

ORDER OF SHEETS

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

TOTAL SHEETS = 200

PROJECT LOCATION



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

SPOONER - MINONG

WHALEN LAKE ROAD - CTH T (SB)

USH 53

WASHBURN & DOUGLAS

STATE PROJECT NUMBER
1198-00-76

END PROJECT
STA 1001+60.00

R-13-W | R-12-W | R-11-W

T-42-N

T-41-N

T-40-N

EXCEPTION TO NET CENTERLINE
STA 860+51.39'SB' TO STA 863+88.79'SB'
STR B-65-38

BEGIN PROJECT
STA 39+87.00
Y= 604514.531
X= 756693.933

DESIGN DESIGNATION

A.A.D.T. (2017)	=	5500
A.A.D.T. (2027)	=	6500
D.H.V.	=	897
D.D.	=	63/37
T.	=	15.4%
DESIGN SPEED	=	65 MPH
ESALS	=	2,500,000

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)	---
SPECIAL DITCH	---
GRADE ELEVATION	95.26
CULVERT (Profile View)	---
UTILITIES	---
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---



SCALE 0 3 MILES

TOTAL NET LENGTH OF CENTERLINE = 18.14 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT

1198-00-76

FEDERAL PROJECT

PROJECT

WISC 2015433

CONTRACT

1

ORIGINAL PLANS PREPARED BY

1-23-2015 *Jarrod Starren*
(Date) (Signature)



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	SEH
Project Manager	BRENDAN DIRKES
Regional Examiner	DAN OUBWAY
Regional Supervisor	ANDREW STENSLAND

APPROVED FOR THE DEPARTMENT

DATE: 1/26/2015 *Brendan Dirkes*
(Signature)

E

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	CWT	HUNDREDWEIGHT
AC	ACRE	HYD	HYDRANT
AEW	APRON END WALL EXISTING	ID	INSIDE DIAMETER
AGG	AGGREGATE	INV	INVERT
AECPRC	APRON ENDWALL FOR CULVERT PIPE	IP	IRON PIPE ON PIN
	REINFORCED CONCRETE	LHF	LEFT-HAND FORWARD
AECPS	APRON ENDWALL FOR CULVERT PIPE STEEL	L	LENGTH OF CURVE
ASPH	ASPHALTIC	LF	LINEAR FOOT
AVG	AVERAGE	LC	LONG CHORD OF CURVE
ADT	AVERAGE DAILY TRAFFIC	LS	LUMP SUM
BF	BACK FACE	MH	MANHOLE
BM	BENCH MARK	MOR	MID POINT OF RADIUS
BR	BRIDGE	NC	NORMAL CROWN
CE	COMMERCIAL ENTRANCE	NO	NUMBER
CL OR C/L OR ☉	CENTER LINE	OBLIT	OBLITERATE
△	CENTRAL ANGLE OR DELTA	PAVT	PAVEMENT
CONC	CONCRETE	PE	PRIVATE ENTRANCE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE	PVRC	POINT OF VERTICAL REVERSE CURVE
	HORIZONTAL ELLIPTICAL	QOR	QUARTER POINT OF RADIUS
CR	CREEK	R	RADIUS
CSP	CORRUGATED STEEL PIPE	RCCP	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
C & G	CURB AND GUTTER	RES	RESIDENCE OR RESIDENTIAL
D	DEGREE OF CURVE	RHF	RIGHT-HAND FORWARD
DHV	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DISCH	DISCHARGE	R	RIVER
DG	DITCH GRADE	RDWY	ROADWAY
DWY	DRIVEWAY	R/L OR R	REFERENCE LINE
X	EAST GRID COORDINATE	SALV	SALVAGED
EAT	STEEL PLATE BEAM GUARD	SAN	SANITARY SEWER
	ENERGY ABSORBING TERMINAL	SF	SQUARE FEET
EOR	END POINT OF RADIUS	SY	SQUARE YARD
EL	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STA	STATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION RATE
EXIST	EXISTING	TC	TOP OF CURB
FC	FACE OF CURB	T OR TN	TOWN
FF	FACE TO FACE	T	TRUCKS (PERCENT OF)
FERT	FERTILIZE	TYP	TYPICAL
FE	FIELD ENTRANCE	VAR	VARIABLE
FL	FLOW LINE	VC	VERTICAL CURVE
FO	FIBER OPTIC	Y	NORTH GRID COORDINATE
		YD	YARD

UTILITY CONTACTS

DAHLBERG LIGHT AND POWER COMPANY - ELECTRICITY
9221 E MAIN
P.O. BOX 300
SOLON SPRING, WI 54873-0300
(715) 378-2205
ATTENTION: JAMES DAHLBERG

EAST CENTRAL ENERGY - ELECTRICITY
P.O. BOX 39
BRAHAM, MN 55006-0039
(715) 399-6162
ATTENTION: VERN JOHNSON

CENTURYLINK
20 S WILSON AVENUE
RICE LAKE, WI 54868
(715) 234-5528
ATTENTION: MONTE PARKER
EMAIL: MONTY.PARKER@CENTURYTEL.COM

CHARTER COMMUNICATION
2304 S MAIN STREET
RICE LAKE, WI 54868
TELEPHONE: 715-234-5341 EXT 252
ATTENTION: TOM HAASE
EMAIL: TOM.HAASE@CHARTER.COM

GREAT RIVER ENERGY - ELECTRICITY
12300 ELM CREEK BLVD
MAPLE GROVE, MN 55369-4718
(763) 445-5977
ATTENTION: MICHELLE LOMMEL
EMAIL: MLOMMELE@GREENERGY.COM

MINONG VILLAGE OF WATER UTILITY - WATER
123 5TH AVENUE
P.O. BOX 8
MINONG, WI 54859-0008
(715)466-2322
ATTENTION: BILL HALLOCK
EMAIL: VILLAGEOFMINONG@CENTURYTEL.NET

PACKERLAND BROADBAND - COMMUNICATION LINE
PO BOX 190
IRON MOUNTAIN, MI 49801
TELEPHONE: 906) 282-3768
ATTENTION: WAYNE CRETTON
EMAIL: WAYNE.CRETTON@PLBB.US

WE ENERGIES
ROOM A299
333 WEST EVERETT STREET
MILWAUKEE, WI 53203
(414) 221-5617
ATTENTION: LATROY BRUMFIELD
EMAIL: LATROY.BRUMFIELD@WE-ENERGIES.COM
ATTENTION: LEWIS KNAPP - FIELD CONTACT
(715) 234-9605
EMAIL: LEWIS.KNAPP@WE-ENERGIES.COM

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ALL SIDE ROAD EARTHWORK QUANTITIES ARE INCLUDED IN MAINLINE EARTHWORK QUANTITIES.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

SUPER ELEVATION WILL MATCH EXISTING SUPERELEVATION RATES, CONTRACTOR SHALL PAVE DEPTHS AS SHOWN AND MATCH EXISTING CONDITIONS.

ASPHALTIC PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

PAVEMENT THICKNESS (INCH)	LEVELING (INCH)	LEVELING (INCH)	UPPER (INCH)
3.25	1.5		1.75
4	2.25		1.75
6	1.75	1.75	2.5

USH 53 INSIDE MEDIAN (3') SHOULDERS MAY BE PAVED WITH MAINLINE LANES, WITH APPROVAL FROM THE ENGINEER AND SHALL BE SUBJECT TO ONLY STANDARD COMPACTION.

3.25 IN HMA PAVEMENT TYPE E-0.3 (OUTSIDE USH 53 SHOULDERS) MAY BE PAVED IN ONE OR TWO LAYERS.

1.5 IN ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A SINGLE LAYER.

1.75 IN ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A SINGLE LAYER.

CONTRACTOR MAY USE EITHER 9.5MM OR 12.5MM MIXES FOR ANY LAYER.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE ITS BID ON ACTUAL FIELD CONDITIONS.

STATIONING, DISTANCES AND OFFSETS FOR PROPOSED SIGNS SHOWN ON THE PLAN ARE APPROXIMATE, ACTUAL LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

SUMMARY OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PERMANENT SIGNING
TRAFFIC CONTROL

NW REGION CONTACT

LT. NICK WARNINK
SGT. STEVE TAPE (EXT.108)-SPEED ENFORCEMENT BARS
STATE PATROL DIVISION OF DISTRICT 6
5009 USH 53 SOUTH
EAU CLAIRE, WI 54701
PHONE: 715-839-3800
EMAIL: STEVEN.TAPE@DOT.WI.GOV

DNR LIAISON

STATE OF WISCONSIN
NORTHWEST DISTRICT
HWY 70 WEST
PO BOX 309
SPOONER, WI 54801
TELEPHONE 715-635-4229
ATTENTION: AMY CRONK
EMAIL: AMY.CRONK@WISCONSIN.GOV

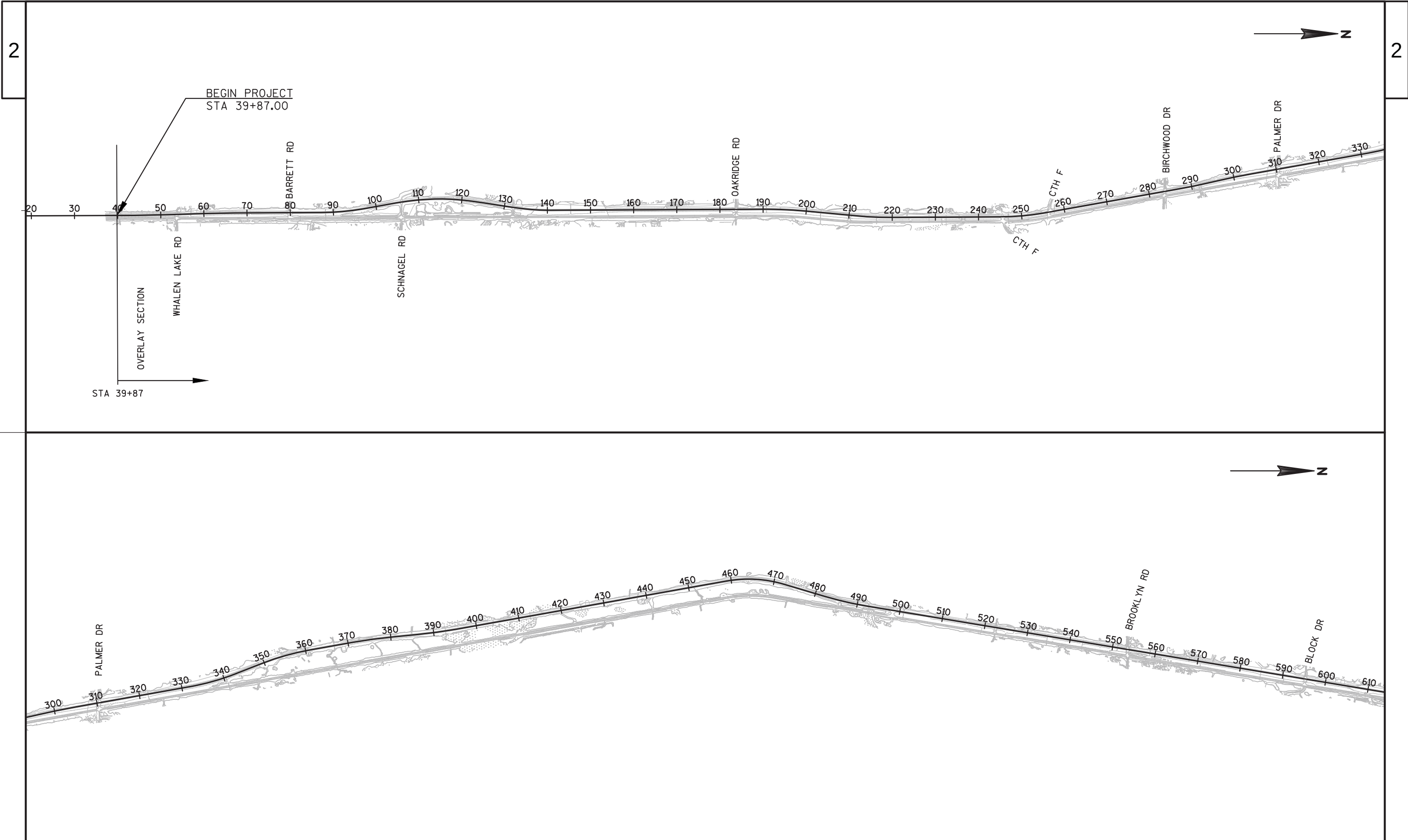
DESIGN CONTACT

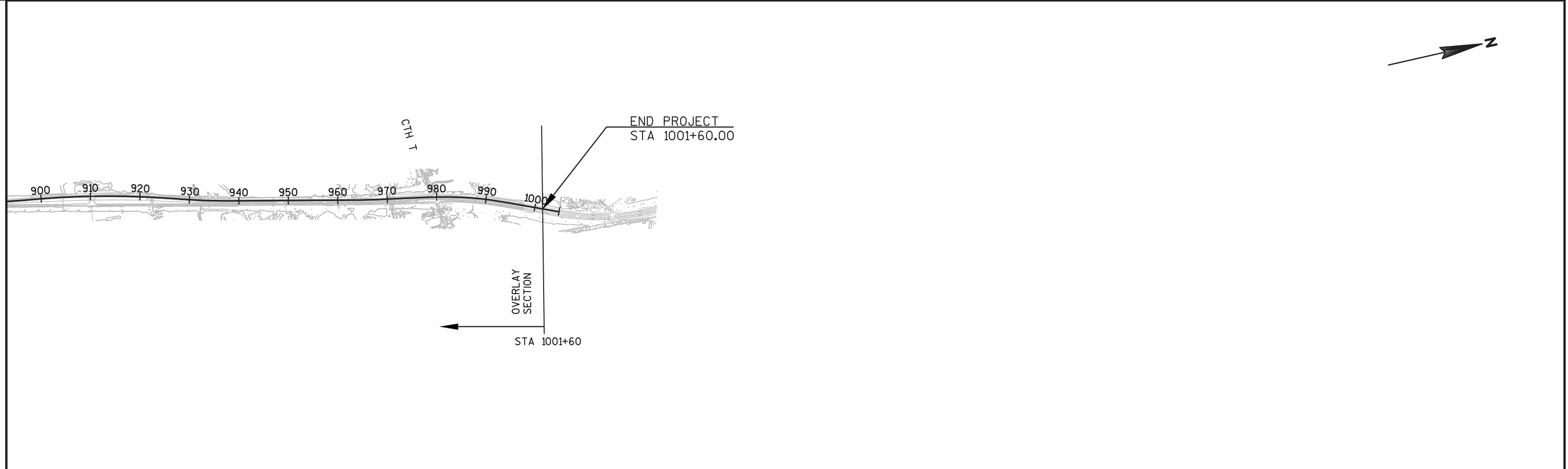
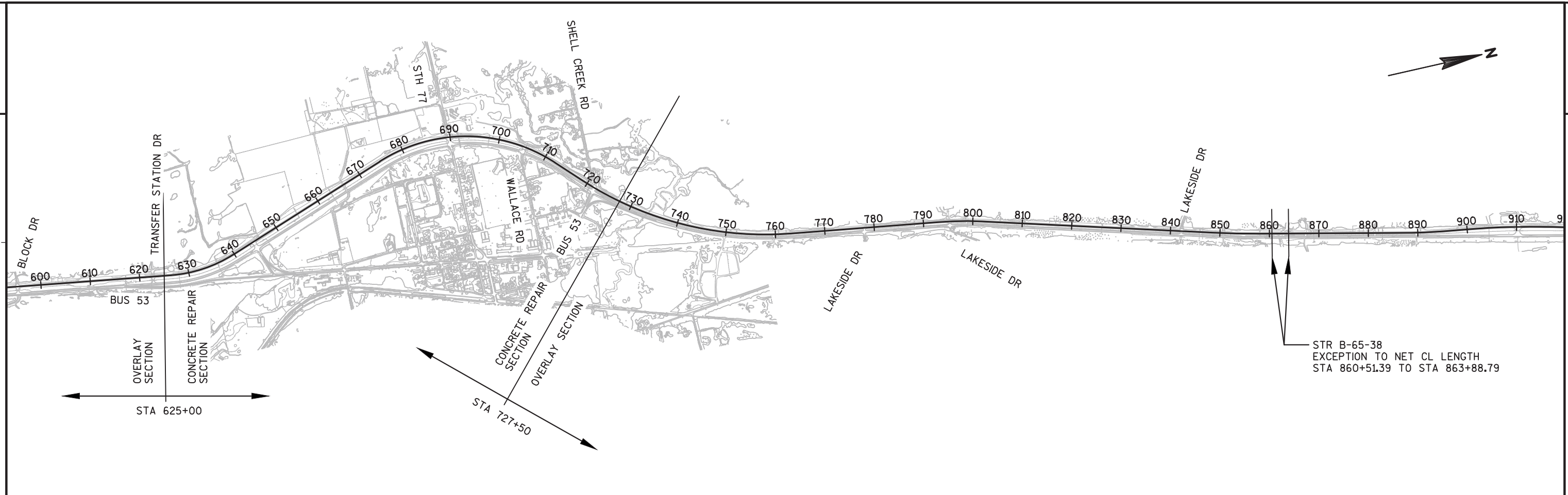
SEH INC.
10 NORTH BRIDGE STREET
CHIPPEWA FALLS WI 54729
TELEPHONE: 715-720-6261
ATTENTION: JARROD STARREN
EMAIL: JSTARREN@SEHINC.COM



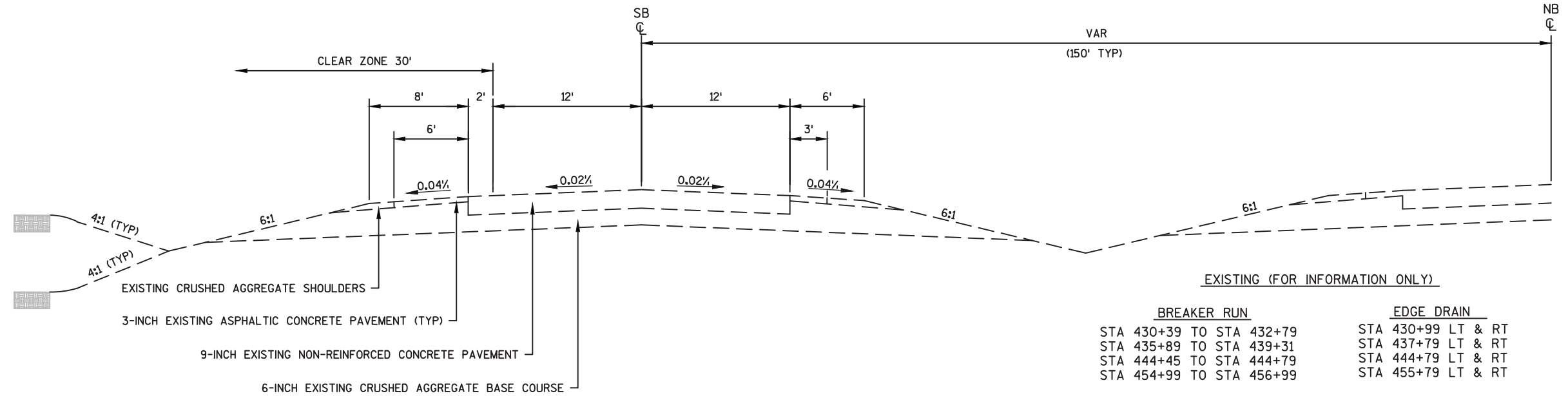
Dial 811 or (800)242-8511

www.DiggersHotline.com





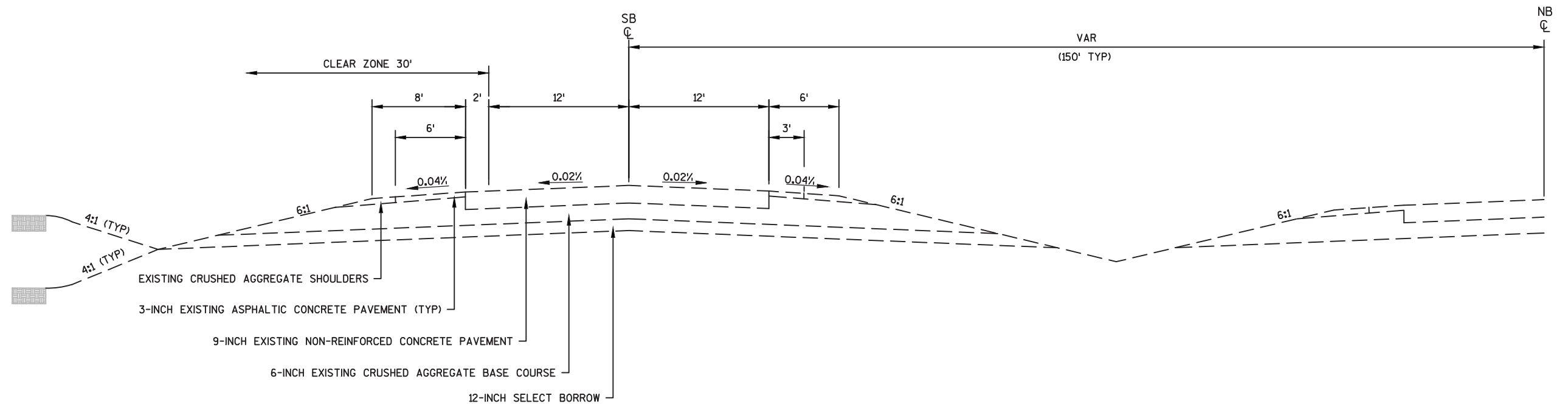
PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PROJECT OVERVIEW	SHEET 4	E
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TYPICAL EXISTING SECTION

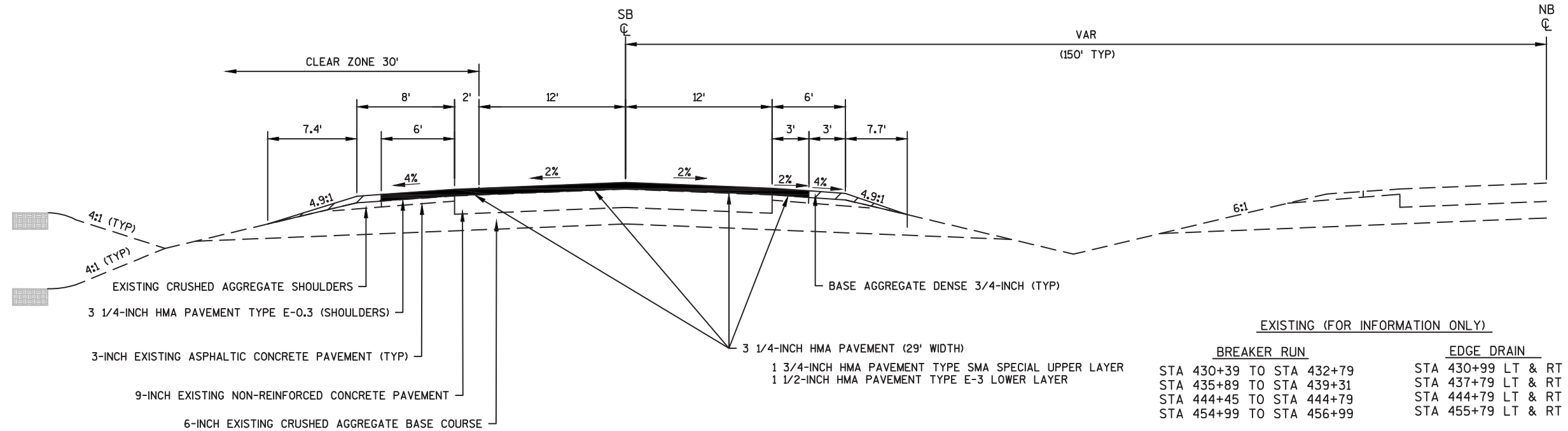
U.S.H 53
STA 39+87 TO STA 527+12
STA 625+85 TO STA 860+51.39
STA 863+88.79 TO STA 1001+60

*STR B-65-38
STA 860+51.39 TO STA 863+88.79



TYPICAL EXISTING SECTION

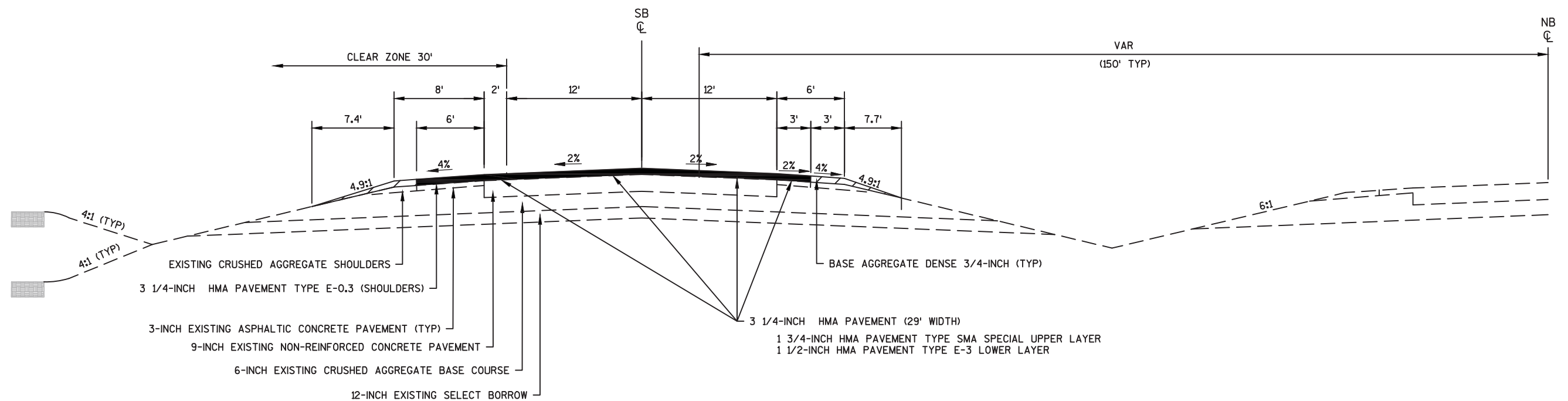
U.S.H 53
STA 527+12 TO STA 625+85



TYPICAL PROPOSED SECTION (OVERLAY)

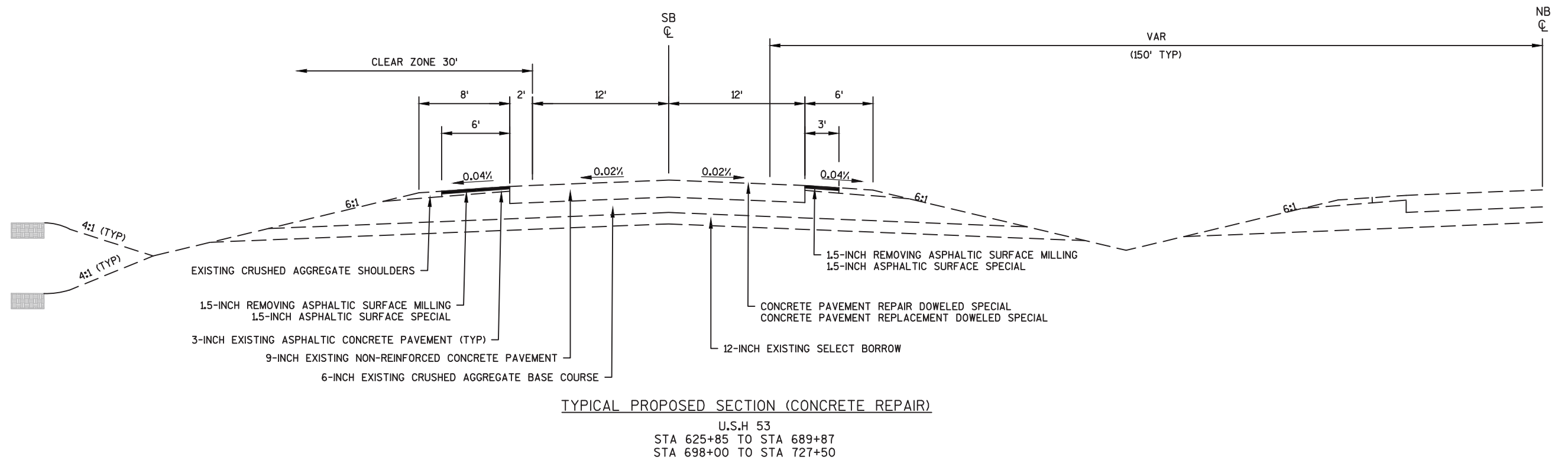
U.S.H 53
STA 39+87 TO STA 527+12
STA 727+50 TO STA 860+51.39
STA 863+88.79 TO STA 1001+60

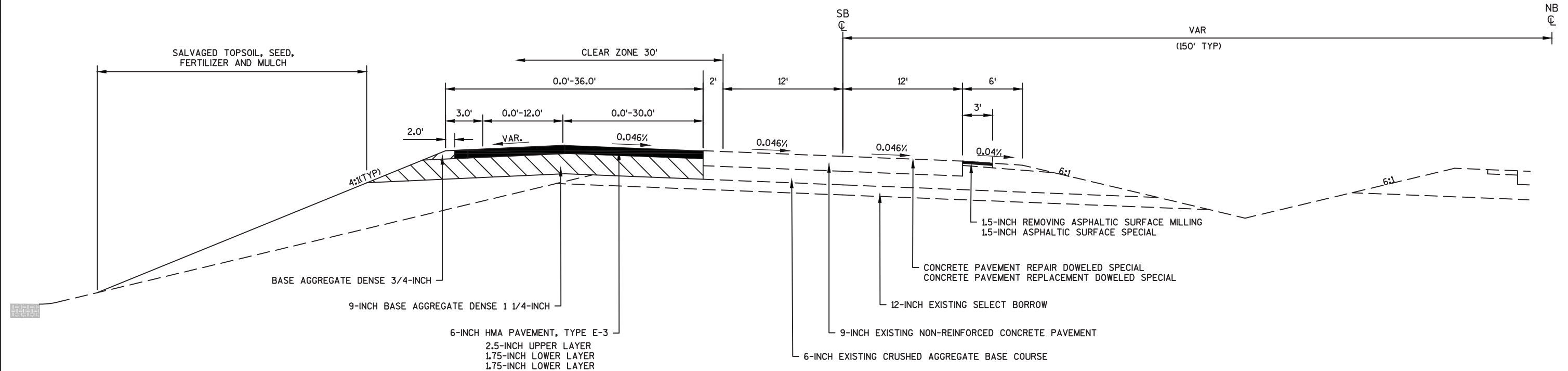
*STR B-65-38
STA 860+51.39 TO STA 863+88.79



TYPICAL PROPOSED SECTION (OVERLAY)

