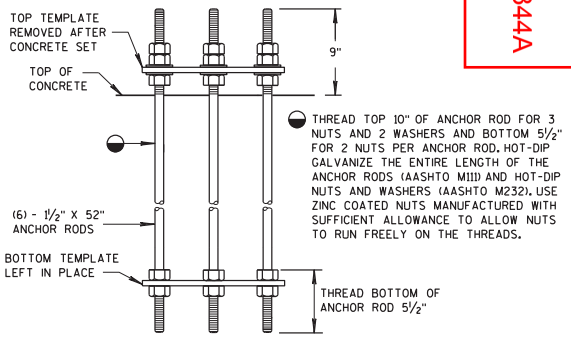
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

Addendum No. 01
ID 1517-07-74
Added Sheet 344A
April 18, 2016

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

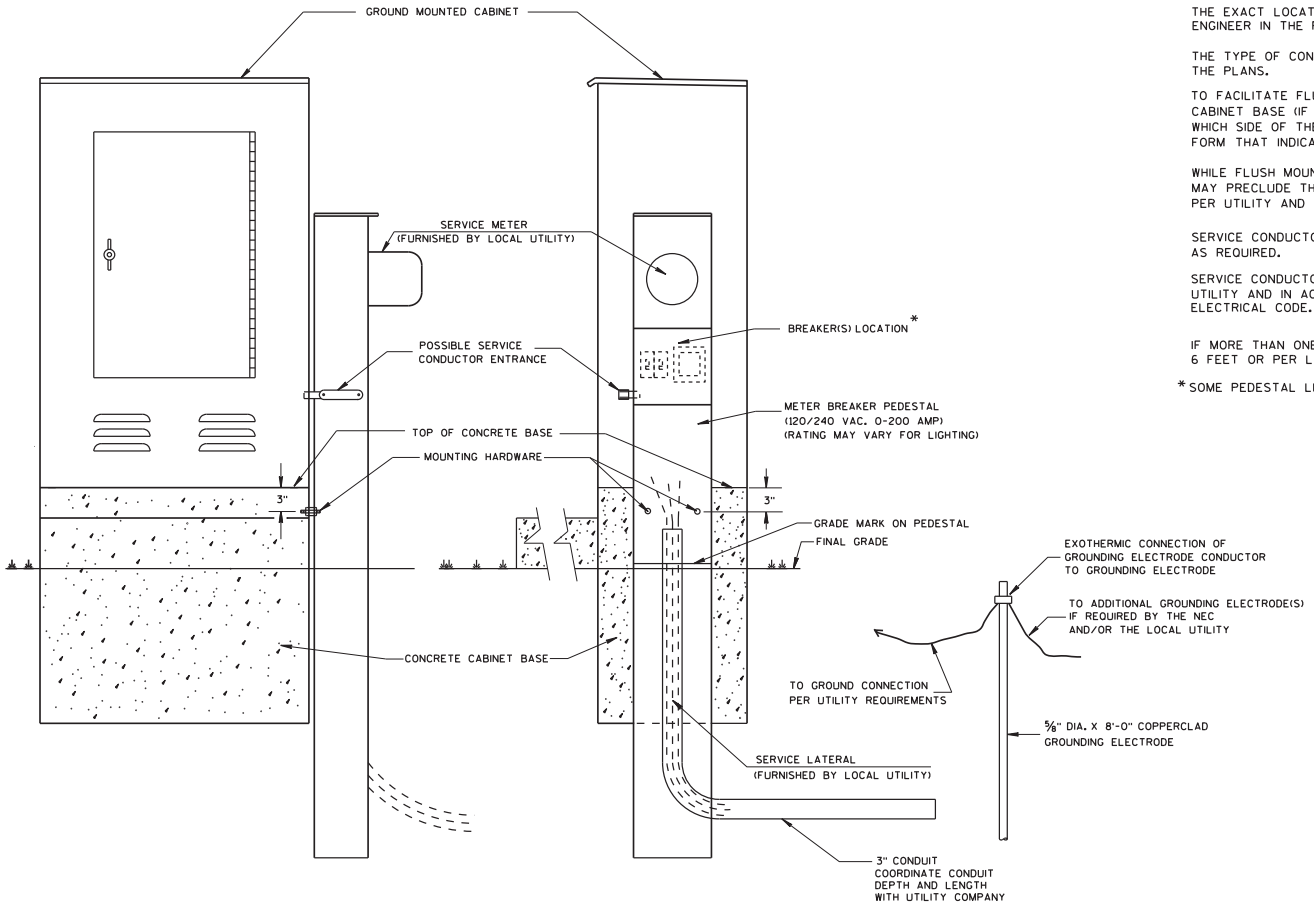
APPROVED
Sept., 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER
FHWA

6

S.D.D. 9 C 11-8

6

S.D.D. 9 C 11-8



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.

Addendum No. 01
ID 1517-07-74
Added Sheet 344B
April 18, 2016

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

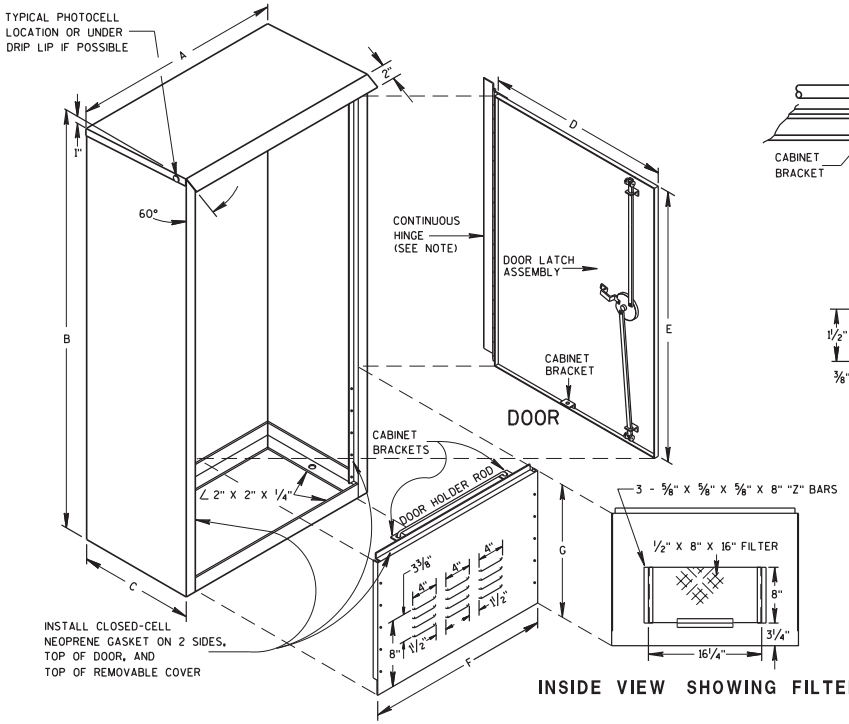
6

6

S.D.D. 9 D 1-5

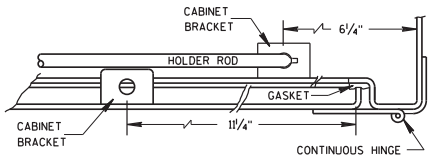
S.D.D. 9 D 1-5

Addendum No. 01
ID 1517-07-74
Added Sheet 344C
April 18, 2016

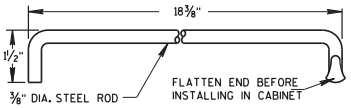


INSIDE VIEW SHOWING FILTER

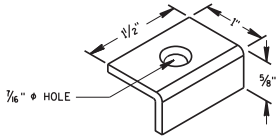
REMOVABLE COVER



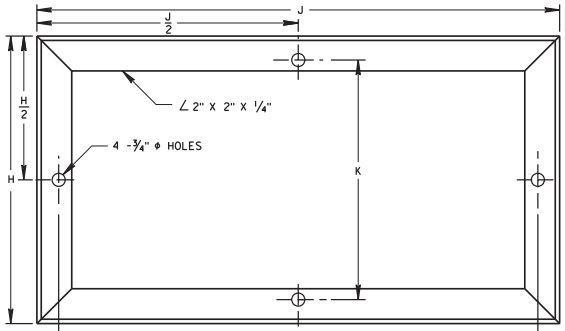
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

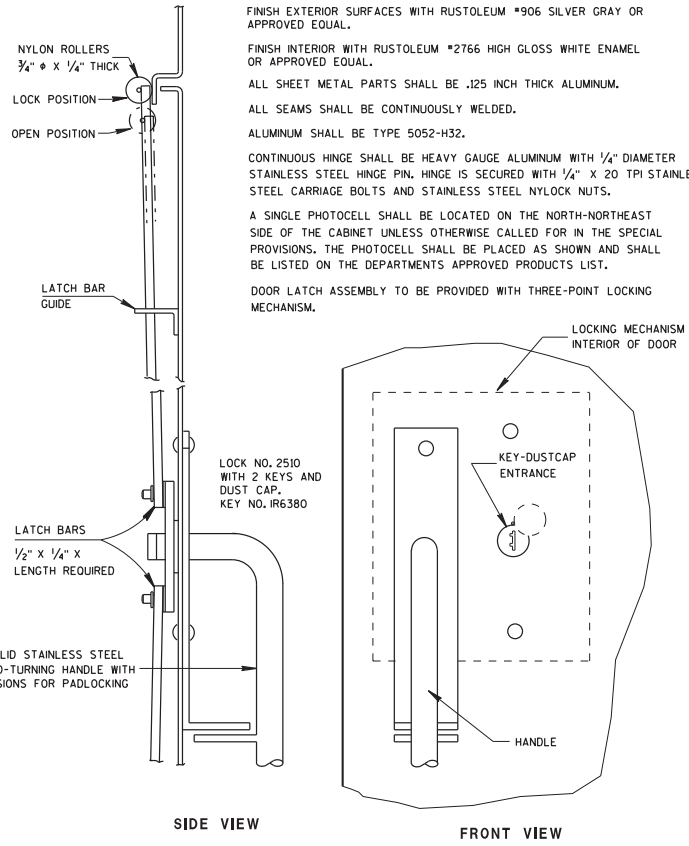
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

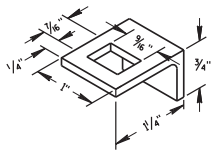
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
FHWA

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

6

S.D.D. 9 D 2-3

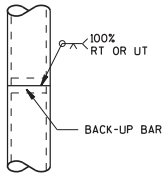
6

S.D.D. 9 D 2-3

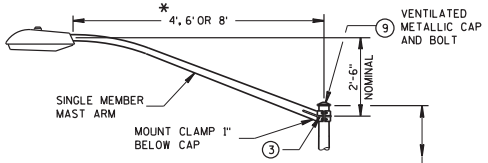
FOR MANUFACTURERS USE ONLY

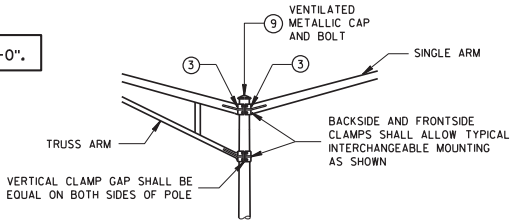
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".



POLE SPLICE DETAIL

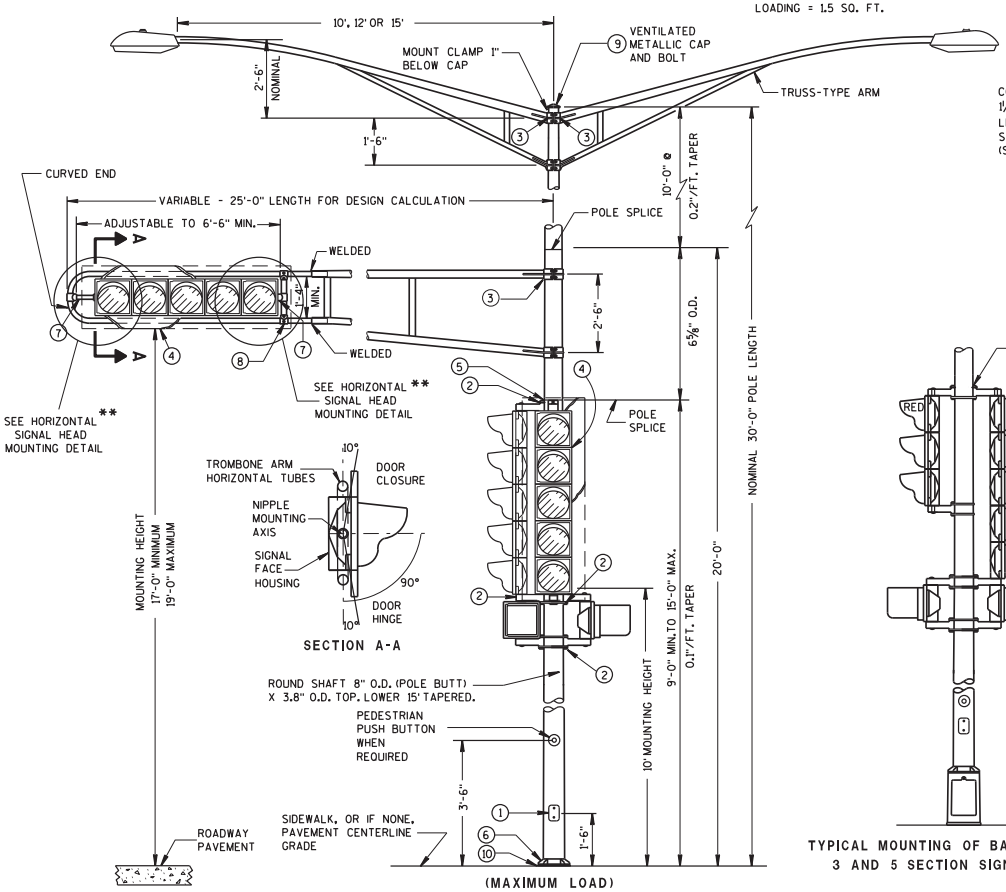


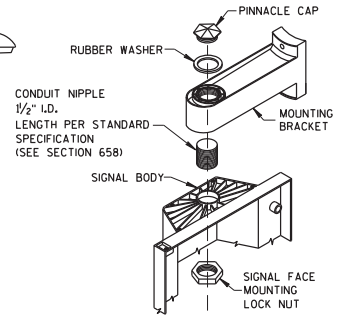


INTERCHANGEABLE MOUNTING DETAIL

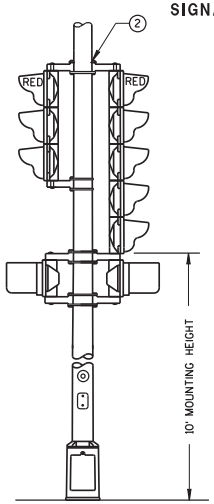
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

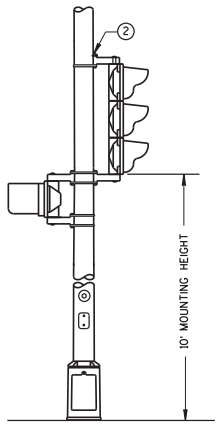




SIGNAL FACE MOUNTING DETAIL (BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

