GRE

JULY 2015

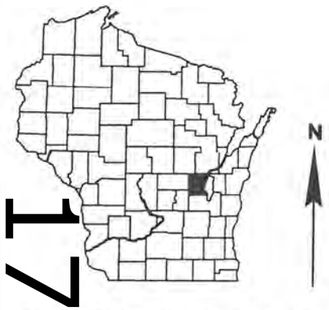
PROJECT ID: 1517-07-79

COUNTY: WINNEBAGO

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 700



DESIGN DESIGNATION USH 10/STH 441

A.A.D.T. (2020)	=	69,200
A.A.D.T. (2038)	=	88,000
D.H.V. (2038)	=	9,500
D.D.	=	57%
T.	=	8.8%
DESIGN SPEED	=	70 MPH
ESALS	=	11,858,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 10 - USH 10/STH 441

COUNTY CB - ONEIDA STREET

USH 10

WINNEBAGO COUNTY

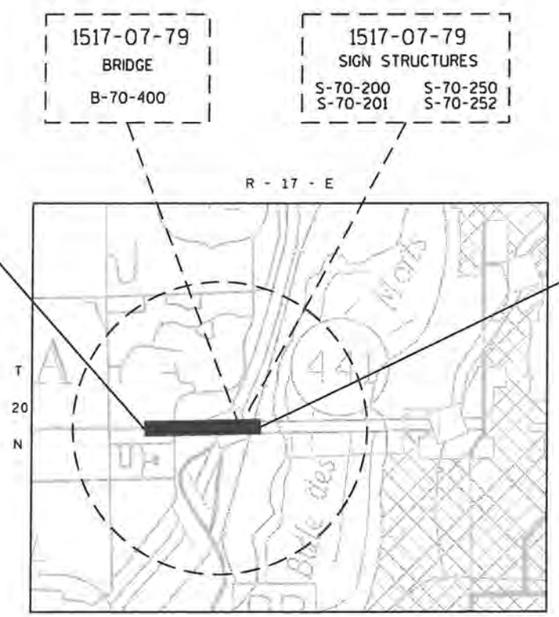
US 41 INTERCHANGE B-70-400 & USH 10 EB

STATE PROJECT NUMBER
1517-07-79

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1517-07-79	WISC 2015426	1

1517-07-79
BRIDGE
B-70-400

1517-07-79
SIGN STRUCTURES
S-70-200 S-70-250
S-70-201 S-70-252



BEGIN PROJECT 1517-07-79
STA. 104EB+00.00
X = 807211.083
Y = 546353.245

END PROJECT 1517-07-79
STA. 146EB+54.03
X = 811464.476
Y = 546295.544

LAYOUT
SCALE 0 .5 MI.

TOTAL NET LENGTH OF USH 10/STH 441 CENTERLINE = 0.806 MI.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929, NGVD 29.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WINNEBAGO COUNTY, NAD83 (1991).

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- PROPOSED JOINT LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- COMMUNICATION OVERHEAD (OH)
- COMMUNICATION UNDERGROUND (C)
- ELECTRIC OVERHEAD (OH)
- ELECTRIC UNDERGROUND (E)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY

HNTB
NINE WEST PARK PLACE
MILWAUKEE, WI 53224
(414) 358-2300

THOMAS J. DOUGHERTY E-39804-6 MILWAUKEE WI
PROFESSIONAL ENGINEER

1/26/2015 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR
Designer	HNTB
Project Manager	SCOTT EBEL
Regional Examiner	
Regional Supervisor	CHAD DEGRAVE
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 1/27/15 (Signature)

E

DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

UTILITY CONTACTS

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P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582
MOBILE: (920) 660-2390
MOLSEN@ATCLLC.COM

AT&T TCG
MR. DON DIETSCH
C/O NORTHWIND TECHNICAL SERVICES LLC
383 WILLAMSTOWNE STE B
DELAFIELD, WI 53018
(262) 646-5602
MOBILE: (414) 651-2862
FAX: (262) 646-5603
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MRADTKE@CI.MENASHA.WI.US

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TOWN OF MENASHA - ELECTRIC
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(920) 720-7110

TOWN OF MENASHA - SANITARY SEWER
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STEVEL@TOWN-MENASHA.COM

TOWN OF MENASHA - WATER
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JEFFR@TOWN-MENASHA.COM

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MOBILE: (920) 378-0444
VINCE.ALBIN@TWCABLE.COM

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CUSTOMER SERVICE TECHNICIAN
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JIM.QUINN@WE-ENERGIES.COM

WE ENERGIES - ELECTRIC AND GAS
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333 W. EVERETT ST
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CODY.BECKMANN@WE-ENERGIES.COM

WISCONSIN CENTRAL LTD CONTACTS

RAILROAD FLAGGING CONTACT
MARY ELLEN CARMODY
2800 LIVERNOIS ROAD, SUITE 330
TROY, MI 48083
OFFICE: (248) 740-6227
FAX: (248) 740-6036
MARYELLEN.CARMODY@CN.CA

MAIN RAILROAD CONTACT
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MANAGER PUBLIC WORKS
1625 DEPOT STREET
STEVENS POINT, WI 54481
OFFICE: (715) 345-2503
FAX: (715) 345-2507
JACKIE.MACEWICZ@CN.CA

24 HOUR EMERGENCY RAILROAD SIGNAL
1-800-616-3432

CALL BEFORE YOU DIG
WISCONSIN CENTRAL LTD IS NOT PART OF DIGGERS HOTLINE.
CALL CHRISTINE GRZESIAK, (715) 345-2506, WHEN DIGGING
ON RAILROAD R/W

DNR AREA LIAISON

JAY SCHIEFELBEIN
DEPARTMENT OF NATURAL RESOURCES
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GREEN BAY, WI 54313
(920) 662-5130
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

WINNEBAGO COUNTY HIGHWAY COMMISSIONER

ERNIE WINTERS
901 WEST COUNTY ROAD Y
P.O. BOX 2764
OSHKOSH, WI 54903
(920) 232-1700

COUNTY SURVEYOR

JERRY BOUGIE
WINNEBAGO COUNTY COURT HOUSE
445 ALGIMA BLVD
OSHKOSH, WI 54903
(920) 236-4839

US ARMY CORP OF ENGINEERS

TODD VESPERMAN
OLD FORT SQUARE
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GREEN BAY, WI 54303
(651) 290-5857

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SCOTT.EBEL@DOT.WI.GOV

ANNA VARNEY
HNTB CORPORATION
11414 W. PARK PLACE, SUITE 300
MILWAUKEE, WI 53224
(414) 410-6856

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAIL
PAVING GRADES
DISTURBED WETLANDS
EROSION CONTROL
INVASIVE SPECIES
STORM SEWER
LIGHTING
PAVEMENT MARKINGS
TRAFFIC CONTROL
ALIGNMENT PLAN
BENCHMARKS

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK. THE LOCATIONS 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. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPERATELY.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

EROSION BALES ARE TO ONLY BE USED FOR REINFORCEMENT OF PROPOSED SILT FENCE LOCATIONS ALONG WETLANDS. ANY OTHER USE OF EROSION BALES IS PROHIBITED.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.

FILL AND COMPACT ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WITH MATERIAL SIMILAR TO EXISTING GROUND OR ENGINEER APPROVED BACKFILL TO AVOID POTENTIAL FROST HEAVING. BACKFILLING IS INCIDENTAL TO CORRESPONDING ABANDONMENT OR REMOVAL ITEM.

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

REMOVING CONCRETE INCLUDES ANY MESH OR REINFORCEMENT THAT MAY BE PART OF THE PAVEMENT STRUCTURE. EXISTING PAVEMENT DEPTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCIDENTAL TO THE COST OF THEIR RESPECTIVE BID ITEMS.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ALSO INCLUDES VERIFICATION OF INVERT ELEVATIONS AT ALL PROPOSED STORM SEWER CONNECTION POINTS TO EXISTING SYSTEMS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM "TRAFFIC CONTROL COVERING SIGNS TYPE 1 OR TYPE 2."

STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

REMOVAL OF TEMPORARY PAVEMENT IS INCIDENTAL TO THE PERTINENT ITEMS. SEE TRAFFIC CONTROL PLAN.

EXCAVATION REQUIRED FOR ALL SIGN STRUCTURES, BRIDGES, AND RETAINING WALLS IS NOT INCLUDED IN THE COMPUTER EARTHWORK AND IS INCIDENTAL TO THE PERTINENT STRUCTURE ITEMS. SEE STRUCTURE PLANS FOR ADDITIONAL GUIDANCE ON REQUIRED EXCAVATION LIMITS.

BORROW QUANTITY IS BASED UPON AN EXPANSION FACTOR OF 1.3 FOR FILL MATERIAL.

TACK COAT QUANTITY BASED ON 0.06 GAL/SY APPLICATION RATE.

ALIGNMENT IDENTIFIERS	
EB	USH 10 EB /STH 441 NB
FEN	USH 10 EB/STH 441 NB RAMP TO USH 41 NB RAMP
FES	USH 10 EB/STH 441 NB RAMP TO USH 41 SB RAMP
FNE	USH 41 NB TO USH 10 EB / STH 441 NB RAMP
FNW	USH 41 NB TO USH 10 WB RAMP
FSE	USH 41 SB TO USH 10 EB / STH 441 NB RAMP
FWS	USH 10 WB/STH 441 SB RAMP TO USH 41 SB RAMP
NB	USH 41 NB
SB	USH 41 SB
TCA	TEMPORARY RAMP CROSSOVER A (RAMP FNE)
TCO	WEST WB USH 10 CROSSOVER
TRF	TEMPORARY RAMP CROSSOVER F (RAMP FSE)
TWS	WB USH 10/WIS 441 SB TO SB USH 41 RAMP
WB	USH 10 WB / STH 441 SB

ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EAT	ENERGY ABSORBING TERMINAL
EOP	EDGE OF PAVEMENT
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COARSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

2

N

END CONSTRUCTION
USH 41
STA. 1343NB+62.33

END CONSTRUCTION
WEST TO SOUTH RAMP
STA. 127TWS+14.81

COLD SPRING RD

W AMERICAN DR

BUTTE DES MORTS BEACH RD

WISCONSIN CENTRAL LIMITED RR

USH 41

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

STRUCTURE S-70-250

STRUCTURE B-70-158
BUILT WITH PREVIOUS PROJECT

BEGIN CONSTRUCTION
WEST TO SOUTH RAMP
STA. 108TWS+75.79

STRUCTURE B-70-79
EXISTING STRUCTURE BUILT
WITH PREVIOUS PROJECT

STRUCTURE B-70-78
EXISTING STRUCTURE BUILT
WITH PREVIOUS PROJECT

STRUCTURE B-70-403
BUILT WITH CONCURRENT PROJECT

USH 10

STRUCTURE S-70-252

STRUCTURE S-70-200

BEGIN CONSTRUCTION
USH 10
STA. 83EB+50.50

STRUCTURE B-70-157
BUILT WITH PREVIOUS PROJECT

WESTFIELD LN

STRUCTURE S-70-201

STRUCTURE B-70-402
BUILT WITH PREVIOUS PROJECT

STRUCTURE B-70-400

END PROJECT 1517-07-79
STA. 146EB+54.03
X = 811,464.476
Y = 546,295.544

BEGIN PROJECT
1517-07-79
STA. 104EB+00.00
X = 807211.083
Y = 546365.245

BEGIN CONSTRUCTION
USH 41
STA. 1323SB+00.00

END CONSTRUCTION
FWS RAMP
STA. 110FWS+84.13

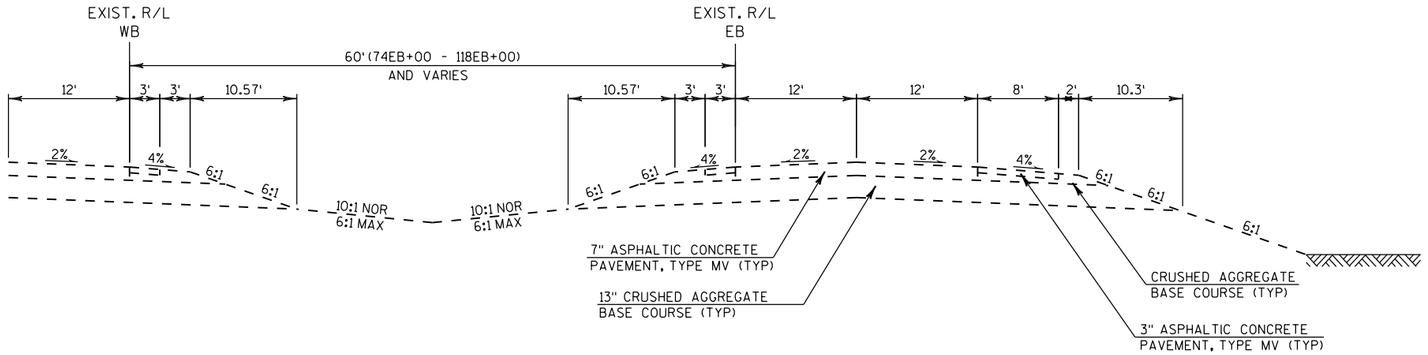
USH 41

N. LAKE ST

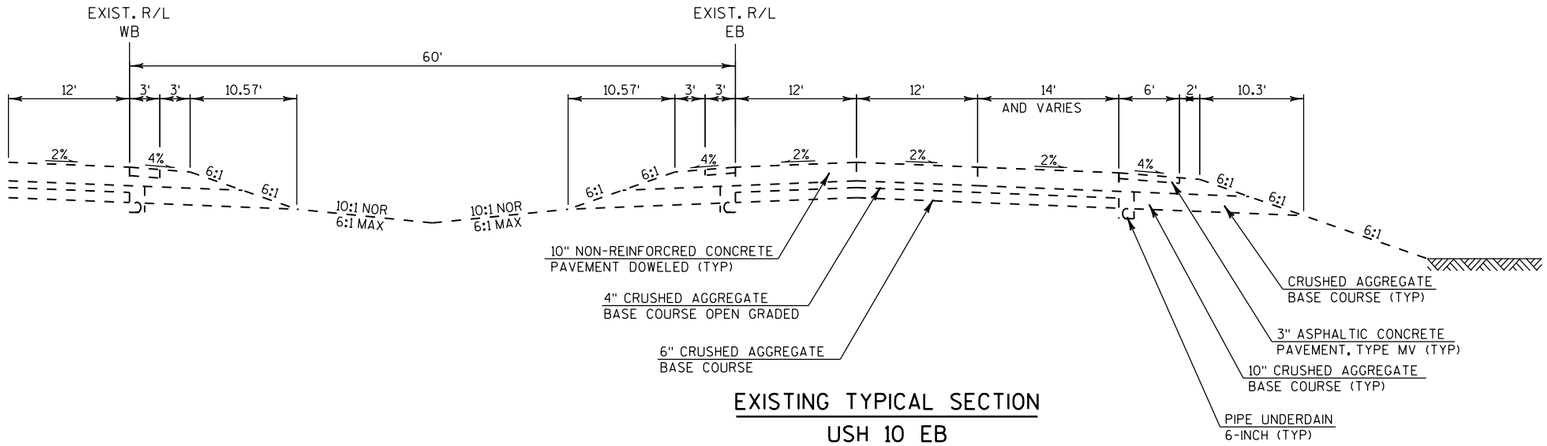
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PROJECT OVERVIEW	SHEET 4	E

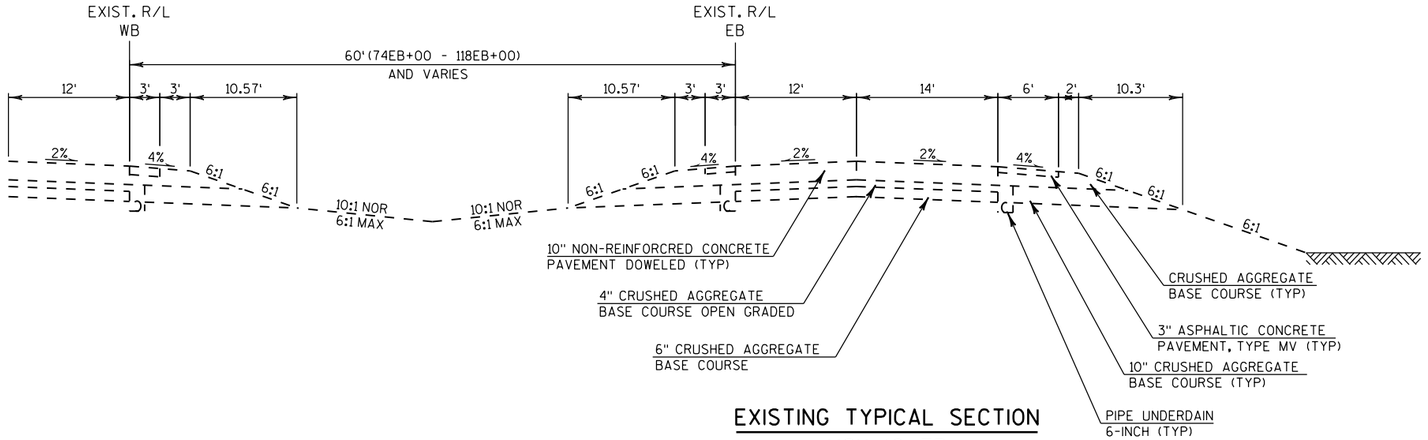
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EXISTING TYPICAL SECTION
USH 10 EB
STA 115EB+89 - 121EB+14

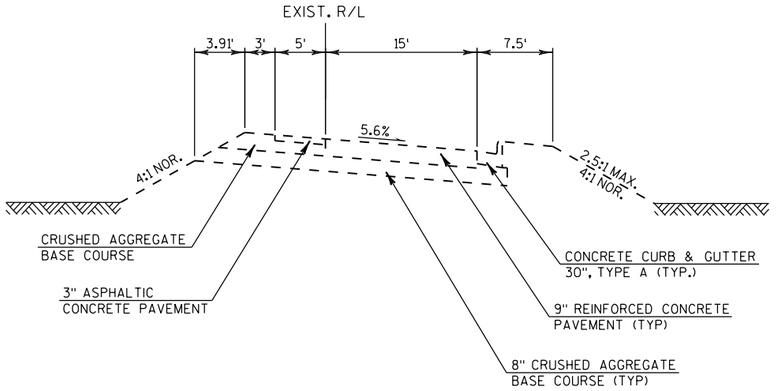


EXISTING TYPICAL SECTION
USH 10 EB
STA 90EB+60 - 108EB+74

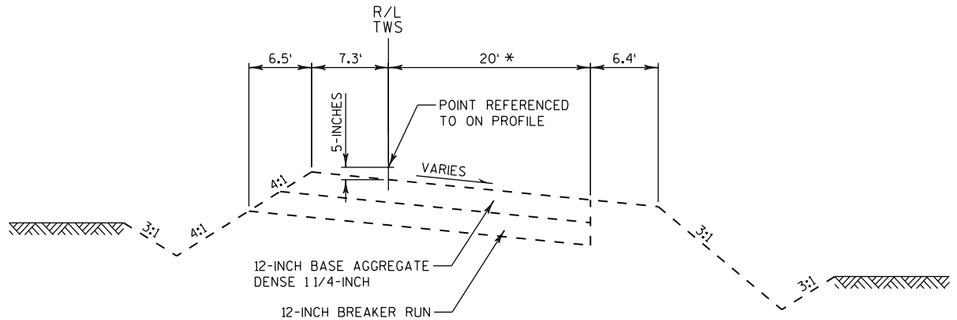


EXISTING TYPICAL SECTION
USH 10 EB
STA 74EB+55 - 90EB+60
STA 108EB+74 - 115EB+89

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS: EXISTING USH 10	SHEET 5	E

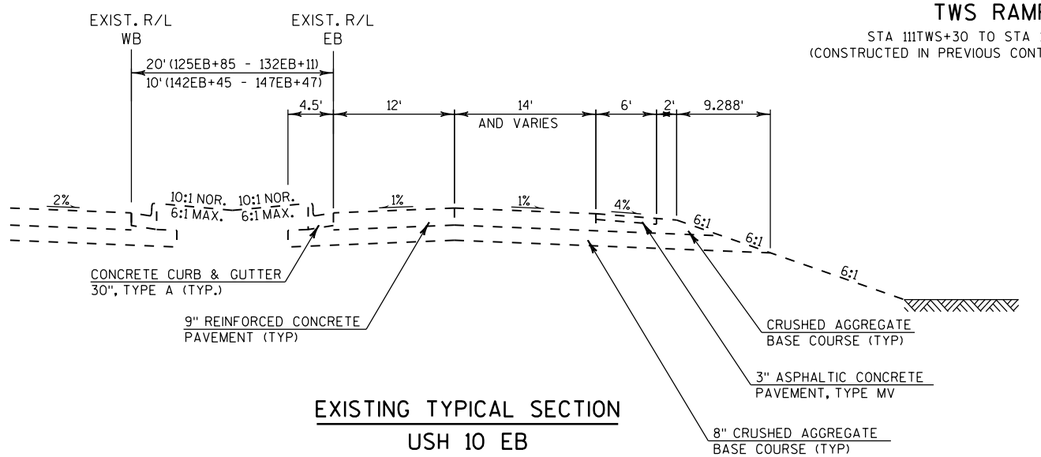


EXISTING TYPICAL SECTION
USH 10 WB TO USH 41 SB RAMP
STA 126TWS+00 - 127TWS+50

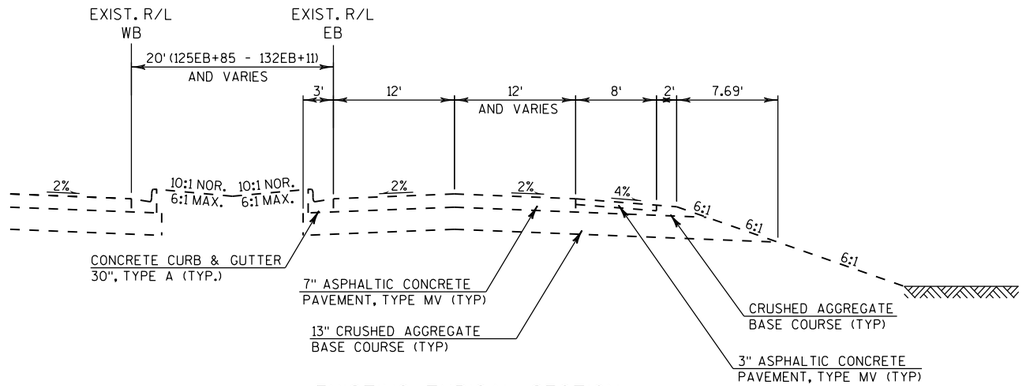


EXISTING TYPICAL SECTION
TWS RAMP
STA 111TWS+30 TO STA 127TWS+15
(CONSTRUCTED IN PREVIOUS CONTRACT 1517-07-72)

* VARIES 20' TO 0' FROM STA. 125TWS+85 TO 127TWS+15



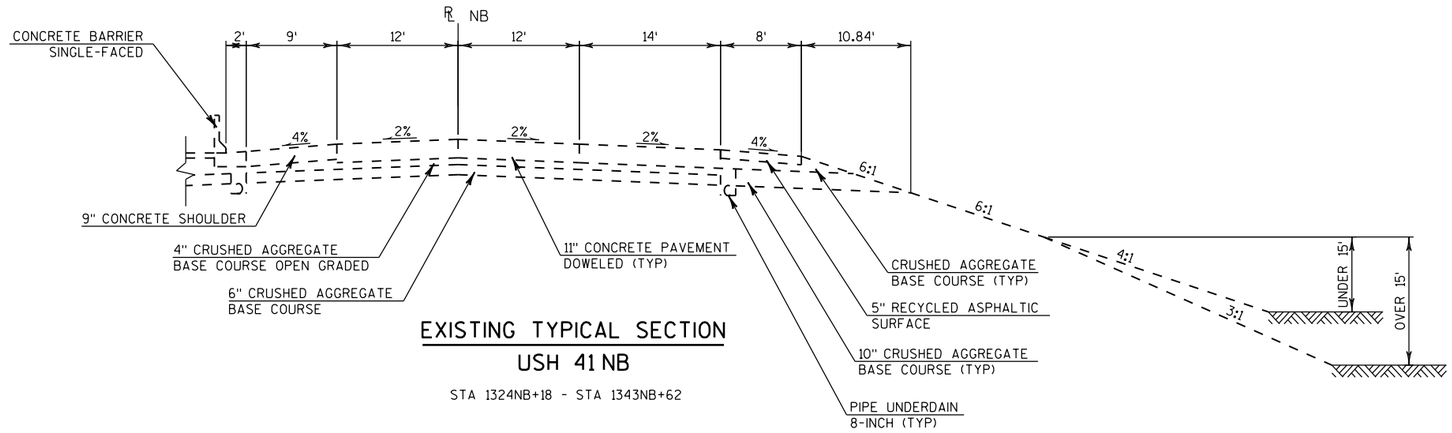
EXISTING TYPICAL SECTION
USH 10 EB
STA 127EB+83 - 132EB+11
STA 142EB+45 - 147EB+47



EXISTING TYPICAL SECTION
USH 10 EB
STA 121EB+14 - 127EB+83

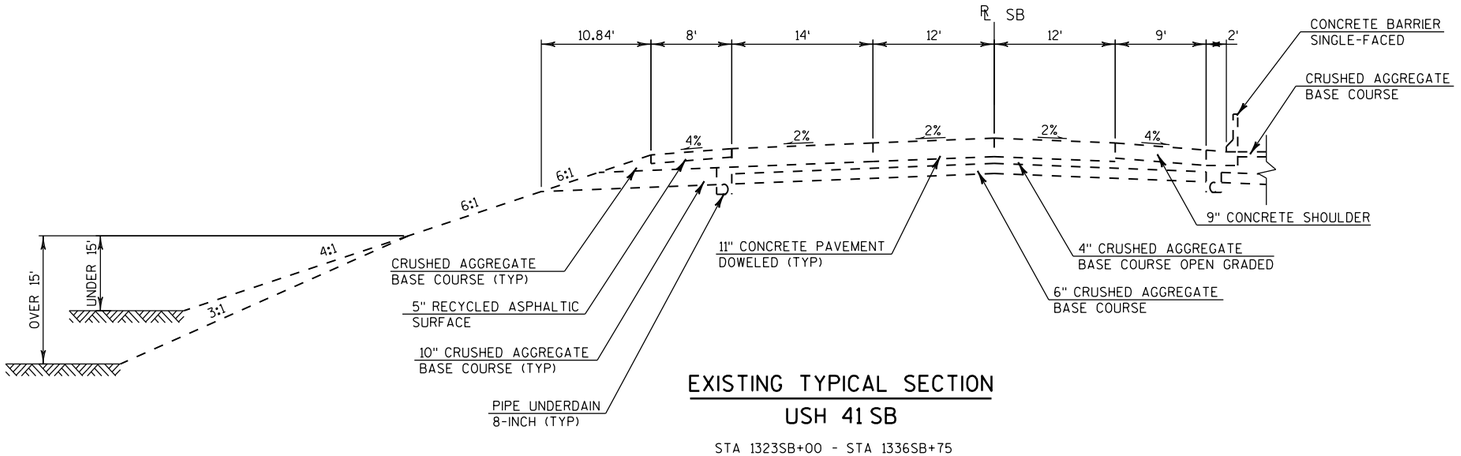
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS: EXISTING USH 10	SHEET 6	E

2



EXISTING TYPICAL SECTION
USH 41 NB

STA 1324NB+18 - STA 1343NB+62

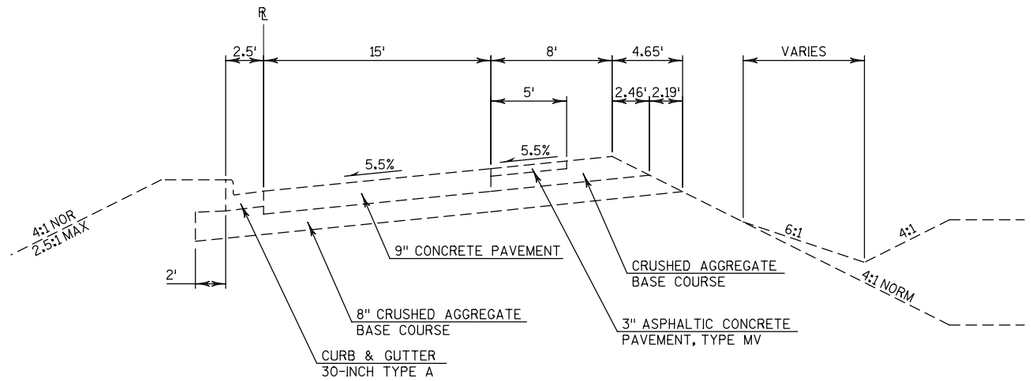


EXISTING TYPICAL SECTION
USH 41 SB

STA 1323SB+00 - STA 1336SB+75

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS: EXISTING USH 41	SHEET 7	E

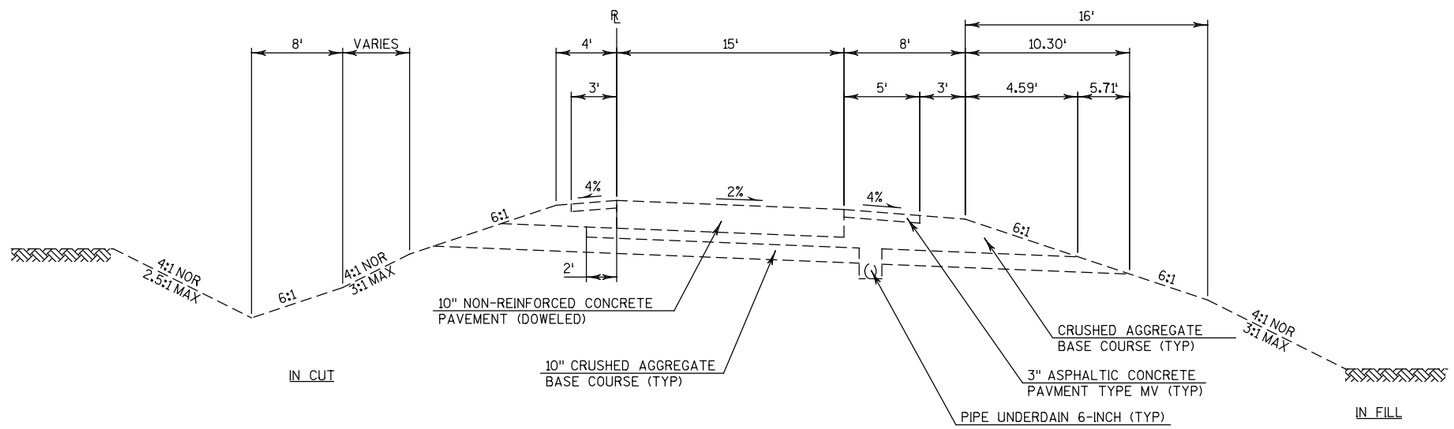
2



EXISTING TYPICAL SECTION

FWS RAMP

STA 112FWS+00 - STA 114FWS+50



EXISTING TYPICAL SECTION

FEN RAMP

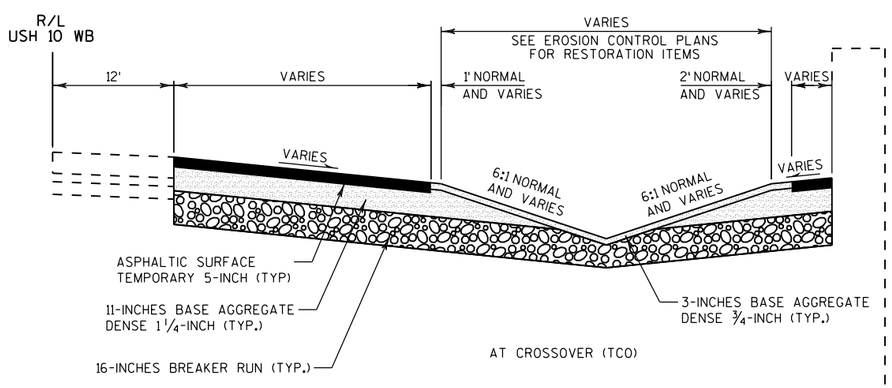
STA 111FEN+75 - STA 118FEN+50

FES RAMP

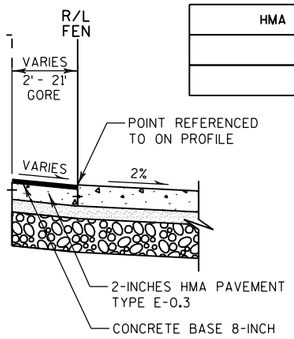
STA 118FES+14.68 - STA 136FES+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 8	E

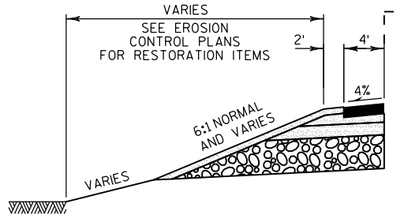
HMA PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-0.3	2"	2" UPPER LAYER	PG-58-28
E-0.3	5"	5" UPPER LAYER	PG-58-28



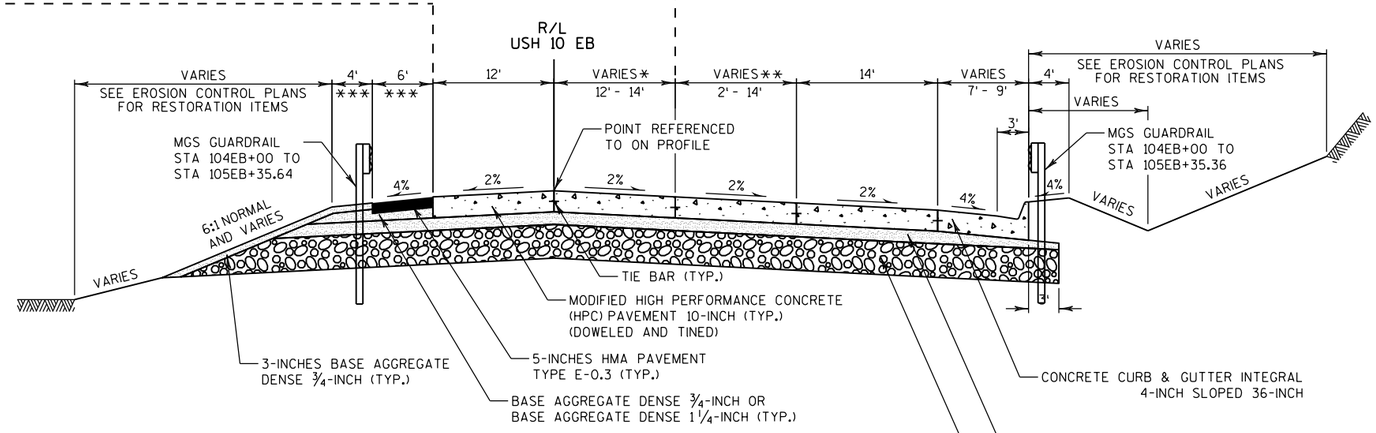
AT CROSSOVER (TCO)



STA 108EB+88.34 TO STA 111EB+56.63



STA 105EB+35.64 TO STA 107EB+10.57

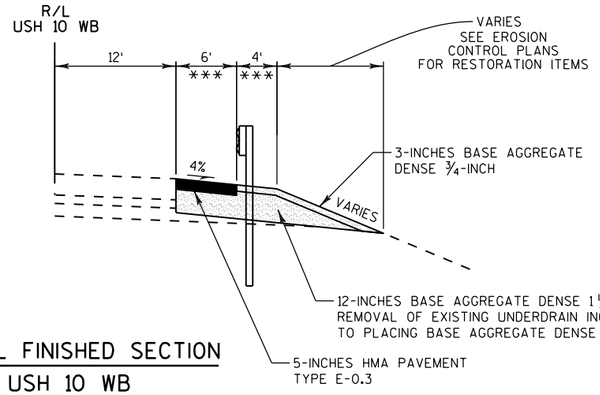


TYPICAL FINISHED SECTION
USH 10 EB
STA. 104EB+00.00 TO STA. 111EB+56.63

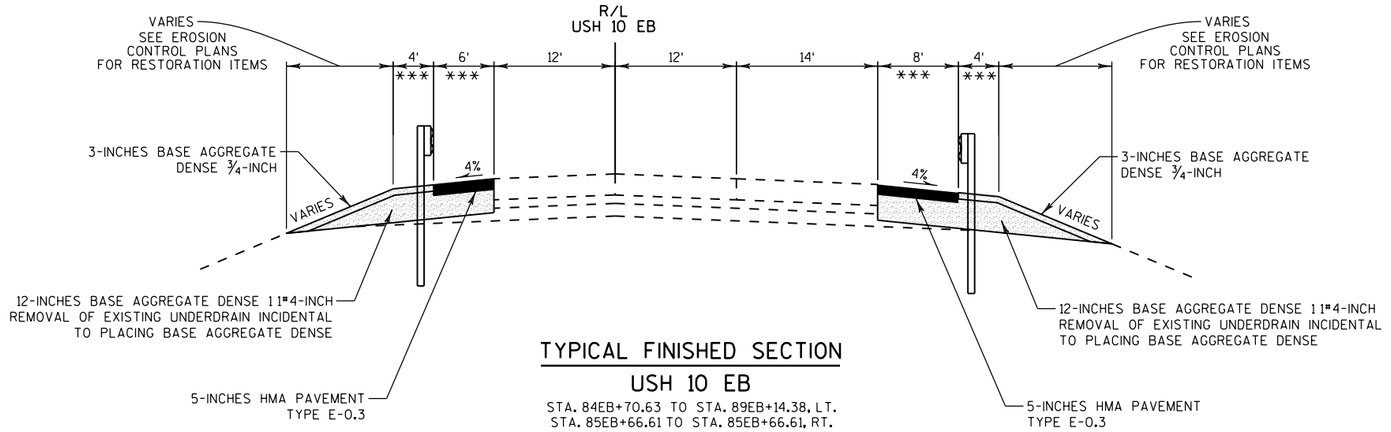
* VARIES 12' - 14' FROM STA 104EB+00 TO STA 105EB+92.90.
12' FROM STA 105EB+92.90 TO STA 111EB+56.63.

** LANE BEGINS STA 105EB+92.90

*** VARIES AT MGS EAT AND
MGS TYPE 2 TERMINAL

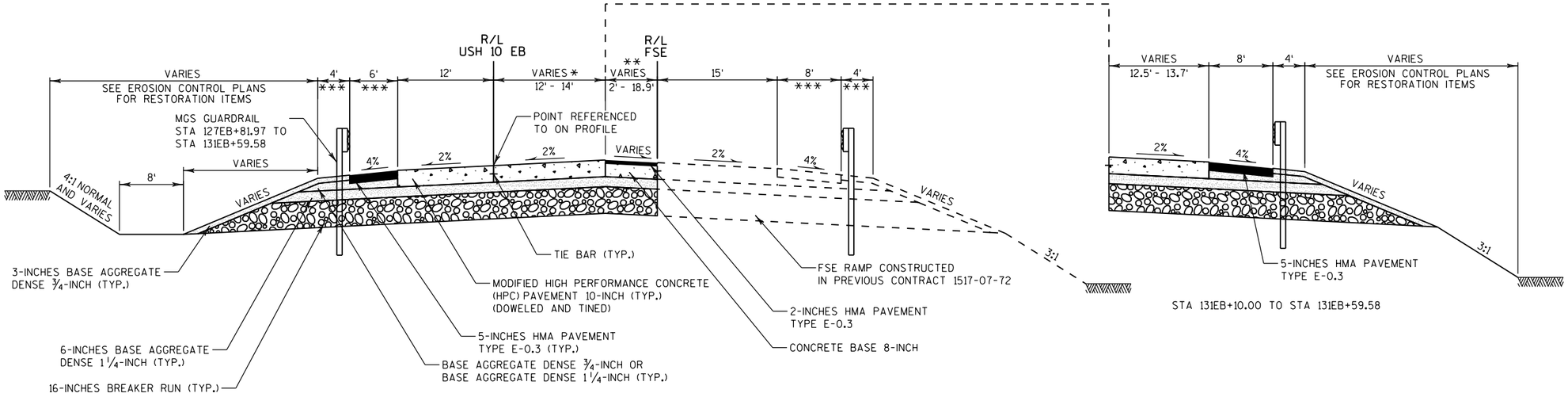


TYPICAL FINISHED SECTION
USH 10 WB
STA. 86WB+50.63 TO STA. 91WB+68.00, RT.
STA. 95WB+19.71 TO STA. 99WB+39.00, RT.



TYPICAL FINISHED SECTION
USH 10 EB
STA. 84EB+70.63 TO STA. 89EB+14.38, LT.
STA. 85EB+66.61 TO STA. 85EB+66.61, RT.
STA. 85EB+66.61 TO STA. 99EB+39.69, LT.
STA. 100EB+98.50 TO STA. 104EB+00, LT. & RT.

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 9	E



STA 131EB+10.00 TO STA 131EB+59.58

TYPICAL FINISHED SECTION
USH 10 EB

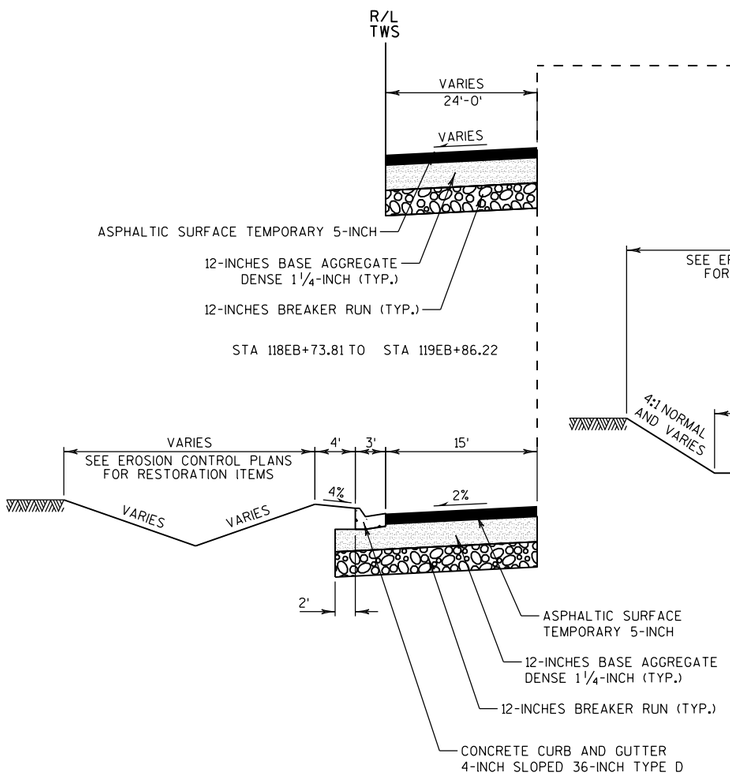
STA. 127EB+58.23 TO STA. 131EB+59.58

* 12' FROM 127EB+58.23 TO STA. 129EB+41.00
VARIES 14' - 12' FROM STA. 129EB+41.00 TO STA. 130EB+61.97.
12' FROM STA. 130EB+61.97 TO STA. 131EB+59.58.

** GORE ENDS STA. 129EB+41.00

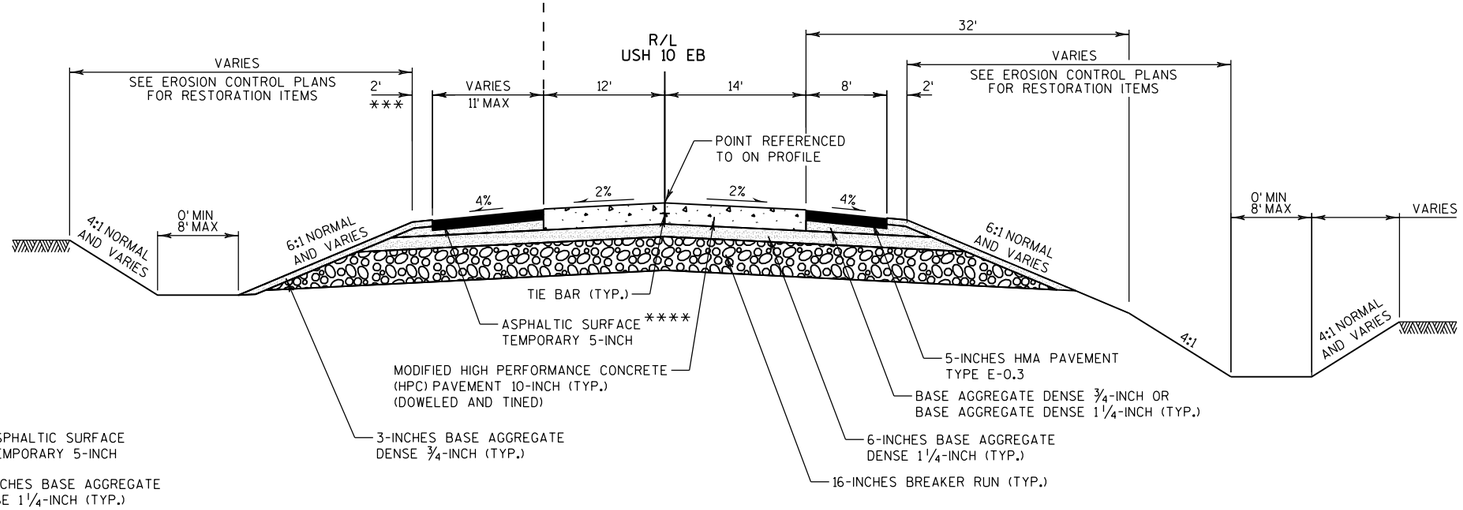
*** VARIES AT MGS EAT

**** SHOULDER PAVEMENT PAID AS "HMA PAVEMENT TYPE E-0.3, 5-INCH FROM STA 126EB+00 TO 127EB+58.23



STA 118EB+73.81 TO STA 119EB+86.22

STA 119EB+86.22 TO STA 124EB+27.67

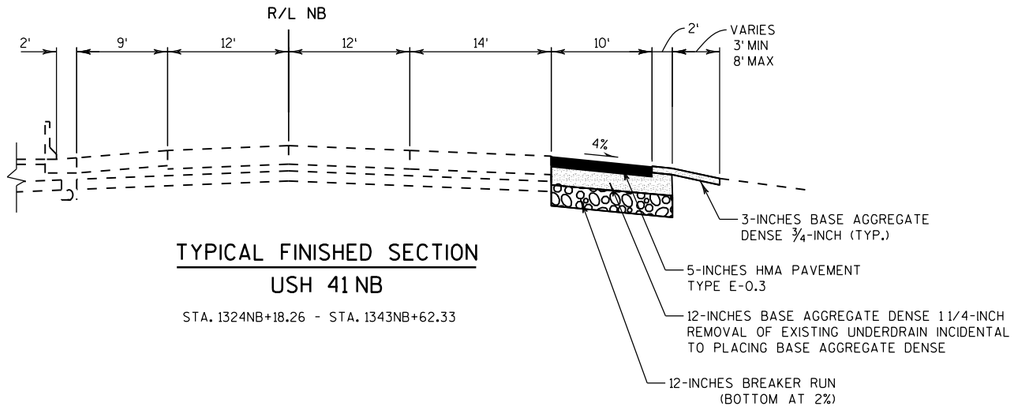


TYPICAL FINISHED SECTION
USH 10 EB

STA. 111EB+56.63 TO STA. 127EB+58.23

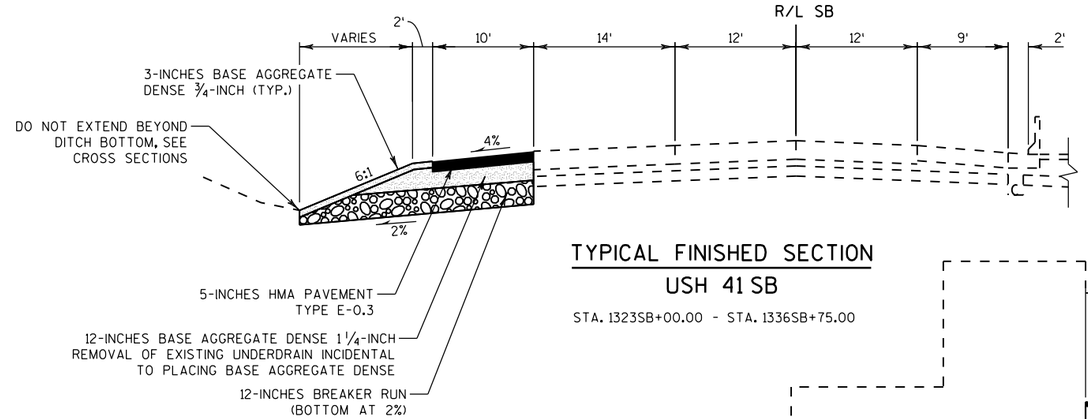
HMA PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-0.3	5"	5" UPPER LAYER	PG-58-28

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 10	E



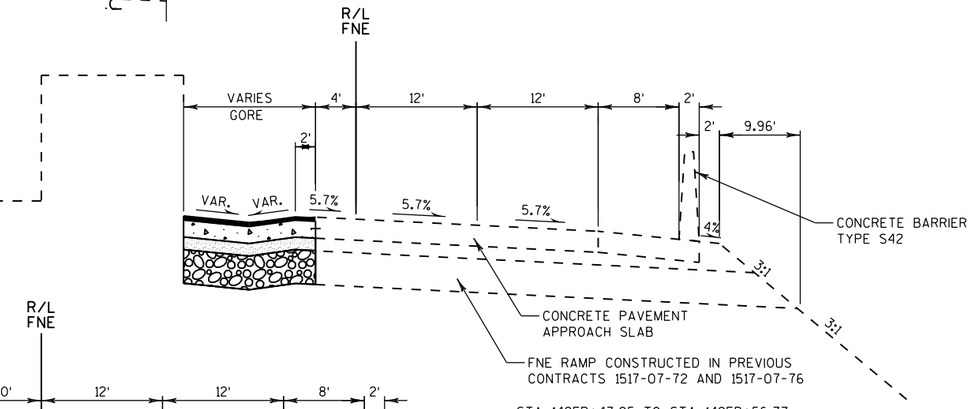
TYPICAL FINISHED SECTION
USH 41 NB

STA. 1324NB+18.26 - STA. 1343NB+62.33

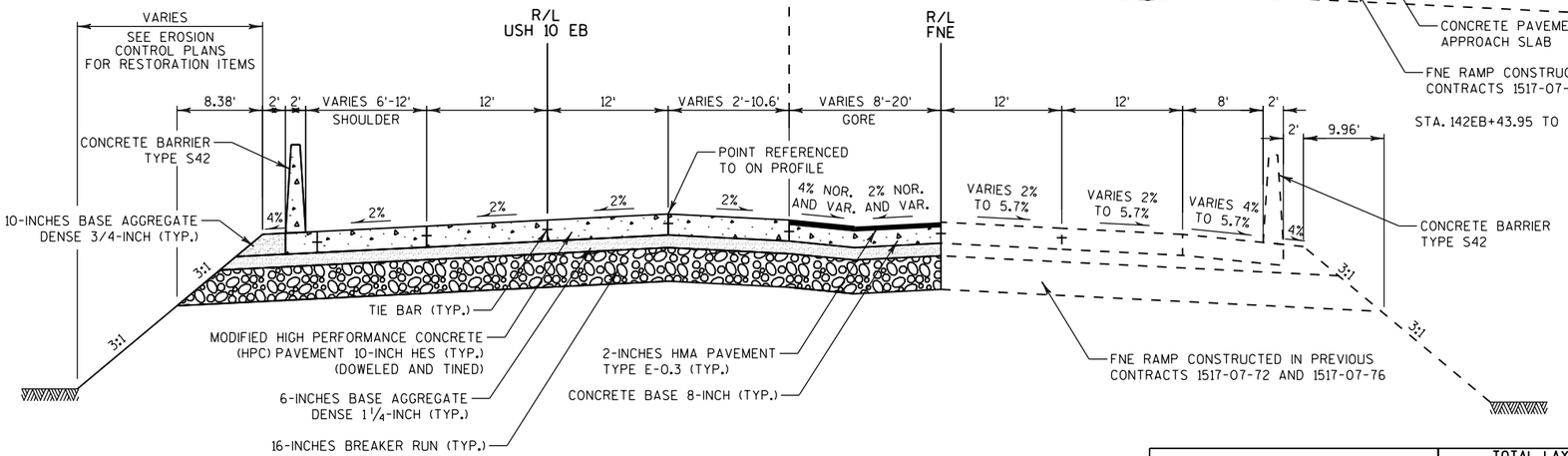


TYPICAL FINISHED SECTION
USH 41 SB

STA. 1323SB+00.00 - STA. 1336SB+75.00



STA. 142EB+43.95 TO STA. 142EB+56.77

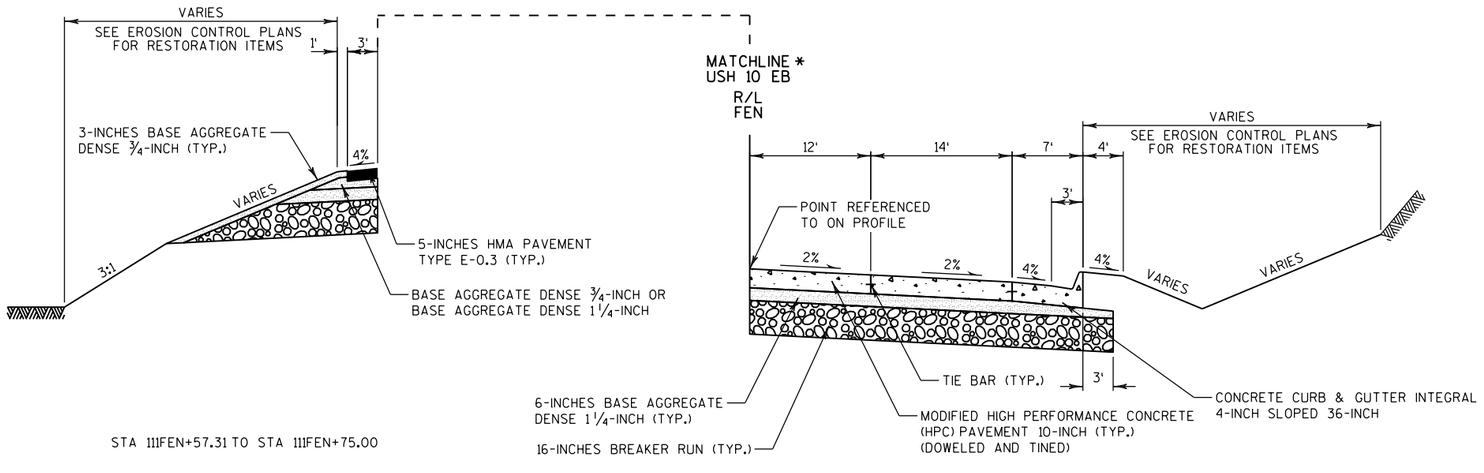


TYPICAL FINISHED SECTION
USH 10 EB

STA. 142EB+78.78 TO STA. 146EB+38.28

HMA PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-0.3	2"	2" UPPER LAYER	PG-58-28
E-0.3	5"	5" UPPER LAYER	PG-58-28

HMA PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-0.3	5"	5" UPPER LAYER	PG-58-28



STA 111FEN+57.31 TO STA 111FEN+75.00

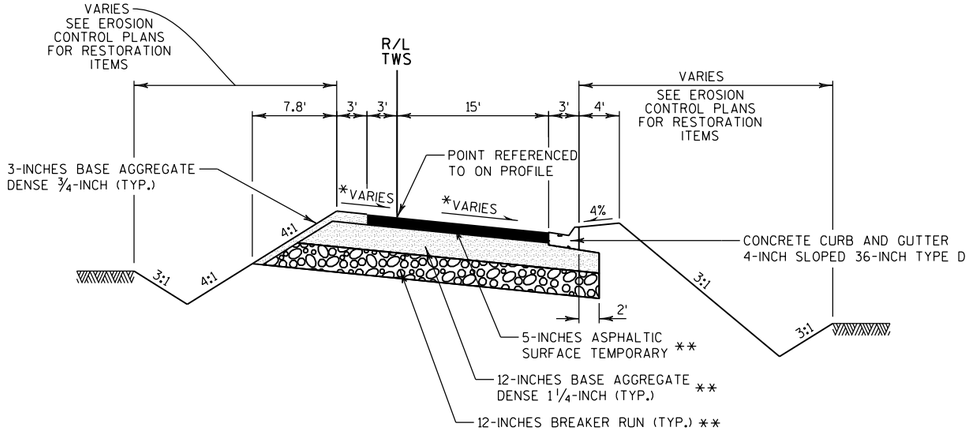
TYPICAL FINISHED SECTION
FEN RAMP

STA 108FEN+88.62 TO STA 111FEN+75.00

* USE MATCHLINE FROM STA 108FEN+88.62 TO STA 111FEN+57.31

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 12	E

2



TYPICAL FINISHED SECTION

USH 41 TWS RAMP

STA. 110TWS+00.00 TO STA. 114TWS+00.00

* 108TWS+75.79 TO 109TWS+48
VARIES 2% TO 6%

109TWS+48 TO 114TWS+59
6%

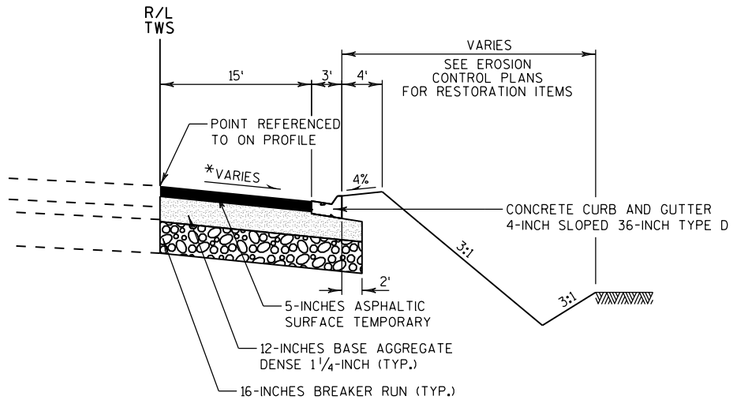
114TWS+59 TO 115TWS+31
VARIES 6% TO 2%

115TWS+31 TO 120TWS+48
2%

120TWS+48 TO 120TWS+55
VARIES 2% TO 2.4%

120TWS+55 TO 126TWS+50
2.4%

** 110TWS+25 TO 111TWS+50
125TWS+50 TO 127TWS+14.81
CONCRETE PAVEMENT HES 9-INCH
OVER 8-INCHES BASE AGGREGATE
DENSE 1 1/4-INCH OVER
12-INCHES BREAKER RUN

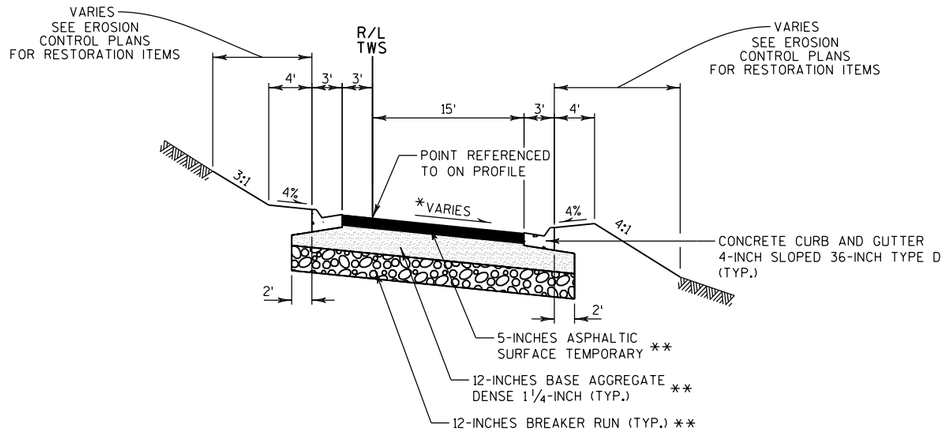


TYPICAL FINISHED SECTION

USH 41 TWS RAMP

STA. 108TWS+75.79 TO STA. 110TWS+00.00

2



TYPICAL FINISHED SECTION

USH 41 TWS RAMP

STA. 124TWS+00 TO STA. 127TWS+14.81

* 108TWS+75.79 TO 109TWS+48
VARIES 2% TO 6%

109TWS+48 TO 114TWS+59
6%

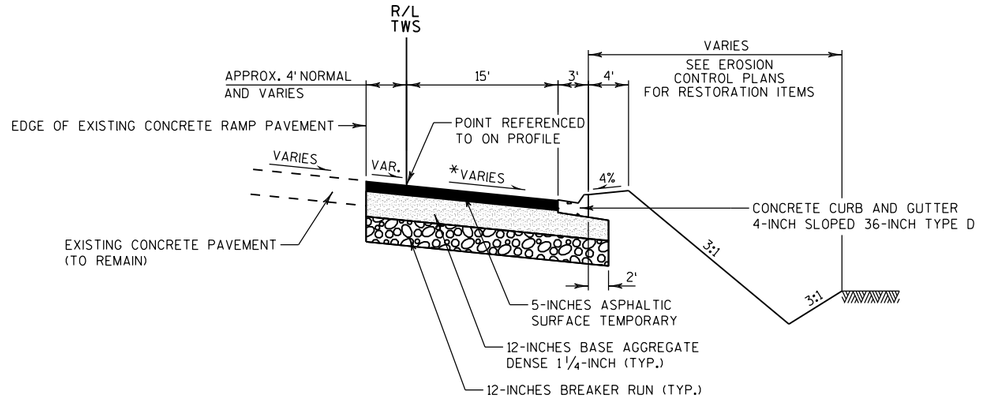
114TWS+59 TO 115TWS+31
VARIES 6% TO 2%

115TWS+31 TO 120TWS+48
2%

120TWS+48 TO 120TWS+55
VARIES 2% TO 2.4%

120TWS+55 TO 126TWS+50
2.4%

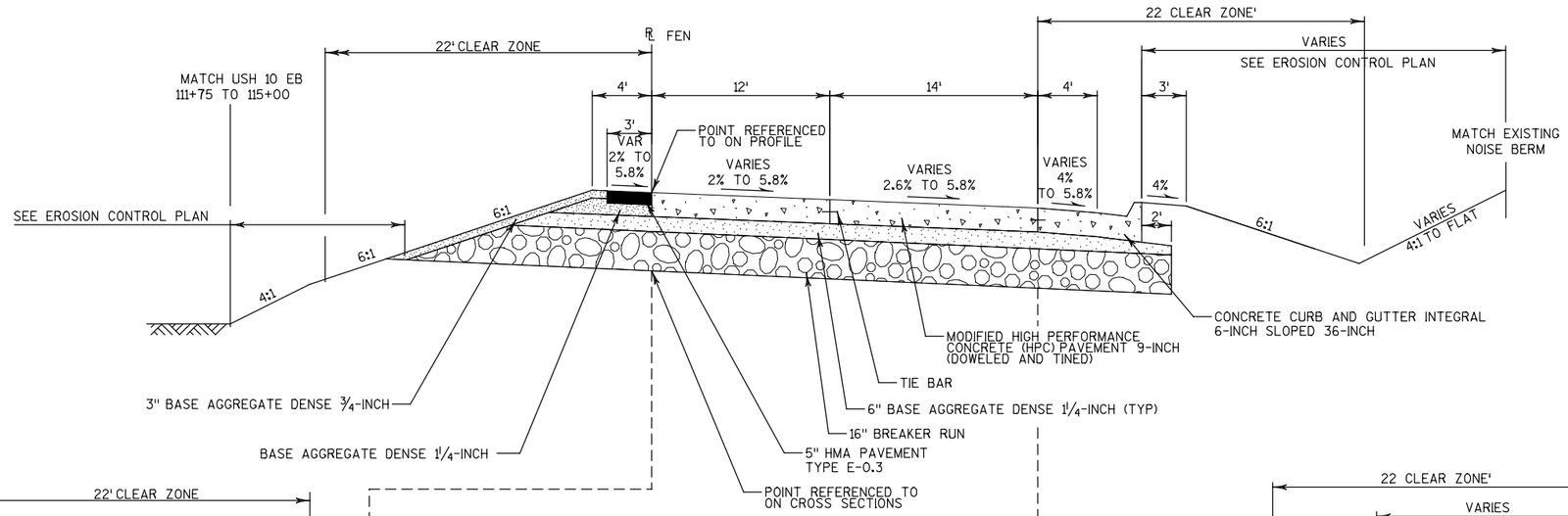
** 110TWS+25 TO 111TWS+50
125TWS+50 TO 127TWS+14.81
CONCRETE PAVEMENT HES 9-INCH
OVER 8-INCHES BASE AGGREGATE
DENSE 1 1/4-INCH OVER
12-INCHES BREAKER RUN



TYPICAL FINISHED SECTION

USH 41 TWS RAMP

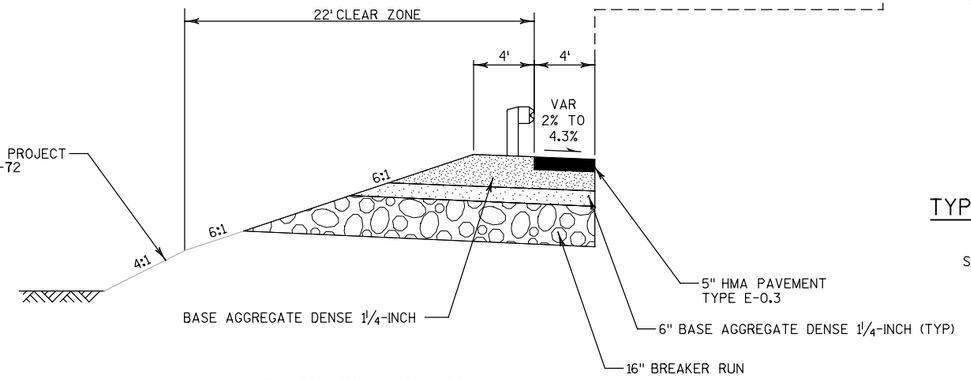
STA. 114TWS+00 TO STA. 124TWS+00



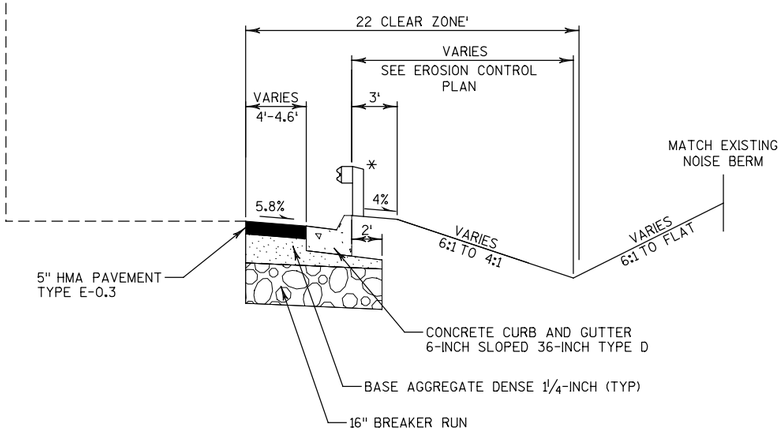
TYPICAL FINISHED SECTION

FEN RAMP

STA 111FEN+75.00 - STA 118FEN+14.68

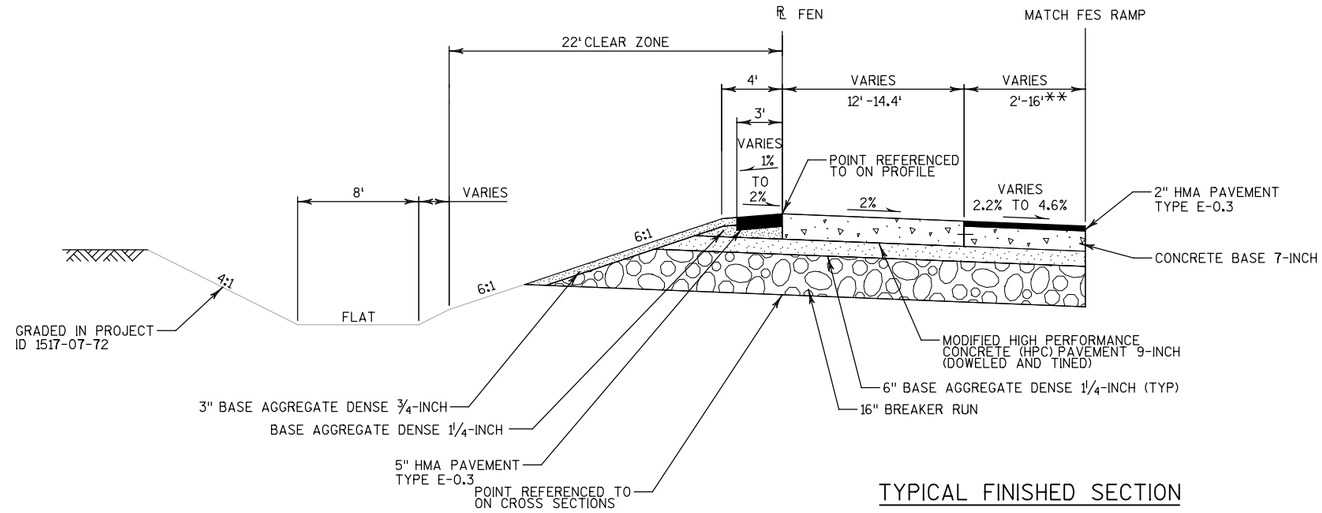


STA 117FEN+30.61 - STA 118FEN+14.68



STA 117FEN+44.87 - STA 118FEN+14.68

*MGS GUARDRAIL STARTS AT STA 117FEN+30



TYPICAL FINISHED SECTION

FEN RAMP

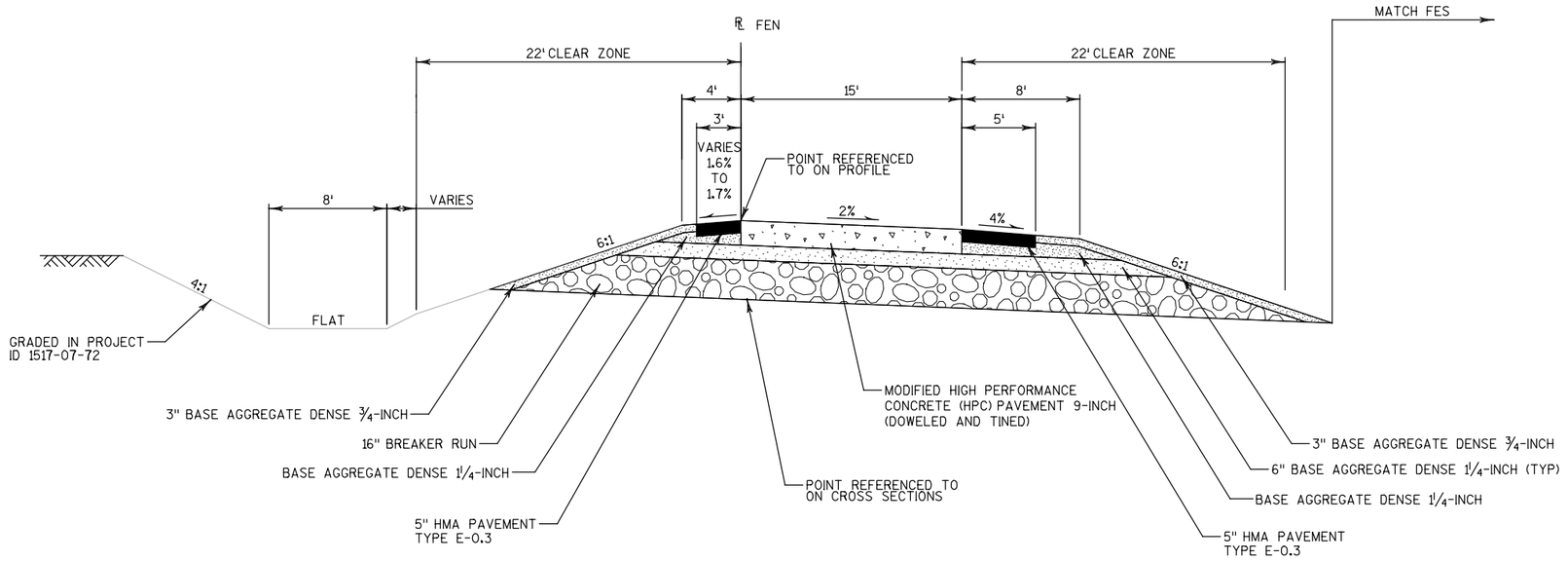
STA 118FEN+14.68 - STA 119FEN+31.75

**GORE STARTS AT STA 118FEN+39.64

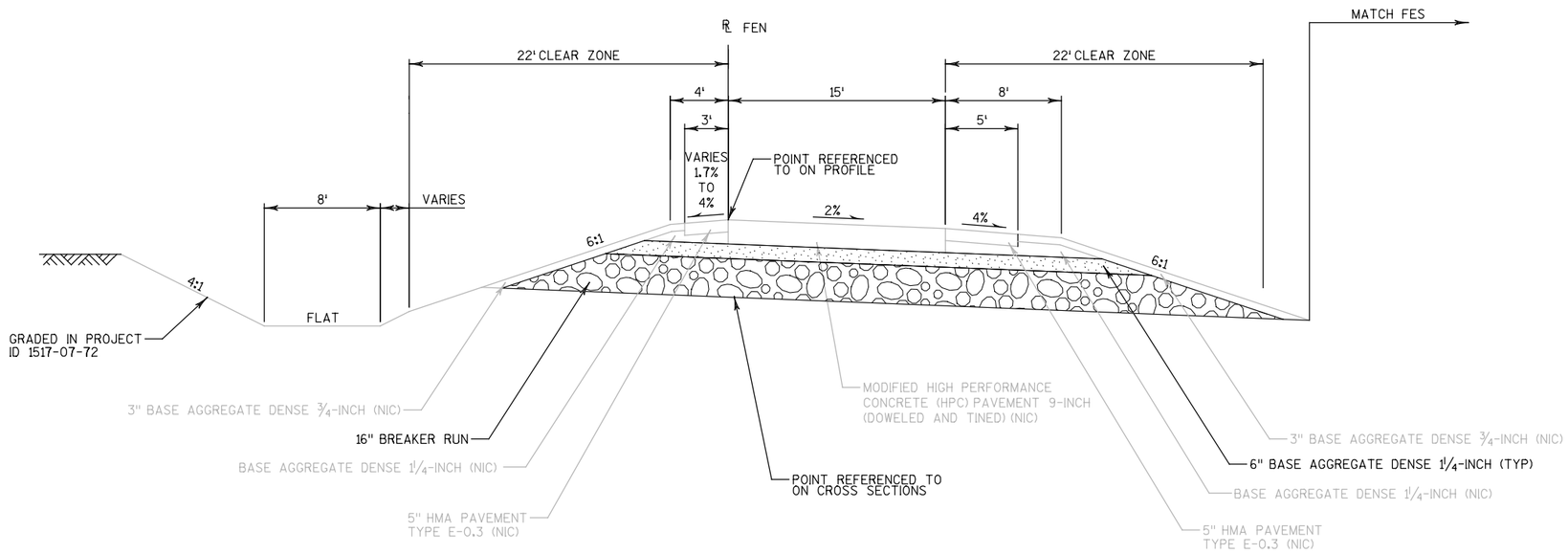
PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NORMAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-0.3	5"	5" LAYER	12.5 MM	PG-58-28
E-0.3	2"	2" LAYER	12.5 MM	PG-58-28

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 15	E

NOTE:
NIC = NOT IN CONTRACT

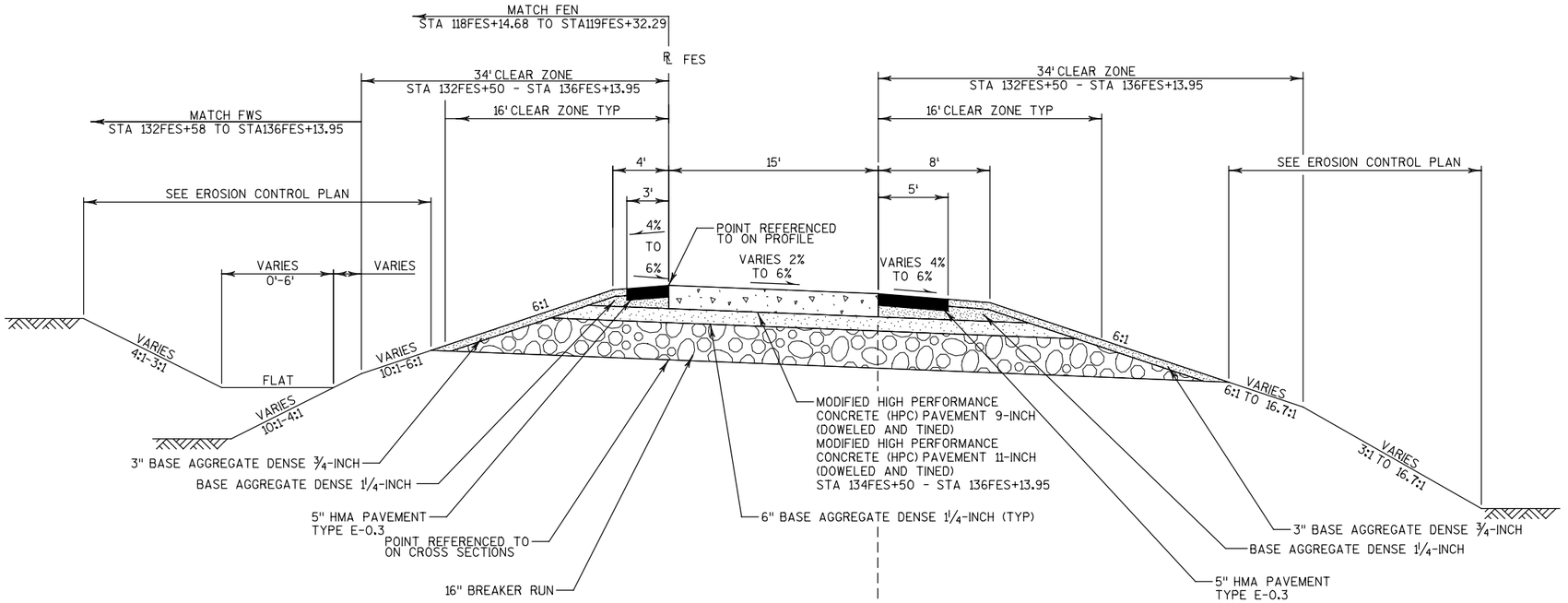


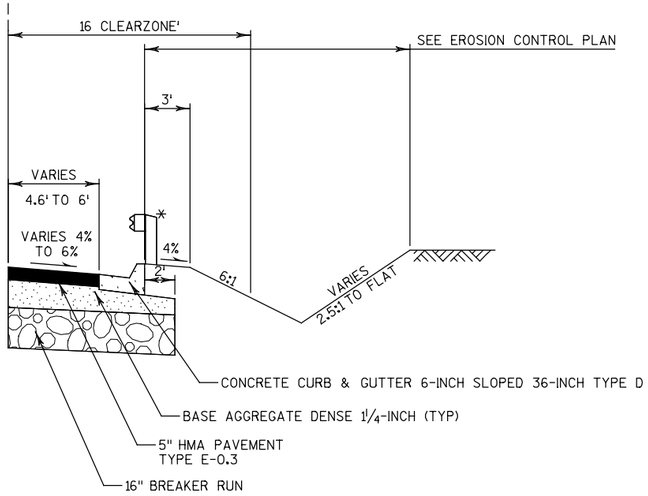
TYPICAL FINISHED SECTION
FEN RAMP
STA 119FEN+31.75 - STA 119FEN+50.00



TYPICAL FINISHED SECTION
FEN RAMP
STA 119FEN+50.00 - STA 120FEN+50.00

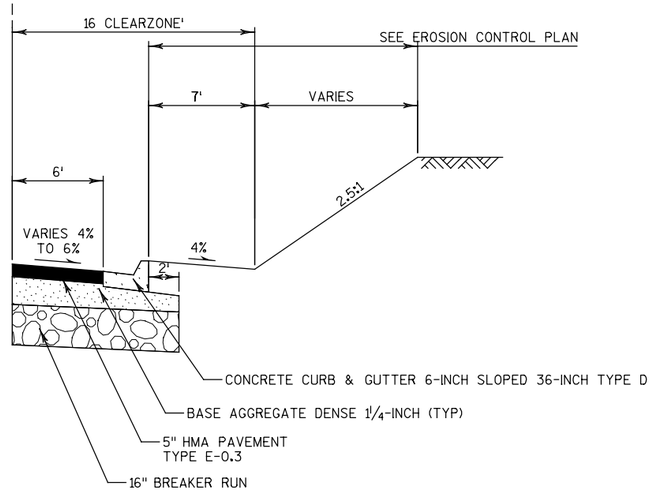
PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NORMAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-0.3	5"	5" LAYER	12.5 MM	PG-58-28





*MGS GUARDRAIL STA 118FES+14.68 TO STA 118FES+20

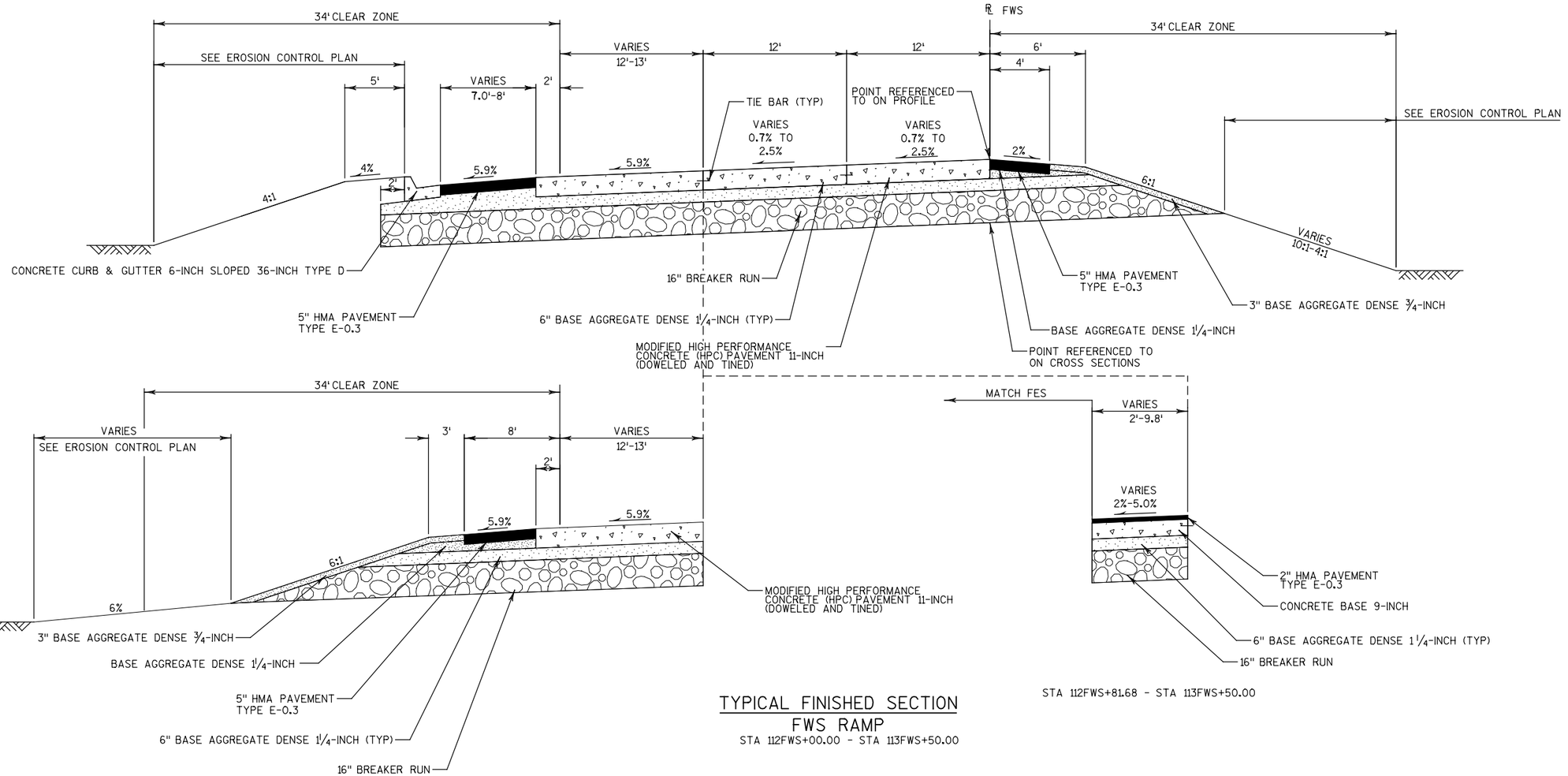
STA 118FES+14.68 - STA 126FES+00



STA 126FES+00 - STA 128FES+00

TYPICAL FINISHED SECTION
FES RAMP
STA 118FES+14.68 - STA 136FES+13.95

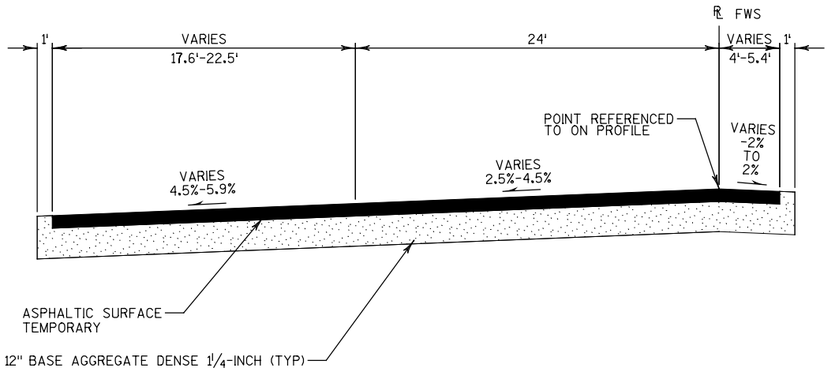
PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NORMAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-0.3	5"	5" LAYER	12.5 MM	PG-58-28



STA 112FWS+29.55 - STA 112FWS+81.68

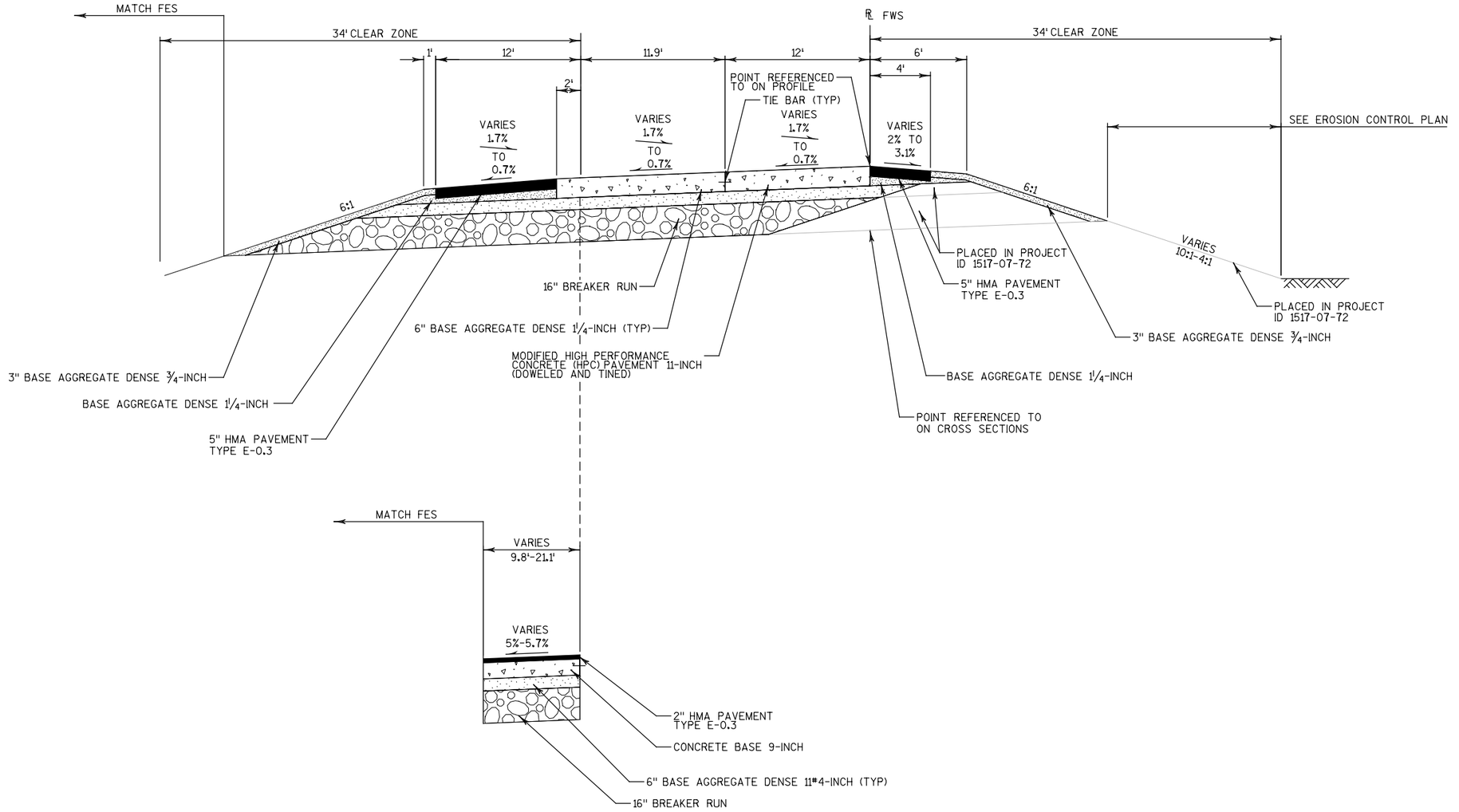
STA 112FWS+81.68 - STA 113FWS+50.00

TYPICAL FINISHED SECTION
FWS RAMP
STA 112FWS+00.00 - STA 113FWS+50.00



TYPICAL FINISHED SECTION
FWS RAMP
STA 110FWS+84.13 - STA 112FWS+00.00

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NORMAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-0.3	5"	5" LAYER	12.5 MM	PG-58-28

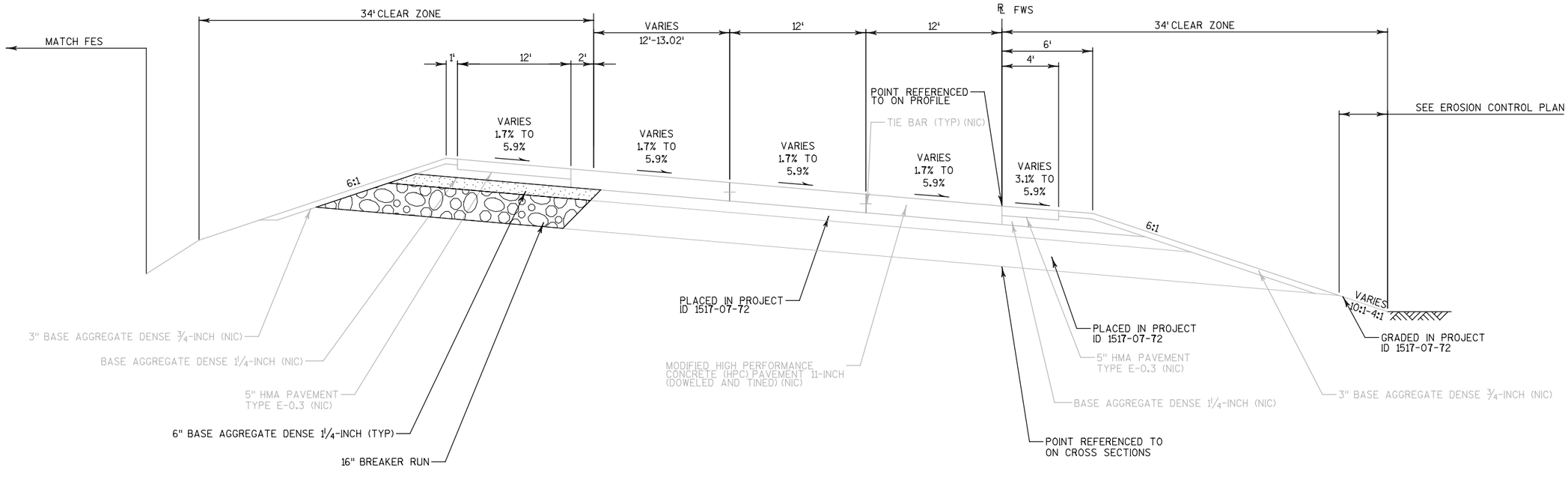


STA 113FWS+50.00 - STA 114FWS+22.53

TYPICAL FINISHED SECTION
FWS RAMP
STA 113FWS+50.00 - STA 114FWS+50.00

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NORMAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-0.3	5"	5" LAYER	12.5 MM	PG-58-28
E-0.3	2"	2" LAYER	12.5 MM	PG-58-28

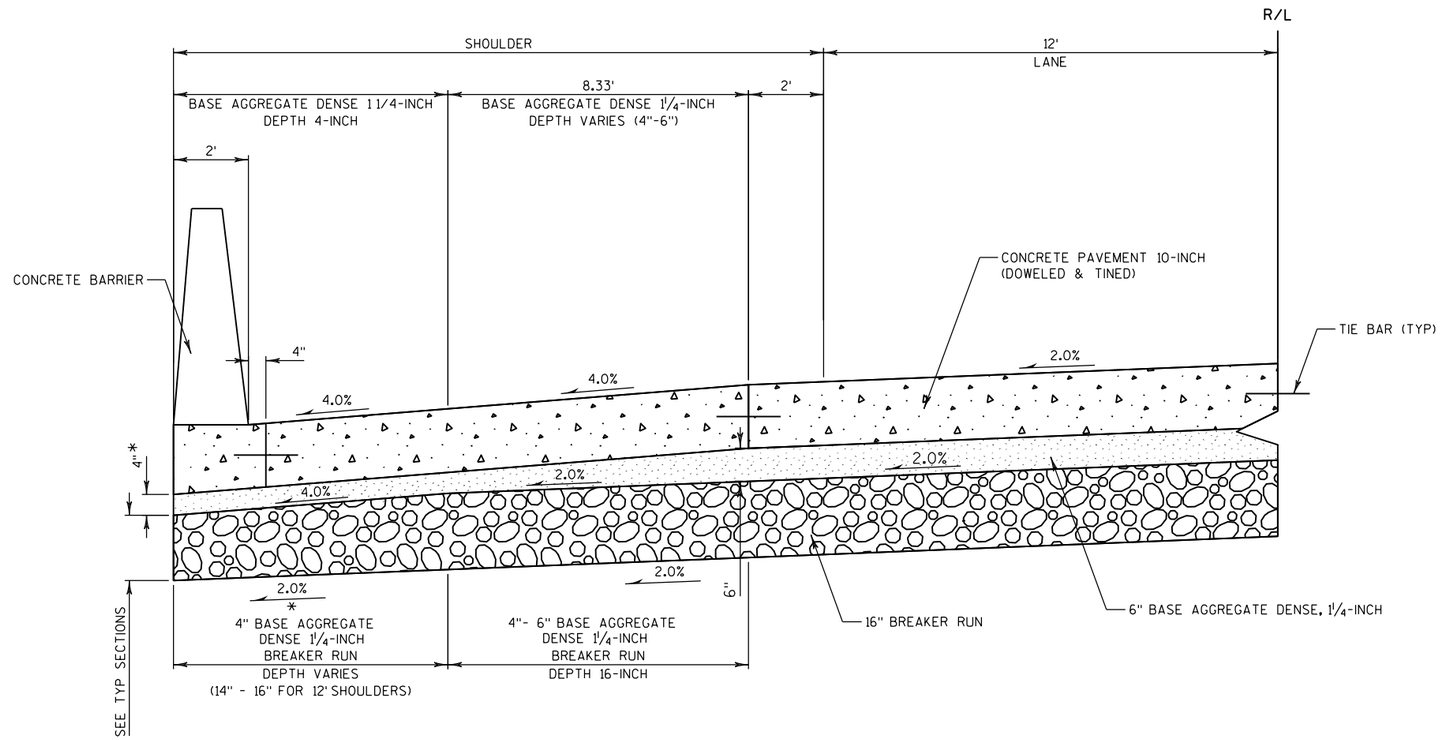
NOTE:
NIC = NOT IN CONTRACT



TYPICAL FINISHED SECTION
FWS RAMP
STA 114FWS+50.00 - STA 116FWS+50.00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET 20	E

2

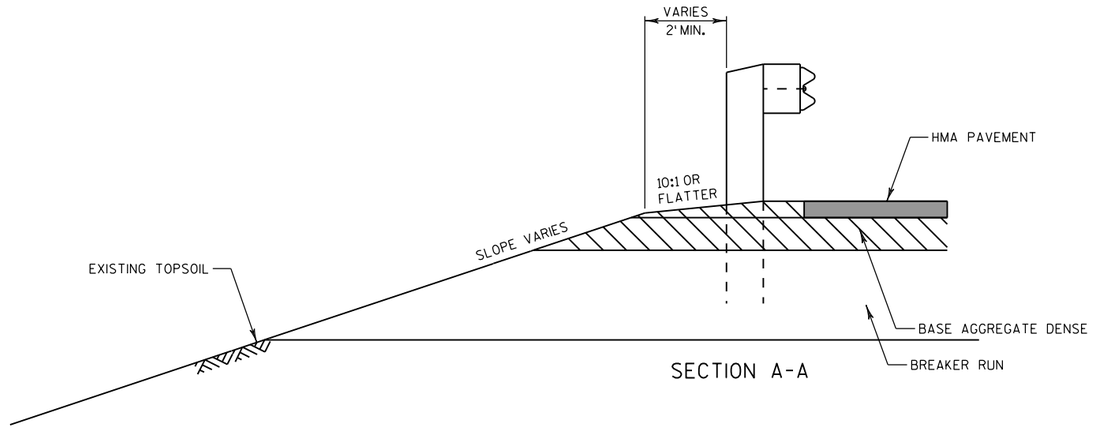


MINIMUM BASE AGGREGATE DENSE DEPTH

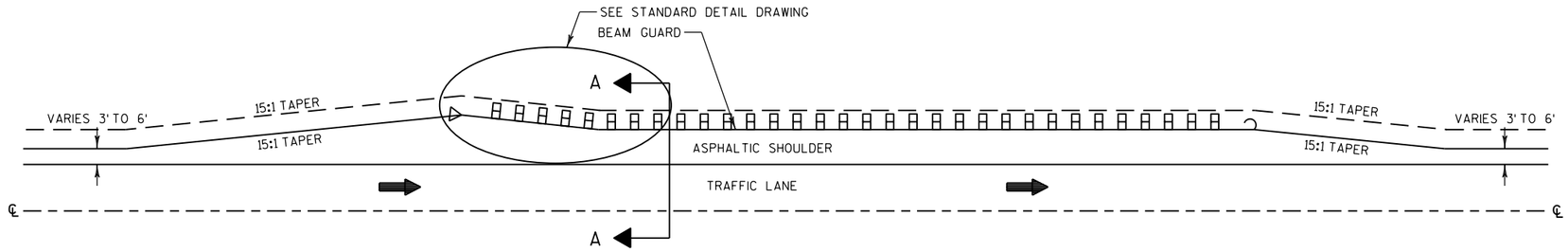
(NOT TO SCALE)

* MAINTAIN A MINIMUM THICKNESS OF 4" BASE AGGREGATE DENSE 1¼-INCH

2



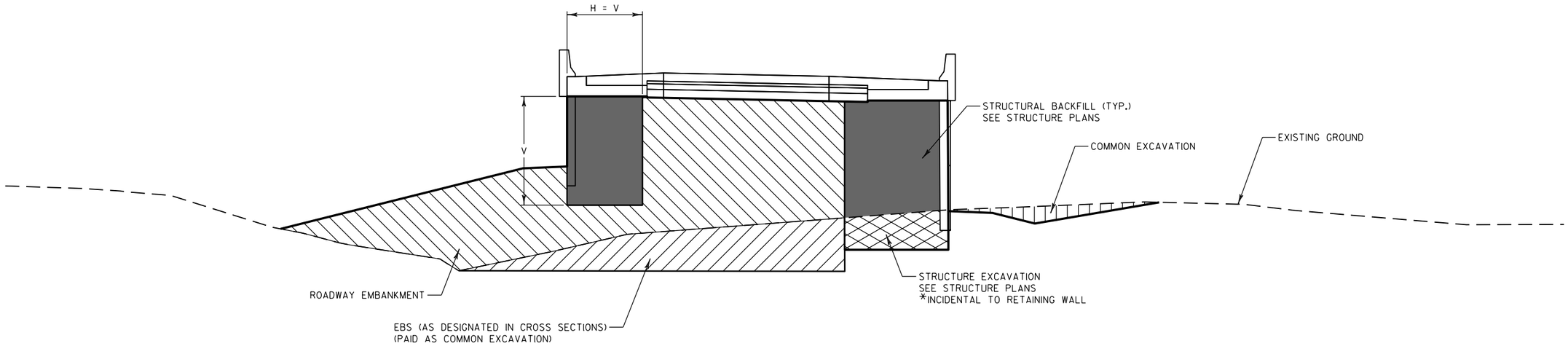
SECTION A-A



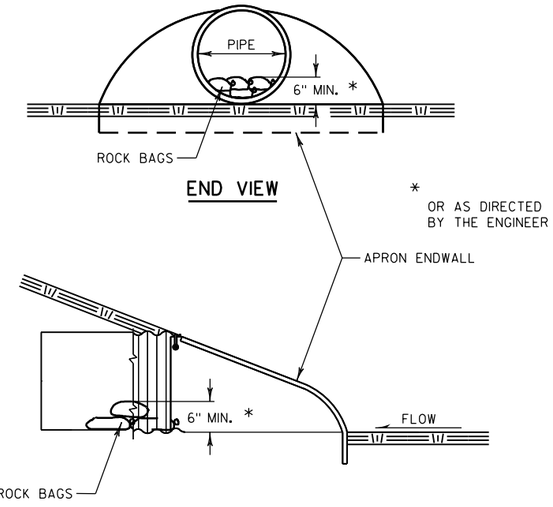
DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL	SHEET 22	E

2



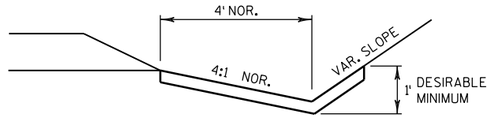
EARTHWORK MEASUREMENT DETAIL



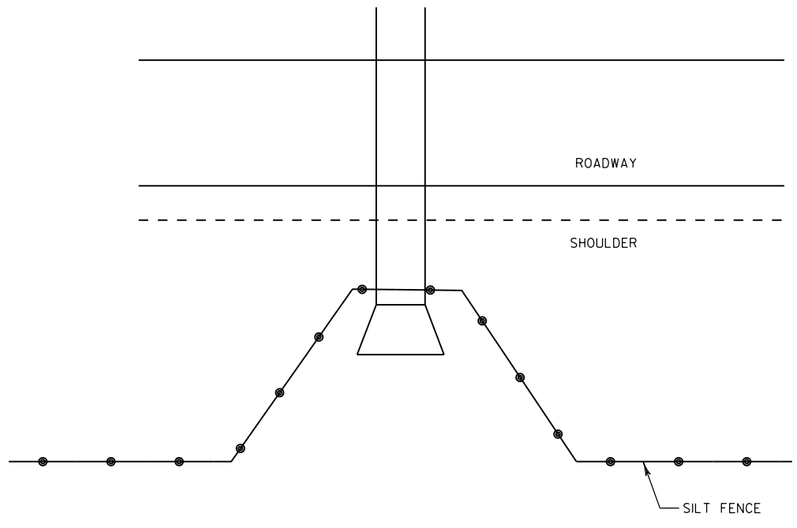
ESTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	7
48"	10
54"	10
60"	13
72"	16
30"X19"	5
38"X24"	7
53"X34"	10
60"X38"	13
76"X48"	18

ROCK BAGS

AT INLET LOCATIONS



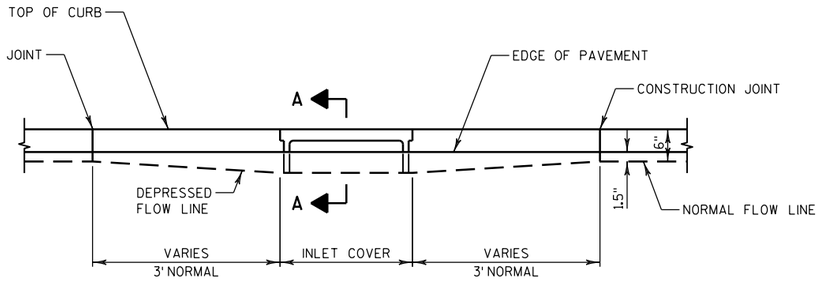
EROSION MAT DETAIL FOR DITCHES



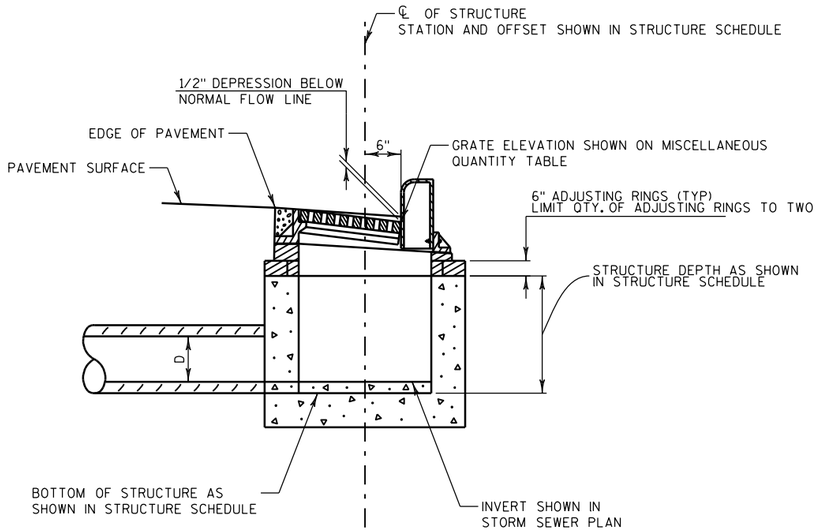
TYPICAL SILT FENCE DETAIL AT PIPE INLET

NOTE:

FOR FURTHER DETAIL SEE
SILT FENCE DETAIL SDD



ELEVATION

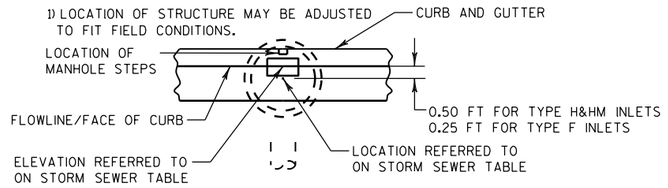


SECTION A-A

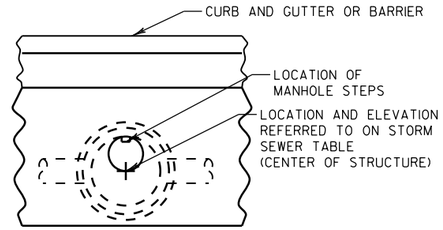
DETAIL OF CURB AND GUTTER AT INLETS

NOTE

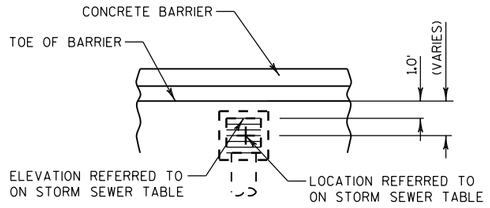
1) LOCATION OF STRUCTURE MAY BE ADJUSTED TO FIT FIELD CONDITIONS.



TYPE HM AND F MANHOLE OR CIRCULAR INLET IN CURB AND GUTTER



MANHOLE NOT IN CURB AND GUTTER



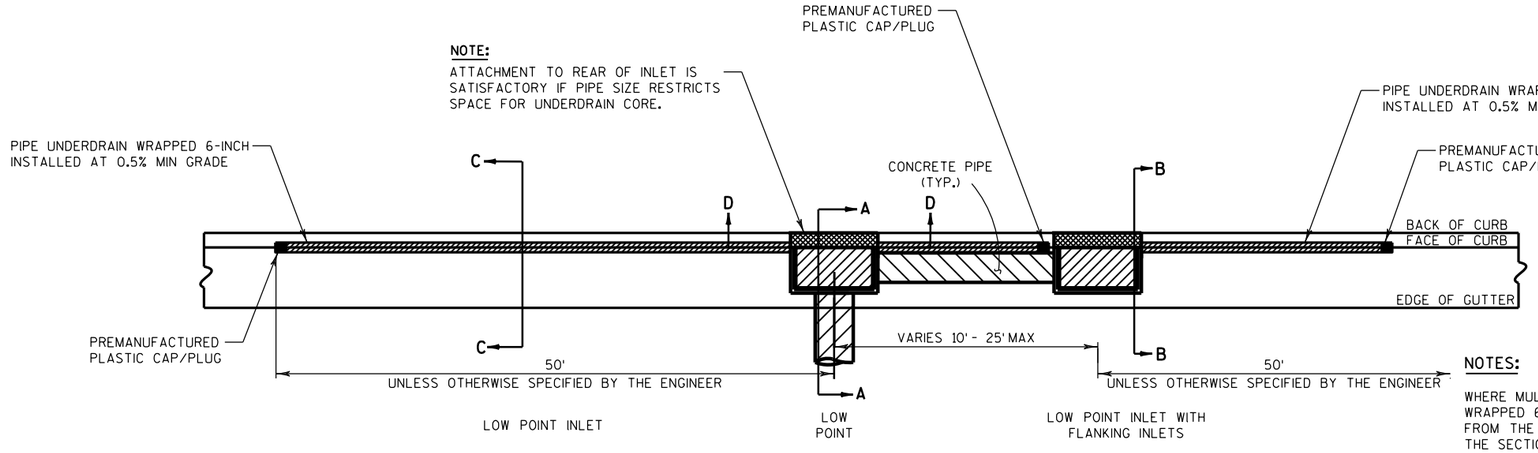
INLET PLACEMENT AT CONCRETE BARRIER

CONSTRUCTION NOTE:

THE ONE FOOT OFFSET FROM TOE OF BARRIER TO INLET GRATE WILL NOT VARY REGARDLESS OF STRUCTURE USED. SEE INLET PLACEMENT AT RETAINING WALL DETAIL FOR BARRIER INLETS PLACED ALONG RETAINING WALLS.

STRUCTURE LOCATION DETAIL

2



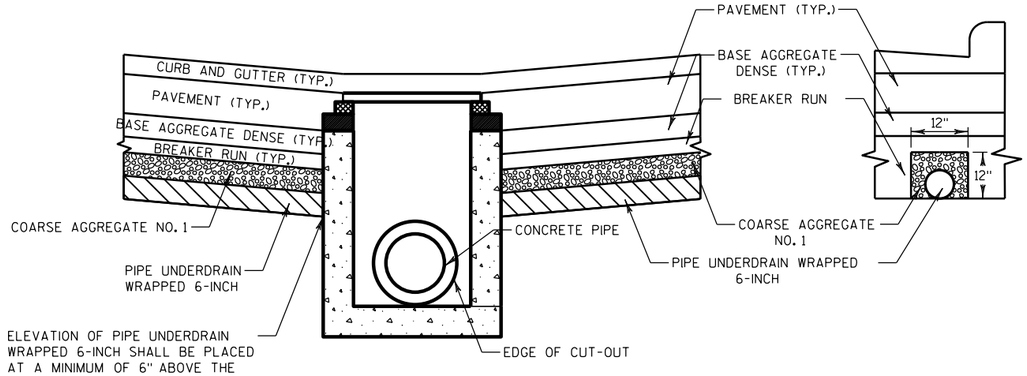
TOP VIEW

SPLIT DETAIL

INLET CONFIGURATION
WITH UNDERDRAIN AT LOW POINTS

NOTES:

WHERE MULTIPLE INLETS ARE USED AT LOW POINTS, PIPE UNDERDRAIN WRAPPED 6-INCH SHALL BE INSTALLED 50 FEET TO EITHER DIRECTION FROM THE LOW POINT AT A MINIMUM POSITIVE GRADE OF 0.5%. THE SECTION OF UNDERDRAIN BETWEEN THE CENTER AND OUTER INLETS SHALL BE PLACED TIGHT TO THE OUTER INLET, CAPPED WITH A PREMANUFACTURED PLASTIC CAP OR PLUG, AND LAID AS SPECIFIED ABOVE TO THE CENTER INLET.



SECTION D-D

CROSS-SECTION VIEW

TYPICAL INLET CONFIGURATION
WITH UNDERDRAIN CORED
INTO WALL WITH NO PIPE

FOUND AT LOW POINTS
WITHOUT FLANKING INLETS

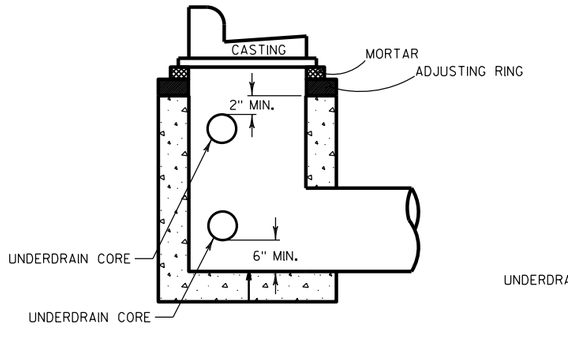
SECTION C-C

NOTES:

(1) BOTTOM OF PIPE SHALL BE PLACED AT THE BOTTOM OF COARSE AGGREGATE NO. 1 MATERIAL.

(2) BOTTOM OF COARSE AGGREGATE NO. 1 MATERIAL IS NOT NECESSARILY THE BOTTOM OF THE BREAKER RUN MATERIAL.

(3) ELEVATIONS TO BE DETERMINED BY ENGINEER IN FIELD.



SECTION A-A

CROSS-SECTION VIEW

TYPICAL INLET CONFIGURATION
WITH UNDERDRAIN CORED
INTO WALL WITH CROSSPIPE ONLY

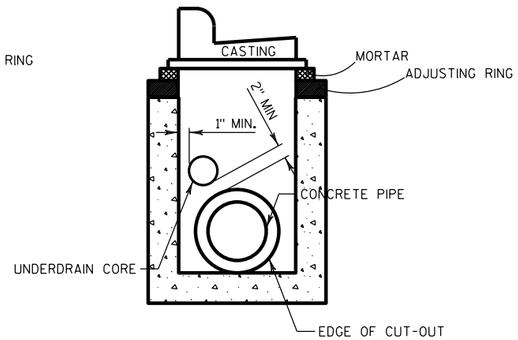
FOUND AT LOW POINTS
WITHOUT FLANKING INLETS

NOTES:

(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE CROSS PIPE.

(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)

(3) DRAIN TILES SHALL NOT BE ALLOWED IN THE RING OF THE STRUCTURE OF INLETS OR SEWER ACCESS STRUCTURES



SECTION B-B

CROSS-SECTION VIEW

TYPICAL INLET IN SUMP
CONDITION WITH
UNDERDRAIN CORED
INTO WALL WITH PIPE

FOUND AT FLANKING INLETS
NEAR LOWPOINTS

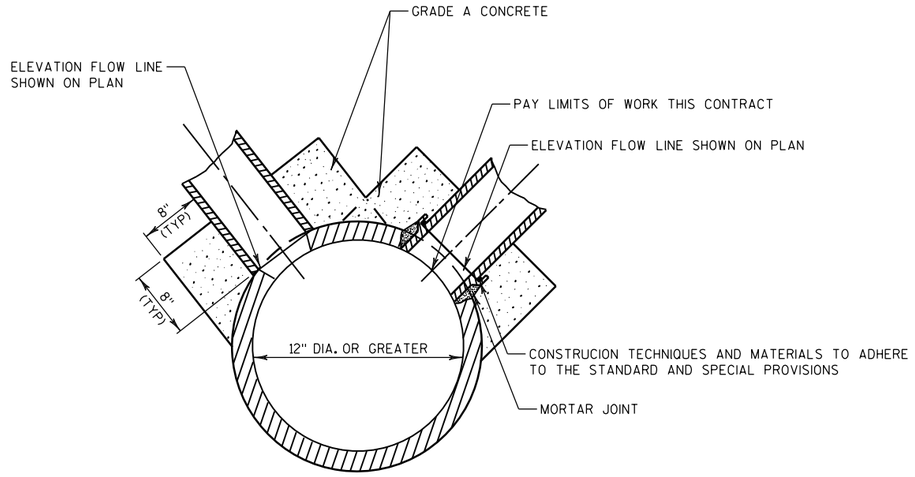
NOTES:

(1) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.

(2) CORE HOLES MAY HAVE 1" CLEARANCE FROM THE INSIDE WALLS OF A STRUCTURE.

UNDERDRAIN PIPE

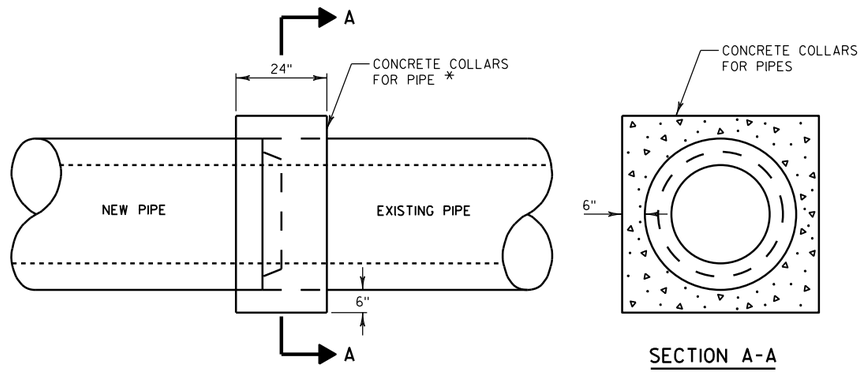
2



DETAIL OF CONNECTION TO EXISTING STORM SEWER

NOTE:

CONTRACT UNIT PRICE FOR PIPE SHALL INCLUDE COST OF CONNECTION TO EXISTING STORM SEWER OR M.H.

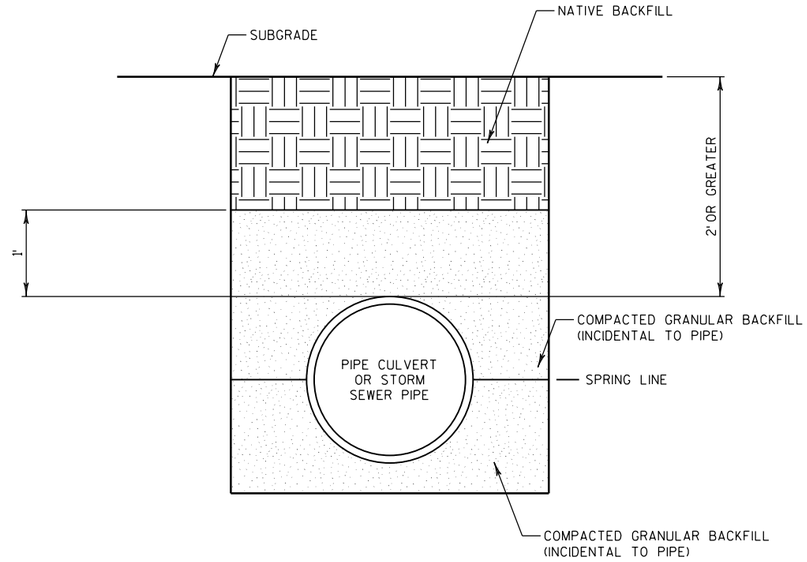


SECTION A-A

* SHES CONCRETE REQUIRED FOR CONCRETE COLLARS USED AS PERMANENT CONNECTION OF PIPES UNDER PAVEMENT.

CONCRETE COLLARS FOR PIPE

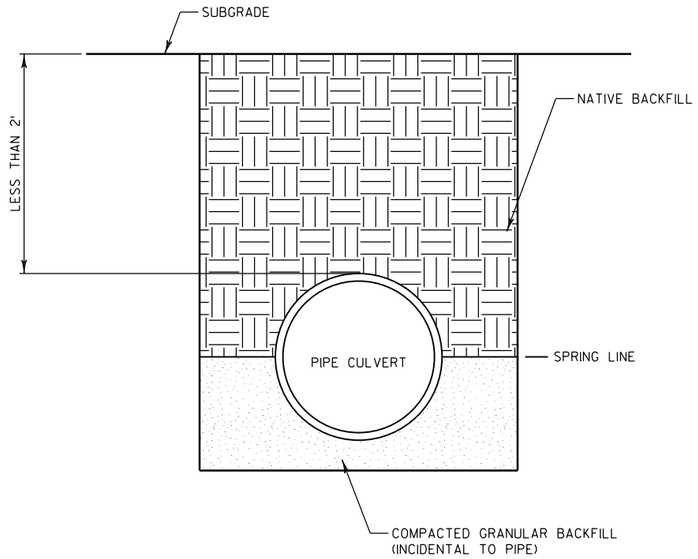
(SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS)



TRENCH BACKFILL DETAIL FOR NORMAL DEPTH PIPE CULVERTS AND STORM SEWER PIPE INSTALLATIONS

NOTES:

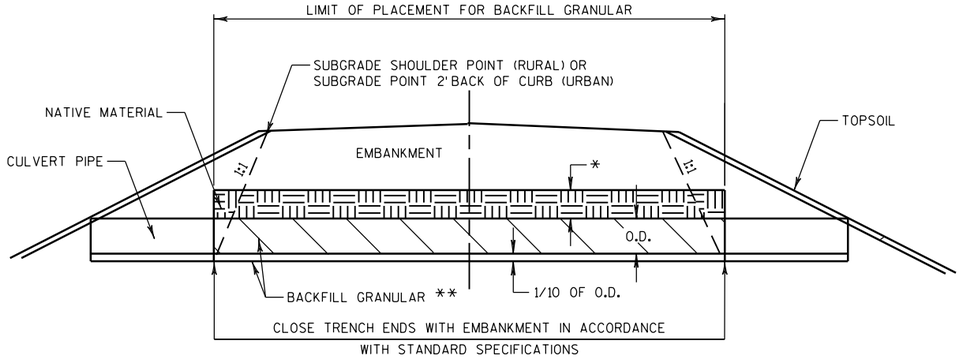
(1) NATIVE BACKFILL SHALL BE FREE OF LARGE LUMPS, CLODS, OR ROCK.



TRENCH BACKFILL DETAIL FOR SHALLOW PIPE CULVERTS

NOTES:

(1) NATIVE BACKFILL SHALL BE FREE OF LARGE LUMPS, CLODS, OR ROCK.



CULVERT BACKFILL DETAIL

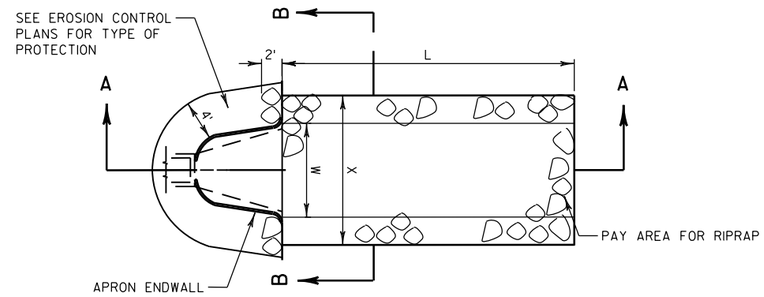
NOTES:

OD = OUTSIDE DIAMETER

* CULVERT PIPE IN NEW EMBANKMENT = 1' MIN
* CULVERT PIPE IN EXISTING EMBANKMENT = TO EXISTING GROUND ELEVATION

** PAID UNDER SEPERATE BID ITEM

2



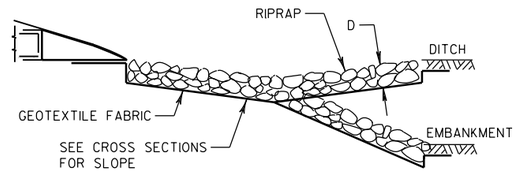
PLAN VIEW

L = 3 x W (NOR.) OR 10' MIN. OR
AS INDICATED IN THE PLANS OR AS
DIRECTED BY THE ENGINEER.

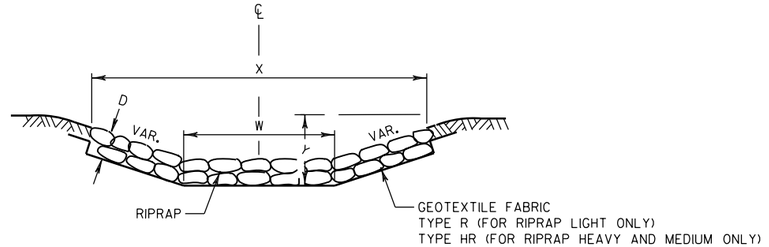
D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

X = W+2' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+5' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE



SECTION A-A



SECTION B-B

RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

SEE EROSION CONTROL PLAN FOR LOCATIONS

2

2

N

EB USH 10 OFFRAMP TO CTH EB

SIGN

SIGN

SIGN

SIGN

R/L WB USH 10

USH 10 WB/
STH 441 SB

WB 82WB 84WB 86WB 88WB 90WB 92WB 94WB

USH 10

EB 82EB 84EB 86EB 88EB 90EB 92EB 94EB

USH 10

MATCHLINE 95EB+00

R/L EB USH 10

USH 10 EB/STH 441 NB

EB USH 10 ONRAMP FROM CTH EB

INL

INL

INL

INL

MH

MH

MH

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

4_070_12
772.50

4_070

BIKE PATH

4_069_18
771.60

4_069_20
772.38

REMOVAL LEGEND

CLEARING AND GRUBBING (STA)	—RM— REMOVING STORM SEWER
CONCRETE REMOVAL	REMOVING CURB AND GUTTER
REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")	SALVAGED RAIL
REMOVING INLETS	XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021100_rm-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

R/L WB USH 10

USH 10 WB/
STH 441 SB

96WB 98WB 100WB 102WB 104WB 106WB 108WB

MATCHLINE 95EB+00

96EB 98EB 100EB 102EB 104EB 106EB 108EB

MATCHLINE 109EB+00

R/L EB USH 10

USH 10 EB/STH 441 NB

REMOVE CONCRETE SURFACE DRAIN

BEGIN MEDIAN SHOULDER REMOVAL
101EB+00

COLD SPRING RD.

COLD SPRING RD

W. AMERICAN DR.

BIKE PATH

SIGN

WALLS

BERM

A/C

4_070_12
772.50

5_095_13
789.13

5_095_16
789.74

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021101_rm-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

BIKE PATH

W. AMERICAN DR.

INL

MH

W

5_094_18
771.41

5_094_20
771.82

WALLS

N

SB USH 41 TO USH 10 WB RAMP

SIGN

USH 10 WB/
STH 441 SB

110WB 112WB 114WB 116WB 118WB 120WB 122WB

USH 10

MATCHLINE 109EB+00

110EB 112EB 114EB 116EB 118EB

5_095_2
773.05

5_095

USH 10 EB/STH 441 NB
TO SB&NB USH 41 RAMP

EX CONCRETE PVMT | EX ASPHALT PVMT

6_120_4
771.10

6_120_14
764.27

END MEDIAN SHOULDER REMOVAL
118EB+30

120EB 122EB

USH 10 EB/STH 441 NB

MATCHLINE 123EB+00

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

VESTFIELD LN

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET 32	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021102_rm-st1.dgn | PLOT DATE : 1/29/2015 | PLOT BY : nbennett | PLOT NAME : | PLOT SCALE : 100:1

2

2

N

WB USH 10 TO SB USH 41 RAMP

6_120.20
767.15

7_152_16
767.41

7_152_6
767.90

USH 41

USH 41

124WB 126WB 128WB 130WB 132WB 134WB 136WB

R/L USH 10 WB/STH 441 SB

CONCRETE REMOVAL AND SAWCUT PAID UNDER ITEM "REMOVING OLD STRUCTURE B-70-79, STA 131EB+93"

SIGN

EX ASPHALT PVMT EX CONCRETE PVMT

USH 10

USH 10

INL

EB+75.00

8'

USH 10 WB/STH 441 SB

MATCHLINE 123EB+00

124EB 126EB 128EB 130EB 132EB 134EB 136EB

USH 10 EB/STH 441 NB

MATCHLINE 137EB+50

SB USH 41 TO EB USH 10/NB STH 441 RAMP

R/L USH 10 EB/STH 441 NB

STRUCTURE B-70-79
FOR BRIDGE REMOVAL SEE STRUCTURE PLANS

USH 41 SB

USH 41 NB

7_153_16
759.37

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET 33	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021103_rm-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

BUTTE DES MORTS

PIER

PIER

37.5 LF OF SALVAGED RAIL

ANY DROPOFF OR EXPOSED END OF GUARDRAIL LEFT AFTER OVERNIGHT OPPORATIONS MUST BE PROTECTED AND IS INCIDENTAL TO THE PROJECT

REINSTALL GUARDRAIL FOLLOWING THE PLACEMENT OF THE STORM SEWER PIPE. REINSTALLATION IS INCIDENTAL TO THE PAY ITEM "SALVAGED RAIL"

REMOVE DURING SEGMENTED NIGHT CLOSURE. SEE TRAFFIC CONTROL CONSTRUCTION DETAIL "TYPICAL ONE LANE NIGHTTIME CLOSURE FOR STORM SEWER INSTALLATION"

7_152_12
749.61

7_152_2
750.28

138WB

140WB

142WB

144WB

146WB

148WB

150WB

152WB

R/L USH 10 WB/STH 441 SB

STRUCTURE B-70-78

CONCRETE REMOVAL AND SAWCUT PAID UNDER ITEM "REMOVING OLD STRUCTURE B-70-78, STA 142EB+35"

4.25'

0.67'

USH 10

USH 10 WB/STH 441 SB

USH 10

USH 10 EB/STH 441 NB

SIGN

MH

CC

7_152_14
791.24

11917
791.27

MATCHLINE 137EB+50

138EB

140EB

142EB

144EB

146EB

148EB

150EB

152EB

EB+70.00

EB+32.00

SALVAGED RAIL
510 LF

SEE EB US 10 PLAN & PROFILE FOR REPLACING INLET GRATE

EXISTING STRUCTURE REMOVAL DETAIL PART OF B-70-400 PLANS

R/L USH 10 EB/STH 441 NB

ST.

NATIONAL

-SS

7_152_18
754.59

7_152_20
751.31

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- STRUCTURE REMOVAL (SEE B-70-400 PLANS)
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT
- REMOVING INLETS

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021104_rm-st1.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

USH 41 SB TO
USH 10 EB RAMP

USH 10 WB TO USH 41 SB RAMP

USH 10 WB

USH 10 EB

USH 41 SB

USH 41 NB

USH 41 NB TO
USH 10 EB RAMP

R/L USH 41 SB

R/L USH 41 NB

SB+00.00

NB+15.00

MATCHLINE 1334NB+00

W1-2R
48" X 48"

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021105_rm-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

USH 10 WB TO
USH 41 SB RAMP

USH 41 SB TO
USH 10 EB RAMP

SB+75.00

R/L USH 41 SB

USH 41 SB

USH 41 NB

NB+65.00

R/L USH 41 NB

USH 10 WB TO
USH 41 NB RAMP

MATCHLINE 1334NB+00

1327WS

1341WS

SIGN

7.151.6
764.06

7.152.16
757.41

7.152.16
757.41

1336SB 1338SB 1340SB 1342SB 1344SB 1346SB 1348SB

1336NB 1338NB 1340NB 1342NB 1344NB 1346NB 1348NB

138WB

140WB

146FEN 148FEN 150FEN 152FEN 154FEN 156FEN 158FEN 160FEN

RAILROAD

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021106_rm-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

N

EB USH 10 OFFRAMP TO CTH EB

SIGN

SIGN

SIGN

SIGN

R/L WB USH 10

USH 10 WB/
STH 441 SB

WB 82WB 84WB 86WB 88WB 90WB 92WB 94WB

USH 10

EB 82EB 84EB 86EB 88EB 90EB 92EB 94EB

USH 10

MATCHLINE 95EB+00

R/L EB USH 10

USH 10 EB/STH 441 NB

EB USH 10 ONRAMP FROM CTH EB

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

4_070_12
772.50

4_069_18
771.60

4_069_20
772.38

INL

MH

BIKE PATH

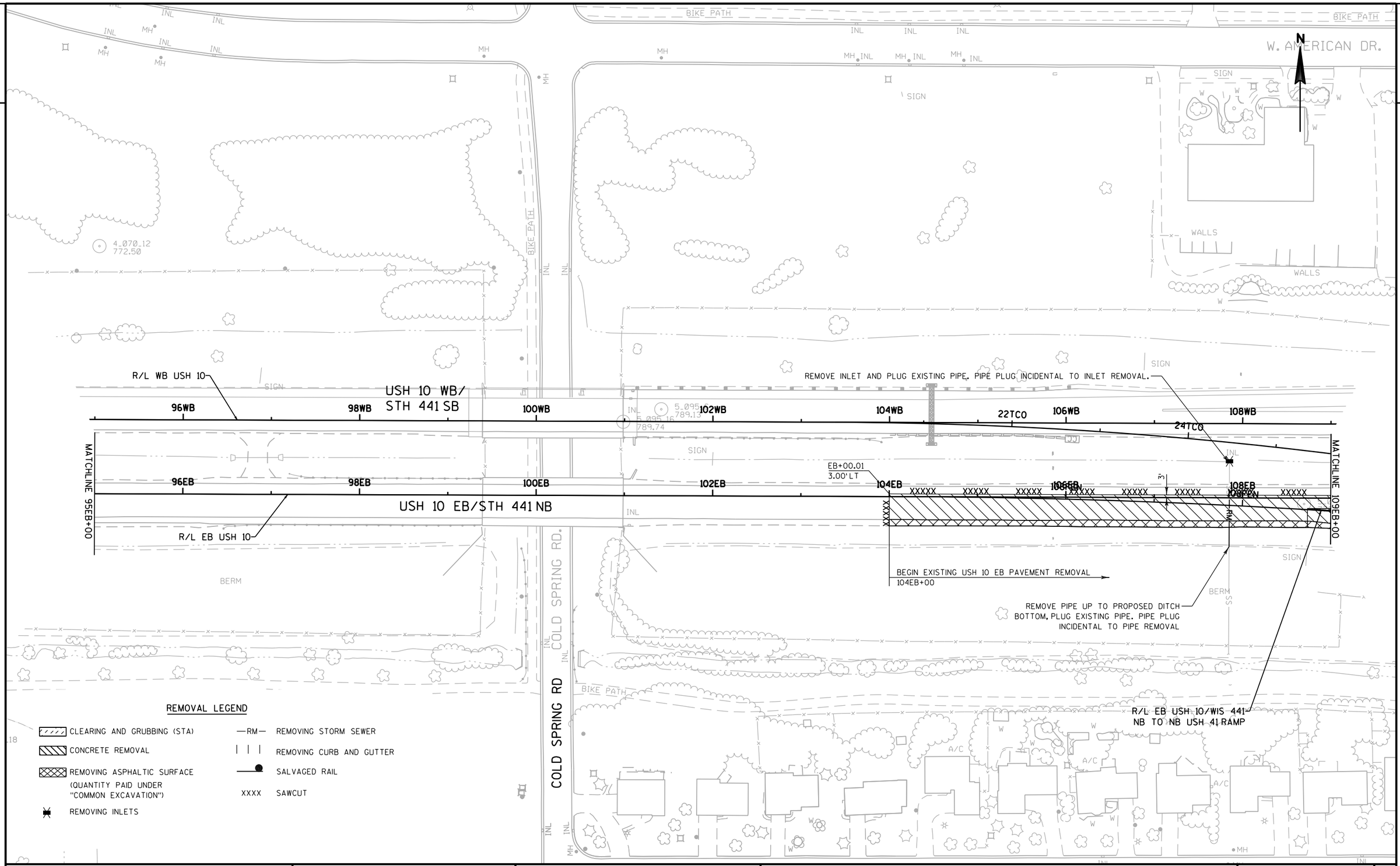
REMOVAL LEGEND

CLEARING AND GRUBBING (STA)	—RM— REMOVING STORM SEWER
CONCRETE REMOVAL	REMOVING CURB AND GUTTER
REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")	SALVAGED RAIL
REMOVING INLETS	XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021110_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2



REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET 38	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021111_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

N

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

SM1211

SIGN

REMOVE INLET AND PLUG EXISTING PIPE. PIPE PLUG INCIDENTAL TO INLET REMOVAL

R/L WB USH 10 / SB STH 441

USH 10 WB/ STH 441 SB

USH 10

110WB 112WB 114WB 116WB 118WB 120WB 122WB

MATCHLINE 109EB+00

26TCO 28TCO 30TCO

110EB 110FEN 112EB 112FEN 114EB 114FEN 116EB 118EB 120EB 122EB

EX CONCRETE PVMT

EX ASPHALT PVMT

EB+89.71 3.00' LT

SM1011

USH 10 EB/STH 441 NB

MATCHLINE 123EB+00

6.120.14 764.27

R/L EB USH 10 / NB STH 441

REMOVE PIPE AND PLUG EXISTING END OF PIPE UNDER EXISTING EB PAVEMENT. PIPE PLUG INCIDENTAL TO PIPE REMOVAL.

REMOVE PIPE AND PLUG EXISTING END OF PIPE UNDER EXISTING EB SHOULDER PAVEMENT. PIPE PLUG INCIDENTAL TO PIPE REMOVAL.

REMOVE INLET AND PLUG EXISTING PIPE. PIPE PLUG INCIDENTAL TO INLET REMOVAL

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

116FEN

SALVAGE 92 LF GUARDRAIL

118FEN

REMOVE 500-LF OF CONCRETE BARRIER

120FEN

SM1021

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

122FEN

124FEN

MATCHLINE 122FES+00

BIKE PATH

WESTFIELD LN.

WALLS

MH

INL

A/C

W

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT
- REMOVING CONCRETE BARRIER

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET 39	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021112_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

WB USH 10 TO SB USH 41 RAMP

R/L USH 10 WB/STH 441 SB

USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

USH 10

USH 10

EX ASPHALT PVMT

EX CONCRETE PVMT

SAWCUT FOR REFERENCE ONLY
SEE STRUCTURE PLANS

MATCHLINE 123EB+00

MATCHLINE 137EB+50

124WB 126WB 128WB 130WB 132WB 134WB 136WB

124EB 126EB 128EB 130EB 132EB 134EB 136EB

1310FSE 1308FSE 136FWS

1312FSE

SB USH 41 TO EB USH 10/NB STH 441 RAMP

1314FSE

1316FSE

R/L USH 10 EB/STH 441 NB

STRUCTURE B-70-79
FOR BRIDGE REMOVAL SEE STRUCTURE PLANS

SALVAGE 340 LF GUARDRAIL

SALVAGE 415 LF GUARDRAIL

SALVAGE 395 LF GUARDRAIL

R/L WB USH 10/WIS 441 SB TO SB USH 41 RAMP

130FWS 128FWS 126FWS 132FWS

USH 41 SB

USH 41 NB

1334SB 1334NB 1332SB 1332NB 1330SB 1330NB 1328SB 1328NB 1326SB 1326NB 1324SB 1324NB

1330FNE 1328FNE 1326FNE

142FEN 140FEN 138FEN

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

R/L USH 10 EB/STH 441 NB TO NB USH 41 RAMP

FNE+41.93
62.51' LT

FNE+45.16
37.72' LT

7_153_16
759.37

767.15

SIGN

N

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET 40	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021113_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

N

R/L USH 10 EB/STH 441 NB TO NB USH 41 RAMP

150FEN

148FEN

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

BUTTE DES MORTS

RAILROAD

PIER

PIER

7_152_12
749.61

7_152_2
750.28

DO NOT REMOVE EXISTING INLET AT 138EB+18, 32'RT

REMOVE PIPE AND PLUG EXISTING END OF PIPE UNDER EXISTING EB SHOULDER PAVEMENT. PIPE PLUG INCIDENTAL TO PIPE REMOVAL.

138WB

142WB

144WB

146WB

148WB

150WB

152WB

R/L USH 10 WB/STH 441 SB

R/L WB USH 10/WIS 441 SB TO SB USH 41 RAMP

STRUCTURE B-70-78

146FEN

140FWS

142FWS

144FWS

146FWS

SAWCUT FOR REFERENCE ONLY
SEE STRUCTURE PLANS

USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

7_152_14
791.24

11917
791.27

MATCHLINE 137EB+50

138FWS

138EB

140EB

142EB

144EB

146EB

148EB

150EB

152EB

EB+89.00

EB+70.00

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1336FNE

1334FNE

1332FNE

144FEN

142FEN

R/L USH 10 EB/STH 441 NB

EXISTING STRUCTURE REMOVAL DETAIL
PART OF B-70-400 PLANS

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

7_152_20
751.31

754.59

REMOVAL LEGEND

CLEARING AND GRUBBING (STA)	—RM— REMOVING STORM SEWER
CONCRETE REMOVAL	REMOVING CURB AND GUTTER
REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")	SALVAGED RAIL
	XXXX SAWCUT
STRUCTURE REMOVAL (SEE B-70-400 PLANS)	REMOVING INLETS

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021114_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT
- REMOVING CONCRETE BARRIER

AMERICAN DR.

BIKE PATH

SIGN

A/C

BERM

MATCHLINE 122FES+00

USH 10 EB/STH 441 NB TO SB USH 41 RAMP

SALVAGE 489 LF OF GUARDRAIL

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

R/L WB USH 10/WIS 441 SB TO SB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

R/L SB USH 41 TO EB USH 10/WIS 441 RAMP

R/L NB USH 41

R/L SB USH 41

USH 41

124EN

126FES

128FES

130FES

132FES

134FES

136FES

112FWS

114FWS

116FWS

118FWS

120FWS

122FWS

124FWS

126FWS

1310SB

1310NB

1310FNW

1312SB

1312NB

1312FNW

1314SB

1314NB

1314FNW

1316SB

130FEN

132FEN

128FEN

132FSE

130FSE

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET 42	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021115_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

128FEN
130FEN
132FEN
130EB
132EB
130WB
132WB
134WB
134EB
136WB
136EB
138WB
138EB
140WB
134FEN
136FEN
138FEN
140FEN
142FEN
144FEN
146FEN
148FEN

USH 41 SB TO
USH 10 EB RAMP

USH 10 WB TO USH 41 SB RAMP

USH 10 WB

USH 10 EB

USH 10 WB TO
USH 41 SB RAMP

R/L USH 41 SB

USH 41 SB

USH 41

1322SB 1324SB 1326SB 1328SB 1330SB 1332SB 1334SB 1336SB

1322NB 1324NB 1326NB 1328NB 1330NB 1332NB 1334NB 1336NB

NB+00.00

NB+00.00

USH 41 NB

R/L USH 41 NB

USH 41 NB TO
USH 10 EB RAMP

RAILROAD

INL

N

SS

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT
- REMOVING CONCRETE BARRIER

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2A	SHEET 43	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021116_rm-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

W. AMERICAN DR.

BIKE PATH

SIGN

WALLS

4_070_12
772.50

4_070

R/L WB USH 10

USH 10 WB/
STH 441 SB

96WB 98WB 100WB 102WB 104WB 22TCO 106WB 24TCO 108WB

MATCHLINE 109EB+00

RM

96EB 98EB 100EB 102EB 104EB 105FLN 108EB 108FLN

USH 10 EB/STH 441 NB

TEMPORARY PAVEMENT
SHOWN FOR INFORMATIONAL PURPOSES ONLY

R/L EB USH 10

SALVAGE 220 LF GUARDRAIL

R/L EB USH 10/WIS 441
NB TO NB USH 41 RAMP

BERM

COLD SPRING RD

A/C

REMOVAL LEGEND

CLEARING AND GRUBBING (STA)	—RM— REMOVING STORM SEWER
CONCRETE REMOVAL	REMOVING CURB AND GUTTER
REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")	SALVAGED RAIL
REMOVING INLETS	XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2B	SHEET 44	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021121_rm-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

MATCHLINE 113TWS+50

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

112TWS

REMOVE DURING SEGMENTED NIGHT CLOSURE, SEE TRAFFIC CONTROL CONSTRUCTION DETAIL "TYPICAL ONE LANE NIGHTTIME CLOSURE FOR STORM SEWER INSTALLATION"

REMOVE PIPE AND PLUG AT THE EXISTING DITCH LINE. PIPE PLUG INCIDENTAL TO PIPE REMOVAL.

R/L WB USH 10 / SB STH 441

USH 10 WB/ STH 441 SB

110WB 112WB 114WB 116WB 118WB 120WB 122WB

USH 10

26TCO 28TCO 30TCO

TEMPORARY PAVEMENT SHOWN FOR INFORMATIONAL PURPOSES ONLY

110EB 112EB 114EB 116EB 118EB

110FEN 112FEN 114FEN 116FEN 118FEN 120FEN 122FEN 124FEN

SM101T

USH 10 EB/STH 441 NB

MATCHLINE 109EB+00

MATCHLINE 123EB+00

EX CONCRETE PVMT | EX ASPHALT PVMT

SALVAGE 24-INCH PIPE PLACED IN PREVIOUS STAGE

R/L EB USH 10 / NB STH 441

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

120FES

122FES

WESTFIELD LN.

BIKE PATH

WALLS

SIGN

INL

MH

W

A/C

WK

5.094.20 771.82

771.41

5.095.2 771.07

5.095

5.120.14 764.27

771.10

N

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2B	SHEET 45	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021122_rm-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

WB USH 10 TO SB USH 41 RAMP

R/L USH 10 WB/STH 441 SB

USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

USH 10

USH 10

EX ASPHALT PVMT

EX CONCRETE PVMT

SAWCUT FOR REFERENCE ONLY
SEE STRUCTURE PLANS

MATCHLINE 123EB+00

EB+00.00

124WB 126WB 128WB 130WB 132WB 134WB 136WB

124EB 126EB 128EB 130EB 132EB 134EB 136EB

1310FSE

1312FSE

SB USH 41 TO EB USH 10/NB STH 441 RAMP

1314FSE

1316FSE

R/L USH 10 EB/STH 441 NB

STRUCTURE B-70-79
EXISTING STRUCTURE REMOVAL DETAIL PART OF B-70-400 PLANS

REMOVE CROSSOVER PAVEMENT

1330SE 1332SE 1334SB 1334NB

1330SB 1330NB

1328SB 1328NB

1326SB 1326NB

1324SB 1324NB

USH 41 SB

USH 41 NB

1330FNE 142FEN

1328FNE

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

140FEN

1326FNE

R/L USH 10 EB/STH 441 NB TO NB USH 41 RAMP

138FEN

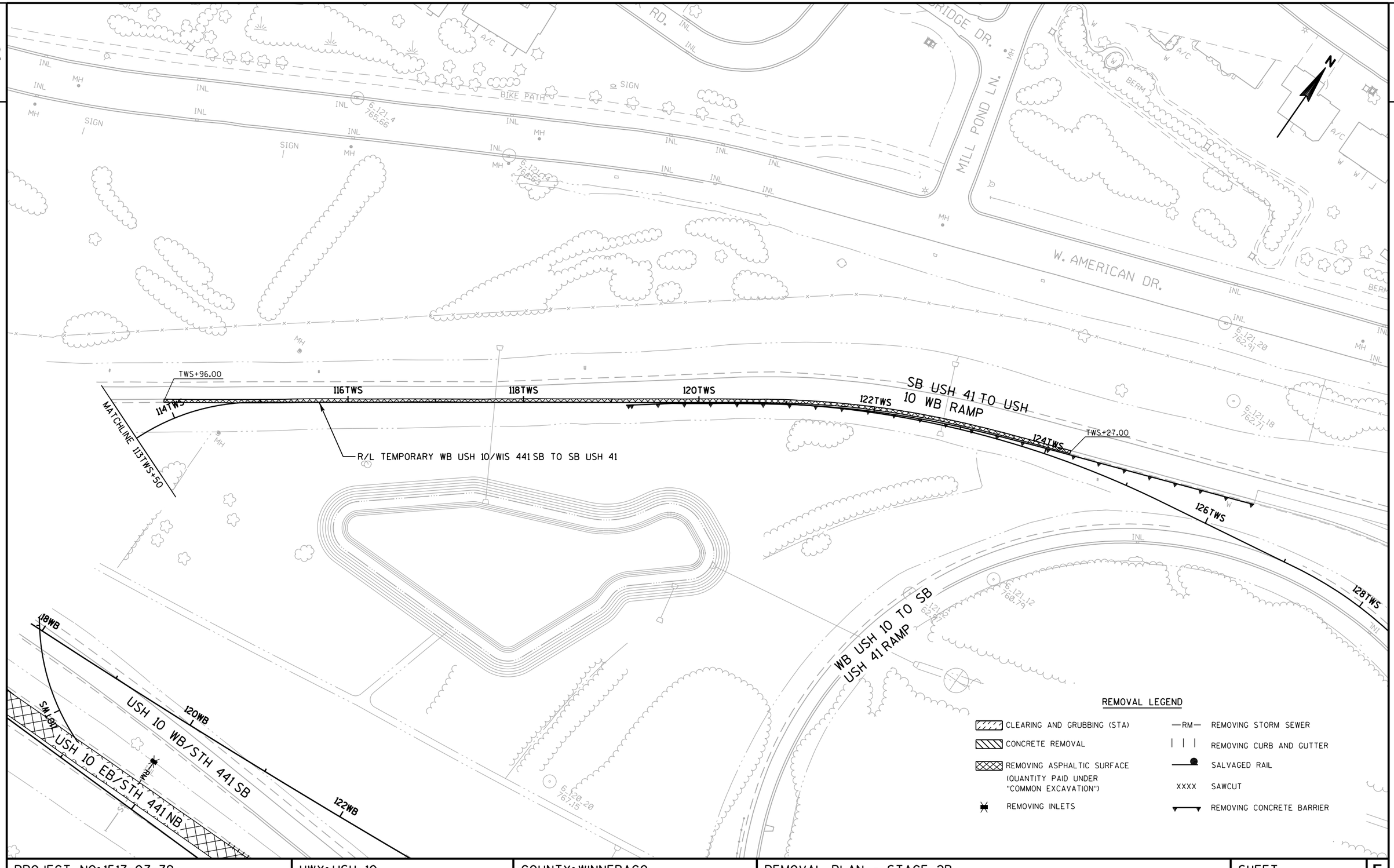
7_153_16
759.37

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2B	SHEET 46	E

2



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 2B	SHEET 47	E

2

2

N

R/L USH 10 EB/STH 441
NB TO NB USH 41 RAMP

150FEN

148FEN

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

BUTTE DES MORTS

PIER

PIER

7_152
7_152_12
749.61

7_152_2
750.28

RAILROAD

138WB

140WB

142WB

144WB

146WB

148WB

150WB

152WB

R/L USH 10 WB/STH 441 SB

STRUCTURE B-70-78

146FEN

SIGN

USH 10

USH 10 WB/STH 441 SB

REMOVE TEMPORARY VANE
DRAIN AND PIPE PLACED IN STAGE 1

USH 10

USH 10 EB/STH 441 NB

EB+89.00

7_152_14
791.24

11917
791.27

138EB

140EB

142EB

144EB

RM

RM

RM

146EB

148EB

150EB

152EB

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

MH

SIGN

1336FNE

144FEN

1334FNE

FOR BRIDGE REMOVAL SEE STRUCTURE
PLANS

REMOVE CROSSOVER PAVEMENT

R/L USH 10 EB/STH 441 NB

1332FNE

R/L USH 41 NB TO USH 10
EB/STH 441 NB RAMP

7_152_18
754.59

7_152_20
751.31

142FEN

REMOVAL LEGEND

CLEARING AND GRUBBING (STA)	—RM— REMOVING STORM SEWER
CONCRETE REMOVAL	REMOVING CURB AND GUTTER
REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")	SALVAGED RAIL
REMOVING INLETS	XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 3	SHEET 48	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021131_rm-st3.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

WB USH 10 TO SB USH 41 RAMP

R/L USH 10 WB/STH 441 SB

USH 10

EX ASPHALT PVMT

EX CONCRETE PVMT

EB+00.00

EB+68.00

EB+74.00

USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

MATCHLINE 137EB+50

R/L USH 10 EB/STH 441 NB

REMOVE TEMPORARY VANE DRAIN PLACED IN STAGE 2A

REMOVE PIPE AND ABANDON REMAINING PIPE TO THE SOUTH. ABANDONING PIPE IS PAID FOR UNDER THE ABANDONING STORM SEWER BID ITEM.

REMOVE CROSSOVER PAVEMENT

STRUCTURE B-70-79

FOR BRIDGE REMOVAL SEE STRUCTURE PLANS

SB USH 41 TO EB USH 10/NB STH 441 RAMP

USH 41 SB

USH 41 NB

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

R/L USH 10 EB/STH 441 NB TO NB USH 41 RAMP

N

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 4	SHEET 49	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021141_rm-st4.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

R/L USH 10 EB/STH 441 NB TO NB USH 41 RAMP

150FEN

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

BUTTE DES MORTS

PIER

PIER

7_152_12
749.61

7_152_2
750.28

RAILROAD

148FEN

138WB

140WB

142WB

144WB

146WB

148WB

150WB

152WB

R/L USH 10 WB/STH 441 SB

STRUCTURE B-70-78

146FEN

SIGN

INL

USH 10

USH 10 WB/STH 441 SB

USH 10

USH 10 EB/STH 441 NB

7_152_14
791.24

11917
791.27

MATCHLINE 137EB+50

138EB

140EB

142EB

144EB

146EB

148EB

150EB

152EB

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1336FNE

1334FNE

144FEN

FOR BRIDGE REMOVAL SEE STRUCTURE PLANS

R/L USH 10 EB/STH 441 NB

1332FNE

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

7_152_20
751.31

754.59

142FEN

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 4	SHEET 50	E

2

2

N

MATCHLINE 113TWS+50

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

SM1211

R/L WB USH 10 / SB STH 441

WB+45.00

WB+65.00

SM1011

USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

R/L EB USH 10 / NB STH 441

EX CONCRETE PVMT | EX ASPHALT PVMT

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

SM1021

SM1221

WESTFIELD LN.

BIKE PATH

WALLS

SIGN

INL

MH

W

A/C

WK

08WB 110WB 112WB 114WB 116WB 118WB 120WB 122WB

26TCO 28TCO 30TCO

08EB 08FEN 110EB 110FEN 112EB 112FEN 114EB 114FEN 116EB 116FEN 118EB 118FEN 120EB 120FEN 122EB 122FEN 124FEN

5.095

5.094.20 771.82

771.41

5.095.12 771.67

5.095.2 771.95

5.120.4 771.10

6.120.14 764.27

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 5	SHEET	E

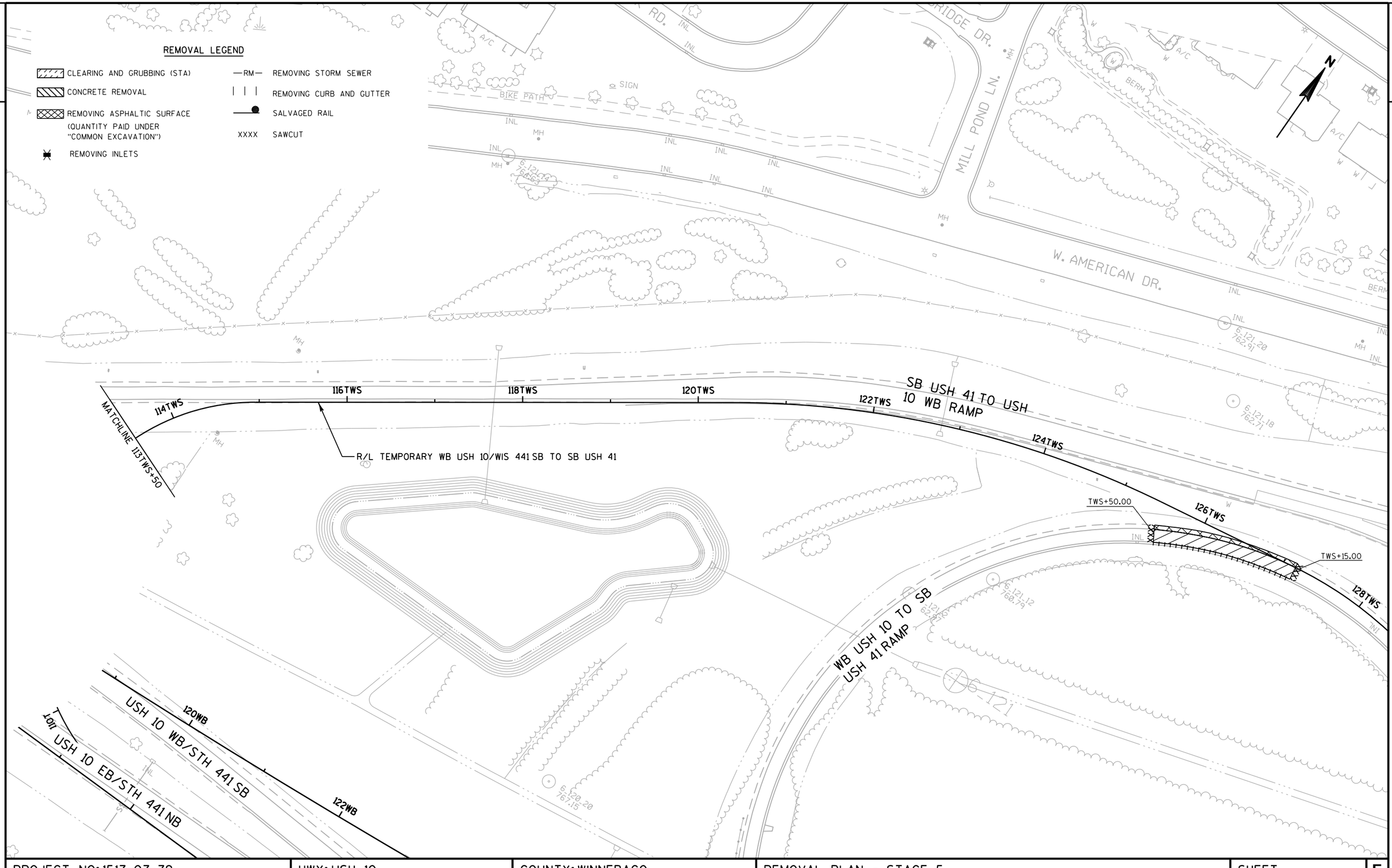
FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021151_rm-st5.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

REMOVAL LEGEND

- CLEARING AND GRUBBING (STA)
- CONCRETE REMOVAL
- REMOVING ASPHALTIC SURFACE (QUANTITY PAID UNDER "COMMON EXCAVATION")
- REMOVING INLETS
- —RM— REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- SALVAGED RAIL
- XXXX SAWCUT



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	REMOVAL PLAN - STAGE 5	SHEET 52	E

2

N

WB OFFRAMP TO CTH CB

SIGN

SEE STANDARD DETAIL DRAWING 11A1: MAINTENANCE CROSSOVER FOR FREEWAYS. CONSTRUCT MAINTENANCE CROSSOVER PRIOR TO CLOSING EXISTING MAINTENANCE CROSSOVER AT STA 96EB+90

USH 10 WB/ STH 441 SB

R/L USH 10 WB/STH 441 SB

78WB 80WB 82WB 84WB 86WB 88WB 90WB 92WB

BEAMGUARD SECTION WB-01

EB+50.63 68.00' LT

WB+68.00 16.00' RT

WB+11.74 17.90' RT

BG13 BG12 BG14

EB+22.19 66.00' LT

EB+14.38 16.00' LT

EB+44.38 18.00' LT

AP02 AG01

R=25' R=25' 24'

4_070_14 773.07

4_070_4 774.26

3.045_18 3.045_20

78EB 80EB 82EB 84EB 86EB 88EB 90EB 92EB

EB+50.63 18.00' LT

EB+70.63 16.00' LT

USH 10 EB/STH 441 NB

BEAMGUARD SECTION EB-01

EB+66.61 50.28' RT

EB+44.25 45.53' RT

EB+50.43 18.00' LT

EB+94.00 16.00' LT

MATCHLINE 93EB+00

BEGIN CONSTRUCTION STA. 83EB+50.63

EB ONRAMP FROM CTH CB

R/L USH 10 EB/STH 441 NB

EB+29.34 54.55' RT

EB+29.20 42.84' RT

BG14 AG01 BG12 BG13

BEAMGUARD SECTION EB-02

INL

BIKE PATH

BERM

BRIDGE

4_069_20 772.38

PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP02 HMA PAVEMENT TYPE E-0.3, 5-INCH
- BG12 MGS GUARDRAIL 3
- BG13 MGS GUARDRAIL TERMINAL TYPE 2
- BG14 MGS GUARDRAIL TERMINAL EAT

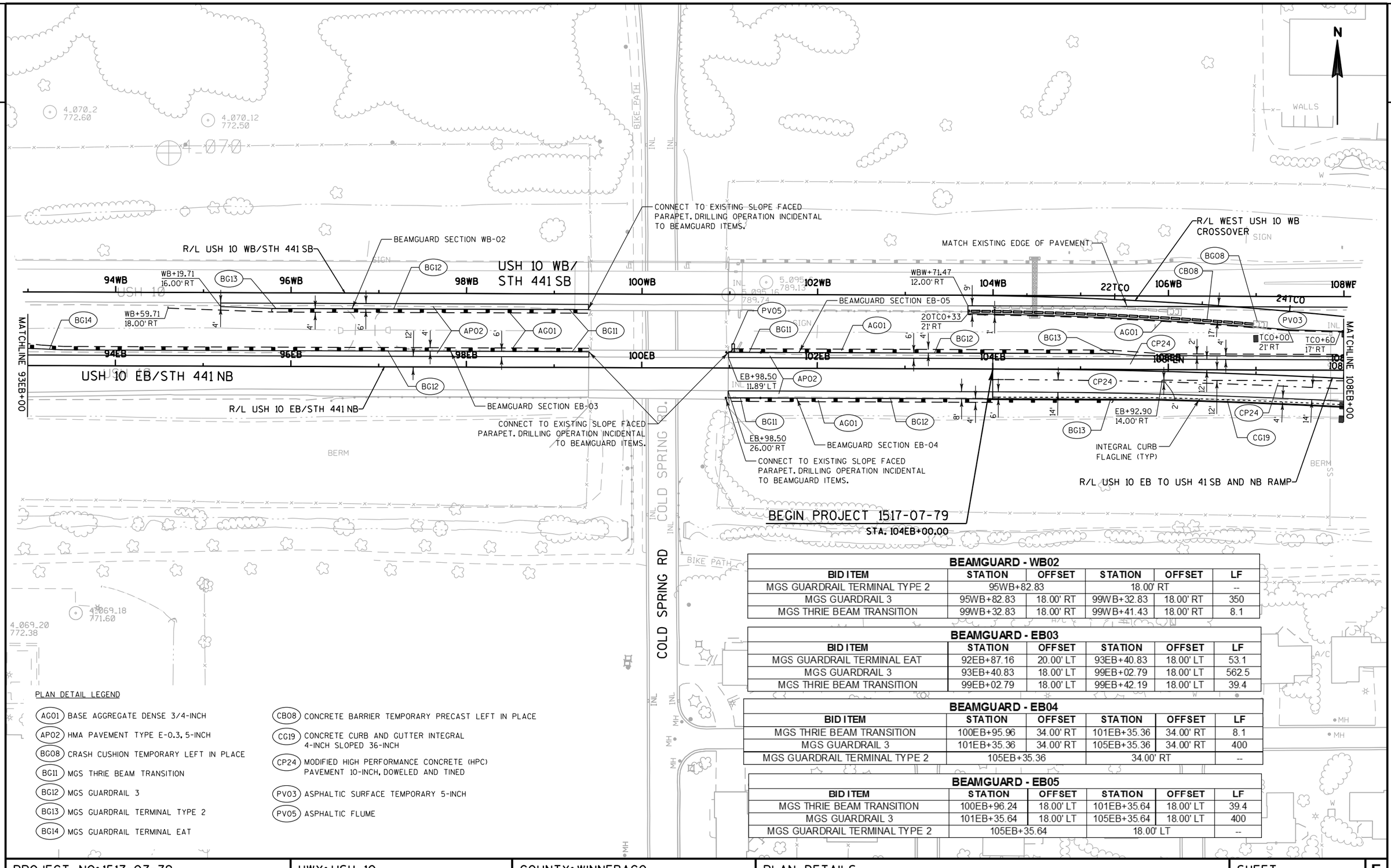
BEAMGUARD - EB01

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	85EB+90.63	20.00' LT	86EB+43.75	18.00' LT	53.1
MGS GUARDRAIL 3	86EB+43.75	18.00' LT	88EB+81.25	18.00' LT	237.5
MGS GUARDRAIL TERMINAL TYPE 2	88EB+81.25		18.00' LT		--

BEAMGUARD - EB02

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	86EB+40.61	53.71' RT	86EB+93.68	50.63' RT	53.1
MGS GUARDRAIL 3	86EB+93.68	50.63' RT	88EB+81.14	46.82' RT	187.5
MGS GUARDRAIL TERMINAL TYPE 2	88EB+81.14		46.82' RT		--

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 53	E



PLAN DETAIL LEGEND

- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (AP02) HMA PAVEMENT TYPE E-0.3, 5-INCH
- (BG08) CRASH CUSHION TEMPORARY LEFT IN PLACE
- (BG11) MGS THRIE BEAM TRANSITION
- (BG12) MGS GUARDRAIL 3
- (BG13) MGS GUARDRAIL TERMINAL TYPE 2
- (BG14) MGS GUARDRAIL TERMINAL EAT
- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- (CG19) CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH
- (CP24) MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH, DOWELED AND TINED
- (PV03) ASPHALTIC SURFACE TEMPORARY 5-INCH
- (PV05) ASPHALTIC FLUME

BEAMGUARD - WB02

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL TYPE 2	95WB+82.83		18.00' RT		--
MGS GUARDRAIL 3	95WB+82.83	18.00' RT	99WB+32.83	18.00' RT	350
MGS THRIE BEAM TRANSITION	99WB+32.83	18.00' RT	99WB+41.43	18.00' RT	8.1

BEAMGUARD - EB03

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	92EB+87.16	20.00' LT	93EB+40.83	18.00' LT	53.1
MGS GUARDRAIL 3	93EB+40.83	18.00' LT	99EB+02.79	18.00' LT	562.5
MGS THRIE BEAM TRANSITION	99EB+02.79	18.00' LT	99EB+42.19	18.00' LT	39.4

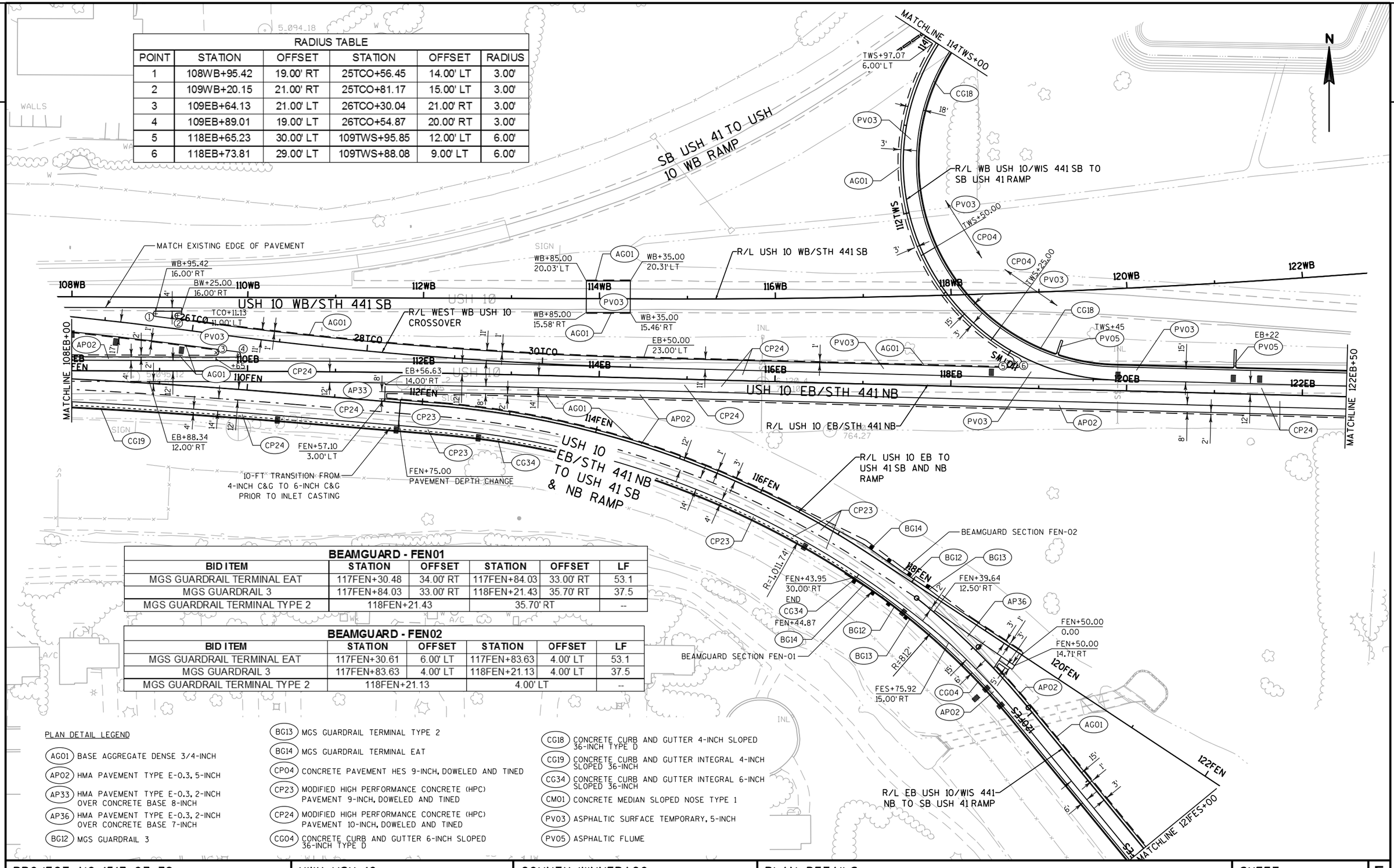
BEAMGUARD - EB04

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS THRIE BEAM TRANSITION	100EB+95.96	34.00' RT	101EB+35.36	34.00' RT	8.1
MGS GUARDRAIL 3	101EB+35.36	34.00' RT	105EB+35.36	34.00' RT	400
MGS GUARDRAIL TERMINAL TYPE 2	105EB+35.36		34.00' RT		--

BEAMGUARD - EB05

BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS THRIE BEAM TRANSITION	100EB+96.24	18.00' LT	101EB+35.64	18.00' LT	39.4
MGS GUARDRAIL 3	101EB+35.64	18.00' LT	105EB+35.64	18.00' LT	400
MGS GUARDRAIL TERMINAL TYPE 2	105EB+35.64		18.00' LT		--

RADIUS TABLE					
POINT	STATION	OFFSET	STATION	OFFSET	RADIUS
1	108WB+95.42	19.00' RT	25TCO+56.45	14.00' LT	3.00'
2	109WB+20.15	21.00' RT	25TCO+81.17	15.00' LT	3.00'
3	109EB+64.13	21.00' LT	26TCO+30.04	21.00' RT	3.00'
4	109EB+89.01	19.00' LT	26TCO+54.87	20.00' RT	3.00'
5	118EB+65.23	30.00' LT	109TWS+95.85	12.00' LT	6.00'
6	118EB+73.81	29.00' LT	109TWS+88.08	9.00' LT	6.00'



BEAMGUARD - FEN01					
BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	117FEN+30.48	34.00' RT	117FEN+84.03	33.00' RT	53.1
MGS GUARDRAIL 3	117FEN+84.03	33.00' RT	118FEN+21.43	35.70' RT	37.5
MGS GUARDRAIL TERMINAL TYPE 2	118FEN+21.43		35.70' RT		--

BEAMGUARD - FEN02					
BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	117FEN+30.61	6.00' LT	117FEN+83.63	4.00' LT	53.1
MGS GUARDRAIL 3	117FEN+83.63	4.00' LT	118FEN+21.13	4.00' LT	37.5
MGS GUARDRAIL TERMINAL TYPE 2	118FEN+21.13		4.00' LT		--

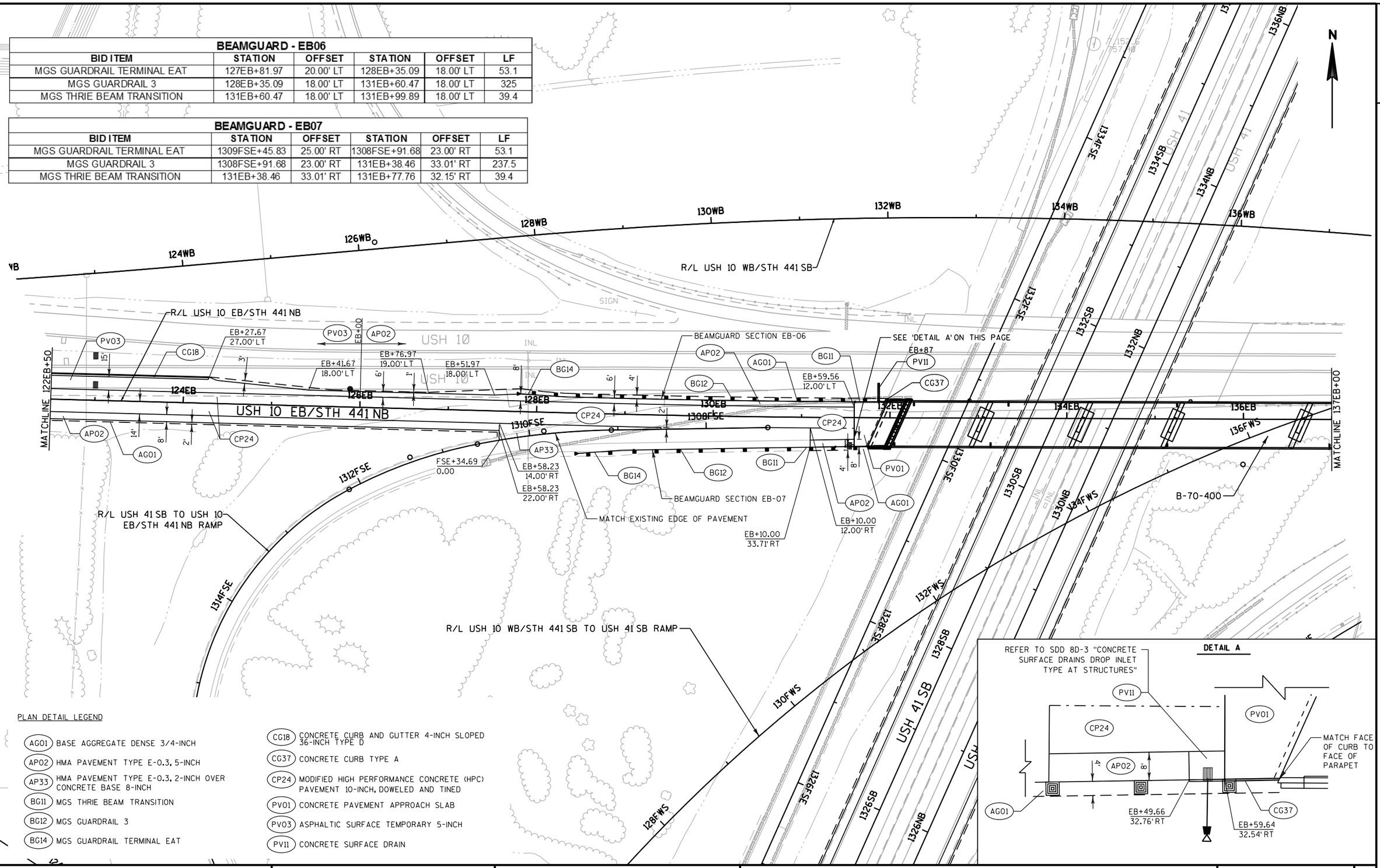
PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP02 HMA PAVEMENT TYPE E-0.3, 5-INCH
- AP33 HMA PAVEMENT TYPE E-0.3, 2-INCH OVER CONCRETE BASE 8-INCH
- AP36 HMA PAVEMENT TYPE E-0.3, 2-INCH OVER CONCRETE BASE 7-INCH
- BG12 MGS GUARDRAIL 3
- BG13 MGS GUARDRAIL TERMINAL TYPE 2
- BG14 MGS GUARDRAIL TERMINAL EAT
- CP04 CONCRETE PAVEMENT HES 9-INCH, DOWELED AND TINED
- CP23 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 9-INCH, DOWELED AND TINED
- CP24 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH, DOWELED AND TINED
- CG04 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CG18 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D
- CG19 CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH
- CG34 CONCRETE CURB AND GUTTER INTEGRAL 6-INCH SLOPED 36-INCH
- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH
- PV05 ASPHALTIC FLUME

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 55	E

BEAMGUARD - EB06					
BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	127EB+81.97	20.00' LT	128EB+35.09	18.00' LT	53.1
MGS GUARDRAIL 3	128EB+35.09	18.00' LT	131EB+60.47	18.00' LT	325
MGS THRIE BEAM TRANSITION	131EB+60.47	18.00' LT	131EB+99.89	18.00' LT	39.4

BEAMGUARD - EB07					
BID ITEM	STATION	OFFSET	STATION	OFFSET	LF
MGS GUARDRAIL TERMINAL EAT	1309FSE+45.83	25.00' RT	1308FSE+91.68	23.00' RT	53.1
MGS GUARDRAIL 3	1308FSE+91.68	23.00' RT	131EB+38.46	33.01' RT	237.5
MGS THRIE BEAM TRANSITION	131EB+38.46	33.01' RT	131EB+77.76	32.15' RT	39.4



PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP02 HMA PAVEMENT TYPE E-0.3, 5-INCH
- AP33 HMA PAVEMENT TYPE E-0.3, 2-INCH OVER CONCRETE BASE 8-INCH
- BG11 MGS THRIE BEAM TRANSITION
- BG12 MGS GUARDRAIL 3
- BG14 MGS GUARDRAIL TERMINAL EAT
- CG18 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D
- CG37 CONCRETE CURB TYPE A
- CP24 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH, DOWELED AND TINED
- PV01 CONCRETE PAVEMENT APPROACH SLAB
- PV03 ASPHALTIC SURFACE TEMPORARY 5-INCH
- PV11 CONCRETE SURFACE DRAIN

DETAIL A

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021204_pd.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

2

2

N

R/L USH 10 EB/STH 441 NB
TO NB USH 41 RAMP

R/L USH 10 WB/STH 441 SB

EXISTING STRUCTURE
B-70-78

USH 10 WB/STH 441 SB

USH 10 WB

USH 10

R/L USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB

STRUCTURE
B-70-400

STRUCTURE B-70-403
BUILT WITH SEPARATE PROJECT

MATCH EXISTING EDGE OF
PAVEMENT ALONG 'FNE' RAMP
ALIGNMENT

END PROJECT 1517-07-79
STA. 146EB+54.03

R/L USH 41 NB TO USH 10
EB/STH 441 NB RAMP

USH 41 NB TO USH 10 EB

B-70-402

LITTLE BUTTE DES MORTS

CANADIAN NATIONAL RAILROAD

RAILROAD ST.

CANOPY

MATCHLINE 137EB+00

EB+75 | EB+20 | AG01 | PV03 | 138FWS

EB+85.00 | 18.00' LT | PV16 | AG01 | CB06 | CP26

EB+78.78 | 22.54' RT

EB+51.65 | 23.45' RT

EB+50.00 | 37.00' RT

EB+75.00 | 28.93' RT

EB+00.00 | 27.20' RT

EB+14.73, 27.20' RT | FNE+91.07, 6.02' LT

AP37 | FNE+45.32 | 6.00' LT

EB+80.00 | 24.00' LT

EB+38.00 | 24.00' LT | PV16 | CB35

EB+35.11 | 12.00' RT

138WB | 140WB | 142WB | 144WB | 146WB | 148WB | 150WB | 152WB

138FWS | 140FWS | 142FWS | 144FWS | 146FWS

138EB | 140EB | 142EB | 144EB | 146EB | 148EB | 150EB | 152EB

1336FNE | 1338FNE | 1340FNE | 1342FNE | 1344FNE | 1346FNE

1334FNE | 1332FNE | 130FNE

148FEN | 146FEN | 144FEN | 142FEN

7_152 | 7_152.12 749.67 | 7_152.2 750.28 | 7_152.14 791.24 | 7_152.20 751.31 | 7_152.21 754.59 | 7_153.2 749.88 | 11917

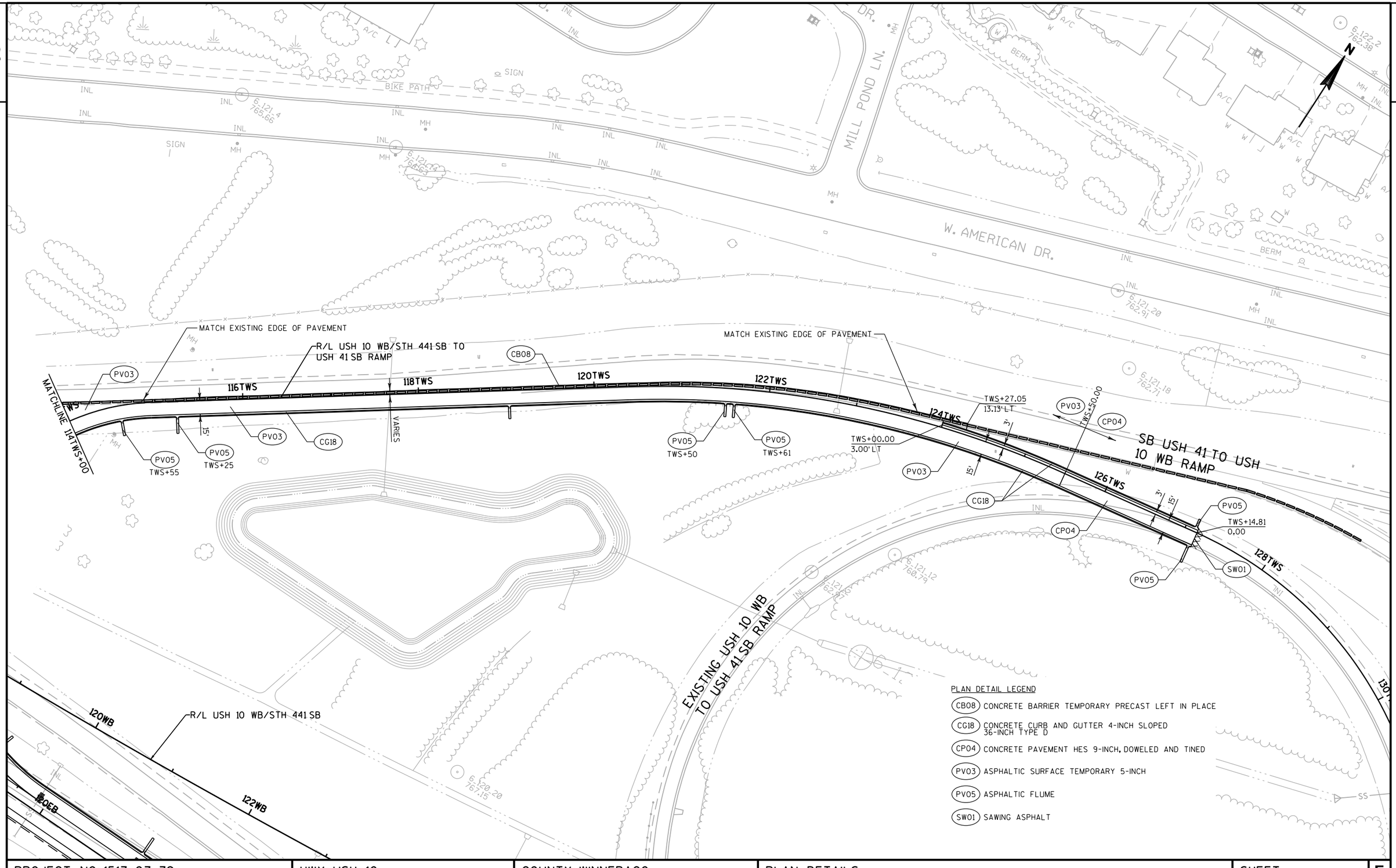
PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP37 HMA PAVEMENT TYPE E-0.3, 2-INCH OVER CONCRETE BASE HES 8-INCH
- CB06 CONCRETE BARRIER TYPE S42
- CB35 CONCRETE BARRIER TRANSITION TYPE S42 TO S56
- CP26 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH HES, DOWELED AND TINED
- PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH
- PV16 CONCRETE PAVEMENT APPROACH SLAB HES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021205_pd.dgn | PLOT DATE : 4/29/2015 | PLOT BY : nbennett | PLOT NAME : | PLOT SCALE : 100:1

2



PLAN DETAIL LEGEND

- CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- CG18 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D
- CP04 CONCRETE PAVEMENT HES 9-INCH, DOWELED AND TINED
- PV03 ASPHALTIC SURFACE TEMPORARY 5-INCH
- PV05 ASPHALTIC FLUME
- SW01 SAWING ASPHALT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 58	E

2

2

PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP02 HMA PAVEMENT TYPE E-0.3, 5-INCH
- AP34 HMA PAVEMENT TYPE E-0.3, 2-INCH OVER CONCRETE BASE 9-INCH
- CP23 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 9-INCH, DOWELED AND TINED
- CP25 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 11-INCH, DOWELED AND TINED
- CG04 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH

N

AMERICAN DR.

BIKE PATH

BERM

MATCHLINE 122FES+00

USH 10 EB/STH 441 NB TO SB USH 41 RAMP

FES+00.00
21.00' RT

FWS+00.00
46.00' LT

FWS+84.13
41.62' LT

FES+64.94
20.96' RT

FES+13.95
0.00

FES+73.29
3.00' LT

FWS+84.13
5.36' RT

FWS+50.00
26.00' LT

FWS+50.00
12.00' LT

FWS+50.00
4.00' RT

112FWS
114FWS
116FWS
118FWS
120FWS
122FWS
124FWS
124FES
128FES
130FES
132FES
134FES
136FES
1310SB
1310NB
1310FNW
1312SB
1312NB
1312FNW
1314SB
1318FSE
1320FSE
124FEN
126FEN
128FEN
N31921

R/L USH 10 EB TO USH 41 SB RAMP

R/L USH 10 EB TO USH 41 NB RAMP

R/L USH 41 NB

R/L USH 41 SB

R/L WB USH 10 / SB WIS 441 TO SB USH 41 RAMP

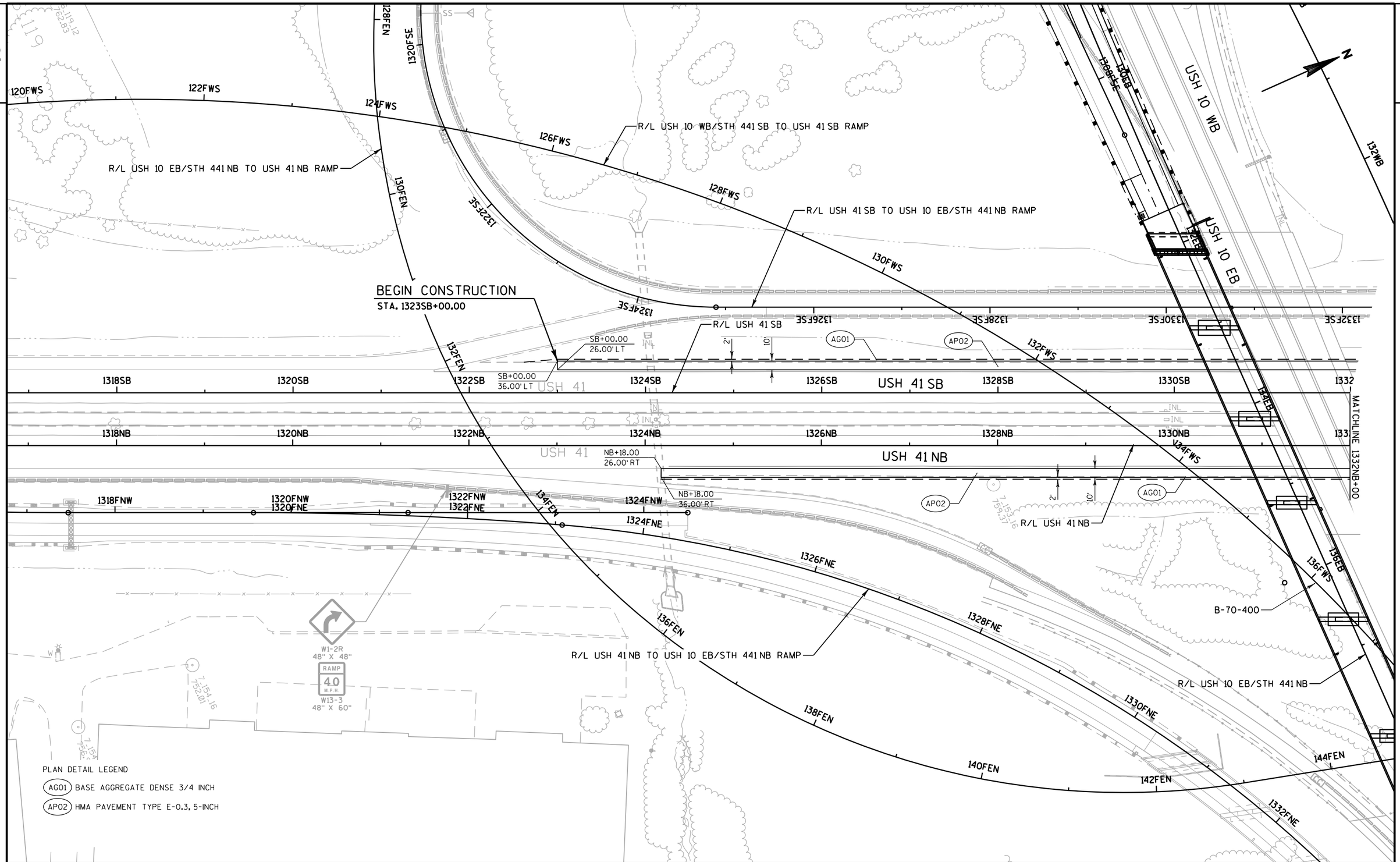
R/L USH 41 S EB/STH 441 N

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 59	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021207_pd.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 60	E

2

2

R/L USH 10 WB/STH 441 SB TO USH 41 SB RAMP

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 SB

R/L USH 41 NB

R/L USH 10 WB/STH 441 SB TO USH 41 SB RAMP

R/L USH 10 WB/STH 441 SB

R/L USH 10 EB/STH 441 NB TO USH 41 NB RAMP

SB+75.00
26.00' LT

NB+62.33
26.00' RT

END CONSTRUCTION
STA. 1343NB+62.33

USH 41 SB

USH 41 NB

MATCHLINE 1332NB+00

PLAN DETAIL LEGEND

AG01 BASE AGGREGATE DENSE 3/4 INCH

AP02 HMA PAVEMENT TYPE E-0.3, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET 61	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021209_pd.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

INL

5_095_6
789.13

5_095_16
789.74

SIGN

101WB 102WB 103WB 104WB 105WB 106WB

WB USH 10

R/L USH 10 WB/STH 441 SB

EB+98.50
22.00' LT

22"

10' TYP

1"

2.0%

TEMPORARY PAVEMENT TO BE
PLACED IN STAGE 1

PV03

AGO1

101EB 102EB 103EB 104EB 105EB 106EB

MATCHLINE 106EB+75

R/L USH 10 EB/STH 441 NB

MATCH EXISTING CONCRETE PAVEMENT

USH 10 EB/STH 441 NB

INL

BEGIN CONSTRUCTION
STA. 100EB+98.50

PAVEMENT DETAIL LEGEND

AGO1 BASE AGGREGATE DENSE 3/4-INCH

PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET 62	E

2

2

N

SIGN

USH 41 SB TO WB
USH 10 RAMP

107WB 108WB 109WB 110WB 111WB 112WB

WB USH 10

R/L USH 10 WB/STH 441 SB

INL

TEMPORARY PAVEMENT TO BE
PLACED IN STAGE 1

10' TYP

1"

2.0%

22'

PV03

AG01

1"

2.0%

10' TYP

MATCHLINE 106EB+75

107EB 108EB 109EB 110EB 111EB 112EB

MATCHLINE 112EB+75

R/L USH 10 EB/STH 441 NB

MATCH EXISTING CONCRETE PAVEMENT

USH 10 EB/STH 441 NB

5_095_12
776.57

5_095_2
773.05

SIGN

INL

5_095

SIGN

BERM

PAVEMENT DETAIL LEGEND

AG01 BASE AGGREGATE DENSE 3/4-INCH

PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021262_pd-temp.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

SIGN

R/L USH 10 WB/STH 441 SB

113WB 114WB 115WB 116WB 117WB 118WB

WB USH 10

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 1

INL

10" TYP

PV03

1"

AG01

EB+81.14
33.41' LT

2.0%

1"

2.0%

EB+14.93
25.93' LT

MATCHLINE 112EB+75

113EB 114EB 115EB 116EB 117EB 118EB

USH 10 EB/STH 441 NB

MATCH EXISTING CONCRETE PAVEMENT

R/L USH 10 EB/STH 441 NB

6_120_4
771.10

6_120_14
764.27

PAVEMENT DETAIL LEGEND

AG01 BASE AGGREGATE DENSE 3/4-INCH

PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET 64	E

2

N

128WB 129WB 130WB 131WB 132WB 133WB

R/L USH 10 WB/STH 441 SB

SIGN

INL

EXISTING STRUCTURE B-70-79

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 1

WB USH 10

BEGIN CONSTRUCTION
STA. 129XEB+00.00

PV05

XEB+00.00
6.09' LT

778.54 778.98 779.44 779.89 780.32 780.67 781.02 781.40 781.72 781.02 782.30 782.63 782.98

XEB+21.18
14.42' LT

XEB+16.52
14.48' LT

XEB+14.76
10.49' LT

128XEB 129XEB 130XEB 131XEB 132XEB 133XEB

2.0% 2.0%

PV03 PV15

MATCHLINE 136XEB+50

INL

EB USH 10

MATCH BRIDGE CROSSSLOPE

R/L EXISTING USH 10 EB (XEB)

MATCH EXISTING CONCRETE PAVEMENT

128EB 129EB 130EB 131EB 132EB 133EB

USH 10 EB/STH 441 NB

SEE SEPARATE DETAIL SHEET

R/L USH 10 EB/STH 441 NB

USH 41 SB COLLECTOR DISTRIBUTOR

INL

PAVEMENT DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV05 ASPHALTIC FLUME
- PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH
- PV15 ASPHALTIC SURFACE TEMPORARY, 2-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021264_pd-temp.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 40:1

2

N

134WB 135WB 136WB 137WB 138WB USH 10 WB/STH 441 SB 139WB

R/L USH 10 WB/STH 441 SB

USH 41 SB

USH 41 NB

STRUCTURE B-70-79

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 1

WB USH 10

XEB+89.52
10.13'LT

XEB+87.23
13.45'LT

XEB+87.29
9.45'LT

XEB+20.51
12.96'LT

XEB+19.36
8.97'LT

MATCHLINE 133EXB+50

134XEB 135XEB 136XEB 137XEB 138XEB 139XEB

784.59 784.68 784.79 784.84 784.86 784.98 785.11 785.19 785.32 785.38 785.48 785.59 785.78

PV03

MATCH BRIDGE CROSSSLOPE

MATCH BRIDGE CROSSSLOPE

PV15 PV15 PV15

EB USH 10

R/L EXISTING USH 10 EB (XEB)

MATCHLINE 139XEB+25

MATCH EXISTING CONCRETE PAVEMENT

134EB 135EB USH 10 EB/STH 441 NB 136EB 137EB 138EB 139EB

R/L USH 10 EB/STH 441 NB

INL INL INL

PAVEMENT DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH
- PV15 ASPHALTIC SURFACE TEMPORARY, 2-INCH

CC

NATIONAL

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021265_pd-temp.dgn PLOT DATE : 4/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 40:1

2

2

N

140WB

USH 10 WB/STH 441 SB

141WB

142WB

143WB

144WB

145WB

STRUCTURE B-70-78

R/L USH 10 WB/STH 441 SB

SIGN

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 1

WB USH 10

XEB+52.48
5.31'LT

PV16

XEB+52.00
8.60'LT

MATCHLINE 139EXB+25

140XEB

141XEB

142XEB

143XEB

MATCH BRIDGE CROSSSLOPE

PV15

END CONSTRUCTION
STA. 143XEB+52.00

EB USH 10

R/L EXISTING USH 10 EB (XEB)

140EB

141EB

USH 10 EB/STH 441 NB

142EB

143EB

144EB

145EB

R/L USH 10 EB/STH 441 NB

TEMPORARY CROSSOVER, SEE SEPARATE SHEET

PAVEMENT DETAIL LEGEND

AG01 BASE AGGREGATE DENSE 3/4-INCH

PV15 ASPHALTIC SURFACE TEMPORARY, 2-INCH

PV16 ASPHALTIC SURFACE TEMPORARY, 3-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY EB USH 10 MEDIAN WIDENING	SHEET 67	E

2

N

SIGN

USH 10 WB

INL

SEE SEPARATE DETAIL SHEET

USH 10 EB/STH 441 NB

MATCH EXISTING EB USH 10 EDGE OF PAVEMENT

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 2A

EB+68.61
20.07'LT

EB+68.75
12.00'LT

771.57 772.05 772.59 773.11 773.52 774.11 774.66 775.13 775.90 776.47 777.07 777.63 778.11 778.62 779.06

772.13 772.51 772.91 773.33 773.77 774.23 774.72 775.21 775.71 776.21 776.71 777.22 777.88 778.45 778.95

5.0% 2.2% 1.1% 0.7% 2.0% 2.8% 2.0%

2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2

PV03

AG01

EB+40.31
28.14'LT

EB+40.26
24.39'LT

EB+50.00
12.00'LT

125EB 126EB 127EB 128EB 129EB 130EB

MATCH PROPOSED EB USH 10 EDGE OF PAVEMENT

MATCH PROPOSED EB USH 10 EDGE OF SHOULDER

12' 14' 8'

TSE+71.62
12.50'LT

TSE+17.15
12.50'RT

101TSE

773.65 774.33

3.4% 1.5% 4.0%

AG01

SLOPE INTERCEPTS

4.0% 0.2% 3.4% 1.5%

773.81 774.01 774.46

773.54 774.44

0.2%

PV03

2.1%

775.75 773.41 774.95

773.86

774.03

FSE+20.27
3.00'RT

5.0%

1.5%

101FSE

1312FSE

772.62 773.05

772.06 773.93

4

FSE+63.40
4.00'RT

771.69

FSE+41.77
2.99'RT

5.0%

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 2A

1313FSE

1309FSE

1308FSE

1310FSE

1311FSE

R/L USH 10 EB/STH 441 NB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

PAVEMENT DETAIL LEGEND

AG01 BASE AGGREGATE DENSE 3/4-INCH

PV03 ASPHALTIC SURFACE TEMPORARY, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY 'FSE' RAMP CROSSOVER	SHEET 68	E

2

N

R/L USH 10 WB/STH 441 SB

142WB 143WB 144WB 145WB 146WB 147WB

USH 10 WB/STH 441 SB

USH 10 WB

SIGN

MH

CC

USH 10 EB/STH 441 NB

TEMPORARY PAVEMENT TO BE PLACED IN STAGE 1

MATCH EXISTING CONCRETE PAVEMENT

2340TCA 2341TCA

R/L USH 10 EB/STH 441 NB

1.0% 1.0%

787.23 787.30 787.45 787.53 787.58 787.60

3.3% 4.0% 0% 1.5%

2339TCA

787.41 787.55 787.65

142EB 143EB 144EB 145EB 146EB 147EB

MH

AGO1 AGO1

PVO3

SIGN

BEGIN CONSTRUCTION
STA. 2336TCA+32.81

END CONSTRUCTION
STA. 2339TCA+87.63

2336TCA

2337TCA

2338TCA

-SS-

787.76 788.49 788.32 788.28

789.21 789.05

790.78 790.93 790.71 790.23 789.74

790.68 790.75 790.62 790.30 789.77 789.53 788.80

790.50 790.63 790.77 790.91 791.04 791.18 790.25

2.0% 1.8% 0.3% 2.8% 2.8% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%

5.7% 5.7% 5.7% 5.7% 5.0% 4.4% 4.0%

14' 12' 15'

MATCH EXISTING CONCRETE PAVEMENT

SEE PROJECT 1517-07-72 FOR FNE RAMP X-SEC

SEE PROJECT 1517-07-76 FOR FNE RAMP X-SEC

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP (FNE)

B-70-402
PREVIOUSLY CONSTRUCTED
IN PROJECT 1517-07-72

7_152_18
754.59

7_152_20
751.31

PAVEMENT DETAIL LEGEND

AGO1 BASE AGGREGATE DENSE 3/4-INCH

PVO3 ASPHALTIC SURFACE TEMPORARY, 5-INCH

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN DETAILS - TEMPORARY 'FNE' RAMP CROSSOVER	SHEET 69	E

2

N

R/L TEMPORARY WB USH 10 CROSSOVER

R/L USH 10 WB/STH 441 SB

USH 10 WB/STH 441 SB

100WB 101WB 102WB 103WB 104WB 21TCO 105WB 22TCO

INL 5_095_6 789.13

5_095_6 789.74

785.66 785.16 784.63 784.13 783.64 783.14 782.62 782.11

4.0% 2.0% 2.0%

785.32 784.97 784.43 783.93 783.42 782.90 782.37 781.83

SIGN

R/L USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB

100EB 101EB 102EB 103EB 104EB 105EB

784.87 784.39 783.92 783.44 782.98 782.52 782.12

785.11 784.63 784.16 783.68 783.22 782.76 782.32

785.35 784.87 784.40 783.92 783.46 783.00 782.56

2.0% 2.0% 2.0%

785.11 784.63 784.15 783.68 783.21 782.75 782.30

784.83 784.35 783.87 783.40 782.93 782.47 782.02

784.59 784.11 783.64 783.17 782.71 782.26 781.82

MATCHLINE 105EB+50

INL

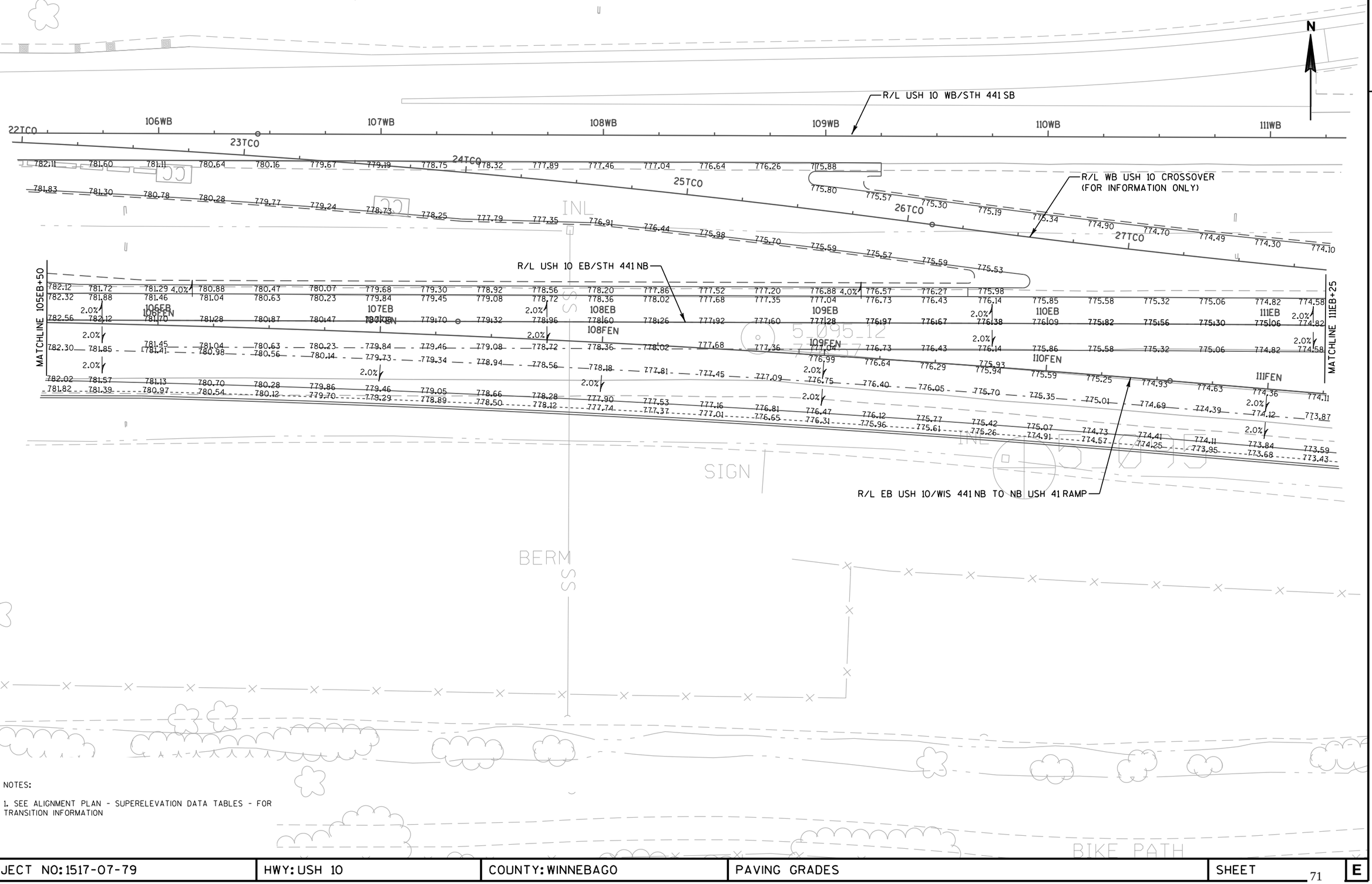
NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 70	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021801_pg.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 40:1

2

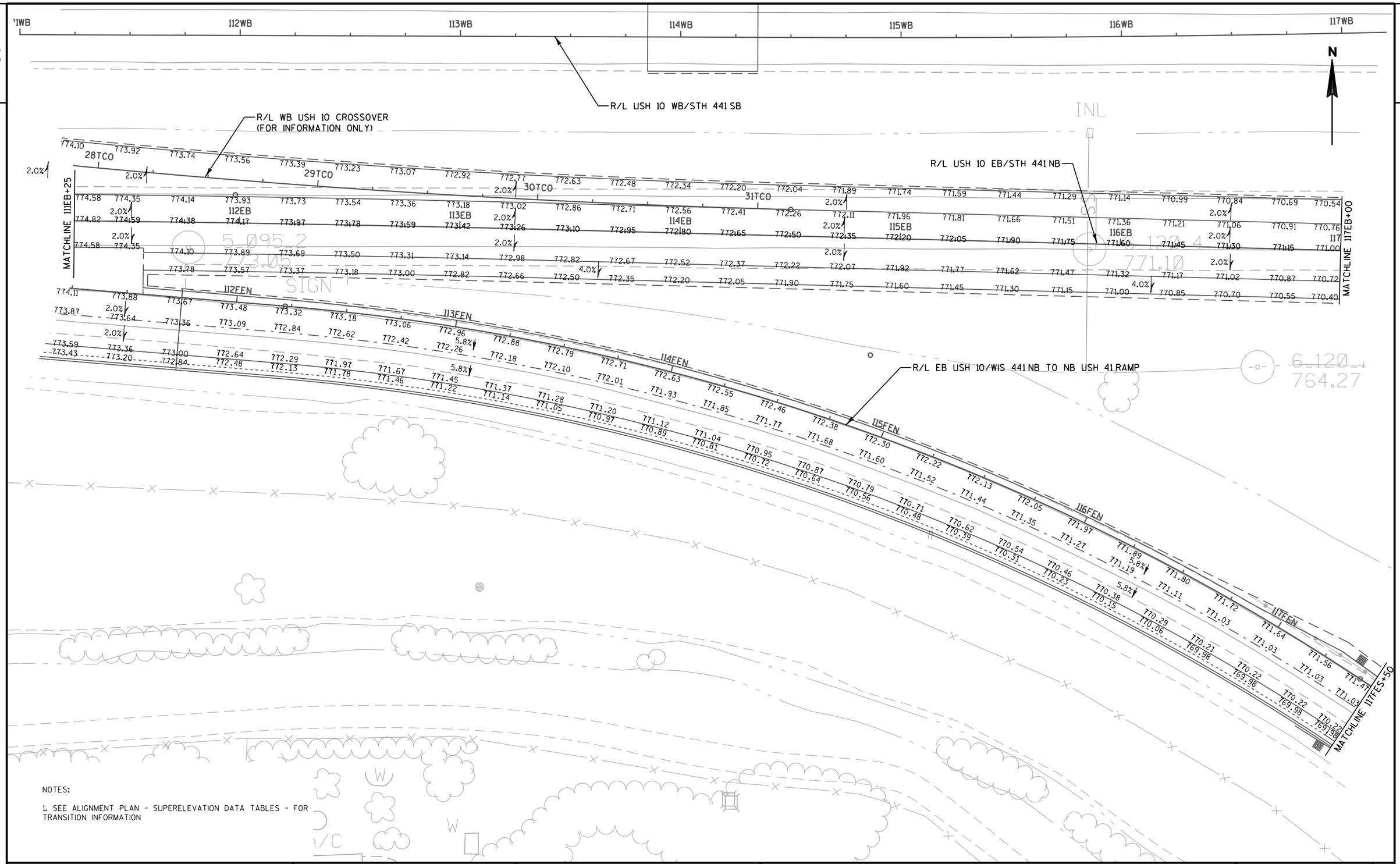


NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 71	E

2



NOTES:

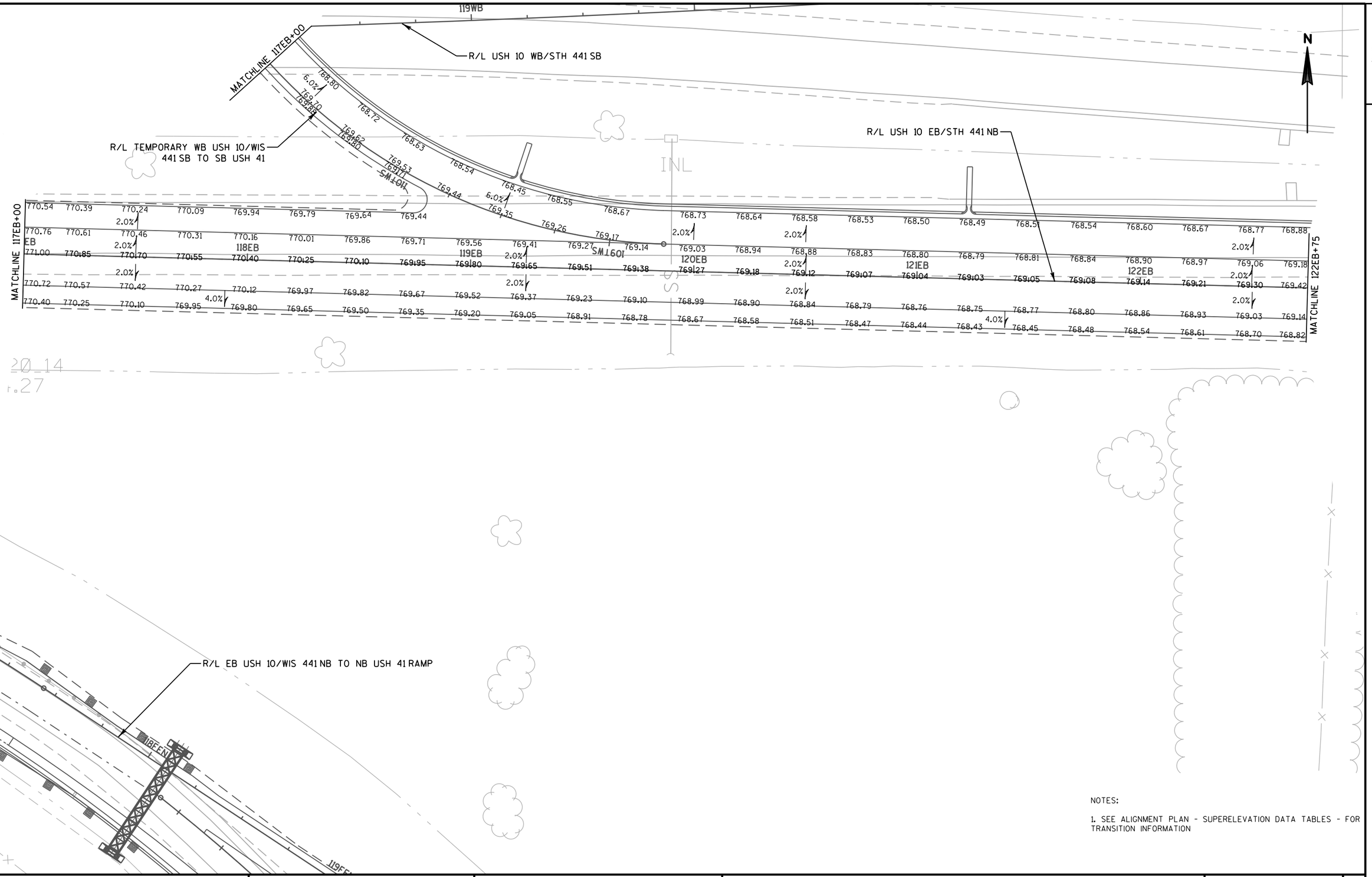
1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021803_pg.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

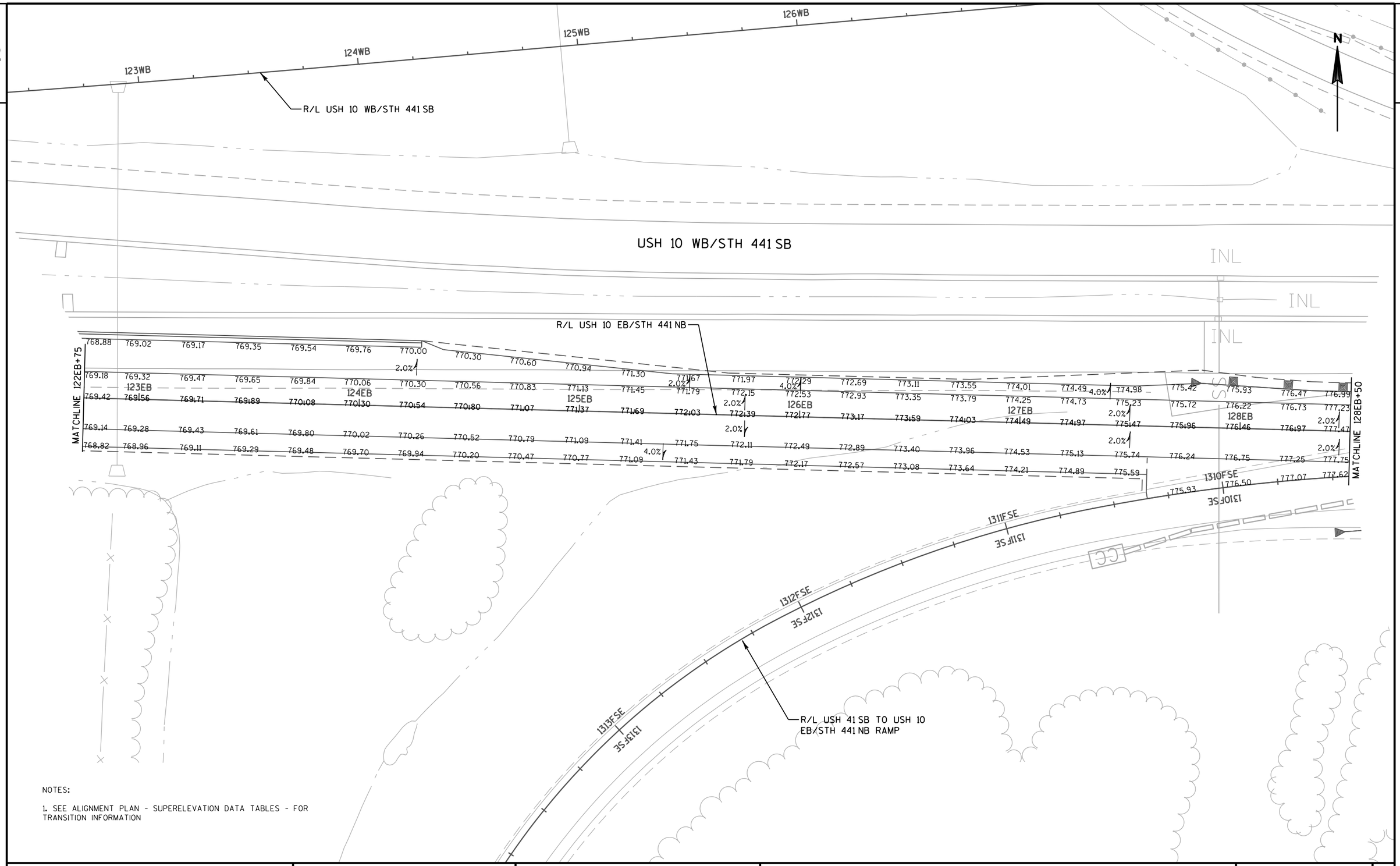


NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 73	E

2

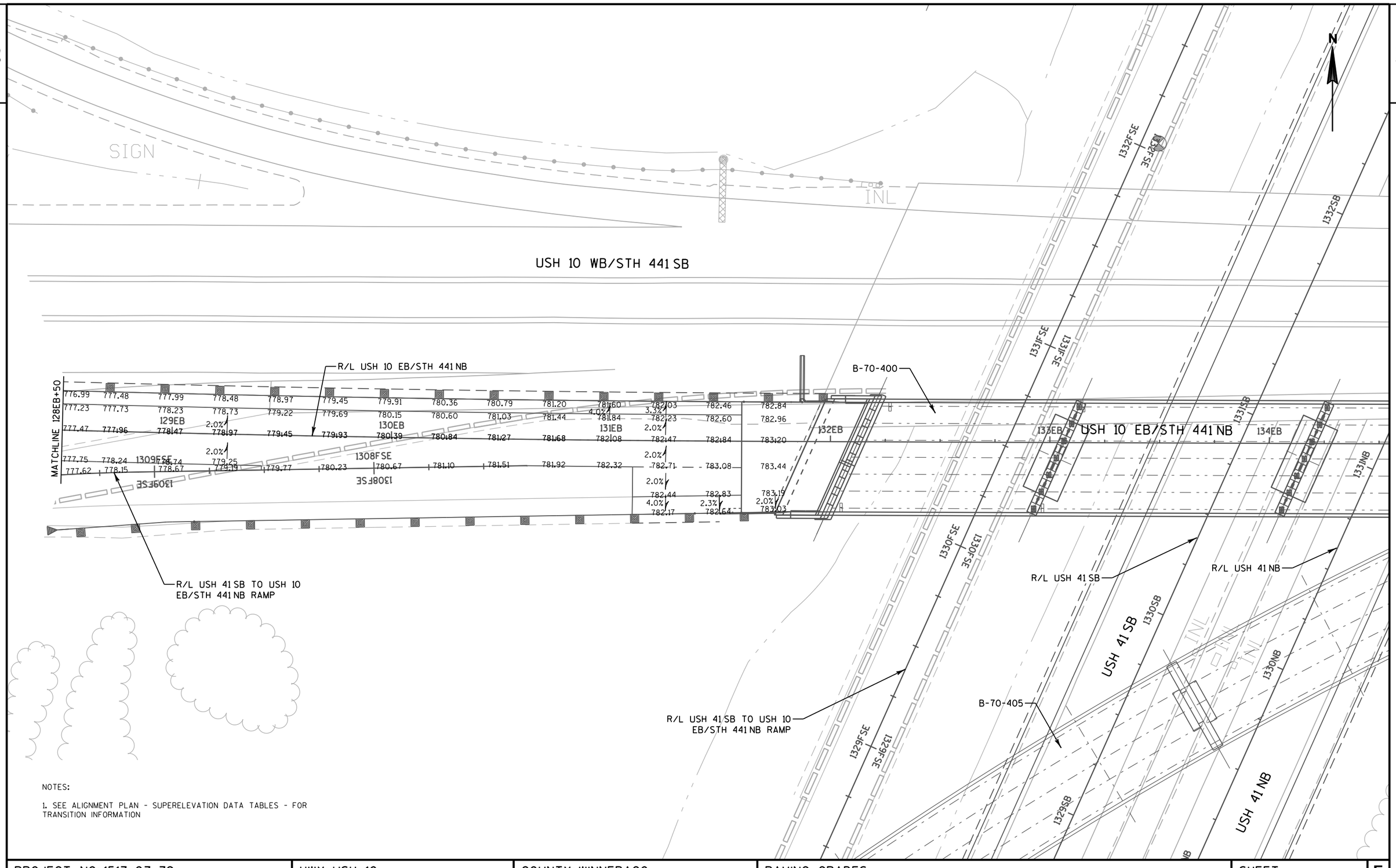


NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 74	E

2



NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 75	E

2

2

N

142WB

143WB

144WB

145WB

146WB

147WB

USH 10 WB/STH 441 SB

R/L USH 10 WB/STH 441 SB

USH 10 EB/STH 441 NB

R/L USH 10 EB/STH 441 NB

142EB 143EB 144EB 145EB 146EB 147EB

790.26 790.39 790.50 790.62 790.74 790.85 790.97 791.08 791.20 791.33 791.46 791.59 791.73 791.86 791.99 792.12

790.38 790.51 790.64 790.77 790.91 791.04 791.17 791.30 791.44 791.57 791.70 791.83 791.97 792.10 792.23 792.36

790.62 790.75 790.88 791.01 791.15 791.28 791.41 791.54 791.68 791.81 791.94 792.07 792.21 792.34 792.47 792.60

790.86 790.97 791.12 791.25 791.39 791.54 791.65 791.78 791.92 792.05 792.18 792.31 792.45 792.58 792.71 792.84

790.64 790.79 790.94 791.09 791.24 791.39 791.54 791.69 791.83 791.98 792.13 792.26 792.37 792.51

790.45 790.58 790.69 790.81 790.94 791.05 791.19 791.33 791.46 791.60 791.73 791.87 792.12 792.25 792.38 792.52

790.26 790.49 790.63 790.76 790.90 791.03 791.17 791.30 791.44 791.57 791.71 791.84 791.98 792.11

B-40-400

1336FNE

1335FNE

1338FNE

1339FNE

1340FNE

1341FNE

MATCH EXISTING CONCRETE PAVEMENT

B-70-403
BUILT WITH SEPARATE CONTRACT

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP (FNE)

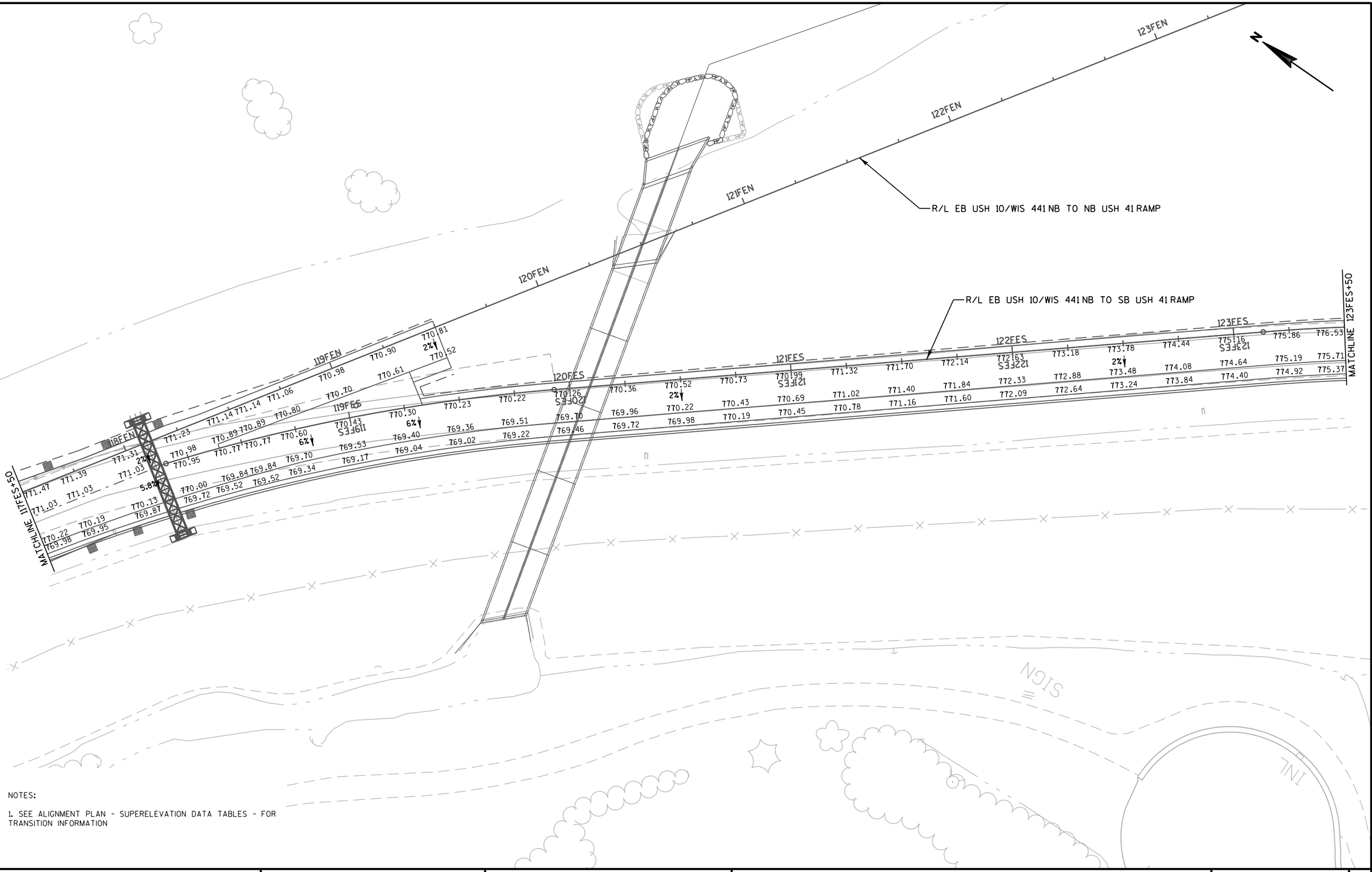
B-70-402
BUILT IN PREVIOUS CONTRACT

NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 76	E

2



NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 77	E

2

N

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

MATCHLINE 129FES+50

MATCHLINE 123FES+50

6_119_2
792.51

BERM

NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021809_pg.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 40:1

2

N

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

6+18.18
784.58

MATCHLINE 129FES+50

130FES 784.29 784.27 130FES 784.21 784.13 784.01 783.87 783.99 783.97 783.91 783.83 783.71 783.57

131FES 783.70 783.51 783.28 783.03 783.40 783.21 782.98 782.73

132FES 782.75 782.44 782.10 781.74 782.45 782.14 781.80 781.44

133FES 781.34 780.92 781.04 780.62 2% 780.47 780.00 780.08 779.46

134FES 779.49 778.96 778.39 778.82 778.14 5.9% 777.80 777.51 776.92

135FES 777.19 776.54 776.30 775.66

MATCHLINE 135FES+25

779.66 778.91 778.16 777.41
779.86 779.04 778.22 777.40
780.10 779.20 778.29 777.39

6+18.20
784.88

M

M

A/C

BIKE PA

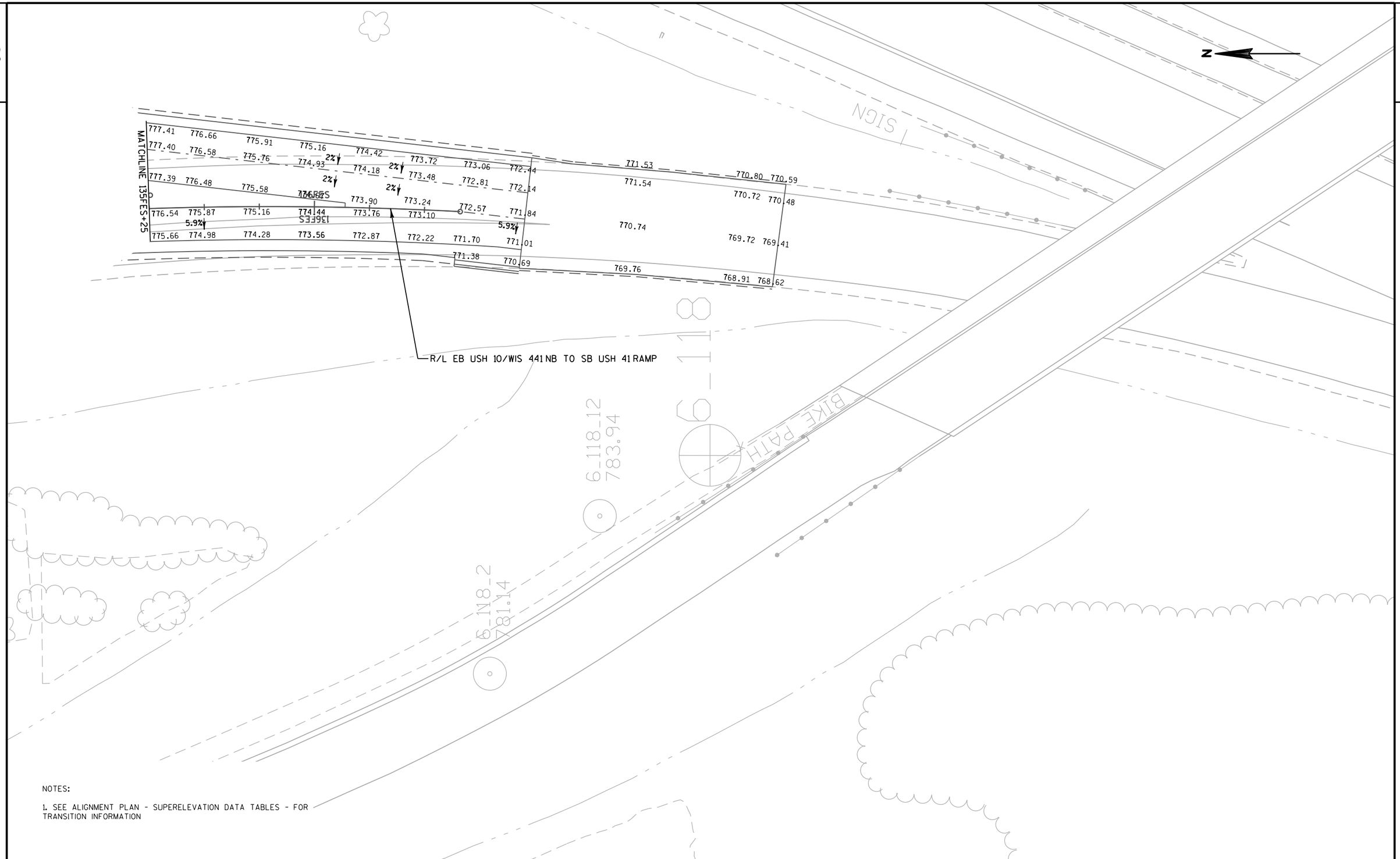
NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021810_pg.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 40:1

2

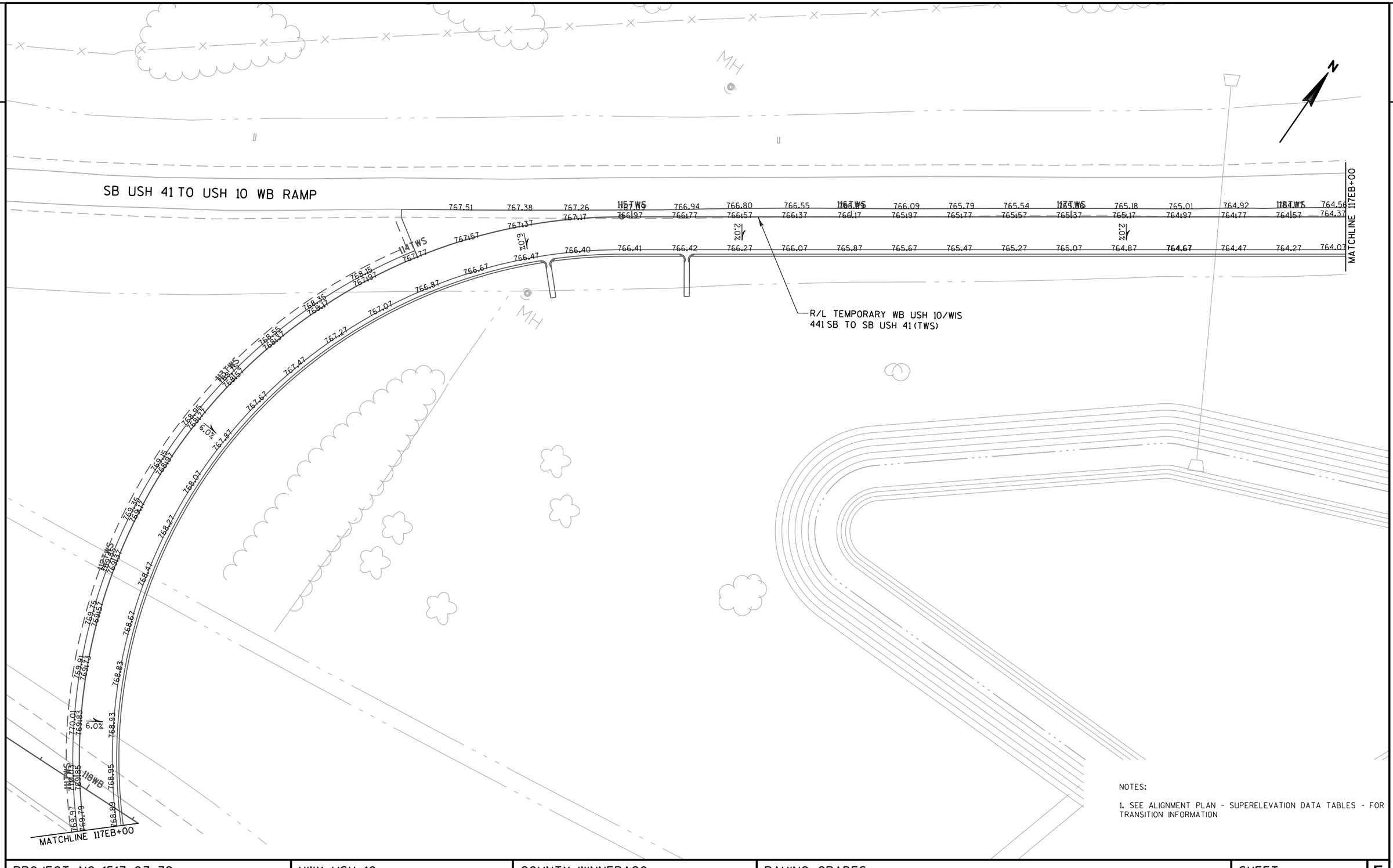


NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 80	E

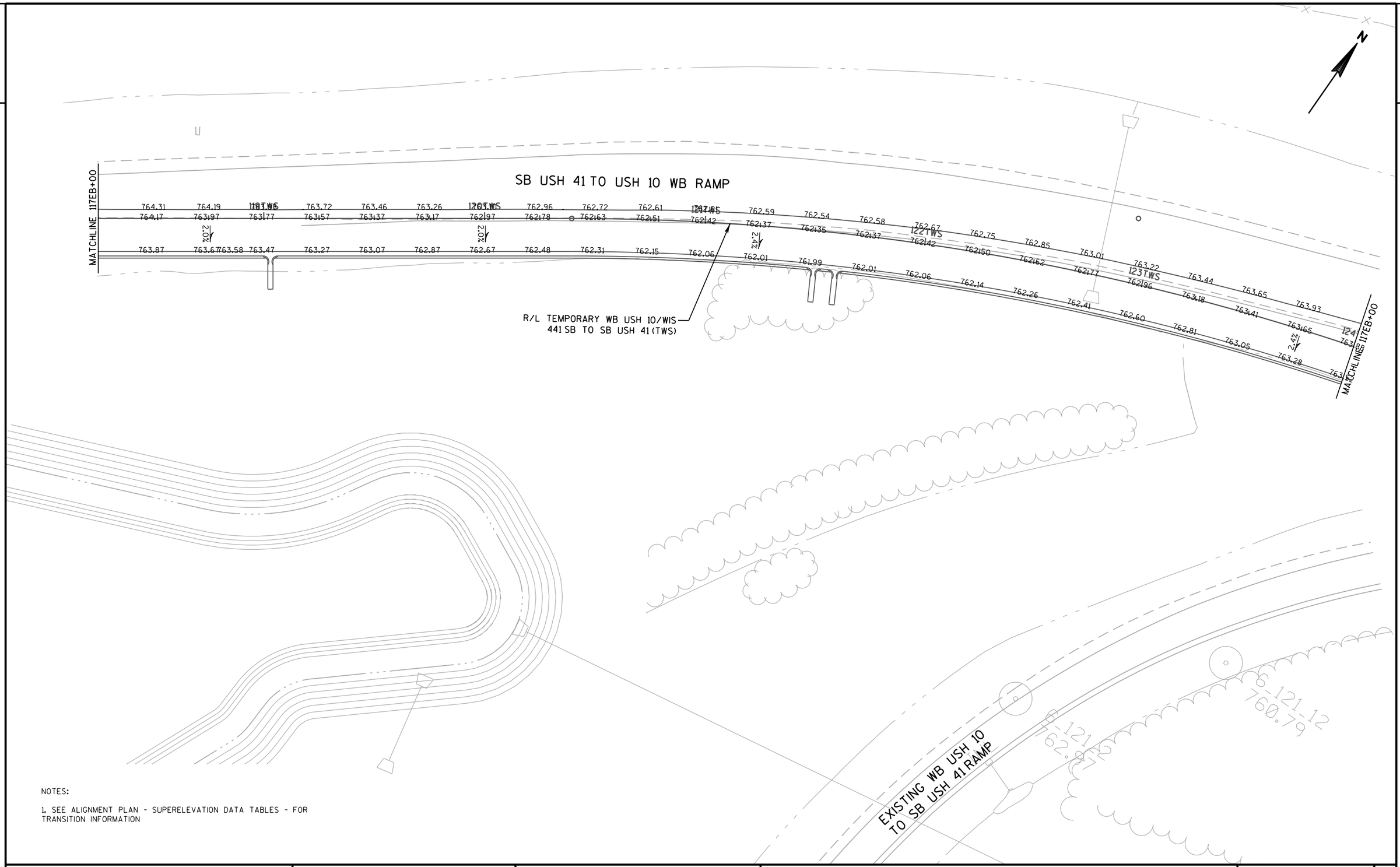
2



NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

2



NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 82	E

2

N

SB USH 41 TO USH 10 WB RAMP

MATCHLINE 117EB+00

125TWS
764.11 764.10 763.92 763.58 763.17 762.75 762.33 761.84 761.53 761.25 761.07 760.85
764.03 764.02 763.85 763.51 763.09 762.68 762.26 761.84 761.46 761.17 760.97 760.85
763.67 763.66 763.49 763.15 762.87 762.73 762.32 761.90 761.48 761.10 760.81 760.48 760.18

126TWS
761.84

127TWS
760.85

2.4%
2.4%
2.4%
5.2%

760.94
760.00

128TWS
129TWS
130TWS

EXISTING WB USH 10
TO SB USH 41 RAMP

INL
INL

R/L TEMPORARY WB USH 10/WIS
441 SB TO SB USH 41 (TWS)

6-121-18
762.71

6-121-12
760.79

NOTES:

1. SEE ALIGNMENT PLAN - SUPERELEVATION DATA TABLES - FOR TRANSITION INFORMATION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVING GRADES	SHEET 83	E

2

AMERICAN DRIVE

BIKE PATH

WALLS

TWS RAMP

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY (TYP)

N

1340SB

1340NB

1335SB

1335NB

USH 10 WB

110EB

115EB

120EB

125EB

130EB

135EB

USH 10 EB

SLOPE INTERCEPT (TYP)

1206FES

FES RAMP

1256FES

USH 41 SB

1330SB

1330NB

USH 41 NB

1325SB

1325NB

LEGEND

DISTURBED WETLAND AREAS

WETLANDS

SLOPE INTERCEPT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DISTURBED WETLAND AREAS	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021850_dw.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

2

2

LEGEND

PHRAGMITES

TEASEL

N

AMERICAN DRIVE

BIKE PATH

SIGN

WALLS

USH 10 WB

USH 10 EB

90EB

95EB

100EB

105EB

110EB

115EB

R/L USH 10 EB

TEASEL

PHRAGMITES

SLOPE INTERCEPTS, TYP

FES RAMP

BERM

COLD SPRING ROAD

MATCHLINE 117EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	INVASIVE SPECIES	SHEET 85	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021900_is.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

PHRAGMITES

TEASEL

N

MATCHLINE 117EB+00

120EB

125EB

130EB

135EB

140EB

145EB

USH 10 EB

USH 10 WB

R/L USH 10 EB

R/L USH 41 SB

R/L USH 41 NB

R/L FES RAMP

SLOPE INTERCEPTS, TYP

USH 41 SB

USH 41 NB

WISCONSIN CENTRAL LTD RR

FWN RAMP

FES RAMP

FSE RAMP

FNE RAMP

120FES

125FES

1340SB

1340NB

1335SB

1335NB

1330SB

1330NB

1325SB

1325NB

MATCHLINE 132ANB+00

PHRAGMITES

TEASEL

FOOTBRIDGE

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	INVASIVE SPECIES	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021901_is.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

LEGEND

PHRAGMITES

TEASEL

N

SLOPE INTERCEPTS, TYP

FES RAMP

R/L FES RAMP

125FES

130FES

135FES

115FWS

TEASEL

TEASEL

TEASEL

PHRAGMITES

1295SB

1295NB

1300SB

1300NB

1305NB

1310SB

1310NB

USH 41 SB

USH 41 NB

1315SB

1315NB

1320SB

1320NB

R/L USH 41 SB

R/L USH 41 NB

PHRAGMITES

PHRAGMITES

TEASEL

TEASEL

TEASEL

MATCHLINE 1324NB+00

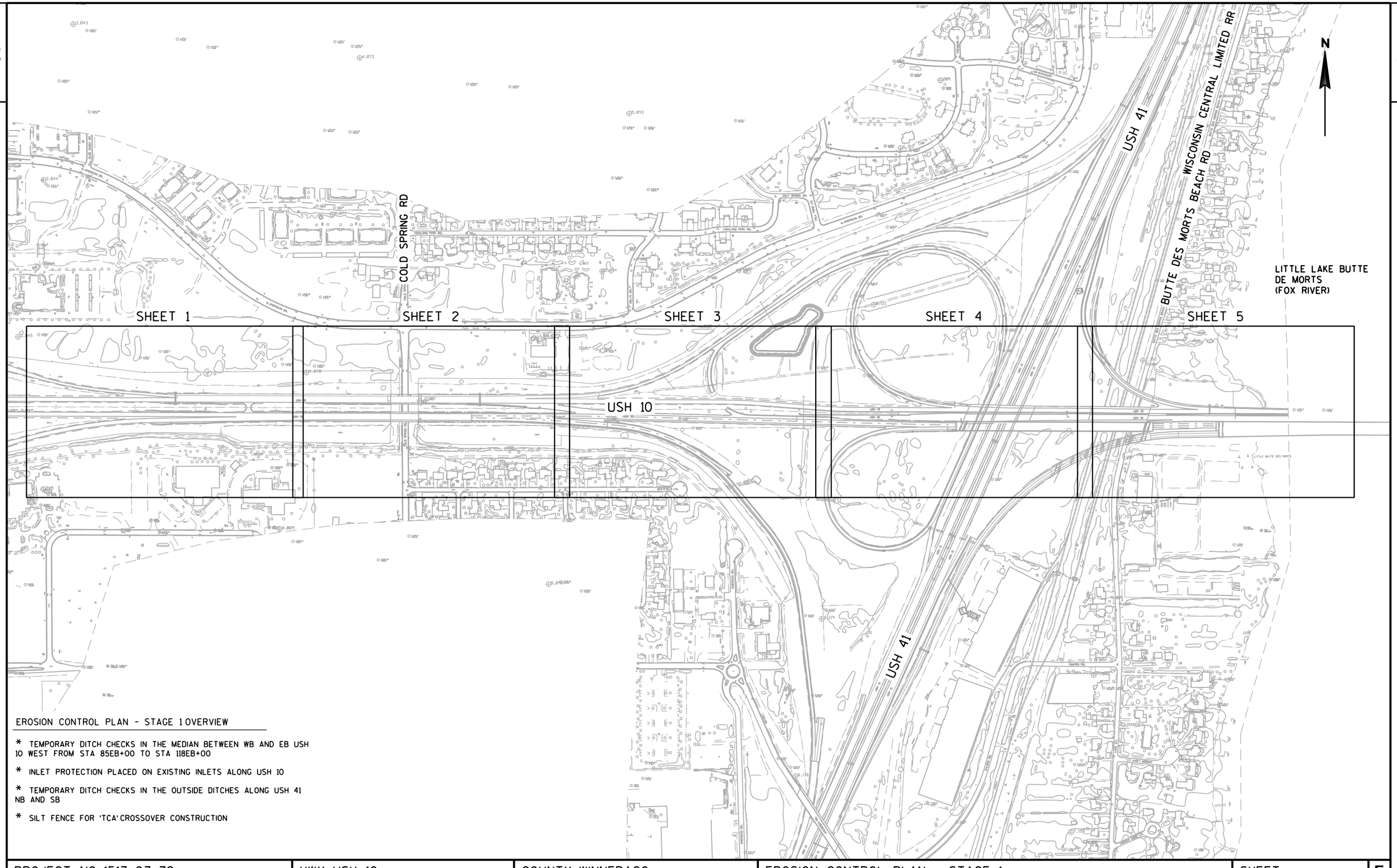
JACOBSEN ROAD

WISCONSIN CENTRAL LTD RR

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	INVASIVE SPECIES	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\021902_is.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

2



EROSION CONTROL PLAN - STAGE 1 OVERVIEW

* TEMPORARY DITCH CHECKS IN THE MEDIAN BETWEEN WB AND EB USH 10 WEST FROM STA 85EB+00 TO STA 118EB+00

* INLET PROTECTION PLACED ON EXISTING INLETS ALONG USH 10

* TEMPORARY DITCH CHECKS IN THE OUTSIDE DITCHES ALONG USH 41 NB AND SB

* SILT FENCE FOR 'TCA' CROSSOVER CONSTRUCTION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET 88	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022000_ec-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

N

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

WB OFFRAMP TO CTH CB

SIGN

R/L WB USH 10

80WB 82WB 84WB 86WB 88WB 90WB 92WB 94WB

USH 10 WB/STH 441 SB

045_20

80EB 82EB 84EB 86EB 88EB 90EB 92EB 94EB

MATCHLINE 94EB+00

USH 10 EB/STH 441 NB

R/L EB USH 10

BEGIN CONSTRUCTION
STA. 83EB+50.63

EB ONRAMP FROM CTH CB

INL

BIKE PATH

42069_18
771.60

4_069_20
772.38

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET 89	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022001_ec-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

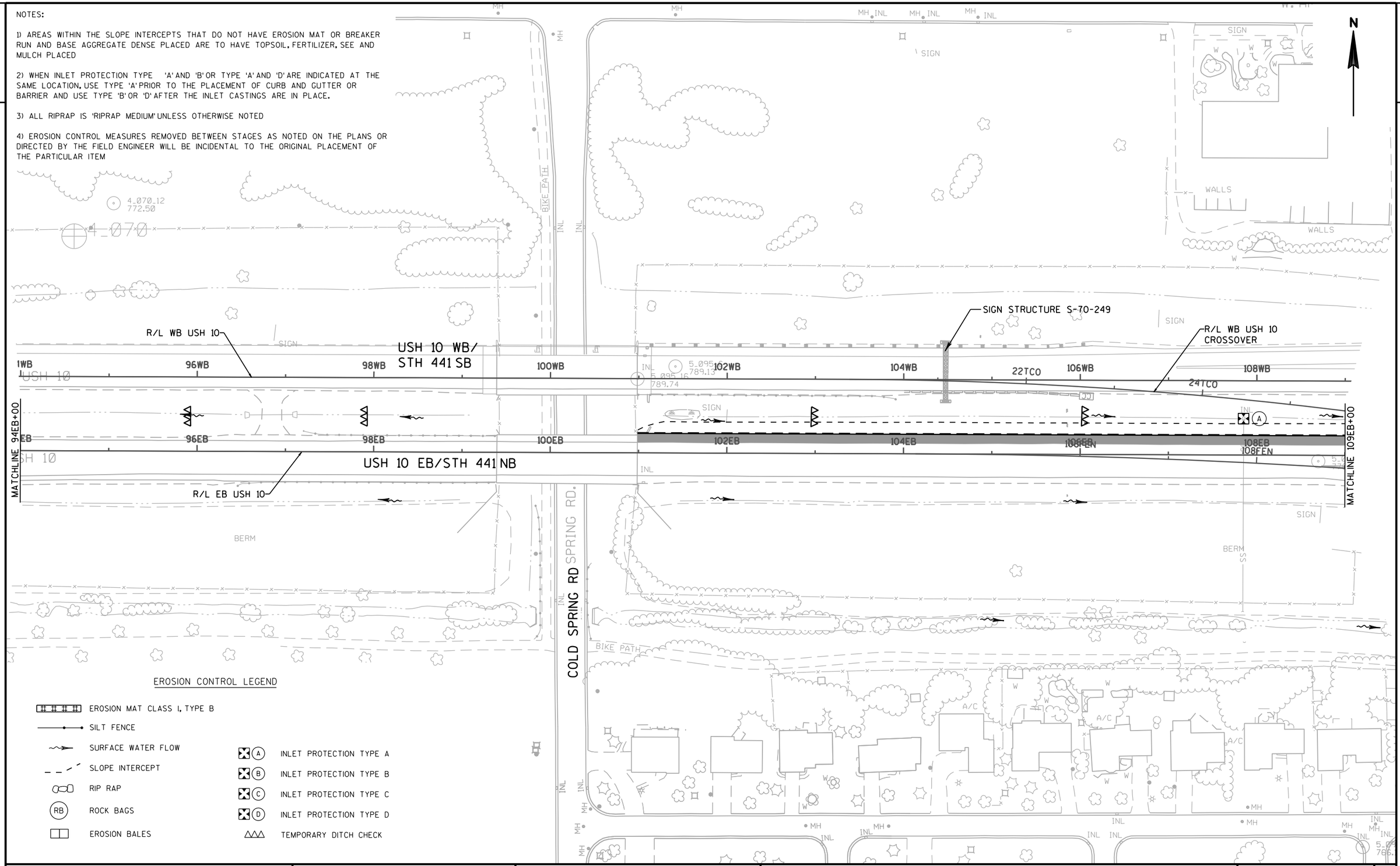
NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM



EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET 90	E

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

N

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

R/L WB USH 10 CROSSOVER

R/L WB USH 10

USH 10 WB/ STH 441 SB

USH 10 EB/ STH 441 NB

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

R/L EB USH 10

R/L EB USH 10/WIS 441 NB TO NB USH 41

R/L EB USH 10/WIS 441 NB TO SB USH 41

WETLAND LIMITS, TYP

WESTFIELD LN.

MATCHLINE 109EB+00

MATCHLINE 124EB+00

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET 91	E

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

WETLAND LIMITS, TYP

DITCH CHECKS SPACED AT 200-FEET ALONG THE EXISTING DITCH BOTTOM, STA 1333NB+50 TO 1342NB+00

R/L USH 10 WB/STH 441 SB

USH 10 WB TO USH 41 SB

USH 10 WB/STH 441 SB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 NB

R/L USH 41 SB

R/L USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

B-70-402

USH 41

USH 10

SIGN

INL

MATCHLINE 124EB+00

MATCHLINE 139EB+00

124WB 126WB 128WB 130WB 132WB 134WB 136WB 138WB

124EB 126EB 128EB 130EB 132EB 134EB 136EB 138EB

1310FSE 1312FSE 1314FSE 1308FSE

1336SE 1334SE 1332SE 1330SE 1328SE

1336SB 1334SB 1332SB 1330SB 1328SB

1336NB 1334NB 1332NB 1330NB 1328NB

148FEN 146FEN 144FEN 142FEN

1332FNE 1330FNE 1328FNE

7_152_16 757.41

7_152_16 757.30

6_120_20 767.46

6_120_18 765.76

7_153_16 759.37

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022004_ec-st1.dgn PLOT DATE : 1/29/2015 PLOT BY : crosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

BUTTE DES

PIER

PIER

150FEN

148FEN

RAILROAD

7_152_12
749.67

7_152_2
750.28

R/L USH 10 WB/STH 441 SB

140WB

142WB

144WB

146WB

USH 10 WB/STH 441 SB

148WB

150WB

152WB

154WB

SIGN

USH 10

7_152_14
791.24

7_152_4
792.26

R/L USH 10 EB/STH 441 NB

MATCHLINE 139EB+00

140EB

142EB

144EB

146EB

1338FNE

1340FNE

SIGN

USH 10 EB/STH 441 NB

148EB

150EB

152EB

154EB

1342FNE

1344FNE

1346FNE

1348

1334FNE

LAKE ST.

B-70-403

END CONSTRUCTION
STA. 146EB+54.03

R/L USH 41 NB TO USH 10
EB/STH 441 NB RAMP (FNE)

B-70-402

7_152_18
754.59

7_152_20
751.31

LITTLE BUTTE DES MORTS

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

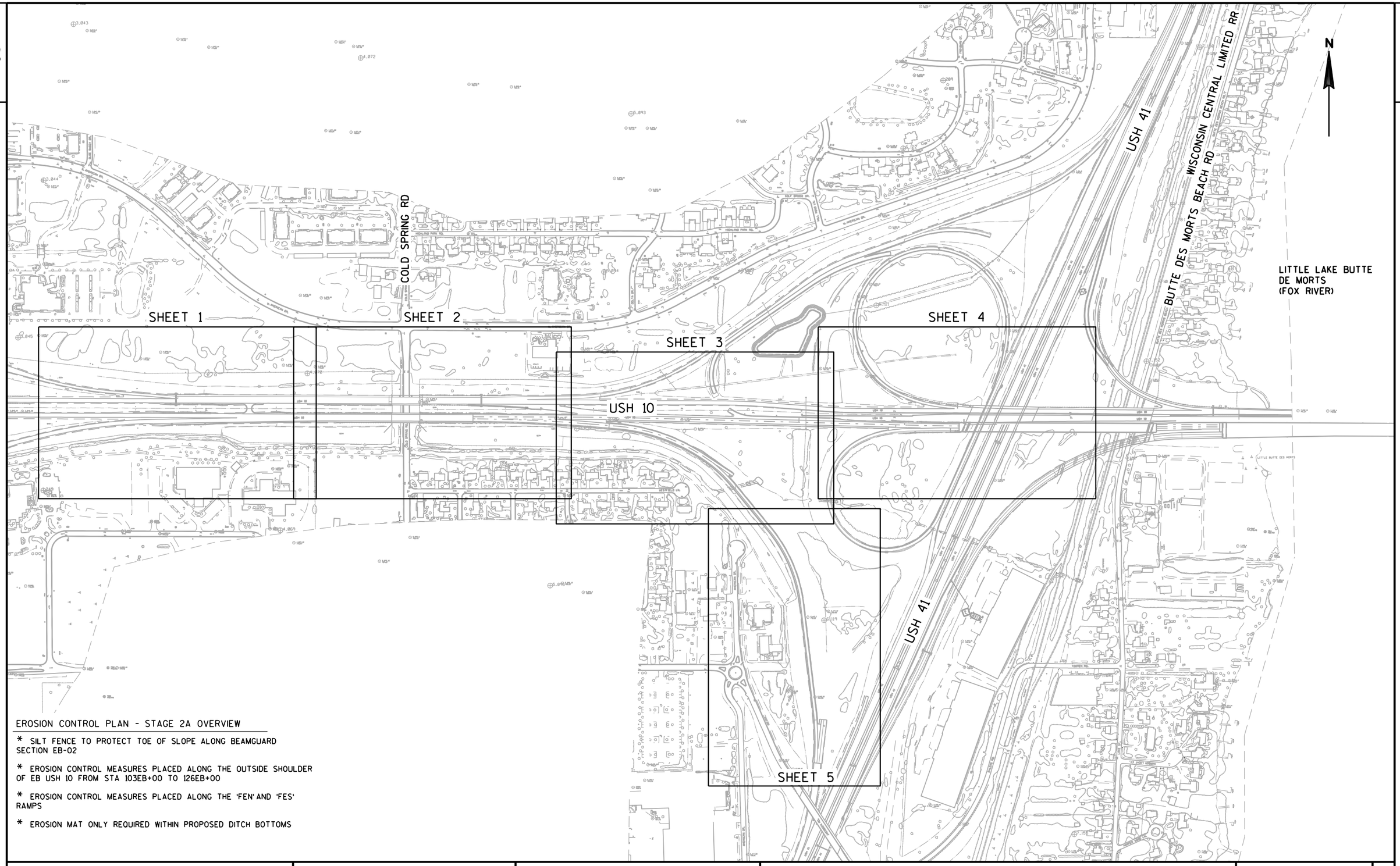
4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 1	SHEET 93	E

2



EROSION CONTROL PLAN - STAGE 2A OVERVIEW

* SILT FENCE TO PROTECT TOE OF SLOPE ALONG BEAMGUARD SECTION EB-02

* EROSION CONTROL MEASURES PLACED ALONG THE OUTSIDE SHOULDER OF EB USH 10 FROM STA 103EB+00 TO 126EB+00

* EROSION CONTROL MEASURES PLACED ALONG THE 'FEN' AND 'FES' RAMPS

* EROSION MAT ONLY REQUIRED WITHIN PROPOSED DITCH BOTTOMS

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022010_ec-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 500:1

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

N

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

SIGN

USH 10 WB OFFRAMP
TO CTH CB

SIGN

R/L WB USH 10

SIGN

80WB 82WB 84WB 86WB 88WB 90WB 92WB 94WB

USH 10 WB/
STH 441 SB

USH 10

INL A D

80EB 82EB 84EB 86EB 88EB 90EB 92EB 94EB

MATCHLINE 94EB+50

USH 10 EB/STH 441 NB

USH 10

SIGN

R/L EB USH 10

USH 10 EB ONRAMP
FROM CTH CB

INL

BIKE PATH

4_069_18
771.60

4_069_20
772.38

INL

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022011_ec-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

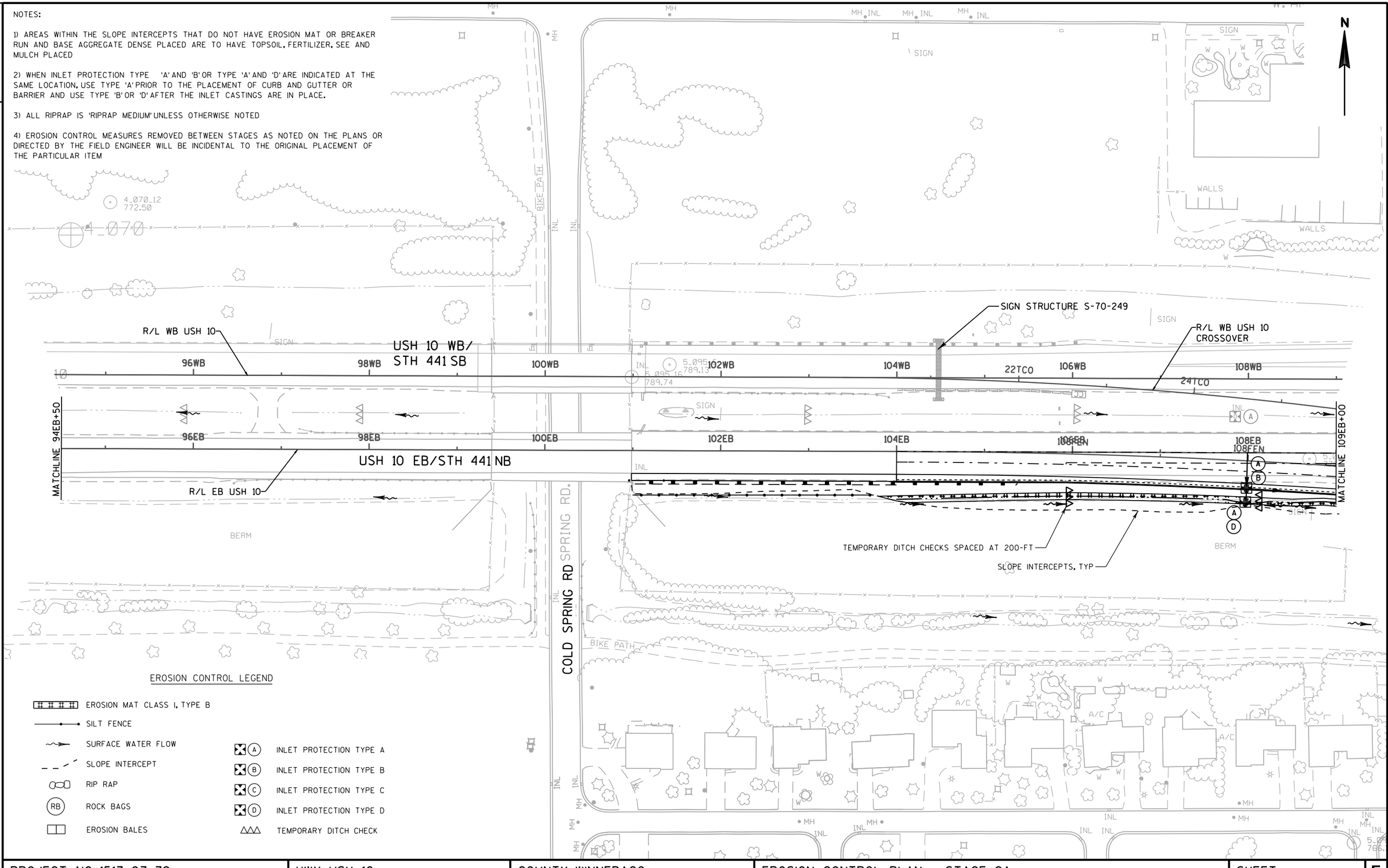
NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM



EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET 96	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022012_ec-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 100:1

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

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N

WETLAND BOUNDARY, TYP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

SB USH 41 TO USH 10 WB RAMP

SIGN

R/L WB USH 10

R/L WB USH 10 CROSSOVER

110WB 112WB 114WB 116WB 118WB 120WB 122WB 124WB

USH 10

USH 10 WB/ STH 441 SB

SM120

SM121

SM122

SM123

26TCO 28TCO 30TCO

110EB 110FEN 112EB 112FEN 114EB 116EB 118EB 120EB 122EB

INL

24" RCCP

MATCHLINE 109EB+00

MATCHLINE 124EB+00

USH 10 EB/STH 441 NB

R/L EB USH 10

114FEN 116FEN 118FEN 120FEN 122FEN 124FEN

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

TEMPORARY DITCH CHECKS SPACED AT 200-FT

SLOPE INTERCEPTS, TYP

R/L EB USH 10/WIS 441 NB TO NB USH 41

R/L EB USH 10/WIS 441 NB TO SB USH 41

WETLAND LIMITS, TYP

MATCHLINE 122FES+25

1314FSE

1316FSE

BIKE PATH

WESTFIELD LN.

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET 97	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022013_ec-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

N

WETLAND BOUNDARY, TYP

R/L USH 10 WB/STH 441 SB

USH 10 WB TO USH 41 SB

USH 10 WB/STH 441 SB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 NB

R/L USH 41 SB

R/L USH 10 EB/STH 441 NB

USH 10

USH 10 EB/STH 441 NB

MATCHLINE 124EB+00

EB+25.62
65' RT

EB+92.36
86' RT

SLOPE INTERCEPTS, TYP

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

B-70-402

USH 41

SIGN

INL

124WB 126WB 128WB 130WB 132WB 134WB 136WB 138WB

126EB 128EB 130EB 132EB 134EB 136EB 138EB

1310FSE 1312FSE 1314FSE

1332FSE 1330FSE 1328FSE

1332SB 1330SB 1328SB

1332NB 1330NB 1328NB

1334SB 1336SB

1334NB 1336NB

1334FSE 1336FSE

1332FNE 1330FNE 1328FNE

144FEN 146FEN 148FEN 142FEN

7_152_16 757.41

7_153_16 759.37

6_120_20 767.46

6_120_18 765.76

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET 98	E

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

AMERICAN DR.
BIKE PATH
SLOPE INTERCEPTS, TYP
MATCHLINE 122FES+25
BERM
124FES
126FES
128FES
130FES
132FES
134FES
136FES
FES+48.88 97.09' RT
FES+06.81 92.15' RT
FES+74.08 91.28' RT
FES+37.42 78.94' RT
USH 10 EB/STH 441 NB TO SB USH 41 RAMP
R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP
R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP
R/L NB USH 41
R/L SB USH 41
WETLAND BOUNDARY, TYP
1310SB
1310NB
1310FNW
1312SB
1312NB
1312FNW
1314SB
124FEN
126FEN
1318FSE

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2A	SHEET 99	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022015_ec-st2a.dgn PLOT DATE : 1/29/2015 PLOT BY : crosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

COLD SPRING RD

SHEET 1

SHEET 3

USH 41

BUTTE DES MORTS BEACH RD

WISCONSIN CENTRAL LIMITED RR

LITTLE LAKE BUTTE
DE MORTS
(FOX RIVER)

USH 10

SHEET 2

USH 41

EROSION CONTROL PLAN - STAGE 2B OVERVIEW

* FINAL EROSION CONTROL MEASURES PLACED ALONG THE MEDIAN DITCH OF EB USH 10 FROM STA 108EB+00 TO 123EB+50

* EROSION CONTROL MEASURES PLACED ALONG THE TWS RAMP NORTH OF EXISTING USH 10 WB

* EROSION MAT ONLY REQUIRED WITHIN PROPOSED DITCH BOTTOMS

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2B	SHEET 100	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022020_ec-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

PLACE ROCK BAGS IN CULVERT INTAKE BENEATH MAINTENANCE CROSSOVER, STA 91EB+78

R/L WB USH 10

USH 10 WB/ STH 441 SB

SIGN STRUCTURE S-70-249

SLOPE INTERCEPTS, TYP

R/L WB USH 10 CROSSOVER

USH 10 EB/STH 441 NB

R/L EB USH 10

MATCHLINE 109EB+00

COLD SPRING RD

SPRING RD.

BIKE PATH

BERM

WALLS

SIGN

N

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2B	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022022_ec-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

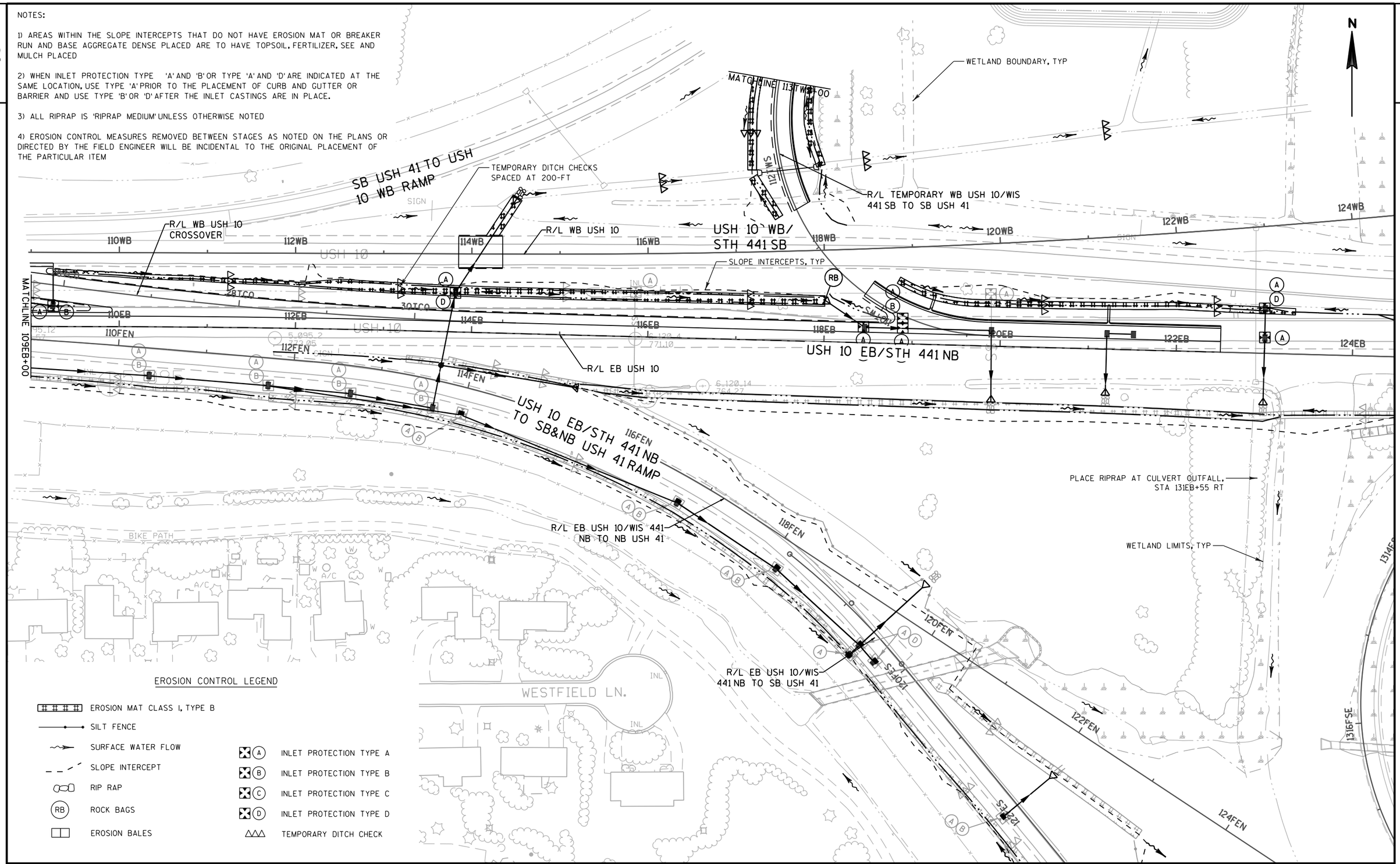
NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM



EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2B	SHEET E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022023_ec-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 100:1

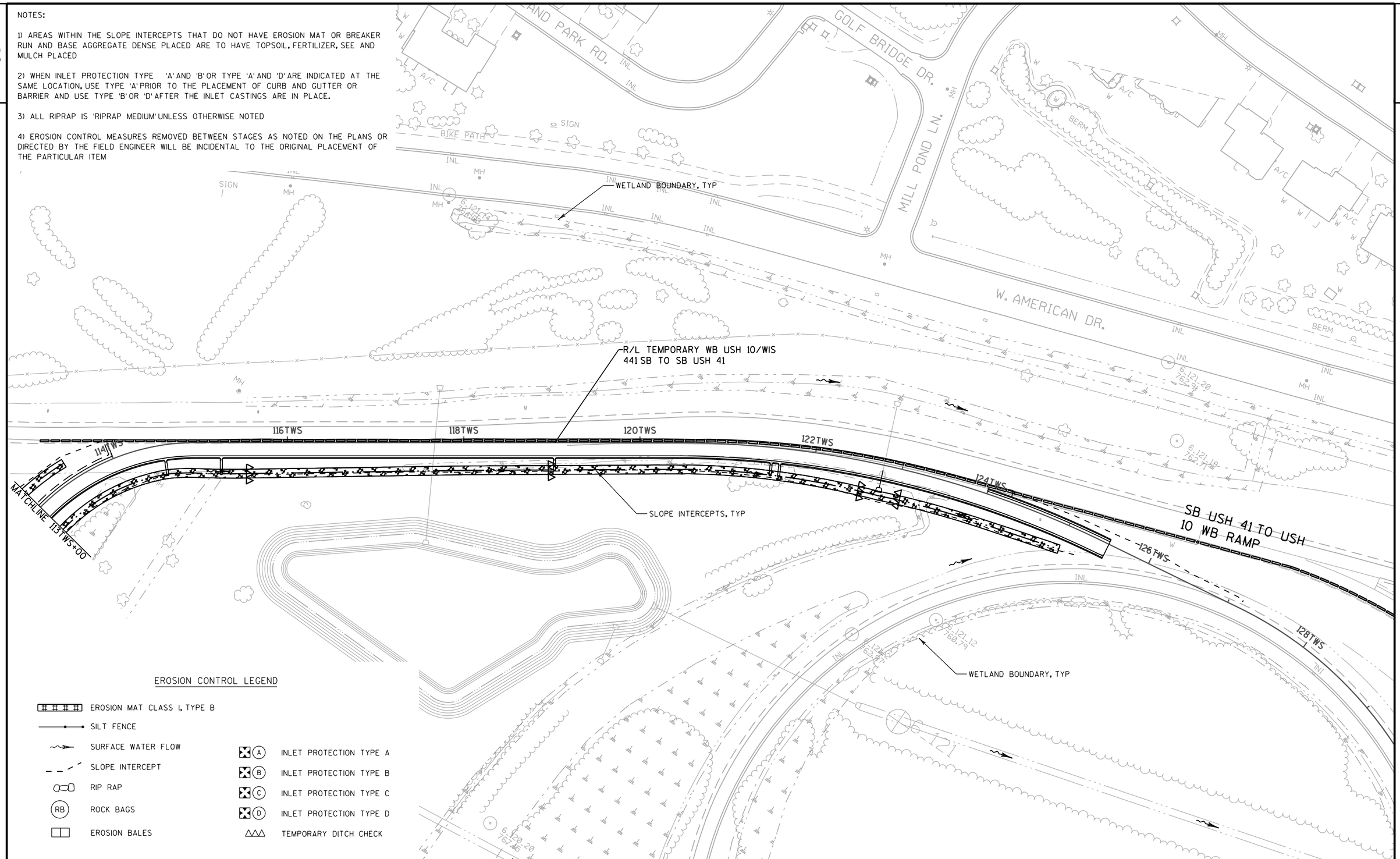
NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 2B	SHEET 103	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022024_ec-st2b.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

COLD SPRING RD

USH 10

USH 41

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

LITTLE LAKE BUTTE DE MORTS (FOX RIVER)

N

SHEET 1

EROSION CONTROL PLAN - STAGE 3 OVERVIEW

* REMOVE SILT FENCE PLACED IN STAGE 1 BETWEEN STRUCTURE B-70-400 AND B-70-403

* INSTALL INLET PROTECTION FOR STORM SEWER STRUCTURES PLACED WITHIN THE MEDIAN SHOULDER OF EB USH 10 BETWEEN STRUCTURES B-70-400 AND B-70-403

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 3	SHEET 104	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022030_ec-st3.dgn PLOT DATE : 1/29/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

2

2

N

BUTTE DES

PIER

PIER

150FEN

148FEN

RAILROAD

7_152_12
749.67

7_152_2
750.28

R/L USH 10 WB/STH 441 SB

140WB

142WB

144WB

146WB

148WB

150WB

152WB

154WB

USH 10 WB/STH 441 SB

SIGN

USH 10

7_152_14
791.24

7_152_4
792.26

SLOPE INTERCEPTS, TYP

R/L USH 10 EB/STH 441 NB

RB

A

B

D

140EB

142EB

146EB

148EB

150EB

152EB

154EB

1336FNE

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1348

USH 10 EB/STH 441 NB

1334FNE

LAKE ST.

B-70-403

END CONSTRUCTION
STA. 146EB+54.03

R/L USH 41 NB TO USH 10
EB/STH 441 NB RAMP (FNE)

B-70-402

MH

7_152_18
754.59

7_152_20
751.31

LITTLE BUTTE DES MORTS

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

2) WHEN INLET PROTECTION TYPE 'A' AND 'B' OR TYPE 'A' AND 'D' ARE INDICATED AT THE SAME LOCATION, USE TYPE 'A' PRIOR TO THE PLACEMENT OF CURB AND GUTTER OR BARRIER AND USE TYPE 'B' OR 'D' AFTER THE INLET CASTINGS ARE IN PLACE.

3) ALL RIPRAP IS 'RIPRAP MEDIUM' UNLESS OTHERWISE NOTED

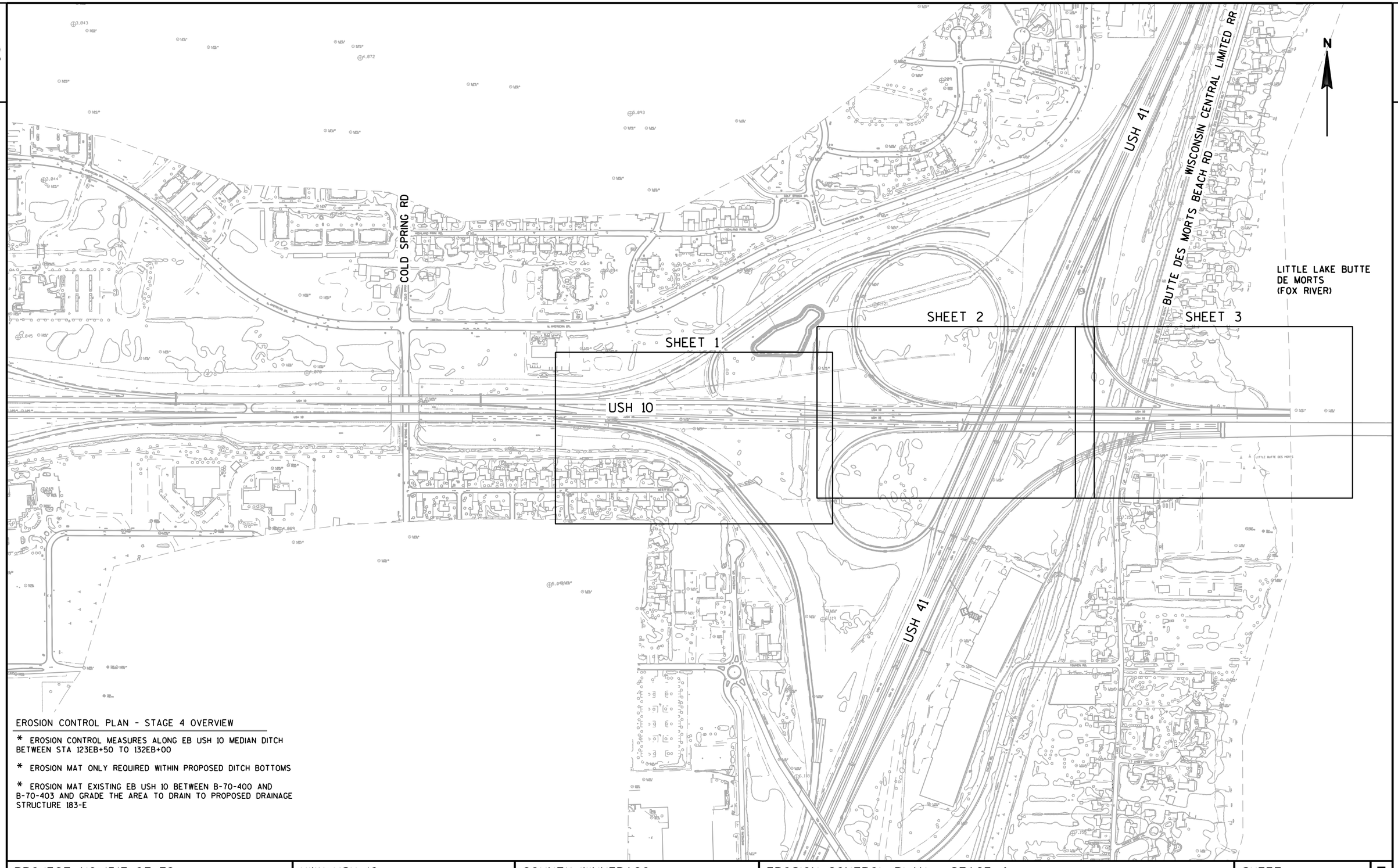
4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 3	SHEET 105	E

2



EROSION CONTROL PLAN - STAGE 4 OVERVIEW

* EROSION CONTROL MEASURES ALONG EB USH 10 MEDIAN DITCH BETWEEN STA 123EB+50 TO 132EB+00

* EROSION MAT ONLY REQUIRED WITHIN PROPOSED DITCH BOTTOMS

* EROSION MAT EXISTING EB USH 10 BETWEEN B-70-400 AND B-70-403 AND GRADE THE AREA TO DRAIN TO PROPOSED DRAINAGE STRUCTURE 183-E

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 4	SHEET 106	E

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

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4) EROSION CONTROL MEASURES REMOVED BETWEEN STAGES AS NOTED ON THE PLANS OR DIRECTED BY THE FIELD ENGINEER WILL BE INCIDENTAL TO THE ORIGINAL PLACEMENT OF THE PARTICULAR ITEM

N

WETLAND BOUNDARY, TYP

SB USH 41 TO USH 10 WB RAMP

R/L WB USH 10 CROSSOVER

R/L WB USH 10

USH 10 WB/ STH 441 SB

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

110WB 112WB 114WB 116WB 118WB 120WB 122WB 124WB

USH 10

28TCO 30TCO

110EB 110FEN 112EB 112FEN 114EB 114FEN 116EB 118EB 120EB 122EB

USH 10

R/L EB USH 10

USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

116FEN 118FEN 120FEN 122FEN 124FEN

SLOPE INTERCEPTS, TYP

WETLAND LIMITS, TYP

MATCHLINE 124EB+00

R/L EB USH 10/WIS 441 NB TO NB USH 41

R/L EB USH 10/WIS 441 NB TO SB USH 41

BIKE PATH

WESTFIELD LN.

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- ROCK BAGS
- EROSION BALES
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 4	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022041_ec-st4.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

N

WETLAND BOUNDARY, TYP

R/L USH 10 WB/STH 441 SB

USH 10 WB/STH 441 SB

USH 10 WB TO USH 41 SB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

R/L USH 41 NB

R/L USH 41 SB

R/L USH 10 EB/STH 441 NB

USH 10

USH 10 EB/STH 441 NB

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP

SLOPE INTERCEPTS, TYP

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP

B-70-402

USH 41

SIGN

MATCHLINE 124EB+00

MATCHLINE 139EB+00

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 4	SHEET 108	E

2

N

BUTTE DES

PIER

PIER

150FEN

148FEN

RAILROAD

7_152_12
749.67

7_152_2
750.28

R/L USH 10 WB/STH 441 SB

140WB

142WB

144WB

146WB

148WB

150WB

152WB

154WB

USH 10 WB/STH 441 SB

SIGN

USH 10

SLOPE INTERCEPTS, TYP

7_152_14
791.24

7_152_4
792.26

R/L USH 10 EB/STH 441 NB

MATCHLINE 139EB+00

140EB

142EB

144EB

146EB

148EB

150EB

152EB

154EB

USH 10 EB/STH 441 NB

1338FNE

1340FNE

1336FNE

1342FNE

1344FNE

1346FNE

1348

1334FNE

LAKE ST.

GRADE AREA TO DRAIN
TO THE WEST

B-70-403

END CONSTRUCTION
STA. 146EB+54.03

R/L USH 41 NB TO USH 10
EB/STH 441 NB RAMP (FNE)

B-70-402

7_152_18
754.59

7_152_20
751.31

LITTLE BUTTE DES MORTS

NOTES:

1) AREAS WITHIN THE SLOPE INTERCEPTS THAT DO NOT HAVE EROSION MAT OR BREAKER RUN AND BASE AGGREGATE DENSE PLACED ARE TO HAVE TOPSOIL, FERTILIZER, SEE AND MULCH PLACED

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EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 4	SHEET 109	E

2

2

N

COLD SPRING RD

USH 41

BUTTE DES MORTS BEACH RD

WISCONSIN CENTRAL LIMITED RR

SHEET 1

USH 10

LITTLE LAKE BUTTE DE MORTS (FOX RIVER)

USH 41

EROSION CONTROL PLAN - STAGE 5 OVERVIEW

* EROSION MAT ALONG RAMP 'TWS'

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 5	SHEET 110	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022050_ec-st5.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

NOTES:

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N

WETLAND BOUNDARY, TYP

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

R/L WB USH 10 CROSSOVER

R/L WB USH 10

USH 10 WB/ STH 441 SB

USH 10 EB/STH 441 NB

R/L EB USH 10

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO NB USH 41

R/L EB USH 10/WIS 441 NB TO SB USH 41

WETLAND LIMITS, TYP

SLOPE INTERCEPTS, TYP

BIKE PATH

WESTFIELD LN.

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- RIP RAP
- (RB) ROCK BAGS
- EROSION BALES
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - STAGE 5	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\022051_ec-st5.dgn PLOT DATE : 1/29/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

138WB
140WB
142WB
144WB
146WB
148WB
150WB
152WB

STA 138+16EB, 130.3'LT
12" APRON ENDWALL
191

R/L USH 10 WB

STA 137+90EB, 72.7'LT
12" CONCRETE COLLAR
190

USH 10 WB
USH 10
USH 10 EB
USH 10

138EB
140EB
142EB
144EB
146EB
148EB
150EB
152EB

STA 144EB+64, 18.5'LT
15" CONCRETE COLLAR
END SLOTTED DRAIN
181

STA 145EB+97, 21.4'LT
BEGIN SLOTTED DRAIN

140 LF 15" SLOTTED DRAIN

R/L USH 10 EB

STA 142+78EB, 33.5'RT
15" CONCRETE COLLAR
182

LAKE ST.

7_152_14
791.24

7_152_
792.26

11917
791.27

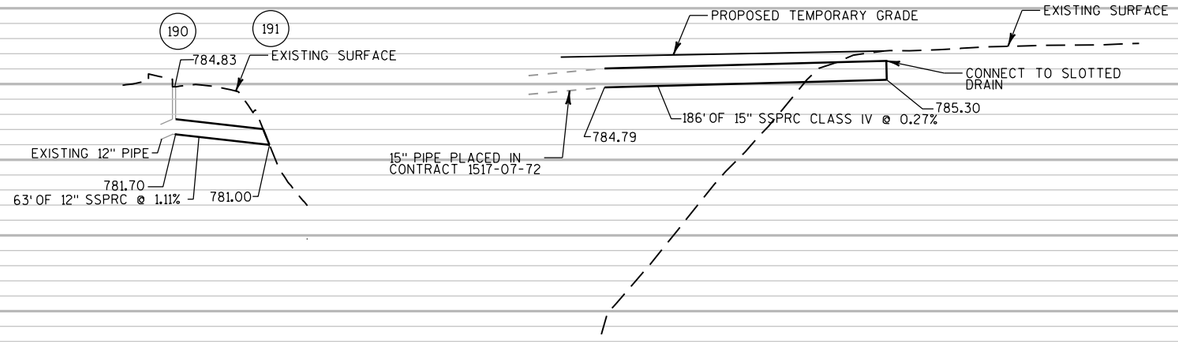
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7_152_18
784.59

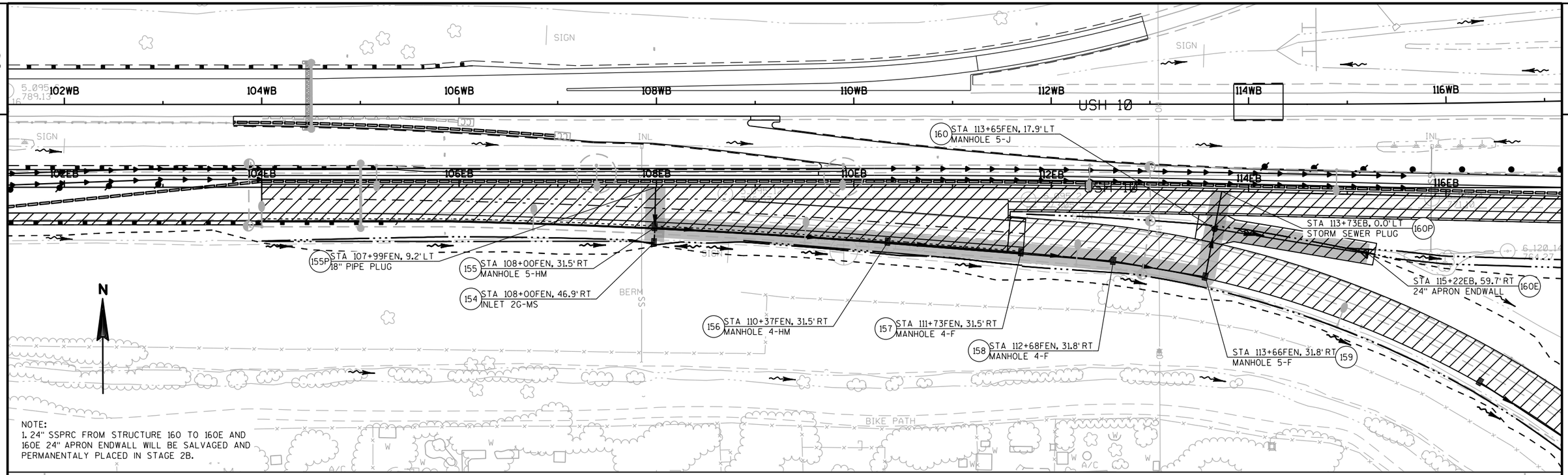
WETLAND BOUNDARY (TYP)

LITTLE BUTTE DES MORTS

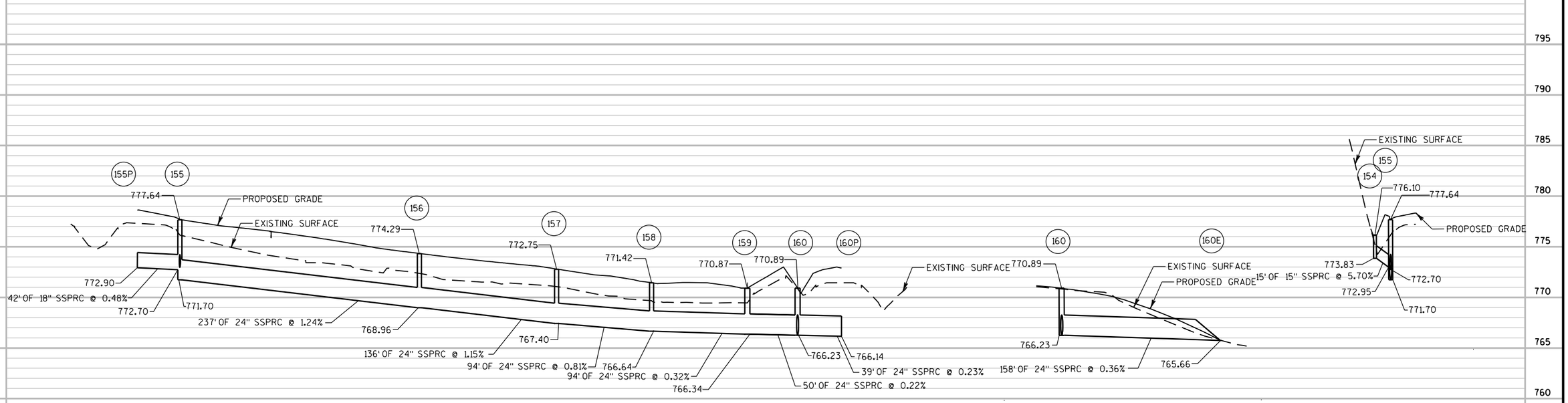
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER - STAGE 1	SHEET 112 E

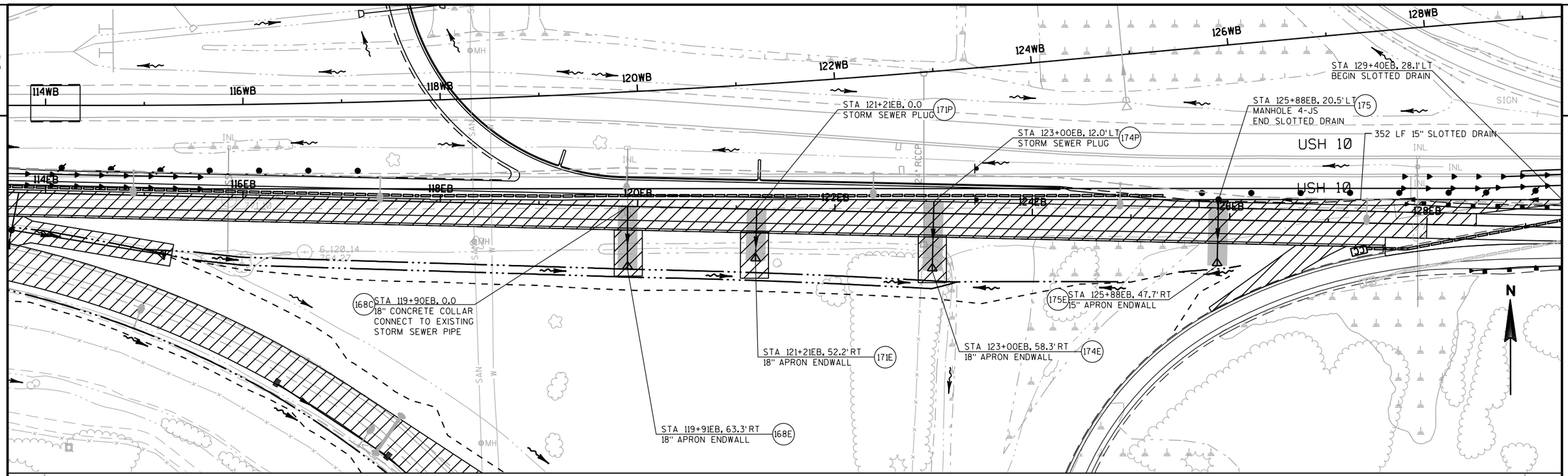


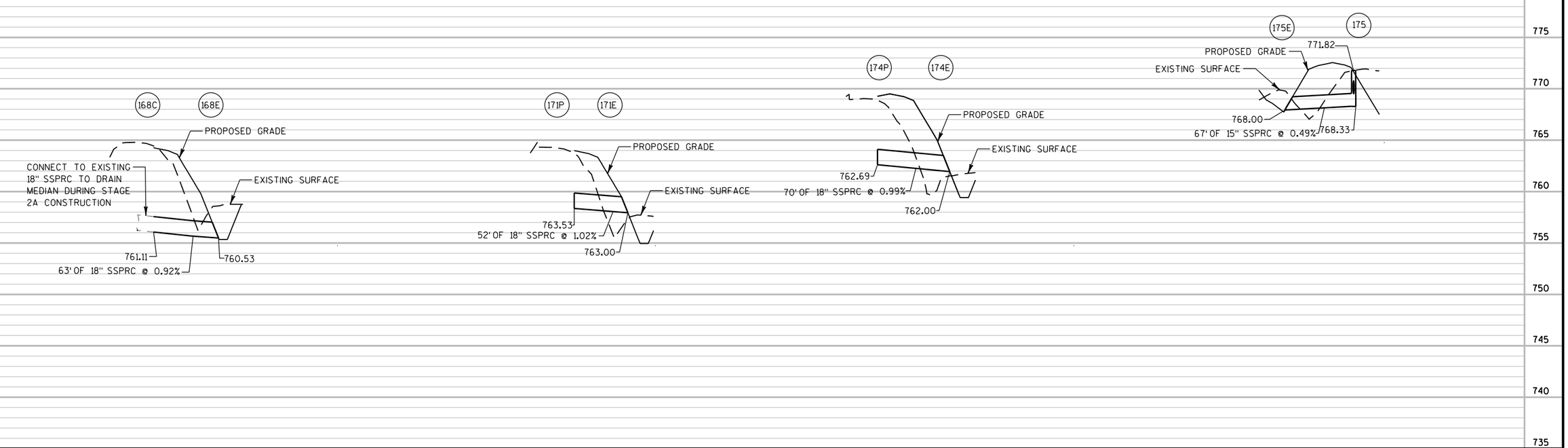
NOTE:
1. 24" SSPRC FROM STRUCTURE 160 TO 160E AND 160E 24" APRON ENDWALL WILL BE SALVAGED AND PERMANENTALY PLACED IN STAGE 2B.



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER - STAGE 2A	SHEET 113 E

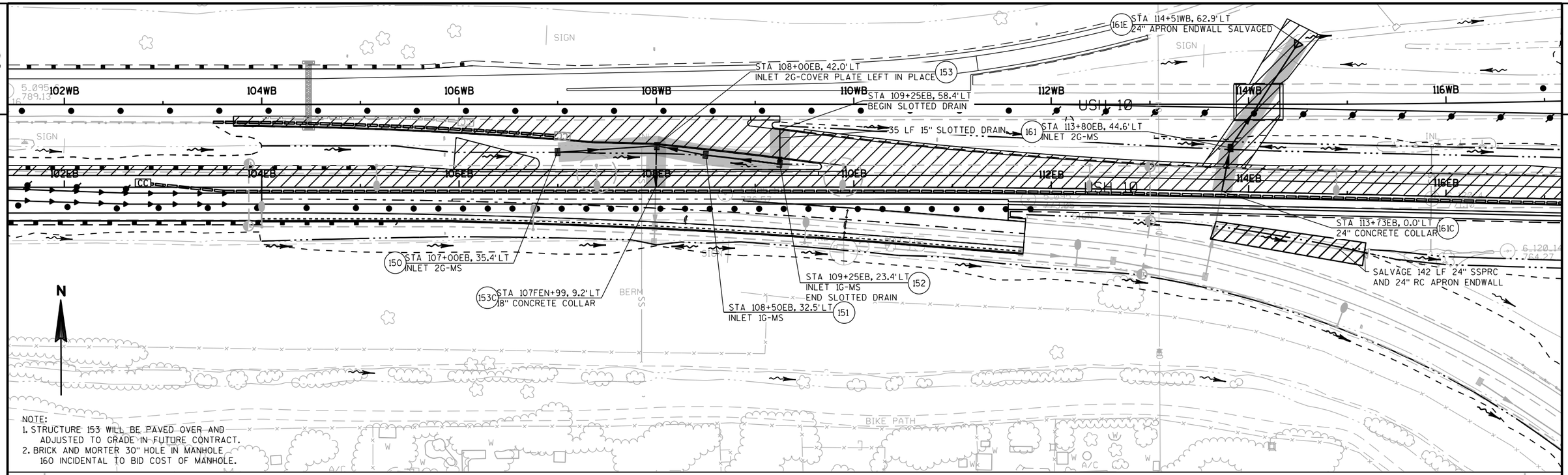
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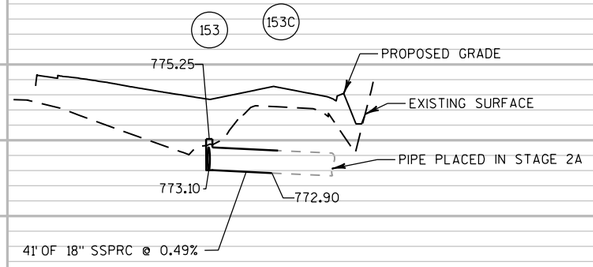


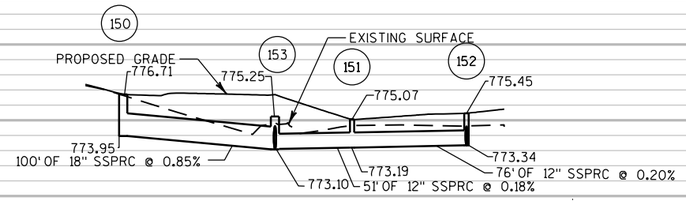
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER - STAGE 2A	SHEET 114 E

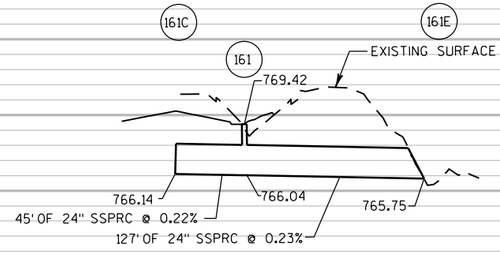
2



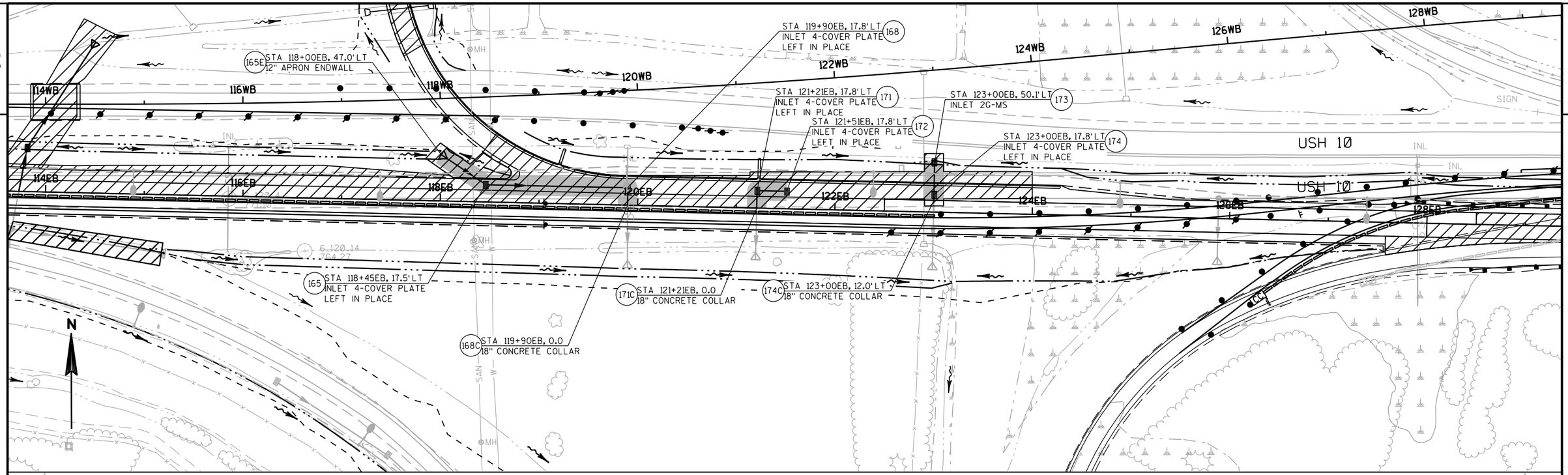
NOTE:
1. STRUCTURE 153 WILL BE PAVED OVER AND ADJUSTED TO GRADE IN FUTURE CONTRACT.
2. BRICK AND MORTER 30" HOLE IN MANHOLE 160 INCIDENTAL TO BID COST OF MANHOLE.

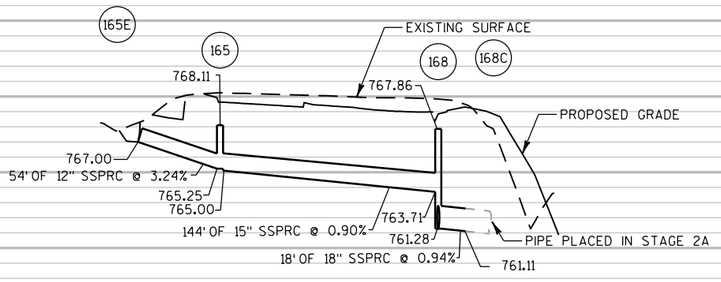


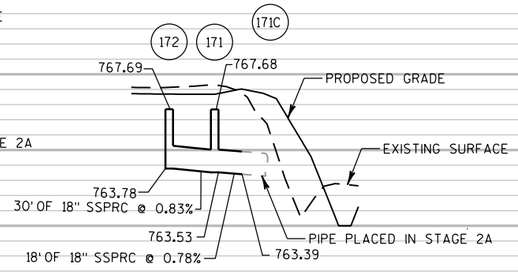


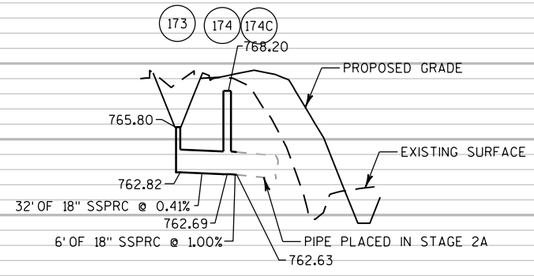


PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER - STAGE 2B	SHEET 115 E



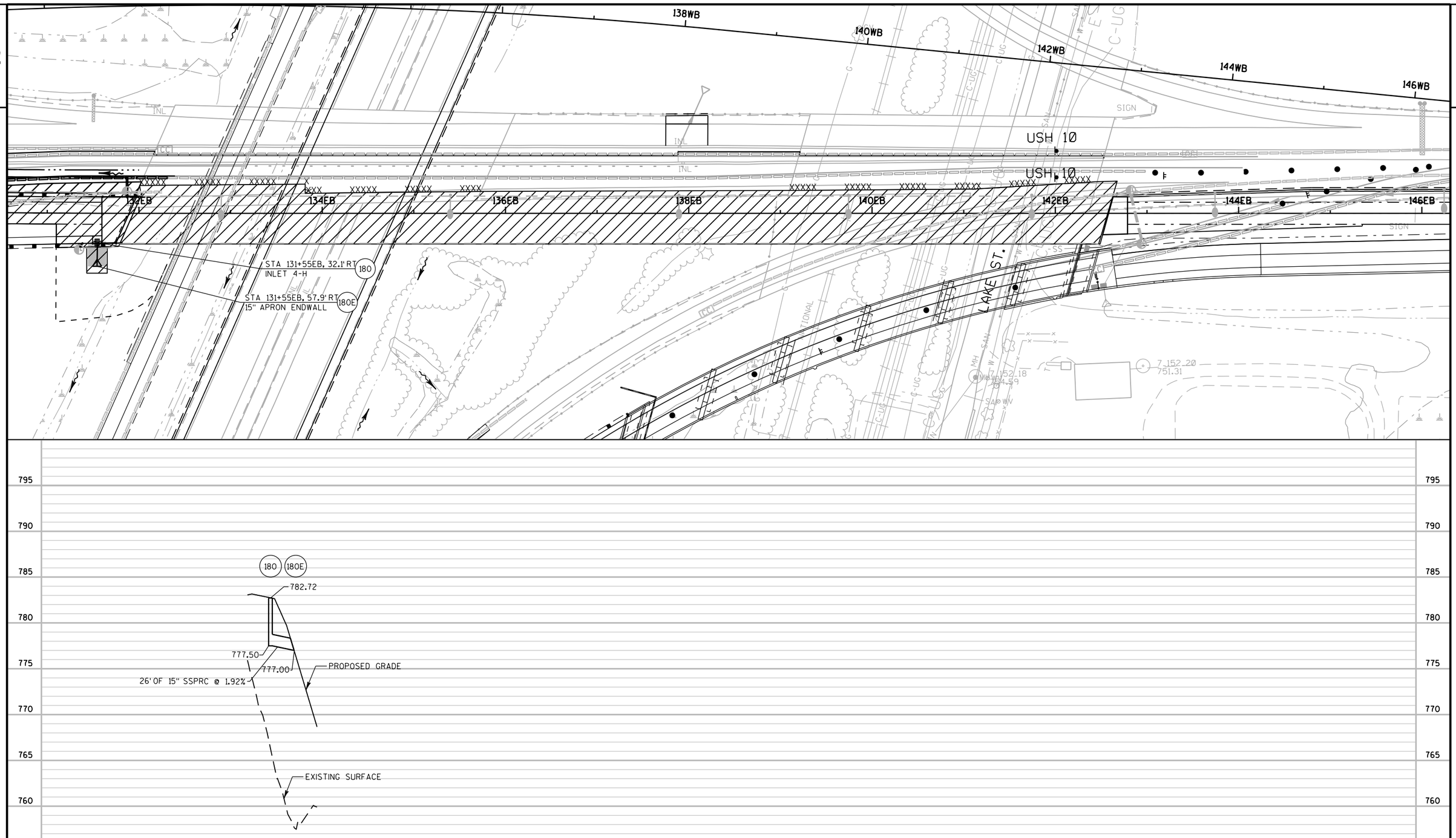




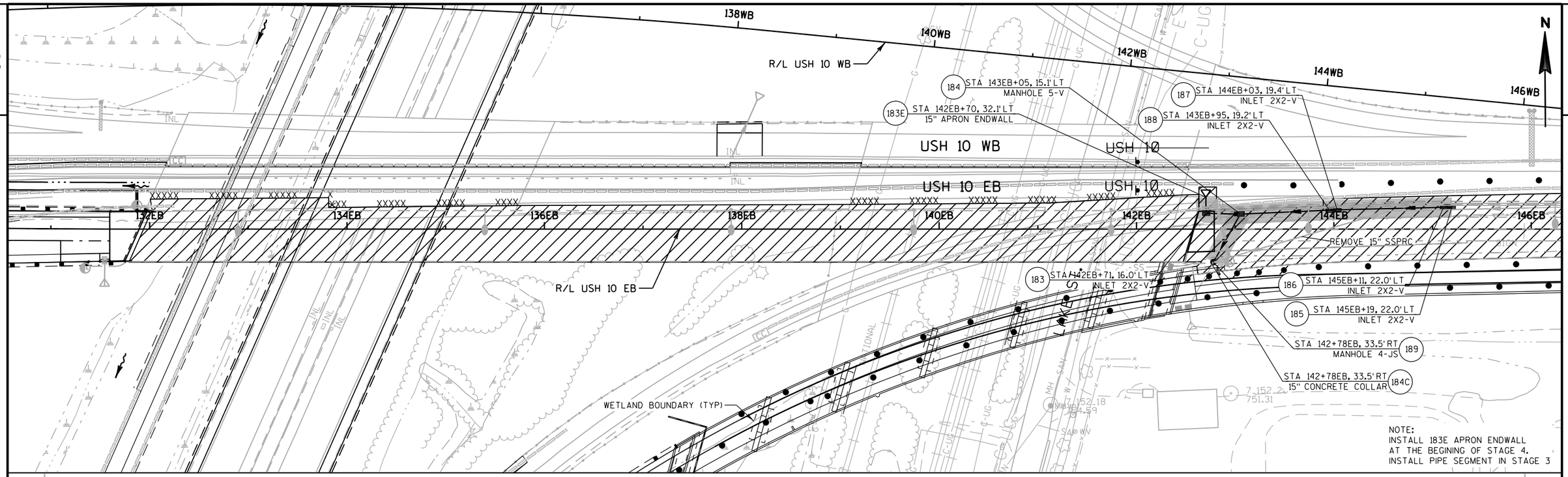


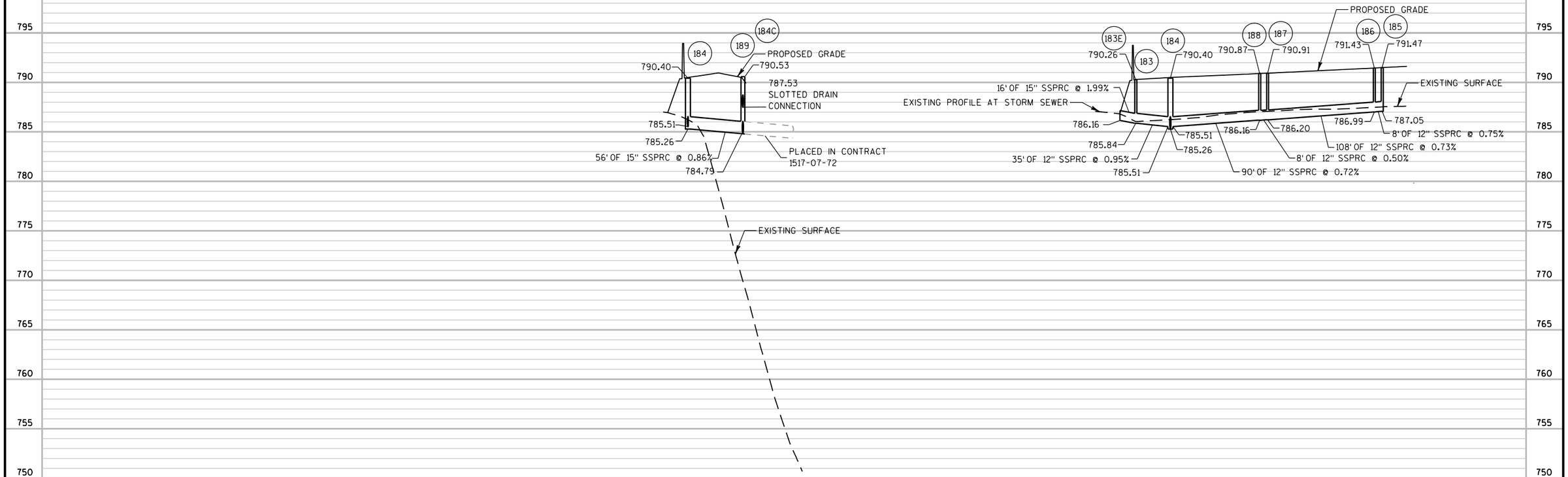
785 780 775 770 765 760 755 750 745 740

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER - STAGE 2B	SHEET 116	E

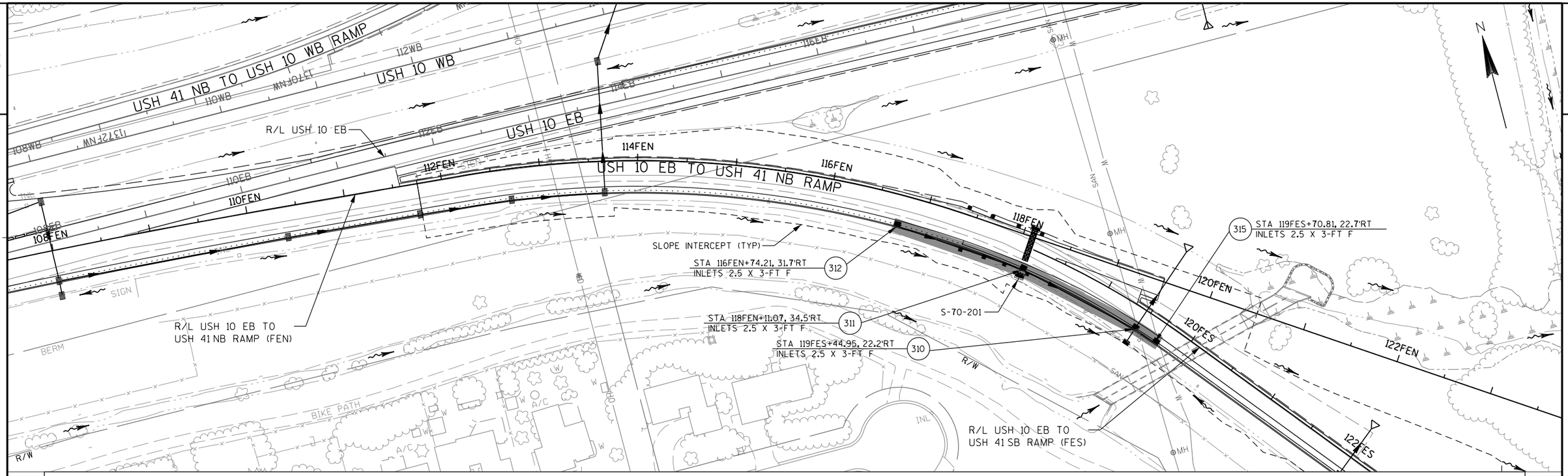


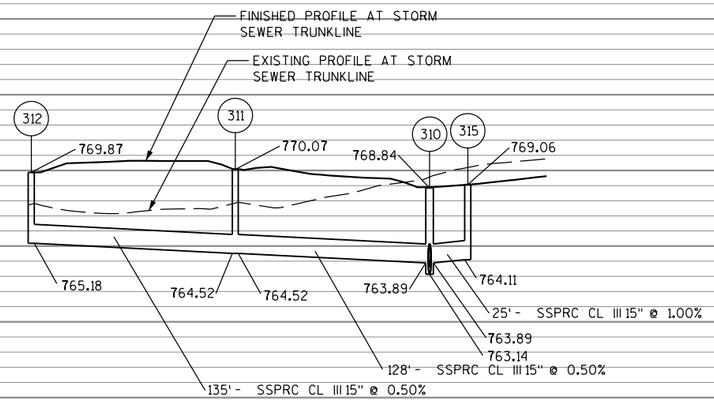
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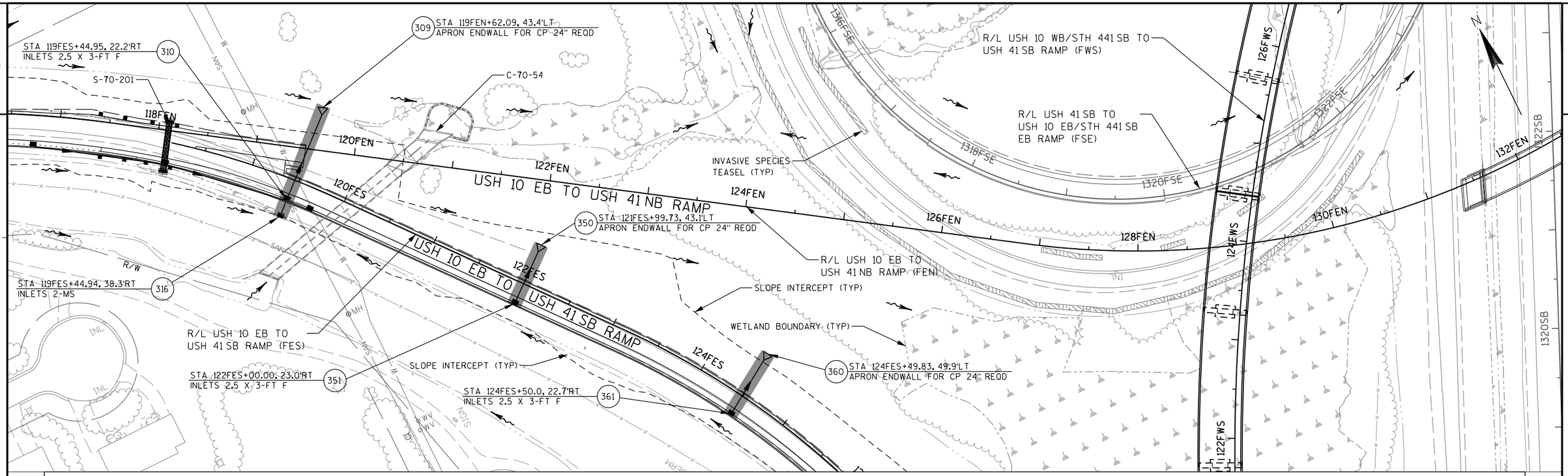


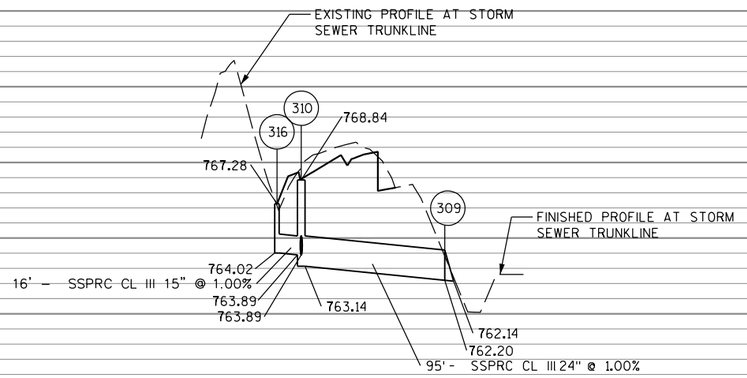
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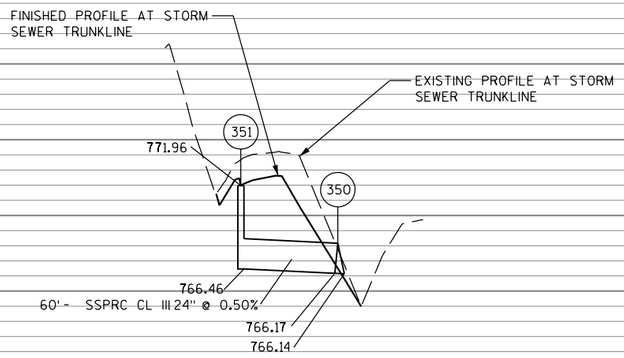


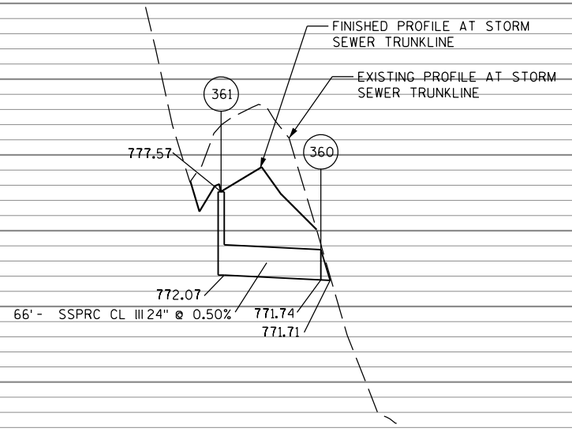


PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER PLAN AND PROFILE : FEN & FES RAMPS	SHEET 119 E





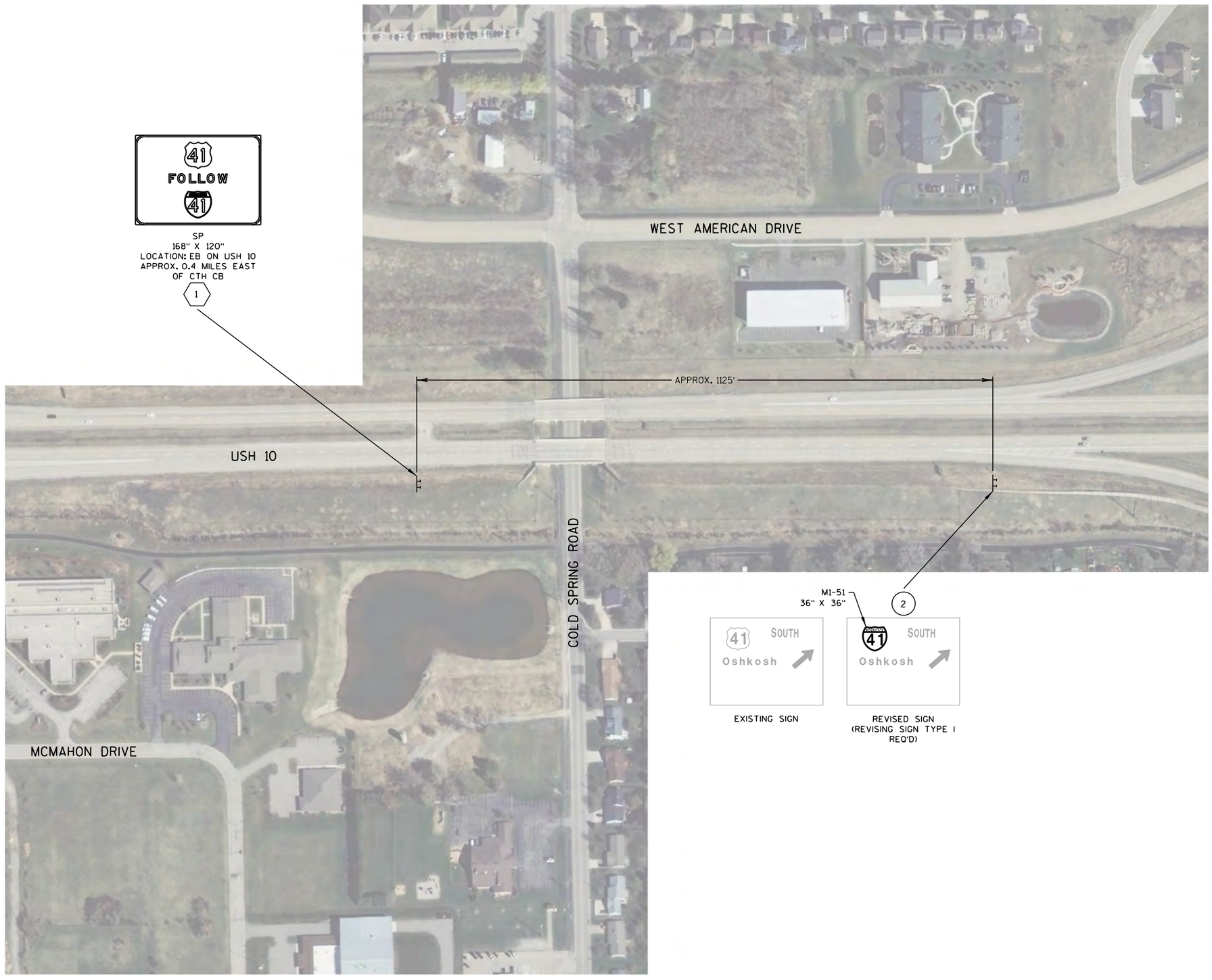




790 785 780 775 770 765 760 755 750 745

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	STORM SEWER PLAN AND PROFILE : FEN & FES RAMPS	SHEET 120 E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\022503_ss.dgn PLOT DATE : 1/15/2015 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100
WISDOM/CADDS SHEET 41



N

41
FOLLOW
41

SP
168" X 120"
LOCATION: EB ON USH 10
APPROX. 0.4 MILES EAST
OF CTH CB

1

M1-51
36" X 36"

2

41 SOUTH
Oshkosh

EXISTING SIGN

41 SOUTH
Oshkosh

REVISED SIGN
(REVISING SIGN TYPE I
REQ'D)

LEGEND

- STEEL POSTS
- SIGN-REVISE
- SIGN-PLACE NEW

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET 121	E

LIGHTING PLAN LEGEND

PROPOSED LIGHT POLE LOCATION; CONCRETE BASES TYPE 5 OR 17 WITH TYPE 5 OR 17 ALUMINUM POLE AS SHOWN ON THE PLANS

EXISTING DOUBLE CONCRETE CONTROL CABINETS AND BASES INSTALLED UNDER A PREVIOUS CONTRACT

LOCATION OF ELECTRICAL SERVICE METER BREAKER PEDESTAL WITH EXTENSION AS SHOWN ON PLANS

DOUBLE CONCRETE CONTROL CABINET BASES INSTALLED SIDE BY SIDE ON A CONCRETE MAINTENANCE PLATFORM, SEE SPECIAL DETAILS

---------- CONDUIT RIGID NONMETALLIC

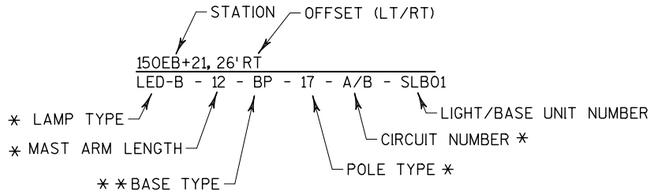
24"X42" PULL BOX

V, W
LPBXX

V = STATION, W= OFFSET
LPB= LIGHTING PULL BOX, XX= PULL BOX NUMBER

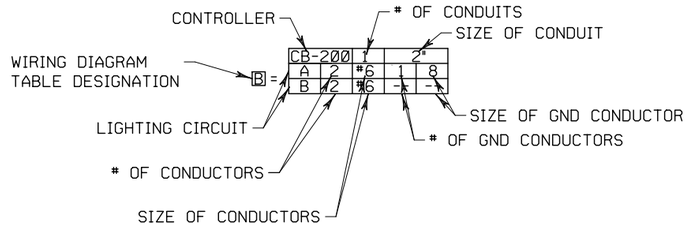
V, W
SLBXXX

SLB = STREET LIGHT BASE, XXX = BASE NUMBER
V = STATION, W = OFFSET



* THESE VALUES ARE NOT INCLUDED IN CALLOUT WHEN UNDERGROUND ONLY LIGHTING MATERIALS ARE PROPOSED

* * WHEN BP IS CALLED OUT, POLE BASE IS IN BRIDGE PARAPET



DIGGERS HOTLINE
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

LIGHTING GENERAL NOTES

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. ALL NEW CONDUITS, CABLE DUCTS, DIRECT BURIAL CABLES, AND ACCESSORIES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF THE ENGINEER.
3. PERFORM THE ELECTRICAL WORK IN ACCORDANCE WITH WISDOT LATEST STANDARDS, THE SPECIAL PROVISIONS AND APPLICABLE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS (LATEST EDITION).
4. INSTALL ALL FOUNDATIONS IN ORDER FOR THE PROPOSED AND FUTURE LUMINAIRES TO BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
5. INSTALL CONDUITS AT A MINIMUM 24" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. INCREASE DEPTH OF DUCT AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST. COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.
6. ALL CONDUIT USED FOR BORED CABLE RUNS UNDER PAVEMENTS SHALL BE POLYVINYL CHLORIDE (PVC), SCHEDULE 40 IN CONFORMANCE WITH SECTION 652.2.3 OF THE WISDOT SPECIFICATIONS.
7. CAP CONDUIT ON BOTH ENDS UNTIL CABLING IS PLACED. FUNISH AND INSTALL A MANUFACTURER APPROVED CAP FOR ALL CONDUITS. DUCT TAPE AND OTHER TAPE IS NOT ACCEPTABLE MEANS OF CONDUIT CAP. EXTEND CONDUIT ONE (1) FOOT BEYOND THE BACK OF CURB EDGE.
8. FURNISH AND INSTALL CABLE PULL STRINGS OR WIRES IN ALL CONDUITS. PULL WIRES MUST BE ACCESSIBLE AND ANCHORED AT EACH CONDUIT END FOR EASY FUTURE ACCESS.
9. PITCH ALL CONDUIT TOWARD PULLBOXES. A 2" DRAIN DUCT TO DITCH OR STORM SEWER REQUIRED FOR ALL PULL BOXES IN LOW POINTS. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.
10. ALL POLES ON BREAKAWAY BASES SHALL BE PLACED A MINIMUM OF 12-FEET FROM THE EDGE OF THE OUTSIDE TRAVEL LANE. ALL LIGHTS PLACED BEHIND GUARDRAIL SHALL BE PLACED A MINIMUM OF 4-FEET BEHIND THE FACE OF GUARDRAIL.
11. LIGHTING SYMBOLS ARE ENLARGED FOR CLARITY, USE CENTER OF SYMBOL TO LOCATE EQUIPMENT IN THE FIELD.

LIGHTING PLANS PREPARED BY:
AECOM
342 N Water Street, 7th Floor
Milwaukee, WI 53202
(414) 831-4100

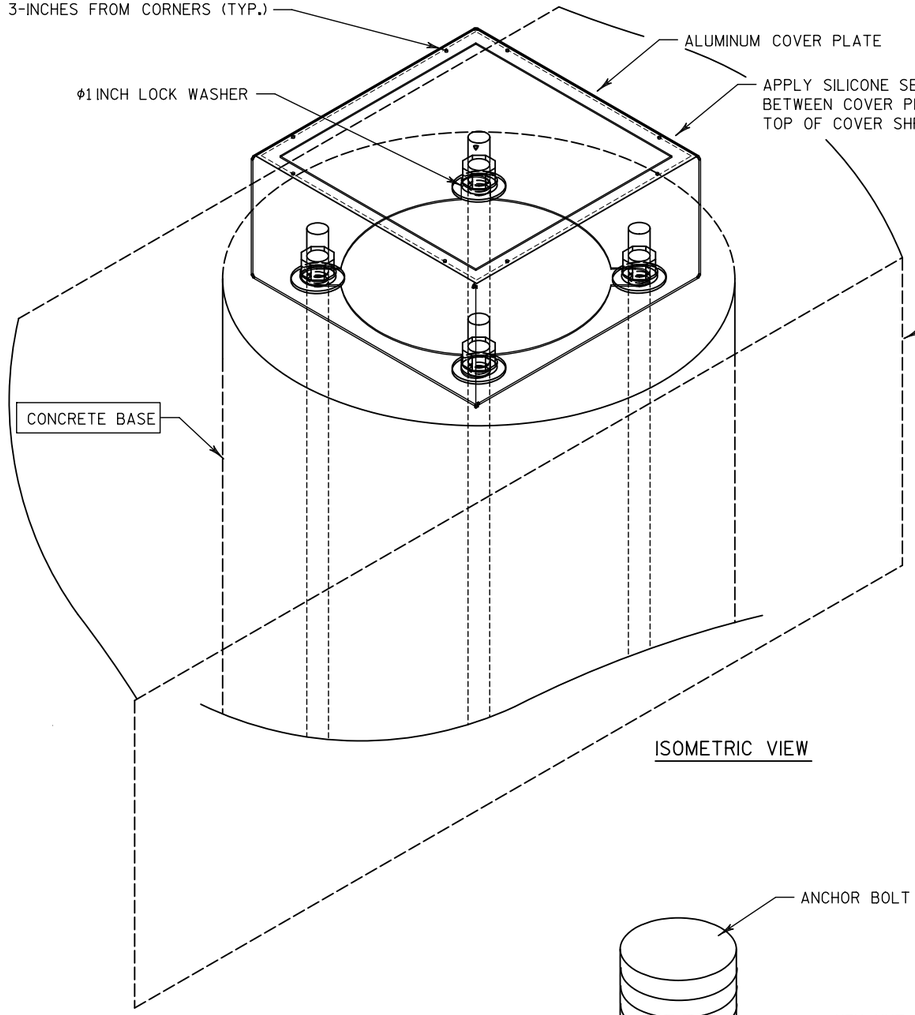
WISCONSIN
MOHAMMED A. ELSHOLI
E-37874-6
ORLAND HILLS
ILLINOIS
PROFESSIONAL ENGINEER

01/22/2015 (Date)

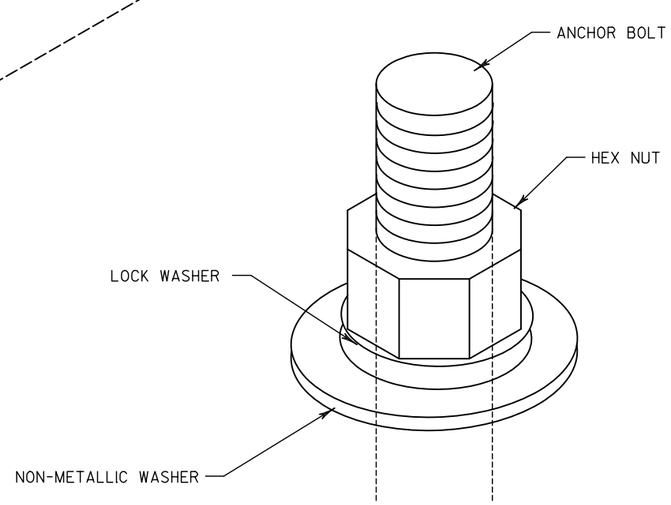
(Signature)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN - TITLE SHEET	SHEET 122	E

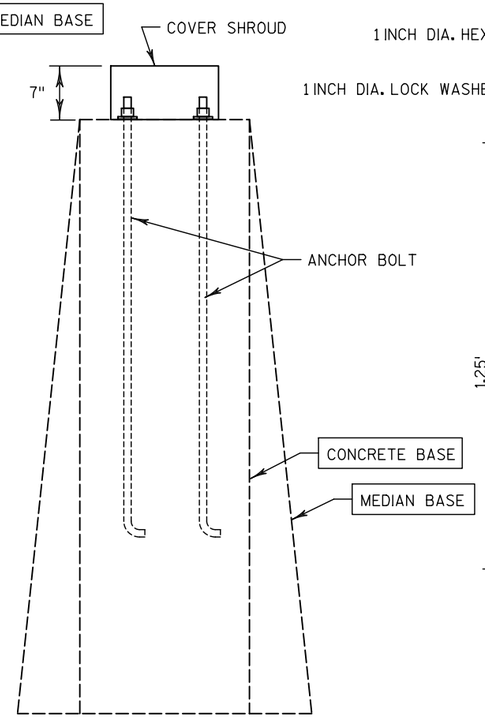
2



ISOMETRIC VIEW



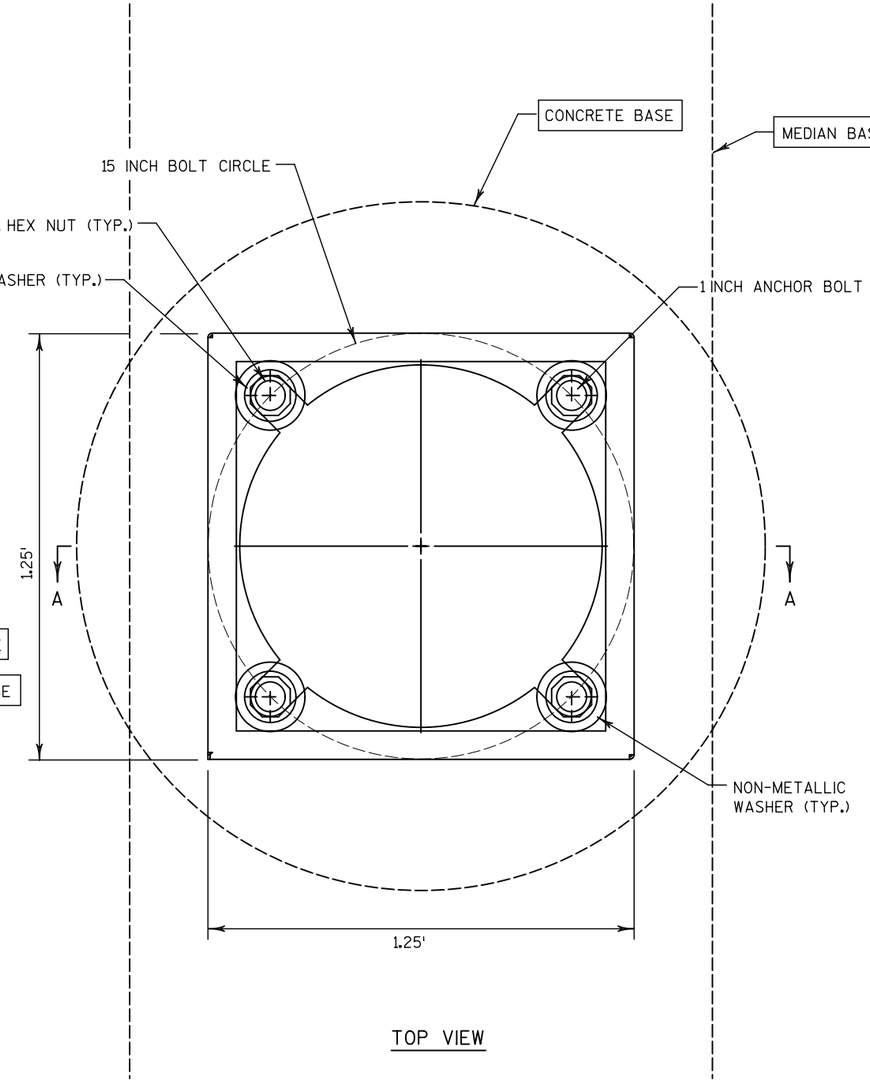
ANCHOR BOLT DETAIL



SECTION A-A

NOTE:

ANCHOR BOLTS/NUTS NOT INCLUDED WITH COVER SHROUD ITEM.