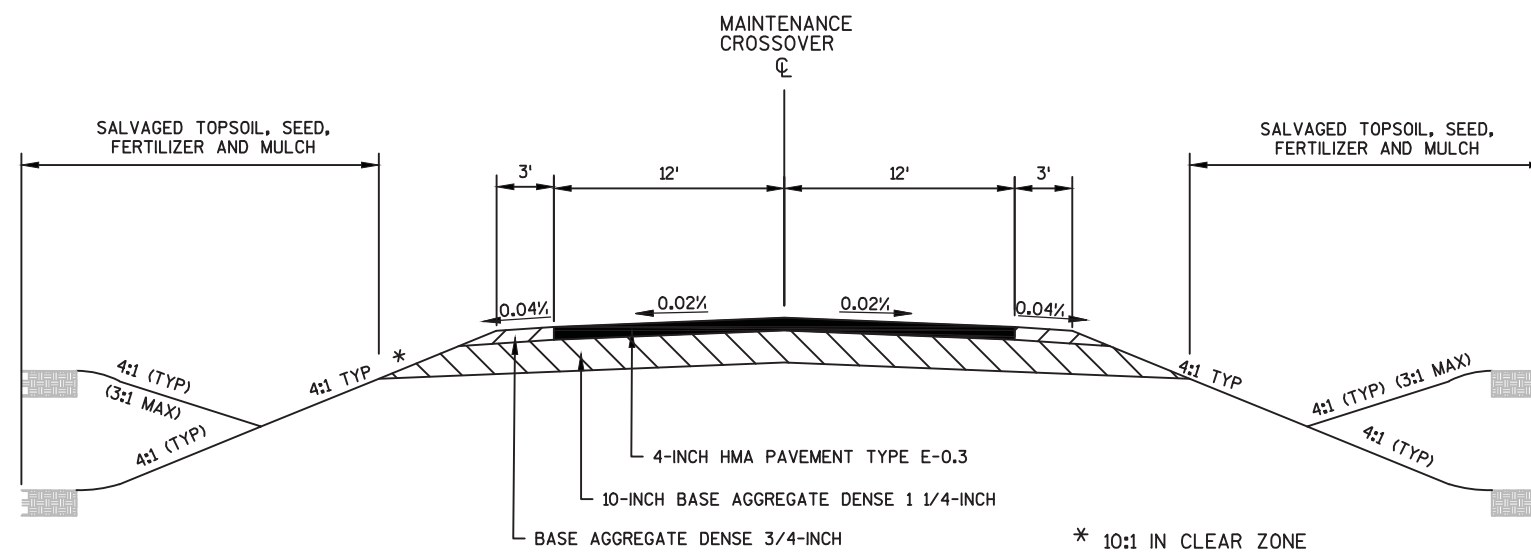
U.S.H 53
STA 527+12 TO STA 625+00





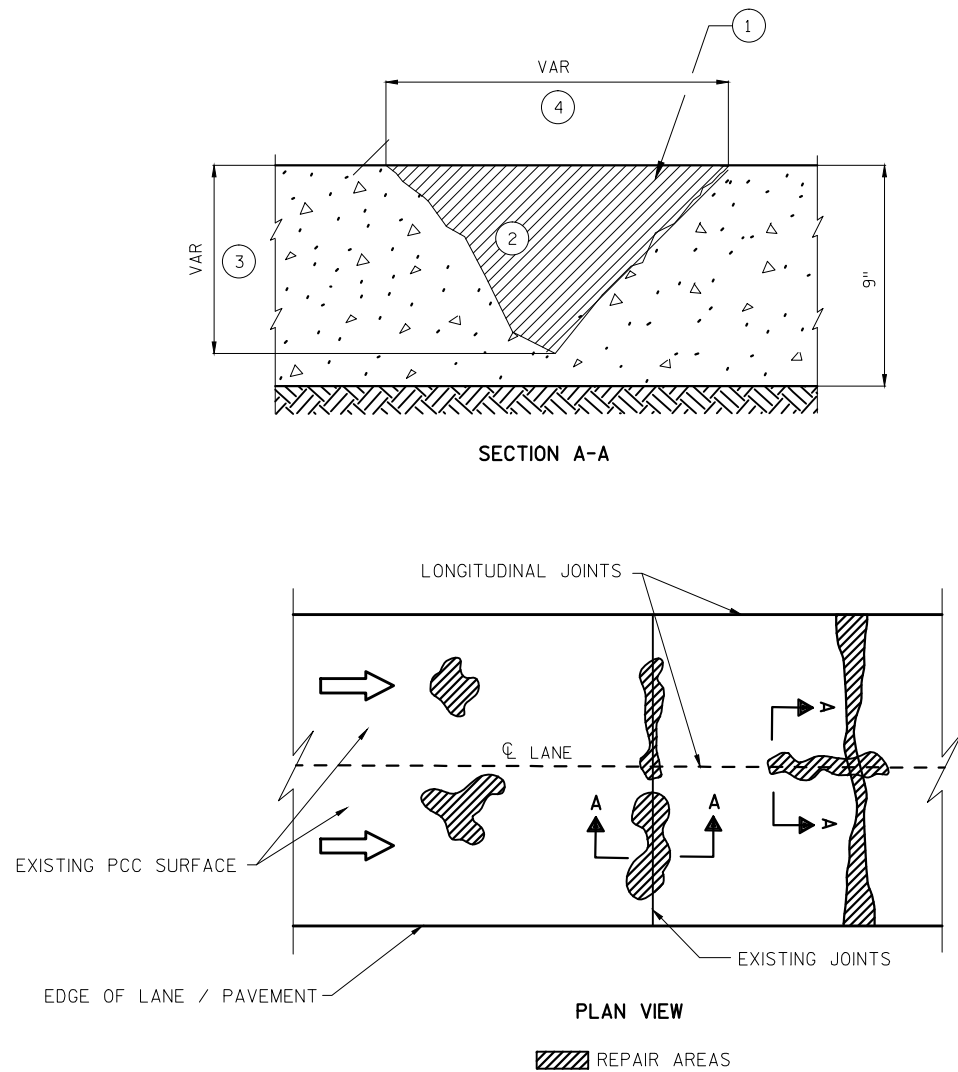
TYPICAL PROPOSED SECTION (OFFSET TURN LANE)

U.S.H 53
STA 689+87 TO STA 696+50



TYPICAL PROPOSED SECTION (MAINTENANCE CROSSOVER)

STA 85+15 TO STA 88+65

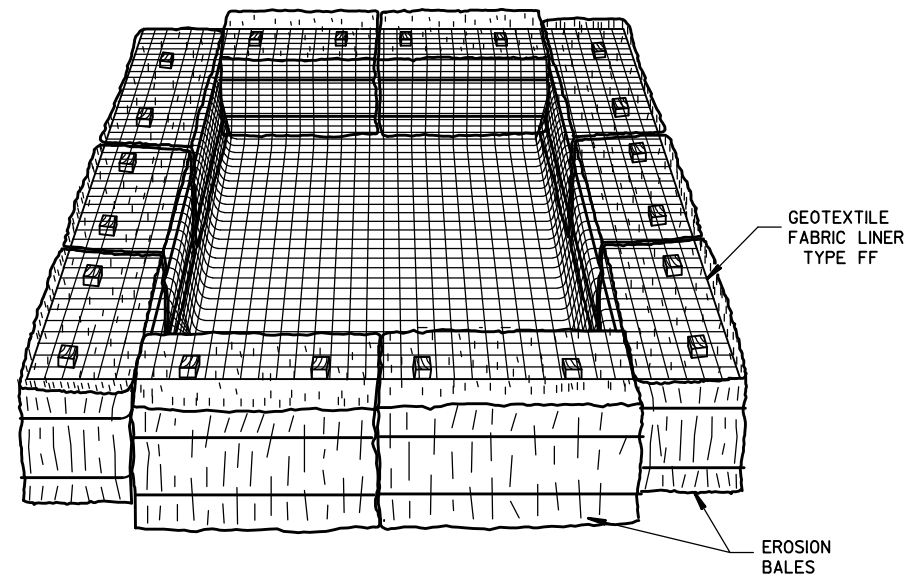


PREPARATION OF FOUNDATION FOR ASPHALT PAVING SPECIAL

CLEANING AND REPAIRING DISTRESSED PCC AREAS

NOTES:

- ① PRIOR TO THE LEVELING LAYER PLACEMENT, REMOVE ALL CONCRETE, ASPHALT AND ANY UNSOUND MATERIAL FROM TRANSVERSE AND LONGITUDINAL JOINTS AND RANDOM CRACKS. LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- ② ASPHALTIC SURFACE PATCHING SHALL BE PLACED IN THE JOINT REPAIR AREAS. THE PATCHING SHALL BE COMPACTED IN LIFTS (2 LIFTS MINIMUM) UNTIL FLUSH WITH THE SURFACE OF THE CONCRETE. ASPHALTIC SURFACE PATCHING PAID SEPARATELY FROM PREPARATION OF FOUNDATION FOR ASPHALT PAVING SPECIAL ITEM.
- ③ DEPTH VARIES FROM A MINIMUM DEPTH OF 4-INCH TO A FULL DEPTH JOINT AS CONDITIONS DICTATE.
- ④ APPROXIMATE WIDTH OF JOINTS OR CRACK REPAIR VARIES. BY THE CONTRACTOR IS RECOMMENDED TO REVIEW THE PROJECT SITE TO CONFIRM THE JOINT CONDITIONS PRIOR TO BIDDING.



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:

CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 15 FT.

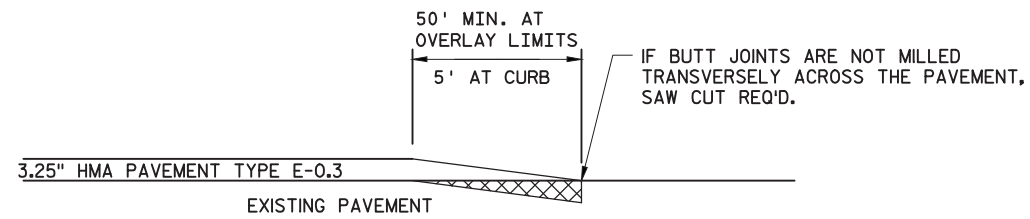
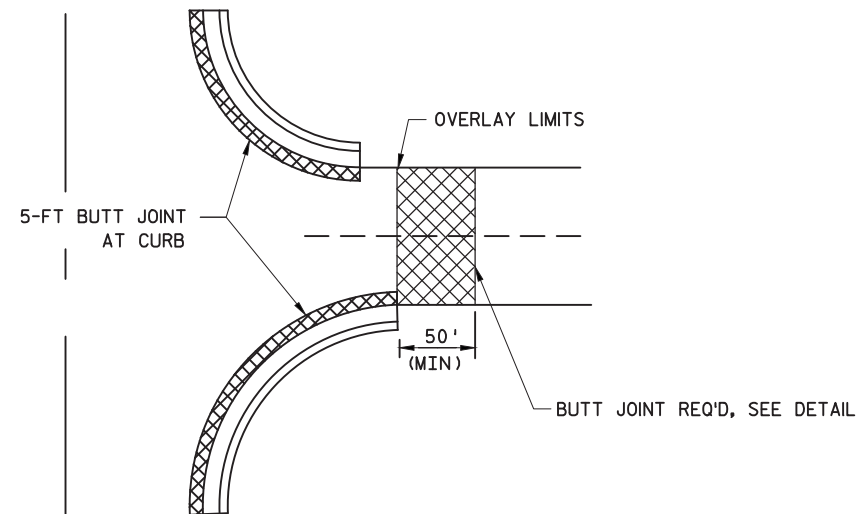
SOLUTION:

SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800 \text{ C.F.}}{15 \text{ FT.}} = 533 \text{ S.F.}$

USE A 20 FT. X 27 FT. BASIN

* INCIDENTAL TO THE CONTRACT AS NOTED IN THE DEWATERING SPECIAL PROVISION

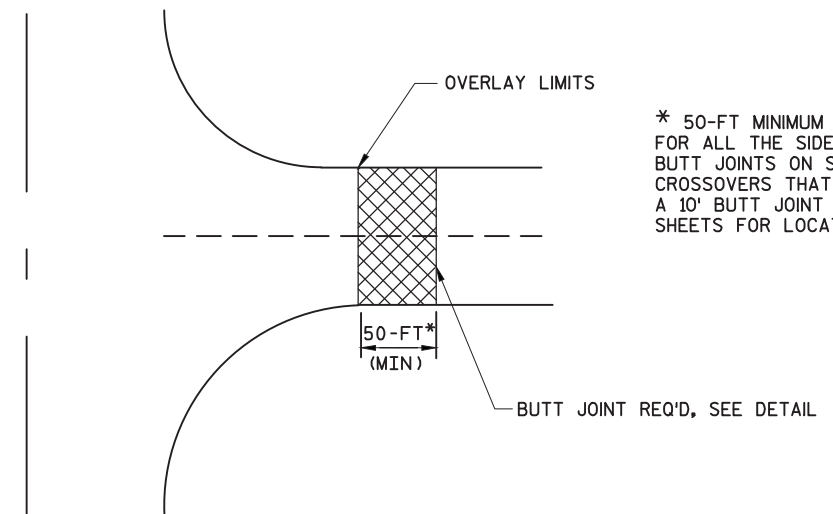


BUTT JOINT

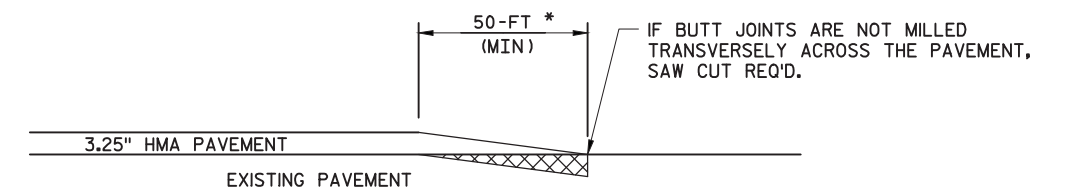
PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS

SIDE ROAD WITH CURB BUTT JOINT

BARRETT ROAD
CTH F
CTH T



* 50-FT MINIMUM BUTT JOINT REQ'D FOR ALL THE SIDE ROADS LISTED. FOR BUTT JOINTS ON SIDE ROADS AND CROSSOVERS THAT ARE NOT LISTED, A 10' BUTT JOINT IS REQ'D. SEE PLAN SHEETS FOR LOCATION.

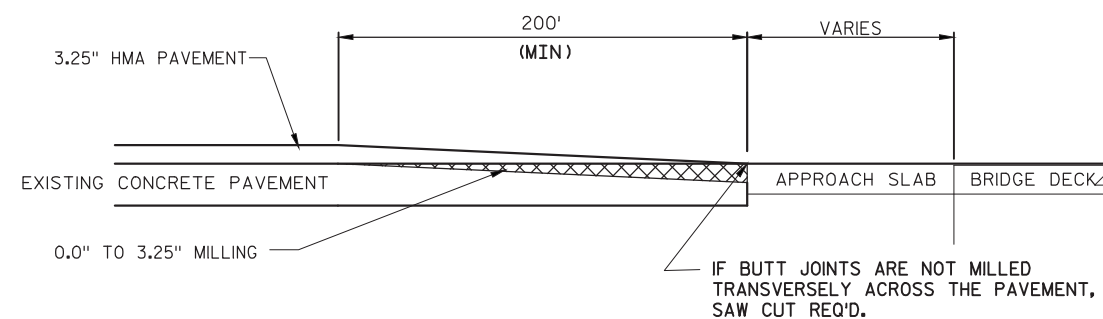
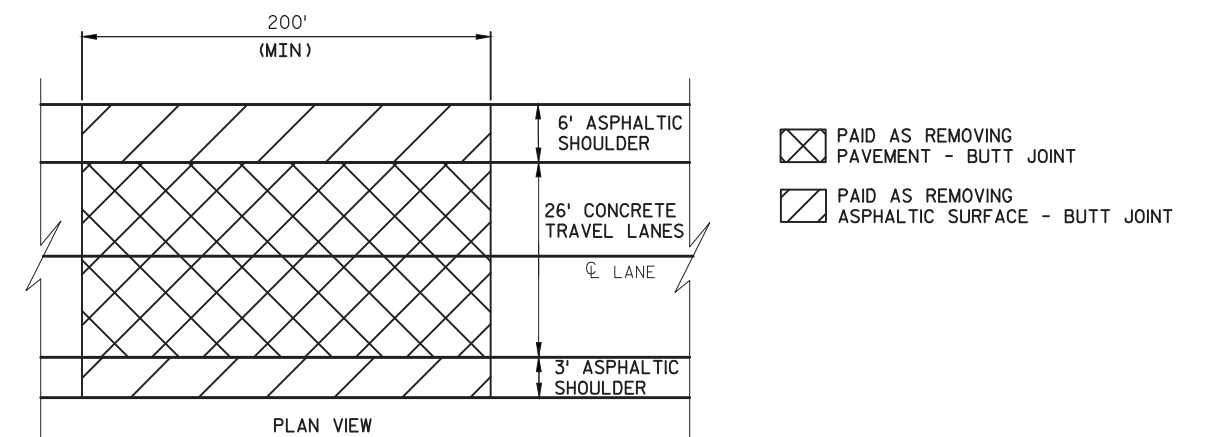


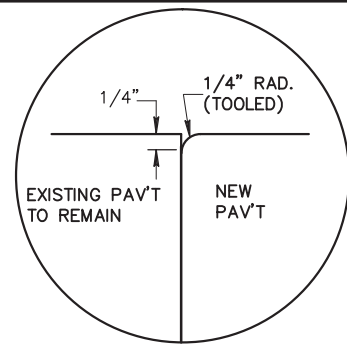
BUTT JOINT

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS

SIDE ROAD WITHOUT CURB BUTT JOINT

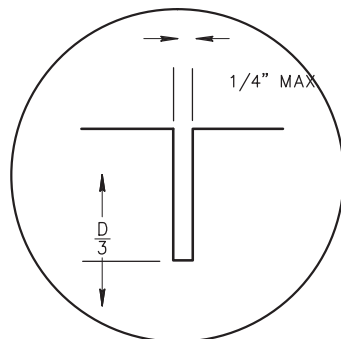
OAKRIDGE DR BLOCK DR
BIRCHWOOD DR TRANSFER ST
PALMER DR LAKESIDE RD
BROOKLYN RD

MAINLINE BRIDGE APPROACH

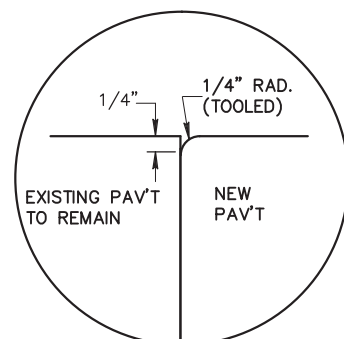


C2

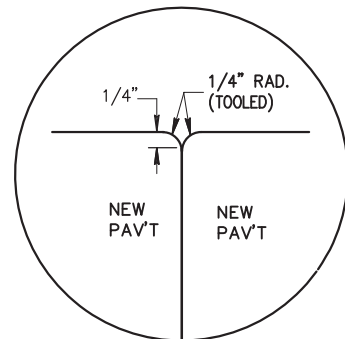
TRANSVERSE JOINTS



L1/C1



L2

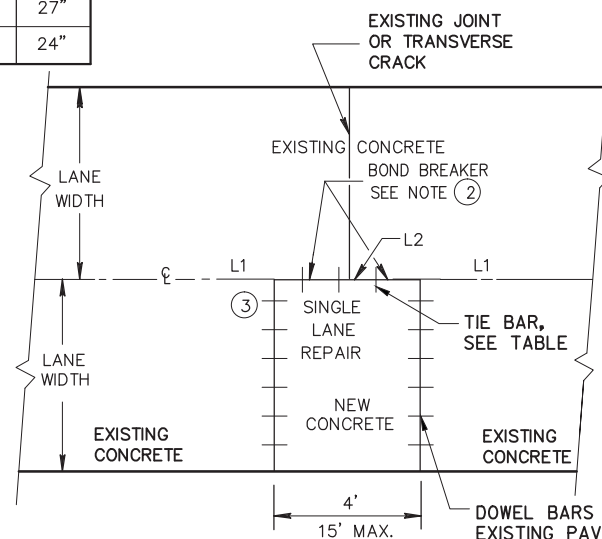


L3

LONGITUDINAL JOINTS

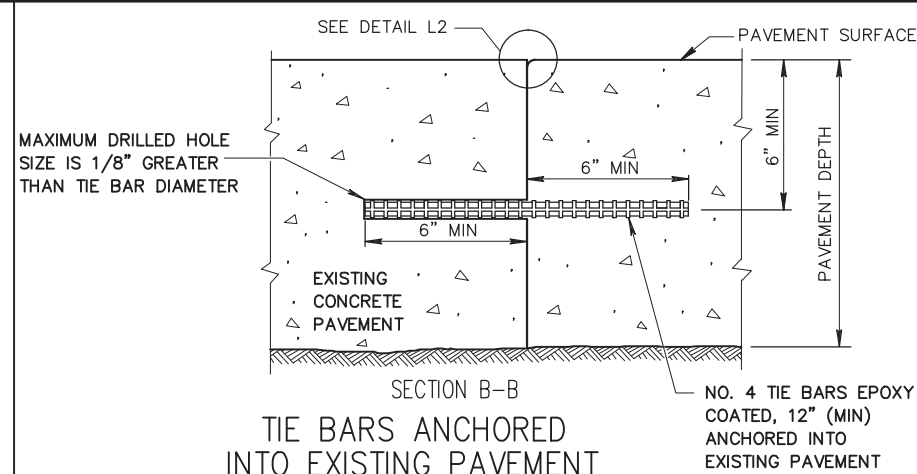
TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
8, 8 1/2"	3 3/4" \ 1"	39"	30"
9, 9 1/2"	4 1/4" \ 1"	33"	27"
10, 10 1/2"	4 3/4" \ 1"	30"	24"

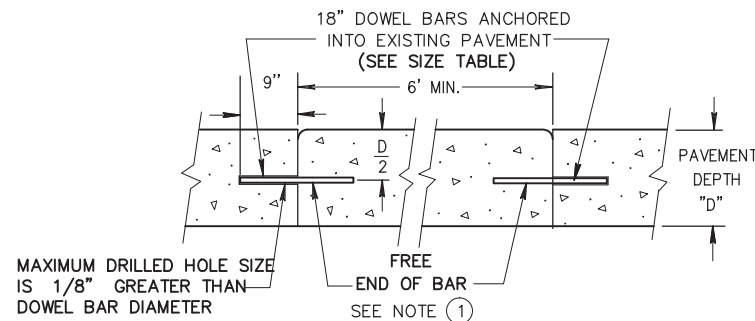


PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR

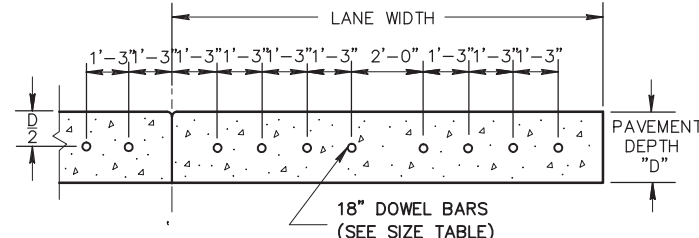


SECTION B-B

TIE BARS ANCHORED
INTO EXISTING PAVEMENT

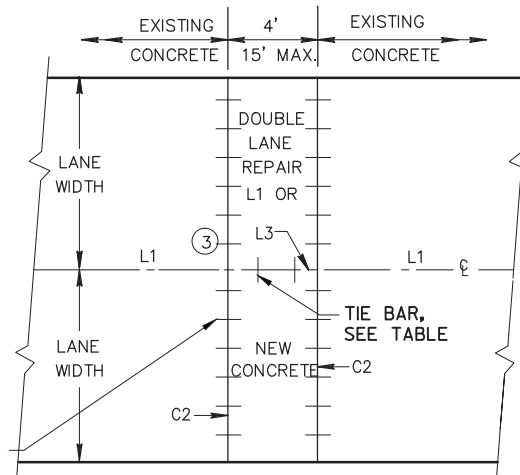
SECTION C-C

(FOR 11' LANE WIDTH REDUCE CENTER SPACE TO 1'-0")



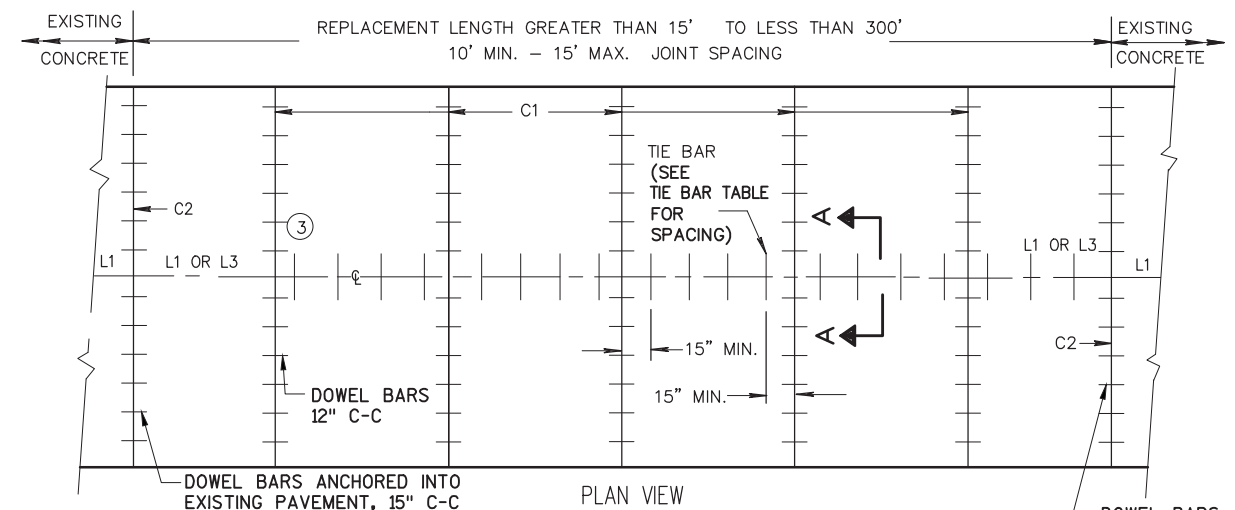
SECTION D-D

DRILLED DOWEL BAR CONSTRUCTION JOINT



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

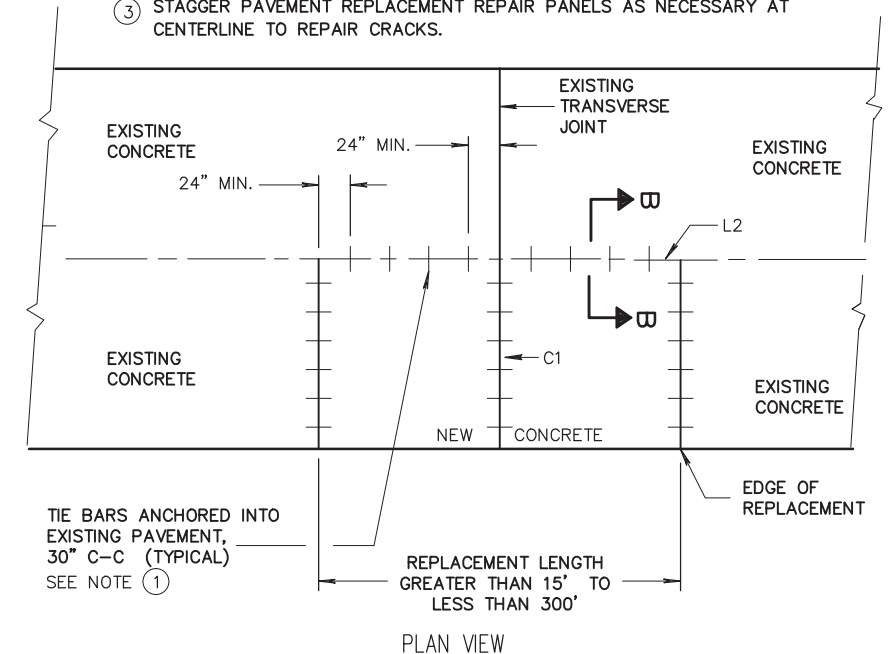
GENERAL NOTES

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- STAGGER PAVEMENT REPLACEMENT REPAIR PANELS AS NECESSARY AT CENTERLINE TO REPAIR CRACKS.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR DOWELED SPECIAL AND CONCRETE PAVEMENT REPLACEMENT DOWELED SPECIAL DETAILS

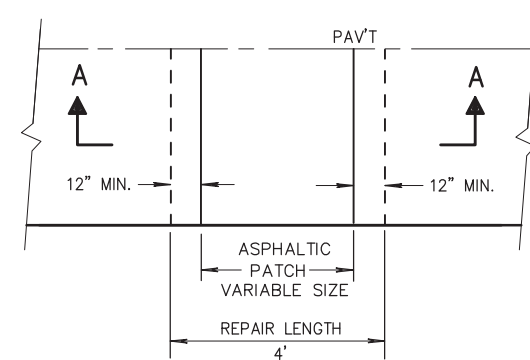
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

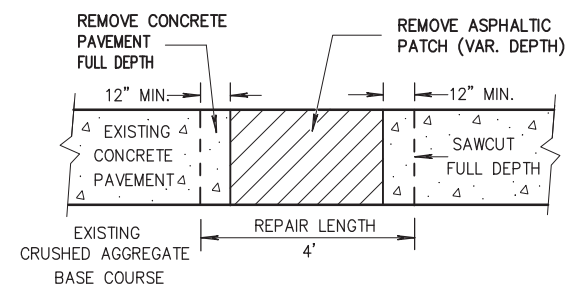
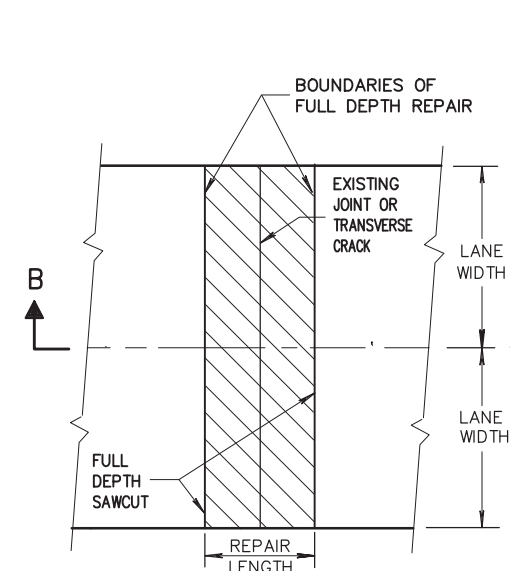
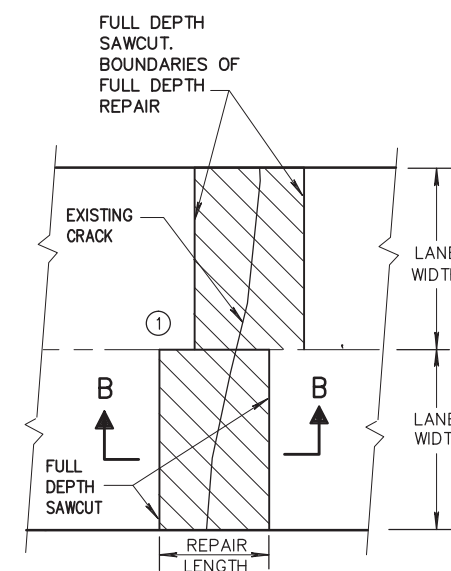
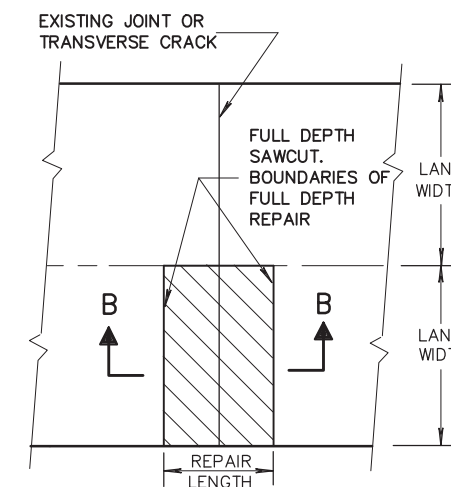
PROVIDE A 4-FOOT DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① STAGGER PAVEMENT REPLACEMENT REPAIR PANELS AS NECESSARY AT CENTERLINE TO REPAIR CRACKS.

