MAD

PROJECT ID: 1011-01-64

COUNTY: DANE COUNTY

MARCH 2020

ORDER OF SHEETS

TOTAL SHEETS = 118

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - PORTAGE

USH 151 TO RIVER ROAD (2 LOCATIONS)

IH 39

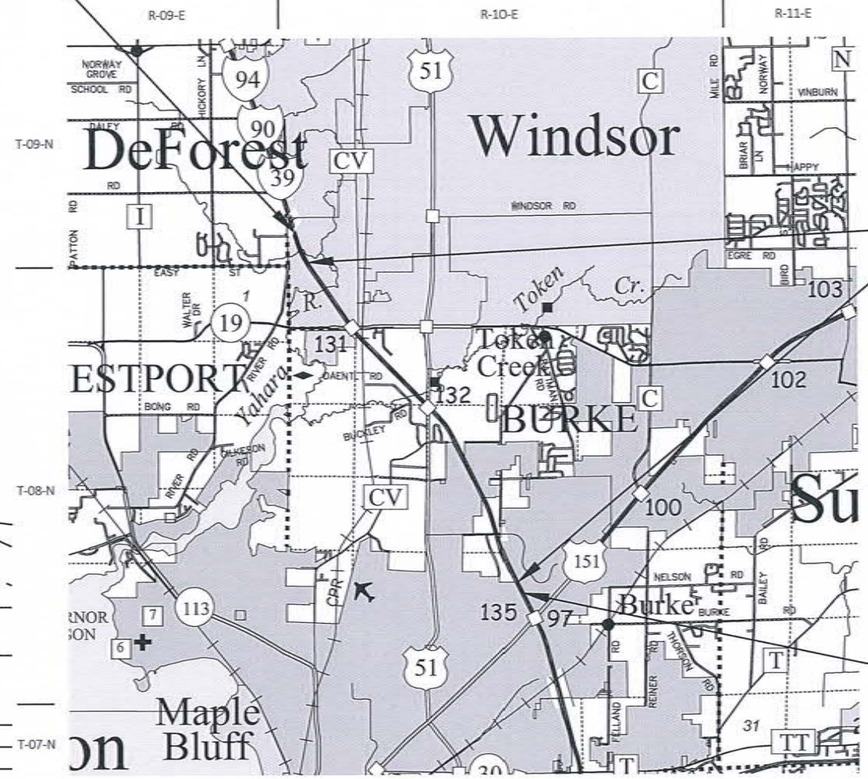
DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1011-01-64	WISC 2020108	1

NORTH SECTION: 736+00 - 756+25
SOUTH SECTION: 351+21 - 354+45.88

STATE PROJECT NUMBER
1011-01-64

BEGIN PROJECT
STA. 732+20.00 'WB'
X=827227.40
Y=534528.13



NET EXCEPTION
760+70.00 - 351+21.00 'WB'

END PROJECT
STA. 354+45.88 'WB'
X=842681.02
Y=509706.59

DESIGN DESIGNATION

A.A.D.T.	2019 =	61,300
~~A.A.D.T.~~	~~=~~	
~~D.H.V.~~	~~=~~	
~~D.D.~~	~~=~~	
~~T~~	~~=~~	
DESIGN SPEED	=	70 MPH
~~ESALS~~	~~=~~	

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (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
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.379 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SW REGION
Designer	CODY KAMMERZELT
Project Manager	BRAD SCHULTZ, PE
Regional Examiner	SW REGION
Regional Supervisor	KARLA KNORR, PE

APPROVED FOR THE DEPARTMENT
DATE: Nov. 11, 2019 Brad Schultz (Signature)

E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\010101_TI.DWG
PLOT DATE : 11/11/2019 11:15 AM
PLOT BY : KAMMERZELT, CODY A
PLOT NAME :

GENERAL NOTES

- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- 2-INCH HMA PAVEMENT SHALL BE CONSTRUCTED AS ONE 2-INCH LIFT OF HMA PAVEMENT TYPE 4HT 58-28H.
- 3.5-INCH HMA PAVEMENT SHALL BE CONSTRUCTED AS A SINGLE LIFT OF 4HT 58-28H.
- 5.5-INCH HMA PAVEMENT 4HT 58-28H (MAINTENANCE CROSSOVER) SHALL BE CONSTRUCTED AS 2-INCH PAVEMENT FOR THE UPPER LAYER AND 3.5-INCH PAVEMENT FOR THE LOWER LAYER.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT NO COST TO THE DEPARTMENT.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED OR SODDED AS DIRECTED BY THE ENGINEER.
- REMOVAL OF THE 5' CONCRETE FOOTING BENEATH THE CONCRETE BARRIER AND SUPERIMPOSED PAVEMENTS SHALL BE INCIDENTAL TO THE ITEM 204.0157 REMOVING CONCRETE BARRIER.
- OFFSET FOR INLETS ARE GIVEN TO THE CENTER OF STRUCTURE, AND RIM GRADES ARE SET TO CENTER OF THE GRATE.
- BENDS IN PIPE ARE INCIDENTAL
- USE REFERENCE STATIONING FOR I-90/94 EB & WB PER EXISTING AS-BUILTS

UTILITY CONTACTS

WILLIAM KOENIG
AT&T LEGACY - COMMUNICATION LINE
JMC ENGINEERS & ASSOCIATES, INC
110 N MAIN STREET
CULVER, IN 46511
608 628-0575
WEKOENIG@ATT.NET

ANTHONY MARCINIAK
ATC MANAGEMENT, INC. - ELECTRICITY
W234 W2000 RIDGEVIEW PARKWAY CT
PO BOX 47
WAUKESHA, WI 53187-0047
262-506-6814
AMARCINIAK@ATCLLC.COM

JANE ROSSING
MADISON GAS AND ELECTRIC COMPANY - ELECRICITY
P.O. BOX 1231
MADISON, WI 53701-1231
608 252 7099
GROSSING@MGE.COM

ERIC BECKER
PAETEC COMMUNICATIONS, LLC - COMMUNICATIONS LINE
314 N DANZ AVE
GREEN BAY, WI 54302-3526
920-461-9825
ERIC.BECKER@WINDSTREAM.COM

CAROL ANASON
AT&T WISCONSIN - COMMUNICATION LINE
316 W WASHINGTON AVENUE
MADISON, WI 53703
608 252-2385
CA2624@ATT.COM

MARY MONTGOMERY
ALLIANT ENERGY - ELECTRICITY & GAS/PETROLEUM
200 FIRST STREET
CEDAR RAPIDS, IA 52401
319 786-4768
MARYMONTGOMERY@ALLIANTENERGY.COM

JERRY MYERS
TDS METROCOM - COMMUNICATION LINE
525 JUNCTION ROAD
MADISON, WI 53717
608 664-4404
JERRY.MYERS@TDSTELECOM.COM

ERIC BECKER
WINDSTREAM KDL, LLC
314 N DANZ AVE
GREEN BAY, WI 54302-3526
920-461-9825
ERIC.BECKER@WINDSTREAM.COM

DNR LIAISON

ERIC HEGGELUND
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
608-275-3301

DESIGN CONTACTS

BRAD SCHULTZ, P.E.
PROJECT MANAGER
WISDOT SW REGION
2101 WRIGHT STREET
MADISON, WI 53704
(608) 242-8038

CODY KAMMERZELT
PROJECT DESIGNER
WISDOT SW REGION
2101 WRIGHT STREET
MADISON, WI 53704
(608) 243-5995

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

BEGIN PROJECT
NORTH SECTION
736+00.00 "WB"

NET EXCEPTION
760+70.00 - 351+21.00 'WB'

RIVER ROAD

STA BACK = 772+46.39 WB
STA AHEAD = 772+69.42 WB
STA BACK = 775+00.00 WB
STA AHEAD = 100+00.00 WB

STH 19

STA BACK = 159+03.89 WB
STA AHEAD = 159+14.42 WB

RAILROAD

USH 51

HOEPKER RD

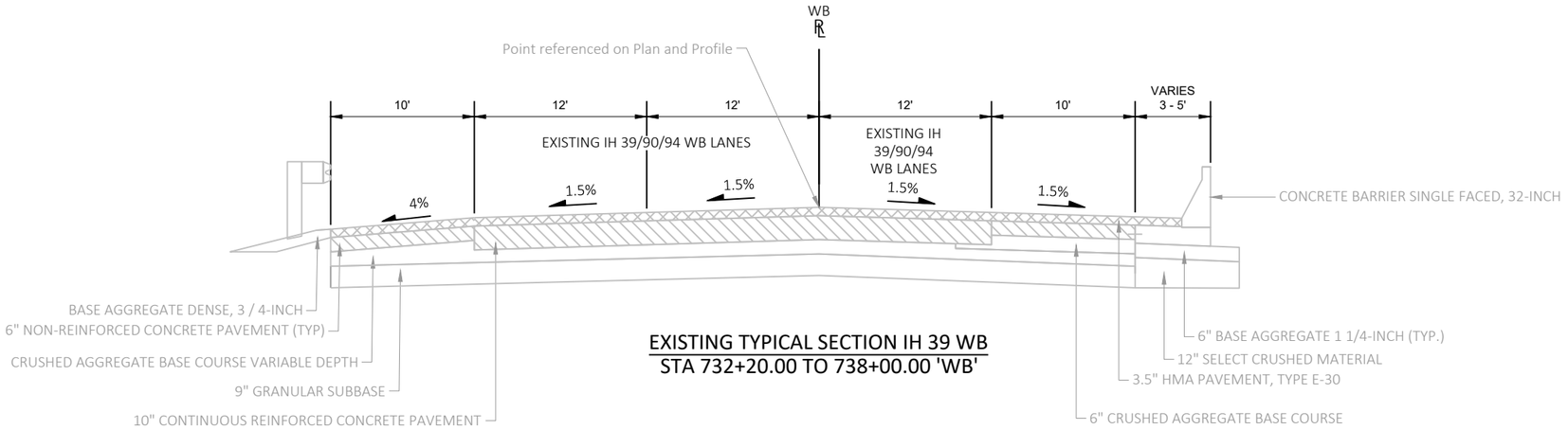
HANSON RD

USH 151

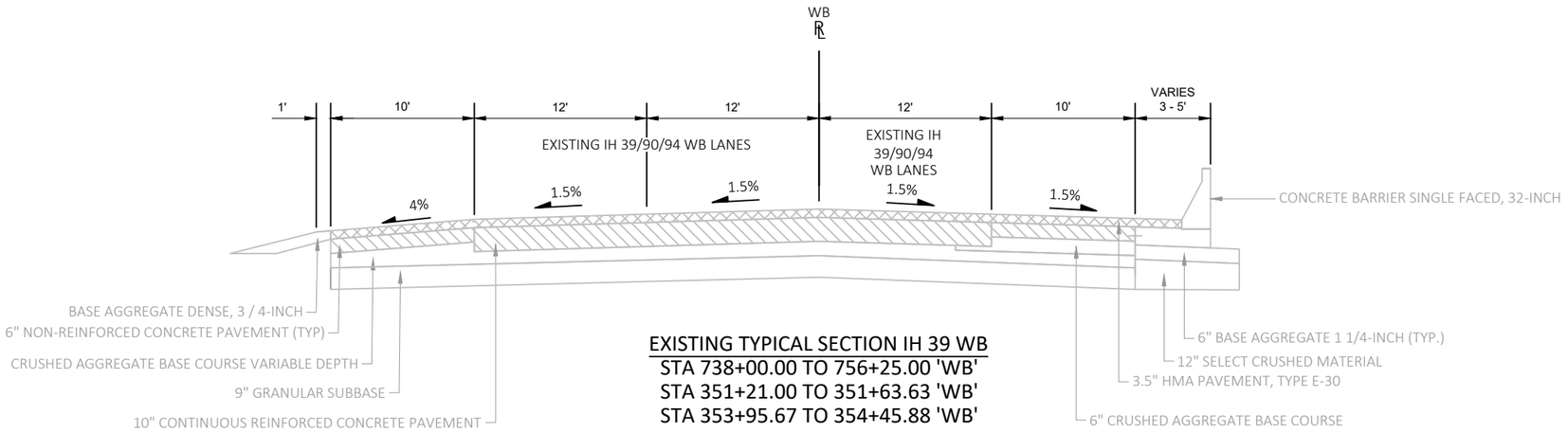
END PROJECT
SOUTH SECTION
354+45.88 "WB"

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\020201_PO.DWG
LAYOUT NAME - 020201_po
PLOT DATE : 11/8/2019 8:14 AM
PLOT BY : YANG, NOUTHENG
PLOT NAME :
PLOT SCALE : 1 IN: 2000 FT



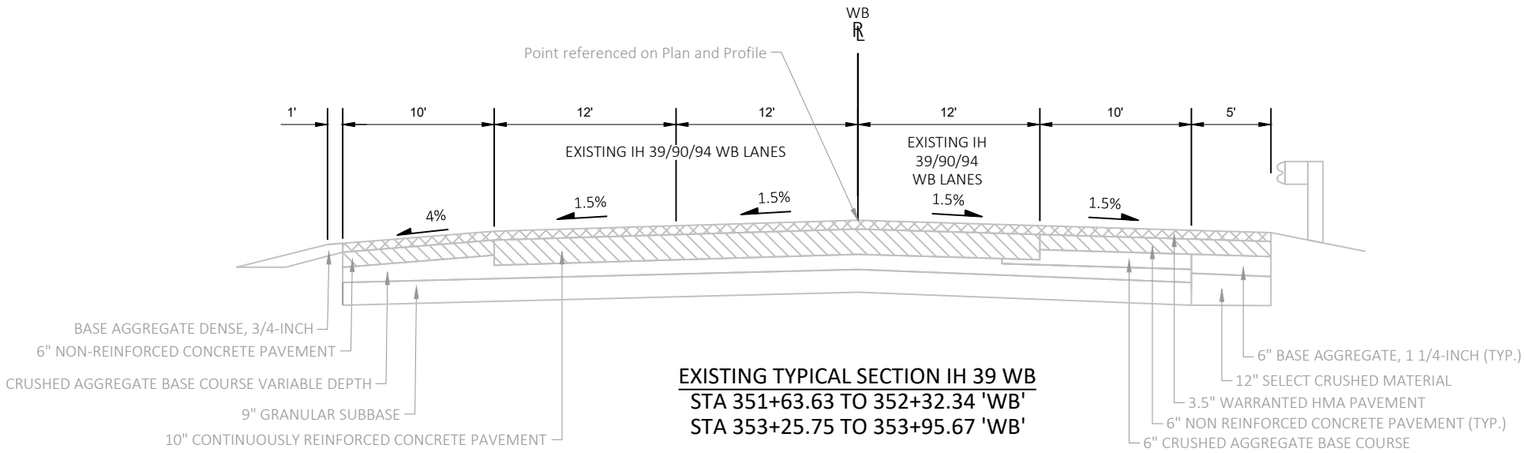
EXISTING TYPICAL SECTION IH 39 WB
STA 732+20.00 TO 738+00.00 'WB'



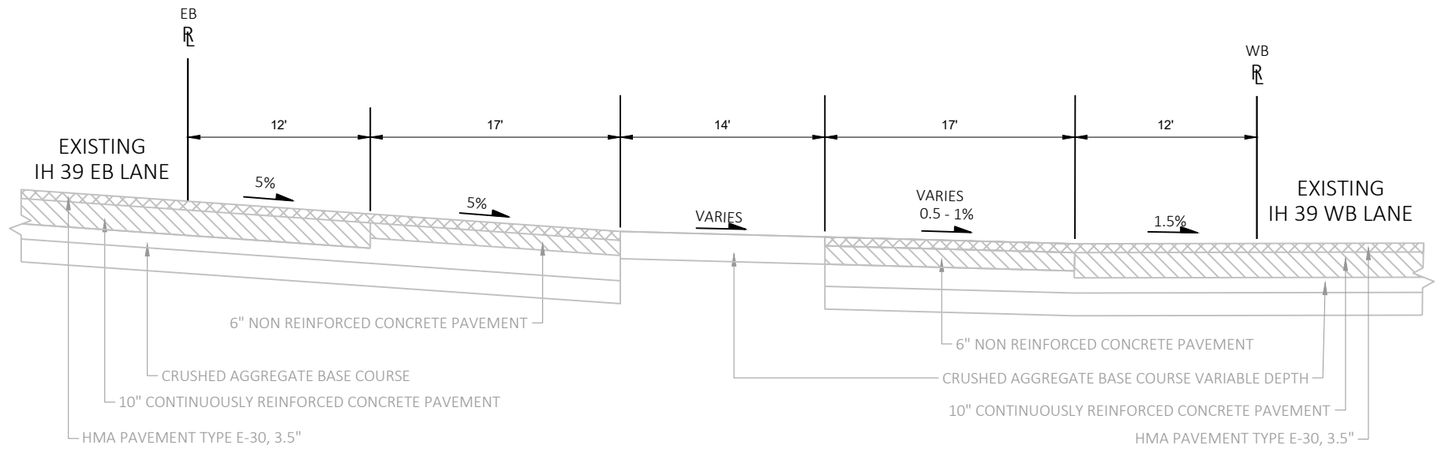
EXISTING TYPICAL SECTION IH 39 WB
STA 738+00.00 TO 756+25.00 'WB'
STA 351+21.00 TO 351+63.63 'WB'
STA 353+95.67 TO 354+45.88 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 4	E

2



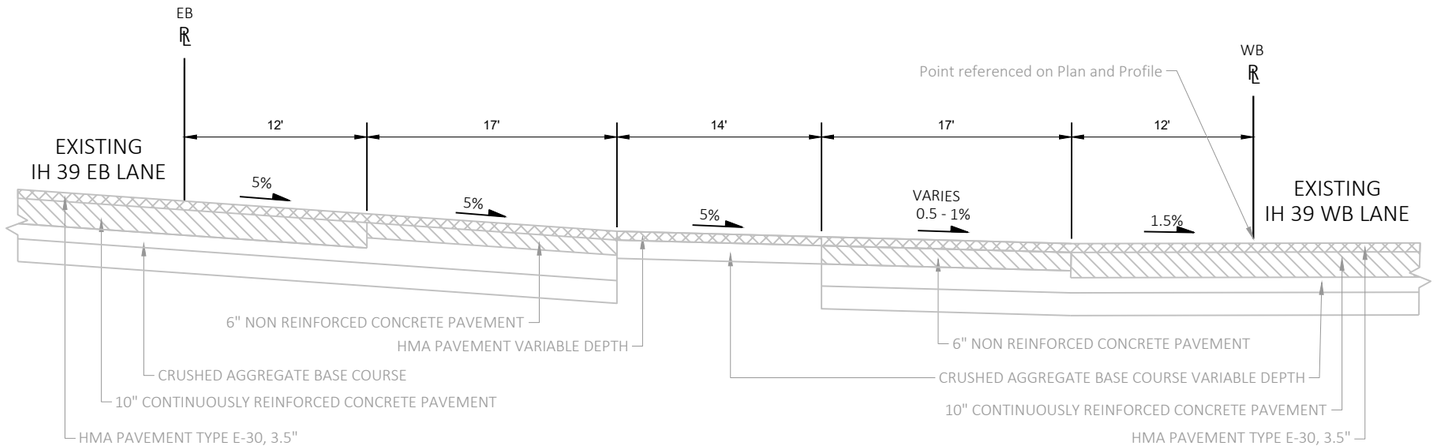
EXISTING TYPICAL SECTION IH 39 WB
STA 351+63.63 TO 352+32.34 'WB'
STA 353+25.75 TO 353+95.67 'WB'



EXISTING TYPICAL SECTION IH 39 MAINTENANCE CROSSOVER
STA 352+32.34 TO 352+62.41 'WB'
STA 352+94.19 TO 353+25.75 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 5	E

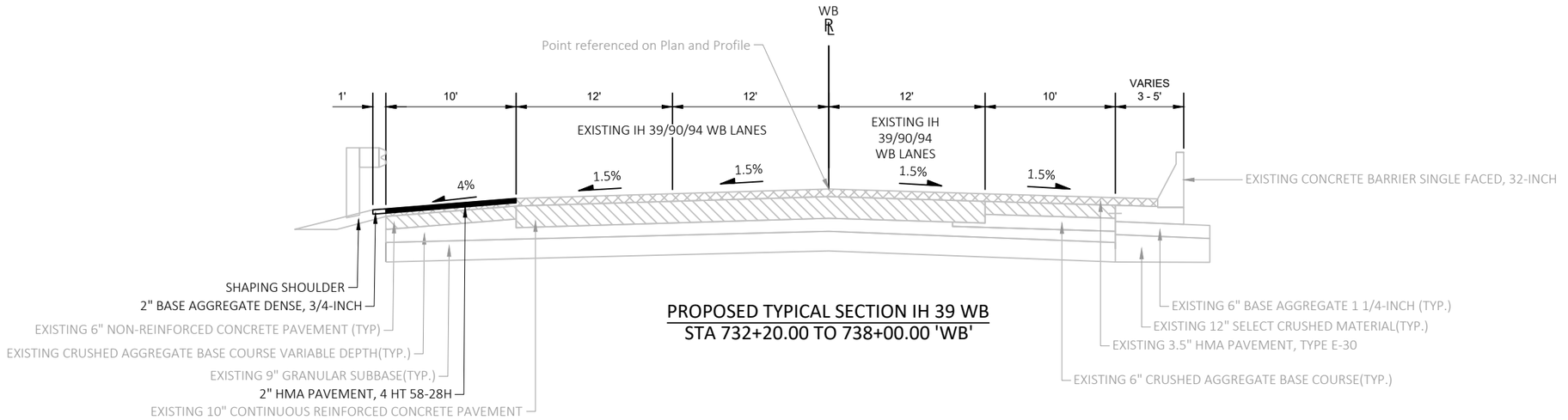
2



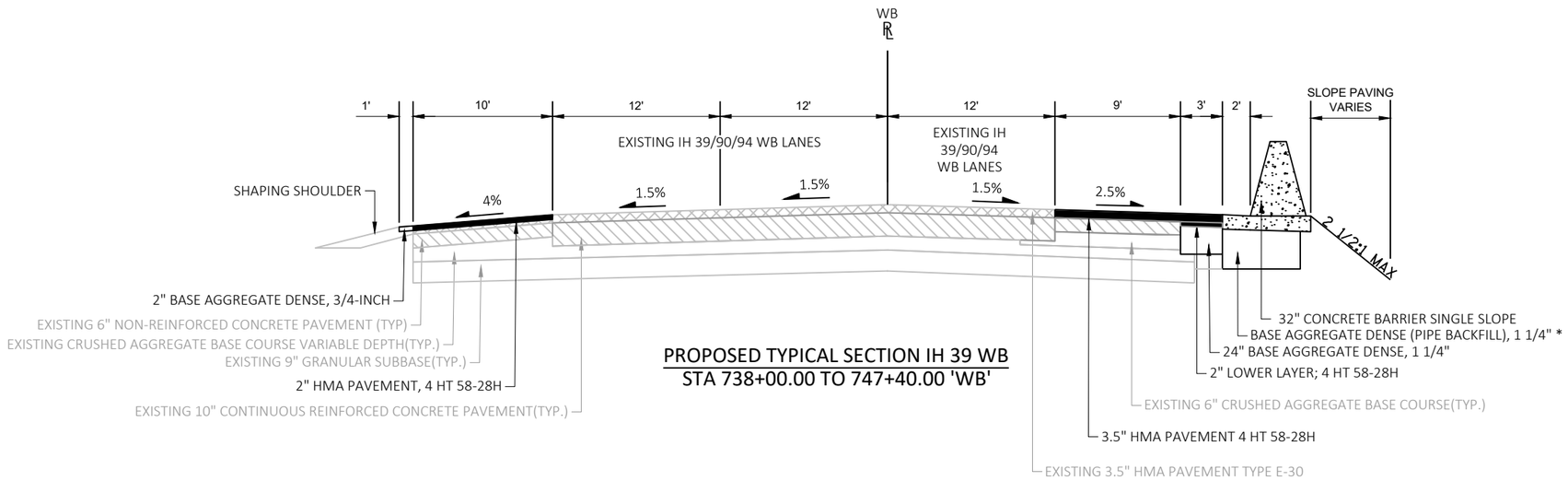
EXISTING TYPICAL SECTION IH 39 MAINTENANCE CROSSOVER
STA 352+62.41 TO 352+94.19 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 6	E

2



PROPOSED TYPICAL SECTION IH 39 WB
STA 732+20.00 TO 738+00.00 'WB'

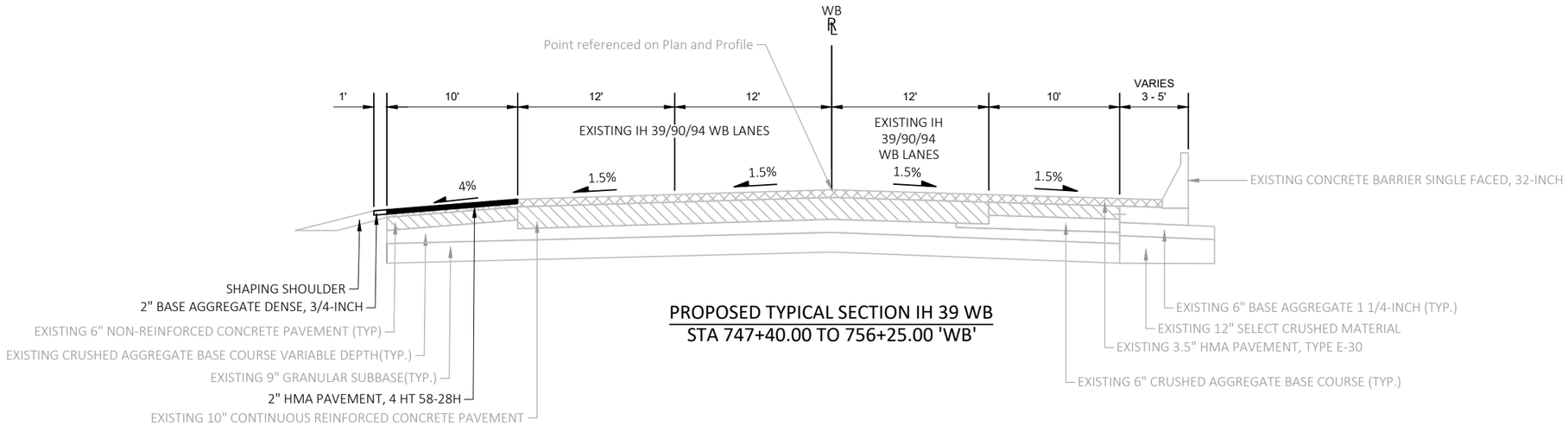


PROPOSED TYPICAL SECTION IH 39 WB
STA 738+00.00 TO 747+40.00 'WB'

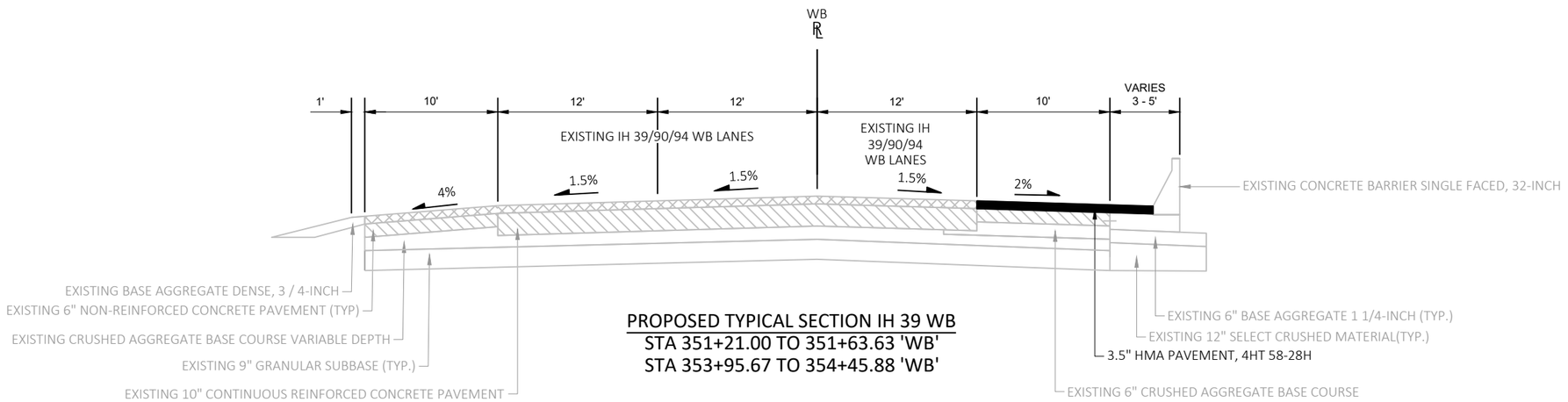
*INCIDENTAL TO PIPE BACKFILL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 7	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 020301_ts04
PLOT DATE : 11/14/2019 4:35 PM
PLOT BY : KAMMERZELT, CODY A
PLOT NAME :
PLOT SCALE : 1 IN:10 FT



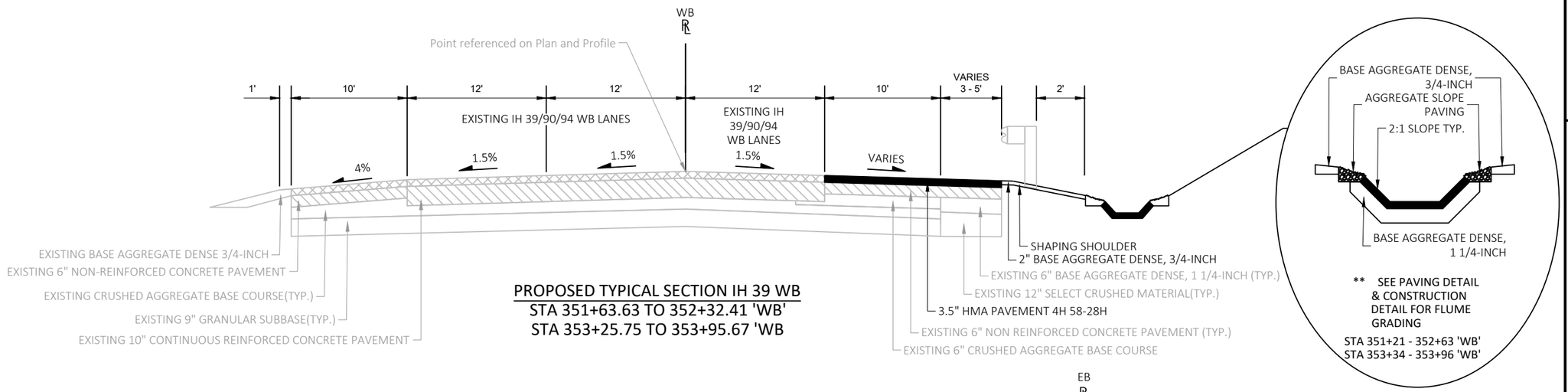
PROPOSED TYPICAL SECTION IH 39 WB
STA 747+40.00 TO 756+25.00 'WB'



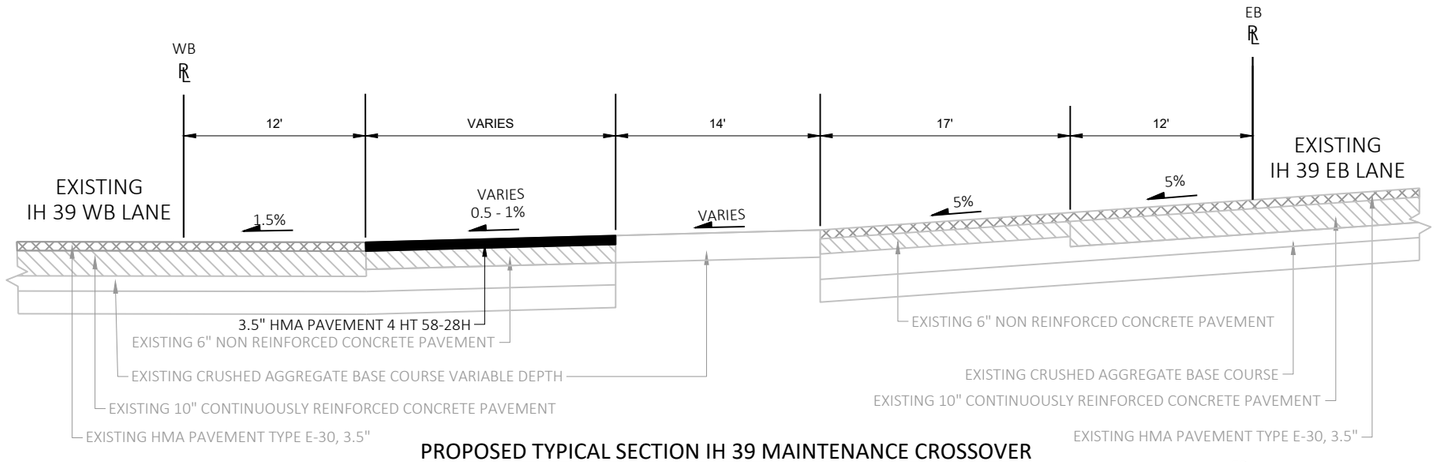
PROPOSED TYPICAL SECTION IH 39 WB
STA 351+21.00 TO 351+63.63 'WB'
STA 353+95.67 TO 354+45.88 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 8	E

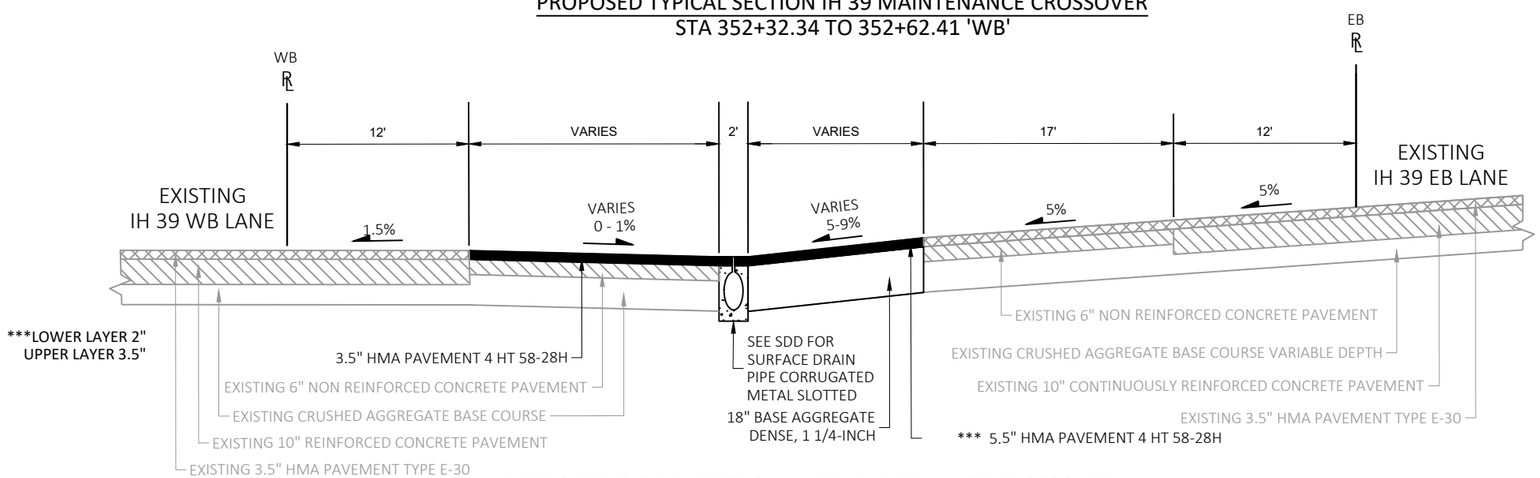
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 020301_ts05
PLOT DATE : 11/14/2019 4:35 PM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROPOSED TYPICAL SECTION IH 39 WB
STA 351+63.63 TO 352+32.41 'WB'
STA 353+25.75 TO 353+95.67 'WB'

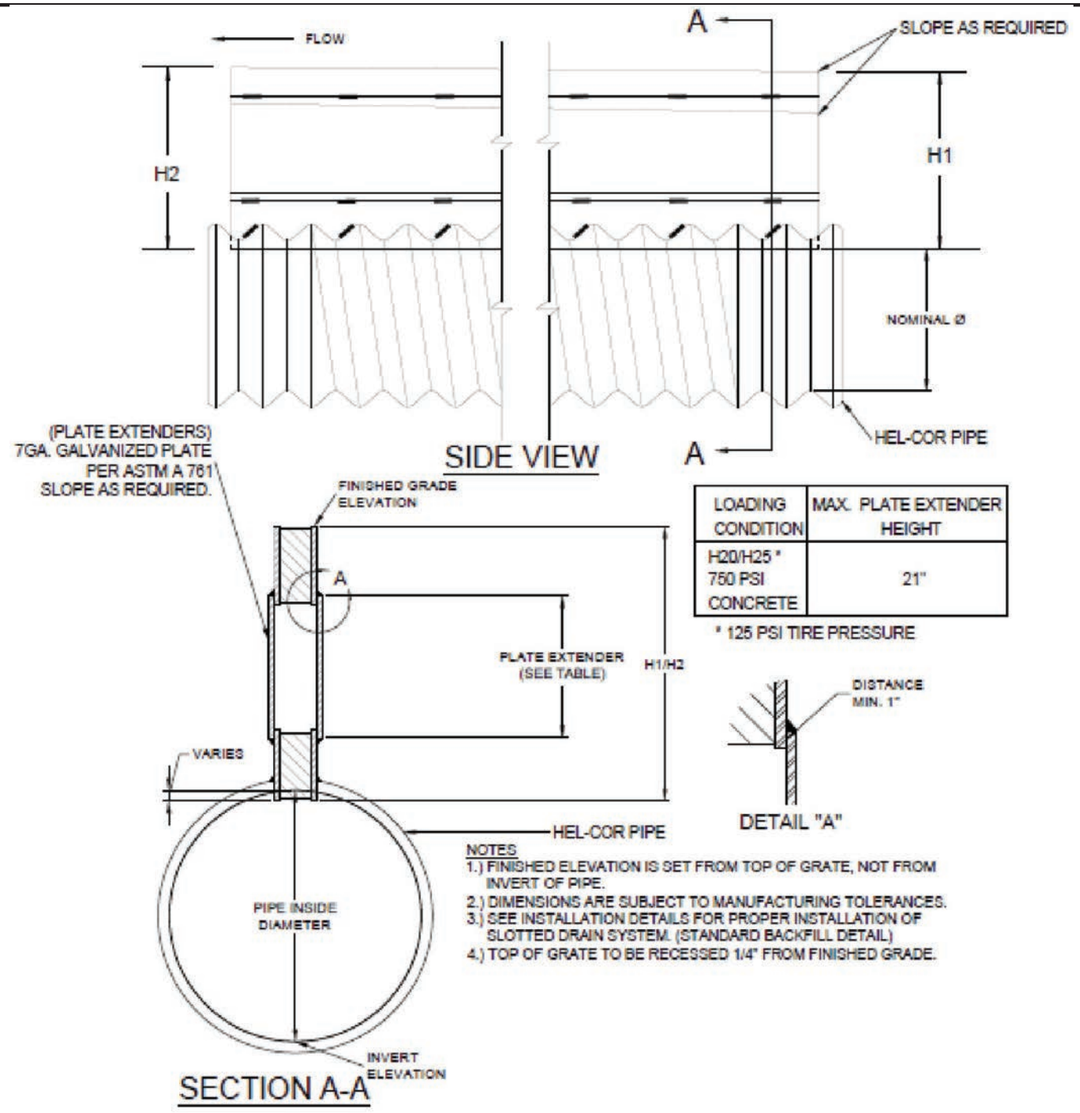


PROPOSED TYPICAL SECTION IH 39 MAINTENANCE CROSSOVER
STA 352+32.34 TO 352+62.41 'WB'



PROPOSED TYPICAL SECTION IH 39 MAINTENANCE CROSSOVER
STA 352+62.41 TO 353+25.75 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 9	E



LOADING CONDITION	MAX. PLATE EXTENDER HEIGHT
H20/H25 * 750 PSI CONCRETE	21"

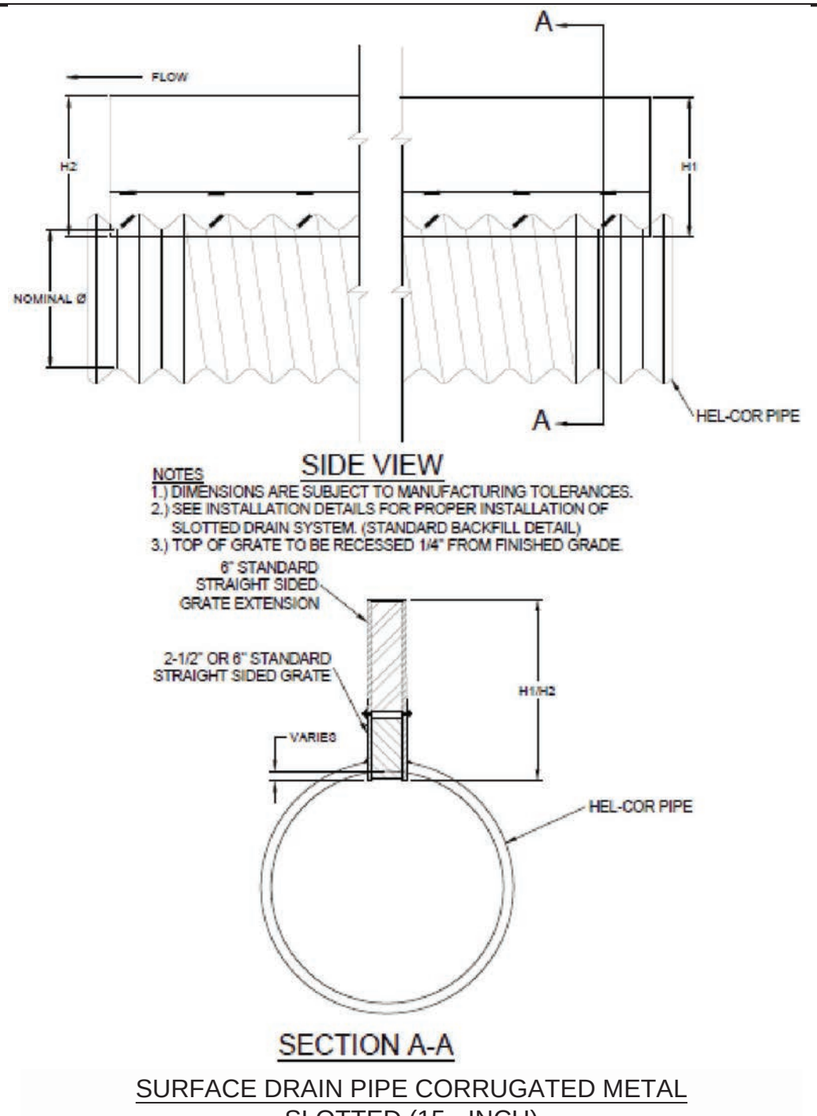
* 125 PSI TIRE PRESSURE

NOTES
1.) FINISHED ELEVATION IS SET FROM TOP OF GRATE, NOT FROM INVERT OF PIPE.
2.) DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
3.) SEE INSTALLATION DETAILS FOR PROPER INSTALLATION OF SLOTTED DRAIN SYSTEM. (STANDARD BACKFILL DETAIL)
4.) TOP OF GRATE TO BE RECESSED 1/4" FROM FINISHED GRADE.

SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED (15 - INCH)

N.T.S.

Run #1 Pipe Schedule (15" Dia) Slotted Drain [STA 745+59]									
Pipe #	Pipe Length	Grate Height (H1)	Grate Height (H2)	Grate Length	Top Grate	Bottom Grate	High End Elev of Pipe	Lower End Elev of Pipe	Slope
101	12'-0"	0'-6"	0'-8"	9'-10"	0'-6"	0'-6"	900.13	899.84	2.50%
Run #2 Pipe Schedule (15" Dia) Slotted Drain [STA 746+91]									
201	12'-0"	0'-6"	1'-0"	9'-10"	0'-6"	0'-6"	898.54	898.25	2.50%



NOTES
1.) DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2.) SEE INSTALLATION DETAILS FOR PROPER INSTALLATION OF SLOTTED DRAIN SYSTEM. (STANDARD BACKFILL DETAIL)
3.) TOP OF GRATE TO BE RECESSED 1/4" FROM FINISHED GRADE.

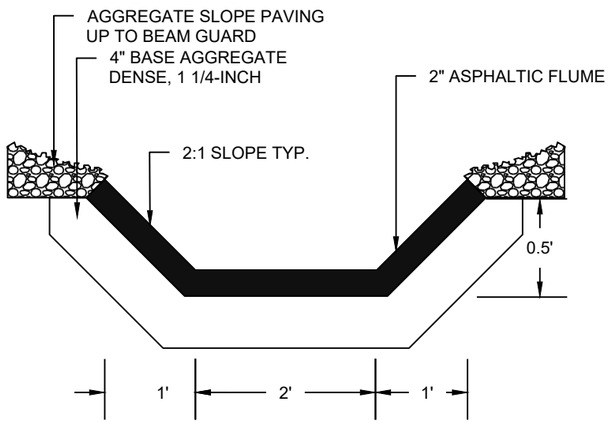
SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED (15 - INCH)

N.T.S.

Run #3 Pipe Schedule (15" Dia) Slotted Drain [STA 352+62.58 to STA 353+23.09]									
Pipe #	Pipe Length	Grate Height (H1)	Grate Height (H2)	Grate Length	Top Grate	Bottom Grate	Higher End Elev of Pipe flowline	Lower End Elev of Pipe flowline	Slope
301	20'-0"	0'-6"	0'-8"	19'-10"	0'-6"	0'-6"	891.16	891.00	0.79%
302	20'-0"	0'-8"	0'-10"	19'-10"	0'-6"	0'-6"	891.00	890.84	0.79%
303	20'-0"	0'-10"	1'-0"	19'-10"	0'-6"	0'-6"	890.84	890.68	0.79%

2

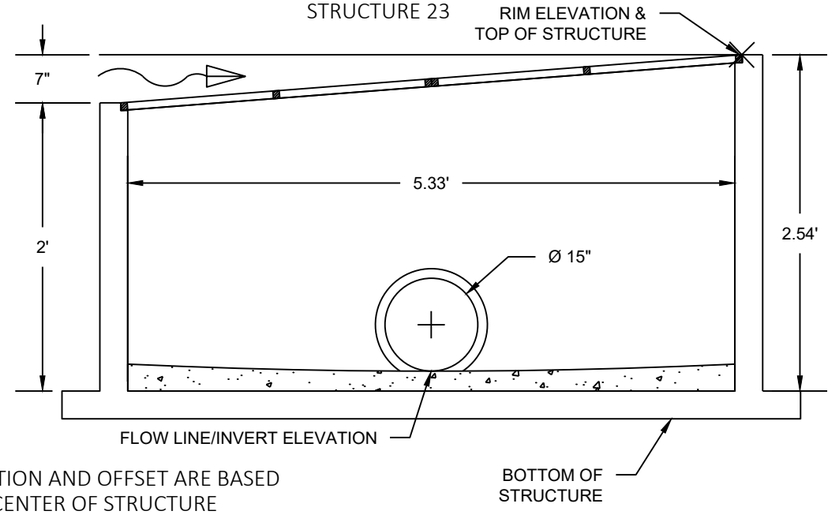
TYPICAL ASPHALTIC FLUME CROSS SECTION



STA 351+21.00 - 352+62.41 'WB'
STA 353+34.00 - 353+95.72 'WB'

STANDARD TYPE 2 MEDIAN INLET

STRUCTURE 23

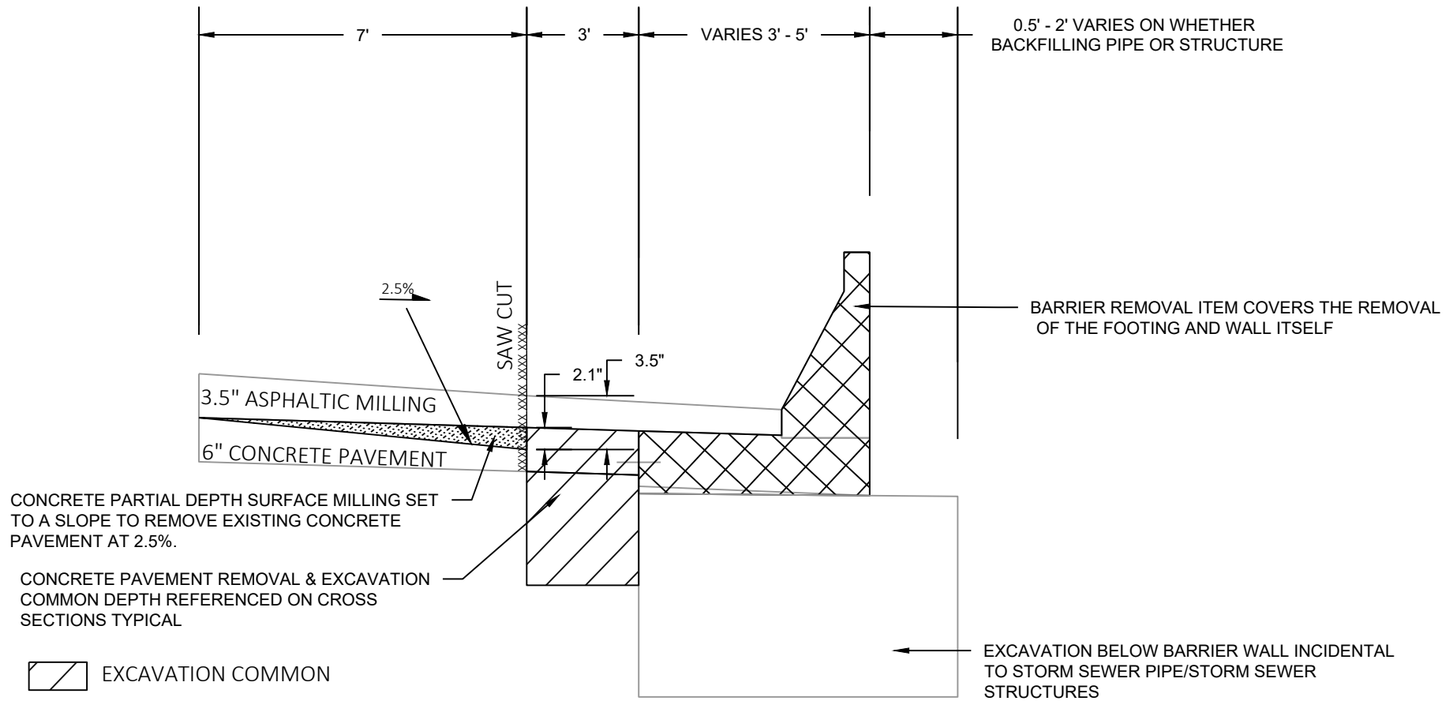


STATION AND OFFSET ARE BASED
OF CENTER OF STRUCTURE
STATIONS AND ELEVATIONS CAN BE FOUND IN STORM SEWER PLANS

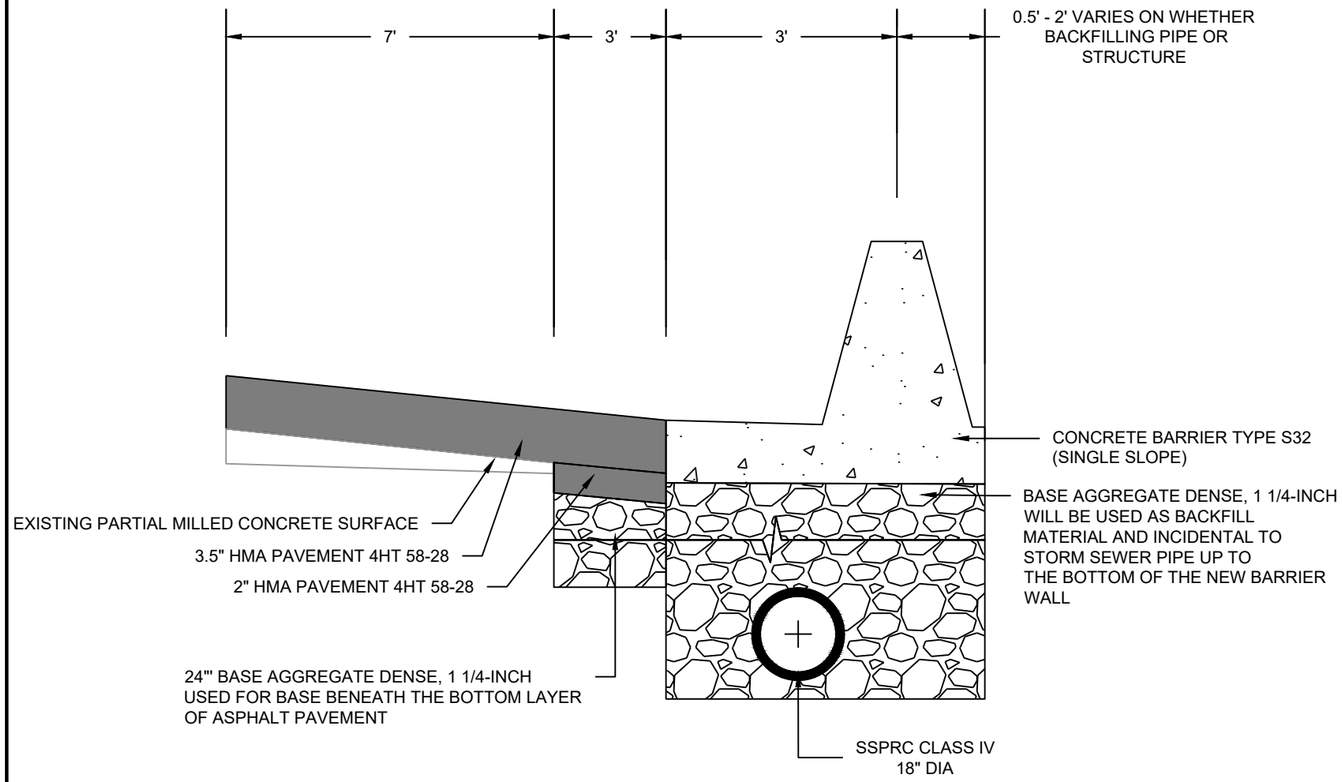
SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED

NOTE: DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWINGS FOR SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS.