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

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ 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 & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

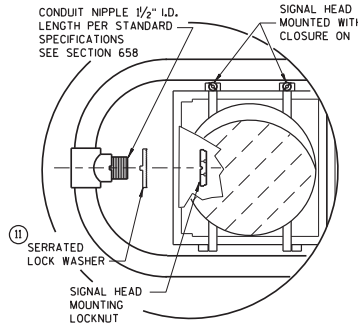
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

Addendum No. 01
ID 1517-07-74
Added Sheet 344D
April 18, 2016

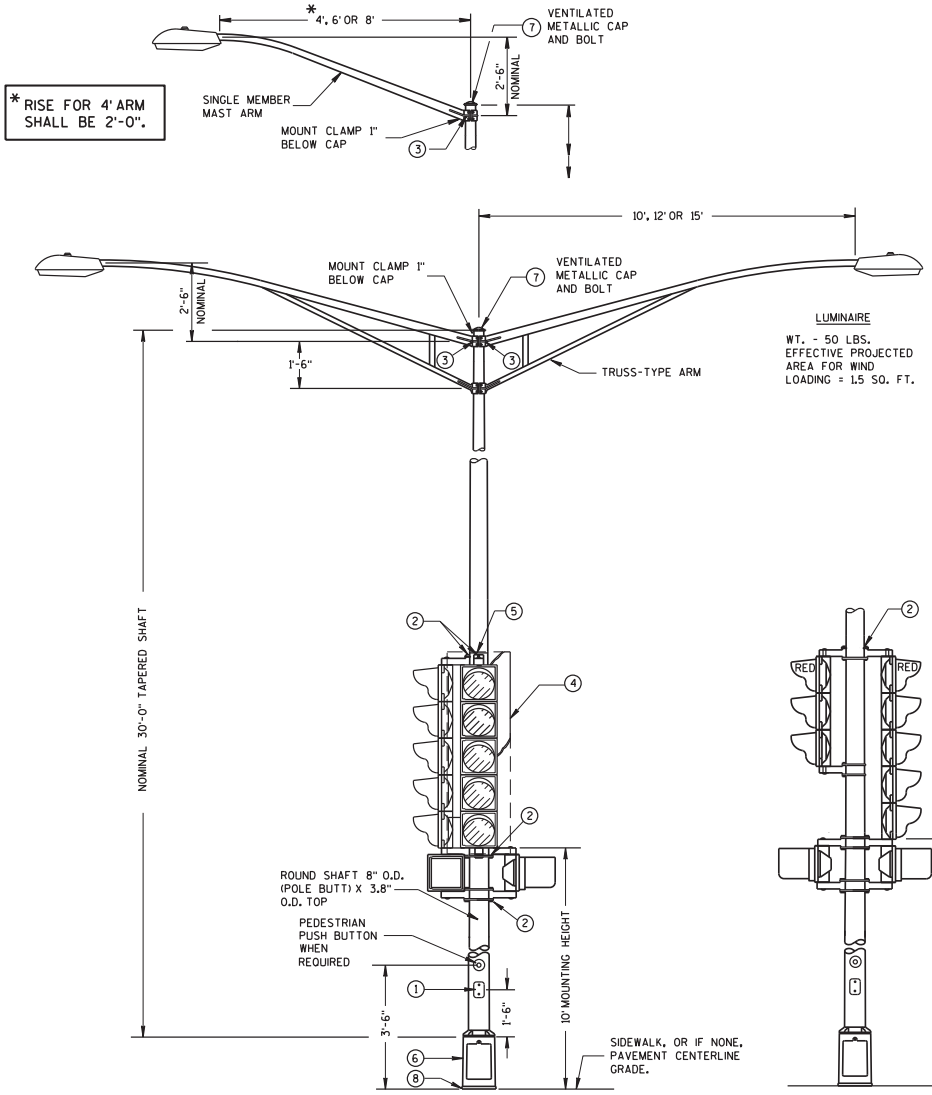
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

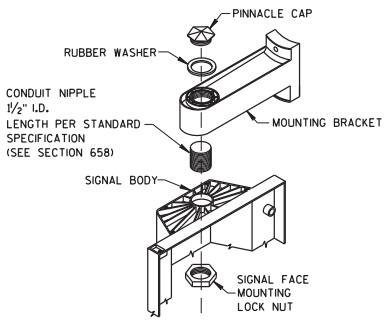
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

344D

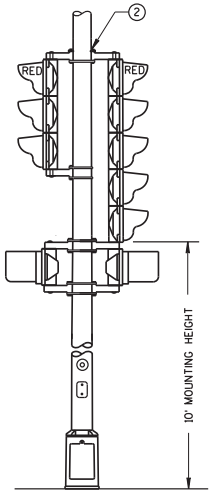
6

S.D.D. 9 E 1-14b

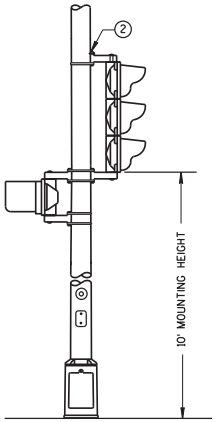




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

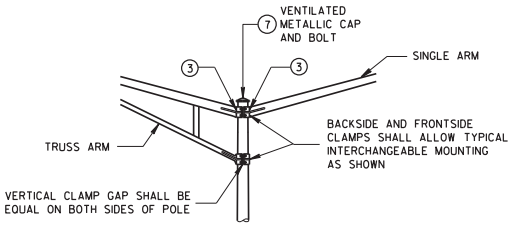
POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

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

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ 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, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

1. 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).
3. GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.
4. SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
5. POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
6. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
7. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
8. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

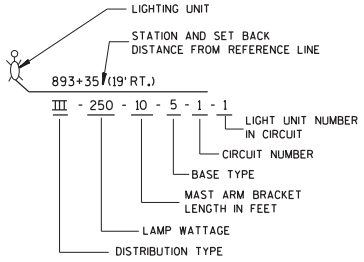
TYPE 4 POLE MOUNTING CONFIGURATION

Addendum No. 01
ID 1517-07-74
Added Sheet 344E
April 18, 2016

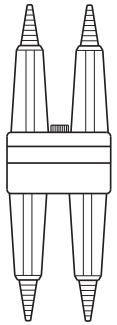
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

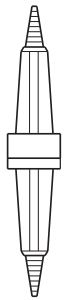
6
S.D.D. 9 E 1-14c



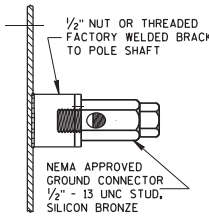
LIGHTING UNIT CODE
(TYPICAL)

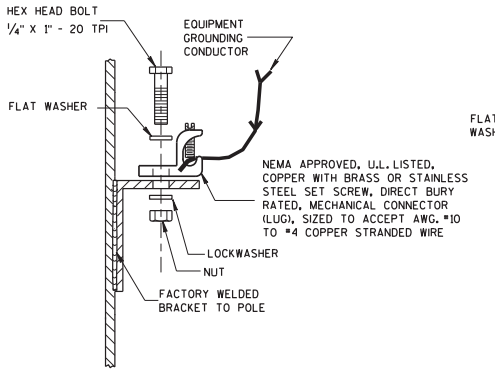


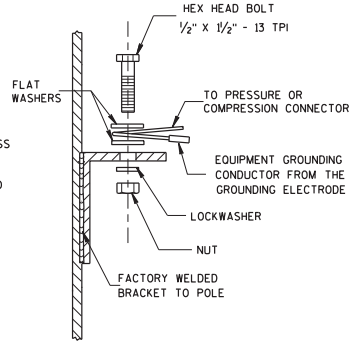
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



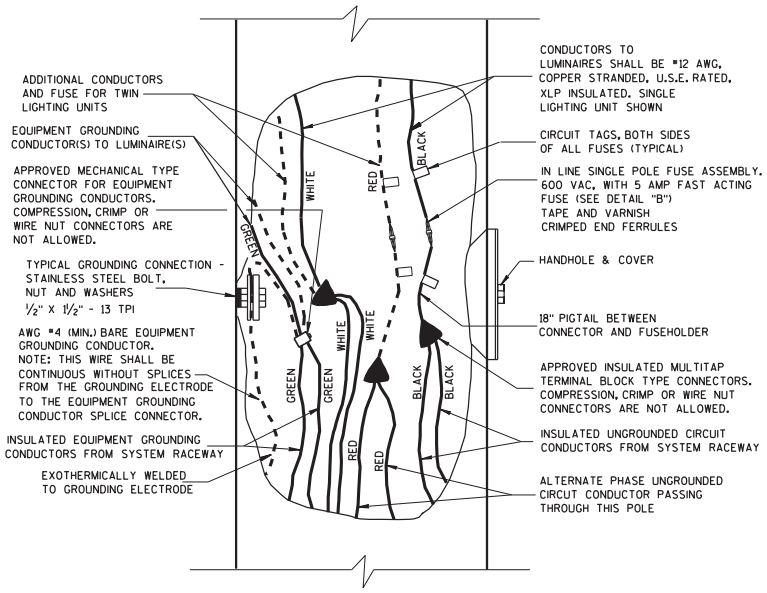
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



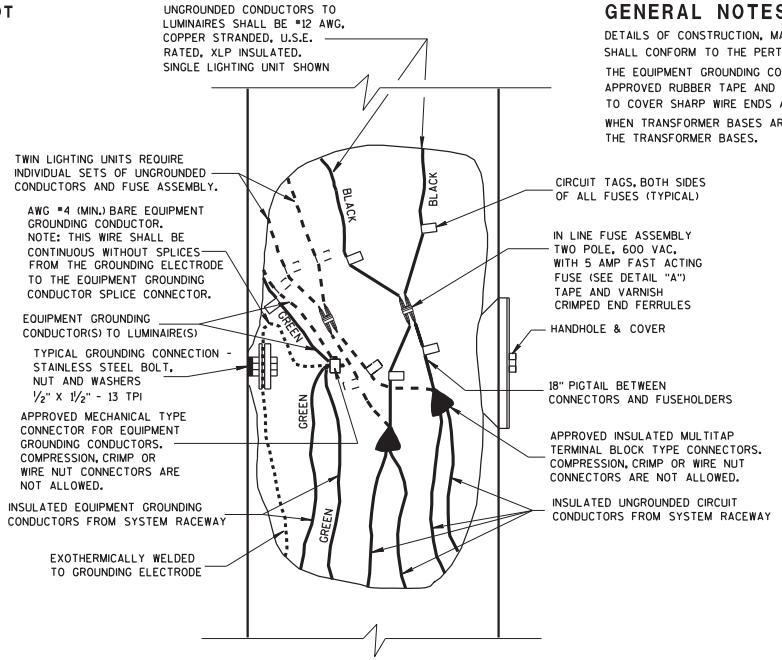




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 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.

Addendum No. 01
ID 1517-07-74
Added Sheet 345A
April 18, 2016

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

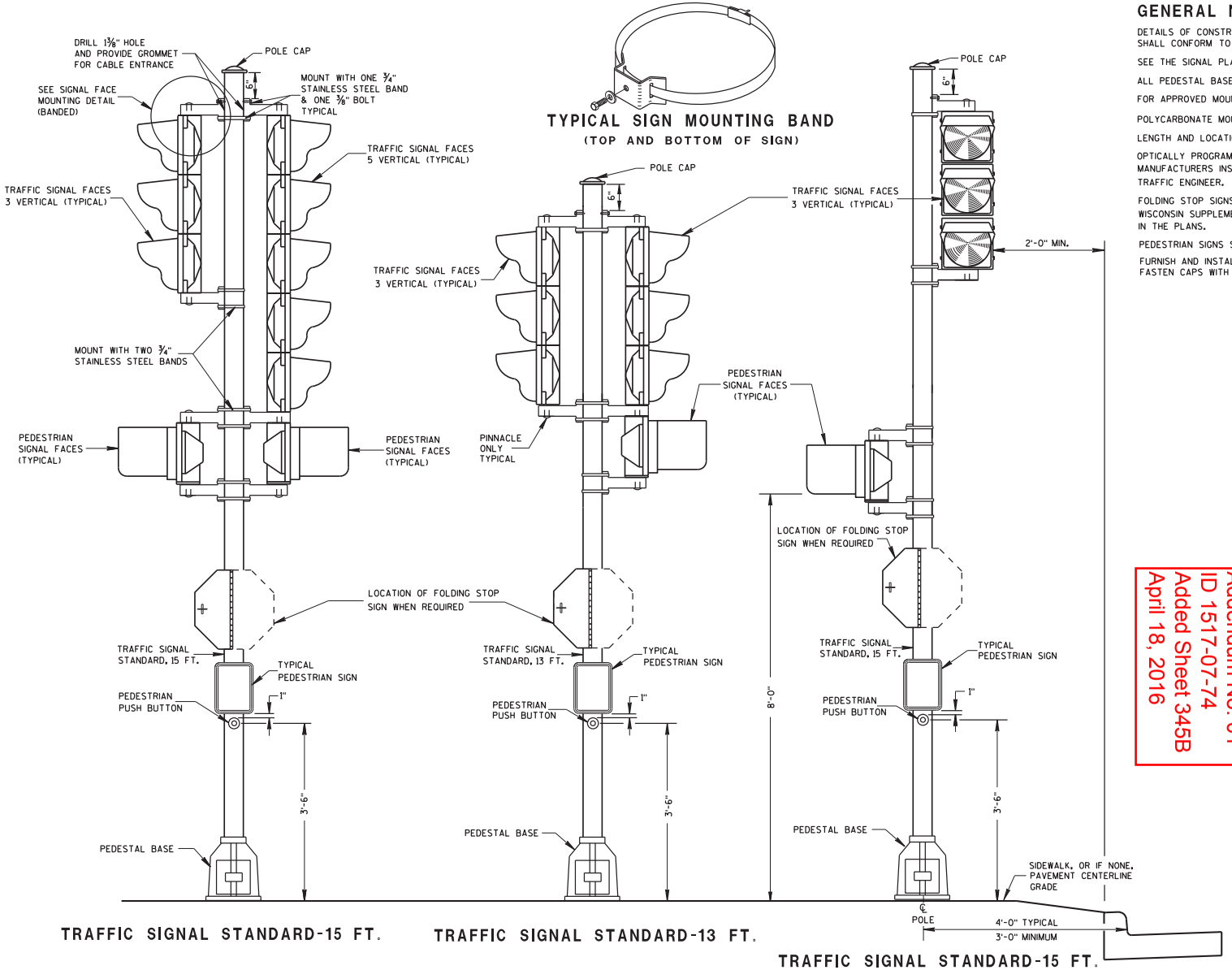
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER
FHWA

6

S.D.D. 9 E 3-5

6

S.D.D. 9 E 3-5



TRAFFIC SIGNAL STANDARD-15 FT.

TRAFFIC SIGNAL STANDARD-13 FT.

TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

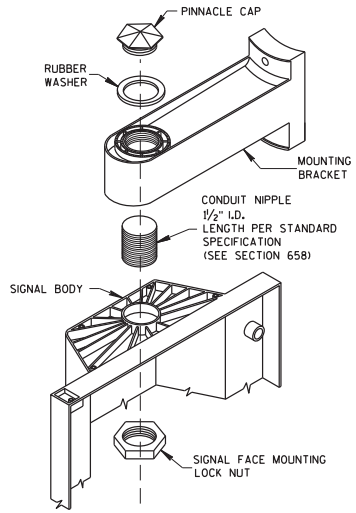
OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

Addendum No. 01
ID 1517-07-74
Added Sheet 345B
April 18, 2016



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER
FHWA

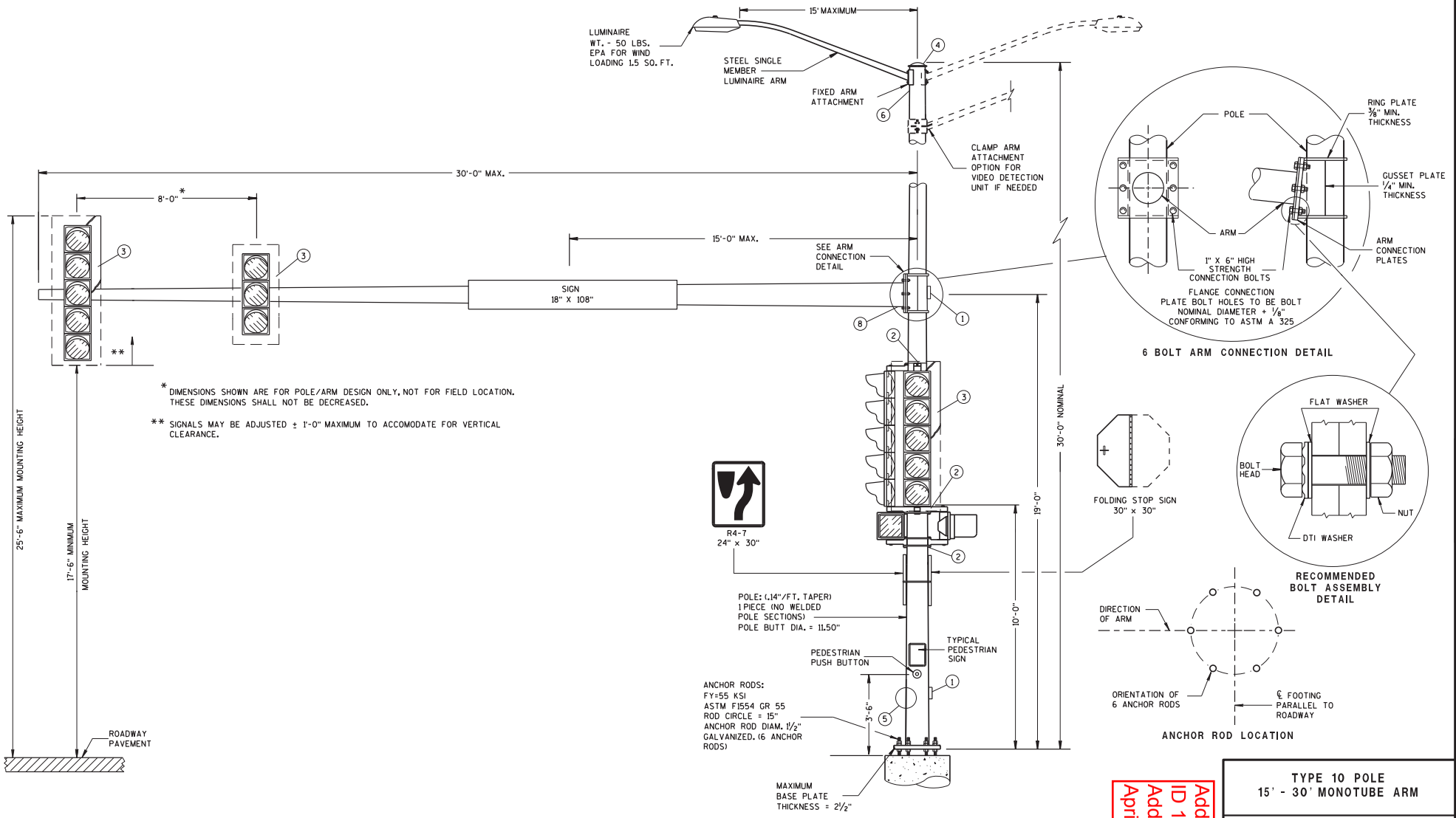
6

6

S.D.D. 9 E 6-5

S.D.D. 9 E 6-5

345B



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

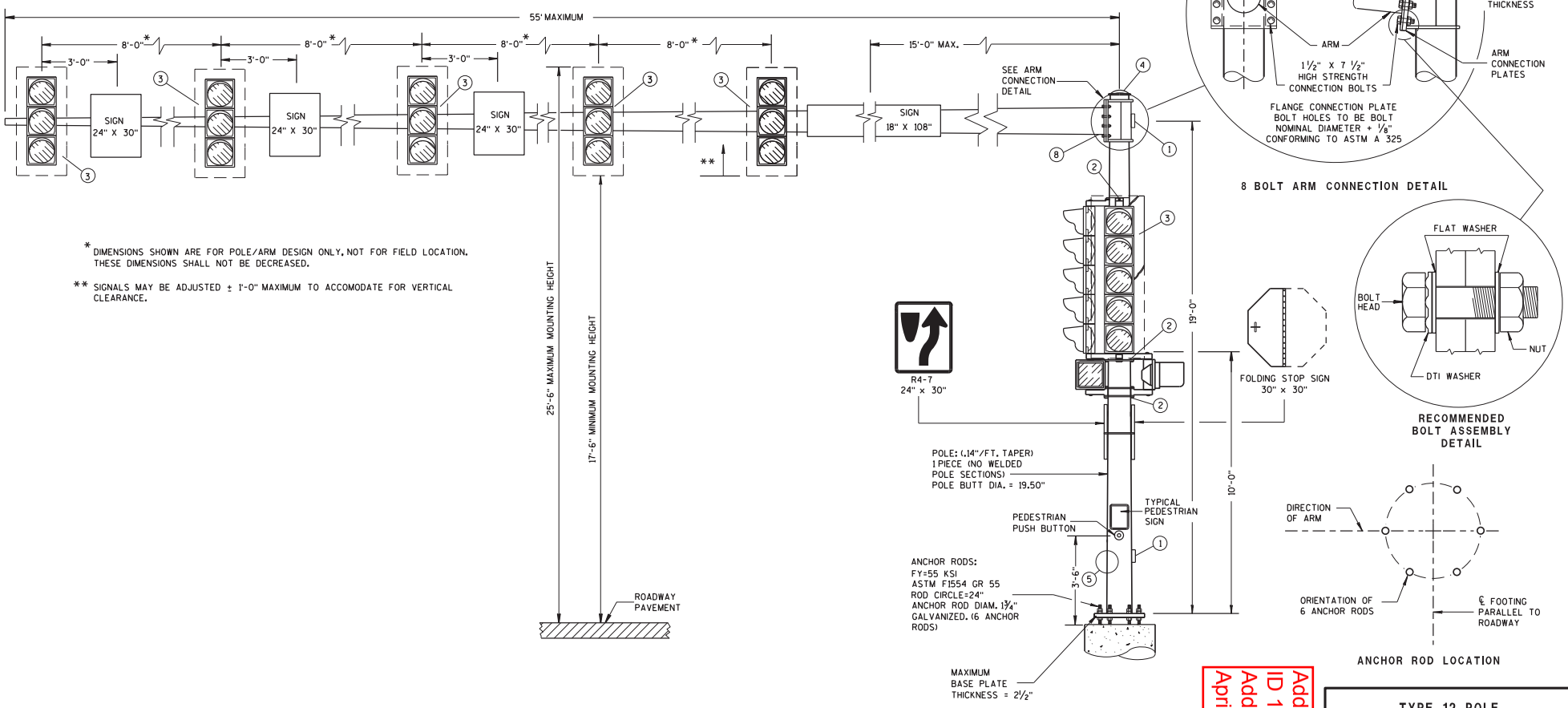
Addendum No. 01
ID 1517-07-74
Added Sheet 345C
April 18, 2016

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER
FHWA

6
S.D.D. 9 E 8-7b



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

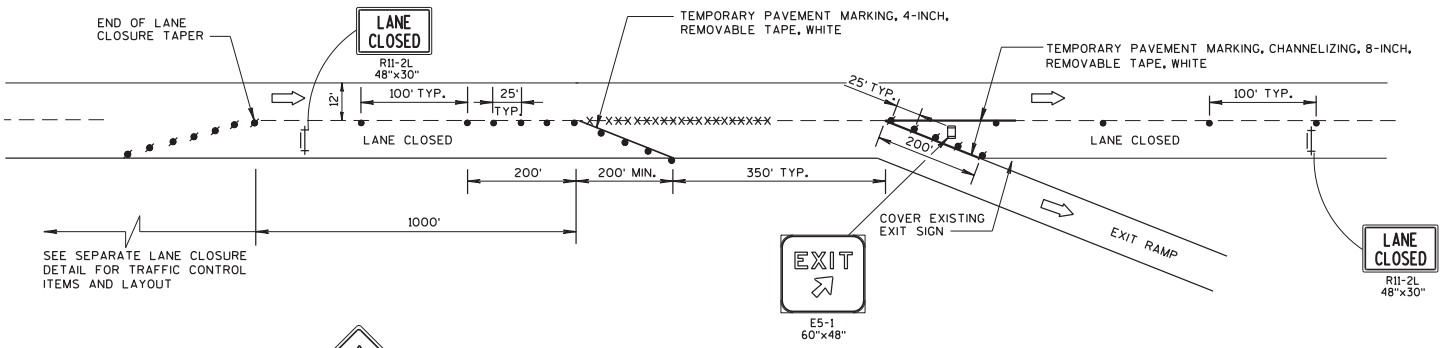
Addendum No. 01
ID 1517-07-74
Added Sheet 345D
April 18, 2016

TYPE 12 POLE
35' - 55' MONOTUBE ARM

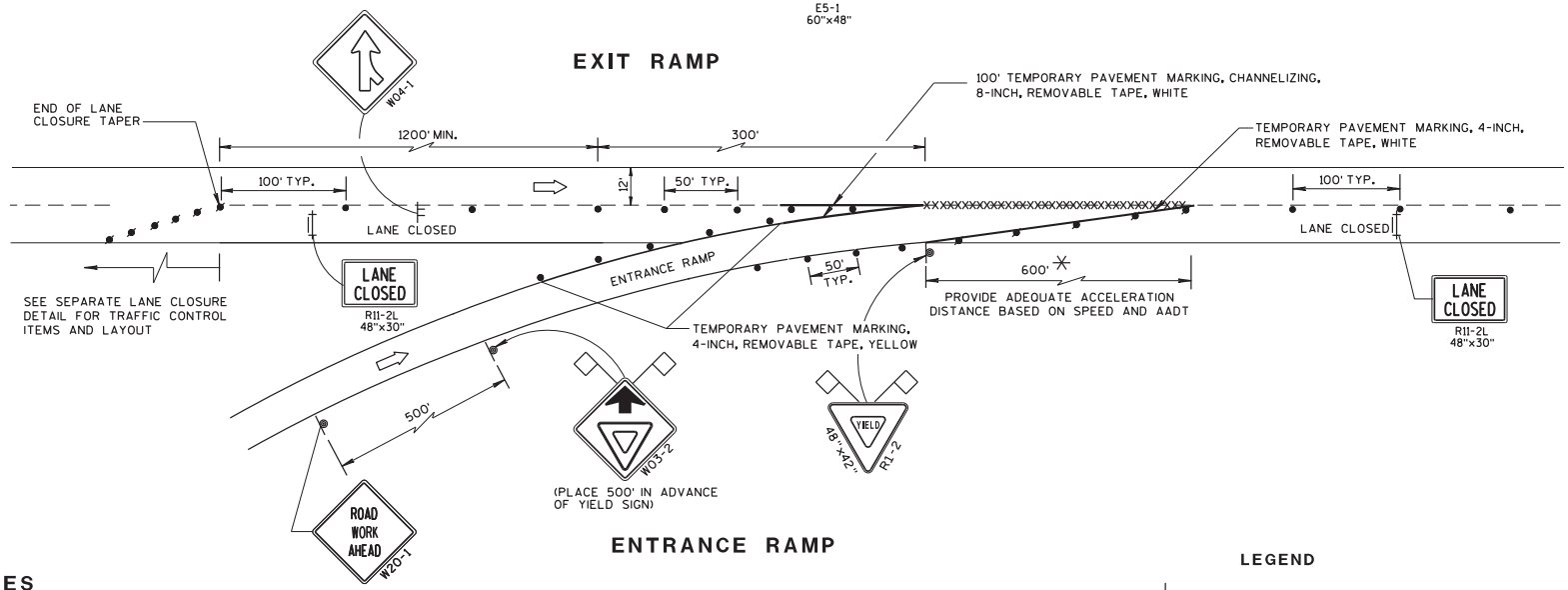
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER
FHWA

6
S.D.D. 9 E 8-7c



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"W0" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