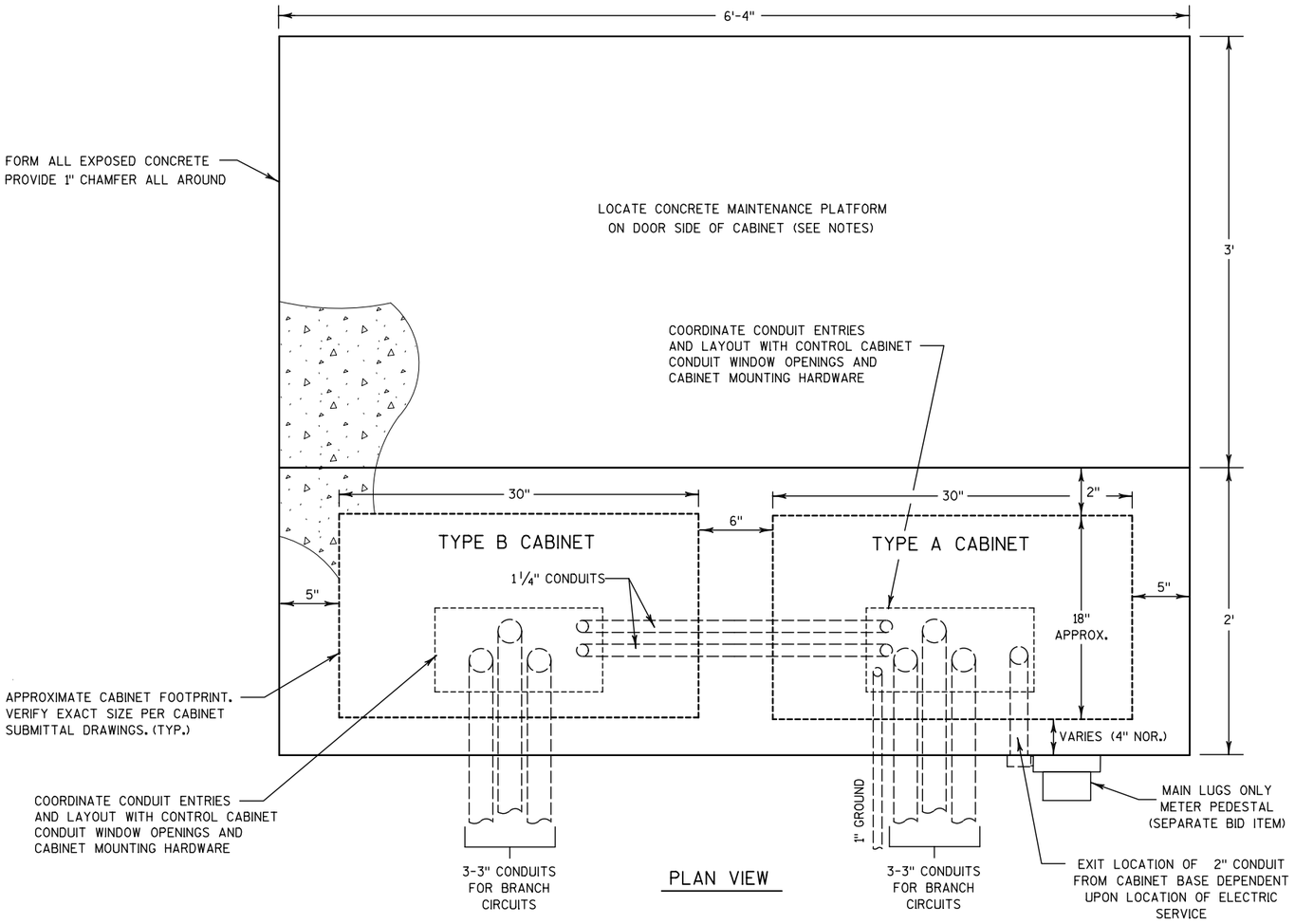


TOP VIEW

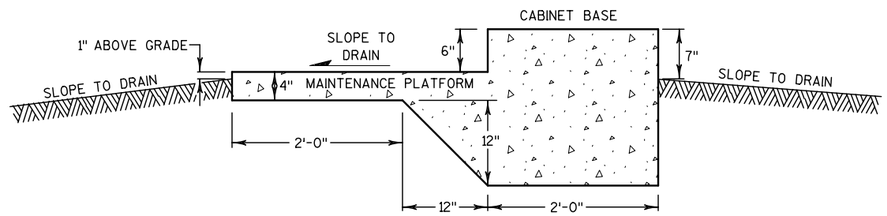
ANCHOR BOLT COVER SHROUD

NO SCALE

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING - CONSTRUCTION DETAILS	SHEET 123	E



PLAN VIEW



SECTION VIEW

DOUBLE LIGHTING CABINET BASE

NO SCALE

GENERAL NOTES

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

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

WHEN REQUIRED TO CONNECT 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 24 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 SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

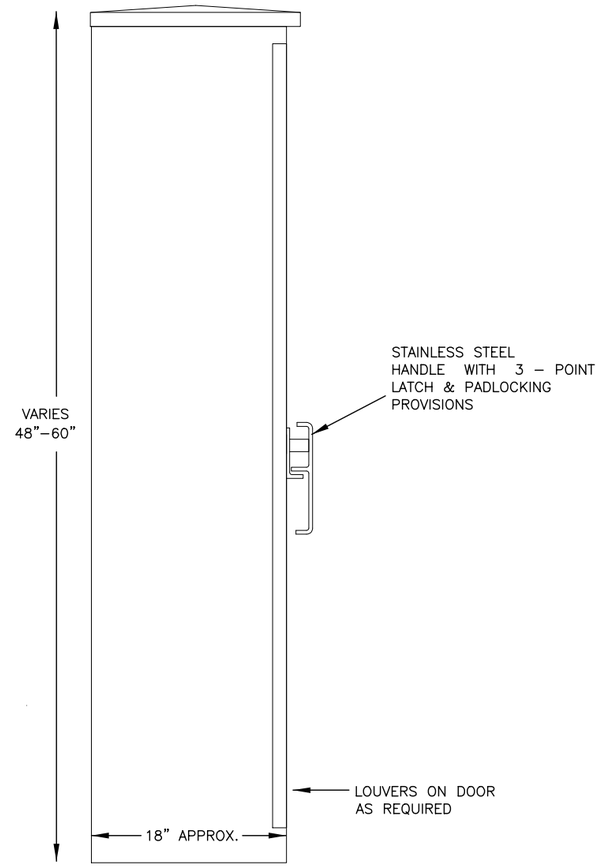
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

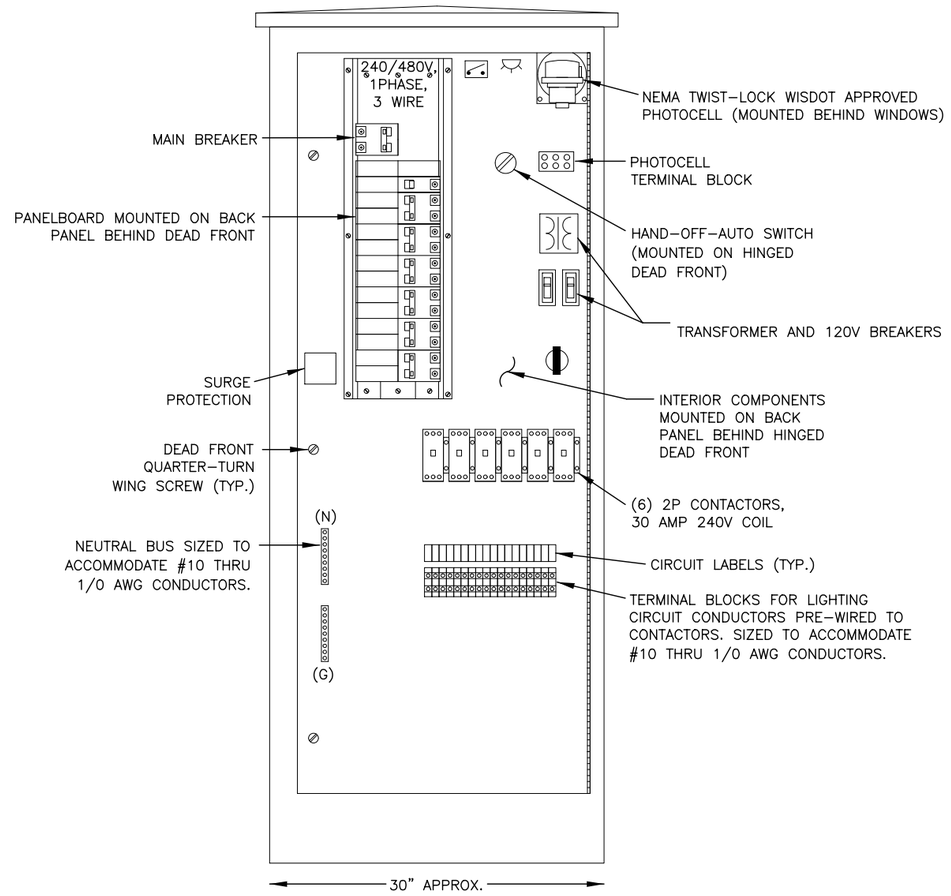
THE CONFIGURATION SHOWN IN THIS DETAIL IS DESIGNED FOR COMPATIBILITY WITH A 200-AMP (MAX.) SERVICE AND PEDESTAL WITH NO MAIN BREAKER.

SEE L-30 LIGHTING CABINET BASE STANDARD DETAIL DRAWING FOR BRANCH CIRCUIT CONDUIT DETAILS.

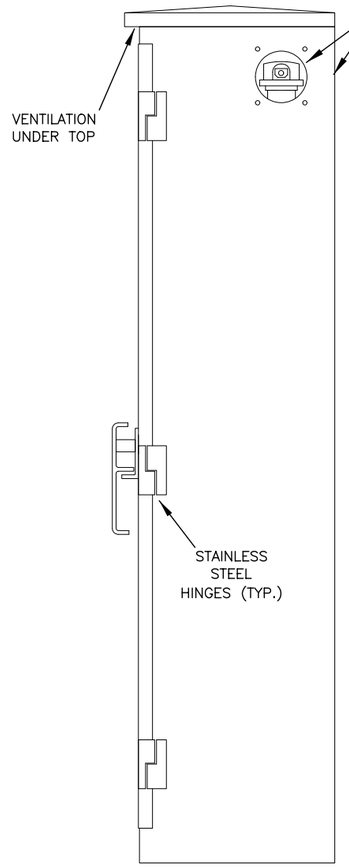
LEFT SIDE VIEW



FRONT INTERIOR ELEVATION



RIGHT SIDE VIEW

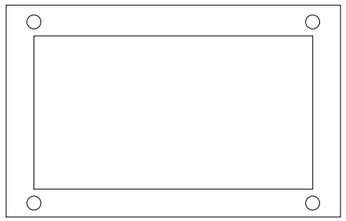


NOTES:

1) ALL FEEDER/BRANCH CIRCUITS TO INCLUDE NEC SIZED EQUIPMENT GROUND CONDUCTORS.
2) REFER TO PLAN DRAWINGS FOR FEEDER/BRANCH CIRCUIT WIRE AND CONDUIT SIZES.
3) REFER TO DETAIL DRAWINGS FOR CONCRETE MOUNTING PAD DETAILS.
4) REFER TO LIGHTING CONTROL CABINET – FREEWAY – SCHEMATICS FOR MORE INFORMATION

LEGEND

- 20 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V
- 3 KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 240/480V – 120/240V, 60HZ
- SPST, 20 AMP SWITCH ON DOOR, TO TURN ON LIGHT WHEN DOOR IS OPEN
- 13 LED, 3 WATT, 120V LIGHT BAR
- 15 AMP/1P CIRCUIT BREAKER



BASE FLANGE WITH GASKET

PANELBOARD: (TYPE A CABINET)

- 200 AMP/20 CIRCUIT PANEL MIN.
- 200 AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT–ON BREAKERS
- 22K AIC
- REFER TO SCHEMATICS FOR BREAKERS REQ'D.

PANELBOARD: (TYPE B CABINET)

- 100 AMP/20 CIRCUIT PANEL MIN.
- 100 AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT–ON BREAKERS
- 22K AIC
- REFER TO SCHEMATICS FOR BREAKERS REQ'D.

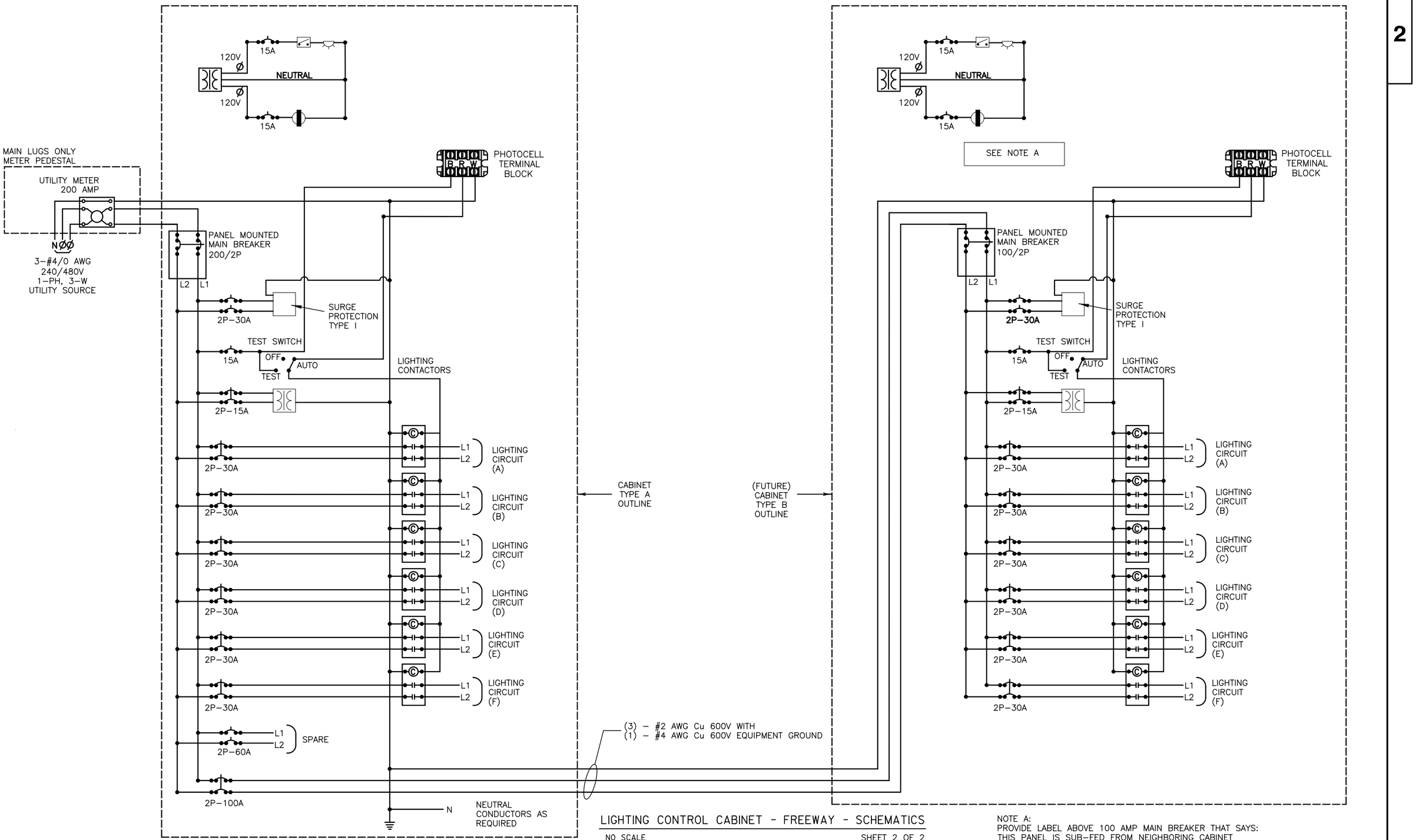
BOX CONSTRUCTION: (TYPE A & B CABINETS)

- NEMA 3R
- UL LISTED & LABELED
- 1/8" ALUMINUM 5052–H32 ANODIZED CLEAR
- BENT CONSTRUCTION – ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/UL508A
- DOOR KEEP TO HOLD DOOR WHILE OPEN

LIGHTING CONTROL CABINET - FREEWAY

NO SCALE SHEET 1 OF 2

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING - CONSTRUCTION DETAILS - FREEWAY LIGHTING CABINET	SHEET 125	E



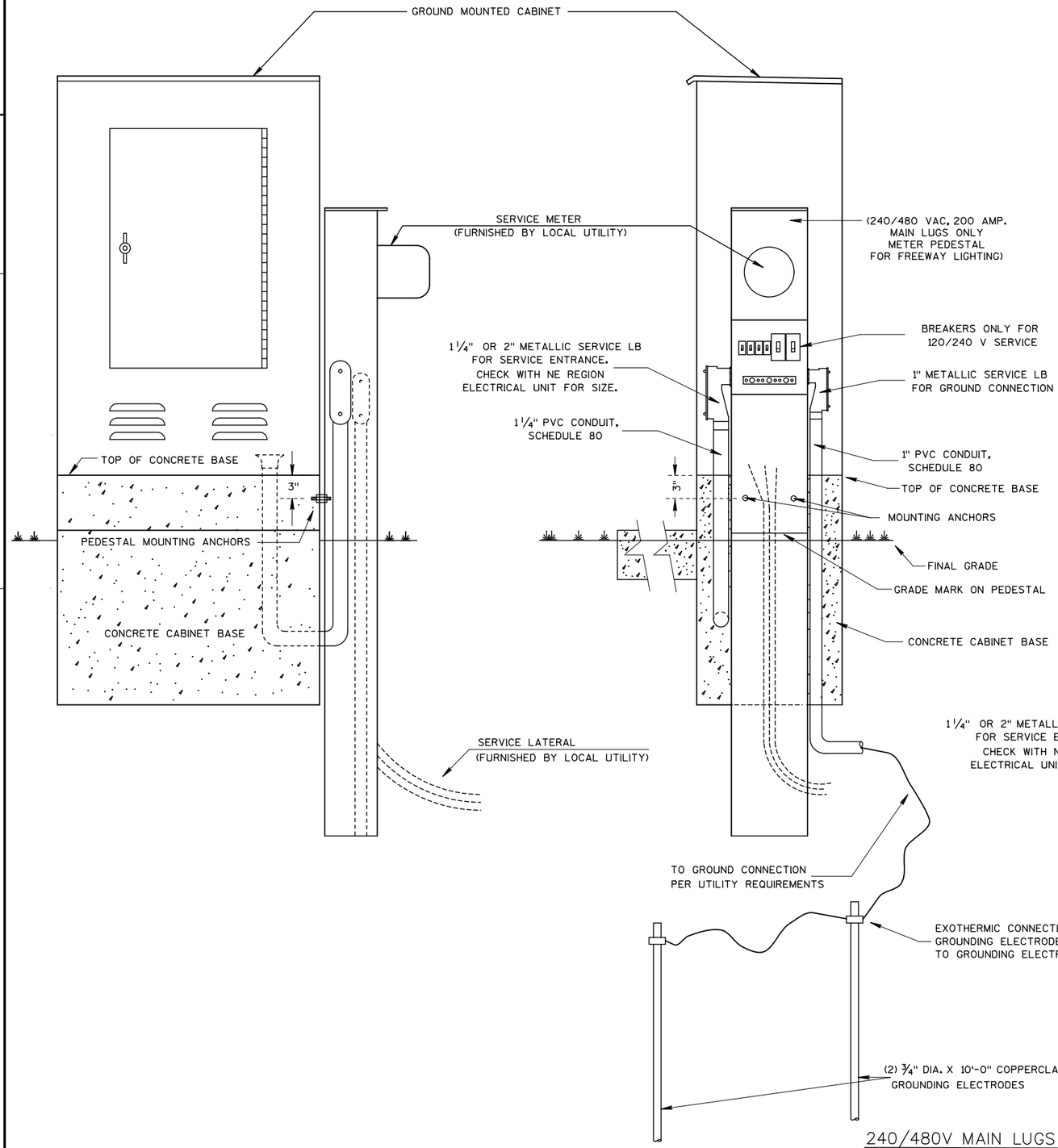
LIGHTING CONTROL CABINET - FREEWAY - SCHEMATICS

NO SCALE SHEET 2 OF 2

NOTE A:
PROVIDE LABEL ABOVE 100 AMP MAIN BREAKER THAT SAYS:
THIS PANEL IS SUB-FED FROM NEIGHBORING CABINET

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING - CONSTRUCTION DETAILS - CONTROL CABINET SCHEMATICS	SHEET 126	E

2



240/480V MAIN LUGS ONLY METER PEDESTAL
NOT TO SCALE

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.

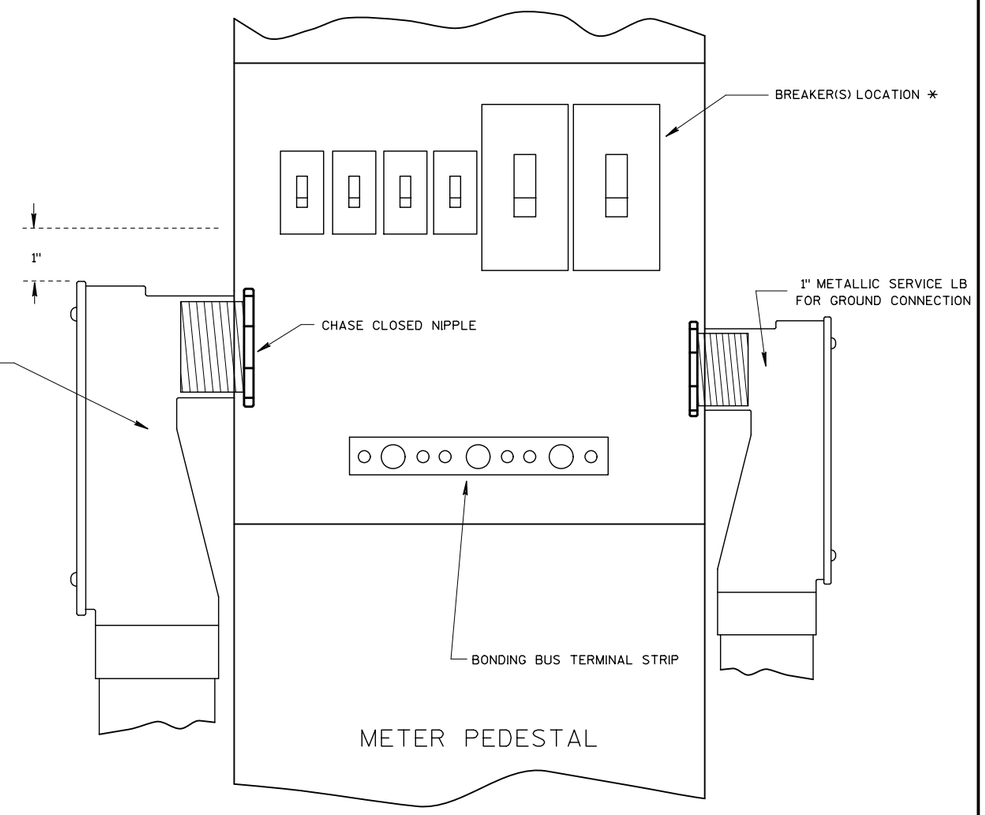
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

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 NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



2

2

240/480 VOLT, 1 PHASE SERVICE PEDESTAL JACOBSEN ROAD

LOCATION: STA: 131FES + 20, 162' RT

L70-2008 FREEWAY "TYPE A" LIGHTING CABINET (CB-200)

Electrical Panel: CB-200

FREEWAY TYPE "A" CABINET PANELBOARD

Rating: 200A
Voltage: 240/480 Volts, 1 Phase 3 Wire
Feeder Conductors: 4/0 AWG
Main Brkr: 200 A - 2P

CONTRACT: 1517-07-79
Ramp FES - USH 10 EB

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	2	CIRCUIT A	575		X		575		CIRCUIT B	2	20	2
3					575		X		575				4
5	20	2	CIRCUIT C	230		X		115		CIRCUIT D	2	20	6
7					230		X		115				8
9	20	2	CIRCUIT E			X				CIRCUIT F	2	20	10
11							X						12
13	20	2	SPARE			X				SPARE	2	20	14
15							X						16
17	20	2	SPARE			X				SPARE	2	20	18
19							X						20
21	20	1	SPARE			X				SPARE	1	20	22
23	20	1	SPARE				X			SPARE	1	20	24
			TOTALS	805	805			690	690	TOTALS			

BUS A: 1495
BUS B: 1495

LOAD: 2990

2.99 KVA DEMAND
6.2 LINE AMPS
7.8 TRIP MAIN AMPS
100A FRAME MAIN

NOTES:

1. LOADS SHOWN ARE FOR INFORMATION ONLY AND WILL VARY BY FIXTURE AND MANUFACTURER.
2. PROVIDE AND INSTALL TWO (2) ADDITIONAL SPARE CIRCUIT BREAKERS ON EACH SIDE OF EACH PANELBOARD FOR FUTURE USE.

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170779\023507_lp.dgn PLOT DATE : 1/30/2015 PLOT BY : Bryan_Larson PLOT NAME : PLOT SCALE : 200.0000 ' / in.
WISDOT/CADDS SHEET 42

■ 1

A - BLACK
B - RED
C - BLUE
D - BROWN
E - ORANGE
F - YELLOW
480V PHASE-PHASE

- L70-2008 / USH 41 & USH 10, (JACOBSEN ROAD) / TOWN OF MENASHA / WINNEBAGO COUNTY
- CB 200 / SYSTEM INTERCHANGE SOUTH
- 240/480 VOLT / SINGLE PHASE / 200 AMP SERVICE
- MAIN LUGS ONLY METER PEDESTAL
- CIRCUIT DESCRIPTIONS:
  - CTK. A/B - RAMPS FEN/FES
  - CTK. C/D - RAMPS FES/FWS
  - CTK. E/F - FUTURE

■ 2

A - BLACK
B - RED
C - BLUE
D - BROWN
E - ORANGE
F - YELLOW
480V PHASE-PHASE

- L70-2009 / USH 41 & USH 10, (West Butte Des Morts Rd) / CITY OF MENASHA / WINNEBAGO COUNTY
- CB 300 / SYSTEM INTERCHANGE (EAST) / ROLAND KAMPO BRIDGE (EXISTING)
- 240/480 VOLT / SINGLE PHASE / 200 AMP SERVICE (EXISTING)
- MAIN LUGS ONLY METER PEDESTAL (EXISTING)
- CIRCUIT DESCRIPTIONS:
  - CTK. A/B - RAMP FNW/FNE / B-70-402 BRIDGE LIGHTS (EXISTING)
  - CTK. C - RAMP FNE & BRIDGE B-70-403 SOUTH PARAPET LIGHTS (EXISTING)

N

RAMP FSW BY OTHERS
SEE 1517-07-76

SHEET 3

USH 10 WB

USH 10 EB

B-70-400

USH 10 WB/STH 441 SB

EXISTING
B-70-61

USH 10 EB/STH 441 NB

B-70-403 BY OTHERS
SEE 1517-07-76

SHEET 1

■ 2

SHEET 5

RAMP FES

SHEET 7

RAMP FNE BY OTHERS
SEE 1517-07-72

TOWN OF MENASHA
CITY OF MENASHA

RAMP FSE BY OTHERS
SEE 1517-07-76

■ 1

RAMP FWS

SHEET 9

LITTLE LAKE BUTTE DES MORTS

USH 41 SB

USH 41 NB

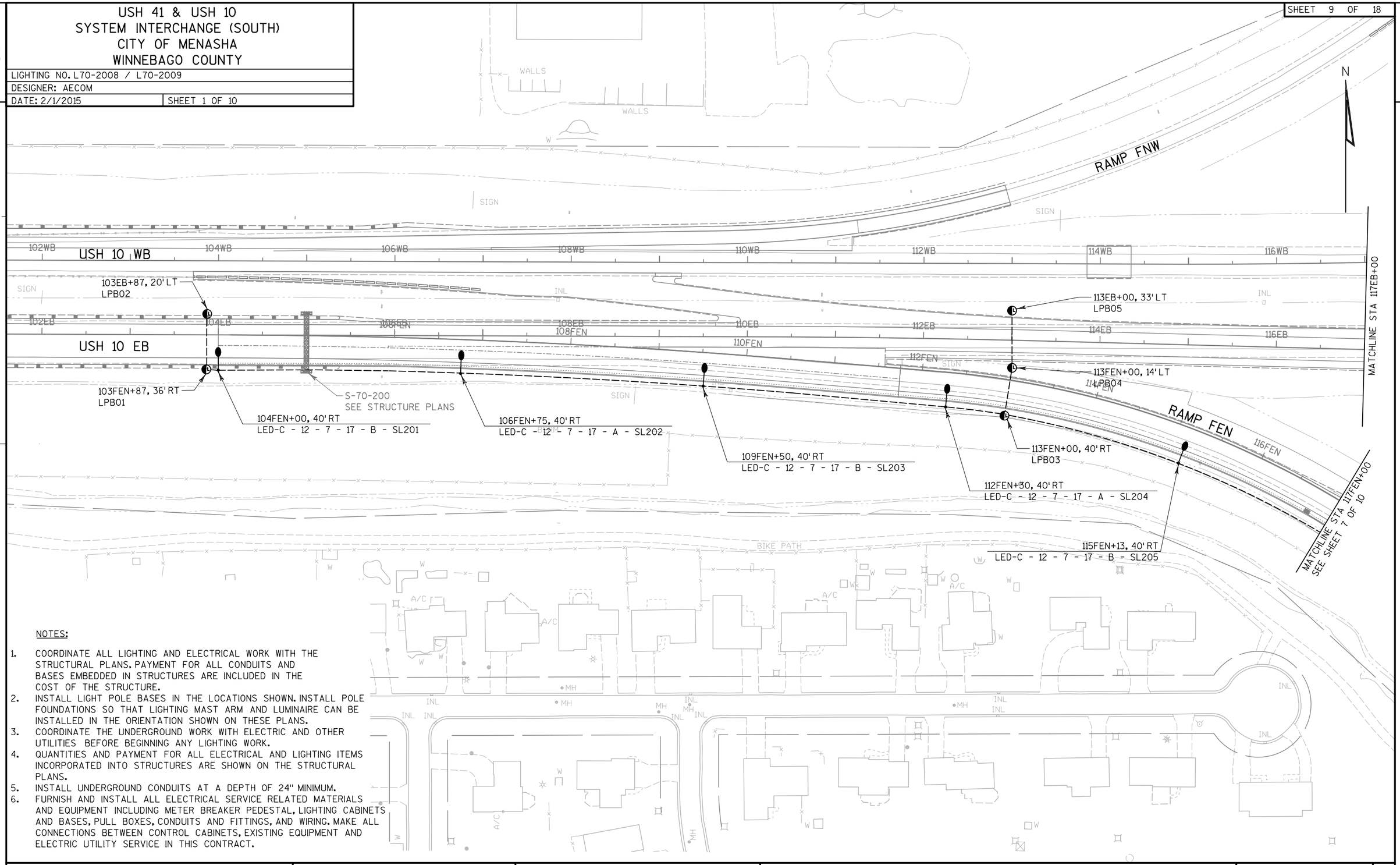
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN OVERVIEW	SHEET 129	E

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009

DESIGNER: AECOM

DATE: 2/1/2015 | SHEET 1 OF 10



NOTES:

1. COORDINATE ALL LIGHTING AND ELECTRICAL WORK WITH THE STRUCTURAL PLANS. PAYMENT FOR ALL CONDUITS AND BASES EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH ELECTRIC AND OTHER UTILITIES BEFORE BEGINNING ANY LIGHTING WORK.
4. QUANTITIES AND PAYMENT FOR ALL ELECTRICAL AND LIGHTING ITEMS INCORPORATED INTO STRUCTURES ARE SHOWN ON THE STRUCTURAL PLANS.
5. INSTALL UNDERGROUND CONDUITS AT A DEPTH OF 24" MINIMUM.
6. FURNISH AND INSTALL ALL ELECTRICAL SERVICE RELATED MATERIALS AND EQUIPMENT INCLUDING METER BREAKER PEDESTAL, LIGHTING CABINETS AND BASES, PULL BOXES, CONDUITS AND FITTINGS, AND WIRING. MAKE ALL CONNECTIONS BETWEEN CONTROL CABINETS, EXISTING EQUIPMENT AND ELECTRIC UTILITY SERVICE IN THIS CONTRACT.

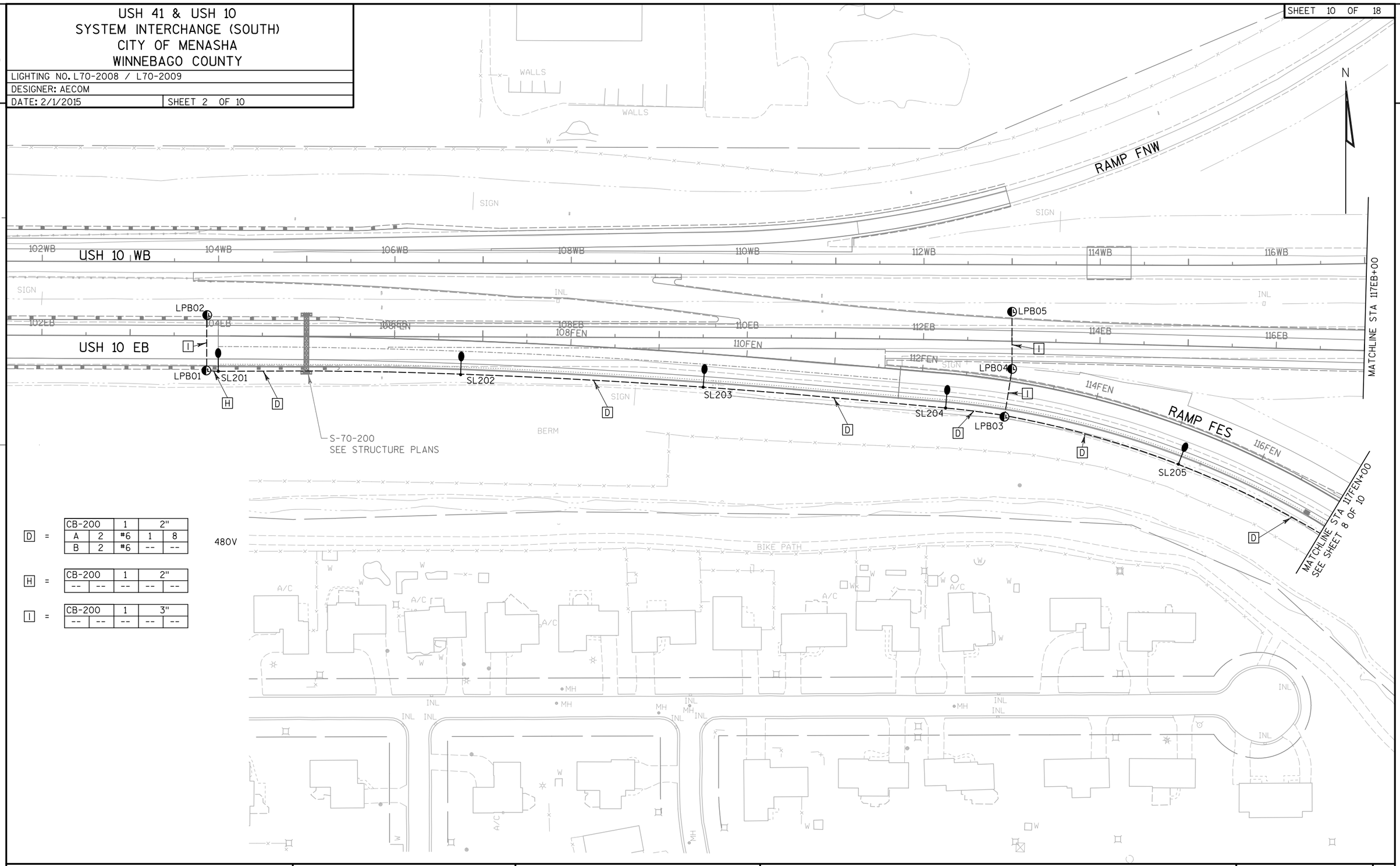
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN	SHEET 130	E

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009

DESIGNER: AECOM

DATE: 2/1/2015 | SHEET 2 OF 10



D =	CB-200	1	2"		
	A	2	#6	1	8
	B	2	#6	--	--

H =	CB-200	1	2"		
	--	--	--	--	--

I =	CB-200	1	3"		
	--	--	--	--	--

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN - WIRING SCHEMATIC	SHEET 131 E

2

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009

DESIGNER: AECOM

DATE: 2/1/2015 | SHEET 3 OF 10

2

N

USH 10 WB

USH 10 EB

MATCHLINE STA 117EB+00

MATCHLINE STA 132EB+00

118WB 120WB 122WB 124WB 126WB 128WB 130WB 132WB

118EB 120EB 122EB 124EB 126EB 128EB 130EB

℄ WB

℄ EB

SIGN

INL

FURNISH AND INSTALL
CONDUIT BETWEEN
NEW PULL BOX
AND BRIDGE PARAPET
SEE STRUCTURAL PLANS

131EB+92, 22' LT
LPB17

129EB+89, 22' LT
7 - SLB09

FURNISH AND INSTALL
CONDUIT BETWEEN
EXISTING PULL BOX
AND BRIDGE PARAPET
SEE STRUCTURAL PLANS

RAMP FEN

118FEN

RAMP FES

120FEN

120FES

122FEN

122FES

124FEN

SEE LIGHTING SHEET 7 OF 10
FOR RAMPS FEN & FES
CALLOUTS AND OTHER INFORMATION

RAMP FSE

131OFSE

131ZFSE

131GFSE

1316FSE

LIGHTING BY OTHERS
SEE PROJECT 1517-07-76

RAMP FWS

130FWS

128FWS

1326FSE

1328FSE

STH 441 SB

NOTES:

1. COORDINATE ALL LIGHTING AND ELECTRICAL WORK WITH THE STRUCTURAL PLANS. PAYMENT FOR ALL CONDUITS AND BASES EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH ELECTRIC AND OTHER UTILITIES BEFORE BEGINNING ANY LIGHTING WORK.
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2

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009

DESIGNER: AECOM

DATE: 2/1/2015 | SHEET 4 OF 10

2

N

USH 10 WB

USH 10 EB

MATCHLINE STA 117EB+00

MATCHLINE STA 132EB+00

118WB 120WB 122WB 124WB 126WB 128WB 130WB 132WB

118EB 120EB 122EB 124EB 126EB 128EB 130EB

℄ WB

℄ EB

SIGN

INL

SLB09

LPB17

H

INCLUDED IN BRIDGE QUANTITIES AND PAYMENT

INCLUDED IN BRIDGE QUANTITIES AND PAYMENT

RAMP FEN

118FEN

RAMP FES

120FEN

120FES

122FEN

122FES

124FEN

SEE LIGHTING SHEET 8 OF 10 FOR RAMPS FEN & FES CALLOUTS AND OTHER INFORMATION

RAMP FSE

1312FSE

1314FSE

1316FSE

LIGHTING BY OTHERS SEE PROJECT 1517-07-76

RAMP FWS

130FWS

128FWS

1326FSE

1328FSE

STH 441 SB

H = CB-200 | 1 | 2"

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN - WIRING SCHEMATIC	SHEET 133	E

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170779\023512_lp.dgn PLOT DATE : 1/30/2015 PLOT BY : Bryan_Larson PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009

DESIGNER: AECOM

DATE: 2/1/2015 | SHEET 5 OF 10

N

B-70-401 BY OTHERS
SEE PROJECT ID 1517-07-77

LAKE STREET

RAMP FWN

B-70-406 BY OTHERS
SEE PROJECT ID 1517-07-77

134WB 136WB 138WB 140WB 142WB 144WB 146WB

USH 10 WB

℄ USH 10 WB

146EB+45, 30' LT
EXPB02

137EB+90, 20' LT
BP - SLB12

132EB+90, 20' LT
BP - SLB10

141EB+74, 20' LT
BP - SLB14

146EB+24, 28' LT
7 - SLB16

135EB+40, 20' LT
BP - SLB11

139EB+74, 20' LT
BP - SLB13

142EB+83, 25' LT
LPB18

143EB+74, 24' LT
7 - SLB15

MATCHLINE STA 132EB+00

134EB 136EB 138EB 140EB 142EB 144EB 146EB

USH 10 EB

℄ USH 10 EB

CONDUIT EMBEDDED IN
BOTH BRIDGE PARAPETS

B-70-400 SEE
STRUCTURE PLANS

146EB+45, 70' RT
EXPB03

142EB+94, 33' RT
EXPB01

RAMP FWS

LIGHTING BY OTHERS
SEE PROJECT 1517-07-76

LIGHTING BY OTHERS
SEE PROJECT 1517-07-76
& 1517-07-72

CB-300 (EXISTING)
L70-2009
(CONTRACT 1517-07-76)

B-70-405 BY OTHERS
SEE PROJECT ID 1517-07-77

USH 41 SB

USH 41 NB

RAMP FNE

NOTES:

1. COORDINATE ALL LIGHTING AND ELECTRICAL WORK WITH THE STRUCTURAL PLANS. PAYMENT FOR ALL CONDUITS AND BASES EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
2. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLE FOUNDATIONS SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
3. COORDINATE THE UNDERGROUND WORK WITH ELECTRIC AND OTHER UTILITIES BEFORE BEGINNING ANY LIGHTING WORK.
4. QUANTITIES AND PAYMENT FOR ALL ELECTRICAL AND LIGHTING ITEMS INCORPORATED INTO STRUCTURES ARE SHOWN ON THE STRUCTURAL PLANS.
5. INSTALL UNDERGROUND CONDUITS AT A DEPTH OF 24" MINIMUM.
6. VERIFY LOCATIONS OF ALL EXISTING AND PROPOSED EQUIPMENT IN THE FIELD.

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009
DESIGNER: AECOM
DATE: 2/1/2015 | SHEET 6 OF 10

N

B-70-401 BY OTHERS
SEE PROJECT ID 1517-07-77

LAKE STREET

RAMP FWN

B-70-406 BY OTHERS
SEE PROJECT ID 1517-07-77

USH 10 WB

℄ USH 10 WB

134WB 136WB 138WB 140WB 142WB 144WB 146WB

MATCHLINE STA 132EB+00

SLB10 SLB11 SLB12 SLB13 SLB14 LPB18 EXPB02 EXPB01 EXPB03

134EB 136EB 138EB 140EB 142EB 144EB 146EB

USH 10 EB

℄ USH 10 EB

B-70-400 SEE
STRUCTURE PLANS

CONDUIT EMBEDDED IN
BOTH BRIDGE PARAPETS
AND INCLUDED IN
STRUCTURE QUANTITIES

RAMP FWS

LIGHTING BY OTHERS
SEE PROJECT 1517-07-76

INCLUDED IN BRIDGE
QUANTITIES AND PAYMENT

LIGHTING BY OTHERS
SEE PROJECT 1517-07-76
& 1517-07-72

CB-300
L70-2009
(CONTRACT 1517-07-76)

B-70-405 BY OTHERS
SEE PROJECT ID 1517-07-77

RAMP FNE

USH 41 SB

USH 41 NB

H =	CB-200	1	2"		
	--	--	--	--	--
K =	CB-300	2	3"		
	--	--	--	--	--

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN - WIRING SCHEMATIC	SHEET 135	E

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008
DESIGNER: AECOM
DATE: 2/1/2015 | SHEET 7 OF 10

2

ROUTE LIGHTING CONDUIT AROUND SIGN STRUCTURE FOUNDATION, (TYPICAL)

S-70-201
SIGN STRUCTURE
SEE STRUCTURE PLANS

119FEN+75, 10' LT
LPB08

119FES+75, 10' LT
LPB07

119FES+75, 30' RT
LPB06

RAMP FEN

RAMP FES

RAMP FWS

117FEN+80, 42' RT
LED-C - 12 - 7 - 17 - A - SL206

120FES+37, 29' RT
LED-C - 12 - 7 - 17 - B - SL207

123FES+36, 27' RT
LED-C - 12 - 7 - 17 - A - SL208

126FES+17, 29' RT
LED-C - 12 - 7 - 17 - B - SL209

128FES+96, 26' RT
LED-C - 12 - 7 - 17 - A - SL210

MATCHLINE STA 117FEN+00
SEE SHEET 1 OF 10

MATCHLINE STA 130FES+00
SEE SHEET 9 OF 10

NOTES:

1. COORDINATE ALL LIGHTING AND ELECTRICAL WORK WITH THE STRUCTURAL PLANS. PAYMENT FOR ALL CONDUITS AND BASES EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
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5. INSTALL UNDERGROUND CONDUITS AT A DEPTH OF 24" MINIMUM.
6. VERIFY LOCATIONS OF ALL EXISTING AND PROPOSED EQUIPMENT IN THE FIELD.

2

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008

DESIGNER: AECOM

DATE: 1/15/2015 | SHEET 8 OF 10

2

S-70-201
SIGN STRUCTURE
SEE STRUCTURE PLANS

RAMP FEN
RAMP FES
RAMP FWS

LPB08
LPB07
LPB06
SL206
SL207
SL208
SL209
SL210

MATCHLINE STA 117FEN+00
SEE SHEET 2 OF 10

MATCHLINE STA 130FES+00
SEE SHEET 10 OF 10

D =	CB-200		1	2"		480V
	A	2	#6	1	8	
	B	2	#6	--	--	

I =	CB-200		1	3"		
	--	--	--	--	--	

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008 / L70-2009
DESIGNER: AECOM
DATE: 2/1/2015 | SHEET 9 OF 10

2

N

RAMP FNE
USH 41 NB
USH 41 SB
RAMP FWS
RAMP FES
JACOBSEN ROAD
BIKE PATH

BY OTHERS
SEE PROJECT ID 1517-07-77

115FWS+50, 12' RT
LPB14

113FWS+50, 12' RT
LED-C - 12 - 7 - 17 - C - SL213

133FES+50, 20' LT
LPB13

112FWS+00, 13' RT
LPB16

131FES+28, 30' RT
LPB09

133FES+50, 29' RT
LPB12

134FES+33, 30' RT
LED-C - 12 - 7 - 17 - D - SL212

112FWS+00, 57' LT
LPB15

131FES+20, 152' RT
LPB10

131FES+30, 152' RT
LPB11

131FES+70, 27' RT
LED-C - 12 - 7 - 17 - C - SL211

PROPOSED LIGHTING CONTROL CABINET
FREEWAY TYPE A
CB-200 / L70-2008 (SW SYSTEM)
240/480V, 1-PH, 3-W,
MAIN LUGS ONLY METER PEDESTAL
131FES+20, 162' RT.
USH 41 & USH 10. (JACOBSEN ROAD)

MATCHLINE STA 130FES+00
SEE SHEET 7 OF 10

BY OTHERS
SEE PROJECT ID 1517-07-74

NOTES:

1. COORDINATE ALL LIGHTING AND ELECTRICAL WORK WITH THE STRUCTURAL PLANS. PAYMENT FOR ALL CONDUITS AND BASES EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
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5. INSTALL UNDERGROUND CONDUITS AT A DEPTH OF 24" MINIMUM.
6. VERIFY LOCATIONS OF ALL EXISTING AND PROPOSED EQUIPMENT IN THE FIELD.

FILE NAME : P:\Transportation\US 10 WIS 441\CADD\sheets\15170779\023517_lp.dgn PLOT DATE : 1/30/2015 PLOT BY : Bryan_Larson PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

USH 41 & USH 10
SYSTEM INTERCHANGE (SOUTH)
CITY OF MENASHA
WINNEBAGO COUNTY

LIGHTING NO. L70-2008
DESIGNER: AECOM
DATE: 2/1/2015 | SHEET 10 OF 10

2

LIGHTING BY OTHERS
SEE PROJECT IDs
1517-07-72 AND
1517-07-76

RAMP FNE

USH 41 NB

USH 41 SB

BY OTHERS
SEE PROJECT ID 1517-07-77

RAMP FWS

RAMP FES

MATCHLINE STA 130FES+00
SEE SHEET 8 OF 10

LPB09 LPB10 LPB11 LPB12 LPB13 LPB14 LPB15 LPB16

SL211 SL212 SL213

CB-200

JACOBSEN ROAD

BIKE PATH

BY OTHERS
SEE PROJECT ID 1517-07-74

A =	CB-200		3	3"		480V
	A	2	#6	1	8	
	B	2	#6	--	--	
	C	2	#6	1	8	
	D	2	#6	--	--	
D =	CB-200		1	2"		480V
	A	2	#6	1	8	
	B	2	#6	--	--	
F =	CB-200		1	2"		480V
	C	2	#6	1	8	
	D	2	#6	--	--	
G =	CB-200		1	3"		480V
	C	2	#6	1	8	
	D	2	#6	--	--	
H =	CB-200		1	2"		
	--	--	--	--	--	
I =	CB-200		1	3"		
	--	--	--	--	--	
L =	CB-200		3	3"		
	--	--	--	--	--	

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	LIGHTING PLAN - WIRING SCHEMATIC	SHEET 139	E

2

2

N

EB USH 10 OFFRAMP TO CTH CB

EB USH 10 ONRAMP FROM CTH CB

R/L WB USH 10

R/L EB USH 10

USH 10 WB/
STH 441 SB

USH 10 EB/STH 441 NB

USH 10

USH 10

WB+50

WB+67

EB+70

MATCHLINE 95EB+00

BIKE PATH

SIGN

INL

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

4_070_12
772.50

4_070

4_069_18
771.60

4_069_20
772.38

82WB 84WB 86WB 88WB 90WB 92WB 94WB

82EB 84EB 86EB 88EB 90EB 92EB 94EB

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

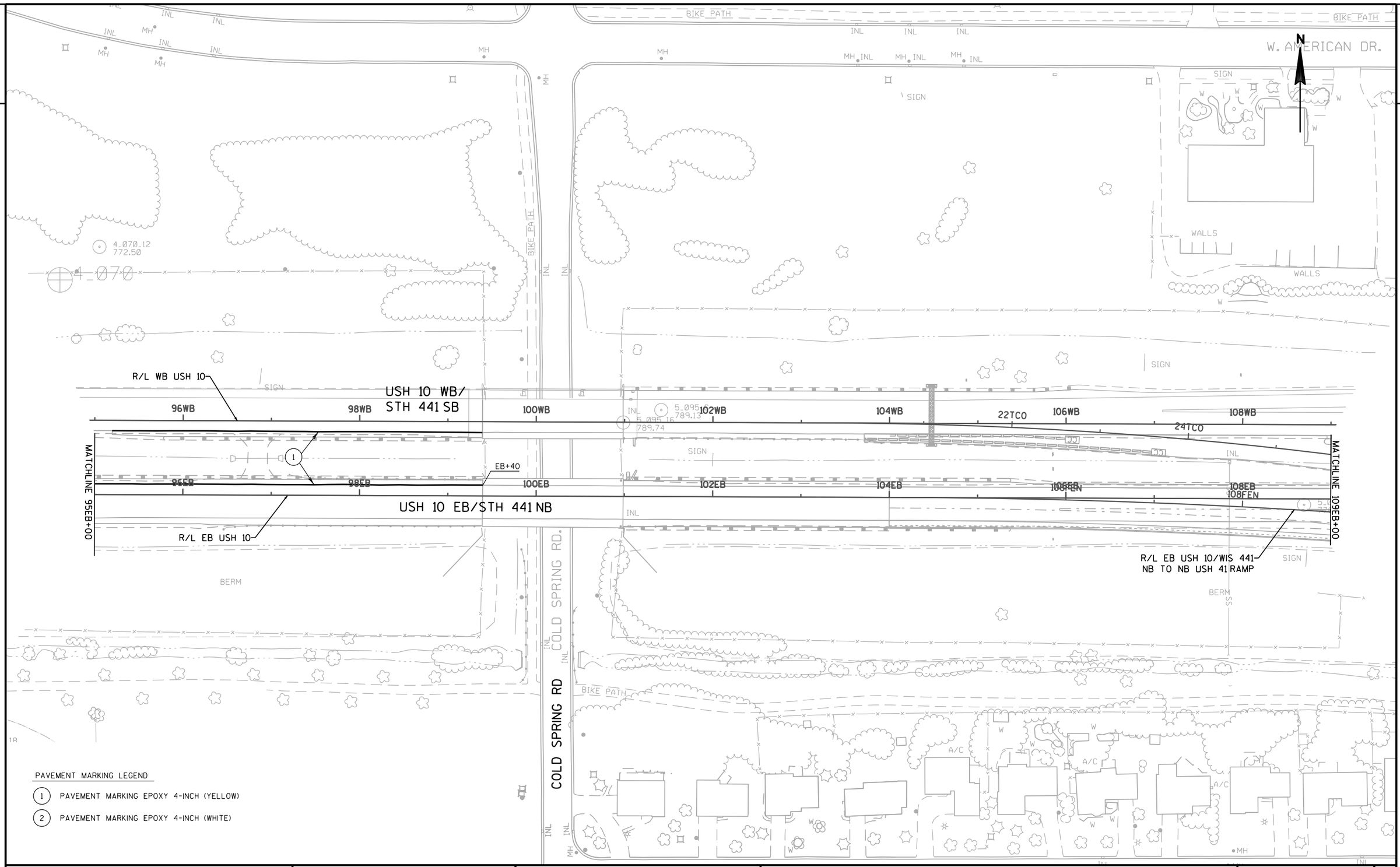
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKINGS	SHEET 140	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\024501_pm.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKINGS	SHEET 141	E

2

2

N

SB USH 41 TO USH 10 WB RAMP

R/L TEMPORARY WB USH 10/WIS 441 SB TO SB USH 41

USH 10 WB/ STH 441 SB

R/L WB USH 10 / SB STH 441

USH 10 EB/STH 441 NB

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

USH 10 EB/STH 441 NB TO SB&NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

R/L EB USH 10 / NB STH 441

MATCHLINE 109EB+00

MATCHLINE 122FES+00

WESTFIELD LN.

BIKE PATH

WALLS

SIGN

110WB 112WB 114WB 116WB 118WB 120WB 122WB

WB+85 WB+35

110EB 112EB 114EB 116EB 118EB 122EB

110FEN 112FEN 114FEN 116FEN 118FEN 120FEN 120FES 122FEN 124FEN

FEN+07 FEN+75 FEN+15 FES+15 FES+83

112TWS 114TWS

26TCO 28TCO 30TCO

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(29) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKINGS	SHEET 142	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\024503_pm.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

R/L SB USH 41 TO EB USH 10/WIS 441 RAMP

R/L EB USH 10/WIS 441 NB TO NB USH 41 RAMP

R/L EB USH 10/WIS 441 NB TO SB USH 41 RAMP

R/L SB USH 41

R/L NB USH 41

R/L WB USH 10/WIS 441 SB TO SB USH 41 RAMP

USH 10 EB/STH 441 NB TO SB USH 41 RAMP

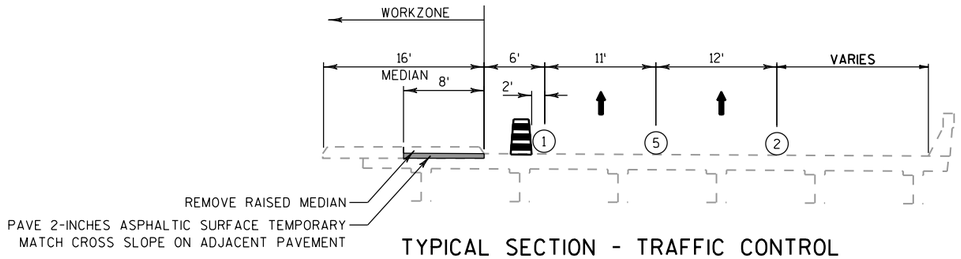
MATCHLINE 122FES+00

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
6. PAVEMENT MARKING EPOXY 8-INCH (WHITE)

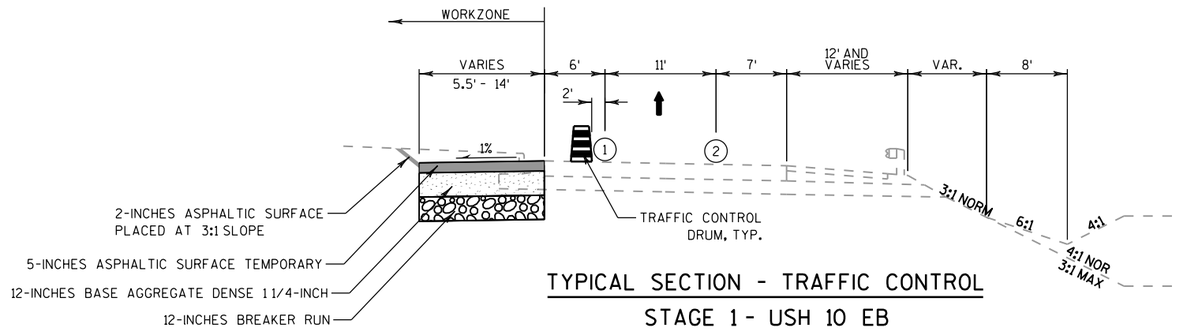
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PAVEMENT MARKINGS	SHEET 143	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\024504_pm.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 1 - USH 10 EB

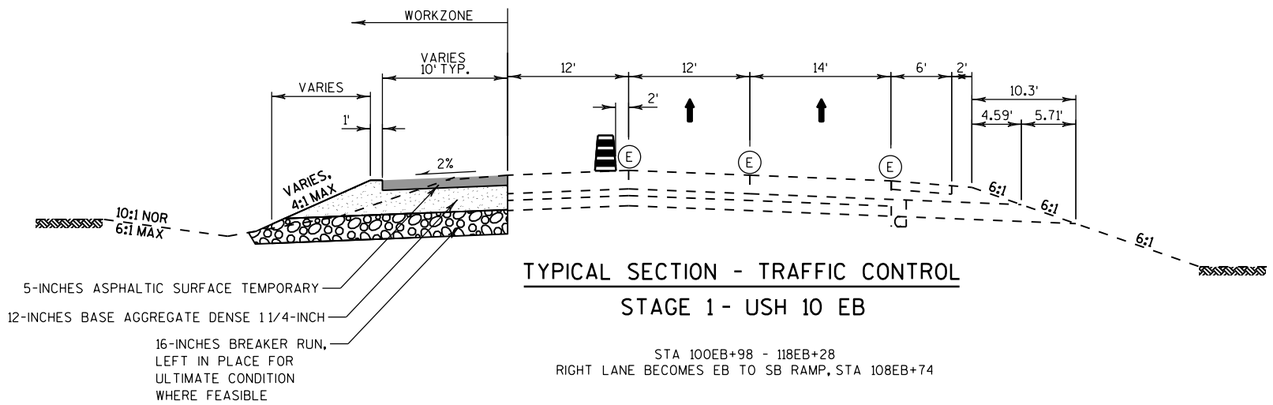
STRUCTURE B-70-79



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 1 - USH 10 EB

STA 126EB+41 - STA 132EB+04

NOTE: MEDIAN ASPHALT WIDENING ONLY FROM
STA 128EB+94 - STA 132EB+15



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 1 - USH 10 EB

STA 100EB+98 - 118EB+28
RIGHT LANE BECOMES EB TO SB RAMP, STA 108EB+74

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

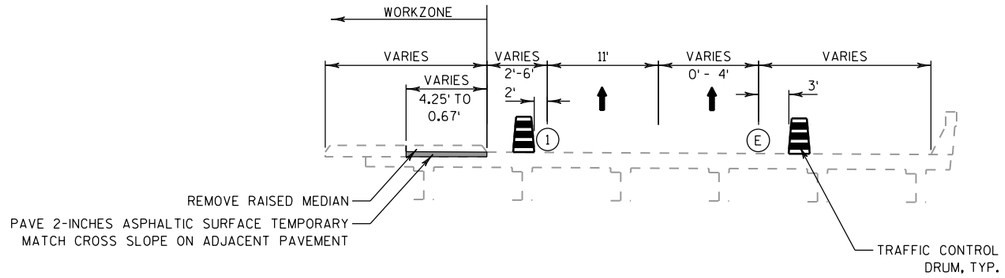
(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

LEGEND

TRAFFIC FLOW
TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 144	E

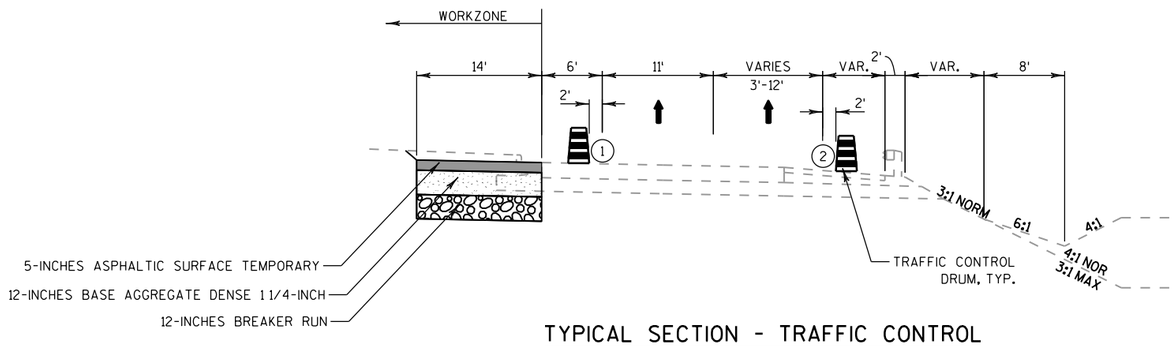
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 1 - USH 10 EB

STRUCTURE B-70-78



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 1 - USH 10 EB

STA 135EB+87 - STA 139EB+20

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

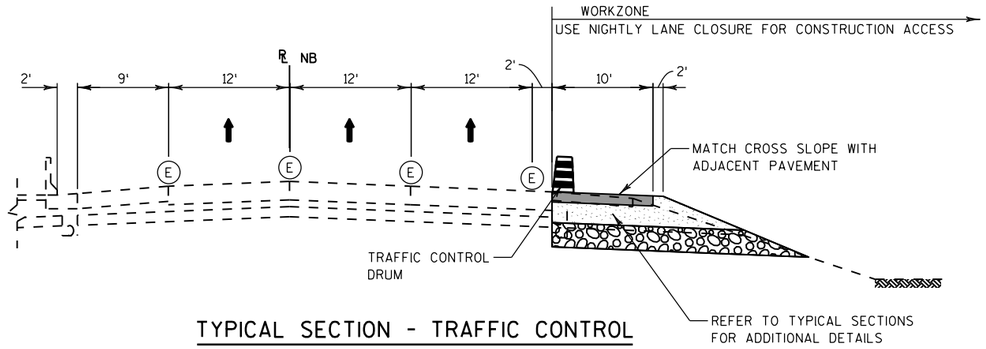
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 145	E

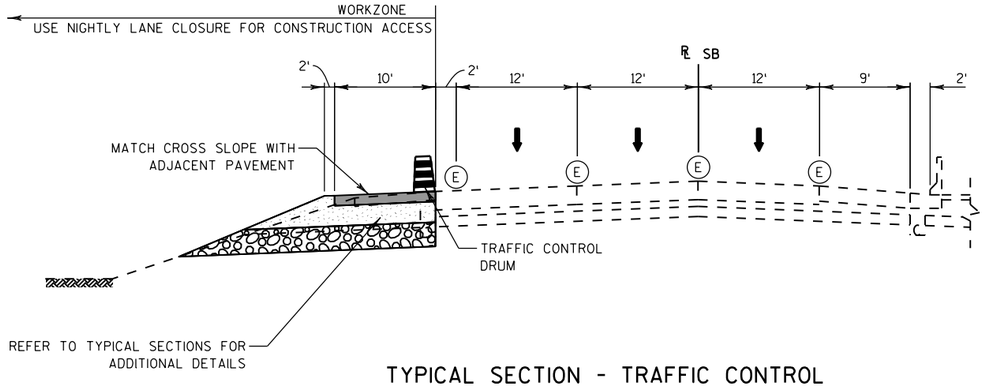
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 1 - USH 41 NB

STA 1324NB+18 - STA 1343NB+62



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 1 - USH 41 SB

STA 1323SB+00 - STA 1336SB+75

PAVEMENT MARKING LEGEND

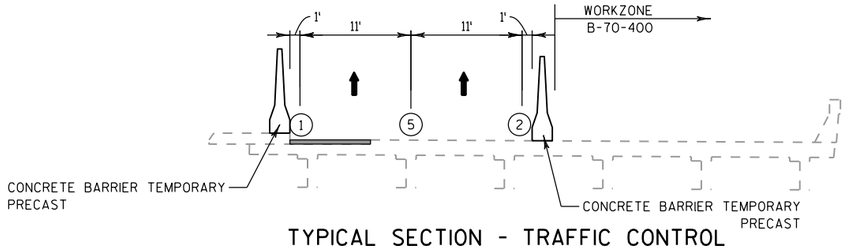
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)
- E EXISTING PAVEMENT MARKINGS

LEGEND

- TRAFFIC FLOW
- TEMPORARY PAVEMENT

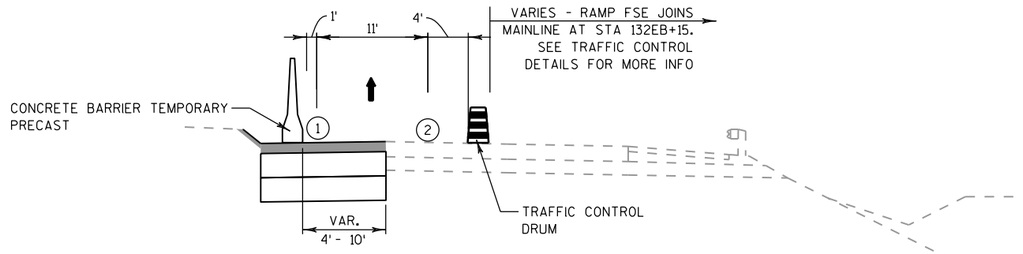
NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.



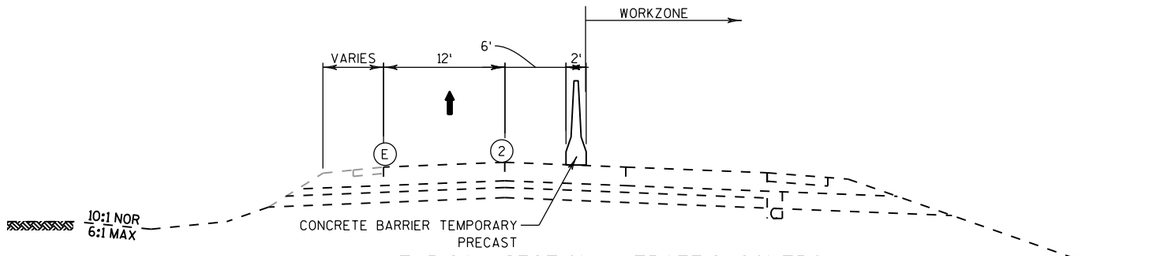
TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2A THRU 3 - USH 10 EB

STRUCTURE B-70-79



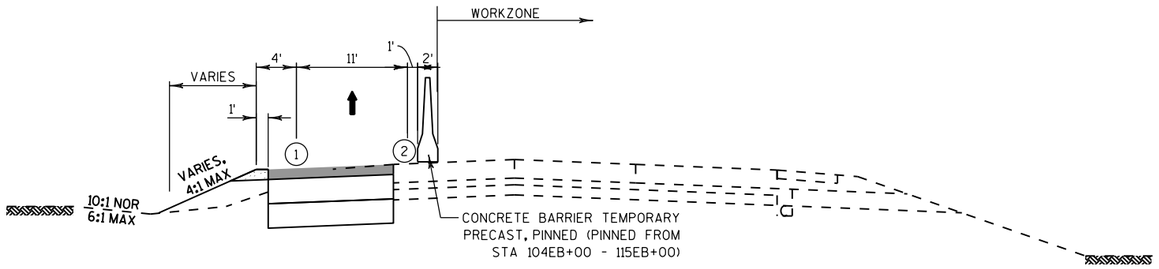
TYPICAL SECTION - TRAFFIC CONTROL
STAGE 2A - USH 10 EB

STA 129EB+00 - STA 132EB+15



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 2A - USH 10 EB

STA 117EB+78 - 125EB+32
CURB AND GUTTER BEGINS ON LEFT SIDE, STA 121EB+13



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 2A - USH 10 EB

STA 104EB+00 - 115EB+59

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

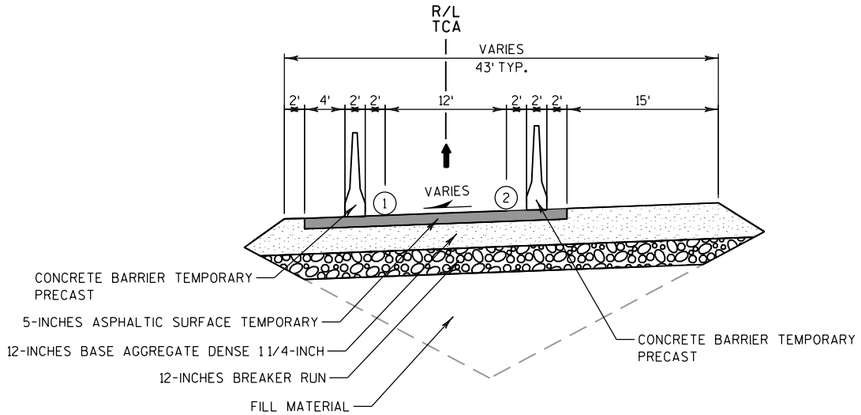
PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

LEGEND

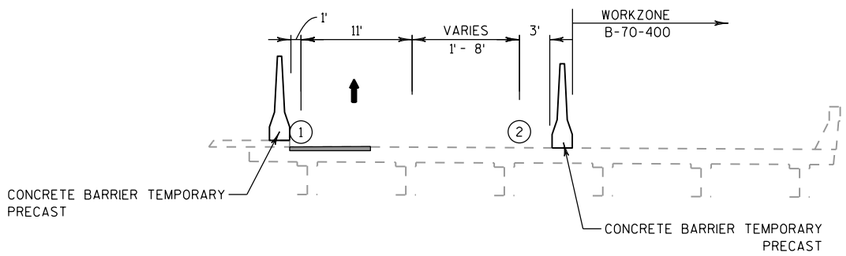
TRAFFIC FLOW
TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 147	E



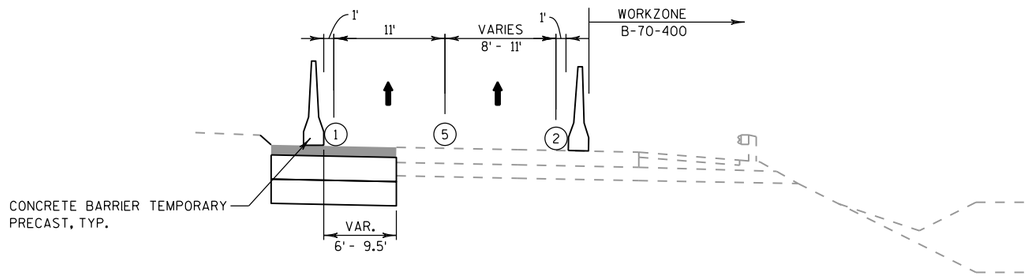
TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2A & 2B - TCA CROSSOVER

STA 2336TCA+23.11 TO STA 2339TCA+87.63



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2A THRU 3 - USH 10 EB

STRUCTURE B-70-78



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2A THRU 3 - USH 10 EB

STA 135EB+87 - STA 139EB+20

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

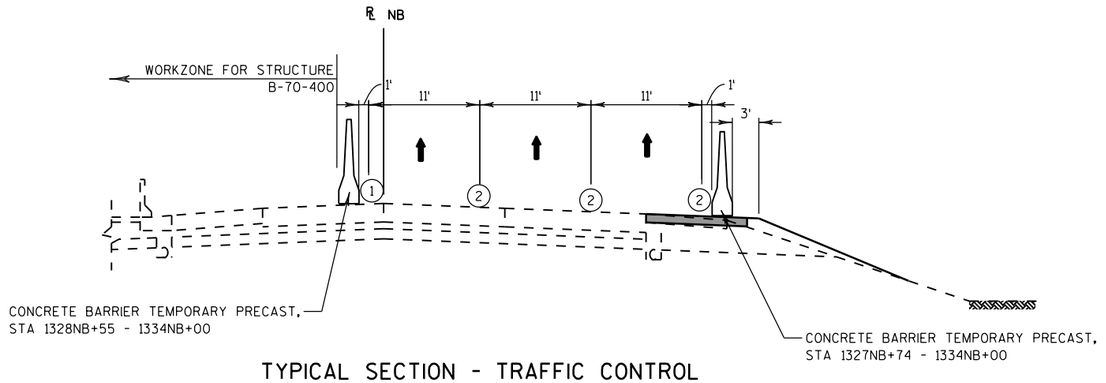
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 148	E

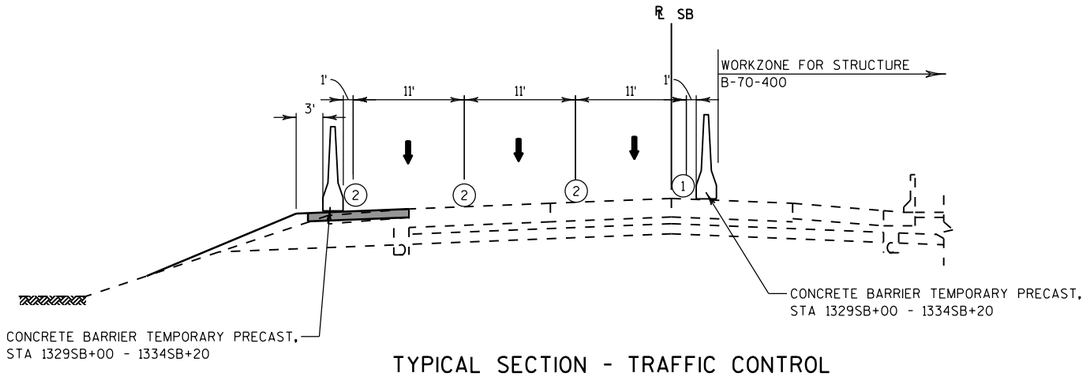
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGES 2A THRU 6 - USH 41 NB

STA 1324NB+18 - STA 1343NB+62



TYPICAL SECTION - TRAFFIC CONTROL

STAGES 2A THRU 6 - USH 41 SB

STA 1323SB+00 - STA 1336SB+75

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

(E) EXISTING PAVEMENT MARKINGS

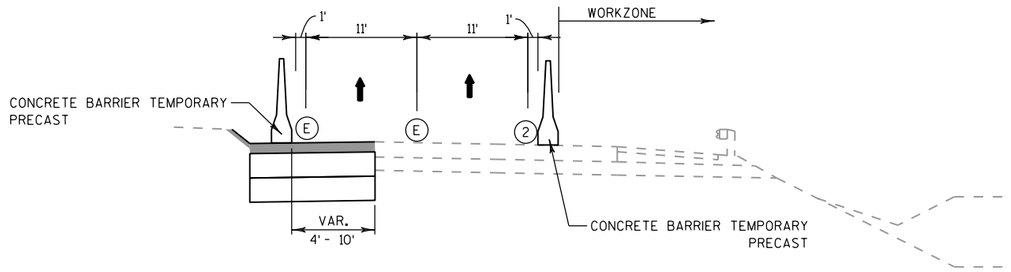
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

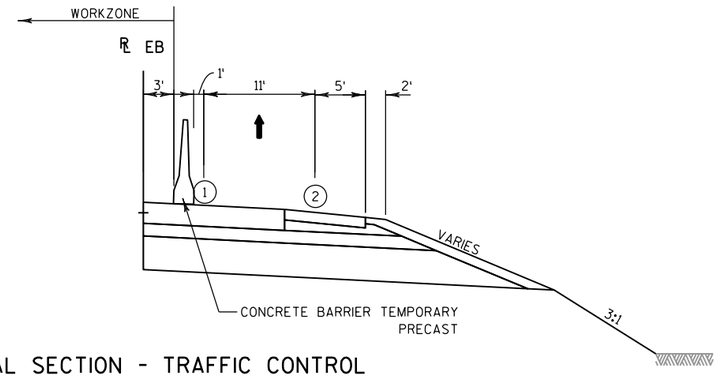
NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.



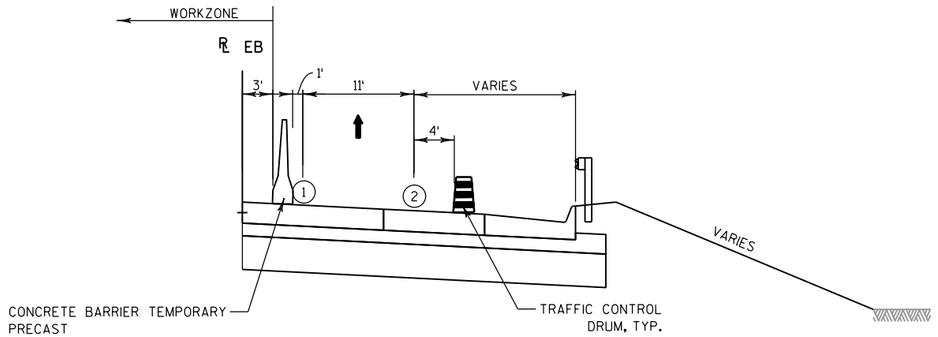
TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2B & 3 - USH 10 EB

STA 129EB+38 - STA 132EB+15



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2B & 3 - USH 10 EB

STA 111EB+58 - STA 122EB+50



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2B & 3 - USH 10 EB

STA 103EB+62 - STA 111EB+58

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

(E) EXISTING PAVEMENT MARKINGS

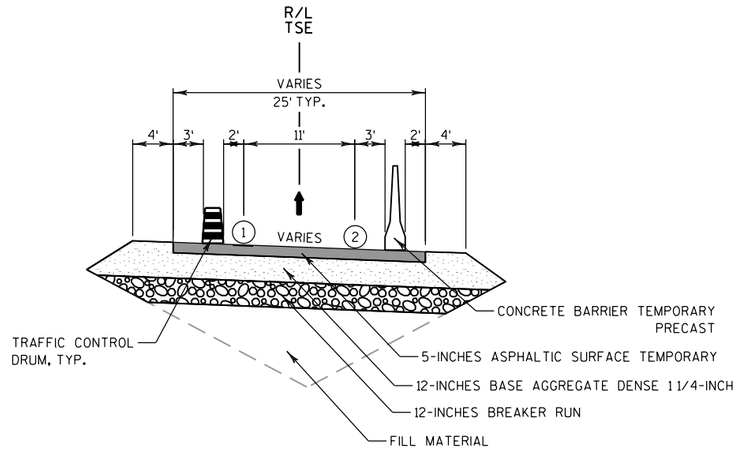
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

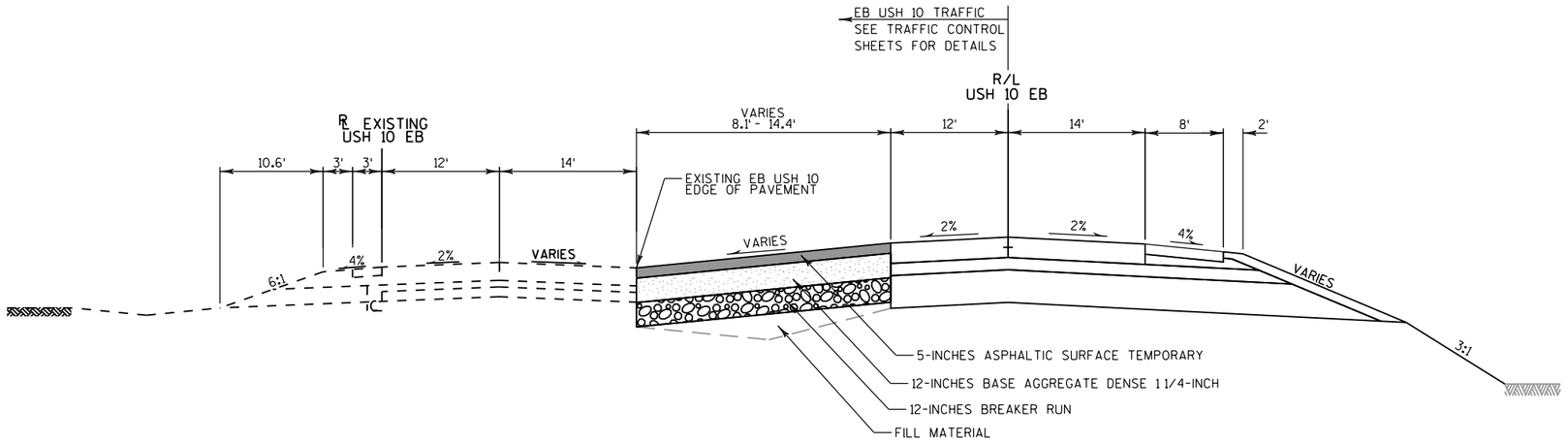
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 150	E

2



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2B & 3 - TSE CROSSOVER

STA 100TSE+00 TO STA 100TSE+88.39



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 2B & 3 - EB CROSSOVER

STA 125EB+68.75 TO STA 129EB+73.42

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)
E. EXISTING PAVEMENT MARKINGS

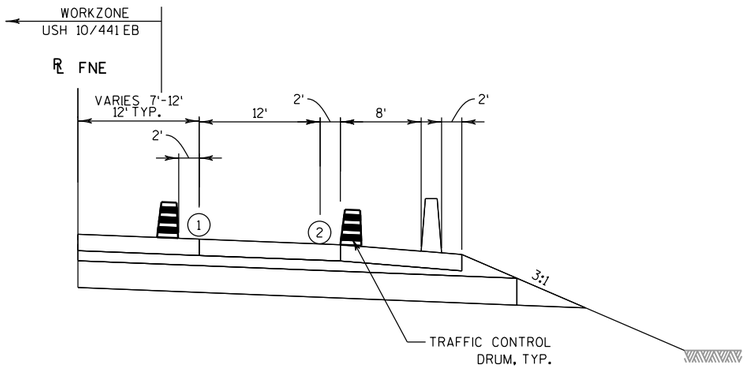
NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

LEGEND

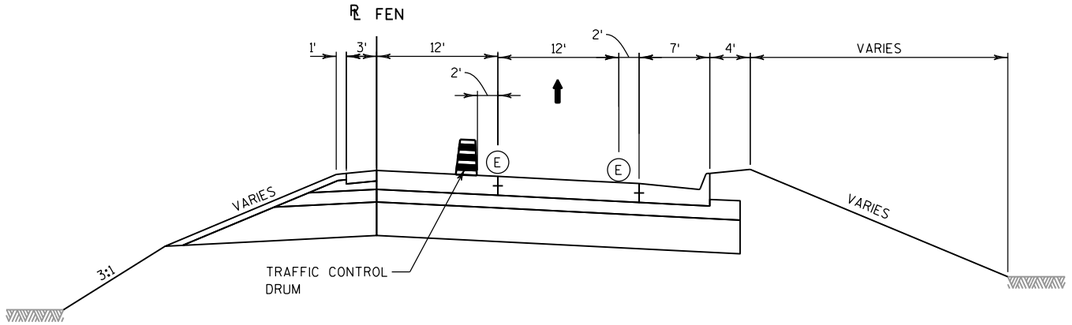
- TRAFFIC FLOW
- TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 151	E



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 3 THRU 6 - FNE RAMP

STA 1336FNE+27 - STA 1340FNE+21



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 3 THRU 6 - FEN RAMP

STA 108FEN+68.41 - STA 117FEN+43.95

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

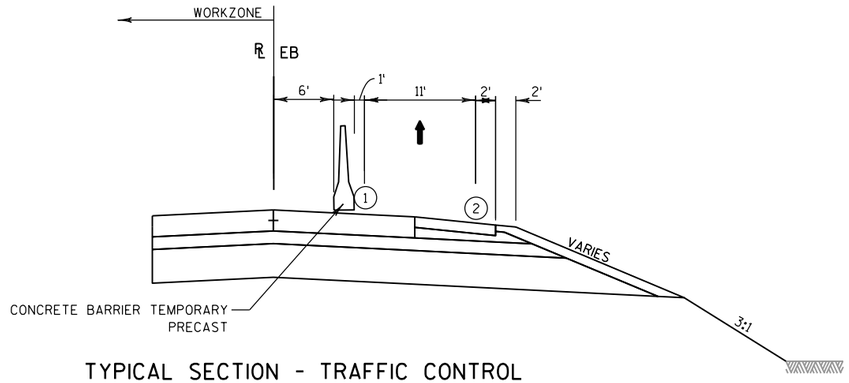
(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

LEGEND

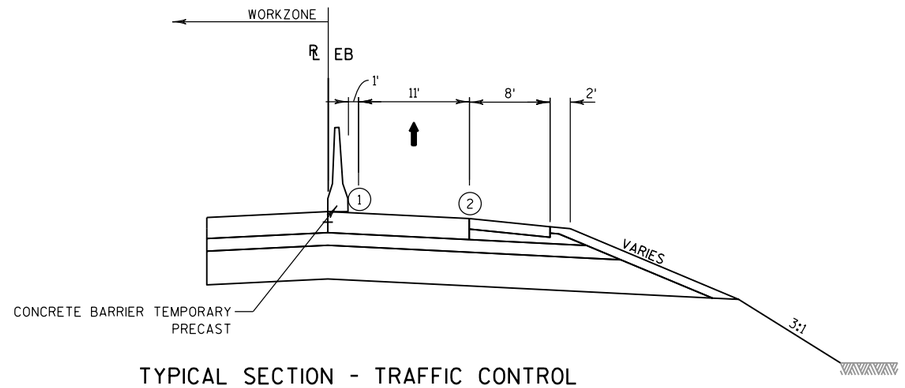
TRAFFIC FLOW

TEMPORARY PAVEMENT

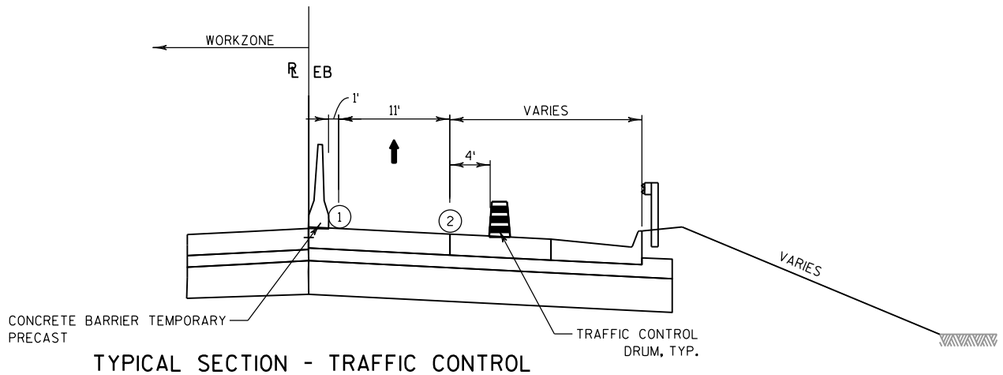
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 152	E



TYPICAL SECTION - TRAFFIC CONTROL
STAGES 4 - USH 10 EB
STA 118EB+85 - STA 126EB+00



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 4 - USH 10 EB
STA 111EB+58 - STA 115EB+85



TYPICAL SECTION - TRAFFIC CONTROL
STAGE 4 - USH 10 EB
STA 103EB+62 - STA 111EB+58

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

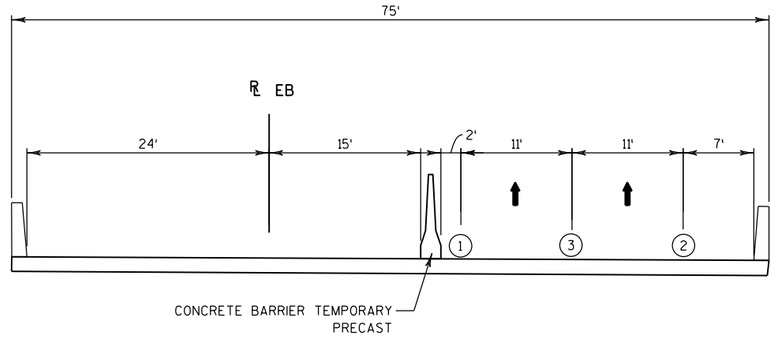
PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

LEGEND

TRAFFIC FLOW
TEMPORARY PAVEMENT

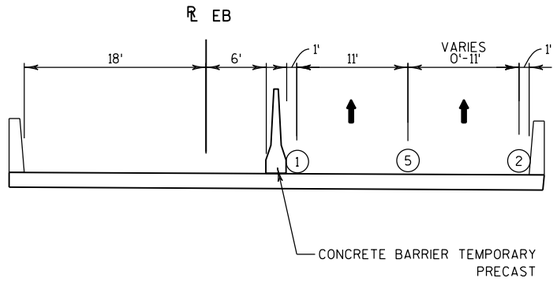
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 4 - USH 10 EB

STRUCTURE B-70-403
STA 152EB+79 TO STA 180EB+90



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 4 - USH 10 EB

STRUCTURE B-70-400
STA 131EB+75 TO STA 142EB+58

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

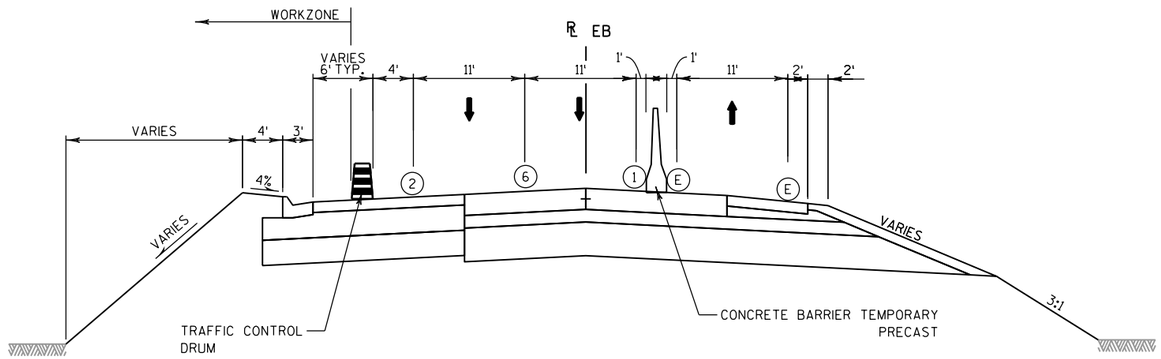
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 154	E

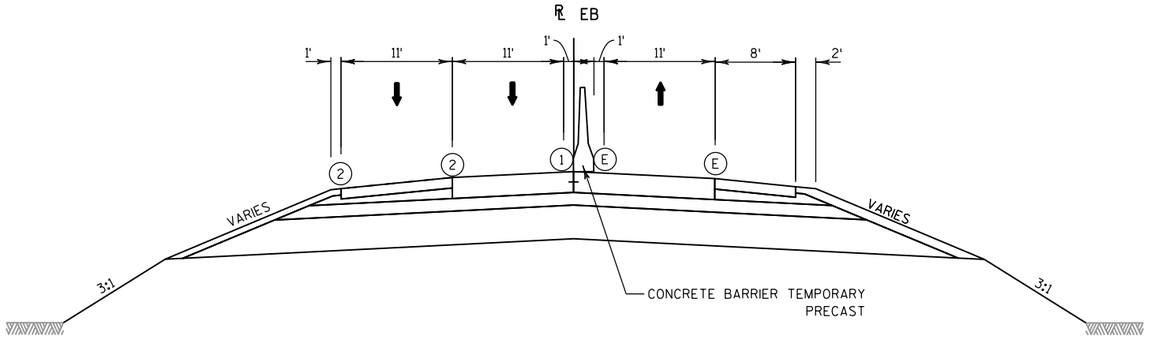
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 5 - USH 10 EB

STA 118EB+99 TO STA 125EB+42



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 5 - USH 10 EB

STA 111EB+45 TO STA 115EB+85

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)
E. EXISTING PAVEMENT MARKINGS

NOTES

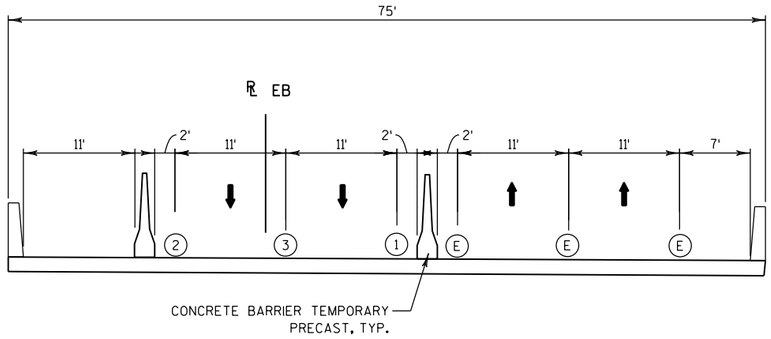
1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

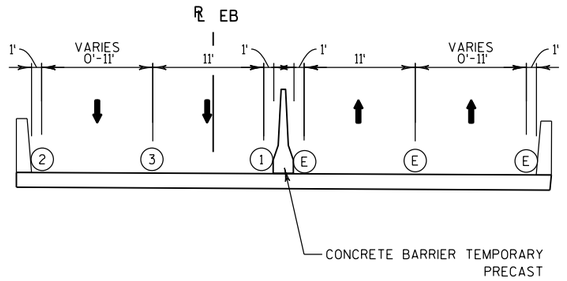
2



TYPICAL SECTION - TRAFFIC CONTROL

STAGES 5 AND 6 - USH 10 EB

STRUCTURE B-70-403
STA 152EB+79 TO STA 180EB+90



TYPICAL SECTION - TRAFFIC CONTROL

STAGES 5 & 6 - USH 10 EB

STRUCTURE B-70-400
STA 131EB+75 TO STA 142EB+58

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)
(E) EXISTING PAVEMENT MARKINGS

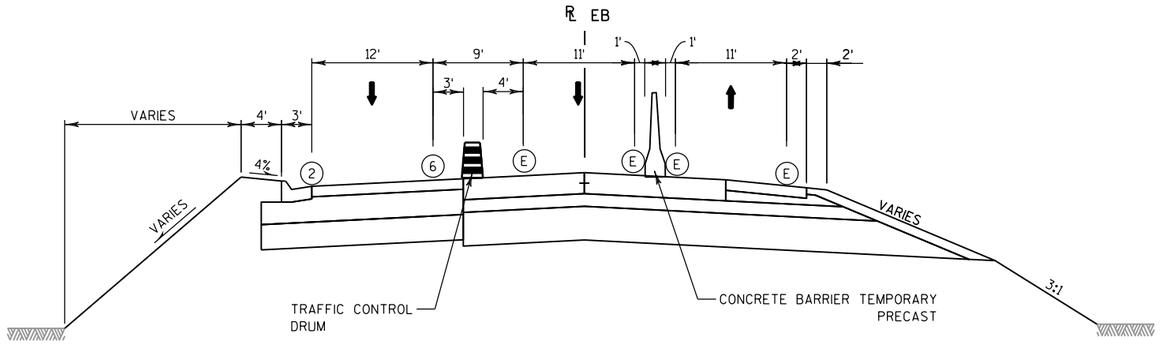
LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

NOTES

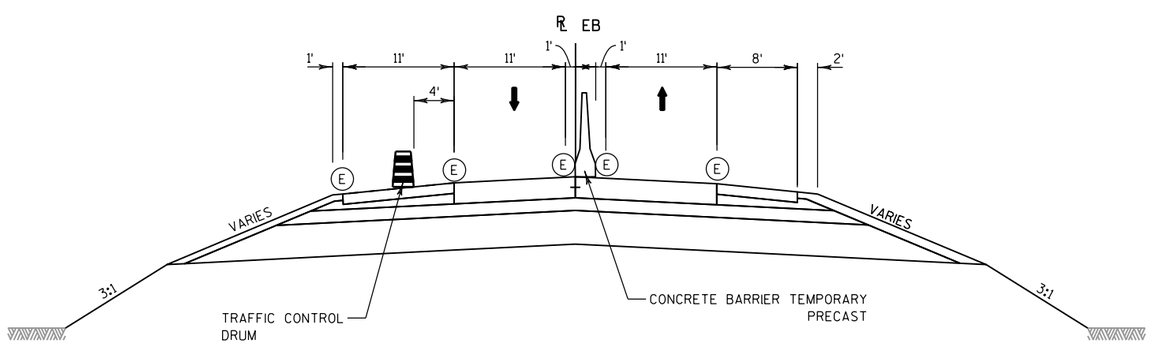
1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 6 - USH 10 EB

STA 118EB+99 TO STA 125EB+42



TYPICAL SECTION - TRAFFIC CONTROL

STAGE 6 - USH 10 EB

STA 111EB+45 TO STA 115EB+85

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

(E) EXISTING PAVEMENT MARKINGS

NOTES

1. REFER TO THE TRAFFIC CONTROL TEMPORARY PAVING GRADES AND THE CONTRACT REMOVALS FOR SPECIFIC DETAILS RELATING TO WIDTHS NOT SPECIFIED IN THE TRAFFIC CONTROL TYPICAL SECTIONS.

LEGEND

TRAFFIC FLOW

TEMPORARY PAVEMENT

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 157	E

2

2

N

W. AMERICAN DRIVE

USH 10

USH 10 / STH 441

CTH CB

JACOBSEN ROAD

9TH STREET

TAYCO STREET

COLD SPRING ROAD

JACOBSEN ROAD

USH 41

INDEPENDENCE DRIVE

NORTH LAKE STREET

WINCHESTER ROAD

Hwy41 South

Appleton 6

Manitowoc 47

CLOSED

NOTES:

1) SIGN COVERING TO BE USED FOR STAGES 2A THRU 2B DURING FES RAMP CLOSURE EXCEPT AS NOTED, OR AS DIRECTED BY THE ENGINEER.

LEGEND

SIGN COVERING

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL - EXISTING SIGNING	SHEET 158	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025400_tc.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : $FILE$ PLOT SCALE : 1000:1

WISDOT/CADDS SHEET 42

N

NOTES;

1) COORDINATE LOCATIONS OF ALL ADVANCED SIGNING WITH PROJECTS 1517-07-72/76 AND 1517-75-71/75 PRIOR TO PLACING SIGNS.

2) SIGNS W21-62 AND W21-62P LEFT IN PLACE FROM PREVIOUS PROJECT. VERIFY LOCATIONS AND MOVE SIGNS THAT CONFLICT WITH PLACEMENT OF NEW SIGNS, OR AS DIRECTED BY THE ENGINEER.

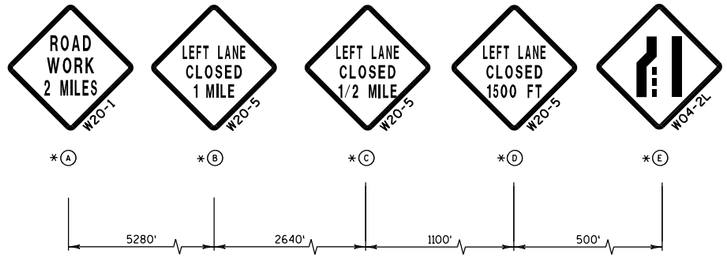
*TRAFFIC CONTROL SIGNS TO BE PLACED IN STAGE 1 FOR WB NIGHTTIME INSIDE LANE CLOSURE.

**SEE TRAFFIC CONTROL DETAILS FOR SIGN DIMENSIONS.

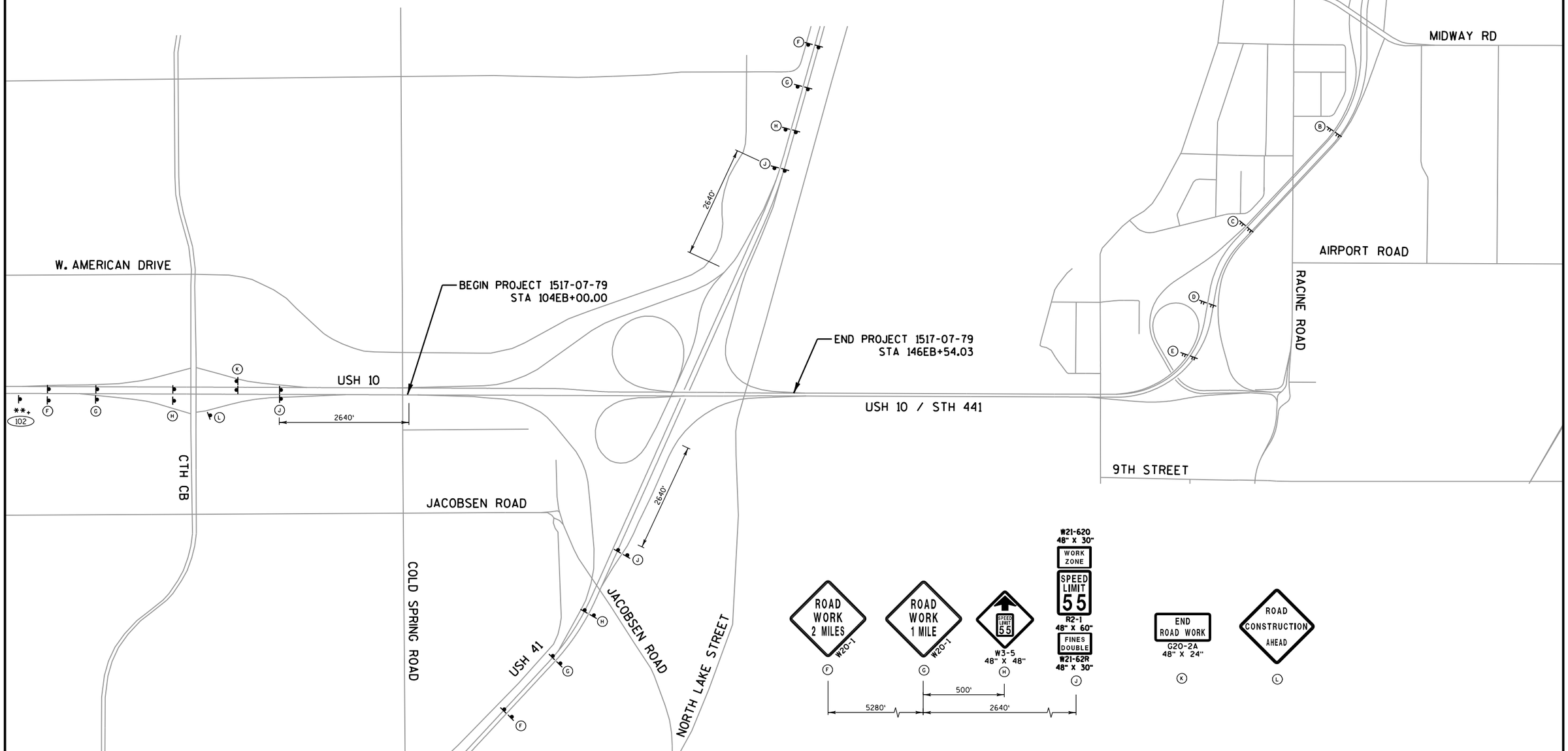
+ PLACE SIGN PRIOR TO BEGINNING STAGE 2A CONSTRUCTION. SIGN TO REMAIN FOR DURATION OF STAGES 2A AND 2B. PLACE SIGN 2 MILES IN ADVANCE OF CTH CB OFFRAMP.

LEGEND

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- (XXX) FIXED MESSAGE SIGN NUMBER (REFER TO TRAFFIC CONTROL - DETAILS FOR SIGN DETAILS)



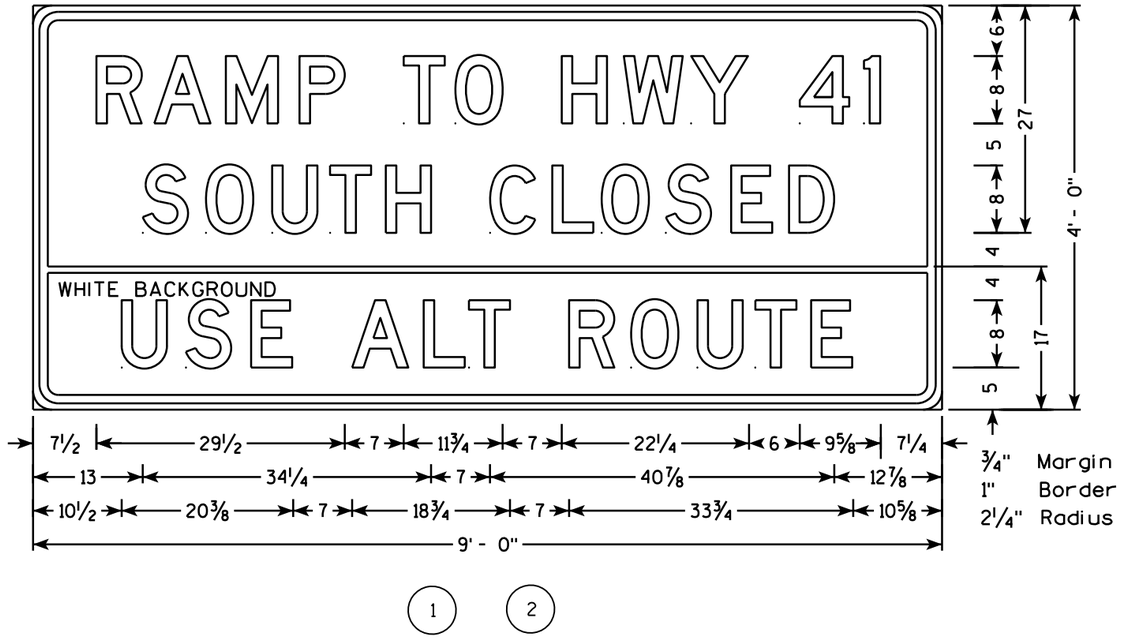
NOTE: SIGNS TO BE PLACED IN STAGE 1 FOR NIGHTTIME INSIDE LANE CLOSURE

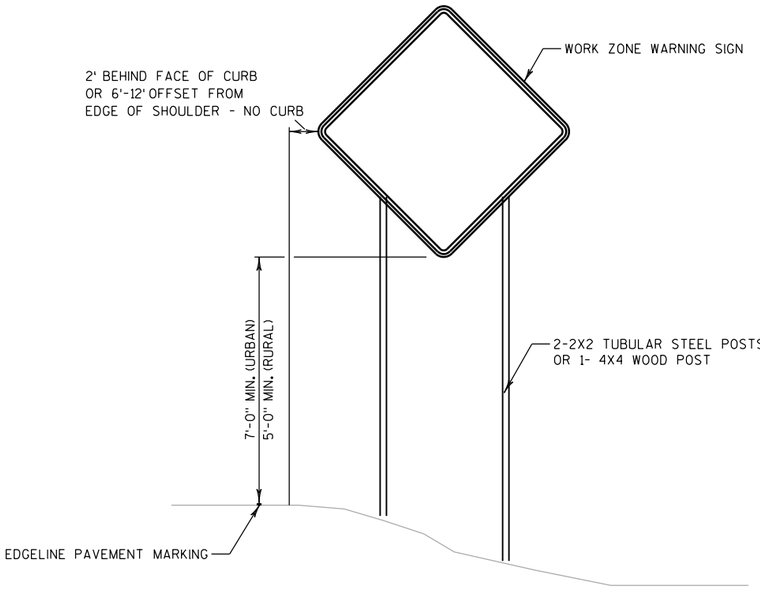


PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL - ADVANCED SIGNING	SHEET 159	E

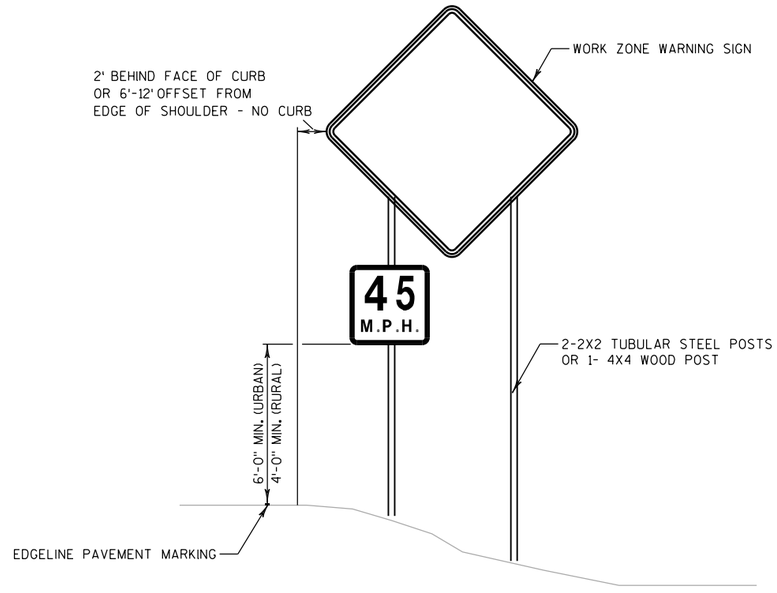
NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - ORANGE except as Shown
   Message - BLACK
3. Message Series - D





TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT

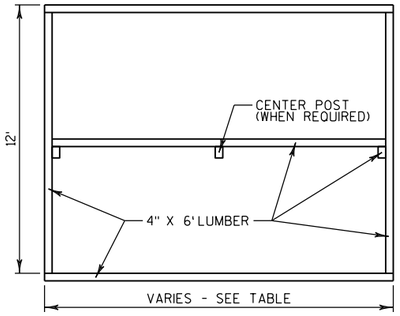


TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT
WITH ADVISORY SPEED PLATE SIGN

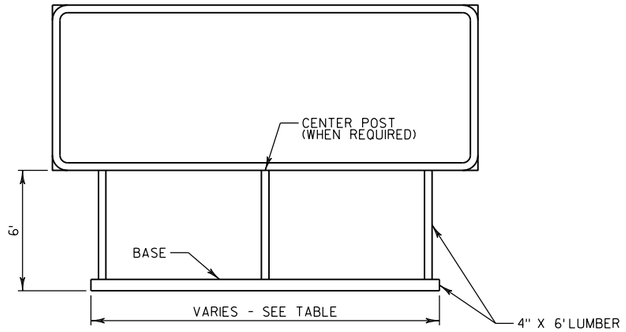
2

NOTE

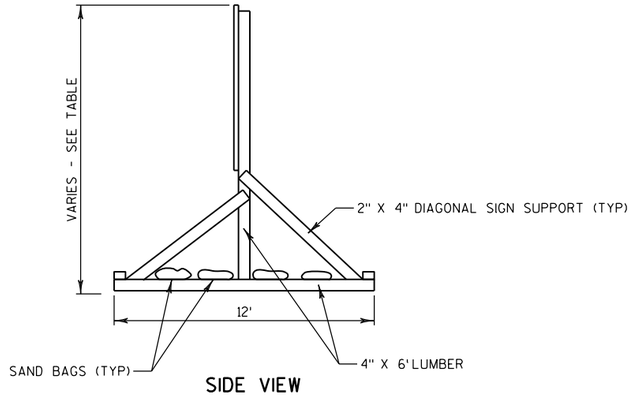
ONY ALLOWED WHEN BEHIND BARRIER WALL OR GUARDRAIL.



BASE DETAIL



FRONT VIEW



SIDE VIEW

QUANTITY AND LENGTH OF
HORIZONTAL POSTS (SEE BASE DETAIL)
(FOR INFORMATION ONLY)

	SIGN NUMBER										
	215	303	1603	1604	1605	1609	1610	1618	1621	1622	930
8'	3	3	0	3	0	0	0	0	0	0	0
10'	0	0	0	0	0	3	0	0	3	3	3
12'	0	0	3	0	3	0	3	3	0	0	0

QUANTITY AND LENGTH
OF VERTICAL POSTS
(FOR INFORMATION ONLY)

	SIGN NUMBER										
	215	303	1603	1604	1605	1609	1610	1618	1621	1622	930
12'	0	0	0	0	0	0	0	0	1	1	3
14'	2	2	2	3	0	0	0	1	0	0	0
16'	0	0	0	0	0	1	1	0	2	2	0
18'	0	0	1	0	1	2	2	2	0	0	0
22'	0	0	0	0	2	0	0	0	0	0	0

FIXED MESSAGE SIGN PORTABLE SUPPORT

NOTES

1. "SEE TRAFFIC CONTROL - ADVANCED SIGNING" FOR SIGN LOCATIONS.
2. FOUR DIAGONAL SUPPORTS SHALL BE INCLUDED. DIAGONAL SUPPORTS SHALL BE AFFIXED TO THE OUTSIDE SUPPORTS AND ARE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL SIGNS FIXED MESSAGE.
3. LUMBER PAID FOR UNDER TEMPORARY SIGN PORTABLE SUPPORT.
4. PROVIDE AN ADEQUATE NUMBER OF SAND BAGS TO HOLD THE SIGN IN PLACE. SAND BAGS ARE INCIDENAL TO TRAFFIC CONTROL SIGNS FIXED MESSAGE.
5. SEE "TYPICAL INSTALLATION OF TYPE ISIGNS ON MULTIPLE POSTS" SIGN PLATE FOR ADDITIONAL REQUIREMENTS.

2

NOTES

1) PAYMENT FOR DRILLING BOLT HOLES THRU THE CONCRETE BARRIER AND ALL BOLTS, NUTS AND WASHERS REQUIRED SHALL BE INCLUDED IN THE ITEM TEMPORARY THRIE BEAM CONNECTION.

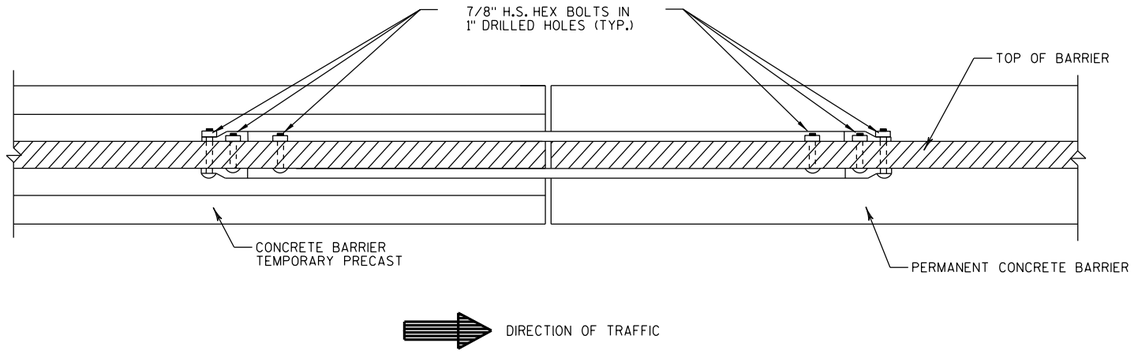
2) ALL CONSTRUCTION INFORMATION NOT INDICATED ON THIS DETAIL SHALL BE IN ACCORDANCE WITH SDD "MGS THRIE BEAM TRANSITION".

3) 7/8" H.S. HEX HEAD BOLT (LENGTH VARIES). CONTRACTOR SHALL PROVIDE APPROPRIATE LENGTH BOLT FOR EACH CONNECTOR LOCATION.

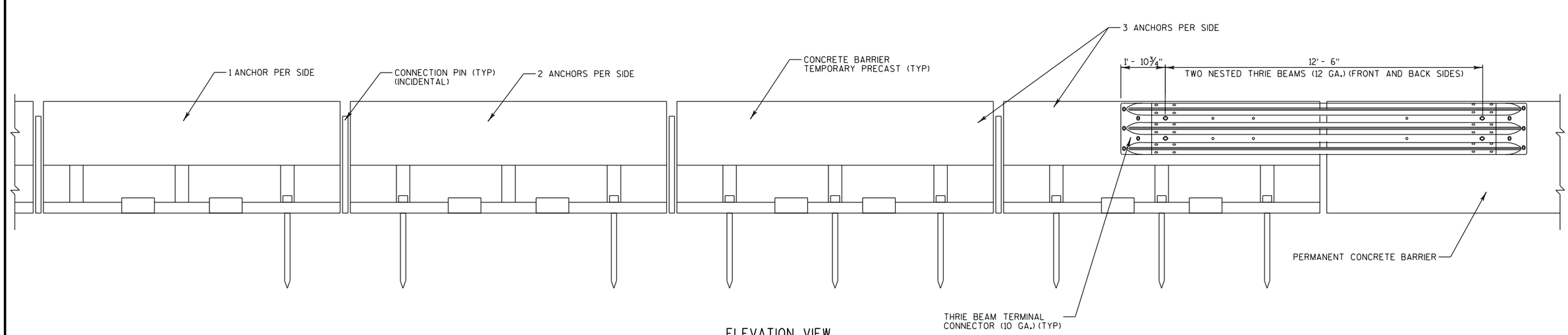
4) FOUR SECTIONS OF CONCRETE BARRIER TEMPORARY PRECAST ADJACENT TO THE TEMPORARY THRIE BEAM CONNECTION SHALL BE ANCHORED AS SHOWN ON THIS DETAIL.

5) PLACE THRIE BEAM ON BOTH FACES OF CONCRETE BARRIER. BOLTS SHALL NOT PROTRUDE PAST END OF NUT.

6) CONNECTION PINS USED FOR CONNECTING BARRIERS ARE INCIDENTAL TO THE ITEM CONCRETE BARRIER TEMPORARY PRECAST.



PLAN VIEW



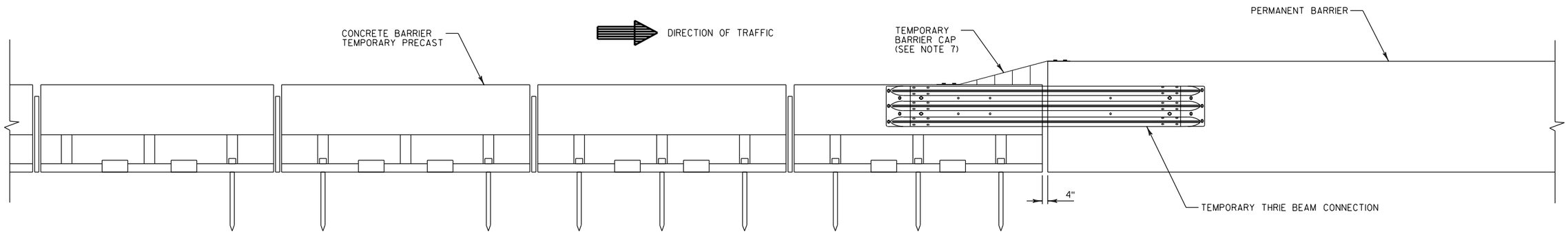
ELEVATION VIEW

TEMPORARY THRIE BEAM CONNECTION

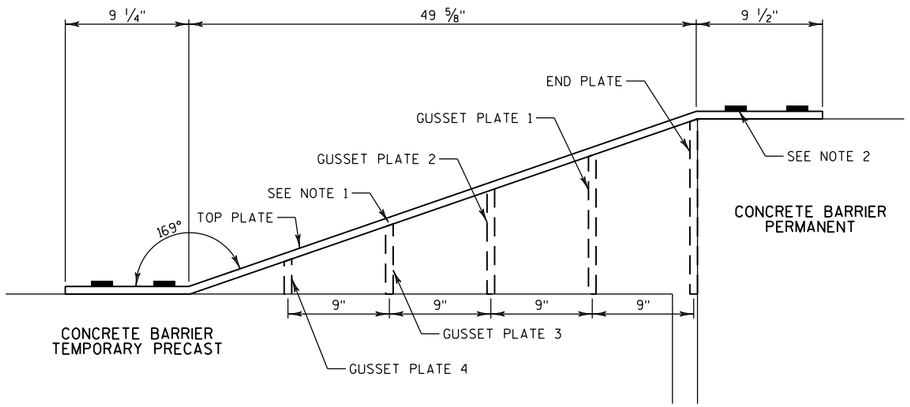
SHEET 1 OF 2

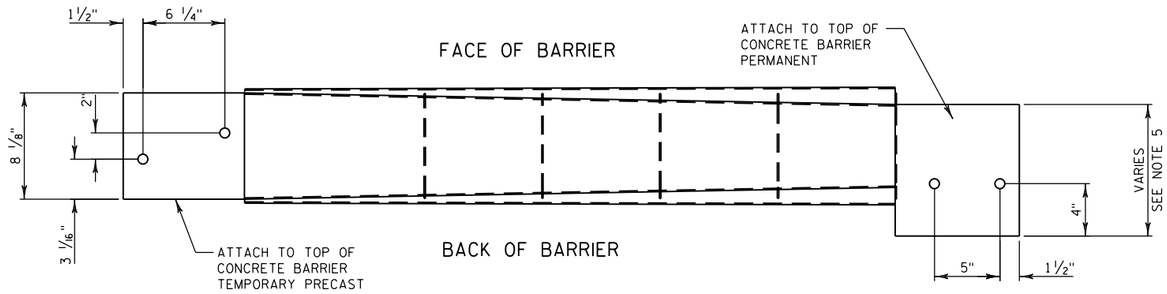
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL CONSTRUCTION DETAILS	SHEET 163	E

2

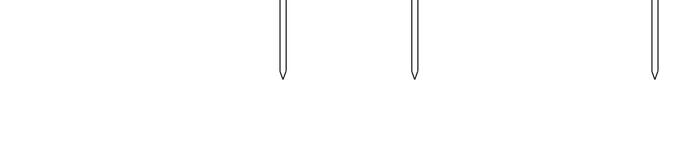


ELEVATION VIEW

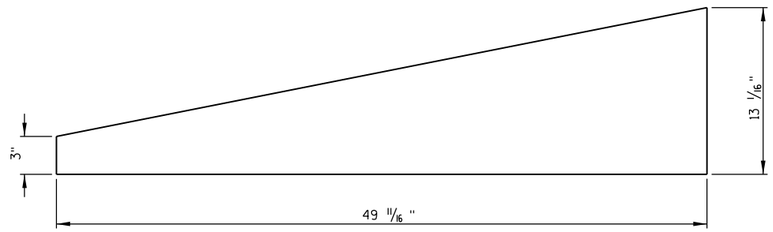




TOP VIEW



PLAN VIEW



SIDE PLATE

NOTES

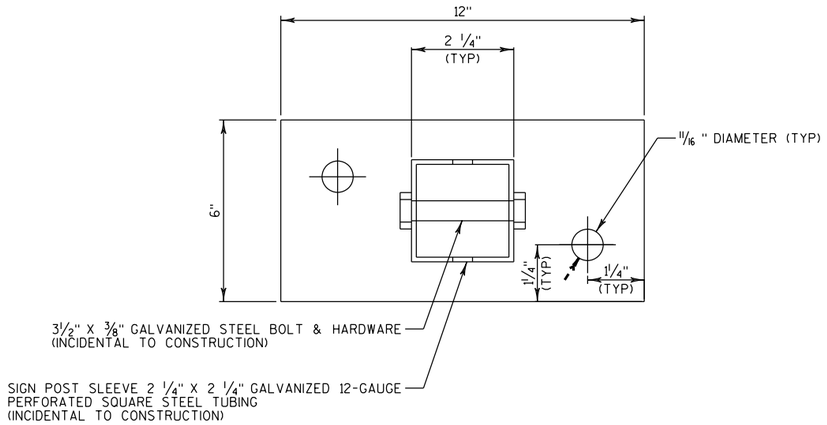
1) GALVANIZED AFTER WELDING FOR FINAL DESIGN.
2) FASTEN TEMPORARY BARRIER CAP TO BARRIERS USING FOUR 5/8" x 4" LONG MECHANICAL WEDGE-BOLT ANCHORS.
3) FOUR GUSSET PLATES AND END PLATE ARE STITCH WELDED TO TOP PLATE AND BOTH SIDE PLATES
4) TWO TRIANGULAR SIDE PLATES ARE NEEDED TO ENCASE THE BUILT STRUCTURE.
5) WIDTH VARIES AS EACH BARRIER TYPE DIMENSION CHANGES.
6) CONSTRUCTION FROM 12-GAUGE ASTM A36.
7) TEMPORARY BARRIER CAP REQUIRED WHEN TALLER BARRIER IS ON THE DOWNSTREAM SIDE OF APPROACHING TRAFFIC.
8) ALL HOLES ARE 3/4" UNLESS OTHERWISE NOTED.

TEMPORARY THRIE BEAM CONNECTION

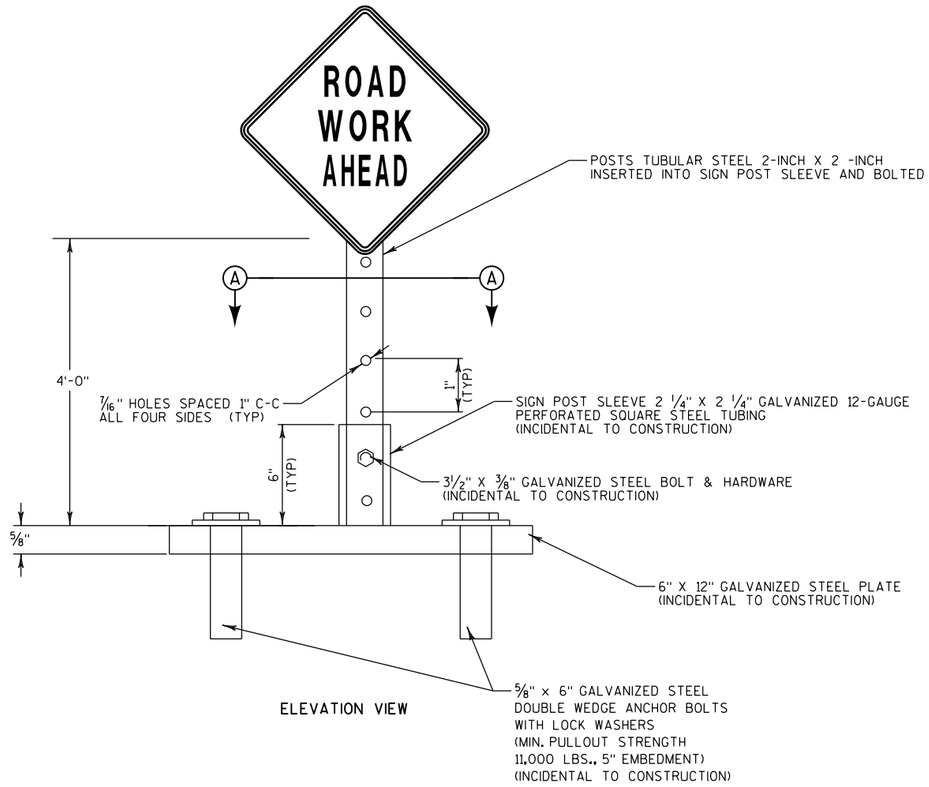
SHEET 2 OF 2

TEMPORARY BARRIER CAP

2

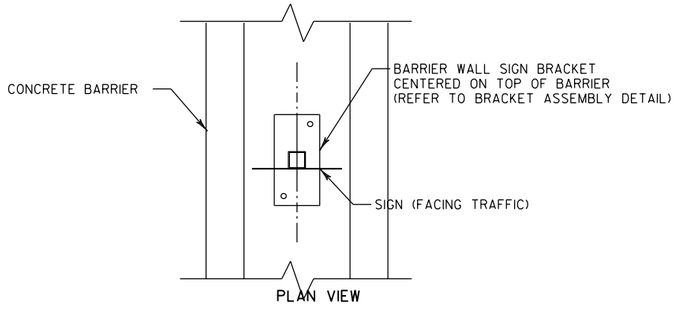


SECTION A-A

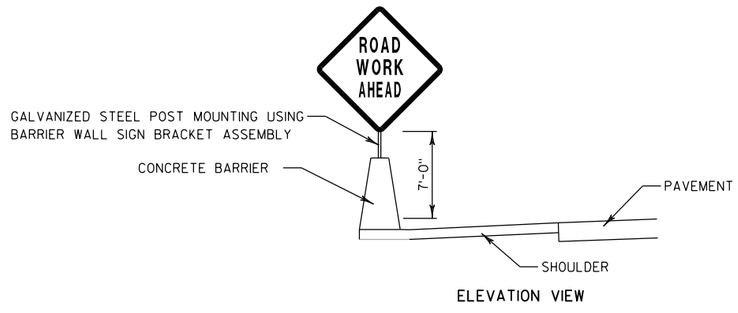


ELEVATION VIEW

BRACKET ASSEMBLY DETAIL



PLAN VIEW



ELEVATION VIEW

MEDIAN BARRIER MOUNTING DETAIL

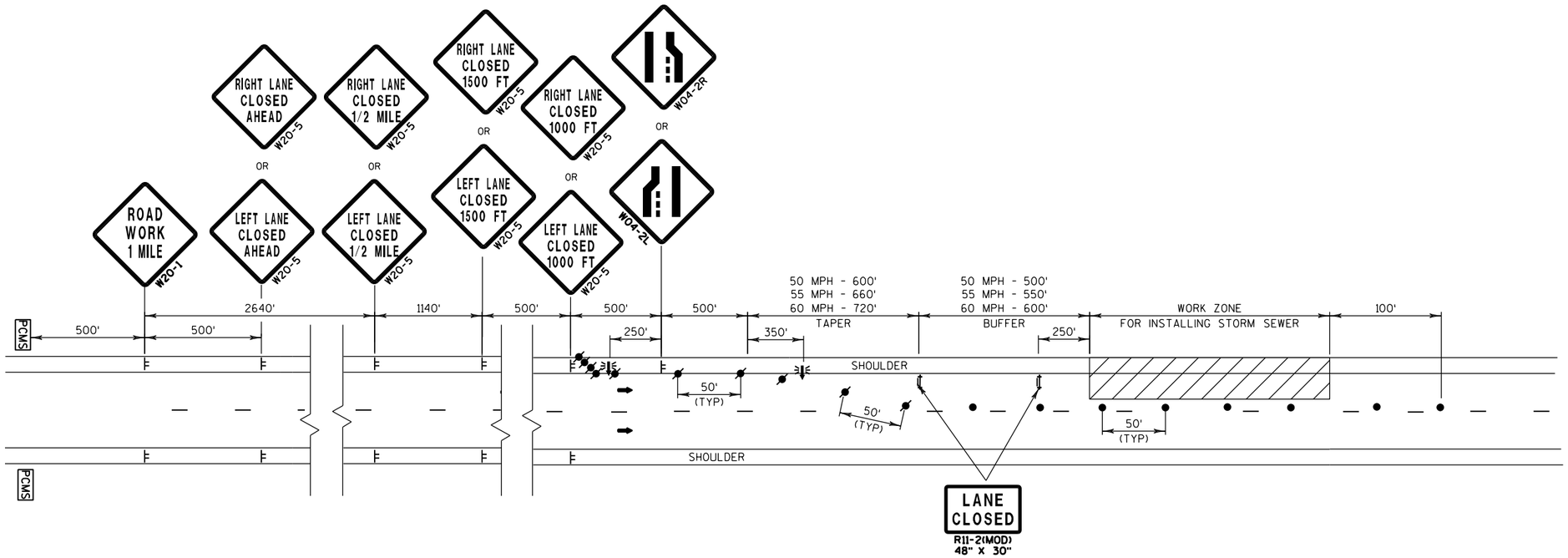
NOTES:

1) SIGNS SHALL NOT BE MOUNTED ON MEDIAN BARRIER WHEN DISTANCE IS LESS THAN 4' FROM BASE OF BARRIER TO EDGE OF TRAVEL LANE.

MOUNTING DETAILS FOR SIGNS MOUNTED TO MEDIAN BARRIER

NOT TO SCALE

2



NOTES:

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

2) ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN)

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

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

5) WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

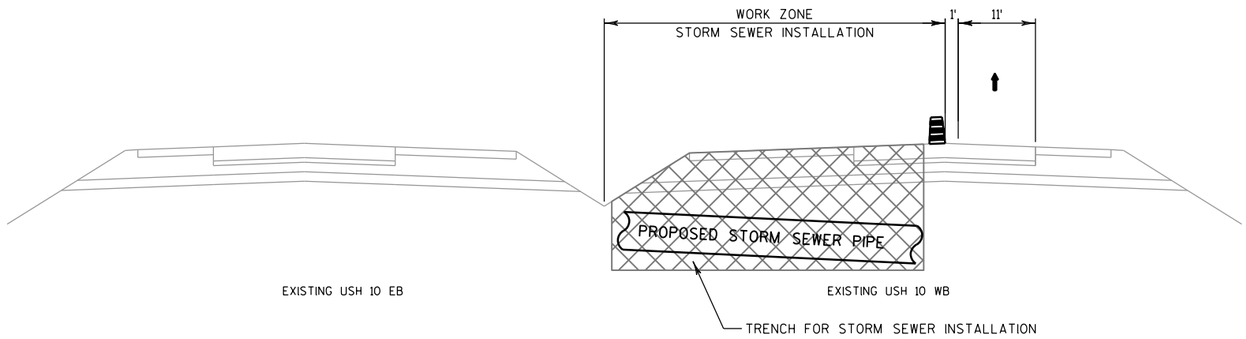
6) ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

7) UTILIZE NIGHT TIME CLOSURE FOR INSTALLATION OF STORM SEWER UNDER EXISTING PAVEMENT. HOURS FOR NIGHT TIME CLOSURE SHALL ADHERE TO THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

8) MEDIAN SHOULDERS WITH FULL DEPTH TEMPORARY PAVEMENT TO ACCOMODATE TRAFFIC TO PROVIDE ADEQUATE WORKZONE WIDTH FOR STORM SEWER CROSSING CONSTRUCTION.

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE



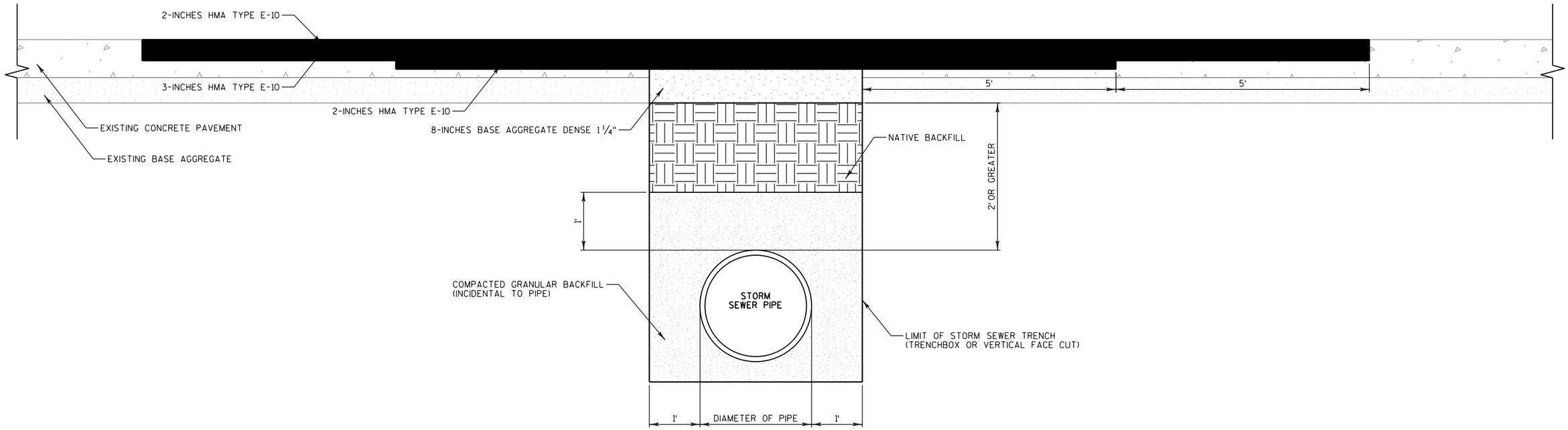
TYPICAL SECTION FOR TRAVELED WAY ALONG USH 10

TYPICAL ONE-LANE NIGHT TIME CLOSURE FOR STORM SEWER INSTALLATION

SHEET 1 OF 2

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL CONSTRUCTION DETAILS	SHEET 166	E

2



NOTES:

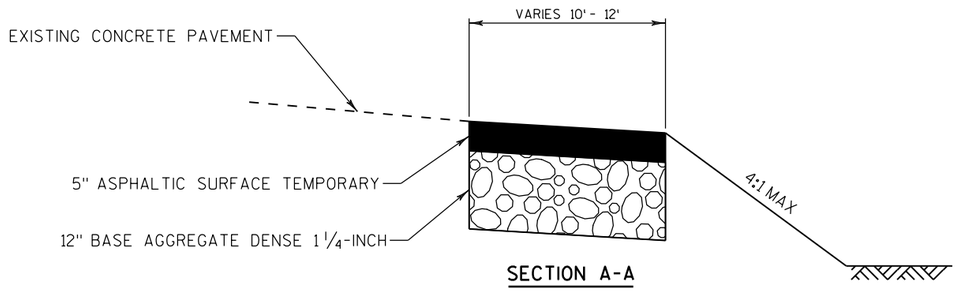
1) NATIVE BACKFILL SHALL BE FREE OF LARGE LUMPS, CLODS, OR ROCK.

2) HMA PAVEMENT AND BASE AGGREGATE DENSE WILL BE PAID FOR UNDER THEIR APPROPRIATE BID ITEMS.

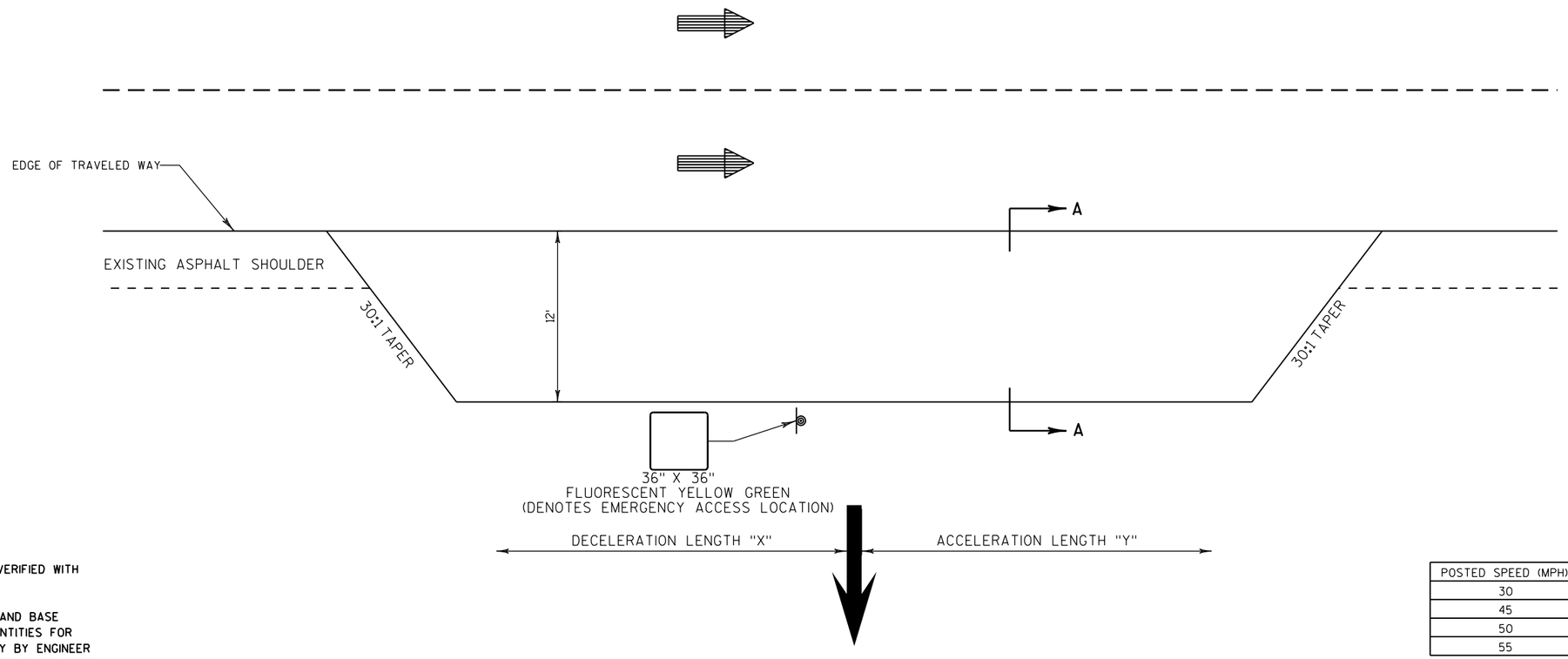
TYPICAL ONE-LANE NIGHT TIME CLOSURE FOR STORM SEWER INSTALLATION

SHEET 2 OF 2

2



SECTION A-A



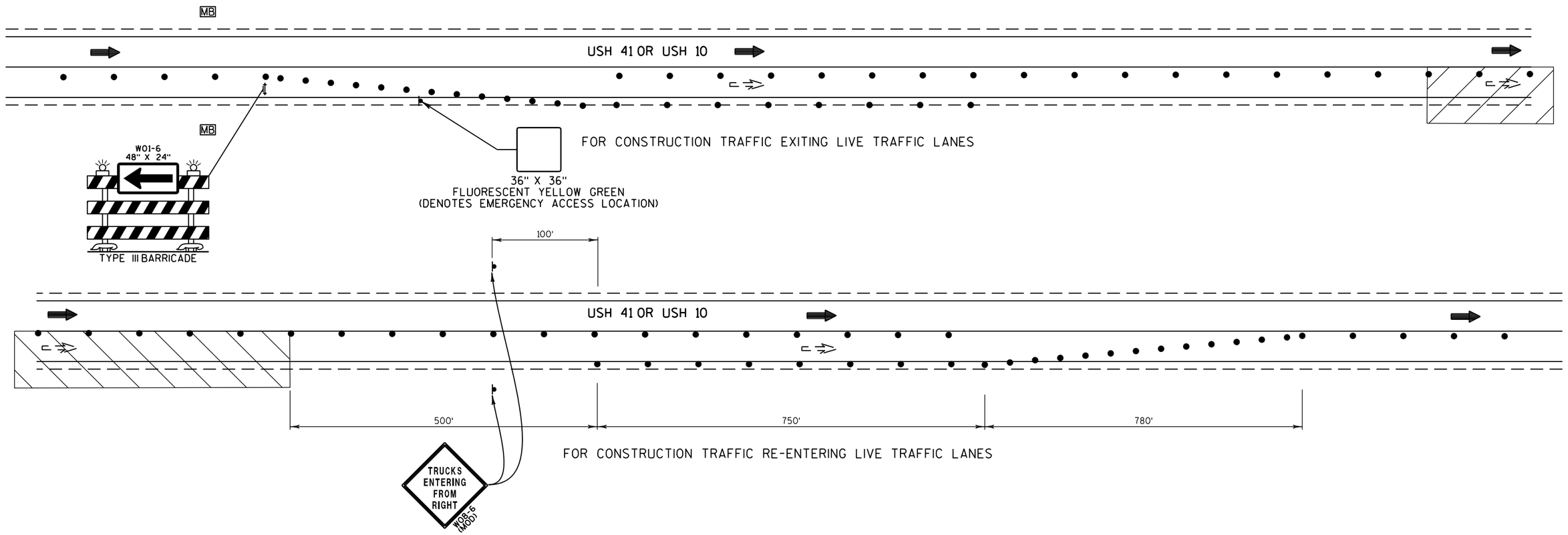
NOTE:
EXACT DIMENSIONS TO BE FIELD VERIFIED WITH THE ENGINEER.

ASPHALTIC SURFACE TEMPORARY AND BASE AGGREGATE DENSE 1 1/4-INCH QUANTITIES FOR CONSTRUCTION DEEMED NECESSARY BY ENGINEER WILL BE PAID UNDER THEIR RESPECTIVE BID ITEMS.

POSTED SPEED (MPH)	X (FEET)	Y (FEET)
30	250'	250'
45	400'	450'
50	450'	600'
55	500'	750'

CONSTRUCTION ACCESS DETAIL

2



TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS TO USH 41 AND USH 10

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

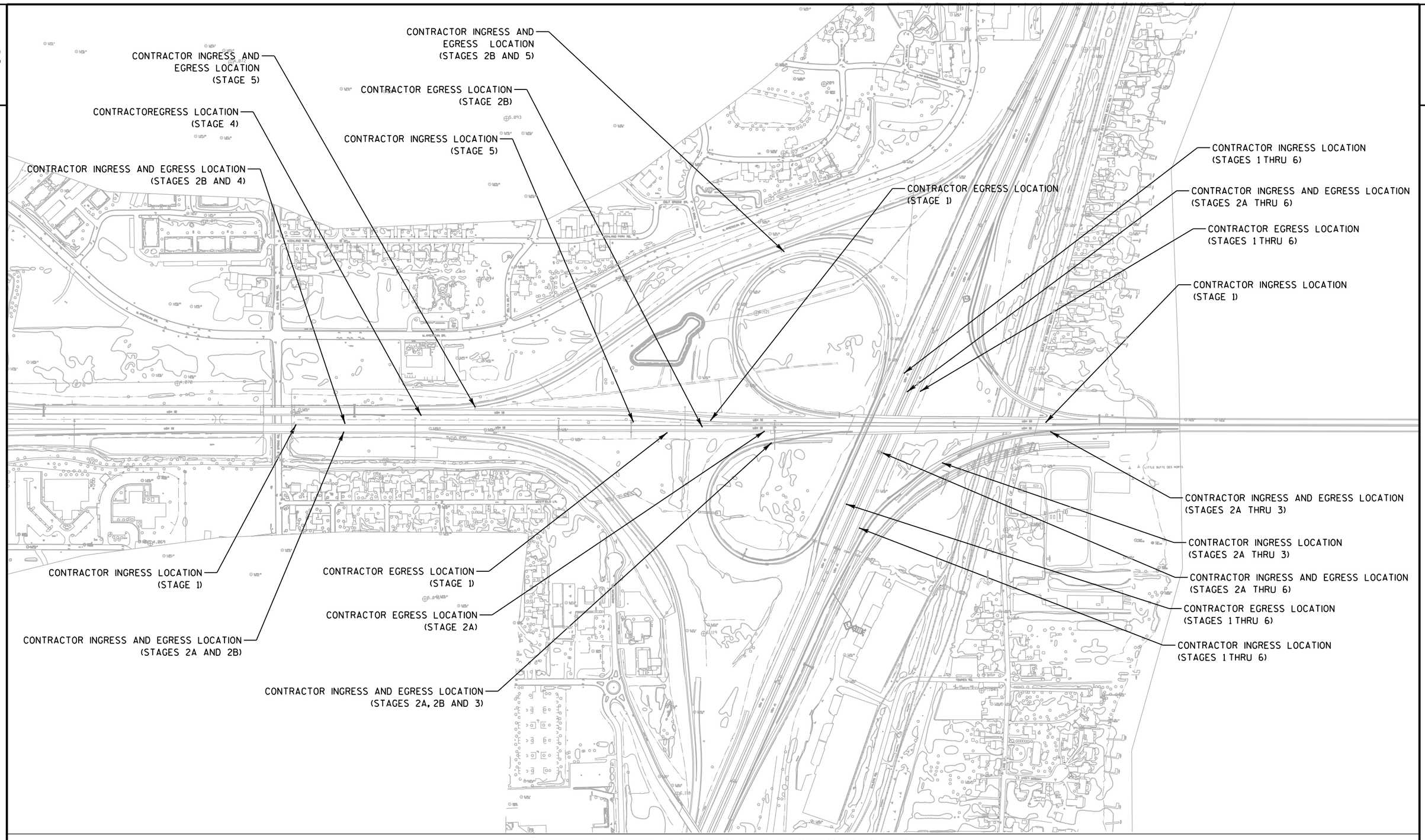
SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- USH 41/USH 10 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- MB — PORTABLE CHANGEABLE MESSAGE BOARD



CONTRACTOR EGRESS / INGRESS FOR CONSTRUCTION ZONE

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL - CONTRACTOR ACCESS POINTS	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025502_tc.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 500:1

WISDOT/CADDS SHEET 42

GENERAL NOTES FOR TRAFFIC CONTROL

1) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGN DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. CONFLICTING SIGNS WILL BE COVERED USING THE STANDARD BID ITEM, TRAFFIC CONTROL COVERING SIGNS.

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

4) FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

5) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A (LOW INTENSITY FLASHING) LIGHTS.

6) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

7) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

8) PAVEMENT MARKING THAT IS SHOWN SHADED ON TRAFFIC CONTROL PLANS ARE THERE FOR REFERENCE ONLY. PAVEMENT MARKING SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

9) ALL PAVEMENT MARKING STATIONING IN TRAFFIC CONTROL PLANS HAVE THE PREFIX OF THE ALIGNMENT THAT IT IS MEASURED OFF OF, IN THE STATION CALLOUT.

10) FOR ALL CONCRETE BARRIER TEMPORARY PRECAST, THERE WILL BE DELINEATORS ATTACHED PER STANDARD DETAIL DRAWING CONCRETE BARRIER TEMPORARY PRECAST 12'-6". PLACE REFLECTORS OF THE APPROPRIATE COLOR ON BOTH SIDES OF THE DELINATOR.

11) PERMANENT SIGNS IN ALL DIRECTIONS LEFT IN PLACE FROM PREVIOUS PROJECT INCLUDE "WORK ZONE, FINES DOUBLE" (W21-62O AND W21-62R) AND "FINES DOUBLE IN WORK ZONE" (W21-62 AND W21-62P). ADJUST SIGN LOCATIONS THAT CONFLICT WITH WORKZONE OR PLACEMENT OF OTHER SIGNING, AS DIRECTED BY THE ENGINEER.

12) PLACE 36" X 36" GREEN RECTANGULAR SIGNS AT ALL CONSTRUCTION ACCESS LOCATIONS AS SHOWN ON THE "CONSTRUCTION ACCESS DETAIL" SHEET.

GENERAL NOTES FOR FIXED MESSAGE SIGNS FOUND ON TRAFFIC CONTROL SHEETS

1) CONTRACTOR SHALL LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY TYPE I SIGN AND A MINIMUM OF 200' FROM ANY TYPE II SIGN.

2) ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON STANDARD REFLECTIVE SHEETING-REFERENCE: "WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION", LATEST EDITION.

3) SEE FIXED MESSAGE SIGN CONSTRUCTION DETAIL SHEETS FOR MORE INFORMATION.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- PCMS — TRAFFIC CONTROL SIGNS PORTABLE CHANGABLE MESSAGE
- TRAFFIC FLOW ARROW
- WORK ZONE THIS STAGE
- TEMPORARY RAISED PAVEMENT MARKERS
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY

TEMPORARY PAVEMENT MARKING LEGEND

- (1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- (2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (25) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (26) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (27) TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
- (28) TEMPORARY PAVEMENT MARKING 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
- (E) EXISTING PAVEMENT MARKINGS

2

N

BUTTE DES MORTS BEACH RD

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

SHEET 6

USH 41

W AMERICAN DR

SHEET 1

SHEET 2

SHEET 3

USH 10 WB

USH 10 EB

USH 10

TCA

SHEET 4

WESTFIELD LN

COLD SPRING ROAD

USH 41

SHEET 5

WISCONSIN CENTRAL LIMITED RR

N. LAKE ST

CONSTRUCTION WORKZONE(S)

- MEDIAN WORK BETWEEN USH 10 WB AND EB
- PAVE TEMPORARY CROSSOVER ('TCA') BETWEEN NEW NB USH 41 TO EB USH 10 RAMP ('FNE') AND EXISTING USH 10/WIS 441
- PAVE OUTSIDE SHOULDER ALONG NB AND SB USH 41
- CONSTRUCT BEAMGUARD ON WB USH 10 MEDIAN SHOULDER, STA 86WB+20 - 90WB+80
- CONSTRUCT CULVERT UNDER EXISTING WB USH 10 IN TWO PARTS, STA 138WB+10

TRAFFIC

- EB USH 10 REDUCED TO 1-LANE WEST OF THE SB USH 41 TO EB USH 10 ON-RAMP
- WB USH 10 WILL USE NIGHTLY LANE CLOSURES TO THE MEDIAN LANE FOR CONTRACTOR ACCESS TO THE WORKZONE BETWEEN EB AND WB USH 10
- NB AND SB USH 41 OUTSIDE SHOULDER CLOSED THROUGH WORKZONE. CONTRACTOR MAY USE NIGHTLY OUTSIDE LANE CLOSURES FOR WIDENING SHOULDERS
- ALL USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1 OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025610_tc_s1.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 499.999:1

WISDOT/CADDS SHEET 42

2

REFER TO SDD 15D27 "TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY" FOR TRAFFIC CONTROL ITEMS FOR MEDIAN SHOULDER AND BEAMGUARD CONSTRUCTION STA 86WB+22 - 90WB+80.

SPEED LIMIT 65 R2-1 48" X 60"

COVER BOTH WB SIGNS

COLD SPRING RD

BIKE PATH

STRUCTURE B-70-158

96WB 98WB 100WB 102WB USH 10 WB 104WB 106WB 108WB 110WB

USH 41 SB TO USH 10 WB RAMP

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION". TRAFFIC CONTROL ITEMS FOR EB USH 10 INSIDE LANE CLOSURE

96EB 98EB 100EB 102EB 104EB 106EB 108EB 110EB

USH 10 EB

50' TYP

USH 10 EB TO USH 41 SB RAMP

MATCHLINE 111EB+00

CONTRACTOR INGRESS

STRUCTURE B-70-157

BERM

WALLS

N

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)
25. TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
26. TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
27. TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
28. TEMPORARY PAVEMENT MARKING 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)

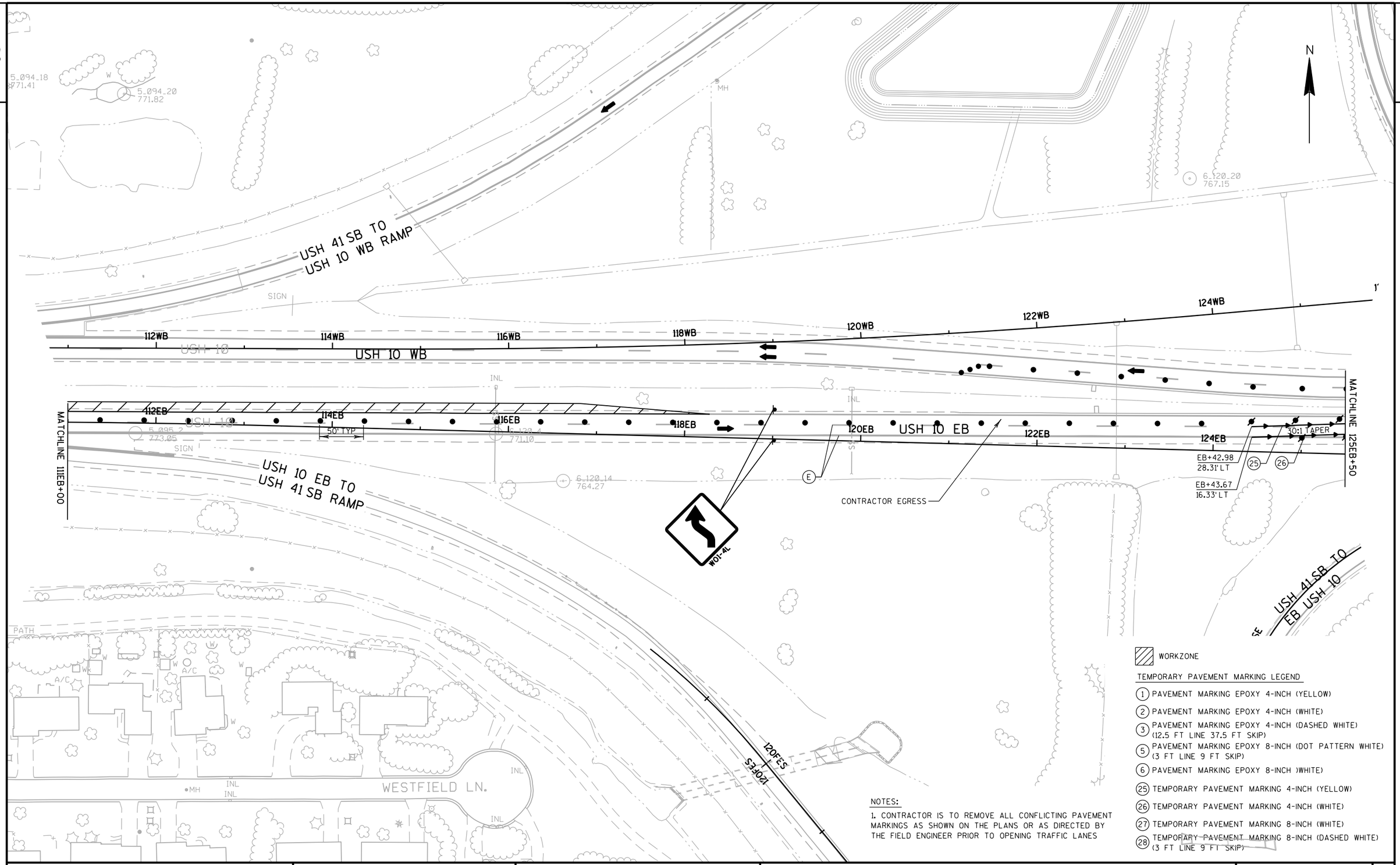
NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET 173	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025611_tc_s1.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

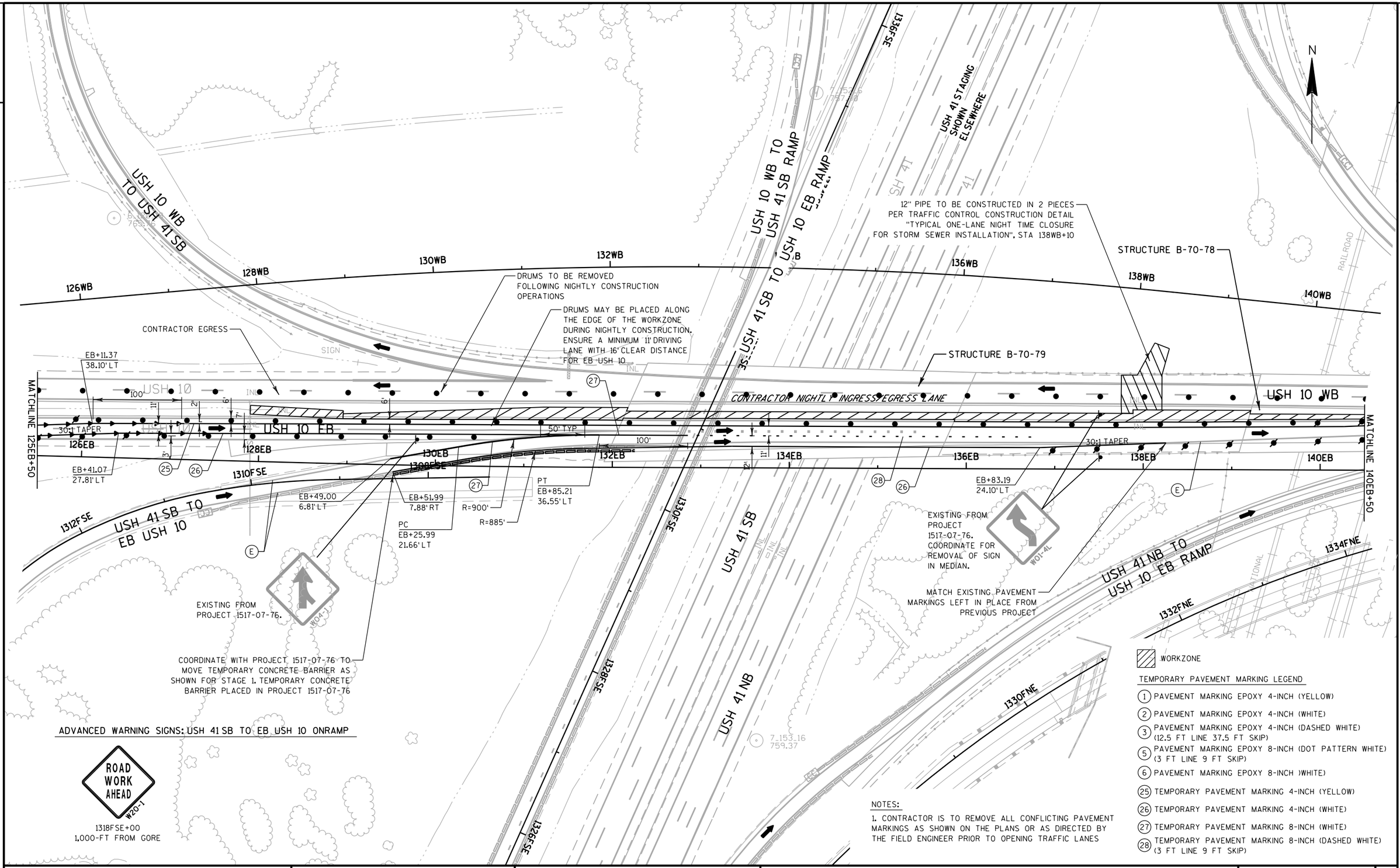
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)
25. TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
26. TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
27. TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)
28. TEMPORARY PAVEMENT MARKING 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET 174	E

2



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET 175	E

2

2

N

BUTTE

PIER

RAILROAD

7_152

7_152_12
749.61

7_152_2
750.28

USH 10 WB TO USH 41 NB RAMP

RAMP TO REMAIN OPEN

CONTRACTOR INGRESS

142WB

144WB

FOR NIGHTTIME CLOSURE: WB USH 10 SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR NIGHTLY LANE CLOSURES TO THE INSIDE LANE OF WB USH 10. LANE CLOSURE TO OCCUR EAST OF LITTLE LAKE BUTTE DES MORTS STRUCTURE. SEE ADVANCED SIGNING PLANS FOR MORE DETAILS. COORDINATE LANE CLOSURE WITH PROJECT 1517-75-71/75.

MATCH EXISTING PAVEMENT MARKINGS LEFT IN PLACE FROM PREVIOUS PROJECT

148WB

150WB

152WB

154WB

USH 10 WB

USH 10 EB

7_152_14
791.24

7_152_4
792.26

11917
791.27

25

50'

30:1 TAPER

USH 10

USH 10

USH 41 NB TO USH 10 EB RAMP

MATCHLINE 140EB+50

EB+95.41
16.66' LT

EB+31.25
22.07' LT

144EB

146EB

148EB

150EB

152EB

154EB

1336FNE

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1348FNE

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

EB+47.94
39.87' RT

EB+96.68
10.82' RT

EB+34.13
32.77' RT

SEE PLAN DETAIL SHEETS FOR TEMPORARY CROSSOVER "TCA" PAVING DETAILS

OAK ST.

7_152_18
754.59

7_152_20
751.31

LITTLE BUTTE DES MORTS

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

(25) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)

(26) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)

(27) TEMPORARY PAVEMENT MARKING 8-INCH (WHITE)

(28) TEMPORARY PAVEMENT MARKING 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)

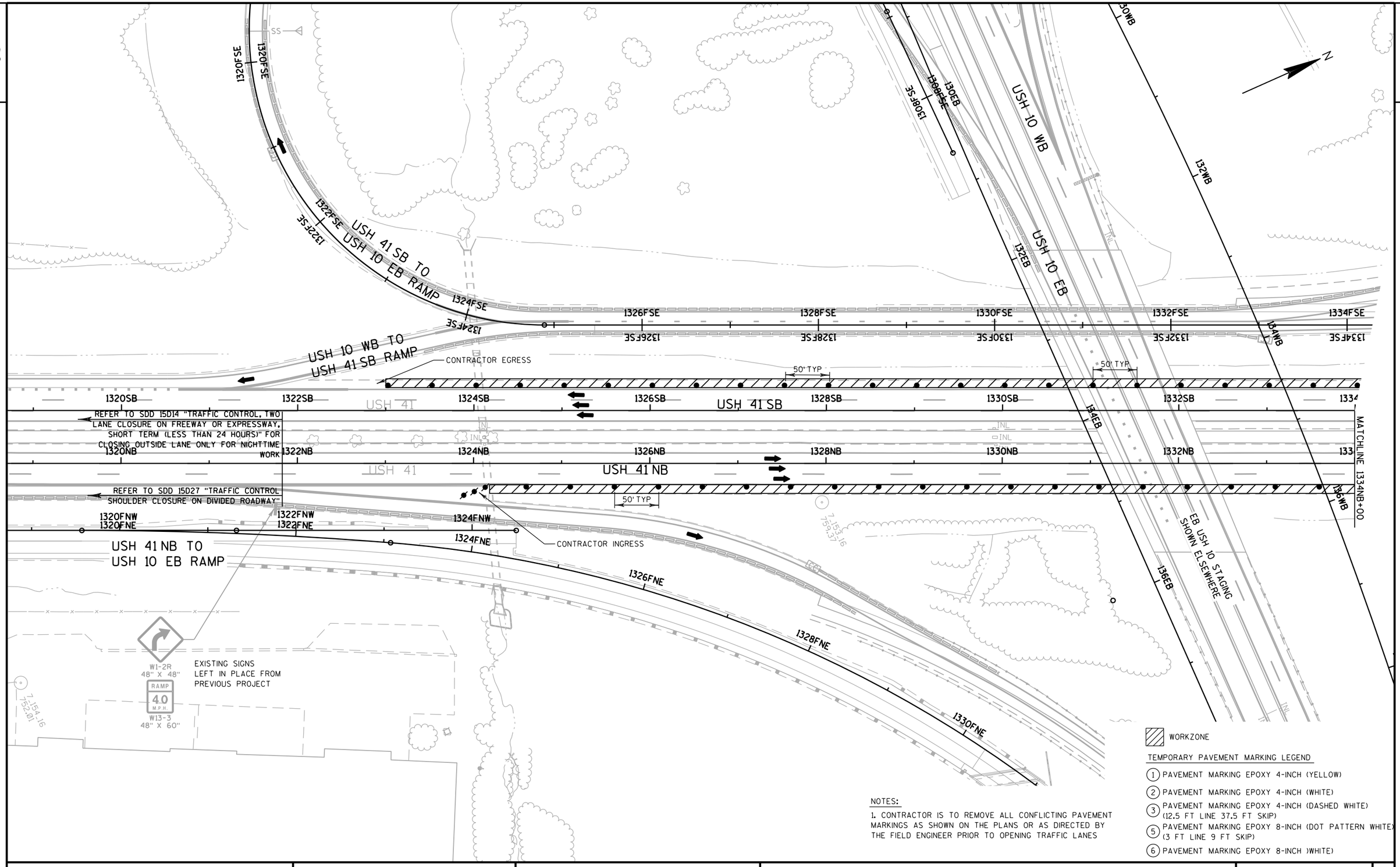
NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025614_tc_s1.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET 177	E

2

2

USH 10 WB TO
USH 41 SB RAMP

CONTRACTOR INGRESS

USH 41 SB TO
USH 10 EB RAMP

1334FSE 1336FSE 1338FSE 1340FSE 1342FSE 1344FSE 1346FSE 1348FSE

50' TYP

REFER TO SDD 15D27 "TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY"

REFER TO SDD 15D14 "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)" FOR CLOSING OUTSIDE LANE ONLY FOR NIGHTTIME WORK

USH 41

1334SB 1336SB 1338SB 1340SB 1342SB 1344SB 1346SB 1348SB

USH 41 SB

MATCHLINE 1334NB+00

1334NB 1336NB 1338NB 1340NB 1342NB 1344NB 1346NB 1348NB

USH 41 NB

50' TYP

COORDINATE WITH PROJECT 1517-07-72 FOR REMOVAL OF TEMPORARY CONCRETE BARRIER AND CRASH CUSHION LEFT IN PLACE FROM CONCURRENT PROJECT, 1340NB+76, 26'RT TO 1344NB+14, 26'RT

CONTRACTOR EGRESS

USH 10 WB TO
USH 41 NB RAMP

EXISTING SIGN
LEFT IN PLACE FROM
PREVIOUS PROJECT

W04-1

138WB

140WB

RAILROAD

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 1	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025616_tc_s1.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

WISDOT/CADDS SHEET 42

2

N

W AMERICAN DR

SHEET 10

USH 41

BUTTE DES MORTS BEACH RD

LITTLE LAKE BUTTE
DE MORTS
(FOX RIVER)

SHEET 5

B-70-79

B-70-78

USH 10 WB
USH 10 EB

USH 10

S-70-252

B-70-400

TSE

TCA

FEN

SHEET 1

SHEET 2

SHEET 3

SHEET 4

SHEET 6

FES

SHEET 9

CTH CB

COLD SPRING ROAD

FWS

USH 41

N LAKE ST

WORKZONE EXTENDS TO
STA 110FWS+84.13

SHEET 8

WISCONSIN CENTRAL LIMITED RR

SHEET 7

CONSTRUCTION WORKZONE(S)

- STRUCTURE B-70-400
- EB USH 10 OUTSIDE LANES AND SHOULDER
- CONSTRUCT EB USH 10 OUTSIDE SHOULDER BEAMGUARD AND SIGN BASE FOR STRUCTURE S-70-252
- RAMPS FEN, FES AND FWS (SEE PROSECUTION AND PROGRESS FOR TOTAL ALLOWABLE DAYS FOR FES/FEN RAMP CLOSURE)
- PAVE TEMPORARY CROSSOVER BETWEEN EXISTING AND PROPOSED EB USH 10, STA 125EB+68 TO 129EB+40
- PAVE TEMPORARY CROSSOVER ('TSE') BETWEEN NEW SB USH 41 TO EB USH 10 RAMP ('FSE') AND EXISTING EB USH 10

TRAFFIC

- CTH CB EASTBOUND ONRAMP REDUCED TO 1-LANE
- EB USH 10 REDUCED TO 1-LANE WEST OF THE EB USH 10 TO SB USH 41 OFF-RAMP AND SHIFTED ONTO WIDENED MEDIAN SHOULDER BUILT IN STAGE 1
- WB USH 10 UNAFFECTED
- NB AND SB USH 41 SHIFTED ONTO THE OUTSIDE SHOULDER THROUGH THE WORKZONE
- EB USH 10 TO SB USH 41 RAMP CLOSED
- ALL OTHER USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED
- NB USH 41 TO EB USH 10/WIS 441 UTILIZES TEMPORARY CROSSOVER ('TCA') BUILT IN STAGE 1

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A OVERVIEW	SHEET 179	E

2

2

N

CTH CB

PLACE PCMS FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ: PCMS

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

68WB 70WB 72WB 74WB 76WB 78WB 80WB

USH 10 WB

USH 10

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".
TRAFFIC CONTROL ITEMS FOR EB USH 10 OUTSIDE LANE CLOSURE

68EB 70EB 72EB 74EB 76EB 78EB 80EB

USH 10 EB

MATCHLINE 81EB+50

PLACE PCMS ON USH 10 EB, STA 103B+00 FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

PCMS

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ:

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

CTH CB ONRAMP

55:1 TAPER

100'

2

MATCH EXISTING RAMP MARKING

W04-2R

BIKE PATH

CTH "CB"

BERM

FOOTBRIDGE

WALLS

PLACE PCMS FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

PCMS

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ:

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET 180	E

2

2

N

4_070_14
773.07

4_070_4
774.26

4_070_2
772.60

4_070_12
772.50

SIGN

SIGN

82WB

84WB

86WB

88WB

90WB

USH 10 WB

92WB

94WB

96WB

USH 10

MATCHLINE 81EB+50

82EB

84EB

86EB

88EB

90EB

USH 10, EB

92EB

94EB

96EB

MATCHLINE 96EB+25

USH 10

55:1 TAPER

EB+50.00
0.00

EB+22
28.9' RT

EB+50.00
0.00

EB+00.00
0.00

EB+00.00
12.0' RT

12'

12'

INL

CTH CB ONRAMP

MATCH EXISTING GORE MARKING

CONTRACTOR
INGRESS

R=2000'

R11-2
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

TRUCKS
ENTERING
&
LEAVING

W8-6A

SIGNS TO BE REMOVED
IN STAGE 5

CONTRACTOR
EGRESS

W24-1L

W04-1

BEAMGUARD INSTALLATION TO BE CONDUCTED UNDER
LONG-TERM LANE CLOSURES, INCIDENTAL TO CONTRACT.

BIKE PATH

4_069_18
771.60

4_069_20
772.38

INL

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025622_tc_s2A.dgn
PLOT DATE : 4/24/2015
PLOT BY : nbennett
PLOT NAME :
PLOT SCALE : 99.9998:1
WISDOT/CADDS SHEET 42

2

2

N

COLD SPRING RD

BIKE PATH

STRUCTURE B-70-158

STRUCTURE B-70-157

USH 10 WB

USH 10 EB

USH 41 SB TO USH 10 WB RAMP

98WB 100WB 102WB 104WB 106WB 108WB 110WB

98EB 100EB 102EB 104EB 106EB 108EB 110EB

MATCHLINE 96EB+25

MATCHLINE 111EB+00

EB+60
0.0'

EB+80
12.0'LT

EB+80
0.0'

EB+00
19.0'LT

EB+00
8.0'LT

30:1 TAPER

10:1 TAPER

100'

EB+20.65 (PC)
19.0'LT

EB+20.65 (PC)
8.0'LT

11'

1'

4'

EB+00
6.0'LT

CONTRACTOR INGRESS

W5-52R
18" x 54"

W01-6
48" X 24"

TYPE III BARRICADE

ANCHOR TEMPORARY CONCRETE BARRIER TO EXISTING CONCRETE STA 104EB+00 - STA 115EB+00

EXIT
45
M.P.H.
W013-2
48" X 60"

COVER SIGN FOR DURATION OF FES RAMP CLOSURE

WALLS

BERM

SIGN

INL

MH

A/C

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

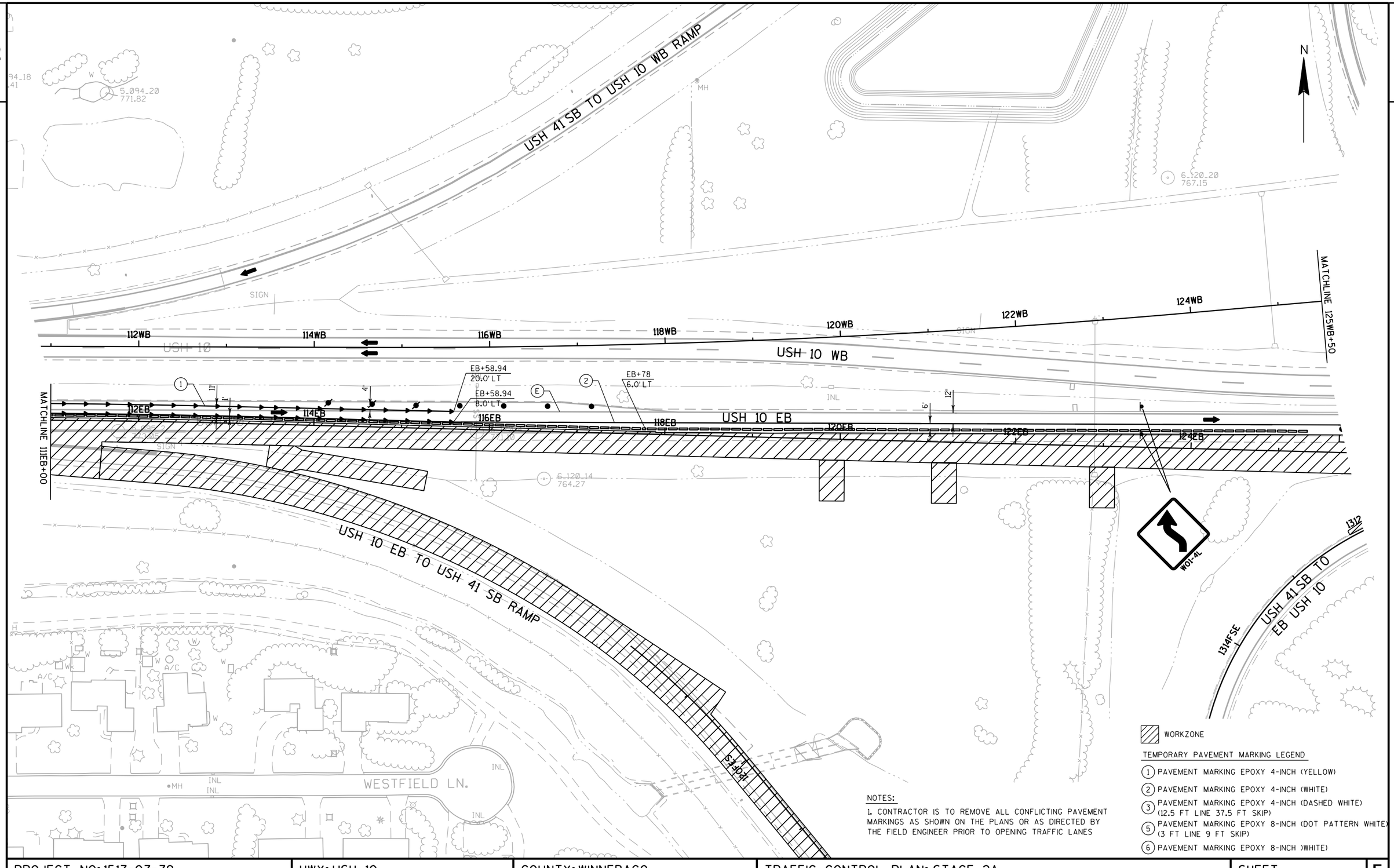
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET 182	E

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET 183	E

2

N

USH 10 WB TO USH 41 SB

USH 41 SB TO EB USH 10

USH 10 WB TO USH 41 SB RAMP

USH 41 SB TO USH 10 EB RAMP

USH 41 STAGING SHOWN ELSEWHERE

USH 41

RAILROAD

MATCHLINE 125WB+50

126WB 128WB 130WB 132WB 134WB 136WB 138WB 140WB

STRUCTURE B-70-79

STRUCTURE B-70-78

LIMITS OF STRUCTURE B-70-78 REMOVAL

PLACE CRASH CUSHION AND TEMPORARY CONCRETE BARRIER ON TOP OF CURB TO PROTECT WB USH 10 FROM DROPOFF. REMOVE AT END OF STAGE 4.

W01-4B

W04-1

W5-52L 18" × 54"

W01-4L

EXISTING FROM PROJECT 1517-07-76. COORDINATE FOR REMOVAL OF SIGN.

PLACE CRASH CUSHION

CONTRACTOR EGRESS

MATCH EXISTING GORE MARKINGS

USH 10

USH 10 EB

USH 10 WB

EB+79 50.4' LT

EB+53.09 37.88' LT

EB+24 62.6' LT

EB+17 51.7' LT

EB+00.6 51.5' LT

EB+17 47.8' LT

EB+17 47.9' LT

EB+17 36.9' LT

30:1 TAPER

55:1 TAPER

100'

50'

R=400'

126EB 128EB 130EB 132EB 134EB 136EB 138EB 140EB

1308FSE 1310FSE 1312FSE 1328FSE 1330FSE 1332FSE 1334FSE

MATCH EXISTING RAMP MARKING

MATCH EXISTING TEMPORARY CONCRETE BARRIER PLACED IN PROJECT 1517-07-76

EXISTING TEMPORARY CONCRETE BARRIER AND CRASH CUSHION FROM PROJECT 1517-07-76. COORDINATE WITH PROJECT 1517-07-76 TO MOVE CRASH CUSHION AND TEMPORARY BARRIER TO ALLOW FOR CONTRACTOR INGRESS AND EGRESS

PAVE TEMPORARY ASPHALT FOR FSE CROSSOVER

LIMITS OF STRUCTURE B-70-79 REMOVAL

B-70-400

WORKZONE LIMITS STA 131EB+74 TO 142EB+64

USH 41 SB

USH 41 NB

7_153.16 759.37

EXISTING TEMPORARY CONCRETE BARRIER AND CRASH CUSHION FROM PROJECT 1517-07-76. COORDINATE WITH PROJECT 1517-07-76 FOR REMOVAL, 1332FNE+13.71' LT TO 147EB+27.42' LT

REMOVE EXISTING TEMPORARY CONCRETE BARRIER AND CRASH CUSHION PLACED IN PROJECT 1517-07-72, 1327FNE+60.90' LT TO 1329FNE+97.81' LT

CONTRACTOR INGRESS

USH 41 NB TO USH 10 EB RAMP

1332FNE 1330FNE 1328FNE+00

W01-4R

30 M.P.H

W013-1 24" X 24"

R11-2 48" X 30"

LANE CLOSED

TYPE III BARRICADE

CANADIAN

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET 184	E

2

N

BUTTE

PIER

RAILROAD

USH 10 WB TO USH 41 NB RAMP

W01-4L

W4-3R
36" X 36"

SALVAGE EXISTING CRASH CUSHION. REMOVE CONCRETE AND PAVE ASPHALT TO MAKE A SMOOTH SURFACE FOR TEMPORARY CONCRETE BARRIER TO SIT ON. MATCH EXISTING TEMPORARY CONCRETE BARRIER PLACED IN PROJECT 1517-07-76

CONTRACTOR INGRESS AND EGRESS

EXISTING TEMPORARY CONCRETE BARRIER FROM PROJECT 1517-07-76. COORDINATE WITH PROJECT 1517-07-76 FOR REMOVAL, 1332FNE+13.71'LT TO 147EB+27.42'LT

142WB
144WB
146WB
148WB
150WB
152WB
154WB

EB+92.2
59.5'LT

EB+92.2
47.5'LT

EB+04
49.7'LT

EB+21
61.7'LT

EB+16.8
47.3'LT

EB+21
55.4'LT

100'

USH 10 WB

USH 10 EB

7_152_14
791.24

7_152_4
792.26

11917
791.27

MATCHLINE 140EB+50

30:1 TAPER

55:1 TAPER

50' TYP

EB+27
27.9'LT

142EB
144EB
146EB
148EB
150EB
152EB
154EB

1336FNE
1338FNE
1340FNE
1342FNE
1344FNE
1346FNE
1348FNE

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

FNE+37
0.0

R=5,000'

R=5,012'

R=700'

TEMPORARY THRIE BEAM CONNECTION, 1-EACH

STRUCTURE B-70-403
CONTRACTOR INGRESS/EGRESS

MATCH EXISTING TEMPORARY CONCRETE BARRIER

W4-6
36" X 36"

R11-2
48" X 30"

LANE CLOSED

TYPE III BARRICADE

7_152_18
754.59

7_152_20
751.31

LITTLE BUTTE DES MORTS

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A	SHEET E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025626_tc_s2A.dgn PLOT DATE : 4/30/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

WISDOT/CADDS SHEET 42

2

USH 41

USH 41 NB

USH 41

USH 41 SB

JACOBSEN RD.

JACOBSEN ROAD

BIKE PATH

SIGN

MH

INL

W

6-117.20
768.01

6-117.2
770.64

6-117.18
767.92

6-117.12
773.56

6-118.12
783.94

136FES

CONTRACTOR EGRESS
DURING RAMP CONSTRUCTION

EXIT

E5-1
60" X 48"

1308FNW

1310FNW

1312FNW

TYP
30'

6 END
2 START

USH 41 NB TO
USH 10 EB RAMP

15'

6 END
1 START

R/L USH 41 NB TO USH
10 EB RAMP (FNW)

MATCHLING 1313FNE+50

FNW+50
0.0

FNW+77
14.4' RT

PLACE PCMS ON USH 41 NB,
1/2 MILE UPSTREAM FROM
EXIT RAMP FOR DURATION
OF STAGE 2A. PLACE
PCMS 7 DAYS IN ADVANCE OF
CLOSURE. PCMS TO READ:

PCMS

US 10 EB RAMP	NEW TRAFFIC PATTERN

EXIT
30
M.P.H.
W013-2
48" X 60"

SIGN TO BE REMOVED AT
THE END OF STAGE 2B

REMOVE CRASH CUSHION AND TEMPORARY CONCRETE BARRIER
STA 1306NB+85, 39'RT TO 1313NB+60, 39'RT.
PLACE NEW CRASH CUSHION AT STA 1313NB+60, 39'RT

RIPRAP

RD.

7-155.16
760.63

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A (LEFT IN PLACE)	SHEET 186	E

2

USH 10 WB TO USH 41 SB RAMP

USH 41 SB TO USH 10 EB RAMP

USH 41

USH 41 SB

USH 41 STAGING SHOWN ELSEWHERE

USH 41 NB

USH 41 NB TO USH 10 EB RAMP

MATCH EXISTING 8-INCH PAVEMENT MARKING

REALIGN TEMPORARY CONCRETE BARRIER PLACED IN PROJECT 1517-07-72 TO CLOSE OFF RAMP, 1320NB+67.38'RT TO 1322NB+45.39'RT

CONTRACTOR INGRESS

REMOVE TEMPORARY CONCRETE BARRIER AND CRASH CUSHION PLACED IN PROJECT 1517-07-72, 1324FNE+13.37'LT TO 1328FNE+30.61'LT

MATCHLINE 1313FNE+50

MATCHLINE 1328FNE+00

1314FNW

1316FNW

1318FNW

1320FNW

1320FNE

1322FNW

1322FNE

1324FNW

1324FNE

1326FNE

1326FSE

1328FSE

1322FSE

1324FSE

R=4,000'

100' TYP

50'

FNW+03 15.0 RT

FNW+04 12.0 RT

R/L USH 41 NB TO USH 10 WB RAMP (FNW)

R/L USH 41 NB TO USH 10 EB RAMP (FNE)

R11-2 48" X 30" LANE CLOSED

TYPE III BARRICADE

W1-2R 48" X 48"

RAMP 40 M.P.H

W13-3 48" X 60"

REMOVE SIGNS LEFT IN PLACE FROM PREVIOUS PROJECT

TRUCKS ENTERING & LEAVING W8-6A

SIGNS TO BE REMOVED IN STAGE 4

PLACE PCMS ON USH 41 NB TO USH 10 EB RAMP FOR DURATION OF STAGES 2A AND 2B. PCMS TO READ:

SLOW DOWN BUMP AHEAD	30 MPH MAX

RIPRAP

INL

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A (LEFT IN PLACE)	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025628_tc_s2A.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

SB USH 41
ADDITIONAL SIGNING
RIGHT AND LEFT SHOULDERS

END ROAD WORK
G20-2A
48" X 24"
STA 1317SB+00

NB USH 41
ADVANCED SIGNING

W01-4C

55 M.P.H.
W013-1
24" X 24"
STA 1318NB+00
BOTH SHOULDERS

USH 41 SB TO USH 10 EB RAMP
USH 10 WB TO USH 41 SB RAMP
USH 41 NB TO USH 10 EB RAMP
USH 10 WB
USH 10 EB
USH 41 SB
USH 41 NB
WORKZONE FOR STRUCTURE B-70-400
CONTRACTOR EGRESS
CONTRACTOR INGRESS
50' TYP
55:1 TAPER
30:1 TAPER
100'
SB+95 12.0' RT
NB+00 12.0' LT
NB+30 1.0' LT
SB+00 1.0' RT
NB+55 10.0' LT
NB+74 34.0' RT
1320SB 1322SB 1324SB 1326SB 1328SB 1330SB 1332SB
1320NB 1322NB 1324NB 1326NB 1328NB 1330NB 1332NB
1320FSE 1322FSE 1324FSE 1326FSE 1328FSE 1330FSE 1332FSE 1334FSE
1320FNW 1320FNE 1322FNW 1322FNE 1324FNW 1324FNE 1326FNE 1328FNE 1330FNE
1308FSE 1308FSE 1308FSE 1308FSE 1308FSE 1308FSE 1308FSE 1308FSE
1308FNW 1308FNW 1308FNW 1308FNW 1308FNW 1308FNW 1308FNW 1308FNW
1308FNE 1308FNE 1308FNE 1308FNE 1308FNE 1308FNE 1308FNE 1308FNE
1308SB 1308SB 1308SB 1308SB 1308SB 1308SB 1308SB 1308SB
1308NB 1308NB 1308NB 1308NB 1308NB 1308NB 1308NB 1308NB
1308EB 1308EB 1308EB 1308EB 1308EB 1308EB 1308EB 1308EB
1308WB 1308WB 1308WB 1308WB 1308WB 1308WB 1308WB 1308WB
1310EB 1310EB 1310EB 1310EB 1310EB 1310EB 1310EB 1310EB
1310WB 1310WB 1310WB 1310WB 1310WB 1310WB 1310WB 1310WB
1312EB 1312EB 1312EB 1312EB 1312EB 1312EB 1312EB 1312EB
1312WB 1312WB 1312WB 1312WB 1312WB 1312WB 1312WB 1312WB
1314EB 1314EB 1314EB 1314EB 1314EB 1314EB 1314EB 1314EB
1314WB 1314WB 1314WB 1314WB 1314WB 1314WB 1314WB 1314WB
1316EB 1316EB 1316EB 1316EB 1316EB 1316EB 1316EB 1316EB
1316WB 1316WB 1316WB 1316WB 1316WB 1316WB 1316WB 1316WB
W5-52L 18" x 54"
MATCHLINE 1334NB+00
EB USH 10 STAGING SHOWN ELSEWHERE
FNE RAMP STAGING SHOWN ELSEWHERE
TRUCKS ENTERING & LEAVING W8-6A
W1-2R 48" X 48"
RAMP 40 M.P.H. W13-3 48" X 60"
PLACE SIGNS STA 1315NB+00. REMOVE SIGNS IN STAGE 4
7.154.16 7.152.01

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND
(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A (LEFT IN PLACE)	SHEET 188	E

SB USH 41
ADVANCED SIGNING

W01-4C

STA 1352SB+00
RIGHT AND LEFT
SHOULDERS

USH 10 WB TO
USH 41 SB RAMP

USH 41 SB TO
USH 10 EB RAMP

1334FSE 1336FSE 1338FSE 1340FSE 1342FSE 1344FSE 1346FSE 1348FSE

SB+20
34.0' LT
CONTRACTOR INGRESS

SB+20
6.30' RT

1334SB 1336SB 1338SB 1340SB 1342SB 1344SB 1346SB 1348SB

11' 11' 11' 2' 100' 50' 55:1 TAPER 12' 12' 12' 100' 50'

SB+00
1.0' RT

NB+40.00
1.0' LT

NB+70
12.0' LT

SB+05
12.0' RT

MATCHLINE 1334NB+00

1334NB 1336NB 1338NB 1340NB 1342NB 1344NB 1346NB 1348NB

30:1 TAPER

USH 41 NB

END
ROAD WORK
G20-2A
48" X 24"

TRUCKS
ENTERING
&
LEAVING
W8-6A

PLACE SIGNS STA
1355SB+00. REMOVE
SIGNS IN STAGE 4

CONTRACTOR EGRESS

USH 10 WB TO
USH 41 NB RAMP

W04-1

138WB

140WB

RAILROAD

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

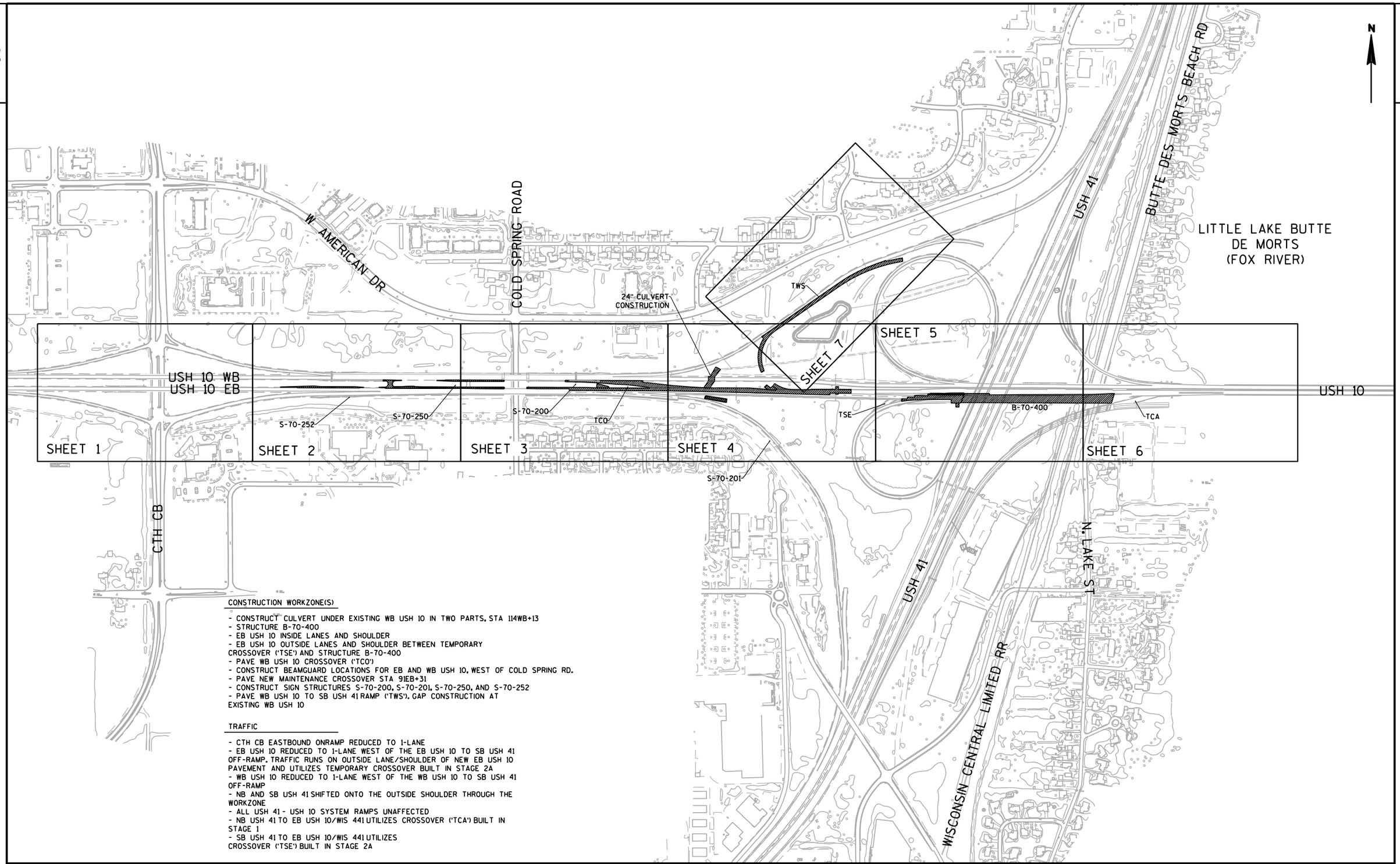
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2A (LEFT IN PLACE)	SHEET 189	E

2



CONSTRUCTION WORKZONE(S)

- CONSTRUCT CULVERT UNDER EXISTING WB USH 10 IN TWO PARTS, STA 114WB+13
- STRUCTURE B-70-400
- EB USH 10 INSIDE LANES AND SHOULDER
- EB USH 10 OUTSIDE LANES AND SHOULDER BETWEEN TEMPORARY CROSSOVER ('TSE') AND STRUCTURE B-70-400
- PAVE WB USH 10 CROSSOVER ('TCO')
- CONSTRUCT BEAMGUARD LOCATIONS FOR EB AND WB USH 10, WEST OF COLD SPRING RD.
- PAVE NEW MAINTENANCE CROSSOVER STA 91EB+31
- CONSTRUCT SIGN STRUCTURES S-70-200, S-70-201, S-70-250, AND S-70-252
- PAVE WB USH 10 TO SB USH 41 RAMP ('TWS'), GAP CONSTRUCTION AT EXISTING WB USH 10

TRAFFIC

- CTH CB EASTBOUND ONRAMP REDUCED TO 1-LANE
- EB USH 10 REDUCED TO 1-LANE WEST OF THE EB USH 10 TO SB USH 41 OFF-RAMP. TRAFFIC RUNS ON OUTSIDE LANE/SHOULDER OF NEW EB USH 10 PAVEMENT AND UTILIZES TEMPORARY CROSSOVER BUILT IN STAGE 2A
- WB USH 10 REDUCED TO 1-LANE WEST OF THE WB USH 10 TO SB USH 41 OFF-RAMP
- NB AND SB USH 41 SHIFTED ONTO THE OUTSIDE SHOULDER THROUGH THE WORKZONE
- ALL USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED
- NB USH 41 TO EB USH 10/WIS 441 UTILIZES CROSSOVER ('TCA') BUILT IN STAGE 1
- SB USH 41 TO EB USH 10/WIS 441 UTILIZES CROSSOVER ('TSE') BUILT IN STAGE 2A

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025640_tc_s2B.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 624.999:1
WISDOT/CADDS SHEET 42

2

2

N

PLACE PCMS FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ: PCMS

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

R11-2 48" X 30"
LANE CLOSED
TYPE III BARRICADE

68WB 70WB 72WB 74WB 76WB 78WB 80WB

USH 10 WB

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION".
TRAFFIC CONTROL ITEMS FOR EB USH 10 INSIDE LANE CLOSURE

68EB 70EB 72EB 74EB 76EB 78EB 80EB

50' TYP.

USH 10 EB

MATCHLINE 81EB+50

CTH CB

CTH CB ONRAMP

PLACE PCMS ON USH 10 EB, STA 103B+00 FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

PCMS

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ:

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

BIKE PATH

CTH "CB"

W04-2R

PLACE PCMS FOR DURATION OF EB USH 10 TO SB USH 41 RAMP CLOSURE. PLACE PCMS 7 DAYS IN ADVANCE OF CLOSURE. ADVANCE NOTICE MESSAGE TO READ:

PCMS

EB RAMP TO 41 SB TO CLOSE	DAY DATE

DURING CLOSURE, PCMS TO READ:

EB RAMP TO 41 SB CLOSED	USE ALT ROUTE

BERM

FOOTBRIDGE

WALLS

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET 191	E

2

2

N

R11-2
48" x 30"
LANE CLOSED
TYPE III BARRICADE

CONTRACTOR EGRESS
CONTRACTOR INGRESS
SIGN
INL
BIKE PATH

82WB 84WB 86WB 88WB 90WB USH 10 WB 92WB 94WB 96WB

82EB 84EB 86EB 88EB 90EB USH 10 EB 92EB 94EB 96EB

MATCHLINE 81EB+50
MATCHLINE 96EB+25

EB+89
12.0' RT

EB+22
28.9' RT

EB+60.
12.0' RT

EB+40.00
12.0' RT

EB+40.00
24.0' RT

CTH CB ONRAMP
55:1 TAPER
50'
12'
4'

S-70-250
S-70-252

MATCH PAVEMENT MARKINGS
PLACED IN PREVIOUS STAGE

W04-1
TRUCKS ENTERING & LEAVING
W8-6A
W01-4R

4_070_14
773.07
4_070_4
774.26
4_070_2
772.60
4_070_12
772.50
4_069_20
772.38
4_069_18
771.60

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025642_tc_s2B.dgn
PLOT DATE : 4/24/2015
PLOT BY : nbennett
PLOT NAME :
PLOT SCALE : 99.9998:1
WISDOT/CADDS SHEET 42

DEFERRAL OF WORK REQUIRING NIGHTLY LANE CLOSURES FOR CONSTRUCTION OF WB MEDIAN BEAMGUARD (STA 95WB+82 - 99WB+32), MAINTENANCE CROSSOVER (STA 90EB+92 - 91EB+70), AND TEMPORARY CROSSOVER 'TCO' TO LATER STAGES IS INCIDENTAL TO THE CONTRACT

R11-2
48" X 30"
LANE CLOSED
TYPE III BARRICADE

ANCHOR TEMPORARY CONCRETE BARRIER TO ASPHALT SHOULDER STA 103WB+50 - STA 105WB+21

COORDINATE CONSTRUCTION OF SIGN BRIDGE WITH PROJECT 1517-07-76. SIGN BRIDGE COULD BE INSTALLED AT COMPLETION OF MEDIAN CROSSOVER CONSTRUCTION. IF SIGN BRIDGE, CRASH CUSHION, AND TEMPORARY CONCRETE BARRIER ARE INSTALLED PRIOR TO MEDIAN CROSSOVER CONSTRUCTION, COORDINATE WITH PROJECT 1517-07-76 FOR MOVE AND REMOVAL OF CRASH CUSHION AND TEMPORARY CONCRETE BARRIER FOR CONSTRUCTING MEDIAN CROSSOVER..

STRUCTURE B-70-158

PLACE TEMPORARY CONCRETE BARRIER AND CRASH CUSHION AT COMPLETION OF SIGN BRIDGE CONSTRUCTION IN PROJECT 1517-07-76. SIGN BRIDGE MUST BE PROTECTED WITH TEMPORARY CONCRETE BARRIER AT ALL TIMES.

USH 41 SB TO USH 10 WB RAMP

USH 10 WB

USH 10 EB

COLD SPRING RD

98WB 100WB 102WB 104WB 106WB 108WB 110WB

22TCO 24TCO 26TCO

98EB 100EB 102EB 104EB 106EB 108EB 108EFN 110EB 110EN

MATCHLINE 96EB+25

MATCHLINE 111EB+00

CONTRACTOR INGRESS AND EGRESS

100'

30:1 TAPER

10:1 TAPER

50'

25' TYP.

EB+00.00
12.0'RT

STRUCTURE B-70-157

W5-52L
18" x 54"

S-70-200

CONTRACTOR INGRESS

R11-2
48" X 30"
RAMP CLOSED
TYPE III BARRICADE

INSTALL STAGE 3 TRAFFIC CONTROL AND PAVEMENT MARKINGS AT THE CONCLUSION OF FES RAMP CONSTRUCTION

BERM

BIKE PATH

SIGN

WALLS

A/C

MH

INL

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET 193	E

2

2

N

MATCHLINE 113TWS+50

USH 41 SB TO
USH 10 WB RAMP

CONTRACTOR INGRESS

24" PIPE TO BE CONSTRUCTED IN 2 PIECES PER CONSTRUCTION DETAIL "TYPICAL ONE-LANE NIGHT TIME CLOSURE FOR STORM SEWER INSTALLATION", STA 114WB+13

SW121

CONTRACTOR INGRESS AND EGRESS

W04-2L

MATCHLINE 125WB+50

WB+00.00
0.00'LT

WB+60.00
20.00'RT

112WB
114WB
116WB
118WB
120WB
122WB
124WB

USH 10

55:1 TAPER

USH 10 WB

CONTRACTOR EGRESS

EB+55
6.0'RT

R=2950'

USH 10 EB

MATCHLINE 111EB+00

28TC0
30TC0
112EB
114EB
116EB
118EB
120EB
122EB
124EB

112FEN
114FEN
116FEN
118FEN
120FEN

SW101

S-70-201

EB+55
17.0'RT

50'

11'
5'
11'
2'
3'

INSTALL STAGE 3 TRAFFIC CONTROL AND PAVEMENT MARKINGS AT THE CONCLUSION OF FES RAMP CONSTRUCTION

USH 10 EB TO USH 41 SB RAMP

W01-4L

35
M.P.H.

W013-1
24" X 24"

W01-3L

30
M.P.H.

W013-1
24" X 24"

MATCH EXISTING RAMP MARKINGS

1312'

1314FSE USH 41 SB TO EB USH 10

WESTFIELD LN.

INL

MH

W

A/C

6_094_20
771.82

6_120_20
767.15

6_120_14
764.27

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

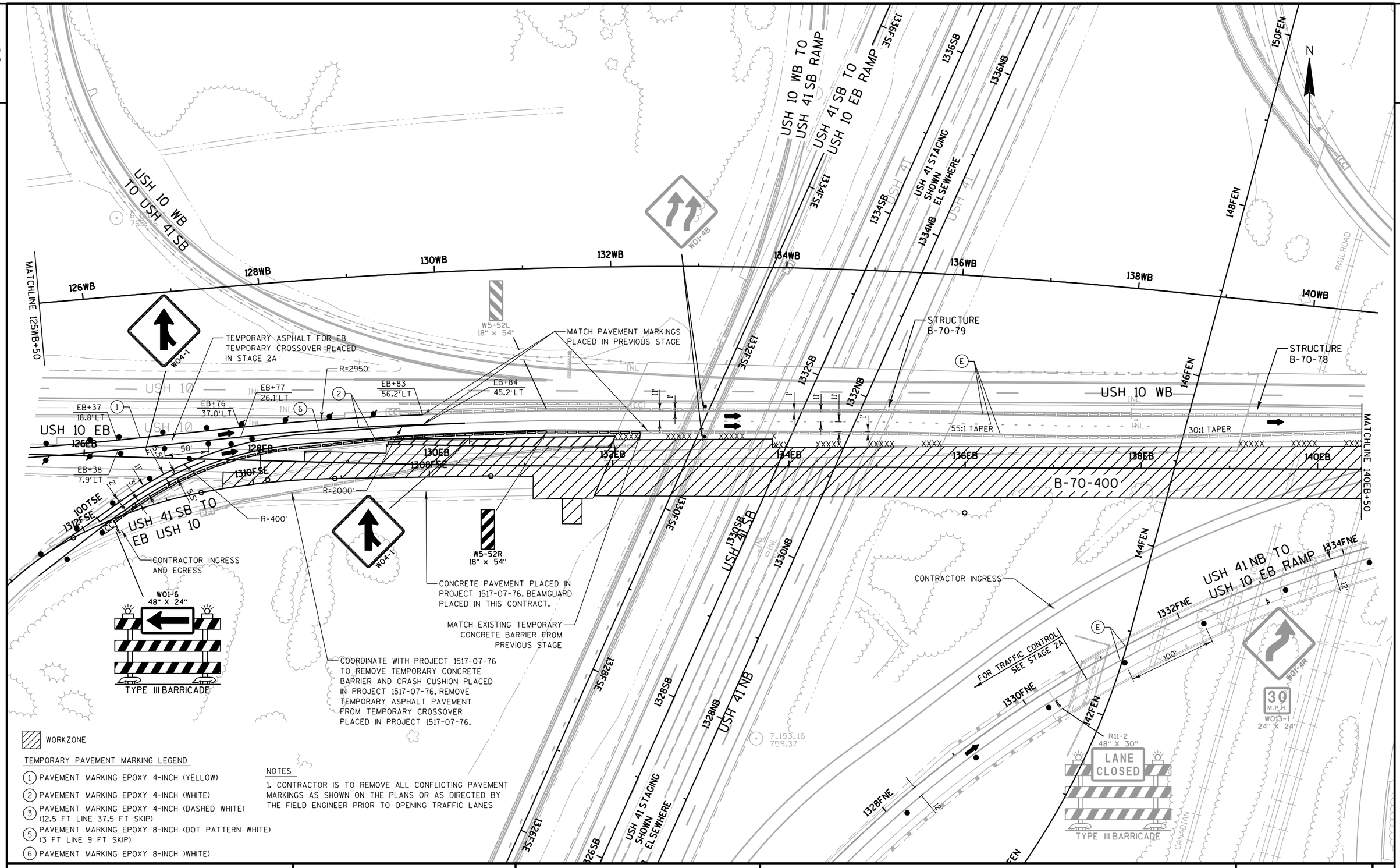
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET 194	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025644_tc_s2B.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

WISDOT/CADDS SHEET 42

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025645_tc_s2B.dgn
PLOT DATE : 4/30/2015
PLOT BY : nbennett
PLOT NAME :
PLOT SCALE : 99.9998:1
WISDOT/CADDS SHEET 42

2

2

N

BUTTE

PIER

RAILROAD

USH 10 WB TO USH 41 NB RAMP

W4-3R
36" X 36"

W01-4L

CONTRACTOR INGRESS
AND EGRESS

SIGN

USH 10

USH 10 WB

USH 10 EB

142WB

144WB

146WB

148WB

150WB

152WB

154WB

142EB

144EB

146EB

148EB

150EB

152EB

154EB

1336FNE

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1348FNE

30:1 TAPER

55:1 TAPER

50' TYP

MATCHLINE 140EB+50

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

STRUCTURE B-70-403
CONTRACTOR INGRESS/EGRESS

W4-6
36" X 36"

R11-2
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

JAMES ST.

MH

7_152_12
749.61

7_152_2
751.31

7_152_18
754.59

7_152_14
791.24

7_152_4
792.26

11917
791.27

LITTLE BUTTE DES MORTS

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET 196	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025646_tc_s2B.dgn PLOT DATE : 4/30/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

WISDOT/CADDS SHEET 42

2

HIGHLAND PARK RD.

GOLF BRIDGE DR.

MILL POND LN.

W. AMERICAN DR.

BIKE PATH

SIGN

BERM

MATCHLINE 113TWS+50

114TWS

116TWS

118TWS

120TWS

122TWS

124TWS

126TWS

128TWS

120WB

USH 41 SB TO
USH 10 WB RAMP

USH 10 WB TO
USH 41 SB

CONTRACTOR TO SHIFT TEMPORARY CONCRETE BARRIER AS NEEDED FOR INGRESS AND EGRESS TO WORKZONE. KEEP A MINIMUM 16' CLEAR WIDTH FROM TOE OF BARRIER TO EDGE OF SHOULDER FOR TRAFFIC TRAVELING ON USH 41 SB TO USH 10 WB RAMP. CRASH CUSHION WILL BE REQUIRED IF TRAFFIC IS EXPOSED TO BLUNT END OF TEMPORARY CONCRETE BARRIER

ANCHOR TEMPORARY CONCRETE BARRIER TO EXISTING PAVEMENT STA 124TWS+00 - STA 125TWS+00

PLACE SIGNS AT THE SB USH 41 TO WB USH 10 RAMP GORE, APPROXIMATELY STA 1348FSE+00, LT. REMOVE SIGNS AT THE END OF STAGE 2B.

TRUCKS ENTERING & LEAVING
W8-6A

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 2B	SHEET 197	E

2

2

N

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

USH 41

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

W AMERICAN DR

USH 10 WB
USH 10 EB

B-70-400

TCA

USH 10

SHEET 1 | SHEET 2 | SHEET 3 | SHEET 4 | SHEET 5 | SHEET 6

WESTFIELD LN

COLD SPRING ROAD

USH 41

N LAKE ST

CONSTRUCTION WORKZONE(S)

- STRUCTURE B-70-400
- MAINLINE USH 10 EB BETWEEN B-70-400 AND B-70-403
- REMOVE TCA CROSSOVER BUILT IN STAGE 1

TRAFFIC

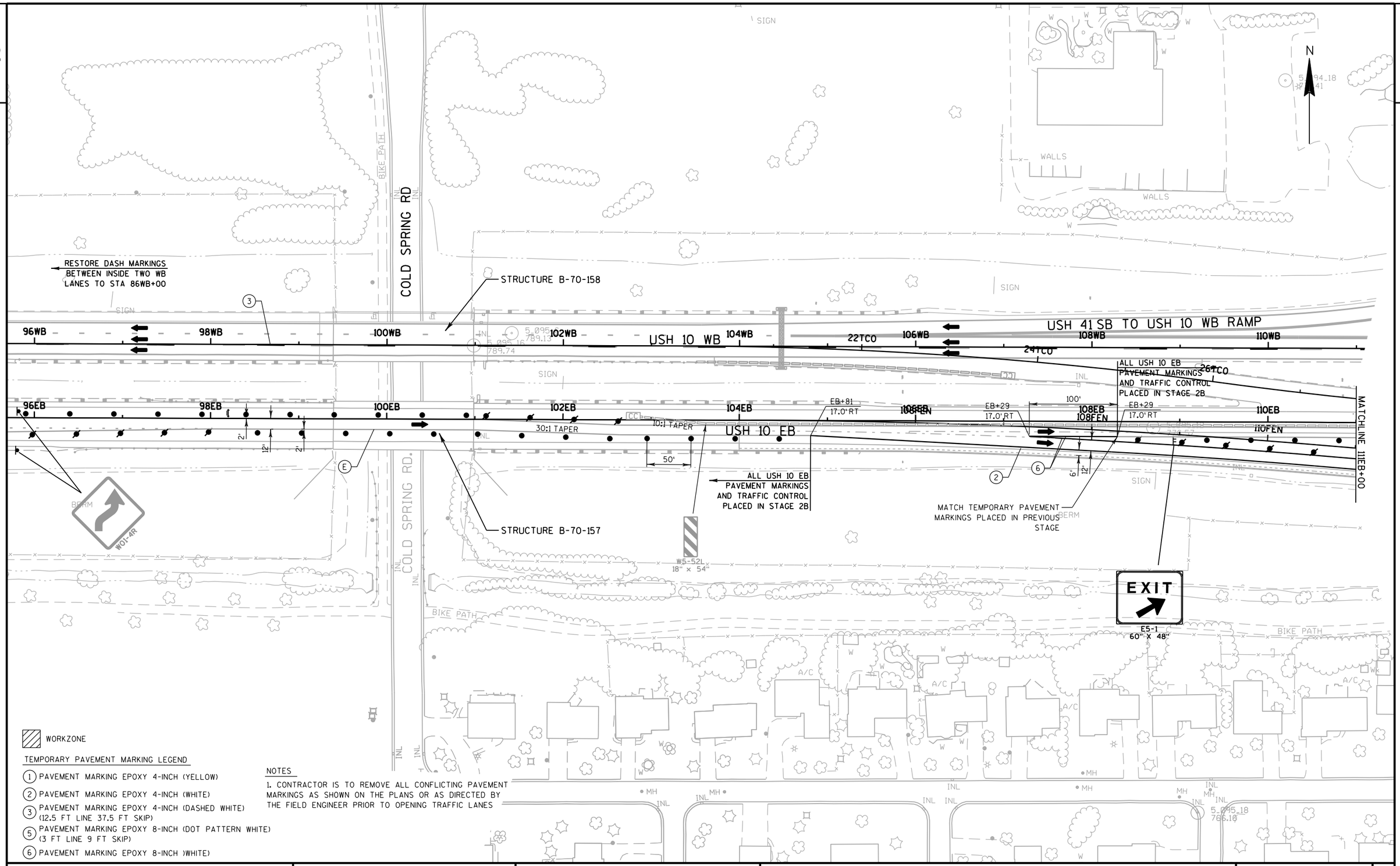
- CTH CB EASTBOUND ONRAMP REDUCED TO 1-LANE
- EB USH 10 REDUCED TO 1-LANE WEST OF THE EB USH 10 TO SB USH 41 OFF-RAMP.
- WB USH 10 UNAFFECTED
- NB AND SB USH 41 SHIFTED TO THE OUTSIDE SHOULDER
- ALL USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED
- NB USH 41 TO EB USH 10/WIS 441 RAMP IS SHIFTED ONTO THE NEW CONSTRUCTED B-70-403 (REFER TO ADJACENT PROJECT FOR CONTINUATION OF TRAFFIC CONTROL DETAILS TO THE EAST)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3 OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025650_tc_s3.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 624.999:1

WISDOT/CADDS SHEET 42

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

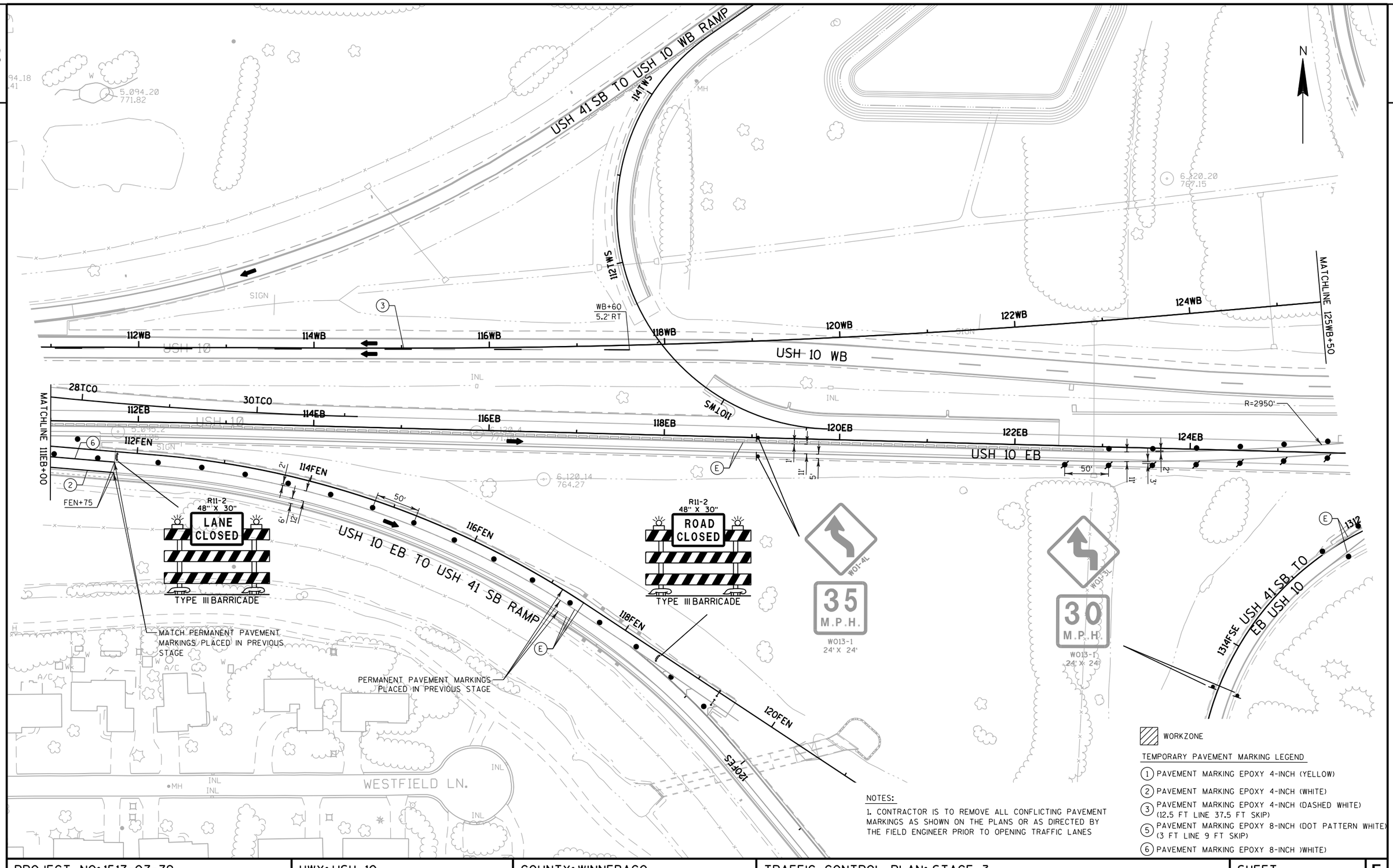
NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025651_tc_s3.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

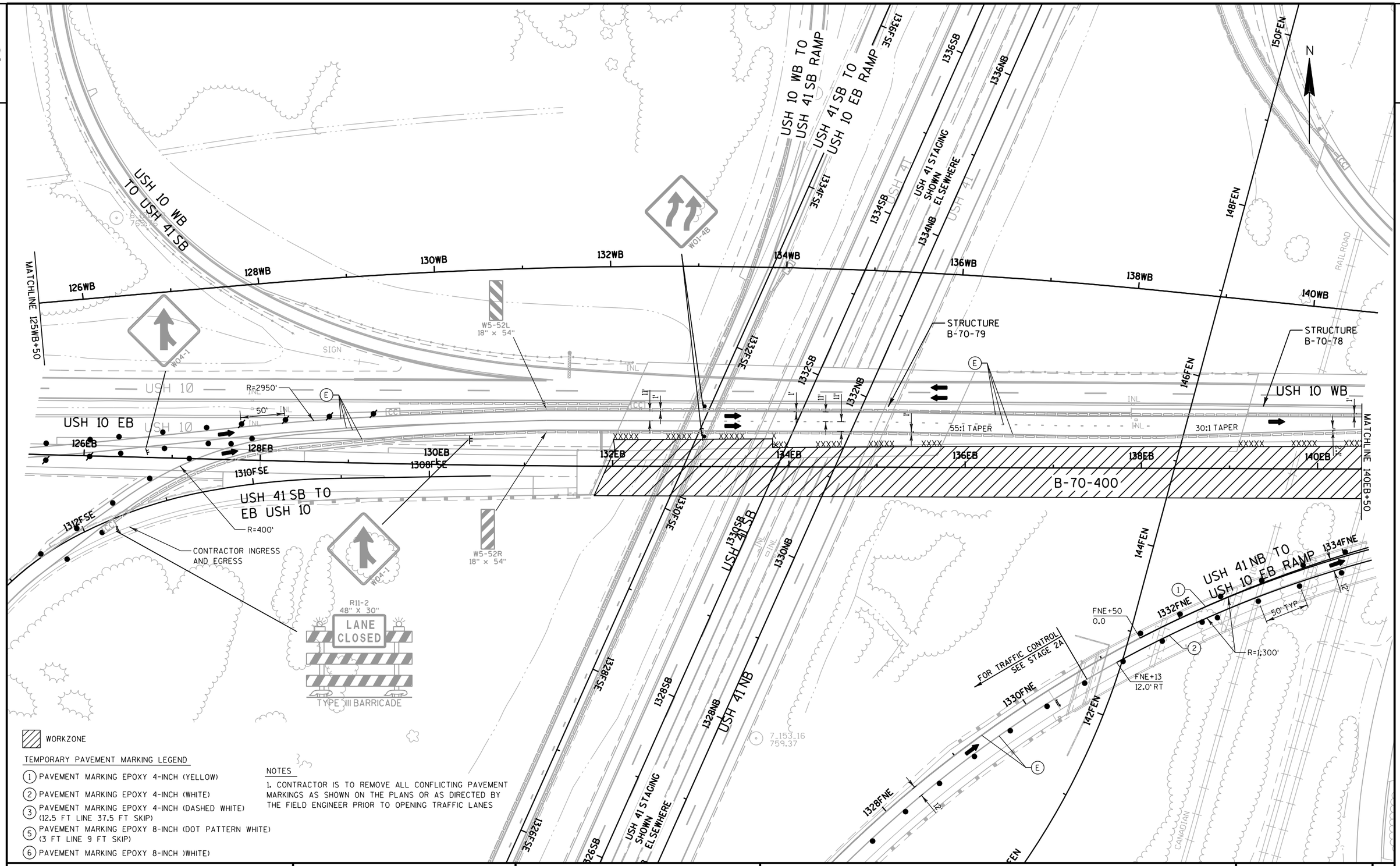
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET 200	E

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET 201	E

2

2

N

LITTLE LAKE BUTTE DES MORTS

BUTTE

PIER

RAILROAD

USH 10 WB TO USH 41 NB RAMP

USH 41 NB TO USH 10 EB RAMP

MOT-6C

SIGN

USH 10

USH 10 WB

USH 10 EB

MATCHLINE 140EB+50

MATCHLINE 155EB+00

142WB

144WB

146WB

148WB

150WB

152WB

154WB

142EB

144EB

146EB

148EB

150EB

152EB

154EB

1336FNE

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1348FNE

30:1 TAPER

55:1 TAPER

50' TYP

25'

CONTRACTOR INGRESS AND EGRESS

FNE+52.8
23.3' RT

FNE+51.8
11.3' RT

REMOVE TEMPORARY ASPHALT PAVEMENT, TEMPORARY CONCRETE BARRIER AND TEMPORARY THRIE BEAM CONNECTION PLACED IN THE PREVIOUS STAGE ACROSS TEMP CROSSOVER

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

FNE+55.4
26.8' RT

FNE+55.6
15.8' RT

COORDINATE WITH PROJECT 1517-07-76 FOR THE COMPLETION OF THE B-70-403 BRIDGE PRIOR TO MAKING THE STAGE 3 TRAFFIC SHIFT. COORDINATE TRAFFIC SHIFT WITH PROJECT 1517-75-75.

R11-2
48" X 30"
LANE CLOSED

TYPE III BARRICADE

7_152_12 749.61

7_152_2 750.28

7_152_14 791.24

7_152_4 792.26

7_152_18 754.59

7_152_20 751.31

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

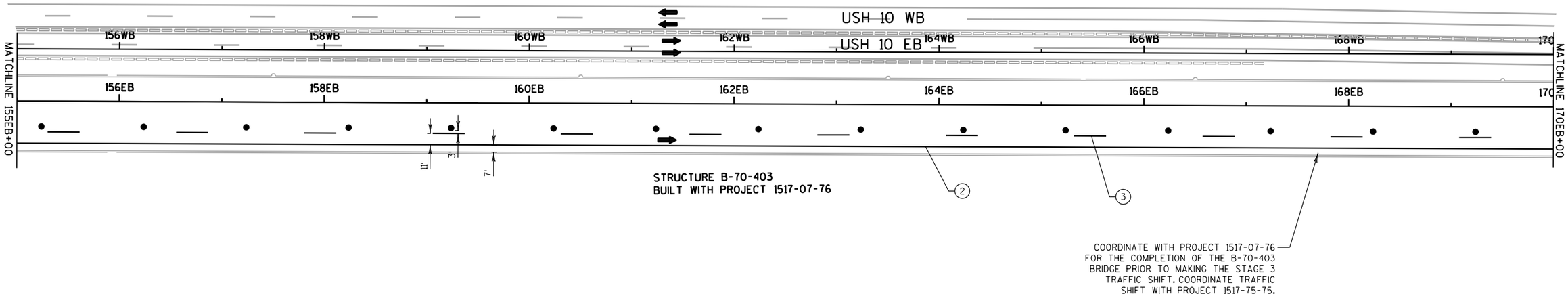
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET 202	E

2

N

LITTLE LAKE BUTTE DES MORTS



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

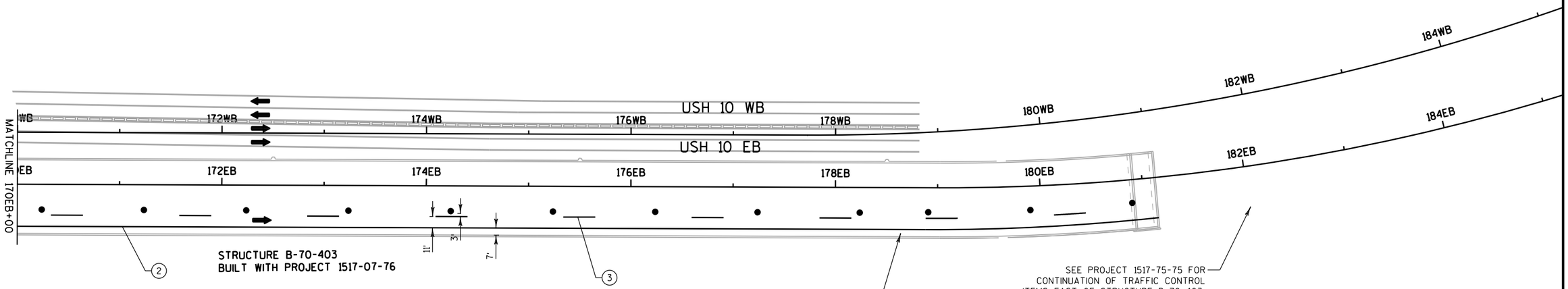
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET 203	E

2

N

LITTLE LAKE BUTTE DES MORTS



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 3	SHEET 204	E

2

2

N

W AMERICAN DR

USH 41

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

USH 10 EB

USH 10 WB

TSE

USH 10

SHEET 1

WESTFIELD LN

SHEET 2

SHEET 3

SHEET 4

SHEET 5

SHEET 6

COLD SPRING ROAD

USH 41

N. LAKE ST

CONSTRUCTION WORKZONE(S)

- CONSTRUCT EB USH 10 INSIDE SHOULDER AND REMAINDER OF WB USH 10 TO SB USH 41 RAMP LANE
- REMOVE EB USH 10 AND TSE TEMPORARY CROSSOVERS BUILT IN STAGE 2A

TRAFFIC

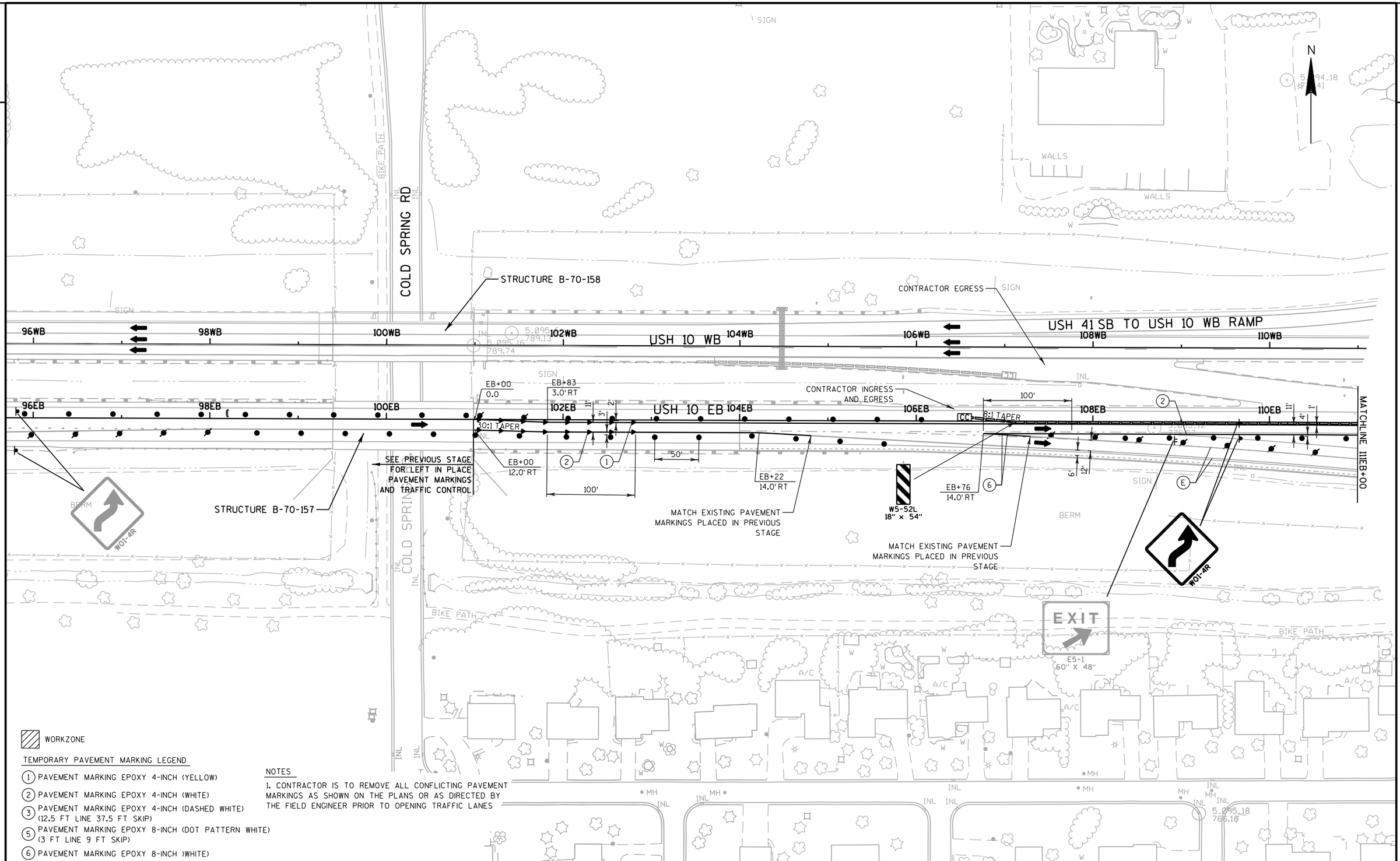
- CTH CB EASTBOUND ONRAMP REDUCED TO 1-LANE
- EB USH 10 REDUCED TO 1-LANE WEST OF THE EB USH 10 TO SB USH 41 OFF-RAMP.
- EB USH 10/WIS 441 AND SB USH 41 TO EB USH 10/WIS 441 RAMP SHIFTED ONTO THE NEW CONSTRUCTED B-70-400 AND B-70-403 STRUCTURES (REFER TO PROJECT 1517-75-75 FOR CONTINUATION OF TRAFFIC CONTROL DETAILS TO THE EAST)
- WB USH 10 UNAFFECTED
- NB AND SB USH 41 SHIFTED TO THE OUTSIDE SHOULDER
- ALL USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4 OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025660_tc_s4.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 624.999:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 206	E

2

2

USH 41 SB TO USH 10 WB RAMP

N

MATCHLINE 125WB+50

112WB 114WB 116WB 118WB 120WB 122WB 124WB

USH 10

USH 10 WB

INL

W5-52L
18" x 54"

EB+84.95
3.00' RT

EB+84.57
9.00' RT

112EB 114EB 116EB 118EB 120EB 122EB 124EB

USH 10

USH 10 EB

MATCHLINE 111EB+00

100'

EB+84.73
14.00' RT

50:1 TAPER

EB+84.57
20.00' RT

100'

1"

4"

W04-1

MATCH EXISTING RAMP MARKINGS

1312

1314FSE USH 41 SB TO EB USH 10

R11-2
48" X 30"
LANE CLOSED

TYPE III BARRICADE

50'

USH 10 EB TO USH 41 SB RAMP

R11-2
48" X 30"
ROAD CLOSED

TYPE III BARRICADE

120FES

120FES

WESTFIELD LN.

INL

MH

A/C

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 207	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025662_tc_s4.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 99.9998:1

WISDOT/CADDS SHEET 42

2

2

N

USH 10 WB TO USH 41 SB

USH 41 SB TO EB USH 10

USH 10 WB TO USH 41 SB RAMP

USH 41 SB TO USH 10 EB RAMP

USH 41 STAGING SHOWN ELSEWHERE

USH 41

RAILROAD

MATCHLINE 125WB+50

126WB 128WB 130WB 132WB 134WB 136WB 138WB 140WB

REMOVE ASPHALT PAVEMENT PLACED IN STAGE 2A FOR EB TEMPORARY CROSSOVER

REMOVE TEMPORARY CONCRETE BARRIER AND CRASH CUSHIONS AT THE END OF STAGE 4

STRUCTURE B-70-79

STRUCTURE B-70-78

USH 10

USH 10 WB

MATCHLINE 140EB+50

126EB 128EB 130EB 132EB 134EB 136EB 138EB 140EB

EB+08.18
20.00' RT

EB+27
14.0' RT

USH 10 EB

USH 41 SB TO EB USH 10

EB+53.35
34.16' RT

R=850'

R=865'

100'

30:1 TAPER

B-70-400

USH 41 SB

USH 41 NB

USH 41 NB TO USH 10 EB RAMP

50' TYP

FOR TRAFFIC CONTROL SEE STAGE 2A

REMOVE ASPHALT PLACED IN STAGE 2A FOR FSE TEMPORARY CROSSOVER AND COMPLETE SHOULDER GRADING AT THE BEGINNING OF STAGE 4

W04-1

1312FSE 1310FSE 1308FSE 1330FSE 1328FSE 1326FSE 1334FSE 1332FSE 1330FNE 1328FNE 1332FNE 1334FNE

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 208	E

2

N

LITTLE LAKE BUTTE DES MORTS

BUTTE

PIER

RAILROAD

USH 10 WB TO USH 41 NB RAMP

7_152_12
749.61

7_152_2
750.28

142WB

144WB

146WB

148WB

150WB

152WB

154WB

COORDINATE WITH PROJECT 1517-07-76
FOR REMOVAL OF TEMPORARY
CONCRETE BARRIER ON EXISTING EB USH
10 PLACED IN PROJECT 1517-07-76

7_152_14
791.24

7_152_4
792.26

USH 10 WB

R01-4R

SIGN

45
M.P.H.

W013-1
24" X 24"

USH 10

USH 10

MATCHLINE 140EB+50

142EB

144EB

146EB

100'

EB+78.36
9.00' RT

EB+78.18
20.00' RT

148EB

USH 10 EB

150EB

152EB

100'

154EB

MATCHLINE 155EB+00

1338FNE

1340FNE

55:1 TAPER

1344FNE

1346FNE

1348FNE

50' TYP

25'

1336FNE

USH 41 NB TO
USH 10 EB RAMP

R11-2
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

W4-3R
36" X 36"

W5-52L
18" x 54"

7_152_18
754.59

LITTLE BUTTE DES MORTS

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

EB+28.07
30.00' RT

EB+28.27
19.00' RT

W5-52L
18" x 54"

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

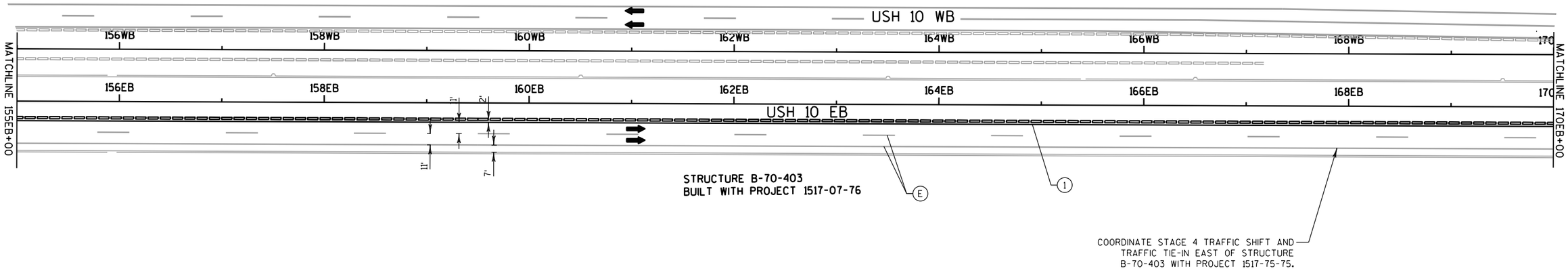
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 209	E

2

2

N

LITTLE LAKE BUTTE DES MORTS



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

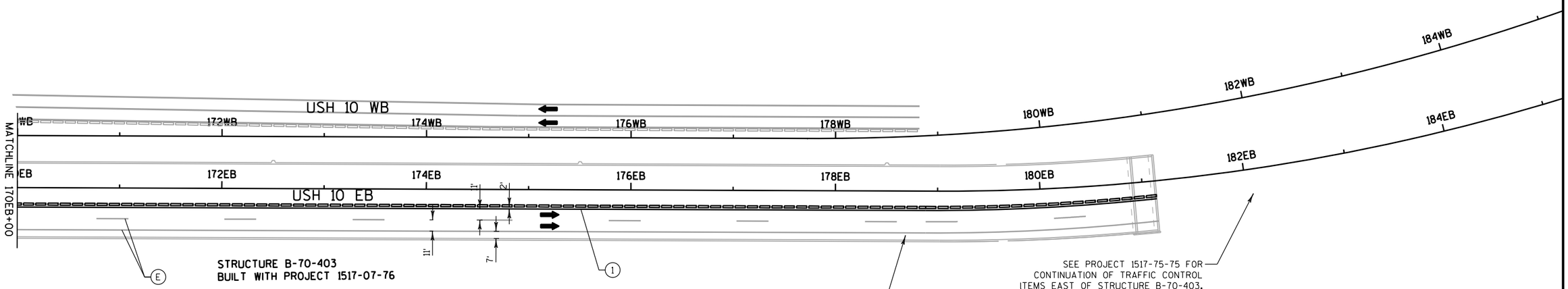
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 210	E

2

N

LITTLE LAKE BUTTE DES MORTS



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 4	SHEET 211	E

2

N

WORKZONE ENDS STA 127TWS+15

TWS

W AMERICAN DR

USH 41

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

USH 10 WB
USH 10 EB

USH 10

SHEET 1 | SHEET 2 | SHEET 3 | SHEET 4 | SHEET 5 | SHEET 6

WESTFIELD LN

COLD SPRING ROAD

USH 41

N LAKE ST

CONSTRUCTION WORKZONE(S)

- CONSTRUCT REMAINDER OF WB USH 10 TO SB USH 41 RAMP ('TWS'), INCLUDING GAP AREA CROSSING EXISTING WB USH 10 AND TIE-IN TO EXISTING WB USH 10 TO SB USH 41 RAMP

TRAFFIC

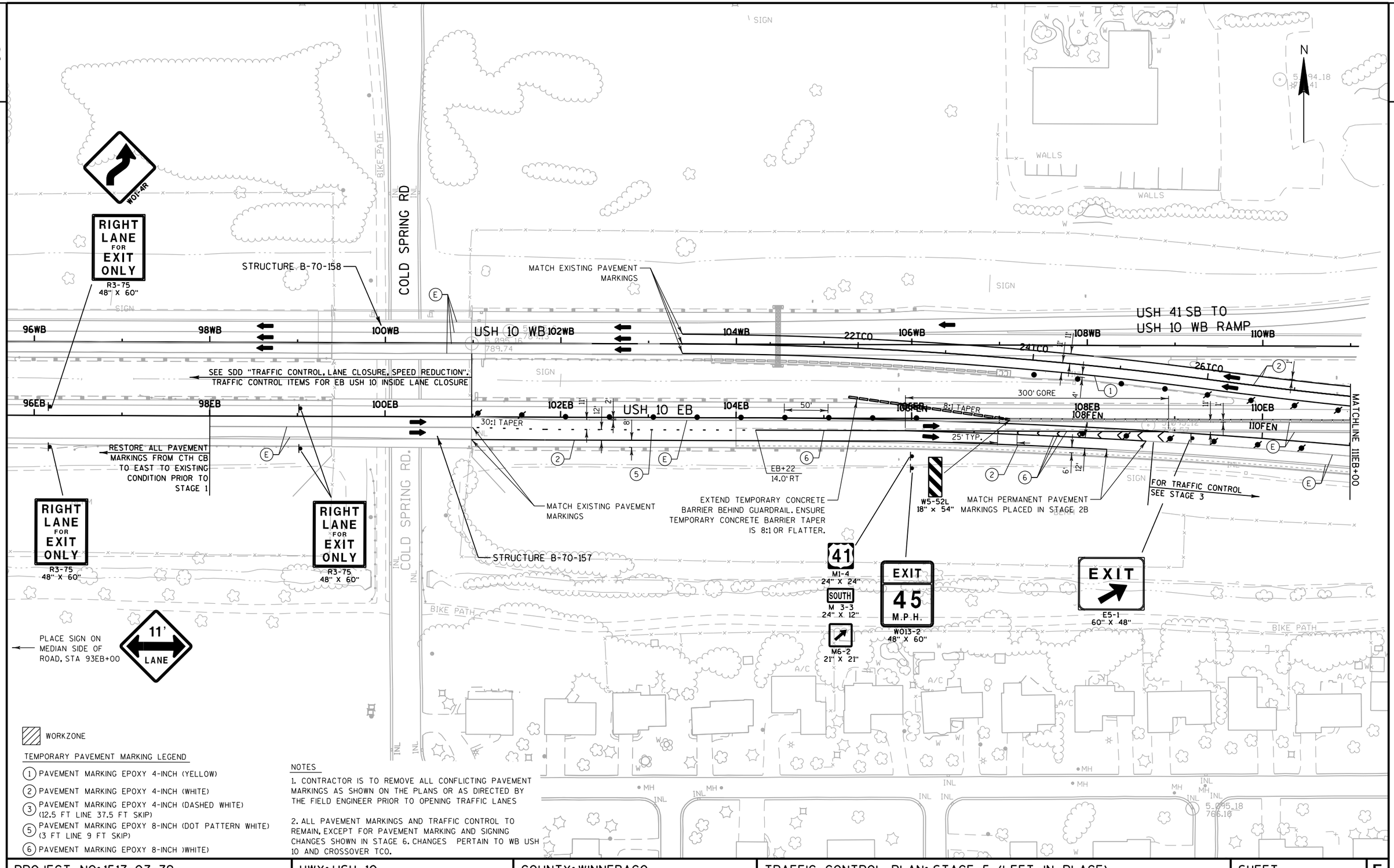
- EB USH 10 REDUCED TO 1-LANE AT THE EB USH 10 TO SB USH 41 OFF-RAMP.
- EB USH 10/WIS 441 AND SB USH 41 TO EB USH 10/WIS 441 RAMP SHIFTED ONTO THE NEW CONSTRUCTED B-70-400 AND B-70-403 STRUCTURES (REFER TO ADJACENT PROJECT FOR CONTINUATION OF TRAFFIC CONTROL DETAILS TO THE EAST)
- WB USH 10 SHIFTED ONTO STRUCTURES B-70-400 AND B-70-403 RUNNING COUNTER-DIRECTIONAL ON NEW CONSTRUCTED EB USH 10/WIS 441 PAVEMENT.
- WB USH 10 REDUCED TO 1-LANE ACROSS STRUCTURE B-70-400
- WB USH 10 TRAFFIC CROSSES OVER ONTO EXISTING WB USH 10 PAVEMENT AT CROSSOVER "TCO"
- NB AND SB USH 41 SHIFTED TO THE OUTSIDE SHOULDER
- WB USH 10 TO SB USH 41 LOOP RAMP CLOSED
- ALL OTHER USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025670_tc_s5.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 624.999:1

WISDOT/CADDS SHEET 42

2



TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. ALL PAVEMENT MARKINGS AND TRAFFIC CONTROL TO REMAIN, EXCEPT FOR PAVEMENT MARKING AND SIGNING CHANGES SHOWN IN STAGE 6. CHANGES PERTAIN TO WB USH 10 AND CROSSOVER TCO.

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025671_tc_s5.dgn
PLOT DATE : 4/24/2015
PLOT BY : nbennett
PLOT NAME :
PLOT SCALE : 99.9998:1
WISDOT/CADDS SHEET 42

2

USH 41 SB TO USH 10 WB RAMP

114WS

CONTRACTOR INGRESS

CONTRACTOR EGRESS

W1-4B

45 M.P.H.

W013-1
24" X 24"

SM-121

SM-101

R11-2
48" X 30"
RAMP CLOSED

TYPE III BARRICADE

MATCHLINE 125WB+50

112WB 114WB 116WB 118WB 120WB 122WB 124WB

USH 10

28TCO 30TCO

112EB 114EB 116EB 118EB 120EB 122EB 124EB

USH 10 WB

USH 10 EB

EB+05.08
23.00'LT

EB+04.72
1.01'LT

W5-52L
18" x 54"

30:1 TAPER

EB+84.82
5.00'RT

EB+84.98
6.00'LT

EB+71.12
6.00'LT

MATCHLINE 111EB+00

112FEN 114FEN 116FEN 118FEN 120FEN 120FES

FOR TRAFFIC CONTROL
SEE STAGE 3

USH 10 EB TO USH 41 SB RAMP

W5-52L
18" x 54"

W04-1

1312

1314FSE USH 41 SB TO EB USH 10

WESTFIELD LN.

INL

MH

SIGN

WORKZONE

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. ALL PAVEMENT MARKINGS AND TRAFFIC CONTROL TO REMAIN, EXCEPT FOR PAVEMENT MARKING AND SIGNING CHANGES SHOWN IN STAGE 6. CHANGES PERTAIN TO WB USH 10, CROSSOVER TCO, AND THE WB USH 10 TO SB USH 41 RAMP TWS.

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

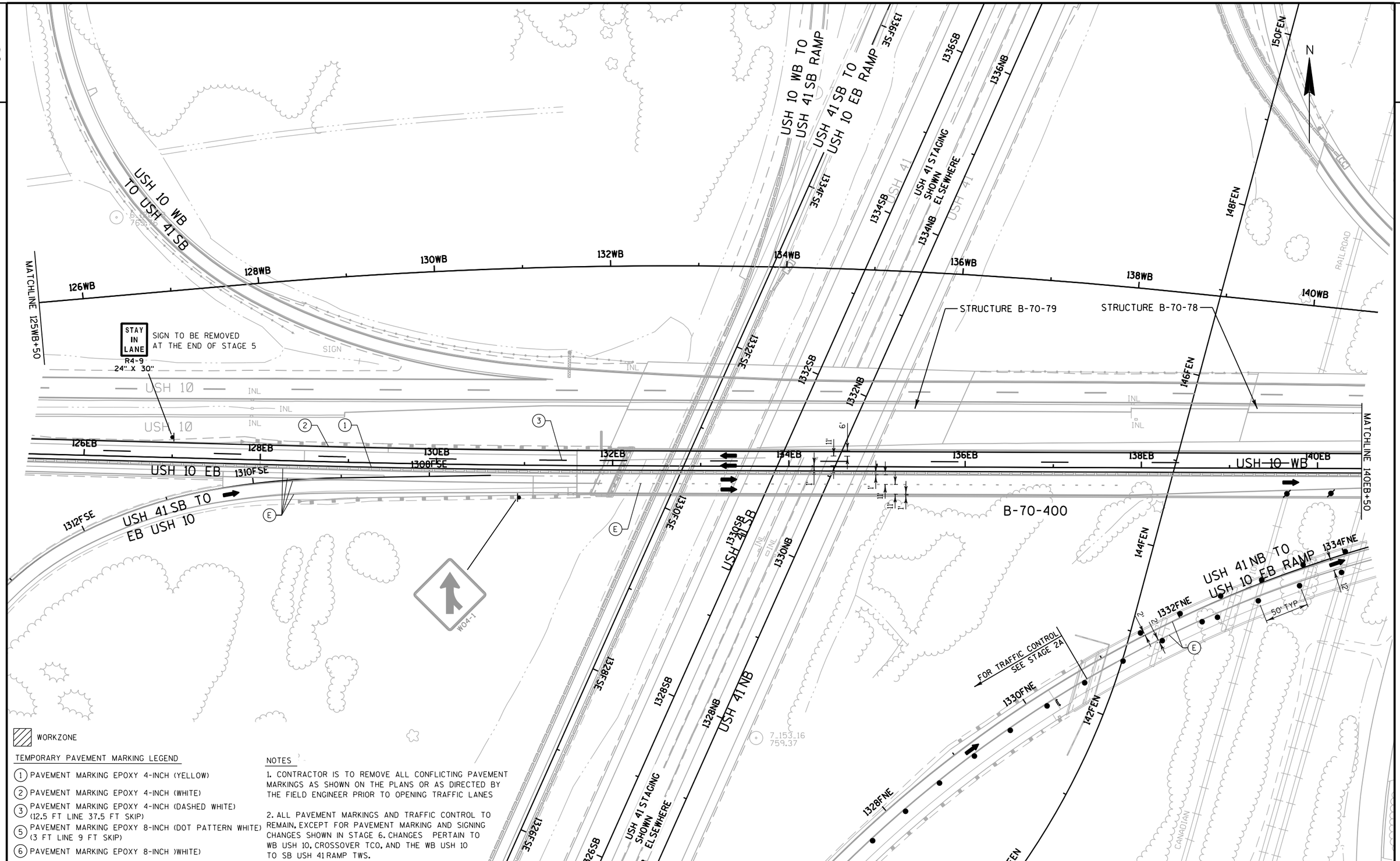
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET 214	E

2



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. ALL PAVEMENT MARKINGS AND TRAFFIC CONTROL TO REMAIN, EXCEPT FOR PAVEMENT MARKING AND SIGNING CHANGES SHOWN IN STAGE 6. CHANGES PERTAIN TO WB USH 10, CROSSOVER TCO, AND THE WB USH 10 TO SB USH 41 RAMP TWS.

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET 215	E

2

N

LITTLE LAKE BUTTE DES MORTS

BUTTE

PIER

RAILROAD

7_152_12
749.61

7_152_2
750.28

USH 10 WB TO USH 41 NB RAMP

COORDINATE WITH PROJECT 1517-07-76 FOR REMOVAL OF TEMPORARY CONCRETE BARRIER PLACED IN PROJECT 1517-07-76

SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR TRAFFIC CONTROL ITEMS FOR WB USH 10 TO SB USH 41 EXIT RAMP CLOSURE

W5-52L
18" x 54"

W1-4R

SIGN

USH 10

USH 10

142WB

144WB

146WB

148WB

150WB

152WB

154WB

EB+78.93
16.99'LT

EB+28.78
9.00'LT

EB+28.38
13.00'RT

7_152_14

7_152_4
792.26

100'

MATCHLINE 140EB+50

142EB

144EB

146EB

148EB

150EB

152EB

154EB

1338FNE

1340FNE

1342FNE

1344FNE

1346FNE

1348FNE

1336FNE

55:1 TAPER

55:1 TAPER

50' TYP

25'

50' TYP

USH 10 WB

USH 10 EB

MATCHLINE 155EB+00

EB+78.34
5.00'RT

STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

USH 41 NB TO USH 10 EB RAMP

R11-2
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W4-3R
36" X 36"

W5-52L
18" x 54"

W5-52L
18" x 54"

7_152_18
754.59

LITTLE BUTTE DES MORTS

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

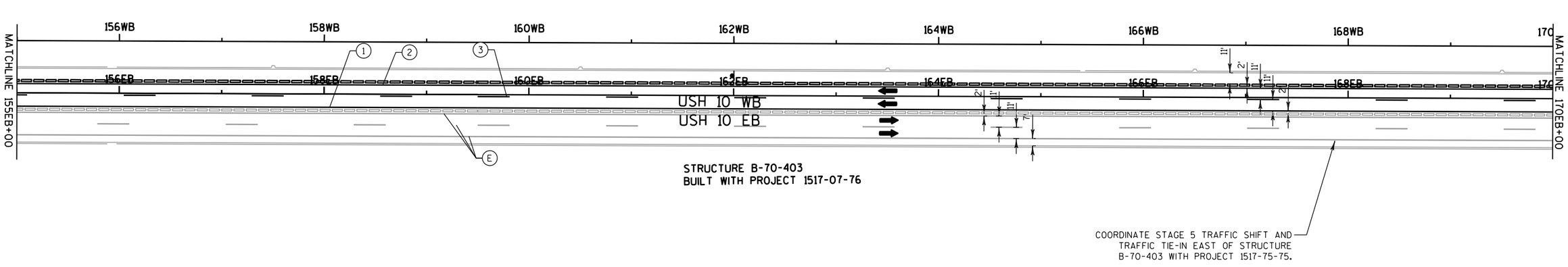
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET 216	E

2

N

LITTLE LAKE BUTTE DES MORTS



STRUCTURE B-70-403
BUILT WITH PROJECT 1517-07-76

COORDINATE STAGE 5 TRAFFIC SHIFT AND TRAFFIC TIE-IN EAST OF STRUCTURE B-70-403 WITH PROJECT 1517-75-75.

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

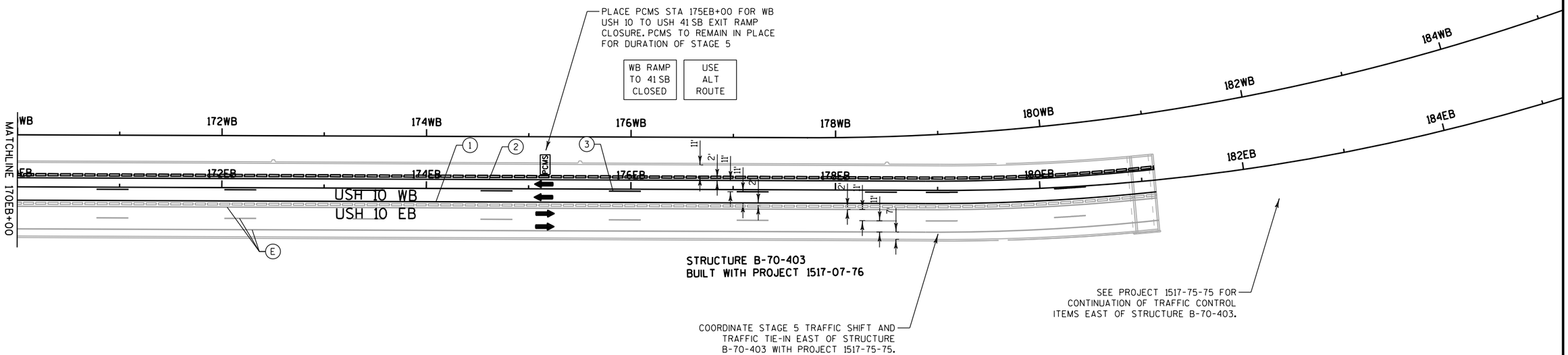
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET 217	E

2

N

LITTLE LAKE BUTTE DES MORTS



WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 5 (LEFT IN PLACE)	SHEET 218	E

2

N

LITTLE LAKE BUTTE DE MORTS
(FOX RIVER)

USH 41

WISCONSIN CENTRAL LIMITED RR

BUTTE DES MORTS BEACH RD

W AMERICAN DR

USH 10 WB

USH 10 EB

USH 10

SHEET 1

SHEET 2

SHEET 3

WESTFIELD LN

COLD SPRING ROAD

USH 41

N. LAKE ST

CONSTRUCTION WORKZONE(S)

PROJECT COMPLETE

TRAFFIC

- EB USH 10 REDUCED TO 1-LANE AT THE EB USH 10 TO SB USH 10 OFF-RAMP.
- EB USH 10/WIS 441 AND SB USH 41 TO EB USH 10/WIS 441 RAMP SHIFTED ONTO THE NEW CONSTRUCTED B-70-400 AND B-70-403 STRUCTURES (REFER TO ADJACENT PROJECT FOR CONTINUATION OF TRAFFIC CONTROL DETAILS TO THE EAST)
- WB USH 10 SHIFTED ONTO STRUCTURES B-70-400 AND B-70-403 RUNNING COUNTER-DIRECTIONAL ON NEW CONSTRUCTED EB USH 10/WIS 441 PAVEMENT.
- WB USH 10 REDUCED TO 1-LANE WEST OF WB USH 10 TO SB USH 41 LOOP RAMP "TWS"
- WB USH 10 TRAFFIC CROSSES OVER ONTO EXISTING WB USH 10 PAVEMENT AT CROSSOVER "TCO"
- NB AND SB USH 41 SHIFTED TO THE OUTSIDE SHOULDER
- WB TRAFFIC UTILIZES NEW TEMPORARY WB USH 10 TO SB USH 41 LOOP RAMP ('TWS') COMPLETED IN STAGE 5
- ALL USH 41 - USH 10 SYSTEM RAMPS UNAFFECTED

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 6 OVERVIEW	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\025680_tc_s6.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 499.999:1

2

2

N

USH 10 WB

USH 10 EB

USH 10

USH 10

90WB 92WB 94WB 96WB 98WB 100WB 102WB

90EB 92EB 94EB 96EB 98EB 100EB 102EB

WB+06.93
12.00' LT

12' 12' 12'

MATCHLINE 103EB+50

COLD SPRING ROAD

COLD SPRING RD.

BIKE PATH

SIGN

INL

MH

4_070_2
772.60

4_070_12
772.50

4_069_18
771.60

4_069_20
772.38

5_095_16
789.74

NOTE: SEE STAGE 5 TRAFFIC CONTROL DETAILS FOR ALL LEFT IN PLACE TRAFFIC CONTROL AND PAVEMENT MARKINGS FOR EB USH 10

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

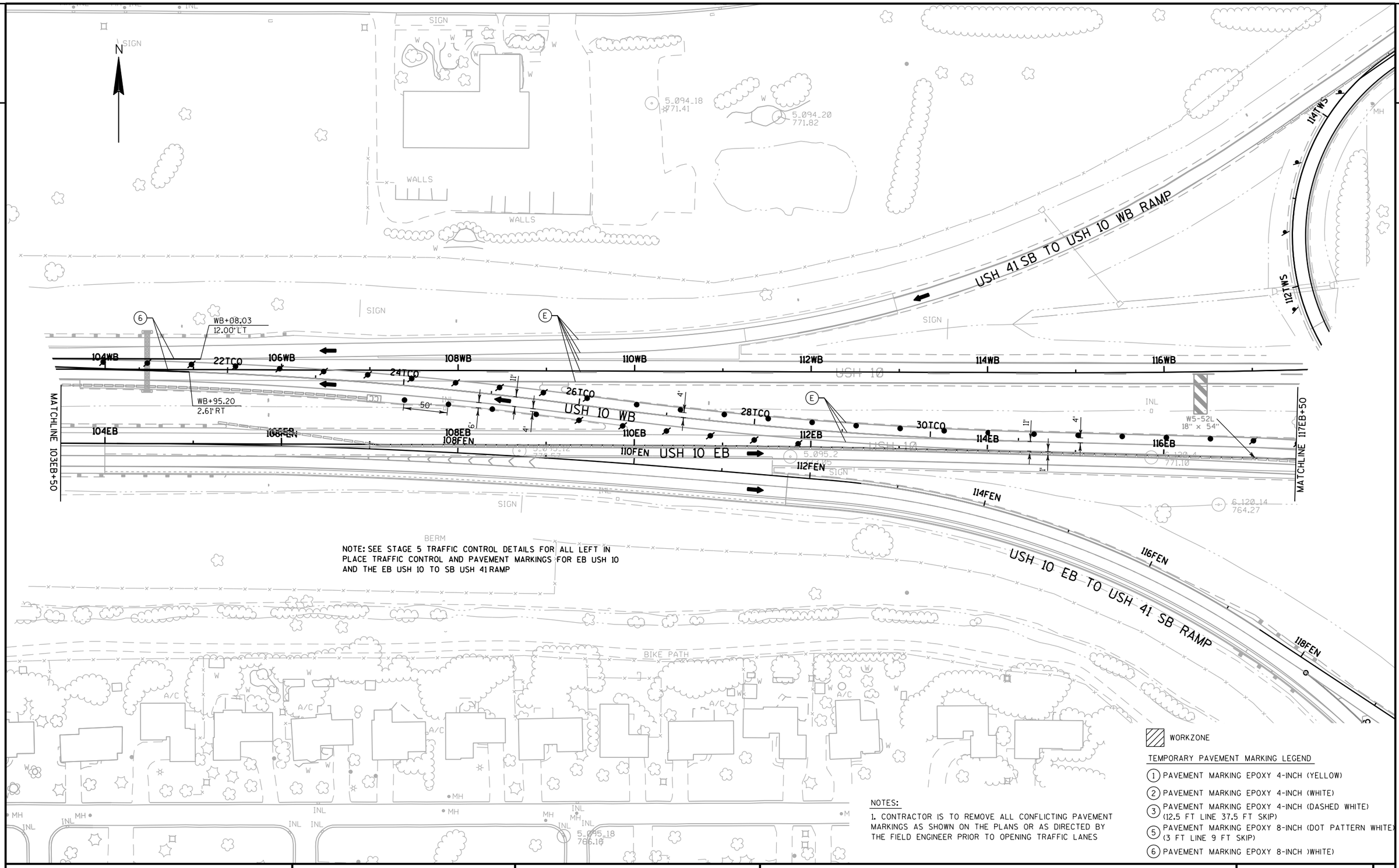
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 6 (LEFT IN PLACE)	SHEET 220	E

2



NOTE: SEE STAGE 5 TRAFFIC CONTROL DETAILS FOR ALL LEFT IN PLACE TRAFFIC CONTROL AND PAVEMENT MARKINGS FOR EB USH 10 AND THE EB USH 10 TO SB USH 41 RAMP

WORKZONE

TEMPORARY PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. PAVEMENT MARKING EPOXY 8-INCH)WHITE)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 6 (LEFT IN PLACE)	SHEET 221	E

2

USH 41 SB TO USH 10 WB RAMP

USH 10 WB TO USH 41 SB

114TWS 116TWS 118TWS 120TWS 122TWS 124TWS 126TWS

W01-4R

45 M.P.H.
W013-1
24" X 24"

W1-8
18" X 24"

112TWS

RAMP
25
M.P.H.
W013-3
48" X 60"

W1-13L
48" X 48"

EXIT
E5-1
60" X 48"

118WB

MATCHLINE 117EB+50

EB+01
27.1'LT

SM 2011

118EB

120WB

EB+47.84
15.0'LT

122WB

126EB

124WB

EXIT
25
MPH
W13-2B
48" X 90"

41
M1-4
24" X 24"

SOUTH
M 3-3
24" X 12"

M6-2
21" X 21"

EXIT
25
M.P.H.
W013-2
48" X 60"

EB+69.85
6.0'LT

EB+27.67
27.0'LT

122EB 30:1 TAPER

USH 10 EB

USH 10 WB

124EB

126EB

EB+54.34
17.00'LT

R11-2
48" X 30"

LANE CLOSED

TYPE III BARRICADE

W5-52L
18" X 54"

NOTE: SEE STAGE 5 TRAFFIC CONTROL DETAILS FOR ALL LEFT IN PLACE TRAFFIC CONTROL AND PAVEMENT MARKINGS FOR EB USH 10

120FEN

120FES

PLACE PCMS STA 175EB+00 FOR 7 DAYS FOLLOWING OPENING OF WB USH 10 TO SB USH 41 RAMP
PCMS TO READ:

WB RAMP TO 41 SB OPEN	RIGHT LANE EXIT ONLY

PCMS

PLACE SIGN FOR WB USH 10 AT STA 132EB+00

RIGHT LANE FOR EXIT ONLY
R3-75
48" X 60"

WORKZONE

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. USH 10 WB TO SB RAMP PAVEMENT MARKING CHANGES ARE INCLUDED IN STAGE 6. SEE STAGE 5 FOR ALL OTHER LEFT IN PLACE PAVEMENT MARKINGS AND TRAFFIC CONTROL.

TEMPORARY PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(5) PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH)WHITE)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL PLAN: STAGE 6 (LEFT IN PLACE)	SHEET 222	E

2

N

RAMP TO HWY 41
SOUTH CLOSED
USE ALT ROUTE
FMS
108" X 48"

1

RAMP TO HWY 41
SOUTH CLOSED
USE ALT ROUTE
FMS
108" X 48"

2

SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
DETOUR
AHEAD
W020-2A
48" X 48"

4

TO
M04-5
36" X 18"
SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
M05-2R
30" X 30"

6

TO
M04-5
36" X 18"
SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
M05-2R
30" X 30"

8

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M05-1R
21" X 21"

15

COVER
TO
41
J2-1

14

CB

EXIT 287
41 SOUTH
Oshkosh
CLOSED
R55-58A
108" X 18"

10

EXIT 287
41 SOUTH
Oshkosh
CLOSED
R55-58A
108" X 18"

11

12
COVER

41

10

24
PCMS
JACOBSEN RD

13

COVER
EXIT
287
E5-1A

N CLAYTON AVE

IRISH RD

COLD SPRINGS RD

3

SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
DETOUR
AHEAD
W020-2A
48" X 48"

5

TO
M04-5
36" X 18"
SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
M05-2R
30" X 30"

7

TO
M04-5
36" X 18"
SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
M05-2R
30" X 30"

9

TO
M04-5
36" X 18"
SOUTH
M3-3
36" X 18"
41
M1-4
36" X 36"
M06-2
30" X 30"

CB

17

SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

16

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

18

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

41

WINCHESTER RD

COOKE RD

II

19

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

20

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M05-1L
21" X 21"

22

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

23

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M06-1
21" X 21"

21

TO
M04-5
24" X 12"
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
M05-1L
21" X 21"

LEGEND

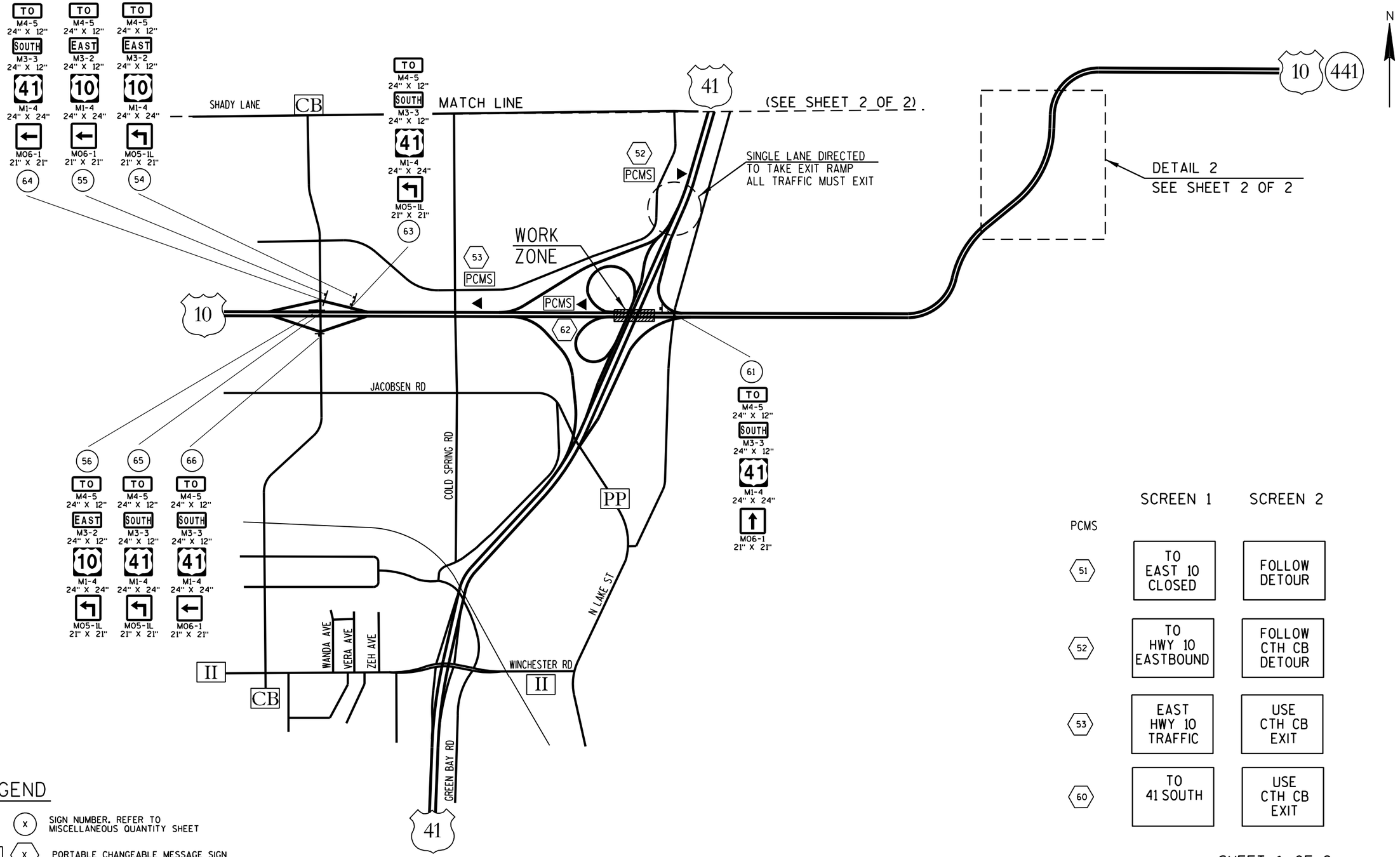
- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 1

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL-HWY 10 EAST & 41 SOUTH RAMP CLOSED	SHEET 223	E

2



LEGEND

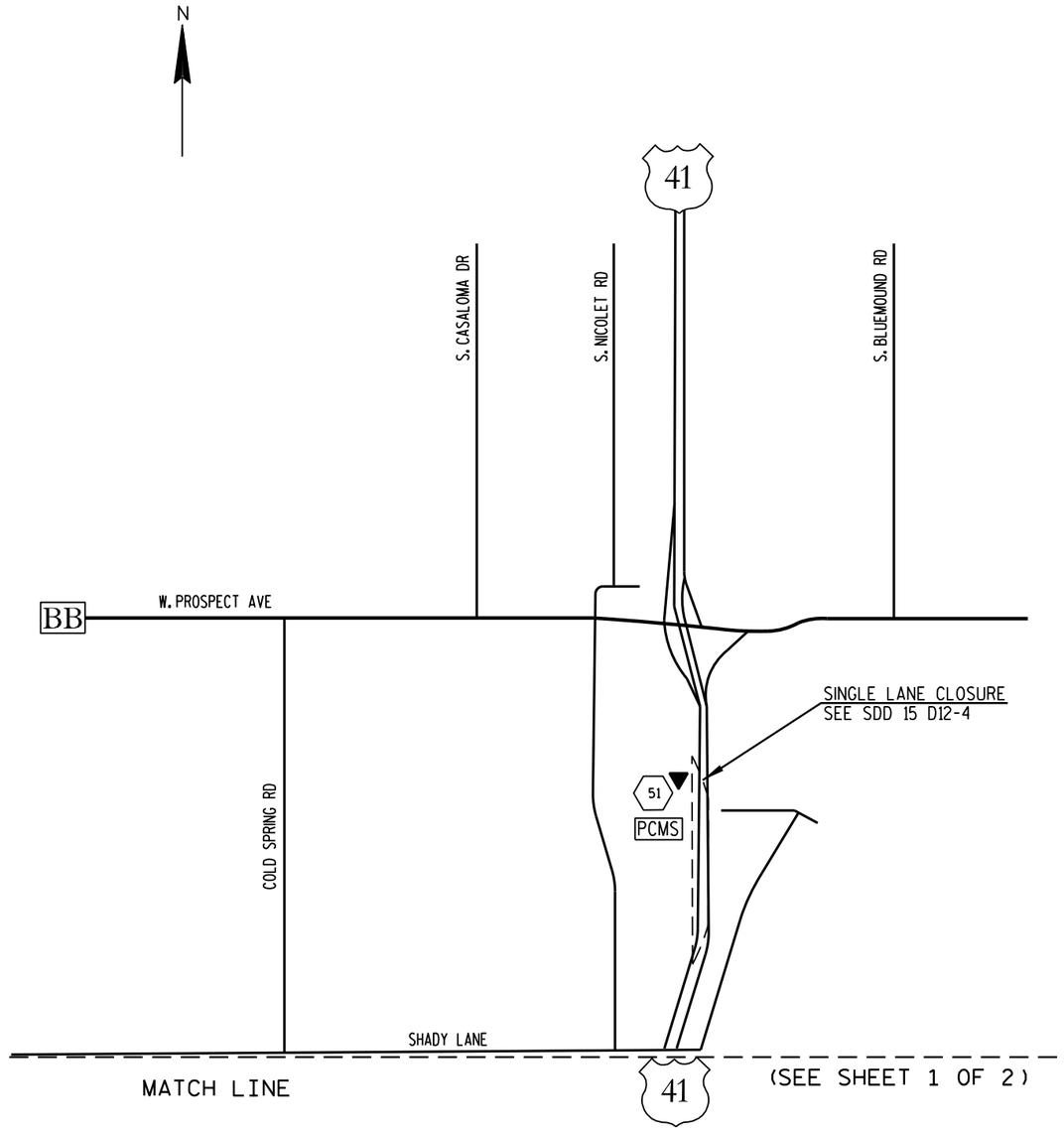
- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

PCMS	SCREEN 1	SCREEN 2
51	TO EAST 10 CLOSED	FOLLOW DETOUR
52	TO HWY 10 EASTBOUND	FOLLOW CTH CB DETOUR
53	EAST HWY 10 TRAFFIC	USE CTH CB EXIT
60	TO 41 SOUTH	USE CTH CB EXIT

SHEET 1 OF 2

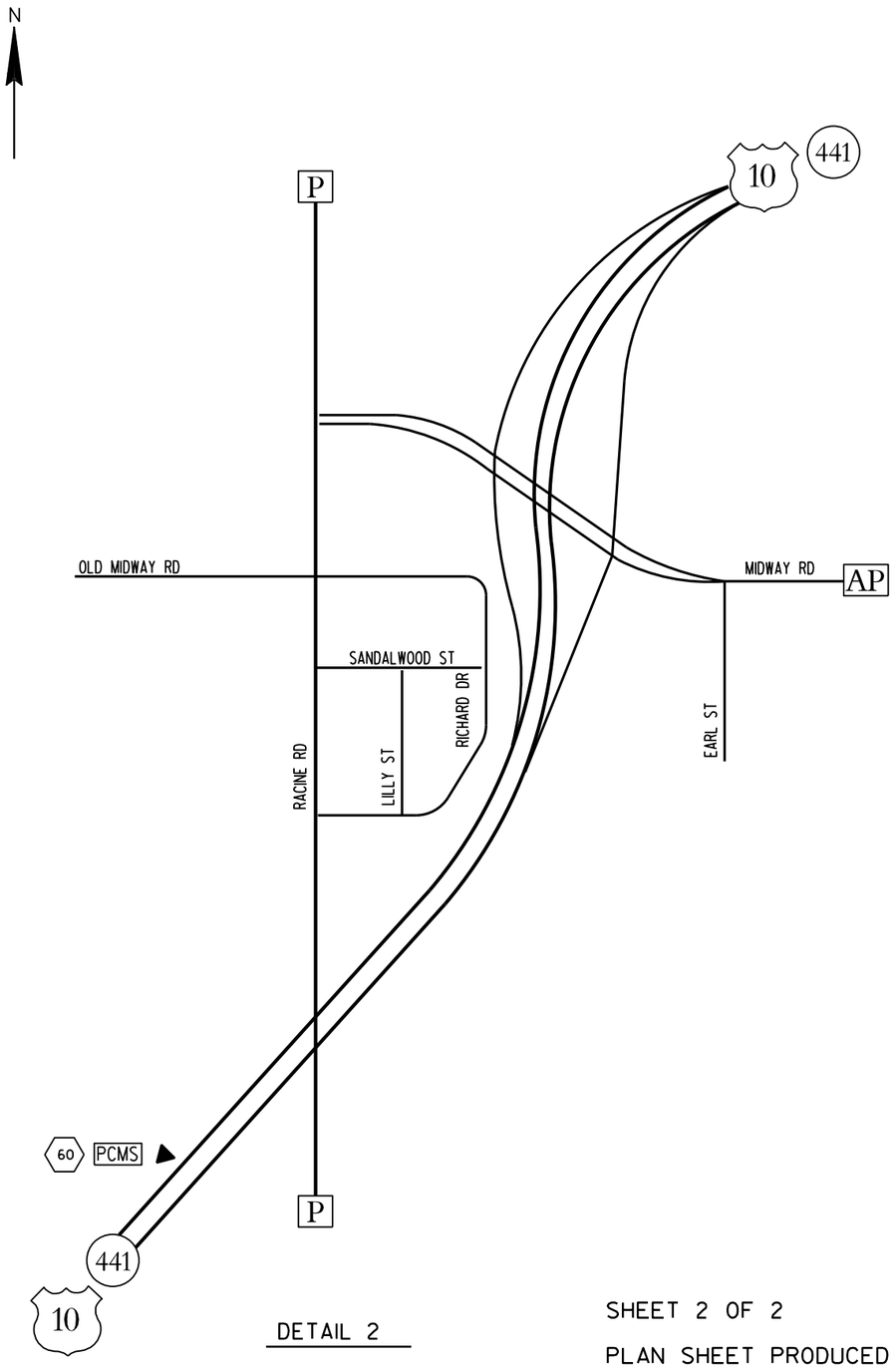
PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL-HWY 10 WEST & 41 SOUTH RAMP CLOSED	SHEET 224	E



LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN



DETAIL 2

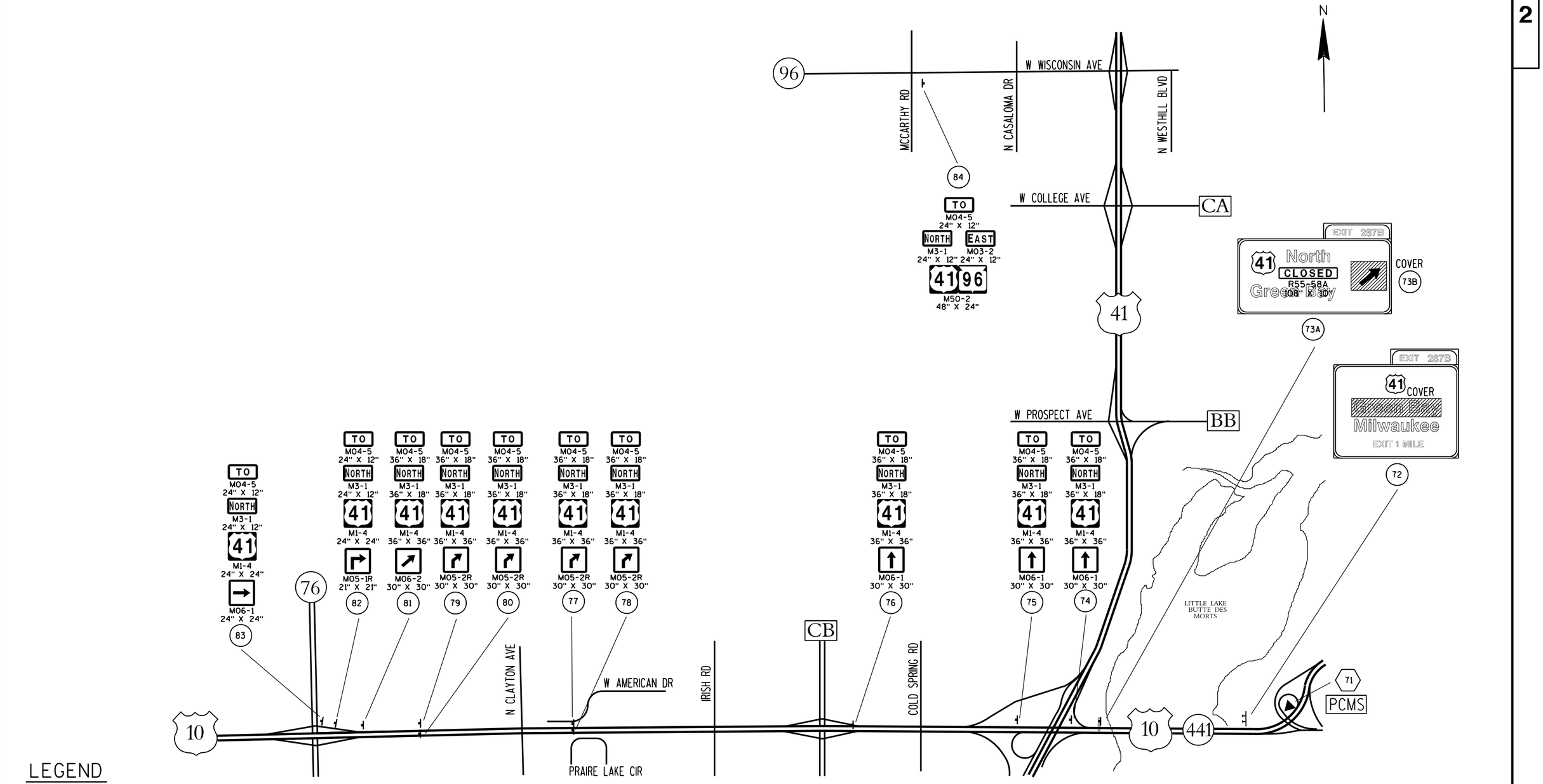
SHEET 2 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL-HWY 10 WEST & 41 SOUTH RAMP CLOSED	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\027003_dt.dgn PLOT DATE : 4/27/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 2000:1
WISDOT/CADDS SHEET 42

2



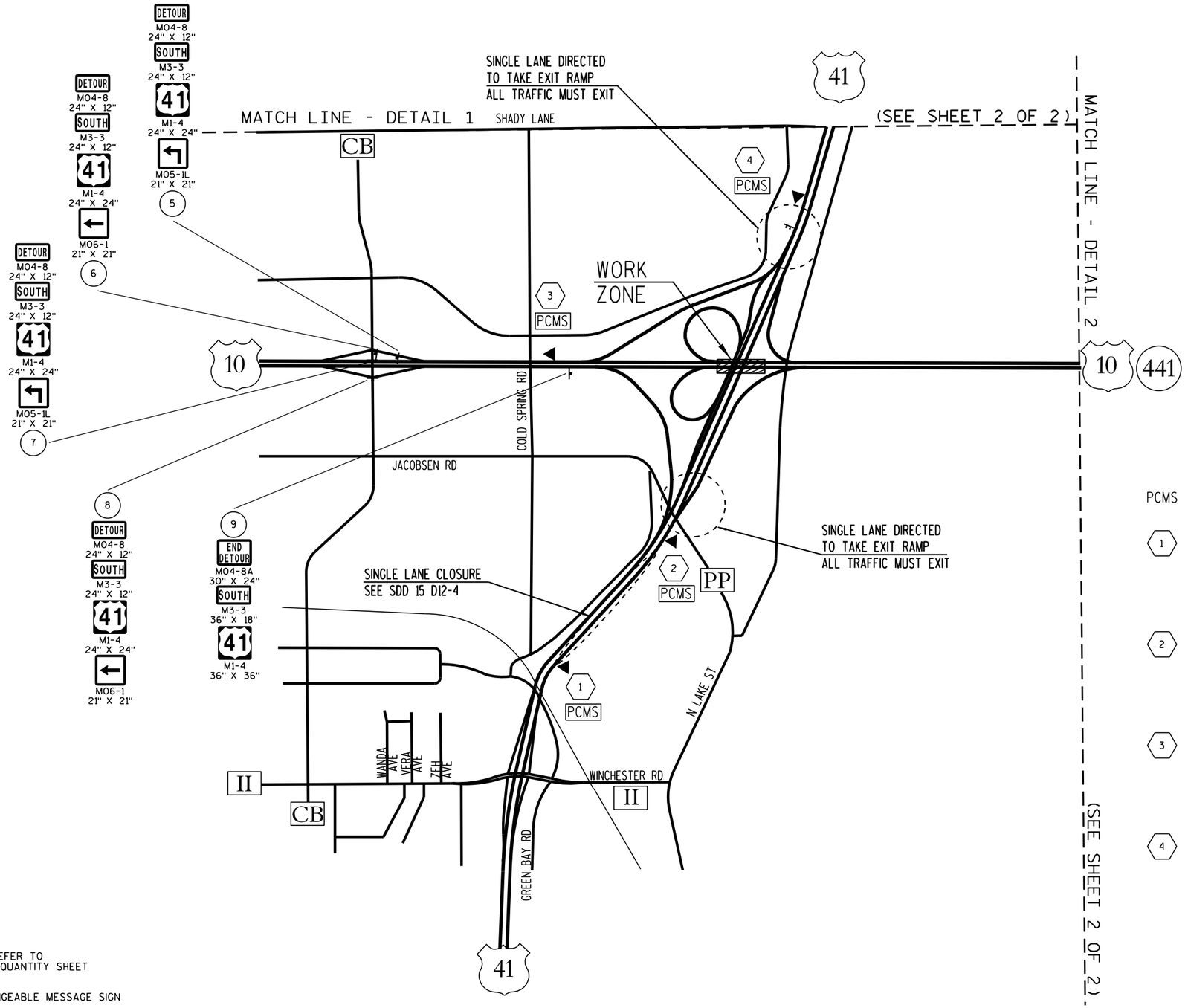
LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 1

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL-HWY 10 WEST & 41 NORTH RAMP-CLOSED	SHEET 226	E



PCMS	SCREEN 1	SCREEN 2
1	US 41 NORTHBND TRAFFIC	MUST EXIT AT WIS 441
2	US 41 NORTHBND TRAFFIC	FOLLOW WIS 441
3	US 41 SOUTHBND TRAFFIC	USE CTH CB EXIT
4	US 41 SOUTHBND TRAFFIC	FOLLOW CTH CB DETOUR

(SEE SHEET 2 OF 2).

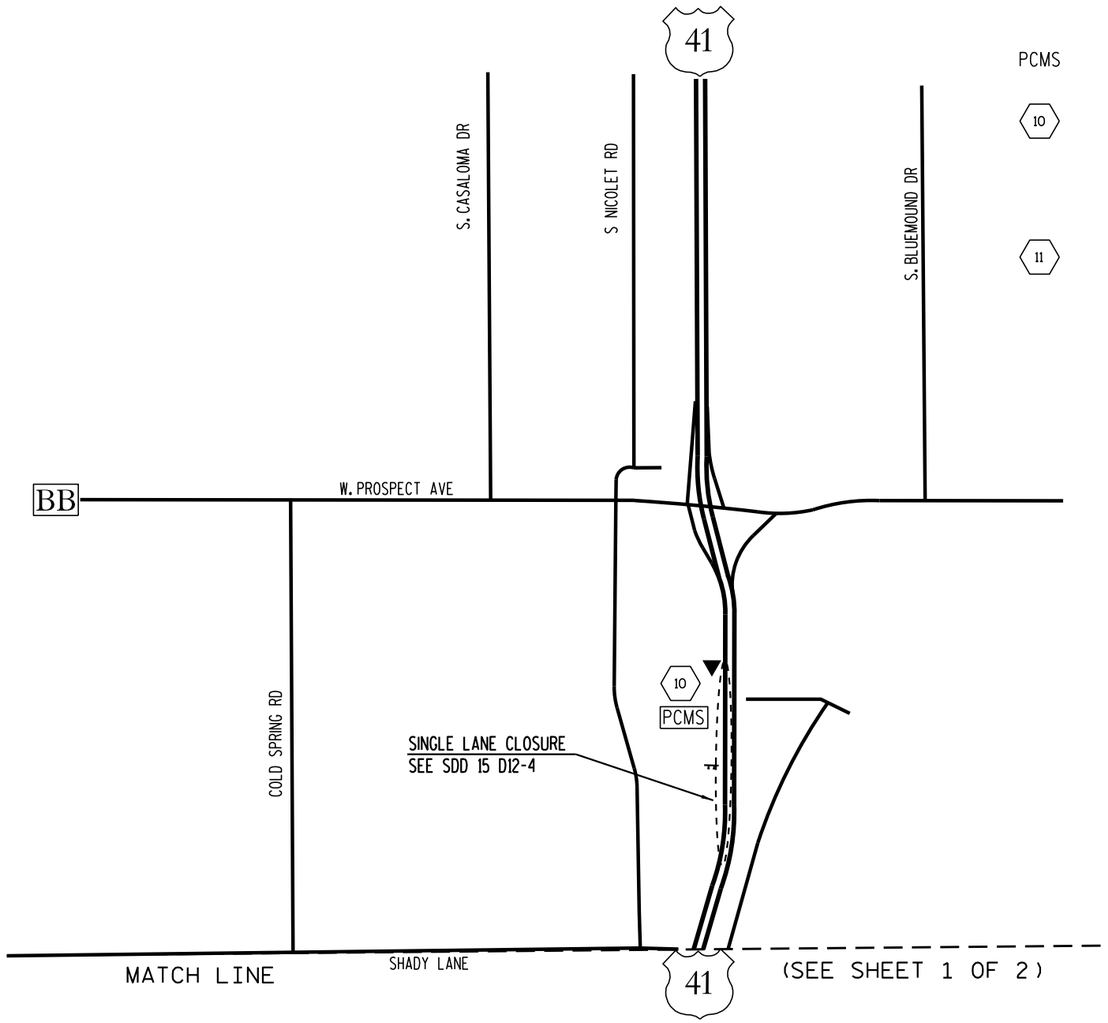
LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 1 OF 2

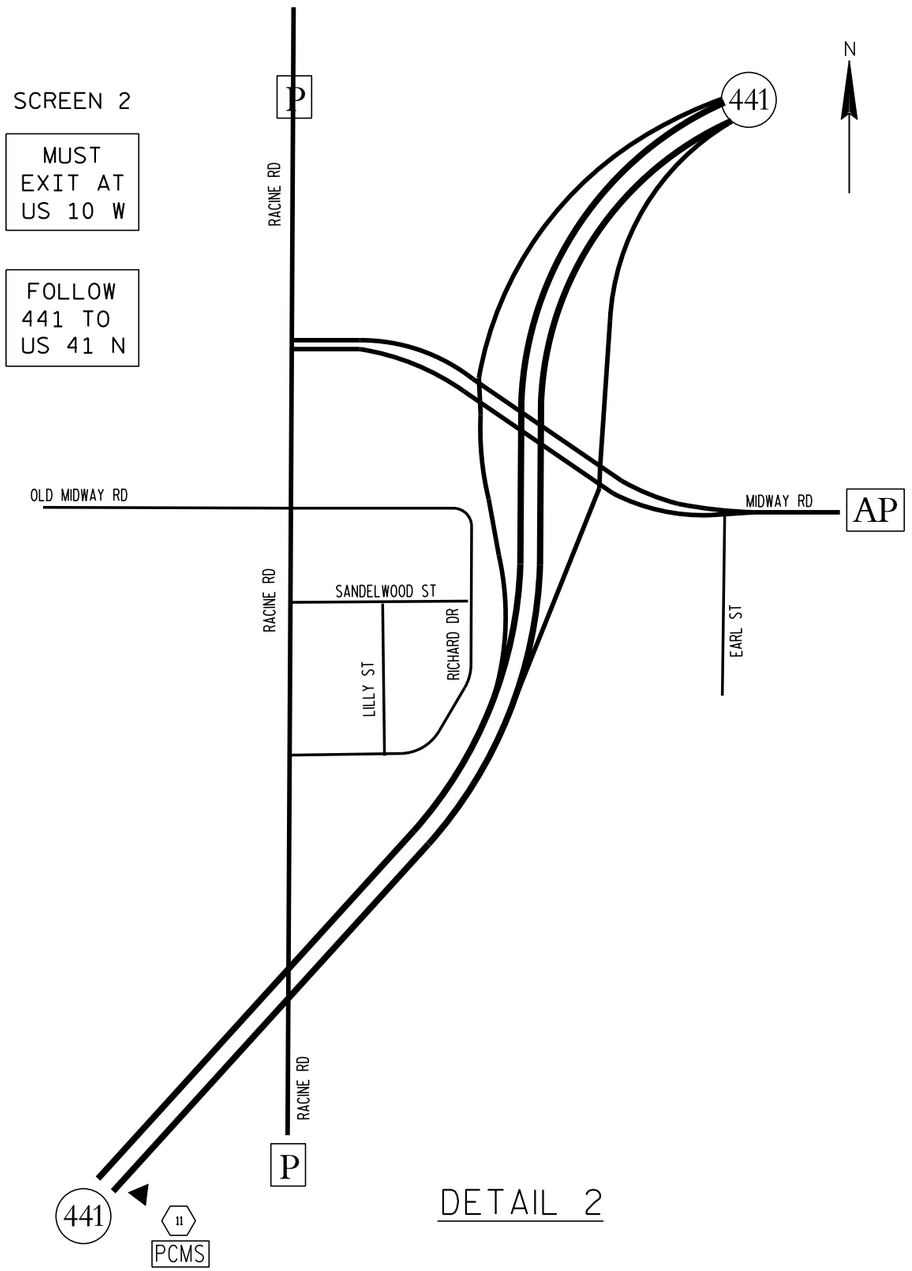
PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 227 E



DETAIL 1

PCMS	SCREEN 1	SCREEN 2
10	US 41 SOUTHBND TRAFFIC	MUST EXIT AT US 10 W
11	US 41 NORTHBND TRAFFIC	FOLLOW 441 TO US 41 N



DETAIL 2

LEGEND

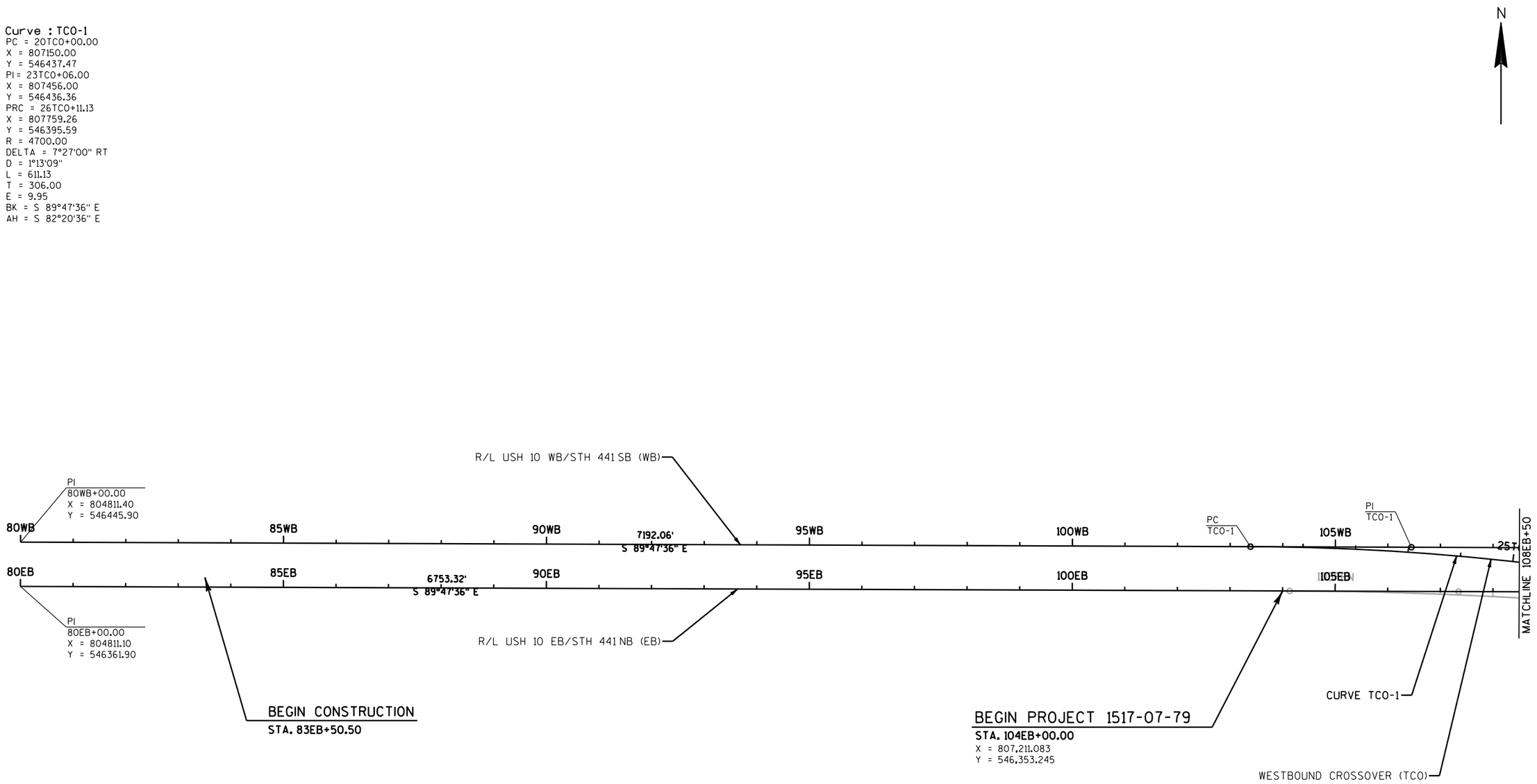
- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 2 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	DETOUR SIGNING DETAIL	SHEET 228 E

Curve : TCO-1
PC = 20TCO+00.00
X = 807150.00
Y = 546437.47
PI = 23TCO+06.00
X = 807456.00
Y = 546436.36
PRC = 26TCO+11.13
X = 807759.26
Y = 546395.59
R = 4700.00
DELTA = 7°27'00" RT
D = 1°13'09"
L = 611.13
T = 306.00
E = 9.95
BK = S 89°47'36" E
AH = S 82°20'36" E



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - USH 10 EB AND WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\027201_ad.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

Curve : EB-1
PC = 110EB+20.65
X = 807831.73
Y = 546351.01
PI = 111EB+81.49
X = 807992.57
Y = 546350.43
PT = 113EB+42.32
X = 808153.36
Y = 546346.18
R = 14100.00
DELTA = 1°18'26" RT
D = 0°24'23"
L = 321.67
T = 160.84
E = 0.92
BK = S 89°47'36" E
AH = S 88°29'10" E

Curve : EB-2
PC = 128EB+65.96
X = 809676.47
Y = 546305.93
PI = 130EB+25.54
X = 809835.99
Y = 546301.71
PT = 131EB+85.11
X = 809995.57
Y = 546301.11
R = 14100.00
DELTA = 1°17'49" LT
D = 0°24'23"
L = 319.14
T = 159.58
E = 0.90
BK = S 88°29'10" E
AH = S 89°46'59" E

Curve : WB-1
PC = 114WB+59.40
X = 808270.78
Y = 546433.42
PI = 119WB+30.29
X = 808741.66
Y = 546431.72
PT = 124WB+00.52
X = 809210.74
Y = 546473.00
R = 10300.00
DELTA = 5°14'07" LT
D = 0°33'23"
L = 941.12
T = 470.89
E = 10.76
BK = S 89°47'36" E
AH = N 84°58'17" E

Curve : WB-2
PC = 127WB+80.49
X = 809589.24
Y = 546506.30
PI = 133WB+10.46
X = 810117.17
Y = 546552.76
PT = 138WB+37.25
X = 810644.40
Y = 546498.99
R = 5580.00
DELTA = 10°51'03" RT
D = 1°01'37"
L = 1056.76
T = 529.97
E = 25.11
BK = N 84°58'17" E
AH = S 84°10'39" E

Curve : TCO-2
PRC = 26TCO+11.13
X = 807759.26
Y = 546395.59
PI = 28TCO+63.32
X = 808009.21
Y = 546361.99
PT = 31TCO+15.03
X = 808261.32
Y = 546355.33
R = 4700.00
DELTA = 6°08'34" LT
D = 1°13'09"
L = 503.90
T = 252.19
E = 6.76
BK = S 82°20'36" E
AH = S 88°29'10" E

SUPER ELEVATION DATA CURVE EB2	STATION	RATE	
		LEFT	RIGHT
END NORMAL CROWN	126EB+30.00	-2.00%	-2.00%
REMOVE CROWN	126EB+90.00	-2.00%	FLAT
REVERSE CROWN	127EB+50.00	-2.00%	2.00%

N

WESTBOUND CROSSOVER (TCO)
CURVE TCO-2
CURVE WB-1
CURVE WB-2
CURVE EB-2
CURVE EB-1
PRC TCO-1 TCO-2
PC WB-1
PT WB-1
PI WB-1
PC WB-2
PI WB-2
PT WB-2
PC EB-1
PT EB-1
PI EB-1
PC EB-2
PT EB-2
PI EB-2
PI TCO-2
110WB
115WB
120WB
125WB
130WB
135WB
110EB
115EB
120EB
125EB
130EB
135EB
30TCO
7192.06'
S 89°47'36" E
379.97'
N 84°58'17" E
6753.32'
S 89°47'36" E
1523.64'
S 88°29'10" E
2764.89'
S 89°46'59" E
MATCHLINE 108EB+50
MATCHLINE 138EB+50
USH 10 WB/STH 441 SB
USH 10 EB/STH 441 NB
USH 41 SB
USH 41 NB
115TWS
120TWS
125TWS
130TWS
1340FSE
1340SB
1340NB
1335FSE
1335SB
1335NB
1330FSE
1330SB
1330NB
1325FSE
1325SB
1325NB
1320FSE
1315FSE
1310FSE
115FEN
120FEN
125FEN
120FES
1330FNE
1325FNE
SMTOW

R/L USH 10 WB/STH 441 SB TO USH 41 SB RAMP (TWS)
R/L USH 41 NB/SB
(SEE SEPARATE ALIGNMENT SHEETS)
R/L USH 10 WB/STH 441 SB (WB)
R/L USH 10 EB/STH 441 NB (EB)
R/L USH 10 EB/STH 441 NB RAMP TO USH 41 NB (FEN)
(SEE SEPARATE ALIGNMENT SHEETS)
R/L USH 10 EB/STH 441 NB RAMP TO USH 41 SB (FES)
(SEE SEPARATE ALIGNMENT SHEETS)
R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP (FSE)
(SEE SEPARATE ALIGNMENT SHEETS)
R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP (FNE)
(SEE SEPARATE ALIGNMENT SHEETS)

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - USH 10 EB AND WB	SHEET 230	E

2

N

R/L USH 41 NB/SB
(SEE SEPARATE ALIGNMENT SHEETS)

1340SB

1340NB

VE WB-2

PT
WB-2

140WB

R/L USH 10 WB/STH 441 SB (WB)

954.96'
S 84°10'39" E

145WB

STATION EQUATION
PI 147WB+92.21, 12' RT AHEAD
PI 147WB+92.21 BACK

288.68'
S 84°10'39" E

150WB

PC
WB-3

CURVE WB-3

PT
WB-3

STATION EQUATION
STA 154WB+06.67 AHEAD
STA 153+94.98 BACK

155WB

USH 10 WB/STH 441 SB

555.03'
S 89°46'59" E

160WB

165WB

MATCHLINE 138EB+50

140EB

145EB

2764.89'
S 89°46'59" E

150EB

PI
WB-3

1345FNE

155EB

160EB

165EB

MATCHLINE 168EB+00

USH 10 EB/STH 441 NB

1335FNE

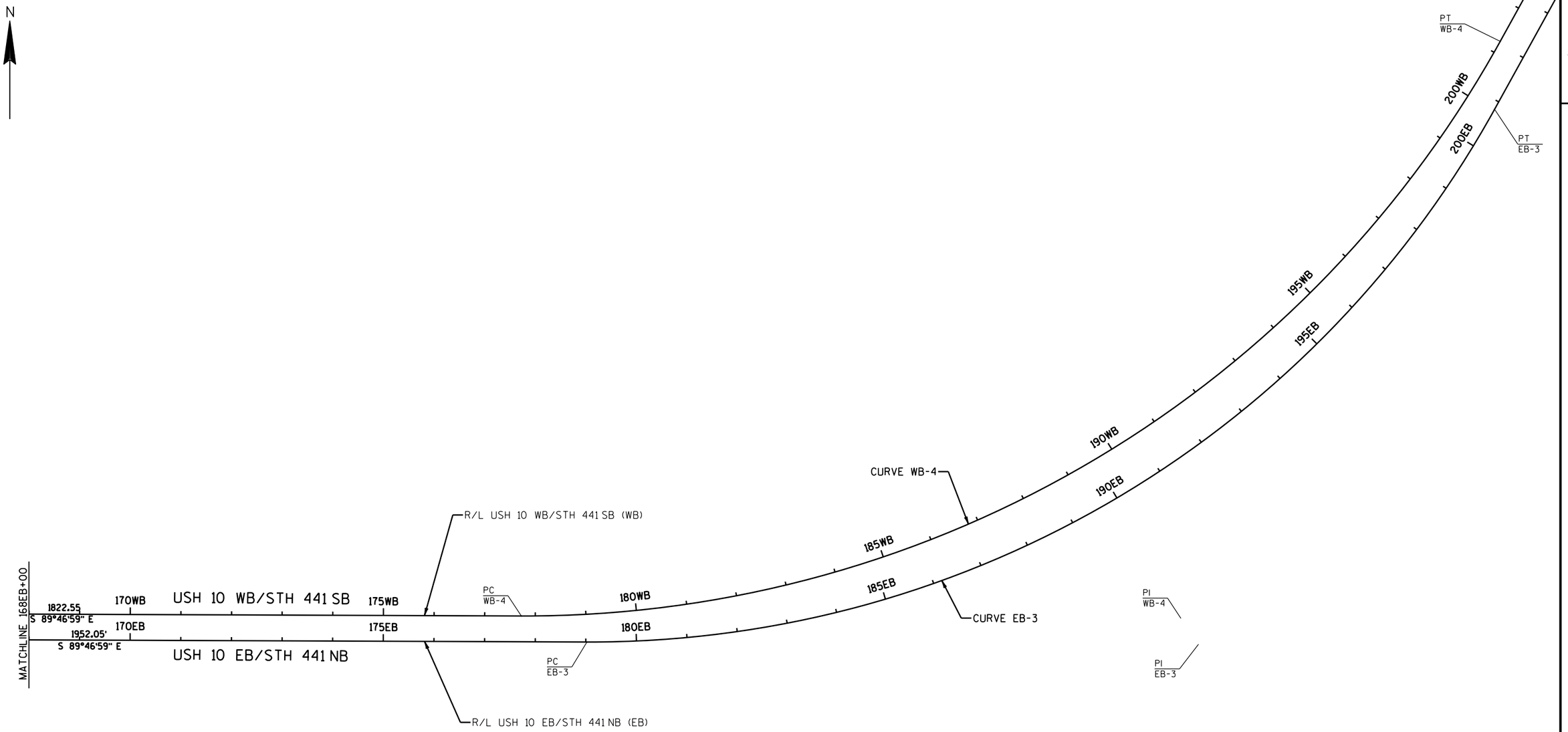
R/L USH 10 EB/STH 441 NB (EB)

R/L USH 41 NB TO USH 10 EB/STH 441 NB RAMP (FNE)
(SEE SEPARATE ALIGNMENT SHEETS)

END PROJECT 1517-07-79
STA. 146EB+54.03
X = 811,464.476
Y = 546,295.544

Curve : WB-3
PC = 150WB+80.89
X = 811880.41
Y = 546360.89
PI = 152WB+43.91
X = 812042.59
Y = 546344.36
PT = 154WB+06.68
X = 812205.61
Y = 546343.74
R = 3300.00
DELTA = 5°36'20" LT
D = 1°43'14"
L = 325.79
T = 163.02
E = 3.99
BK = S 84°10'39" E
AH = S 89°46'59" E

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - USH 10 EB AND WB	SHEET 231	E



Curve : EB-3
PC = 179EB+02.05
X = 814712.48
Y = 546283.25
PI = 191EB+10.01
X = 815920.43
Y = 546278.67
PT = 200EB+83.29
X = 816505.21
Y = 547335.64
R = 2040.00
DELTA = 61°15'45" LT
D = 2°48'31"
L = 2181.23
T = 1207.95
E = 330.81
BK = S 89°46'59" E
AH = N 28°57'16" E

Curve : WB-4
PC = 177WB+72.55
X = 814583.17
Y = 546334.74
PI = 190WB+75.25
X = 815885.86
Y = 546329.80
PT = 201WB+24.86
X = 816516.51
Y = 547469.67
R = 2200.00
DELTA = 61°15'45" LT
D = 2°36'16"
L = 2352.31
T = 1302.69
E = 356.76
BK = S 89°46'59" E
AH = N 28°57'16" E

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - USH 10 EB AND WB	SHEET 232	E

Curve : TWS-1
PC = 108TWS+75.79
X = 808797.35
Y = 546341.16
PI = 116TWS+30.15
X = 808043.26
Y = 546361.09
PT = 114TWS+95.45
X = 808663.10
Y = 546791.03
R = 247.00
DELTA = 143°44'23" RT
D = 23°11'48"
L = 619.66
T = 754.36
E = 546.76
BK = N 88°29'10" W
AH = N 55°15'13" E

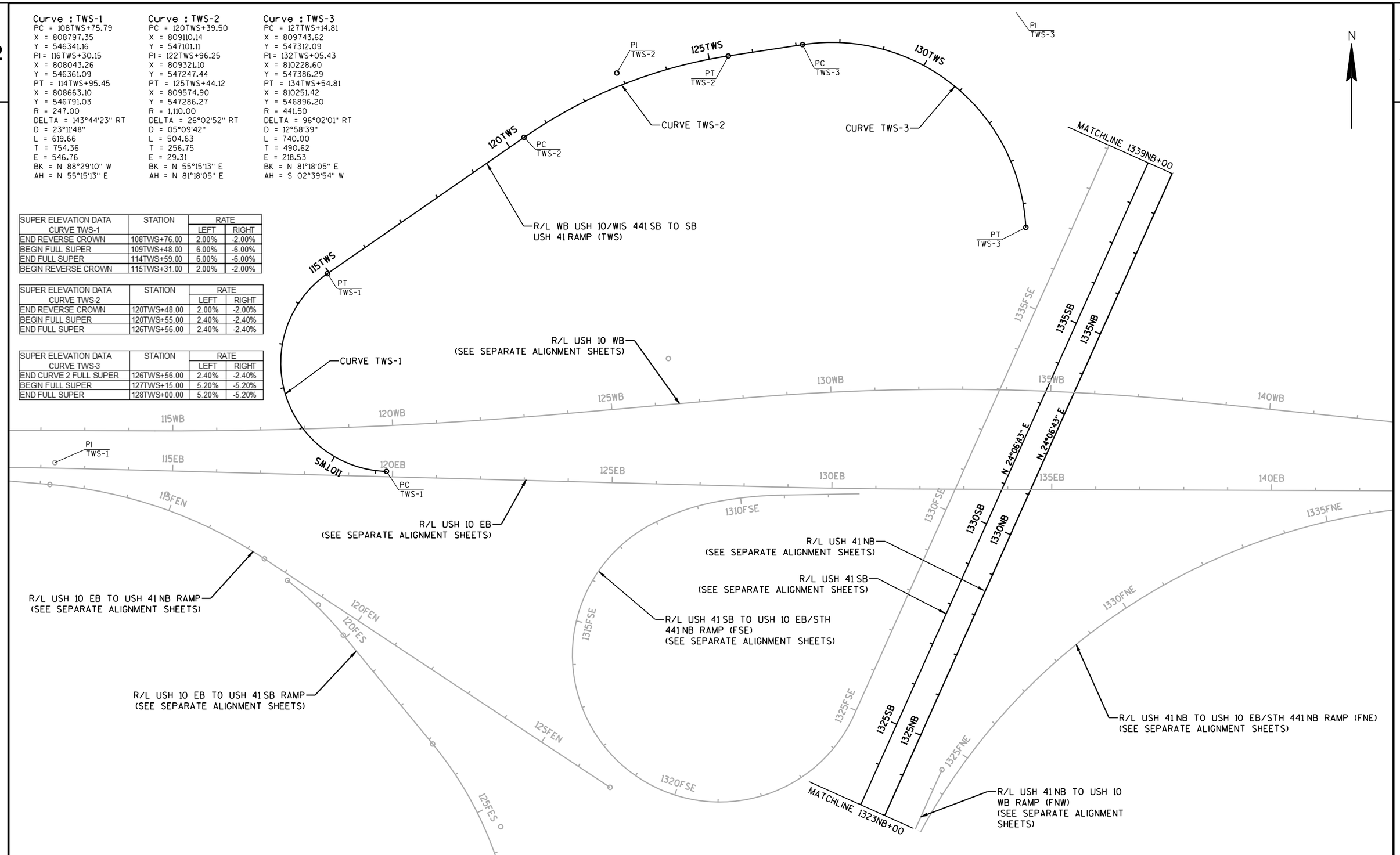
Curve : TWS-2
PC = 120TWS+39.50
X = 809110.14
Y = 547101.11
PI = 122TWS+96.25
X = 809321.10
Y = 547247.44
PT = 125TWS+44.12
X = 809574.90
Y = 547286.27
R = 1,110.00
DELTA = 26°02'52" RT
D = 05°09'42"
L = 504.63
T = 256.75
E = 29.31
BK = N 55°15'13" E
AH = N 81°18'05" E

Curve : TWS-3
PC = 127TWS+14.81
X = 809743.62
Y = 547312.09
PI = 132TWS+05.43
X = 810228.60
Y = 547386.29
PT = 134TWS+54.81
X = 810251.42
Y = 546896.20
R = 441.50
DELTA = 96°02'01" RT
D = 12°58'39"
L = 740.00
T = 490.62
E = 218.53
BK = N 81°18'05" E
AH = S 02°39'54" W

SUPER ELEVATION DATA CURVE TWS-1	STATION	RATE	
		LEFT	RIGHT
END REVERSE CROWN	108TWS+76.00	2.00%	-2.00%
BEGIN FULL SUPER	109TWS+48.00	6.00%	-6.00%
END FULL SUPER	114TWS+59.00	6.00%	-6.00%
BEGIN REVERSE CROWN	115TWS+31.00	2.00%	-2.00%

SUPER ELEVATION DATA CURVE TWS-2	STATION	RATE	
		LEFT	RIGHT
END REVERSE CROWN	120TWS+48.00	2.00%	-2.00%
BEGIN FULL SUPER	120TWS+55.00	2.40%	-2.40%
END FULL SUPER	126TWS+56.00	2.40%	-2.40%

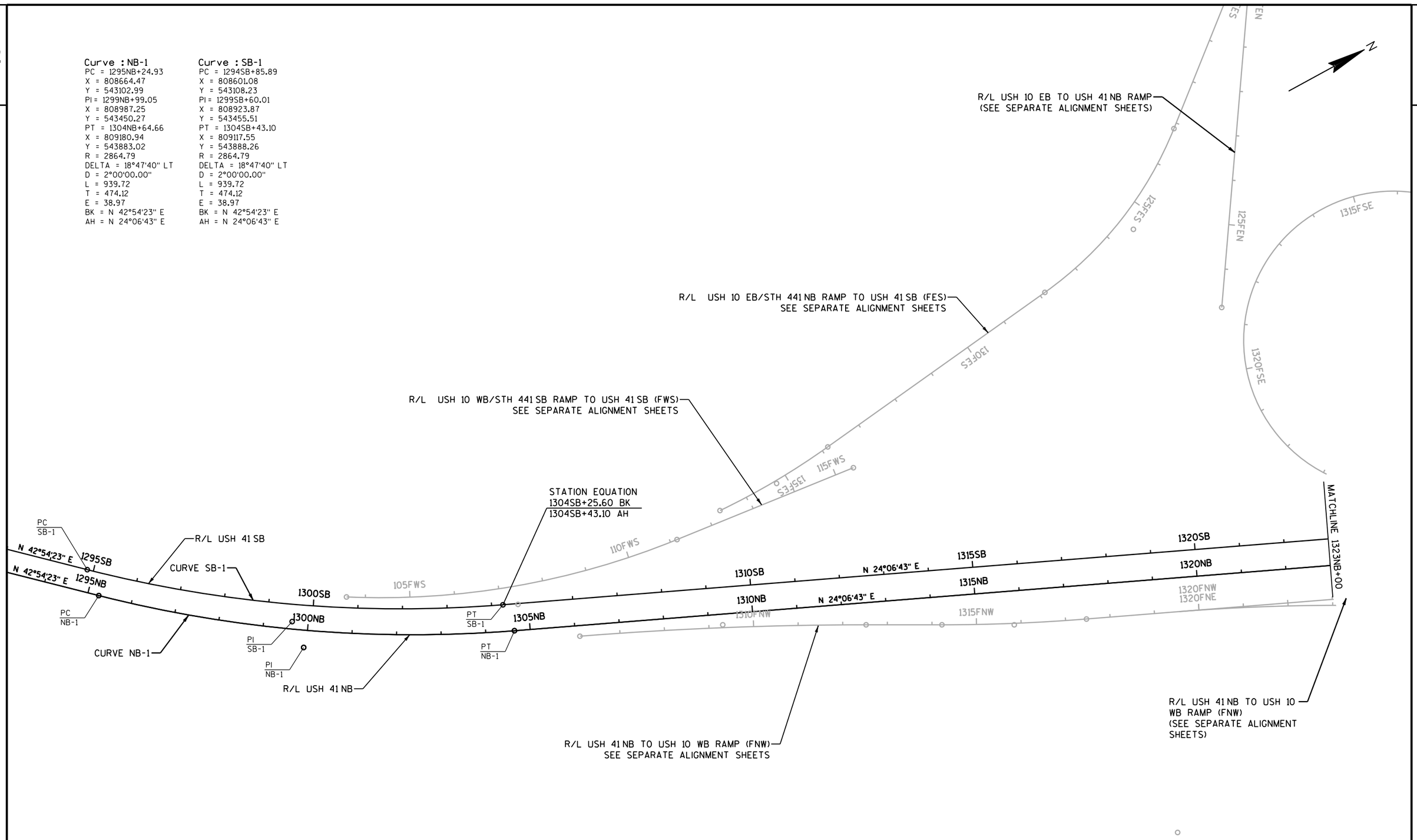
SUPER ELEVATION DATA CURVE TWS-3	STATION	RATE	
		LEFT	RIGHT
END CURVE 2 FULL SUPER	126TWS+56.00	2.40%	-2.40%
BEGIN FULL SUPER	127TWS+15.00	5.20%	-5.20%
END FULL SUPER	128TWS+00.00	5.20%	-5.20%



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE	SHEET 233	E

Curve : NB-1
PC = 1295NB+24.93
X = 808664.47
Y = 543102.99
PI = 1299NB+99.05
X = 808987.25
Y = 543450.27
PT = 1304NB+64.66
X = 809180.94
Y = 543883.02
R = 2864.79
DELTA = 18°47'40" LT
D = 2°00'00.00"
L = 939.72
T = 474.12
E = 38.97
BK = N 42°54'23" E
AH = N 24°06'43" E

Curve : SB-1
PC = 1294SB+85.89
X = 808601.08
Y = 543108.23
PI = 1299SB+60.01
X = 808923.87
Y = 543455.51
PT = 1304SB+43.10
X = 809117.55
Y = 543888.26
R = 2864.79
DELTA = 18°47'40" LT
D = 2°00'00.00"
L = 939.72
T = 474.12
E = 38.97
BK = N 42°54'23" E
AH = N 24°06'43" E



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE	SHEET 234	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\027206_ad.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

2

N

R/L WB USH 10/WIS 441 SB TO SB USH 41 RAMP (TWS)

1301WS

MATCHLINE 1339NB+00

1340FSE

1340SB

1340NB

1345FSE

R/L USH 41 SB TO USH 10 EB/STH 441 NB RAMP (FSE)
SEE SEPARATE ALIGNMENT SHEETS

1345SB

1345NB

N 24°06'43" E

1350FSE

1350SB

1350NB

R/L USH 41 NB

1355FSE

1355SB

1355NB

R/L USH 41 SB

PC
NB-2

PC
SB-2

PI
SB-2

1360FSE

1360SB

1360NB

PT
SB-2

PI
NB-2

CURVE NB-2

CURVE SB-2

PT
NB-2

1365NB

N 15°42'02" E

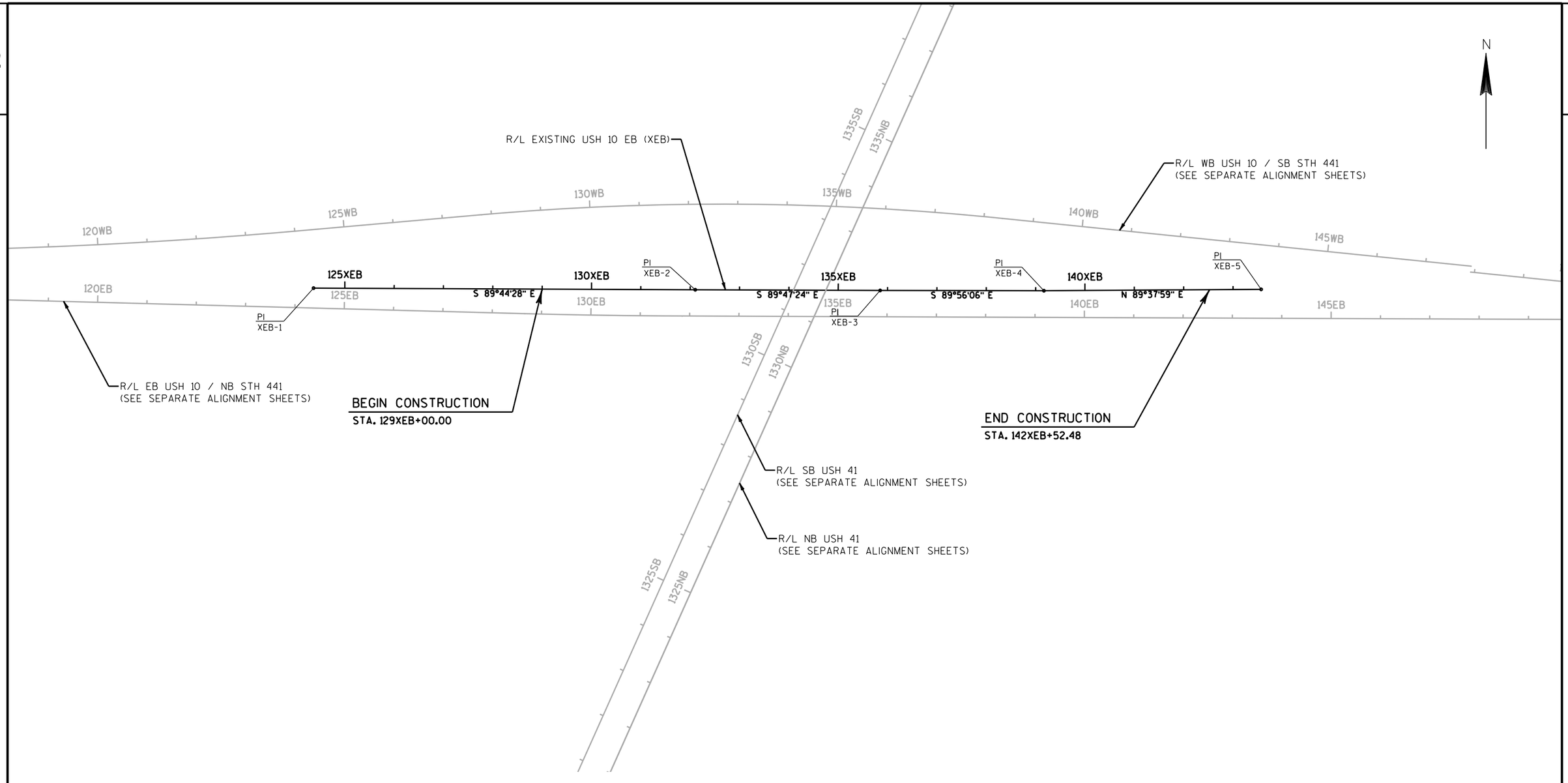
Curve : NB-2
PC = 1354NB+18.48
X = 811204.68
Y = 548404.62
PI = 1358NB+39.81
X = 811376.80
Y = 548789.18
PT = 1362NB+59.62
X = 811490.82
Y = 549194.79
R = 5729.58
DELTA = 8°24'41" LT
D = 1°00'00"
L = 841.14
T = 421.32
E = 15.47
BK = N 24°06'43" E
AH = N 15°42'02" E

Curve : SB-2
PC = 1354SB+81.97
X = 811176.04
Y = 548487.48
PI = 1359SB+03.30
X = 811348.17
Y = 548872.05
PT = 1363SB+31.65
X = 811462.18
Y = 549277.67
R = 5729.58
DELTA = 8°24'41" LT
D = 1°00'00"
L = 841.15
T = 421.33
E = 15.47
BK = N 24°06'43" E
AH = N 15°42'02" E

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\027207_ad.dgn PLOT DATE : 1/29/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 200:1

2



Curve : XEB-01
PI = 124XEB+36.64
X = 809248.36
Y = 546357.71
BK = N/A
AH = S 89°47'25" E

Curve : XEB-02
PI = 132XEB+10.14
X = 810021.85
Y = 546354.21
BK = S 89°44'28" E
AH = S 89°47'25" E

Curve : XEB-03
PI = 135XEB+84.99
X = 810396.70
Y = 546352.84
BK = S 89°47'25" E
AH = S 89°56'06" E

Curve : XEB-04
PI = 139XEB+16.78
X = 810728.49
Y = 546352.47
BK = S 89°56'06" E
AH = S 89°37'59" E

Curve : XEB-05
PI = 143XEB+57.14
X = 811168.85
Y = 546355.28
BK = S 89°37'59" E
AH = N/A

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	TRAFFIC CONTROL ALIGNMENT - EXISTING EB USH 10 EDGE OF PVMT	SHEET 236	E

2

2

CURVE FES1

PC = 118FES+14.68
X = 808572.11
Y = 546093.25
PI = 119FES+04.17
X = 808642.30
Y = 546037.74
PT = 119FES+92.97
X = 808699.10
Y = 545968.58
R = 833.00
DELTA = 12°15'49" RT
D= 6°52'42"
L = 178.30
T = 89.49
BK = S 51°39'35" E
AH = S 39°23'46" E

CURVE FEN1

PC = 104FEN+13.49
X = 807224.57
Y = 546353.20
PI = 107FEN+34.87
X = 807545.95
Y = 546352.04
PT = 110FEN+55.90
X = 807866.21
Y = 546325.29
R = 8060.00
DELTA = 4°34'00" RT
D= 0°42'39"
L = 642.41
T = 321.37
BK = S 89°47'36" E
AH = S 85°13'36" E

CURVE FEN2

PC = 112FEN+22.08
X = 808031.81
Y = 546311.47
PI = 114FEN+88.61
X = 808297.42
Y = 546289.29
PT = 117FEN+43.95
X = 808519.74
Y = 546142.27
R = 1041.74
DELTA = 28°42'10" RT
D= 5°30'00"
L = 521.87
T = 266.53
BK = S 85°13'36" E
AH = S 56°31'26" E

CURVE FNW5

PC = 1352FNW+94.11
X = 809380.33
Y = 547247.83
PI = 1354FNW+39.33
X = 809243.60
Y = 547198.91
PT = 1355FNW+82.85
X = 809124.42
Y = 547115.93
R = 1091.35
DELTA = 15°09'33" LT
D= 5°15'00"
L = 288.74
T = 145.22
BK = S 70°18'44" W
AH = S 55°09'11" W

CURVE FNW6

PC = 1363FNW+14.56
X = 808523.92
Y = 546697.84
PI = 1367FNW+25.63
X = 808186.56
Y = 546462.97
PT = 1371FNW+12.55
X = 807775.55
Y = 546456.28
R = 1348.14
DELTA = 33°54'52" RT
D= 4°15'00"
L = 797.99
T = 411.07
BK = S 55°09'11" W
AH = S 89°04'04" W

N

BENCHMARKS

NUMBER	LOCATION	DESCRIPTION	ELEVATION
AM2	STA 1370FNW+19.86, 448.65'RT	NW TAG BOLT ON SECOND HYDRANT ON THE NORTH SIDE OF AMERICAN DR EAST OF COLD SPRING RD	771.17
AM3	STA 1363FNW+18.05, 391.83'RT	NW TAG BOLT ON FIRST HYDRANT ON THE NORTH SIDE OF AMERICAN DR EAST OF DELTA DR	769.01
AM4	STA 1357FNW+69.55, 331.12'RT	NE TAG BOLT ON SECOND HYDRANT ON THE NORTH SIDE OF AMERICAN DR EAST OF DELTA DR	766.67
AM5	STA 1353FNW+61.49, 272.93'RT	NW TAG BOLT ON HYDRANT AT THE NE QUADRANT OF MILL POND LANE AND AMERICAN DR	766.30
FEN5	STA 120FEN+84.47, 23.72'LT	3" DISC ON THE NORTHEAST CORNER OF BOX CULVERT C-70-54	765.30

PI 1375FNW+68.36
PC
105WB
105FEN
1375FNW
PI
CURVE FEN1
PT
110WB
110EB
110FEN
1370FNW
PT
PC
CURVE FNW6
BM AM2
BM AM3
PI
1365FNW
115WB
115EB
CURVE FEN2
115FEN
PI
R/L USH 10 EB TO USH 41 NB RAMP (FEN)
PC
R/L USH 41 NB TO USH 10 WB RAMP (FNW)
1360FNW
PT
BM AM4
BM AM5
USH 10 WB
USH 10 EB
120WB
120EB
PT
PC
CURVE FES1
PI
120FES
120FEN
R/L USH 10 EB
(SEE SEPARATE
ALIGNMENT SHEET)
R/L USH 10 WB
(SEE SEPARATE ALIGNMENT SHEET)
PT
R/L USH 10 EB TO USH 41 SB RAMP (FES)
BM FEN5
1355FNW
PI
CURVE FNW5
PC
1/4 LINE 2639.91' N89°57'14"E
T 20 N
9
R 17 E
CTR 2017-045
ALUM. DISK
Y 547572.829
X 809467.241

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE RAMPS	SHEET 237	E

2

CURVE FNW1
PC = 1306FNW+10.01
X = 809262.23
Y = 544005.89
PI = 1309FNW+31.39
X = 809393.51
Y = 544299.22
PT = 1312FNW+52.42
X = 809547.74
Y = 544581.17
R = 8060.00
DELTA = 4°34'00" RT
D= 0°42'39"
L = 642.41
T = 321.37
BK = N 24°06'43" E
AH = N 28°40'43" E

CURVE FNW2
PC = 1314FNW+22.44
X = 809629.33
Y = 544730.34
PI = 1315FNW+84.73
X = 809707.21
Y = 544872.71
PT = 1317FNW+46.84
X = 809773.51
Y = 545020.83
R = 4070.00
DELTA = 4°34'00" LT
D= 1°24'28"
L = 324.39
T = 162.28
BK = N 28°40'43" E
AH = N 24°06'43" E

CURVE FNW3
PC = 1324FNW+78.85
X = 810072.55
Y = 545688.98
PI = 1326FNW+12.74
X = 810127.25
Y = 545811.18
PT = 1327FNW+46.16
X = 810198.88
Y = 545924.29
R = 1860.00
DELTA = 8°14'04" RT
D= 3°04'50"
L = 267.31
T = 133.89
BK = N 24°06'43" E
AH = N 32°20'47" E

CURVE FEN3
PC = 126FEN+86.41
X = 809305.86
Y = 545622.42
PI = 138FEN+68.34
X = 810291.73
Y = 544970.48
PT = 142FEN+98.28
X = 810597.96
Y = 546112.05
R = 851.50
DELTA = 108°27'34" LT
D= 6°43'44"
L = 1611.87
T = 1181.93
BK = S 56°31'26" E
AH = N 15°01'00" E

CURVE FNE1
PC = 1319FNE+57.14
X = 809859.42
Y = 545212.79
PI = 1321FNE+32.58
X = 809931.09
Y = 545372.92
PCC = 1323FNE+07.83
X = 545526.84
Y = 810015.29
R = 4400.00
DELTA = 4°34'00" RT
D= 1°18'08"
L = 350.69
T = 175.44
BK = N 24°06'43" E
AH = N 28°40'43" E

CURVE FNE2
PC = 1323FNE+07.83
X = 810015.29
Y = 545526.84
PI = 1331FNE+30.30
X = 810409.98
Y = 546248.40
PT = 1337FNE+98.17
X = 811232.31
Y = 546263.38
R = 1416.60
DELTA = 60°16'41" RT
D= 4°02'41"
L = 1490.33
T = 822.46
BK = N 28°40'43" E
AH = N 88°57'24" E

CURVE FSE1
PC = 1309FSE+07.32
X = 809695.21
Y = 546287.24
PI = 1309FSE+83.84
X = 809618.70
Y = 546286.00
PCC = 1310FSE+59.96
X = 809543.60
Y = 546271.35
R = 865.00
DELTA = 10°06'40" LT
D= 6°37'26"
L = 152.65
T = 76.52
BK = S 89°04'16" W
AH = S 78°57'37" W

CURVE FSE2
PC = 1310FSE+59.96
X = 809543.60
Y = 546271.35
PI = 1311FSE+37.73
X = 809467.27
Y = 546256.45
PCC = 1312FSE+14.38
Y = 809398.53
R = 525.00
DELTA = 16°51'06" LT
D= 10°54'49"
L = 154.41
T = 77.77
BK = S 78°57'37" W
AH = S 62°06'30" W

CURVE FSE3
PCC = 1312FSE+14.38
X = 809398.53
Y = 546220.08
PT = 1324FSE+89.12
X = 809861.07
Y = 545787.10
R = 335.04
DELTA = 217°59'55" LT
D= 17°06'05"
L = 1274.74
T = -1.00
BK = S 62°06'30" W
AH = N 24°06'36" E

CURVE FWS1
PC = 103FWS+57.75
X = 808933.82
Y = 543588.94
PI = 107FWS+42.73
X = 809132.98
Y = 543918.40
PT = 111FWS+15.80
X = 809176.59
Y = 544300.91
R = 1762.00
DELTA = 24°39'00" LT
D= 3°15'06"
L = 758.05
T = 384.98
BK = N 31°09'14" E
AH = N 6°30'14" E

CURVE FWS2
PC = 115FWS+42.90
X = 809224.97
Y = 544725.27
PI = 133FWS+28.99
X = 809427.28
Y = 546499.86
PCC = 144FWS+10.02
X = 811210.98
Y = 546407.51
R = 1900.00
DELTA = 86°27'36" RT
D= 3°00'56"
L = 2867.12
T = 1786.09
BK = N 6°30'14" E
AH = S 87°02'11" E

CURVE FES1
PC = 118FES+14.68
X = 808572.11
Y = 546093.25
PI = 119FES+04.17
X = 808642.30
Y = 546037.74
PT = 119FES+92.97
X = 808699.10
Y = 545968.58
R = 833.00
DELTA = 12°15'49" RT
D= 6°52'42"
L = 178.30
T = 89.49
BK = S 51°39'35" E
AH = S 39°23'46" E

CURVE FES2
PC = 123FES+13.32
X = 808902.42
Y = 545721.02
PI = 125FES+57.02
X = 809057.09
Y = 545532.70
PT = 127FES+87.48
X = 809085.87
Y = 545290.71
R = 833.00
DELTA = 32°36'49" RT
D= 6°52'42"
L = 474.15
T = 243.69
BK = S 39°23'46" E
AH = S 6°46'58" E

CURVE FES3
PC = 133FES+85.13
X = 809156.45
Y = 544697.24
PI = 135FES+26.02
X = 809173.09
Y = 544557.34
PT = 136FES+66.23
X = 809165.63
Y = 544416.64
R = 1640.00
DELTA = 9°49'13" RT
D= 3°29'37"
L = 281.09
T = 140.89
BK = S 6°46'58" E
AH = S 3°02'16" W

SEC 2017-057
ALUM. DISK
Y 544929.224
X 806834.878

QTR 2017-058
ALUM. DISK
Y 544936.799
X 809464.280

CTR 2017-045
ALUM. DISK
Y 547572.829
X 809467.241

CTR 2017-071
BERNTSEN MON.
Y 542303.060
X 809486.204

BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
41C	STA 107FWS+28.29, 152.61'RT	CHISELED SQUARE ON NW CORNER OF SIGN BRIDGE BASE JUST SOUTH OF JACOBSEN RD ON THE EAST SIDE OF USH 41	776.44
FEN5	STA 120FEN+84.47, 23.72'LT	3" DISK ON THE NORTHEAST CORNER OF BOX CILVERT C-70-54	765.30
FSE1	STA 1316FSE+15.15, 93.22'RT	CHISLED SQUARE AT SW CORNER OF EXISTING BOX CULVERT C-70-200	761.11
FNE1	STA 1324FNE+36.53, 54.61'RT	CHISLED SQUARE AT SE CORNER OF EXTENDED BOX CULVERT C-70-42 JUST WEST OF WAREHOUSE SPECIALIST PROPERTY	754.08
FNE5	STA 1317FNE+35.74, 155.18'RT	CHISELED SQUARE ON WEST SIDE OF FLAG POLE BASE AT THE WEST EDGE OF WAREHOUSE SPECIALISTS PROPERTY	757.55
FNE6	STA 1313FNE+40.75, 128.90'RT	RR SPIKE ON WEST FACE OF A TREE AT THE SW CORNER OF WAREHOUSE SPECIALISTS PROPERTY	766.89

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE RAMPS	SHEET 238	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\027210_ad.dgn PLOT DATE : 1/29/2015 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:200

2

CTR 2017-045
ALUM. DISK
Y 547572.829
X 809467.241

CURVE FEN4
PC = 154FEN+90.75
X = 810906.93
Y = 547263.79
PI = 159FEN+70.95
X = 811031.35
Y = 547727.60
PRC = 164FEN+50.32
X = 811202.33
Y = 548176.33
R = 9410.00
DELTA = 5°50'34" RT
D= 0°36'32"
L = 959.58
T = 480.20
BK = N 15°01'00" E
AH = N 20°51'33" E

CURVE FEN5
PC = 164FEN+50.32
X = 811202.33
Y = 548176.33
PI = 168FEN+74.22
X = 811353.27
Y = 548572.45
PT = 172FEN+97.55
X = 811467.98
Y = 548980.53
R = 9410.00
DELTA = 5°09'31" LT
D= 0°36'32"
L = 847.23
T = 423.90
BK = N 20°51'33" E
AH = N 15°42'02" E

CURVE FNE2
PC = 1323FNE+07.83
X = 810015.29
Y = 545526.84
PI = 1331FNE+30.30
X = 810409.98
Y = 546248.40
PT = 1337FNE+98.17
X = 811232.31
Y = 546263.38
R = 1416.60
DELTA = 60°16'41" RT
D= 4°02'41"
L = 1490.33
T = 822.46
BK = N 28°40'43" E
AH = N 88°57'24" E

CURVE FNW4
PC = 1333FNW+01.44
X = 810495.97
Y = 546393.41
PI = 1352FNW+20.07
X = 811522.51
Y = 548014.33
PT = 1349FNW+37.56
X = 547367.95
Y = 809716.04
R = 660.00
DELTA = 142°02'03" LT
D= 8°40'52"
L = 1636.11
T = 1918.63
BK = N 32°20'47" E
AH = S 70°18'44" W

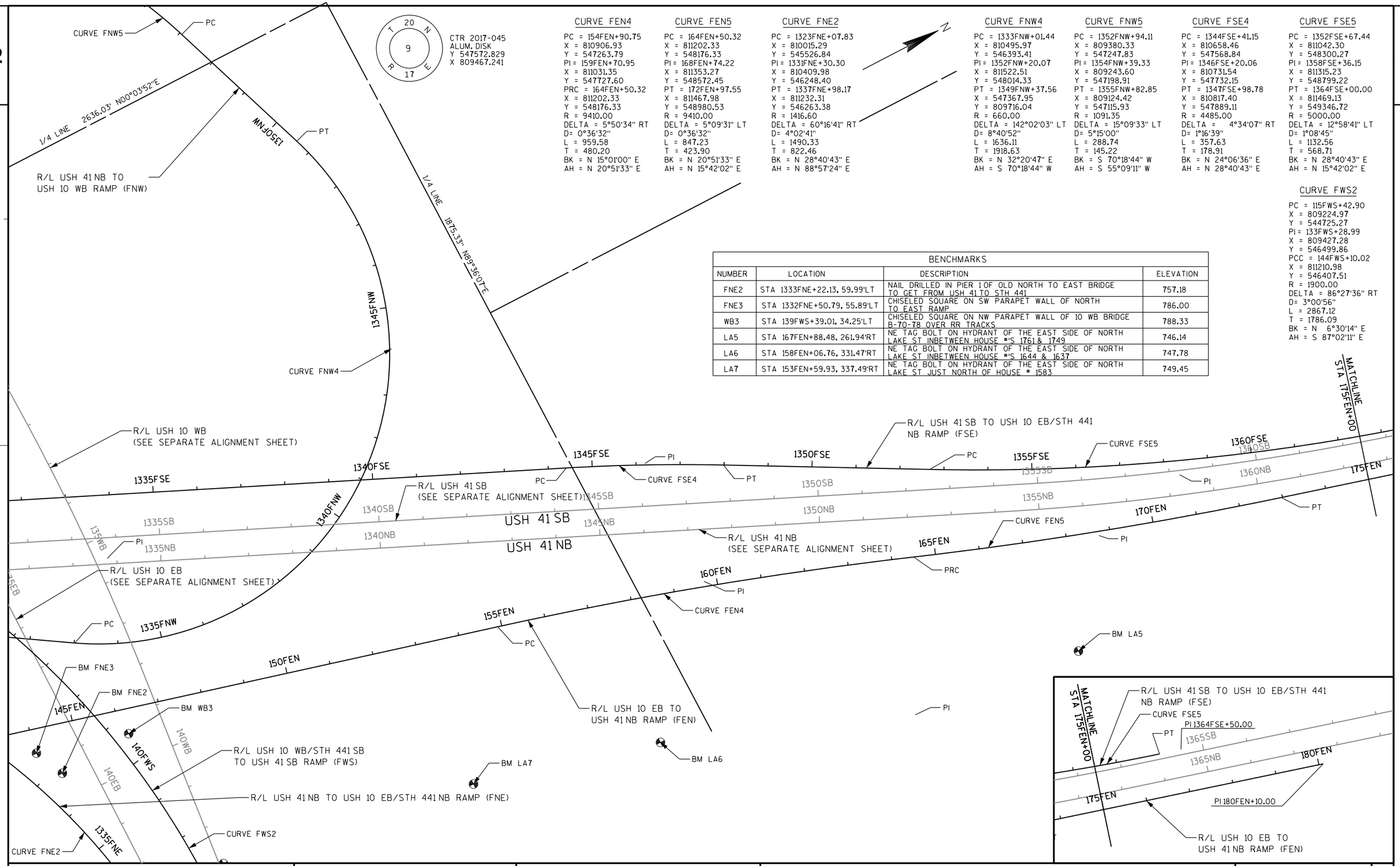
CURVE FNW5
PC = 1352FNW+94.11
X = 809380.33
Y = 547247.83
PI = 1354FNW+39.33
X = 809243.60
Y = 547198.91
PT = 1355FNW+82.85
X = 809124.42
Y = 547115.93
R = 1091.35
DELTA = 15°09'33" LT
D= 5°15'00"
L = 288.74
T = 145.22
BK = S 70°18'44" W
AH = S 55°09'11" W