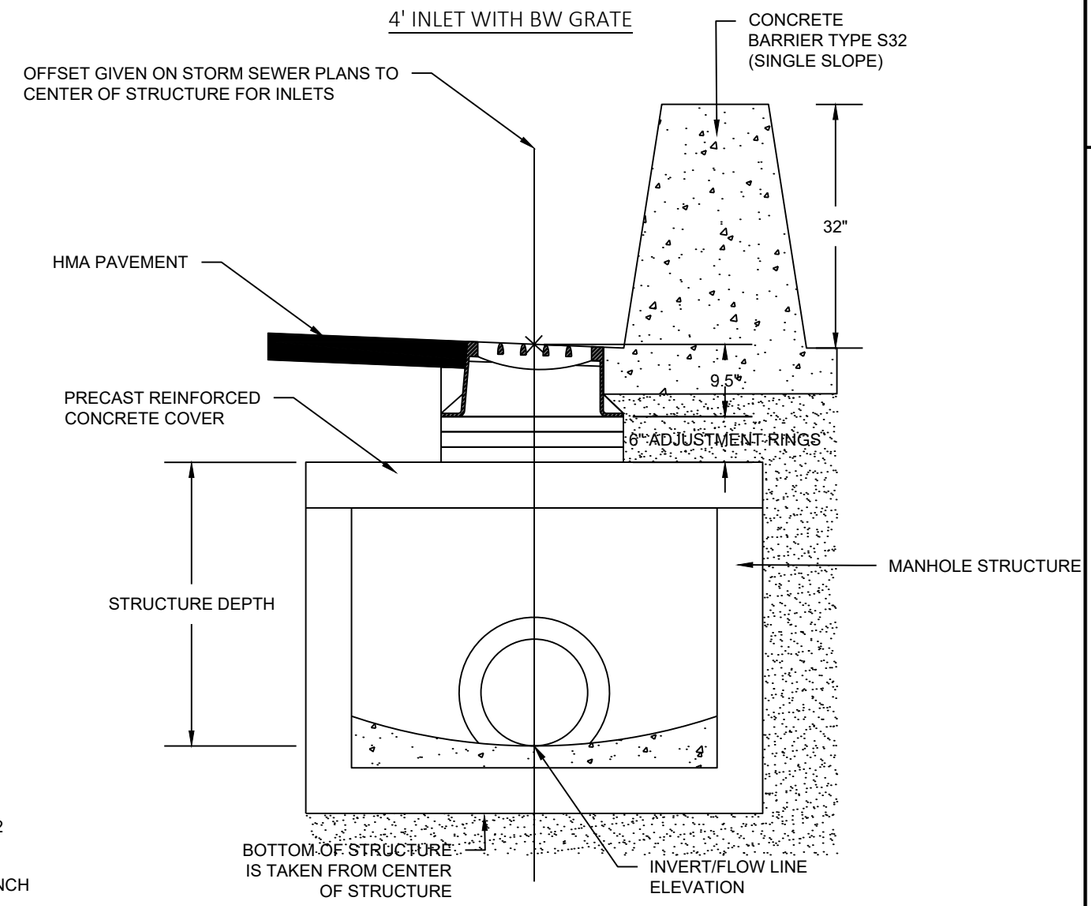
STA 352+62 - 353+23



REMOVING BARRIER WALL DETAIL - NORTH SECTION

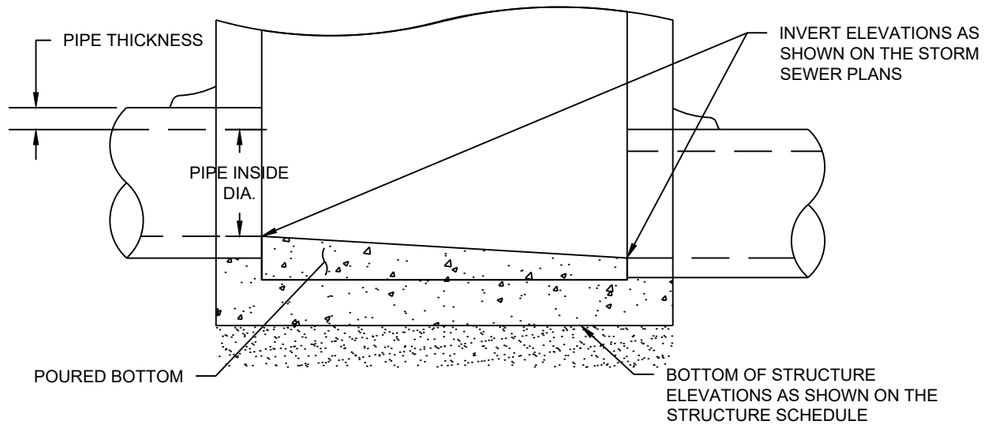


REPLACING BARRIER WALL DETAIL - NORTH SECTION



4' DIA. INLET CROSS SECTION - NORTH SECTION

STATIONS AND ELEVATIONS CAN BE FOUND IN STORM SEWER PLANS



2

2

W

IH 39 WB

735

BEGIN CONSTRUCTION
STA 732+20 LT
MATCH EXISTING
SAW CUT REQ'D

INL

INL

INL

INL

IH 39 EB

W

INL

INL

N

742+87.50

N

BEGIN REMOVAL LIMITS
STA 738+00 RT
MATCH EXISTING
SAW CUT REQ'D

IH 39 WB

740

W

IH 39 EB

2+87.50

ASPHALTIC SURFACE MILLING

REMOVING CONCRETE BARRIER

XXXX XXXX SAW CUT

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - REMOVALS	SHEET 13	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\021201_PDN2.DWG
LAYOUT NAME - 021201_pd01

PLOT DATE : 11/8/2019 8:54 AM PLOT BY : YANG, NOUTHENG PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

745

750

IH 39 WB

W

W

REMOVE INLET STA 747+07
REMOVE 5 LF STORM SEWER 12-INCH

END REMOVAL LIMITS
STA 747+40 RT
MATCH EXISTING
SAW CUT REQ'D

IH 39 EB

750+75.00

IH 39 WB

750

755

INL

INL

IH 39 EB

ASPHALTIC SURFACE MILLING

REMOVING CONCRETE BARRIER

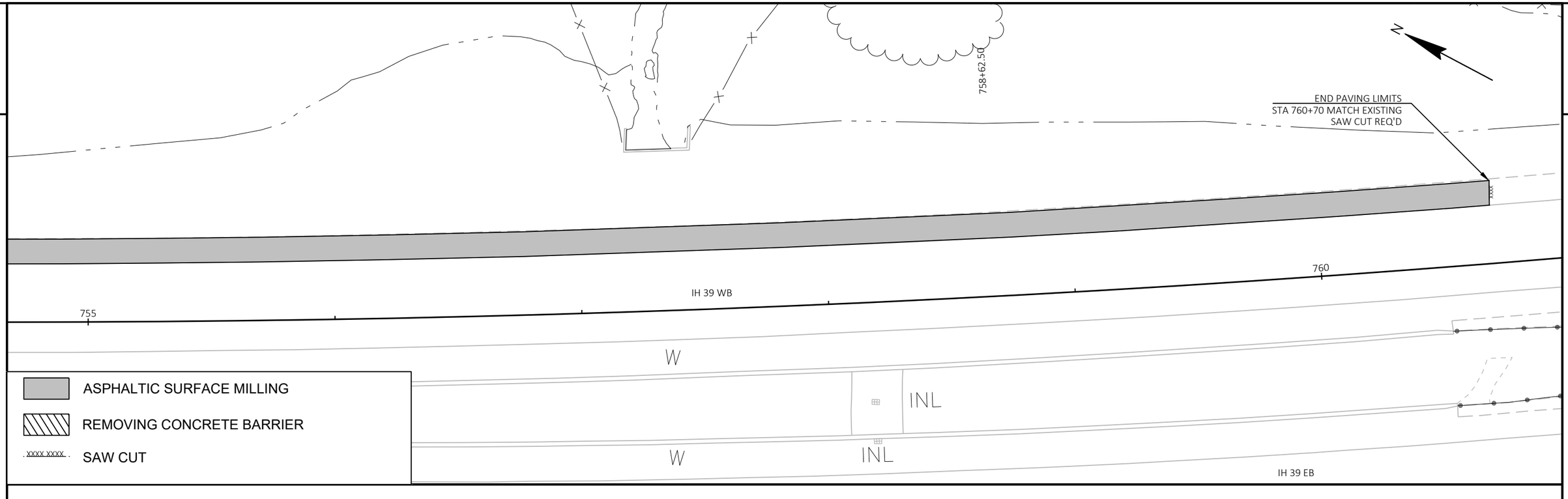
SAW CUT

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - REMOVALS	SHEET 14	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\021201_PDN2.DWG
LAYOUT NAME - 021201_pd02

PLOT DATE : 11/8/2019 8:54 AM PLOT BY : YANG, NOUTHENG PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



2

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - REMOVALS	SHEET 15	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\021201_PDN2.DWG
LAYOUT NAME - 021201_pd03
PLOT DATE : 11/8/2019 8:54 AM
PLOT BY : YANG, NOUTHENG
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

IH 39 WB

740

W

BEGIN REMOVAL LIMITS
STA 738+00 RT
MATCH EXISTING
SAW CUT REQ'D

IH 39 EB

IH 39 WB

745

REMOVE INLET STA 747+07
REMOVE 5 LF STORM SEWER 12-INCH

END REMOVAL LIMITS
STA 747+40 RT
MATCH EXISTING
SAW CUT REQ'D

IH 39 EB

PARTIAL DEPTH CONCRETE MILLING

CONCRETE PAVEMENT REMOVAL

xxxx xxxx SAW CUT

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - REMOVALS	SHEET 16	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\021201_PDN.DWG
LAYOUT NAME - 021201_pd04

PLOT DATE : 11/8/2019 8:54 AM PLOT BY : YANG, NOUTHENG PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

REMOVAL LIMIT
STA 351+21.00
MATCH EXISTING
SAW CUT REQ'D

N

352+00

353+00

354+00

IH 39/90/94 WB

IH 39/90/94 EB

EXISTING MEDIAN
CROSSOVER ALSO REMOVE
ASPHALTIC SURFACE

352+60.57, 42.05' R

352+96.38, 41.90' R

MOVE EXISTING
SIGN OUT OF
PAVING LIMITS

353+23.19, 41.70' R

STA 353+31.00
REMOVE INLET

353+38.26, 38.51' R

353+82.87, 42.36' R

353+94.75, 41.99' R

WALLS

END CONSTRUCTION
STA 354+45.88
MATCH EXISTING
SAW CUT REQ'D

ASPHALTIC SURFACE MILLING

COMMON EXCAVATION

XXXX SAWING ASPHALT

REMOVE ASPHALTIC SURFACE

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - REMOVALS	SHEET 17	E

2

2

REMOVAL LIMIT
STA 351+21.00
MATCH EXISTING
SAW CUT REQ'D

891.694
0.9%
891.836
891.325
0.4%
891.960
892.016
891.431
0%
892.199
892.194
891.569
0.25%
892.440
892.393
891.901
0.3%
892.701
892.653
892.090
0.5%
892.855
892.774
892.508
6.6%
892.909
0.6%
893.129
893.028
893.814
7.4%
893.395
0.75%
893.272
893.885
7.8%
894.164
0.9%
893.599
893.456
8.6%
893.796
1.0%
893.644
894.395
893.051
1.0%
894.013
893.871
893.416
0%
893.897
1.25%
894.672
894.888

352+00
353+00
354+00

N

H-39/90/94-WB

H-39/90/94-EB

WALLS

END CONSTRUCTION
STA 354+45.88
MATCH EXISTING
SAW CUT REQ'D

ASPHALTIC SURFACE MILLING

XXXX SAWING ASPHALT

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - GRADES	SHEET 18	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\GRADING PLAN.DWG
LAYOUT NAME - 021201_pd06

PLOT DATE : 11/15/2019 10:20 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN: 20 FT

WISDOT/CADDS SHEET 42

2

IH 39 WB

740

W

W

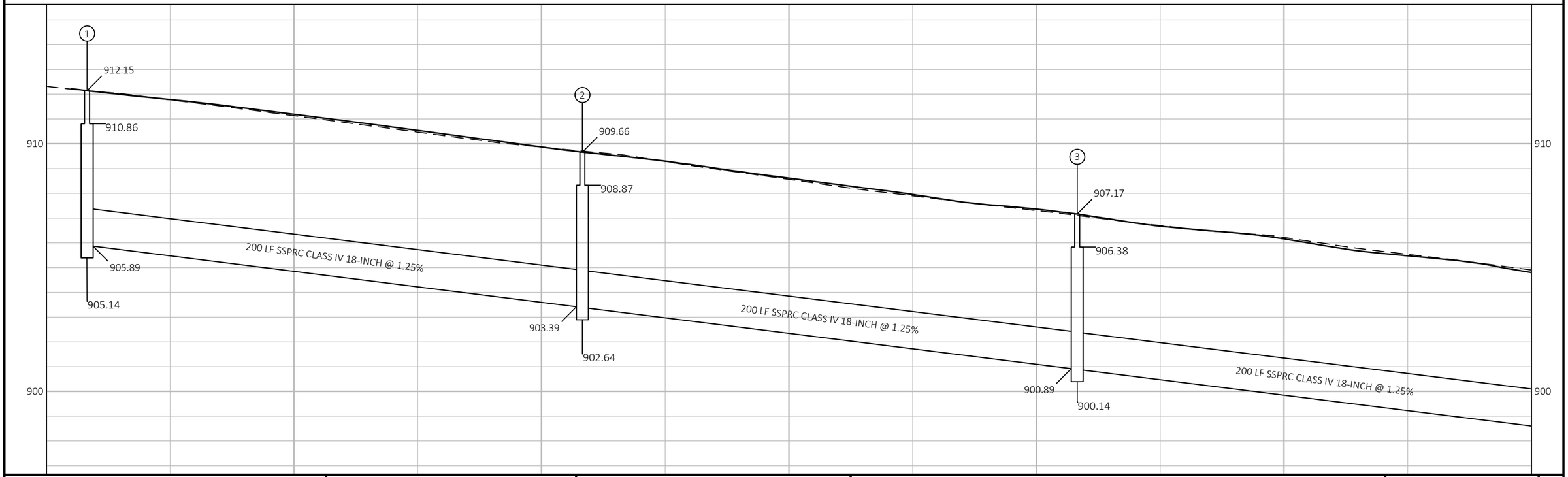
1 STA 738+07, 25.5' R
INLETS 4-BW

2 STA 740+07, 25.5' R
INLETS 4-BW

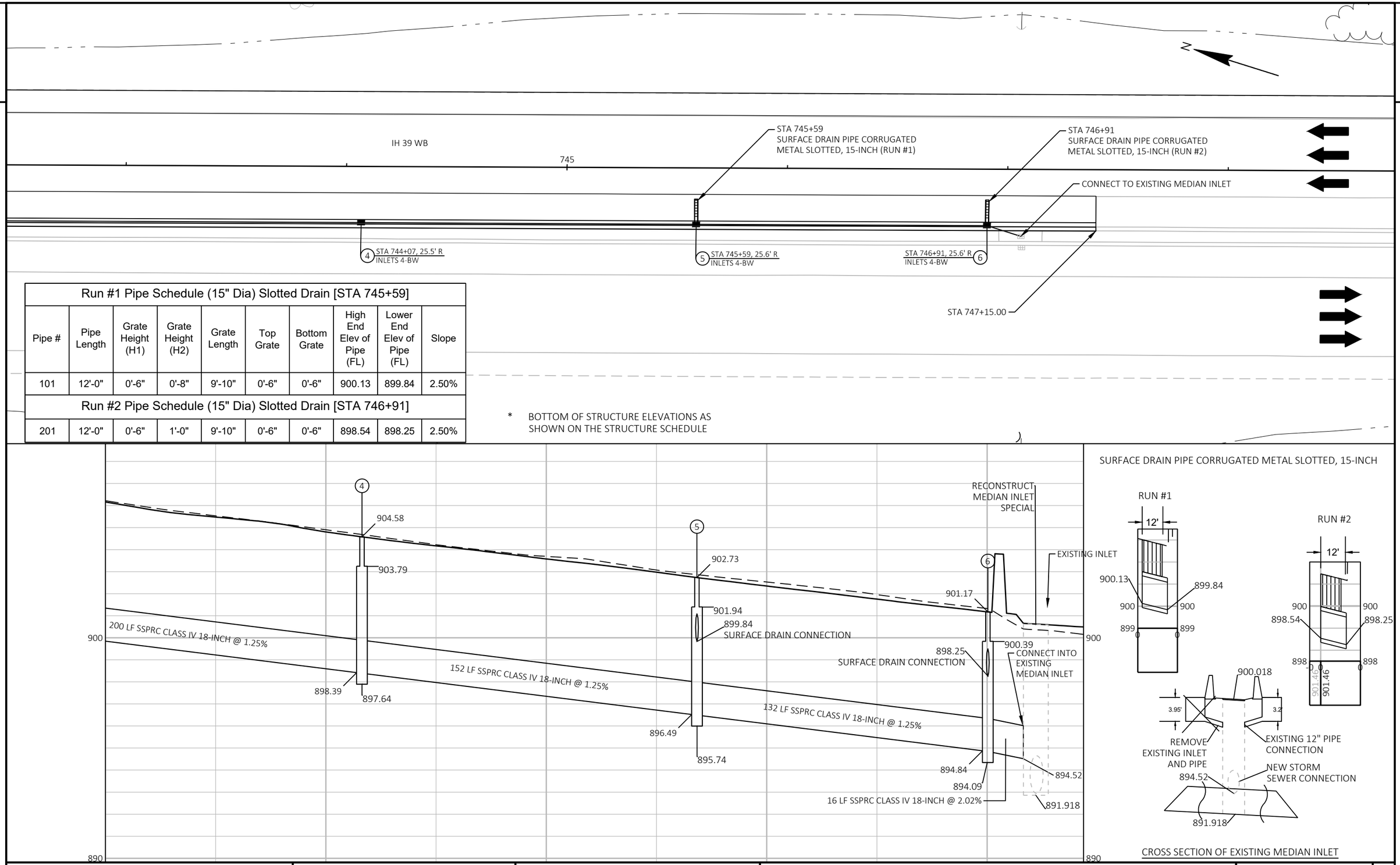
3 STA 742+07, 25.4' R
INLETS 4-BW

IH 39 EB

* BOTTOM OF STRUCTURE ELEVATIONS AS SHOWN ON THE STRUCTURE SCHEDULE



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET 19	E

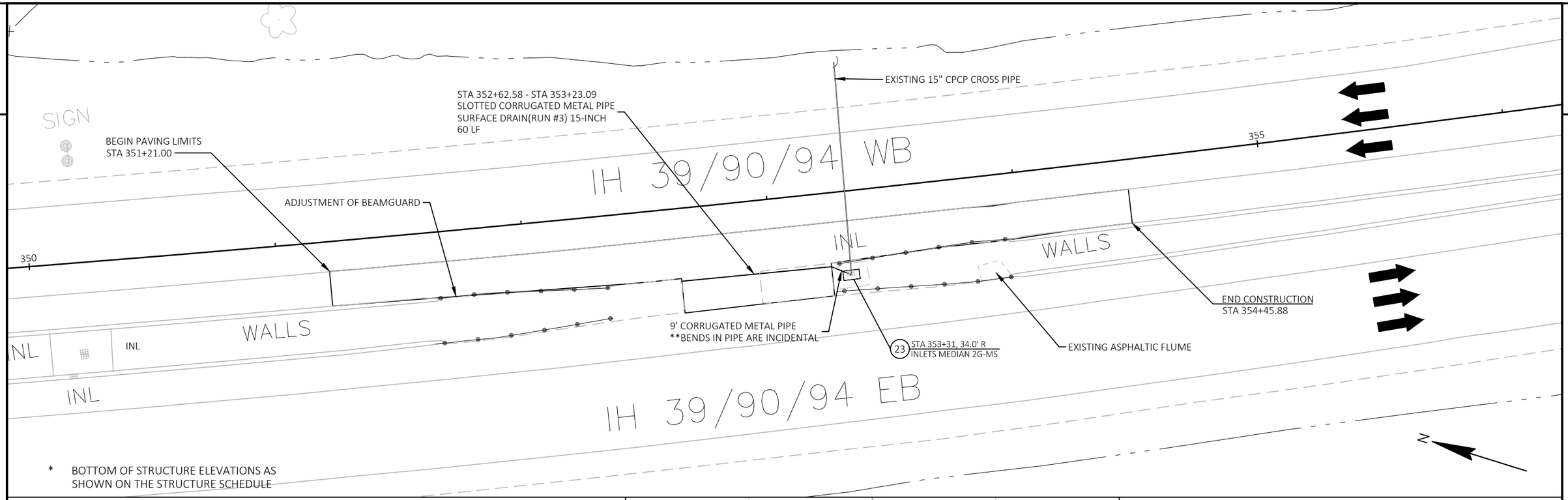


Run #1 Pipe Schedule (15" Dia) Slotted Drain [STA 745+59]									
Pipe #	Pipe Length	Grate Height (H1)	Grate Height (H2)	Grate Length	Top Grate	Bottom Grate	High End Elev of Pipe (FL)	Lower End Elev of Pipe (FL)	Slope
101	12'-0"	0'-6"	0'-8"	9'-10"	0'-6"	0'-6"	900.13	899.84	2.50%
Run #2 Pipe Schedule (15" Dia) Slotted Drain [STA 746+91]									
201	12'-0"	0'-6"	1'-0"	9'-10"	0'-6"	0'-6"	898.54	898.25	2.50%

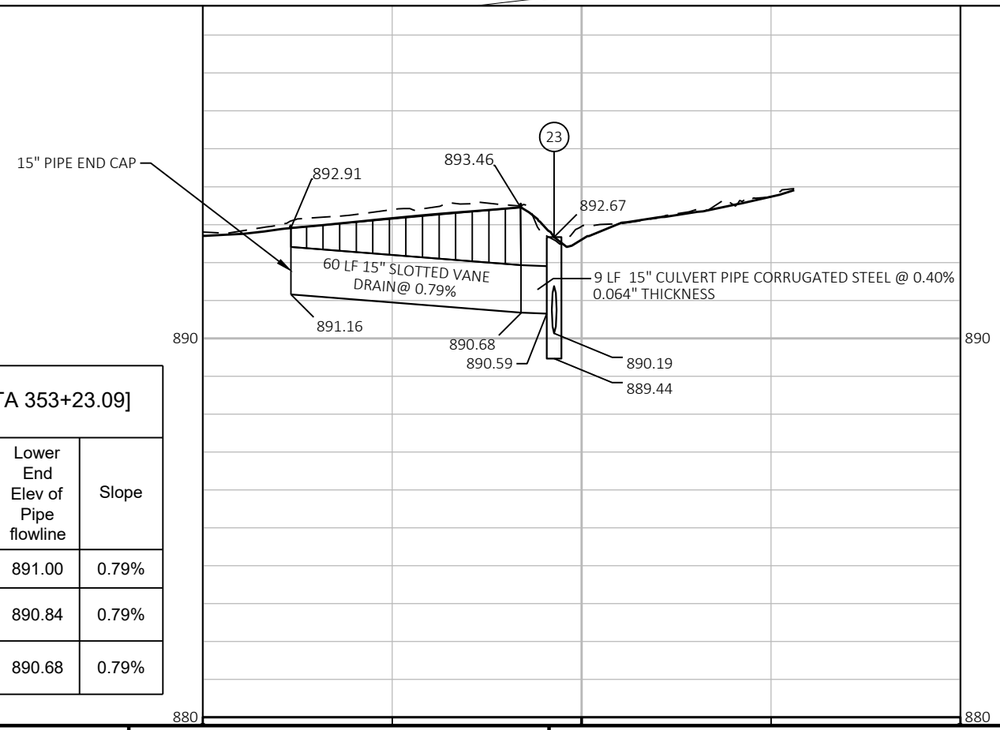
* BOTTOM OF STRUCTURE ELEVATIONS AS SHOWN ON THE STRUCTURE SCHEDULE

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET 20	E

2



* BOTTOM OF STRUCTURE ELEVATIONS AS SHOWN ON THE STRUCTURE SCHEDULE



Run #3 Pipe Schedule (15" Dia) Slotted Drain [STA 352+62.58 to STA 353+23.09]

Pipe #	Pipe Length	Grate Height (H1)	Grate Height (H2)	Grate Length	Top Grate	Bottom Grate	Higher End Elev of Pipe flowline	Lower End Elev of Pipe flowline	Slope
301	20'-0"	0'-6"	0'-8"	19'-10"	0'-6"	0'-6"	891.16	891.00	0.79%
302	20'-0"	0'-8"	0'-10"	19'-10"	0'-6"	0'-6"	891.00	890.84	0.79%
303	20'-0"	0'-10"	1'-0"	19'-10"	0'-6"	0'-6"	890.84	890.68	0.79%

**PIPE RUN ORDER WILL GO FROM NORTH TO SOUTH

2

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

(E) EXISTING PAVEMENT MARKING

STAGE 1A

I-30/90/94 WESTBOUND (NORTHBOUND)
TRAFFIC PATTERN
- OPEN INSIDE AND OUTSIDE LANE
- CLOSED OUTSIDE LANE AND SHOULDER

CONSTRUCTION
- MILL AND PAVED OUTSIDE SHOULDER
- CONSTRUCT TEMPORARY MARKING LINE

I-39/90/94 EASTBOUND (SOUTHBOUND)
TRAFFIC PATTERN
- OPEN ALL LANES

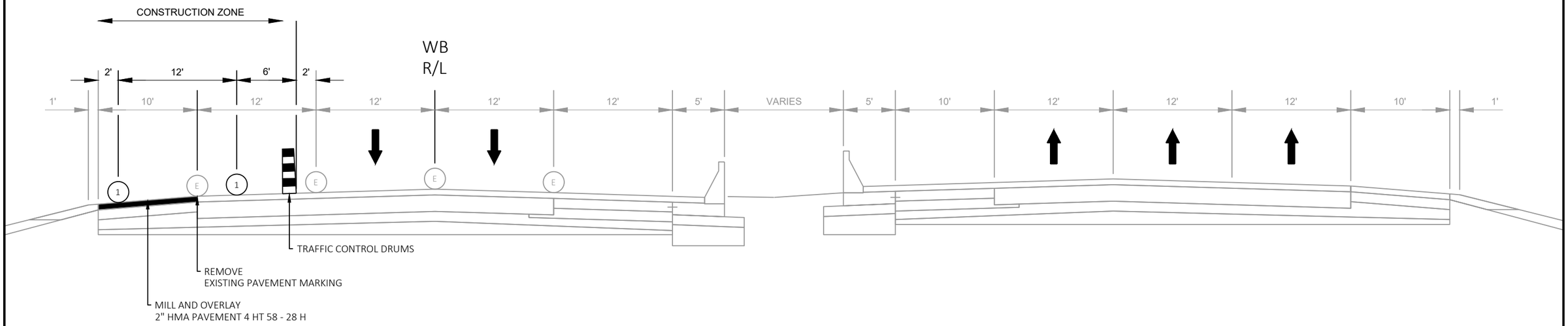
NO CONSTRUCTION

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

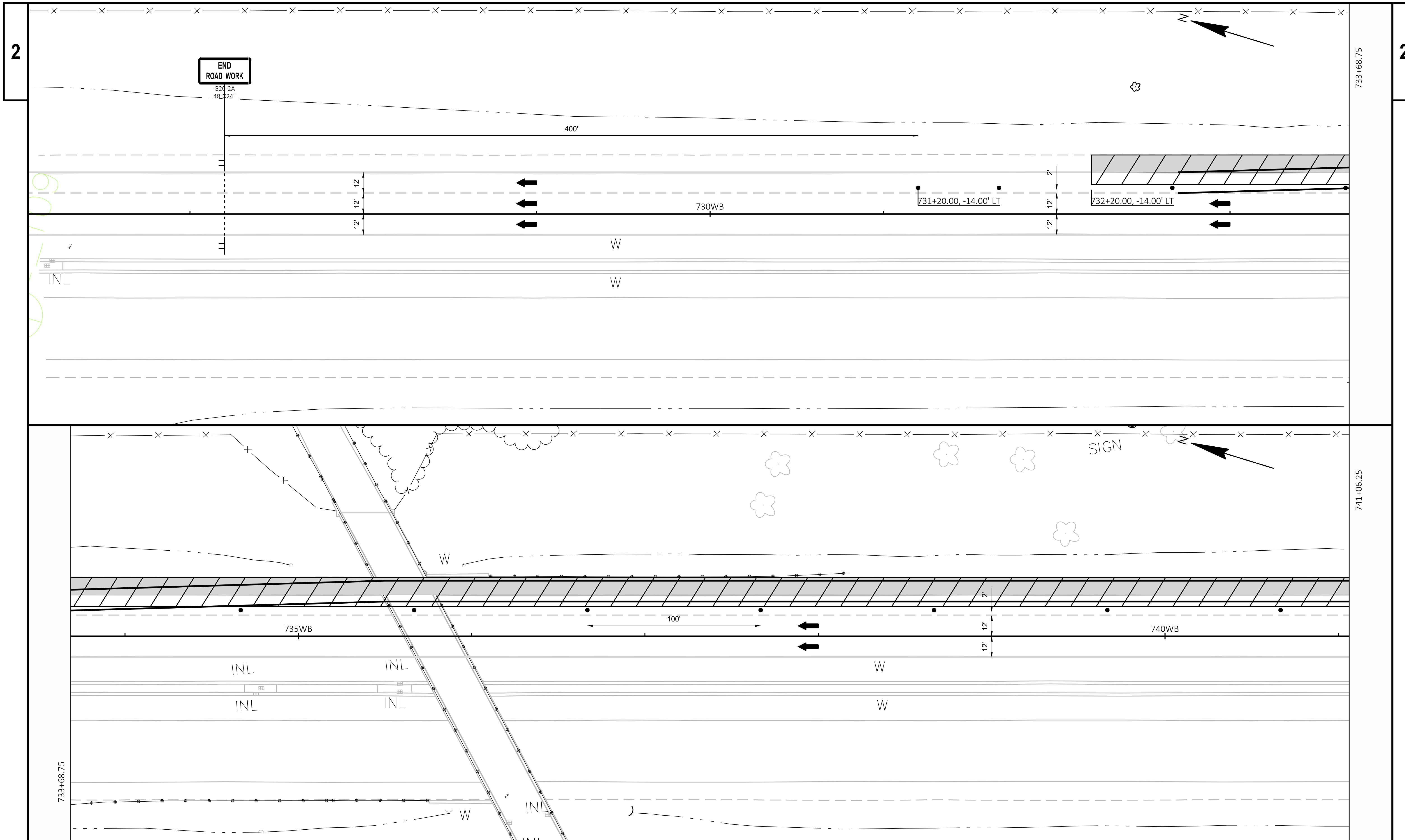
GENERAL NOTES (REFER TO SDD 15D14 FOR ADDITIONAL INFORMATION)

- 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 SHALL 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.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



STAGE 1A
CONSTRUCTION TYPICAL SECTION
STA 731+20.00 TO 103+97.00 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1A	SHEET 22	E



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1A	SHEET 23	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1A-N.DWG
LAYOUT NAME - 025001_tc1A-N
PLOT DATE : 1/2/2020 8:52 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

2

741+06.25

748+43.75

N

100'

745WB

2'

12'

12'

748+43.75

755+81.25

N

750WB

2'

12'

12'

100'

755WB

W

W

INL

INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1A	SHEET 24	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1A-N.DWG
LAYOUT NAME - 025002_tc1A-N

PLOT DATE : 1/2/2020 8:52 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

SIGN

SIGN

N

763+18.75

2'

12'

12'

760WB

760+70.00, -14.00' LT

100'

W

INL

W

INL

755+81.25

LANE CLOSED

R11-2L

48"X30"

2'

12'

12'

765WB

765+70.00, -14.00' LT

50'

770WB

770+56.25

W

INL

INL

W

763+18.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1A	SHEET 25	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1A-N.DWG
LAYOUT NAME - 025003_tc1A-N

PLOT DATE : 1/2/2020 8:52 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

SIGN

50'

773+87.00, -26.00' LT

50'

2'
12'
12'
12'

100WB

STA BACK = 772+46.39WB
STA AHEAD = 772+69.42WB

STA BACK = 775+00.00WB
STA AHEAD = 100+00.00WB

770+56.25

SIGN

RIGHT LANE CLOSED 1/2 MILE
W20-5G

W4-2R

ROAD WORK 1 MILE
W20-1F

ROAD WORK AHEAD
W20-1A

110+31.25

500'

1600'

2600'

INSTALL SIGN ON TEMPORARY SUPPORT ON
STH 19 ENTRANCE RAMP TO I-39/90/94 WESTBOUND

103+87.00, -26.00' LT

103+97.00, -36.00' LT

12'
12'
12'

105WB

110WB

0.5 MILE

MB

ALSO INSTALL PORTABLE CHANGEABLE MESSAGE BOARD ON
STH 19 ENTRANCE RAMP TO I-39/90/94 WESTBOUND
[TRAFFIC PATTERN CHANGE MM/DD]

102+93.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1A	SHEET 26	E

2

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

(E) EXISTING PAVEMENT MARKING

STAGE 1B

I-30/90/94 WESTBOUND (NORTHBOUND)
TRAFFIC PATTERN
- SHIFT AND OPEN OUTSIDE LANE
- CLOSED INSIDE AND CENTER LANE

CONSTRUCTION
- DELIVERED AND INSTALLED CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE EXISTING PAVEMENT MARKING
- CONSTRUCT TEMPORARY MARKING LINE

I-39/90/94 EASTBOUND (SOUTHBOUND)
TRAFFIC PATTERN
- OPEN ALL LANES

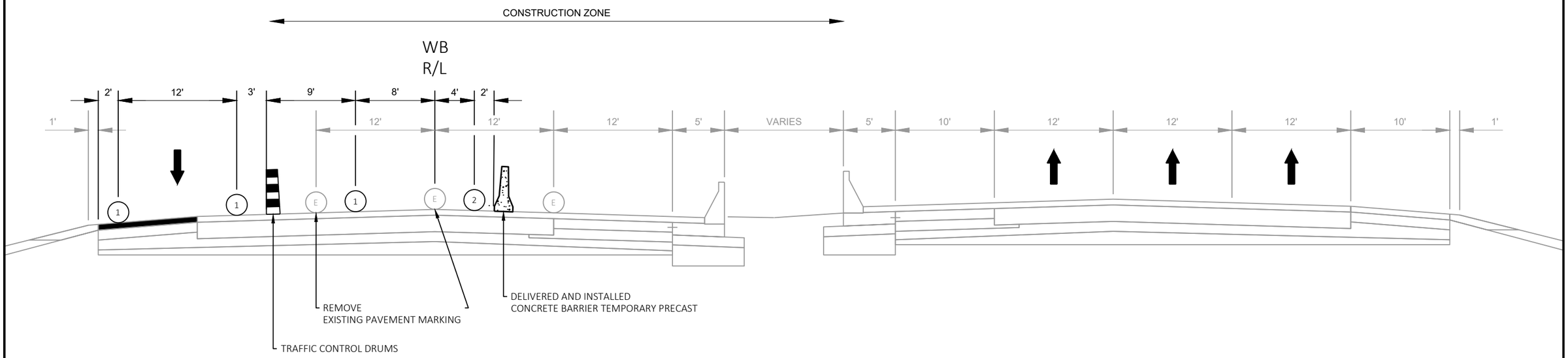
NO CONSTRUCTION

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN AND WITH TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES (REFER TO 15D12-A FOR ADDITIONAL INFORMATION)

- 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 SHALL 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.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



STAGE 1B
CONSTRUCTION TYPICAL SECTION
STA 731+20.00 TO 129+17.00 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 27	E

2

END
ROAD WORK
G20-2A
48"X24"

400'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

732+70.00, -24.00' LT

732+70.00, -12.00' LT

12'
12'
12'

730WB

731+20.00, -9.00' LT

12'
2'

W

INL

W

733+68.75

2

N

* USE THIS SIGN FOR TWO LANE CLOSURE. FOR SINGLE LANE CLOSURE USE W01-4BL

* SIGN

OR

W01-4L

W01-4BL

741+06.25

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

735+50.00, -32.00' LT

735+50.00, -20.00' LT

100'

12'
3'

35WB

740WB

737+50.00, 7.00' RT

W

INL

INL

INL

INL

W

INL

INL

733+68.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 28	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1B-N.DWG
LAYOUT NAME - 025001_tc1B-N

PLOT DATE : 1/2/2020 8:53 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

2

748+43.75

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

100'

12'

3'

745WB

741+06.25

755+81.25

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

12'

100'

3'

750WB

759WB

749+40.00, 7.00' RT

749+89.99, 13.00' RT

CC

W

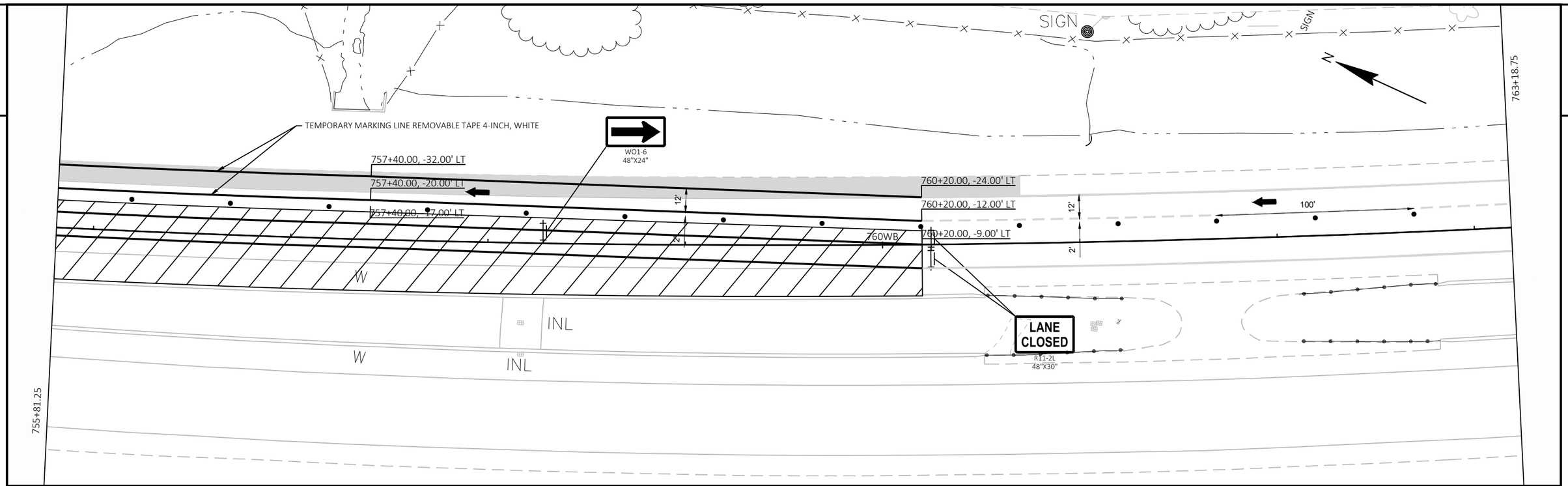
W

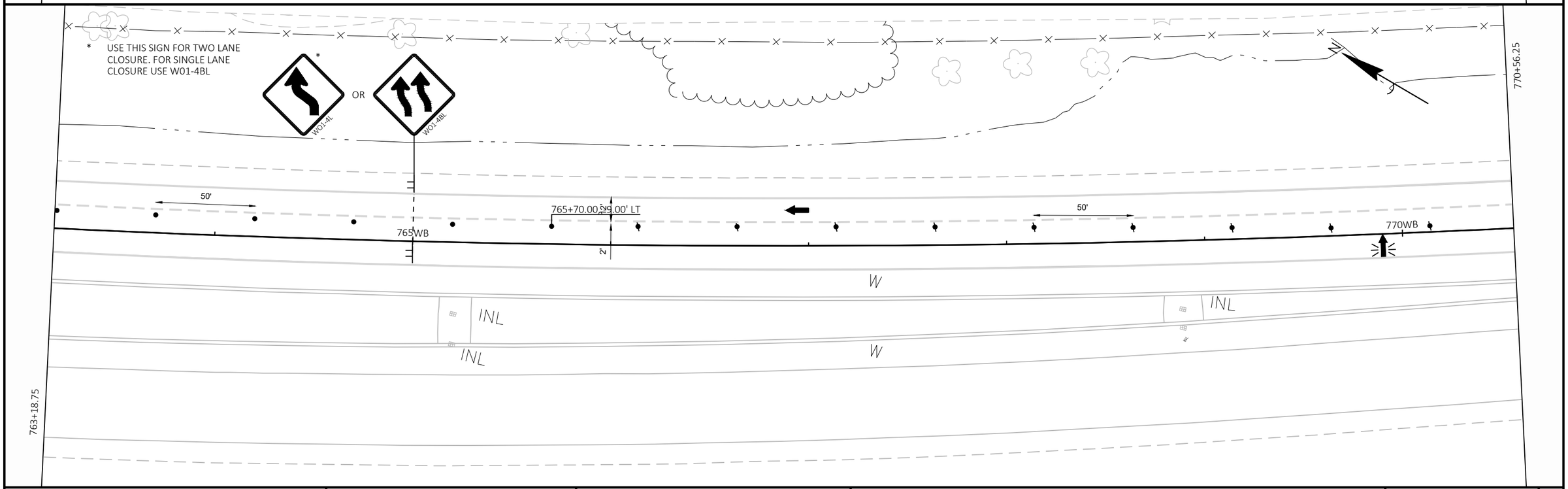
INL

INL

748+43.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 29	E


SIGN
SIGN
N
763+18.75
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
WO1-6
48"X24"
757+40.00, -32.00' LT
757+40.00, -20.00' LT
757+40.00, -7.00' LT
760+20.00, -24.00' LT
760+20.00, -12.00' LT
760+20.00, -9.00' LT
760WB
12'
2'
12'
2'
100'
W
INL
W
INL
LANE
CLOSED
R11-2L
48"X30"
755+81.25


* USE THIS SIGN FOR TWO LANE CLOSURE. FOR SINGLE LANE CLOSURE USE W01-4BL
*
OR
W01-4L
W01-4BL
770+56.25
50'
765+70.00, -9.00' LT
50'
765WB
2'
770WB
W
INL
INL
W
763+18.75

2

2

770+56.25

102+93.75

SIGN

50'

773+87.00, 2.00' RT

100WB

50'

12'

12'

2'

STA BACK = 772+46.39WB

STA AHEAD = 772+69.42WB

STA BACK = 775+00.00WB

STA AHEAD = 100+00.00WB

INL

W

W

102+93.75

SIGN

W10-2L

110+31.25

105WB

50'

12'

12'

2'

110WB

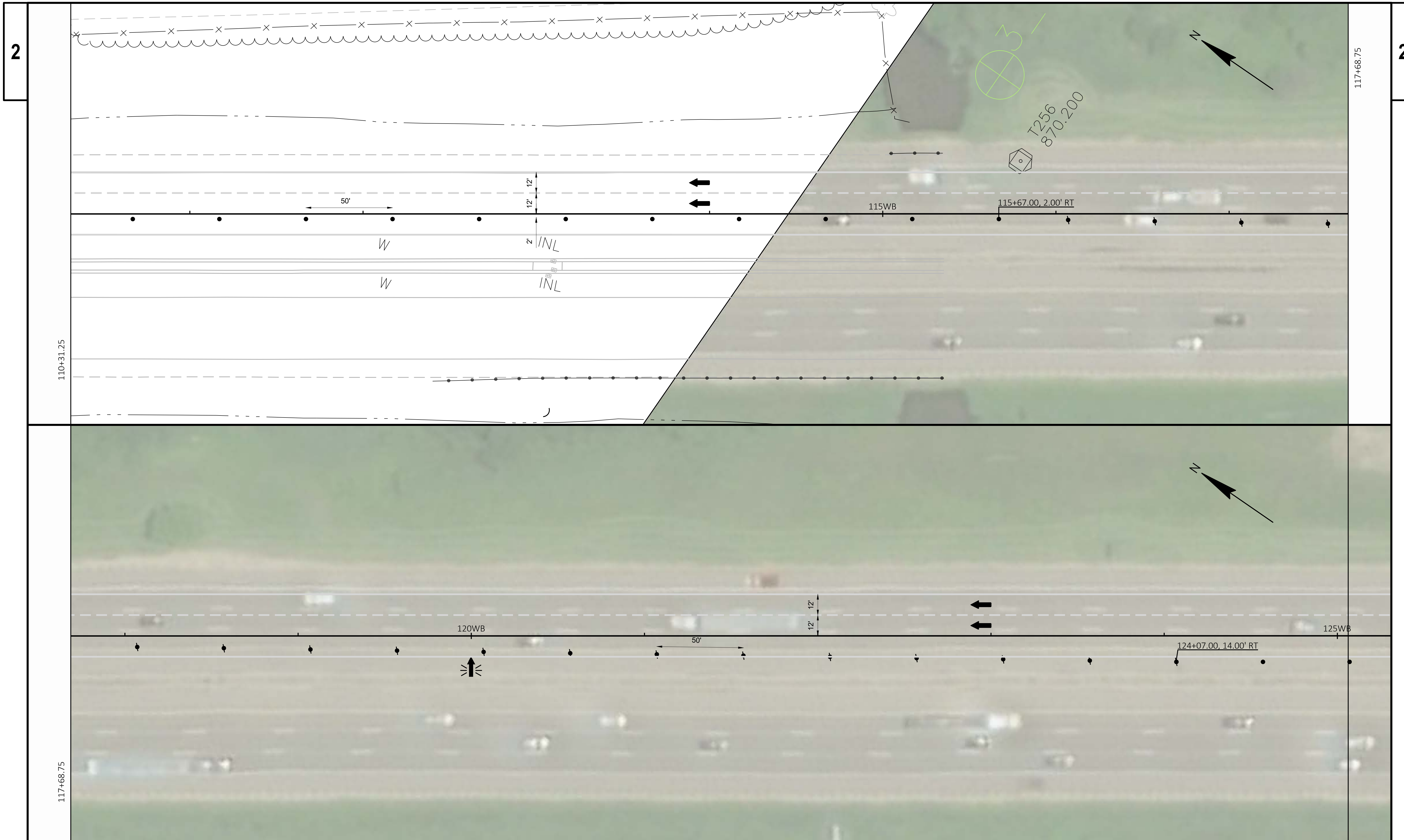
INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 31	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1B-N.DWG
LAYOUT NAME - 025004_tc1B-N

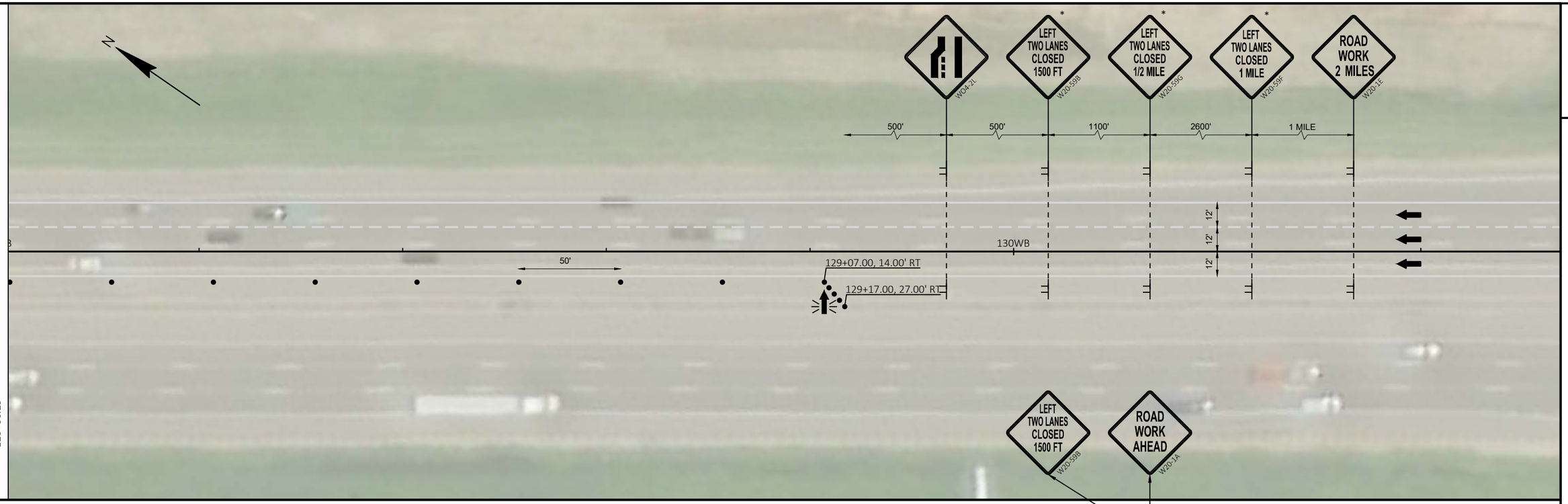
PLOT DATE : 1/2/2020 8:53 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 32	E

2



INSTALL SIGN ON TEMPORARY SUPPORT ON
STH 19 ENTRANCE RAMP TO I-39/90/94 WESTBOUND

* USE THIS SIGN FOR TWO LANE CLOSURE. FOR SINGLE LANE CLOSURE USE W20-55B, W20-55G, AND W20-55F RESPECTIVELY.