Addendum No. 01
ID 1517-07-74
Added Sheet 413A
April 18, 2016

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 15-2

6

S.D.D. 15 D 15-2

Addendum No. 01
ID 1517-07-74
Added Sheet 413B
April 18, 2016

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

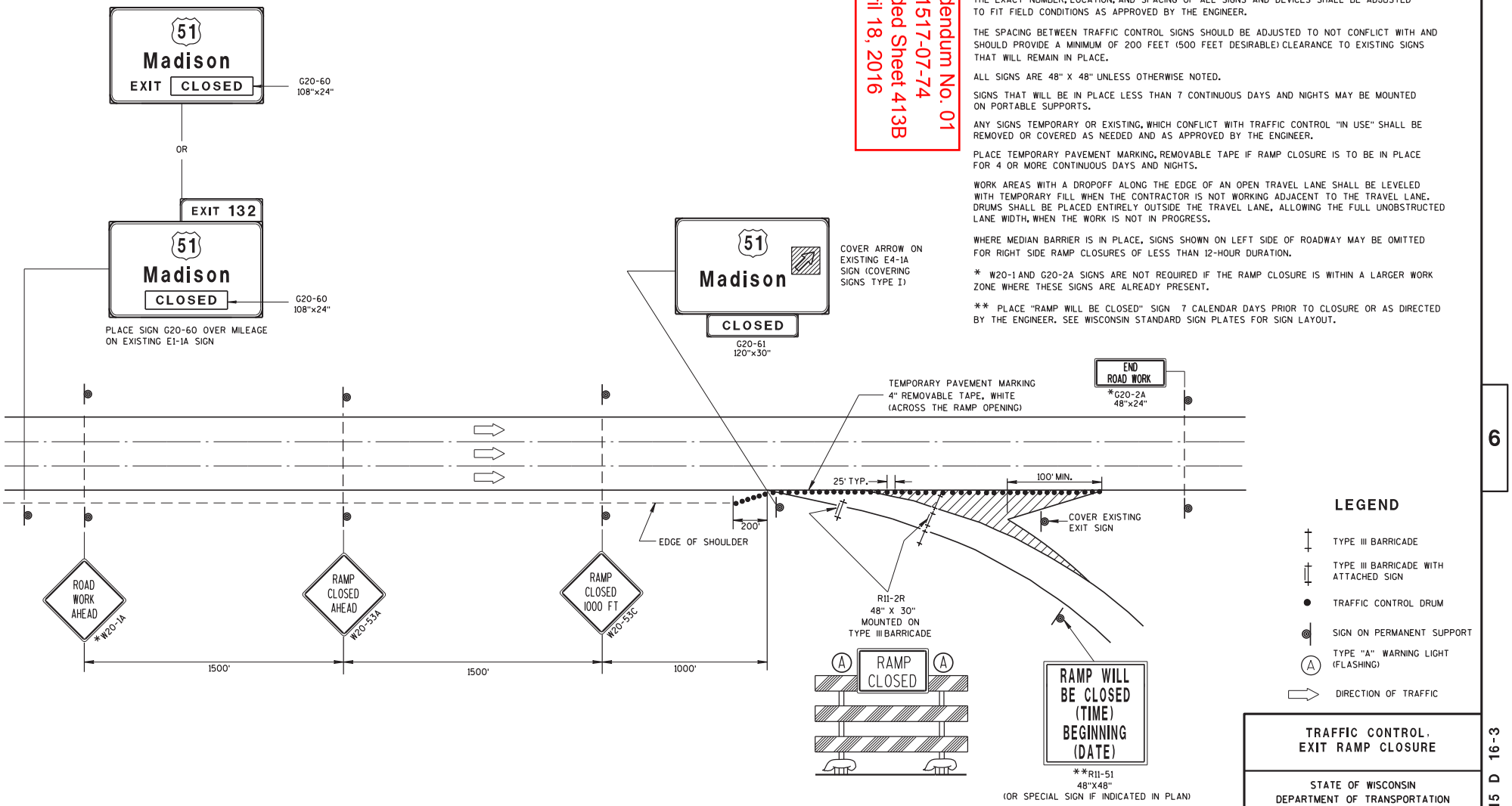
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

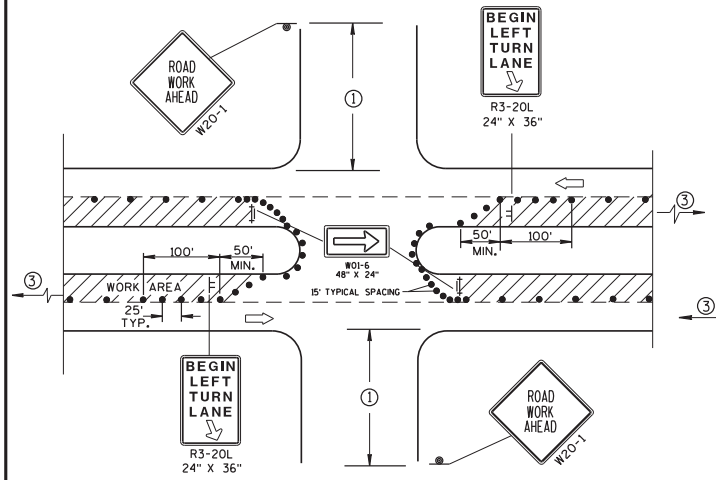
APPROVED
Sept. 2015 — DATE
/S/ Peter Amokobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

6

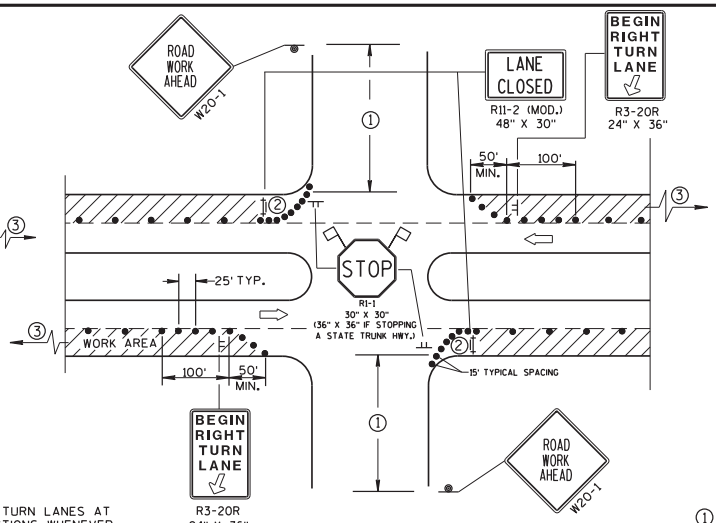
S.D.D. 15 D 16-3

S.D.D. 15 D 16-3



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

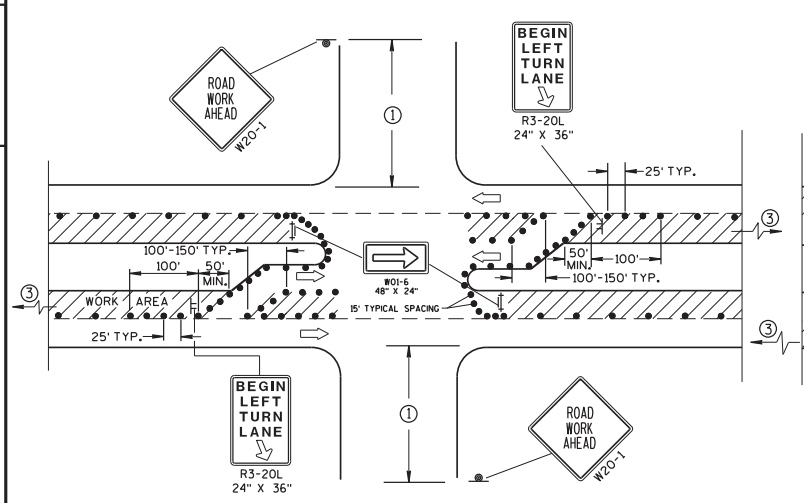
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

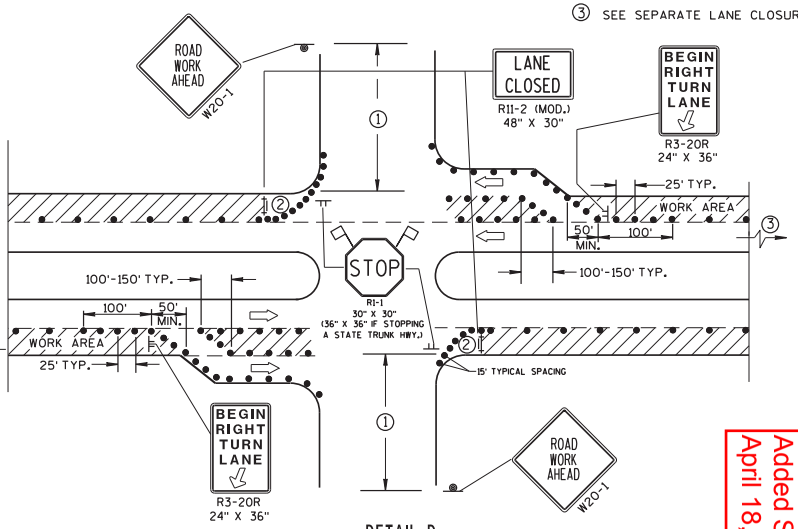
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

Addendum No. 01
ID 1517-07-74
Added Sheet 413C
April 18, 2016

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER OF DESIGN
FHWA

413C

6

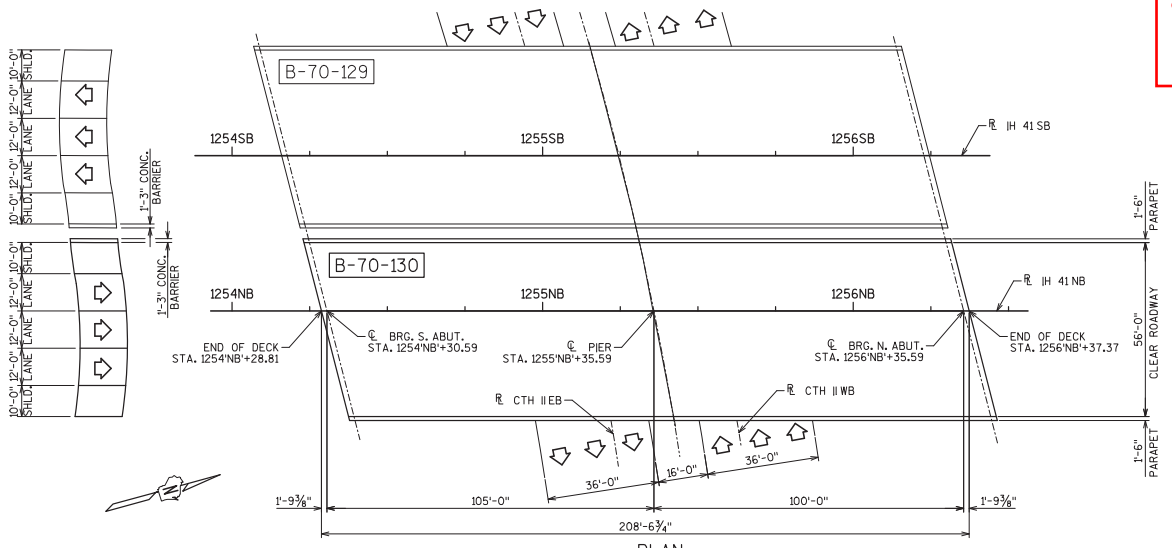
S.D.D. 15 D 21-3

6

S.D.D. 15 D 21-3

Addendum No. 01
ID 1517-07-74
Added Sheet 491A
April 18, 2016

STATE PROJECT NUMBER
1517-07-74



PLAN
POLYMER OVERLAY

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR AND RAPID CURE POLYMER OVERLAY.

ENTIRE DECK SURFACE SHALL BE PREPARED TO RECEIVE A POLYMER OVERLAY BY SHOTBLASTING. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS ON REQUIREMENTS FOR DECK PREPARATION. SHOT BLASTING DECK PREPARATION IS INCIDENTAL TO THE BID ITEM "RAPID CURE POLYMER OVERLAY".

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-130, IS A TWO SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 59 FEET AND AN OVERALL LENGTH OF 208.6 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT. SAW CUT TO BE INCLUDED WITH THE BID ITEM "SAWING PAVEMENT DECK PREPARATION AREAS".

PREPARATION DECKS TYPE 1 TO BE PERFORMED AS DIRECTED BY THE ENGINEER.

TRAFFIC WILL BE STAGED TO PERFORM THE REPAIRS AND POLYMER OVERLAY ONE HALF AT A TIME WITH OVERNIGHT LANE CLOSURES.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

RATING INCLUDES 5 PSF FOR POLYMER OVERLAY

LIVE LOAD

DESIGN RATING: HS20
INVENTORY RATING: HS21
OPERATING RATING: HS35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 210 KIPS

MATERIAL PROPERTIES:
POLYESTER POLYMER CONCRETE MASONRY (DECK PATCHING) ——— f'c = 4,000 PSI

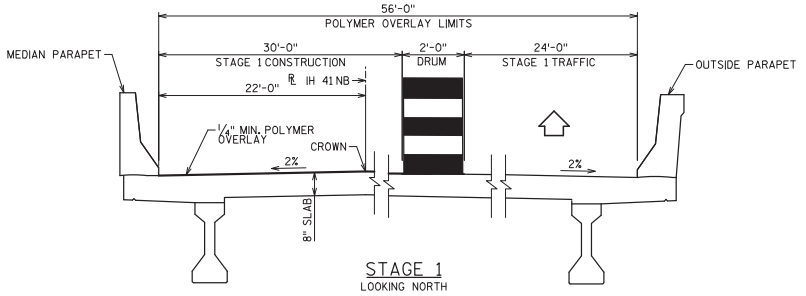
TRAFFIC DATA

IH 41
A.D.T. = 45,050 (2014)
= 52,200 (2034)

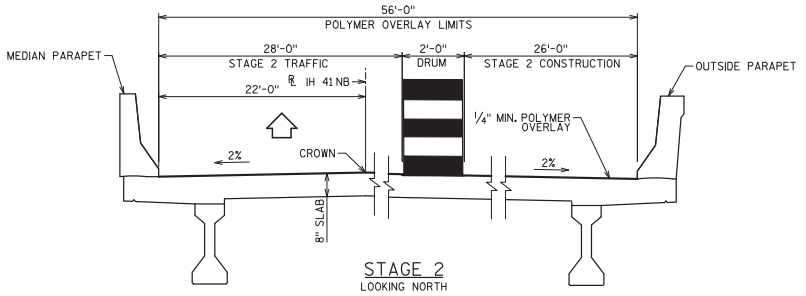
CTH II
A.D.T. = 7,500 (2010)

LIST OF DRAWINGS

1. POLYMER OVERLAY



STAGE 1
LOOKING NORTH



STAGE 2
LOOKING NORTH

ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
509.0301	PREPARATION DECKS TYPE 1	SY	15
SPV.0025.700	POLYESTER POLYMER CONCRETE MASONRY	CF	20
SPV.0090.700	SAWING PAVEMENT DECK PREPARATION AREAS	LF	272
SPV.0180.700	RAPID CURE POLYMER OVERLAY	SY	1,300

NE REGION CONTACT - SCOTT EBEL (920) 492-2240
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 944-6142

NO.	DATE	REVISION	BY
1	4/11/16	ORIGINAL PLAN	

AECOM
1555 N RiverCenter Drive
Suite 214
Milwaukee, WI 53212
(414) 944-6080

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 04/11/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-130

IH 41 NB OVER CTH II (WINCHESTER RD.)

COUNTY	TOWN/~~CITY/VILLAGE~~
WINNEBAGO	MENASHA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDL	MJA	EAN	MJA

POLYMER OVERLAY

SHEET 1 OF 1

491A

FILE: P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\B-70-130\Sheets\B-70-130_PLAN.dgn

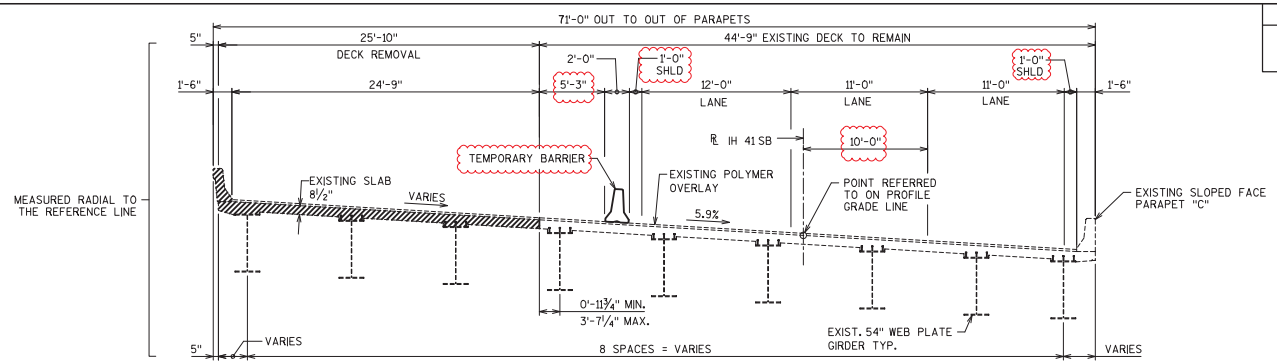
DATE: 4/8/2016
I.D.