CURVE FSE4
PC = 1344FSE+41.15
X = 810658.46
Y = 547568.84
PI = 1346FSE+20.06
X = 810731.54
Y = 547732.15
PT = 1347FSE+98.78
X = 810817.40
Y = 547889.11
R = 4485.00
DELTA = 4°34'07" RT
D= 1°16'39"
L = 357.63
T = 178.91
BK = N 24°06'36" E
AH = N 28°40'43" E

CURVE FSE5
PC = 1352FSE+67.44
X = 811042.30
Y = 548300.27
PI = 1358FSE+36.15
X = 811315.23
Y = 548799.22
PT = 1364FSE+00.00
X = 811469.13
Y = 549346.72
R = 5000.00
DELTA = 12°58'41" LT
D= 1°08'45"
L = 1132.56
T = 568.71
BK = N 28°40'43" E
AH = N 15°42'02" E

CURVE FWS2
PC = 115FWS+42.90
X = 809224.97
Y = 544725.27
PI = 133FWS+28.99
X = 809427.28
Y = 546499.86
PCC = 144FWS+10.02
X = 811210.98
Y = 546407.51
R = 1900.00
DELTA = 86°27'36" RT
D= 3°00'56"
L = 2867.12
T = 1786.09
BK = N 6°30'14" E
AH = S 87°02'11" E

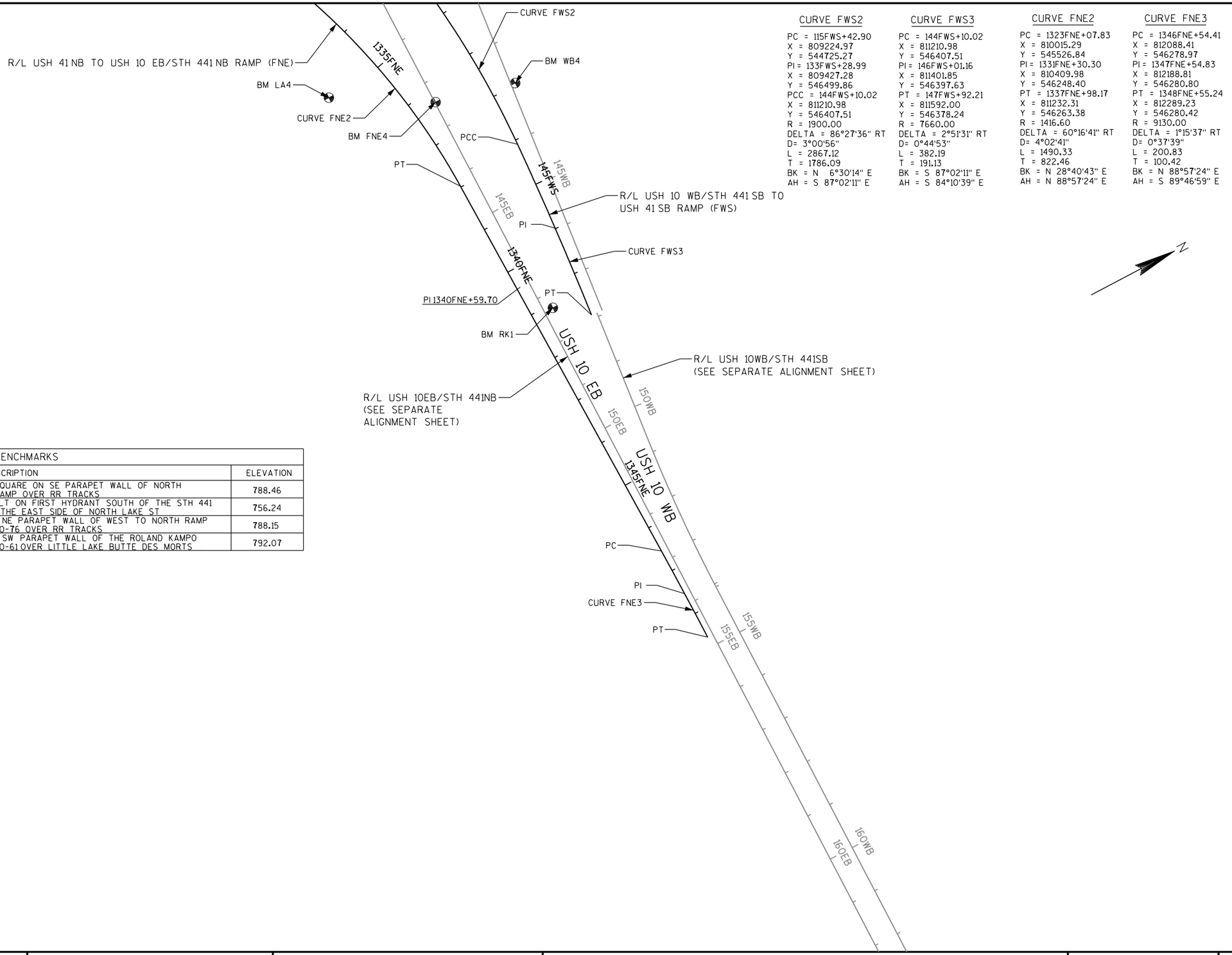
BENCHMARKS			
NUMBER	LOCATION	DESCRIPTION	ELEVATION
FNE2	STA 1333FNE+22.13, 59.99'LT	NAIL DRILLED IN PIER 1 OF OLD NORTH TO EAST BRIDGE TO GET FROM USH 41 TO STH 441	757.18
FNE3	STA 1332FNE+50.79, 55.89'LT	CHISELED SQUARE ON SW PARAPET WALL OF NORTH TO EAST RAMP	786.00
WB3	STA 139FWS+39.01, 34.25'LT	CHISELED SQUARE ON NW PARAPET WALL OF 10 WB BRIDGE B-70-78 OVER RR TRACKS	788.33
LA5	STA 167FEN+88.48, 261.94'RT	NE TAG BOLT ON HYDRANT OF THE EAST SIDE OF NORTH LAKE ST INBETWEEN HOUSE #'S 1761 & 1749	746.14
LA6	STA 158FEN+06.76, 331.47'RT	NE TAG BOLT ON HYDRANT OF THE EAST SIDE OF NORTH LAKE ST INBETWEEN HOUSE #'S 1644 & 1637	747.78
LA7	STA 153FEN+59.93, 337.49'RT	NE TAG BOLT ON HYDRANT OF THE EAST SIDE OF NORTH LAKE ST JUST NORTH OF HOUSE # 1583	749.45



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE RAMPS	SHEET 239	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\027211_ad.dgn PLOT DATE : 1/29/2015 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42



CURVE FWS2
PC = 115FWS+42.90
X = 809224.97
Y = 544725.27
PI = 133FWS+28.99
X = 809427.28
Y = 546499.86
PCC = 144FWS+10.02
X = 811210.98
Y = 546407.51
R = 1900.00
DELTA = 86°27'36" RT
D= 3°00'56"
L = 2867.12
T = 1786.09
BK = N 6°30'14" E
AH = S 87°02'11" E

CURVE FWS3
PC = 144FWS+10.02
X = 811210.98
Y = 546407.51
PI = 146FWS+01.16
X = 811401.85
Y = 546397.63
PT = 147FWS+92.21
X = 811592.00
Y = 546378.24
R = 7660.00
DELTA = 2°51'31" RT
D= 0°44'53"
L = 382.19
T = 191.13
BK = S 87°02'11" E
AH = S 84°10'39" E

CURVE FNE2
PC = 1323FNE+07.83
X = 810015.29
Y = 545526.84
PI = 1331FNE+30.30
X = 810409.98
Y = 546248.40
PT = 1337FNE+98.17
X = 811232.31
Y = 546263.38
R = 1416.60
DELTA = 60°16'41" RT
D= 4°02'41"
L = 1490.33
T = 822.46
BK = N 28°40'43" E
AH = N 88°57'24" E

CURVE FNE3
PC = 1346FNE+54.41
X = 812088.41
Y = 546278.97
PI = 1347FNE+54.83
X = 812188.81
Y = 546280.80
PT = 1348FNE+55.24
X = 812289.23
Y = 546280.42
R = 9130.00
DELTA = 1°15'37" RT
D= 0°37'39"
L = 200.83
T = 100.42
BK = N 88°57'24" E
AH = S 89°46'59" E

BENCHMARKS

NUMBER	LOCATION	DESCRIPTION	ELEVATION
FNE4	STA 1336FNE+27.62, 49.37'LT	CHISELED SQUARE ON SE PARAPET WALL OF NORTH TO EAST RAMP OVER RR TRACKS	788.46
LA4	STA 1334FNE+79.46, 116.35'RT	SE TAG BOLT ON FIRST HYDRANT SOUTH OF THE STH 441 BRIDGE ON THE EAST SIDE OF NORTH LAKE ST	756.24
WB4	STA 142FWS+96.64, 52.00'LT	3" DISK ON NE PARAPET WALL OF WEST TO NORTH RAMP BRIDGE B-70-76 OVER RR TRACKS	788.15
RK1	STA 1341FNE+08.83, 45.84'LT	3" DISK ON SW PARAPET WALL OF THE ROLAND KAMPO BRIDGE B-70-61 OVER LITTLE LAKE BUTTE DES MORTS	792.07

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	ALIGNMENT - SYSTEM INTERCHANGE RAMPS	SHEET 240	E

SUPERELEVATION DATA CURVE FEN2-LEFT	STATION	RATE	
		LANE 1	LANE 2
REVERSE CROWN	111+54.82	-2.00%	-2.00%
BEGIN FULL SUPER CURVE 2	112+91.75	-5.80%	-5.80%
END FULL SUPER CURVE 2	116+74.28	-5.80%	-5.80%
REVERSE CROWN	118+14.68	-2.00%	-5.80%

SUPERELEVATION DATA CURVE FES1	STATION	RATE	
		LEFT	RIGHT
MATCH FEN SUPER	118+53.08	N/A	-5.80%
BEGIN FULL SUPER CURVE 1	118+57.88	N/A	-6.00%
END FULL SUPER CURVE 1	119+44.97	N/A	-6.00%
REVERSE CROWN	120+40.97	N/A	-2.00%

SUPERELEVATION DATA CURVE FES2	STATION	RATE	
		LEFT	RIGHT
REVERSE CROWN	122+65.32	N/A	-2.00%
BEGIN FULL SUPER CURVE 2	123+61.32	N/A	-6.00%
END FULL SUPER CURVE 2	127+39.48	N/A	-6.00%
REVERSE CROWN	128+35.48	N/A	-2.00%

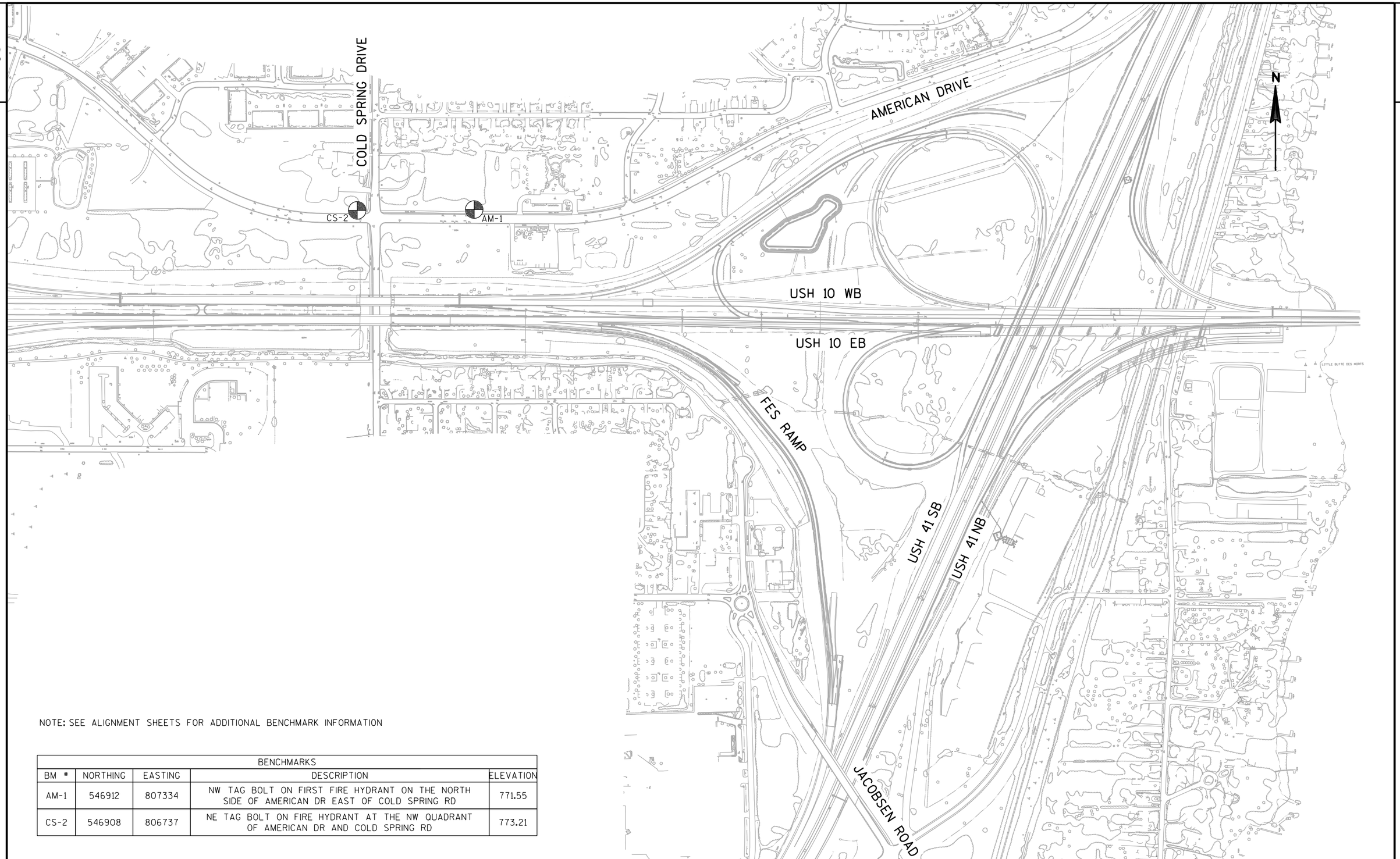
SUPERELEVATION DATA CURVE FES3	STATION	RATE	
		LEFT	RIGHT
REVERSE CROWN	133+33.68	N/A	-2.00%
BEGIN FULL SUPER CURVE 3	134+37.46	N/A	-5.90%
MATCH FWS SUPER	136+66.23	N/A	-5.90%

SUPERELEVATION DATA CURVE FWS1	STATION	RATE		
		FES/LANE 3	LANE 2	LANE 1
REVERSE CROWN	102+46.42	-2.00%	-2.00%	-2.00%
BEGIN FULL SUPER CURVE 1	104+69.42	-6.00%	-6.00%	-6.00%
END FULL SUPER CURVE 1	110+04.13	-6.00%	-6.00%	-6.00%
MATCH FES SUPER	110+09.73	-5.90%	-5.90%	-5.90%
REVERSE CROWN	112+27.47	-5.90%	-2.00%	-2.00%

SUPERELEVATION DATA CURVE FWS2	STATION	RATE	
		LANE 2	LANE 1
END NORMAL CROWN	112+94.50	-2.00%	-2.00%
REVERSE CROWN	114+61.96	2.00%	2.00%
BEGIN FULL SUPER CURVE 2	116+25.23	5.90%	5.90%
END FULL SUPER CURVE 2	143+27.69	5.90%	5.90%
MATCH USH 10 WB SUPER	144+65.84	2.60%	2.60%

2

FILE NAME: S:\DOT\DOT_NE\120012-Tri County Freeway\1517-17-79\DGN_Files\Plansheets\027200_AD.PPT PLOT DATE : 1/14/2015 10:16:06 AM PLOT BY : justin_a PLOT NAME : 020101_gn1 PLOT SCALE : 1:1



NOTE: SEE ALIGNMENT SHEETS FOR ADDITIONAL BENCHMARK INFORMATION

BENCHMARKS				
BM #	NORTHING	EASTING	DESCRIPTION	ELEVATION
AM-1	546912	807334	NW TAG BOLT ON FIRST FIRE HYDRANT ON THE NORTH SIDE OF AMERICAN DR EAST OF COLD SPRING RD	771.55
CS-2	546908	806737	NE TAG BOLT ON FIRE HYDRANT AT THE NW QUADRANT OF AMERICAN DR AND COLD SPRING RD	773.21

DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
0010	108.4400	CPM Progress Schedule	EACH	15.000	15.000
0020	201.0105	Clearing **P**	STA	2.000	2.000
0030	201.0205	Grubbing **P**	STA	2.000	2.000
0040	203.0200	Removing Old Structure (station) 001. B-70-78 Sta. 142eb+35	LS	1.000	1.000
0050	203.0200	Removing Old Structure (station) 002. B-70-79 Sta. 131eb+93	LS	1.000	1.000
0060	203.0225.S	Debris Containment (structure) 01. B-70-400	LS	1.000	1.000
0070	203.0225.S	Debris Containment (structure) 02. B-70-78	LS	1.000	1.000
0080	204.0100	Removing Pavement **P**	SY	15,605.000	15,605.000
0090	204.0150	Removing Curb & Gutter **P**	LF	1,208.000	1,208.000
0100	204.0157	Removing Concrete Barrier **P**	LF	2,230.000	2,230.000
0110	204.0180	Removing Delineators and Markers	EACH	50.000	50.000
0120	204.0190	Removing Surface Drains	EACH	1.000	1.000
0130	204.0220	Removing Inlets	EACH	7.000	7.000
0140	204.0245	Removing Storm Sewer (size) 01. 12-Inch to 24-Inch **P**	LF	537.000	537.000
0150	205.0100	Excavation Common	CY	74,518.000	74,518.000
0160	206.1000	Excavation for Structures Bridges (structure) 01. B-70-400	LS	1.000	1.000
0170	208.0100	Borrow	CY	3,227.000	3,227.000
0180	209.0300.S	Backfill Coarse Aggregate (size) 01. No. 1	CY	7.590	7.590
0190	210.0100	Backfill Structure ** P **	CY	348.000	348.000
0200	213.0100	Finishing Roadway (project) 01. 1517-07-79	EACH	1.000	1.000
0210	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,153.000	6,153.000
0220	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	32,604.000	32,604.000
0230	311.0110	Breaker Run	TON	47,534.000	47,534.000
0240	320.0135	Concrete Base 7-Inch **P**	SY	83.000	83.000
0250	320.0145	Concrete Base 8-Inch **P**	SY	495.000	495.000
0260	320.0155	Concrete Base 9-Inch **P**	SY	163.000	163.000
0270	320.0345	Concrete Base HES 8-Inch	SY	720.000	720.000
0280	415.0410	Concrete Pavement Approach Slab	SY	149.000	149.000
0290	415.1090	Concrete Pavement HES 9-Inch	SY	575.000	575.000
0300	415.1410	Concrete Pavement Approach Slab HES	SY	216.000	216.000
0310	416.1010	Concrete Surface Drains	CY	1.000	1.000
0320	440.4410.S	Incentive IRI Ride	DOL	8,020.000	8,020.000
0330	440.5020	Incentive IRI Ride Bridge	DOL	6,000.000	6,000.000
0340	455.0105	Asphaltic Material PG58-28	TON	185.000	185.000
0350	455.0605	Tack Coat	GAL	1,312.000	1,312.000
0360	460.1100	HMA Pavement Type E-0.3	TON	3,360.000	3,360.000
0370	460.2000	Incentive Density HMA Pavement	DOL	2,280.000	2,280.000
0380	460.4000	HMA Cold Weather Paving	TON	72.000	72.000
0390	465.0125	Asphaltic Surface Temporary	TON	4,095.000	4,095.000
0400	465.0315	Asphaltic Flumes **P**	SY	52.000	52.000
0410	501.1000.S	Ice Hot Weather Concreting	LB	15,880.000	15,880.000
0420	502.3100	Expansion Device (structure) 01. B-70-400 ** P **	LS	1.000	1.000
0430	502.3200	Protective Surface Treatment ** P **	SY	6,475.000	6,475.000
0440	503.0146	Prestressed Girder Type I 45W-Inch ** P **	LF	2,175.000	2,175.000
0450	503.0172	Prestressed Girder Type I 72W-Inch ** P **	LF	4,991.000	4,991.000

DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
0460	505.0405	Bar Steel Reinforcement HS Bridges	LB	95,120.000	95,120.000
0470	505.0605	Bar Steel Reinforcement HS Coated Bridges	LB	827,070.000	827,070.000
0480	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	1,840.000	1,840.000
0490	506.2605	Bearing Pads Elastomeric Non-Laminated ** P **	EACH	70.000	70.000
0500	506.2610	Bearing Pads Elastomeric Laminated ** P **	EACH	42.000	42.000
0510	506.4000	Steel Diaphragms (structure) 01. B-70-400 ** P **	EACH	96.000	96.000
0520	511.1200	Temporary Shoring (structure) 01. B-70-400	SF	3,530.000	3,530.000
0530	511.1200	Temporary Shoring (structure) 02. S-70-201	SF	360.000	360.000
0540	511.2200	Temporary Shoring Left in Place (structure) 01. B-70-400	SF	11,375.000	11,375.000
0550	514.0450	Floor Drains Type WF	EACH	15.000	15.000
0560	516.0500	Rubberized Membrane Waterproofing ** P **	SY	31.000	31.000
0570	517.1010.S	Concrete Staining (structure) 01. B-70-400 ** P **	SF	45,735.000	45,735.000
0580	517.1050.S	Architectural Surface Treatment (structure) 01. B-70-400 ** P **	SF	5,995.000	5,995.000
0590	520.8000	Concrete Collars for Pipe	EACH	10.000	10.000
0600	521.2005.S	Surface Drain Pipe Corrugated Metal Slotted (inch) 01. 15-Inch	LF	527.000	527.000
0610	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	157.000	157.000
0620	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	57.000	57.000
0630	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	21.000	21.000
0640	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0650	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	3.000	3.000
0660	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	5.000	5.000
0670	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	8.000	8.000
0680	524.0124	Culvert Pipe Salvaged 24-Inch	LF	142.000	142.000
0690	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	1.000	1.000
0700	550.0020	Pre-Boring Rock or Consolidated Materials	LF	248.000	248.000
0710	550.0500	Pile Points	EACH	251.000	251.000
0720	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	560.000	560.000
0730	550.1140	Piling Steel HP 14-Inch X 73 Lb	LF	4,270.000	4,270.000
0740	601.0105	Concrete Curb Type A ** P **	LF	27.000	27.000
0750	601.0501	Concrete Curb & Gutter Integral 4-Inch Sloped 36-Inch ** P **	LF	2,533.000	2,533.000
0760	601.0511	Concrete Curb & Gutter Integral 6-Inch Sloped 36-Inch ** P **	LF	553.000	553.000
0770	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D ** P **	LF	772.000	772.000

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DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
0780	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D ** P **	LF	1,066.000	1,066.000
0790	603.1142	Concrete Barrier Type S42 ** P **	LF	388.000	388.000
0800	603.3559	Concrete Barrier Transition Type S42 to S56	EACH	1.000	1.000
0810	603.8000	Concrete Barrier Temporary Precast Delivered	LF	20,805.000	20,805.000
0820	603.8125	Concrete Barrier Temporary Precast Installed	LF	25,411.000	25,411.000
0830	604.0600	Slope Paving Select Crushed Material ** P **	SY	750.000	750.000
0840	606.0200	Riprap Medium	CY	36.000	36.000
0850	606.0300	Riprap Heavy	CY	6.000	6.000
0860	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	329.000	329.000
0870	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	602.000	602.000
0880	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	472.000	472.000
0890	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	1,059.000	1,059.000
0900	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	190.000	190.000
0910	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	186.000	186.000
0920	611.0535	Manhole Covers Type J-Special	EACH	3.000	3.000
0930	611.0610	Inlet Covers Type BW	EACH	1.000	1.000
0940	611.0615	Inlet Covers Type F	EACH	9.000	9.000
0950	611.0624	Inlet Covers Type H	EACH	1.000	1.000
0960	611.0627	Inlet Covers Type HM	EACH	2.000	2.000
0970	611.0642	Inlet Covers Type MS	EACH	12.000	12.000
0980	611.0654	Inlet Covers Type V	EACH	6.000	6.000
0990	611.2004	Manholes 4-FT Diameter	EACH	5.000	5.000
1000	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
1010	611.3004	Inlets 4-FT Diameter	EACH	6.000	6.000
1020	611.3220	Inlets 2x2-FT	EACH	5.000	5.000
1030	611.3253	Inlets 2.5x3-FT	EACH	6.000	6.000
1040	611.3901	Inlets Median 1 Grate	EACH	2.000	2.000
1050	611.3902	Inlets Median 2 Grate	EACH	6.000	6.000
1060	611.8115	Adjusting Inlet Covers	EACH	11.000	11.000
1070	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	650.000	650.000
1080	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	3.000	3.000
1090	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	2.000	2.000
1100	614.0905	Crash Cushions Temporary	EACH	9.000	9.000
1110	614.0920	Salvaged Rail	LF	2,397.000	2,397.000
1120	614.0925	Salvaged Guardrail End Treatments	EACH	6.000	6.000
1130	614.0930	Salvaged Crash Cushions	EACH	1.000	1.000
1140	614.2300	MGS Guardrail 3	LF	3,015.000	3,015.000
1150	614.2500	MGS Thrie Beam Transition	LF	174.000	174.000
1160	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
1170	614.2620	MGS Guardrail Terminal Type 2	EACH	8.000	8.000
1180	616.0700.S	Fence Safety	LF	5,000.000	5,000.000
1190	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1517-07-79	EACH	1.000	1.000

3

DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
1200	619.1000	Mobilization	EACH	1.000	1.000
1210	625.0500	Salvaged Topsoil	SY	42,590.000	42,590.000
1220	627.0200	Mulching	SY	34,532.000	34,532.000
1230	628.1104	Erosion Bales	EACH	688.000	688.000
1240	628.1504	Silt Fence	LF	4,155.000	4,155.000
1250	628.1520	Silt Fence Maintenance	LF	4,155.000	4,155.000
1260	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
1270	628.1910	Mobilizations Emergency Erosion Control	EACH	10.000	10.000
1280	628.2004	Erosion Mat Class I Type B	SY	10,363.000	10,363.000
1290	628.7005	Inlet Protection Type A	EACH	41.000	41.000
1300	628.7010	Inlet Protection Type B	EACH	31.000	31.000
1310	628.7015	Inlet Protection Type C	EACH	2.000	2.000
1320	628.7020	Inlet Protection Type D	EACH	8.000	8.000
1330	628.7504	Temporary Ditch Checks	LF	641.000	641.000
1340	628.7560	Tracking Pads	EACH	18.000	18.000
1350	628.7560.S	Stone or Rock Ditch Checks	CY	15.000	15.000
1360	628.7570	Rock Bags	EACH	19.000	19.000
1370	629.0210	Fertilizer Type B	CWT	34.000	34.000
1380	630.0120	Seeding Mixture No. 20	LB	1,449.000	1,449.000
1390	630.0200	Seeding Temporary	LB	1,449.000	1,449.000
1400	633.1100	Delineators Temporary	EACH	20.000	20.000
1410	633.5200	Markers Culvert End	EACH	18.000	18.000
1420	635.0200	Sign Supports Structural Steel HS	LB	959.000	959.000
1430	636.0100	Sign Supports Concrete Masonry ** P **	CY	97.000	97.000
1440	636.0100	Sign Supports Concrete Masonry **P**	CY	1.600	1.600
1450	636.0500	Sign Supports Steel Reinforcement	LB	98.000	98.000
1460	636.1000	Sign Supports Steel Reinforcement HS	LB	1,360.000	1,360.000
1470	636.1500	Sign Supports Steel Coated Reinforcement HS	LB	5,960.000	5,960.000
1480	637.1220	Signs Type I Reflective SH	SF	140.000	140.000
1490	638.3210	Revising Signs Type I	EACH	1.000	1.000
1500	641.0600	Sign Bridge Single Pole Sign Support Two Signs (structure) 001. Sign Bridge Single Post Sign Support Two Signs S-70-250	LS	1.000	1.000
1510	641.6600	Sign Bridge (structure) 001. S-70-200	LS	1.000	1.000
1520	641.6600	Sign Bridge (structure) 002. Sign Bridge S-70-201	LS	1.000	1.000
1530	641.6600	Sign Bridge (structure) 003. S-70-252	LS	1.000	1.000
1540	643.0200	Traffic Control Surveillance and Maintenance (project) 01. 1517-07-79	DAY	456.000	456.000
1550	643.0300	Traffic Control Drums	DAY	185,898.000	185,898.000
1560	643.0420	Traffic Control Barricades Type III	DAY	6,785.000	6,785.000
1570	643.0453	Traffic Control Barricades Permanent Type III	EACH	11.000	11.000
1580	643.0705	Traffic Control Warning Lights Type A	DAY	13,570.000	13,570.000
1590	643.0715	Traffic Control Warning Lights Type C	DAY	49,892.000	49,892.000
1600	643.0800	Traffic Control Arrow Boards	DAY	1,158.000	1,158.000
1610	643.0900	Traffic Control Signs	DAY	53,180.000	53,180.000
1620	643.0910	Traffic Control Covering Signs Type I	EACH	7.000	7.000
1630	643.0920	Traffic Control Covering Signs Type II	EACH	30.000	30.000
1640	643.1000	Traffic Control Signs Fixed Message	SF	72.000	72.000
1650	643.1050	Traffic Control Signs PCMS	DAY	1,608.000	1,608.000
1660	643.1055.S	Truck or Trailer Mounted Attenuator	DAY	25.000	25.000

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DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
1670	643.2000	Traffic Control Detour (project) 01. 1517-07-79	EACH	1.000	1.000
1680	643.3000	Traffic Control Detour Signs	DAY	3,462.000	3,462.000
1690	645.0120	Geotextile Fabric Type HR ** P **	SY	123.000	123.000
1700	646.0106	Pavement Marking Epoxy 4-Inch	LF	101,922.000	101,922.000
1710	646.0126	Pavement Marking Epoxy 8-Inch	LF	7,207.000	7,207.000
1720	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	168.000	168.000
1730	649.0100	Temporary Pavement Marking 4-Inch	LF	3,558.000	3,558.000
1740	649.0701	Temporary Pavement Marking 8-Inch	LF	457.000	457.000
1750	649.2100	Temporary Raised Pavement Markers	EACH	629.000	629.000
1760	652.0125	Conduit Rigid Metallic 2-Inch ** P **	LF	150.000	150.000
1770	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch ** P **	LF	6,231.000	6,231.000
1780	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch ** P **	LF	1,022.000	1,022.000
1790	653.0140	Pull Boxes Steel 24x42-Inch	EACH	18.000	18.000
1800	653.0220	Junction Boxes 18x6x6-Inch	EACH	9.000	9.000
1810	653.0222	Junction Boxes 18x12x6-Inch	EACH	5.000	5.000
1820	654.0107	Concrete Bases Type 7	EACH	12.000	12.000
1830	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
1840	655.0610	Electrical Wire Lighting 12 AWG ** P **	LF	715.000	715.000
1850	655.0620	Electrical Wire Lighting 8 AWG ** P **	LF	3,893.000	3,893.000
1860	655.0625	Electrical Wire Lighting 6 AWG ** P **	LF	15,572.000	15,572.000
1870	656.0400	Electrical Service Main Lugs Only Meter Pedestal (location) 01. Cb-200	LS	1.000	1.000
1880	657.0210	Transformer Bases Breakaway 15-17 Inch Bolt Circle	EACH	13.000	13.000
1890	657.0337	Poles Type 17-Aluminum	EACH	13.000	13.000
1900	657.0730	Luminaire Arms Truss Type 6-Inch Clamp 12-FT	EACH	13.000	13.000
1910	657.6005.S	Anchor Assemblies Light Poles on Structures	EACH	5.000	5.000
1920	659.0802	Plaques Sequence Identification	EACH	13.000	13.000
1930	659.1125	Luminaires Utility LED C	EACH	13.000	13.000
1940	690.0150	Sawing Asphalt	LF	747.000	747.000
1950	690.0250	Sawing Concrete	LF	2,044.000	2,044.000
1960	715.0415	Incentive Strength Concrete Pavement	DOL	4,897.000	4,897.000
1970	715.0502	Incentive Strength Concrete Structures	DOL	25,326.000	25,326.000
1980	ASP.1T0A	On-the-Job Training Apprentice at $5. 00/HR	HRS	2,100.000	2,100.000
1990	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	5,760.000	5,760.000
2000	SPV.0035	Special 001. Abandoning Storm Sewer	CY	6.000	6.000
2010	SPV.0035	Special 700. Modified High Performance Concrete (HPC) Masonry Bridges ** P **	CY	4,221.000	4,221.000
2020	SPV.0045	Special 001. PCMS Remote Communications	DAY	1,368.000	1,368.000
2030	SPV.0060	Special 001. Securing Structure Covers	EACH	1.000	1.000
2040	SPV.0060	Special 002. Crash Cushions Temporary Left In Place	EACH	7.000	7.000
2050	SPV.0060	Special 003. Temporary Thrie Beam Connection Left In Place	EACH	2.000	2.000
2060	SPV.0060	Special 004. Traffic Control Signs Left In Place	EACH	108.000	108.000
2070	SPV.0060	Special 005. Traffic Control Drums Left In Place	EACH	310.000	310.000

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DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
2080	SPV.0060	Special 006. Traffic Control Warning Lights Type A Left In Place	EACH	23.000	23.000
2090	SPV.0060	Special 007. Traffic Control Warning Lights Type C Left In Place	EACH	99.000	99.000
2100	SPV.0060	Special 008. Traffic Control Arrow Boards Left In Place	EACH	2.000	2.000
2110	SPV.0060	Special 009. Maintain Traffic Control Signs Left In Place	EACH	4.000	4.000
2120	SPV.0060	Special 010. Maintain Traffic Control Drums Left In Place	EACH	17.000	17.000
2130	SPV.0060	Special 011. Maintain Traffic Control Warning Lights Type C Left In Place	EACH	9.000	9.000
2140	SPV.0060	Special 012. Maintenance And Removal Of Crash Cushions Temp Left In Place By Others	EACH	3.000	3.000
2150	SPV.0060	Special 014. Cover Plate Left In Place	EACH	6.000	6.000
2160	SPV.0060	Special 015. Storm Sewer Plug	EACH	4.000	4.000
2170	SPV.0060	Special 016. Traffic Control Close-Open Freeway Ramp	EACH	22.000	22.000
2180	SPV.0060	Special 017. Repositioning Traffic Control Devices for Mainline Closures	EACH	120.000	120.000
2190	SPV.0060	Special 350. Anchor Bolt Cover Shroud	EACH	8.000	8.000
2200	SPV.0060	Special 351. Concrete Bases Type 7 On Steep Slopes	EACH	4.000	4.000
2210	SPV.0060	Special 352. Lighting Control Cabinet - Freeway	EACH	1.000	1.000
2220	SPV.0075	Special 001. Street Sweeping	HRS	300.000	300.000
2230	SPV.0090	Special 001. Concrete Barrier Temporary Precast Left In Place	LF	16,107.000	16,107.000
2240	SPV.0090	Special 002. Maintain Concrete Barrier Temporary Precast Left In Place	LF	4,225.000	4,225.000
2250	SPV.0090	Special 003. Conc. Curb & Gutter & Barrier Cold Weather Covering, Plastic 1-Layer	LF	335.000	335.000
2260	SPV.0090	Special 004. Conc Curb & Gutter & Barrier Cold Weather Covering, Plastic 2-Layer	LF	335.000	335.000
2270	SPV.0090	Special 005. Conc Curb & Gutter & Barrier Cold Weather Cover, Plas/Hay/Plas Or Blankets	LF	335.000	335.000
2280	SPV.0090	Special 006. Concrete Barrier Temporary Precast Anchoring	LF	2,112.000	2,112.000
2290	SPV.0090	Special 007. Removing Pavement Marking Water Blasting	LF	41,273.000	41,273.000
2300	SPV.0090	Special 700. Downspout Rtrp 8-Inch	LF	570.000	570.000
2310	SPV.0105	Special 001. Survey Project 1517-07-79	LS	1.000	1.000
2320	SPV.0105	Special 002. Concrete Pavement Joint Layout	LS	1.000	1.000
2330	SPV.0105	Special 703. Temporary Joints with Cold Mix Fill	LS	1.000	1.000
2340	SPV.0120	Special 001. Water For Seeded Areas	MGAL	954.000	954.000
2350	SPV.0165	Special 704. Longitudinal Grooving Bridge Deck **P**	SF	53,530.000	53,530.000
2360	SPV.0180	Special 001. Concrete Pavement Cold Weather Covering, Plastic 1 Layer	SY	1,020.000	1,020.000
2370	SPV.0180	Special 002. Concrete Pavement, Cold Weather Covering, Plastic 2 Layers	SY	1,020.000	1,020.000

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DATE 15MAY15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1517-07-79 QUANTITY
2380	SPV.0180	Special 003. Conc Pavement Cold Weather Covering Plastic/Hay/Plastic Or Blankets	SY	1,020.000	1,020.000
2390	SPV.0180	Special 004. Modified High Performance Concrete (HPC) Pavement 9-Inch	SY	5,005.000	5,005.000
2400	SPV.0180	Special 005. Modified High Performance Concrete (HPC) Pavement 10-Inch	SY	10,047.000	10,047.000
2410	SPV.0180	Special 006. Modified High Performance Concrete (HPC) Pavement 11-Inch	SY	1,120.000	1,120.000
2420	SPV.0180	Special 007. Modified High Performance Concrete (HPC) Pavement 10-Inch HES	SY	1,547.000	1,547.000
2430	SPV.0195	Special 001. Cold Patch	TON	40.000	40.000

CLEARING & GRUBBING

ROADWAY	STATION BEGIN	STATION END	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
STAGE 2A					
FEN RAMP	112FEN+00	114FEN+00	RT	2	2
STAGE 2A SUBTOTAL				2	2
PROJECT 1517-07-79 TOTAL				2	2

REMOVING CURB & GUTTER

ROADWAY	STATION	OFFSET	204.0150 REMOVING CURB & GUTTER LF
STAGE 1			
USH 10 EB	128EB+78 - 132EB+11	LT	333
	137EB+87 - 139EB+18	LT	130
	142EB+52 - 143EB+32	LT	80
STAGE 1 SUBTOTAL			543
STAGE 2B			
USH 10 EB	121EB+13 - 124EB+00	LT	286
STAGE 2B SUBTOTAL			286
STAGE 4			
USH 10 EB	124EB+00 - 127EB+83	LT	379
STAGE 4 SUBTOTAL			379
PROJECT 1517-07-79 TOTAL			1,208

REMOVING PAVEMENT

ROADWAY	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY
STAGE1			
USH EB 10	135EB+89 - 137EB+88	LT	173
	142EB+52 - 143EB+32	LT	65
STAGE 1 SUBTOTAL			238
STAGE 2A			
USH EB 10	104EB+00 - 115EB+89	RT/LT	2,463
FEN RAMP	108FEN+75 - 111FEN+75	RT	477
	111FEN+75 118FEN+13	RT	1,005
FES RAMP	118FES+13 - 136FES+66	RT/LT	3,128
FWS RAMP	110FWS+84 - 117FWS+57	LT	2,102
FNE RAMP	1327FNE+87 - 1332FNE+78	LT	743
	1336FNE+26 - 1337FNE+68	LT	262
STAGE 2A SUBTOTAL			10,180
STAGE 2B			
USH EB 10	104EB+00 - 115EB+89	LT	1,382
	129EB+45 - 132EB+03	LT	477
USH WB 10	113WB+87 - 114WB+32	RT/LT	117
STAGE 2B SUBTOTAL			1,976
STAGE 3			
FNE RAMP	1337FNE+68 - 1341FNE+24	LT	556
STAGE 3 SUBTOTAL			556
STAGE 4			
USH EB 10	127EB+83 - 132EB+12	LT	1,049
	142EB+45 - 147EB+47	LT	1,337
STAGE 4 SUBTOTAL			2,386
STAGE 5			
TWS RAMP	125TWS+57 - 127TWS+15	RT	269
STAGE 5 SUBTOTAL			269
PROJECT 1517-07-79 TOTAL			15,605

REMOVING STORM SEWER ITEMS

ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0220 REMOVING INLETS EACH	204.0245 REMOVING STORM SEWER LF	SPV.0035.001 ABANDONING STORM SEWER CY	COMMENTS
STAGE 2A								
USH 10 EB	107EB+85	41' LT	--	--	1	--	--	
	107EB+85	RT	--	--	--	53	--	18-INCH CMCP
	115EB+84	50' LT	--	--	1	--	--	
	115EB+86	RT	--	--	--	53	--	18-INCH
	122EB+91	RT	--	--	--	38	--	24-INCH RCCP
	138EB+03	25' LT	138EB+18	32' RT	--	59	--	18-INCH
FEN RAMP	109FEN+85	41' RT	--	--	1	--	--	
STAGE 2A SUBTOTAL					3	203		
STAGE 2B								
USH 10 EB	96EB+53	LT	97EB+14	LT	--	56	--	18-INCH UNDER CROSSOVER
	107EB+85	LT	--	--	--	43	--	18-INCH CMCP
	115EB+86	LT	--	--	1	53	--	18-INCH
	119EB+89	LT	--	--	1	47	--	18-INCH
	122EB+90	LT	--	--	--	47	--	24-INCH
STAGE 2B SUBTOTAL					2	246		
STAGE 4								
USH 10 EB	127EB+90	LT/RT	--	--	1	44	6	18-INCH
	137EB+94	LT	138EB+03	LT	1	44	--	12-INCH
STAGE 4 SUBTOTAL					2	88	6	
PROJECT 1517-07-79 TOTAL					7	537	6	

REMOVING CONCRETE BARRIER

ROADWAY	STATION	OFFSET	204.0157 REMOVING CONCRETE BARRIER LF
STAGE 2A			
USH 41 NB	1329NB+00 - 1334NB+00	LT	500
USH 41 SB	1329SB+00 - 1334SB+00	RT	500
FEN RAMP	117FEN+72 - 122FEN+56	LT/RT	500
STAGE 2A SUBTOTAL			1,500
STAGE 2B			
TWS RAMP	119TWS+17 - 126TWS+41	LT	730
STAGE 2B SUBTOTAL			730
PROJECT 1517-07-79 TOTAL			2,230

REMOVING DELINEATORS AND MARKERS

ROADWAY	204.0180 REMOVING DELINEATORS AND MARKERS EACH
UNDISTRIBUTED	50
PROJECT 1517-07-79 TOTAL	50

FINISHING ROADWAY (PROJECT 1517-07-79)

ROADWAY	213.0100 FINISHING ROADWAY 1517-07-79 EACH
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTAL	1

REMOVING SURFACE DRAINS

ROADWAY	STATION	OFFSET	204.0190 REMOVING SURFACE DRAINS EACH
STAGE 1			
USH 10 EB	101EB+10	20' LT	1
STAGE 1 SUBTOTAL			1
PROJECT 1517-07-79 TOTAL			1

BREAKER RUN

ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	311.0110 BREAKER RUN TON
STAGE 1					
USH 10 EB	101EB+00	LT	118EB+08	LT	2,639
	128EB+94	LT	132EB+18	LT	240
	137EB+88	LT	139EB+21	LT	116
USH 41 NB	1324NB+18	RT	1343NB+62	RT	1,547
USH 41 SB	1322SB+62	LT	1336SB+75	LT	1,886
TCA CROSSOVER	2336TCA+21	RT	2340TCA+16	RT	653
STAGE 1 SUBTOTALS					7,081
STAGE 2A					
USH 10 EB	100EB+98	RT	104EB+00	RT	496
	104EB+00	RT/LT	128EB+50	RT/LT	7,161
	125EB+68	LT	129EB+40	LT	264
TSE CROSSOVER	1311FSE+20	LT	101TSE+12	LT/RT	143
FEN RAMP	108FEN+82	RT	111FEN+75	RT	890
	111FEN+75	-	120FEN+00	-	3,780
FES RAMP	118FEN+15	-	134FES+50	-	6,424
	134FES+50	-	136FES+65	-	697
FWS	110FWS+84	-	112FWS+00	-	--
	112FWS+00	-	116FWS+50	-	1,471
STAGE 2A SUBTOTALS					21,326
STAGE 2B					
USH 10 EB	100EB+99	LT	104EB+00	LT	442
	104EB+00	LT/RT	122EB+50	LT/RT	4,266
	127EB+58	LT/RT	131EB+97	LT/RT	1,318
TWS RAMP	111TWS+50	LT/RT	125TWS+50	LT/RT	2,531
TCO CROSSOVER	20TCO+33	LT/RT	31TCO+15	LT/RT	2,823
STAGE 2B SUBTOTALS					11,380
STAGE 3					
USH 10 EB	142EB+49	RT/LT	146EB+53	RT/LT	2,306
STAGE 3 SUBTOTALS					2,306
STAGE 4					
USH 10 EB	122EB+50	LT	129EB+45	LT	885
STAGE 4 SUBTOTALS					885
STAGE 5					
RAMP TWS	110TWS+25	LT/RT	111TWS+50	LT/RT	323
	125TWS+50	RT/LT	127TWS+15	RT/LT	308
STAGE 5 SUBTOTALS					631
UNDISTRIBUTED					3,925
PROJECT 1517-07-79 TOTALS					47,534

FILE NAME: I:\56537\1517-75-75\t1\cds\030201_mq.ppt PLOT DATE : 4/30/2015 9:13:06 AM PLOT BY : HNTB Corp. PLOT NAME : PLOT SCALE : 1:1

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Structure Excavation (CY) (6)	Excavation Marsh (CY) (7) 205.0400	Unexpanded Fill (CY)	Expanded Fill (Expansion Factor 1.3)	Borrow (CY) (4) 208.0100	Mass Ordinate +/- (5)	Comment:
				Cut (CY) (2)	EBS (CY) (3)							
1000	1	1323SB+10 - 1336SB+70	SB	2,014	0	0	0	2	2		2,012	
		1324NB+25 - 1343NB+35	NB	1,849	0	0	0	0	0		1,849	
		101EB+30.00 - 117EB+70.00	EB	2,898	0	0	0	0	0		2,898	Median Widening
		129EB+05.00 - 132EB+00.00	EB	375	0	0	0	0	0		375	Median Widening
		86WB+23 - 90WB+00	WB	233	0	0	0	12	15		218	Shoulder upgrade for beamguard
		2336TCA+50.00 - 2339TCA10.00	TCA	150	0	0	0	600	780		-630	Constructing Temporary Crossover
	Project 1517-07-79 - Division 1 Subtotal			7,520	0	0	0	613	797		6,722	
	Project 1517-07-79 - Division 1 Total			7,520		0	0			0		
1000	2A	85EB+67 + 89EB+29, RT	EB	297	0	0	0	2	3		294	Shoulder upgrade for beamguard
		104EB+00 - 128EB+50	EB	5,535	0	0	0	3,881	5,046		490	
		108FEN+89 - 111FEN+75	FEN	464	0	0	0	393	511		-47	
		111FEN+75 - 120FEN+50	FEN	2,359	0	0	0	778	1,011		1,349	
		118FES+14.68 - 136FES+66	FES	37,998	0	0	0	106	138		37,860	
		112FWS+00 - 116FWS+50	FWS	1,831	0	0	0	2	3		1,828	
		125EB+75.00 - 129EB+50.00	EB	330	0	0	0	0	0		330	Temp pavement between existing and proposed EB USH 10
		100TSE+00 - 100TSE+80.00	TSE	0	0	0	0	550	715		-715	TSE Crossover
		1324FNE+50 - 1332FNE+75	FNE	770	0	0	0	0	0		770	Asphalt pavement removal on existing north to east ramp
	Project 1517-07-79 - Division 2A Subtotal			49,584	0	0	0	5,712	7,426		42,158	
	Project 1517-07-79 - Division 2A Total			49,584		0	0			0		
1000	2B	90WB+00 - 99WB+34, RT.	WB	512	0	0	0	38	50		462	Shoulder upgrade for beamguard
		103WB+71 - 109WB+75, RT.	WB	1,032	0	0	0	10	12		1,020	
		83EB+52 - 104EB+00, LT/RT	EB	1,647	0	0	0	129	168		1,479	Shoulder upgrade for beamguard
		104EB+00 - 132EB+50	EB	6,507	0	0	0	5,404	7,026		-518	
		108TWS+75.79 - 125TWS+50	TWS	2,742	0	0	0	1,560	2,029		713	
	Project 1517-07-79 - Division 2B Subtotal			12,440	0	0	0	7,142	9,284		3,156	
	Project 1517-07-79 - Division 2B Total			12,440		0	0			0		

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Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Structure Excavation (CY) (6)	Excavation Marsh (CY) (7) 205.0400	Unexpanded Fill (CY)	Expanded Fill (Expansion Factor 1.3)	Borrow (CY) (4) 208.0100	Mass Ordinate +/- (5)	Comment:
				Cut (CY) (2)	EBS (CY) (3)							
1000	3	142EB+50 - 146EB+53.94	EB	268	0	0	0	2,688	3,495		-3,226	
	Project 1517-07-79 - Division 3 Subtotal			268	0	0	0	2,688	3,495		-3,226	
	Project 1517-07-79 - Division 3 Total			268		0	0			3,227		
1000	4	122EB+50 - 129EB+50	EB	2,887	0	0	0	8	10		2,877	
		100TSE+00 - 100TSE+80.00	TSE	450	0	0	0	0	0		450	Removing Temporary Crossover
	Project 1517-07-79 - Division 4 Subtotal			3,337	0	0	0	8			3,327	
	Project 1517-07-79 - Division 4 Total			3,337		0	0			0		
1000	5	110TWS+25 - 111TWS+50	TWS	956	0	0	0	26	33		922	
		125TWS+50 - 127TWS+15	TWS	414	0	0	0	43	56		358	
	Project 1517-07-79 - Division 5 Subtotal			1,369	0	0	0	69	89		1,280	
	Project 1517-07-79 - Division 5 Total			1,369		0	0			0		
	Project 1517-07-79 Totals			**74,518**		**0**				**3,227**	**53,417**	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.

4) Borrow = (Expanded Fill + EBS Excavation - Common Excavation) by Division

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.
Mass Ordinate = Common Excavation - Borrow.Common Excavation and Borrow are balanced for quantity purposes but shall be verified in the field to guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

6) Structure Excavation limits for Retaining Wall construction are shown in the cross sections and are assumed to be 70% of the retaining wall height. This is for informational purposes only, and will vary depending on shop drawing design.

7) Excavation Marsh limits as identified in the cross sections. All marsh material assumed to be wasted offsite. See marsh excavation and trench detail for fill requirements.

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BASE AGGREGATE DENSE

ROADWAY	FROM STATION	OFFSET	TO STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
STAGE 1						
USH 10 EB	101EB+00	LT	118EB+28	LT	584	2,066
	128XEB+95	LT	132XEB+17	LT	--	267
	135XEB+85	LT	142XEB+53	LT	--	242
USH 10 WB	86WB+22	RT	90WB+75	RT	138	414
	137WB+75	LT	138WB+21	LT	16	92
TCA CROSSOVER	2336TCA+21	LT/RT	2340TCA+16	LT/RT	79	726
USH 41 NB	1324NB+18	RT	1343NB+62	RT	243	1,728
USH 41 SB	1322SB+62	LT	1336SB+75	LT	494	1,809
STAGE 1 SUBTOTALS					1,554	7,344
STAGE 2A						
USH 10 EB	85EB+66	RT	89EB+29	RT	114	398
	100EB+98	RT	104EB+00	RT	143	396
	104EB+00	RT	128EB+50	LT	--	2,920
	111EB+57	RT	126EB+50	RT	607	--
	125EB+70	LT	129EB+41		--	293
TSE CROSSOVER	1312FSE+63	LT/RT	101TSE+21	LT/RT	45	236
FEN RAMP	108FEN+89	RT	111FEN+75	RT	--	369
	111FEN+75	-	120FEN+00	-	223	1,492
	118FEN+15	-	134FES+50	-	740	2,682
	134FES+50	-	136FES+65	-	100	342
	110FWS+84	-	112FWS+00	-	--	434
	112FWS+00	-	116FWS+50	-	118	688
STAGE 2A SUBTOTALS					2,090	10,250
STAGE 2B						
USH 10 EB	84EB+71	LT	89EB+14	LT	186	386
	90EB+50	LT	99EB+40	LT	248	684
	101EB+00	LT	122EB+50	LT	--	1,849
	101EB+00	LT	109EB+92	LT	300	--
	127EB+58	RT	132EB+04	LT	--	619
	129EB+45	LT	131EB+92	LT	117	--
	131EB+10	RT	131EB+79	RT	31	--
	25TCO+53	LT	118EB+80	LT	411	--
USH 10 WB	90WB+75	RT	92WB+12	RT	36	152
	94WB+60	RT	99WB+39	RT	114	278
	113WB+87	LT/RT	114WB+32	LT/RT	25	128
RAMP TWS	111TWS+50	RT	114TWS+00	LT	67	--
	111TWS+50	RT	125TWS+50	RT	--	2,677
TCO CROSSOVER	20TCO+33	RT	31TCO+15	RT	131	1,871
STAGE 2B SUBTOTALS					1,535	8,644

BASE AGGREGATE DENSE (CONTINUED)

ROADWAY	FROM STATION	OFFSET	TO STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
STAGE 3						
USH 10 EB	142EB+49	LT/RT	146EB+54	LT/RT	90	916
STAGE 3 SUBTOTALS					90	916
STAGE 4						
USH 10 EB	122EB+50	LT	129EB+45	LT	--	399
	124EB+25	LT	129EB+45	LT	230	--
	126EB+28	RT	127EB+60	RT	50	32
STAGE 4 SUBTOTALS					280	431
STAGE 5						
RAMP TWS	110TWS+25	LT/RT	111TWS+50	LT/RT	45	269
	125TWS+50	LT/RT	127TWS+15	LT/RT	--	342
STAGE 5 SUBTOTALS					45	611
UNDISTRIBUTED - CONSTRUCTION ACCESS					--	1,215
UNDISTRIBUTED					559	2,820
PROJECT 1517-07-79 TOTALS					6,153	32,231

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CONCRETE ITEMS

ROADWAY	STATION			OFFSET	320.1350 CONCRETE BASE 7-INCH SY	320.0145 CONCRETE BASE 8-INCH SY	320.0155 CONCRETE BASE 9-INCH SY	320.0345 CONCRETE BASE HES 8-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	415.1090 CONCRETE PAVEMENT HES 9-INCH SY	415.1410 CONCRETE PAVEMENT APPROACH SLAB HES SY	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0180.001 CONCRETE PAVEMENT COLD WEATHER COVERING PLASTIC 1 LAYER SY	SPV.0180.002 CONCRETE PAVEMENT COLD WEATHER COVERING PLASTIC 2 LAYERS SY	SPV.0180.003 PLASTIC/HAY/ PLASTIC OR BLANKET SY
STAGE 2A															
USH 10 EB	104EB+00	-	108EB+88	RT	--	--	--	--	--	--	--	--	--	--	--
	108EB+88	-	111EB+57	RT	--	334	--	--	--	--	--	--	--	--	--
	108EB+88	-	128EB+50	RT	--	--	--	--	--	--	--	--	--	--	--
FEN RAMP	108FEN+91	-	111FEN+75	RT	--	--	--	--	--	--	--	--	--	--	--
FEN RAMP	111FEN+75	-	119FEN+50	RT	83	--	--	--	--	--	--	--	--	--	--
FES RAMP	118FES+15	-	136FES+66	RT	--	--	--	--	--	--	--	--	--	--	--
FWS RAMP	112FWS+00	-	114FWS+50	LT	--	--	163	--	--	--	--	--	--	--	--
STAGE 2A SUBTOTAL					83	334	163	--	--	--	--	--	--	--	--
STAGE 2B															
USH 10 EB	104EB+00	-	122EB+50	LT	--	--	--	--	--	--	--	--	--	--	--
	131EB+60	-	131EB+97	RT/LT	--	--	--	--	149	--	--	--	--	--	--
	128EB+00	-	131EB+60	RT/LT	--	--	--	--	--	--	--	--	--	--	--
FSE RAMP	1308FSE+51	-	1310FSE+34	RT/LT	--	161	--	--	--	--	--	--	--	--	--
STAGE 2B SUBTOTAL					--	161	--	--	149	--	--	--	--	--	--
STAGE 3															
USH 10 EB	142EB+49	-	142EB+79	RT/LT	--	--	--	--	--	--	125	--	42	42	42
	142EB+79	-	146EB+38	RT/LT	--	--	--	--	--	--	--	--	516	516	516
	146EB+38	-	146EB+54	RT/LT	--	--	--	--	--	--	91	--	30	30	30
FNE RAMP	1336FNE+25		1340FNE+15	RT/LT	--	--	--	720	--	--	--	--	240	240	240
STAGE 3 SUBTOTAL					--	--	--	720	--	--	216	--	828	828	828
STAGE 5															
TWS RAMP	110TWS+25	-	111TWS+50	RT/LT	--	--	--	--	--	245	--	--	82	82	82
	125TWS+50	-	127TWS+14	RT/LT	--	--	--	--	--	330	--	--	110	110	110
STAGE 5 SUBTOTAL					--	--	--	--	--	575	--	--	192	192	192
PROJECT 1517-07-79 TOTAL					83	495	163	720	149	575	216	--	1,020	1,020	1,020

CONCRETE ITEMS (CONTINUED)

ROADWAY	STATION			OFFSET	SPV.0180.004 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 9-INCH SY	SPV.0180.005 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH SY	SPV.0180.006 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 11-INCH SY	SPV.0180.007 MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 10-INCH HES SY
STAGE 2A								
USH 10 EB	104EB+00	-	108EB+88	RT	--	1,904	--	--
	108EB+88	-	111EB+57	RT	--	--	--	--
	108EB+88	-	128EB+50	RT	--	3,707	--	--
FEN RAMP	108FEN+91	-	111FEN+75	RT	--	947	--	--
FEN RAMP	111FEN+75	-	119FEN+50	RT	2,285	--	--	--
FES RAMP	118FES+15	-	136FES+66	RT	2,720	--	358	--
FWS RAMP	112FWS+00	-	114FWS+50	LT	--	--	762	--
STAGE 2A SUBTOTAL					5,005	6,558	1,120	--
STAGE 2B								
USH 10 EB	104EB+00	-	122EB+50	LT	--	2,467	--	--
	131EB+60	-	131EB+97	RT/LT	--	--	--	--
	128EB+00	-	131EB+60	RT/LT	--	1,022	--	--
FSE RAMP	1308FSE+51	-	1310FSE+34	RT/LT	--	--	--	--
STAGE 2B SUBTOTAL					--	3,489	--	--
STAGE 3								
USH 10 EB	142EB+49	-	142EB+79	RT/LT	--	--	--	--
	142EB+79	-	146EB+38	RT/LT	--	--	--	1,547
	146EB+38	-	146EB+54	RT/LT	--	--	--	--
FNE RAMP	1336FNE+25		1340FNE+15	RT/LT	--	--	--	--
STAGE 3 SUBTOTAL					--	--	--	1,547
STAGE 5								
TWS RAMP	110TWS+25	-	111TWS+50	RT/LT	--	--	--	--
	125TWS+50	-	127TWS+14	RT/LT	--	--	--	--
STAGE 5 SUBTOTAL					--	--	--	--
PROJECT 1517-07-79 TOTAL					5,005	10,047	1,120	1,547

CONCRETE SURFACE DRAINS

ROADWAY	STATION	OFFSET	416.1010 CONCRETE SURFACE DRAINS CY
STAGE 1			
USH 10 EB	131EB+87	35' LT	1
STAGE 1 SUBTOTAL			1
PROJECT 1517-07-79 TOTAL			1

CONCRETE BARRIER ITEMS

ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	603.1142 CONCRETE BARRIER TYPE S42 LF	603.3559 CONCRETE BARRIER TRANSITION TYPE S42 - S56 EACH	633.1100 TEMPORARY DELINEATORS EACH
STAGE 3							
USH 10 EB/STH 441 NB	142EB+63	18' LT	146EB+54	25' LT	388	--	--
	146EB+54	25' LT	--	--	--	1	--
STAGE 3 SUBTOTAL					388	1	--
UNDISTRIBUTED					--	--	20
PROJECT 1517-07-79 TOTAL					388	1	20

ASPHALT ITEMS

ROADWAY	STATION			OFFSET	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	460.4000 HMA COLD WEATHER PAVING TON	SPV.0195.001 COLD PATCH TON	COMMENTS
STAGE 1											
USH 41 NB	1324NB+18	-	1343NB+62	RT	33	130	594	--	--	--	OUTSIDE SHOULDER
USH 41 SB	1323SB+00	-	1336SB+75	LT	23	92	420	--	--	--	OUTSIDE SHOULDER
USH 10 EB	101EB+00	-	118EB+15	LT	--	113	--	517	--	--	TEMP. PAVEMENT
USH 10 WB	86WB+48	-	90WB+92	RT	4	18	80	--	--	--	
	137EB+75	-	138EB+20	LT	--	10	--	46	--	--	WB PIPE INSTALL, STA 138EB+00
USH 10 XEB	129XEB+00	-	132XEB+17	LT	--	24	--	110	--	--	TEMP. PAVEMENT
	132XEB+11	-	137XEB+87	LT	--	--	--	55	--	--	TEMP. PAVEMENT
	137XEB+87	-	139XEB+17	LT	--	12	--	53	--	--	TEMP. PAVEMENT
	139XEB+17	-	142XEB+52	LT	--	--	--	19	--	--	TEMP. PAVEMENT
	142EB+42	-	143EB+35	LT	--	--	--	13	--	--	UNDER EX CRASH CUSHION
TCA CROSSOVER	2336TCA+23	-	2339TCA+79	LT	--	41	--	187	--	--	TEMP. PAVEMENT
STAGE 1 SUBTOTAL					60	440	1,094	1,000	--	--	
STAGE 2A											
USH 10 EB	85EB+66	-	89EB+29	RT	5	19	87	--	--	--	
	100EB+99	-	104EB+00	RT	4	16	74	--	--	--	
	108EB+88	-	111EB+57	RT	2	--	37	--	--	--	
	111EB+57	-	111EB+75	RT	--	--	2	--	--	--	
	111EB+57	-	127EB+58	RT	22	85	391	--	--	--	
	125EB+69	-	129EB+40	LT	--	26	--	121	--	--	EX EB USH 10 TO PROPOSED EB USH 10
FEN RAMP	111FEN+75	-	119FEN+50	RT/LT	5	--	89	--	--	--	
	118FEN+40	-	119FEN+32	GORE	--	5	9	--	--	--	
FES RAMP	118FES+15	-	136FES+66	RT/LT	25	--	450	--	--	--	
FWS RAMP	110FWS+84	-	112FWS+00	RT/LT	--	37	--	169	--	--	
	112FWS+00	-	114FWS+50	RT/LT	3	--	46	--	--	--	
	112FWS+82	-	114FWS+22	GORE	1	10	18	--	--	--	
FSE RAMP	1310FSE+71	-	1312FSE+20	RT	--	14	--	66	--	--	TSE CROSSOVER
STAGE 2A SUBTOTAL					67	212	1,203	356	--	--	
STAGE 2B											
USH 10 EB	84EB+71	-	89WB+14	LT	5	18	82	--	--	--	
	90EB+92	-	91EB+70	LT	4	16	75	--	--	--	MAINTENANCE CROSSOVER
	91EB+70	-	99EB+40	LT	8	31	142	--	--	--	
	100EB+99	-	109EB+89	LT	7	29	134	--	--	--	
	111EB+57	-	126EB+00	RT	19	77	353	--	--	--	
	115EB+00	-	118EB+74	LT	--	27	--	126	--	--	
	119EB+86	-	122EB+50	LT	--	26	--	121	--	--	
	129EB+45	-	131EB+60	RT	2	9	39	--	--	--	
USH 10 WB	95WB+20	-	99WB+39	LT	4	16	75	--	--	--	
	113WB+87	-	114WB+32	RT/LT	--	12	--	55	--	--	WB PIPE INSTALL, STA 114WB+13
FSE RAMP	1308FSE+51	-	1310FSE+34	RT	1	--	18	--	--	--	
TEMPORARY WS RAMP	108TWS+76	-	110TWS+25	LT	--	21	--	98	--	--	
TEMPORARY WS RAMP	111TWS+52	-	125TWS+50	LT	--	184	--	841	--	--	
TEMPORARY CROSSOVER	20TCO+33	-	115EB+00	RT/LT	--	152	--	698	--	--	TCO CROSSOVER
STAGE 2B SUBTOTAL					50	618	918	1,939	--	--	

ASPHALT ITEMS (CONTINUED)

ROADWAY	STATION			OFFSET	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	460.4000 HMA COLD WEATHER PAVEMENT TON	SPV.0195.001 COLD PATCH TON	COMMENTS
STAGE 3											
FNE RAMP	1336FNE+25	-	1340FNE+15	RT	4	--	79	--	20	--	
STAGE 3 SUBTOTAL					4	--	79	--	20	--	
STAGE 4											
USH 10 EB	122EB+50	-	126EB+00	LT	--	28	--	129	32	--	
USH 10 EB	126EB+00	-	129EB+45	LT	4	14	66	--	17	--	
STAGE 4 SUBTOTAL					4	42	66	129	49	--	
UNDISTRIBUTED - CONSTRUCTION ACCESS					--	--	--	500	--	--	PER CONSTRUCTION ACCESS DETAIL
UNDISTRIBUTED					--	--	--	171	3	40	
PROJECT 1517-07-79 TOTAL					185	1,312	3,360	4,095	72	40	

ASPHALTIC FLUMES

ROADWAY	STATION	OFFSET	465.0315 ASPHALTIC FLUME SY
STAGE 1			
USH 10 EB	128EB+96	58' LT	3
STAGE 1 SUBTOTAL			3
STAGE 2B			
USH 10 EB	100EB+99	22' LT	4
	121EB+22	34' LT	6
TWS RAMP	109TWS+45	23' RT	5
	114TWS+55	20' RT	5
	115TWS+25	20' RT	6
	119TWS+00	23' RT	4
	121TWS+50	23' RT	5
	121TWS+61	23' RT	5
STAGE 2B SUBTOTAL			40
STAGE 5			
TWS RAMP	127TWS+12	21' RT	6
	127TWS+12	1-'LT	3
STAGE 5 SUBTOTAL			9
PROJECT 1517-07-79 TOTAL			52

RIPRAP

ROADWAY	STATION	STRUCTURE	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
STAGE 1					
USH 10 EB	138EB+16	191	130.3' LT	1.1	5
STAGE 1 SUBTOTALS				1.1	5
STAGE 2A					
USH 10 EB	119EB+91	168E	75' RT	1.9	7
	121EB+20	171E	58' RT	1.9	7
	122EB+99	174E	64' RT	1.9	7
	125EB+87	175E	54' RT	1.4	6
FEN RAMP	119FEN+63	309	46' LT	4.9	10
FES RAMP	122FES+00	350	55' LT	4.9	10
	124FES+50	360	51' LT	4.9	10
STAGE 2A SUBTOTALS				21.8	57
STAGE 2B					
USH 10 EB	131EB+55	180E	58' RT	1.4	6
USH 10 WB	114EB+56	161E	69' LT	4.9	14.6
STAGE 2B SUBTOTALS				6.3	21
UNDISTRIBUTED				7	19
PROJECT 1517-07-79 TOTAL				36	102

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CURB & GUTTER ITEMS

ROADWAY	STATION			OFFSET	601.0501 CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH LF	601.0511 CONCRETE CURB AND GUTTER INTEGRAL 6-INCH SLOPED 36-INCH LF	601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0557 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0105 CONCRETE CURB TYPE A LF
STAGE 2A									
USH EB 10/FEN RAMP	104EB+00	-	111FEN+75	RT	--	--	772	--	--
FEN RAMP	111FEN+75.00	-	117FEN+44.87	RT	--	553	--	--	--
	117FEN+44.87	-	118FEN+14.68	RT	--	--	--	69	--
FES RAMP	118FES+14.68	-	128FES+00.00	RT	--	--	--	967	--
FWS RAMP	112FWS+00.00	-	112FWS+29.55	RT	--	--	--	30	--
STAGE 2A SUBTOTAL					--	553	772	1,066	--
STAGE 2B									
USH EB 10	131EB+60	-	131EB+75	RT	--	--	--	--	16
	131EB+87	-	131EB+97	LT	--	--	--	--	11
TWS RAMP	111TWS+52	-	125TWS+50	RT	1,367	--	--	--	--
	124TWS+00	-	125TWS+50	LT	151	--	--	--	--
TWS RAMP TO USH 10 EB	109TWS+28	-	122EB+50	RT/LT	403	--	--	--	--
STAGE 2B SUBTOTAL					1,920	--	--	--	27
STAGE 4									
USH EB 10	122EB+50	-	124EB+28	LT	178	--	--	--	--
STAGE 4 SUBTOTAL					178	--	--	--	--
STAGE 5									
TWS RAMP	110TWS+25	-	111TWS+52	RT	118	--	--	--	--
	125TWS+50	-	127TWS+09	RT	159	--	--	--	--
	125TWS+50	-	127TWS+09	LT	159	--	--	--	--
STAGE 5 SUBTOTAL					435	--	--	--	--
PROJECT 1517-07-79 TOTAL					2,533	553	772	1,066	27

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CONCRETE BARRIER TEMPORARY PRECAST ITEMS

ROADWAY	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	SPV.0060.003 TEMPORARY THRIE BEAM CONNECTION LEFT IN PLACE EACH	SPV.0090.001 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE* LF	SPV.0090.006 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING** LF
STAGE 1					
USH 10 EB/STH 441 NB	--	275	--	--	--
STAGE 1 SUBTOTAL	--	275	--	--	--
STAGE 2A					
USH 10 EB/STH 441 NB	4,875	5,075	--	--	1,200
USH 10 WB/STH 441 SB	275	275	--	--	50
USH 41 SB TO USH 10 EB RAMP	300	300	--	--	50
USH 41 NB TO USH 10 EB RAMP	713	713	2	2	50
USH 41 NB	1,175	1,363	--	1,350	150
USH 41 SB	1,050	1,050	--	1,050	100
STAGE 2A SUBTOTAL	8,388	8,775	2	2,402	1,600
STAGE 2B					
USH 10 EB/STH 441 NB	625	2,650	--	--	100
USH 10 WB/STH 441 SB	350	350	--	350	221
USH 41 SB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 NB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 SB TO USH 10 WB RAMP	1,588	1,588	--	--	100
USH 41 NB	--	--	--	--	--
USH 41 SB	--	--	--	--	--
STAGE 2B SUBTOTAL	2,563	4,588	--	350	421
STAGE 3					
USH 10 EB/STH 441 NB	--	--	--	--	--
USH 10 WB/STH 441 SB	--	--	--	--	--
USH 41 NB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 NB	--	--	--	--	--
USH 41 SB	--	--	--	--	--
STAGE 3 SUBTOTAL	--	--	--	--	--
STAGE 4					
USH 10 EB/STH 441 NB	5,825	7,475	--	7,413	50
USH 41 NB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 NB	--	--	--	--	--
USH 41 SB	--	--	--	--	--
STAGE 4 SUBTOTAL	5,825	7,475	--	7,413	50
STAGE 5					
USH 10 EB/STH 441 NB	150	200	--	200	--
USH 10 WB/STH 441 SB	2,888	2,888	--	2,888	--
USH 41 NB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 NB	--	--	--	--	--
USH 41 SB	--	--	--	--	--
STAGE 5 SUBTOTAL	3,038	3,088	--	3,088	--

CONCRETE BARRIER TEMPORARY PRECAST ITEMS (CONTINUED)

ROADWAY	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	SPV.0060.003 TEMPORARY THRIE BEAM CONNECTION LEFT IN PLACE EACH	SPV.0090.001 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE* LF	SPV.0090.006 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING** LF
STAGE 6 (LEFT IN PLACE)					
USH 10 EB/STH 441 NB	--	--	--	--	--
USH 10 WB/STH 441 SB	--	--	--	--	--
USH 10 WB TO USH 41 NB RAMP	--	--	--	1,825	--
USH 41 NB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 SB TO USH 10 EB RAMP	--	--	--	--	--
USH 41 NB	--	--	--	713	--
USH 41 SB	--	--	--	--	--
STAGE 6 SUBTOTAL	--	--	--	2,538	--
UNDISTRIBUTED	991	1210	--	316	41
PROJECT 1517-07-79 TOTAL	20,805	25,411	2	16,107	2,112

* STAGE 6 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE IS ONLY FOR BARRIER MAINTAINED FROM PREVIOUS PROJECT

** 1,100 LF OF BARRIER PLACED IN STAGE 2A WILL BE ANCHORED, STA 104EB+00 TO 115EB+00

** 171 LF OF BARRIER PLACED IN STAGE 2B WILL BE ANCHORED, STA 103WB+50 TO 105WB+21

** 100 LF OF BARRIER PLACED IN STAGE 2B WILL BE ANCHORED, STA 124TWS+00 TO 125TWS+00

INLET REPAIR

ROADWAY	STATION	OFFSET	611.0610 INLET COVERS TYPE BW EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.001 SECURING STRUCTURE COVERS EACH
EB USH 10	137EB+94	55' LT	1	1	1
UNDISTRIBUTED	--	--	--	10	--
PROJECT 1517-07-79 TOTALS			1	11	1

SALVAGED ITEMS

ROADWAY	STATION	OFFSET	614.0920 SALVAGED RAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH	614.093 SALVAGED CRASH CUSHIONS EACH
STAGE 1					
EB USH 10	137EB+89 - 138EB+26	LT	38	--	--
	143EB+25	LT	--	--	1
FNE RAMP	1336FNE+19 - 1341FNE+24	LT	510	--	--
STAGE 1 SUBTOTAL			548	--	1
STAGE 2A					
USH 10 EB	135EB+68 - 139EB+08	LT	340	--	--
FEN/FES RAMP	116FEN+81 - 117FEN+72	LT	42	1	--
	126FES+13 - 131FES+07	RT	439	1	--
FNE RAMP	1328FNE+45 - 1332FNE+46	LT	415	1	--
	1329FNE+01 - 1332FNE+72	LT	394	1	--
STAGE 2A SUBTOTAL			1,629	4	--
STAGE 2B					
USH 10 EB	97EB+20 - 99EB+48	LT	220	1	--
USH 10 WB	103WB+65 - 104WB+15	LT	--	1	--
STAGE 2B SUBTOTAL			220	2	--
PROJECT 1517-07-79 TOTAL			2,397	6	1

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CRASH CUSHIONS TEMPORARY ITEMS

STATION	OFFSET	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0060.002 CRASH CUSHIONS TEMPORARY LEFT IN PLACE* EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
STAGE 2A									
101EB+35	20.5' RT	1	--	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY
1310FSE+52	10.8' RT	1	--	2	OM-3L (W05-58L)	TL-2	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY
129EB+57	57' LT	1	--	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY
132EB+21	70.9' LT	1	--	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY
1336FNE+26	11.4' RT	1	--	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY
1313NB+60	39' RT	--	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
1327NB+74	34' RT	--	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
1328NB+55	10' LT	--	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
1334SB+20	6.3' RT	--	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
1334SB+20	34' LT	--	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
STAGE 2A SUBTOTAL		5	5						
STAGE 2B									
102EB+87	3.5' LT	1	--	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY
23TCO+60	18' RT	--	1	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
1311FSE+65	3.5' RT	1	--	2	OM-3R (W05-58R)	TL-2	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY
STAGE 2B SUBTOTAL		2	1						
STAGE 4									
106EB+62.6	4' LT	1	--	2	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT	CONCRETE BARRIER TEMPORARY
STAGE 4 SUBTOTAL		1	--						
STAGE 6 (LEFT IN PLACE)									
140FWN+71	191.5' RT	--	1	2	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT	CONCRETE BARRIER TEMPORARY LEFT IN PLACE
STAGE 6 SUBTOTAL		--	1						
UNDISTRIBUTED		1	--						
PROJECT 1517-07-79 TOTAL		9	7						

* STAGE 6 CRASH CUSHIONS TEMPORARY LEFT IN PLACE IS ONLY FOR CRASH CUSHIONS MAINTAINED FROM PREVIOUS PROJECT

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BEAMGUARD

ROADWAY	NAME	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	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
STAGE 1									
WB USH 10	WB-01	86WB+83.75	18.0' RT	--	--	--	--	--	1
		86WB+83.75	18.0' RT	89WB+21.25	18.0' RT	238	--	--	--
		89WB+21.25	18.0' RT	89WB+74.38	18.0' RT	--	--	1	--
STAGE 2A SUBTOTALS						238	--	1	1
STAGE 2A									
EB USH 10	EB-02	86EB+40.61	53.71' RT	86EB+93.68	50.63' RT	--	--	1	--
		86EB+93.68	50.63' RT	88EB+81.14	46.82' RT	188	--	--	--
		88EB+81.14	46.82' RT	--	--	--	--	--	1
EB USH 10	EB-04	100EB+95.96	34.0' RT	101EB+35.36	34.0' RT	--	8	--	--
		101EB+35.36	34.0' RT	105EB+35.36	34.0' RT	400	--	--	--
		105EB+35.36	34.0' RT	--	--	--	--	--	1
FEN RAMP	FEN-01	117FEN+30.48	34.00' RT	117FEN+84.03	33.00' RT	--	--	1	--
		117FEN+84.03	33.00' RT	118FEN+21.43	35.70' RT	38	--	--	--
		118FEN+21.43	35.70' RT	--	--	--	--	--	1
FEN RAMP	FEN-02	117FEN+30.61	6.00' LT	117FEN+83.63	4.00' LT	--	--	1	--
		117FEN+83.63	4.00' LT	118FEN+21.13	4.00' LT	38	--	--	--
		118FEN+21.13	4.00' LT	--	--	--	--	--	1
STAGE 2A SUBTOTALS						663	8	3	4
STAGE 2B									
EB USH 10	EB-01	85EB+90.63	20.0' LT	86EB+43.75	18.0' LT	--	--	1	--
		86EB+43.75	18.0' LT	88EB+81.25	18.0' LT	238	--	--	--
		88EB+81.25	18.0' LT	--	--	--	--	--	1
WB USH 10	WB-02	95WB+82.83	18.0' RT	--	--	--	--	--	1
		95WB+82.83	18.0' RT	99WB32.83	18.0' RT	350	--	--	--
		99WB+32.83	18.0' RT	99WB+41.43	18.0' RT	--	8	--	--
EB USH 10	EB-03	92EB+87.16	20.0' LT	93EB+40.83	18.0' LT	--	--	1	--
		93EB+40.83	18.0' LT	99EB+2.79	18.0' LT	563	--	--	--
		99EB+2.79	18.0' LT	99EB+42.19	18.0' LT	--	39	--	--
EB USH 10	EB-05	100EB+96.24	18.0' LT	101EB+35.64	18.0' LT	--	39	--	--
		101EB+35.64	18.0' LT	105EB+35.64	18.0' LT	400	--	--	--
		105EB+35.64	18.0' LT	--	--	--	--	--	1
EB USH 10	EB-07	1309FSE+45.83	25.0' RT	1308FSE+91.68	23.0' RT	--	--	1	--
		1308FSE+91.68	23.0' RT	131EB+38.46	33.01' RT	238	--	--	--
		131EB+38.46	33.01' RT	131EB+77.76	32.15' RT	--	39	--	--
STAGE 2B SUBTOTALS						1,789	126	3	3
STAGE 4									
EB USH 10	EB-06	127EB+81.97	20.0' LT	128EB+35.09	18.0' LT	--	--	1	--
		128EB+35.09	18.0' LT	131EB+60.47	18.0' LT	325	--	--	--
		131EB+60.47	18.0' LT	131EB+99.89	18.0' LT	--	39	--	--
STAGE 4 SUBTOTALS						325	39	1	--
PROJECT 1517-07-79 TOTALS						3,015	174	8	8

FENCE SAFETY

ROADWAY	616.0700.S FENCE SAFETY LF
PROJECT 1517-07-79	5,000
PROJECT 1517-07-79 TOTALS	5,000

MAINTENANCE AND REPAIR OF HAUL ROADS (1517-07-79)

ROADWAY	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS 1517-07-79 EACH
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTAL	1

MOBILIZATION

ROADWAY	619.1000 MOBILIZATION EACH
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTAL	1

TRACKING PADS

ROADWAY	628.7560 TRACKING PADS EACH
UNDISTRIBUTED	18
PROJECT 1517-07-79 TOTAL	18

FINISHING MATERIALS

ROADWAY	STATION	OFFSET	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	SPV.0120.001 WATER FOR SEEDED AREAS MGAL
STAGE 1								
USH 41 NB	1324NB+10 - 1343NB+40	RT	--	--	0.5	23	23	--
USH 41 SB	1322SB+61 - 1336SB+75	LT	--	--	1.0	43	43	--
STAGE 1 SUBTOTAL			--	--	1.6	67	67	--
STAGE 2A								
EB USH 10	101EB+00 - 104EB+00	RT	149	149	0.2	9	9	3
	115EB+10 - 126EB+60	RT	4,597	3,730	4.3	182	182	103
FEN RAMP	104EB+00 - 111FEN+75	RT	2,158	1,467	1.4	58	58	48
	111FEN+75 - 120FEN+50	LT/RT	2,214	1,360	1.4	60	60	50
FES RAMP	118FES+15 - 136FES+00	LT/RT	17,617	15,764	11.1	476	476	396
FWS RAMP	112FWS+00 - 116FWS+00	LT/RT	238	238	0.2	6	6	5
STAGE 2A SUBTOTAL			26,973	22,708	18.5	791	791	605
STAGE 2B								
EB USH 10	82EB+51 - 89EB+45	LT	553	553	0.6	24	24	12
	85EB+30 - 89EB+45	RT	504	504	0.5	20	20	11
	91EB+51 - 99EB+40	LT	723	723	0.8	33	33	16
	101EB+00 - 109EB+70	LT	257	--	1.4	58	58	6
	109EB+15 - 118EB+75	LT	925	--	1.8	76	76	21
	118EB+56 - 123EB+36	LT	1,616	1,214	1.0	44	44	36
WB USH 10	86WB+18 - 91WB+11	RT	415	415	0.5	20	20	9
	94WB+58 - 99WB+40	RT	428	428	0.4	19	19	10
TWS RAMP	111TWS+50 - 125TWS+50	LT/RT	3,188	3,188	2.2	95	95	72
STAGE 2B SUBTOTAL			8,609	7,025	9.1	388	388	193
STAGE 4								
EB USH 10	123EB+30 - 132EB+32	LT	3,216	2,449	2.0	87	87	72
	142EB+45 - 146EB+54	LT	992	--	0.6	27	27	22
STAGE 4 SUBTOTAL			4,208	2,449	2.7	113.6	113.6	94
STAGE 5								
TWS RAMP	110TWS+97 - 111TWS+50	LT/RT	772	706	0.5	21	21	17
STAGE 5 SUBTOTAL			772	706	0.5	20.8	20.8	17
UNDISTRIBUTED			2,028	1,644	2	69	69	45
PROJECT 1517-07-79 TOTAL			42,590	34,532	34	1,449	1,449	954

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EROSION CONTROL

ROADWAY	START STATION	START OFFSET	END STATION	END OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH*	628.7560.S STONE OR ROCK DITCH CHECKS CY
STAGE 1													
EB USH 10	85EB+34	41.3' LT	97EB+93	40.3' LT	--	--	--	--	--	--	48	--	--
	102EB+99	43.4' LT	115EB+03	48.7' LT	--	--	--	--	--	--	40	--	--
	142EB+46	38.7' RT	142EB+63	2.1' LT	--	44	44	--	--	--	--	--	--
	146EB+15	23.3' RT	146EB+15	11.1' LT	--	34	34	--	--	--	--	--	--
WB USH 10	138WB+13	96.1' RT	138WB+35	62.6' RT	--	--	--	--	--	40	--	--	--
USH 41 NB	1327NB+38	68.7' RT	1330NB+50	75.6' RT	--	--	--	--	--	--	24	--	--
	1333NB+50	70.0' RT	1341NB+42	57.0' RT	--	--	--	--	--	--	40	--	--
USH 41 SB	1326SB+78	172.2' LT	1328SB+75	170.9' LT	--	--	--	--	--	--	16	--	--
	1327SB+00	55.0' LT	1329SB+00	43.3' LT	--	--	--	--	--	--	16	--	--
STAGE 1 SUBTOTAL					--	78	78	--	--	40	184	--	--
STAGE 2A													
EB USH 10	85EB+03	67.1' RT	89EB+73	62.0' RT	--	481	481	--	--	--	--	--	--
	101EB+00	50.7' RT	103EB+74	49.7' RT	--	274	274	--	--	--	--	--	--
	103EB+80	49.9' RT	111FEN+75	45.0' RT	--	--	--	--	--	691	--	--	--
	115EB+10	50.5' RT	124EB+85	61.3' RT	--	--	--	--	--	867	8	--	--
	124EB+13	63.8' RT	126EB+05	47.3' RT	--	--	--	--	--	--	8	--	--
	123EB+92	85.8' RT	125EB+26	64.7' RT	300	135	135	--	--	--	--	--	--
FEN RAMP	106FEN+00	50.8' RT	112FEN+05	44.1' RT	--	--	--	--	--	--	32	--	--
	111FEN+75	49' RT	118FEN+14	57' RT	--	--	--	--	--	687	--	--	--
	113FEN+25	13' LT	115FEN+03	35' LT	--	--	--	--	--	167	--	--	--
	115FEN+50	LT	120FEN+55	LT	--	631	631	--	--	--	--	--	--
	114FEN+23	LT	--	--	--	--	--	--	--	--	16	--	--
	114FEN+79	LT	--	--	--	--	--	--	--	--	16	--	--
	115FEN+50	RT	--	--	--	--	--	--	--	--	25	--	--
FES RAMP	118FES+15	45' RT	127FES+50	44' RT	--	--	--	--	--	1,114	--	--	--
	120FES+25	12' LT	123FES+15	80' LT	--	--	--	--	--	392	--	--	--
	130FES+25	51' LT	132FES+74	13' LT	--	--	--	--	--	346	--	--	--
	123FES+15	LT	130FES+24	LT	--	773	773	--	--	--	--	--	--
	127FES+53	RT	136FES+66	RT	325	941	941	--	--	--	--	--	--
	121FES+12	LT	--	--	--	--	--	--	--	--	20	--	--
	121FES+75	RT	--	--	--	--	--	--	--	--	18	--	--
	122FES+25	RT	--	--	--	--	--	--	--	--	18	--	--
	123FES+25	RT	--	--	--	--	--	--	--	--	18	--	--
	124FES+15	RT	--	--	--	--	--	--	--	--	18	--	--
	124FES+88	RT	--	--	--	--	--	--	--	--	18	--	--
	125FES+62	RT	--	--	--	--	--	--	--	--	17	--	--
	126FES+50	RT	--	--	--	--	--	--	--	--	17	--	--
	131FES+56	LT	--	--	--	--	--	--	--	--	22	--	--
FWS RAMP	110FWS+79	RT	113FWS+50	RT	--	311	311	--	--	--	--	--	--
	110FWS+79	LT	112FWS+22	LT	--	153	153	--	--	--	--	--	--
STAGE 2A SUBTOTAL					625	3,699	3,699	--	--	4,264	271	--	--

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EROSION CONTROL (CONTINUED)

ROADWAY	START STATION	START OFFSET	END STATION	END OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH*	628.7560.S STONE OR ROCK DITCH CHECKS CY
STAGE 2B													
EB USH 10	91EB+78	41.1' LT	--	--	--	--	--	--	--	--	--	2	--
	104EB+00	42.0' LT	106EB+93	35.3' LT	--	--	--	--	--	257	--	--	--
	104EB+95	36.5' LT	--	--	--	--	--	--	--	--	--	2	--
	109EB+25	65.3' LT	118EB+00	45.0' LT	--	--	--	--	--	932	24	--	--
	118EB+00	47.0' LT	--	--	--	--	--	--	--	--	--	1	--
	118EB+83	72.0' LT	123EB+35	49.9' LT	--	--	--	--	--	402	16	--	--
WB USH 10	114WB+16	20.1' LT	114WB+57	60.6' LT	--	--	--	--	--	70	--	--	--
TWS RAMP	111TWS+51	16.8' LT	111TWS+96	38.8' LT	--	--	--	--	--	60	--	--	--
	112TWS+04	28.8' LT	113TWS+50	26.8' LT	--	--	--	--	--	179	16	--	--
	111TWS+90	38.3' RT	125TWS+00	34.3' RT	--	--	--	--	--	1,392	48	--	--
STAGE 2B SUBTOTAL					--	--	--	--	--	3,292	104	5	--
STAGE 4													
EB USH 10	123EB+35	51.7' LT	132EB+00	47.2' LT	--	--	--	--	--	767	24	--	--
	142EB+45	31.9' LT	146EB+53	39.6' LT	--	--	--	--	--	992	--	--	--
	142EB+71	36.8' LT	--	--	--	--	--	--	--	--	--	2	--
STAGE 4 SUBTOTAL					--	--	--	--	--	1,759	24	2	--
STAGE 5													
TWS RAMP	110TWS+60	24.9' LT	111TWS+30	22.8' LT	--	--	--	--	--	66	--	--	--
STAGE 5 SUBTOTAL					--	--	--	--	--	66	--	--	--
UNDISTRIBUTED					63	378	378	5	10	942	58	12	15
PROJECT 1517-07-79 TOTAL					688	4,155	4,155	5	10	10,363	641	19	15

* SEE CONSTRUCTION DETAILS FOR ASSUMPTIONS RELATED TO QUANTITY

INLET PROTECTION

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
STAGE 1						
EB USH 10	88EB+86	41.1' LT	1	--	--	1
	107EB+85	41.3' LT	1	--	--	--
	115EB+85	50.8' LT	1	--	--	--
	119EB+88	57.0' LT	1	--	--	--
	127EB+87	57.6' LT	1	--	--	--
	127EB+89	49.1' LT	--	--	1	--
	127EB+89	68.0' LT	--	--	1	--
	137EB+97	55.0' LT	--	1	--	--
	138WB+06	131.4' RT	--	1	--	--
	142EB+34	40.2' RT	1	--	--	--
	142EB+45	80.8' RT	--	1	--	--
	142EB+54	80.6' RT	--	1	--	--
USH 41 MEDIAN	1330NB+00	21.3' LT	--	1	--	--
	1330NB+00	29.8' LT	1	--	--	--
	1330NB+00	40.6' LT	--	1	--	--
STAGE 1 SUBTOTAL			7	6	2	1
STAGE 2A						
FEN RAMP	108FEN+00	31.2' RT	1	1	--	--
	108FEN+00	46.6' RT	1	--	--	1
	110FEN+37	31.2' RT	1	1	--	--
	111FEN+73	31.2' RT	1	1	--	--
	112FEN+68	31.5' RT	1	1	--	--
	113FEN+66	31.4' RT	1	1	--	--
	114FEN+00	32.0' RT	1	1	--	--
	116FEN+74	32.0' RT	1	1	--	--
	118FEN+11	35.0' RT	1	1	--	--
FES RAMP	119FES+45	22.0' RT	1	--	--	1
	119FES+45	38.0' RT	1	--	--	--
	119FES+71	23.0' RT	1	--	--	1
	122FES+00	23.0' RT	1	1	--	--
	124FES+50	23.0' RT	1	1	--	--
STAGE 2A SUBTOTAL			14	10	--	3
STAGE 2B						
USH 10	106EB+99	36.3' LT	1	1	--	--
	108EB+00	39.8' LT	1	1	--	--
	108EB+49	32.5' LT	1	1	--	--
	109EB+25	23.2' LT	1	1	--	--
	113EB+81	44.3' LT	1	--	--	1
	118EB+46	15.3' LT	1	1	--	--
	118EB+88	17.2' LT	1	1	--	--
	118EB+90	26.9' LT	1	1	--	--
	123EB+00	17.4' LT	1	--	--	--
	123EB+00	50.4' LT	1	--	--	1
STAGE 2B SUBTOTAL			10	7	--	2

INLET PROTECTION (CONTINUED)

ROADWAY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
STAGE 3						
USH 10	142EB+71	16.3' LT	1	1	--	--
	143EB+06	14.5' LT	1	--	--	1
	143EB+96	19.4' LT	1	1	--	--
	144EB+04	19.5' LT	1	1	--	--
	145EB+10	22.0' LT	1	1	--	--
	145EB+20	23.1' LT	1	1	--	--
STAGE 3 SUBTOTAL			6	5	--	1
UNDISTRIBUTED			4	3	--	1
PROJECT 1517-07-79 TOTAL			41	31	2	8

TRAFFIC CONTROL DETOUR

ROADWAY	643.2000 TRAFFIC CONTROL DETOUR (1517-07-79) EACH
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTALS	1

TRAFFIC CONTROL ITEMS

ROADWAY	DURATION DAYS	613.0100 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (1517-07-79) DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 DAYS	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 DAYS	REMARKS
STAGE 1 CONSTRUCTION		--														
USH 10 EB/STH 441 NB	30	--	129	3,870	--	--	--	--	--	47	1,410	--	--	14	420	
USH 41 SB/USH 10 EB RAMP	30	--	--	--	--	--	--	--	--	--	--	--	--	1	30	
USH 41 NB	30	--	41	1,230	--	--	--	--	--	3	90	--	--	1	30	
USH 41 SB	30	--	30	900	--	--	--	--	--	3	90	--	--	--	--	
USH 10 WB/STH 441 SB	8	--	136	1,088	6	48	--	12	96	14	112	2	16	17	136	SINGLE LANE NIGHT CLOSURE ONLY. COVER R2-1 SIGNS FOR 1 CYCLE
USH 41 NB	25	--	56	1,400	2	50	--	4	100	17	425	2	50	14	350	SINGLE LANE NIGHT CLOSURE ONLY
USH 41 SB	25	--	45	1,125	2	50	--	4	100	17	425	2	50	14	350	SINGLE LANE NIGHT CLOSURE ONLY
STAGE 1 SUBTOTAL		30		9,613		148	--		296		2,552		116		1,316	
STAGE 2A CONSTRUCTION		--														
USH 10 EB/STH 441 NB	50	--	140	7,000	3	150	--	6	300	76	3,800	2	100	43	2,150	COVER HWY 41 SOUTH MILEAGE SIGN AND W13-2 SIGN FOR 1 CYCLE
USH 10 WB/STH 441 SB	50	--	--	--	--	--	--	--	--	--	--	--	--	2	100	
USH 41 SB/USH 10 EB RAMP	50	--	--	--	--	--	--	--	--	--	--	--	--	1	50	
NB USH 41 TO EB USH 10 RAMP	50	--	52	2,600	7	350	--	14	700	--	--	--	--	13	650	
USH 41 NB	50	--	41	2,050	--	--	--	--	--	6	300	--	--	26	1,300	
USH 41 SB	50	--	22	1,100	--	--	--	--	--	12	600	--	--	21	1,050	
USH 41 NB FULL CLOSURE	1	--	125	125	6	6	--	12	12	42	42	4	4	20	20	NB USH 41 FULL CLOSURE FOR SETTING GIRDERS
USH 41 SB FULL CLOSURE	1	--	125	125	6	6	--	12	12	42	42	4	4	20	20	SB USH 41 FULL CLOSURE FOR SETTING GIRDERS
US 41 NB&SB - LANE CLOSURES	30	--	45	1,350	2	60	--	4	120	17	510	2	60	14	420	NIGHTLY LANE CLOSURES FOR B-70-79 DEMOLITION
UNDISTRIBUTED - RAMP CLOSURES	6	--	25	150	4	24	--	8	48	--	--	--	--	8	48	
STAGE 2A SUBTOTAL		50		14,500		596	--		1,192		5,294		168		5,808	
STAGE 2B CONSTRUCTION		--														
USH 10 EB/STH 441 NB	346	--	195	67,470	7	2,422	--	14	4,844	58	20,068	2	692	45	15,570	
USH 10 WB/STH 441 SB	346	--	73	25,258	--	--	--	--	--	14	4,844	--	--	2	692	INSIDE LANE CLOSURE FOR MEDIAN CONSTRUCTION
USH 41 SB/USH 10 EB RAMP	346	--	8	2,768	1	346	--	2	692	--	--	--	--	6	2,076	
USH 41 SB/USH 10 WB RAMP	346	--	--	--		--	--	--	--	--	--	--	--	2	692	
NB USH 41 TO EB USH 10 RAMP	346	--	52	17,992	7	2,422	--	14	4,844	--	--	--	--	13	4,498	
RAMP TWS	346	--	14	4,844		--	--	--	--	14	4,844	--	--	--	--	
USH 41 NB	346	--	41	14,186	--	--	--	--	--	6	2,076	--	--	26	8,996	
USH 41 SB	346	--	22	7,612	--	--	--	--	--	12	4,152	--	--	21	7,266	
USH 10 EB/STH 441 NB	1	--	85	85	6	6	--	12	12	28	28	3	3	20	20	NIGHT CLOSURE FOR SIGN BRIDGE INSTALLATION
USH 10 WB/STH 441 SB	2	--	45	90	2	4	--	4	8	29	58	2	4	14	28	NIGHT CLOSURES FOR STORMSEWER INSTALL, STA 114WB+13
US 41 NB&SB - LANE CLOSURES	20	--	45	900	2	40	--	4	80	17	340	2	40	14	280	NIGHTLY LANE CLOSURES FOR STRIPPING FORMWORK B-70-400
UNDISTRIBUTED - RAMP CLOSURES	6	--	25	150	4	24	--	8	48	--	--	--	--	8	48	
STAGE 2B SUBTOTAL		346		141,355		5,264	--		10,528		36,410		739		40,166	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	613.0100 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (1517-07-79) DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 DAYS	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 DAYS	REMARKS
STAGE 3 CONSTRUCTION		--														
USH 10 EB/STH 441 NB	14	--	216	3,024	3	42	--	6	84	91	1,274	2	28	43	602	
USH 10 WB/STH 441 SB	14	--	--	--	--	--	--	--	--	--	--	--	--	2	28	
USH 41 SB/USH 10 EB RAMP	14	--	8	112	1	14	--	2	28	--	--	--	--	6	84	
USH 10 EB/USH 41 SB RAMP	14	--	18	252	3	42	--	6	84	--	--	--	--	2	28	
NB USH 41 TO EB USH 10 RAMP	14	--	70	980	6	84	--	12	168	8	112	--	--	9	126	
USH 41 NB	14	--	41	574	--	--	--	--	--	6	84	--	--	26	364	
USH 41 SB	14	--	22	308	--	--	--	--	--	12	168	--	--	21	294	
UNDISTRIBUTED - LANE CLOSURES	10	--	45	450	2	20	--	4	40	17	170	2	20	14	140	
UNDISTRIBUTED - RAMP CLOSURES	6	--	25	150	4	24	--	8	48	--	--	--	--	8	48	
STAGE 3 SUBTOTAL		14		5,850		226	--		452		1,808		48		1,714	
STAGE 4 CONSTRUCTION		--														
USH 10 EB/STH 441 NB	12	--	200	2,400	3	36	--	6	72	60	720	2	24	42	504	
USH 10 WB/STH 441 SB	12	--	--	--	--	--	--	--	--	--	--	--	--	2	24	
USH 41 SB/USH 10 EB RAMP	12	--	--	--	--	--	--	--	--	--	--	--	--	1	12	
USH 10 EB/USH 41 SB RAMP	12	--	18	216	4	48	--	8	96	--	--	--	--	3	36	
NB USH 41 TO EB USH 10 RAMP	12	--	70	840	6	72	--	12	144	8	96	--	--	7	84	
USH 41 NB	12	--	41	492	--	--	--	--	--	6	72	--	--	24	288	
USH 41 SB	12	--	22	264	--	--	--	--	--	12	144	--	--	19	228	
USH 41 SB/USH 10 EB RAMP - CLOSURES	3	--	25	75	4	12	--	8	24	--	--	--	--	8	24	
STAGE 4 SUBTOTAL		12		4,287	17	168	--	34	336	86	1,032	2	24	106	1,200	
STAGE 5 CONSTRUCTION		--														
USH 10 EB/STH 441 NB	4	--	110	440	--	--	--	--	--	47	188	2	8	34	136	
USH 10 WB/STH 441 SB	4	--	95	380	4	16	--	8	32	32	128	--	--	22	88	FREEWAY RAMP CLOSE-OPEN ITEM FOR TWS RAMP CLOSURE
USH 10 EB/USH 41 SB RAMP	4	--	16	64	4	16	--	8	32	--	--	--	--	3	12	
NB USH 41 TO EB USH 10 RAMP	4	--	70	280	6	24	--	12	48	8	32	--	--	7	28	
USH 41 NB	4	--	41	164	--	--	--	--	--	6	24	--	--	24	96	
USH 41 SB	4	--	22	88	--	--	--	--	--	12	48	--	--	19	76	
USH 10 WB/USH 41 SB RAMP - CLOSURES	1	--	25	25	4	4	--	8	8	--	--	--	--	8	8	
STAGE 5 SUBTOTAL		4		1,441	18	60	--	36	120	105	420	2	8	117	444	
STAGE 6 (LEFT IN PLACE)		--														
USH 10 EB/STH 441 NB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	--	--	--	--	--	--	6	--	--	--	--	--	--	--	--	
USH 41 NB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
STAGE 6 SUBTOTAL		--		--		--	11		--		--		--		--	
UNDISTRIBUTED		--		8,852		323	--		646		2,376		55		2,532	
PROJECT 1517-07-79 TOTAL		456	--	185,898	35	6,785	11	70	13,570	191	49,892	4	1,158	223	53,180	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I** EACH	643.0910 NUMBER OF CYCLES	643.0910 NUMBER OF SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II** EACH	643.0920 NUMBER OF CYCLES	643.0920 NUMBER OF SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS** EACH*	643.1050 DAYS	SPV.0045.001 PCMS REMOTE COMMUNICATIONS DAYS	SPV.0060.004 TRAFFIC CONTROL SIGNS LEFT IN PLACE EACH	SPV.0060.005 TRAFFIC CONTROL DRUMS LEFT IN PLACE EACH	REMARKS
STAGE 1 CONSTRUCTION													
USH 10 EB/STH 441 NB	30	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	30	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB	30	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	30	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	8	--	--	--	2	1	2	--	--	--	--	--	SINGLE LANE NIGHT CLOSURE ONLY. COVER R2-1 SIGNS FOR 1 CYCLE.
USH 41 NB	25	--	--	--	--	--	--	--	--	--	--	--	SINGLE LANE NIGHT CLOSURE ONLY
USH 41 SB	25	--	--	--	--	--	--	--	--	--	--	--	SINGLE LANE NIGHT CLOSURE ONLY
STAGE 1 SUBTOTAL		--			2				--	90	--	--	
STAGE 2A CONSTRUCTION													
USH 10 EB/STH 441 NB	50	1	1	1	1	1	1	3	171	--	--	--	COVER HWY 41 SOUTH MILEAGE SIGN AND W13-2 SIGN FOR 1 CYCLE
USH 10 WB/STH 441 SB	50	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	50	--	--	--	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	50	--	--	--	--	--	--	2	107	--	--	--	
USH 41 NB	50	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	50	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB FULL CLOSURE	1	--	--	--	--	--	--	3	3	--	--	--	NB USH 41 FULL CLOSURE FOR SETTING GIRDERS
USH 41 SB FULL CLOSURE	1	--	--	--	--	--	--	3	3	--	--	--	SB USH 41 FULL CLOSURE FOR SETTING GIRDERS
US 41 NB&SB - LANE CLOSURES	30	--	--	--	--	--	--	--	--	--	--	--	NIGHTLY LANE CLOSURES FOR B-70-79 DEMOLITION
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	--	--	--	--	--	--	--	--	
STAGE 2A SUBTOTAL		1			1				284	150	--	--	
STAGE 2B CONSTRUCTION													
USH 10 EB/STH 441 NB	346	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	346	--	--	--	--	--	--	--	--	--	--	--	INSIDE LANE CLOSURE FOR MEDIAN CONSTRUCTION
USH 41 SB/USH 10 EB RAMP	346	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 WB RAMP	346	--	--	--	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	346	--	--	--	--	--	--	1	346	--	--	--	
RAMP TWS	346	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB	346	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	346	--	--	--	--	--	--	--	--	--	--	--	
USH 10 EB/STH 441 NB	1	--	--	--	--	--	--	3	12	--	--	--	NIGHT CLOSURE FOR SIGN BRIDGE INSTALLATION
USH 10 WB/STH 441 SB	2	--	--	--	--	--	--	2	4	--	--	--	NIGHT CLOSURES FOR STORMSEWER INSTALL, STA 114WB+13
US 41 NB&SB - LANE CLOSURES	20	--	--	--	--	--	--	--	--	--	--	--	NIGHTLY LANE CLOSURES FOR STRIPPING FORMWORK B-70-400
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	--	--	--	--	--	--	--	--	
STAGE 2B SUBTOTAL		--			--				362	1,038	--	--	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I** EACH	643.0910 NUMBER OF CYCLES	643.0910 NUMBER OF SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II** EACH	643.0920 NUMBER OF CYCLES	643.0920 NUMBER OF SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS** EACH*	643.1050 DAYS	SPV.0045.001 PCMS REMOTE COMMUNICATIONS DAYS	SPV.0060.004 TRAFFIC CONTROL SIGNS LEFT IN PLACE EACH	SPV.0060.005 TRAFFIC CONTROL DRUMS LEFT IN PLACE EACH	REMARKS
STAGE 3 CONSTRUCTION													
USH 10 EB/STH 441 NB	14	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	14	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	14	--	--	--	--	--	--	--	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	14	--	--	--	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	14	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB	14	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	14	--	--	--	--	--	--	--	--	--	--	--	
UNDISTRIBUTED - LANE CLOSURES	10	--	--	--	--	--	--	--	--	--	--	--	
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	--	--	--	--	--	--	--	--	
STAGE 3 SUBTOTAL		--			--				--	42	--	--	
STAGE 4 CONSTRUCTION													
USH 10 EB/STH 441 NB	12	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	12	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	12	--	--	--	--	--	--	--	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	12	--	--	--	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	12	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB	12	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	12	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP - CLOSURES	3	--	--	--	--	--	--	--	--	--	--	--	
STAGE 4 SUBTOTAL		--			--			--	--	36	--	--	
STAGE 5 CONSTRUCTION													
USH 10 EB/STH 441 NB	4	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	4	--	--	--	--	--	--	1	4	--	--	--	FREEWAY RAMP CLOSE-OPEN ITEM FOR TWS RAMP CLOSURE
USH 10 EB/USH 41 SB RAMP	4	--	--	--	--	--	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	4	--	--	--	--	--	--	--	--	--	--	--	
USH 41 NB	4	--	--	--	--	--	--	--	--	--	--	--	
USH 41 SB	4	--	--	--	--	--	--	--	--	--	--	--	
USH 10 WB/USH 41 SB RAMP - CLOSURES	1	--	--	--	--	--	--	--	--	--	--	--	
STAGE 5 SUBTOTAL		--			--				4	12	--	--	
STAGE 6 (LEFT IN PLACE)													
USH 10 EB/STH 441 NB	--	--	--	--	--	--	--	--	--	--	34	105	
USH 10 WB/STH 441 SB	--	--	--	--	--	--	--	1	7	--	27	41	
USH 10 EB/USH 41 SB RAMP	--	--	--	--	--	--	--	--	--	--	3	16	
NB USH 41 TO EB USH 10 RAMP	--	--	--	--	--	--	--	--	--	--	7	70	
USH 41 NB	--	--	--	--	--	--	--	--	--	--	18	41	
USH 41 SB	--	--	--	--	--	--	--	--	--	--	14	22	
STAGE 6 SUBTOTAL		--			--				7	--	103	295	
UNDISTRIBUTED		5			25				900	--	5	15	
PROJECT 1517-07-79 TOTAL		6			28			--	1,557	1,368	108	310	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	SPV.0060.006 TRAFFIC CONTROL WARNING LIGHTS TYPE A LEFT IN PLACE EACH	SPV.0060.007 TRAFFIC CONTROL WARNING LIGHTS TYPE C LEFT IN PLACE EACH	SPV.0060.008 TRAFFIC CONTROL ARROW BOARDS LEFT IN PLACE EACH	SPV.0060.016 TRAFFIC CONTROL CLOSE-OPEN FREEWAY RAMP EACH	SPV.0060.017 REPOSITIONING TRAFFIC CONTROL DEVICES FOR MAINLINE CLOSURES EACH	643.1055.S TRUCK OR TRAILER MOUNTED ATTENUATOR DAYS	REMARKS
STAGE 1 CONSTRUCTION								
USH 10 EB/STH 441 NB	30	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	30	--	--	--	--	--	--	
USH 41 NB	30	--	--	--	--	--	--	
USH 41 SB	30	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	8	--	--	--	--	8	--	SINGLE LANE NIGHT CLOSURE ONLY. COVER R2-1 SIGNS FOR 1 CYCLE.
USH 41 NB	25	--	--	--	--	25	25	SINGLE LANE NIGHT CLOSURE ONLY
USH 41 SB	25	--	--	--	--	25	--	SINGLE LANE NIGHT CLOSURE ONLY
STAGE 1 SUBTOTAL		--	--	--	--	58	25	
STAGE 2A CONSTRUCTION								
USH 10 EB/STH 441 NB	50	--	--	--	--	--	--	COVER HWY 41 SOUTH MILEAGE SIGN AND W13-2 SIGN FOR 1 CYCLE
USH 10 WB/STH 441 SB	50	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	50	--	--	--	1	--	--	
NB USH 41 TO EB USH 10 RAMP	50	--	--	--	--	--	--	
USH 41 NB	50	--	--	--	--	--	--	
USH 41 SB	50	--	--	--	--	--	--	
USH 41 NB FULL CLOSURE	1	--	--	--	--	--	--	NB USH 41 FULL CLOSURE FOR SETTING GIRDERS
USH 41 SB FULL CLOSURE	1	--	--	--	--	--	--	SB USH 41 FULL CLOSURE FOR SETTING GIRDERS
US 41 NB&SB - LANE CLOSURES	30	--	--	--	--	30	--	NIGHTLY LANE CLOSURES FOR B-70-79 DEMOLITION
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	5	--	--	
STAGE 2A SUBTOTAL		--	--	--	6	30	--	
STAGE 2B CONSTRUCTION								
USH 10 EB/STH 441 NB	346	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	346	--	--	--	--	2	--	INSIDE LANE CLOSURE FOR MEDIAN CONSTRUCTION
USH 41 SB/USH 10 EB RAMP	346	--	--	--	1	--	--	
USH 41 SB/USH 10 WB RAMP	346	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	346	--	--	--	--	--	--	
RAMP TWS	346	--	--	--	--	--	--	
USH 41 NB	346	--	--	--	--	--	--	
USH 41 SB	346	--	--	--	--	--	--	
USH 10 EB/STH 441 NB	1	--	--	--	--	--	--	NIGHT CLOSURE FOR SIGN BRIDGE INSTALLATION
USH 10 WB/STH 441 SB	2	--	--	--	--	--	--	NIGHT CLOSURES FOR STORMSEWER INSTALL, STA 114WB+13
US 41 NB&SB - LANE CLOSURES	20	--	--	--	--	20	--	NIGHTLY LANE CLOSURES FOR STRIPPING FORMWORK B-70-400
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	5	--	--	
STAGE 2B SUBTOTAL		--	--	--	6	22	--	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	SPV.0060.006 TRAFFIC CONTROL WARNING LIGHTS TYPE A LEFT IN PLACE EACH	SPV.0060.007 TRAFFIC CONTROL WARNING LIGHTS TYPE C LEFT IN PLACE EACH	SPV.0060.008 TRAFFIC CONTROL ARROW BOARDS LEFT IN PLACE EACH	SPV.0060.016 TRAFFIC CONTROL CLOSE-OPEN FREEWAY RAMP EACH	SPV.0060.017 REPOSITIONING TRAFFIC CONTROL DEVICES FOR MAINLINE CLOSURES EACH	643.1055.S TRUCK OR TRAILER MOUNTED ATTENUATOR DAYS	REMARKS
STAGE 3 CONSTRUCTION								
USH 10 EB/STH 441 NB	14	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	14	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	14	--	--	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	14	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	14	--	--	--	1	--	--	
USH 41 NB	14	--	--	--	--	--	--	
USH 41 SB	14	--	--	--	--	--	--	
UNDISTRIBUTED - LANE CLOSURES	10	--	--	--	--	10	--	
UNDISTRIBUTED - RAMP CLOSURES	6	--	--	--	5	--	--	
STAGE 3 SUBTOTAL		--	--	--	6	10	--	
STAGE 4 CONSTRUCTION								
USH 10 EB/STH 441 NB	12	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	12	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP	12	--	--	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	12	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	12	--	--	--	--	--	--	
USH 41 NB	12	--	--	--	--	--	--	
USH 41 SB	12	--	--	--	--	--	--	
USH 41 SB/USH 10 EB RAMP - CLOSURES	3	--	--	--	3	--	--	
STAGE 4 SUBTOTAL		--	--	--	3	--	--	
STAGE 5 CONSTRUCTION								
USH 10 EB/STH 441 NB	4	--	--	--	--	--	--	
USH 10 WB/STH 441 SB	4	--	--	--	--	--	--	FREEWAY RAMP CLOSE-OPEN ITEM FOR TWS RAMP CLOSURE
USH 10 EB/USH 41 SB RAMP	4	--	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	4	--	--	--	--	--	--	
USH 41 NB	4	--	--	--	--	--	--	
USH 41 SB	4	--	--	--	--	--	--	
USH 10 WB/USH 41 SB RAMP - CLOSURES	1	--	--	--	1	--	--	
STAGE 5 SUBTOTAL		--	--	--	1	--	--	
STAGE 6 (LEFT IN PLACE)								
USH 10 EB/STH 441 NB	--	--	42	2	--	--	--	
USH 10 WB/STH 441 SB	--	2	31	--	--	--	--	
USH 10 EB/USH 41 SB RAMP	--	8	--	--	--	--	--	
NB USH 41 TO EB USH 10 RAMP	--	12	8	--	--	--	--	
USH 41 NB	--	--	6	--	--	--	--	
USH 41 SB	--	--	12	--	--	--	--	
STAGE 6 SUBTOTAL		22	99	2	--	--	--	
UNDISTRIBUTED		1	5	--	--	--	--	
PROJECT 1517-07-79 TOTAL		23	99	2	22	120	25	

* PROVIDED FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES FOUND ELSEWHERE

TRAFFIC CONTROL DETOUR SIGN SUMMARY - EB USH 10 TO SB USH 41 RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 50 DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS* DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS* DAYS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE S.F.	643.0910 TRAFFIC CONTROL COVERING SIGNS NO OF CYCLES	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I* EACH	643.0910 TRAFFIC CONTROL COVERING SIGNS NO OF CYCLES	643.0920 TYPE II* EACH	REMARKS
1	300' W TYPE 1 SIS SIGN (BLUE -FOOD NEXT RIGHT) ON HWY 10 (EB)	FMS	9'-0"x4'-0"	1				36.00					SEE SIGN DETAIL
2	ACROSS FROM SIGN # 2 ON HWY 10 (EB)	FMS	9'-0"x4'-0"	1				36.00					SEE SIGN DETAIL
3	LT OF TYPE 1 (CB-NORTH-SOUTH; EXIT 1/2 MILE) ON HWY 10 (EB)	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	WO 20-2A	48"x48"	1	50	50							
4	ACROSS FROM SIGN # 3 (MEDIAN SIDE) ON HWY 10 (EB)	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	WO 20-2A	48"x48"	1	50	50							
5	300' W OF TYPE 1 (OUTAGAMIE COUNTY AIRPORT - EXIT 286) ON HWY 10 (EB)	MO 4-5	36"x18"	1	50	50							
	"	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	MO 5-2-R	30"x30"	1	50	50							
6	ACROSS FROM SIGN # 5 (MEDIAN SIDE) ON HWY 10 (EB)	MO 4-5	36"x18"	1	50	50							
	"	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	MO 5-2-R	30"x30"	1	50	50							
7	300' W OF SIS (BLUE-GAS-NEXT RIGHT) ON HWY 10 (EB)	MO 4-5	36"x18"	1	50	50							
	"	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	MO 5-2-R	30"x30"	1	50	50							
8	ACROSS FROM SIGN # 7 (MEDIAN SIDE) ON HWY 10 (EB)	MO 4-5	36"x18"	1	50	50							
	"	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	MO 5-2-R	30"x30"	1	50	50							
9	LT OF TYPE 1 (CB-NORTH-SOUTH TILT RT) ON HWY 10 (EB)	MO 4-5	36"x18"	1	50	50							
	"	M 3-3	36"x18"	1	50	50							
	"	M1-4	36"x36"	1	50	50							41
	"	MO 6-2	30"x30"	1	50	50							RIGHT
10	TYPE 1 (41-SOUTH; OSHKOSH; EXIT 1/2 MILE) ON HWY 10 (EB)	R-55-58-A	108"x18"	1	50	50							OVER -EXIT 1/2 MILE
11	TYPE 1 (41-SOUTH; OSHKOSH; TILT RT) ON HWY 10 (EB)	R-55-58-A	108"x18"	1	50	50							BELOW - OSHKOSH
12	TYPE 1 (41-SOUTH; OSHKOSH; TILT RT) ON HWY 10 (EB)								1	1			TILT RIGHT ARROW
13	E5-1-A (EXIT 287 TILT RT) ON HWY 10 (EB)										1	1	EXIT 287 TILT RT
14	J2-1 (TO-41-AH LT) ON EXIT RAMP TO CTY CB FROM HWY 10 (EB)										1	1	TO 41 AHEAD RIGHT
15	ACROSS FROM SIGN # 14 (RIGHT SIDE)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 5-1-L	21"x21"	1	50	50							
16	100' E OF J3-2 (N-CB-LT; S-CB-RT) ON EXIT RAMP TO CTY CB FROM HWY 10 (EB)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							RIGHT

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY - EB USH 10 TO SB USH 41 RAMP CLOSURE (CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 50 DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS* DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS* DAYS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE S.F.	NO OF CYCLES	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I* EACH	NO OF CYCLES	643.0920 TYPE II* EACH	REMARKS
17	100' N OF J4-1 (SOUTH CB) ON CTY CB (SB)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							AHEAD
18	150' S OF JACOBSON RD INTERSECTION ON CTY CB (SB)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							AHEAD
19	150' S OF CONSTITUTION DR INTERSECTION ON CTY CB (SB)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							AHEAD
20	200' N OF W3-3 (SIGNAL AHEAD-SYMBOL) ON CTY CB (SB) @ CTY II	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 5-1-L	21"x21"	1	50	50							
21	200' N OF J1-1 (JCT II) ON CTY CB (SB) (MEDIAN SIDE)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 5-1-L	21"x21"	1	50	50							
22	200' N OF TRAFFIC SIGNAL ON CTY CB (SB) (MEDIAN SIDE) @ CTY II	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							LEFT
23	200' E OF CTY CB INTERSECTION ON CTY II (EB)	MO 4-5	24"x12"	1	50	50							
	"	M 3-3	24"x12"	1	50	50							
	"	M1-4	24"x24"	1	50	50							41
	"	MO 6-1	21"x21"	1	50	50							AHEAD
24	FIELD DETERMINED - RAMP FROM HWY 10 (EB) TO HWY 41 (SB)	PCMS		1		50	7						PRIOR TO CLOSING
	PROJECT 1517-07-79 TOTAL			*67*		*3,250*	*7*	*72.00*	*1*	*1*	*2*	*2*	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY - WB USH 10 TO SB USH 41 RAMP CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 3 DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS* DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS* DAYS	REMARKS
60	FIELD DETERMINED-WEST OF ENTRANCE RAMP FROM CTY P ON HWY 10 (WB)	PCMS		1			3	
61	LT OF E5-1-B (EXIT 287B-TILT RT) ON HWY 10 (WB)	MO 4-5	24"x12"	1	3	3		
	"	M 3-3	24"x12"	1	3	3		
	"	M 1-4	24"x24"	1	3	3		41
	"	MO 6-1	21"x21"	1	3	3		AHEAD
62	FIELD DETERMINED-EAST OF ENTRANCE RAMP FROM HWY 41 (SB) ON HWY 10 (WB)	PCMS		1			5	
63	RT OF SIS (FOOD) ON HWY 10 (WB) EXIT RAMP TO CTY CB	MO 4-5	24"x12"	1	3	3		
	"	M 3-3	24"x12"	1	3	3		
	"	M 1-4	24"x24"	1	3	3		41
	"	MO 5-1-L	21"x21"	1	3	3		
64	BACKSIDE OF R1-1 (DO NOT ENTER) SIGN ON HWY 10 (WB) EXIT RAMP TO CTY CB	MO 4-5	24"x12"	1	3	3		
	"	M 3-3	24"x12"	1	3	3		
	"	M 1-4	24"x24"	1	3	3		41
	"	MO 6-1	21"x21"	1	3	3		LEFT
65	ACROSS FROM D1-2 (LT-MENASHA/MANITOWOC) ON CTY CB (SB - MEDIAN SIDE)	MO 4-5	24"x12"	1	3	3		
	"	M 3-3	24"x12"	1	3	3		
	"	M 1-4	24"x24"	1	3	3		41
	"	MO 5-1-L	21"x21"	1	3	3		
66	LT OF J3-1 (E-10-LT) ON CTY CB (SB-MEDIAN)	MO 4-5	24"x12"	1	3	3		
	"	M 3-3	24"x12"	1	3	3		
	"	M 1-4	24"x24"	1	3	3		41
	"	MO 6-1	21"x21"	1	3	3		LEFT
	PROJECT 1517-07-79 TOTAL			*22*		*60*	*8*	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

TRAFFIC CONTROL DETOUR SIGN SUMMARY - USH 41 NB & SB MAINLINE CLOSURE

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 4 DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS* DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS* DAYS	REMARKS
1	FIELD DETERMINED (HWY 41 (NB) IMMEDIATELY AFTER CTY II ON-RAMP)	PCMS		1			4	
2	FIELD DETERMINED (HWY 41 (NB) @ JACOBSEN RD OVERPASS)	PCMS		1			4	
3	FIELD DETERMINED (HWY 10 (WB) BETWEEN HWY 41 ON-RAMP & COLD SPRINGS)	PCMS		1			8	
4	FIELD DETERMINED (HWY 41 (SB) IMMEDIATELY PRIOR TO HWY 10 EXIT)	PCMS		1			8	
5	PLACE DIRECTLY BETWEEN SIS BLUE RAMPS SIGNS ON LEFT SIDE OF RDWY	MO 4-8	24"x12"	1	4	8		
	"	M 3-3	24"x12"	1	4	8		SOUTH
	"	M 1-4	24"x24"	1	4	8		41
	"	MO 5-1-L	21"x21"	1	4	8		
6	LT OF NEAR LEFT SIGNAL AT END OF RAMP	MO 4-8	24"x12"	1	4	8		
	"	M 3-3	24"x12"	1	4	8		SOUTH
	"	M 1-4	24"x24"	1	4	8		41
	"	MO 6-1	21"x21"	1	4	8		LEFT
7	PLACE DIRECTLY IN FRONT OF FIRST PIER COLUMN FOR WHY 10 WB	MO 4-8	24"x12"	1	4	8		
	"	M 3-3	24"x12"	1	4	8		SOUTH
	"	M 1-4	24"x24"	1	4	8		41
	"	MO 5-1-L	21"x21"	1	4	8		LEFT
8	PLACE LT OF J3-2 (EB US 10; LA) IN MEDIAN	MO 4-8	24"x12"	1	4	8		
	"	M 3-3	24"x12"	1	4	8		SOUTH
	"	M 1-4	24"x24"	1	4	8		41
	"	MO 6-1	21"x21"	1	4	8		LEFT
9	PLACE 300' PRIOR TO HWY 41 SB EXIT RAMP	MO 4-8A	30"x24"	1	4	8		
	"	M 3-3	24"x18"	1	4	8		SOUTH
	"	M 1-4	24"x24"	1	4	8		41
10	MOUNT OVER RIGHT TURN PLAQUE ON J3-2	MO 6-1	21"x21"	1			8	
11	200' W OF STH 47 INTERSECTION ON CTY AP (EB)	MO 4-8	24"x12"	1			4	
	PROJECT 1517-07-79 TOTAL			*25*		*152*	*36*	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

FILE NAME: I:\56537\1517-75-75\t1\cds\030201_mq.ppt PLOT DATE : 4/30/2015 9:13:06 AM PLOT BY : HNTB Corp. PLOT NAME : PLOT SCALE : 1:1

TEMPORARY PAVEMENT MARKINGS AND PAVEMENT MARKING REMOVALS

			646.0106* PAVEMENT MARKING EPOXY 4-INCH			646.0126 PAVEMENT MARKING EPOXY 8-INCH		649.0100 TEMPORARY PAVEMENT MARKING 4-INCH		649.0701 TEMPORARY PAVEMENT MARKING 8-INCH		649.2100 TEMPORARY RAISED PAVEMENT MARKERS	SPV.0090.007 REMOVING PAVEMENT MARKING WATER BLASTING
			YELLOW	WHITE	12.5' LINE, 37.5' SKIP	SOLID WHITE	3' LINE 9' SKIP	YELLOW	WHITE	SOLID WHITE	3' LINE 9' SKIP		
CATEGORY	STAGE	ROADWAY	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	LF
1000	1	USH 10 EB	--	--	--	--	--	1,772	1,617	338	97	25	3,976
STAGE 1 SUBTOTAL					--		--		3,389		435	25	3,976
1000	2A	USH 10 EB	3,067	7,372	--	753	125	--	--	--	--	116	6,846
		RAMP FNE	2,712	4,029	--	1,650	--	--	--	--	--	--	--
		USH 41 NB	1,759	5,675	--	--	--	--	--	--	--	79	6,264
		USH 41 SB	2,128	6,786	--	--	--	--	--	--	--	134	5,420
STAGE 2A SUBTOTAL					33,528		2,528		--		--	329	18,530
1000	2B	USH 10 EB	2,986	5,100	--	1,110	185	--	--	--	--	31	3,458
		USH 10 WB	3,160	--	--	--	--	--	--	--	--	--	790
		RAMP FSE	331	733	--	187	--	--	--	--	--	--	600
STAGE 2B SUBTOTAL					12,310		1,482		--		--	31	4,848
1000	3	USH 10 EB	1,504	2,547	168	239	62	--	--	--	--	--	1,684
		USH 10 WB	--	--	790	--	--	--	--	--	--	--	3,160
STAGE 3 SUBTOTAL					5,009		301		--		--	--	4,844
1000	4	USH 10 EB	8,015	5,200	488	392	214	--	--	--	--	121	5,213
		RAMP FSE	--	2,967	--	155	--	--	--	--	--	--	--
STAGE 4 SUBTOTAL					16,670		761		--		--	121	5,213
1000	5	USH 10 EB	--	6,580	1,698	1,061	260	--	--	--	--	93	1,898
		USH 10 WB	7,779	1,550	--	--	--	--	--	--	--	--	--
STAGE 5 SUBTOTAL					17,607		1,321		--		--	93	1,898
1000	6	USH 10 EB	--	--	--	471	--	--	--	--	--	--	--
		RAMP TWS	1,752	2,236	--	--	--	--	--	--	--	--	--
STAGE 6 SUBTOTAL					3,988		471		--		--	--	--
UNDISTRIBUTED					4456		343		169		22	30	1965
PROJECT 1517-07-79 TOTAL					93,568		7,207		3,558		457	629	41,273

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

FINAL PAVEMENT MARKING

ROADWAY	646.0106* PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH WHITE LF
FEN RAMP	2,436	3,236	168
EB	1,249	397	--
WB	986	50	--
PROJECT 1517-07-79 TOTAL	8,354		168

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

SAWING ASPHALT

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0150 SAWING ASPHALT LF
STAGE 2A						
	USH 10 EB	115EB+89	LT	117EB+90	LT	202
		135EB+74	LT	139EB+11	LT	337
	FNW RAMP	1324FNW+50	LT	--	--	25
	FWS RAMP	110FWS+84	LT/RT	--	--	10
STAGE 2A SUBTOTAL						574
STAGE 2B						
	USH 10 WB	113WB+87	LT	--	--	9
		113WB+87	RT	--	--	3
		114WB+32	LT	--	--	9
		114WB+32	RT	--	--	3
STAGE 2B SUBTOTAL						24
STAGE 5						
	USH 10 WB	117WB+46	RT	--	--	35
		118WB+66	RT	--	--	34
	TWS RAMP	125TWS+49	RT	--	--	5
		127TWS+15	LT	--	--	5
STAGE 5 SUBTOTAL						79
UNDISTRIBUTED						70
PROJECT 1517-07-79 TOTAL						747

SAWING CONCRETE

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0250 SAWING CONCRETE LF	REMARKS
STAGE 1							
	USH 10 EB	132EB+16	LT	137EB+88	LT	198	
		137EB+75	LT	--	--	33	EXISTING WB PAVEMENT
		137EB+75	LT	138EB+21	LT	46	LONGITUDINAL CUT AT CROWN LINE
		138EB+21	LT	--	--	33	EXISTING WB PAVEMENT
		142EB+52	LT	143EB+32	LT	78	
	USH 41	1329NB+00	LT	--	--	7	EXISTING CONCRETE BARRIER
		1334NB+00	LT	0	0	7	EXISTING CONCRETE BARRIER
STAGE 1 SUBTOTAL						402	
STAGE 2A							
	USH 10 EB	104EB+00	RT	115EB+89	LT	1,225	
		143EB+90	LT	--	--	17	
	FWS RAMP	110FWS+84	RT	110FWS+84	LT	37	
STAGE 2A SUBTOTAL						1,279	
STAGE 2B							
	USH 10 WB	113WB+87	RT	--	--	24	
		114WB+32	RT	--	--	24	
		113WB+87	RT	114WB+32	LT	44	LONGITUDINAL CUT AT CROWN LINE
	USH 10 EB	130EB+62	LT	132EB+03	LT	141	
STAGE 2B SUBTOTAL						233	
STAGE 5							
	TWS RAMP	125TWS+57	RT	--	--	15	
		127TWS+15	RT	--	--	15	
STAGE 5 SUBTOTAL						30	
UNDISTRIBUTED						100	
PROJECT 1517-07-79 TOTAL						2,044	

MAINTAIN TRAFFIC CONTROL SIGNS LEFT IN PLACE

ROADWAY	STATION	OFFSET	SPV.0060.009 MAINTAIN TRAFFIC CONTROL SIGNS LEFT IN PLACE EACH	SIGN TYPE
STAGE 1				
USH 10 EB	142EB+38	38.9' LT	1	W4-3R
USH 41 NB	1340NB+00	45.0' RT	1	W4-1
RAMP FNE	1321FNE+76	30.0' LT	1	W13-3
	1334FNE+10	69.8' LT	1	W4-6
PROJECT 1517-07-79 TOTAL			4	

FILE NAME: I:\56537\1517-75-75\t1\cds\030201_mq.ppt PLOT DATE : 4/30/2015 9:13:06 AM PLOT BY : HNTB Corp. PLOT NAME : PLOT SCALE : 1:1

MAINTAIN TRAFFIC CONTROL ITEMS

ROADWAY	FROM STATION		TO STATION		SPV.0060.010 MAINTAIN TRAFFIC CONTROL DRUMS LEFT IN PLACE EACH	SPV.0060.011 MAINTAIN TRAFFIC CONTROL WARNING LIGHTS TYPE C LEFT IN PLACE EACH
STAGE 1						
USH 10 EB	131EB+31	19.5' LT	138EB+26	24.0' LT	8	--
	104WB+00	13.6' RT	105WB+99	18.5' RT	9	9
PROJECT 1517-07-79 TOTAL					17	9

CONCRETE PAVEMENT JOINT LAYOUT

ROADWAY	SPV.0105.002 CONCRETE PAVEMENT JOINT LAYOUT LS
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTAL	1

MAINTENANCE AND REMOVAL OF CRASH CUSHIONS TEMPORARY

ROADWAY	STATION	OFFSET	SPV.0060.012 MAINTENANCE AND REMOVAL OF CRASH CUSHIONS TEMPORARY LEFT IN PLACE BY OTHERS EACH
STAGE 1			
USH 41 NB	1306NB+88	34.9' RT	1
RAMP FNE	1327FNE+67	94' LT	1
RAMP FWN	140FWN+71	191.5' RT	1
PROJECT 1517-07-79 TOTAL			3

MAINTAIN CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

ROADWAY	FROM STATION	FROM OFFSET		TO STATION	TO OFFSET	SPV.0090.002 MAINTAIN CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
STAGE 1						LF
RAMP FWN	1336NB+46	366' RT	-	1344NB+26	27.3' RT	925
	1336NB+67	378' RT	-	1344NB+35	47.2' RT	900
RAMP FNE	1307NB+00	39' RT	-	1328FNE+30	61.0' LT	2,163
	1327FNE+74	89.0' LT	-	1329FNE+97	81.0' LT	238
PROJECT 1517-07-79 TOTAL						4,225

STREET SWEEPING

LOCATION	SPV.0075.001 STREET SWEEPING HOURS
UNDISTRIBUTED	300
PROJECT 1517-07-79 TOTAL	300

SURVEY PROJECT

ROADWAY	SPV.0105.001 SURVEY PROJECT 1517-07-79 LS
PROJECT 1517-07-79	1
PROJECT 1517-07-79 TOTAL	1

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CONCRETE CURB & GUTTER & BARRIER COVERING

ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	SPV.0090.003 CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC, 1-LAYER LF	SPV.0090.004 CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC, 2-LAYER LF	SPV.0090.005 CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC/HAY/PLASTIC OR BLANKETS LF
STAGE 3							
USH 10 EB/STH 441 NB	142EB+63	18' LT	146EB+54	25' LT	131	131	131
STAGE 3 SUBTOTAL					131	131	131
STAGE 4							
USH EB 10	122EB+50	-	124EB+28	LT	59	59	59
STAGE 4 SUBTOTAL					59	59	59
STAGE 5							
TWS RAMP	110TWS+25	-	111TWS+52	RT	39	39	39
	125TWS+50	-	127TWS+09	RT	53	53	53
	125TWS+50	-	127TWS+09	LT	53	53	53
STAGE 5 SUBTOTAL					145	145	145
PROJECT 1517-07-79 TOTAL					335	335	335

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ERECTION & REVISING OF PERMANENT SIGNING, TYPE I
ERECTING STRUCTURAL STEEL SIGN SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	637.1220 SIGNS TYPE I REFLECTIVE SH W X H	637.1220 S.F.	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	638.3210 REVISING SIGNS TYPE I EACH	TYPE/STEEL OF STEEL	INFO ONLY - POST LENGTH TO BE VERIFIED BY CONTRACTOR: POST NO. 1 LENGTH FT	POST NO. 2 LENGTH FT	OFFSET DISTANCE FT	DISTANCE BETWEEN POSTS (S) FT	REMARKS
1	USH 10, W. OF COLD SPRING ROAD	SP	168 X 120	140.00	959	1.6	98	---	2-TYPE B	21.5	20.1	17.5	9.0	USH 41 FOLLOW I-41, SEE SIGN DETAIL SHEET
2	USH 10, AT I-41 SB RAMP	M1-51	---	---	---	---	---	1	---	---	---	---	---	REVISE GROUND MOUNT TYPE I SIGN AS SHOWN WITH NEW M1-51 SHIELD
PROJECT TOTALS				**140.00**	**959**	**1.6**	**98**	**1**						

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

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PULL BOXES

WIS 441 Lighting - Contract 1517-07-79

CATEGORY	DESCRIPTION	STATION	OFFSET		653.0140 PULL BOXES STEEL 24X42-INCH
					EACH
1100	LPB01	STA 103+87	36.00	RT	1
	LPB02	STA 103+87	20.00	LT	1
	LPB03	STA 113+00	40.00	RT	1
	LPB04	STA 113+00	14.00	LT	1
	LPB05	STA 113+00	33.00	LT	1
	LPB06	STA 119+75	30.00	RT	1
	LPB07	STA 119+75	10.00	LT	1
	LPB08	STA 119+75	10.00	LT	1
	LPB09	STA 131+28	30.00	RT	1
	LPB10	STA 131+20	152.00	RT	1
	LPB11	STA 131+30	152.00	RT	1
	LPB12	STA 133+50	29.00	RT	1
	LPB13	STA 133+50	20.00	LT	1
	LPB14	STA 115+50	12.00	RT	1
	LPB15	STA 112+00	57.00	LT	1
	LPB16	STA 112+00	13.00	RT	1
	LPB17	STA 131+92	22.00	LT	1
	LPB18	STA 142+83	25.00	LT	1
PROJECT TOTAL					**18**

POLES, ARMS, & LUMINAIRES

WIS 441 Lighting - Contract 1517-07-79

CATEGORY	LOCATION	STATION	654.0107 CONCRETE BASES TYPE 7	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0337 POLES TYPE 17-ALUMINUM	657.0730 LUMINAIRE ARMS TRUSS TYPE 6-INCH CLAMP 12-FT	659.1125 Luminaires Utility LED C	659.0802 PLAQUES SEQUENCE IDENTIFICATION	SPV.0060.350 ANCHOR BOLT COVER SHROUD	SPV.0060.351 CONCRETE BASES TYPE 7 ON STEEP SLOPES
			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
1100	SL201	STA 104+00	1	1	1	1	1	1	-	-
	SL202	STA 106+75	1	1	1	1	1	1	-	-
	SL203	STA 109+50	1	1	1	1	1	1	-	-
	SL204	STA 112+30	1	1	1	1	1	1	-	-
	SL205	STA 115+13	1	1	1	1	1	1	-	-
	SL206	STA 117+80	1	1	1	1	1	1	-	-
	SL207	STA 120+37	-	1	1	1	1	1	-	1
	SL208	STA 123+36	-	1	1	1	1	1	-	1
	SL209	STA 126+17	-	1	1	1	1	1	-	1
	SL210	STA 128+96	-	1	1	1	1	1	-	1
	SL211	STA 131+70	1	1	1	1	1	1	-	-
	SL212	STA 134+33	1	1	1	1	1	1	-	-
	SL213	STA 113+50	1	1	1	1	1	1	-	-
	SLB09	STA 129+89	1	-	-	-	-	-	1	-
B-70-400	SLB10	STA 132+90	BRIDGE PARAPE	-	-	-	-	-	1	-
SEE STRUCTURAL	SLB11	STA 135+40	BRIDGE PARAPE	-	-	-	-	-	1	-
PLANS	SLB12	STA 137+90	BRIDGE PARAPE	-	-	-	-	-	1	-
AND QUANTITIES	SLB13	STA 139+74	BRIDGE PARAPE	-	-	-	-	-	1	-
	SLB14	STA 141+74	BRIDGE PARAPE	-	-	-	-	-	1	-
	SLB15	STA 143+74	1	-	-	-	-	-	1	-
	SLB16	STA 146+24	1	-	-	-	-	-	1	-
		PROJECT TOTA	**12**	**13**	**13**	**13**	**13**	**13**	**8**	**4**

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LIGHTING CABINETS & SERVICE PEDESTALS

WIS 441 Lighting - Contract 1517-07-79

SYSTEM	DESCRIPTION	CATEGORY	STATION	OFFSET		654.0230 CONCRETE CONTROL CABINET BASES TYPE L30	656.0400 Electrical Service Main Lugs Only Meter Pedestal (CB-200)	SPV.0060.352 Lighting Control Cabinet * Freeway
						EACH	LS	EACH
	SW SYSTEM L70-2008	1100	STA 131+20	162.00	RT	1	1	1
					PROJECT TOTAL	**1**	**1**	**1**

CONDUIT & WIRING

WIS 441 Lighting - Contract 1517-07-79

CATEGORY	SYSTEM	POLE	FROM (POLE LOCATION)	POLE	TO (POLE LOCATION)	# of CONDUITS	# of PHASE CONDUCTORS	# of GROUND CONDUCTORS	652.0225 CNODUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CNODUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG
									LF	LF	LF	LF	LF
		CB-200	STA 131+20	LPB10	STA 131+20	3	4	1	-	INCLUDED WITH BASE	-	20	80
1100		LPB10	STA 131+20	LPB09	STA 131+28	1	4	1	-	125	-	130	520
		LPB09	STA 131+28	SL210	STA 128+96	1	4	1	232	-	55	237	948
		SL210	STA 128+96	SL209	STA 126+17	1	4	1	279	-	55	284	1136
		SL209	STA 126+17	SL208	STA 123+36	1	4	1	281	-	55	286	1144
		SL208	STA 123+36	SL207	STA 120+37	1	4	1	299	-	55	304	1216
		SL207	STA 120+37	LPB06	STA 119+75	1	4	1	62	-	-	67	268
		LPB06	STA 119+75	LPB07	STA 119+75	1	-	-	-	42	-	-	-
		LPB07	STA 119+75	LPB08	STA 119+75	1	-	-	-	42	-	-	-
		LPB06	STA 119+75	SL206	STA 117+80	1	4	1	188	-	55	193	772
		SL206	STA 117+80	SL205	STA 115+13	1	4	1	267	-	55	272	1088
		SL205	STA 115+13	LPB03	STA 113+00	1	4	1	213	-	-	218	872
		LPB03	STA 113+00	LPB04	STA 113+00	1	-	-	-	55	-	-	-
		LPB03	STA 113+00	SL204	STA 112+30	1	4	1	70	-	55	75	300
		SL204	STA 112+30	SL203	STA 109+50	1	4	1	280	-	55	285	1140
		SL203	STA 109+50	SL202	STA 106+75	1	4	1	275	-	55	280	1120
		SL202	STA 106+75	SL201	STA 104+00	1	4	1	275	-	55	280	1120
		SL201	STA 104+00	LPB01	STA 103+87	1	-	-	13	-	-	-	-
		CB-200	STA 131+20	LPB10	STA 131+20	3	4	1	-	-	-	20	80
		LPB10	STA 131+20	LPB09	STA 131+28	1	4	1	-	125	-	130	520
		LPB09	STA 131+28	SL211	STA 131+70	1	4	1	42	-	55	47	188
		SL211	STA 131+70	LPB12	STA 133+50	1	4	1	180	-	-	185	740
		LPB12	STA 133+50	LPB13	STA 133+50	1	-	-	-	50	-	-	-
		LPB13	STA 133+50	LPB14	STA 115+50	1	-	-	-	65	-	-	-
		LPB12	STA 133+50	SL212	STA 134+33	1	4	1	83	-	55	88	352
		SL212	STA 134+33	LPB15	STA 112+00	1	4	1	257	-	-	262	1048
		LPB15	STA 112+00	LPB16	STA 112+00	1	4	1	-	70	-	75	300
		LPB16	STA 112+00	SL213	STA 113+50	1	4	1	150	-	55	155	620
		SL213	STA 113+50	LPB14	STA 115+50	1	-	-	200	-	-	-	-
		CB-200	STA 131+20	LPB11	STA 131+30	3	-	-	-	INCLUDED WITH BASE	-	-	-
		LPB01	STA 103+87	LPB02	STA 103+87	1	-	-	-	63	-	-	-
		LPB04	STA 113+00	LPB05	STA 113+00	1	-	-	-	65	-	-	-
		SLB09	STA 129+89	LPB17	STA 131+92	1	-	-	203	-	-	-	-
		LPB17	STA 131+92	SLB10	STA 132+90	1	-	-	BRIDGE PARAPET	-	-	-	-
		SLB10	STA 132+90	SLB11	STA 135+40	1	-	-	BRIDGE PARAPET	-	-	-	-
		SLB11	STA 135+40	SLB12	STA 137+90	1	-	-	BRIDGE PARAPET	-	-	-	-
		SLB12	STA 137+90	SLB13	STA 139+74	1	-	-	BRIDGE PARAPET	-	-	-	-
		SLB13	STA 139+74	SLB14	STA 141+74	1	-	-	BRIDGE PARAPET	-	-	-	-
		SLB14	STA 141+74	LPB18	STA 142+83	1	-	-	BRIDGE PARAPET	-	-	-	-
		LPB18	STA 142+83	EXPB01	STA 142+94	2	-	-	-	120	-	-	-
		LPB18	STA 142+83	SLB15	STA 143+74	1	-	-	91	-	-	-	-
		SLB15	STA 143+74	SLB16	STA 146+24	1	-	-	250	-	-	-	-
		SLB16	STA 146+24	EXPB02	STA 146+45	1	-	-	21	-	-	-	-
		EXPB02	STA 146+45	EXPB03	STA 146+45	2	-	-	-	200	-	-	-
					PROJECT TOTAL				**4211**	**1022**	**715**	**3893**	**15572**

STORM SEWER STRUCTURES

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM	LOWEST INVERT	STRUCTURE DEPTH	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1012 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	524.0624 APRON ENDWALL FOR CULVERT PIPE SALVAGED 24-INCH EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0615 INLET COVER TYPE F EACH	611.0624 INLET COVER TYPE H EACH
STAGE 1															
USH 10 EB	181	144EB+64	18.5' LT	--	785.30	--	1	--	--	--	--	--	--	--	--
USH 10 EB	182	142EB+78	33.5' RT	--	784.79	--	1	--	--	--	--	--	--	--	--
USH 10 WB	190	137EB+90	72.7' LT	--	781.70	--	1	--	--	--	--	--	--	--	--
USH 10 WB	191	138EB+16	130.3' LT	--	781.00	--	--	1	--	--	--	--	--	--	--
STAGE 1 TOTAL							3	1	--	--	--	--	--	--	--
STAGE 2A															
FEN	155P	107FEN+99	9.2' LT		772.90	--	--	--	--	--	--	--	--	--	--
FEN	154	108FEN+00	46.9' RT	776.10	773.83	2.27	--	--	--	--	--	--	--	--	--
FEN	155	108FEN+00	31.5' RT	777.64	771.70	4.94	--	--	--	--	--	--	--	--	--
FEN	156	110FEN+37	31.5' RT	774.29	768.96	4.33	--	--	--	--	--	--	--	--	--
FEN	157	111FEN+73	31.5' RT	772.75	767.40	4.35	--	--	--	--	--	--	--	1	--
FEN	158	112FEN+68	31.8' RT	771.42	766.64	3.78	--	--	--	--	--	--	--	1	--
FEN	159	113FEN+66	31.8' RT	770.87	766.34	3.53	--	--	--	--	--	--	--	1	--
FEN	160	113FEN+65	17.9' RT	770.89	766.23	3.41	--	--	--	--	--	--	1	--	--
USH 10 EB	160E	115EB+22	59.7' RT	--	765.66	--	--	--	--	--	1	--	--	--	--
USH 10 EB	160P	113EB+73	0.0' R/L	--	766.14	--	--	--	--	--	--	--	--	--	--
USH 10 EB	168C	119EB+90	0.0' R/L	--	761.11	--	1	--	--	--	--	--	--	--	--
USH 10 EB	168E	119EB+91	63.3' RT	--	760.53	--	--	--	--	1	--	--	--	--	--
USH 10 EB	171P	121EB+21	0.0' R/L	--	763.53	--	--	--	--	--	--	--	--	--	--
USH 10 EB	171E	121EB+21	52.2' RT	--	763.00	--	--	--	--	1	--	--	--	--	--
USH 10 EB	174P	123EB+00	12.0' LT	--	762.69	--	--	--	--	--	--	--	--	--	--
USH 10 EB	174E	123EB+00	58.3' RT	--	762.00	--	--	--	--	1	--	--	--	--	--
USH 10 EB	175	125EB+88	20.5' LT	771.82	768.33	2.24	--	--	--	--	--	--	1	--	--
USH 10 EB	175E	125EB+88	47.7' RT	--	768.00	--	--	--	1	--	--	--	--	--	--
FEN	309	119FEN+62.09	43.4' LT	--	762.14	--	--	--	--	--	1	--	--	--	--
FES	310	119FES+44.95	22.2' RT	768.84	763.14	4.70	--	--	--	--	--	--	--	1	--
FEN	311	118FEN+11.07	34.5' RT	770.07	764.52	4.55	--	--	--	--	--	--	--	1	--
FEN	312	116FEN+74.21	31.7' RT	769.87	765.18	3.69	--	--	--	--	--	--	--	1	--
FES	315	119FES+70.81	22.7' RT	769.06	764.11	3.95	--	--	--	--	--	--	--	1	--
FES	316	119FES+44.94	38.3' RT	767.28	764.02	3.26	--	--	--	--	--	--	--	--	--
FES	350	121FES+99.73	43.1' LT	--	766.14	--	--	--	--	--	1	--	--	--	--
FES	351	122FES+00.00	23.0' RT	771.96	766.46	4.50	--	--	--	--	--	--	--	1	--
FES	360	124FES+49.83	49.9' LT	--	771.71	--	--	--	--	--	1	--	--	--	--
FES	361	124FES+50.00	22.7' RT	777.57	772.07	4.50	--	--	--	--	--	--	--	1	--
STAGE 2A TOTAL							1	--	1	3	4	--	2	9	--

STORM SEWER STRUCTURES

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM	LOWEST INVERT	STRUCTURE DEPTH	611.0627 INLET COVER TYPE HM EACH	611.0642 INLET COVER TYPE MS EACH	611.0654 INLET COVER TYPE V EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3220 INLETS 2X2-FT EACH	611.3253 INLETS 2.5X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	633.5200 MARKERS CULVERT END EACH	SPV.0060.014 COVER PLATE LEFT IN PLACE EACH	SPV.0060.015 STORM SEWER PLUG EACH
STAGE 1																			
USH 10 EB	181	144EB+64	18.5' LT	--	785.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	182	142EB+78	33.5' RT	--	784.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 WB	190	137EB+90	72.7' LT	--	781.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 WB	191	138EB+16	130.3' LT	--	781.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 1 TOTAL							--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 2A																			
FEN	155P	107FEN+99	9.2' LT		772.90	--	--	--	--	--	--	--	--	--	--	--	--	--	1
FEN	154	108FEN+00	46.9' RT	776.10	773.83	2.27	--	2	--	--	--	--	--	--	--	1	--	--	--
FEN	155	108FEN+00	31.5' RT	777.64	771.70	4.94	1	--	--	--	1	--	--	--	--	--	--	--	--
FEN	156	110FEN+37	31.5' RT	774.29	768.96	4.33	1	--	--	1	--	--	--	--	--	--	--	--	--
FEN	157	111FEN+73	31.5' RT	772.75	767.40	4.35	--	--	--	1	--	--	--	--	--	--	--	--	--
FEN	158	112FEN+68	31.8' RT	771.42	766.64	3.78	--	--	--	1	--	--	--	--	--	--	--	--	--
FEN	159	113FEN+66	31.8' RT	770.87	766.34	3.53	--	--	--	--	1	--	--	--	--	--	--	--	--
FEN	160	113FEN+65	17.9' RT	770.89	766.23	3.41	--	--	--	--	1	--	--	--	--	--	--	--	--
USH 10 EB	160E	115EB+22	59.7' RT	--	765.66	--	--	--	--	--	--	--	--	--	--	--	1	--	--
USH 10 EB	160P	113EB+73	0.0' R/L	--	766.14	--	--	--	--	--	--	--	--	--	--	--	--	--	1
USH 10 EB	168C	119EB+90	0.0' R/L	--	761.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	168E	119EB+91	63.3' RT	--	760.53	--	--	--	--	--	--	--	--	--	--	--	1	--	--
USH 10 EB	171P	121EB+21	0.0' R/L	--	763.53	--	--	--	--	--	--	--	--	--	--	--	--	--	1
USH 10 EB	171E	121EB+21	52.2' RT	--	763.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
USH 10 EB	174P	123EB+00	12.0' LT	--	762.69	--	--	--	--	--	--	--	--	--	--	--	--	--	1
USH 10 EB	174E	123EB+00	58.3' RT	--	762.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
USH 10 EB	175	125EB+88	20.5' LT	771.82	768.33	2.24	--	--	--	1	--	--	--	--	--	--	--	--	--
USH 10 EB	175E	125EB+88	47.7' RT	--	768.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
FEN	309	119FEN+62.09	43.4' LT	--	762.14	--	--	--	--	--	--	--	--	--	--	--	1	--	--
FES	310	119FES+44.95	22.2' RT	768.84	763.14	4.70	--	--	--	--	--	--	--	1	--	--	--	--	--
FEN	311	118FEN+11.07	34.5' RT	770.07	764.52	4.55	--	--	--	--	--	--	--	1	--	--	--	--	--
FEN	312	116FEN+74.21	31.7' RT	769.87	765.18	3.69	--	--	--	--	--	--	--	1	--	--	--	--	--
FES	315	119FES+70.81	22.7' RT	769.06	764.11	3.95	--	--	--	--	--	--	--	1	--	--	--	--	--
FES	316	119FES+44.94	38.3' RT	767.28	764.02	3.26	--	2	--	--	--	--	--	--	--	1	--	--	--
FES	350	121FES+99.73	43.1' LT	--	766.14	--	--	--	--	--	--	--	--	--	--	--	1	--	--
FES	351	122FES+00.00	23.0' RT	771.96	766.46	4.50	--	--	--	--	--	--	--	1	--	--	--	--	--
FES	360	124FES+49.83	49.9' LT	--	771.71	--	--	--	--	--	--	--	--	--	--	--	1	--	--
FES	361	124FES+50.00	22.7' RT	777.57	772.07	4.50	--	--	--	--	--	--	--	1	--	--	--	--	--
STAGE 2A TOTAL							2	4	--	4	3	--	--	6	--	2	8	--	4

STORM SEWER STRUCTURES

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM	LOWEST INVERT	STRUCTURE DEPTH	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1012 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	524.0624 APRON ENDWALL FOR CULVERT PIPE SALVAGED 24-INCH EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0615 INLET COVER TYPE F EACH	611.0624 INLET COVER TYPE H EACH
STAGE 2B															
USH 10 EB	150	107EB+00	35.4' LT	776.71	773.95	1.51	--	--	--	--	--	--	--	--	--
USH 10 EB	151	108EB+50	32.5' LT	775.07	773.19	1.88	--	--	--	--	--	--	--	--	--
USH 10 EB	152	109EB+25	23.4' LT	775.45	773.34	2.11	--	--	--	--	--	--	--	--	--
USH 10 EB	153	108EB+00	42.0' LT	775.25	773.10	2.15	--	--	--	--	--	--	--	--	--
USH 10 EB	153C	107FEN+99	9.2' LT	--	772.90	--	1	--	--	--	--	--	--	--	--
USH 10 EB	161C	113EB+73	0.0' R/L	--	766.14	--	1	--	--	--	--	--	--	--	--
USH 10 EB	161	113EB+80	44.6' LT	769.42	766.04	3.38	--	--	--	--	--	--	--	--	--
USH 10 EB	161E	114WB+51	62.9' LT	--	765.75	--	--	--	--	--	--	1	--	--	--
USH 10 EB	165E	118EB+00	47.0' LT	--	767.00	--	--	1	--	--	--	--	--	--	--
USH 10 EB	165	118EB+45	17.5' LT	768.11	765.25	1.86	--	--	--	--	--	--	--	--	--
USH 10 EB	168	119EB+90	17.8' LT	767.86	761.28	5.58	--	--	--	--	--	--	--	--	--
USH 10 EB	168C	119EB+90	0.0' R/L	--	761.11	--	1	--	--	--	--	--	--	--	--
USH 10 EB	171	121EB+21	17.8' LT	767.68	763.53	3.15	--	--	--	--	--	--	--	--	--
USH 10 EB	172	121EB+51	17.8' LT	767.69	763.78	2.91	--	--	--	--	--	--	--	--	--
USH 10 EB	171C	121EB+21	0.0' R/L	--	763.39	--	1	--	--	--	--	--	--	--	--
USH 10 EB	173	123EB+00	50.1' LT	765.80	762.82	2.98	--	--	--	--	--	--	--	--	--
USH 10 EB	174	123EB+00	17.8' LT	768.20	762.69	4.51	--	--	--	--	--	--	--	--	--
USH 10 EB	174C	123EB+00	12.0' LT	--	762.63	--	1	--	--	--	--	--	--	--	--
USH 10 EB	180	131EB+55	32.1' RT	782.72	777.50	4.22	--	--	--	--	--	--	--	--	1
USH 10 EB	180E	131EB+55	57.9' RT	--	777.00	--	--	--	1	--	--	--	--	--	--
STAGE 2B TOTAL							5	1	1	--	--	1	--	--	1
STAGE 3															
USH 10 EB	183	142EB+71	16.0' LT	790.26	785.84	3.17	--	--	--	--	--	--	--	--	--
USH 10 EB	184	143EB+05	15.1' LT	790.40	785.26	3.89	--	--	--	--	--	--	--	--	--
USH 10 EB	184C	142EB+78	33.5' RT	--	784.79	--	1	--	--	--	--	--	--	--	--
USH 10 EB	185	145EB+19	22.0' LT	791.47	787.05	3.17	--	--	--	--	--	--	--	--	--
USH 10 EB	186	145EB+11	22.0' LT	791.43	786.99	3.19	--	--	--	--	--	--	--	--	--
USH 10 EB	187	144EB+03	19.4' LT	790.91	786.20	3.46	--	--	--	--	--	--	--	--	--
USH 10 EB	188	143EB+95	19.2' LT	790.87	786.16	3.46	--	--	--	--	--	--	--	--	--
USH 10 EB	189	142EB+78	33.5' RT	790.63	784.79	4.59	--	--	--	--	--	--	1	--	--
STAGE 3 TOTAL							1	--	--	--	--	--	1	--	--
STAGE 4															
USH 10 EB	183E	142EB+70	32.1' LT	--	786.16	--	--	--	1	--	--	--	--	--	--
STAGE 4 TOTAL							--	--	1	--	--	--	--	--	--
PROJECT 1517-07-79 TOTAL							10	2	3	3	4	1	3	9	1

STORM SEWER STRUCTURES

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	FLANGE OR RIM	LOWEST INVERT	STRUCTURE DEPTH	611.0627 INLET COVER TYPE HM EACH	611.0642 INLET COVER TYPE MS EACH	611.0654 INLET COVER TYPE V EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3220 INLETS 2X2-FT EACH	611.3253 INLETS 2.5X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	633.5200 MARKERS CULVERT END EACH	SPV.0060.014 COVER PLATE LEFT IN PLACE EACH	SPV.0060.015 STORM SEWER PLUG EACH
STAGE 2B																			
USH 10 EB	150	107EB+00	35.4' LT	776.71	773.95	1.51	--	2	--	--	--	--	--	--	--	1	--	--	--
USH 10 EB	151	108EB+50	32.5' LT	775.07	773.19	1.88	--	1	--	--	--	--	--	--	1	--	--	--	--
USH 10 EB	152	109EB+25	23.4' LT	775.45	773.34	2.11	--	1	--	--	--	--	--	--	1	--	--	--	--
USH 10 EB	153	108EB+00	42.0' LT	775.25	773.10	2.15	--	--	--	--	--	--	--	--	--	1	--	1	--
USH 10 EB	153C	107FEN+99	9.2' LT	--	772.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	161C	113EB+73	0.0' R/L	--	766.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	161	113EB+80	44.6' LT	769.42	766.04	3.38	--	2	--	--	--	--	--	--	--	1	--	--	--
USH 10 EB	161E	114WB+51	62.9' LT	--	765.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	165E	118EB+00	47.0' LT	--	767.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
USH 10 EB	165	118EB+45	17.5' LT	768.11	765.25	1.86	--	--	--	--	--	1	--	--	--	--	--	1	--
USH 10 EB	168	119EB+90	17.8' LT	767.86	761.28	5.58	--	--	--	--	--	1	--	--	--	--	--	1	--
USH 10 EB	168C	119EB+90	0.0' R/L	--	761.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	171	121EB+21	17.8' LT	767.68	763.53	3.15	--	--	--	--	--	1	--	--	--	--	--	1	--
USH 10 EB	172	121EB+51	17.8' LT	767.69	763.78	2.91	--	--	--	--	--	1	--	--	--	--	--	1	--
USH 10 EB	171C	121EB+21	0.0' R/L	--	763.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	173	123EB+00	50.1' LT	765.80	762.82	2.98	--	2	--	--	--	--	--	--	--	1	--	--	--
USH 10 EB	174	123EB+00	17.8' LT	768.20	762.69	4.51	--	--	--	--	--	1	--	--	--	--	--	1	--
USH 10 EB	174C	123EB+00	12.0' LT	--	762.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	180	131EB+55	32.1' RT	782.72	777.50	4.22	--	--	--	--	--	1	--	--	--	--	--	--	--
USH 10 EB	180E	131EB+55	57.9' RT	--	777.00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 2B TOTAL							--	8	--	--	--	6	--	--	2	4	2	6	--
STAGE 3																			
USH 10 EB	183	142EB+71	16.0' LT	790.26	785.84	3.17	--	--	1	--	--	--	1	--	--	--	--	--	--
USH 10 EB	184	143EB+05	15.1' LT	790.40	785.26	3.89	--	--	1	--	1	--	--	--	--	--	--	--	--
USH 10 EB	184C	142EB+78	33.5' RT	--	784.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 10 EB	185	145EB+19	22.0' LT	791.47	787.05	3.17	--	--	1	--	--	--	1	--	--	--	--	--	--
USH 10 EB	186	145EB+11	22.0' LT	791.43	786.99	3.19	--	--	1	--	--	--	1	--	--	--	--	--	--
USH 10 EB	187	144EB+03	19.4' LT	790.91	786.20	3.46	--	--	1	--	--	--	1	--	--	--	--	--	--
USH 10 EB	188	143EB+95	19.2' LT	790.87	786.16	3.46	--	--	1	--	--	--	1	--	--	--	--	--	--
USH 10 EB	189	142EB+78	33.5' RT	790.63	784.79	4.59	--	--	--	1	--	--	--	--	--	--	--	--	--
STAGE 3 TOTAL							--	--	6	1	1	--	5	--	--	--	--	--	--
STAGE 4																			
USH 10 EB	183E	142EB+70	32.1' LT	--	786.16	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 4 TOTAL							--	--	--	--	--	--	--	--	--	--	1	--	--
PROJECT 1517-07-79 TOTAL							2	12	6	5	4	6	5	6	2	6	12	6	4

STORM SEWER STRUCTURES

ROADWAY	FROM STR	TO STR	INVERT ELEV FT	DISCH ELEV FT	SLOPE	524.0124 CULVERT PIPE SALVAGED CONCRETE CLASS III 24-INCH LF	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF
STAGE 1												
USH 10 EB	181	182.00	785.30	784.79	0.27%	--	--	--	--	--	--	186
USH 10 EB	190	191	781.70	781.00	1.11%	--	--	--	--	--	63	--
STAGE 1 TOTAL						--	--	--	--	--	63	186
STAGE 2A												
USH 10 EB	155P	155	772.90	772.70	0.48%	--	--	--	42	--	--	--
FEN RAMP	154	155	773.83	772.95	5.70%	--	--	15	--	--	--	--
FEN RAMP	155	156	771.90	768.96	1.24%	--	--	--	--	237	--	--
FEN RAMP	156	157	768.96	767.40	1.15%	--	--	--	--	136	--	--
FEN RAMP	157	158	767.40	766.64	0.81%	--	--	--	--	94	--	--
FEN RAMP	158	159	766.64	766.34	0.32%	--	--	--	--	94	--	--
FEN RAMP	159	160	766.34	766.23	0.22%	--	--	--	--	50	--	--
FEN RAMP	160	160P	766.23	766.14	0.23%	--	--	--	--	39	--	--
FEN RAMP	160	160E	766.23	765.66	0.36%	--	--	--	--	158	--	--
USH 10 EB	168C	168E	761.11	760.53	0.92%	--	--	--	63	--	--	--
USH 10 EB	171P	171E	763.53	763.00	1.02%	--	--	--	52	--	--	--
USH 10 EB	174P	174E	762.69	762.00	0.99%	--	--	--	70	--	--	--
USH 10 EB	175	175E	768.33	768.00	0.49%	--	--	67	--	--	--	--
FES RAMP	310	309	763.14	762.14	1.00%	--	--	--	--	95	--	--
FEN RAMP	311	310	764.52	763.89	0.50%	--	--	128	--	--	--	--
FEN RAMP	312	311	765.18	764.52	0.50%	--	--	135	--	--	--	--
FES RAMP	315	310	764.11	763.89	1.00%	--	--	25	--	--	--	--
FES RAMP	316	310	764.02	763.89	1.00%	--	--	16	--	--	--	--
FES RAMP	351	350	766.46	766.14	0.50%	--	--	--	--	60	--	--
FES RAMP	361	360	772.07	771.71	0.50%	--	--	--	--	66	--	--
STAGE 2A TOTAL						--	--	386	227	1,029	--	--
STAGE 2B												
USH 10 EB	150	153	773.95	773.10	0.85%	--	--	--	100	--	--	--
USH 10 EB	151	153	773.19	773.10	0.18%	--	--	--	--	--	51	--
USH 10 EB	152	151	773.34	773.19	0.20%	--	--	--	--	--	76	--
USH 10 EB	153	153C	773.10	772.90	0.49%	--	--	--	41	--	--	--
USH 10 EB	161C	161	766.14	766.04	0.22%	15	--	--	--	30	--	--
USH 10 EB	161	161E	766.04	765.75	0.23%	127	--	--	--	--	--	--
USH 10 EB	165E	165	767.00	765.25	3.24%	--	54	--	--	--	--	--
USH 10 EB	165	168	765.00	763.71	0.90%	--	--	144	--	--	--	--
USH 10 EB	168	168C	761.28	761.11	0.94%	--	--	--	18	--	--	--
USH 10 EB	172	171	763.78	763.53	0.83%	--	--	--	30	--	--	--
USH 10 EB	171	171C	763.53	763.39	0.78%	--	--	--	18	--	--	--
USH 10 EB	173	174	762.82	762.69	0.41%	--	--	--	32	--	--	--
USH 10 EB	174	174C	762.69	762.63	1.00%	--	--	--	6	--	--	--
USH 10 EB	180	180E	777.50	777.00	1.92%	--	26	--	--	--	--	--
STAGE 2B TOTAL						142	80	144	245	30	127	--

STORM SEWER STRUCTURES

ROADWAY	FROM STR	TO STR	INVERT ELEV FT	DISCH ELEV FT	SLOPE	524.0124 CULVERT PIPE SALVAGED CONCRETE CLASS III 24-INCH LF	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF
STAGE 3												
USH 10 EB	185	186	787.05	786.99	0.75%	--	8	--	--	--	--	--
USH 10 EB	186	187	786.99	786.20	0.73%	--	108	--	--	--	--	--
USH 10 EB	187	188	786.20	786.16	0.50%	--	8	--	--	--	--	--
USH 10 EB	188	184	786.16	785.51	0.72%	--	90	--	--	--	--	--
USH 10 EB	184	189	785.26	784.79	0.86%	--	--	56	--	--	--	--
USH 10 EB	183E	183	786.16	785.84	1.99%	--	--	16	--	--	--	--
USH 10 EB	183	184	785.84	785.51	0.95%	--	35	--	--	--	--	--
STAGE 3 TOTAL						--	249	72	--	--	--	--
PROJECT 1517-07-79 TOTAL						142	329	602	472	1,059	190	186

CULVERT PIPE ITEMS

STATION	INLET END OFFSET	INLET END ELEVATION	DISCHARGE END STATION	DISCHARGE END OFFSET	DISCHARGE END ELEVATION	SLOPE	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.1018* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	633.5200* MARKERS CULVERT END EACH
STAGE 2B												
91EB+60	42.0' LT	787.17	91EB+02	42.00' LT	786.88	0.51%	--	57	--	2	--	2
112TWS+00	23.6' LT	762.51	112TWS+00	33.3' RT	761.87	0.41%	157	--	--	--	2	--
122TWS+79	5.7' RT	758.90	122TWS+79	26.1' RT	758.80	0.48%	--	--	21	--	2	1
STAGE 2B TOTALS							157	57	21	2	4	3
PROJECT 1517-07-79 TOTALS							157	57	21	2	4	3

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

GENERAL NOTES

1) STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS UNLESS OTHERWISE NOTED.
2) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES UNLESS OTHERWISE NOTED.
3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING - 0.5 FT(RINGS AND MORTER) , EXCEPT MEDIAN INLETS.
4) STRUCTURE CONSTRUCTED BY OTHERS WITH COVER PLATES LEFT IN PLACE. CONTRACTOR TO PROVIDE 0.5' ADJUSTING RINGS AND CASTING AS SPECIFIED
5) PROVIDE 0.5' ADJUSTING RINGS WHERE ONLY A NEW COVER IS CALLED FOR. INCIDENTAL TO COVER.
6) FLAT TOP SLAB REQUIRED ON ALL MANHOLES WITH INLET COVERS. SEE MANHOLE COVER OPENING MATRIX FOR OPENING SIZE.
7) LIMIT QUANTITY OF ADJUSTING RINGS TO TWO PER INLET OR MANHOLE STRUCTURE.
8) IT IS ANTICIPATED STRUCTURE 153 WILL BE CAST IN PLACE.

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	HM	F	V
OPENING SIZE (FT)	2X3	2.5X3	2X2

3

SURFACE DRAIN PIPE

	STSP.521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 15-INCH LF
STAGE 1	
USH 10 EB	140
STAGE 1 TOTAL	140
STAGE 2A	
USH10 EB	352
STAGE 2A TOTAL	352
STAGE 2B	
USH 10 EB	35
STAGE 2B TOTAL	35
PROJECT 1517-07-79 TOTAL	527

3

PIPE UNDERDRAIN

ROADWAY	STRUCTURE NUMBER	STATION	OFFSET	209.0300.S BACKFILL COURSE AGGREGATE SIZE NO. 1 CY	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	633.5200* MARKERS CULVERT END EACH
STAGE 2A							
USH 10 EB TO USH 41 NB RAMP	310	119FES+45	22' RT	2.23	75	--	--
	315	119FES+71	23' RT	1.49	50	--	--
STAGE 2A SUBTOTAL				3.72	125	--	--
STAGE 2B							
USH 10 EB	171	121EB+21	18' LT	2.38	80	--	--
	172	121EB+51	18' LT	1.49	50	--	--
B-70-400				--	210	3	3
STAGE 2B SUBTOTAL				3.87	340	3	3
PROJECT 1517-07-79 TOTAL				7.59	465	3	3

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

WB OFFRAMP TO CTH CB

EXISTING STRUCTURE S-70-251
(TO REMAIN)

R/L USH 10 WB/STH 441 SB

80WB 82WB 84WB 86WB 88WB 90WB 92WB 94WB

USH 10 WB/STH 441 SB

CAUTION

SLOPE INTERCEPTS (TYP.)

80EB 82EB 84EB 86EB 88EB 90EB 92EB 94EB

USH 10 EB/STH 441 NB

MATCHLINE 94EB+00

BEGIN CONSTRUCTION
STA. 83EB+50.50

R/L USH 10 EB/STH 441 NB

18-INCH CPRC TYPE IV

CAUTION

STRUCTURE S-70-252

EB ONRAMP FROM CTH CB

TRANSCANADA GASLINE

TRANSCANADA GASLINE

STA. 91EB+31, LT.
MAINTENANCE CROSSOVER
FOR FREEWAYS REQUIRED

EXISTING R/W

BIKE PATH

N

5

5

EXISTING GROUND AT R/L USH 10 EB/STH 441 NB

786.88'

787.17'

49 LF 18-INCH CPRC TYPE IV AT 0.93%

EXISTING PROFILE ELEVATIONS

810 805 800 795 790 785 780 775 770

799.54 798.94 798.31 797.55 796.64 795.76 794.75 793.65 792.41 791.21 790.11 789.07 788.22 787.33 786.86 786.25 785.90 785.75 785.57 785.43 785.55 785.79 786.08 786.52 786.92 787.37 787.89 788.51 789.06 789.60 790.06

79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050100_pp.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

WE ENERGIES OVERHEAD ELECTRIC

R/L USH 10 WB/STH 441 SB

USH 10 WB/
STH 441 SB

EXISTING STRUCTURE B-70-158
(TO REMAIN)

EXISTING R/W

EXISTING STRUCTURE S-70-249
(TO REMAIN)

R/L WEST WB USH 10
CROSSOVER

N

MATCHLINE 94EB+00

MATCHLINE 109EB+00

USH 10 EB/STH 441 NB

R/L USH 10 EB/STH 441 NB

STRUCTURE S-70-250

WE ENERGIES GASLINE

WE ENERGIES OVERHEAD ELECTRIC

COLD SPRING RD.

EXISTING STRUCTURE B-70-157
(TO REMAIN)

STRUCTURE S-70-200

SLOPE INTERCEPTS (TYP.)

STA. 96EB+85, LT.
REMOVE EXISTING MAINTENANCE CROSSOVER

TOWN OF MENASHA UTILITY DISTRICT

TIMEWARNER CABLE

TOWN OF MENASHA UTILITY DISTRICT

ATT UNDERGROUND CABLE

BEGIN PROJECT 1517-07-79
STA. 104EB+00.00
X = 807,211.083
Y = 546,353.245

EXISTING R/W

BIKE PATH

BERM

EXISTING GROUND AT R/L USH 10 EB/STH 441 NB

FINISHED PROFILE AT R/L USH 10 EB/STH 441 NB

VPI STA 104+00.00
VPI EL 785.35

VPC STA 104+50.00
VPC EL 784.40

VPI STA 109+00.00
VPI EL 775.80

-1.91%

-1.25%

1.00%

-1.55%

STA 107EB+99.15
1 - 18" SSPRC CL III
SKEW 1°9'24" LHF
I.E. 772.86

BEGIN PROJECT 1517-07-79
STA 104EB+00.00

SPECIAL DITCH RIGHT

VCL = 900'
K = 687

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

790.06 790.58 790.91 791.13 791.53 791.54 791.60 791.68 791.52 791.35 791.06 782.40 771.98 771.18 789.74 789.29 788.77 787.99 787.15 786.25 785.35 785.35 784.30 784.40 783.26 783.46 782.22 782.56 781.11 781.70 780.08 780.87 779.07 780.08 778.12 779.32 777.22 778.60 776.50 777.92 775.71 777.28

94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

805 800 795 790 785 780 775 770

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050101_pp.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

EXISTING R/W

SB USH 41 TO USH 10 WB RAMP

R/L USH 10 WB/STH 441 SB

R/L WEST WB USH 10 CROSSOVER

WE ENERGIES OVERHEAD ELECTRIC

SIGN

USH 10

USH 10 WB/ STH 441 SB

R/L WB USH 10/STH 441 SB TO USH 41 SB

SMLOH

INL

MH

110WB 112WB 114WB 116WB 118WB 120WB 122WB

28TCO 30TCO

110EB 112EB 114EB 116EB 118EB 120EB 122EB 124EB

110FEN 112FEN 114FEN 116FEN 118FEN

MATCHLINE 109EB+00

MATCHLINE 124EB+00

R/L USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB

SLOPE INTERCEPTS (TYP.)

USH 10 EB/STH 441 NB TO USH 41 SB & NB RAMP

TOWN OF MENASHA UTILITY DISTRICT

WE ENERGIES OVERHEAD ELECTRIC

EXISTING R/W

BIKE PATH

R/L EB USH 10/WIS 441 NB TO NB USH 41

SAN

W

N

5

5

790 785 780 775 770 765 760 755

VCL = 900'
K = 687

VCL = 800'
K = 308

VPI STA 109+00.00
VPI EL 775.80

-1.55%

SPECIAL DITCH RIGHT

EXISTING GROUND AT R/L USH 10 EB/STH 441 NB

VPT STA 113+50.00
VPT EL 773.10

-1.09%

-5.10%

-0.60%

-0.85%

-2.75%

SPECIAL DITCH LEFT

STA 113EB+72.86
1 - 24" SSPRC CL III
SKEW 9°37'48" LHF
I.E. 766.23

STA 119EB+89.91
1 - 18" SSPRC CL III
SKEW 1°10'48" LHF
I.E. 761.11

VPC STA 119+36.13
VPC EL 769.59

FINISHED PROFILE AT R/L USH 10 EB/STH 441 NB

SPECIAL DITCH LEFT

-0.30%

1.00%

STA 123EB+00.00
1 - 18" SSPRC CL III
SKEW 0°
I.E. 762.57

VPI STA 123+36.13
VPI EL 767.19

1.51%

-0.81%

SPECIAL DITCH RIGHT

-0.30%

STA 121EB+20.74
1 - 18" SSPRC CL III
SKEW 0°
I.E. 763.53

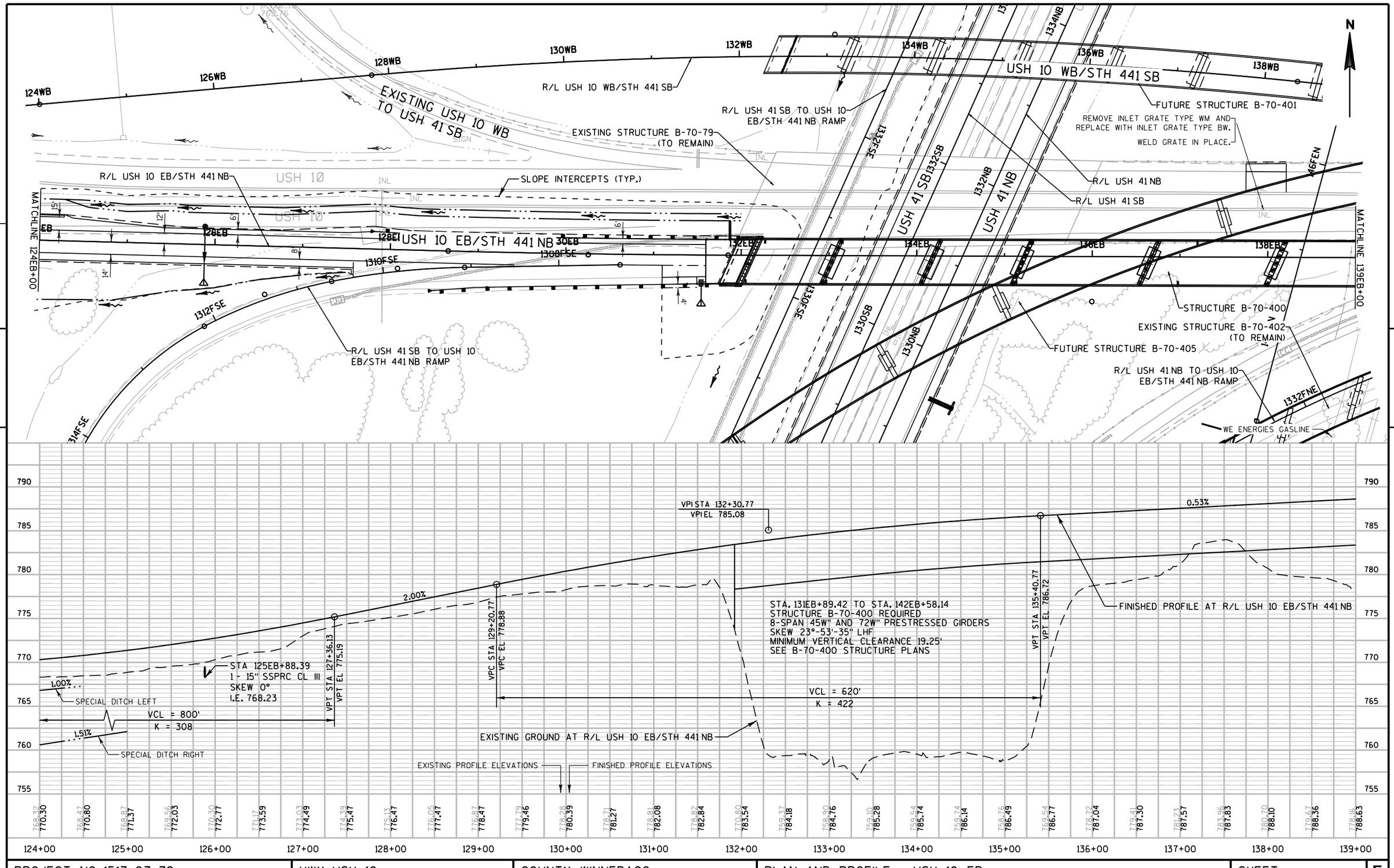
EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

775.71 777.28 | 775.06 776.67 | 774.43 776.10 | 773.90 775.56 | 773.37 775.06 | 772.89 774.60 | 772.47 774.17 | 772.10 773.78 | 771.78 773.42 | 771.52 773.10 | 771.31 772.80 | 771.24 772.50 | 771.44 772.20 | 771.30 771.90 | 771.02 771.60 | 770.83 771.30 | 770.88 771.00 | 770.57 770.70 | 770.23 770.40 | 768.98 770.10 | 769.84 769.80 | 769.73 769.51 | 769.43 769.27 | 769.20 769.12 | 768.92 769.04 | 768.60 769.05 | 768.51 769.14 | 768.38 769.31 | 768.04 769.56 | 768.21 769.89 | 768.32 770.30

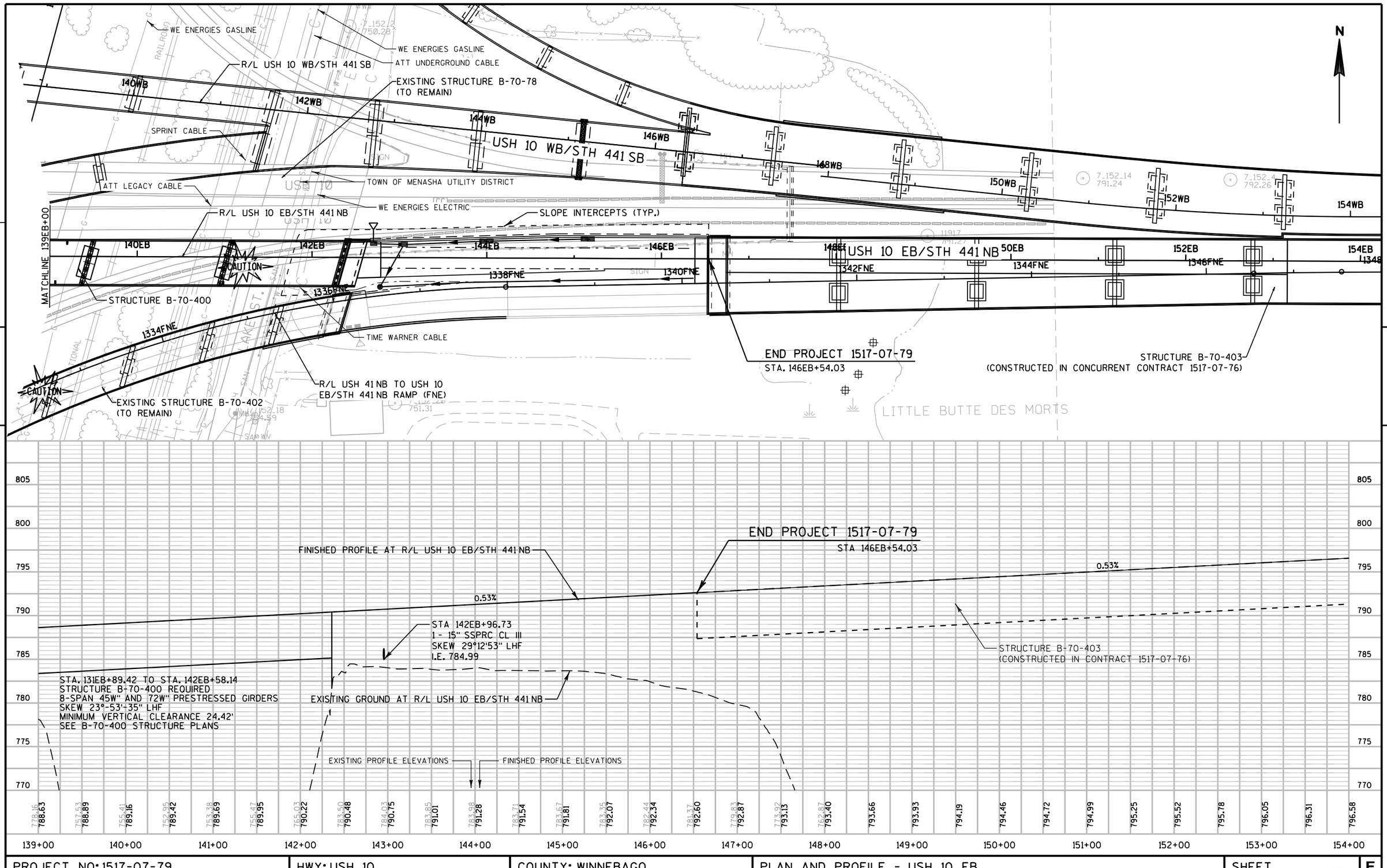
109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 EB	SHEET 294	E



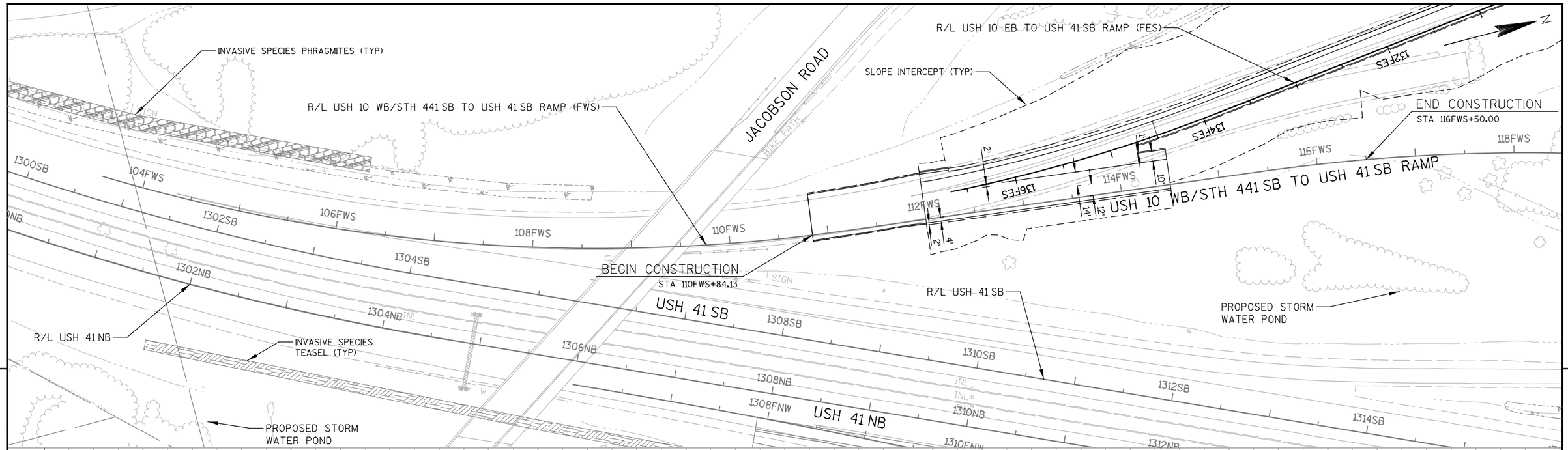
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 EB	SHEET	E

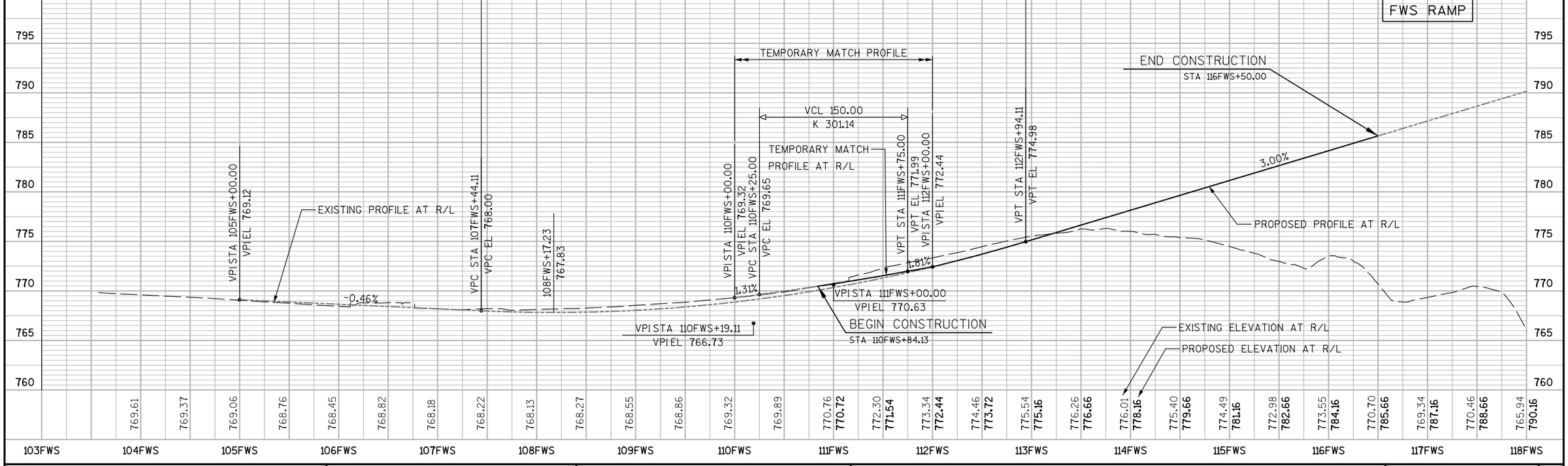
FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050103_pp.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 40



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 EB	SHEET E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050104_pp.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

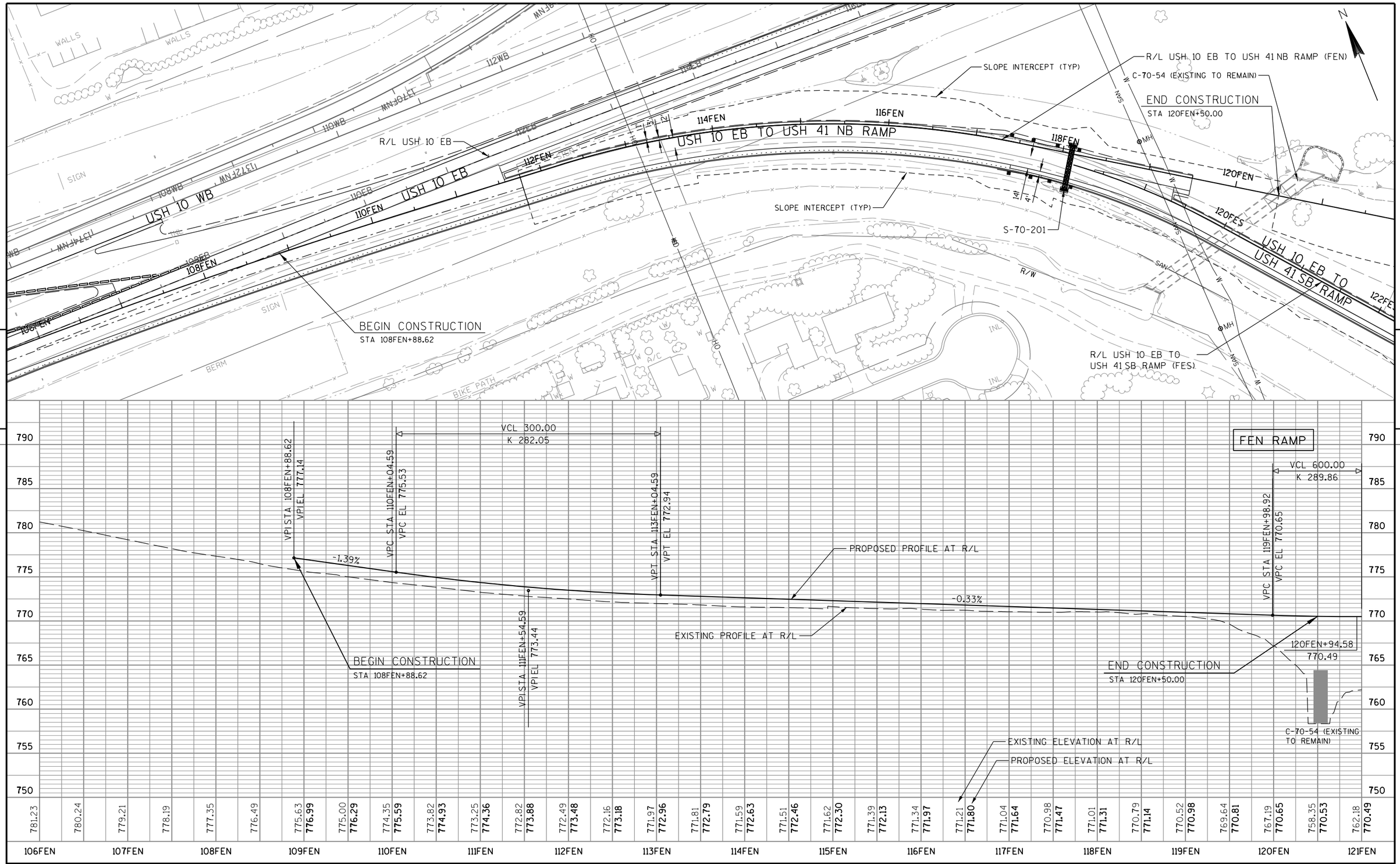




PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN & PROFILE: FWS RAMP	SHEET 297	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\050191_pp.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

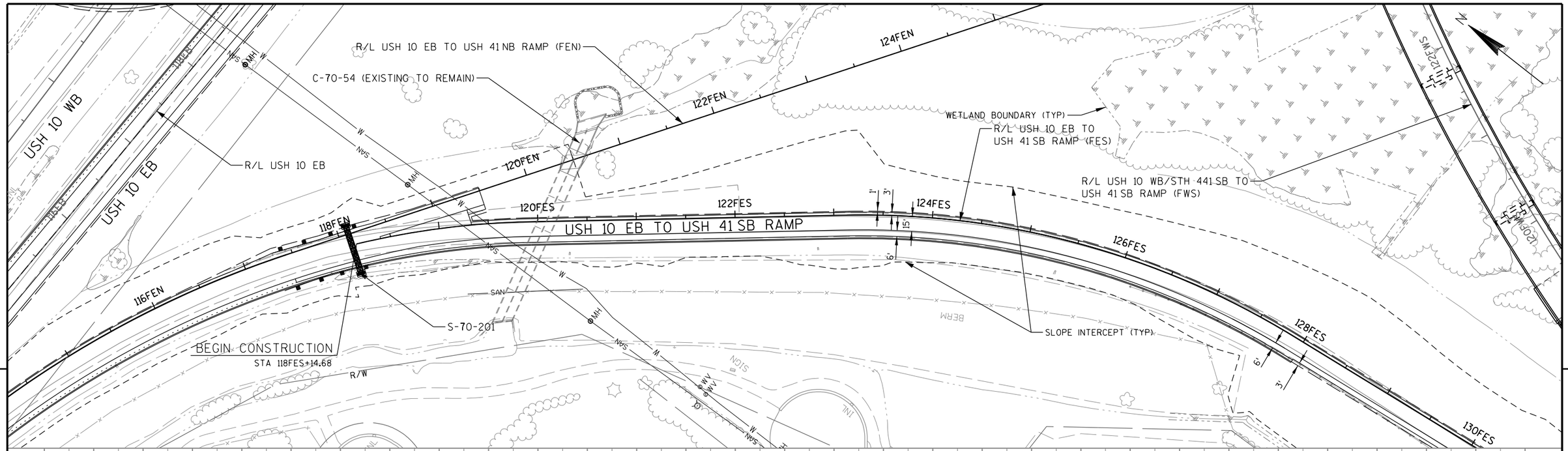
WISDOT/CADDS SHEET 45

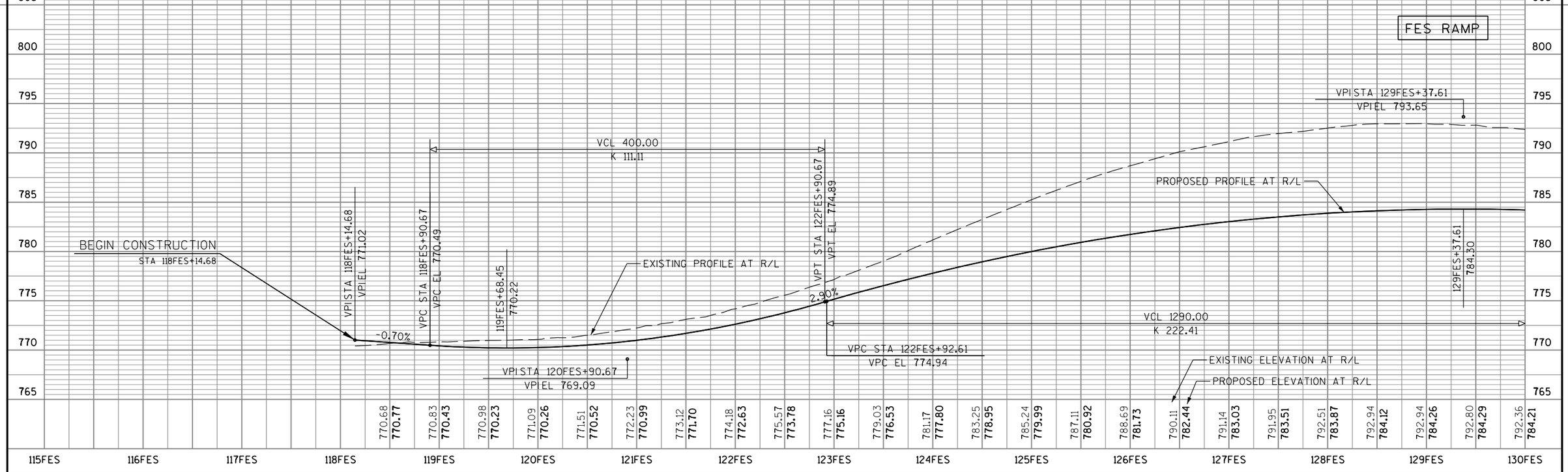


PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN & PROFILE: FEN RAMP	SHEET 298 E

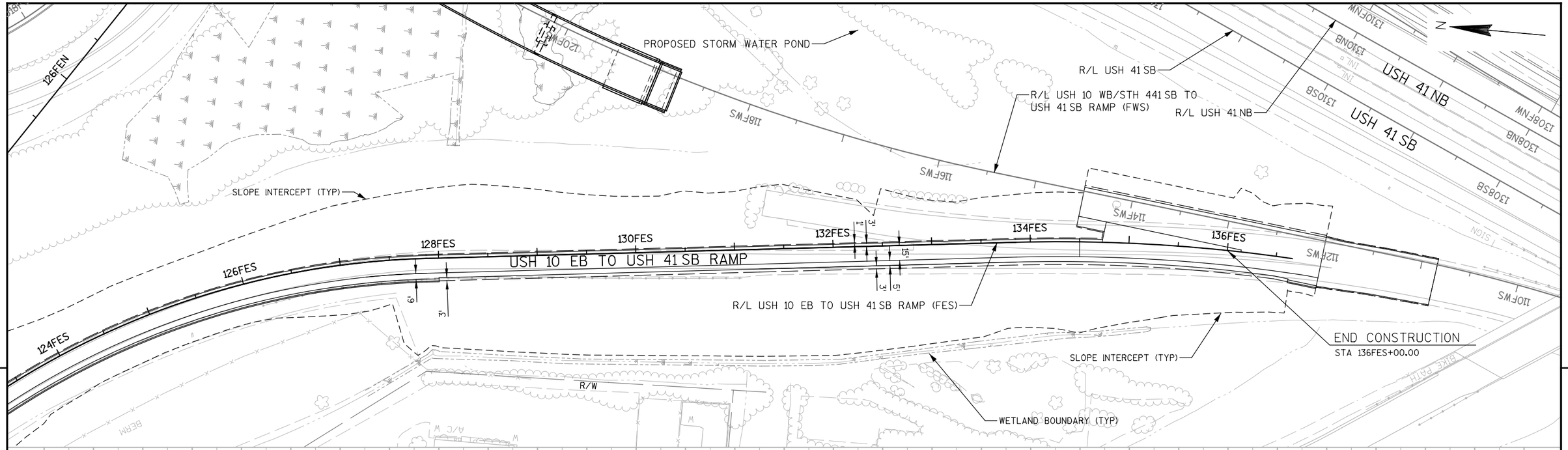
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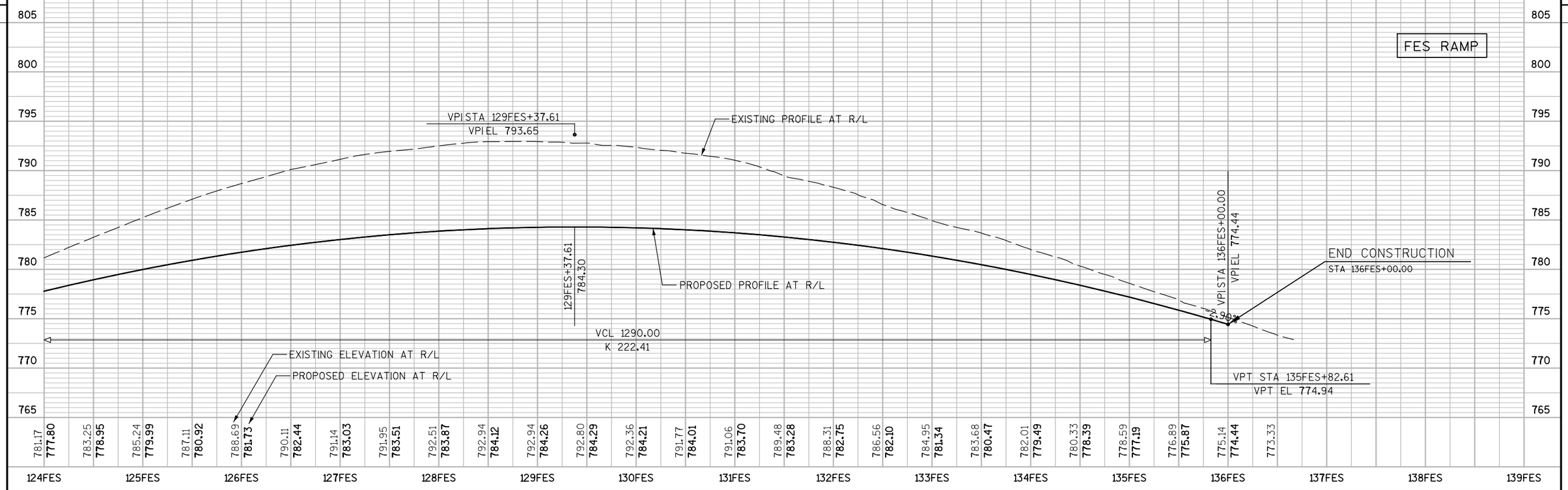
WISDOT/CADDS SHEET 45





PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN & PROFILE: FES RAMP	SHEET 299 E





PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN & PROFILE: FES RAMP	SHEET 300	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\050152_pp.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

WISDOT/CADDS SHEET 45

BEGIN CONSTRUCTION
20TCO+32.93

EXISTING STRUCTURE S-70-249
(TO REMAIN)

USH 10 WB/
STH 441 SB

R/L USH 10 WB/STH 441 SB

R/L WEST WB USH 10
CROSSOVER

SB USH 41 TO USH
10 WB RAMP

R/L USH 10 EB/STH 441 NB

USH 10 EB/STH 441 NB

STRUCTURE S-70-200 REQUIRED

SLOPE INTERCEPTS (TYP.)

USH 10 EB/STH 441 NB
TO USH 41 SB & NB RAMP

100WB 102WB 104WB 106WB 108WB 110WB 112WB 114WB

100EB 102EB 104EB 108EB 110EB 112EB 114EB

108FEN 110FEN 112FEN 114FEN

22TCO 24TCO 26TCO 28TCO 30TCO

N

SEE WB USH 10
CROSS SECTIONS

SEE EB USH 10
CROSS SECTIONS

-1.87% -1.80% -1.40% -1.00% -0.60% -0.36% -0.43% -0.83% -0.81% -0.78%

EXISTING GROUND AT R/L 'TCO'

FINISHED PROFILE AT R/L 'TCO'

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

VPI STA	VPI EL	EXISTING PROFILE ELEVATION	FINISHED PROFILE ELEVATION
24+62.13	777.25	780.4	
24+87.26	776.78	779.4	
25+12.40	776.32	778.2	
25+37.56	775.97	777.0	
25+62.73	775.72	775.5	776.55
26+13.12	775.42	774.2	775.85
26+63.51	775.23	773.0	775.49
26+88.69	775.12	772.1	775.28
27+13.90	774.92	771.0	775.03
27+39.09	774.71	772.2	774.63
27+64.25	774.52	772.3	
		772.1	
		772.0	

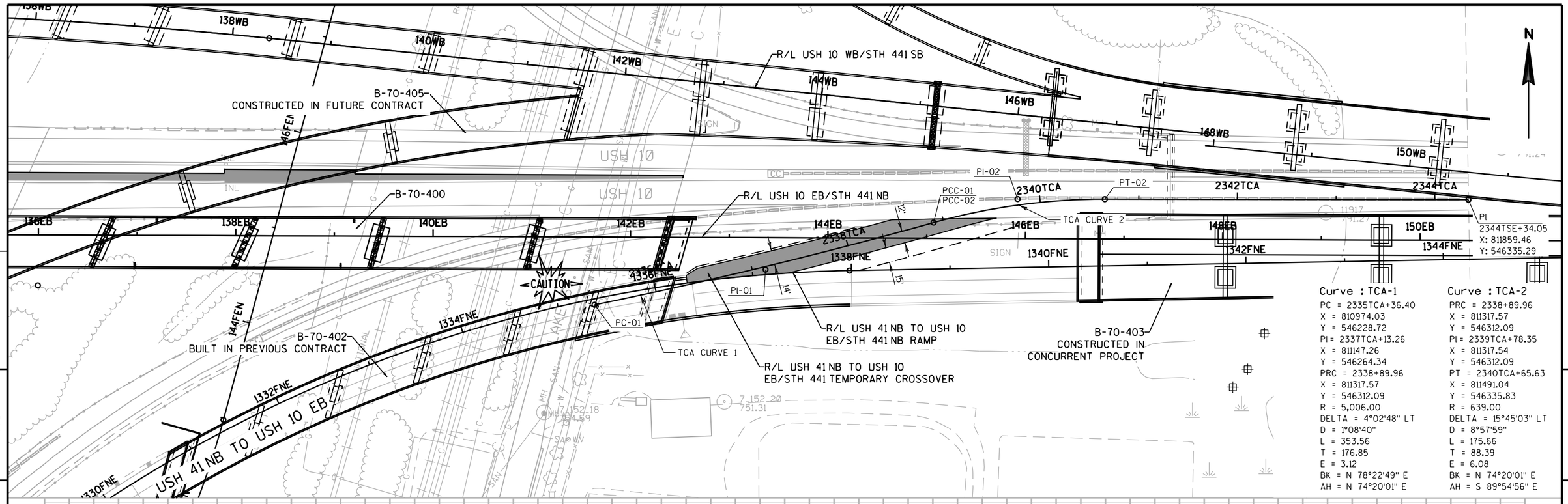
795 790 785 780 775 770 765

23+00 24+00 25+00 26+00 27+00 28+00 29+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - WESTBOUND USH 10 CROSSOVER 'TCO'	SHEET 301	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050105_pp-TCO.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

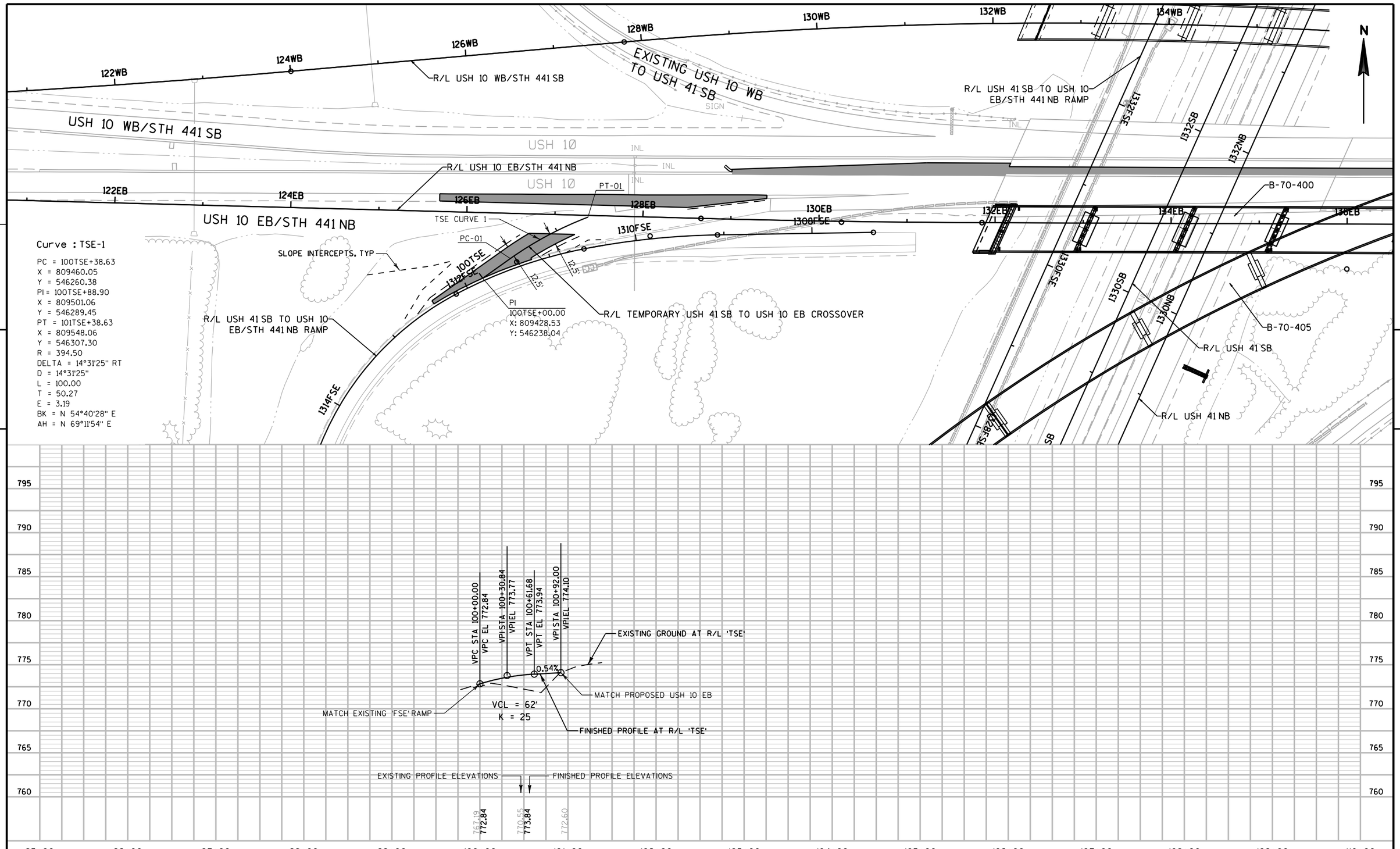
WISDOT/CADDS SHEET 40



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - TEMPORARY CROSSOVER 'TCA'	SHEET 302	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050106_pp-TCA.dgn | PLOT DATE : 4/24/2015 | PLOT BY : nbennett | PLOT NAME : | PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - TEMPORARY CROSSOVER 'TSE'	SHEET 303	E

USH 41 SB TO USH 10 WB/
STH 441 SB RAMP
USH 10 WB /STH 441 SB TO USH 41 SB RAMP

116TWS 118TWS 120TWS 122TWS 124TWS 126TWS

114TWS 112TWS

TOWN OF MENASHA UTILITY DISTRICT

SLOPE INTERCEPTS (TYP.)

EXISTING PIPE TO REMAIN, DO NOT DISTURB

24-INCH CPRC CLASS IV

R/L USH 10 WB/STH 441 SB TO
USH 41 SB RAMP

POND 1

24-INCH CPRC CLASS III

118WB

R/L USH 10 WB/STH 441 SB

118EB

120WB

USH 10 WB/
STH 441 SB

END CONSTRUCTION
STA 127TWS+25.00

INL

6-121

6-121-12
760.79

6-121-13
762.71

6-121-14
762.81

6-120
767.

N

5

5

785

780

775

770

765

760

755

750

745

VPI STA 108+75.79
VPI EL 769.09

VPI STA 111+25.00
VPI EL 769.97

VPT STA 111+75.00
VPT EL 769.57

PROPOSED PROFILE AT R/L TWS

0.35%

0.30%

SPECIAL DITCH RIGHT

VPC STA 110+75.00
VPC EL 769.79

VCL = 100'
K = 87

-0.40%

3.32%

19.98%

-19.82%

2.98%

3.42%

0.58%

STA. 112TWS+00
24-INCH CPRC

SPECIAL DITCH LEFT

EXISTING GROUND AT R/L TWS

-0.80%

-0.30%

SPECIAL DITCH RIGHT

STA 117TWS+67
EXISTING 29-INCH
X 45-INCH CPRCHE
TO REMAIN

VPC STA 120+03.79
VPC EL 762.94

VCL = 320'
K = 184

-0.62%

VPI STA 121+63.79
VPI EL 761.66

STA. 122TWS+29
24-INCH CPRC

EXISTING PROFILE ELEVATIONS — FINISHED PROFILE ELEVATIONS

| | | |

USH 41 SB TO USH 10 WB/
STH 441 SB RAMP

USH 10 WB /STH 441 SB TO USH 41 SB RAMP

116TWS 118TWS 120TWS 122TWS 124TWS 126TWS

114TWS 112TWS

TOWN OF MENASHA UTILITY DISTRICT

SLOPE INTERCEPTS (TYP.)

EXISTING PIPE TO REMAIN, DO NOT DISTURB

24-INCH CPRC CLASS IV

R/L USH 10 WB/STH 441 SB TO USH 41 SB RAMP

24-INCH CPRC CLASS III

POND 1

END CONSTRUCTION
STA 127TWS+25.00

118WB

R/L USH 10 WB/STH 441 SB

118EB

120WB

USH 10 WB/
STH 441 SB

PROPOSED PROFILE AT R/L TWS

VCL = 320'
K = 184

VPI STA 124+50.00
VPI EL 764.35

VPT STA 125+00.00
VPT EL 763.51

VPC STA 126+00.00
VPC EL 761.84

VCL = 100'
K = 72

VPI STA 127+25.00
VPI EL 760.78

0.94%

-1.67%

0.29%

1.22%

EXISTING SPECIAL DITCH RIGHT

VCL = 100'
K = 38

VPT STA 123+23.79
VPT EL 763.16

VPC STA 124+00.00
VPC EL 763.88

VPI STA 126+50.00
VPI EL 761.00

VPT STA 127+00.00
VPT EL 760.85

EXISTING GROUND AT R/L TWS

END CONSTRUCTION
STA 127EB+25.00

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

762.59	762.83	763.03	763.12	763.33	762.59	761.60	761.37	760.90	760.69	760.45	760.11	759.86	759.70	759.44	759.07	758.79	758.58	758.28	757.98	757.75	757.59	757.43	757.30
762.96	763.41	763.88	764.02	763.51	762.68	761.84	761.17	760.85															

123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00

785 780 775 770 765 760 755 750 745

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	PLAN AND PROFILE - USH 10 WB TO USH 41 SB RAMP	SHEET 305 E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\050109_pp-TWS.dgn PLOT DATE : 4/24/2015 PLOT BY : nbennett PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

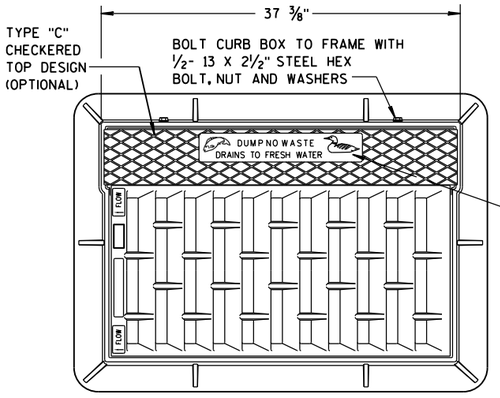
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D13-01	SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09B02-08	CONDUIT
09B04-11	PULL BOX
09C03-04	TRANSFORMER/PEDESTAL BASES
09C08-05	CONCRETE BASE, TYPE 7
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09E01-13A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-13G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-04	FREEWAY LIGHTING UNIT POLE WIRING
10A01-03	ELECTRICAL HANDHOLE WIRING
10A02-02	IDENTIFICATION PLAQUES LIGHT POLES
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
13A03-05	CONCRETE PAVEMENT SHOULDERS
13B02-07A	CONCRETE BRIDGE APPROACH
13B02-07B	STRUCTURAL APPROACH SLAB AND CONCRETE BRIDGE APPROACH
13C01-17	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B34-01A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
14B35-01E	42-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 42-INCH SSCB TRANSITION
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

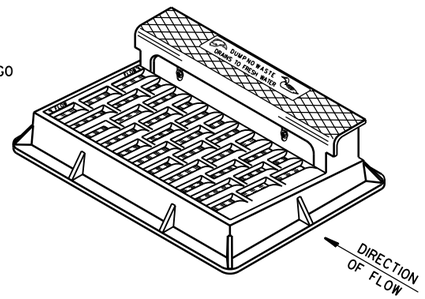
6

Standard Detail Drawing List

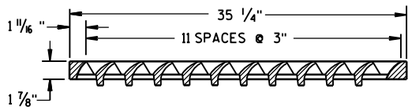
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-02A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-02C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D14-02	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D29-03	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

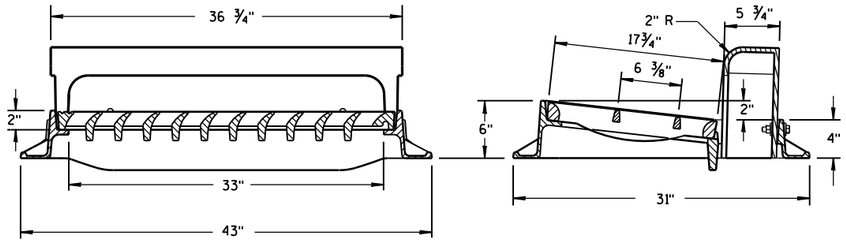


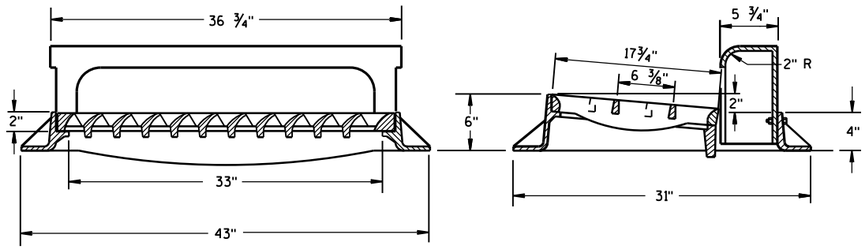
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

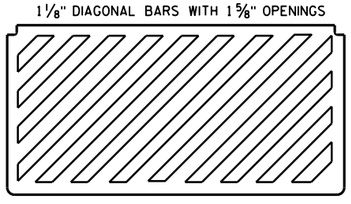






TYPE "H"

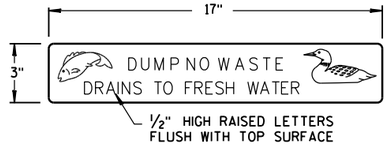
NOTE: EITHER CASTING IS ACCEPTABLE



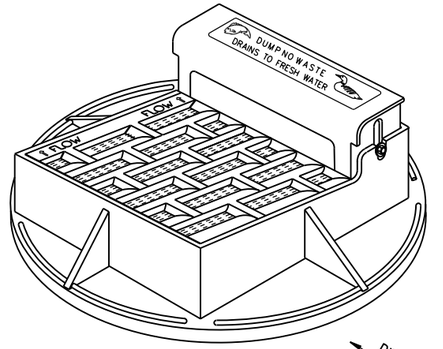
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

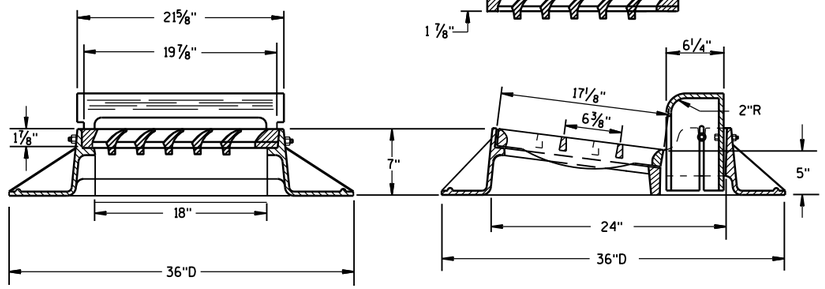


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



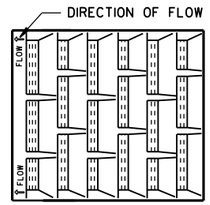
TYPE "A"

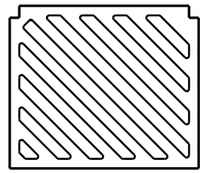
GENERAL NOTES

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

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

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

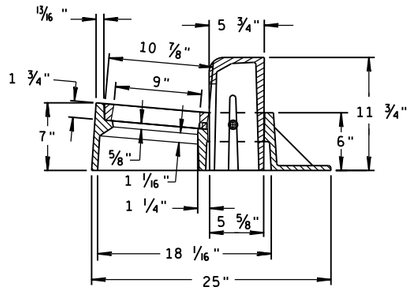


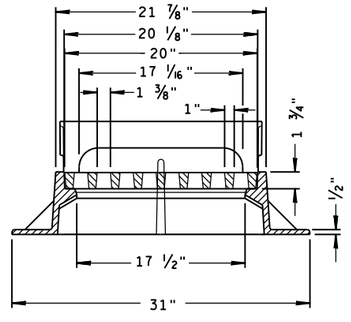


SPECIAL GRATE FOR TYPE "A" COVER

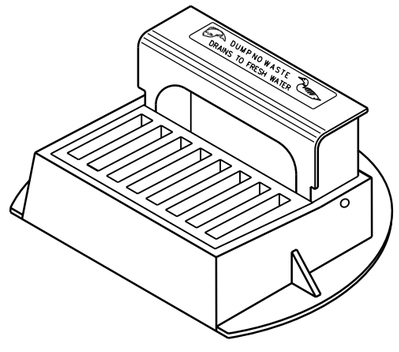
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



INLET COVERS TYPE A, H, A-S, H-S & Z

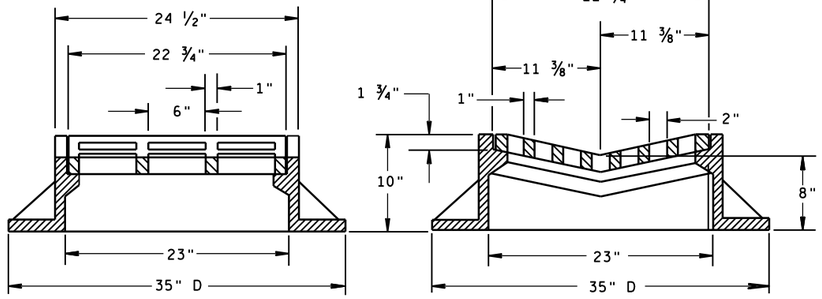
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

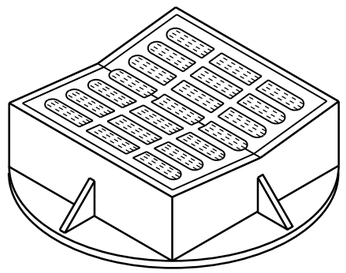
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

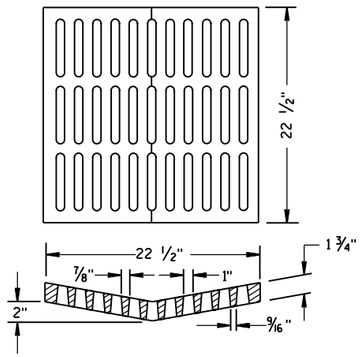
S.D.D. 8 A 5-19a

S.D.D. 8 A 5-19a



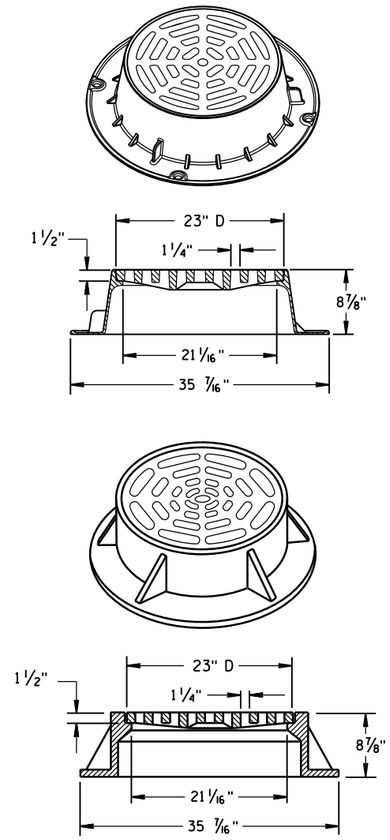


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

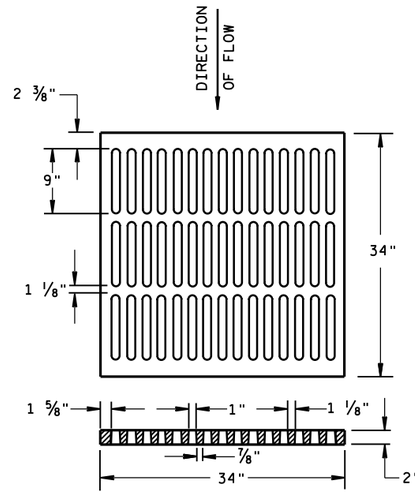
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

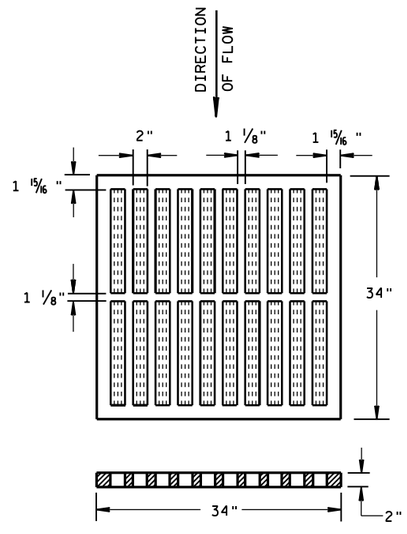
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



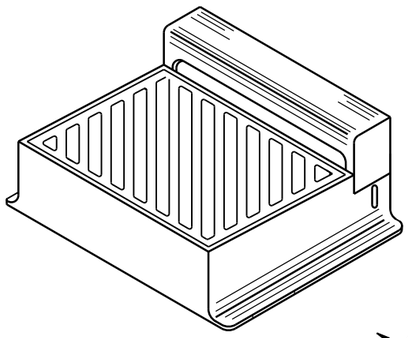
ALTERNATIVE TYPE "MS"

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

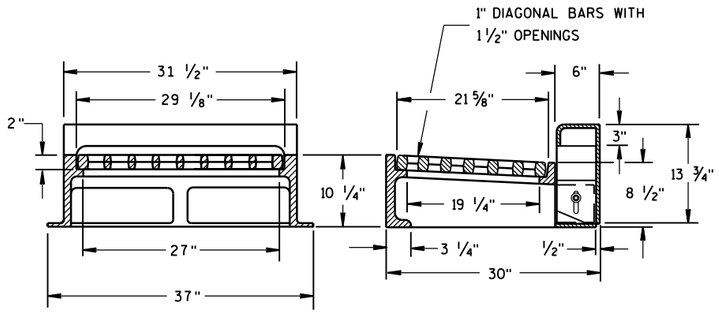


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

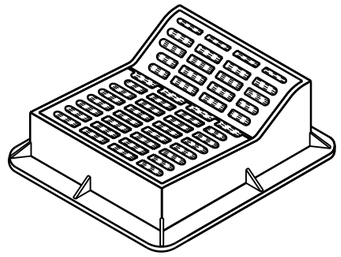
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

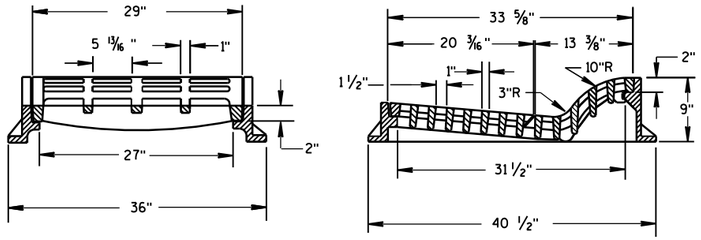
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

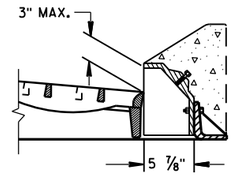
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

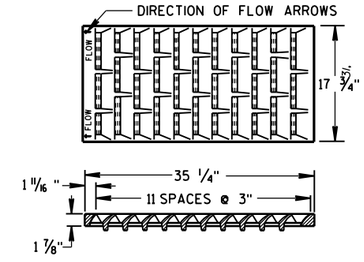
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

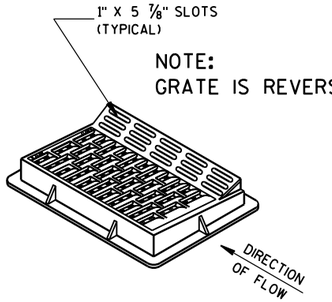
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

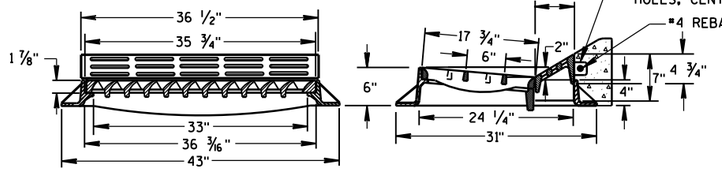
GENERAL NOTES

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

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



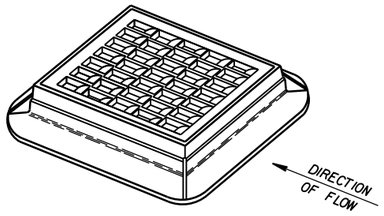


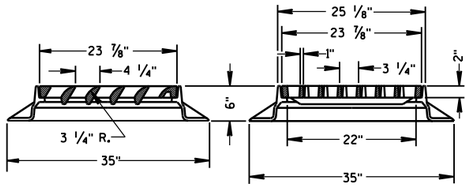


TYPE "HM"

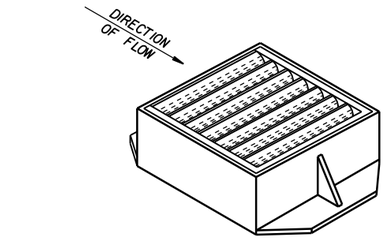
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

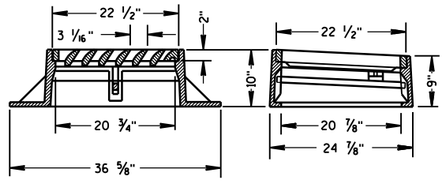
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



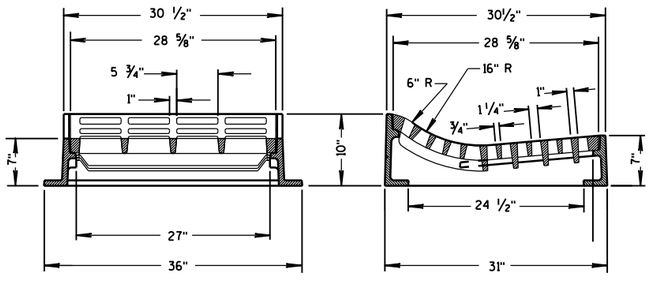


TYPE "S"



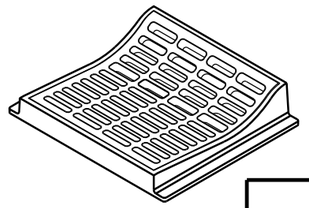


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

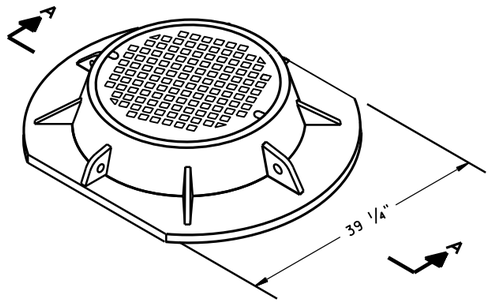
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

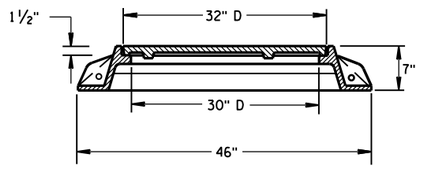
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

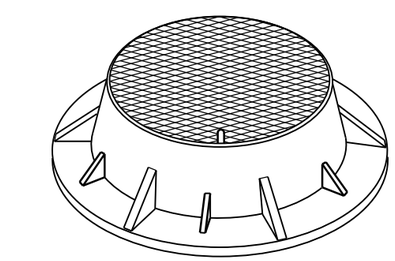
FHWA

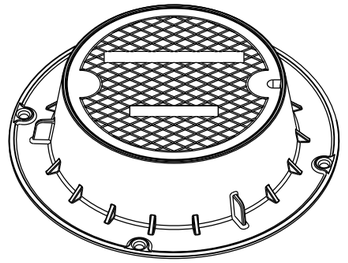
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S.D.D. 8 A 5-19c

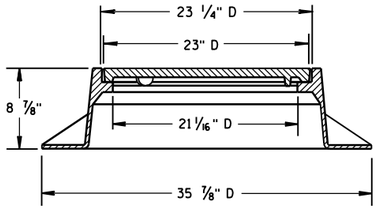


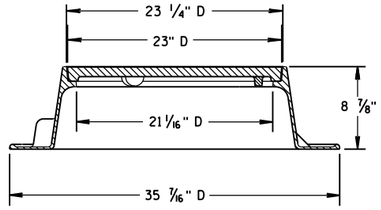


SECTION A-A
TYPE "K"









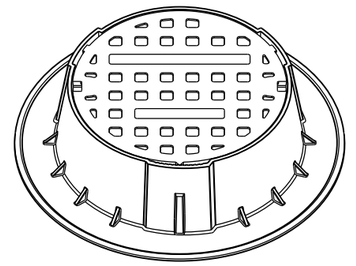
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

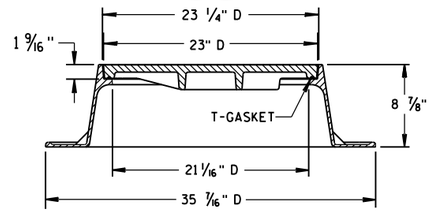
GENERAL NOTES

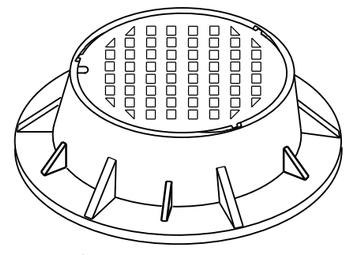
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

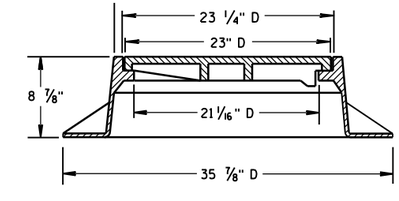
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

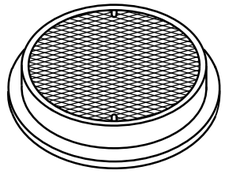


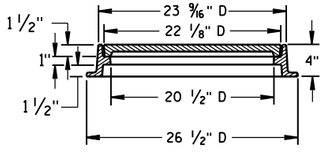




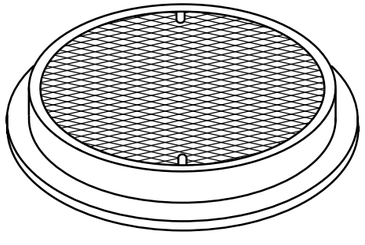


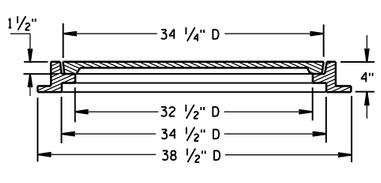
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



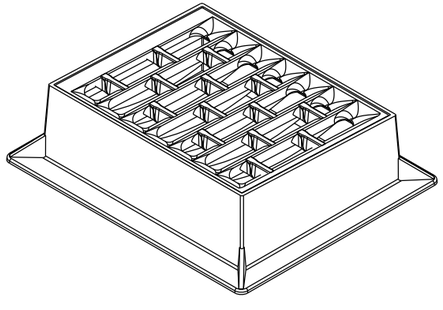


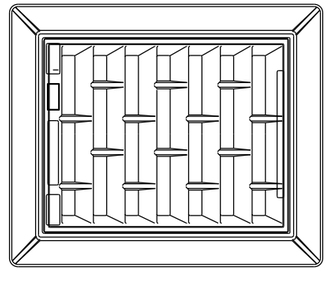
TYPE "L"

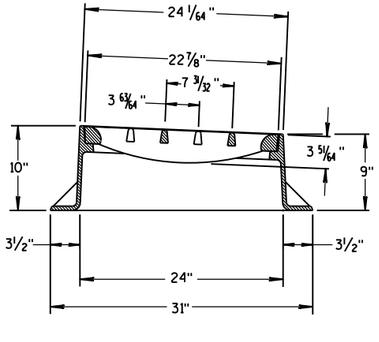


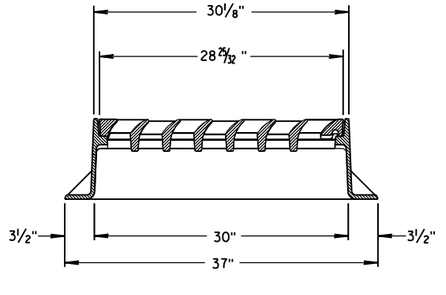


TYPE "M"









INLET COVER TYPE "BW"

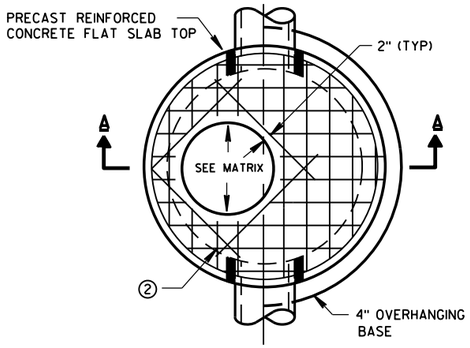
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

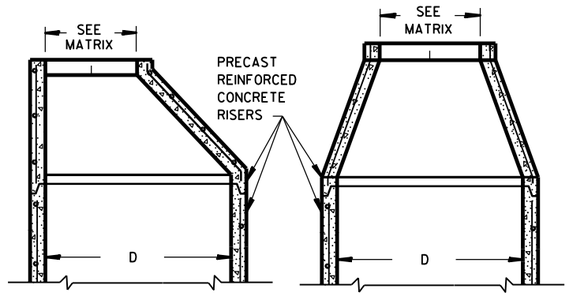
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 A 5-19d

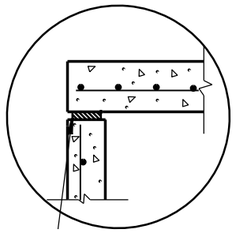


PLAN VIEW CIRCULAR OPENING

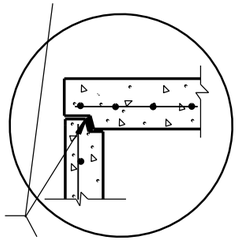


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

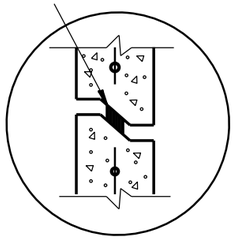


TOP WITH PLAIN END JOINT



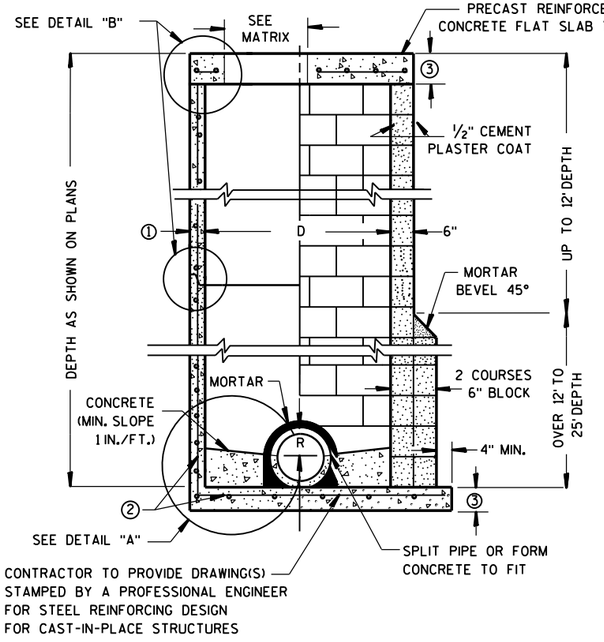
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



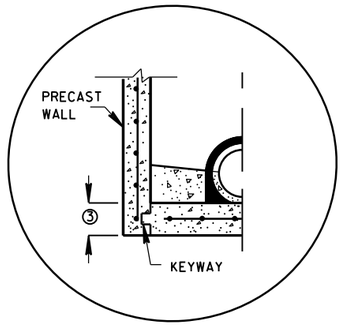
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

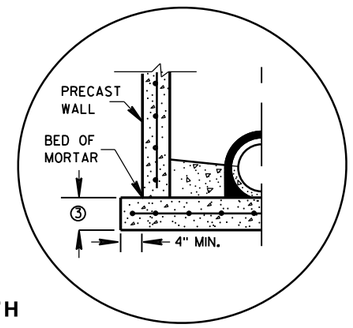


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

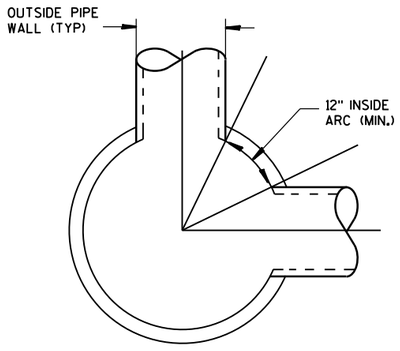


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

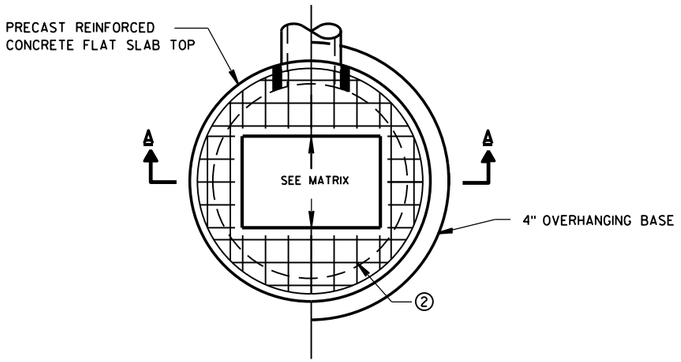
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

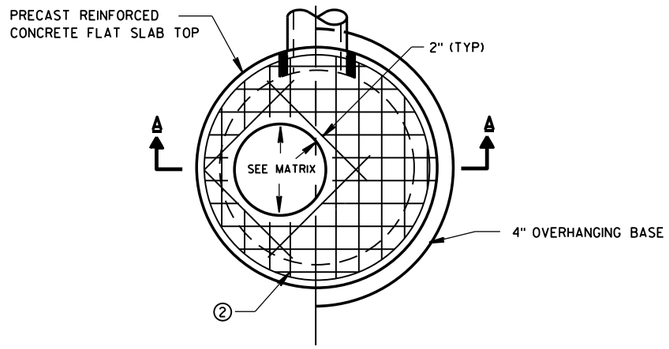
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

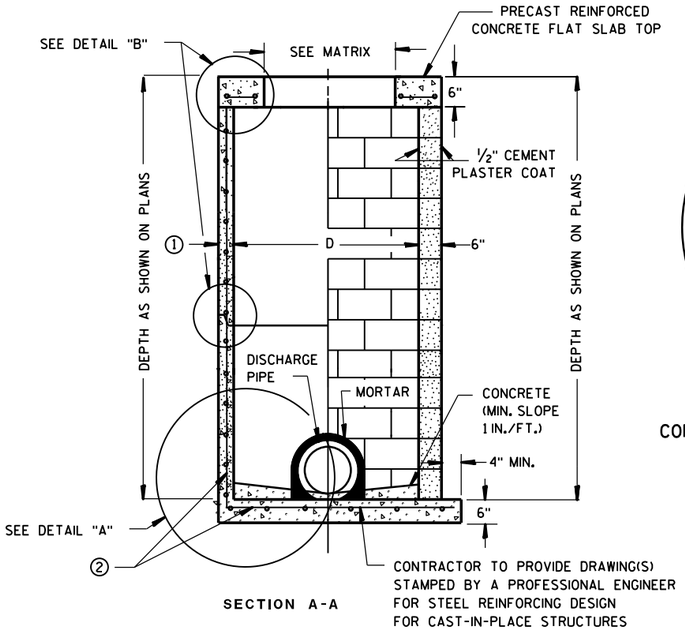
6
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

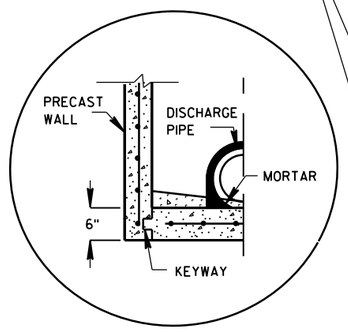


SECTION A-A

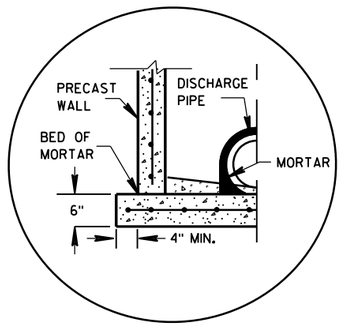
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

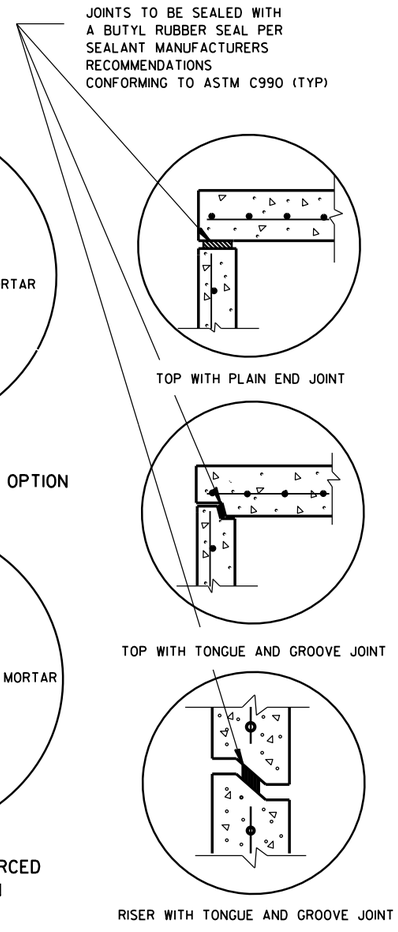


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

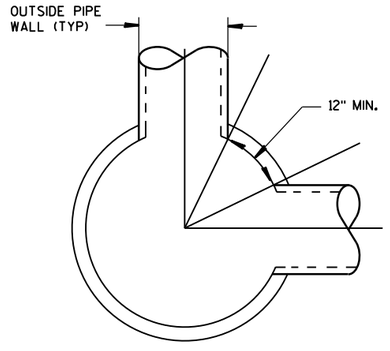
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

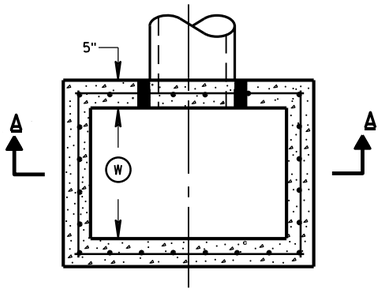
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

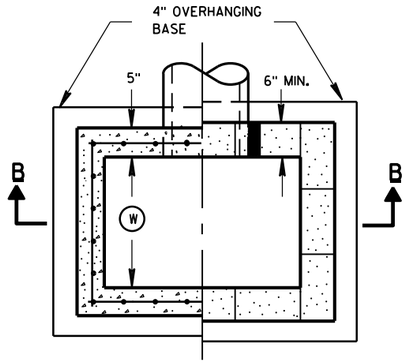
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

INLETS 3-FT AND 4-FT DIAMETER

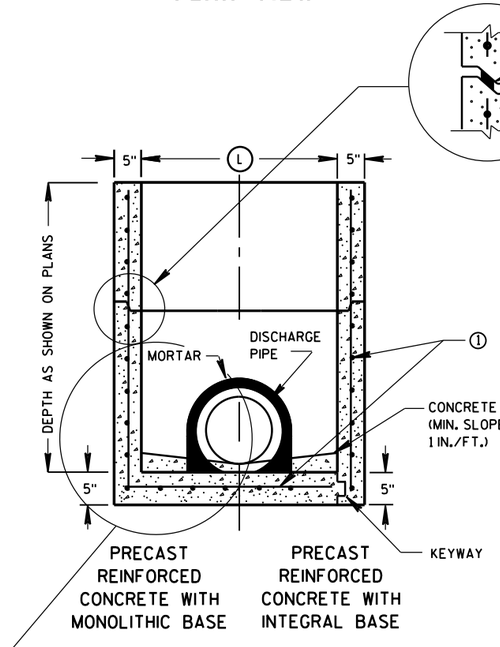
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S.D.D. 8 C 6-1



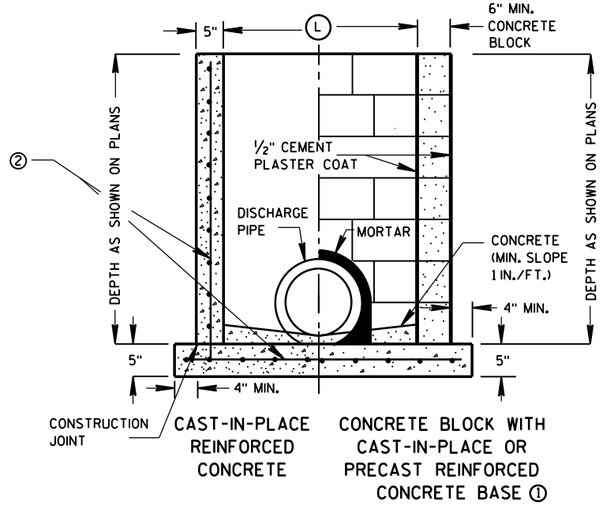
PLAN VIEW



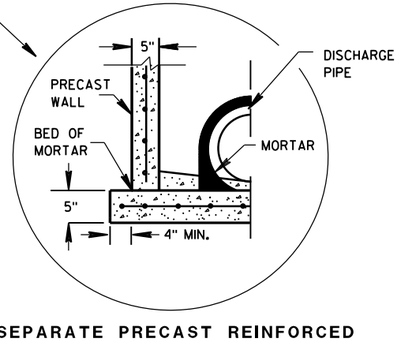
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

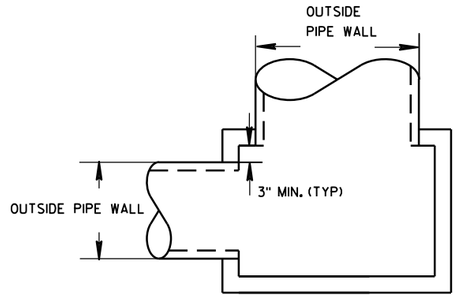
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

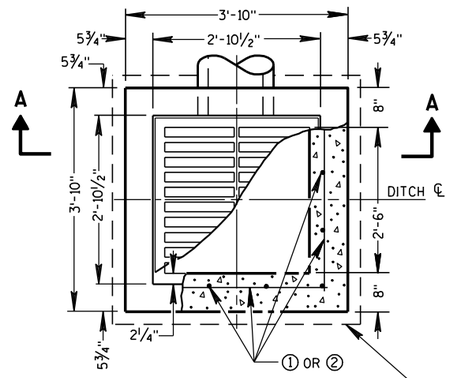
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

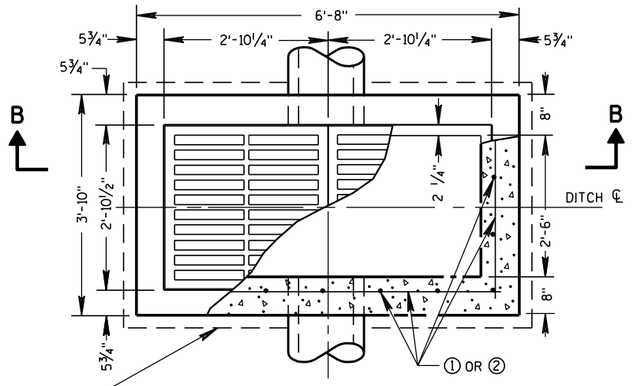
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER
FHWA

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S.D.D. 8 C 7-1

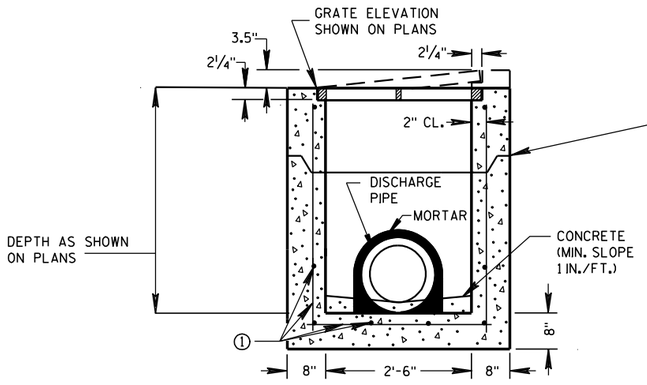


PLAN VIEW

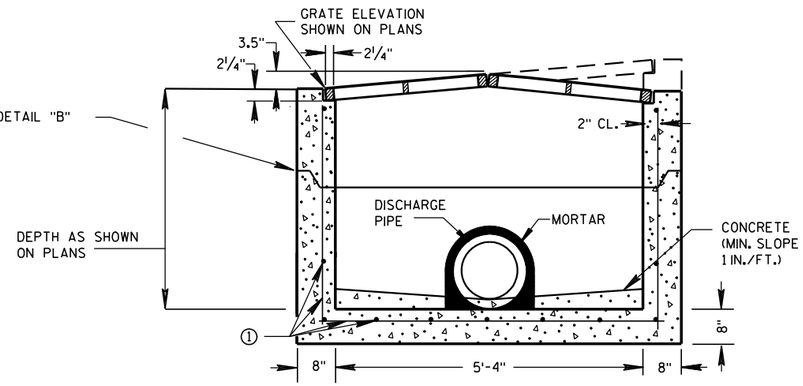


PLAN VIEW

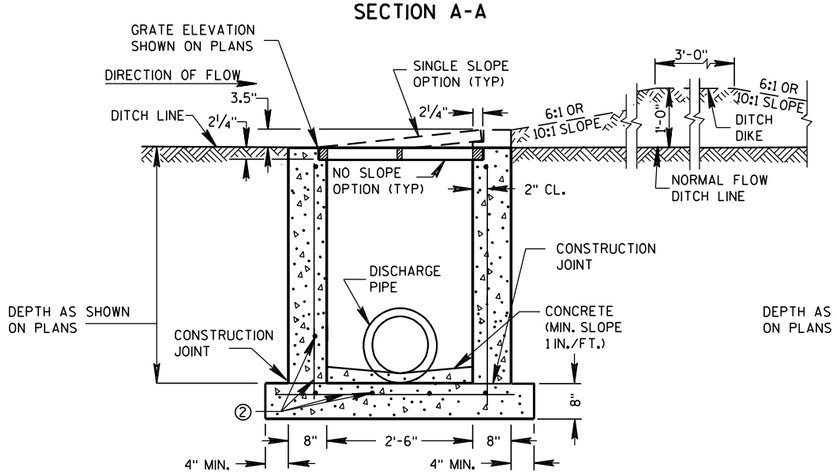
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



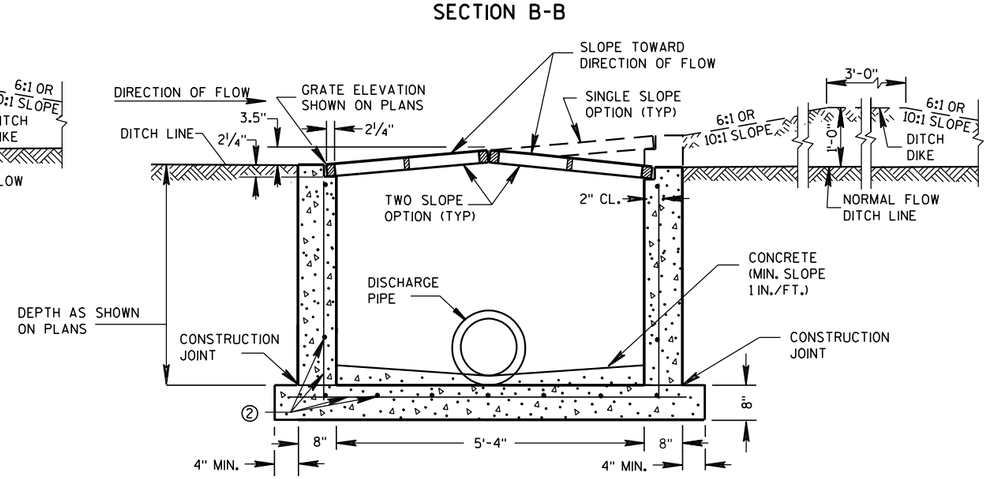
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

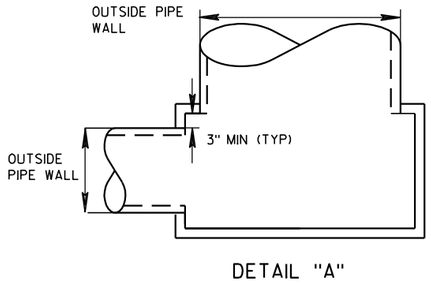
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

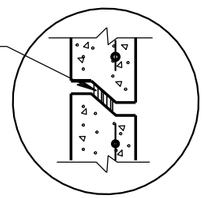
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

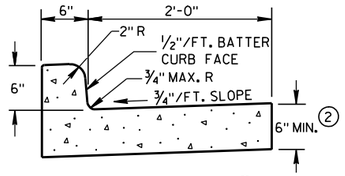
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

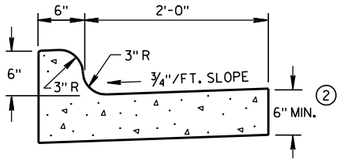
FHWA

S.D.D. 8 C 8-1

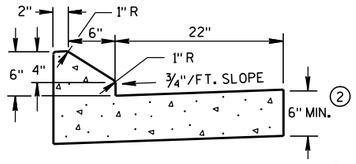
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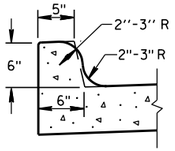
TYPES A & D (1)



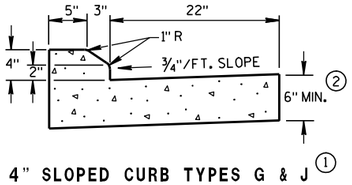
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

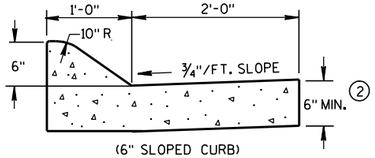


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

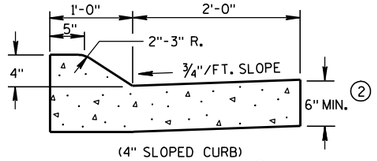


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

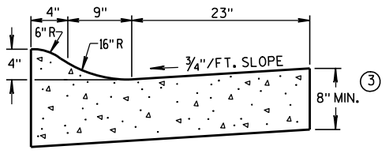


(6" SLOPED CURB)



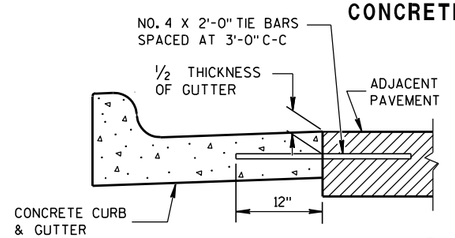
(4" SLOPED CURB)

TYPES A & D (1)

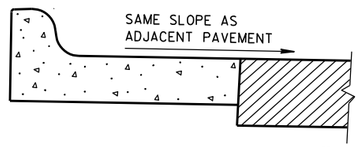


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

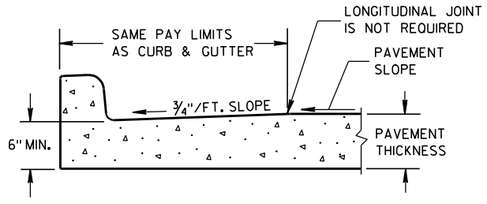
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

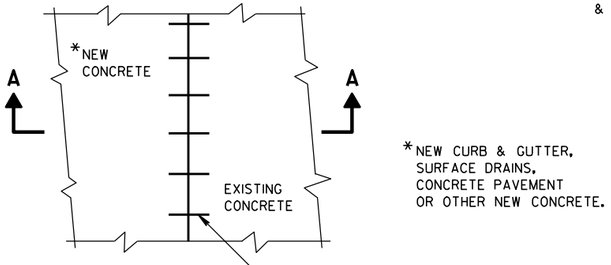
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



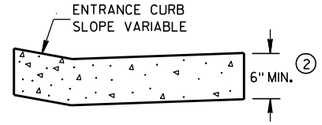
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



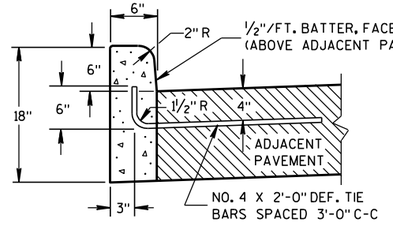
PLAN VIEW

SECTION A-A

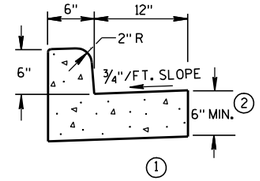
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

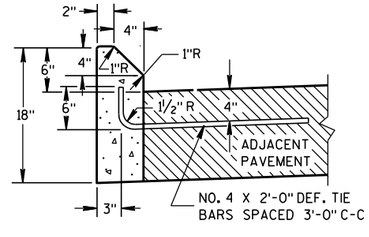


(1) TYPES A & D

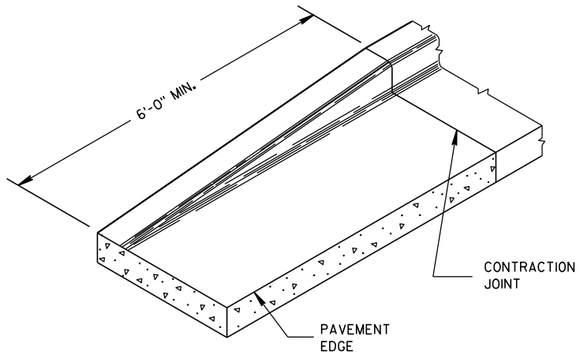


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

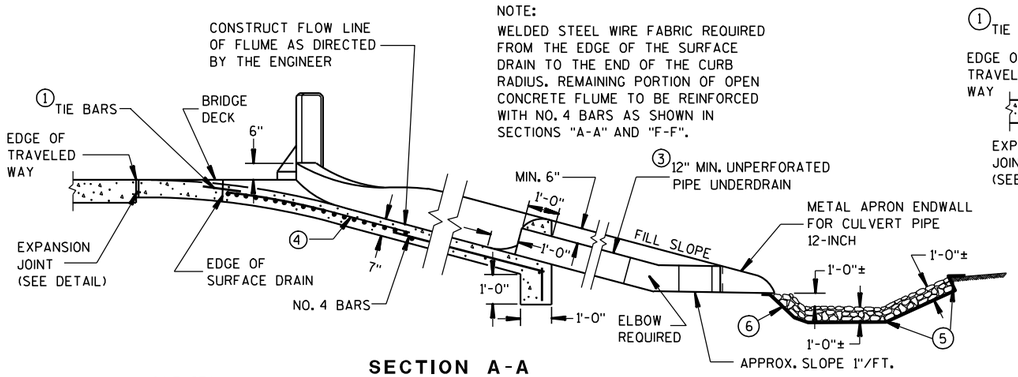
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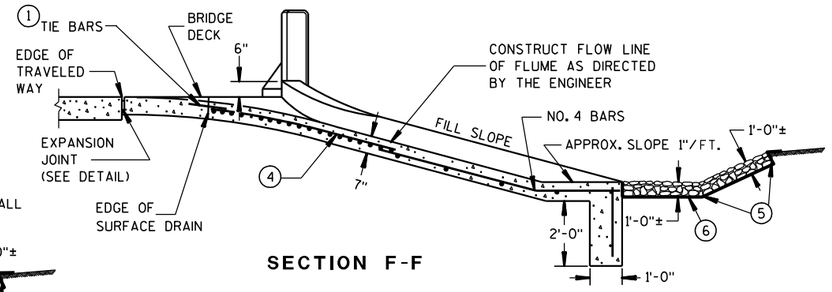
S.D.D. 8 D 1-17

6

S.D.D. 8 D 1-17



SECTION A-A



SECTION F-F

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

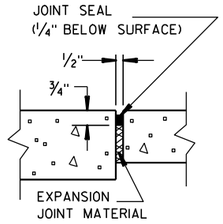
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

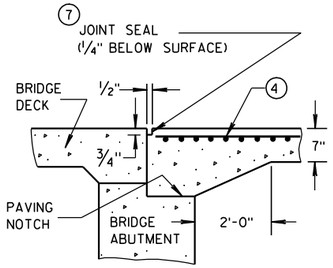
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

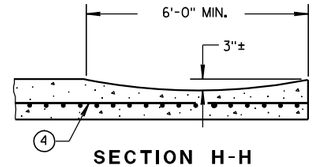
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



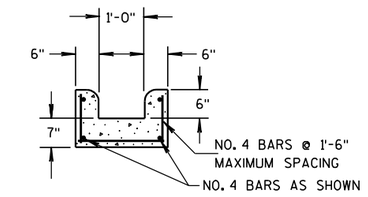
EXPANSION JOINT DETAIL



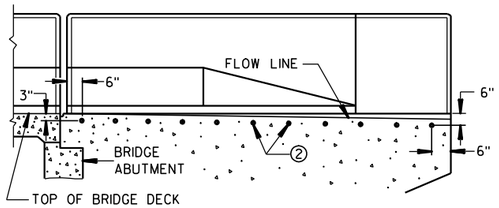
SECTION D-D



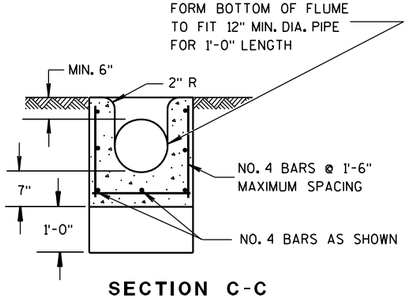
SECTION H-H



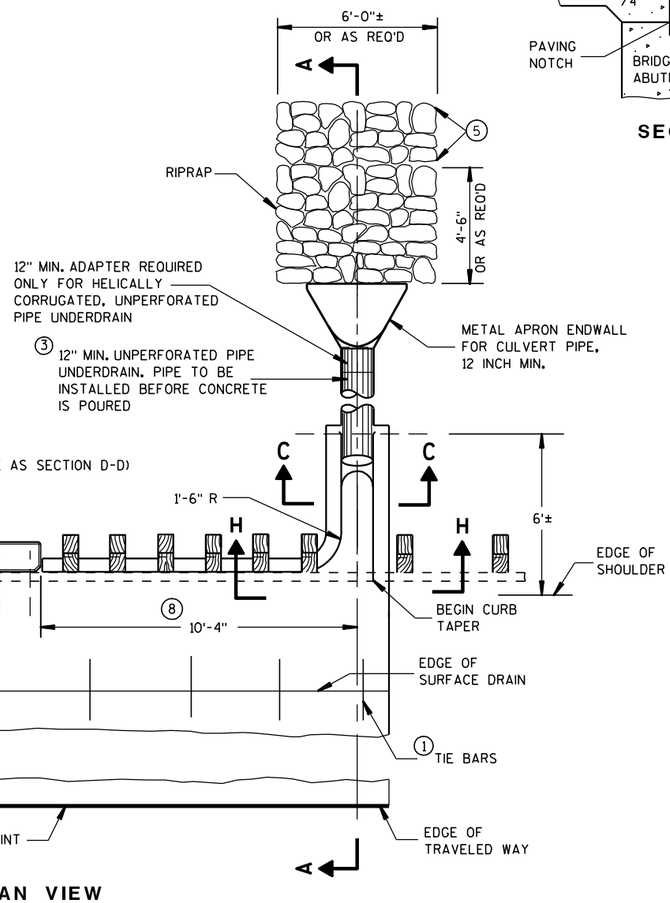
SECTION E-E



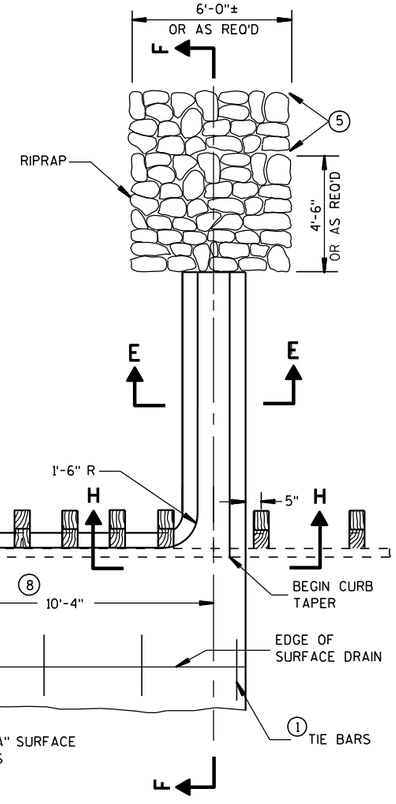
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

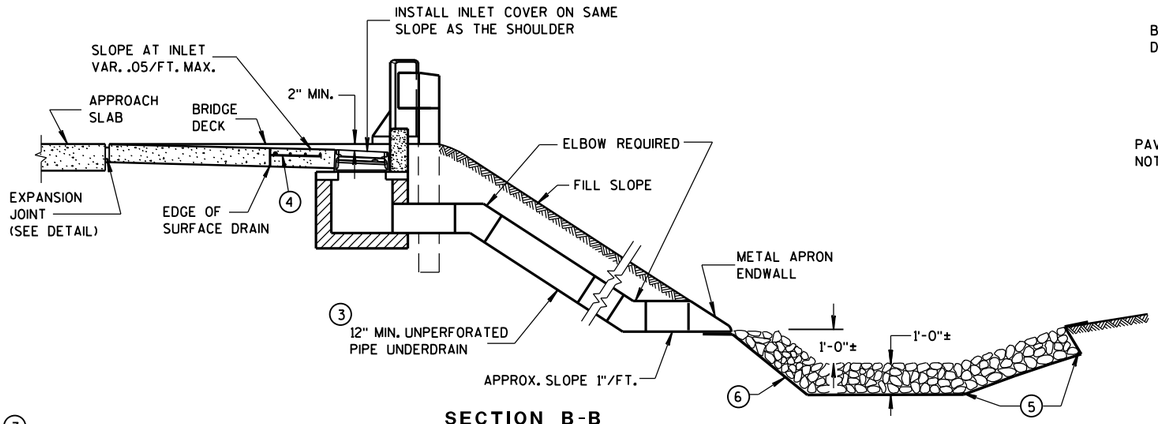
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
317
FHWA

6

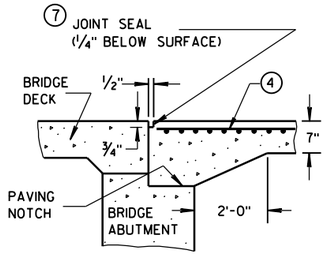
S.D.D. 8 D 2-6

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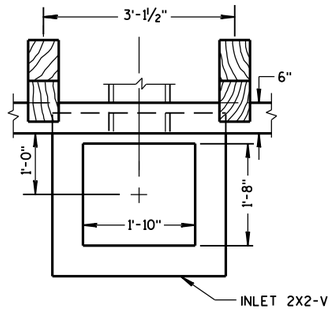
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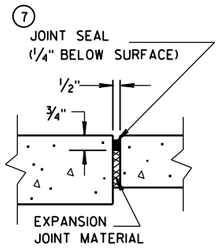
SECTION B-B



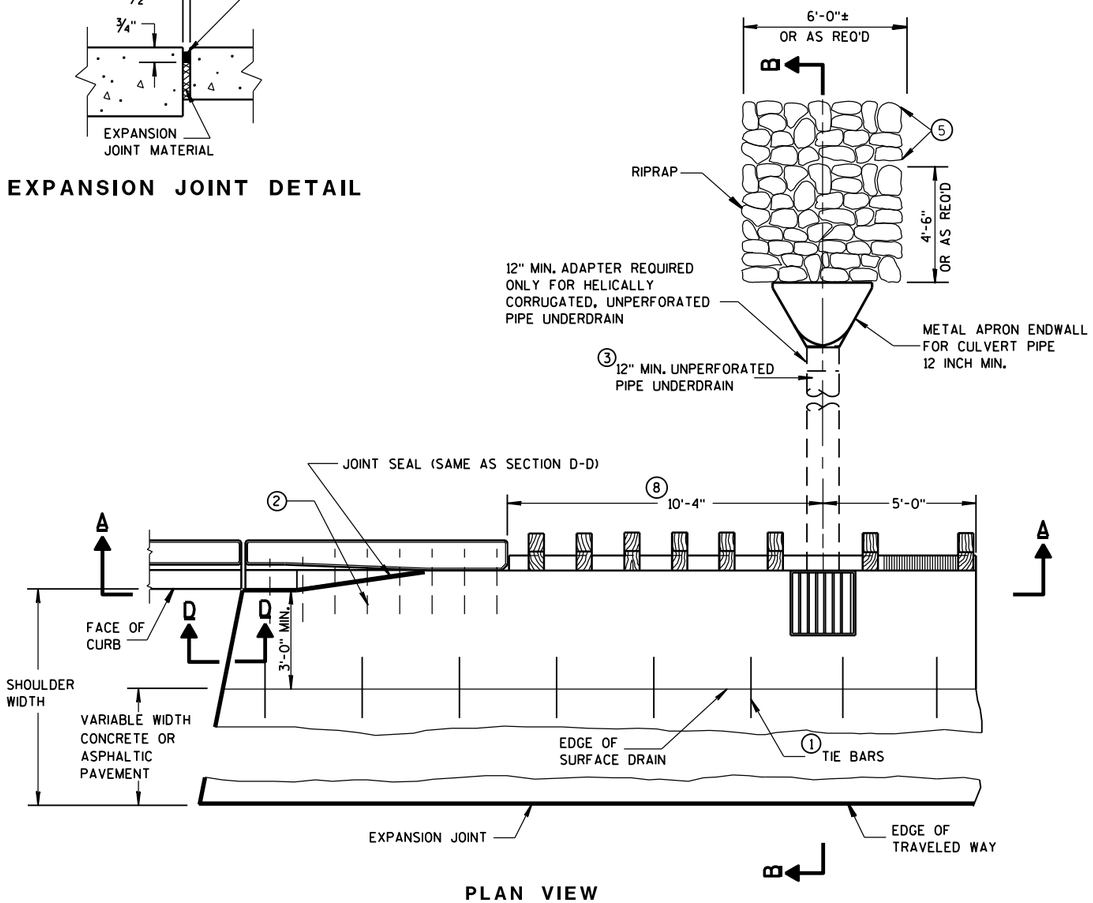
SECTION D-D



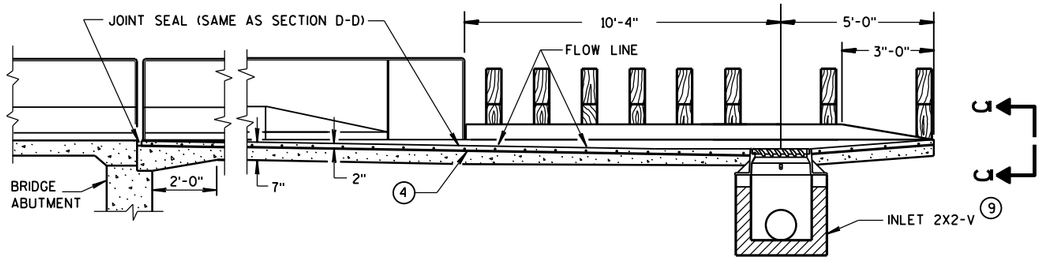
PLAN VIEW



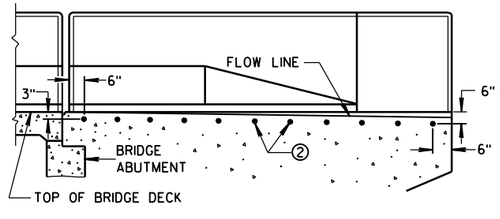
EXPANSION JOINT DETAIL



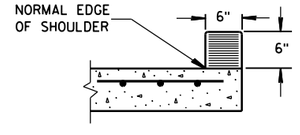
PLAN VIEW



SECTION A-A



LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

GENERAL NOTES

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

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(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(6) GEOTEXTILE FABRIC, TYPE 'R'

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".

(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

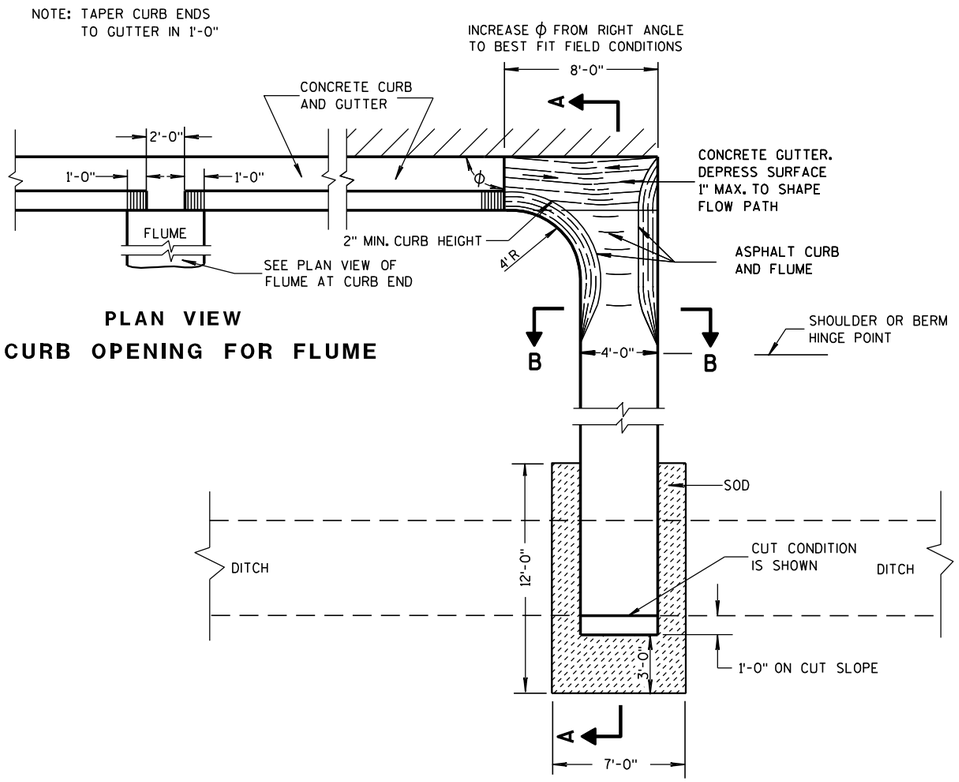
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

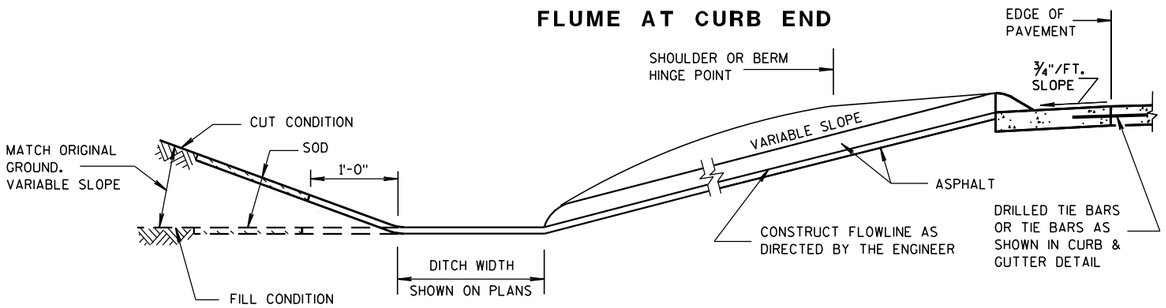
S.D.D. 8 D 3-6

ASPHALTIC FLUME

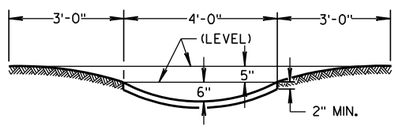


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

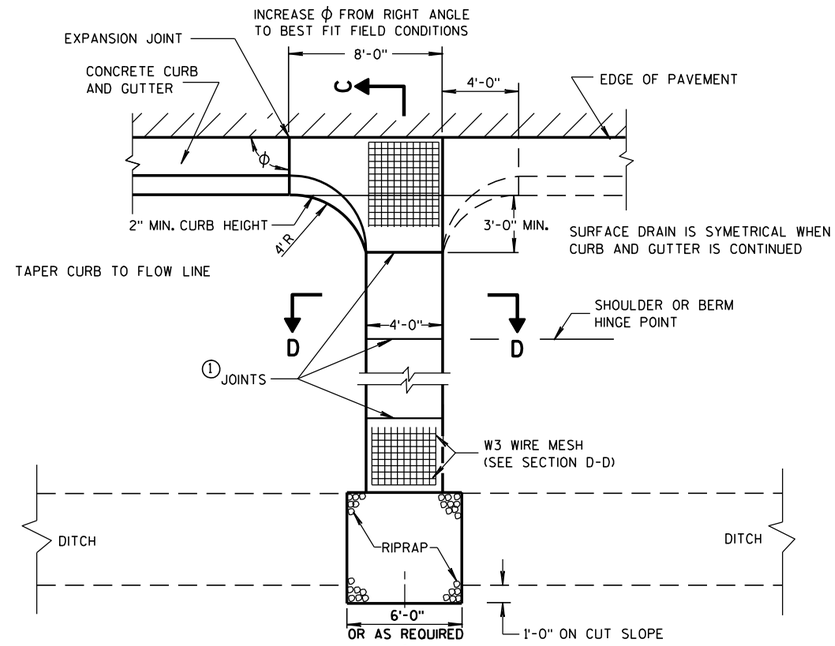
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

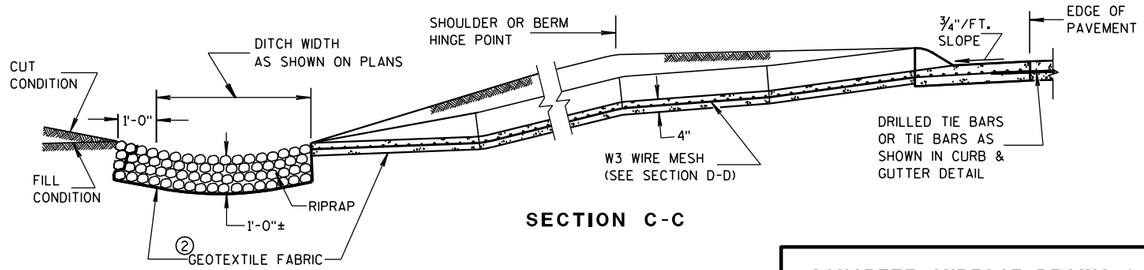
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

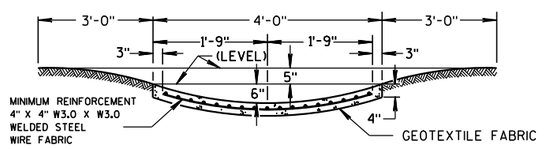
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

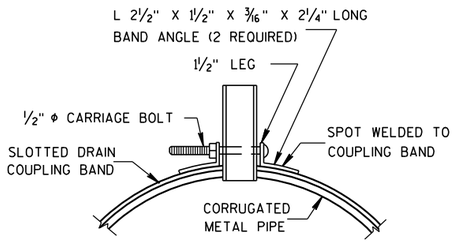
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

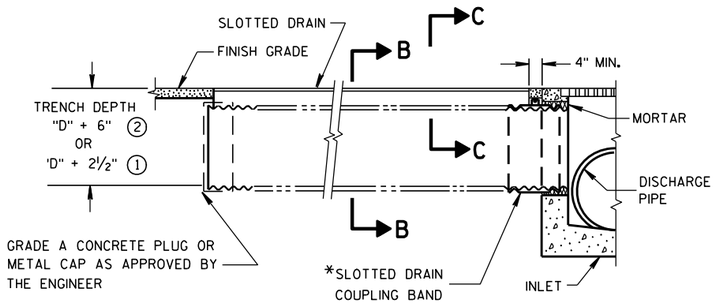
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

S.D.D. 8 D 4-5

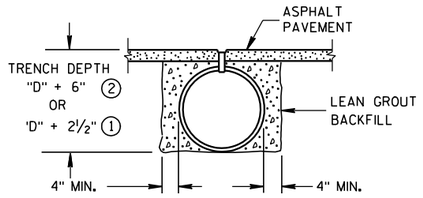
S.D.D. 8 D 4-5



SECTION A-A



SLOTTED DRAIN INSTALLATION TYPE "A"



SECTION B-B

GENERAL NOTES

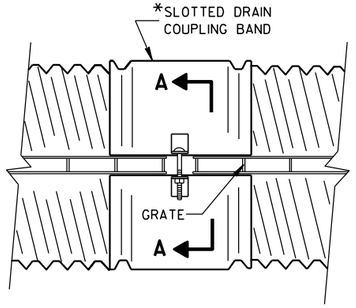
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BACKFILL MATERIAL

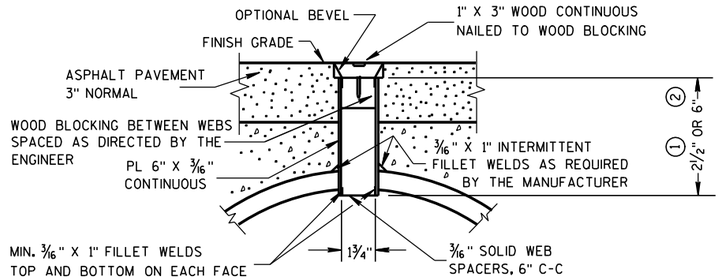
THE LEAN GROUT BACKFILL MATERIAL SHALL BE A FINE AGGREGATE, IN ACCORDANCE WITH SUBSECTION 501.3.6.3.6 OF THE STANDARD SPECIFICATIONS, MIXED WITH 150 POUNDS OF CEMENT AND APPROXIMATELY 30 GALLONS OF WATER FOR EACH 3000 POUNDS OF FINE AGGREGATE.

THE PIPE FOR THE SLOTTED DRAIN SHALL MEET AASHTO DESIGNATION M-36, AND THE GRATE ASSEMBLIES SHALL BE MADE FROM STRUCTURAL STEEL SUITABLY WELDED TO FORM THE OPEN SLOT AND HOT-DIP GALVANIZED TO MEET THE PROVISIONS OF AASHTO DESIGNATION M-111.

NORMAL PIPE SIZES ARE 12-INCH THROUGH 24-INCH DIAMETER IN 0.064 INCH THICKNESS, AND 30-INCH DIAMETER PIPE IN 0.079 INCH THICKNESS.

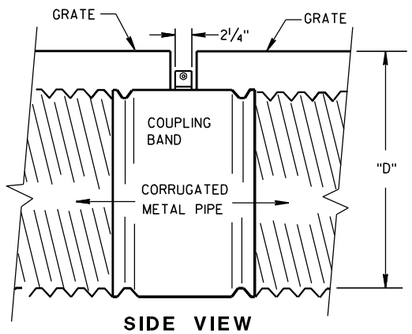


PLAN VIEW



SECTION C-C

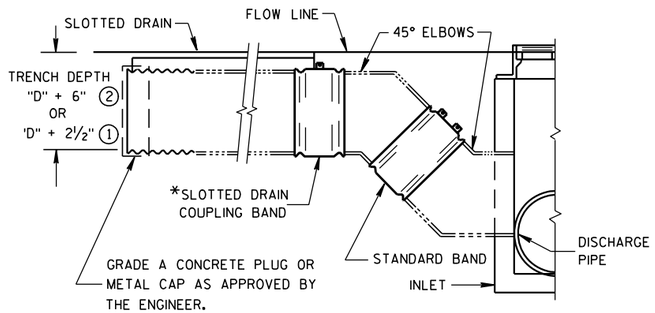
GRATE SLOT DETAIL



SIDE VIEW

*TYPICAL COUPLING BAND FOR SLOTTED DRAIN

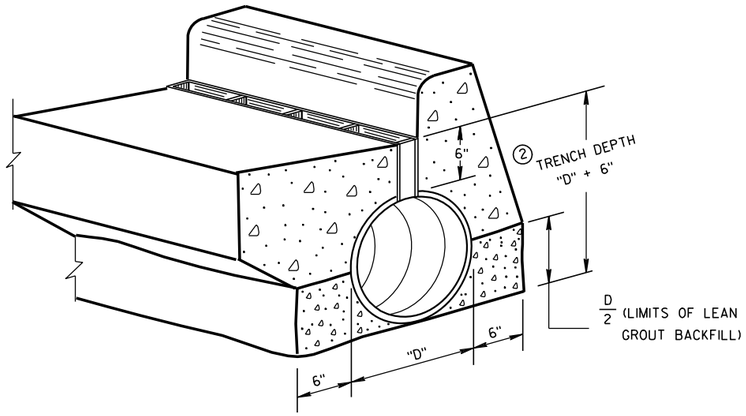
(ALTERNATES PERMITTED AS APPROVED BY THE ENGINEER)



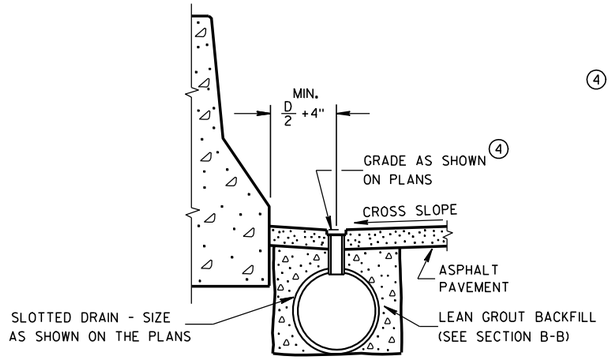
SLOTTED DRAIN INSTALLATION TYPE "B"

NOTE:

TO PREVENT "FLOATING" OF THE SLOTTED DRAIN DURING BACKFILL OPERATIONS PROVIDE ADEQUATE WEDGES, OR POUR THE LEAN GROUT ON TOP OF THE PLUGGED SLOT ALLOWING IT TO SLOUGH TO THE SIDES OF THE PIPE. THIS WILL PROVIDE ENOUGH WEIGHT ON TOP TO KEEP THE PIPE FROM FLOATING.



SLOTTED DRAIN INSTALLATION IN FLOW LINE OF CURB & GUTTER TYPE "C"



SLOTTED DRAIN INSTALLATION AT MEDIAN BARRIER TYPE "D"

① 2½" NORMAL GRATE DEPTH.

② 6" SPECIAL GRATE DEPTH, WHEN SPECIFIED ON THE PLANS.

③ FOR SCREEDING DIRECTLY OVER THE SLOTTED DRAIN WITH ASPHALT PAVER. FOR CONCRETE SURFACE USE 3" WIDE TAPE OVER THE SLOT TO KEEP MATERIAL OUT OF THE PIPE.

④ WHEN THE SURFACE IS CONCRETE PAVEMENT THE GRADE AS SHOWN ON THE PLANS WILL BE FLUSH WITH THE TOP OF THE SLOTTED DRAIN.

SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/30/79 — DATE

/S/ D. L. Strand — CHIEF ROADWAY DEVELOPMENT ENGINEER

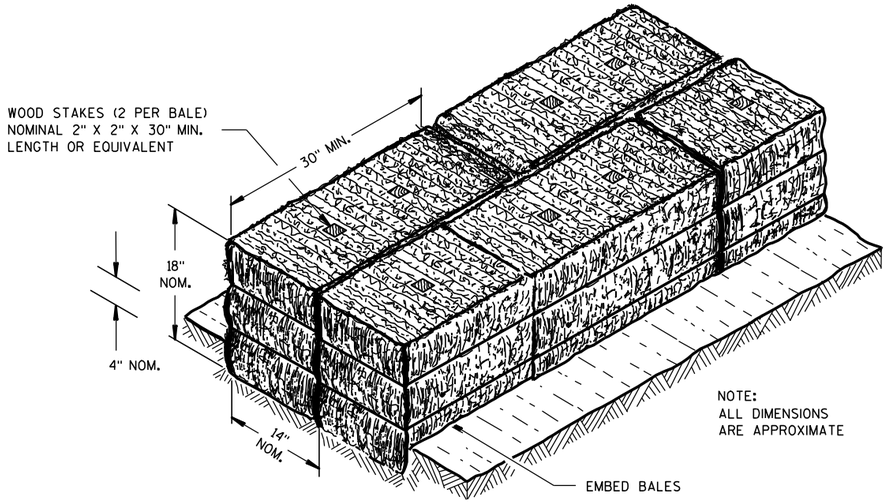
FHWA

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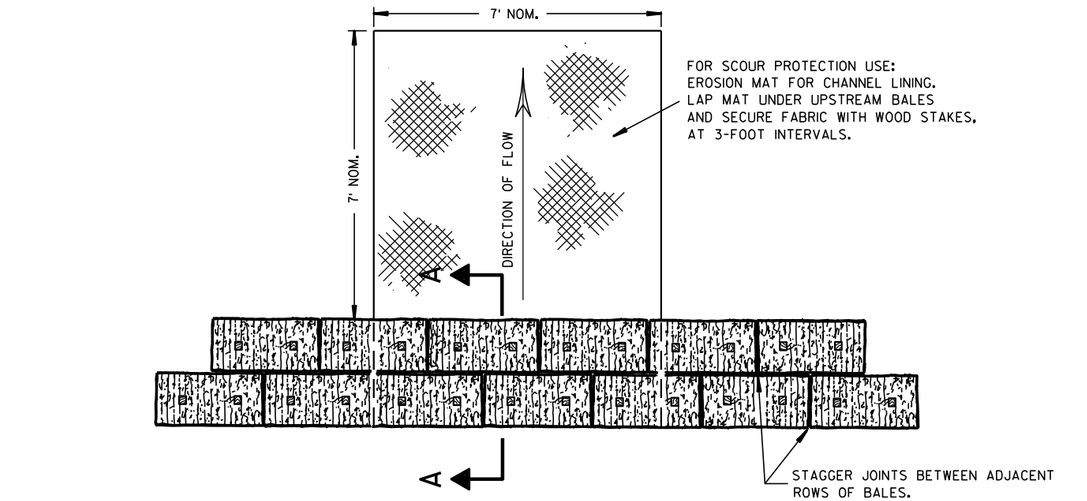
S.D.D. 8 D 13-1

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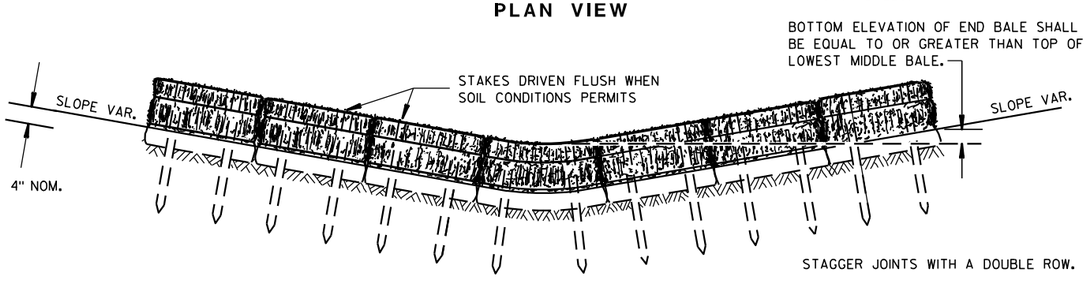
S.D.D. 13 D 13-1



SECTION A-A



PLAN VIEW



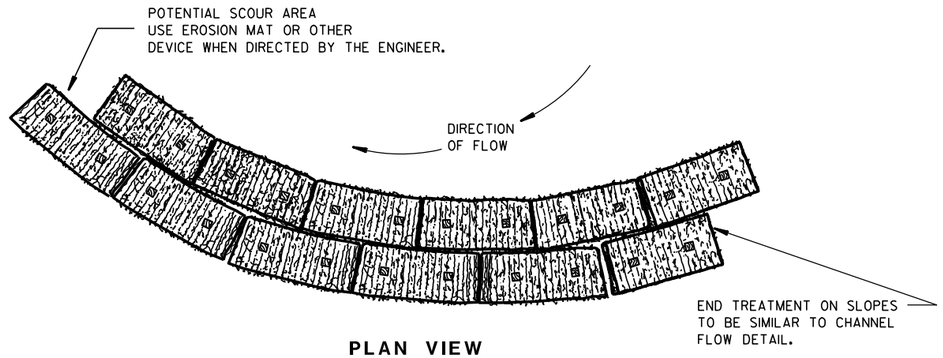
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

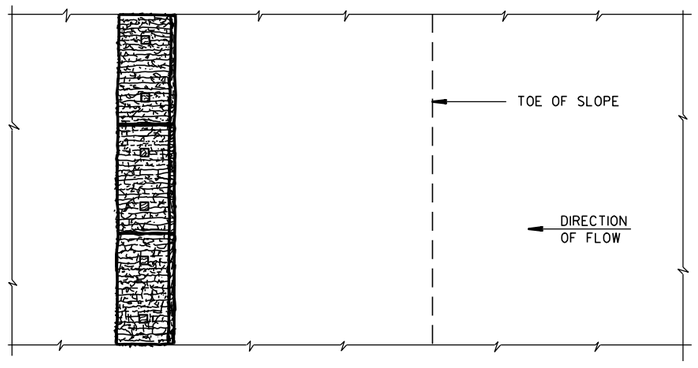
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

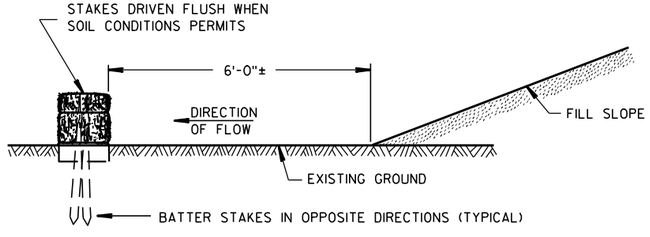


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

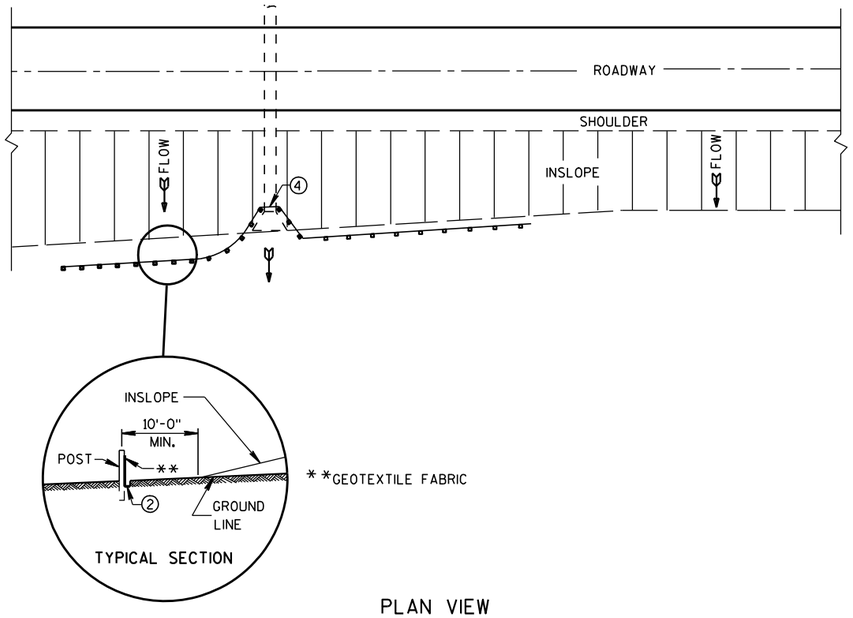
FHWA

6

S.D.D. 8 E 8-3

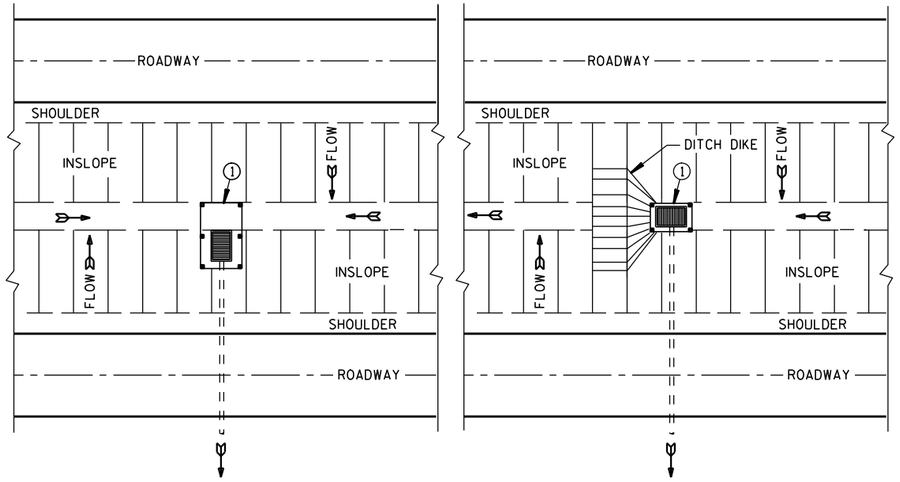
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S.D.D. 8 E 8-3



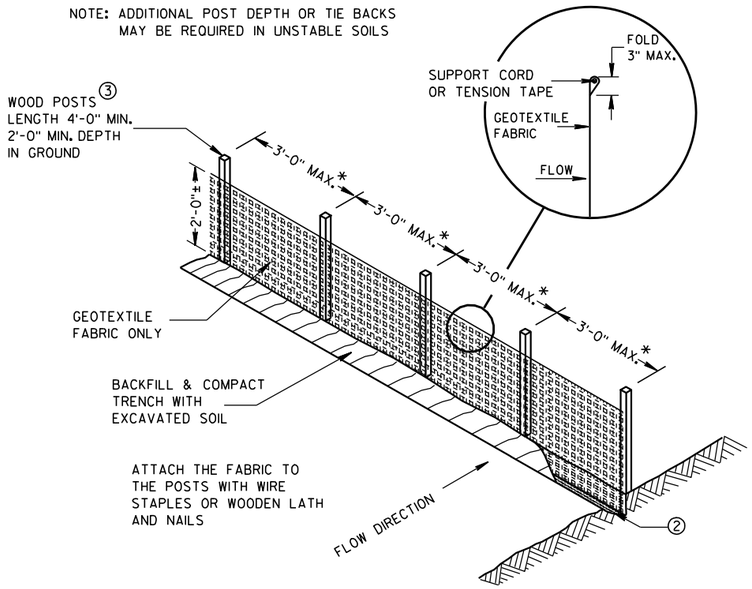
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



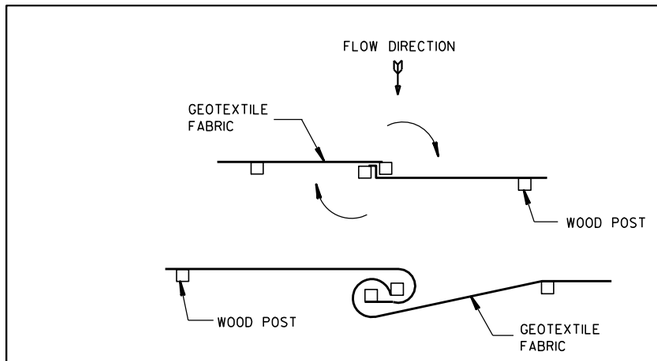
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

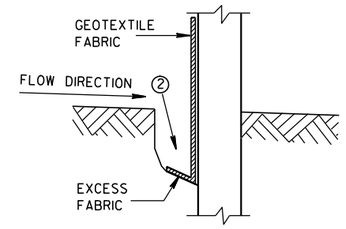


JOINING TWO LENGTHS OF SILT FENCE 5

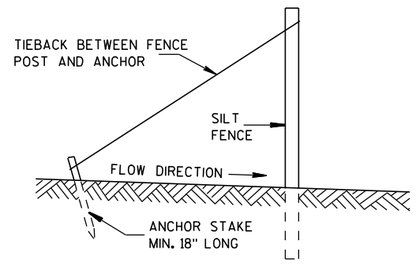
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

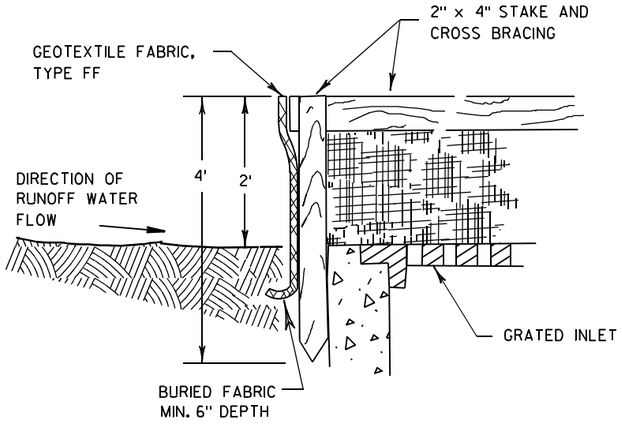
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

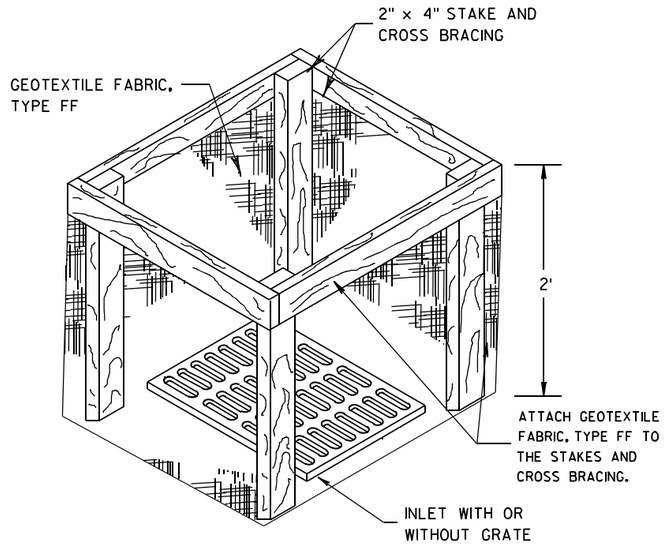
6

S.D.D. 8 E 9-6

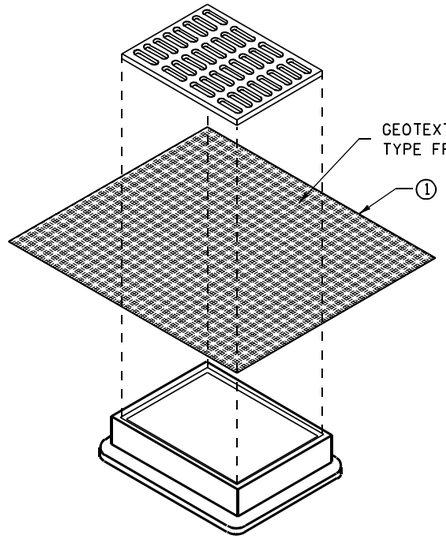
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S.D.D. 8 E 9-6



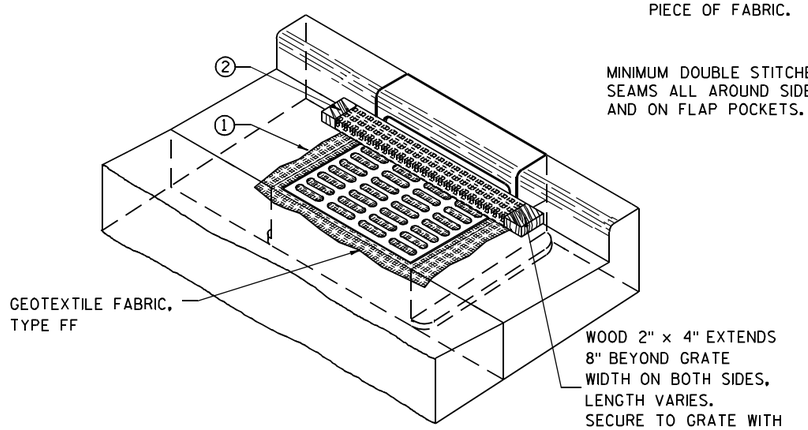


INLET PROTECTION, TYPE A

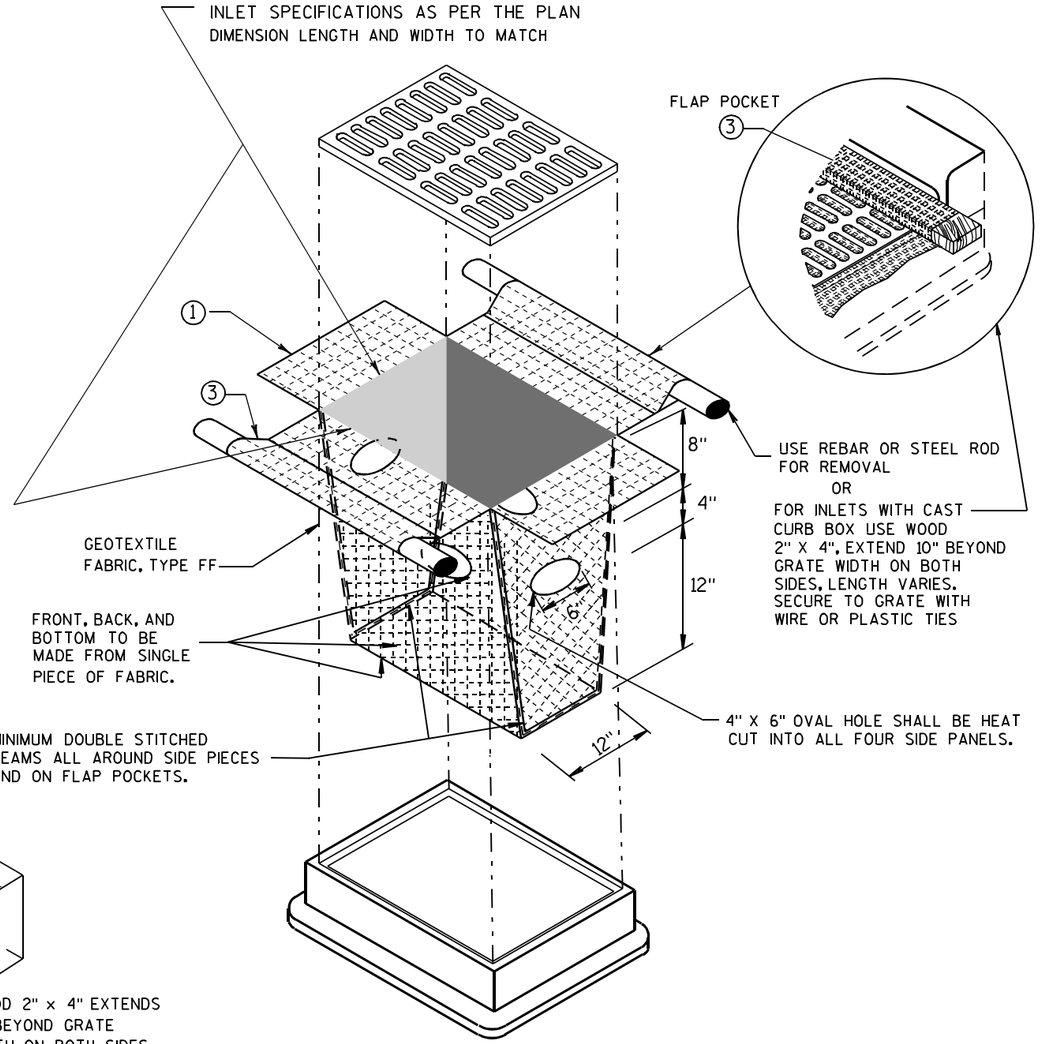


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

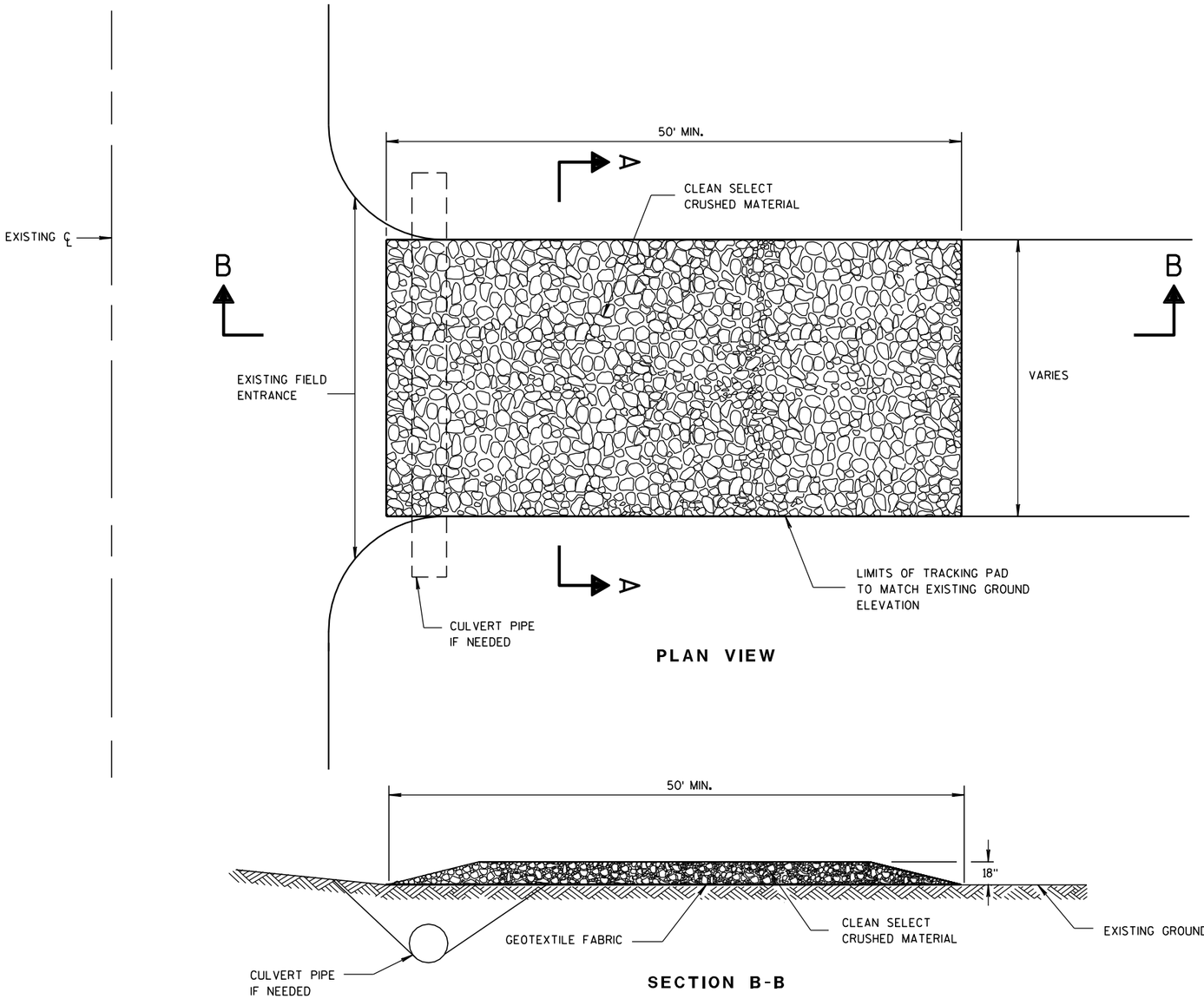
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

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

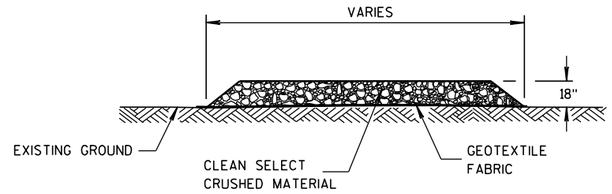
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

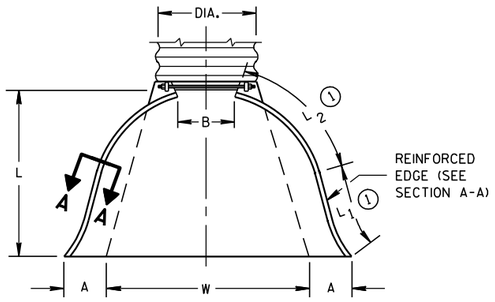
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

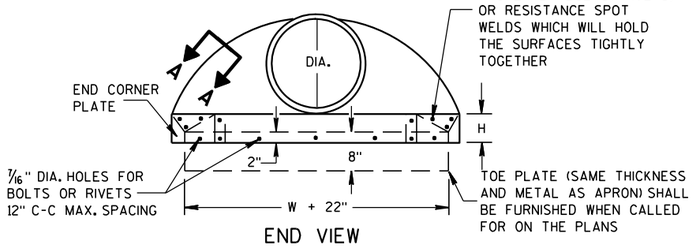
REINFORCED CONCRETE APRON ENDWALLS

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

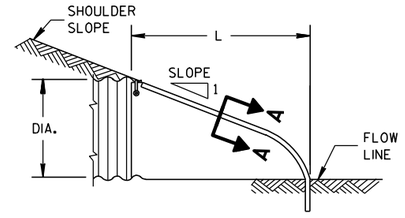
*MINIMUM
**MAXIMUM



PLAN VIEW

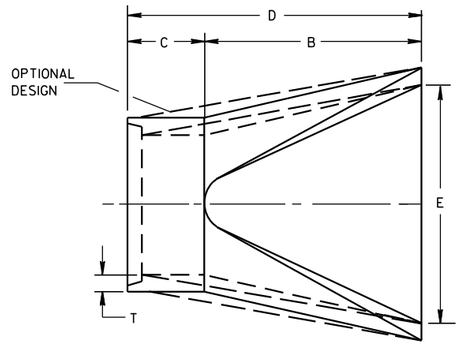


END VIEW

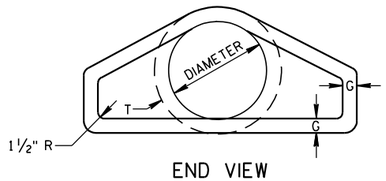


SIDE ELEVATION

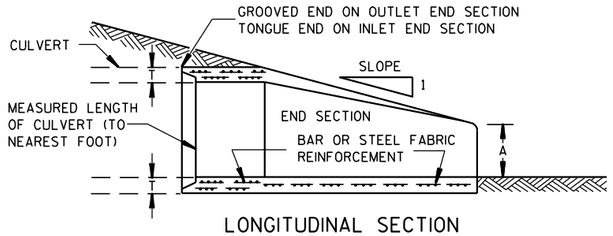
METAL ENDWALLS



PLAN

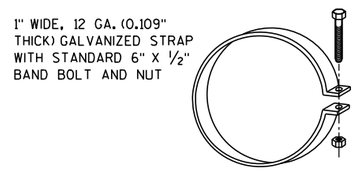


END VIEW



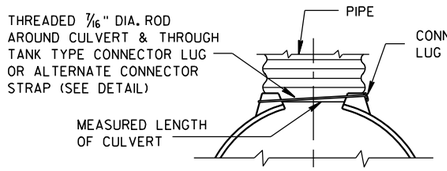
LONGITUDINAL SECTION

CONCRETE ENDWALLS

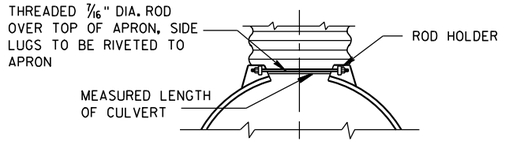


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

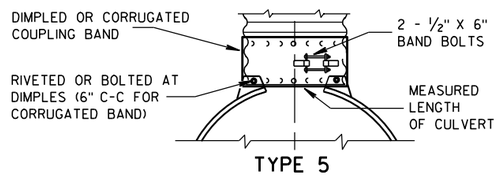


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

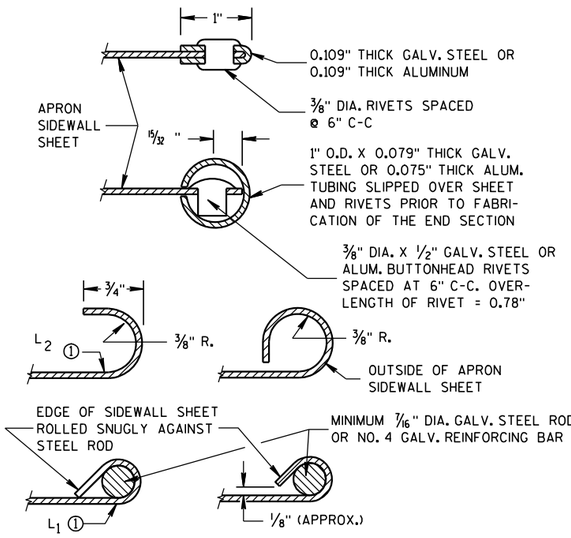
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

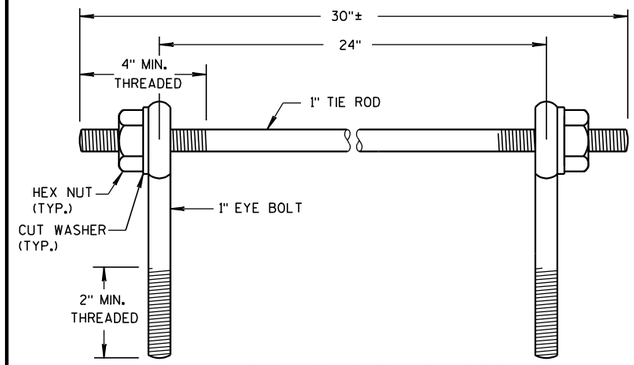
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT 325 ENGINEER
FHWA

6

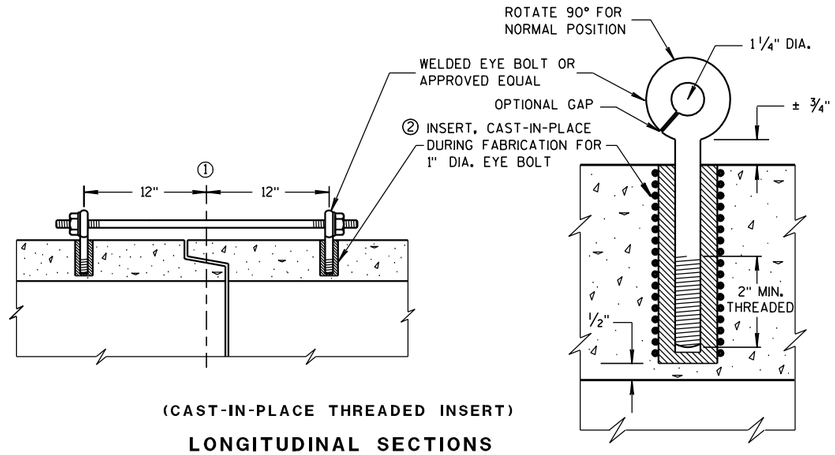
S.D.D. 8 F 1-11

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

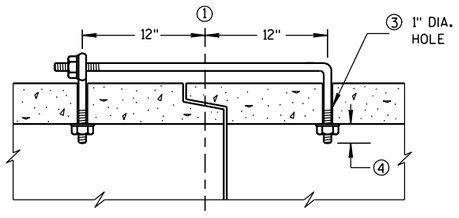
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

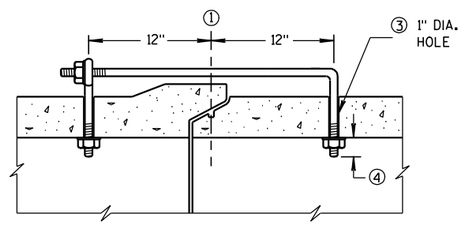
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

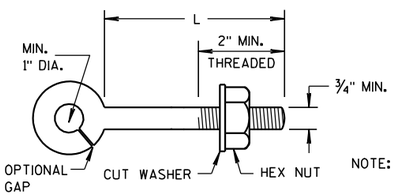


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

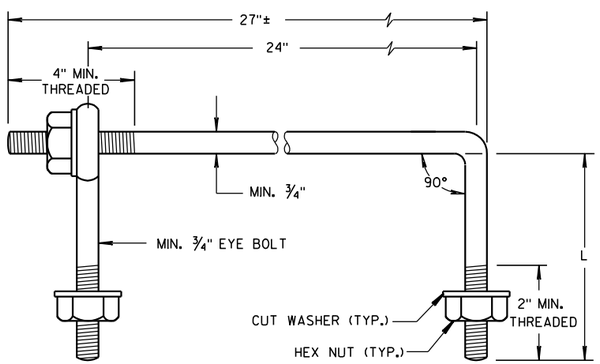
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

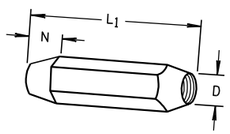
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

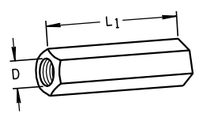
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



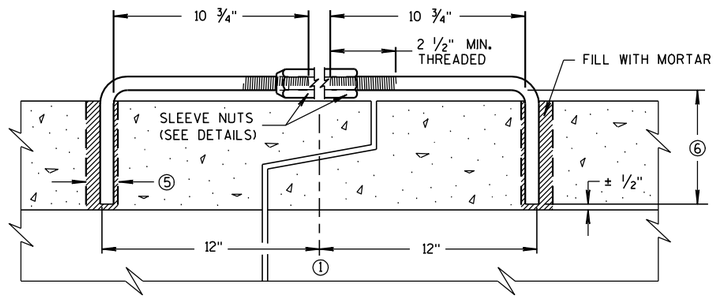
TAPERED



PLAIN

RIGHT AND LEFT THREADS

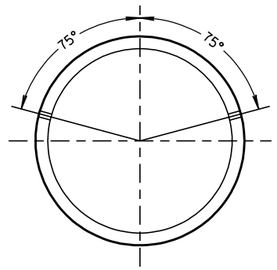
SLEEVE NUTS



LONGITUDINAL SECTION

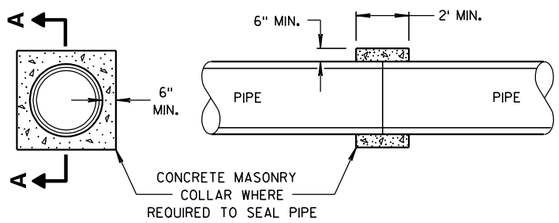
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
326
FHWA

6

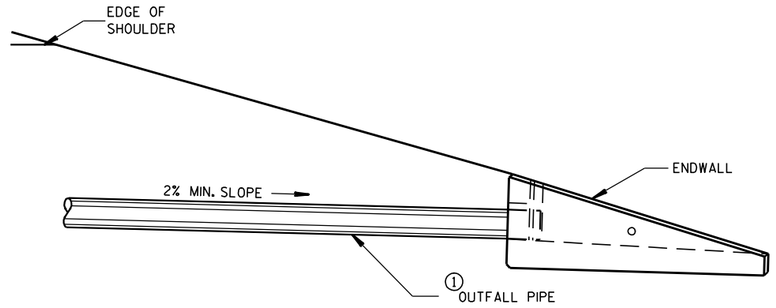
S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

GENERAL NOTES

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

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

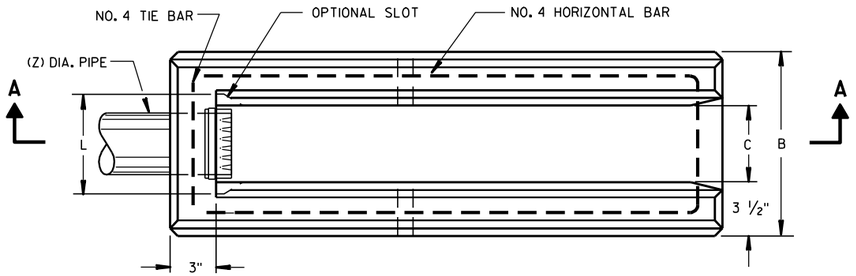
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

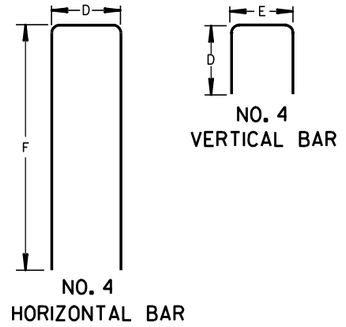
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

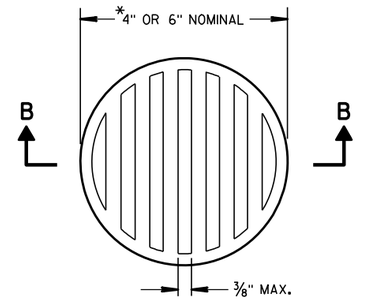
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

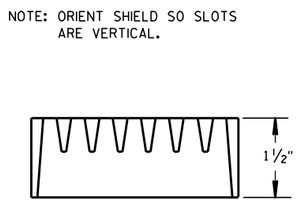


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

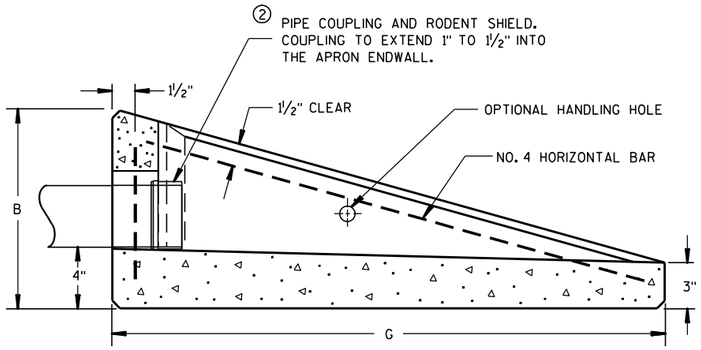




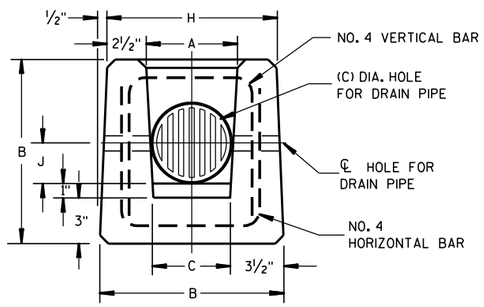
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

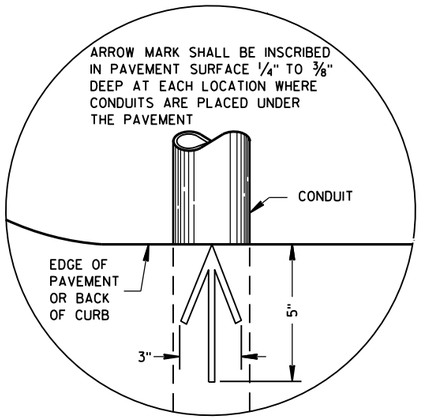
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

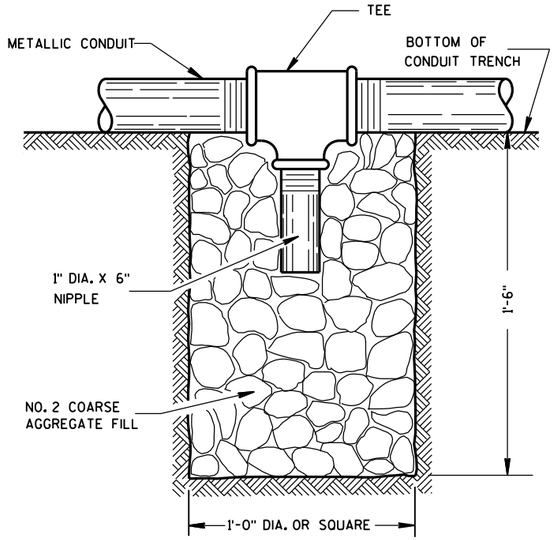
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S.D.D. 8 F 6-4



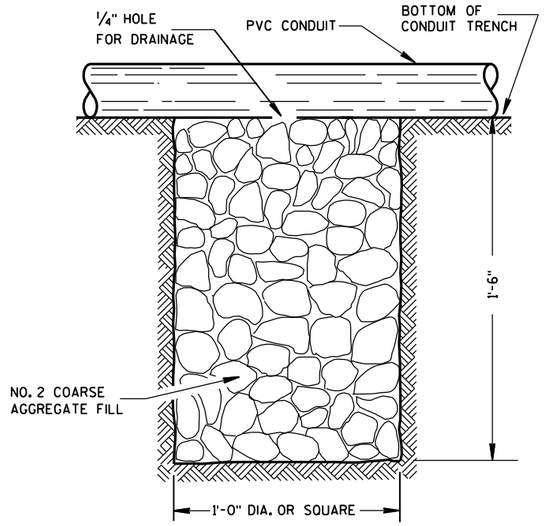
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

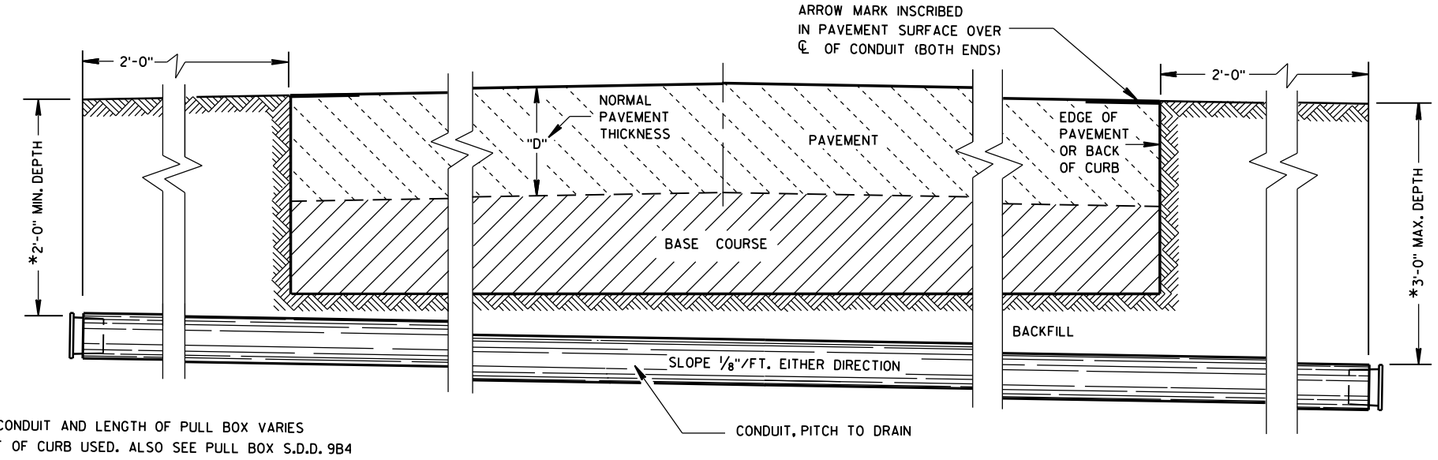
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

6

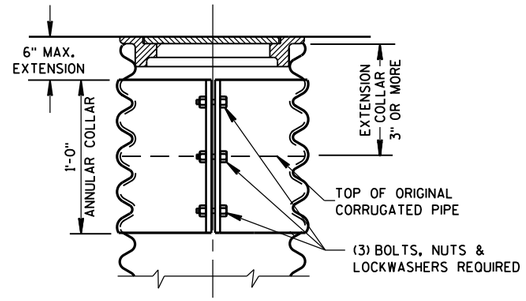
S.D.D. 9 B 2-8

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

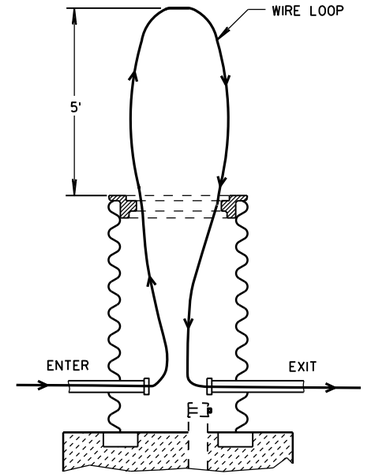
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

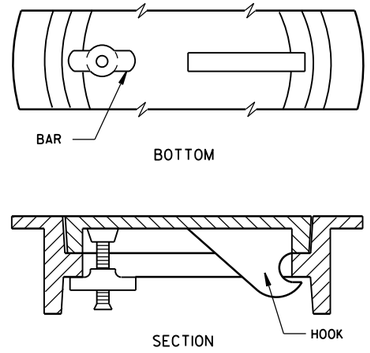
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

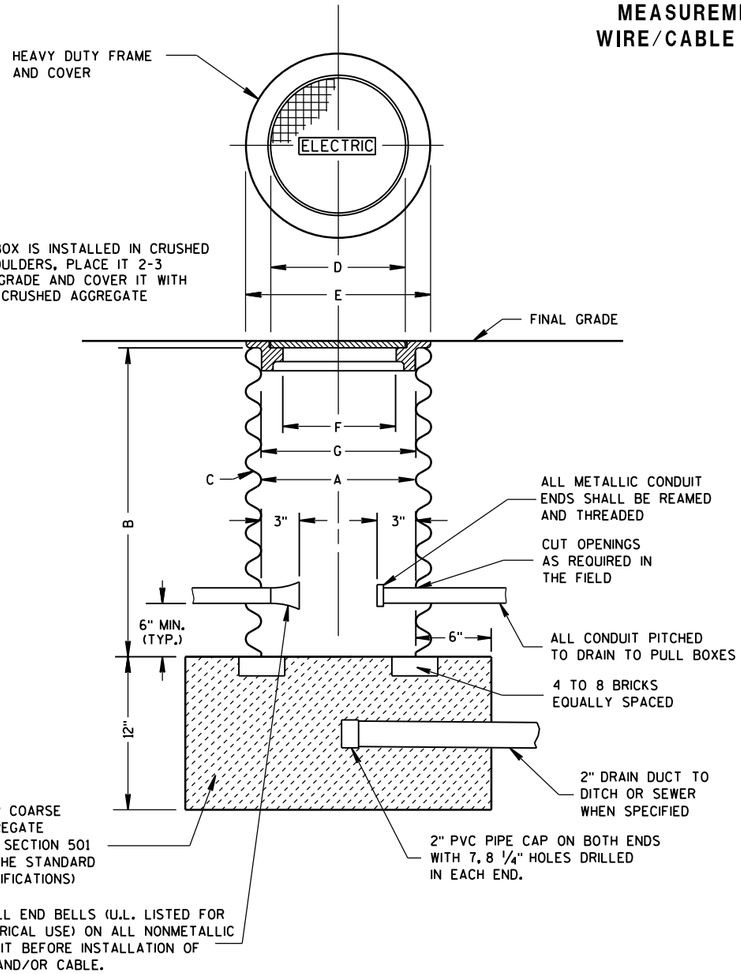


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



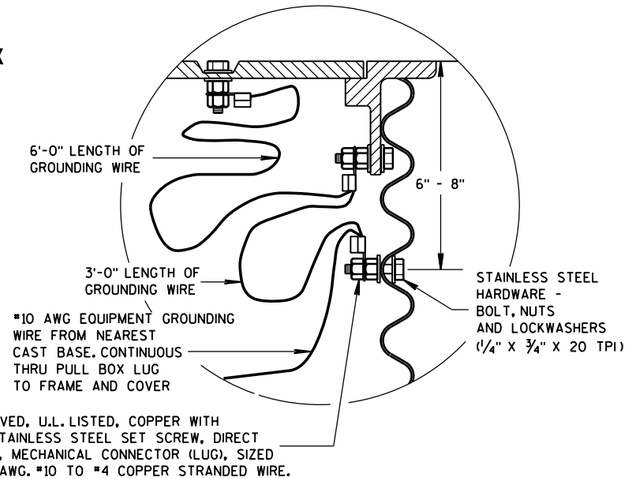
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

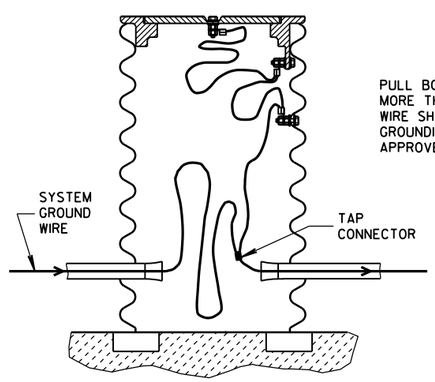


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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 1/4".