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 1B	SHEET 33	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC1B-N.DWG
LAYOUT NAME - 025006_tc1B-N

PLOT DATE : 1/2/2020 8:53 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

(E) EXISTING PAVEMENT MARKING

STAGE 2A

I-30/90/94 WESTBOUND (NORTHBOUND)
TRAFFIC PATTERN
- SHIFT AND OPEN ALL LANES

CONSTRUCTION
- CONSTRUCT STORM SEWER, HMA PAVEMENT, AND CONCRETE BARRIER

I-39/90/94 EASTBOUND (SOUTHBOUND)
TRAFFIC PATTERN
- OPEN ALL LANES

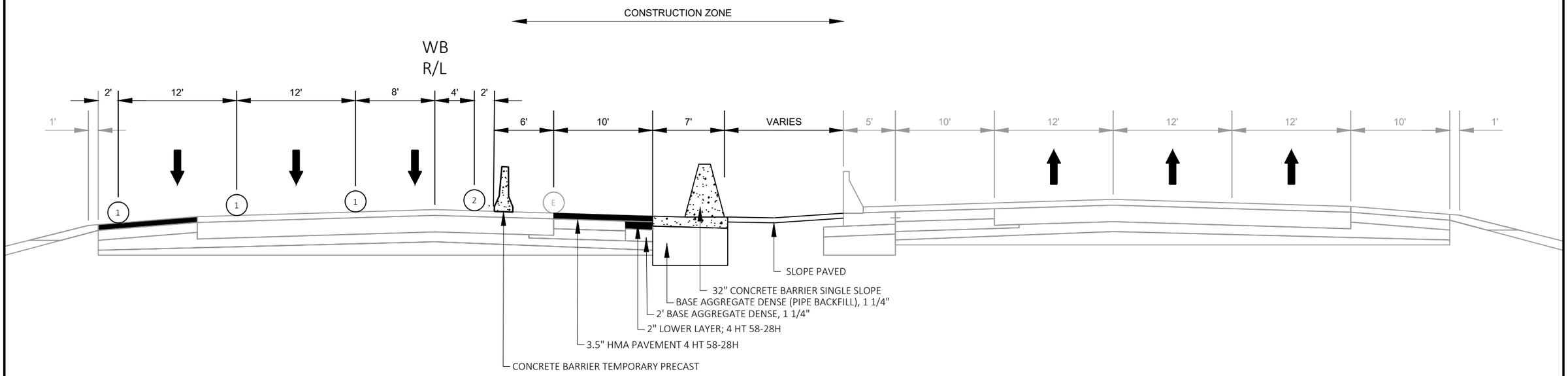
NO CONSTRUCTION

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES (REFER TO SDD 15D41 FOR ADDITIONAL INFORMATION)

- 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 SHALL 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.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



STAGE 2A
CONSTRUCTION TYPICAL SECTION
STA 731+20.00 TO 762+10.00 'WB'

2

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2A	SHEET 34	E

2

END
ROAD WORK
G20-2A
48"X24"

400'

12'
12'
12'

730WB

W

INL

W

732+70.00, -24.00' LT
732+70.00, -12.00' LT
732+70.00, 0.00'
732+70.00, 12.00' RT
732+20.00, 14.00' RT

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

733+68.75

N

2

SIGN

W01-4C

741+06.25

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

W

735+50.00, -32.00' LT
735+50.00, -20.00' LT
735+50.00, -8.00' LT
735+50.00, 4.00' RT
735+50.00, 6.00' RT

735WB

INL
INL
INL
INL

50'

737+50.00, 6.00' RT

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

12'
12'
2'
2'

740WB

W

W

733+68.75

W

INL

INL INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2A	SHEET 35	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2A-N.DWG
LAYOUT NAME - 025001_tc2A-N

PLOT DATE : 1/2/2020 8:54 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

2

748+43.75

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

12'
12'
2'
2'

745WB

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

741+06.25

755+81.25

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

12'
12'
2'
2'

750WB

755WB

749+40.00, 6.00' RT

749+90.00, 12.00' RT

CC

50'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

TEMPORARY CRASH CUSHION

W

INL

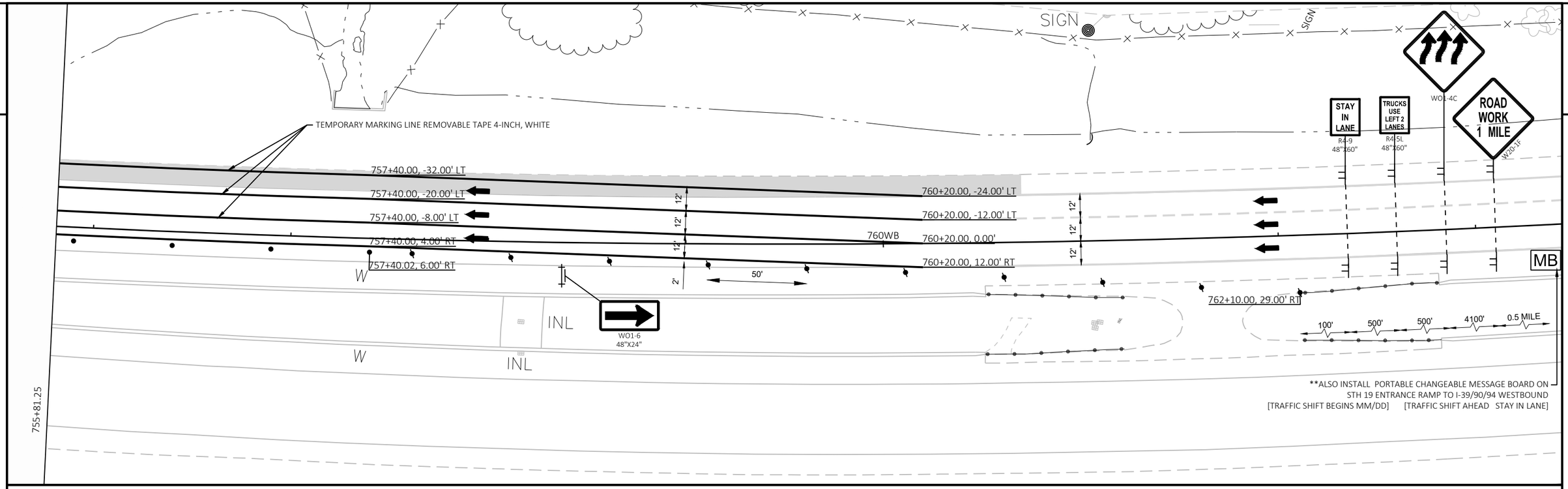
INL

748+43.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2A	SHEET 36	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2A-N.DWG
LAYOUT NAME - 025002_tc2A-N

PLOT DATE : 1/2/2020 8:54 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2A	SHEET 37	E

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(2) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW

(3) MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

(4) MARKING LINE EPOXY 4-INCH, YELLOW

STAGE 2B

I-30/90/94 WESTBOUND (NORTHBOUND)
TRAFFIC PATTERN
- OPEN OUTSIDE LANE
- CLOSED INSIDE AND CENTER LANE

CONSTRUCTION
- REMOVE CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE TEMPORARY MARKING LINE
- CONSTRUCT MARKING LINE

I-39/90/94 EASTBOUND (SOUTHBOUND)
TRAFFIC PATTERN
- OPEN ALL LANES

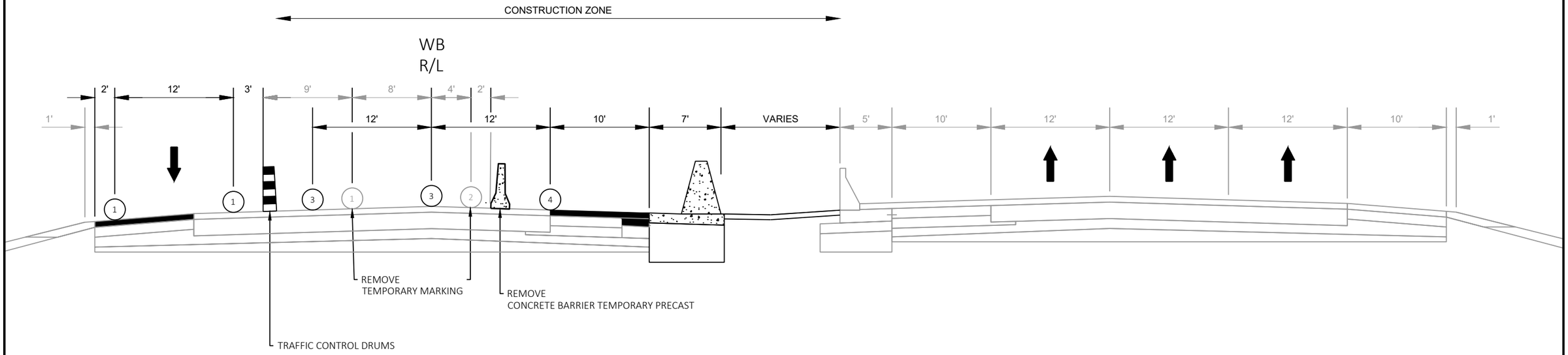
NO CONSTRUCTION

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES (REFER TO SDD 15D14 FOR ADDITIONAL INFORMATION)

- 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 SHALL 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.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



STAGE 2B
CONSTRUCTION TYPICAL SECTION
STA 731+20.00 TO 129+17.00 'WB'

2

END
ROAD WORK
G20-2A
48"X24"

400'

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

732+70.00, -24.00' LT

732+70.00, -12.00' LT

12'
12'
12'
12'
2'

730WB

731+20.00, -9.00' LT

W
W

INL

733+68.75

2

* USE THIS SIGN FOR TWO LANE CLOSURE. FOR SINGLE LANE CLOSURE USE W01-4BL

* SIGN

OR

W01-4L

WO1-4BL
48"X48"

741+06.25

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

735+50.00, -32.00' LT

735+50.00, -20.00' LT

100'

12'

3'

735WB

740WB

INL
INL
INL
INL
INL
INL

W
W
W
W

733+68.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2B	SHEET 39	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2B-N.DWG
LAYOUT NAME - 025001_tc2B-N

PLOT DATE : 1/2/2020 8:54 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

2

748+43.75

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

100'

12'

3'

745WB

741+06.25

755+81.25

N

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

12'

100'

3'

750WB

755WB

W

W

INL

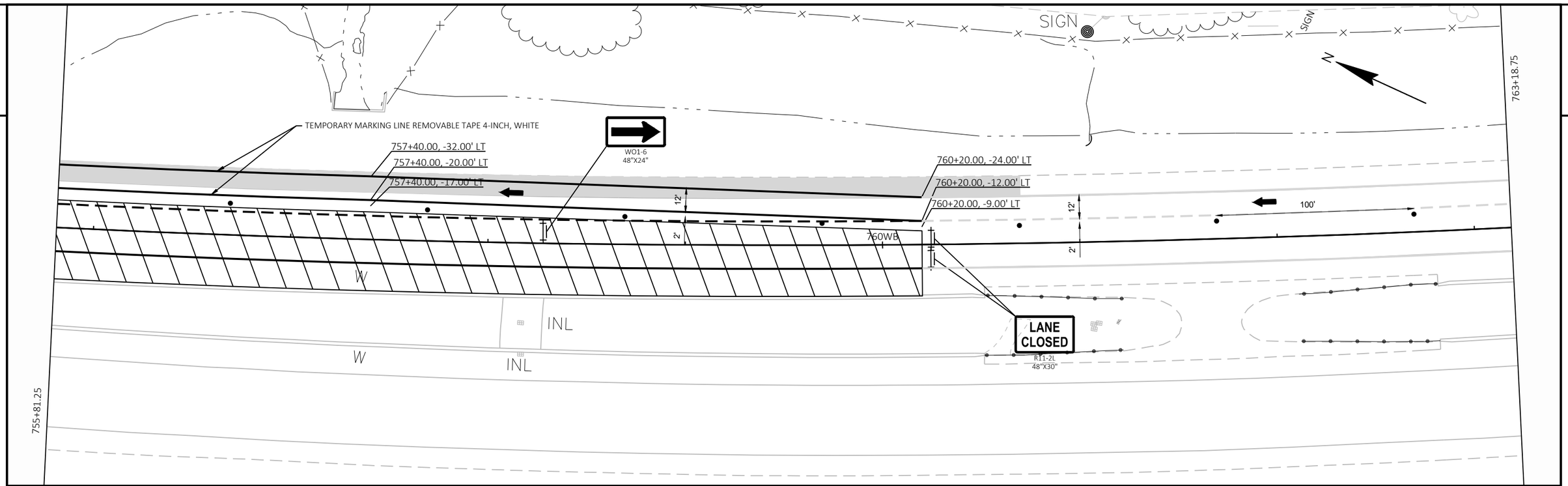
INL

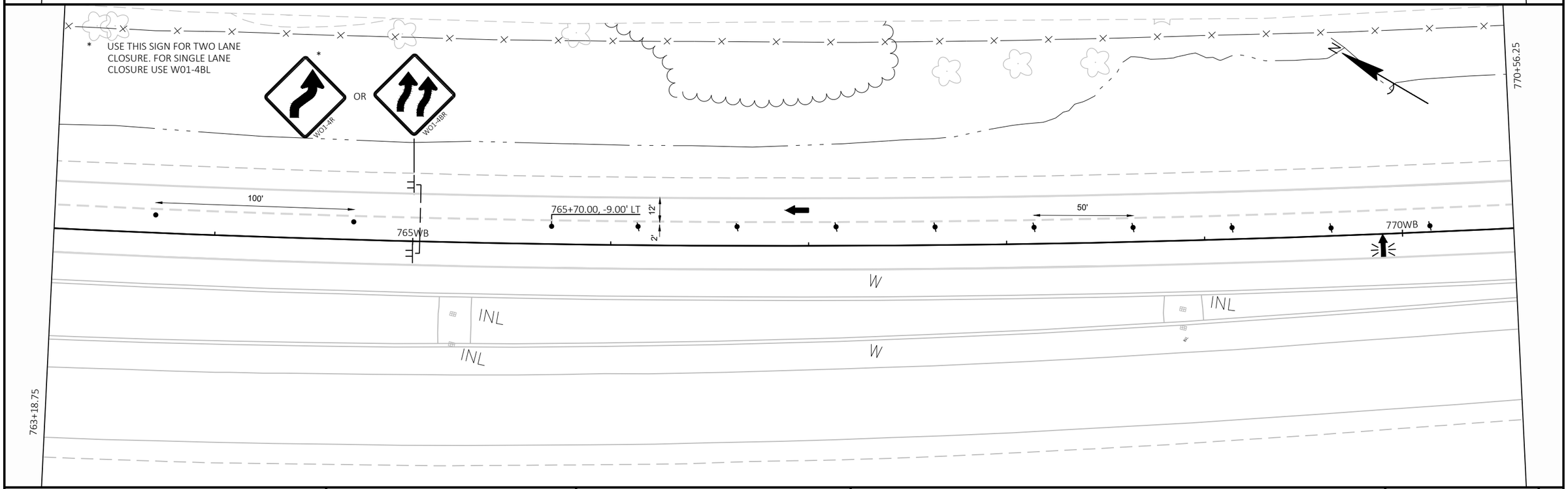
748+43.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2B	SHEET 40	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2B-N.DWG
LAYOUT NAME - 025002_tc2B-N

PLOT DATE : 1/2/2020 8:54 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT





PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2B	SHEET 41	E

2

2

770+56.25

102+93.75

SIGN

50'

773+87.00, 2.00' RT

100WB

50'

12'

12'

2'

STA BACK = 772+46.39WB

STA AHEAD = 772+69.42WB

STA BACK = 775+00.00WB

STA AHEAD = 100+00.00WB

INL

W

W

102+93.75

SIGN

W10-2L

110+31.25

105WB

50'

12'

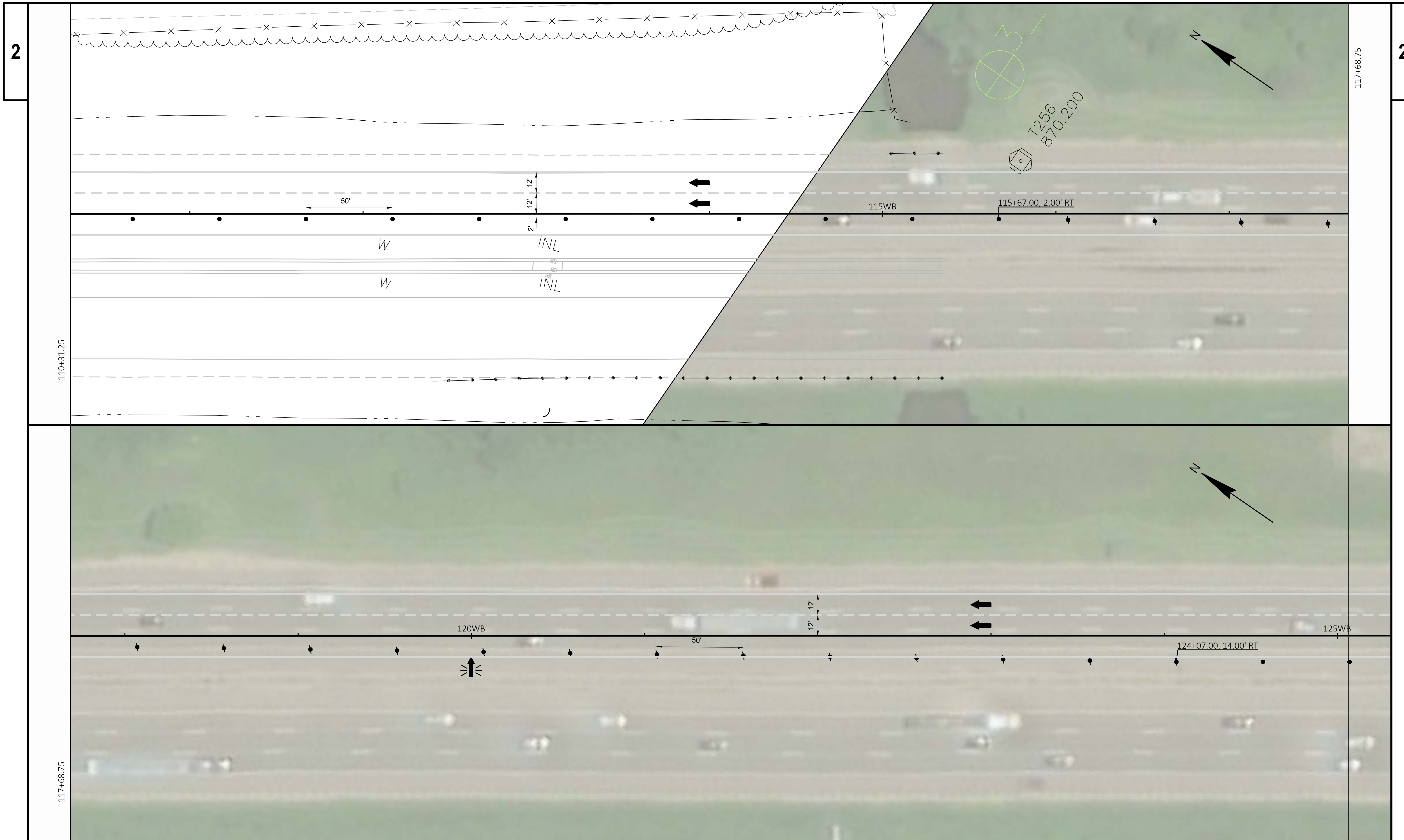
12'

2'

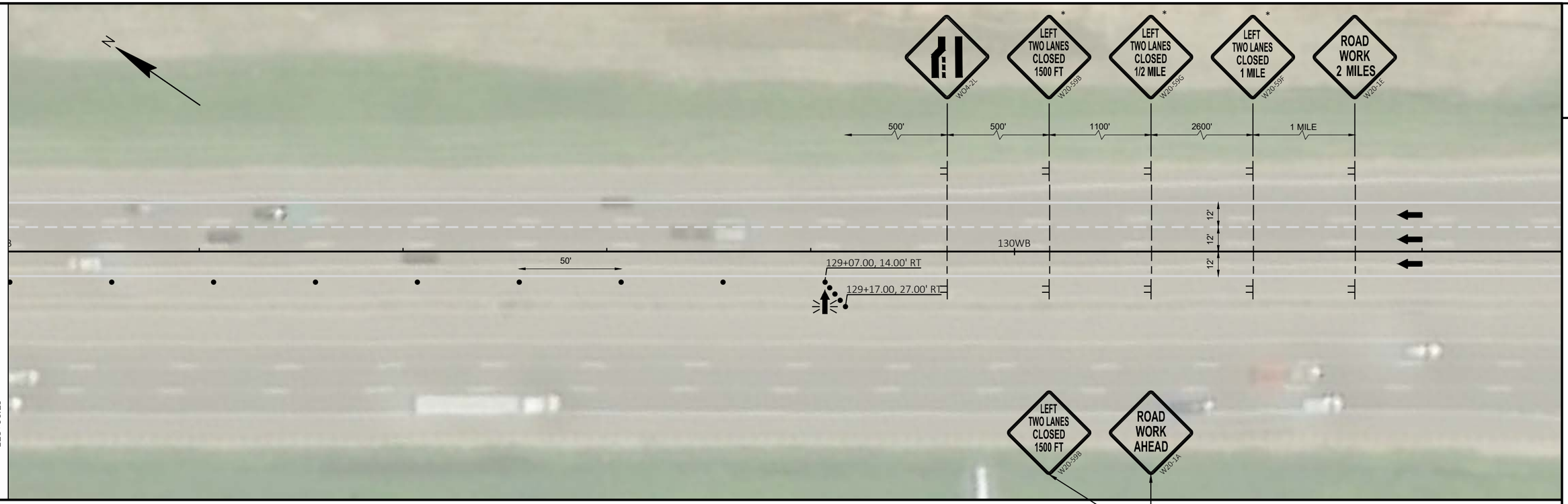
110WB

INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2B	SHEET 42	E


2
2
117+68.75
110+31.25
T256
870.200
115WB
115+67.00, 2.00' RT
50'
12'
12'
2'
W
INL
W
INL
117+68.75
120WB
125WB
124+07.00, 14.00' RT
50'
12'
12'

2



* USE THIS SIGN FOR TWO LANE CLOSURE. FOR SINGLE LANE CLOSURE USE W20-55B, W20-55G, AND W20-55F RESPECTIVELY.

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2B	SHEET 44	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2B-N.DWG
LAYOUT NAME - 025006_tc2B-N
PLOT DATE : 1/2/2020 8:54 AM
PLOT BY : KAMMERZELT, CODY A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

(1) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE

(3) MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

(4) MARKING LINE EPOXY 4-INCH, YELLOW

(5) MARKING LINE EPOXY 4-INCH, WHITE

STAGE 2C

I-30/90/94 WESTBOUND (NORTHBOUND)
TRAFFIC PATTERN
- OPEN INSIDE AND OUTSIDE LANE
- CLOSED OUTSIDE LANE AND SHOULDER

CONSTRUCTION
- REMOVE TEMPORARY MARKING LINE
- CONSTRUCT MARKING LINE
- CONSTRUCT SHOULDER RUMBLE STRIP

I-39/90/94 EASTBOUND (SOUTHBOUND)
TRAFFIC PATTERN
- OPEN ALL LANES

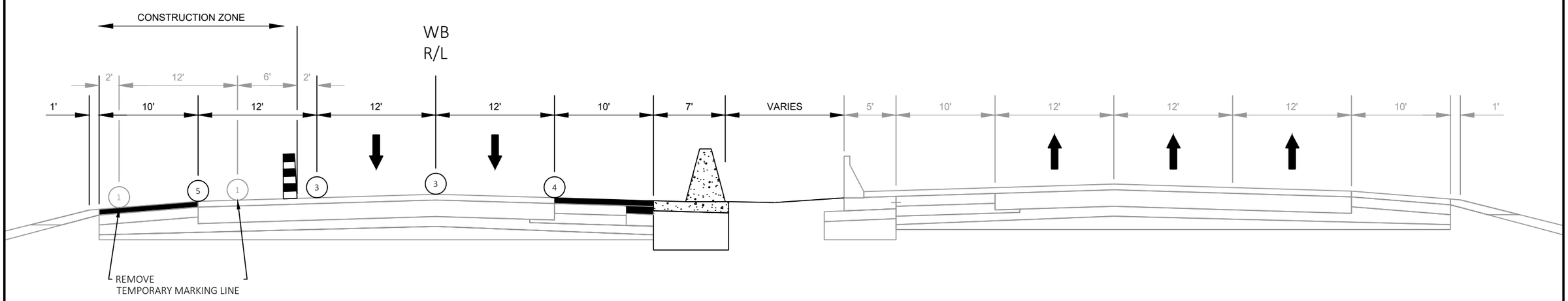
NO CONSTRUCTION

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES (REFER TO SDD 15D12-A FOR ADDITIONAL INFORMATION)

- 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 SHALL 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.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.



STAGE 2C
CONSTRUCTION TYPICAL SECTION
STA 731+20.00 TO 103+97.00 'WB'

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2C	SHEET 45	E

2

END
ROAD WORK
G20-2A
48"X24"

400'

732+20.00, -14.00' LT

731+20.00, -14.00' LT

732+70.00, -12.00' LT

732+70.00, 0.00

732+70.00, 12.00' RT

730WB

12'
12'
12'
2'
12'
12'

W
W

INL

MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

MARKING LINE EPOXY 4-INCH, YELLOW

733+68.75

2

SIGN

741+06.25

W

735WB

100'

740WB

2'
12'
12'

INL
INL
INL
INL

W
W

MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

MARKING LINE EPOXY 4-INCH, YELLOW

733+68.75

W

INL

INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2C	SHEET 46	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2C-N.DWG
LAYOUT NAME - 025001_tc2C-N

PLOT DATE : 1/2/2020 8:55 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

2

N

748+43.75

741+06.25

100'

745WB

2'

12'

12'

MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

MARKING LINE EPOXY 4-INCH, YELLOW

N

755+81.25

748+43.75

750WB

100'

755WB

2'

12'

12'

W

W

MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

MARKING LINE EPOXY 4-INCH, YELLOW

INL

INL

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2C	SHEET 47	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2C-N.DWG
LAYOUT NAME - 025002_tc2C-N

PLOT DATE : 1/2/2020 8:55 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

SIGN

SIGN

N

763+18.75

2'

12'

12'

760WB

760+20.00, -12.00' LT

760+70.00, -14.00' LT

100'

760+20.00, 0.00'

760+20.00, 12.00' RT

MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH, WHITE

MARKING LINE EPOXY 4-INCH, YELLOW

W

INL

W

INL

755+81.25

LANE CLOSED

R11-2L
48"X30"

770+56.25

2'

12'

12'

765WB

765+70.00, -14.00' LT

50'

770WB

W

INL

INL

W

763+18.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2C	SHEET 48	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC2C-N.DWG
LAYOUT NAME - 025003_tc2C-N

PLOT DATE : 1/2/2020 8:56 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

2

102+93.75

SIGN

2'
12'
12'
12'

50'

773+87.00, -26.00' LT

50'

100WB

STA BACK = 772+46.39WB
STA AHEAD = 772+69.42WB

STA BACK = 775+00.00WB
STA AHEAD = 100+00.00WB

INL

W

W

770+56.25

SIGN

RIGHT LANE CLOSED 1/2 MILE
W20-5G

W04-2R

ROAD WORK 1 MILE
W20-1F

ROAD WORK AHEAD
W20-1A

110+31.25

500'

1600'

2600'

INSTALL SIGN ON TEMPORARY SUPPORT ON
STH 19 ENTRANCE RAMP TO I-39/90/94 WESTBOUND

103+87.00, -26.00' LT

103+97.00, -36.00' LT

12'
12'
12'

105WB

110WB

INL

102+93.75

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 2C	SHEET 49	E

2

500' FROM END OF WORKZONE

END ROAD WORK
G20-2A
48"X24"

N

342 343 344 345 346 347 348 349

343+94.00, -25.00' L

50' (TYP.)

WALLS

INL

INL

345+94.00, -15.50' L

3'

100' (TYP.)

1,600'

1,000'

500'

ROAD WORK AHEAD
W20-1A

LEFT SHOULDER CLOSED AHEAD
W21-5BL

LEFT SHOULDER CLOSED
W21-5AL

MATCH LINE 349+43.79

2

SIGN

N

MATCH LINE 349+43.79

350 351 352 353 354 355 356 357

350+42.00, 16.00' R

INL

INL

INL

WALLS

INL

WALLS

3'

100' (TYP.)

354+98.00, -16.00' L

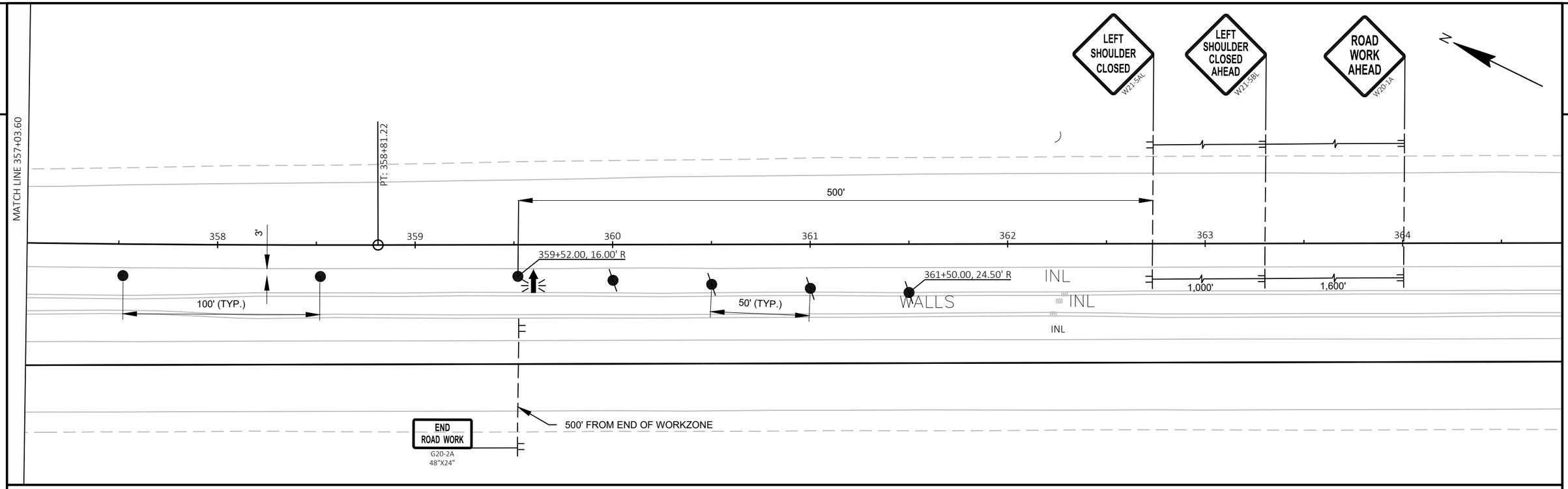
MATCH LINE 357+03.60

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 3A	SHEET 50	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC3A-S .DWG
LAYOUT NAME - 025005_tc3A_1

PLOT DATE : 11/11/2019 7:35 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



2

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 3A	SHEET 51	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC3A-S .DWG
LAYOUT NAME - 025005_tc3A_2
PLOT DATE : 11/11/2019 7:35 AM
PLOT BY : KAMMERZELT, CODY A
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

2

END ROAD WORK
G20-2A
48"X24"

500' FROM END OF WORKZONE

N

MATCH LINE 349+00.11

342 343 344 345 346 347 348 349

343+94.00, -25.00' L

WALLS

INL

INL

345+94.00, -15.50' L

3'

100' (TYP.)

1,600'

1,000'

500'

ROAD WORK AHEAD
W20-1A

LEFT SHOULDER CLOSED AHEAD
W21-5BL

LEFT SHOULDER CLOSED
W21-5AL

SIGN

N

MATCH LINE 356+47.61

2

3'

350 351 352 353 354 355 356

350+23.00, 3.00' R

INL

INL

WALLS

INL

INL

WALLS

354+98.00, -16.00' L

100' (TYP.)

3'

MATCH LINE 349+00.11

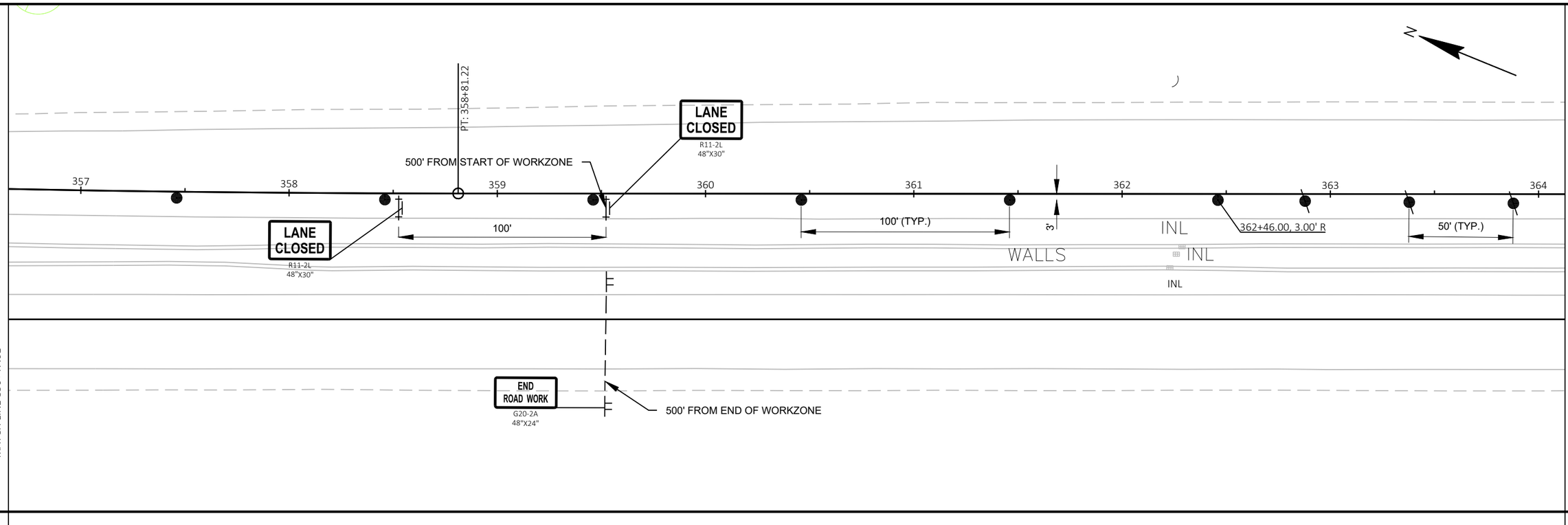
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 3B	SHEET 52	E

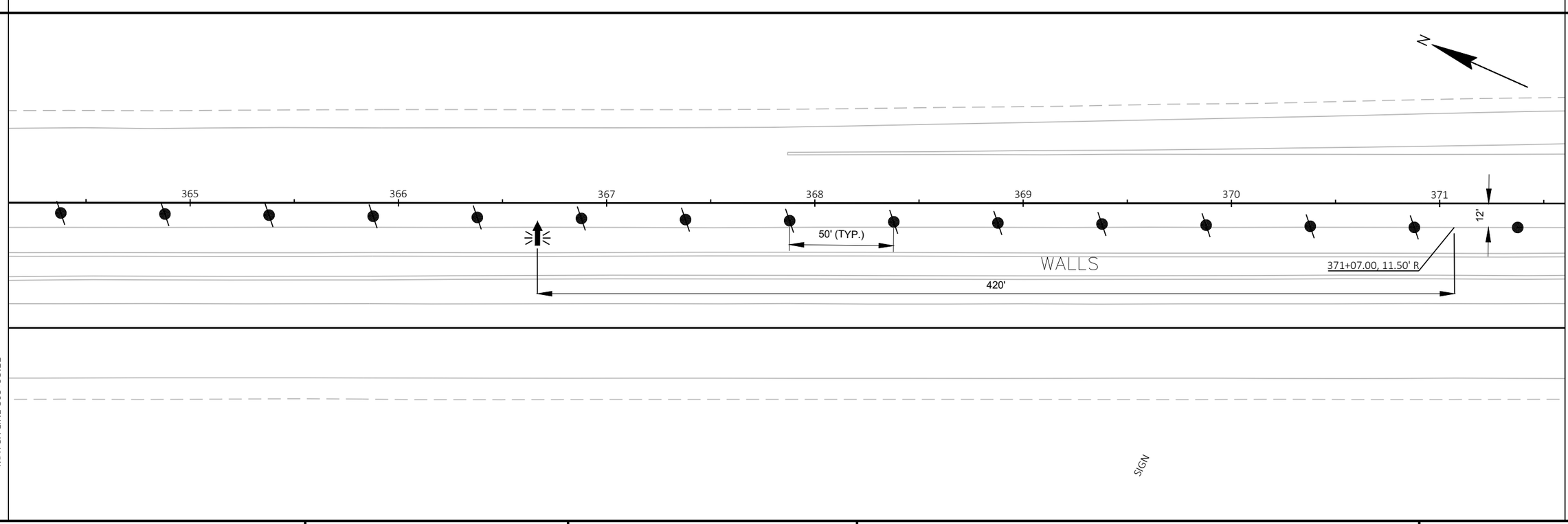
FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\025001_TC3B-S.DWG
LAYOUT NAME - 025005_tc3B_1

PLOT DATE : 11/11/2019 7:35 AM PLOT BY : KAMMERZELT, CODY A PLOT NAME : PLOT SCALE : 1 IN:50 FT

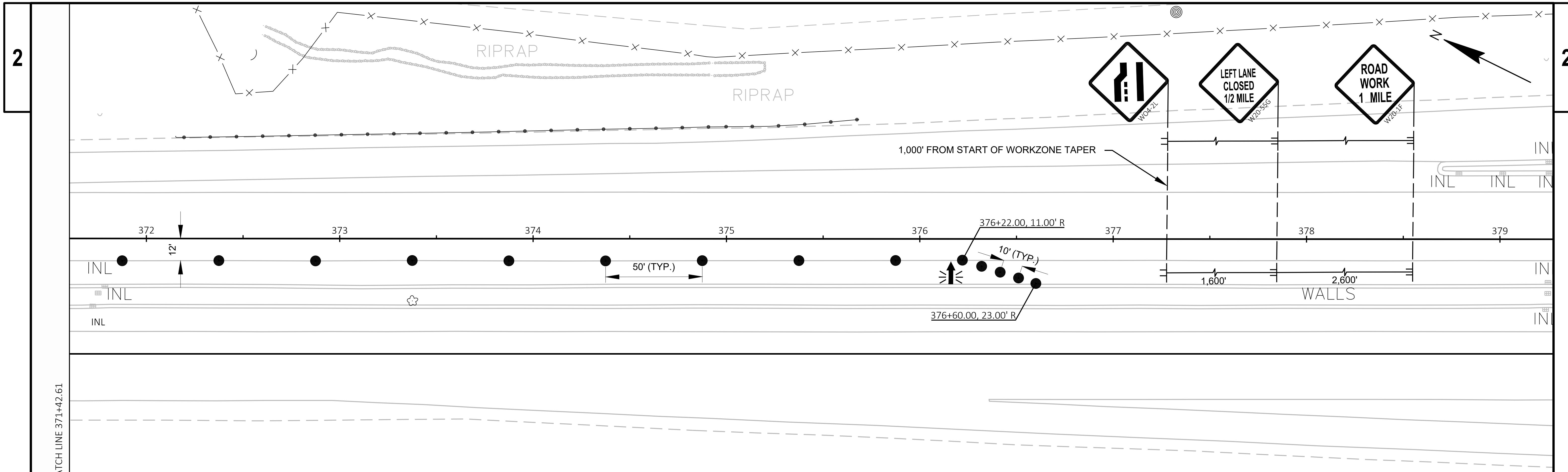
WISDOT/CADDS SHEET 44

2





PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 3B	SHEET 53	E



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROLS - STAGE 3B	SHEET 54	E

1011-01-64

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Pavement	SY	314.000	314.000
0004	204.0109.S	Removing Concrete Surface Partial Depth	SF	6,580.000	6,580.000
0006	204.0110	Removing Asphaltic Surface	SY	74.000	74.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	4,448.000	4,448.000
0010	204.0157	Removing Concrete Barrier	LF	940.000	940.000
0012	204.0220	Removing Inlets	EACH	2.000	2.000
0014	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	5.000	5.000
0016	205.0100	Excavation Common	CY	351.000	351.000
0018	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1011-01-64	LS	1.000	1.000
0020	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	13.250	13.250
0022	213.0100	Finishing Roadway (project) 01. 1011-01-64	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	123.000	123.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	432.000	432.000
0028	305.0500	Shaping Shoulders	STA	31.000	31.000
0030	455.0605	Tack Coat	GAL	451.000	451.000
0032	460.2000	Incentive Density HMA Pavement	DOL	530.000	530.000
0034	460.7424	HMA Pavement 4 HT 58-28 H	TON	826.000	826.000
0036	465.0315	Asphaltic Flumes	SY	121.000	121.000
0038	465.0400	Asphaltic Shoulder Rumble Strips	LF	4,115.000	4,115.000
0040	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0042	521.2005.S	Surface Drain Pipe Corrugated Metal Slotted (inch) 01. 15-Inch	LF	84.000	84.000
0044	521.3115	Culvert Pipe Corrugated Steel 15-Inch	LF	9.000	9.000
0046	603.1132	Concrete Barrier Type S32	LF	940.000	940.000
0048	603.3111	Concrete Barrier Transition Type NJ32SF to S32	EACH	2.000	2.000
0050	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,320.000	1,320.000
0052	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,320.000	1,320.000
0054	604.0500	Slope Paving Crushed Aggregate	SY	763.000	763.000
0056	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	184.000	184.000
0058	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	900.000	900.000
0060	611.0610	Inlet Covers Type BW	EACH	6.000	6.000
0062	611.0642	Inlet Covers Type MS	EACH	2.000	2.000
0064	611.3004	Inlets 4-FT Diameter	EACH	6.000	6.000
0066	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0068	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0070	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1011-01-64	EACH	1.000	1.000
0072	619.1000	Mobilization	EACH	1.000	1.000
0074	624.0100	Water	MGAL	12.000	12.000

1011-01-64

Line	Item	Item Description	Unit	Total	Qty
0076	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0080	628.7010	Inlet Protection Type B	EACH	5.000	5.000
0082	638.2102	Moving Signs Type II	EACH	1.000	1.000
0084	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0086	642.5001	Field Office Type B	EACH	1.000	1.000
0088	643.0300	Traffic Control Drums	DAY	2,493.000	2,493.000
0090	643.0420	Traffic Control Barricades Type III	DAY	46.000	46.000
0092	643.0705	Traffic Control Warning Lights Type A	DAY	92.000	92.000
0094	643.0715	Traffic Control Warning Lights Type C	DAY	814.000	814.000
0096	643.0800	Traffic Control Arrow Boards	DAY	75.000	75.000
0098	643.0900	Traffic Control Signs	DAY	834.000	834.000
0100	643.1050	Traffic Control Signs PCMS	DAY	20.000	20.000
0102	643.5000	Traffic Control	EACH	1.000	1.000
0104	646.1020	Marking Line Epoxy 4-Inch	LF	5,700.000	5,700.000
0106	646.1041.S	Marking Replace Line Wet Reflective Epoxy 4-Inch	LF	1,425.000	1,425.000
0108	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	5,700.000	5,700.000
0110	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	11,400.000	11,400.000
0112	650.4000	Construction Staking Storm Sewer	EACH	7.000	7.000
0114	650.4500	Construction Staking Subgrade	LF	1,002.000	1,002.000
0116	650.5000	Construction Staking Base	LF	1,002.000	1,002.000
0118	650.7500	Construction Staking Concrete Barrier	LF	940.000	940.000
0120	650.9910	Construction Staking Supplemental Control (project) 01. 1011-01-64	LS	1.000	1.000
0122	690.0150	Sawing Asphalt	LF	154.000	154.000
0124	690.0250	Sawing Concrete	LF	940.000	940.000
0126	715.0603	Incentive Strength Concrete Barrier	DOL	1,368.000	1,368.000
0128	SPV.0060	Special 01. Mobilizations Emergency Shoulder and Pavement Repair	EACH	1.000	1.000
0130	SPV.0060	Special 02. Reconstructing Median Inlets Special	EACH	1.000	1.000
0132	SPV.0060	Special 03. Utility Line Opening (ULO)	EACH	1.000	1.000
0134	SPV.0060	Special 04. Salvage and Reinstall Energy Absorbing Terminal	EACH	1.000	1.000
0136	SPV.0195	Special 01. Asphaltic Pavement Repair Special	TON	20.000	20.000

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REMOVALS

CATEGORY	STATION	TO	STATION	SIDE	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0157 REMOVING CONCRETE BARRIER LF	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (SIZE) (01. 12 - INCH) LF	REMARKS
0010	352+62	-	352+94	RT	EXIST CROSSOVER	--	--	48	--	--	--	--	SOUTH SECTION
0010	351+21	-	354+46	RT	OUTSIDE SHOULDER	--	--	--	549	--	--	--	SOUTH SECTION
0010	353+31	-		RT	AROUND INLET	--	--	17	--	--	1	--	EXISTING FLUME
0010	353+62		353+97	RT	EXISTING FLUME	--	--	9	--	--	--	--	
0010	738+00	-	747+40	RT	NORTH SECTION	314	6,580	--	732	940	--	--	3' SHOULDER REMOVAL
0010	747+07	-		RT	NORTH SECTION		--	--	--	--	1	5	
0010	732+20	-	760+70	LT	SHOULDER REPAVE	--	--	--	3,167	--	--	--	
					TOTAL 0010	314	6,580	74	4,448	940	2	5	

HMA

CATEGORY	STATION	TO	STATION	SIDE	LOCATION	455.0605 TACK COAT GAL	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	465.0315 ASPHALTIC FLUMES SY	REMARKS
0010	351+21	-	354+46	RT	SOUTH SECTION SHOULDER	66	113	--	
0010	352+63	-	352+94	RT	SOUTH SECTION CROSSOVER	12	29	--	
0010	351+21		352+62	RT	NORTH OF CROSSOVER INTO INLET	--	--	67	
0010	353+34		353+96	RT	SOUTH OF CROSSOVER INTO INLET	--	--	54	
0010	732+20	-	760+70	LT	SHOULDER REPLACEMENT	222	387	--	
0010	738+00	-	747+40	RT	SHOULDER PAVEMENT	151	258	--	
0010	738+00	-	747+40	RT	REPLACING CONCRETE	--	38	--	
					TOTAL 0010	451	826	121	

DENSE - GRADED BASE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL	REMARKS
0010	352+62	-	352+94	MAINT. CROSSOVER	--	48	--	1	
0010	352+94	-	353+23	EXTEND MAINT. CROSSOVER	--	43	--	1	
0010	352+32	-	352+62	ASPHALTIC FLUME BASE	--	15	--	1	SOUTH SECTION
0010	352+32	-	352+62	SHOULDER BELOW BEAMGUARD/EAT	42	--	1	1	SOUTH SECTION
0010	352+94	-	353+25	ASPHALTIC FLUME BASE	--	12	--	1	SOUTH SECTION
0010	352+94	-	353+25	SHOULDER BELOW BEAMGUARD/EAT	44	--	1	1	SOUTH SECTION
0010	732+20	-	760+70	OUTSIDE SHOULDER	37	--	29	1	NORTH SECTION
0010	738+00	-	747+40	BELOW CONCRETE PAVEMENT REMOVAL	--	314	--	5	NORTH SECTION
				TOTAL 0010	123	432	31	12	

EXCAVATION COMMON

CATEGORY	STATION	TO	STATION	SIDE	LOCATION	205.0100 EXCAVATION COMMON CY	REMARKS
0010	352+62	-	352+94	RT	BELOW EXIST CROSSOVER	120	SOUTH SECTION
0010	352+94		353+23	RT	EXTEND MAINT. CROSSOVER	22	SOUTH SECTION
0010	738+00	-	747+40	RT	CONCRETE PAVEMENT REMOVAL	209	NORTH SECTION
					TOTAL 0010	351	

RECONSTRUCT INLET

CATEGORY	STATION	LOCATION	SPV.0060.02 SPECIAL (02. RECONSTRUCTING MEDIAN INLETS SPECIAL) EACH
0010	747+06	30.5' RT	1
		TOTAL 0010	1

RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF	REMARKS
0010	732+20	-	760+70	WB OUTSIDE LANE	2,850	NORTH SECTION
0010	738+00	-	747+40	WB INSIDE LANE	940	NORTH SECTION
0010	351+21	-	354+46	WB INSIDE LANE	325	SOUTH SECTION
				TOTAL 0010	4,115	