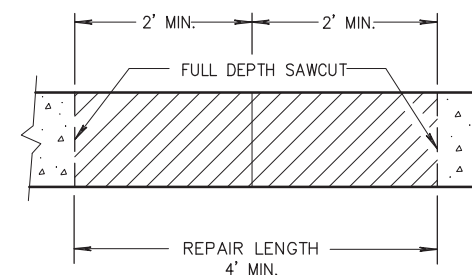


PLAN VIEW

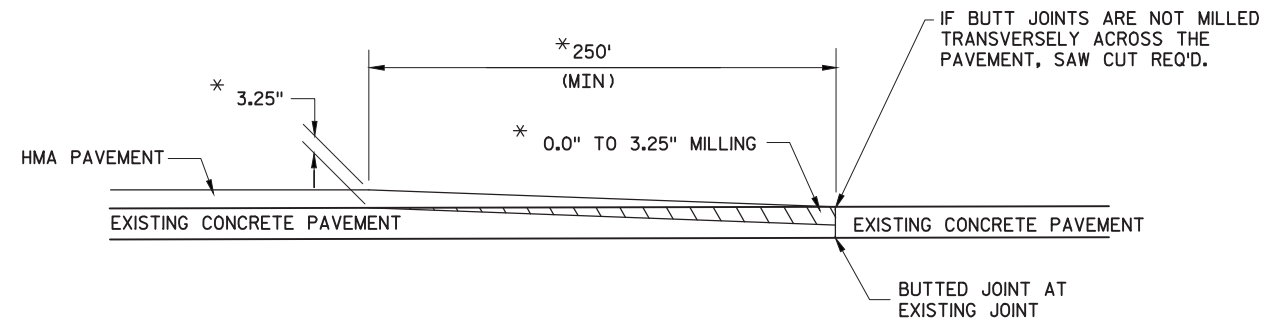
SECTION A-A
HMA PATCH REMOVALPLAN VIEW
(DOUBLE LANE REPAIR)PLAN VIEW
(LANE REPAIR)PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)

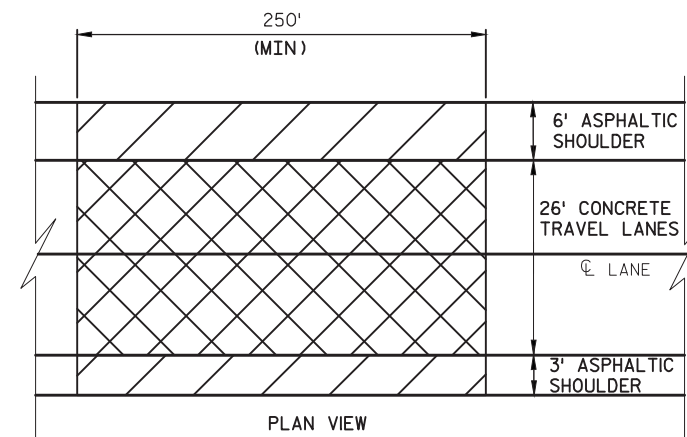
SECTION B-B
CONCRETE REMOVALCONCRETE PAVEMENT REPAIR DOWELED SPECIAL REMOVAL AND
CONCRETE PAVEMENT REPLACEMENT DOWELED SPECIAL REMOVAL DETAILS

2



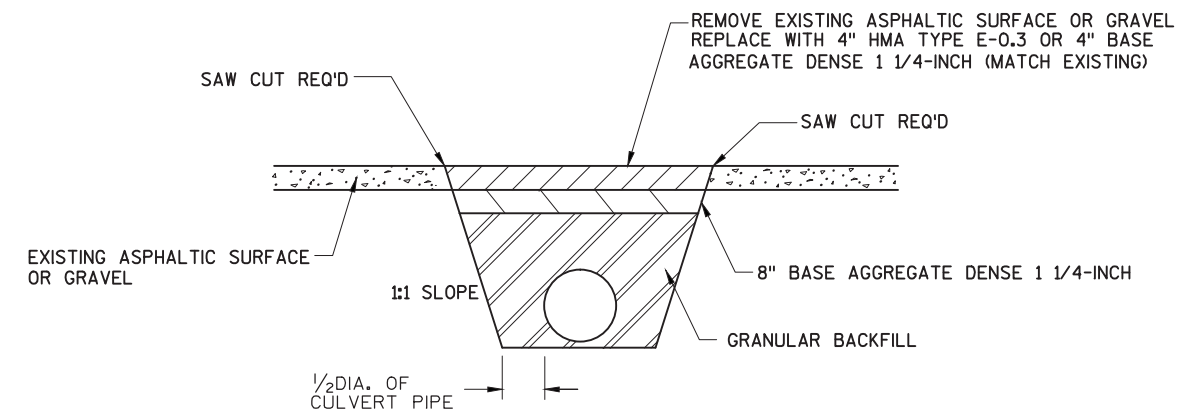
* USH 63 PAVEMENT DEPTH IS 1.75" AND TRANSITION IS 0.0" TO 1.75" MILLING OVER 50'

MAINLINE BUTT JOINT



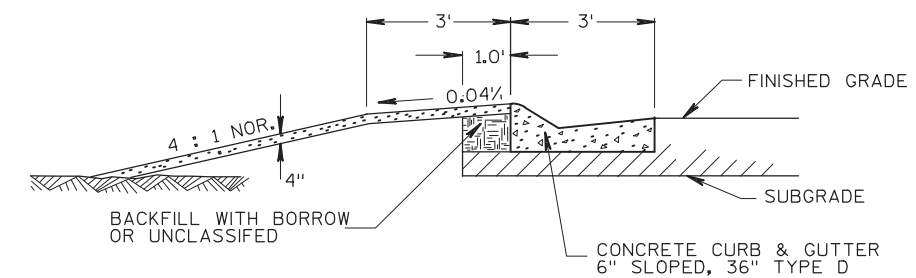
- PAID AS REMOVING PAVEMENT - BUTT JOINT
- PAID AS REMOVING ASPHALTIC SURFACE - BUTT JOINT

2

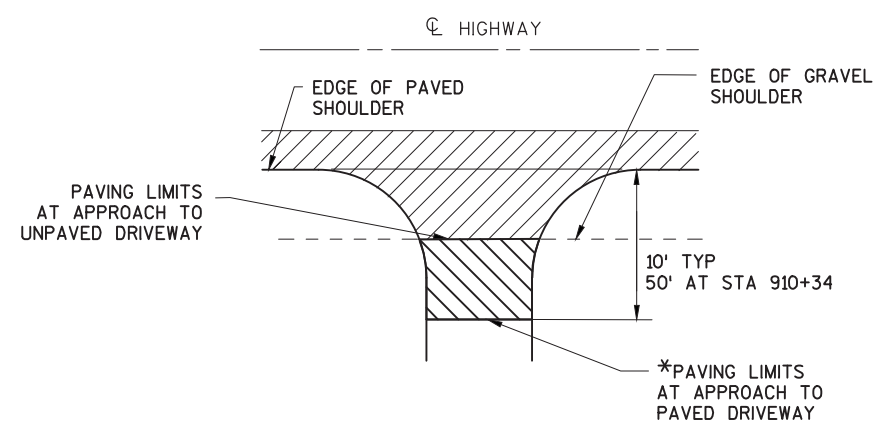


DETAIL FOR CULVERT PIPE INSTALLATION IN AREAS OF EXISTING PAVEMENT

STA 183+85 LT STA 850+74 LT
STA 310+62 LT STA 867+76 LT
STA 842+30 LT

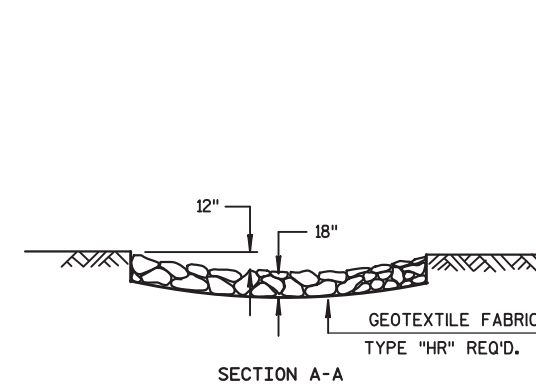


BERM DETAIL BEHIND CURB & GUTTER 6" SLOPED, 36" TYPE D

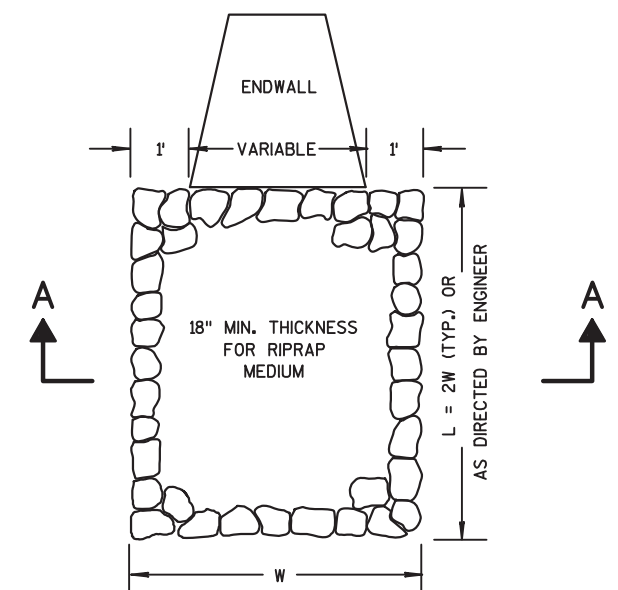


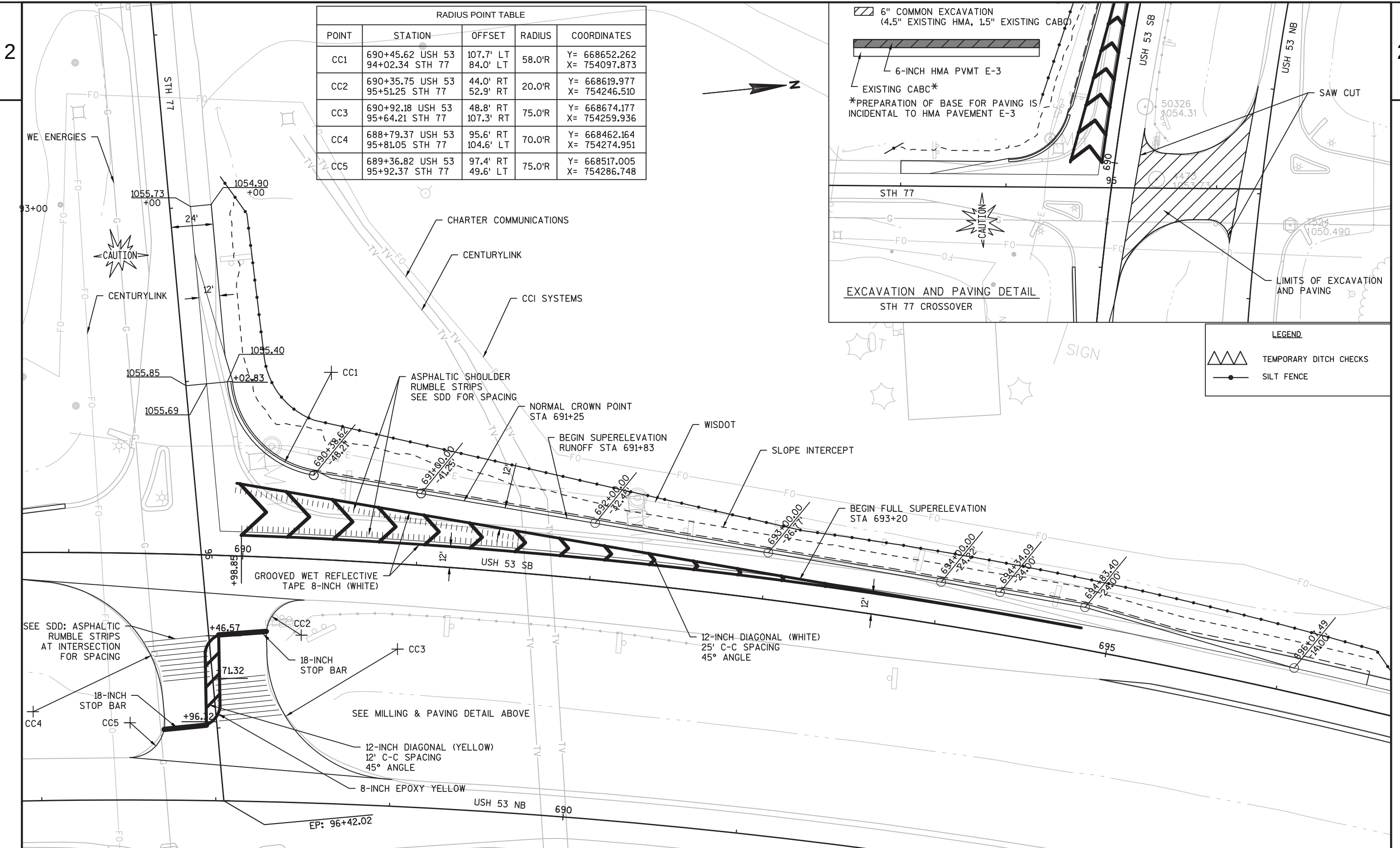
RURAL DRIVEWAY INTERSECTION DETAIL

*WHERE DRIVEWAY IS PAVED, A BUTT JOINT IS TO BE PLACED. BUTT JOINT WILL BE 10' TYPICAL (50' AT STA 910+34) FROM EDGE OF PAVED SHOULDER. PAID UNDER BID ITEM, REMOVING ASPHALTIC SURFACE BUTT JOINTS.

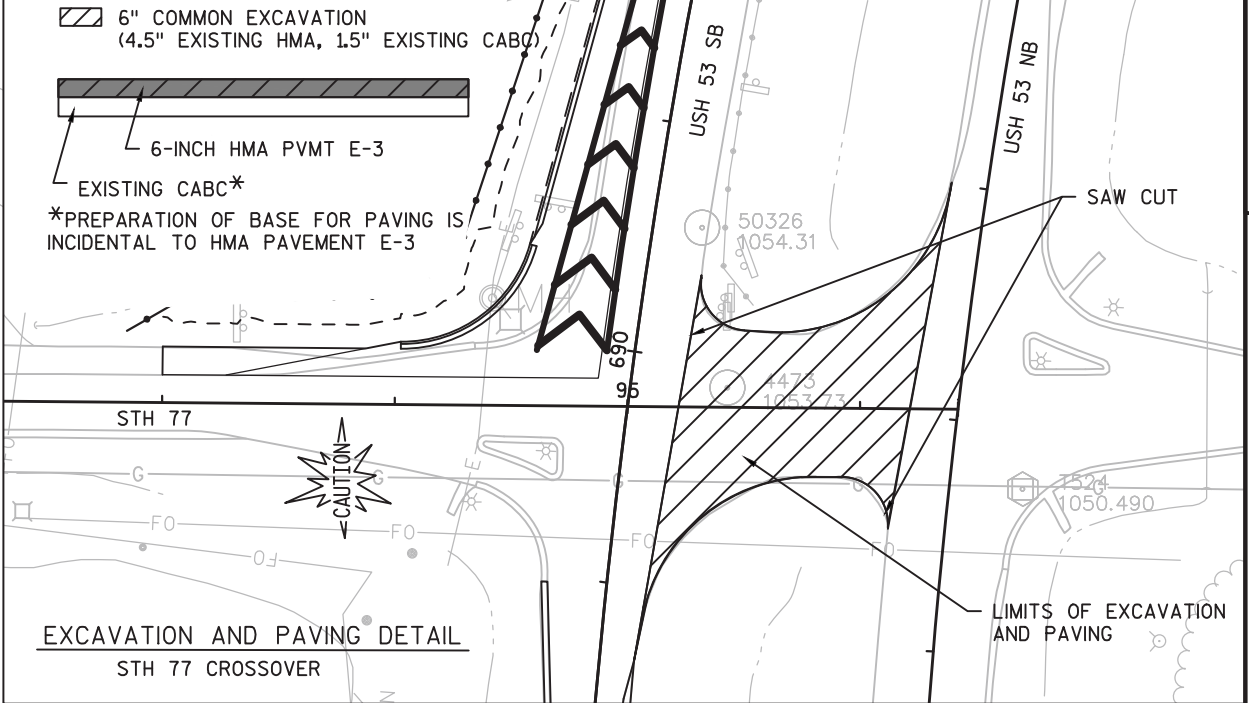


RIPRAP MEDIUM TREATMENT AT CULVERTS





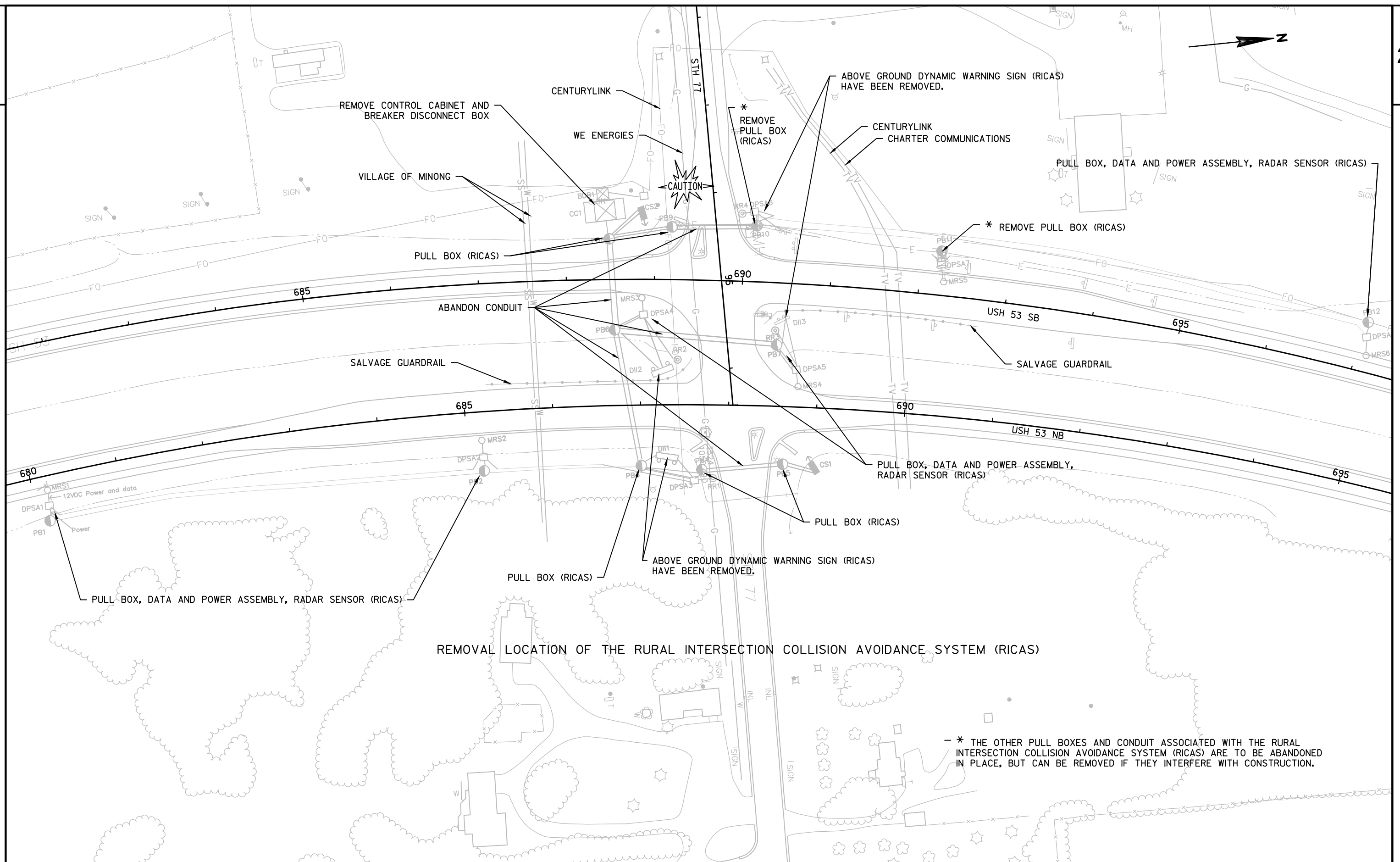
RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	690+45.62 USH 53 94+02.34 STH 77	107.7' LT 84.0' LT	58.0'R	Y= 668652.262 X= 754097.873
CC2	690+35.75 USH 53 95+51.25 STH 77	44.0' RT 52.9' RT	20.0'R	Y= 668619.977 X= 754246.510
CC3	690+92.18 USH 53 95+64.21 STH 77	48.8' RT 107.3' RT	75.0'R	Y= 668674.177 X= 754259.936
CC4	688+79.37 USH 53 95+81.05 STH 77	95.6' RT 104.6' LT	70.0'R	Y= 668462.164 X= 754274.951
CC5	689+36.82 USH 53 95+92.37 STH 77	97.4' RT 49.6' LT	75.0'R	Y= 668517.005 X= 754286.748

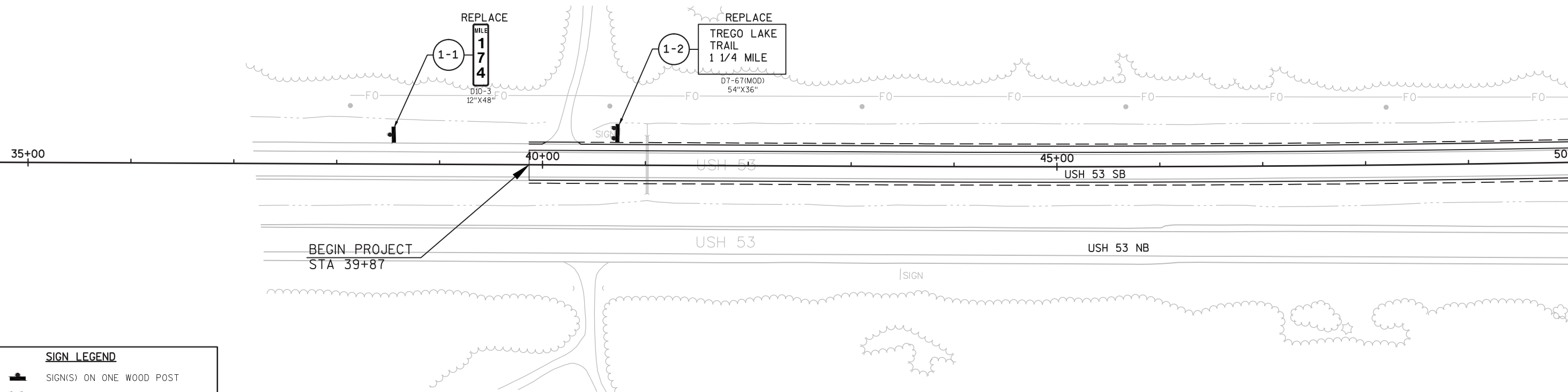


LEGEND

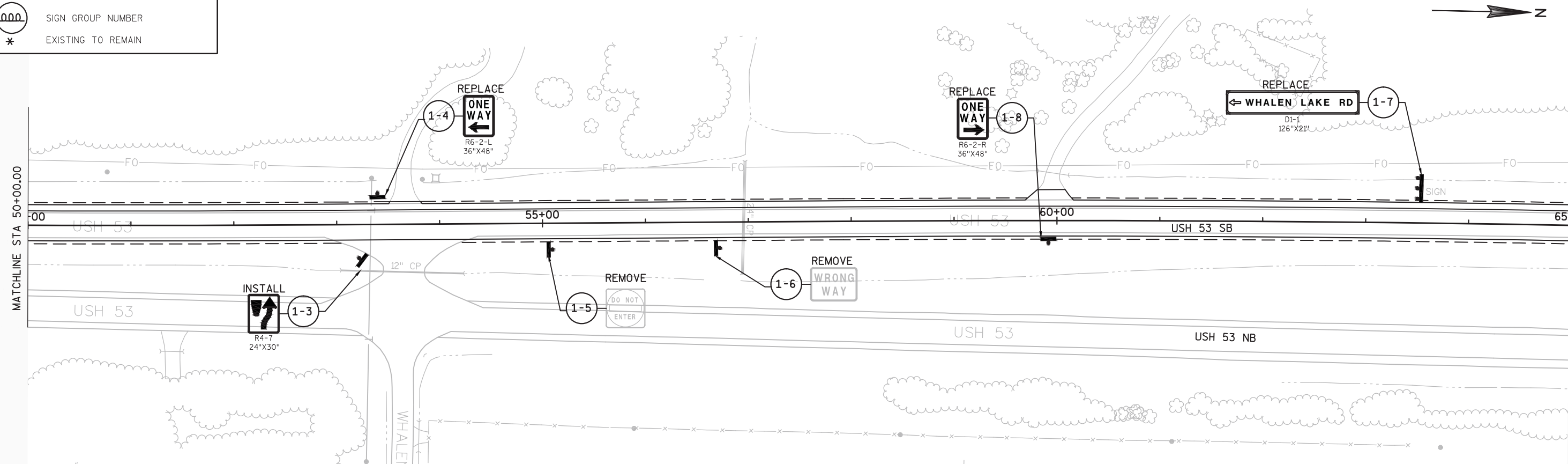
TEMPORARY DITCH CHECKS

SILT FENCE



**SIGN LEGEND**

-  SIGN(S) ON ONE WOOD POST
-  SIGN(S) ON TWO WOOD POST
-  SIGN(S) ON THREE WOOD POST
-  SIGN(S) ON STEEL POST
-  SIGN GROUP NUMBER
-  EXISTING TO REMAIN



PROJECT NO: 1198-00-76

HWY: USH 53

COUNTY: WASHBURN/DOUGLAS

PERMANENT SIGNING

SHEET

16

E

FILE NAME : \\SEHCF1\PROJECTS\UZ\W\WITNW\130199\C3D\11980076\SHEETSPLAN\023201 PS.DWG
LAYOUT NAME - 023201 PS - 023201-PS