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

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

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

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 B 4-11

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

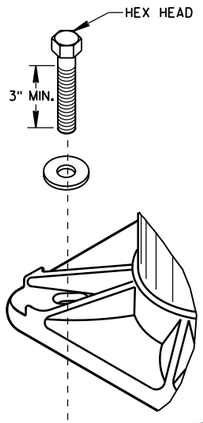
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

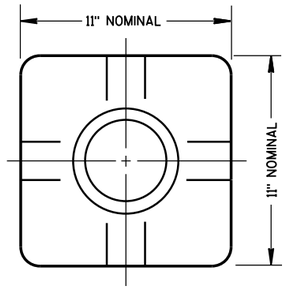
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

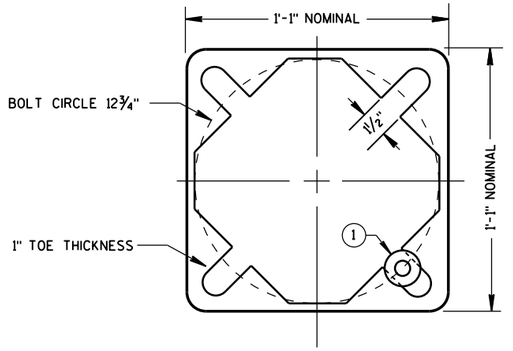
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

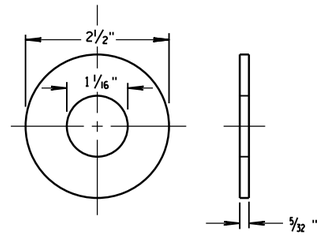




TOP VIEW
(PEDESTAL BASE)

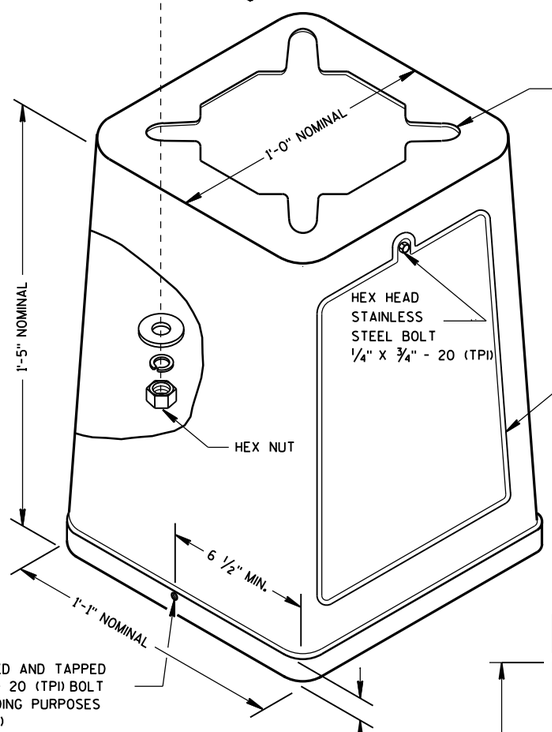


BOTTOM VIEW
(PEDESTAL BASE)

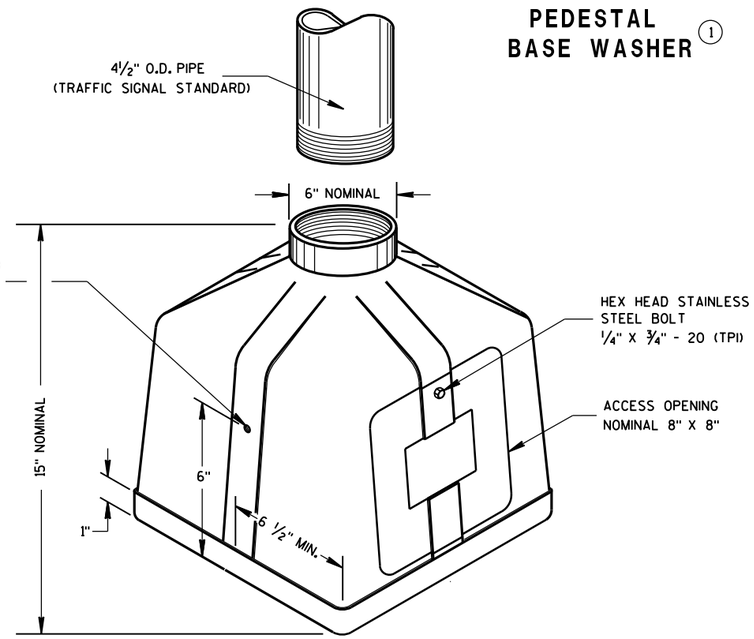


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

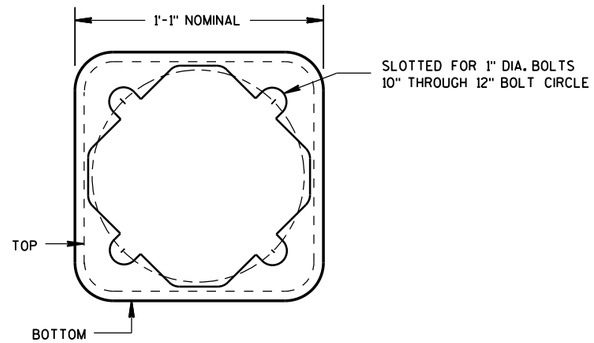


ISOMETRIC VIEW

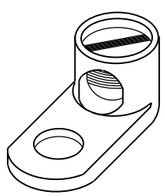


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

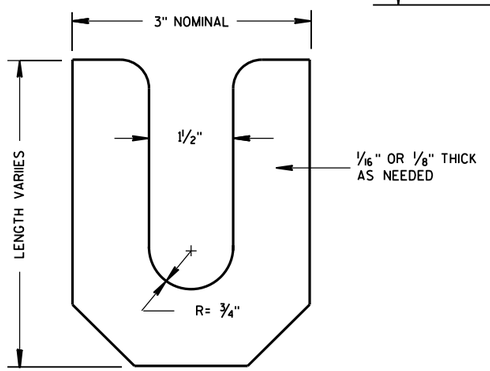


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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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 SMOOTH 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 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

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

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.

ANCHOR RODS SHALL BE 1" X 60".

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

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

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

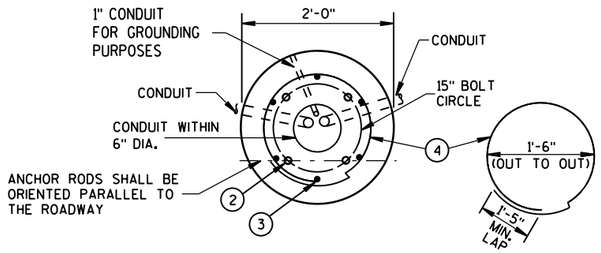
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

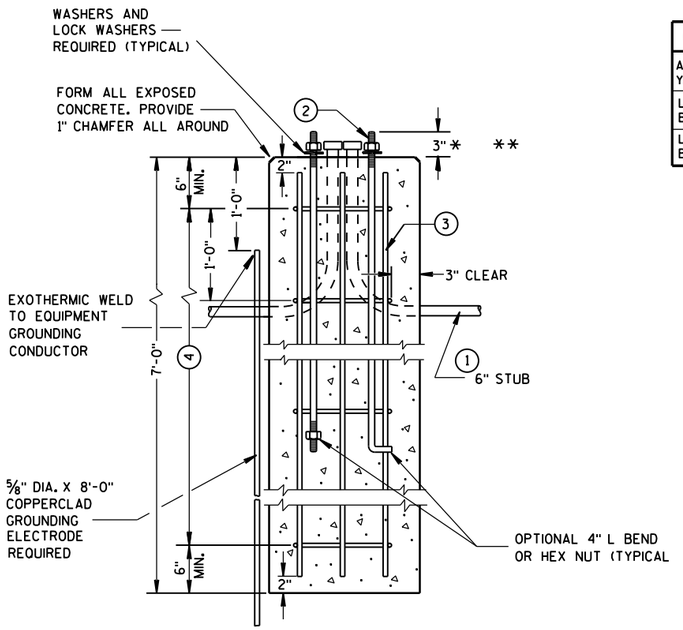
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN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

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

(3) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

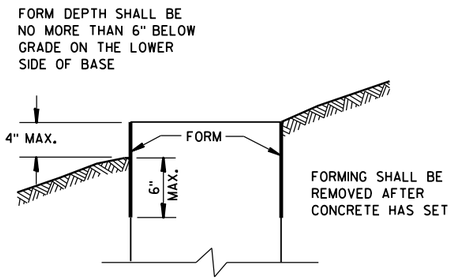




CONCRETE BASE, TYPE 7 (FOR 40' LIGHT POLES)

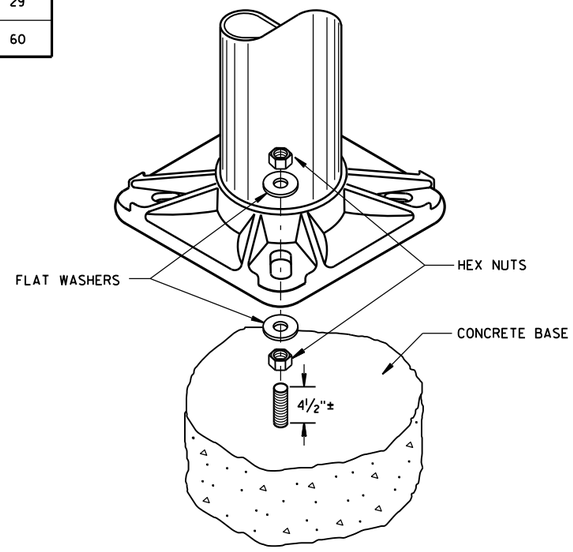
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.



FORMING DETAIL

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



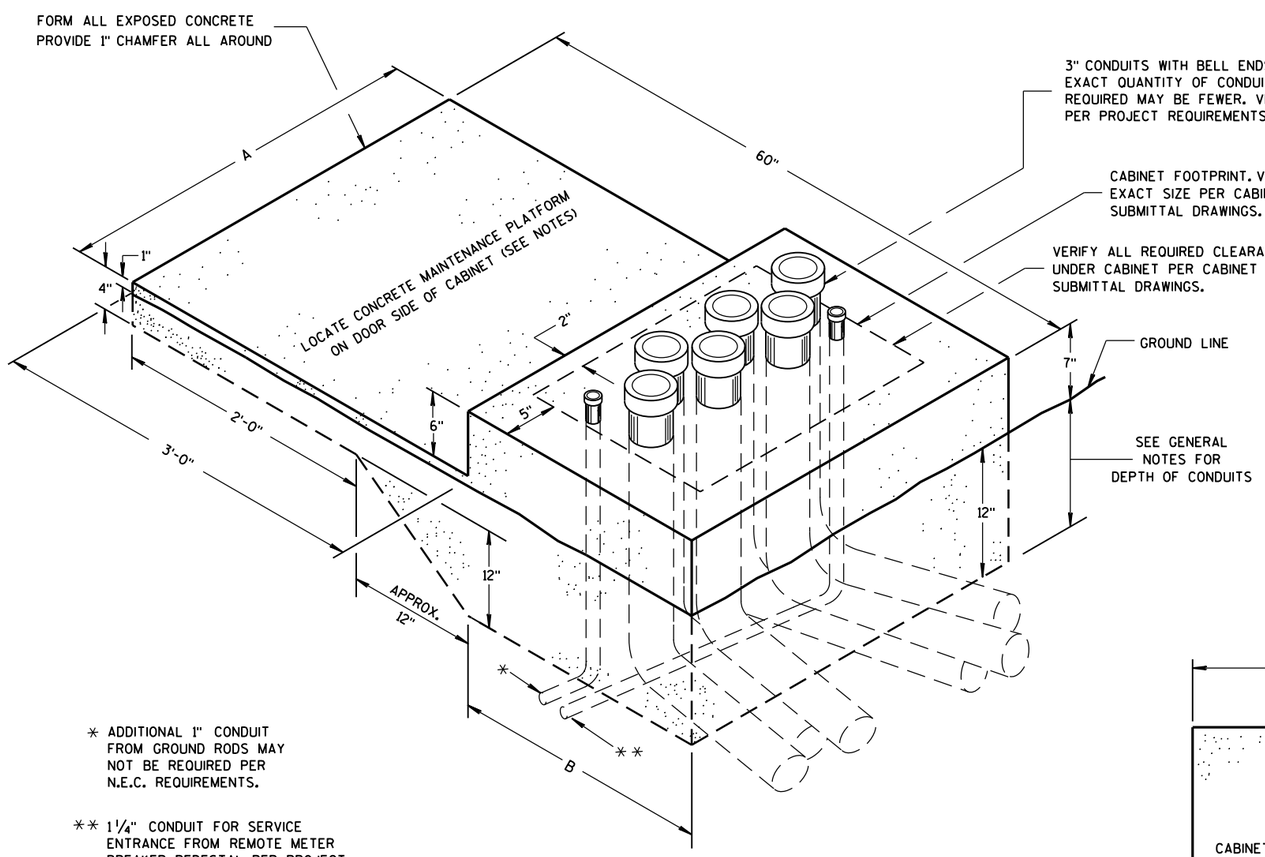
NON-BREAKAWAY INSTALLATION (LEVELING NUT)

CONCRETE BASE, TYPE 7

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

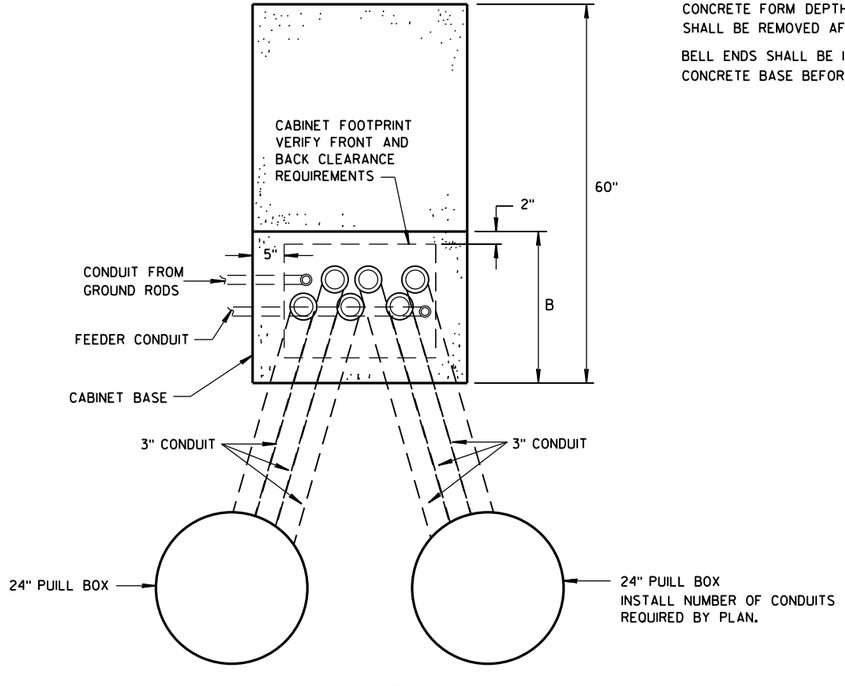
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

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

WHEN REQUIRED TO CONNECT 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 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.

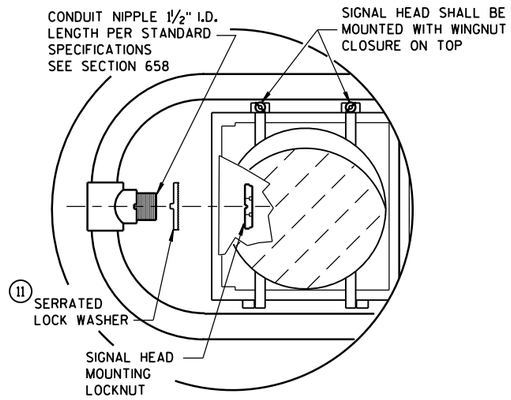
CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE — WYS
FHWA

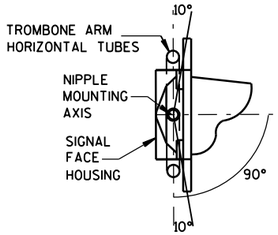
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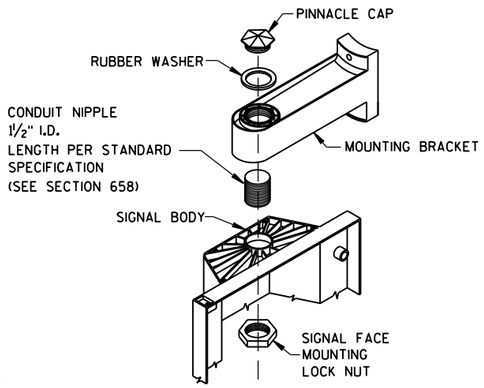
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

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

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.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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 FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(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 (¼" X ¾" LONG - 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 THE TRANSFORMER BASE.

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

*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

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.

(MAXIMUM LOAD)

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

TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

POLE SPLICE DETAIL

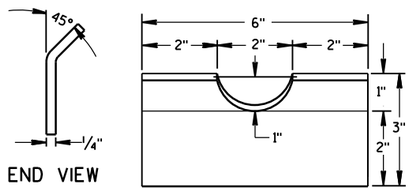
TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 9 E 1-13a

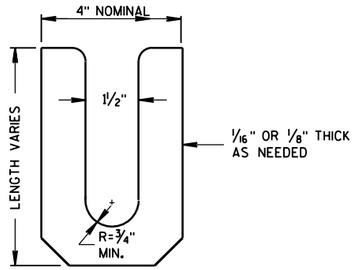


END VIEW

FRONT VIEW

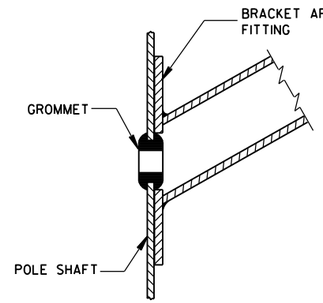
RECTANGULAR CLAMP SHIM

(4 TO A SET)

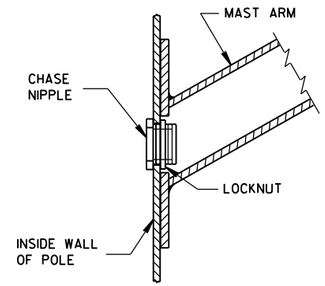


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

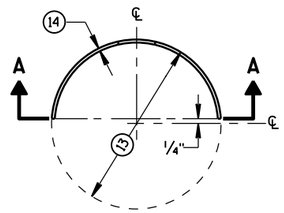
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

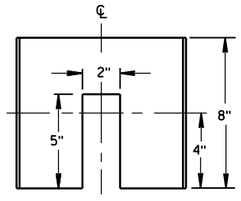
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



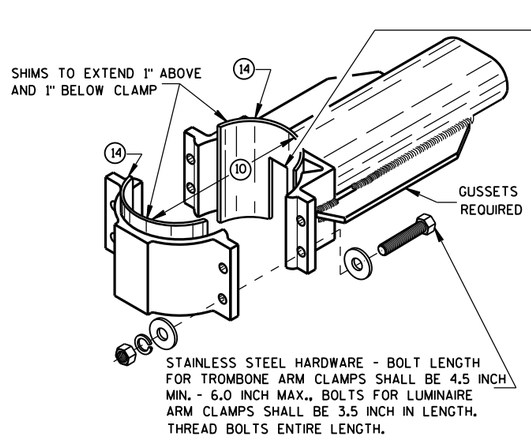
PLAN VIEW



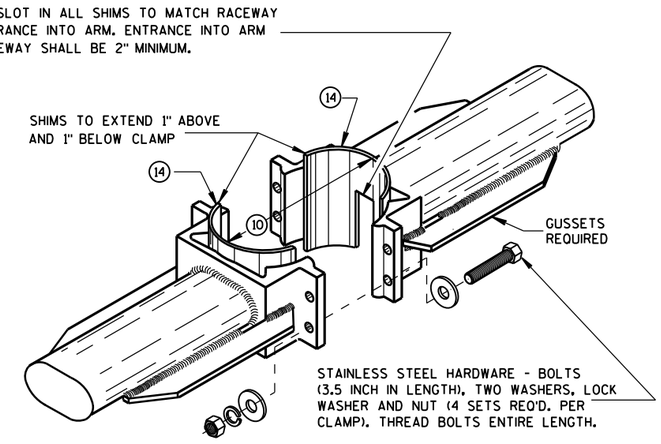
SECTION A-A

CIRCULAR CLAMP SHIM

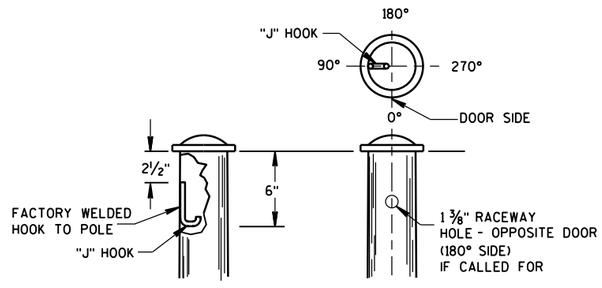
(2 TO A SET)



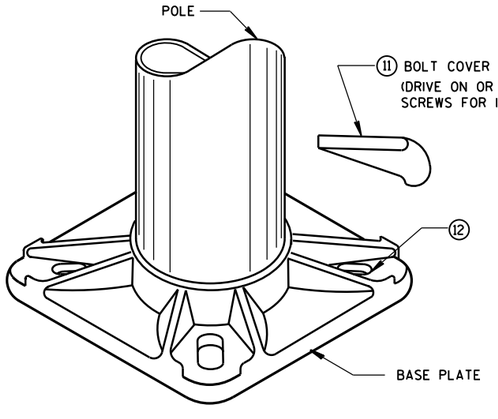
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



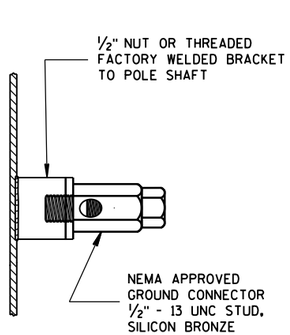
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

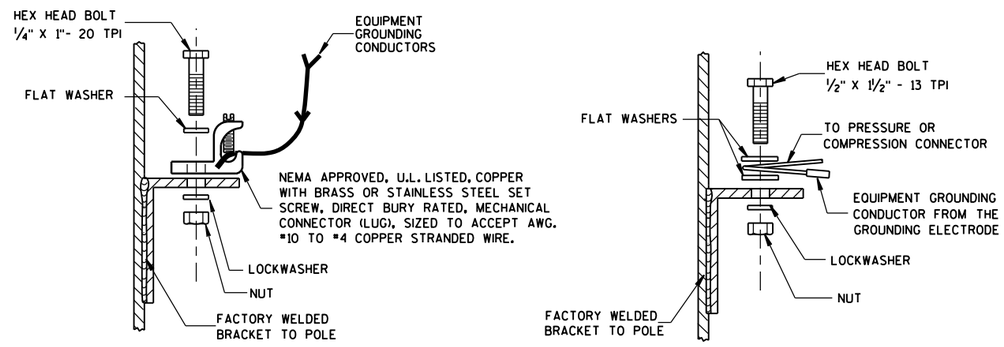


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

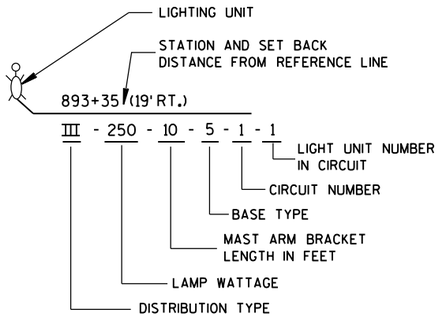
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

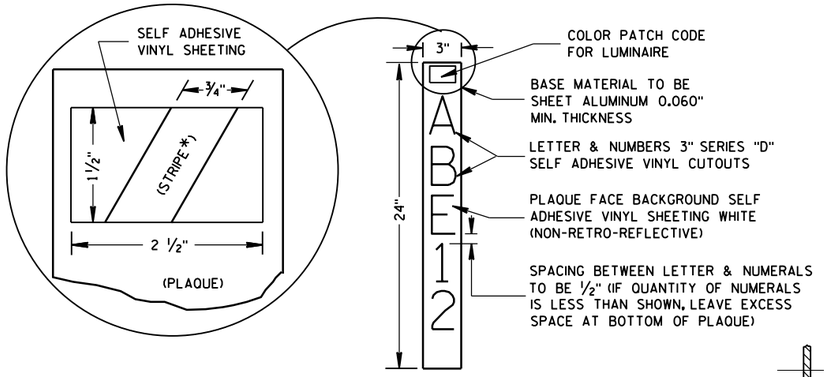
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 1-13g



LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

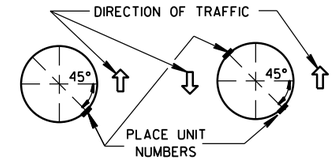
(HIGH PRESSURE SODIUM)

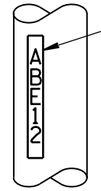
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W/WHITE STRIPE*
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)

400 WATT - (NO PATCH)
250 WATT - YELLOW

IDENTIFICATION PLAQUE





FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUM. POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES)

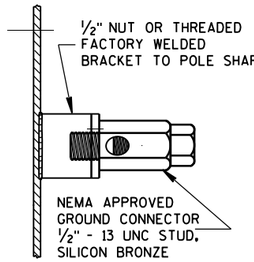
NOTES:

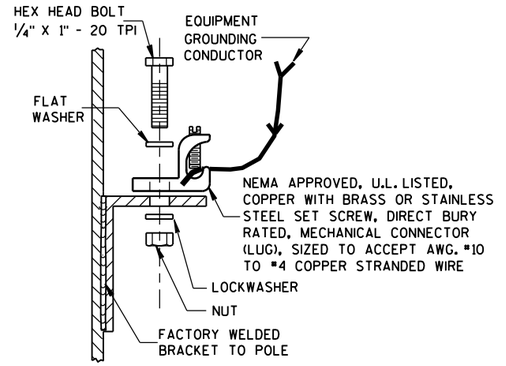
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBERS: ONE REQUIRED FOR SINGLE ARM POLES TWO REQUIRED FOR MEDIAN MOUNT POLES.

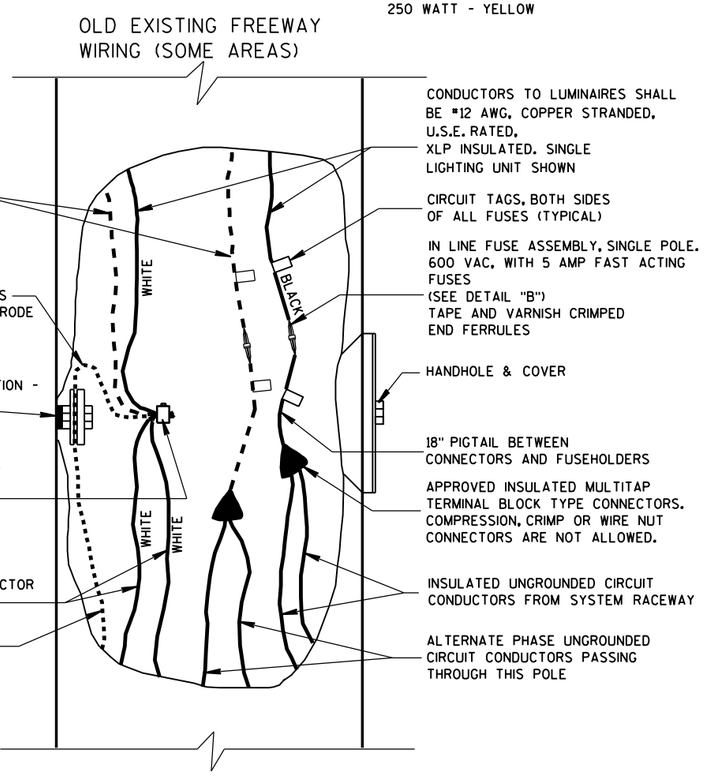
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

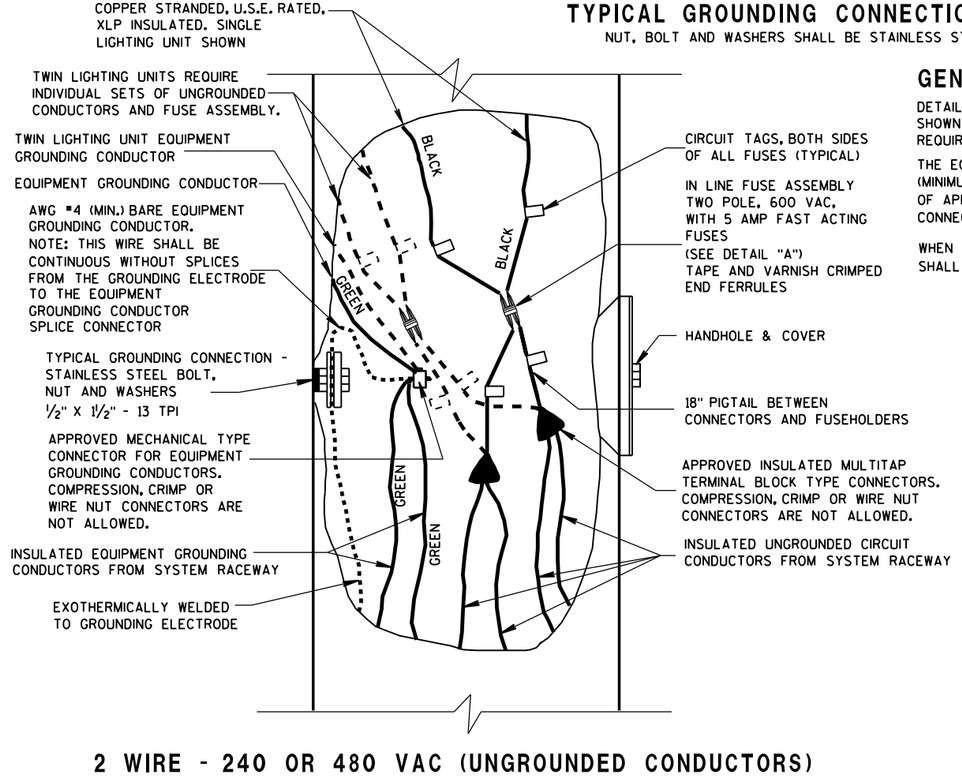




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



2 WIRE - 120, 240 OR 480 VAC TO GROUND



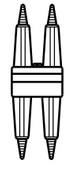
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

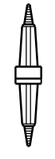
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND 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.



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

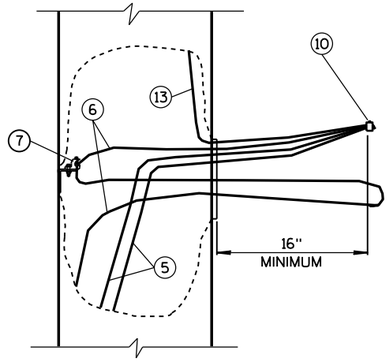
APPROVED
Sept. 2014 — DATE
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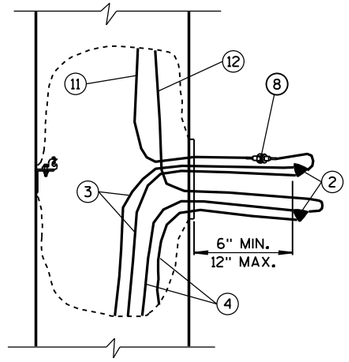
S.D.D. 9 E 2-4

6

S.D.D. 9 E 2-4

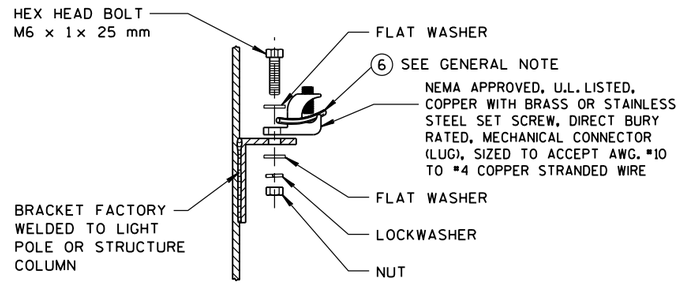


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



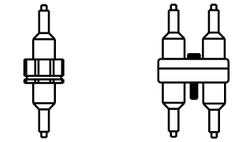
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

GENERAL NOTES

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

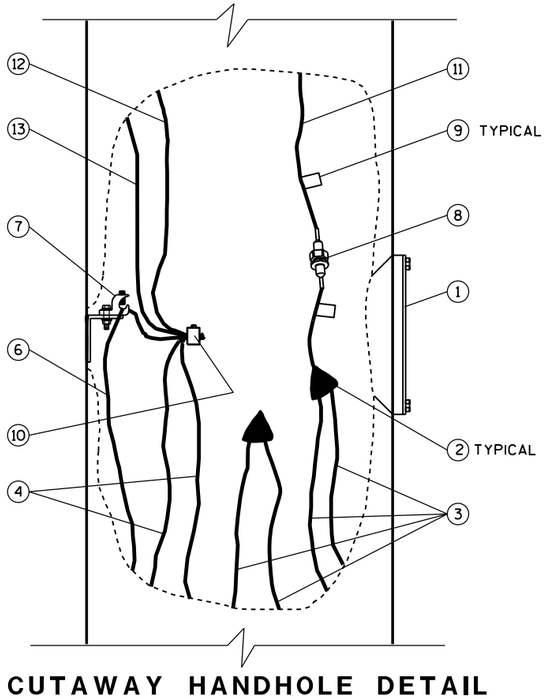
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

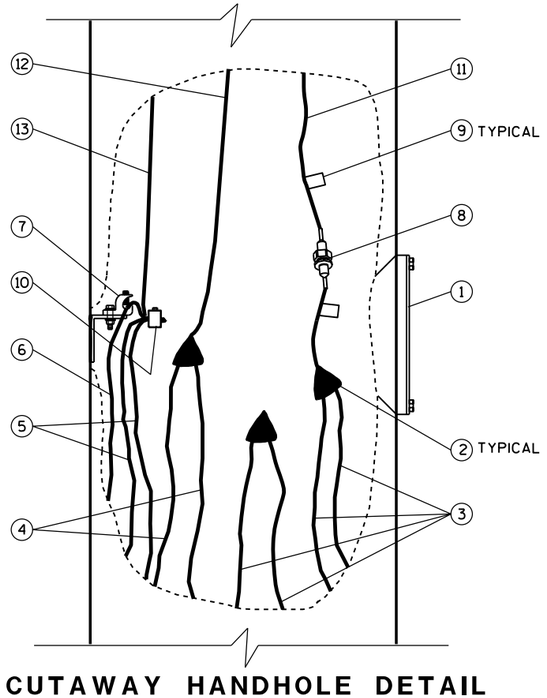
IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



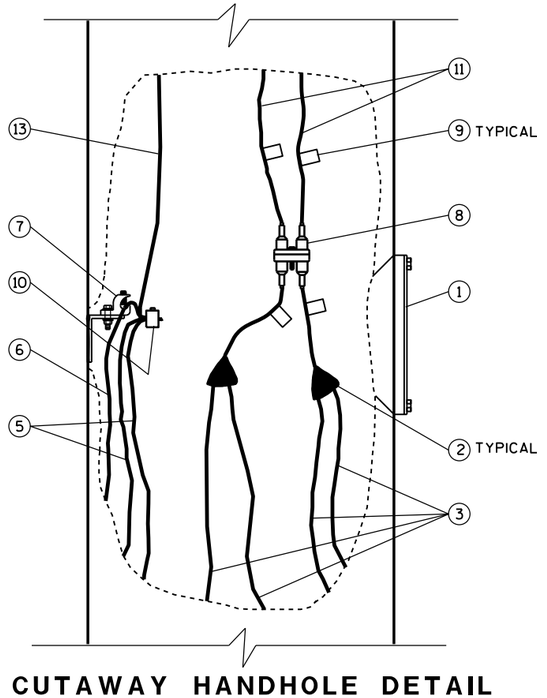
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-Φ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-Φ SHOWN; 3-Φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE-TO-PHASE SYSTEMS
1-Φ SHOWN; 3-Φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

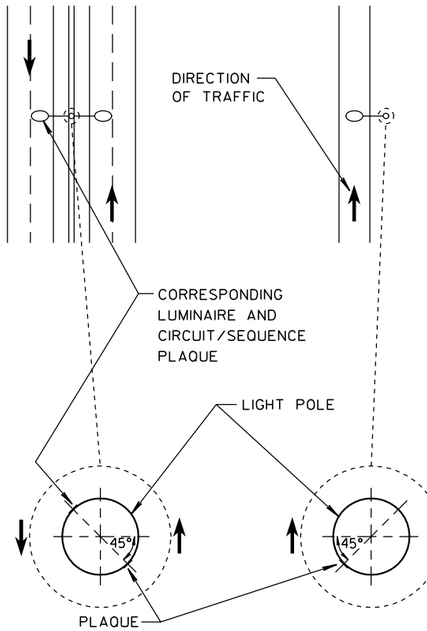
1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 10 A 1-3



MEDIAN POLE **SINGLE ARM POLE**

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

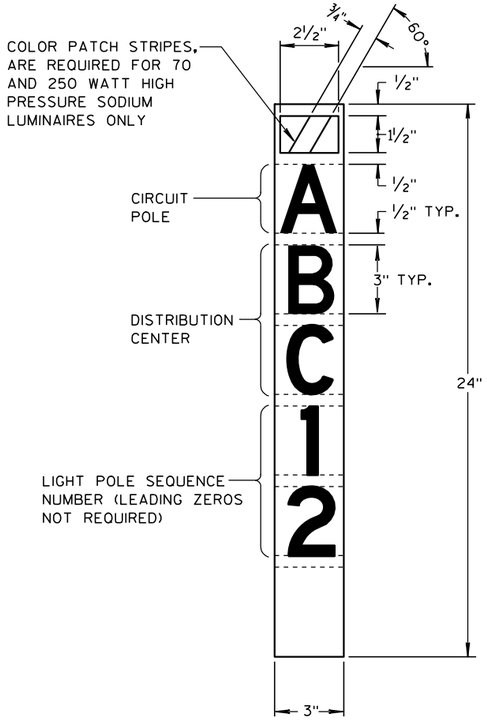
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

6

S.D.D. 10 A 2-2

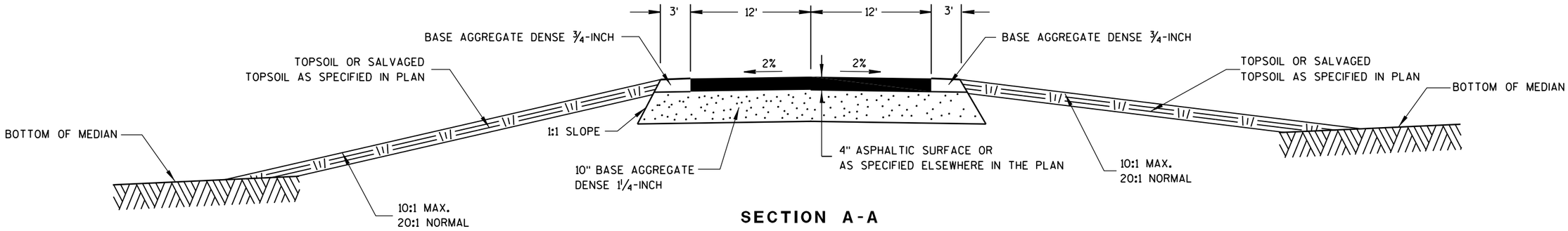
6

S.D.D. 10 A 2-2

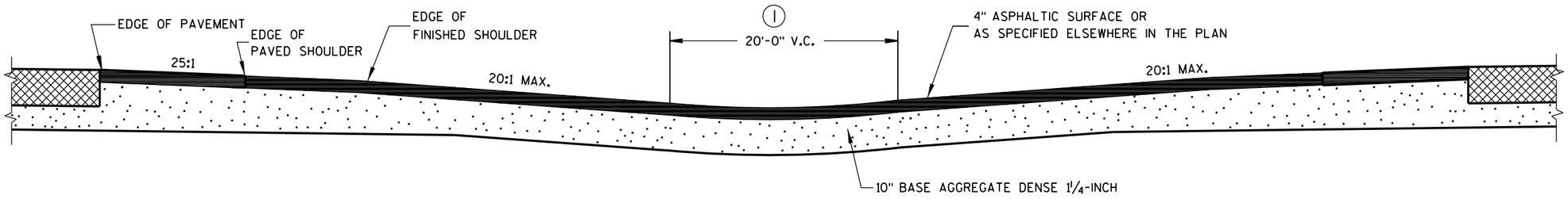
IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

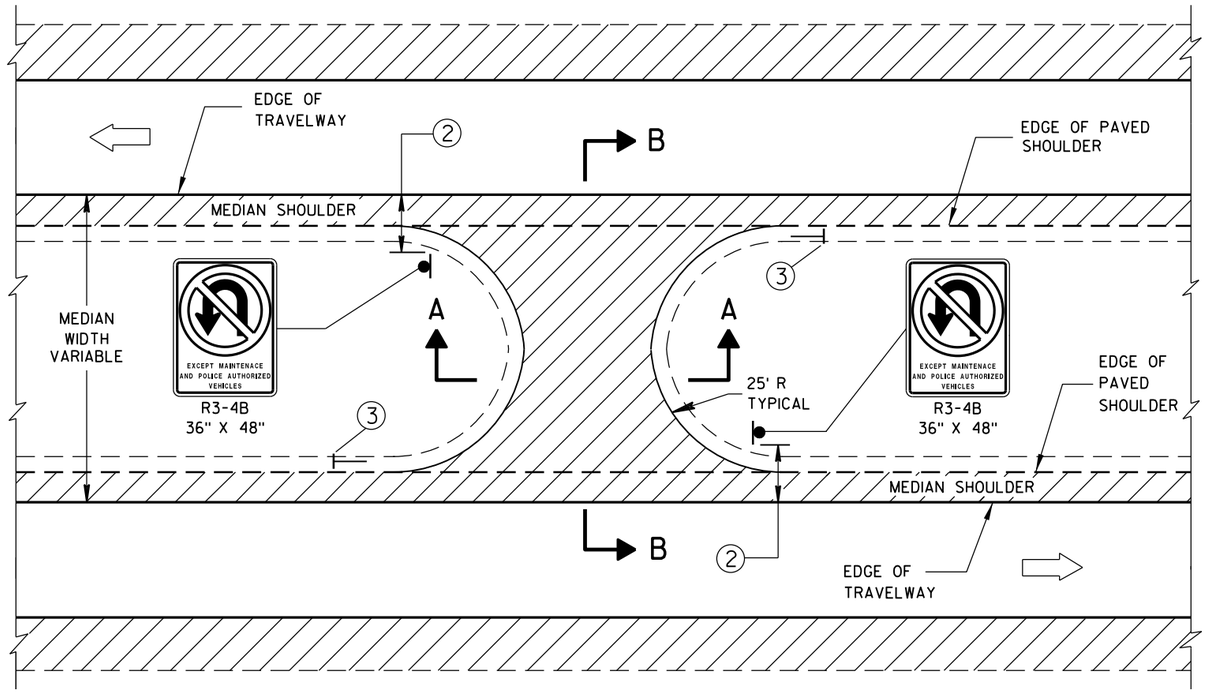
APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 337 HWYS
FHWA



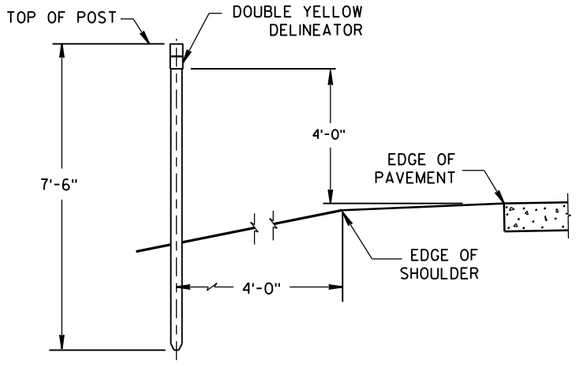
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

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

(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

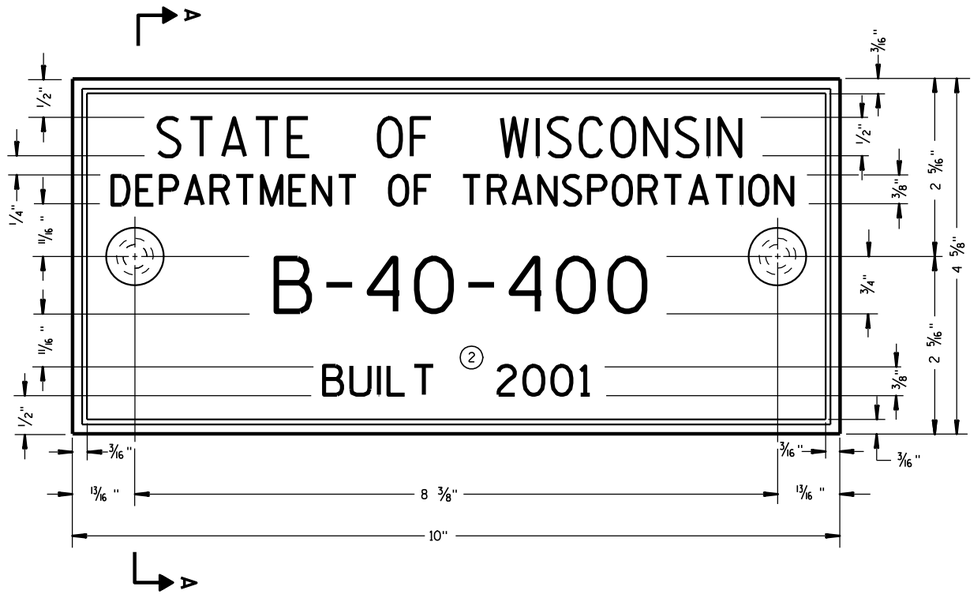
FHWA

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S.D.D. 11 A 1-5

6

S.D.D. 11 A 1-5



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

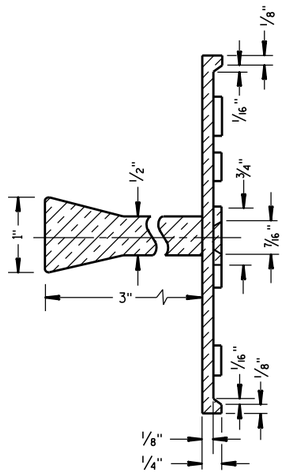
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

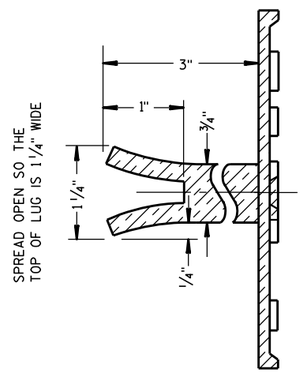
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

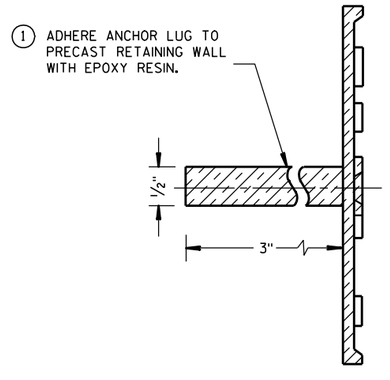
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

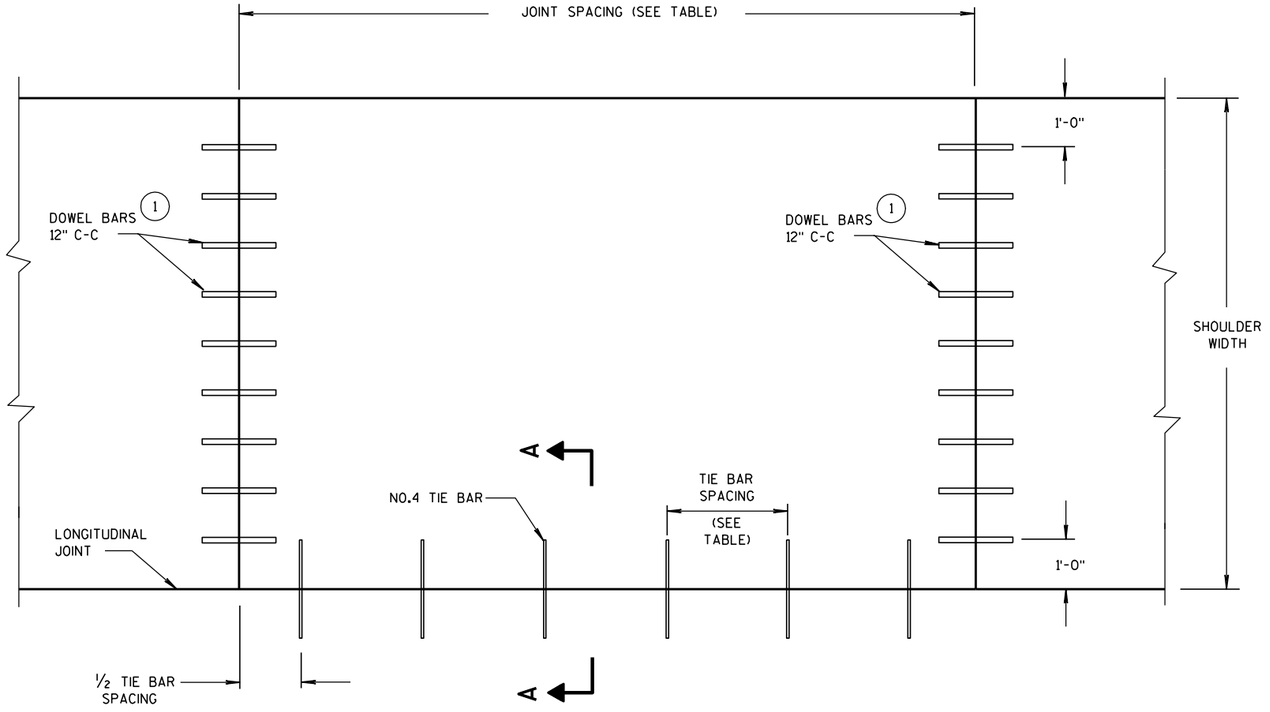
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S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

PAVEMENT TYPE OF TRAFFIC LANES	TIE BAR SPACING	SHOULDER JOINT SPACING
NON-REINFORCED	30"	MATCH JOINT SPACING OF ADJACENT TRAFFIC LANE
CONTINUOUSLY REINFORCED	30"	15' FOR 6' TO 10' WIDE SHOULDERS
CONTINUOUSLY REINFORCED	36"	12' FOR 3' WIDE SHOULDERS

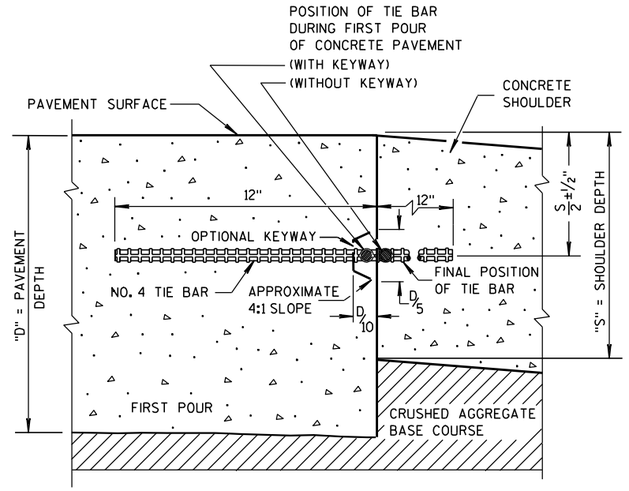
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

(1)

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

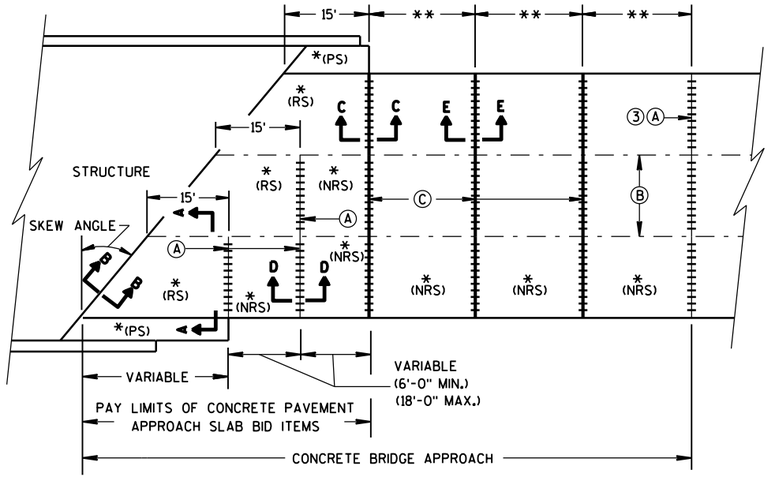
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

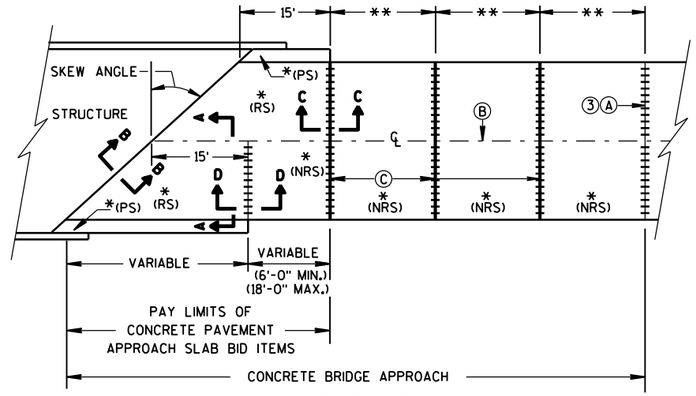
APPROVED
8/15/2011 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D — INEER
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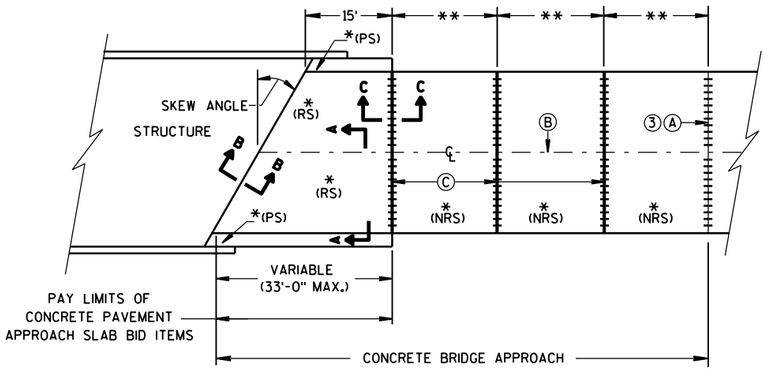
S.D.D. 13 A 3-5



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



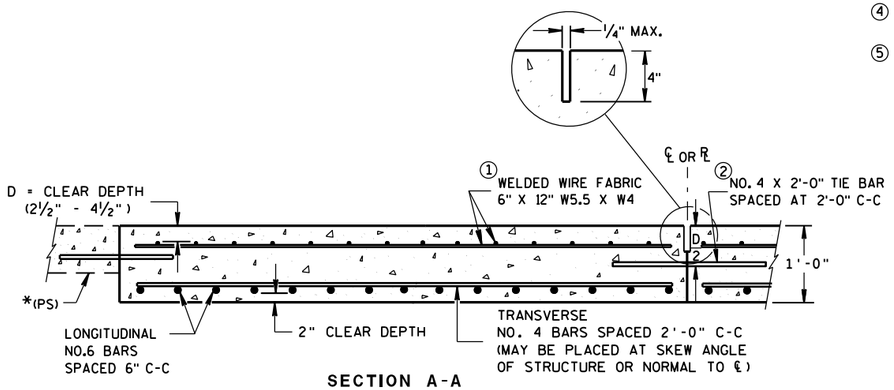
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

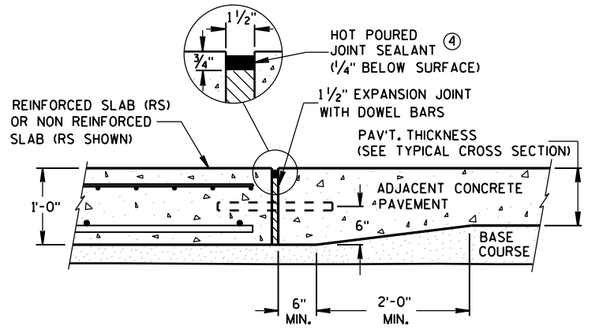
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN (SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)
***STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11, & SDD 13C13)

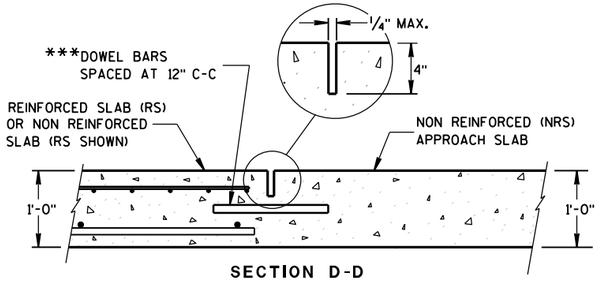
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) STANDARD LONGITUDINAL JOINT AND TIE BARS.
(C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

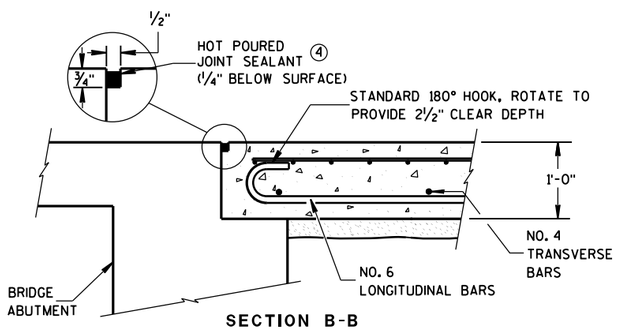
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

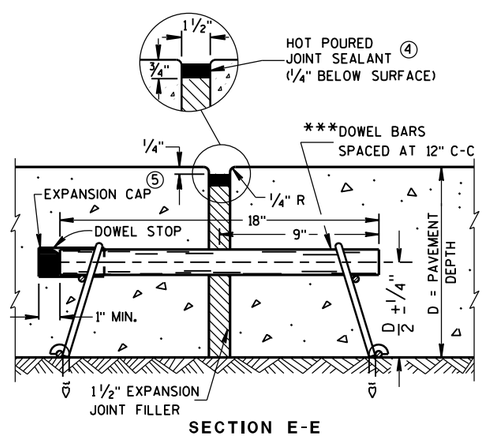
(3) DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



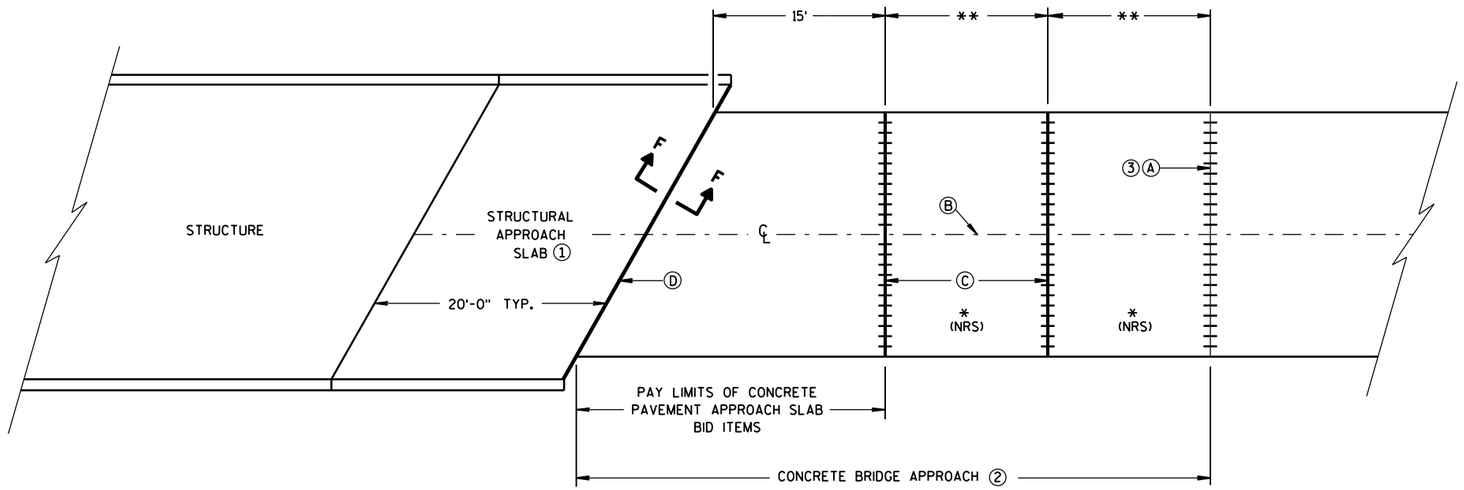
SECTION E-E
EXPANSION JOINT

CONCRETE BRIDGE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2014 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE
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S.D.D. 13 B 2-7a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE BRIDGE APPROACH.

① CONFORM TO APPLICABLE BRIDGE MANUAL STANDARD DRAWINGS FOR *STRUCTURAL APPROACH SLABS* (SEE CHAPTER 12 - ABUTMENTS).

② CONFORM TO SHEET (a) OF THIS SET FOR *CONCRETE BRIDGE APPROACH* DETAILS, WITH ONE EXCEPTION — WHEN CONSTRUCTING A *CONCRETE BRIDGE APPROACH* NEXT TO A *STRUCTURAL APPROACH SLAB*, AS SHOWN IN THE DETAIL DRAWING, THE *CONCRETE BRIDGE APPROACH* WILL ONLY HAVE TWO EXPANSION JOINTS; THE THIRD EXPANSION JOINT IS AT THE END OF THE *STRUCTURAL APPROACH SLAB*.

③ DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.

*(NRS) = NON-REINFORCED CONCRETE SLAB

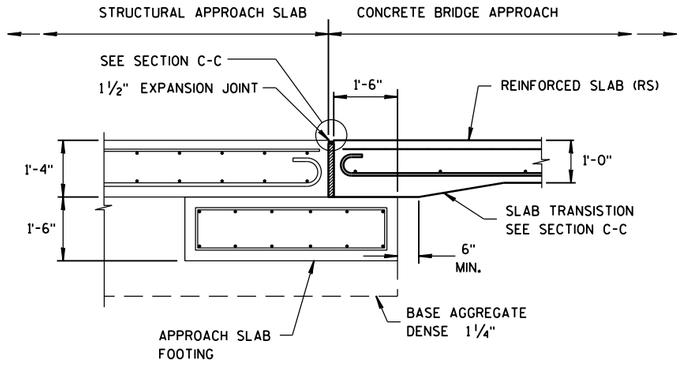
**STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)

Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT AND TIE BARS.

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION F-F

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

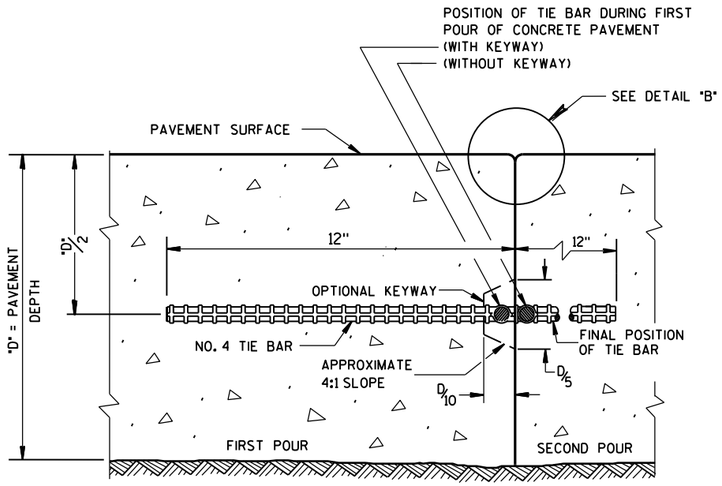
STRUCTURAL APPROACH SLAB AND CONCRETE BRIDGE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

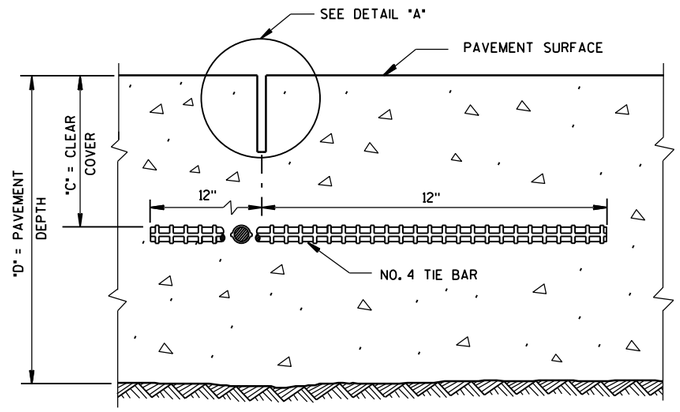
APPROVED
June, 2014 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE
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S.D.D. 13 B 2-7b



CONSTRUCTION JOINT



SAWED JOINT

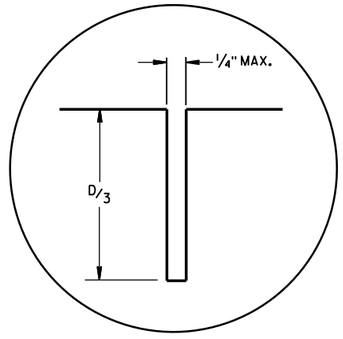
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

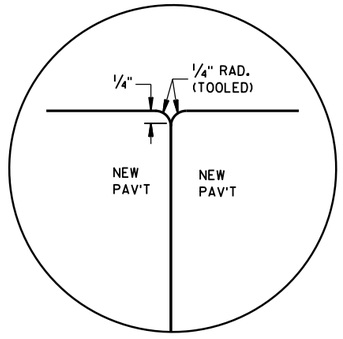
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

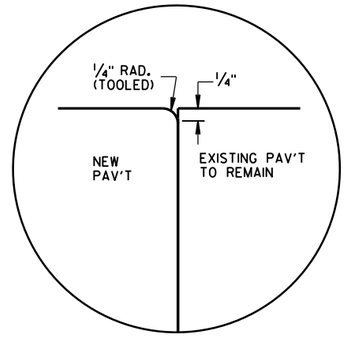
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



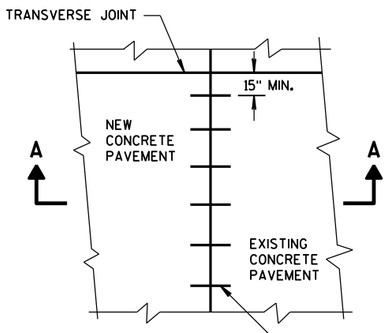
DETAIL "A"



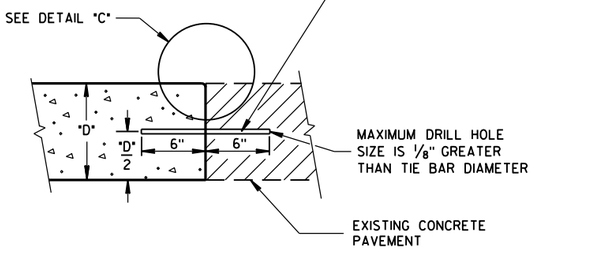
DETAIL "B"



DETAIL "C"



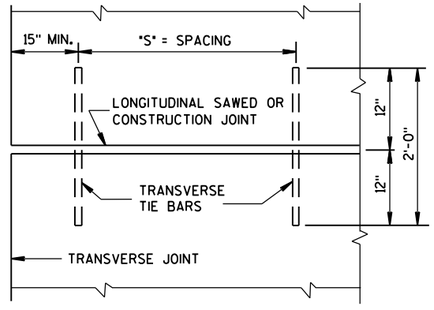
PLAN VIEW



SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/2014 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DE ... NEER

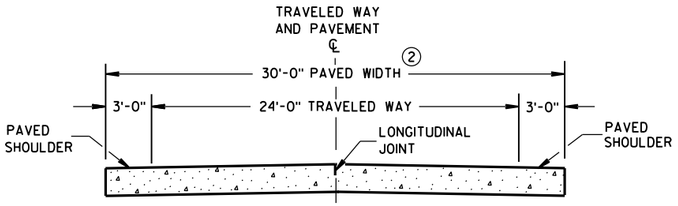
FHWA

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S.D.D. 13 C 1-17

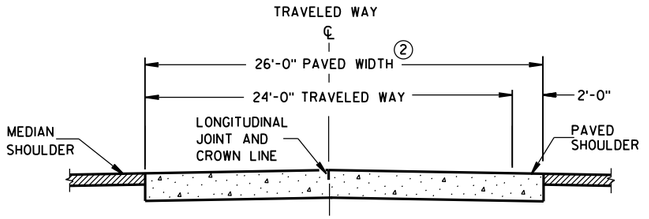
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S.D.D. 13 C 1-17

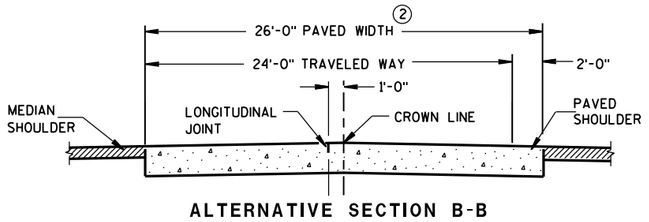


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

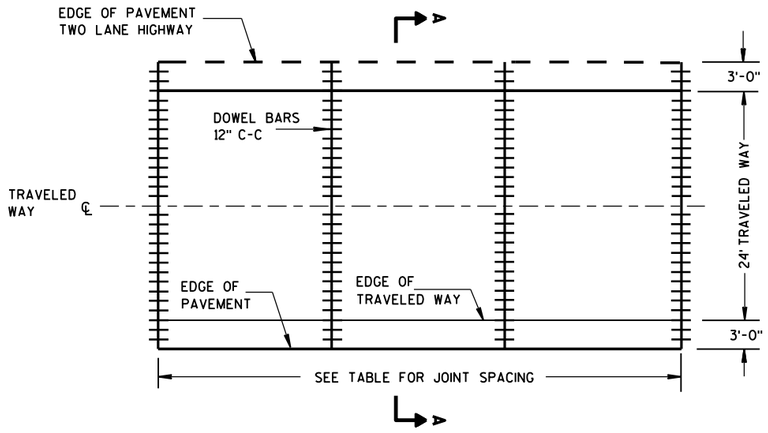
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

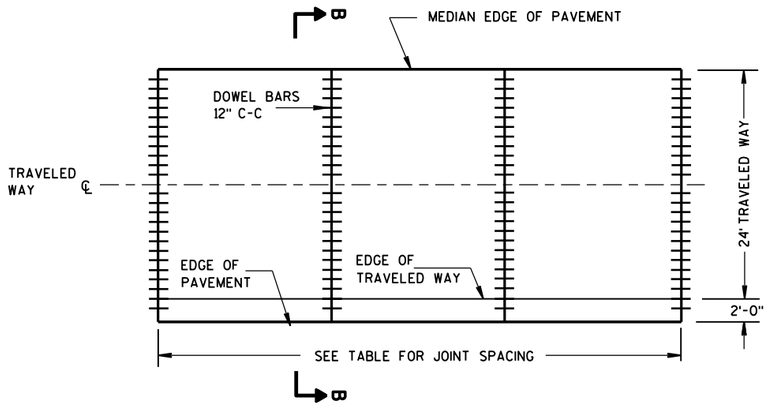
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



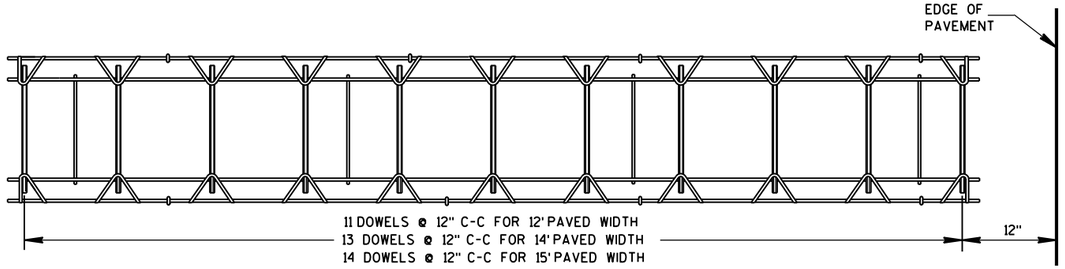
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

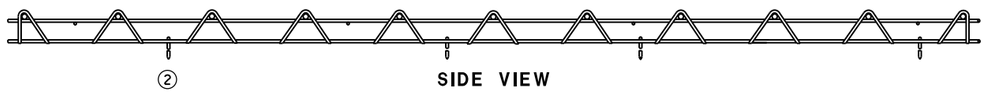
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 C 11-11a



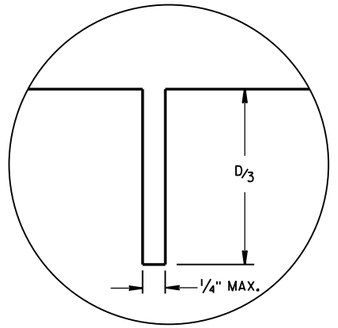
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

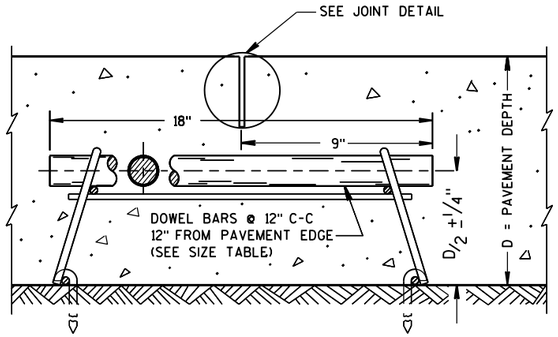
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

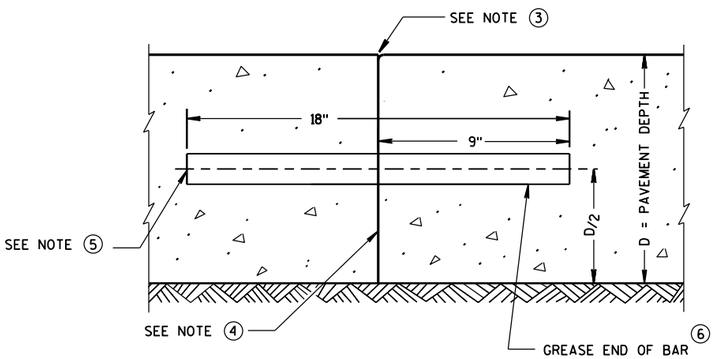
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

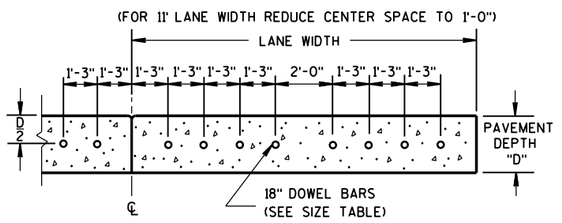
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

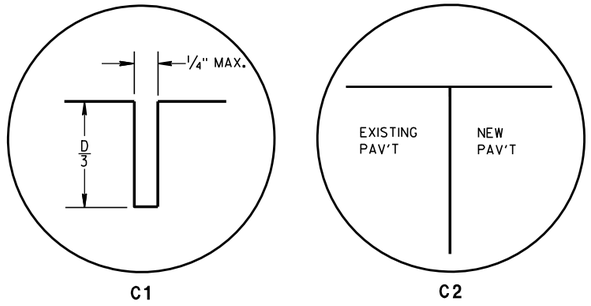
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE ENGINEER
FHWA

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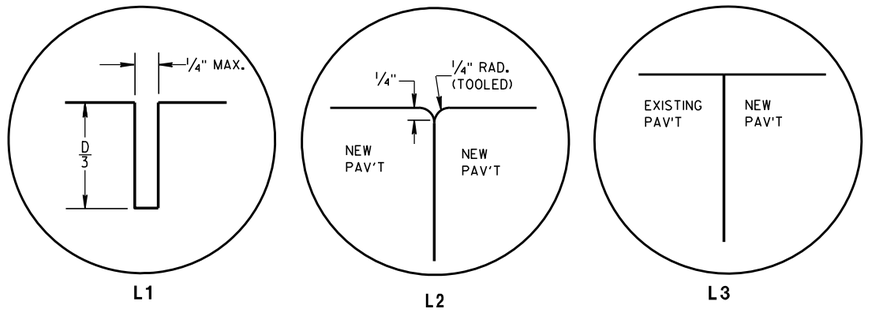
S.D.D. 13 C 11-11b

6

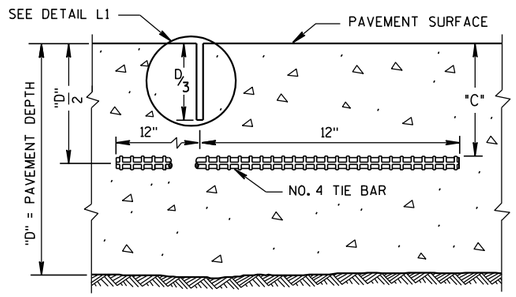
S.D.D. 13 C 11-11b



TRANSVERSE JOINTS

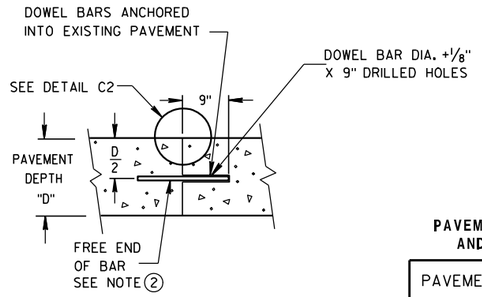


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

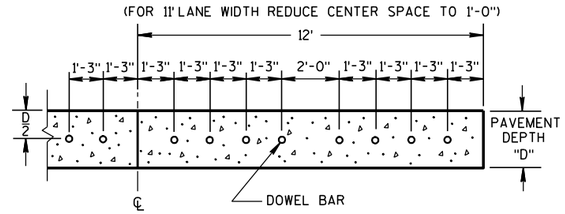
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

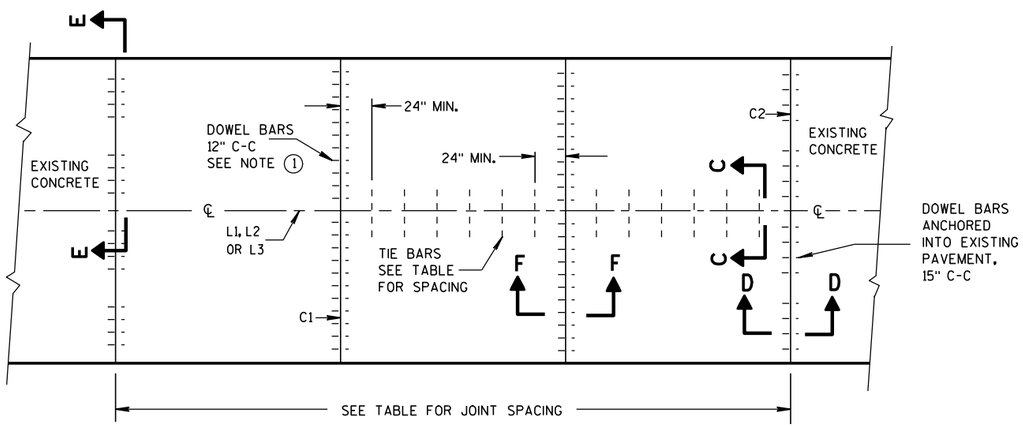
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH "D"	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

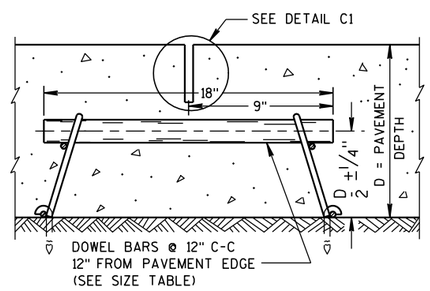
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 ½"	3"±½"	48"	42"
7, 7 ½"	3 ¼"±1"	45"	36"
8, 8 ½"	3 ¾"±1"	39"	30"
9, 9 ½"	4 ¼"±1"	33"	27"
10, 10 ½"	4 ¾"±1"	30"	24"
11, 11 ½"	5 ¼"±1"	27"	21"
12"	5 ¾"±1"	24"	21"



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

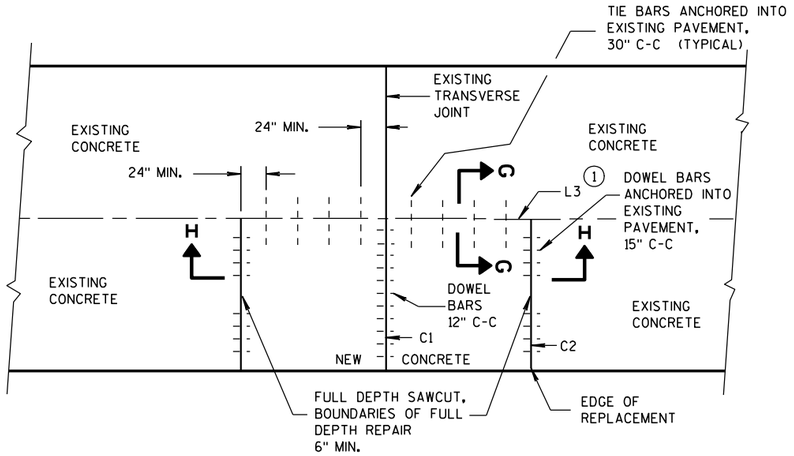
CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

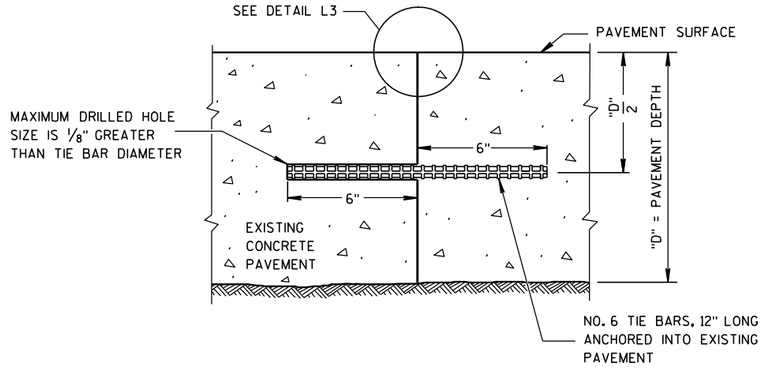


PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

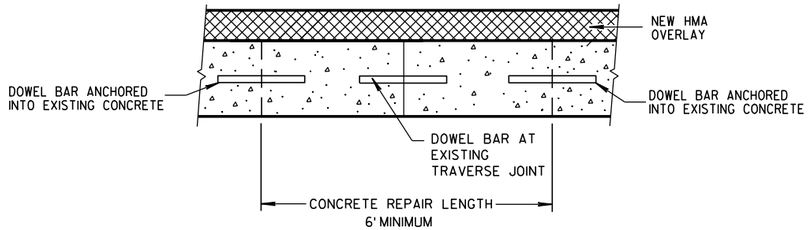
GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

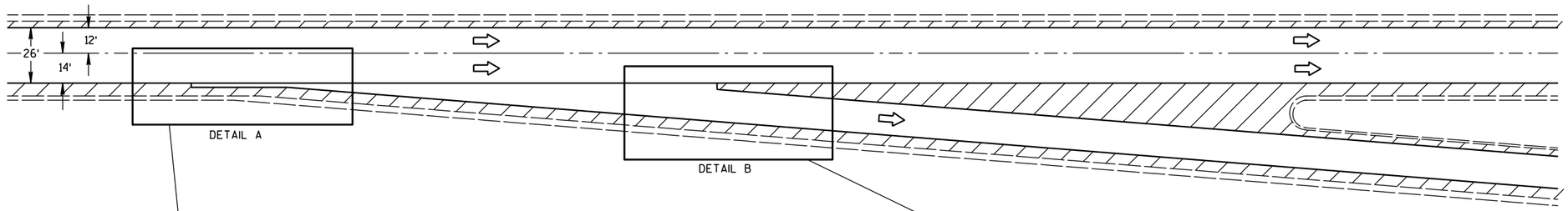
12-11-2009
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & D347 INEER

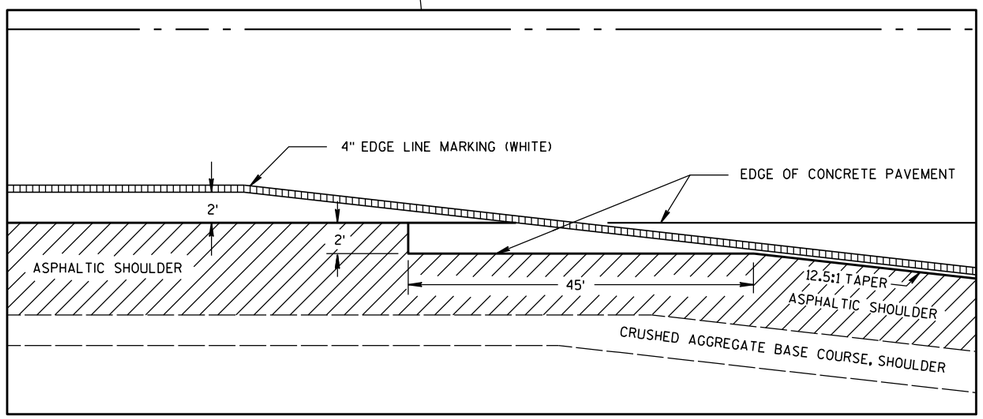
FHWA

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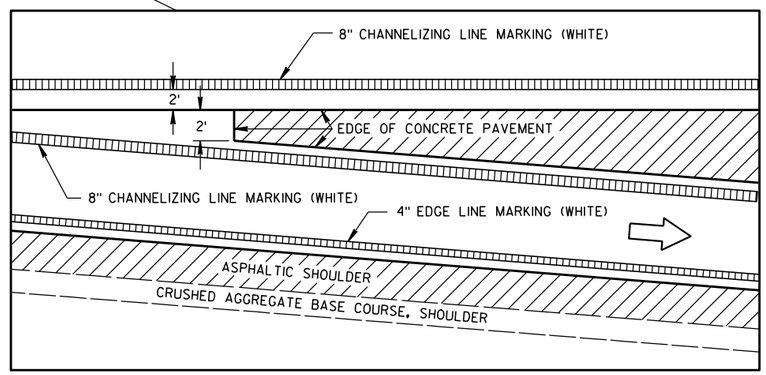
S.D.D. 13 C 15-5b



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

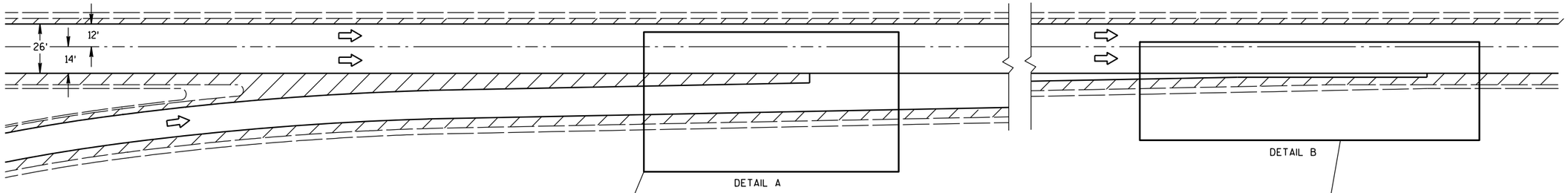
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

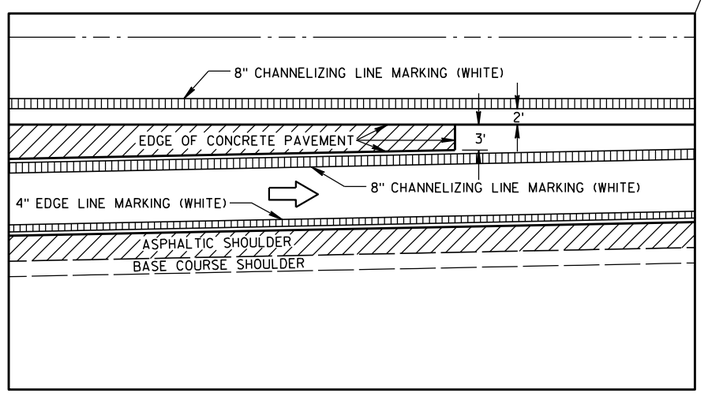
S.D.D. 13 C 17-1a

6

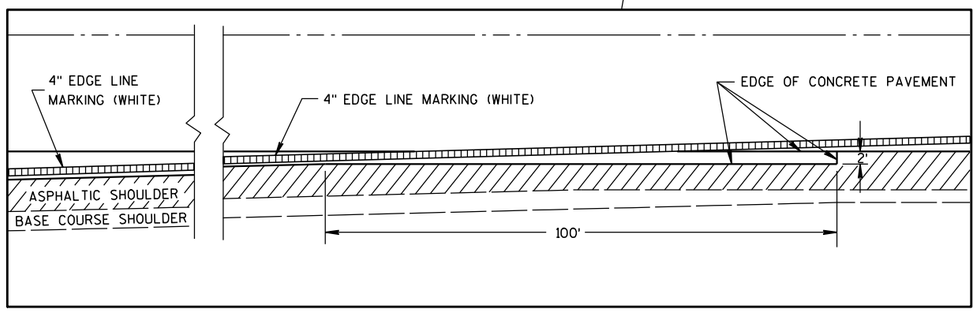
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

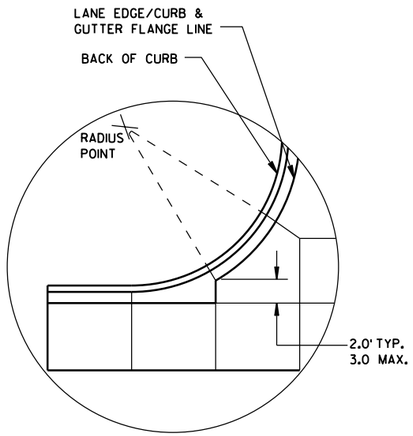
5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

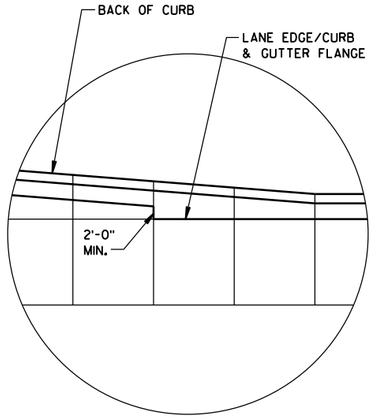
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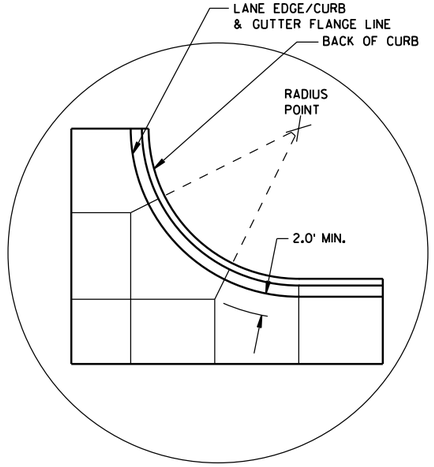
S.D.D. 13 C 17-1b



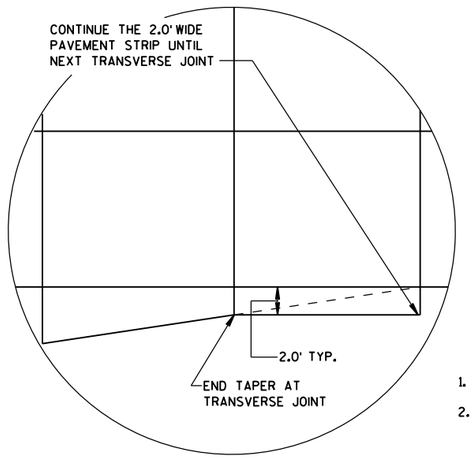
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

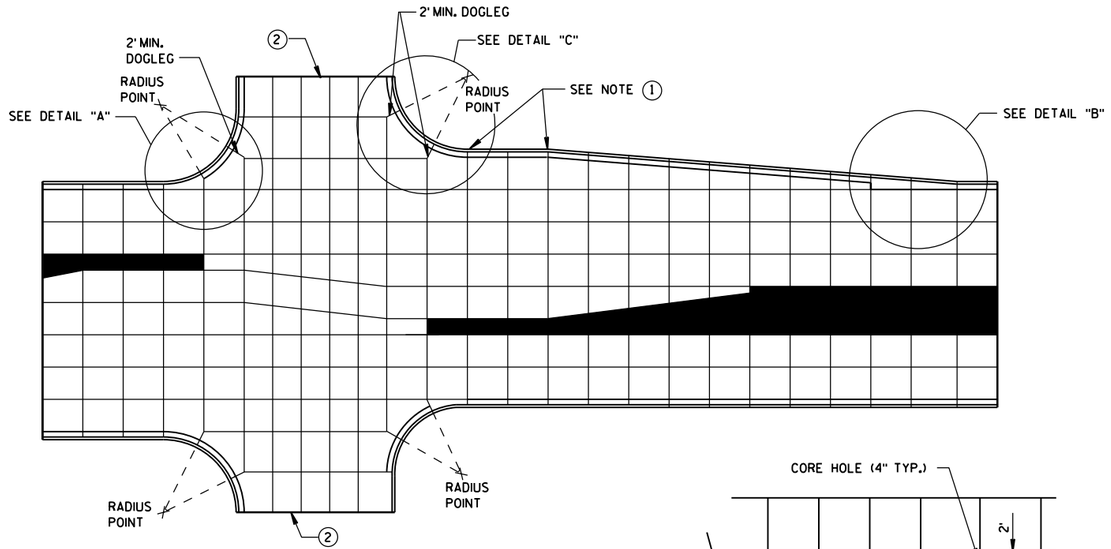
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

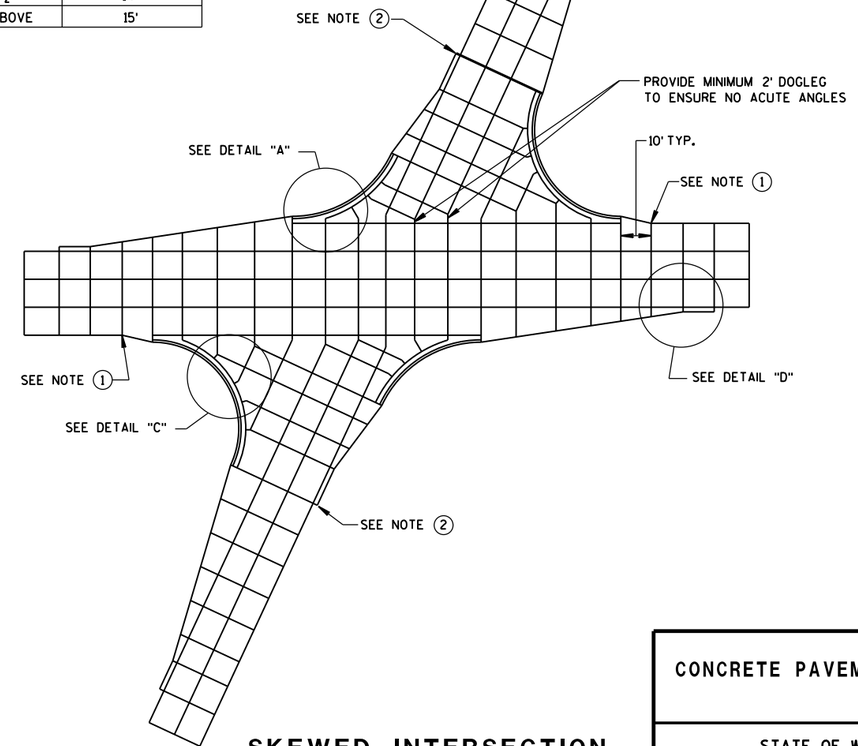
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



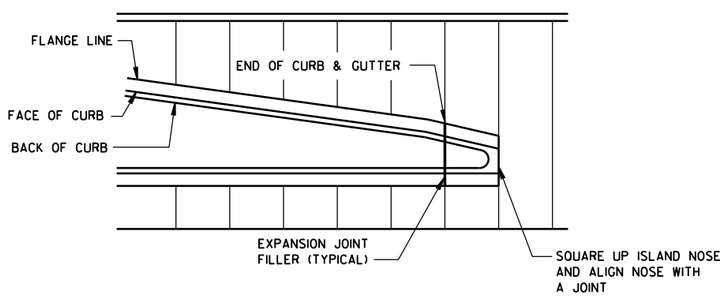
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

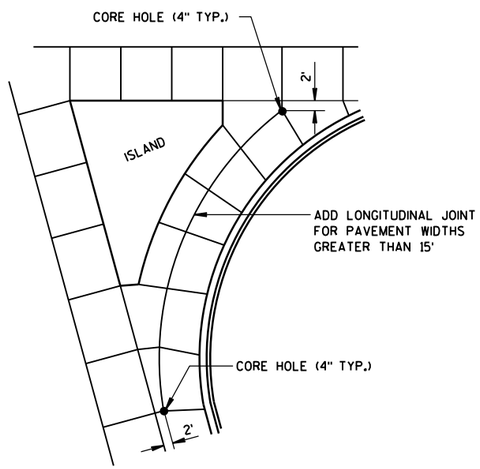
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

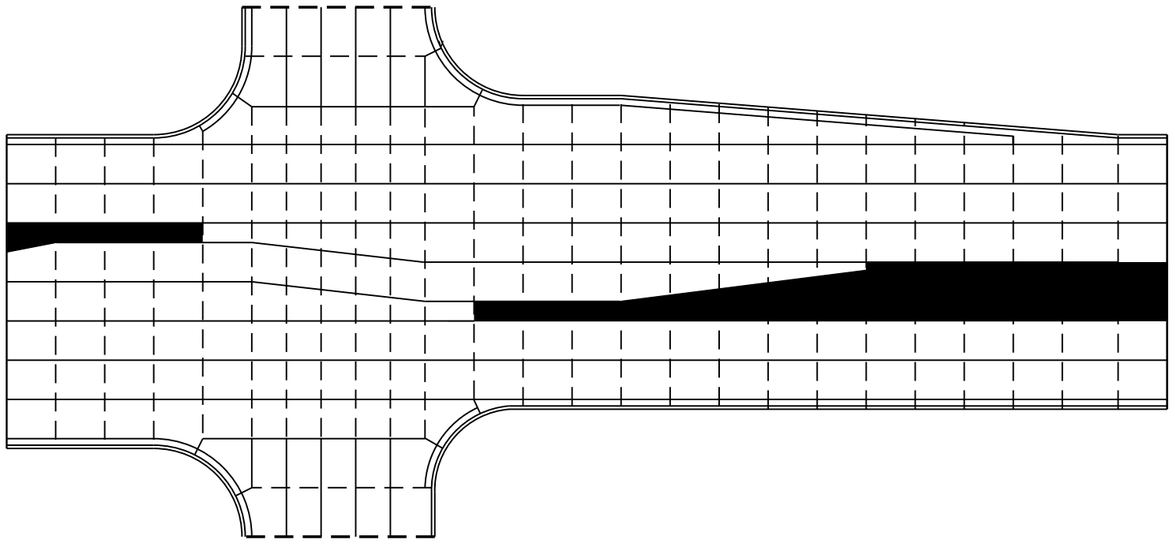
6
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

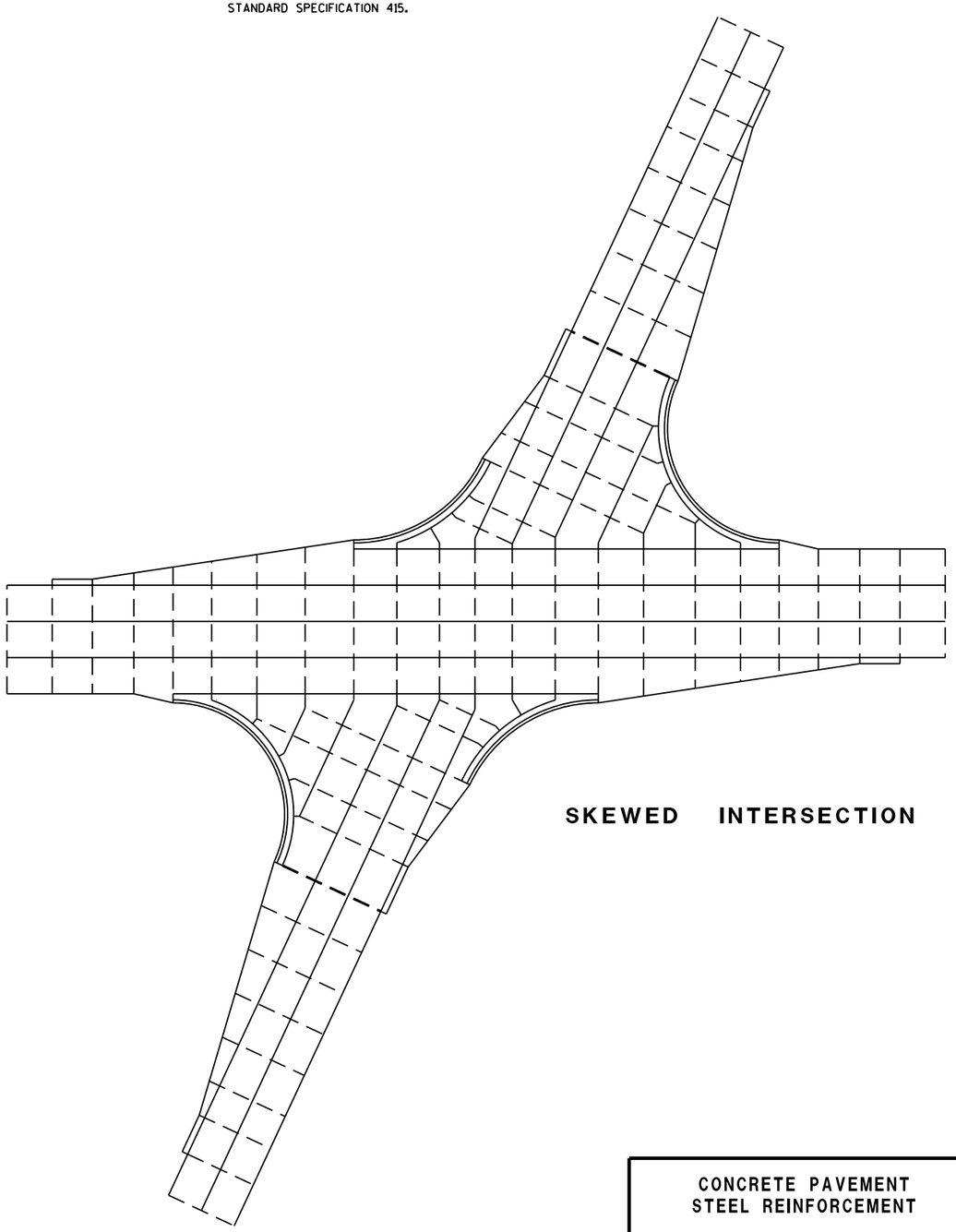
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

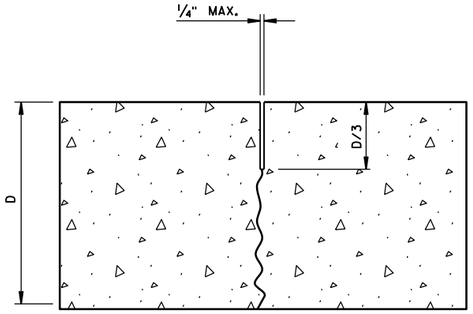
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

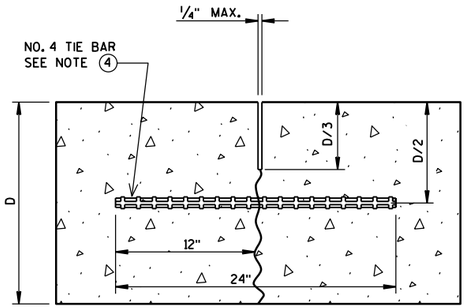
S.D.D. 13 C 18-2b

6

S.D.D. 13 C 18-2b



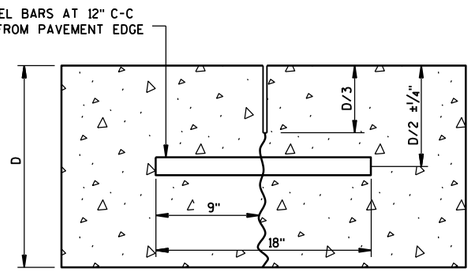
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

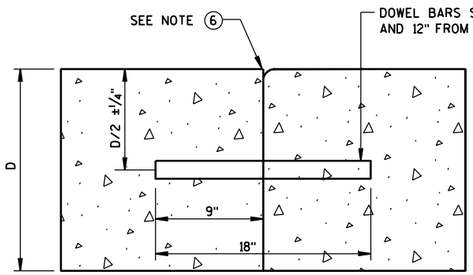
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



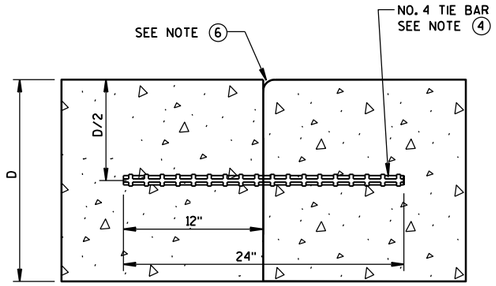
DOWELED-TRANSVERSE

CONTRACTION JOINTS

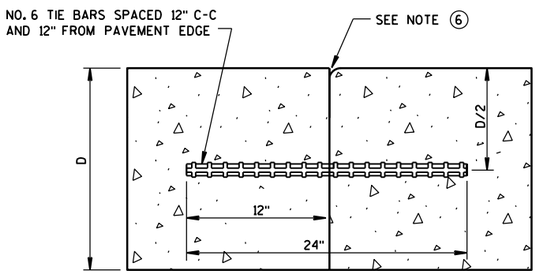
SEE NOTE (2)



DOWELED TRANSVERSE

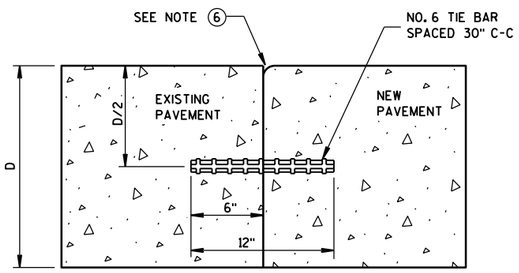


TIED LONGITUDINAL



TIED TRANSVERSE

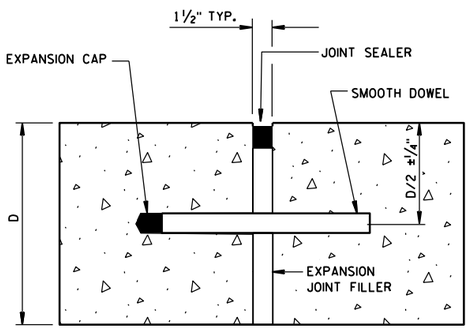
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

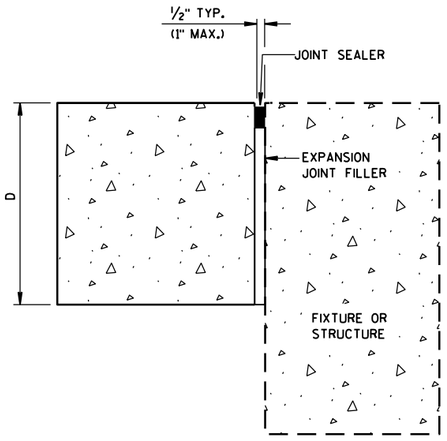
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

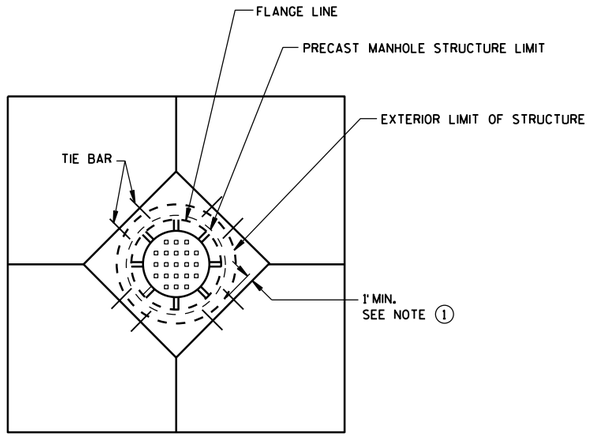
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

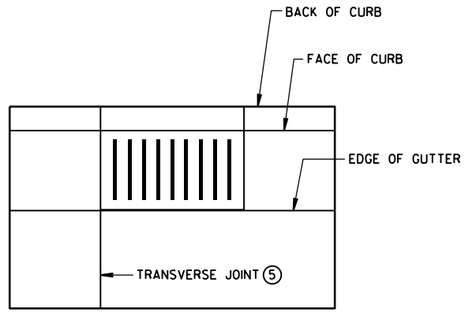
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

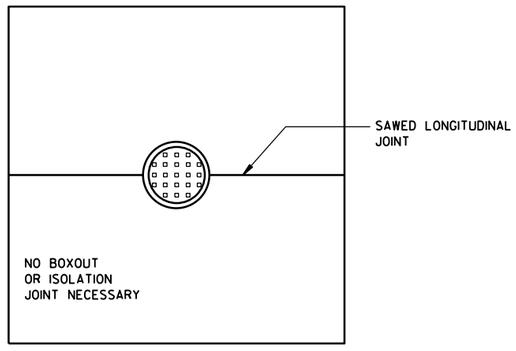
S.D.D. 13 C 18-2c



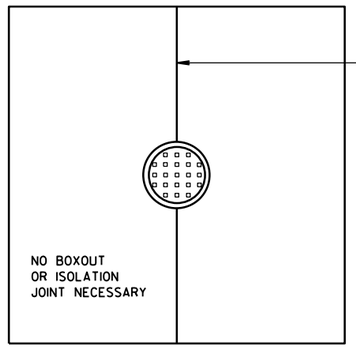
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



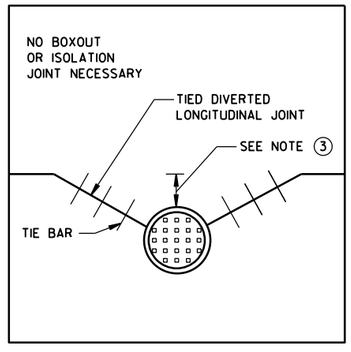
INLET WITH TRANSVERSE JOINT



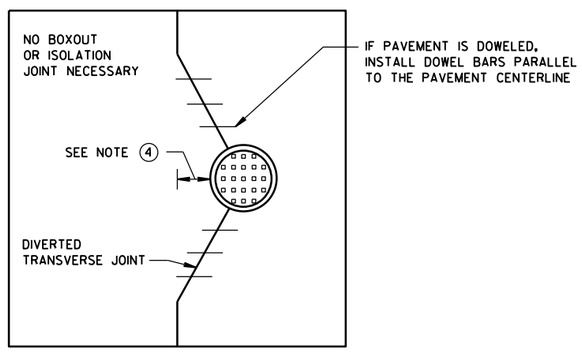
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

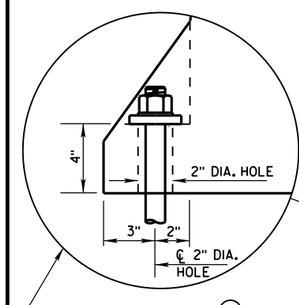
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

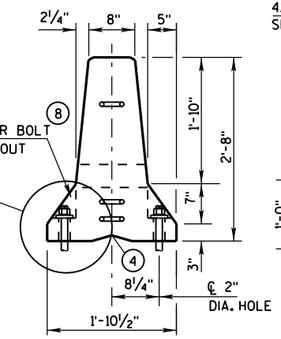
APPROVED
5-3-2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
NEER
FHWA

6

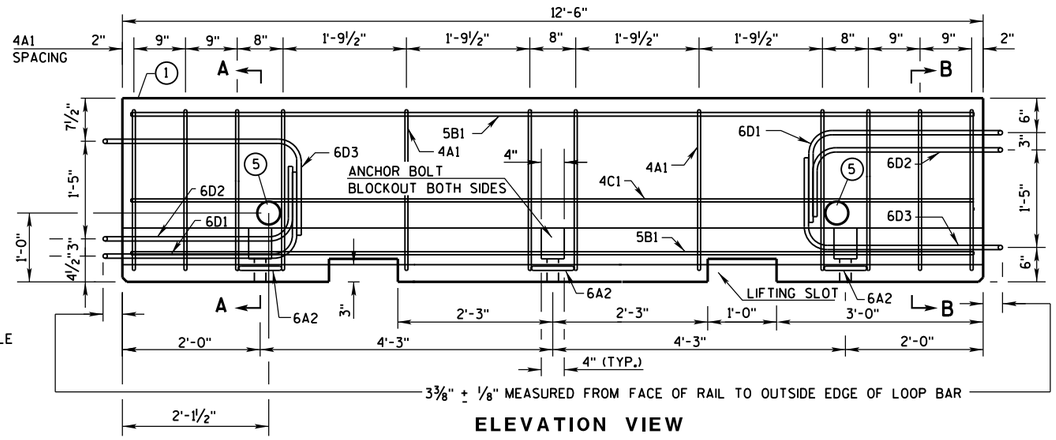
S.D.D. 13 C 18-2d



ANCHOR ON TRAFFIC SIDE ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL) (8)



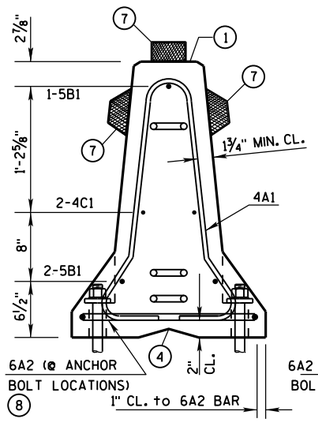
END VIEW



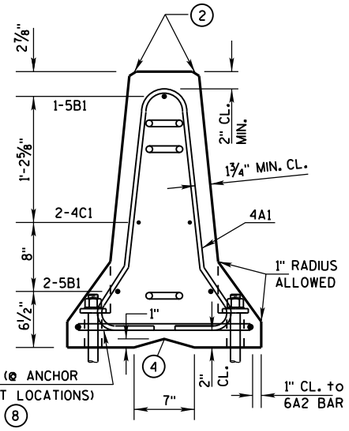
ELEVATION VIEW



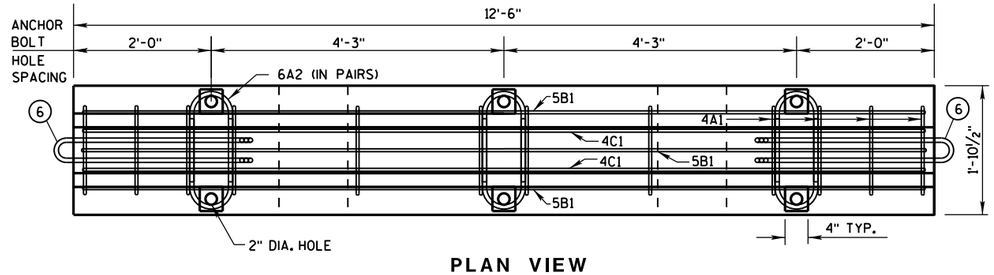
DETAIL "B" LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

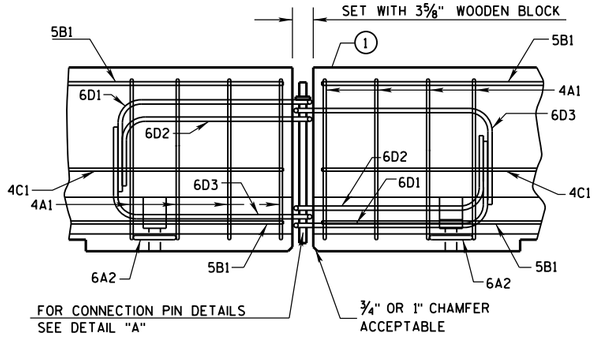


SECTION B-B
(STIRRUP PLACEMENT)

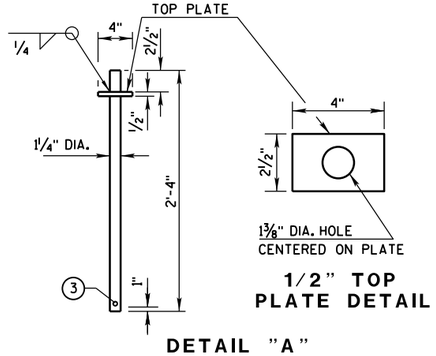


PLAN VIEW

DETAILS OF BARRIER SECTION

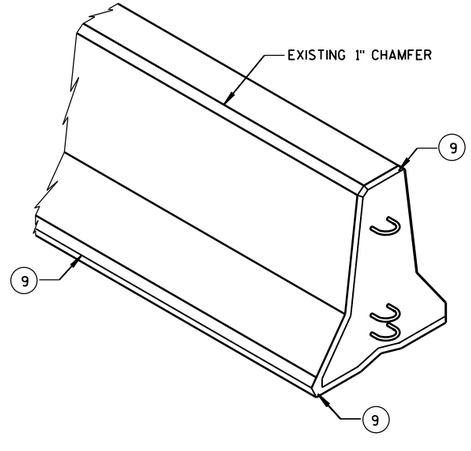


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A" CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

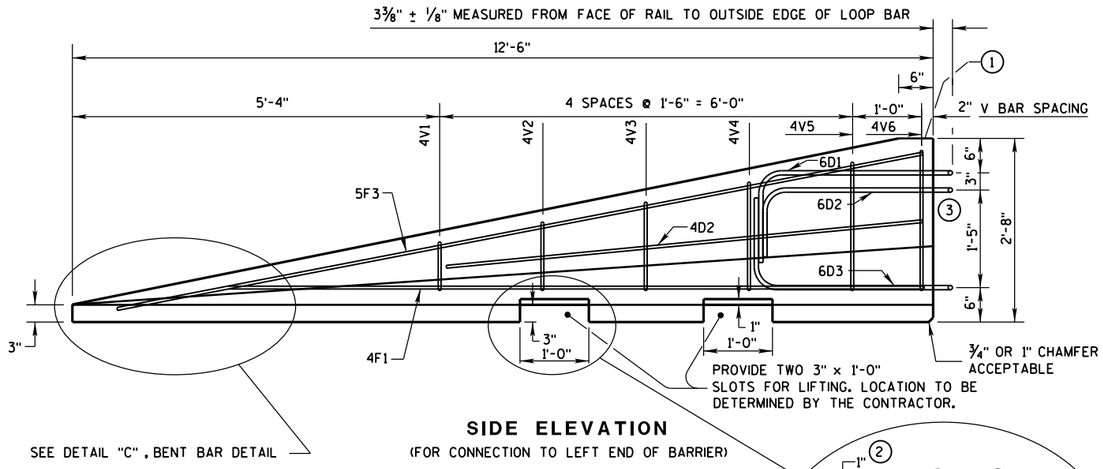
(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

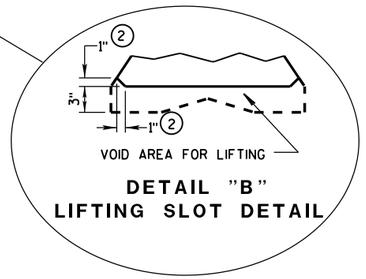
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

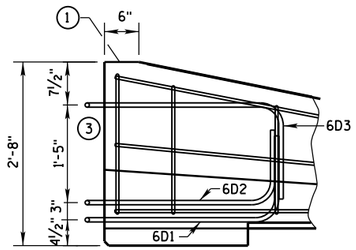
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 354



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



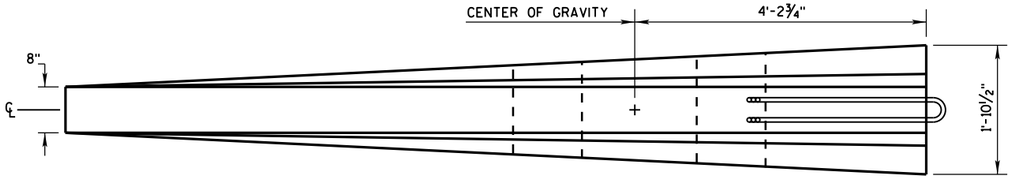
DETAIL "B"
LIFTING SLOT DETAIL



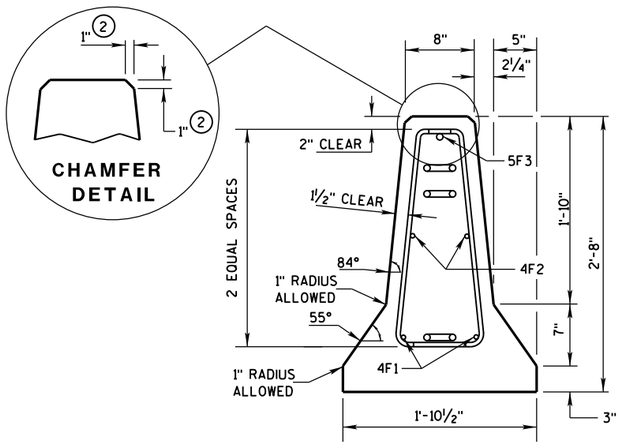
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

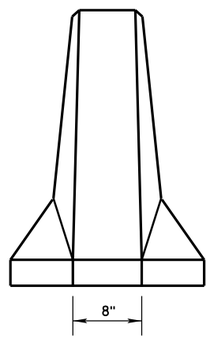
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



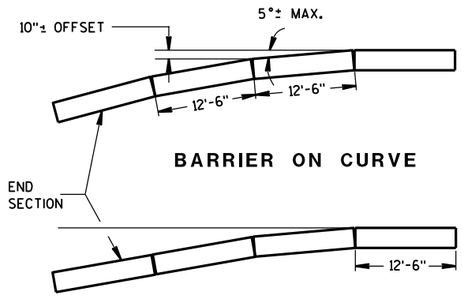
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

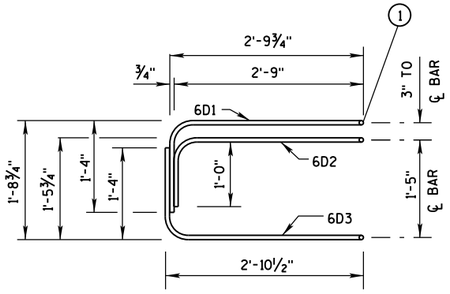
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S.D.D. 14 B 7-14b

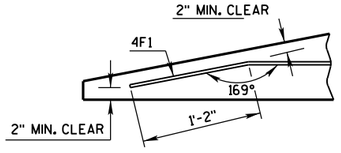
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

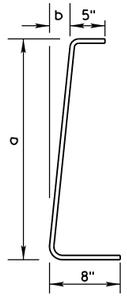
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

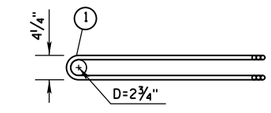
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION BILL OF MATERIALS

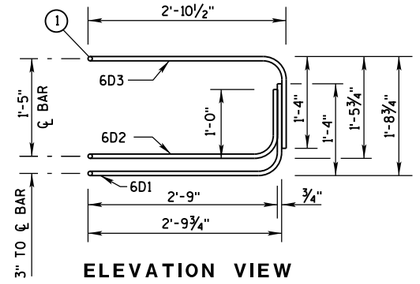
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

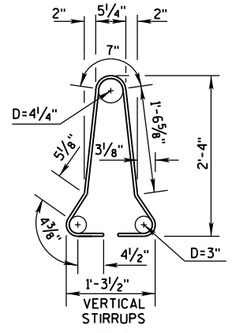


PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)

6A2



ELEVATION VIEW



4A1

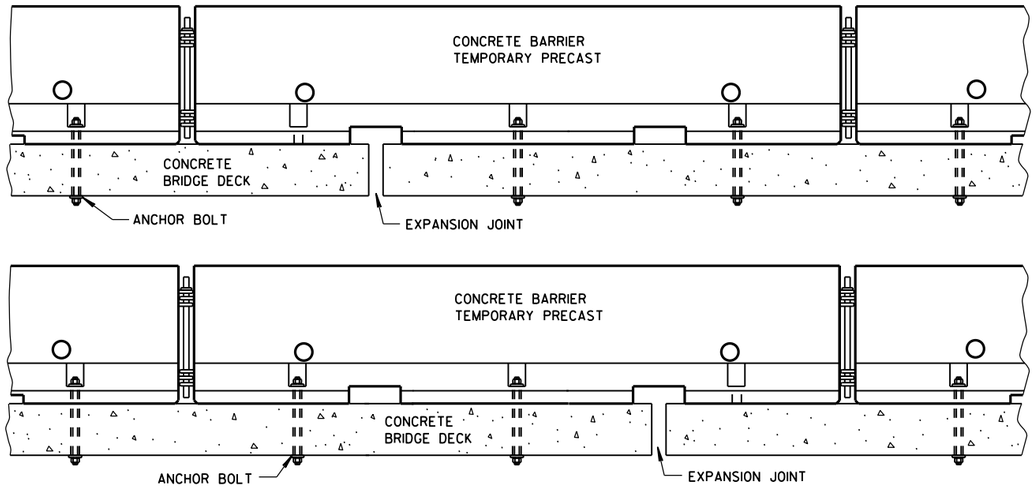
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

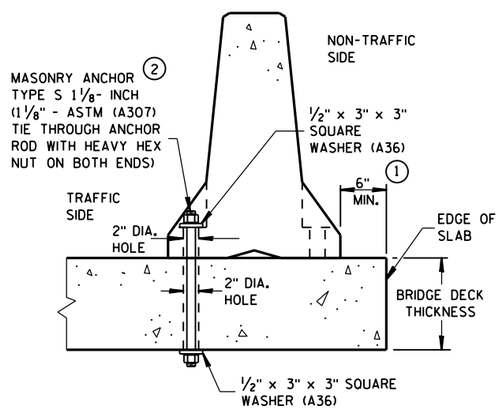
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S.D.D. 14 B 7-14c



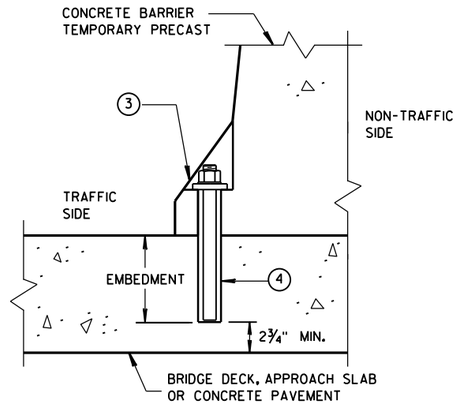
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

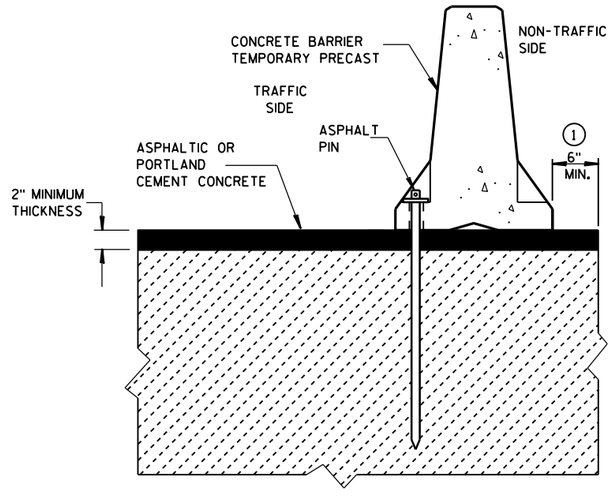
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

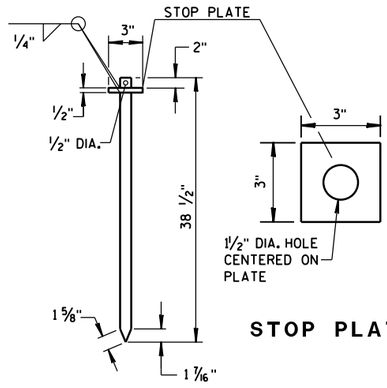
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

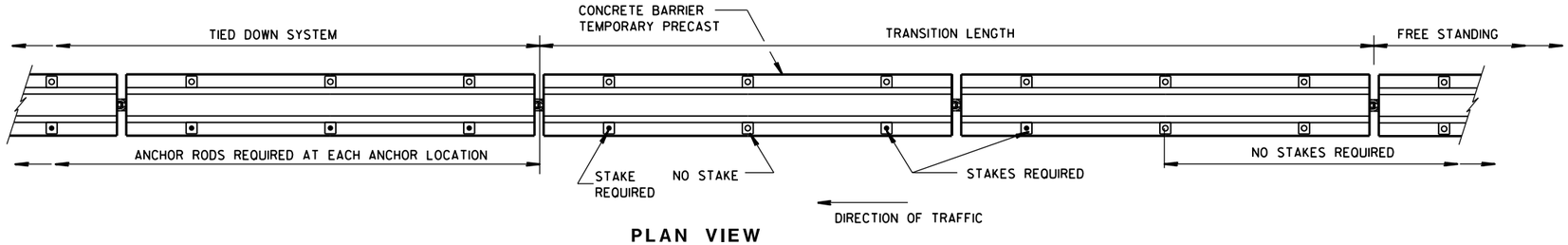
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

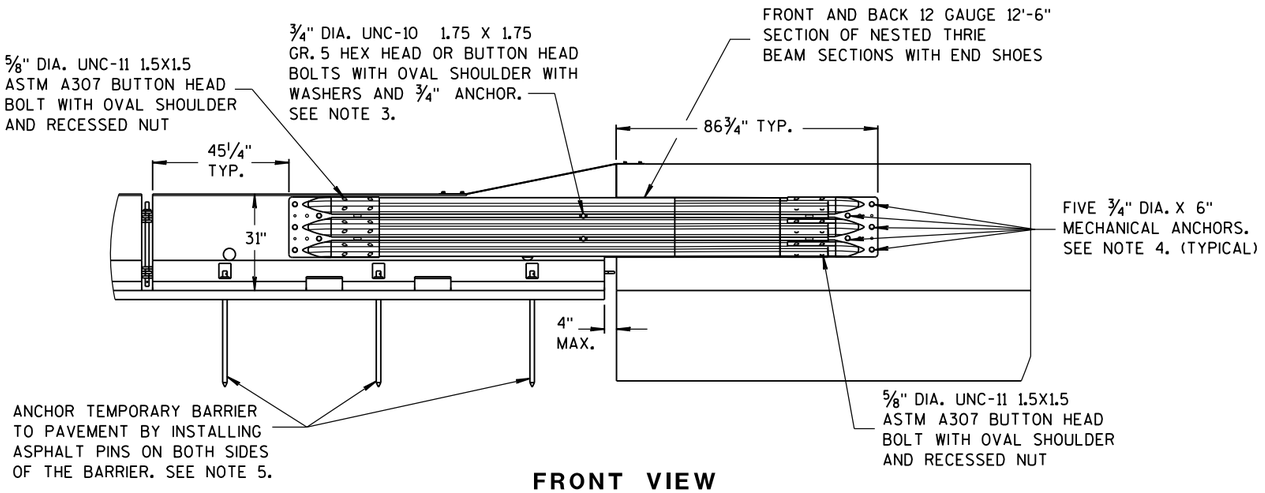
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

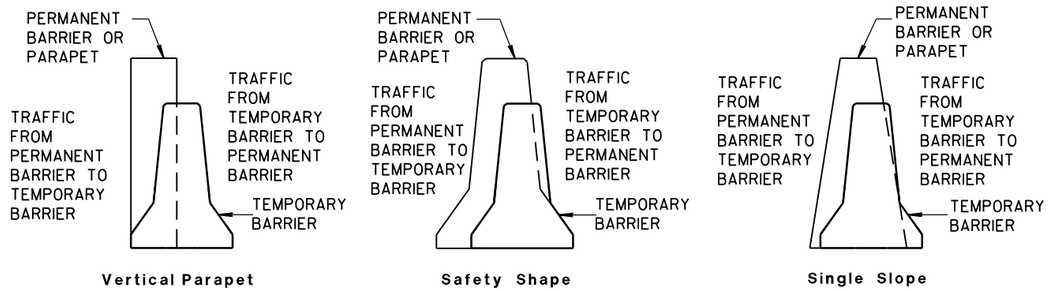
STATE OF WISCONSIN
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FRONT VIEW

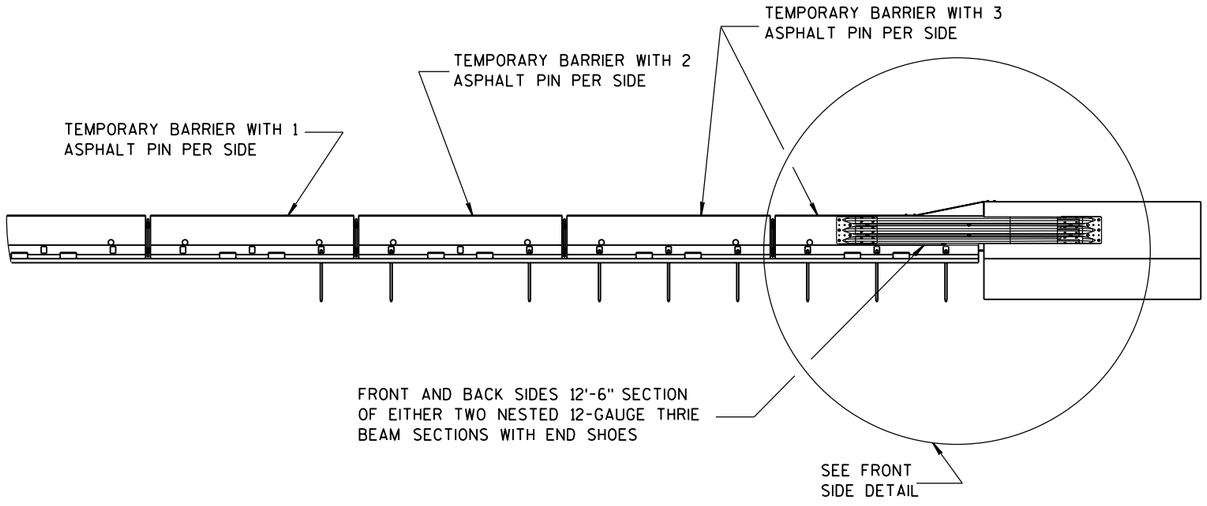


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

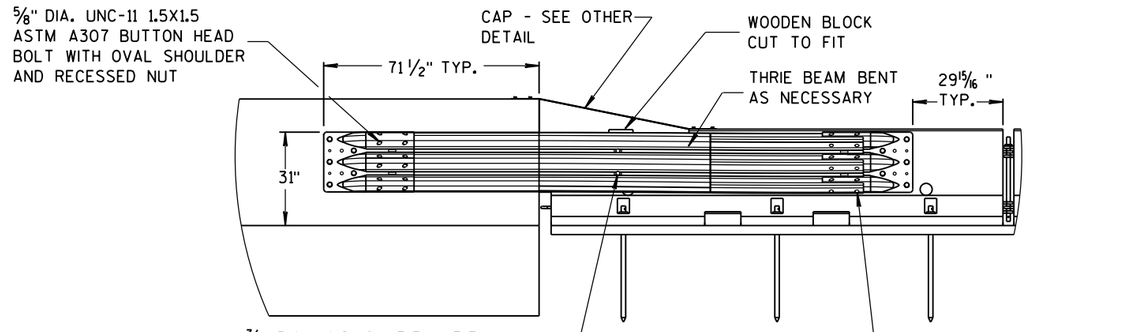
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

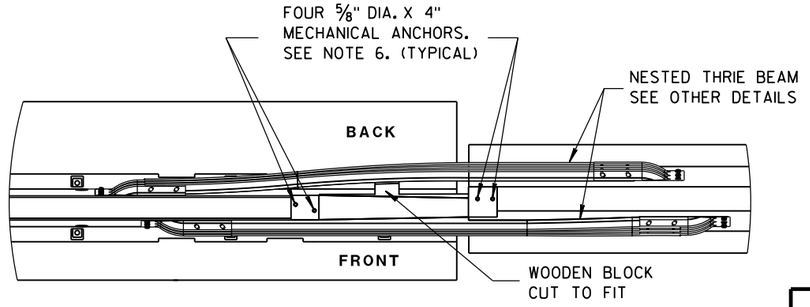
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



FRONT VIEW



BACK VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

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DEPARTMENT OF TRANSPO

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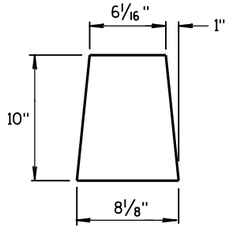
GUSSET 1

GUSSET 2

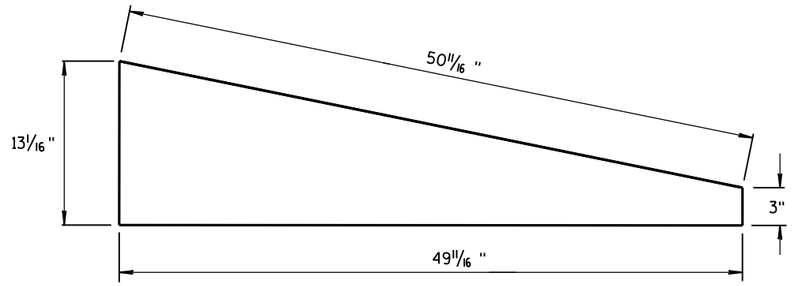
GUSSET 3

GUSSET 4

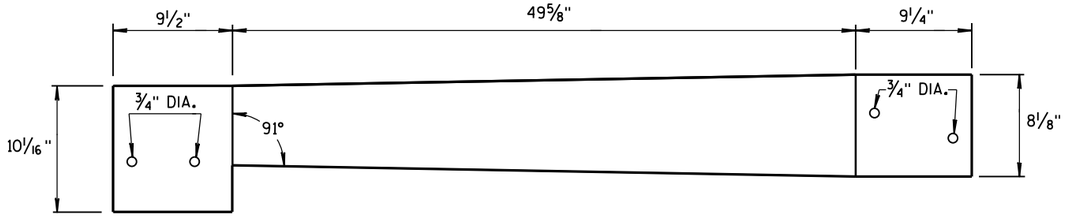
GUSSETS

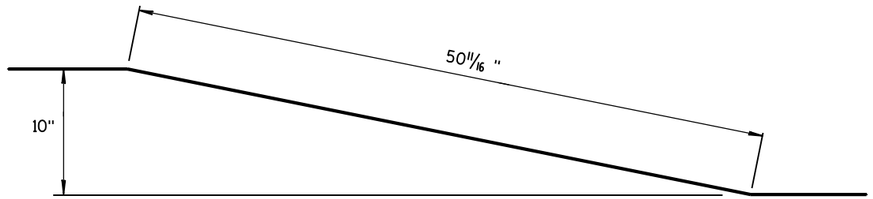


END PLATE

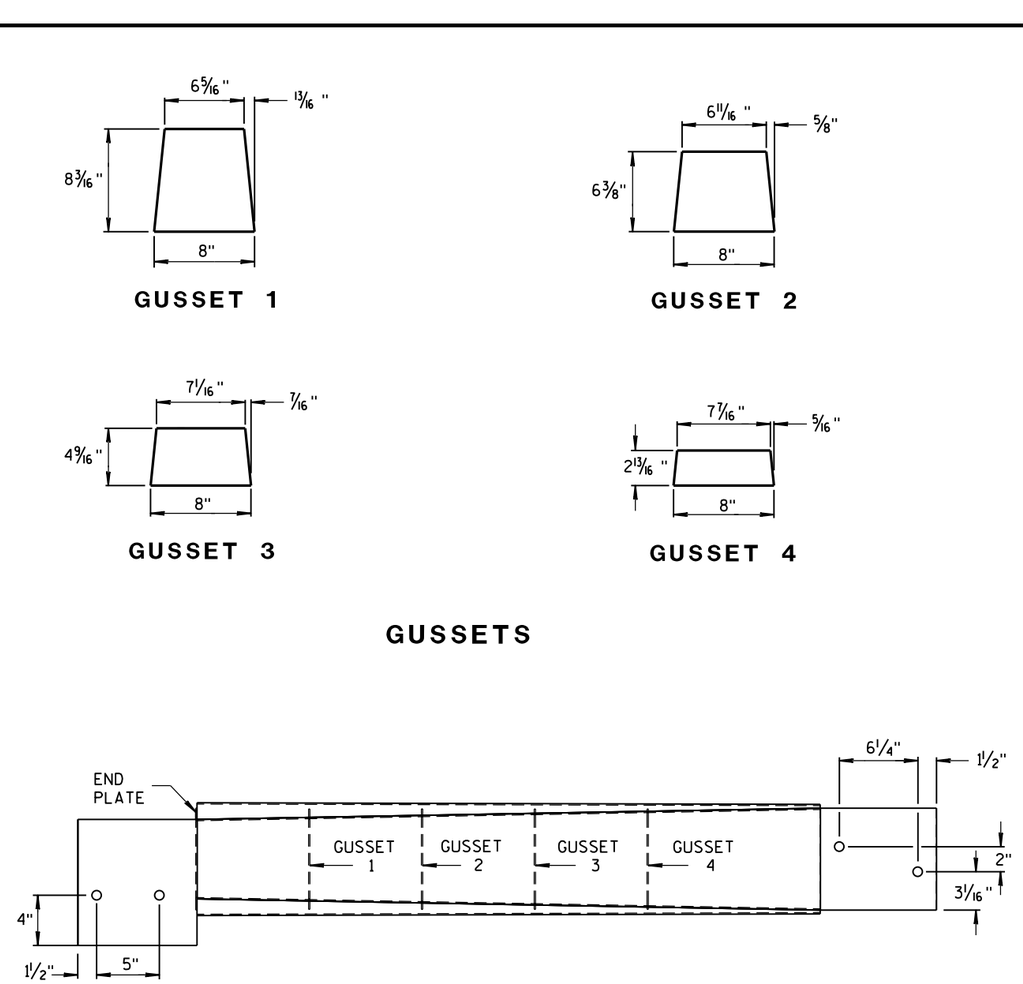


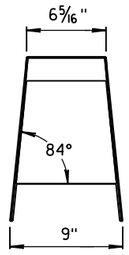
SIDE PLATE





TOP PLATE





SECTION C-C

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

NOTES

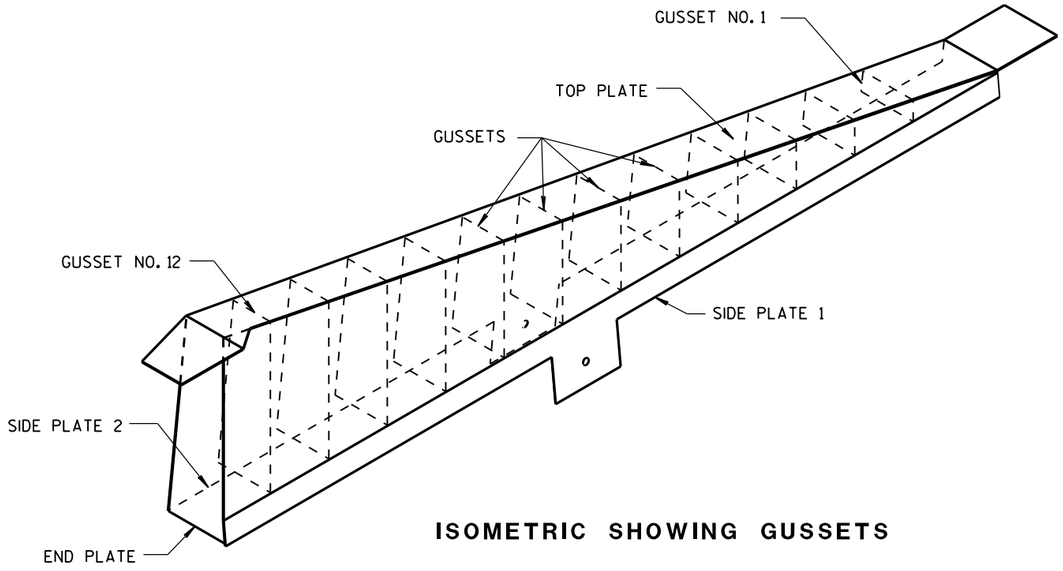
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

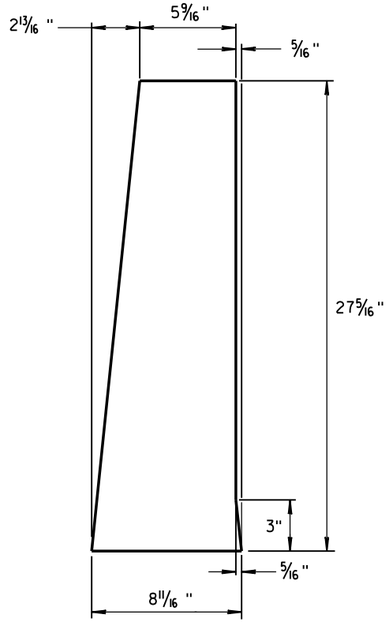
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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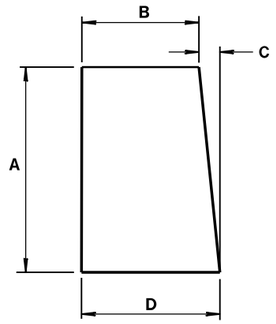


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



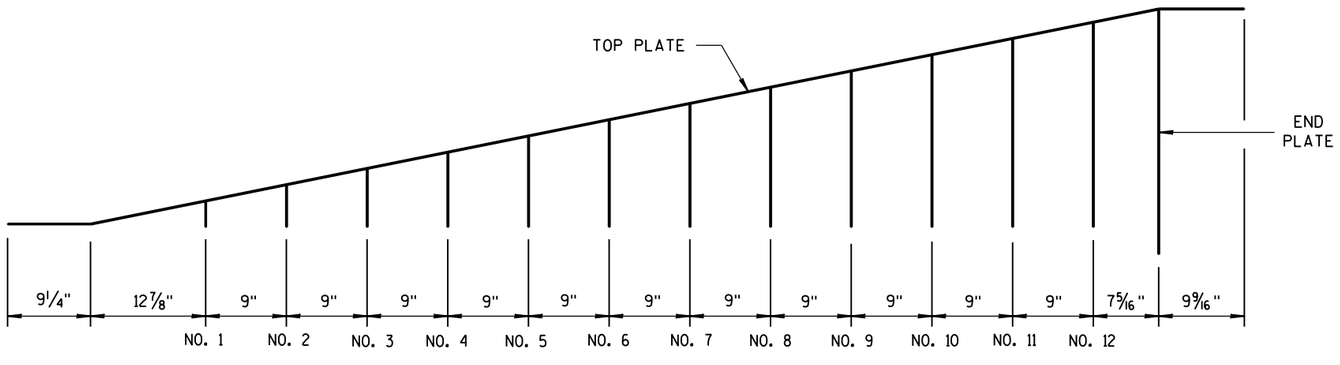
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

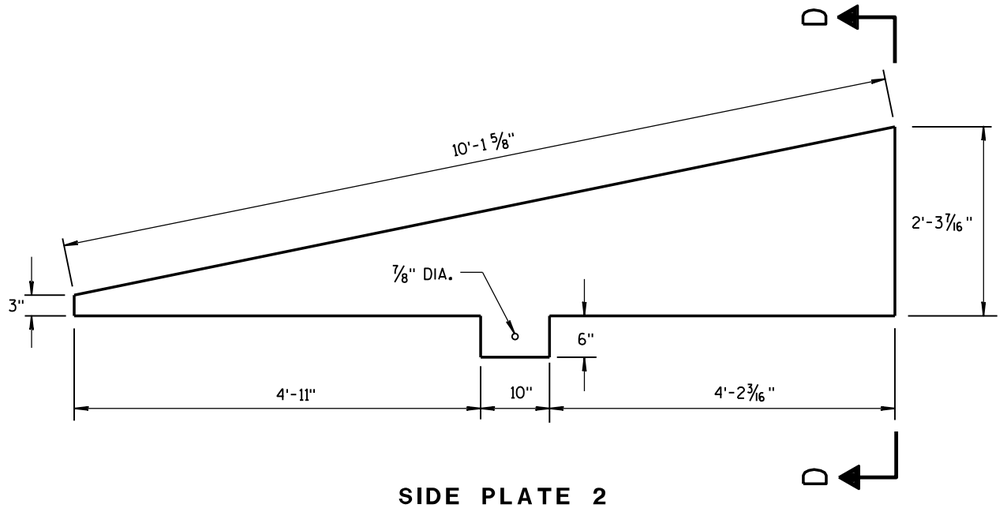
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

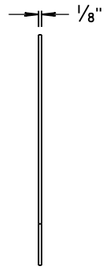
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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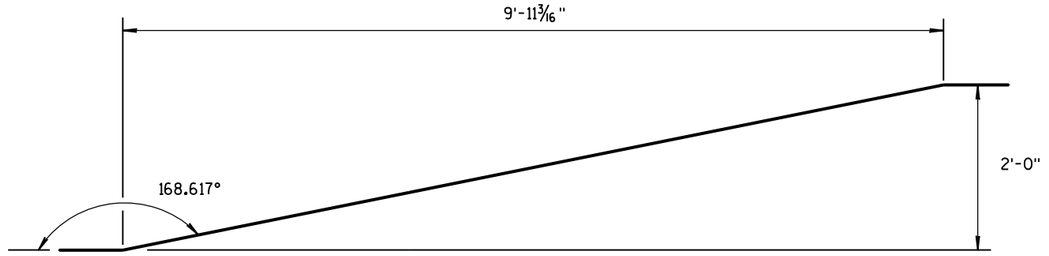
S.D.D. 14 B 7-14g



SIDE PLATE 2

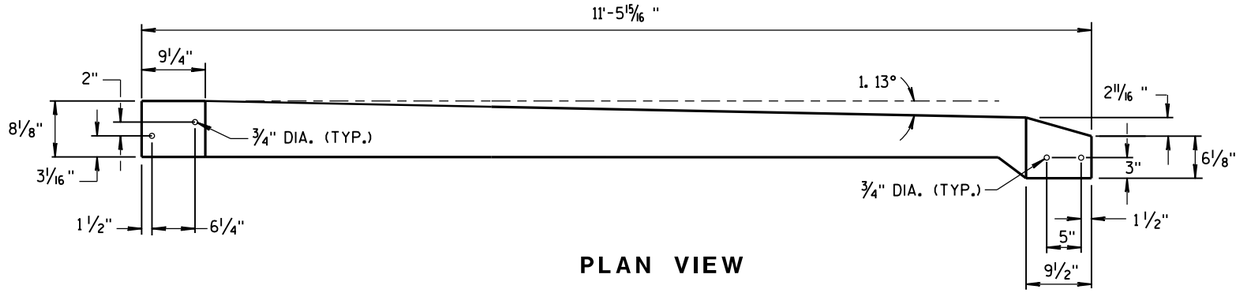


END VIEW



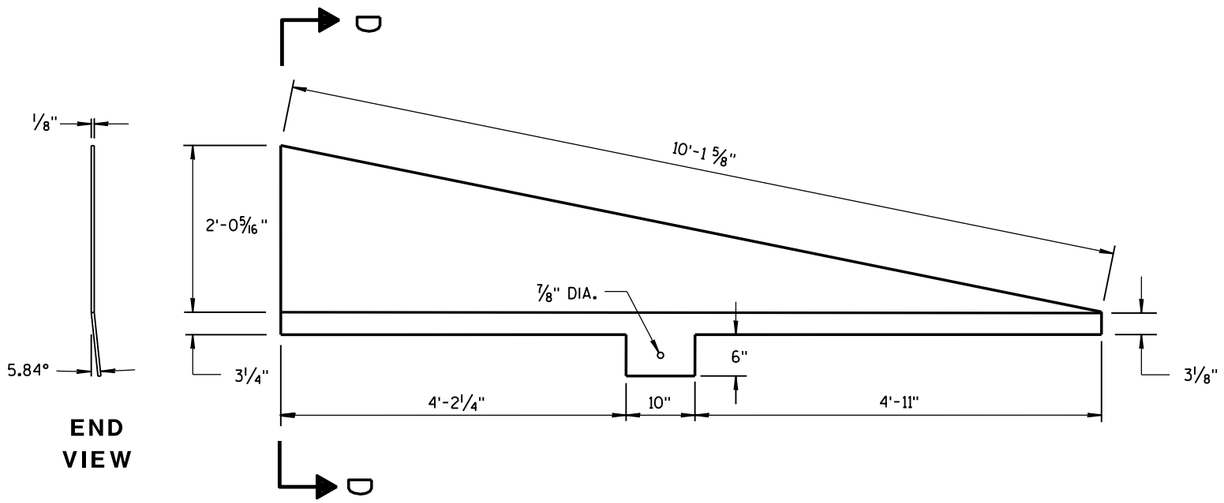
SIDE VIEW

TOP PLATE



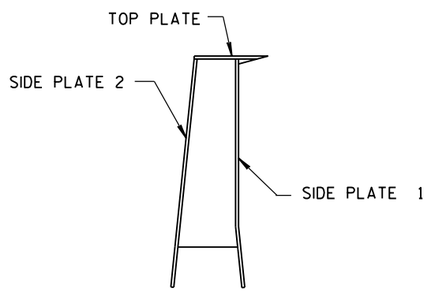
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

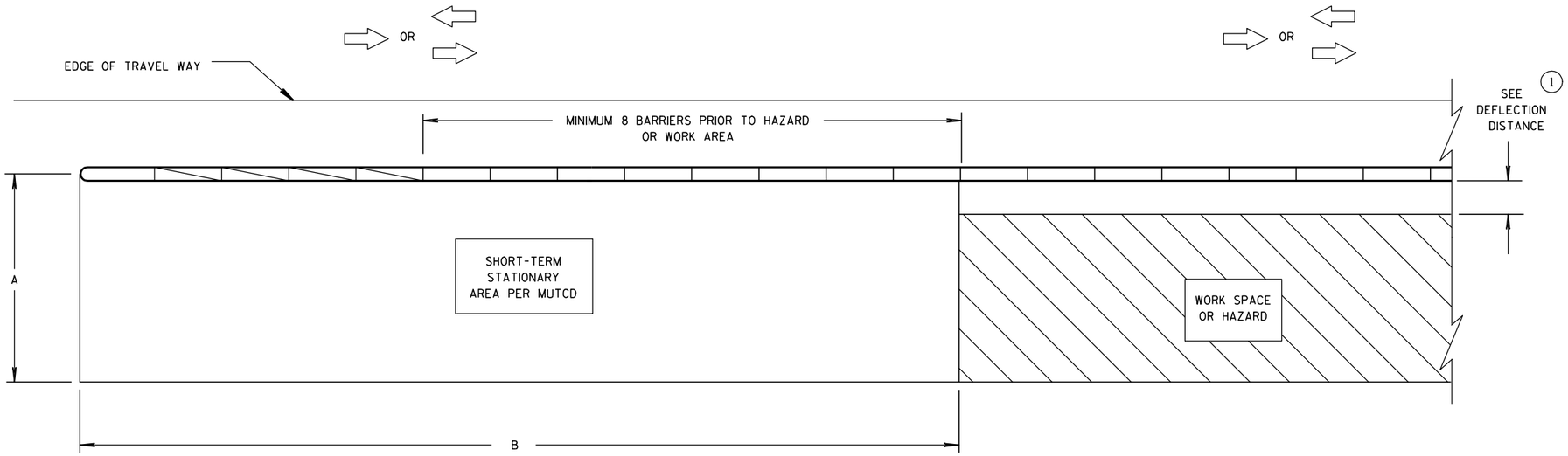
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoaa — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h



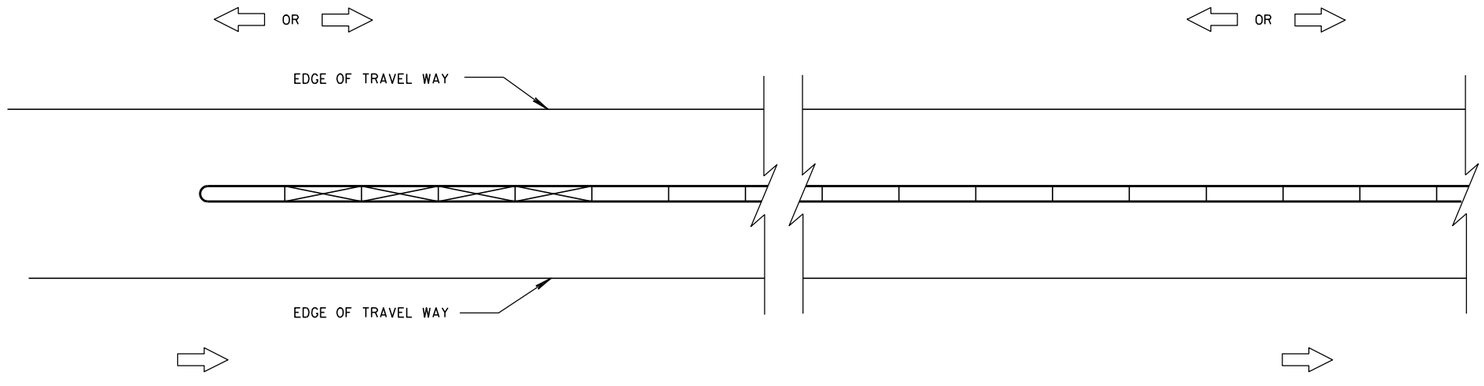
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

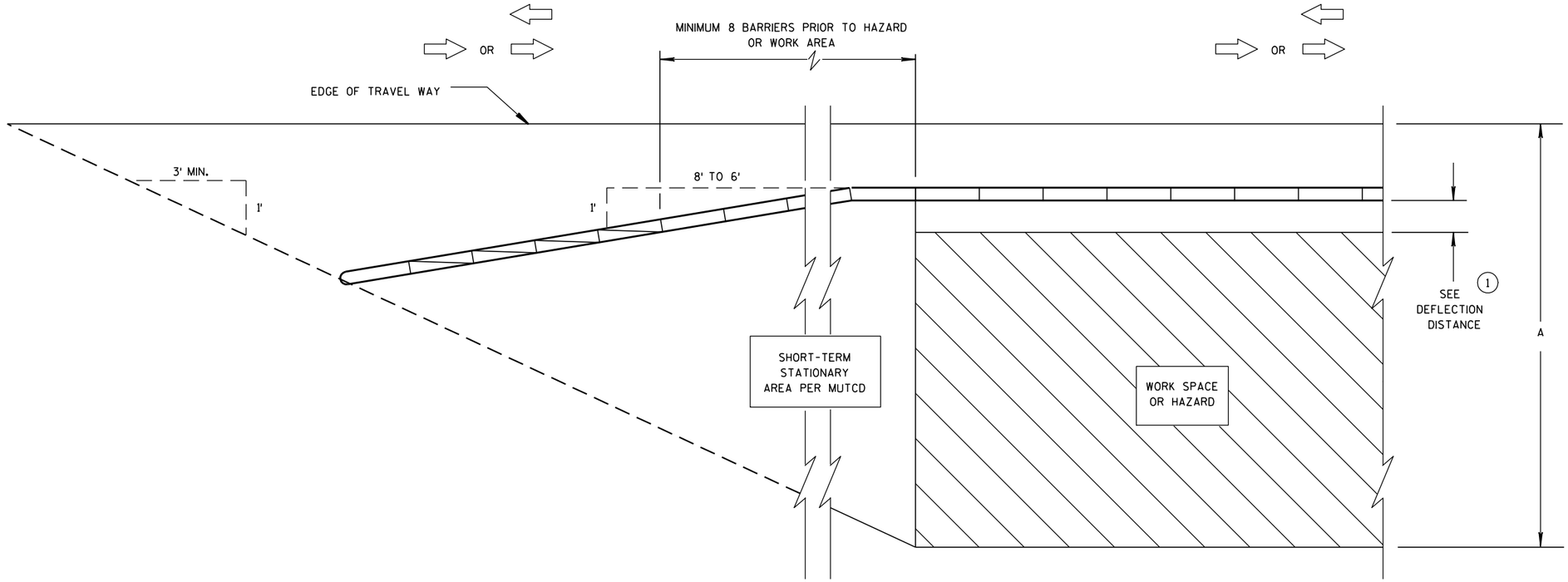
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

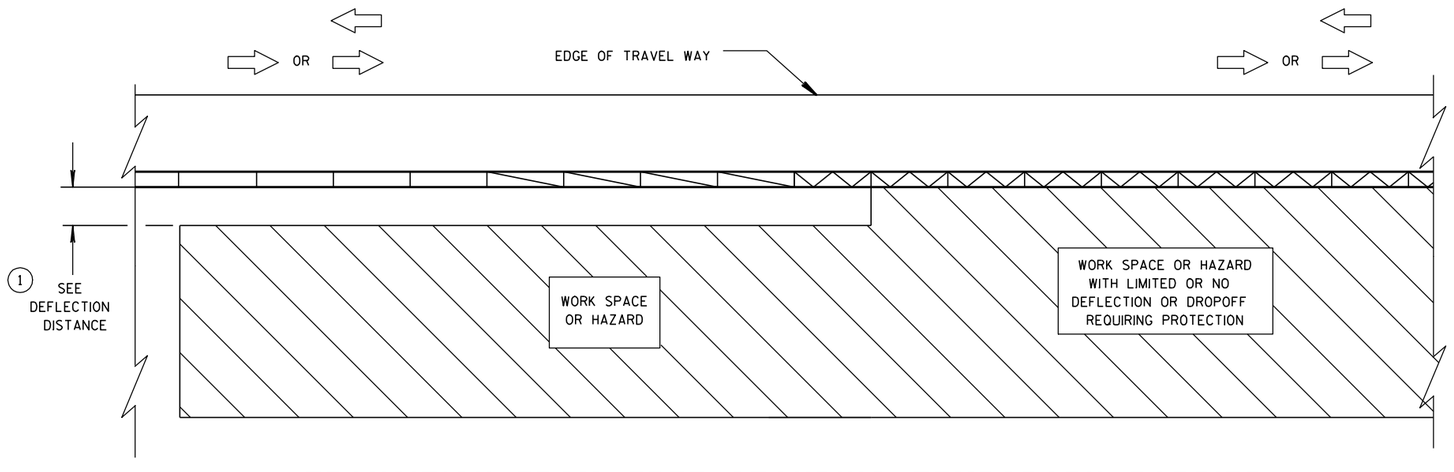
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

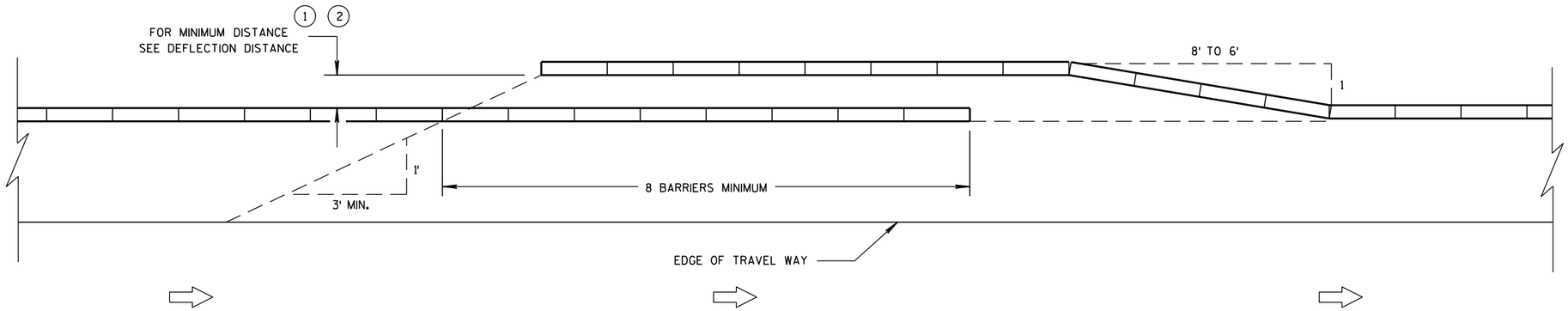
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

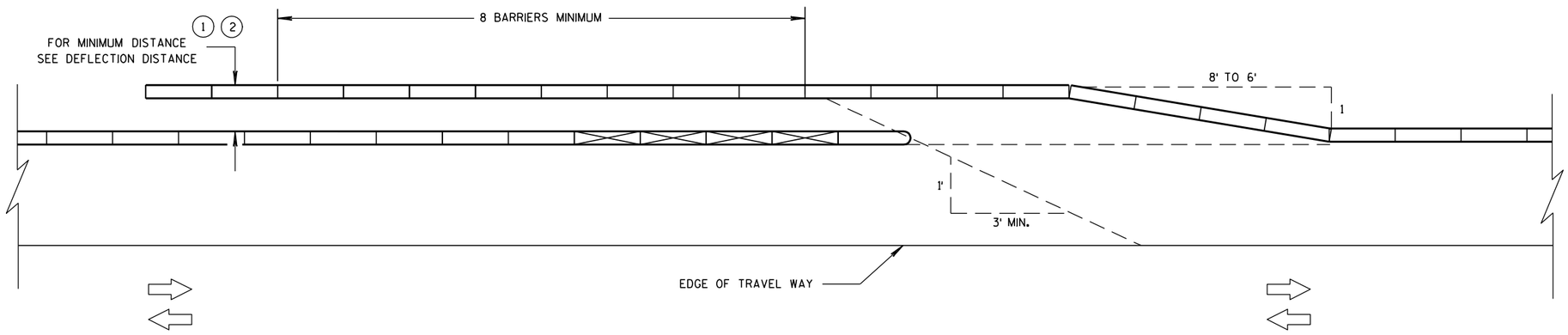
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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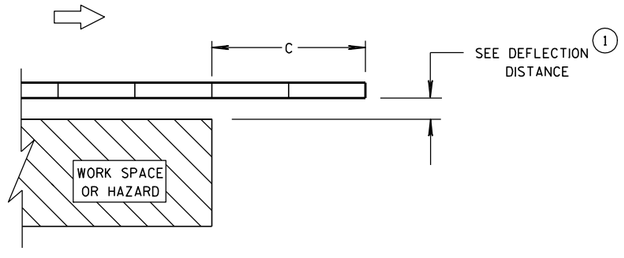
S.D.D. 14 B 8-1b



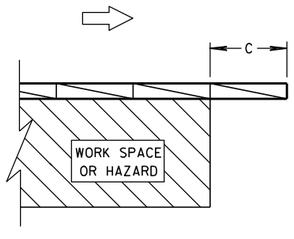
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

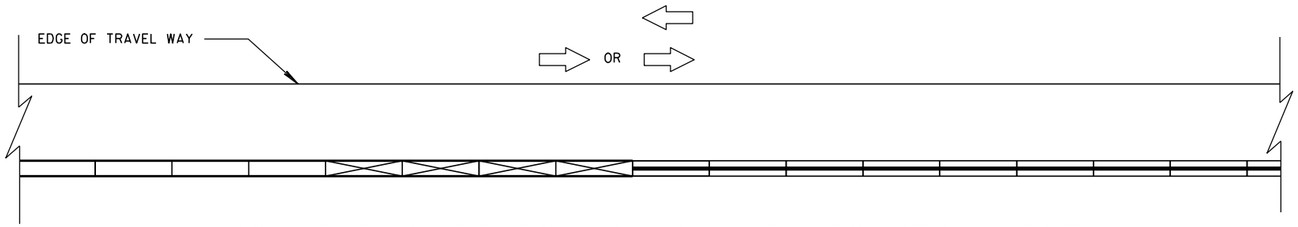
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

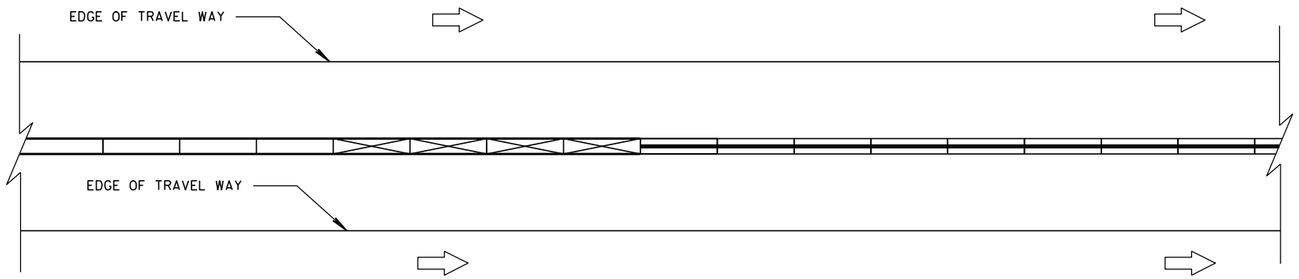
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

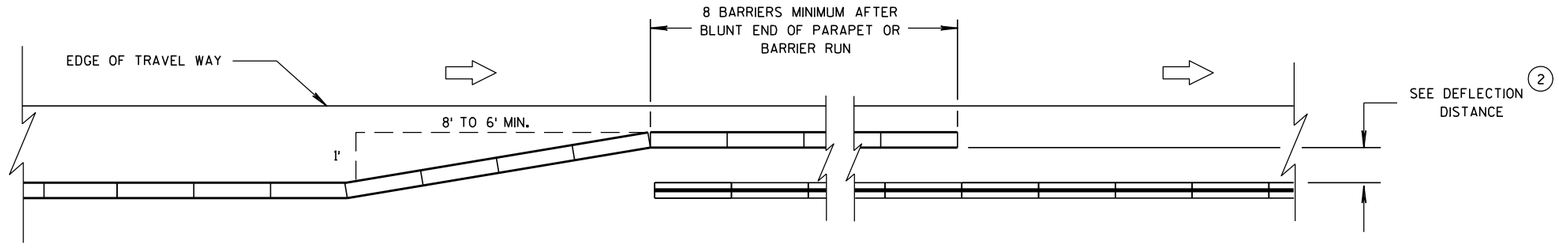
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

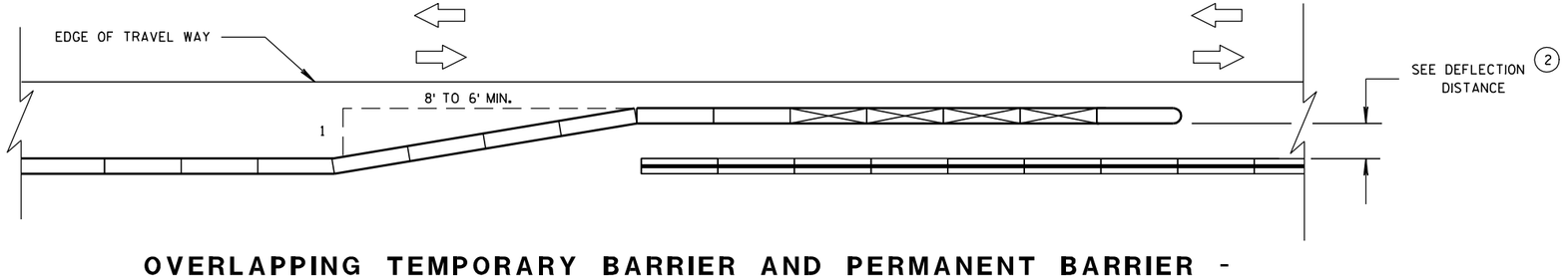
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
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LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

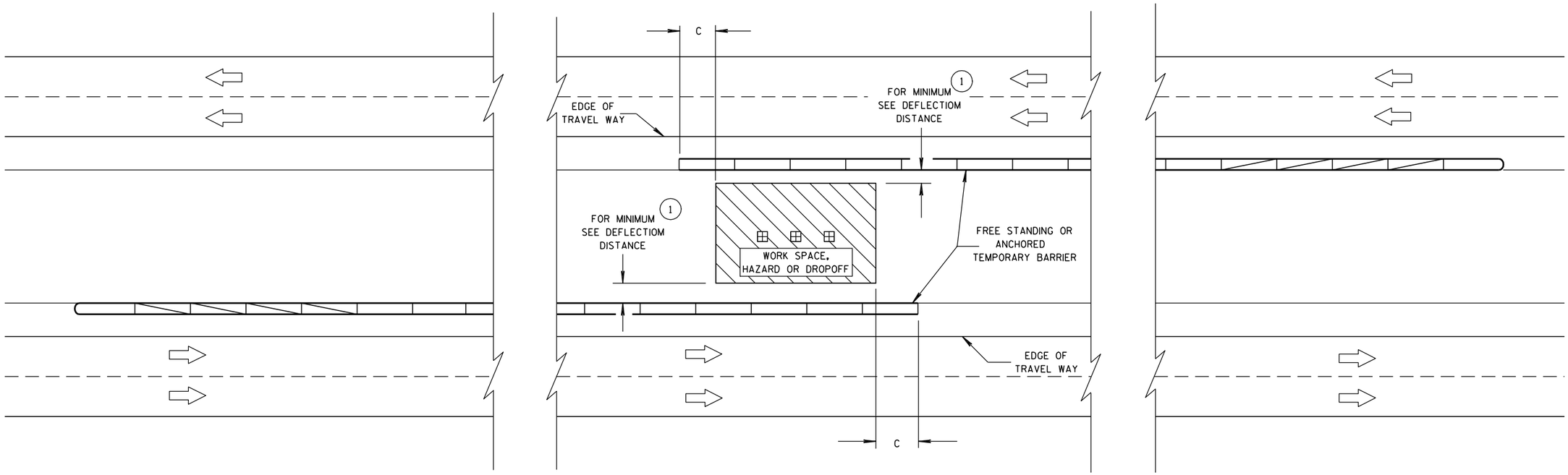
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

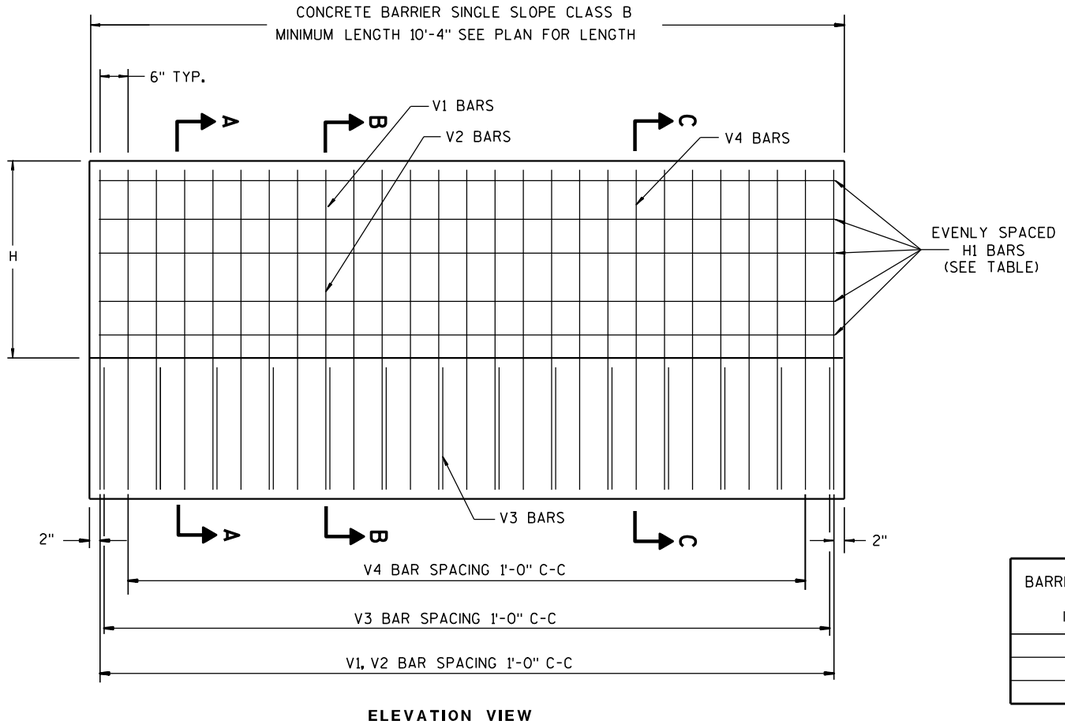
APPROVED

8/31/2012
DATE

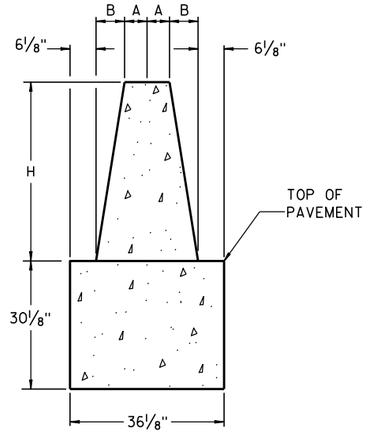
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER

FHWA

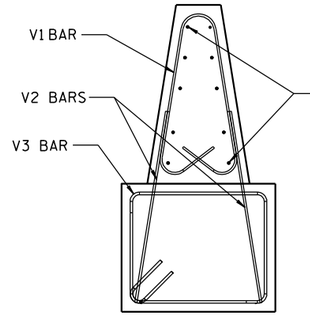
6
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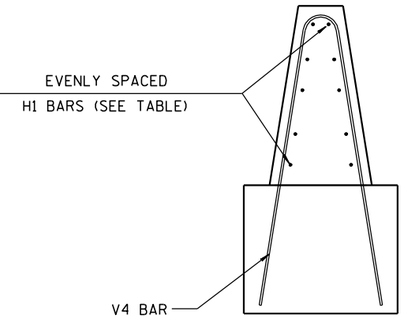
ELEVATION VIEW



SECTION A-A



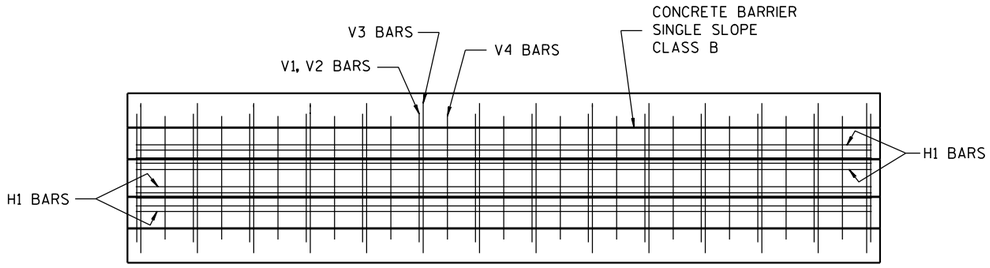
SECTION B-B



SECTION C-C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10

BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5⅝	18¾	5½	53¾
36	4¾	23¾	4⅞	58⅜
42	3⅝	30½	3⅝	65⅜



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

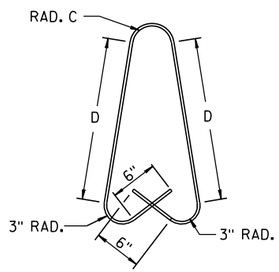
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

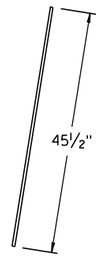
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



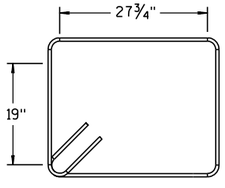
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



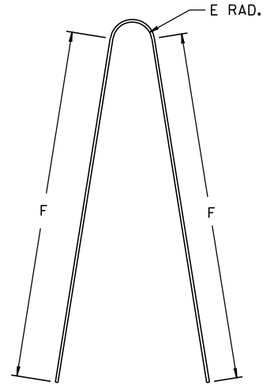
V2 BAR BENDING DETAIL

V2 BARS ARE NO. 5 BARS



V3 BAR BENDING DETAIL

V3 BARS ARE NO. 6 BARS



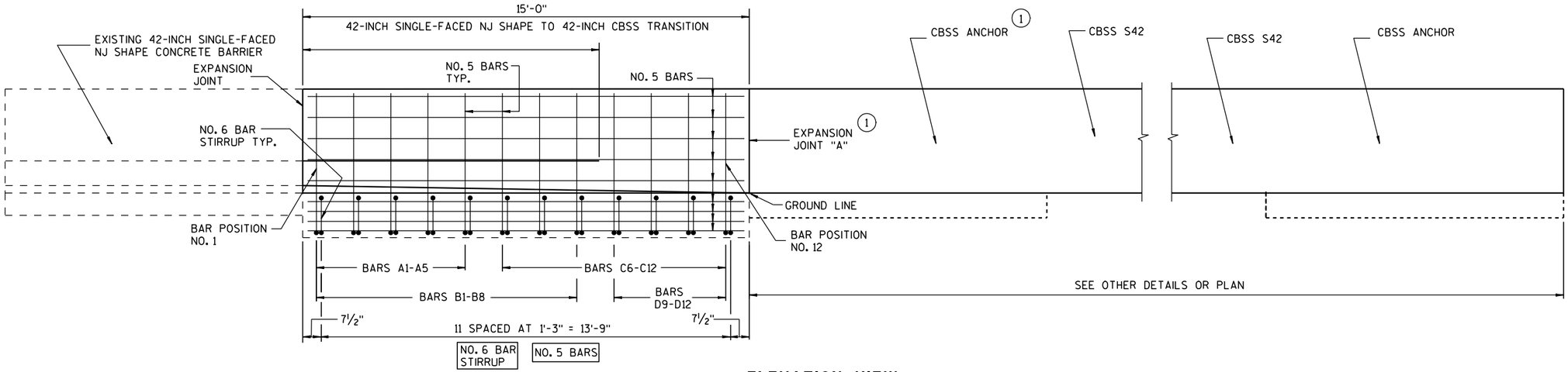
V4 BAR BENDING DETAIL

V4 BARS ARE NO. 6 BARS

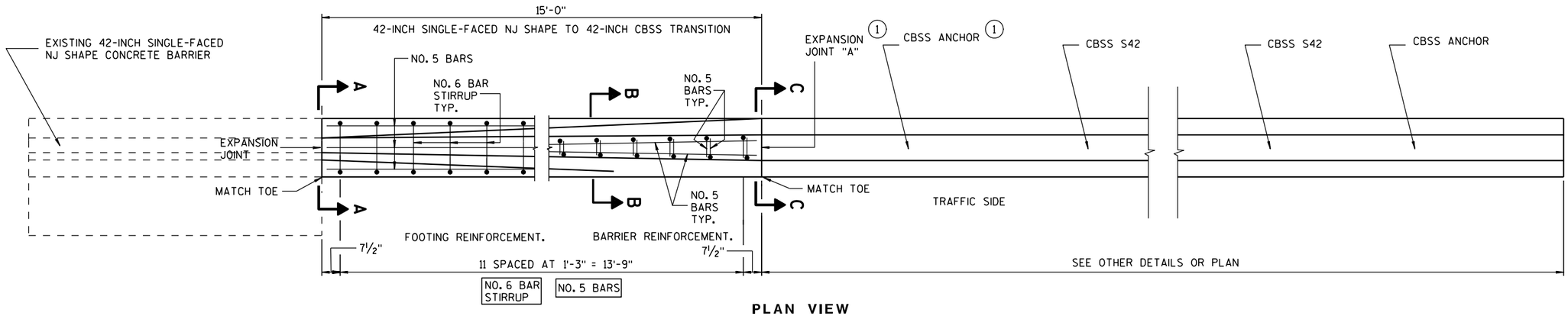
32", 36" & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

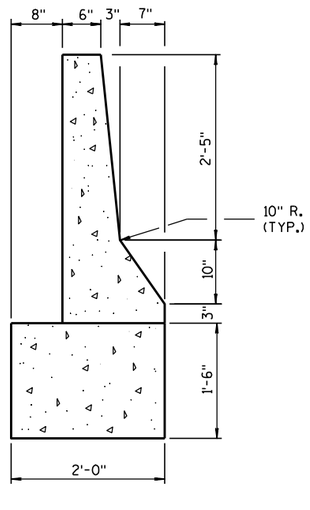
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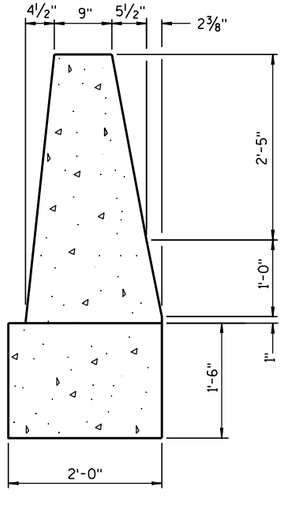
ELEVATION VIEW



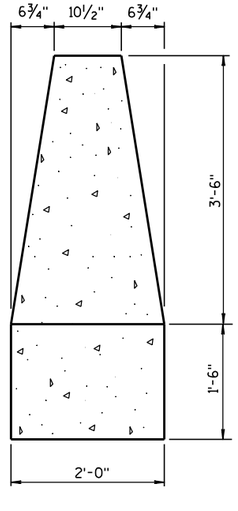
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.

42-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 42-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

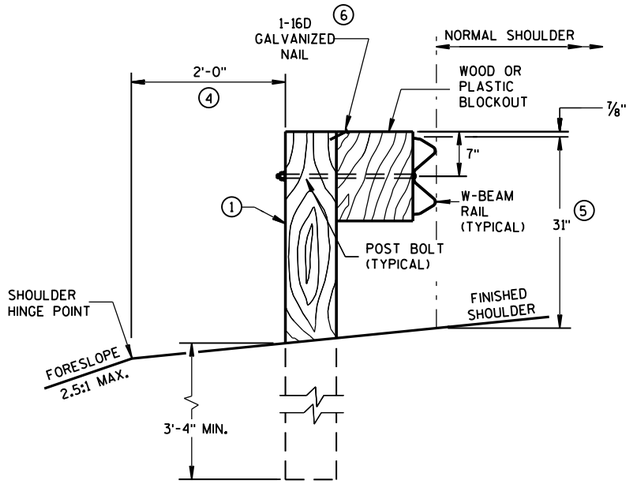
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

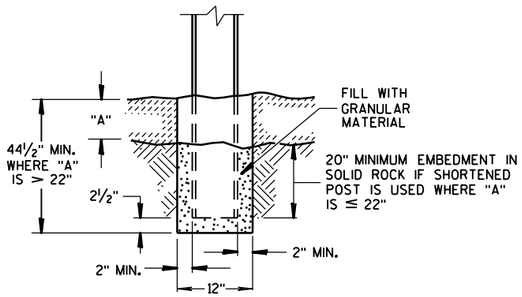
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



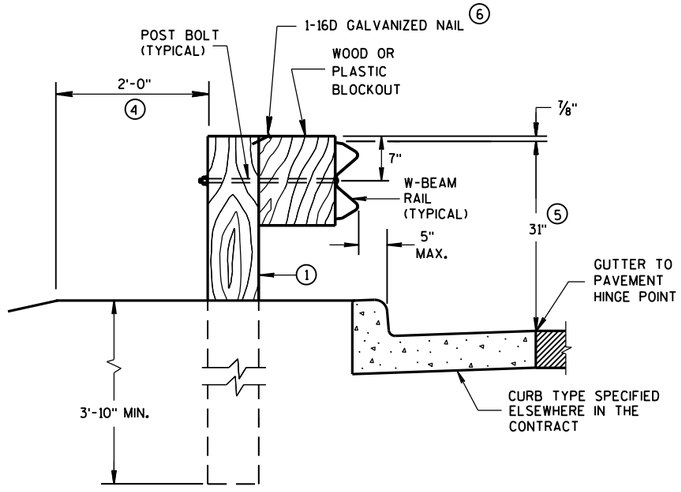
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



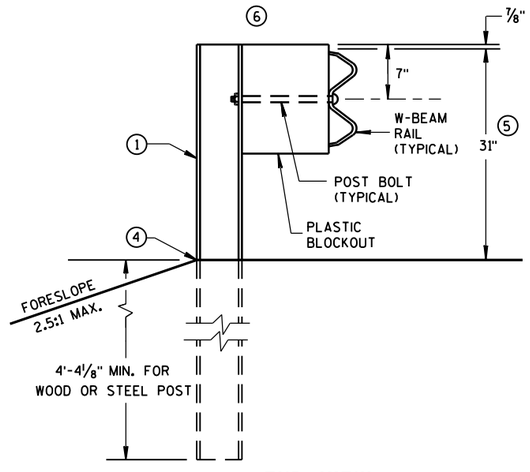
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



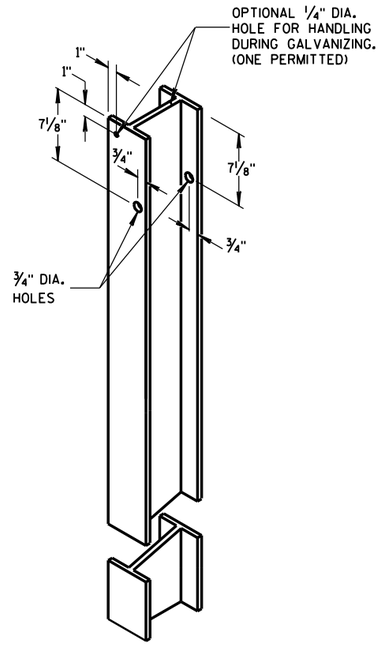
END VIEW

LOCATED ALONG A CURBED ROADWAY

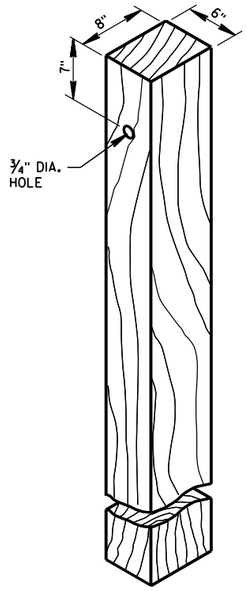


END VIEW

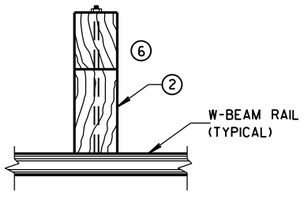
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



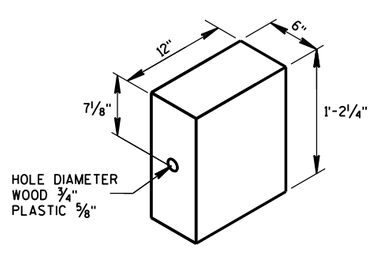
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



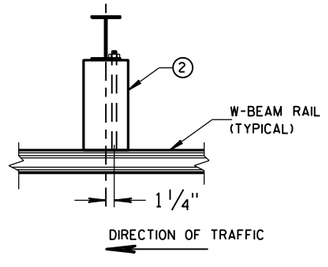
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

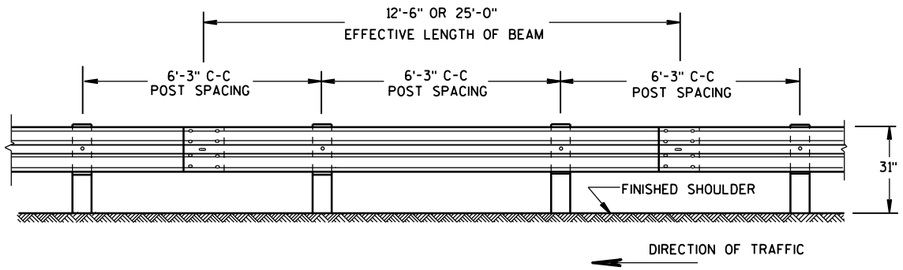


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

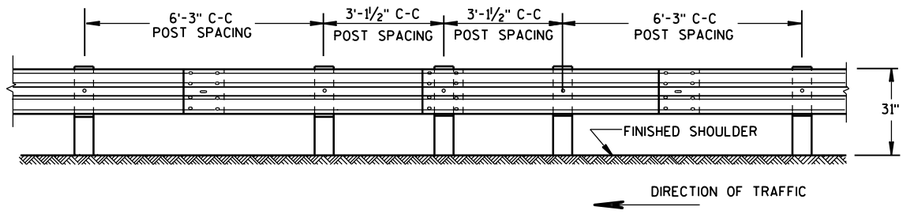
STATE OF WISCONSIN
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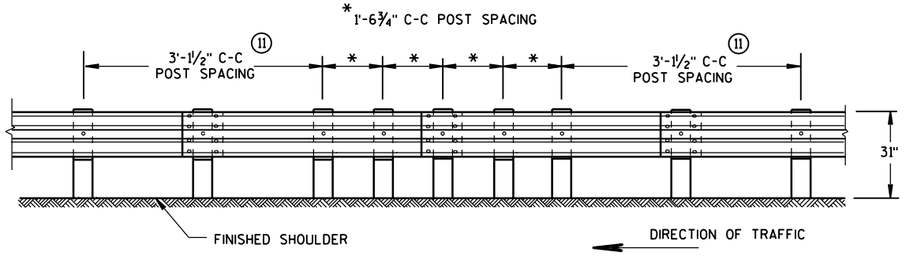
FRONT VIEW

POST SPACING STANDARD INSTALLATION



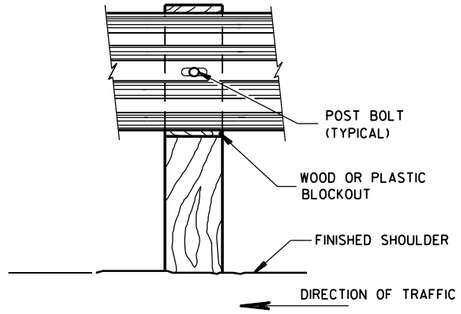
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

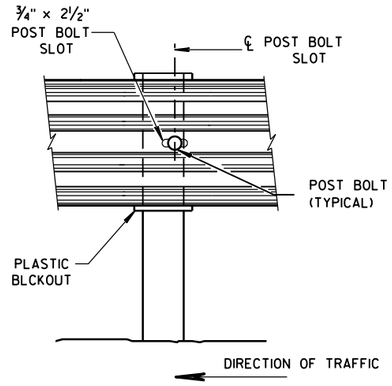


FRONT VIEW

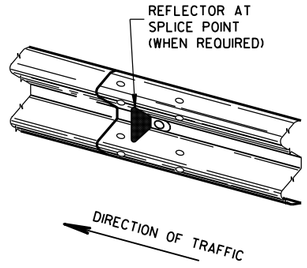
QUARTER POST SPACING (QS)

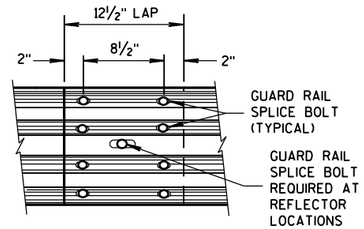


FRONT VIEW AT WOOD POST



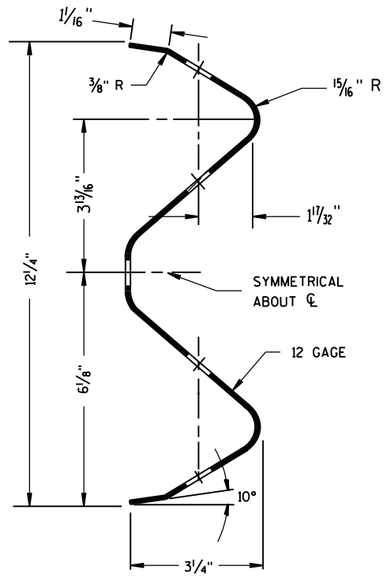
FRONT VIEW AT STEEL POST



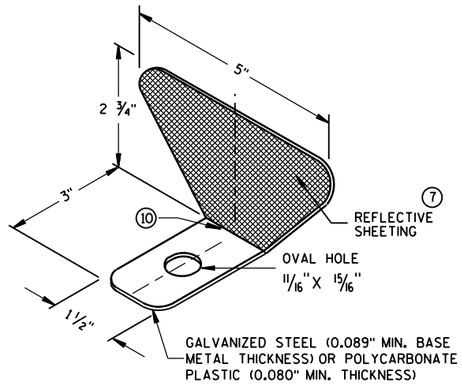


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

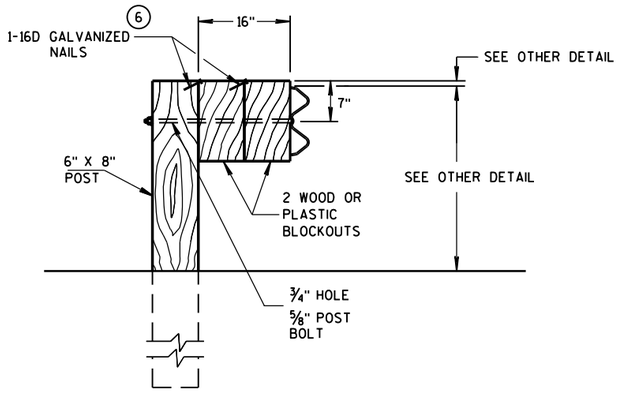
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 370

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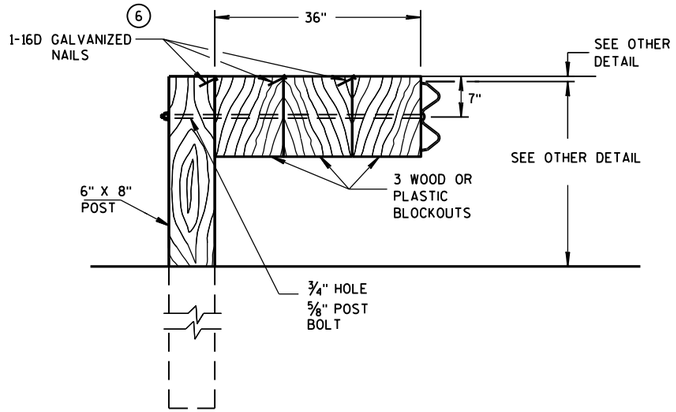
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DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

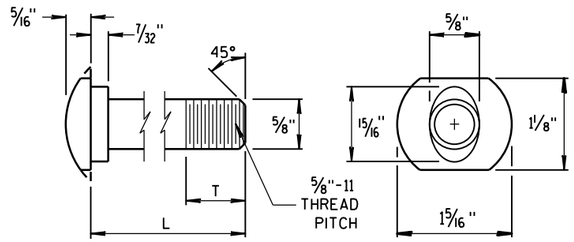


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

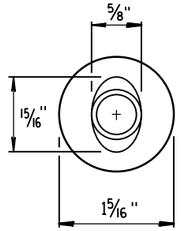
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

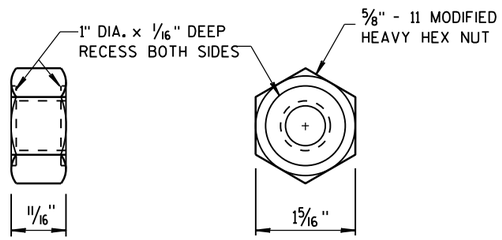


POST BOLT TABLE

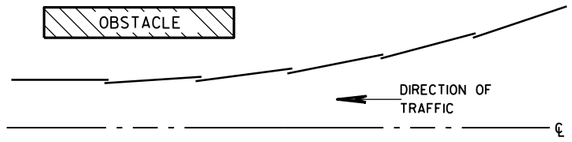
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

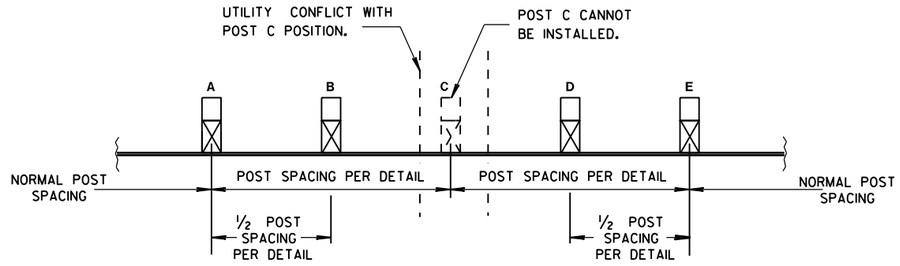


POST BOLT AND RECESS NUT

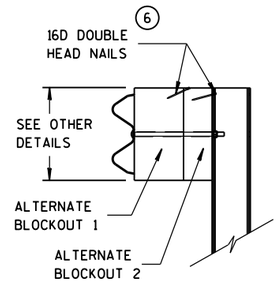


PLAN VIEW

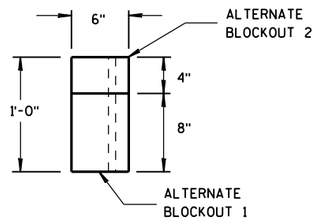
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

6

S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

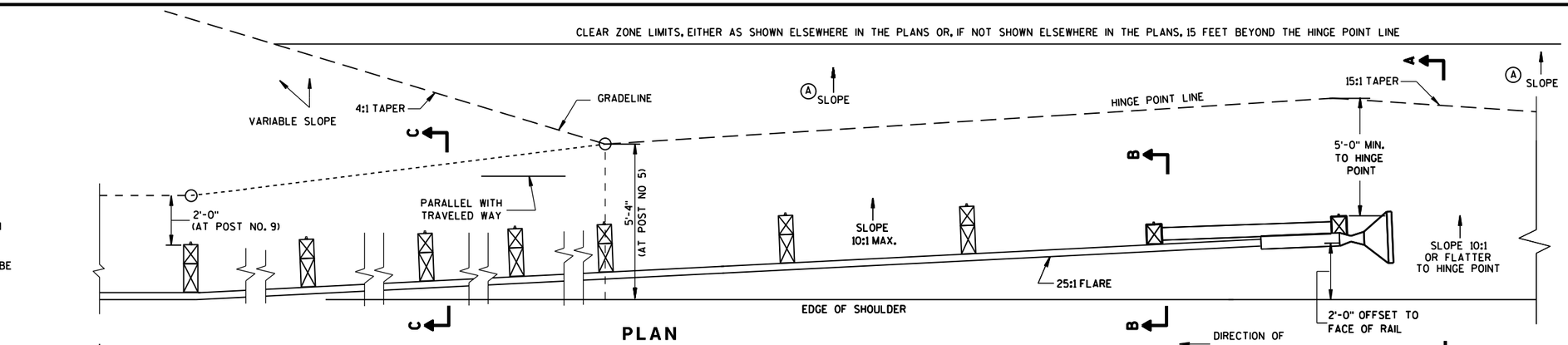
SEE SDD 14B42 FOR MORE INFORMATION.

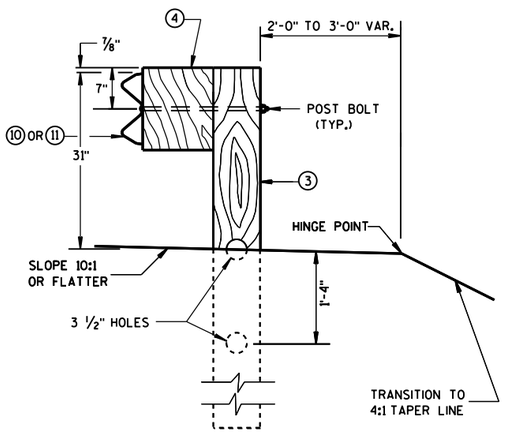
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

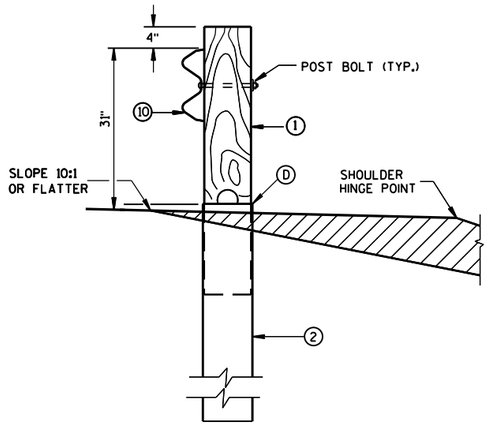
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

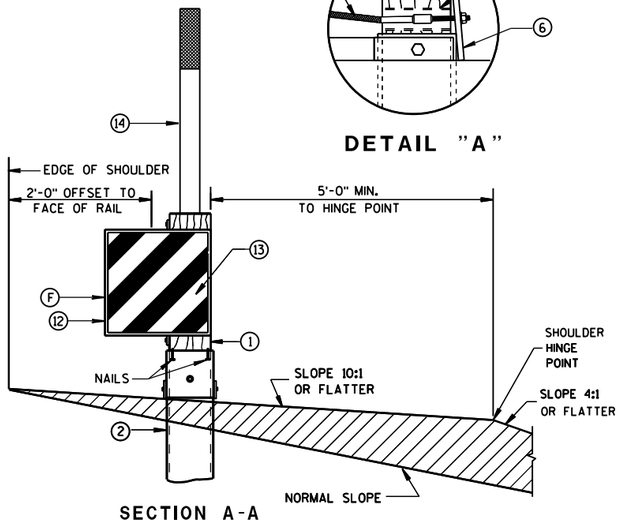




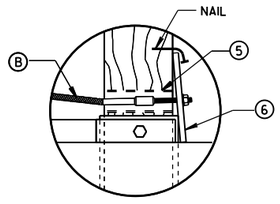
SECTION C-C
TYPICAL AT POST NOS. 3-9



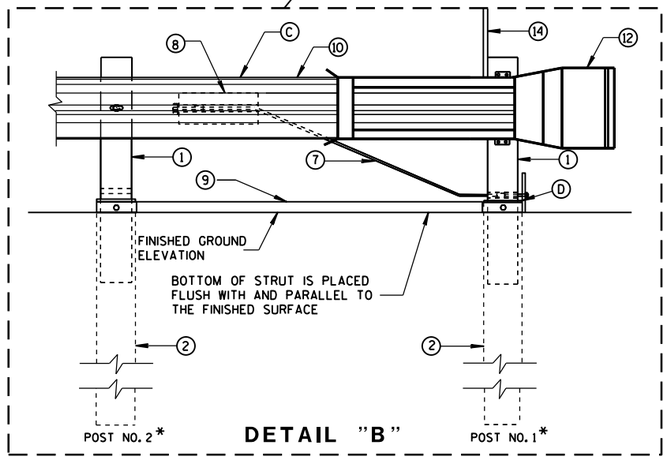
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



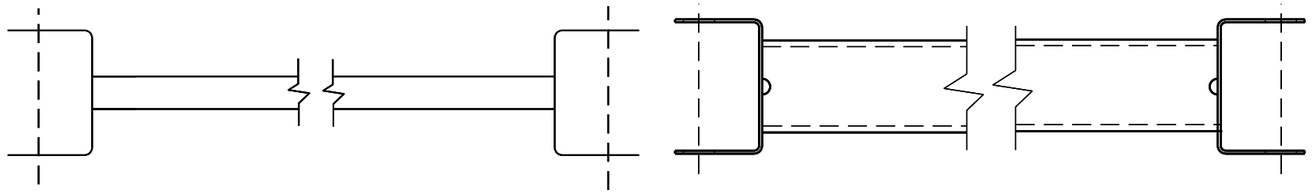
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

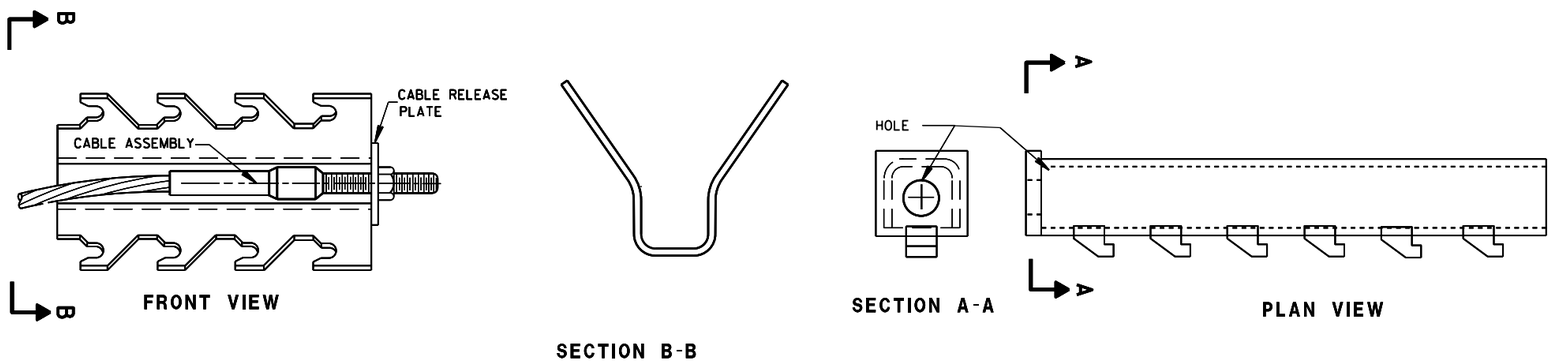
S.D.D. 14 B 44-2a



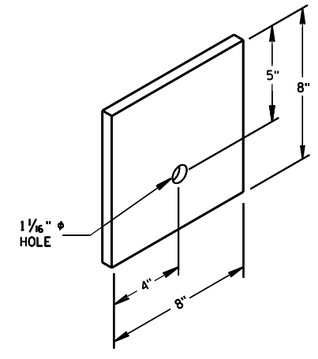
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



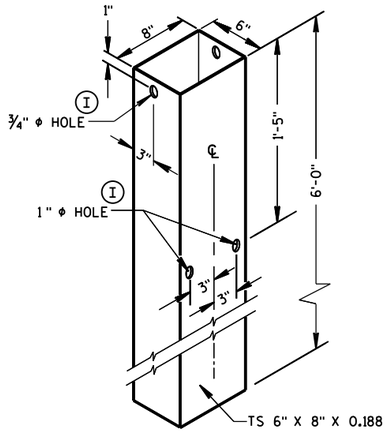
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

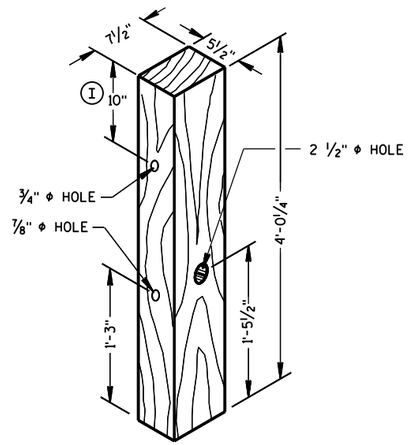
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 44-2b

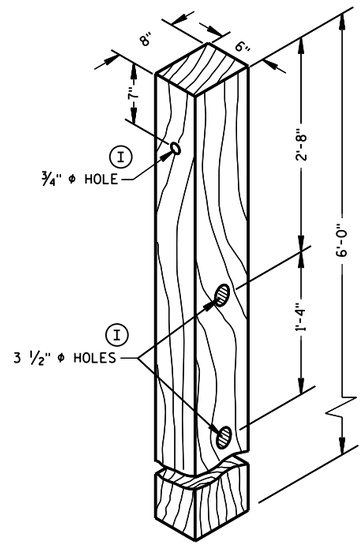


FOUNDATION TUBE (2)



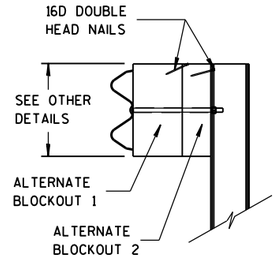
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

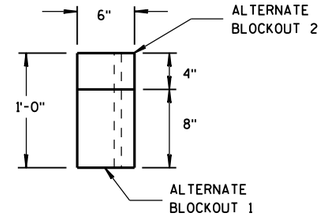


POSTS NUMBER 3-9

WOOD CRT POST (3)

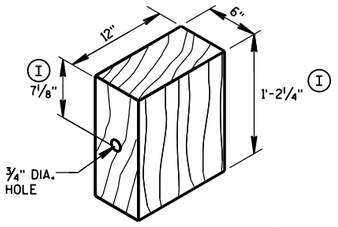


SIDE VIEW



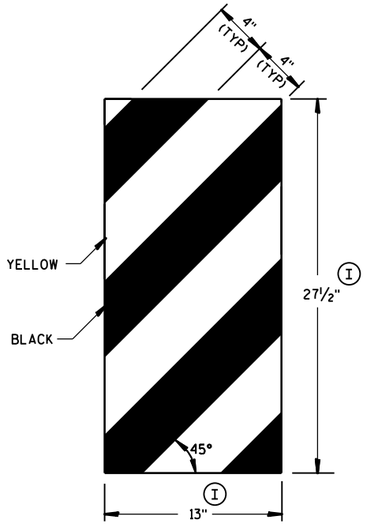
TOP VIEW

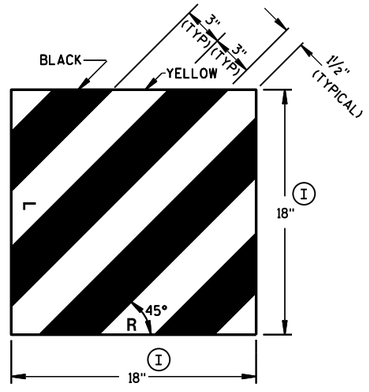
ALTERNATE WOOD BLOCKOUT DETAIL



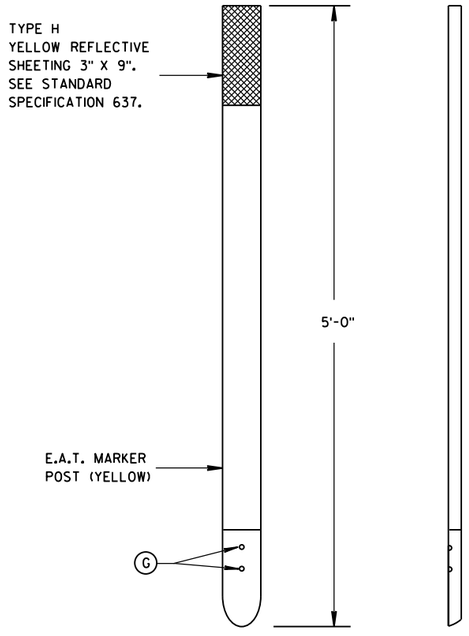
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





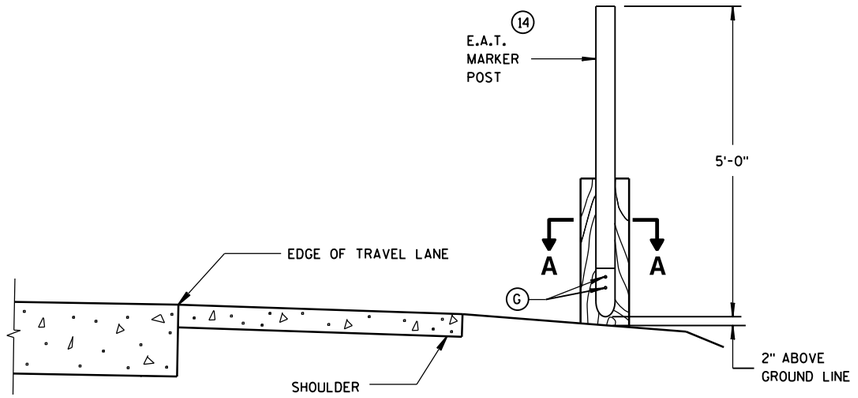
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

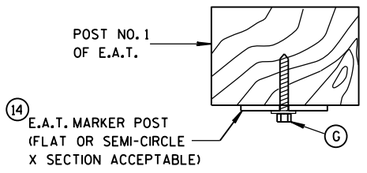
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

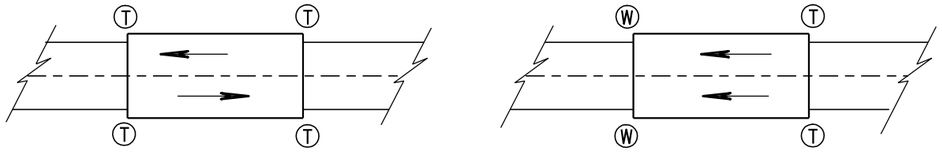
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

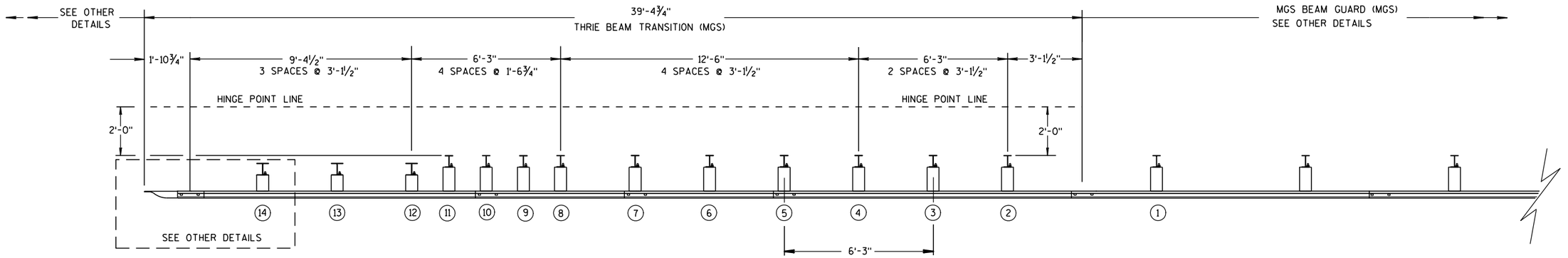
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

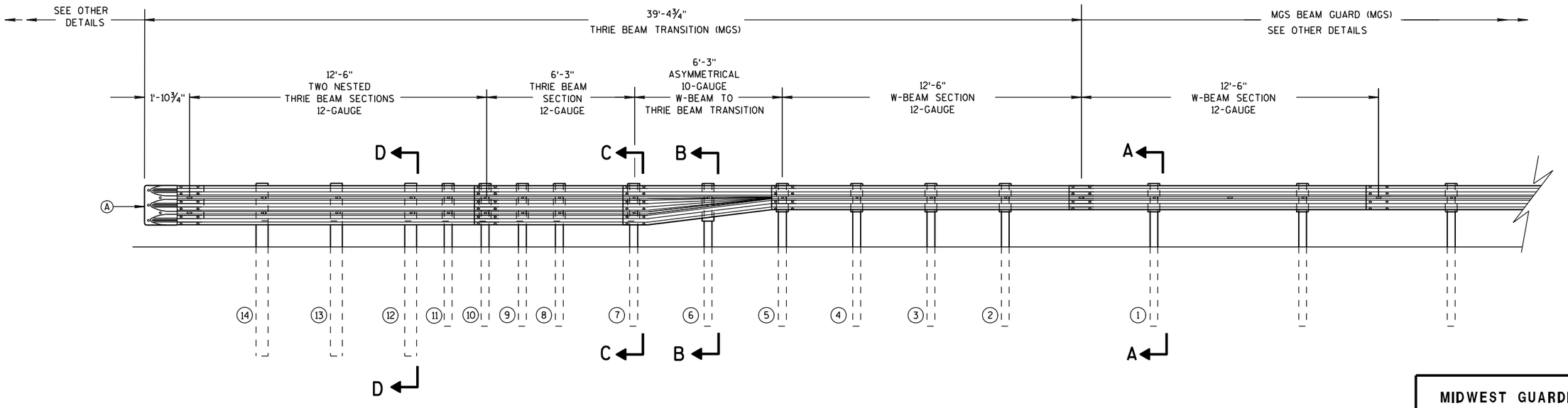
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

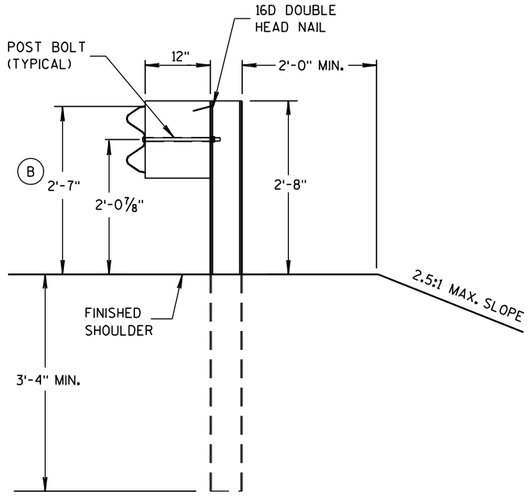
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

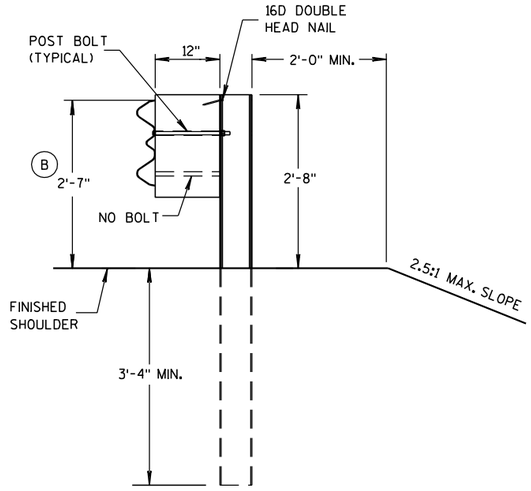
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



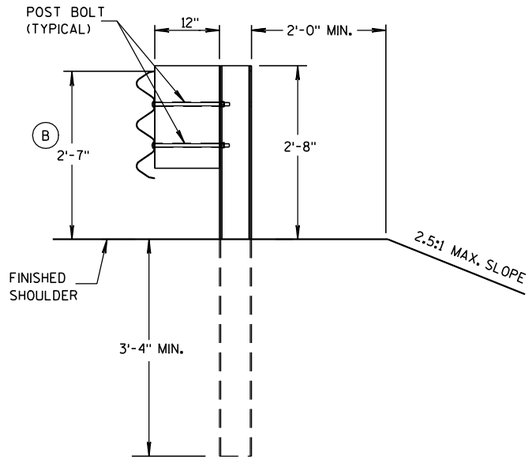
SECTION A-A

POSTS 1-5



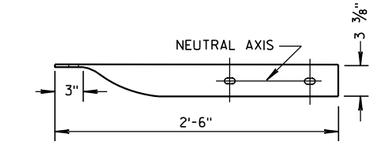
SECTION B-B

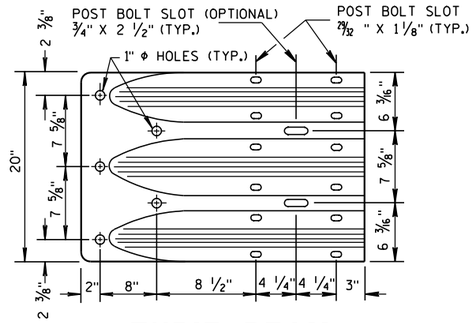
POST 6



SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR

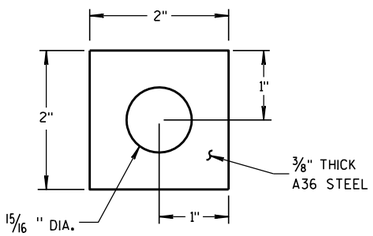
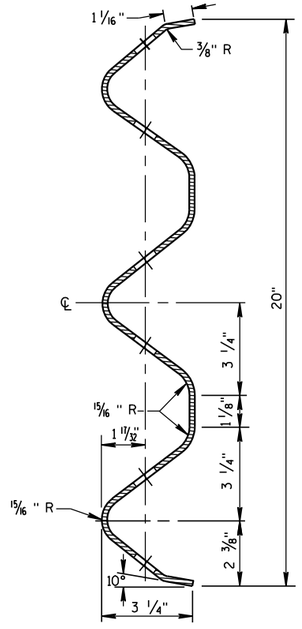
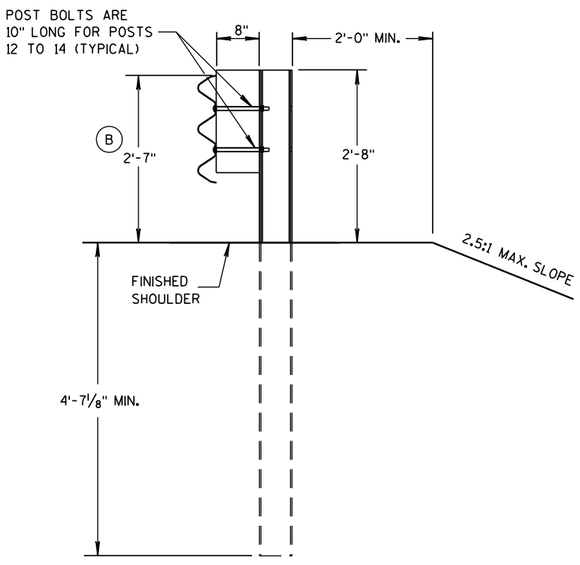


PLATE WASHER DETAIL

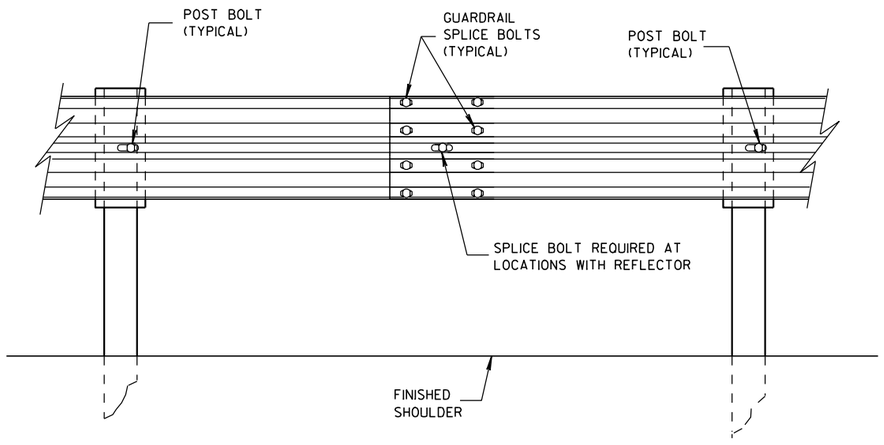


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-14

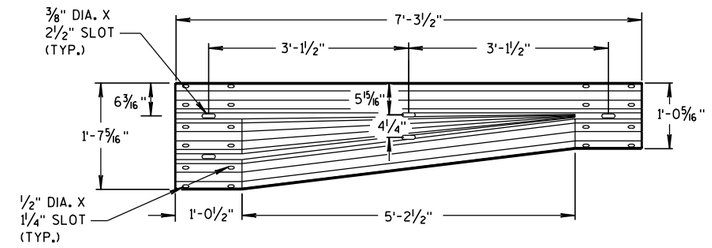


SPLICE DETAIL

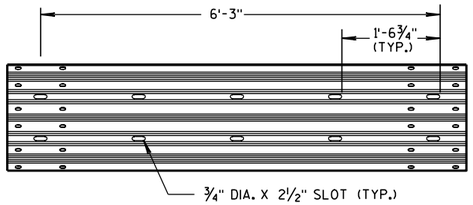
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

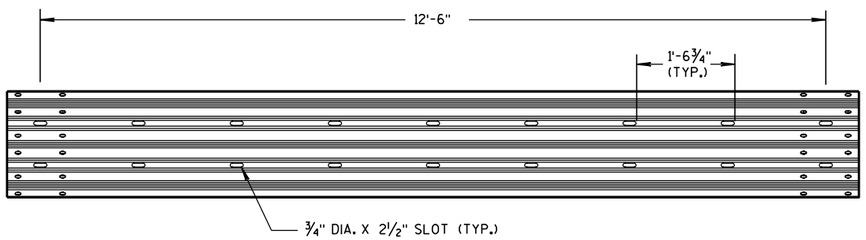
6
S.D.D. 14 B 45-3b



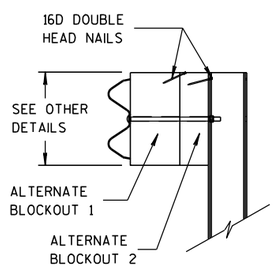
W-BEAM TO THRIE BEAM TRANSITION SECTION



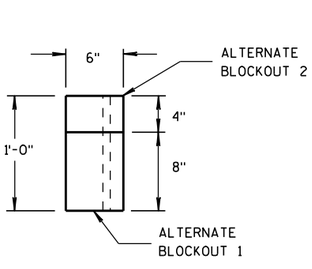
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

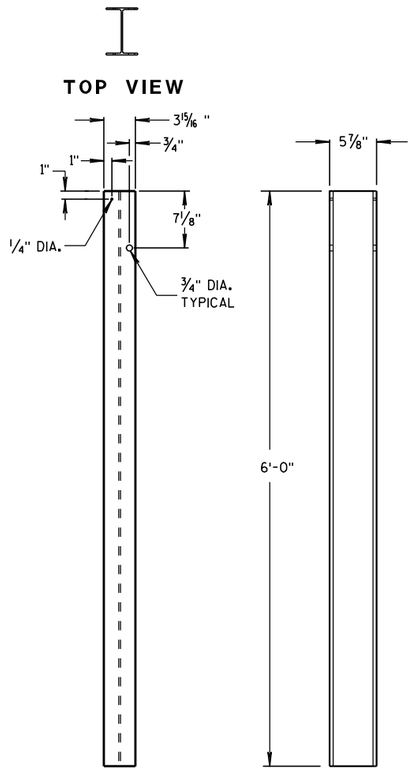


SIDE VIEW

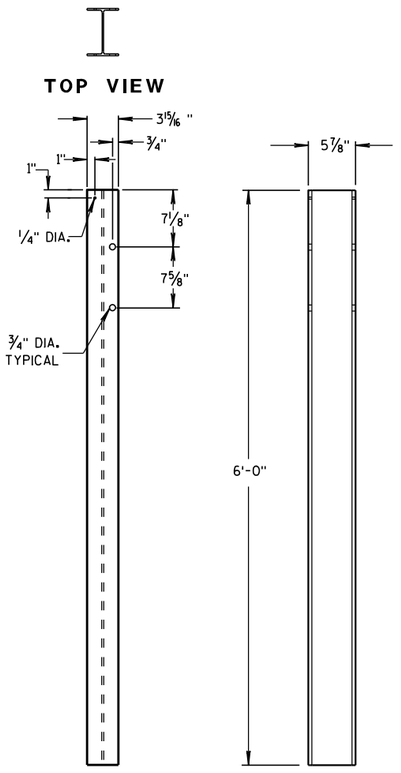


TOP VIEW

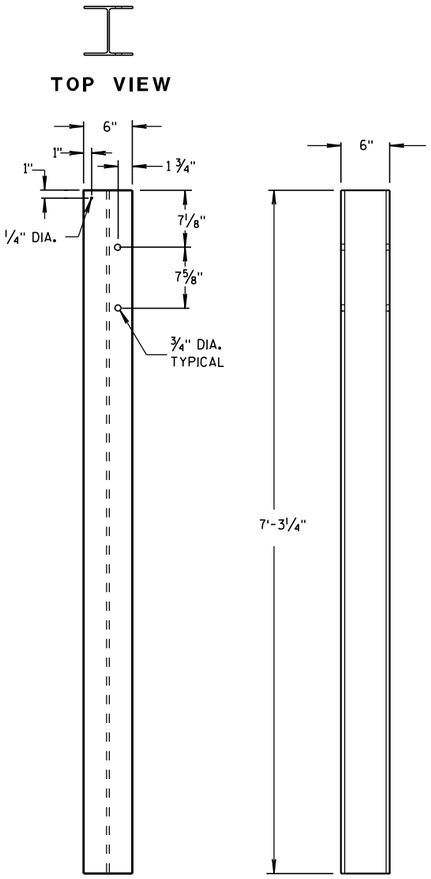
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

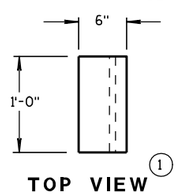


STEEL POSTS 6-11

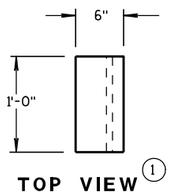


STEEL POSTS 12-14

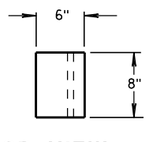
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



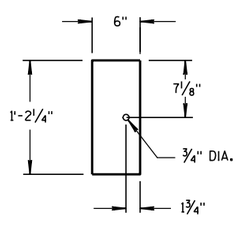
TOP VIEW (1)



TOP VIEW (1)

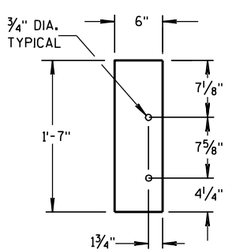


TOP VIEW



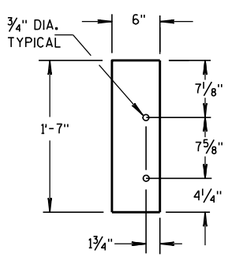
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

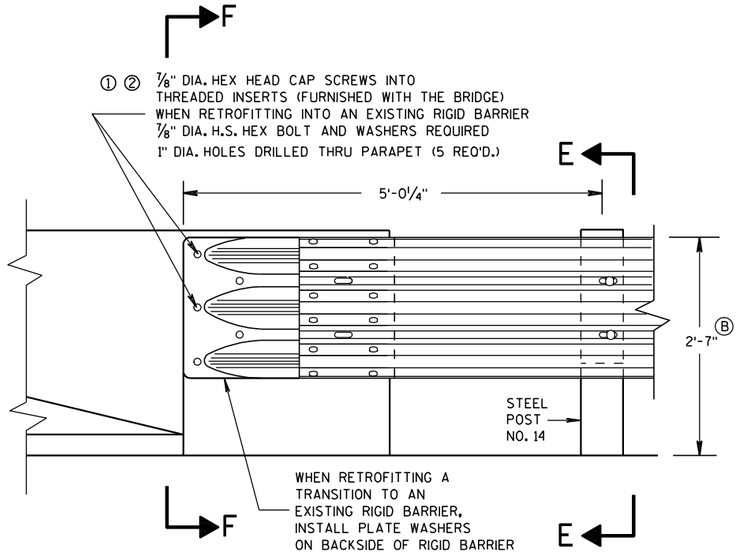
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

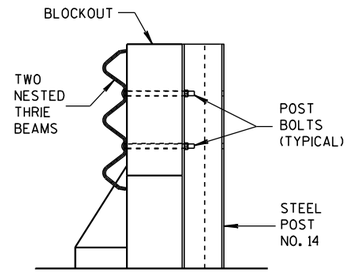
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

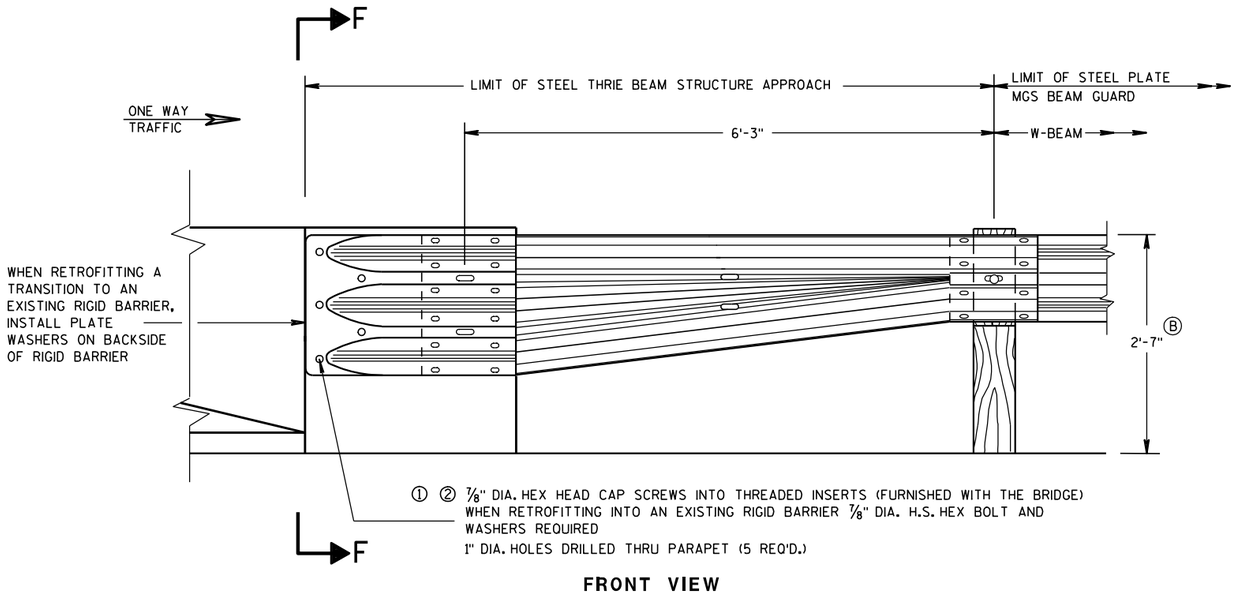
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

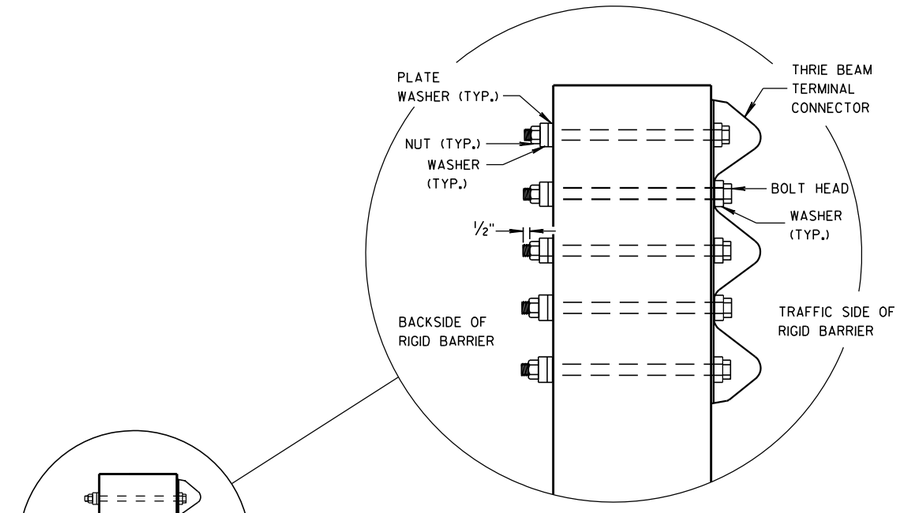
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

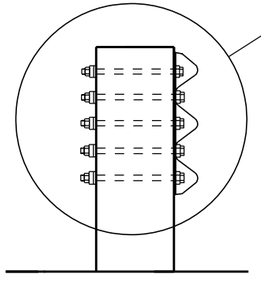
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

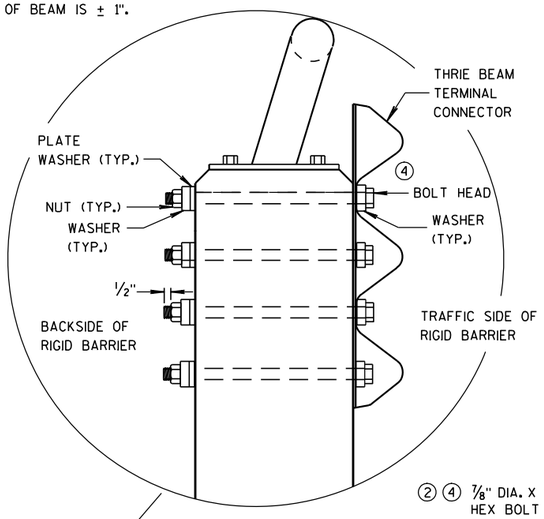
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

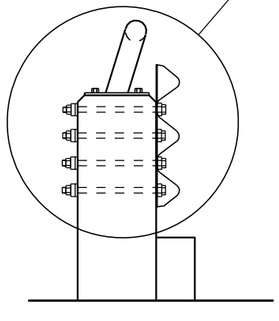
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

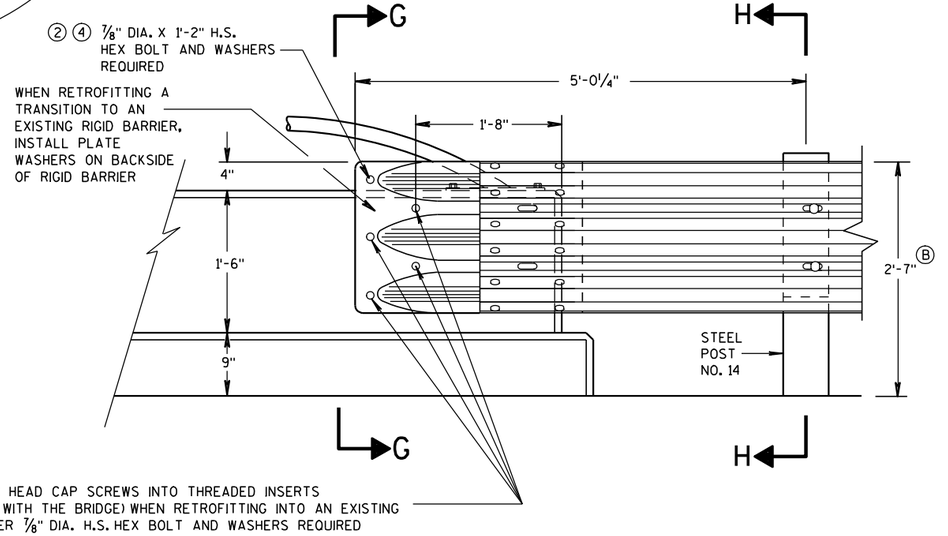
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

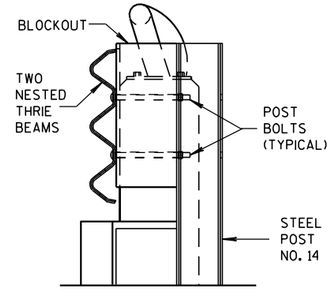




SECTION G-G

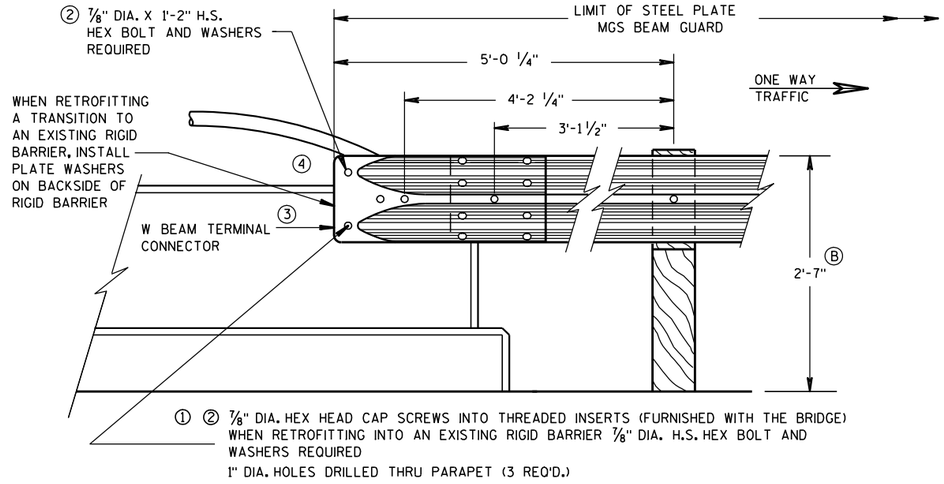


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

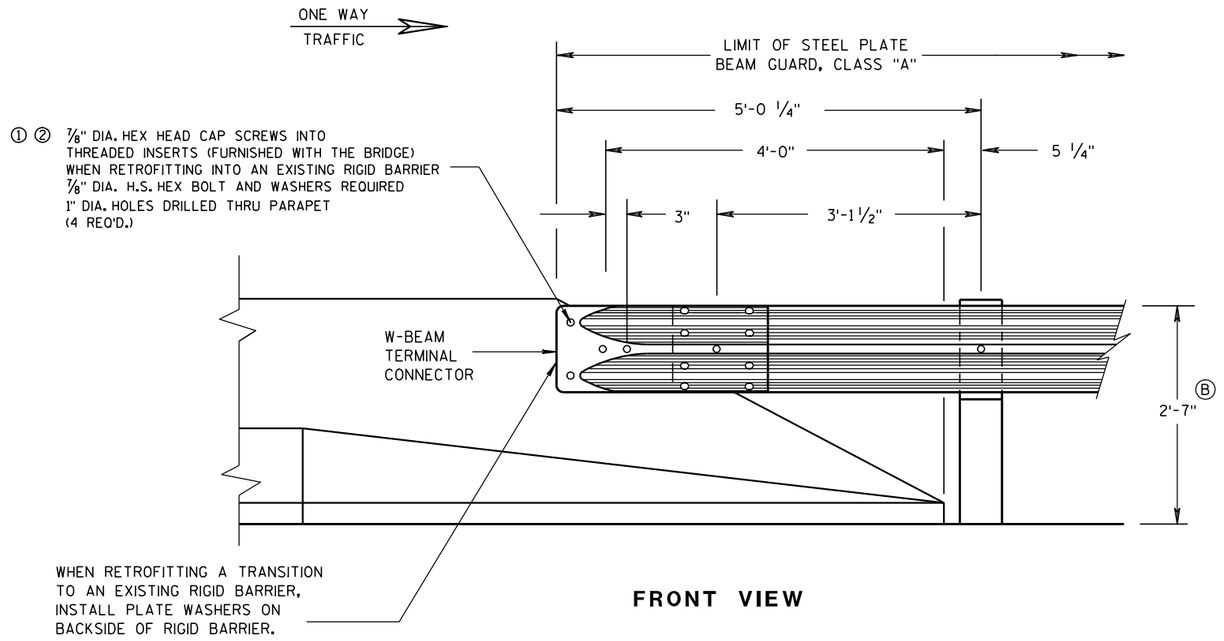
FHWA

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S.D.D. 14 B 45-3e

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

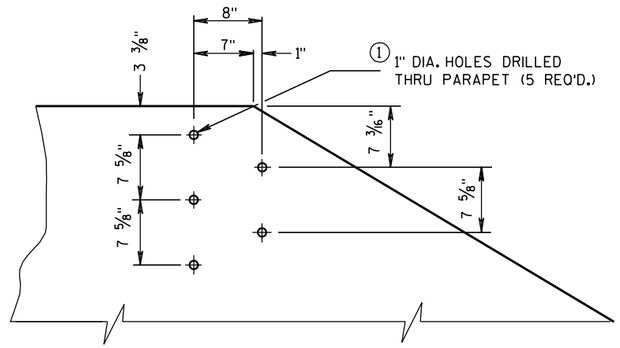
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

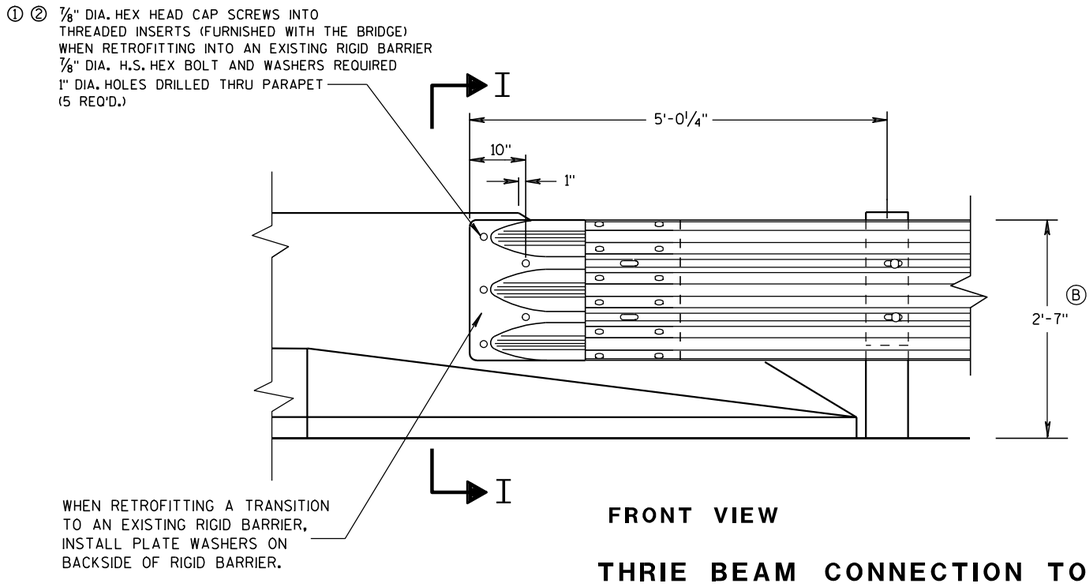
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

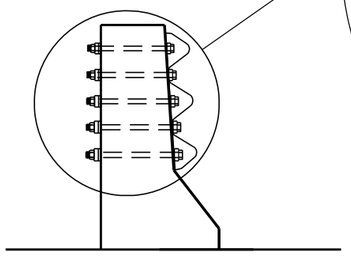
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



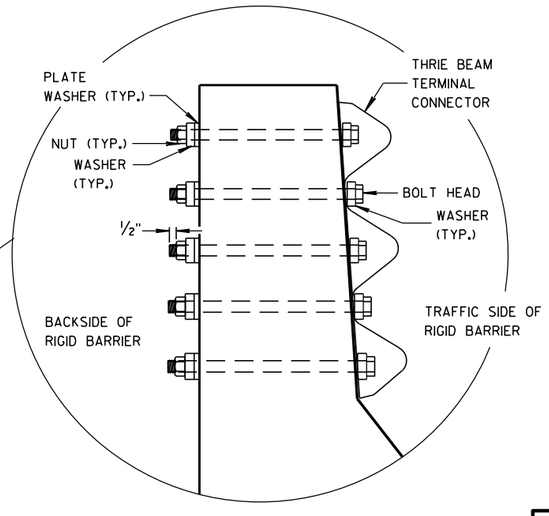
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

380

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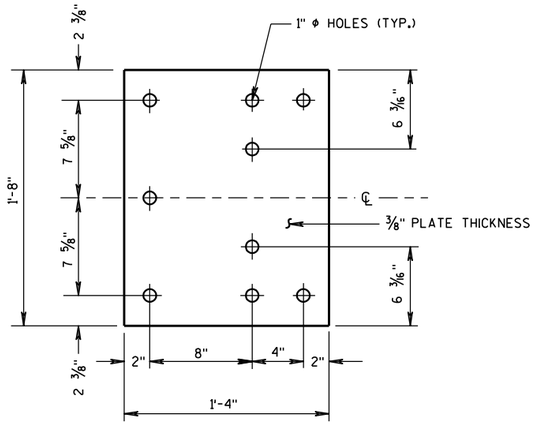
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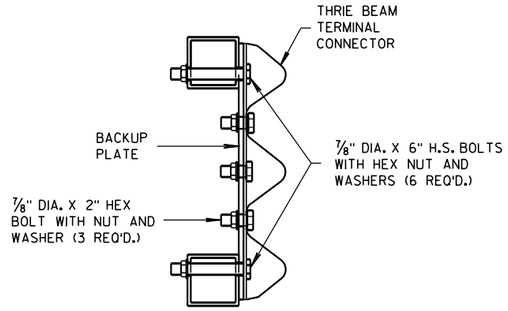
S.D.D. 14 B 45-3f

6

S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

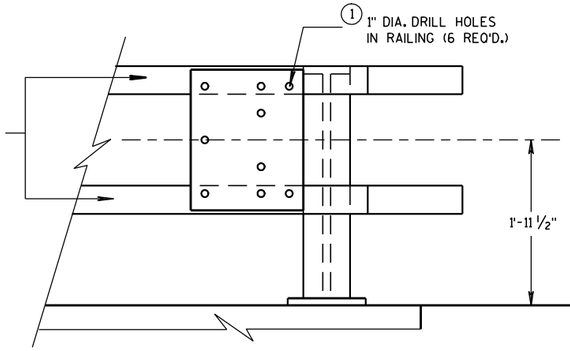


SECTION J-J

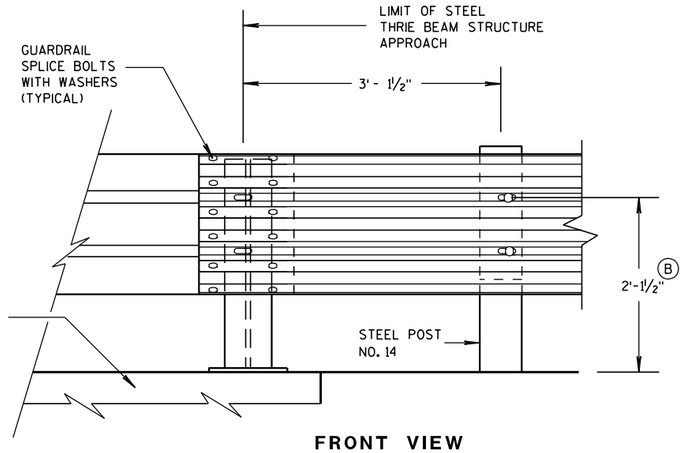
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

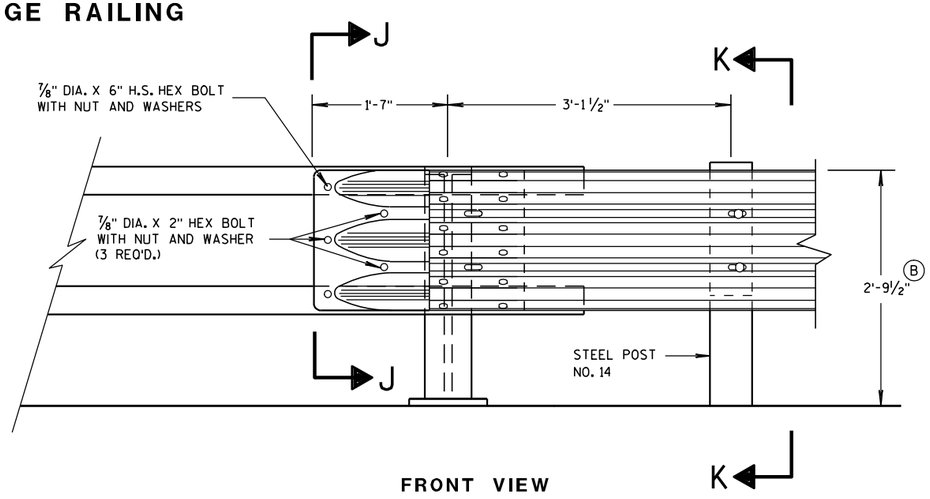


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

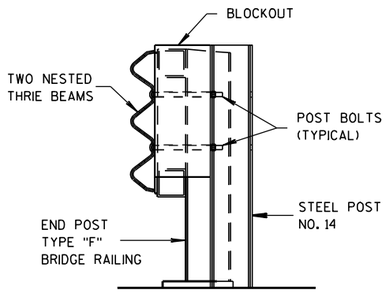


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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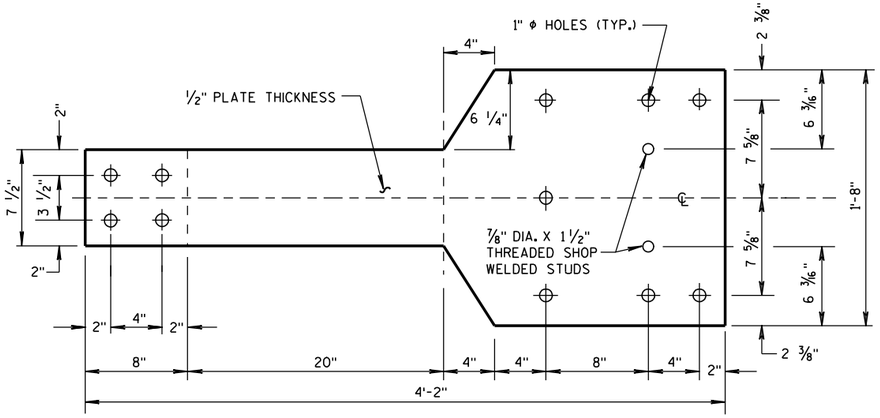
S.D.D. 14 B 45-3g

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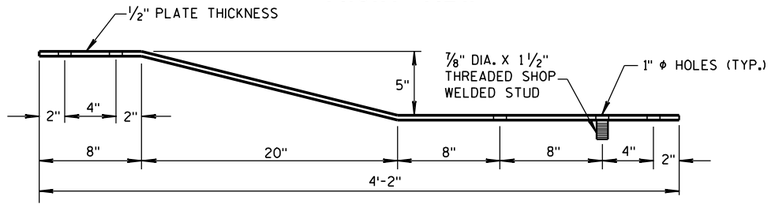
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

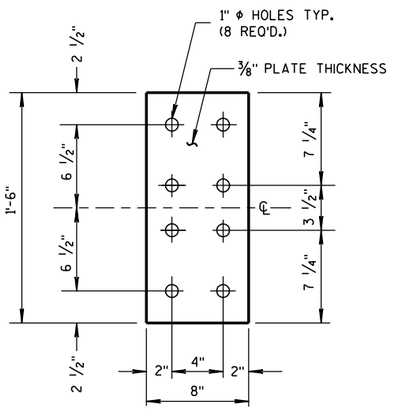


FRONT VIEW



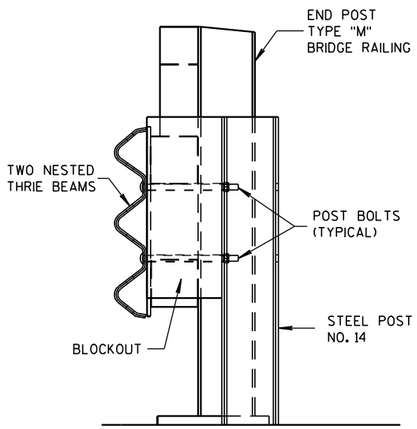
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

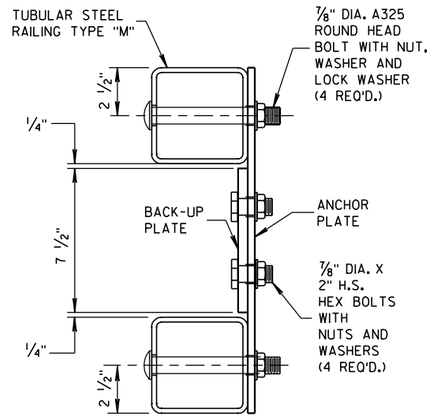


FRONT VIEW

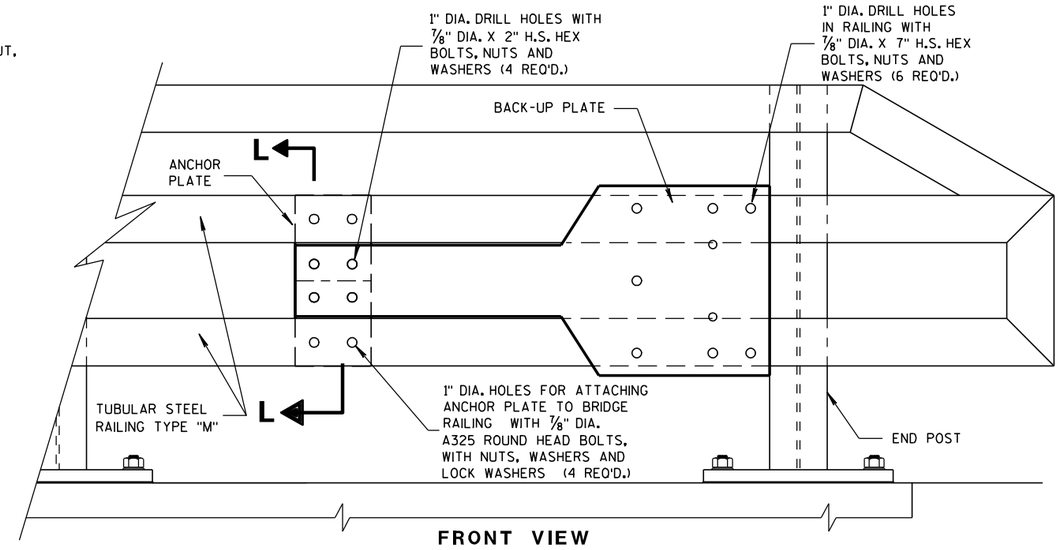
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

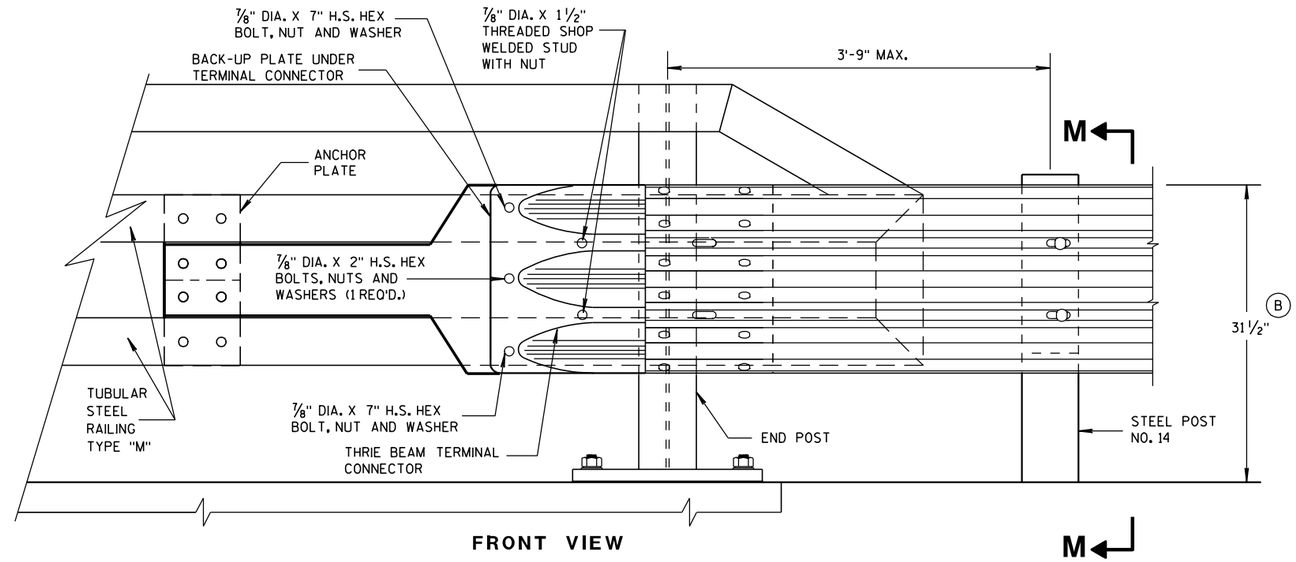


SECTION L-L

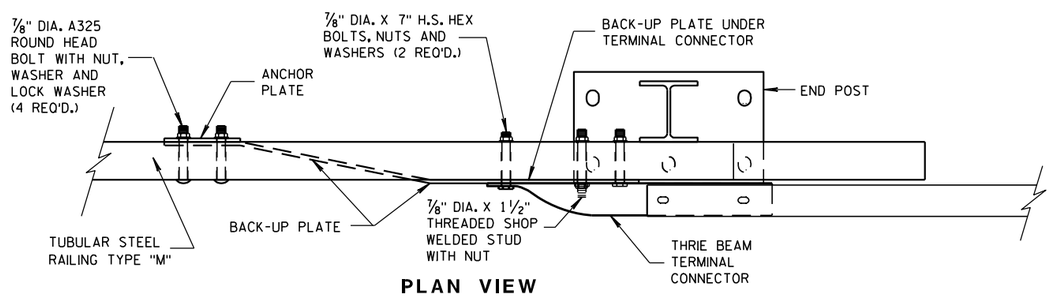


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	382 ENT

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S.D. 14 B 45-3h

6

S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

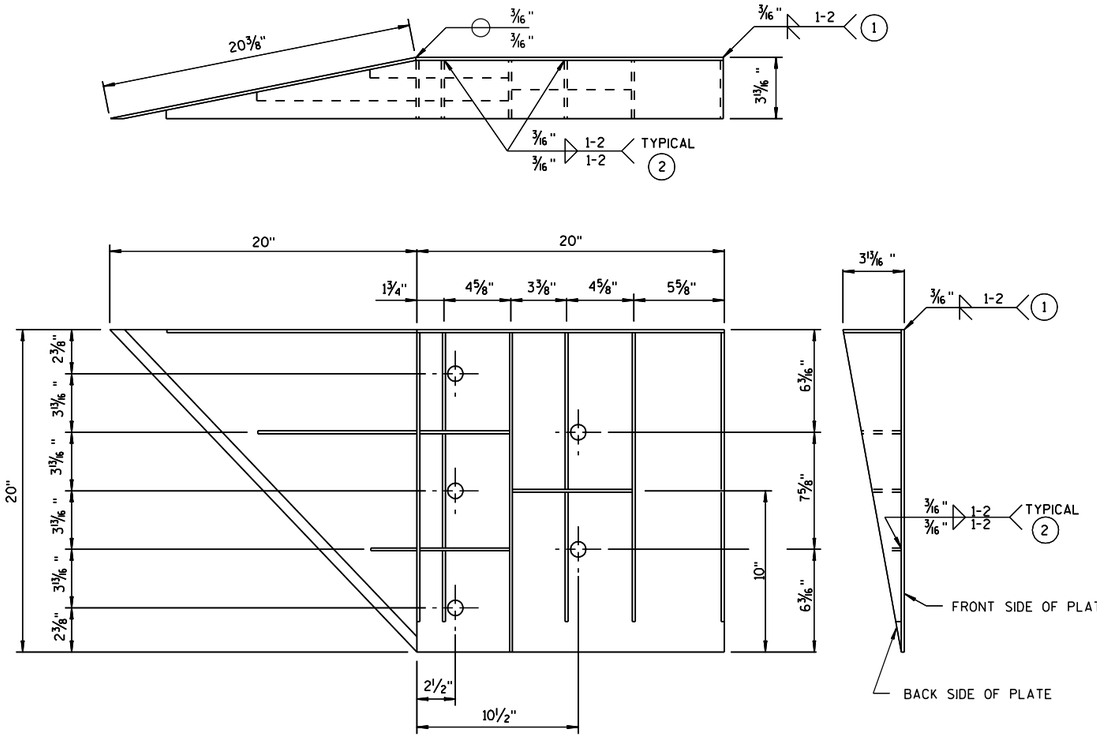
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

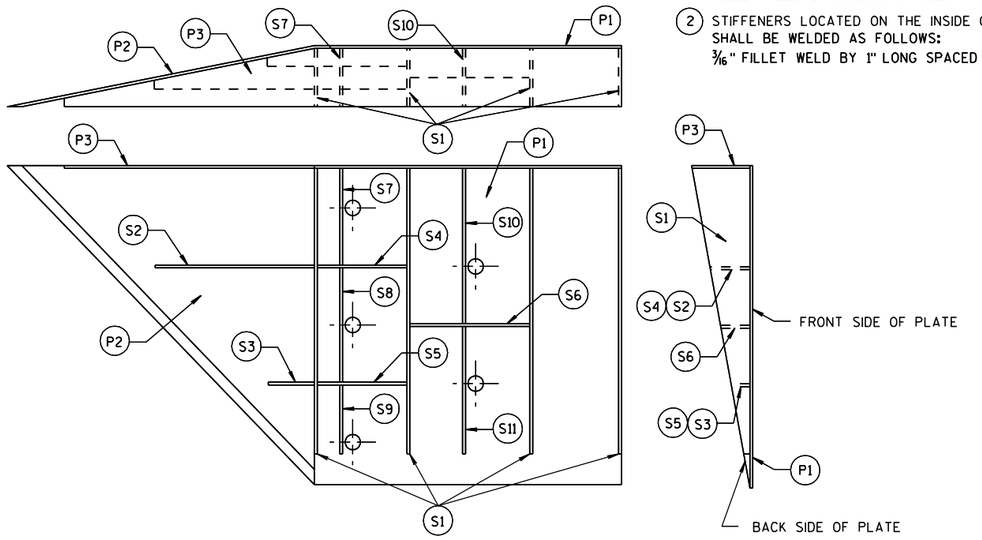


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

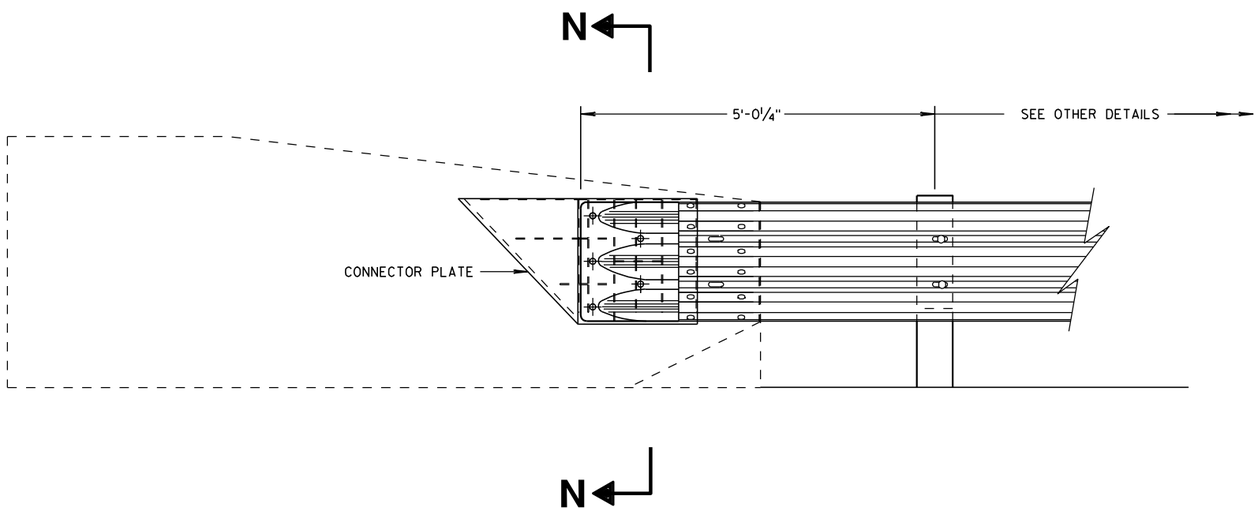
APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER
383
FHWA

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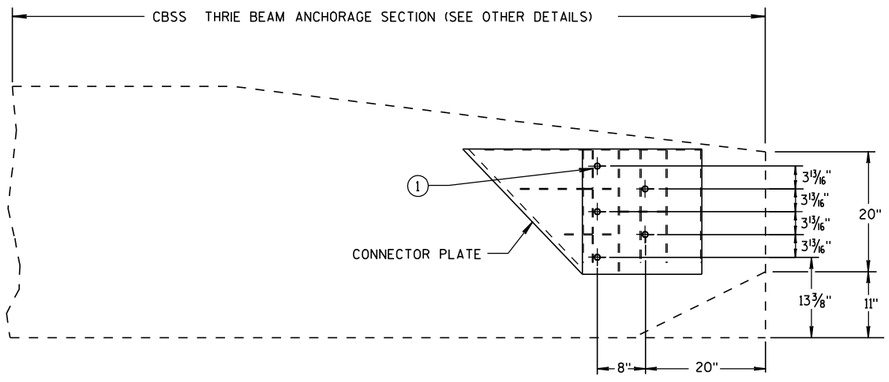
S.D.D. 14 B 45-3i

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

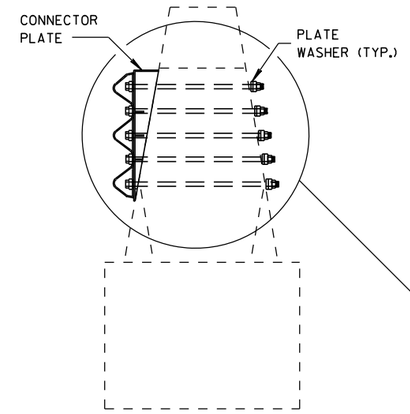


SINGLE SLOPE CONNECTION PLATE PLACEMENT

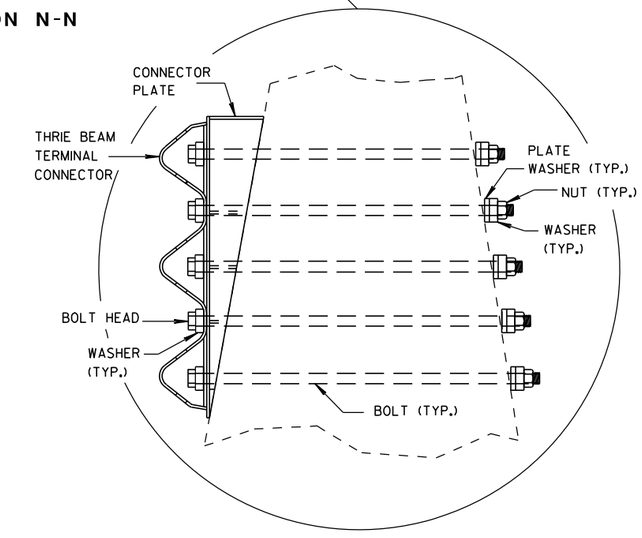
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

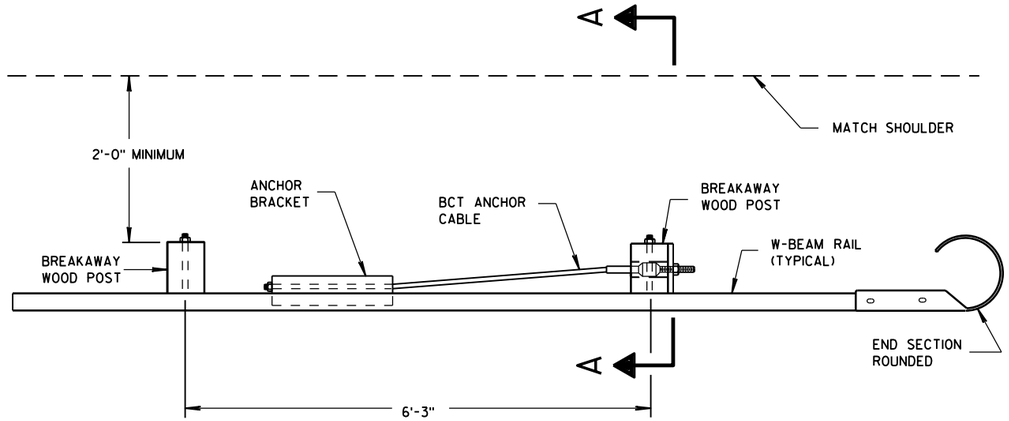
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

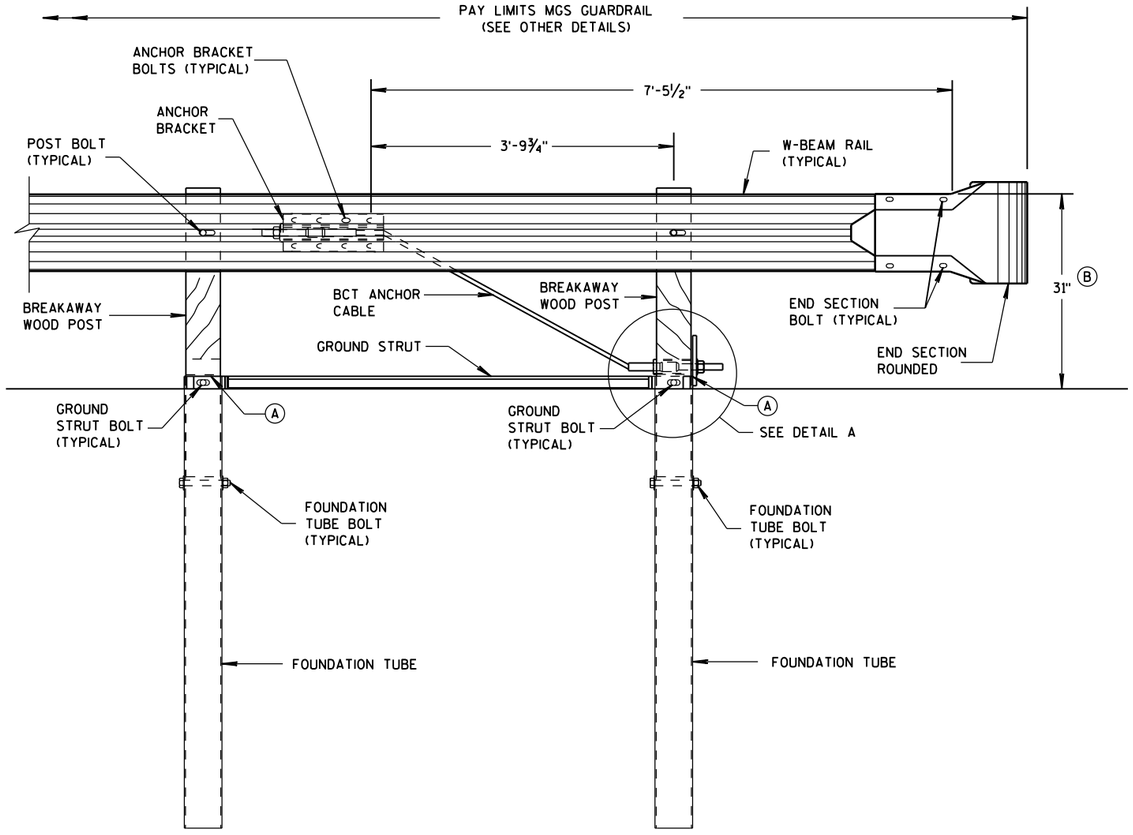
8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

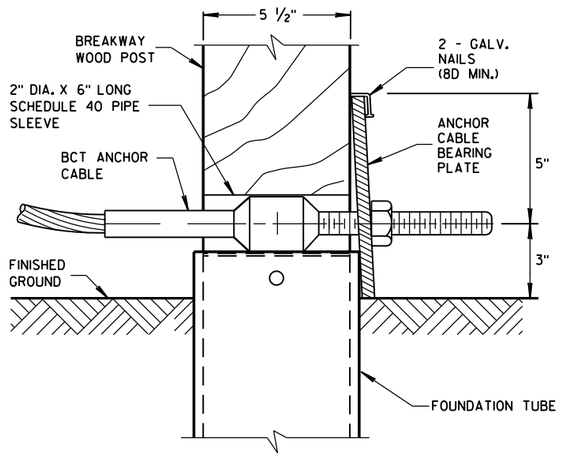


PLAN VIEW



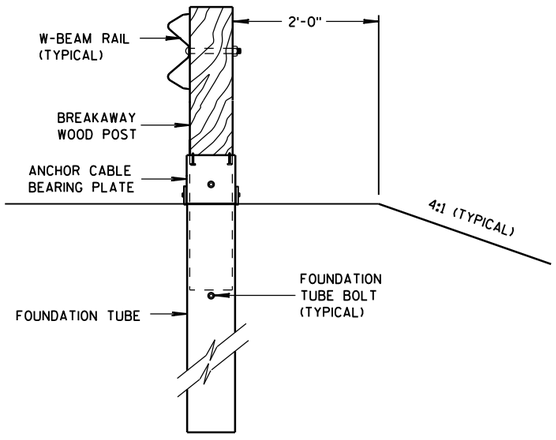
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.

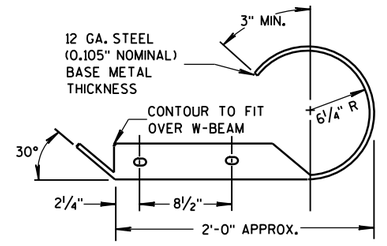
FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.

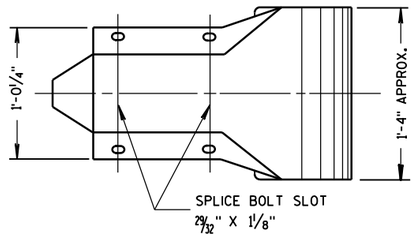
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END
SECTION ROUNDED

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

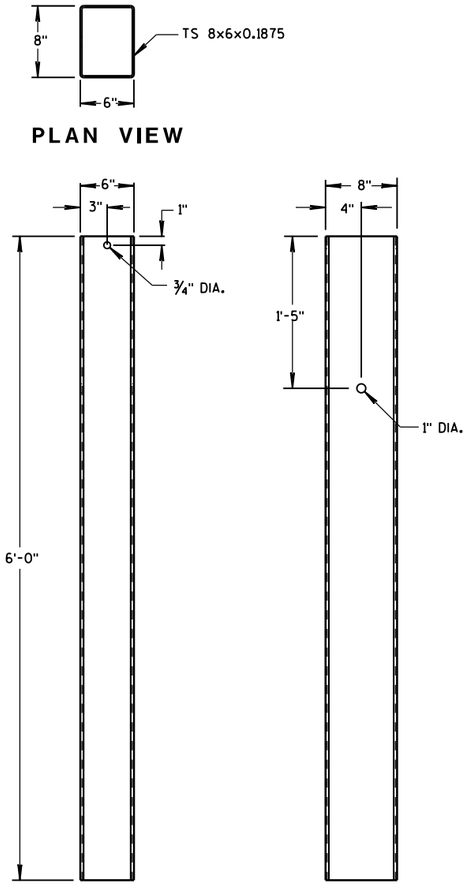
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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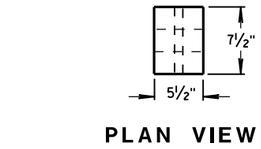
S.D.D. 14 B 47-2a

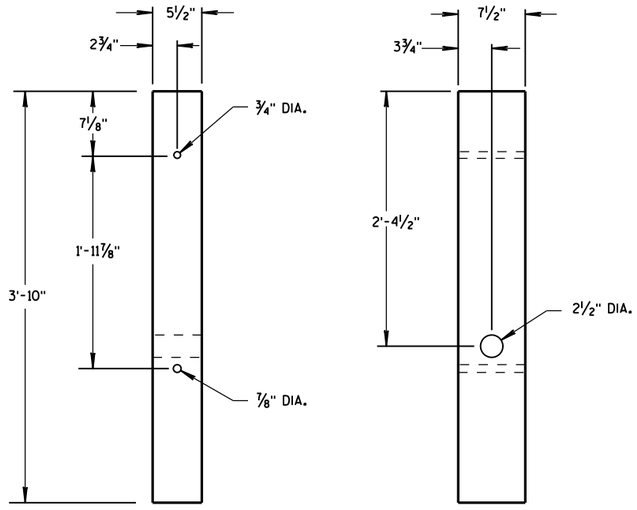
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S.D.D. 14 B 47-2a



FOUNDATION TUBE



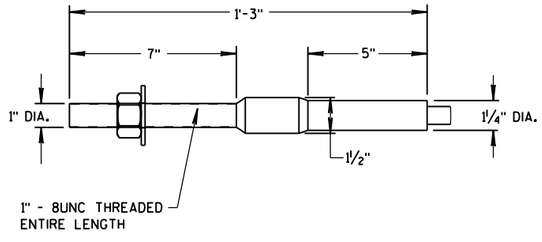


BREAKAWAY WOOD POST

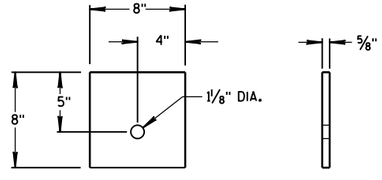
GENERAL NOTES

BCT ANCHOR CABLE IS A ¾" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

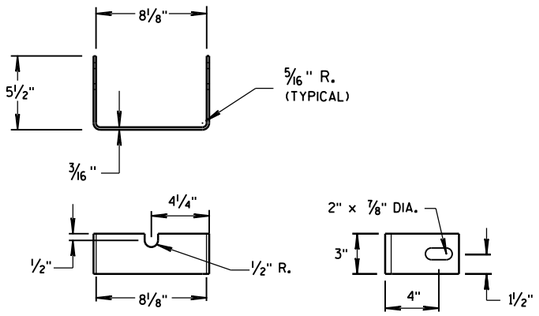
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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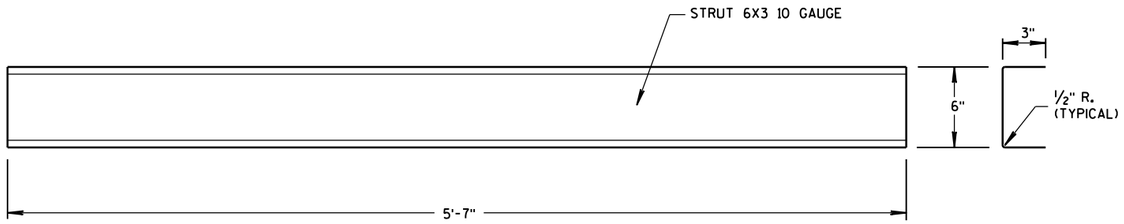
S.D.D. 14 B 47-2b

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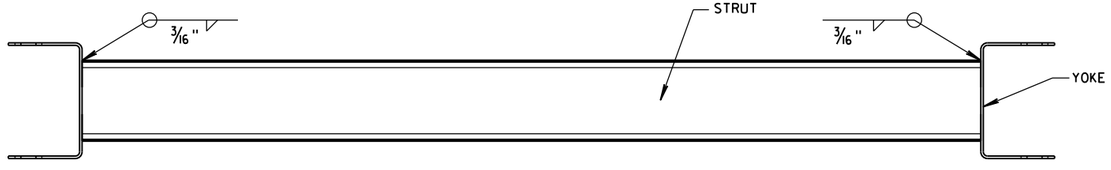
S.D.D. 14 B 47-2b



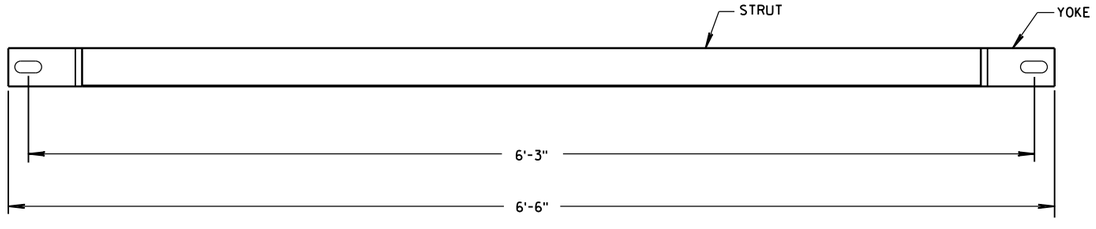
YOKE DETAIL



STRUT DETAIL

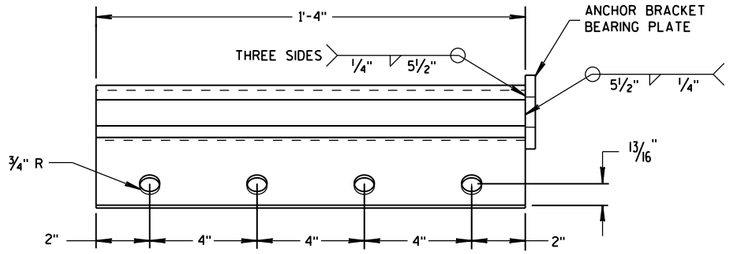


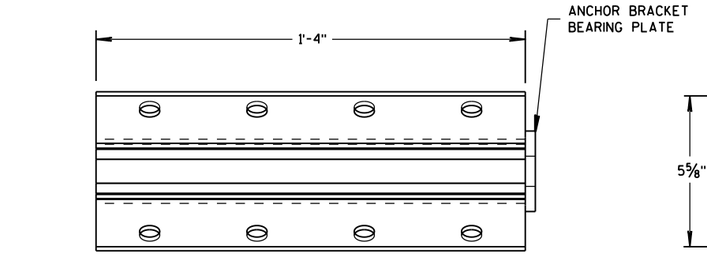
PLAN VIEW

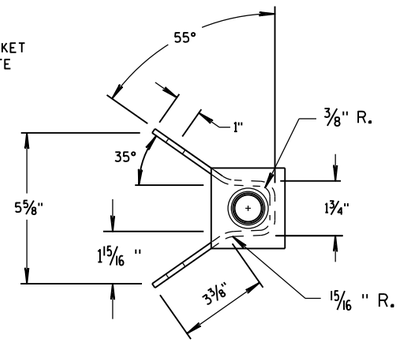


FRONT VIEW

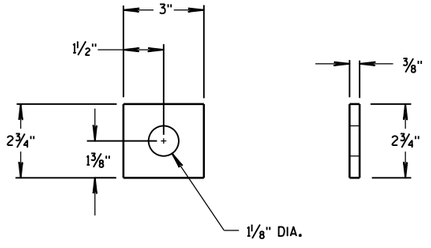
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

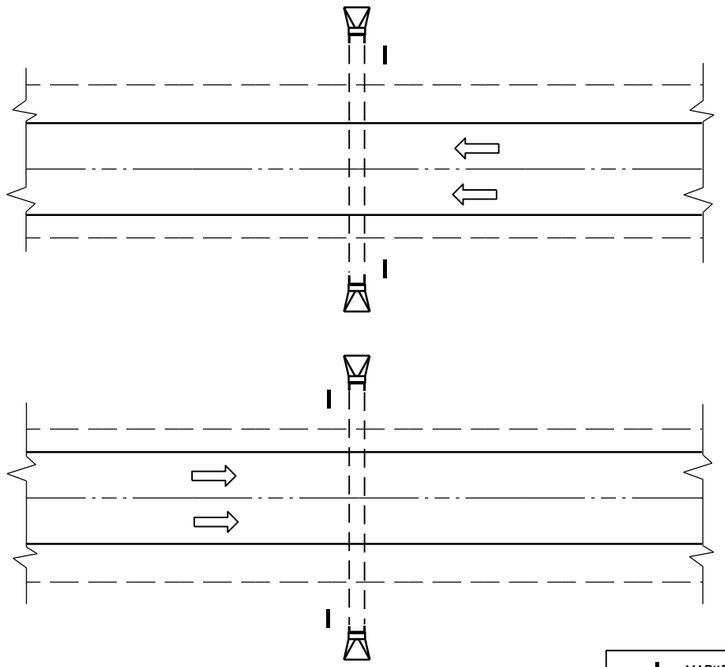
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S.D.D. 14 B 47-2c

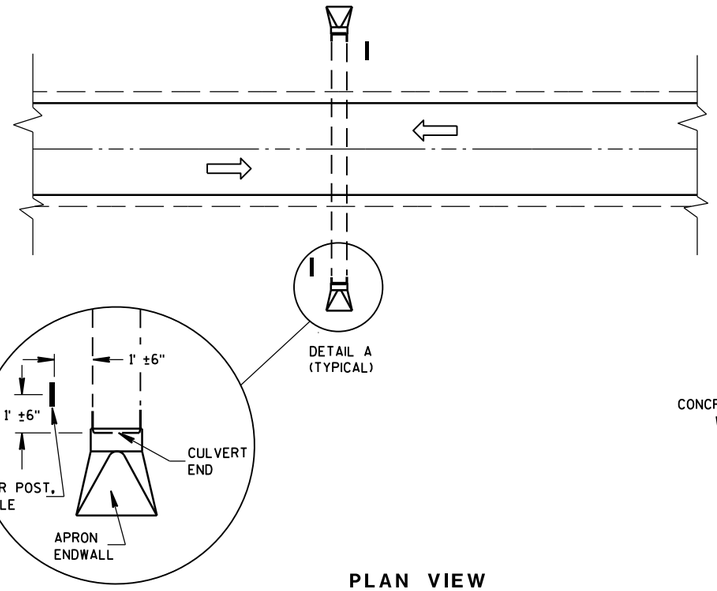
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S.D.D. 14 B 47-2c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

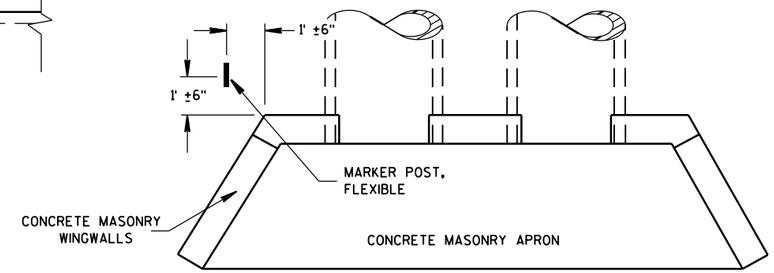
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

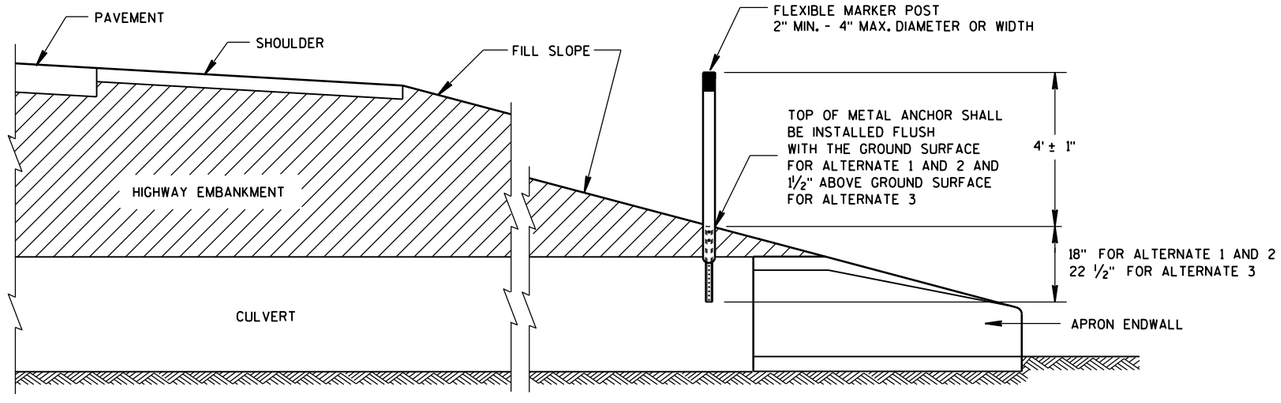
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

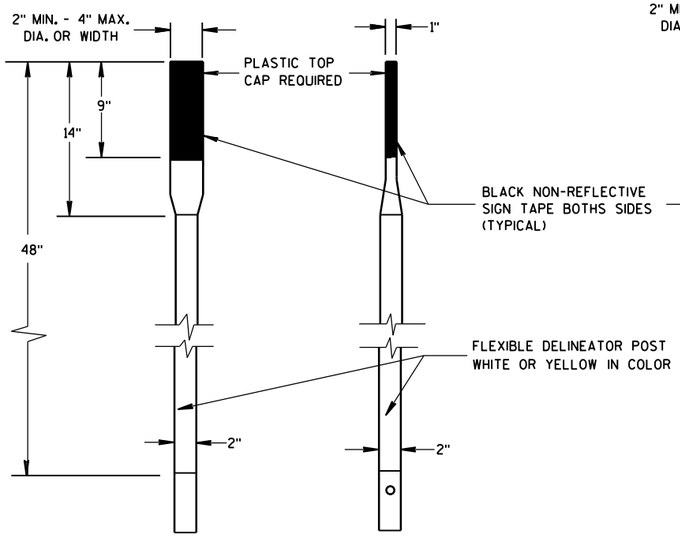
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

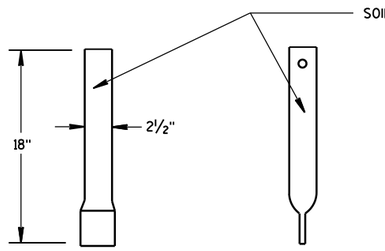
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S.D.D. 15 A 3-2a

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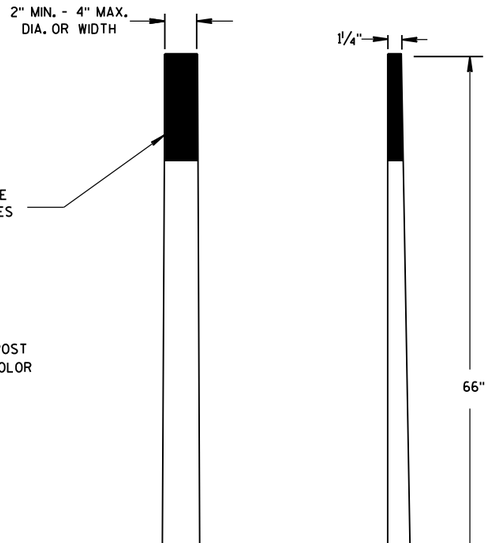
S.D.D. 15 A 3-2a





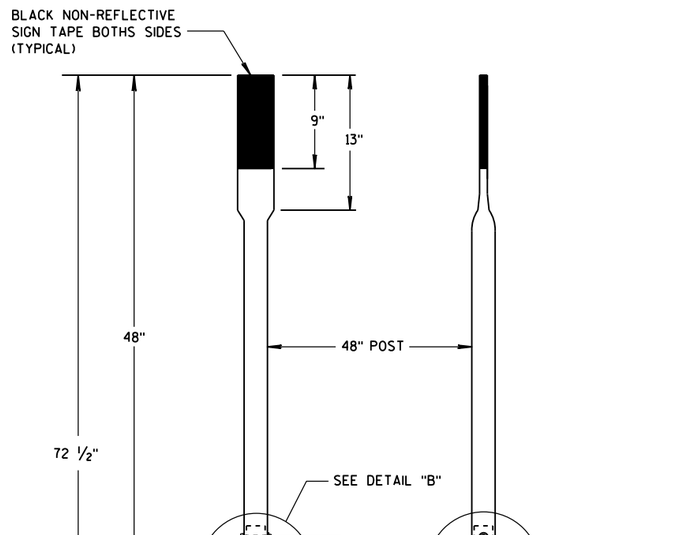
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

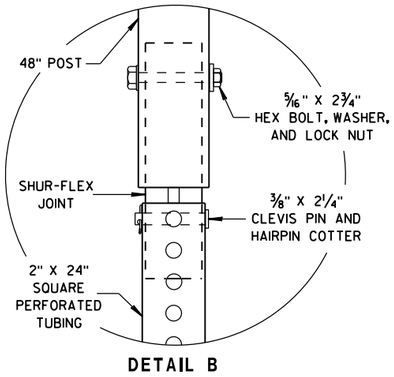
ALTERNATE 2



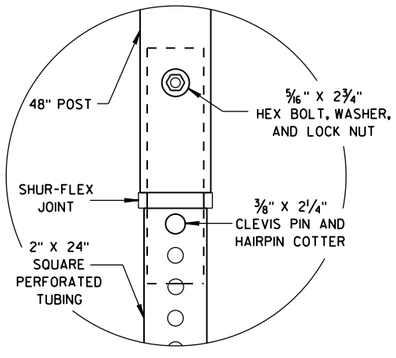
FRONT VIEW SIDE VIEW

ALTERNATE 3

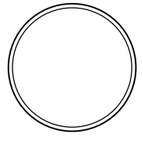
FLEXIBLE MARKER POSTS



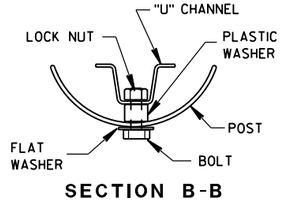
DETAIL B



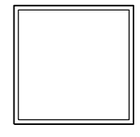
DETAIL C



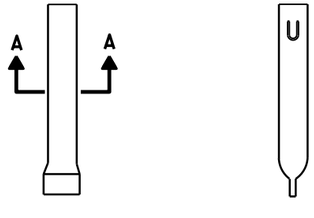
SECTION A-A



SECTION B-B

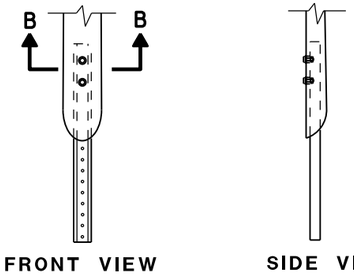


SECTION C-C



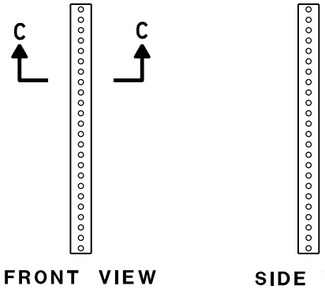
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

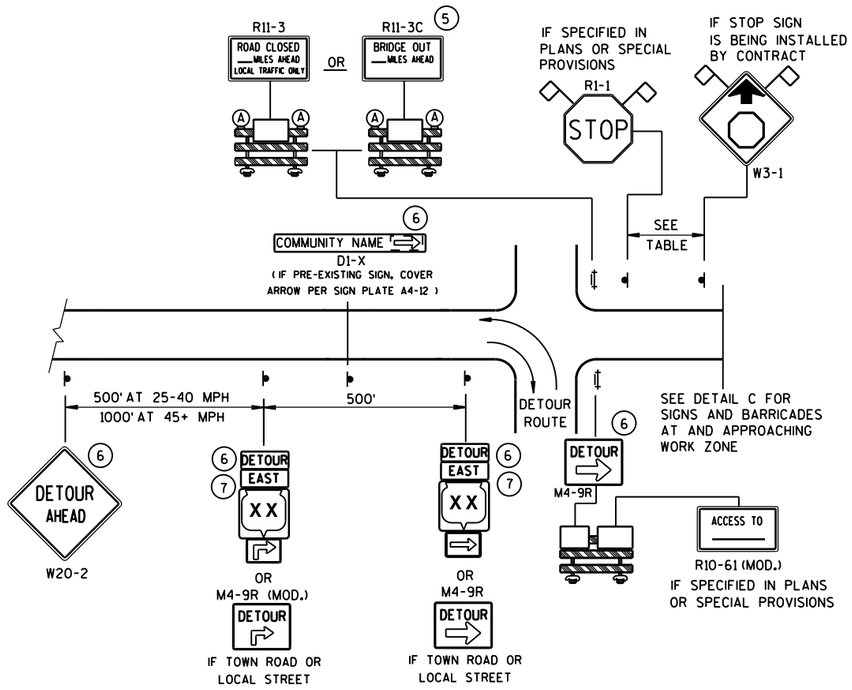
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

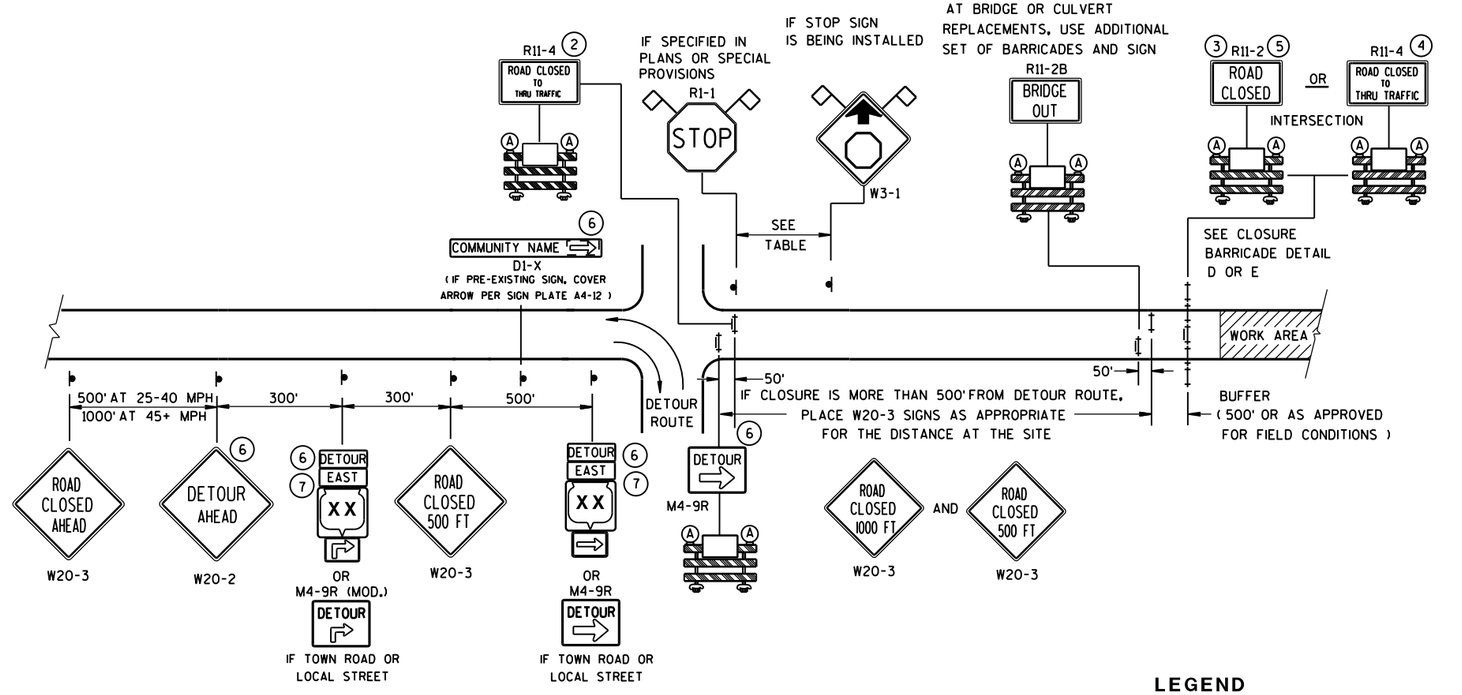
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S.D.D. 15 A 3-2b



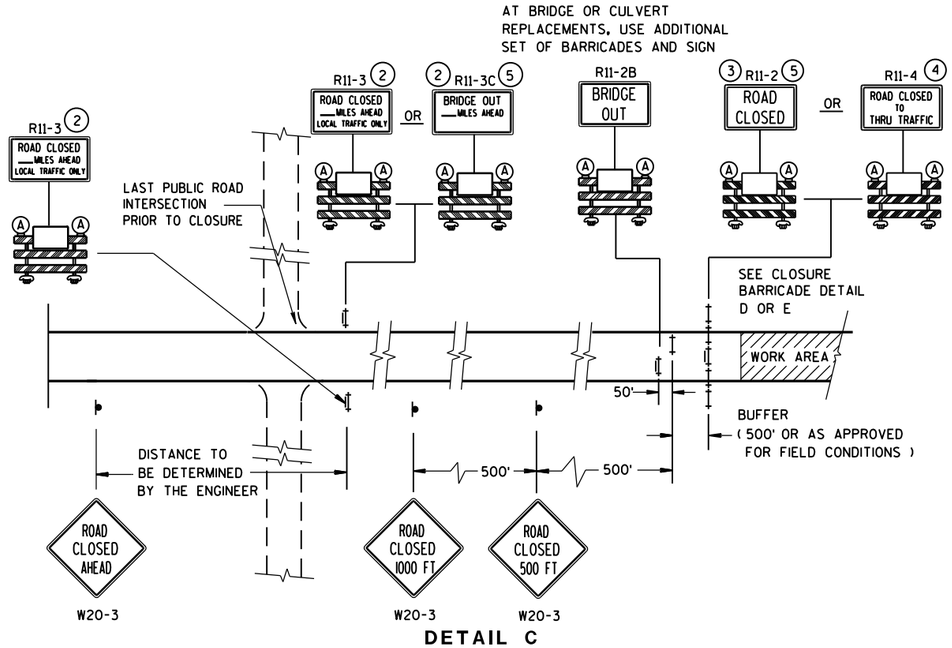
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

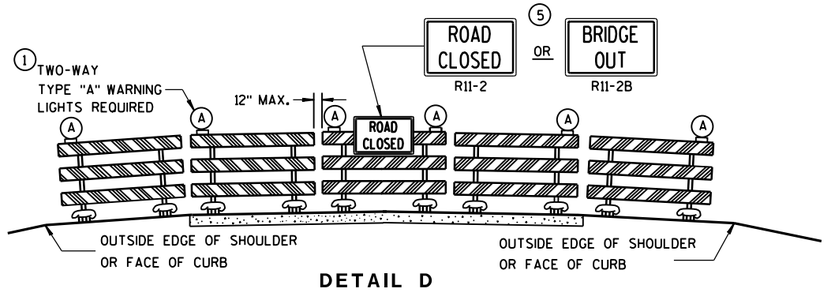
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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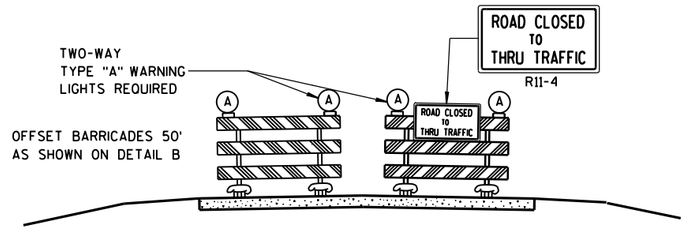
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

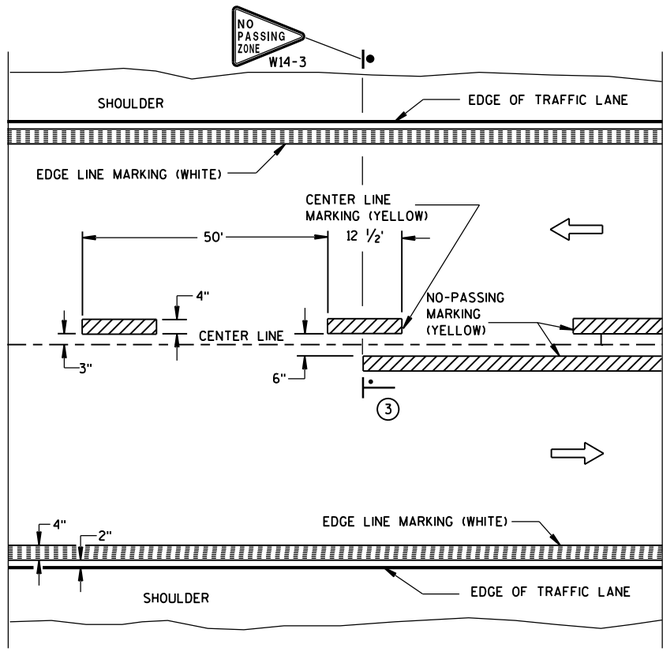
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

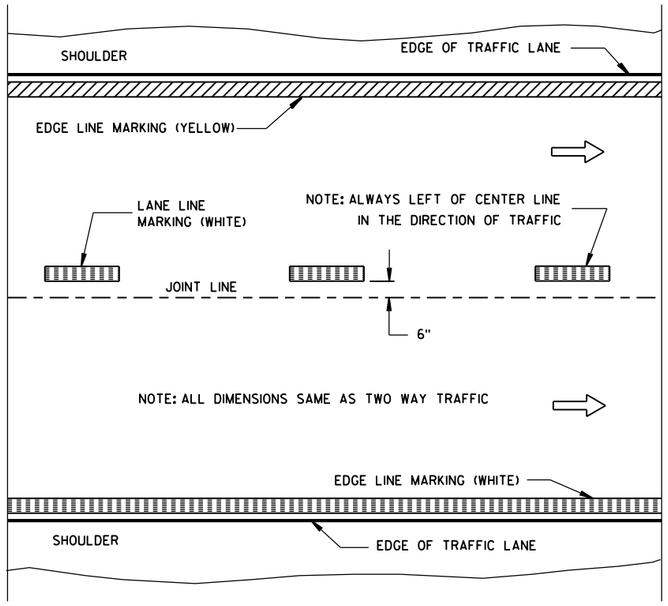
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
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S.D.D. 15 C 2-5b

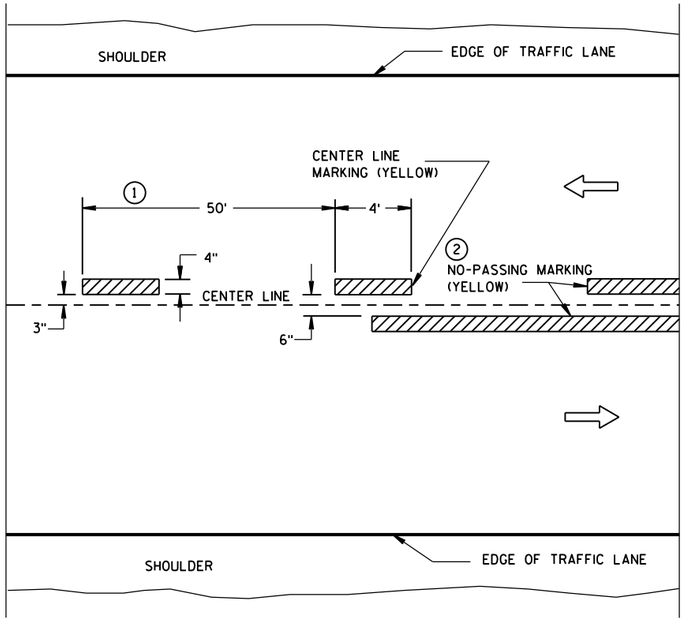


TWO WAY TRAFFIC

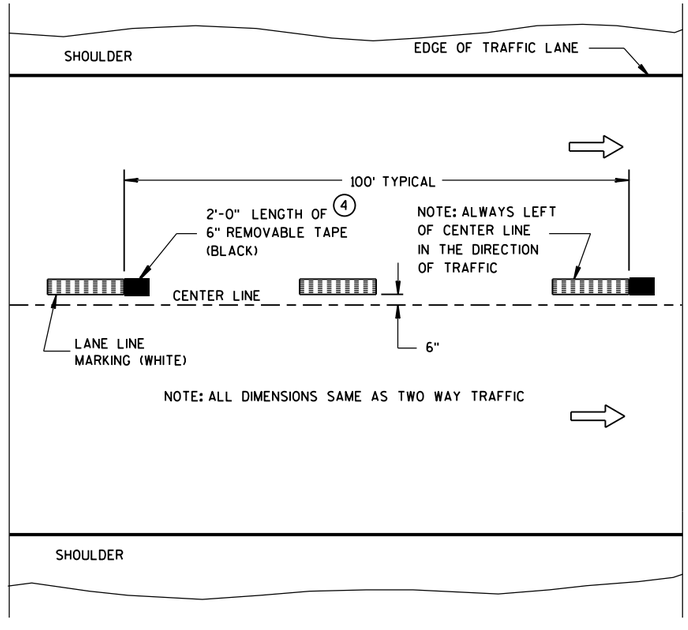


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

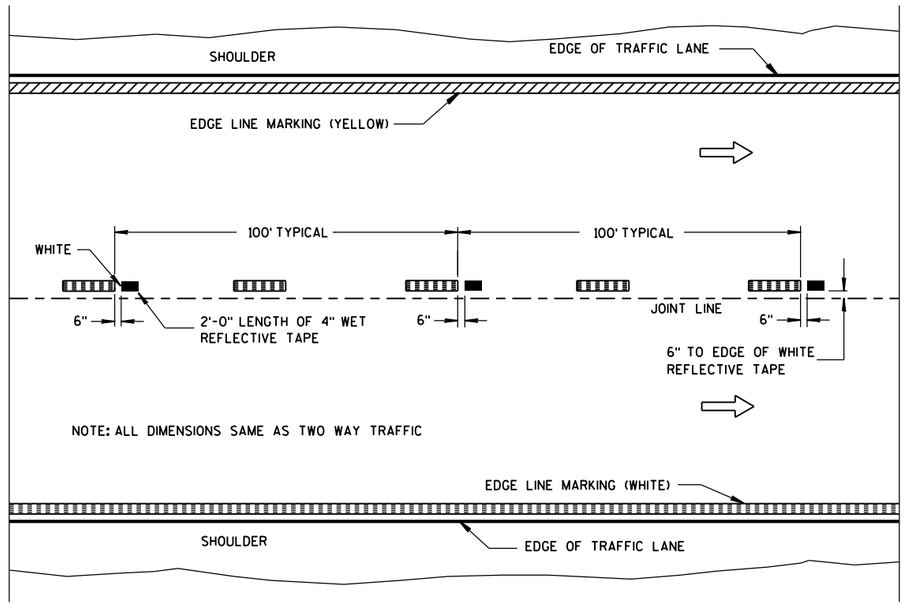
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

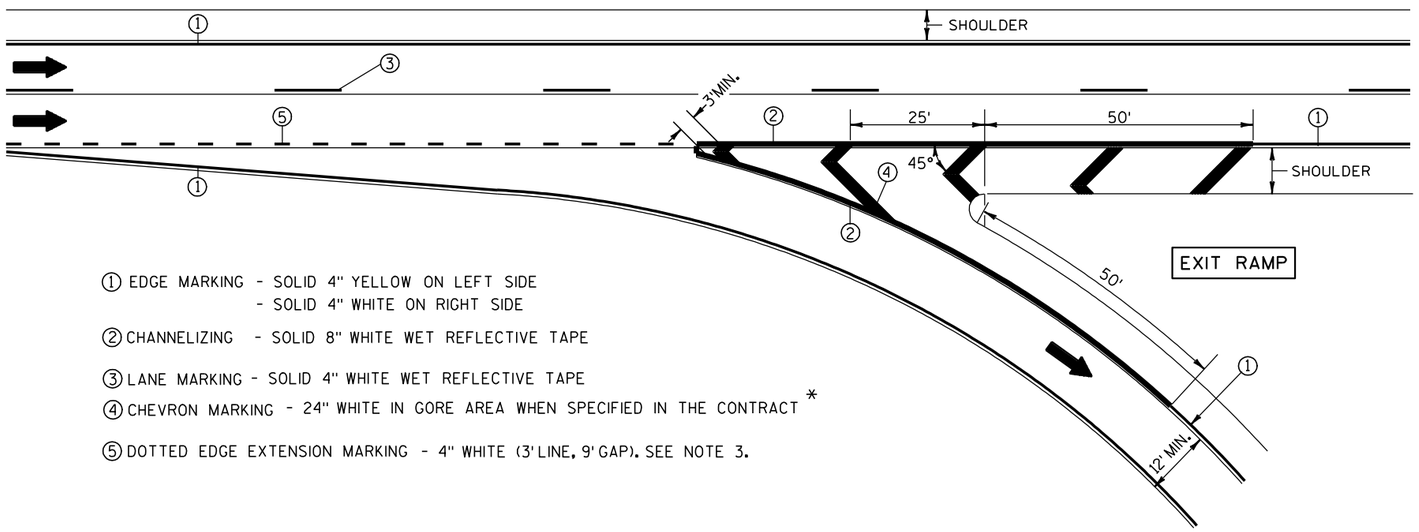
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

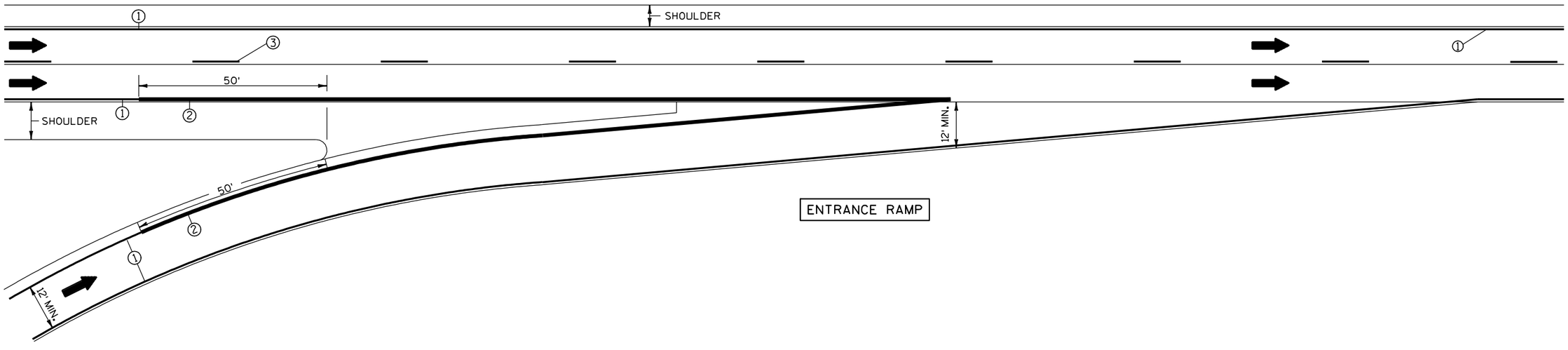
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



6

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA



W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).



LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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 TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

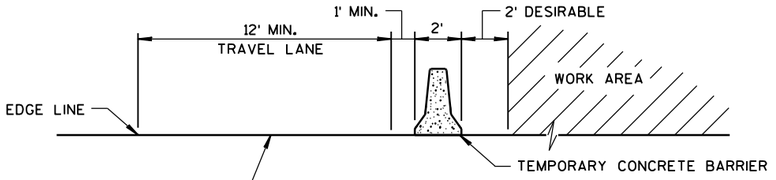
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

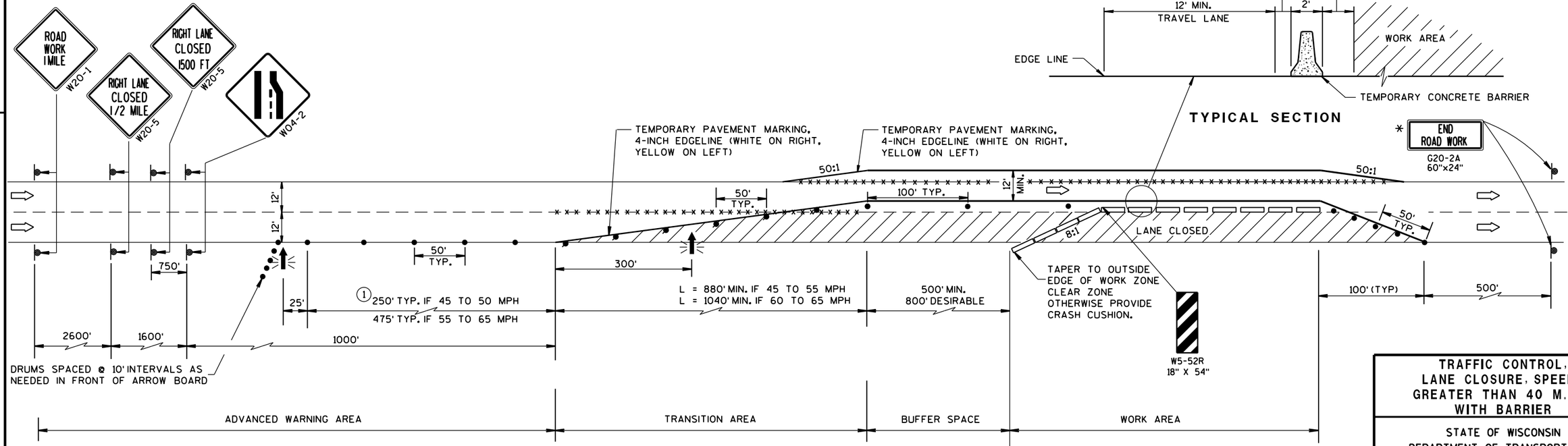
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

S.D.D. 15 D 3-2

S.D.D. 15 D 3-2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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 TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

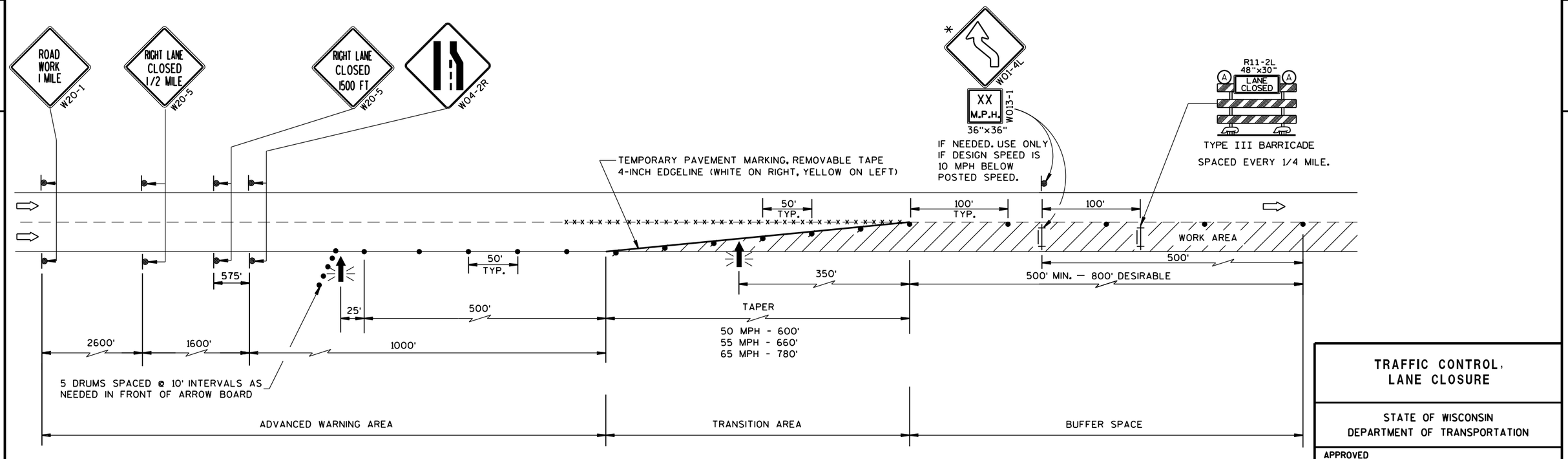
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5a

S.D.D. 15 D 12-5a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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 TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

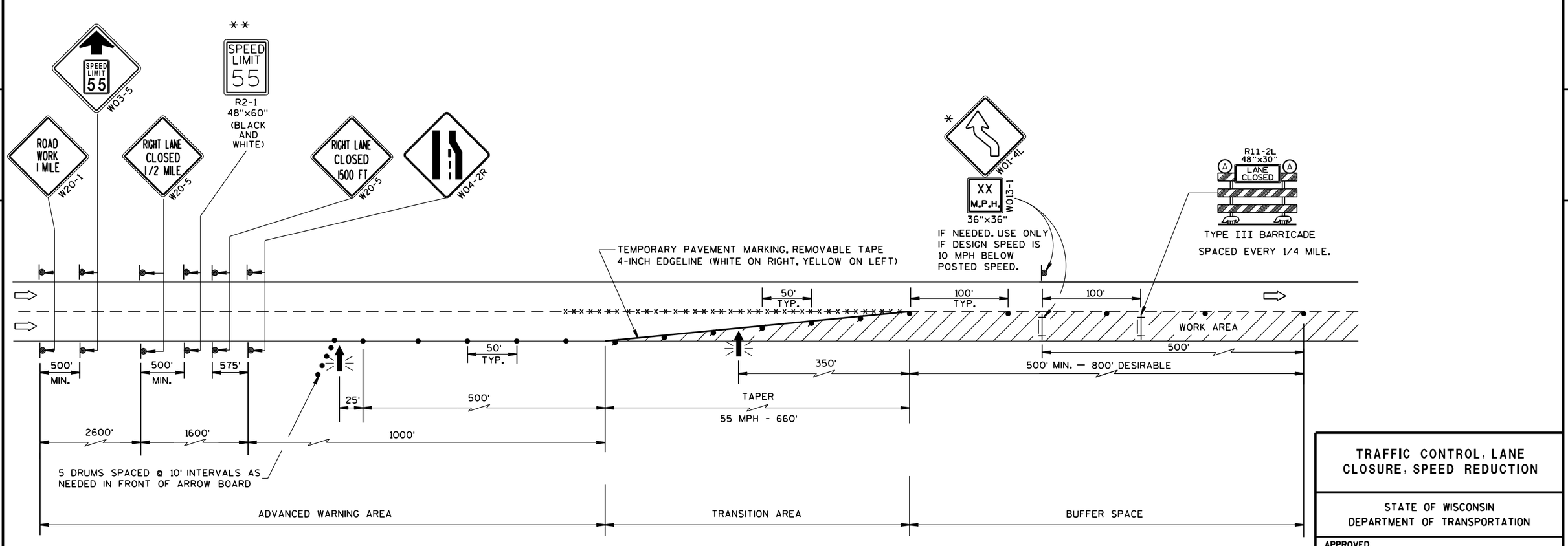
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



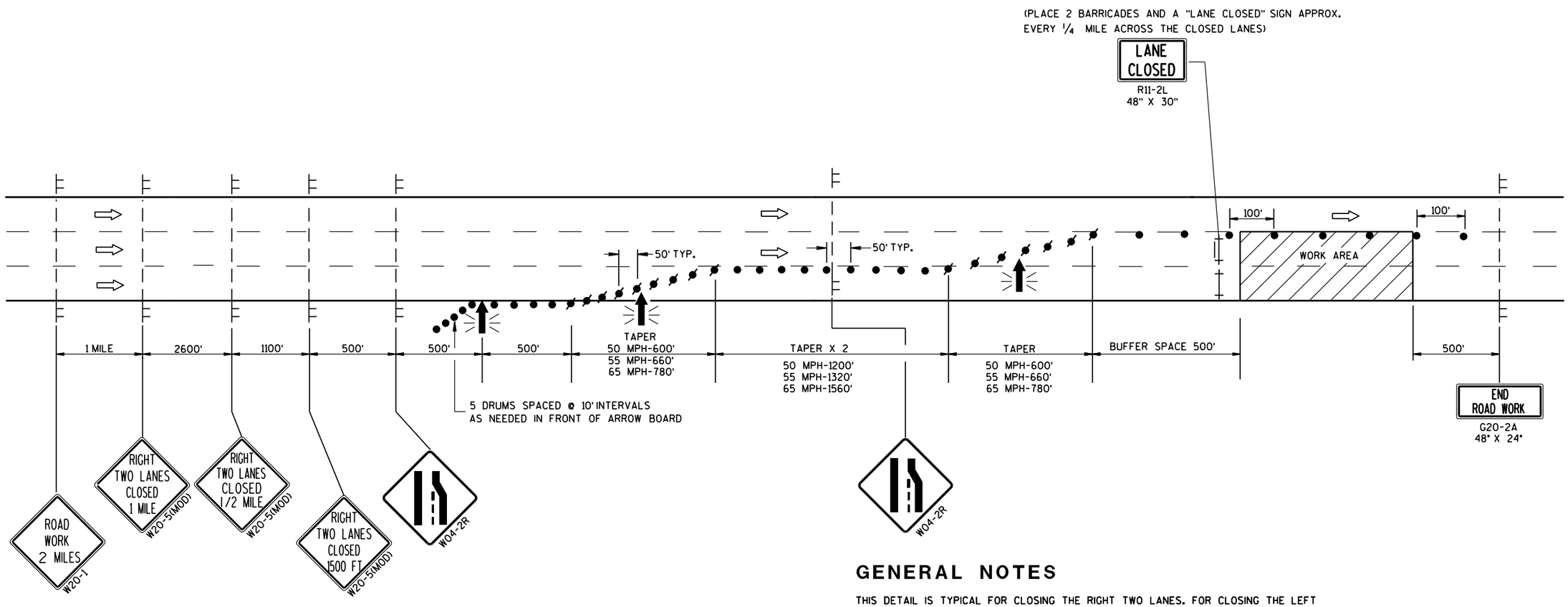
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, 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.

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

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.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.

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

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

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 D 14-2

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

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.