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CONCRETE BARRIER

CATEGORY	STATION	TO	STATION	LOCATION	603.1132 CONCRETE BARRIER TYPE S32 LF	603.3111 CONCRETE BARRIER TRANSITION TYPE NJ32SF TO S32 EACH	REMARKS	
0010	738+00	-	747+40	INSIDE SHOULDER	940	2	NORTH SECTION	6*228
				TOTAL 0010	940	2		

SLOPE PAVING

CATEGORY	STATION	TO	STATION	LOCATION	604.0500 SLOPE PAVING CRUSHED AGGREGATE SY	604.9015.S RESEAL CRUSHED AGGREGATE SLOPE PAVING SY	REMARKS
0010	737+75	-	738+00	BEFORE NEW BARRIER WALL	--	14	NORTH SECTION
0010	747+40	-	747+65	AFTER NEW BARRIER WALL	--	14	NORTH SECTION
0010	738+00		747+40	BEHIND REPLACED BARRIER WALL	523		NORTH SECTION
0010	353+34	-	353+96	SLOPE PAVING DITCH SOUTH XOVER	58	--	SOUTH SECTION
0010	351+21	-	352+63	SLOPE PAVING DITCH NORTH XOVER	182	--	SOUTH SECTION
0010	350+30	-	351+60	RESEAL EXISTING TO EXIST INLET	--	156	SOUTH SECTION
				TOTAL 0010	763	184	

PREPATION AND CLEANUP

CATEGORY	STATION	TO	STATION	LOCATION	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 1011-01-64) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 1011-01-64) EACH	619.1000 MOBILIZATION EACH
0010	351+21	-	354+46	SOUTH SECTION	0.5	3	0.5	0.5
0010	738+00	-	747+40	NORTH SECTION	0.5	10	0.5	0.5
				TOTAL 0010	1	13	1	1

EROSION CONTROL

CATEGORY	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7010 INLET PROTECTION TYPE B EACH	REMARKS
0010	PROJECT	--	2	2	--	
0010	350+20	37' RT	--	--	1	
0010	350+20	43' RT	--	--	1	
0010	345+35	37' RT	--	--	1	
0010	345+35	42' RT	--	--	1	
0010	747+06	30' RT	--	--	1	
		TOTAL 0010	2	2	5	

MOVING SIGNS

CATEGORY	STATION	SIDE	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	352+99	RT	SOUTH OF MAINT. CROSSOVER	1	1	MOVE OUT OF WAY FOR FUTURE PAVING IN MAINTENANCE CROSSOVER(EMERGENCY VEHICLES ONLY SIGN)
			TOTAL 0010	1	1	

TEMPORARY BARRIER

CATEGORY	STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	REMARKS	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAVEL DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	737+61	-	750+81	--	1,320	1,320	--	N. SECTION						
0010	750+81	-	751+01	13' RT	--	--	1	N. SECTION	4	OM-3L	TL-3	UNIDIRECTIONAL	R	CONSTRUCTION WORKZONE, EXCAVATION OF STORM SEWER, AND PERMANENT CONCRETE BARRIER
				TOTAL 0010	1,320	1,320	1							

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STORM SEWER STRUCTURES

CATEGORY	STRUC. NO.	STATION *	OFFSET TO CENTER OF STRUC.*	LOCATION	611.0610 INLET COVERS TYPE BW EACH	611.0642 INLET COVERS TYPE MS EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	RIM ELEVATION	TOP OF STR. ELEV.	BOTTOM OF STR. ELEV.	INVERT** ELEVATION	DEPTH*** FT	
0010	10	353+31	34.0' RT	CROSSOVER		2		1	892.67	892.67	889.21	890.13	2.54	****
0010	1	738+07	25.5' RT	NORTH SECTION	1	--	1	--	912.15	910.86	905.14	905.89	4.97	
0010	2	740+07	25.5' RT	NORTH SECTION	1	--	1	--	909.66	908.37	902.64	903.39	4.98	
0010	3	742+07	25.4' RT	NORTH SECTION	1	--	1	--	907.17	905.88	900.14	900.89	4.99	
0010	4	744+07	25.5' RT	NORTH SECTION	1	--	1	--	904.58	903.29	897.64	898.39	4.90	
0010	5	745+59	25.6' RT	NORTH SECTION	1	--	1	--	902.73	901.44	895.74	896.49	4.95	
0010	6	746+91	25.6' RT	NORTH SECTION	1	--	1	--	901.18	899.89	894.09	894.84	5.05	
				TOTAL 0010	6	2	6	1						

REMARKS
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE SEE CONSTRUCTION DETAIL TO LOCATE
**FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF OF THE LOWEST PIPE FLOW LINE
***DEPTH(4' INLET) = RIM ELEV - INVERT ELEVATION - COVER HEIGHT - 6 INCH ADJUSTMENT RING HEIGHT
****DEPTH(MEDIAN INLET) = RIM ELEVATION - INVERT ELEVATION

SPV - EMERGENCY PAVEMENT REPAIR

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.01 SPECIAL (01. MOBILIZATIONS EMERGENCY SHOULDER AND PAVEMENT REPAIR) EACH	SPV.0195.01 SPECIAL (01. ASPHALTIC PAVEMENT REPAIR SPECIAL) TON
0010	736+00	-	756+25	LT	1	20
				TOTAL 0010	1	20

ULO

CATEGORY	LOCATION	SPV.0060.03 SPECIAL (03. UTILITY LINE OPENING (ULO)) EACH	REMARKS
0010	PROJECT	1	IF NEEDED
	TOTAL 0010	1	

STORM SEWER PIPE

CATEGORY	STATION	TO	STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	521.2005.S.01 SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED (INCH) (01. 15 - INCH) LF	521.3115 CULVERT PIPE CORRUGATED STEEL 15-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	REMARKS
0010	352+62	-	353+23	Crossover	--	60	--	--	891.16	890.68	0.80%	CROSS DRAIN ACROSS MAINT. CROSSOVER
0010	353+23	-	353+31	Crossover	--	--	9	--	890.68	890.59	1.00%	9' SECTION WILL NEED 2 BENDS TO CONNECT TO MEDIAN INLET, 0.064" THICKNESS
0010	--		353+31		1	--	--	--	--	--	--	TIE EXIST PIPE INTO NEW INLET
0010	745+59		--	@Inlet #5	--	12	--	--	900.13	899.84	2.39%	START AT 2' OFFSET FROM EDGE OF TRAVEL LANE
0010	746+91		--	@Inlet #6	--	12	--	--	898.54	898.25	2.42%	START AT 2' OFFSET FROM EDGE OF TRAVEL LANE
	STRUCTURE		STRUCTURE									
0010	1	-	2	North Section 1-2	--	--	--	200	905.89	903.39	1.25%	
0010	2	-	3	North Section 2-3	--	--	--	200	903.39	900.89	1.25%	
0010	3	-	4	North Section 3-4	--	--	--	200	900.89	898.39	1.25%	
0010	4	-	5	North Section 4-5	--	--	--	152	898.39	896.49	1.25%	
0010	5	-	6	North Section 5-6	--	--	--	132	896.49	894.84	1.25%	
0010	6	-	7	North Section 6-7	1	--	--	16	894.84	894.52	2.04%	CONNECT TO EXISTING STRUCTURE
				TOTAL 0010	2	84	9	900				

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TRAFFIC CONTROL

CATEGORY		STATION	TO	STATION	DAYS	LOCATION	643.0300 TRAFFIC CONTROL DRUMS #	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III #	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A #	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C #	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS #	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS #	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS #	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010	STAGE 1A																			
		731+20	-	765+70	2	WESTBOUND	35	70	1	2	2	4	--	--	--	--	--	--	--	--
		765+70	-	773+87	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		773+87	-	103+87	2	WESTBOUND	10	20	--	--	--	--	--	--	--	--	--	--	--	--
		103+87	-	103+97	2	WESTBOUND	5	10	--	--	--	--	--	--	1	2	--	--	--	--
		-	-	-	2	PROJECT	--	--	--	--	--	--	--	--	--	--	11	22	2	14
	STAGE 1A SUBTOTAL						134		2		4		34		4		22		14	
	STAGE 1B																			
		731+20	-	765+70	2	WESTBOUND	69	138	3	6	6	12	--	--	--	--	--	--	--	--
		765+70	-	773+87	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		773+87	-	115+67	2	WESTBOUND	34	68	--	--	--	--	--	--	--	--	--	--	--	--
		115+67	-	124+07	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		124+07	-	129+07	2	WESTBOUND	10	20	--	--	--	--	--	--	--	--	--	--	--	--
		129+07	-	129+17	2	WESTBOUND	5	10	--	--	--	--	--	--	1	2	--	--	--	--
		-	-	-	2	PROJECT	--	--	--	--	--	--	--	--	--	--	35	70	--	--
	STAGE 1B SUBTOTAL						304		6		12		68		6		70		0	
	STAGE 2A																			
		731+20	-	737+50	20	WESTBOUND	13	260	--	--	--	--	--	--	--	--	--	--	--	--
		749+40	-	757+40	20	WESTBOUND	17	340	--	--	--	--	17	340	--	--	--	--	--	--
		757+40	-	762+10	20	WESTBOUND	10	200	1	20	2	40	--	--	--	--	--	--	--	--
		-	-	-	20	PROJECT	--	--	--	--	--	--	--	--	--	--	13	260	2	2
	STAGE 2A SUBTOTAL						800		20		40		340		0		260		2	
	STAGE 2B																			
		731+20	-	765+70	2	WESTBOUND	35	70	3	6	6	12	--	--	--	--	--	--	--	--
		765+70	-	773+87	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		773+87	-	115+67	2	WESTBOUND	34	68	--	--	--	--	--	--	--	--	--	--	--	--
		115+67	-	124+07	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		124+07	-	129+07	2	WESTBOUND	10	20	--	--	--	--	--	--	--	--	--	--	--	--
		129+07	-	129+17	2	WESTBOUND	5	10	--	--	--	--	--	--	1	2	--	--	--	--
		-	-	-	2	PROJECT	--	--	--	--	--	--	--	--	--	--	25	50	--	--
	STAGE 2B SUBTOTAL						236		6		12		68		6		50		0	
	STAGE 2C																			
		731+20	-	765+70	2	WESTBOUND	35	70	1	2	2	4	--	--	--	--	--	--	--	--
		765+70	-	773+87	2	WESTBOUND	17	34	--	--	--	--	17	34	1	2	--	--	--	--
		773+87	-	103+87	2	WESTBOUND	10	20	--	--	--	--	--	--	--	--	--	--	--	--
		103+87	-	103+97	2	WESTBOUND	5	10	--	--	--	--	--	--	1	2	--	--	--	--
		-	-	-	2	PROJECT	--	--	--	--	--	--	--	--	--	--	11	22	--	--
	STAGE 2C SUBTOTAL						134		2		4		34		4		22		0	

TRAFFIC CONTROL (CONT.)

CATEGORY		STATION	TO	STATION	DAYS	LOCATION	643.0300 TRAFFIC CONTROL DRUMS #	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III #	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A #	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C #	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS #	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS #	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS #	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010																				
	STAGE 3A																			
		350+42	-	359+52	20	WESTBOUND	10	200	--	--	--	--	--	--	--	--	--	--	--	--
		359+52	-	361+50	20	WESTBOUND	4	80	--	--	--	--	4	80	1	20	--	--	--	--
		343+94	-	345+94	20	EASTBOUND	4	80	--	--	--	--	4	80	1	20	--	--	--	--
		345+94	-	354+98	20	EASTBOUND	10	200	--	--	--	--	--	--	--	--	--	--	--	--
		-	-	-	20	PROJECT	10	20	--	--	--	--	--	--	--	--	16	320	2	4
	STAGE 3A SUBTOTAL						580		0		0		160		40		320		4	
	STAGE 3B																			
		350+23	-	362+46	5	WESTBOUND	13	65	2	10	4	20	--	--	--	--	--	--	--	--
		362+46	-	371+07	5	WESTBOUND	18	90	--	--	--	--	18	90	1	5	--	--	--	--
		371+07	-	376+22	5	WESTBOUND	11	55	--	--	--	--	--	--	--	--	--	--	--	--
		376+22	-	376+60	5	WESTBOUND	5	25	--	--	--	--	--	--	1	5	--	--	--	--
		343+94	-	345+94	5	EASTBOUND	4	20	--	--	--	--	4	20	1	5	--	--	--	--
		345+94	-	354+98	5	EASTBOUND	10	50	--	--	--	--	--	--	--	--	--	--	--	--
		-	-	-	5	PROJECT	--	--	--	--	--	--	--	--	--	--	18	90	--	--
	STAGE 3B SUBTOTAL						305		10		20		110		15		90		0	
						TOTAL 0010	2,493		46		92		814		75		834		20	

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1041.S MARKING REPLACE LINE WET REFLECTIVE EPOXY 4-INCH WHITE LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH WHITE LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH YELLOW LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	REMARKS
0010	732+20	-	760+70	NORTH SECTION	--	--	--	--	--	8,550	2,850	SOLID TEMP. BETWEEN LANES AND EDGELINES
0010	732+20	-	760+70	NORTH SECTION	2,850	2,850	--	2,850	2,850	--	--	SOLID EDGELINES
0010	732+20	-	760+70	NORTH SECTION	--	--	1,425	--	--	--	--	12.5' SKIPS BETWEEN LANES
				TOTAL 0010	5,700		1,425	5,700		11,400		

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 1011-01-34) LS	REMARKS
0010	351+21	-	354+46	SOUTH SECTION	1	--	--	--	0.5	
0010	352+61	-	353+23	SOUTH SECTION	--	62	62	--	--	EXTENSION OF MAINT CROSSOVER
0010	738+00	-	747+40	NORTH SECTION	6	940	940	940	0.5	
				TOTAL 0010	7	1,002	1,002	940	1	

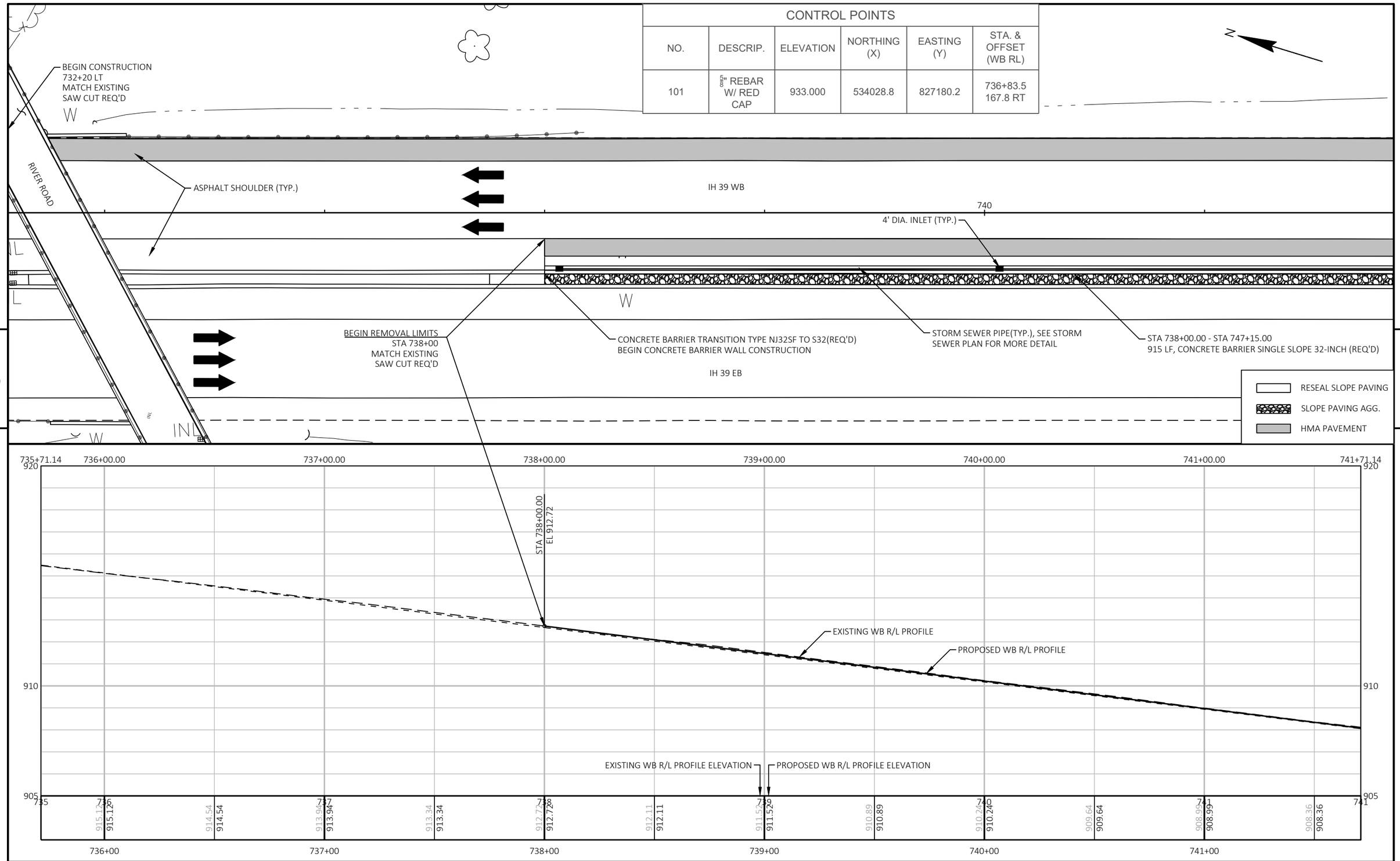
SAWING

CATEGORY	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	CROSS OVER ALONG WB SHOULDER	40	--	
0010	CROSS OVER ALONG EB SHOULDER	40	--	
0010	351+21.00	15	--	
0010	353+83 - 353+95	12	--	EXIST ASPHALT FLUME
0010	354+45.88	15	--	
0010	738+00	16	--	
0010	747+40	16	--	
0010	CUT ALONG CONCRETE PAVEMENT	--	940	CUT 9' FROM EDGELINE
	TOTAL 0010	154	940	

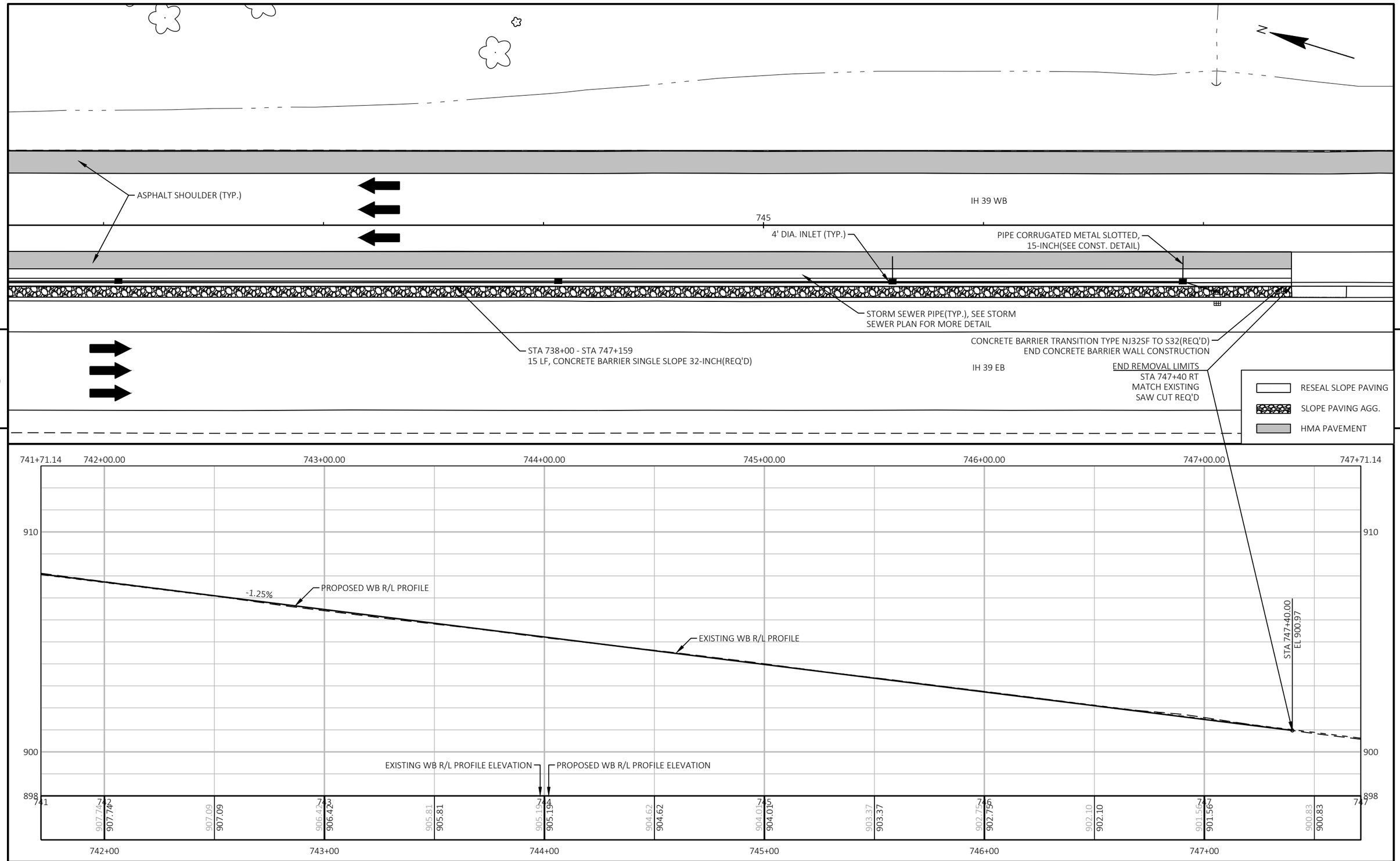
BEAM GUARD

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.04 SPECIAL (04. SALVAGE AND REINSTALL ENERGY ABSORBING TERMINAL) EACH	REMARKS
0010	351+63	-	352+32	SOUTH SECTION	1	NORTH EAST QUADRANT OF MAINTENANCE CROSSOVER
				TOTAL 0010	1	

CONTROL POINTS					
NO.	DESCRIP.	ELEVATION	NORTHING (X)	EASTING (Y)	STA. & OFFSET (WB RL)
101	5/8" REBAR W/ RED CAP	933.000	534028.8	827180.2	736+83.5 167.8 RT

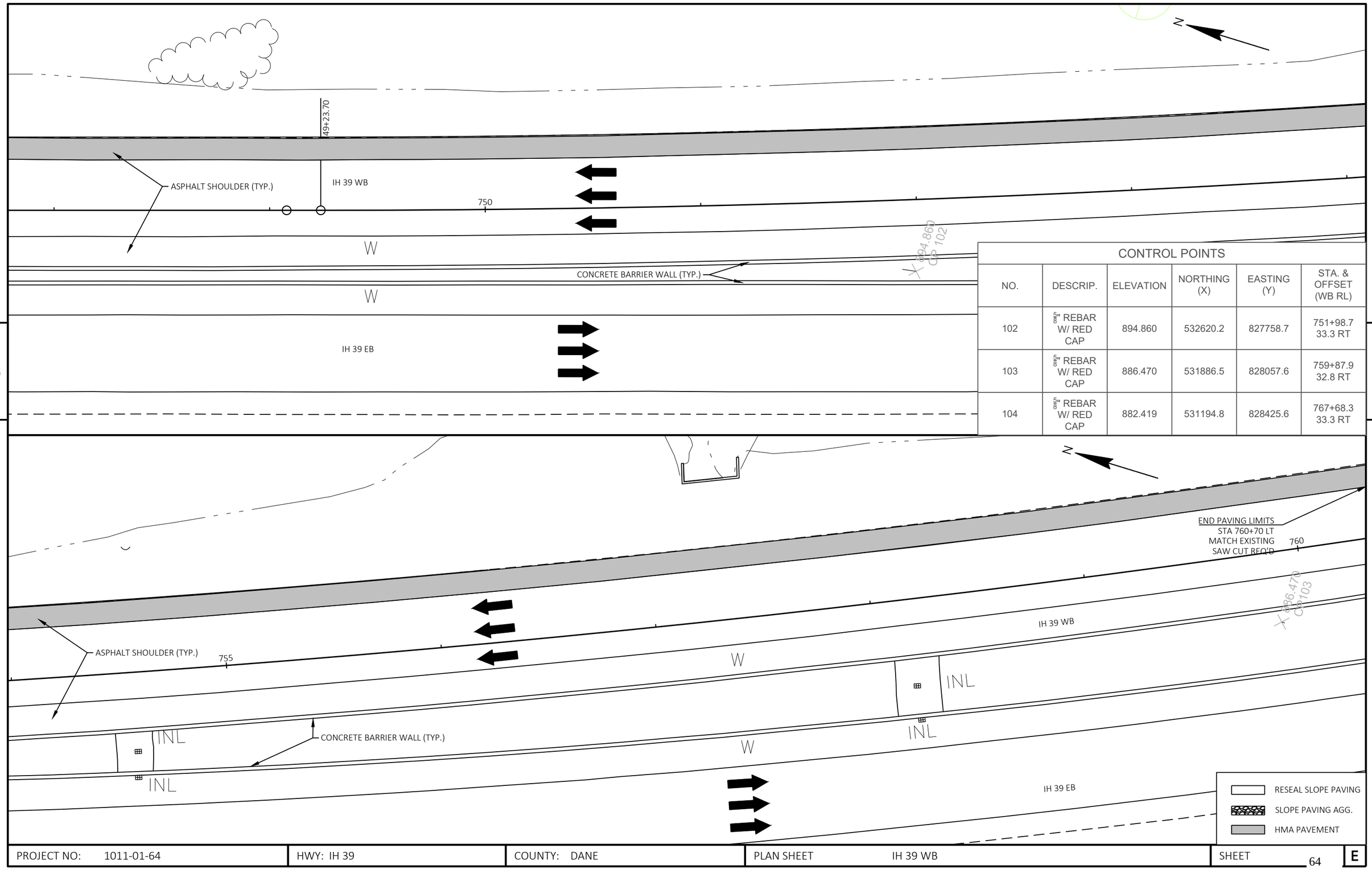


PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 WB	SHEET 62	E



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 WB	SHEET 63	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 050101_pp02
PLOT DATE : 11/14/2019 5:23 PM
PLOT BY : KAMMERZELT, CODY A
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

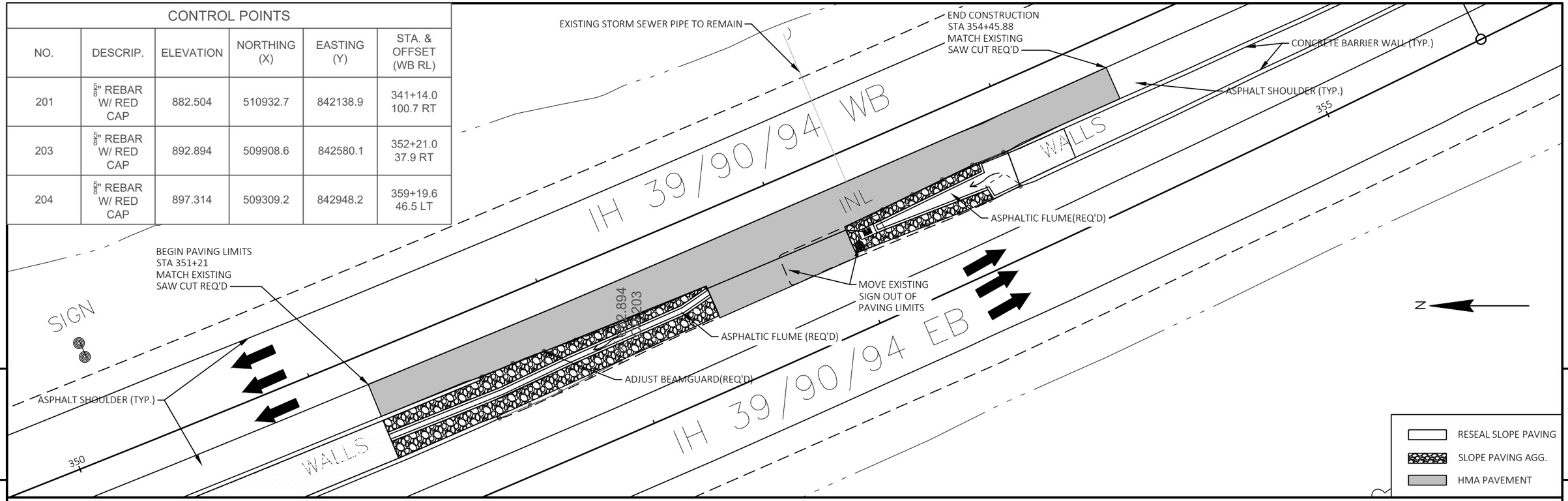


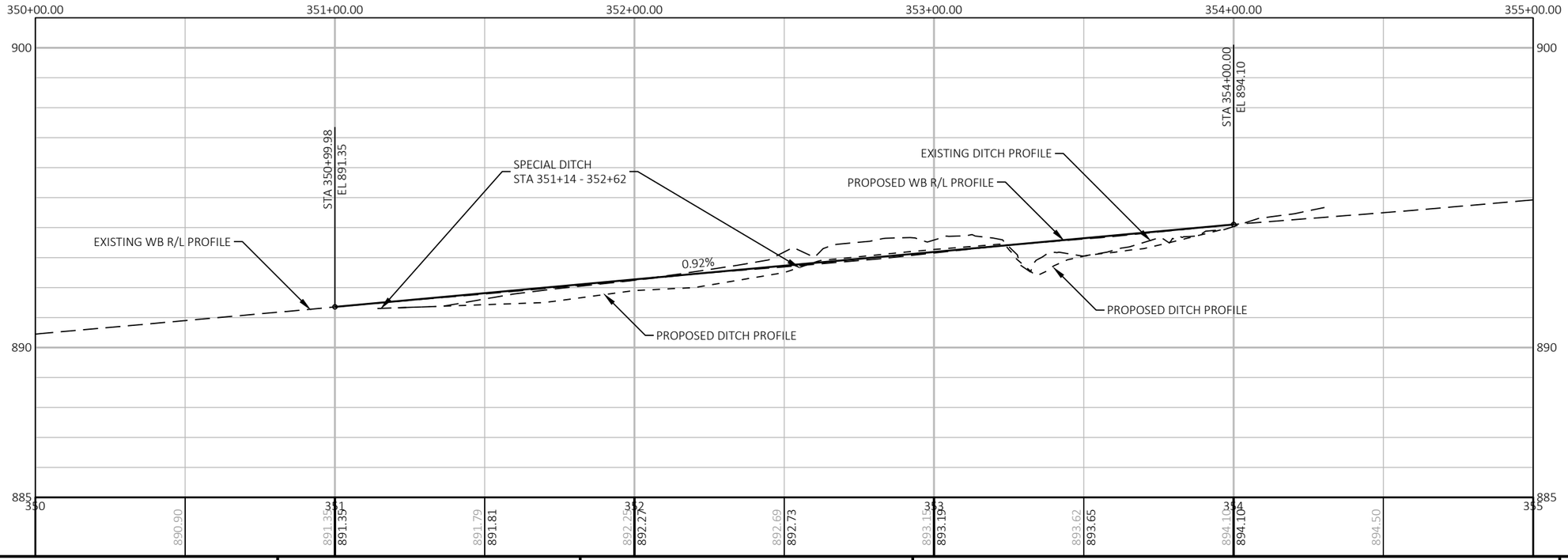
CONTROL POINTS

NO.	DESCRIP.	ELEVATION	NORTHING (X)	EASTING (Y)	STA. & OFFSET (WB RL)
102	5/8" REBAR W/ RED CAP	894.860	532620.2	827758.7	751+98.7 33.3 RT
103	5/8" REBAR W/ RED CAP	886.470	531886.5	828057.6	759+87.9 32.8 RT
104	5/8" REBAR W/ RED CAP	882.419	531194.8	828425.6	767+68.3 33.3 RT

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN SHEET IH 39 WB	SHEET 64	E

CONTROL POINTS					
NO.	DESCRIP.	ELEVATION	NORTHING (X)	EASTING (Y)	STA. & OFFSET (WB RL)
201	5/8" REBAR W/ RED CAP	882.504	510932.7	842138.9	341+14.0 100.7 RT
203	5/8" REBAR W/ RED CAP	892.894	509908.6	842580.1	352+21.0 37.9 RT
204	5/8" REBAR W/ RED CAP	897.314	509309.2	842948.2	359+19.6 46.5 LT



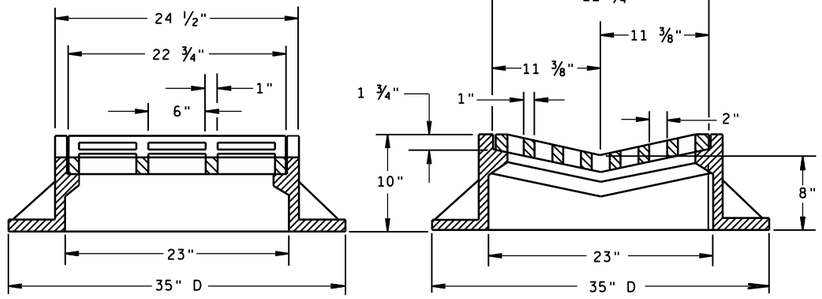


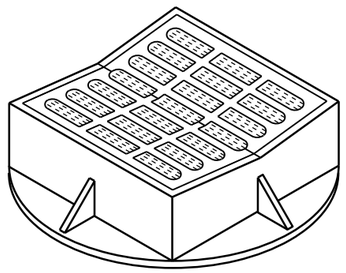
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 WB	SHEET 65	E

Standard Detail Drawing List

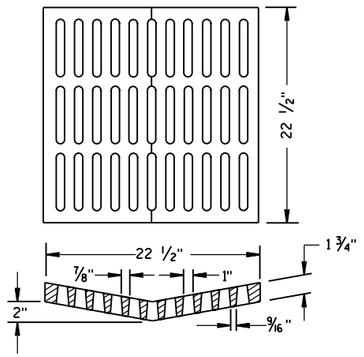
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D13-01	SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C19-01	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B29-01	SAFETY EDGE
14B32-06A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-06B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-06C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-06D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-06E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B35-01A	32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 32-INCH SSCB TRANSITION
14B35-01B	32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 32-INCH SSCB TRANSITION
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D41-01	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD

6



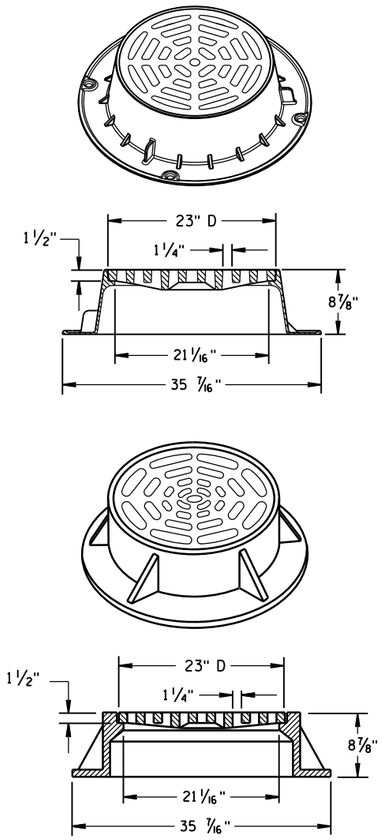


TYPE "B"



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"

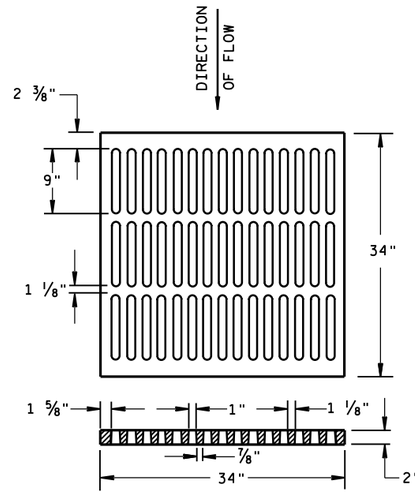
NOTE: EITHER CASTING IS ACCEPTABLE

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.

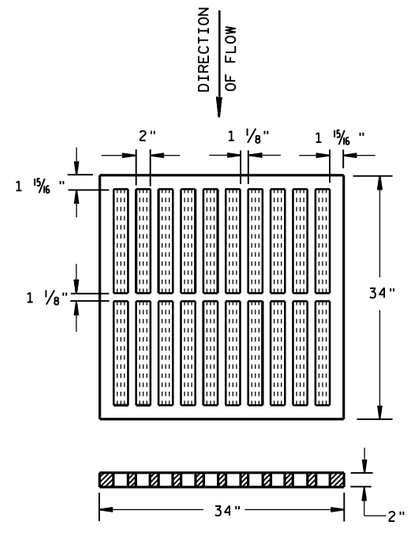
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



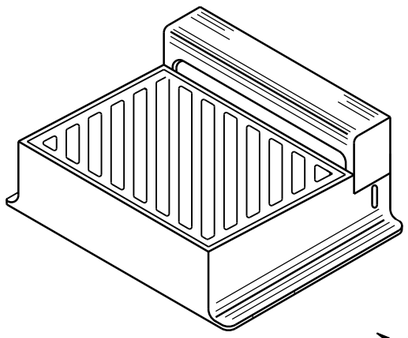
ALTERNATIVE TYPE "MS"

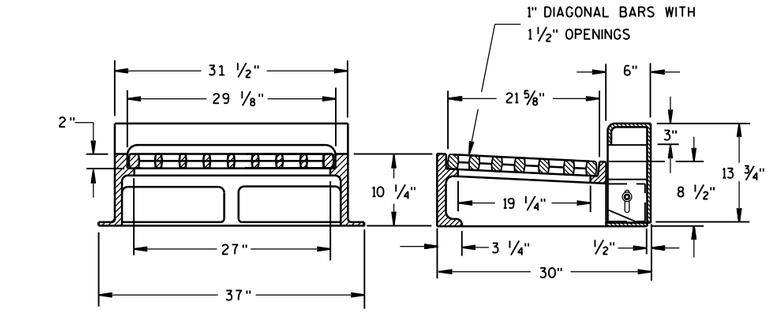
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

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





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIRECTION OF FLOW

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

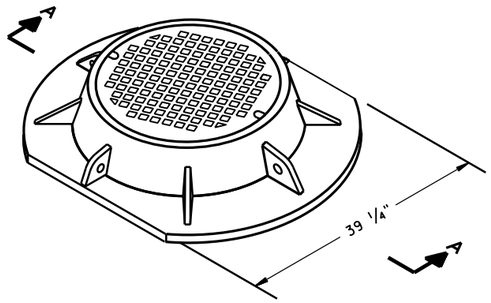
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

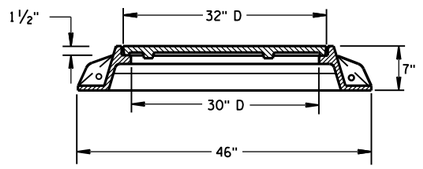
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

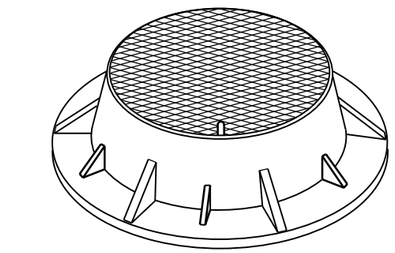
6

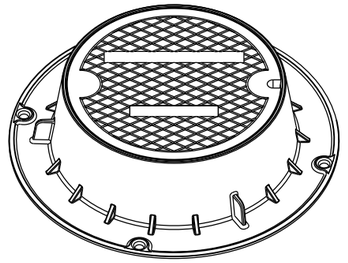
S.D.D. 8 A 5-19b

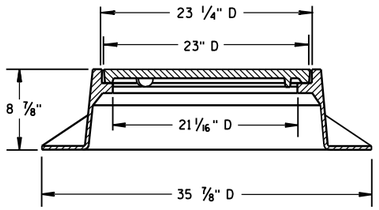


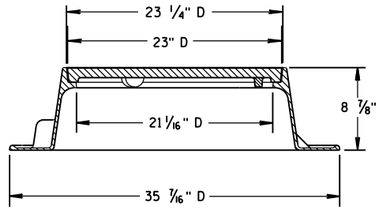


SECTION A-A
TYPE "K"









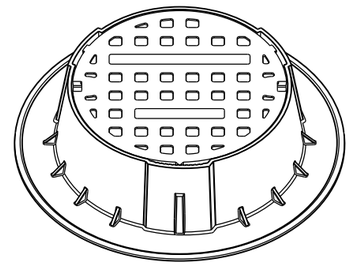
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

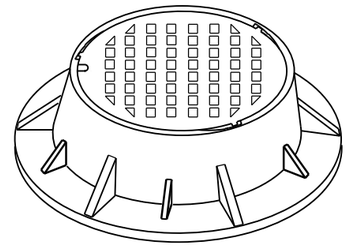
GENERAL NOTES

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.

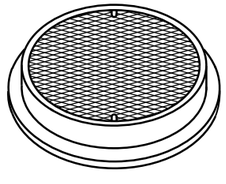
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

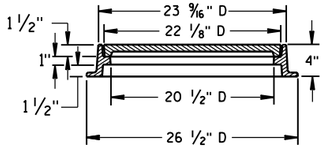
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



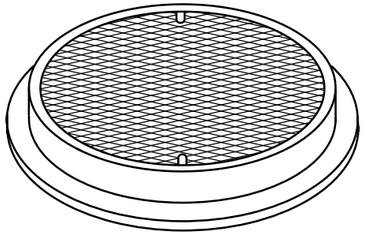


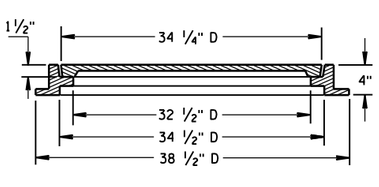
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



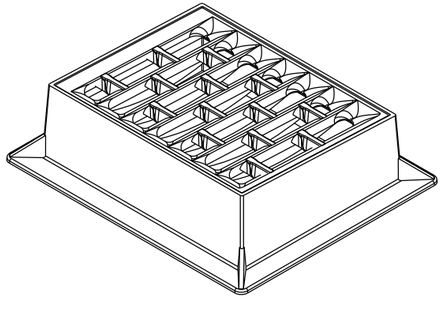


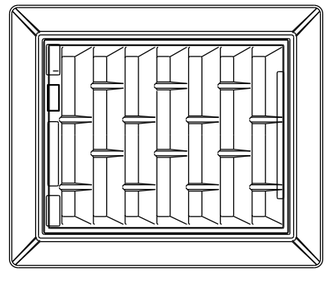
TYPE "L"

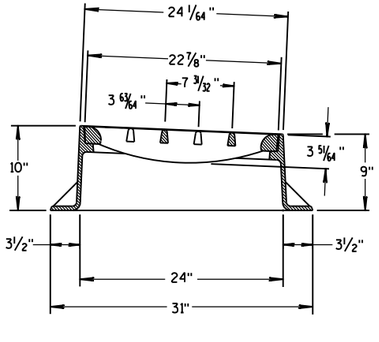


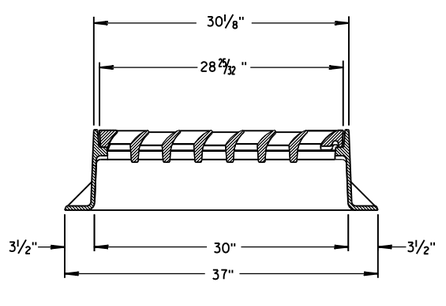


TYPE "M"









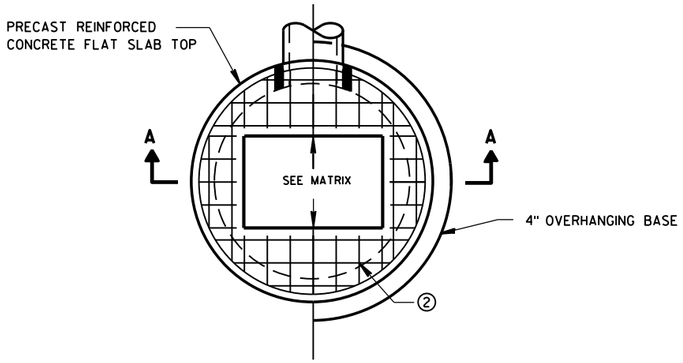
INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

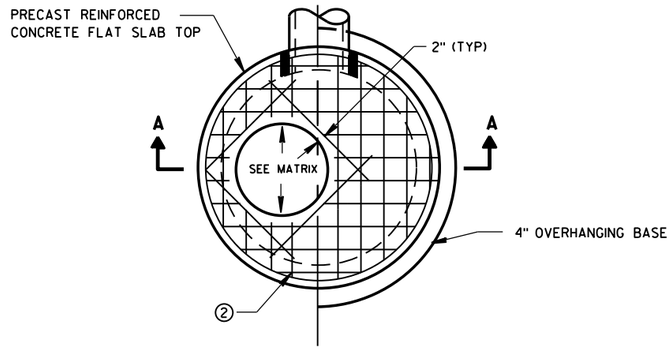
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

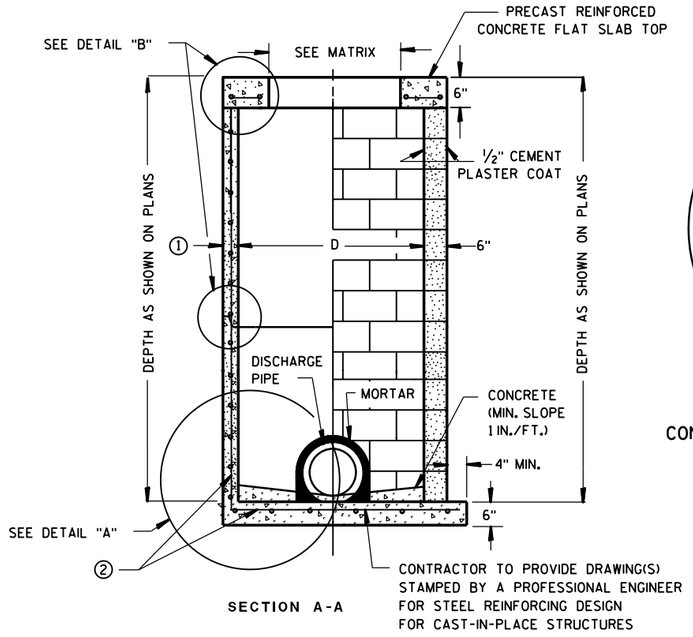
6
S.D.D. 8 A 5-19d



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

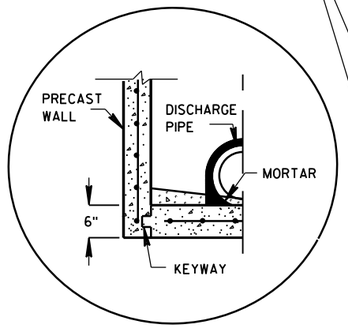


SECTION A-A

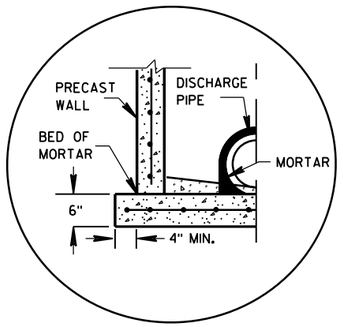
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

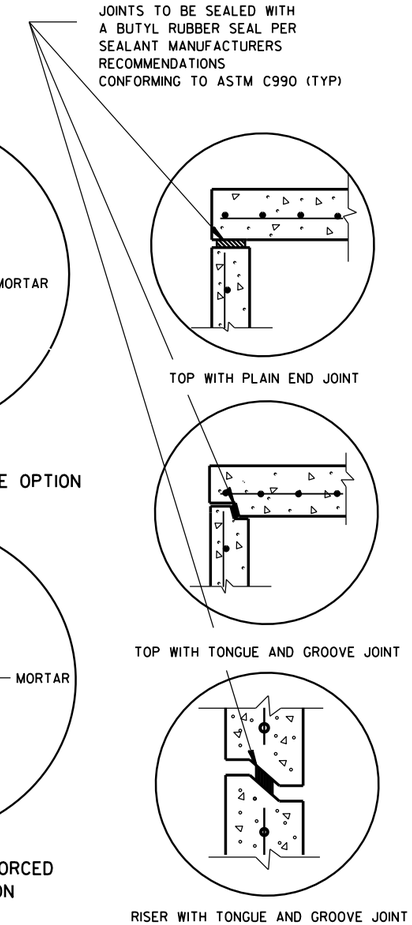


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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.