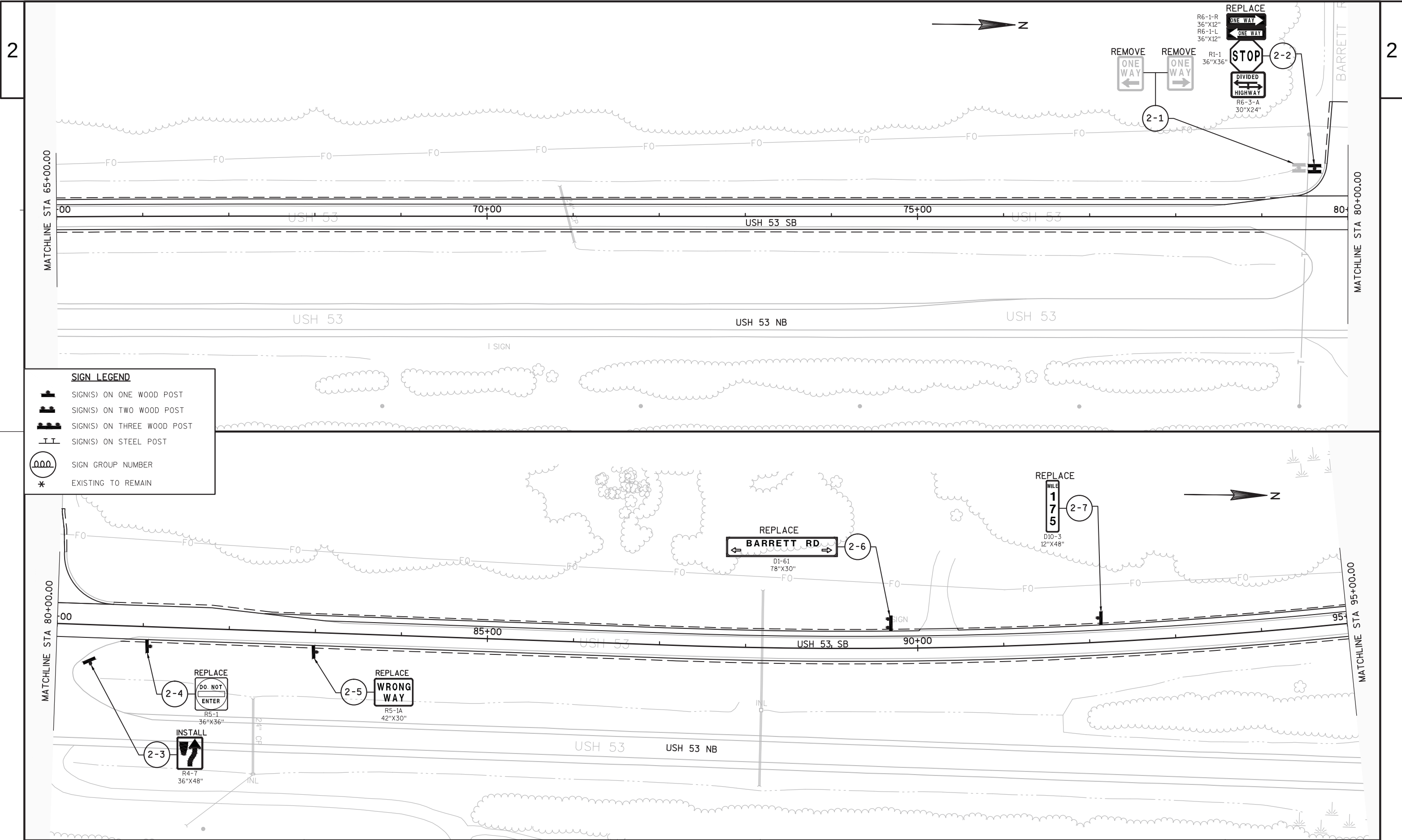
PLOT DATE : 2/2/2015 3:01 PM

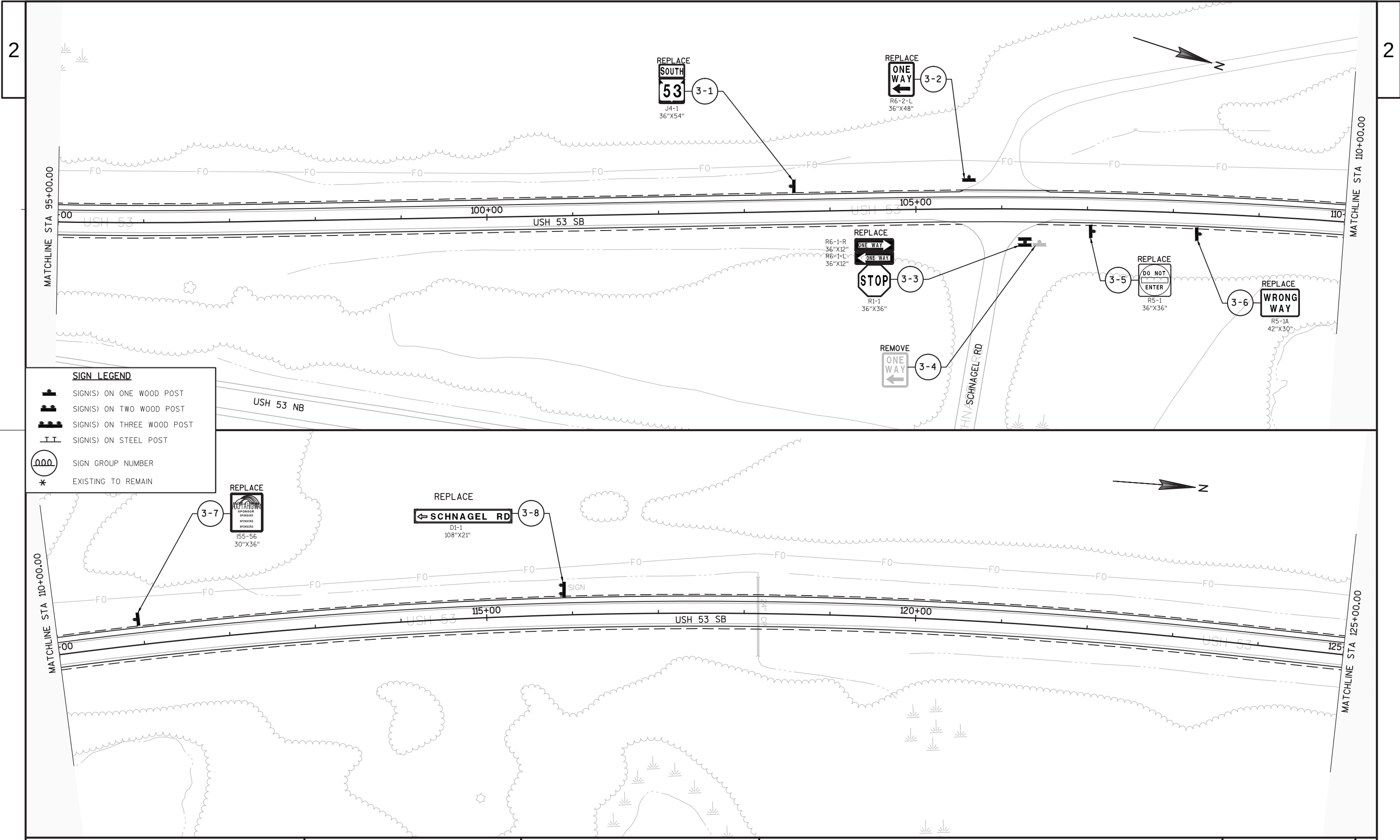
PLOT BY : NICK ENGH

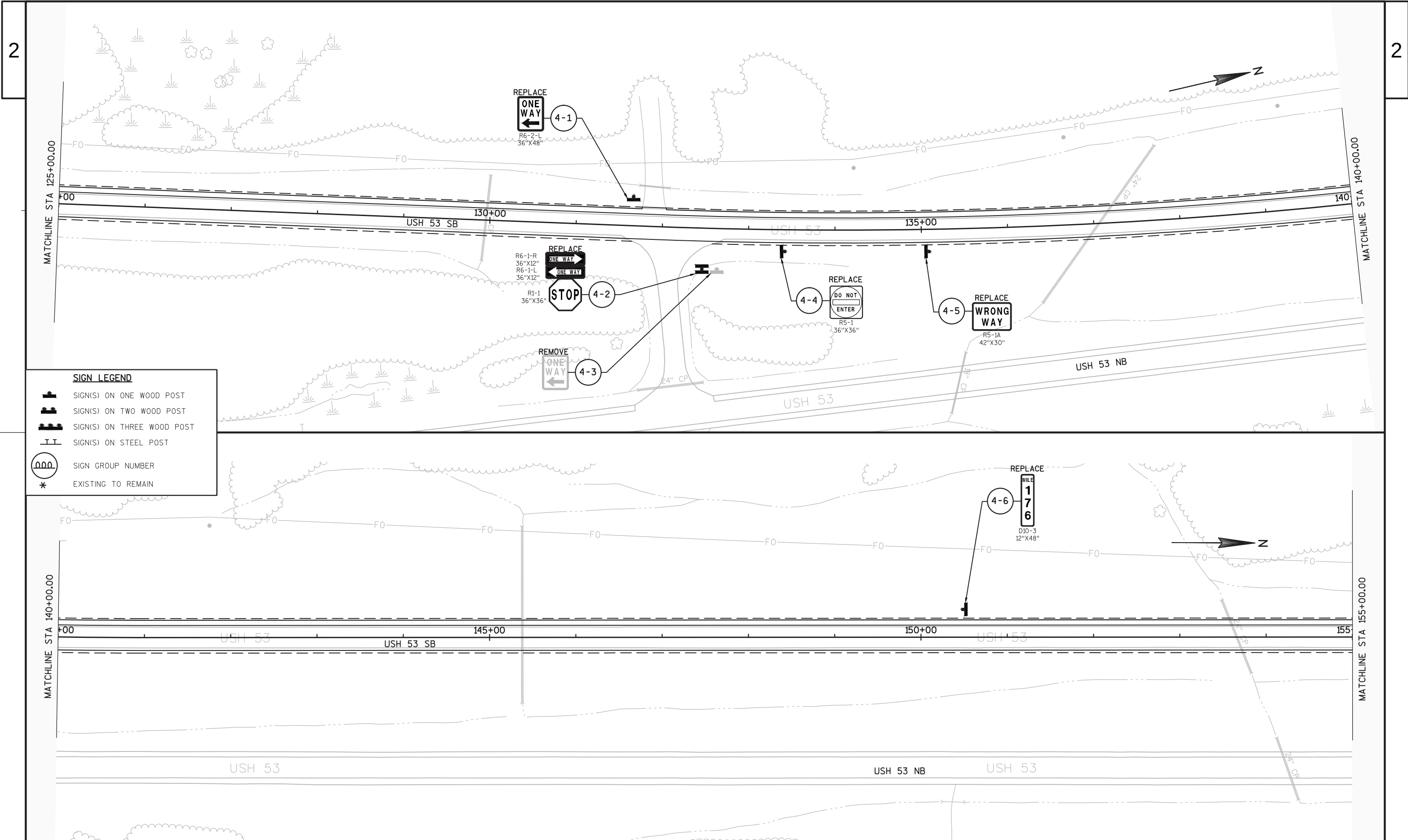
PLOT NAME :

PLOT SCALE : 1:100..XREF

WISDOT/CADDs SHEET 44

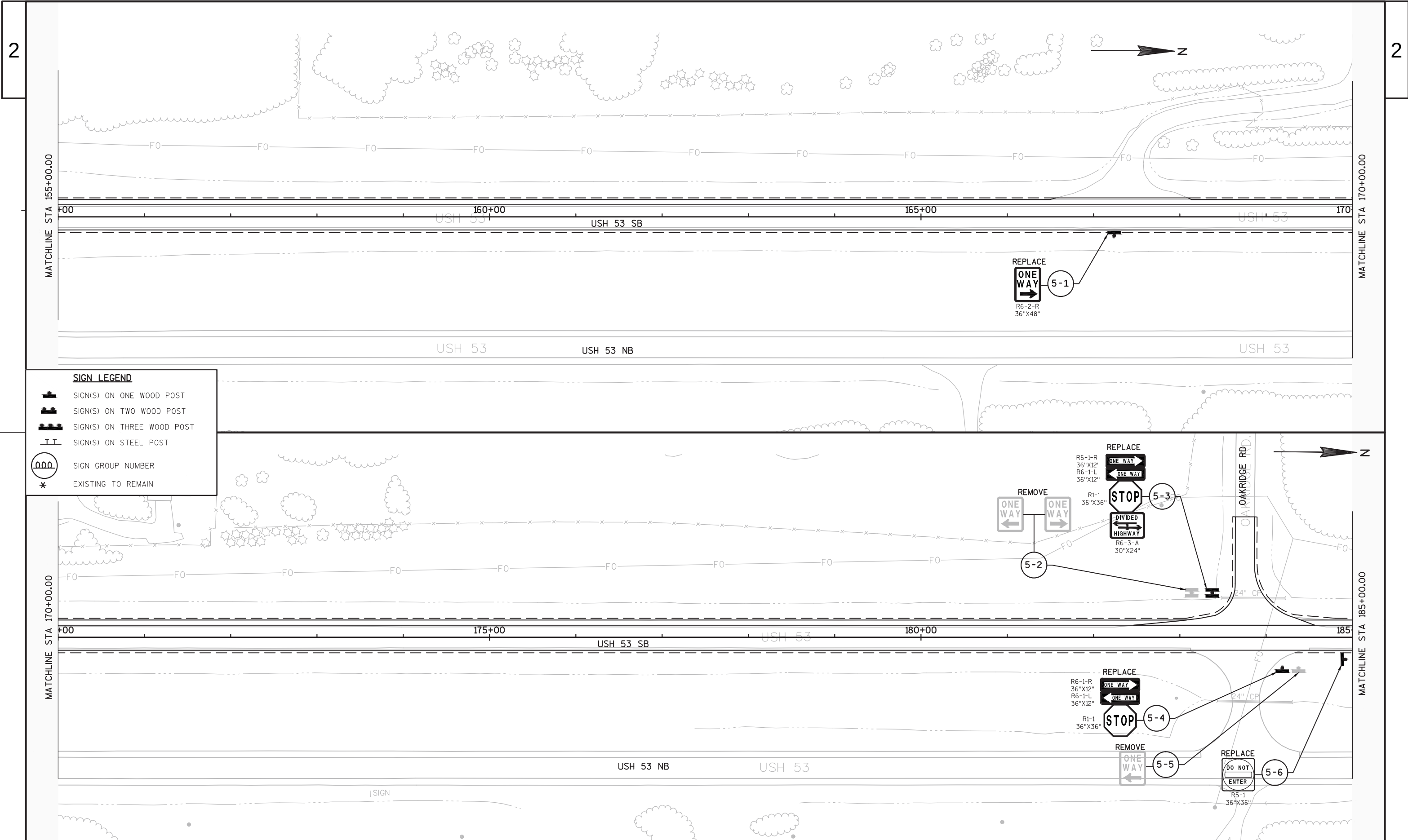


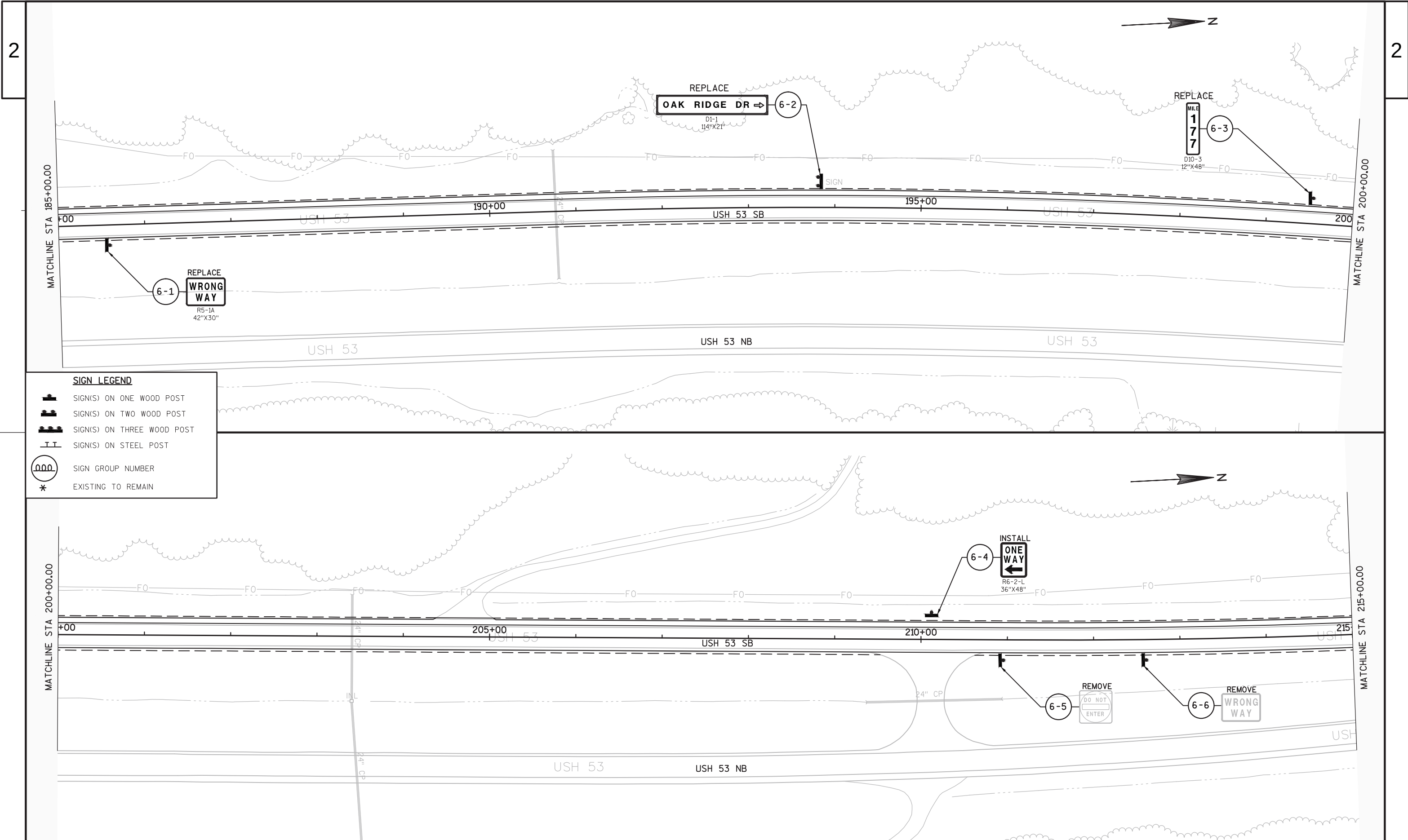




SIGN LEGEND

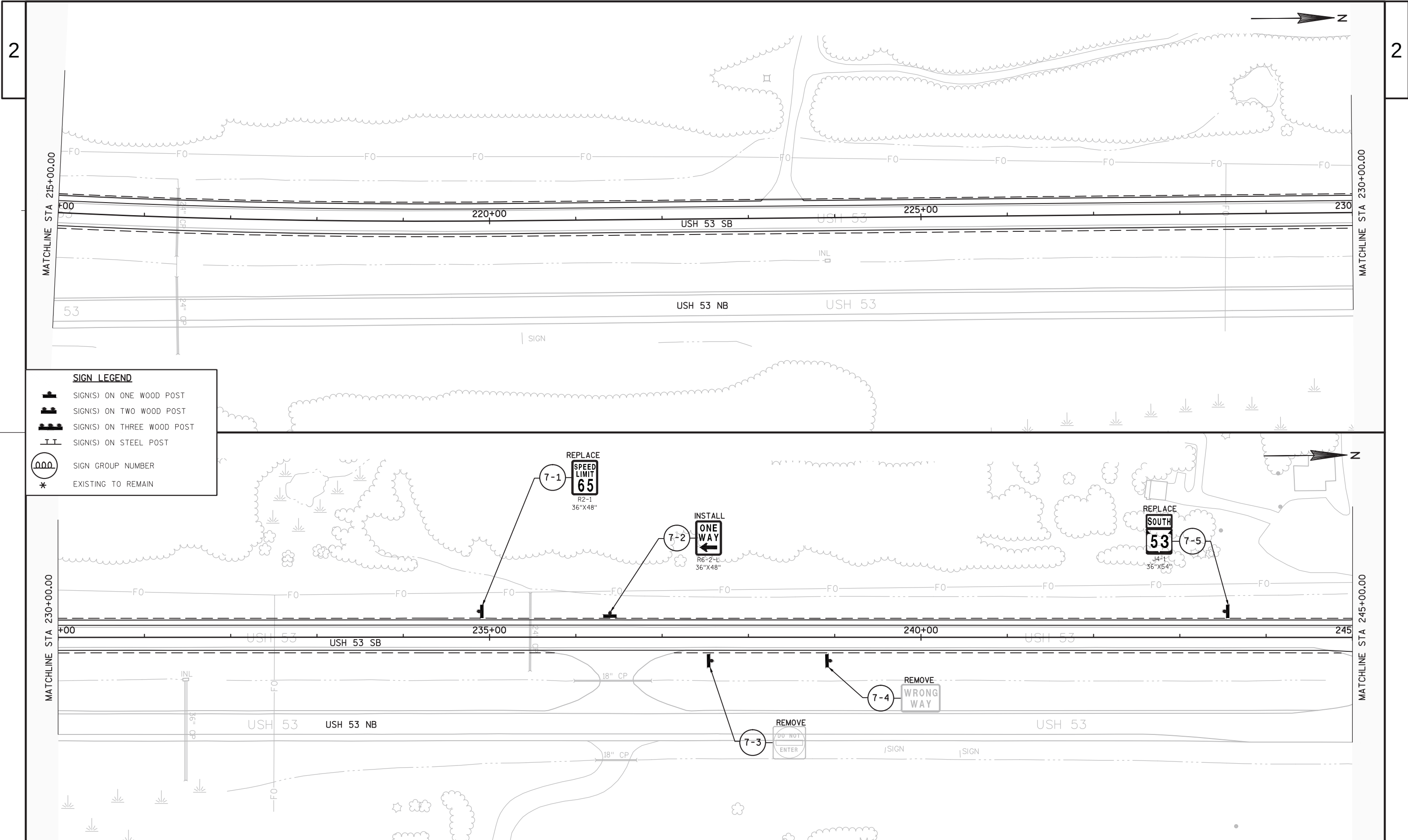
- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POST
- SIGN(S) ON THREE WOOD POST
- SIGN(S) ON STEEL POST
- SIGN GROUP NUMBER
- EXISTING TO REMAIN

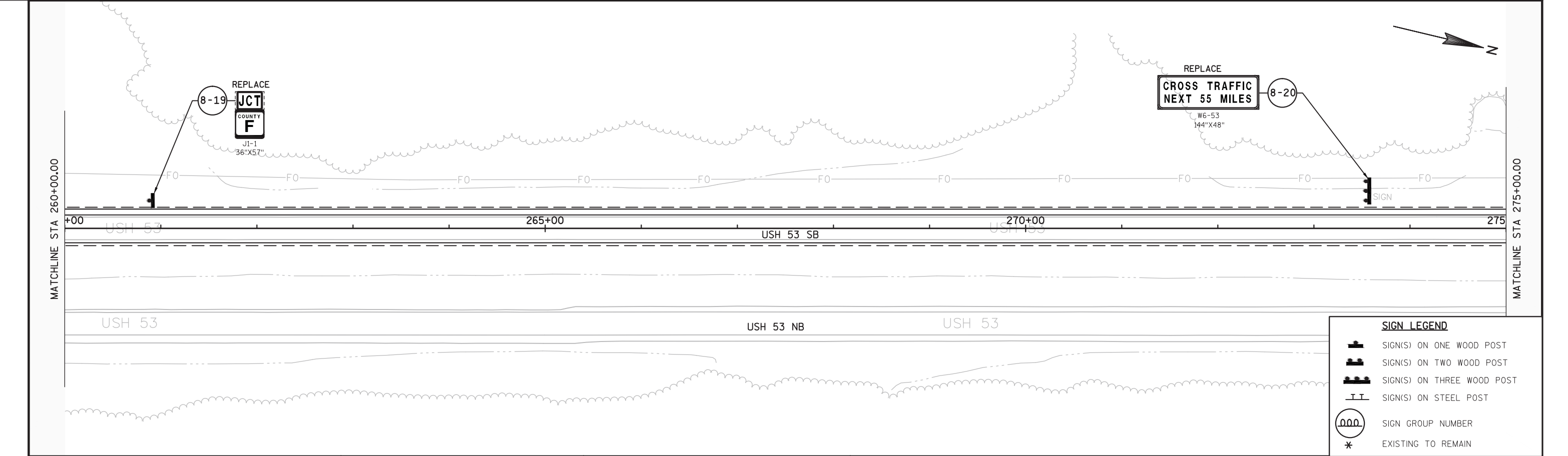
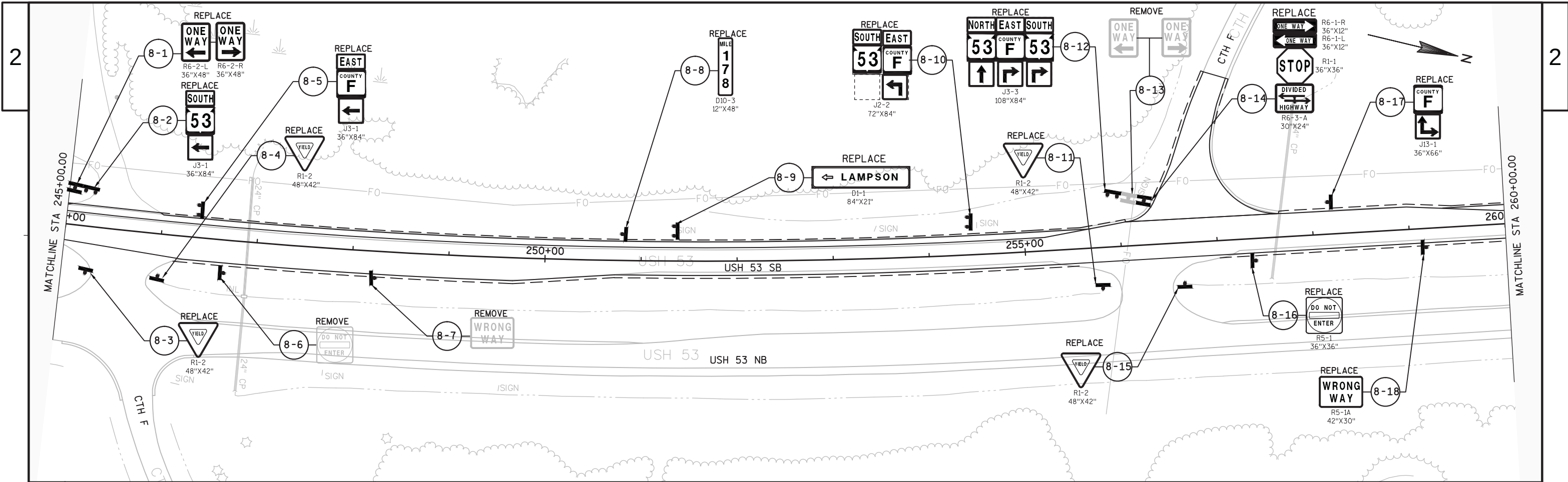


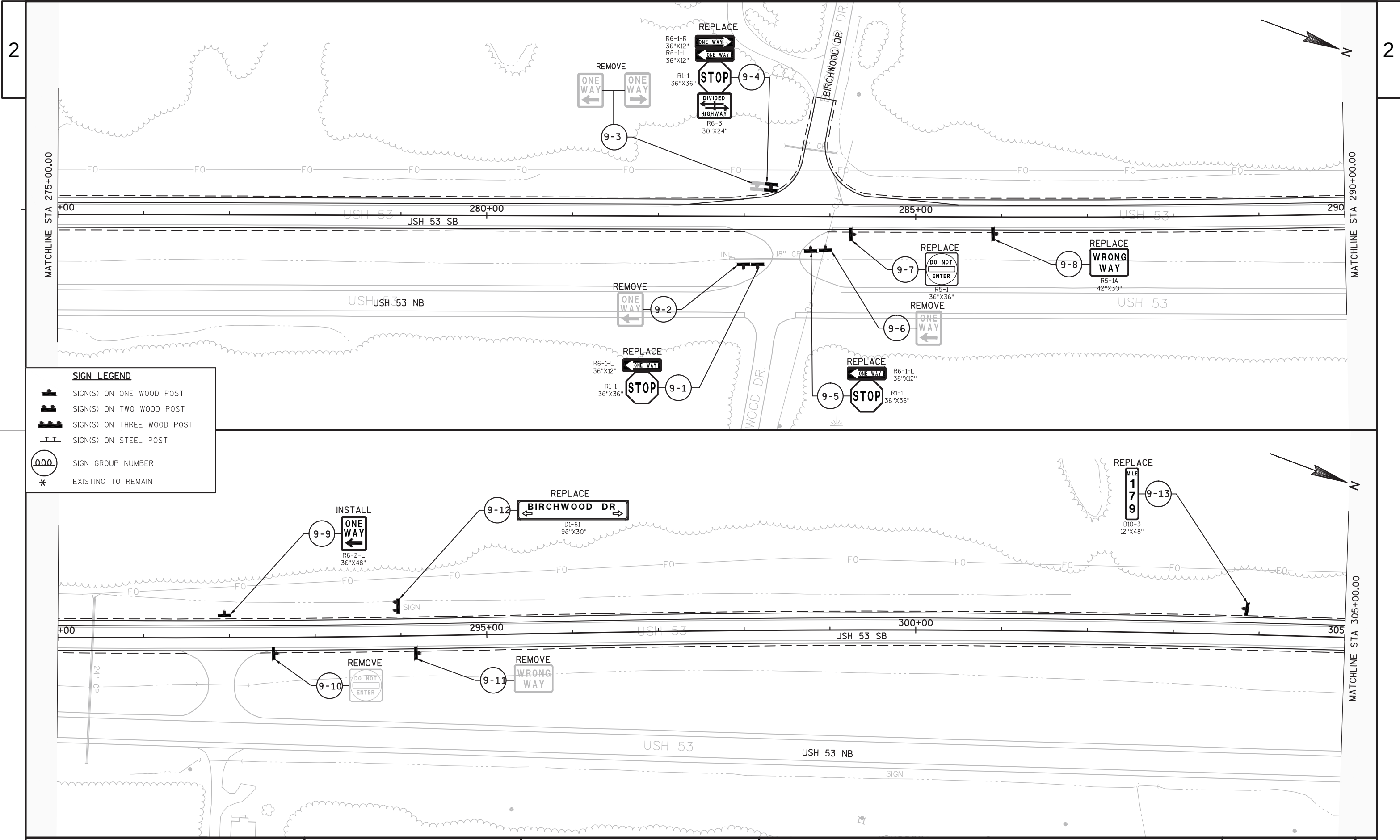


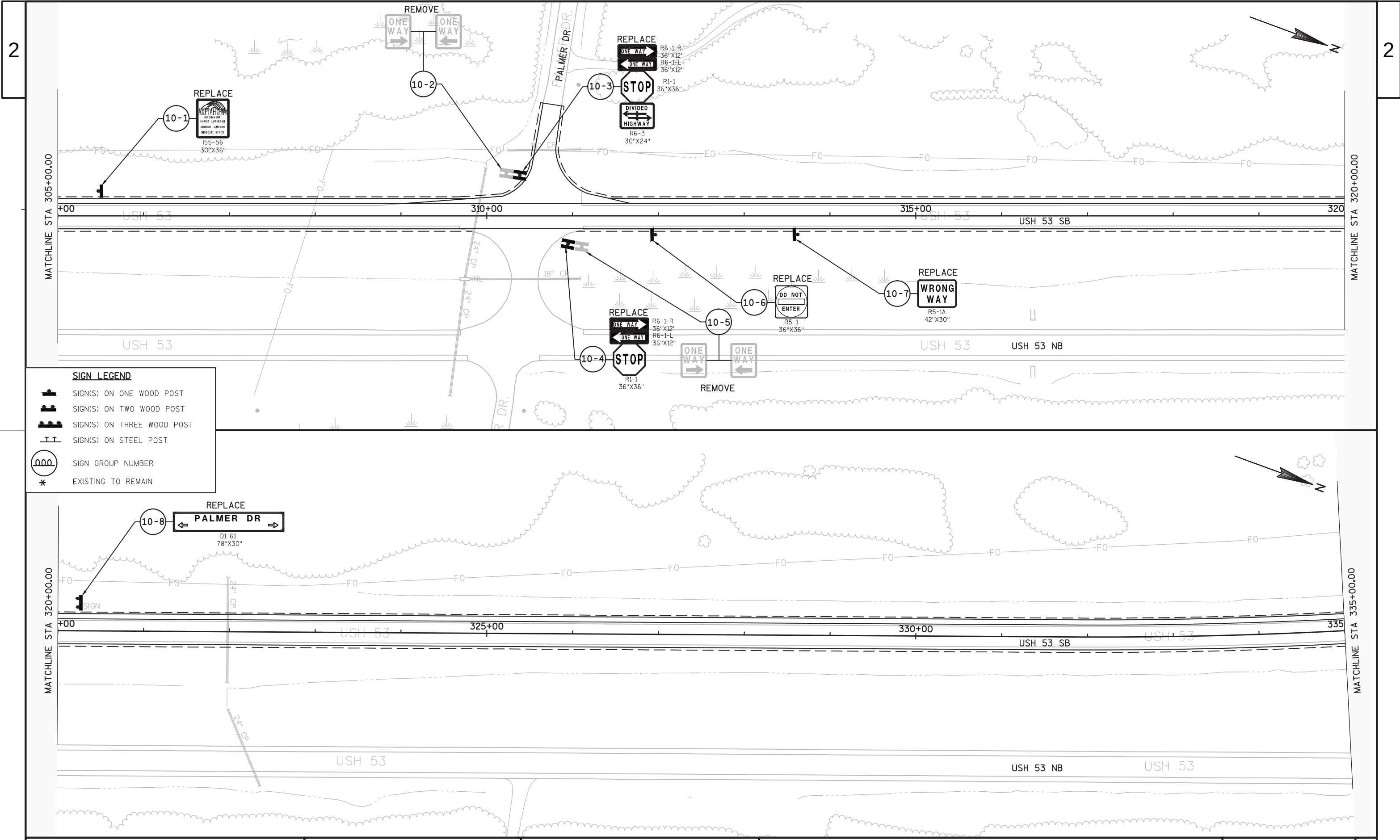
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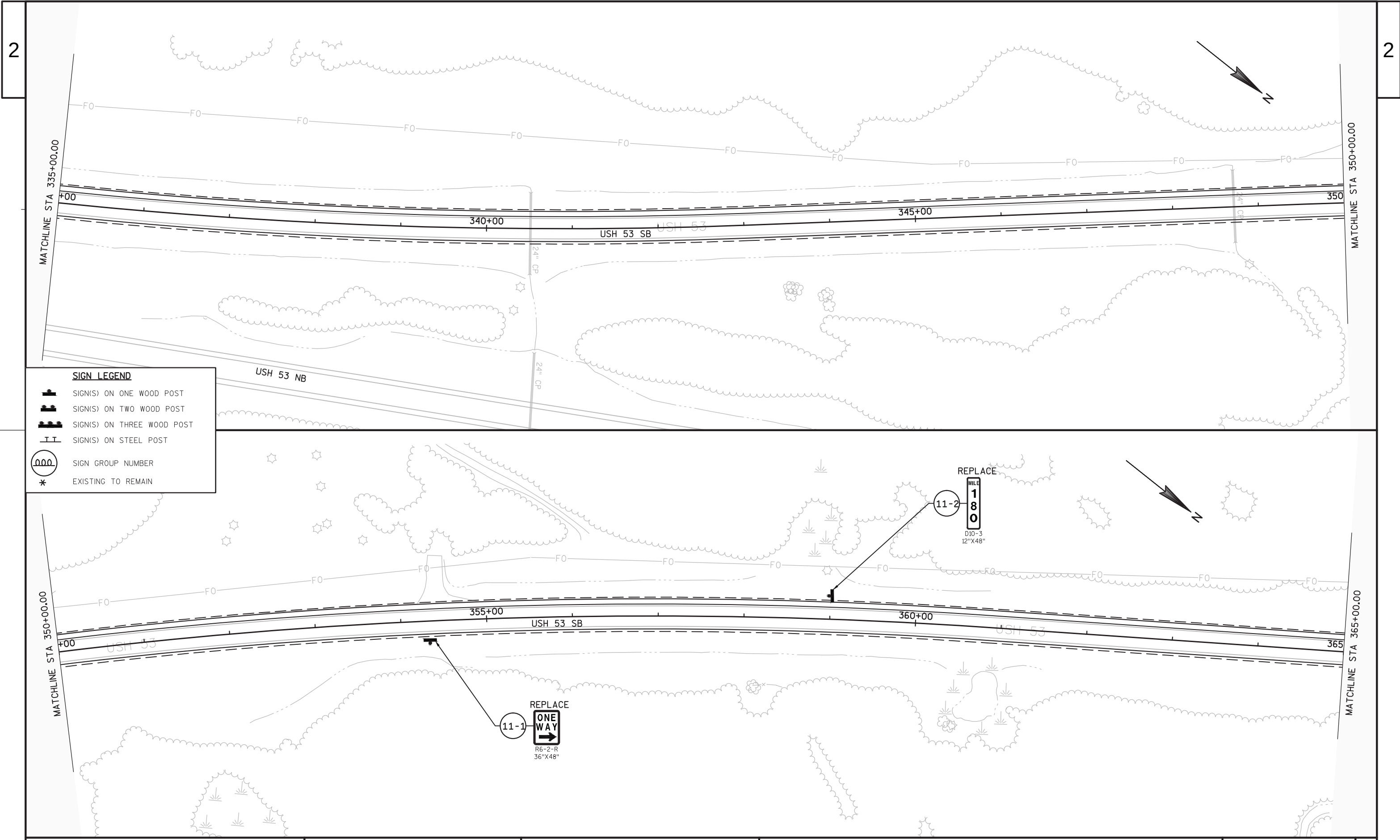
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	SIGN GROUP NUMBER
	EXISTING TO REMAIN