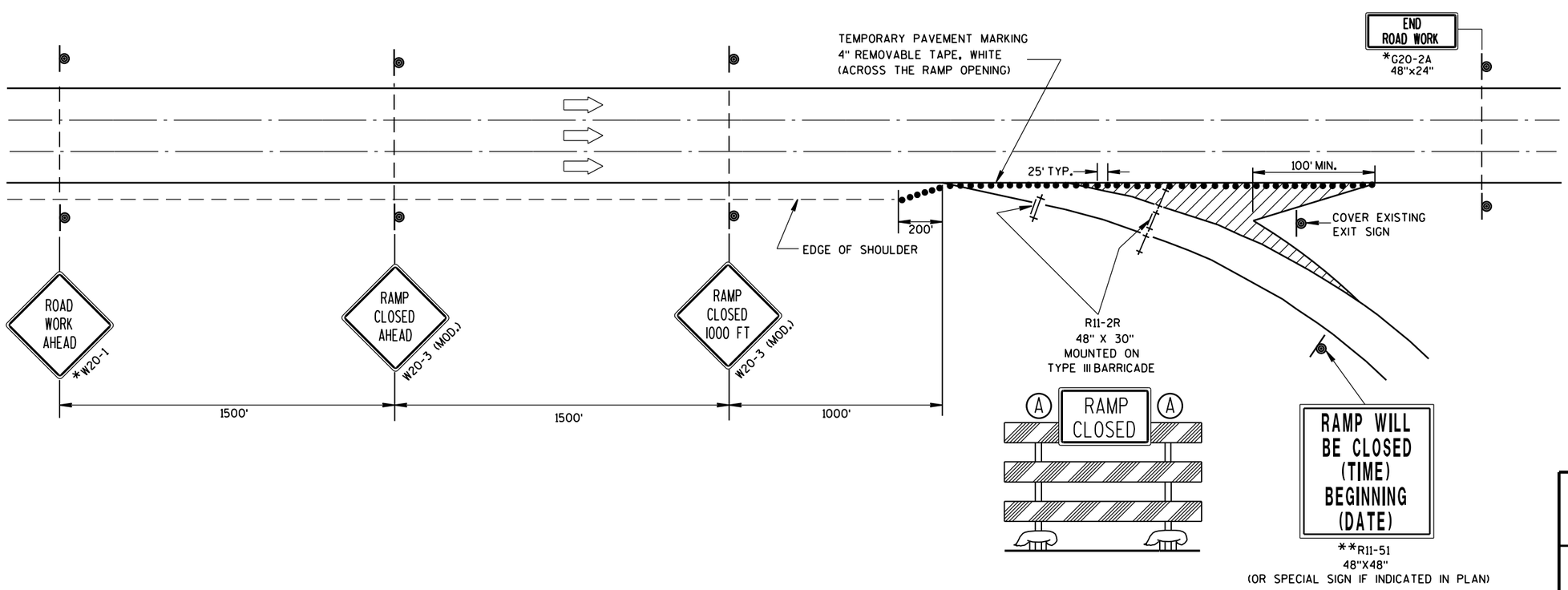
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

6

S.D.D. 15 D 16-2

6

S.D.D. 15 D 16-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

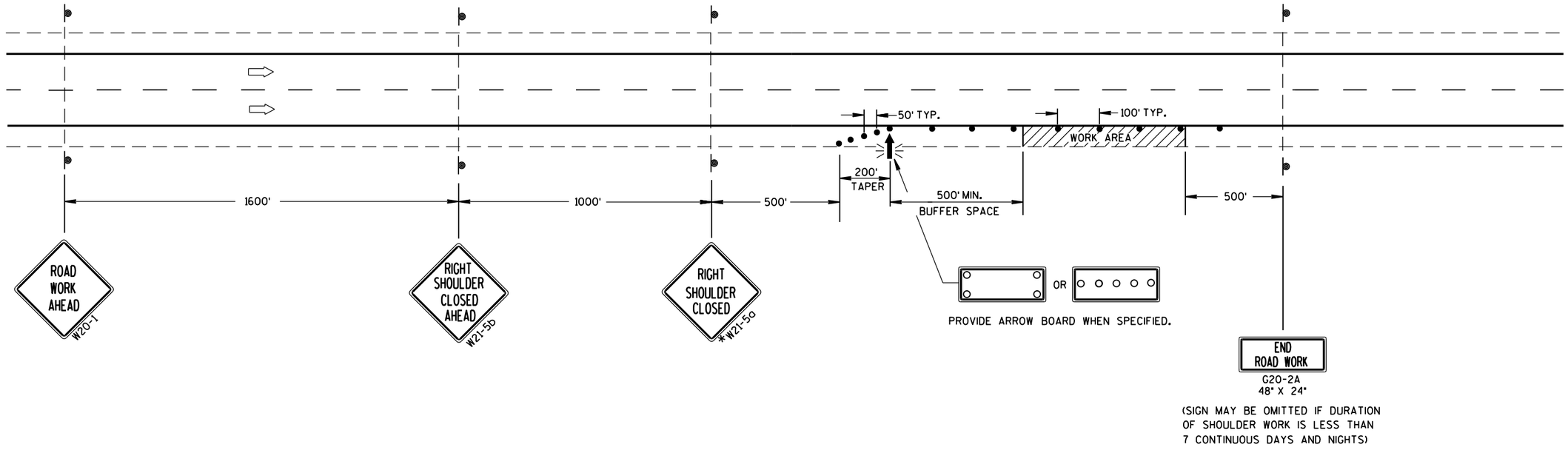
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

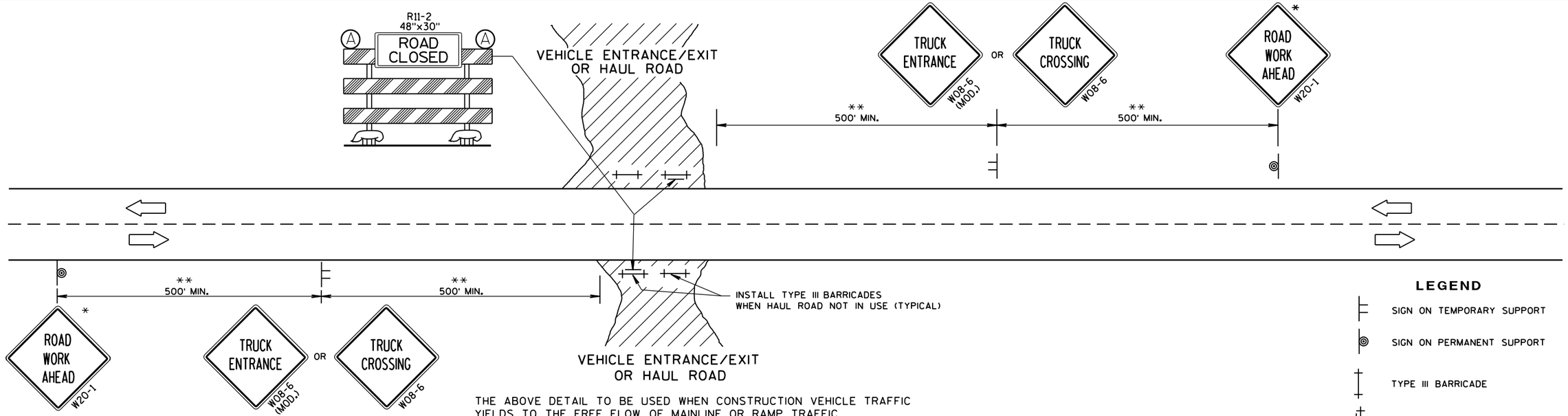
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 D 27-2



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500 FEET SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FEET. FOR 25-30 MPH, USE 200 FEET. USE 1000 FEET/1500 FEET FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

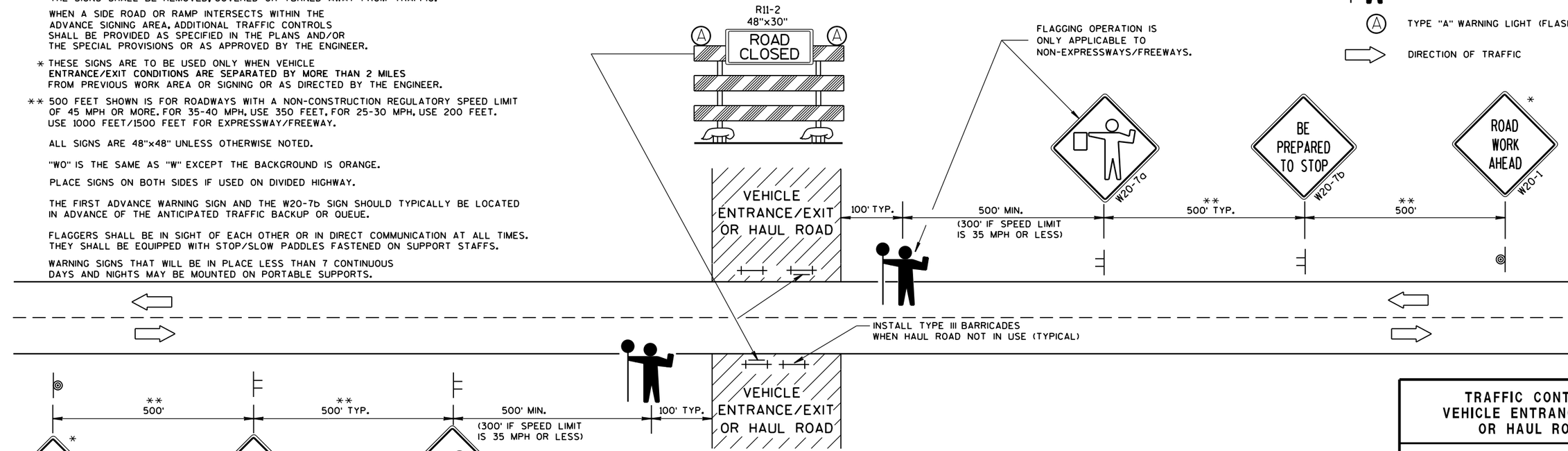
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

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



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

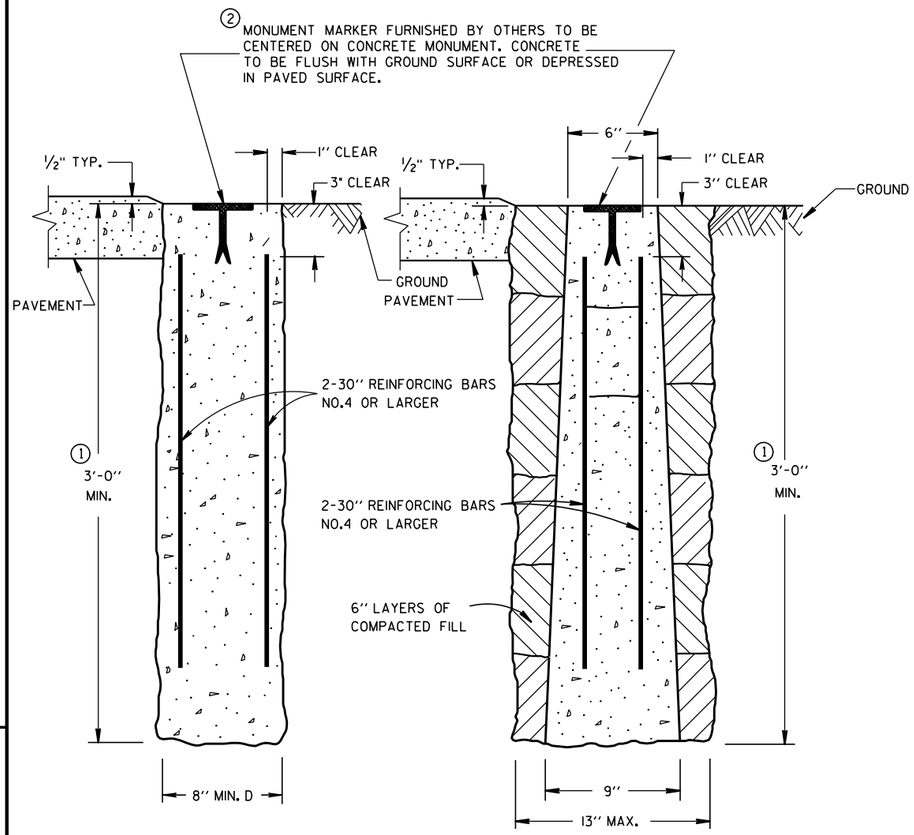
APPROVED

8/2013	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER	IGN

FHWA

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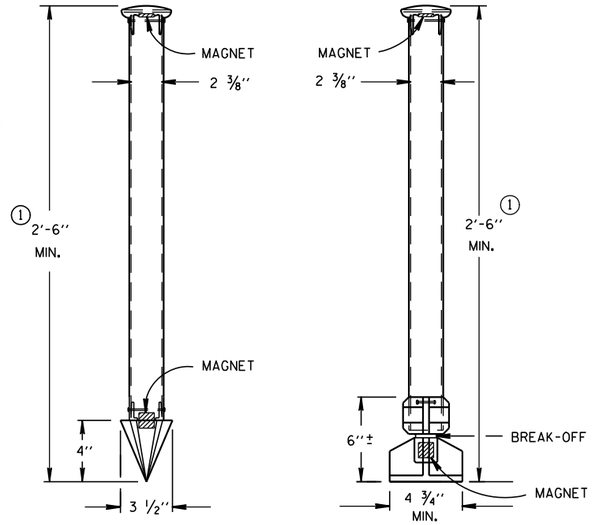
S.D.D. 15 D 29-3



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

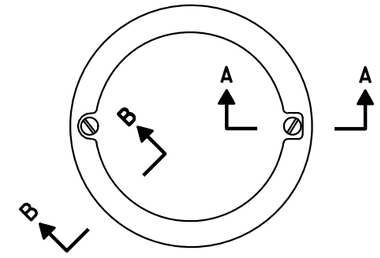
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

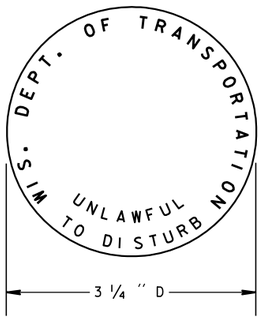
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

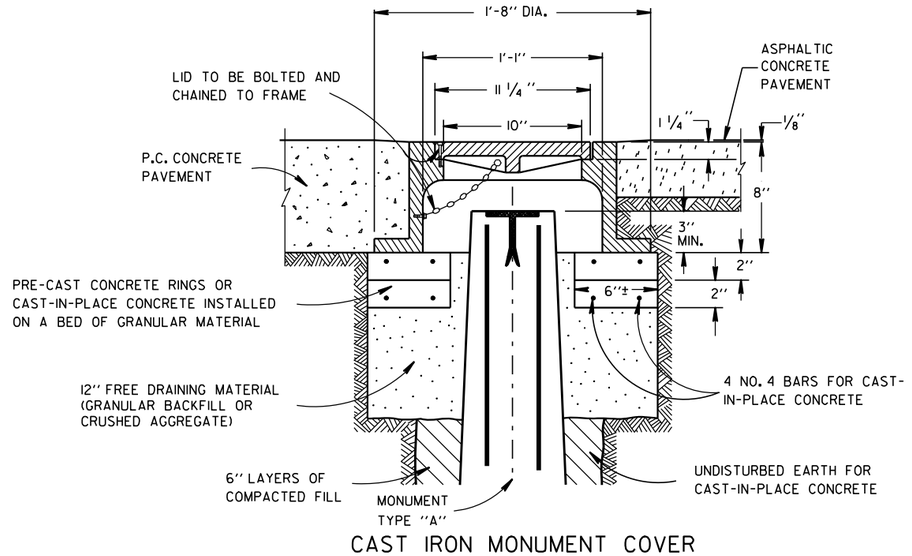


TOP VIEW



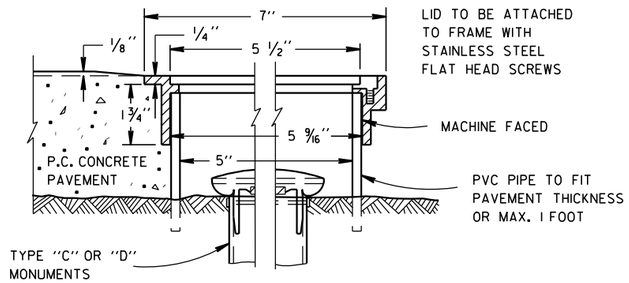
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

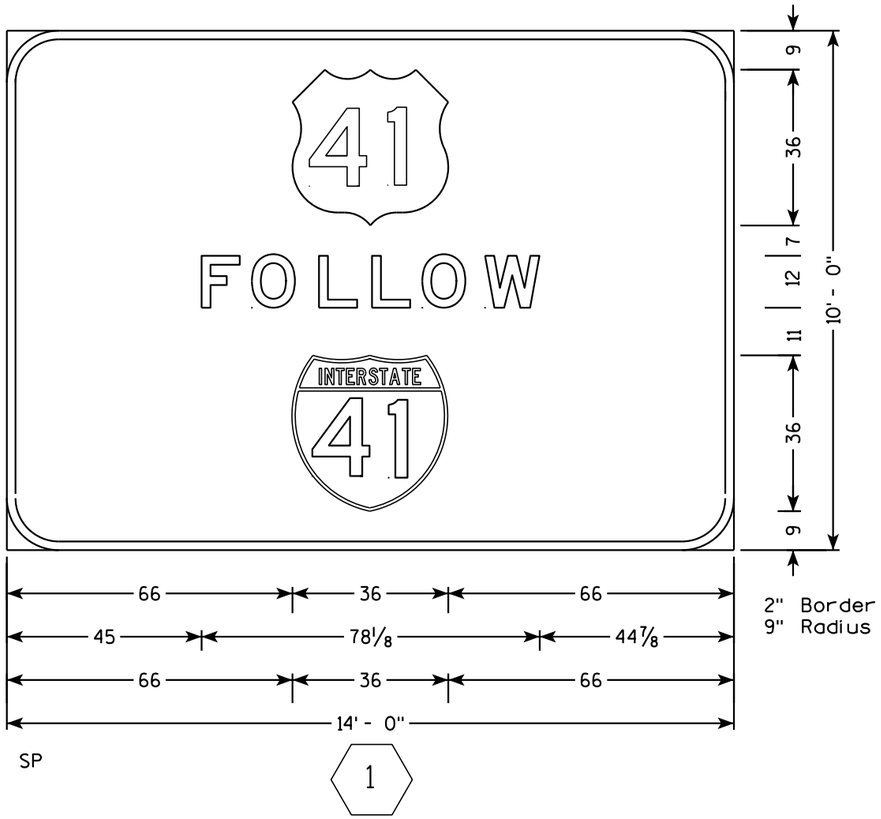
FHWA

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S.D.D. 16 A 1-6

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S.D.D. 16 A 1-6



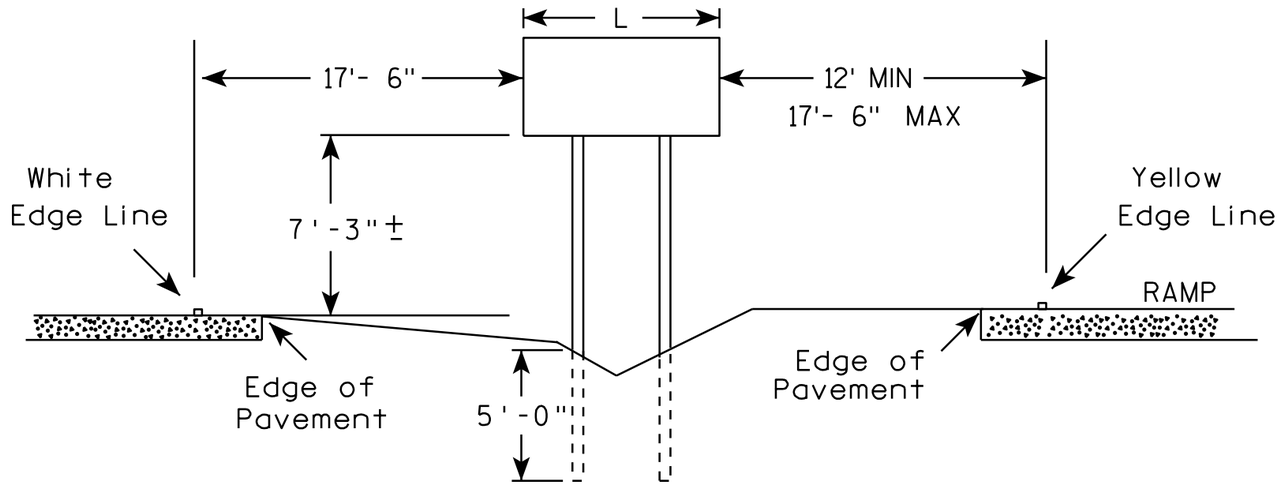
NOTES

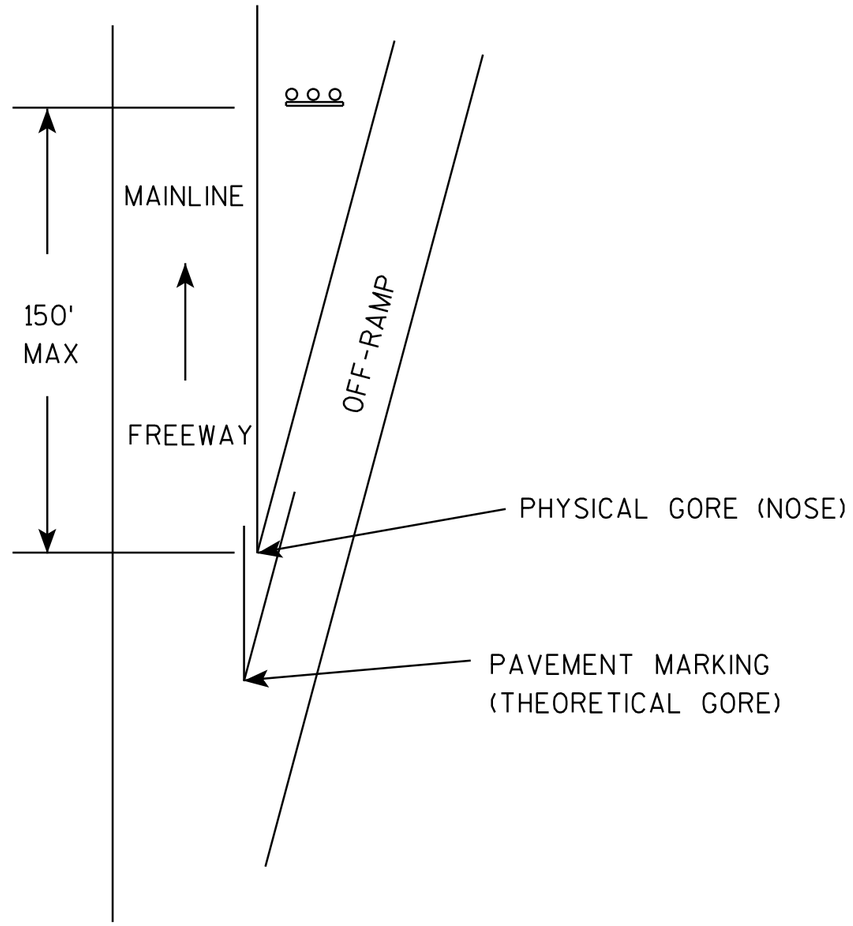
1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap WORDS are Series E

7

7

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	SIGN DETAILS	SHEET NO:	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

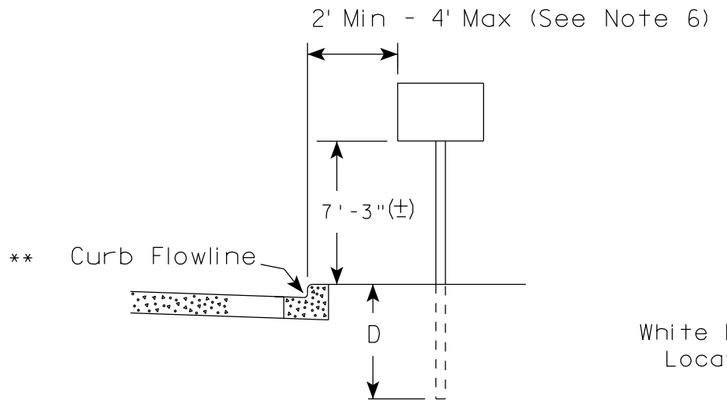
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

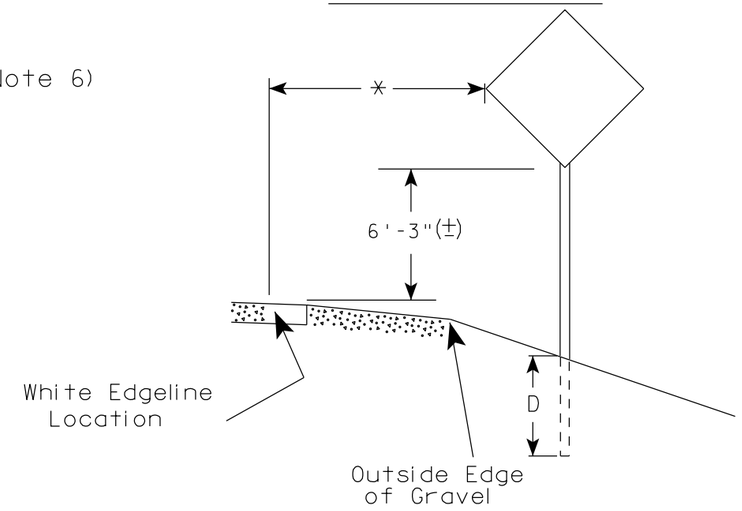
DATE 2/06/14 PLA 403 A4-2.3

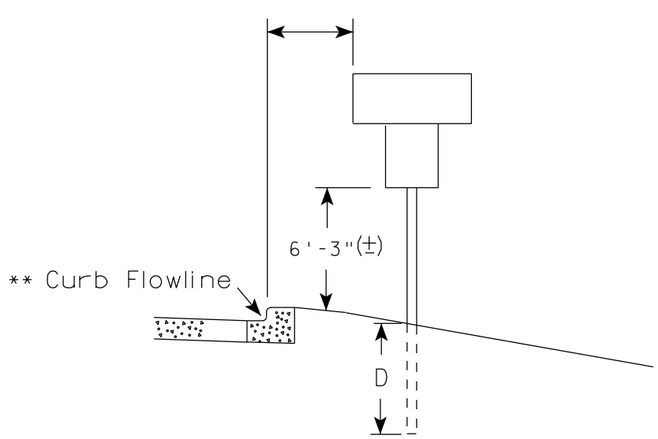
PROJECT NO: | SHEET NO: E

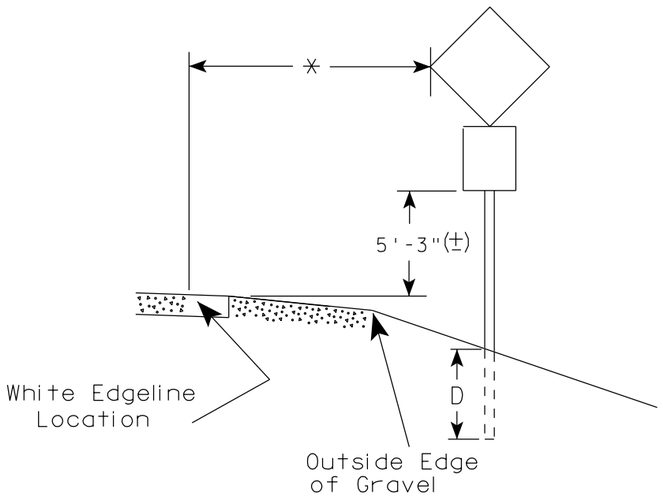
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

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

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

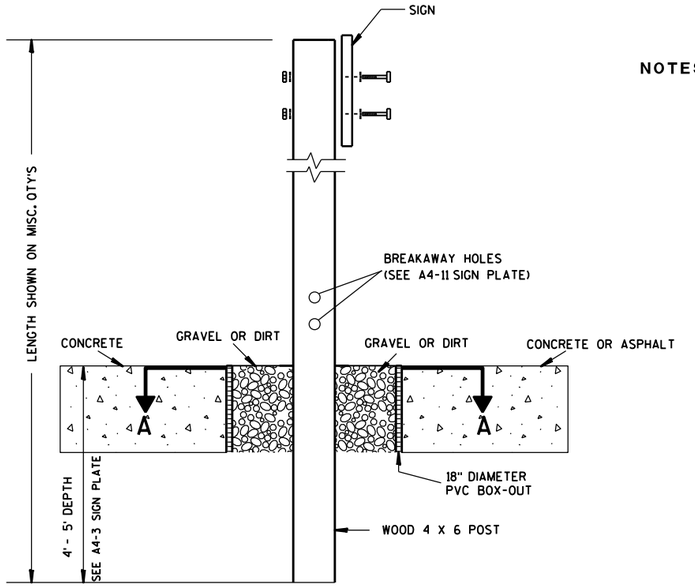
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

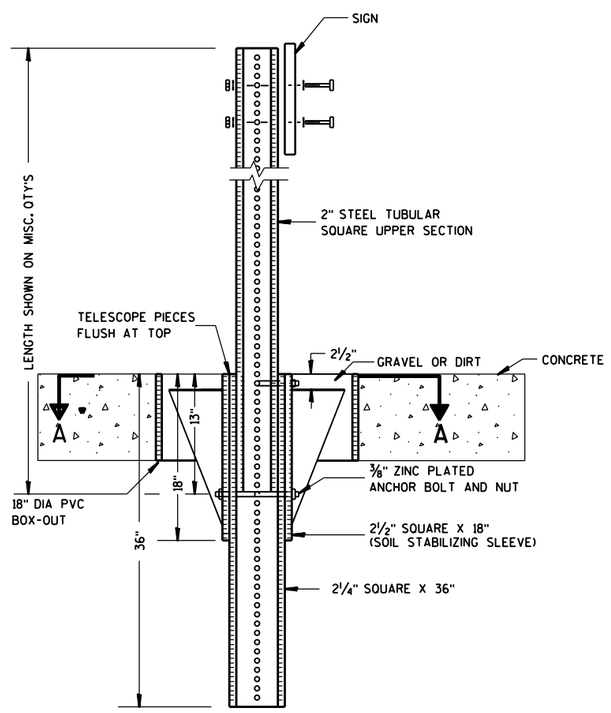
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

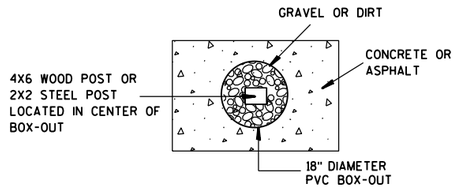
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

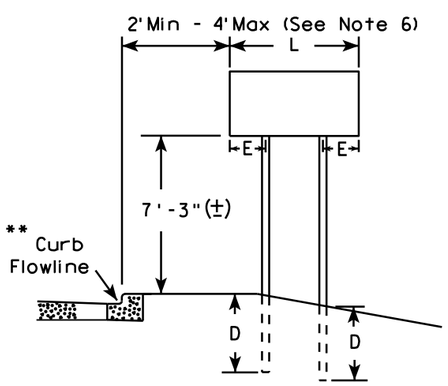
APPROVED Matthew R Rauch
for State Traffic Engineer

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

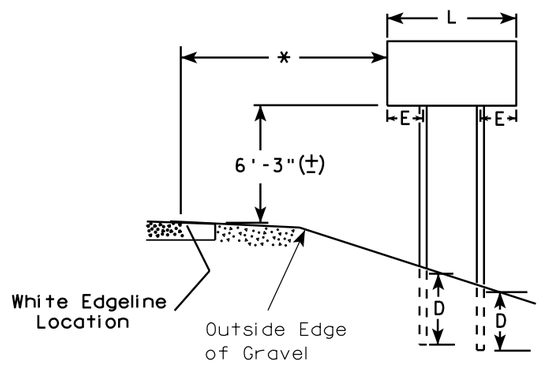
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

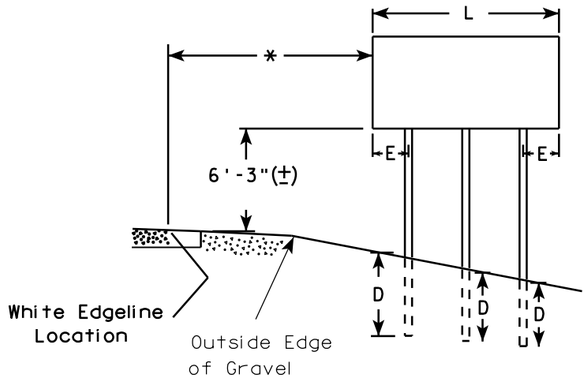
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

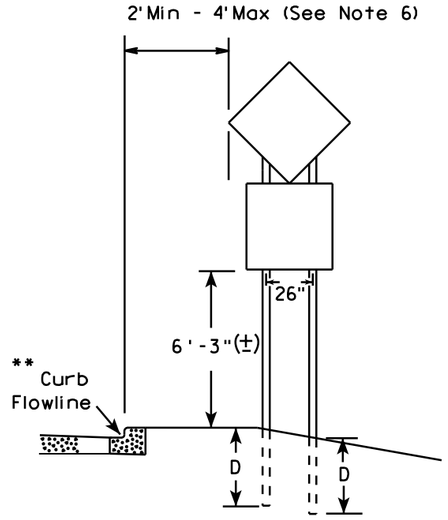
URBAN AREA



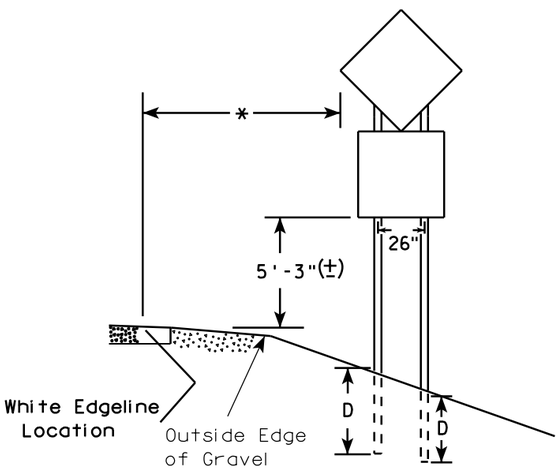
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

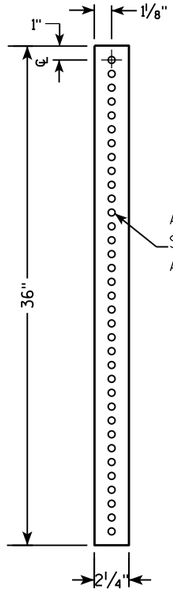
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4 406 13

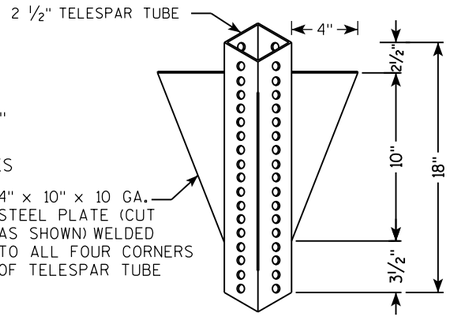
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

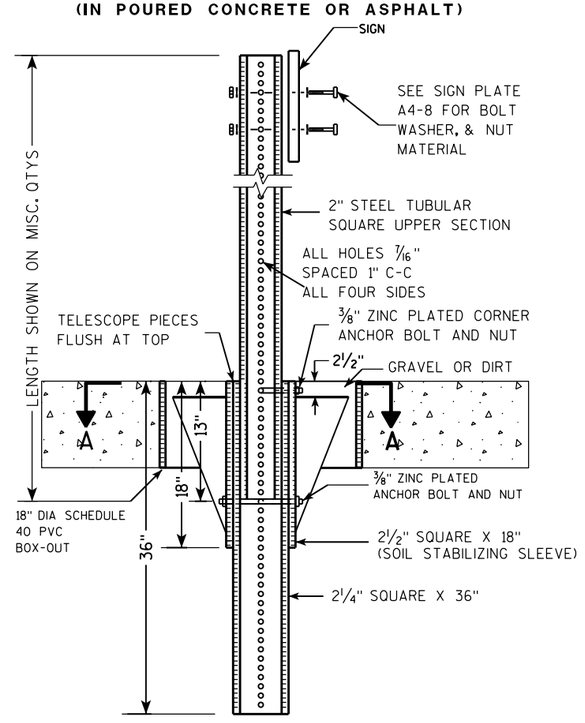
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



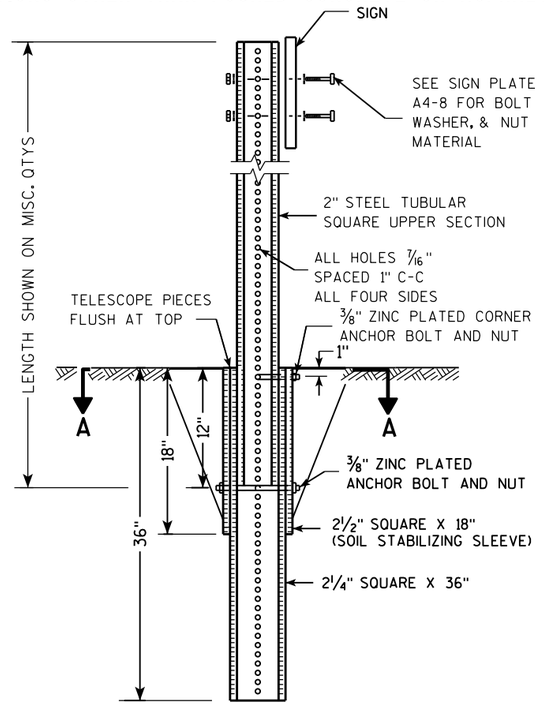
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

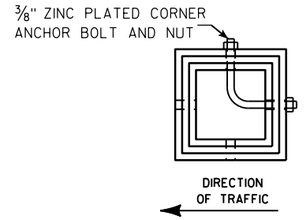


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

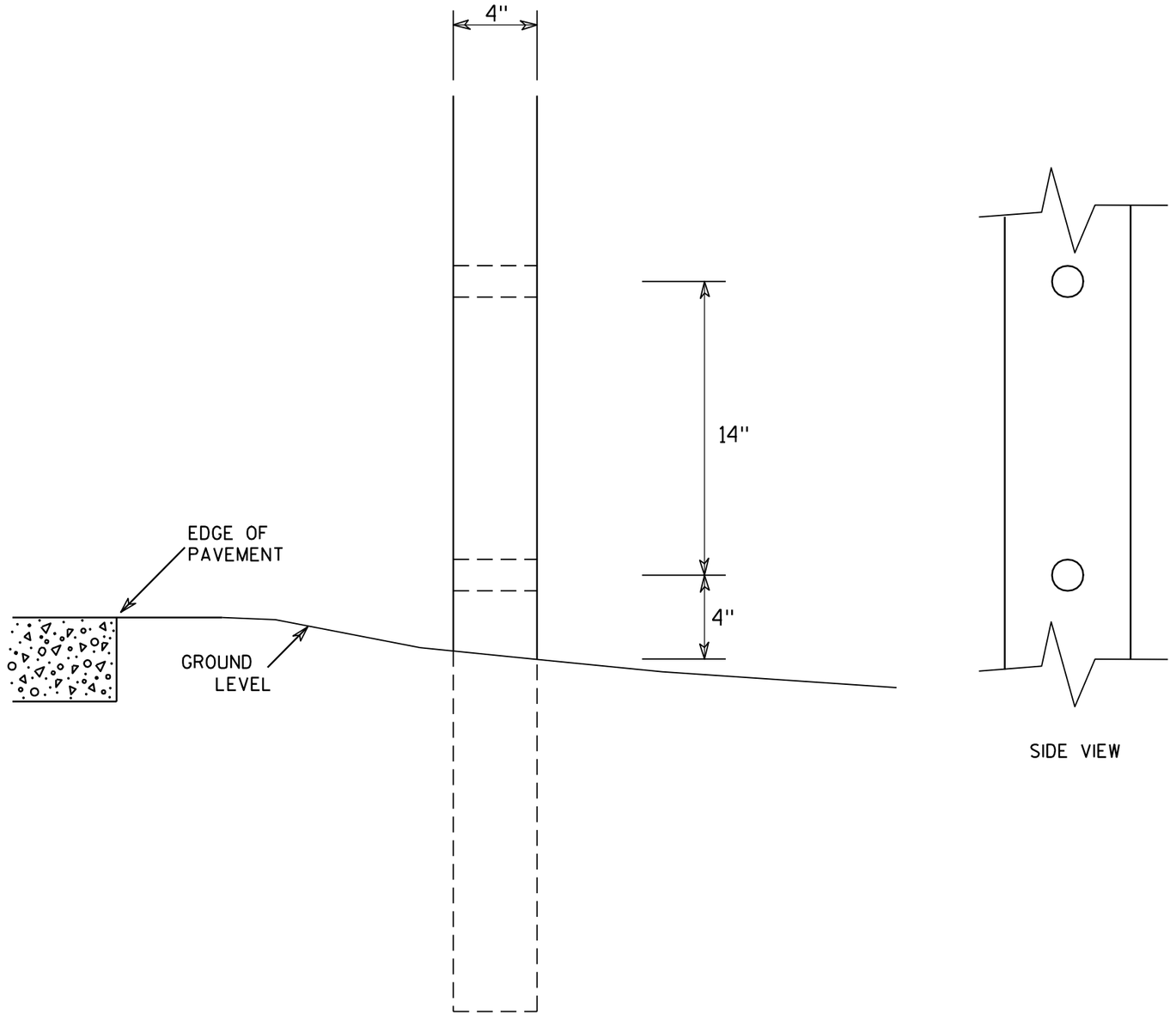
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 407 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

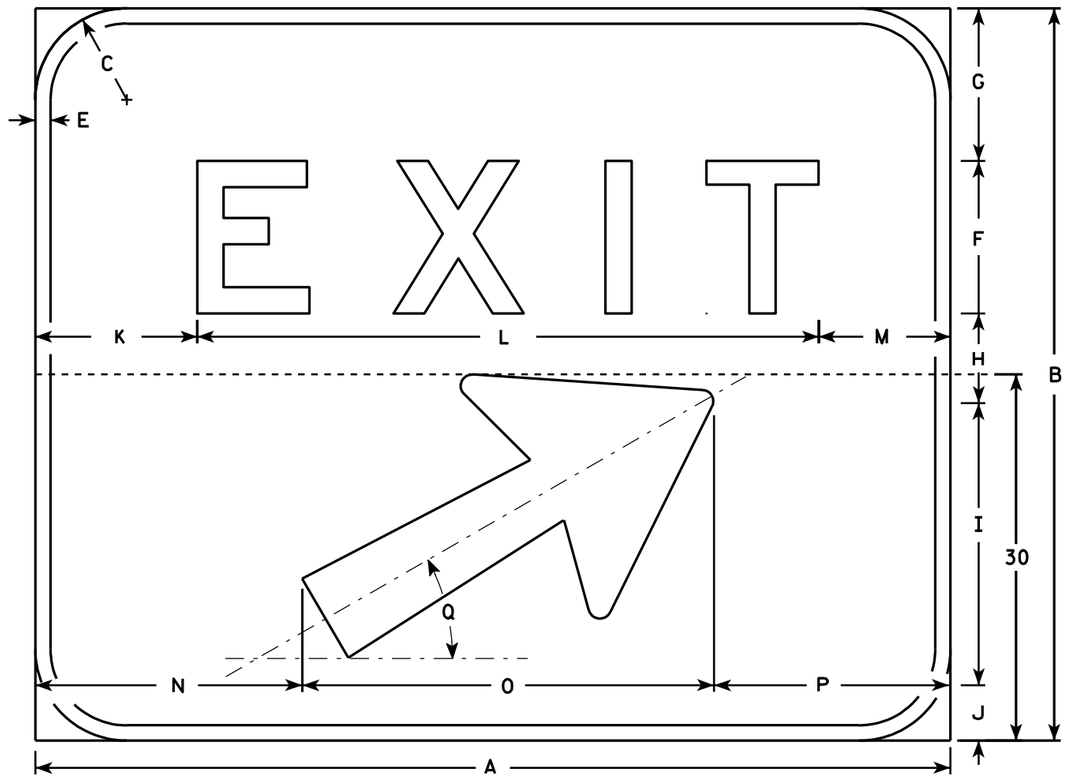
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 408	E



E5-1

NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but borders shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1200 mm
5	1800 mm X 1500 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	60	48	6		1	10	10	5 7/8	18 1/2	3 5/8	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°										20.0	1.80
5	72	60	6		1	12	12	10	18 1/2	7 1/2	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°										30.0	2.70

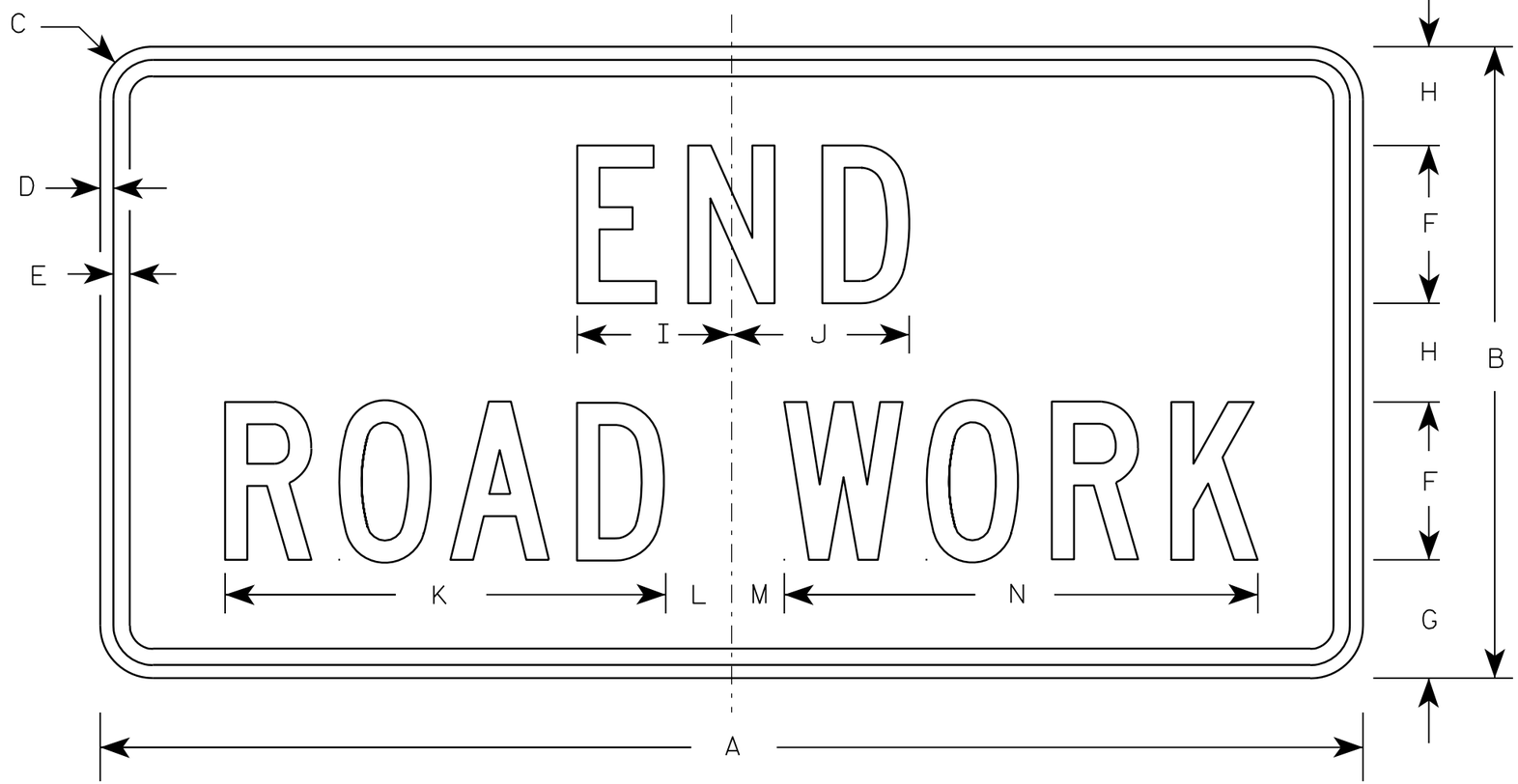
STANDARD SIGN
E5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 6/22/00 PLATE NO. E5-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 409	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

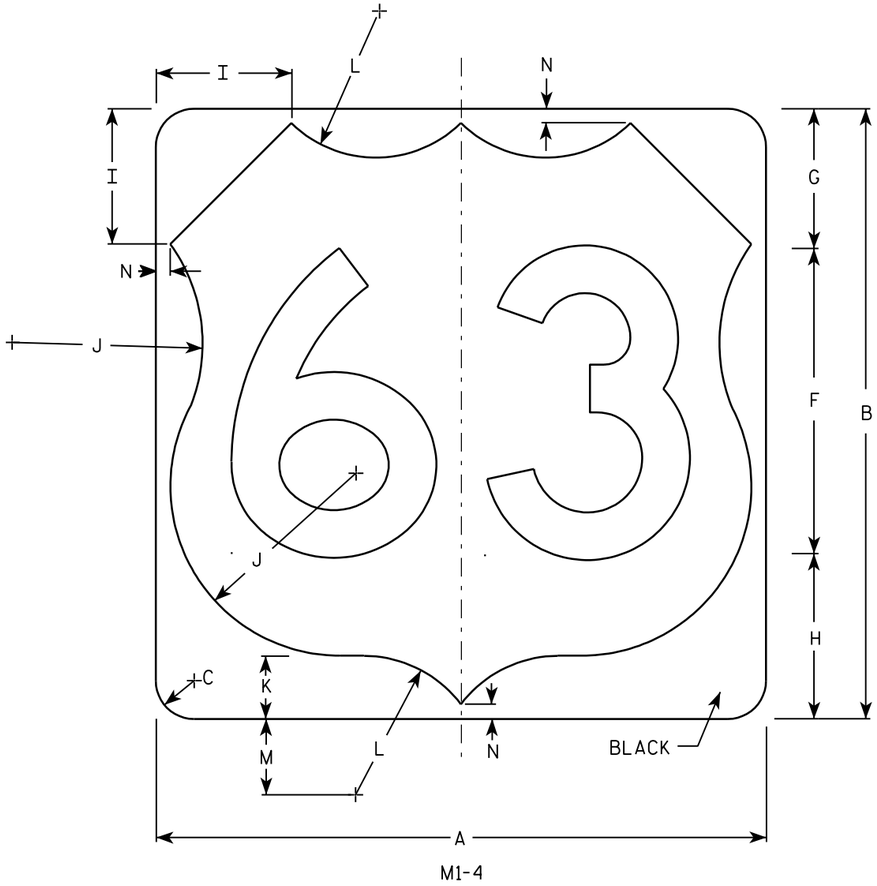
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

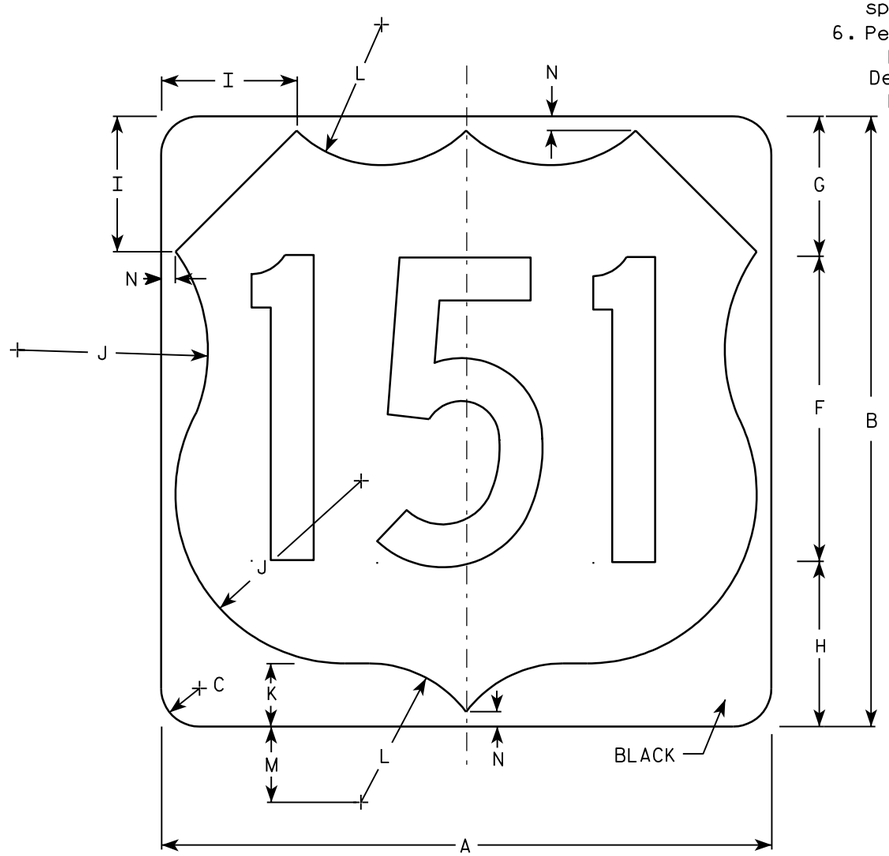
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 410	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

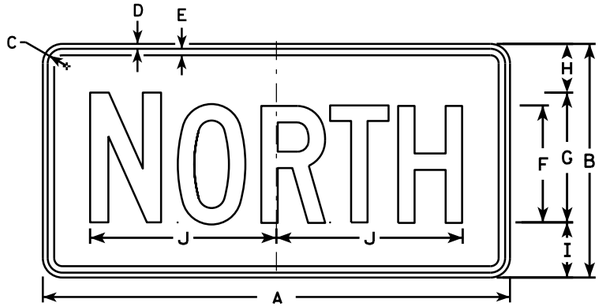
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

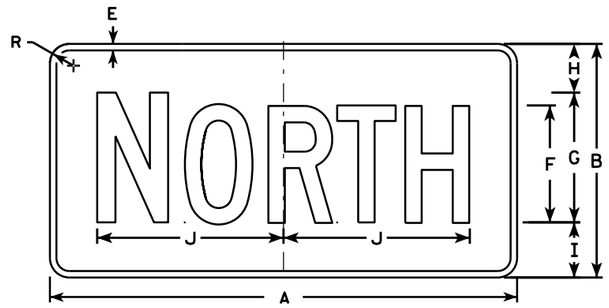
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 411 | E



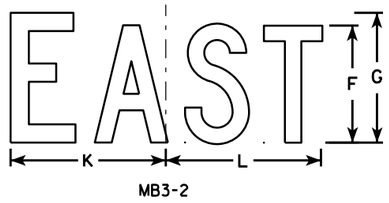
M3-1
MK3-1
MM3-1
MN3-1



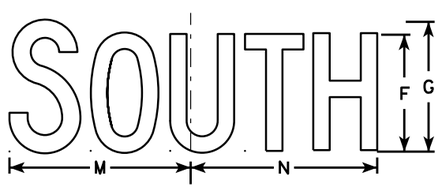
MB3-1



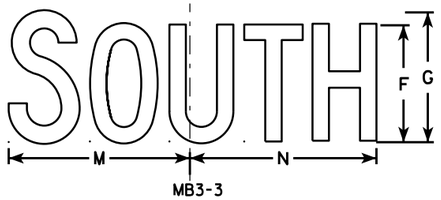
M3-2
MK3-2
MM3-2
MN3-2



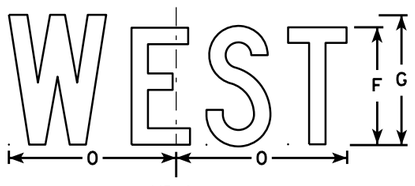
MB3-2



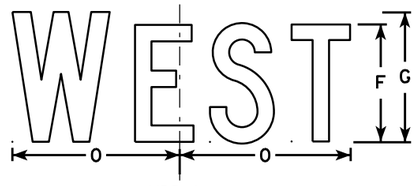
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

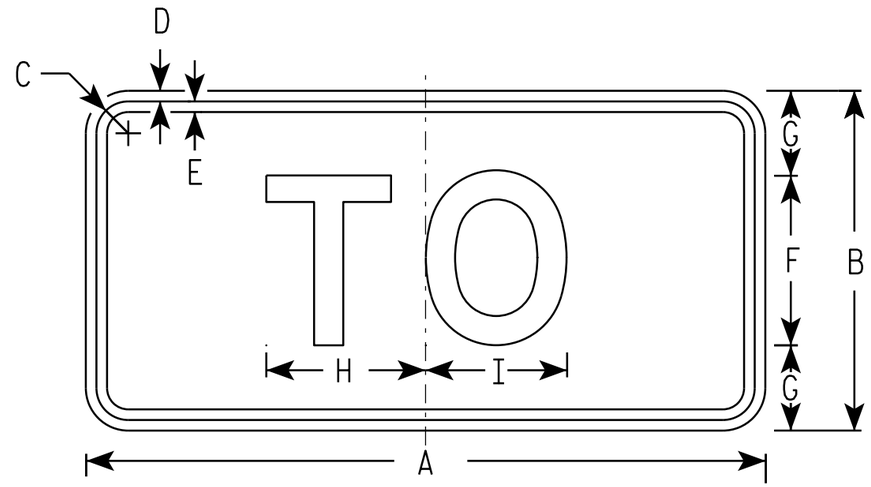
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

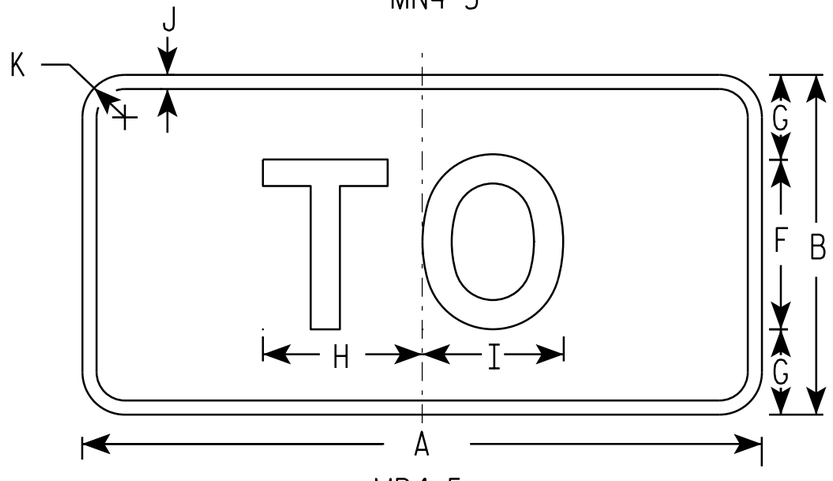
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

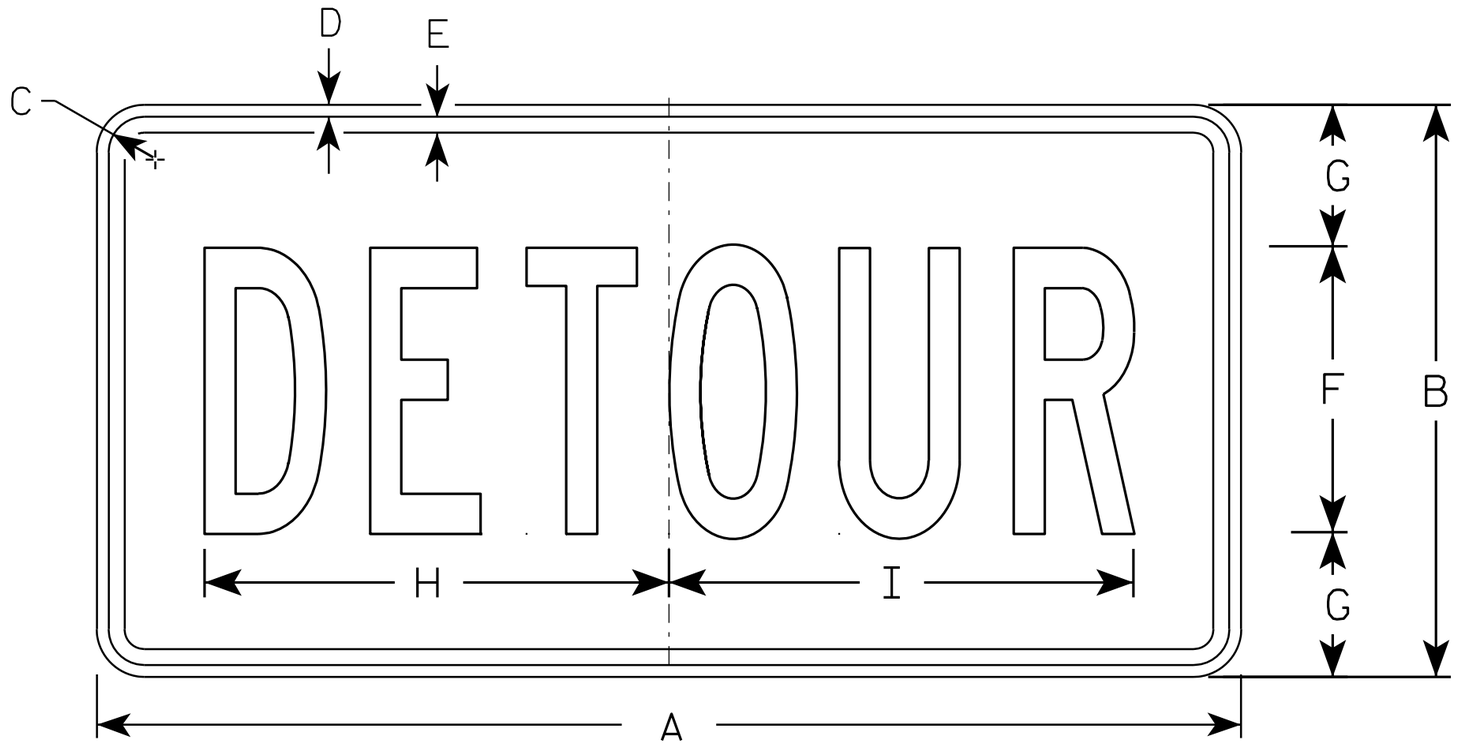
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE M4-5.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 30-JUN-2014 12:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.351066:1.000000
WISDOT/CADDS SHEET 42



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

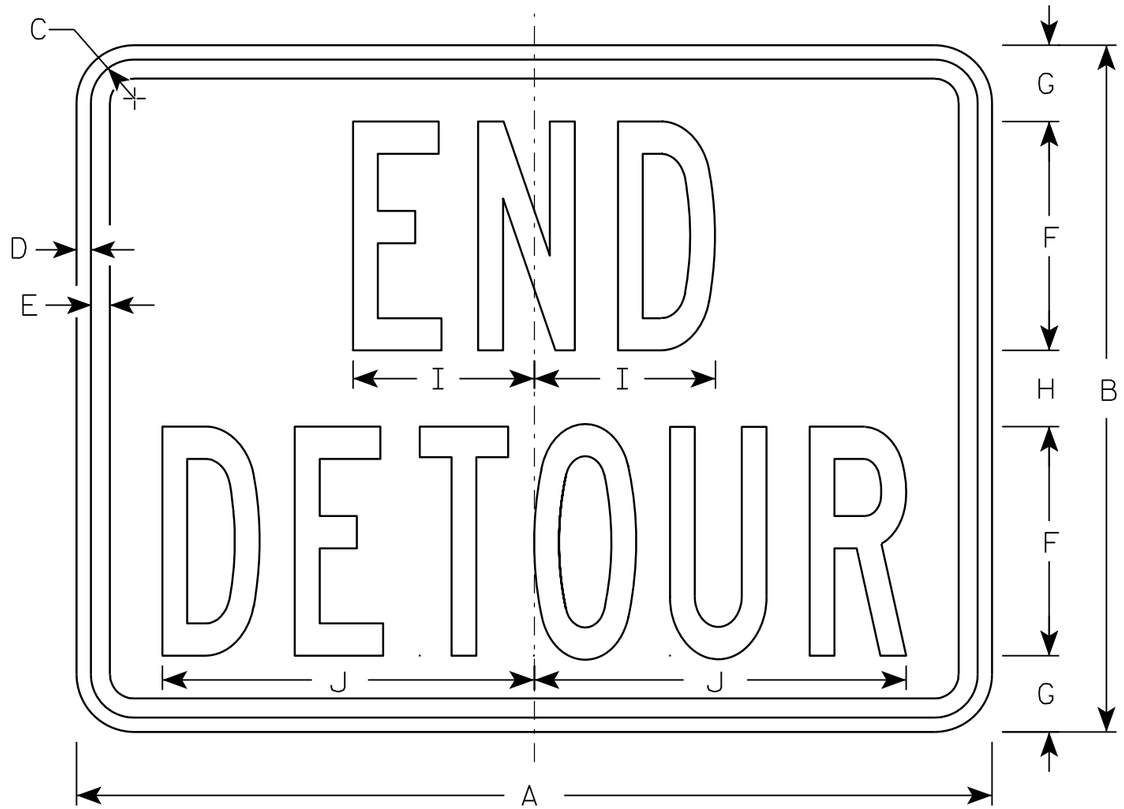
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 414	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

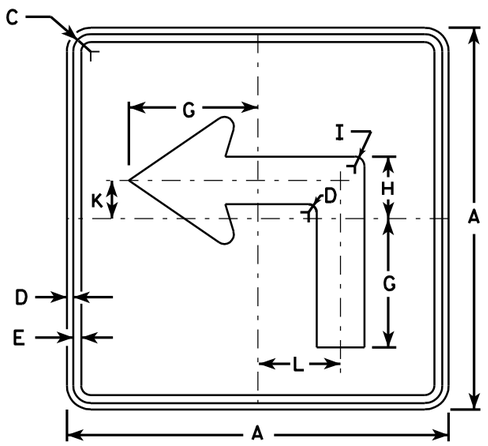
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

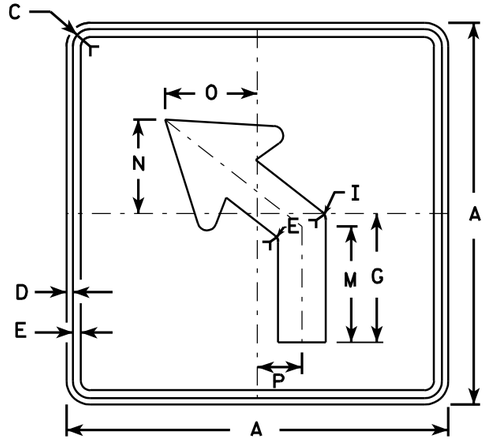
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

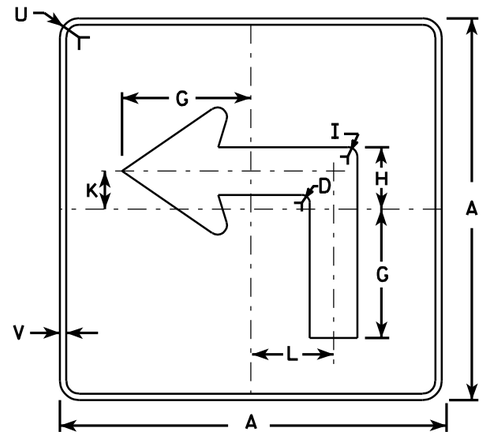
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 415	E



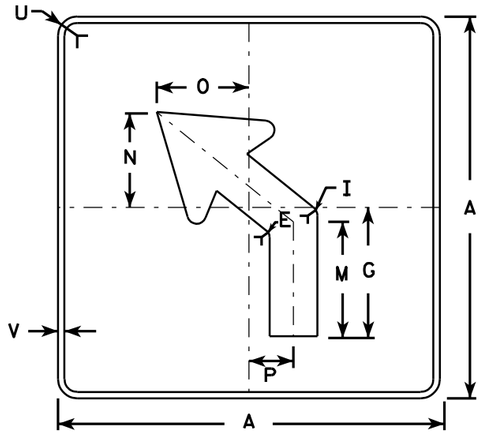
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



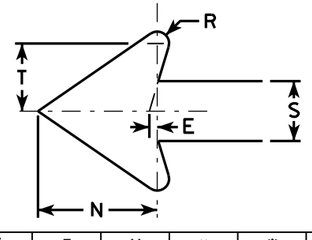
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

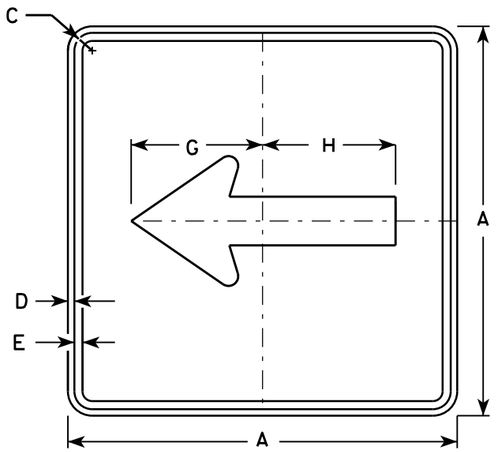
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

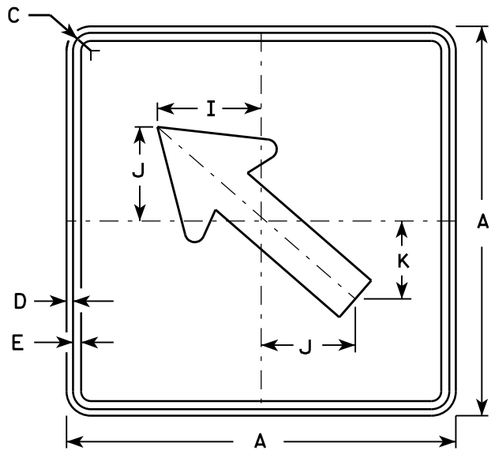
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 416 | E



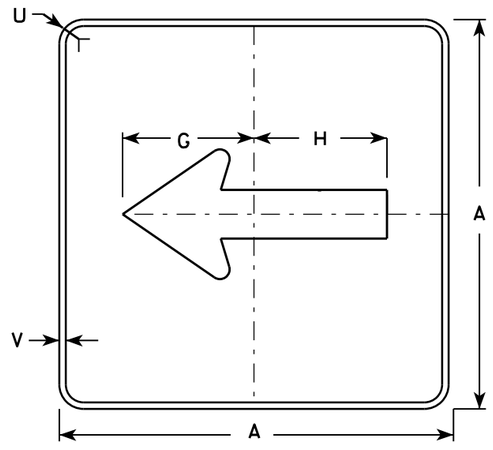
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



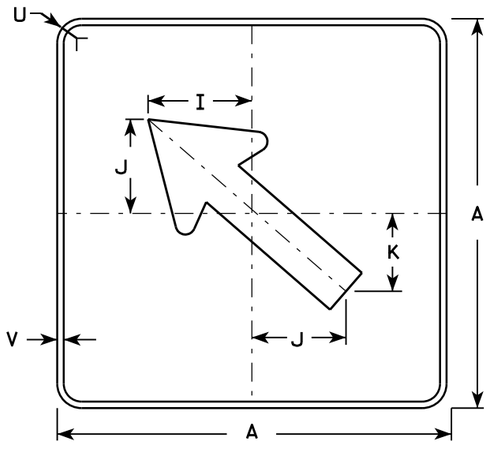
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

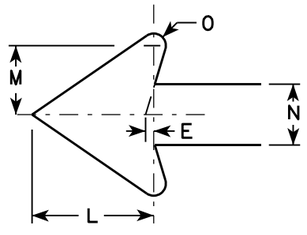
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

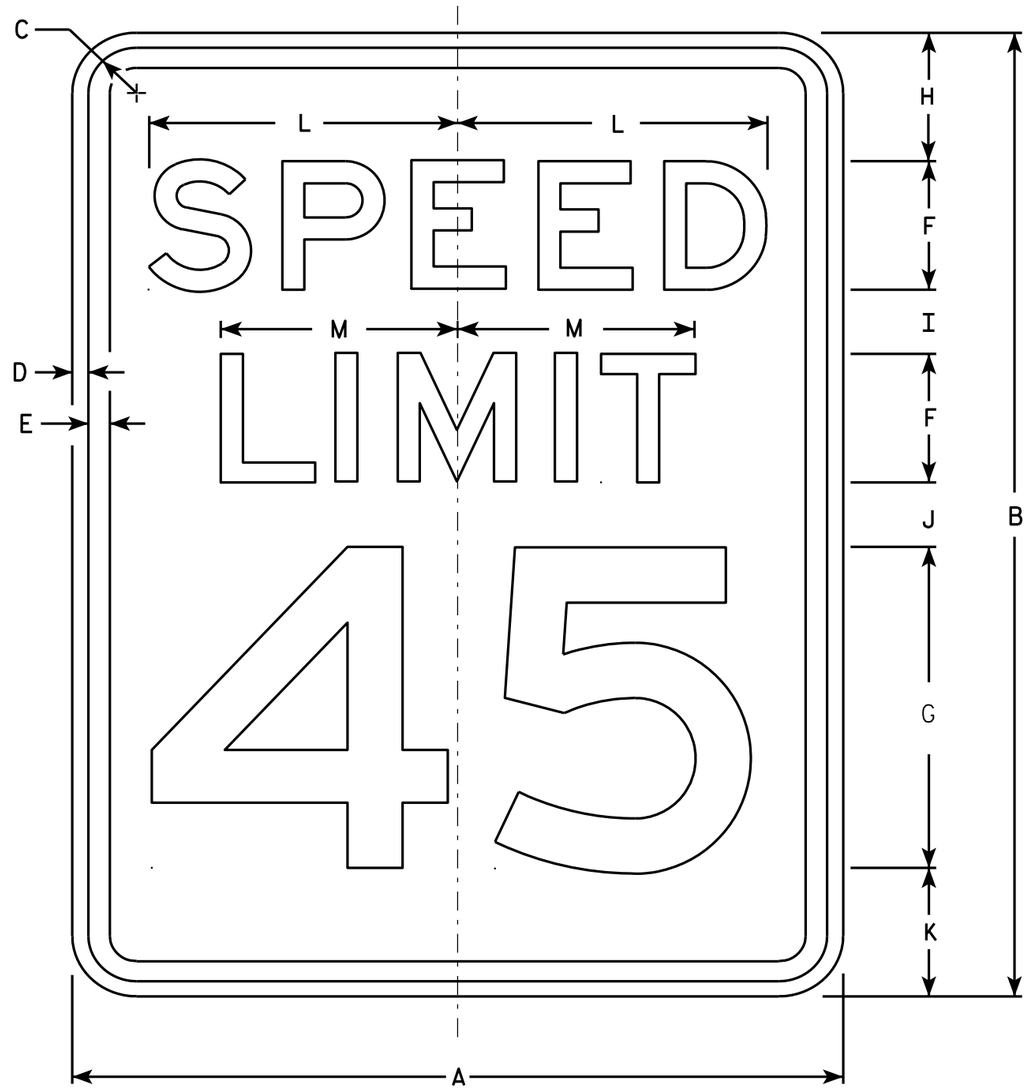
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 417 M6-1.14

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

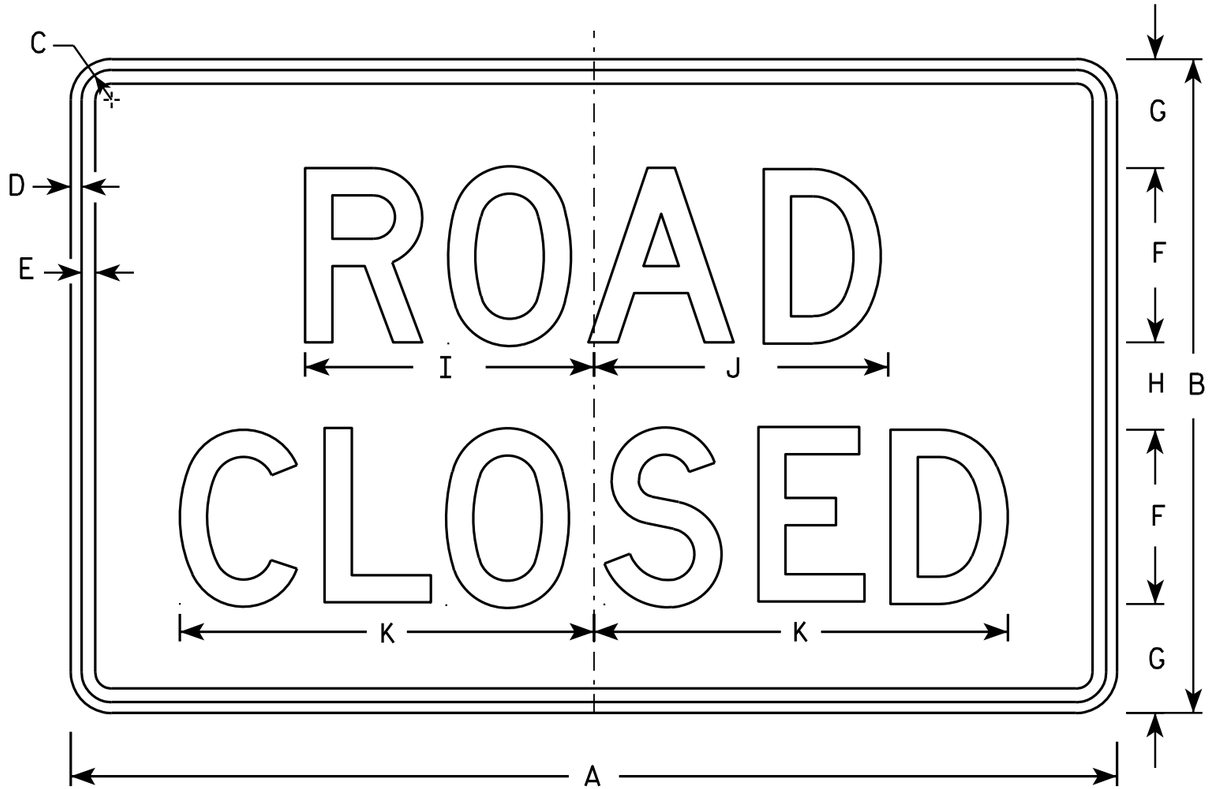
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

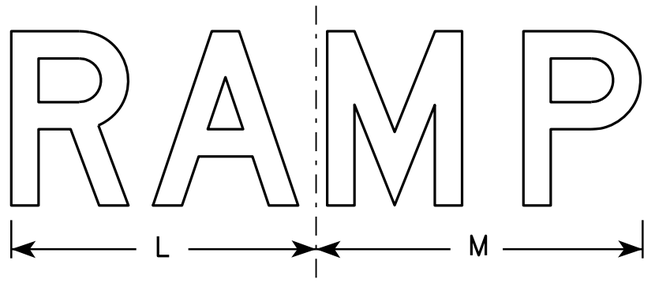
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 418 | E



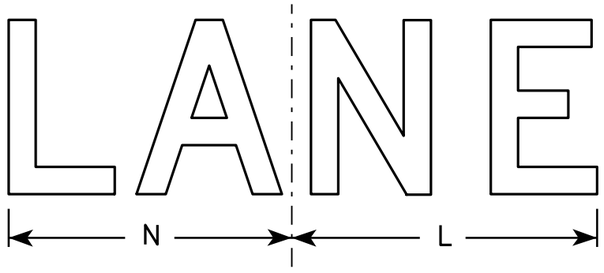
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

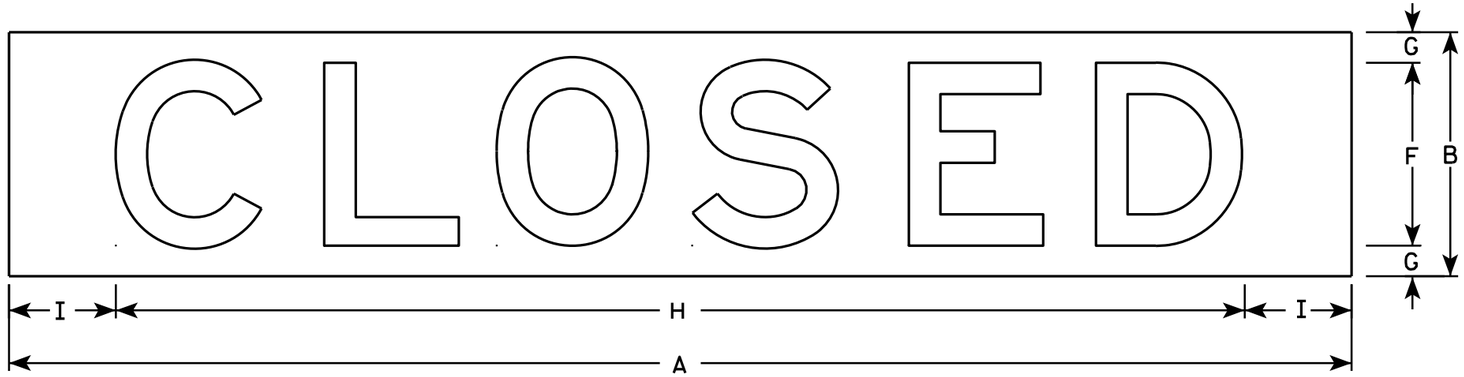
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 419	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.DGN PLOT DATE : 01-APR-2011 14:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000

WISDOT/CADDS SHEET 42



R55-58A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. This plaque to be used with the D5-61& D5-62 for wayside closures.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	44	8				6	1	37	3 ½																		2.4
2M	44	8				6	1	37	3 ½																		2.4
3																											
4	76	12				10	1	58	9																		6.3
5	108	18				15	1 ½	92 ½	7 ¾																		13.5

STANDARD SIGN
R55-58A

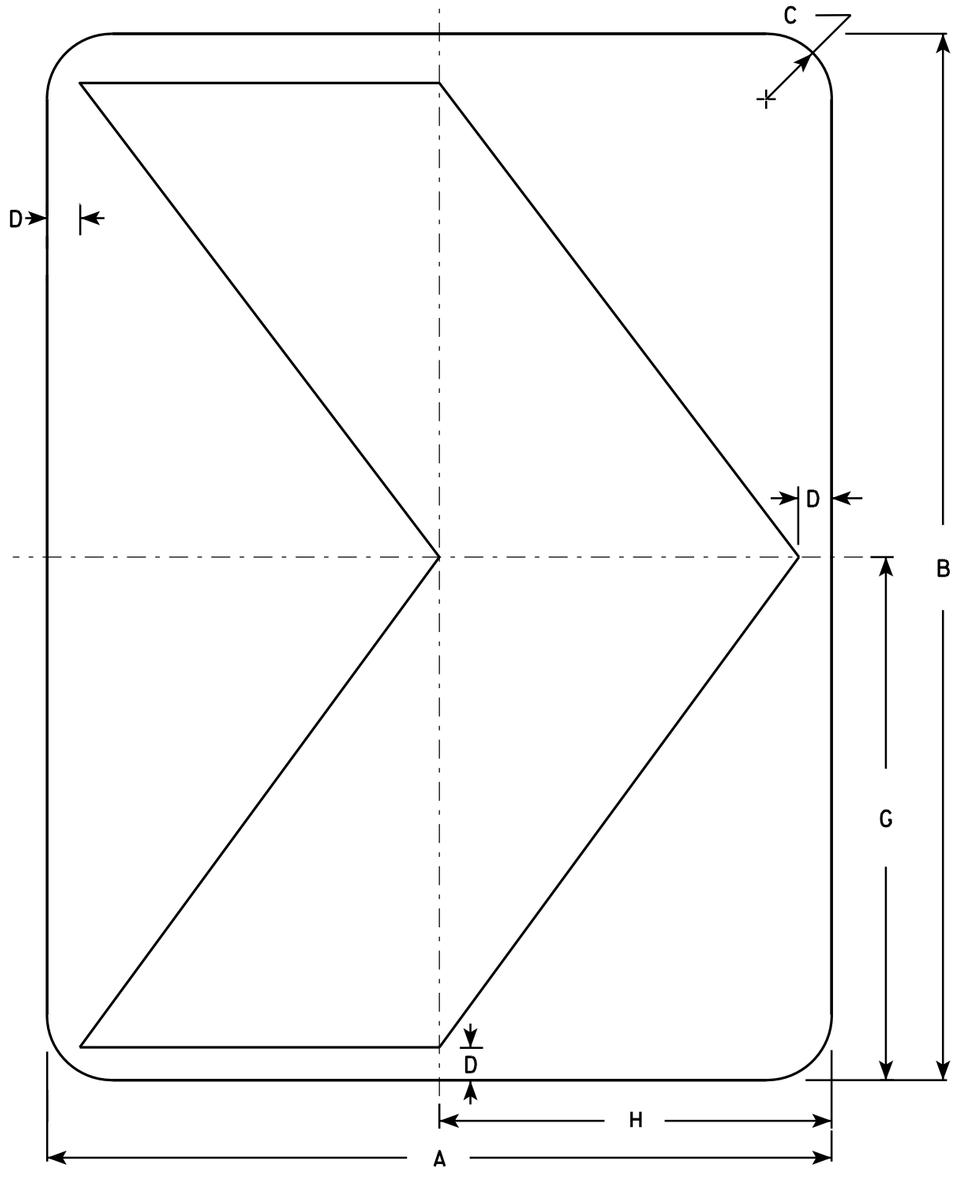
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/12 PLATE NO. R55-58A.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 420 | E

7



W1-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

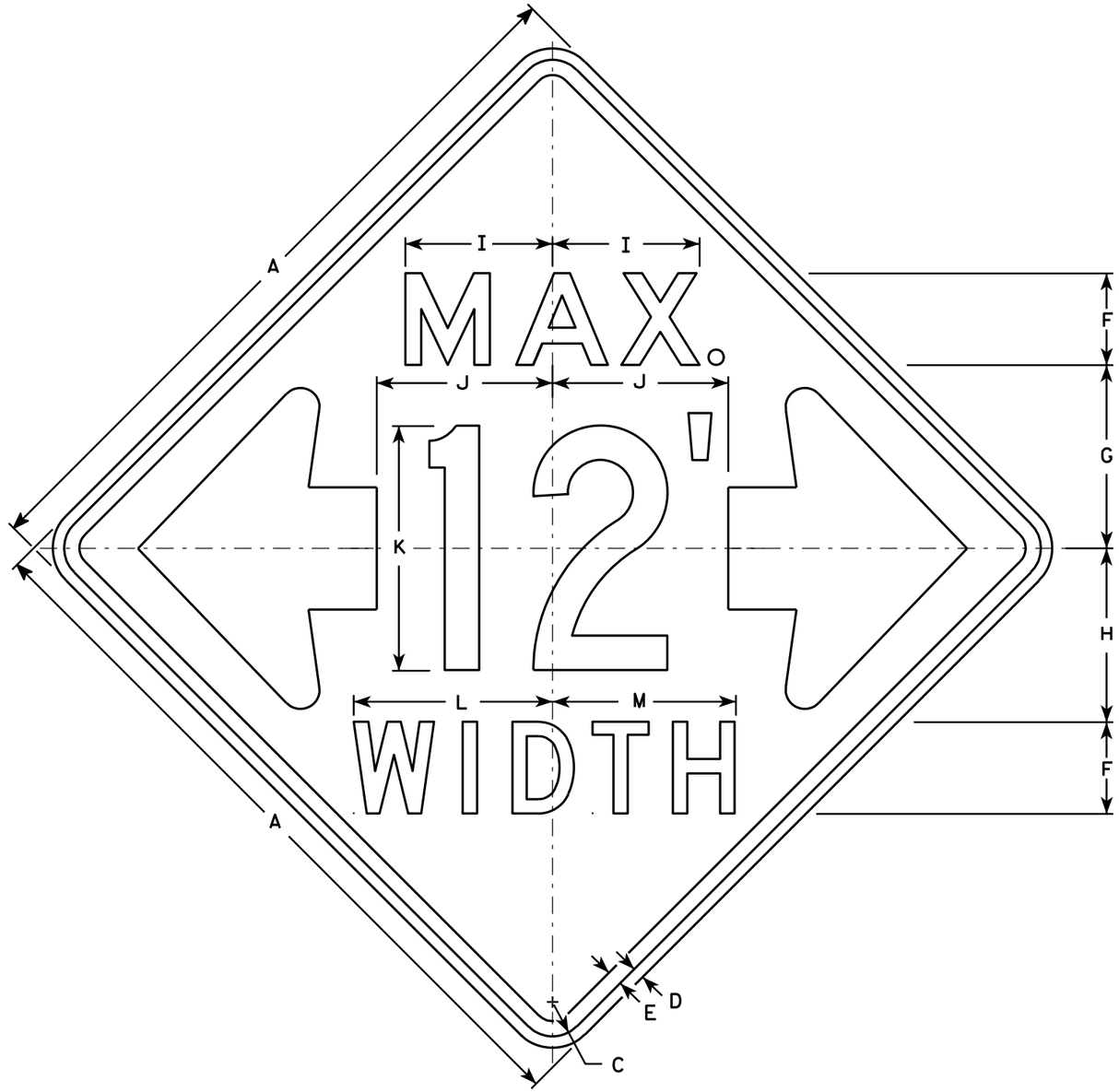
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

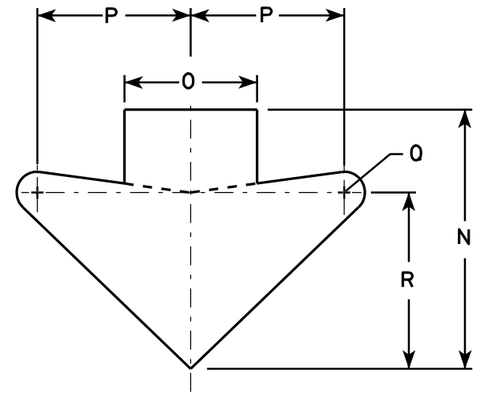
SHEET NO: 421 E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

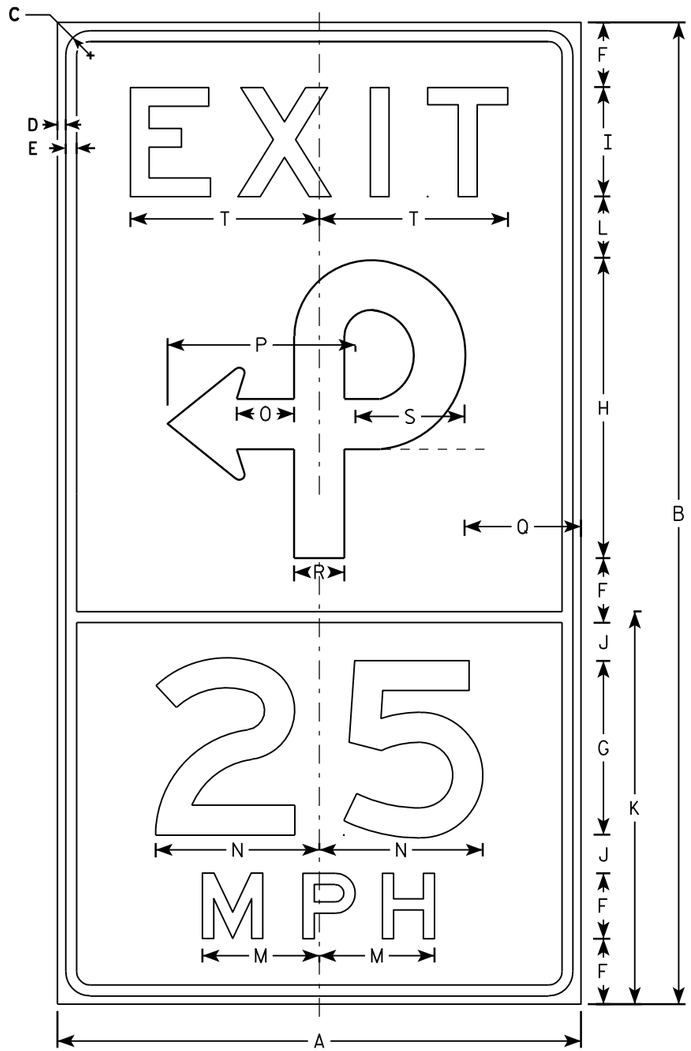
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 422 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



W13-2B

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
2M	48	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
3																											
4																											
5																											

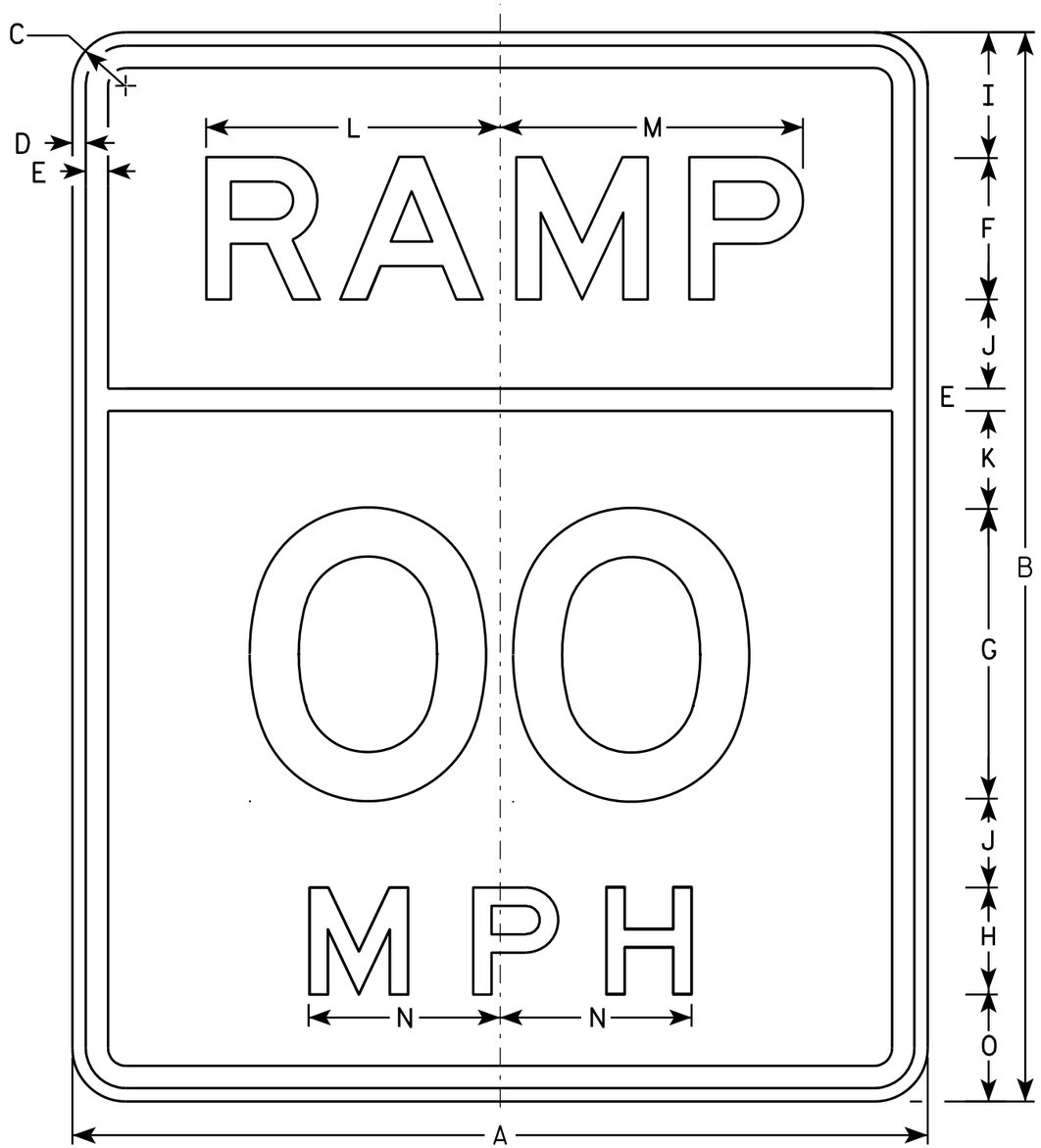
STANDARD SIGN
W13-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 423	E



W13-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

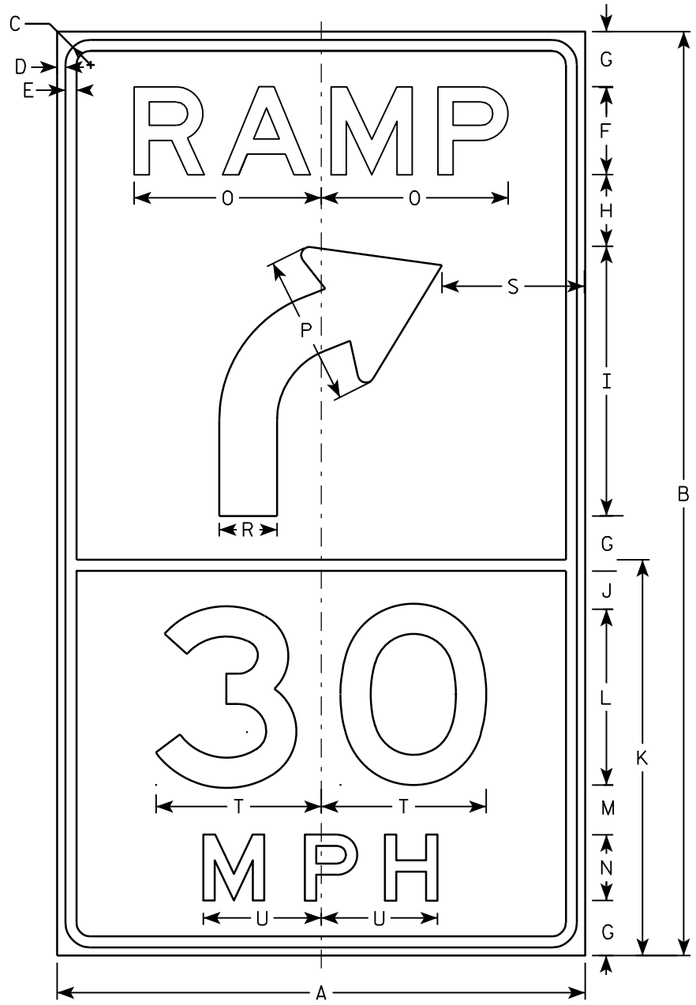
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 424 | E



W13-3C

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	60	1 5/8	3/4	5/8	6	3 1/2	4 1/2	17 1/2	3 1/2	25 3/4	10	3	5	12 3/4	9 3/4		4	9 3/4	10	8 1/2						15.0
2M	36	60	1 5/8	3/4	5/8	6	3 1/2	4 1/2	17 1/2	3 1/2	25 3/4	10	3	5	12 3/4	9 3/4		4	9 3/4	10	8 1/2						15.0
3																											
4	48	84	2 1/4	3/4	1	8	5	6 1/2	24 1/2	3 1/2	36	16	4 1/2	6	17	13 5/8		5 1/4	13	15	10 3/4						28.0
5	48	84	2 1/4	3/4	1	8	5	6 1/2	24 1/2	3 1/2	36	16	4 1/2	6	17	13 5/8		5 1/4	13	15	10 3/4						28.0

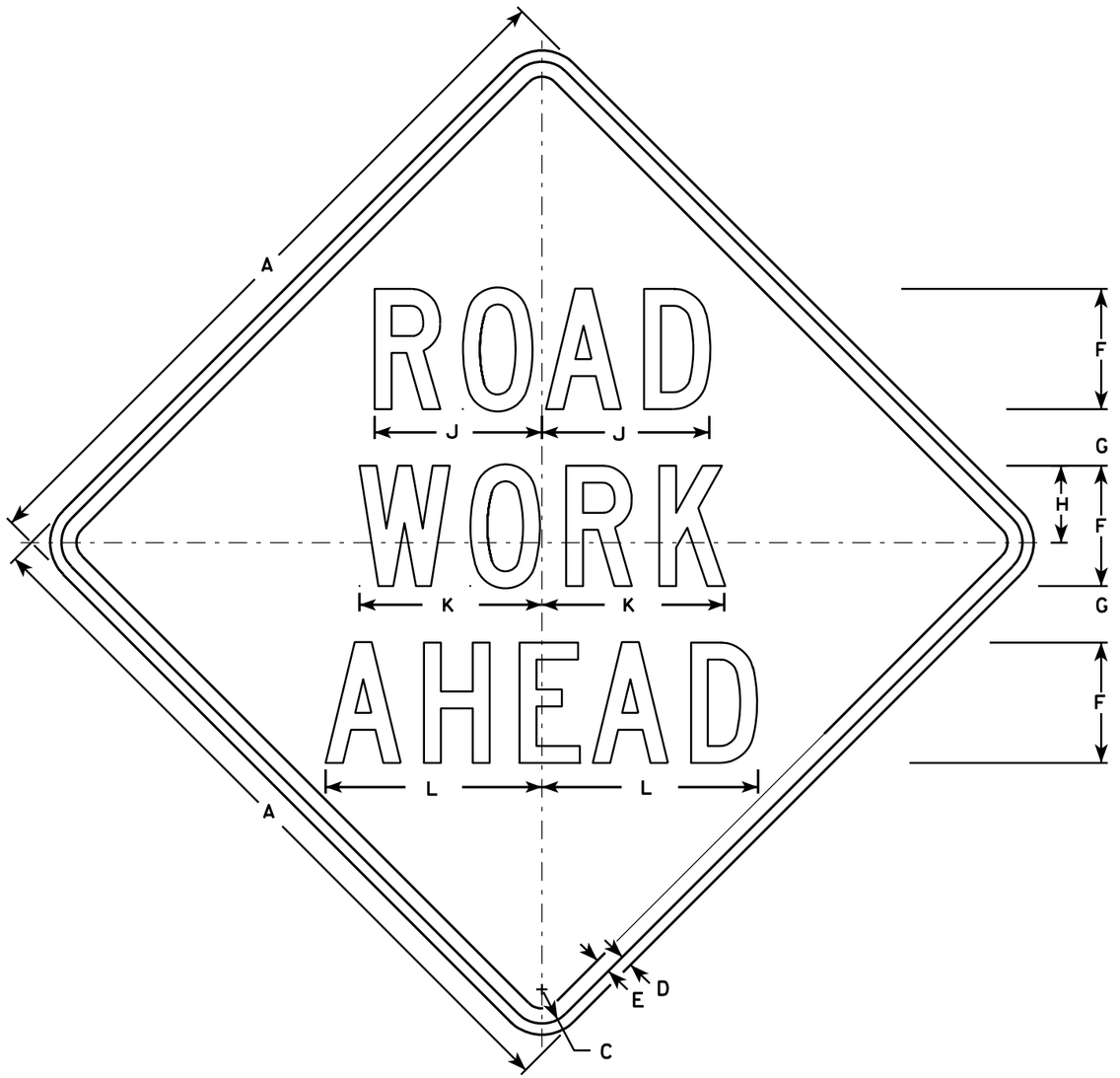
STANDARD SIGN
W13-3C

WISCONSIN DEPT OF TRANSPORTATION

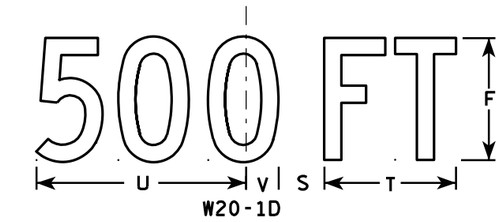
APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 2/14/13 PLATE NO. W13-3C.1

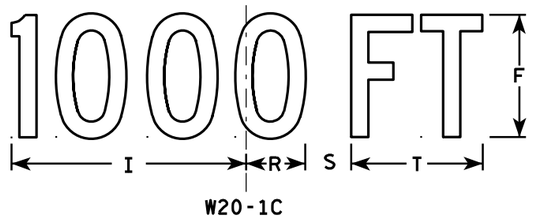
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 425 | E



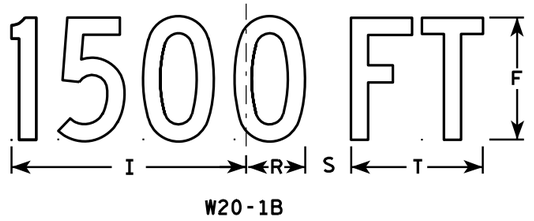
W20-1A



W20-1D



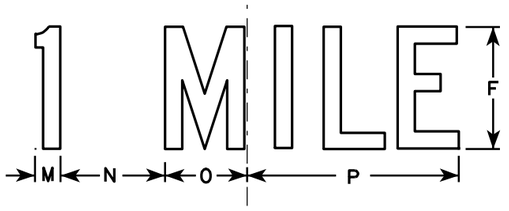
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

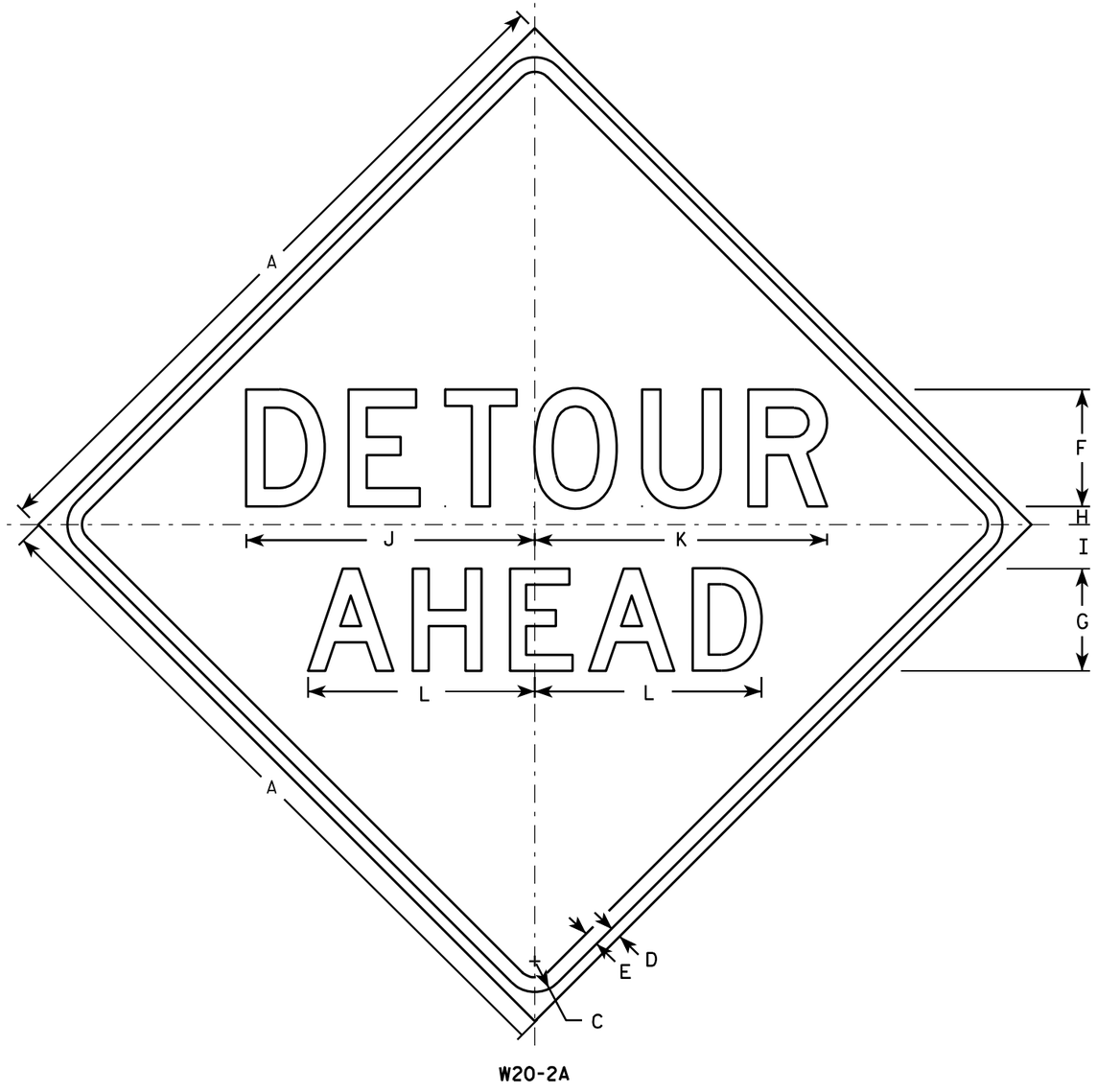
PROJECT NO:

SHEET NO: 426 E

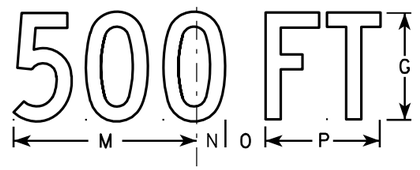
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

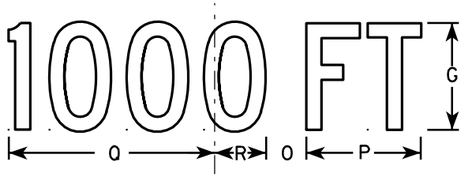
WISDOT/CADDS SHEET 42



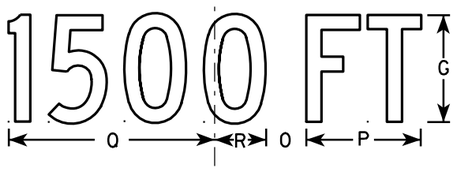
W20-2A



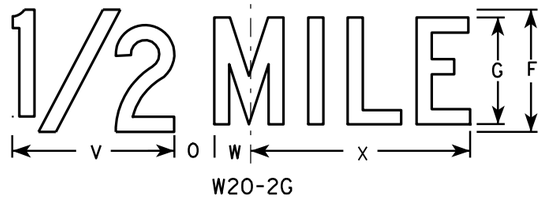
W20-2D



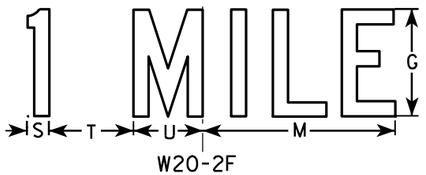
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

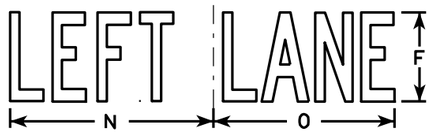
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

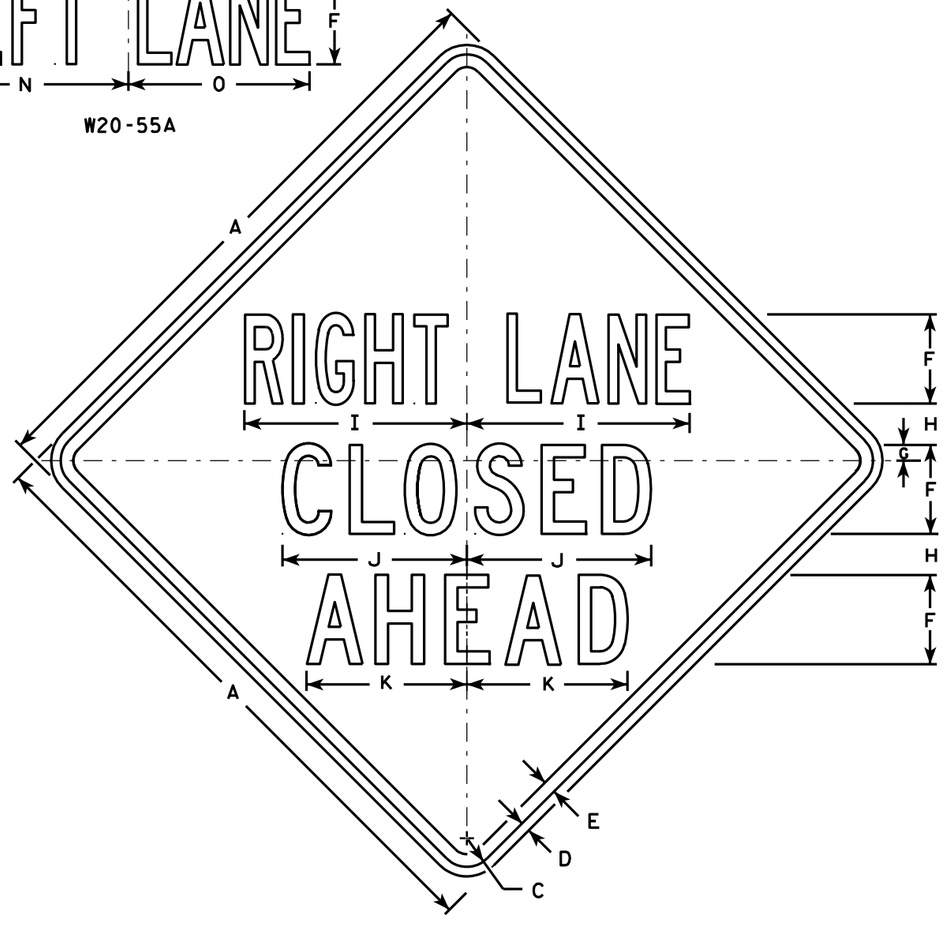
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 427	E



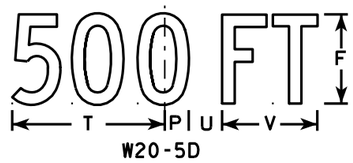
W20-56A



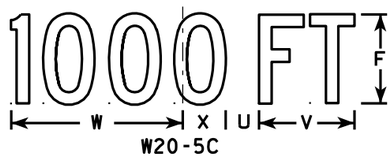
W20-55A



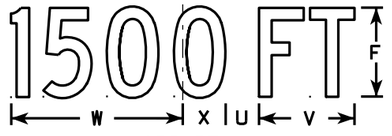
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

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

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

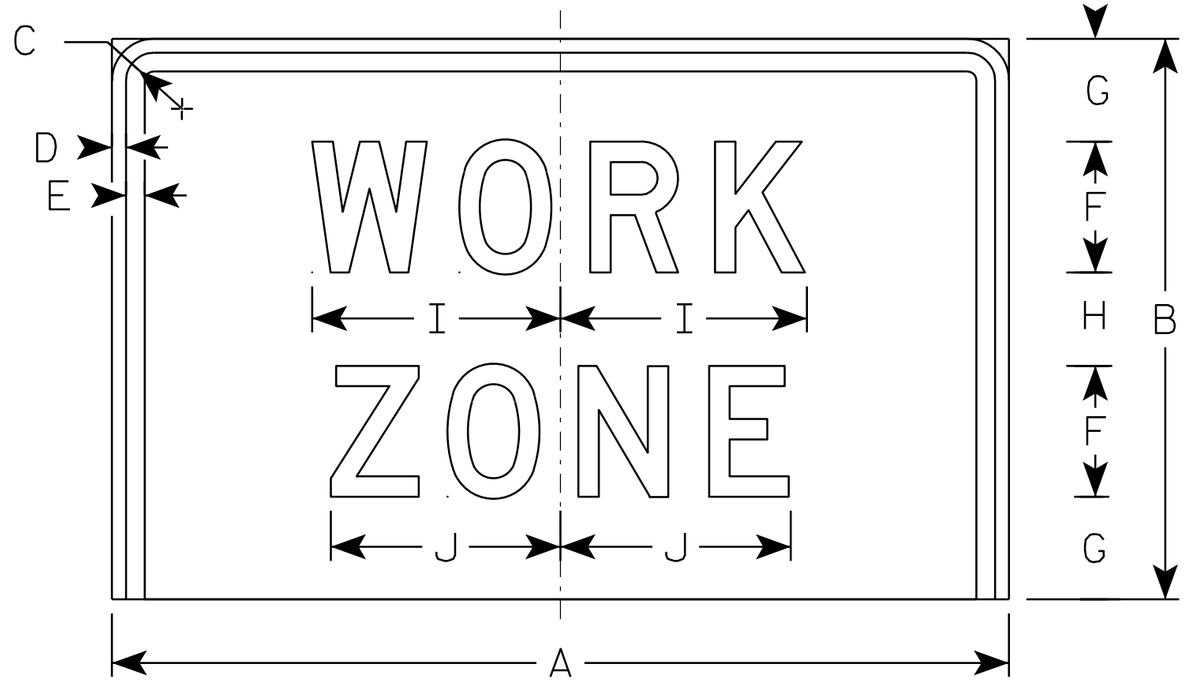
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 428	E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-620

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

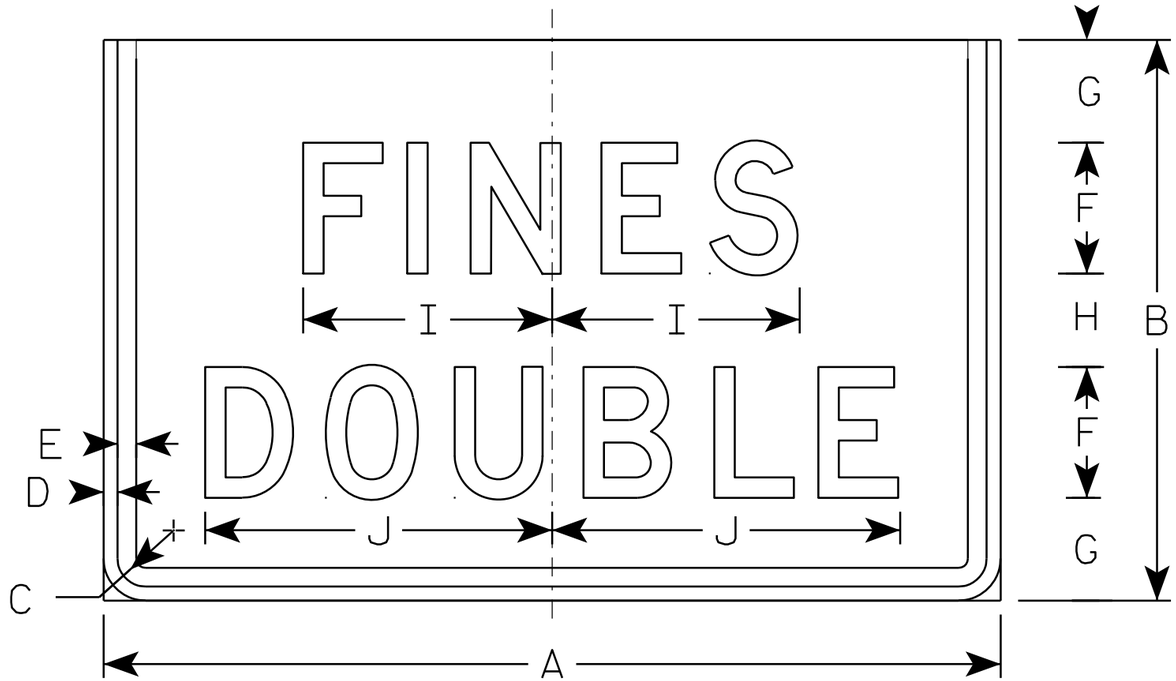
STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 429	E



W21-62R

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

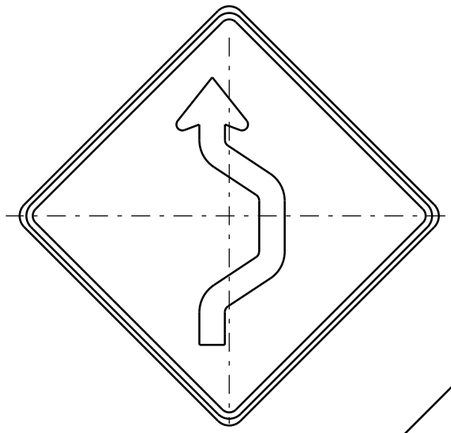
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 430	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W2162R.DGN PLOT DATE : 21-MAR-2011 10:51 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.108332:1.000000

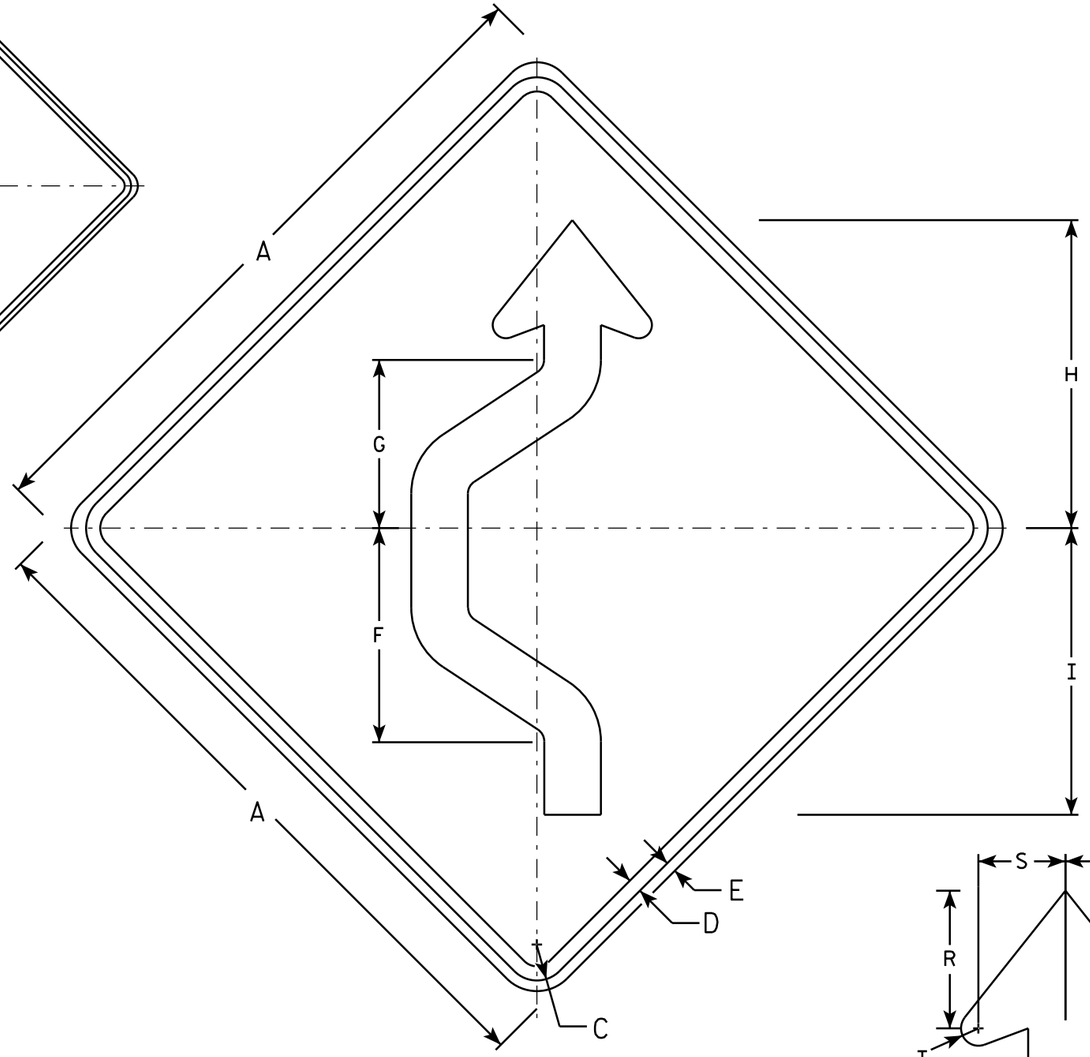
WISDOT/CADDS SHEET 42

7

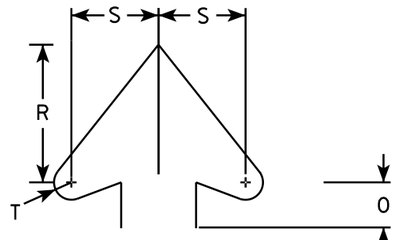
7



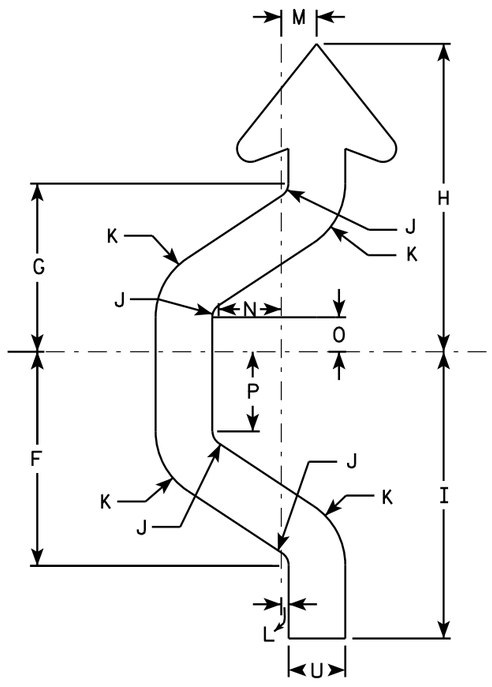
W24-1R



W24-1L



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W24-1R is the same as W24-1L except reversed along the vertical centerline.

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

STANDARD SIGN
W24-1 L & R

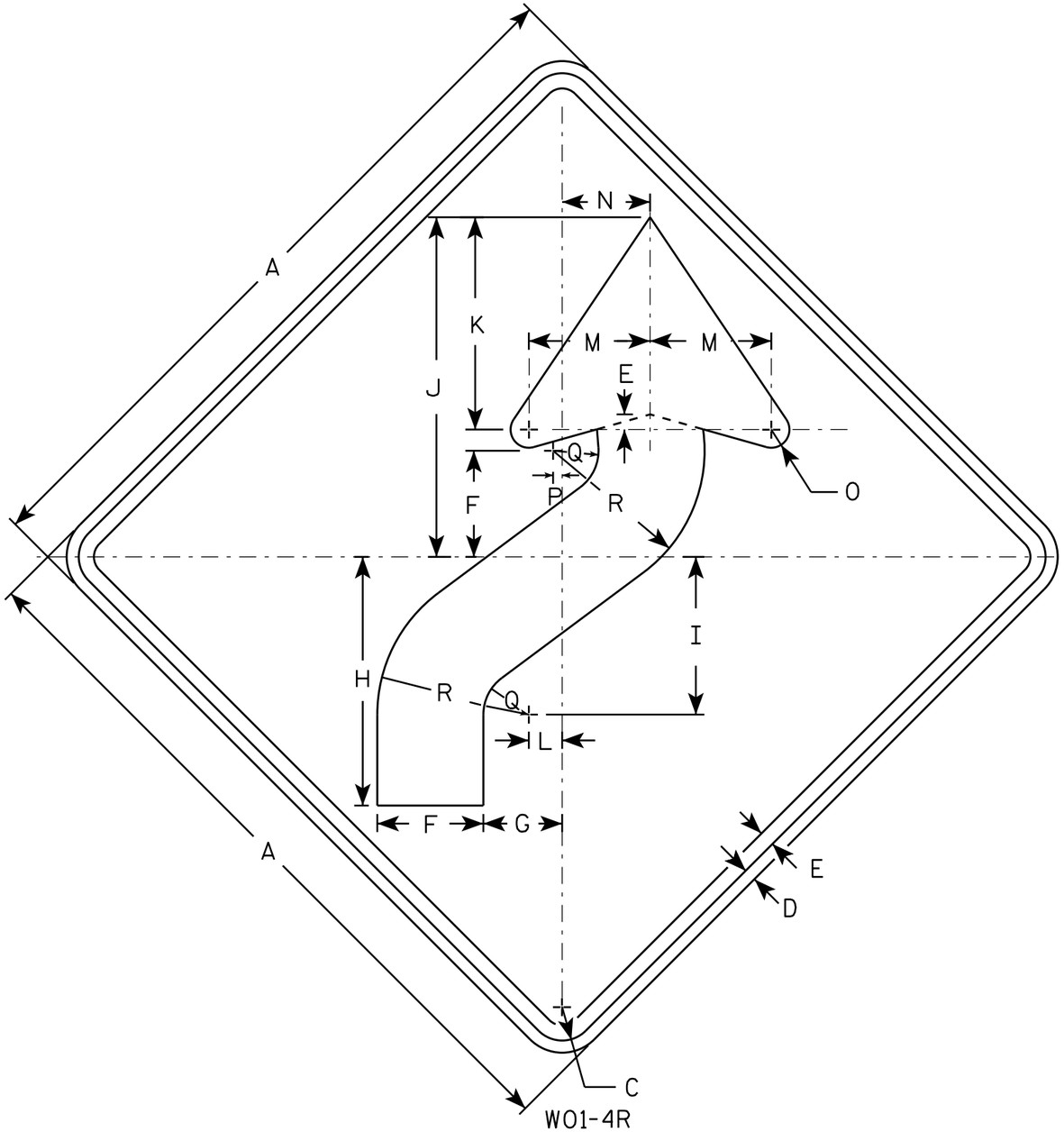
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/2013 PLATE No. W24-1.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W241L.DGN PLOT DATE : 25-SEP-2013 13:00 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 10.702132:1.000000 WISDOT/CADDS SHEET 42



WO1-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. WO1-4L is the same as WO1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
WO1-4

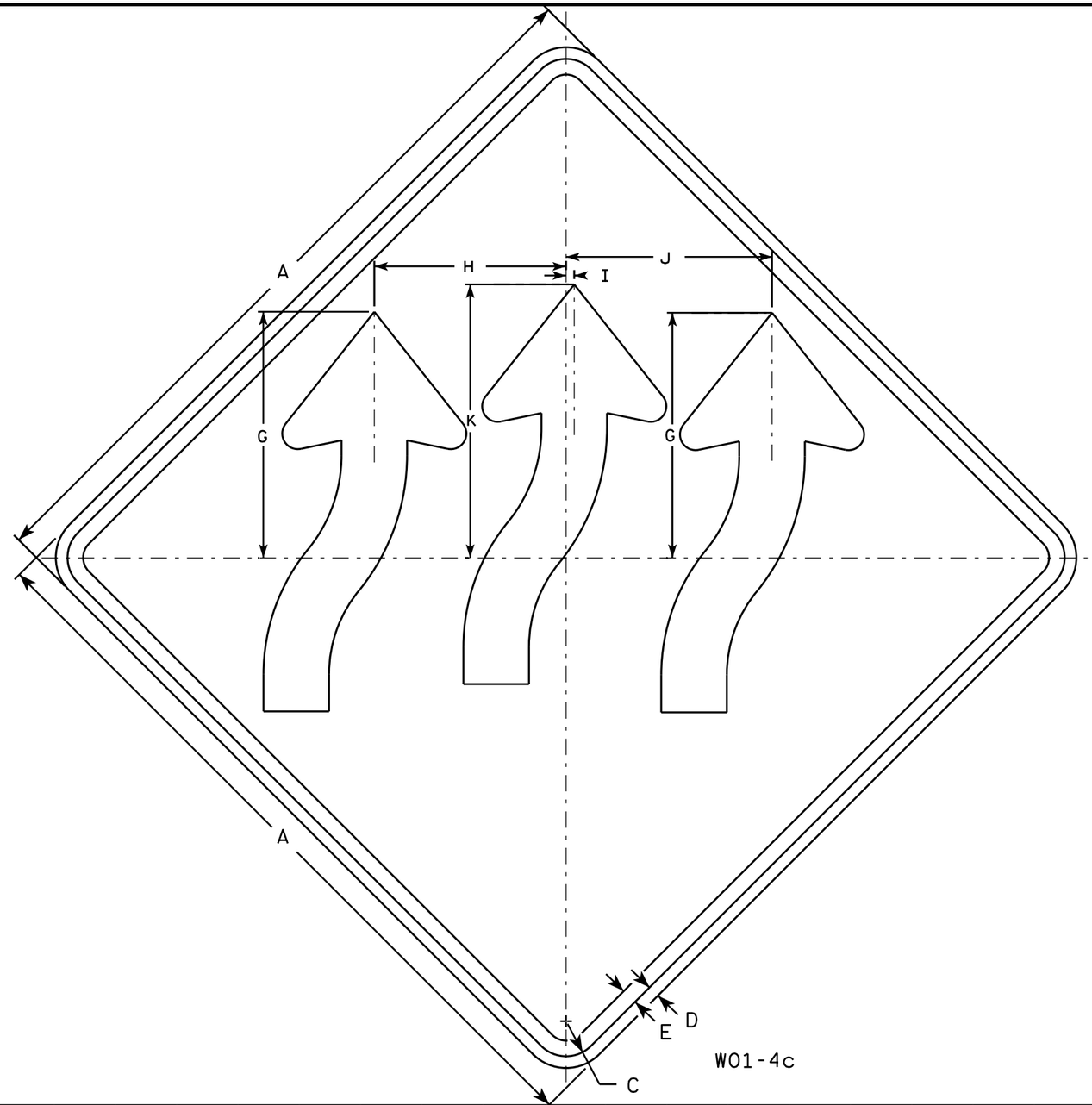
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

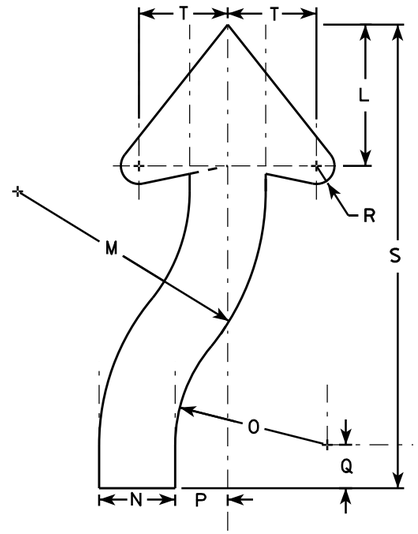
DATE 11/18/13 PLATE NO WO1-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO14.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-4c



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		11 3/4	9 1/4	3/8	9 7/8	13 1/8	5 7/8	10 1/4	3 1/8	6 1/4	2 1/4	1 7/8	3/4	19 1/4	3 3/4							9.0
2S	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
2M	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
3	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
4	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
5	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0

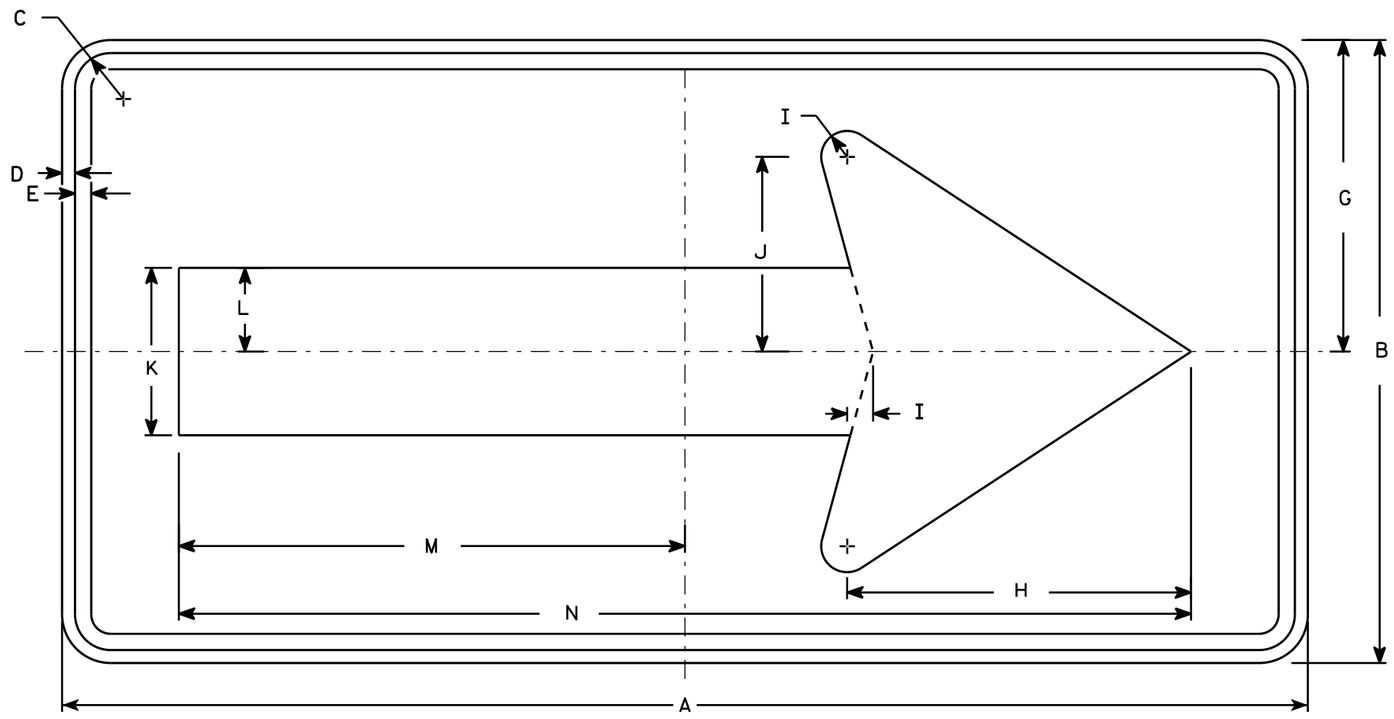
STANDARD SIGN
W01-4c

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 433 W01-4c.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

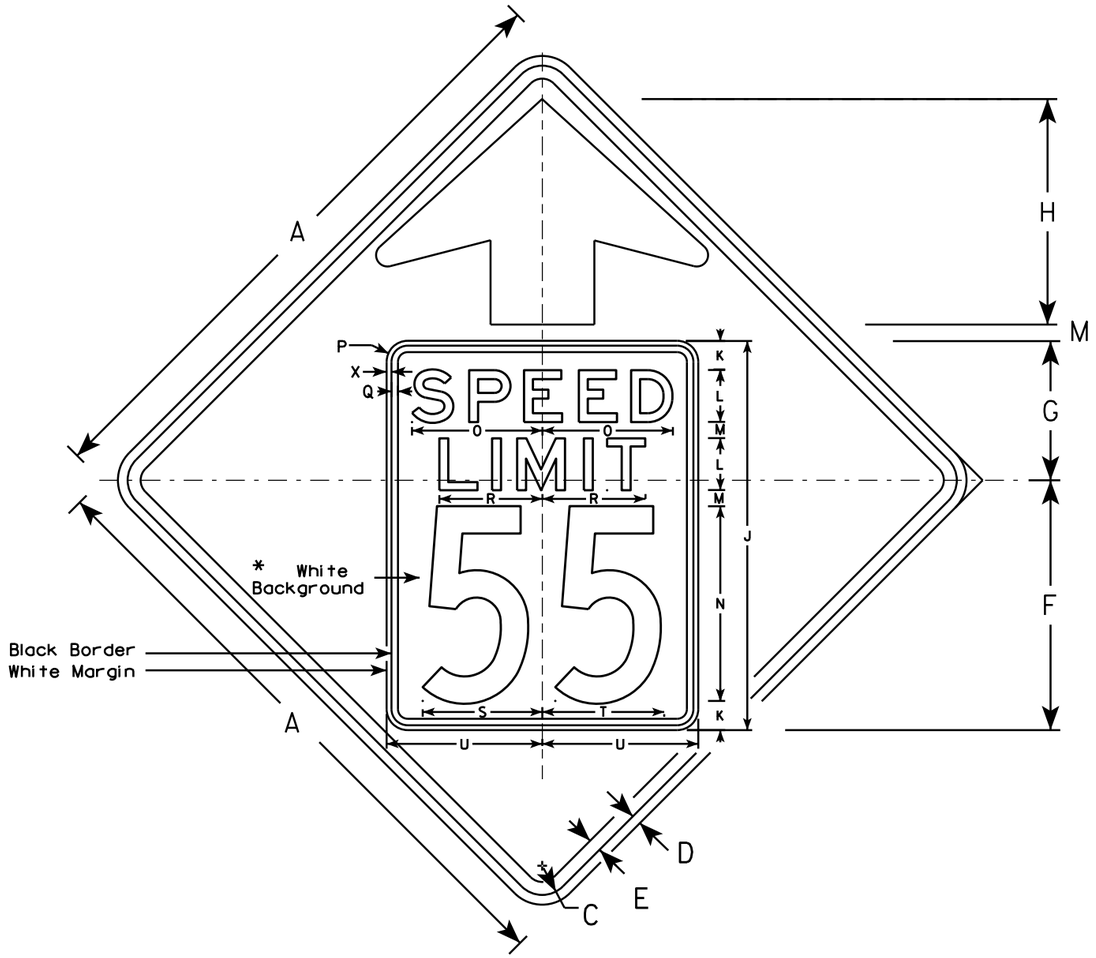
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

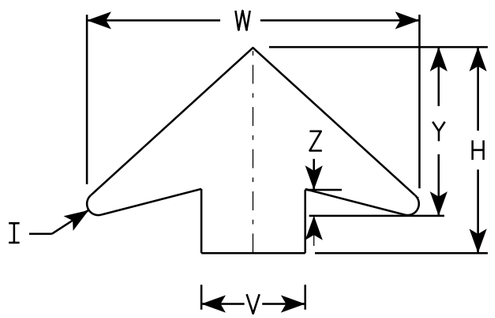


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

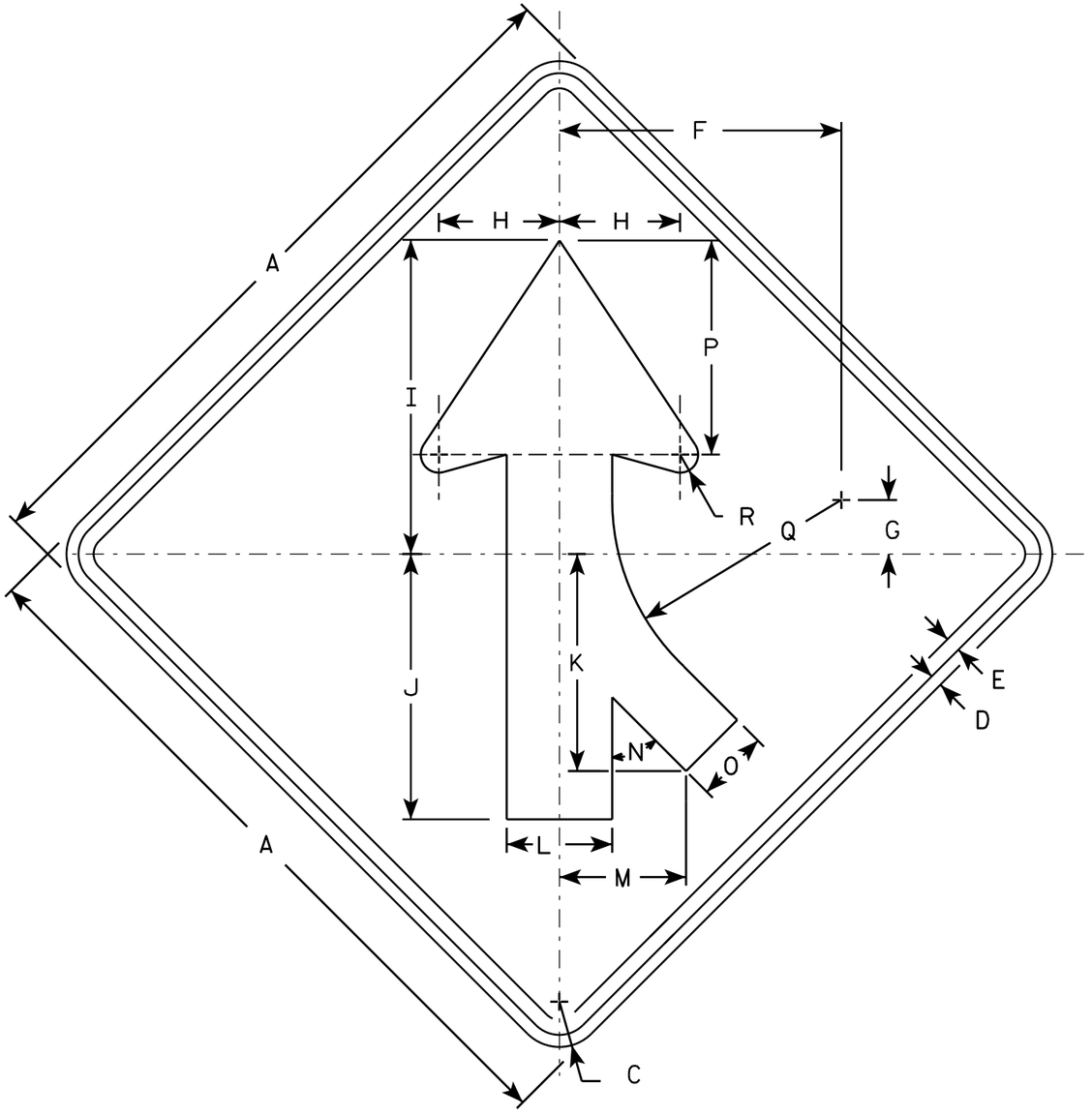
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

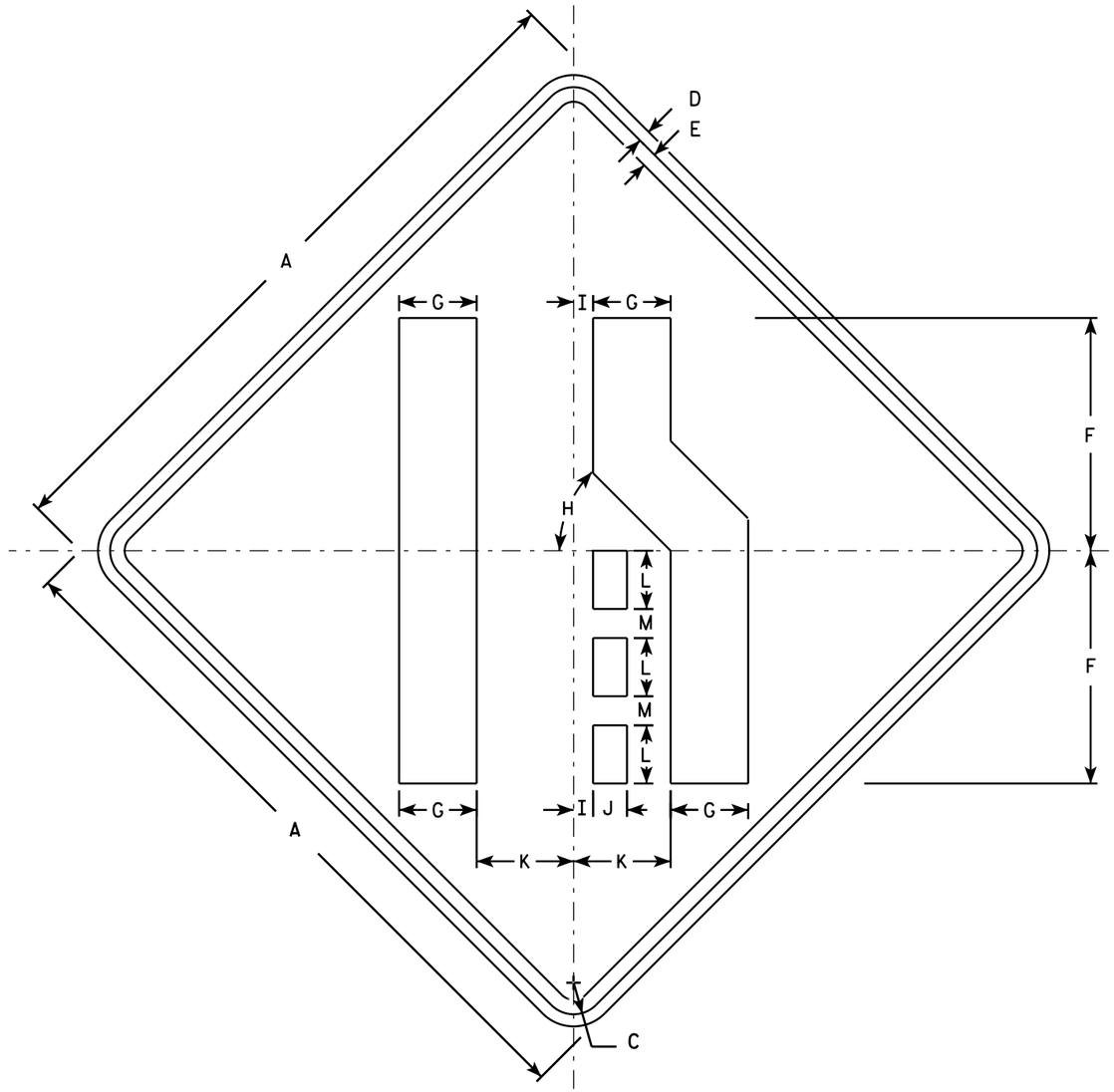
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

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

STANDARD SIGN
W04-2

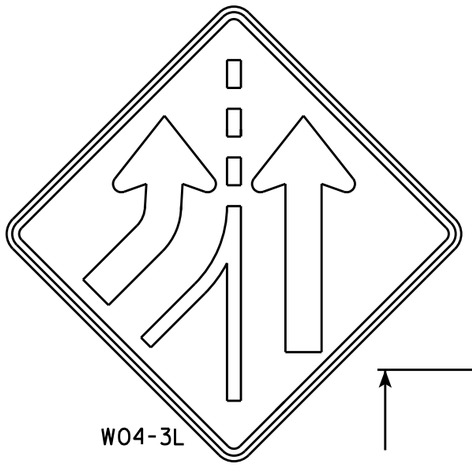
WISCONSIN DEPT OF TRANSPORTATION

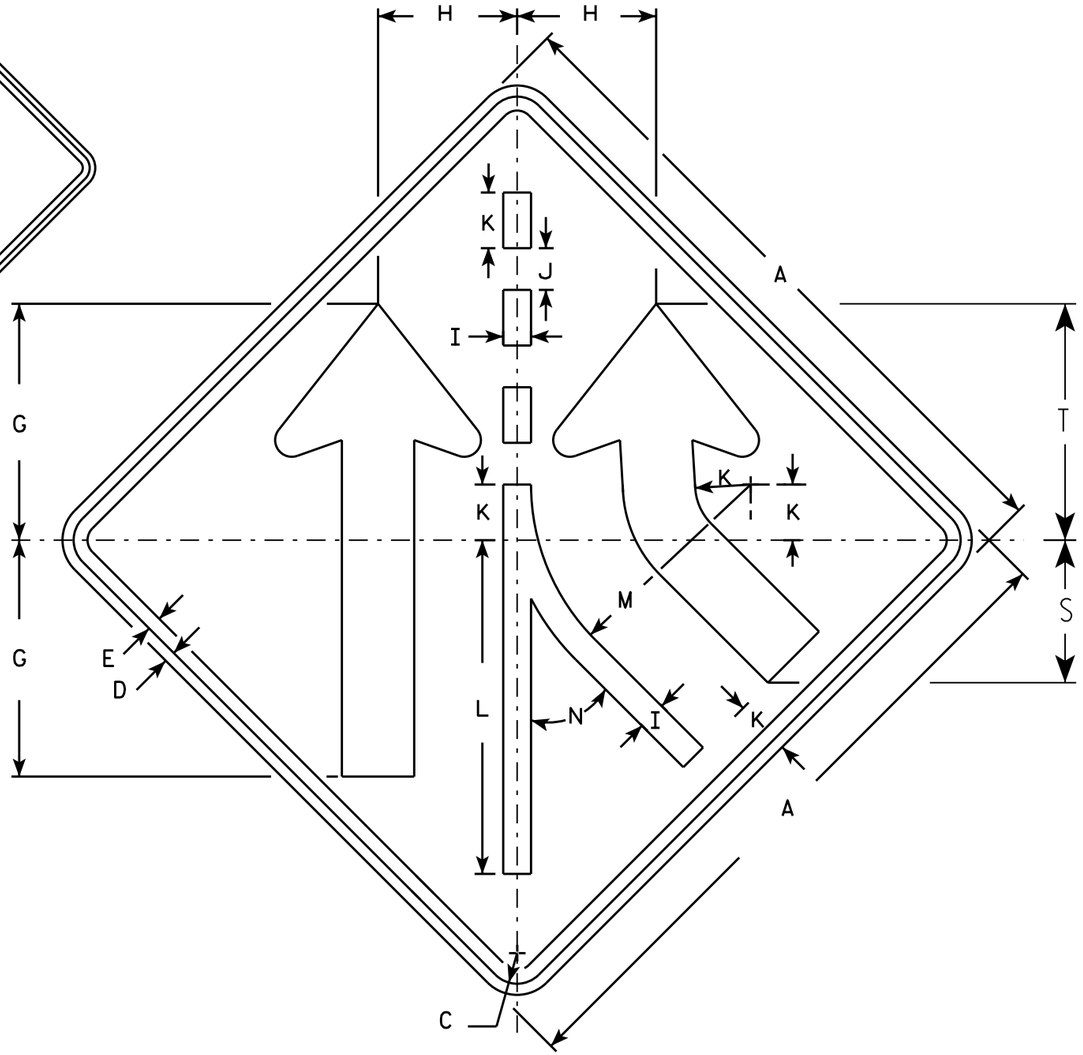
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 437 W04-2.1

PROJECT NO:

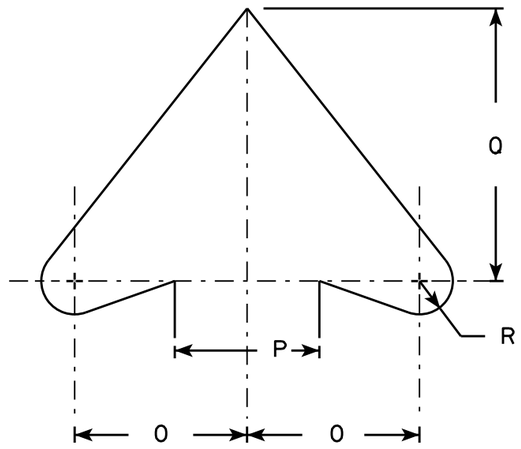
SHEET NO: E





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-3 L is the same as W04-3 R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2S	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
2M	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
3	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN

W0433

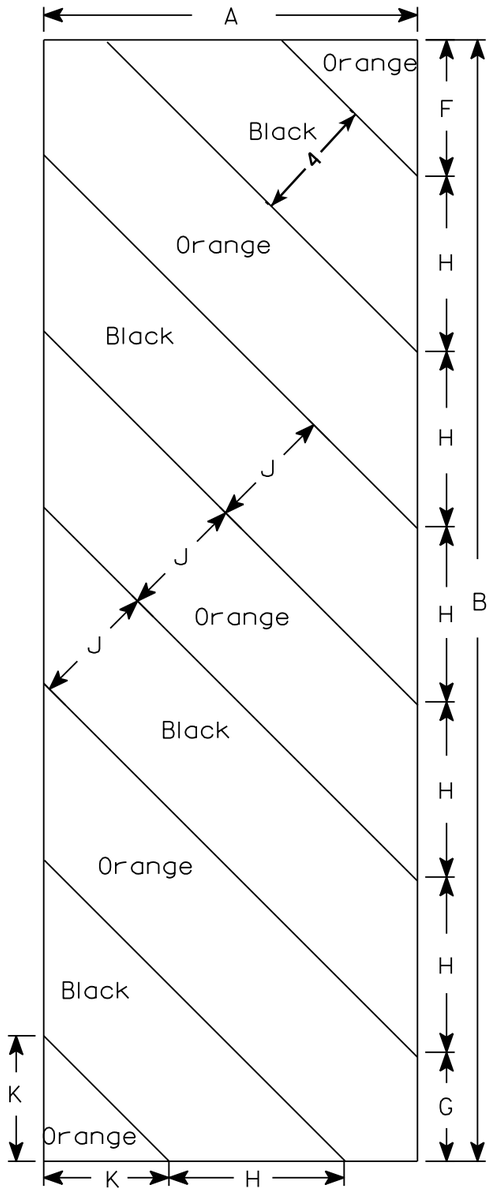
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

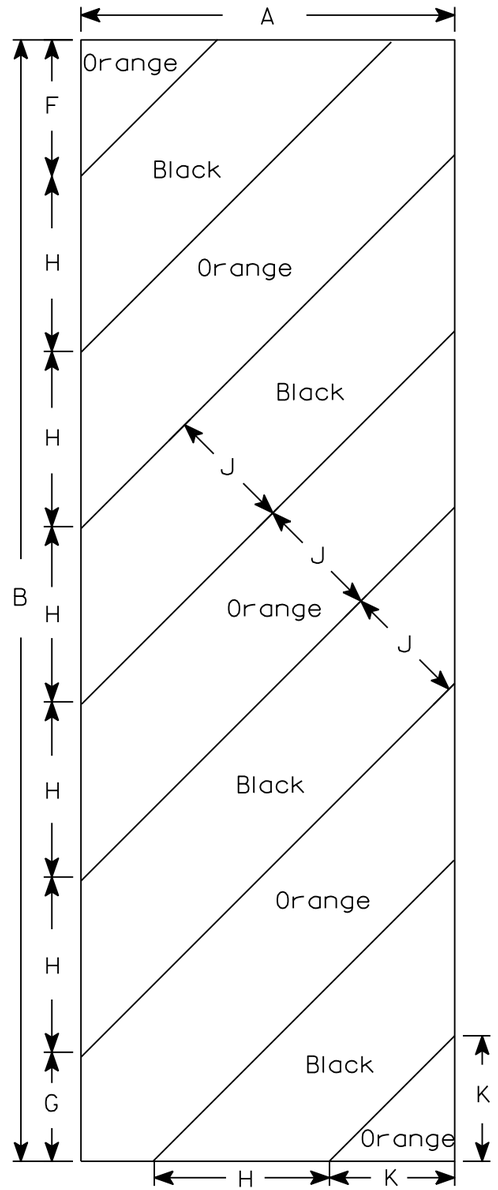
DATE 11/20/13 PLATE W04-3.1

PROJECT NO:

SHEET NO: E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

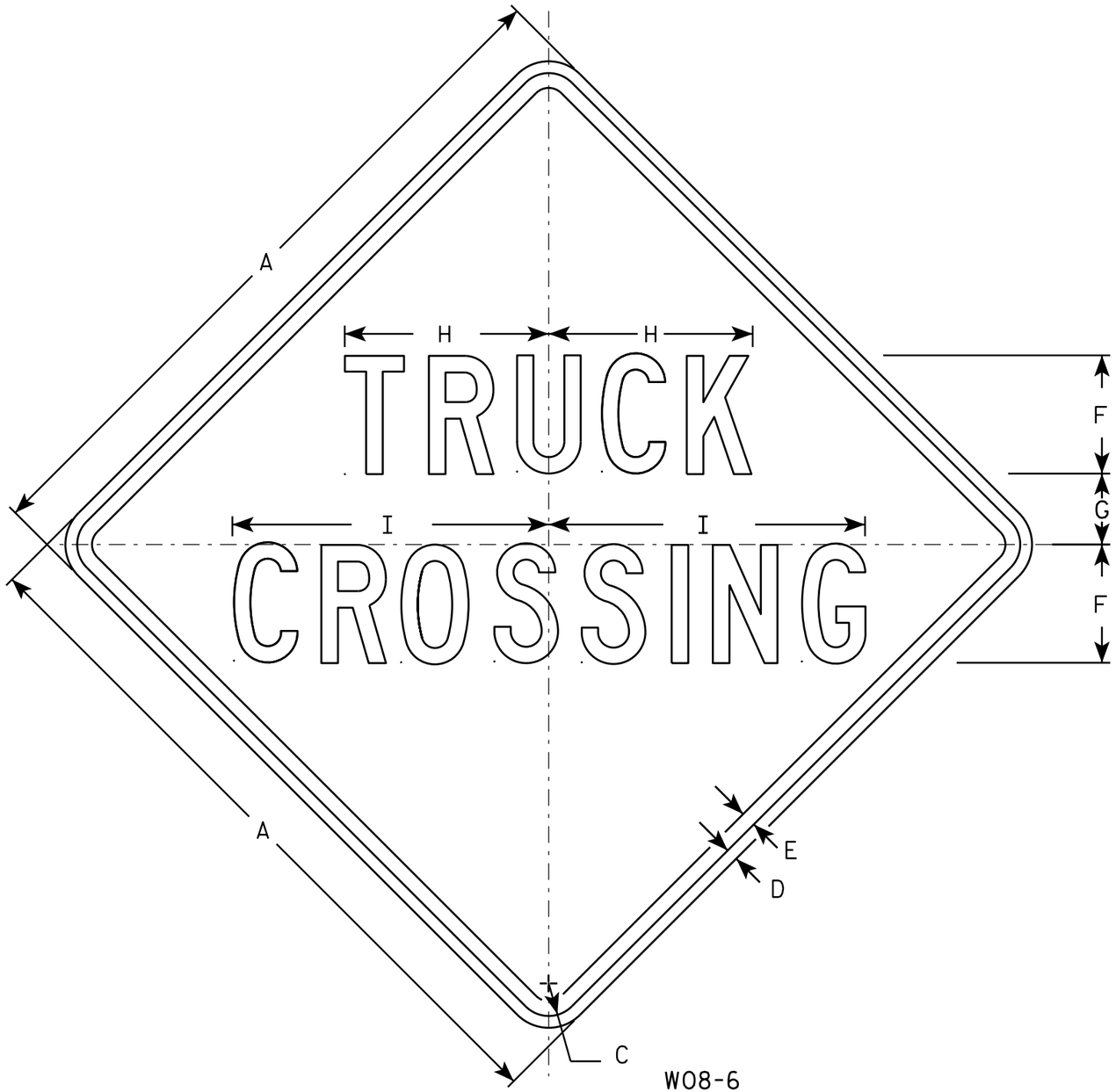
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W08-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2S	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

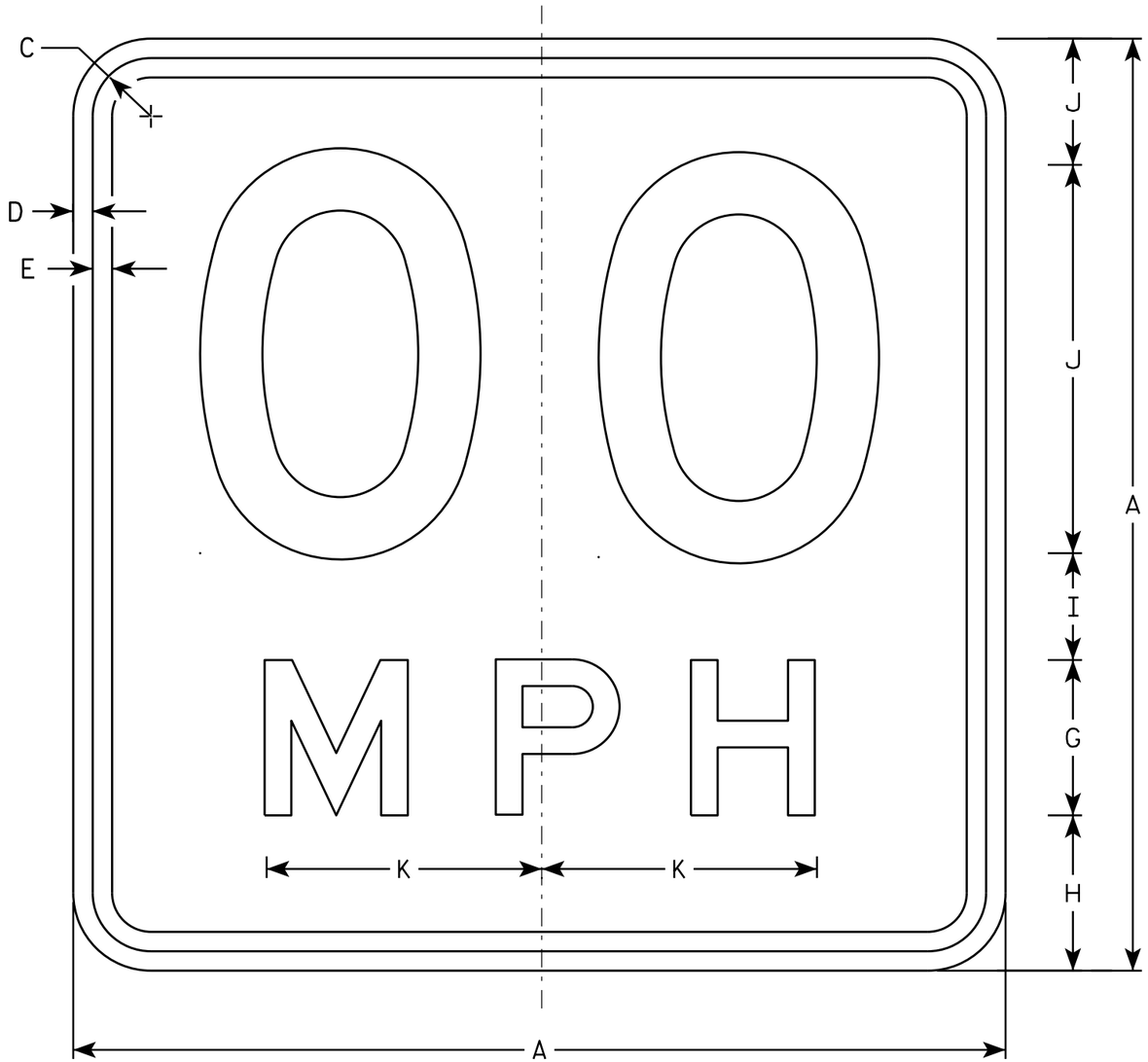
STANDARD SIGN
W08-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 440 W08-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

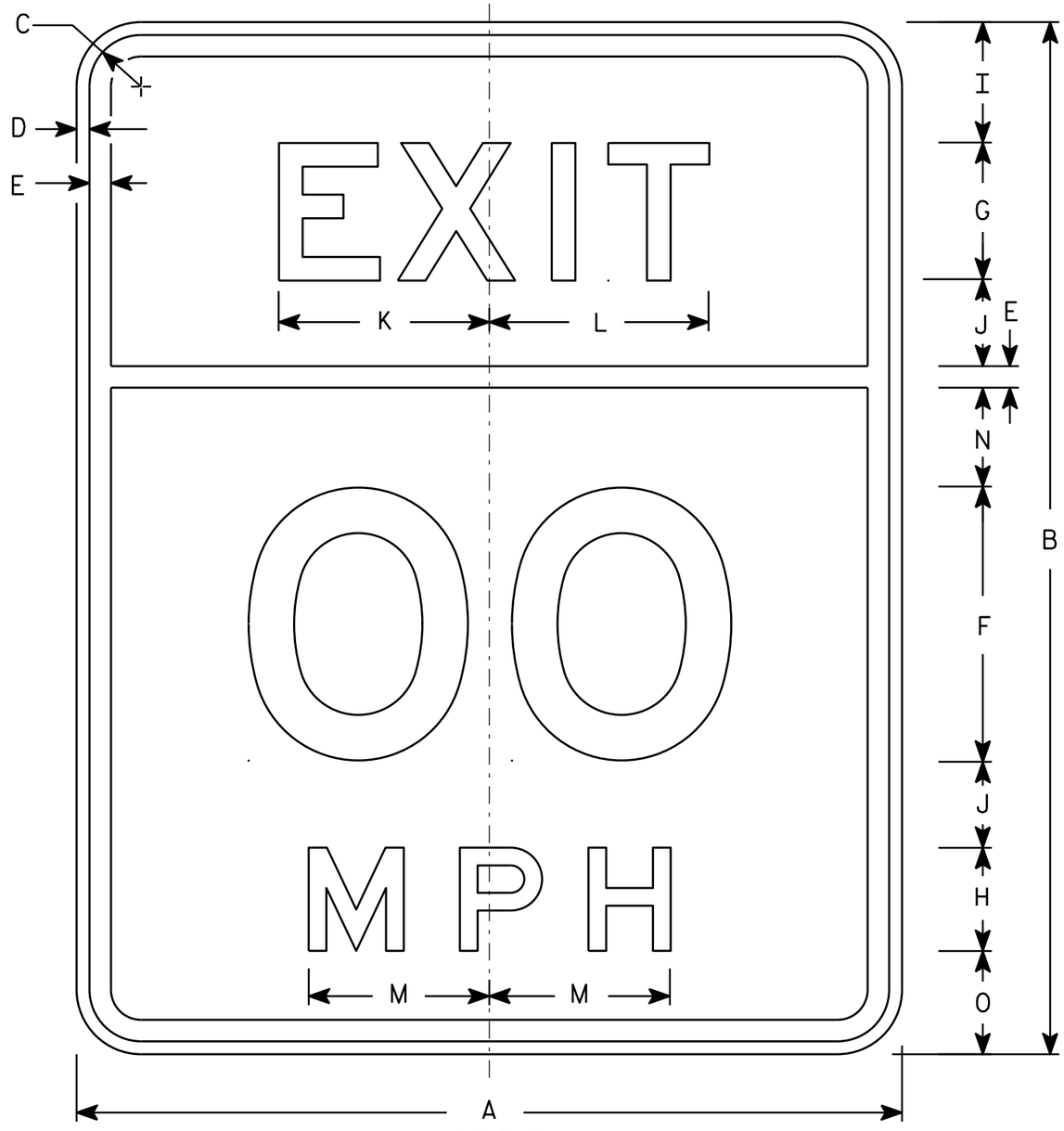
STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 441 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

STANDARD SIGN
W013-2

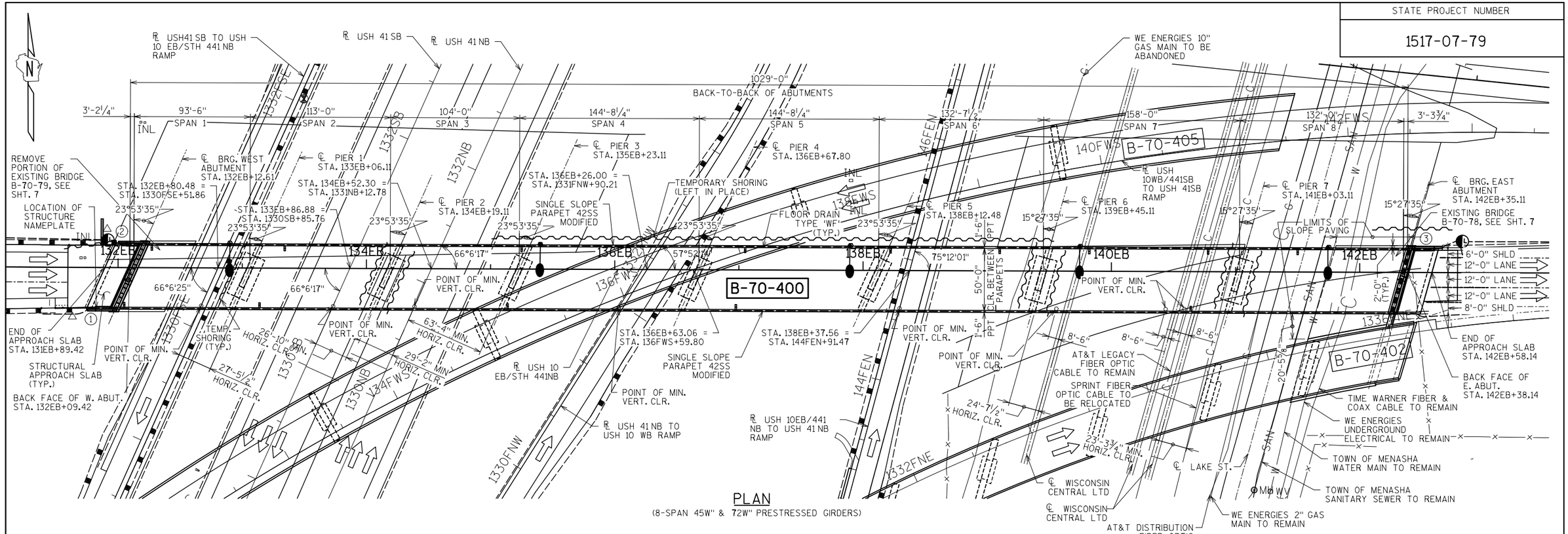
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/14 PLATE No. W013-2.1

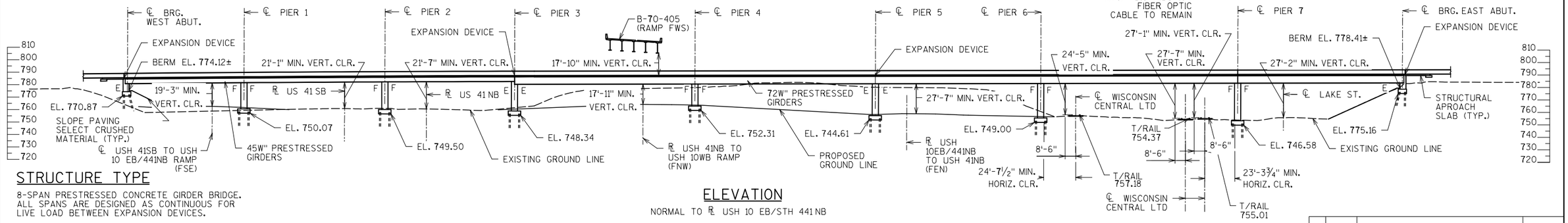
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

STATE PROJECT NUMBER
1517-07-79



PLAN

(8-SPAN 45W" & 72W" PRESTRESSED GIRDERS)



ELEVATION

NORMAL TO ℄ USH 10 EB/STH 441 NB

STRUCTURE TYPE

8-SPAN PRESTRESSED CONCRETE GIRDER BRIDGE.
ALL SPANS ARE DESIGNED AS CONTINUOUS FOR LIVE LOAD BETWEEN EXPANSION DEVICES.

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING
△ - ANCHOR ASSEMBLY FOR STEEL PLATE BEAM GUARD
Ⓗ - INDICATES WINGWALL NUMBER

FOUNDATION DATA

EAST ABUTMENT TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 200* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 48 FEET LONG.

WEST ABUTMENT TO BE SUPPORTED ON HP12X53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 28 FEET LONG.

PIERS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* (PIER 1), 190* (PIER 2), 210* (PIER 3), 250* (PIER 4), 250* (PIER 5), 250* (PIER 6), 230* (PIER 7) TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. PILES SUBJECT TO UPLIFT LOADS ARE PRE-BORED AND SOCKETED INTO SOLID ROCK. SEE TABLE ON "PIER FOOTING DETAILS PIERS 1-7" SHEET FOR ESTIMATED PILE LENGTHS.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING THE MODIFIED GATES DYNAMIC EQUATION.

SEE PROJECT SPECIAL PROVISIONS TO DETERMINE IF A FILL SETTLEMENT WAIT PERIOD IS REQUIRED BEFORE ABUTMENT PILES MAY BE DRIVEN.

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE	
SLAB	F'c = 4,000 P.S.I.
ALL OTHER	F'c = 4,000 P.S.I.
45W" PRESTRESSED GIRDERS - CONCRETE MASONRY	F'ci= 6,800 P.S.I.
	F'c = 8,000 P.S.I.
72W" PRESTRESSED GIRDERS - CONCRETE MASONRY	F'ci= 6,800 P.S.I.
	F'c = 8,000 P.S.I.
STRANDS - 0.6" DIA. WITH AN ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.	
BAR STEEL REINFORCEMENT, GRADE 60	Fy = 60,000 P.S.I.

LIVE LOAD:

DESIGN RATING:	HL-93
INVENTORY RATING FACTOR:	1.09
OPERATING RATING FACTOR:	1.69
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) =	250 KIPS

BENCH MARK

NO.	DESCRIPTION	ELEVATION
LA 4	SE FLANGE BOLT OF HYD ON EAST SIDE OF LAKE DRIVE 1ST HYD SOUTH OF 441 BRIDGE	756.24

TRAFFIC VOLUME:

USH 10/STH 441:
ADT (2038) = 88,000
R.D.S. = 70 M.P.H.

USH 41SB TO USH 10EB/441NB RAMP:
ADT (2038) = 11,200

US 41:
ADT (2038) = 113,800

USH 41NB TO USH 10WB/441SB RAMP:
ADT (2038) = 1,700

USH 10EB/441NB TO USH 41NB:
ADT (2038) = 2,600

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
PROFESSIONAL ENGINEER
5/12/2015

NE REGION CONTACT - SCOTT EBEL (920) 492-2240
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MIKE ARNOLD (414) 831-4179

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher NK 05/13/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-70-400

USH 10 EB/STH 441 NB OVER USH 41 & WCL

COUNTY: WINNEBAGO	TOWN/~~CITY~~/~~VILLAGE~~: MENASHA
DESIGN SPEC.: AASHTO LFRD DESIGN SPEC.	
DESIGNED BY: JDB	DESIGN CK'D.: MJA
DRAWN BY: JDB	PLANS CK'D.: MJA

GENERAL PLAN

SHEET 1 OF 61
443

8

FILE= P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\B-70-400\Sheets\01 - general plan.dgn
DATE: 5/12/2015
I.D. jon_liggard

STATE PROJECT NUMBER
1517-07-79

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN SURVEY FEET AND SURVEY INCHES. ALL STATIONS ARE IN SURVEY FEET.

ELEVATIONS ARE REFERENCED TO NGVD29.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III OR M213.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING GRADE LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

AT ABUTMENTS, BACKFILL ALL EXCAVATED VOLUME NOT OCCUPIED BY NEW STRUCTURE WITH BACKFILL STRUCTURE. THE QUANTITY FOR BACKFILL STRUCTURE, BID ITEM 210.0100, IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.

EXISTING STRUCTURE B-70-78 IS A FIVE SPAN STEEL PLATE GIRDER STRUCTURE TO BE REMOVED. EXISTING STRUCTURE B-70-79 IS A THREE SPAN STEEL PLATE GIRDER STRUCTURE TO BE REMOVED.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

WISCONSIN
PROFESSIONAL ENGINEER
MICHAEL J.
ARNOLD
E-41717
GREENDALE
WI

REINFORCING STEEL

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REINFORCING STEEL SHALL BE HIGH STRENGTH, GRADE 60 WITH Fy=60 ksi. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A615, GRADE 60 REQUIREMENTS.

REINFORCING STEEL SHALL BE UNCOATED IN FOUNDATIONS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS).

PLACE ALL REINFORCEMENT WITH A MINIMUM CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

PLACE REINFORCEMENT IN FOOTINGS AND PILECAPS WITH A MINIMUM CLEAR COVER OF 3" BOTTOM AND 2" TOP AND SIDES UNLESS NOTED OTHERWISE.

PLACE TOP LAYER OF REINFORCING STEEL IN THE DECK SURFACE WITH 2½" CLEAR COVER TO TOP OF SLAB.

PLACE BOTTOM LAYER OF REINFORCING STEEL IN THE DECK WITH 1½" CLEAR COVER TO BOTTOM OF SLAB.

ONLY REINFORCEMENT REQUIRED BY DESIGN IS SHOWN EXPLICITLY ON THE DRAWINGS. ADDITIONAL REINFORCEMENT MAY BE USED TO SIMPLIFY ASSEMBLY AND ERECTION OF THE REINFORCING STEEL AND MAY BE REQUIRED TO ENSURE STABILITY AND POSITIONING OF THE COMPLETED REINFORCEMENT CAGE. REINFORCEMENT IN ADDITION TO THAT SHOWN WILL NOT BE INCLUDED FOR PAYMENT.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

CONCRETE

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE INSIDE OF PARAPETS, TOP OF PARAPETS, AND TOP OF DECK AND APPROACH SLABS.

CONCRETE FOR ABUTMENT AND EXPANSION PIER DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE, AND NO OPTIONAL CONSTRUCTION JOINT IS PERMITTED. IF OPTIONAL CONSTRUCTION JOINT IS USED IN FIXED PIER DIAPHRAGMS, DECK POUR MUST BE WITHIN TWO WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

OTHER DESIGN LOADS

THE STRUCTURE IS DESIGNED FOR THE DECK THICKNESS SHOWN. AN ADDITIONAL LOAD OF 20 PSF FOR A FUTURE WEARING SURFACE AND 5 PSF FOR A POLYMER OVERLAY ARE CONSIDERED IN THE DESIGN.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 45°F.

PARAPETS WERE ASSUMED TO WEIGH 639 PLF FOR 42SS PARAPET WITH AESTHETIC FORMLINER.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

LIST OF DRAWINGS

1. GENERAL PLAN
2. GENERAL NOTES, LIST OF DRAWINGS, AND QUANTITIES
3. BRIDGE CROSS SECTIONS
4. ROADWAY CROSS SECTIONS
5. ALIGNMENTS AND PROFILES 1
6. ALIGNMENTS AND PROFILES 2
7. EXISTING STRUCTURE REMOVAL
8. REMOVAL DETAILS 1
9. REMOVAL DETAILS 2
10. STRUCTURE EXCAVATION LIMITS
11. SUBSURFACE EXPLORATION
12. WEST ABUTMENT PLAN & ELEVATION
13. WEST ABUTMENT REINFORCING
14. WEST ABUTMENT WINGWALL 1
15. WEST ABUTMENT WINGWALL 2
16. EAST ABUTMENT PLAN & ELEVATION
17. EAST ABUTMENT REINFORCING
18. EAST ABUTMENT WINGWALL 3
19. ABUTMENT BILL OF BARS
20. PIER 1 LAYOUT DETAILS
21. PIER 2 LAYOUT DETAILS
22. PIER 3 LAYOUT DETAILS
23. PIER 4 LAYOUT DETAILS
24. PIER 5 LAYOUT DETAILS
25. PIER 6 LAYOUT DETAILS
26. PIER 7 LAYOUT DETAILS
27. PIER CAP DETAILS PIERS 1-2
28. PIER CAP DETAILS PIER 3
29. PIER CAP DETAILS PIERS 4-5
30. PIER CAP DETAILS PIERS 6-7
31. PIER SHAFT DETAILS PIERS 1-2, 4
32. PIER SHAFT DETAILS PIERS 3, 5-7
33. PIER FOOTING DETAILS PIERS 1-7
34. PIER BILL OF BARS
35. ELASTOMERIC BEARINGS
36. 45W" PRESTRESSED GIRDER DETAILS 1
37. 45W" PRESTRESSED GIRDER DETAILS 2
38. 45W" INTERMEDIATE STEEL DIAPHRAGMS
39. 72W" PRESTRESSED GIRDER DETAILS 1
40. 72W" PRESTRESSED GIRDER DETAILS 2
41. 72W" INTERMEDIATE STEEL DIAPHRAGMS
42. EXPANSION DIAPHRAGM DETAILS
43. FIXED DIAPHRAGM DETAILS
44. FRAMING PLAN
45. DECK REINFORCEMENT
46. DECK REINF. CROSS SECTION
47. SUPERSTRUCTURE BILL OF BARS
48. TOP OF DECK ELEVATIONS
49. PARAPET 42SS MODIFIED AT WEST ABUTMENT
50. PARAPET 42SS MODIFIED AT EAST ABUTMENT
51. NORTH PARAPET ELECTRICAL WORK & LIGHT STANDARD
52. SOUTH PARAPET ELECTRICAL WORK
53. STRUCTURAL APPROACH SLAB DETAILS - W. ABUT
54. STRUCTURAL APPROACH SLAB DETAILS - E. ABUT
55. EXPANSION DEVICE
56. COVER PLATE DETAILS
57. FLOOR DRAIN TYPE "WF"
58. FLOOR DRAIN DOWNSPOUT DETAILS
59. AESTHETIC DETAILS
60. SLOPE PAVING
61. ALTERNATE CONSTRUCTION JOINT

TOTAL ESTIMATED QUANTITIES

	BID ITEM #	BID ITEM	UNIT	SUPER. SPANS 1-8	W. STR. APPR. SLAB	W. ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	E. ABUT.	E. STR. APPR. SLAB	TOTAL
	203.0200	REMOVING OLD STRUCTURE B-70-78 STA. 142EB+35	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	203.0200	REMOVING OLD STRUCTURE B-70-79 STA. 131EB+93	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	203.0225.S	DEBRIS CONTAINMENT B-70-78	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	203.0225.S	DEBRIS CONTAINMENT B-70-400	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-70-400	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	210.0100	BACKFILL STRUCTURE	CY	--	--	155	--	--	--	--	--	--	--	193	--	348
	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	--	194	--	--	--	--	--	--	--	--	--	179	373
	501.1000.S	ICE HOT WEATHER CONCRETING	LB	15,880	--	--	--	--	--	--	--	--	--	--	--	15,880
	502.3100	EXPANSION DEVICE B-70-400	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	6,475	--	--	--	--	--	--	--	--	--	--	--	6,475
	503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	2,175	--	--	--	--	--	--	--	--	--	--	--	2,175
	503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	LF	4,991	--	--	--	--	--	--	--	--	--	--	--	4,991
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	--	--	5,020	12,930	13,040	11,180	11,070	11,180	12,930	12,930	4,840	--	95,120
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	514,760	11,430	4,820	34,960	35,620	43,400	38,680	45,840	36,780	43,960	5,600	11,220	827,070
	505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	--	920	--	--	--	--	--	--	--	--	--	920	1,840
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	--	14	14	--	14	--	14	14	--	--	70
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	--	--	7	--	--	14	--	14	--	--	7	--	42
	506.4000	STEEL DIAPHRAGMS B-70-400	EACH	96	--	--	--	--	--	--	--	--	--	--	--	96
	511.1200	TEMPORARY SHORING B-70-400	SF	--	--	200	390	780	--	--	--	780	780	600	--	3,530
	511.2200	TEMPORARY SHORING LEFT IN PLACE B-70-400	SF	11,375	--	--	--	--	--	--	--	--	--	--	--	11,375
	514.0450	FLOOR DRAINS TYPE WF	EACH	15	--	--	--	--	--	--	--	--	--	--	--	15
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	16	--	--	--	--	--	--	--	15	--	31
	517.1010.S	CONCRETE STAINING B-70-400	SF	31,370	--	575	1,760	1,835	1,960	1,735	2,100	1,890	2,030	480	--	45,735
	517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-70-400	SF	5,175	--	445	--	--	--	--	--	--	--	375	--	5,995
*	550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	--	--	--	56	56	12	--	12	56	56	--	--	248
	550.0500	PILE POINTS	EACH	--	--	20	26	26	34	38	34	26	26	21	--	251
	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	--	--	560	--	--	--	--	--	--	--	--	--	560
**	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	--	--	--	465	420	280	610	340	615	530	1,010	--	4,270
	606.0300	RIPRAP HEAVY	CY	--	--	--	2	--	2	--	--	--	2	--	--	6
	604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	--	--	260	--	--	--	--	--	--	--	490	--	750
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	--	103	--	--	--	--	--	--	--	82	--	185
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	--	--	--	--	--	--	--	--	--	--	--	2
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	--	--	--	7	--	7	--	--	--	7	--	--	21
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	150	--	--	--	--	--	--	--	--	--	--	--	150
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	2,020	--	--	--	--	--	--	--	--	--	--	--	2,020
	653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	9	--	--	--	--	--	--	--	--	--	--	--	9
	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	5	--	--	--	--	--	--	--	--	--	--	--	5
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	5	--	--	--	--	--	--	--	--	--	--	--	5
	SPV.0035.700	MODIFIED HIGH PERFORMANCE CONCRETE (HPC) MASONRY BRIDGES	CY	2,118	67	139	239	243	222	216	242	261	271	136	67	4,221
	SPV.0090.700	DOWNSPOUT RTRP 8-INCH	LF	570	--	--	--	--	--	--	--	--	--	--	--	570
	SPV.0105.703	TEMPORARY JOINTS WITH COLD MIX FILL	LS	1	--	--	--	--	--	--	--	--	--	--	--	1
	SPV.0165.704	LONGITUDINAL GROOVING BRIDGE DECK	SF	51,550	990	--	--	--	--	--	--	--	--	--	990	53,530
		NON BID ITEMS														
		FILLER	SIZE													1/2" & 3/4"
		NAME PLATE	EACH													1
		EXPANDED POLYSTYRENE	SIZE													1"

* BID ITEM "PRE-BORING ROCK OR CONSOLIDATED MATERIALS" INCLUDES DRILLING THE PRE-BORING HOLES; FURNISHING, INSTALLING, AND REMOVING CASING IF NECESSARY; FURNISHING AND PLACING CEMENT GROUT; BACKFILLING; AND DISPOSING OF EXCESS MATERIAL. PROVIDING PILES AND SETTING PILES IN PRE-BORED HOLES IS INCLUDED WITH BID ITEM "PILING STEEL HP 14-INCH X 73 LB."

** PILES PLACED IN PRE-BORED HOLES CORED INTO SOLID ROCK DO NOT REQUIRE DRIVING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

GENERAL NOTES, LIST OF DRAWINGS, AND QUANTITIES

SHEET 2 OF 61
444

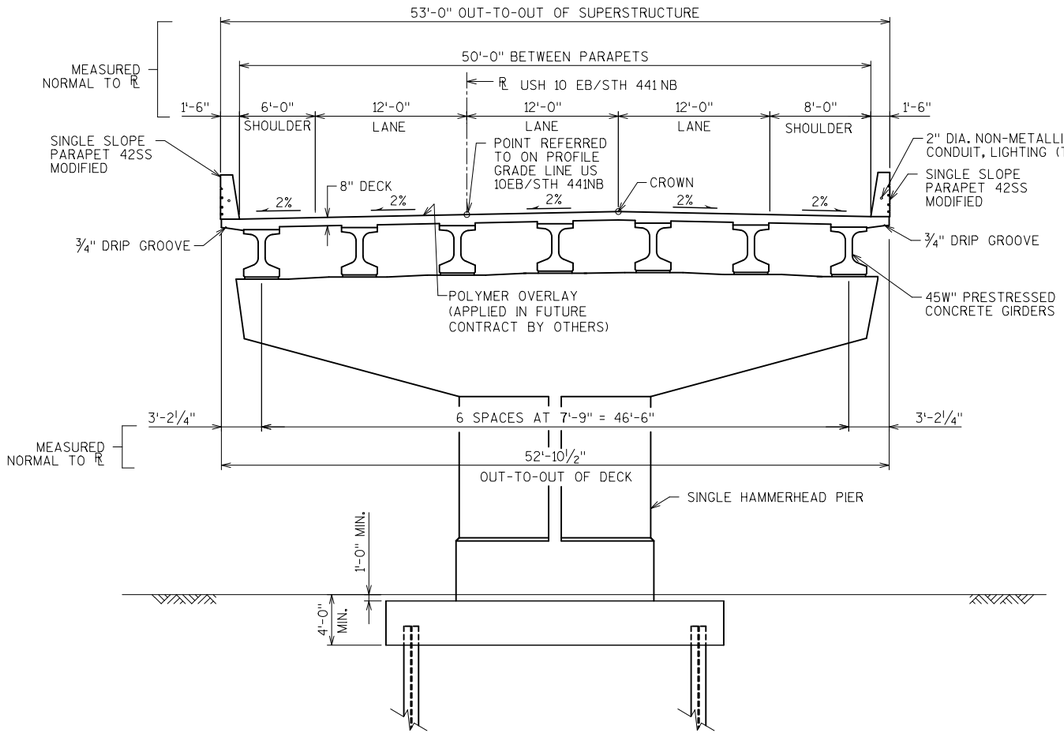
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DATE: 5/12/2015
I.D. jon.liggard

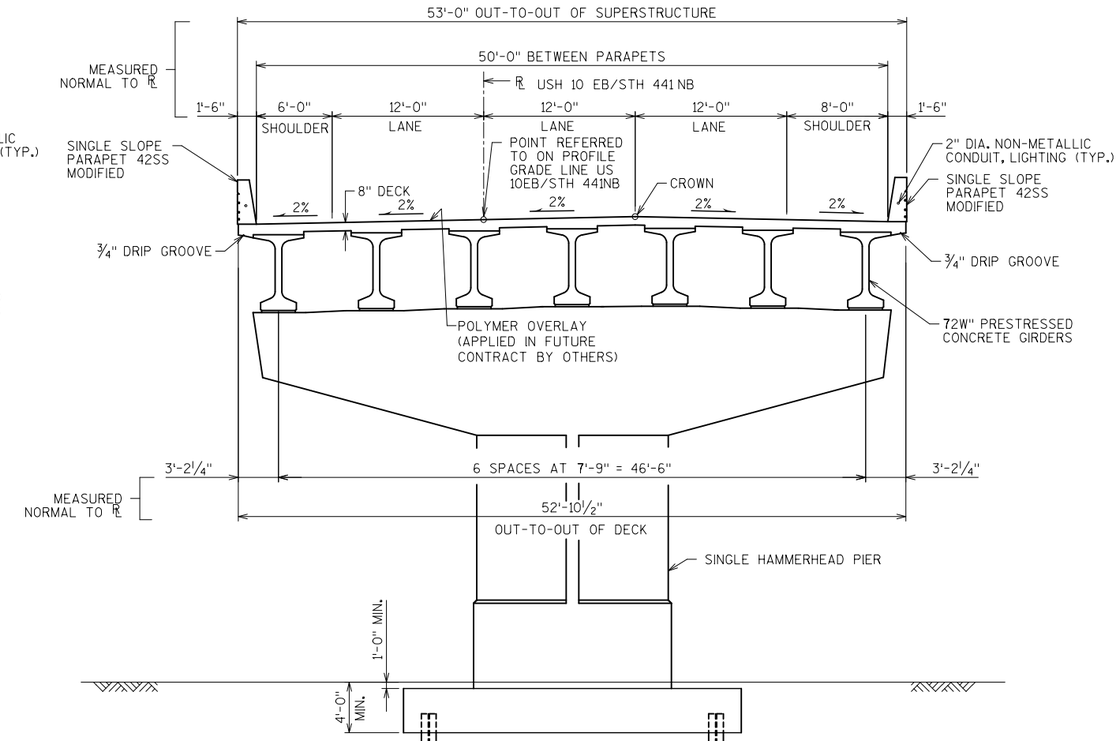
8

8

STATE PROJECT NUMBER
1517-07-79



TYPICAL SECTION
SPANS 1, 2, 3
(LOOKING UPSTATION)



TYPICAL SECTION
SPANS 4-8
(LOOKING UPSTATION)

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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BRIDGE CROSS SECTIONS

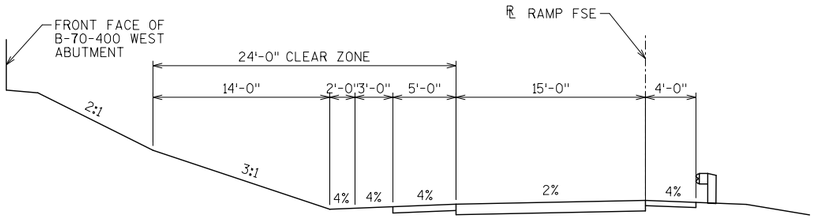
SHEET 2 OF 61
445

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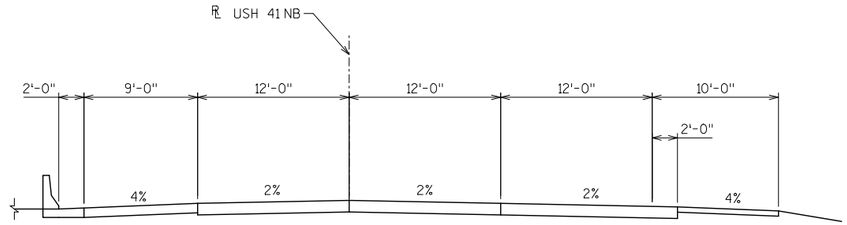
DATE: 5/12/2015
I.D. jon_liddgard

STATE PROJECT NUMBER

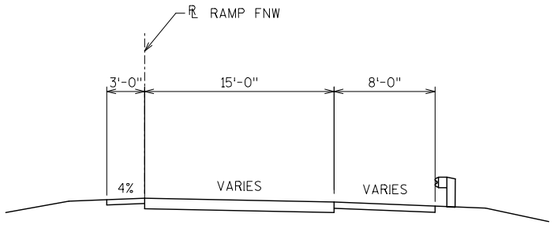
1517-07-79



RAMP FSE
(LOOKING NORTH)

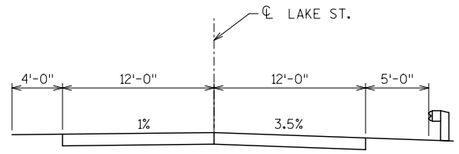


USH 41 NB
(LOOKING NORTH)

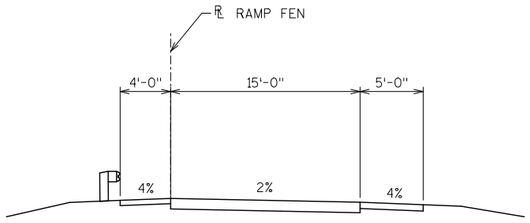


RAMP FNW
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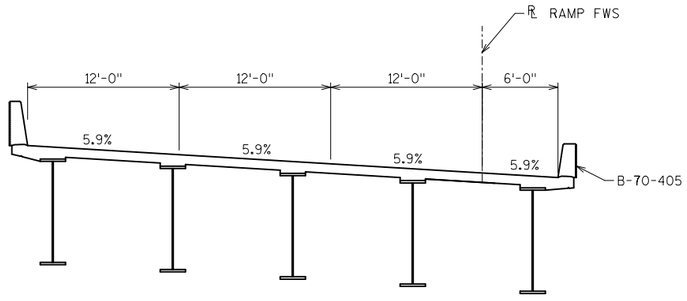
USH 41 SB
(LOOKING NORTH)



LAKE ST.
(LOOKING NORTH)



RAMP FEN
(LOOKING NORTH)



RAMP FWS
(LOOKING EAST)

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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ROADWAY
CROSS SECTIONS

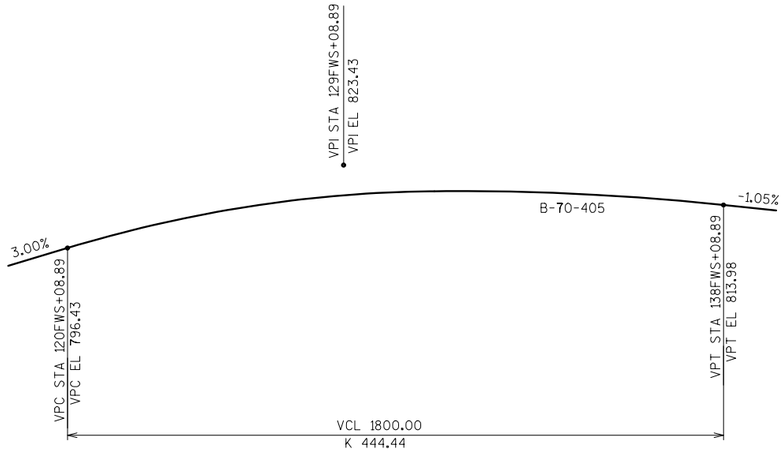
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446

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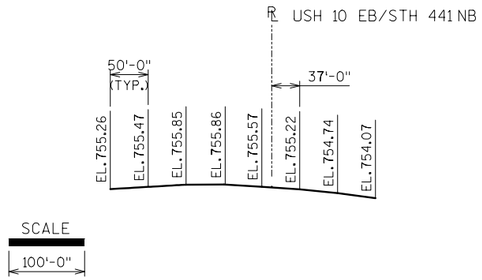
DATE:5/12/2015
I.D. jon_liggard

STATE PROJECT NUMBER

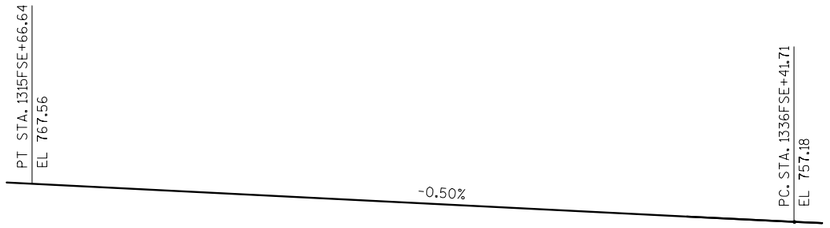
1517-07-79



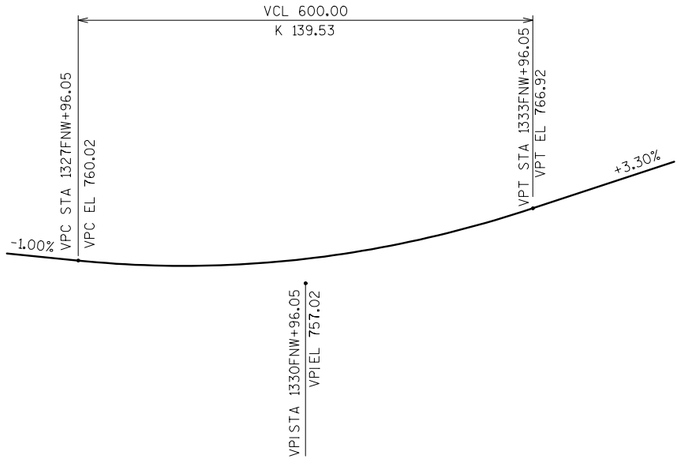
PROFILE GRADE LINE RAMP 'FWS'
USH 10 WB TO USH 41 SB



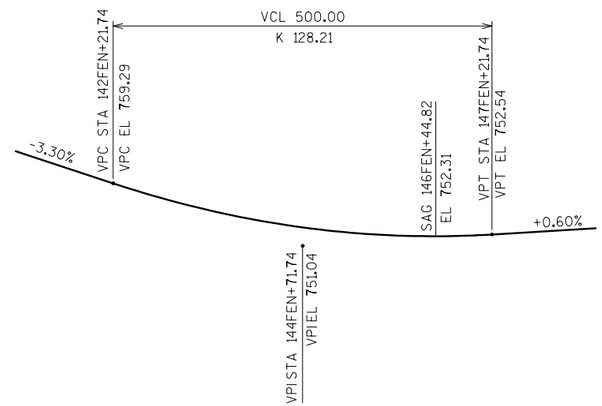
PROFILE GRADE LINE
LAKE ST



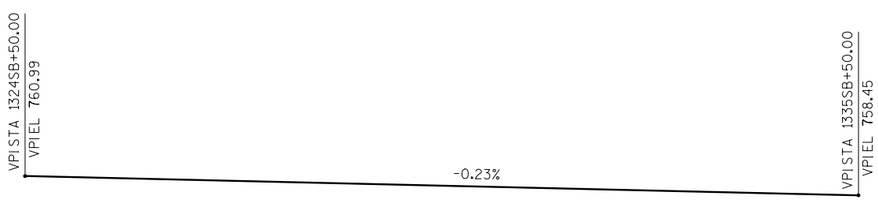
PROFILE GRADE LINE RAMP 'FSE'
USH 41 SB TO USH 10 EB /STH 441 NB



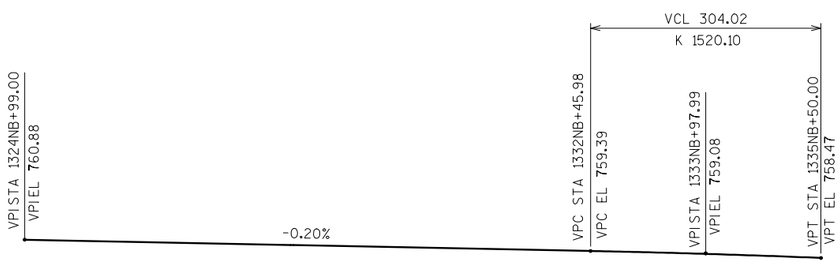
PROFILE GRADE LINE RAMP 'FNW'
USH 41 NB TO USH 10 WB



PROFILE GRADE LINE RAMP 'FEN'
USH 10 EB TO USH 41 NB



PROFILE GRADE LINE USH 41 SB



PROFILE GRADE LINE USH 41 NB

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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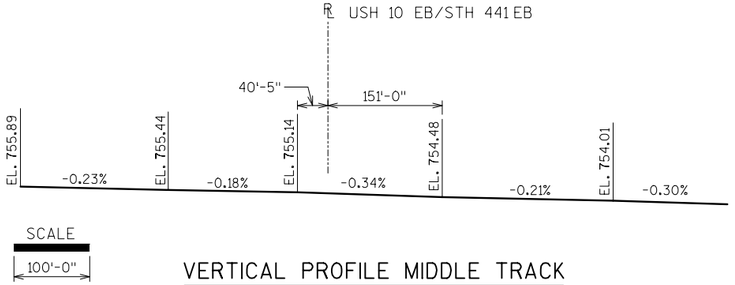
ALIGNMENTS AND PROFILES 1

SHEET 5 OF 61
447

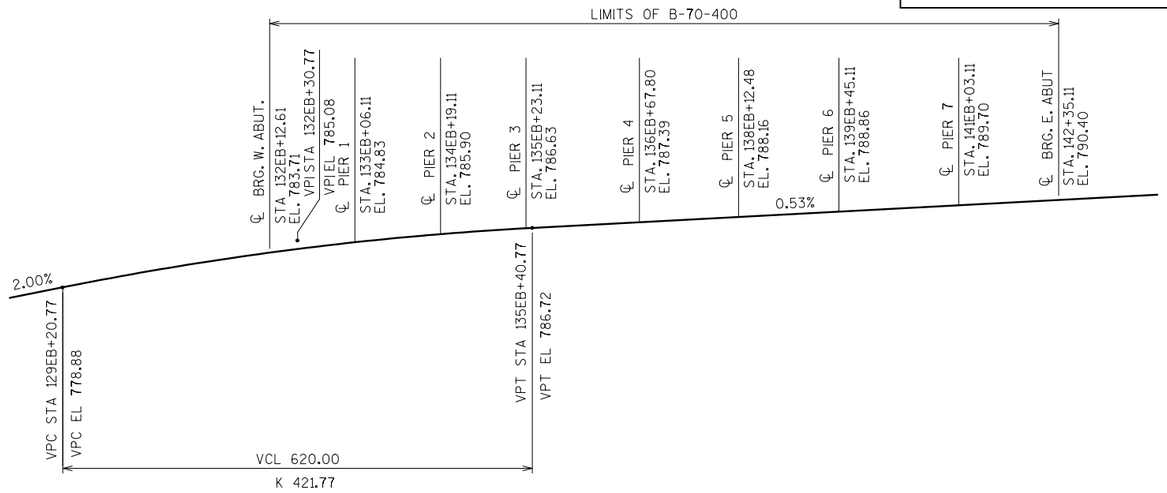
DATE: 5/12/2015
I.D. Jon_Lidgard

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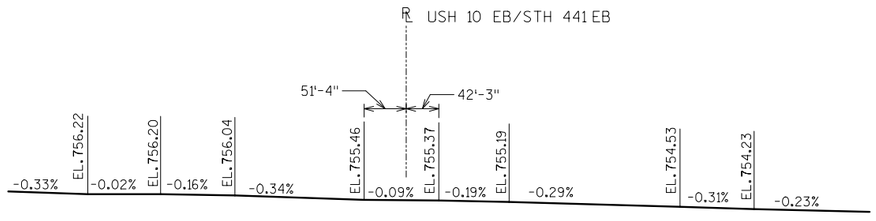
STATE PROJECT NUMBER
1517-07-79



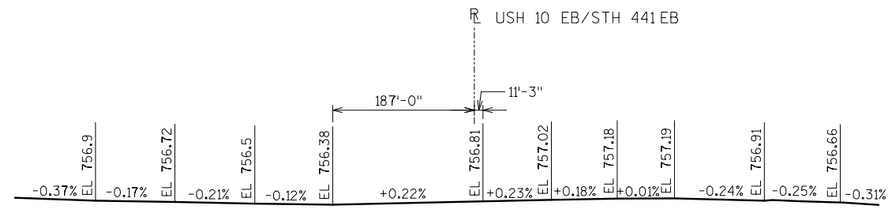
VERTICAL PROFILE MIDDLE TRACK



PROFILE GRADE LINE
USH 10 EB



VERTICAL PROFILE EAST TRACK



VERTICAL PROFILE WEST TRACK

8

8

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STRUCTURE B-70-400

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ALIGNMENTS AND PROFILES 2

SHEET 6 OF 61
448

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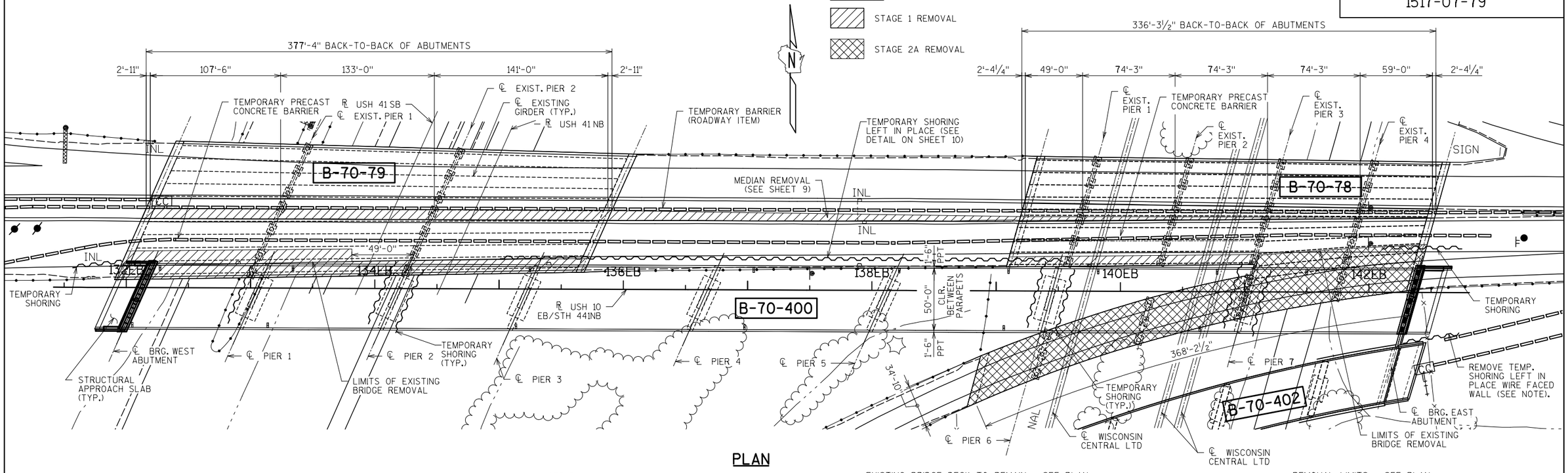
DATE: 5/12/2015
I.D. Jon_Lidgard

STATE PROJECT NUMBER
1517-07-79

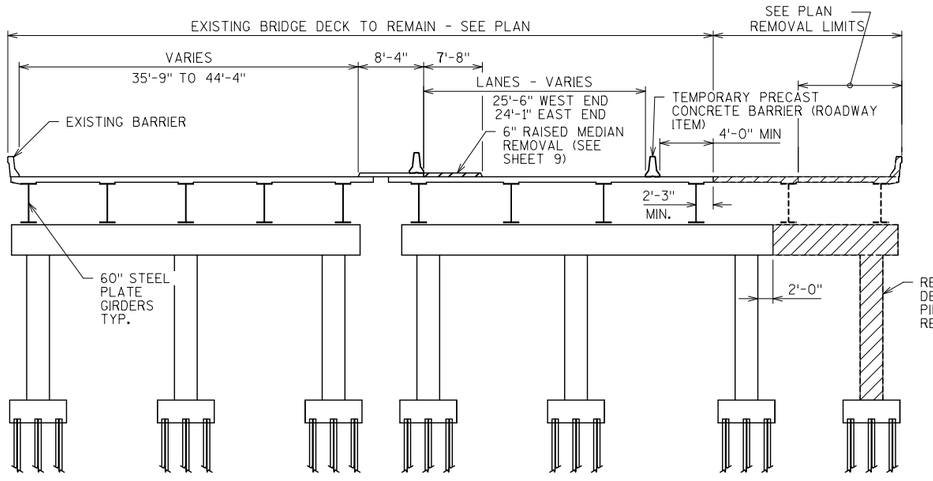
LEGEND

STAGE 1 REMOVAL

STAGE 2A REMOVAL

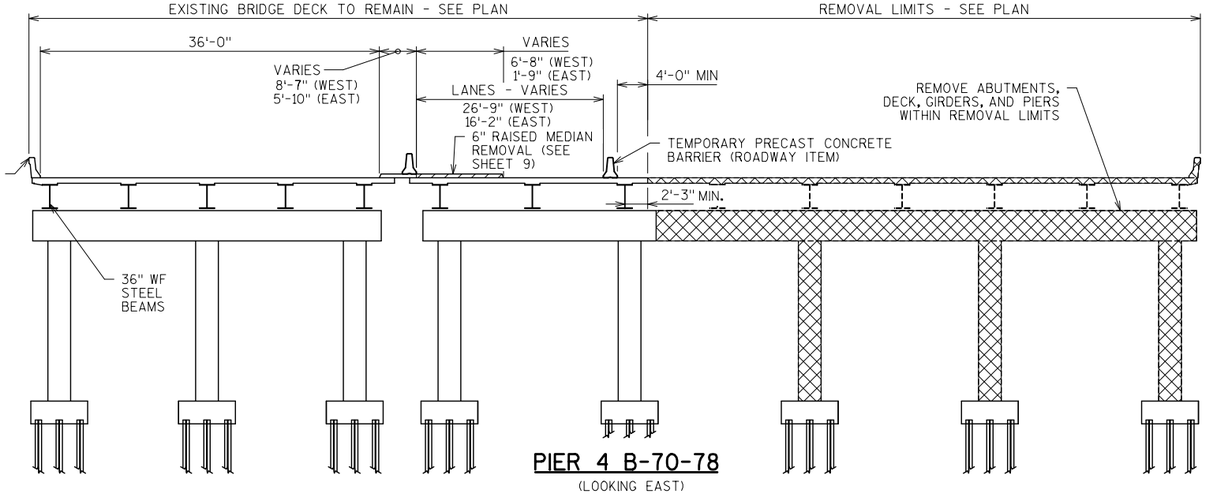


PLAN



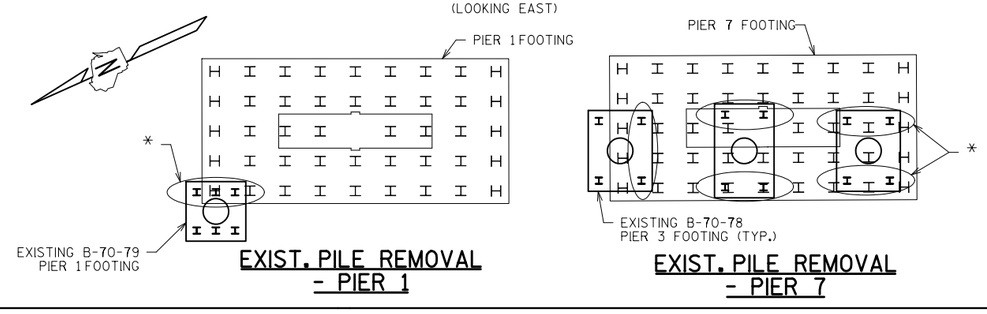
TYPICAL SECTION B-70-79

(LOOKING EAST)



PIER 4 B-70-78

(LOOKING EAST)



EXIST. PILE REMOVAL - PIER 1

EXIST. PILE REMOVAL - PIER 7

NOTES

EXISTING STRUCTURE B-70-79 IS A STEEL PLATE GIRDER BRIDGE. B-70-78 IS A STEEL ROLLED BEAM BRIDGE.

AS-BUILT PLANS ARE AVAILABLE ON THE WISDOT HIGHWAY STRUCTURES INFORMATION (HSI) WEBSITE.

REMOVE EXISTING PIERS TO LIMITS SHOWN AND TO TOP OF FOOTINGS.

REMOVE ABUTMENTS TO LIMITS SHOWN AND CUT OFF ABUTMENT PILES TO A DEPTH OF 2' BELOW PROPOSED GROUND LINE.

COST OF REMOVING B-70-402 TEMPORARY SHORING LEFT IN PLACE IS INCLUDED IN BID ITEM 511.1200 "TEMPORARY SHORING B-70-400."

CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF TEMPORARY SHORING AND TEMPORARY SHORING LEFT IN PLACE.

SEE ROADWAY PLANS FOR FURTHER REMOVAL DETAILS.

* CUT EXISTING PILES BELOW THE NEW FOUNDATION AND SHIFT THE NEW PILE IF PRACTICAL WITH A MINIMUM 1-FOOT OFFSET FROM EXISTING PILES TO NEW PILES. WHERE PILE SPACING DOES NOT ALLOW NEW PILE TO BE ADEQUATELY SHIFTED, DRIVE CASING TO A DEPTH SUFFICIENT TO PREVENT DISTURBANCE OF EXISTING GROUND, PULL THE EXISTING PILE, AND PLACE GRANULAR GRADE 1 PRIOR TO PULLING THE CASING. COST OF THIS WORK INCLUDED WITH BID ITEM "REMOVING OLD STRUCTURE B-70-78 STA. 142EB+35."

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STRUCTURE B-70-400

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EXISTING STRUCTURE REMOVAL

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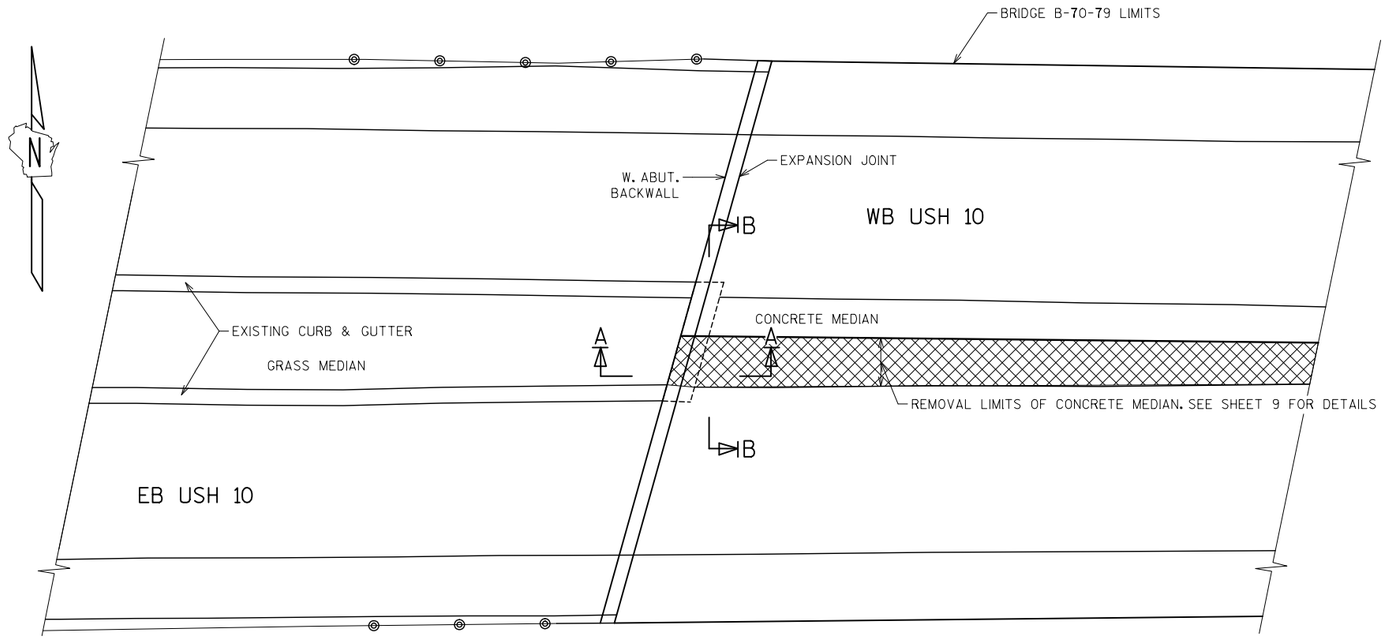
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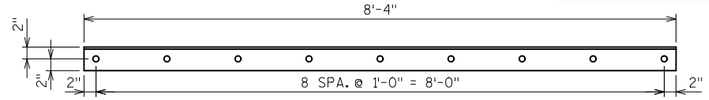
DATE: 5/12/2015
I.D. Jon_Lidgard

STATE PROJECT NUMBER
1517-07-79

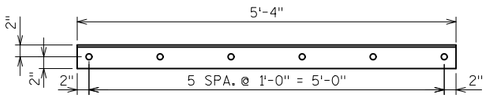


PLAN VIEW B-70-79 W. ABUT

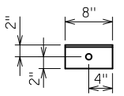
(E. ABUT. AND B-70-78 SIMILAR)



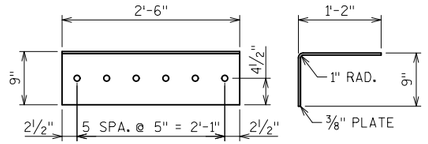
B-70-79 ABUTMENTS



B-70-78 WEST ABUTMENT

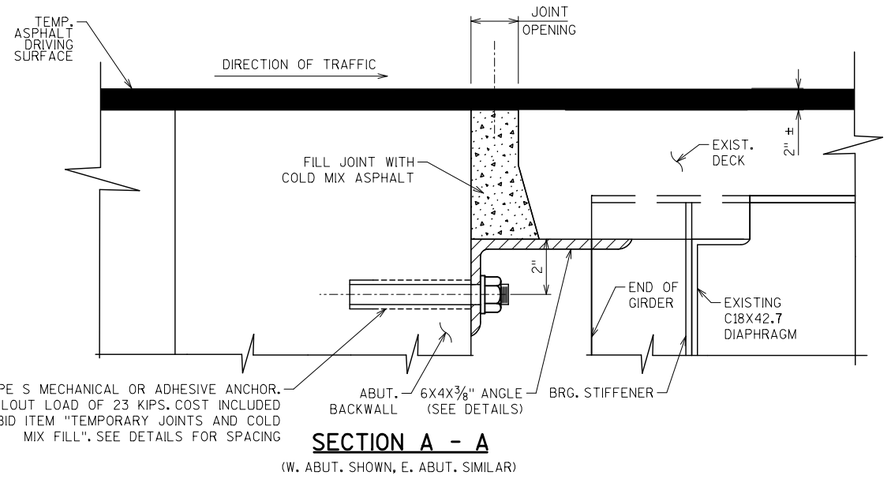


B-70-78 EAST ABUTMENT



BENT PLATE AT B-70-78 PIER 3

BENT PLATE AND ANGLE DETAILS

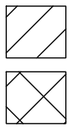


SECTION A - A

(W. ABUT. SHOWN, E. ABUT. SIMILAR)

TEMPORARY JOINT FOR MEDIAN BRIDGE REMOVAL AT ABUTMENTS

(NOT TO SCALE)
4 REQUIRED. ONE AT EACH ABUT.



TEMPORARY STEEL PLATE

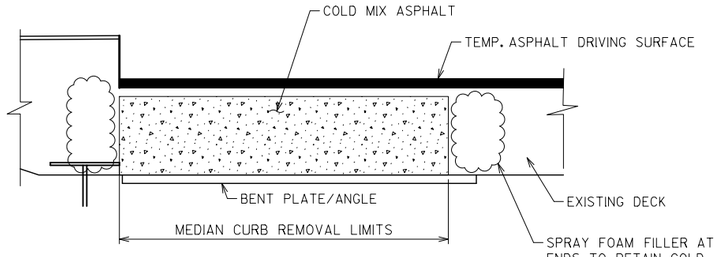
EXISTING STEEL PLATE AND CONCRETE REMOVAL

NOTES:

ALL WORK REQUIRED FOR FABRICATION, INSTALLATION, AND MAINTENANCE OF TEMPORARY JOINTS AND COLD MIX ASPHALT FILL IS INCLUDED IN BID ITEM SPV.0105.703 "TEMPORARY JOINTS AND COLD MIX FILL."

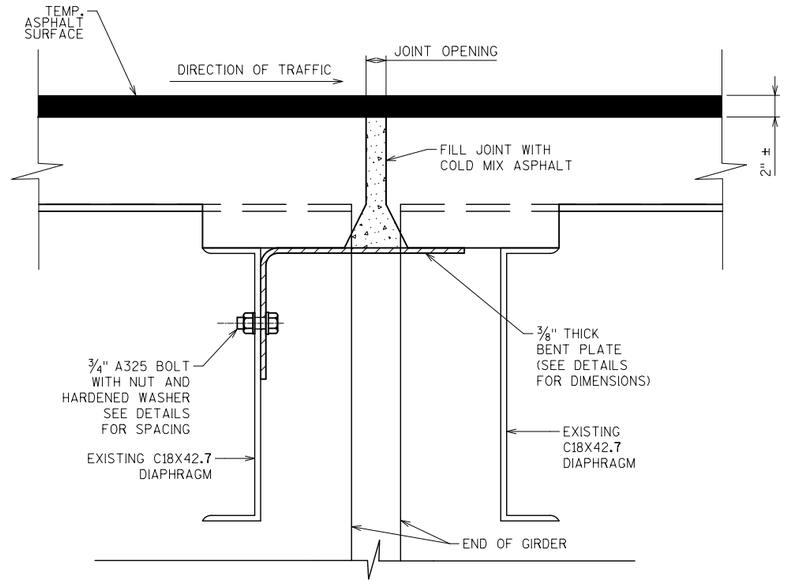
TEMPORARY ASPHALT DRIVING SURFACE SHOWN IS PAID SEPARATELY UNDER A ROADWAY ITEM.

TRIM ANGLES AND PLATE AS NECESSARY TO FIT FIELD CONDITIONS.



SECTION B-B THROUGH DECK AT JOINTS

(NOT TO SCALE)



SECTION THRU

TEMPORARY JOINT AT B-70-78 PIER 3

(NOT TO SCALE)
1 REQUIRED AT EXP. JT.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	MRL	PLANS CK'D.	MJA

REMOVAL DETAILS 1

SHEET 8 OF 61
450

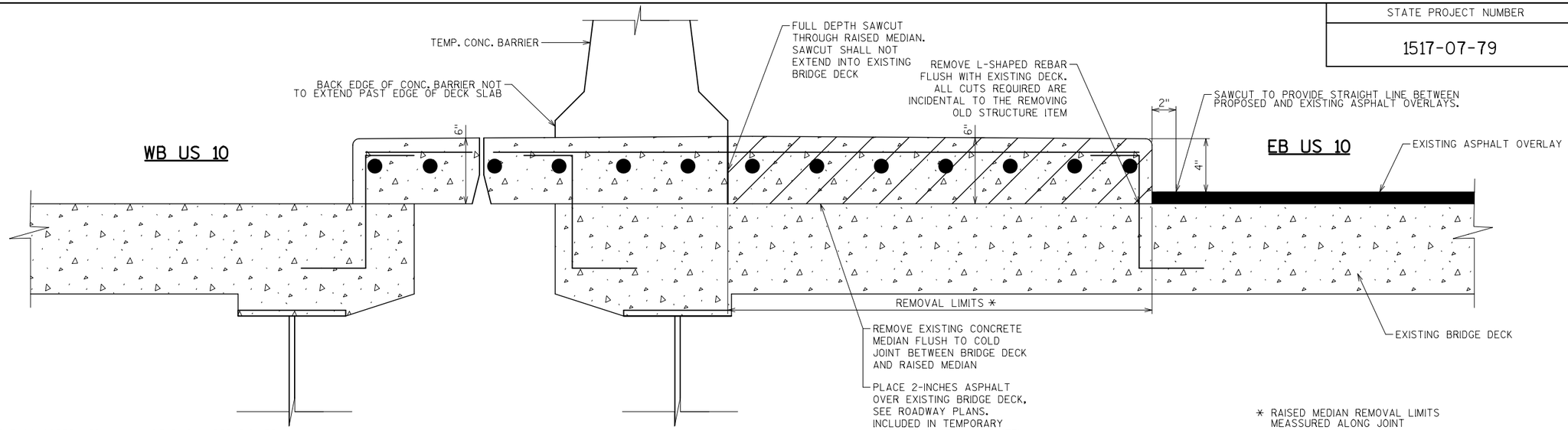
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DATE: 5/12/2015
I.D. jon.lidgard

STATE PROJECT NUMBER
1517-07-79



NOTES:

REMOVAL OF THE CONCRETE MEDIAN WILL BE PAID UNDER BID ITEM 203.0200 "REMOVING OLD STRUCTURE B-70-78 STA. 142EB+35" AND "REMOVING OLD STRUCTURE B-70-79 STA. 131EB+93." ALL SAWCUTS, CONCRETE REMOVAL, REINFORCING STEEL REMOVAL, JOINT REMOVAL, AND CUTS ARE INCIDENTAL TO THESE BID ITEMS.

BAR STEEL SPACINGS SHOWN ARE FROM EXISTING BRIDGE PLANS, ACTUAL SPACINGS AND LOCATIONS MAY VARY IN THE FIELD.

REMOVING OLD STRUCTURE

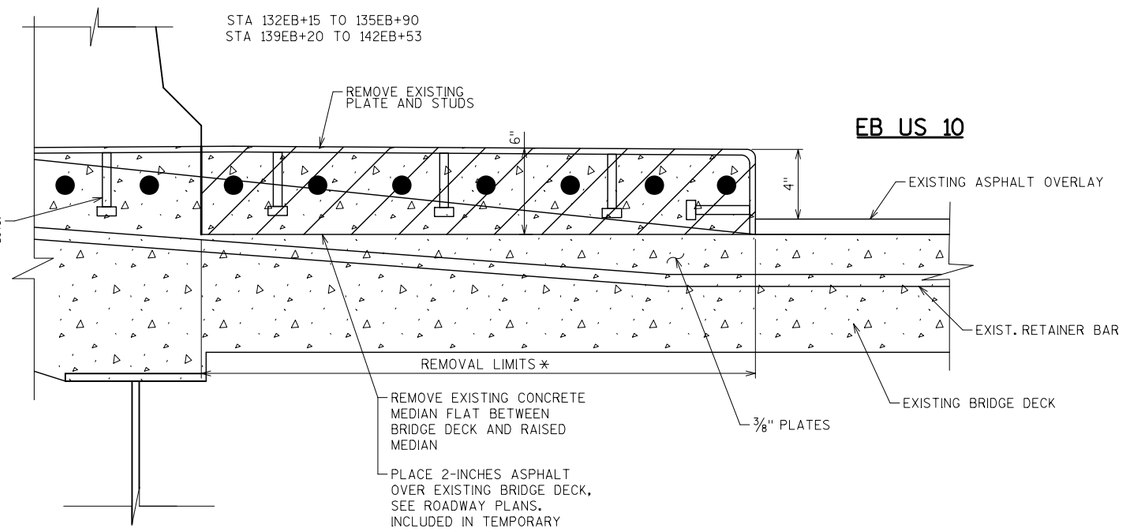
* RAISED MEDIAN REMOVAL LIMITS MEASSURED ALONG JOINT

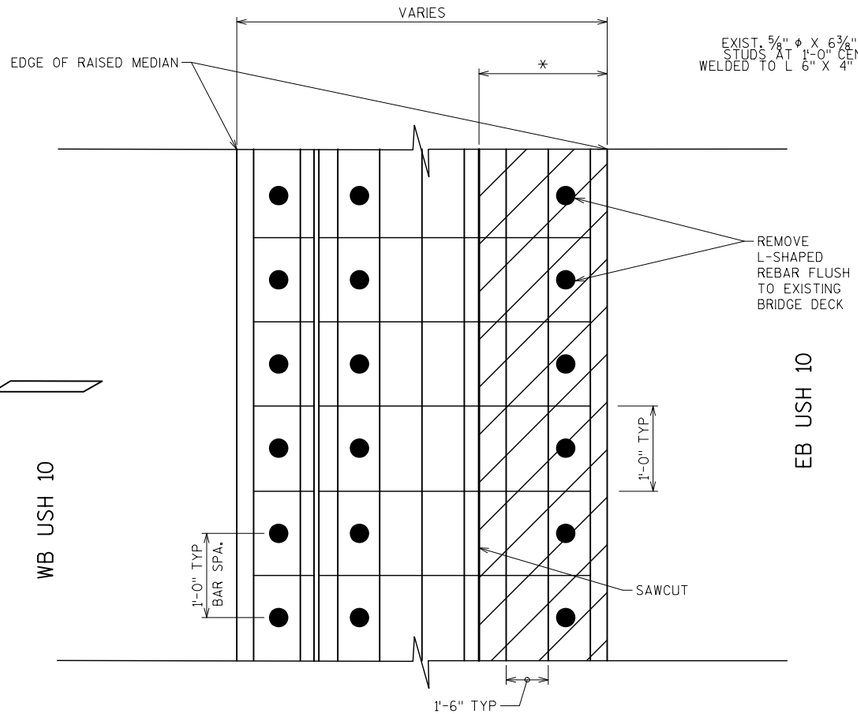
8'-10"	B-70-79 ABUTMENTS
4'-3"	B-70-78 W. ABUT.
2'-1"	B-70-78 PIER 3 JOINT
8"	B-70-78 E. ABUT.

REMOVING OLD STRUCTURE B-70-78 & 79

(NOT TO SCALE)

STA 132EB+15 TO 135EB+90
STA 139EB+20 TO 142EB+53



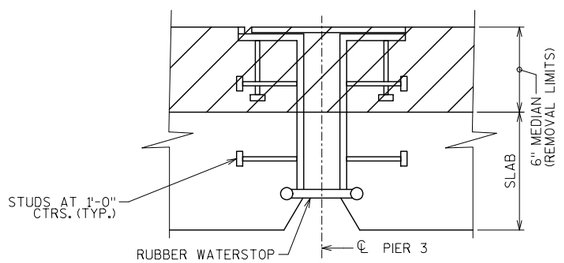


PLAN VIEW

(NOT TO SCALE)

REMOVING OLD STRUCTURE B-70-78 AT PIER 3

(NOT TO SCALE)



SECTION THROUGH PIER 3 JOINT AT MEDIAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	MRL	PLANS CK'D.	MJA

REMOVAL DETAILS 2

SHEET 8 OF 61
451

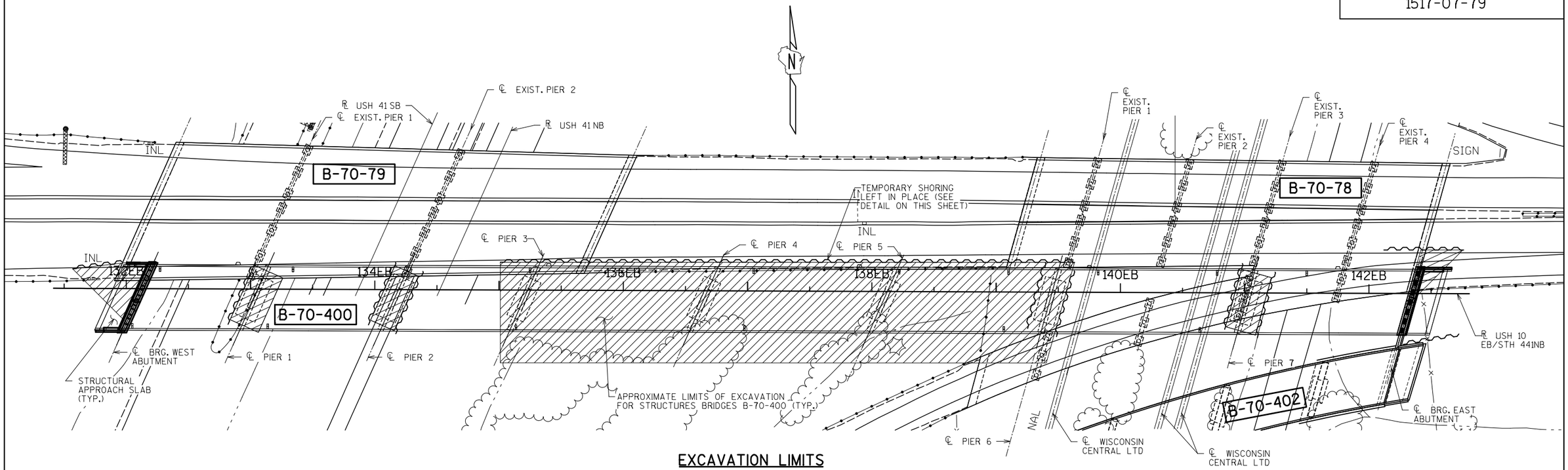
DATE: 5/12/2015
I.D. jon_liggard

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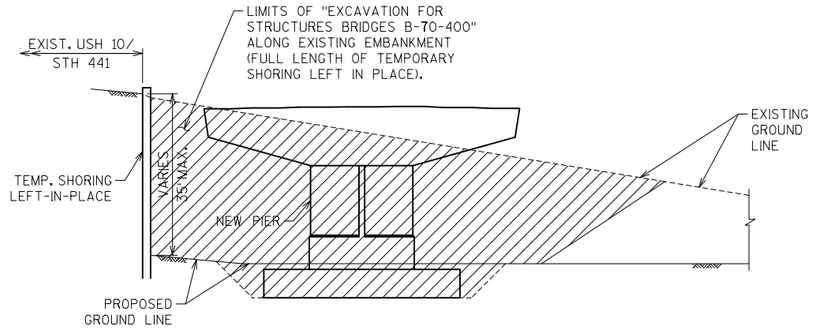
STATE PROJECT NUMBER
1517-07-79



EXCAVATION LIMITS

LEGEND

STRUCTURE EXCAVATION



TEMPORARY SHORING LEFT-IN-PLACE DETAIL

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

STRUCTURE EXCAVATION LIMITS

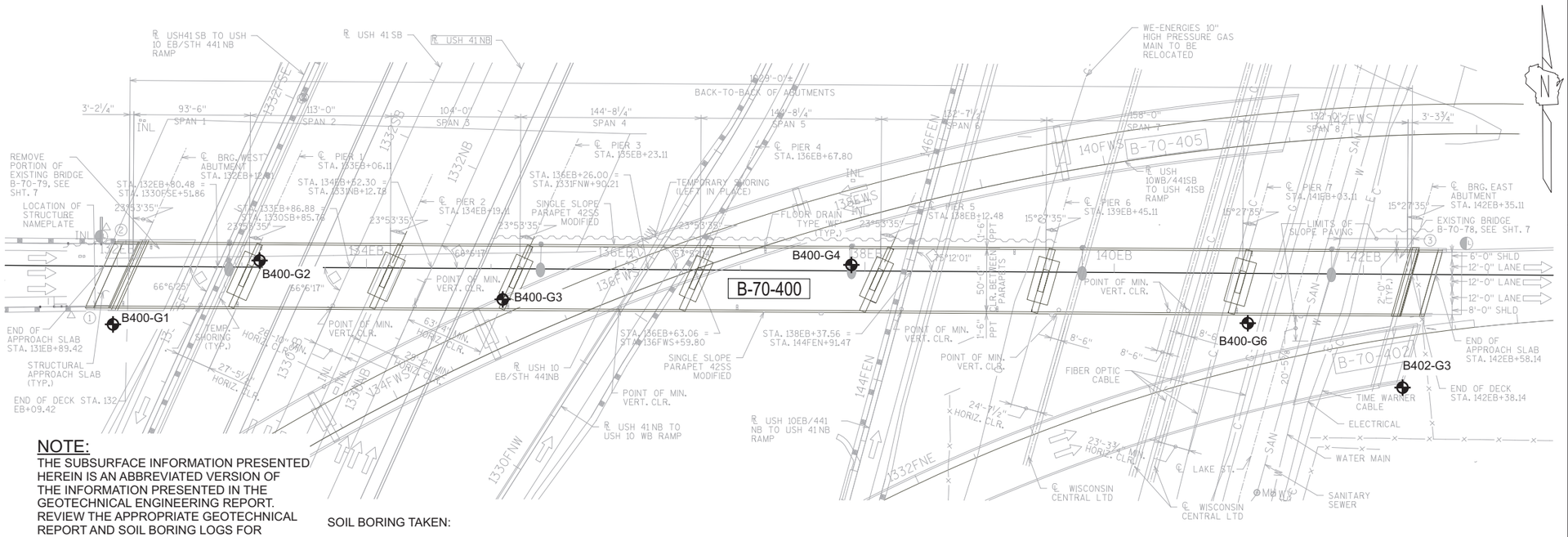
SHEET 10 OF 61
452

8

8

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I.D. Jon_Lidgard



NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

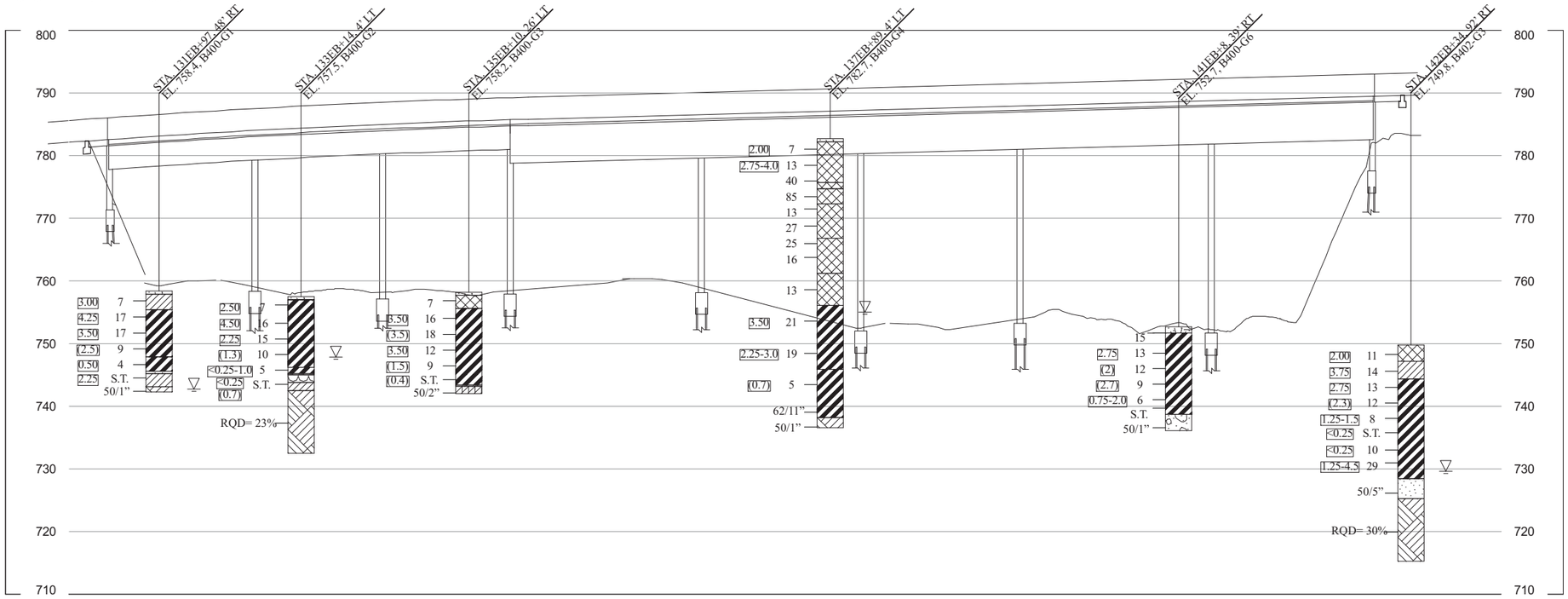
BORING STATIONS AND OFFSETS ARE BASED OFF R/L USH 10 EB

⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING INC.

SOIL BORING TAKEN:

2.27.2012 - BORING B400-G1
2.28.2012 - BORING B400-G2
2.28.2012 - BORING B400-G3
2.28.2012 - BORING B400-G4
7.06.2012 - BORING B400-G6
4.07.2012 - BORING B402-G3



NOTE: ▽ -WATER LEVEL DURING DRILLING

STATE PROJECT NUMBER

1517-07-79

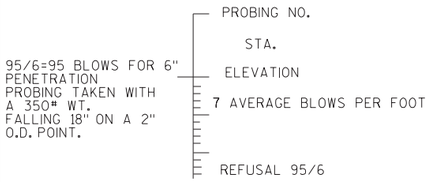
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

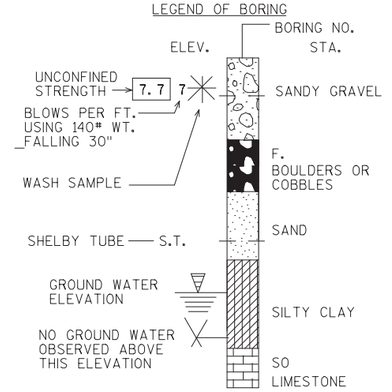
MATERIAL SYMBOLS

TOPSOIL | SILT | FAT CLAY
SAND | PEAT | BEDROCK
GRAVEL | CLAY | FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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SUBSURFACE EXPLORATION

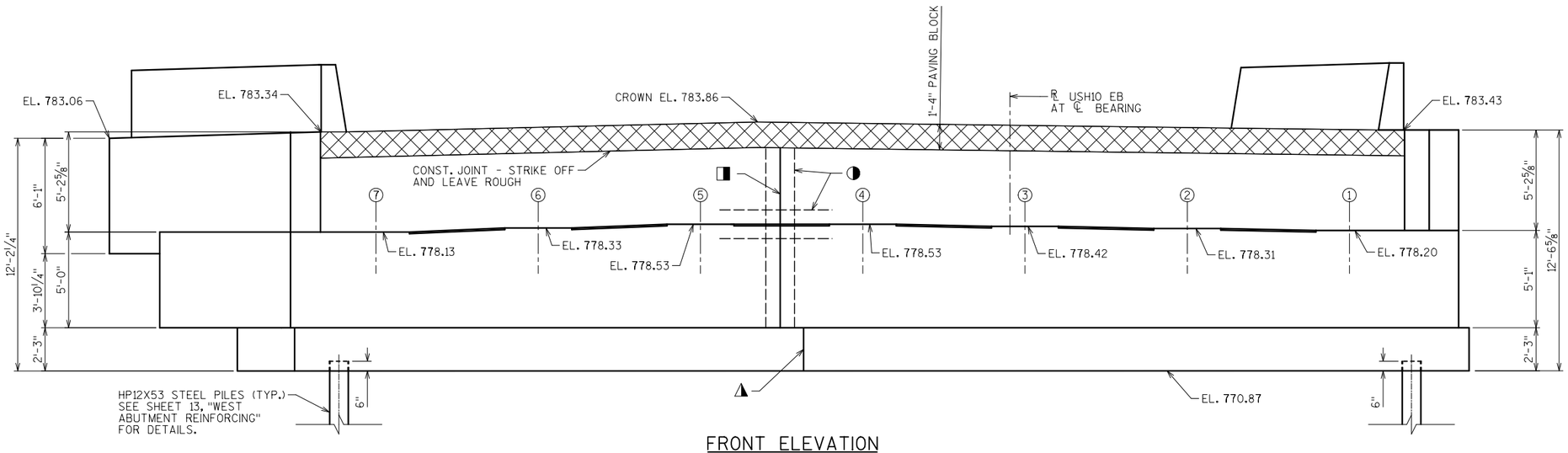
SHEET 11 OF 61
453

SCALE 1"=100'

8

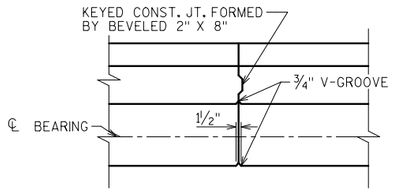
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STATE PROJECT NUMBER
1517-07-79

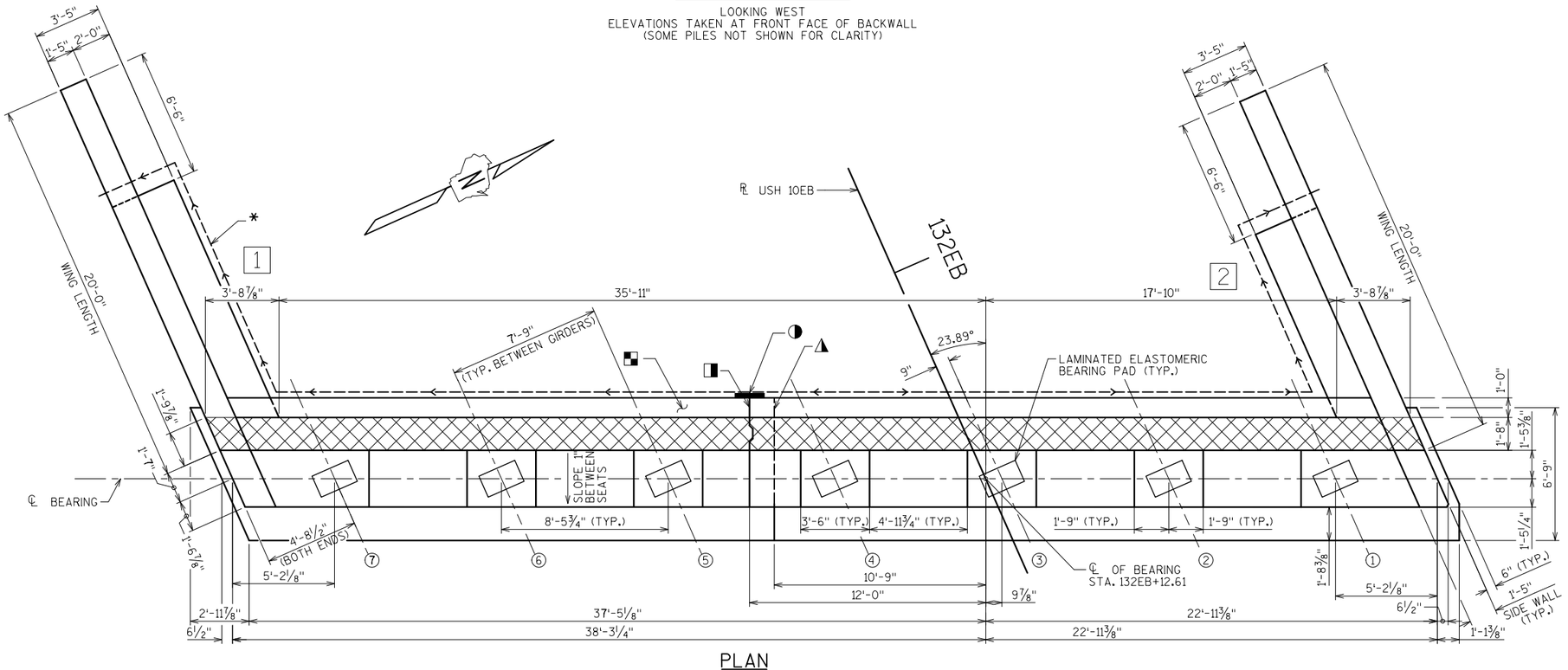


FRONT ELEVATION

LOOKING WEST
ELEVATIONS TAKEN AT FRONT FACE OF BACKWALL
(SOME PILES NOT SHOWN FOR CLARITY)



VERT. CONST. JOINT



PLAN

(PILES NOT SHOWN FOR CLARITY)

NOTES

FOR REINFORCING STEEL AND PILE SPACING SEE SHEET 13, "WEST ABUTMENT REINFORCING".

FOR PILE SPLICE DETAIL AND RODENT SHIELD DETAIL, SEE SHEET 19, "ABUTMENT BILL OF BARS."

FOR ALTERNATE CONSTRUCTION JOINT DETAIL, SEE SHEET 61, "ALTERNATE CONSTRUCTION JOINT".

MIN. LAP LENGTHS (UNLESS OTHERWISE SHOWN):

#4 BARS: 1'-8"
#6 BARS: 3'-1"
#7 BARS: 3'-10"
#9 BARS: 6'-5"

LEGEND

- ▣ INDICATES WING NUMBER
- ⊕ INDICATES GIRDER NUMBER
- ⊠ INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.
- ◪ 1'-0" WIDE BY 1'-4" DEEP APPROACH SLAB PAVING NOTCH.
- ◭ VERTICAL CONSTRUCTION JOINT OPTIONAL IN FOOTING. PLACE TO CLEAR PILES, 9" MIN.
- ◑ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. AND VERT. JOINTS ON BACKFACE ABOVE FOOTING.
- ◨ VERT. CONST. JT. KEYWAY FORMED BY BEVELED 2" X 8". CLEAR BRG. SEAT BY 3" MIN. USE ¾" "V" GROOVE ON F.F. OF ABUTMENT ONLY.
- * PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. FOR RODENT SHIELD DETAILS SEE SHEET 19, "ABUTMENT BILL OF BARS"). AT THE DAYLIGHT END OF PIPE UNDERDRAIN, INSTALL A CONCRETE APRON ENDWALL AND CULVERT MARKER (ROADWAY CONTRACTOR TO INSTALL). PAYMENT FOR THESE ITEMS IS INCLUDED IN THE ROADWAY PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDL	PLANS CK'D.	MAD

WEST ABUTMENT PLAN & ELEVATION

SHEET 12 OF 61
454

8

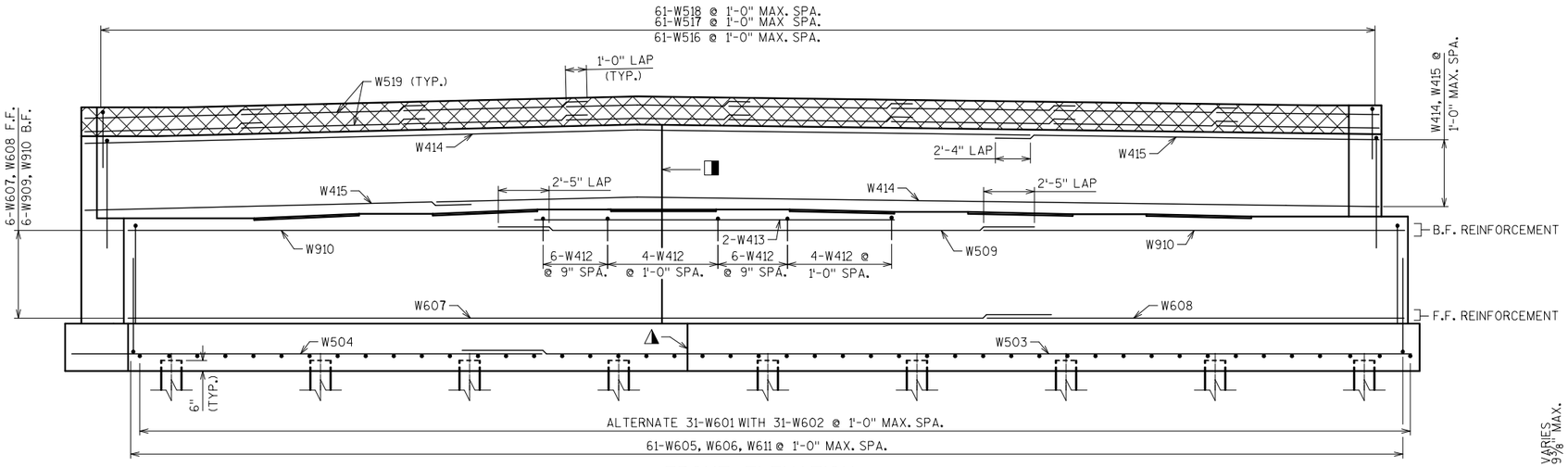
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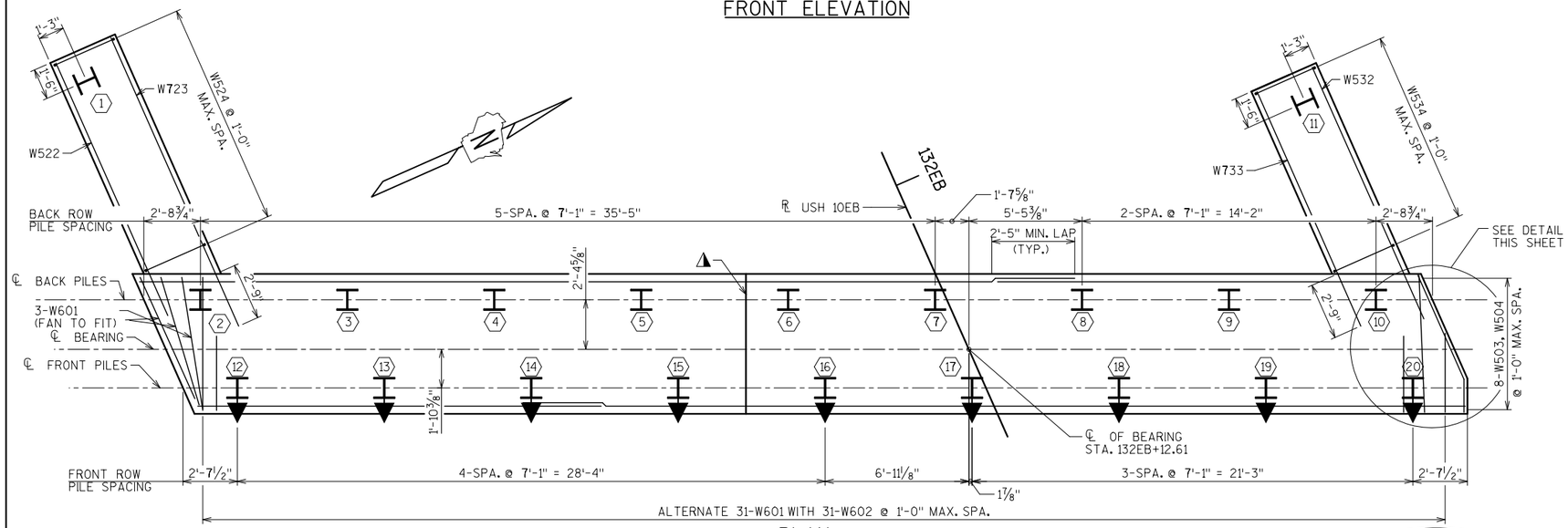
DATE: 5/12/2015
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STATE PROJECT NUMBER

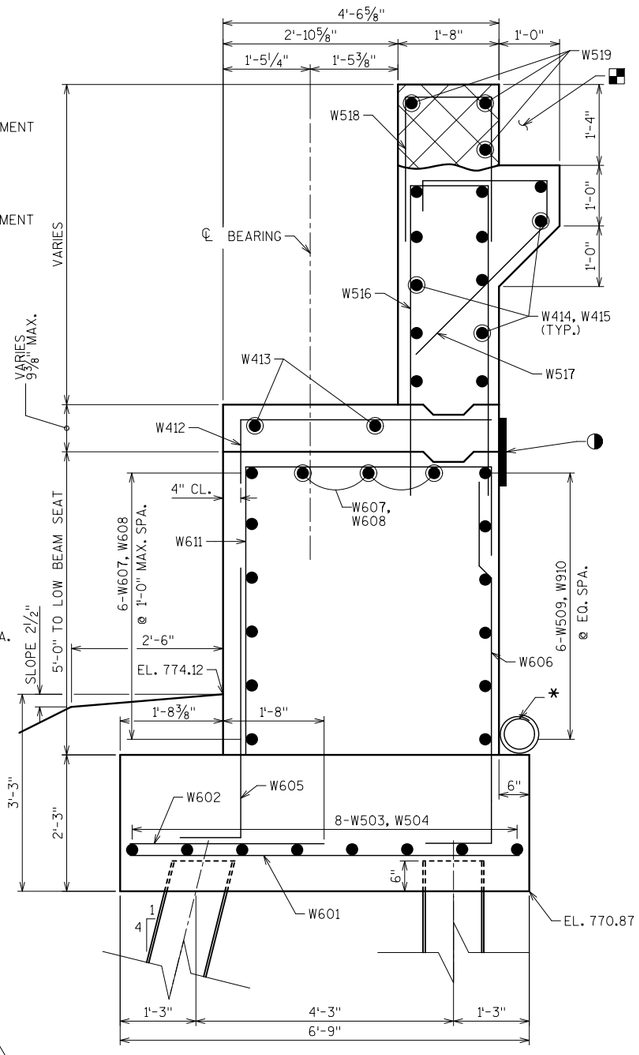
1517-07-79



FRONT ELEVATION



PLAN



SECTION THROUGH BODY

NOTES

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

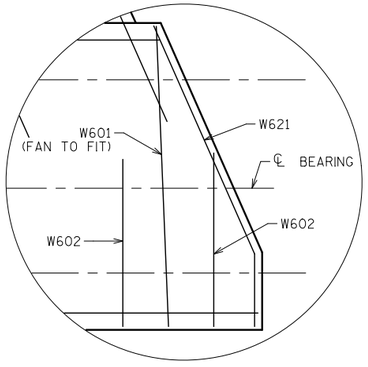
PILE NOTE

SUPPORT ON PILING STEEL HP 12-INCH X 53 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTH IS 28 FEET. A MINIMUM PILE TIP ELEVATION OF 743.37 IS REQUIRED.

LEGEND

INDICATES BATTERED PILES

(##) INDICATES PILE NUMBER



DETAIL A

(PILES NOT SHOWN FOR CLARITY)

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDL	PLANS CK'D.	MAD

WEST ABUTMENT REINFORCING

SHEET 13 OF 61
455

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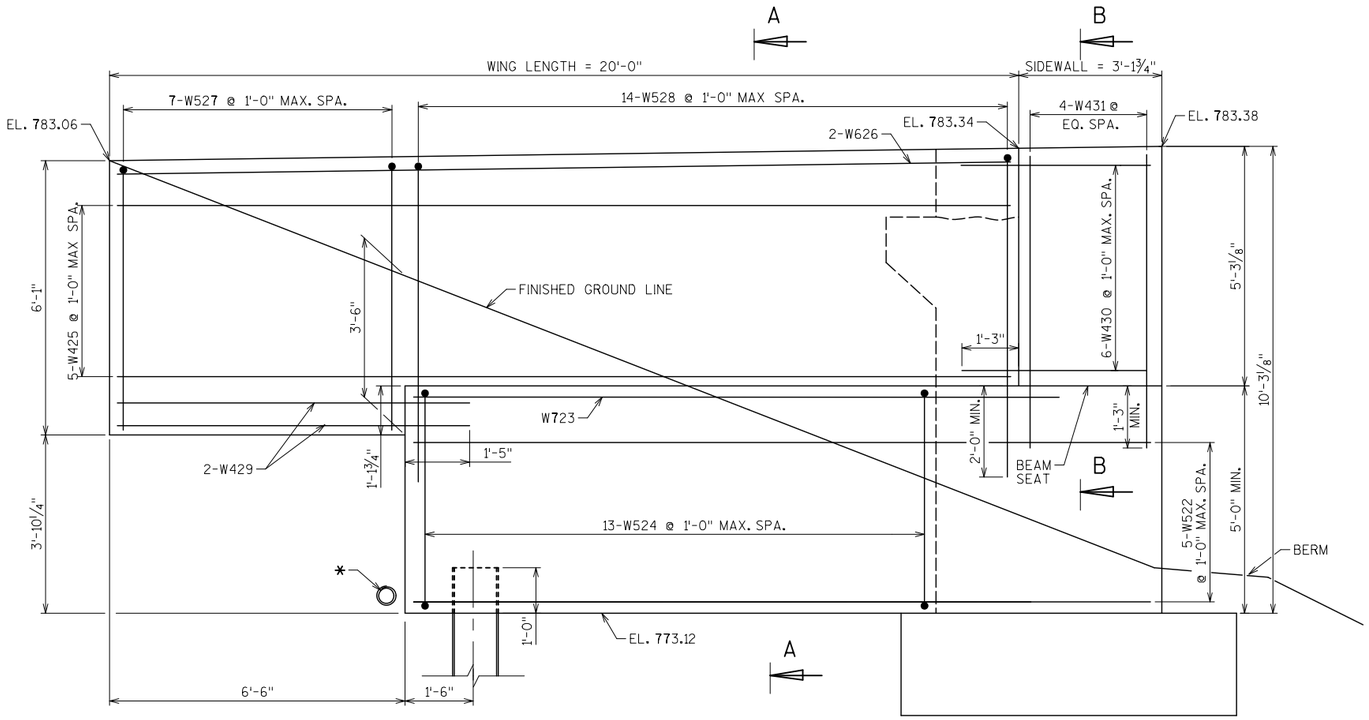
DATE: 5/12/2015
I.D. jon_liggard

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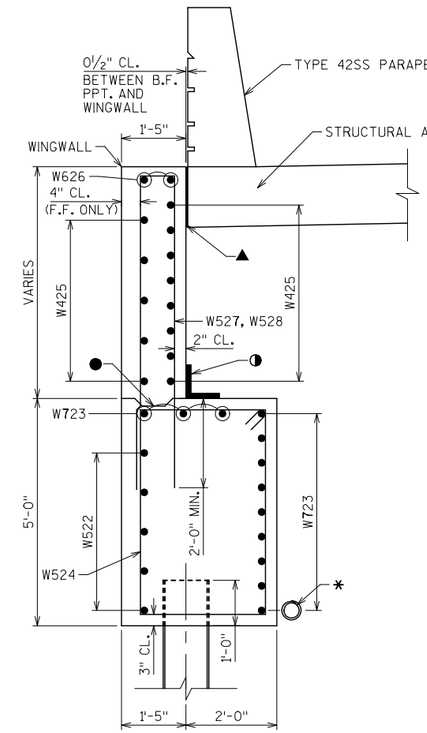
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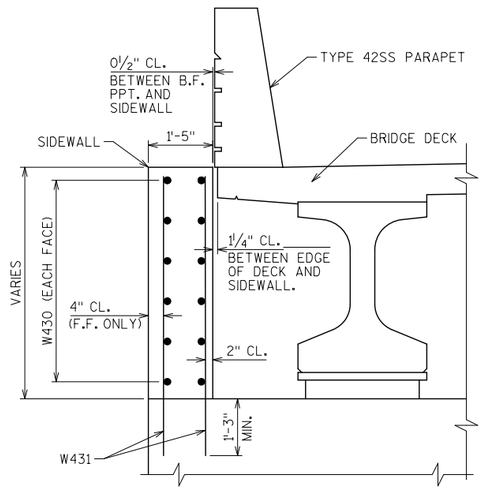
1517-07-79



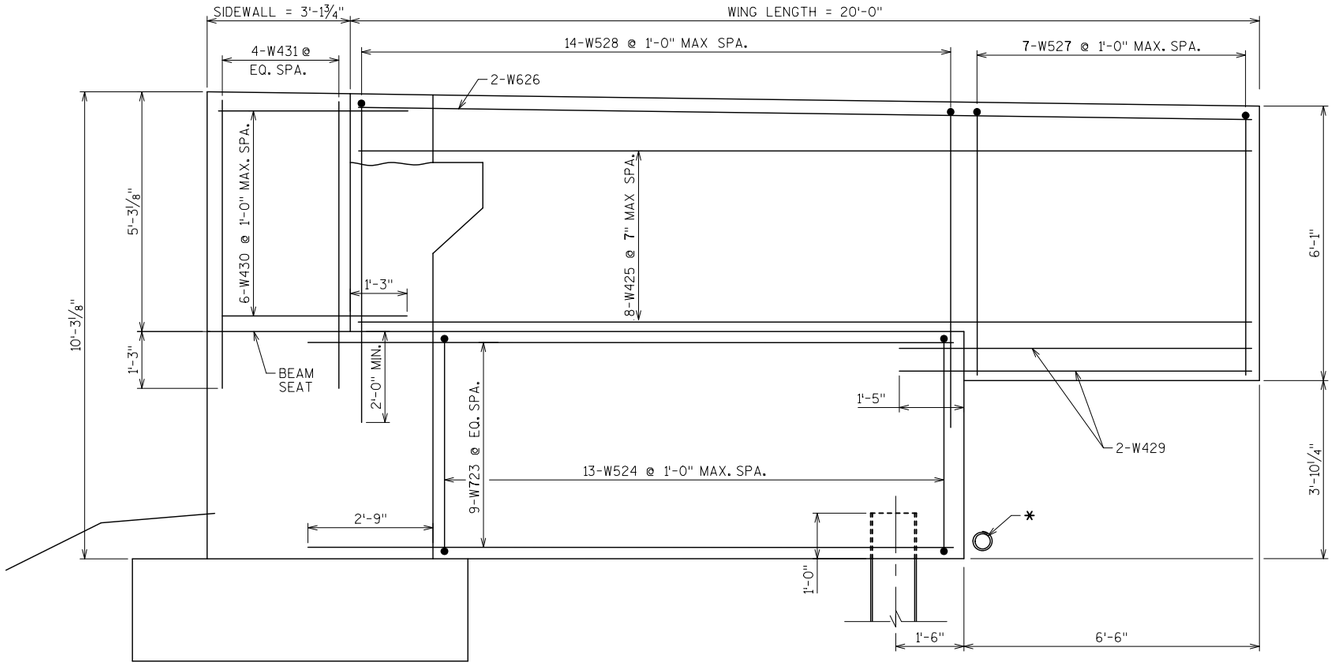
FRONT ELEVATION



SECTION A-A



SECTION B-B



BACK ELEVATION

NOTE

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

SEE SHEET 59, "AESTHETIC DETAILS" FOR FORMLINER DETAILS AND STAINING SCHEDULE.

LEGEND

● OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE.

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MAD

WEST ABUTMENT WINGWALL 1

SHEET 14 OF 61
456

8

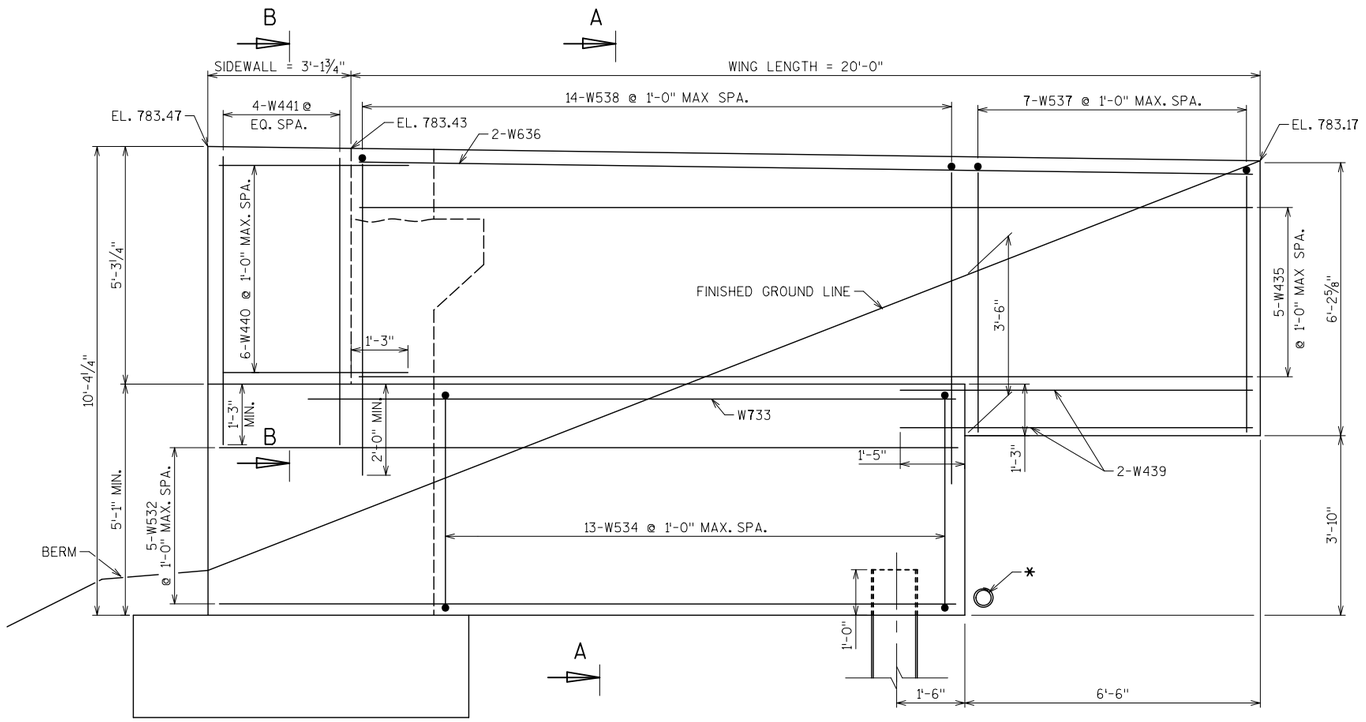
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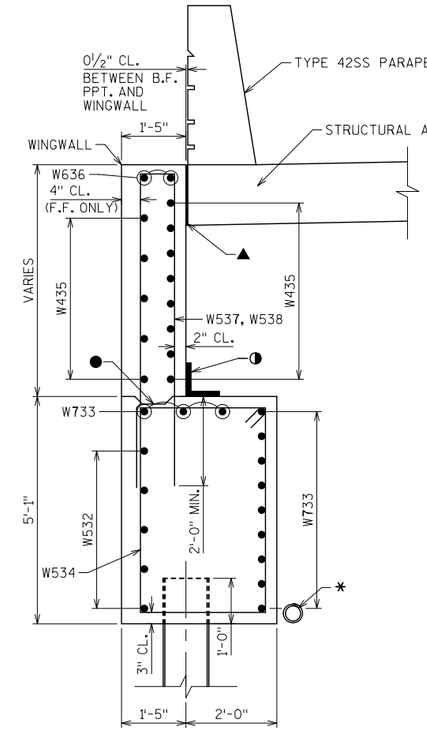
DATE: 5/12/2015
I.D. jonlidgard

STATE PROJECT NUMBER

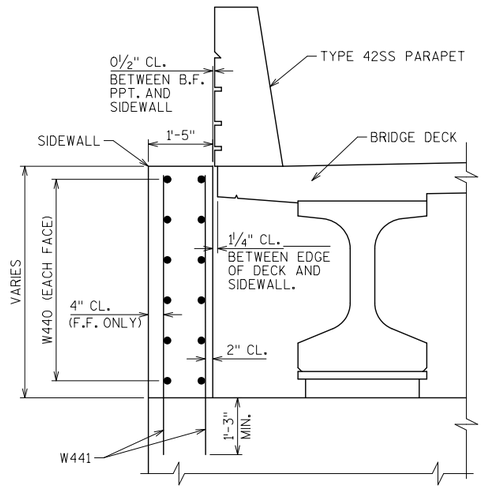
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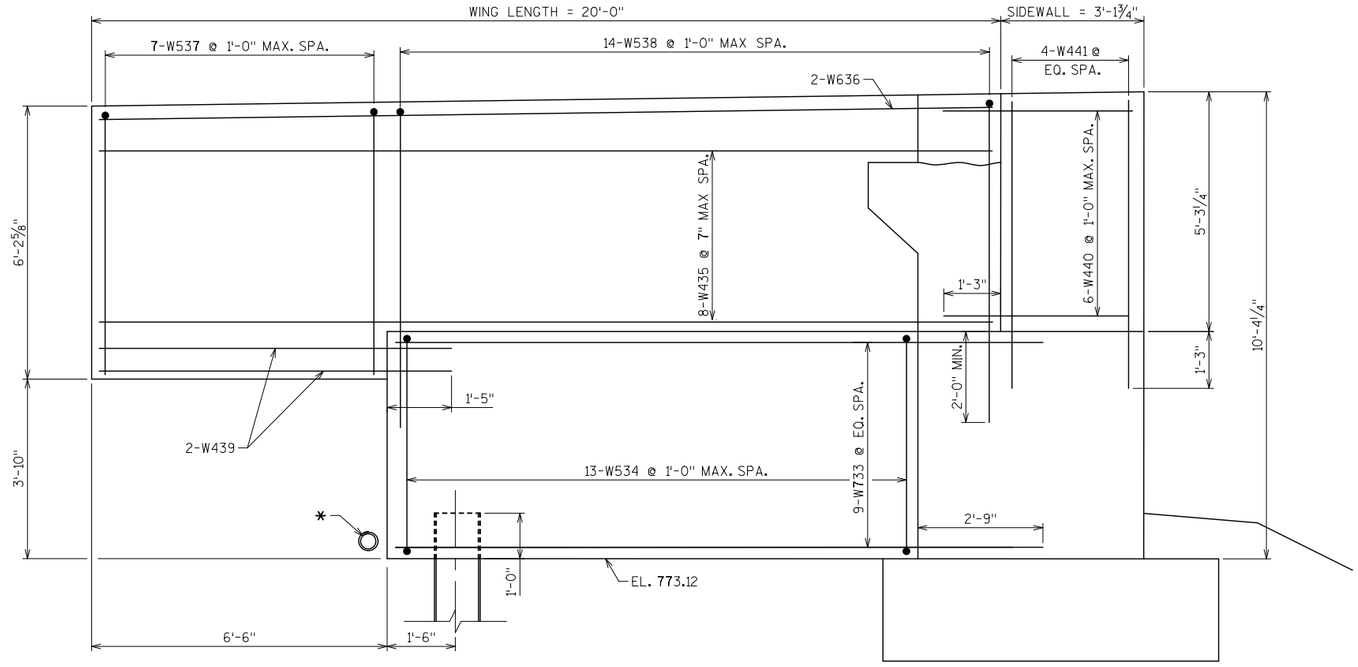
FRONT ELEVATION



SECTION A-A



SECTION B-B



BACK ELEVATION

NOTE

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

SEE SHEET 59, "AESTHETIC DETAILS" FOR FORMLINER DETAILS AND STAINING SCHEDULE.

LEGEND

- ● OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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WEST ABUTMENT WINGWALL 2

SHEET 15 OF 61
457

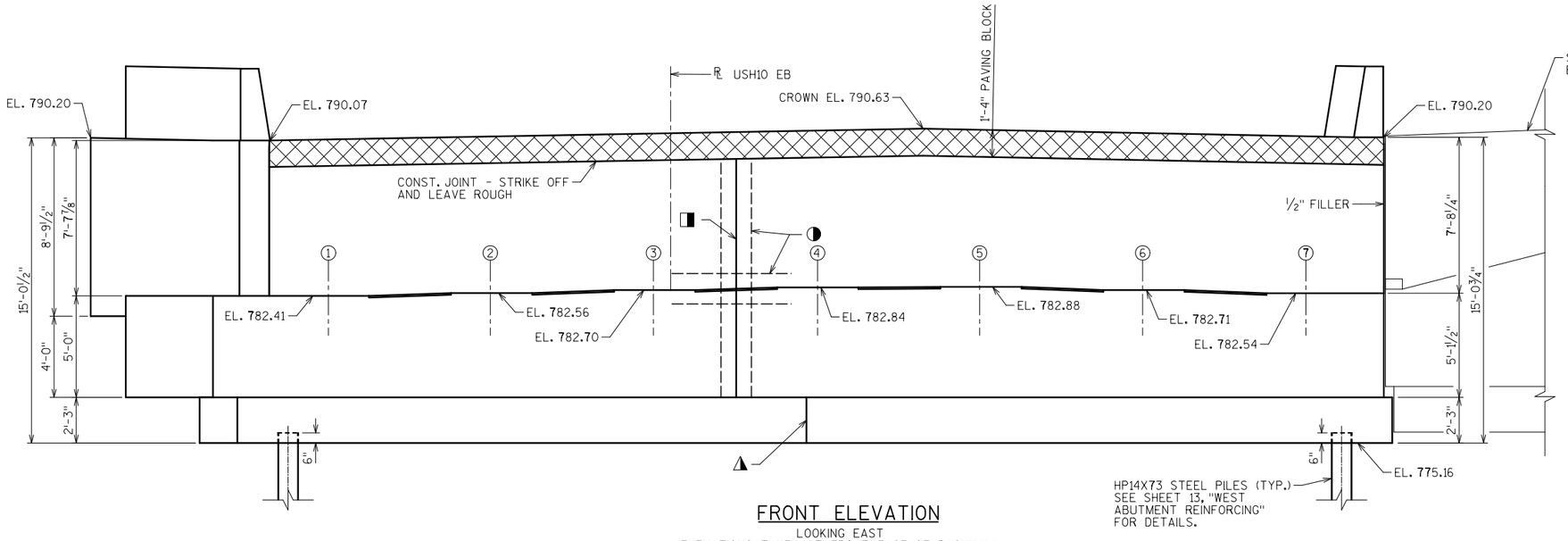
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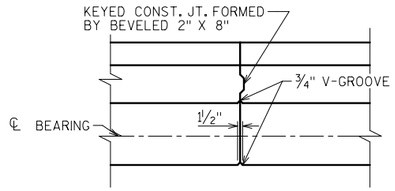
DATE: 5/12/2015
I.D. Jon_Lidgard

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1517-07-79

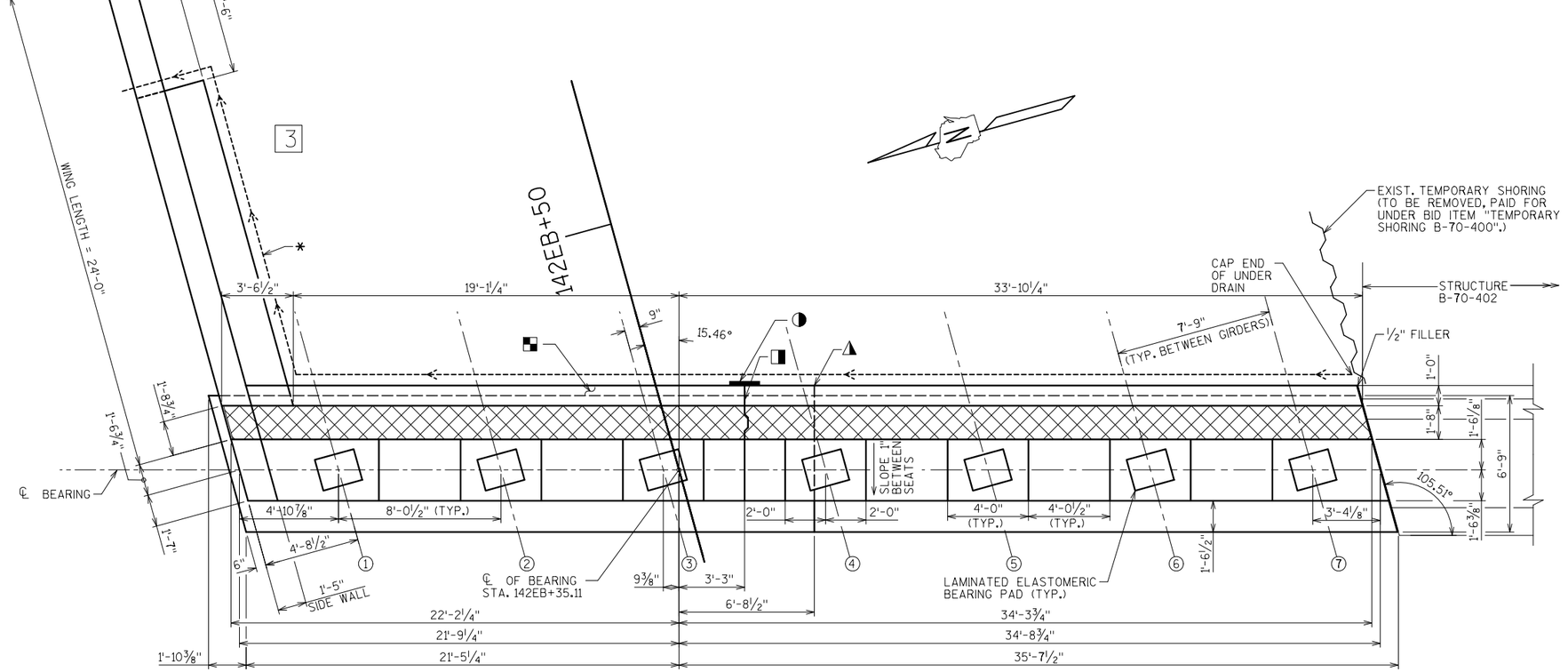


FRONT ELEVATION

LOOKING EAST
ELEVATIONS TAKEN AT FRONT FACE OF BACKWALL
(SOME PILES NOT SHOWN FOR CLARITY)



VERT. CONST. JOINT



PLAN

NOTES

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

FOR REINFORCING STEEL SEE SHEET 17, "EAST ABUTMENT REINFORCING".

FOR PILE SPLICE DETAIL AND RODENT SHIELD DETAIL SEE SHEET 19, "ABUTMENT BILL OF BARS".

FOR ALTERNATE CONSTRUCTION JOINT DETAIL, SEE SHEET 61, "ALTERNATE CONSTRUCTION JOINT".

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDL	PLANS CK'D.	MAD

EAST ABUTMENT PLAN & ELEVATION

SHEET 16 OF 61
458

8

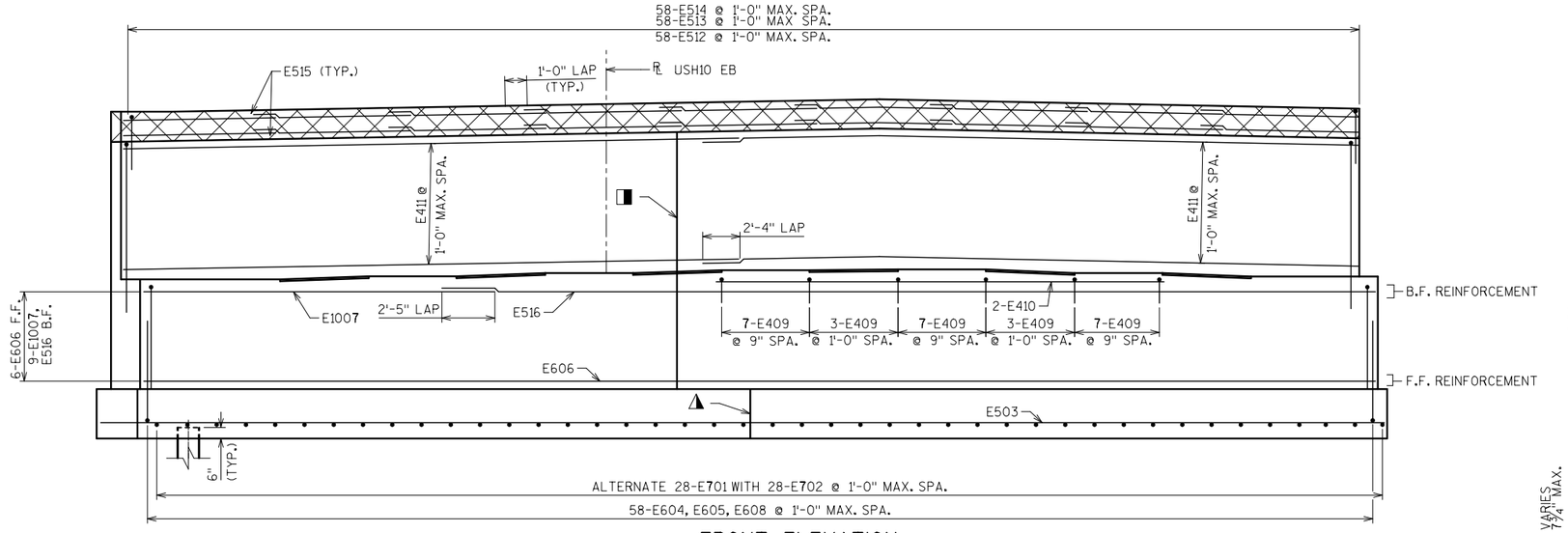
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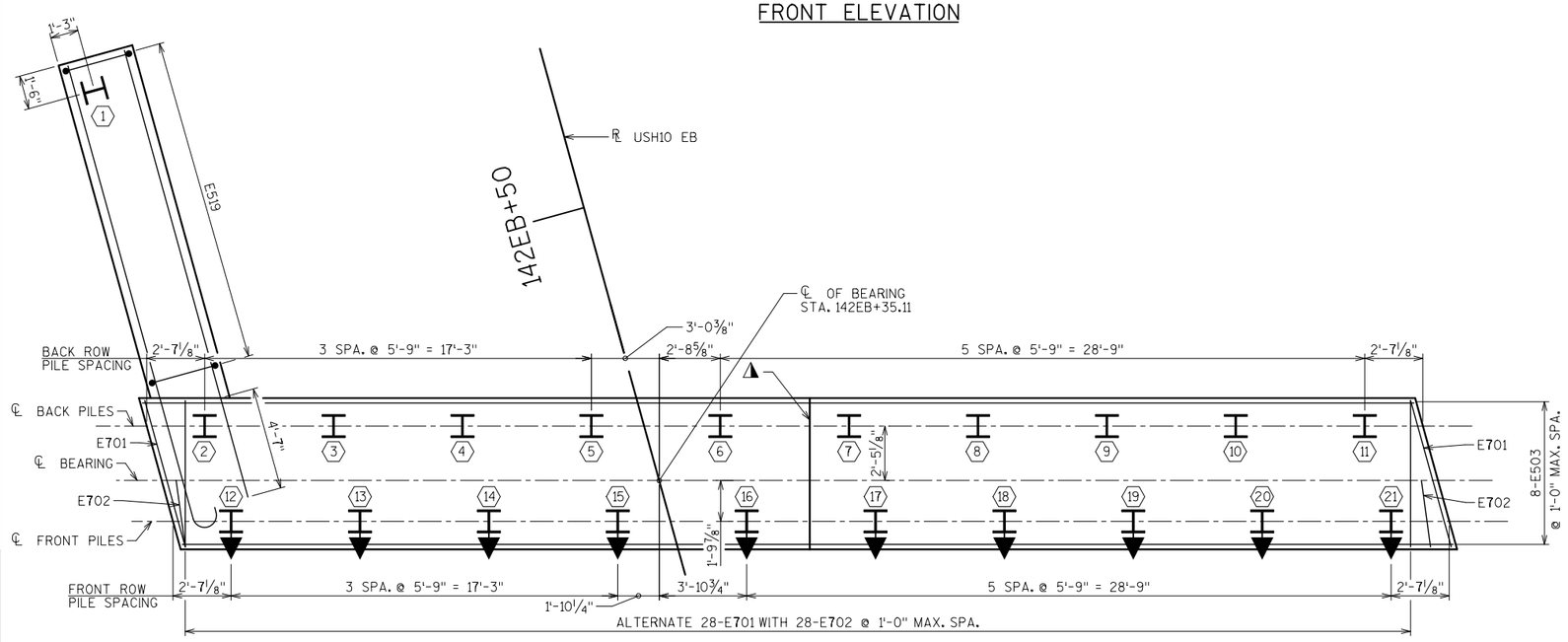
DATE: 5.12.2015
I.D. jon_liddgard

STATE PROJECT NUMBER

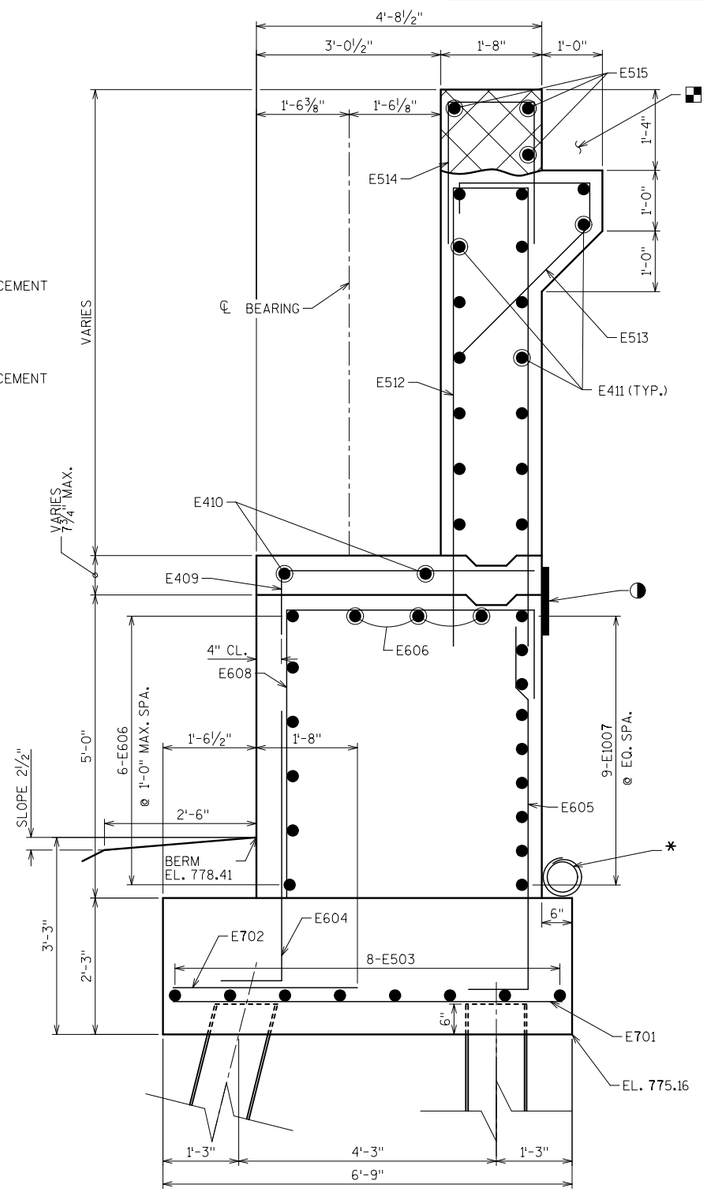
1517-07-79



FRONT ELEVATION



PLAN



SECTION THROUGH BODY

NOTES

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

PILE NOTE

SUPPORT ON PILING STEEL HP 14-INCH X 73 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 200 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTH IS 48 FEET. A MINIMUM PILE TIP ELEVATION OF 728.91 IS REQUIRED.

LEGEND

INDICATES BATTERED PILES

(##) INDICATES PILE NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MAD

EAST ABUTMENT REINFORCING

SHEET 17 OF 61
459

DATE: 5/12/2015
I.D. jon_lidgard

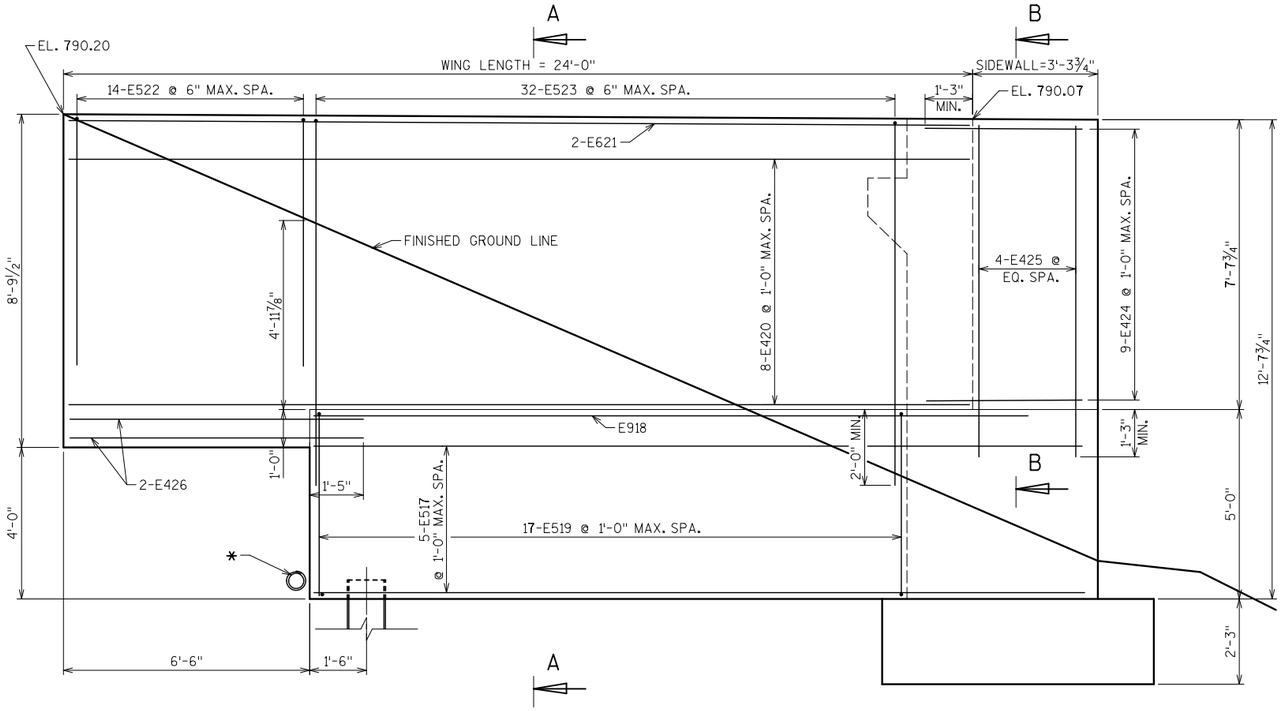
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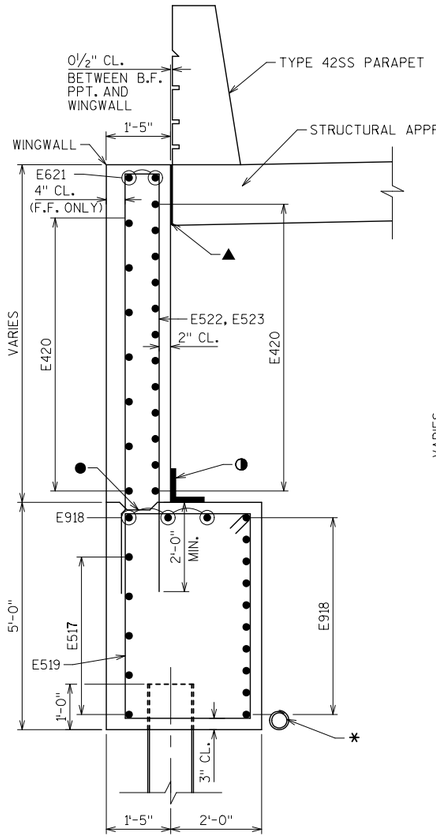
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STATE PROJECT NUMBER

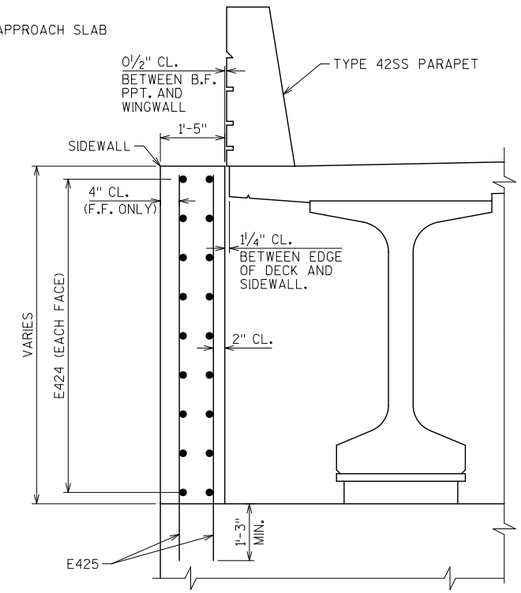
1517-07-79



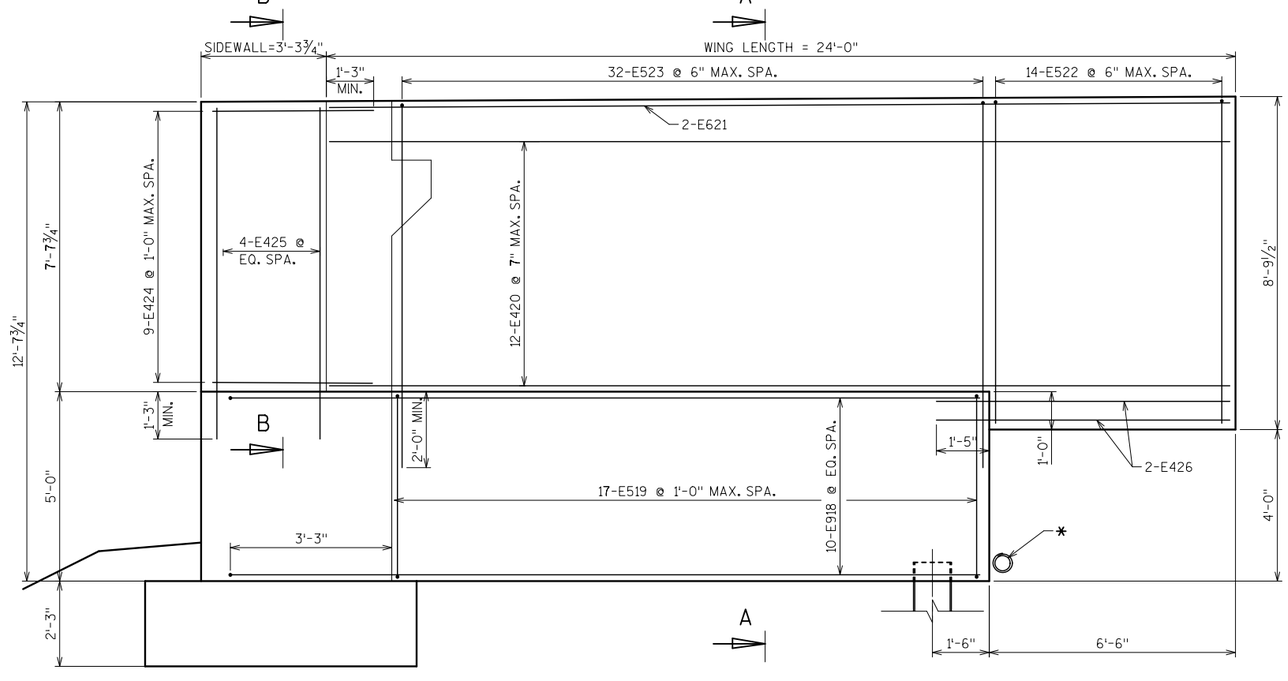
FRONT ELEVATION



SECTION A-A



SECTION B-B



BACK ELEVATION

NOTE

SEE SHEET 12, "WEST ABUTMENT PLAN AND ELEVATION" FOR LEGEND.

SEE SHEET 59, "AESTHETIC DETAILS" FOR FORMLINER DETAILS AND STAINING SCHEDULE.

LEGEND

- ● OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- ▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDL	PLANS CK'D.	MAD

EAST ABUTMENT WINGWALL 3

SHEET 18 OF 61
460

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DATE:5/12/2015
I.D. jon_liggard

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8

STATE PROJECT NUMBER
1517-07-79

WEST ABUTMENT

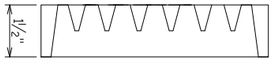
BAR MARK	NO. REQ'D	LENGTH	BENT	COATED	LOCATION
W601	34	6'-5"			TRANS. FOOTING
W602	31	3'-2"			TRANS. FOOTING
W503	8	45'-0"			LONGIT. FOOTING
W504	8	19'-3"			LONGIT. FOOTING
W605	61	5'-8"	X		BODY VERTICAL
W606	61	7'-3"	X		BODY VERTICAL
W607	9	45'-0"			BODY HORIZ.
W608	9	18'-9"			BODY HORIZ.
W509	6	25'-6"			BODY HORIZ.
W910	12	20'-0"			BODY HORIZ.
W611	61	9'-6"	X		BODY VERT.
W412	20	5'-7"	X		BEAM SEAT VERT.
W413	2	17'-0"			BEAM SEAT HORIZ.
W414	12	45'-0"		X	BACKWALL HORIZ.
W415	12	18'-2"		X	BACKWALL HORIZ.
W516	61	12'-1"	X	X	BACKWALL VERT.
W517	61	6'-11"	X	X	BACKWALL VERT.
W518	61	5'-5"	X	X	BACKWALL VERT.
W519	24	8'-6"		X	BACKWALL HORIZ.
W520					BAR MARK NOT USED
W721	1	6'-9"	X		TRANS. FOOTING
W522	5	15'-11"		X	WINGWALL 1 BODY LONGIT.
W723	12	14'-4"		X	WINGWALL 1 BODY LONGIT.
W524	13	15'-7"	X	X	WINGWALL 1 BODY VERT.
W425	13	19'-8"		X	WINGWALL 1 TOP LONGIT.
W626	2	19'-8"		X	WINGWALL 1 TOP LONGIT.
W527	7	12'-0"	X	X	WINGWALL 1 TOP VERT.
W528	14	14'-10"	X	X	WINGWALL 1 TOP VERT.
W429	4	7'-9"		X	WINGWALL 1 TOP LONGIT.
W430	12	4'-1"		X	WINGWALL 1 SIDEWALL LONGIT.
W431	8	6'-4"		X	WINGWALL 1 SIDEWALL VERT.
W532	5	16'-1"		X	WINGWALL 2 BODY LONGIT.
W733	12	14'-4"		X	WINGWALL 2 BODY LONGIT.
W534	13	15'-9"	X	X	WINGWALL 2 BODY VERT.
W435	13	19'-8"		X	WINGWALL 2 TOP LONGIT.
W636	2	19'-8"		X	WINGWALL 2 TOP LONGIT.
W537	7	12'-0"	X	X	WINGWALL 2 TOP VERT.
W538	14	14'-10"	X	X	WINGWALL 2 TOP VERT.
W439	4	7'-9"		X	WINGWALL 2 TOP LONGIT.
W440	12	4'-1"		X	WINGWALL 2 SIDEWALL LONGIT.
W441	8	6'-4"		X	WINGWALL 2 SIDEWALL VERT.

TOTAL WEIGHT UNCOATED BARS = 5,020 LBS
TOTAL WEIGHT EPOXY COATED BARS = 4,810 LBS

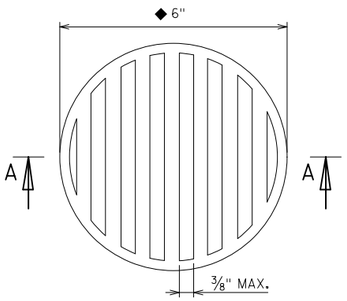
EAST ABUTMENT

BAR MARK	NO. REQ'D	LENGTH	BENT	COATED	LOCATION
E701	30	6'-5"			TRANS. FOOTING
E702	30	3'-0"			TRANS. FOOTING
E503	8	56'-8"			LONGIT. FOOTING
E604	58	5'-8"	X		BODY VERT.
E605	58	7'-3"	X		BODY VERT.
E606	9	56'-2"			BODY HORIZ.
E1007	9	24'-0"			BODY HORIZ.
E608	58	9'-8"	X		BODY VERT.
E409	27	5'-9"	X		BEAM SEAT VERT.
E410	2	20'-3"			BEAM SEAT HORIZ.
E411	32	29'-3"		X	BACKWALL HORIZ.
E512	58	16'-11"	X	X	BACKWALL VERT.
E513	58	6'-11"	X	X	BACKWALL VERT.
E514	58	5'-5"	X	X	BACKWALL VERT.
E515	27	7'-3"		X	BACKWALL HORIZ.
E516	9	34'-6"		X	BODY HORIZ.
E517	5	20'-0"		X	WINGWALL 3 BODY LONGIT.
E918	13	20'-2"	X	X	WINGWALL 3 BODY LONGIT.
E519	17	15'-7"	X	X	WINGWALL 3 BODY VERT.
E420	20	23'-8"		X	WINGWALL 3 TOP LONGIT.
E621	2	23'-8"		X	WINGWALL 3 TOP LONGIT.
E522	14	17'-6"	X	X	WINGWALL 3 TOP VERT.
E523	32	19'-8"	X	X	WINGWALL 3 TOP VERT.
E424	18	4'-1"		X	WINGWALL 3 SIDEWALL LONGIT.
E425	8	8'-9"		X	WINGWALL 3 SIDEWALL VERT.
E426	4	7'-9"		X	WINGWALL 3 TOP LONGIT.

TOTAL WEIGHT UNCOATED BARS = 4,840 LBS
TOTAL WEIGHT EPOXY COATED BARS = 4,610 LBS



SECTION A-A

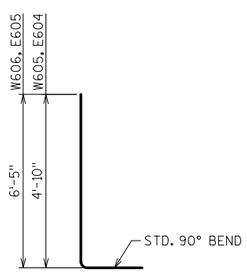


RODENT SHIELD

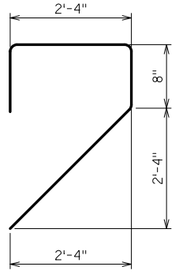
◆ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. FASTEN TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

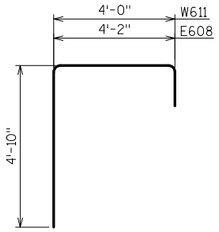
COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



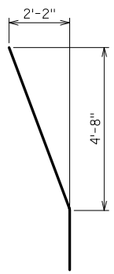
W605, W606, E604, E605



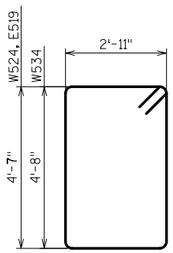
W517, E513



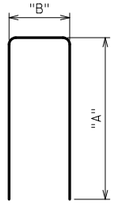
W611, E608



W721

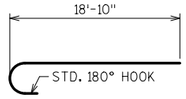


W524, W534, E519

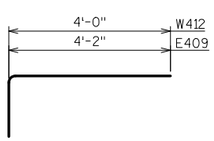


W516, W518, W527, W528, W537, W538, E512, E514, E522, E523

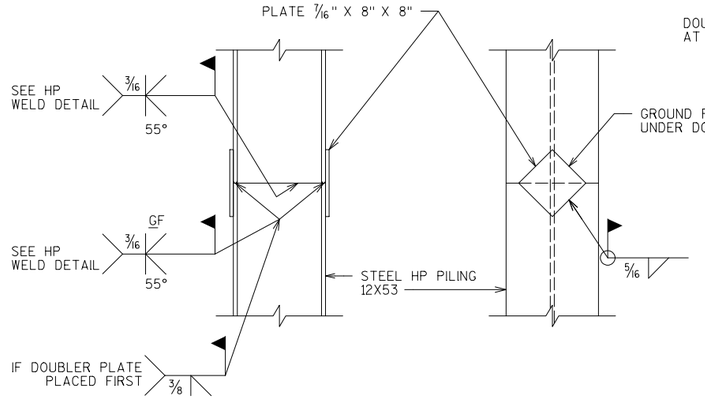
MARK	A	B
W516	5'-6"	1'-4"
W518	2'-2"	1'-4"
W527	5'-8"	11"
W528	7'-1"	11"
W537	5'-8"	11"
W538	7'-1"	11"
E512	7'-11"	1'-4"
E514	2'-2"	1'-4"
E522	8'-5"	11"
E523	9'-6"	11"



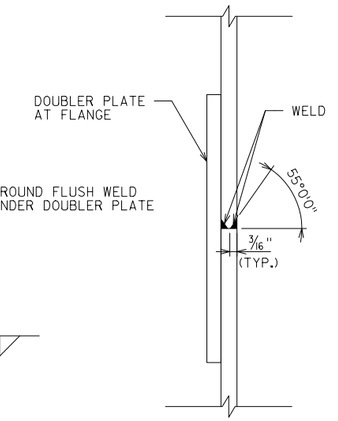
E918



W412, E409

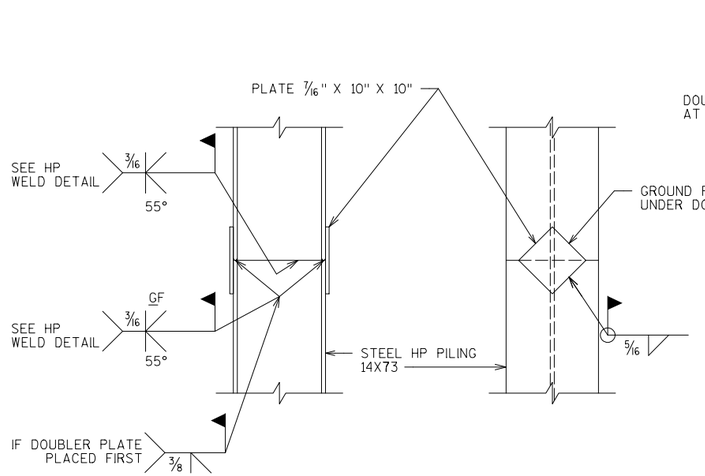


PILE SPLICE DETAIL FOR WEST ABUTMENT

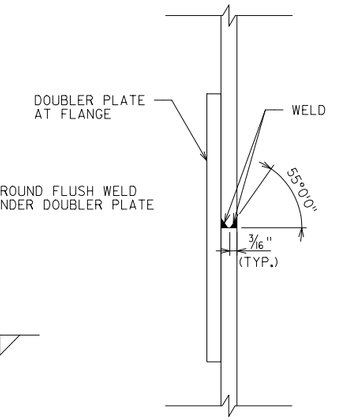


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



PILE SPLICE DETAIL FOR EAST ABUTMENT



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NOTES

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

FOR BARS IN SERIES: LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDL	PLANS CK'D.	MAD

ABUTMENT BILL OF BARS

SHEET 19 OF 61
461

8

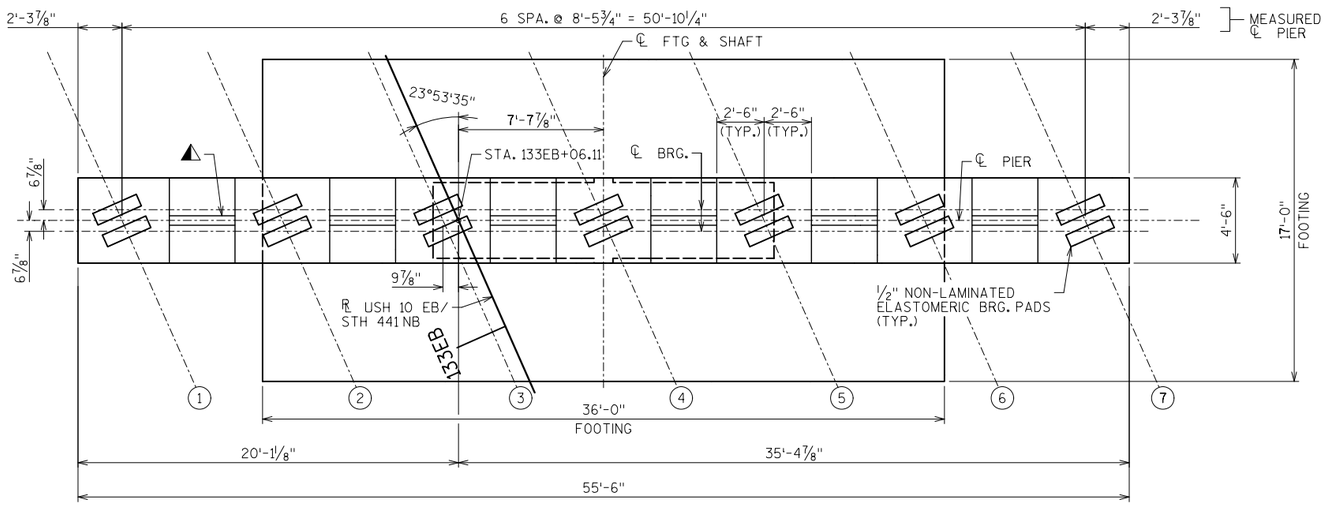
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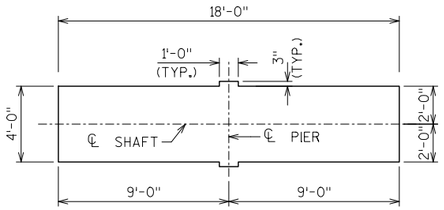
DATE: 5/12/2015
I.D. jon_liddgard

STATE PROJECT NUMBER

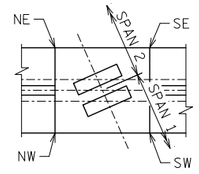
1517-07-79



PLAN

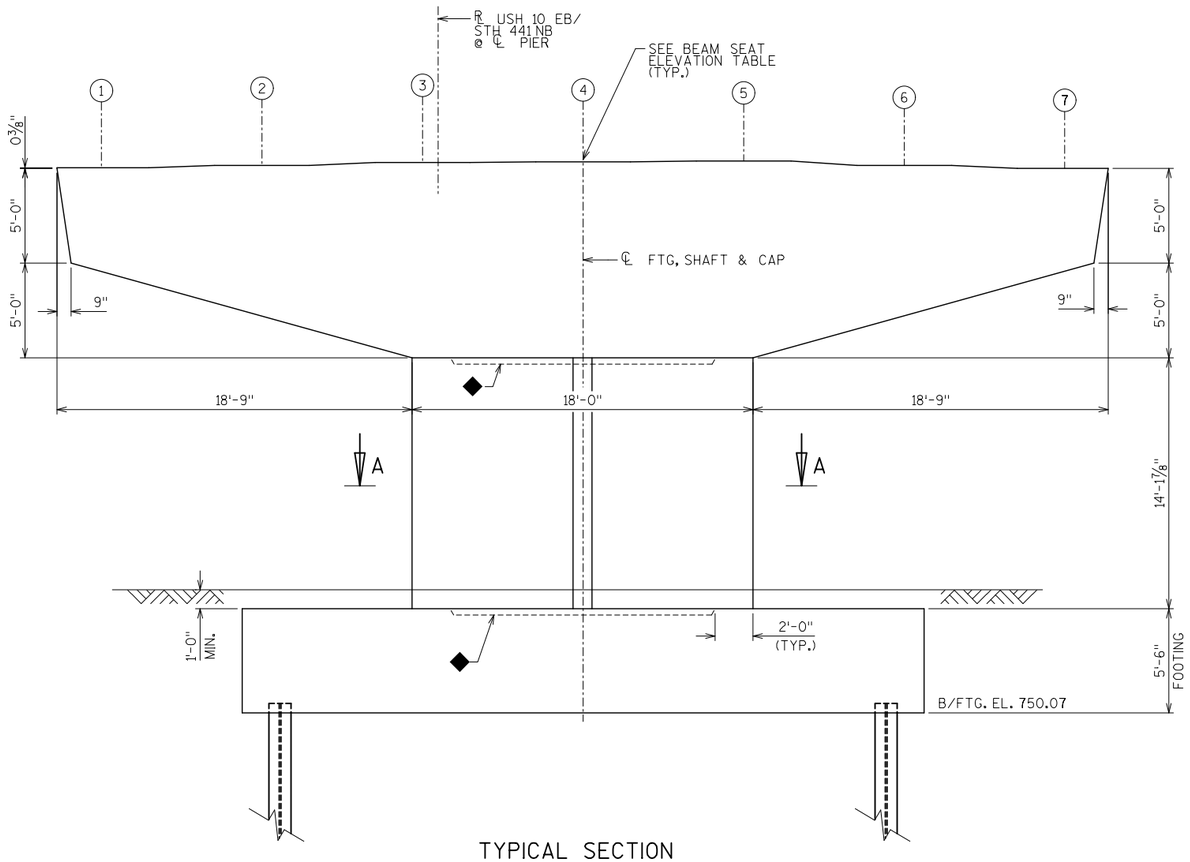


SECTION A-A



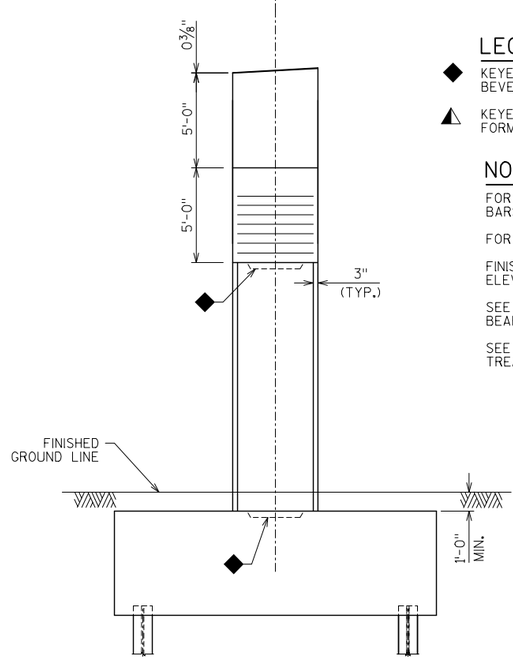
BEAM SEAT ELEVATION

	NE	SE	NW	SW
GIRDER 1	779.79	779.77	779.75	779.73
GIRDER 2	779.91	779.89	779.87	779.84
GIRDER 3	780.03	780.01	779.98	779.96
GIRDER 4	780.15	780.12	780.10	780.08
GIRDER 5	780.15	780.13	780.11	780.09
GIRDER 6	779.96	779.94	779.92	779.89
GIRDER 7	779.77	779.75	779.72	779.70



TYPICAL SECTION

LOOKING EAST (UPSTATION)



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

◭ KEYED CONSTR. JT. BETWEEN GIRDERS FORMED BY BEVELED 2" X 6".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

FINISH BEAM SEATS FLAT TRANSVERSE TO GIRDERS ACCORDING TO ELEVATIONS GIVEN ON "BEAM SEAT ELEVATION" TABLE.

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

PIER 1
LAYOUT DETAILS

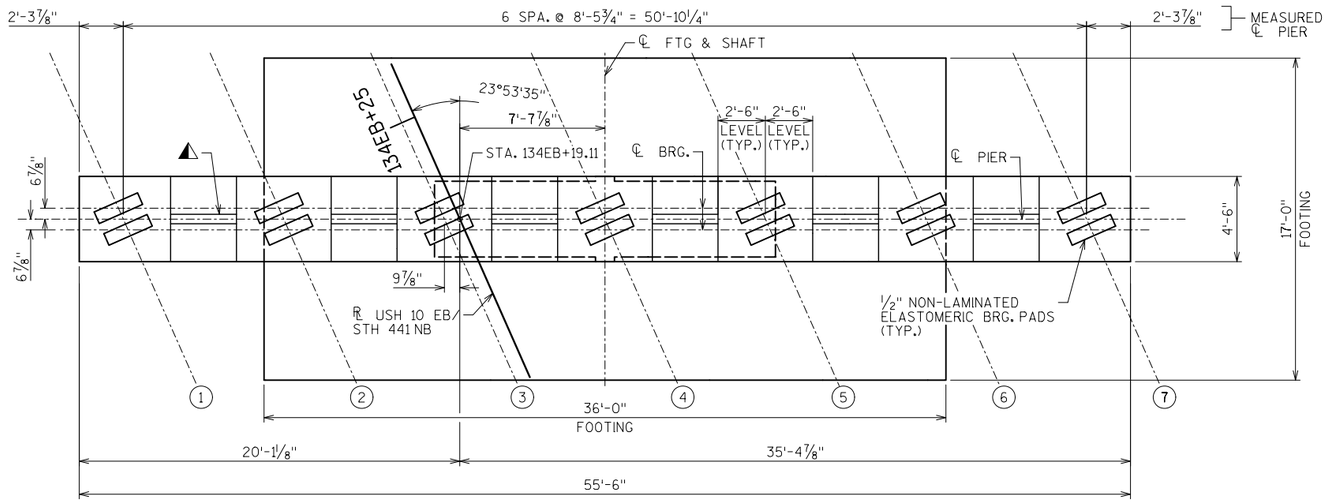
SHEET 20 OF 61
462

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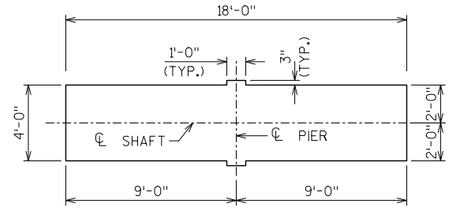
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I.D. jon_liggard

STATE PROJECT NUMBER

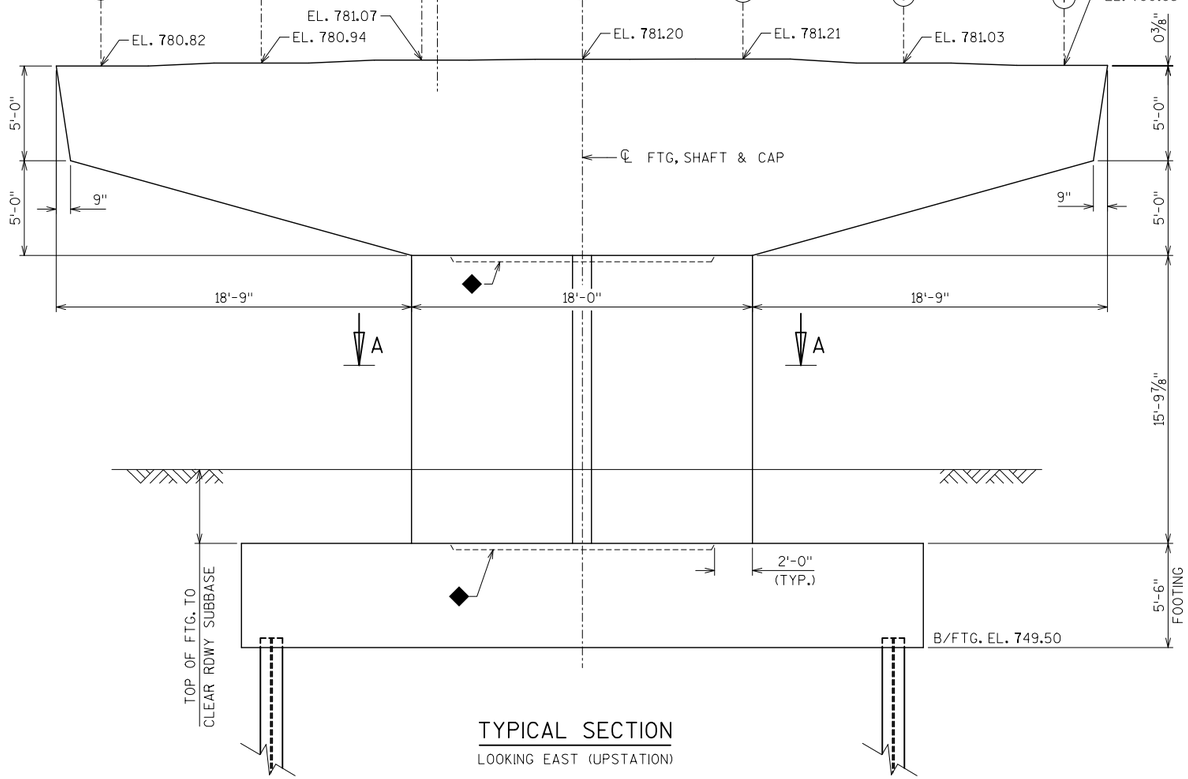
1517-07-79



PLAN

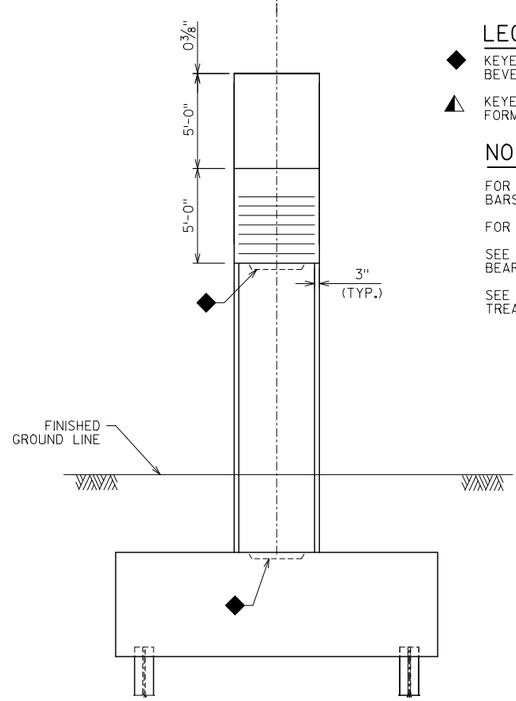


SECTION A-A



TYPICAL SECTION

LOOKING EAST (UPSTATION)



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

◭ KEYED CONSTR. JT. BETWEEN GIRDERS FORMED BY BEVELED 2" X 6".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

PIER 2
LAYOUT DETAILS

SHEET 21 OF 61
463

8

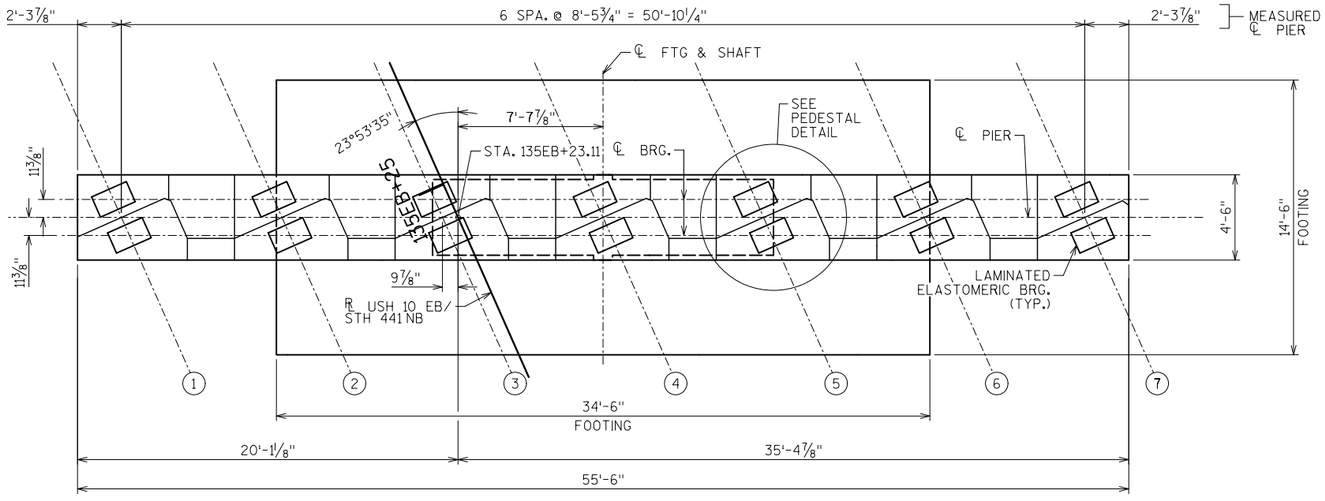
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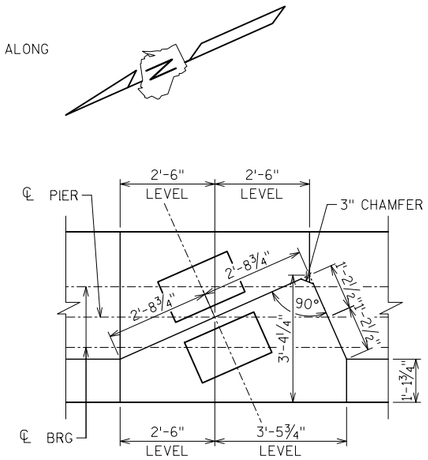
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I.D. jon_lidgard

STATE PROJECT NUMBER

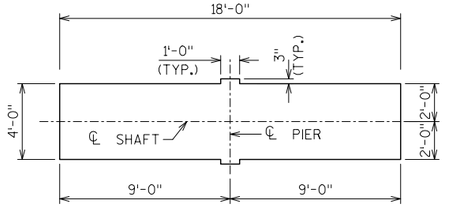
1517-07-79



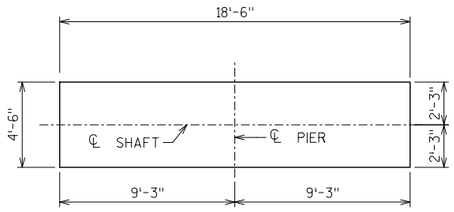
PLAN



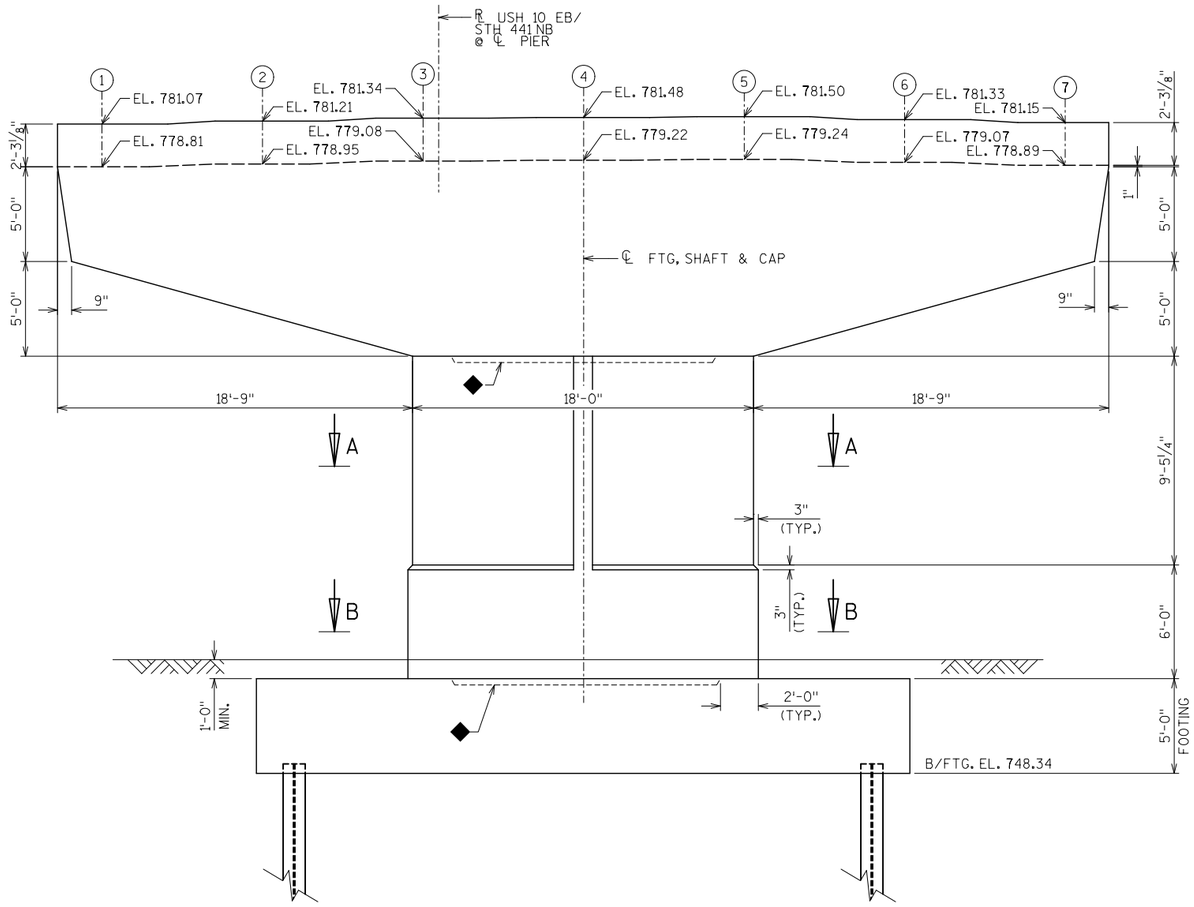
PEDESTAL DETAIL



SECTION A-A

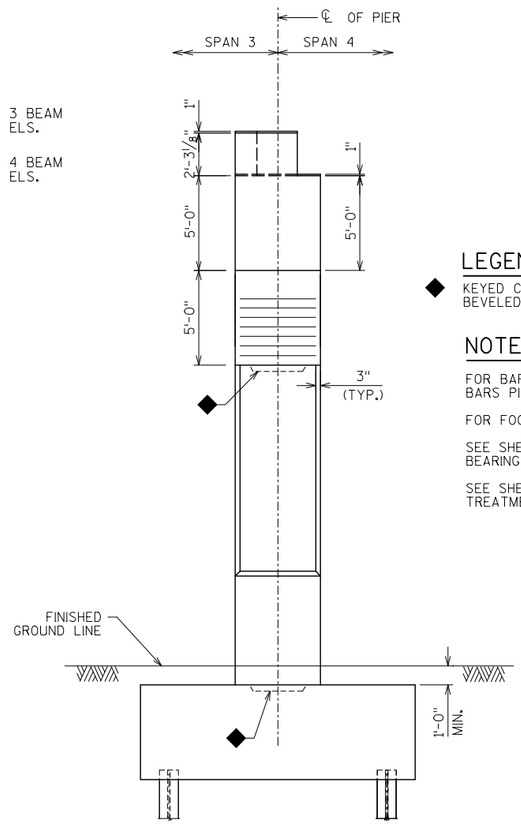


SECTION B-B



TYPICAL SECTION

LOOKING EAST (UPSTATION)



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 42 "EXPANSION DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

PIER 3
LAYOUT DETAILS

SHEET 33 OF 61
464

8

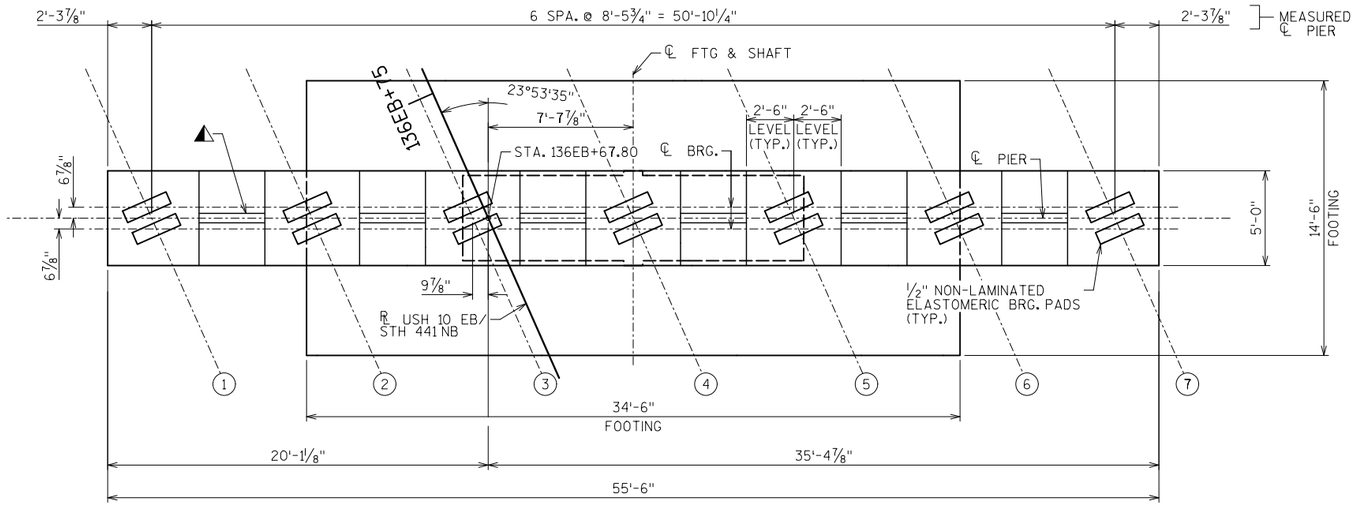
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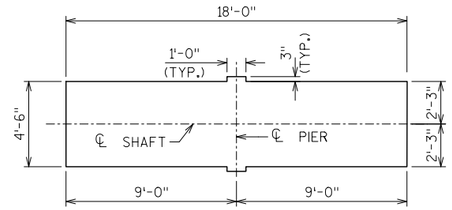
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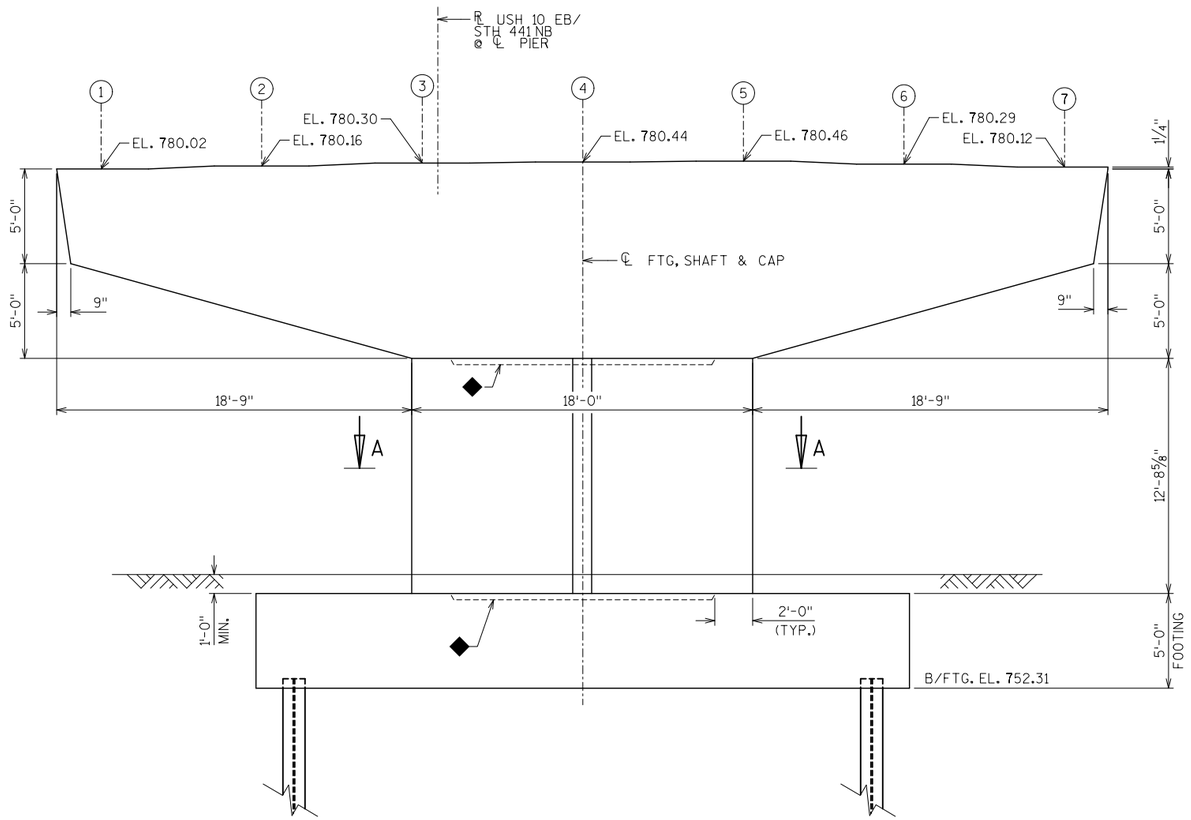
1517-07-79



PLAN



SECTION A-A



TYPICAL SECTION

LOOKING EAST (UPSTATION)

END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

◭ KEYED CONSTR. JT. BETWEEN GIRDERS FORMED BY BEVELED 2" X 6".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

PIER 4
LAYOUT DETAILS

SHEET 23 OF 61
465

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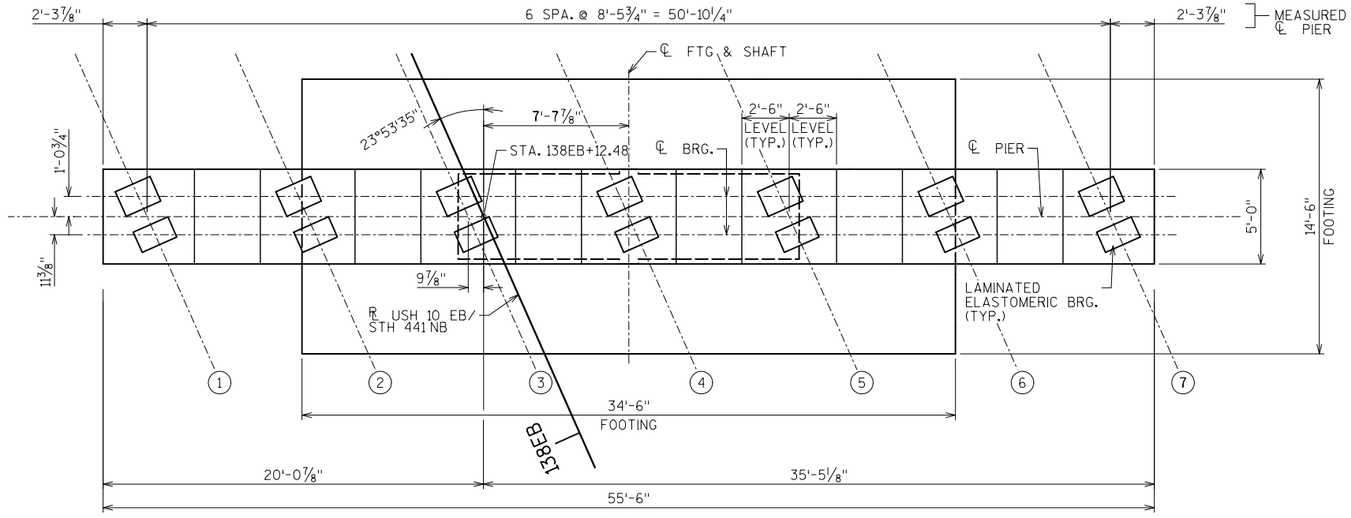
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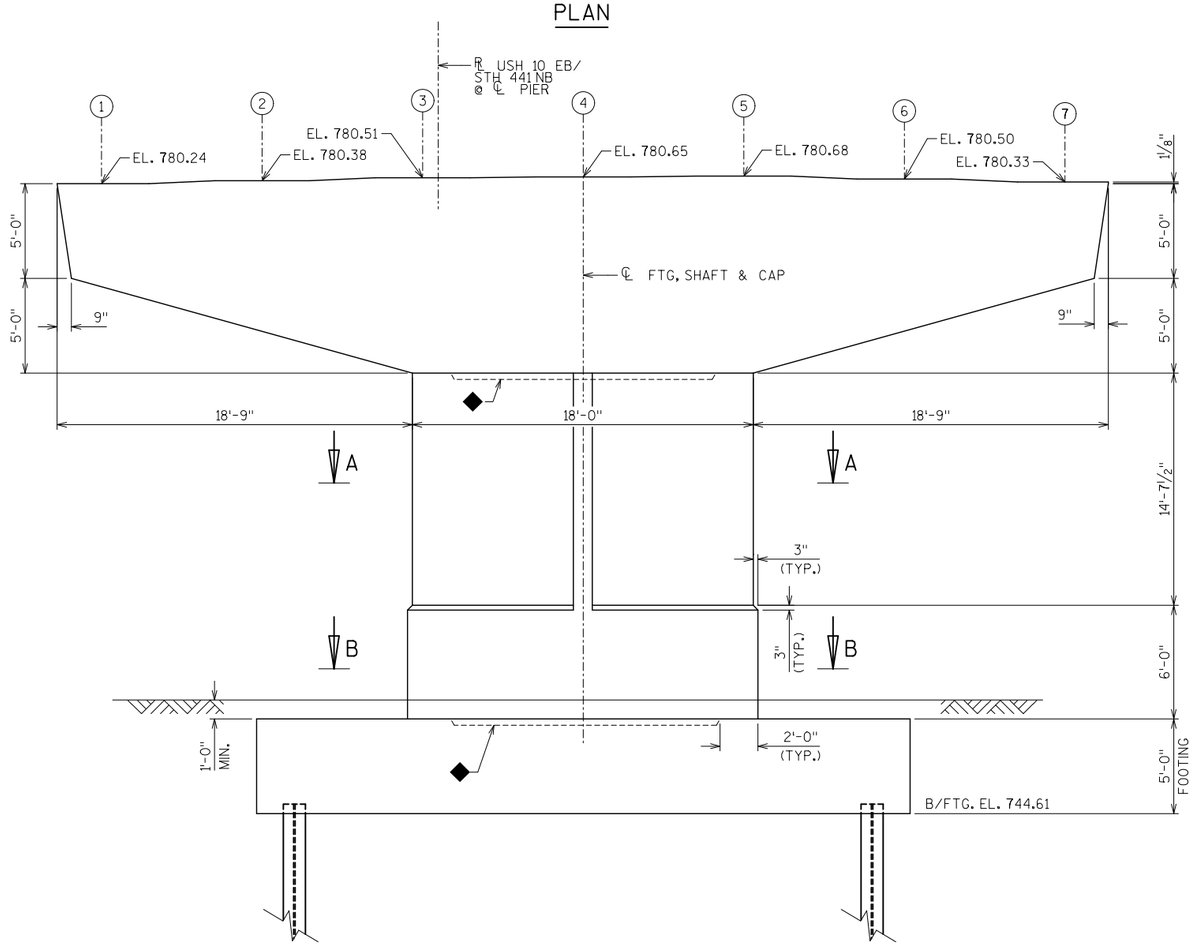
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STATE PROJECT NUMBER

1517-07-79

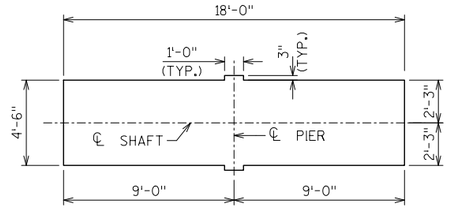


PLAN

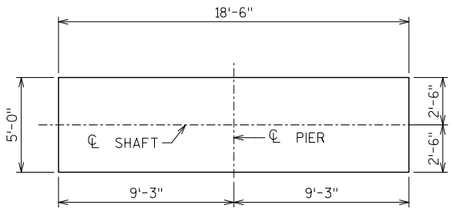


TYPICAL SECTION

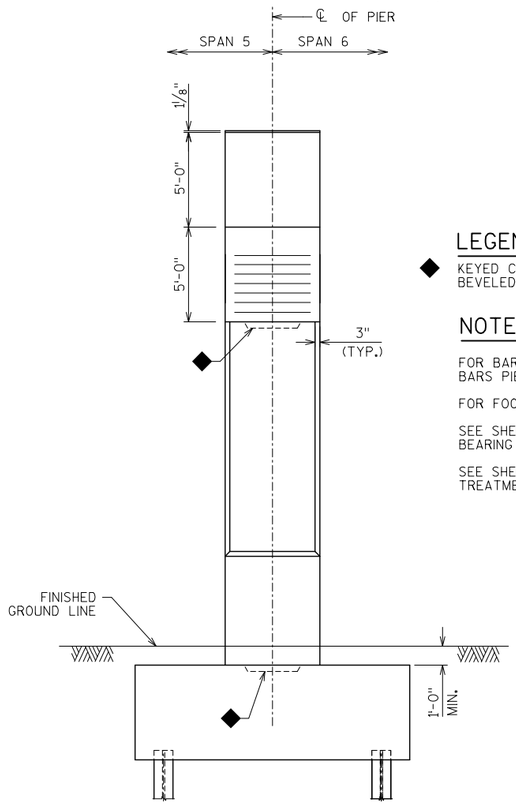
LOOKING EAST (UPSTATION)



SECTION A-A



SECTION B-B



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 42 "EXPANSION DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	MRL	PLANS CK'D.	MJA

PIER 5
LAYOUT DETAILS

SHEET 24 OF 61
466

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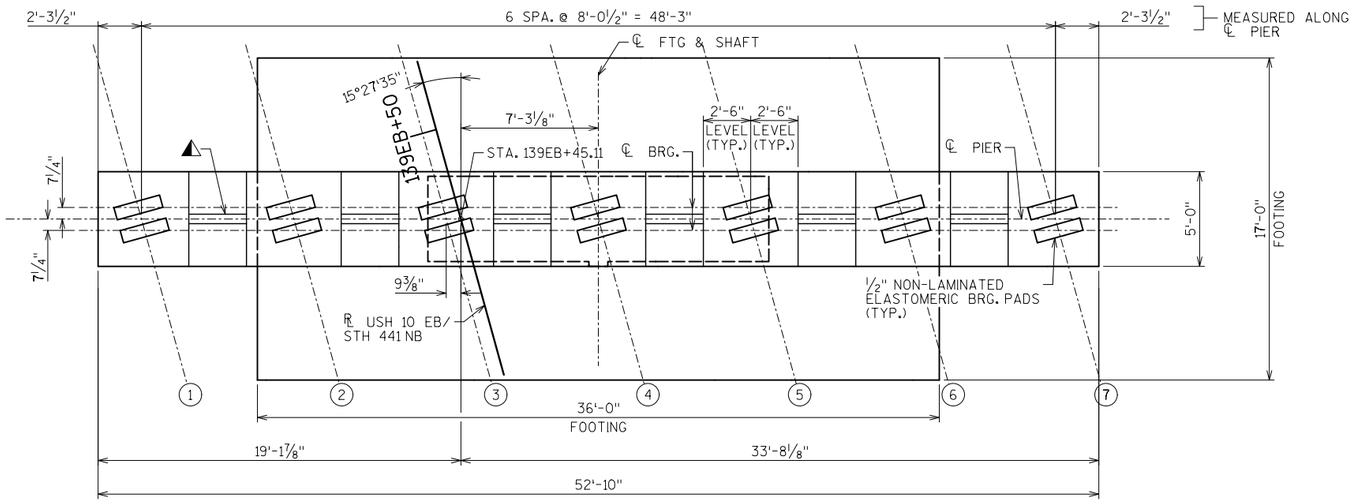
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I.D. Jon_Lidgard

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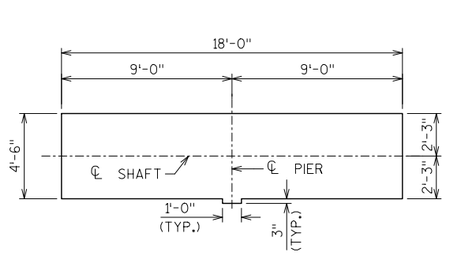
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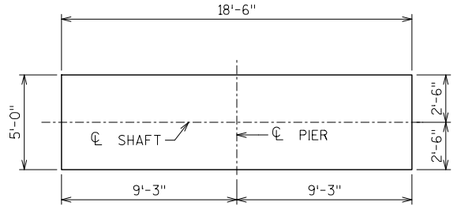
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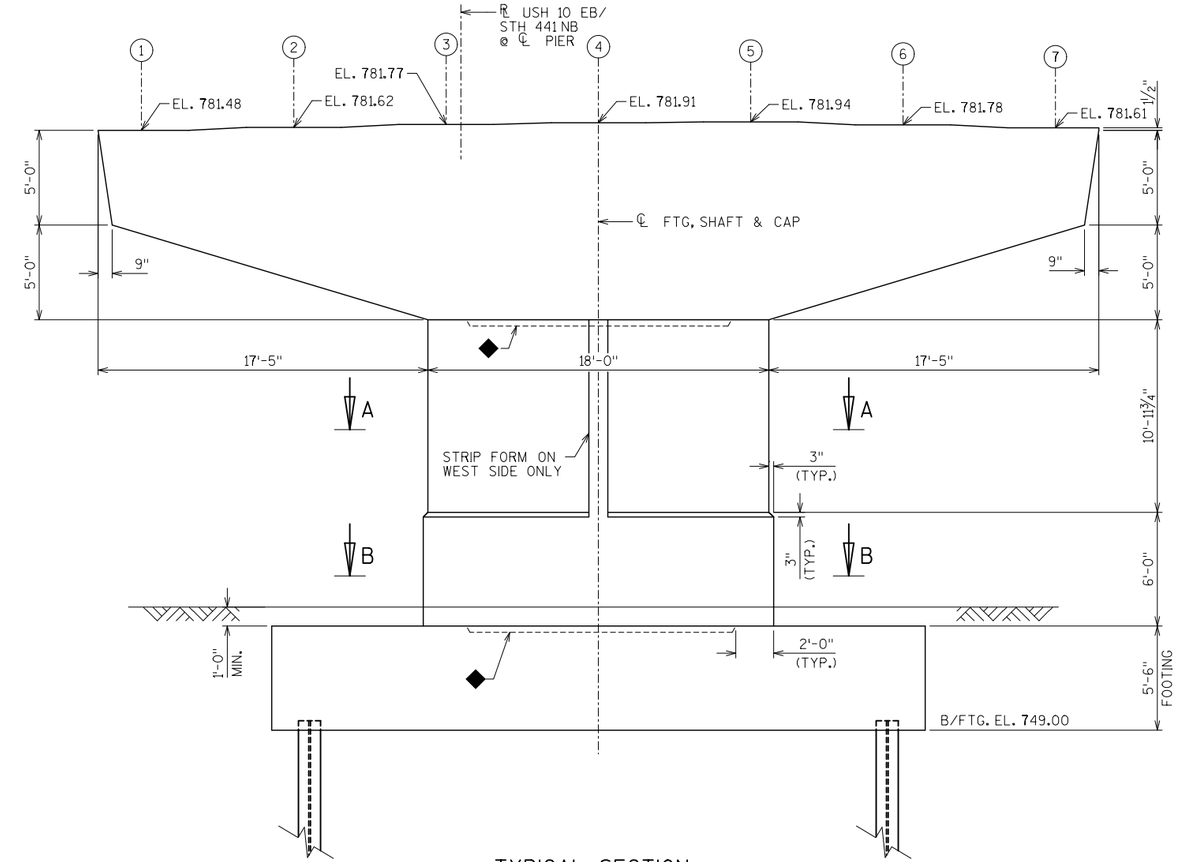
PLAN



SECTION A-A

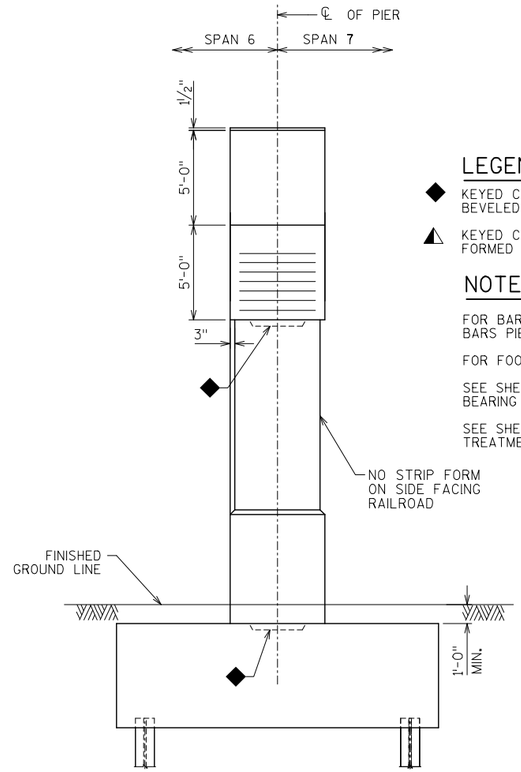


SECTION B-B



TYPICAL SECTION

LOOKING EAST (UPSTATION)



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

◭ KEYED CONSTR. JT. BETWEEN GIRDERS FORMED BY BEVELED 2" X 6".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

PIER 6
LAYOUT DETAILS

SHEET 25 OF 61
467

DATE: 5/12/2015
I.D. Jon_Lidgard

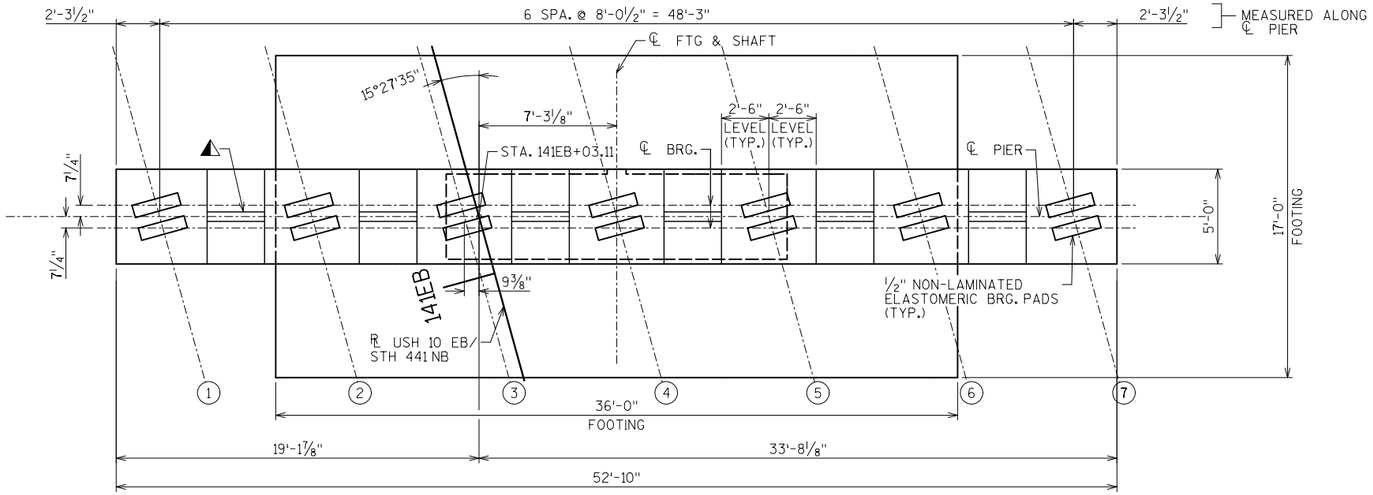
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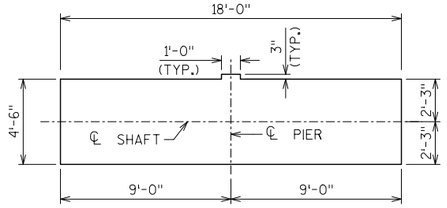
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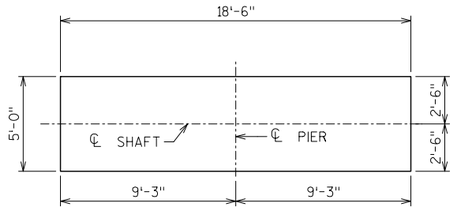
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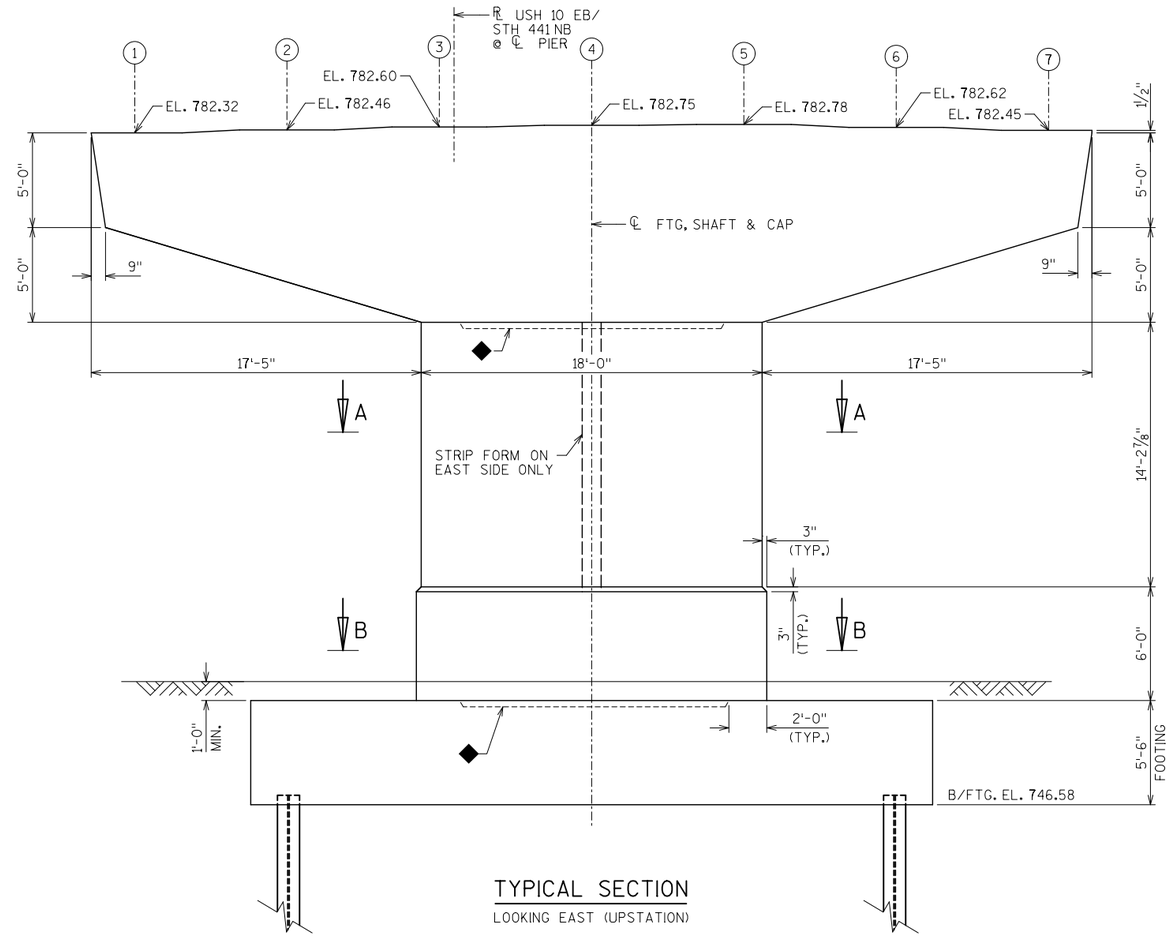
PLAN



SECTION A-A

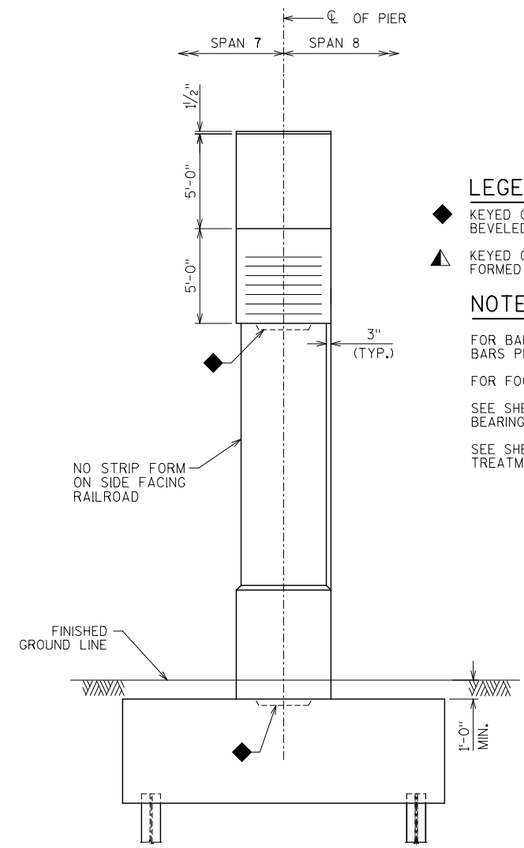


SECTION B-B



TYPICAL SECTION

LOOKING EAST (UPSTATION)



END VIEW

LOOKING NORTH

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 1'-6" X 14'-0".