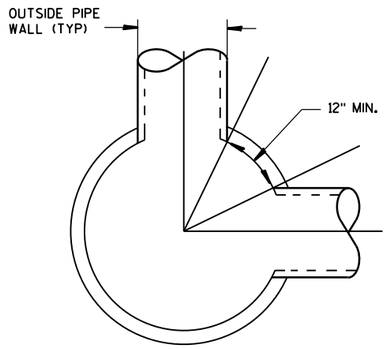
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

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

INLETS 3-FT
AND 4-FT DIAMETER

STATE OF WISCONSIN
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S.D.D. 8 C 6-2

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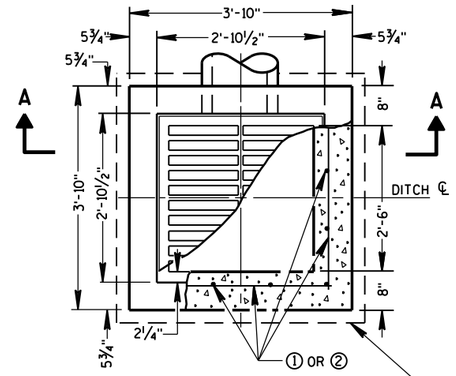
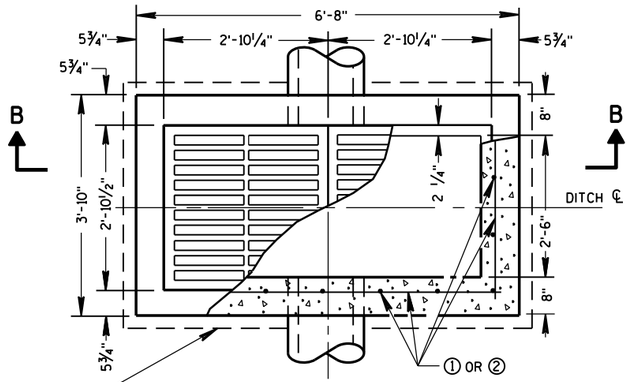
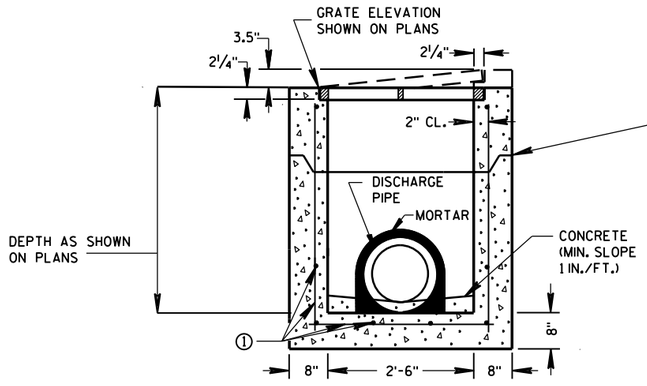


PLAN VIEW

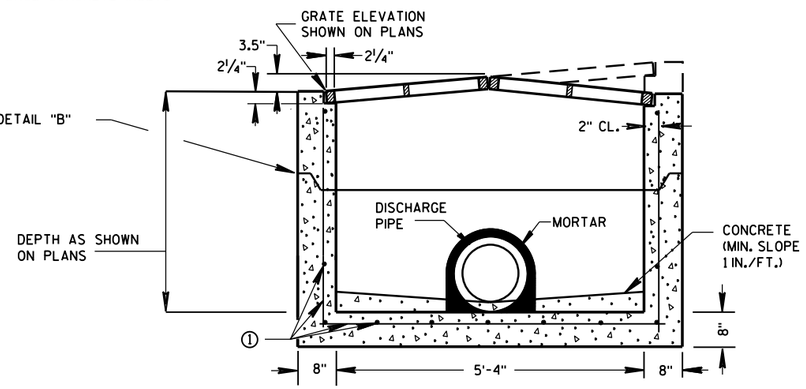


PLAN VIEW

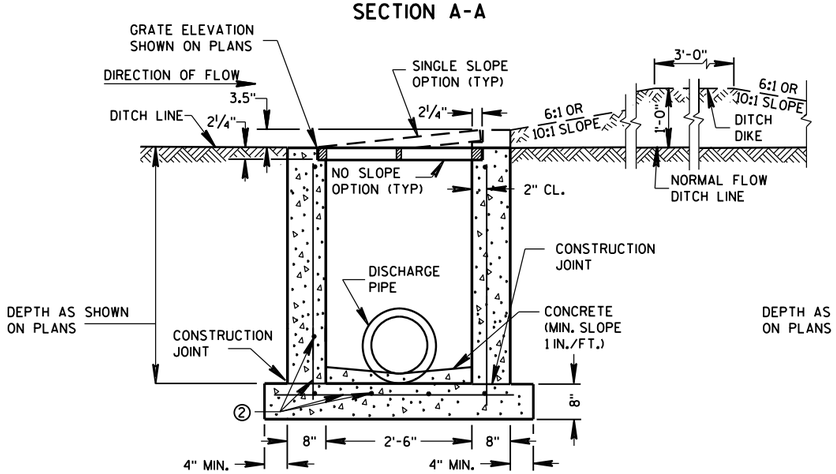
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

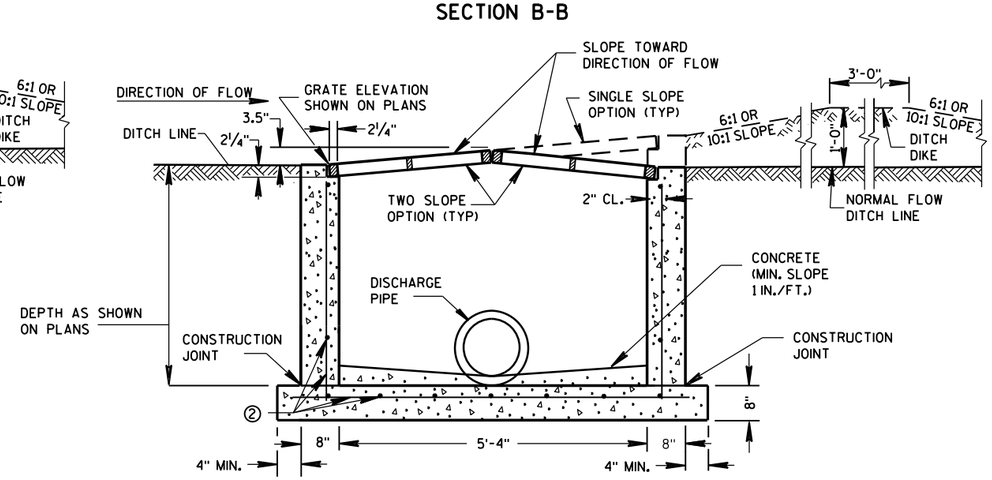


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

ALL 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.

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

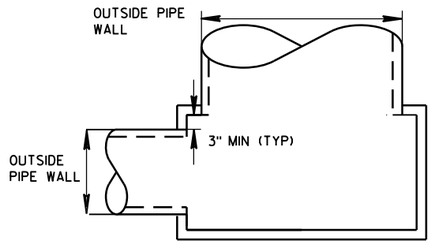
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

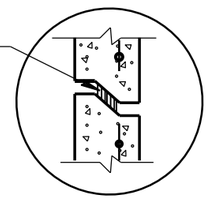
PIPE MATRIX

	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 AND 2 GRATE

STATE OF WISCONSIN
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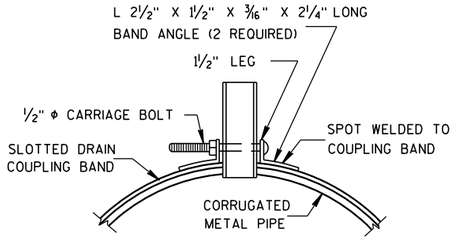
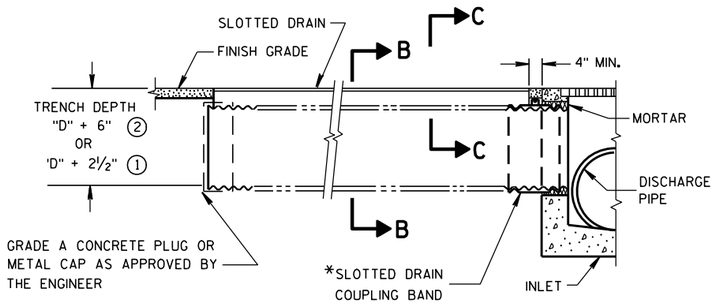
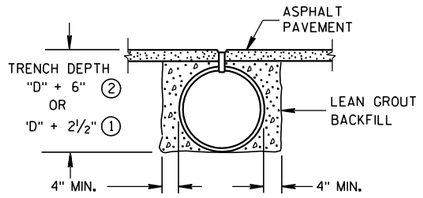


SECTION A-A



SLOTTED DRAIN INSTALLATION TYPE "A"



SECTION B-B

GENERAL NOTES

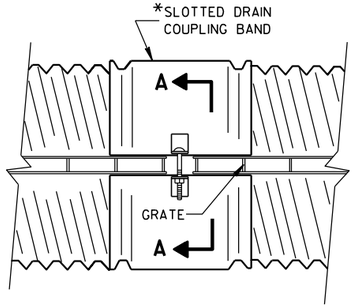
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BACKFILL MATERIAL

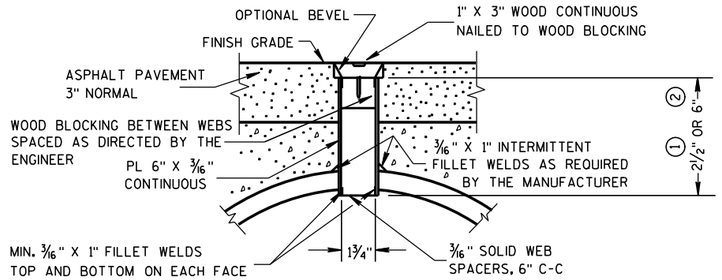
THE LEAN GROUT BACKFILL MATERIAL SHALL BE A FINE AGGREGATE, IN ACCORDANCE WITH SUBSECTION 501.3.6.3.6 OF THE STANDARD SPECIFICATIONS, MIXED WITH 150 POUNDS OF CEMENT AND APPROXIMATELY 30 GALLONS OF WATER FOR EACH 3000 POUNDS OF FINE AGGREGATE.

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.

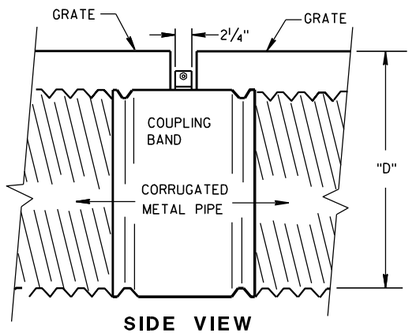


PLAN VIEW



SECTION C-C

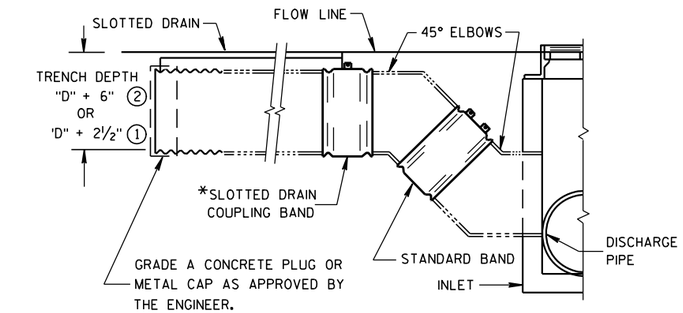
GRATE SLOT DETAIL



SIDE VIEW

*TYPICAL COUPLING BAND FOR SLOTTED DRAIN

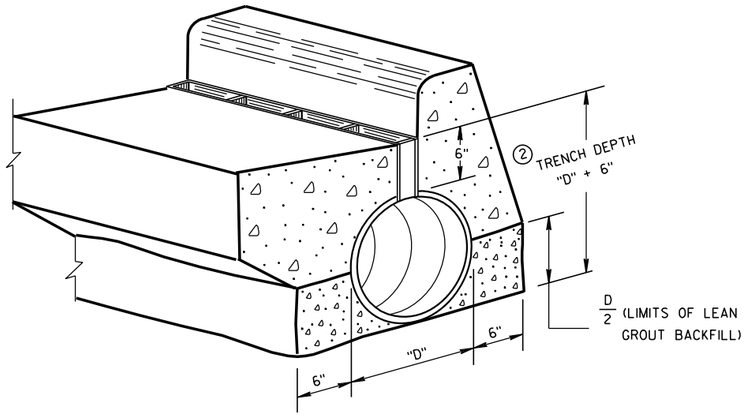
(ALTERNATES PERMITTED AS APPROVED BY THE ENGINEER)



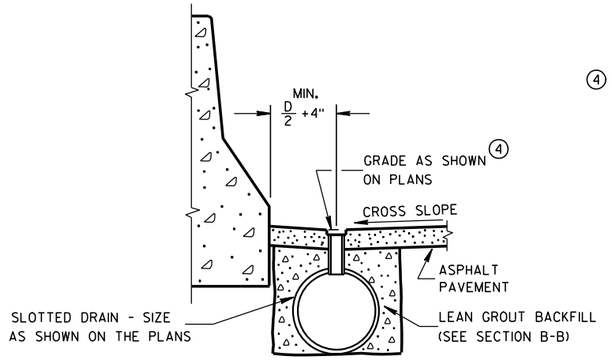
SLOTTED DRAIN INSTALLATION TYPE "B"

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

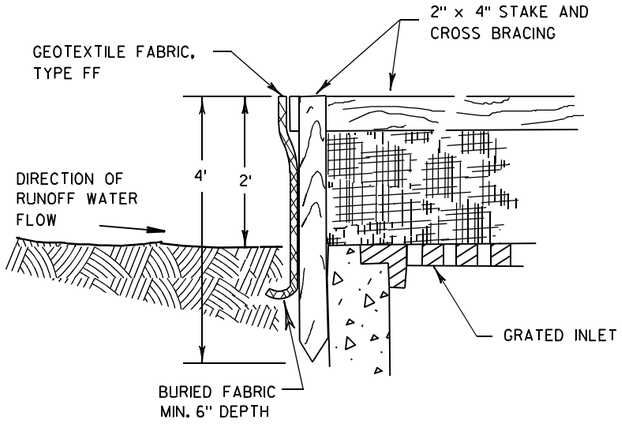
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

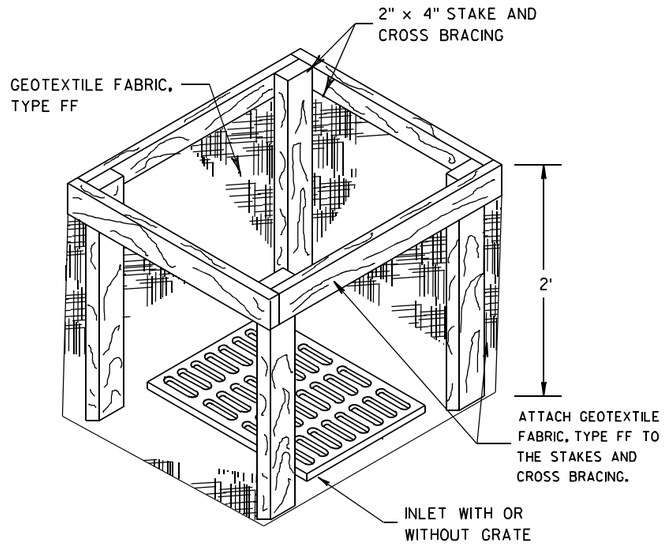
APPROVED

8/30/79 DATE

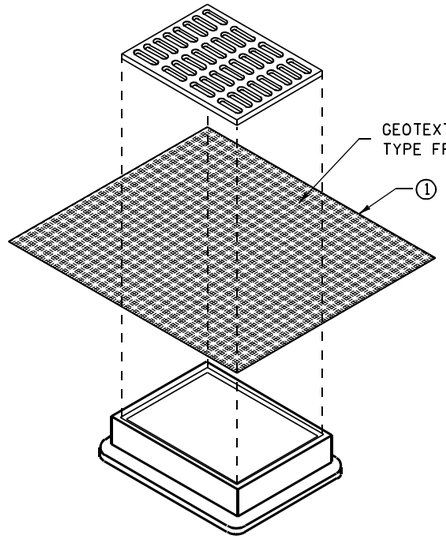
/S/ D. L. Str--- CHIEF ROADWAY DEVELOP--- ENGINEER

FHWA



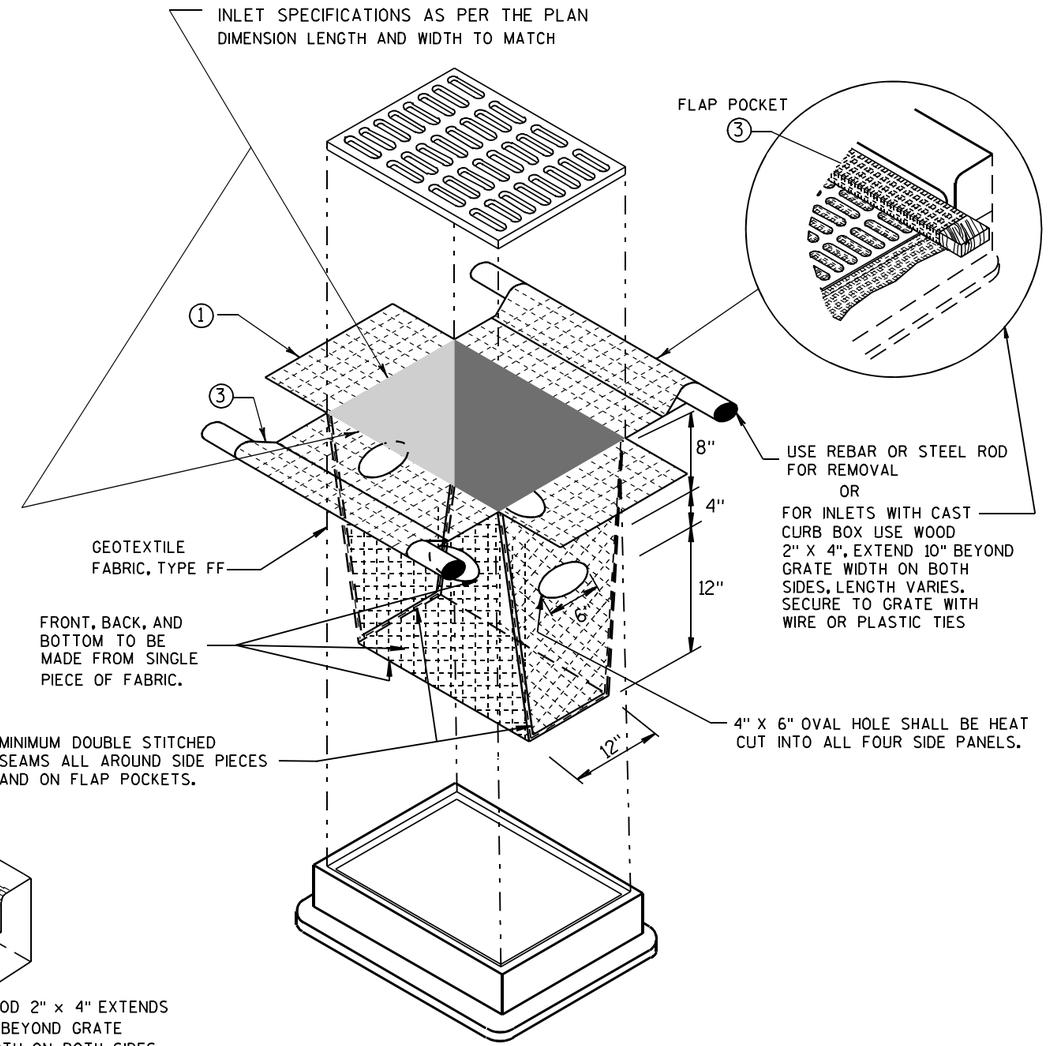


INLET PROTECTION, TYPE A



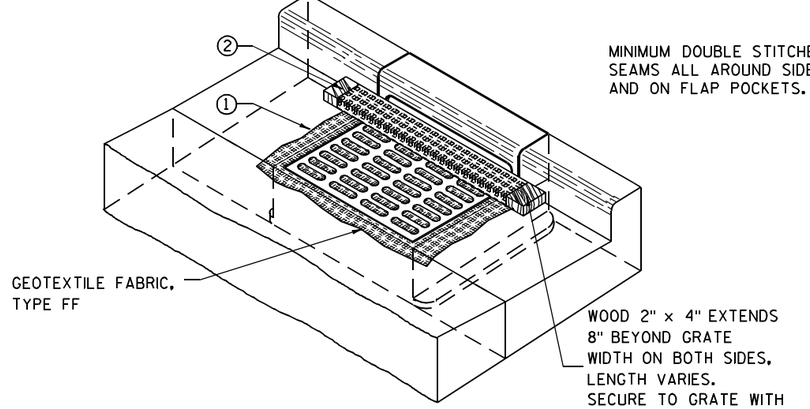
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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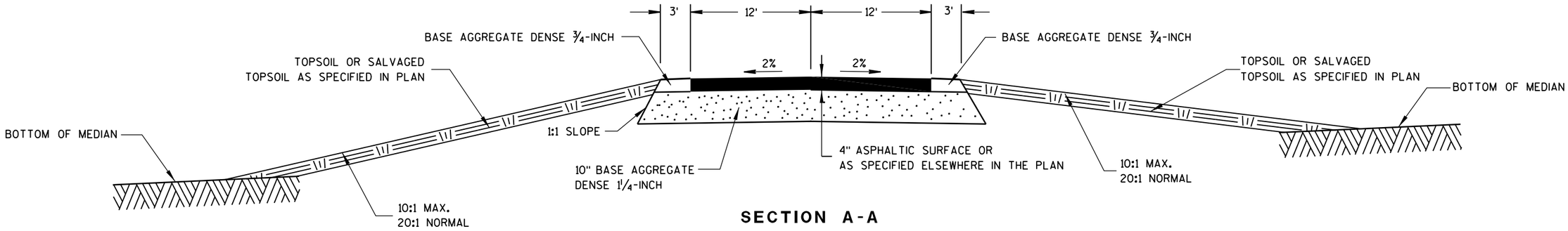
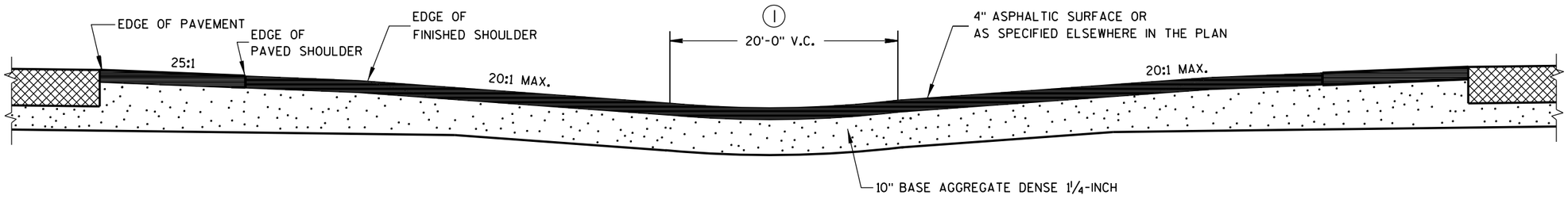
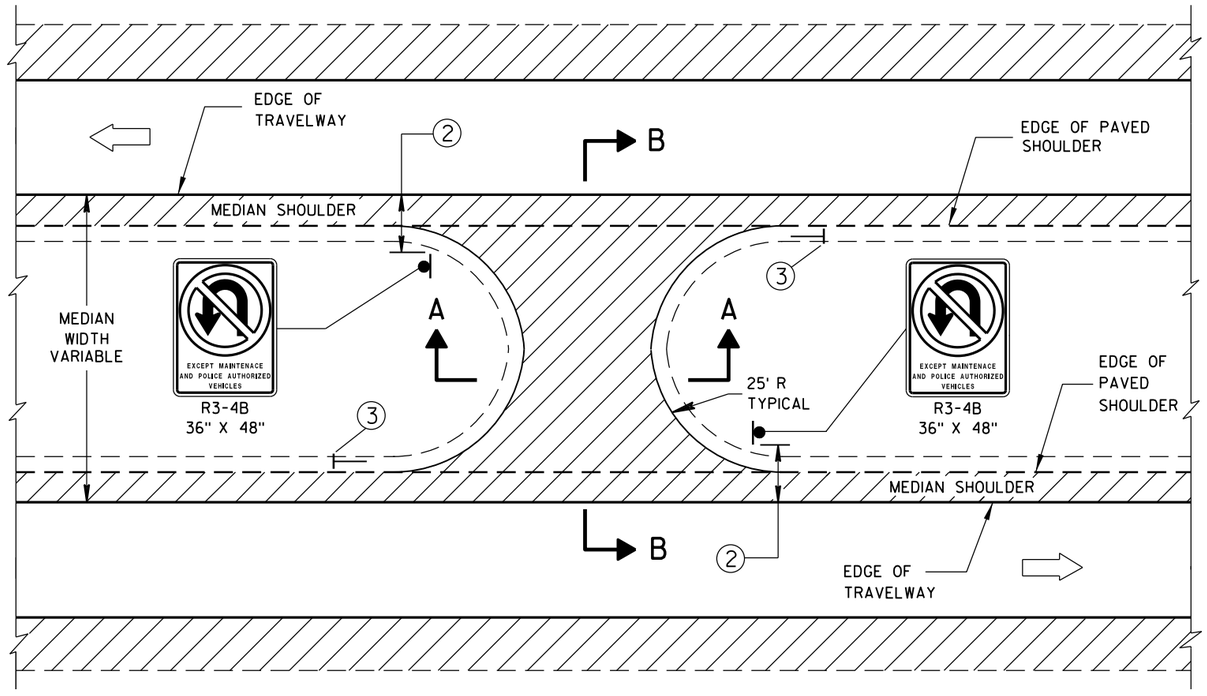
S.D.D. 8 E 10-2



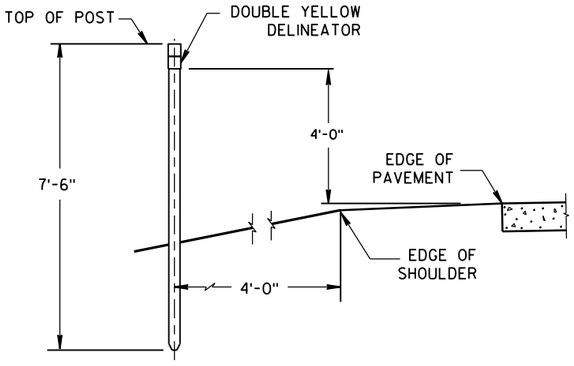
SECTION A-A



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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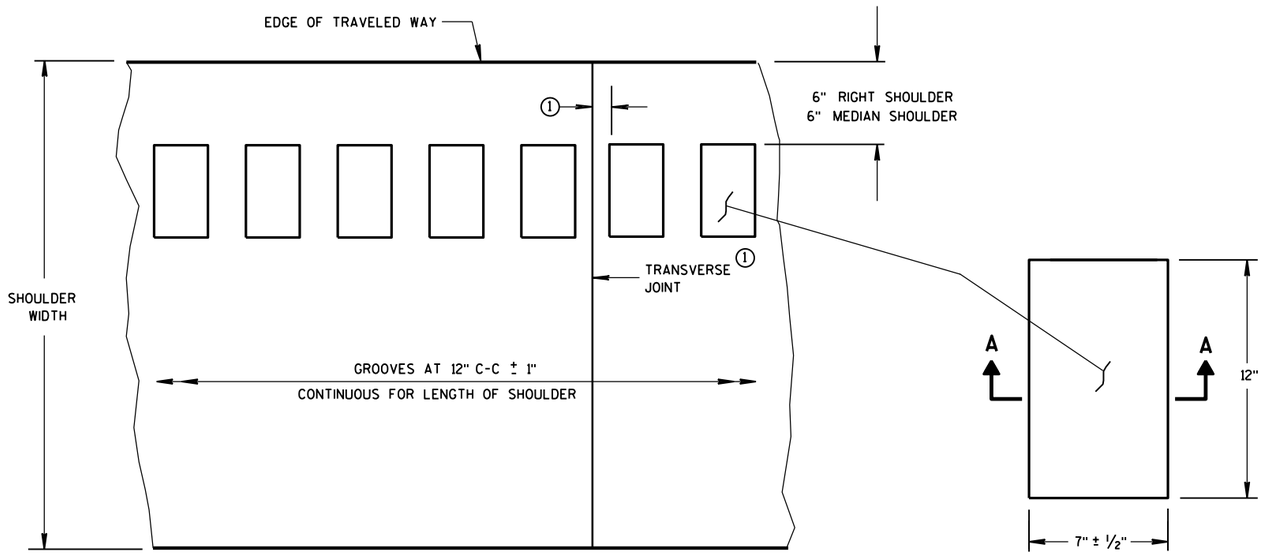
S.D.D. 11 A 1-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

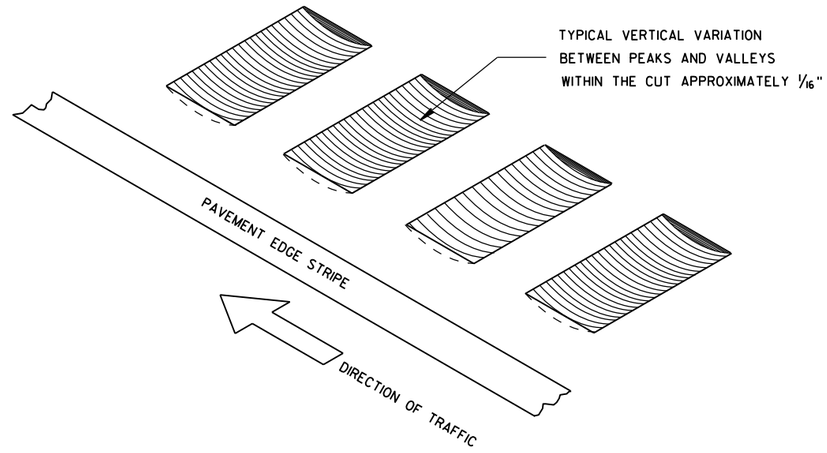
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

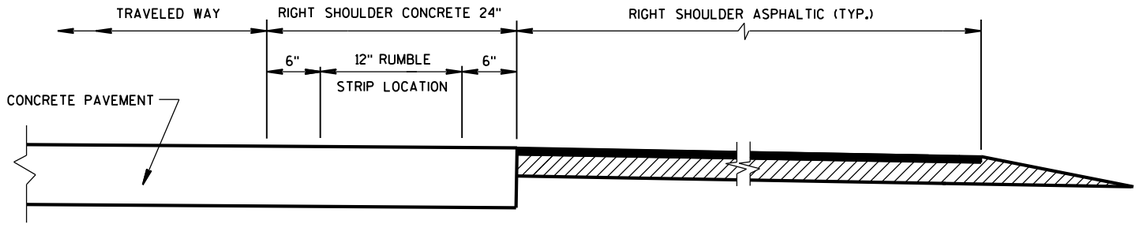
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

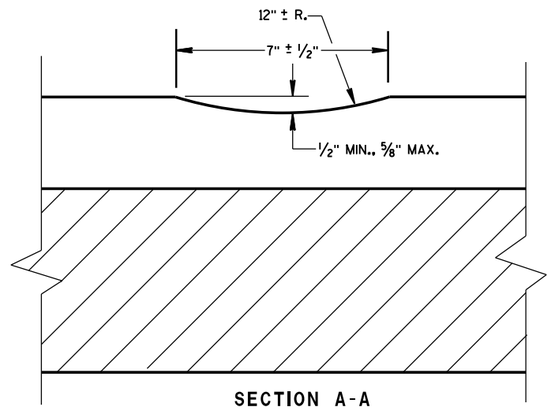
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



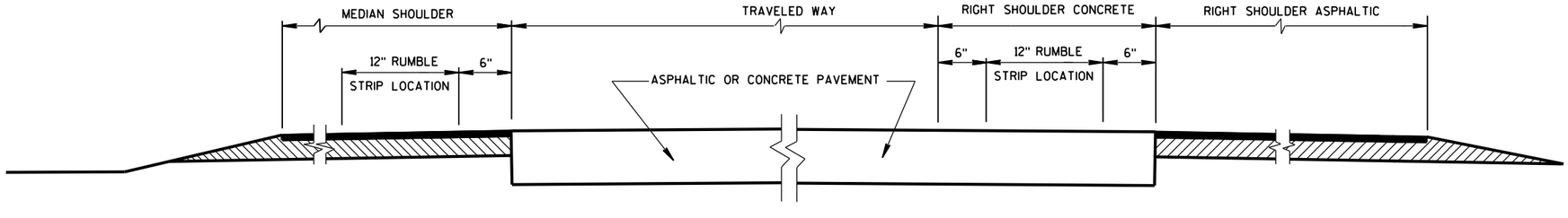
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

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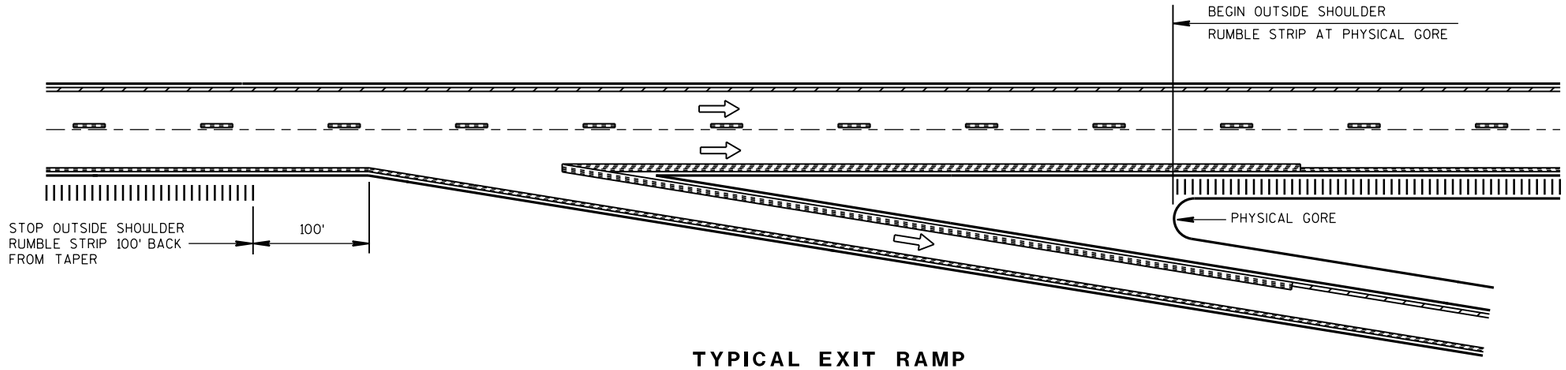
S.D.D. 13 A 5-5a



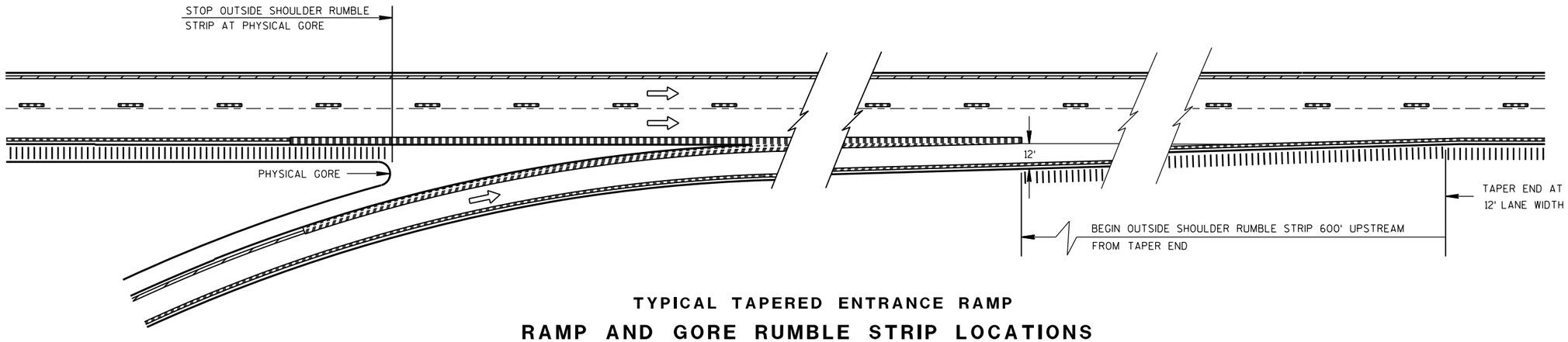
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

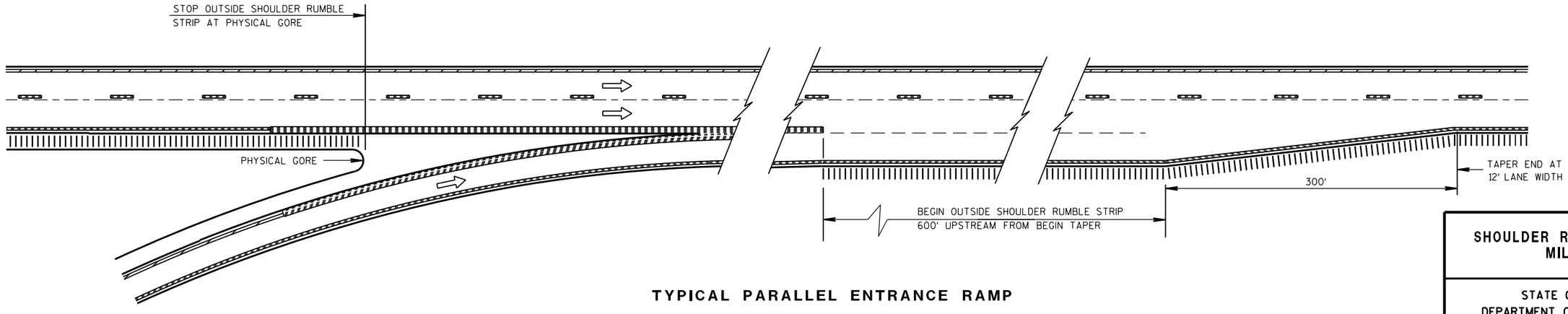
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

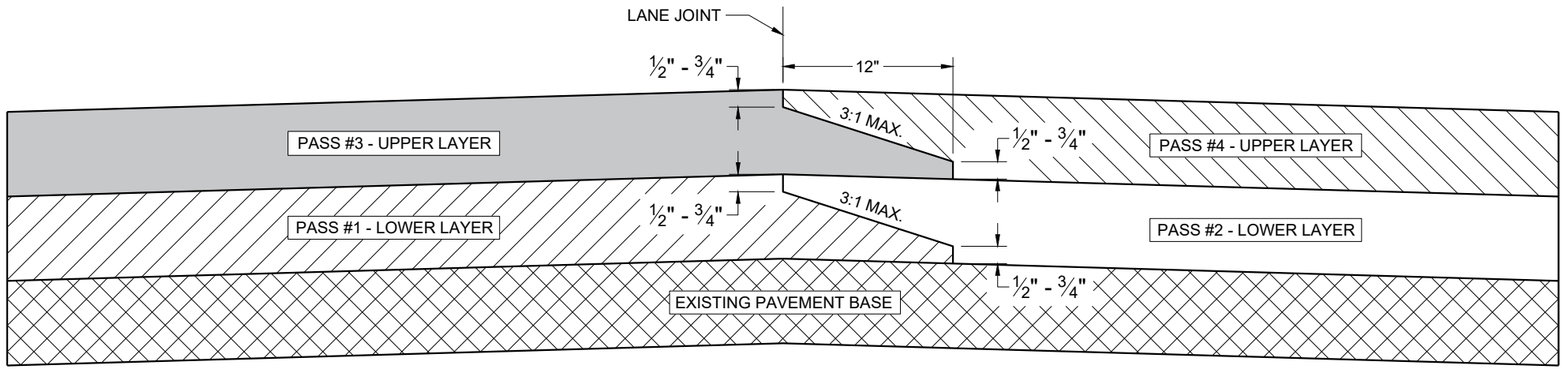
FHWA

6

S.D.D. 13 A 5-5b

GENERAL NOTES

CONFORM TO STANDARD SPECIFICATION 450.3.2.8



TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINTS

6

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SDD 13C19 - 01

SDD 13C19 - 01

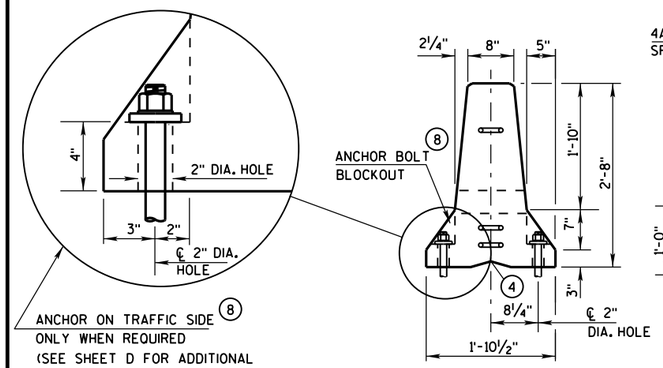
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

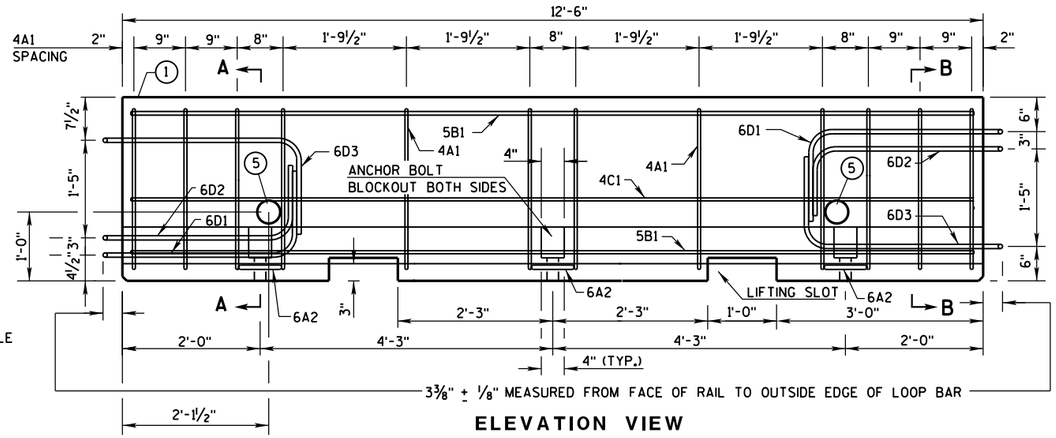
APPROVED
May 2019
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

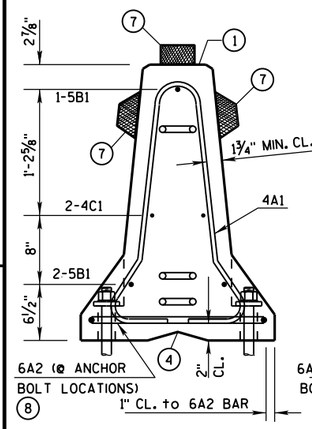
FHWA



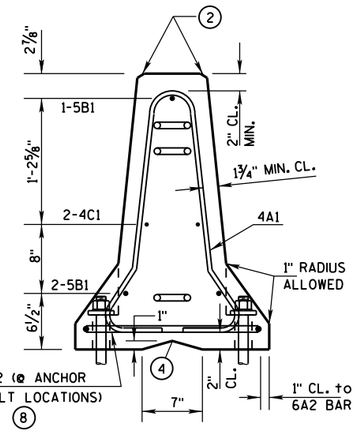
END VIEW



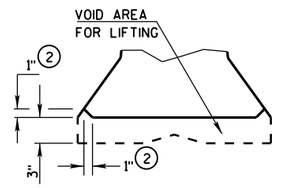
ELEVATION VIEW



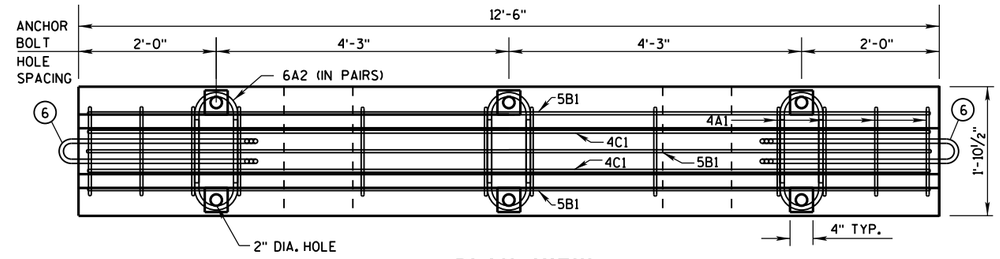
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

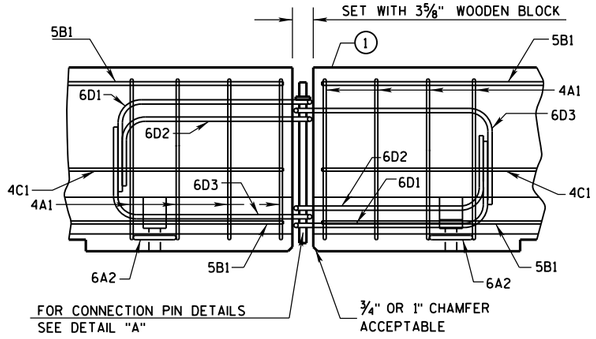


DETAIL "B"
LIFTING SLOT DETAIL

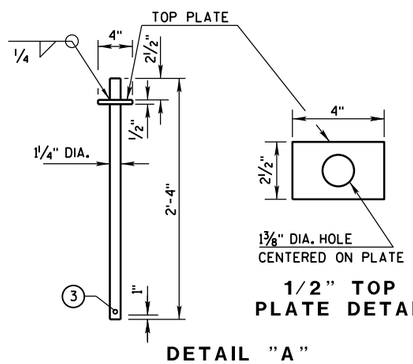


PLAN VIEW

DETAILS OF BARRIER SECTION

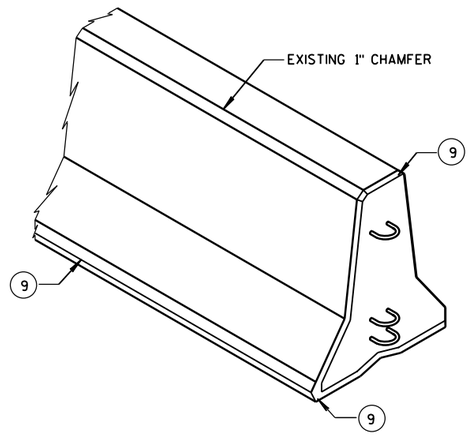


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

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 ADHESIVE 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.

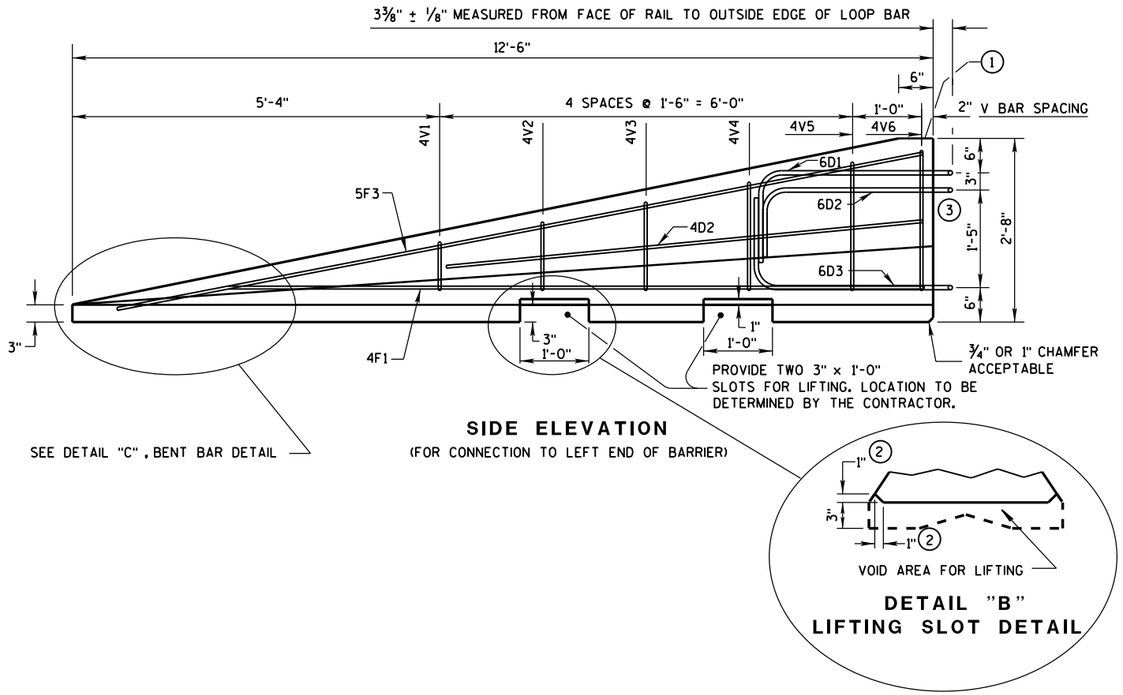
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

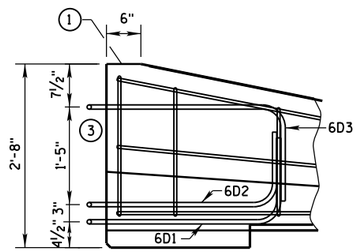
(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

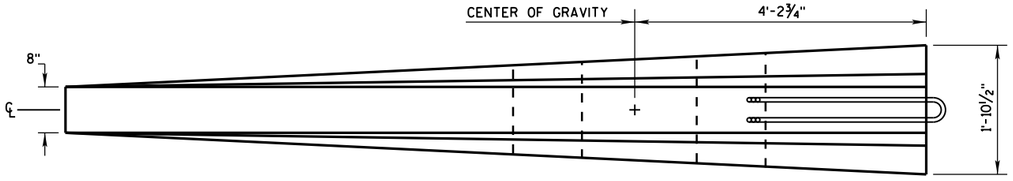
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 77

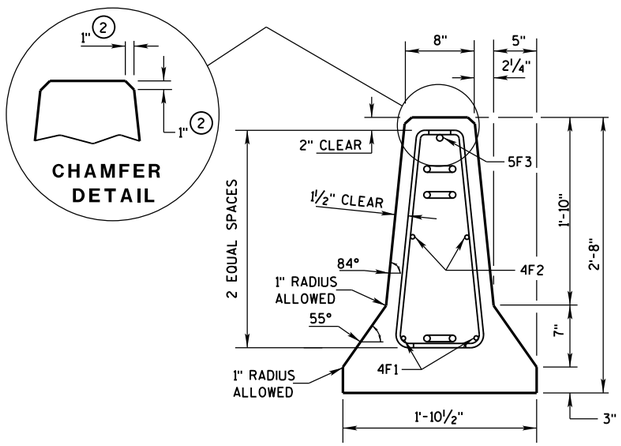


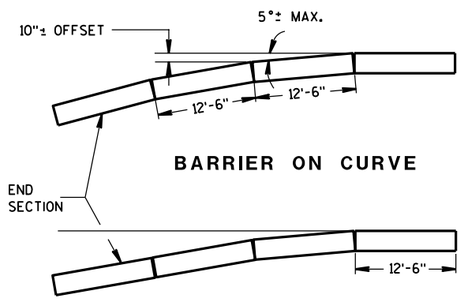


GENERAL NOTES

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.