SIGN LEGEND

SIGN(S) ON ONE WOOD POST

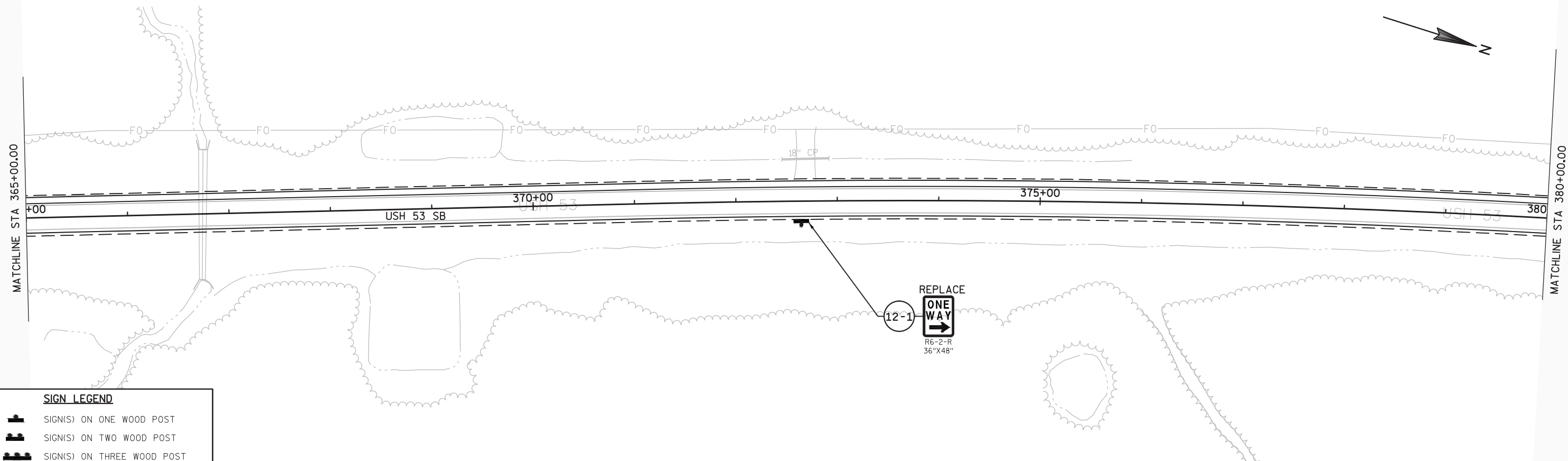
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SIGN(S) ON THREE WOOD POST

SIGN(S) ON STEEL POST

SIGN GROUP NUMBER

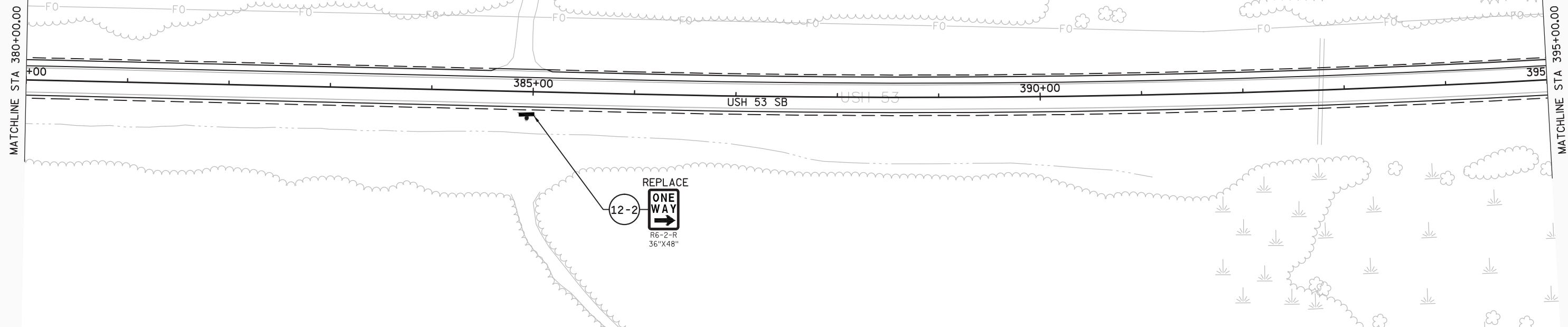
EXISTING TO REMAIN

**SIGN LEGEND**

-  SIGN(S) ON ONE WOOD POST
-  SIGN(S) ON TWO WOOD POST
-  SIGN(S) ON THREE WOOD POST
-  SIGN(S) ON STEEL POST
-  SIGN GROUP NUMBER
-  EXISTING TO REMAIN

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*



PROJECT NO: 1198-00-76

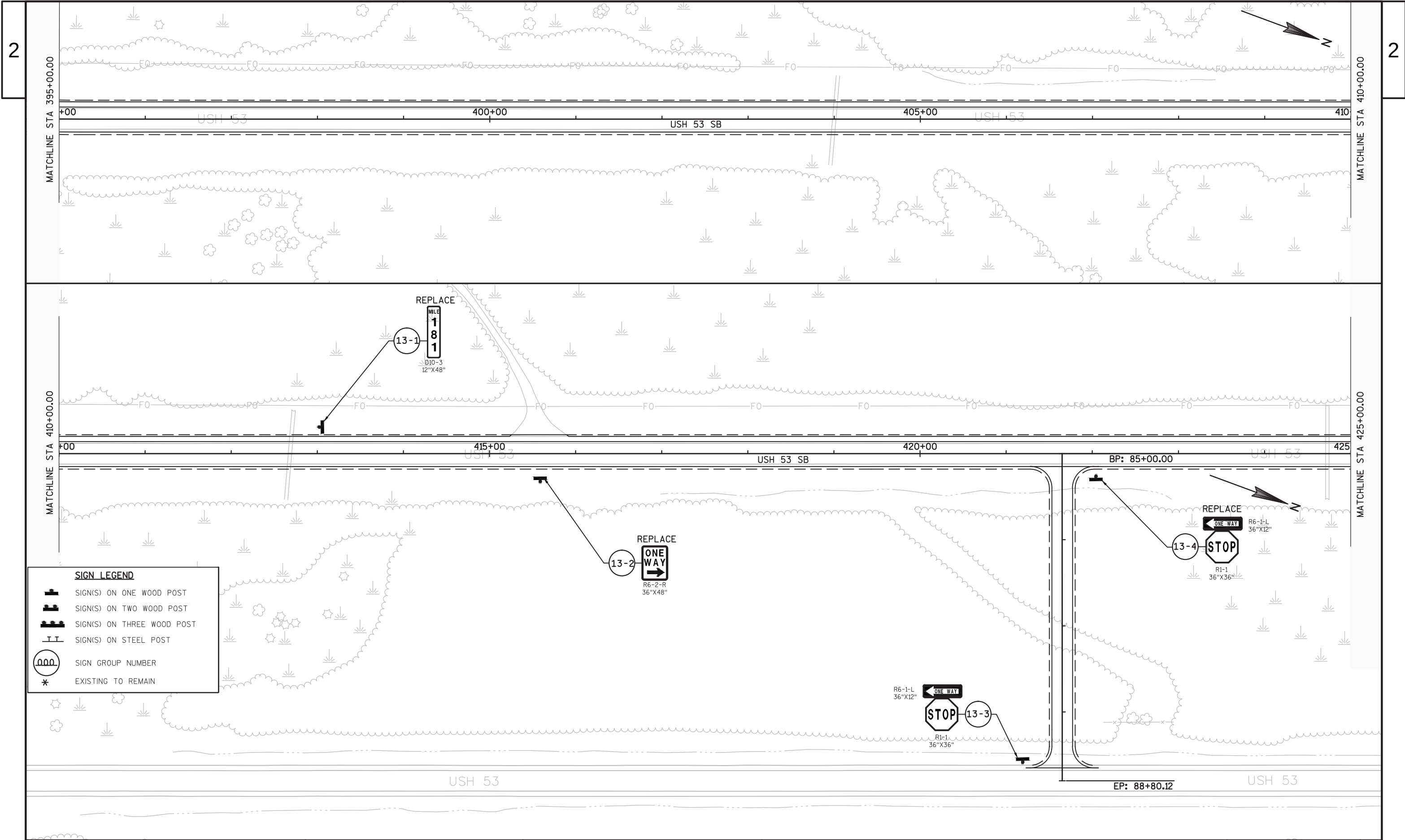
HWY: USH 53

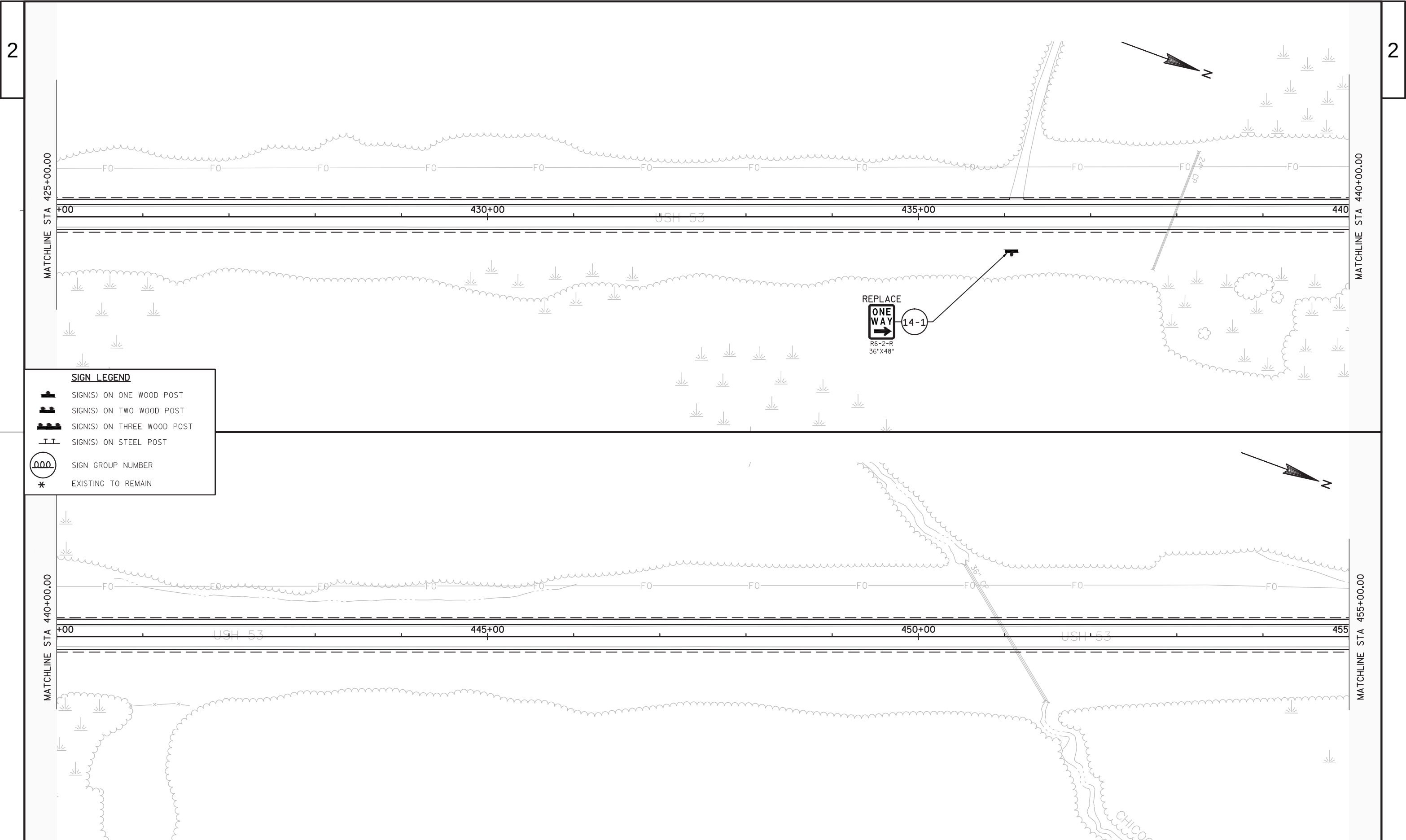
COUNTY: WASHBURN/DOUGLAS

PERMANENT SIGNING

SHEET 27

E





SIGN LEGEND

SIGN(S) ON ONE WOOD POST

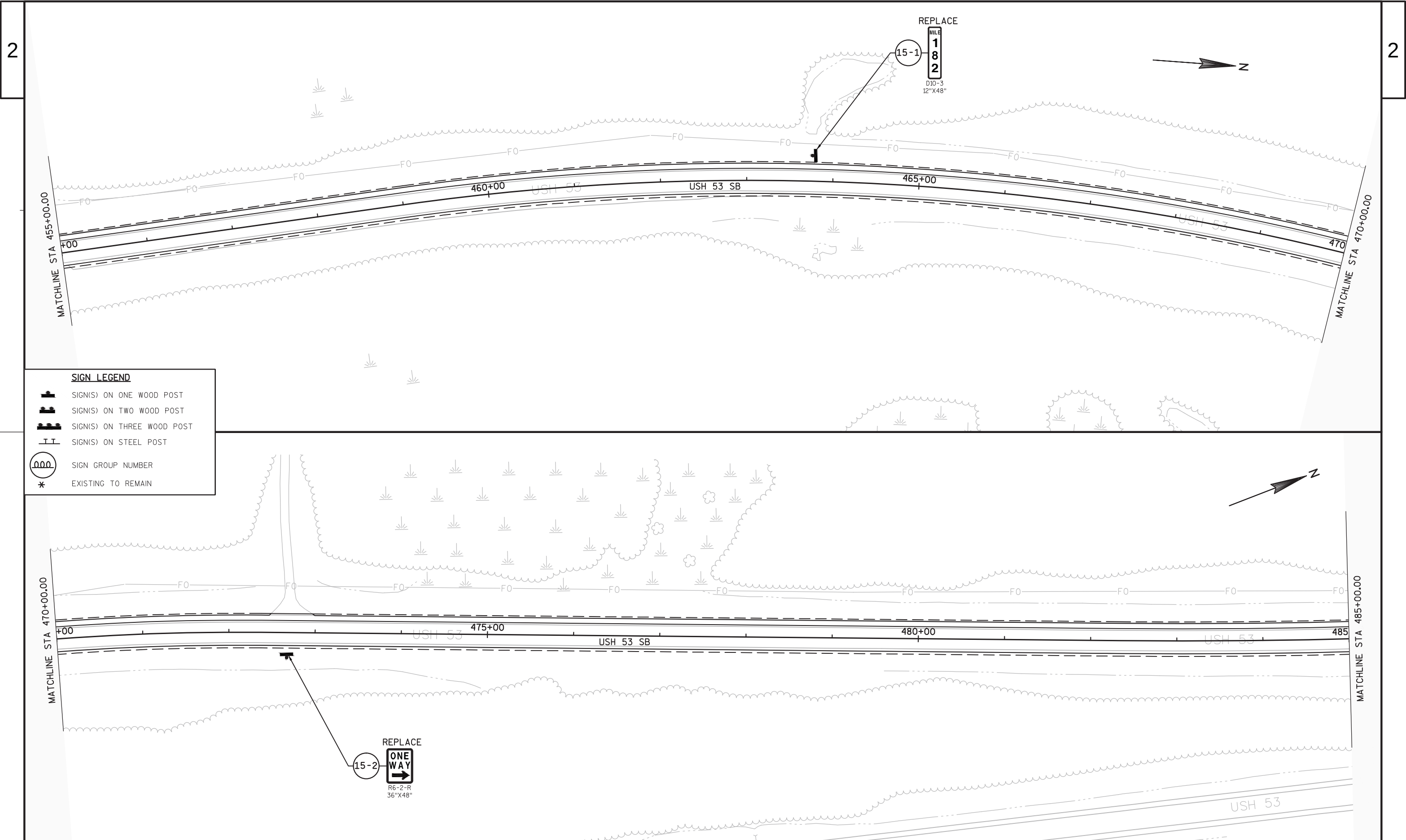
SIGN(S) ON TWO WOOD POST

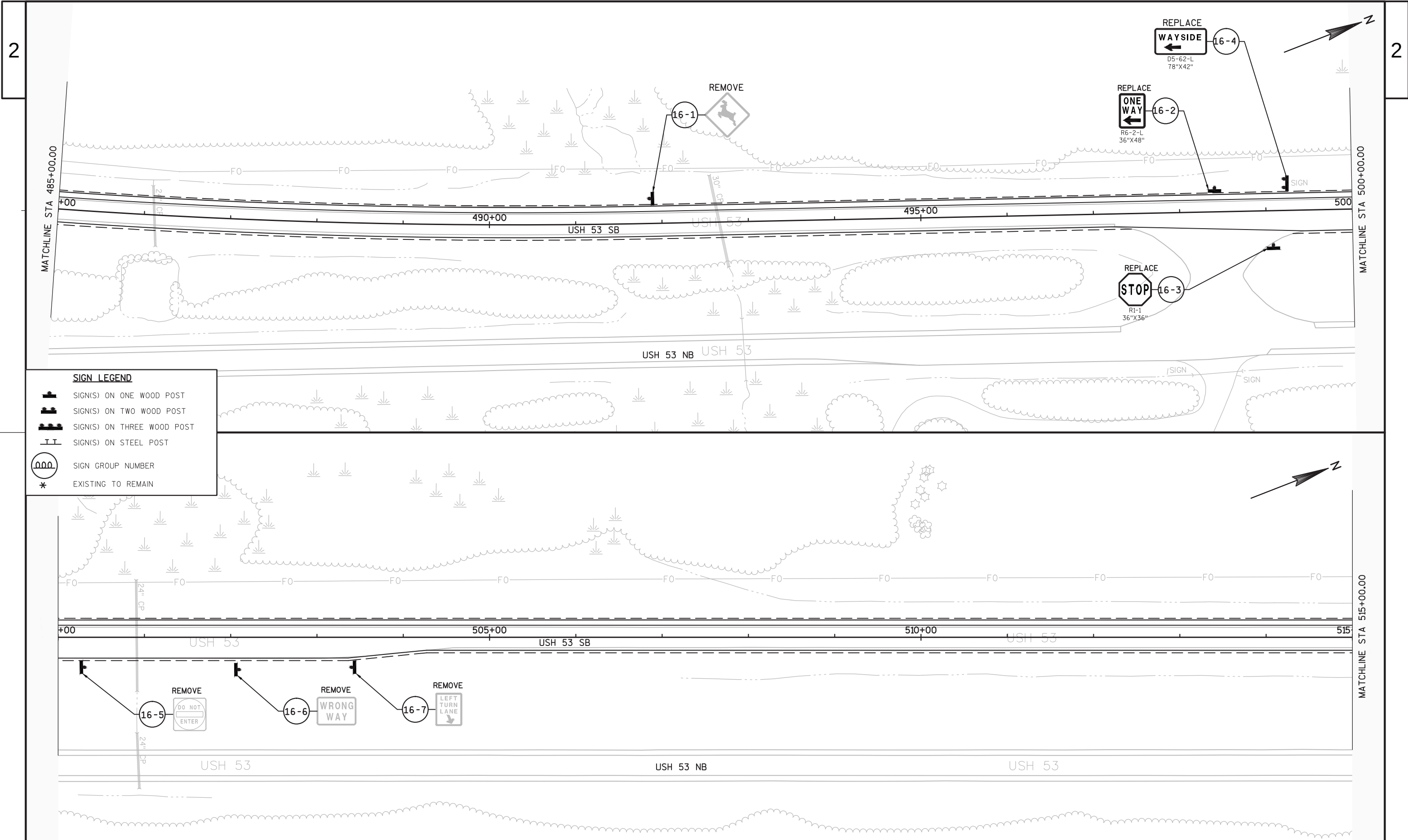
SIGN(S) ON THREE WOOD POST

SIGN(S) ON STEEL POST

SIGN GROUP NUMBER

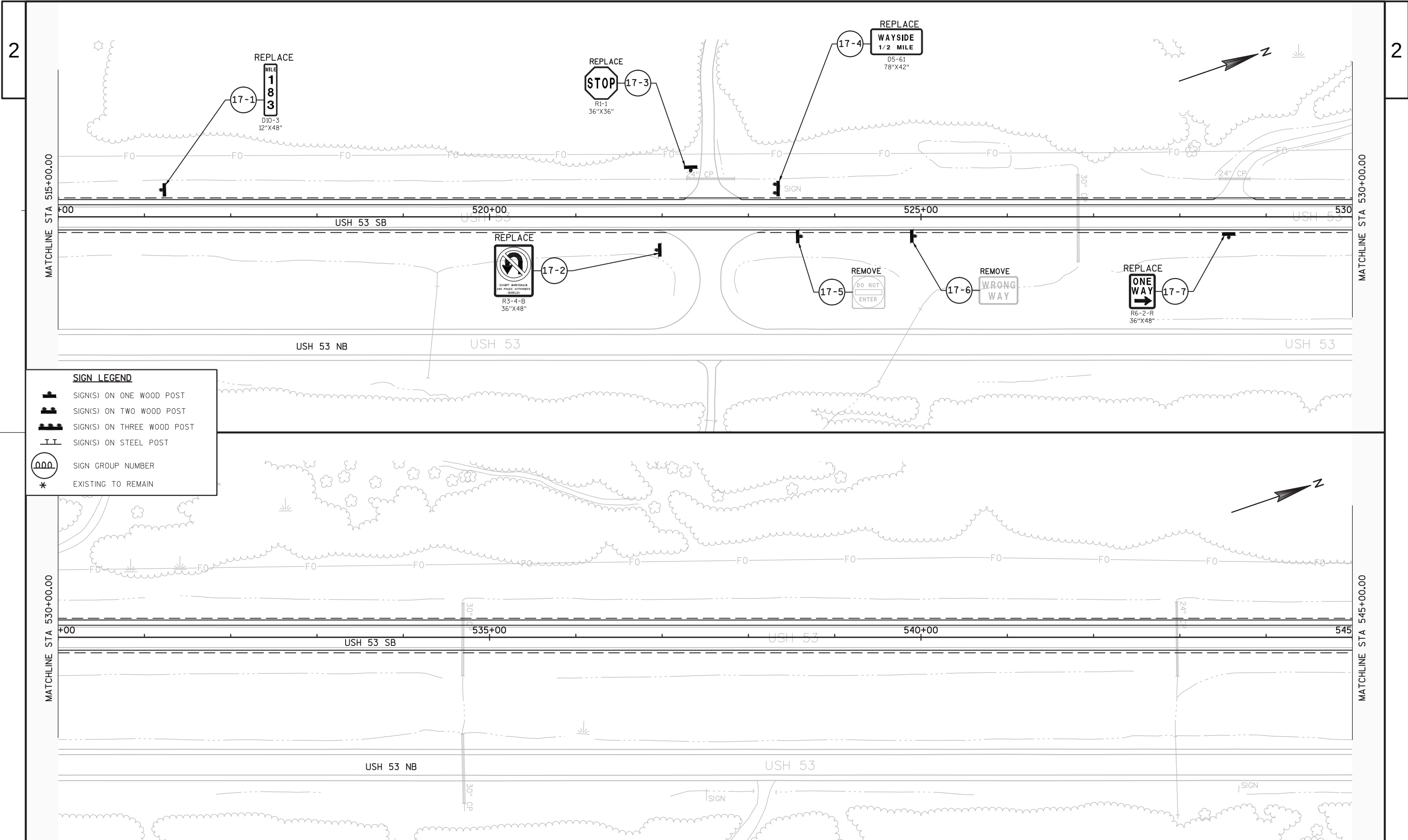
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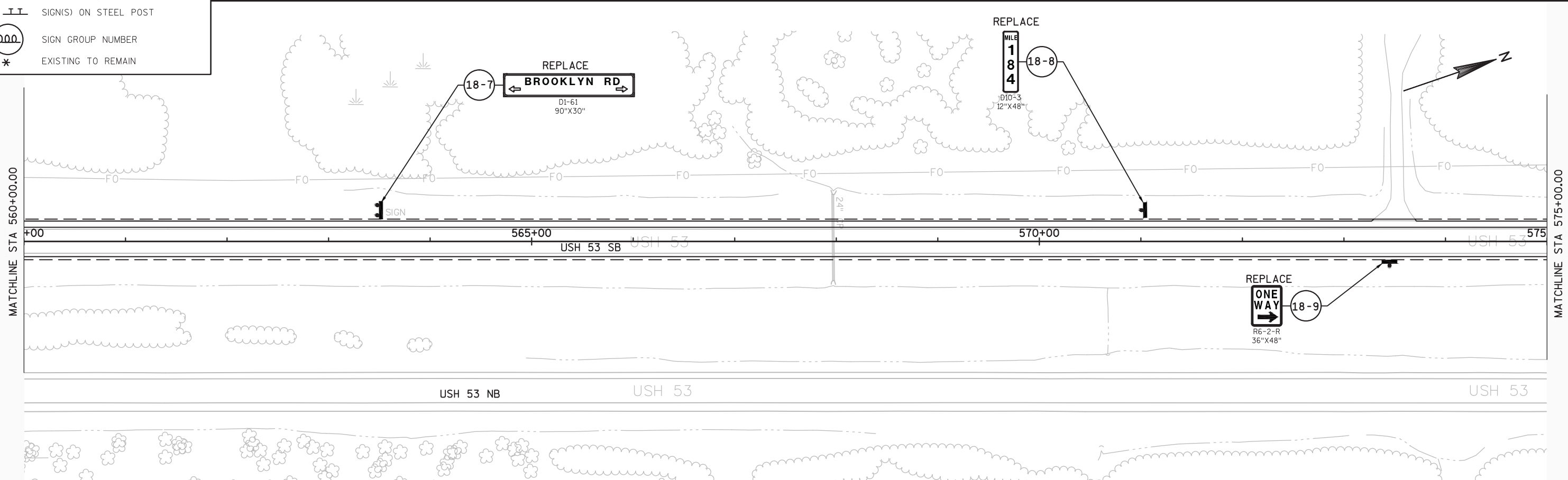
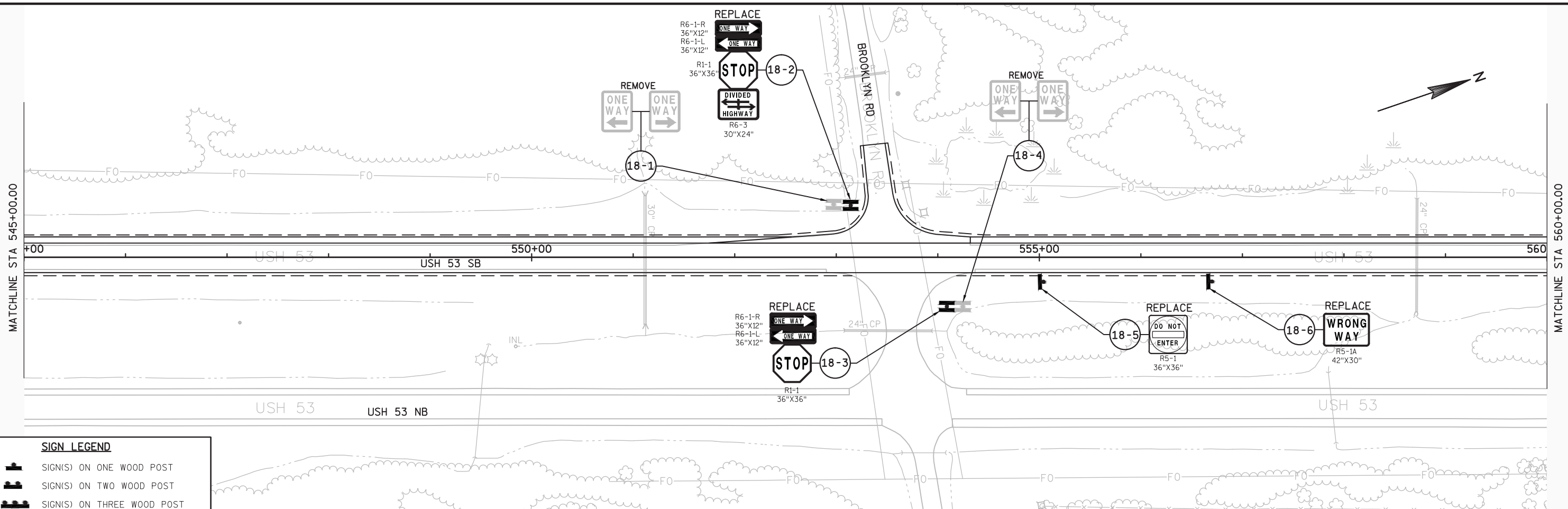