◭ KEYED CONSTR. JT. BETWEEN GIRDERS FORMED BY BEVELED 2" X 6".

NOTES

FOR BAR STEEL REINFORCEMENT DETAILS, SEE SHEET 34 "BILL OF BARS PIERS."

FOR FOOTING LAYOUT DETAILS. SEE SHEET 33 "FOOTING DETAILS".

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

SEE SHEET 59 "AESTHETIC DETAILS" FOR PIER AESTHETIC TREATMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER 7
LAYOUT DETAILS

SHEET 26 OF 61
468

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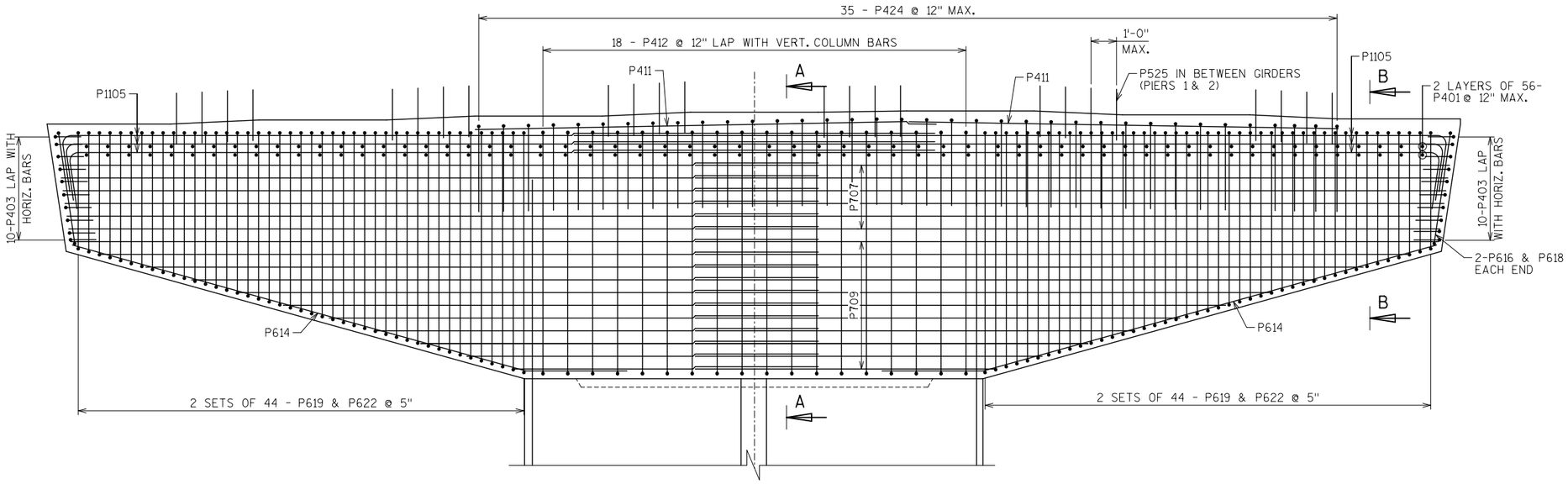
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DATE: 5.12.2015
I.D. jon_liggard

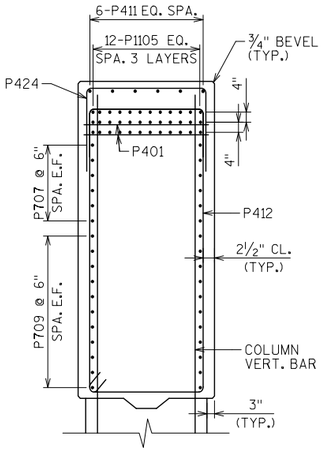
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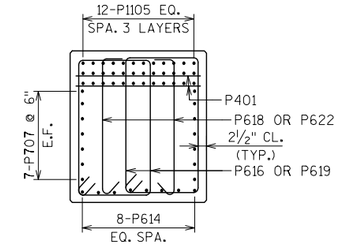


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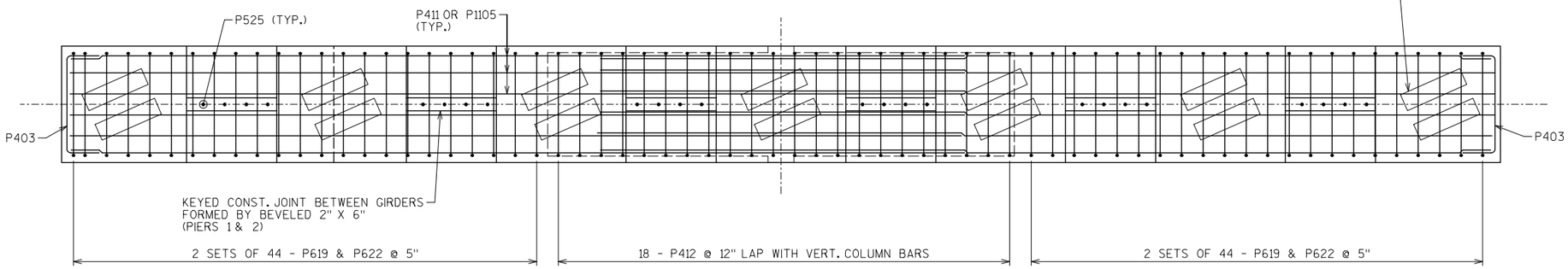
LOOKING EAST



SECTION A-A



SECTION B-B



PLAN

NOTES

LAP #4 BARS 1'-8" MIN.
LAP #7 BARS 4'-10" MIN.
LAP #11 BARS 14'-2" MIN.

SEE PIER LAYOUT DETAILS ON SHEETS 20-21 FOR PIER GEOMETRY AND ELEVATIONS.

SEE SHEET 34 "PIER BILL OF BARS" FOR BAR STEEL REINFORCEMENT DETAILS.

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER CAP DETAILS PIERS 1-2

SHEET 27 OF 61
469

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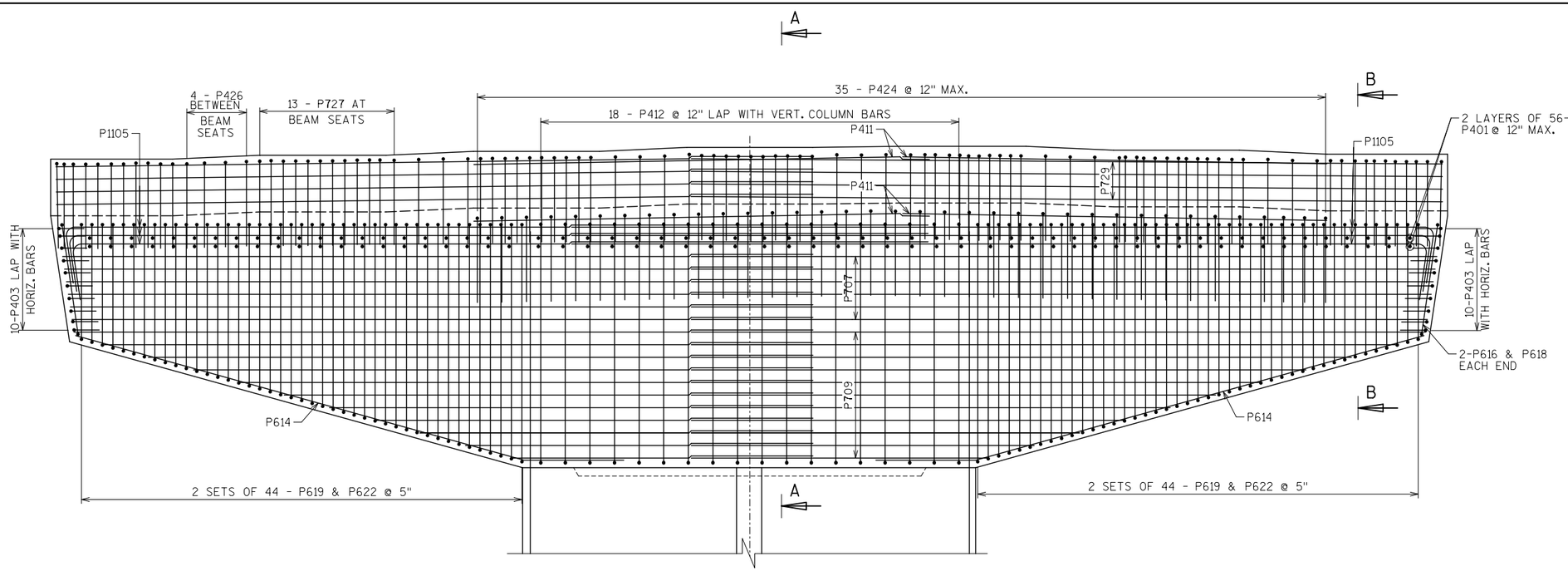
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I.D. Jon_Liddard

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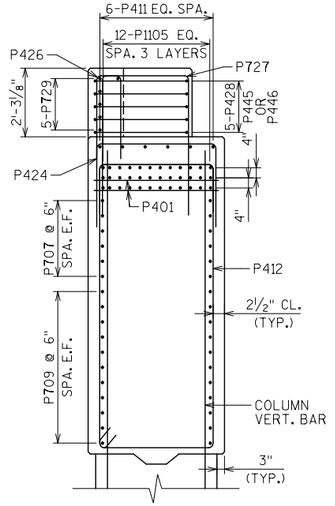
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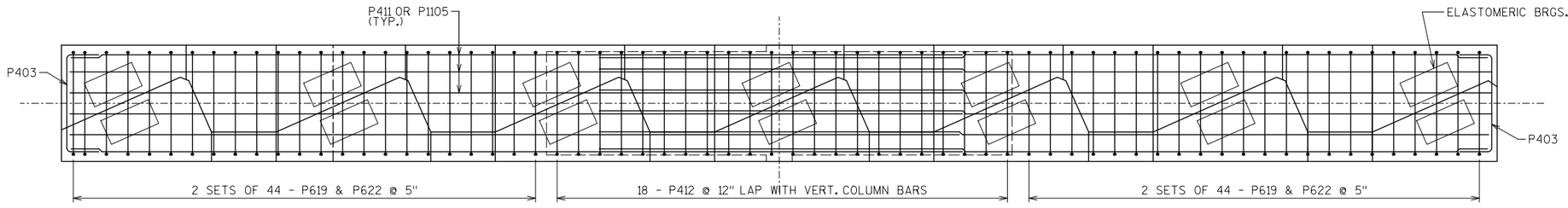


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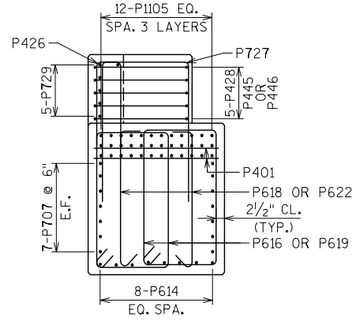
LOOKING EAST



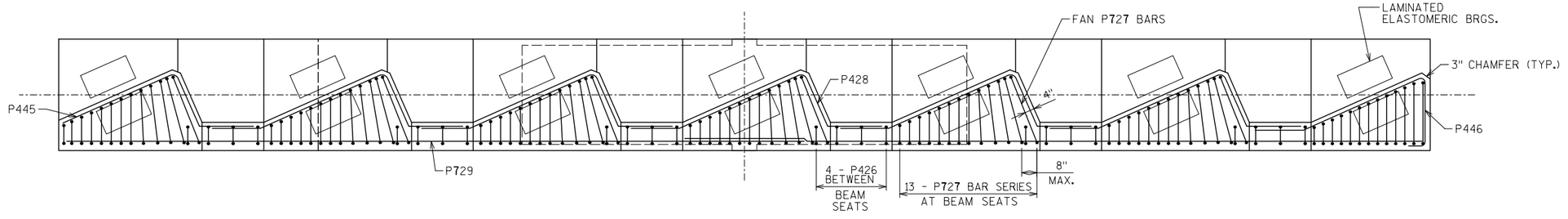
SECTION A-A



PLAN



SECTION B-B



PLAN

NOTES

LAP #4 BARS 1'-8" MIN.
LAP #7 BARS 4'-10" MIN.
LAP #11 BARS 14'-2" MIN.

SEE PIER LAYOUT DETAILS ON SHEET 22 FOR PIER GEOMETRY AND ELEVATIONS.

SEE SHEET 34 "PIER BILL OF BARS" FOR BAR STEEL REINFORCEMENT DETAILS.

SEE SHEET 42 "EXPANSION DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	PLANS CK'D.
MRL	JDB

PIER CAP DETAILS PIER 3

SHEET 28 OF 61
470

DATE: 5/12/2015
I.D. jon_liggard

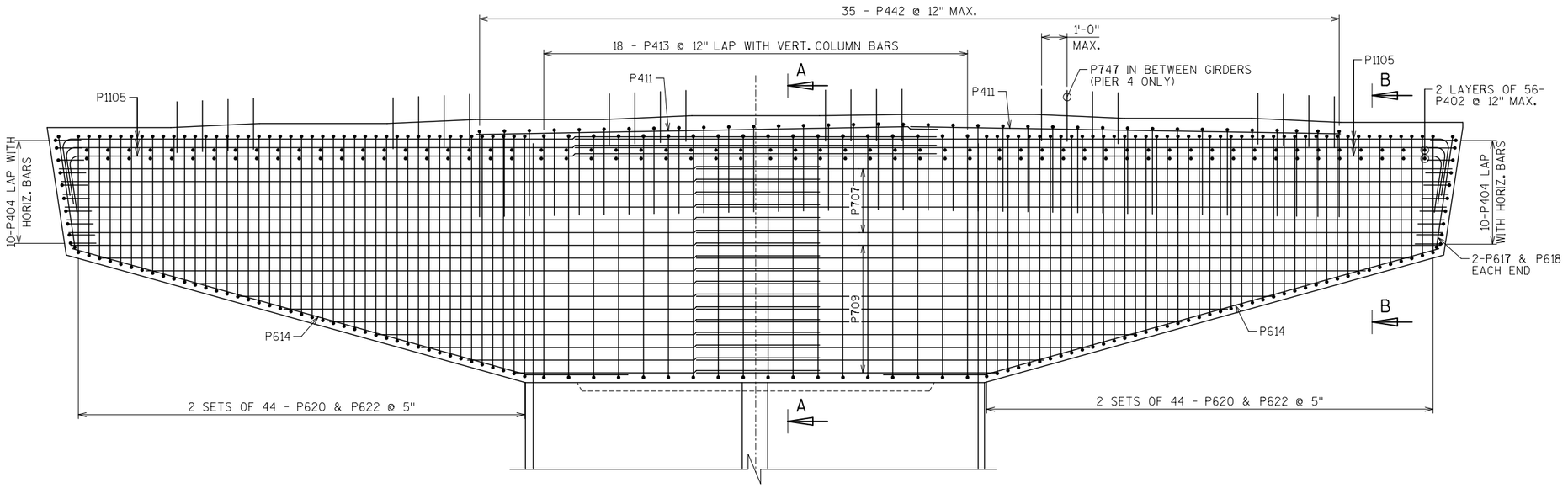
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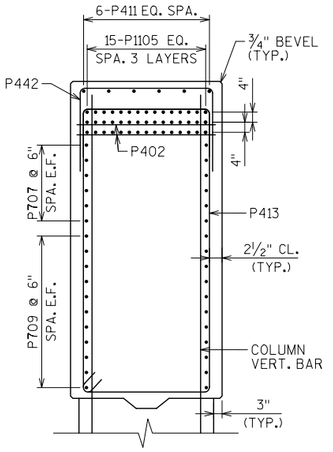
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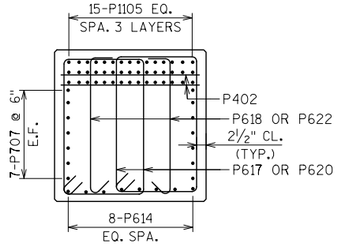


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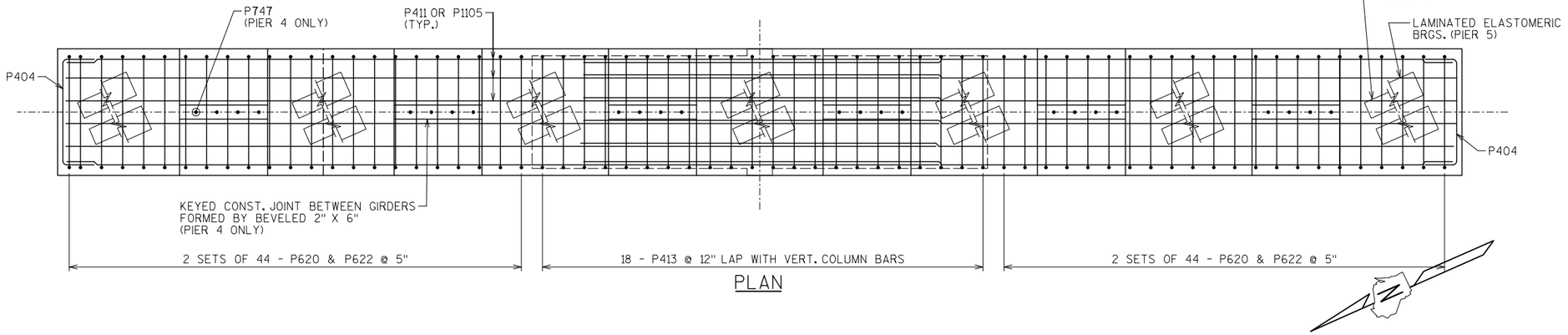
LOOKING EAST



SECTION A-A



SECTION B-B



PLAN

NOTES

LAP #4 BARS 1'-8" MIN.
LAP #7 BARS 4'-10" MIN.
LAP #11 BARS 14'-2" MIN.

SEE PIER LAYOUT DETAILS ON SHEETS 23-24 FOR PIER GEOMETRY AND ELEVATIONS.

SEE SHEET 34 "PIER BILL OF BARS" FOR BAR STEEL REINFORCEMENT DETAILS.

SEE SHEET 42 "EXPANSION DIAPHRAGM DETAILS" AND SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER CAP DETAILS PIERS 4-5

SHEET 29 OF 61
471

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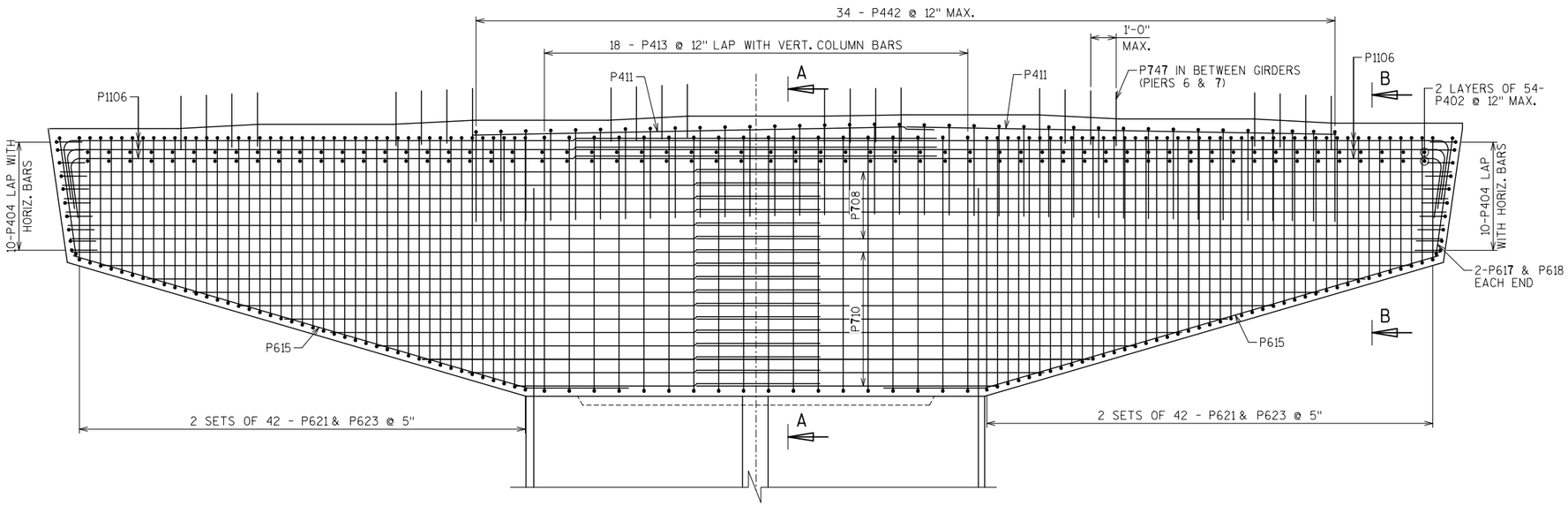
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DATE:5.12.2015
I.D. Jon_Liddard

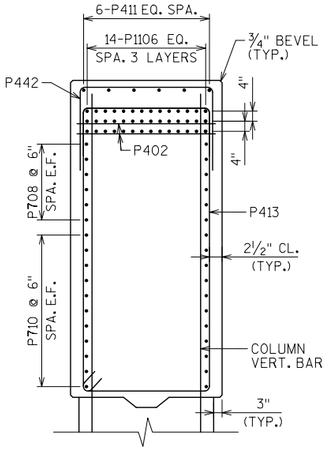
STATE PROJECT NUMBER

1517-07-79

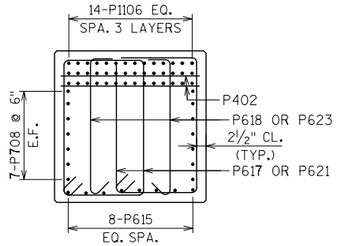


ELEVATION

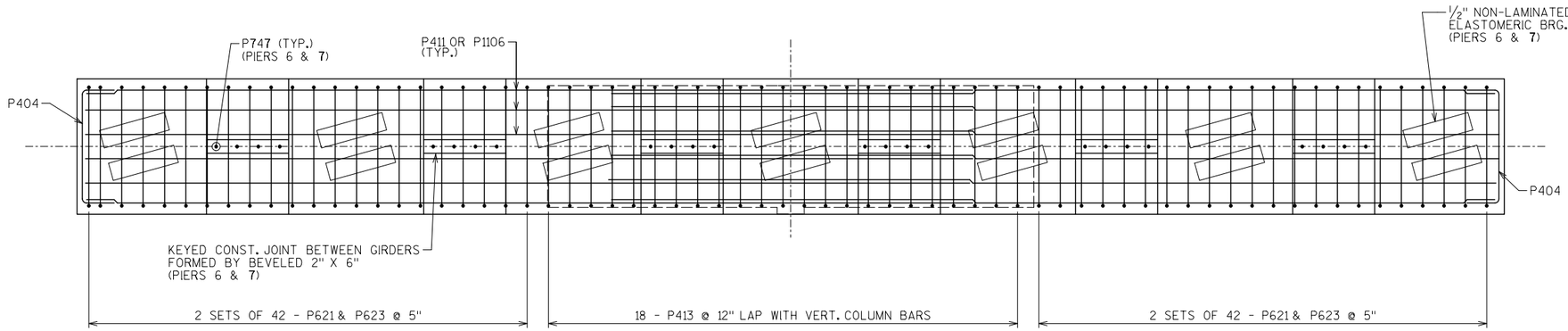
LOOKING EAST



SECTION A-A



SECTION B-B



PLAN

NOTES

LAP #4 BARS 1'-8" MIN.
LAP #7 BARS 4'-10" MIN.
LAP #11 BARS 14'-2" MIN.

SEE PIER LAYOUT DETAILS ON SHEETS 25-26 FOR PIER GEOMETRY AND ELEVATIONS.

SEE SHEET 34 "PIER BILL OF BARS" FOR BAR STEEL REINFORCEMENT DETAILS.

SEE SHEET 43 "FIXED DIAPHRAGM DETAILS" FOR DETAILS OF BEARING PADS AND PREFORMED FILLER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER CAP DETAILS PIERS 6-7

SHEET 30 OF 61
472

8

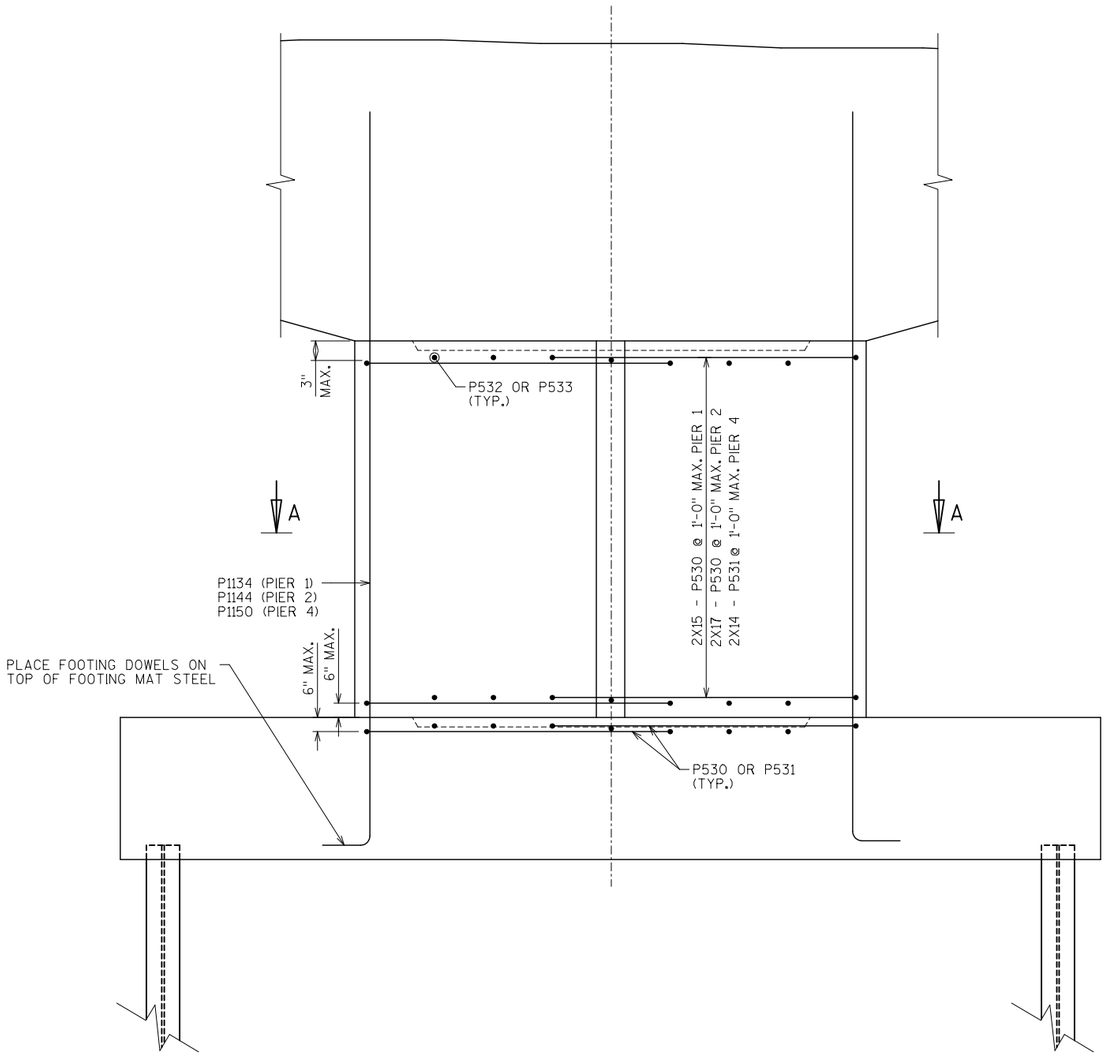
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I.D. jon_lidgard

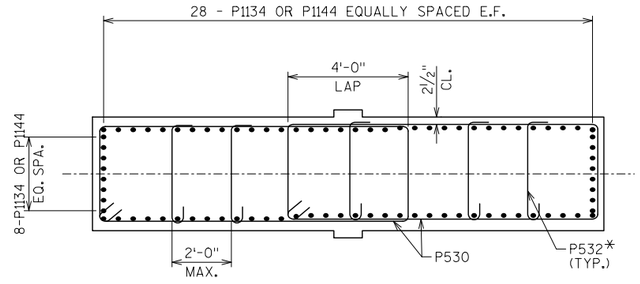
STATE PROJECT NUMBER

1517-07-79

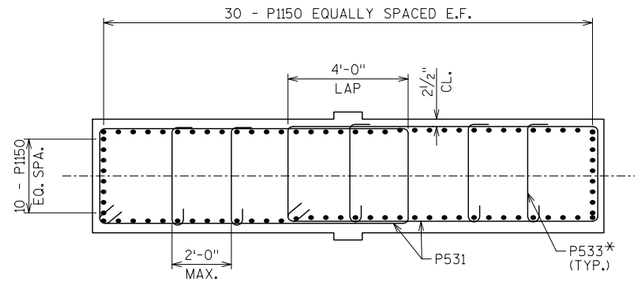


PIERS 1, 2 & 4 ELEVATION

LOOKING EAST



SECTION A-A PIERS 1-2



SECTION A-A PIER 4

NOTES

SEE SHEET 34 "BILL OF BARS PIERS" FOR BAR DETAILS & BILL OF BARS.

* ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES. SPACE TIES WITH HORIZONTAL SHAFT BARS.

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STRUCTURE B-70-400

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PIER SHAFT DETAILS PIERS 1-2, 4

SHEET 31 OF 61
473

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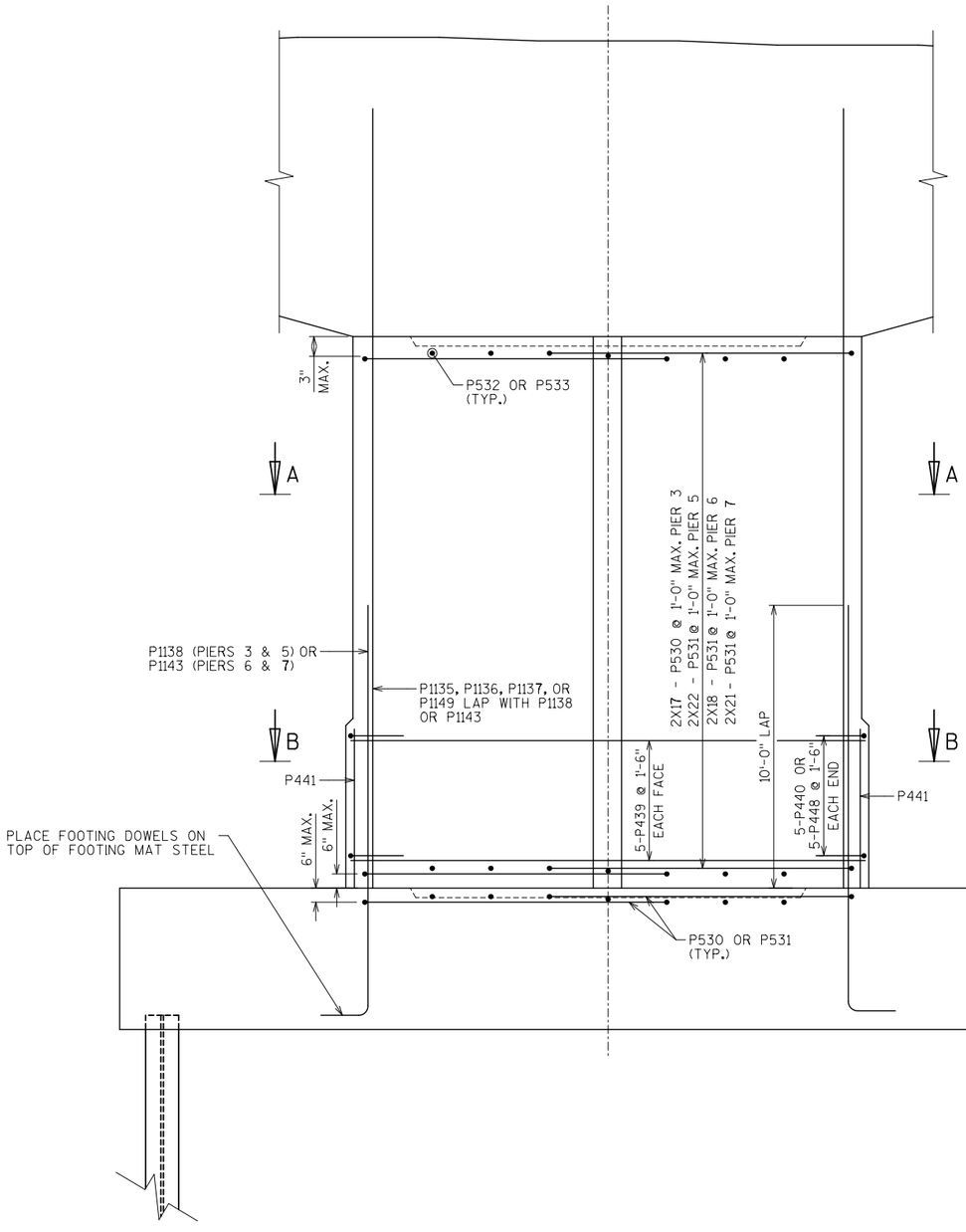
DATE:5/12/2015
I.D. jon_liggard

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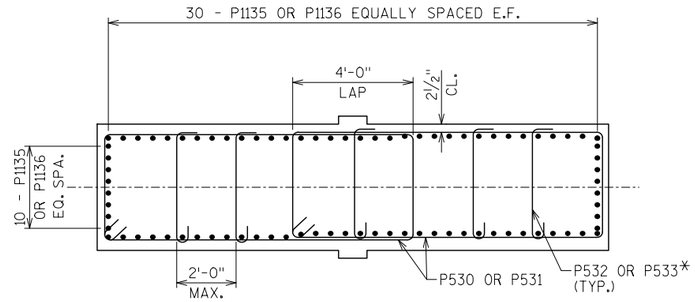
STATE PROJECT NUMBER

1517-07-79

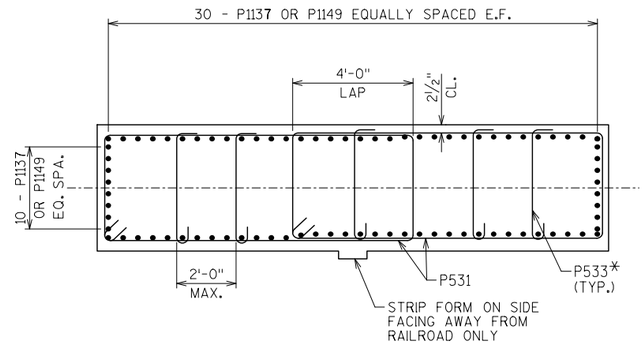


PIERS 3, 5-7 ELEVATION

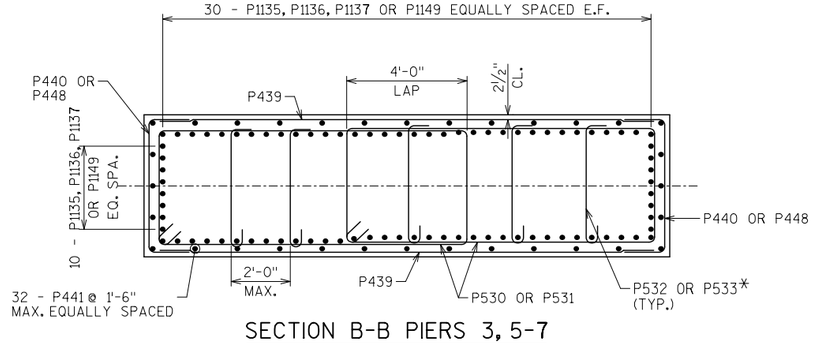
LOOKING EAST



SECTION A-A PIERS 3, 5



SECTION A-A PIERS 6, 7



SECTION B-B PIERS 3, 5-7

NOTES

SEE SHEET 34 "BILL OF BARS PIERS" FOR BAR DETAILS & BILL OF BARS.

* ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES. SPACE TIES WITH HORIZONTAL SHAFT BARS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER SHAFT DETAILS PIERS 3, 5-7

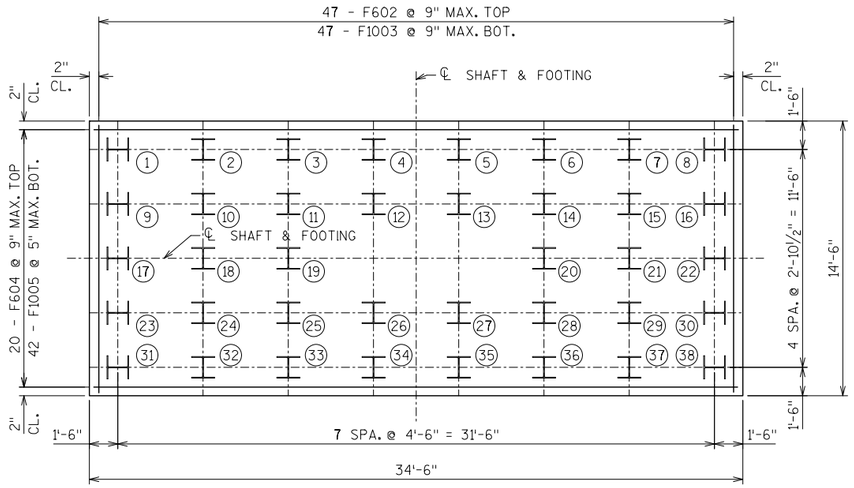
SHEET 32 OF 61
474

8

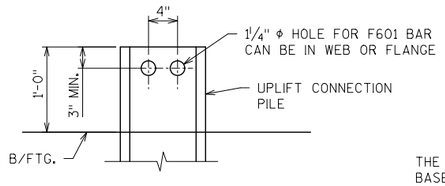
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DATE: 5/12/2015
I.D. jon.lidgard



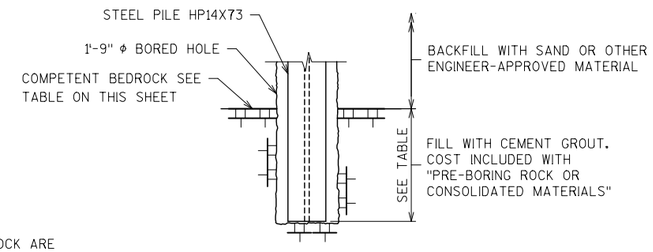
PIERS 3-5 FOOTING LAYOUT



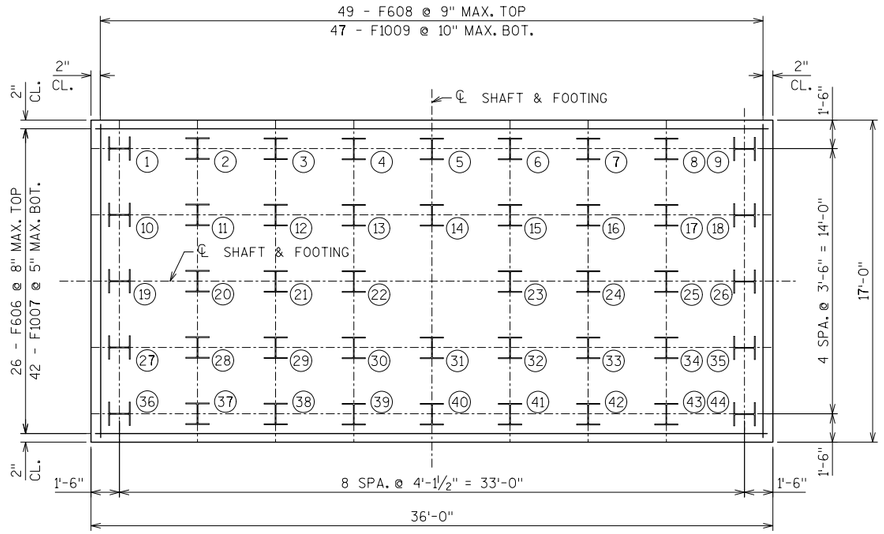
UPLIFT CONNECTION DETAIL

PIER #	COMPETENT BEDROCK EL.
1	742.0
2	738.0
3	735.0
4	732.0
5	730.0
6	728.0
7	725.0

THE ESTIMATED ELEVATIONS OF BEDROCK ARE BASED ON THE AVAILABLE BORING INFORMATION. HARD PRE-BORING MAY BE REQUIRED ABOVE OR BELOW THE ESTIMATED COMPETENT BEDROCK ELEVATIONS BECAUSE OF VARIABILITY IN THE ELEVATION AND WEATHERING OF THE BEDROCK AND THE POSSIBILITY OF PRESENCE OF COBBLES OR BOULDERS.



DETAIL FOR PILE ANCHOR IN ROCK



PIERS 1-2, 6-7 FOOTING LAYOUT

LEGEND

- ✳ PLACE IN 1¼" DIA. HOLES BURNED INTO PILE. USE 2 BARS AT EACH UPLIFT PILE.
- ◧ 1'-6" X 14'-0" X 4" DEEP CONSTRUCTION JOINT IN SHAFT AND FOOTING FORMED BY BEVELED KEYWAY.
- ⊕ INDICATES PILE NUMBER.

PILE NOTE

PIERS ARE TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE PER PILE AS SHOWN IN THE TABLE BELOW AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. PILES SUBJECT TO UPLIFT LOADS ARE PRE-BORED AND SOCKETED INTO SOLID ROCK, AND THESE PILES ARE NOT DRIVEN. ALL PILES THAT ARE NOT PREBORED REQUIRE PILE POINTS. SEE TABLE ON THIS SHEET FOR ROCK EMBEDMENT LENGTHS.

NOTES

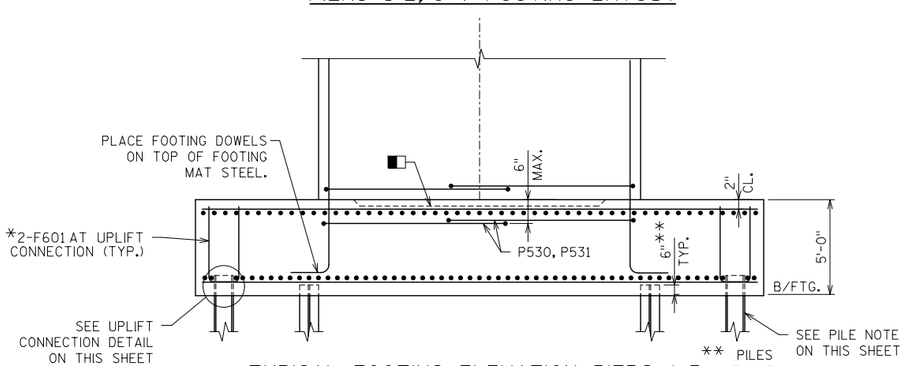
SEE SHEET 34 "BILL OF BARS PIERS" FOR BAR BILL, BAR BEND DETAILS, AND PILE SPLICE DETAIL.

LOCATION	PILE PRE-BORING & UPLIFT CONNECTION TABLE		
	3'-6" EMBED. PILES WITH UPLIFT CONNECTION	3'-0" EMBED. PILES WITH UPLIFT CONNECTION	UPLIFT CONNECTION ONLY (NO PREBORING)
PIER 1	1, 9, 36, 44	2-8, 37-43	--
PIER 2	1, 9, 36, 44	2-8, 37-43	10, 18, 27, 35
PIER 3	--	1, 8, 31, 38	--
PIER 4	--	--	--
PIER 5	--	1, 8, 31, 38	--
PIER 6	1, 9, 36, 44	2-8, 37-43	--
PIER 7	1, 9, 36, 44	2-8, 37-43	--

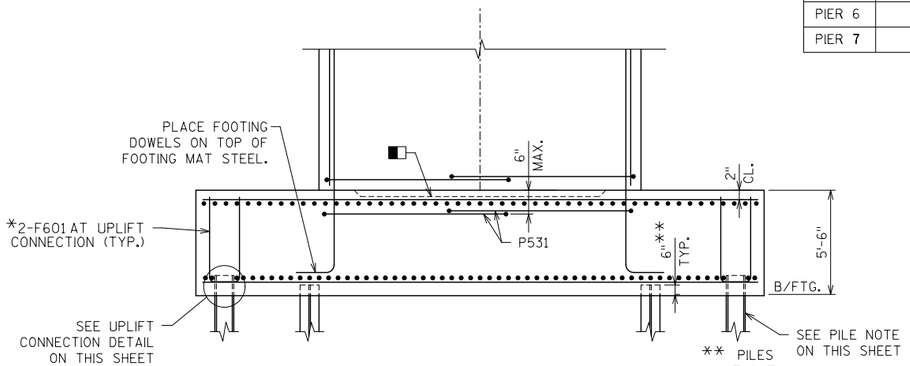
TOTAL UPLIFT CONNECTIONS = 84

ESTIMATED PILE LENGTH AND DRIVING RESISTANCE

LOCATION	ESTIMATED DRIVEN PILE LENGTH (FEET)	ESTIMATED PRE BORED PILE LENGTH (FEET)		REQUIRED DRIVING RESISTANCE (TONS)
		3'-6" EMBED.	3'-0" EMBED.	
PIER 1	9.0	13.0	12.5	180
PIER 2	8.0	12.0	11.5	190
PIER 3	7.0	--	10.5	210
PIER 4	16.0	--	--	250
PIER 5	8.5	--	12.0	250
PIER 6	12.5	16.5	16.0	250
PIER 7	10.5	14.5	14.0	230



TYPICAL FOOTING ELEVATION PIERS 1-5
(N.T.S.)



TYPICAL FOOTING ELEVATION PIERS 6-7
(N.T.S.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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PIER FOOTING DETAILS PIERS 1-7

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STATE PROJECT NUMBER

1517-07-79

BILL OF BARS - PIER

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P401	336	4'-1"			PIERS 1-3 CAP HORIZ. BAR
P402	440	4'-7"			PIERS 4-7 CAP HORIZ. BAR
P403	60	7'-1"	X		PIERS 1-3 CAP END BAR
P404	80	7'-7"	X		PIERS 4-7 CAP END BAR
P1105	396	36'-4"	X		PIERS 1-5 CAP TOP BAR
P1106	168	35'-0"	X		PIERS 6-7 CAP TOP BAR
P707	120	30'-0"			PIERS 1-5 CAP SIDE BAR
P708	48	28'-8"			PIERS 6-7 CAP SIDE BAR
P709	220	20'-6"		X	PIERS 1-5 CAP SIDE BAR
P710	88	19'-10"		X	PIERS 6-7 CAP SIDE BAR
P411	84	18'-0"			PIERS 1-7 CAP TOP BAR
P412	54	27'-10"	X		PIERS 1-3 CAP MIDDLE STIRRUP
P413	72	28'-10"	X		PIERS 4-7 CAP MIDDLE STIRRUP
P614	80	23'-4"	X		PIERS 1-5 CAP BOT. BAR
P615	32	22'-1"	X		PIERS 6-7 CAP BOT. BAR
P616	12	18'-2"	X		PIERS 1-3 CAP END STIRRUP
P617	16	19'-2"	X		PIERS 4-7 CAP END STIRRUP
P618	28	5'-11"	X		PIERS 1-7 CAP END TIES
P619	528	22'-7"	X	X	PIERS 1-3 CAP STIRRUP
P620	352	23'-7"	X	X	PIERS 4-5 CAP STIRRUP
P621	336	23'-7"	X	X	PIERS 6-7 CAP STIRRUP
P622	880	8'-7"	X	X	PIERS 1-5 CAP TIES
P623	336	8'-7"	X	X	PIERS 6-7 CAP TIES
P424	105	9'-11"	X		PIERS 1-3 CAP TOP VERT. BAR
P525	48	2'-0"			PIERS 1-2 DIAPH. VERT. BARS
P426	24	7'-6"	X		PIER 3 CAP PEDESTAL VERT. STIRRUP
P727	91	10'-10"	X	X	PIER 3 CAP PEDESTAL HORIZ. STIRRUP
P428	25	11'-11"	X		PIER 3 CAP PEDESTAL HORIZ. STIRRUP
P729	10	30'-0"			PIER 3 CAP PEDESTAL HORIZ. BAR
P530	104	29'-4"	X		PIERS 1-3 SHAFT HORIZ. STIRRUP
P531	158	30'-4"	X		PIERS 4-7 SHAFT HORIZ. STIRRUP
P532	260	4'-5"	X		PIERS 1-3 SHAFT HORIZ. TIES
P533	395	4'-11"	X		PIERS 4-7 SHAFT HORIZ. TIES
P1134	72	28'-10"	X		PIER 1 SHAFT VERT. BAR
P1135	80	24'-0"			PIER 3 SHAFT VERT. BAR
P1136	80	29'-2"			PIER 5 SHAFT VERT. BAR
P1137	80	28'-9"			PIER 7 SHAFT VERT. BAR
P1138	160	16'-6"	X		PIERS 3, 5 SHAFT DOWEL BAR
P439	40	18'-1"			PIERS 3, 5-7 SHAFT PEDESTAL HORIZ.
P440	30	7'-9"	X		PIERS 5-7 SHAFT PEDESTAL HORIZ.
P441	128	5'-7"			PIERS 3, 5-7 SHAFT PEDESTAL VERT.
P442	138	10'-5"	X		PIERS 4-7 CAP TOP VERT. BAR
P1143	80	17'-0"	X		PIERS 6-7 SHAFT DOWEL BAR
P1144	72	30'-5"	X		PIER 2 SHAFT VERT. BAR
P445	5	9'-6"	X		PIER 3 CAP PEDESTAL HORIZ. STIRRUP
P446	5	11'-7"	X		PIER 3 CAP PEDESTAL HORIZ. STIRRUP
P747	72	3'-2"			PIERS 4, 6-7 DIAPH. VERT. BARS
P448	10	7'-3"	X		PIER 3 SHAFT PEDESTAL HORIZ.
P1149	80	25'-8"			PIER 6 SHAFT VERT. BAR
P1150	80	27'-4"	X		PIER 4 SHAFT VERT. BAR

TOTAL WEIGHT= 279,240 LB

BILL OF BARS - FOOTING

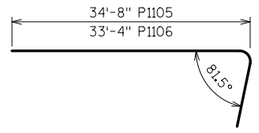
ALL BARS IN THIS TABLE SHALL BE UNCOATED

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F601	168	9'-0"	X		PIERS 1-7 FOOTING PILE UPLIFT BAR
F602	141	14'-2"			PIERS 3-5 FOOTING TRANSV. TOP BAR
F1003	141	14'-2"			PIERS 3-5 FOOTING TRANSV. BOT. BAR
F604	60	34'-2"			PIERS 3-5 FOOTING LONG. TOP BAR
F1005	126	34'-2"			PIERS 3-5 FOOTING LONG. BOT. BAR
F606	104	35'-8"			PIERS 1-2, 6-7 FOOTING LONG. TOP BAR
F1007	168	35'-8"			PIERS 1-2, 6-7 FOOTING LONG. BOT. BAR
F608	196	16'-8"			PIERS 1-2, 6-7 FOOTING TRANSV. TOP BAR
F1009	188	16'-8"			PIERS 1-2, 6-7 FOOTING TRANSV. BOT. BAR

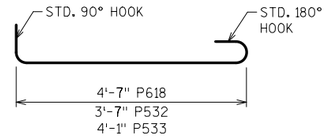
TOTAL WEIGHT= 85,260 LB

BAR SERIES TABLE

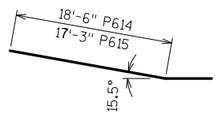
BAR MARK	NO. REQ'D	LENGTH
P709	20 SETS OF 11	11'-8" TO 29'-3"
P710	8 SETS OF 11	11'-8" TO 27'-11"
P619	12 SETS OF 44	17'-7" TO 27'-7"
P620	8 SETS OF 44	18'-7" TO 28'-7"
P621	8 SETS OF 42	18'-7" TO 28'-7"
P622	20 SETS OF 44	6'-1" TO 11'-1"
P623	8 SETS OF 42	6'-1" TO 11'-1"
P727	7 SETS OF 13	9'-8" TO 12'-0"



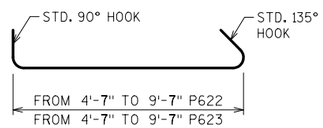
P1105, P1106



P618, P532, P533

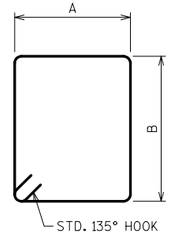


P614, P615

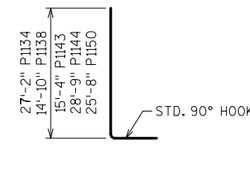


P622, P623

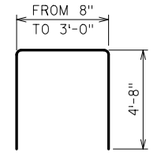
MARK	A	B
P412	4'-1"	9'-7"
P413	4'-7"	9'-7"
P616	4'-1"	4'-7"
P617	4'-7"	4'-7"
P530	10'-10"	3'-7"
P531	10'-10"	4'-1"



P412, P413, P616, P617, P530, P531

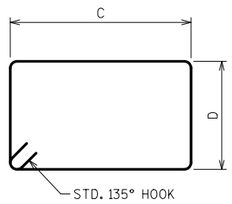


P1134, P1138, P1143, P1144

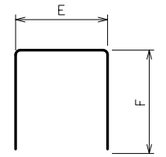


P727

MARK	C	D
P619	4'-1"	FROM 4'-7" TO 9'-7"
P620	4'-7"	FROM 4'-7" TO 9'-7"
P621	4'-7"	FROM 4'-7" TO 9'-7"

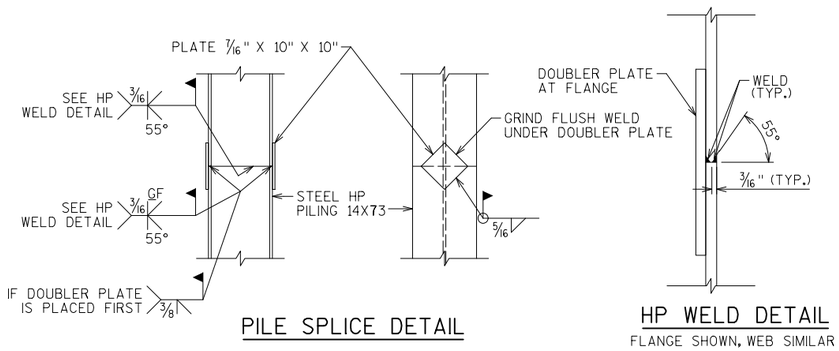


P619, P620, P621



P403, P404, P424, P426, P440, P442, P448, F601

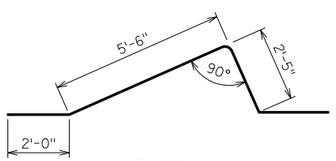
MARK	E	F
P403	3'-11"	1'-8"
P404	4'-5"	1'-8"
P424	4'-1"	3'-0"
P426	8"	3'-6"
P440	4'-7"	1'-8"
P442	4'-7"	3'-0"
P448	4'-1"	1'-8"
F601	1'-8"	3'-10"



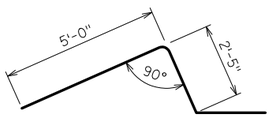
PILE SPLICE DETAIL

HP WELD DETAIL

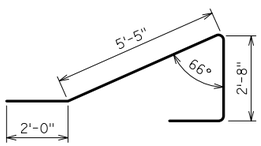
FLANGE SHOWN, WEB SIMILAR



P428



P445



P446

NOTES

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

FOR BARS IN SERIES: LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. JDB

PIER BILL OF BARS

SHEET 34 OF 61
476

FILE= P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\B-70-400\Sheets\34 - pier bill of bars.dgn

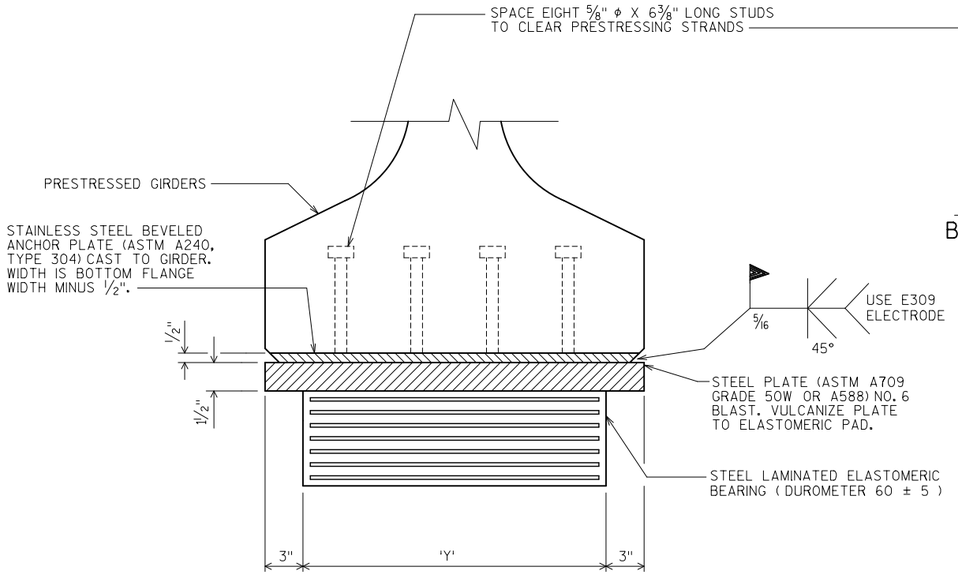
DATE: 5/12/2015
I.D. Jon_Lidgard

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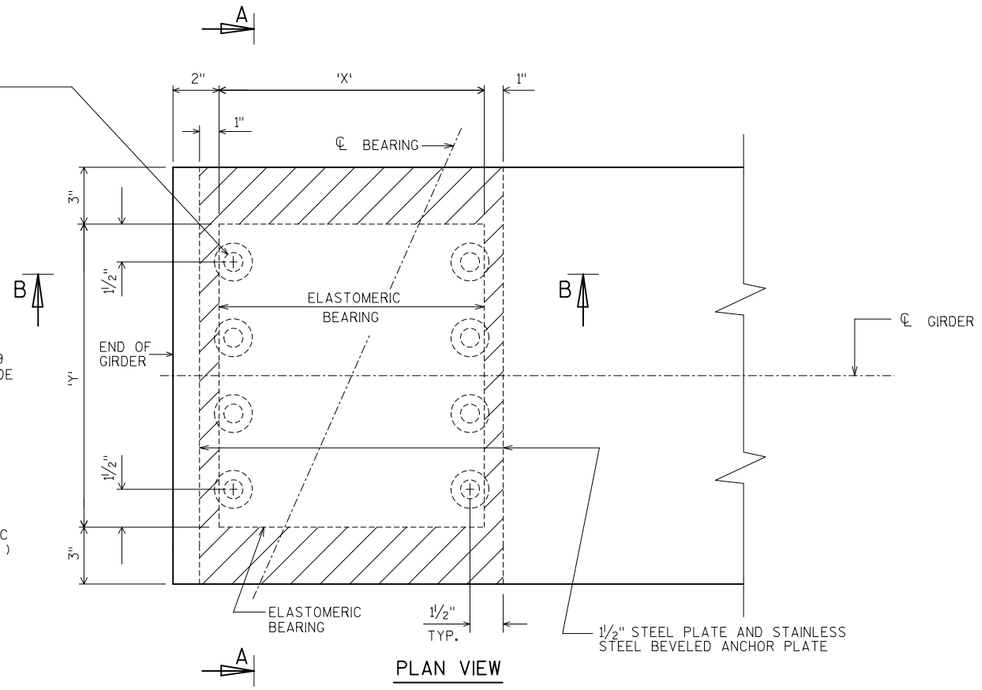
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STATE PROJECT NUMBER

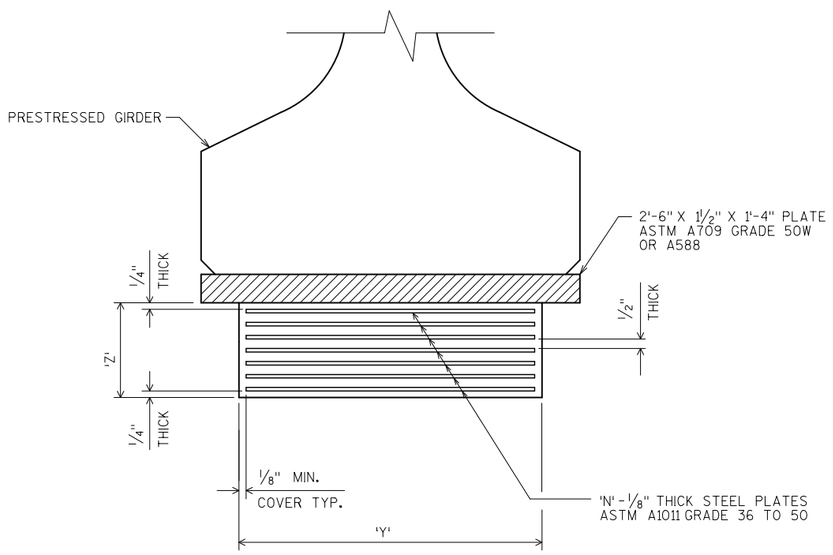
1517-07-79



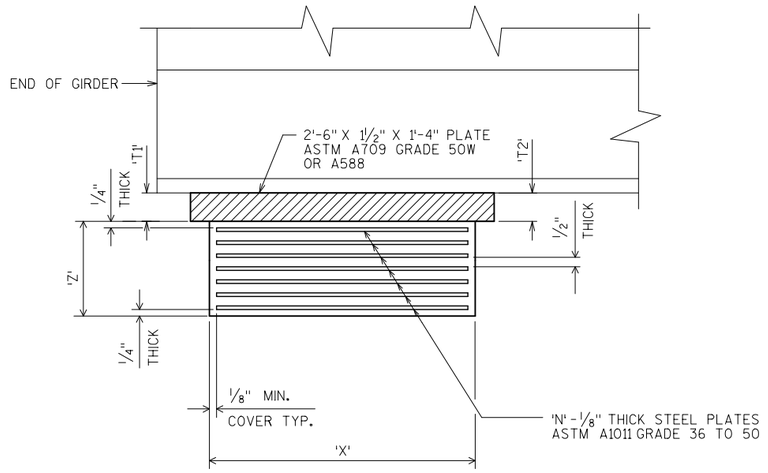
END VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

ELASTOMERIC BEARING PAD DIMENSIONS						
LOCATION	'X' LENGTH	'Y' WIDTH	'Z' HEIGHT	'N' NO. STEEL PLATES	'T1' GIRDER END HEIGHT	'T2' TAPERED END HEIGHT
W. ABUT.	1'-2"	2'-0"	4 3/8"	7	1 1/2"	1 3/4"
PIER 3 UNIT 1	1'-2"	2'-0"	4 3/8"	7	1 1/2"	1 1/2"
PIER 3 UNIT 2	1'-2"	2'-0"	4 3/8"	7	1 1/2"	1 1/2"
PIER 5 UNIT 2	1'-2"	2'-0"	4 3/8"	7	2 3/4"	2 3/4"
PIER 5 UNIT 3	1'-5"	2'-0"	5 5/8"	9	1 1/2"	1 1/2"
E. ABUT.	1'-7"	2'-0"	6 1/4"	10	1 1/2"	1 1/2"

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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ELASTOMERIC BEARINGS

SHEET 35 OF 61
477

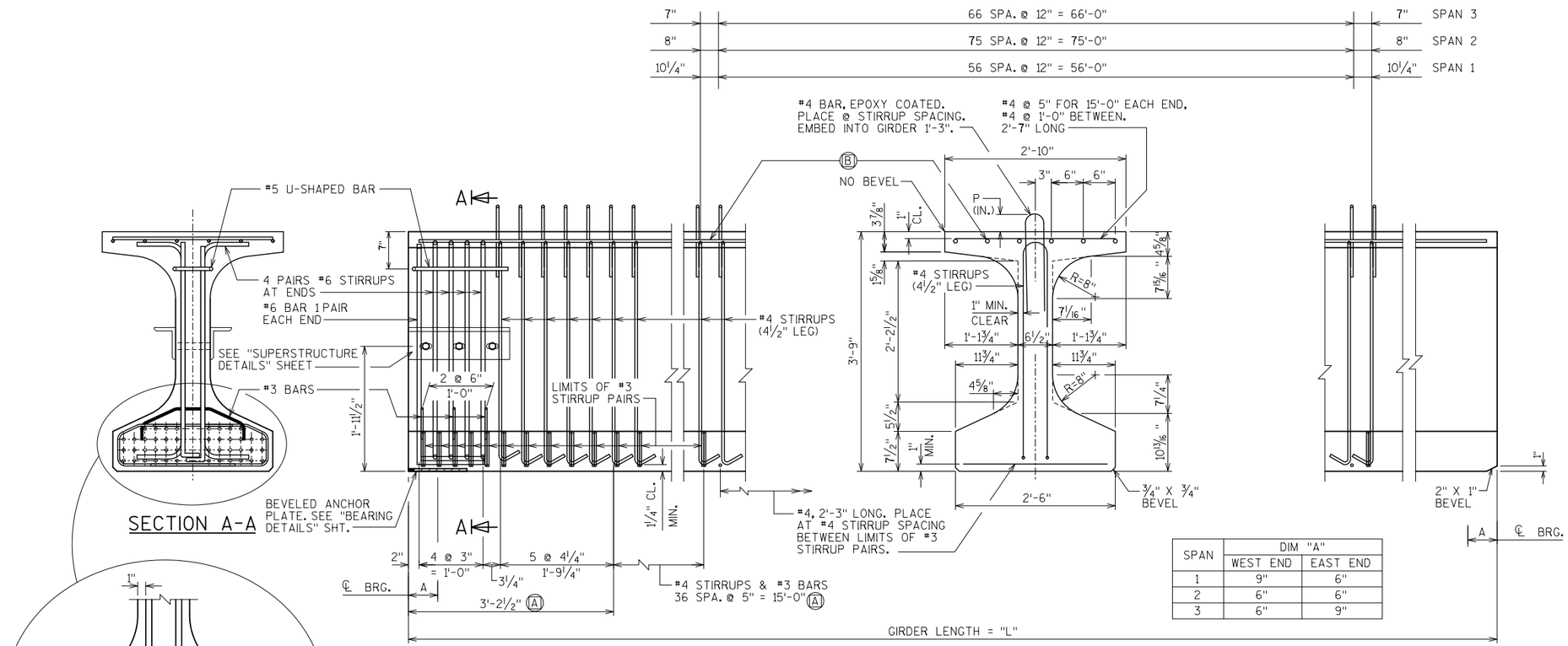
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DATE: 5/12/2015
I.D. Jon_Lidgard

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1517-07-79



SECTION A-A

SPAN	DIM "A"	
	WEST END	EAST END
1	9"	6"
2	6"	6"
3	6"	9"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

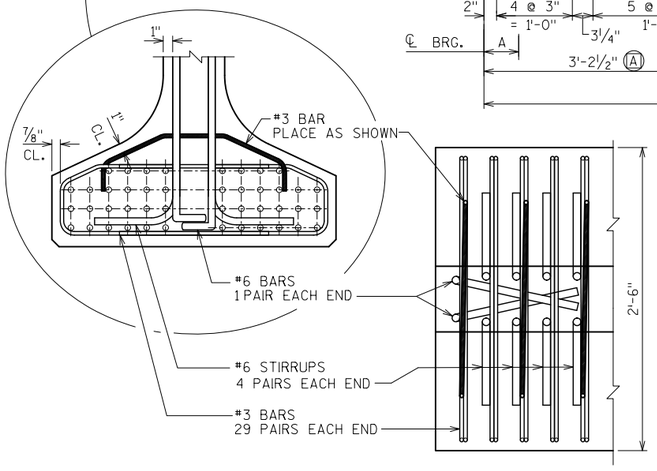
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN UNLIMITED STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "45W INTERMEDIATE STEEL DIAPHRAGMS" SHEET.

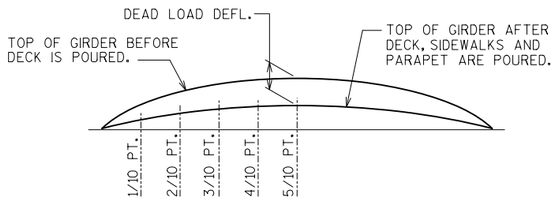


BOTTOM FLANGE

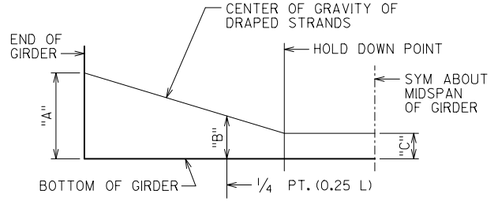
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

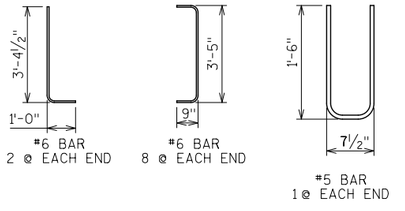
Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-11"

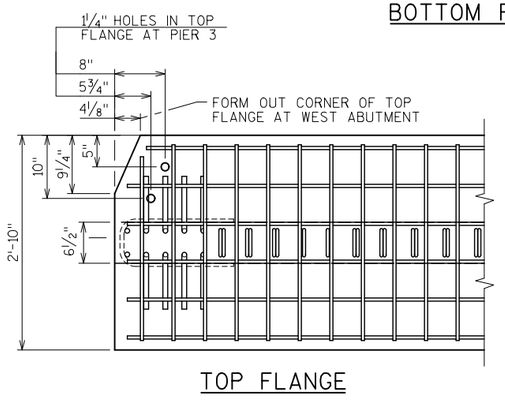


DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE





TOP FLANGE

⁎ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. 0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CONC. STRGTH F'C (PSI)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRANDS (IN.)	DRAPED TOTAL NO. OF STRANDS	⁎F'CI (PSI)	"A"	"B" MIN	"B" MAX	"C"
1	1 & 7	94'-1 1/2"	3/8"	3/4"	1 1/16"	1 1/4"	1 5/16"	1 5/8"	1 1/16"	3/4"	3/8"	8000	8"	7"	8"	0.6	26	6800	41"	12.50"	15.50"	3.08"
	2 - 6	94'-1 1/2"	7/16"	13/16"	1 1/8"	1 5/16"	1 7/16"	1 5/16"	1 1/8"	13/16"	7/16"											
2	1 & 7	112'-9"	13/16"	1 9/16"	2 1/8"	2 9/16"	2 11/16"	2 9/16"	2 1/8"	1 9/16"	13/16"	8000	8"	7"	8"	0.6	36	6800	41"	13.00"	16.00"	3.78"
	2 - 6	112'-9"	7/8"	1 11/16"	2 5/16"	2 3/4"	2 7/8"	2 3/4"	1 11/16"	1 11/16"	7/8"											
3	1 & 7	103'-7"	9/16"	1 1/8"	1 9/16"	1 7/8"	1 15/16"	1 7/8"	1 5/8"	1 3/16"	5/8"	8000	8"	7"	8"	0.6	34	6800	41"	13.00"	16.00"	3.65"
	2 - 6	103'-7"	5/8"	1 1/4"	1 11/16"	2"	2 1/8"	2"	1 3/4"	1 1/4"	5/8"											

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STATE OF WISCONSIN
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STRUCTURE B-70-400

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45W" PRESTRESSED GIRDER DETAILS 1

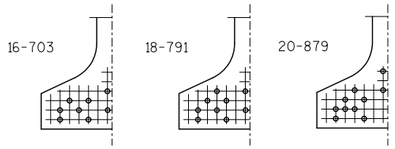
SHEET 36 OF 61
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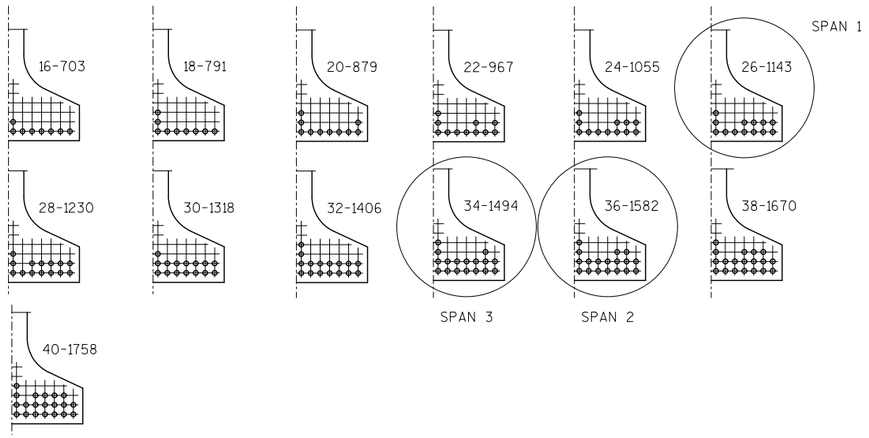
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DATE:5/12/2015
I.D. jon_liggard



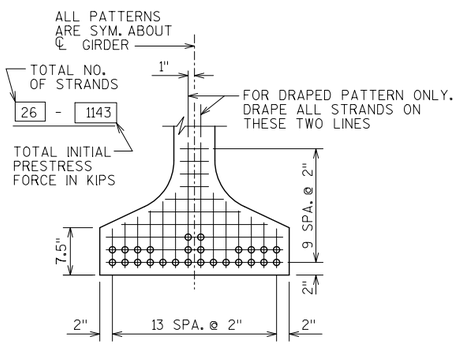
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS



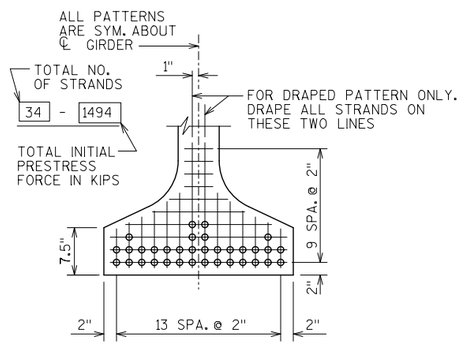
ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



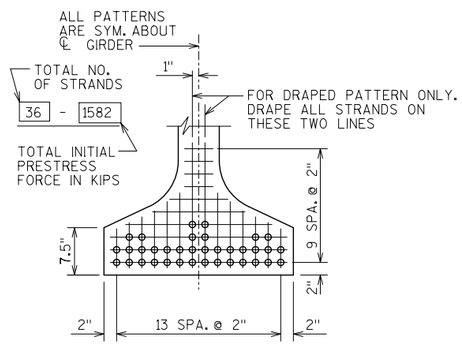
TYP. STRAND PATTERN

SPAN 1



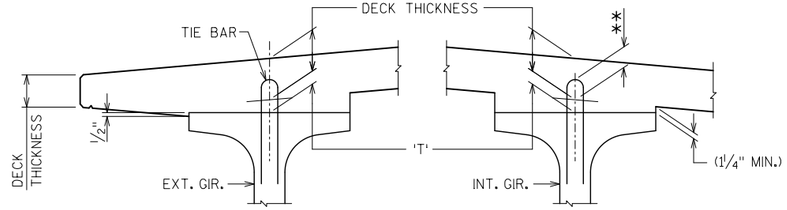
TYP. STRAND PATTERN

SPAN 3



TYP. STRAND PATTERN

SPAN 2



DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	2⅜"
2	4 1/16"
3	3⅝"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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45W" PRESTRESSED GIRDER DETAILS 2

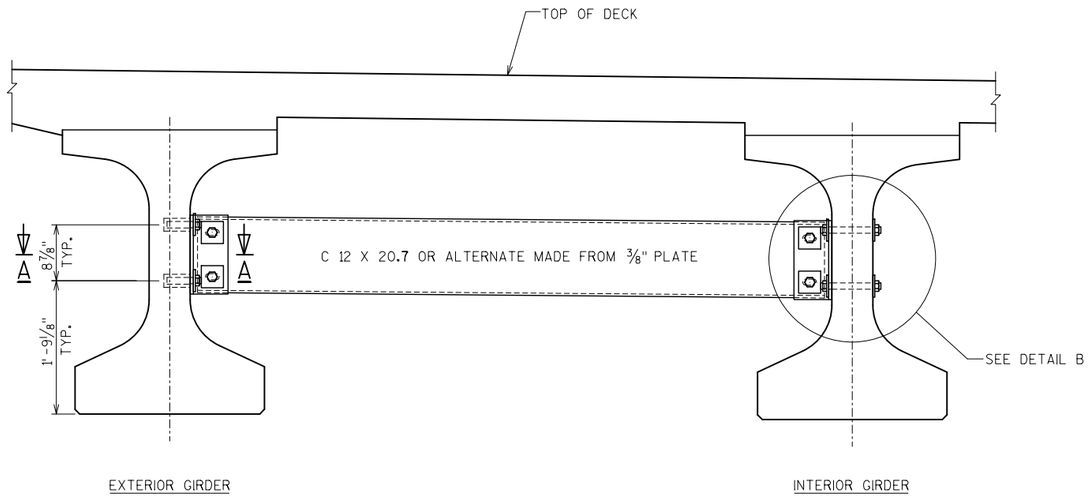
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PART TRANSVERSE SECTION AT DIAPHRAGM

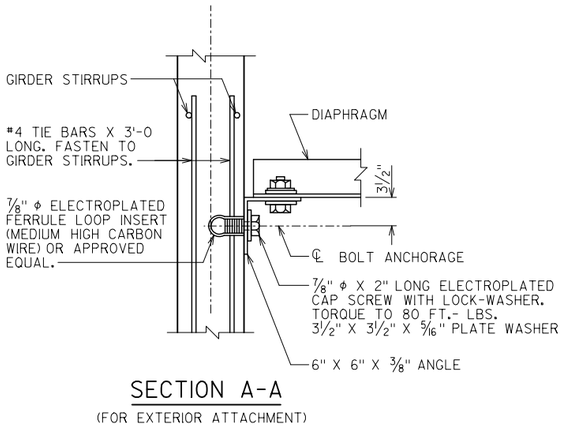
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-70-400", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

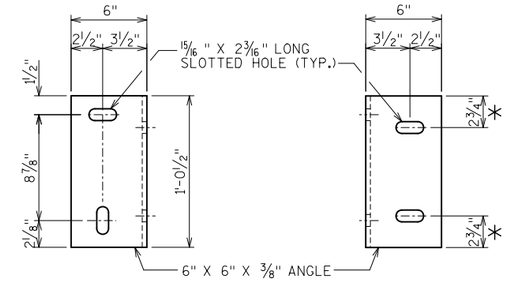
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



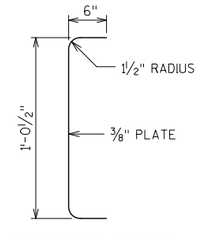
SECTION A-A

(FOR EXTERIOR ATTACHMENT)

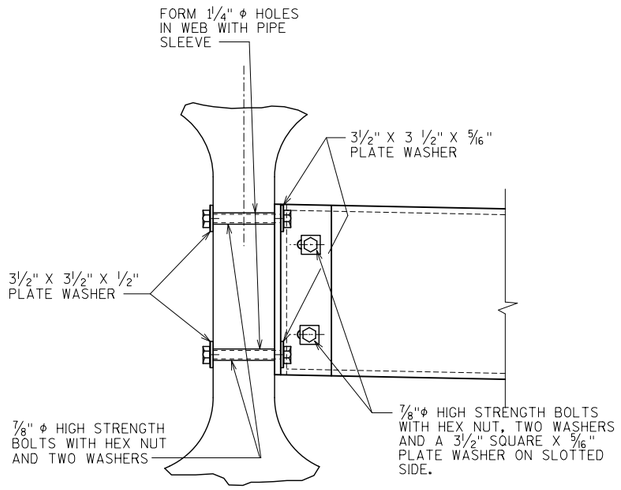


DIAPHRAGM SUPPORT

* 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM



(FOR STAGGERED DIAPHRAGM)

DETAIL B

8

8

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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45W" INTERMEDIATE STEEL DIAPHRAGMS

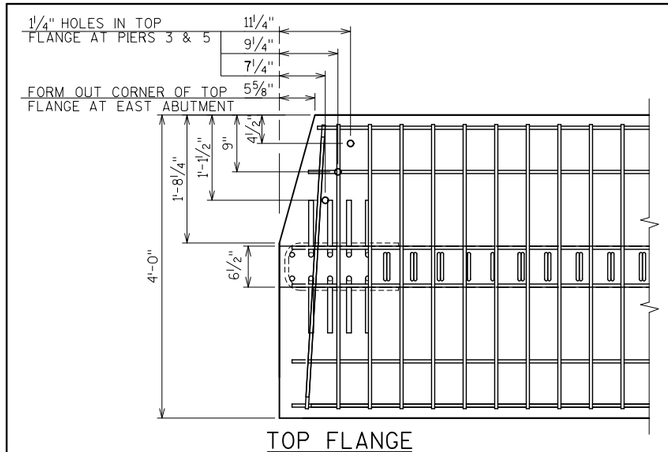
SHEET 38 OF 61
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DATE: 5/12/2015
I.D. jon_liggard

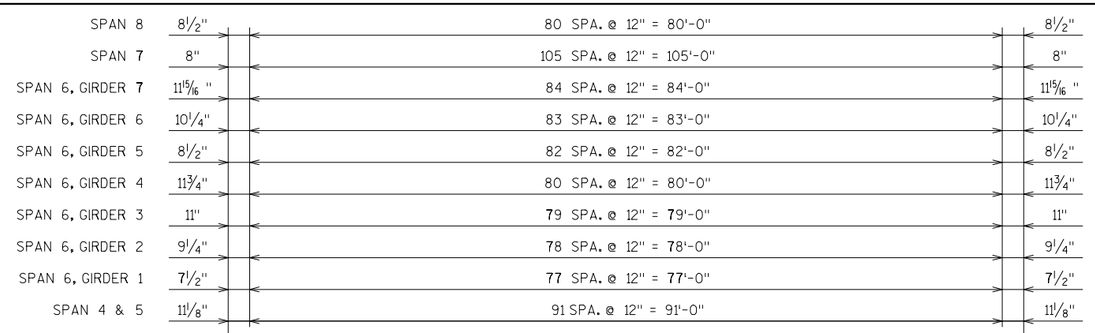
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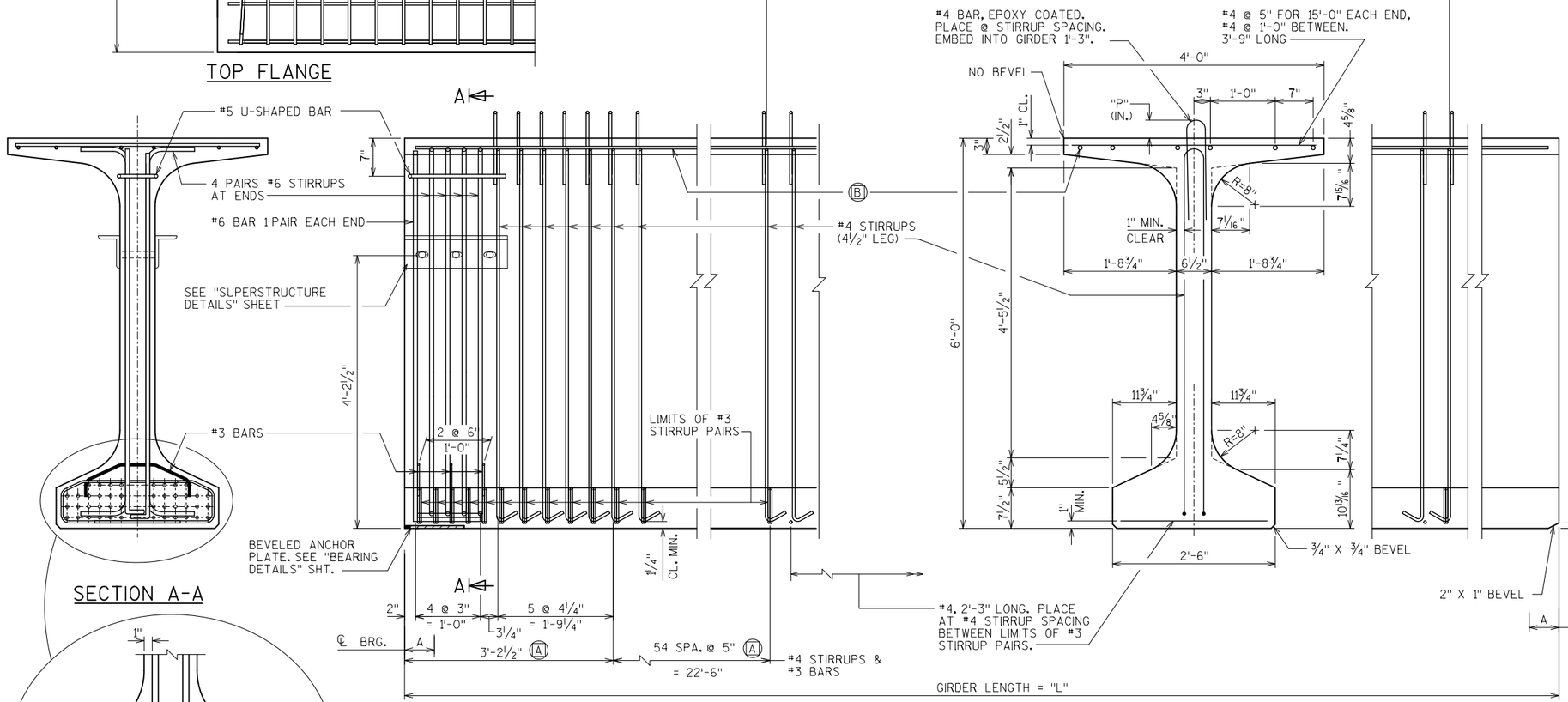
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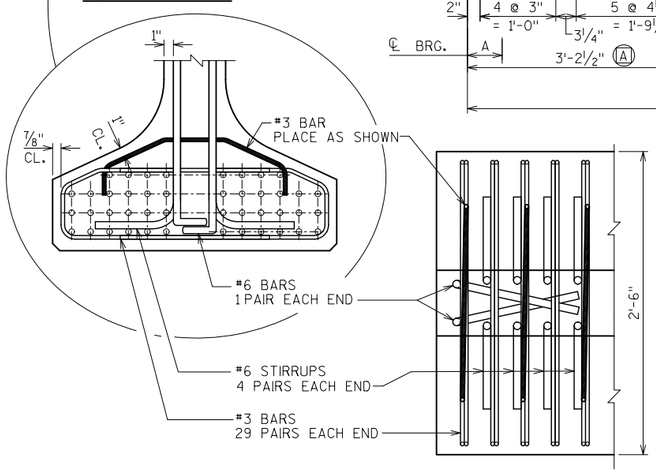


TOP FLANGE





SECTION A-A



BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-11"

SPAN	DIM "A"	
	WEST END	EAST END
4	9"	6"
5	6"	9"
6	10½"	6"
7	6"	6"
8	6"	11½"

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

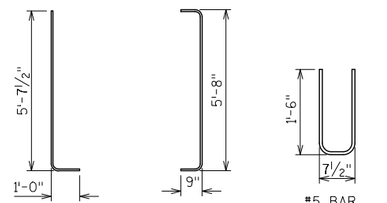
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

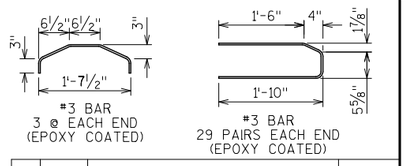
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "72W INTERMEDIATE STEEL DIAPHRAGMS" SHEET.





NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDB | PLANS CK'D. MJA

72W" PRESTRESSED GIRDER DETAILS 1

SHEET 39 OF 61

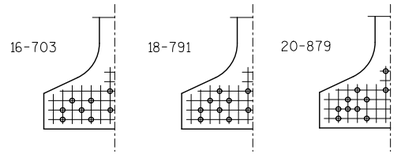
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DATE: 5/12/2015
I.D. jon_liggard

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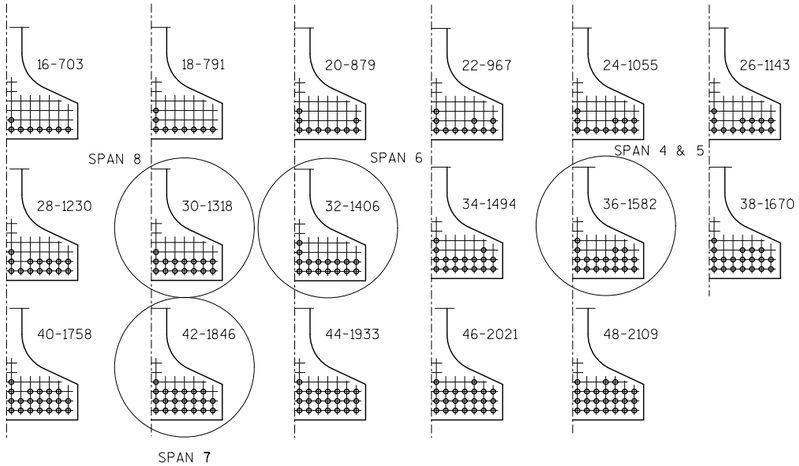
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8



STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

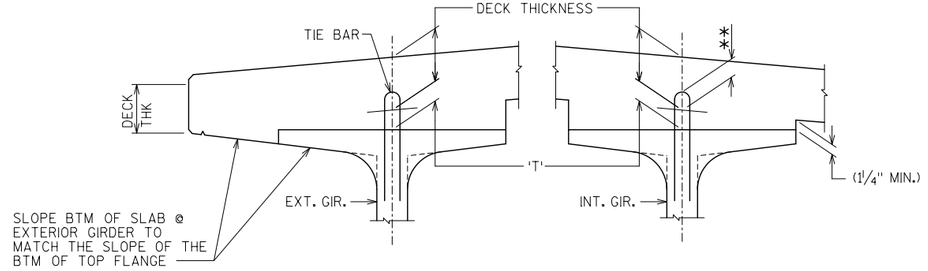
0.6"ϕ STRANDS

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
4	3 3/8"
5	3 3/8"
6	2 5/8"
7	4 9/16"
8	2 7/16"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

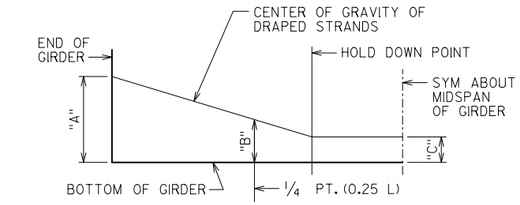
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

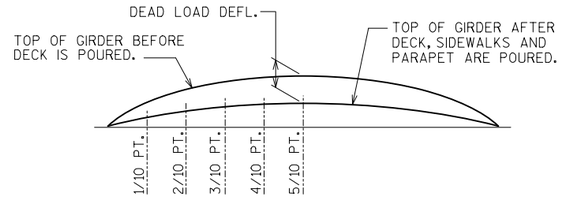
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3½" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DRAPED STRAND PROFILE

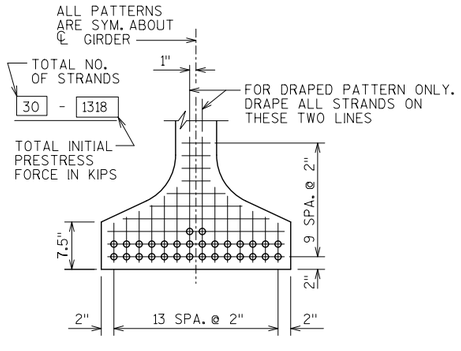


DEAD LOAD DEFLECTION DIAGRAM

* MINIMUM CYLINDER STRENGTH OF CONCRETE ℄ TIME OF TRANSFER OF PRESTRESS FORCE.

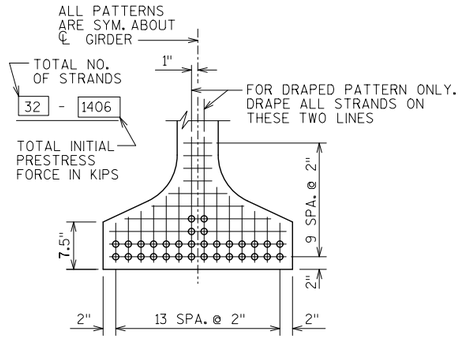
GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. 0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CONC. STRGTH F'C (PSI)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRANDS (IN.)	DRAPED TOTAL NO. OF STRANDS	*F'CI (PSI)	"A"	"B" MIN	"B" MAX	"C"
4	1 & 7	144'-3 1/4"	11/16"	1 5/16"	1 3/4"	2 1/16"	2 3/16"	2 1/16"	1 3/4"	1 1/4"	5/8"	8000	8"	7"	8"	0.6	36	6800	67"	19.50"	22.50"	3.78"
	2 - 6	144'-3 1/4"	3/4"	1 3/8"	1 7/8"	2 1/4"	2 5/16"	2 3/16"	1 7/8"	1 3/8"	11/16"											
5	1 & 7	144'-3 1/4"	5/8"	1 1/4"	1 3/4"	2 1/16"	2 3/16"	2 1/16"	1 3/4"	1 5/16"	11/16"	8000	8"	7"	8"	0.6	36	6800	67"	19.50"	22.50"	3.78"
	2 - 6	144'-3 1/4"	11/16"	1 3/8"	1 7/8"	2 3/16"	2 5/16"	2 1/4"	1 7/8"	1 3/8"	3/4"											
6	1	129'-6"	7/16"	7/8"	1 3/16"	1 3/8"	1 7/16"	1 3/8"	1 1/8"	13/16"	7/16"	8000	8"	7"	8"	0.6	32	6800	67"	19.50"	22.50"	3.50"
	2	130'-9 1/2"	1/2"	15/16"	1 5/16"	1 1/2"	1 9/16"	1 1/2"	1 1/4"	15/16"	7/16"								67"	19.50"	22.50"	3.50"
	3	132'-1"	1/2"	1"	1 5/16"	1 9/16"	1 5/8"	1 9/16"	1 5/16"	15/16"	1/2"								67"	19.50"	22.50"	3.50"
	4	133'-4 1/2"	1/2"	1"	1 3/8"	1 5/8"	1 11/16"	1 5/8"	1 3/8"	1"	1/2"								67"	19.50"	22.50"	3.50"
	5	134'-8"	9/16"	1 1/16"	1 7/16"	1 11/16"	1 3/4"	1 11/16"	1 7/16"	1"	1/2"								67"	19.50"	22.50"	3.50"
	6	135'-11 1/2"	9/16"	1 1/16"	1 1/2"	1 3/4"	1 13/16"	1 3/4"	1 1/2"	1 1/16"	9/16"								67"	19.50"	22.50"	3.50"
	7	137'-2 7/8"	9/16"	1 1/16"	1 7/16"	1 11/16"	1 3/4"	1 11/16"	1 7/16"	1"	1/2"								67"	19.50"	22.50"	3.50"
7	1 & 7	157'-9"	15/16"	1 3/4"	2 7/16"	2 7/8"	3"	2 7/8"	2 7/16"	1 3/4"	15/16"	8000	8"	7"	8"	0.6	42	6800	67"	19.75"	22.75"	4.10"
	2 - 6	157'-9"	1"	1 7/8"	2 5/8"	3 1/16"	3 1/4"	3 1/16"	2 5/8"	1 7/8"	1"											
8	1 & 7	132'-10"	7/16"	7/8"	1 1/4"	1 7/16"	1 9/16"	1 1/2"	1 1/4"	15/16"	1/2"	8000	7"	7"	7"	0.6	30	6800	67"	19.25"	22.25"	3.20"
	2 - 6	132'-10"	1/2"	15/16"	1 5/16"	1 9/16"	1 11/16"	1 9/16"	1 3/8"	1"	1/2"											



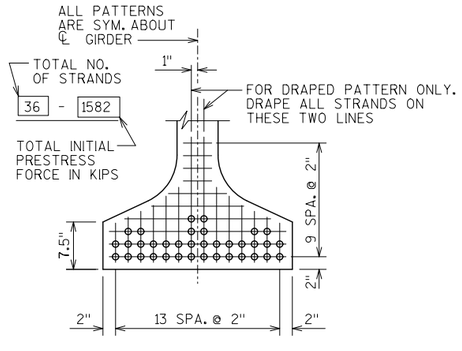
TYP. STRAND PATTERN

SPAN 8



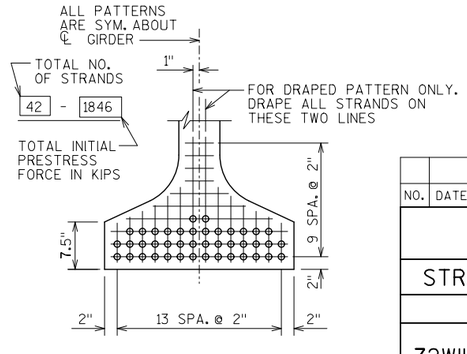
TYP. STRAND PATTERN

SPAN 6



TYP. STRAND PATTERN

SPAN 4 & 5



TYP. STRAND PATTERN

SPAN 7

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDB | PLANS CK'D. MJA

72W" PRESTRESSED GIRDER DETAILS 2

SHEET 40 OF 61
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1517-07-79

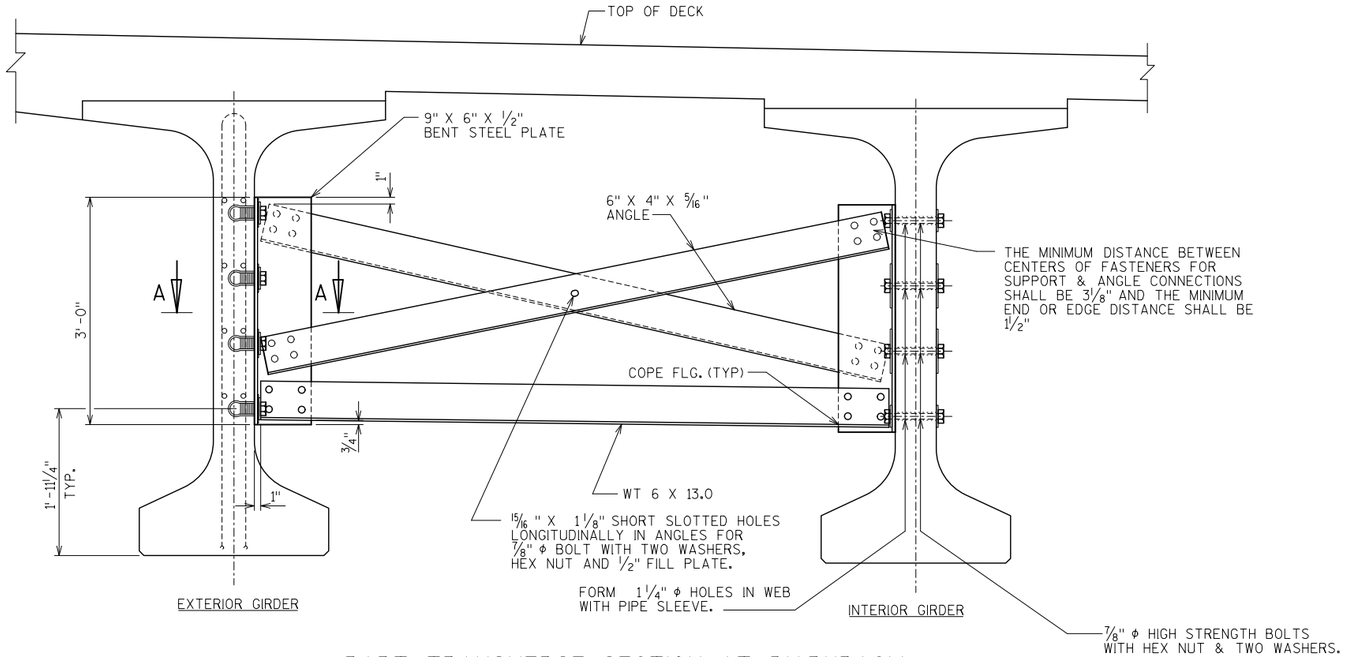
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DATE: 5/12/2015
I.D. jon_lidgard

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1517-07-79



PART TRANSVERSE SECTION AT DIAPHRAGM

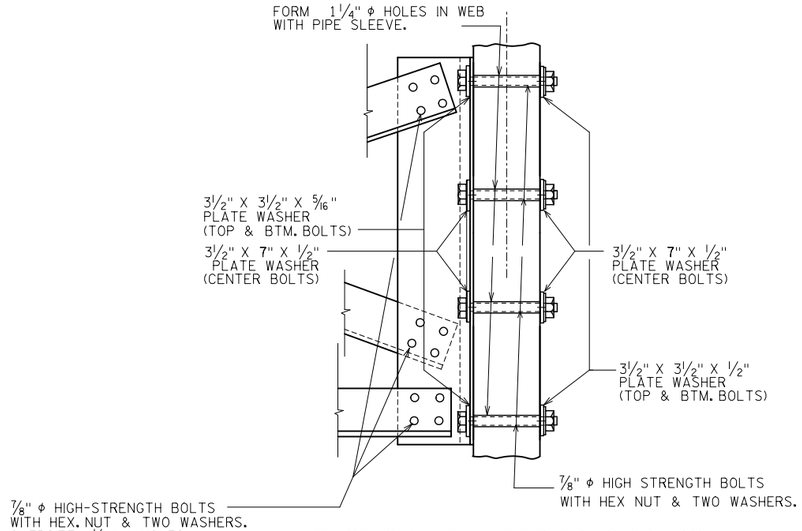
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-70-400", EACH.

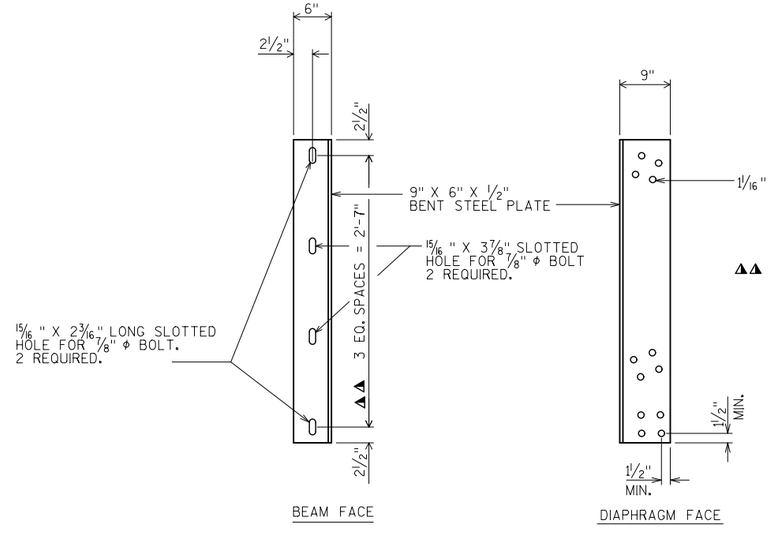
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

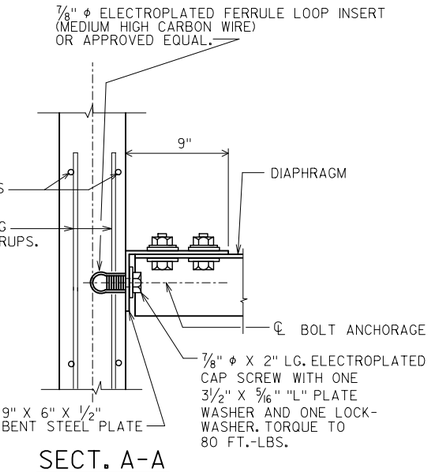
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



SECTION AT INTERIOR GIRDERS (FOR STAGGERED DIAPHRAGMS)



DIAPHRAGM SUPPORT



SECT. A-A

(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS

▲▲ BOLT HOLES SHALL BE SPACED SO AS TO MISS PRESTRESSED STRANDS IN CONCRETE BEAMS.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	JDB	PLANS CK'D.	MJA

72W" INTERMEDIATE STEEL DIAPHRAGMS

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DATE: 5/12/2015
I.D. jon_liggard

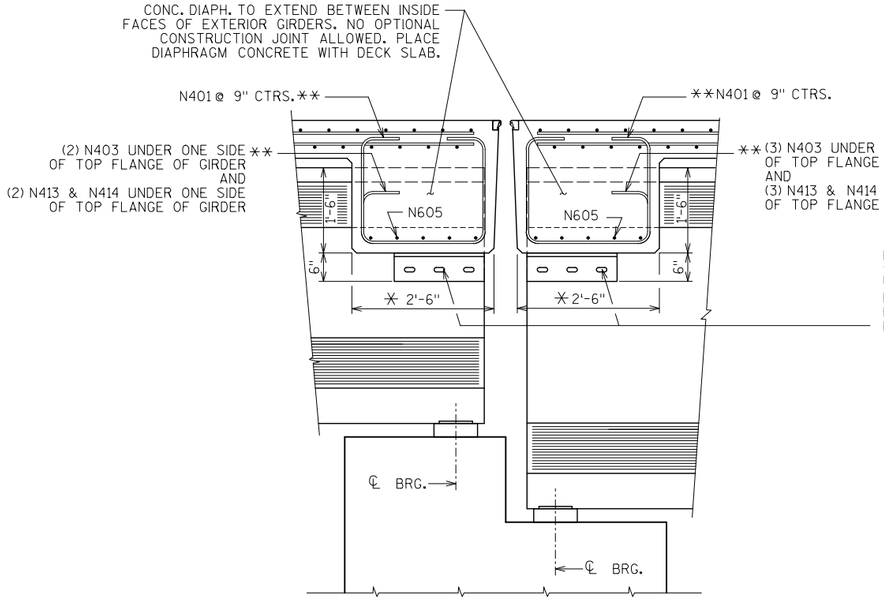
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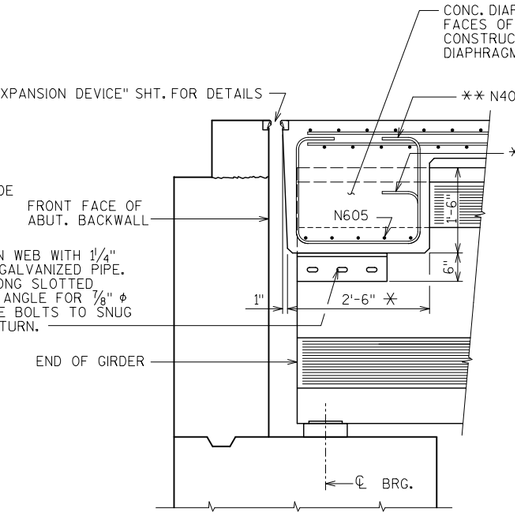
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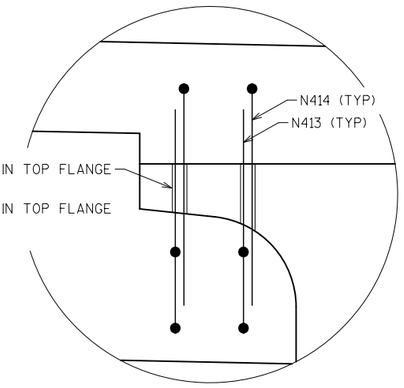
PART LONGIT. SECTION AT EXPANSION PIER

PIER 3 SHOWN, PIER 5 SIMILAR



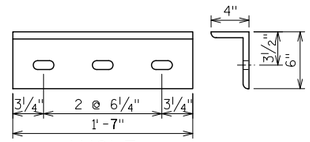
PART LONGIT. SECTION AT ABUTMENT

EAST ABUTMENT SHOWN, WEST ABUTMENT SIMILAR



DETAIL A

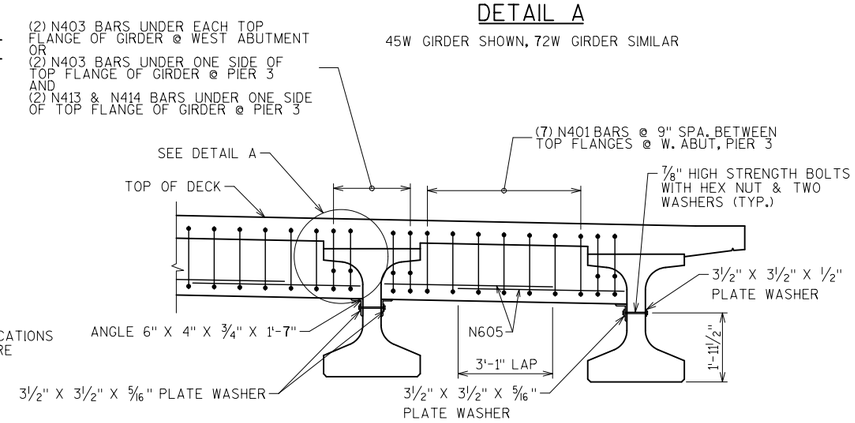
45W GIRDER SHOWN, 72W GIRDER SIMILAR



ANGLE

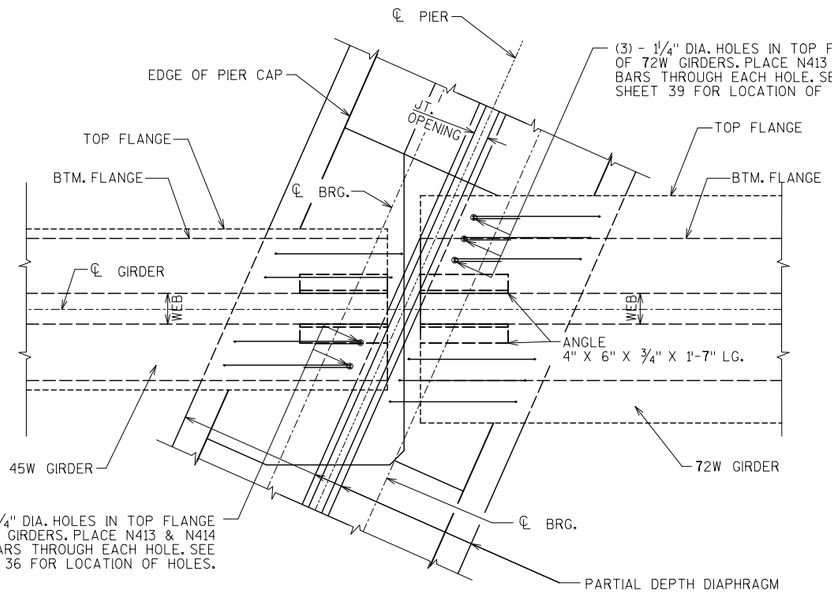
6" X 4" X ¾" X 1'-7"

PROVIDE 3½" x 3½" x 5/16" PLATE WASHERS AT ALL LOCATIONS EXCEPT AT EXTERIOR FACES OF EXTERIOR GIRDERS WHERE 3½" x 3½" x ½" PLATE WASHERS SHALL BE PROVIDED.



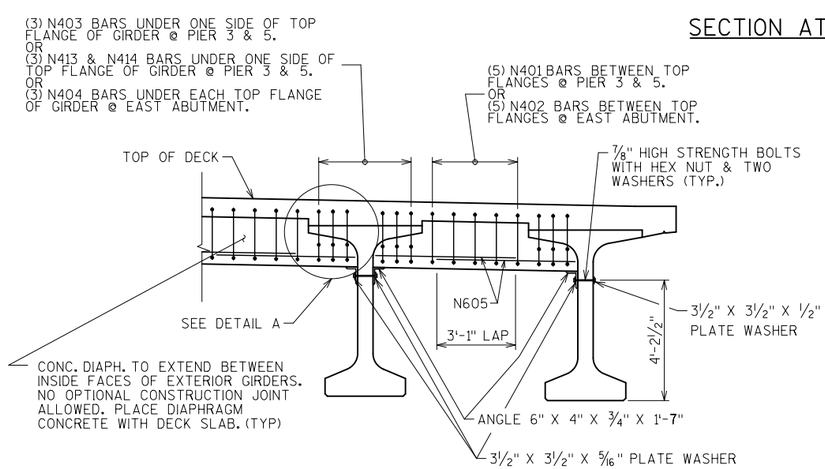
SECTION AT PARTIAL DEPTH DIAPHRAGM - 45W GIRDER

WEST ABUTMENT & PIER 3



TOP VIEW OF DIAPHRAGM

PIER 3 SHOWN, PIER 5 SIMILAR



SECTION AT PARTIAL DEPTH DIAPHRAGM - 72W GIRDER

PIER 3, PIER 5, EAST ABUTMENT

NOTES

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUT AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "MODIFIED HIGH PERFORMANCE CONCRETE (HPC) MASONRY BRIDGES".

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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EXPANSION DIAPHRAGM DETAILS

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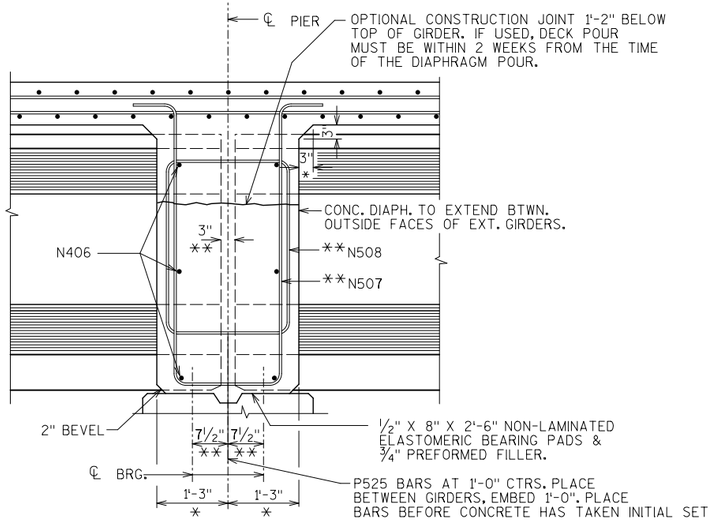
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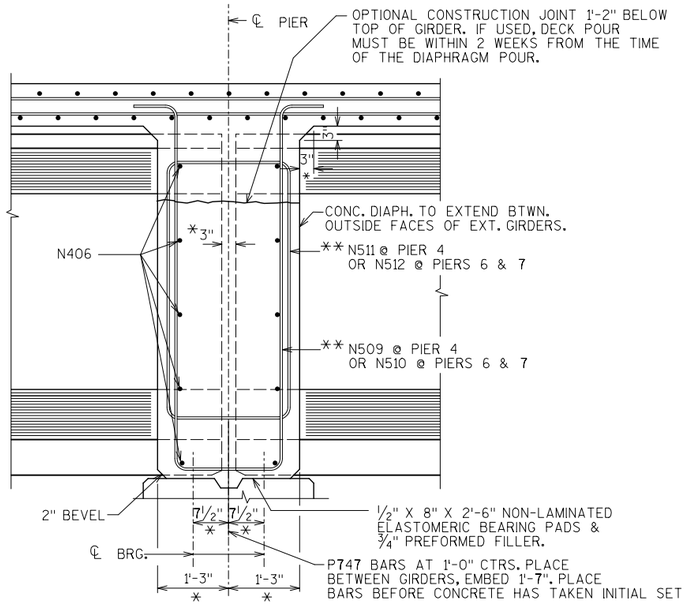
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I.D. Jon_Lidgard

STATE PROJECT NUMBER

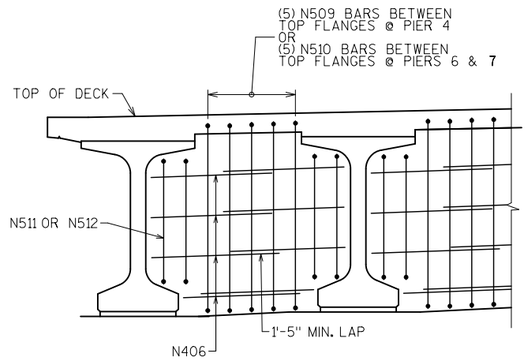
1517-07-79



PIER 1 & 2 DIAPHRAGM

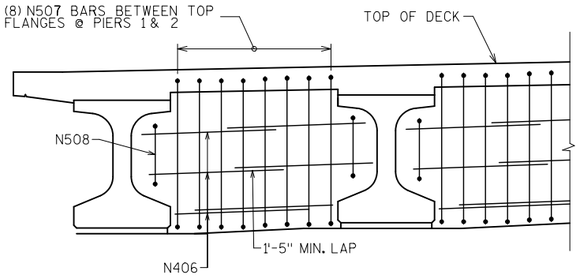


PIER 4, 6, 7 DIAPHRAGM



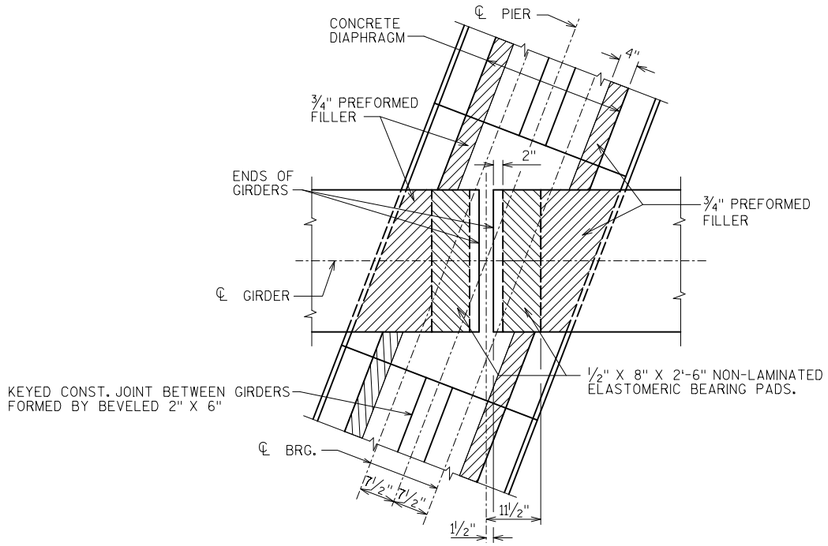
SECTION AT FULL DEPTH DIAPHRAGM

PIERS 4, 6, 7



SECTION AT FULL DEPTH DIAPHRAGM

PIERS 1, 2



PLAN VIEW AT PIER DIAPHRAGM

NOTES

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36.
ALL BOLTS, NUT AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED.
ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "HPC MASONRY STRUCTURES".

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

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FIXED DIAPHRAGM DETAILS

SHEET 43 OF 61
485

8

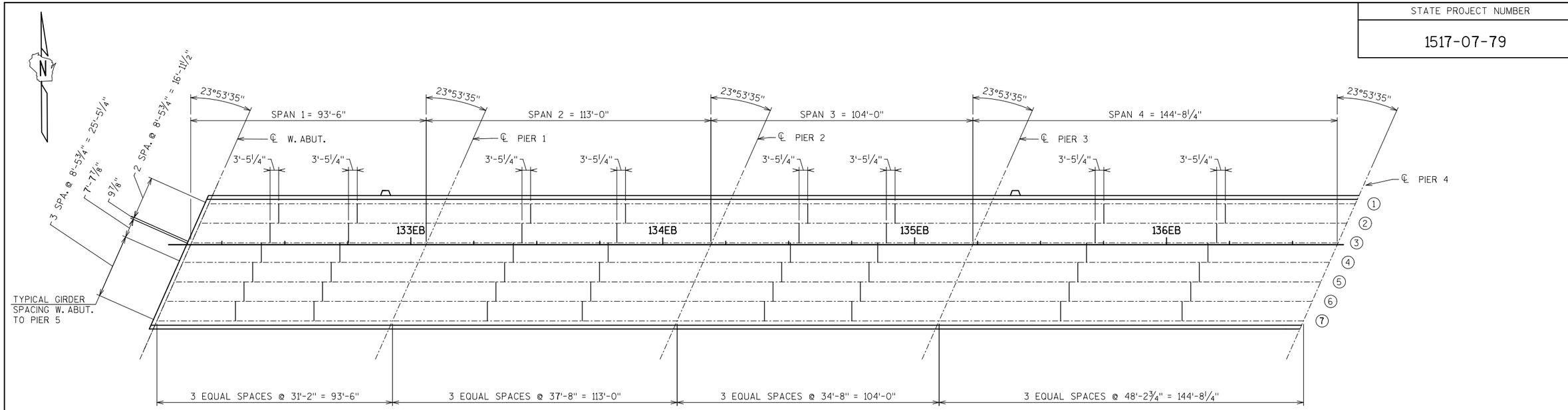
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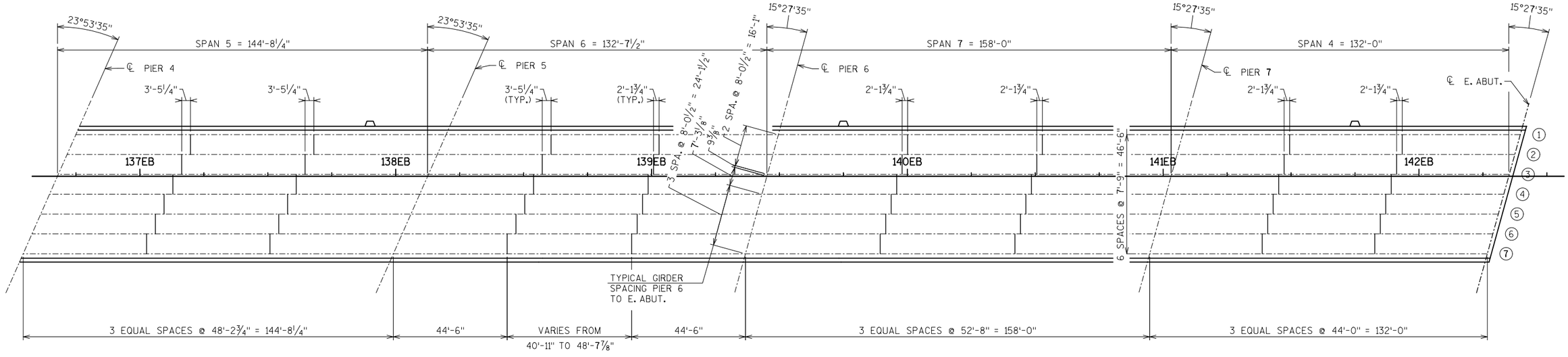
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I.D. jon_lidgard

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DIAPHRAGM SPACING

NOTES

96 INTERMEDIATE STEEL DIAPHRAGMS REQUIRED

ALL DIAPHRAGMS ARE THE SAME LENGTH

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FRAMING PLAN

SHEET 44 OF 61
486

8

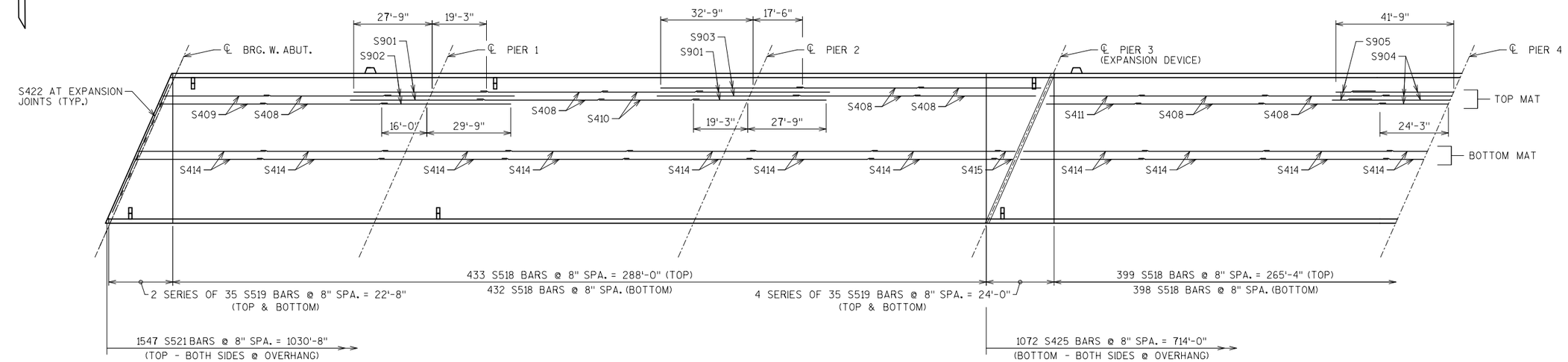
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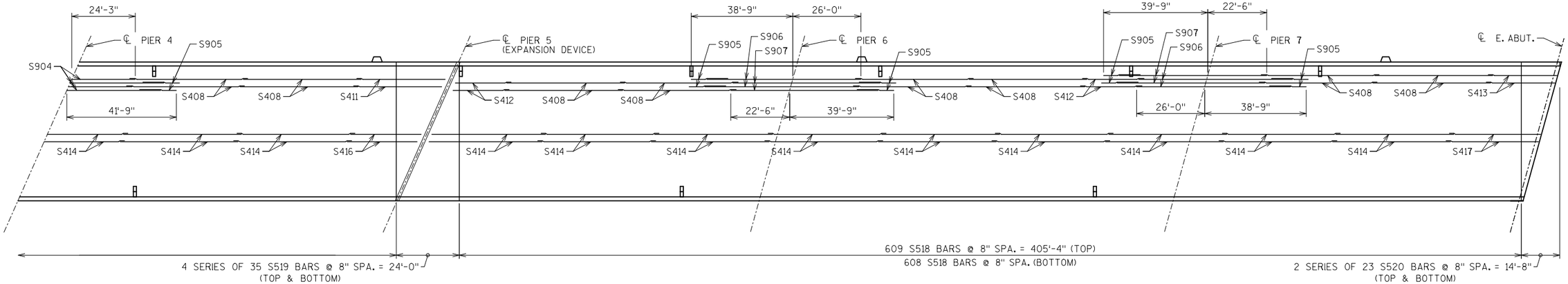
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I.D. jon_lidgard

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NOTES

SEE "SUPERSTRUCTURE BILL OF BARS" SHEET FOR BAR BILL AND BAR BEND DETAILS.

THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.

THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN THE TRANSVERSE DIRECTION ON 4'-0" CENTERS.

SEE SHEET "GENERAL PLAN" FOR LOCATIONS OF FLOOR DRAINS. FOR FLOOR DRAIN DETAILS SEE SHEET "FLOOR DRAIN TYPE WF". ADDITIONAL REINFORCEMENT REQUIRED AT FLOOR DRAIN LOCATIONS.

FOR DECK REINFORCEMENT DETAILS AT LIGHT STANDARDS, SEE SHEET "NORTH PARAPET ELECTRICAL WORK & LIGHT STANDARD".

DECK BAR LAP LENGTHS

BAR SIZE	LAP LENGTH
#4	1'-8"
#4 & #9	2'-1"
#9	8'-0"

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DECK REINFORCEMENT

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8

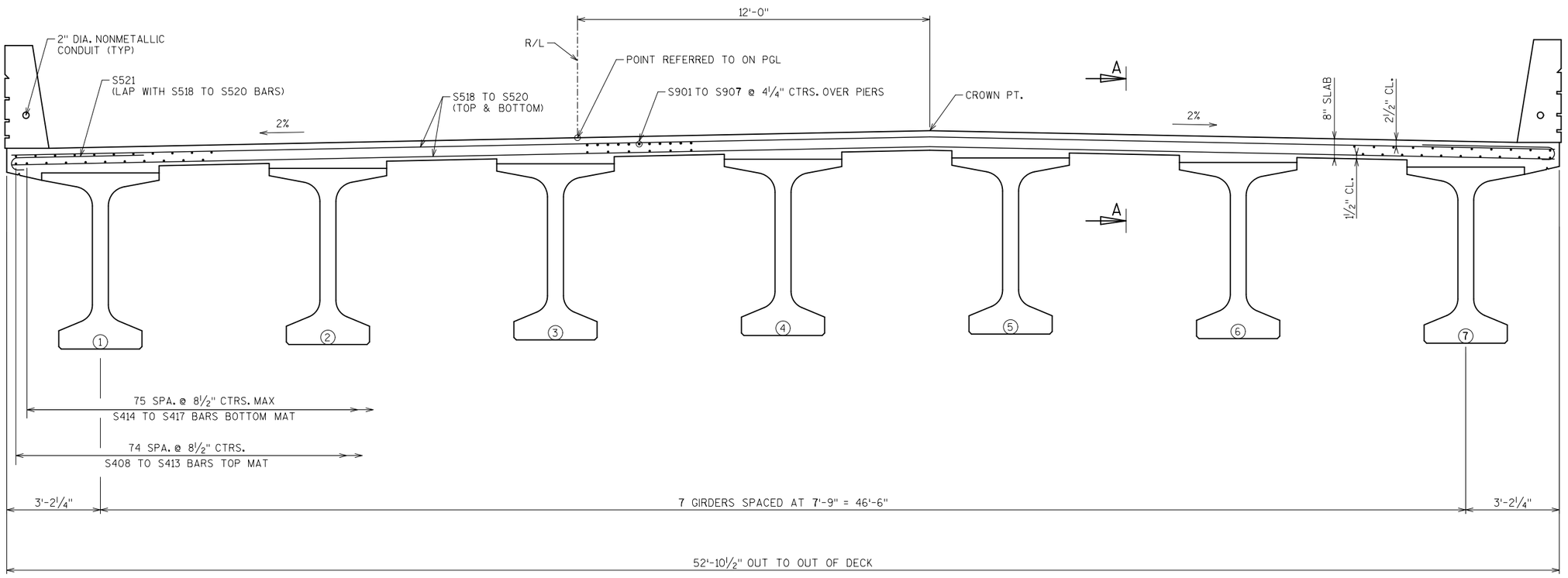
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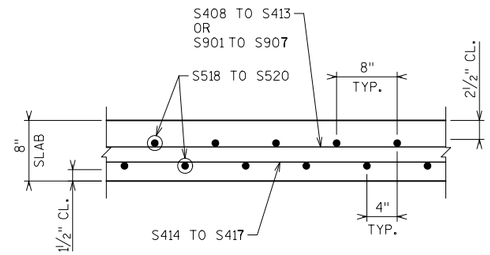
STATE PROJECT NUMBER

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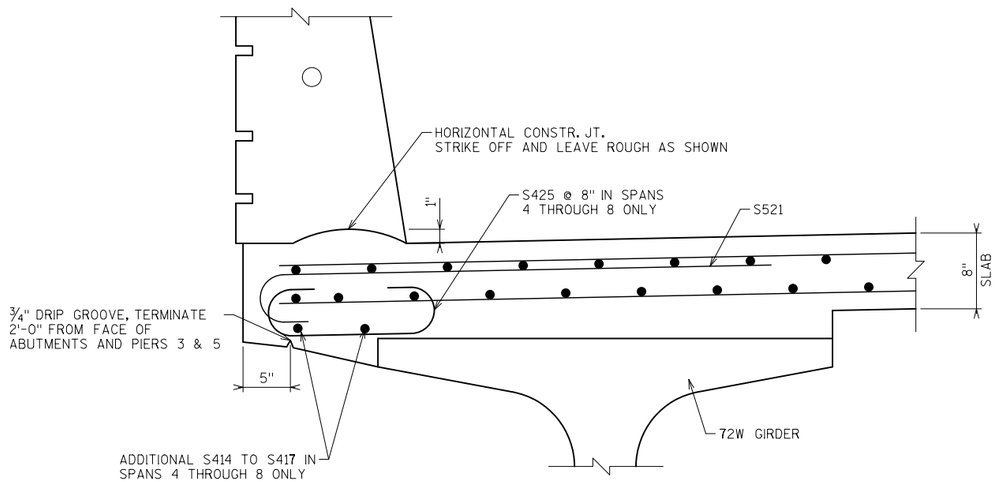


TYPICAL DECK SECTION

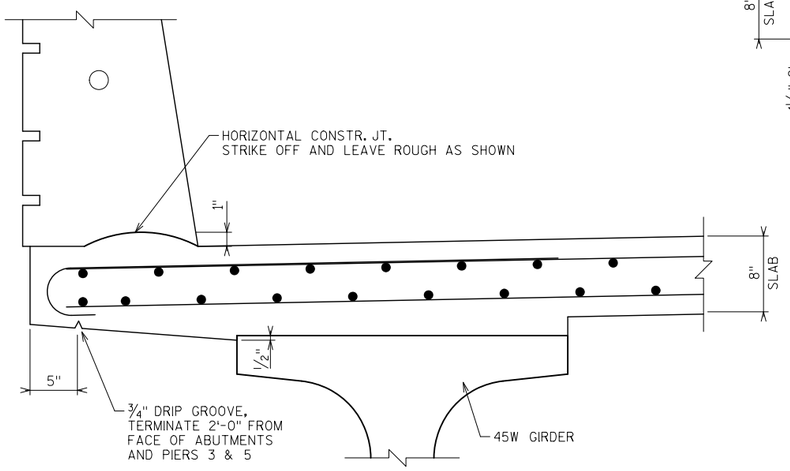
LOOKING UPSTATION



SECTION A-A



TYPICAL SECTION THROUGH EDGE OF DECK - 72W GIRDER



TYPICAL SECTION THROUGH EDGE OF DECK - 45W GIRDER

NOTES

SEE SHEET "DECK REINFORCEMENT" FOR NOTES

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DECK REINF. CROSS SECTION

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BILL OF BARS

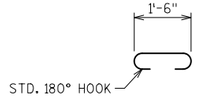
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S901	150	47'-0"			TOP LONGITUDINAL - PIER 1 & 2
S902	75	45'-9"			TOP LONGITUDINAL - PIER 1
S903	75	50'-3"			TOP LONGITUDINAL - PIER 2
S904	150	60'-0"			TOP LONGITUDINAL - PIER 4
S905	450	14'-0"			TOP LONGITUDINAL - PIER 4, 6, 7
S906	150	58'-9"			TOP LONGITUDINAL - PIER 6 & 7
S907	150	56'-3"			TOP LONGITUDINAL - PIER 6 & 7
S408	1050	45'-0"			TOP LONGITUDINAL
S409	75	37'-6"			TOP LONGITUDINAL
S410	75	35'-4"			TOP LONGITUDINAL
S411	150	35'-6"			TOP LONGITUDINAL
S412	150	31'-3"			TOP LONGITUDINAL
S413	75	26'-3"			TOP LONGITUDINAL
S414	1732	45'-0"			BOTTOM LONGITUDINAL
S415	76	8'-3"			BOTTOM LONGITUDINAL
S416	80	28'-8"			BOTTOM LONGITUDINAL
S417	80	39'-1"			BOTTOM LONGITUDINAL
S518	2879	52'-6"			TOP & BOTTOM TRANSVERSE
S519	350	27'-1"		X	TOP & BOTTOM TRANSVERSE
S520	46	26'-9"		X	TOP & BOTTOM TRANSVERSE
S521	3094	5'-1"	X		TOP TRANSVERSE AT OVERHANGS
S422	72	8'-6"			EXPANSION JOINTS
S523	105	5'-0"			FLOOR DRAINS
S524	3182	4'-5"	X		PARAPET VERT. IN DECK
S425	2144	2'-6"	X		BOTTOM TRANS. AT OVERHANGS

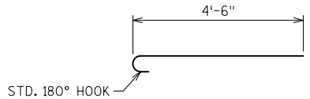
TOTAL WEIGHT= 462,840 LB

BAR SERIES

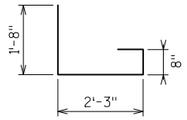
BAR MARK	NO. REQ'D	LENGTH
S519	10 SERIES OF 35	1'-7" TO 52'-6"
S520	2 SERIES OF 23	1'-0" TO 52'-6"



S425



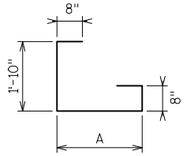
S521



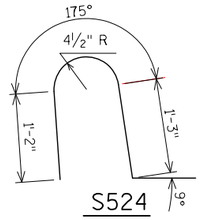
N413



N414



N403 & N404



S524

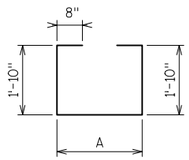
BAR	DIM "A"
N401	2'-3"
N402	2'-2"
N403	2'-3"
N404	2'-2"

BILL OF BARS

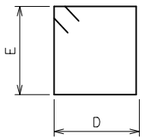
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

BAR MARK	NO. REQ'D	LENGTH	BENT	LOCATION
N401	174	6'-11"	X	DIAPH. VERT. W. ABUT, PIER 3 & 5
N402	30	6'-10"	X	DIAPH. VERT. E. ABUT
N403	90	5'-9"	X	DIAPH. VERT. W. ABUT, PIER 3 & 5
N404	36	5'-8"	X	DIAPH. VERT. E. ABUT
N605	180	5'-5"		DIAPH. HORIZ. W. ABUT, PIER 3 & 5, E. ABUT
N406	504	4'-6"		DIAPH. HORIZ. PIER 1, 2, 4, 6, 7
N507	96	11'-10"	X	DIAPH. VERT. PIER 1 & 2
N508	24	9'-9"	X	DIAPH. VERT. PIER 1 & 2
N509	30	16'-4"	X	DIAPH. VERT. PIER 4
N510	60	16'-3"	X	DIAPH. VERT. PIER 6 & 7
N511	24	14'-3"	X	DIAPH. VERT. PIER 4
N512	48	14'-0"	X	DIAPH. VERT. PIER 6 & 7
N413	66	5'-0"	X	DIAPH. VERT. PIER 3 & 5
N414	66	2'-3"	X	DIAPH. VERT. PIER 3 & 5

TOTAL WEIGHT= 8,740 LB



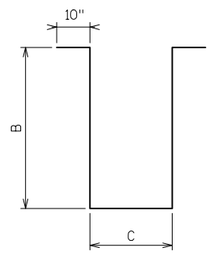
N401 & N402



N508, N511, N512

BAR	DIM "D"	DIM "E"
N508	2'-4"	2'-4"
N511	2'-4"	4'-7"
N512	2'-3"	4'-7"

BAR	DIM "B"	DIM "C"
N507	4'-2"	2'-4"
N509	6'-5"	2'-4"
N510	6'-5"	2'-3"



N507, N509, N510

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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SUPERSTRUCTURE BILL OF BARS

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TOP OF DECK ELEVATIONS

LOCATIONS	CL. BRG. W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 2
N. EDGE OF DECK	783.46	783.58	783.70	783.81	783.92	784.03	784.14	784.25	784.36	784.46	784.56	784.68	784.79	784.91	785.02	785.12	785.23	785.33	785.43	785.52	785.61
N. GUTTER LINE	783.45	783.57	783.69	783.80	783.92	784.03	784.14	784.24	784.35	784.45	784.55	784.67	784.79	784.90	785.01	785.12	785.22	785.32	785.42	785.52	785.61
GIRDER 1	783.48	783.60	783.71	783.83	783.94	784.05	784.16	784.27	784.37	784.48	784.58	784.70	784.81	784.93	785.04	785.15	785.25	785.35	785.45	785.54	785.64
GIRDER 2	783.59	783.71	783.82	783.94	784.06	784.17	784.28	784.39	784.49	784.60	784.70	784.82	784.93	785.05	785.16	785.27	785.37	785.48	785.57	785.67	785.76
GIRDER 3	783.70	783.82	783.94	784.05	784.17	784.28	784.39	784.50	784.61	784.71	784.82	784.94	785.05	785.17	785.28	785.39	785.50	785.60	785.70	785.80	785.89
PGL	783.71	783.83	783.95	784.06	784.18	784.29	784.40	784.51	784.62	784.72	784.83	784.95	785.07	785.18	785.29	785.40	785.51	785.61	785.71	785.81	785.90
GIRDER 4	783.81	783.93	784.05	784.17	784.28	784.40	784.51	784.62	784.72	784.83	784.93	785.05	785.17	785.29	785.40	785.51	785.62	785.72	785.82	785.92	786.02
CROWN	783.88	784.00	784.12	784.24	784.35	784.47	784.58	784.69	784.80	784.90	785.01	785.13	785.25	785.37	785.48	785.59	785.70	785.80	785.91	786.00	786.10
GIRDER 5	783.81	783.93	784.05	784.17	784.28	784.40	784.51	784.62	784.73	784.84	784.94	785.06	785.18	785.30	785.41	785.52	785.63	785.74	785.84	785.94	786.03
GIRDER 6	783.61	783.73	783.85	783.97	784.09	784.20	784.32	784.43	784.54	784.64	784.75	784.87	784.99	785.11	785.22	785.34	785.45	785.55	785.65	785.75	785.85
GIRDER 7	783.40	783.53	783.65	783.77	783.89	784.01	784.12	784.23	784.34	784.45	784.55	784.68	784.80	784.92	785.03	785.15	785.26	785.36	785.47	785.57	785.67
S. GUTTER LINE	783.36	783.48	783.61	783.73	783.84	783.96	784.07	784.19	784.30	784.40	784.51	784.64	784.76	784.88	784.99	785.11	785.21	785.32	785.43	785.53	785.62
S. EDGE OF DECK	783.35	783.48	783.60	783.72	783.84	783.95	784.07	784.18	784.29	784.40	784.50	784.63	784.75	784.87	784.99	785.10	785.21	785.32	785.42	785.52	785.62

LOCATIONS	CL. PIER 2	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 3	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 4
N. EDGE OF DECK	785.61	785.69	785.77	785.85	785.92	786.00	786.06	786.13	786.19	786.26	786.31	786.39	786.47	786.54	786.62	786.70	786.77	786.85	786.93	787.00	787.08
N. GUTTER LINE	785.61	785.69	785.77	785.85	785.92	785.99	786.06	786.13	786.19	786.25	786.31	786.39	786.46	786.54	786.62	786.69	786.77	786.85	786.92	787.00	787.08
GIRDER 1	785.64	785.72	785.80	785.87	785.95	786.02	786.09	786.16	786.22	786.28	786.34	786.42	786.49	786.57	786.65	786.72	786.80	786.88	786.95	787.03	787.11
GIRDER 2	785.76	785.85	785.93	786.00	786.08	786.15	786.22	786.29	786.35	786.42	786.48	786.55	786.63	786.71	786.78	786.86	786.94	787.01	787.09	787.17	787.24
GIRDER 3	785.89	785.97	786.06	786.13	786.21	786.28	786.35	786.42	786.49	786.55	786.61	786.69	786.77	786.84	786.92	787.00	787.07	787.15	787.23	787.30	787.38
PGL	785.90	785.99	786.07	786.15	786.22	786.30	786.37	786.44	786.50	786.56	786.63	786.71	786.78	786.86	786.93	787.01	787.09	787.16	787.24	787.32	787.39
GIRDER 4	786.02	786.10	786.18	786.26	786.34	786.41	786.49	786.56	786.62	786.69	786.75	786.83	786.90	786.98	787.06	787.13	787.21	787.29	787.36	787.44	787.52
CROWN	786.10	786.18	786.27	786.35	786.42	786.50	786.57	786.64	786.71	786.77	786.83	786.92	786.99	787.07	787.14	787.22	787.30	787.38	787.45	787.53	787.61
GIRDER 5	786.03	786.12	786.20	786.28	786.36	786.44	786.51	786.58	786.65	786.71	786.77	786.86	786.93	787.01	787.08	787.16	787.24	787.31	787.39	787.47	787.54
GIRDER 6	785.85	785.94	786.02	786.10	786.18	786.26	786.33	786.40	786.47	786.53	786.60	786.68	786.76	786.83	786.91	786.99	787.06	787.14	787.22	787.29	787.37
GIRDER 7	785.67	785.75	785.84	785.92	786.00	786.08	786.15	786.22	786.29	786.36	786.42	786.51	786.59	786.66	786.74	786.81	786.89	786.97	787.04	787.12	787.20
S. GUTTER LINE	785.62	785.71	785.80	785.88	785.96	786.04	786.11	786.18	786.25	786.32	786.38	786.47	786.55	786.62	786.70	786.77	786.85	786.93	787.00	787.08	787.16
S. EDGE OF DECK	785.62	785.71	785.79	785.87	785.95	786.03	786.11	786.18	786.25	786.31	786.38	786.46	786.54	786.62	786.69	786.77	786.85	786.92	787.00	787.08	787.15

LOCATIONS	CL. PIER 4	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 5	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 6
N. EDGE OF DECK	787.08	787.16	787.23	787.31	787.39	787.46	787.54	787.62	787.69	787.77	787.85	787.91	787.98	788.05	788.12	788.19	788.26	788.33	788.39	788.46	788.53
N. GUTTER LINE	787.08	787.15	787.23	787.31	787.38	787.46	787.54	787.61	787.69	787.77	787.84	787.91	787.98	788.05	788.12	788.19	788.25	788.32	788.39	788.46	788.53
GIRDER 1	787.11	787.18	787.26	787.34	787.41	787.49	787.57	787.64	787.72	787.80	787.87	787.94	788.01	788.08	788.15	788.22	788.29	788.36	788.42	788.49	788.56
GIRDER 2	787.24	787.32	787.40	787.47	787.55	787.63	787.70	787.78	787.86	787.93	788.01	788.08	788.15	788.22	788.29	788.36	788.43	788.50	788.57	788.64	788.71
GIRDER 3	787.38	787.46	787.53	787.61	787.69	787.76	787.84	787.92	787.99	788.07	788.15	788.22	788.29	788.36	788.43	788.50	788.57	788.64	788.71	788.78	788.85
PGL	787.39	787.47	787.55	787.62	787.70	787.78	787.85	787.93	788.01	788.08	788.16	788.23	788.30	788.37	788.44	788.51	788.58	788.65	788.72	788.79	788.86
GIRDER 4	787.52	787.59	787.67	787.75	787.82	787.90	787.98	788.05	788.13	788.21	788.28	788.35	788.43	788.50	788.57	788.64	788.71	788.78	788.85	788.92	788.99
CROWN	787.61	787.68	787.76	787.84	787.91	787.99	788.07	788.14	788.22	788.30	788.37	788.44	788.51	788.59	788.66	788.73	788.80	788.87	788.94	789.01	789.09
GIRDER 5	787.54	787.62	787.70	787.77	787.85	787.93	788.00	788.08	788.16	788.23	788.31	788.38	788.45	788.53	788.60	788.67	788.74	788.81	788.88	788.95	789.03
GIRDER 6	787.37	787.45	787.52	787.60	787.68	787.75	787.83	787.91	787.98	788.06	788.14	788.21	788.28	788.35	788.43	788.50	788.57	788.64	788.72	788.79	788.86
GIRDER 7	787.20	787.27	787.35	787.43	787.50	787.58	787.66	787.73	787.81	787.89	787.96	788.04	788.11	788.18	788.26	788.33	788.40	788.47	788.55	788.62	788.69
S. GUTTER LINE	787.16	787.23	787.31	787.39	787.46	787.54	787.62	787.69	787.77	787.85	787.92	788.00	788.07	788.14	788.22	788.29	788.36	788.44	788.51	788.58	788.66
S. EDGE OF DECK	787.15	787.23	787.31	787.38	787.46	787.54	787.61	787.69	787.77	787.84	787.92	787.99	788.07	788.14	788.21	788.29	788.36	788.43	788.51	788.58	788.65

LOCATIONS	CL. PIER 6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. PIER 7	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL. BRG. E. ABUT.
N. EDGE OF DECK	788.53	788.62	788.70	788.78	788.87	788.95	789.03	789.12	789.20	789.29	789.37	789.44	789.51	789.58	789.65	789.72	789.79	789.86	789.93	790.00	790.07
N. GUTTER LINE	788.53	788.61	788.70	788.78	788.86	788.95	789.03	789.12	789.20	789.28	789.37	789.44	789.51	789.58	789.65	789.72	789.79	789.86	789.93	790.00	790.07
GIRDER 1	788.56	788.65	788.73	788.81	788.90	788.98	789.06	789.15	789.23	789.32	789.40	789.47	789.54	789.61	789.68	789.75	789.82	789.89	789.96	790.03	790.10
GIRDER 2	788.71	788.79	788.87	788.96	789.04	789.12	789.21	789.29	789.38	789.46	789.54	789.61	789.68	789.75	789.82	789.89	789.96	790.03	790.10	790.17	790.24
GIRDER 3	788.85	788.93	789.02	789.10	789.18	789.27	789.35	789.44	789.52	789.60	789.69	789.76	789.83	789.90	789.97	790.04	790.11	790.18	790.25	790.32	790.39
PGL	788.86	788.95	789.03	789.11	789.20	789.28	789.37	789.45	789.53	789.62	789.70	789.77	789.84	789.91	789.98	790.05	790.12	790.19	790.26	790.33	790.40
GIRDER 4	788.99	789.08	789.16	789.24	789.33	789.41	789.50	789.58	789.66	789.75	789.83	789.90	789.97	790.04	790.11	790.18	790.25	790.32	790.39	790.46	790.53
CROWN	789.09	789.17	789.25	789.34	789.42	789.50	789.59	789.67	789.76	789.84	789.92	789.99	790.06	790.13	790.20	790.27	790.34	790.41	790.48	790.55	790.62
GIRDER 5	789.03	789.11	789.19	789.28	789.36	789.45	789.53	789.61	789.70	789.78	789.86	789.93	790.00	790.07	790.14	790.21	790.28	790.35	790.42	790.49	790.56
GIRDER 6	788.86	788.94	789.03	789.11	789.19	789.28	789.36	789.45	789.53	789.61	789.70	789.77	789.84	789.91	789.98	790.05	790.12	790.19	790.26	790.33	790.40
GIRDER 7	788.69	788.78	788.86	788.94	789.03	789.11	789.20	789.28	789.36	789.45	789.53	789.60	789.67	789.74	789.81	789.88	789.95	790.02	790.09	790.16	790.23
S. GUTTER LINE	788.66	788.74	788.82	788.91	788.99	789.07	789.16	789.24	789.33	789.41	789.49	789.56	789.63	789.70	789.77	789.84	789.91	789.98	790.05	790.12	790.19
S. EDGE OF DECK	788.65	788.74	788.82	788.91	788.99	789.07	789.16	789.24	789.32	789.41	789.49	789.56	789.63	789.70	789.77	789.84	789.91	789.98	790.05	790.12	790.19

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MJA

TOP OF DECK ELEVATIONS

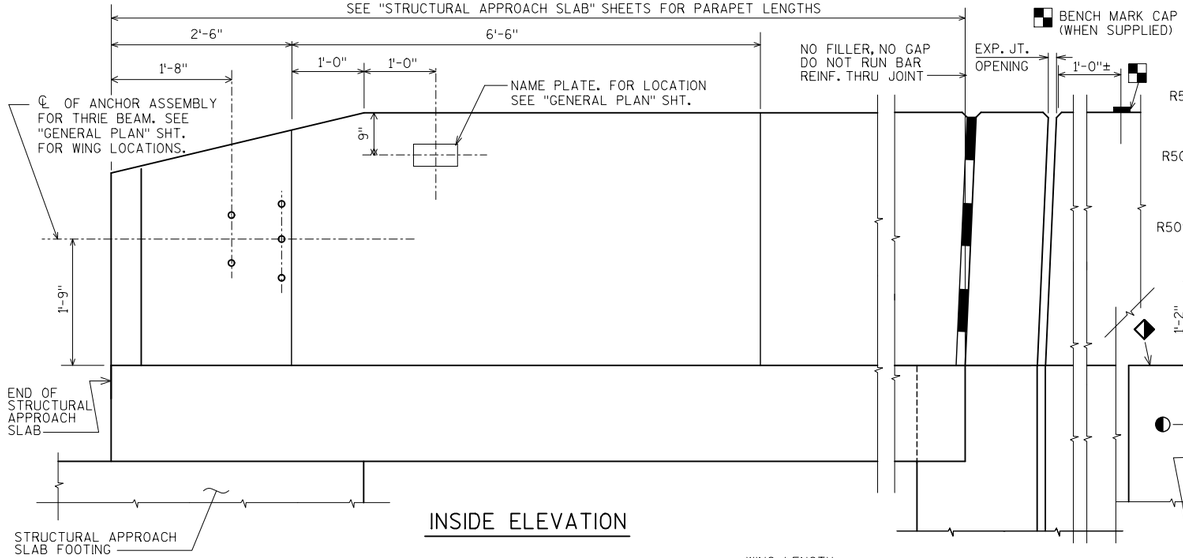
SHEET 490 OF 61

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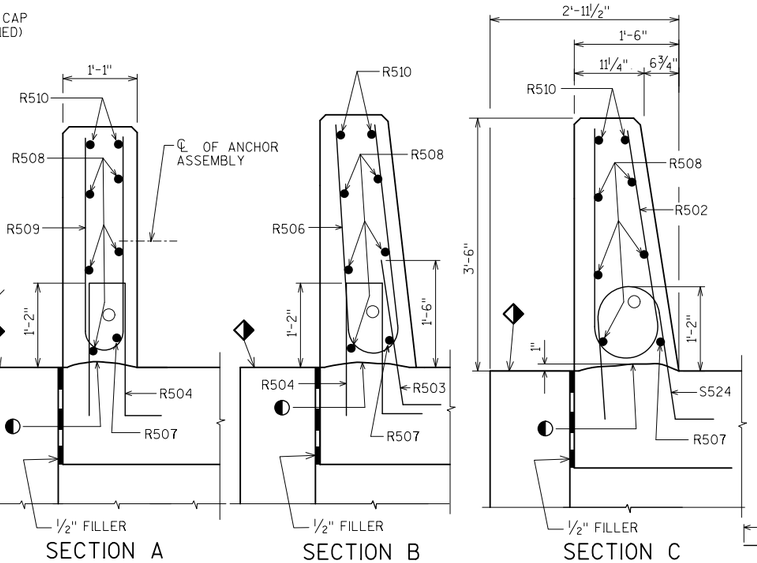
DATE:5/12/2015
I.D. jon_liddard

STATE PROJECT NUMBER

1517-07-79



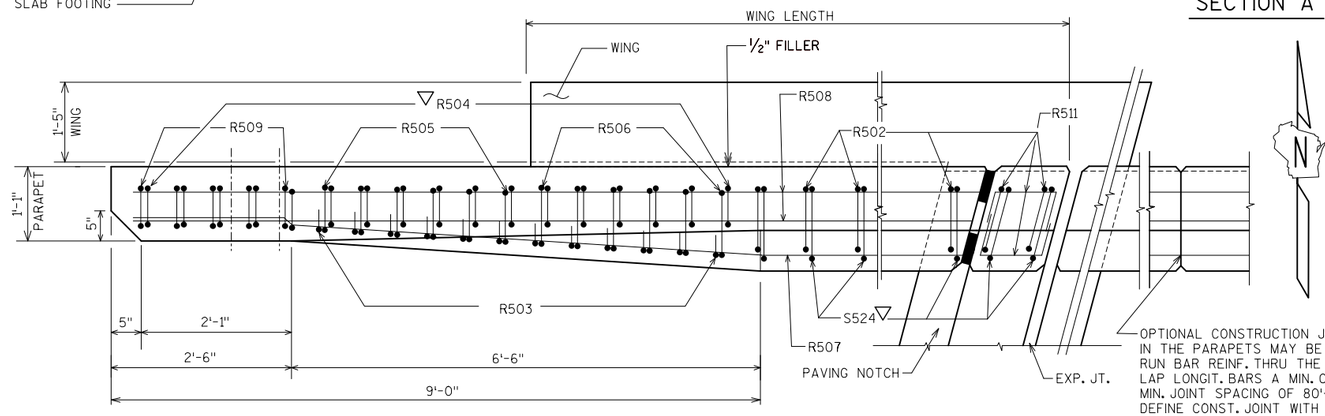
INSIDE ELEVATION



SECTION A

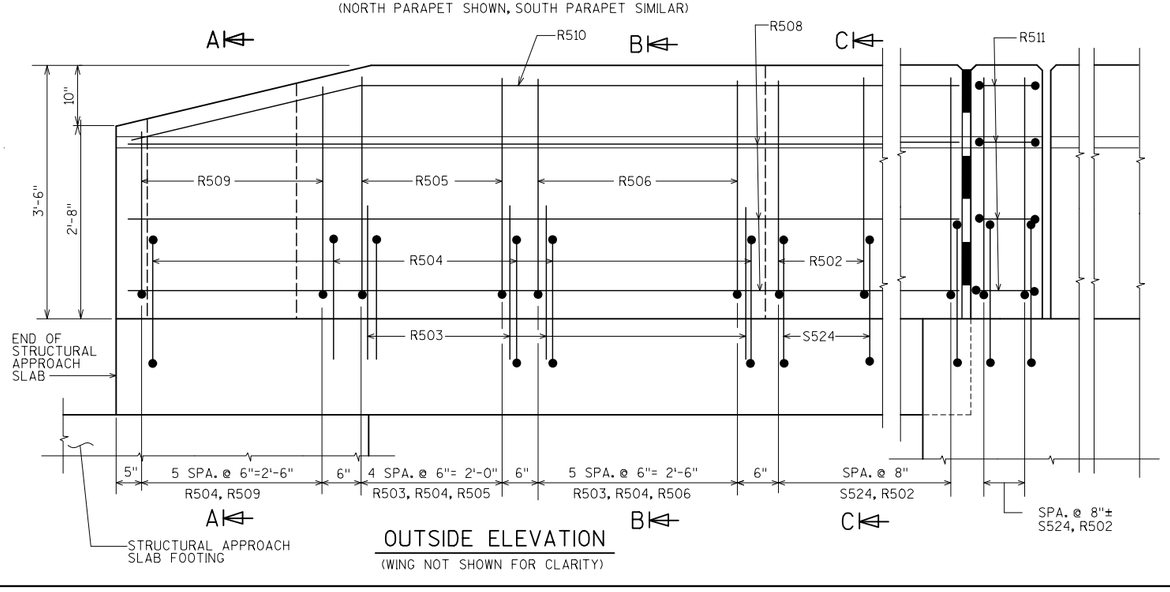
SECTION B

SECTION C



PLAN

(NORTH PARAPET SHOWN, SOUTH PARAPET SIMILAR)



OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)

BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED

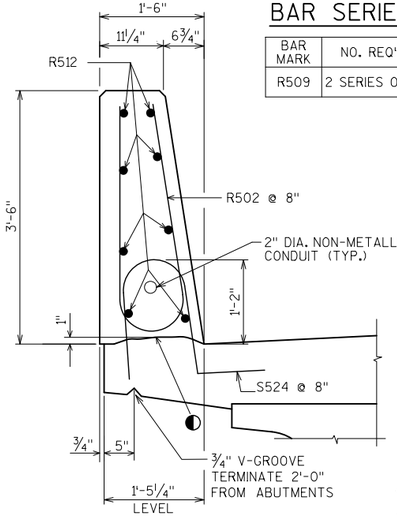
	BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
	R401	4	8'-1"	X		PARAPET VERT. IN FOOTING
	R502	3188	6'-8"	X		PARAPET VERT.
	R503	22	2'-9"	X		PARAPET VERT. AT TRANSITION
	R504	34	4'-4"	X		PARAPET VERT. AT TRANSITION
	R505	10	6'-5"	X		PARAPET VERT. AT TRANSITION
	R506	12	6'-6"	X		PARAPET VERT. AT TRANSITION
	R507	2	19'-6"	X		PARAPET HORIZ. AT TRANSITION
	R508	26	19'-6"			PARAPET HORIZ. AT TRANSITION
*	R509	12	5'-5"	X	X	PARAPET VERT. AT TRANSITION
	R510	4	19'-6"	X		PARAPET HORIZ. AT TRANSITION
	R511	32	1'-5"	X		PARAPET HORIZ. AT ABUT.
	R512	384	44'-7"			PARAPET HORIZ.
	R513	6	5'-10"	X		PARAPET VERT. AT FOOTING
	R414	8	2'-11"			PARAPET HORIZ. IN FOOTING

TOTAL WEIGHT= 41,230 LB

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

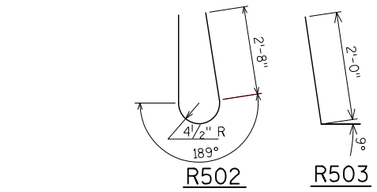


PARAPET ON BRIDGE

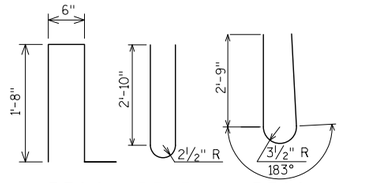
◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE

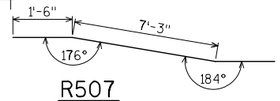
▽ S524 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.



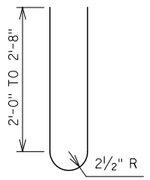
R502 R503



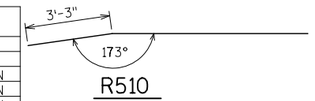
R504 R505 R506



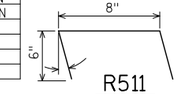
R507



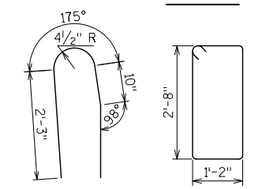
R509



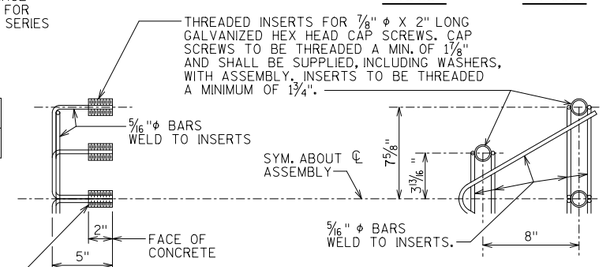
R510



R511



R513 R401



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY: MRL | PLANS CK'D.: MJA

PARAPET 42SS MODIFIED AT WEST ABUTMENT

SHEET 49 OF 61
491

DATE: 5/12/2015
I.D. jon_liggard

FILE= P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\B-70-400\Sheets\49 - single slope parapet 42SS modified at west abutment.dgn

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STATE PROJECT NUMBER

1517-07-79

BENCH MARK CAP (WHEN SUPPLIED)

EXP. JT. OPENING

1'-0"±

SEE "STRUCTURAL APPROACH SLAB" SHEETS FOR PARAPET LENGTHS

NO FILLER, NO GAP
DO NOT RUN BAR
REINF. THRU JOINT

½" FILLER

3'-6"

3'-0"

END OF STRUCTURAL APPROACH SLAB

STRUCTURAL APPROACH SLAB FOOTING

½" FILLER

PARAPET FOOTING

INSIDE ELEVATION

WING LENGTH

R511

R502

R508

½" FILLER

1'-5" WING

WING (NORTH PARAPET ONLY)

1'-6" PARAPET

½" FILLER

S524

PAVING NOTCH

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

EXP. JT. ABUTMENT

PLAN

(NORTH PARAPET SHOWN, SOUTH PARAPET SIMILAR)

½" FILLER

STRUCTURAL APPROACH SLAB FOOTING

END OF STRUCTURAL APPROACH SLAB

C

D

R511

½" FILLER

R512

R502

S524

R513

3'-6"

END OF STRUCTURAL APPROACH SLAB

C

PARAPET FOOTING

SPA. @ 8"
S524, R502

3"

R401

F.F ABUT. BACKWALL

SPA. @ 8"±
S524, R502

STRUCTURAL APPROACH SLAB FOOTING

½" FILLER

3'-0⅞"

R414

D

OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)

2'-11½"
1'-6"
6¾" 11¼"
R508
R502
3'-6"
1'-2"
1"
S524
½" FILLER

SECTION C

2'-11½"
1'-6"
6¾" 11¼"
R508
R502
3'-6"
1'-2"
1"
R513 @ 8"
R401 @ 1'-0"
½" FILLER
R414

SECTION D

1'-6"
6¾" 11¼"
R512
R502 @ 8"
3'-6"
2" DIA. NON-METALLIC CONDUIT (TYP.)
1'-2"
1"
S524 @ 8"
¾" V-GROOVE TERMINATE 2'-0" FROM ABUTMENTS
5"
¾"
1'-5¼" LEVEL

PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE. NORTH PARAPET ONLY, SOUTH PARAPET AT EAST ABUTMENT DOES NOT HAVE A WING.

▽ S524 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NOTES:

SEE "PARAPET 42SS MODIFIED AT WEST ABUTMENT" SHEET FOR BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY: MRL | PLANS CK'D.: MJA

PARAPET 42SS MODIFIED AT EAST ABUTMENT

SHEET 50 OF 61
492

8

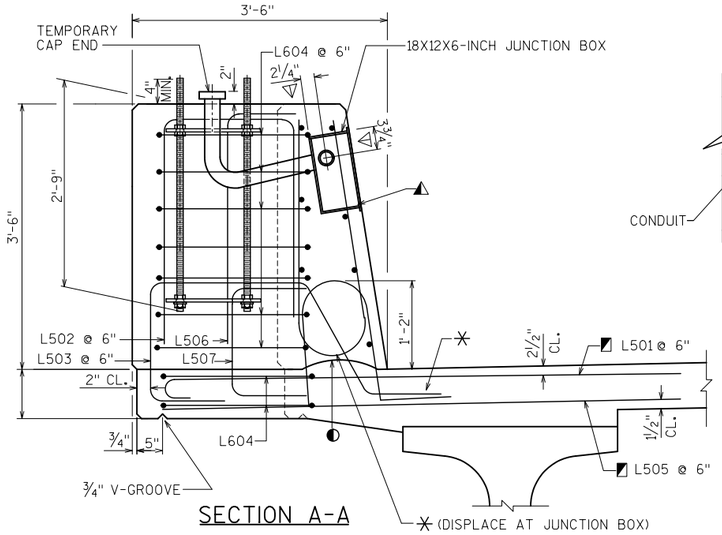
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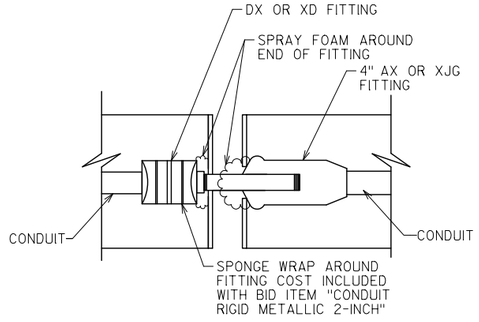
DATE: 5/12/2015
I.D. Jon_Lidgard

STATE PROJECT NUMBER

1517-07-79

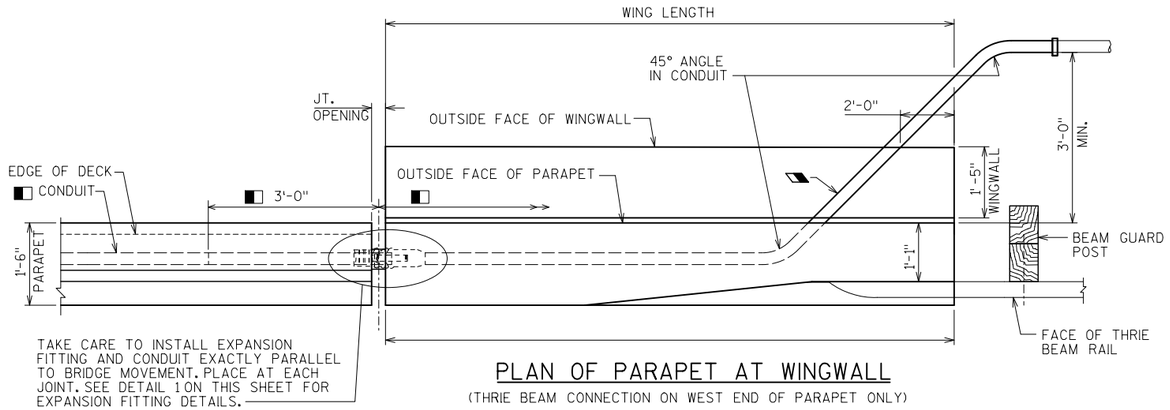


SECTION A-A



DETAIL 1
ELECTRICAL FITTING - AX/DX CONNECTION

XD FITTING IS GOOD FOR 3/4" MOVEMENT IN ANY DIRECTION. THE XD FITTING WILL ALLOW FOR ANGULAR MOVEMENT WITH A DEFLECTION OF UP TO 30 DEGREES FROM THE NORMAL IN ANY DIRECTION.



PLAN OF PARAPET AT WINGWALL

(THRIE BEAM CONNECTION ON WEST END OF PARAPET ONLY)

LIGHT STD. & JUNCTION BOX LOCATIONS

℄ LIGHT STD. & 18X12X6-INCH JUNCTION BOX
STA. 132EB+90 LT
STA. 135EB+40 LT
STA. 137EB+90 LT
STA. 139EB+75 LT
STA. 141EB+75 LT

℄ 18X6X6-INCH JUNCTION BOX
STA. 134EB+15 LT
STA. 136EB+65 LT
STA. 140EB+75 LT

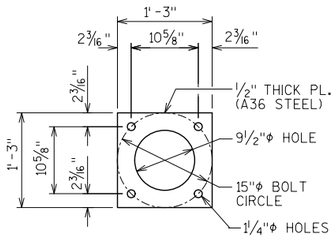
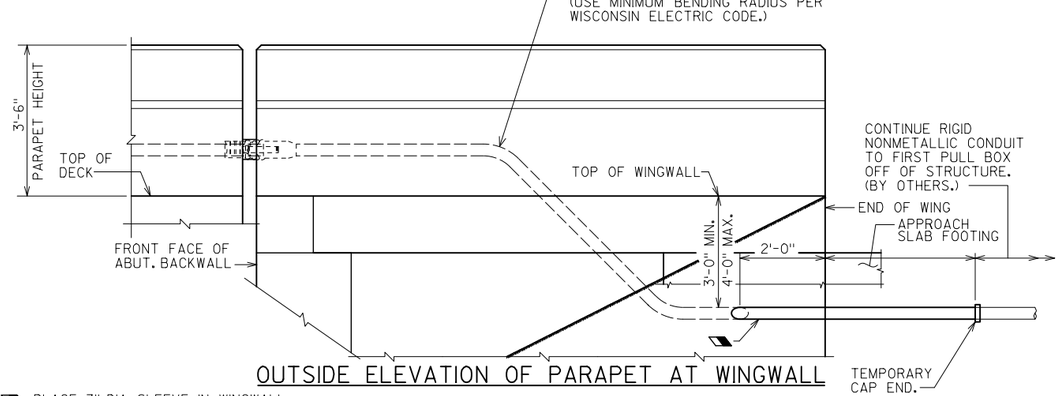
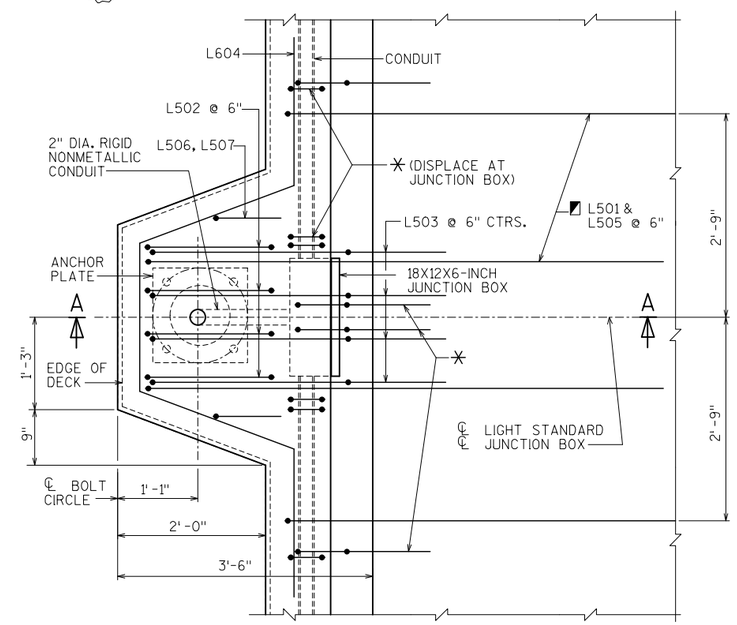


PLATE DETAIL

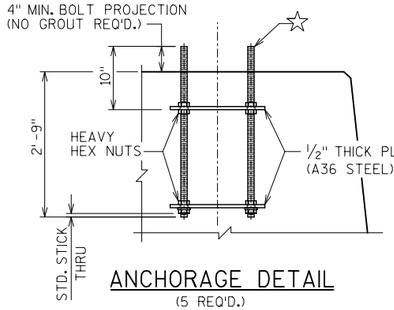
(10 REQ'D.)



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

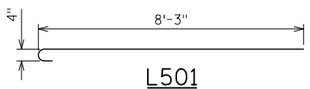


PLAN AT LIGHT STANDARD

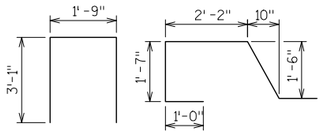


ANCHORAGE DETAIL

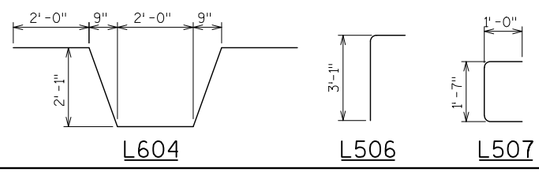
(5 REQ'D.)



L501



L502 L503



L604 L506 L507

- PLACE 3" DIA. SLEEVE IN WINGWALL. SPRAY FOAM SEALANT TO FILL GAP AROUND 2" CONDUIT BEFORE PLACING FILL AGAINST THE WINGWALL
- USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND TO END OF CONDUIT ON WING SIDES OF THE JOINT OPENING.
- CONSTR. JT. STRIKE OFF AS SHOWN
- CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN DECK.
- SEE SINGLE SLOPE PARAPET SHEET FOR ADDITIONAL BAR STEEL DETAILS.
- ☆ 1"ϕ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X6X6-INCH", EACH.
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURE", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AXDX-200 AND BONDING JUMPER (4¾" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

BILL OF BARS

ALL BARS IN THIS TABLE SHALL BE EPOXY COATED

LIGHT STANDARD

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
L501	50	8'-10"	X		DECK TRANSV. @ LIGHT STD.
L502	20	7'-8"	X		PARAPET VERT. @ LIGHT STD.
L503	20	7'-0"	X		PARAPET VERT. @ LIGHT STD.
L604	45	10'-0"	X		PARAPET HORIZ. @ LIGHT STD.
L505	50	8'-3"			DECK TRANSV. @ LIGHT STD.
L506	10	4'-0"	X		PARAPET VERT. @ LIGHT STD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY: MRL | PLANS CK'D.: MJA

NORTH PARAPET ELECTRICAL WORK & LIGHT STANDARD

SHEET 51 OF 61
493

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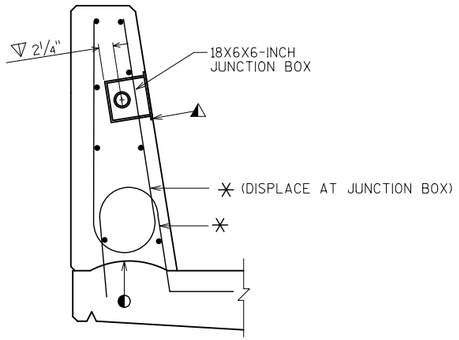
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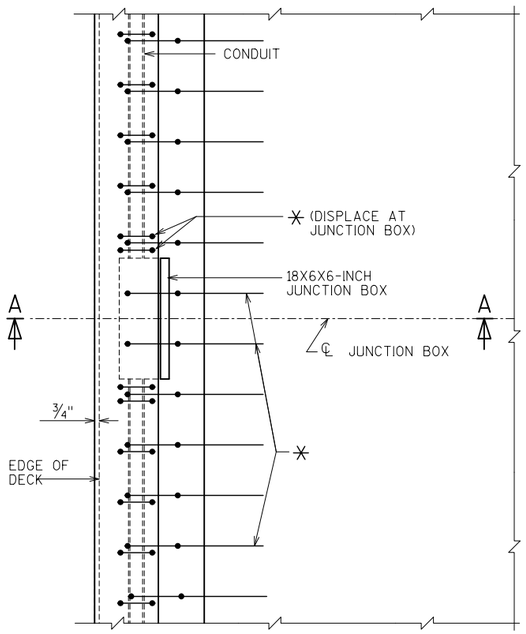
DATE: 5/12/2015
I.D. jon_lidgard

STATE PROJECT NUMBER

1517-07-79



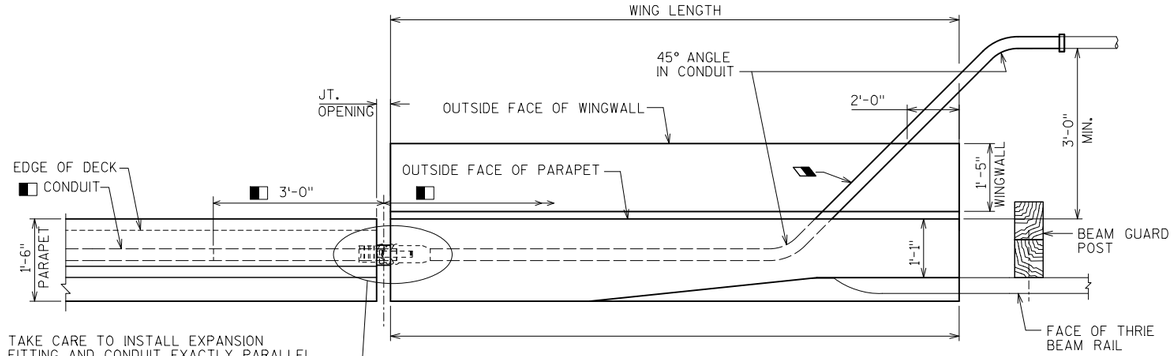
SECTION A-A



PLAN AT JUNCTION BOX

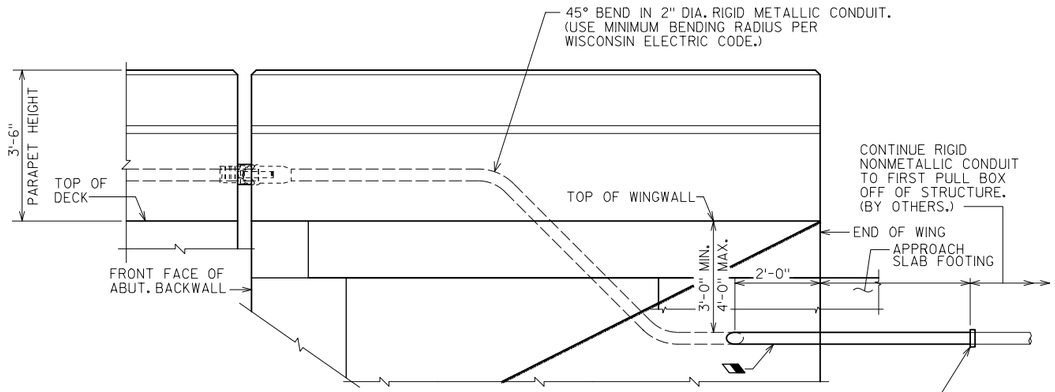
JUNCTION BOX LOCATIONS

℄ 18X6X6-INCH JUNCTION BOX
STA. 132EB+35 RT
STA. 134EB+25 RT
STA. 136EB+15 RT
STA. 138EB+05 RT
STA. 139EB+95 RT
STA. 141EB+85 RT



PLAN OF PARAPET AT WINGWALL

(THRIE BEAM CONNECTION ON WEST END OF PARAPET ONLY)



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

■ USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND TO END OF CONDUIT ON WING SIDES OF THE JOINT OPENING.

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

✳ SEE SINGLE SLOPE PARAPET SHEET FOR ADDITIONAL BAR STEEL DETAILS.

◥ PLACE 3" DIA. SLEEVE IN WINGWALL. SPRAY FOAM SEALANT TO FILL GAP AROUND 2" CONDUIT BEFORE PLACING FILL AGAINST THE WINGWALL

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X6X6-INCH", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AXDX-200 AND BONDING JUMPER (4¾" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

SOUTH PARAPET ELECTRICAL WORK

SHEET 52 OF 61
494

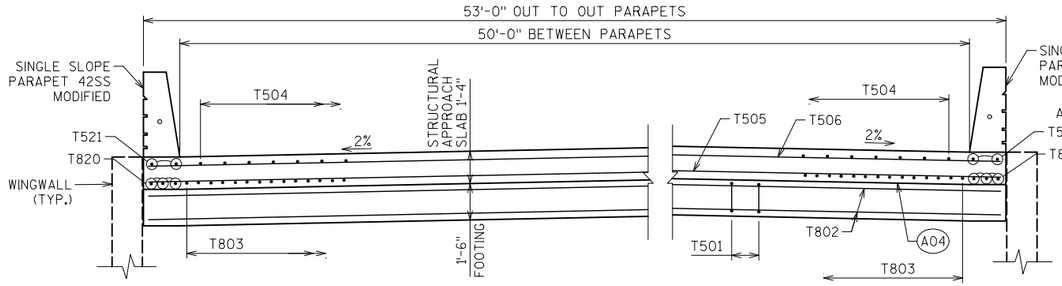
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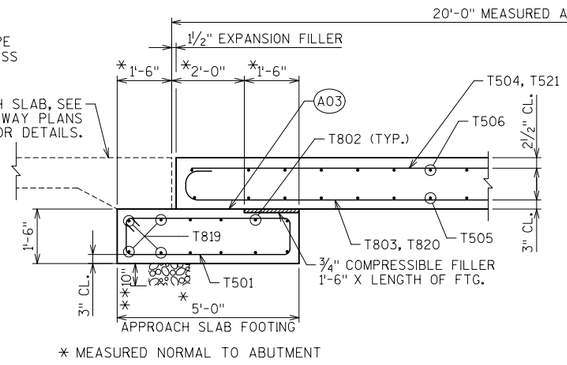
DATE: 5/12/2015
I.D. jon_liddard

STATE PROJECT NUMBER
1517-07-79



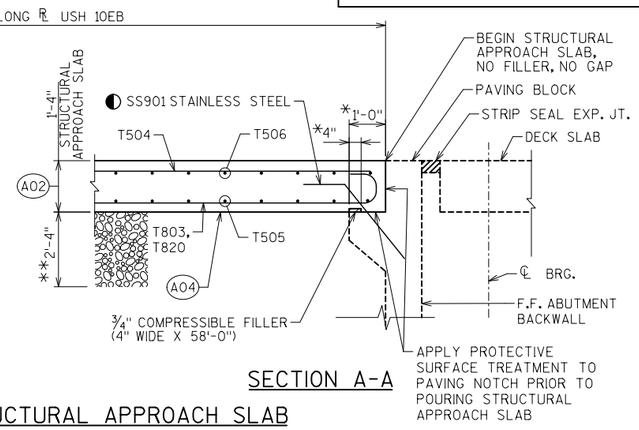
CROSS SECTION THRU STRUCTURAL APPROACH SLAB

(LOOKING UPSTATION)



* MEASURED NORMAL TO ABUTMENT

SECTION B-B

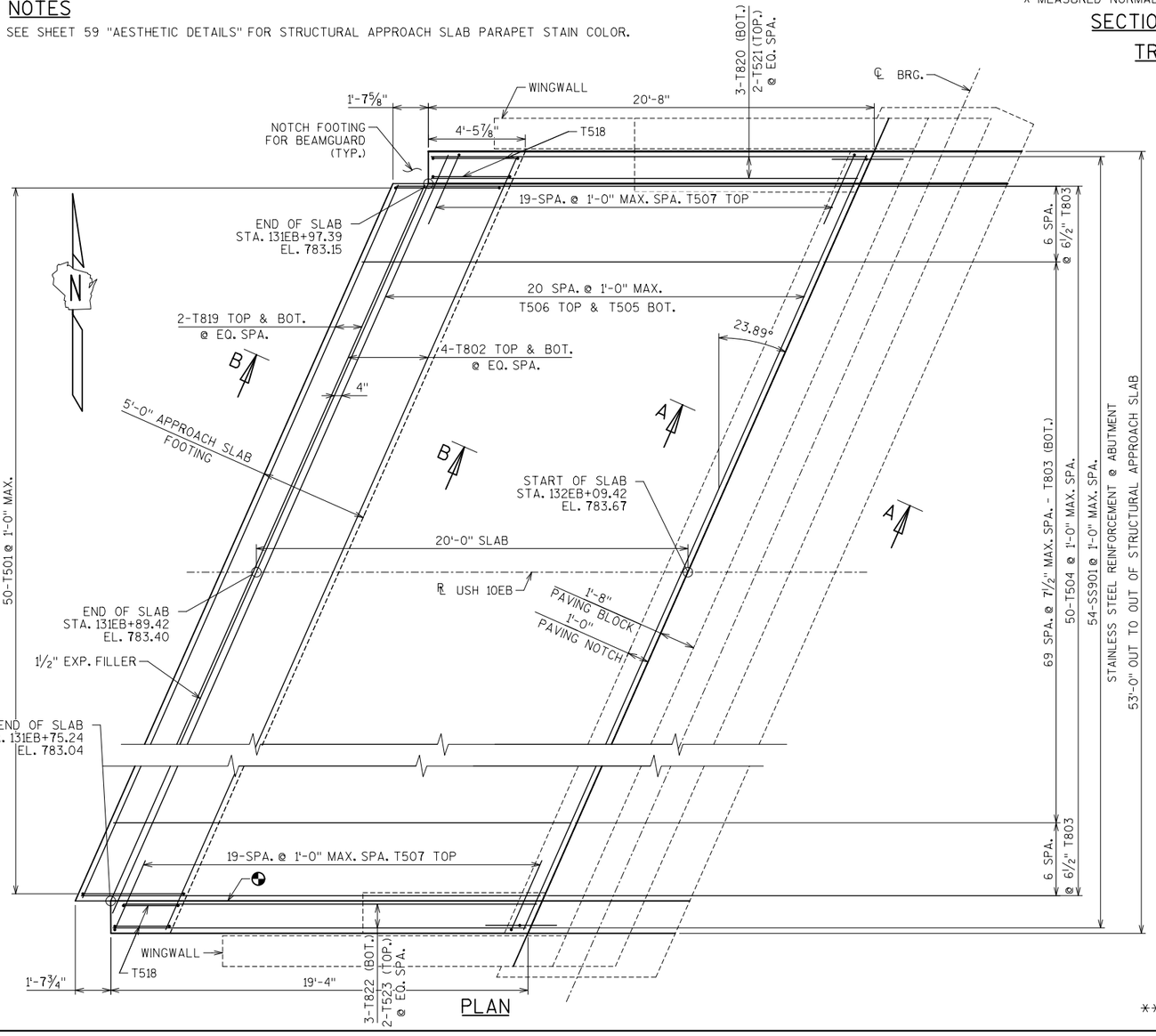


SECTION A-A

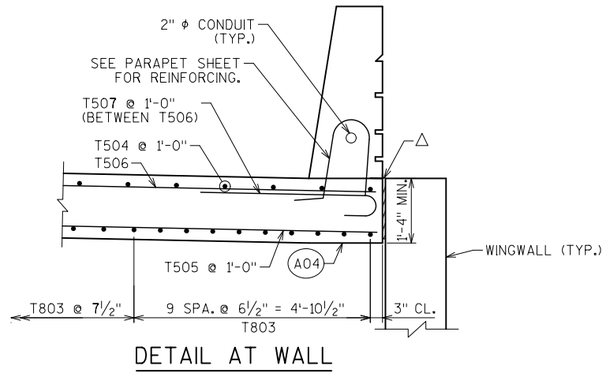
TRANSVERSE SECTION THRU STRUCTURAL APPROACH SLAB

NOTES

SEE SHEET 59 "AESTHETIC DETAILS" FOR STRUCTURAL APPROACH SLAB PARAPET STAIN COLOR.



PLAN



DETAIL AT WALL

LEGEND

(A02) STRUCTURAL APPROACH SLAB, STRUCTURAL APPROACH SLAB FOOTING, AND STRUCTURAL APPROACH SLAB PARAPETS SHALL BE "MODIFIED HIGH PERFORMANCE CONCRETE (HPC) MASONRY BRIDGES".

(A03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(A04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH AND WIDTH OF THE SUBGRADE. POLYETHELENE SHEETS SHALL BE INCIDENTAL TO BID ITEM "MODIFIED HIGH PERFORMANCE CONCRETE (HPC) MASONRY BRIDGES".

△ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

◐ THE COST OF STAINLESS STEEL BARS SS901 IS INCLUDED WITH BID ITEM "SPV.0085.800 BAR STEEL REINFORCEMENT HS STAINLESS STEEL BRIDGES".

◓ SEE SHEET 49 "SINGLE SLOPE PARAPET 42SS MODIFIED AT WEST ABUTMENT" FOR LOCATION OF NAME PLATE AND BENCH MARK.

BILL OF BARS

FOR BILL OF BARS, SEE SHEET 54 "STRUCTURAL APPROACH SLAB DETAILS - E. ABUT."

DESIGN DATA

CONCRETE STRENGTH, F'C:	4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60, FY:	60,000 P.S.I.
ALLOWABLE SOIL BEARING PRESSURE:	2,000 P.S.F.

**PROVIDE BASE AGGREGATE DENSE 1¼ INCH UNDER STRUCTURAL APPROACH SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MJA

STRUCTURAL APPROACH SLAB DETAILS - W. ABUT

SHEET 8 OF 61
495

DATE: 5/12/2015
I.D. jon_liggard

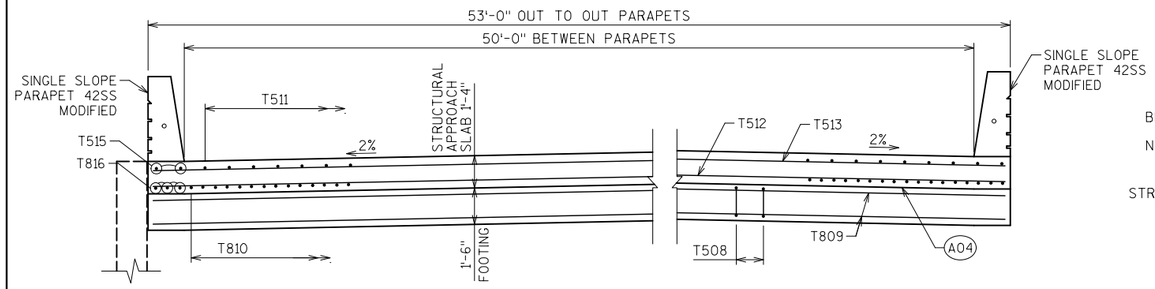
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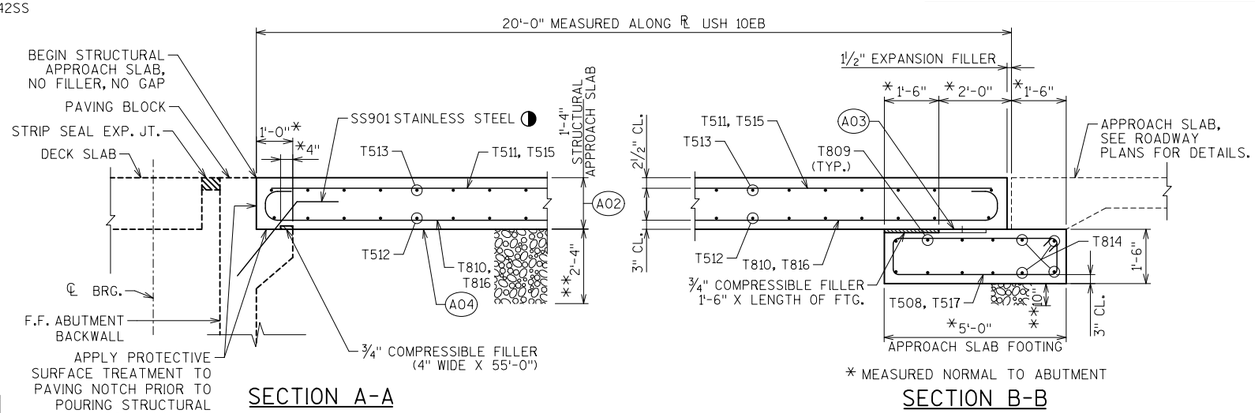
STATE PROJECT NUMBER

1517-07-79



CROSS SECTION THRU STRUCTURAL APPROACH SLAB

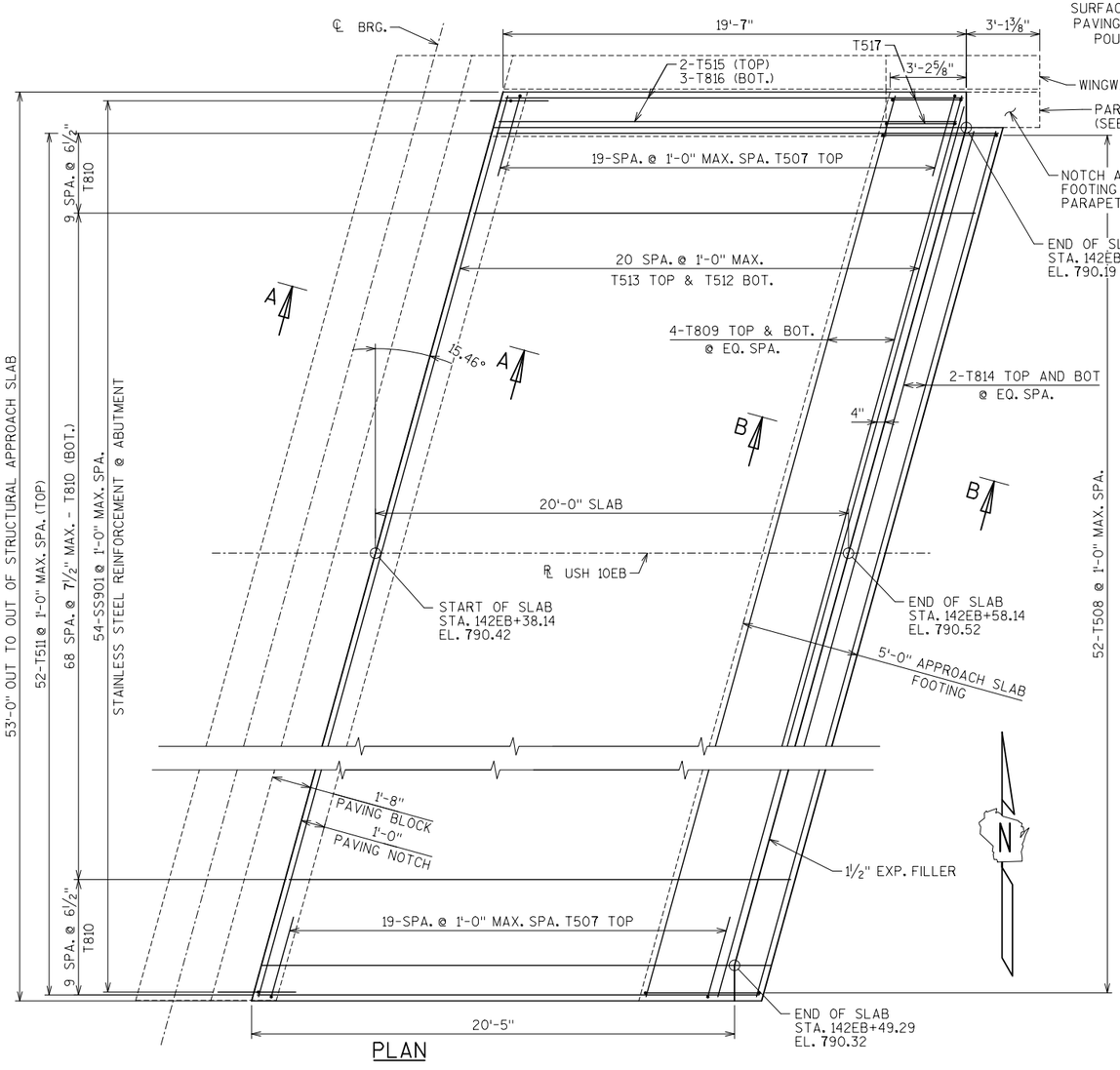
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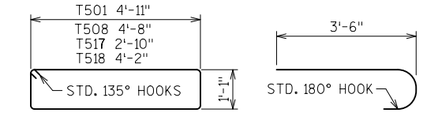
SECTION A-A

SECTION B-B

TRANSVERSE SECTION THRU STRUCTURAL APPROACH SLAB

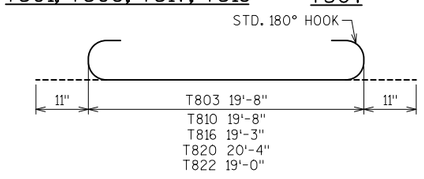


PLAN

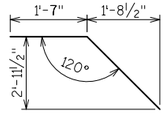


T501, T508, T517, T518

T507



T803, T810, T816, T820, T822



SS901

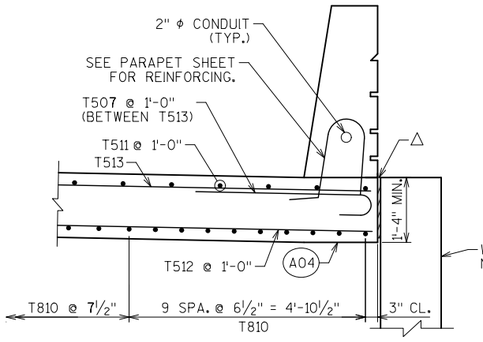
BILL OF BARS

BAR MARK	NO. REQ'D W. APPR.	NO. REQ'D E. APPR.	LENGTH	BENT	LOCATION
T501	50		12'-9"	X	FOOTING - STIRRUP (WEST)
T802	8		57'-5"		FOOTING - TRANS. (WEST)
T803	83		21'-6"	X	LONG. - BOT. (WEST)
T504	50		19'-8"		LONG. - TOP (WEST)
T505	21		57'-5"		TRANS. - BOT. (WEST)
T506	21		57'-5"		TRANS. - TOP (WEST)
T507	40	40	4'-1"	X	TRANS. - EDGE (BOTH)
T508		52	12'-0"	X	FOOTING - STIRRUP (EAST)
T809		8	54'-5"		FOOTING - TRANS. (EAST)
T810		87	21'-6"	X	LONG. - BOT. (EAST)
T511		52	19'-8"		LONG. - TOP (EAST)
T512		21	54'-5"		TRANS. - BOT. (EAST)
T513		21	54'-5"		TRANS. - TOP (EAST)
T814		4	52'-11"		FOOTING - TRANS. (EAST)
T515		2	19'-3"		LONG. - TOP (EAST)
T816		3	21'-1"	X	TRANS. - BOT. (EAST)
T517		2	8'-4"	X	FOOTING - STIRRUP (EAST)
T518	4		11'-0"	X	FOOTING - STIRRUP (WEST)
T819	4		54'-6"		FOOTING - TRANS. (WEST)
T820	3		22'-2"	X	LONG. - BOT. (WEST)
T521	2		20'-4"	X	LONG. - BOT. (WEST)
T822	3		20'-10"	X	LONG. - BOT. (WEST)
T523	2		19'-0"		LONG. - TOP (WEST)

TOTAL WEIGHT EPOXY COATED= 22,650 LB

SS901	54	54	5'-0"	X	ABUT. BACKWALL

TOTAL WEIGHT STAINLESS= 1,840 LB



DETAIL AT WALL

NOTE

FOR DESIGN DATA, NOTES, AND LEGEND, SEE SHEET 53 "STRUCTURAL APPROACH SLAB DETAILS - W. ABUT."

SEE SHEET 59 "AESTHETIC DETAILS" FOR STRUCTURAL APPROACH SLAB PARAPET STAIN COLOR.

** PROVIDE BASE AGGREGATE DENSE 1¼ INCH UNDER STRUCTURAL APPROACH SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MAD

STRUCTURAL APPROACH SLAB DETAILS - E. ABUT

SHEET 54 OF 61
496

DATE: 5/12/2015
I.D. jon_liggard

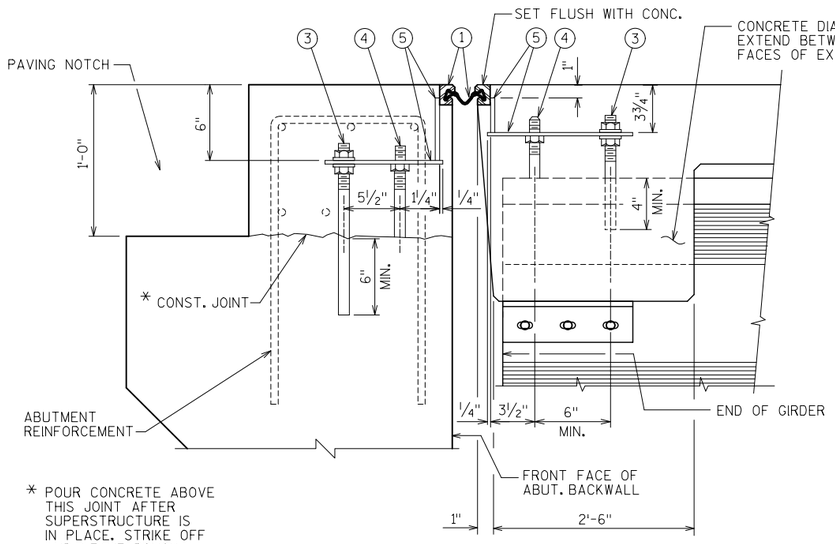
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STATE PROJECT NUMBER

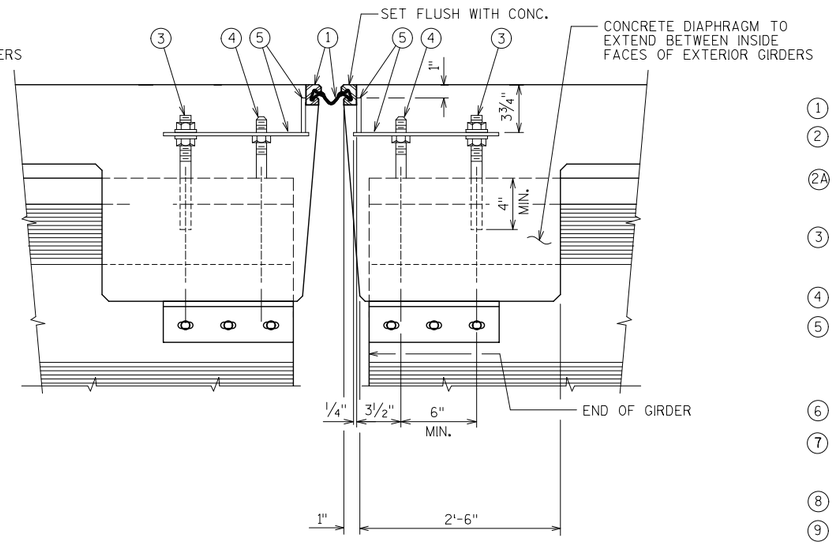
1517-07-79



* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

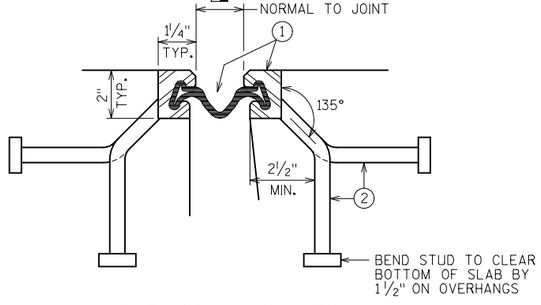


SECTION THRU JOINT AT PIER

NORMAL TO ℄ SUBSTRUCTURE

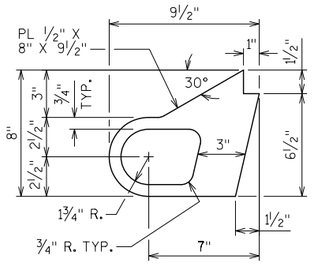
LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) AND STEEL EXTRUSIONS.
2. STUDS $\frac{5}{8}$"Φ X 6$\frac{3}{8}$" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. $\frac{1}{2}$" THICK ANCHOR PLATE WITH $\frac{5}{8}$"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. $\frac{3}{4}$" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER.
4. $\frac{3}{4}$"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X $\frac{1}{2}$" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1$\frac{1}{2}$" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE $\frac{3}{8}$" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.
7. $\frac{3}{4}$"Φ X 1$\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.
8. $\frac{3}{4}$"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. $\frac{3}{4}$"Φ X 2$\frac{1}{4}$" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



ALTERNATE STRIP SEAL ANCHOR

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

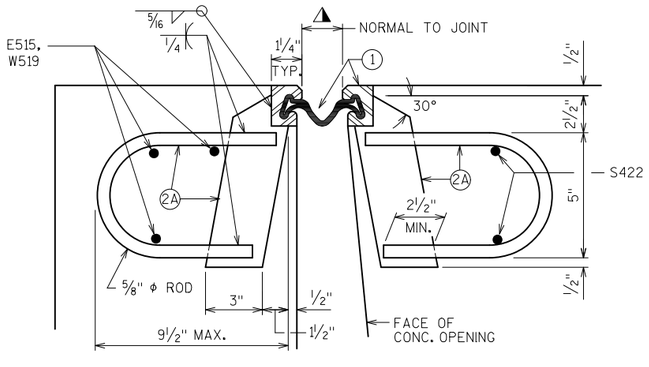
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

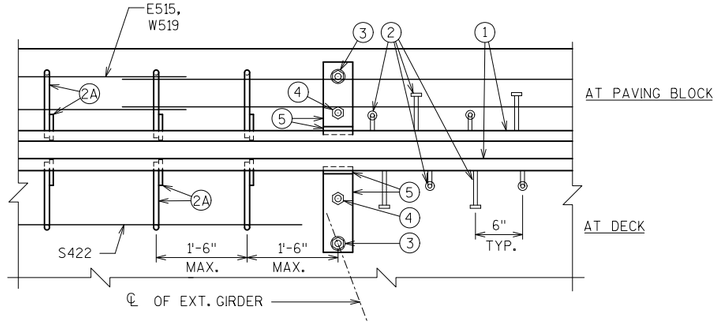
ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-70-400".



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)			
	W. ABUT.	PIER 3	PIER 5	E. ABUT.
85°	1⅝"	1¾"	1¾"	1 11/16"
75°	1 11/16"	1 15/16"	2 1/16"	1⅞"
65°	1 13/16"	2 3/16"	2 5/16"	2"
55°	1 15/16"	2 7/16"	2 9/16"	2 3/16"
45°	2 1/16"	2 11/16"	2 13/16"	2 3/8"
35°	2 1/8"	2 7/8"	3 1/8"	2 9/16"
25°	2 1/4"	3 1/8"	3 3/8"	2¾"
15°	2 3/8"	3 3/8"	3 5/8"	2 15/16"
5°	2½"	3 5/8"	3 15/16"	3 1/16"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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EXPANSION DEVICE

SHEET 55 OF 61
497

DATE: 5/12/2015
I.D. jon_liddgard

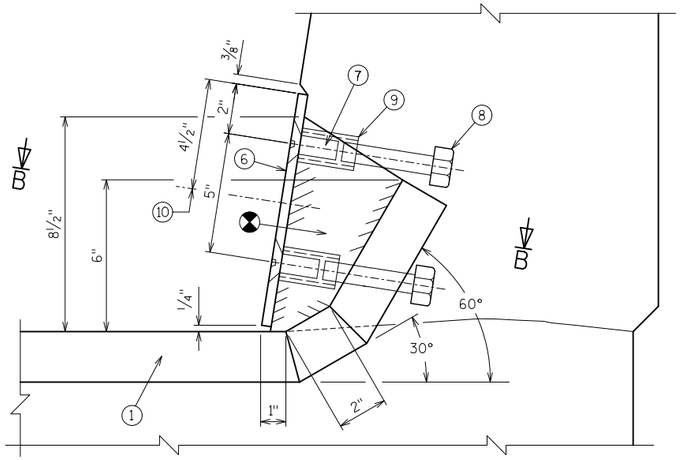
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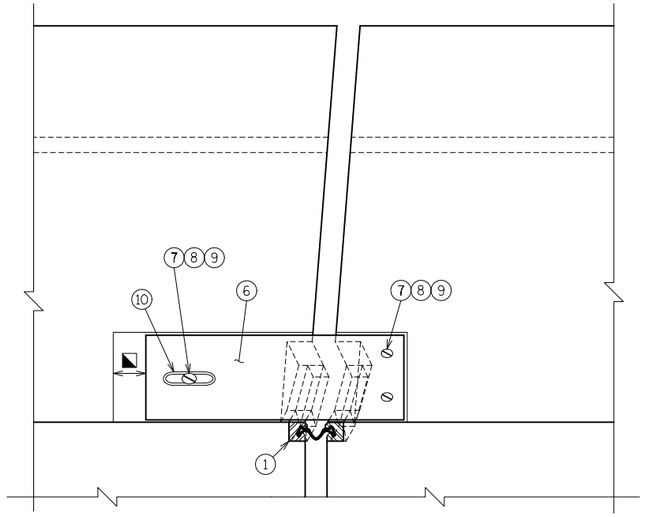
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STATE PROJECT NUMBER

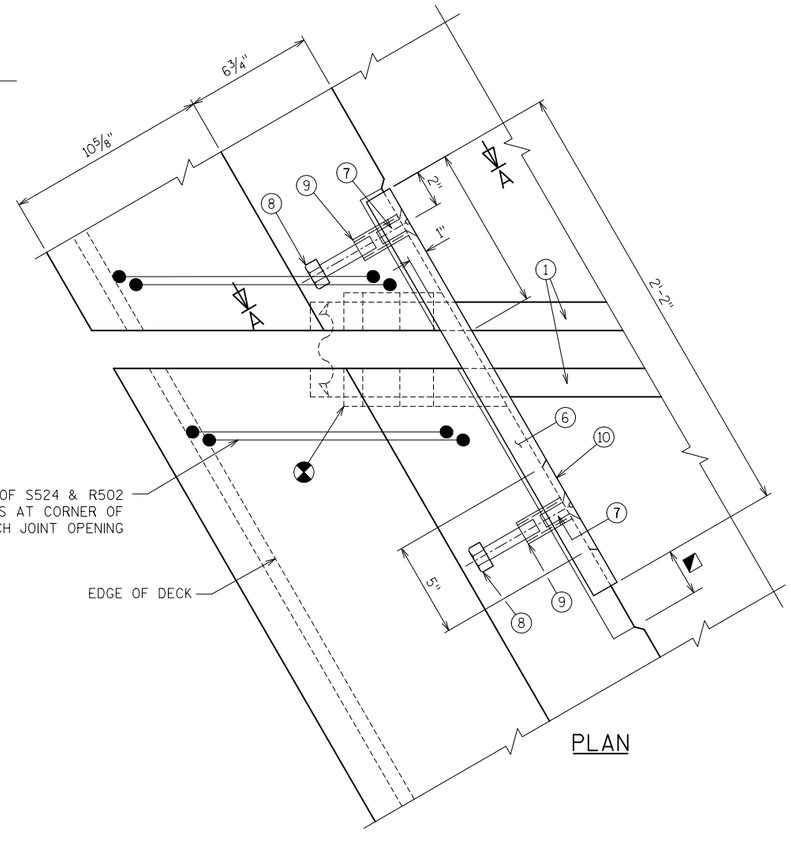
1517-07-79



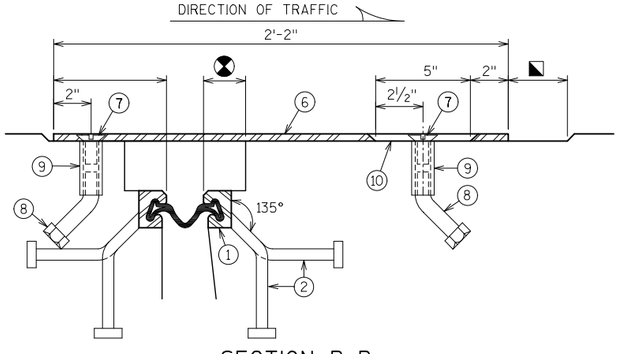
SECTION A-A



VIEW OF PARAPET PLATE
FROM ROADWAY



PLAN



SECTION B-B

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◺ JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

NO.	DATE	REVISION	BY

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STRUCTURE B-70-400

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COVER PLATE DETAILS

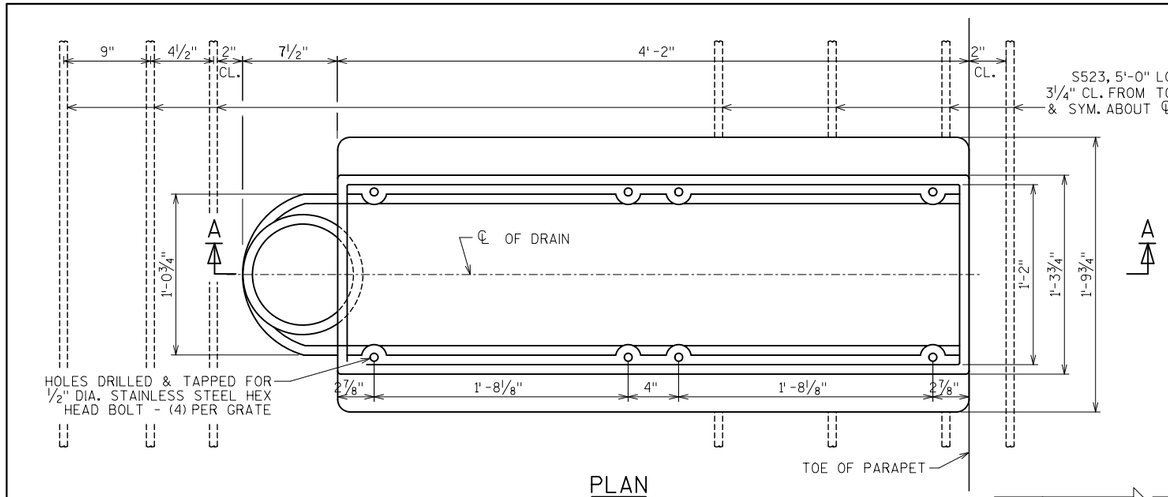
SHEET 56 OF 61
498

8

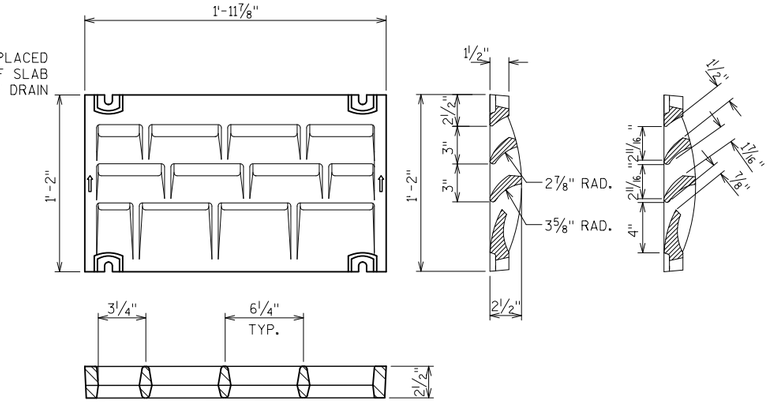
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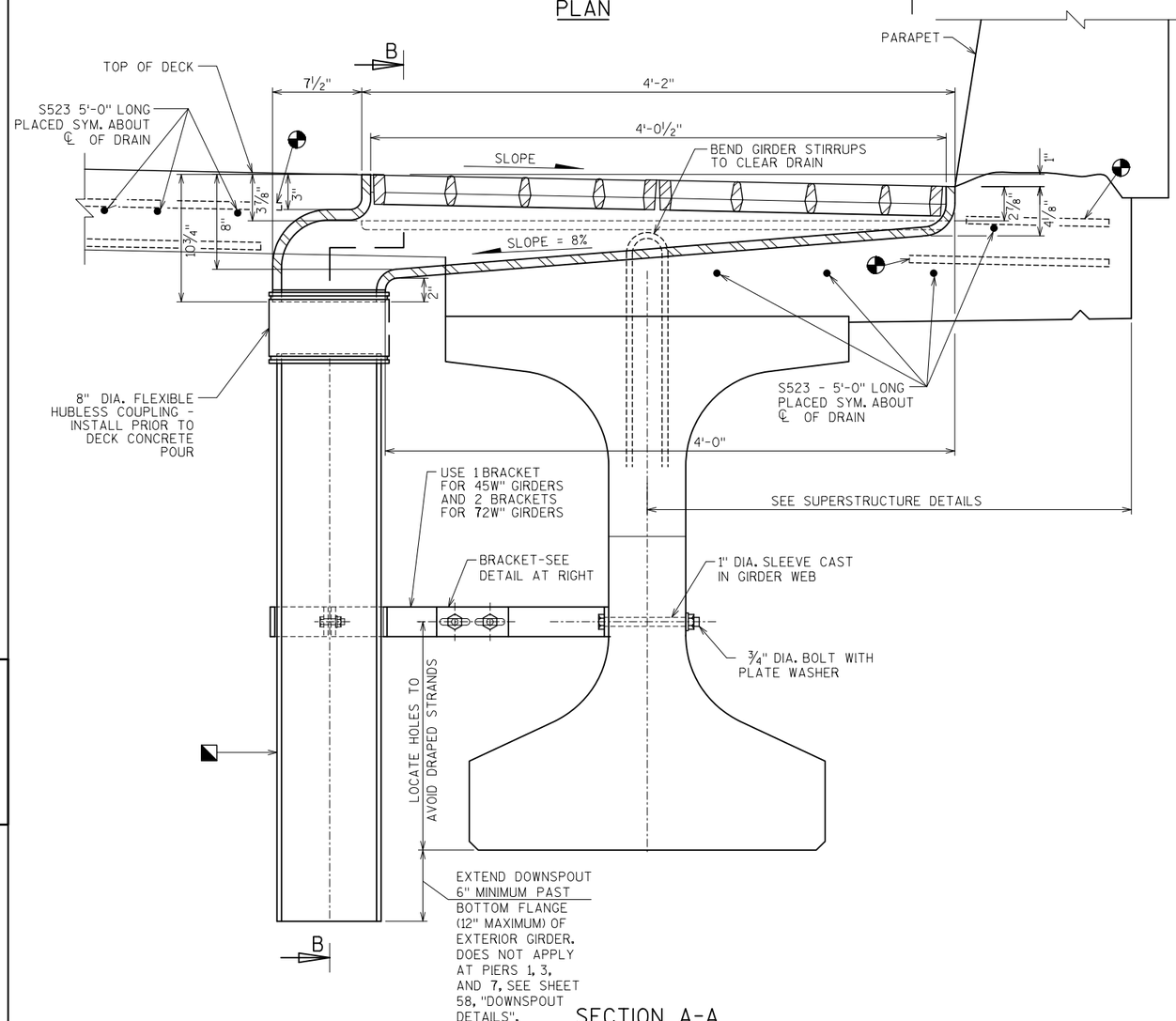
DATE: 5/12/2015
I.D. jon.liggard



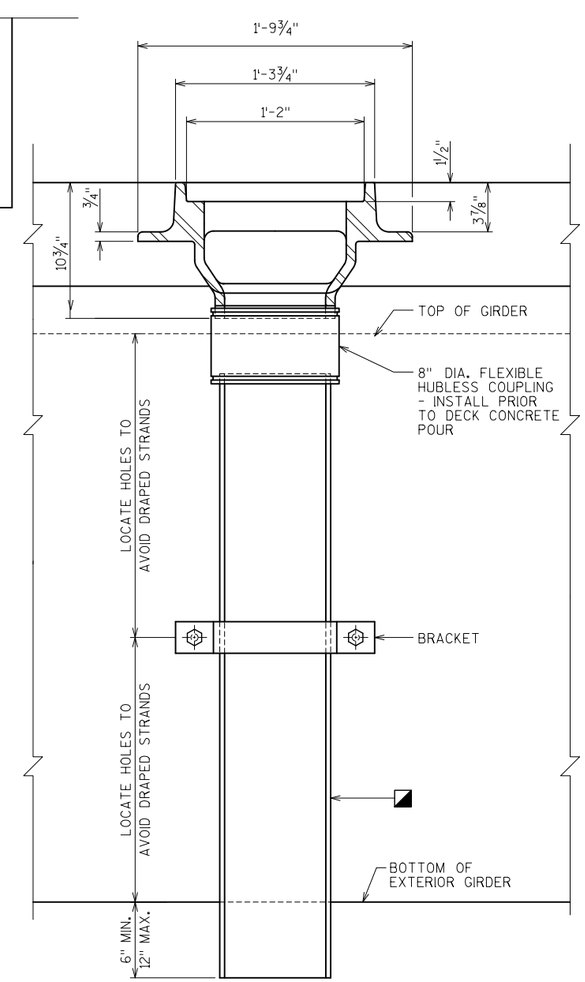
PLAN



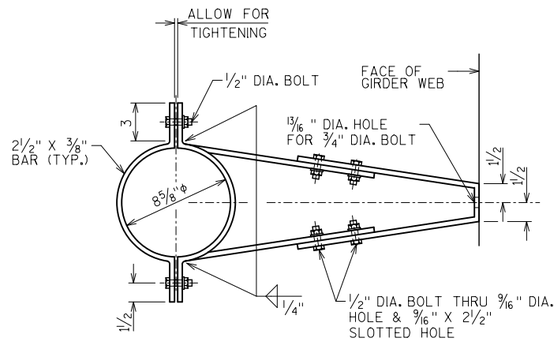
GRATE CASTING DETAILS



SECTION A-A



SECTION B-B



BRACKET DETAIL

STATE PROJECT NUMBER

1517-07-79

GENERAL NOTES

ALL MATERIAL FOR TYPE "WF" CASTING AND 8" DIA. CONNECTION PIPE, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30.

MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

SEE SHEET 58 "DOWNSPOUT DETAILS" FOR DOWNSPOUT DETAILS.

DOWNSPOUT TO BE PIGMENTED SAME COLOR AS GIRDER FACE. SEE SHEET 59 "AESTHETIC DETAILS" FOR DETAILS.

◪ 8" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE CONFORMING TO SECTION 514 OF THE STANDARD SPECIFICATIONS.

⊕ TRANSVERSE & LONGITUDINAL SLAB BAR REINFORCEMENT TO BE CUT A MAXIMUM OF 1" CLEAR FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE.

FLOOR DRAIN LOCATIONS

STATION	OFFSET
132EB+05.00	32' RIGHT
132EB+10.00	18' LEFT
133EB+14.00	32' RIGHT
133EB+40.00	18' LEFT
135EB+14.24	32' RIGHT
135EB+35.00	18' LEFT
136EB+97.53	32' RIGHT
137EB+05.00	18' LEFT
138EB+19.37	18' LEFT
139EB+06.26	32' RIGHT
139EB+10.00	18' LEFT
139EB+82.00	18' LEFT
140EB+64.00	32' RIGHT
140EB+78.00	18' LEFT
141EB+50.00	18' LEFT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY JDL | PLANS CK'D. MJA

FLOOR DRAIN TYPE "WF"

SHEET 57 OF 61
499

DATE: 5/12/2015
I.D. jon_lidgard

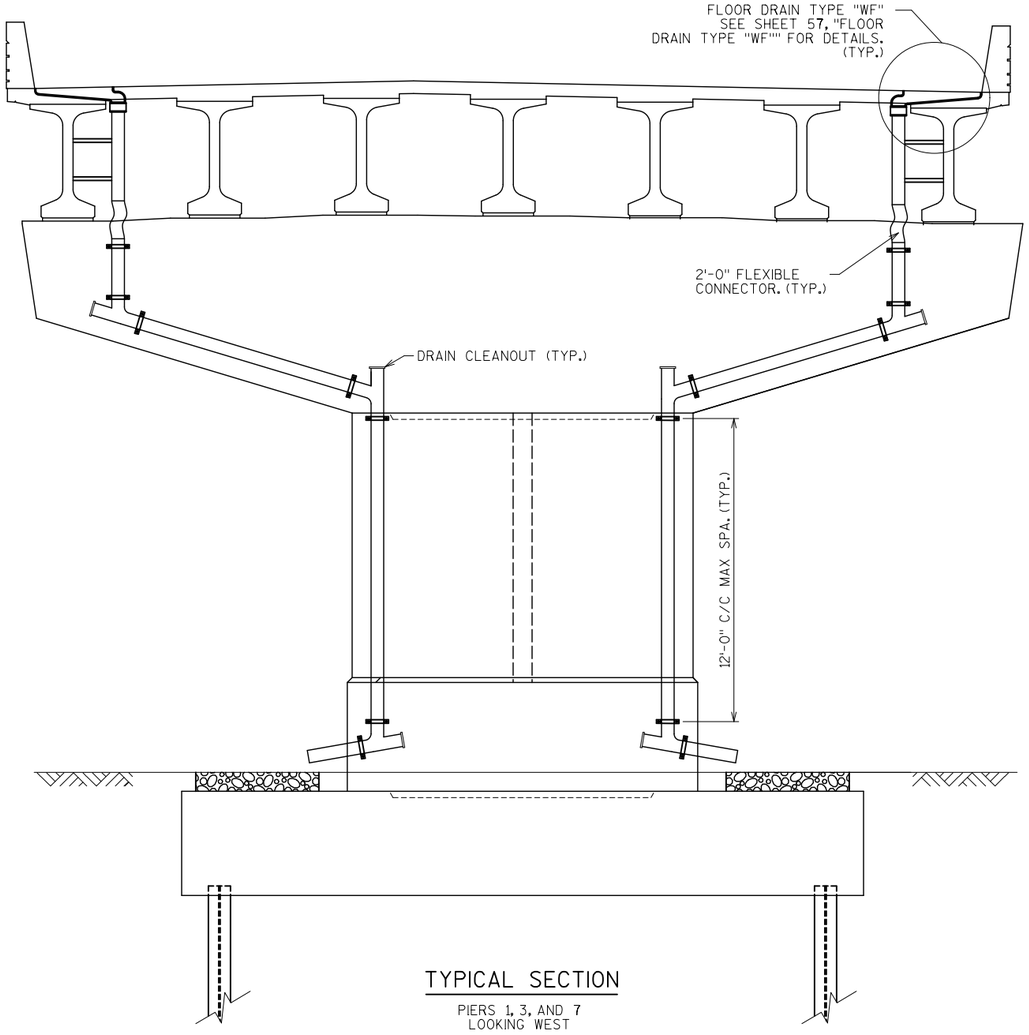
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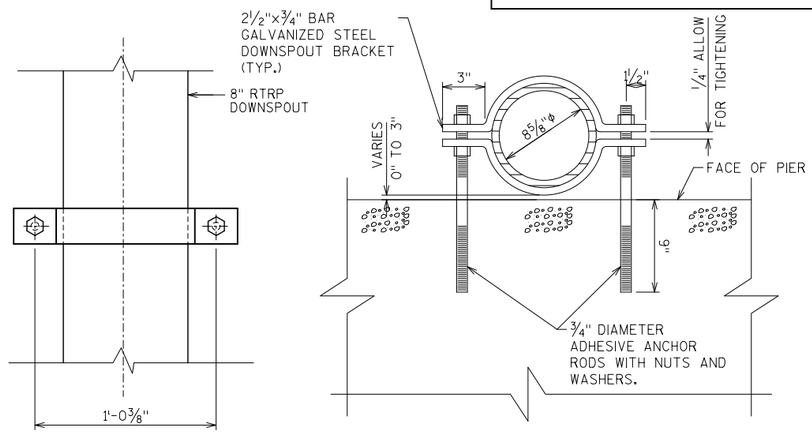
STATE PROJECT NUMBER

1517-07-79

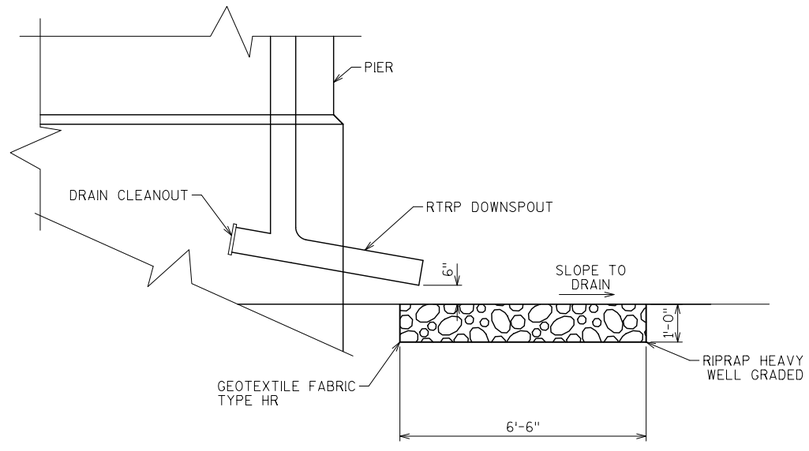


TYPICAL SECTION

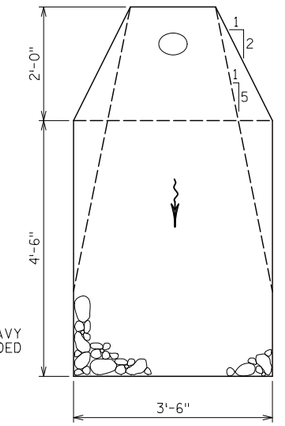
PIERS 1, 3, AND 7
LOOKING WEST



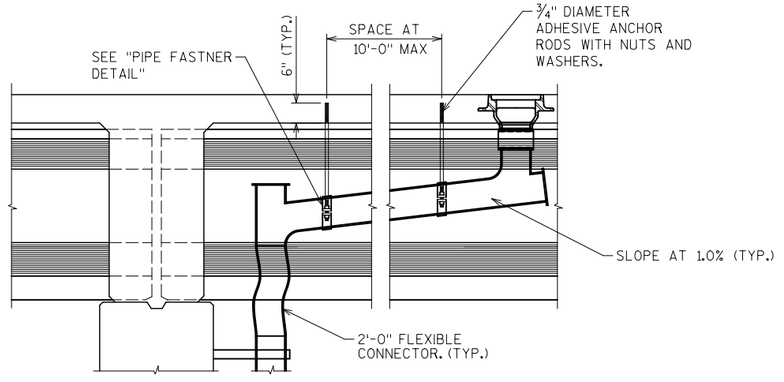
PIPE FASTENER DETAIL



ELEVATION VIEW



PLAN VIEW



ELEVATION VIEW AT PIER

ENERGY DISSIPATOR DETAIL

NOTES:

EXCAVATION FOR ENERGY DISSIPATOR IS INCIDENTAL TO ITEM "RIPRAP HEAVY".

MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

DOWNSPOUT TO BE PIGMENTED SAME COLOR AS PIER COLOR "A". SEE SHEET 59 "AESTHETIC DETAILS" FOR DETAILS.

8" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE CONFORMING TO SECTION 514 OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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DOWNSPOUT DETAILS

SHEET 58 OF 61
500

8

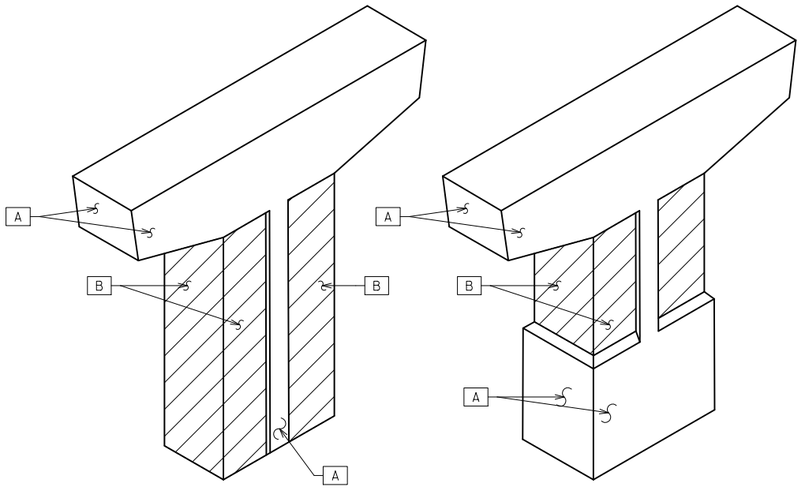
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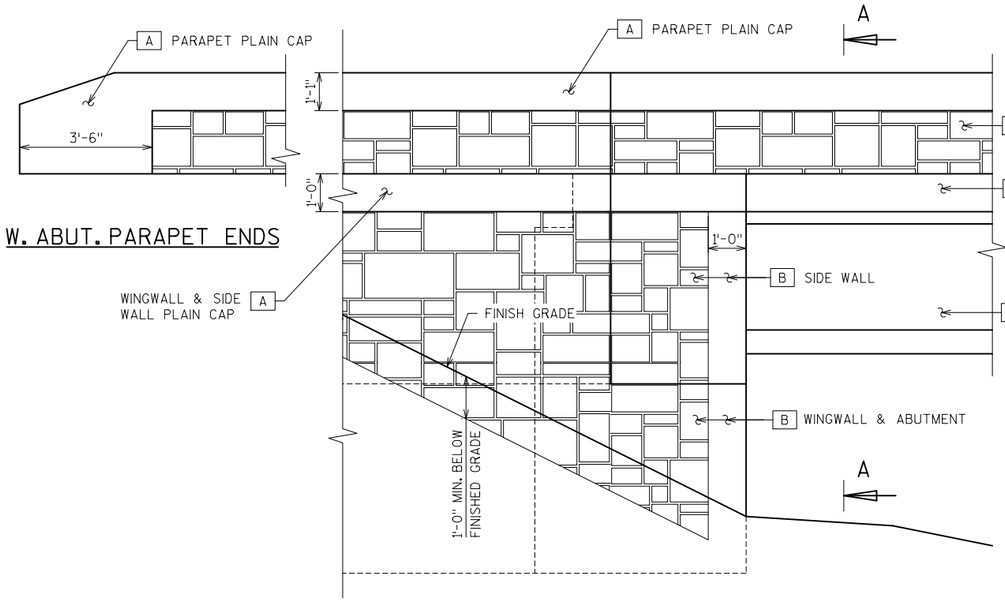
DATE:5/12/2015
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1517-07-79

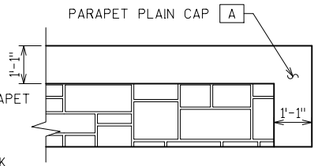


PIER STAINING DETAIL



W. ABUT. PARAPET ENDS

ABUTMENT STAINING DETAIL

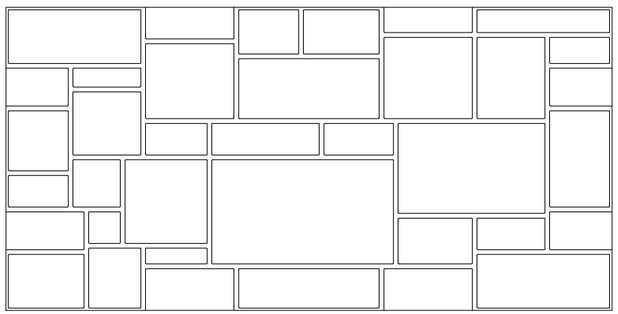


E. ABUT. PARAPET ENDS

CONCRETE STAINING SCHEDULE

MARK	COLOR	FED. COLOR NO.	LOCATION
A	BASKET BEIGE	33564	FASCIA GIRDERS, DECK EDGE, PARAPET AND WING PLAIN CAPS, PIER CAPS AND BASES
B	LATTE	33522	PARAPETS, WINGWALLS, SIDE WALLS, ABUTMENTS

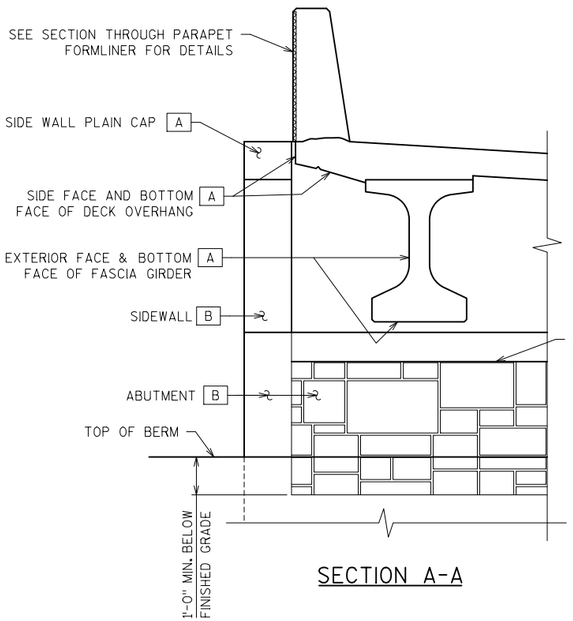
NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS)



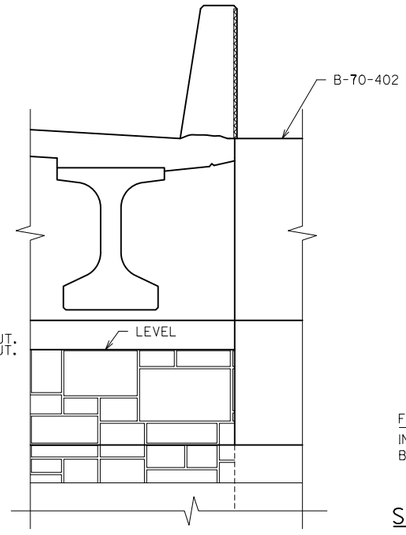
ASHLAR

MAXIMUM RELIEF: 1⅝"
AVERAGE RELIEF: 1¼"
LINER THICKNESS*: 2½"
STONE SIZE: H: 3" - 17"
W: 5"-29"

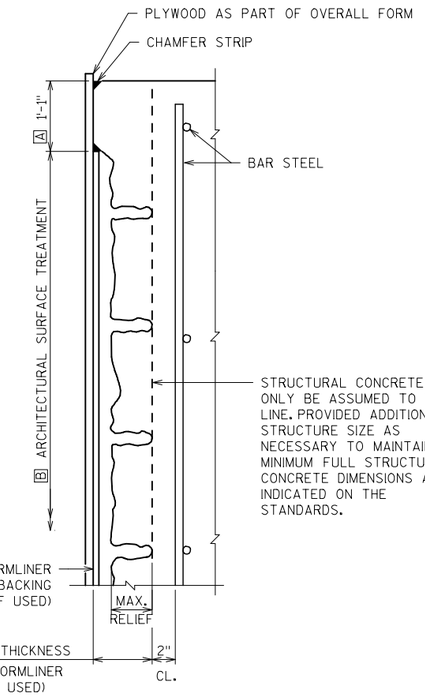
* INCLUDES INTERNAL PLYWOOD BACKING



SECTION A-A



EAST ABUT. AT B-70-402



SECTION THROUGH PARAPET FORMLINER

NOTES

FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FORMLINER COURSING ON PARAPET SHALL BE PARALLEL TO TOP OF PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY MRL | PLANS CK'D. MJA

AESTHETIC DETAILS

SHEET 59 OF 61
501

8

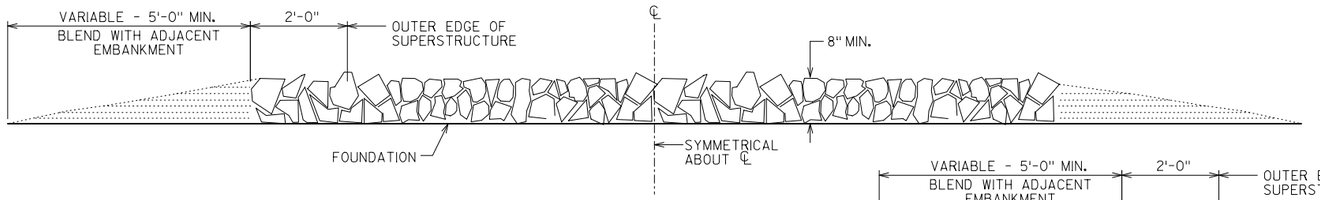
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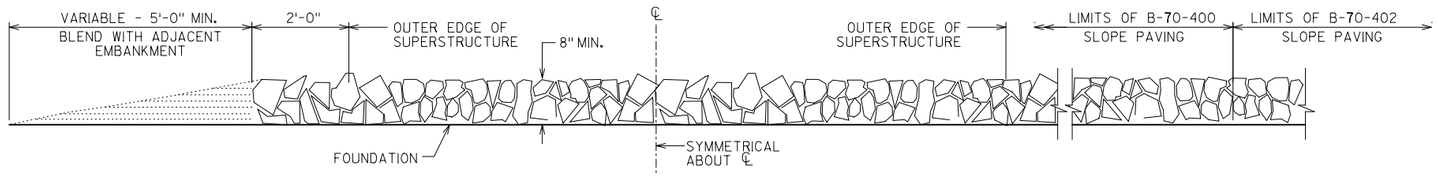
DATE: 5/12/2015
I.D. jon_lidgard

STATE PROJECT NUMBER

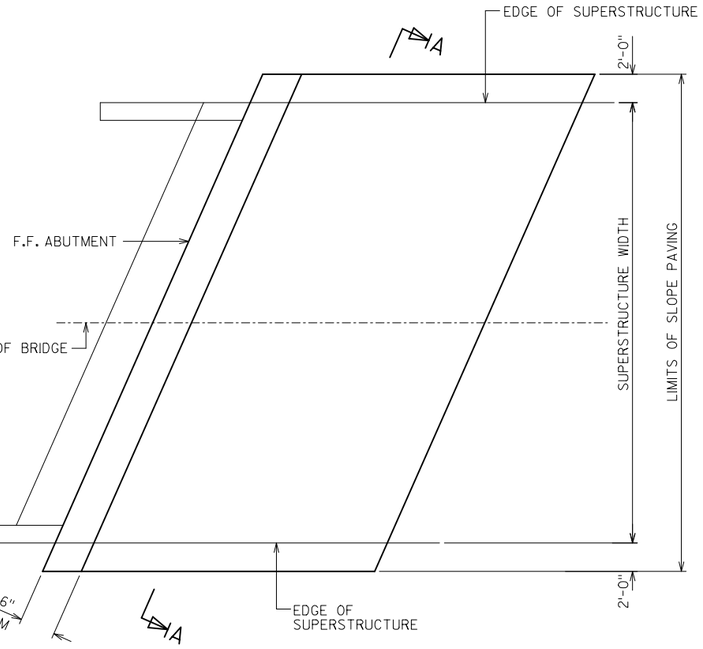
1517-07-79

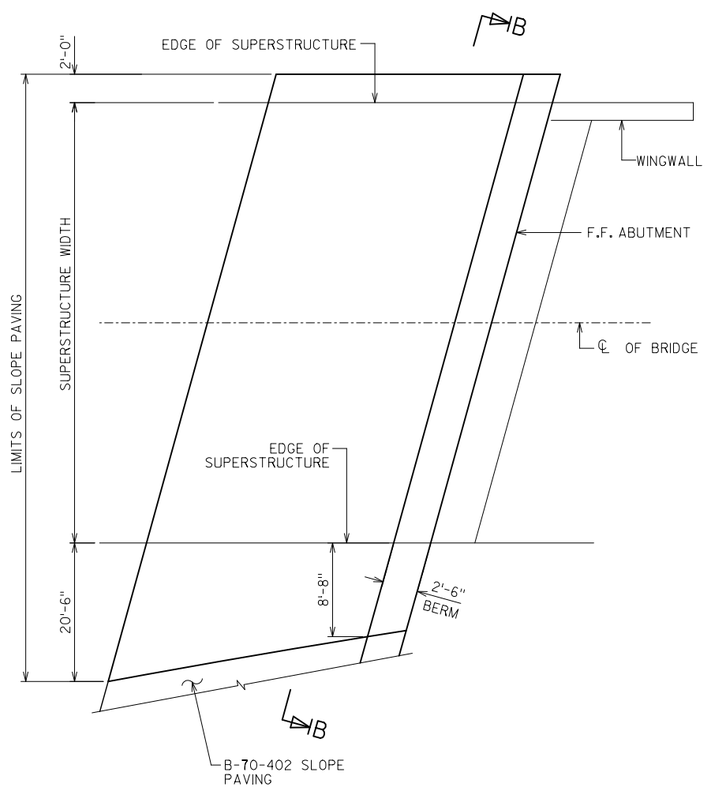


SECTION A-A

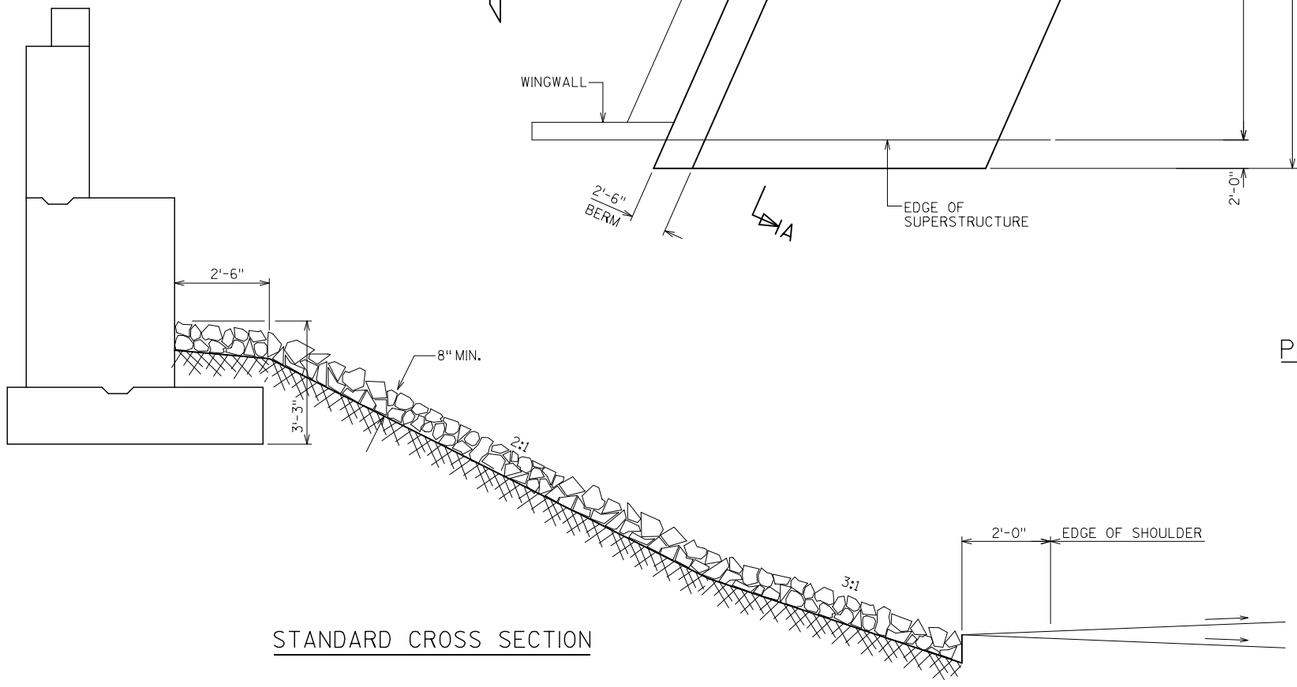


SECTION B-B





PLAN



STANDARD CROSS SECTION

GENERAL NOTES

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

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

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SLOPE PAVING

SHEET 60 OF 61
502

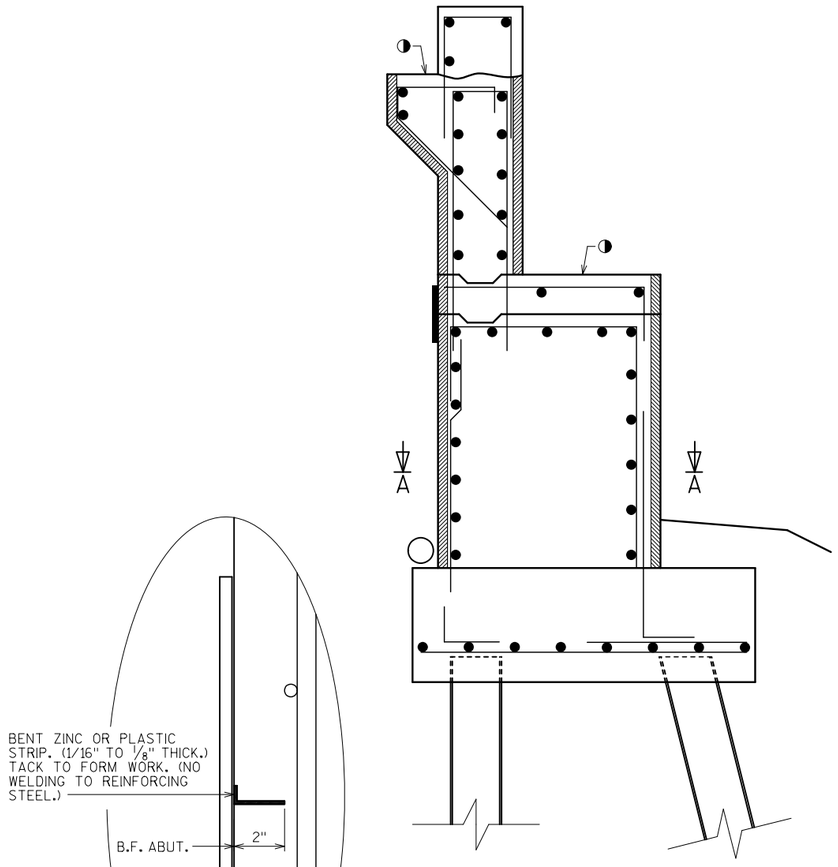
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DATE: 5/12/2015
I.D. Jon_Lidgard

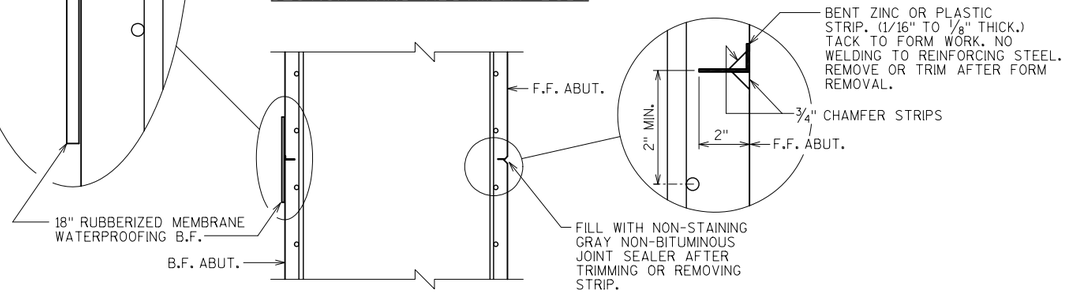
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8

STATE PROJECT NUMBER
1517-07-79



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-70-400

DRAWN BY	MRL	PLANS CK'D.	MJA

ALTERNATE CONSTRUCTION JOINT

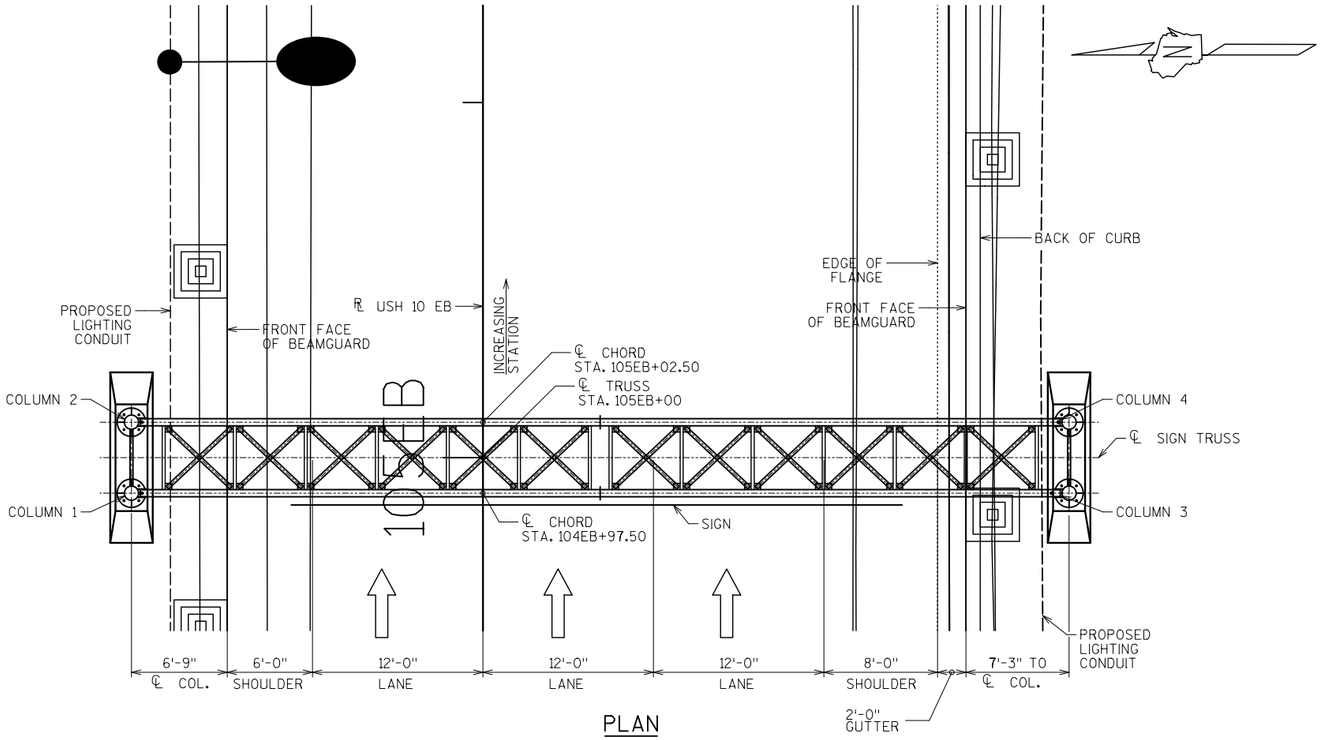
SHEET 61 OF 61
503

8

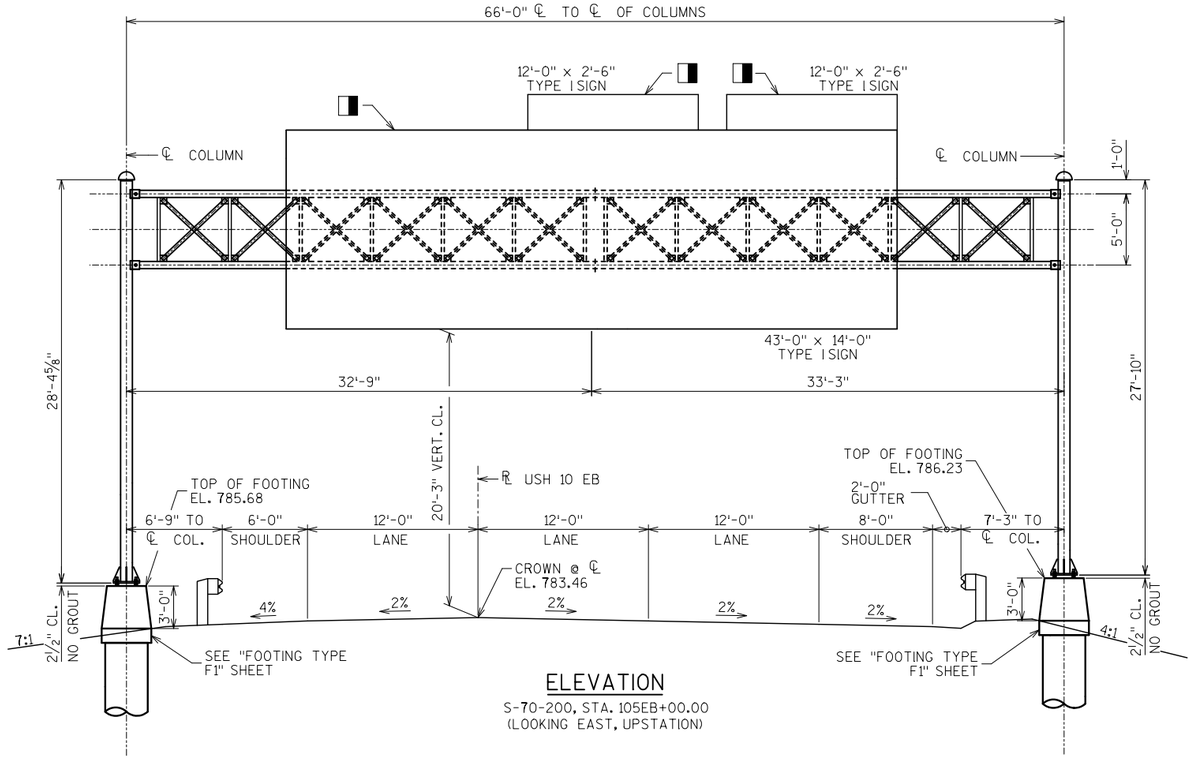
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DATE: 5/12/2015
I.D. jon_lidgard



PLAN



ELEVATION

S-70-200, STA. 105EB+00.00
(LOOKING EAST, UPSTATION)

DESIGN DATA

DESIGN SIGN AREA = 852 SF
MAX. SIGN DEPTH = 18'-0" (TYPE I SIGN)

DEAD LOAD - WEIGHT OF SIGN AND SUPPORTING STRUCTURE. NO PROVISIONS HAVE BEEN INCLUDED FOR A CATWALK OR LIGHTING.

LIVE LOAD - NONE.

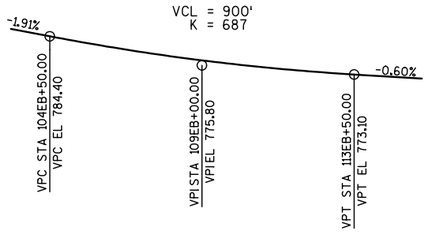
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.

WIND PRESSURE - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½(WIND*)	133
4. FATIGUE	**

* MIN. VALUE OF 25 PSF FOR GROUP 3.
** SEE SECTION 11 OF AASHTO SIGN SPECIFICATIONS FOR FATIGUE LOADS AND STRESS RANGE LIMITS.



PROFILE GRADE LINE USH 10 EB

LEGEND

SIGN BLANKS SHALL BE INSTALLED AT THE TIME OF ERECTION. BLANK DIMENSIONS SHALL MATCH THOSE SHOWN ON THIS PLAN. SIGN BLANKS AND MOUNTING HARWARE SHALL BE INCIDENTAL TO "SIGN BRIDGE (S-70-200)".

ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	27
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	380
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	1,680
641.6600.001	SIGN BRIDGE S-70-200	LS	1

STATE PROJECT NUMBER

1517-07-79

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALL DIMENSIONS ARE IN SURVEY FEET AND SURVEY INCHES UNLESS OTHERWISE SHOWN OR NOTED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDED 3" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

CENTER TYPE I SIGNS VERTICALLY ON TRUSS AND HORIZONTALLY OVER THE LANES.

ALTERNATE DESIGNS ARE NOT ALLOWED.

HANDHOLES ARE NOT REQUIRED.

EXCAVATION AND BACKFILLING REQUIRED TO CONSTRUCT THE CONCRETE FOOTING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN SUPPORTS CONCRETE MASONRY".

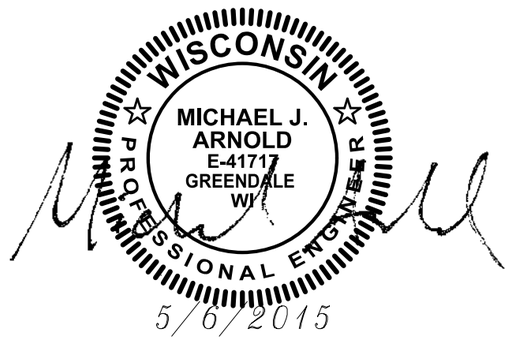
PROVIDE AN IDENTIFICATION PLAQUE FOR THE OVERHEAD SIGN SUPPORT IN ACCORDANCE WITH SDD "STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS." THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN BRIDGE (STRUCTURE)".

FOUNDATION DATA

STRUCTURE SUPPORTED ON CONCRETE FOOTINGS WITH TWO 3'-0" DIAMETER DRILLED SHAFTS PER FOOTING WITH DRILLED SHAFT LENGTHS OF 15'-0". REMOVE TEMP. CASINGS AFTER CONSTRUCTION OF SHAFTS.

LIST OF DRAWINGS

1. PLAN AND ELEVATION S-70-200
2. PLAN AND ELEVATION S-70-201
3. PLAN AND ELEVATION S-70-252
4. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
5. 4-CHORD SIGN BRIDGE DETAILS
6. FOOTING TYPE F1
7. SUBSURFACE EXPLORATION
8. SUBSURFACE EXPLORATION
9. SUBSURFACE EXPLORATION



NE REGION CONTACT - SCOTT EBEL (920) 492-2240
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 831-4179

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher NK 05/13/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURES S-70-200, 201, 252

WIS 441 SYSTEM INTERCHANGE SIGN STRUCTURES

COUNTY	TOWN ~~CITY/VILLAGE~~
WINNEBAGO	MENASHA

DESIGN SPEC.	LOAD 90 MPH
AASHTO SIGN SPEC.	3 SEC. SPEED

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

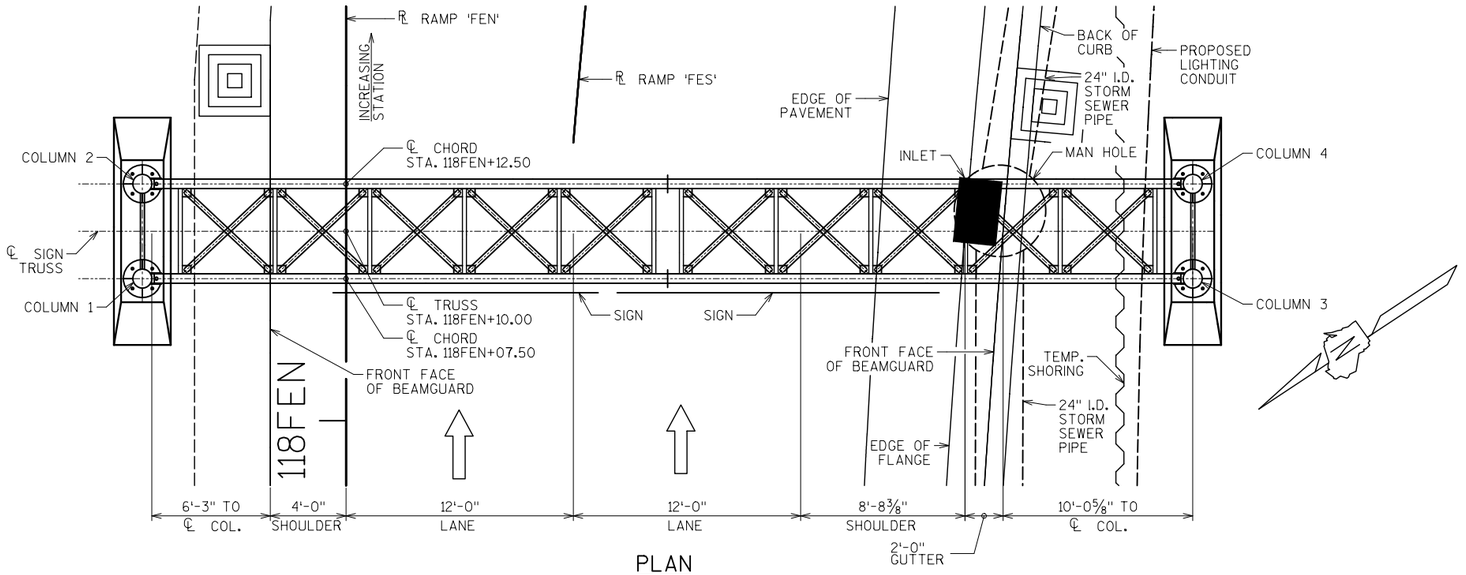
PLAN AND ELEVATION S-70-200

SHEET 1 OF 9
504

8

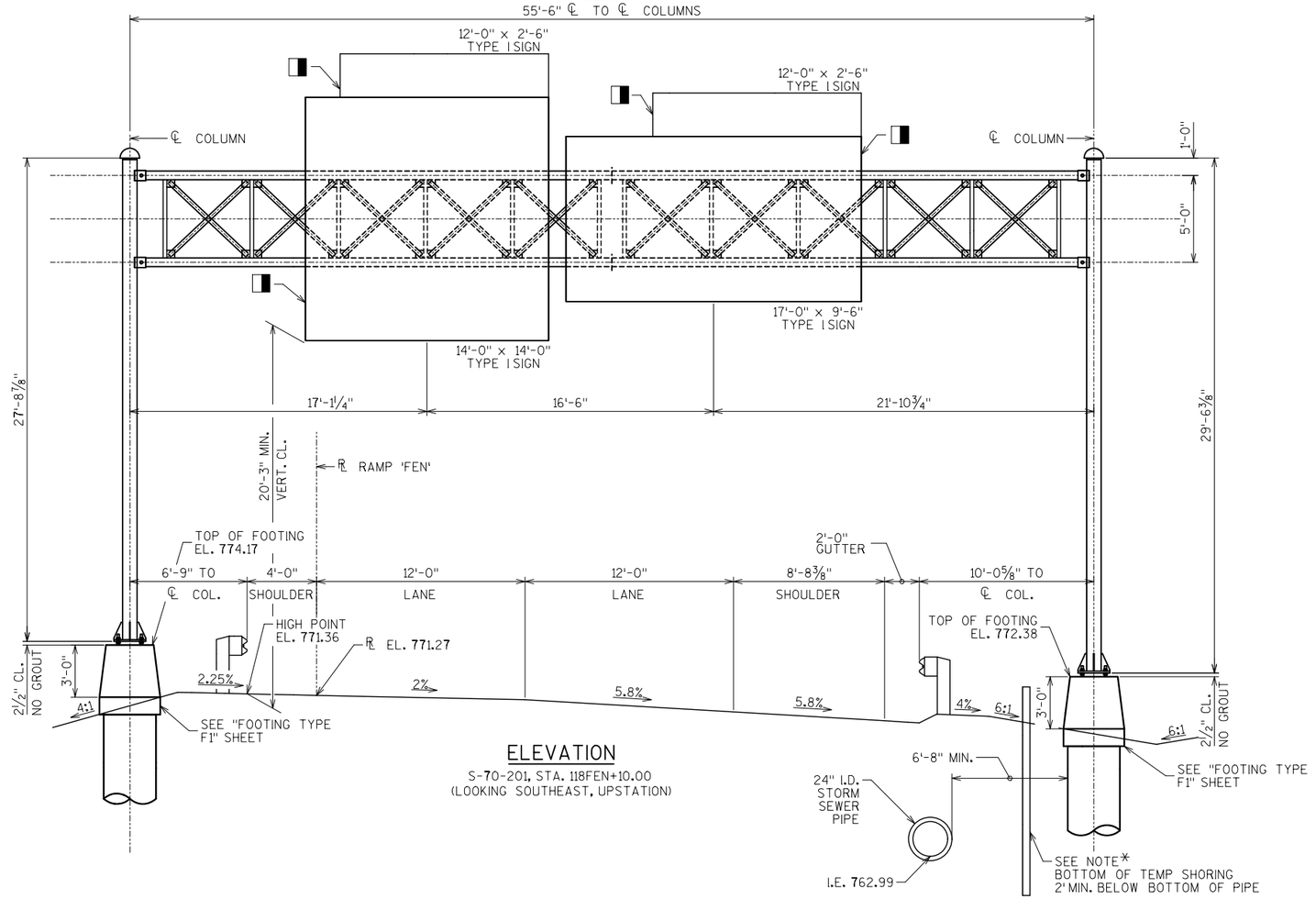
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DATE: 5/6/2015
I.D.



PLAN

55'-6" ℄ TO ℄ COLUMNS



ELEVATION

S-70-201, STA. 118FEN+10.00
(LOOKING SOUTHEAST, UPSTATION)

STATE PROJECT NUMBER
1517-07-79

DESIGN DATA

DESIGN SIGN AREA = 648 SF
MAX. SIGN DEPTH = 18'-0" (TYPE I SIGN)

FOUNDATION DATA

STRUCTURE SUPPORTED ON CONCRETE FOOTINGS WITH TWO 3'-0" DIAMETER DRILLED SHAFTS PER FOOTING WITH DRILLED SHAFT LENGTHS OF 15'-0". REMOVE TEMP. CASINGS AFTER CONSTRUCTION OF DRILLED SHAFTS.

LEGEND

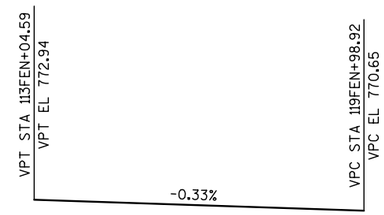
◨ SIGN BLANKS SHALL BE INSTALLED AT THE TIME OF ERECTION. BLANK DIMENSIONS SHALL MATCH THOSE SHOWN ON THIS PLAN. SIGN BLANKS AND MOUNTING HARWARE SHALL BE INCIDENTAL TO "SIGN BRIDGE (S-70-201)".

LEGEND

*IF DRILLED SHAFT IS CONSTRUCTED BEFORE INSTALLATION OF STORM SEWER PIPES, PROVIDE TEMP. SHORING BETWEEN STORM SEWER PIPES AND SIGN STRUCTURE FOUNDATION. IF DRILLED SHAFT IS CONSTRUCTED AFTER STORM SEWER INSTALLATION, UTILIZE TEMPORARY CASING TO A DEPTH OF 1'-0" MIN. BELOW BOTTOM OF PIPE EXCAVATION. CONSTRUCT DRILLED SHAFT TO A DEPTH 2'-0" BELOW BOTTOM OF TEMP. CASING. REMOVE TEMP. CASING AFTER CONSTRUCTION OF SHAFT.

ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
511.1200	TEMPORARY SHORING S-70-201	SF	360
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	27
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	380
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	1,680
641.6600.001	SIGN BRIDGE S-70-201	LS	1



PROFILE GRADE LINE RAMP 'FEN'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-200, 201, 252

DRAWN BY JDL | PLANS CK'D. MJA

PLAN AND ELEVATION S-70-201

SHEET 2 OF 9
505

DATE: 5/6/2015
I.D. Jon_Lidgard

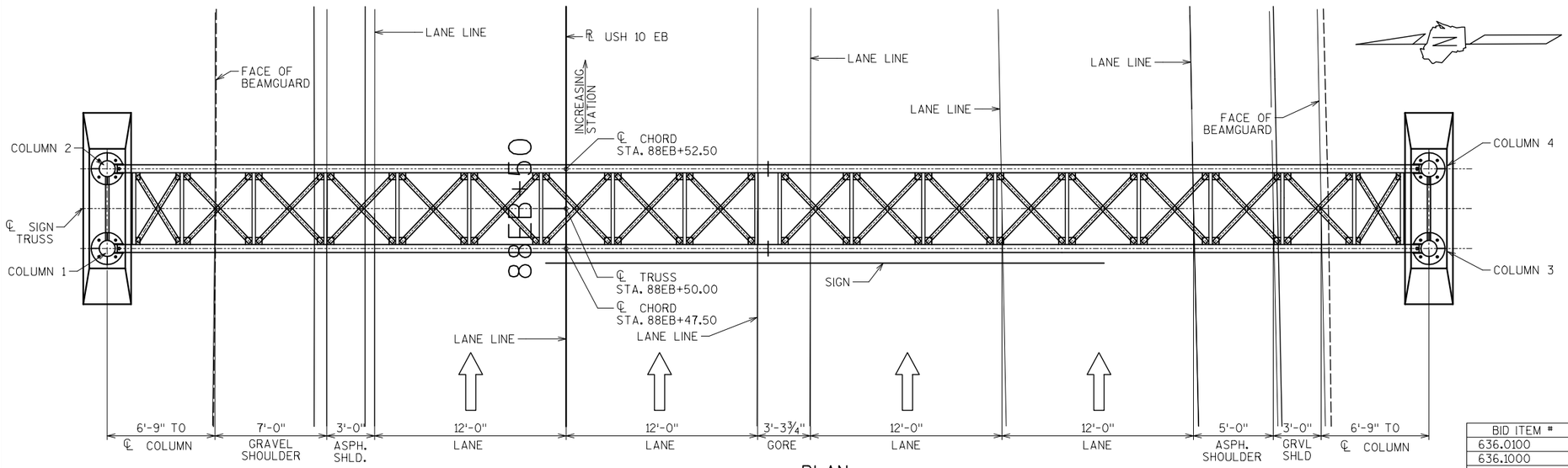
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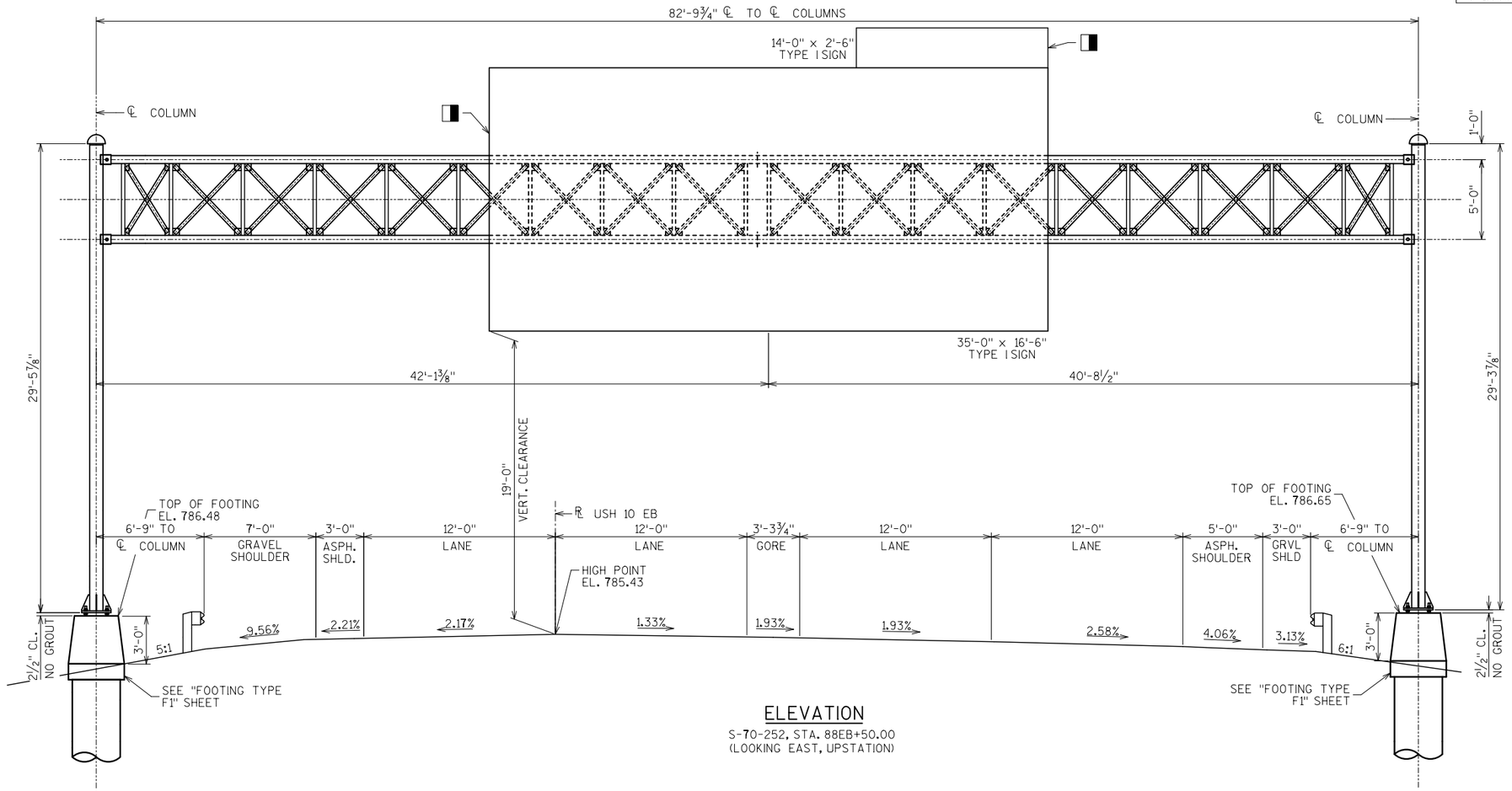
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STATE PROJECT NUMBER

1517-07-79



PLAN



ELEVATION

S-70-252, STA. 88EB+50.00
(LOOKING EAST, UPSTATION)

DESIGN DATA

DESIGN SIGN AREA = 895 SF
MAX. SIGN DEPTH = 18'-0" (TYPE I SIGN)

FOUNDATION DATA

STRUCTURE SUPPORTED ON CONCRETE FOOTINGS WITH TWO 3'-0" DIAMETER DRILLED SHAFTS PER FOOTING WITH DRILLED SHAFT LENGTHS OF 15'-0" FOR THE NORTH TOWER AND 14'-0" FOR THE SOUTH TOWER. REMOVE TEMP. CASINGS AFTER CONSTRUCTION OF SHAFTS.

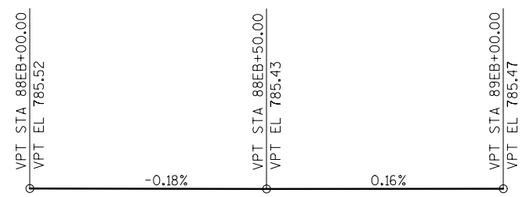
LEGEND

SIGN BLANKS SHALL BE INSTALLED AT THE TIME OF ERECTION. BLANK DIMENSIONS SHALL MATCH THOSE SHOWN ON THIS PLAN. SIGN BLANKS AND MOUNTING HARWARE SHALL BE INCIDENTAL TO "SIGN BRIDGE (S-70-252)".

THE PROFILE GRADE LINE ON THIS PLAN IS APPROXIMATED BASED ON SURVEY POINTS TAKEN 50 FT UP AND DOWNSTATION OF STRUCTURE.

ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	26
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	370
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	1,650
641.6600.001	SIGN BRIDGE S-70-252	LS	1



PROFILE GRADE LINE USH 10 EB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-200, 201, 252

DRAWN BY JDL | PLANS CK'D. MJA

PLAN AND ELEVATION S-70-252

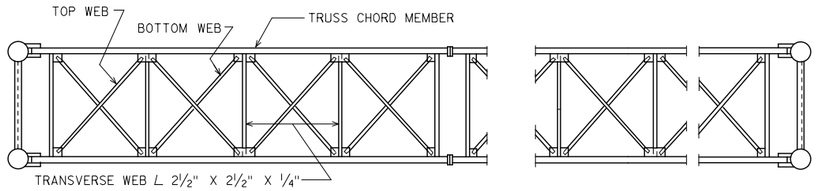
SHEET 3 OF 9
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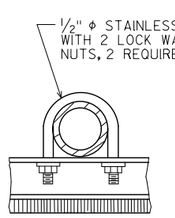
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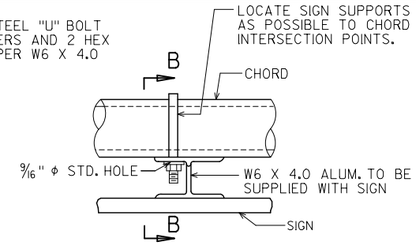
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I.D. Jon_Lidgard

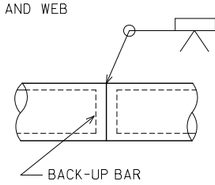


PLAN



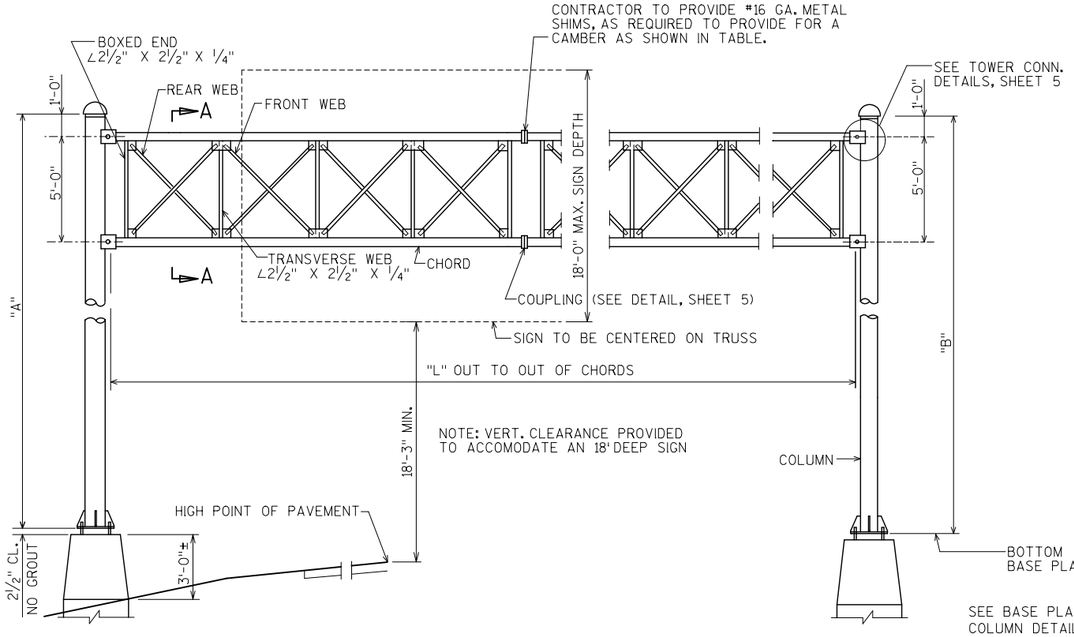
SECTION B



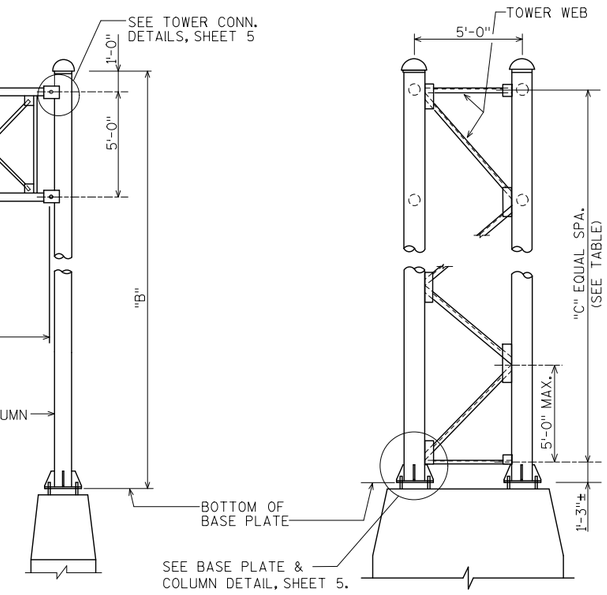


CHORD SPLICE

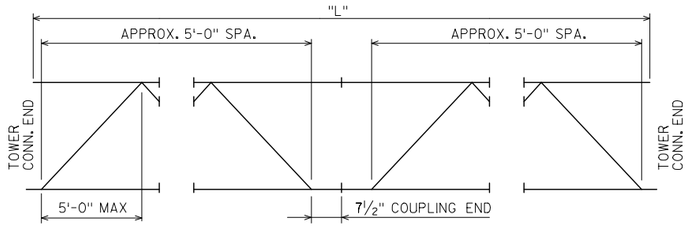
TYPICAL SIGN CONNECTION



ELEVATION



END VIEW



TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTIPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.

NOTES

DRAWINGS SHALL NOT BE SCALED.

STEEL COLUMN PIPE SHALL BE API SPEC. 5L GRADE X42 FY = 42,000 P.S.I.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE API SPEC. 5L GRADE X42 FY = 42,000 P.S.I.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE ASTM A709 GRADE 36 FY = 36,000 P.S.I.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" ϕ A325 BOLTS, GALVANIZED ASTM A153, CLASS C.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.

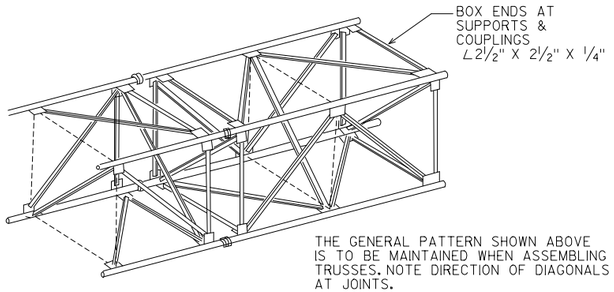
STEEL ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55. FY = 55,000 P.S.I.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE, 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.

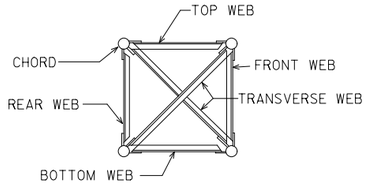
THE UPPER 12" OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.

WELD TEST AS PER AWS D1.1.

ALTERNATE MATERIAL FOR COLUMN AND CHORD LESS THAN 10" DIAMETER MAY BE ASTM A500 GRADE B FY = 42,000 PSI., GRADE C FY = 46,000 PSI., OR ASTM A53 GRADE B FY = 35,000 PSI.



TYPICAL TRUSS SECTION



SECTION A

TABLE

STRUCTURE	A	B	C	CHORDS O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEBS	"L"
S-70-200	28'-4⅝"	27'-10"	6	6.625"X0.432"	L3"X3"X¼"	L3"X3"X¼"	12.125"X1.25"	9.625"	8	1⅜"	10.75"X0.500"	L3½"X3½"X⅜"	64'-10¼"
S-70-201	27'-8⅛"	29'-6⅜"	6	5.563"X0.500"	L3"X3"X¼"	L3"X3"X¼"	10.813"X1"	8.313"	8	⅞"	10.75"X0.500"	L3½"X3½"X⅜"	54'-4¼"
S-70-252	29'-5⅞"	29'-3⅞"	6	6.625"X0.432"	L3"X3"X¼"	L3"X3"X¼"	12.125"X1.25"	9.625"	8	1⅜"	10.75"X0.500"	L3½"X3½"X⅜"	81'-8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-200, 201, 252

DRAWN BY JDL | PLANS CK'D. MJA

4-CHORD GALVANIZED STEEL SIGN BRIDGE

SHEET 4 OF 9
507

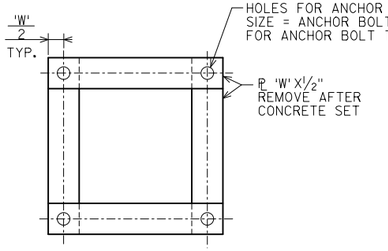
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DATE: 5/6/2015
I.D. jon_liggard

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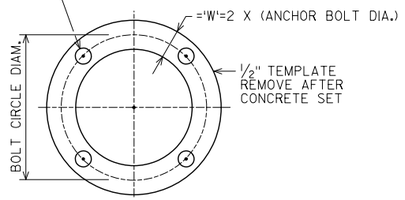
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STATE PROJECT NUMBER

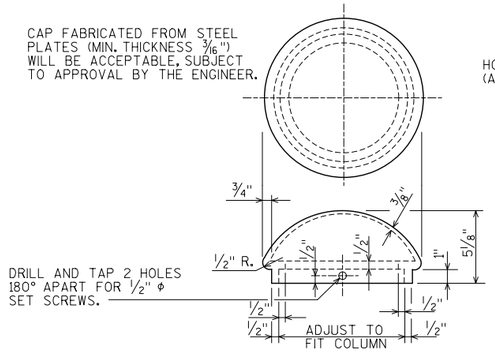
1517-07-79



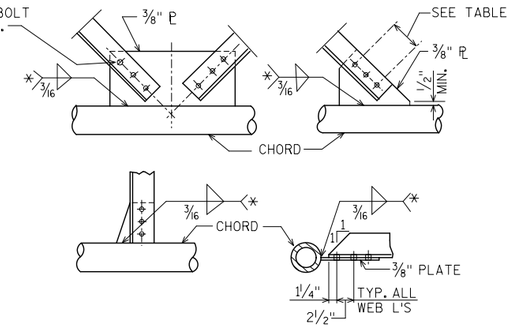
ALTERNATE
ANCHOR PLATE/TEMPLATE PLAN



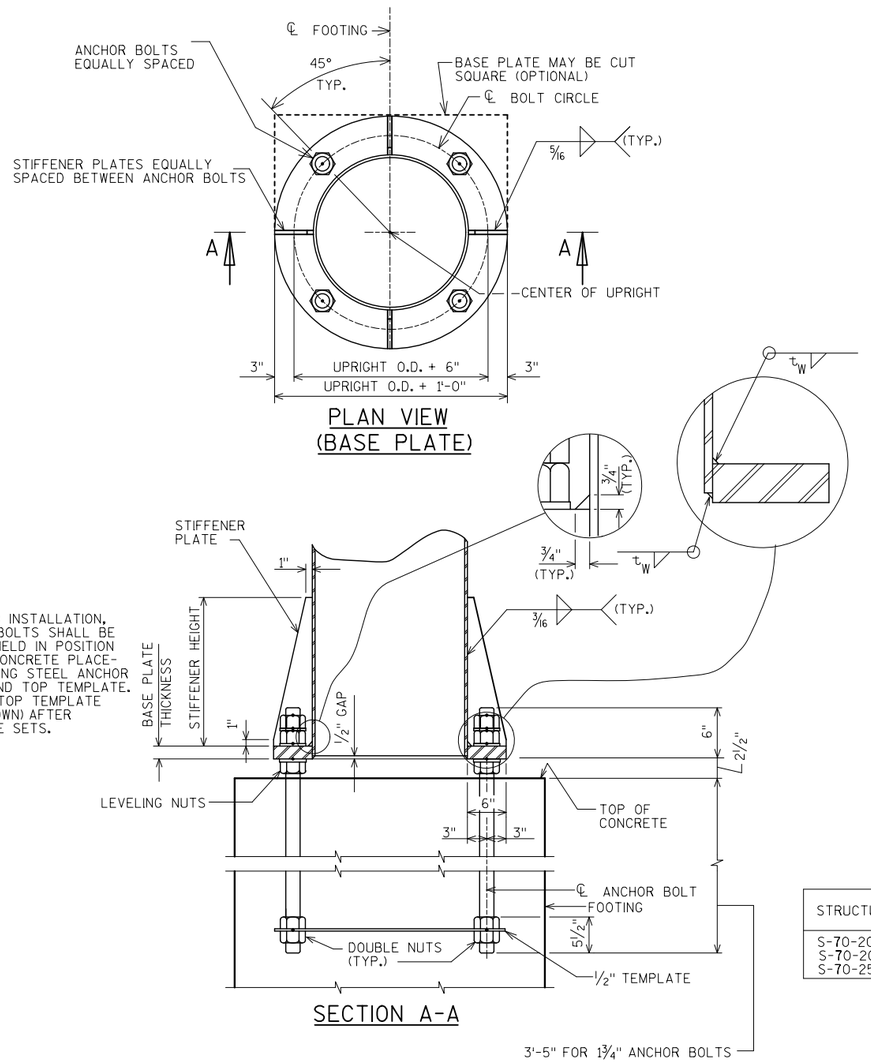
ANCHOR PLATE/TEMPLATE PLAN



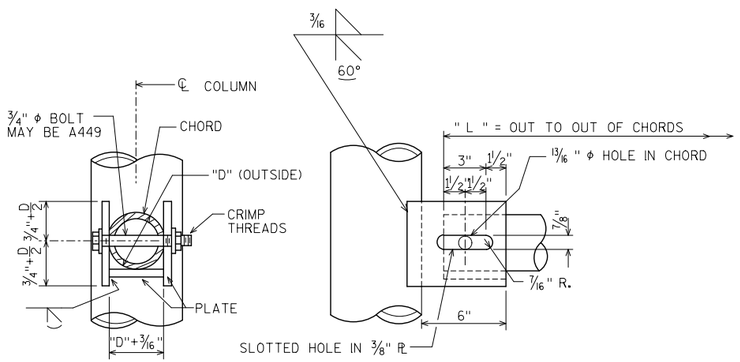
TOWER CAP DETAIL



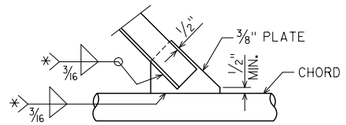
TYPICAL TRUSS CONNECTION DETAILS



NOTE:
PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN) AFTER CONCRETE SETS.



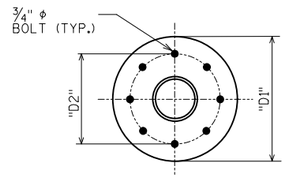
TOWER CONNECTION DETAIL

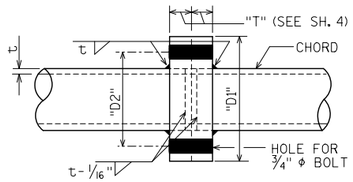


TYPICAL WELDED ALTERNATE

*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2 1/2"X2 1/2"X1/4"	11"	3
3"X3"X3/16"	10"	3
3"X3"X1/4"	13"	4
3"X3"X5/16"	16 1/2"	5
3"X3"X3/8"	19 1/2"	6
3"X3"X1/2"	26"	8
3 1/2"X3 1/2"X3/8"	23"	7
4"X4"X1/4"	18"	5
4"X4"X5/16"	22"	6
4"X4"X3/8"	26"	8
4"X4"X7/16"	30"	9
4"X4"X1/2"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.





COUPLING DETAIL

BASE PLATE & UPRIGHT COLUMN DETAILS

STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	t_W (IN.)
S-70-200 S-70-201 S-70-252	10.75"X0.500"	4 - 1 3/4" ϕ	2"	1/2"	12"	1/2"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-200, 201, 252

DRAWN BY JDL | PLANS CK'D. MJA

4-CHORD
SIGN BRIDGE DETAILS

SHEET 5 OF 9
508

8

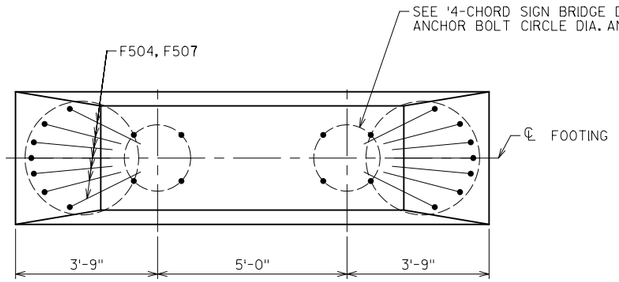
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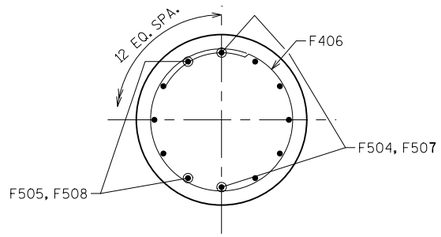
DATE: 5/6/2015
I.D. jon_lidgard

STATE PROJECT NUMBER

1517-07-79



PLAN



SECTION F-F

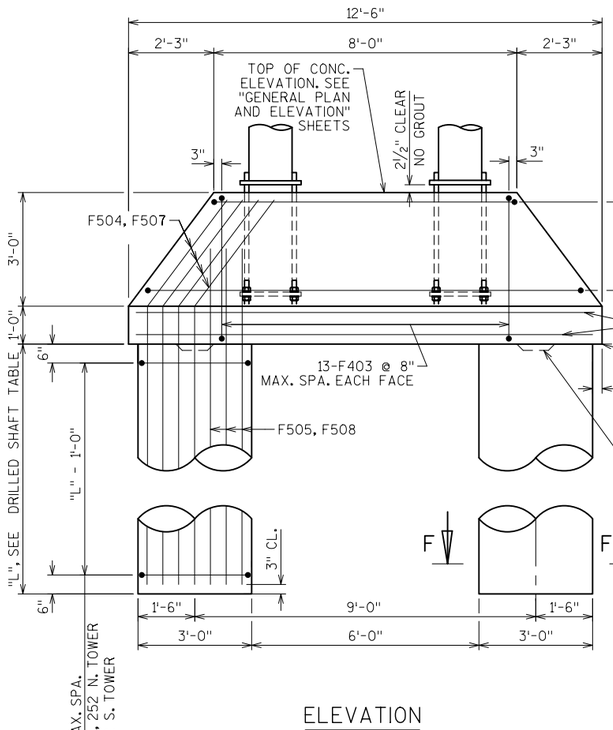
BILL OF BARS

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	COATED	LOCATION
F601	48	12'-2"			X	FOOTING LONGITUDINAL
F402	60	14'-3"	X	X	X	FOOTING LONGITUDINAL
F403	156	7'-9"	X		X	FOOTING VERTICAL
F504	70	19'-3"	X		X	S-70-200, 201, 252 N. TOWER DRILLED SHAFT VERTICAL
F505	50	17'-2"			X	S-70-200, 201, 252 N. TOWER DRILLED SHAFT VERTICAL
F406	178	9'-4"	X			S-70-200, 201, 252 DRILLED SHAFT HOOPS
F507	14	18'-3"	X		X	S-70-252 SOUTH TOWER DRILLED SHAFT VERTICAL
F508	10	16'-2"			X	S-70-252 SOUTH TOWER DRILLED SHAFT VERTICAL

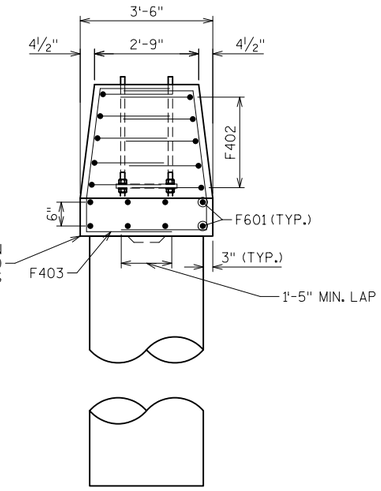
TOTAL WEIGHT EPOXY COATED BARS = 5,000 LBS
TOTAL WEIGHT UNCOATED BARS = 1,110 LBS

BAR SERIES TABLE		
MARK	NO REQ'D	"A" LENGTH
F402	12 SERIES OF 5	7'-9" TO 11'-8"

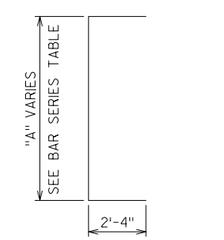
DRILLED SHAFT LENGTH TABLE	
STRUCTURE	SHAFT LENGTH "L"
S-70-200	15'-0"
S-70-201	15'-0"
S-70-252	
NORTH TOWER	15'-0"
SOUTH TOWER	14'-0"



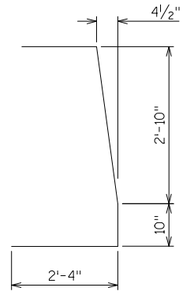
ELEVATION



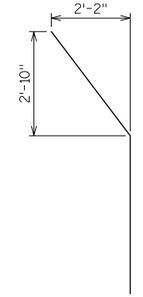
END VIEW



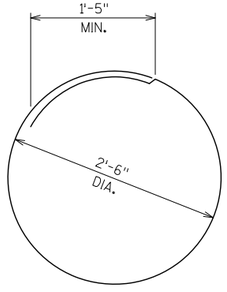
F402



F403



F504, F507



F406

NOTES

REMOVE TEMP. CASINGS FOR DRILLED SHAFTS AFTER CONSTRUCTION IS COMPLETE.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CL.

CONCRETE MASONRY.....F'c = 3,500 PSI

BAR STEEL REINFORCEMENT, GRADE 60.....Fy = 60,000 PSI

ANCHOR BOLTS ASTM F1554 GRADE 55....Fy = 55,000 PSI

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-200, 201, 252

DRAWN BY JDL | PLANS CK'D. MJA

FOOTING TYPE F1

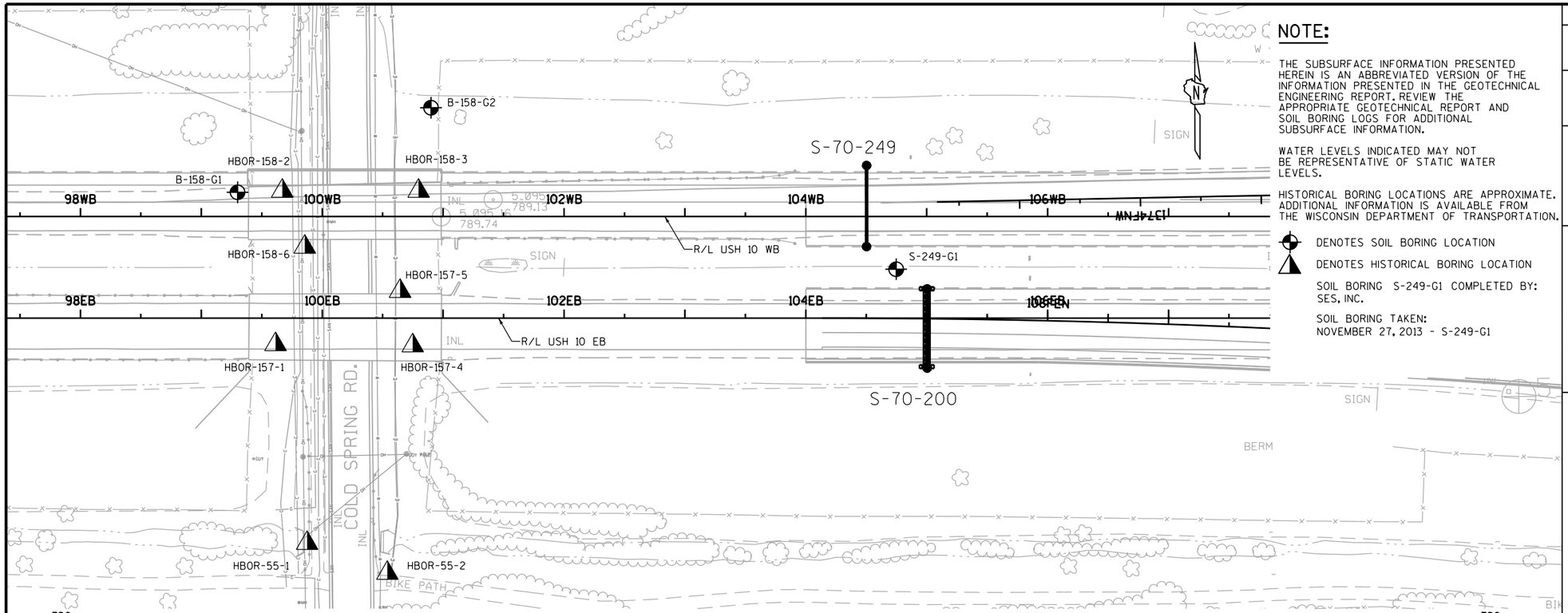
SHEET 5 OF 9
509

8

8

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DATE: 5/6/2015
I.D. jon_liggard



NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF STATIC WATER LEVELS.

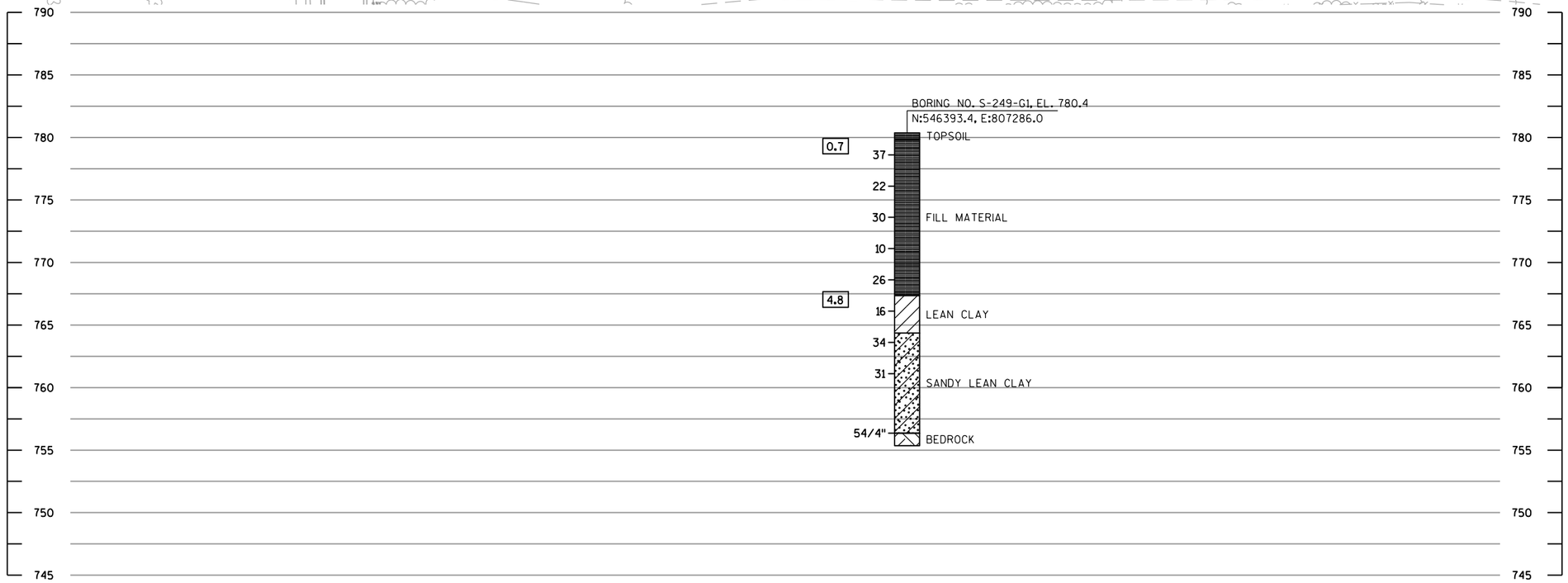
HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DENOTES SOIL BORING LOCATION

DENOTES HISTORICAL BORING LOCATION

SOIL BORING S-249-G1 COMPLETED BY: SES, INC.

SOIL BORING TAKEN: NOVEMBER 27, 2013 - S-249-G1



STATE PROJECT NUMBER

1517-07-79

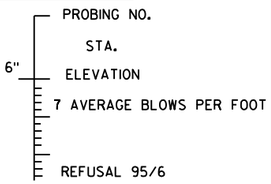
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

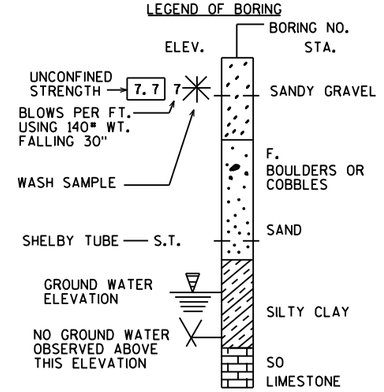
TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-70-200

DRAWN BY DB | PLANS CK'D. BW

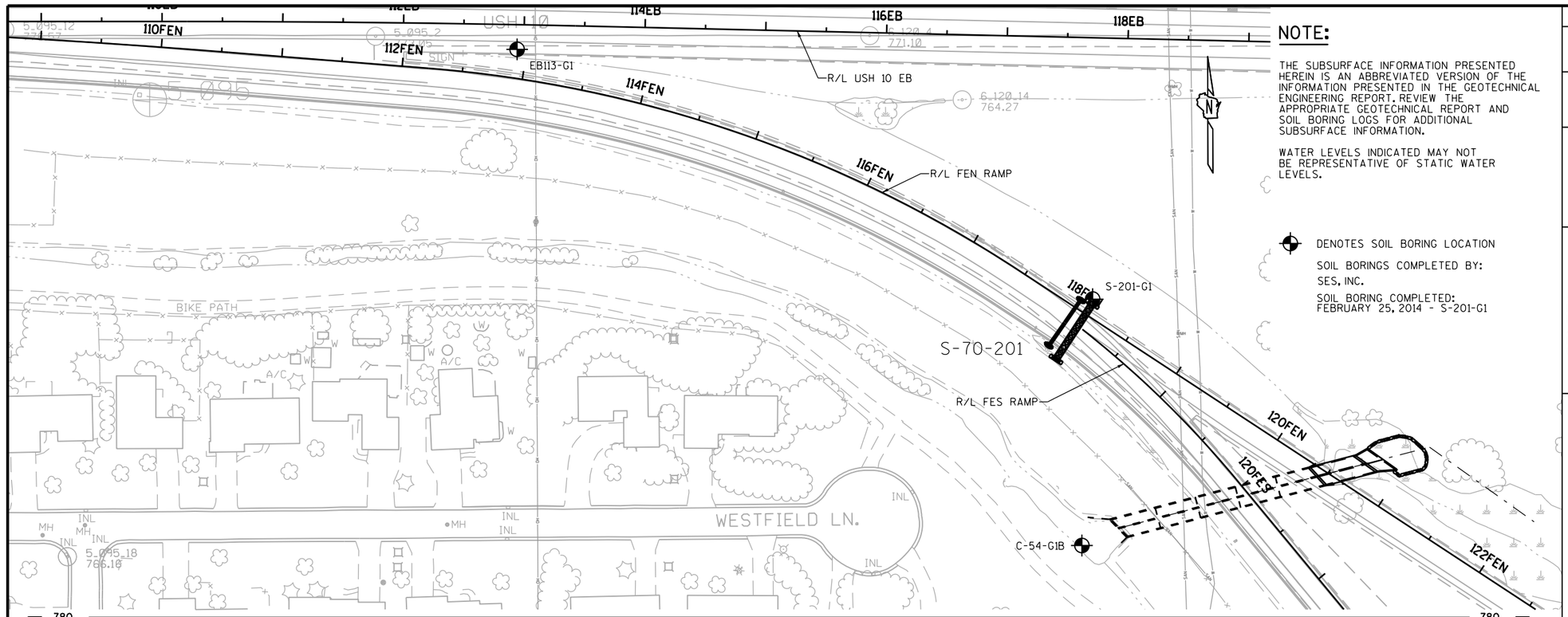
SUBSURFACE EXPLORATION

SHEET 7 OF 9

8

8

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STATE PROJECT NUMBER

1517-07-79

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL / FILL, SAND, GRAVEL, SILT, PEAT, CLAY, SANDSTONE, LIMESTONE, IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

BORING NO.
ELEV.
STA.
UNCONFINED STRENGTH — 7.7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-70-201

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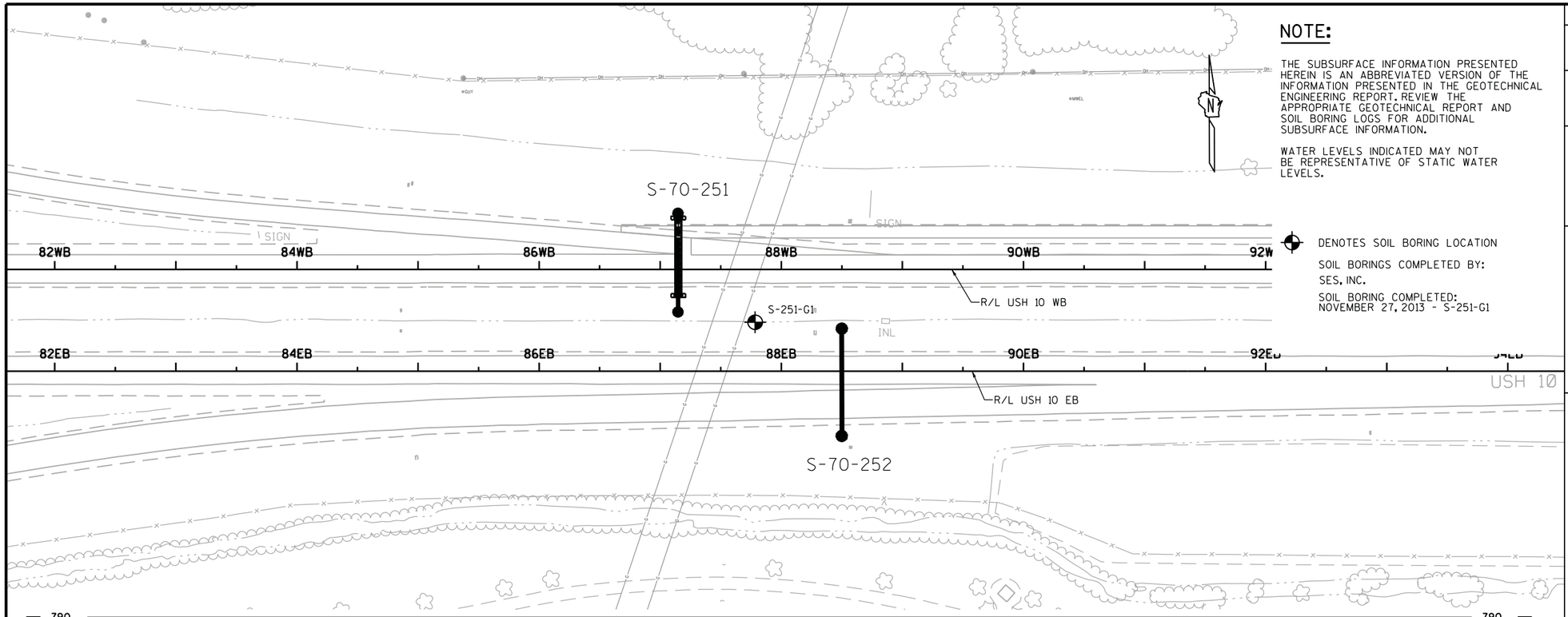
SUBSURFACE EXPLORATION

SHEET 8 OF 9

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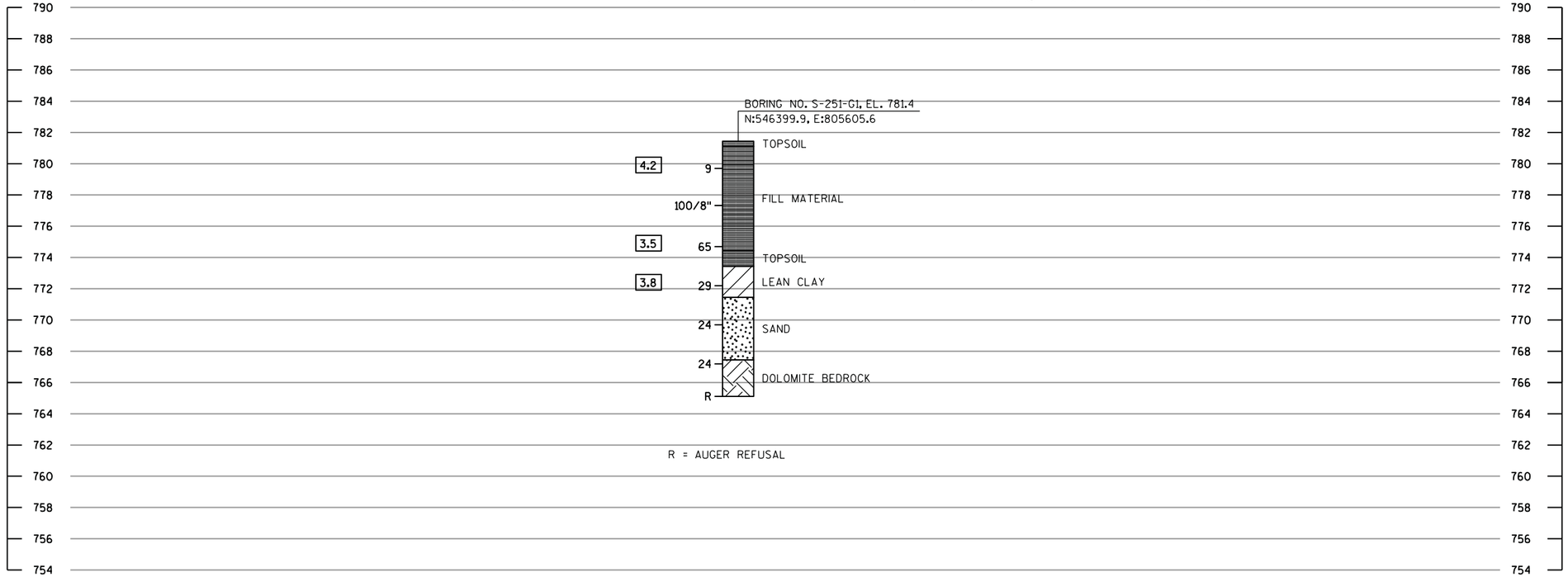
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DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
SES, INC.

SOIL BORING COMPLETED:
NOVEMBER 27, 2013 - S-251-G1



R = AUGER REFUSAL

STATE PROJECT NUMBER

1517-07-79

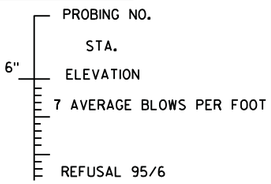
ABBREVIATIONS

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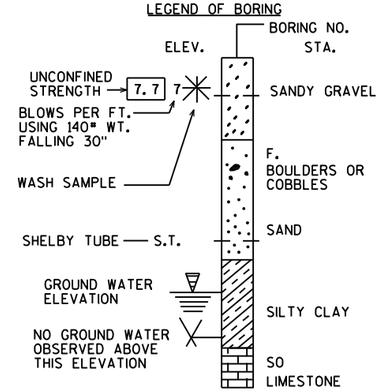
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-70-252

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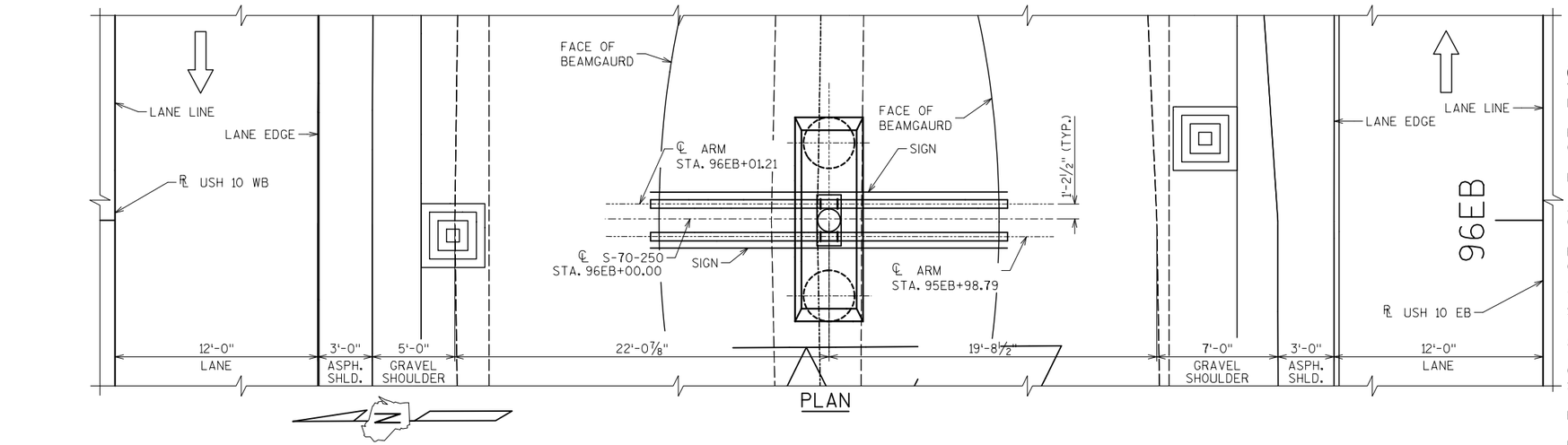
SUBSURFACE EXPLORATION

SHEET 9 OF 9

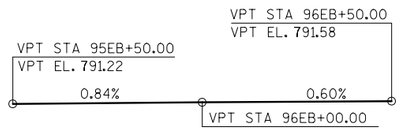
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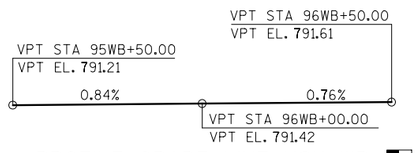
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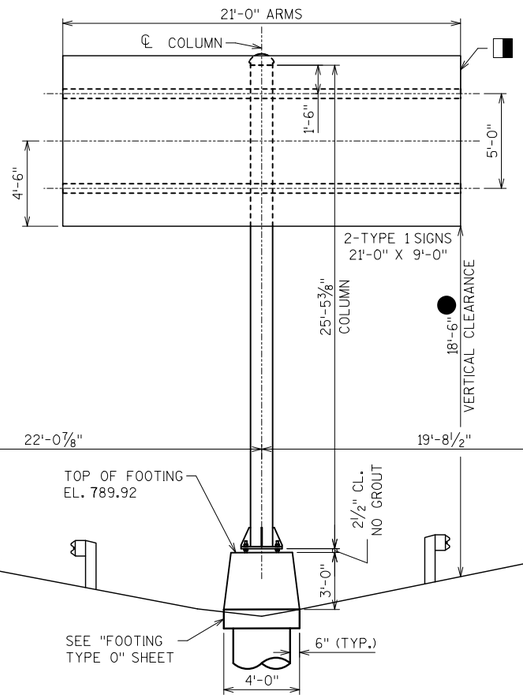
PLAN



PROFILE GRADE LINE USH EB



PROFILE GRADE LINE USH WB



ELEVATION

S-70-250, ℄ AT STA. 96EB+00.00
(LOOKING NORTHEAST, UPSTATION)

ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	17
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	230
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	950
641.0600.001	SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS S-70-250	LS	1

DESIGN DATA

DESIGN SIGN AREA = 252 SF (21'-0" X 12'-0" TYPE 1 SIGN)
MAX. SIGN DEPTH = 12'-0" (TYPE 1 SIGN)

DEAD LOAD - WEIGHT OF SIGN AND SUPPORTING STRUCTURE. NO PROVISIONS HAVE BEEN INCLUDED FOR A CATWALK OR LIGHTING.

LIVE LOAD - NONE.

ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.

WIND PRESSURE - 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½(WIND*)	133
4. FATIGUE	**

* MIN. VALUE OF 25 PSF FOR GROUP 3.
** SEE SECTION 11 OF AASHTO SIGN SPECIFICATIONS FOR FATIGUE LOADS AND STRESS RANGE LIMITS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION S-70-250
2. SIGN BRIDGE SINGLE POLE DETAILS
3. FOOTING TYPE 0
4. SUBSURFACE EXPLORATION

FOUNDATION DATA

STRUCTURE SUPPORTED ON CONCRETE FOOTINGS WITH TWO 3'-0" DIAMETER DRILLED SHAFTS PER FOOTING WITH DRILLED SHAFT LENGTHS OF 18'-0". REMOVE TEMP. CASING AFTER CONSTRUCTION OF SHAFTS.

WISCONSIN
MICHAEL J. ARNOLD
E-41717
GREENDALE
WI
PROFESSIONAL ENGINEER
5/6/2015

NE REGION CONTACT - SCOTT EBEL (920) 492-2240
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 831-4179

STATE PROJECT NUMBER
1517-07-79

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29).

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALL DIMENSIONS ARE IN SURVEY FEET AND SURVEY INCHES UNLESS OTHERWISE SHOWN OR NOTED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

CENTER SIGNS VERTICALLY ON CHORDS AND HORIZONTALLY SYMMETRICAL ABOUT POSTS.

HANDHOLES ARE NOT REQUIRED.

PROVIDE A ¾" CHAMFER OR 1" RADIUS ON ALL EXPOSED CONCRETE EDGES.

EXCAVATION AND BACKFILL REQUIRED TO CONSTRUCT THE CONCRETE FOOTING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN SUPPORTS CONCRETE MASONRY".

PROVIDE AN IDENTIFICATION PLAQUE FOR THE SIGN SUPPORT IN ACCORDANCE WITH SDD "STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS." THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS (S-70-250)".

SIGNS OR BLANKS SHALL BE INSTALLED AT THE TIME OF ERECTION. BLANK DIMENSIONS SHALL MATCH THOSE OF THE PROPOSED SIGN AS DESIGNATED IN PLANS. SIGN BLANKS AND MOUNTING HARWARE SHALL BE INCIDENTAL TO "SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS (S-70-250)".

WELD TEST AS PER AWS D1.1

LEGEND

- INSTALL SIGN BLANKS AT TIME OF ERECTION. SIZE BLANKS AS INDICATED ON PLANS. COST OF SIGN BLANKS SHALL BE INCIDENTAL TO BID ITEM "SIGN BRIDGE SINGLE POLE SIGN SUPPORT TWO SIGNS S-70-250".
- THE PROFILE GRADE LINE ON THIS PLAN IS APPROXIMATED BASED ON SURVEY POINTS TAKEN 50 FT UP AND DOWNSTATION OF STRUCTURE.
- THE VERTICAL CLEARANCE WAS DETERMINED BY 17'-0" VERTICAL CLEARANCE AT EDGE OF DESIGN SIGN ABOVE GROUND ELEVATION.