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"

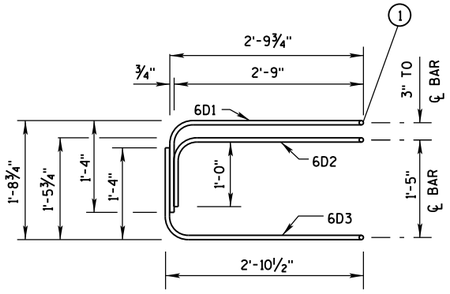
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15b

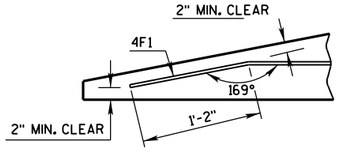
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

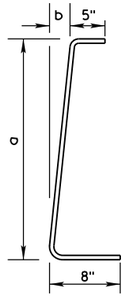
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



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

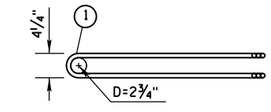
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION BILL OF MATERIALS

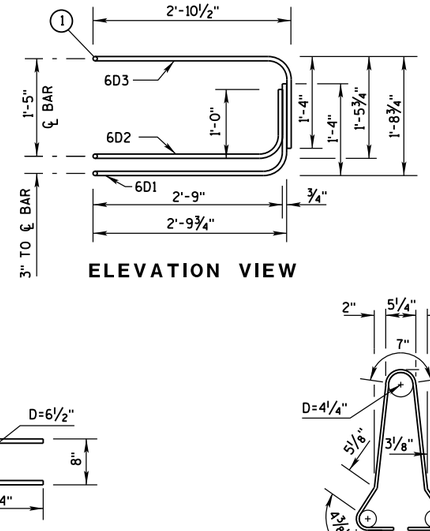
(PER 12'-6" BARRIER SECTION)

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"

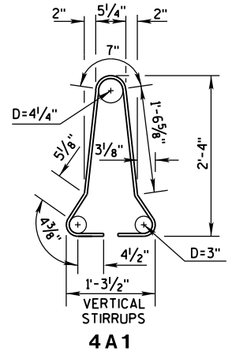


PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)

6A2



ELEVATION VIEW



4A1

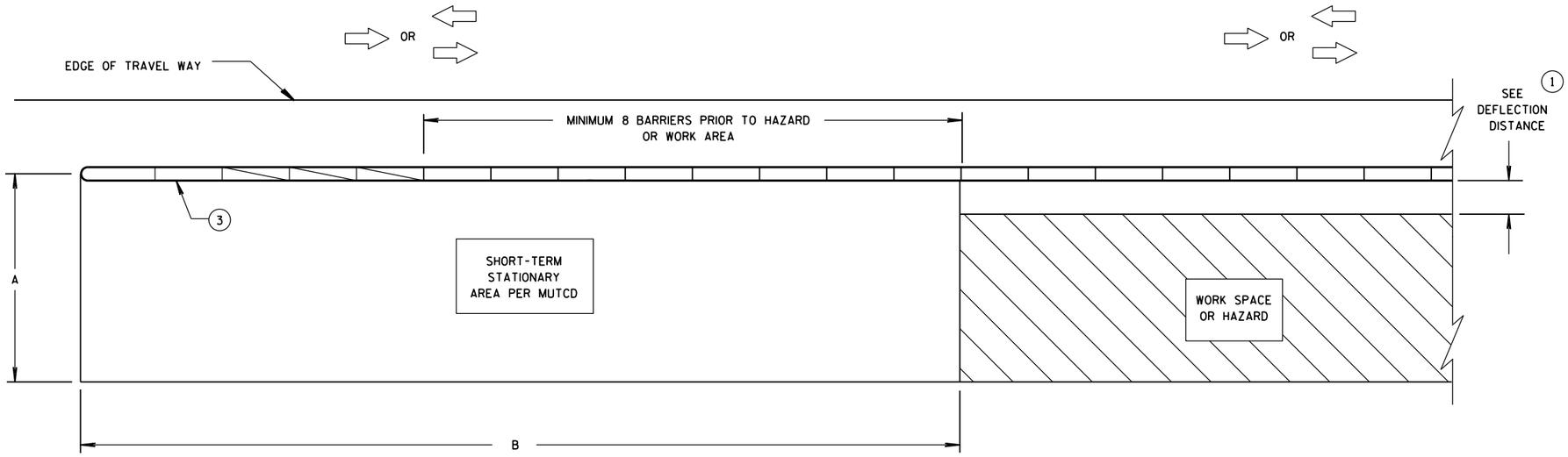
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15c



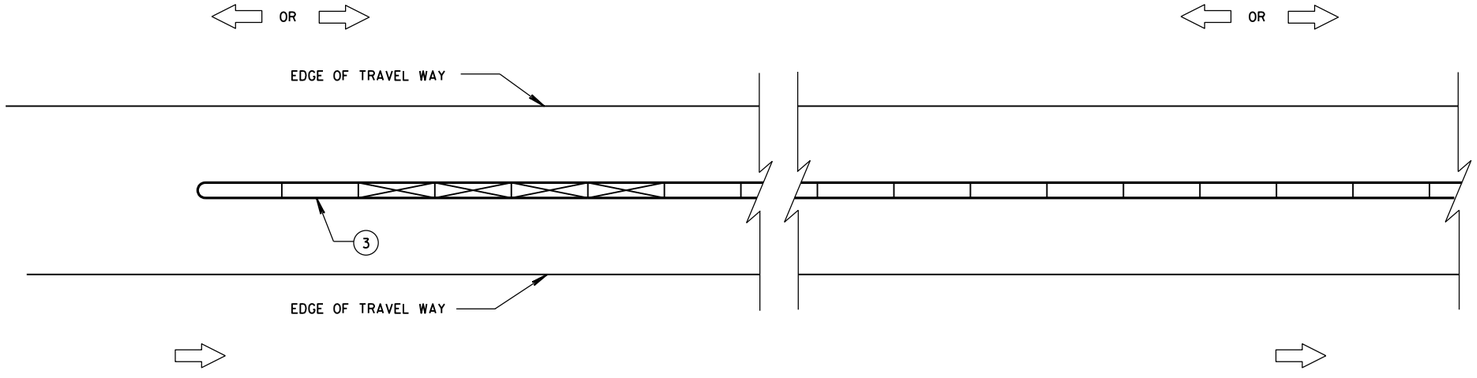
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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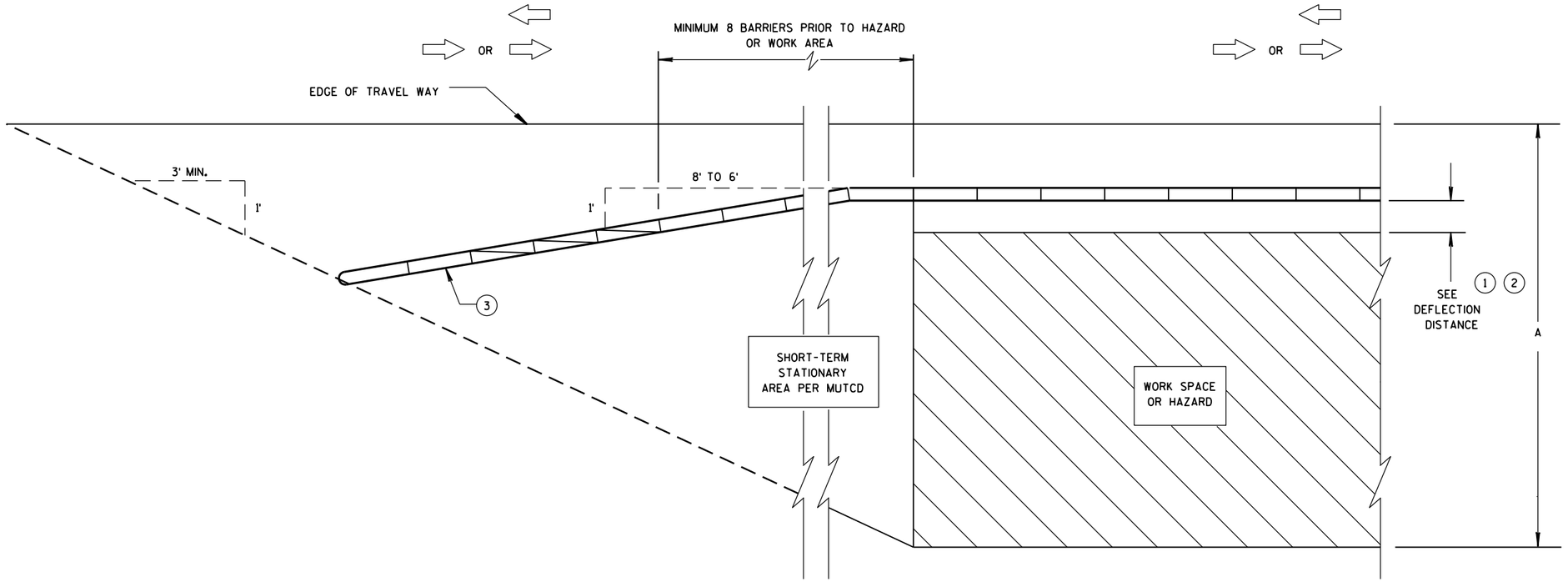
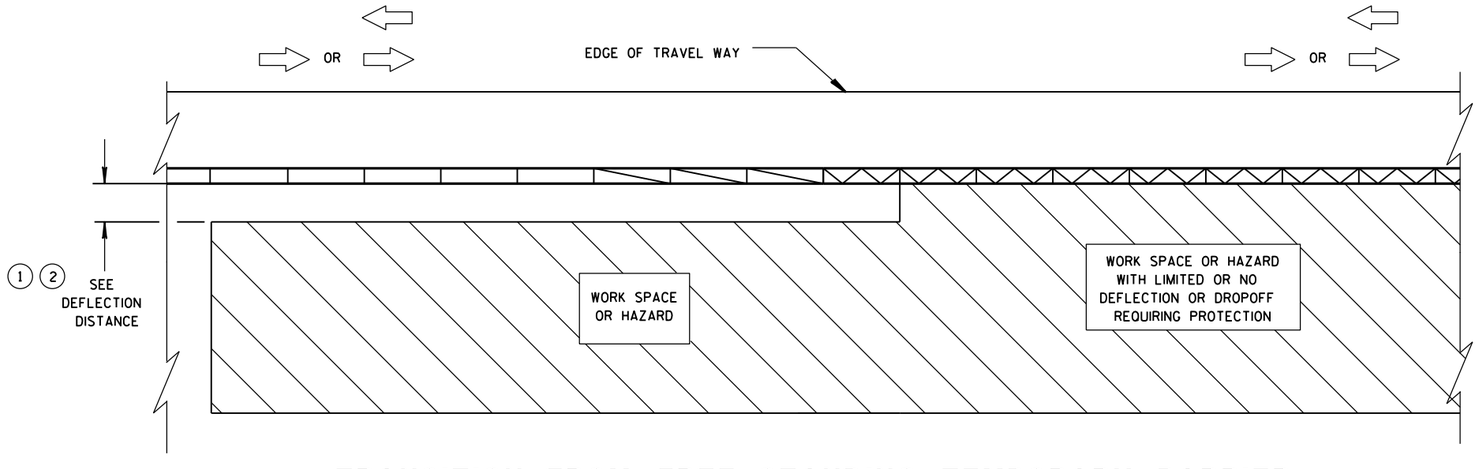
S.D.D. 14 B 8-2a



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 TRANSPOI

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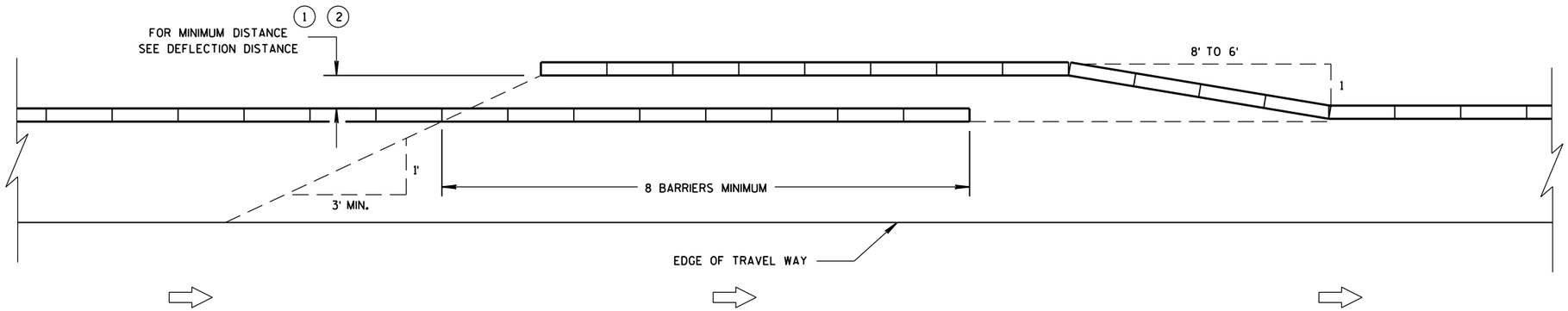
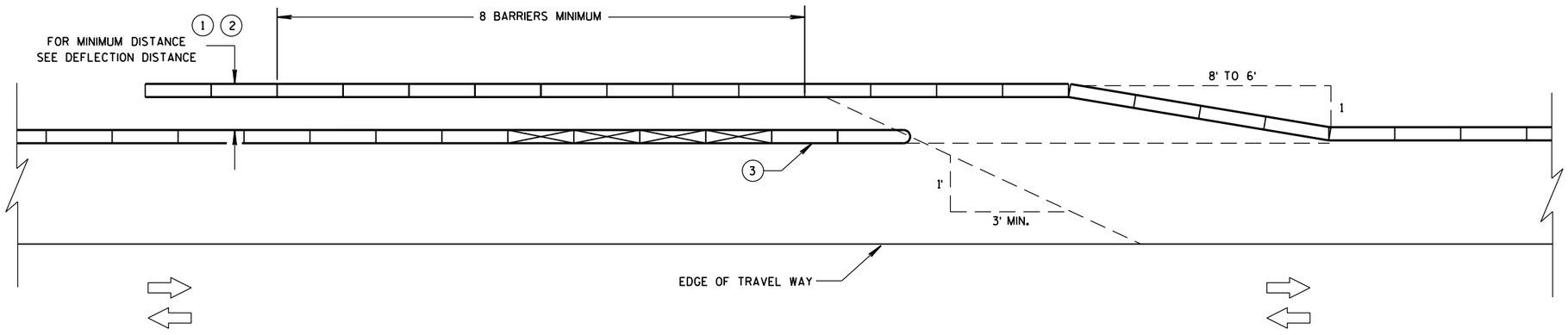
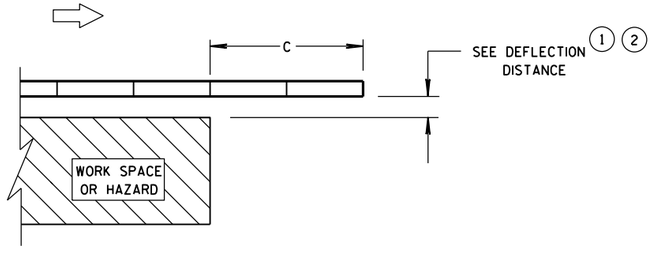
S.D.D. 14 B 8-2b



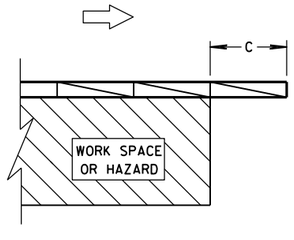
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

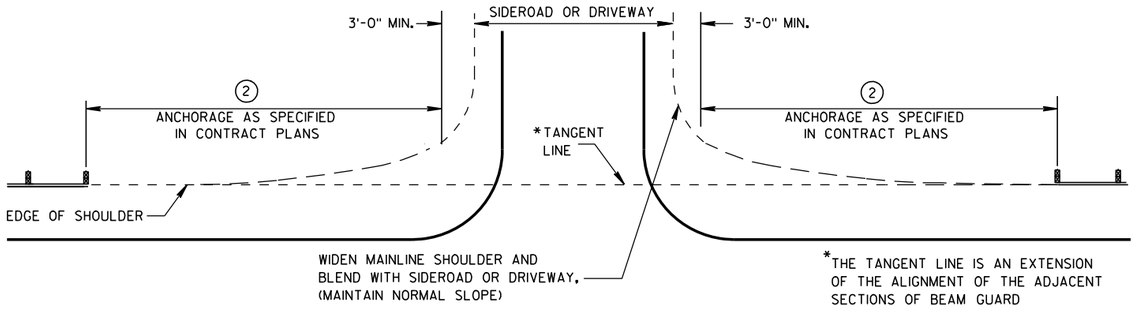
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

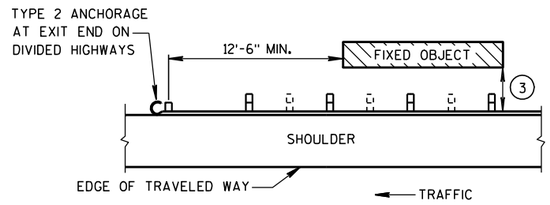
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

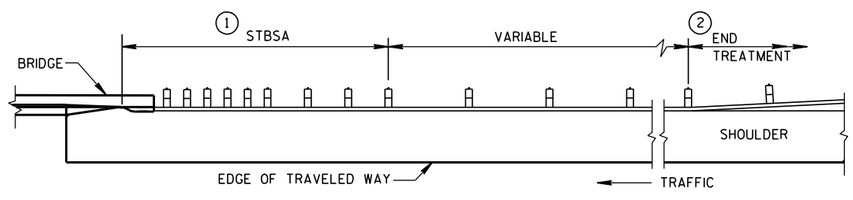
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

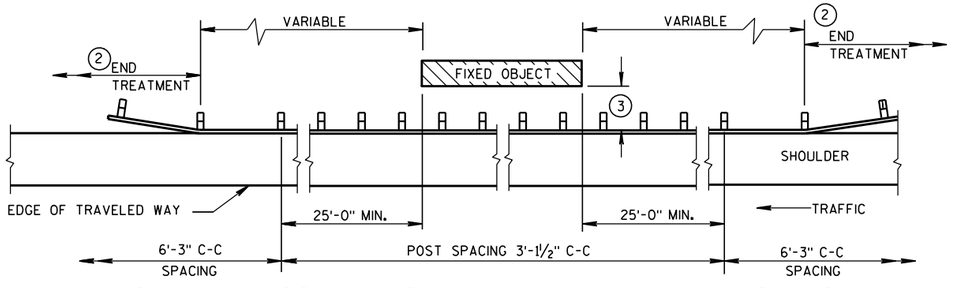
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

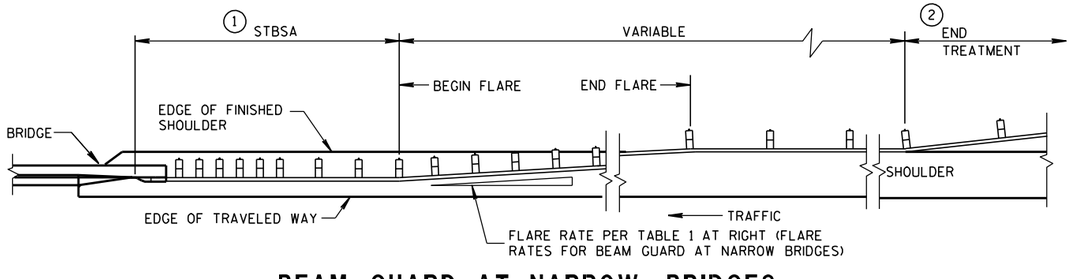


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

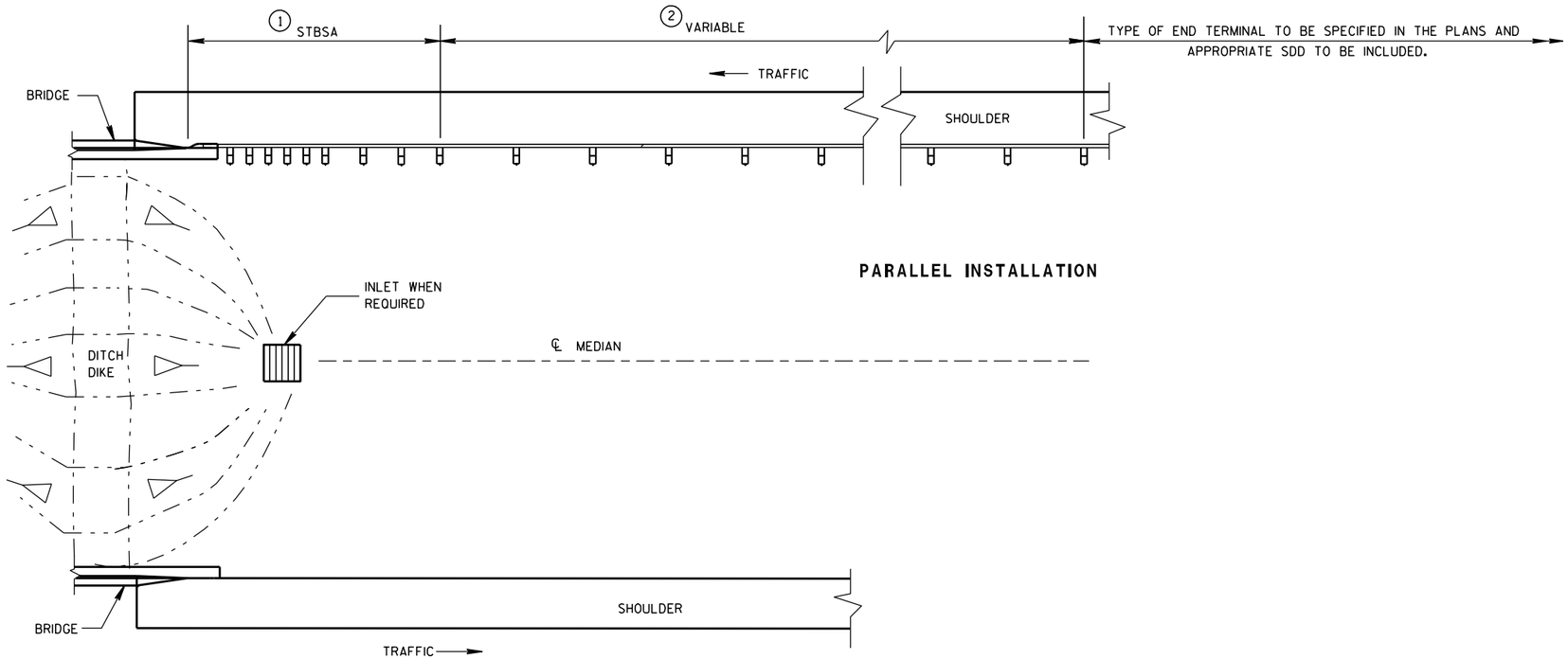
STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

GENERAL NOTES

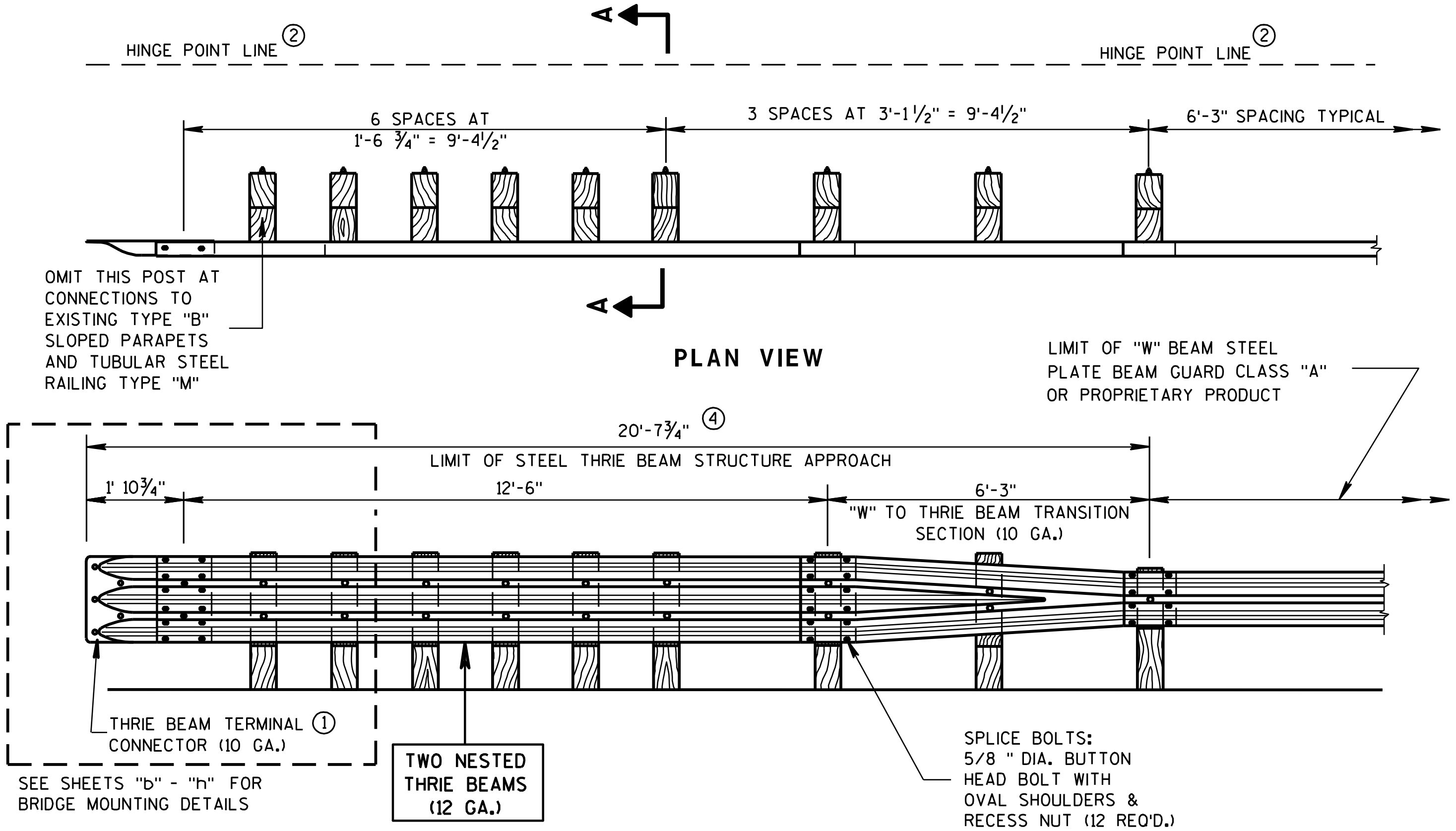
1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW

FRONT VIEW

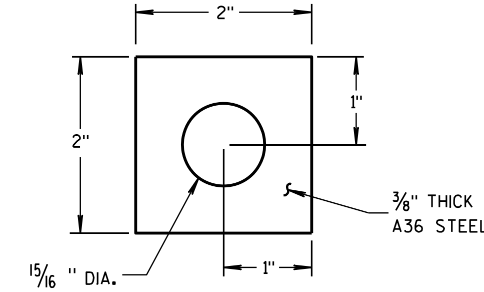


PLATE WASHER DETAIL

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".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

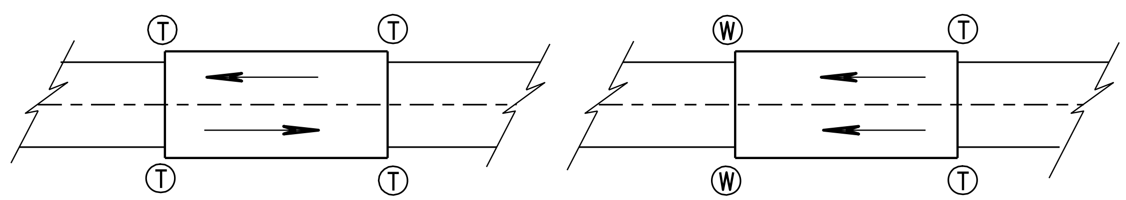
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.

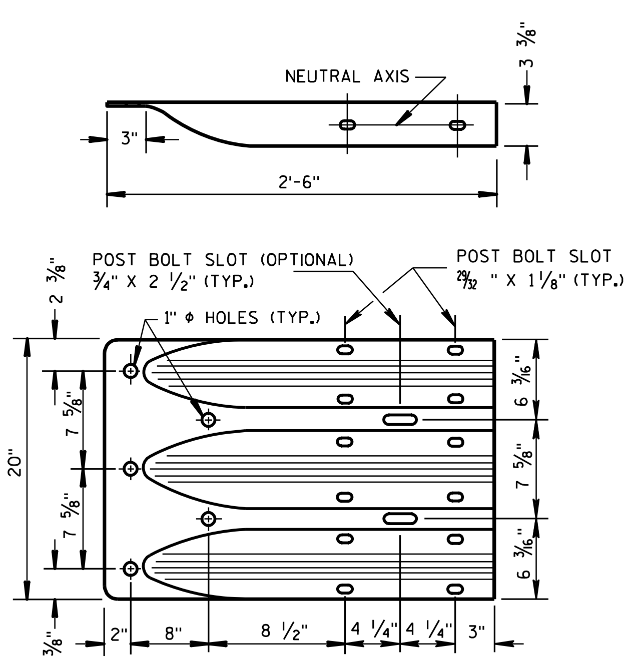


TWO WAY TRAFFIC **ONE WAY TRAFFIC**

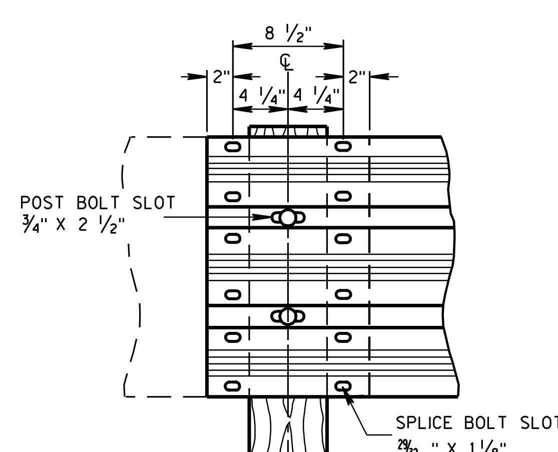
Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

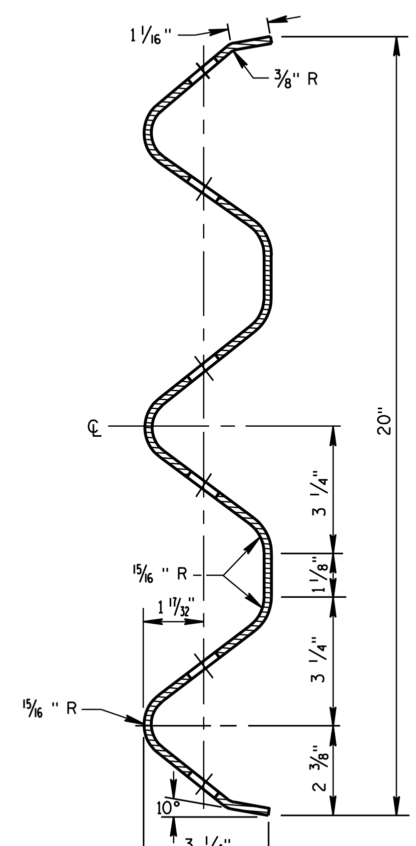
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



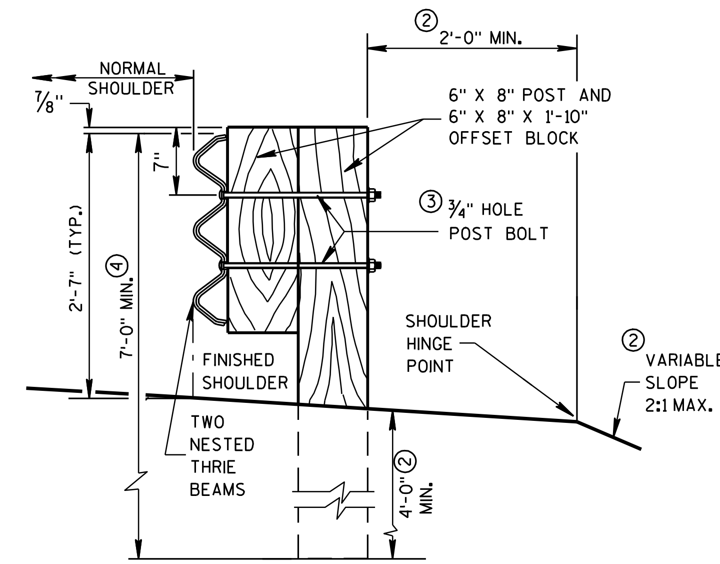
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

S.D.D. 14 B 20-11a

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BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(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.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

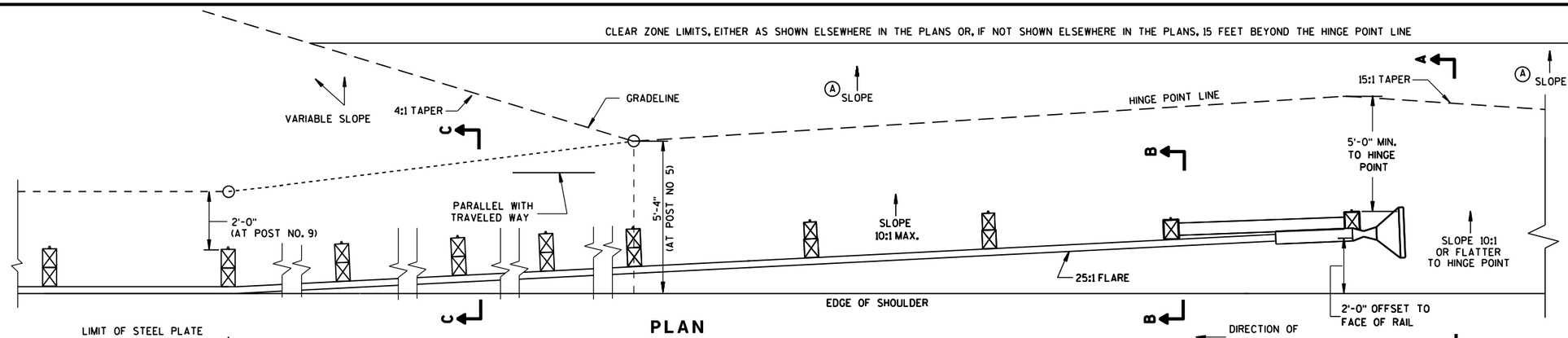
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

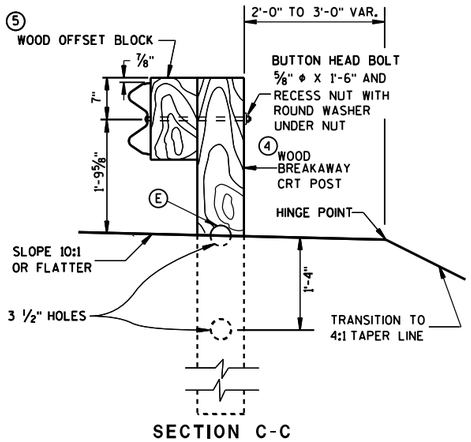
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

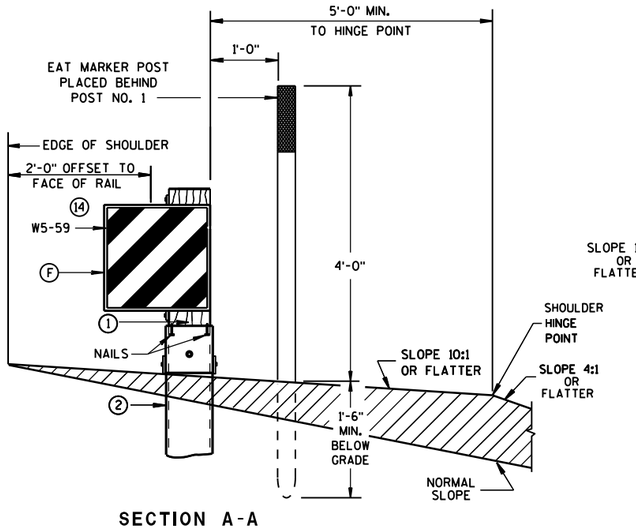
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

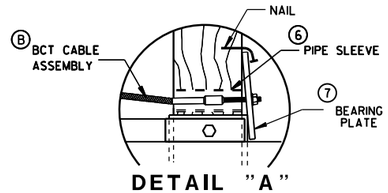
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

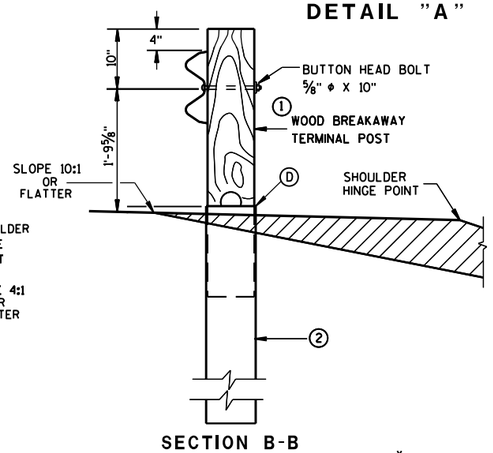
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

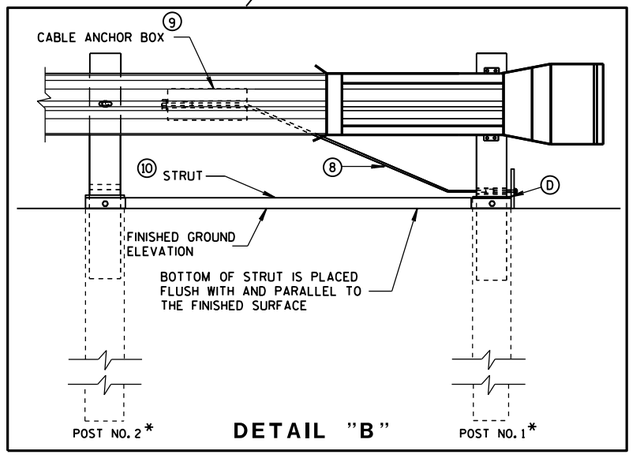










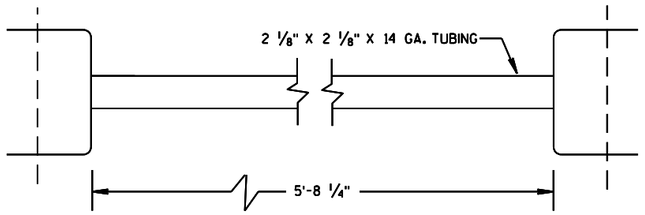


STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

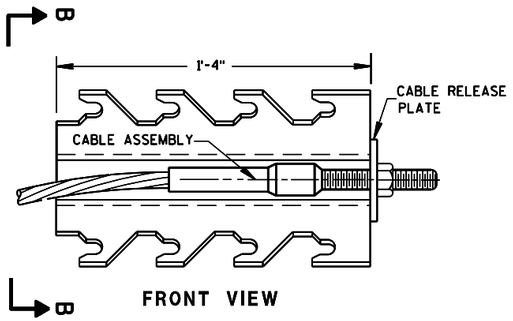
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

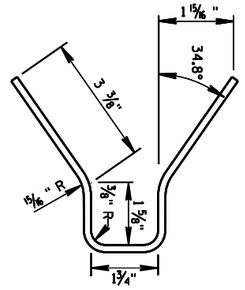
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

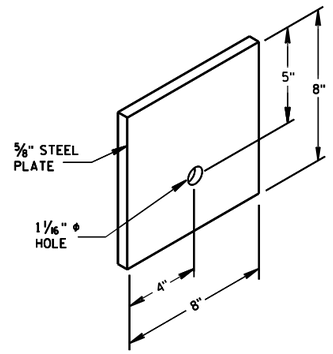


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

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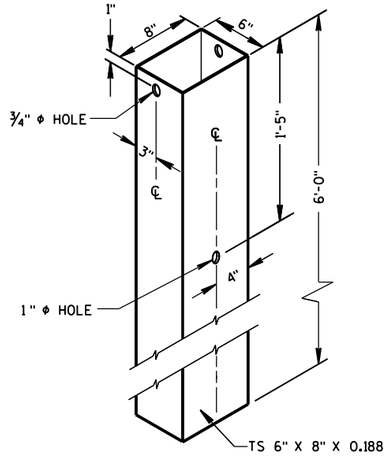
S.D.D. 14 B 24-9b

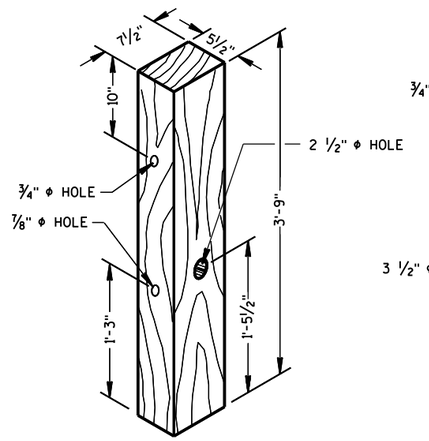
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

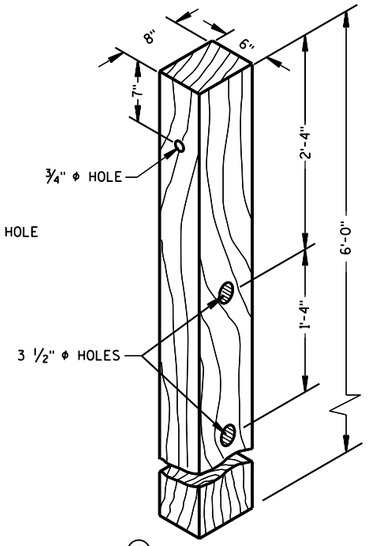
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-4



① TERMINAL POST

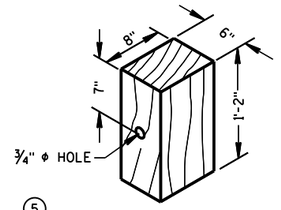


④ CRT POST
(POSTS NO'S 5-8)

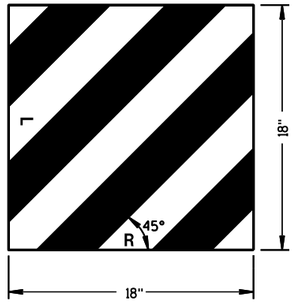
WOOD BREAKAWAY POSTS

GENERAL NOTES

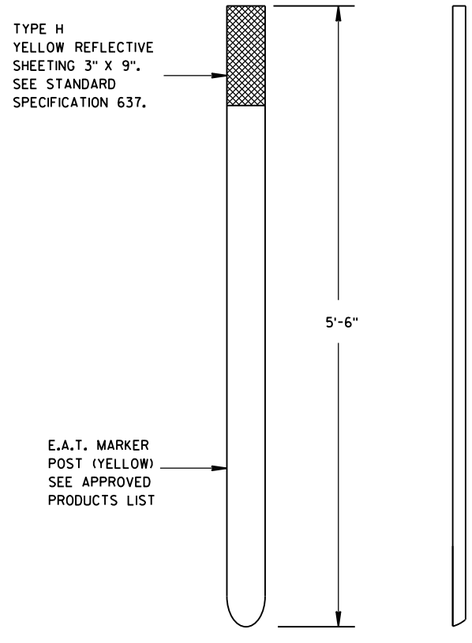
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV...

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S.D.D. 14 B 24-9c

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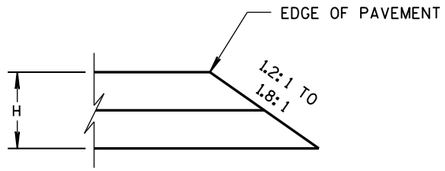
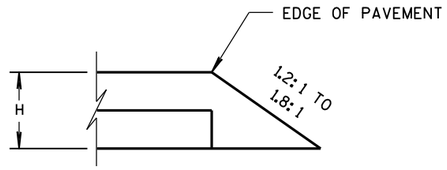
S.D.D. 14 B 24-9c



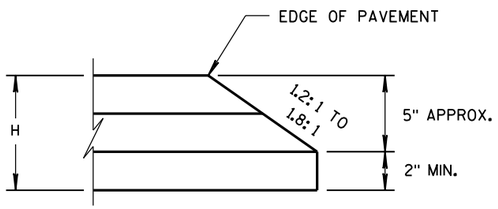
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



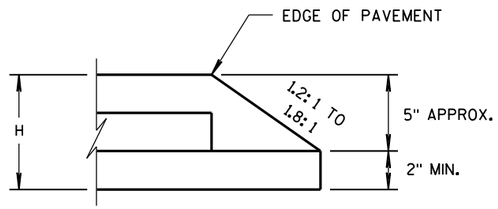
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

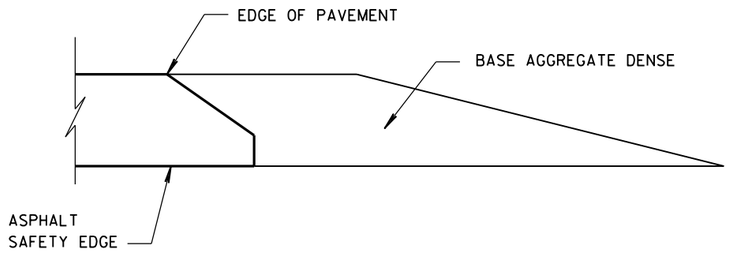
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

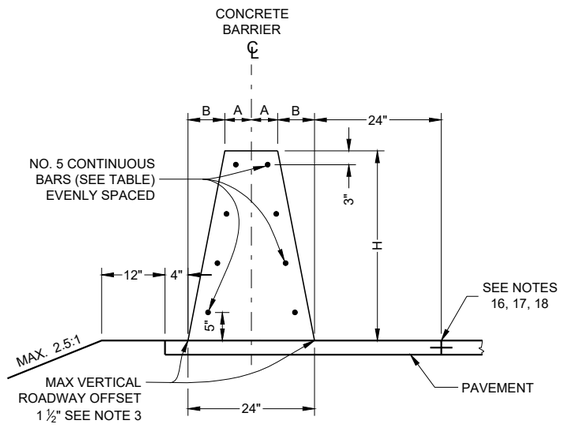
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

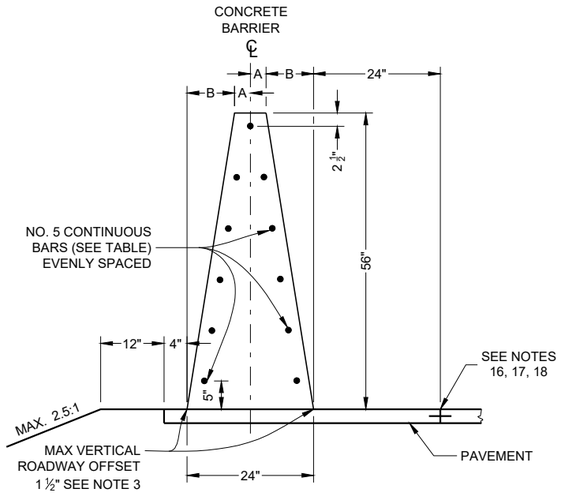
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



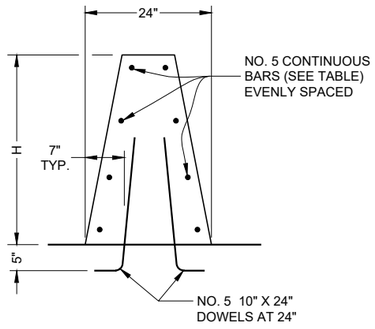
32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER

(TYPE S32, TYPE S36, TYPE S42)



56 - INCH SINGLE SLOPE CONCRETE BARRIER

(TYPE S56)

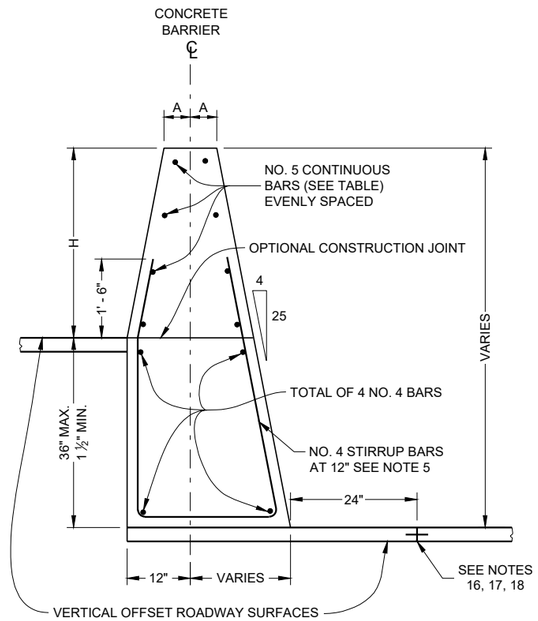


SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

(NON OUTER PARAPET APPLICATION)

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OF ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAT 1", USE TYPE A.
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1' - 0".
6. FOR TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 MONLITHIC FOOTING OR DOWELED FOOTING 2 - #8 X 8" @ 2'- 0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. 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.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL IS NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
17. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
18. SEE SDD 13C1 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.
19. PROVIDE A 1" DEEP, ," WIDE CONTRACTION JOINT IN BARRIER FOOTING AND BARRIER. JOINT IS TO MATCH ADJACENT CONCRETE JOINTS. IF ADJACENT TO ASPHALT CONTRACTION JOINT IS REQUIRED EVERY 15'.