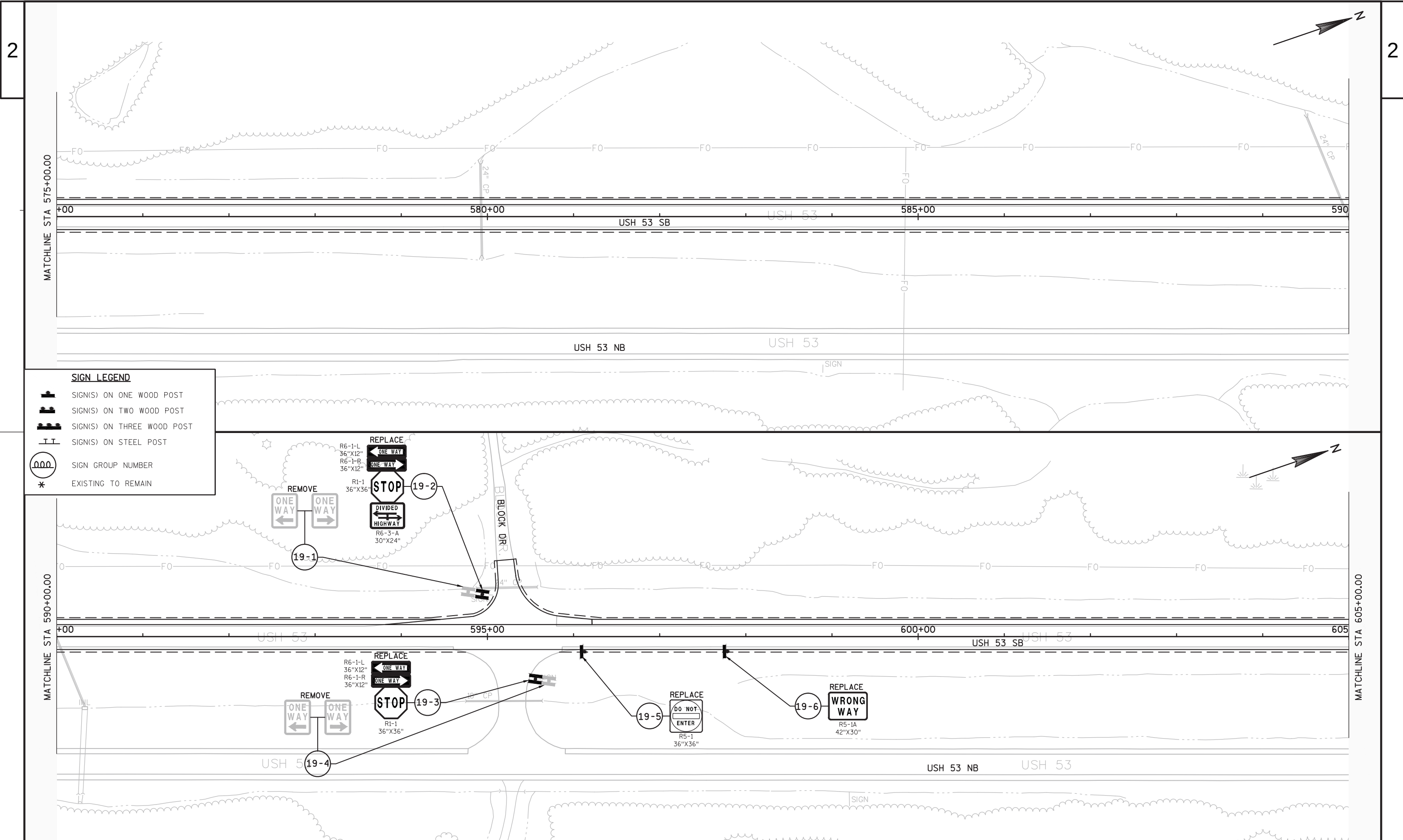


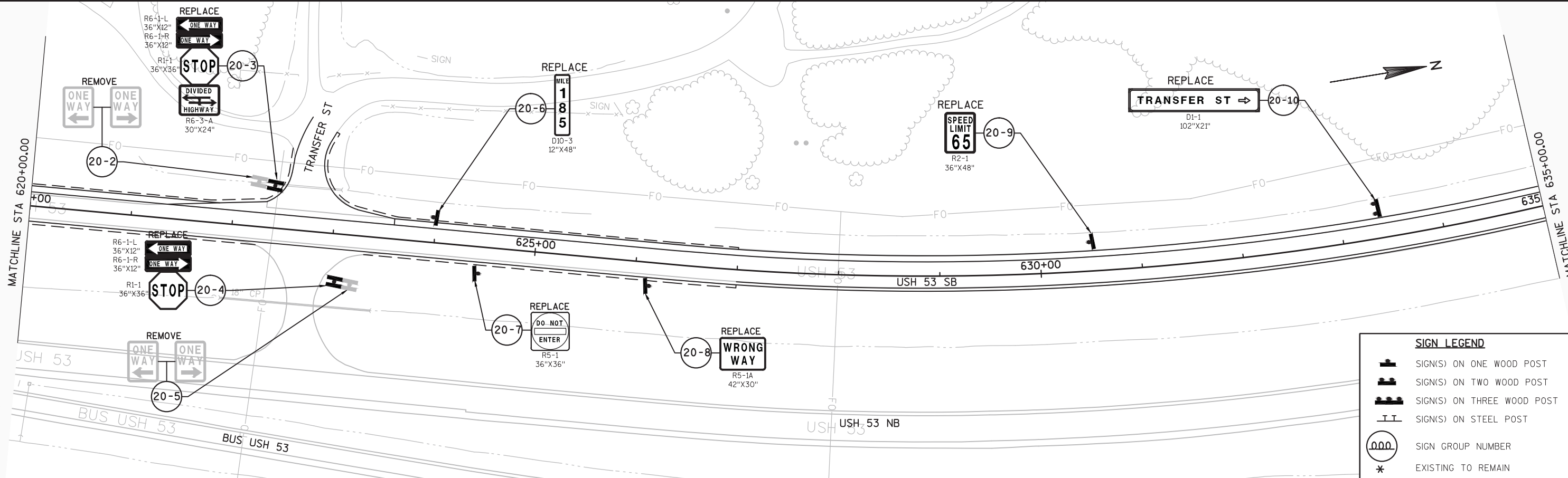
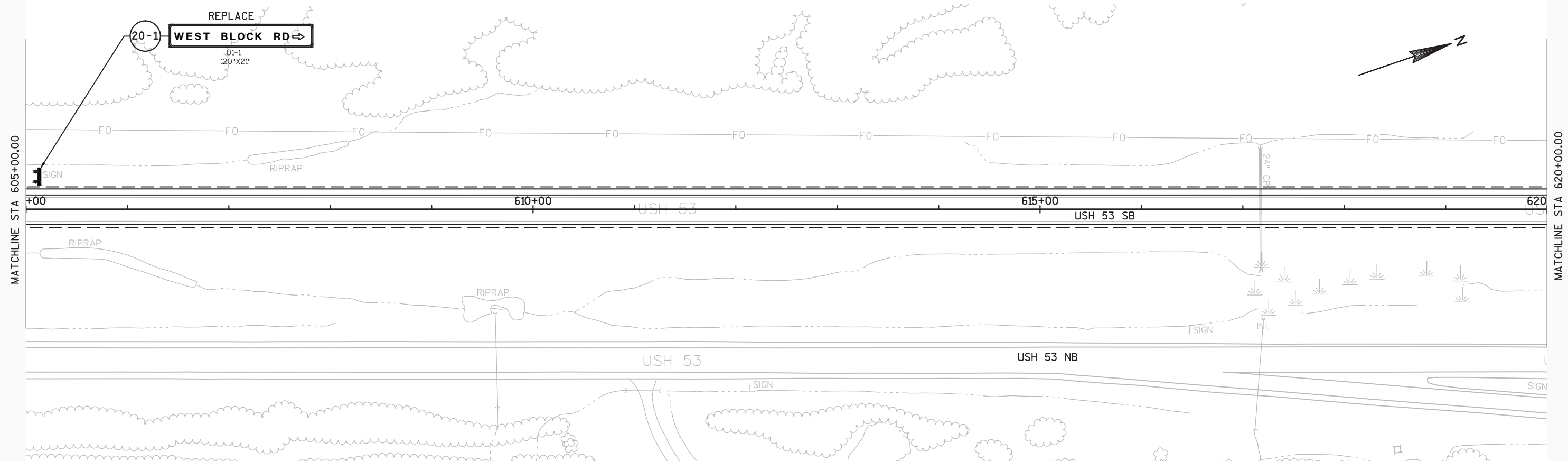
SIGN LEGEND

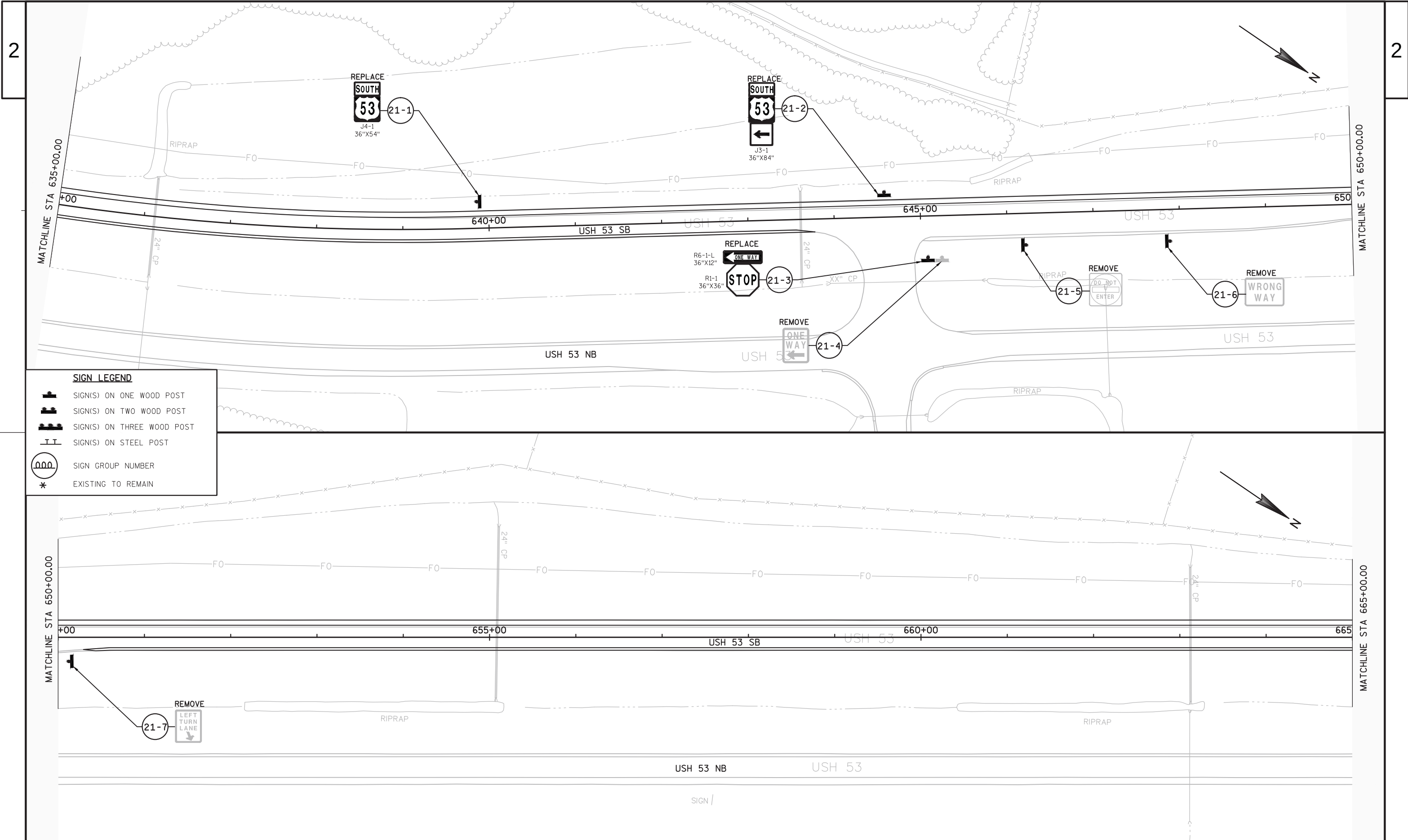
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- SIGN(S) ON TWO WOOD POST
- SIGN(S) ON THREE WOOD POST
- SIGN(S) ON STEEL POST
- SIGN GROUP NUMBER
- EXISTING TO REMAIN





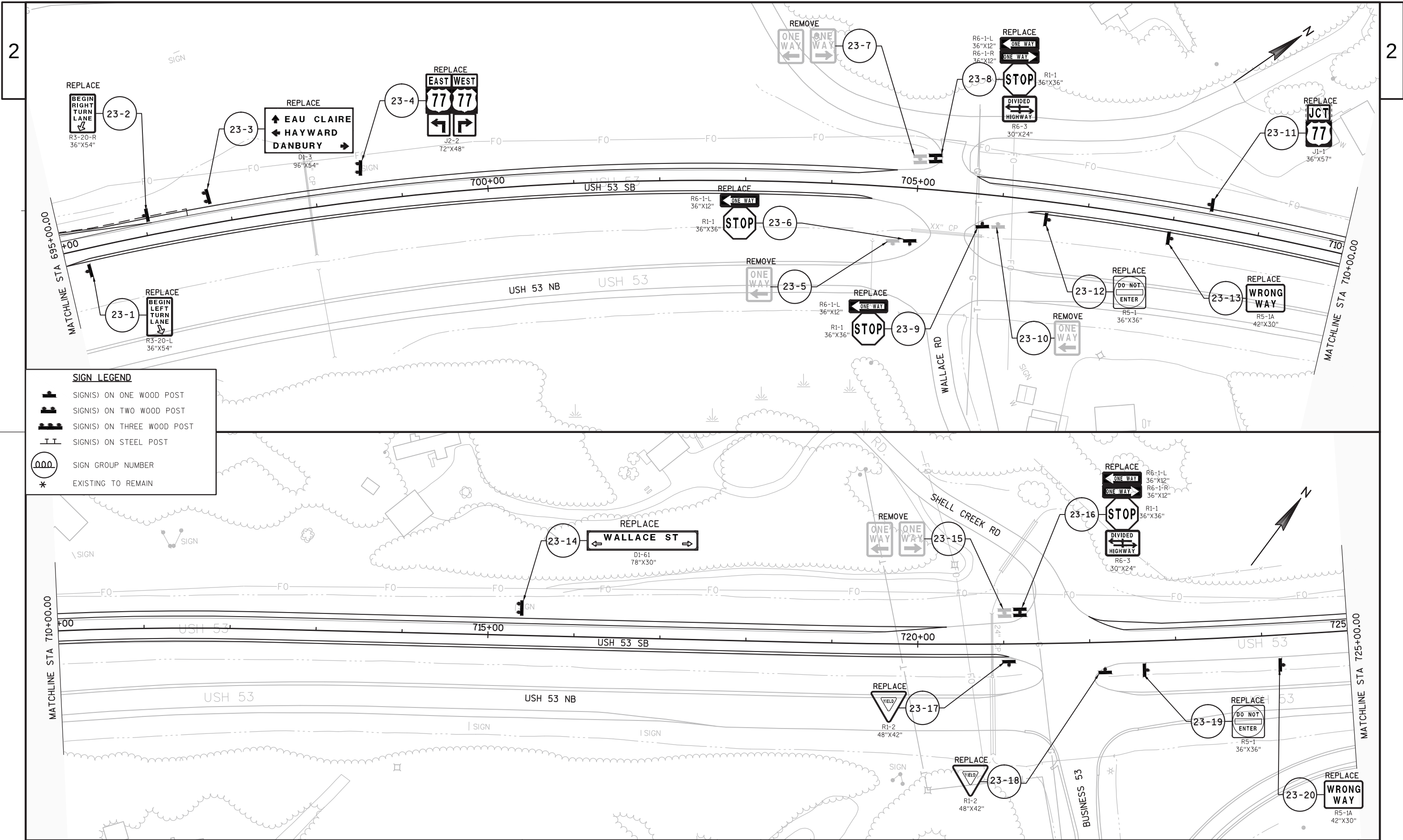


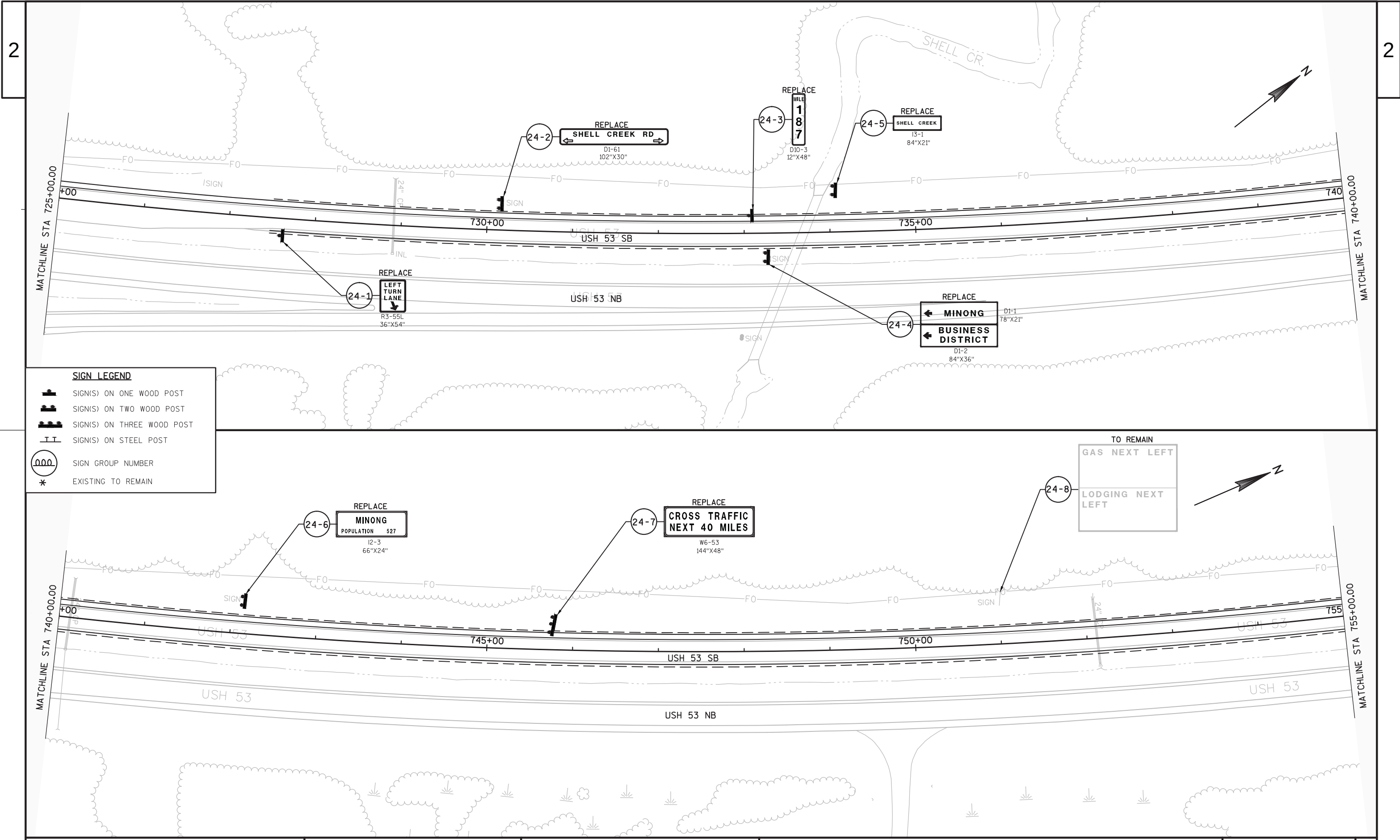


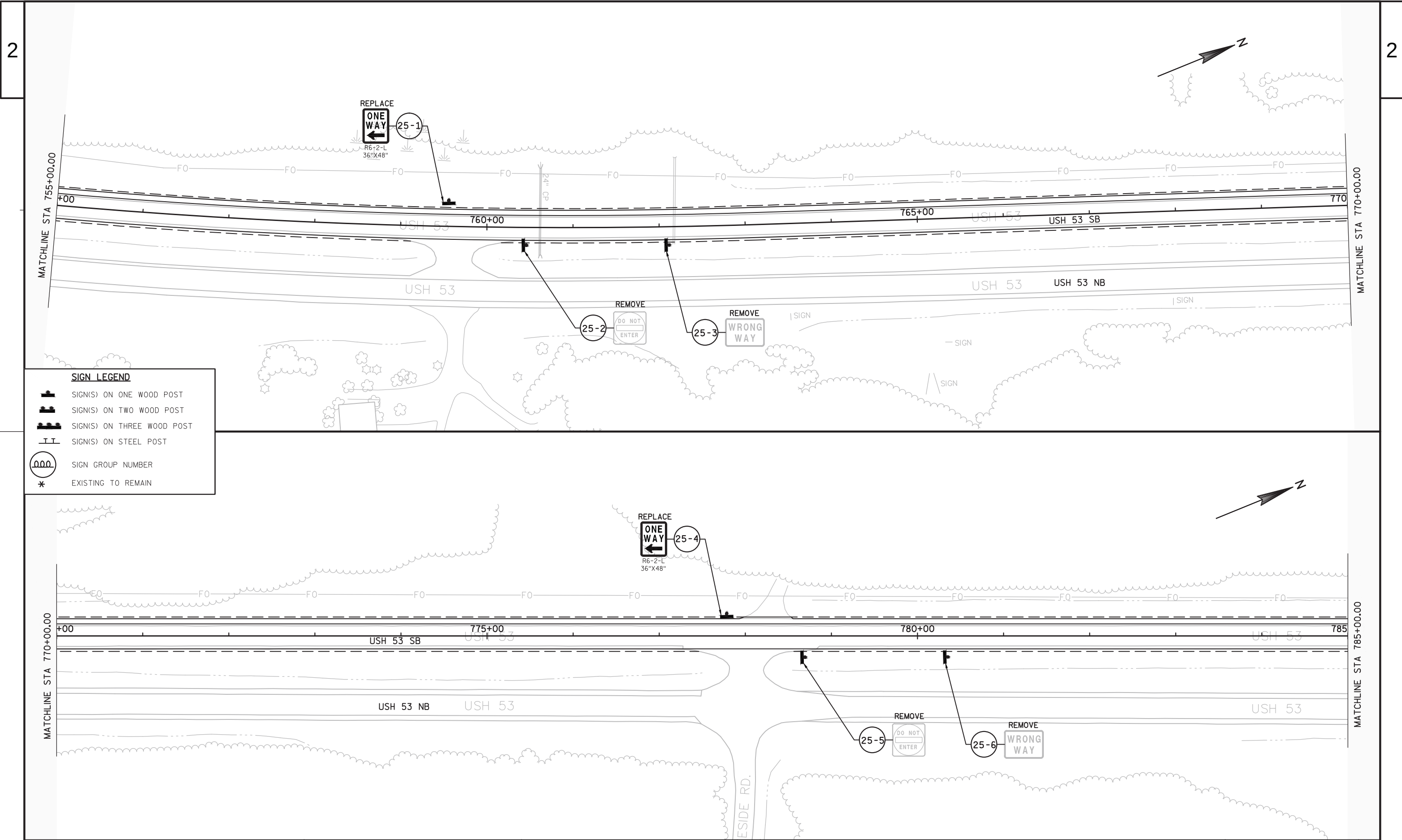


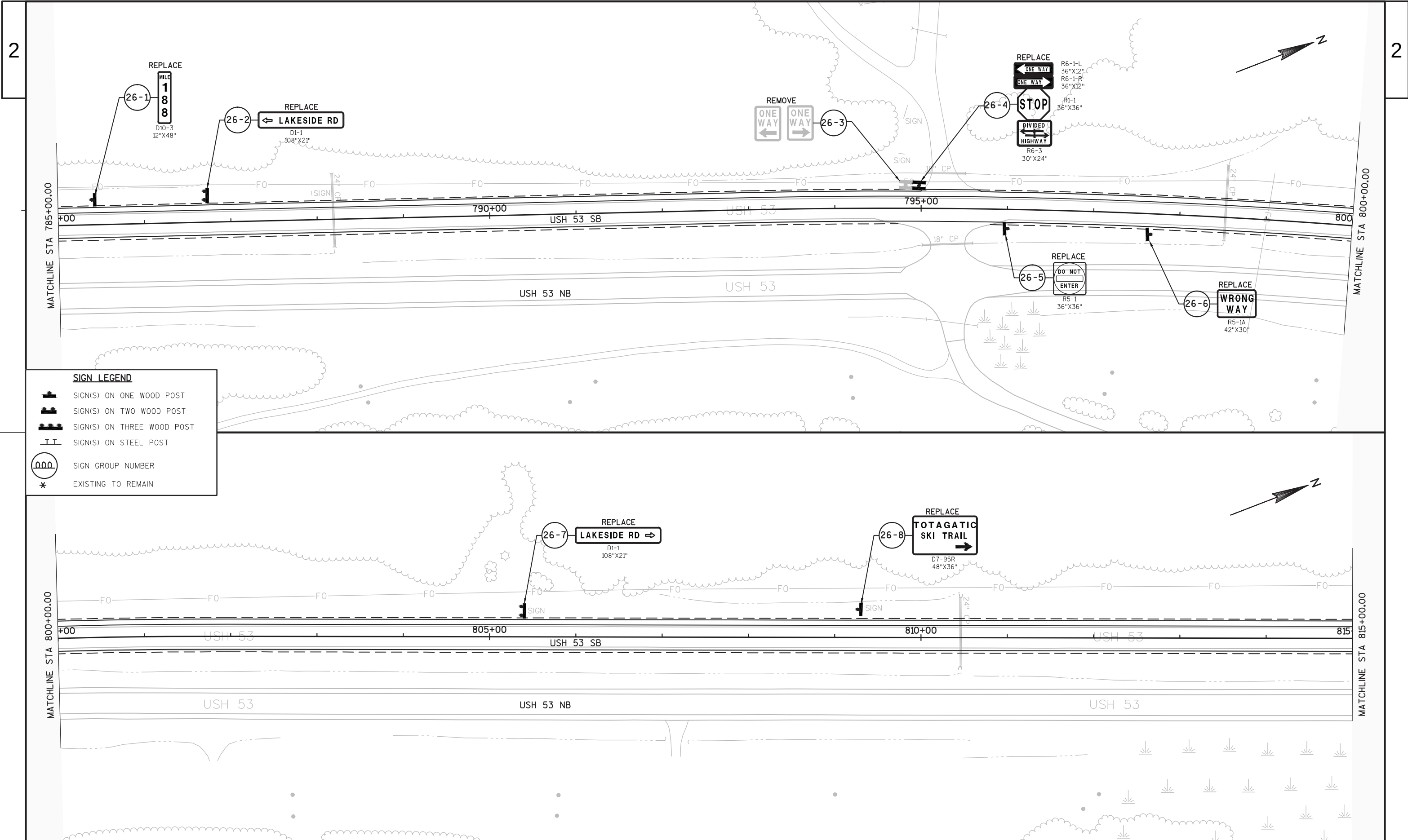
SIGN LEGEND

- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POST
- SIGN(S) ON THREE WOOD POST
- SIGN(S) ON STEEL POST
- SIGN GROUP NUMBER
- EXISTING TO REMAIN