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher NK 05/13/15
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-70-250

USH 10 EB/WB

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

DESIGN SPEC. AASHTO SIGN SPEC.				LOAD 90 MPH 3 SEC. SPEED
DESIGNED BY JDL	DESIGN CK'D. NPP	DRAWN BY JDL	PLANS CK'D. MJA	

GENERAL PLAN AND ELEVATION S-70-250

SHEET 1 OF 4
513

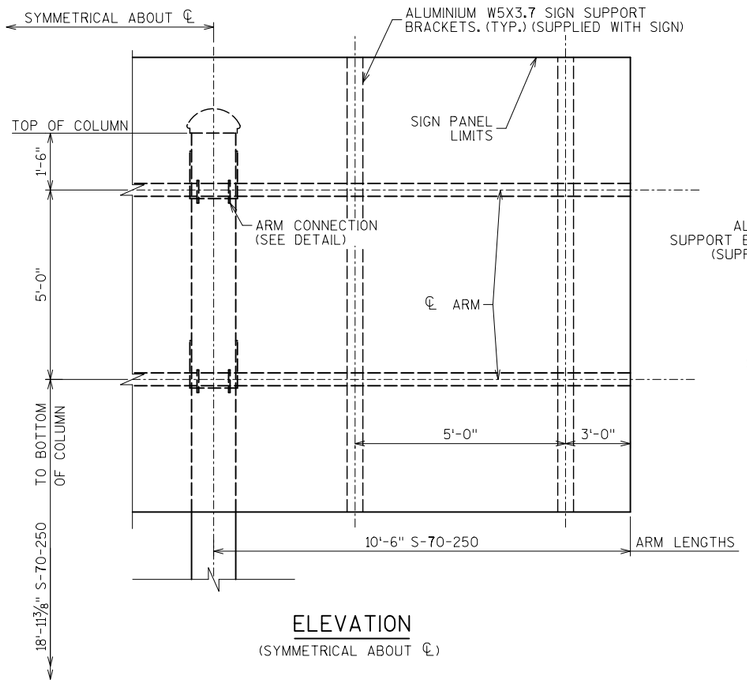
DATE: 5/6/2015
I.D.

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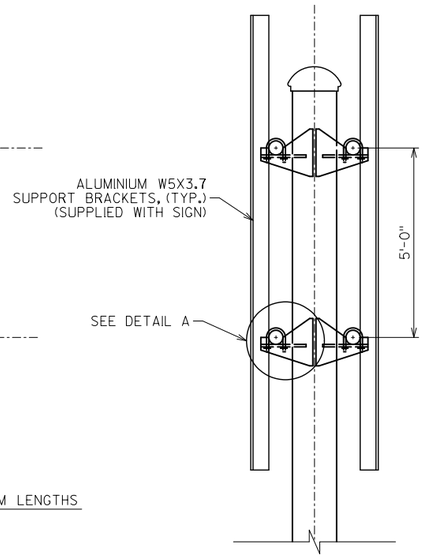
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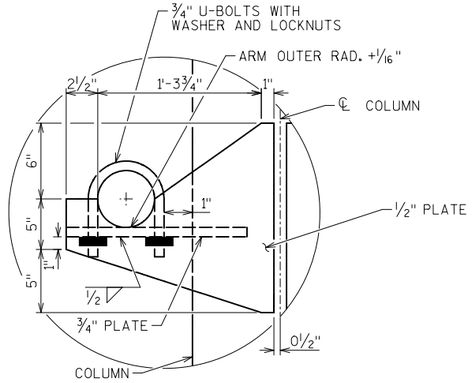
STATE PROJECT NUMBER
1517-07-79



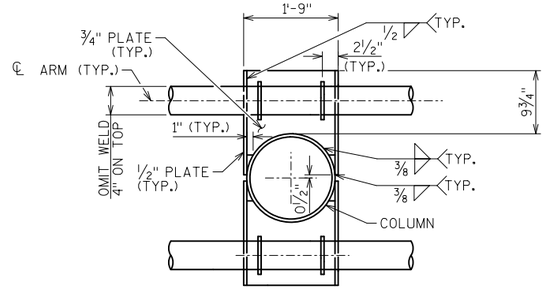
ELEVATION
(SYMMETRICAL ABOUT ℄)



END VIEW



DETAIL A

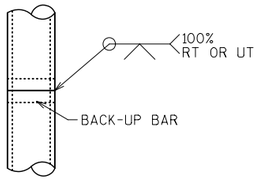


ARM CONNECTION DETAIL
(W5X3.7 BRACKETS NOT SHOWN)

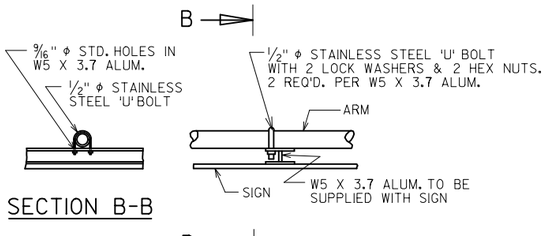
ULTIMATE DESIGN STRESSES

* ARMS & COLUMN	API-5L-X42	fy=42,000 P.S.I.
PLATES & BARS	A.S.T.M. A709 GRADE 36	fy=36,000 P.S.I.
ANCHOR BOLTS	ASTM F1554 GRADE 55	fy=55,000 P.S.I.
HIGH STRENGTH BOLTS – A325		fy=92,000 P.S.I.
STRUCTURAL MEMBERS GALVANIZED	A123	
HARDWARE GALVANIZED	A153 CLASS C	

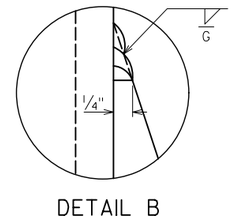
* ALTERNATE MATERIAL FOR COLUMN AND ARM LESS THAN 10" DIAMETER MAY BE ASTM A500 GRADE B Fy = 42,000 PSI., GRADE C Fy = 46,000 PSI., OR ASTM A53 GRADE B Fy = 35,000 PSI.



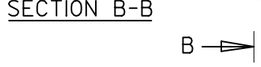
OPTIONAL COLUMN OR ARM SPLICE DETAIL



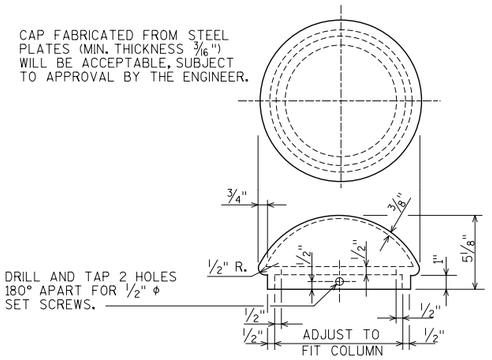
SECTION B-B



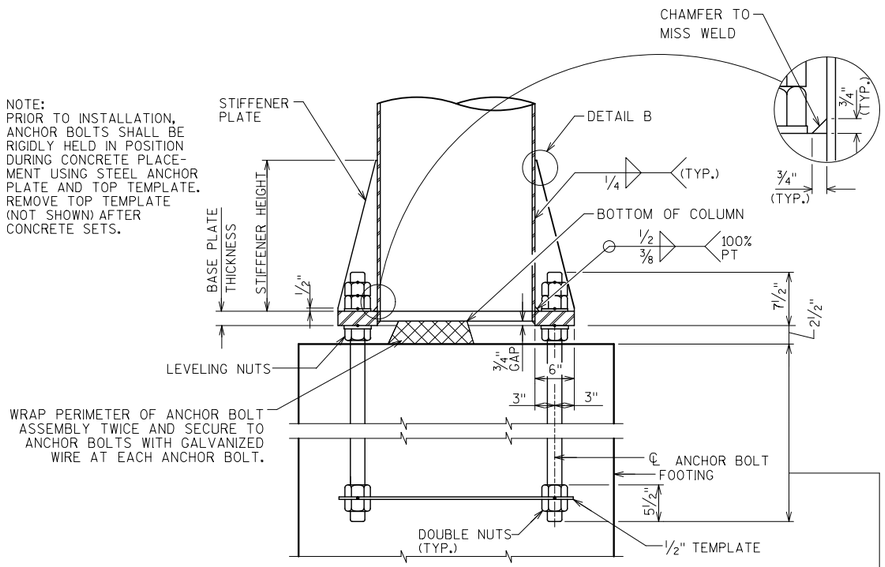
DETAIL B



TYPICAL SIGN CONNECTION

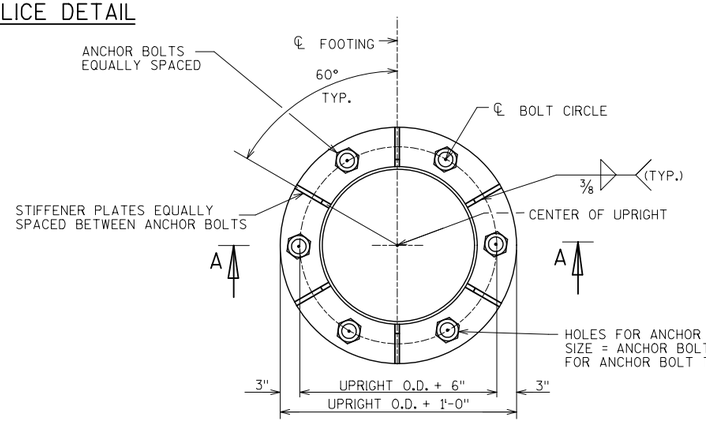


CAP DETAIL



NOTE:
PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN) AFTER CONCRETE SETS.

SECTION A-A
SOME ANCHOR BOLTS NOT SHOWN FOR CLARITY



PLAN VIEW
(BASE PLATE)

BASE PLATE & MEMBER DETAILS

STRUCTURE	ARM O.D. X THK.	COLUMN O.D. X THK.	ANCHOR BOLTS	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)
S-70-250	5.563"X0.375"	20"X0.5"	6 - 2"	2.375"	¾"	12"

GENERAL NOTES

THE STRUCTURE MUST BE ASSEMBLED AFTER GALVANIZING, AND PRIOR TO SHIPMENT TO THE SITE TO ASSURE PROPER FITUP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-250

DRAWN BY JDL | PLANS CK'D. MJA

SIGN BRIDGE SINGLE POLE DETAILS

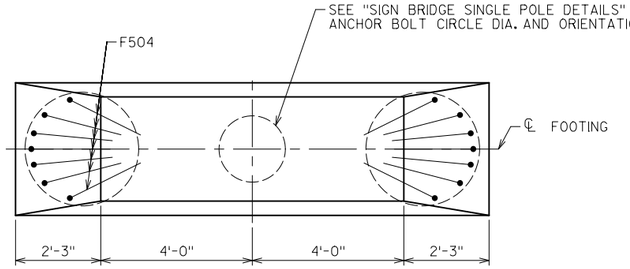
SHEET 2 OF 4
514

8

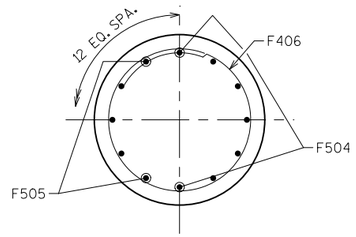
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DATE: 5/6/2015
I.D.

STATE PROJECT NUMBER

1517-07-79



PLAN



SECTION F-F

BILL OF BARS

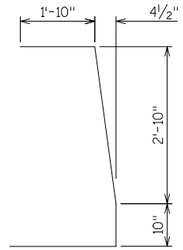
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	COATED	LOCATION
F601	10	12'-2"			X	FOOTING LONGITUDINAL
F402	10	14'-3"	X	X	X	CAP HORIZONTAL
F403	26	7'-9"	X		X	CAP VERTICAL
F504	14	22'-3"	X		X	DRILLED SHAFT VERTICAL
F505	10	20'-3"	X		X	DRILLED SHAFT VERTICAL
F406	36	9'-4"	X			DRILLED SHAFT HOOP BARS

TOTAL WEIGHT EPOXY COATED BARS = 950 LBS
TOTAL WEIGHT UNCOATED BARS = 230 LBS

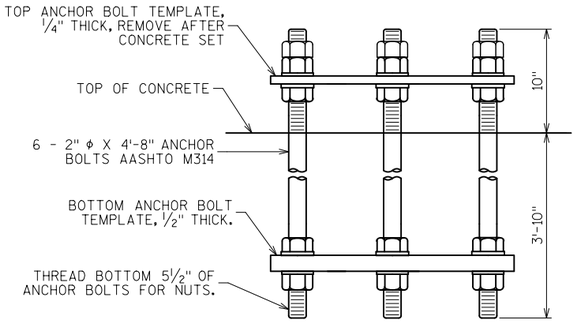
BAR SERIES TABLE		
MARK	NO REQ'D	"A" LENGTH
F402	2 SERIES OF 5	7'-9" TO 11'-8"



F402

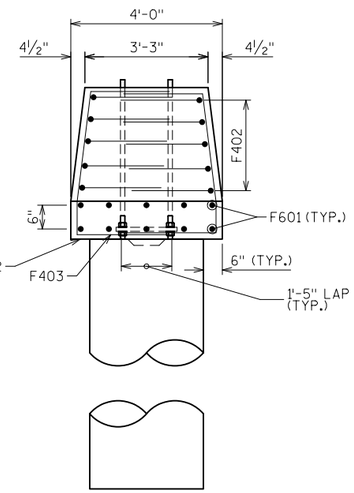


F403

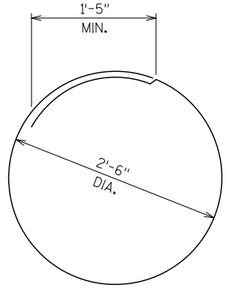


ANCHOR BOLT DETAIL

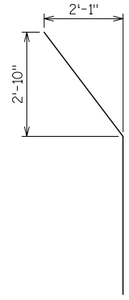
ELEVATION



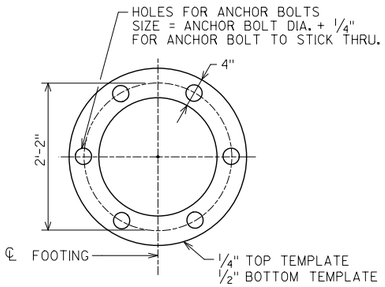
END VIEW



F406



F504



ANCHOR PLATE/TEMPLATE PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CL.

CONCRETE MASONRY.....F'c = 3,500 PSI

BAR STEEL REINFORCEMENT, GRADE 60.....Fy = 60,000 PSI

ANCHOR BOLTS ASTM F1554 GRADE 55....Fy = 55,000 PSI

FOUNDATION DATA

STRUCTURE SUPPORTED ON CONCRETE FOOTINGS WITH TWO 3'-0" DIAMETER DRILLED SHAFTS PER FOOTING WITH DRILLED SHAFT LENGTHS OF 18'-0". REMOVE TEMP. CASINGS AFTER CONSTRUCTION OF DRILLED SHAFTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-70-250

DRAWN BY JDL | PLANS CK'D. MJA

FOOTING TYPE 0

SHEET 3 OF 4

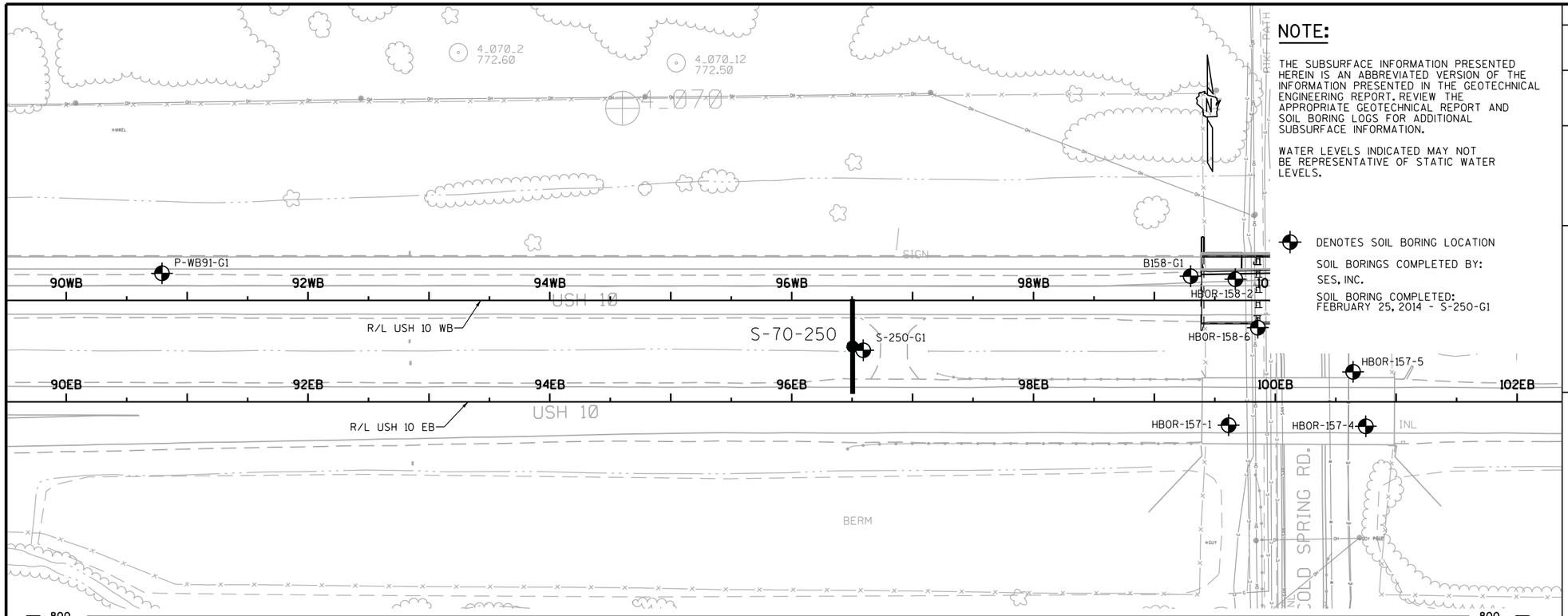
515

DATE: 5/6/2015
I.D.

FILE= P:\Transportation\US 10 WIS 441\CADD\sheets\Structures\S-70-250\Sheets\03-Footing Type 0.dgn

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NOTE:

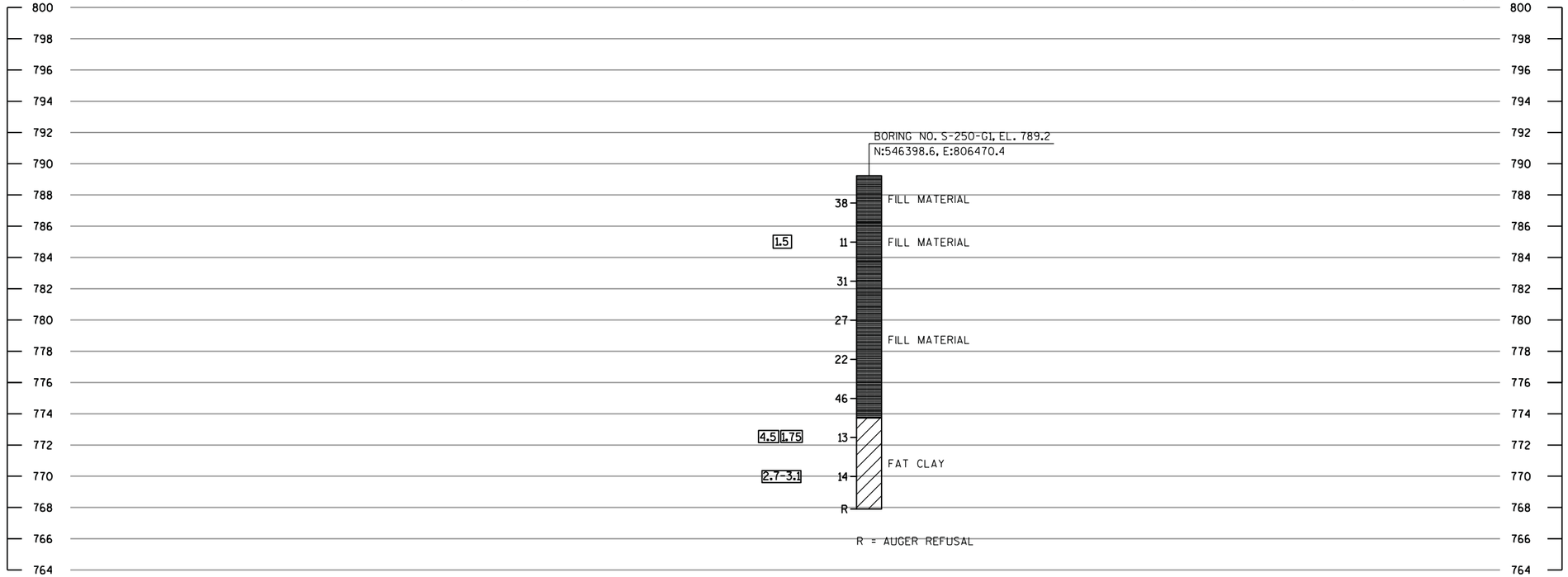
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF STATIC WATER LEVELS.

DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
SES, INC.

SOIL BORING COMPLETED:
FEBRUARY 25, 2014 - S-250-G1



STATE PROJECT NUMBER

1517-07-79

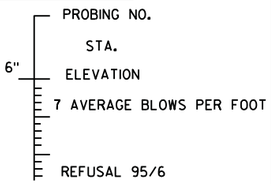
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

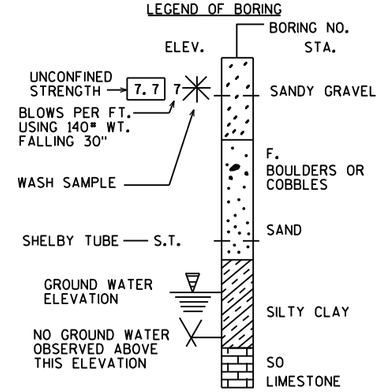
TOPSOIL / FILL, SAND, GRAVEL, SILT, PEAT, CLAY, SANDSTONE, LIMESTONE, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-70-250

DRAWN BY DB | PLANS CK'D. BW

SUBSURFACE EXPLORATION

SHEET 4 OF 4

8

8

FILE NAME : I:\56537\AllContracts\2. Geotech\Subsurface Sheets\080251_se.dgn PLOT DATE : 11/15/2014 11:16:21 AM PLOT BY : dbaumann PLOT NAME : $FILE$ PLOT SCALE : 100:1

PROJECT ID 1517-07-79
DIVISION 1 - USH 41 SB

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
1323+10	AH	132310	0.00	46.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1324+00		132400	90.00	43.78	0.00	0.00	0.00	150.40	0.00	0.00	0.00	150.40	0.00	0.00	0.00	150.40
1325+00		132500	100.00	40.76	0.00	0.00	0.00	156.56	0.00	0.00	0.00	306.96	0.00	0.00	0.00	306.96
1326+00		132600	100.00	37.15	0.00	0.00	0.00	144.28	0.00	0.00	0.00	451.23	0.00	0.00	0.00	451.23
1327+00		132700	100.00	38.32	0.00	0.00	0.00	139.76	0.00	0.00	0.00	590.99	0.00	0.00	0.00	590.99
1328+00		132800	100.00	35.60	0.00	0.00	0.00	136.89	0.00	0.00	0.00	727.88	0.00	0.00	0.00	727.88
1329+00		132900	100.00	40.78	0.00	0.00	0.00	141.44	0.00	0.00	0.00	869.33	0.00	0.00	0.00	869.33
1330+00		133000	100.00	40.91	0.00	0.00	0.00	151.28	0.00	0.00	0.00	1020.60	0.00	0.00	0.00	1020.60
1331+00		133100	100.00	39.00	0.46	0.00	0.00	147.98	0.85	0.00	0.00	1168.59	0.85	0.00	0.00	1167.73
1332+00		133200	100.00	41.24	0.00	0.00	0.00	148.59	0.85	0.00	0.00	1317.18	1.70	0.00	0.00	1315.47
1333+00		133300	100.00	40.08	0.00	0.00	0.00	150.59	0.00	0.00	0.00	1467.77	1.70	0.00	0.00	1466.07
1334+00		133400	100.00	38.21	0.00	0.00	0.00	144.98	0.00	0.00	0.00	1612.75	1.70	0.00	0.00	1611.05
1335+00		133500	100.00	39.23	0.00	0.00	0.00	143.41	0.00	0.00	0.00	1756.16	1.70	0.00	0.00	1754.46
1336+00		133600	100.00	41.56	0.00	0.00	0.00	149.61	0.00	0.00	0.00	1905.77	1.70	0.00	0.00	1904.07
1336+70	BK	133670	70.00	42.10	0.00	0.00	0.00	108.45	0.00	0.00	0.00	2014.22	1.70	0.00	0.00	2012.51
							Column totals	2014	2	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 1 - USH 41 NB

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
1324+25	AH	132425.00	0.00	26.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1325+00		132500.00	75.00	27.61	0.00	0.00	0.00	75.36	0.00	0.00	0.00	75.36	0.00	0.00	0.00	75.36
1326+00		132600.00	100.00	27.65	0.00	0.00	0.00	102.33	0.00	0.00	0.00	177.69	0.00	0.00	0.00	177.69
1327+00		132700.00	100.00	28.19	0.00	0.00	0.00	103.41	0.00	0.00	0.00	281.10	0.00	0.00	0.00	281.10
1328+00		132800.00	100.00	28.03	0.00	0.00	0.00	104.11	0.00	0.00	0.00	385.21	0.00	0.00	0.00	385.21
1329+00		132900.00	100.00	28.03	0.00	0.00	0.00	103.81	0.00	0.00	0.00	489.03	0.00	0.00	0.00	489.03
1330+00		133000.00	100.00	26.04	0.00	0.00	0.00	100.13	0.00	0.00	0.00	589.16	0.00	0.00	0.00	589.16
1331+00		133100.00	100.00	27.25	0.00	0.00	0.00	98.69	0.00	0.00	0.00	687.84	0.00	0.00	0.00	687.84
1332+00		133200.00	100.00	27.74	0.00	0.00	0.00	101.83	0.00	0.00	0.00	789.68	0.00	0.00	0.00	789.68
1333+00		133300.00	100.00	27.37	0.00	0.00	0.00	102.06	0.00	0.00	0.00	891.73	0.00	0.00	0.00	891.73
1334+00		133400.00	100.00	26.60	0.00	0.00	0.00	99.94	0.00	0.00	0.00	991.68	0.00	0.00	0.00	991.68
1335+00		133500.00	100.00	24.40	0.00	0.00	0.00	94.44	0.00	0.00	0.00	1086.12	0.00	0.00	0.00	1086.12
1336+00		133600.00	100.00	24.74	0.00	0.00	0.00	91.00	0.00	0.00	0.00	1177.12	0.00	0.00	0.00	1177.12
1337+00		133700.00	100.00	25.53	0.00	0.00	0.00	93.09	0.00	0.00	0.00	1270.21	0.00	0.00	0.00	1270.21
1338+00		133800.00	100.00	25.25	0.00	0.00	0.00	94.04	0.00	0.00	0.00	1364.25	0.00	0.00	0.00	1364.25
1339+00		133900.00	100.00	25.40	0.00	0.00	0.00	93.80	0.00	0.00	0.00	1458.05	0.00	0.00	0.00	1458.05
1340+00		134000.00	100.00	25.15	0.00	0.00	0.00	93.61	0.00	0.00	0.00	1551.66	0.00	0.00	0.00	1551.66
1341+00		134100.00	100.00	24.48	0.00	0.00	0.00	91.91	0.00	0.00	0.00	1643.56	0.00	0.00	0.00	1643.56
1342+00		134200.00	100.00	23.28	0.00	0.00	0.00	88.44	0.00	0.00	0.00	1732.01	0.00	0.00	0.00	1732.01
1343+00		134300.00	100.00	23.52	0.00	0.00	0.00	86.67	0.00	0.00	0.00	1818.68	0.00	0.00	0.00	1818.68
1343+35	BK	134335.00	35.00	23.47	0.00	0.00	0.00	30.46	0.00	0.00	0.00	1849.13	0.00	0.00	0.00	1849.13
							Column totals	1849	0.00	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 1 - USH 10 EB Median Widening (1)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
101+30	AH	10130	0.00	43.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102+00		10200	70.00	41.34	0.00	0.00	0.00	109.80	0.00	0.00	0.00	109.80	0.00	0.00	0.00	109.80
103+00		10300	100.00	44.49	0.00	0.00	0.00	158.94	0.00	0.00	0.00	268.74	0.00	0.00	0.00	268.74
104+00		10400	100.00	45.38	0.00	0.00	0.00	166.43	0.00	0.00	0.00	435.17	0.00	0.00	0.00	435.17
105+00		10500	100.00	45.01	0.00	0.00	0.00	167.39	0.00	0.00	0.00	602.56	0.00	0.00	0.00	602.56
106+00		10600	100.00	45.79	0.00	0.00	0.00	168.15	0.00	0.00	0.00	770.70	0.00	0.00	0.00	770.70
107+00		10700	100.00	46.28	0.00	0.00	0.00	170.50	0.00	0.00	0.00	941.20	0.00	0.00	0.00	941.20
108+00		10800	100.00	46.95	0.00	0.00	0.00	172.65	0.00	0.00	0.00	1113.85	0.00	0.00	0.00	1113.85
109+00		10900	100.00	49.98	0.00	0.00	0.00	179.50	0.00	0.00	0.00	1293.35	0.00	0.00	0.00	1293.35
110+00		11000	100.00	47.54	0.00	0.00	0.00	180.59	0.00	0.00	0.00	1473.94	0.00	0.00	0.00	1473.94
111+00		11100	100.00	49.36	0.00	0.00	0.00	179.44	0.00	0.00	0.00	1653.39	0.00	0.00	0.00	1653.39
112+00		11200	100.00	48.75	0.00	0.00	0.00	181.69	0.00	0.00	0.00	1835.07	0.00	0.00	0.00	1835.07
113+00		11300	100.00	53.39	0.00	0.00	0.00	189.15	0.00	0.00	0.00	2024.22	0.00	0.00	0.00	2024.22
114+00		11400	100.00	52.41	0.00	0.00	0.00	195.93	0.00	0.00	0.00	2220.15	0.00	0.00	0.00	2220.15
115+00		11500	100.00	47.46	0.00	0.00	0.00	184.94	0.00	0.00	0.00	2405.09	0.00	0.00	0.00	2405.09
116+00		11600	100.00	51.61	0.00	0.00	0.00	183.46	0.00	0.00	0.00	2588.56	0.00	0.00	0.00	2588.56
117+00		11700	100.00	51.80	0.00	0.00	0.00	191.50	0.00	0.00	0.00	2780.06	0.00	0.00	0.00	2780.06
117+70	BK	11770	70.00	39.54	0.00	0.00	0.00	118.40	0.00	0.00	0.00	2898.46	0.00	0.00	0.00	2898.46
							Column totals	2898	0.00	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 1 - USH 10 EB Median Widening (2)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
129+05	AH	12905	0.00	18.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
129+50		12950	45.00	23.70	0.00	0.00	0.00	35.04	0.00	0.00	0.00	35.04	0.00	0.00	0.00	35.04
130+00		13000	50.00	29.80	0.00	0.00	0.00	49.54	0.00	0.00	0.00	84.58	0.00	0.00	0.00	84.58
130+50		13050	50.00	35.73	0.00	0.00	0.00	60.68	0.00	0.00	0.00	145.25	0.00	0.00	0.00	145.25
131+00		13100	50.00	41.07	0.00	0.00	0.00	71.11	0.00	0.00	0.00	216.37	0.00	0.00	0.00	216.37
131+50		13150	50.00	43.90	0.00	0.00	0.00	78.68	0.00	0.00	0.00	295.04	0.00	0.00	0.00	295.04
132+00	BK	13199.95	49.95	42.09	0.00	0.00	0.00	79.54	0.00	0.00	0.00	374.58	0.00	0.00	0.00	374.58
							Column totals	375	0.00	0.00	0.00					

PROJECT ID 1517-07-79

DIVISION 1 - WB (Shoulder Upgrade for Beamguard)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
86+23	AH	8623.00	0.00	18.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86+51		8650.95	27.95	15.36	0.00	0.00	0.00	17.33	0.00	0.00	0.00	17.33	0.00	0.00	0.00	17.33
86+81		8680.63	29.68	18.41	0.03	0.00	0.00	18.56	0.02	0.00	0.00	35.90	0.02	0.00	0.00	35.88
87+00		8700.00	19.37	16.26	0.00	0.00	0.00	12.44	0.01	0.00	0.00	48.33	0.03	0.00	0.00	48.30
88+00		8800.00	100.00	16.70	0.00	0.00	0.00	61.04	0.00	0.00	0.00	109.37	0.03	0.00	0.00	109.34
89+00		8900.00	100.00	16.79	0.00	0.00	0.00	62.02	0.00	0.00	0.00	171.39	0.03	0.00	0.00	171.36
89+24		8924.38	24.38	15.73	0.14	0.00	0.00	14.68	0.06	0.00	0.00	186.07	0.09	0.00	0.00	185.98
89+49		8949.38	25.00	17.12	4.34	0.00	0.00	15.21	2.07	0.00	0.00	201.28	2.16	0.00	0.00	199.11
89+74		8974.38	25.00	16.72	6.57	0.00	0.00	15.67	5.05	0.00	0.00	216.94	7.22	0.00	0.00	209.73
90+00	BK	9000.00	25.62	17.76	2.73	0.00	0.00	16.36	4.41	0.00	0.00	233.30	11.63	0.00	0.00	221.68
							Column totals	233	12	0.00	0.00					

PROJECT ID 1517-07-79

DIVISION 2A - EB (Shoulder Upgrade for Beamguard section EB02)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
85+67	AH	8566.63	0.00	22.95	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85+91		8590.63	24.00	21.55	0	0.00	0.00	19.78	0.00	0.00	0.00	19.78	0.00	0.00	0.00	19.78
86+00		8600.00	9.37	22.79	0	0.00	0.00	7.69	0.00	0.00	0.00	27.47	0.00	0.00	0.00	27.47
86+16		8615.63	15.63	22.39	0	0.00	0.00	13.08	0.00	0.00	0.00	40.55	0.00	0.00	0.00	40.55
86+41		8640.61	24.98	19.42	2.29	0.00	0.00	19.34	1.06	0.00	0.00	59.89	1.06	0.00	0.00	58.83
86+66		8665.56	24.95	18.67	0.04	0.00	0.00	17.60	1.08	0.00	0.00	77.49	2.14	0.00	0.00	75.35
86+91		8690.56	25.00	18.04	0	0.00	0.00	17.00	0.02	0.00	0.00	94.48	2.15	0.00	0.00	92.33
87+00		8700.00	9.44	18.18	0	0.00	0.00	6.33	0.00	0.00	0.00	100.82	2.15	0.00	0.00	98.66
88+00		8800.00	100.00	23.15	0	0.00	0.00	76.54	0.00	0.00	0.00	177.35	2.15	0.00	0.00	175.20
88+84		8884.38	84.38	25.82	0	0.00	0.00	76.52	0.00	0.00	0.00	253.87	2.15	0.00	0.00	251.72
89+00		8900.00	15.62	24.70	0	0.00	0.00	14.61	0.00	0.00	0.00	268.49	2.15	0.00	0.00	266.33
89+14		8914.36	14.36	26.09	0	0.00	0.00	13.51	0.00	0.00	0.00	281.99	2.15	0.00	0.00	279.84
89+29	BK	8929.07	14.71	28.13	0	0.00	0.00	14.77	0.00	0.00	0.00	296.76	2.15	0.00	0.00	294.61
							Column totals	297	2	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - EB

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
104+00 AH	10400.00	0.00	95.77	12.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104+50	10450.00	50.00	94.35	14.00	0.00	0.00	174.72	25.93	0.00	0.00	174.72	25.93	0.00	0.00	148.80
105+00	10500.00	50.00	92.32	21.23	0.00	0.00	172.84	32.62	0.00	0.00	347.56	58.55	0.00	0.00	289.02
105+50	10550.00	50.00	88.33	24.56	0.00	0.00	167.27	42.40	0.00	0.00	514.83	100.94	0.00	0.00	413.89
106+00	10600.00	50.00	82.29	25.55	0.00	0.00	157.98	46.40	0.00	0.00	672.81	147.34	0.00	0.00	525.47
106+50	10650.00	50.00	78.85	30.13	0.00	0.00	149.20	51.56	0.00	0.00	822.02	198.90	0.00	0.00	623.12
107+00	10700.00	50.00	73.55	34.46	0.00	0.00	141.11	59.81	0.00	0.00	963.13	258.70	0.00	0.00	704.43
107+50	10750.00	50.00	66.15	40.84	0.00	0.00	129.35	69.72	0.00	0.00	1092.48	328.43	0.00	0.00	764.06
108+00	10800.00	50.00	64.24	25.80	0.00	0.00	120.73	61.70	0.00	0.00	1213.21	390.13	0.00	0.00	823.08
108+50	10850.00	50.00	61.29	40.69	0.00	0.00	116.23	61.56	0.00	0.00	1329.44	451.69	0.00	0.00	877.75
108+88	10888.34	38.34	58.65	41.76	0.00	0.00	85.16	58.54	0.00	0.00	1414.60	510.23	0.00	0.00	904.37
108+88	10888.35	0.01	17.15	0.00	0.00	0.00	0.01	0.01	0.00	0.00	1414.62	510.24	0.00	0.00	904.37
109+00	10900.00	11.65	17.68	0.00	0.00	0.00	7.51	0.00	0.00	0.00	1422.13	510.24	0.00	0.00	911.89
109+50	10950.00	50.00	22.46	0.00	0.00	0.00	37.17	0.00	0.00	0.00	1459.30	510.24	0.00	0.00	949.06
110+00	11000.00	50.00	26.30	0.00	0.00	0.00	45.15	0.00	0.00	0.00	1504.44	510.24	0.00	0.00	994.20
110+50	11050.00	50.00	32.26	0.00	0.00	0.00	54.22	0.00	0.00	0.00	1558.67	510.24	0.00	0.00	1048.43
111+00	11100.00	50.00	36.88	0.00	0.00	0.00	64.02	0.00	0.00	0.00	1622.69	510.24	0.00	0.00	1112.44
111+50	11150.00	50.00	42.22	0.00	0.00	0.00	73.24	0.00	0.00	0.00	1695.93	510.24	0.00	0.00	1185.68
112+00	11200.00	50.00	32.13	0.00	0.00	0.00	68.84	0.00	0.00	0.00	1764.77	510.24	0.00	0.00	1254.53
112+50	11250.00	50.00	36.39	0.00	0.00	0.00	63.44	0.00	0.00	0.00	1828.21	510.24	0.00	0.00	1317.97
113+00	11300.00	50.00	37.14	0.00	0.00	0.00	68.08	0.00	0.00	0.00	1896.30	510.24	0.00	0.00	1386.06
113+50	11350.00	50.00	36.07	0.00	0.00	0.00	67.79	0.00	0.00	0.00	1964.08	510.24	0.00	0.00	1453.84
114+00	11400.00	50.00	33.25	0.66	0.00	0.00	64.19	0.61	0.00	0.00	2028.27	510.85	0.00	0.00	1517.42
114+50	11450.00	50.00	34.80	10.23	0.00	0.00	63.01	10.08	0.00	0.00	2091.28	520.94	0.00	0.00	1570.34
115+00	11500.00	50.00	41.64	19.65	0.00	0.00	70.78	27.67	0.00	0.00	2162.06	548.60	0.00	0.00	1613.45
115+50	11550.00	50.00	45.14	10.36	0.00	0.00	80.35	27.79	0.00	0.00	2242.41	576.39	0.00	0.00	1666.02
116+00	11600.00	50.00	62.68	6.07	0.00	0.00	99.83	15.21	0.00	0.00	2342.24	591.60	0.00	0.00	1750.64
116+50	11650.00	50.00	74.67	15.71	0.00	0.00	127.18	20.17	0.00	0.00	2469.42	611.77	0.00	0.00	1857.65
117+00	11700.00	50.00	89.31	25.59	0.00	0.00	151.83	38.24	0.00	0.00	2621.25	650.01	0.00	0.00	1971.24
117+50	11750.00	50.00	92.99	26.00	0.00	0.00	168.80	47.77	0.00	0.00	2790.05	697.78	0.00	0.00	2092.27
118+00	11800.00	50.00	93.20	31.55	0.00	0.00	172.40	53.29	0.00	0.00	2962.44	751.07	0.00	0.00	2211.38
118+50	11850.00	50.00	103.16	36.15	0.00	0.00	181.81	62.69	0.00	0.00	3144.26	813.75	0.00	0.00	2330.51
119+00	11900.00	50.00	94.25	45.80	0.00	0.00	182.79	75.88	0.00	0.00	3327.05	889.63	0.00	0.00	2437.42
119+50	11950.00	50.00	115.11	52.32	0.00	0.00	193.85	90.85	0.00	0.00	3520.90	980.48	0.00	0.00	2540.42
120+00	12000.00	50.00	111.52	64.50	0.00	0.00	209.84	108.17	0.00	0.00	3730.74	1088.65	0.00	0.00	2642.09
120+50	12050.00	50.00	96.02	75.21	0.00	0.00	192.17	129.36	0.00	0.00	3922.91	1218.01	0.00	0.00	2704.90
121+00	12100.00	50.00	81.20	90.24	0.00	0.00	164.09	153.19	0.00	0.00	4087.00	1371.20	0.00	0.00	2715.80
121+50	12150.00	50.00	72.83	99.74	0.00	0.00	142.62	175.91	0.00	0.00	4229.62	1547.11	0.00	0.00	2682.51
122+00	12200.00	50.00	69.54	116.19	0.00	0.00	131.82	199.94	0.00	0.00	4361.44	1747.05	0.00	0.00	2614.40
122+50	12250.00	50.00	80.30	137.49	0.00	0.00	138.74	234.89	0.00	0.00	4500.19	1981.94	0.00	0.00	2518.25
123+00	12300.00	50.00	66.55	159.23	0.00	0.00	135.97	274.74	0.00	0.00	4636.16	2256.68	0.00	0.00	2379.48
123+50	12350.00	50.00	141.53	111.67	0.00	0.00	192.67	250.83	0.00	0.00	4828.82	2507.51	0.00	0.00	2321.31
124+00	12400.00	50.00	65.24	124.79	0.00	0.00	191.45	218.94	0.00	0.00	5020.28	2726.45	0.00	0.00	2293.82
124+50	12450.00	50.00	17.84	181.81	0.00	0.00	76.93	283.89	0.00	0.00	5097.20	3010.34	0.00	0.00	2086.86

PROJECT ID 1517-07-79
DIVISION 2A - EB (continued from previous sheet)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
125+00		12500.00	50.00	14.24	216.26	0.00	0.00	29.70	368.58	0.00	0.00	5126.91	3378.93	0.00	0.00	1747.98
125+50		12550.00	50.00	13.92	129.32	0.00	0.00	26.07	319.98	0.00	0.00	5152.98	3698.91	0.00	0.00	1454.07
126+00		12600.00	50.00	13.25	33.13	0.00	0.00	25.16	150.42	0.00	0.00	5178.14	3849.33	0.00	0.00	1328.81
126+50		12650.00	50.00	39.31	0.75	0.00	0.00	48.67	31.37	0.00	0.00	5226.81	3880.70	0.00	0.00	1346.11
127+00		12700.00	50.00	47.49	0.00	0.00	0.00	80.37	0.69	0.00	0.00	5307.18	3881.39	0.00	0.00	1425.79
127+50		12750.00	50.00	50.76	0.00	0.00	0.00	90.97	0.00	0.00	0.00	5398.15	3881.39	0.00	0.00	1516.76
127+82		12782.00	32.00	64.56	0.00	0.00	0.00	68.34	0.00	0.00	0.00	5466.49	3881.39	0.00	0.00	1585.10
128+00		12800.00	18.00	22.52	0.00	0.00	0.00	29.03	0.00	0.00	0.00	5495.51	3881.39	0.00	0.00	1614.12
128+07		12807.00	7.00	22.15	0.00	0.00	0.00	5.79	0.00	0.00	0.00	5501.30	3881.39	0.00	0.00	1619.91
128+32		12832.00	25.00	21.20	0.00	0.00	0.00	20.07	0.00	0.00	0.00	5521.37	3881.39	0.00	0.00	1639.98
128+50	BK	12850.00	18.00	21.07	0.00	0.00	0.00	14.09	0.00	0.00	0.00	5535.46	3881.39	0.00	0.00	1654.07
							Column totals	5535	3881	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - EB Median Widening

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
125+75	AH	12575	0.00	16.66	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126+00		12600	25.00	18.39	0	0.00	0.00	16.23	0.00	0.00	0.00	16.23	0.00	0.00	0.00	16.23
126+50		12650	50.00	21.18	0	0.00	0.00	36.64	0.00	0.00	0.00	52.87	0.00	0.00	0.00	52.87
127+00		12700	50.00	23.72	0	0.00	0.00	41.57	0.00	0.00	0.00	94.44	0.00	0.00	0.00	94.44
127+50		12750	50.00	27.18	0	0.00	0.00	47.13	0.00	0.00	0.00	141.57	0.00	0.00	0.00	141.57
128+00		12800	50.00	30.39	0	0.00	0.00	53.31	0.00	0.00	0.00	194.88	0.00	0.00	0.00	194.88
128+50		12850	50.00	32.19	0	0.00	0.00	57.94	0.00	0.00	0.00	252.82	0.00	0.00	0.00	252.82
129+00		12900	50.00	25.32	0	0.00	0.00	53.25	0.00	0.00	0.00	306.07	0.00	0.00	0.00	306.07
129+50	BK	12950	50.00	0.00	0	0.00	0.00	23.44	0.00	0.00	0.00	329.51	0.00	0.00	0.00	329.51
							Column totals	330	0	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - FEN (1)

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS (In Cross Sections)	AREA (SF) Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Incremental Vol (CY) (Unadjusted) Structure Excavation	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) EBS	Cumulative Vol (CY) Structure Excavation	Mass Ordinate
108+89	AH	10888.62	0.00	42.00	38.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109+00		10900.00	11.38	41.32	40.22	0.00	0.00	17.56	16.58	0.00	0.00	17.56	16.58	0.00	0.00	0.98
109+50		10950.00	50.00	40.98	35.24	0.00	0.00	76.20	69.87	0.00	0.00	93.76	86.45	0.00	0.00	7.31
110+00		11000.00	50.00	40.51	34.12	0.00	0.00	75.45	64.22	0.00	0.00	169.22	150.68	0.00	0.00	18.54
110+50		11050.00	50.00	42.66	39.55	0.00	0.00	77.01	68.21	0.00	0.00	246.23	218.89	0.00	0.00	27.34
111+00		11100.00	50.00	44.58	37.14	0.00	0.00	80.78	71.01	0.00	0.00	327.00	289.90	0.00	0.00	37.11
111+50		11150.00	50.00	47.74	38.32	0.00	0.00	85.48	69.87	0.00	0.00	412.48	359.77	0.00	0.00	52.72
111+75	BK	11175.00	25.00	63.41	32.94	0.00	0.00	51.46	32.99	0.00	0.00	463.94	392.76	0.00	0.00	71.18
							Column totals	464	393	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - FEN (2)

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS (In Cross Sections)	AREA (SF) Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Incremental Vol (CY) (Unadjusted) Structure Excavation	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) EBS	Cumulative Vol (CY) Structure Excavation	Mass Ordinate
111+75	AH	11175.00	0.00	59.40	29.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112+00		11200.00	25.00	59.50	29.30	0.00	0.00	55.05	27.13	0.00	0.00	55.05	27.13	0.00	0.00	27.92
112+50		11250.00	50.00	62.00	31.60	0.00	0.00	112.50	56.39	0.00	0.00	167.55	83.52	0.00	0.00	84.03
113+00		11300.00	50.00	70.10	26.70	0.00	0.00	122.31	53.98	0.00	0.00	289.86	137.50	0.00	0.00	152.36
113+50		11350.00	50.00	70.70	27.20	0.00	0.00	130.37	49.91	0.00	0.00	420.23	187.41	0.00	0.00	232.82
114+00		11400.00	50.00	72.60	23.00	0.00	0.00	132.69	46.48	0.00	0.00	552.92	233.89	0.00	0.00	319.03
114+50		11450.00	50.00	68.60	34.20	0.00	0.00	130.74	52.96	0.00	0.00	683.66	286.85	0.00	0.00	396.81
115+00		11500.00	50.00	75.70	43.50	0.00	0.00	133.61	71.94	0.00	0.00	817.27	358.80	0.00	0.00	458.47
115+50		11550.00	50.00	76.70	41.20	0.00	0.00	141.11	78.43	0.00	0.00	958.38	437.22	0.00	0.00	521.16
116+00		11600.00	50.00	80.00	36.50	0.00	0.00	145.09	71.94	0.00	0.00	1103.47	509.17	0.00	0.00	594.31
116+50		11650.00	50.00	81.70	37.30	0.00	0.00	149.72	68.33	0.00	0.00	1253.19	577.50	0.00	0.00	675.69
117+00		11700.00	50.00	78.70	28.20	0.00	0.00	148.52	60.65	0.00	0.00	1401.71	638.15	0.00	0.00	763.56
117+50		11750.00	50.00	84.70	32.60	0.00	0.00	151.30	56.30	0.00	0.00	1553.01	694.44	0.00	0.00	858.56
118+00		11800.00	50.00	91.80	28.60	0.00	0.00	163.43	56.67	0.00	0.00	1716.44	751.11	0.00	0.00	965.32
118+50		11850.00	50.00	60.20	0.00	0.00	0.00	140.74	26.48	0.00	0.00	1857.18	777.59	0.00	0.00	1079.58
119+00		11900.00	50.00	82.00	0.00	0.00	0.00	131.67	0.00	0.00	0.00	1988.84	777.59	0.00	0.00	1211.25
119+50		11950.00	50.00	78.10	0.00	0.00	0.00	148.24	0.00	0.00	0.00	2137.08	777.59	0.00	0.00	1359.49
120+00		12000.00	50.00	81.00	0.00	0.00	0.00	147.31	0.00	0.00	0.00	2284.40	777.59	0.00	0.00	1506.81
120+50	BK	12050.00	50.00	0.00	0.00	0.00	0.00	75.00	0.00	0.00	0.00	2359.40	777.59	0.00	0.00	1581.81
							Column totals	2359	778	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - FES

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
118+15	AH	11814.68	0.00	44.50	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
118+50		11850.00	35.32	57.70	27.80	0.00	0.00	66.85	36.10	0.00	0.00	66.85	36.10	0.00	0.00	30.74
119+00		11900.00	50.00	77.80	20.30	0.00	0.00	125.46	44.54	0.00	0.00	192.31	80.64	0.00	0.00	111.67
119+50		11950.00	50.00	119.70	3.70	0.00	0.00	182.87	22.22	0.00	0.00	375.18	102.86	0.00	0.00	272.32
120+00		12000.00	50.00	152.90	0.00	0.00	0.00	252.41	3.43	0.00	0.00	627.59	106.29	0.00	0.00	521.30
120+50		12050.00	50.00	162.40	0.00	0.00	0.00	291.94	0.00	0.00	0.00	919.53	106.29	0.00	0.00	813.24
121+00		12100.00	50.00	179.00	0.00	0.00	0.00	316.11	0.00	0.00	0.00	1235.64	106.29	0.00	0.00	1129.35
121+50		12150.00	50.00	188.60	0.00	0.00	0.00	340.37	0.00	0.00	0.00	1576.01	106.29	0.00	0.00	1469.72
122+00		12200.00	50.00	251.10	0.00	0.00	0.00	407.13	0.00	0.00	0.00	1983.14	106.29	0.00	0.00	1876.85
122+50		12250.00	50.00	311.30	0.00	0.00	0.00	520.74	0.00	0.00	0.00	2503.88	106.29	0.00	0.00	2397.59
123+00		12300.00	50.00	361.70	0.00	0.00	0.00	623.15	0.00	0.00	0.00	3127.03	106.29	0.00	0.00	3020.74
123+50		12350.00	50.00	303.70	0.00	0.00	0.00	616.11	0.00	0.00	0.00	3743.14	106.29	0.00	0.00	3636.85
124+00		12400.00	50.00	324.30	0.00	0.00	0.00	581.48	0.00	0.00	0.00	4324.62	106.29	0.00	0.00	4218.33
124+50		12450.00	50.00	385.20	0.00	0.00	0.00	656.94	0.00	0.00	0.00	4981.57	106.29	0.00	0.00	4875.28
125+00		12500.00	50.00	442.60	0.00	0.00	0.00	766.48	0.00	0.00	0.00	5748.05	106.29	0.00	0.00	5641.76
125+50		12550.00	50.00	501.20	0.00	0.00	0.00	873.89	0.00	0.00	0.00	6621.94	106.29	0.00	0.00	6515.65
126+00		12600.00	50.00	565.52	0.00	0.00	0.00	987.70	0.00	0.00	0.00	7609.64	106.29	0.00	0.00	7503.35
126+50		12650.00	50.00	646.00	0.00	0.00	0.00	1121.78	0.00	0.00	0.00	8731.42	106.29	0.00	0.00	8625.13
127+00		12700.00	50.00	744.90	0.00	0.00	0.00	1287.87	0.00	0.00	0.00	10019.29	106.29	0.00	0.00	9913.00
127+50		12750.00	50.00	816.50	0.00	0.00	0.00	1445.74	0.00	0.00	0.00	11465.03	106.29	0.00	0.00	11358.74
128+00		12800.00	50.00	1090.30	0.00	0.00	0.00	1765.56	0.00	0.00	0.00	13230.59	106.29	0.00	0.00	13124.30
128+50		12850.00	50.00	1165.30	0.00	0.00	0.00	2088.52	0.00	0.00	0.00	15319.11	106.29	0.00	0.00	15212.82
129+00		12900.00	50.00	1174.30	0.00	0.00	0.00	2166.30	0.00	0.00	0.00	17485.40	106.29	0.00	0.00	17379.11
129+50		12950.00	50.00	1130.50	0.00	0.00	0.00	2134.07	0.00	0.00	0.00	19619.48	106.29	0.00	0.00	19513.19
130+00		13000.00	50.00	1101.70	0.00	0.00	0.00	2066.85	0.00	0.00	0.00	21686.33	106.29	0.00	0.00	21580.04
130+50		13050.00	50.00	1123.50	0.00	0.00	0.00	2060.37	0.00	0.00	0.00	23746.70	106.29	0.00	0.00	23640.41
131+00		13100.00	50.00	1126.00	0.00	0.00	0.00	2082.87	0.00	0.00	0.00	25829.57	106.29	0.00	0.00	25723.28
131+50		13150.00	50.00	1237.10	0.00	0.00	0.00	2188.06	0.00	0.00	0.00	28017.62	106.29	0.00	0.00	27911.33
132+00		13200.00	50.00	1030.70	0.00	0.00	0.00	2099.81	0.00	0.00	0.00	30117.44	106.29	0.00	0.00	30011.15
132+50		13250.00	50.00	778.00	0.00	0.00	0.00	1674.72	0.00	0.00	0.00	31792.16	106.29	0.00	0.00	31685.87
133+00		13300.00	50.00	630.40	0.00	0.00	0.00	1304.07	0.00	0.00	0.00	33096.24	106.29	0.00	0.00	32989.95
133+50		13350.00	50.00	515.80	0.00	0.00	0.00	1061.30	0.00	0.00	0.00	34157.53	106.29	0.00	0.00	34051.24
134+00		13400.00	50.00	450.10	0.00	0.00	0.00	894.35	0.00	0.00	0.00	35051.88	106.29	0.00	0.00	34945.59
134+50		13450.00	50.00	443.90	0.00	0.00	0.00	827.78	0.00	0.00	0.00	35879.66	106.29	0.00	0.00	35773.37
135+00		13500.00	50.00	337.20	0.00	0.00	0.00	723.24	0.00	0.00	0.00	36602.90	106.29	0.00	0.00	36496.61
135+50		13550.00	50.00	258.30	0.00	0.00	0.00	551.39	0.00	0.00	0.00	37154.29	106.29	0.00	0.00	37048.00
136+00		13600.00	50.00	193.10	0.00	0.00	0.00	417.96	0.00	0.00	0.00	37572.25	106.29	0.00	0.00	37465.96
136+50		13650.00	50.00	162.60	0.00	0.00	0.00	329.35	0.00	0.00	0.00	37901.61	106.29	0.00	0.00	37795.32
136+66	BK	13666.23	16.23	158.50	0.00	0.00	0.00	96.51	0.00	0.00	0.00	37998.11	106.29	0.00	0.00	37891.82
							Column totals	37998	106	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2A - FWS

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
112+00	AH	11200.00	0.00	243.70	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112+50		11250.00	50.00	140.90	0.00	0.00	0.00	356.11	1.00	0.00	0.00	356.11	1.00	0.00	0.00	355.11
113+00		11300.00	50.00	141.10	0.00	0.00	0.00	261.11	0.00	0.00	0.00	617.22	1.00	0.00	0.00	616.22
113+50		11350.00	50.00	142.80	0.00	0.00	0.00	262.87	0.00	0.00	0.00	880.09	1.00	0.00	0.00	879.09
114+00		11400.00	50.00	141.00	0.00	0.00	0.00	262.78	0.00	0.00	0.00	1142.87	1.00	0.00	0.00	1141.87
114+50		11450.00	50.00	119.20	0.00	0.00	0.00	240.93	0.00	0.00	0.00	1383.80	1.00	0.00	0.00	1382.80
115+00		11500.00	50.00	65.70	0.00	0.00	0.00	171.20	0.00	0.00	0.00	1555.00	1.00	0.00	0.00	1554.00
115+50		11550.00	50.00	39.40	0.00	0.00	0.00	97.31	0.00	0.00	0.00	1652.31	1.00	0.00	0.00	1651.31
116+00		11600.00	50.00	41.50	0.70	0.00	0.00	74.91	0.65	0.00	0.00	1727.22	1.65	0.00	0.00	1725.57
116+50	BK	11650.00	50.00	70.60	0.00	0.00	0.00	103.80	0.65	0.00	0.00	1831.02	2.30	0.00	0.00	1828.72
							Column totals	1831	2	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2B - WB (Shoulder Upgrade for Beamguard)

STATION		Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
90+00	AH	9000.00	0.00	17.76	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91+00		9100.00	100.00	19.08	0.00	0.00	0.00	68.22	5.06	0.00	0.00	68.22	5.06	0.00	0.00	63.17
91+31		9131.00	31.00	12.65	16.66	0.00	0.00	18.22	9.56	0.00	0.00	86.44	14.62	0.00	0.00	71.82
92+00		9200.00	69.00	0.00	0.00	0.00	0.00	16.16	21.29	0.00	0.00	102.60	35.91	0.00	0.00	66.69
93+00		9300.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	102.60	35.91	0.00	0.00	66.69
94+00		9400.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	102.60	35.91	0.00	0.00	66.69
94+60		9460.00	60.00	16.64	0.00	0.00	0.00	18.49	0.00	0.00	0.00	121.09	35.91	0.00	0.00	85.18
95+00		9500.00	40.00	16.38	0.00	0.00	0.00	24.46	0.00	0.00	0.00	145.55	35.91	0.00	0.00	109.64
95+20		9519.74	19.74	17.83	0.00	0.00	0.00	12.51	0.00	0.00	0.00	158.06	35.91	0.00	0.00	122.15
95+80		9579.71	59.97	15.69	0.14	0.00	0.00	37.23	0.16	0.00	0.00	195.28	36.06	0.00	0.00	159.22
96+00		9600.00	20.29	15.53	1.02	0.00	0.00	11.73	0.44	0.00	0.00	207.01	36.50	0.00	0.00	170.51
97+00		9700.00	100.00	41.73	0.00	0.00	0.00	106.04	1.89	0.00	0.00	313.05	38.39	0.00	0.00	274.66
98+00		9800.00	100.00	16.03	0.00	0.00	0.00	106.96	0.00	0.00	0.00	420.01	38.39	0.00	0.00	381.62
99+00		9900.00	100.00	20.15	0.00	0.00	0.00	67.00	0.00	0.00	0.00	487.01	38.39	0.00	0.00	448.62
99+34	BK	9934.00	34.00	19.27	0.00	0.00	0.00	24.82	0.00	0.00	0.00	511.83	38.39	0.00	0.00	473.44
							Column totals	512	38	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2B - WB (3)

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
103+71 AH	10371.47	0.00	43.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104+00	10400.00	28.53	50.68	0.18	0.00	0.00	50.01	0.10	0.00	0.00	50.01	0.10	0.00	0.00	49.91
104+50	10450.00	50.00	49.82	0.08	0.00	0.00	93.06	0.24	0.00	0.00	143.06	0.34	0.00	0.00	142.73
105+00	10500.00	50.00	46.51	0.25	0.00	0.00	89.19	0.31	0.00	0.00	232.26	0.64	0.00	0.00	231.62
105+50	10550.00	50.00	44.34	0.47	0.00	0.00	84.12	0.67	0.00	0.00	316.38	1.31	0.00	0.00	315.07
106+00	10600.00	50.00	45.68	0.51	0.00	0.00	83.35	0.91	0.00	0.00	399.73	2.22	0.00	0.00	397.51
106+50	10650.00	50.00	47.60	0.34	0.00	0.00	86.37	0.79	0.00	0.00	486.10	3.00	0.00	0.00	483.10
107+00	10700.00	50.00	44.90	0.63	0.00	0.00	85.65	0.90	0.00	0.00	571.75	3.90	0.00	0.00	567.85
107+50	10750.00	50.00	41.77	1.09	0.00	0.00	80.25	1.59	0.00	0.00	652.00	5.49	0.00	0.00	646.50
108+00	10800.00	50.00	54.58	0.00	0.00	0.00	89.21	1.01	0.00	0.00	741.21	6.50	0.00	0.00	734.71
108+50	10850.00	50.00	55.53	0.00	0.00	0.00	101.95	0.00	0.00	0.00	843.16	6.50	0.00	0.00	836.66
109+00	10900.00	50.00	56.74	0.00	0.00	0.00	103.95	0.00	0.00	0.00	947.12	6.50	0.00	0.00	940.62
109+25	10925.00	25.00	30.53	0.30	0.00	0.00	40.40	0.14	0.00	0.00	987.52	6.64	0.00	0.00	980.88
109+50	10950.00	25.00	23.86	1.24	0.00	0.00	25.18	0.71	0.00	0.00	1012.70	7.35	0.00	0.00	1005.35
109+75 BK	10975.00	25.00	18.77	3.40	0.00	0.00	19.74	2.15	0.00	0.00	1032.44	9.50	0.00	0.00	1022.93
						Column totals	1032	10	0.00	0.00					

PROJECT ID 1517-07-79

DIVISION 2B - EB (Shoulder Upgrade for Beamguard)

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
83+52	AH	8352.00	0.00	18.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84+00		8400.00	48.00	20.71	0.00	0.00	0.00	35.08	0.00	0.00	0.00	35.08	0.00	0.00	0.00	35.08
84+71		8470.66	70.66	18.28	2.54	0.00	0.00	51.02	3.32	0.00	0.00	86.10	3.32	0.00	0.00	82.78
85+00		8500.00	29.34	17.38	2.24	0.00	0.00	19.38	2.60	0.00	0.00	105.48	5.92	0.00	0.00	99.56
85+67		8566.63	66.63	17.19	3.01	0.00	0.00	42.66	6.48	0.00	0.00	148.13	12.40	0.00	0.00	135.74
85+91		8590.63	24.00	17.04	2.88	0.00	0.00	15.21	2.62	0.00	0.00	163.35	15.02	0.00	0.00	148.33
86+00		8600.00	9.37	17.92	1.73	0.00	0.00	6.07	0.80	0.00	0.00	169.41	15.82	0.00	0.00	153.60
86+16		8615.63	15.63	18.71	0.45	0.00	0.00	10.60	0.63	0.00	0.00	180.02	16.45	0.00	0.00	163.57
86+41		8640.61	24.98	17.08	0.53	0.00	0.00	16.56	0.45	0.00	0.00	196.57	16.90	0.00	0.00	179.67
86+66		8665.56	24.95	18.10	0.00	0.00	0.00	16.25	0.24	0.00	0.00	212.83	17.15	0.00	0.00	195.68
86+91		8690.56	25.00	17.46	0.00	0.00	0.00	16.46	0.00	0.00	0.00	229.29	17.15	0.00	0.00	212.14
87+00		8700.00	9.44	17.20	0.00	0.00	0.00	6.06	0.00	0.00	0.00	235.35	17.15	0.00	0.00	218.20
88+00		8800.00	100.00	15.00	0.40	0.00	0.00	59.63	0.74	0.00	0.00	294.98	17.89	0.00	0.00	277.09
88+84		8884.38	84.38	16.09	3.55	0.00	0.00	48.58	6.17	0.00	0.00	343.56	24.06	0.00	0.00	319.50
89+00		8900.00	15.62	16.01	1.94	0.00	0.00	9.29	1.59	0.00	0.00	352.84	25.65	0.00	0.00	327.20
89+14		8914.36	14.36	16.23	0.26	0.00	0.00	8.57	0.59	0.00	0.00	361.42	26.23	0.00	0.00	335.19
89+29		8929.07	14.71	17.13	0.00	0.00	0.00	9.09	0.07	0.00	0.00	370.51	26.30	0.00	0.00	344.20
90+00		9000.00	70.93	0.00	0.00	0.00	0.00	22.50	0.00	0.00	0.00	393.01	26.30	0.00	0.00	366.70
91+00		9100.00	100.00	18.87	0.00	0.00	0.00	34.94	0.00	0.00	0.00	427.95	26.30	0.00	0.00	401.65
91+31		9131.00	31.00	12.34	23.47	0.00	0.00	17.92	13.47	0.00	0.00	445.87	39.78	0.00	0.00	406.09
92+00		9200.00	69.00	14.84	6.52	0.00	0.00	34.73	38.32	0.00	0.00	480.60	78.10	0.00	0.00	402.50
92+90		9290.43	90.43	15.76	7.77	0.00	0.00	51.24	23.93	0.00	0.00	531.84	102.03	0.00	0.00	429.81
93+00		9300.00	9.57	17.07	5.78	0.00	0.00	5.82	2.40	0.00	0.00	537.66	104.43	0.00	0.00	433.23
93+15		9315.43	15.43	17.17	3.50	0.00	0.00	9.78	2.65	0.00	0.00	547.44	107.08	0.00	0.00	440.36
93+40		9340.43	25.00	15.89	3.12	0.00	0.00	15.31	3.06	0.00	0.00	562.75	110.14	0.00	0.00	452.60
94+00		9400.00	59.57	17.48	0.00	0.00	0.00	36.81	3.44	0.00	0.00	599.56	113.59	0.00	0.00	485.97
95+00		9500.00	100.00	18.43	0.00	0.00	0.00	66.50	0.00	0.00	0.00	666.06	113.59	0.00	0.00	552.47
96+00		9600.00	100.00	17.82	0.00	0.00	0.00	67.13	0.00	0.00	0.00	733.19	113.59	0.00	0.00	619.60
97+00		9700.00	100.00	50.05	0.00	0.00	0.00	125.69	0.00	0.00	0.00	858.88	113.59	0.00	0.00	745.29
98+00		9800.00	100.00	21.93	0.00	0.00	0.00	133.30	0.00	0.00	0.00	992.17	113.59	0.00	0.00	878.59
99+00		9900.00	100.00	27.56	0.00	0.00	0.00	91.65	0.00	0.00	0.00	1083.82	113.59	0.00	0.00	970.23
99+34		9934.37	34.37	27.01	0.00	0.00	0.00	34.73	0.00	0.00	0.00	1118.55	113.59	0.00	0.00	1004.97
100+00		10000.00	65.63	0.00	0.00	0.00	0.00	32.83	0.00	0.00	0.00	1151.38	113.59	0.00	0.00	1037.79
101+00		10100.00	100.00	38.03	3.84	0.00	0.00	70.43	7.11	0.00	0.00	1221.81	120.70	0.00	0.00	1101.11
102+00		10200.00	100.00	38.68	0.00	0.00	0.00	142.06	7.11	0.00	0.00	1363.86	127.81	0.00	0.00	1236.05
103+00		10300.00	100.00	38.30	0.00	0.00	0.00	142.56	0.00	0.00	0.00	1506.42	127.81	0.00	0.00	1378.61
104+00	BK	10400.00	100.00	37.43	0.71	0.00	0.00	140.24	1.31	0.00	0.00	1646.66	129.12	0.00	0.00	1517.53
							Column totals	1647	129	0.00	0.00					

PROJECT ID 1517-07-79

DIVISION 2B - EB

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
104+00 AH	10400.00	0.00	75.64	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104+50	10450.00	50.00	80.22	0.00	0.00	0.00	144.31	0.01	0.00	0.00	144.31	0.01	0.00	0.00	144.31
105+00	10500.00	50.00	71.20	0.10	0.00	0.00	140.20	0.09	0.00	0.00	284.52	0.10	0.00	0.00	284.42
105+50	10550.00	50.00	66.50	0.17	0.00	0.00	127.50	0.25	0.00	0.00	412.02	0.35	0.00	0.00	411.67
106+00	10600.00	50.00	60.68	0.00	0.00	0.00	117.76	0.16	0.00	0.00	529.78	0.51	0.00	0.00	529.27
106+50	10650.00	50.00	52.53	0.00	0.00	0.00	104.82	0.00	0.00	0.00	634.60	0.51	0.00	0.00	634.09
107+00	10700.00	50.00	48.54	0.02	0.00	0.00	93.58	0.02	0.00	0.00	728.19	0.53	0.00	0.00	727.66
107+50	10750.00	50.00	42.26	0.25	0.00	0.00	84.07	0.25	0.00	0.00	812.26	0.78	0.00	0.00	811.48
108+00	10800.00	50.00	38.26	0.21	0.00	0.00	74.56	0.43	0.00	0.00	886.81	1.20	0.00	0.00	885.61
108+50	10850.00	50.00	37.10	0.00	0.00	0.00	69.78	0.19	0.00	0.00	956.59	1.40	0.00	0.00	955.19
108+88	10888.34	38.34	32.69	0.00	0.00	0.00	49.55	0.00	0.00	0.00	1006.14	1.40	0.00	0.00	1004.75
108+88	10888.35	0.01	32.69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1006.16	1.40	0.00	0.00	1004.76
109+00	10900.00	11.65	31.53	0.00	0.00	0.00	13.85	0.00	0.00	0.00	1020.01	1.40	0.00	0.00	1018.61
109+50	10950.00	50.00	26.23	0.00	0.00	0.00	53.48	0.00	0.00	0.00	1073.49	1.40	0.00	0.00	1072.09
110+00	11000.00	50.00	31.21	11.25	0.00	0.00	53.19	10.42	0.00	0.00	1126.68	11.81	0.00	0.00	1114.86
110+50	11050.00	50.00	27.92	11.47	0.00	0.00	54.75	21.04	0.00	0.00	1181.43	32.85	0.00	0.00	1148.58
111+00	11100.00	50.00	28.73	9.22	0.00	0.00	52.45	19.16	0.00	0.00	1233.88	52.01	0.00	0.00	1181.87
111+50	11150.00	50.00	27.33	8.74	0.00	0.00	51.91	16.63	0.00	0.00	1285.79	68.64	0.00	0.00	1217.15
112+00	11200.00	50.00	27.96	11.29	0.00	0.00	51.19	18.55	0.00	0.00	1336.98	87.19	0.00	0.00	1249.80
112+50	11250.00	50.00	32.00	10.21	0.00	0.00	55.52	19.91	0.00	0.00	1392.50	107.09	0.00	0.00	1285.41
113+00	11300.00	50.00	36.19	6.71	0.00	0.00	63.14	15.67	0.00	0.00	1455.64	122.76	0.00	0.00	1332.88
113+50	11350.00	50.00	41.27	3.24	0.00	0.00	71.72	9.21	0.00	0.00	1527.36	131.97	0.00	0.00	1395.39
114+00	11400.00	50.00	44.69	6.05	0.00	0.00	79.59	8.60	0.00	0.00	1606.95	140.57	0.00	0.00	1466.38
114+50	11450.00	50.00	51.03	7.40	0.00	0.00	88.63	12.45	0.00	0.00	1695.58	153.03	0.00	0.00	1542.56
115+00	11500.00	50.00	69.07	6.74	0.00	0.00	111.20	13.09	0.00	0.00	1806.79	166.12	0.00	0.00	1640.67
115+50	11550.00	50.00	80.48	2.77	0.00	0.00	138.47	8.81	0.00	0.00	1945.26	174.93	0.00	0.00	1770.33
116+00	11600.00	50.00	98.65	0.00	0.00	0.00	165.86	2.56	0.00	0.00	2111.12	177.49	0.00	0.00	1933.63
116+50	11650.00	50.00	118.21	0.00	0.00	0.00	200.80	0.00	0.00	0.00	2311.92	177.49	0.00	0.00	2134.43
117+00	11700.00	50.00	128.28	0.00	0.00	0.00	228.23	0.00	0.00	0.00	2540.15	177.49	0.00	0.00	2362.66
117+50	11750.00	50.00	129.33	0.00	0.00	0.00	238.53	0.00	0.00	0.00	2778.68	177.49	0.00	0.00	2601.19
118+00	11800.00	50.00	131.29	0.00	0.00	0.00	241.31	0.00	0.00	0.00	3019.99	177.49	0.00	0.00	2842.50
118+50	11850.00	50.00	100.59	0.00	0.00	0.00	214.70	0.00	0.00	0.00	3234.70	177.49	0.00	0.00	3057.20
119+00	11900.00	50.00	86.32	0.00	0.00	0.00	173.06	0.00	0.00	0.00	3407.76	177.49	0.00	0.00	3230.27
119+50	11950.00	50.00	46.46	0.00	0.00	0.00	122.94	0.00	0.00	0.00	3530.70	177.49	0.00	0.00	3353.21
120+00	12000.00	50.00	121.38	9.15	0.00	0.00	155.41	8.47	0.00	0.00	3686.11	185.96	0.00	0.00	3500.15
120+50	12050.00	50.00	127.76	0.43	0.00	0.00	230.69	8.87	0.00	0.00	3916.80	194.83	0.00	0.00	3721.96
121+00	12100.00	50.00	126.69	0.00	0.00	0.00	235.60	0.40	0.00	0.00	4152.40	195.23	0.00	0.00	3957.17
121+50	12150.00	50.00	125.65	0.00	0.00	0.00	233.65	0.00	0.00	0.00	4386.05	195.23	0.00	0.00	4190.82
122+00	12200.00	50.00	128.69	0.00	0.00	0.00	235.50	0.00	0.00	0.00	4621.55	195.23	0.00	0.00	4426.32
122+50	12250.00	50.00	118.47	0.25	0.00	0.00	228.85	0.23	0.00	0.00	4850.40	195.46	0.00	0.00	4654.94
123+00	12300.00	50.00	0.00	0.00	0.00	0.00	109.69	0.23	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
123+50	12350.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
124+00	12400.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
124+50	12450.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40

PROJECT ID 1517-07-79

DIVISION 2B - EB (continued from previous page)

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
125+00	12500.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
125+50	12550.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
126+00	12600.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
126+50	12650.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
127+00	12700.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
127+50	12750.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
127+82	12781.97	31.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4960.09	195.69	0.00	0.00	4764.40
128+00	12800.00	18.03	32.13	0.00	0.00	0.00	10.73	0.00	0.00	0.00	4970.82	195.69	0.00	0.00	4775.13
128+07	12806.97	6.97	32.36	0.00	0.00	0.00	8.32	0.00	0.00	0.00	4979.15	195.69	0.00	0.00	4783.45
128+32	12831.97	25.00	33.67	0.00	0.00	0.00	30.57	0.00	0.00	0.00	5009.72	195.69	0.00	0.00	4814.02
128+50	12850.00	18.03	26.18	0.00	0.00	0.00	19.98	0.00	0.00	0.00	5029.70	195.69	0.00	0.00	4834.00
129+00	12900.00	50.00	49.75	0.00	0.00	0.00	70.31	0.00	0.00	0.00	5100.00	195.69	0.00	0.00	4904.31
129+50	12950.00	50.00	55.23	0.00	0.00	0.00	97.20	0.00	0.00	0.00	5197.21	195.69	0.00	0.00	5001.51
130+00	13000.00	50.00	185.09	0.00	0.00	0.00	222.52	0.00	0.00	0.00	5419.73	195.69	0.00	0.00	5224.03
130+50	13050.00	50.00	164.89	0.00	0.00	0.00	324.06	0.00	0.00	0.00	5743.78	195.69	0.00	0.00	5548.09
131+00	13100.00	50.00	160.66	0.00	0.00	0.00	301.44	0.00	0.00	0.00	6045.22	195.69	0.00	0.00	5849.52
131+10	13110.00	10.00	124.39	1301.35	0.00	0.00	52.79	240.99	0.00	0.00	6098.00	436.69	0.00	0.00	5661.32
131+50	13150.00	40.00	111.05	1252.20	0.00	0.00	174.40	1891.52	0.00	0.00	6272.40	2328.20	0.00	0.00	3944.20
131+75	13175.00	25.00	102.10	1231.08	0.00	0.00	98.68	1149.67	0.00	0.00	6371.08	3477.87	0.00	0.00	2893.21
132+00	13200.00	25.00	63.98	976.72	0.00	0.00	76.89	1022.13	0.00	0.00	6447.97	4500.00	0.00	0.00	1947.97
132+50 BK	13250.00	50.00	0.00	0.00	0.00	0.00	59.24	904.37	0.00	0.00	6507.21	5404.37	0.00	0.00	1102.84
						Column totals	6507	5404	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 2B - TWS RAMP

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
108+76	AH	10875.79	0.00	83.01	14.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109+00		10900.00	24.21	85.71	6.35	0.00	0.00	75.64	9.46	0.00	0.00	75.64	9.46	0.00	0.00	66.19
109+50		10950.00	50.00	70.77	8.04	0.00	0.00	144.89	13.32	0.00	0.00	220.53	22.78	0.00	0.00	197.75
110+00		11000.00	50.00	66.22	8.78	0.00	0.00	126.84	15.57	0.00	0.00	347.37	38.35	0.00	0.00	309.02
110+25	BK	11025.00	25.00	90.00	10.00	0.00	0.00	72.32	8.69	0.00	0.00	419.70	47.05	0.00	0.00	372.65
111+50	AH	11150.00	0.00	462.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111+75		11175.00	25.00	102.48	20.00	0.00	0.00	261.67	9.26	0.00	0.00	261.67	9.26	0.00	0.00	252.41
112+00		11200.00	25.00	0.00	296.37	0.00	0.00	47.44	146.47	0.00	0.00	309.11	155.73	0.00	0.00	153.38
112+50		11250.00	50.00	4.01	82.08	0.00	0.00	3.71	350.42	0.00	0.00	312.82	506.14	0.00	0.00	-193.32
113+00		11300.00	50.00	29.89	28.46	0.00	0.00	31.39	102.35	0.00	0.00	344.21	608.50	0.00	0.00	-264.28
113+50		11350.00	50.00	21.82	47.23	0.00	0.00	47.88	70.08	0.00	0.00	392.09	678.58	0.00	0.00	-286.49
114+00		11400.00	50.00	51.83	34.71	0.00	0.00	68.19	75.87	0.00	0.00	460.29	754.45	0.00	0.00	-294.16
114+50		11450.00	50.00	55.57	21.20	0.00	0.00	99.44	51.77	0.00	0.00	559.73	806.22	0.00	0.00	-246.49
115+00		11500.00	50.00	49.99	18.13	0.00	0.00	97.74	36.42	0.00	0.00	657.47	842.63	0.00	0.00	-185.16
115+50		11550.00	50.00	50.53	23.46	0.00	0.00	93.07	38.51	0.00	0.00	750.55	881.14	0.00	0.00	-130.60
116+00		11600.00	50.00	49.80	22.17	0.00	0.00	92.90	42.25	0.00	0.00	843.44	923.39	0.00	0.00	-79.95
116+50		11650.00	50.00	49.31	19.20	0.00	0.00	91.77	38.31	0.00	0.00	935.21	961.70	0.00	0.00	-26.49
117+00		11700.00	50.00	48.05	16.34	0.00	0.00	90.15	32.91	0.00	0.00	1025.36	994.61	0.00	0.00	30.75
117+50		11750.00	50.00	46.19	20.93	0.00	0.00	87.26	34.51	0.00	0.00	1112.62	####	0.00	0.00	83.50
118+00		11800.00	50.00	44.63	20.26	0.00	0.00	84.09	38.14	0.00	0.00	1196.71	####	0.00	0.00	129.46
118+50		11850.00	50.00	41.41	18.76	0.00	0.00	79.67	36.13	0.00	0.00	1276.38	####	0.00	0.00	173.00
119+00		11900.00	50.00	42.01	16.56	0.00	0.00	77.24	32.70	0.00	0.00	1353.62	####	0.00	0.00	217.53
119+50		11950.00	50.00	37.78	17.31	0.00	0.00	73.88	31.36	0.00	0.00	1427.50	####	0.00	0.00	260.05
120+00		12000.00	50.00	33.70	16.37	0.00	0.00	66.19	31.19	0.00	0.00	1493.69	####	0.00	0.00	295.05
120+50		12050.00	50.00	32.26	14.77	0.00	0.00	61.07	28.83	0.00	0.00	1554.76	####	0.00	0.00	327.29
121+00		12100.00	50.00	37.10	11.06	0.00	0.00	64.22	23.92	0.00	0.00	1618.98	####	0.00	0.00	367.60
121+50		12150.00	50.00	36.96	10.65	0.00	0.00	68.57	20.10	0.00	0.00	1687.56	####	0.00	0.00	416.07
122+00		12200.00	50.00	35.25	10.90	0.00	0.00	66.86	19.95	0.00	0.00	1754.42	####	0.00	0.00	462.98
122+50		12250.00	50.00	38.84	15.66	0.00	0.00	68.60	24.59	0.00	0.00	1823.02	####	0.00	0.00	506.99
122+79		12279.00	29.00	43.48	21.87	0.00	0.00	44.21	20.16	0.00	0.00	1867.23	####	0.00	0.00	531.04
123+00		12300.00	21.00	42.79	20.84	0.00	0.00	33.55	16.61	0.00	0.00	1900.78	####	0.00	0.00	547.98
123+50		12350.00	50.00	34.69	20.28	0.00	0.00	71.74	38.07	0.00	0.00	1972.52	####	0.00	0.00	581.65
124+00		12400.00	50.00	33.56	24.79	0.00	0.00	63.19	41.73	0.00	0.00	2035.71	####	0.00	0.00	603.11
124+50		12450.00	50.00	54.62	15.11	0.00	0.00	81.65	36.94	0.00	0.00	2117.36	####	0.00	0.00	647.81
125+00		12500.00	50.00	51.27	7.24	0.00	0.00	98.05	20.69	0.00	0.00	2215.41	####	0.00	0.00	725.17
125+50	BK	12550.00	50.00	63.89	17.76	0.00	0.00	106.63	23.15	0.00	0.00	2322.04	####	0.00	0.00	808.65
							Column totals	2742	1560	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 3 - EB

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
141+50 AH	14150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142+50	14250.00	100.00	30.82	176.48	0.00	0.00	57.07	326.81	0.00	0.00	57.07	326.81	0.00	0.00	-269.74
142+75	14275.00	25.00	23.06	168.49	0.00	0.00	24.94	159.71	0.00	0.00	82.02	486.52	0.00	0.00	-404.50
143+00	14300.00	25.00	13.24	186.36	0.00	0.00	16.81	164.28	0.00	0.00	98.82	650.81	0.00	0.00	-551.98
143+50	14350.00	50.00	12.88	164.94	0.00	0.00	24.19	325.28	0.00	0.00	123.01	976.08	0.00	0.00	-853.07
144+00	14400.00	50.00	13.31	144.21	0.00	0.00	24.25	286.25	0.00	0.00	147.26	1262.33	0.00	0.00	-1115.07
144+50	14450.00	50.00	13.36	147.01	0.00	0.00	24.69	269.65	0.00	0.00	171.95	1531.98	0.00	0.00	-1360.03
145+00	14500.00	50.00	13.39	147.20	0.00	0.00	24.77	272.42	0.00	0.00	196.72	1804.40	0.00	0.00	-1607.68
145+50	14550.00	50.00	13.54	147.64	0.00	0.00	24.94	273.00	0.00	0.00	221.66	2077.40	0.00	0.00	-1855.74
146+00	14600.00	50.00	11.98	159.02	0.00	0.00	23.63	283.94	0.00	0.00	245.29	2361.34	0.00	0.00	-2116.06
146+50	14650.00	50.00	11.98	167.33	0.00	0.00	22.19	302.18	0.00	0.00	267.47	2663.52	0.00	0.00	-2396.05
146+54 BK	14653.94	3.94	0.65	172.28	0.00	0.00	0.92	24.78	0.00	0.00	268.39	2688.30	0.00	0.00	-2419.90
						Column totals	268	2688	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 4 - EB

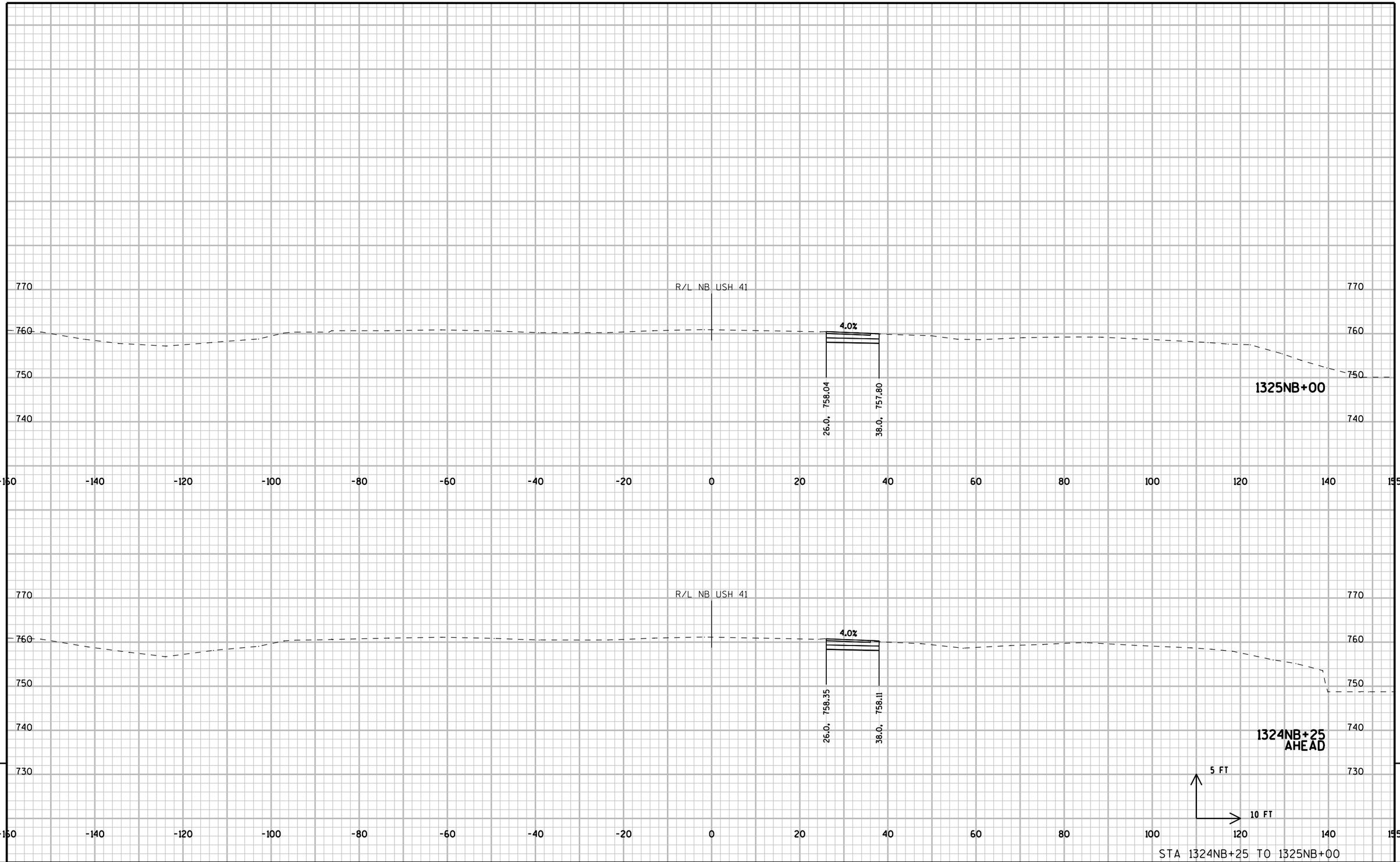
STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
122+50 AH	12250.00	0.00	92.62	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123+00	12300.00	50.00	104.16	0.87	0.00	0.00	182.20	1.04	0.00	0.00	182.20	1.04	0.00	0.00	181.17
123+50	12350.00	50.00	82.73	1.48	0.00	0.00	173.05	2.18	0.00	0.00	355.25	3.21	0.00	0.00	352.04
124+00	12400.00	50.00	79.14	1.66	0.00	0.00	149.88	2.91	0.00	0.00	505.13	6.12	0.00	0.00	499.01
124+50	12450.00	50.00	107.28	0.00	0.00	0.00	172.61	1.54	0.00	0.00	677.74	7.66	0.00	0.00	670.08
125+00	12500.00	50.00	90.61	0.00	0.00	0.00	183.23	0.00	0.00	0.00	860.97	7.66	0.00	0.00	853.31
125+50	12550.00	50.00	91.34	0.00	0.00	0.00	168.47	0.00	0.00	0.00	1029.44	7.66	0.00	0.00	1021.79
126+00	12600.00	50.00	96.38	0.00	0.00	0.00	173.81	0.00	0.00	0.00	1203.26	7.66	0.00	0.00	1195.60
126+50	12650.00	50.00	104.31	0.00	0.00	0.00	185.82	0.00	0.00	0.00	1389.08	7.66	0.00	0.00	1381.43
127+00	12700.00	50.00	116.17	0.00	0.00	0.00	204.15	0.00	0.00	0.00	1593.23	7.66	0.00	0.00	1585.57
127+50	12750.00	50.00	134.34	0.00	0.00	0.00	231.95	0.00	0.00	0.00	1825.19	7.66	0.00	0.00	1817.53
127+82	12781.97	31.97	149.89	0.00	0.00	0.00	168.27	0.00	0.00	0.00	1993.46	7.66	0.00	0.00	1985.80
128+00	12800.00	18.03	144.83	0.00	0.00	0.00	98.40	0.00	0.00	0.00	2091.86	7.66	0.00	0.00	2084.21
128+07	12806.97	6.97	143.13	0.00	0.00	0.00	37.17	0.00	0.00	0.00	2129.03	7.66	0.00	0.00	2121.37
128+32	12831.97	25.00	142.75	0.00	0.00	0.00	132.35	0.00	0.00	0.00	2261.38	7.66	0.00	0.00	2253.73
128+50	12850.00	18.03	144.16	0.00	0.00	0.00	95.80	0.00	0.00	0.00	2357.18	7.66	0.00	0.00	2349.52
129+00	12900.00	50.00	144.61	0.00	0.00	0.00	267.38	0.00	0.00	0.00	2624.56	7.66	0.00	0.00	2616.90
129+50 BK	12950.00	50.00	138.43	0.00	0.00	0.00	262.07	0.00	0.00	0.00	2886.63	7.66	0.00	0.00	2878.98
						Column totals	2887	8	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 5 - TWS (1)

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
110+25	AH	11025.00	0.00	90.00	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110+50		11050.00	25.00	104.79	14.67	0.00	0.00	90.18	11.42	0.00	0.00	90.18	11.42	0.00	0.00	78.76
111+00		11100.00	50.00	215.20	0.48	0.00	0.00	296.29	14.03	0.00	0.00	386.47	25.45	0.00	0.00	361.02
111+30		11130.00	30.00	300.60	0.00	0.00	0.00	286.56	0.27	0.00	0.00	673.02	25.72	0.00	0.00	647.31
111+50	BK	11150.00	20.00	462.72	0.00	0.00	0.00	282.71	0.00	0.00	0.00	955.73	25.72	0.00	0.00	930.02
							Column totals	956	26	0.00	0.00					

PROJECT ID 1517-07-79
DIVISION 5 - TWS (2)

STATION		Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
				Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
125+50	AH	12550.00	0.00	63.89	17.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126+00		12600.00	50.00	68.58	9.69	0.00	0.00	122.66	25.42	0.00	0.00	122.66	25.42	0.00	0.00	97.24
126+50		12650.00	50.00	67.67	3.95	0.00	0.00	126.16	12.63	0.00	0.00	248.81	38.05	0.00	0.00	210.77
127+00		12700.00	50.00	68.99	0.83	0.00	0.00	126.54	4.43	0.00	0.00	375.35	42.47	0.00	0.00	332.88
127+15	BK	12715.00	15.00	68.83	1.02	0.00	0.00	38.28	0.51	0.00	0.00	413.64	42.99	0.00	0.00	370.65
							Column totals	414	43	0.00	0.00					



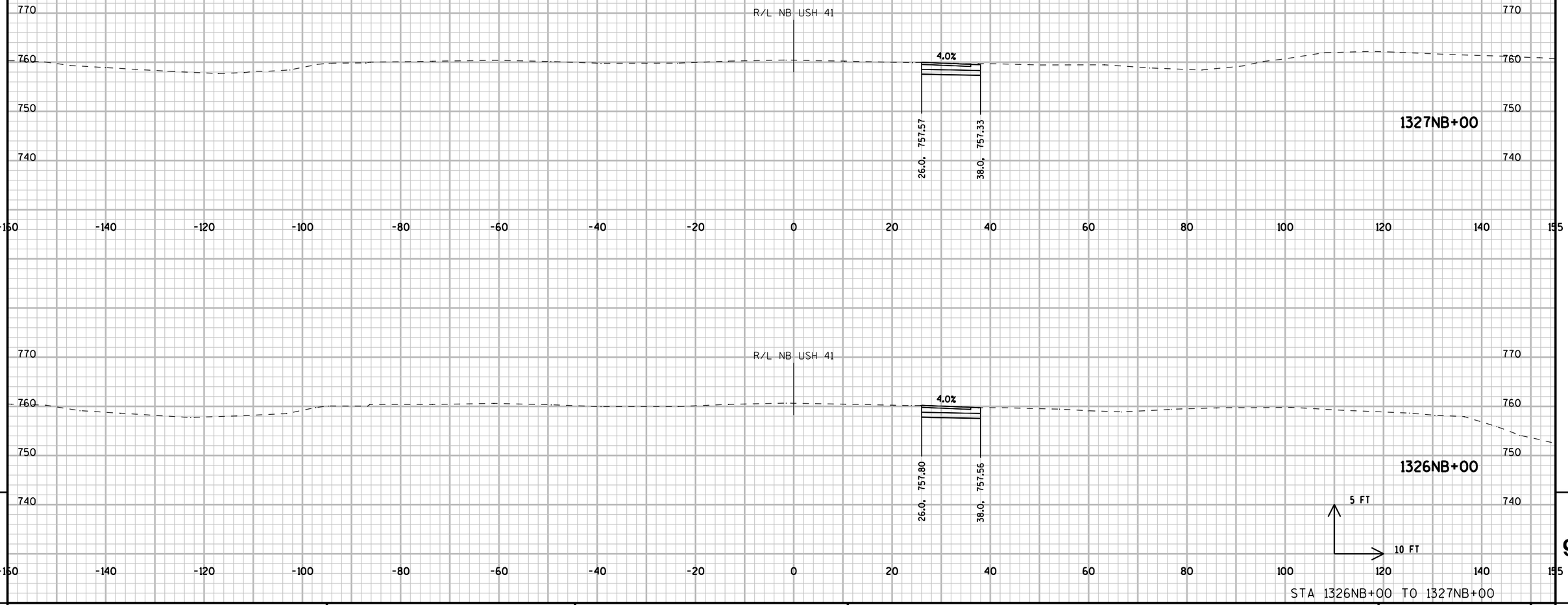
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET	E

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WISDOT/CADDS SHEET 21



STA 1326NB+00 TO 1327NB+00

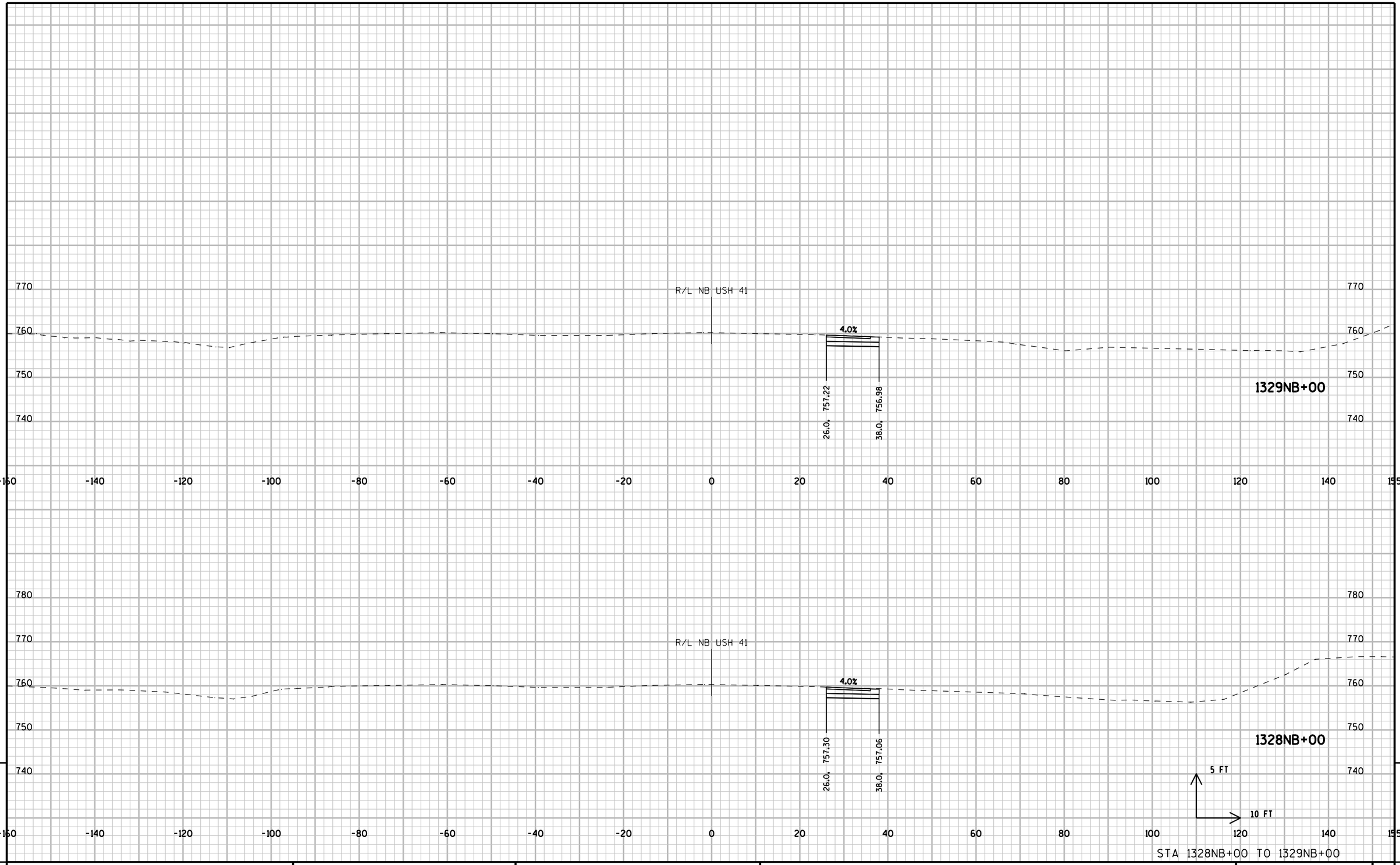
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 534	E

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WISDOT/CADDS SHEET 21



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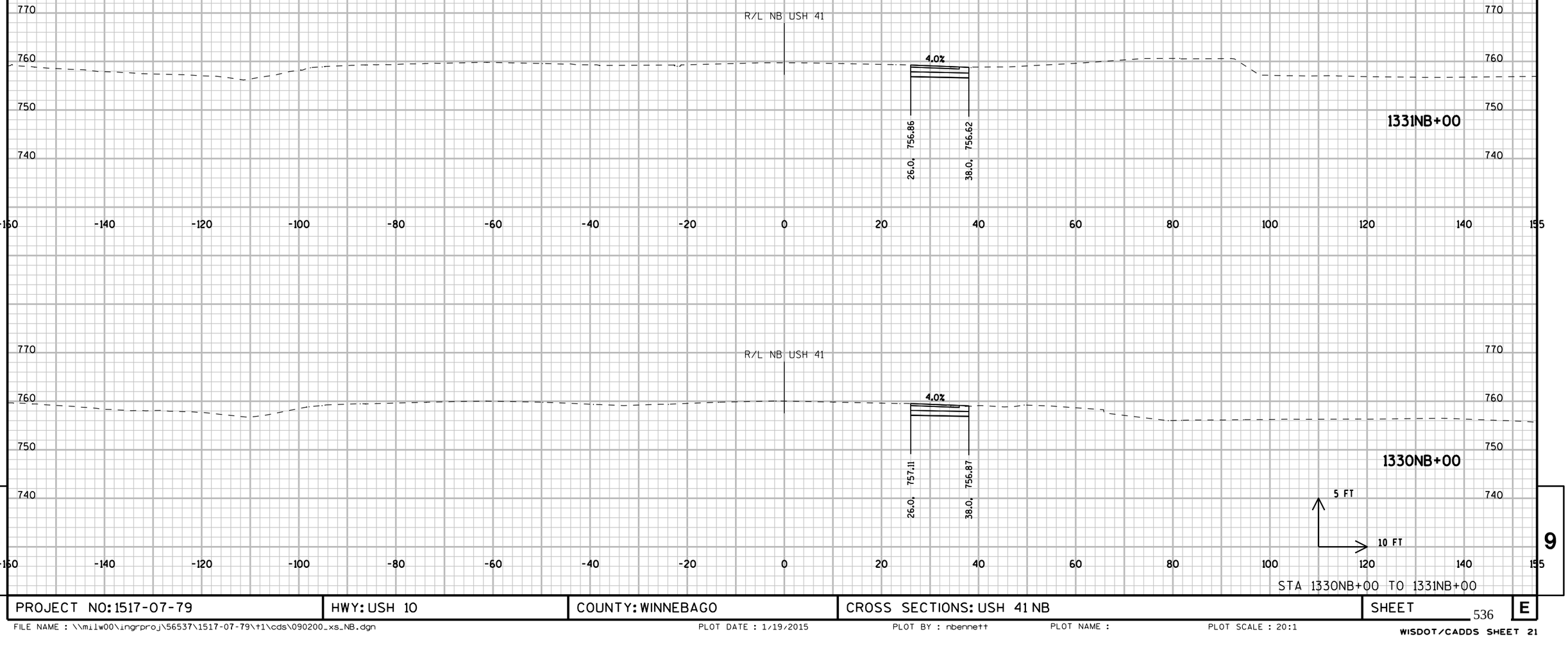
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STA 1328NB+00 TO 1329NB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 535	E

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WISDOT/CADDS SHEET 21



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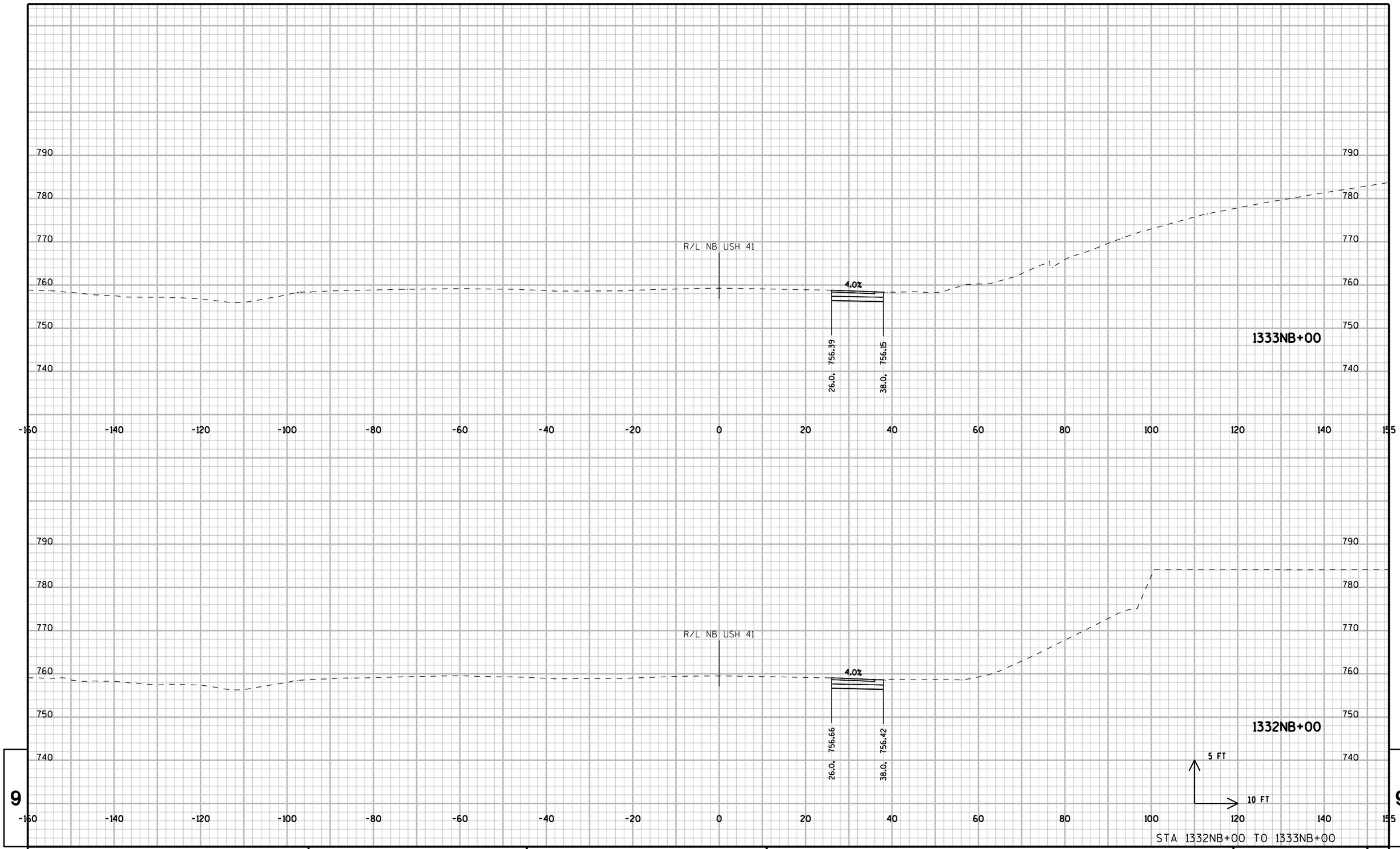
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STA 1330NB+00 TO 1331NB+00

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WISDOT/CADDS SHEET 21



STA 1332NB+00 TO 1333NB+00

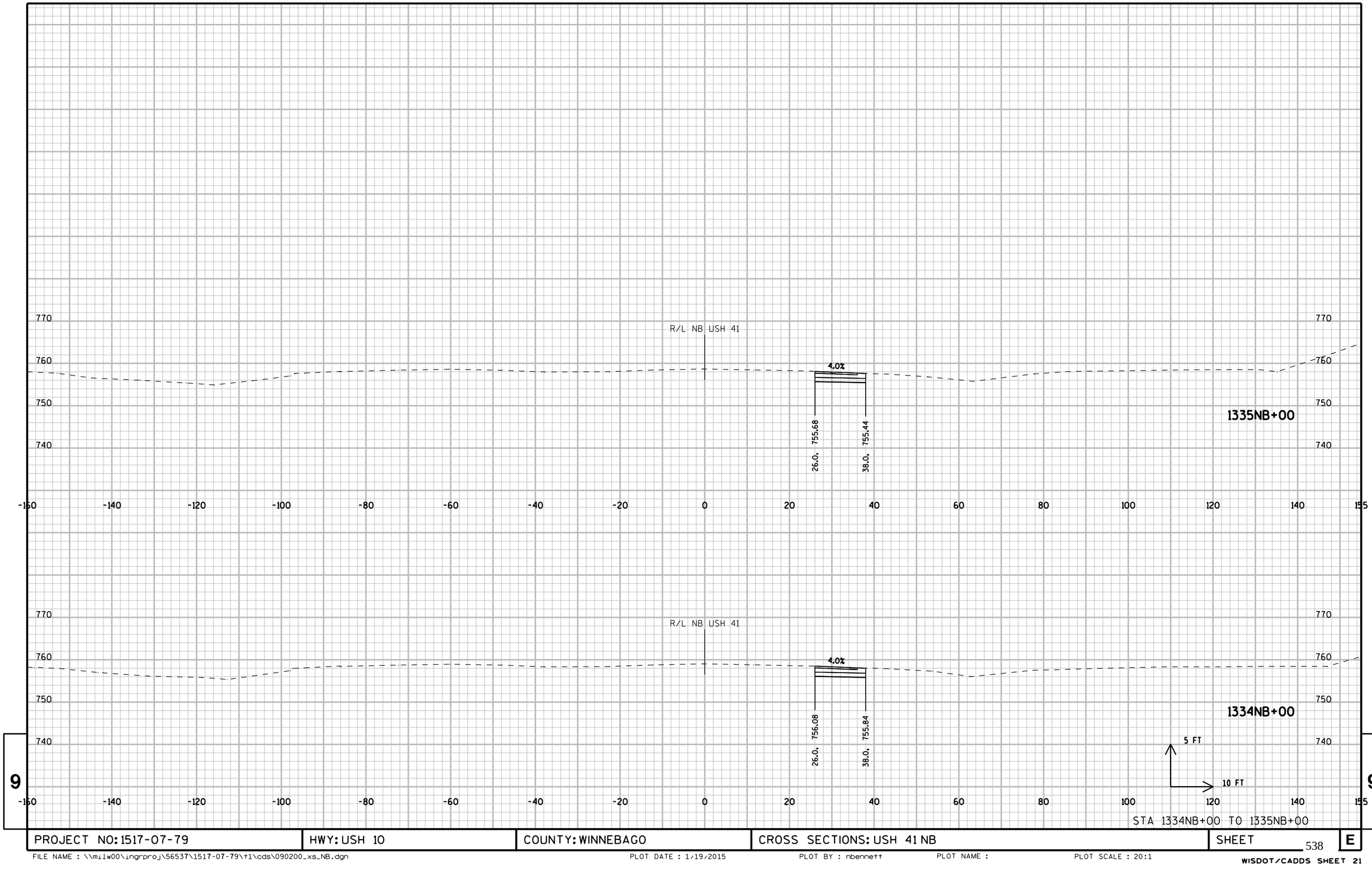
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 537	E

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WISDOT/CADDS SHEET 21



9

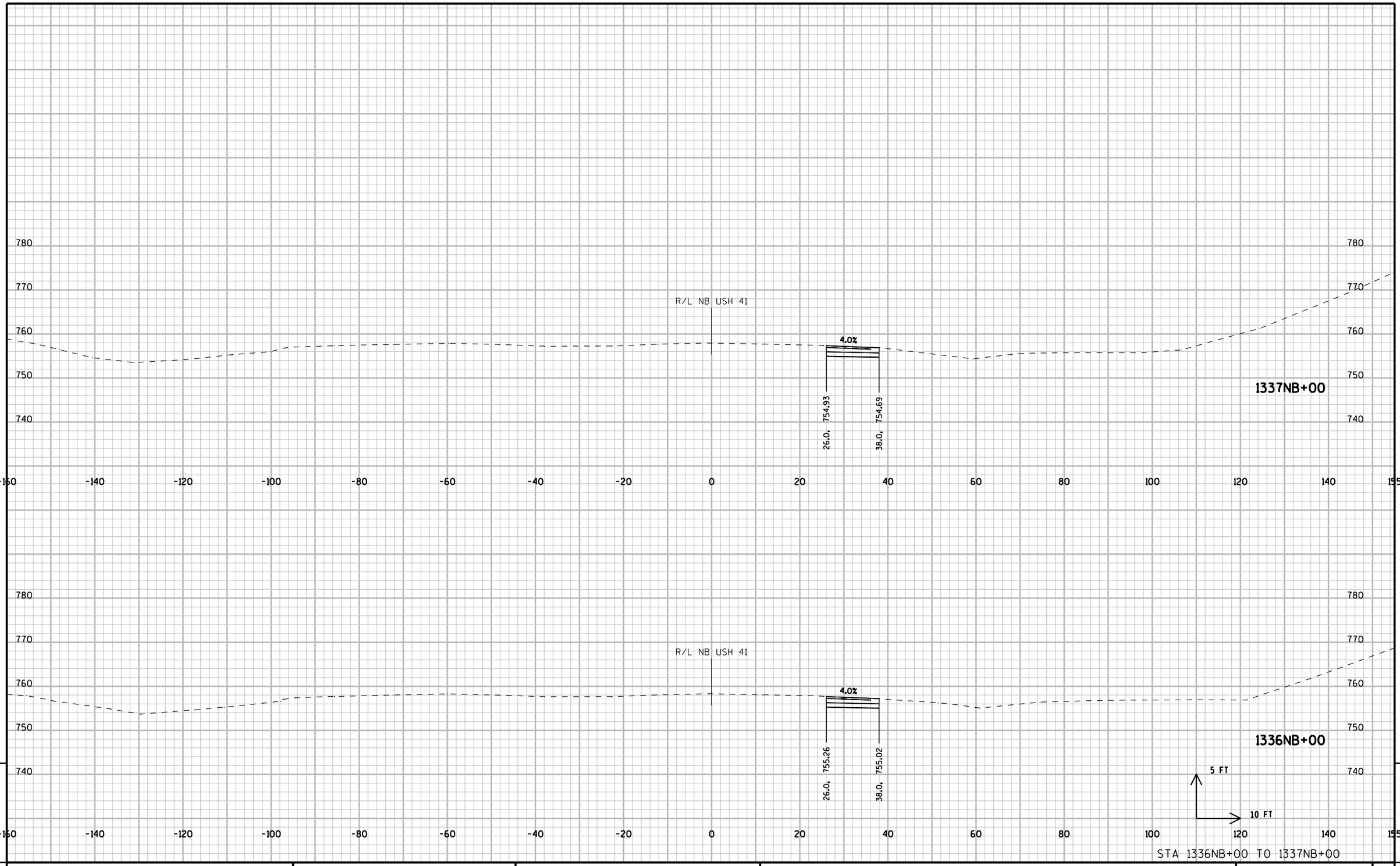
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STA 1334NB+00 TO 1335NB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET	E

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WISDOT/CADDS SHEET 21



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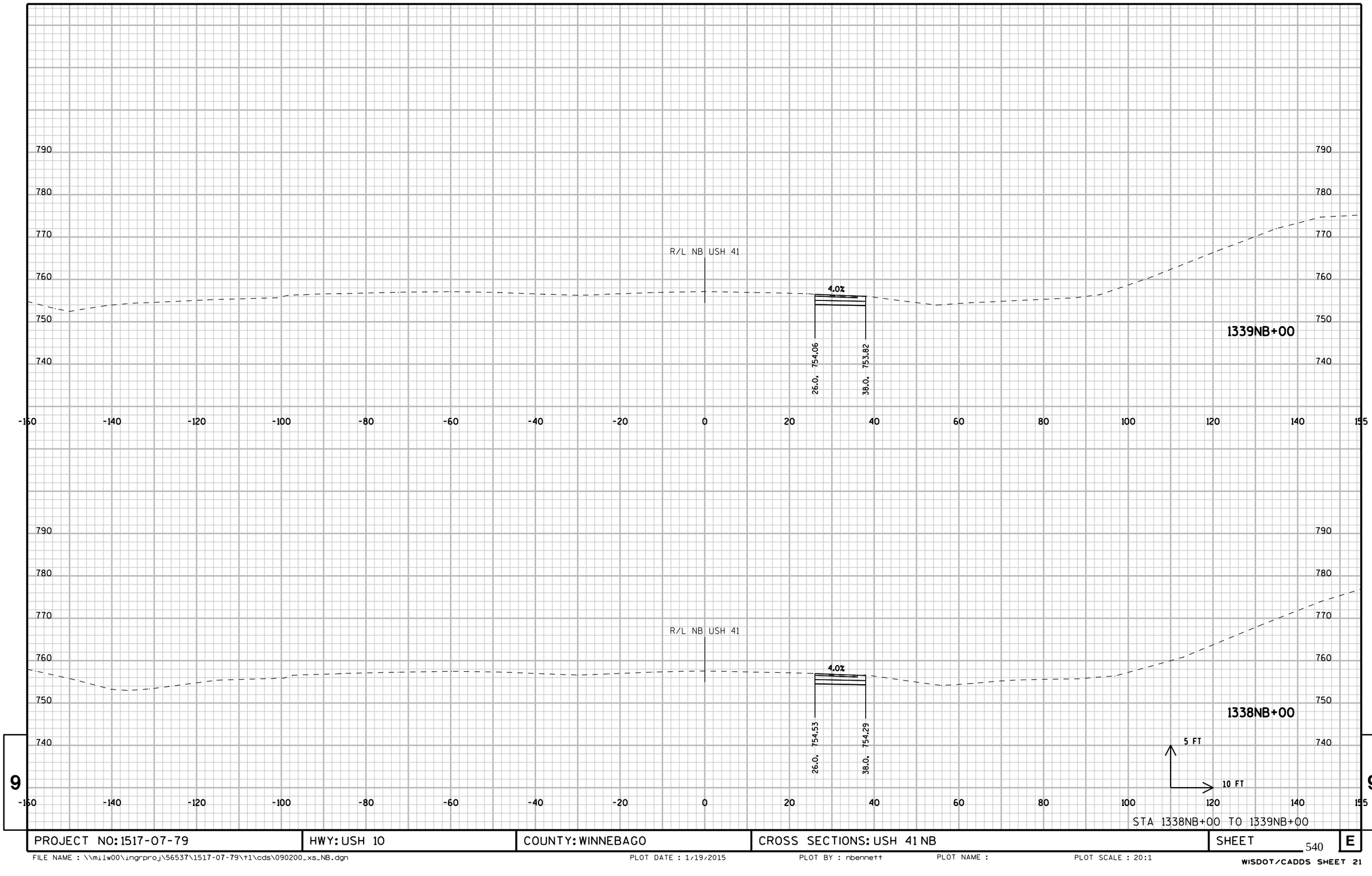
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STA 1336NB+00 TO 1337NB+00

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WISDOT/CADDS SHEET 21



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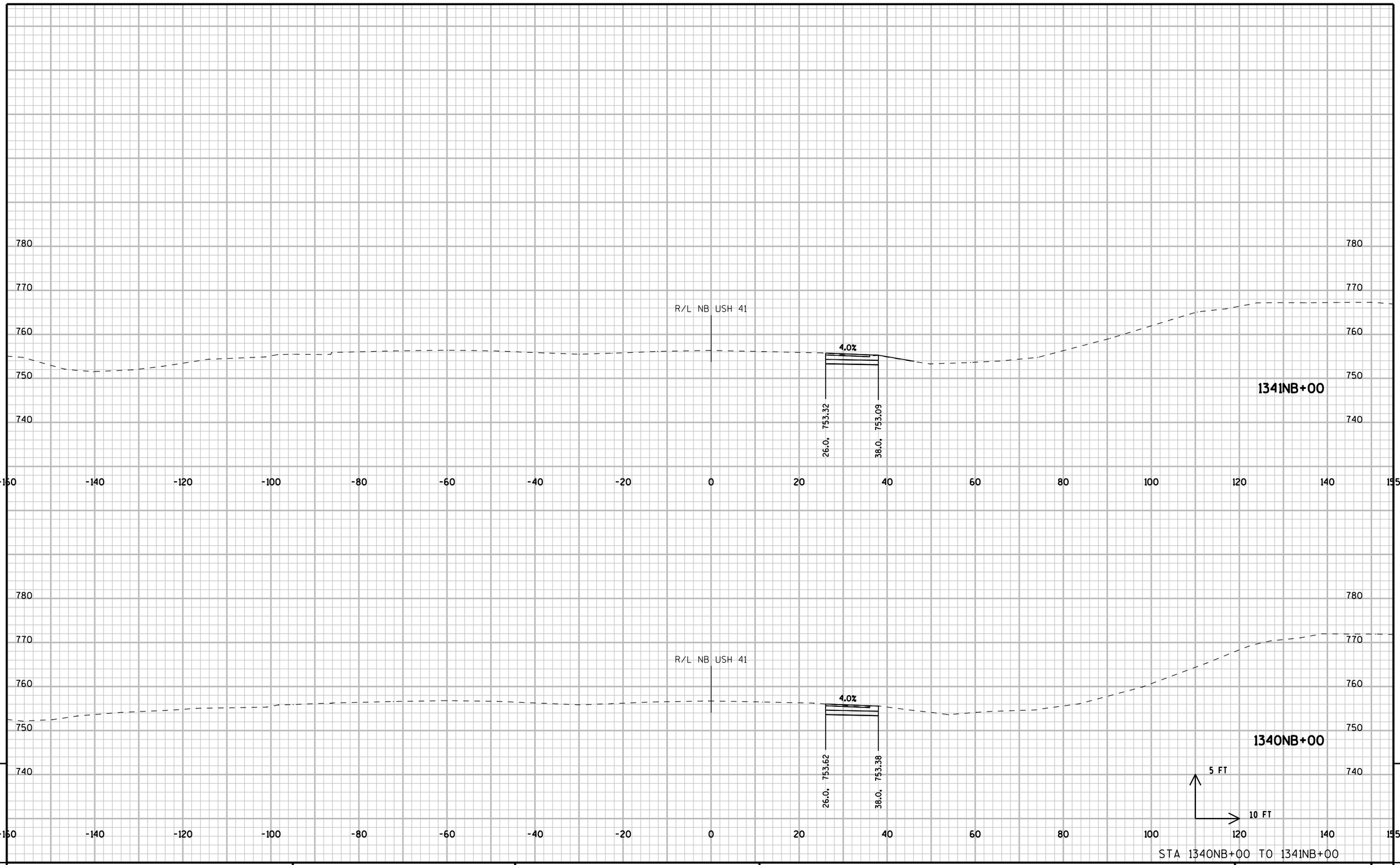
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STA 1338NB+00 TO 1339NB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 540	E

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WISDOT/CADDS SHEET 21



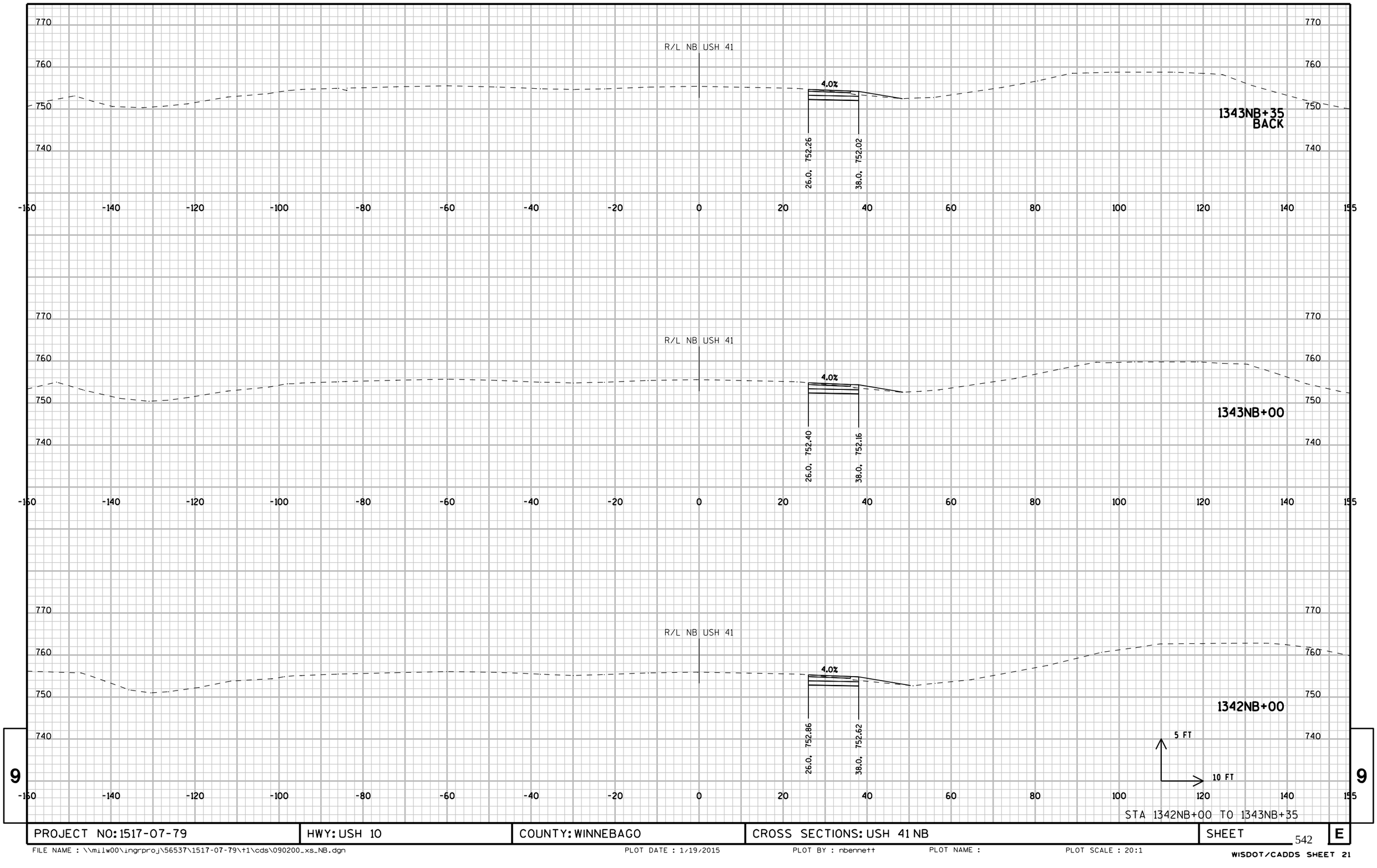
STA 1340NB+00 TO 1341NB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 541	E

9 9

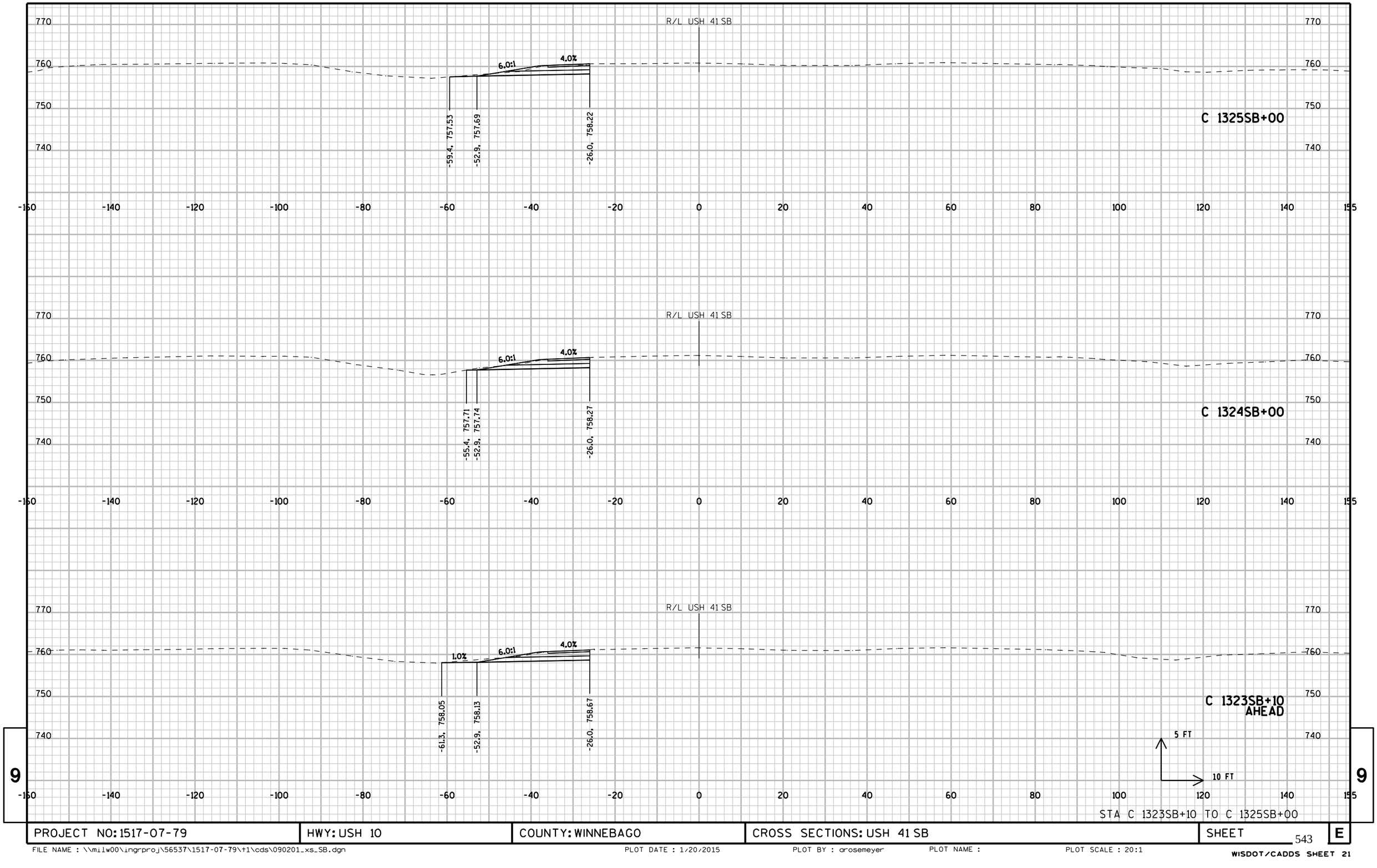
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WISDOT/CADDS SHEET 21



STA 1342NB+00 TO 1343NB+35

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 NB	SHEET 542	E

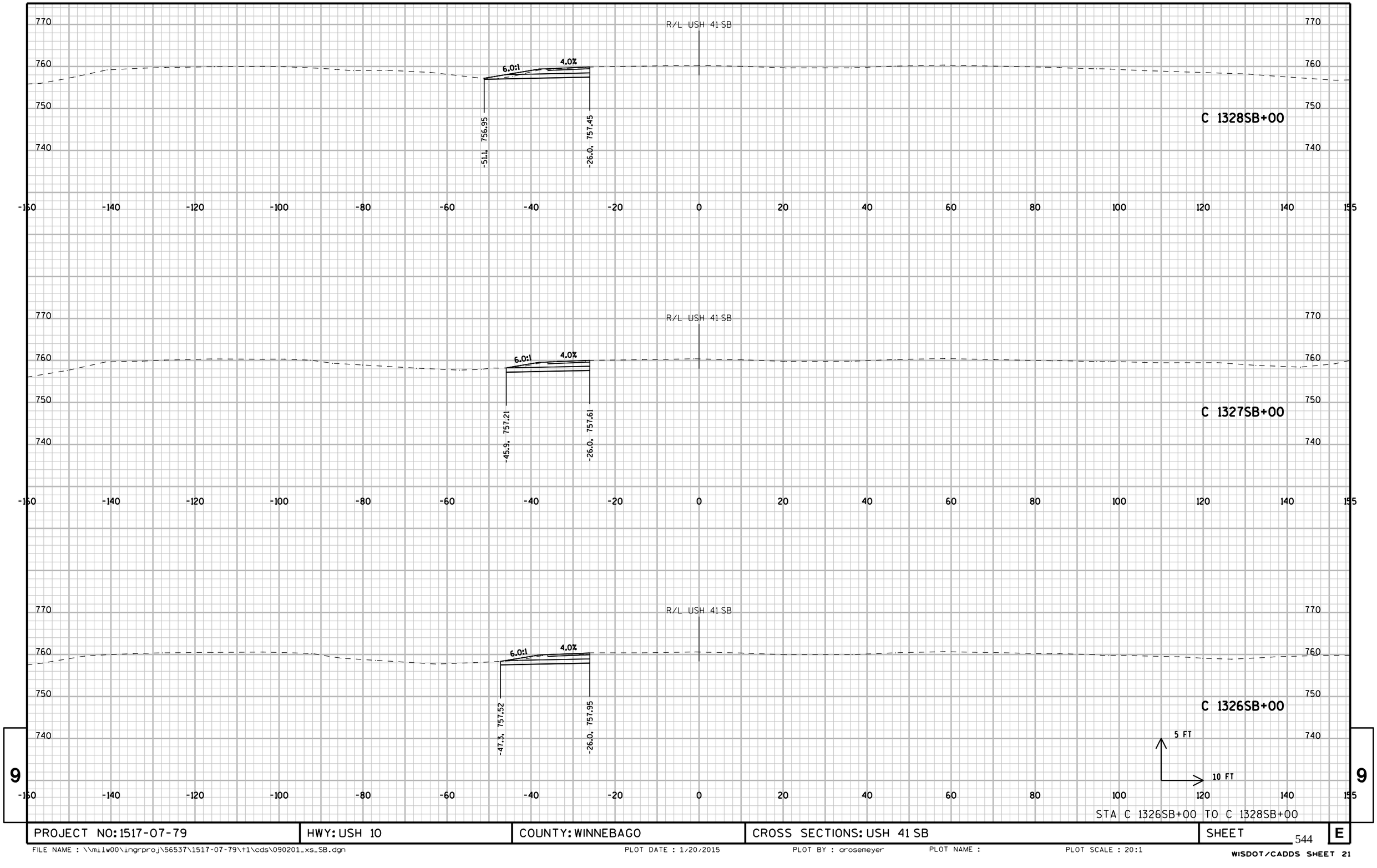


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STA C 1323SB+10 TO C 1325SB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET 543	E

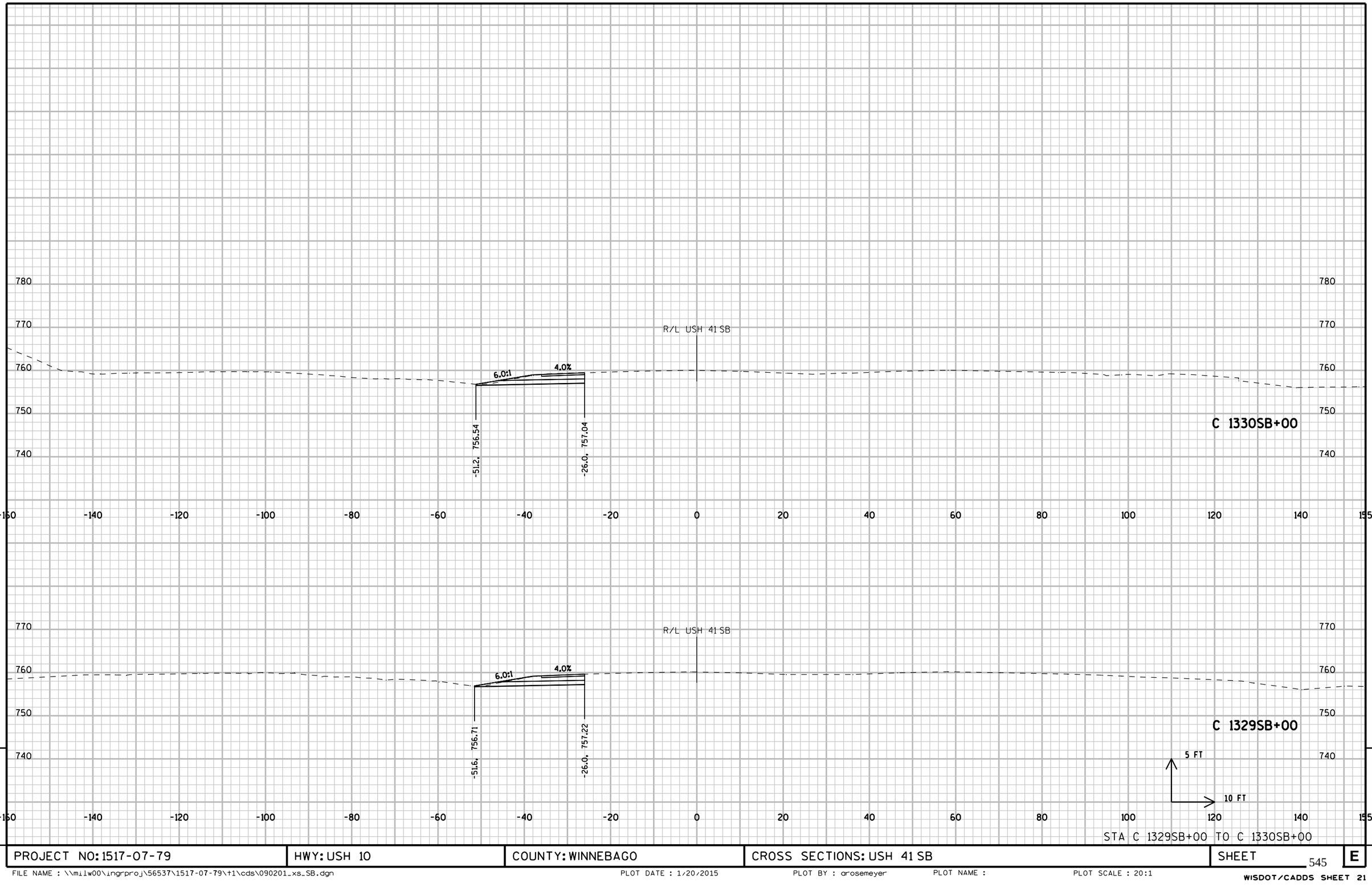


STA C 1326SB+00 TO C 1328SB+00

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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET 544	E



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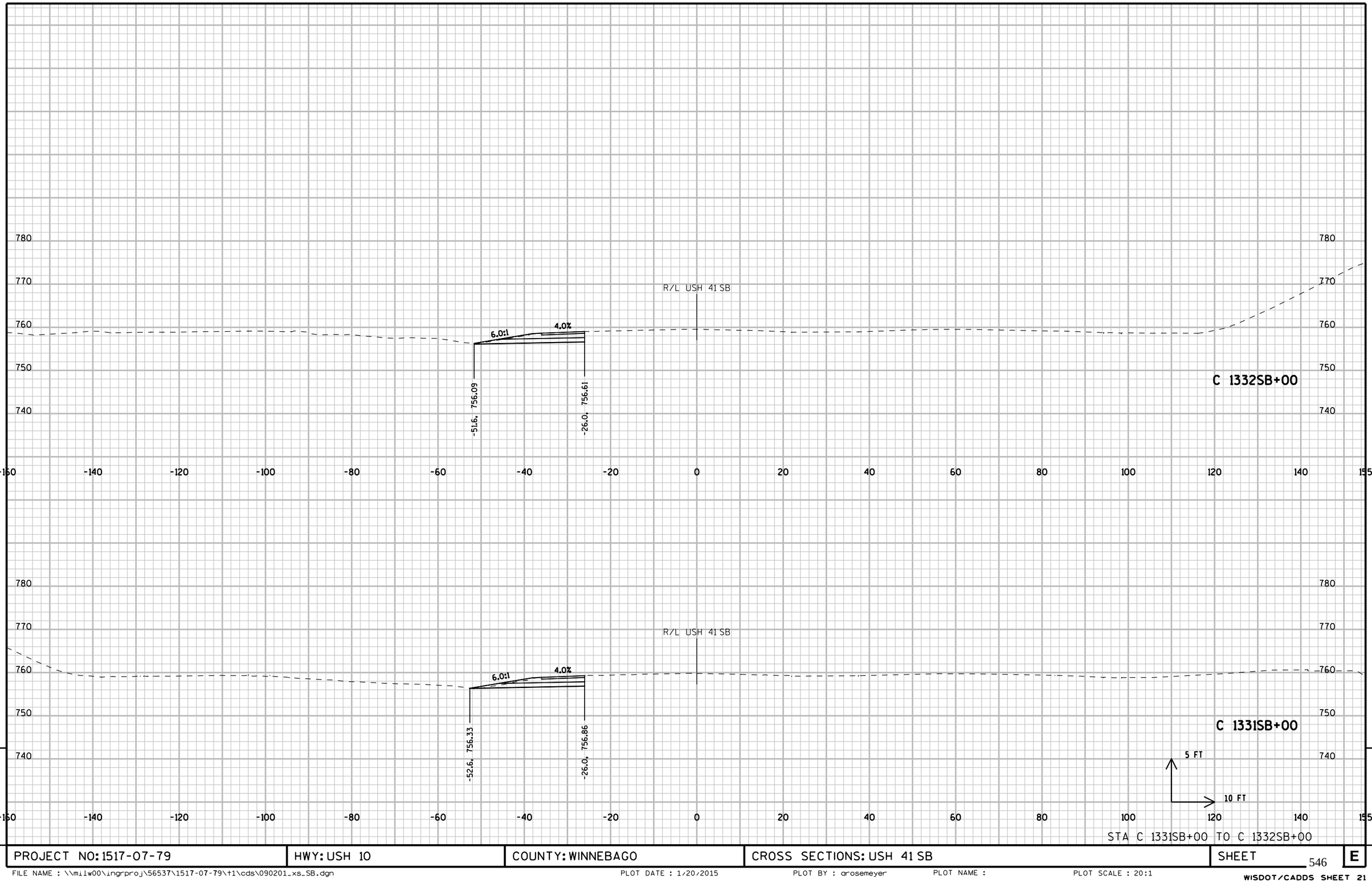
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STA C 1329SB+00 TO C 1330SB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090201_xs_SB.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

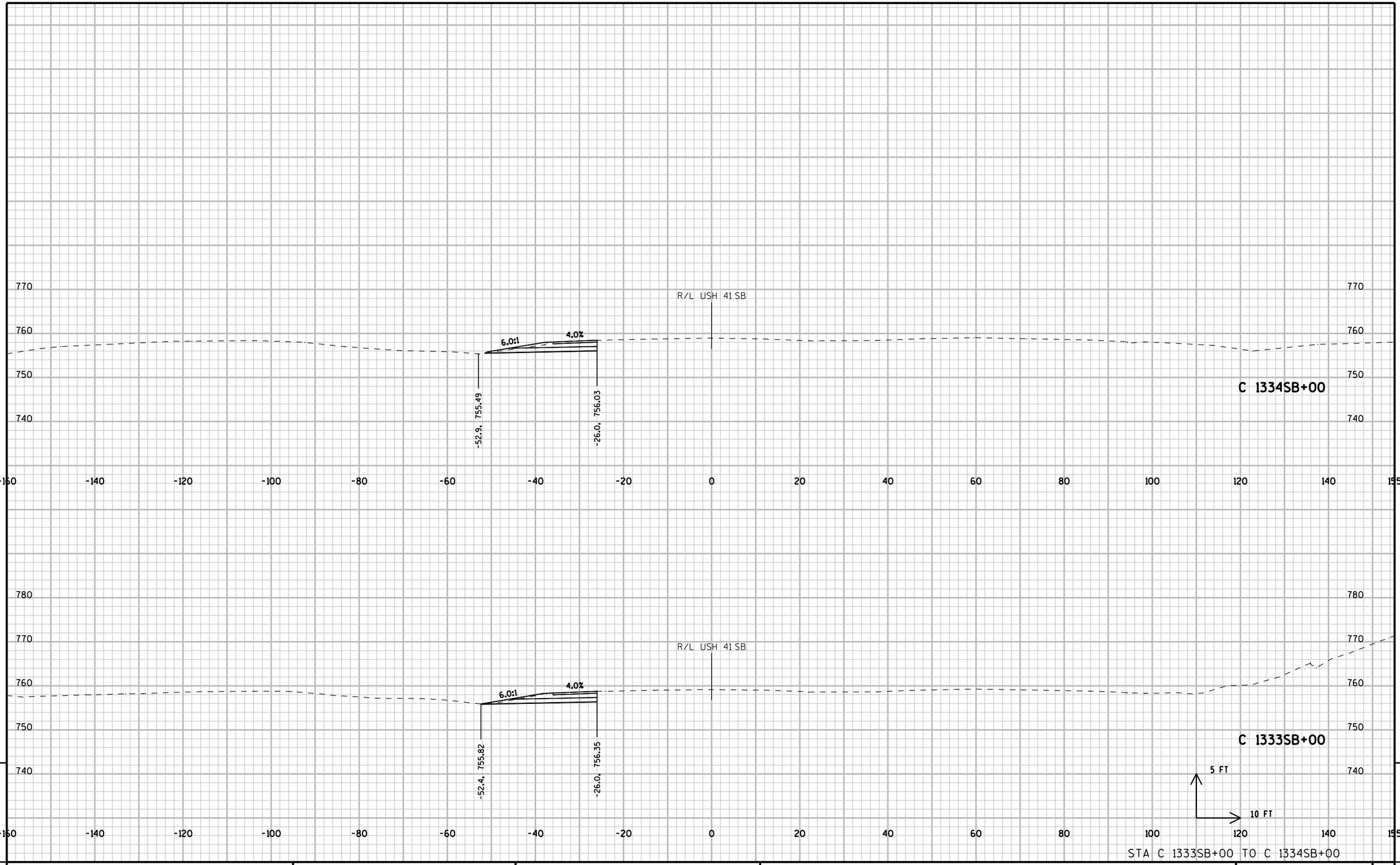


STA C 1331SB+00 TO C 1332SB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090201_xs_SB.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

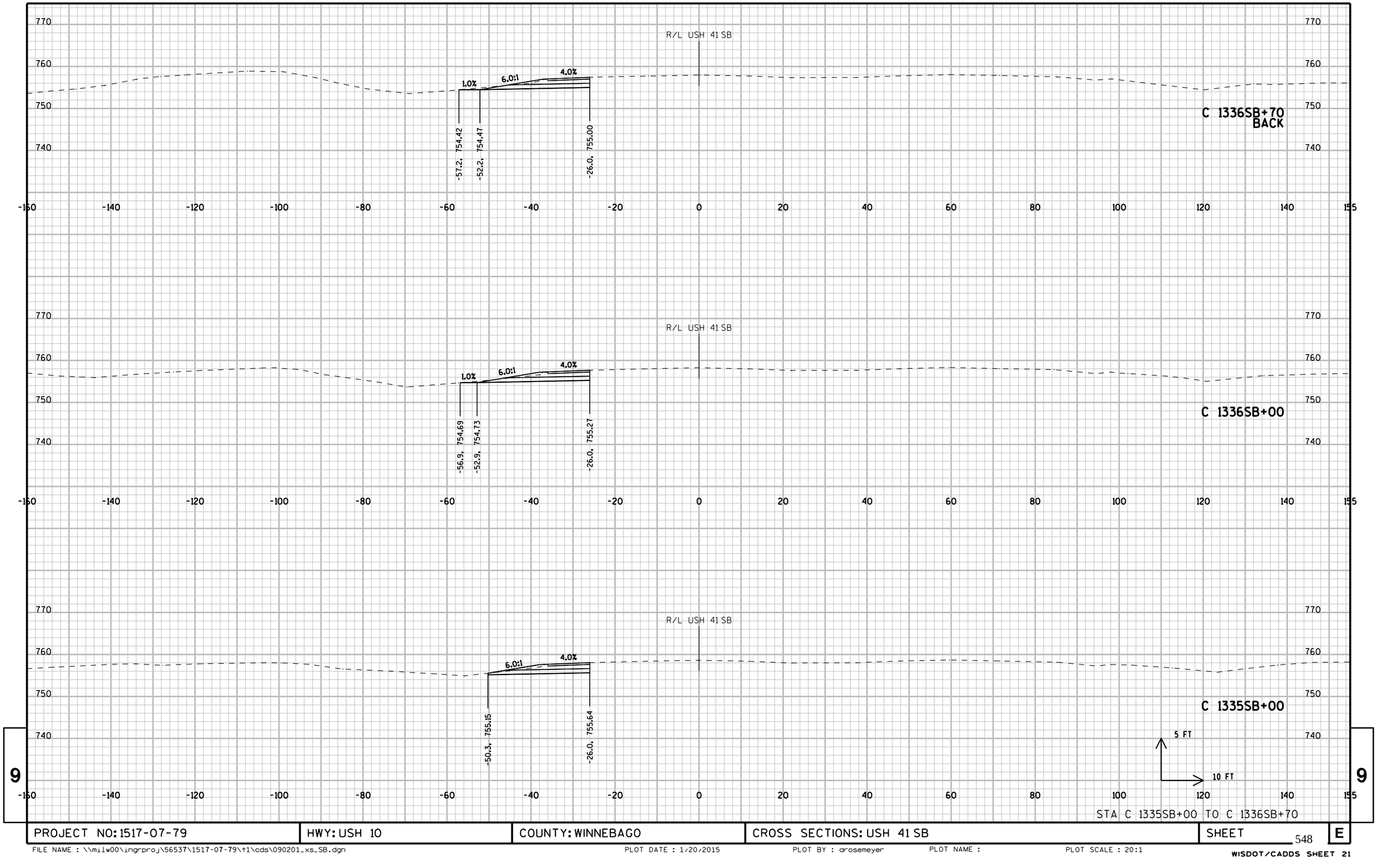


STA C 1333SB+00 TO C 1334SB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET 547	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090201_xs_SB.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



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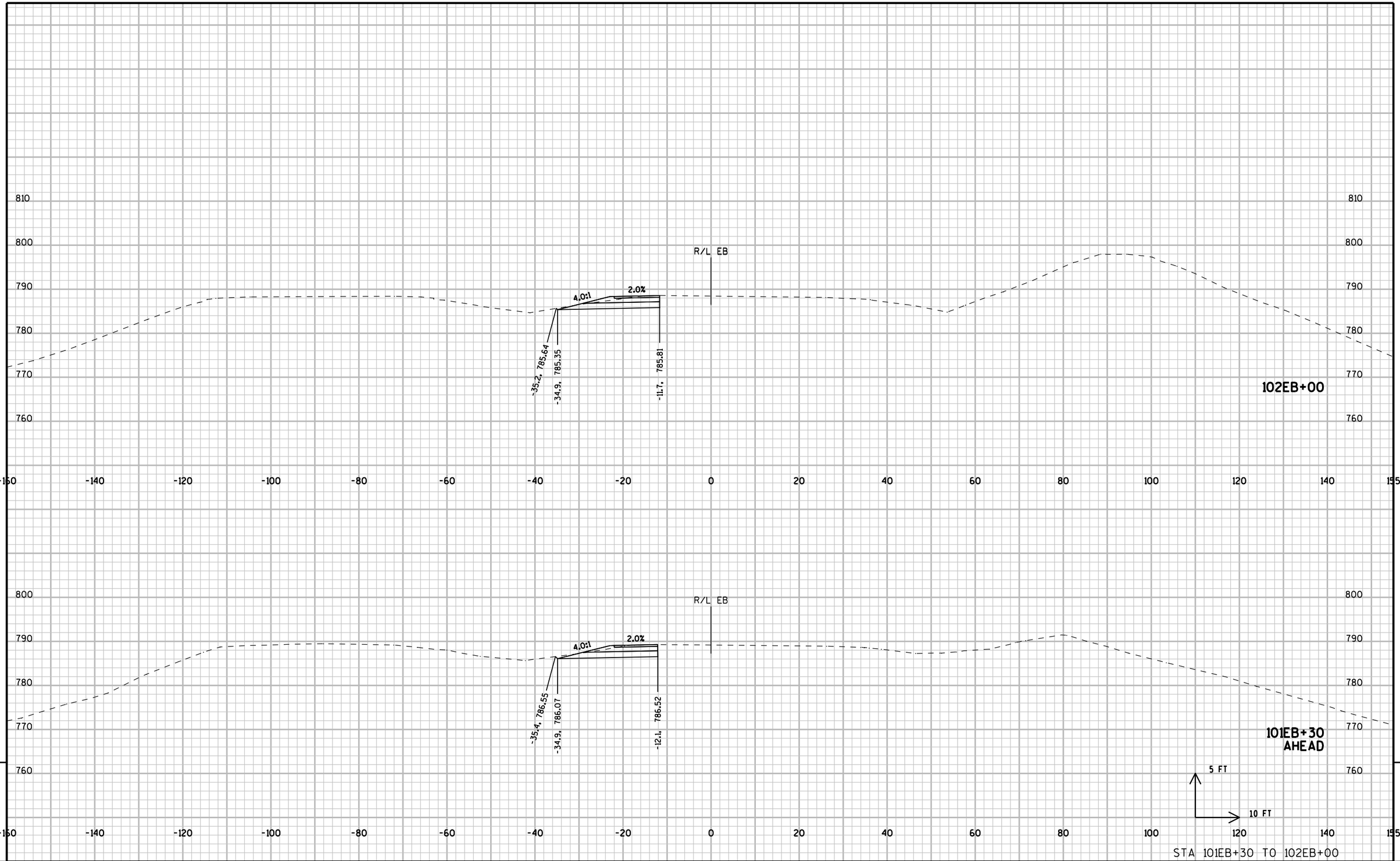
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STA C 1335SB+00 TO C 1336SB+70

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 41 SB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090201_xs_SB.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



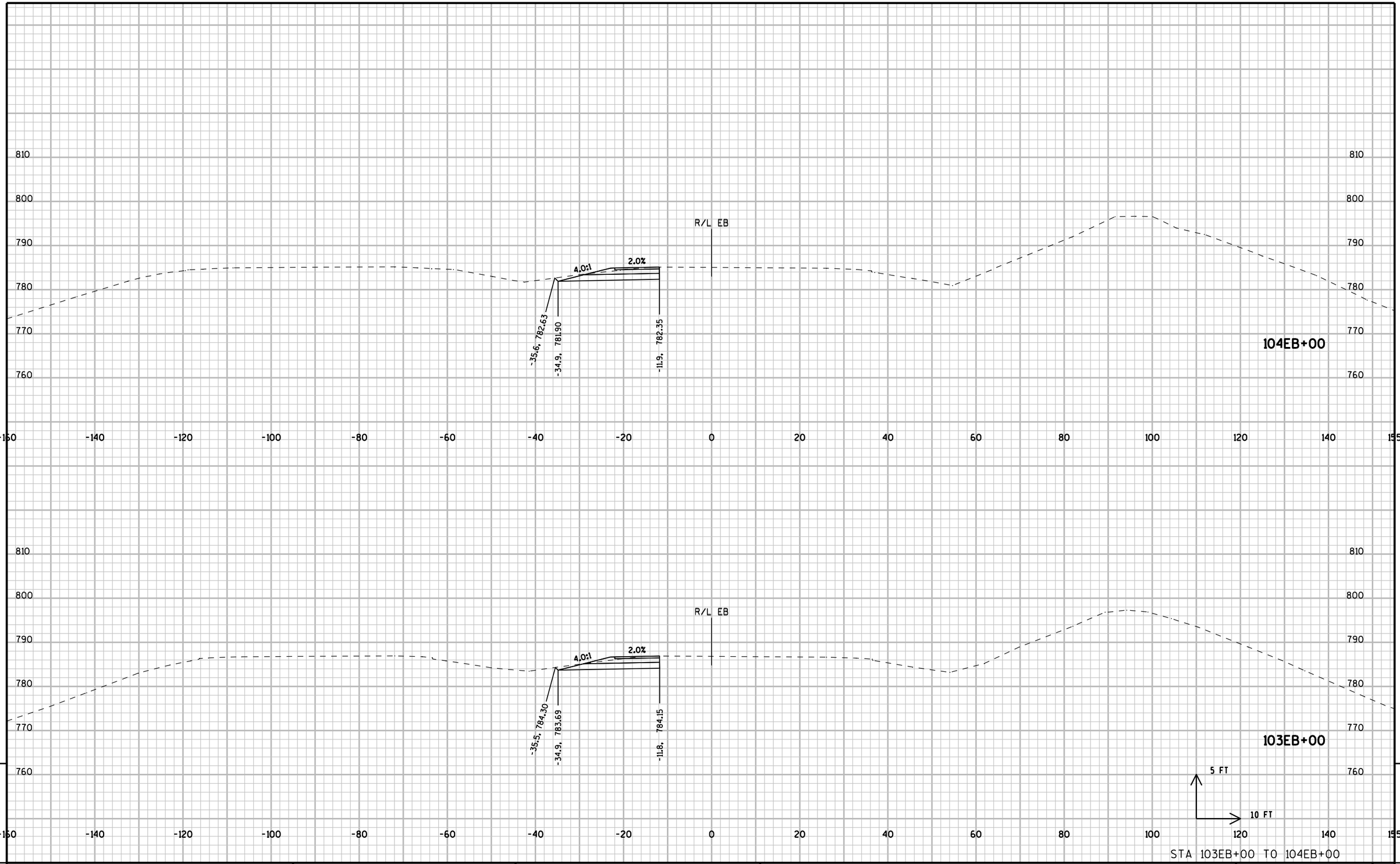
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

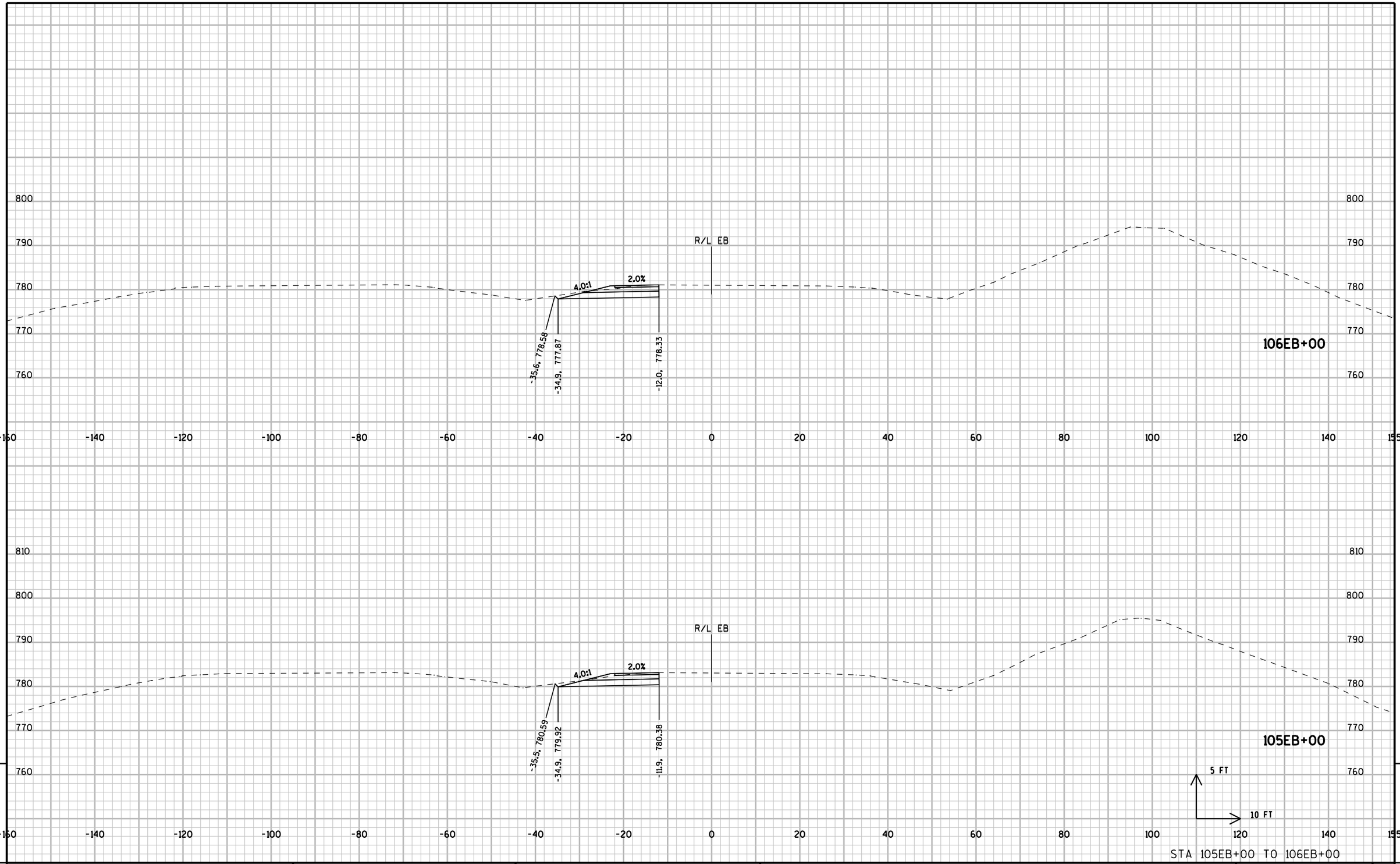
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STA 103EB+00 TO 104EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 550	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 105EB+00 TO 106EB+00

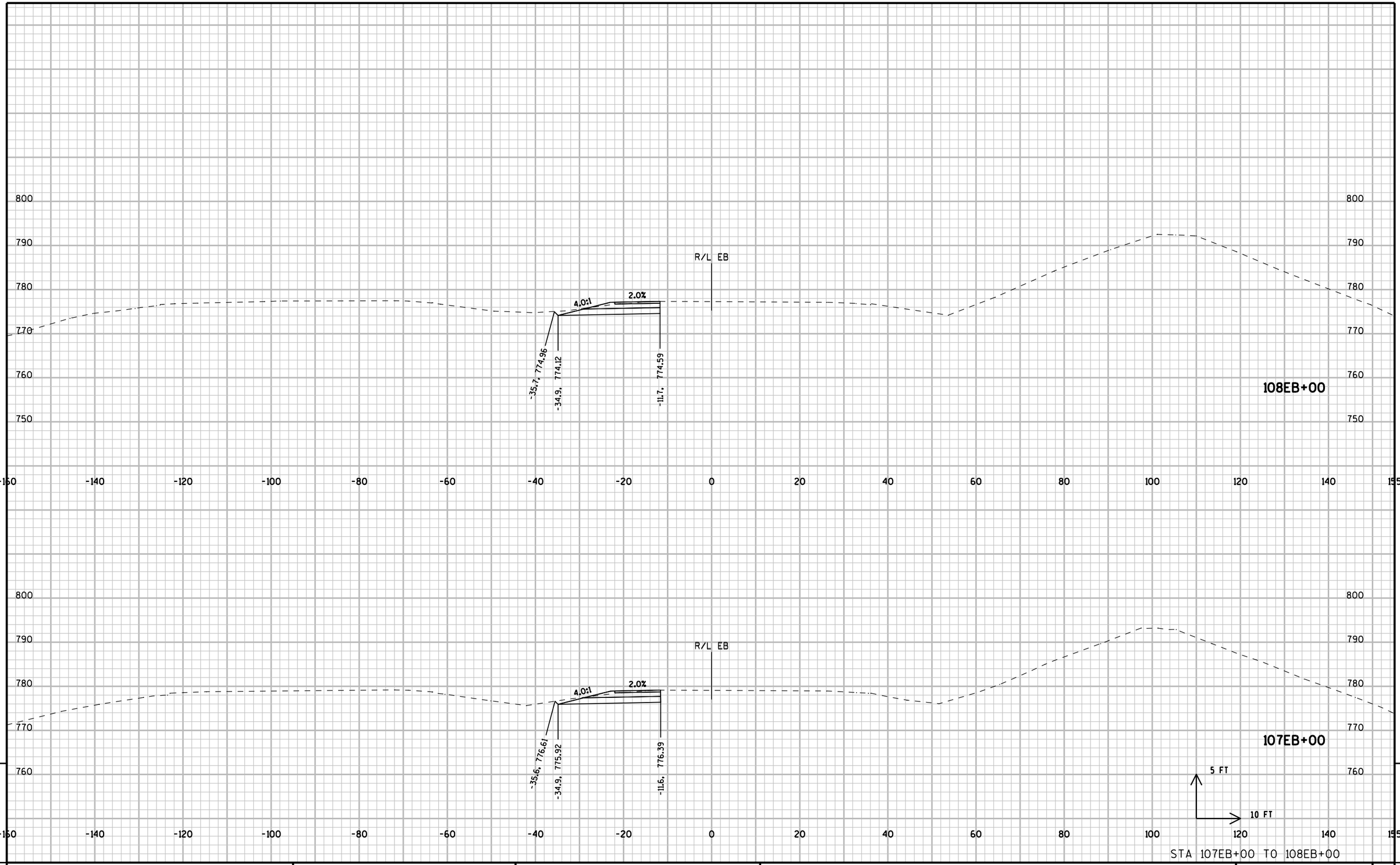
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 551	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

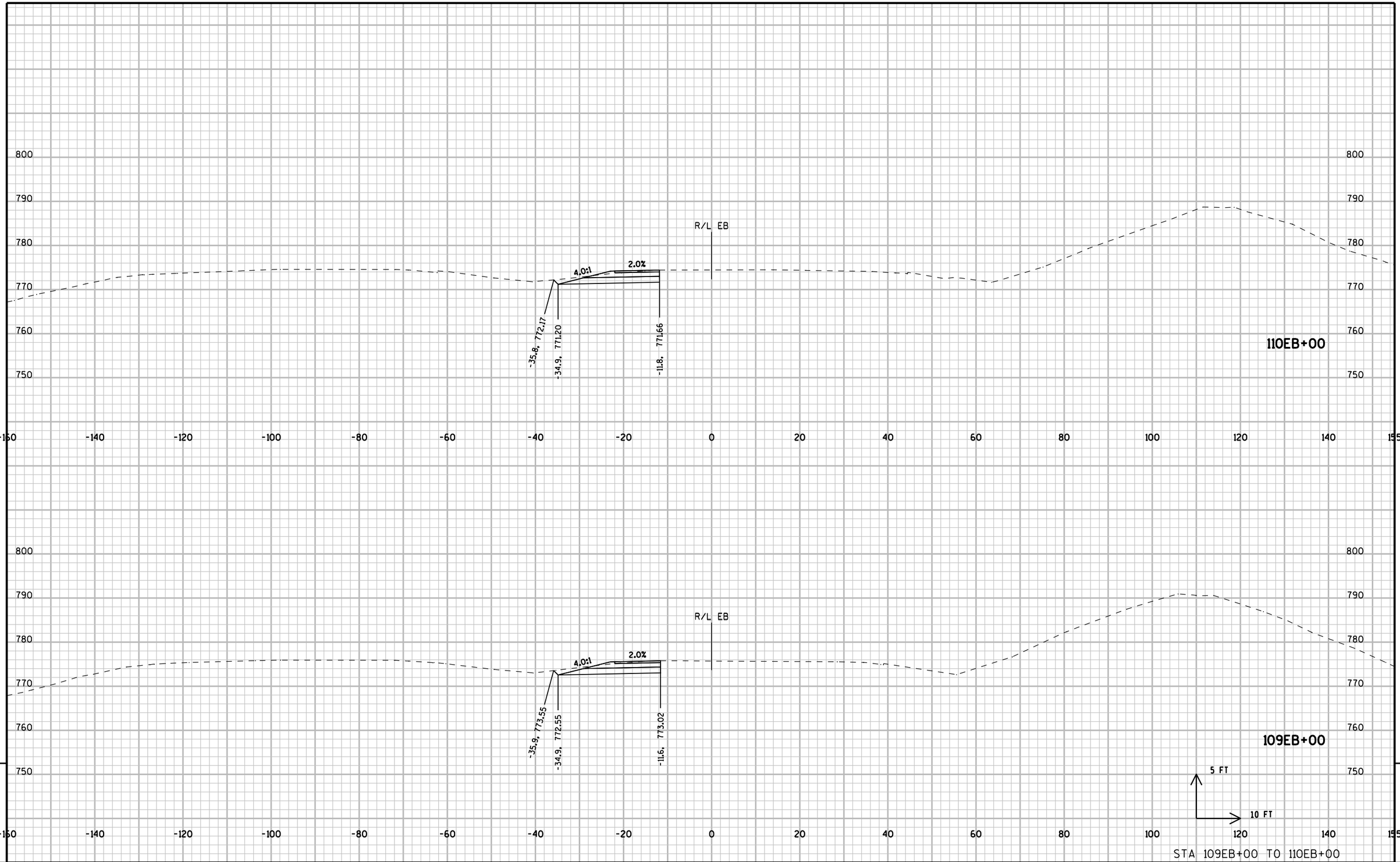
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STA 107EB+00 TO 108EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 552	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

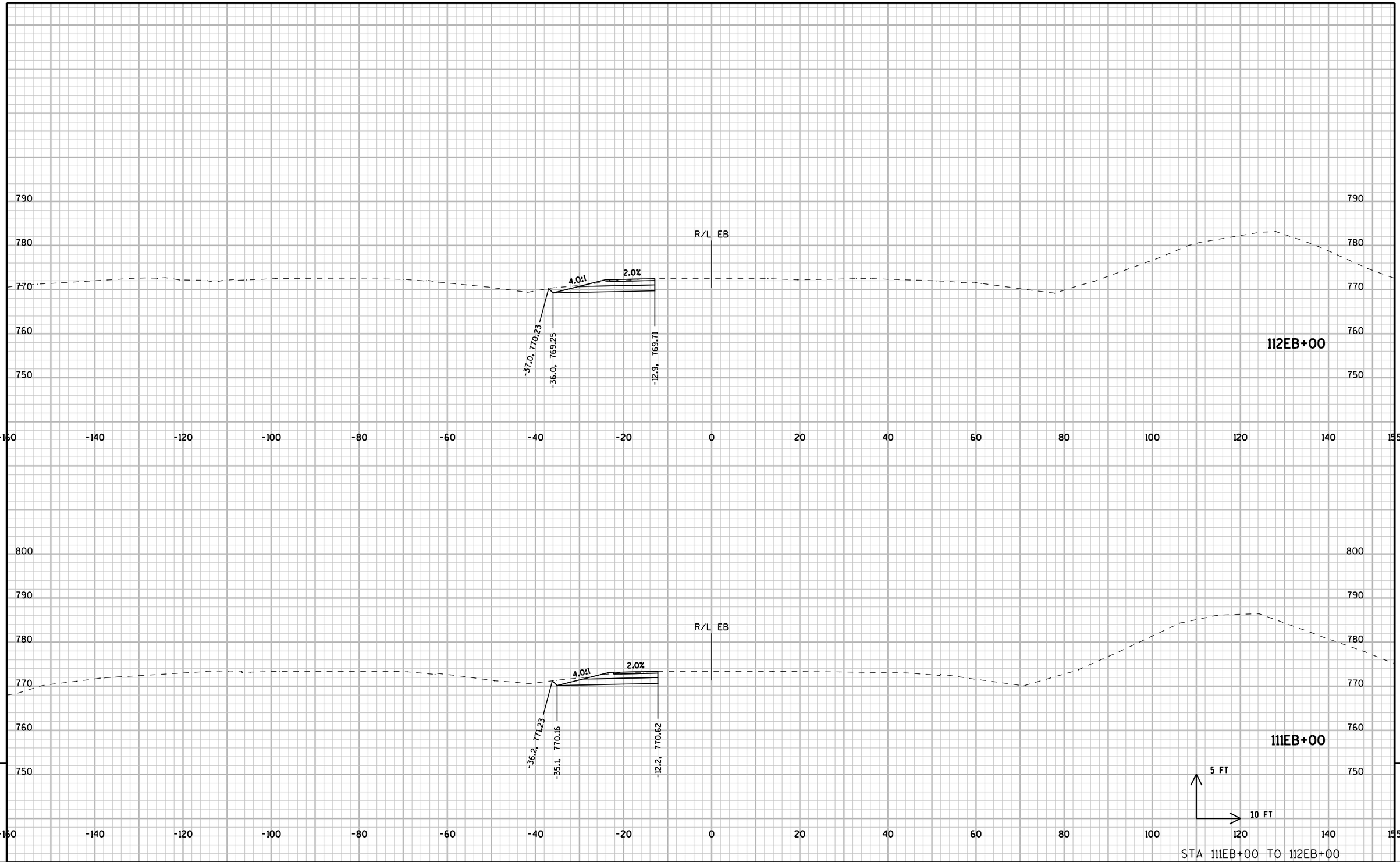
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STA 109EB+00 TO 110EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 553	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

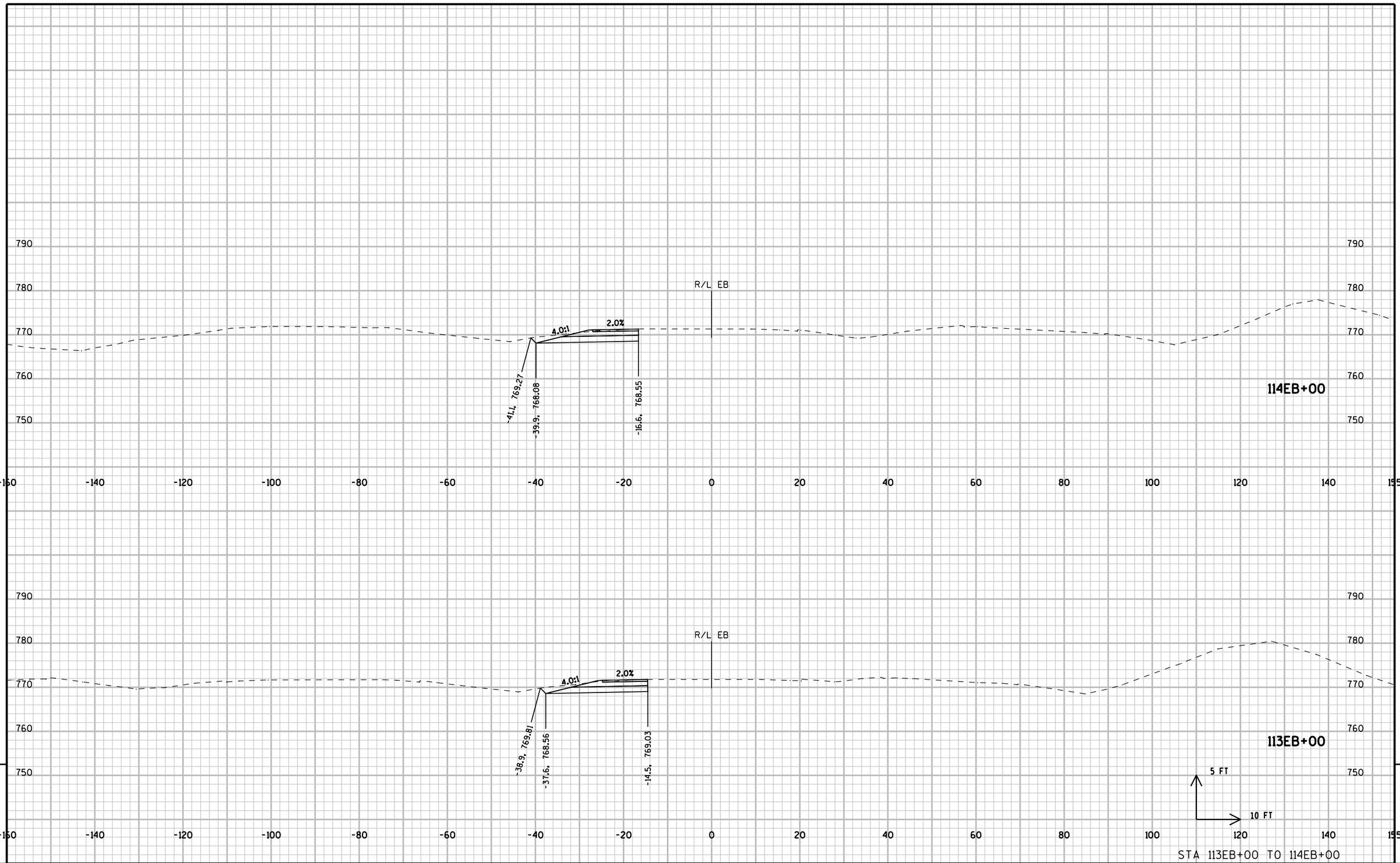


STA 111EB+00 TO 112EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 554	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

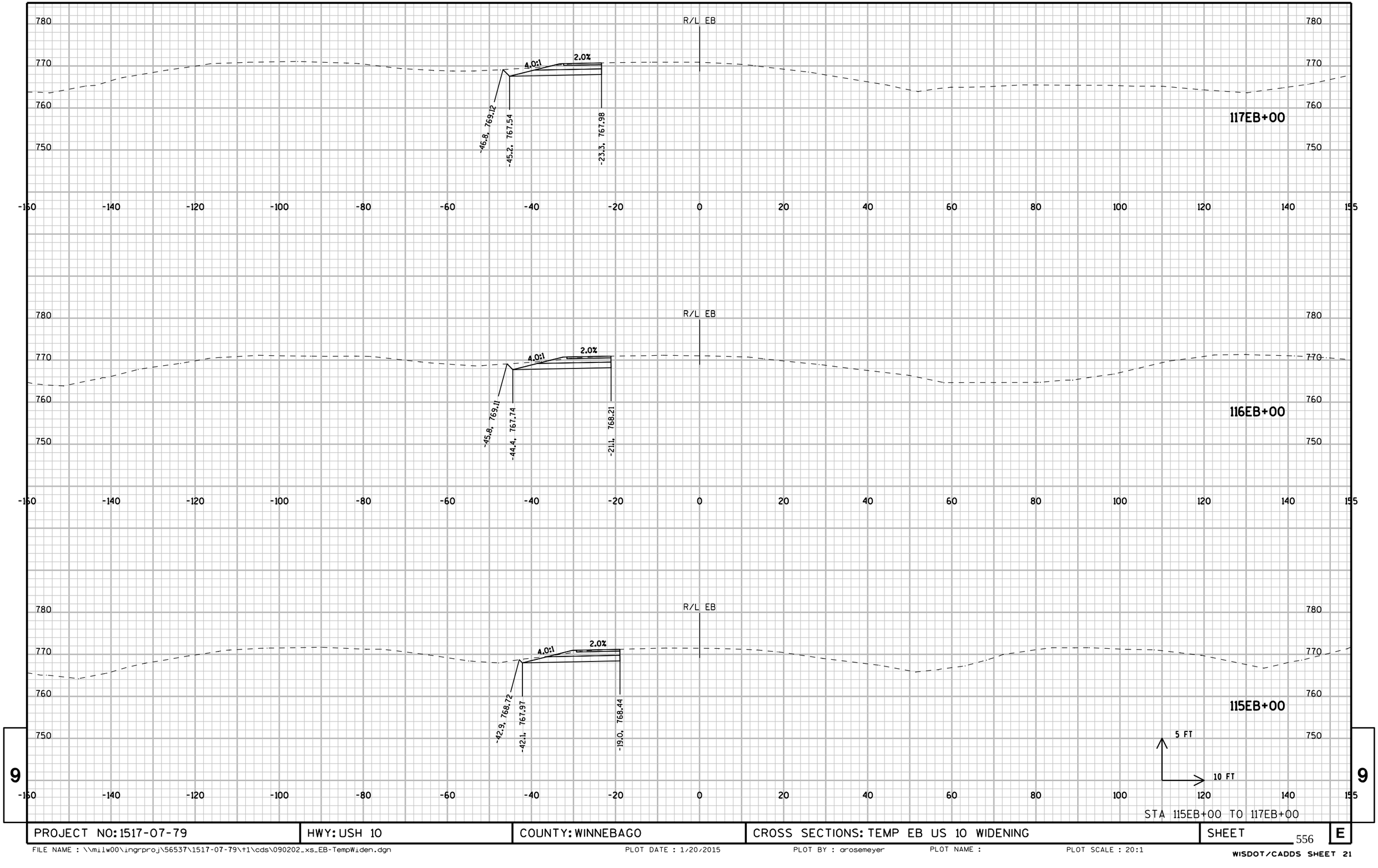
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STA 113EB+00 TO 114EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 555	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

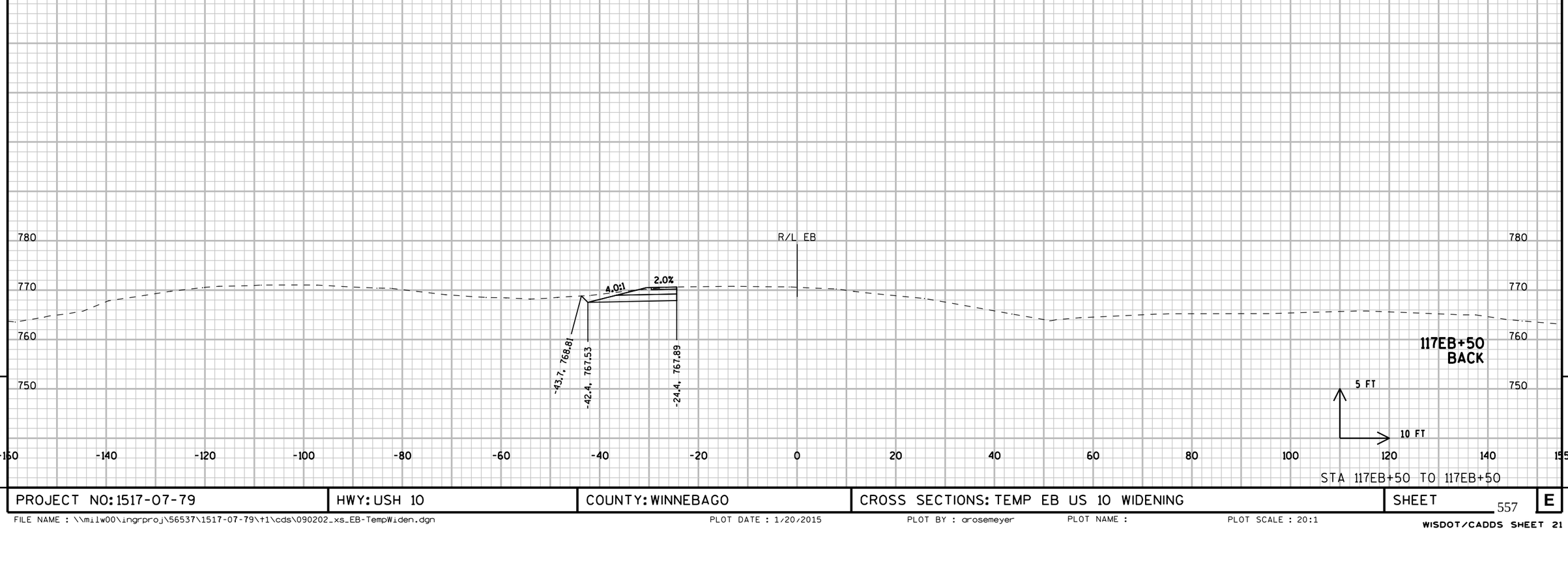


STA 115EB+00 TO 117EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 556	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



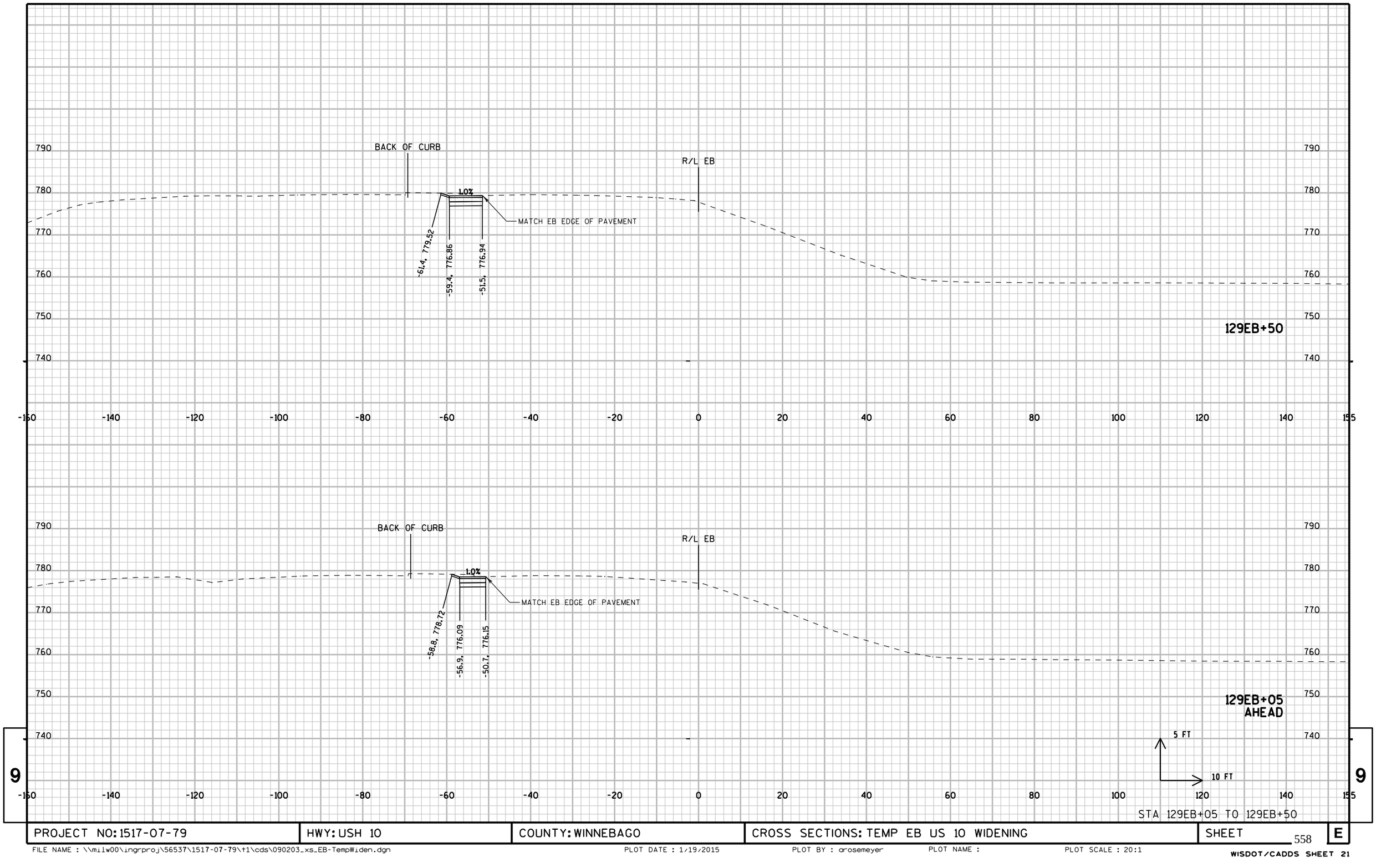
STA 117EB+50 TO 117EB+50

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 557	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090202_xs_EB-TempWiden.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

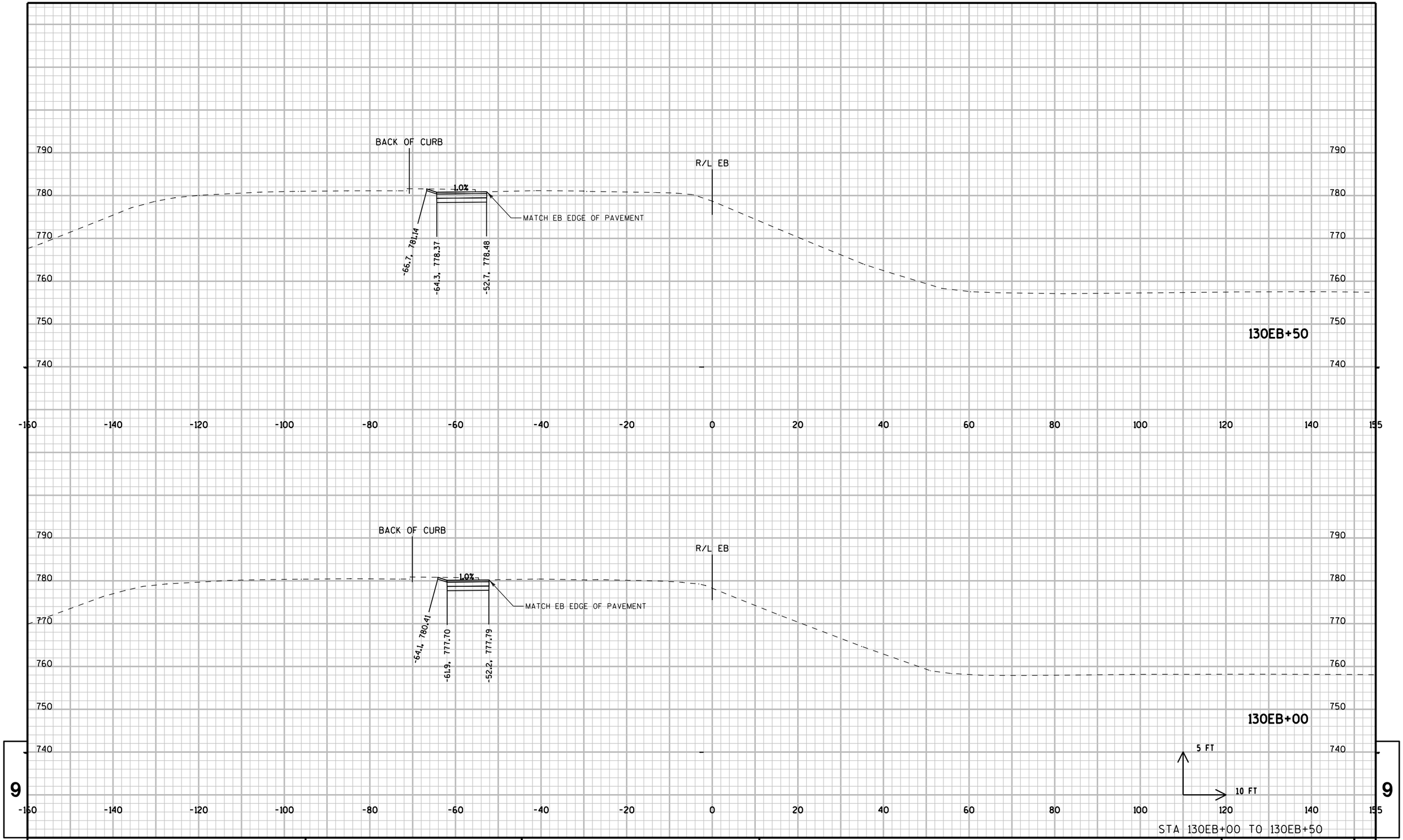


STA 129EB+05 TO 129EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 558	E

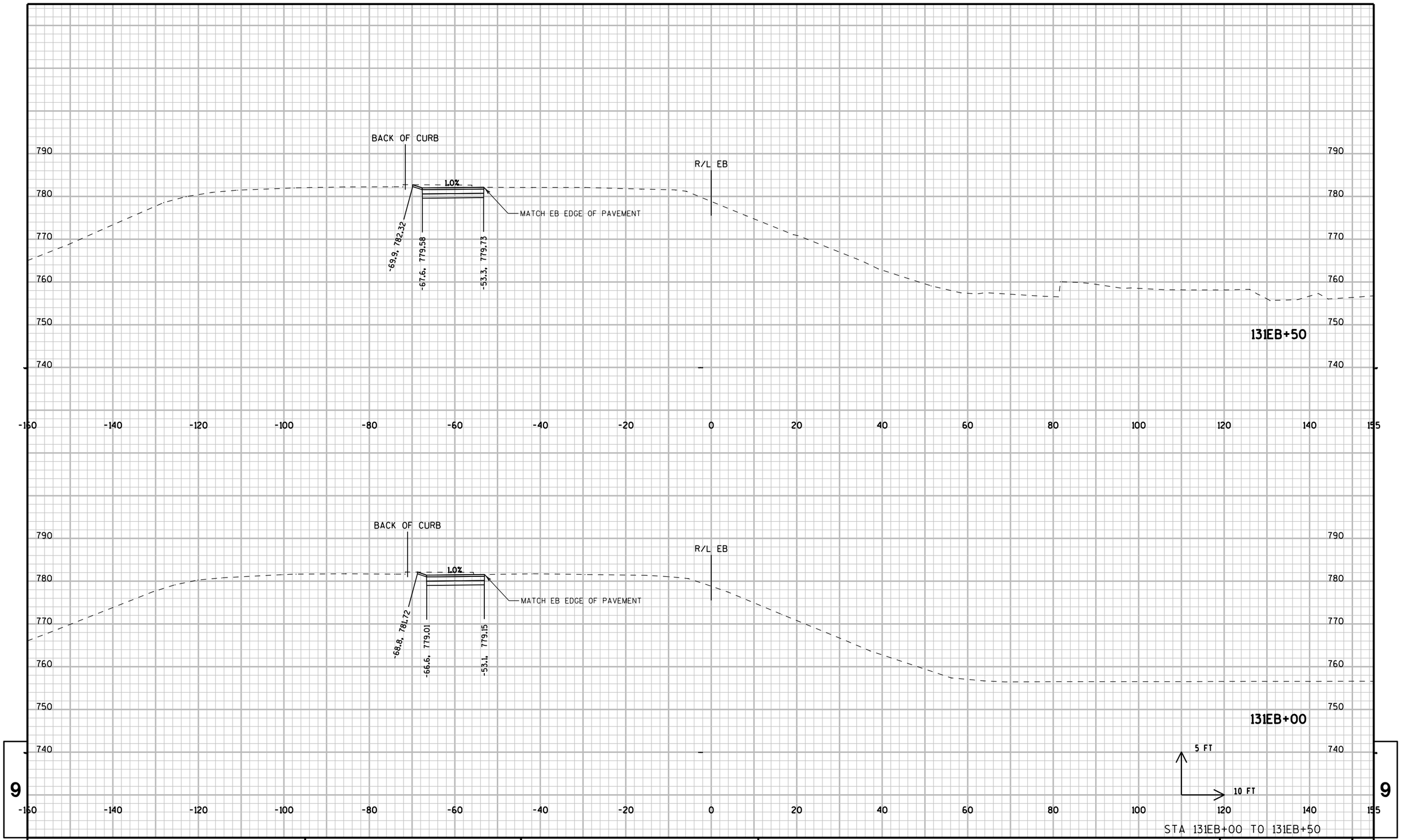
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WISDOT/CADDS SHEET 21



STA 130EB+00 TO 130EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 559	E

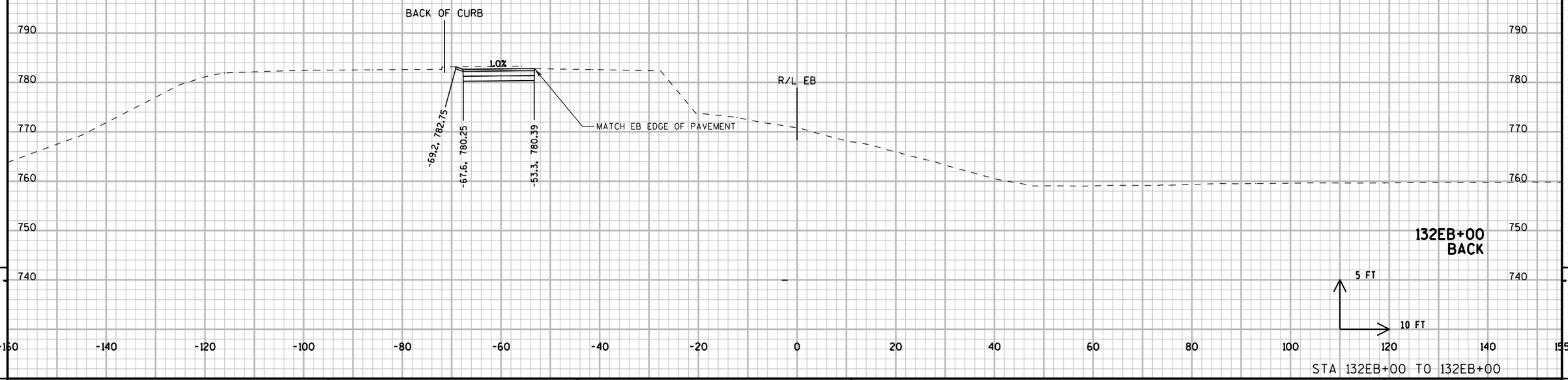


STA 131EB+00 TO 131EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 560	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090203_xs_EB-TempWiden.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

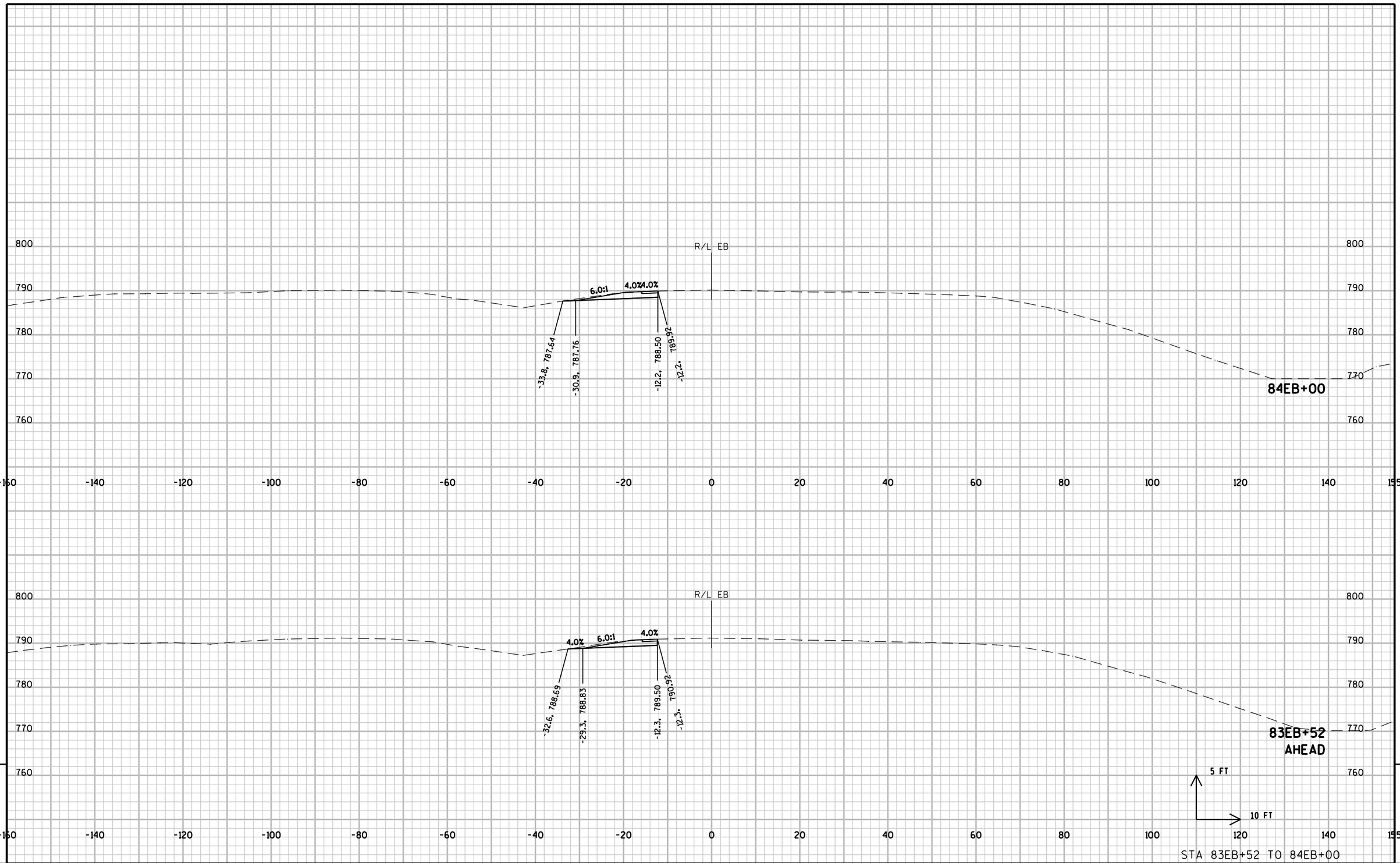


STA 132EB+00 TO 132EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TEMP EB US 10 WIDENING	SHEET 561	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090203_xs_EB-TempWiden.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



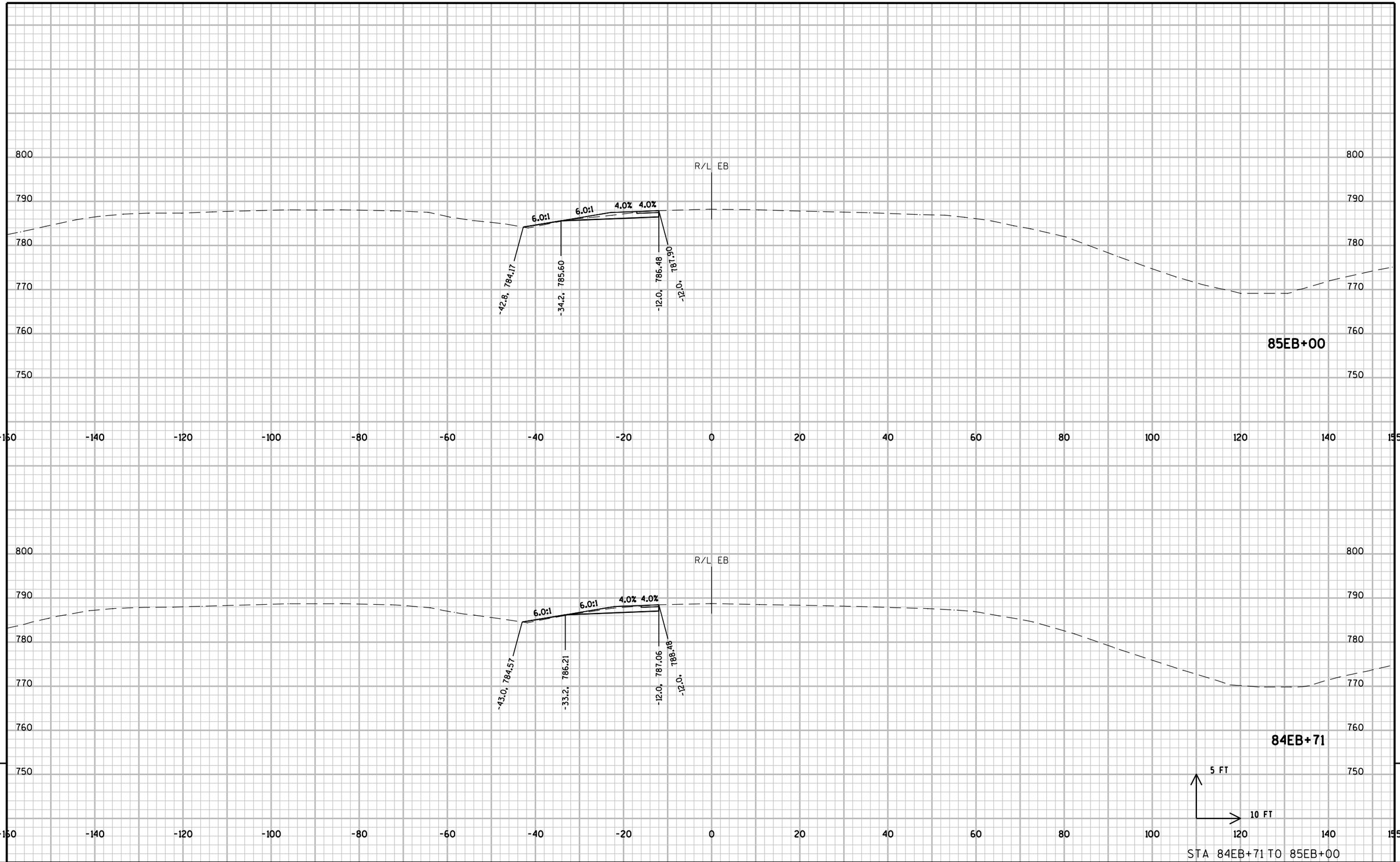
STA 83EB+52 TO 84EB+00

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

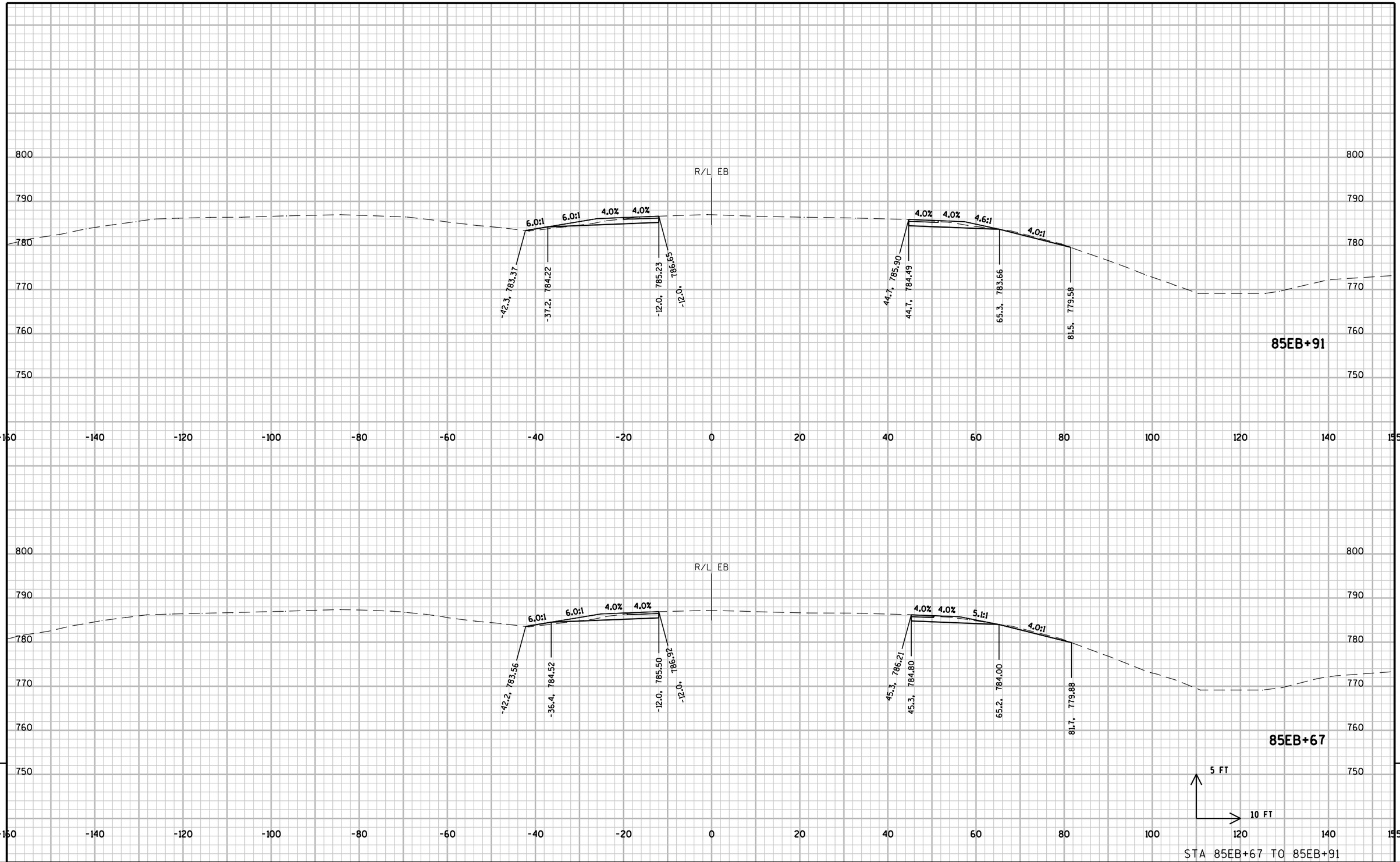


STA 84EB+71 TO 85EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

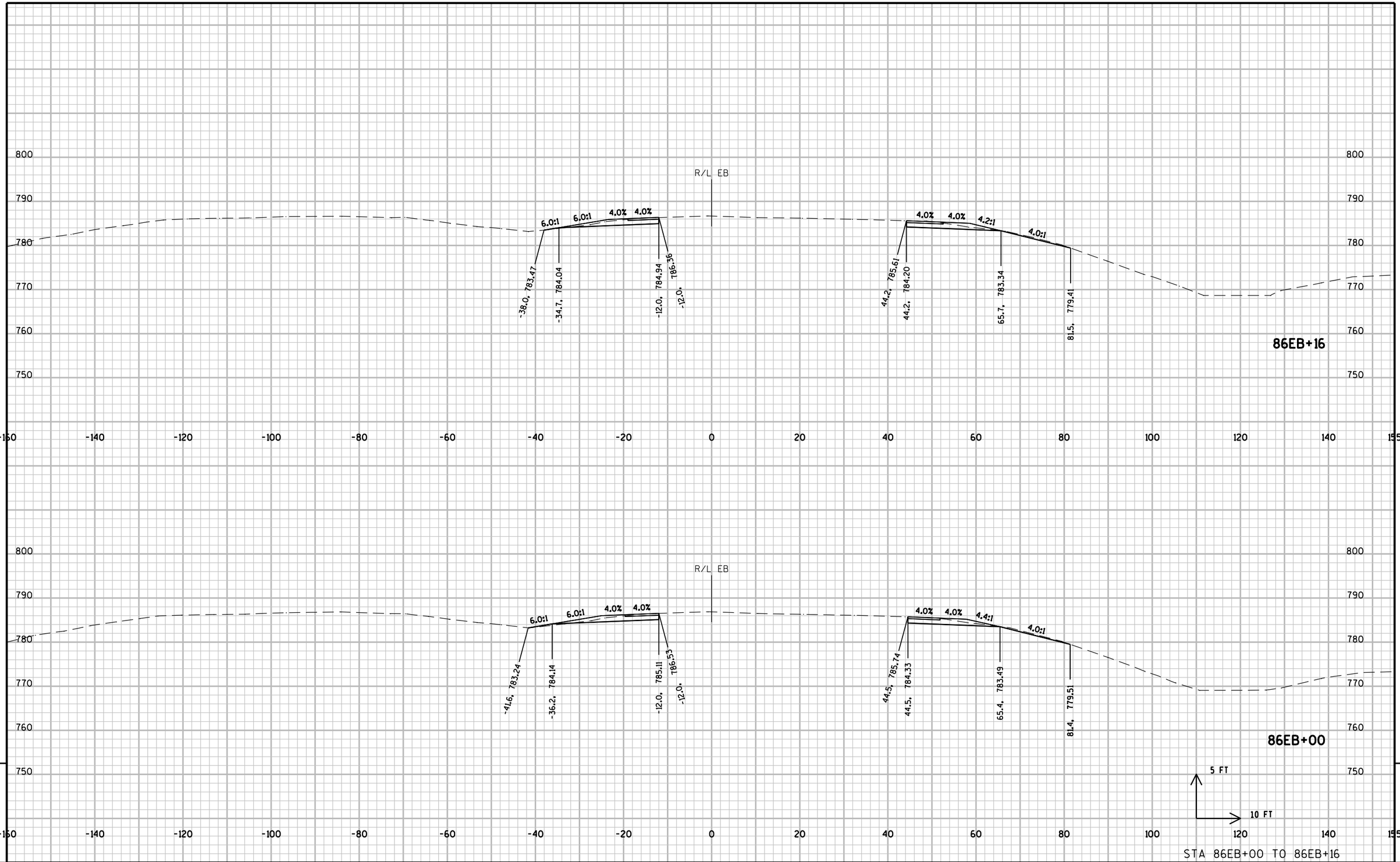
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STA 85EB+67 TO 85EB+91

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 564	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

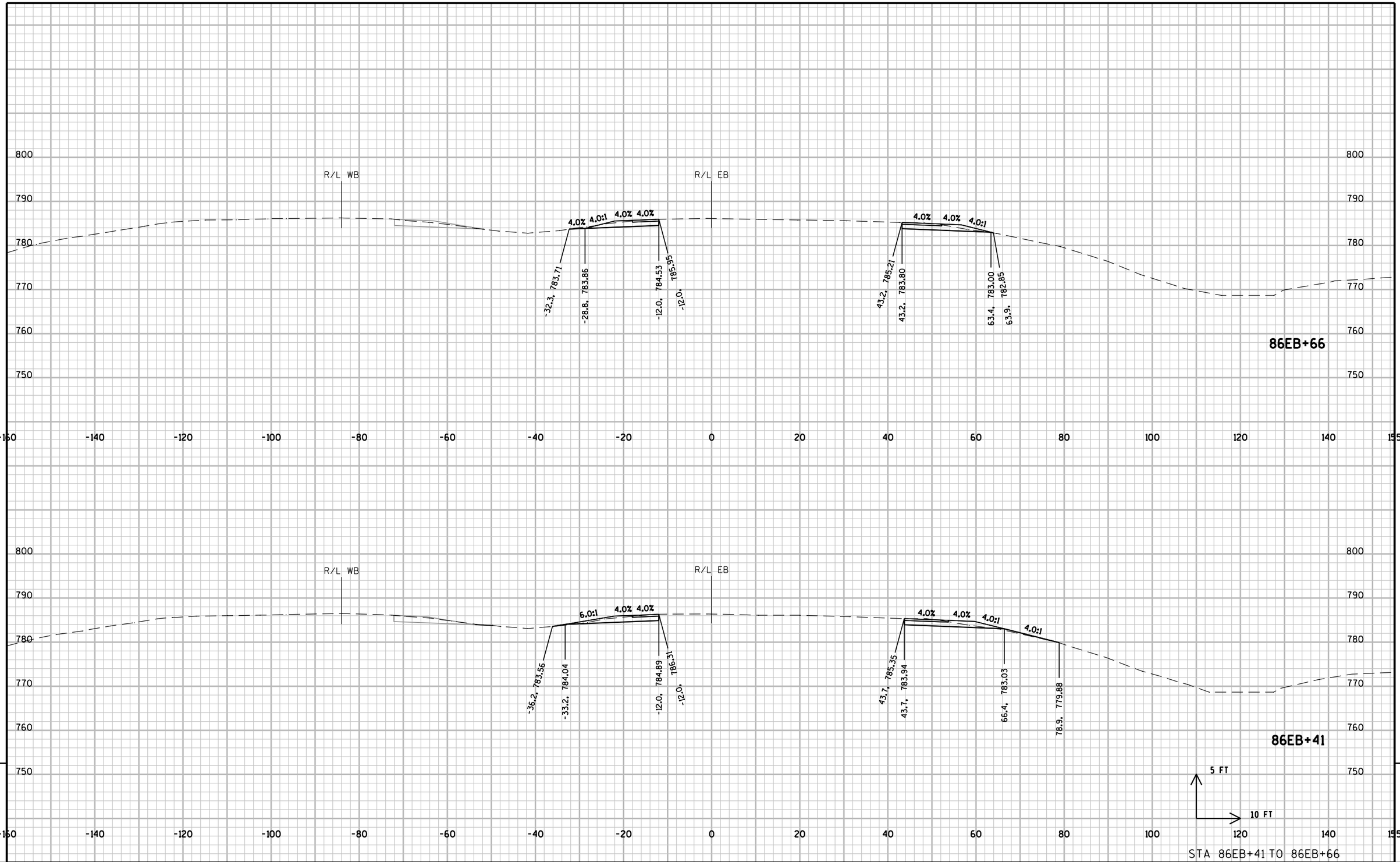


STA 86EB+00 TO 86EB+16

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

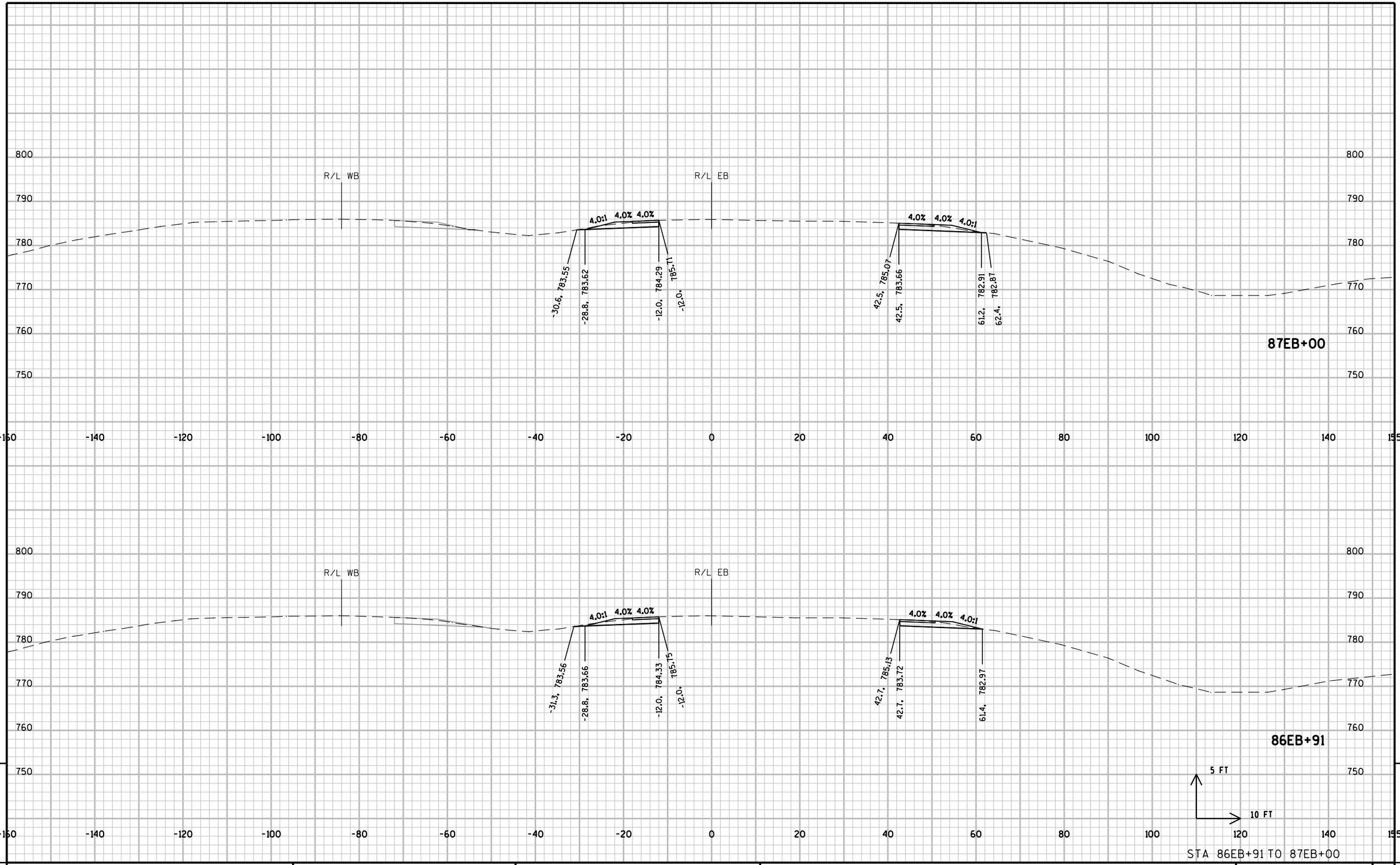
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STA 86EB+41 TO 86EB+66

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 566	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

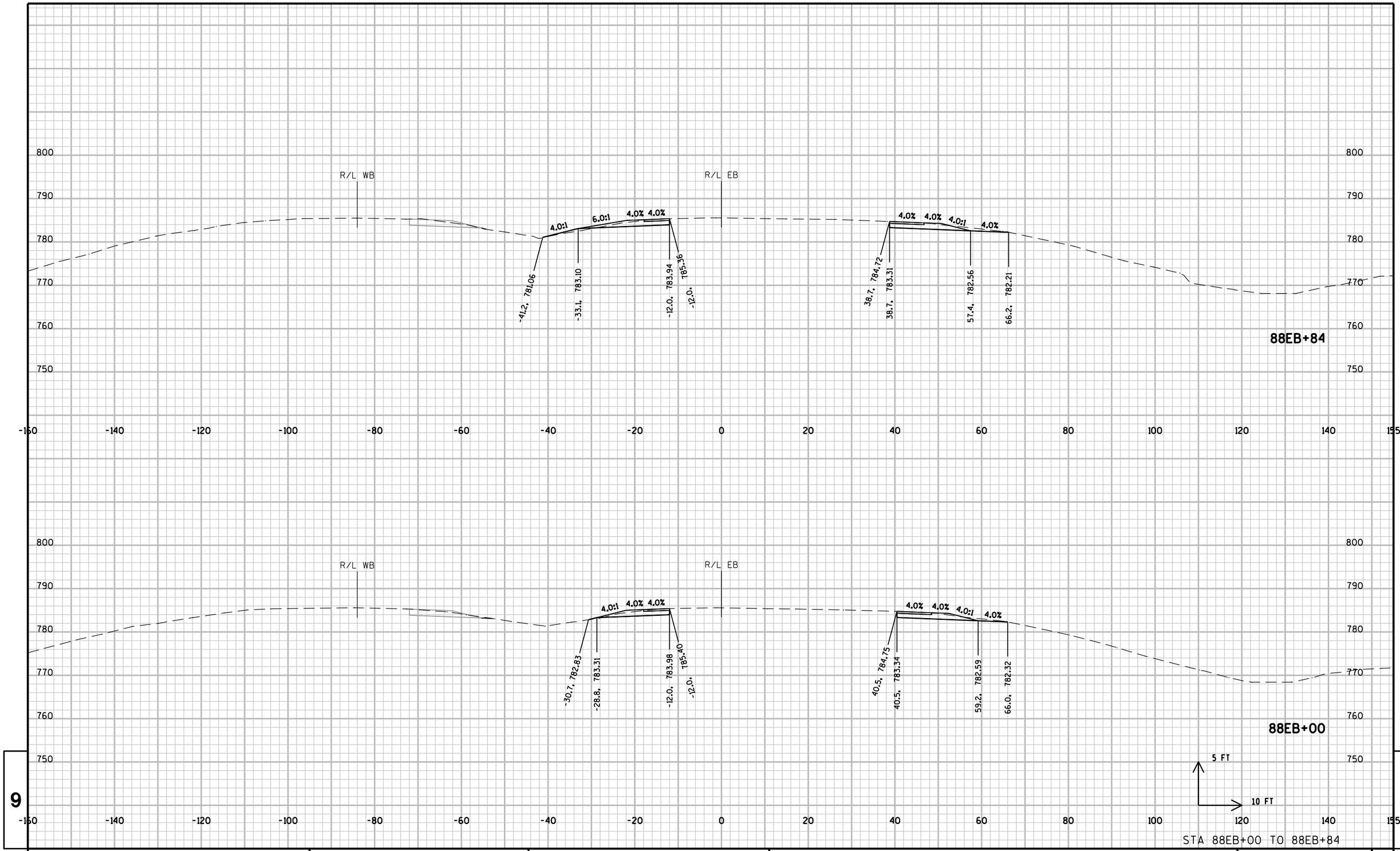
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

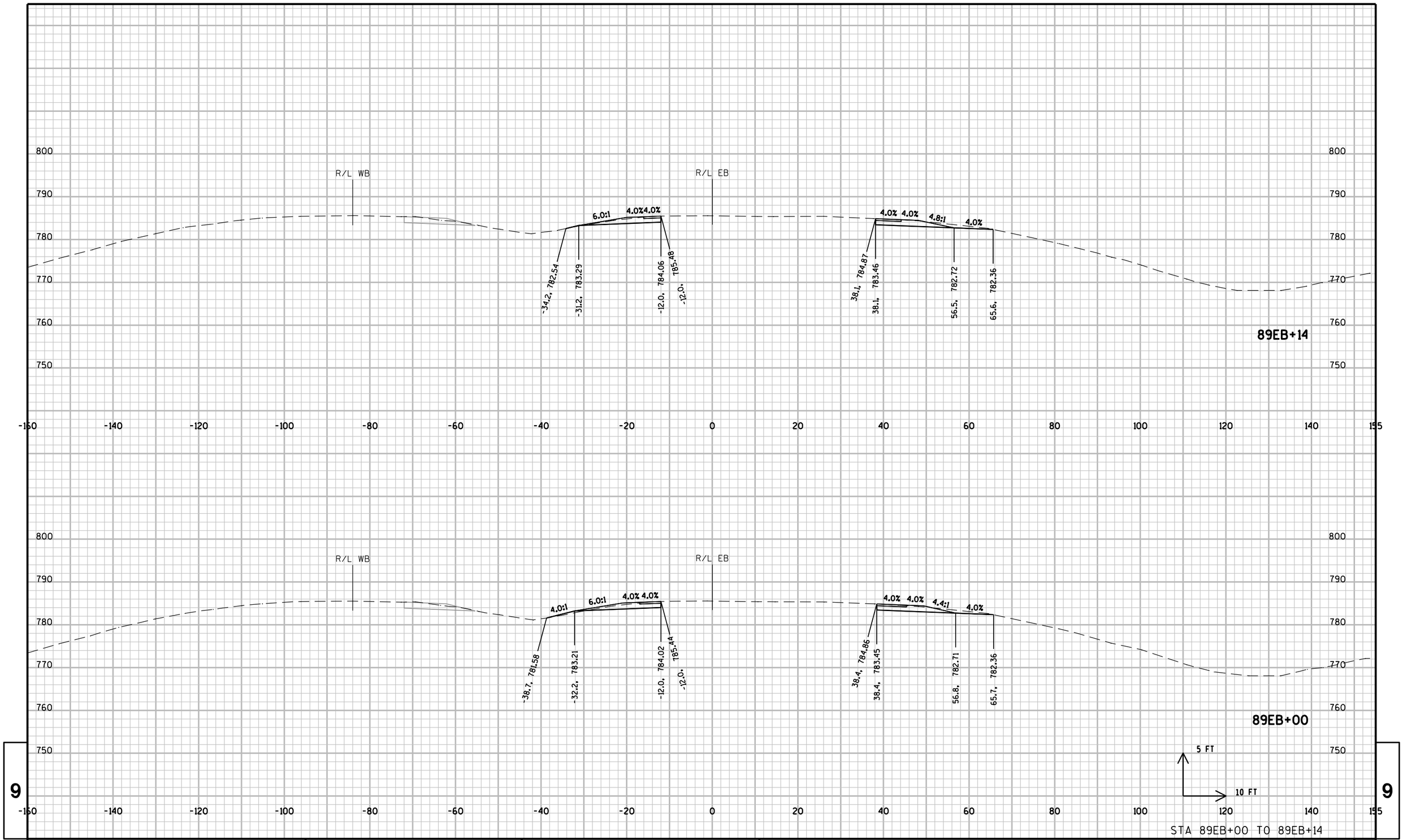


STA 88EB+00 TO 88EB+84

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

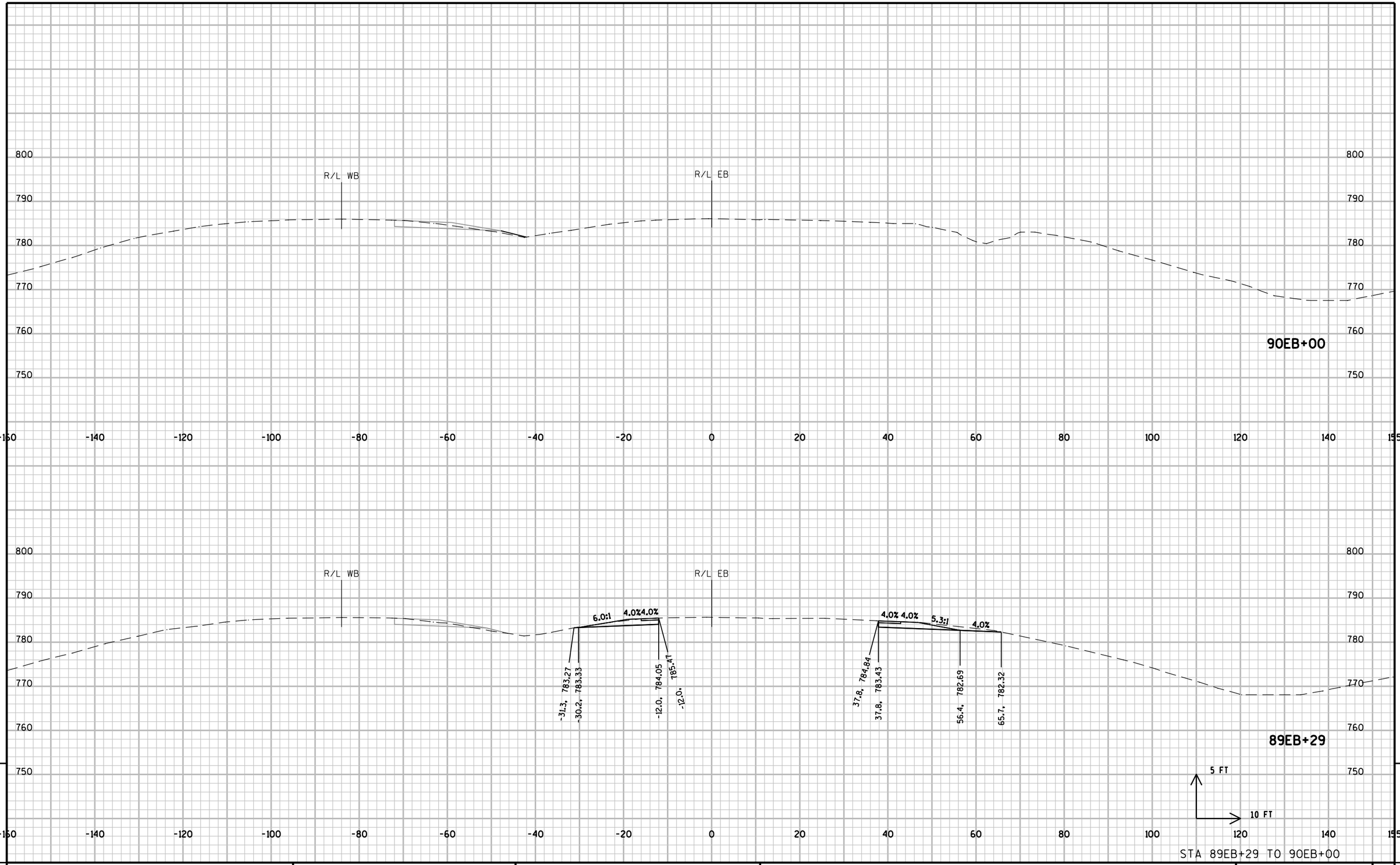


STA 89EB+00 TO 89EB+14

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

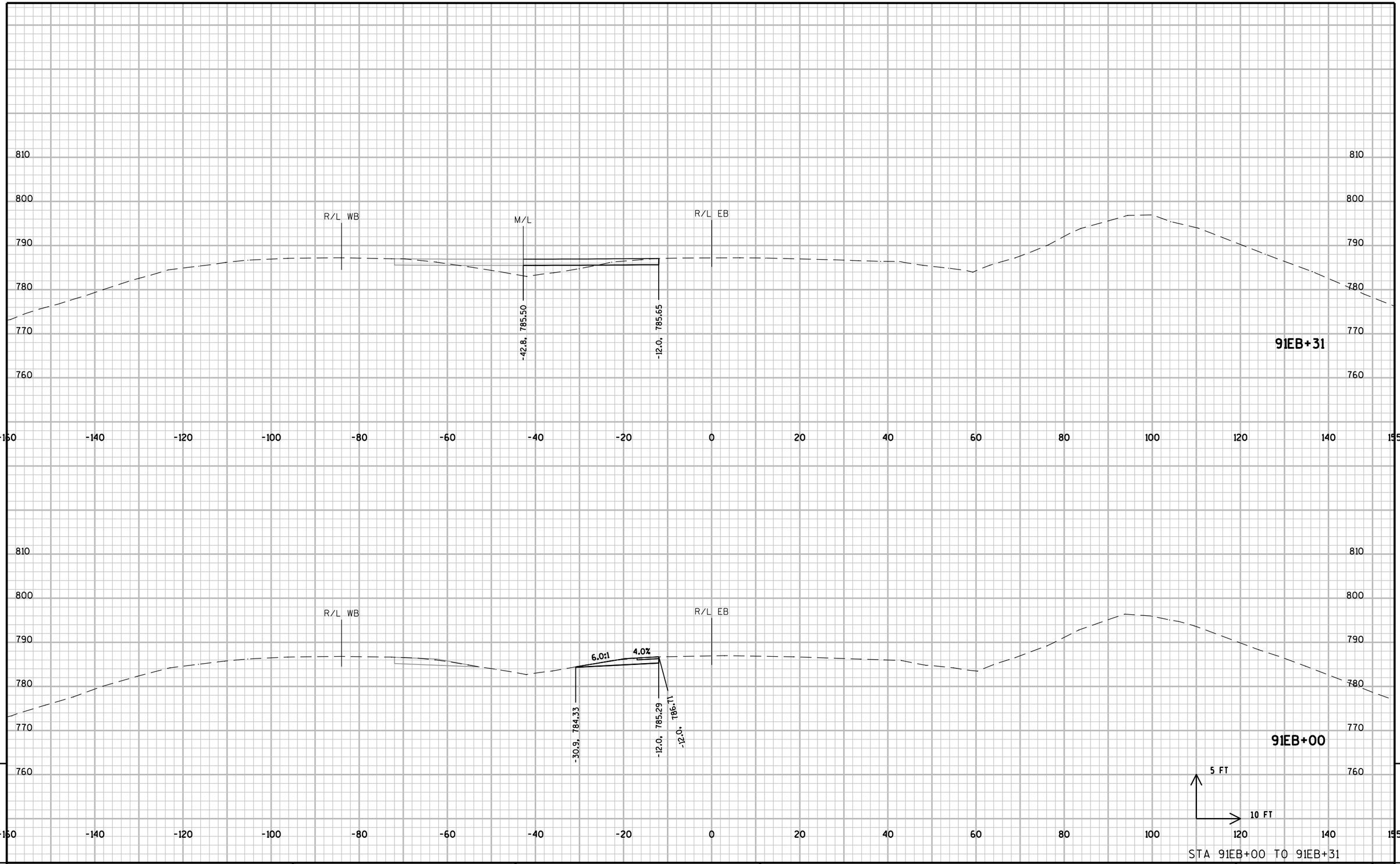
9

STA 89EB+29 TO 90EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 570	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

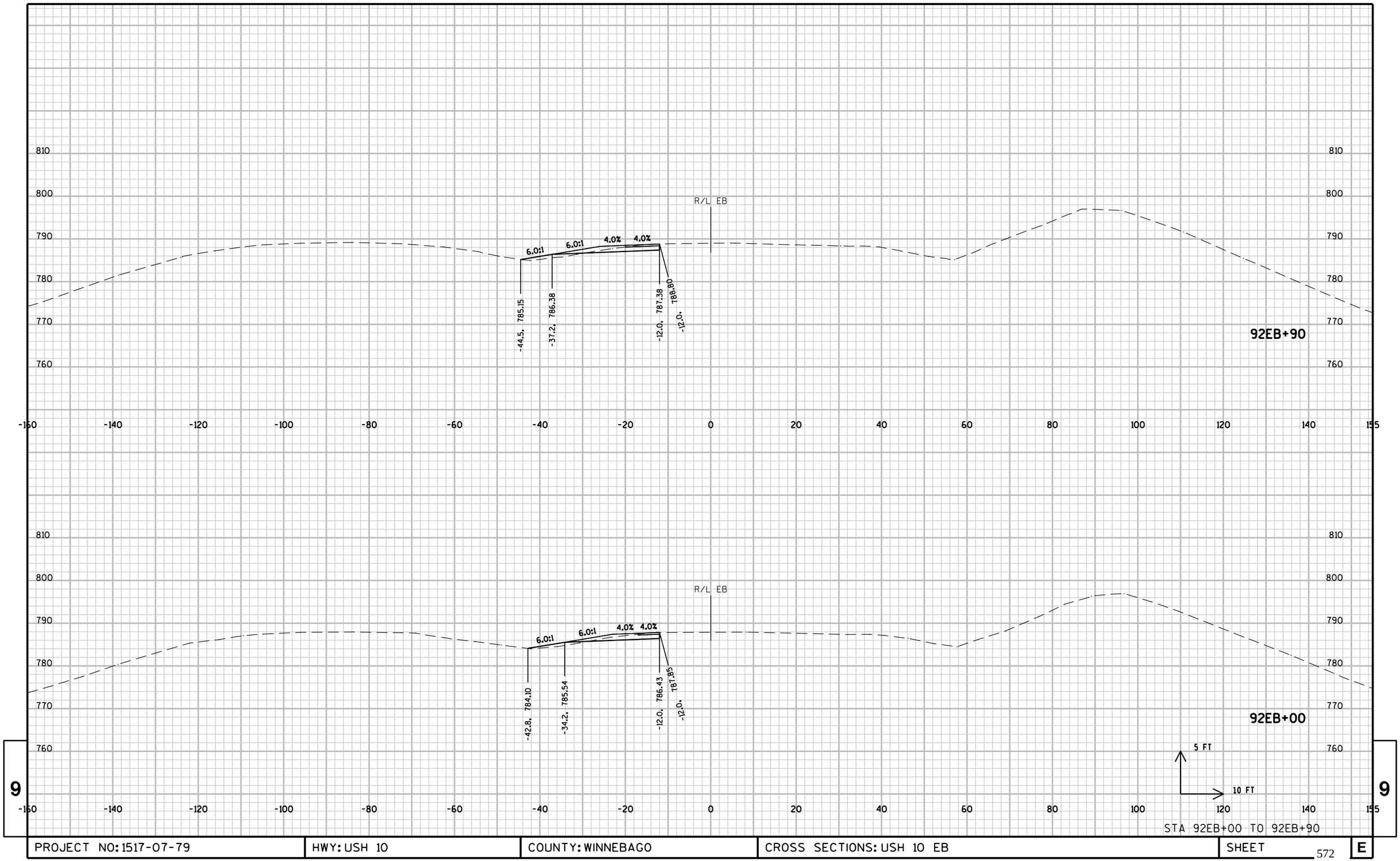


STA 91EB+00 TO 91EB+31

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 571	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

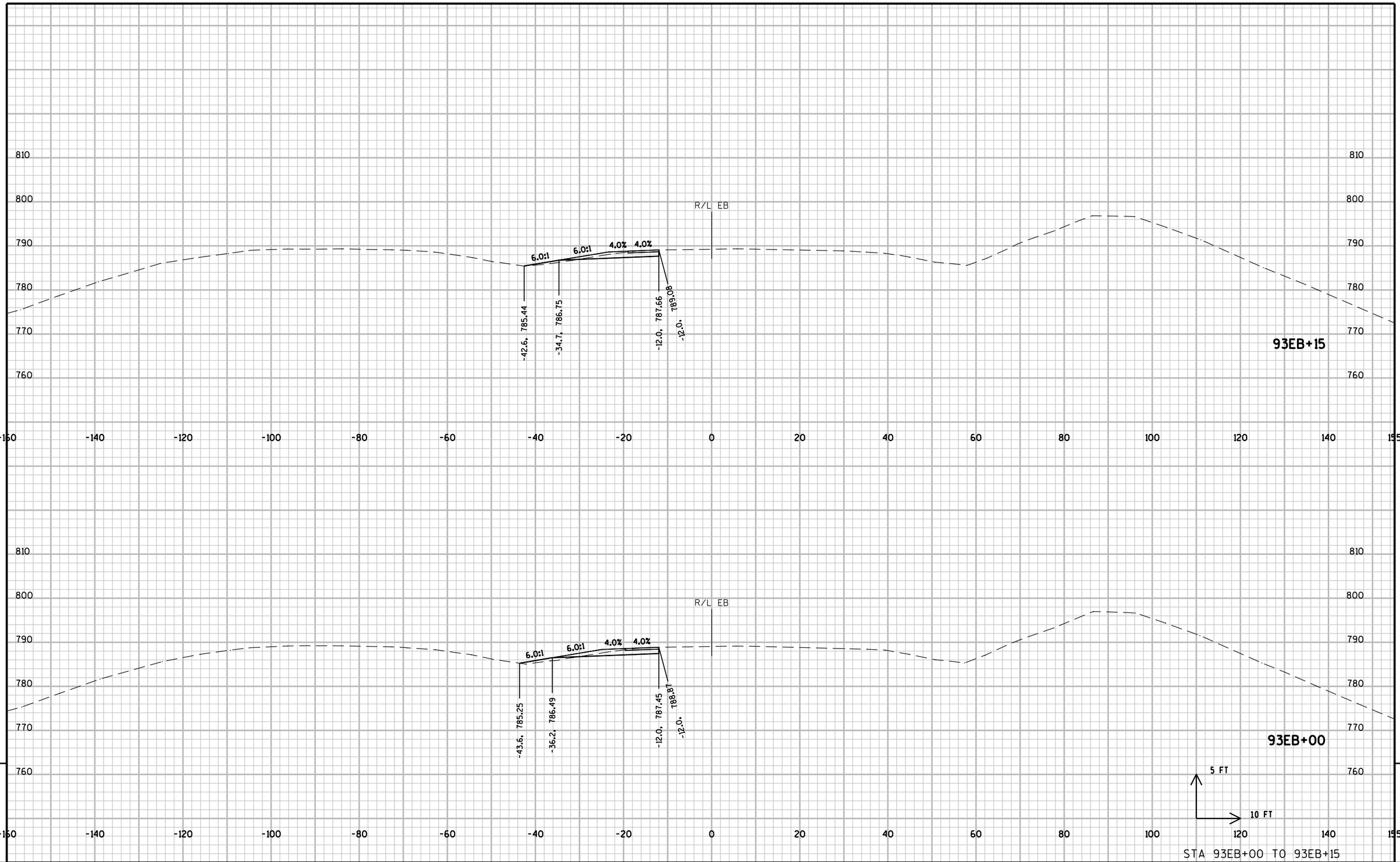


STA 92EB+00 TO 92EB+90

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 572	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

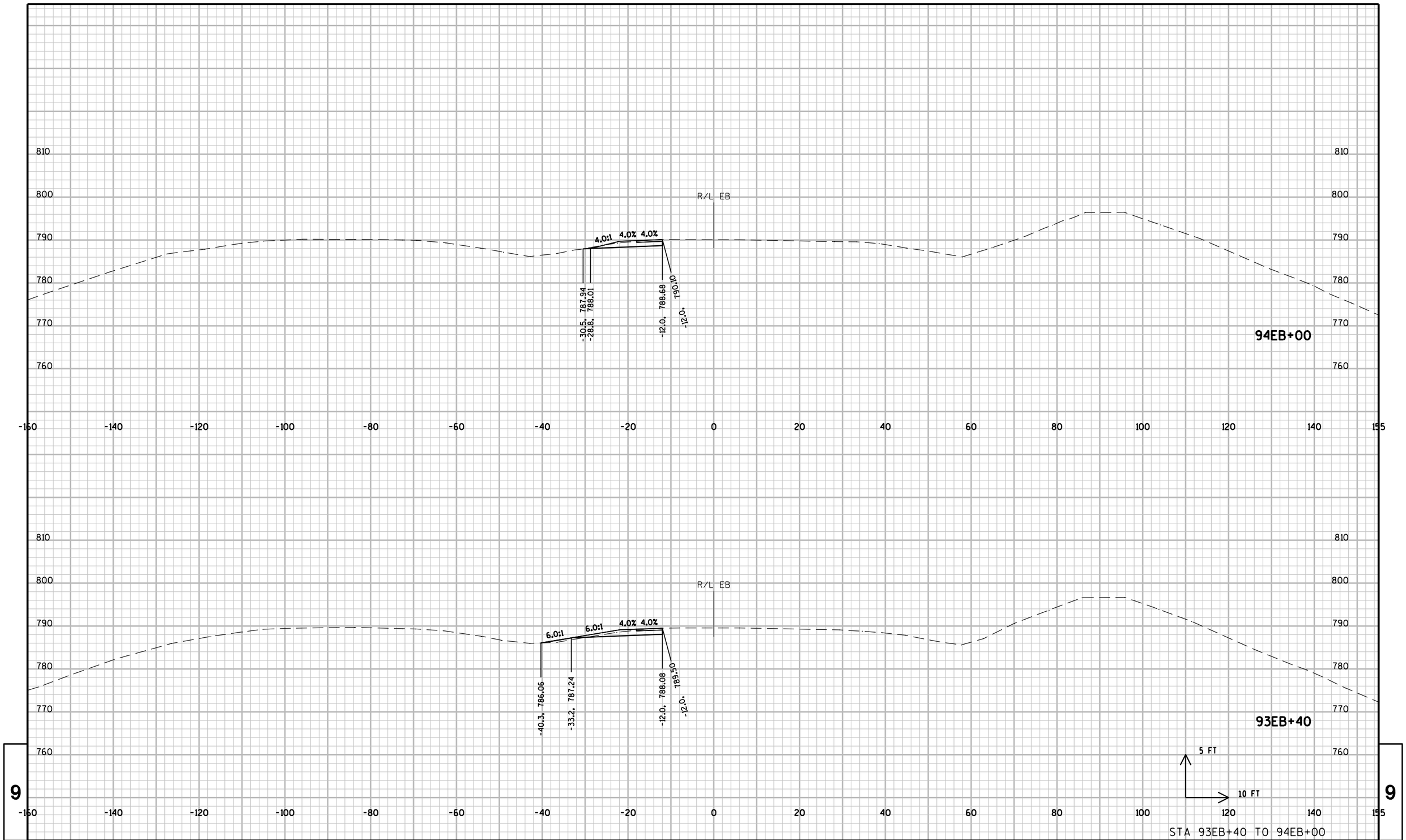


STA 93EB+00 TO 93EB+15

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 573	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

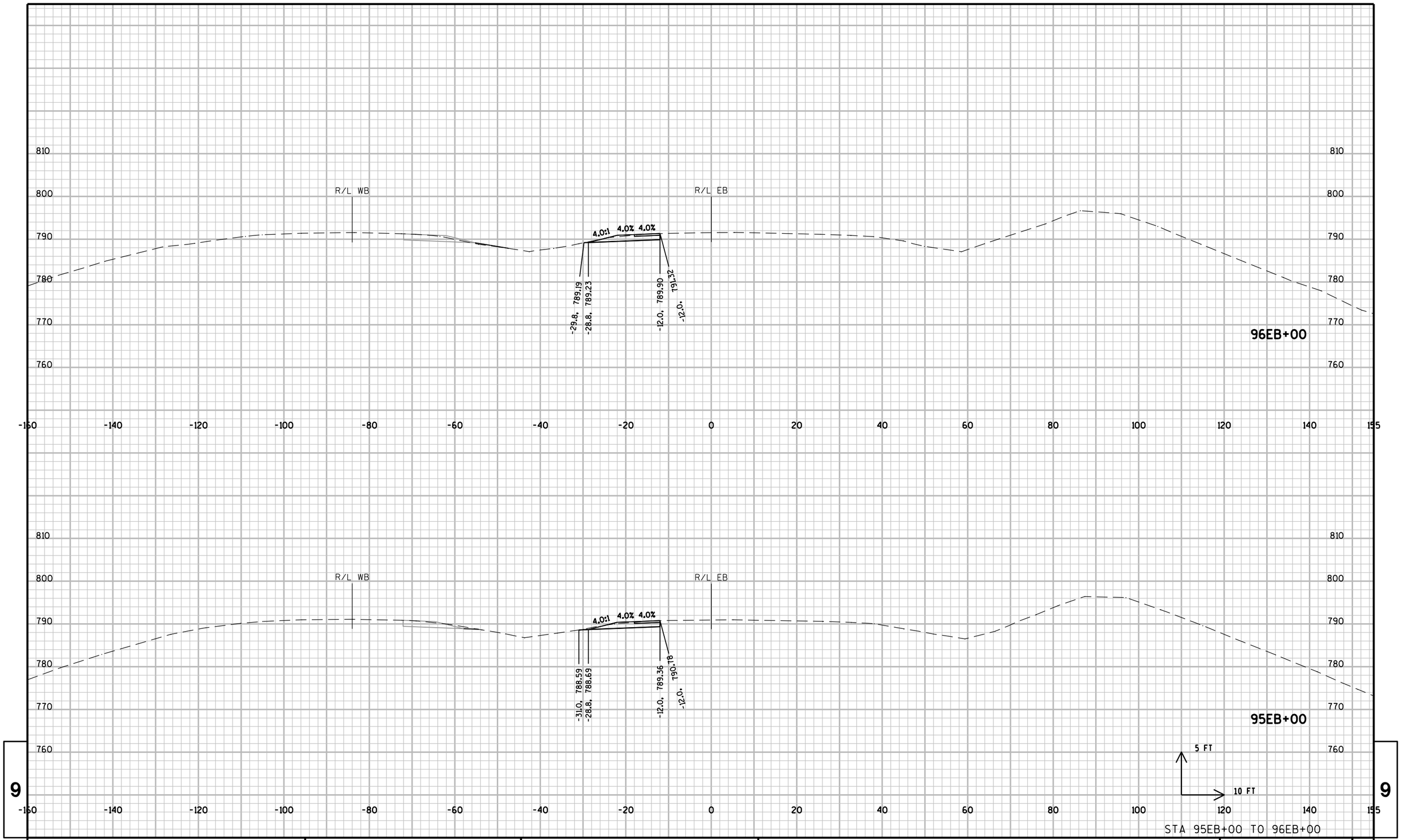
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STA 93EB+40 TO 94EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 574	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

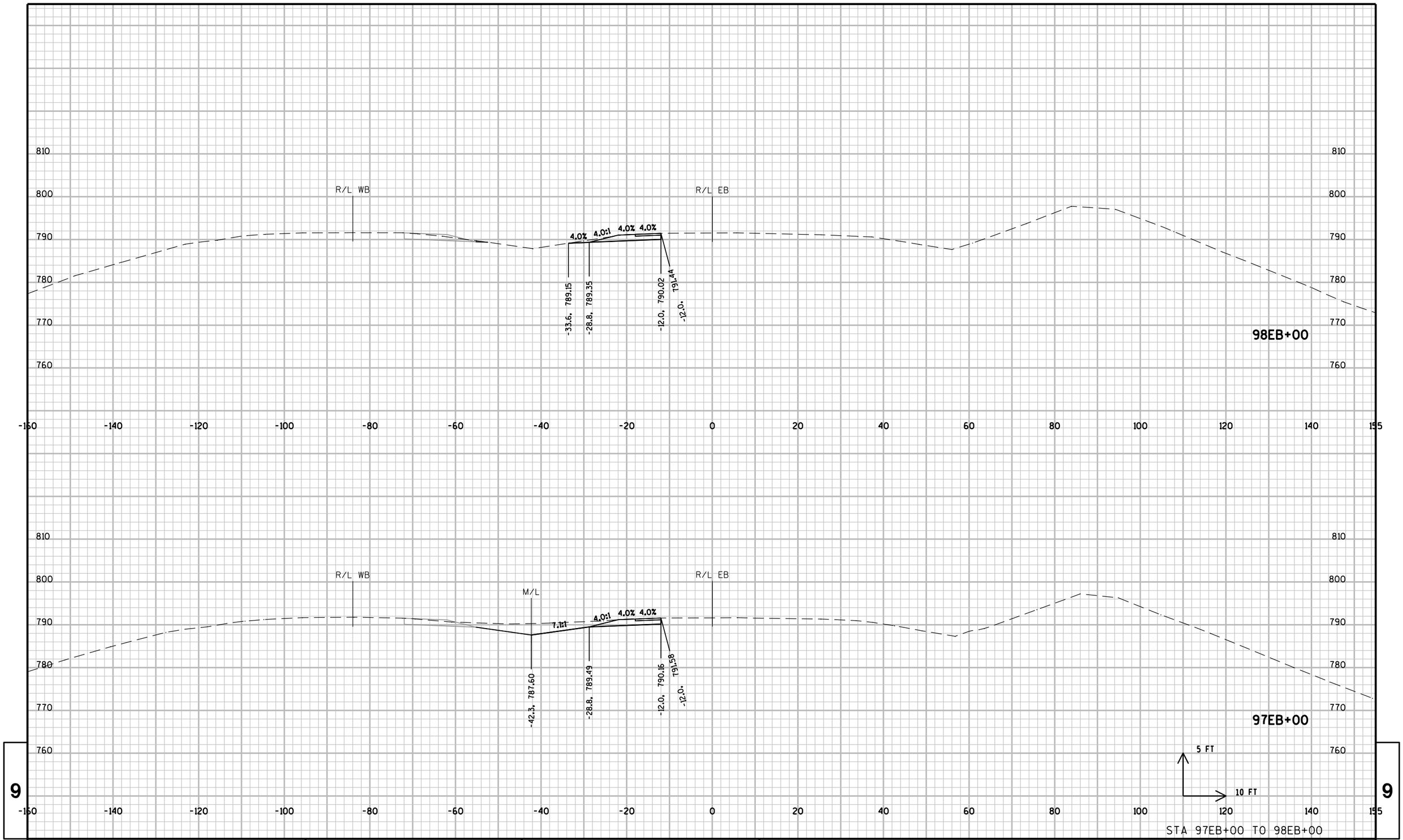
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STA 95EB+00 TO 96EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 575	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

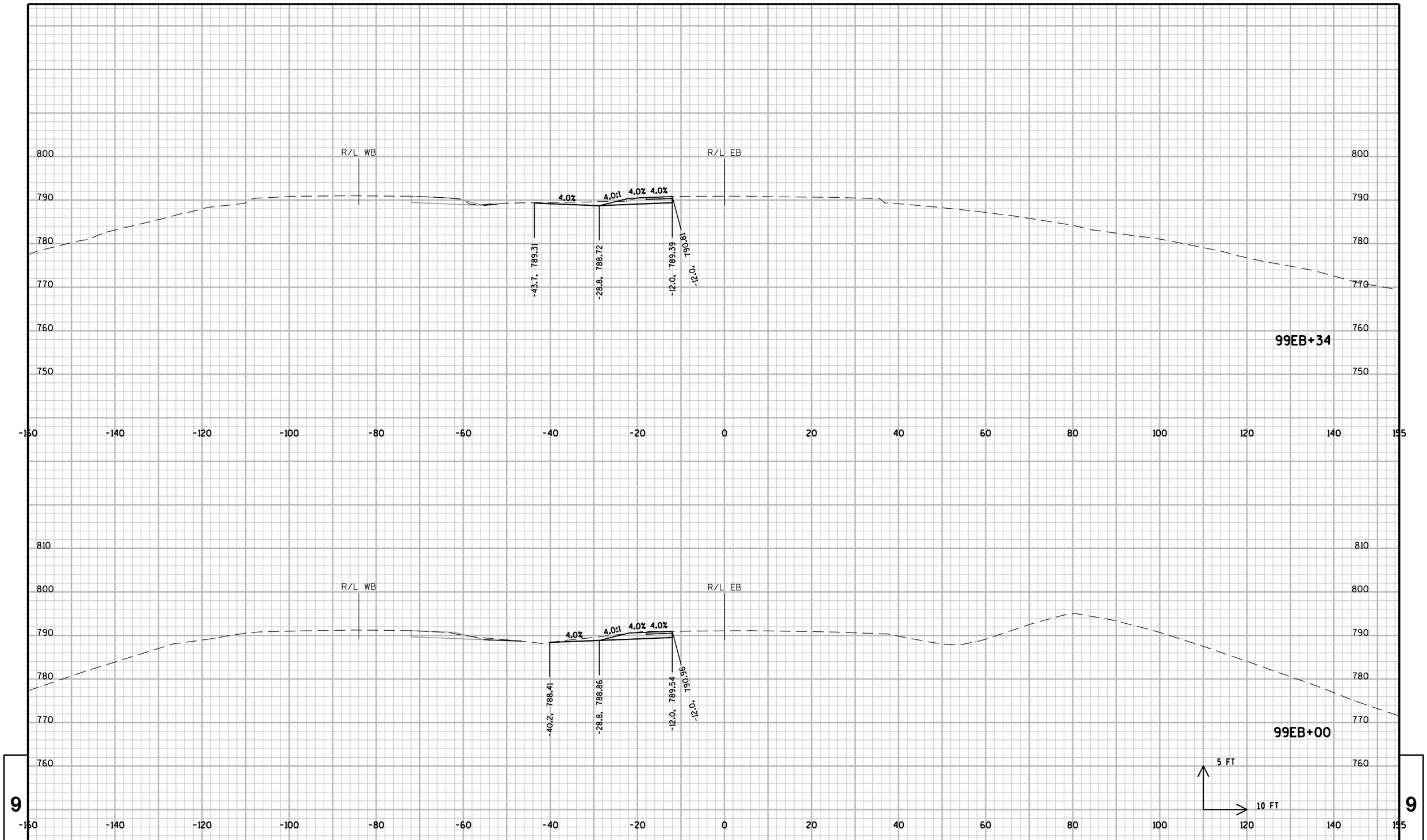


STA 97EB+00 TO 98EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 576	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

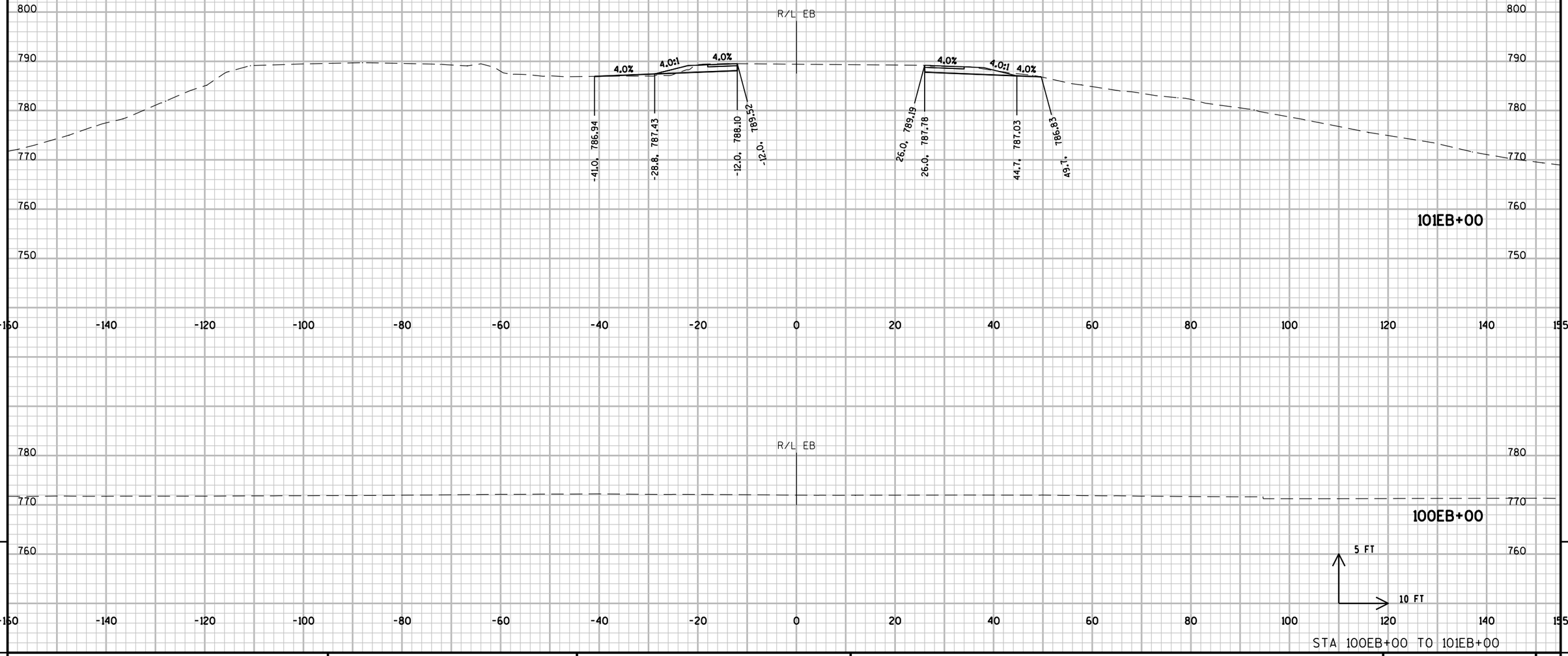


STA 99EB+00 TO 99EB+34

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 577	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

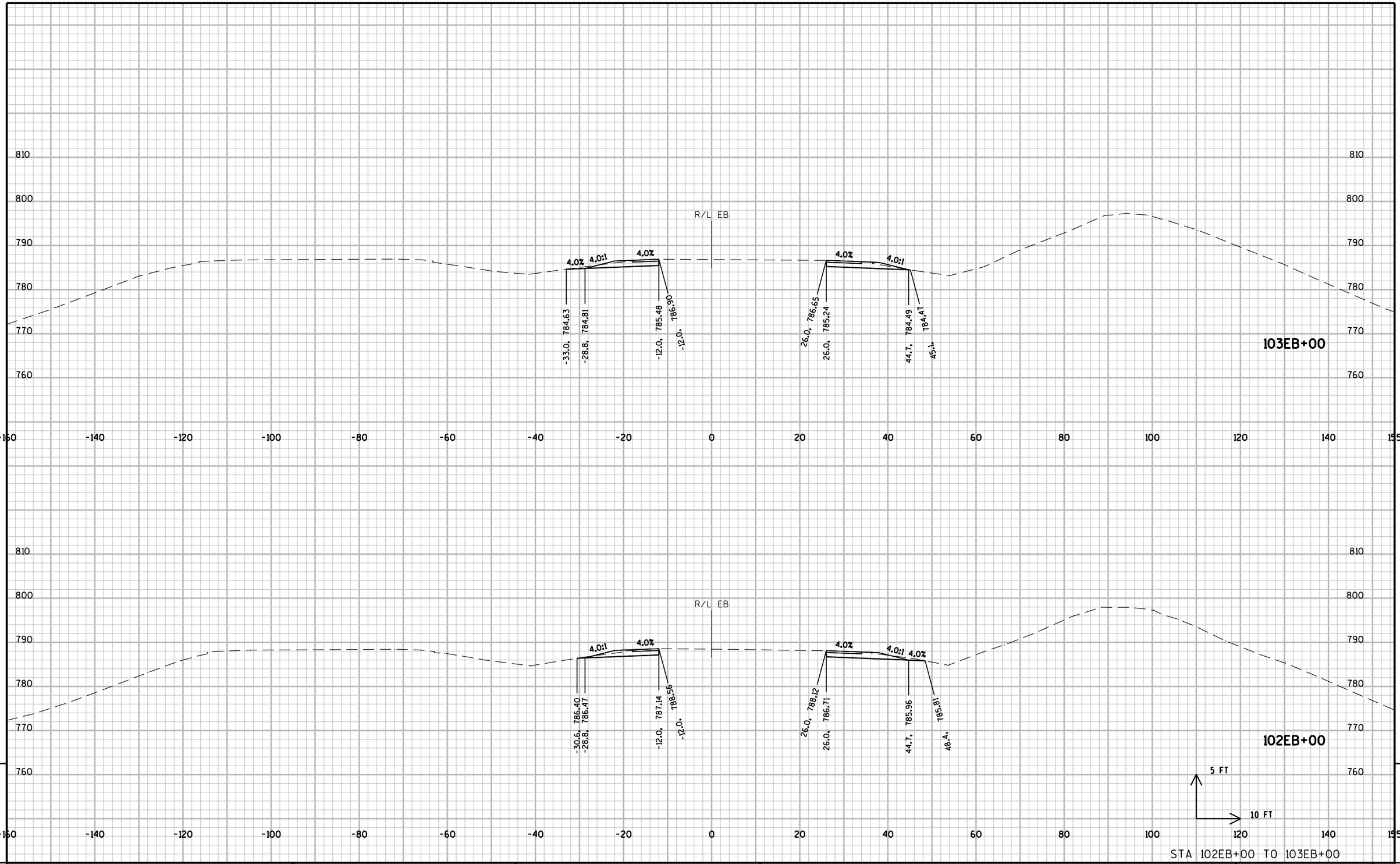


STA 100EB+00 TO 101EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 578	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

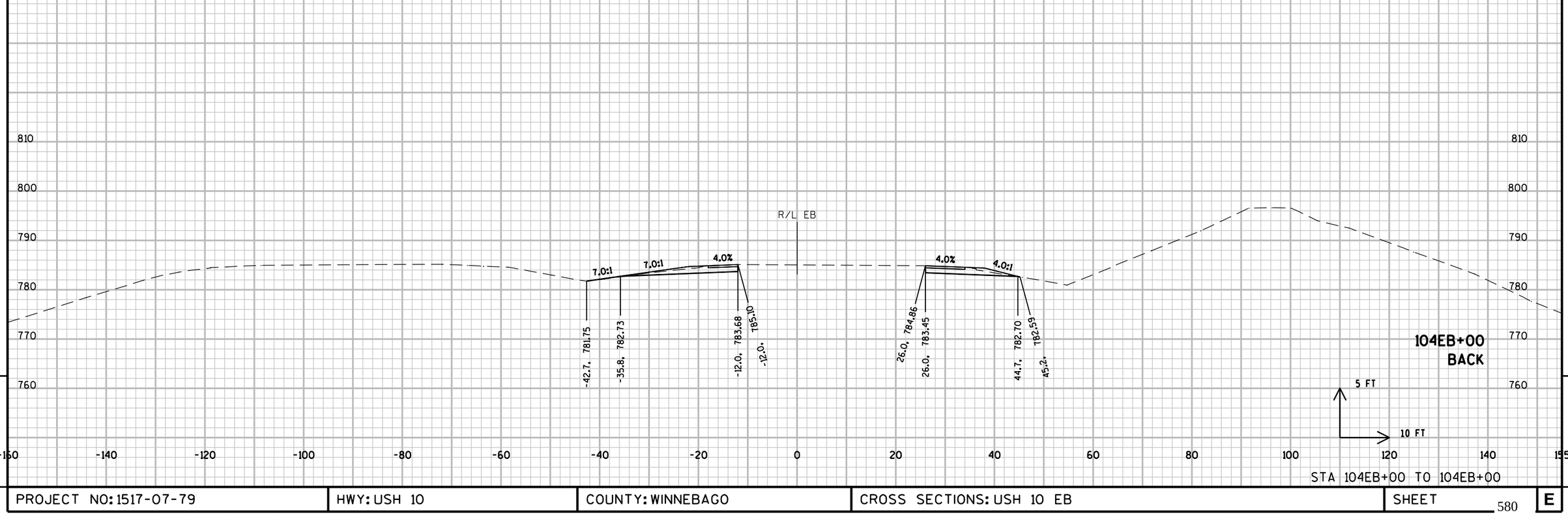


STA 102EB+00 TO 103EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 579	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 104EB+00 TO 104EB+00

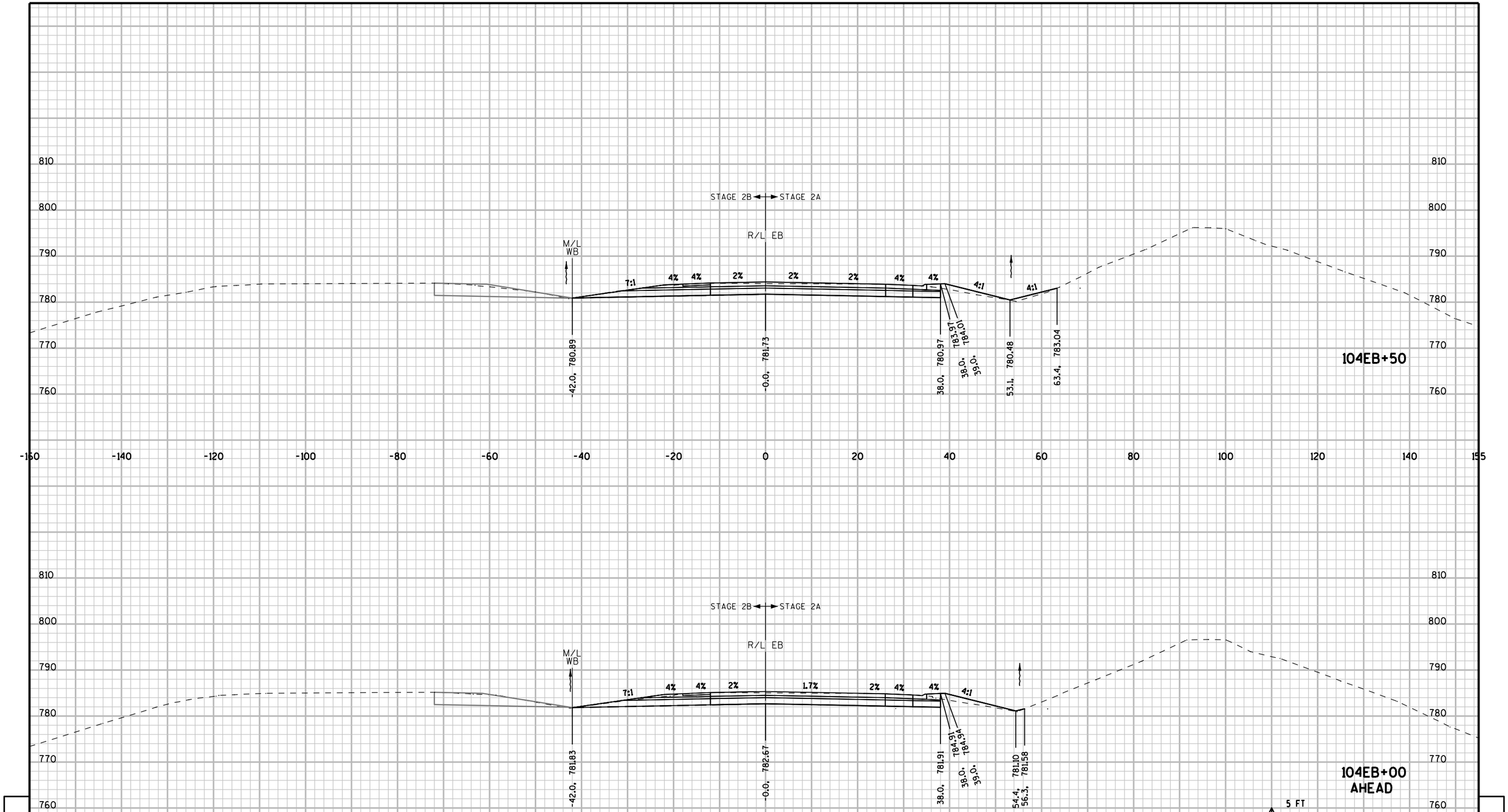
9

9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 580	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090204_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

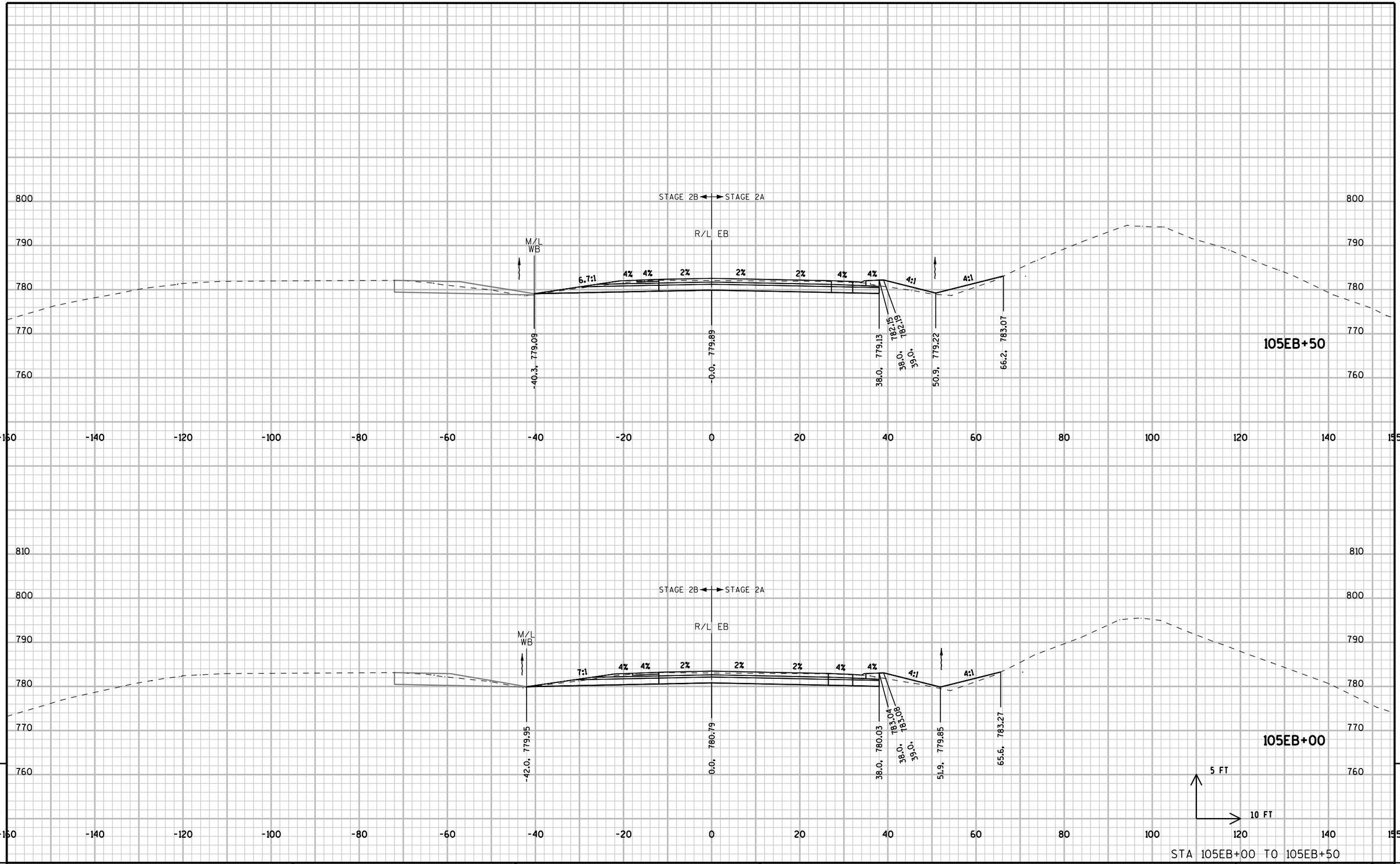


STA 104EB+00 TO 104EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 581	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

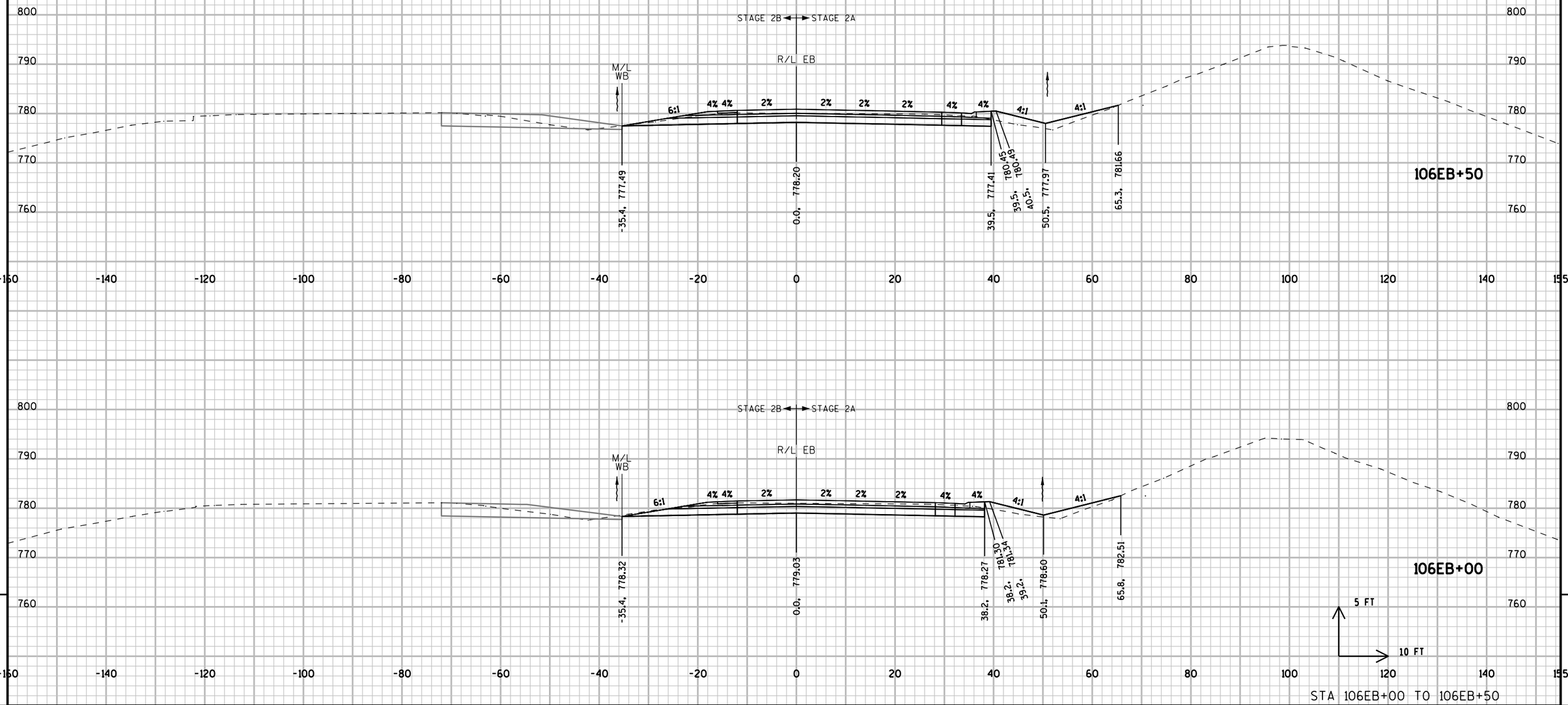


PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

582

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

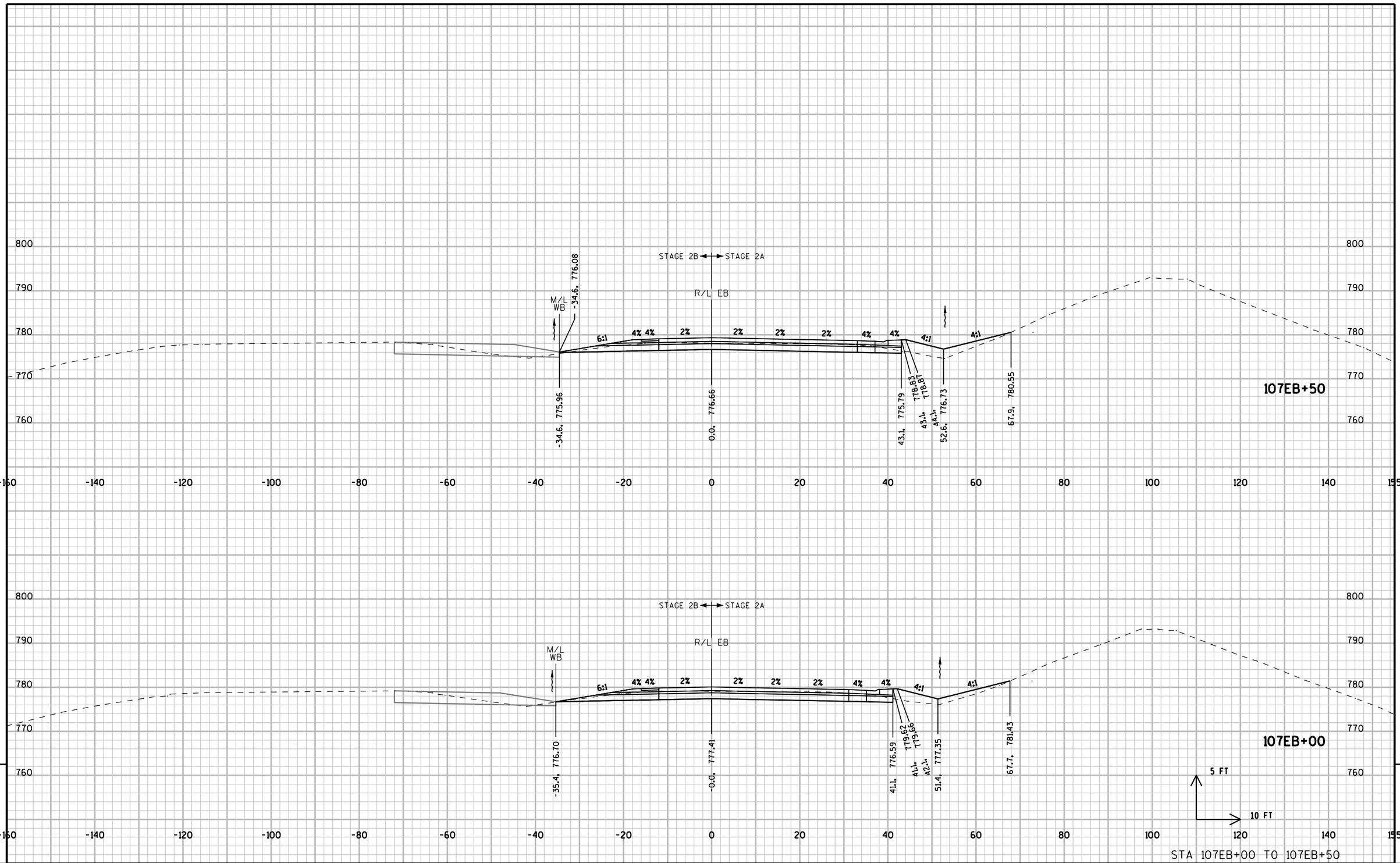


STA 106EB+00 TO 106EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

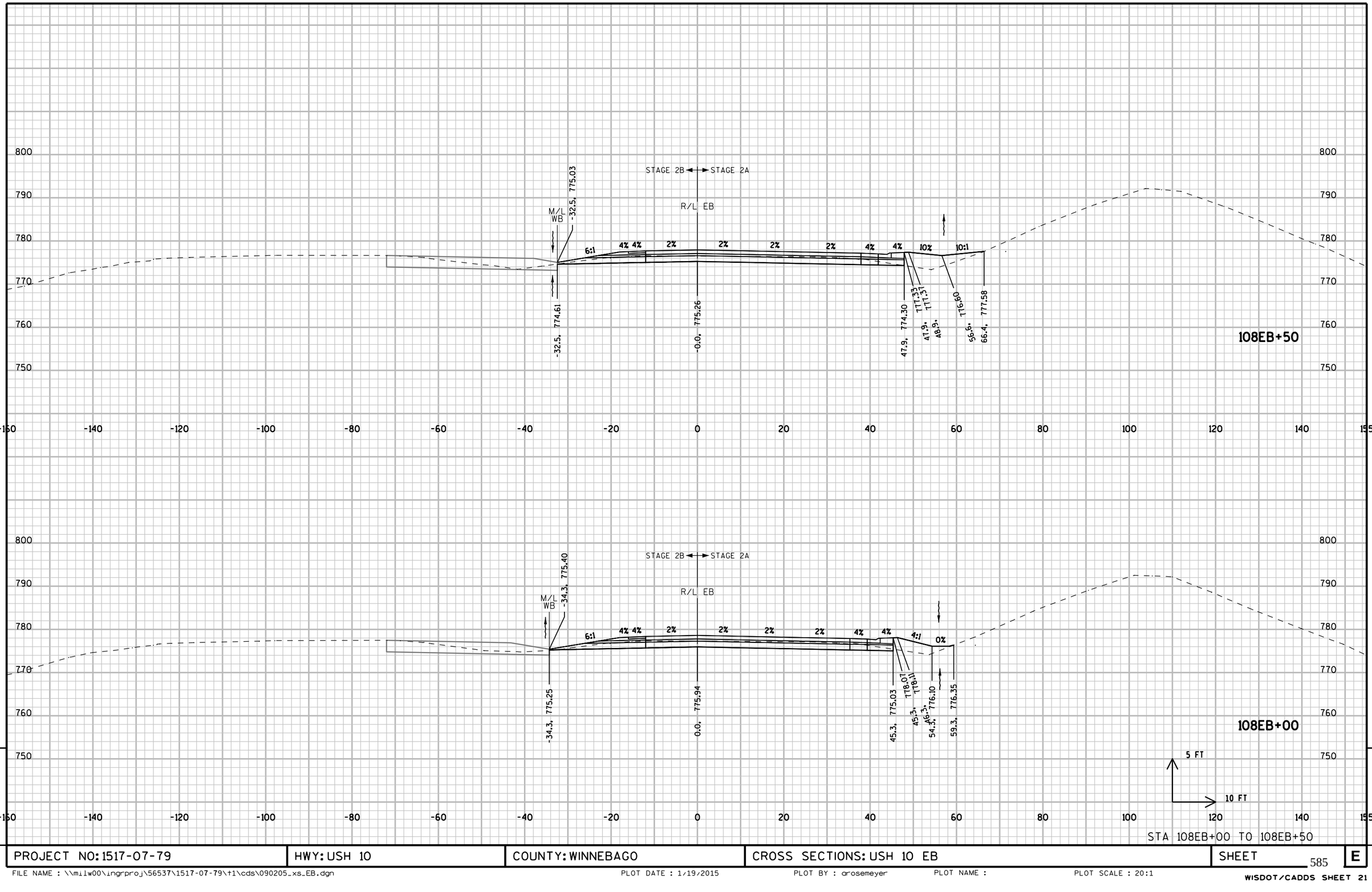
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 584	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

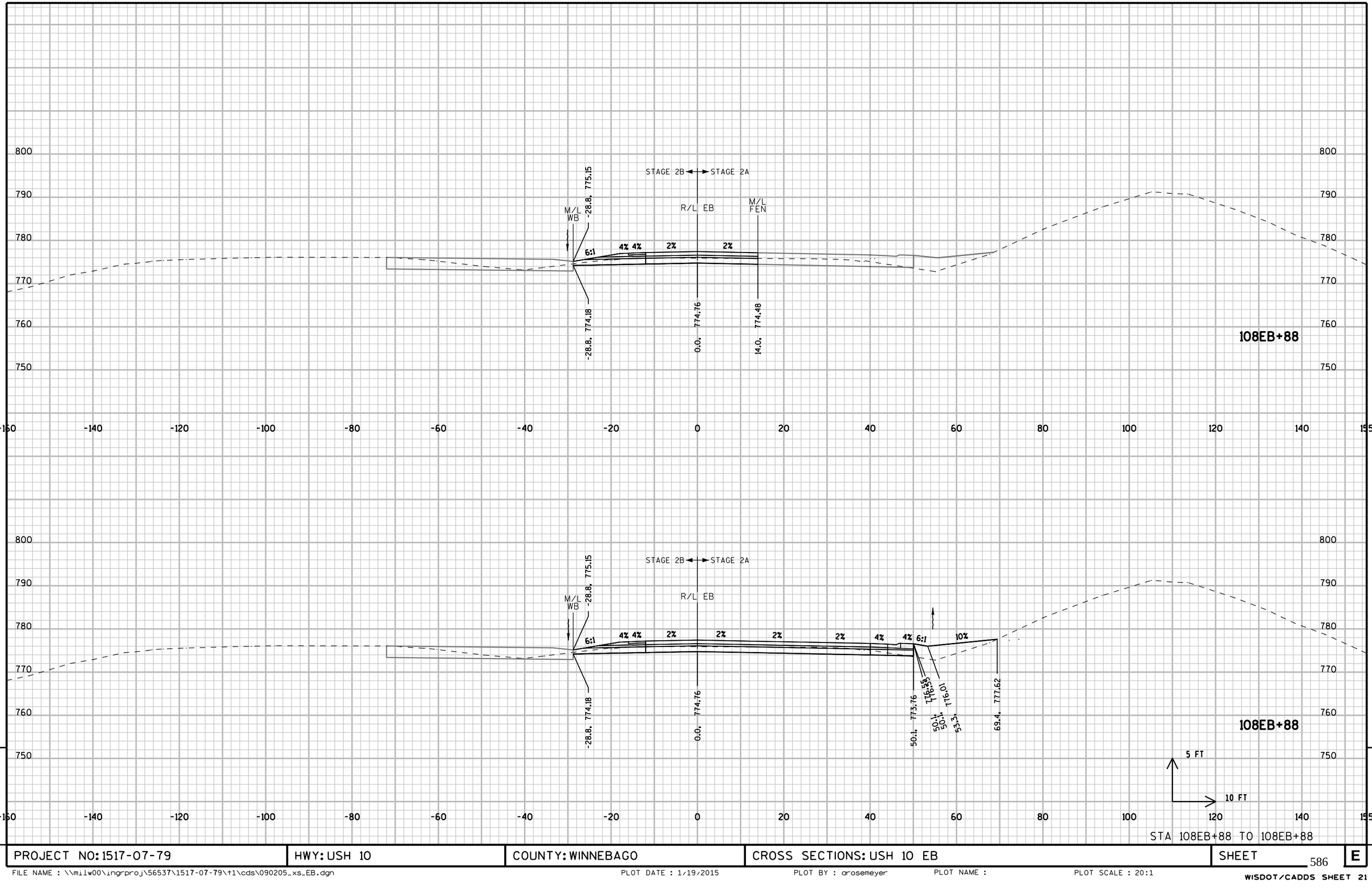


STA 108EB+00 TO 108EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 585	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

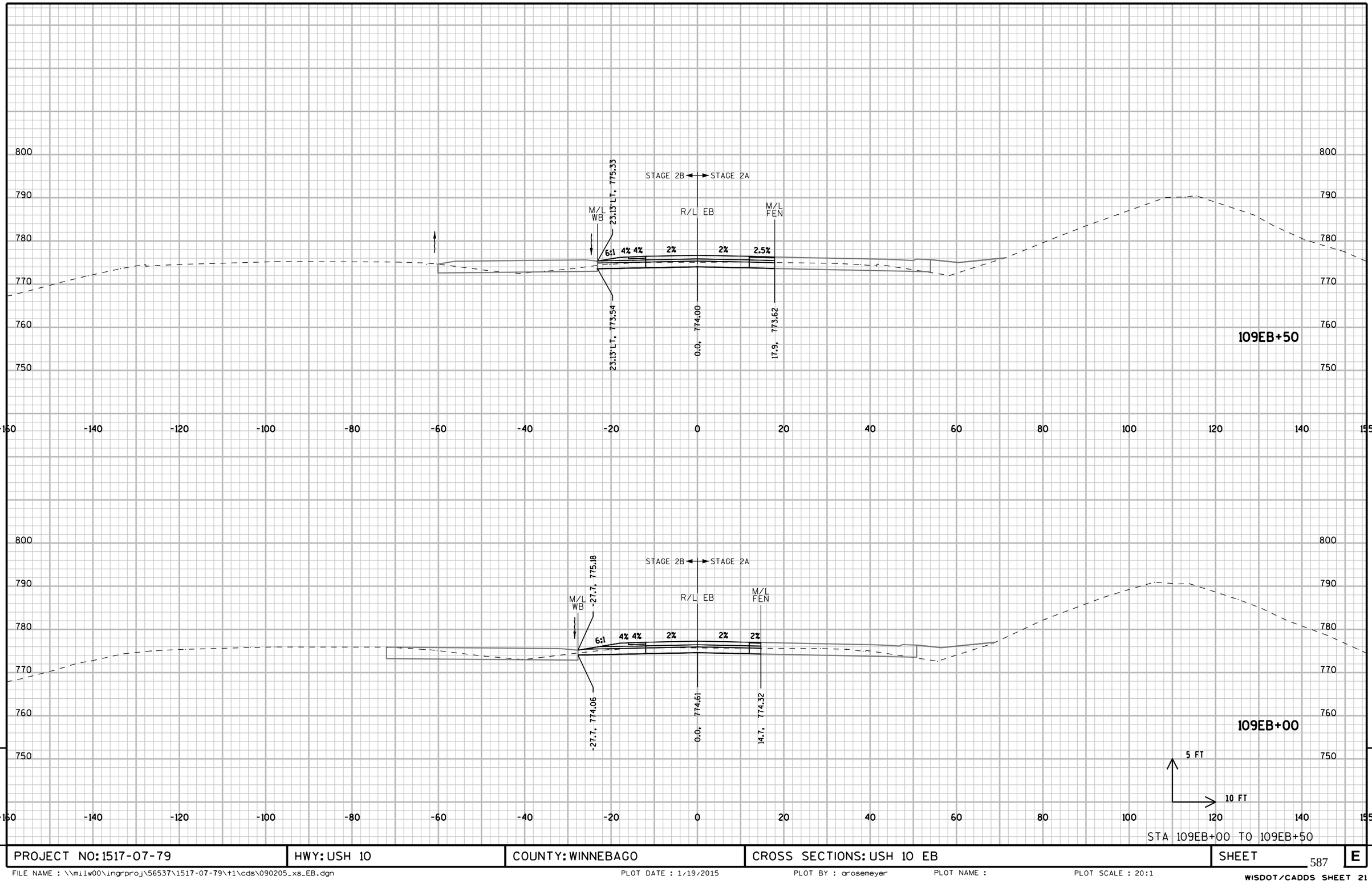
9

STA 108EB+88 TO 108EB+88

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 586	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

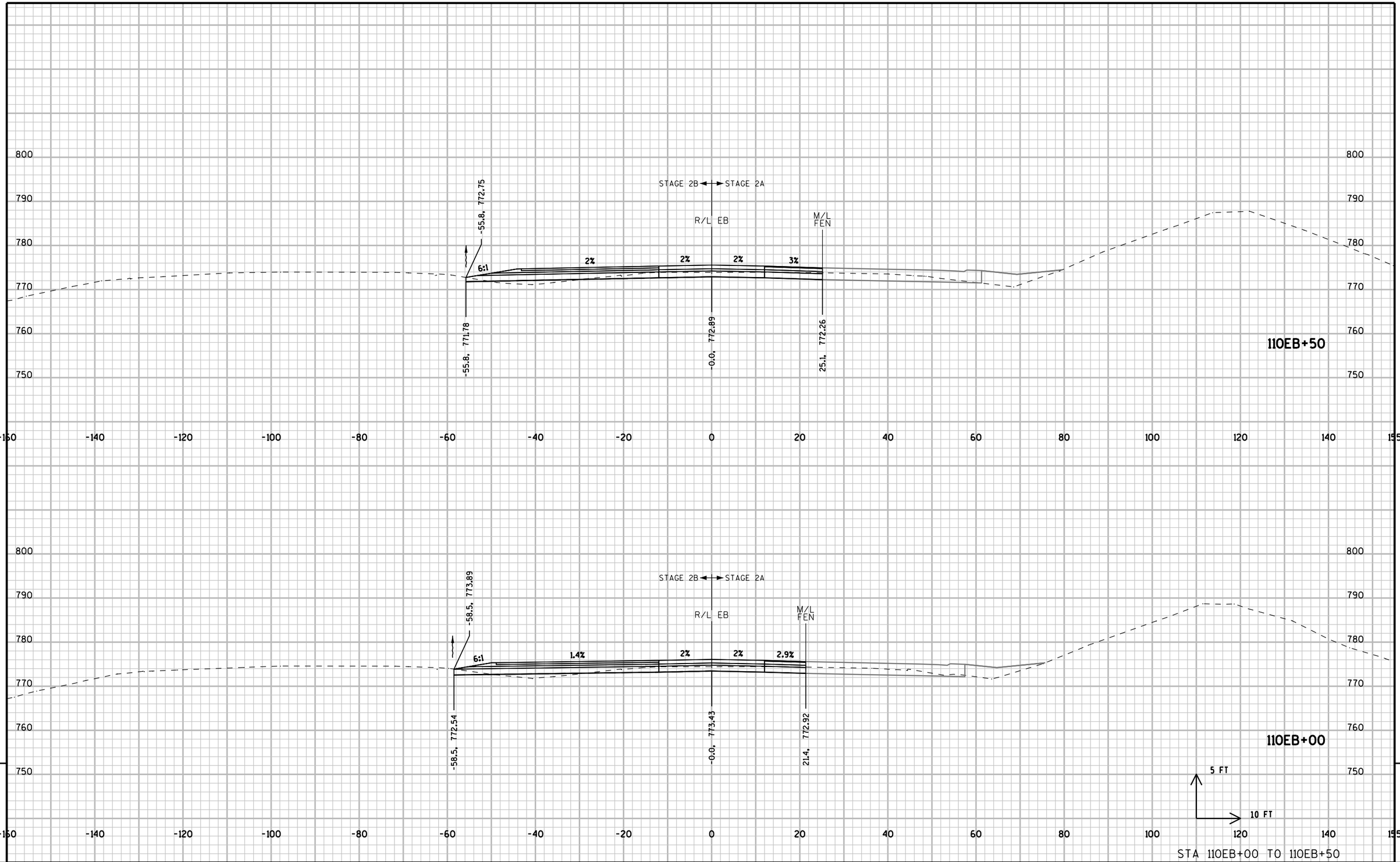


STA 109EB+00 TO 109EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 587	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

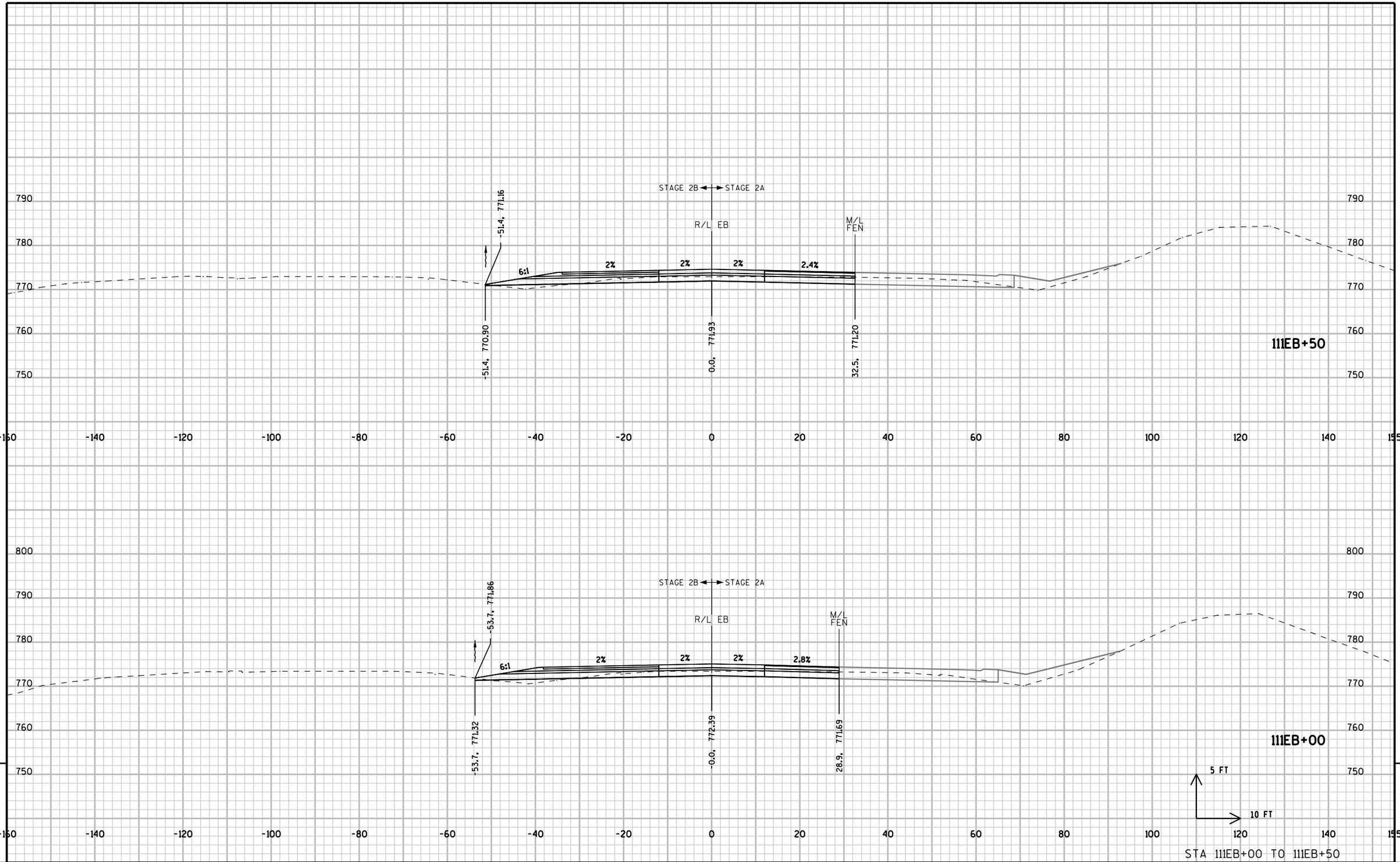


STA 110EB+00 TO 110EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 588	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



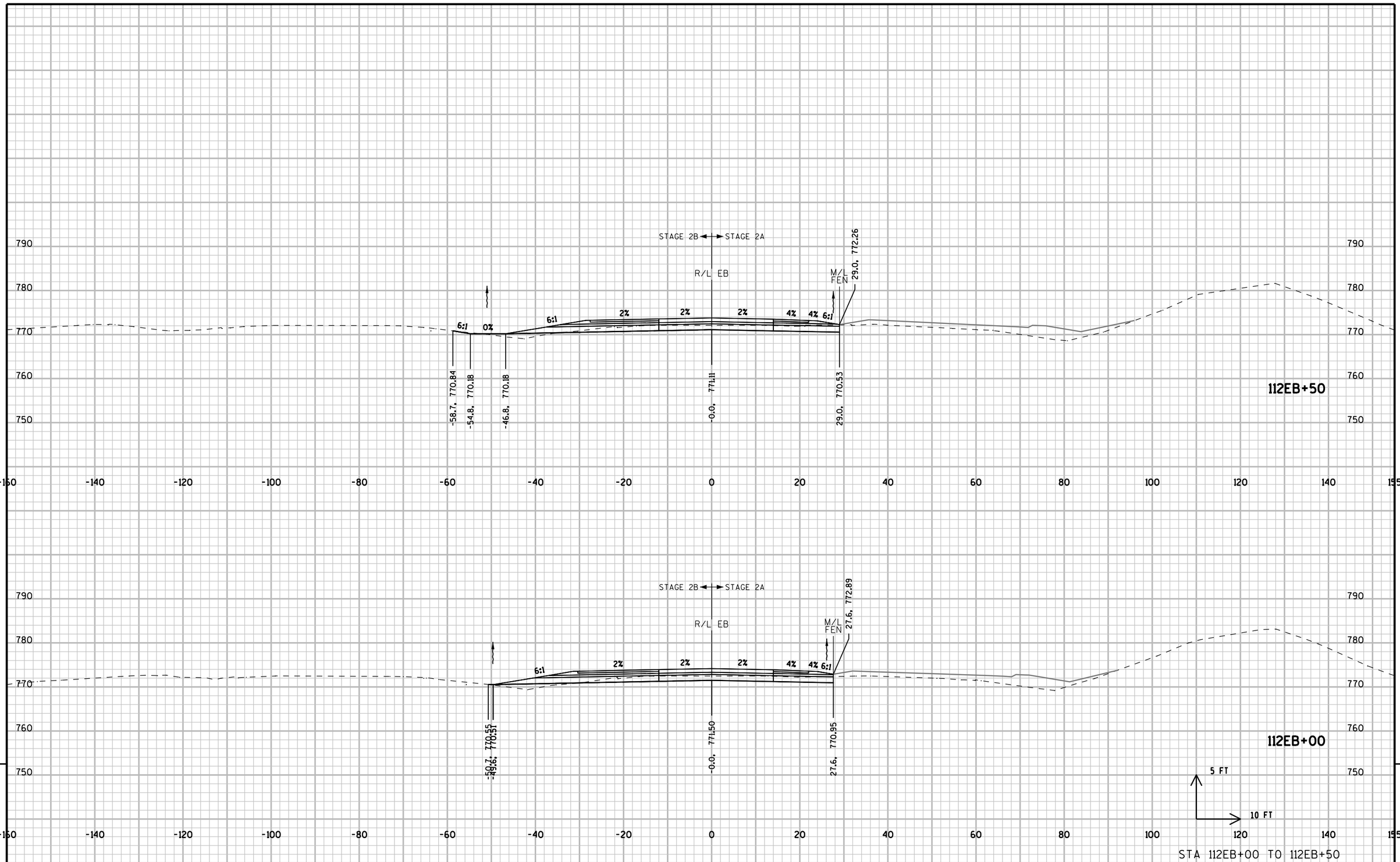
9

9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 589	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

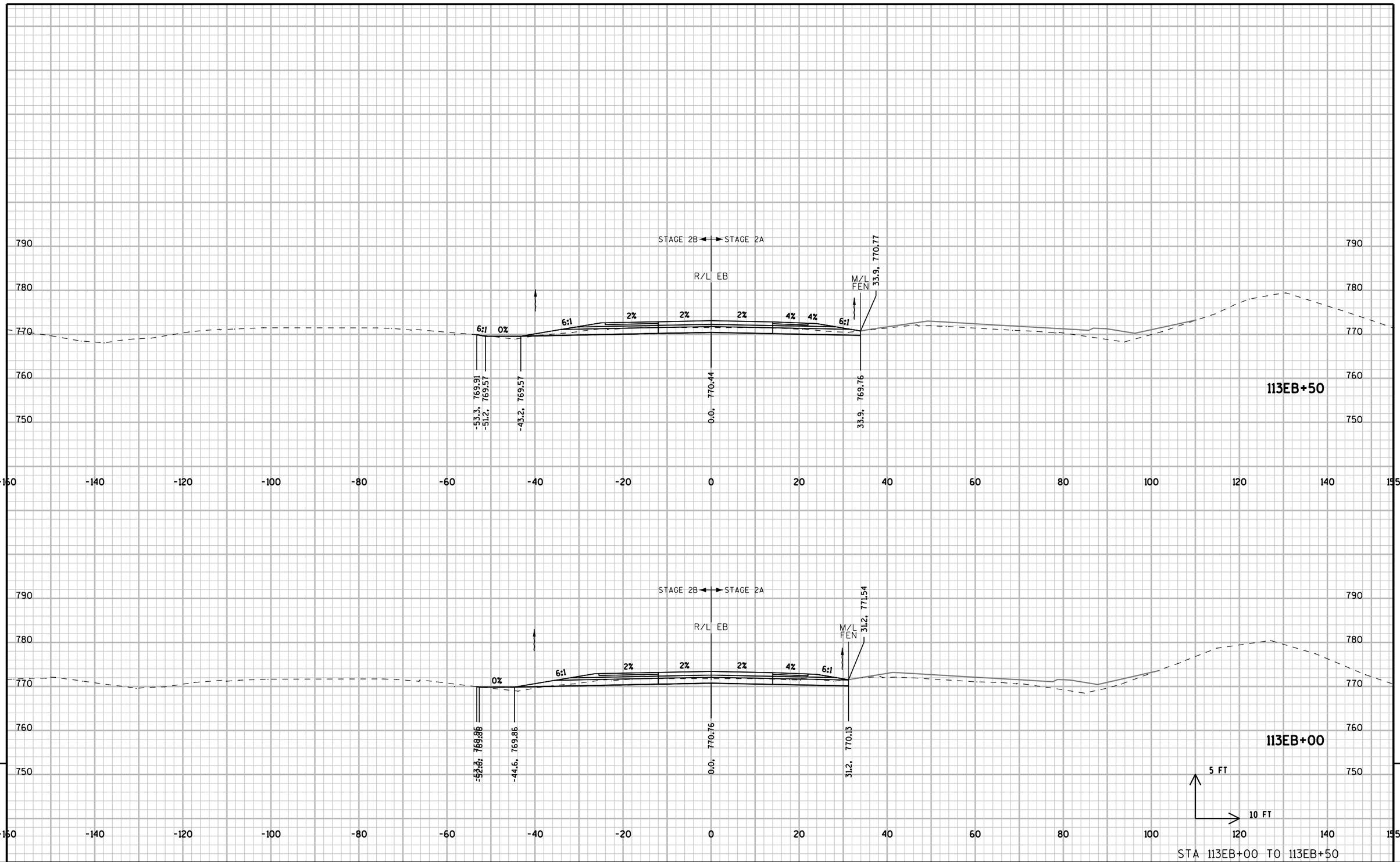


STA 112EB+00 TO 112EB+50

9

9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 590	E

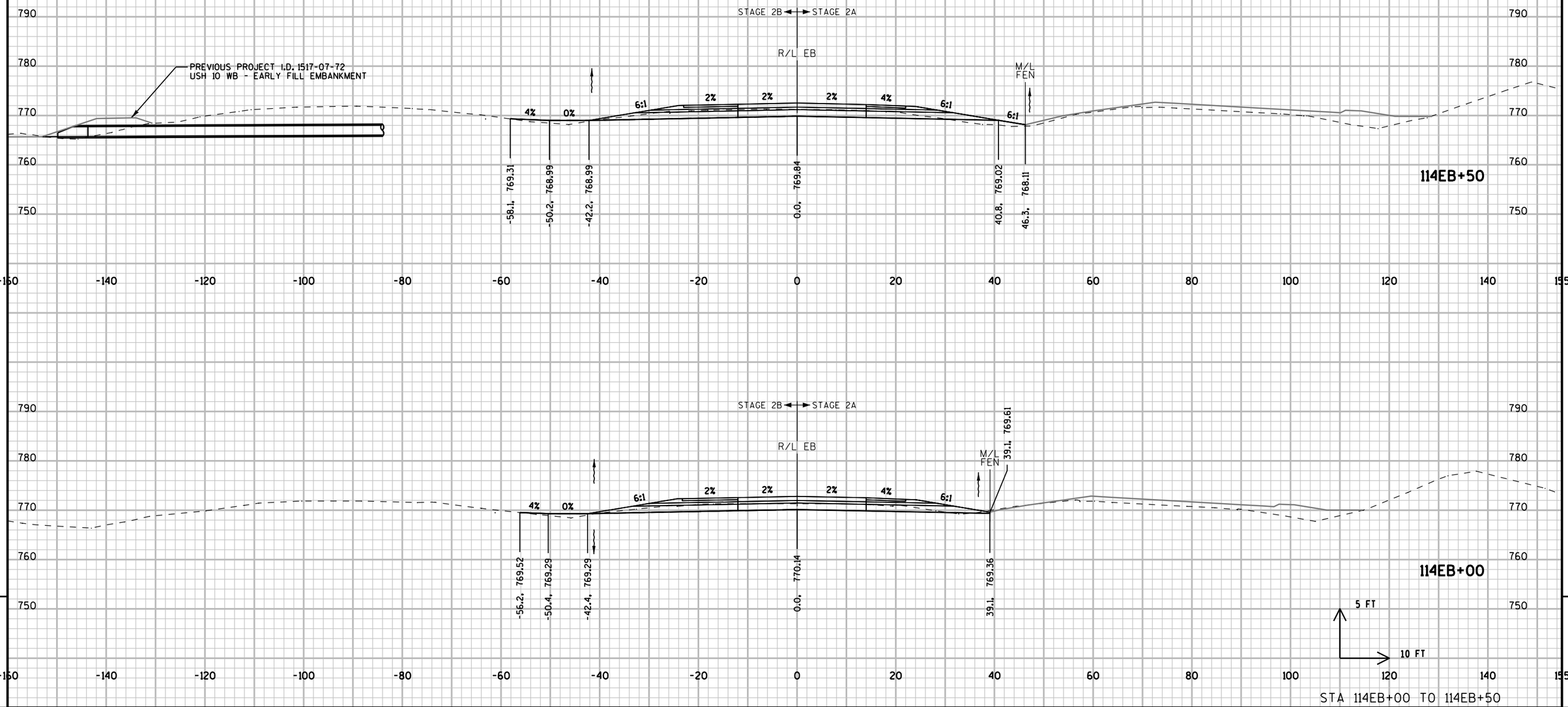


STA 113EB+00 TO 113EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 591	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

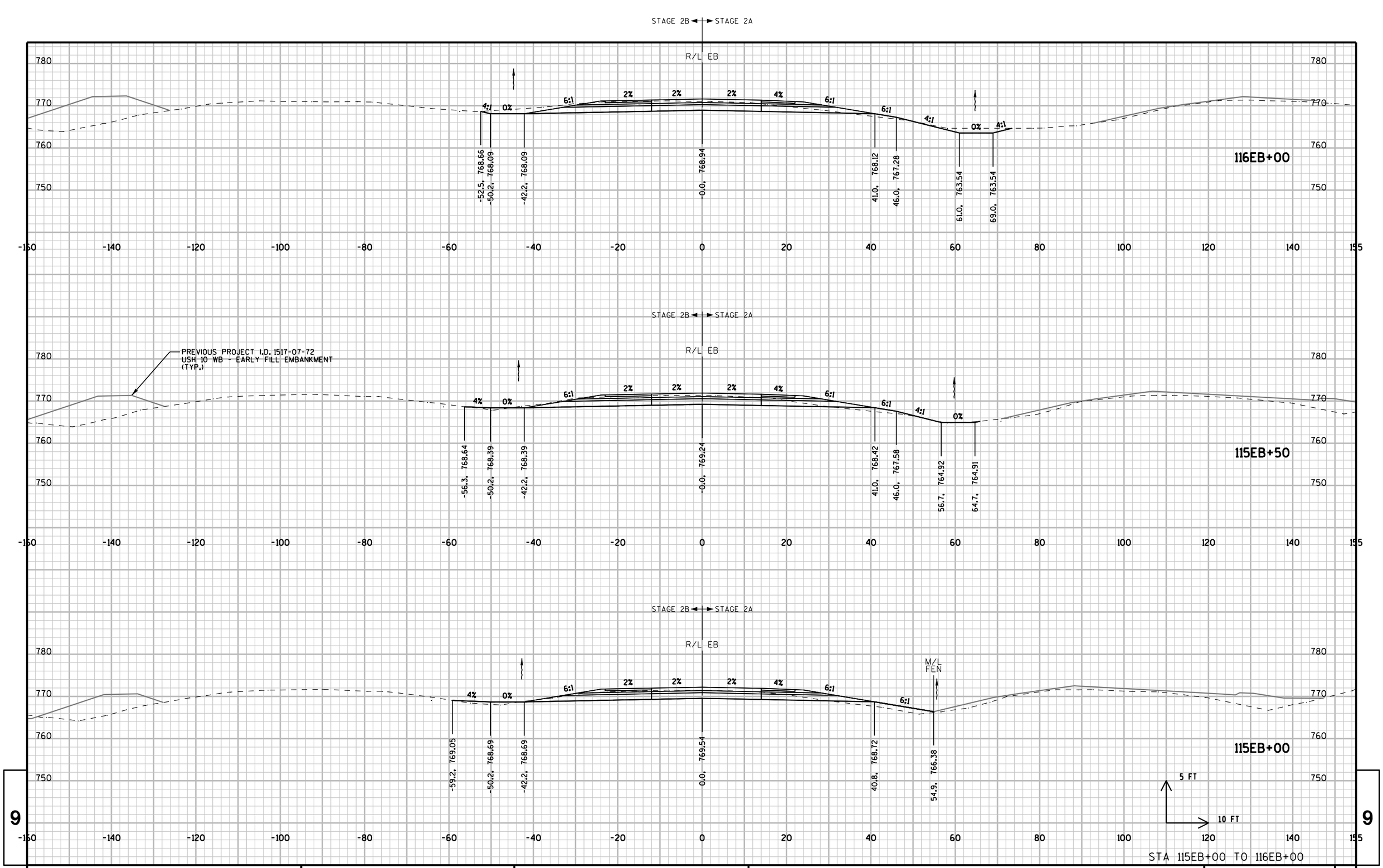
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



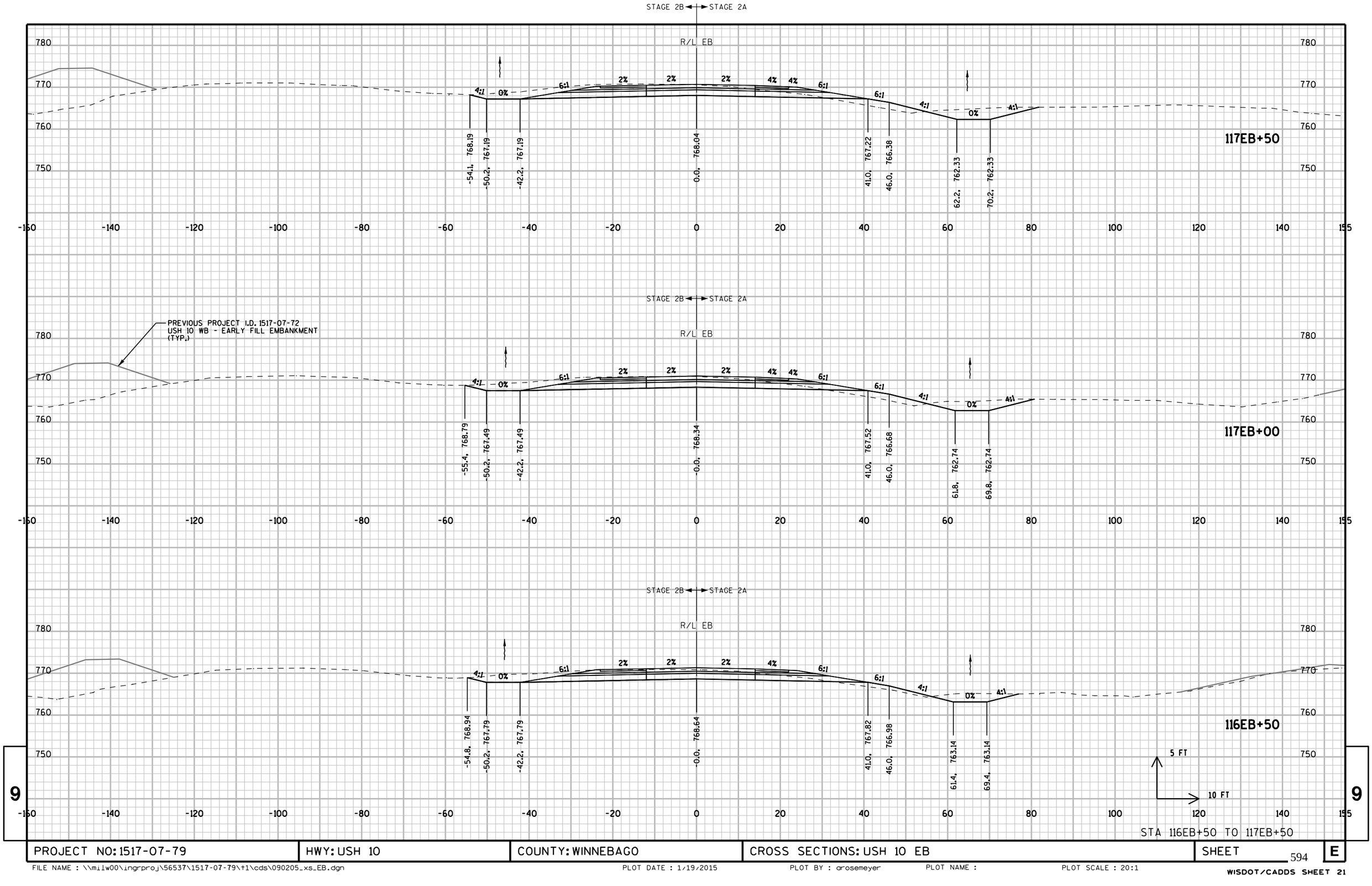
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

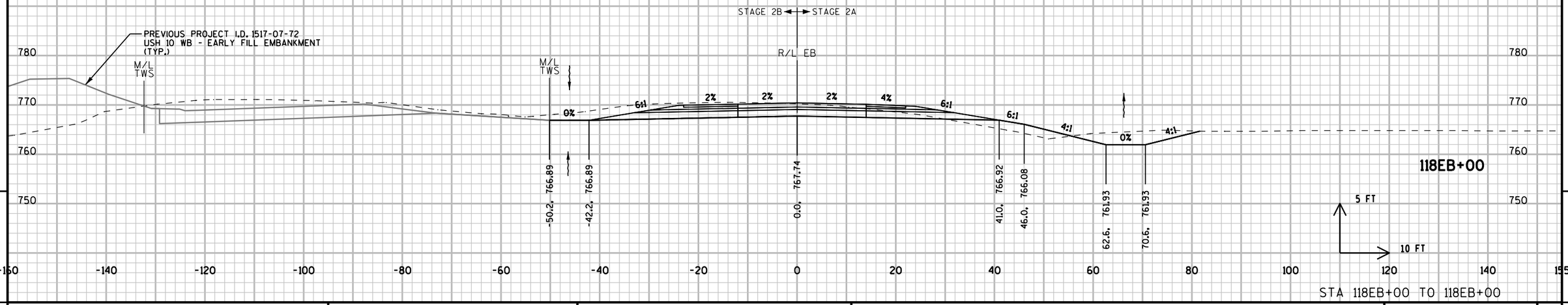
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 594 E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : crosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 118EB+00 TO 118EB+00

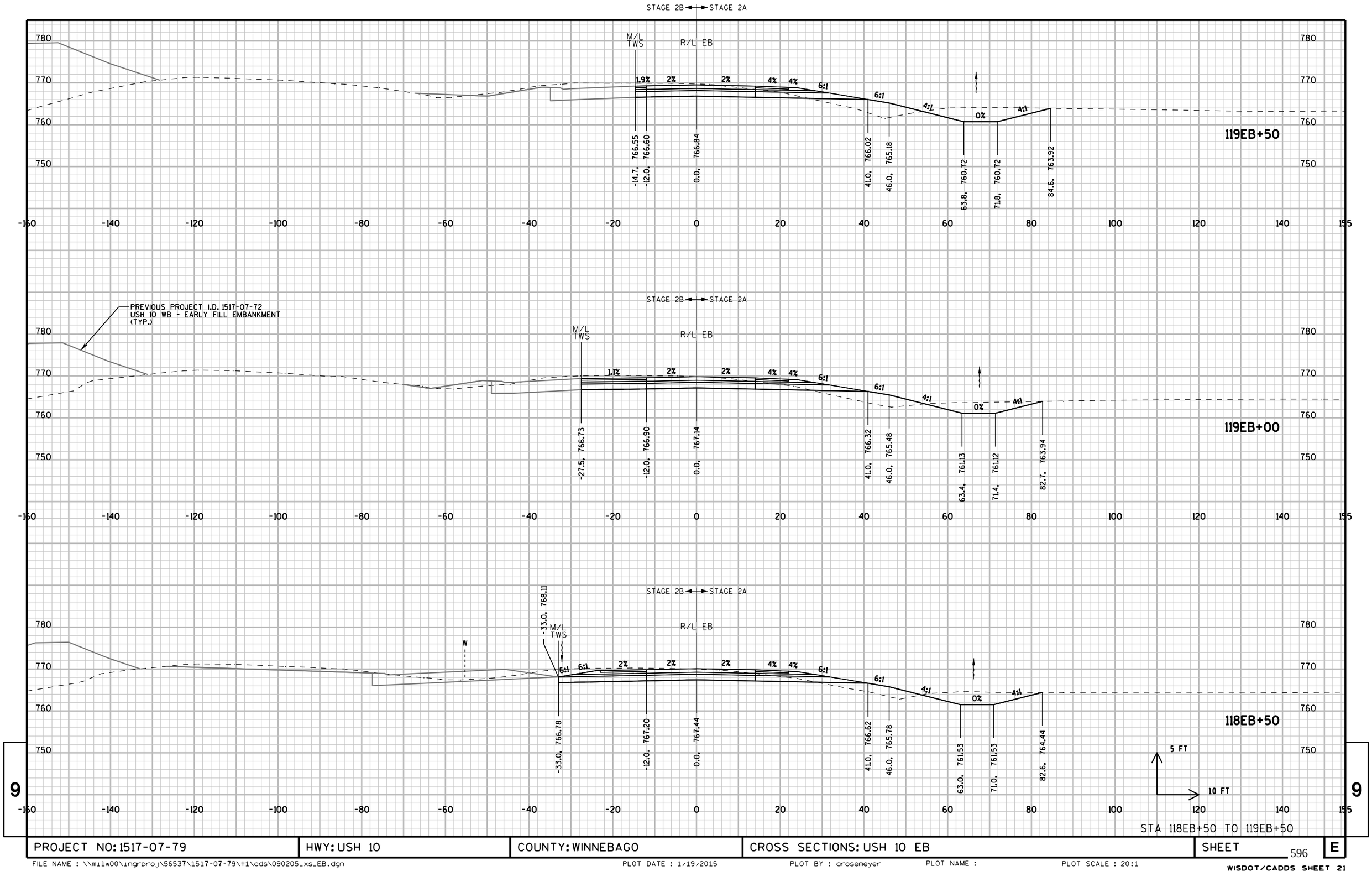
9

9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 595	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

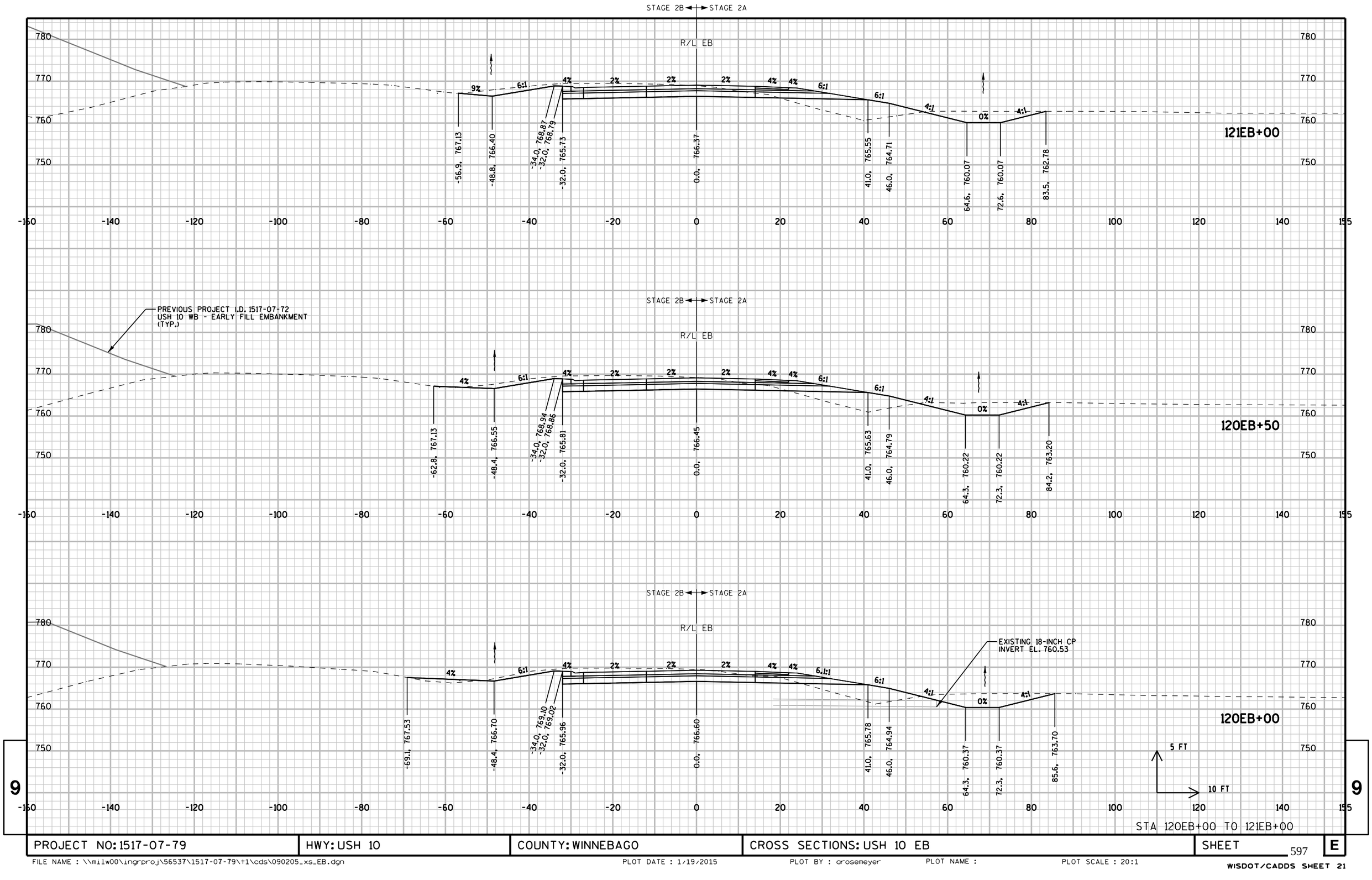


STA 118EB+50 TO 119EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

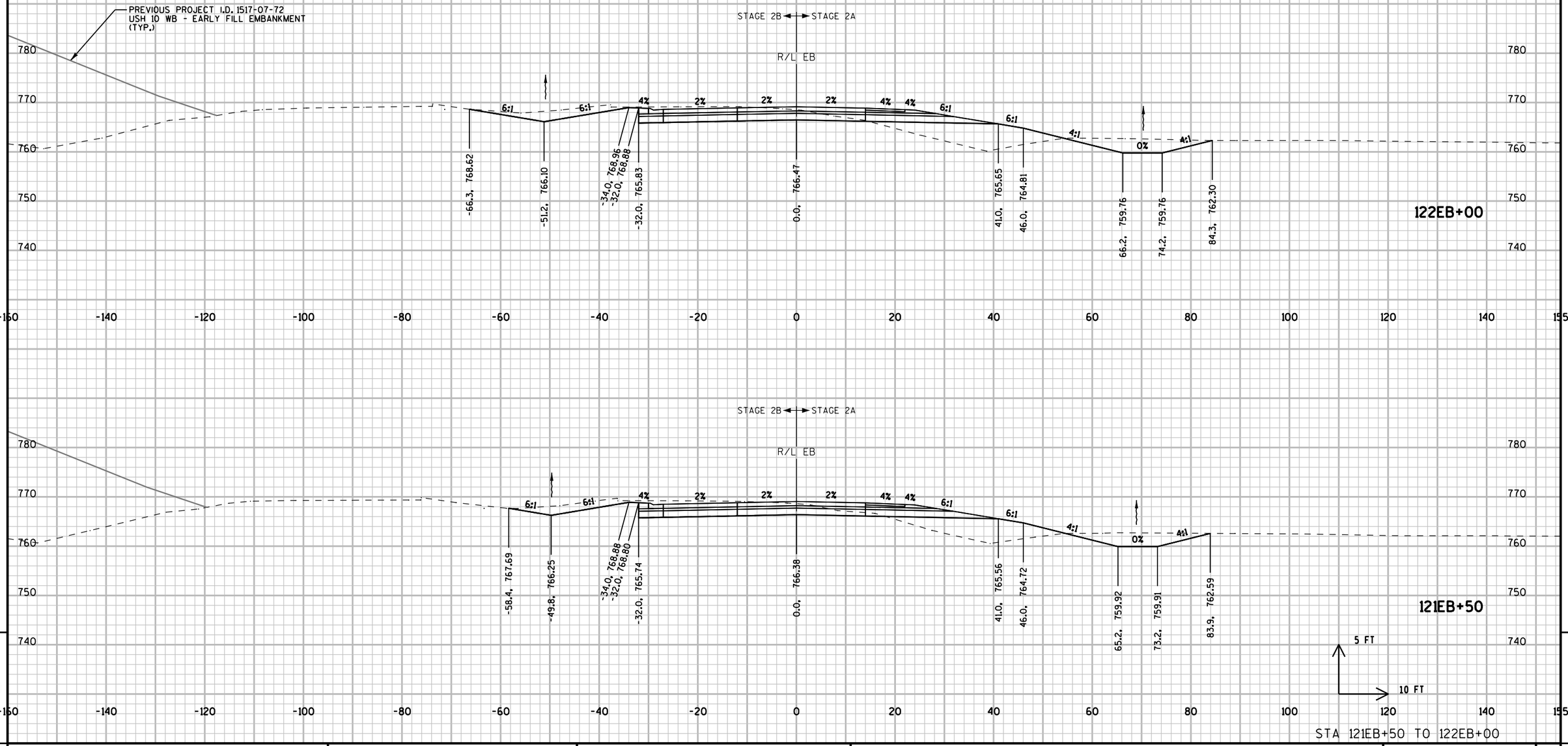


STA 120EB+00 TO 121EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 597	E

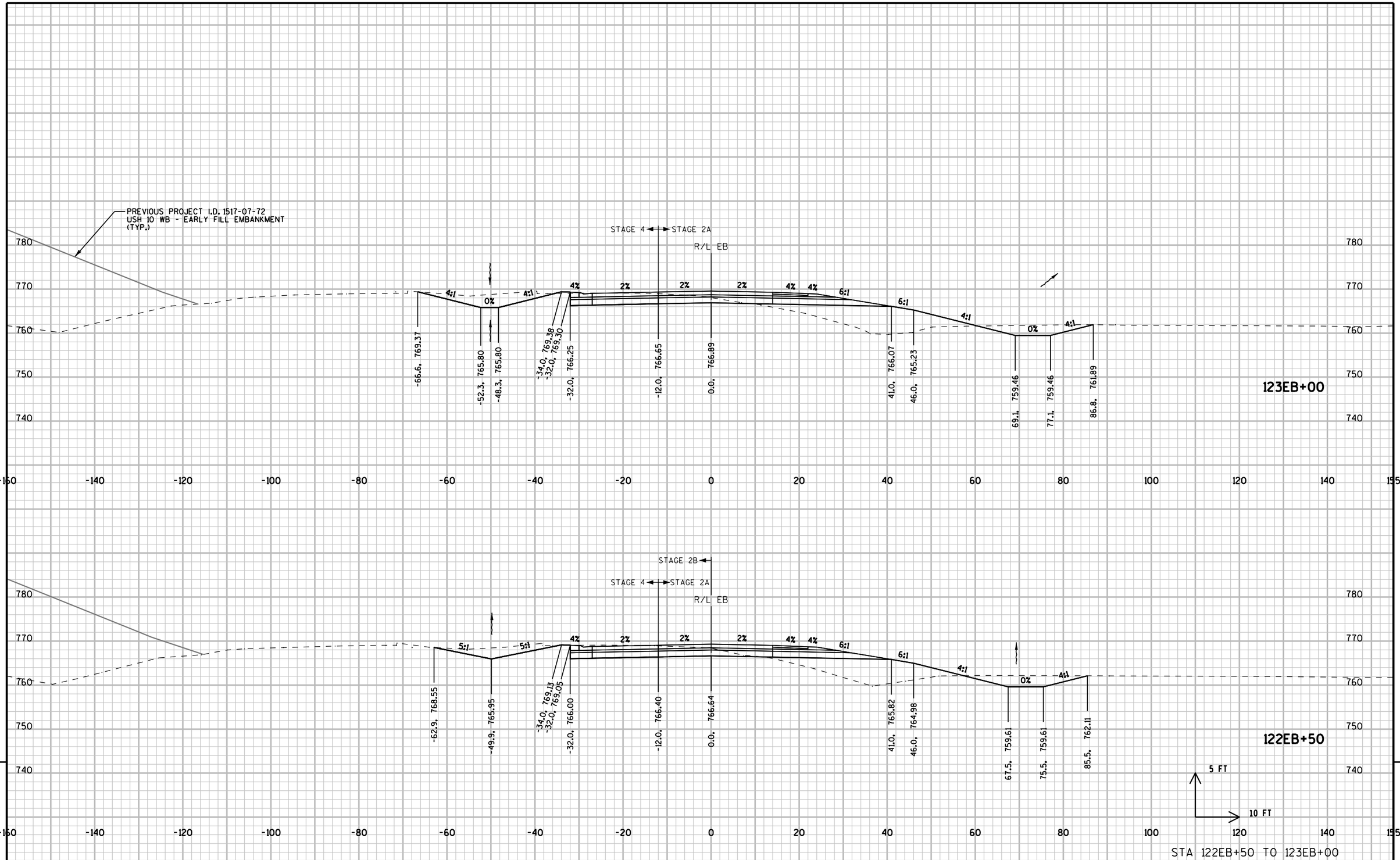
FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : crosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 121EB+50 TO 122EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 598	E

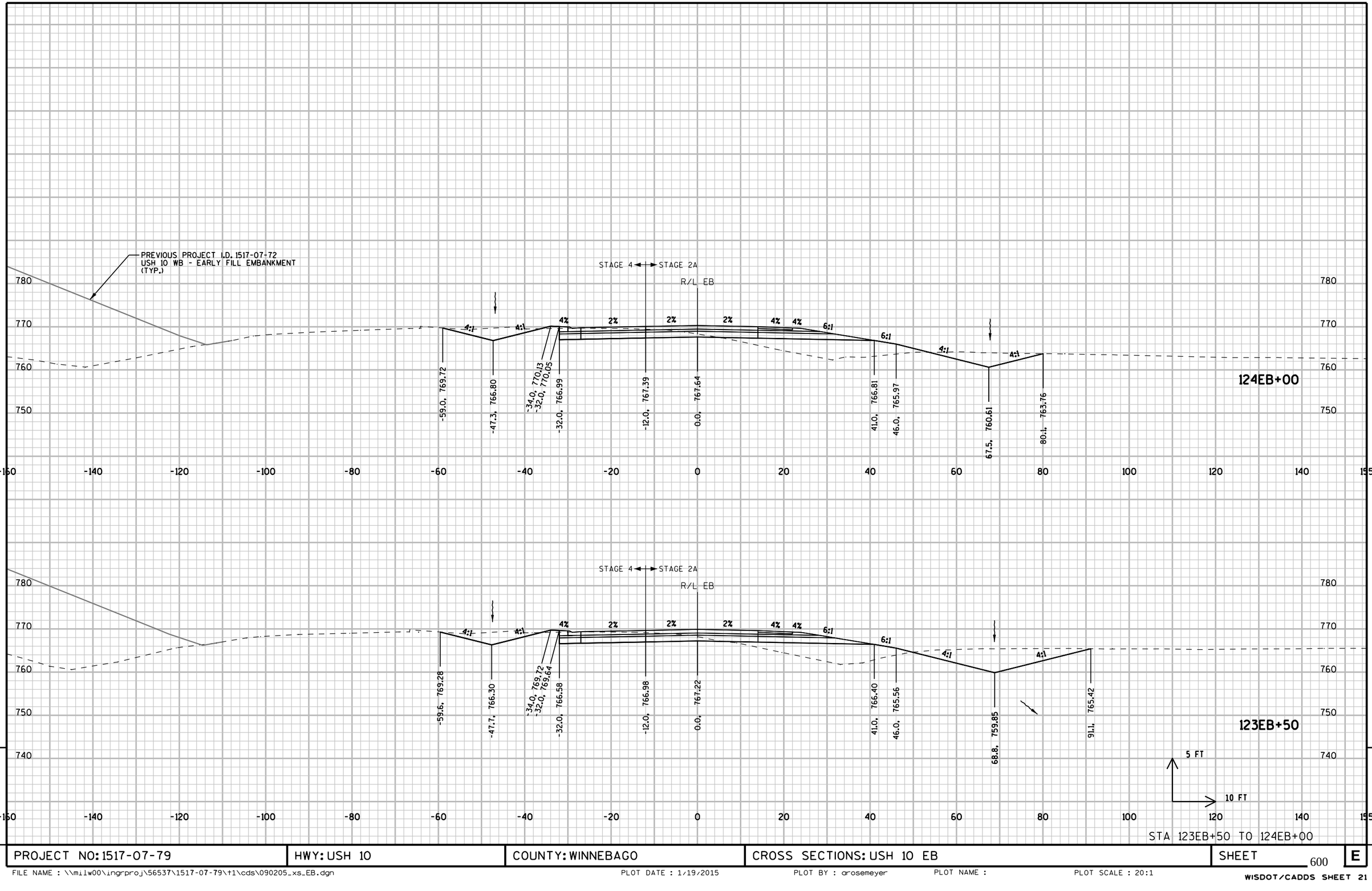


STA 122EB+50 TO 123EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 599	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