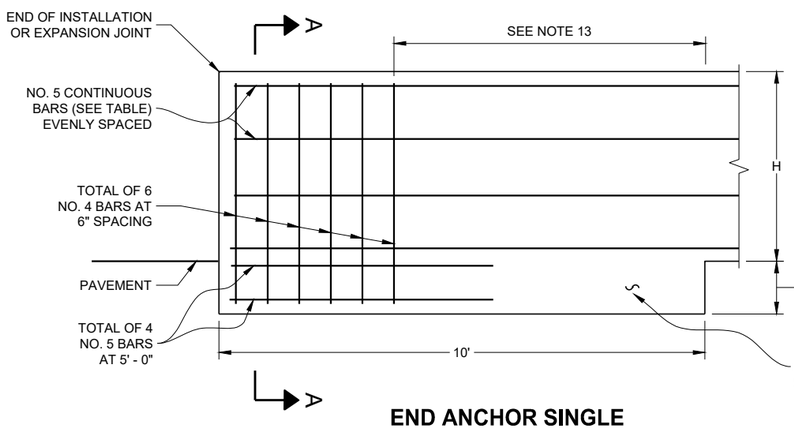


SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

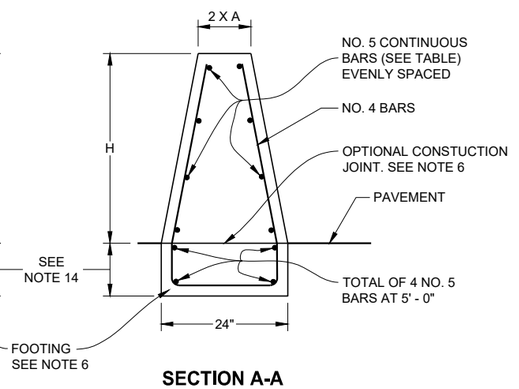
(BETWEEN ADJACENT ROADWAYS)

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10
56	3	9	11

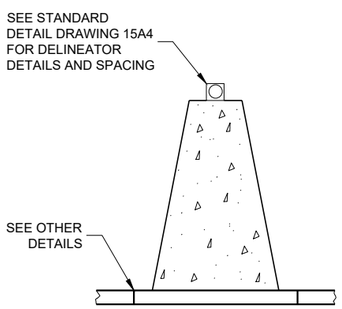


END ANCHOR SINGLE SLOPE CONCRETE BARRIER

(AT CONSTRUCTION JOINT)



SECTION A-A



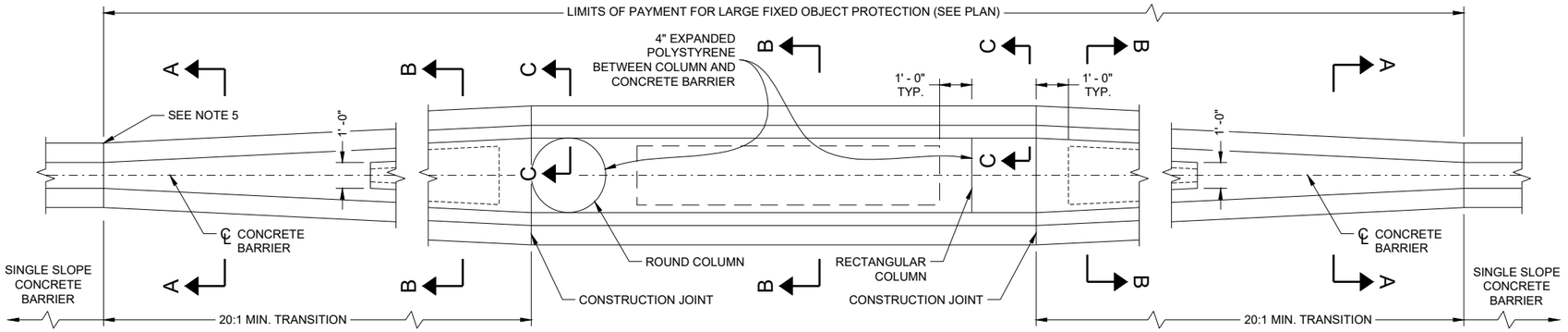
DELINEATION

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

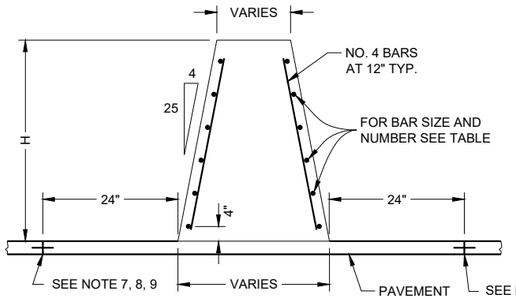
6

SDD 14B32 - 06a

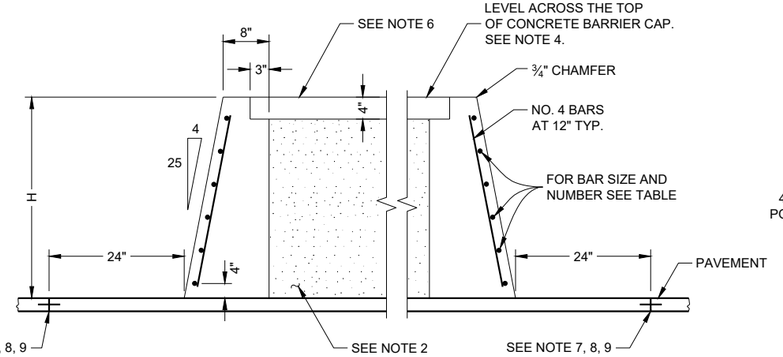


BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	6

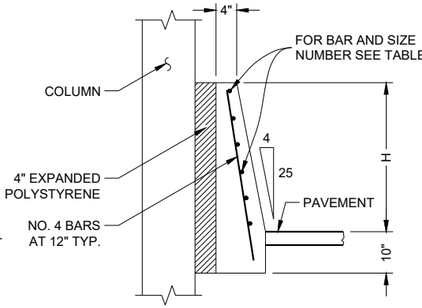
LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)



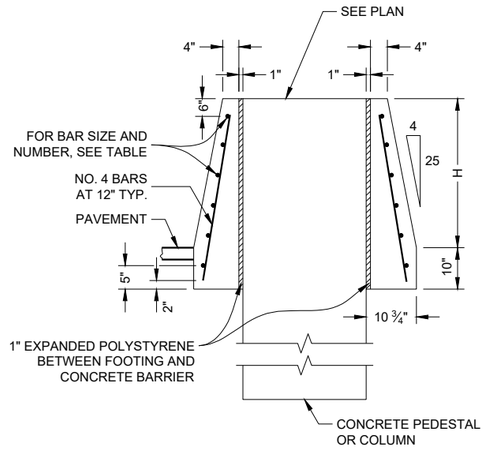
SECTION A - A



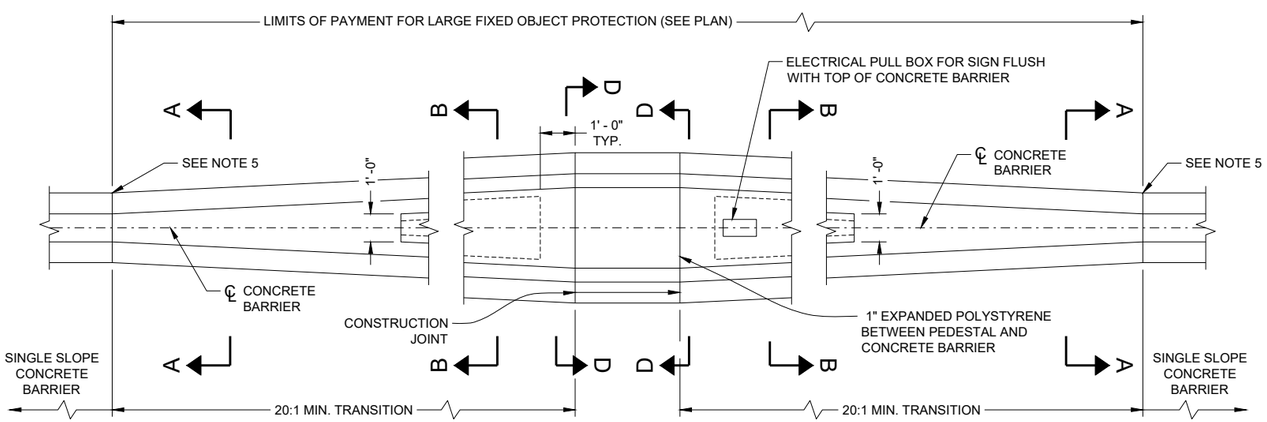
SECTION B - B



SECTION C - C



SECTION D - D



SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

GENERAL NOTES

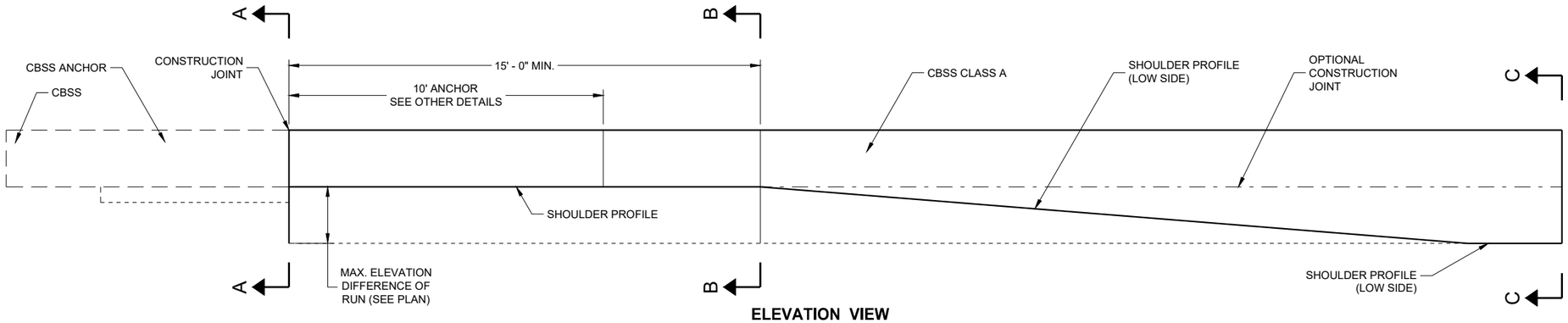
1. INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B -B. MINIMUM ONE DRAIN CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.
6. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.
7. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED ITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
8. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10',
9. SEE SDD 13C1 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.

CONCRETE BARRIER SINGLE SLOPE (CBSS)

SDD 14B32 - 06b
6

GENERAL NOTES

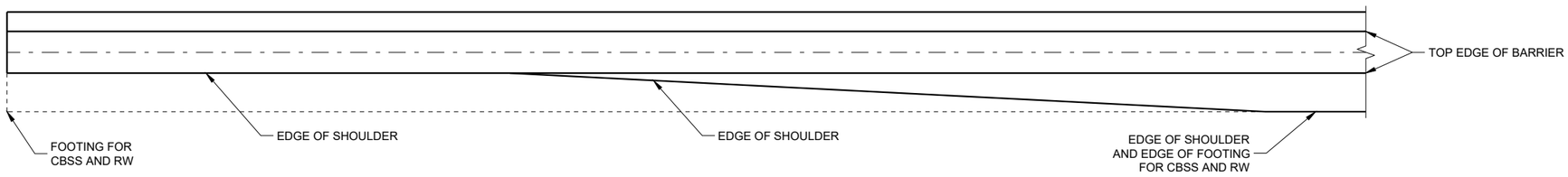
1. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. SEE SDD 13C18 FOR JOINT DEPTH AND WIDTH. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
2. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10',
3. SEE SDD 13C1 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.



ELEVATION VIEW

TRANSITION TO CBSS CLASS A

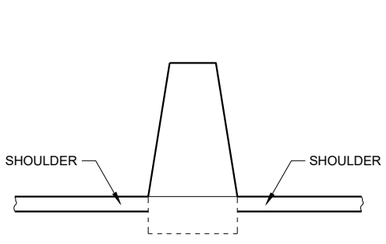
(TYPE S32A, TYPE S36A TYPE S42A TYPE S56A)



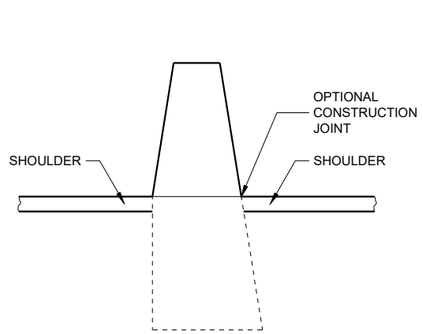
PLAN VIEW

TRANSITION TO CBSS CLASS A

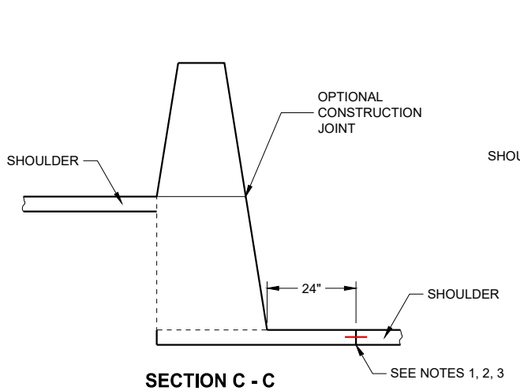
(TYPE S32A, TYPE S36A TYPE S42A TYPE S56A)



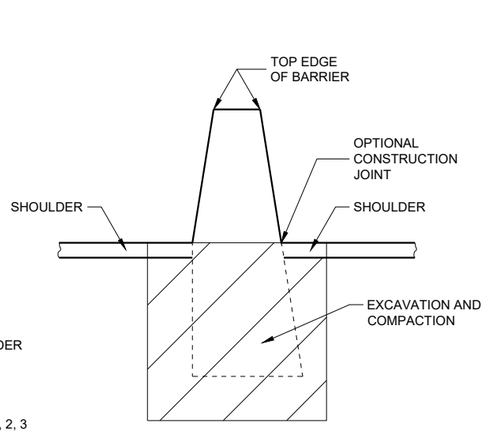
SECTION A - A



SECTION B - B



SECTION C - C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B32 - 06c

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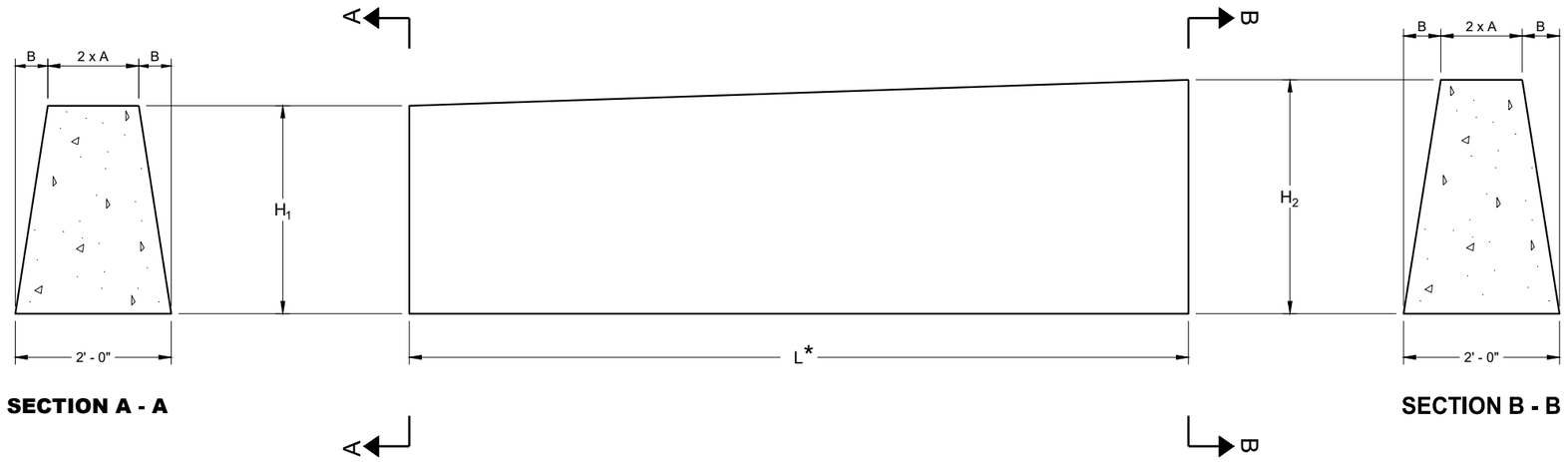
SDD 14B32 - 06c



SECTION A - A

SECTION B - B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 ¼	5 ¾
42	5 ¼	6 ¾
56	3	9

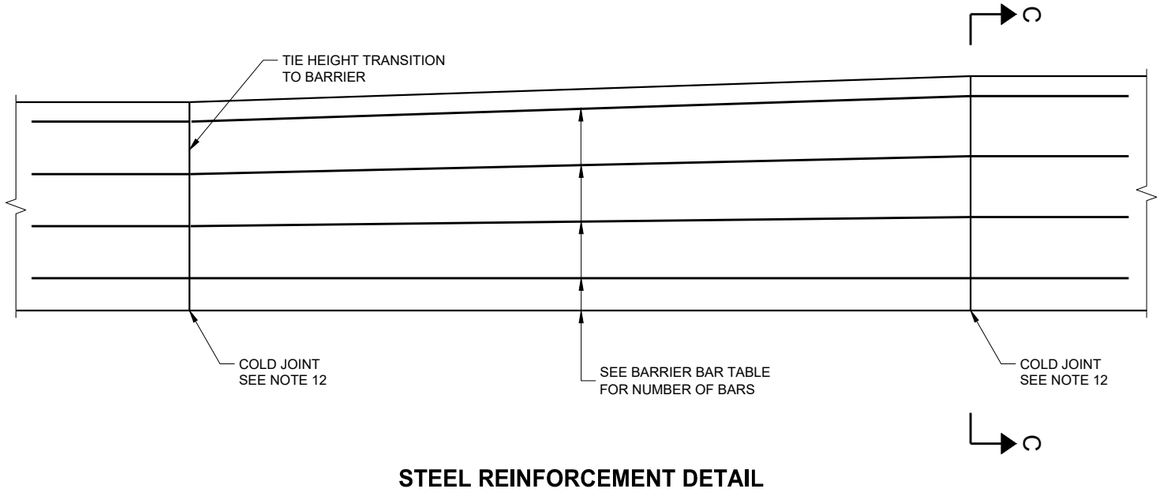
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

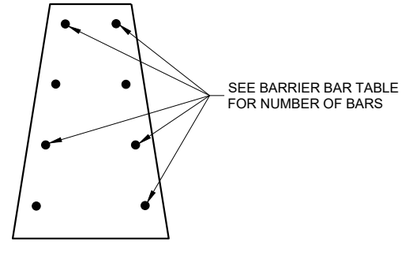
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B32 - 06d

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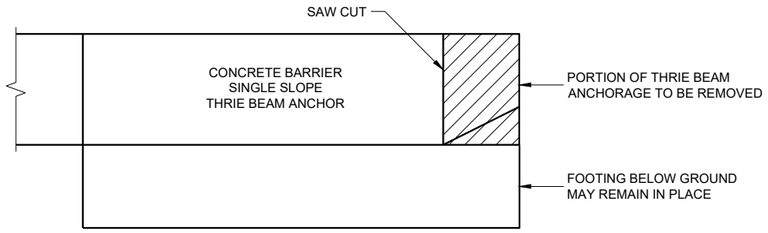
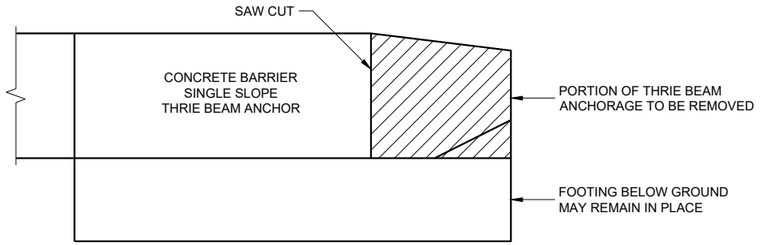
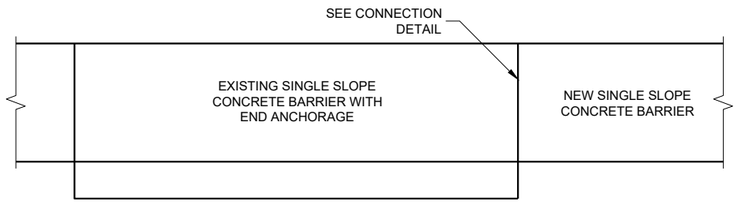
SDD 14B32 - 06d



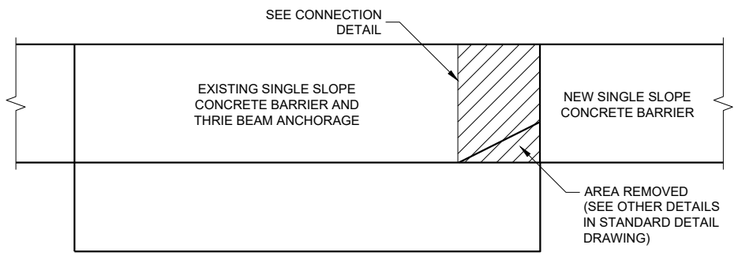
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



REMOVAL AREA OF CONCRETE THRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL

GENERAL NOTES

1 THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).

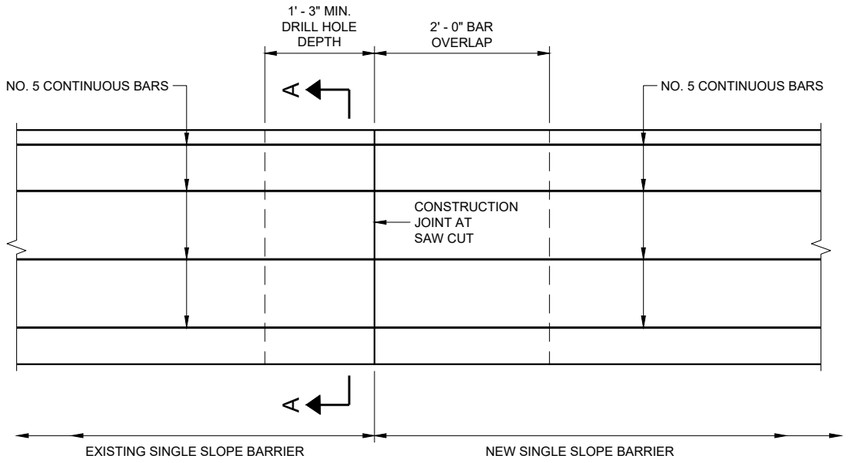
2. MINIMUM DEPTH OF DRILL HOLES IS 1' - 3".

3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE

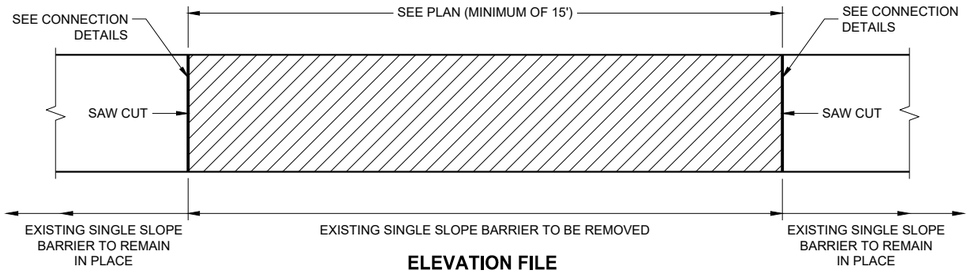
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.

5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIERS.

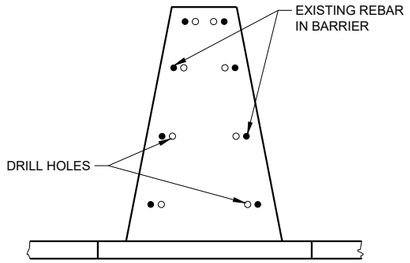
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.



CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO
NEW SINGLE SLOPE CONCRETE BARRIER



ELEVATION FILE
BARRIER REMOVAL AND REPLACEMENT



SECTION A-A

RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

CONCRETE BARRIER
SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR
FHWA

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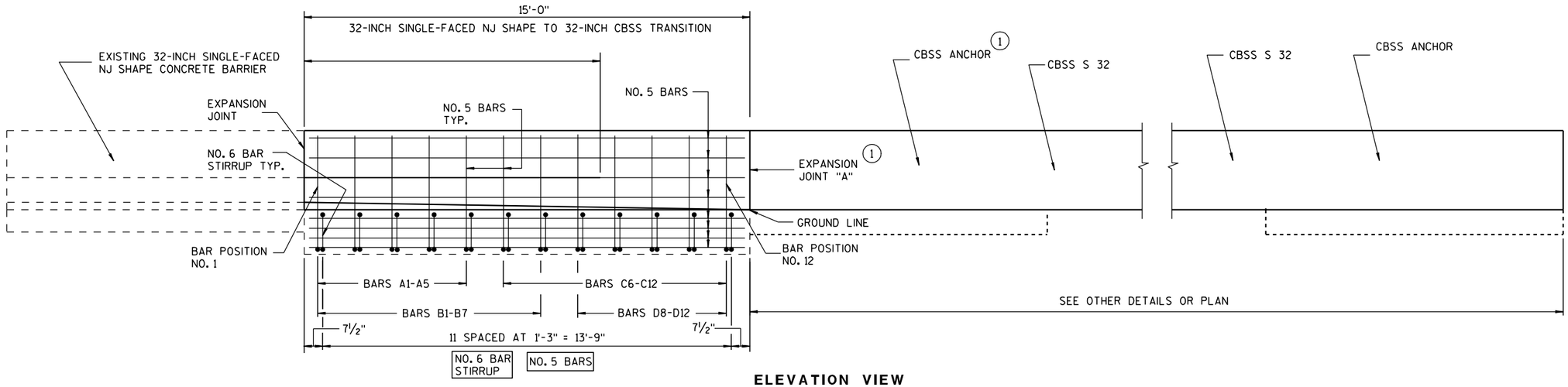
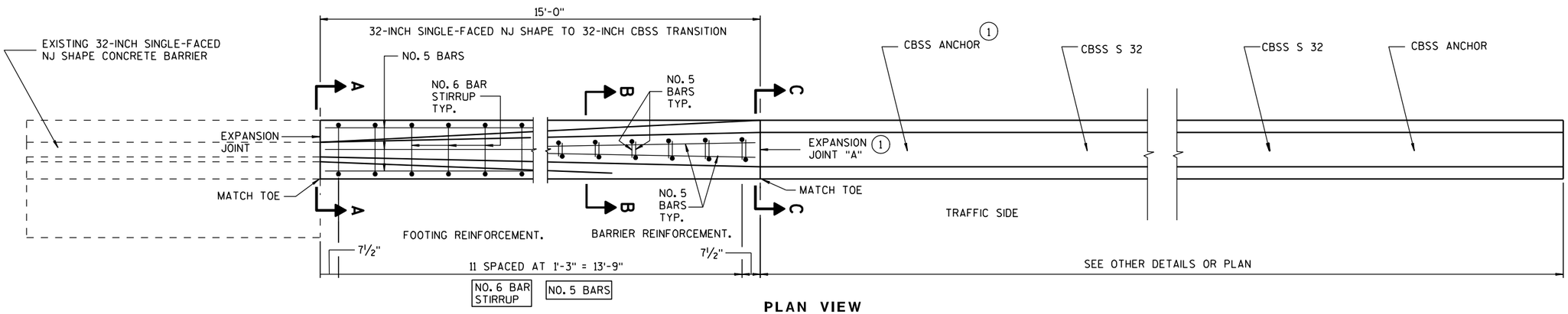
SDD14B32 - 06e

6

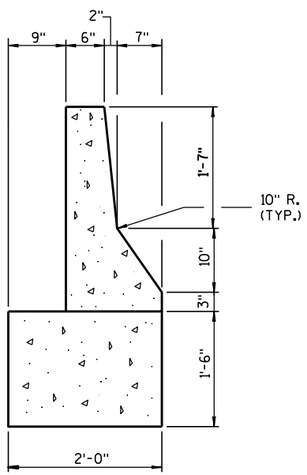
SDD14B32 - 06e



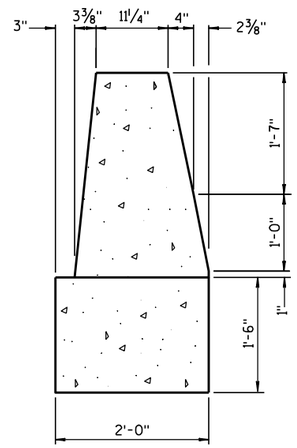
ELEVATION VIEW



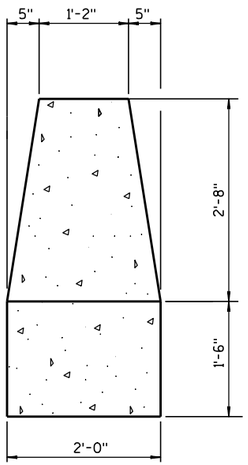
PLAN VIEW



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.

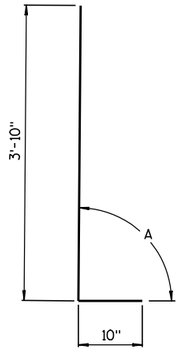
32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 32-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 35-1a

"A" BAR CHART
BAR POSITIONS NO.1 - NO.5

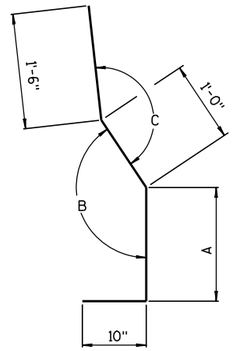
BAR	A
A1	90°
A2	89°-15'
A3	88°-50'
A4	88°-15'
A5	87°-50'



"A" BAR
BENDING DETAIL

"B" BAR CHART
BAR POSITIONS NO.1 - NO. 7

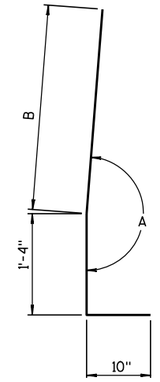
BAR	A	B	C
B1	1'-6"	146°-20'	152°-40'
B2	1'-6"	149°-25'	156°-35'
B3	1'-6"	152°-35'	160°-30'
B4	1'-5½"	155°-20'	163°-55'
B5	1'-5½"	158°-30'	167°-50'
B6	1'-5"	161°-45'	171°-50'
B7	1'-5"	164°-20'	175°-10'



"B" BAR
BENDING DETAIL

"C" BAR CHART
BAR POSITIONS NO. 6 - NO. 12

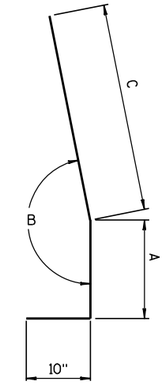
BAR	A	B
C6	176°	2'-6"
C7	175°-05'	2'-6"
C8	174°-25'	2'-6"
C9	173°-45'	2'-6¼"
C10	172°-50'	2'-6¼"
C11	172°-10'	2'-6½"
C12	171°-30'	2'-6½"



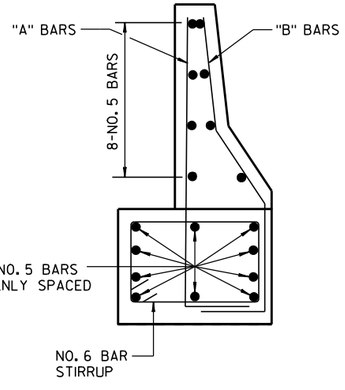
"C" BAR
BENDING DETAIL

"D" BAR CHART
BAR POSITIONS NO. 8 - NO. 12

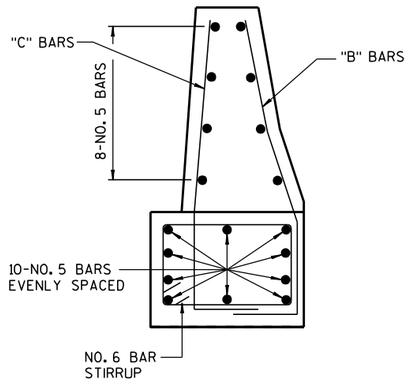
BAR	A	B	C
D8	1'-5"	168°-05'	2'-6"
D9	1'-5"	168°-50'	2'-6"
D10	1'-5"	169°-25'	2'-6"
D11	1'-4"	170°-10'	2'-6½"
D12	1'-4"	170°-50'	2'-6½"



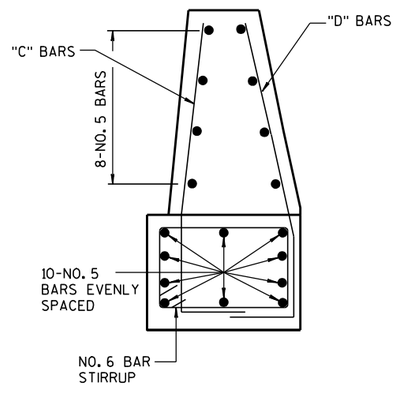
"D" BAR
BENDING DETAIL



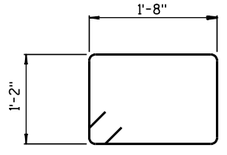
BAR DETAIL
BAR POSITIONS NO. 1 - NO. 5



BAR DETAIL
BAR POSITION NO. 6 - NO. 8



BAR DETAIL
BAR POSITIONS NO. 9 - NO. 12



STIRRUP BAR
BENDING DETAIL

32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 32-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 35-1b

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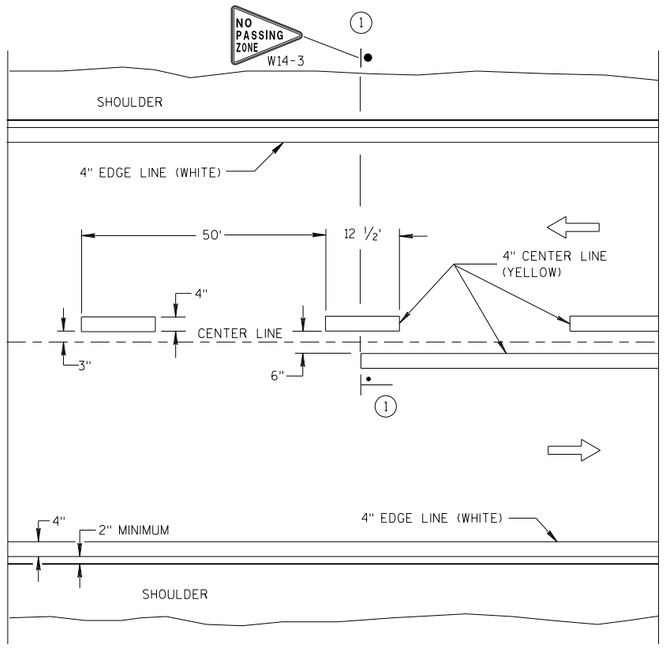
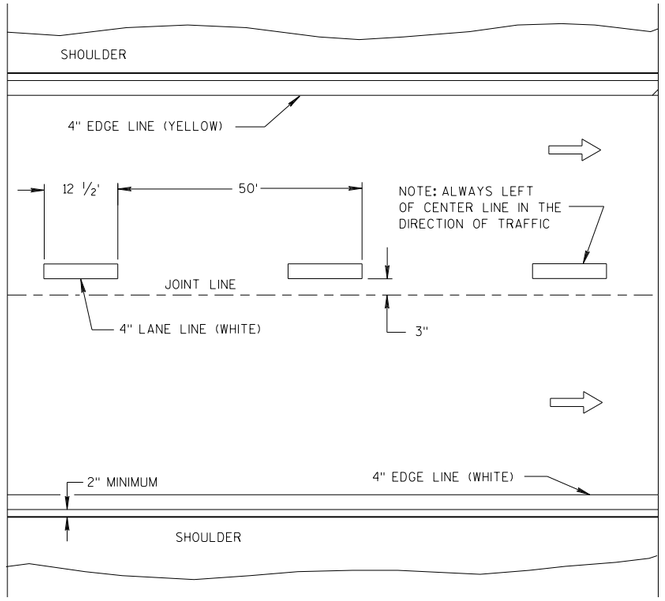
S.D.D. 14 B 35-1b



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

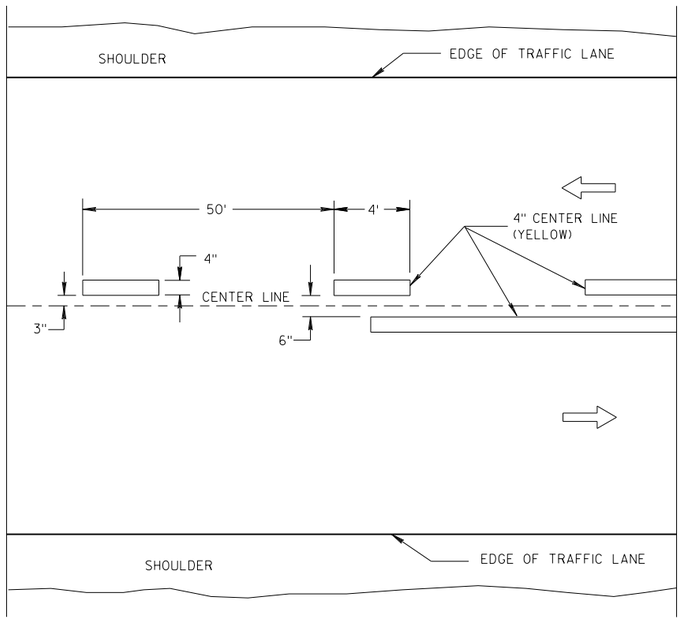
GENERAL NOTES

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

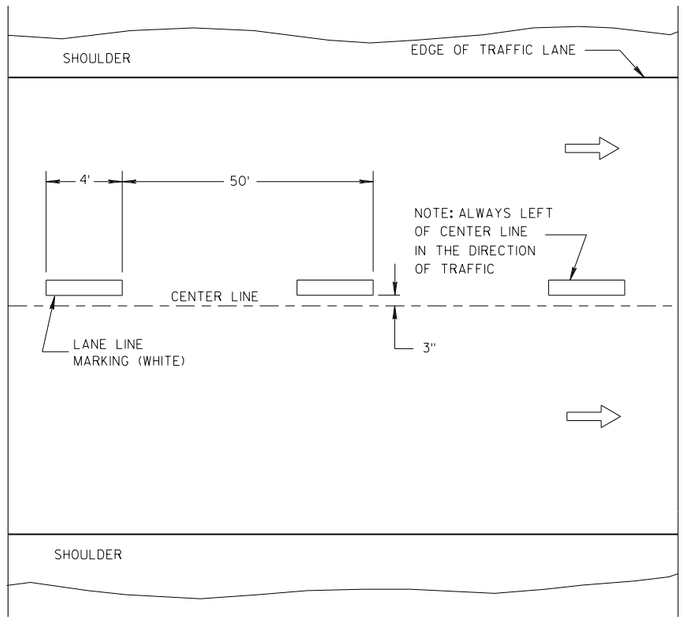
(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LEGEND

"T" MARKING

POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

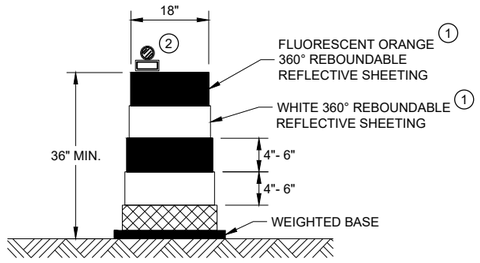
S.D.D. 15 C 8-19a

6

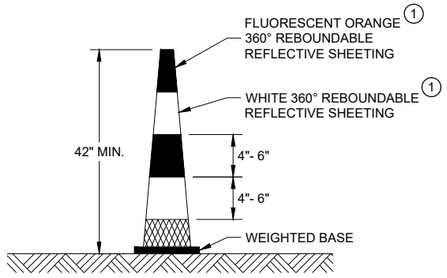
S.D.D. 15 C 8-19a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

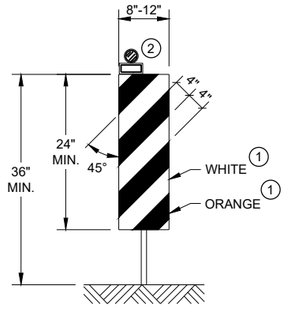


DRUM



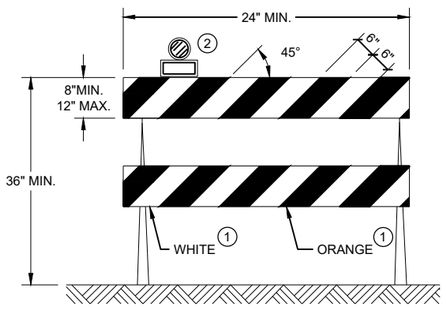
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



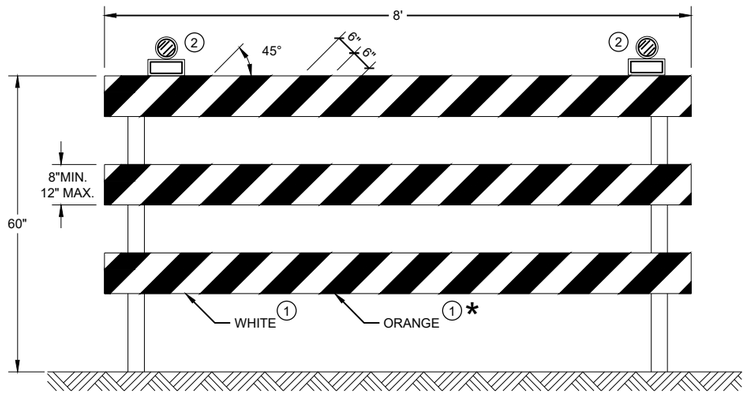
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C11 - 07b

6

SDD 15C11 - 07b

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 DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 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 OR AS APPROVED BY THE ENGINEER.

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 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.

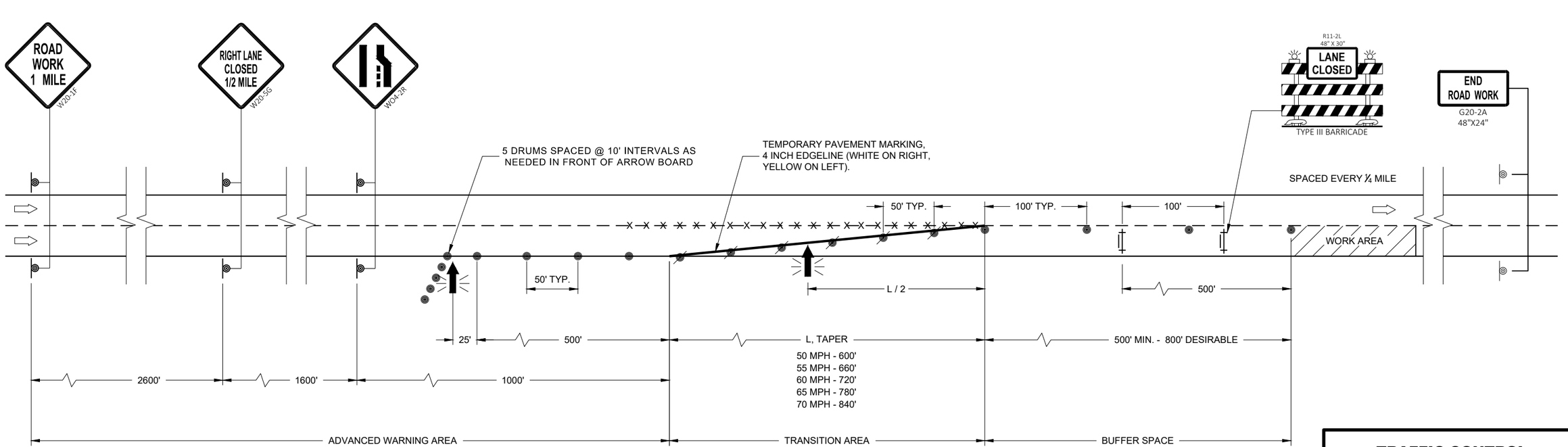
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 ONE HALF 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 07a

6

SDD 15D12 - 07a

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- 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.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

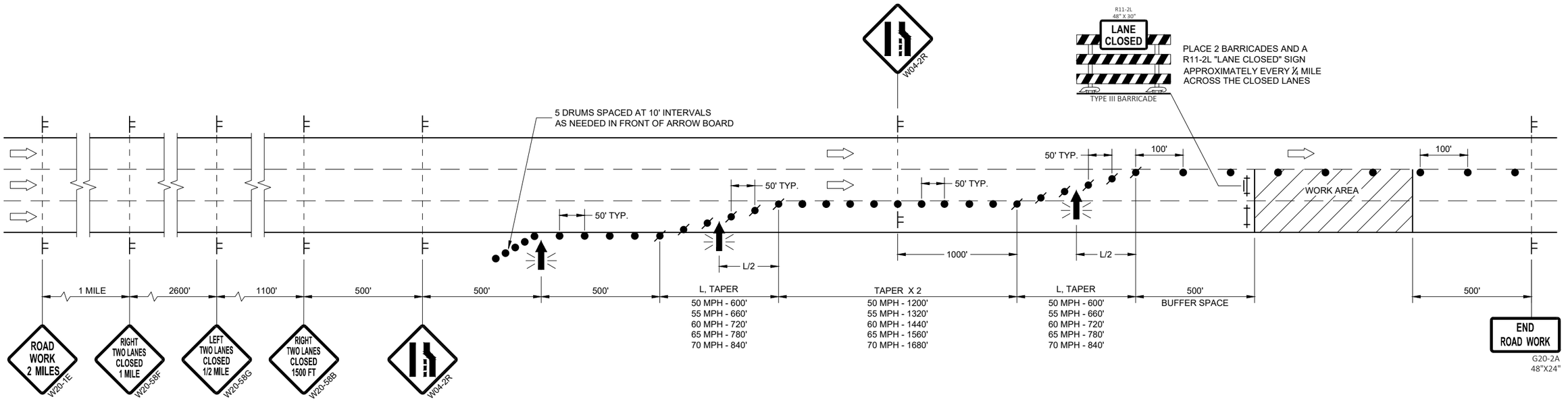
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

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 REESTABLISHED 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
July 2015 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

SDD 15D14 - 03

SDD 15D14 - 03

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.

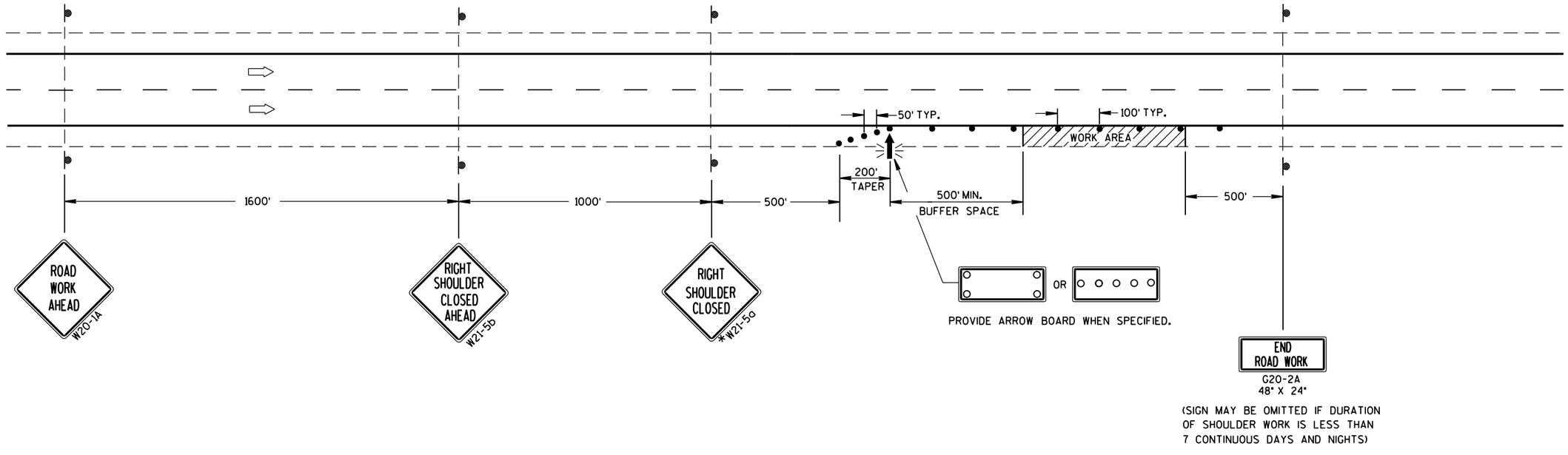
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

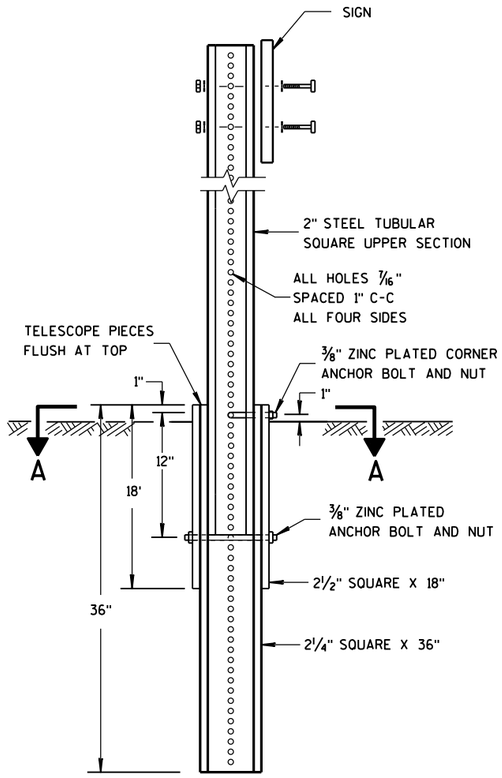
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] TIC SAFETY ENGI[illegible]

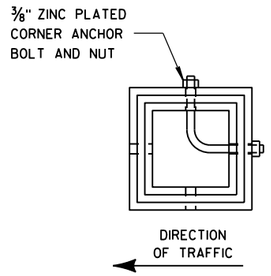
FHWA

6

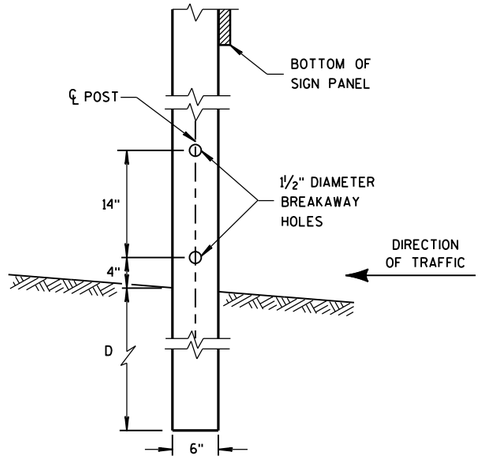
S.D.D. 15 D 27-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



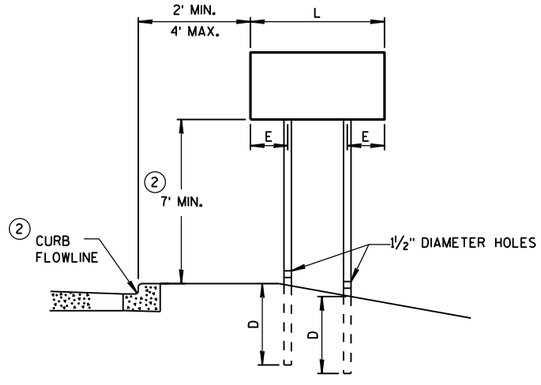
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

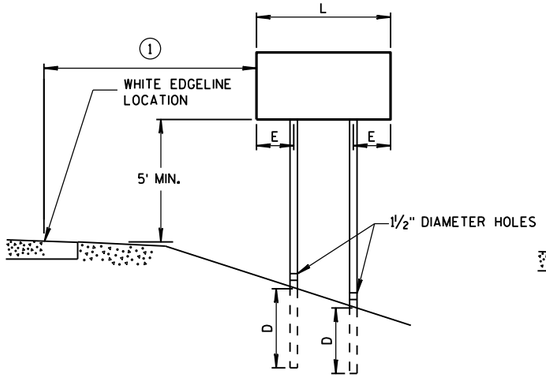
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

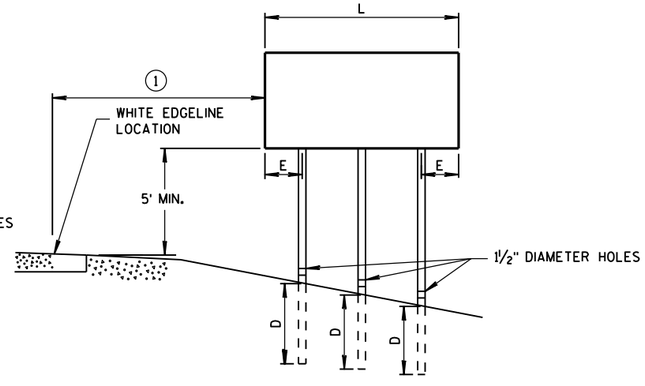
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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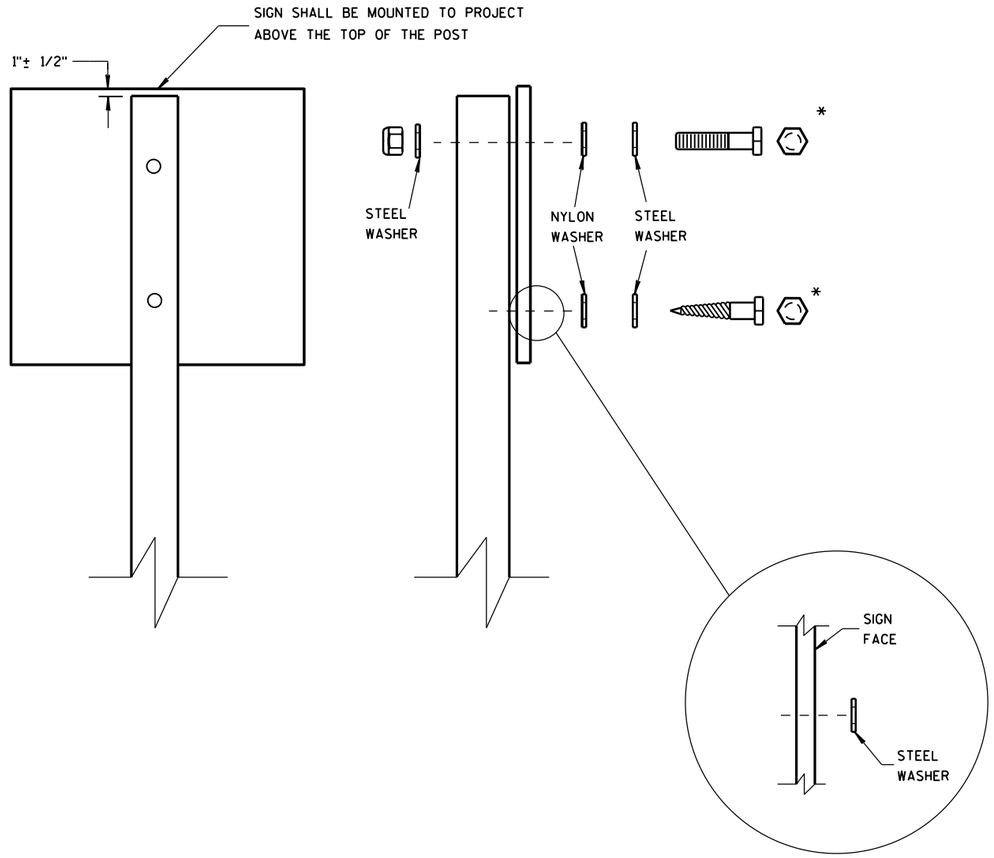
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

OR

LOCATED 3000 FEET BEYOND THE "ROAD WORK 1 MILE" (W20-1F) SIGN

R2-1
48"X60"

OR

R2-1
48"X60"

(BLACK AND WHITE) LOCATED 700 FEET BEYOND THE W03-5 SIGN

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. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

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 LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

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.