8

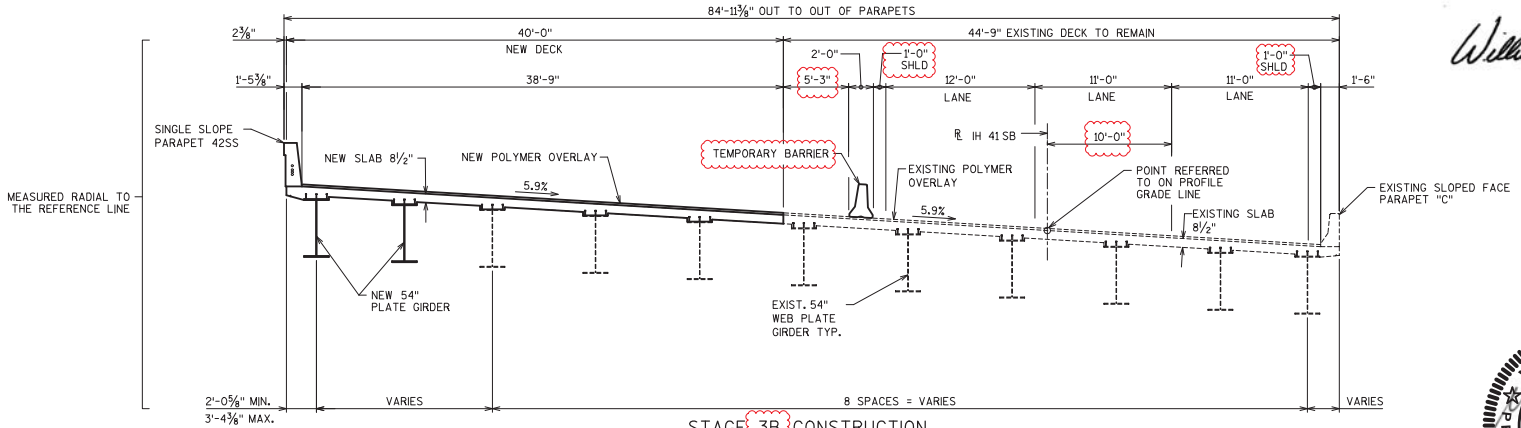
8

STATE PROJECT NUMBER
1517-07-74

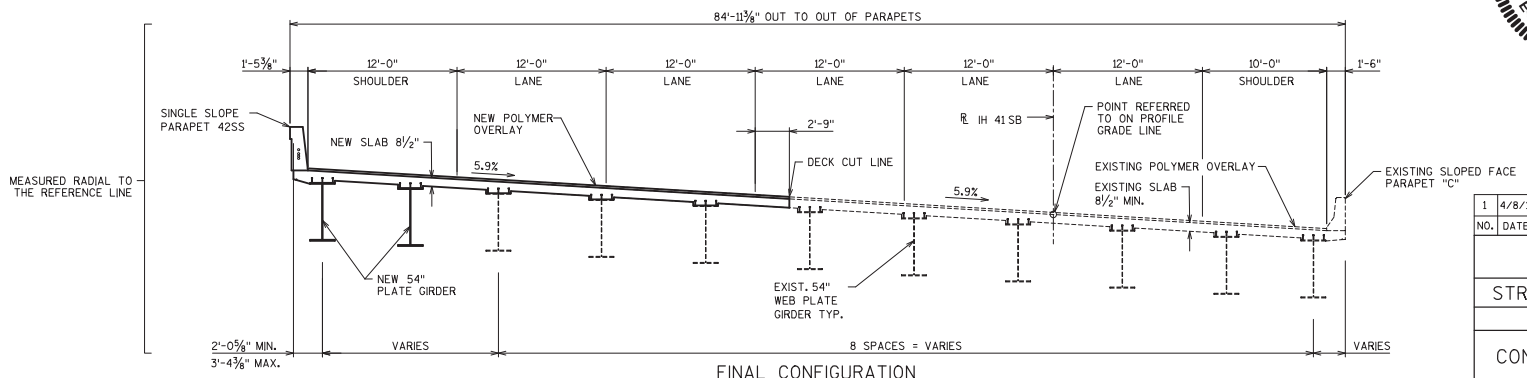
Addendum No. 01
ID 1517-07-74
Revised Sheet 495
April 18, 2016



STAGE 3B DECK REMOVAL
(LOOKING NORTH)



STAGE 3B CONSTRUCTION
(LOOKING NORTH)



FINAL CONFIGURATION
(LOOKING NORTH)

William C. Dreher SDR
04/11/16

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
PROFESSIONAL ENGINEER
4/08/2016

NO.	DATE	REVISION	BY
1	4/8/16	STAGING WIDTHS	MJA

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-131

DRAWN BY KMP | PLANS CK'D. BAR

CONSTRUCTION STAGING

SHEET 4 OF 31

495

FILE: P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\B-70-131\Final\04-B-70-131_Construction Staging.dgn

DATE: 4/8/2016
I.D. mike.arnold

8

8

WINCHESTER SOUTHWEST RAMP (WSW)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Mass Ordinate
1244+51	AH	0.00	56.61	8.67	0.00	0.00	0.00	0.00	0.00
1245+00		49.38	55.61	16.41	102.62	22.93	102.62	22.93	79.68
1245+50		50.00	55.42	22.98	102.81	36.47	205.42	59.41	146.02
1246+00		50.00	62.45	25.79	109.14	45.16	314.56	104.56	210.00
1246+50		50.00	70.53	27.46	123.13	49.31	437.69	153.87	283.82
1247+00		50.00	107.1	23.86	164.47	47.52	602.17	201.39	400.78
1247+50		50.00	113.15	23	203.94	43.39	806.10	244.78	561.32
1248+00		50.00	110.71	25.11	207.28	44.55	1013.38	289.32	724.06
1248+50		50.00	107.99	36.14	202.50	56.71	1215.88	346.04	869.84
1249+00		50.00	111.43	41.69	203.17	72.06	1419.04	418.10	1000.94
1249+50		50.00	114.21	24.25	208.93	61.06	1627.97	479.16	1148.81
1250+00		50.00	116.94	23.74	214.03	44.44	1842.00	523.59	1318.41
1250+50		50.00	121.23	0.21	220.53	22.18	2062.53	545.77	1516.76
1251+00		50.00	128.28	0.3	231.03	0.47	2293.55	546.24	1747.31
1251+50		50.00	125.03	0.72	234.55	0.94	2528.10	547.18	1980.92
1252+00		50.00	121.12	0.72	227.92	1.33	2756.02	548.52	2207.50
1252+50		50.00	132.26	2.33	234.61	2.82	2990.63	551.34	2439.29
1253+00		50.00	150.2	2.06	261.54	4.06	3252.17	555.41	2696.76
1253+50		50.00	149.52	6.9	277.52	8.30	3529.68	563.70	2965.98
1254+00		50.00	219.49	0.31	341.68	6.68	3871.36	570.38	3300.98
1254+50		50.00	85.22	0.27	282.14	0.54	4153.50	570.92	3582.58
1254+60	BK	60.00	75.2	0.17	178.24	0.49	4331.74	571.40	3760.34
				Column totals	4331.74	571.40			

Addendum No. 01
ID 1517-07-74
Revised Sheet 623
April 18, 2016

9

9

FILE NAME: P:\TRANSPORTAION\US 10 WIS 441\CADD\SHEETS\15170776\030201_mq.PPT ORIGINATOR: JESSICA MEDDAUGH ORIG. DATE: February 12, 2016 PLOTTED DATE: 4/6/2016 10:16 AM

WINCHESTER NORTHWEST RAMP (WNW)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Mass Ordinate
1255+29	AH	0.00	147.85	2.36	0.00	0.00	0.00	0.00	0.00
1255+50		21.00	107.97	1.66	99.49	1.56	99.49	1.56	97.92
1256+00		50.00	184.98	0	271.25	1.54	370.74	3.10	367.64
1256+50		50.00	138.64	9.15	299.65	8.47	670.38	11.57	658.81
1257+00		50.00	73.03	24.08	195.99	30.77	866.37	42.34	824.03
1257+50		50.00	58.94	99.92	122.19	114.81	988.57	157.16	831.41
1258+00		50.00	110.91	211.79	157.27	288.62	1145.84	445.78	700.06
1258+50		50.00	137.88	305.38	230.36	478.86	1376.20	924.64	451.56
1259+00		50.00	113.08	384.8	232.37	639.06	1608.57	1563.69	44.88
1259+50		50.00	10.15	471.72	114.10	793.07	1722.67	2356.77	-634.10
1260+00		50.00	1.05	262.48	10.37	679.81	1733.04	3036.58	-1303.54
1260+50		50.00	17.81	23.85	17.46	265.12	1750.50	3301.70	-1551.20
1261+00		50.00	36.7	18.89	50.47	39.57	1800.98	3341.28	-1540.30
1261+50		50.00	53.32	14.38	83.35	30.81	1884.33	3372.08	-1487.75
1262+00		50.00	67.96	22.03	112.30	33.71	1996.62	3405.79	-1409.17
1262+50		50.00	81.13	3.42	138.05	23.56	2134.67	3429.36	-1294.69
1263+00		50.00	85.83	0	154.59	3.17	2289.26	3432.53	-1143.26
1263+50		50.00	113.06	0	184.16	0.00	2473.42	3432.53	-959.11
1264+00		50.00	108.55	0	205.19	0.00	2678.62	3432.53	-753.91
1264+50		50.00	92.68	0	186.32	0.00	2864.94	3432.53	-567.59
1265+00		50.00	78.05	0	158.08	0.00	3023.02	3432.53	-409.50
1265+35	BK	35.00	71.4	0	96.87	0.00	3119.89	3432.53	-312.64
				Column totals	3119.89	3432.53			

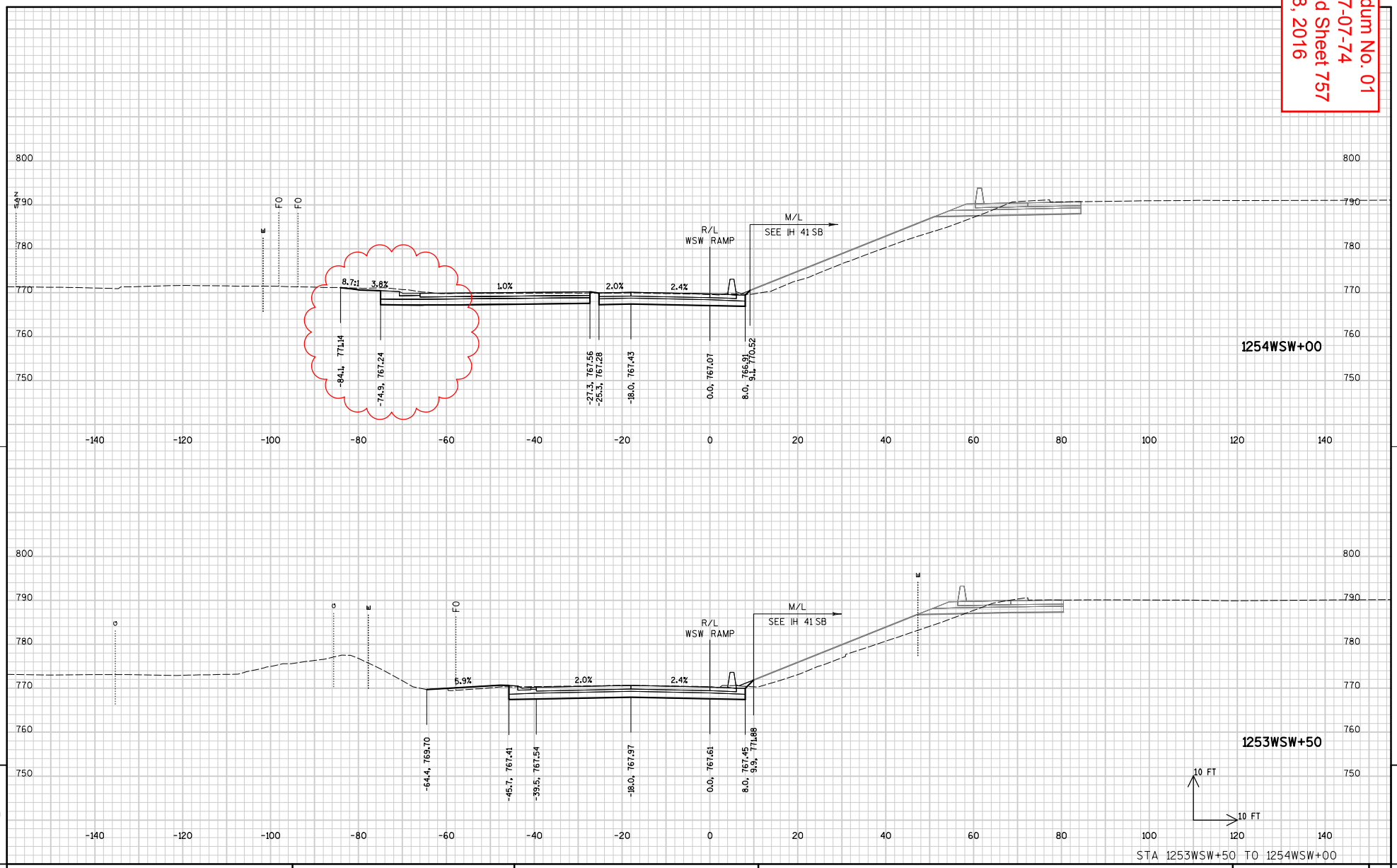
Addendum No. 01
ID 1517-07-74
Revised Sheet 624
April 18, 2016

9

PROJECT NUMBER: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	EARTHWORK	SHEET NO: 624	E

FILE NAME: P:\TRANSPORTAION\US 10 WIS 441\CADD\SHEETS\15170776\030201_mq.PPT ORIGINATOR: JESSICA MEDDAUGH ORIG. DATE: February 12, 2016 PLOTTED DATE: 4/6/2016 10:16 AM