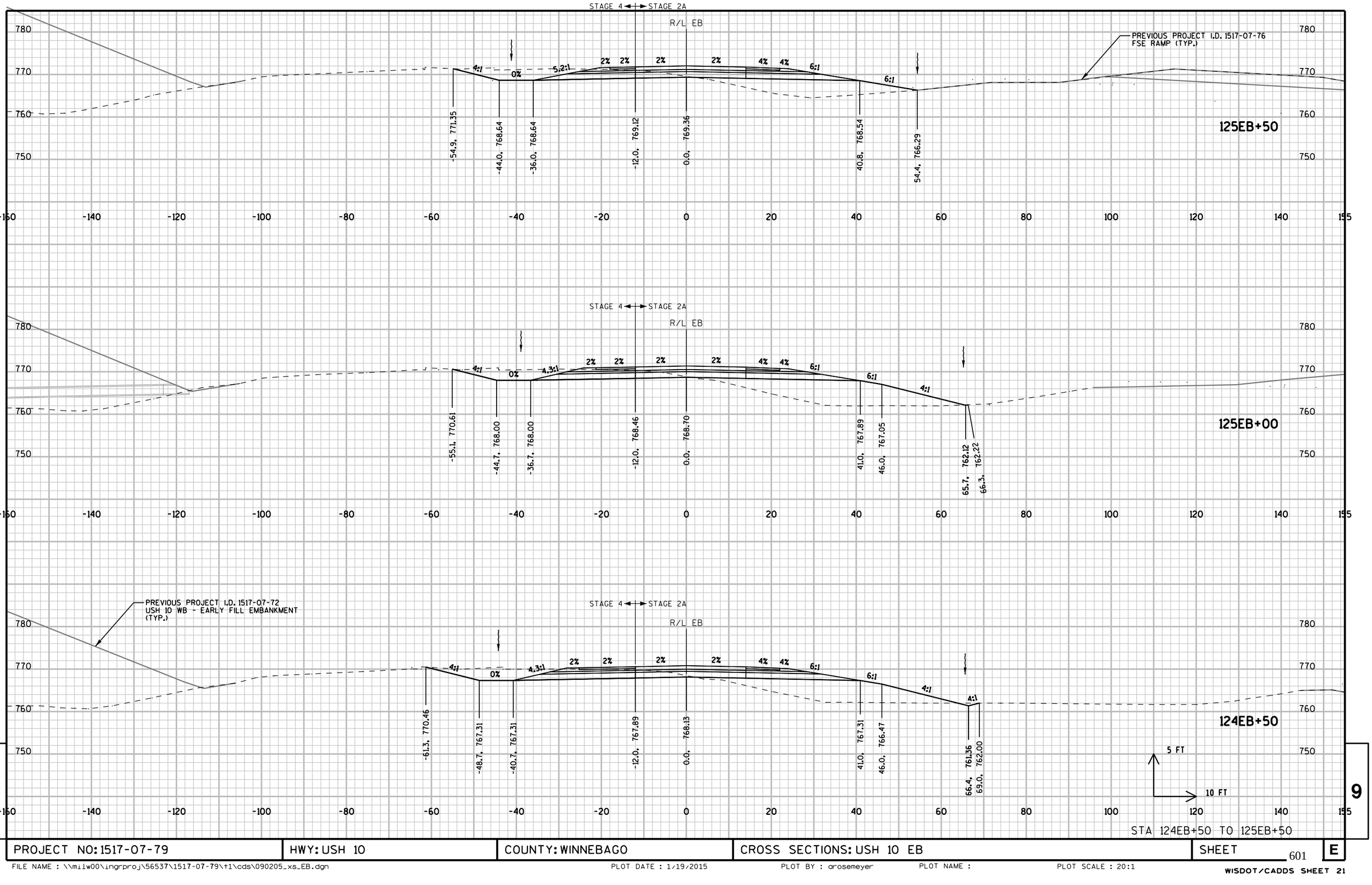


STA 123EB+50 TO 124EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 600	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

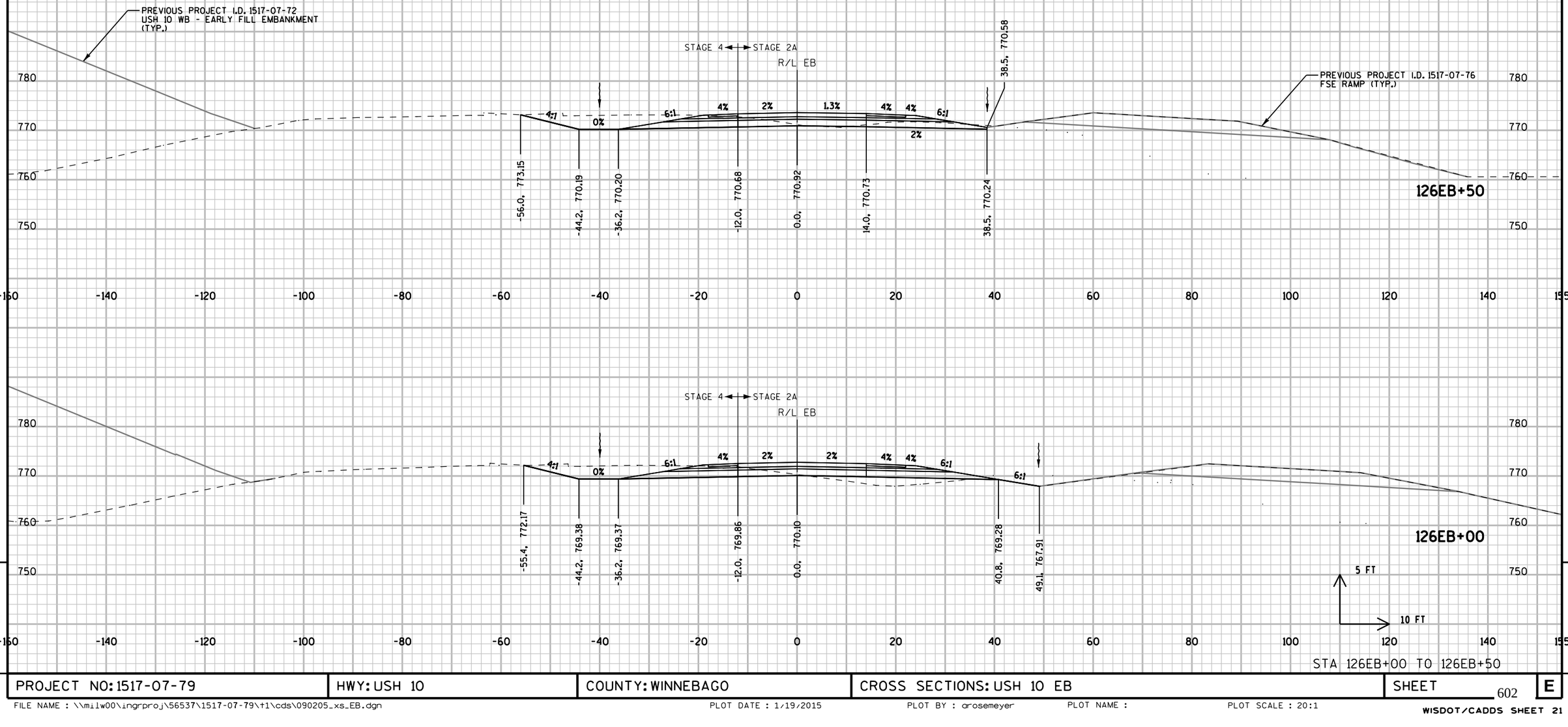


STA 124EB+50 TO 125EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

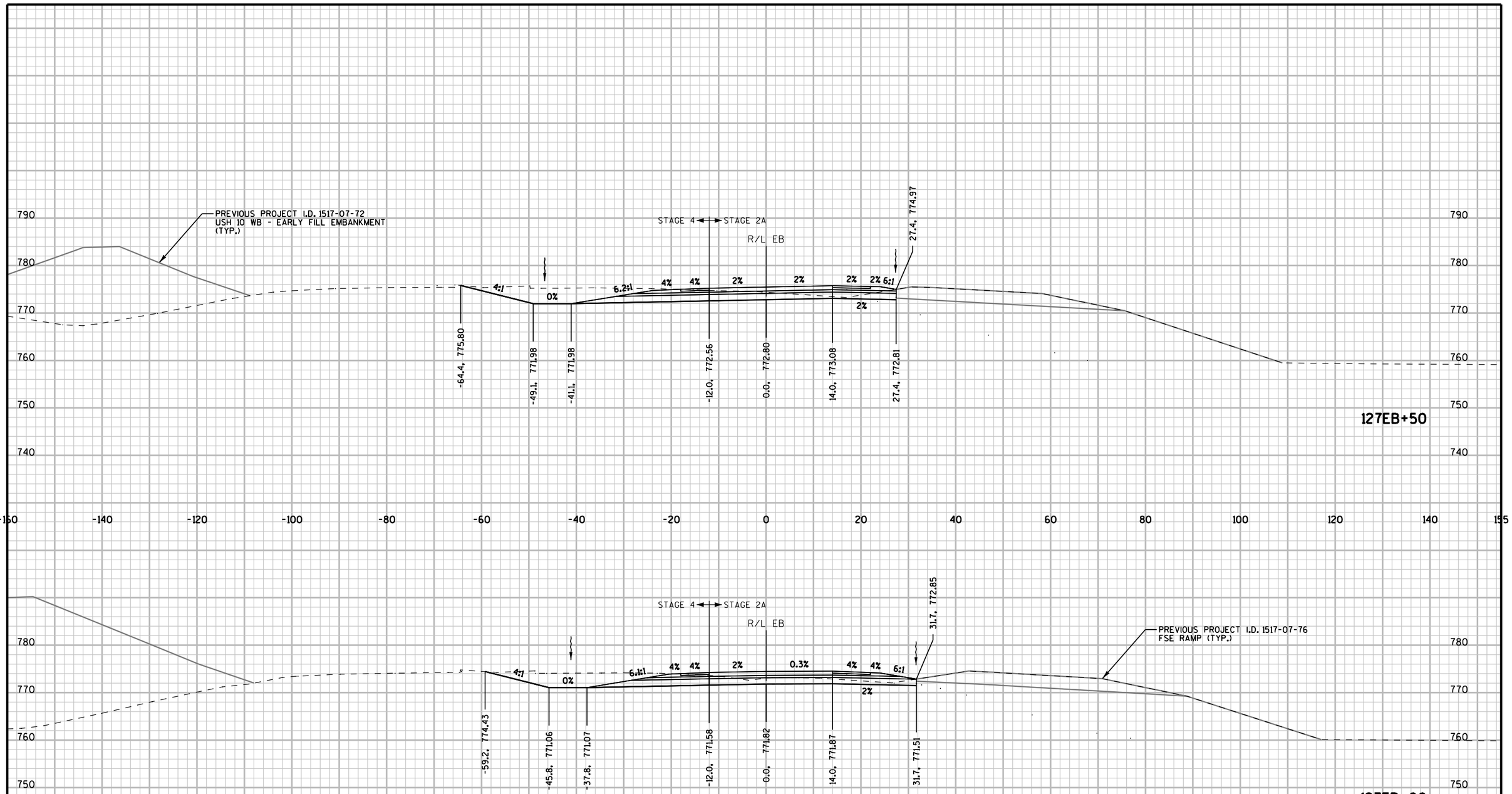
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 602	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

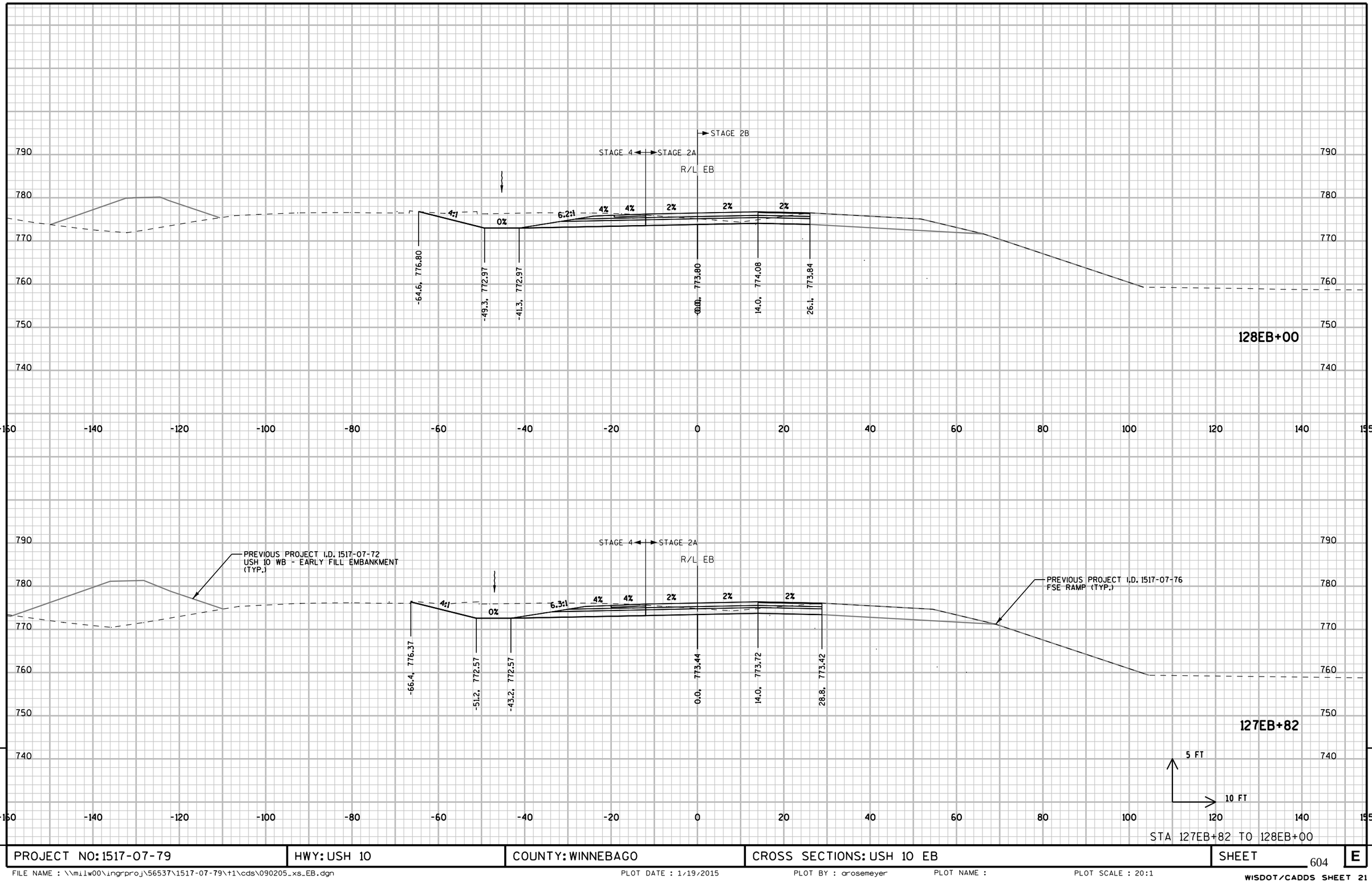


STA 127EB+00 TO 127EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 603	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

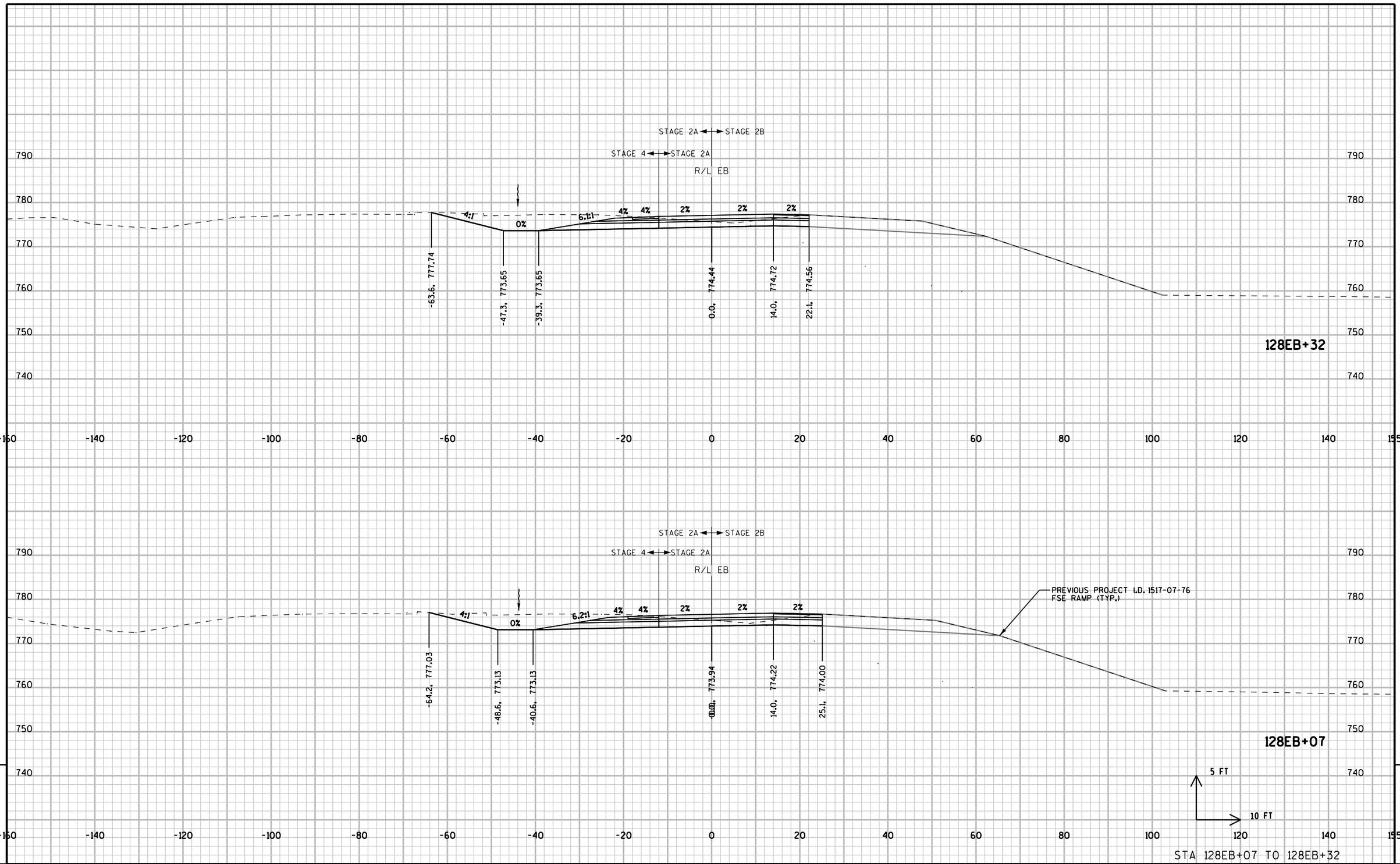


STA 127EB+82 TO 128EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 604	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

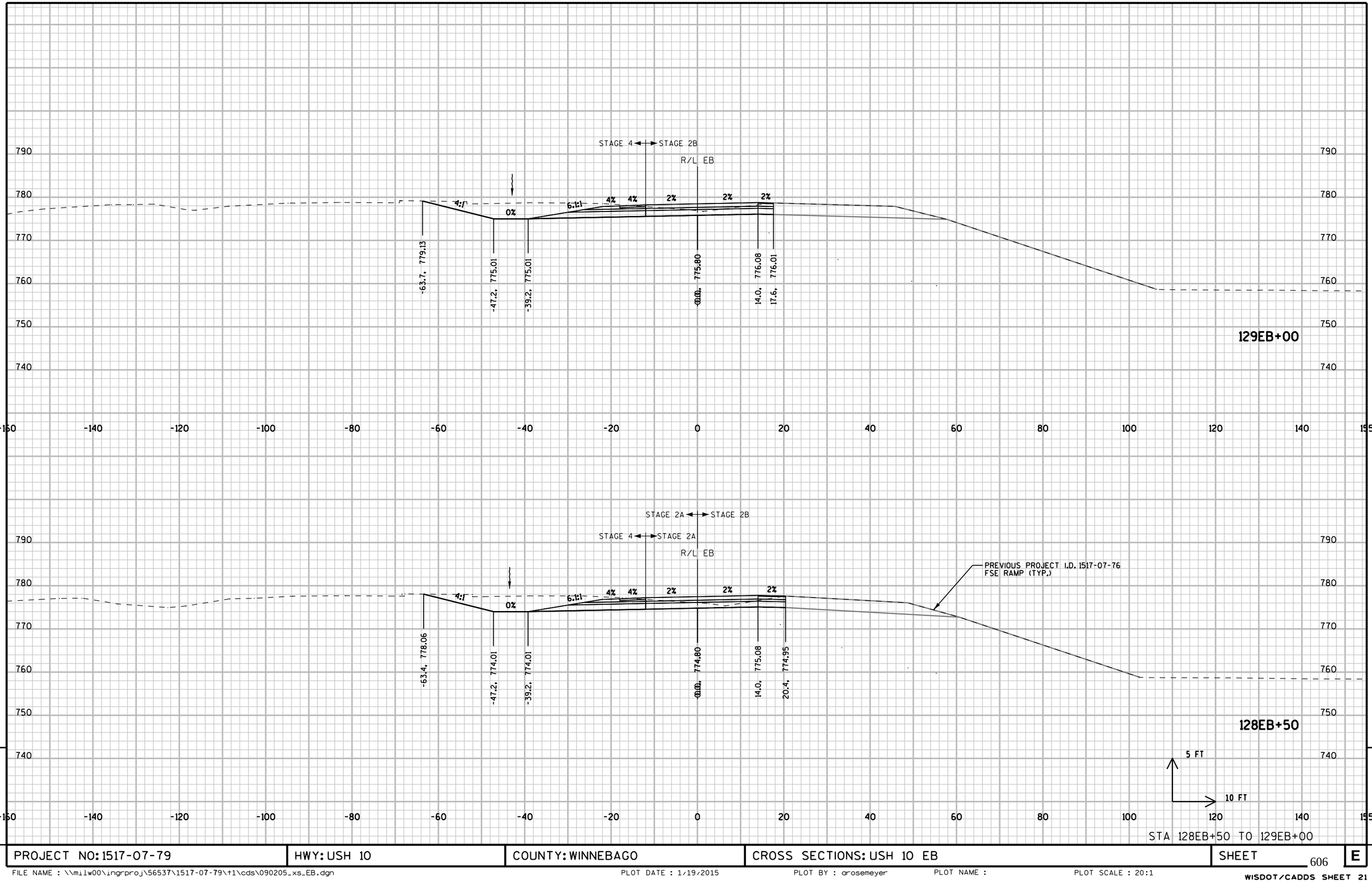
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

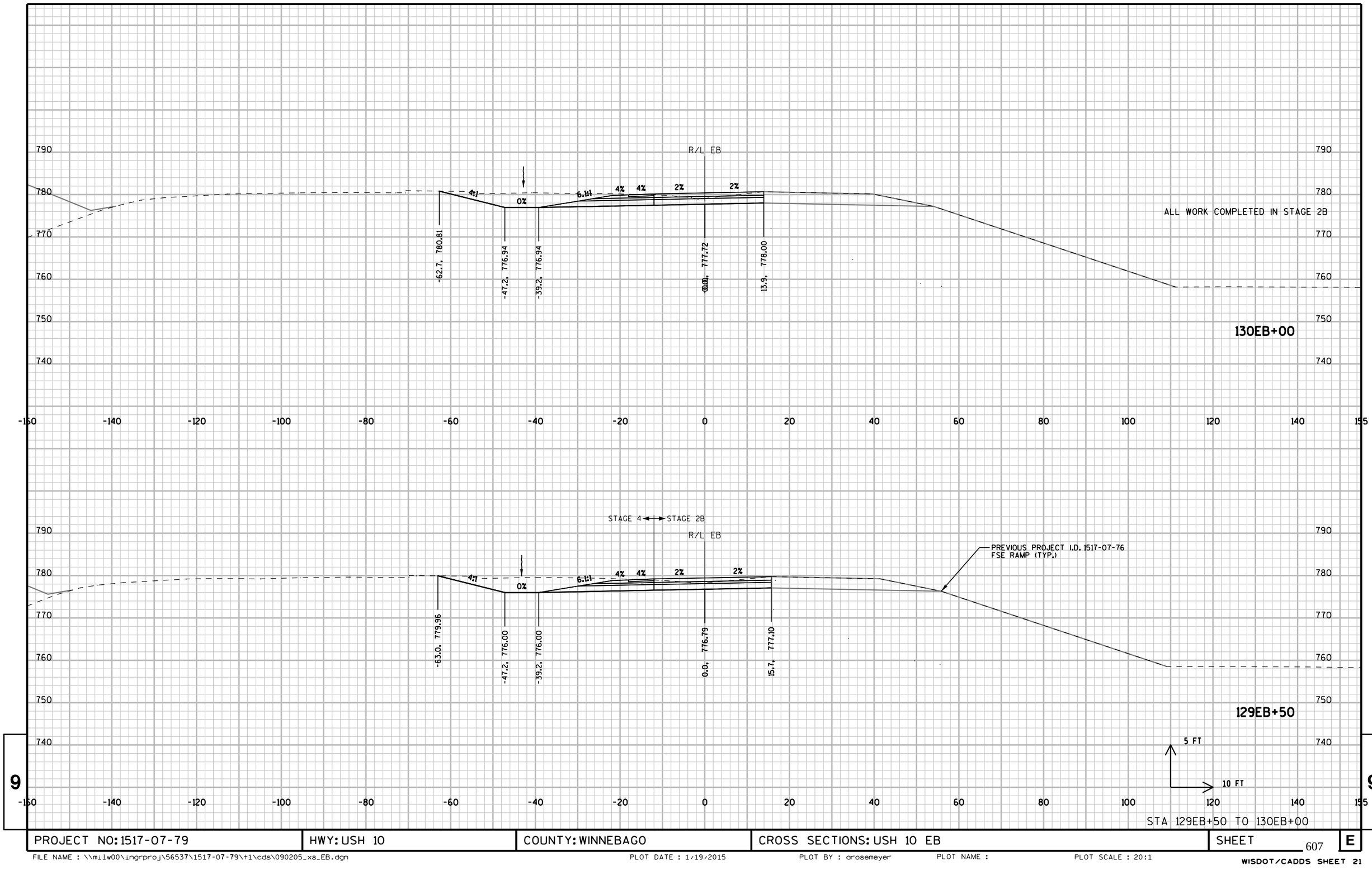
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

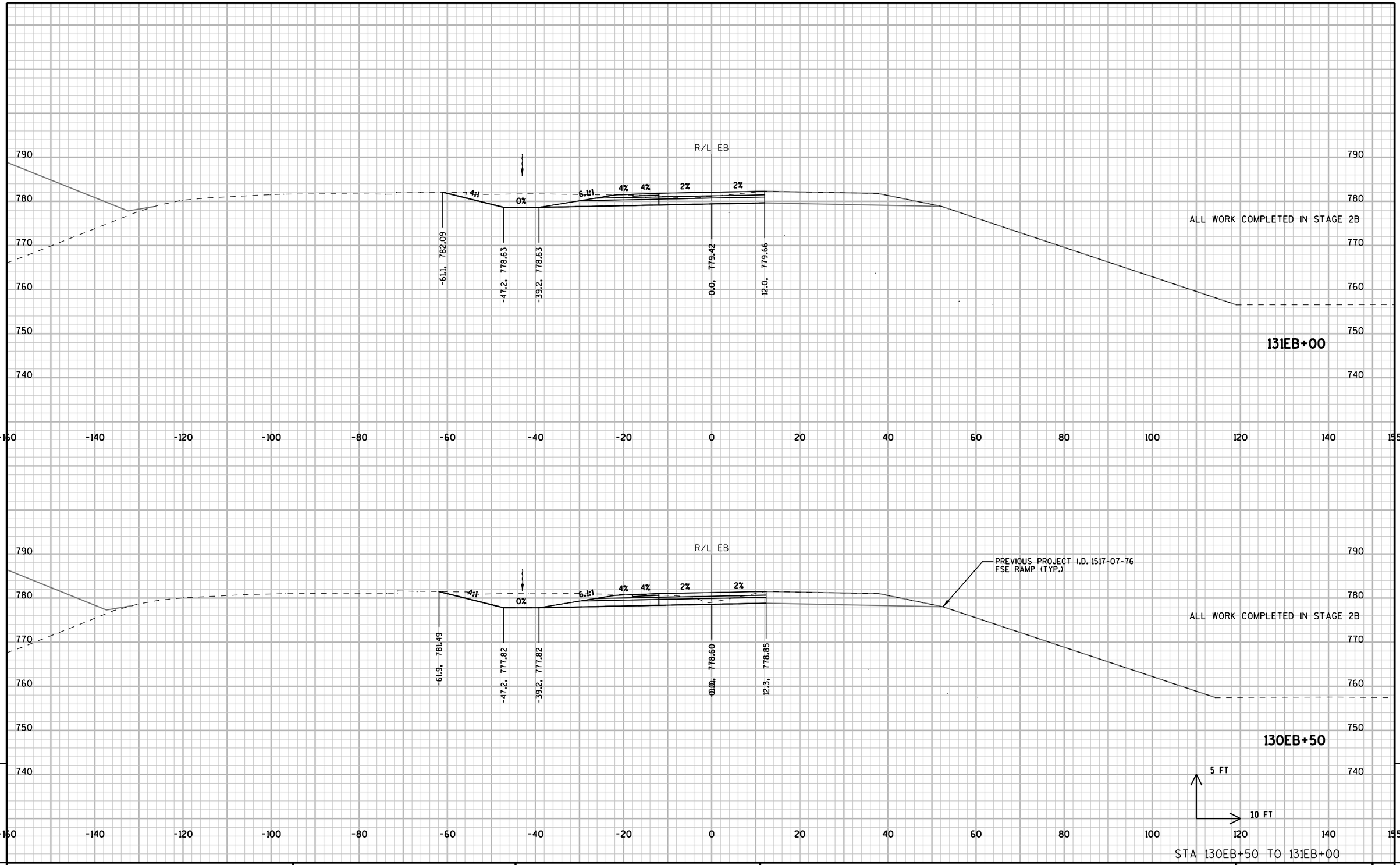


STA 129EB+50 TO 130EB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 607	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

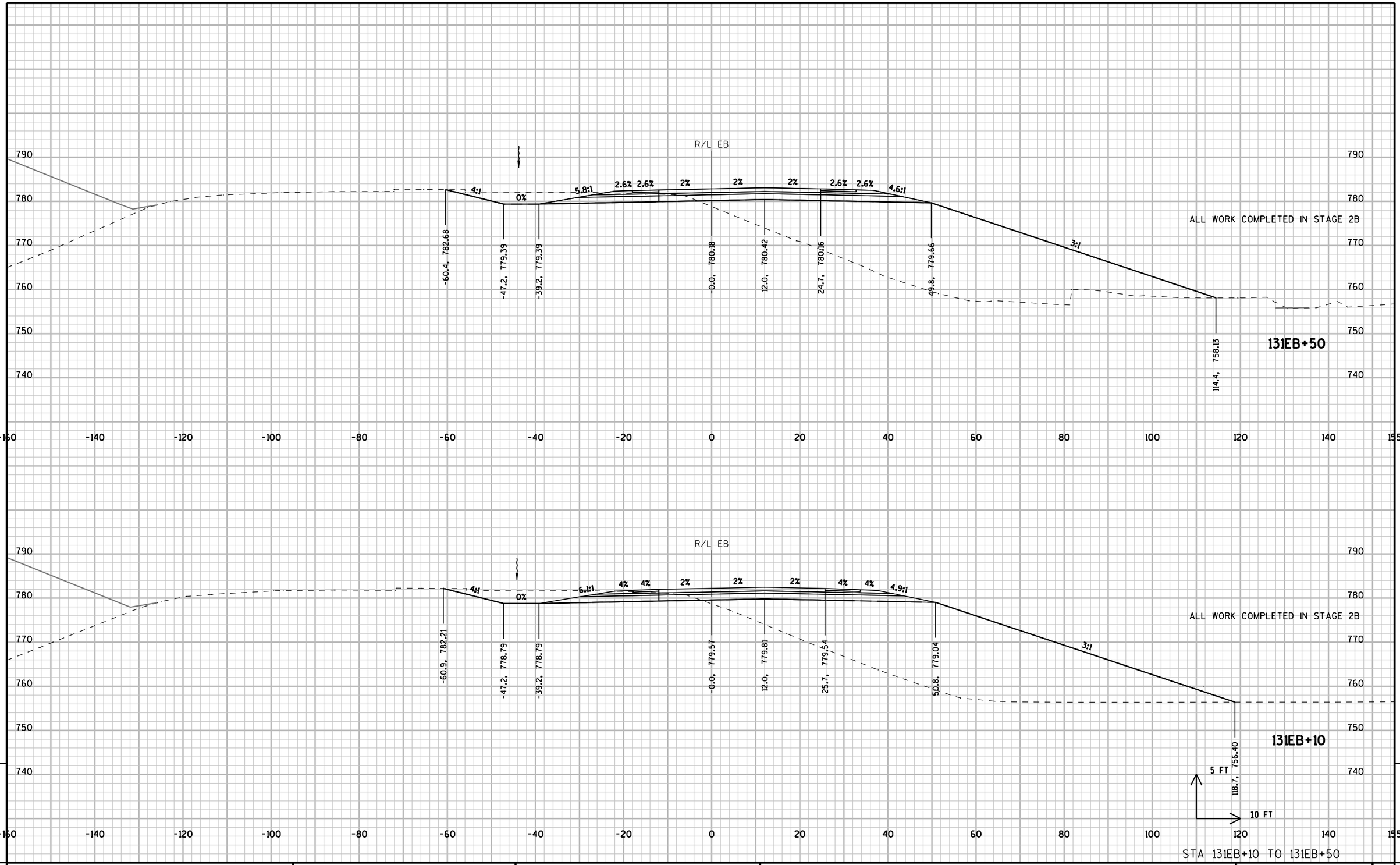
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 608	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



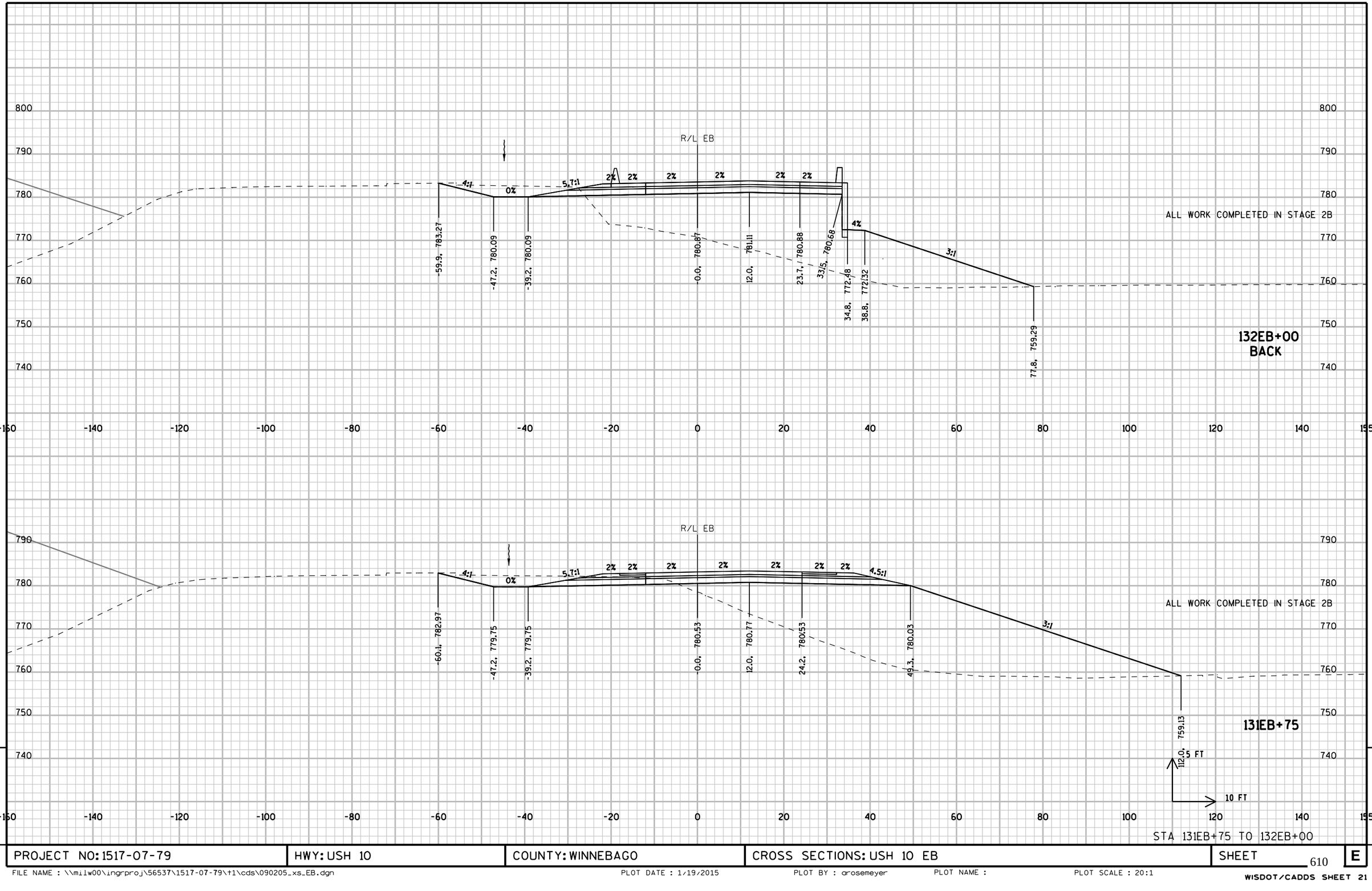
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 609	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

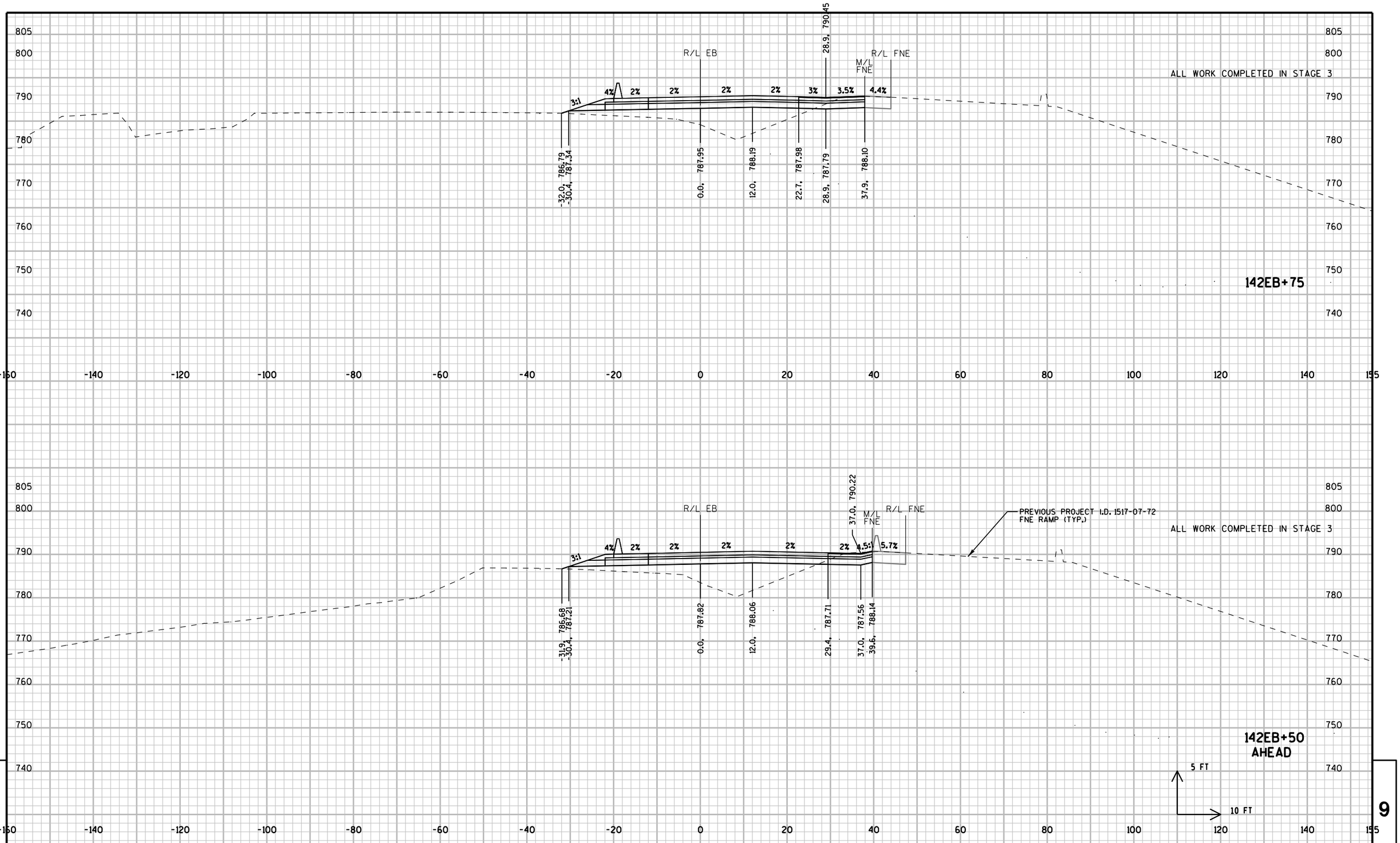
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 610	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

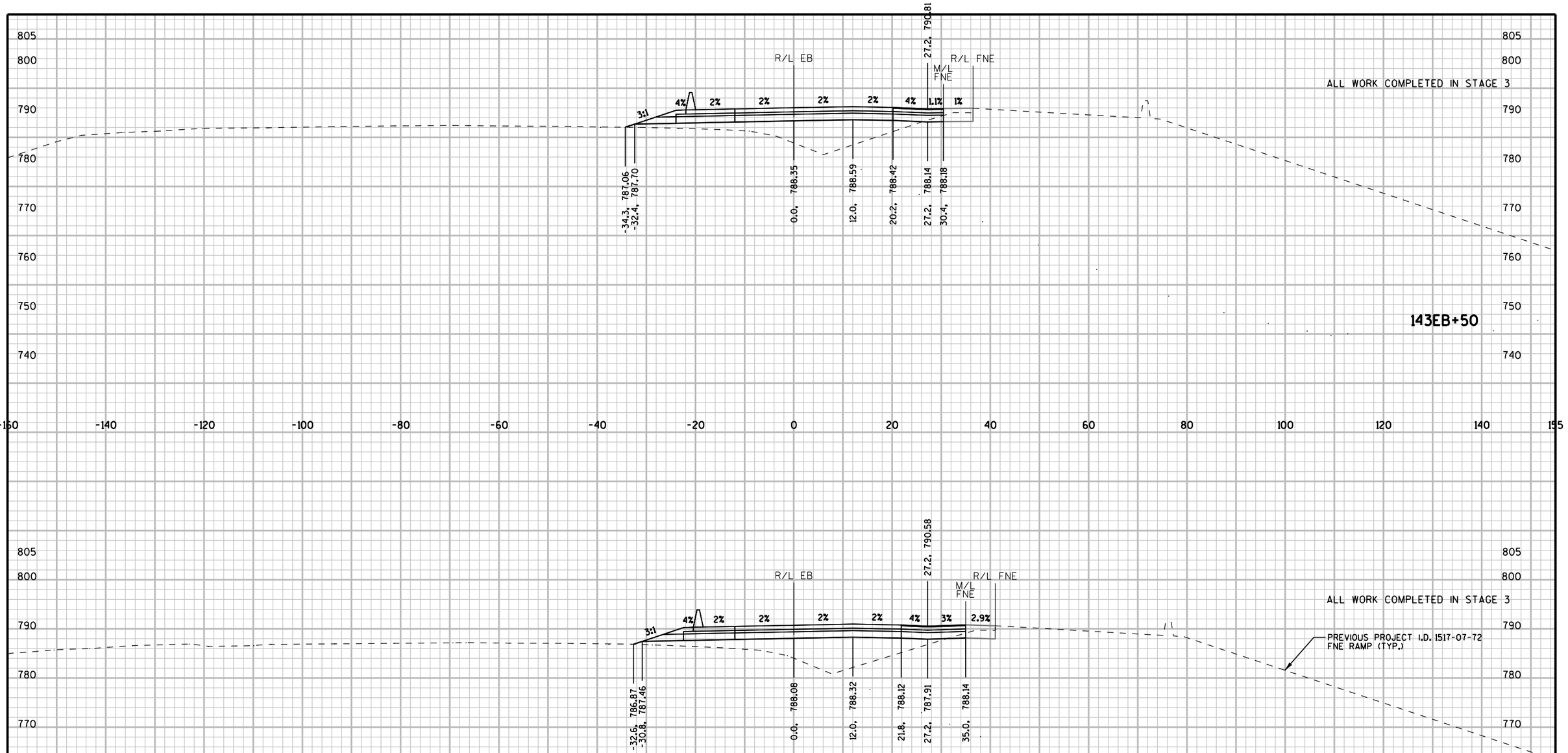


STA 142EB+50 TO 142EB+75

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 611	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

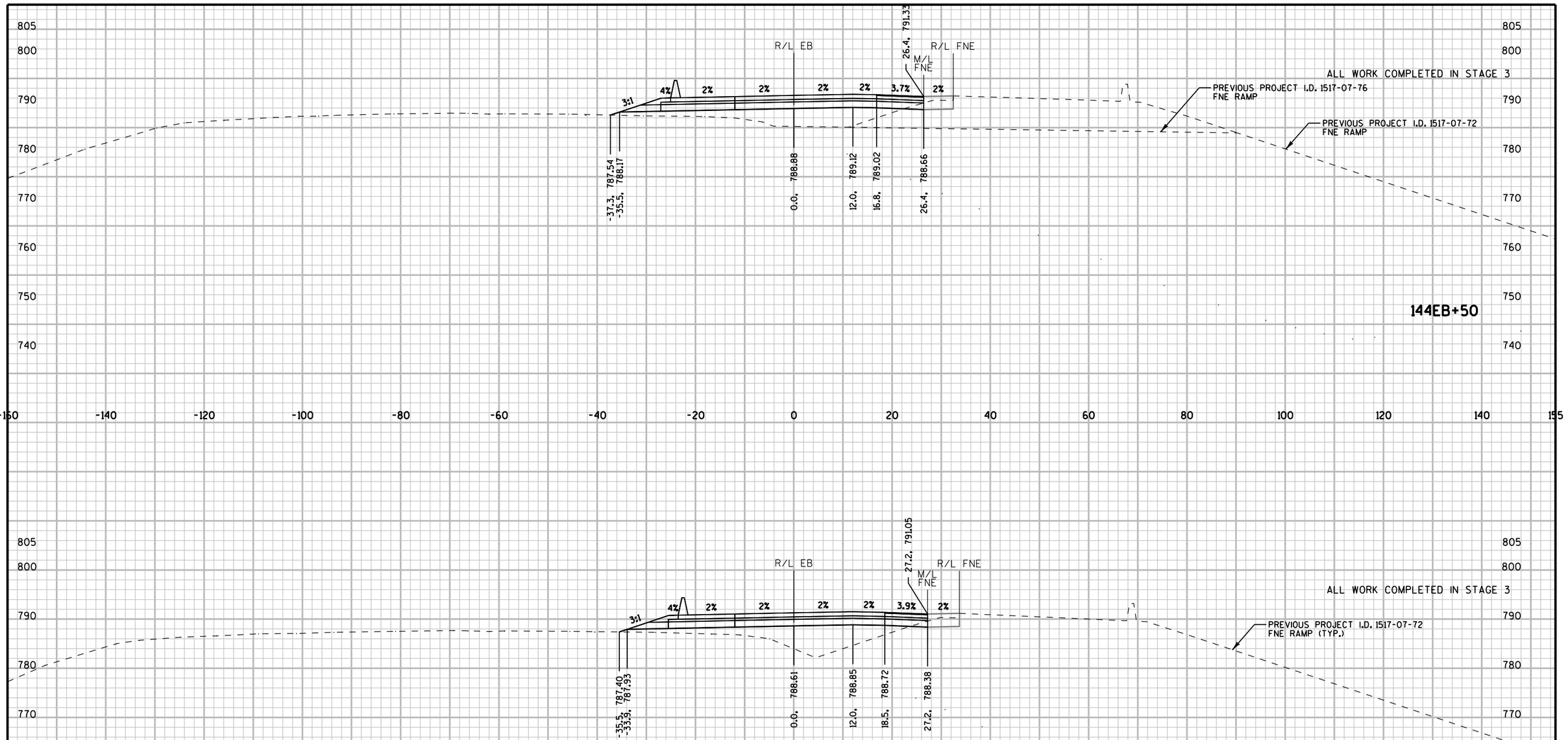


STA 143EB+00 TO 143EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 612	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

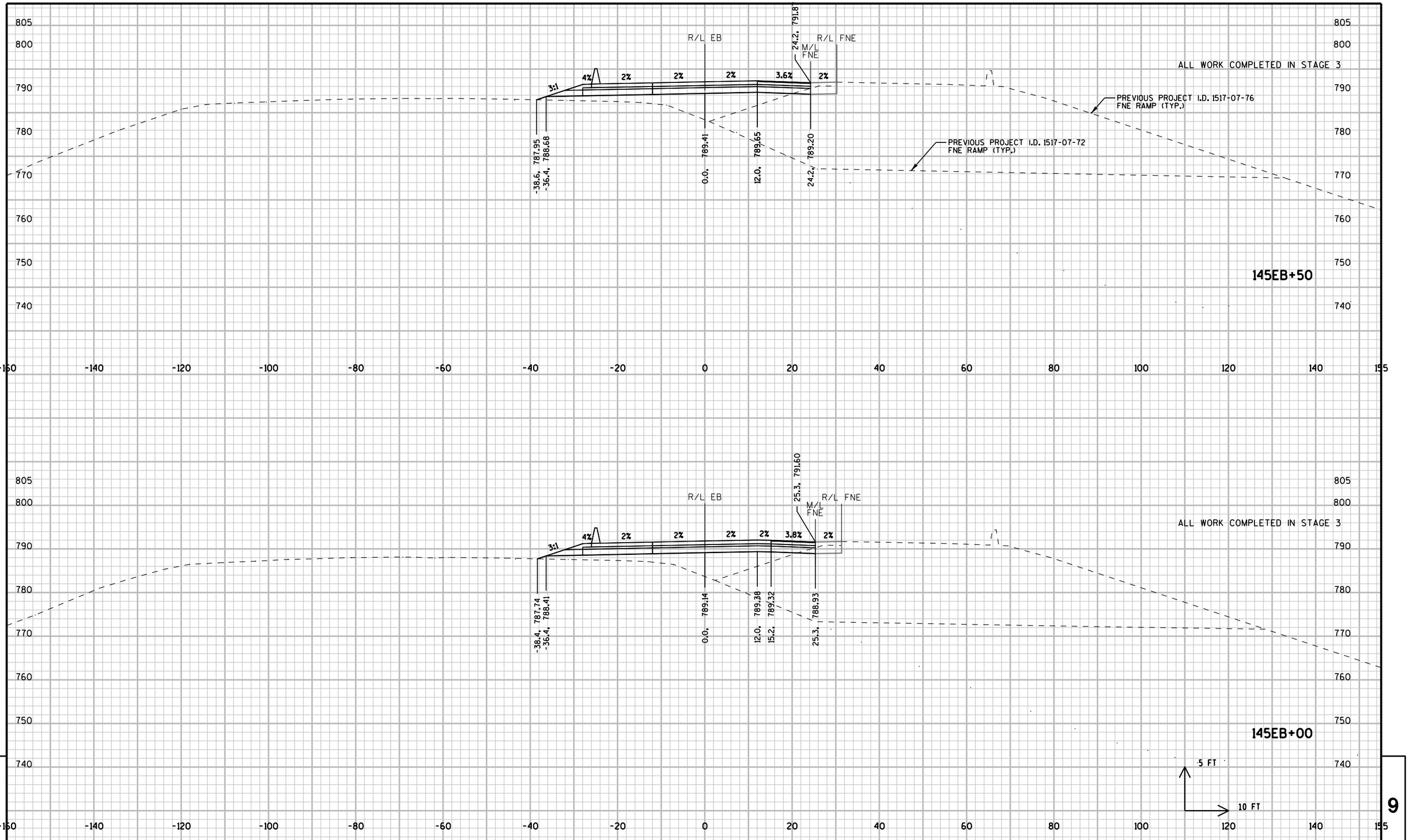


STA 144EB+00 TO 144EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

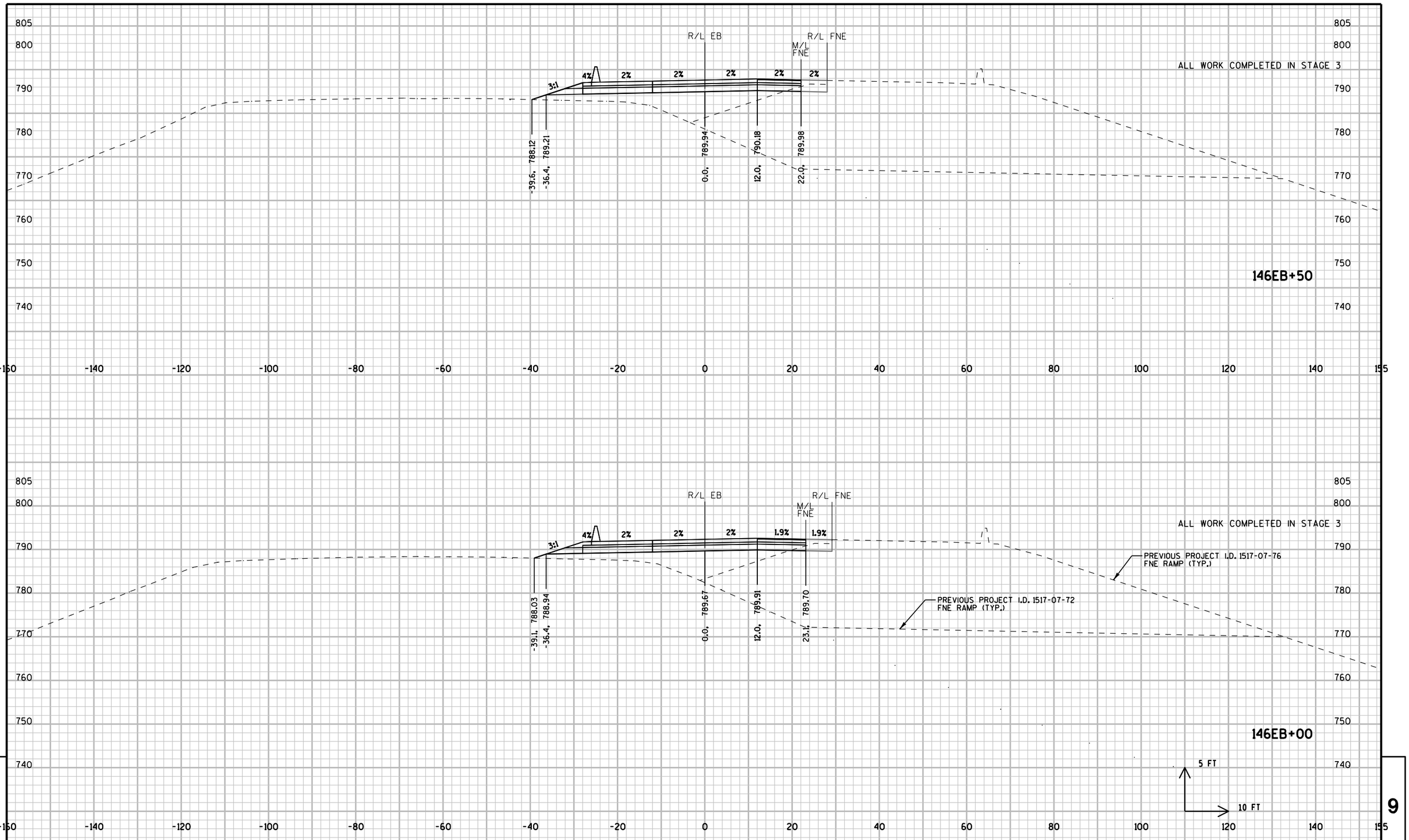


STA 145EB+00 TO 145EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 614	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

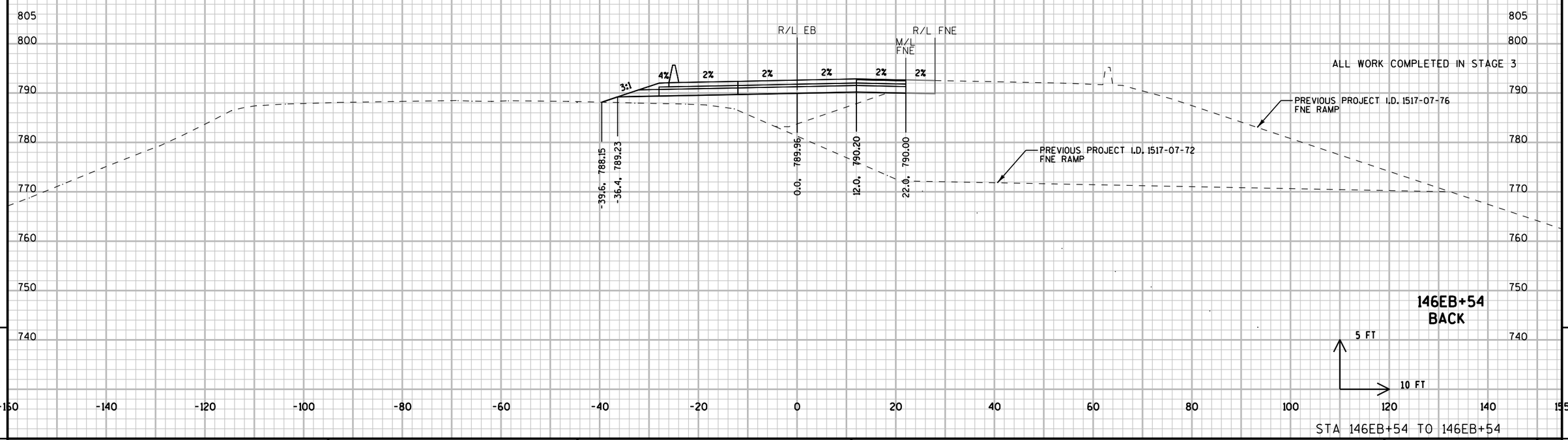
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 615	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



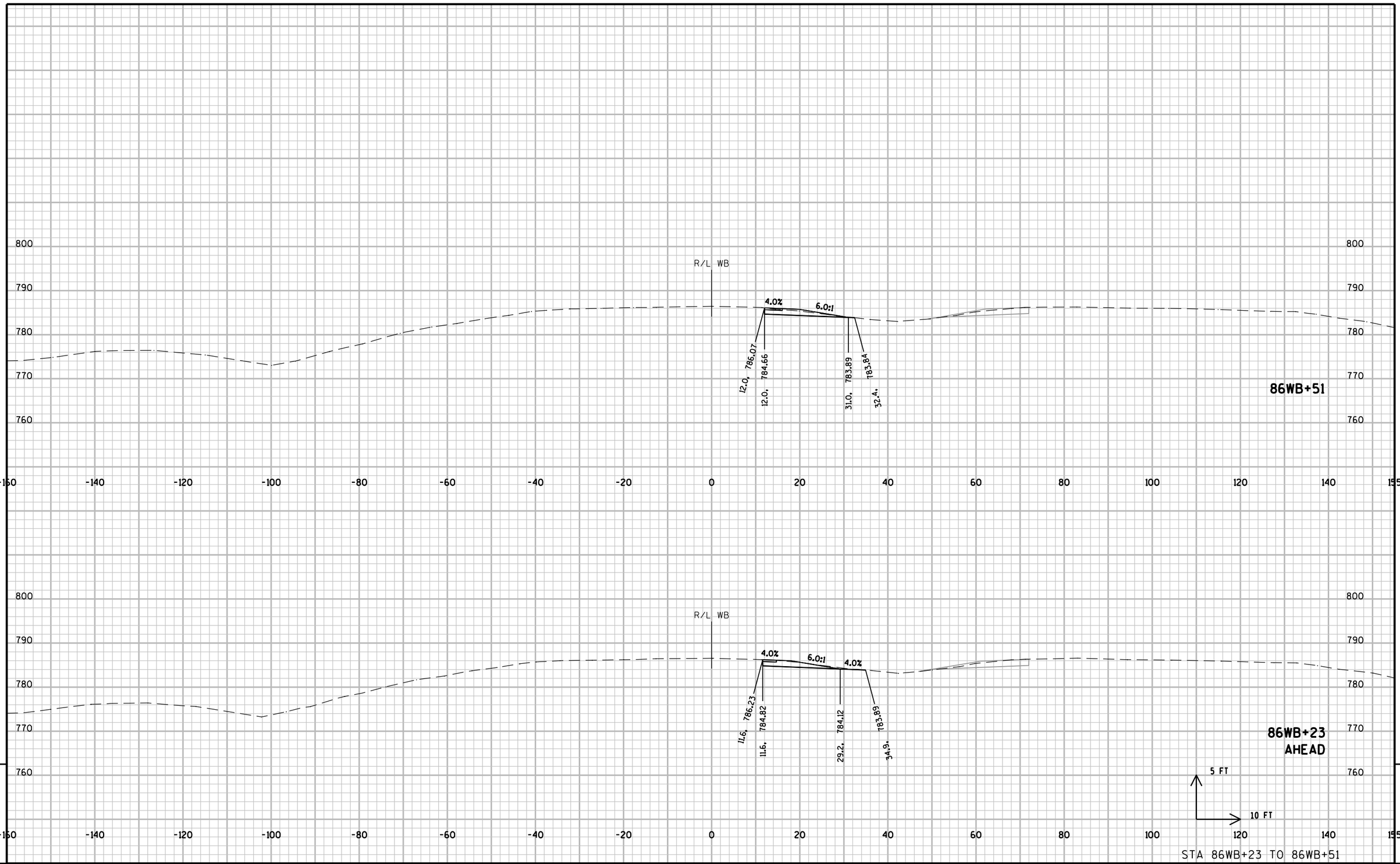
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 EB	SHEET 616	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090205_xs_EB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

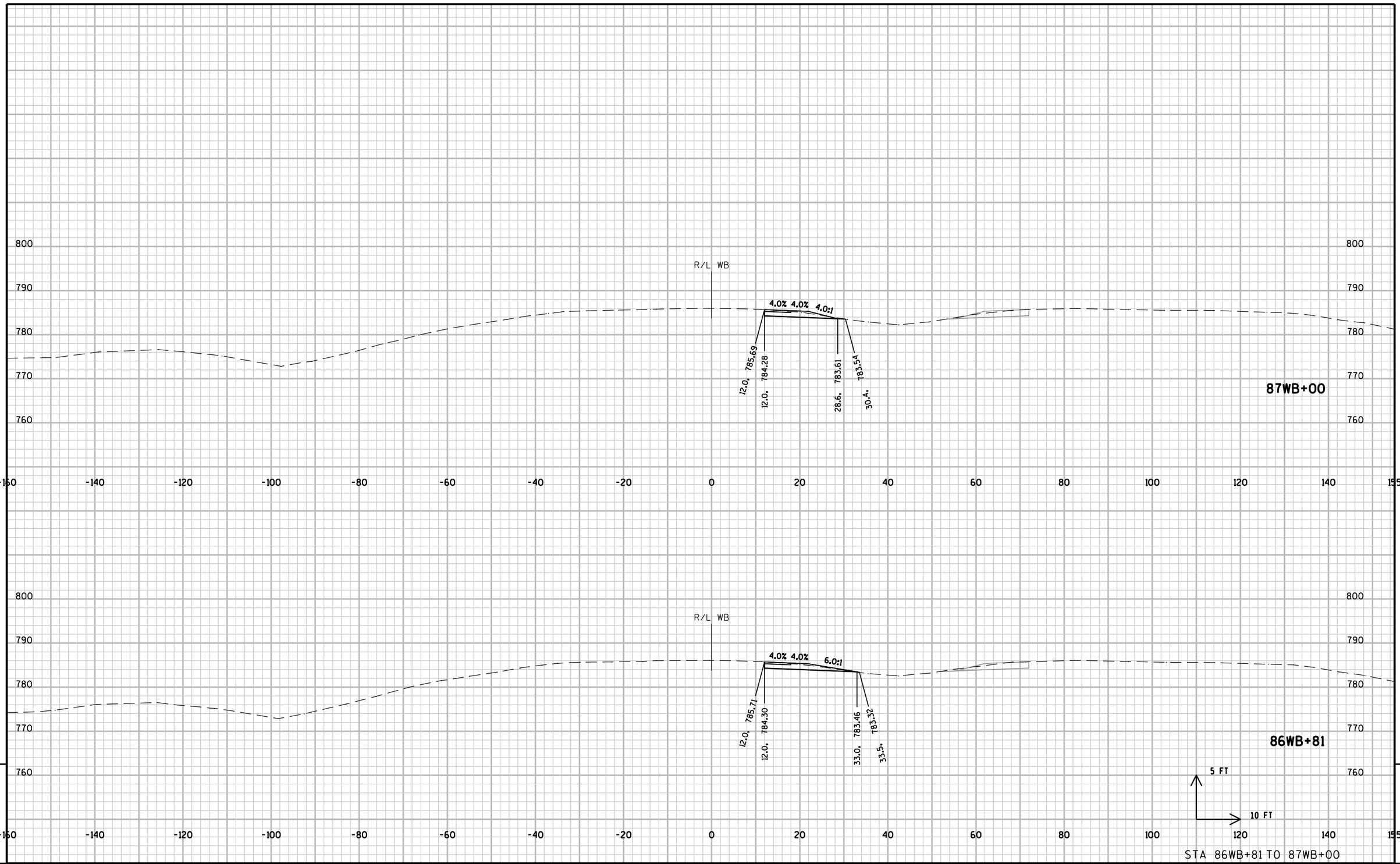
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STA 86WB+23 TO 86WB+51

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 617	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

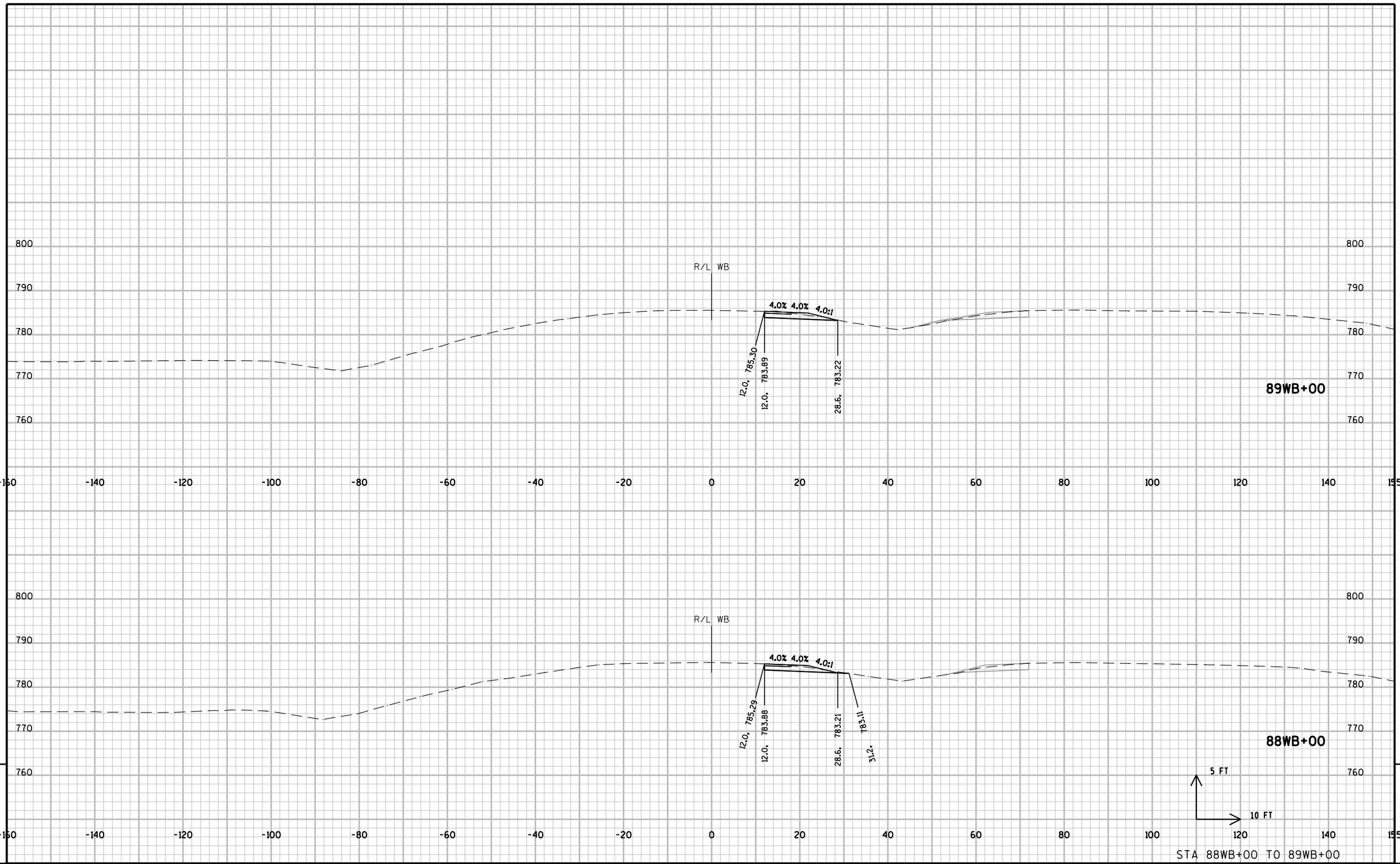
9

STA 86WB+81 TO 87WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 618	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 88WB+00 TO 89WB+00

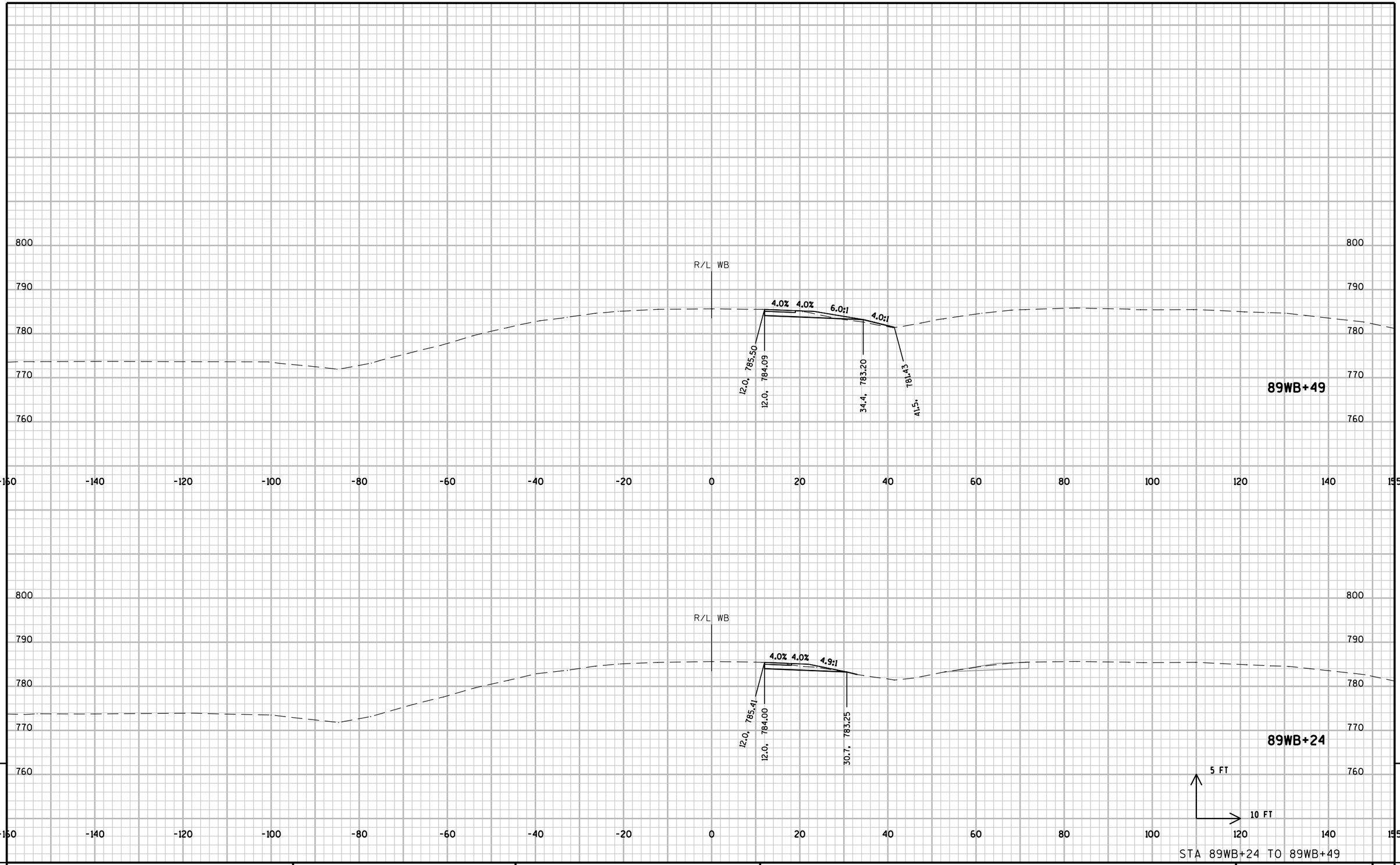
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 89WB+24 TO 89WB+49

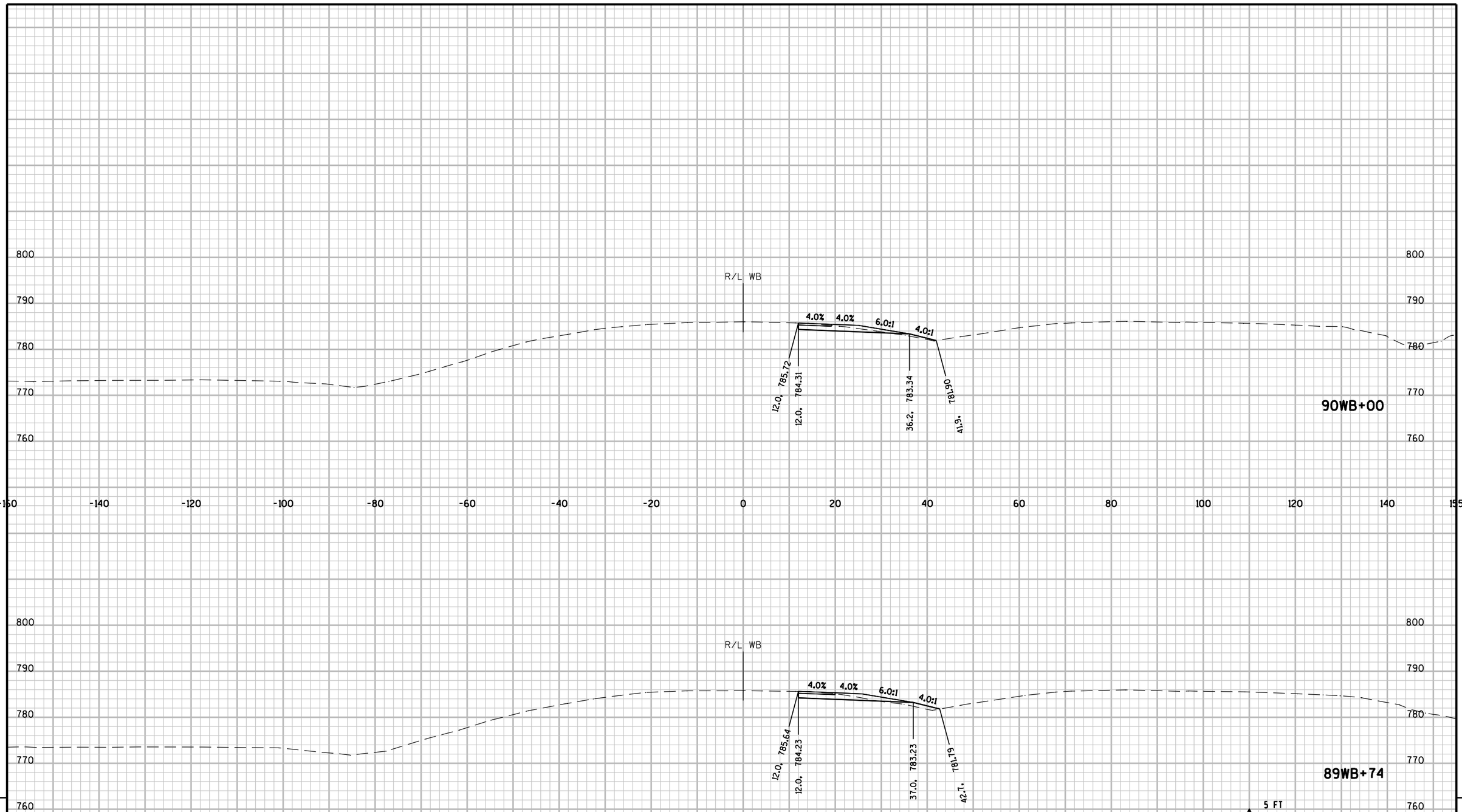
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 620	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

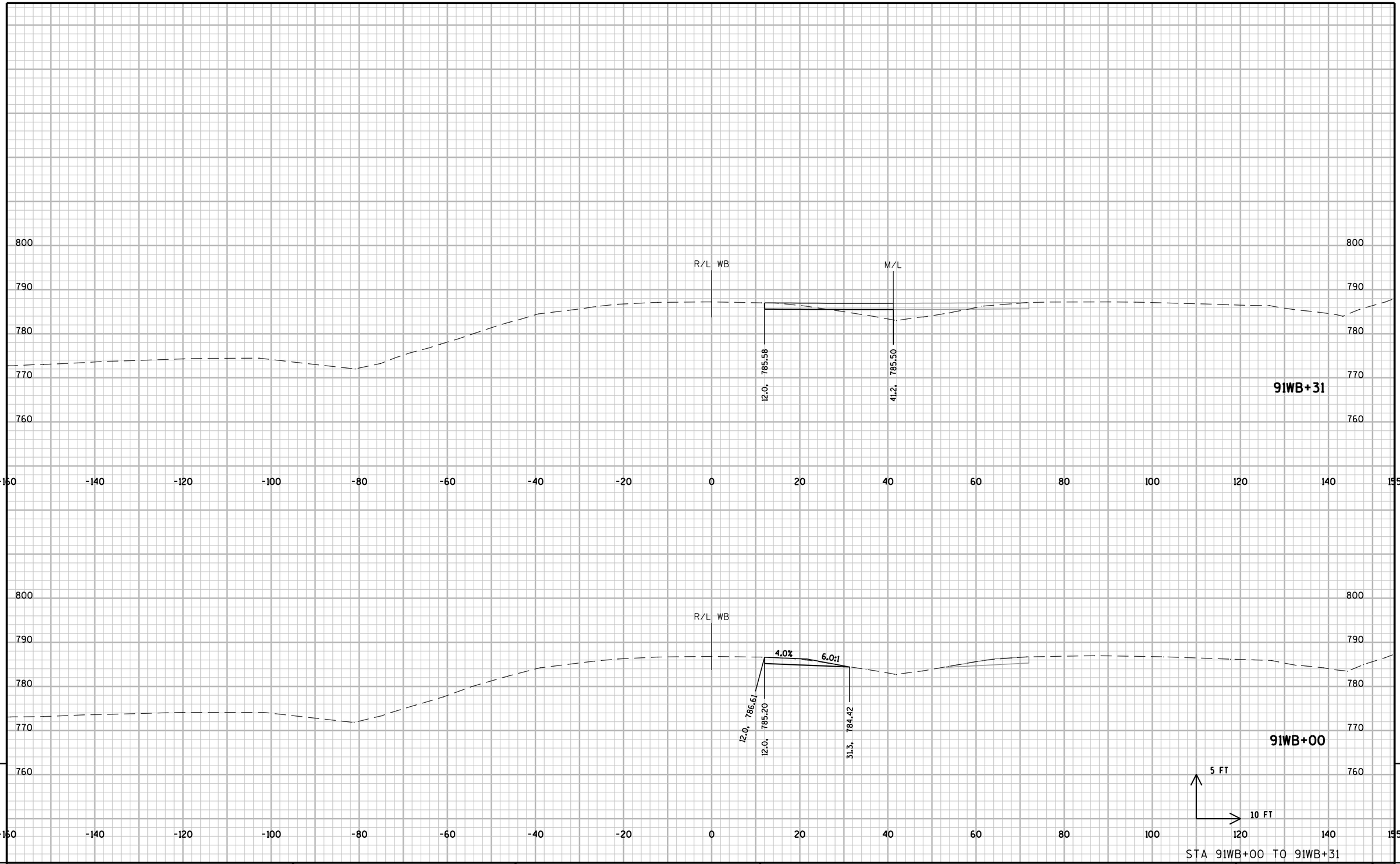
9

STA 89WB+74 TO 90WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

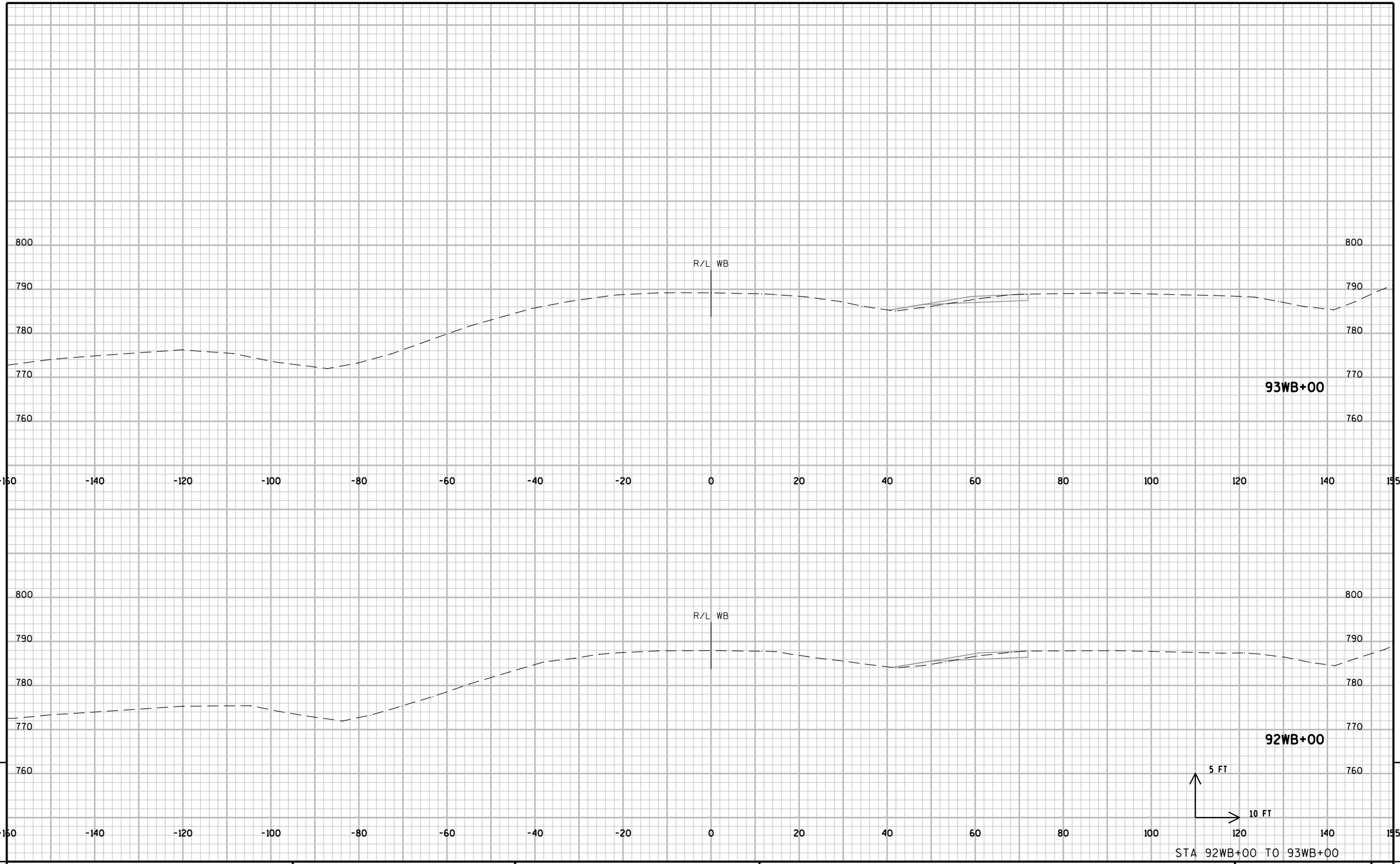
9

STA 91WB+00 TO 91WB+31

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

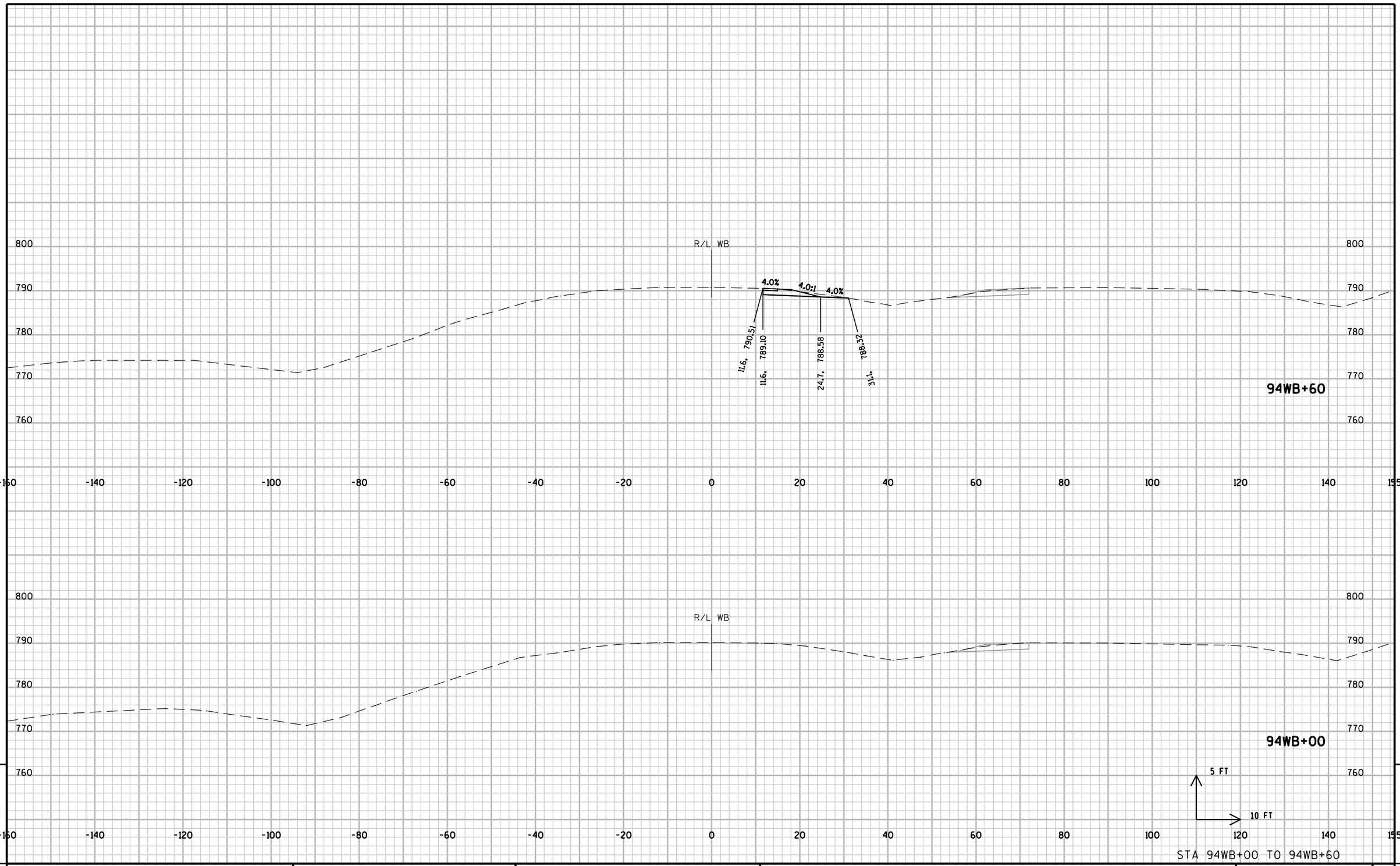
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STA 92WB+00 TO 93WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

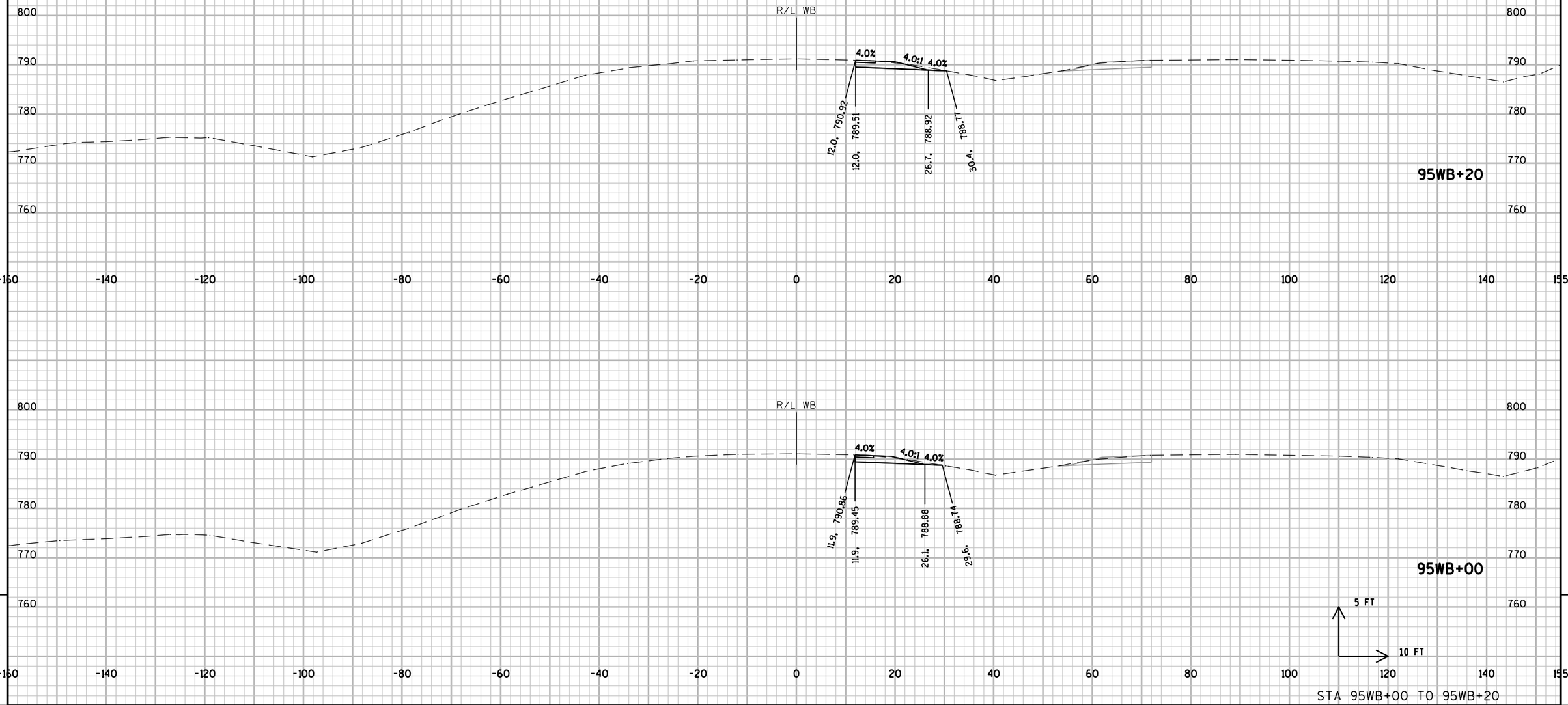


STA 94WB+00 TO 94WB+60

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 624	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

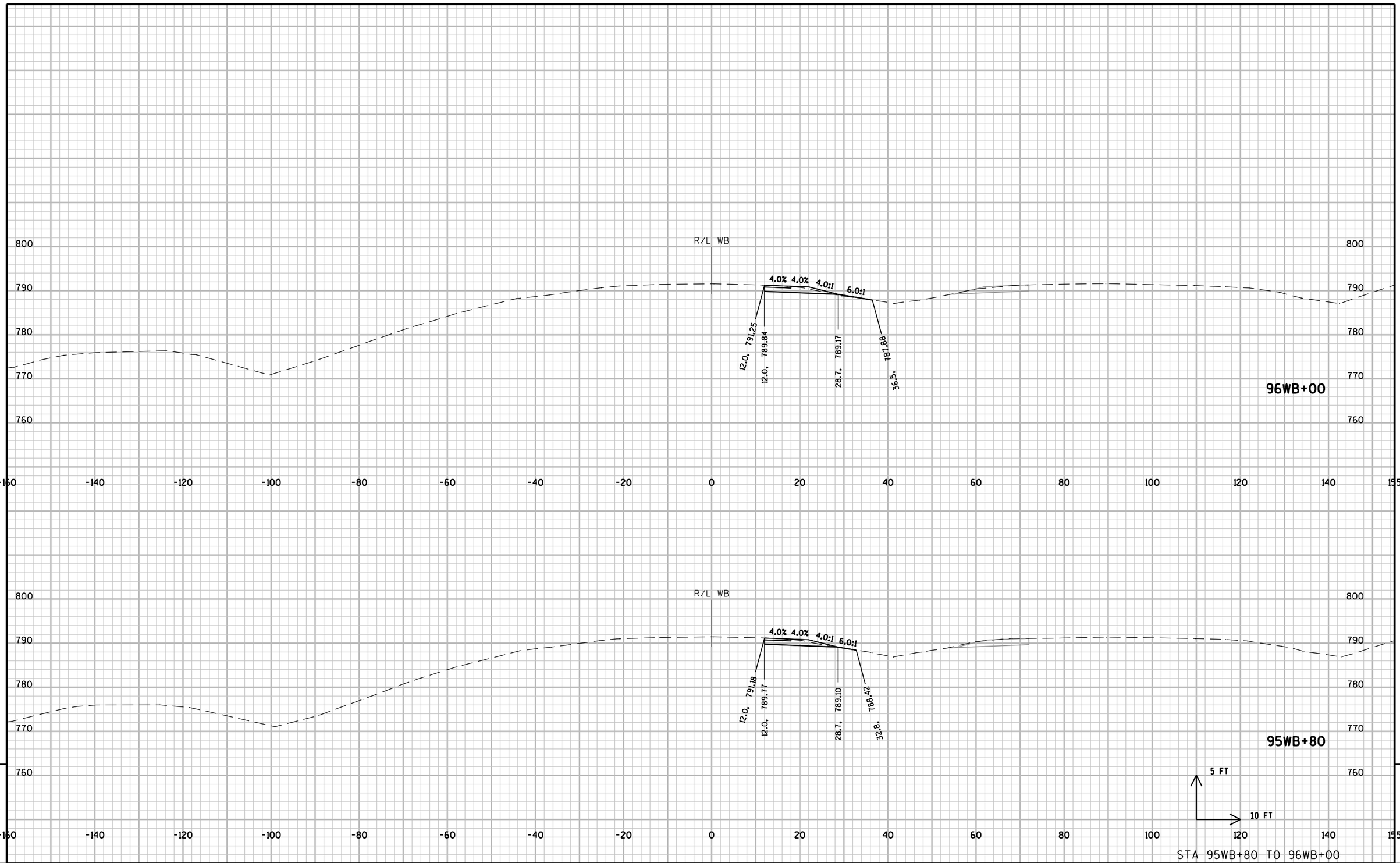


STA 95WB+00 TO 95WB+20

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 625	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 95WB+80 TO 96WB+00

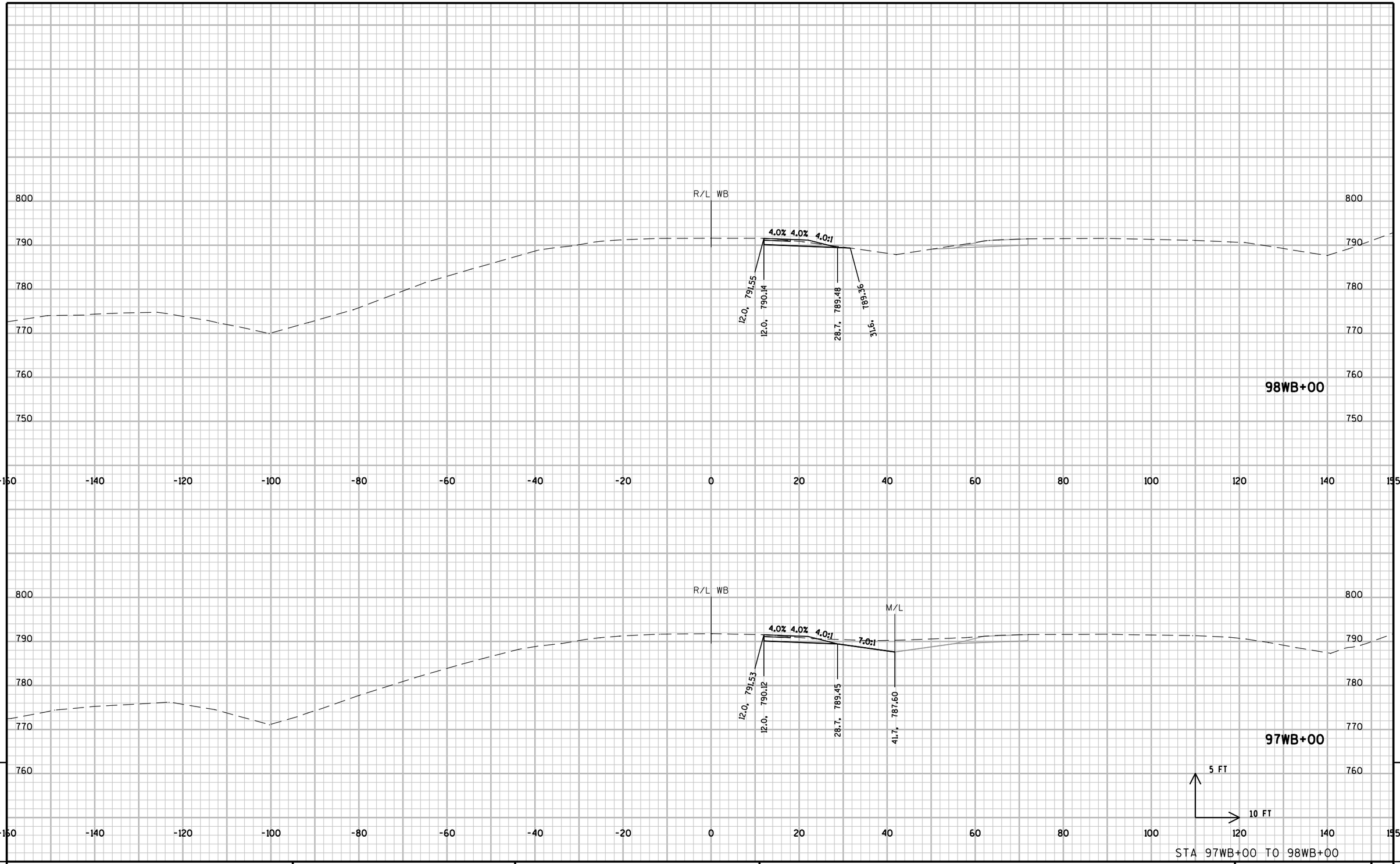
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

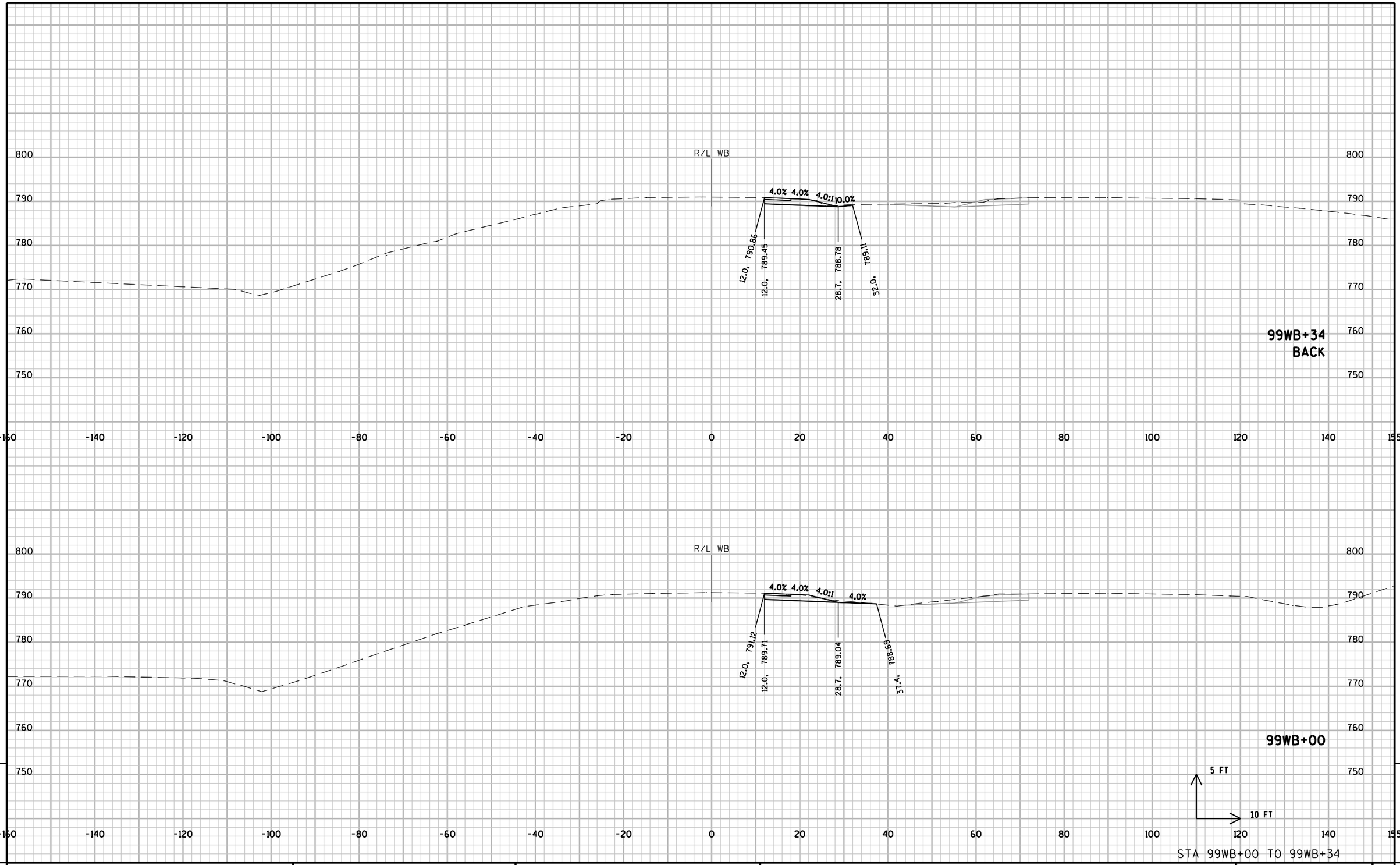


STA 97WB+00 TO 98WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 627	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 99WB+00 TO 99WB+34

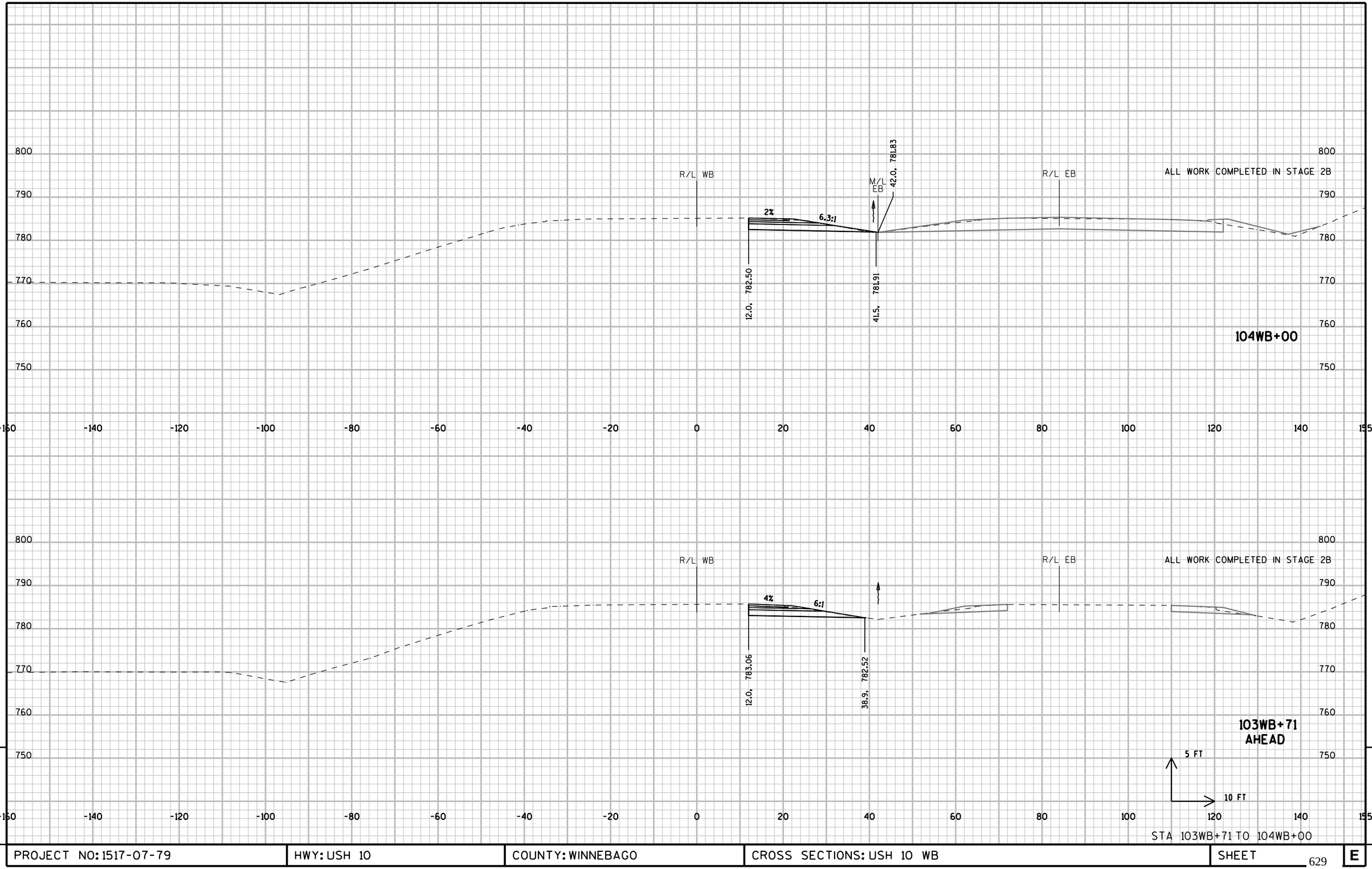
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090206_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

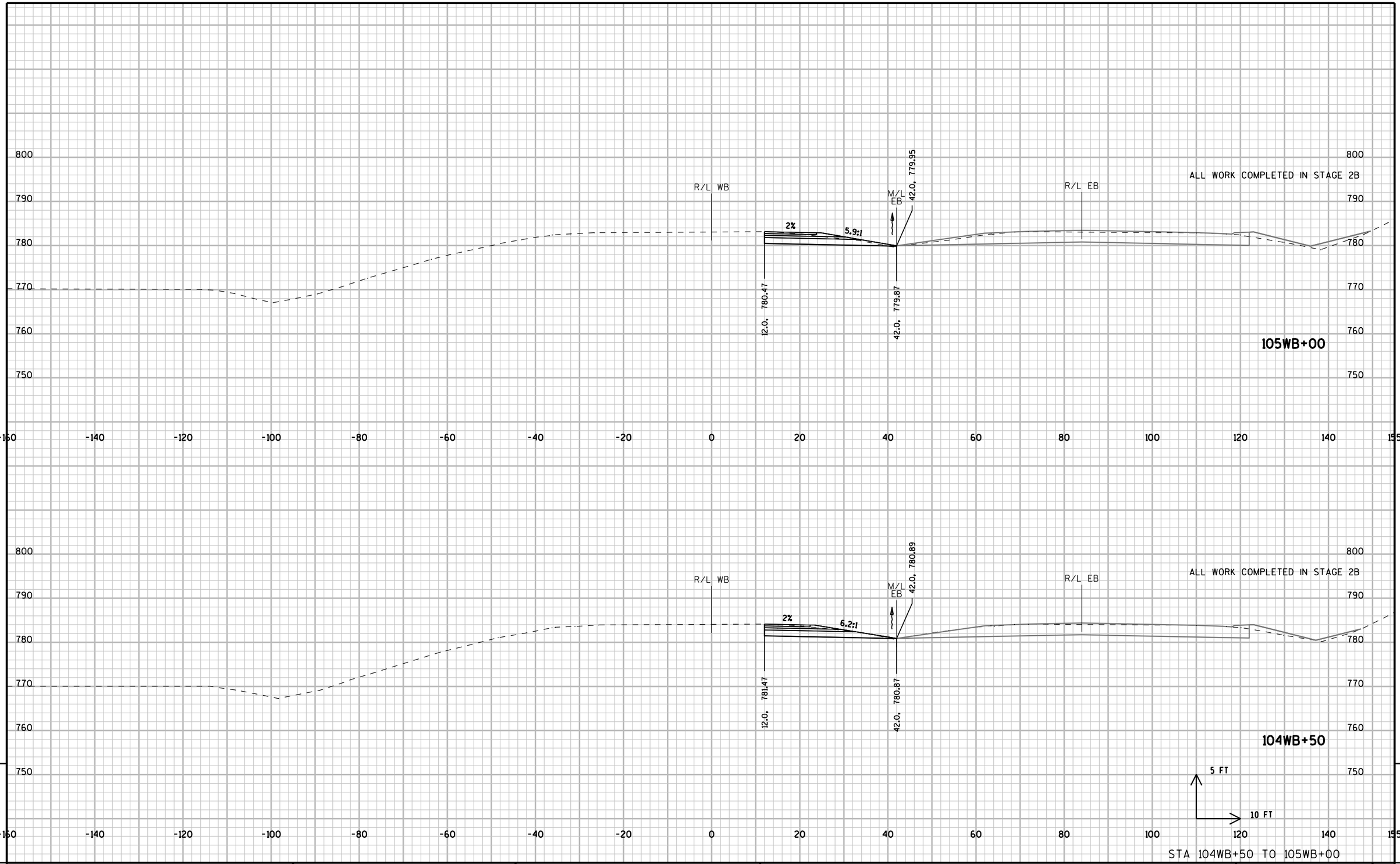
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

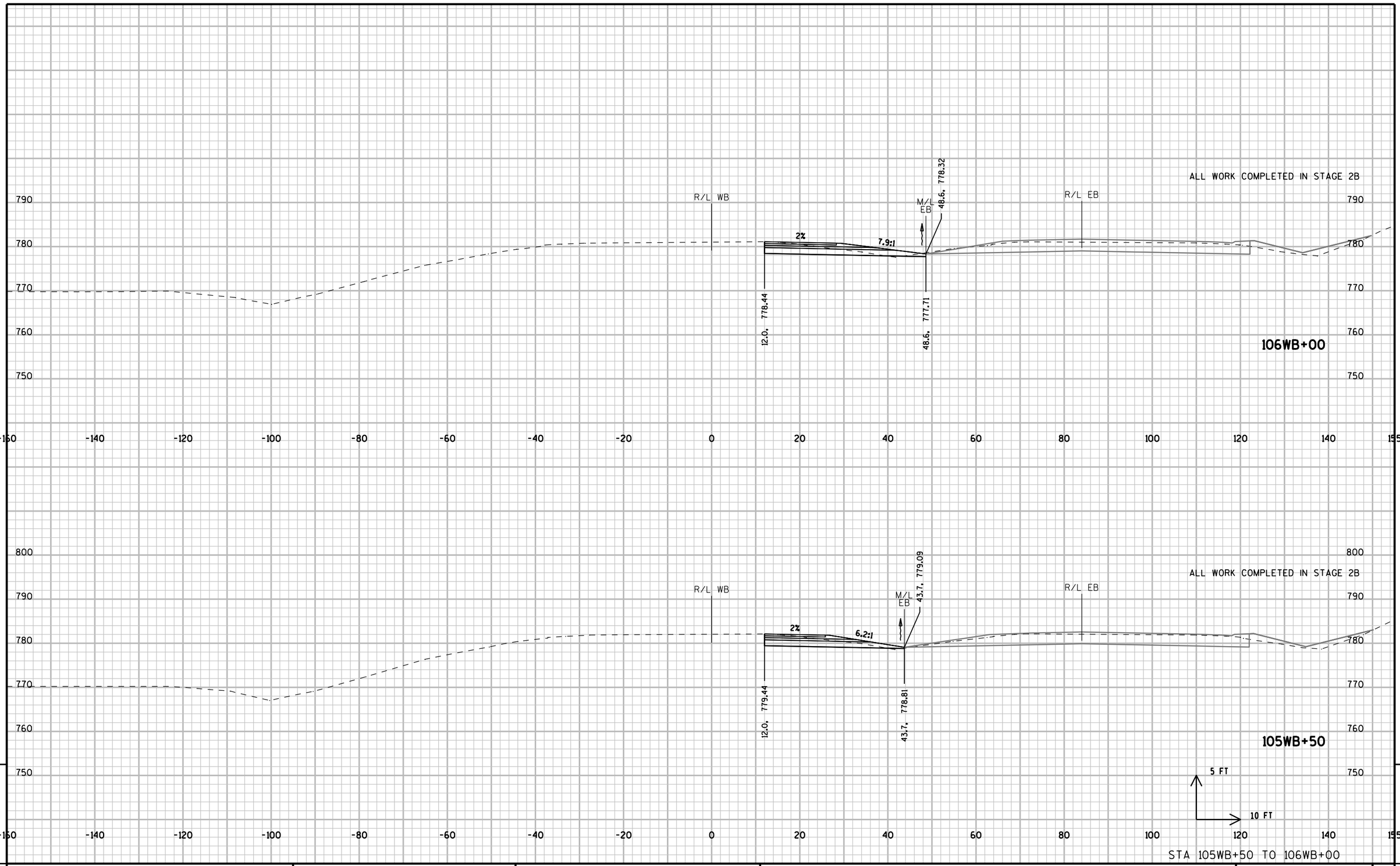


STA 104WB+50 TO 105WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 630	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

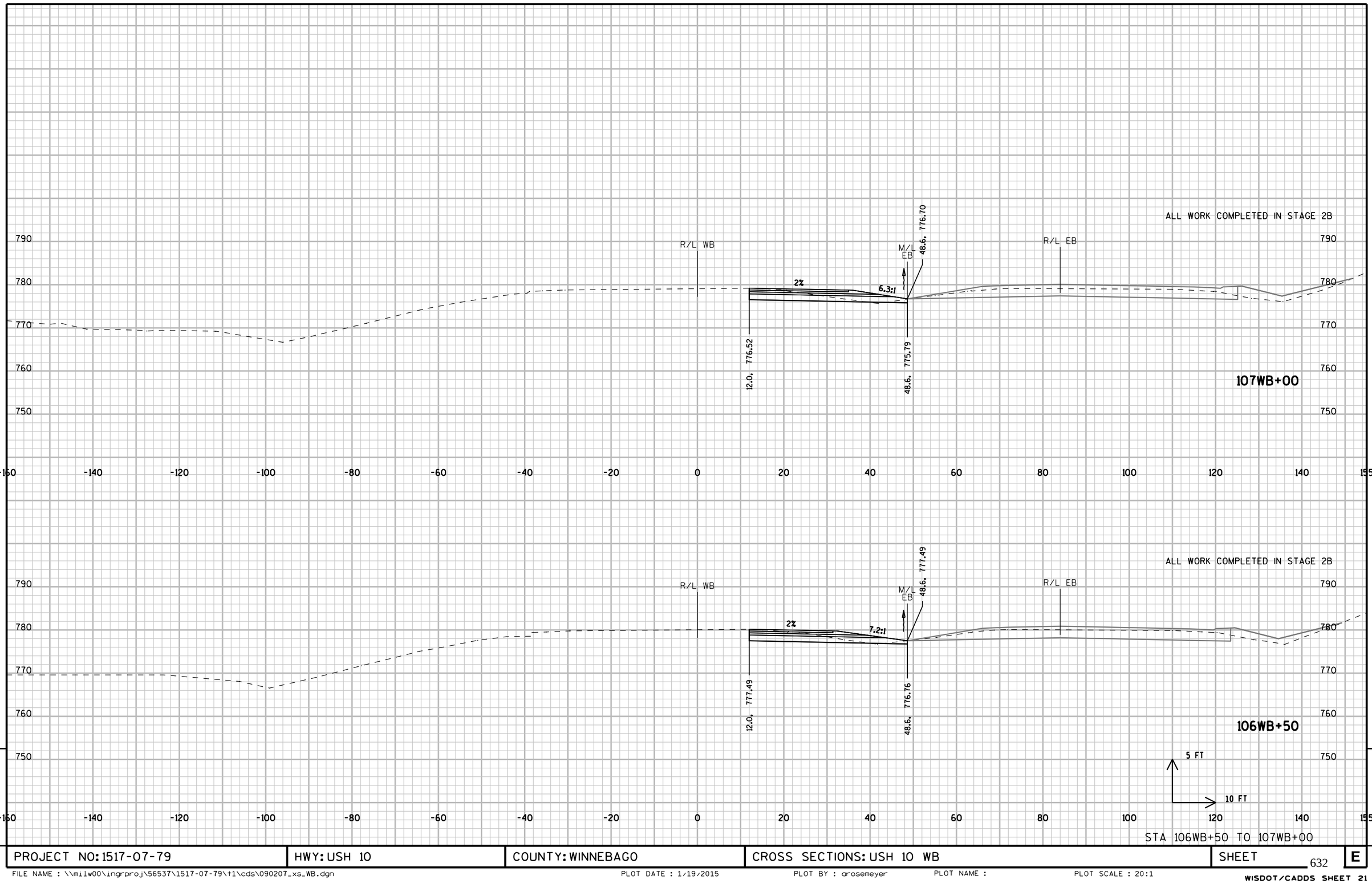


STA 105WB+50 TO 106WB+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

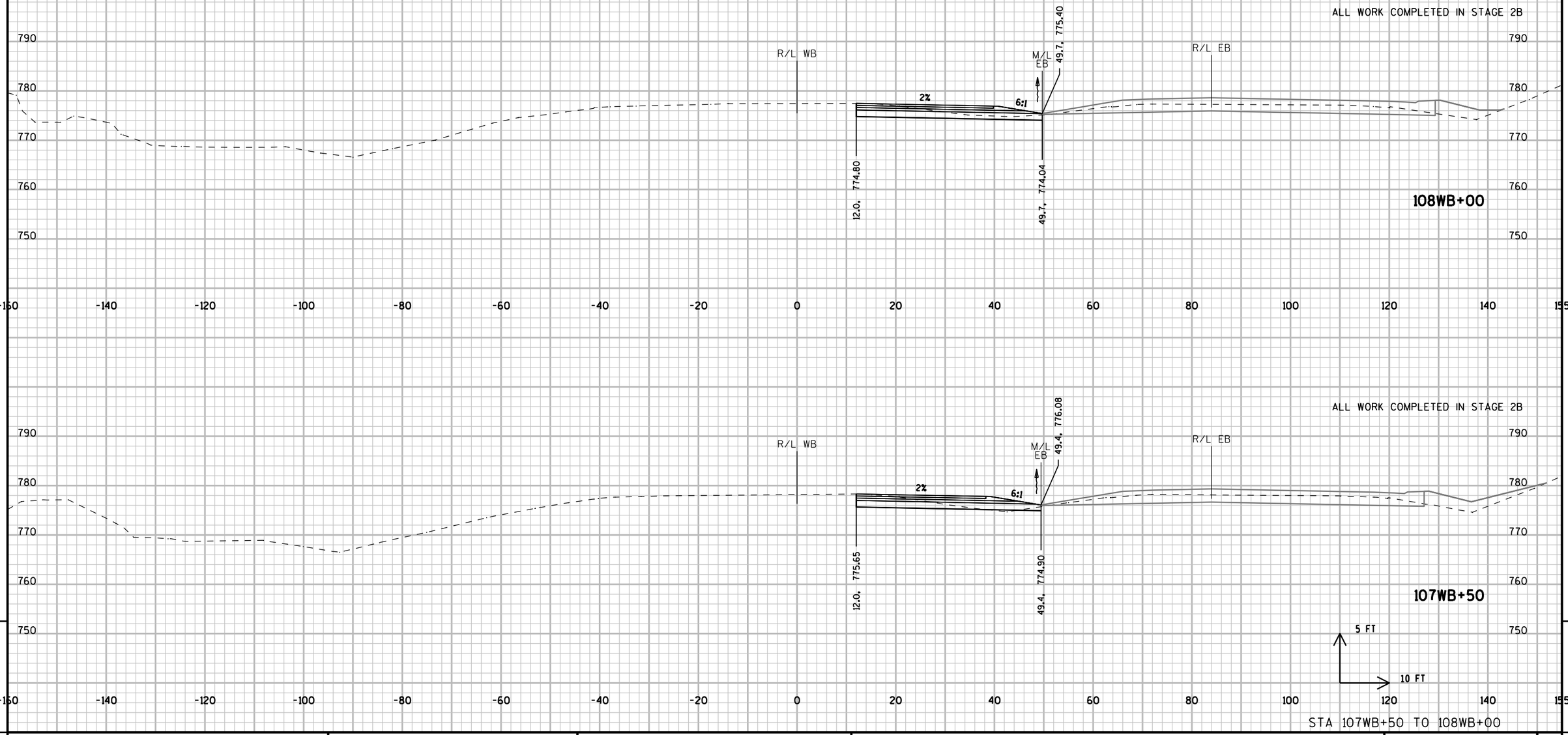
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

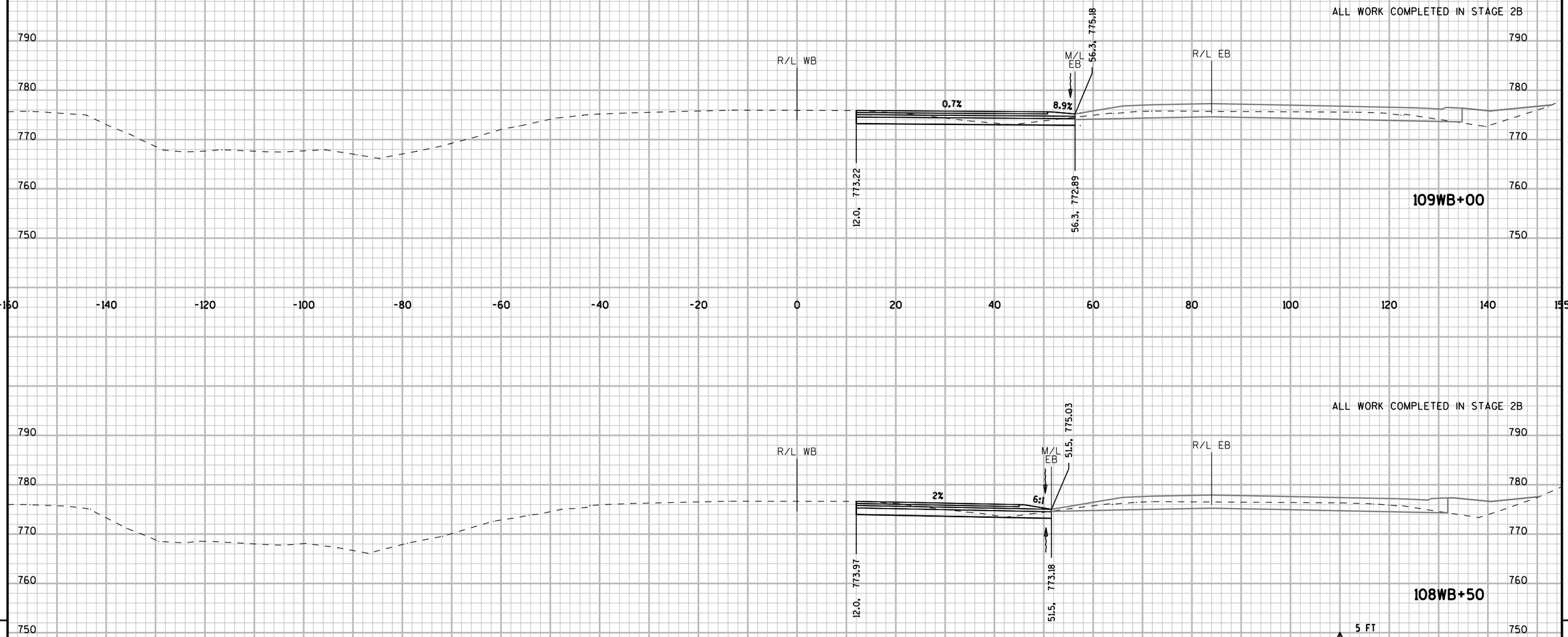
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



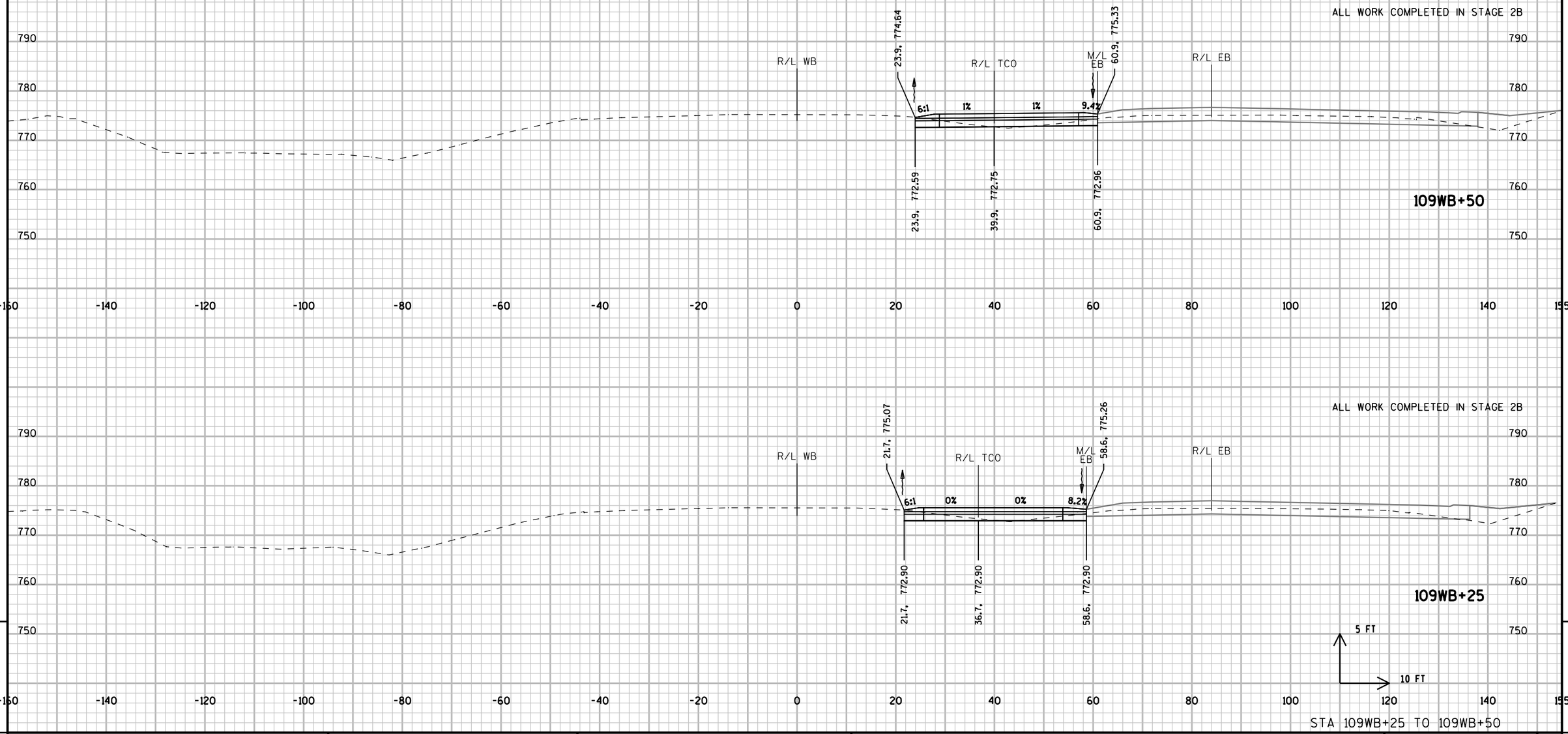
STA 108WB+50 TO 109WB+00

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 634	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

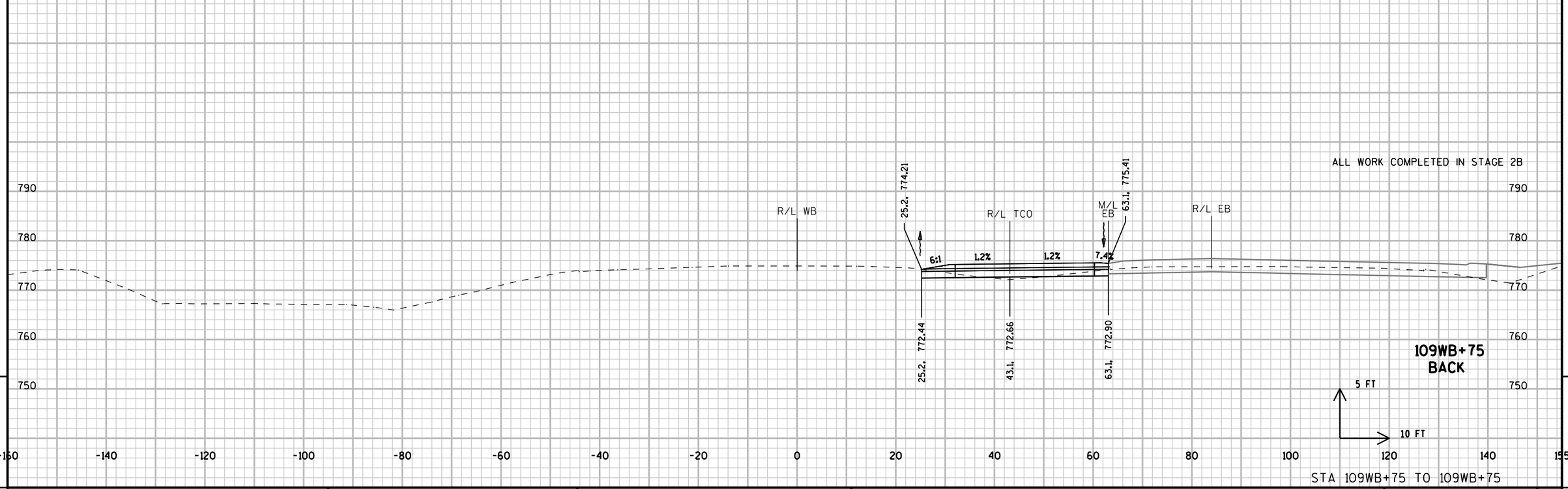


STA 109WB+25 TO 109WB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 635	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



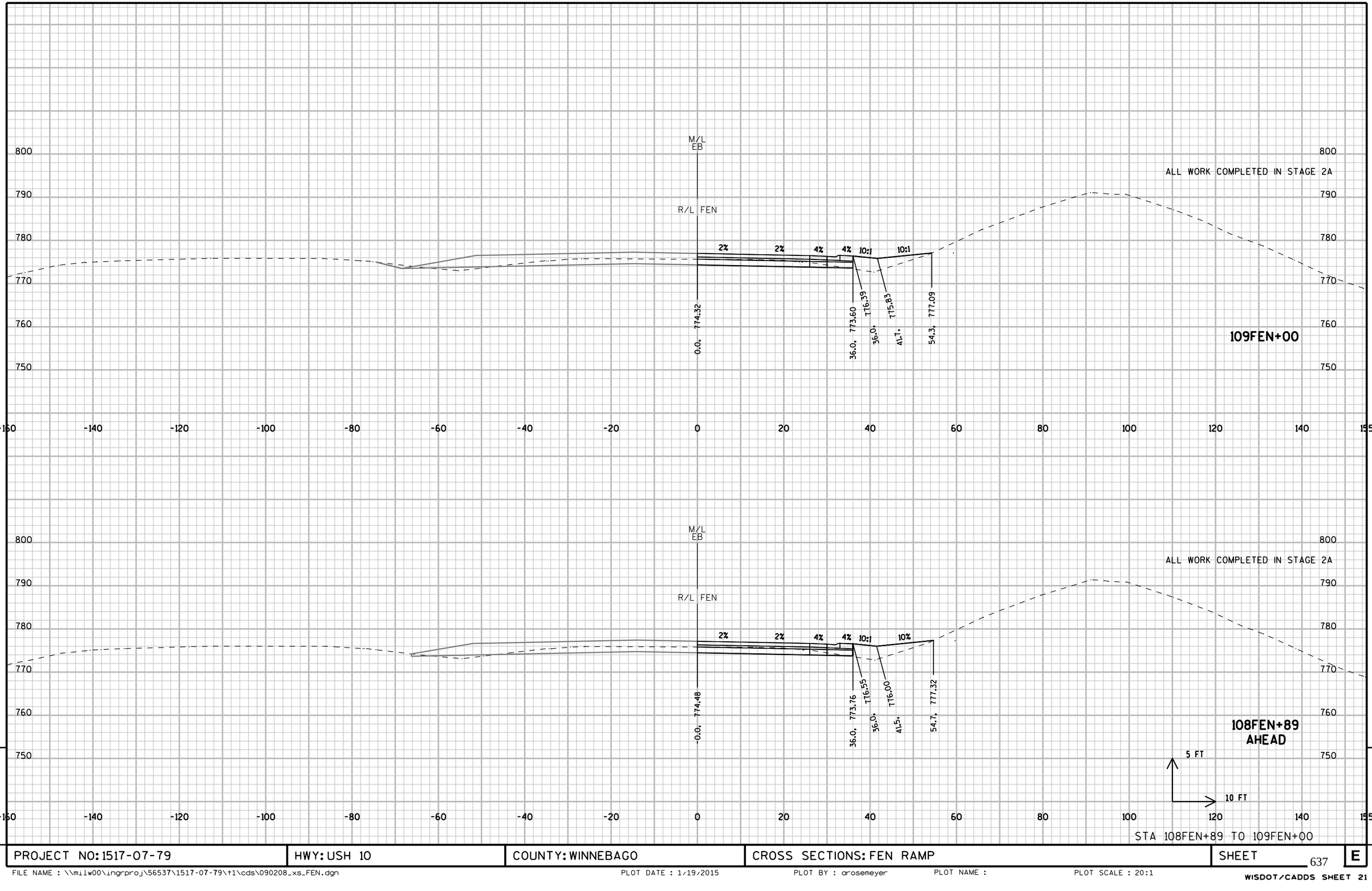
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: USH 10 WB	SHEET 636	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090207_xs_WB.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

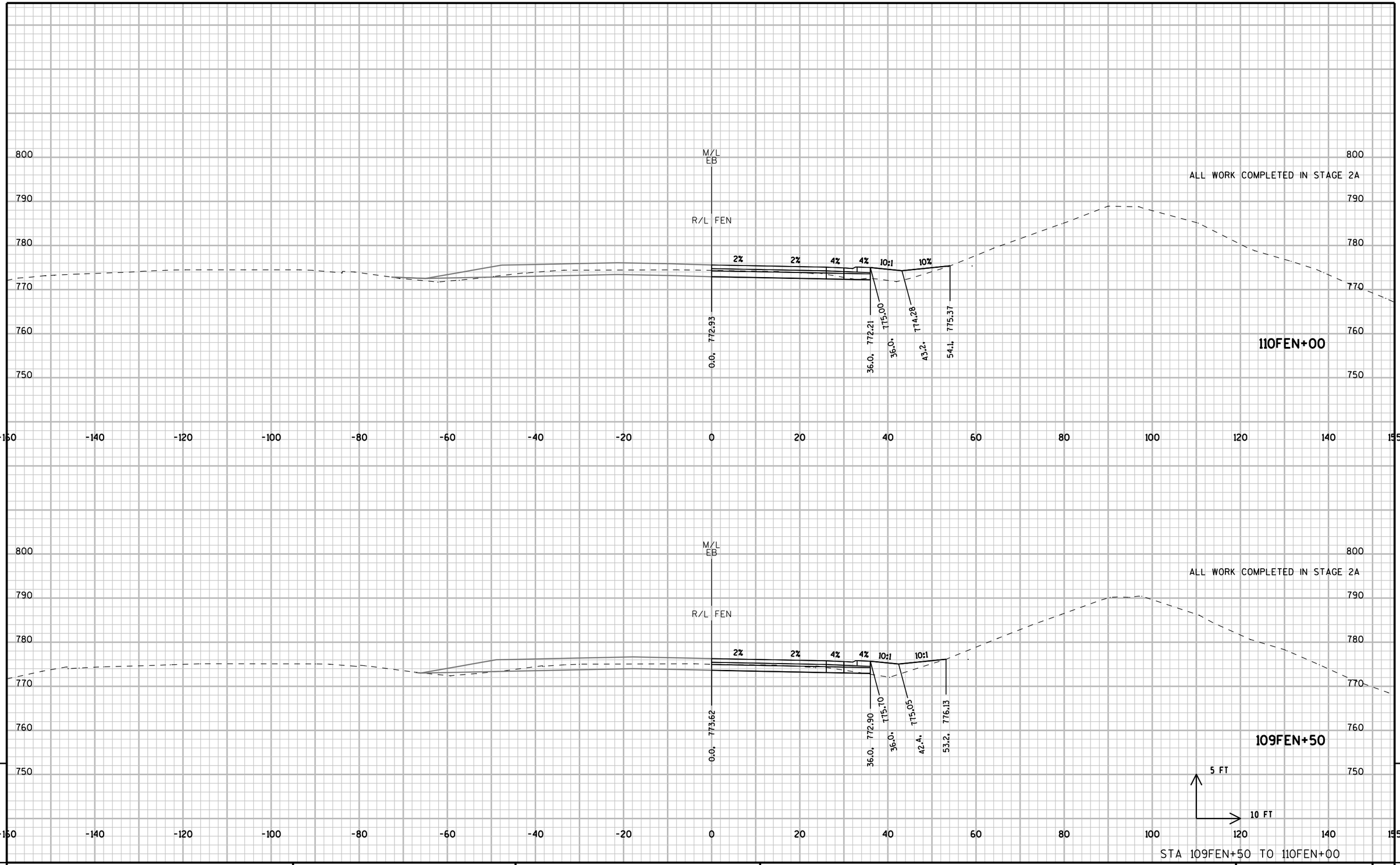
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STA 108FEN+89 TO 109FEN+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090208_xs_FEN.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 109FEN+50 TO 110FEN+00

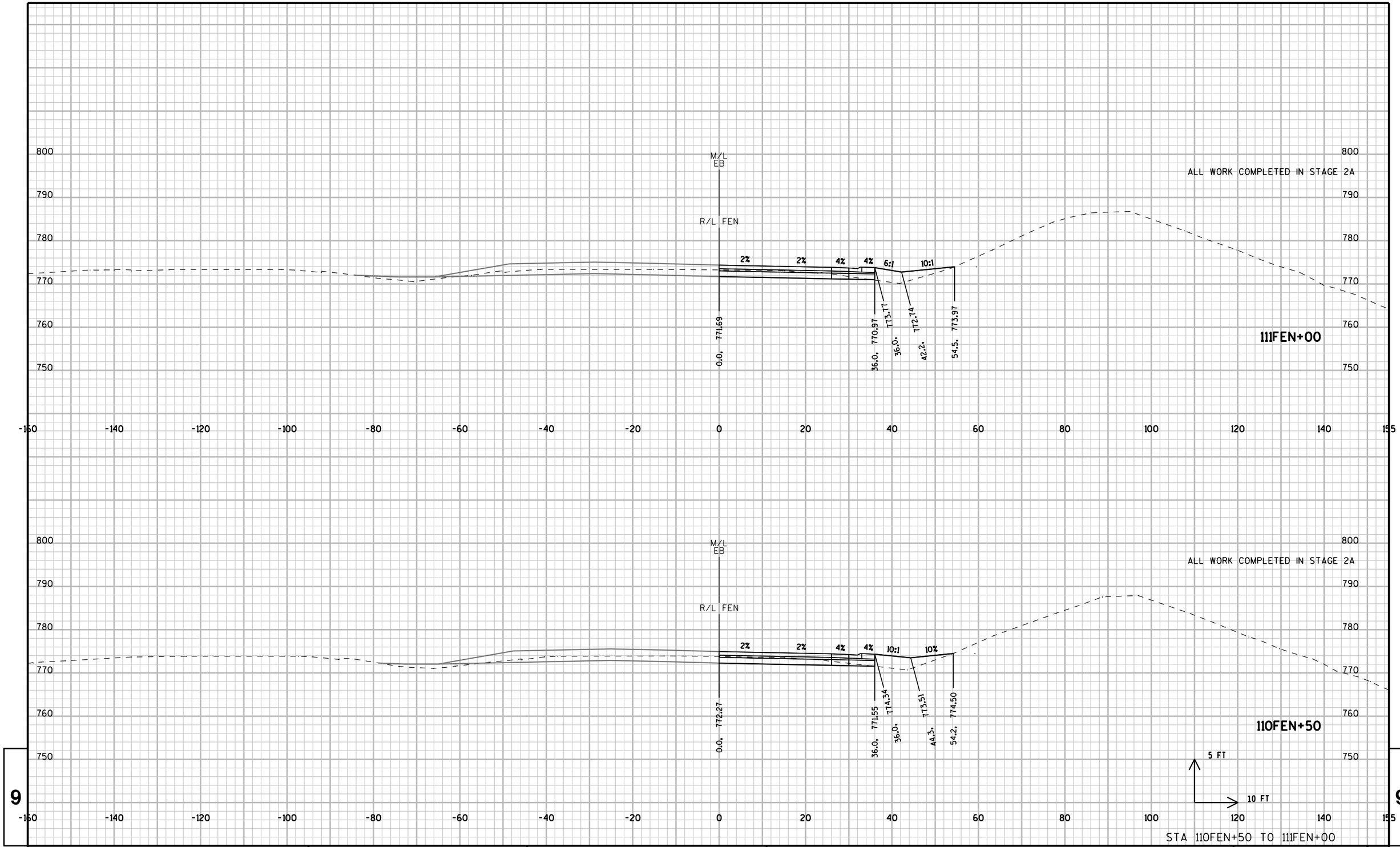
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090208_xs_FEN.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



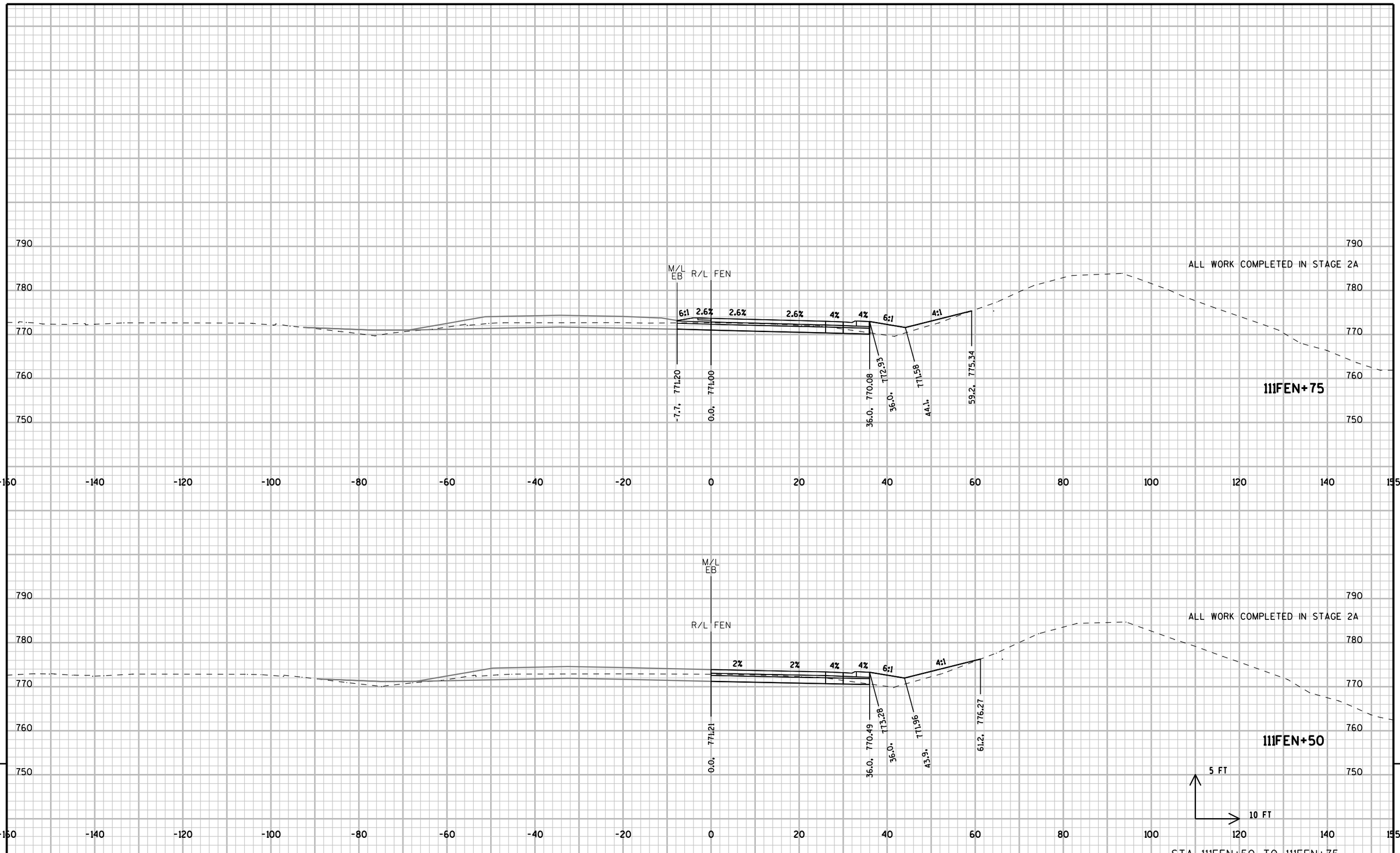
STA 110FEN+50 TO 111FEN+00

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET 639	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090208_xs_FEN.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

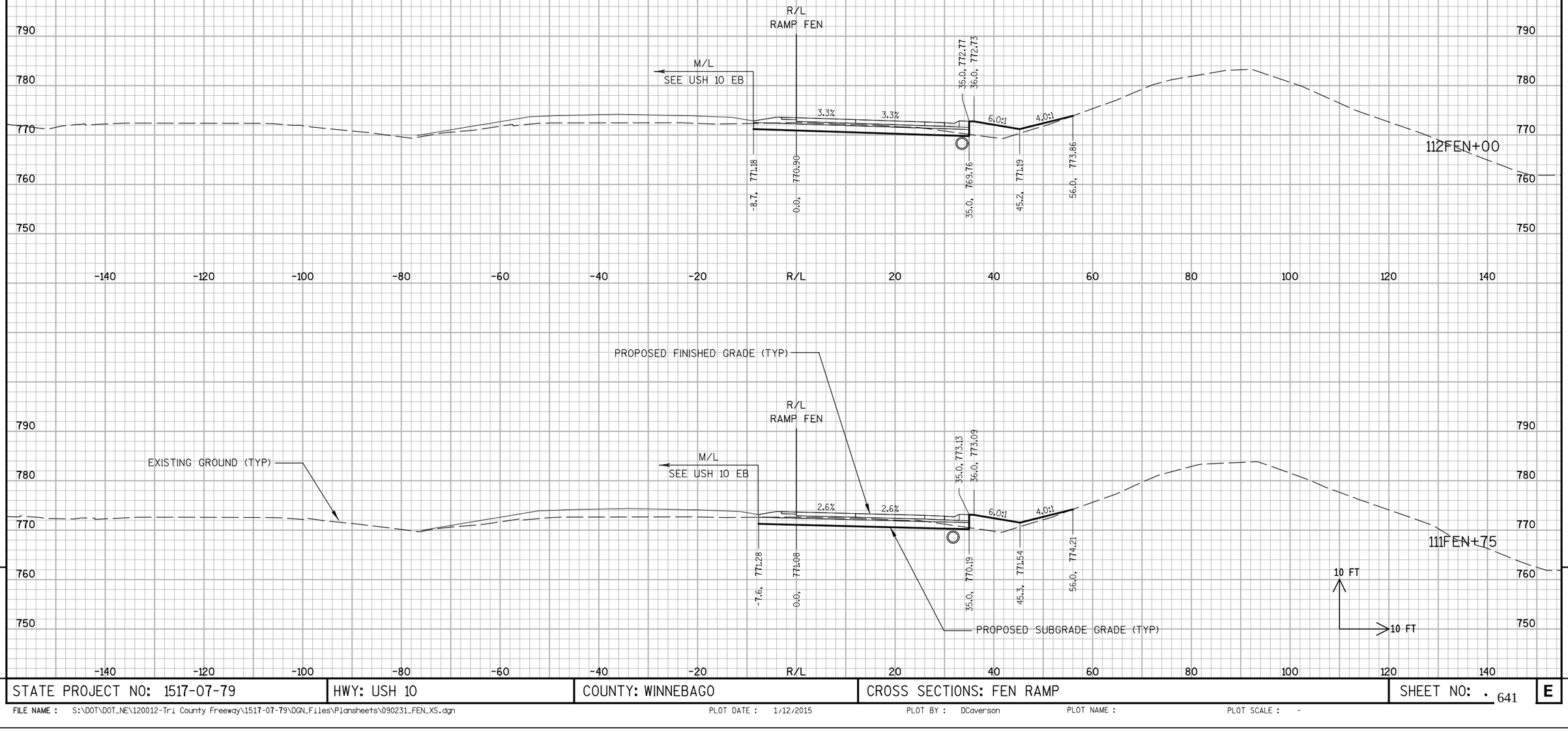
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET 640	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090208_xs_FEN.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

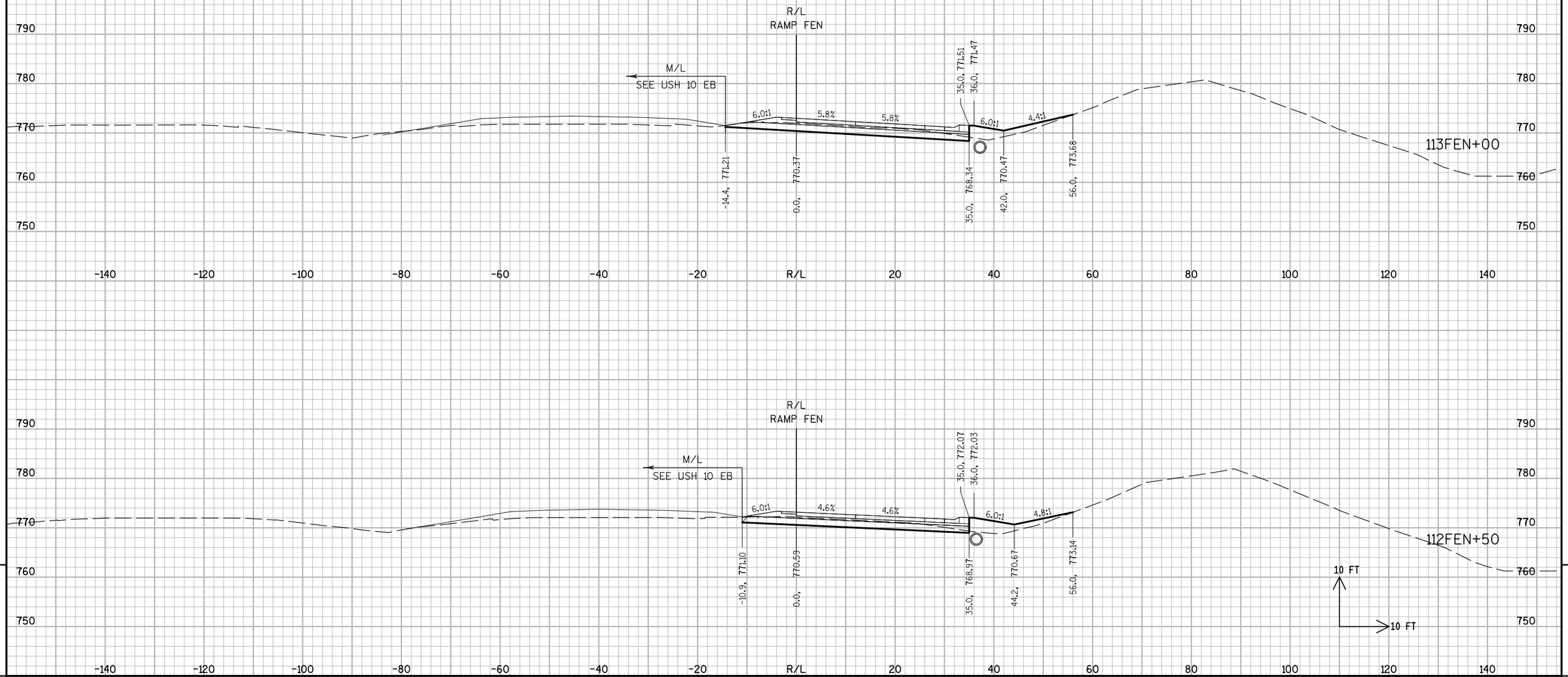
ALL WORK COMPLETED IN STAGE 2A



STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 641	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



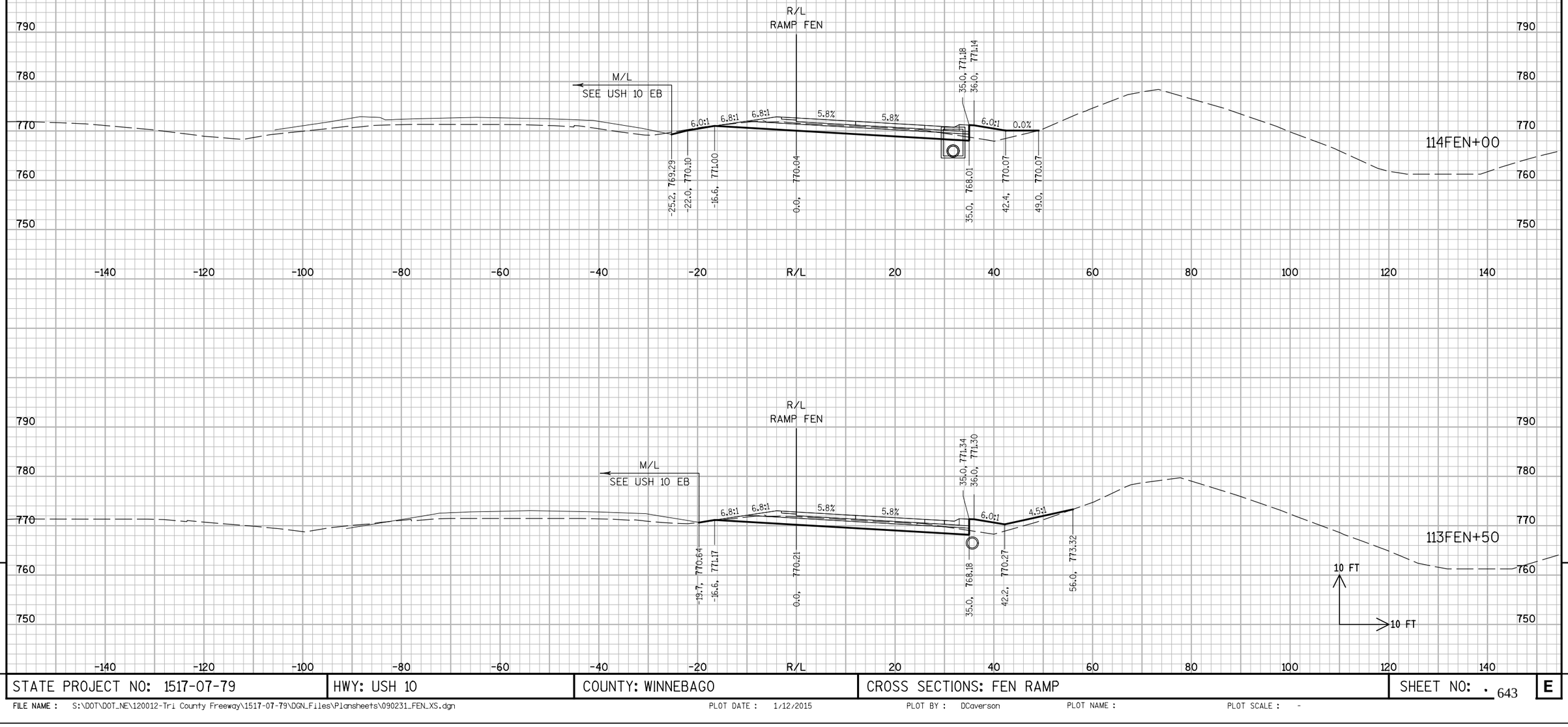
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 642	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



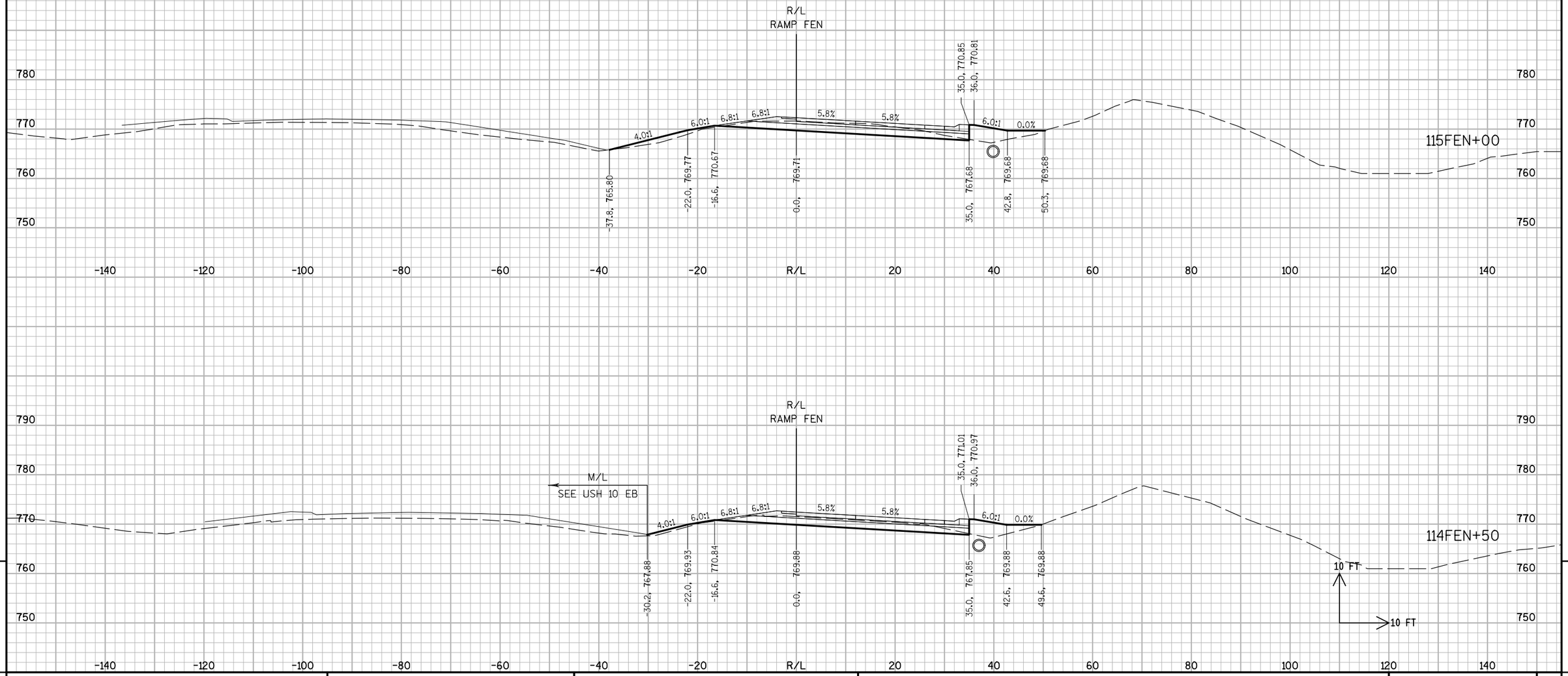
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 643	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



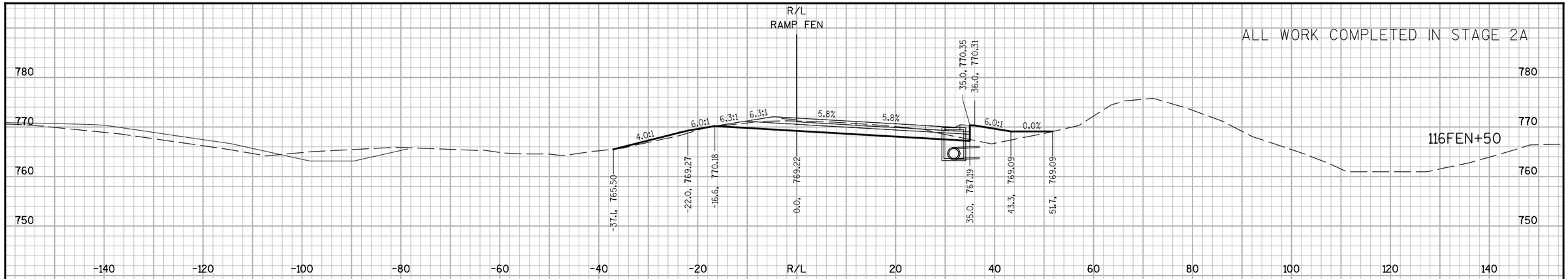
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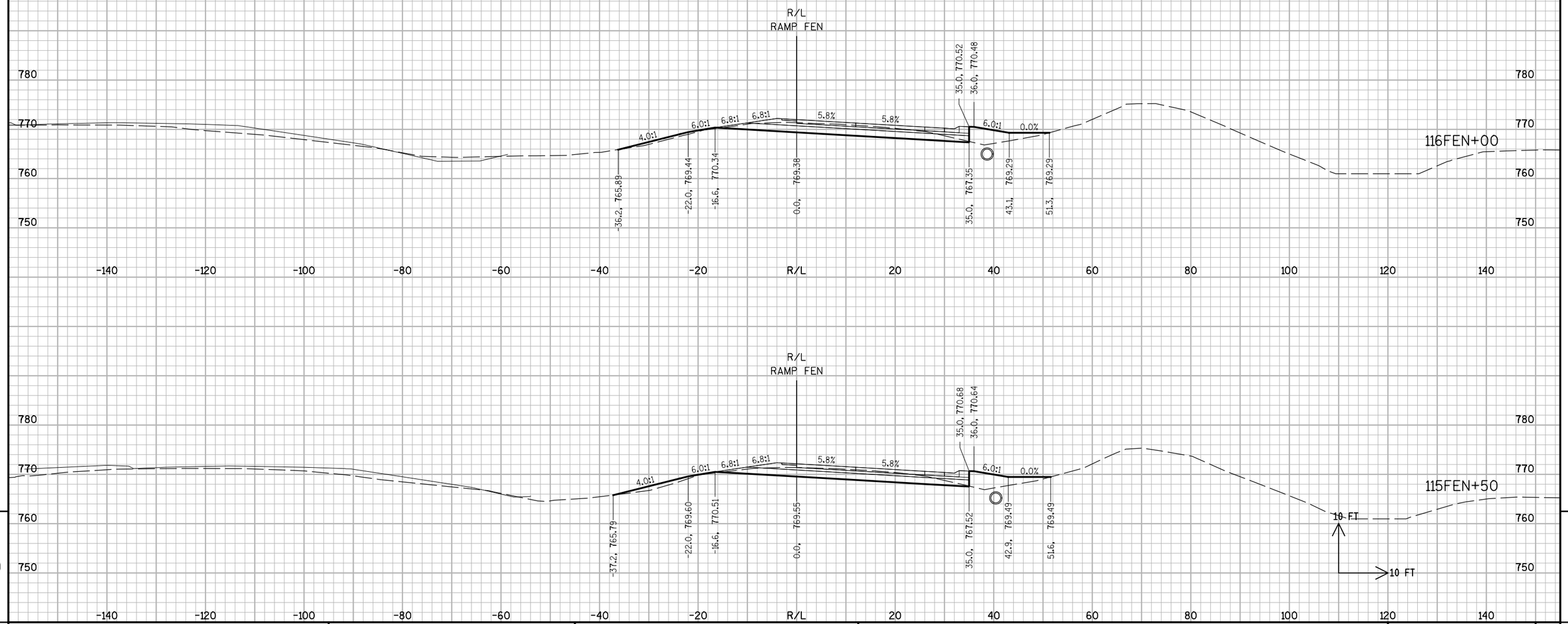
STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 644	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

9

ALL WORK COMPLETED IN STAGE 2A





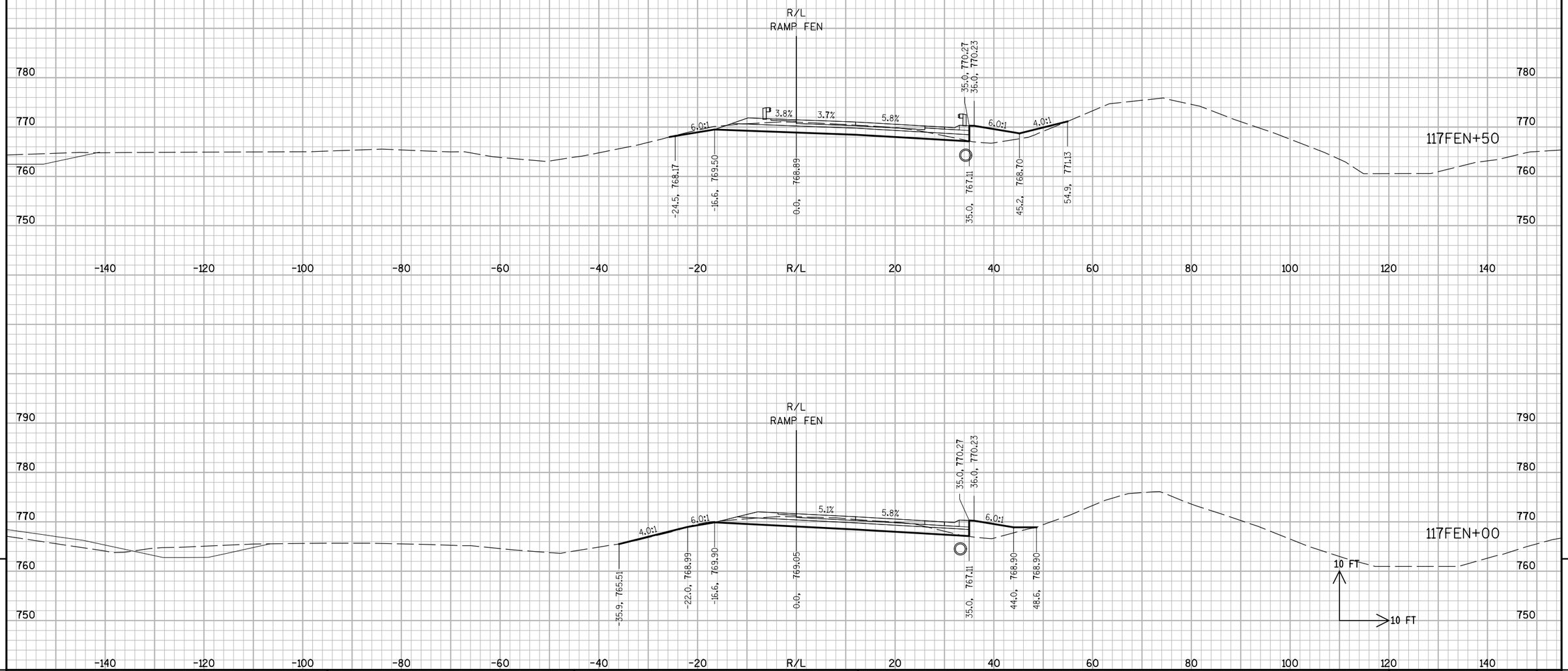
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 645	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



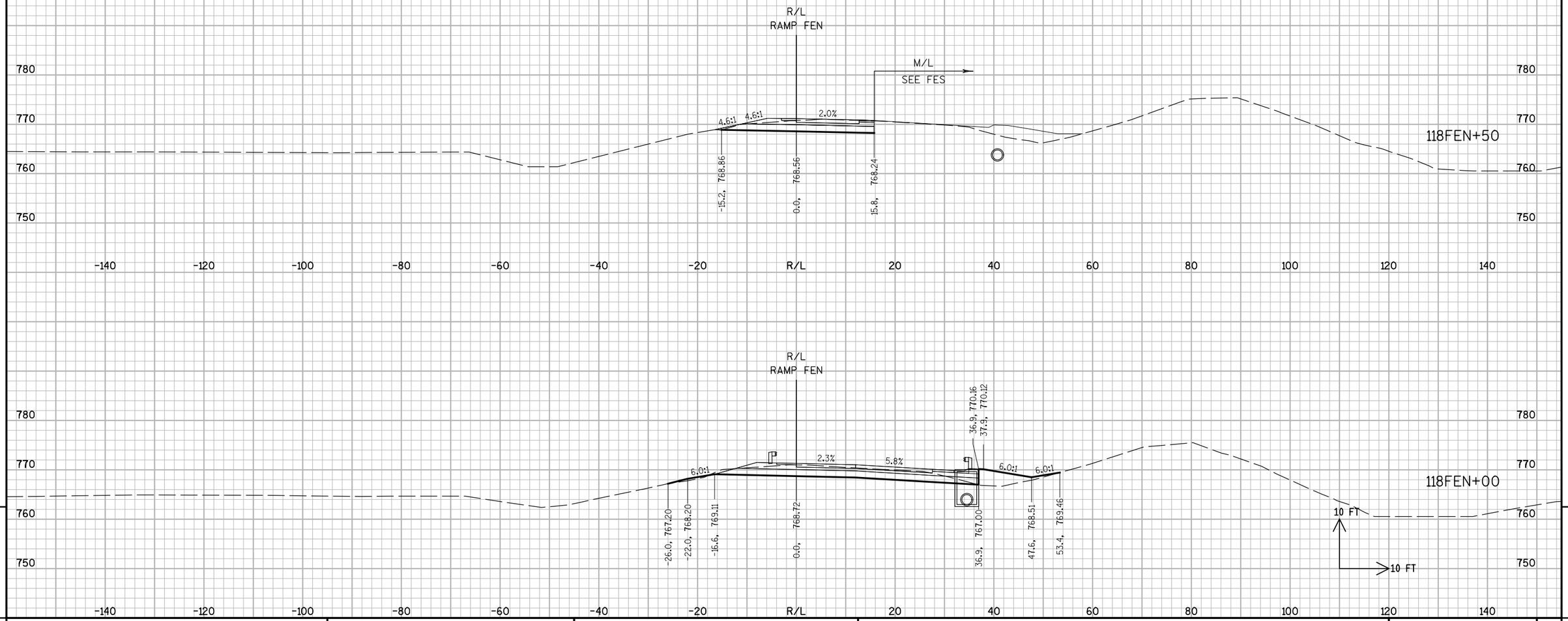
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 646	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



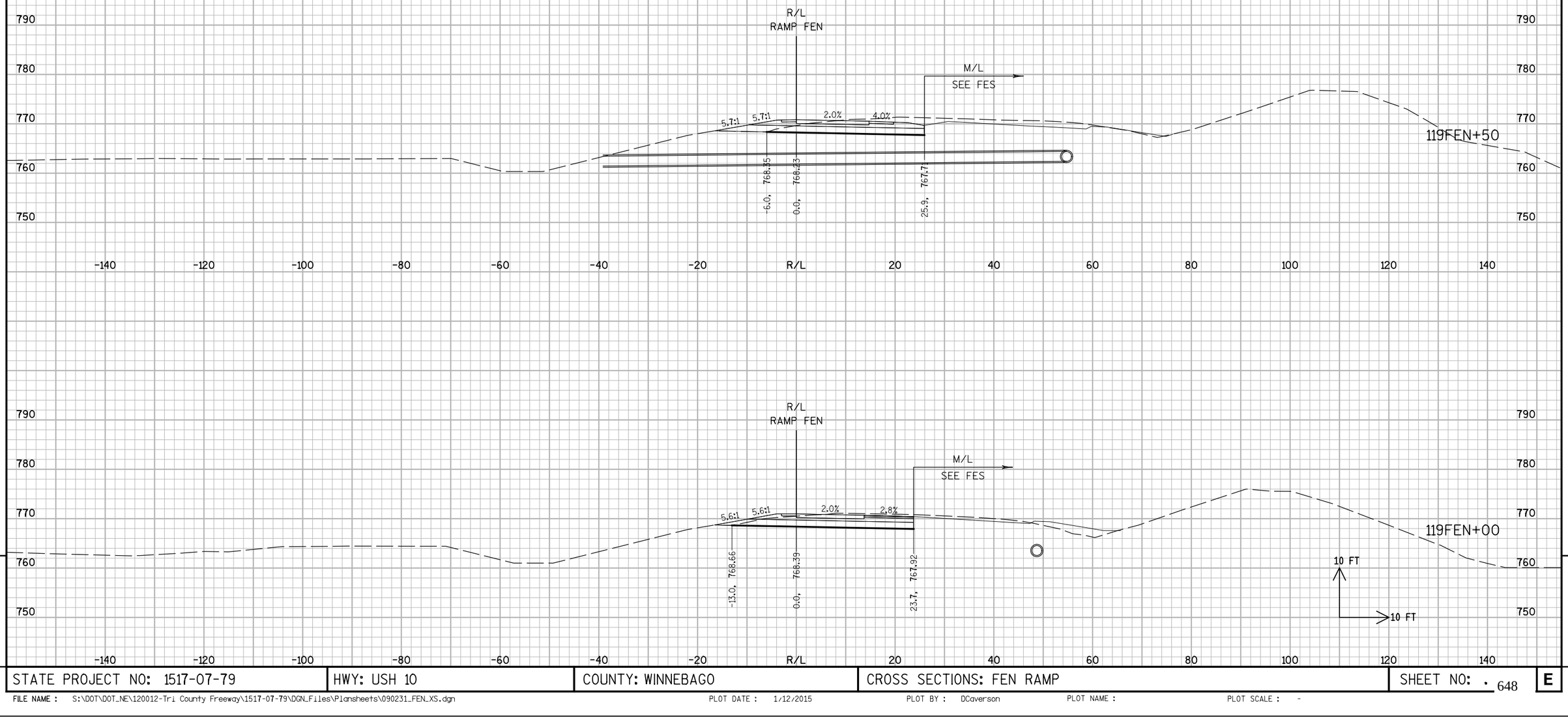
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 647	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



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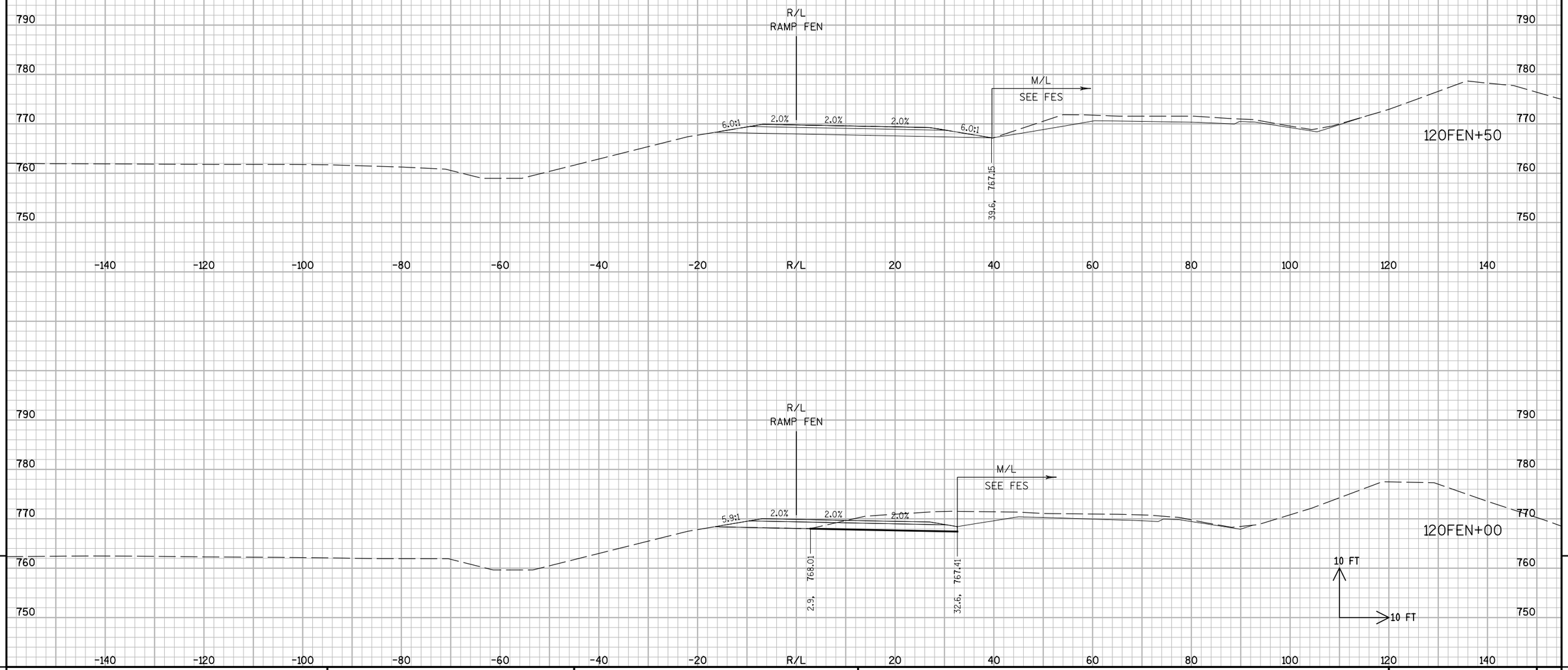
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 648	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090231_FEN_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A

END CONSTRUCTION STA 120FEN+50.00

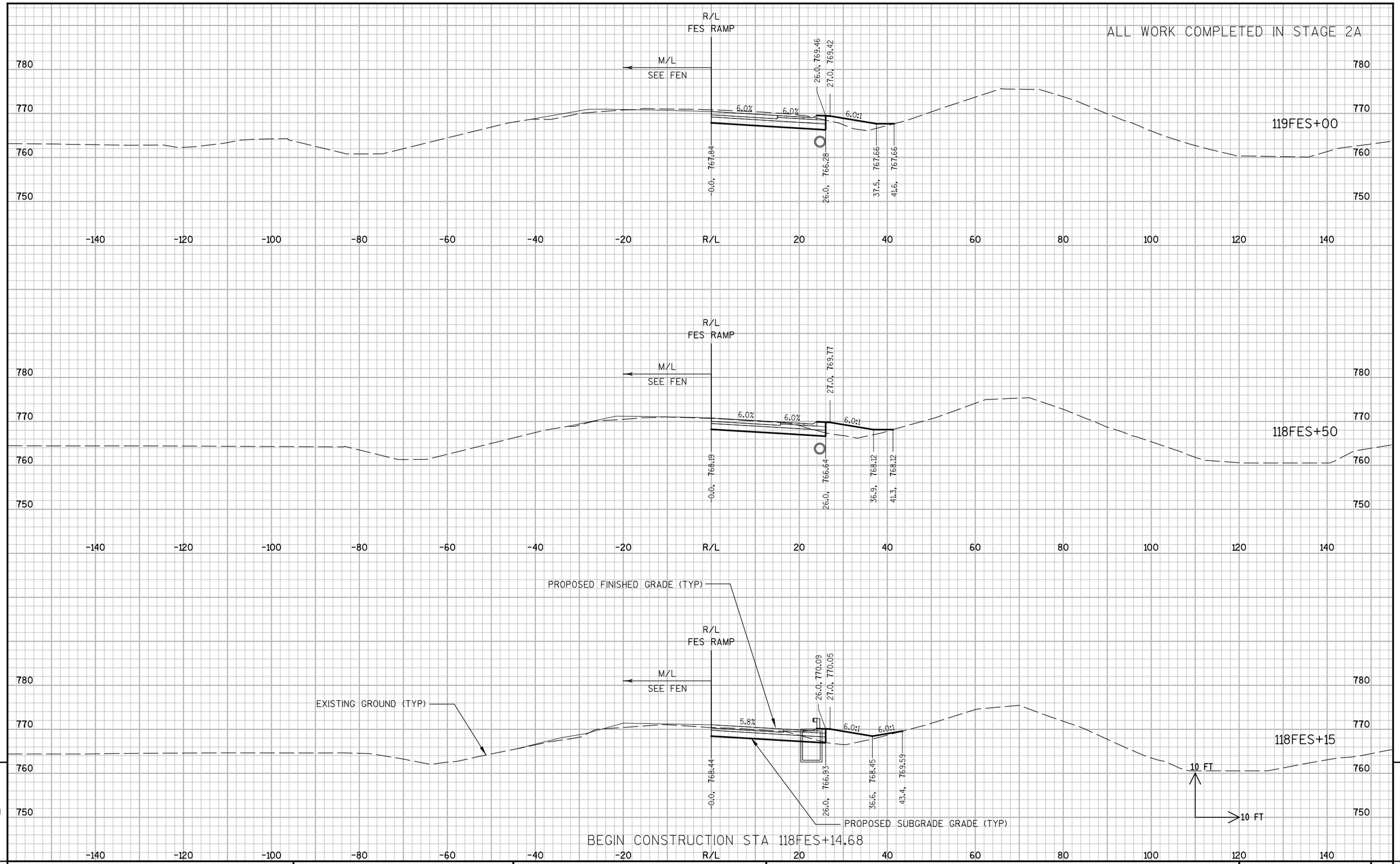


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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FEN RAMP	SHEET NO: . 649	E

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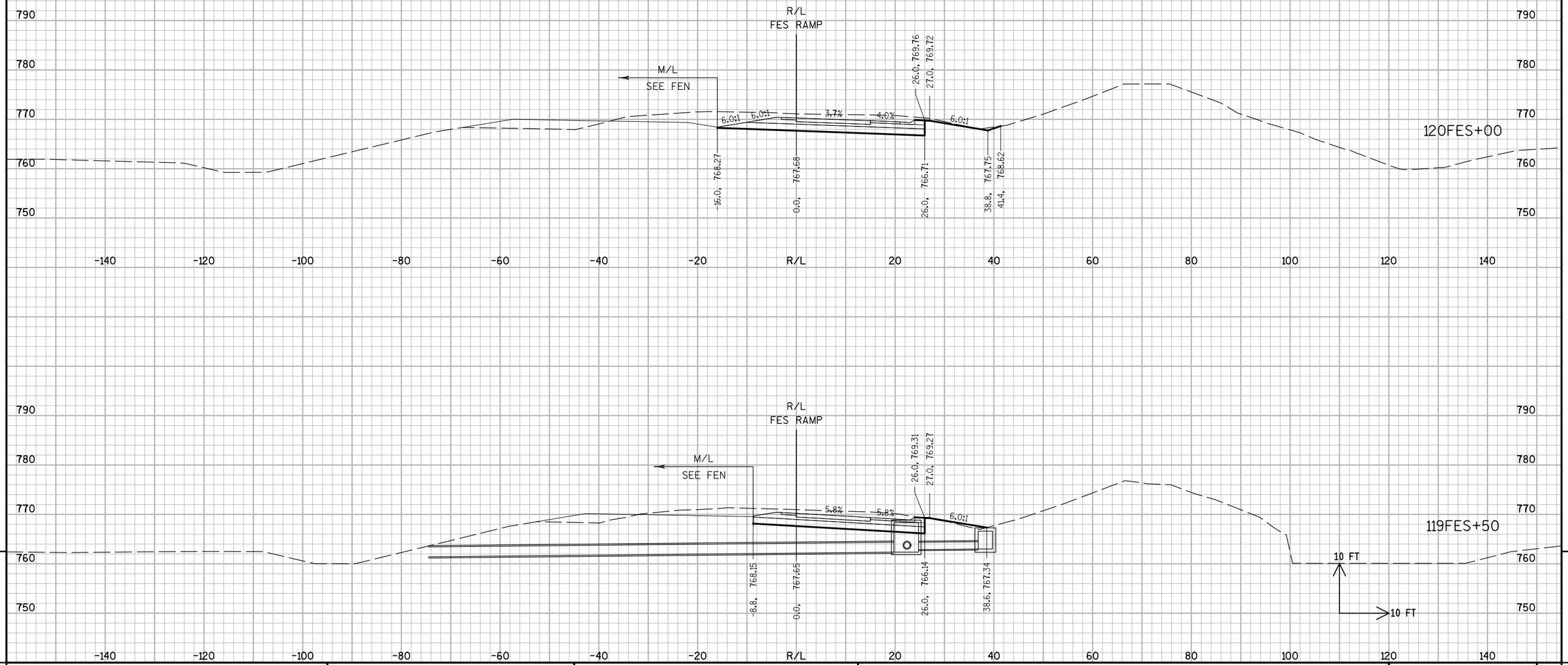
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 650	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



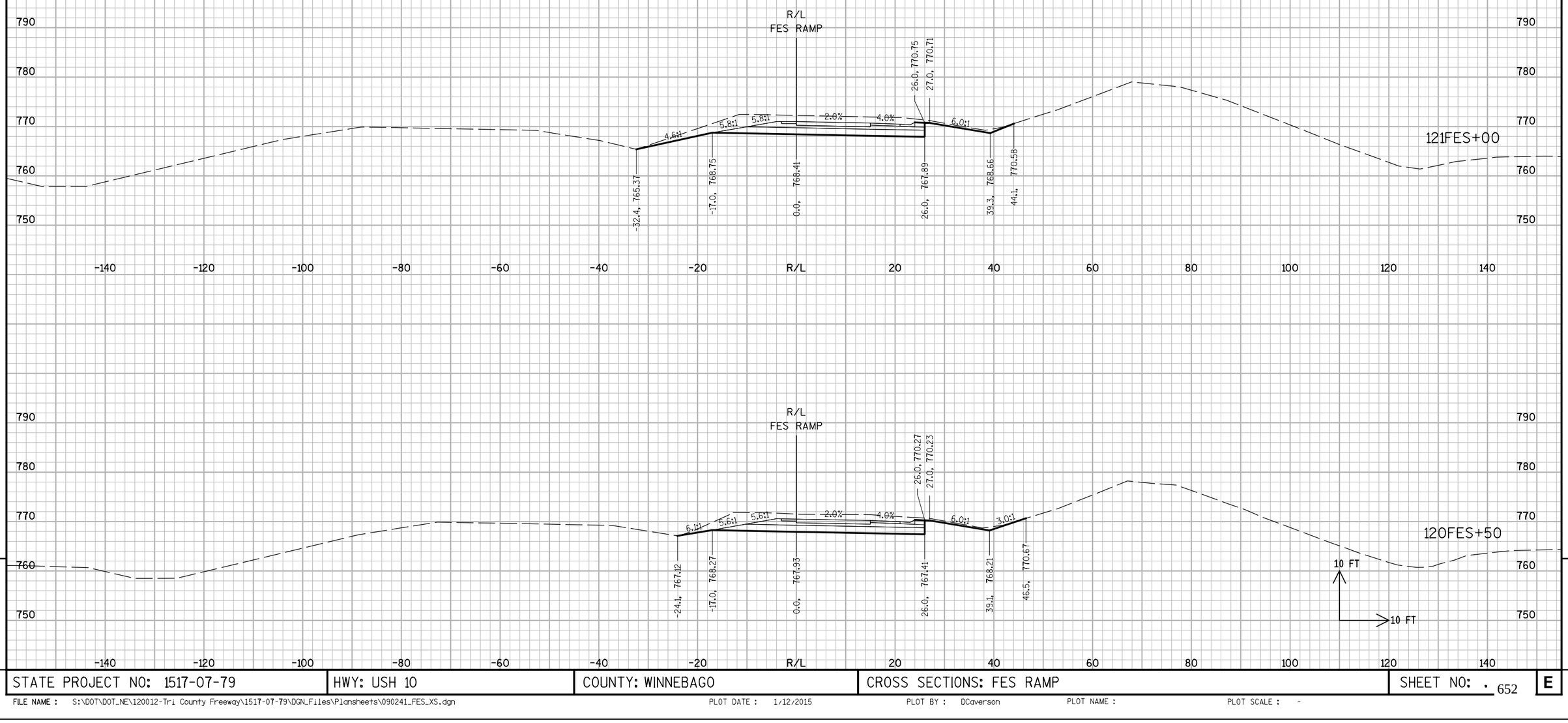
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 651	E

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FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



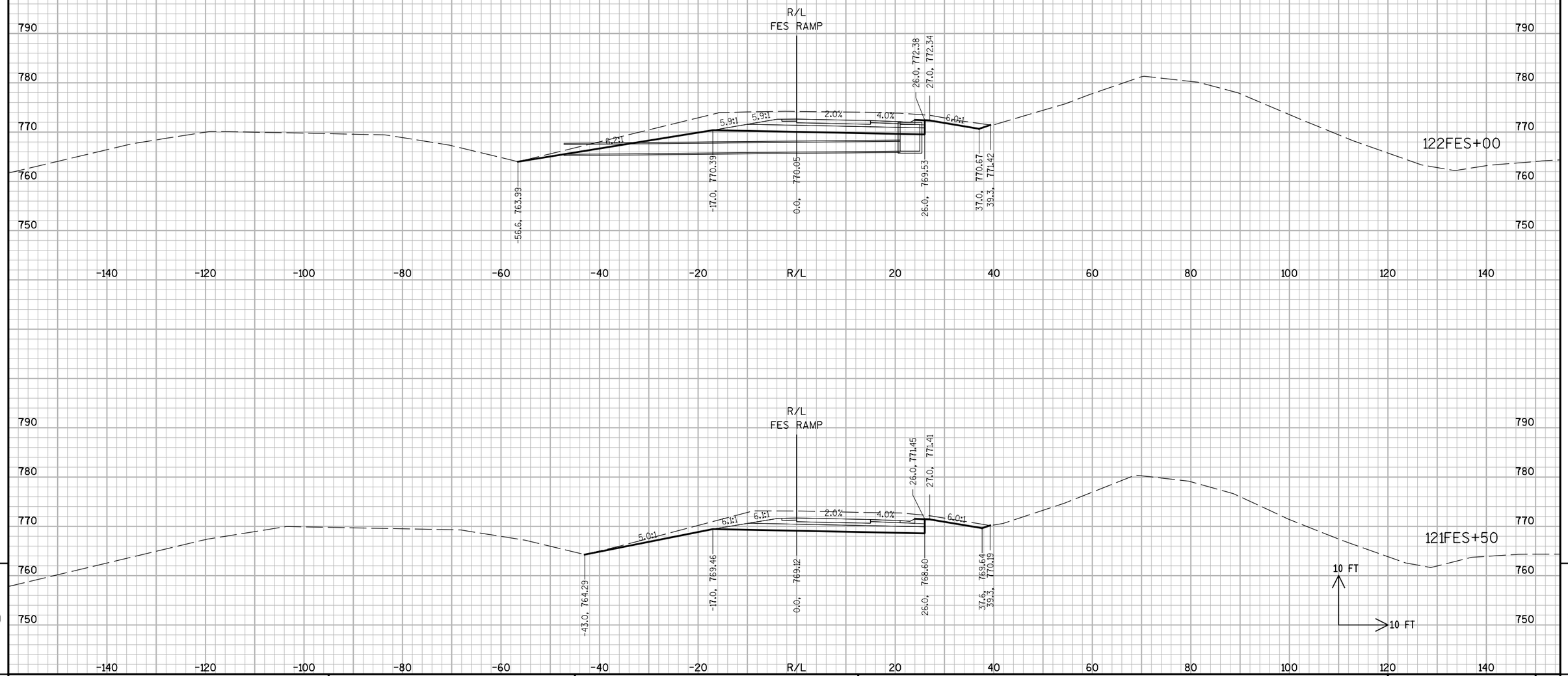
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 652	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



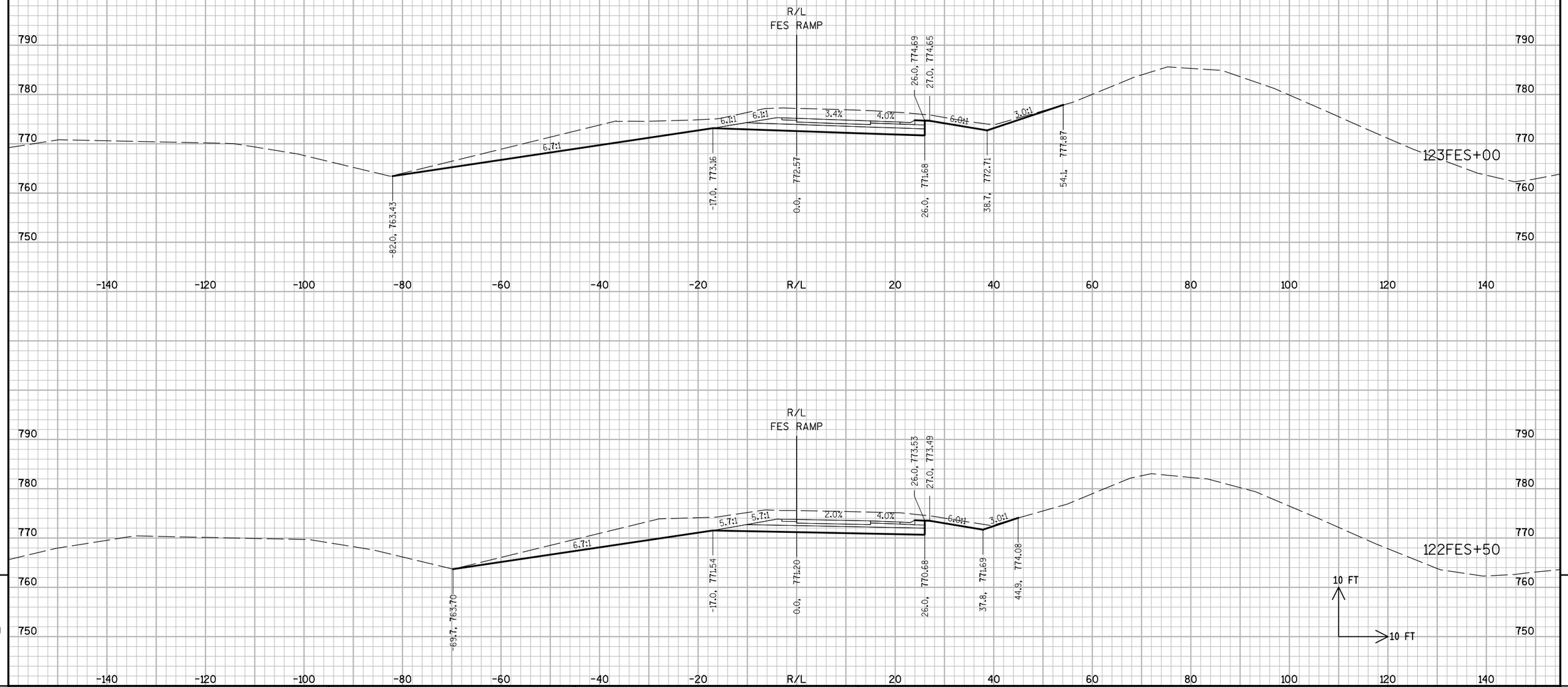
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 653	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



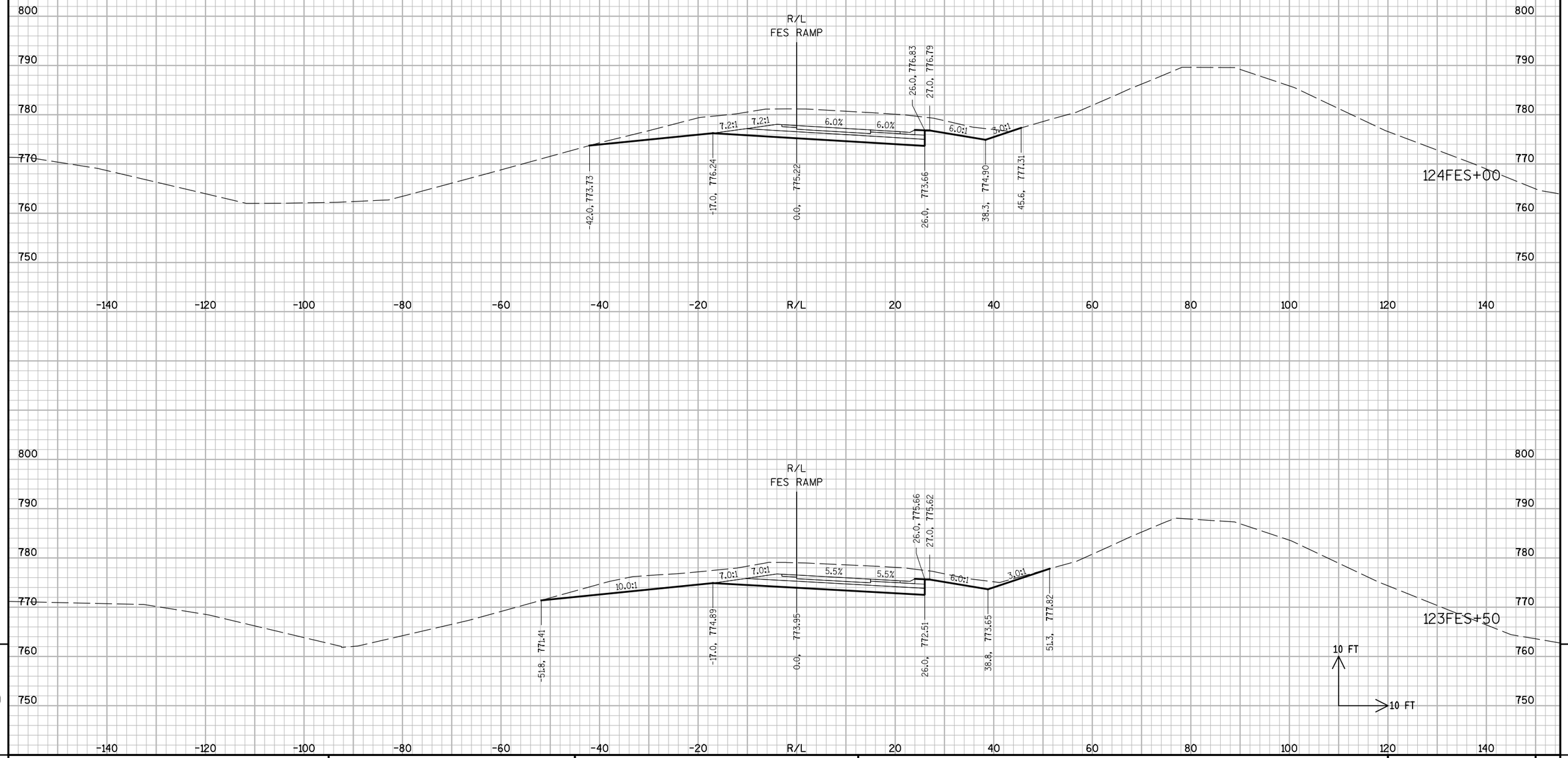
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 654	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



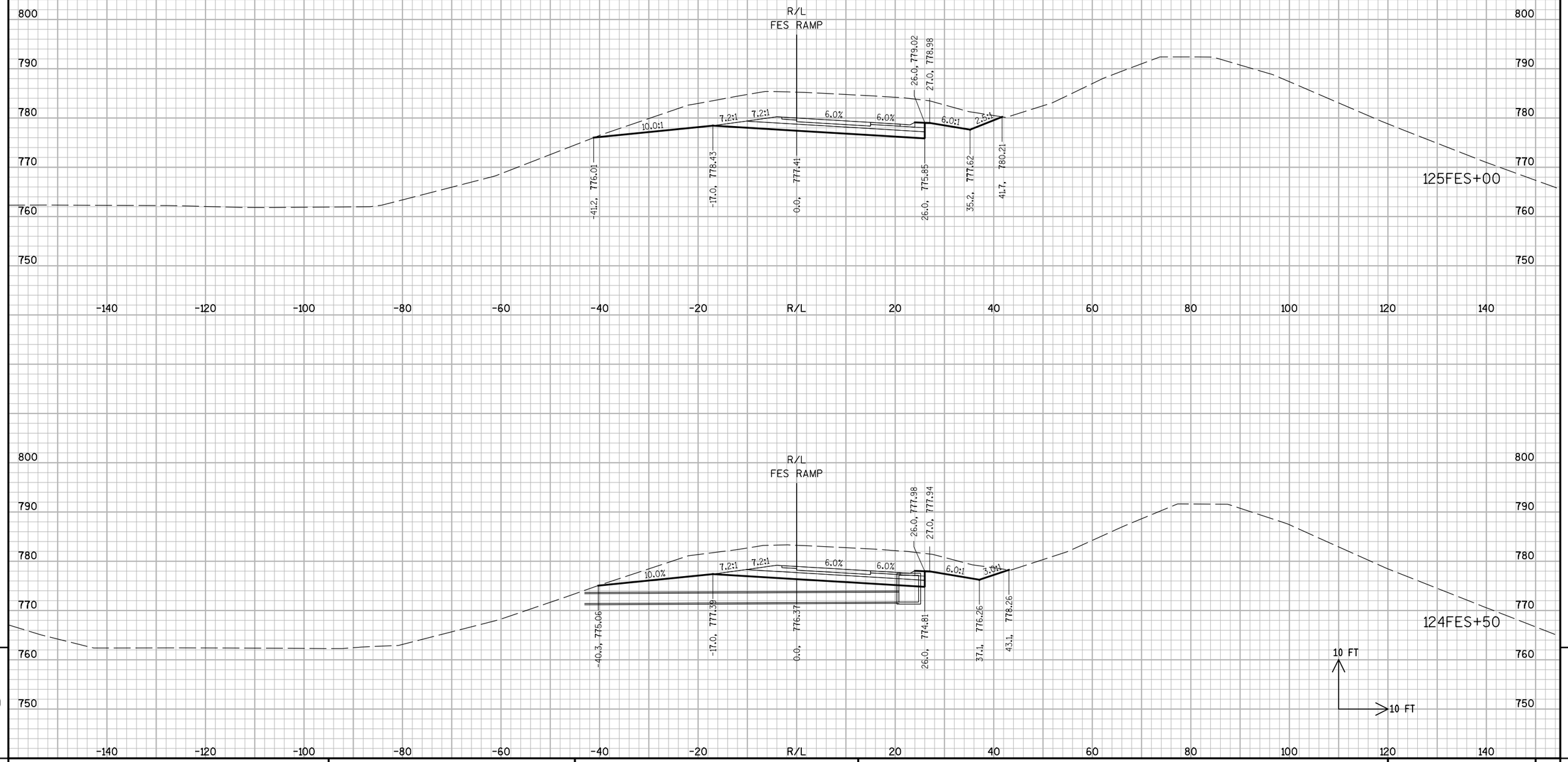
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 655	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



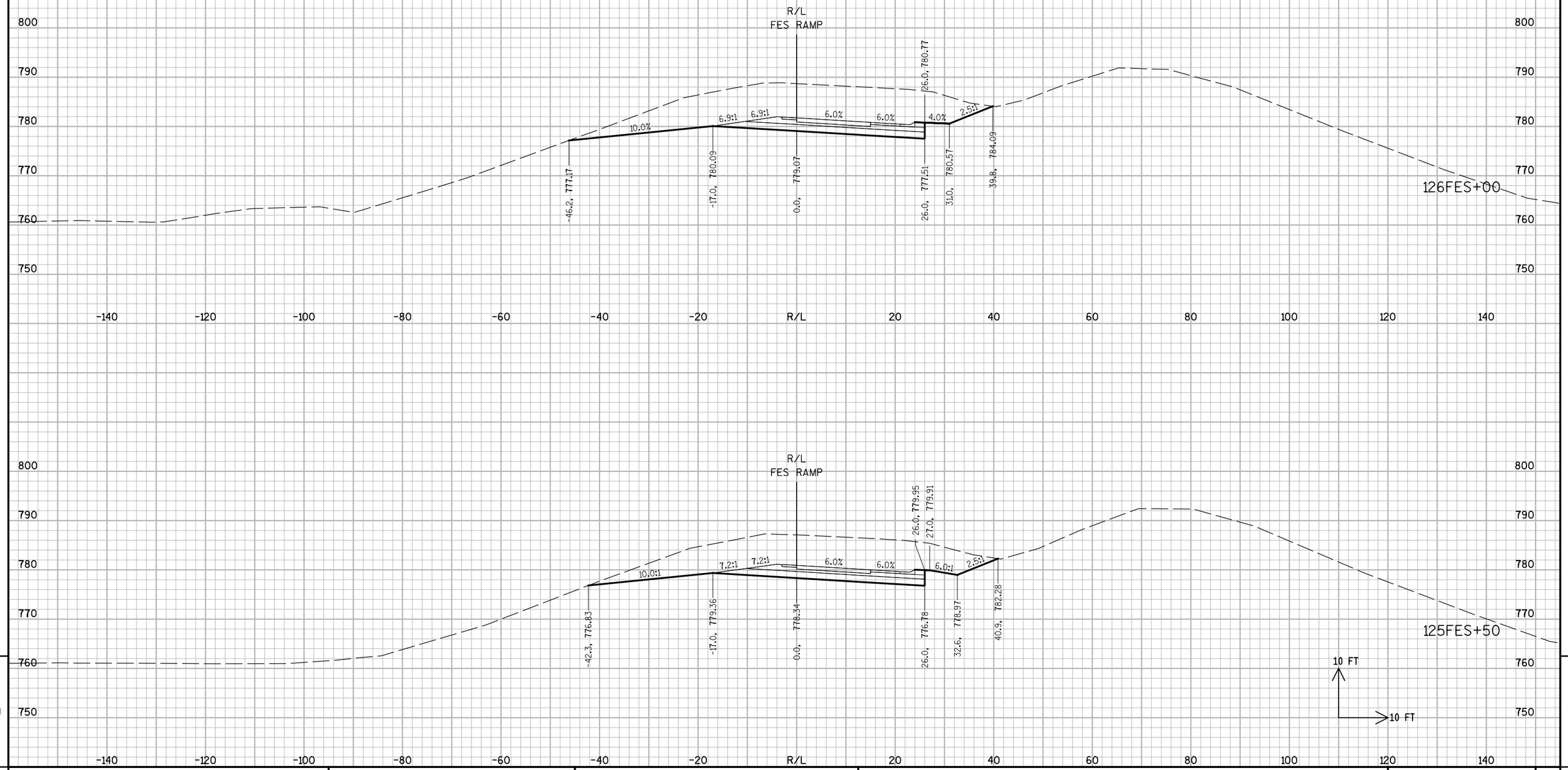
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 656	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

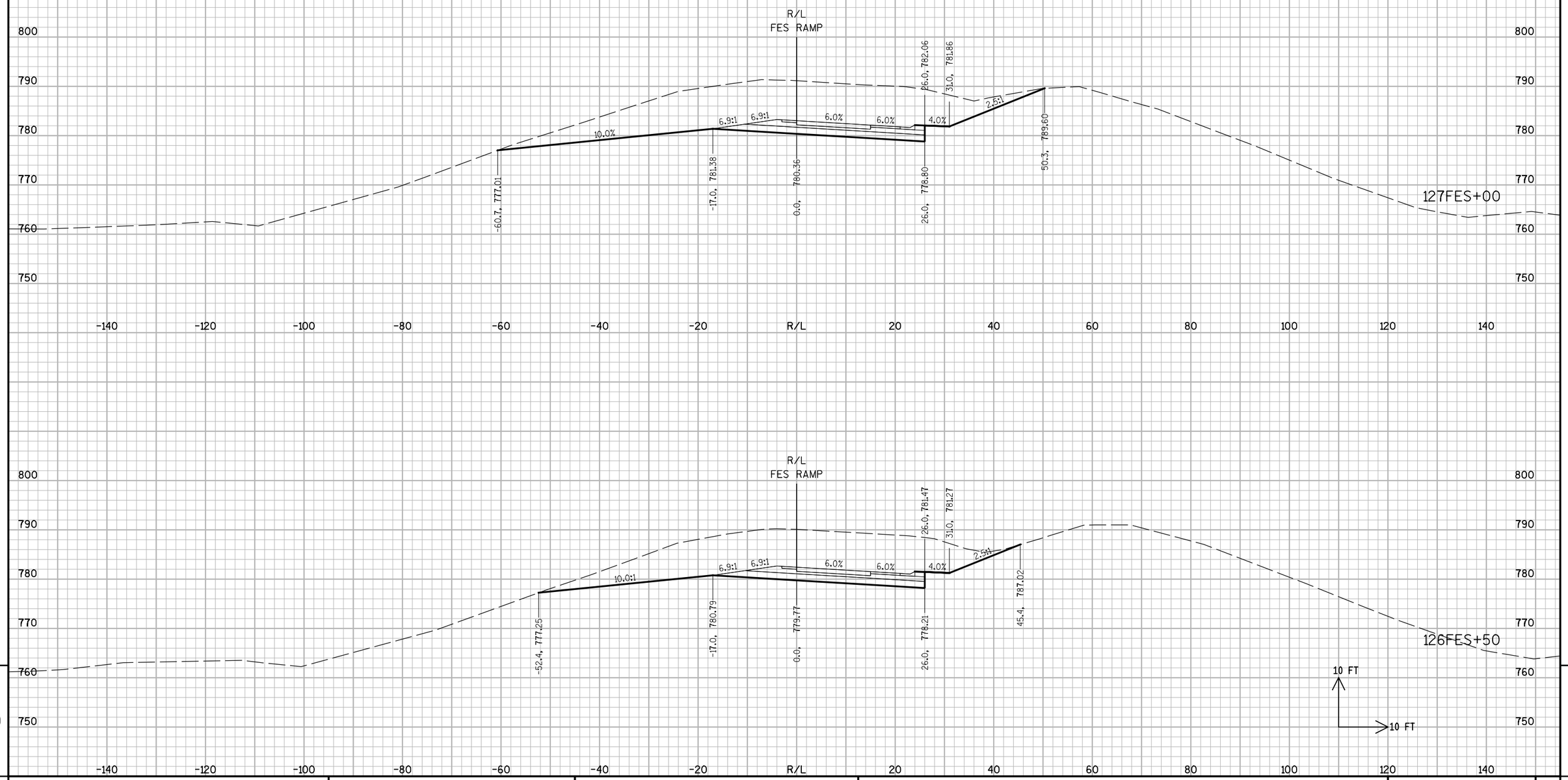
ALL WORK COMPLETED IN STAGE 2A



9	STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 657 E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

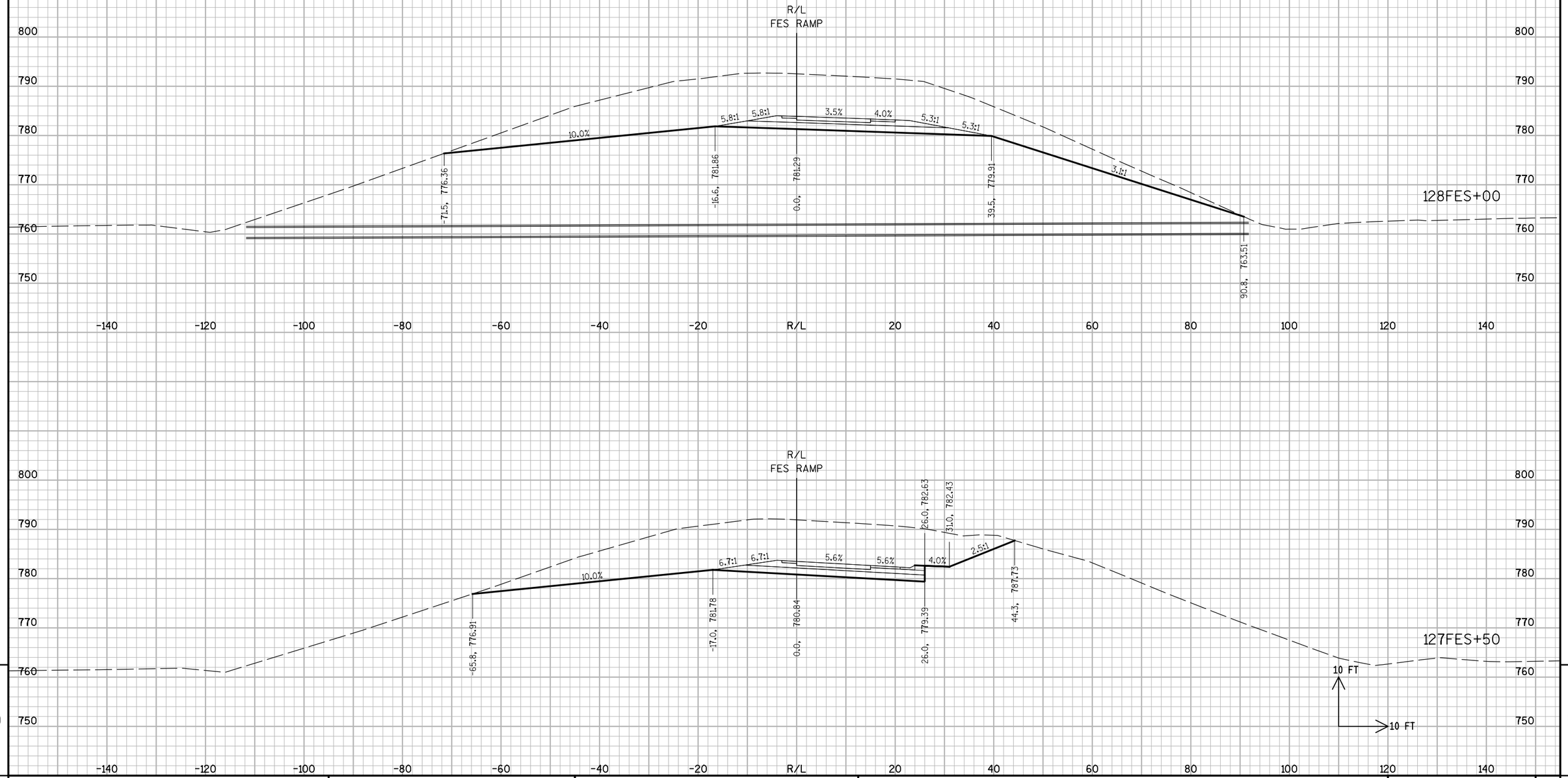
ALL WORK COMPLETED IN STAGE 2A



STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 658	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

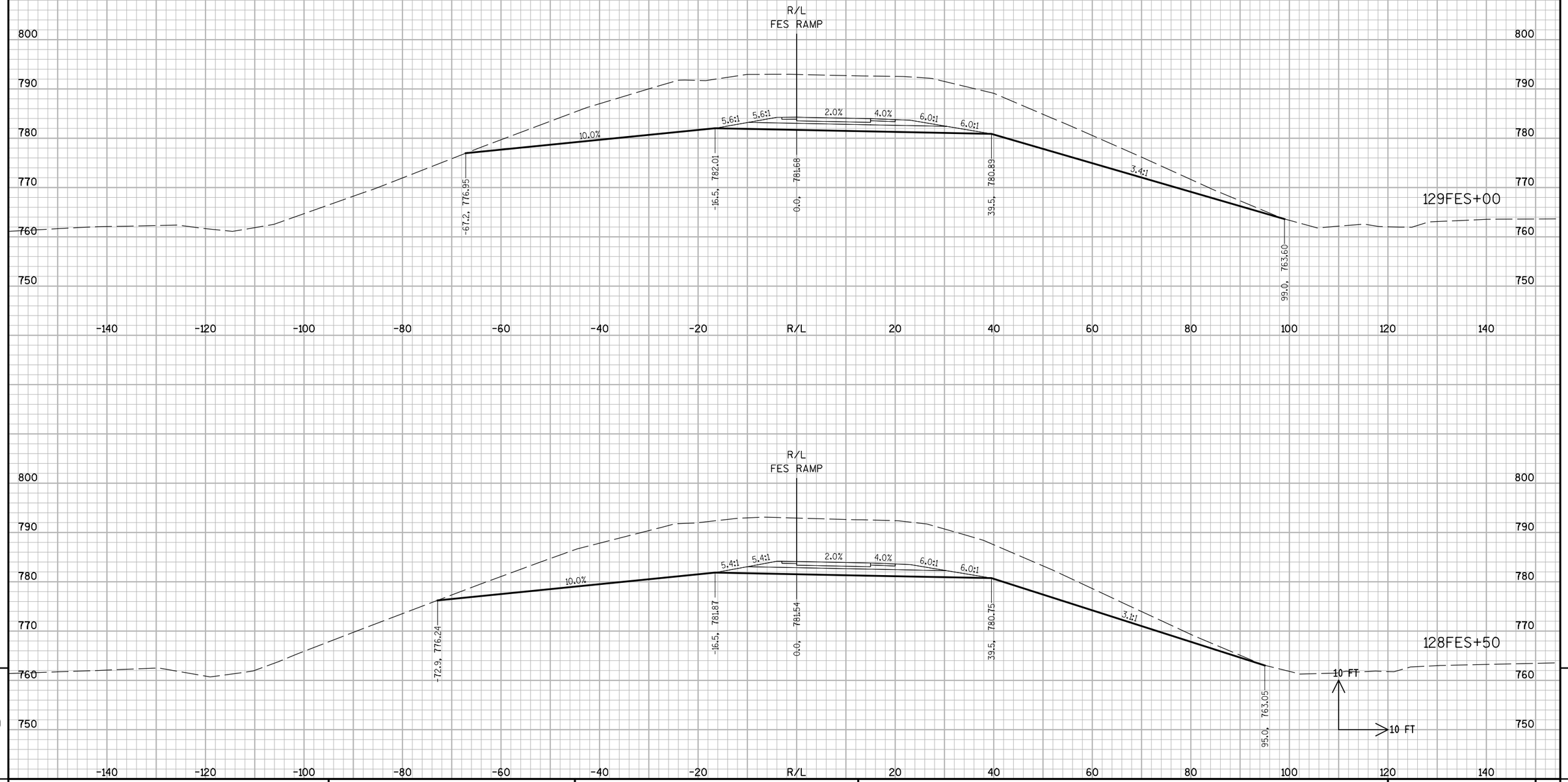
ALL WORK COMPLETED IN STAGE 2A



STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 659	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A

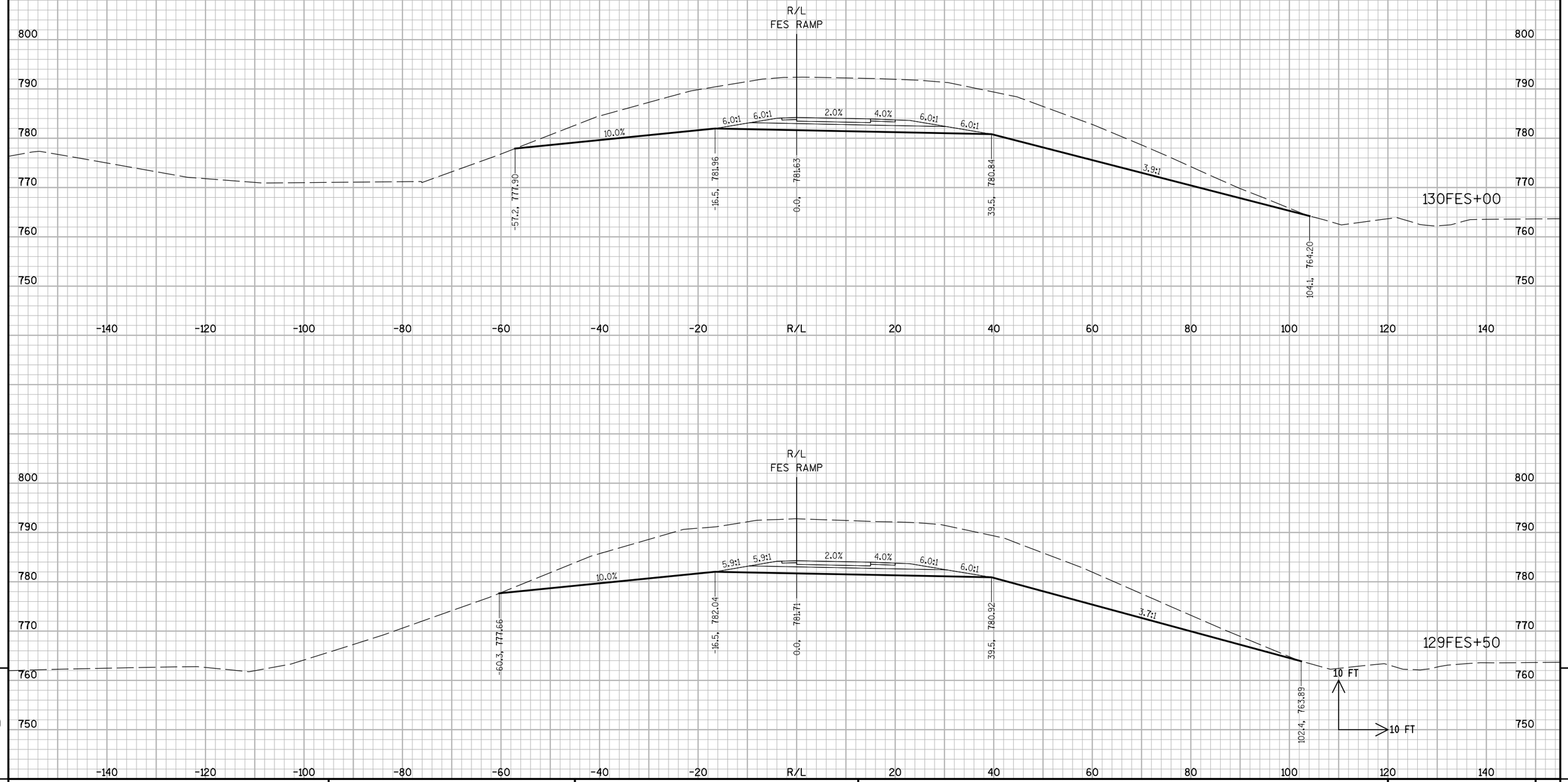


9 9

STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 660	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



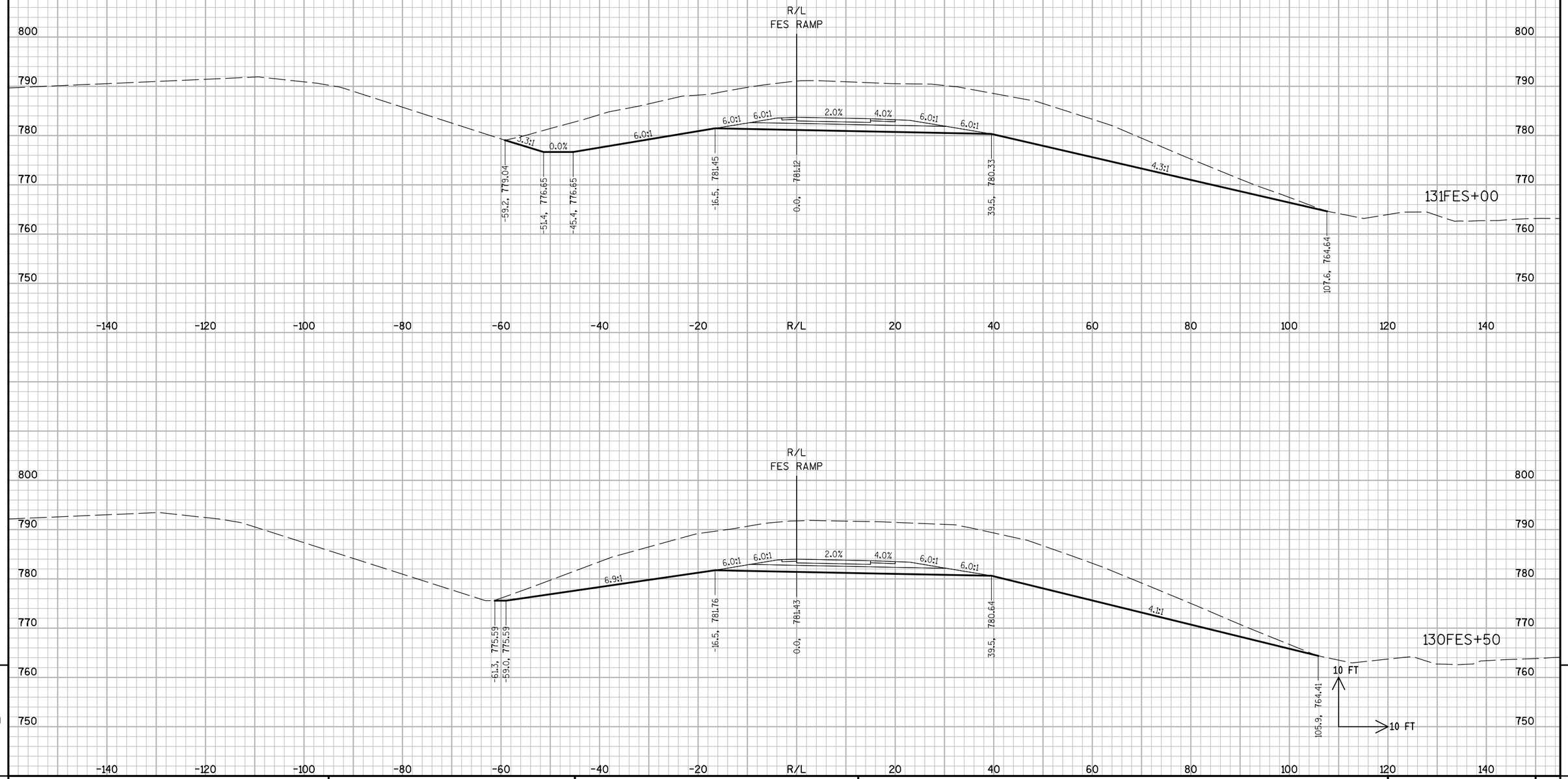
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 661	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



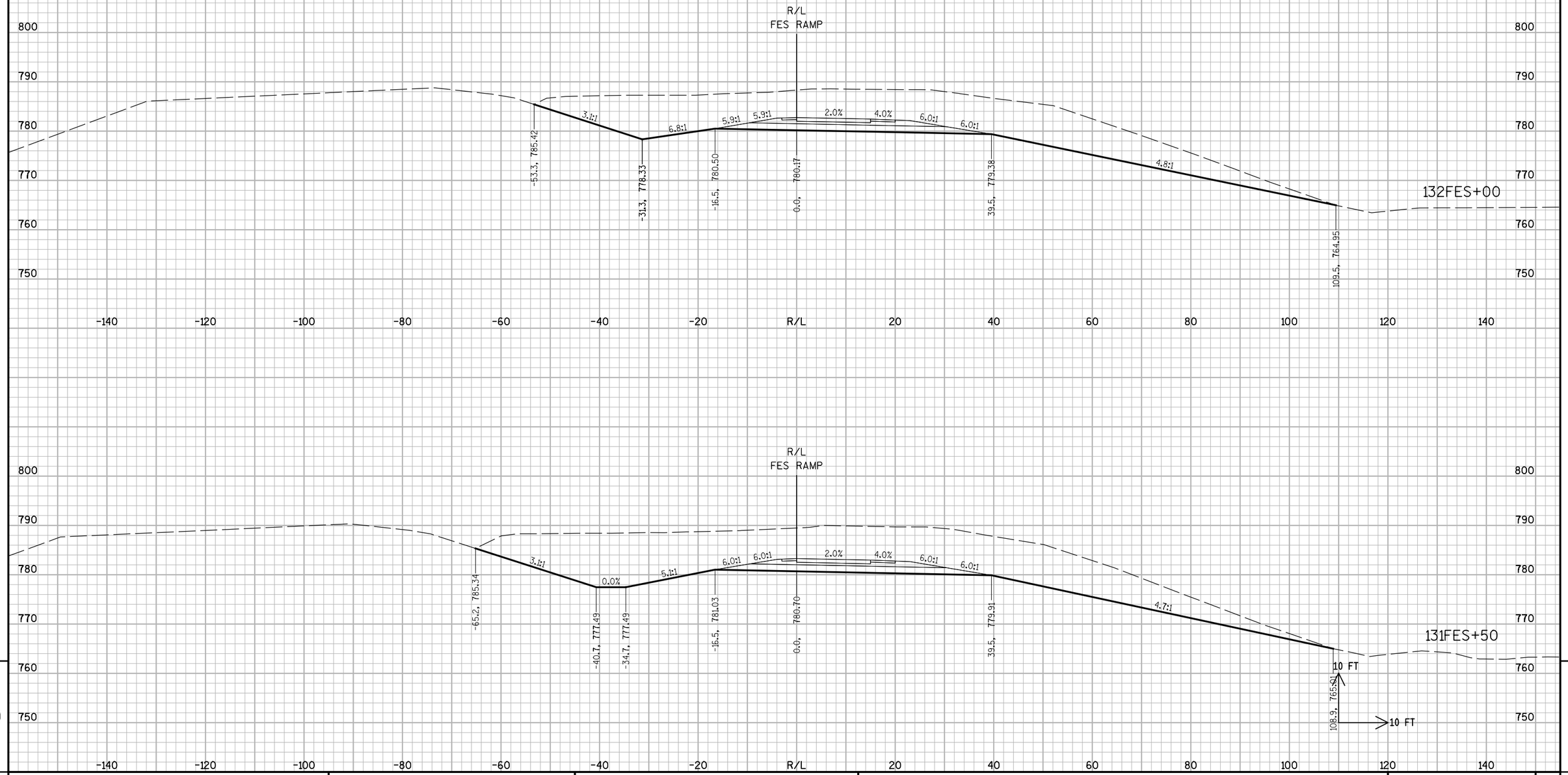
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 662	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A

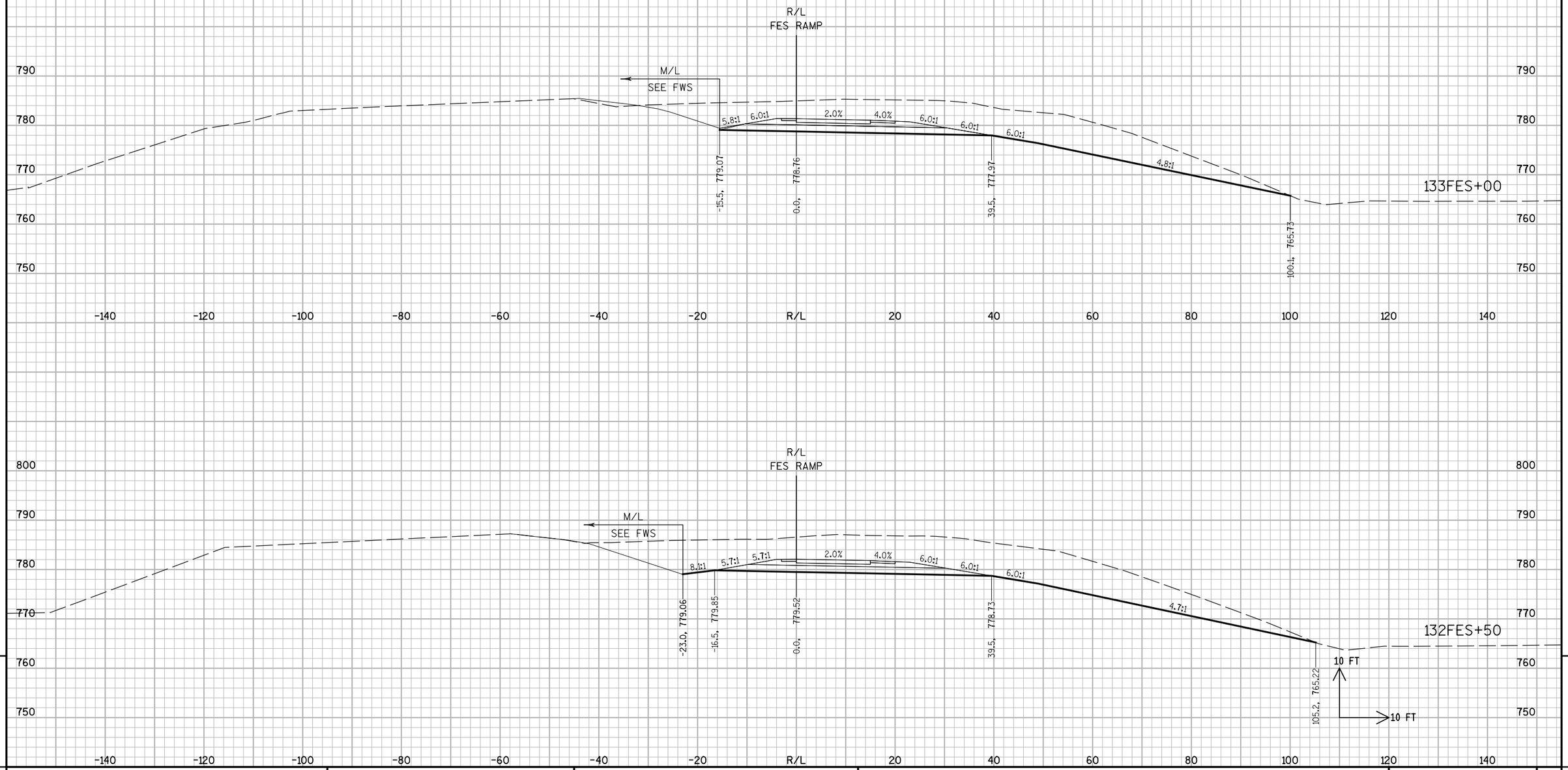


9 9

STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 663	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



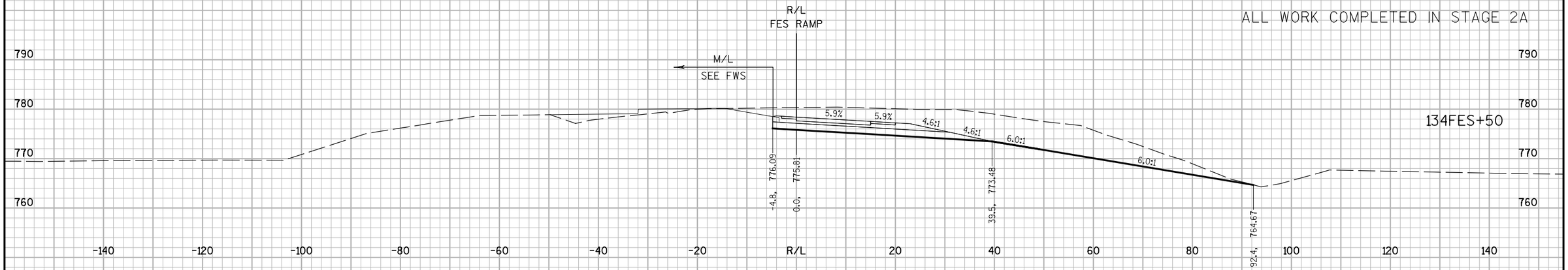
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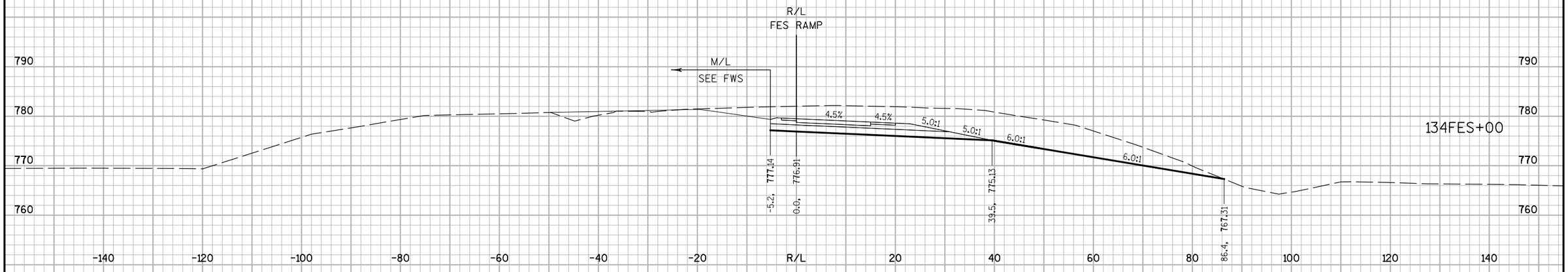
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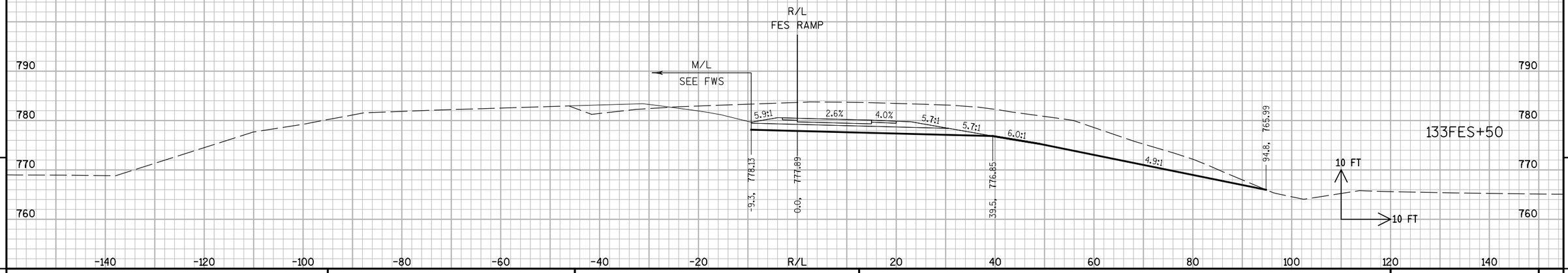
STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 664	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A







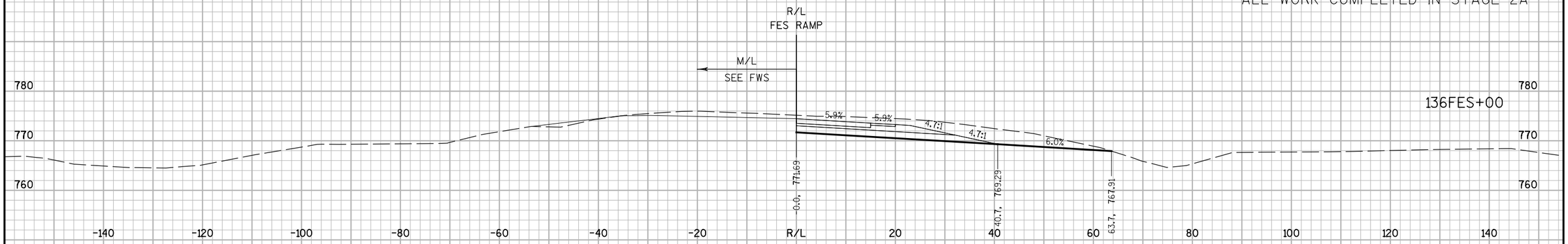
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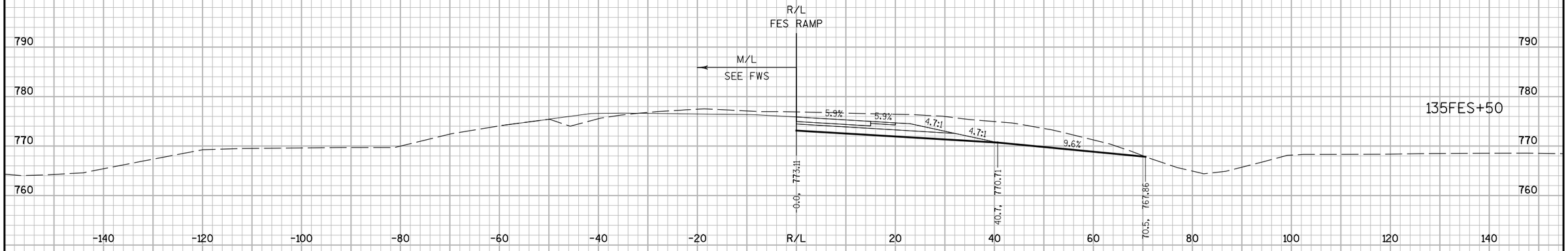
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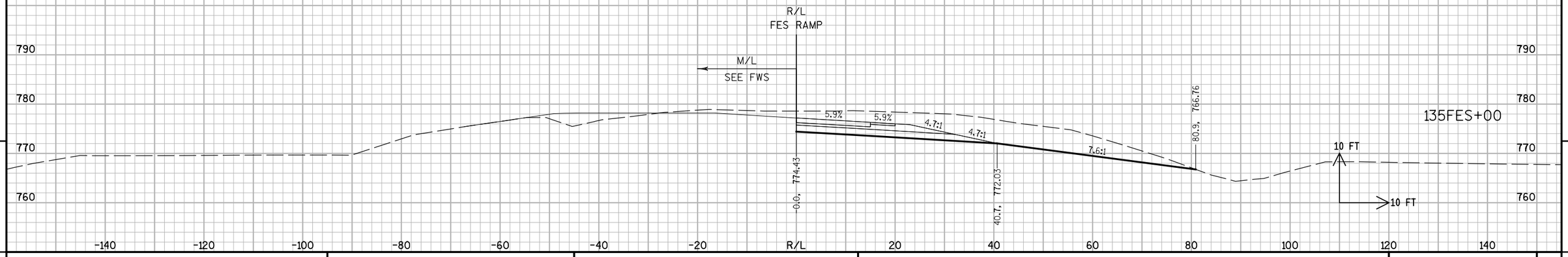
STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 665	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A







9

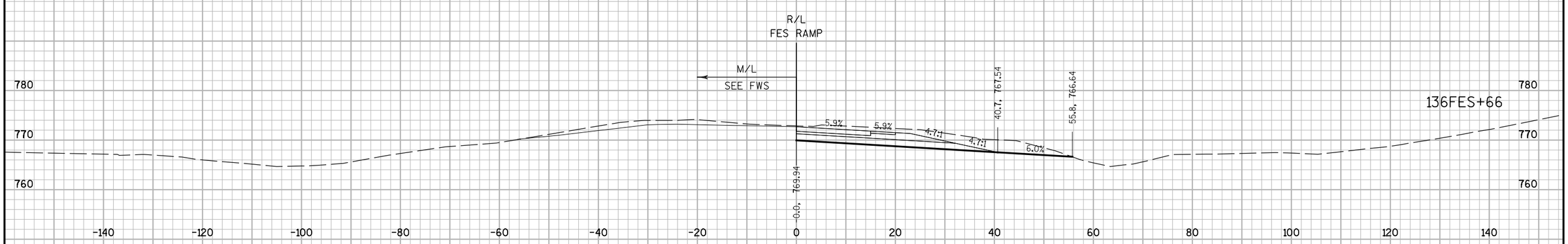
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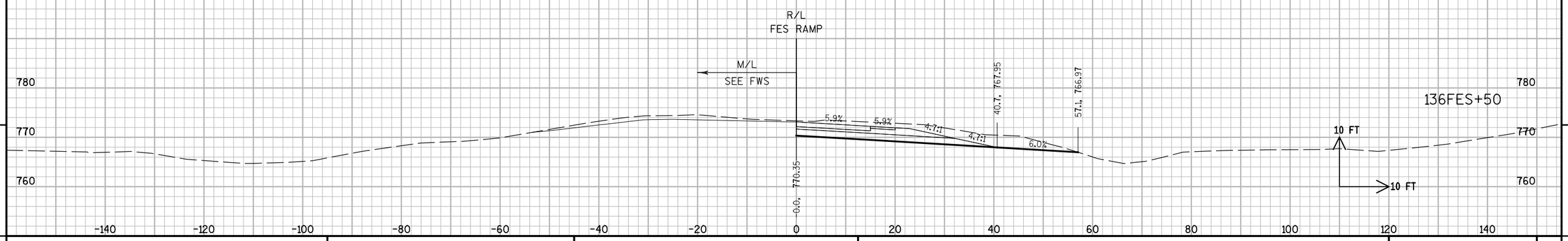
STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 666	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A

END CONSTRUCTION STA 136FES+66.23





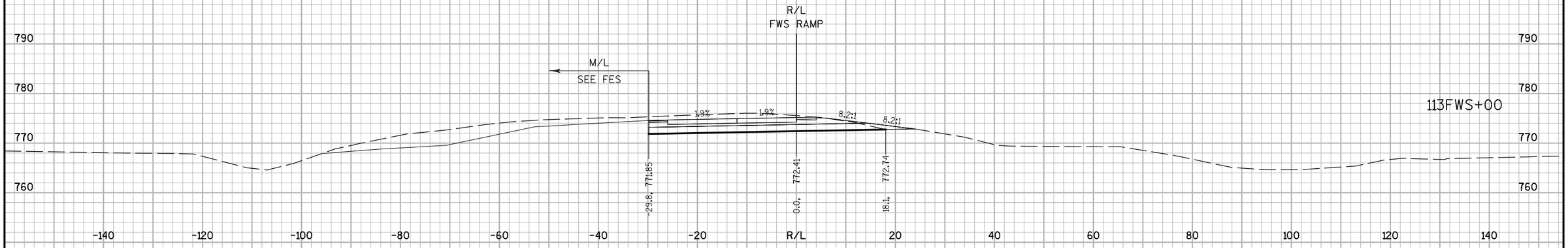
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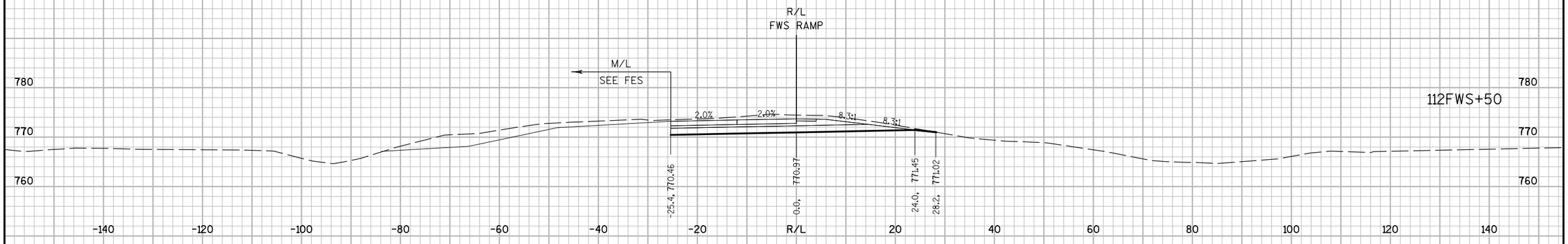
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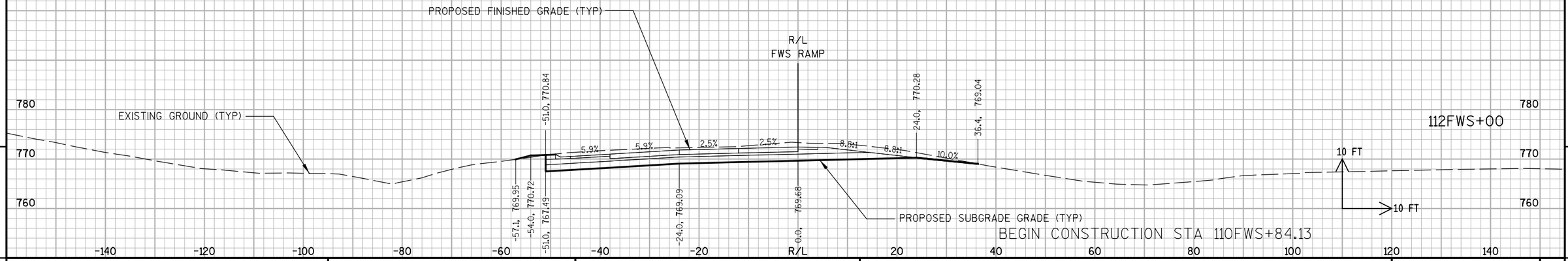
STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FES RAMP	SHEET NO: . 667	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090241_FES_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A







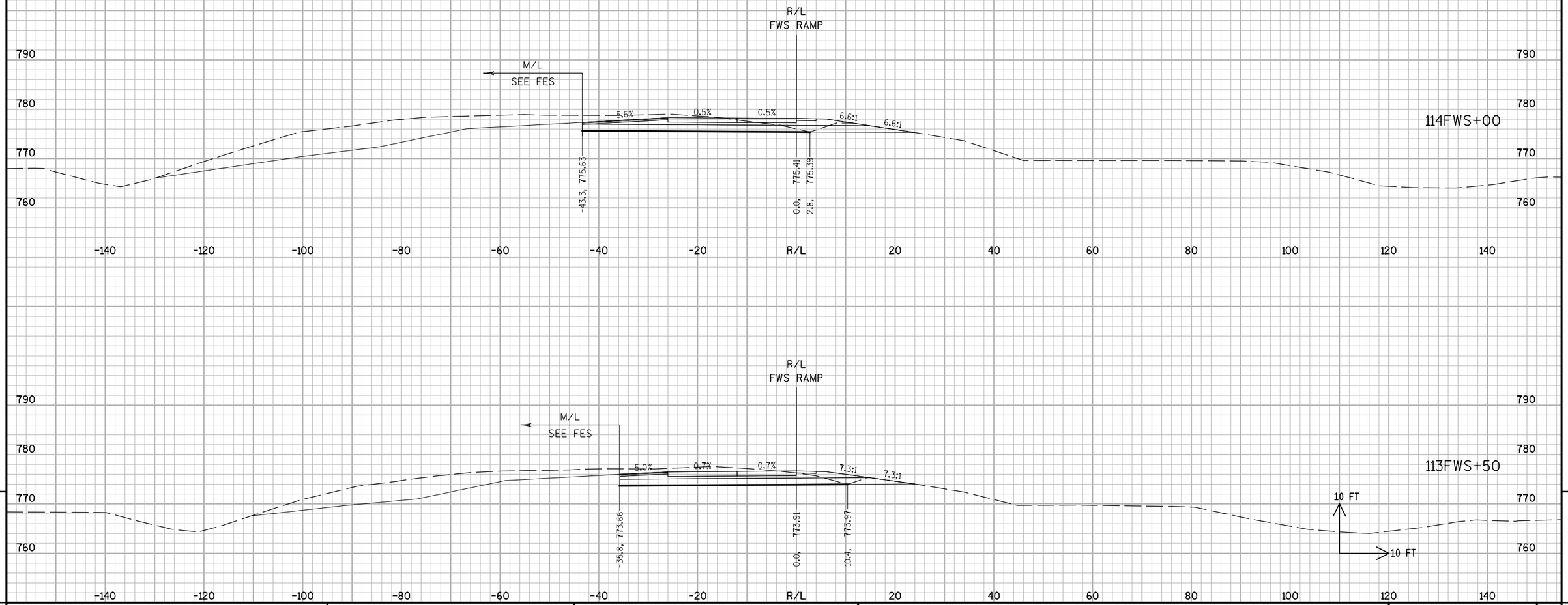
BEGIN CONSTRUCTION STA 110FWS+84.13

9 9

STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FWS RAMP	SHEET NO: . 668	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090291_FWS_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



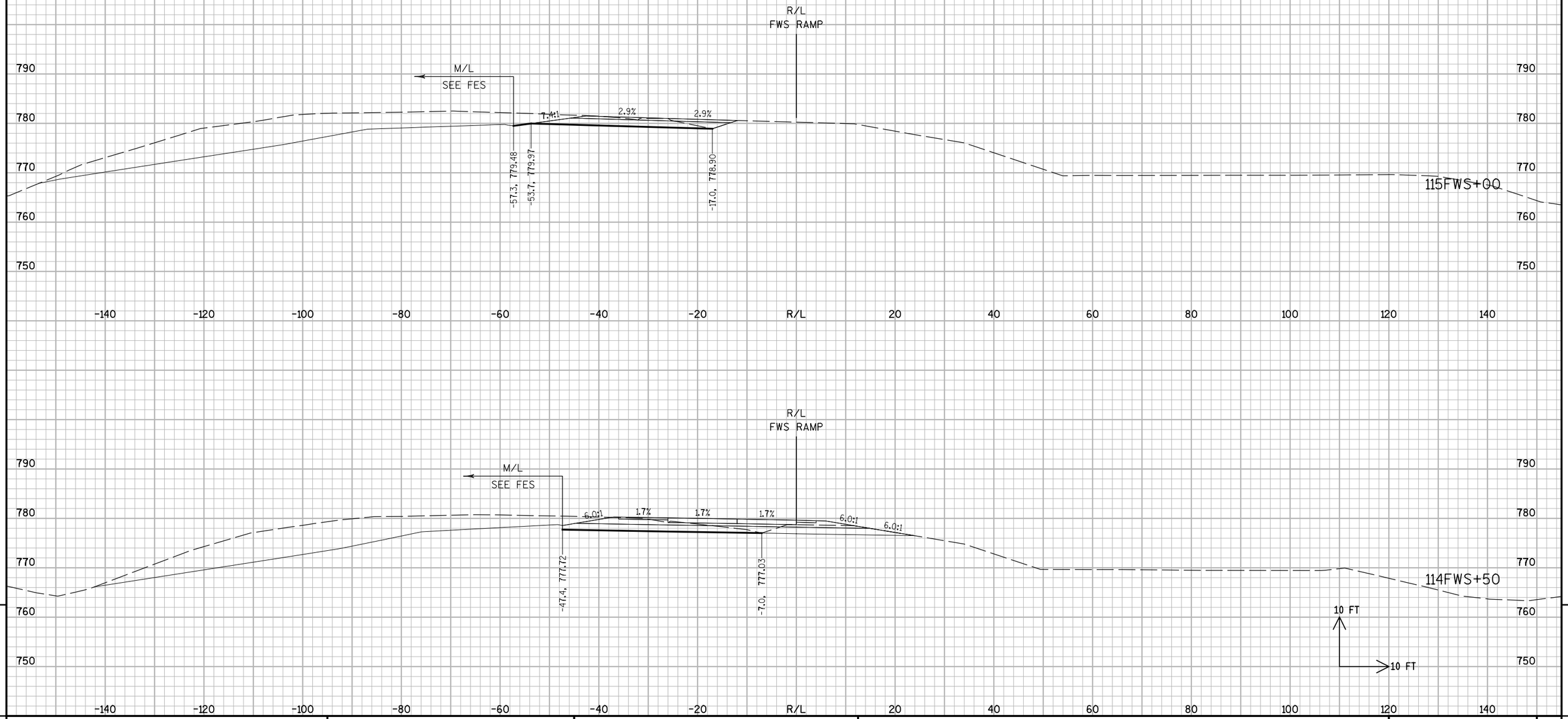
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FWS RAMP	SHEET NO: . 669	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090291_FWS_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



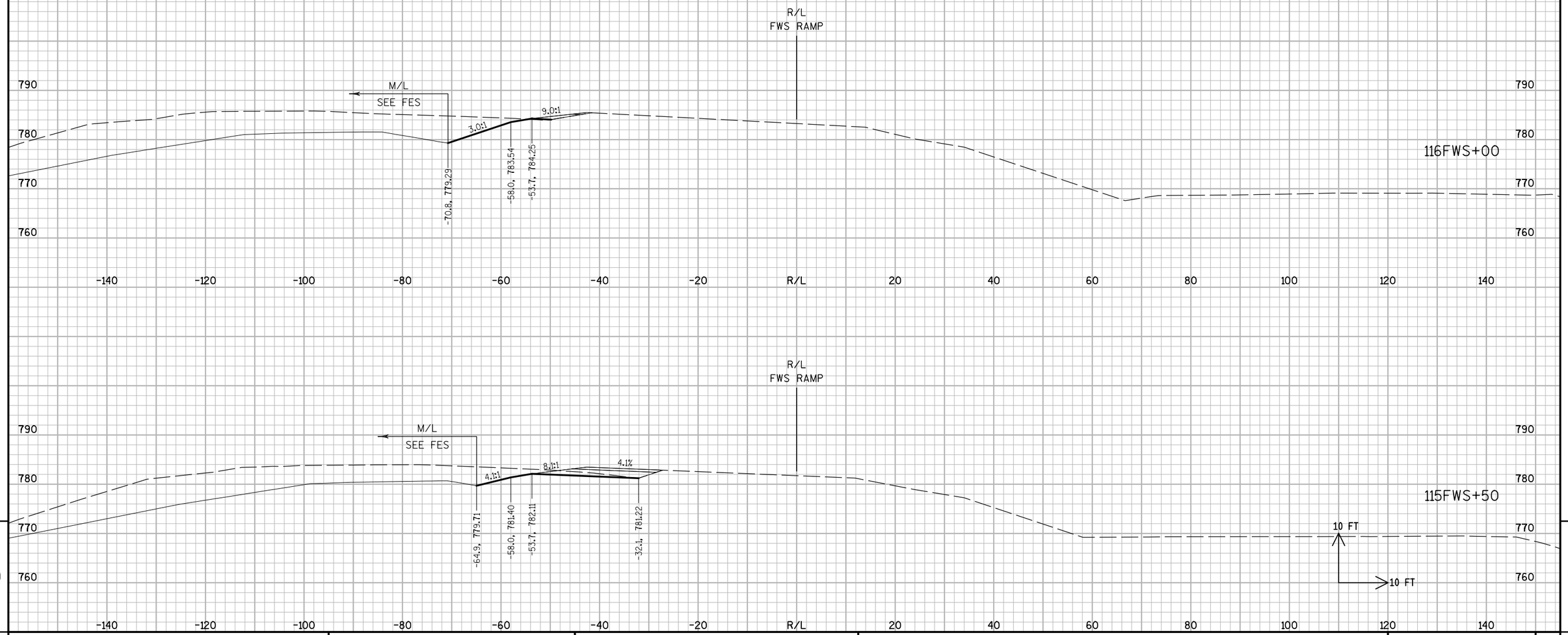
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FWS RAMP	SHEET NO: . 670	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090291_FWS_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A



9

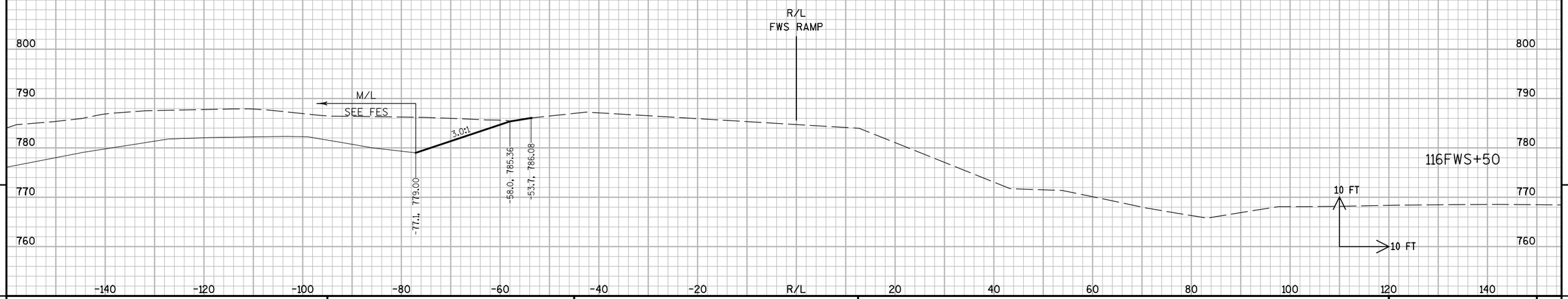
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STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FWS RAMP	SHEET NO: . 671	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090291_FWS_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -

ALL WORK COMPLETED IN STAGE 2A

END CONSTRUCTION STA 116FWS+50.00

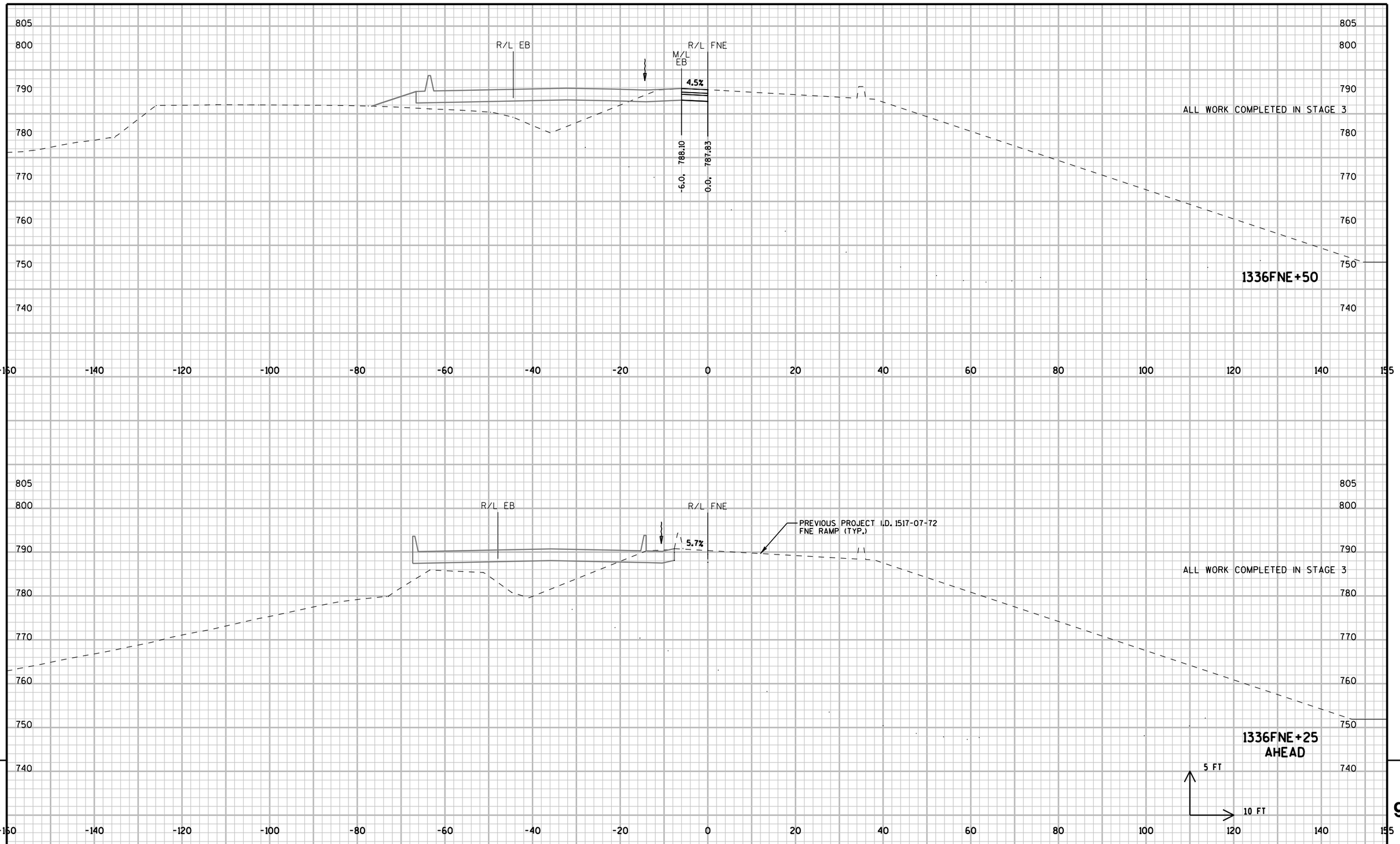


9

9

STATE PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FWS RAMP	SHEET NO: . 672	E

FILE NAME : S:\DOT\DOT_NE\120012-Tri County Freeway\1517-07-79\DGN_Files\Plansheets\090291_FWS_XS.dgn PLOT DATE : 1/12/2015 PLOT BY : DCaverson PLOT NAME : PLOT SCALE : -



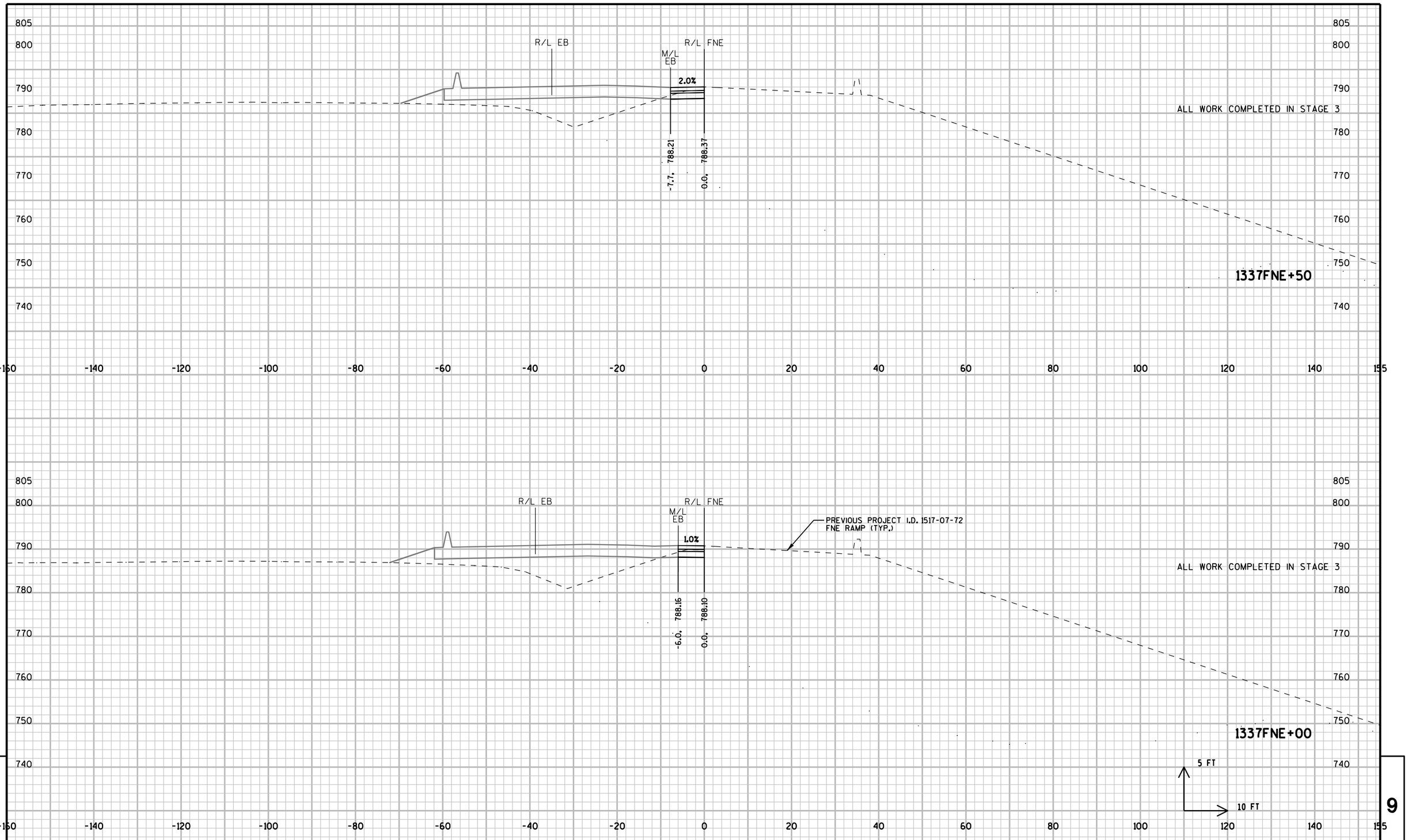
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 673	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

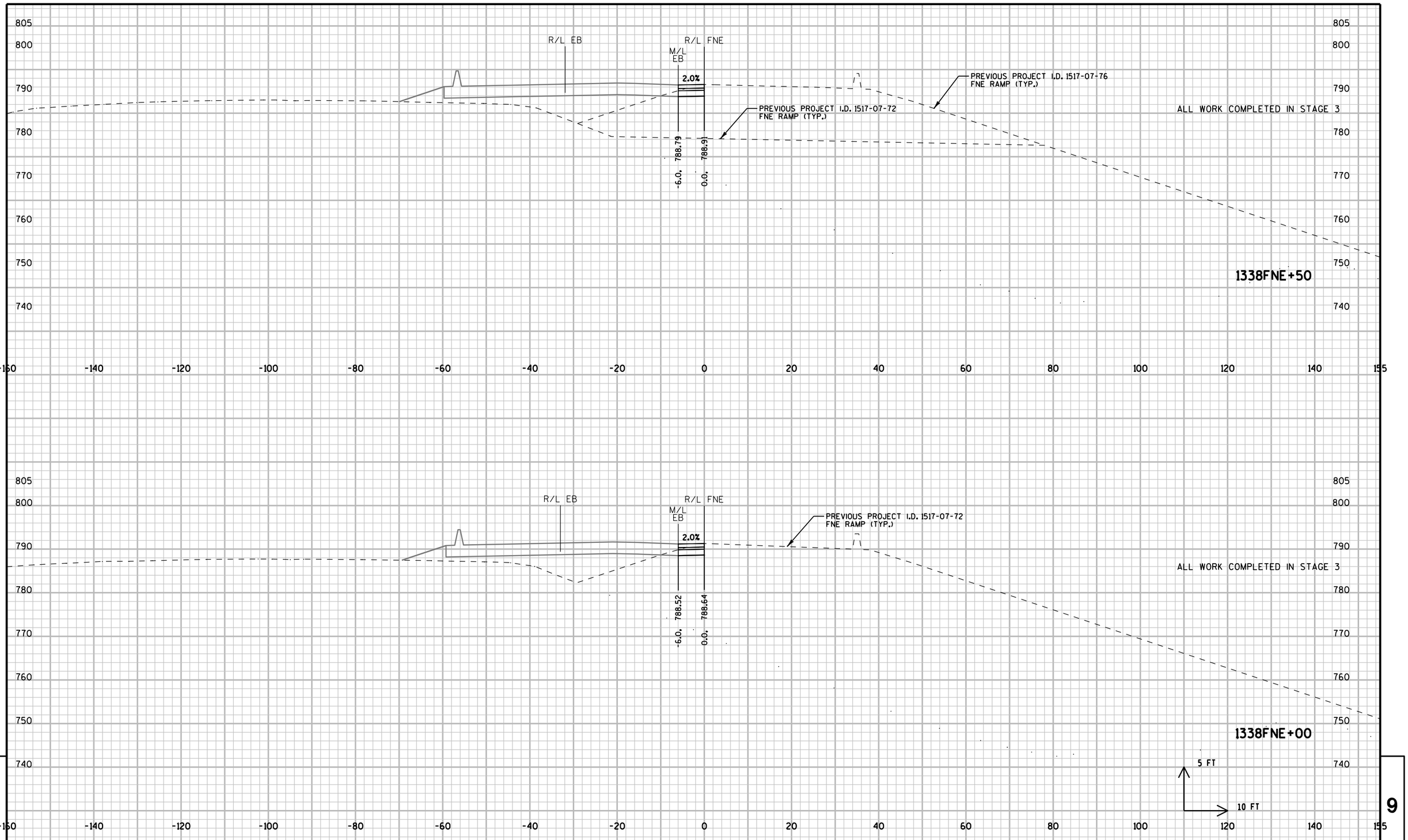
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STA 1337FNE+00 TO 1337FNE+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 674	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

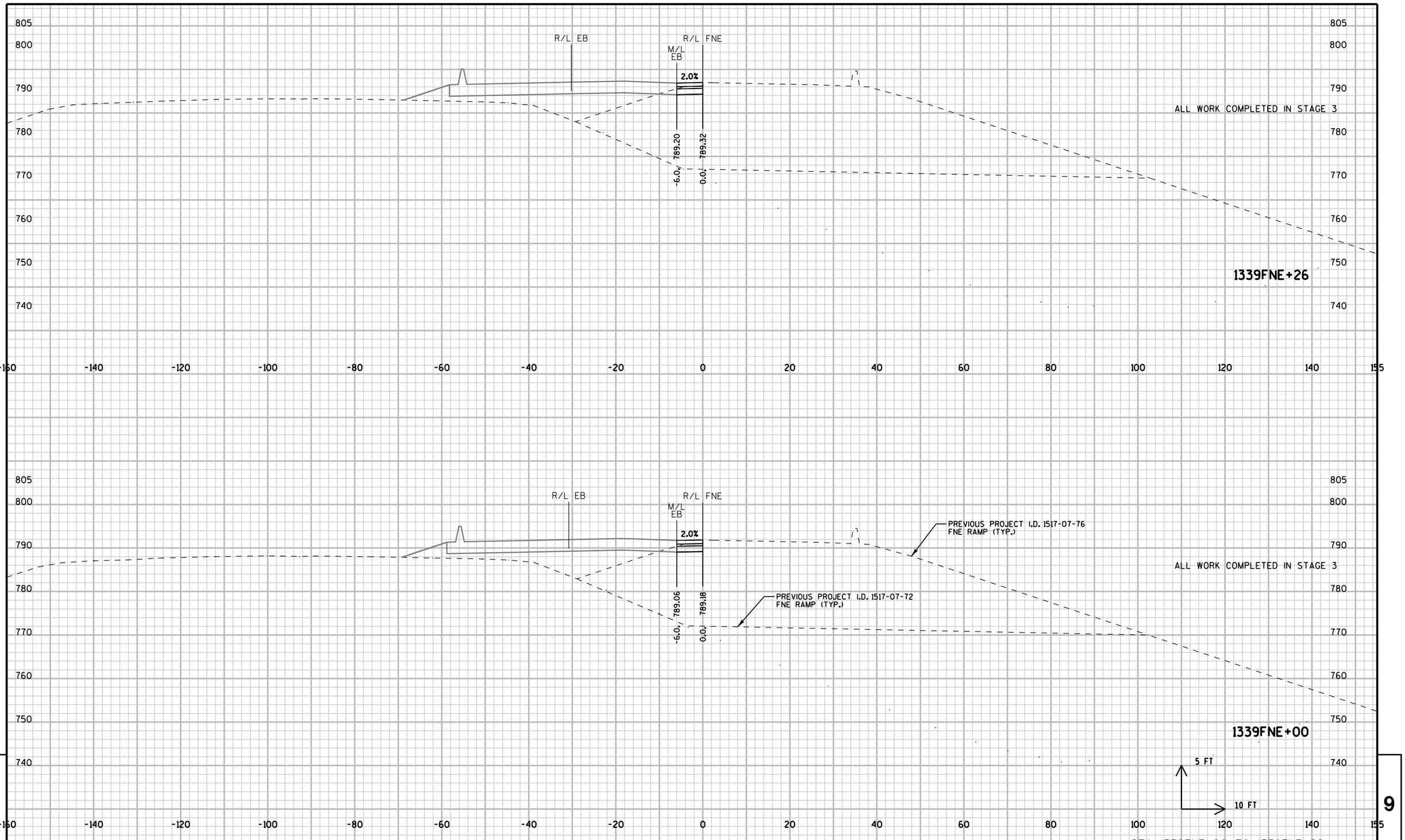


STA 1338FNE+00 TO 1338FNE+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 675	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

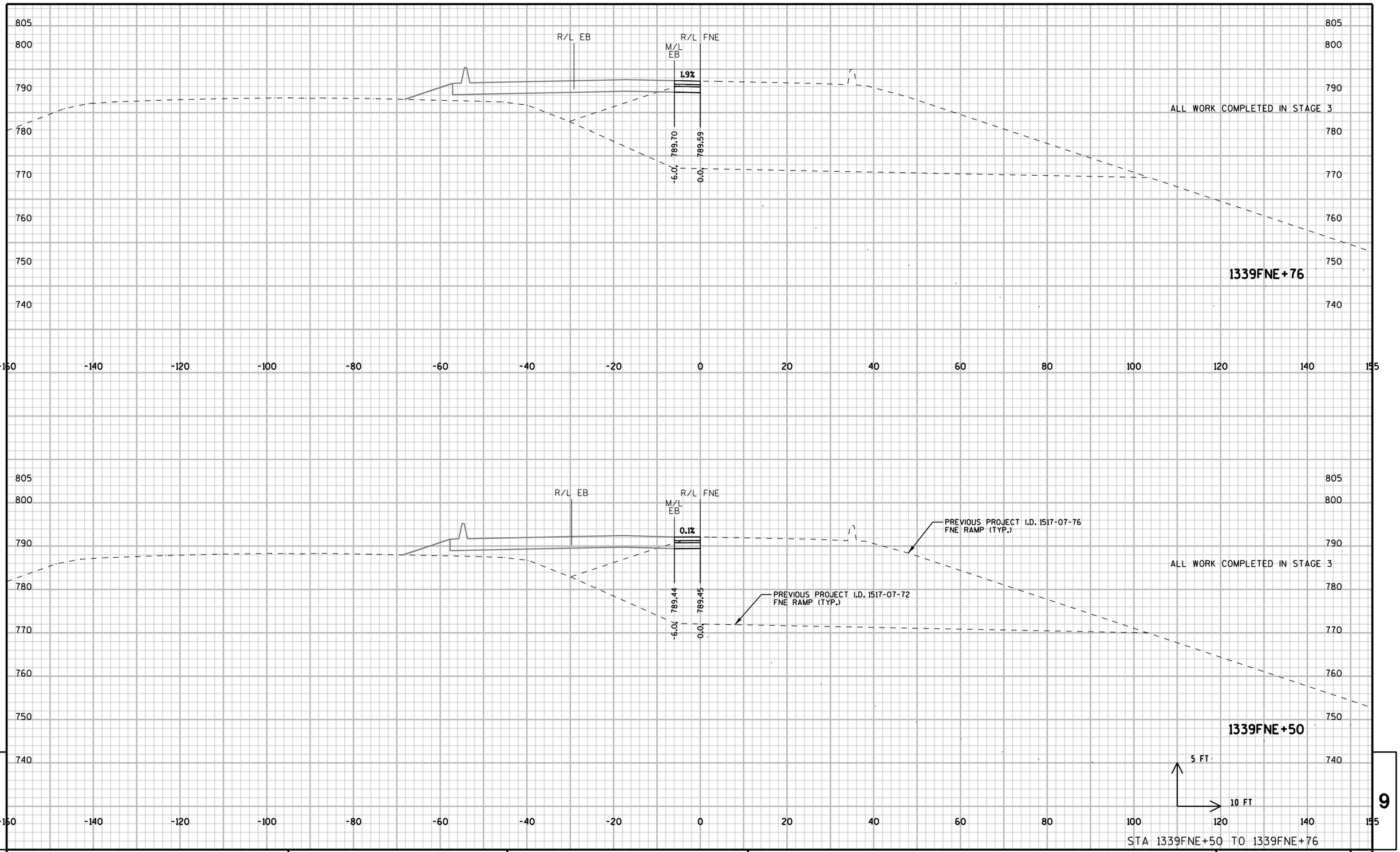


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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 676	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

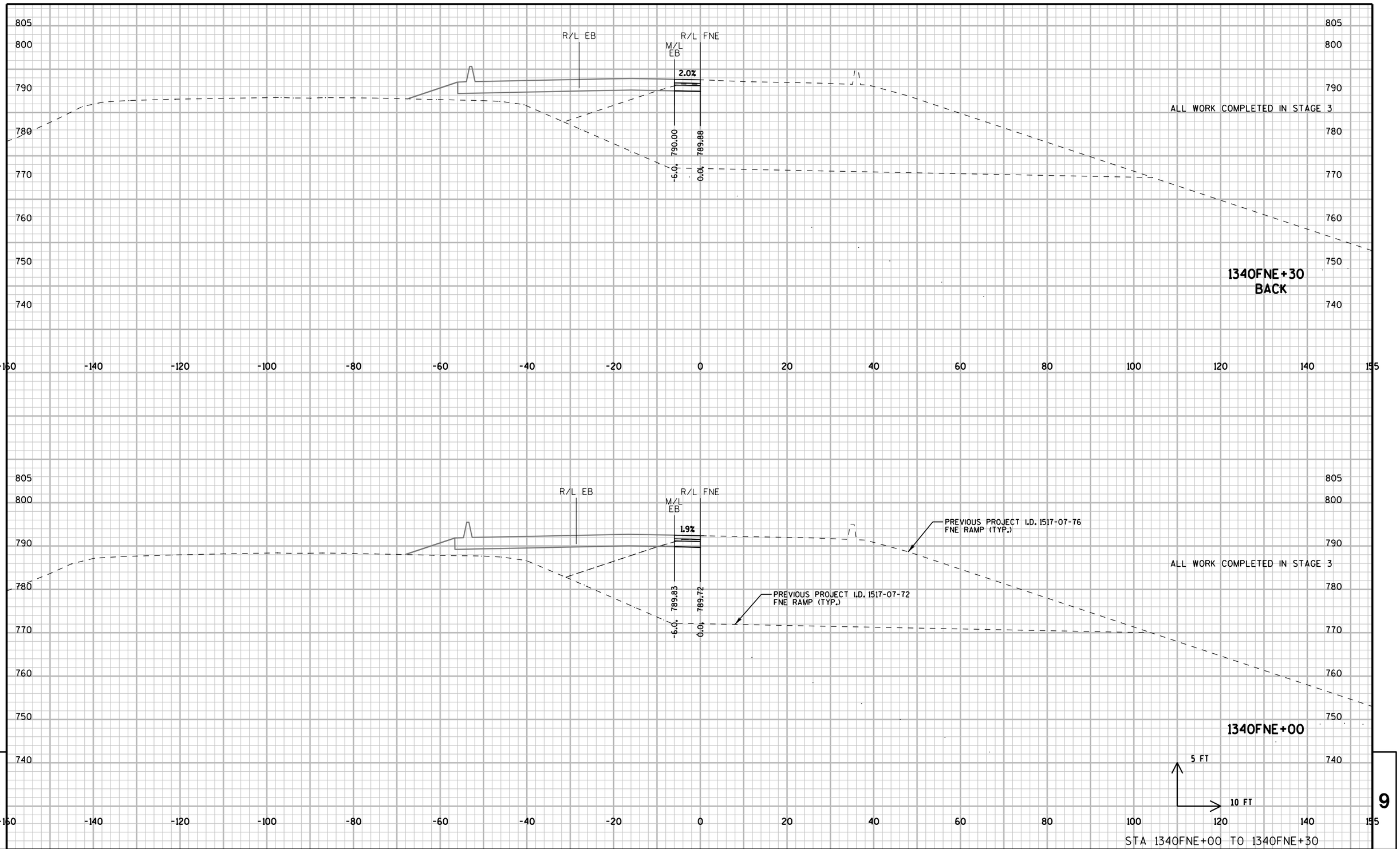
WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 677	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

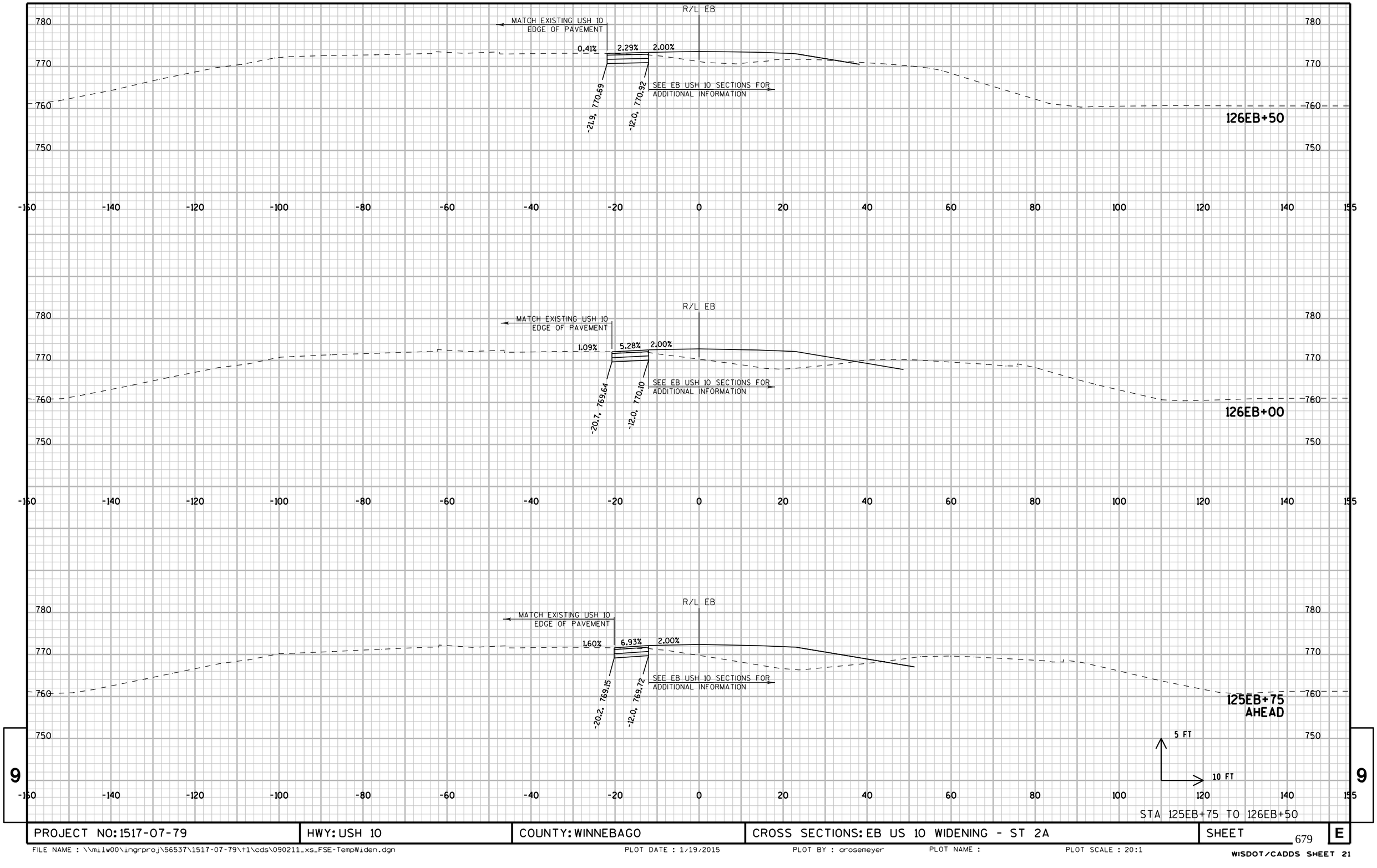


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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: FNE RAMP	SHEET 678	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090210_xs_FNE.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

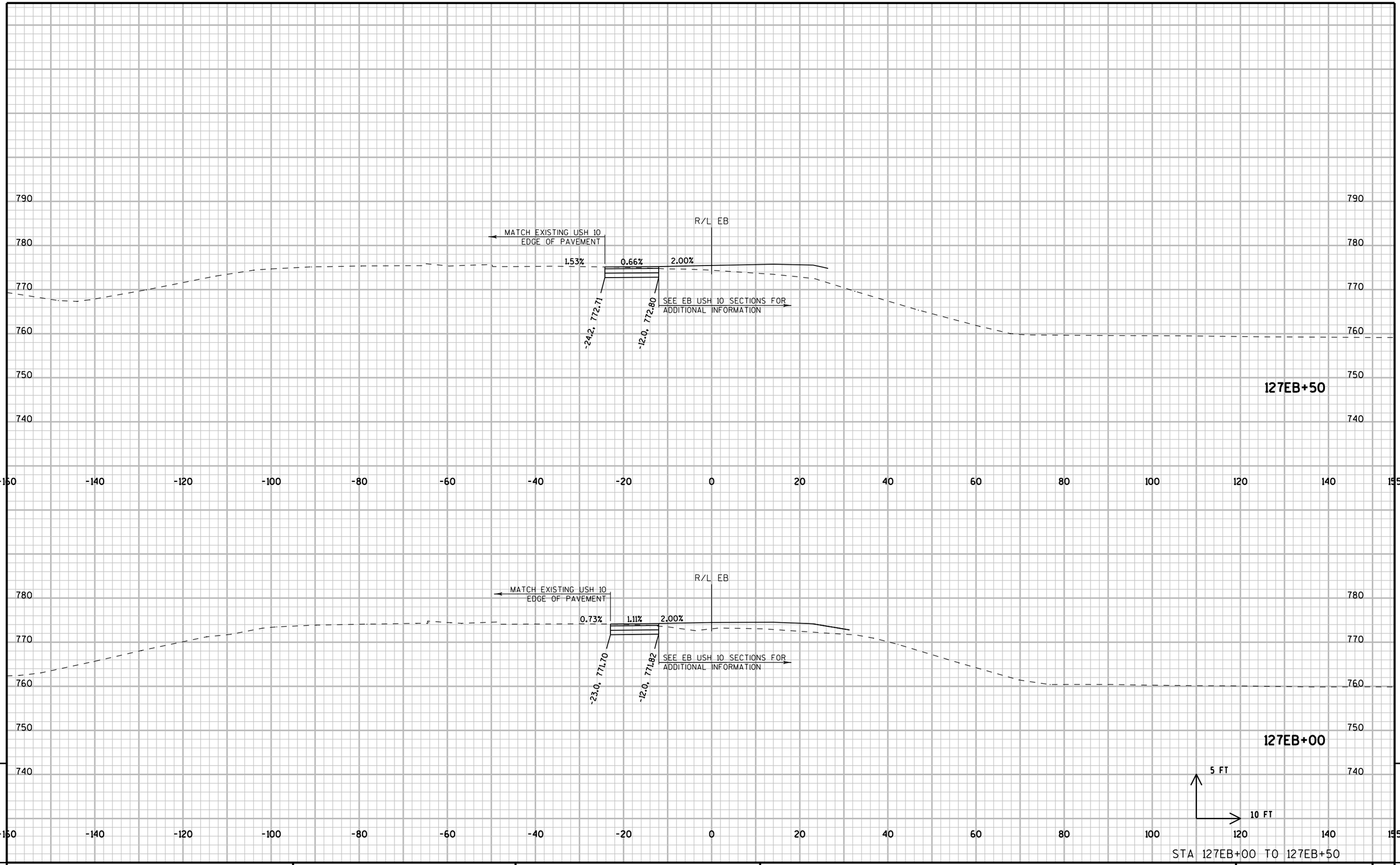
9

STA 125EB+75 TO 126EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: EB US 10 WIDENING - ST 2A	SHEET 679	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090211_xs_FSE-TempWiden.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 127EB+00 TO 127EB+50

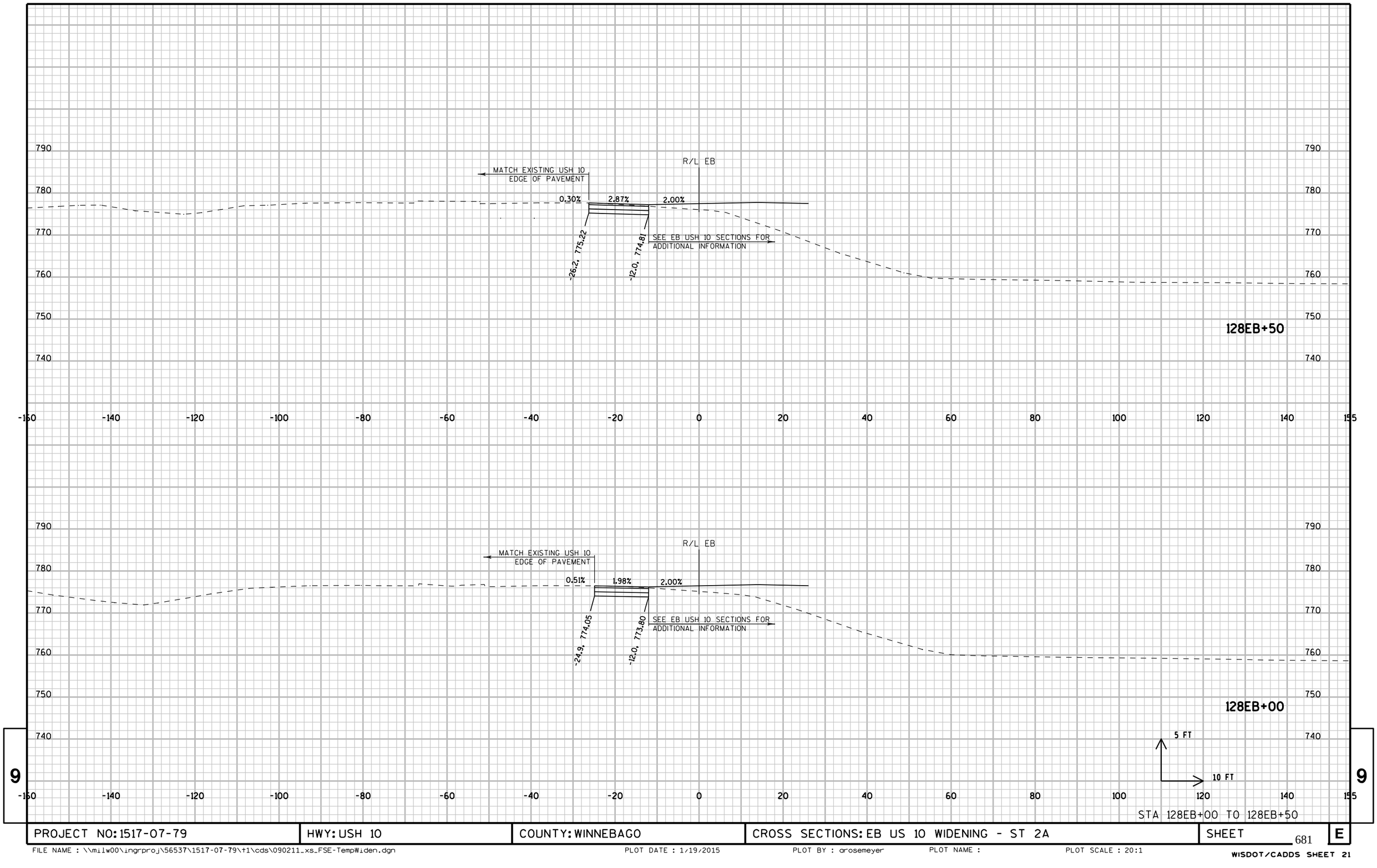
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: EB US 10 WIDENING - ST 2A	SHEET 680	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090211_xs_FSE-TempWiden.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

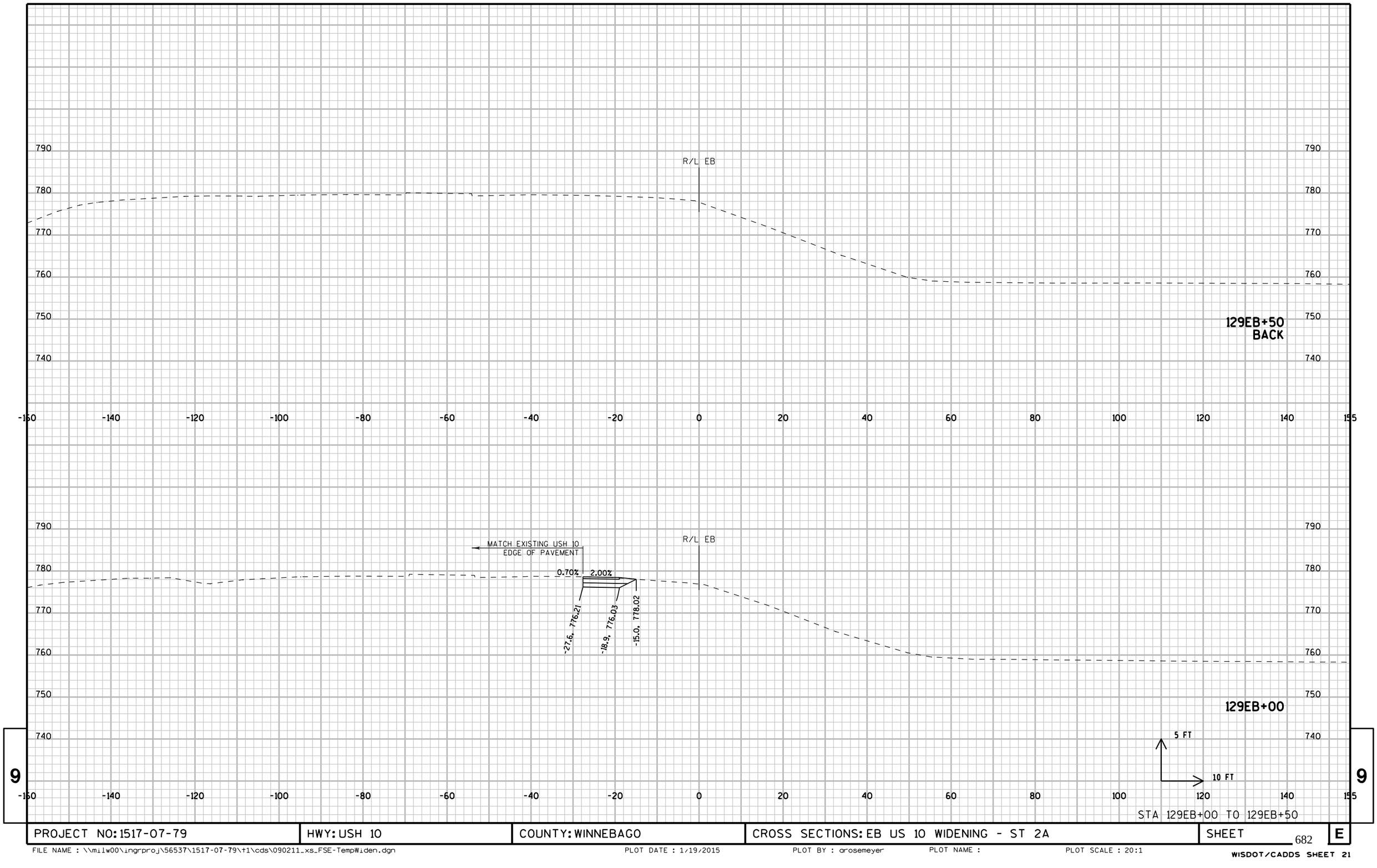
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STA 128EB+00 TO 128EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: EB US 10 WIDENING - ST 2A	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090211_xs_FSE-TempWiden.dgn PLOT DATE : 1/19/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

9

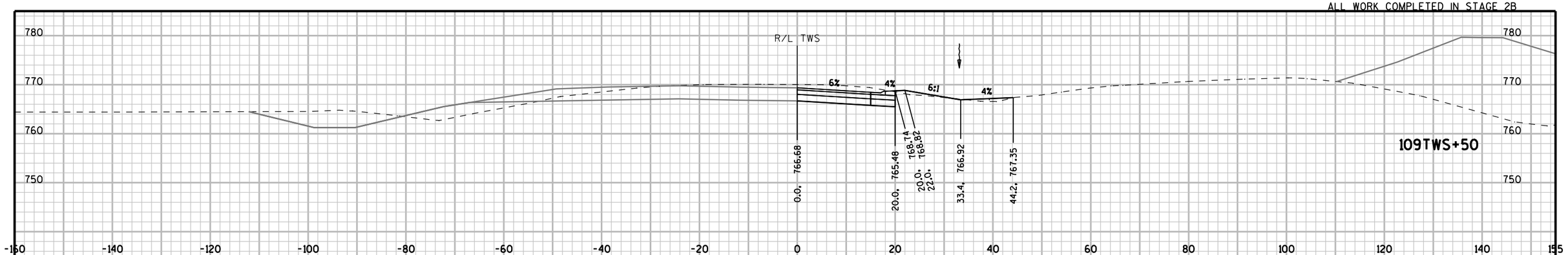
STA 129EB+00 TO 129EB+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: EB US 10 WIDENING - ST 2A	SHEET 682	E

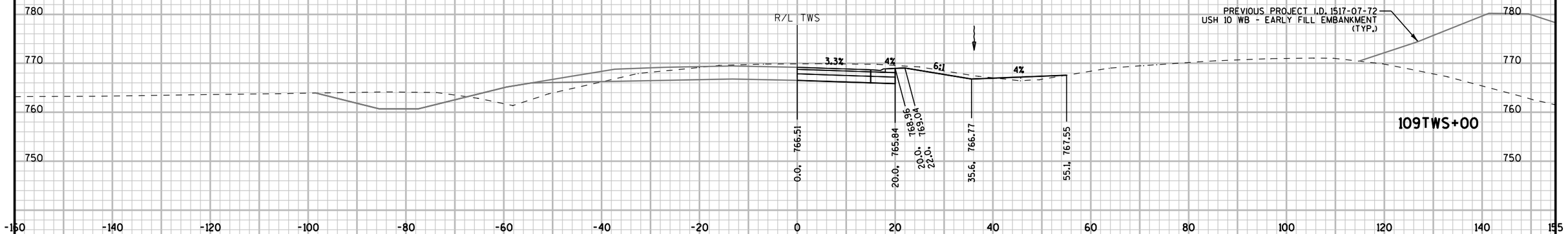
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WISDOT/CADDS SHEET 21

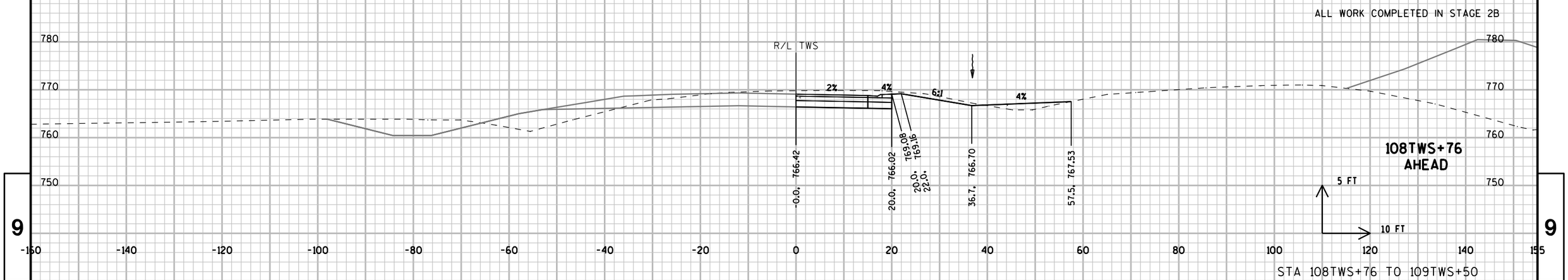
ALL WORK COMPLETED IN STAGE 2B



ALL WORK COMPLETED IN STAGE 2B



ALL WORK COMPLETED IN STAGE 2B



STA 108TWS+76 TO 109TWS+50

9

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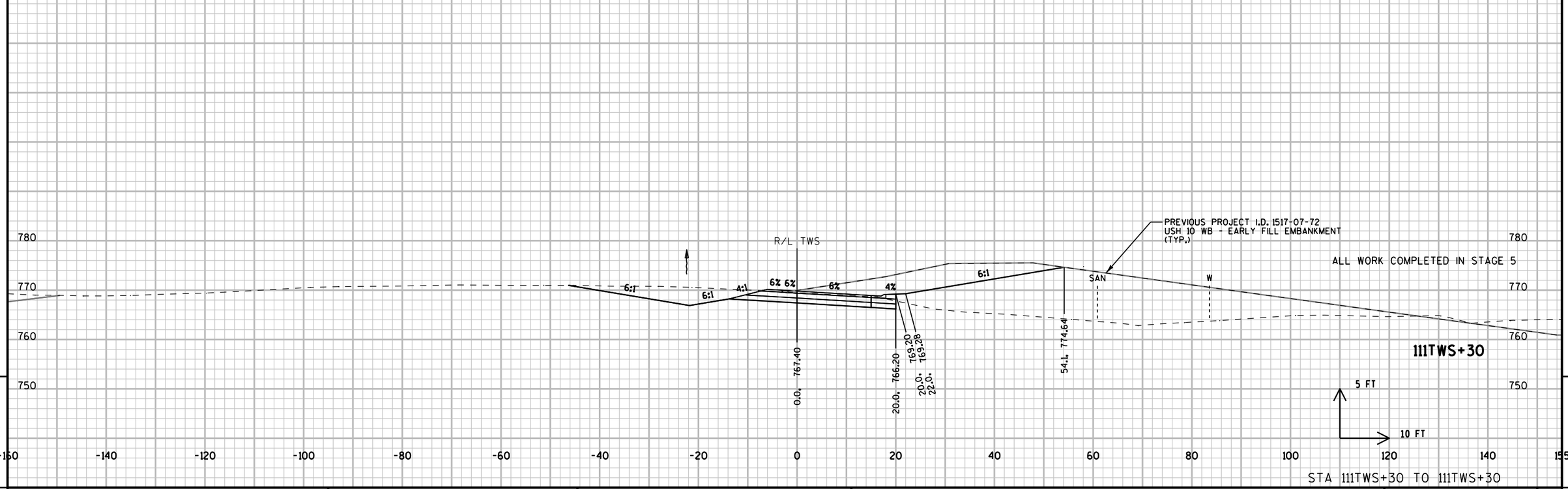
PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

STA 110TWS+00 TO 111TWS+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 684	E



STA 111TWS+30 TO 111TWS+30

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 685	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

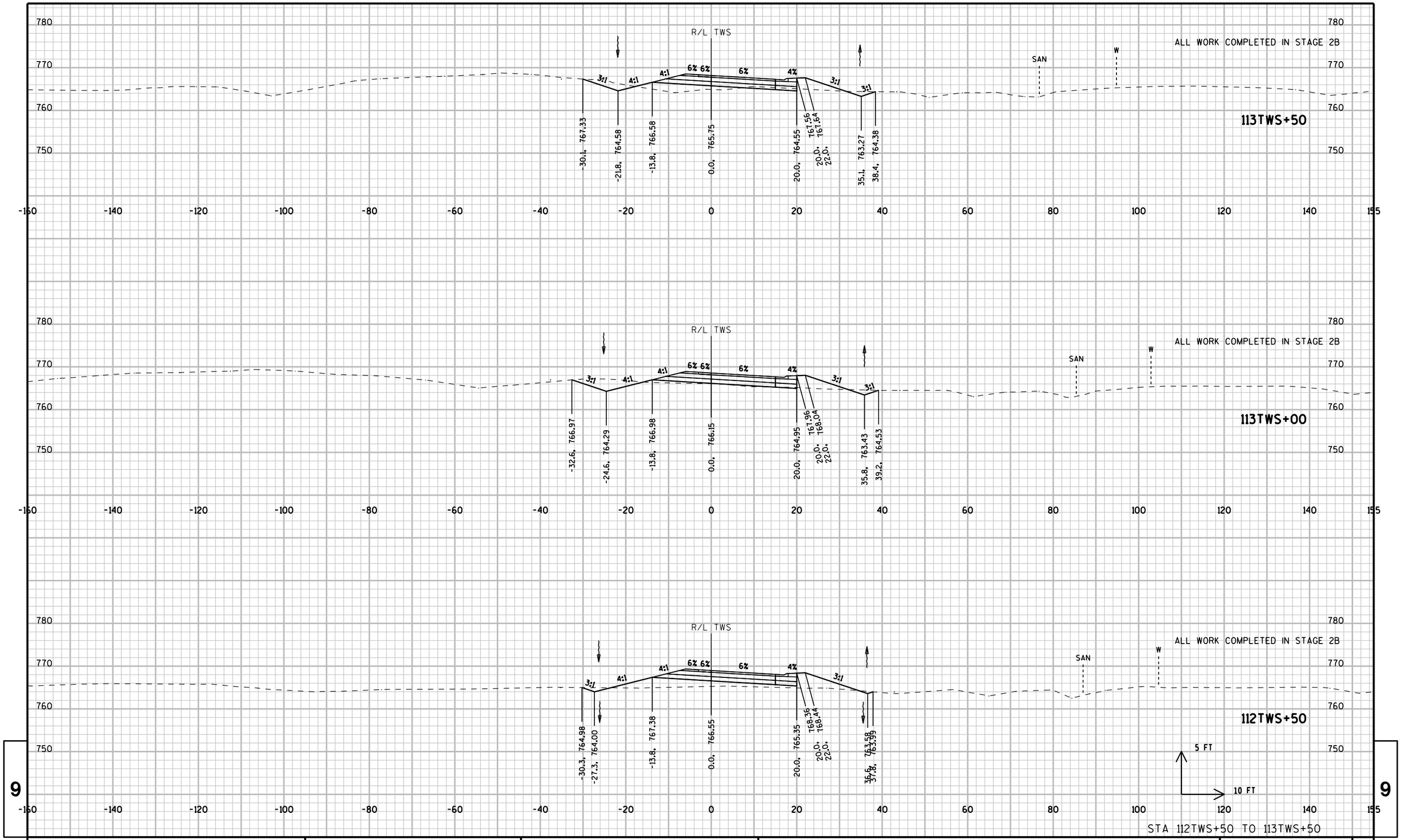
WISDOT/CADDS SHEET 21

STA 111TWS+50 TO 112TWS+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 686	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

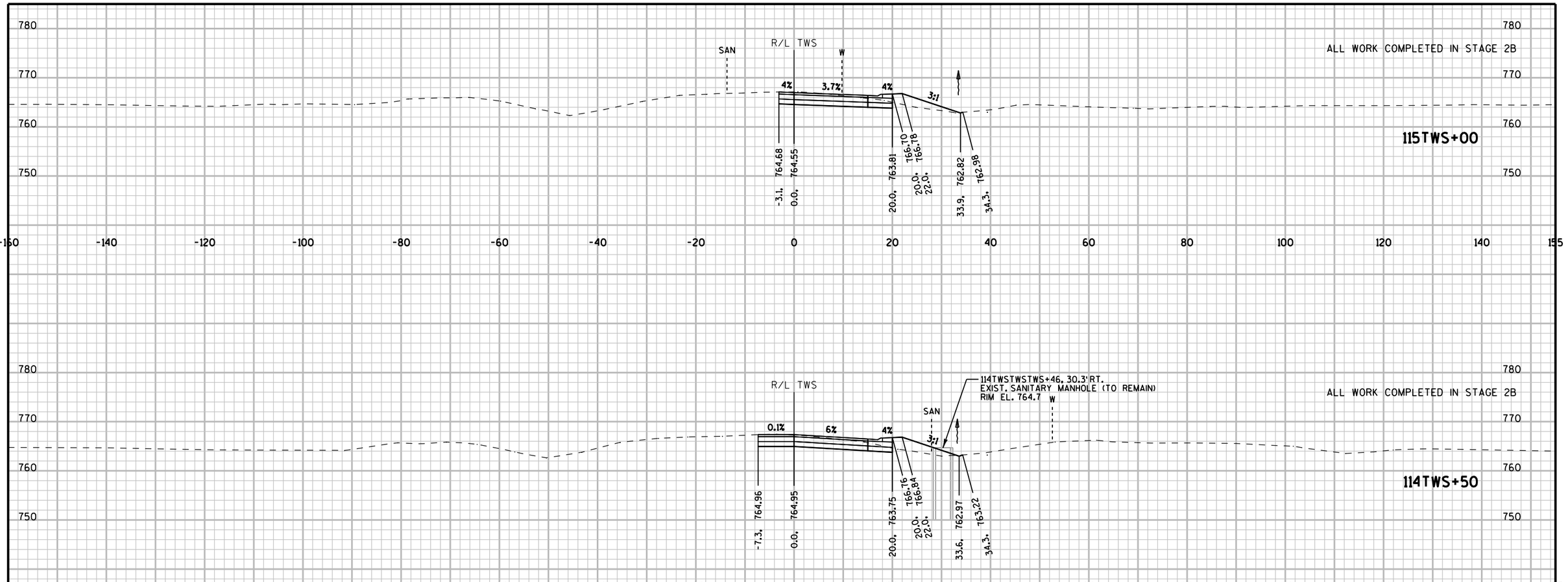


STA 112TWS+50 TO 113TWS+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 687	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



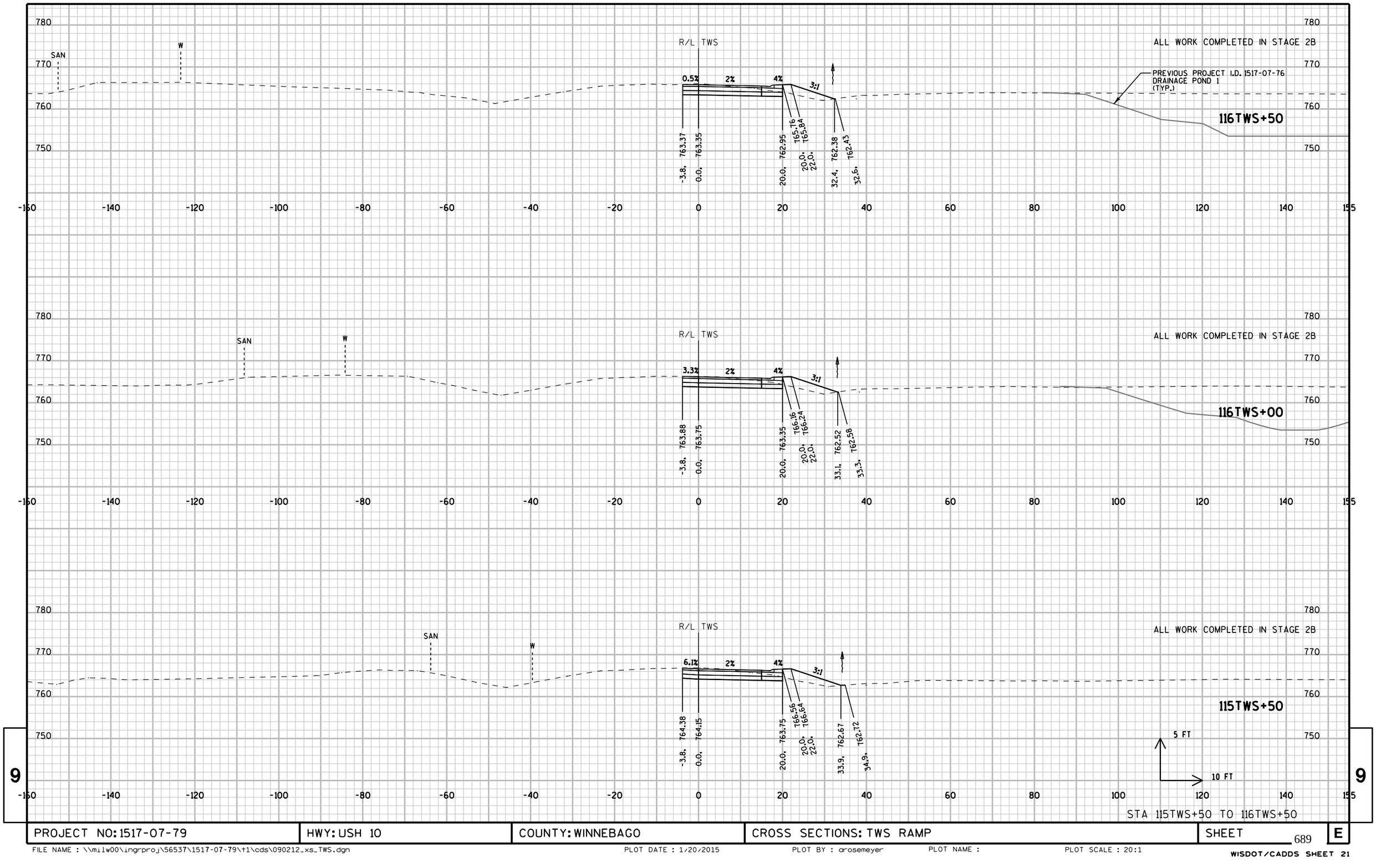
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 688	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

STA 115TWS+50 TO 116TWS+50

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

STA 117TWS+00 TO 118TWS+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 690	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

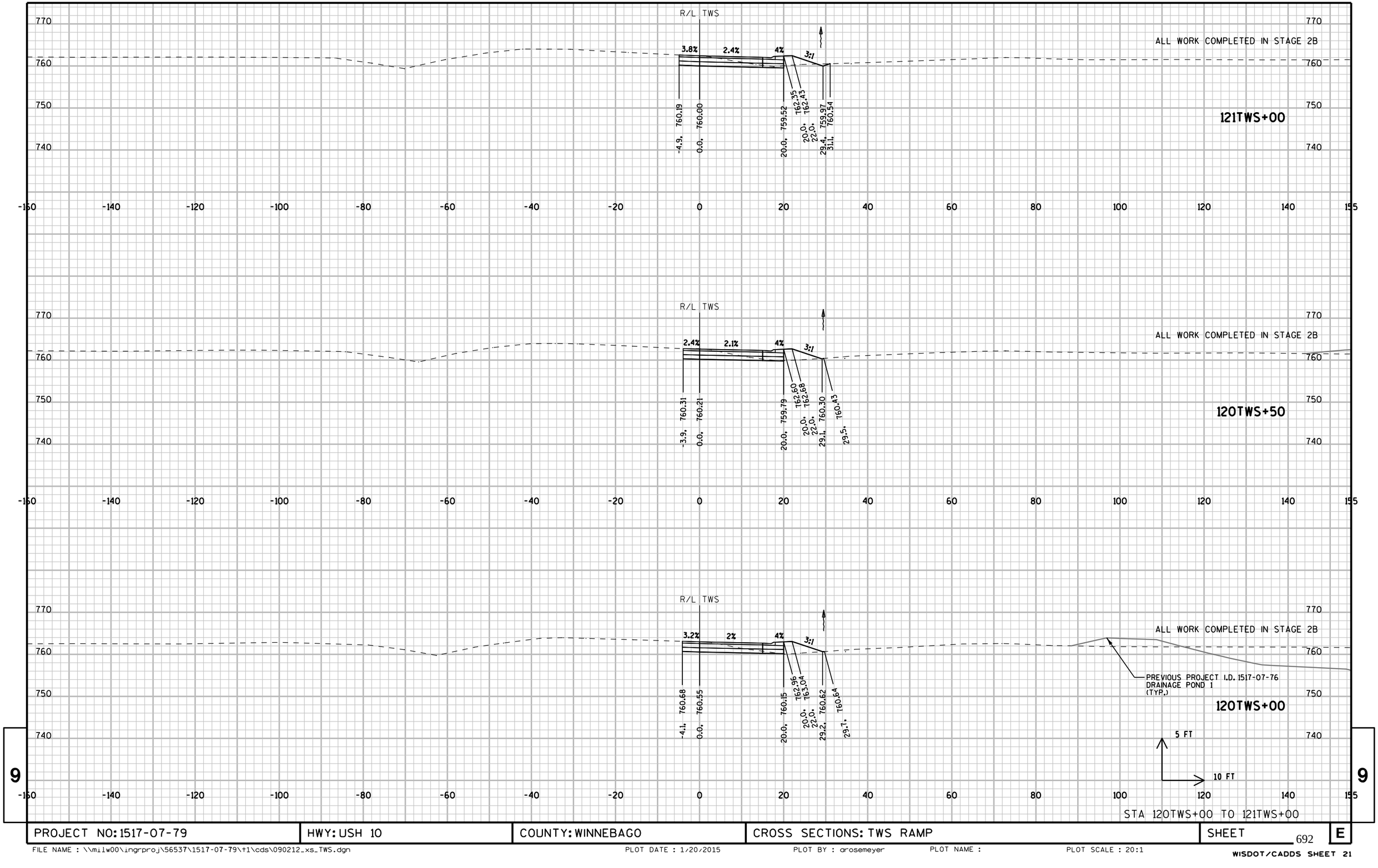
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

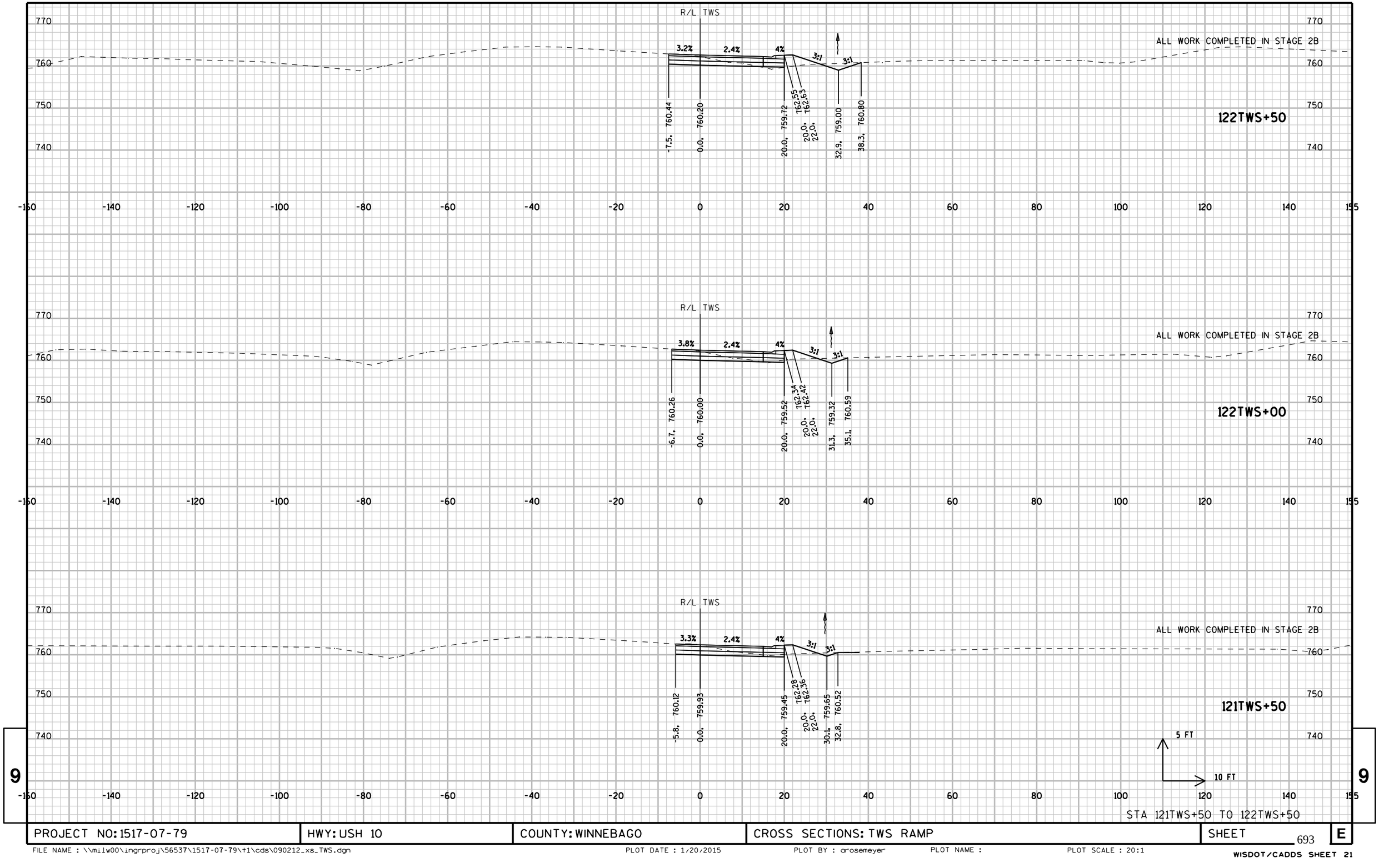


STA 120TWS+00 TO 121TWS+00

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 121TWS+50 TO 122TWS+50

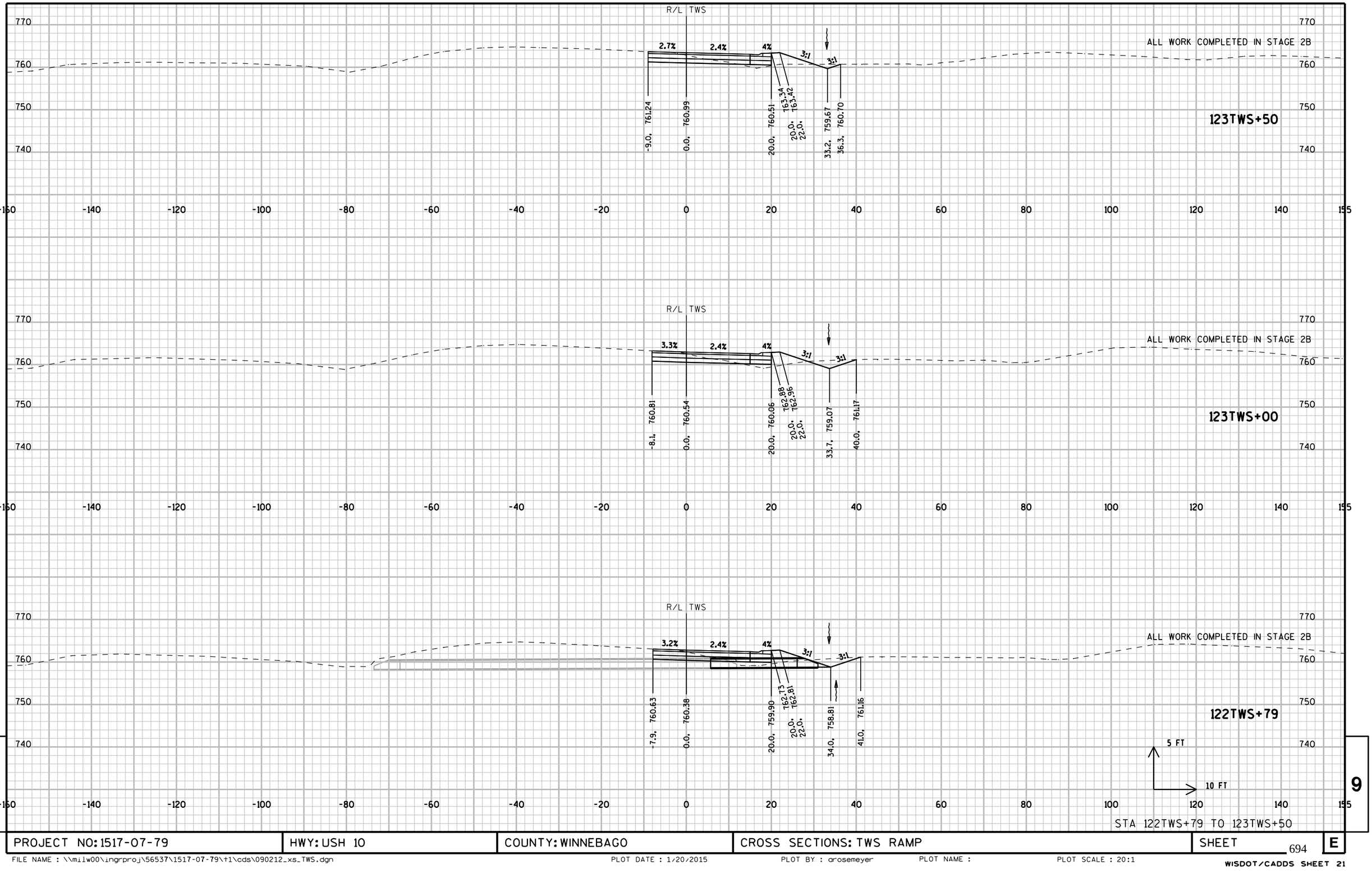
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9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 693	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



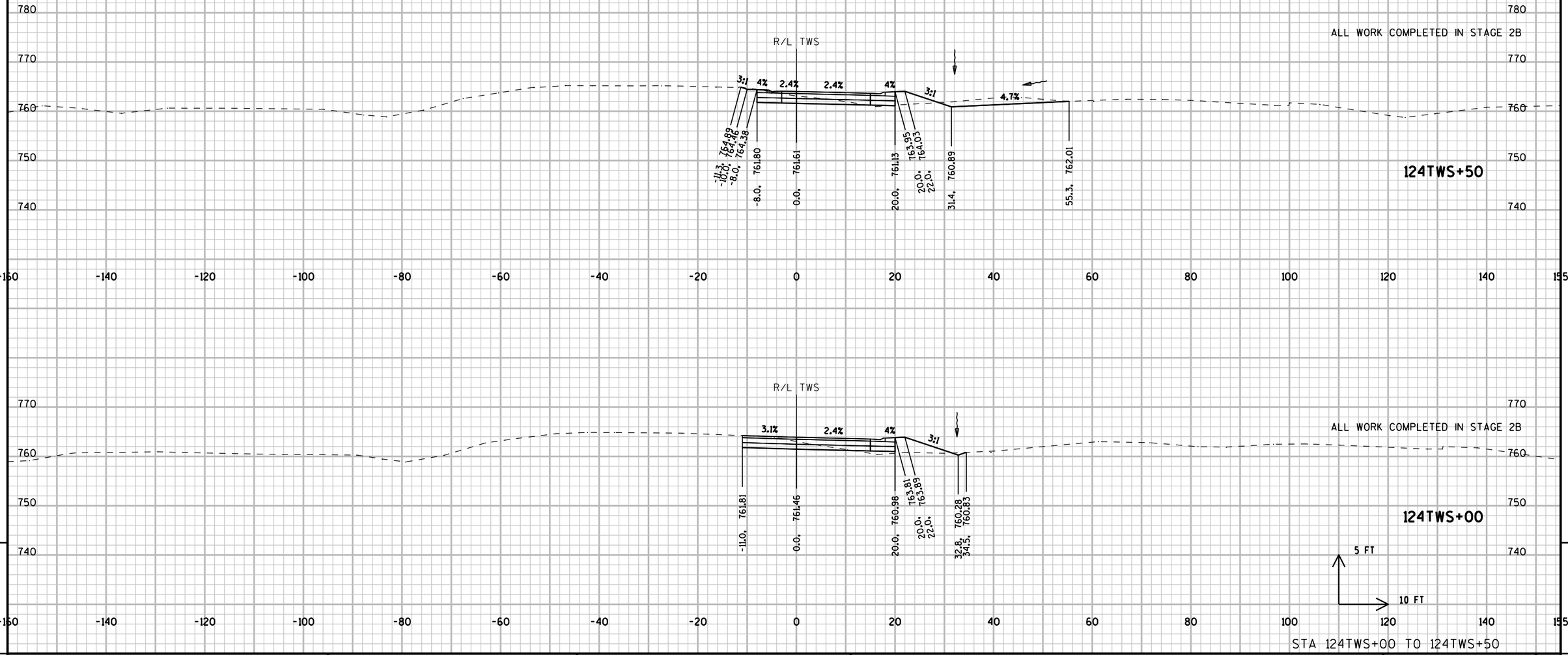
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PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 694	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1

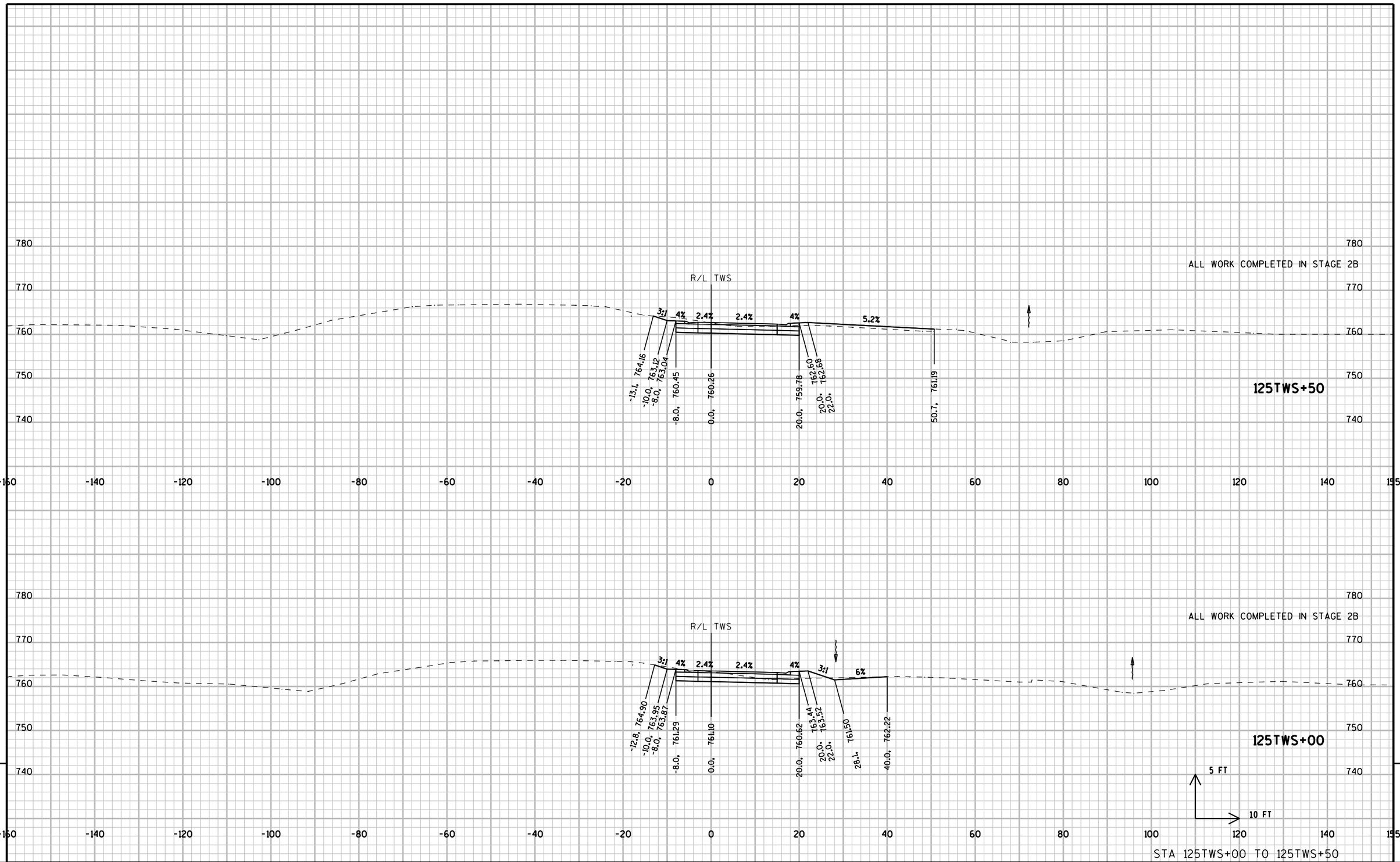
WISDOT/CADDS SHEET 21



STA 124TWS+00 TO 124TWS+50

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : arosemeyer PLOT NAME : PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



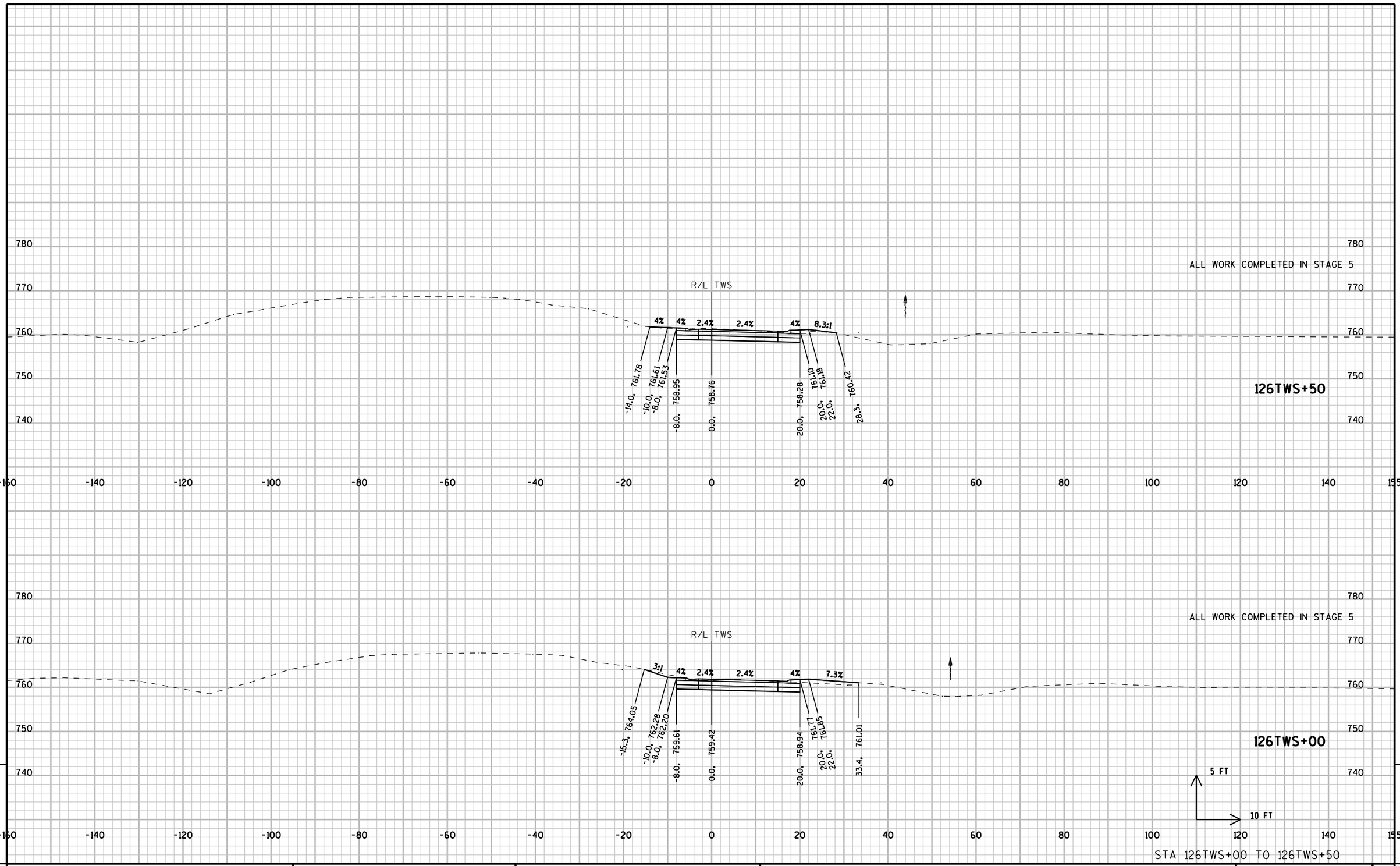
STA 125TWS+00 TO 125TWS+50

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



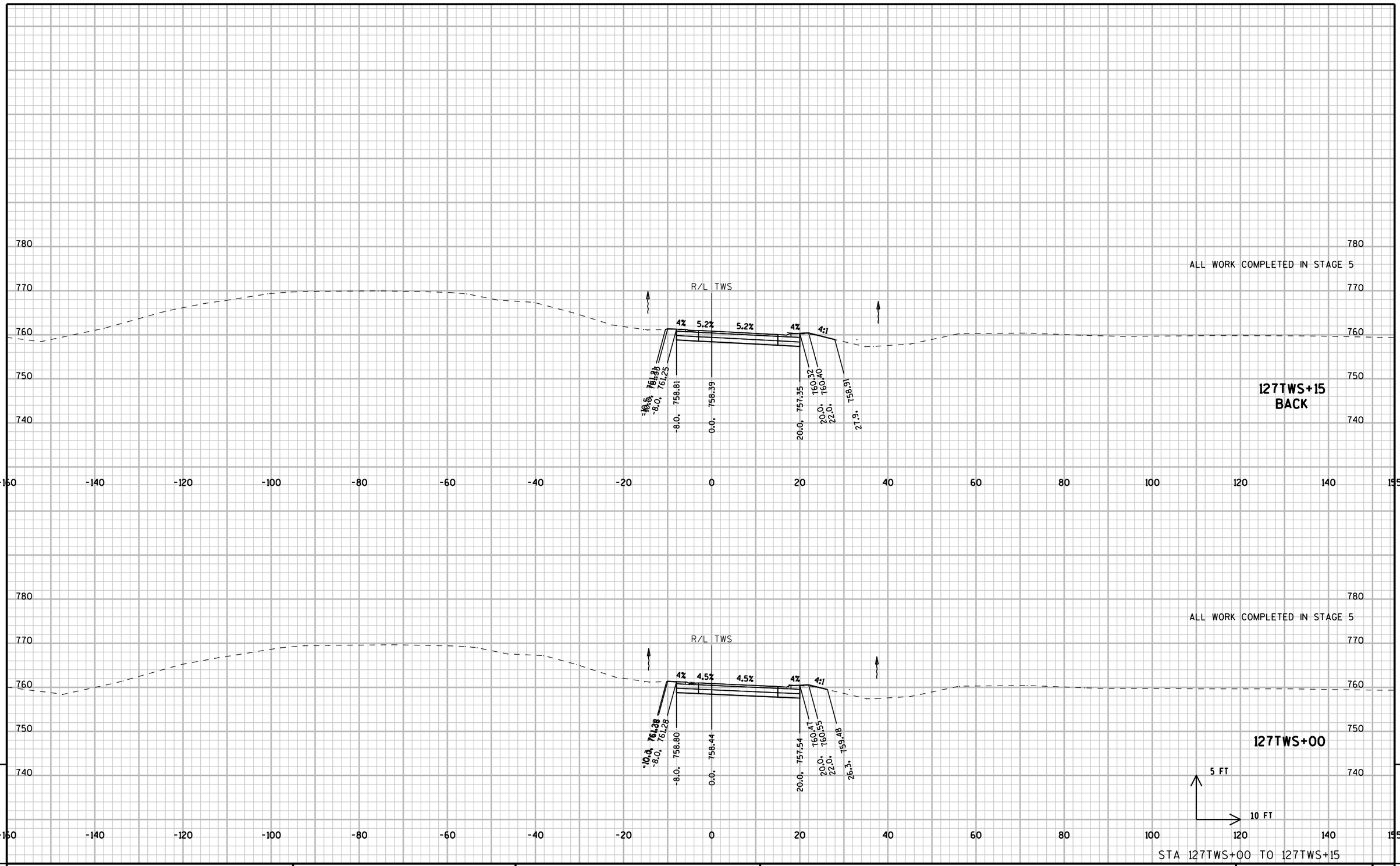
STA 126TWS+00 TO 126TWS+50

9 9

PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 697	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 1517-07-79	HWY: USH 10	COUNTY: WINNEBAGO	CROSS SECTIONS: TWS RAMP	SHEET 698	E

FILE NAME : \\milw00\ingrproj\56537\1517-07-79\t1\cds\090212_xs_TWS.dgn PLOT DATE : 1/20/2015 PLOT BY : grosemeyer PLOT NAME : PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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