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.

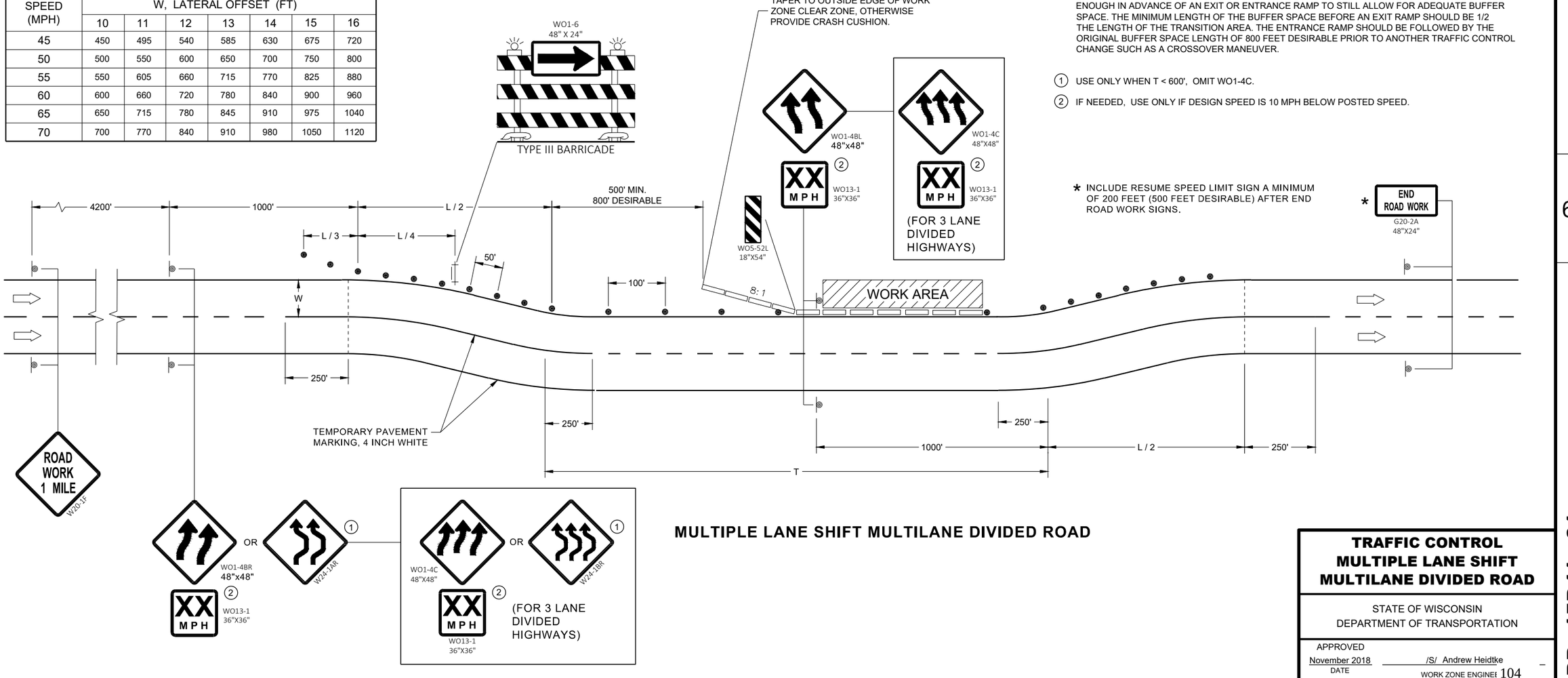
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.

(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.



MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD

TRAFFIC CONTROL
MULTIPLE LANE SHIFT
MULTILANE DIVIDED ROAD

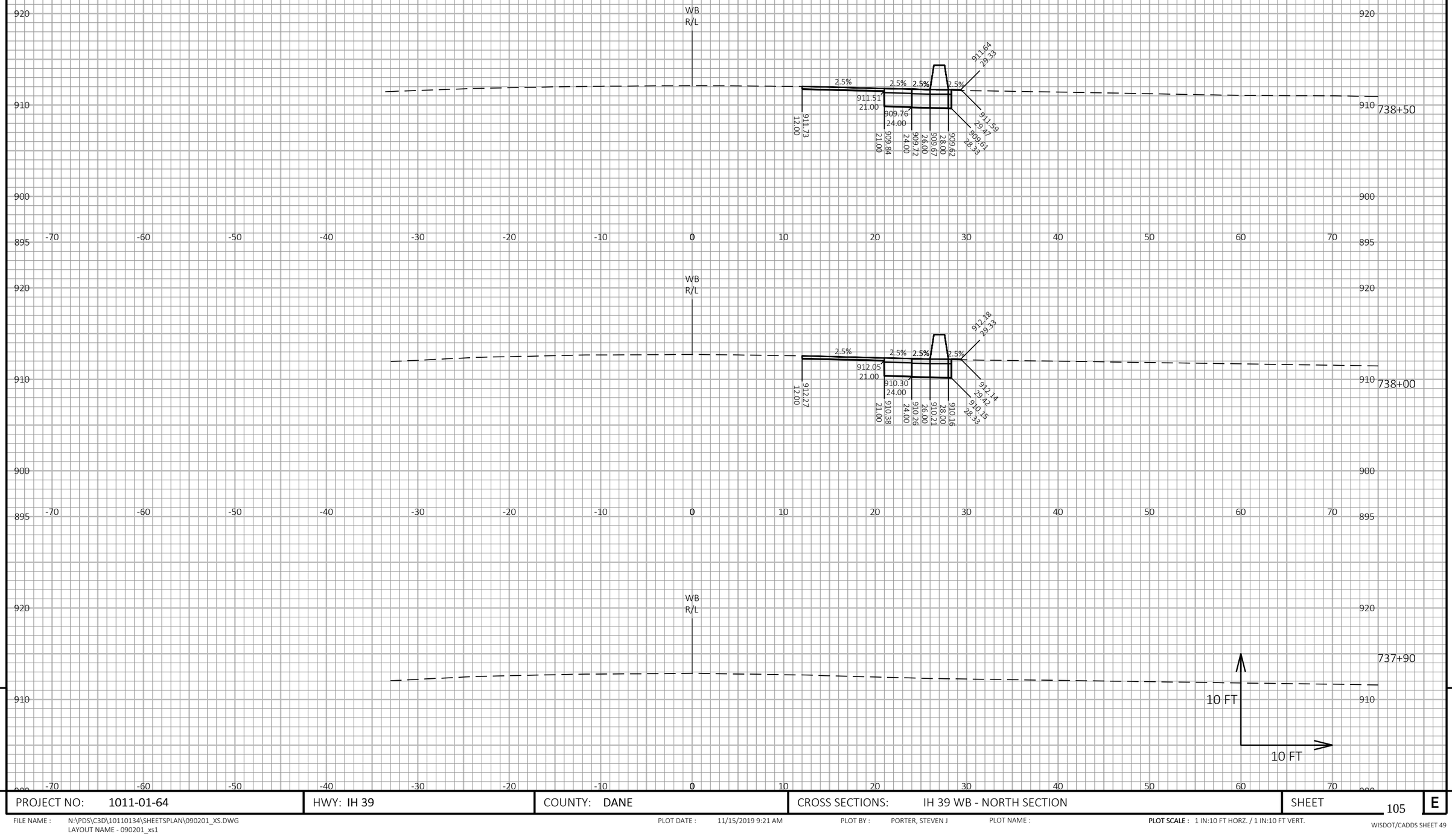
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

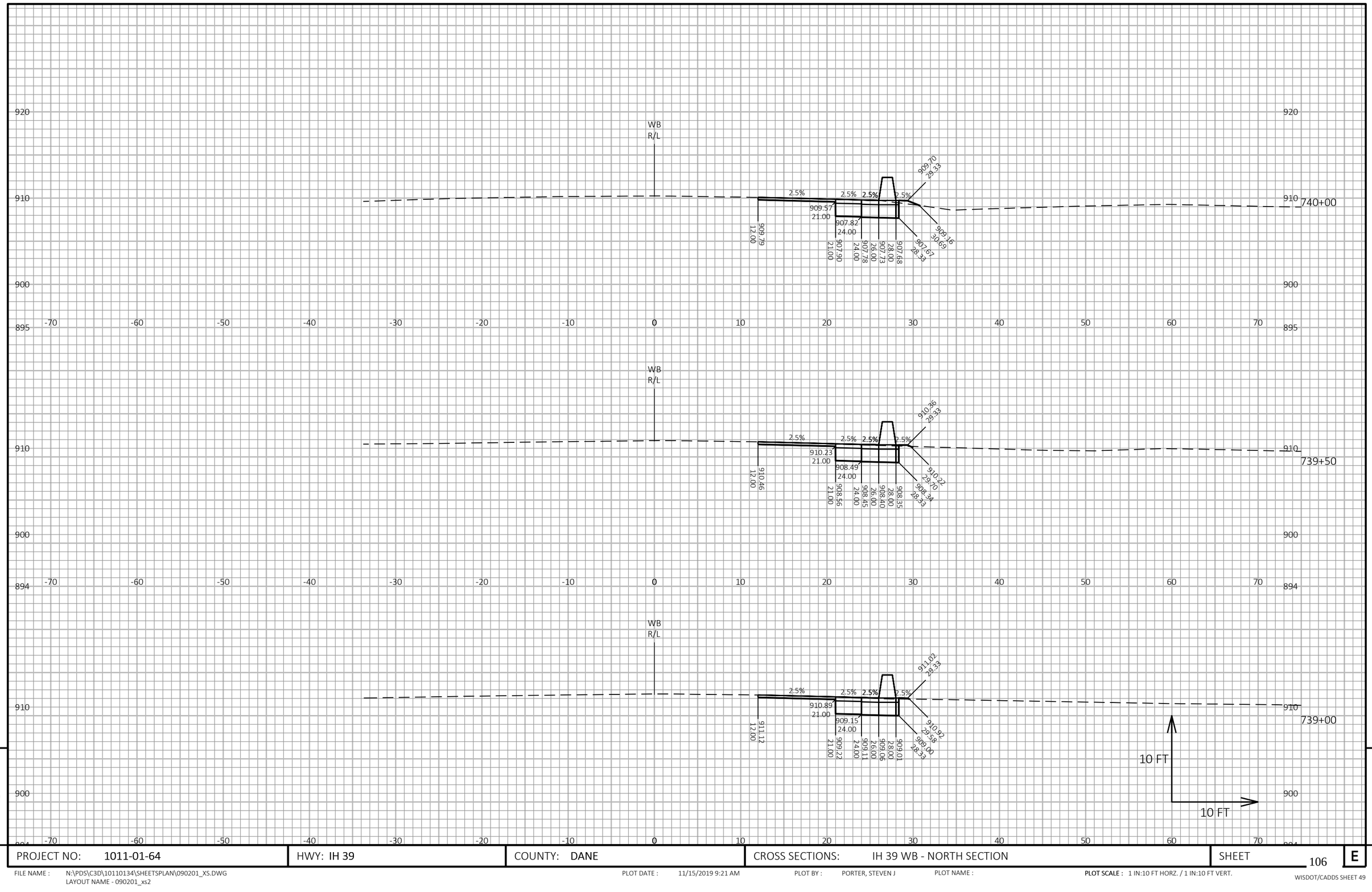
FHWA

SDD 15D41 - 01

SDD 15D41 - 01



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 105	E

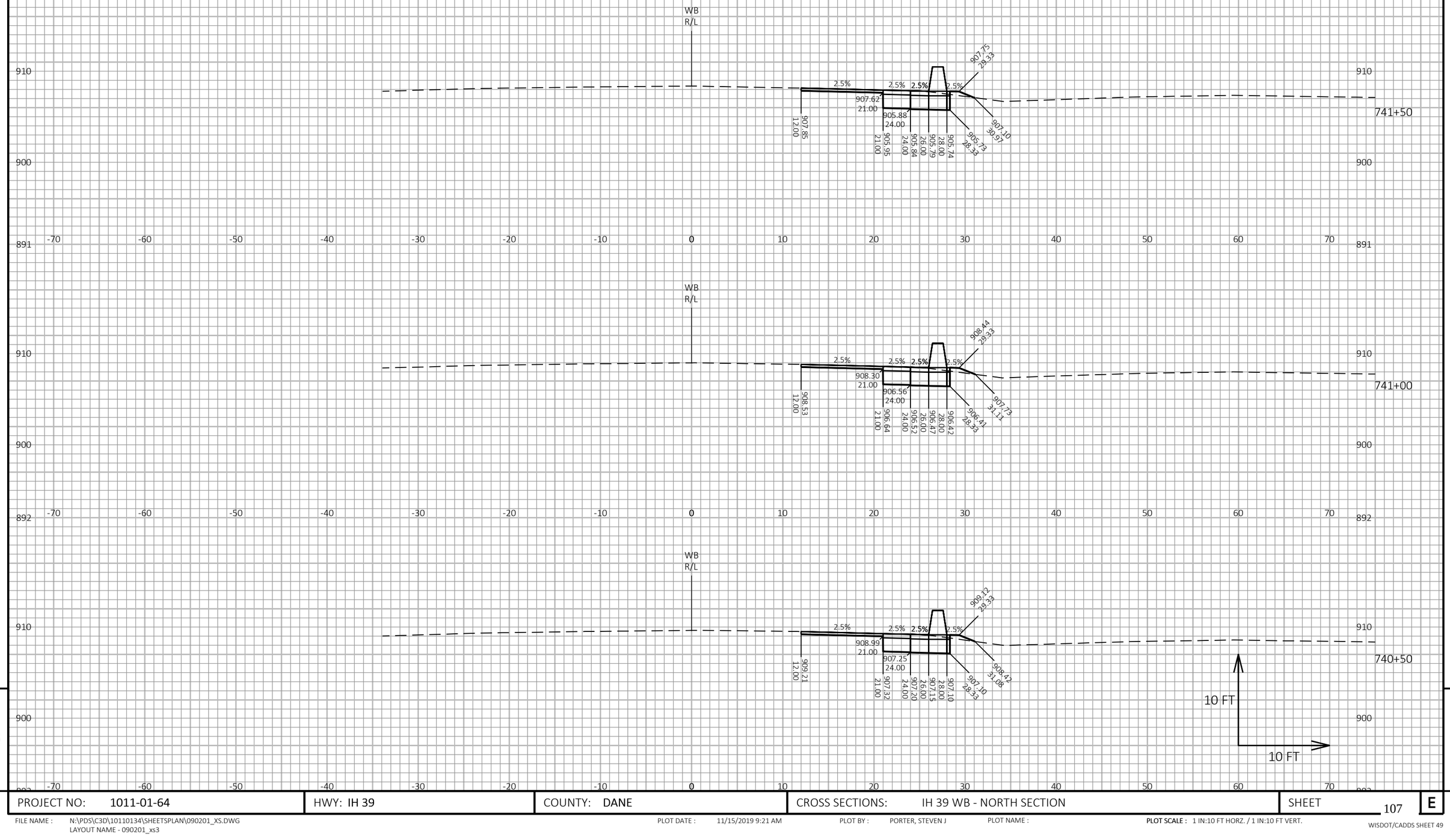


PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 106	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs2

PLOT DATE : 11/15/2019 9:21 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 107 E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs3

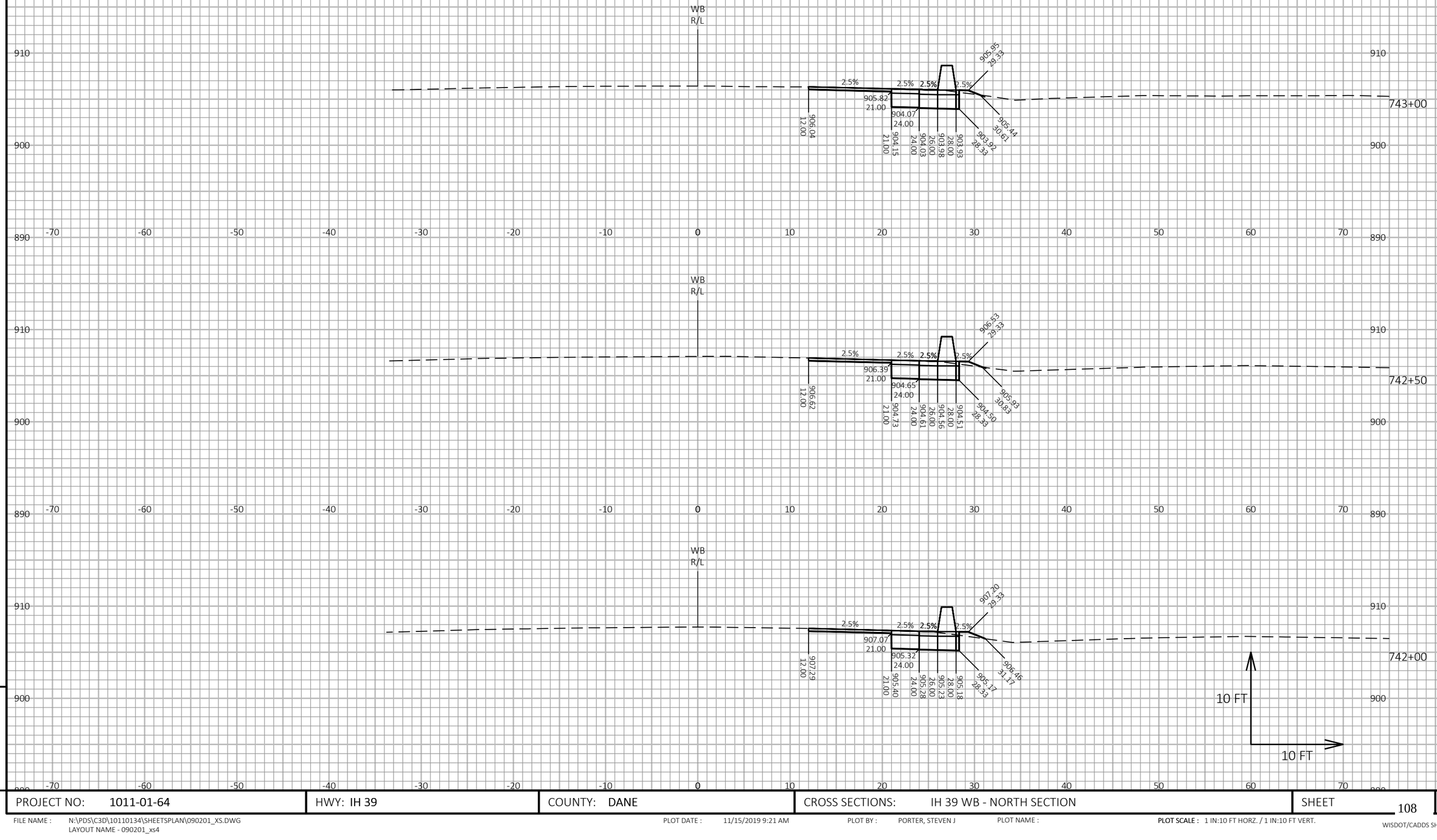
PLOT DATE : 11/15/2019 9:21 AM

PLOT BY : PORTER, STEVEN J

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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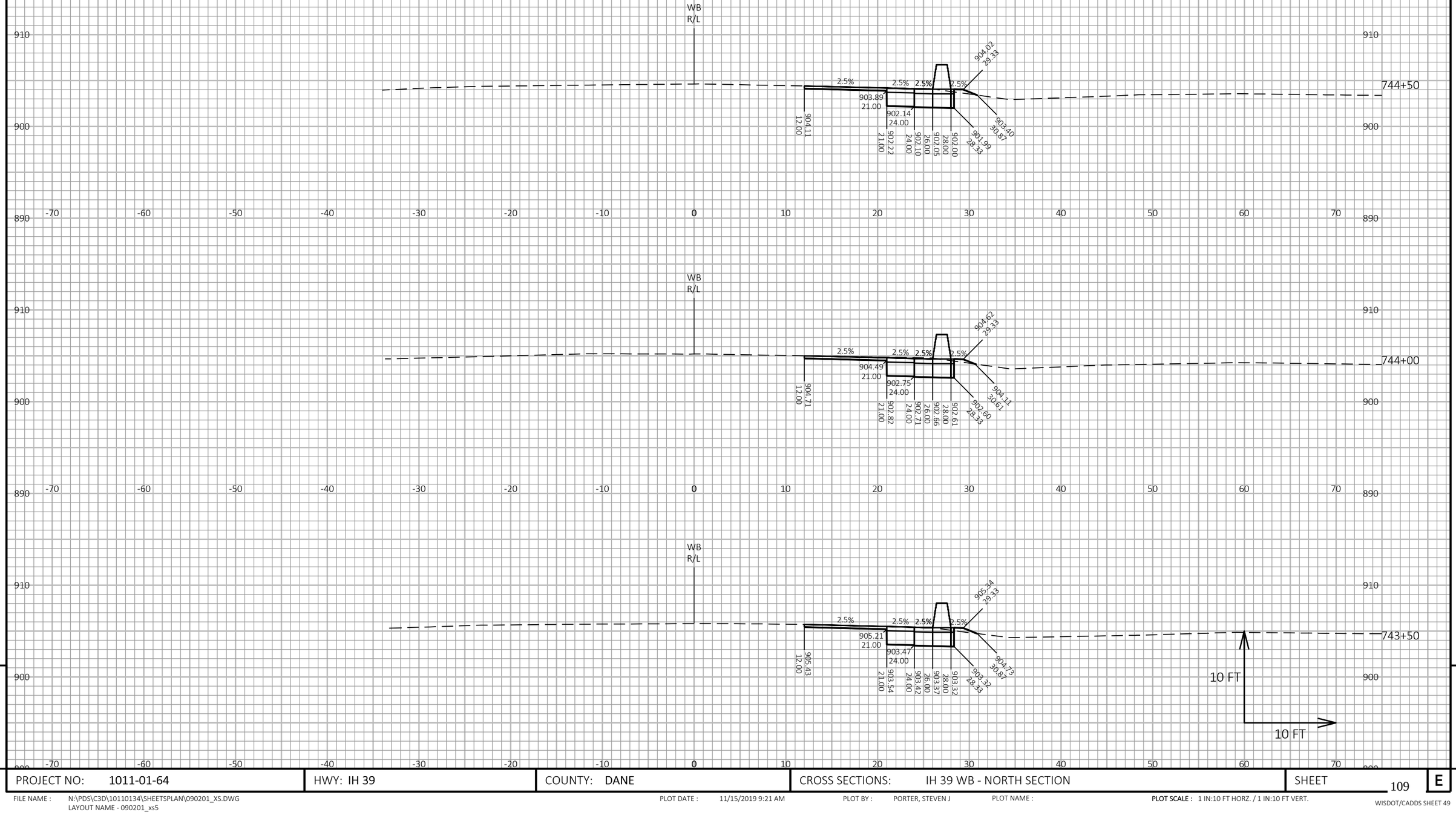
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 108	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs4

PLOT DATE : 11/15/2019 9:21 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

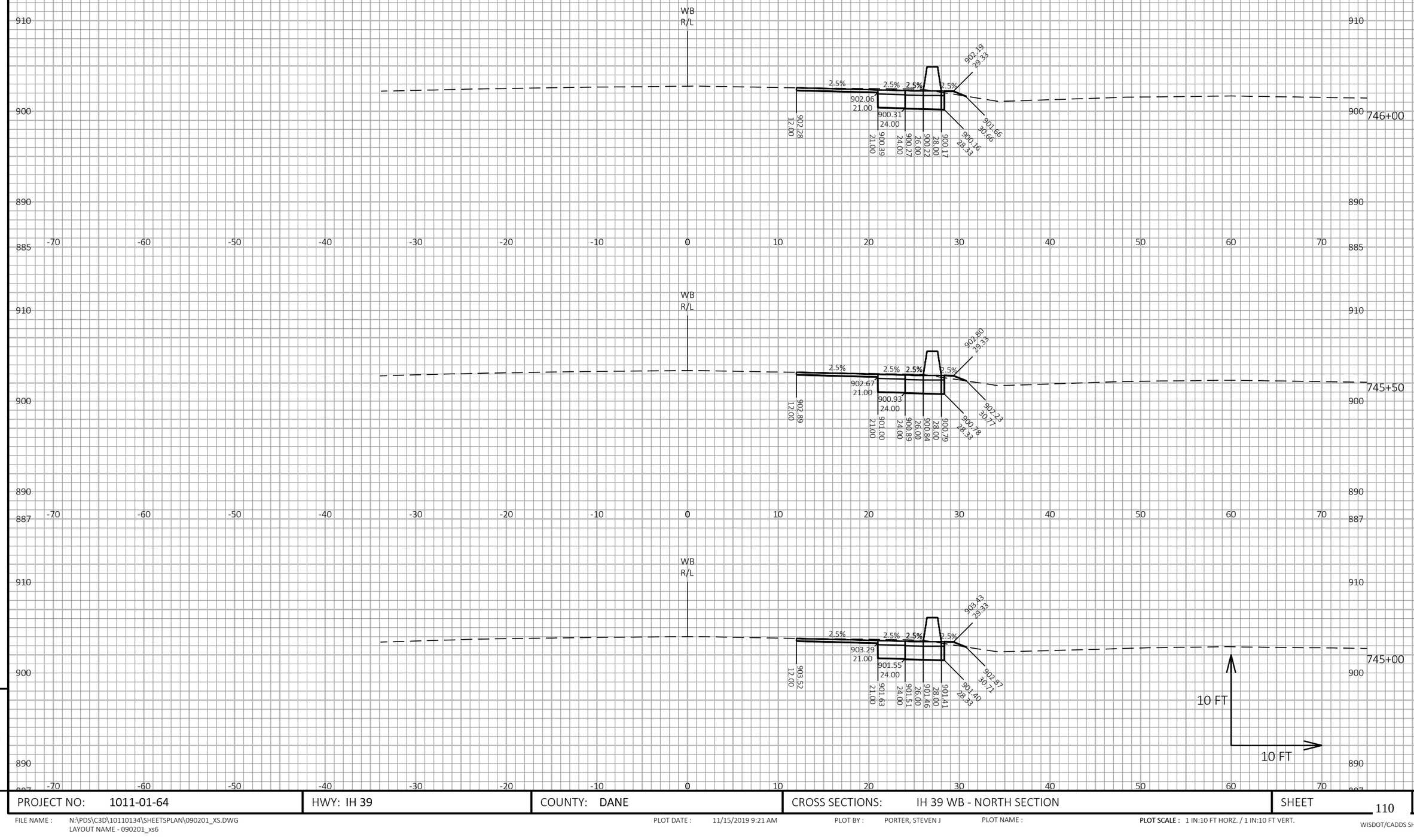


PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 109	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs5

PLOT DATE : 11/15/2019 9:21 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

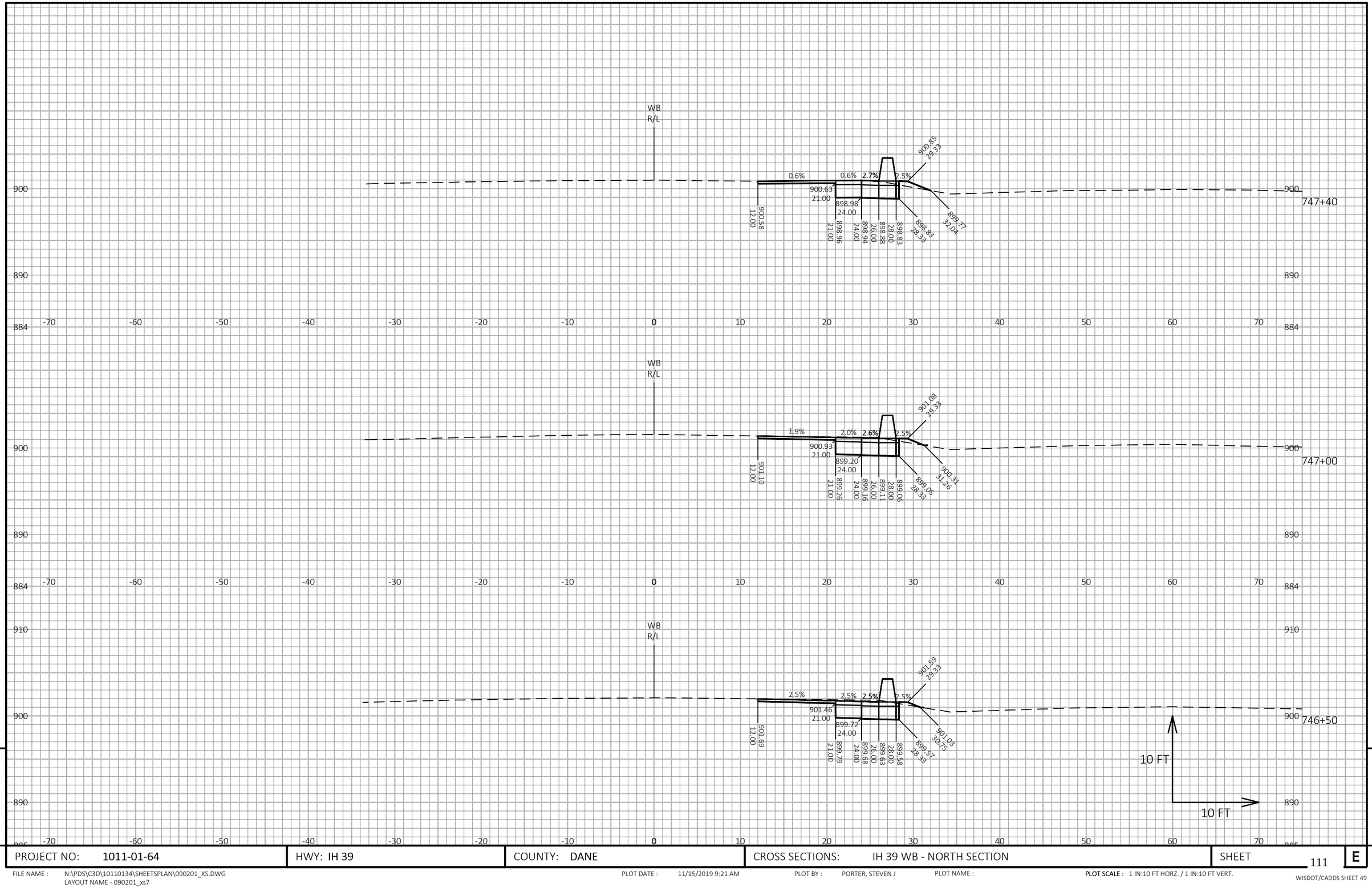


PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 110	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs6

PLOT DATE : 11/15/2019 9:21 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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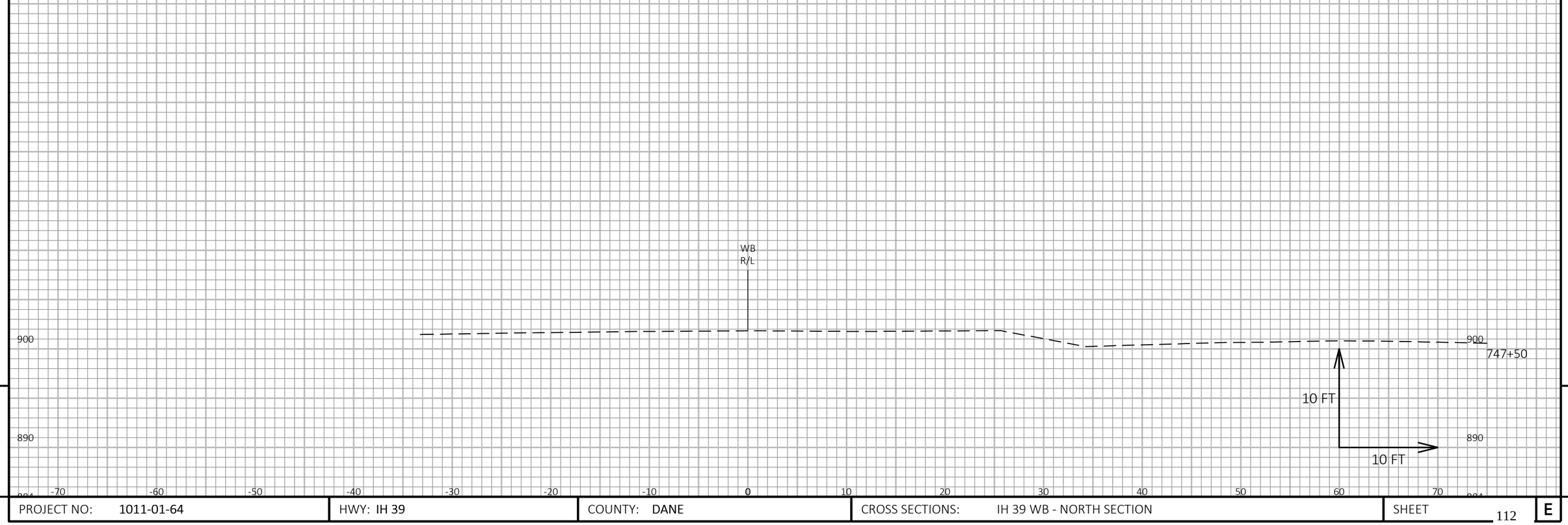
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 111	E

FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs7

PLOT DATE : 11/15/2019 9:21 AM PLOT BY : PORTER, STEVEN J PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - NORTH SECTION	SHEET 112	E

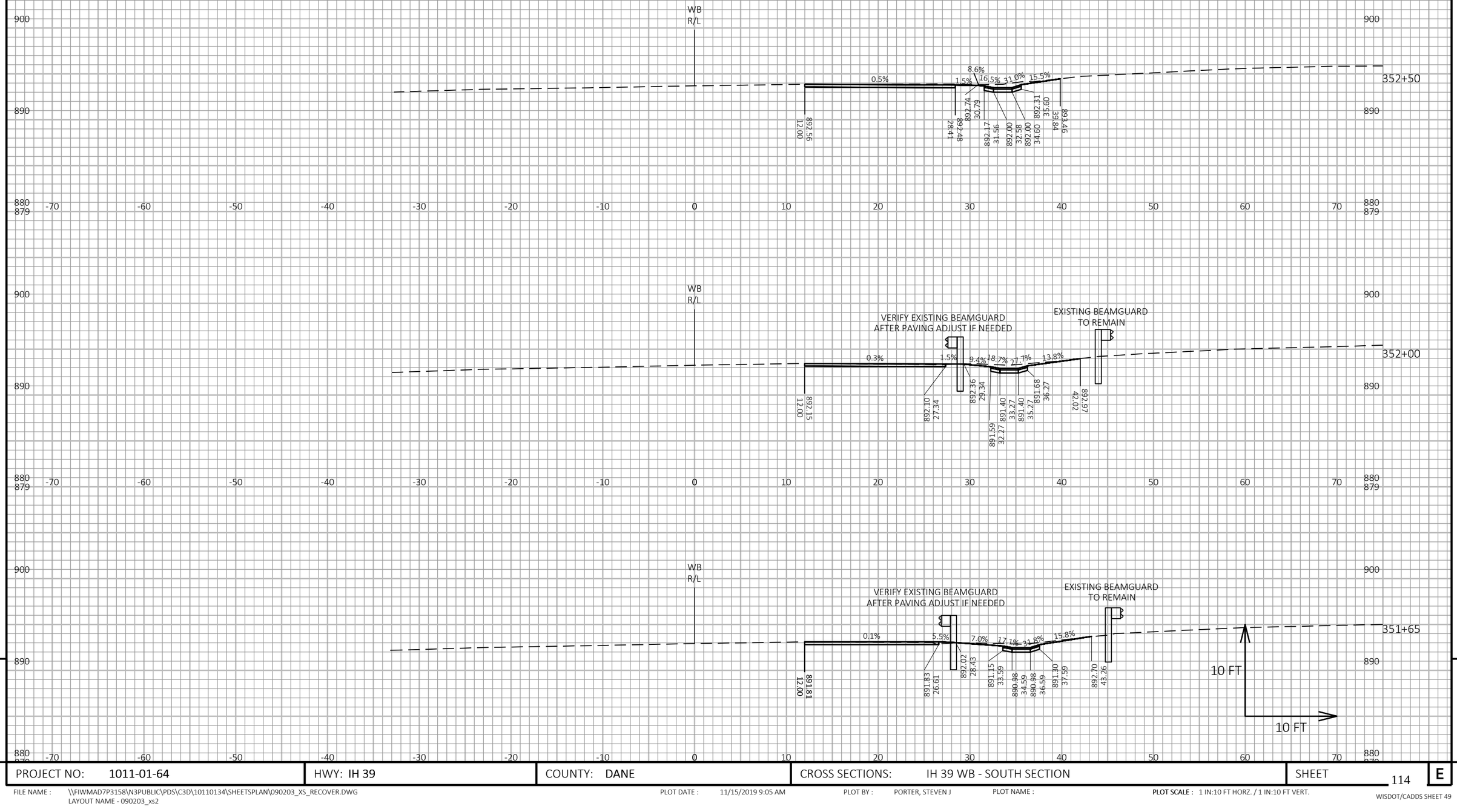
FILE NAME : N:\PDS\C3D\10110134\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_xs8
PLOT DATE : 11/15/2019 9:21 AM
PLOT BY : PORTER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - SOUTH SECTION	SHEET 113 E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\090203_XS_RECOVER.DWG
LAYOUT NAME - 090203_xs1

PLOT DATE : 11/15/2019 9:05 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

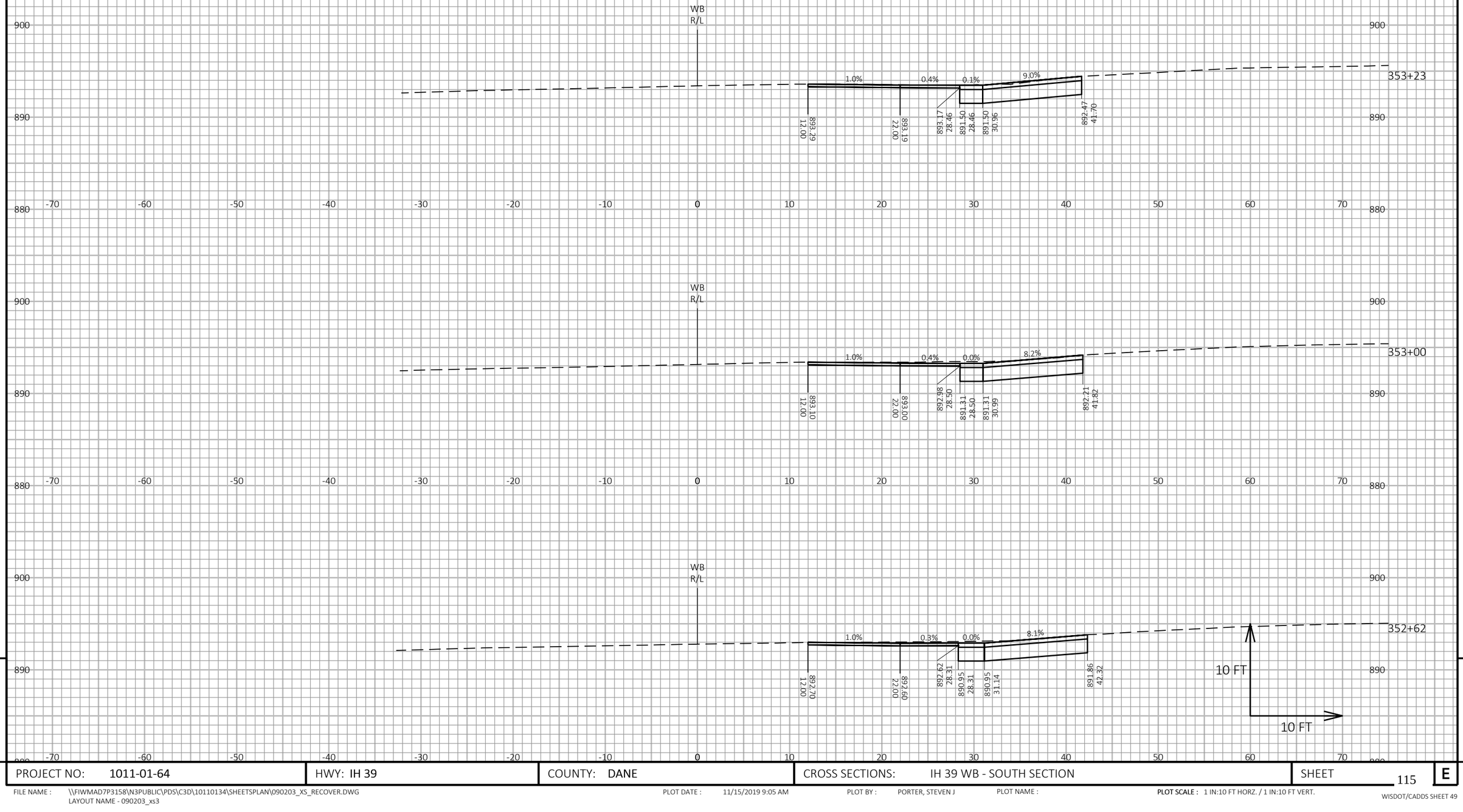


PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - SOUTH SECTION	SHEET 114	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\090203_XS_RECOVER.DWG
LAYOUT NAME - 090203_xs2

PLOT DATE : 11/15/2019 9:05 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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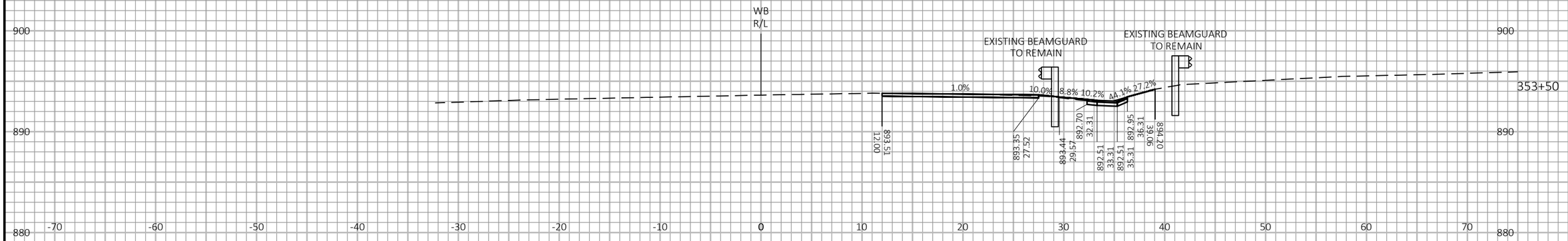
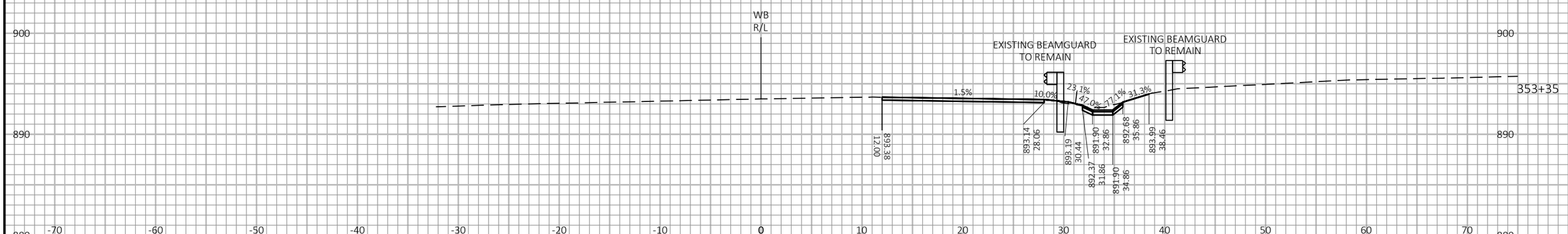
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - SOUTH SECTION	SHEET 115	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\090203_XS_RECOVER.DWG
LAYOUT NAME - 090203_xs3

PLOT DATE : 11/15/2019 9:05 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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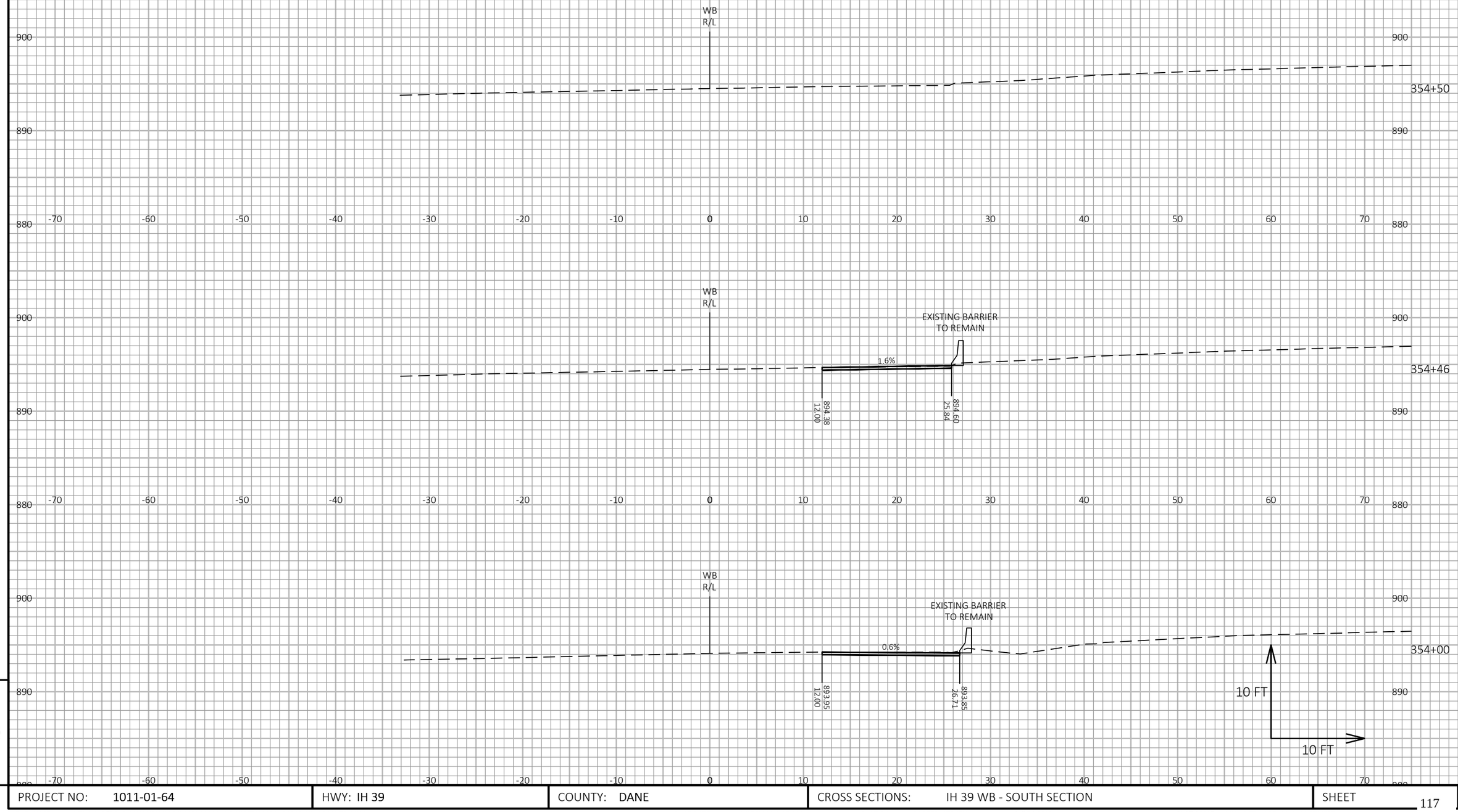
PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - SOUTH SECTION	SHEET 116	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\090203_XS_RECOVER.DWG
LAYOUT NAME - 090203_xs4

PLOT DATE : 11/15/2019 9:05 AM PLOT BY : PORTER, STEVEN J PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1011-01-64	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 WB - SOUTH SECTION	SHEET 117	E

FILE NAME : \\FIWMAD7P3158\N3PUBLIC\PDS\C3D\10110134\SHEETSPLAN\090203_XS_RECOVER.DWG
LAYOUT NAME - 090203_xs5

PLOT DATE : 11/15/2019 9:05 AM PLOT BY : PORTER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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