Addendum No. 01
ID 1517-07-74
Revised Sheet 757
April 18, 2016



9

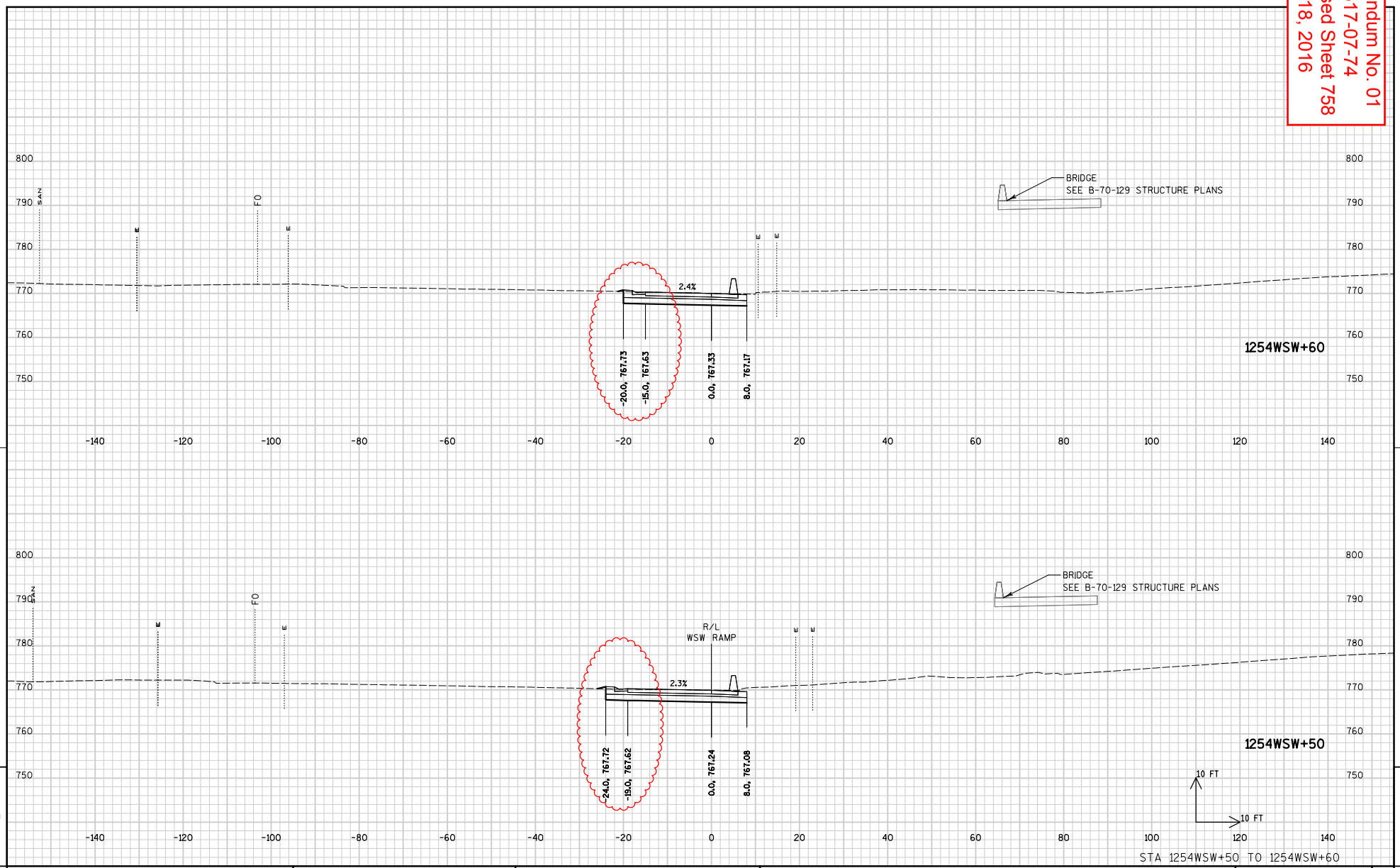
9

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	CROSS SECTIONS: WINCHESTER SW RAMP	SHEET 757	E

STA 1253WSW+50 TO 1254WSW+00

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\090335_xs_WSW.dgn
PLOT DATE : 4/6/2016
PLOT BY : jessica_meddaugh
PLOT NAME :
PLOT SCALE : 20.0000 sf / in.
WISDOT/CADDS SHEET 21

Addendum No. 01
ID 1517-07-74
Revised Sheet 758
April 18, 2016



STA 1254WSW+50 TO 1254WSW+60

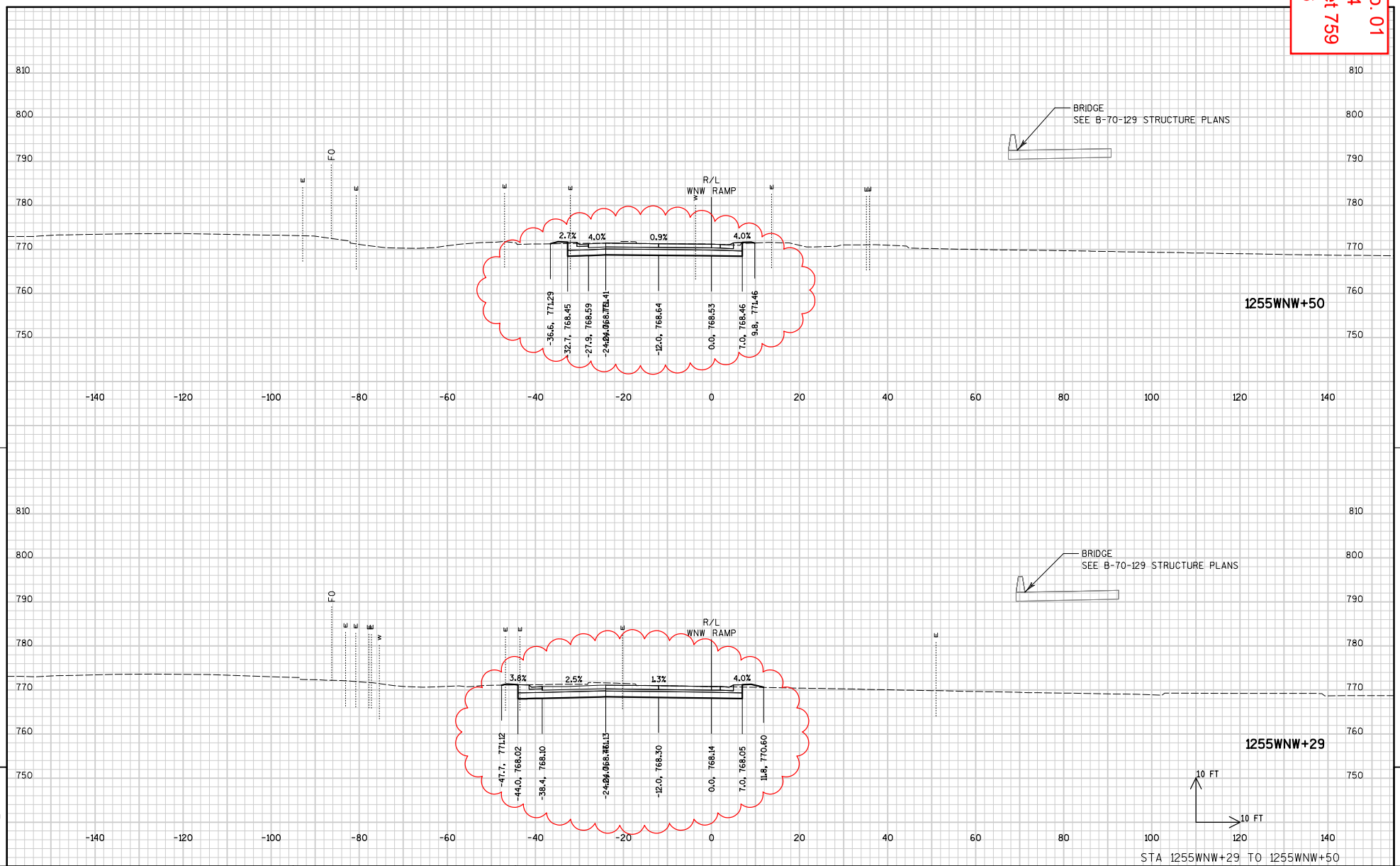
9

9

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	CROSS SECTIONS: WINCHESTER SW RAMP	SHEET 758	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\090336_xs_WSW.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

Addendum No. 01
ID 1517-07-74
Revised Sheet 759
April 18, 2016



9

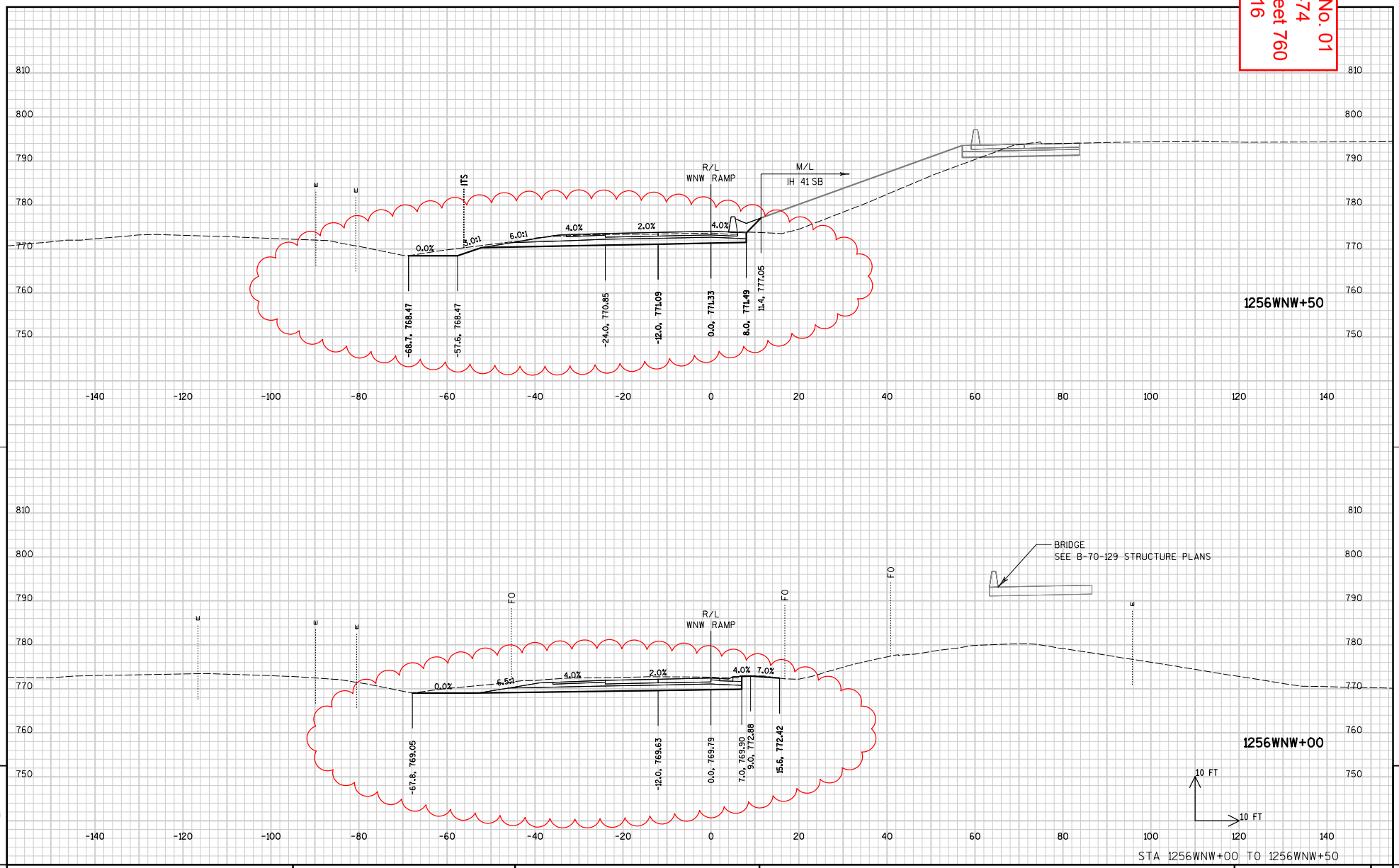
9

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	CROSS SECTIONS: WINCHESTER NW RAMP	SHEET 759	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\090337_xs_WNW.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

Addendum No. 01
ID 1517-07-74
Revised Sheet 760
April 18, 2016



STA 1256WNW+00 TO 1256WNW+50

PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	CROSS SECTIONS: WINCHESTER NW RAMP	SHEET 760	E

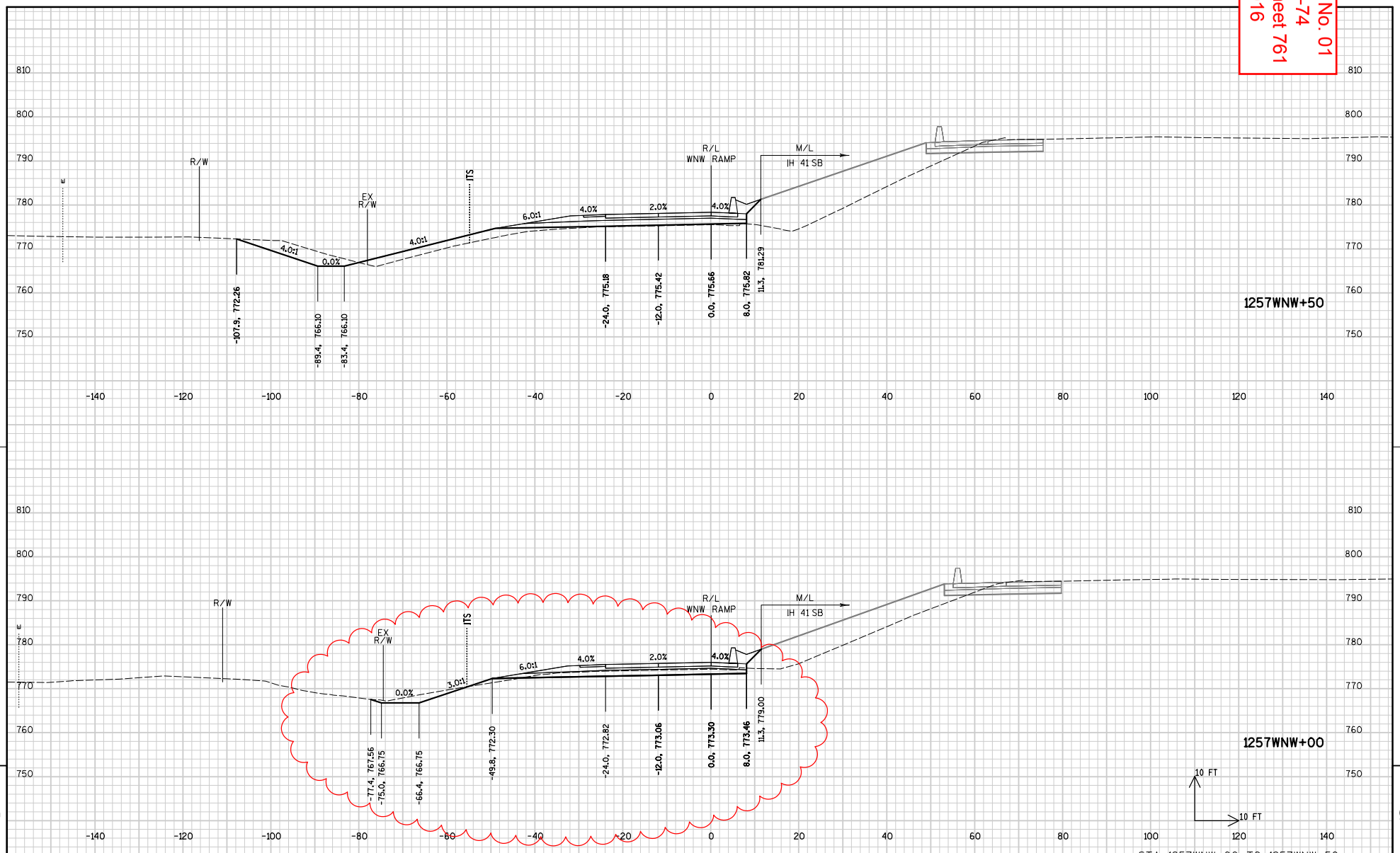
FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\090338_xs_WNW.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in.

WISDOT/CADDS SHEET 21

9

9

Addendum No. 01
ID 1517-07-74
Revised Sheet 761
April 18, 2016



PROJECT NO: 1517-07-74	HWY: IH 41	COUNTY: WINNEBAGO	CROSS SECTIONS: WINCHESTER NW RAMP	SHEET 761	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170774\090339_xs_WNW.dgn PLOT DATE : 4/6/2016 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 20.0000 sf / in. WISDOT/CADDS SHEET 21

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 ROADWAY					
0010	201.0110 Clearing	16,790.000 SY		.		.
0020	201.0120 Clearing	225.000 ID		.		.
0030	201.0210 Grubbing	16,790.000 SY		.		.
0040	201.0220 Grubbing	225.000 ID		.		.
0050	203.0200 Removing Old Structure (station) 001. STA 1255+25	LUMP	LUMP			.
0060	203.0200 Removing Old Structure (station) 002. STA 1267SB+50	LUMP	LUMP			.
0070	203.0200 Removing Old Structure (station) 003. STA 1267NB+00	LUMP	LUMP			.
0080	203.0225.S Debris Containment (structure) 001. B-70-131	LUMP	LUMP			.
0090	203.0225.S Debris Containment (structure) 002. B-70-132	LUMP	LUMP			.
0100	204.0100 Removing Pavement	28,327.000 SY		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	204.0110 Removing Asphaltic Surface	8,262.000 SY		.		.
0120	204.0150 Removing Curb & Gutter	1,391.000 LF		.		.
0130	204.0155 Removing Concrete Sidewalk	132.000 SY		.		.
0140	204.0157 Removing Concrete Barrier	1,430.000 LF		.		.
0150	204.0165 Removing Guardrail	7,040.000 LF		.		.
0160	204.0170 Removing Fence	7,319.000 LF		.		.
0170	204.0180 Removing Delineators and Markers	8.000 EACH		.		.
0180	204.0220 Removing Inlets	4.000 EACH		.		.
0190	204.0245 Removing Storm Sewer (size) 001. 12-Inch- 18-Inch	202.000 LF		.		.
0200	204.0245 Removing Storm Sewer (size) 002. 21-Inch- 30 Inch	14.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0210	204.9060.S Removing (item description) 001. Removing Concrete Apron Endwall For Pipe Underdrain	2.000 EACH		.		.
0220	204.9060.S Removing (item description) 002. Removing Endwalls	5.000 EACH		.		.
0230	204.9105.S Removing (item description) 003. Removing Sign Structure Base	LUMP	LUMP			.
0240	205.0100 Excavation Common	88,711.000 CY		.		.
0250	205.0200 Excavation Rock	17,600.000 CY		.		.
0260	206.1000 Excavation for Structures Bridges (structure) 001. B-70-129	LUMP	LUMP			.
0270	206.1000 Excavation for Structures Bridges (structure) 002. B-70-131	LUMP	LUMP			.
0280	206.1000 Excavation for Structures Bridges (structure) 003. B-70-132	LUMP	LUMP			.
0290	210.0100 Backfill Structure	910.000 CY		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0300	213.0100 Finishing Roadway (project) 001. 1517-07-74	1.000 EACH		.		.
0310	305.0110 Base Aggregate Dense 3/4-Inch	889.000 TON		.		.
0320	305.0120 Base Aggregate Dense 1 1/4-Inch	23,917.000 TON		.		.
0330	311.0110 Breaker Run	57,417.000 TON		.		.
0340	320.0155 Concrete Base 9-Inch	825.000 SY		.		.
0350	415.0070 Concrete Pavement 7-Inch	289.000 SY		.		.
0360	415.0090 Concrete Pavement 9-Inch	32.000 SY		.		.
0370	415.0100 Concrete Pavement 10-Inch	13,336.000 SY		.		.
0380	415.0110 Concrete Pavement 11-Inch	28,924.000 SY		.		.
0390	416.0160 Concrete Driveway 6-Inch	146.000 SY		.		.
0400	416.0610 Drilled Tie Bars	5,371.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0410	416.0620 Drilled Dowel Bars	287.000 EACH		.		.
0420	416.1010 Concrete Surface Drains	2.000 CY		.		.
0430	440.4410 Incentive IRI Ride	6,432.000 DOL	1.00000		6432.00	
0440	455.0605 Tack Coat	260.000 GAL		.		.
0450	460.2000 Incentive Density HMA Pavement	1,150.000 DOL	1.00000		1150.00	
0460	460.6224 HMA Pavement 4 MT 58-28 S	2,189.000 TON		.		.
0470	465.0120 Asphaltic Surface Driveways and Field Entrances	31.000 TON		.		.
0480	465.0315 Asphaltic Flumes	18.000 SY		.		.
0490	501.1000.S Ice Hot Weather Concreting	8,053.000 LB		.		.
0500	502.3100 Expansion Device (structure) 001. B-70-131	LUMP	LUMP			.
0510	502.3100 Expansion Device (structure) 002. B-70-132	LUMP	LUMP			.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0520	502.3200 Protective Surface Treatment	522.000 SY		.		.
0530	502.3210 Pigmented Surface Sealer	1,973.000 SY		.		.
0540	502.5002 Masonry Anchors Type L No. 4 Bars	30.000 EACH		.		.
0550	502.5010 Masonry Anchors Type L No. 6 Bars	118.000 EACH		.		.
0560	502.5025 Masonry Anchors Type L No. 9 Bars	27.000 EACH		.		.
0570	503.0155 Prestressed Girder Type I 54W-Inch	412.000 LF		.		.
0580	504.0500 Concrete Masonry Retaining Walls	1,121.000 CY		.		.
0590	505.0400 Bar Steel Reinforcement HS Structures	6,380.000 LB		.		.
0600	505.0600 Bar Steel Reinforcement HS Coated Structures	326,650.000 LB		.		.
0610	506.0605 Structural Steel HS	411,600.000 LB		.		.
0620	506.2605 Bearing Pads Elastomeric Non-Laminated	8.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0630	506.3015 Welded Stud Shear Connectors 7/8x6-Inch	2,424.000 EACH		.		.
0640	506.4000 Steel Diaphragms (structure) 001. B-70-129	8.000 EACH		.		.
0650	506.5000 Bearing Assemblies Fixed (structure) 001. B-70-131	2.000 EACH		.		.
0660	506.5000 Bearing Assemblies Fixed (structure) 002. B-70-132	2.000 EACH		.		.
0670	506.6000 Bearing Assemblies Expansion (structure) 001. B-70-131	4.000 EACH		.		.
0680	506.6000 Bearing Assemblies Expansion (structure) 002. B-70-132	4.000 EACH		.		.
0690	509.5100.S Polymer Overlay	1,874.000 SY		.		.
0700	511.1100 Temporary Shoring	7,600.000 SF		.		.
0710	511.1200 Temporary Shoring (structure) 001. B-70-129	912.000 SF		.		.
0720	511.1200 Temporary Shoring (structure) 002. B-70-131	905.000 SF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0730	511.1200 Temporary Shoring (structure) 003. S-70-202	360.000 SF		.		.
0740	511.1200 Temporary Shoring (structure) 004. B-70-132	700.000 SF		.		.
0750	516.0500 Rubberized Membrane Waterproofing	129.000 SY		.		.
0760	517.0600 Painting Epoxy System (structure) 001. B-70-131	LUMP	LUMP			.
0770	517.0600 Painting Epoxy System (structure) 002. B-70-132	LUMP	LUMP			.
0780	517.3000.S Structure Overcoating Cleaning and Priming (structure) 001. B-70-131	LUMP	LUMP			.
0790	517.3000.S Structure Overcoating Cleaning and Priming (structure) 002. B-70-132	LUMP	LUMP			.
0800	517.4000.S Containment and Collection of Waste Materials (structure) 001. B-70-131	LUMP	LUMP			.
0810	517.4000.S Containment and Collection of Waste Materials (structure) 002. B-70-132	LUMP	LUMP			.
0820	520.8000 Concrete Collars for Pipe	4.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0830	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	2.000 EACH		.		.
0840	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	4.000 EACH		.		.
0850	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	5.000 EACH		.		.
0860	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	1.000 EACH		.		.
0870	522.1054 Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	1.000 EACH		.		.
0880	550.0020 Pre-Boring Rock or Consolidated Materials	211.000 LF		.		.
0890	550.0500 Pile Points	26.000 EACH		.		.
0900	550.1100 Piling Steel HP 10-Inch X 42 Lb	1,926.000 LF		.		.
0910	601.0409 Concrete Curb & Gutter 30-Inch Type A	920.000 LF		.		.
0920	601.0411 Concrete Curb & Gutter 30-Inch Type D	1,350.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0930	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	2,234.000 LF		.		.
0940	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	295.000 LF		.		.
0950	602.0410 Concrete Sidewalk 5-Inch	2,395.000 SF		.		.
0960	603.0105 Concrete Barrier Single-Faced 32-Inch	40.000 LF		.		.
0970	603.1132 Concrete Barrier Type S32	1,343.000 LF		.		.
0980	603.1142 Concrete Barrier Type S42	8,285.000 LF		.		.
0990	603.1442 Concrete Barrier Type S42C	1,507.000 LF		.		.
1000	603.2156 Concrete Barrier Fixed Object Protection Type S56	16.000 LF		.		.
1010	603.3113 Concrete Barrier Transition Type NJ32SF to S36	14.000 EACH		.		.
1020	603.3513 Concrete Barrier Transition Type S32 to S36	2.000 EACH		.		.
1030	603.3535 Concrete Barrier Transition Type S36 to S42	16.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1040	603.3559 Concrete Barrier Transition Type S42 to S56	3.000 EACH		.		.
1050	603.8000 Concrete Barrier Temporary Precast Delivered	22,610.000 LF		.		.
1060	603.8125 Concrete Barrier Temporary Precast Installed	24,410.000 LF		.		.
1070	604.0400 Slope Paving Concrete	386.000 SY		.		.
1080	604.0600 Slope Paving Select Crushed Material	317.000 SY		.		.
1090	606.0200 Riprap Medium	994.000 CY		.		.
1100	606.0300 Riprap Heavy	500.000 CY		.		.
1110	608.0005 Storm Sewer Rock Excavation	2,726.000 CY		.		.
1120	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	327.000 LF		.		.
1130	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	39.000 LF		.		.
1140	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	3,046.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1150	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,267.000 LF		.		.
1160	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	405.000 LF		.		.
1170	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	25.000 LF		.		.
1180	608.0354 Storm Sewer Pipe Reinforced Concrete Class III 54-Inch	590.000 LF		.		.
1190	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	106.000 LF		.		.
1200	608.0454 Storm Sewer Pipe Reinforced Concrete Class IV 54-Inch	559.000 LF		.		.
1210	611.0430 Reconstructing Inlets	3.000 EACH		.		.
1220	611.0530 Manhole Covers Type J	17.000 EACH		.		.
1230	611.0535 Manhole Covers Type J-Special	4.000 EACH		.		.
1240	611.0624 Inlet Covers Type H	10.000 EACH		.		.
1250	611.0627 Inlet Covers Type HM	3.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1260	611.0654 Inlet Covers Type V	39.000 EACH		.		.
1270	611.2005 Manholes 5-FT Diameter	4.000 EACH		.		.
1280	611.2006 Manholes 6-FT Diameter	22.000 EACH		.		.
1290	611.2007 Manholes 7-FT Diameter	3.000 EACH		.		.
1300	611.2008 Manholes 8-FT Diameter	5.000 EACH		.		.
1310	611.3004 Inlets 4-FT Diameter	29.000 EACH		.		.
1320	611.3230 Inlets 2x3-FT	10.000 EACH		.		.
1330	612.0106 Pipe Underdrain 6-Inch	20.000 LF		.		.
1340	612.0406 Pipe Underdrain Wrapped 6-Inch	3,429.000 LF		.		.
1350	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	1.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1360	614.0397 Guardrail Mow Strip Emulsified Asphalt	242.000 SY		.		.
1370	614.0805 Crash Cushions Permanent Low Maintenance	1.000 EACH		.		.
1380	614.0905 Crash Cushions Temporary	20.000 EACH		.		.
1390	614.1000 MGS Guardrail Temporary	927.000 LF		.		.
1400	614.1200 MGS Guardrail Temporary Terminal EAT	1.000 EACH		.		.
1410	614.2300 MGS Guardrail 3	113.000 LF		.		.
1420	614.2500 MGS Thrie Beam Transition	160.000 LF		.		.
1430	614.2610 MGS Guardrail Terminal EAT	5.000 EACH		.		.
1440	614.2620 MGS Guardrail Terminal Type 2	1.000 EACH		.		.
1450	616.0206 Fence Chain Link 6-FT	5,755.000 LF		.		.
1460	616.0700.S Fence Safety	10,000.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1470	619.1000 Mobilization	1.000 EACH		.		.
1480	620.0300 Concrete Median Sloped Nose	114.000 SF		.		.
1490	624.0100 Water	778.000 MGAL		.		.
1500	625.0100 Topsoil	59,788.000 SY		.		.
1510	625.0500 Salvaged Topsoil	19,975.000 SY		.		.
1520	627.0200 Mulching	79,613.000 SY		.		.
1530	628.1504 Silt Fence	1,995.000 LF		.		.
1540	628.1520 Silt Fence Maintenance	1,995.000 LF		.		.
1550	628.1905 Mobilizations Erosion Control	20.000 EACH		.		.
1560	628.1910 Mobilizations Emergency Erosion Control	12.000 EACH		.		.
1570	628.2002 Erosion Mat Class I Type A	77,630.000 SY		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1580	628.2006 Erosion Mat Urban Class I Type A	2,070.000 SY		.		.
1590	628.7005 Inlet Protection Type A	8.000 EACH		.		.
1600	628.7010 Inlet Protection Type B	54.000 EACH		.		.
1610	628.7015 Inlet Protection Type C	19.000 EACH		.		.
1620	628.7020 Inlet Protection Type D	13.000 EACH		.		.
1630	628.7504 Temporary Ditch Checks	520.000 LF		.		.
1640	628.7555 Culvert Pipe Checks	30.000 EACH		.		.
1650	628.7560 Tracking Pads	8.000 EACH		.		.
1660	629.0210 Fertilizer Type B	63.000 CWT		.		.
1670	630.0120 Seeding Mixture No. 20	2,105.000 LB		.		.
1680	630.0130 Seeding Mixture No. 30	38.000 LB		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1690	630.0200 Seeding Temporary	2,144.000 LB		.		.
1700	633.5200 Markers Culvert End	1.000 EACH		.		.
1710	634.0614 Posts Wood 4x6-Inch X 14-FT	13.000 EACH		.		.
1720	634.0616 Posts Wood 4x6-Inch X 16-FT	32.000 EACH		.		.
1730	634.0618 Posts Wood 4x6-Inch X 18-FT	15.000 EACH		.		.
1740	636.0100 Sign Supports Concrete Masonry	166.000 CY		.		.
1750	636.1000 Sign Supports Steel Reinforcement HS	1,180.000 LB		.		.
1760	636.1500 Sign Supports Steel Coated Reinforcement HS	11,800.000 LB		.		.
1770	637.1220 Signs Type I Reflective SH	3,796.000 SF		.		.
1780	637.2210 Signs Type II Reflective H	555.060 SF		.		.
1790	637.2215 Signs Type II Reflective H Folding	25.900 SF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1800	637.2230 Signs Type II Reflective F	66.000 SF		.		.
1810	638.2101 Moving Signs Type I	9.000 EACH		.		.
1820	638.2601 Removing Signs Type I	12.000 EACH		.		.
1830	638.2602 Removing Signs Type II	40.000 EACH		.		.
1840	638.3000 Removing Small Sign Supports	56.000 EACH		.		.
1850	638.3100 Removing Structural Steel Sign Supports	4.000 EACH		.		.
1860	641.0600 Sign Bridge Single Pole Sign Support Two Signs (structure) 001. S-70-245	LUMP	LUMP			.
1870	641.1200 Sign Bridge Cantilevered (structure) 001. S-70-202	LUMP	LUMP			.
1880	641.6600 Sign Bridge (structure) 001. S-70-243	LUMP	LUMP			.
1890	641.6600 Sign Bridge (structure) 002. S-70-247	LUMP	LUMP			.
1900	641.6600 Sign Bridge (structure) 003. S-70-244	LUMP	LUMP			.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1910	641.6600 Sign Bridge (structure) 004. S-70-246	LUMP	LUMP			.
1920	642.5401 Field Office Type D	1.000 EACH		.		.
1930	643.0200 Traffic Control Surveillance and Maintenance (project) 001. 1517-07-74	411.000 DAY		.		.
1940	643.0300 Traffic Control Drums	44,707.000 DAY		.		.
1950	643.0420 Traffic Control Barricades Type III	1,946.000 DAY		.		.
1960	643.0715 Traffic Control Warning Lights Type C	5,343.000 DAY		.		.
1970	643.0800 Traffic Control Arrow Boards	493.000 DAY		.		.
1980	643.0900 Traffic Control Signs	13,880.000 DAY		.		.
1990	643.0910 Traffic Control Covering Signs Type I	8.000 EACH		.		.
2000	643.0920 Traffic Control Covering Signs Type II	10.000 EACH		.		.
2010	643.1000 Traffic Control Signs Fixed Message	422.000 SF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2020	643.1050 Traffic Control Signs PCMS	1,056.000 DAY		.		.
2030	643.3000 Traffic Control Detour Signs	264.000 DAY		.		.
2040	645.0120 Geotextile Fabric Type HR	1,480.000 SY		.		.
2050	646.0103 Pavement Marking Paint 4-Inch	66,595.000 LF		.		.
2060	646.0106 Pavement Marking Epoxy 4-Inch	37,588.000 LF		.		.
2070	646.0123 Pavement Marking Paint 8-Inch	5,793.000 LF		.		.
2080	646.0126 Pavement Marking Epoxy 8-Inch	1,010.000 LF		.		.
2090	646.0600 Removing Pavement Markings	114,548.000 LF		.		.
2100	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	8,066.000 LF		.		.
2110	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	6,364.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2120	647.0566 Pavement Marking Stop Line Epoxy 18-Inch	122.000 LF		.		.
2250	652.0125 Conduit Rigid Metallic 2-Inch	4,640.000 LF		.		.
2260	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	10,051.000 LF		.		.
2270	653.0180 Pull Boxes Steel Communications (inch) 001. 24x36-Inch	16.000 EACH		.		.
2280	653.0220 Junction Boxes 18x6x6-Inch	8.000 EACH		.		.
2290	653.0222 Junction Boxes 18x12x6-Inch	9.000 EACH		.		.
2300	654.0105 Concrete Bases Type 5	5.000 EACH		.		.
2310	654.0107 Concrete Bases Type 7	4.000 EACH		.		.
2320	655.0620 Electrical Wire Lighting 8 AWG	331.000 LF		.		.
2330	655.0625 Electrical Wire Lighting 6 AWG	662.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2340	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. 131FES+50	LUMP	LUMP			.
2350	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	9.000 EACH	.			.
2360	657.0322 Poles Type 5-Aluminum	5.000 EACH	.			.
2370	657.6005.S Anchor Assemblies Light Poles on Structures	8.000 EACH	.			.
2380	670.0100 Field System Integrator	LUMP	LUMP			.
2390	670.0200 ITS Documentation	LUMP	LUMP			.
2400	671.0112 Conduit HDPE 1-Duct 2-Inch	224.000 LF	.			.
2410	671.0122 Conduit HDPE 2-Duct 2-Inch	1,171.000 LF	.			.
2420	671.0132 Conduit HDPE 3-Duct 2-Inch	2,290.000 LF	.			.
2430	671.0142 Conduit HDPE 4-Duct 2-Inch	452.000 LF	.			.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2440	671.0222 Conduit HDPE Directional Bore 2-Duct 2-Inch	205.000 LF		.		.
2450	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	1,430.000 LF		.		.
2460	671.0300 Fiber Optic Cable Marker	24.000 EACH		.		.
2470	673.0105 Communication Vault Type 1	6.000 EACH		.		.
2480	673.0225.S Install Pole Mounted Cabinet	1.000 EACH		.		.
2490	674.0200 Cable Microwave Detector	6,458.000 LF		.		.
2500	674.0300 Remove Cable	6,662.000 LF		.		.
2510	674.0400 Reinstall Cable	6,662.000 LF		.		.
2520	675.0300 Install Mounted Controller Microwave Detector Assembly	5.000 EACH		.		.
2530	675.0400.S Install Ethernet Switch	1.000 EACH		.		.
2540	678.0300 Fiber Optic Splice	15.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2550	678.0500 Communication System Testing	LUMP	LUMP			.
2560	690.0150 Sawing Asphalt	935.000 LF		.		.
2570	690.0250 Sawing Concrete	13,685.000 LF		.		.
2580	715.0415 Incentive Strength Concrete Pavement	4,284.000 DOL	1.00000		4284.00	
2590	715.0502 Incentive Strength Concrete Structures	3,132.000 DOL	1.00000		3132.00	
2600	SPV.0035 Special 001. Roadway Embankment	47,070.000 CY		.		.
2610	SPV.0035 Special 002. Pond Liner Clay	5,370.000 CY		.		.
2620	SPV.0035 Special 700. Modified High Performance Concrete (HCP) Masonry Bridges	1,074.000 CY		.		.
2630	SPV.0060 Special 001. Concrete Barrier Transition Type 1 V33.5 To S42 Block	2.000 EACH		.		.
2640	SPV.0060 Special 002. Pond Outlet Control Manhole	2.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2650	SPV.0060 Special 003. Detention Pond Corrugated Metal Anti-Seep Collar	2.000 EACH		.		.
2660	SPV.0060 Special 004. Flared End Section With Trash Rack	2.000 EACH		.		.
2670	SPV.0060 Special 005. Concrete Barrier Transition Type S42 To S56 Special	14.000 EACH		.		.
2680	SPV.0060 Special 006. Linear Delineation System	30.000 EACH		.		.
2690	SPV.0060 Special 200. Traffic Control Close-Open Freeway Entrance Ramp	7.000 EACH		.		.
2700	SPV.0060 Special 201. Repositioning Traffic Control Devices For Mainline Closures	68.000 EACH		.		.
2710	SPV.0060 Special 202. Maintain Crash Cushion Temporary Left In Place	1.000 EACH		.		.
2720	SPV.0060 Special 203. Move and Install Overhead Sign On Temporary Supports	1.000 EACH		.		.
2730	SPV.0060 Special 350. Concrete Bases Type 7 On Steep Slopes	22.000 EACH		.		.
2740	SPV.0060 Special 351. Anchor Bolt Cover Shroud	34.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2750	SPV.0060 Special 352. Pull Box Non-Conductive 24X42-Inch	28.000 EACH		.		.
2760	SPV.0060 Special 400. Install Termination Panel	1.000 EACH		.		.
2770	SPV.0060 Special 401. Tracer Test Station	1.000 EACH		.		.
2780	SPV.0060 Special 700. Junction Boxes Stainless Steel 24X18X6-Inch	3.000 EACH		.		.
2790	SPV.0060 Special 701. Cleaning And Painting Bearings	54.000 EACH		.		.
2800	SPV.0075 Special 001. Street Sweeping	600.000 HRS		.		.
2810	SPV.0085 Special 001. Pond Edge Seed	710.000 LB		.		.
2820	SPV.0090 Special 001. Concrete Barrier Type S56 Special	492.000 LF		.		.
2830	SPV.0090 Special 200. Maintain Temporary Concrete Barrier Precast Left In Place	1,405.000 LF		.		.
2840	SPV.0105 Special 002. Removing Cantilever Sign Support S-70-142	LUMP	LUMP			.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2850	SPV.0105 Special 003. Removing Cantilever Sign Support S-70-143	LUMP	LUMP			.
2860	SPV.0105 Special 004. Concrete Pavement Joint Layout	LUMP	LUMP			.
2870	SPV.0105 Special 005. Removing Cantilever Sign Support S-70-37	LUMP	LUMP			.
2880	SPV.0105 Special 006. Removing Sign Bridge S-70-32	LUMP	LUMP			.
2890	SPV.0105 Special 007. Removing Sign Structure Single Pole S-70-33	LUMP	LUMP			.
2900	SPV.0105 Special 950. Salvage Existing Sign Structure S-70-143, Truss	LUMP	LUMP			.
2910	SPV.0120 Special 001. Water For Seeded Areas	1,786.000 MGAL		.		.
2920	SPV.0165 Special 850. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP **P**	18,830.000 SF		.		.
2930	SPV.0165 Special 950. Sign Blanks Left In Place	90.000 SF		.		.
2940	SPV.0180 Special 001. Removing Rumble Strips	2,720.000 SY		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2950	SPV.0180 Special 002. Resin Binder High Friction Surface Treatment	3,690.000 SY		.		.
2960	204.0195 Removing Concrete Bases	5.000 EACH		.		.
2970	509.0301 Preparation Decks Type 1	15.000 SY		.		.
2980	611.0410 Reconstructing Catch Basins	1.000 EACH		.		.
2990	611.8115 Adjusting Inlet Covers	5.000 EACH		.		.
3000	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	200.000 LF		.		.
3010	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	150.000 LF		.		.
3020	652.0615 Conduit Special 3-Inch	50.000 LF		.		.
3030	652.0800 Conduit Loop Detector	140.000 LF		.		.
3040	654.0101 Concrete Bases Type 1	1.000 EACH		.		.
3050	654.0102 Concrete Bases Type 2	2.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3060	654.0110 Concrete Bases Type 10	4.000 EACH		.		.
3070	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH		.		.
3080	655.0230 Cable Traffic Signal 5-14 AWG	3,085.000 LF		.		.
3090	655.0240 Cable Traffic Signal 7-14 AWG	510.000 LF		.		.
3100	655.0260 Cable Traffic Signal 12-14 AWG	570.000 LF		.		.
3110	655.0305 Cable Type UF 2-12 AWG Grounded	1,530.000 LF		.		.
3120	655.0515 Electrical Wire Traffic Signals 10 AWG	2,090.000 LF		.		.
3130	655.0610 Electrical Wire Lighting 12 AWG	1,200.000 LF		.		.
3140	655.0700 Loop Detector Lead In Cable	450.000 LF		.		.
3150	655.0800 Loop Detector Wire	460.000 LF		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3160	656.0200 Electrical Service Meter Breaker Pedestal (location) 450. I 41 NB & CTH II	LUMP	LUMP			.
3170	657.0100 Pedestal Bases	1.000 EACH		.		.
3180	657.0310 Poles Type 3	2.000 EACH		.		.
3190	657.0315 Poles Type 4	2.000 EACH		.		.
3200	657.0420 Traffic Signal Standards Aluminum 13-FT	1.000 EACH		.		.
3210	657.0585 Trombone Arms 15-FT	2.000 EACH		.		.
3220	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT	4.000 EACH		.		.
3230	657.1350 Install Poles Type 10	4.000 EACH		.		.
3240	657.1530 Install Monotube Arms 30-FT	4.000 EACH		.		.
3250	657.1812 Install Luminaire Arms Steel 12-FT	4.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3260	658.0110 Traffic Signal Face 3-12 Inch Vertical	13.000 EACH		.		.
3270	658.0115 Traffic Signal Face 4-12 Inch Vertical	2.000 EACH		.		.
3280	658.0155 Traffic Signal Face 3-12 Inch Horizontal	2.000 EACH		.		.
3290	658.0215 Backplates Signal Face 3 Section 12-Inch	15.000 EACH		.		.
3300	658.0220 Backplates Signal Face 4 Section 12-Inch	2.000 EACH		.		.
3310	658.0600 Led Modules 12-Inch Red Ball	15.000 EACH		.		.
3320	658.0605 Led Modules 12-Inch Yellow Ball	15.000 EACH		.		.
3330	658.0610 Led Modules 12-Inch Green Ball	15.000 EACH		.		.
3340	658.0615 Led Modules 12-Inch Red Arrow	2.000 EACH		.		.
3350	658.0620 Led Modules 12-Inch Yellow Arrow	4.000 EACH		.		.
3360	658.0625 Led Modules 12-Inch Green Arrow	2.000 EACH		.		.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3370	658.5069 Signal Mounting Hardware (location) 450. I 41 SB & CTH II	LUMP	LUMP			.
3380	658.5069 Signal Mounting Hardware (location) 451. I 41 NB & CTH II	LUMP	LUMP			.
3390	659.1120 Luminaires Utility LED B	8.000 EACH		.		.
3400	SPV.0025 Special 700. Polyester Polymer Concrete Masonry	20.000 CF		.		.
3410	SPV.0060 Special 007. Pavement Marking Grooved Arrows Preformed Thermoplastic Type 2	3.000 EACH		.		.
3420	SPV.0060 Special 008. Pavement Marking Grooved Words Preformed Thermoplastic	2.000 EACH		.		.
3430	SPV.0090 Special 700. Sawing Pavement Deck Preparation Areas	272.000 LF		.		.
3440	SPV.0105 Special 001. Survey Project	LUMP	LUMP			.
3450	SPV.0105 Special 450. Remove Traffic Signal (I41 NB & CTH II)	LUMP	LUMP			.
3460	SPV.0105 Special 451. Remove Traffic Signal (I41 SB & CTH II)	LUMP	LUMP			.

CONTRACT: 20160510058 PROJECT(S): 1517-07-74 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3470	SPV.0180 Special 700. Rapid Cure Polymer Overlay	1,300.000 SY	.			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.