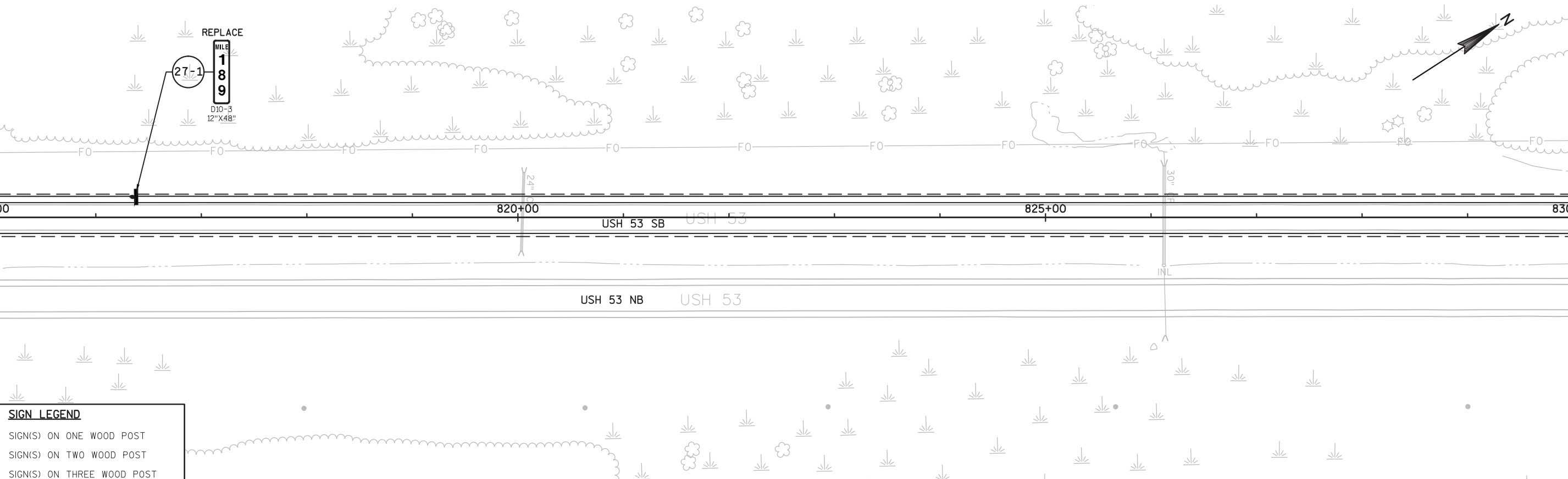






MATCHLINE STA 815+00.00

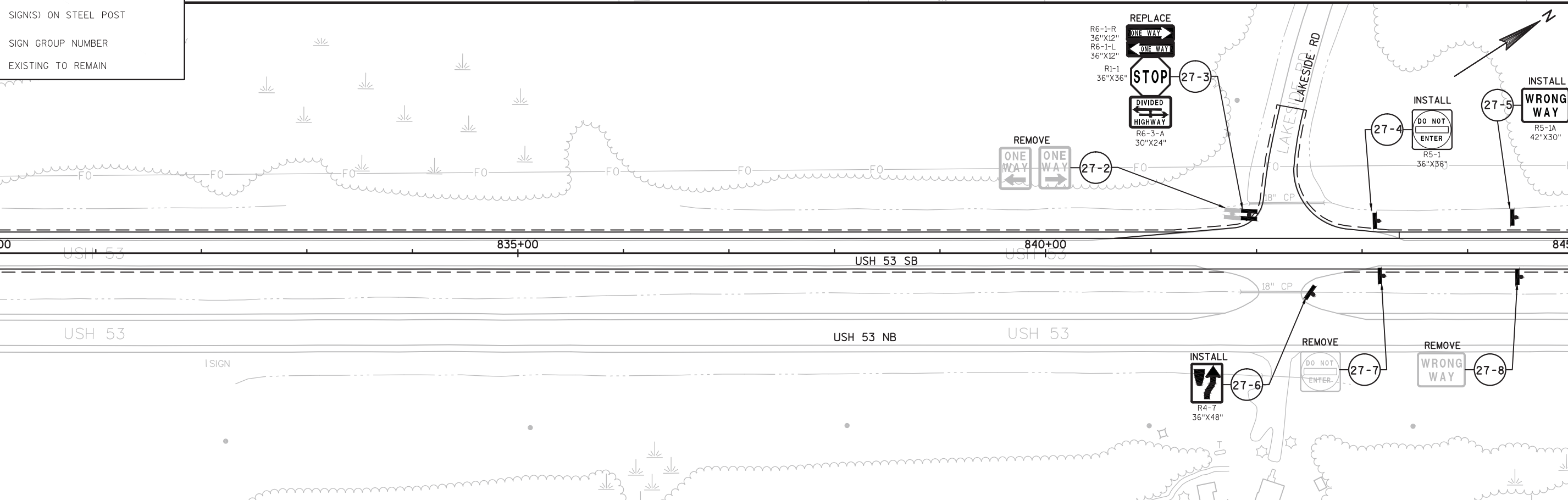
MATCHLINE STA 830+00.00

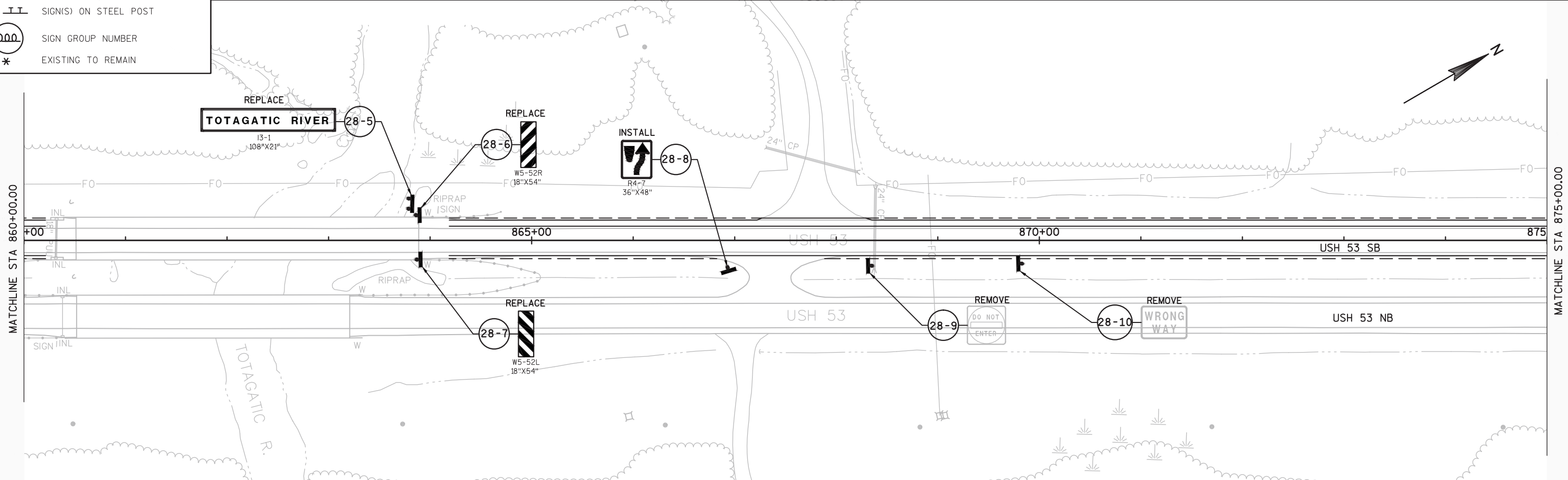
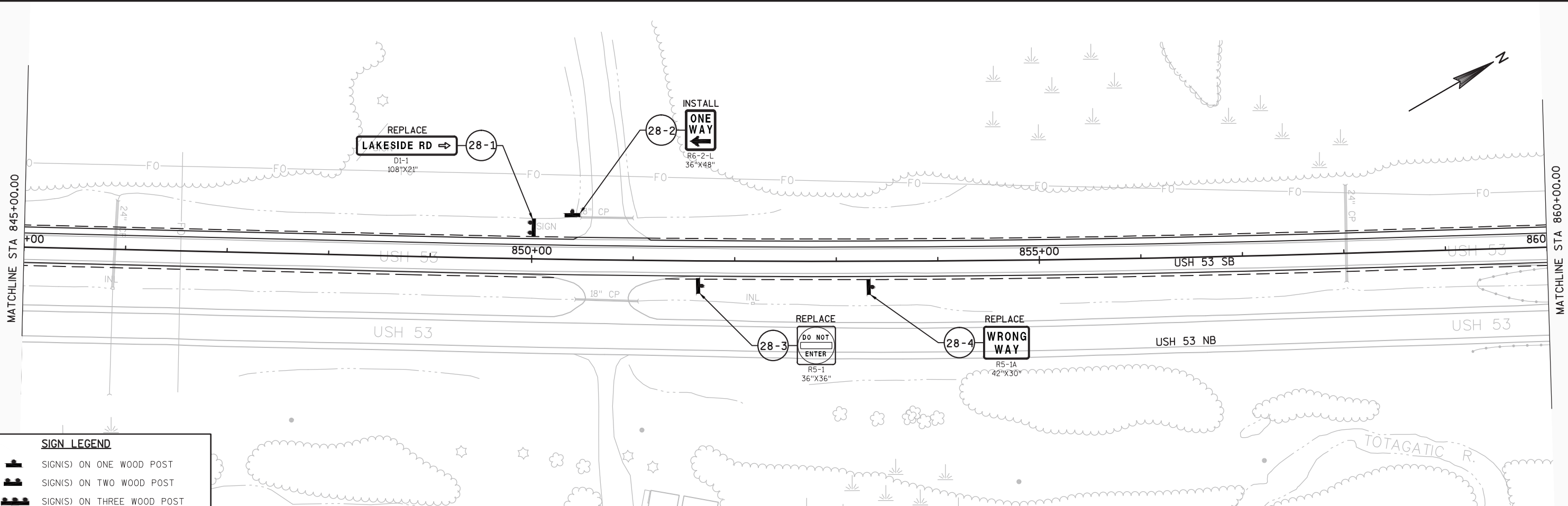
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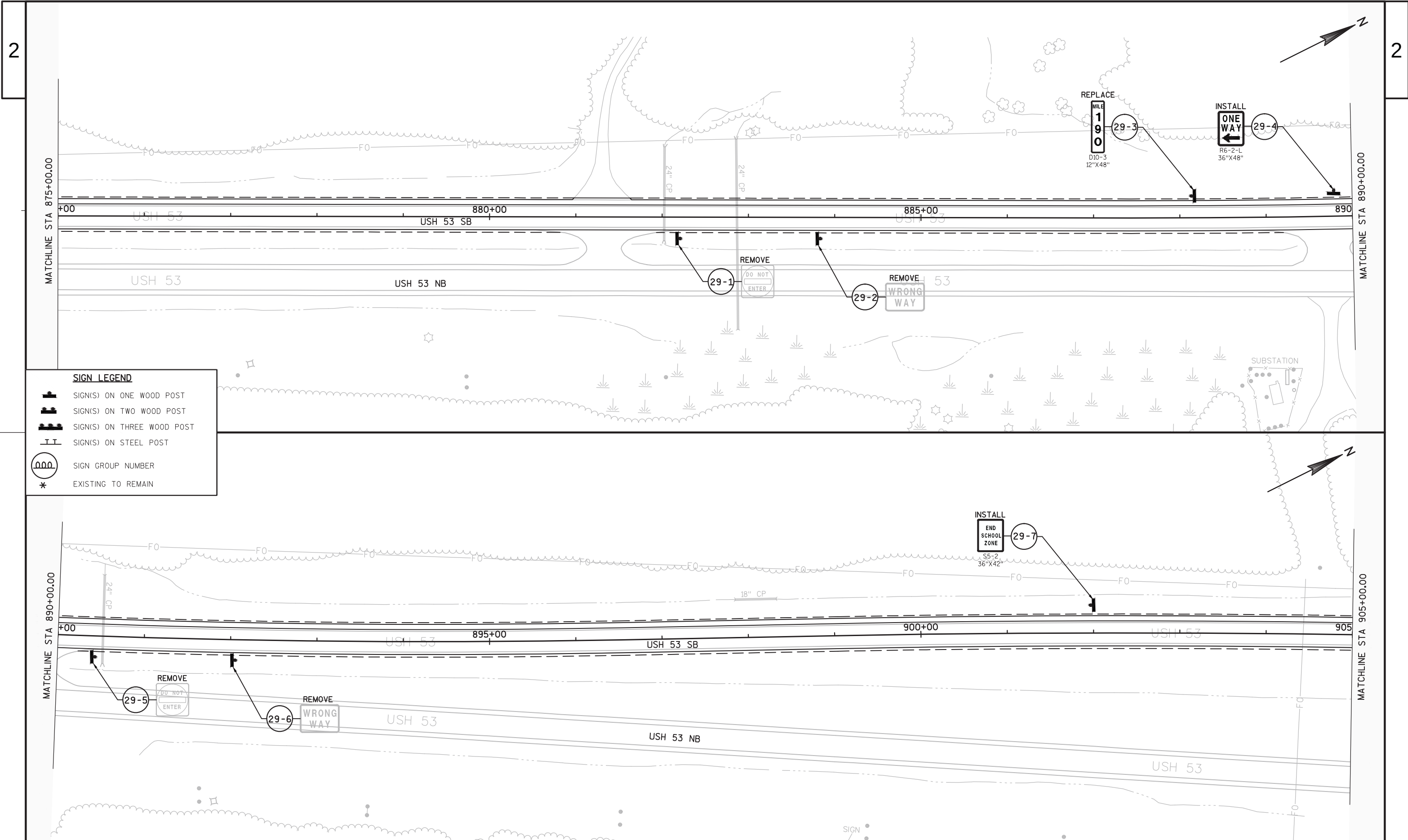
-  SIGN(S) ON ONE WOOD POST
-  SIGN(S) ON TWO WOOD POST
-  SIGN(S) ON THREE WOOD POST
-  SIGN(S) ON STEEL POST
-  SIGN GROUP NUMBER
-  EXISTING TO REMAIN

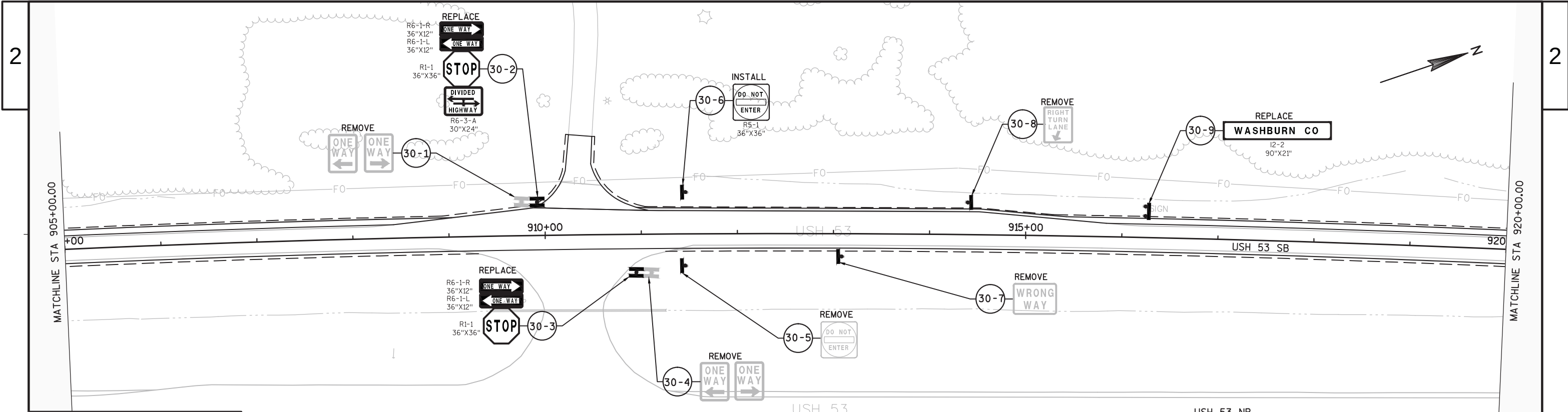
MATCHLINE STA 830+00.00

MATCHLINE STA 845+00.00



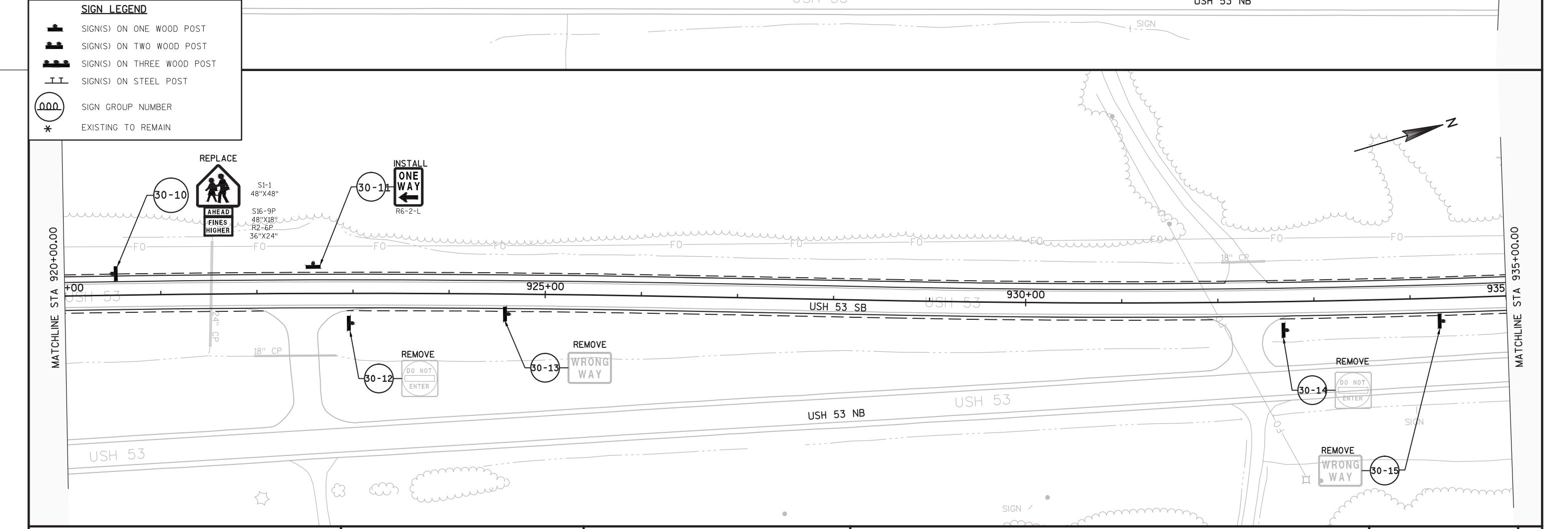


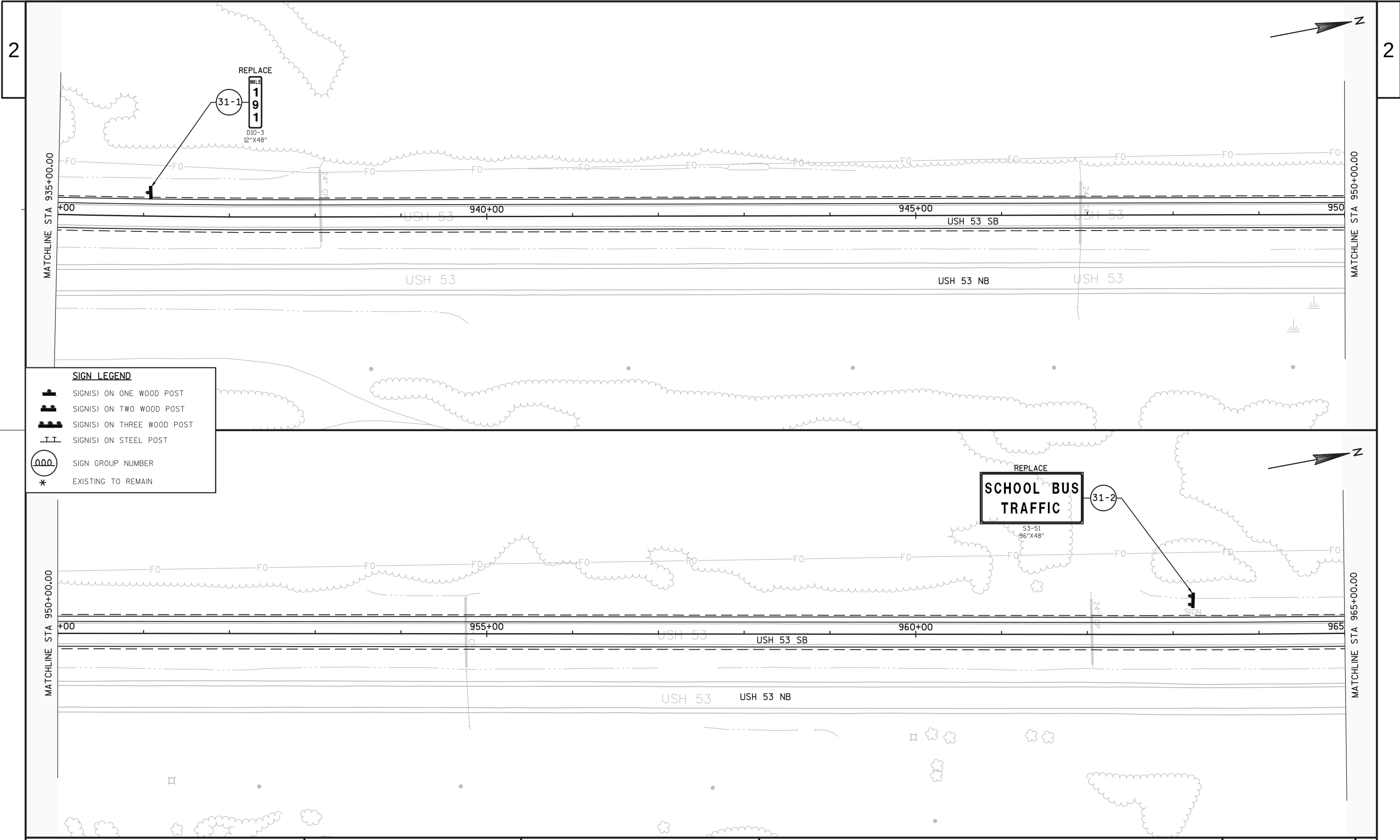




SIGN LEGEND

- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POST
- SIGN(S) ON THREE WOOD POST
- SIGN(S) ON STEEL POST
- SIGN GROUP NUMBER
- EXISTING TO REMAIN





SIGN LEGEND

SIGN(S) ON ONE WOOD POST

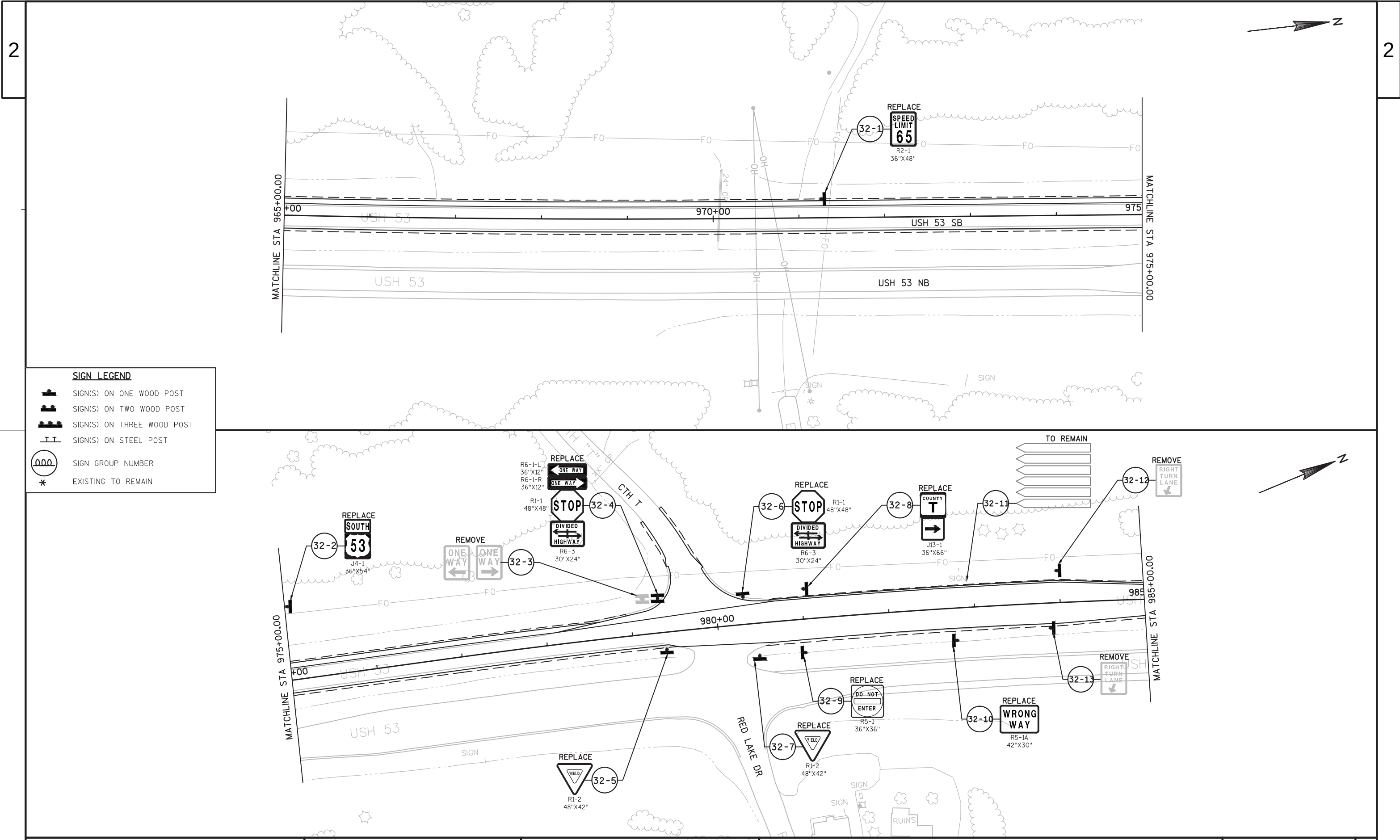
SIGN(S) ON TWO WOOD POST

SIGN(S) ON THREE WOOD POST

SIGN(S) ON STEEL POST

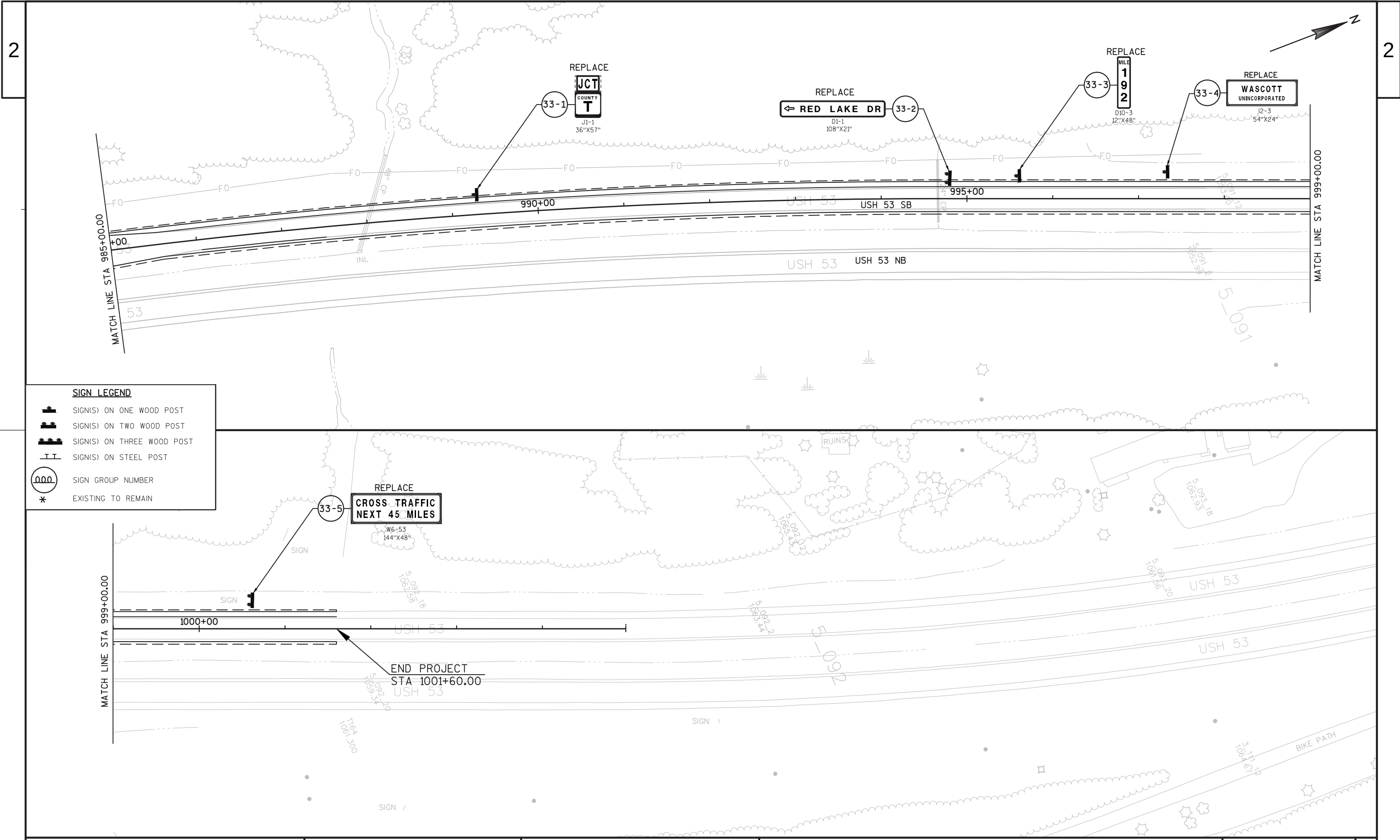
SIGN GROUP NUMBER

EXISTING TO REMAIN



SIGN LEGEND

- SIGN(S) ON ONE WOOD POST
- SIGN(S) ON TWO WOOD POST
- SIGN(S) ON THREE WOOD POST
- SIGN(S) ON STEEL POST
- SIGN GROUP NUMBER
- EXISTING TO REMAIN



NOTE:

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" AND "MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY" FOR MOVING OPERATIONS.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD). A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

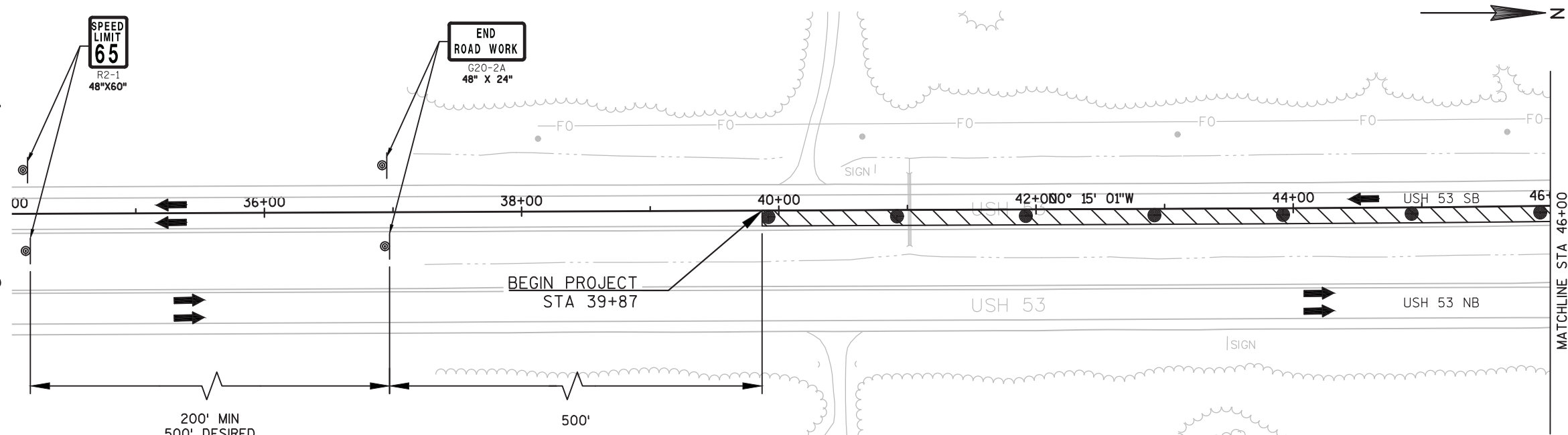
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED OR COVERED.

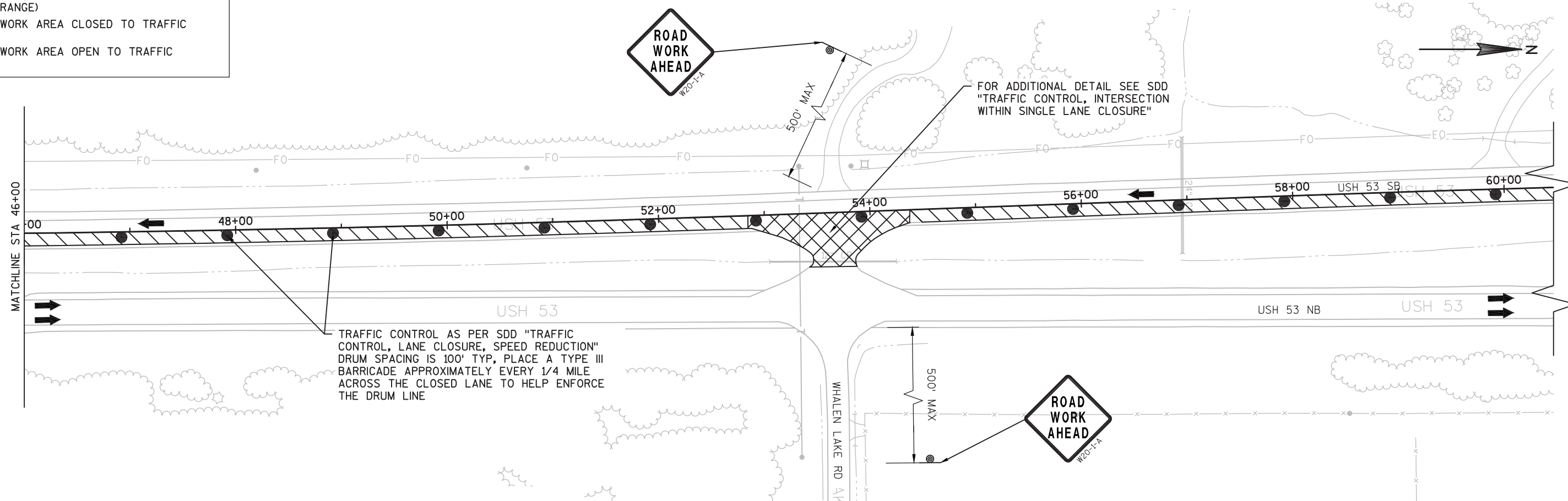
LEGEND

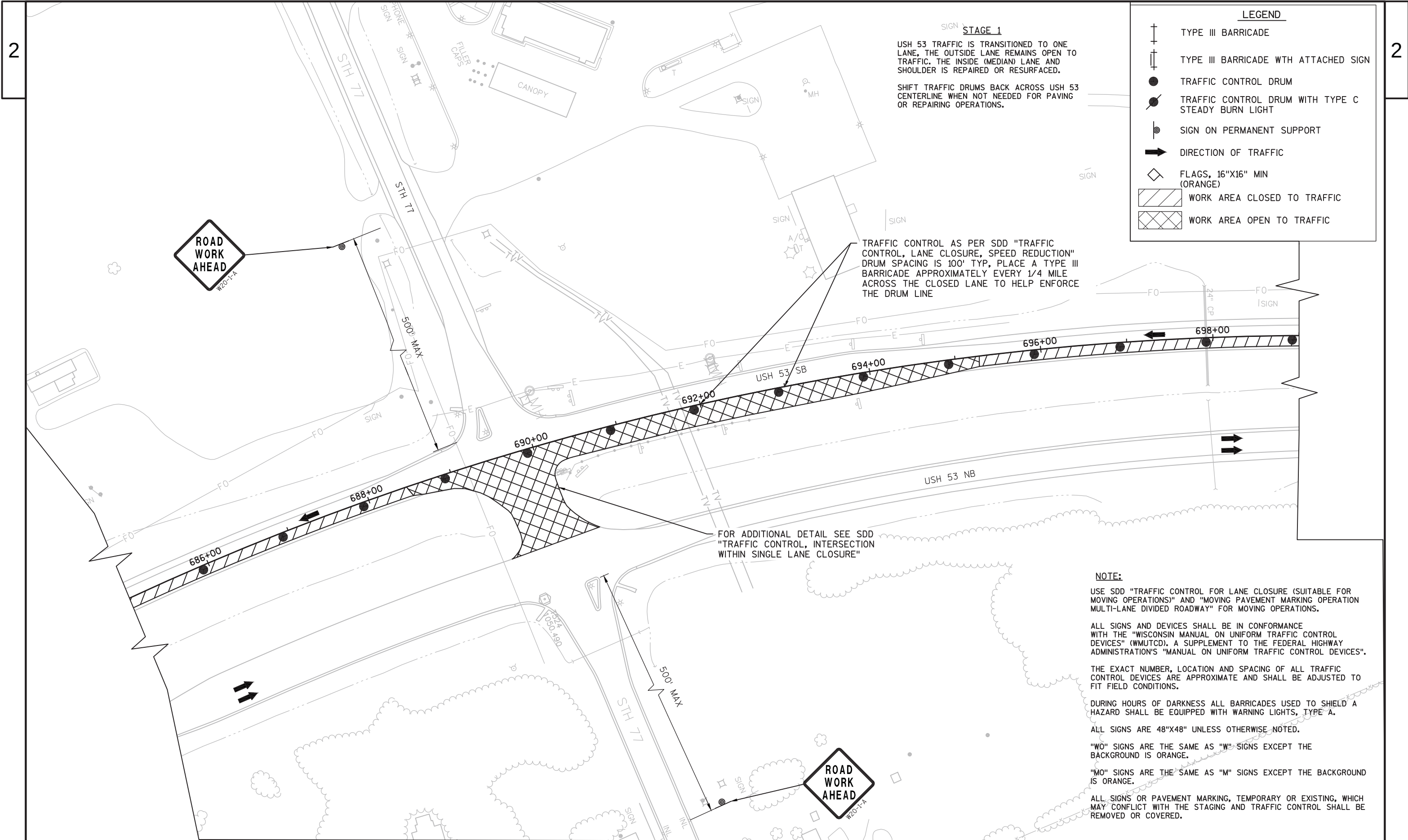
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  FLAGS, 16"X16" MIN (ORANGE)
-  WORK AREA CLOSED TO TRAFFIC
-  WORK AREA OPEN TO TRAFFIC

**STAGE 1**

USH 53 TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS REPAIRED OR RESURFACED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR REPAIRING OPERATIONS.





LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLAGS, 16"X16" MIN (ORANGE)
- WORK AREA CLOSED TO TRAFFIC
- WORK AREA OPEN TO TRAFFIC

SIGN STAGE 1

USH 53 TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS REPAIRED OR RESURFACED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR REPAIRING OPERATIONS.

TRAFFIC CONTROL AS PER SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" DRUM SPACING IS 100' TYP. PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE

FOR ADDITIONAL DETAIL SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

NOTE:

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" AND "MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY" FOR MOVING OPERATIONS.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD), A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE "A".

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE STAGING AND TRAFFIC CONTROL SHALL BE REMOVED OR COVERED.

- ① TO BE PLACED ON BOTH SIDES OF THE ROAD ON THE LAST SIGN IN THE ADVANCED WARNING SIGNING AREA, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION."
- ② TO BE PLACED 1 MILE IN ADVANCE OF WORK ZONE ON USH 53 SB.

ROAD WORK
NEXT 21 MILES

620-1
60" X 24"

①

FINES
DOUBLE
IN WORK
ZONES

W21-62
96" X 48"

②

STAGE 1

USH 53 TRAFFIC IS TRANSITIONED TO ONE LANE, THE OUTSIDE LANE REMAINS OPEN TO TRAFFIC. THE INSIDE (MEDIAN) LANE AND SHOULDER IS REPAIRED OR RESURFACED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR REPAIRING OPERATIONS.

FOR ADVANCE WARNING AND TRAFFIC CONTROL SIGNING SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" ALSO INCLUDE ① AND ②

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLAGS, 16"X16" MIN (ORANGE)
- WORK AREA CLOSED TO TRAFFIC
- WORK AREA OPEN TO TRAFFIC

NOTE:

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" AND "MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY" FOR MOVING OPERATIONS.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD), A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

THE EXACT NUMBER, LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

"M0" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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NOTE:

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ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

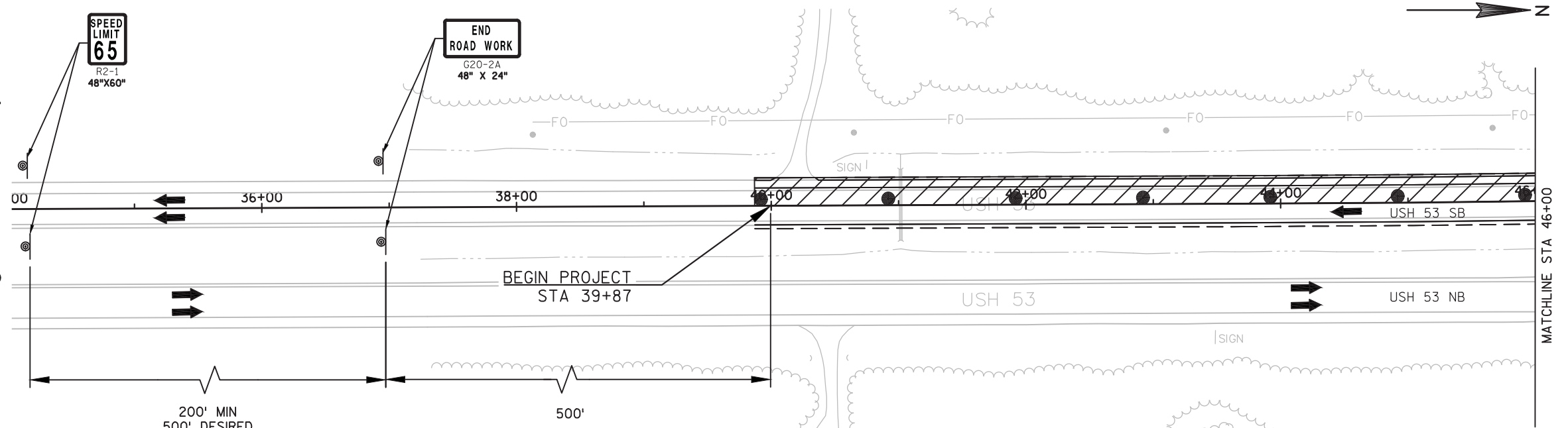
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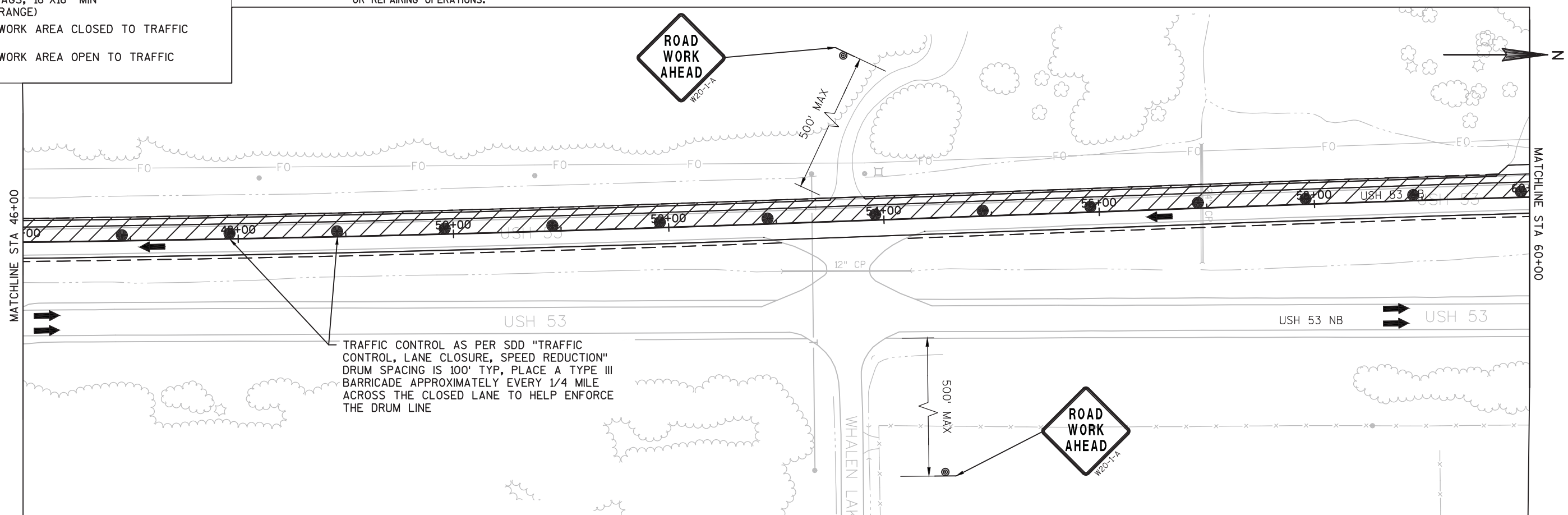
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLAGS, 16"X16" MIN (ORANGE)
- WORK AREA CLOSED TO TRAFFIC
- WORK AREA OPEN TO TRAFFIC

**STAGE 2**

USH 53 TRAFFIC IS TRANSITIONED TO ONE LANE, THE INSIDE (MEDIAN) LANE REMAINS OPEN TO TRAFFIC. THE OUTSIDE LANE AND SHOULDER IS REPAIRED OR RESURFACED.

SHIFT TRAFFIC DRUMS BACK ACROSS USH 53 CENTERLINE WHEN NOT NEEDED FOR PAVING OR REPAIRING OPERATIONS.



NOTE:

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" AND "MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY" FOR MOVING OPERATIONS.

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DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

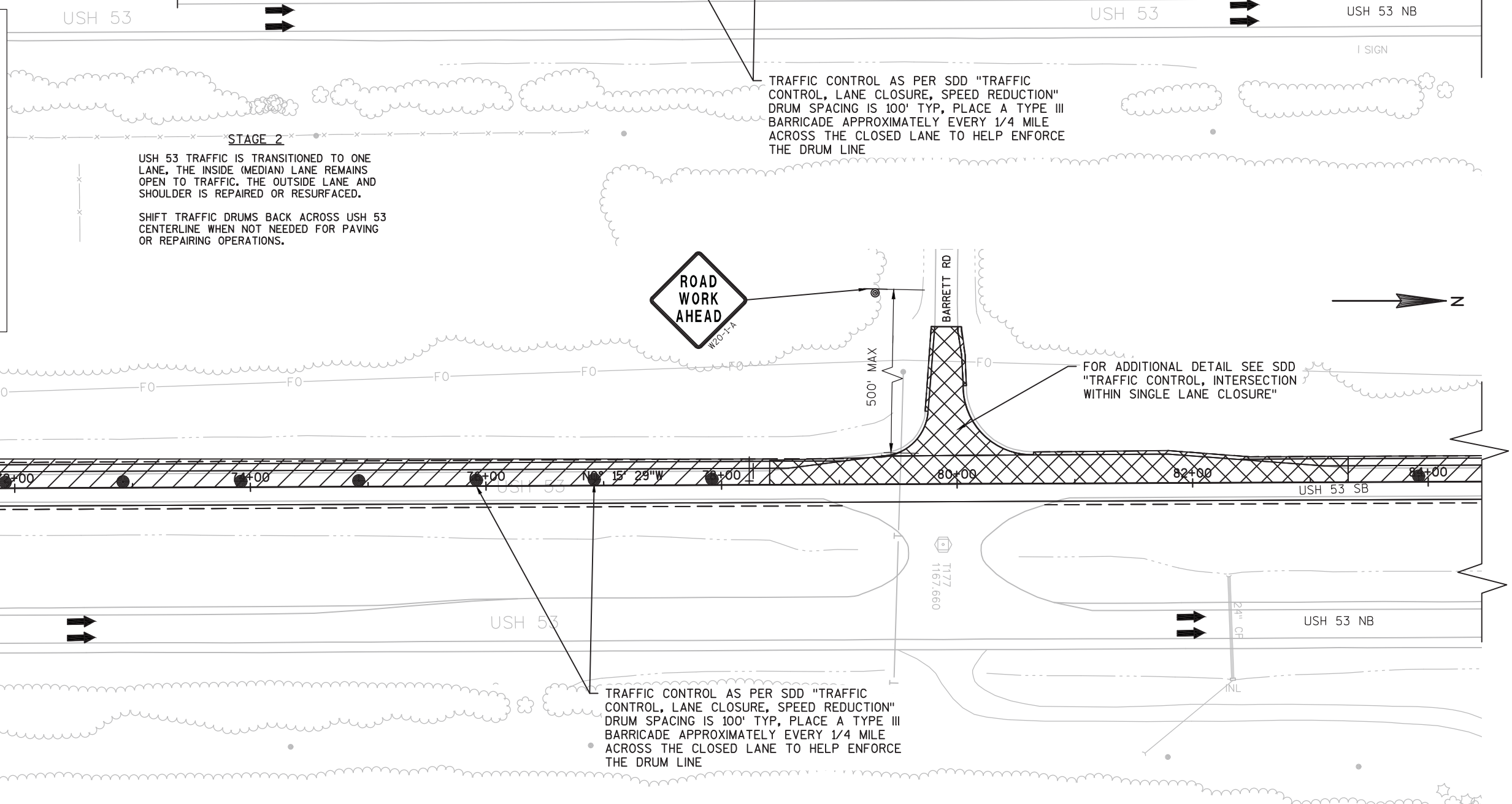
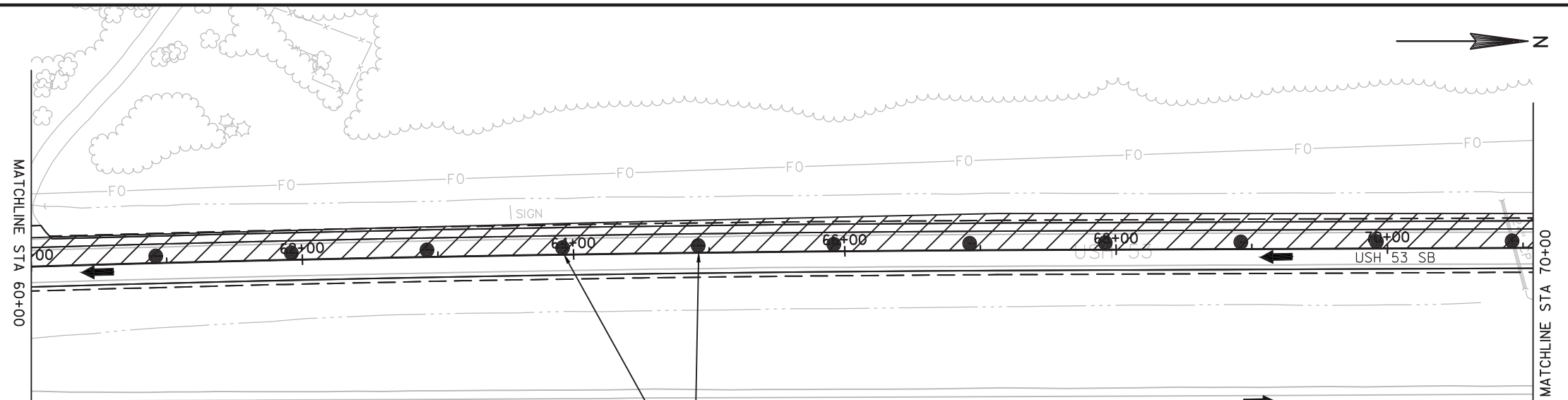
"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

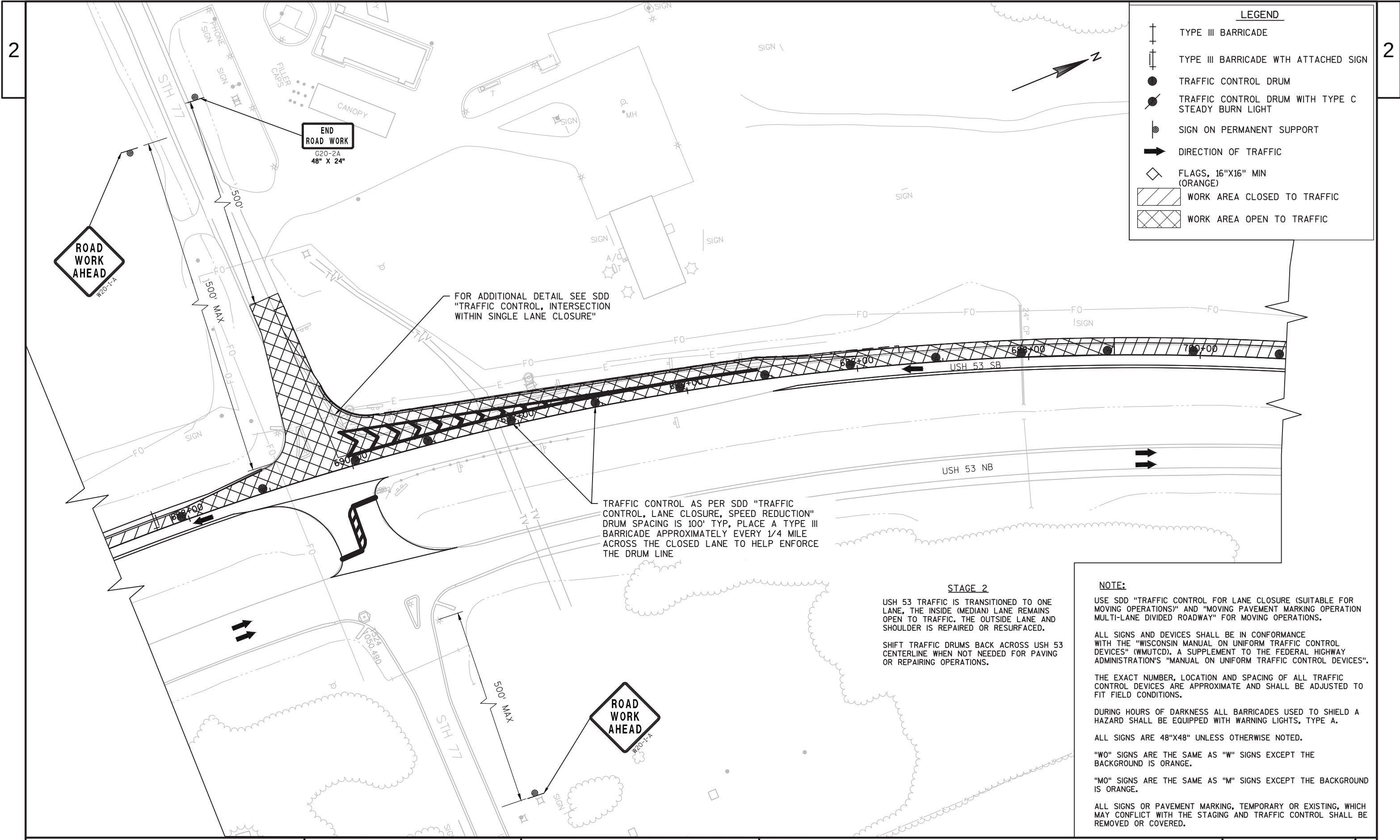
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LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  FLAGS, 16"X16" MIN (ORANGE)
-  WORK AREA CLOSED TO TRAFFIC
-  WORK AREA OPEN TO TRAFFIC





LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

FLAGS, 16"X16" MIN (ORANGE)

WORK AREA CLOSED TO TRAFFIC

WORK AREA OPEN TO TRAFFIC

NOTE:

USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" AND "MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY" FOR MOVING OPERATIONS.

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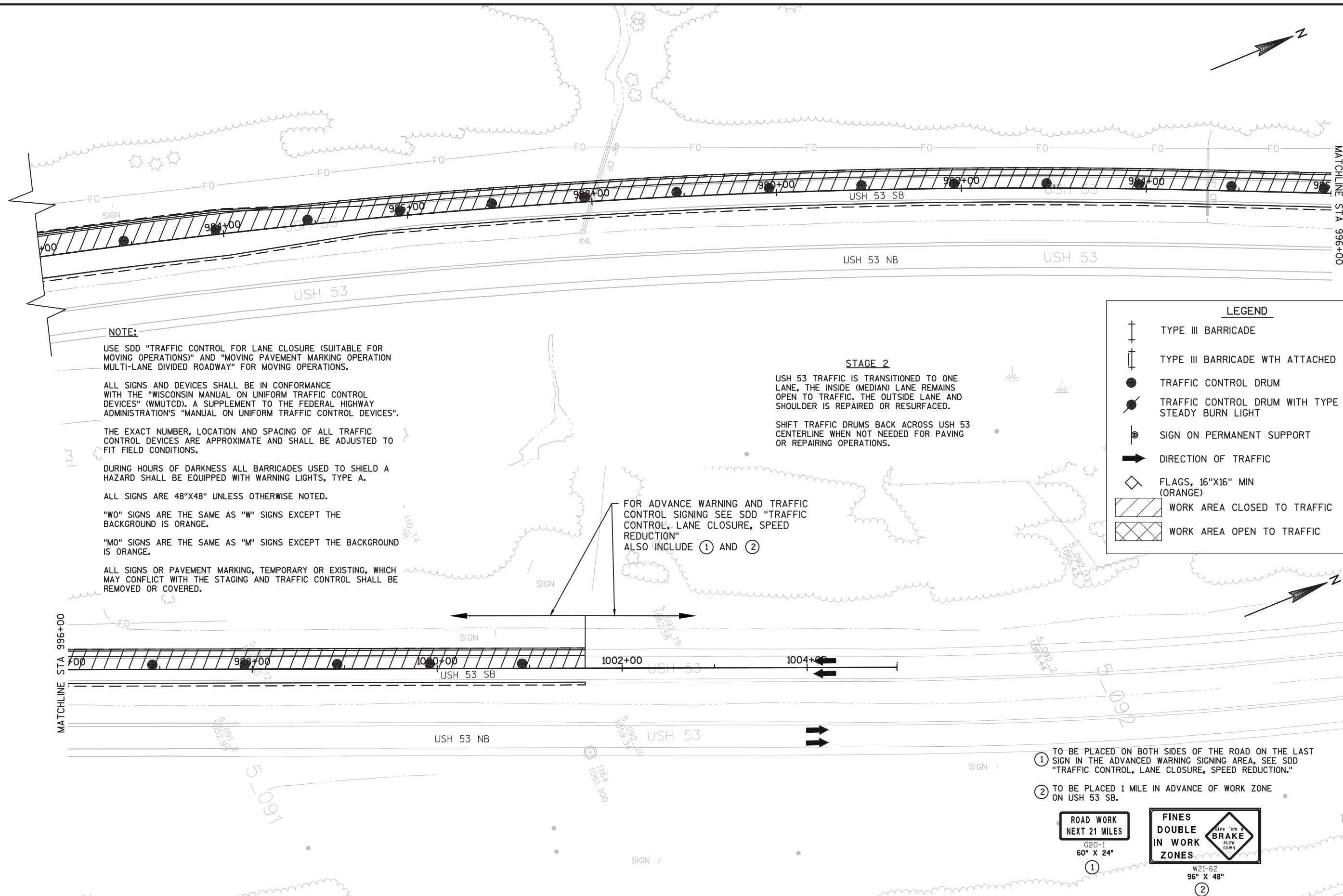
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3

DATE 18SEP15		E S T I M A T E O F Q U A N T I T I E S			
LINE		1198-00-76			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	3.000	3.000
0020	201.0205	Grubbing	STA	3.000	3.000
0030	203.0100	Removing Small Pipe Culverts	EACH	5.000	5.000
0040	204.0100	Removing Pavement	SY	174.000	174.000
0050	204.0105	Removing Pavement Butt Joints	SY	3,760.000	3,760.000
0060	204.0115	Removing Asphaltic Surface Butt Joints	SY	6,147.000	6,147.000
0070	204.0120	Removing Asphaltic Surface Milling	SY	8,475.000	8,475.000
0080	204.0150	Removing Curb & Gutter	LF	65.000	65.000
0090	204.0180	Removing Delineators and Markers	EACH	240.000	240.000
0100	205.0100	Excavation Common	CY	5,510.000	5,510.000
0110	213.0100	Finishing Roadway (project) 01. 1198-00-76	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	25,000.000	25,000.000
0130	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,275.000	2,275.000
0140	305.0500	Shaping Shoulders	STA	1,918.000	1,918.000
0150	415.1090	Concrete Pavement HES 9-Inch	SY	88.000	88.000
0160	415.1410	Concrete Pavement Approach Slab HES	SY	88.000	88.000
0170	416.0610	Drilled Tie Bars	EACH	1,796.000	1,796.000
0180	416.0620	Drilled Dowel Bars	EACH	3,648.000	3,648.000
0190	440.4410.S	Incentive IRI Ride	DOL	65,240.000	65,240.000
0200	455.0110	Asphaltic Material PG58-34	TON	718.000	718.000
0210	455.0135	Asphaltic Material PG58-34P	TON	1,460.000	1,460.000
0220	455.0605	Tack Coat	GAL	38,581.000	38,581.000
0230	460.1100	HMA Pavement Type E-0.3	TON	12,052.000	12,052.000
0240	460.1103	HMA Pavement Type E-3	TON	24,349.000	24,349.000
0250	460.2000	Incentive Density HMA Pavement	DOL	24,540.000	24,540.000
0260	465.0110	Asphaltic Surface Patching	TON	1,500.000	1,500.000
0270	465.0400	Asphaltic Shoulder Rumble Strips	LF	181,589.000	181,589.000
0280	465.0450	Asphaltic Intersection Rumble Strips	SY	161.000	161.000
0290	520.7000	Cleaning Culvert Pipes	EACH	37.000	37.000
0300	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	200.000	200.000
0310	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	152.000	152.000
0320	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	8.000	8.000
0330	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	4.000	4.000
0340	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	10.000	10.000
0350	524.0124	Culvert Pipe Salvaged 24-Inch	LF	8.000	8.000
0360	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	15.000	15.000
0370	524.0630	Apron Endwalls for Culvert Pipe Salvaged 30-Inch	EACH	2.000	2.000
0380	524.0636	Apron Endwalls for Culvert Pipe Salvaged 36-Inch	EACH	1.000	1.000
0390	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	76.000	76.000
0400	606.0200	Riprap Medium	CY	27.000	27.000
0410	614.0920	Salvaged Rail	LF	500.000	500.000
0420	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1198-00-76	EACH	1.000	1.000
0430	619.1000	Mobilization	EACH	1.000	1.000
0440	625.0500	Salvaged Topsoil	SY	2,760.000	2,760.000
0450	627.0200	Mulching	SY	3,450.000	3,450.000
0460	628.1504	Silt Fence	LF	1,800.000	1,800.000

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DATE 18SEP15		E S T I M A T E O F Q U A N T I T I E S			
LINE				1198-00-76	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0470	628.1520	Silt Fence Maintenance	LF	1,800.000	1,800.000
0480	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0490	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0500	628.7504	Temporary Ditch Checks	LF	265.000	265.000
0510	629.0210	Fertilizer Type B	CWT	2.200	2.200
0520	630.0120	Seeding Mixture No. 20	LB	95.000	95.000
0530	630.0200	Seeding Temporary	LB	95.000	95.000
0540	633.0100	Delineator Posts Steel	EACH	240.000	240.000
0550	633.0500	Delineator Reflectors	EACH	240.000	240.000
0560	633.5200	Markers Culvert End	EACH	178.000	178.000
0570	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	25.000	25.000
0580	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	84.000	84.000
0590	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	87.000	87.000
0600	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	27.000	27.000
0610	637.2210	Signs Type II Reflective H	SF	2,313.650	2,313.650
0620	637.2230	Signs Type II Reflective F	SF	160.250	160.250
0630	638.2602	Removing Signs Type II	EACH	243.000	243.000
0640	638.3000	Removing Small Sign Supports	EACH	274.000	274.000
0650	642.5201	Field Office Type C	EACH	1.000	1.000
0660	643.0100	Traffic Control (project) 01. 1198-00-76	EACH	1.000	1.000
0670	643.0300	Traffic Control Drums	DAY	37,683.000	37,683.000
0680	643.0420	Traffic Control Barricades Type III	DAY	2,583.000	2,583.000
0690	643.0705	Traffic Control Warning Lights Type A	DAY	5,166.000	5,166.000
0700	643.0715	Traffic Control Warning Lights Type C	DAY	1,768.000	1,768.000
0710	643.0800	Traffic Control Arrow Boards	DAY	272.000	272.000
0720	643.0900	Traffic Control Signs	DAY	7,222.000	7,222.000
0730	643.1050	Traffic Control Signs PCMS	DAY	68.000	68.000
0740	645.0120	Geotextile Fabric Type HR	SY	99.000	99.000
0750	646.0106	Pavement Marking Epoxy 4-Inch	LF	189,068.000	189,068.000
0760	646.0126	Pavement Marking Epoxy 8-Inch	LF	110.000	110.000
0770	646.0600	Removing Pavement Markings	LF	213,111.000	213,111.000
0780	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	24,043.000	24,043.000
0790	646.2308.S	Pavement Marking Grooved Wet Reflective Epoxy 8-Inch	LF	4,280.000	4,280.000
0800	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	144.000	144.000
0810	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	283.000	283.000
0820	649.0100	Temporary Pavement Marking 4-Inch	LF	213,111.000	213,111.000
0830	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	3,300.000	3,300.000
0840	650.4500	Construction Staking Subgrade	LF	1,240.000	1,240.000
0850	650.5000	Construction Staking Base	LF	1,240.000	1,240.000
0860	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	69.000	69.000
0870	650.8000	Construction Staking Resurfacing	LF	95,790.000	95,790.000
0880	650.9910	Construction Staking Supplemental Control (project) 01. 1198-00-76	LS	1.000	1.000
0890	650.9920	Construction Staking Slope Stakes	LF	1,240.000	1,240.000
0900	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0910	690.0150	Sawing Asphalt	LF	4,044.000	4,044.000
0920	690.0250	Sawing Concrete	LF	14,180.000	14,180.000
0930	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0940	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,500.000	2,500.000

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DATE 18SEP15		E S T I M A T E O F Q U A N T I T I E S			
LINE					1198-00-76
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0950	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,440.000	1,440.000
0960	SPV.0045	Special 01. Portable Changeable Message Sign (PCMS) Cellular Communications	DAY	68.000	68.000
0970	SPV.0090	Special 01. Concrete Curb & Gutter Cure And Seal Treatment	LF	76.000	76.000
0980	SPV.0090	Special 02. Ditch Cleaning	LF	460.000	460.000
0990	SPV.0105	Special 01. Material Transfer Vehicle Project 1198-00-76	LS	1.000	1.000
1000	SPV.0105	Special 02. Preparation Of Foundation For Asphaltic Paving Special	LS	1.000	1.000
1010	SPV.0105	Special 03. Remove Rural Intersection Collision Avoidance System (RICAS)	LS	1.000	1.000
1020	SPV.0170	Special 01 Reheating HMA Pavement Longitudinal Joints Special	STA	858.000	858.000
1030	SPV.0180	Special 01. Concrete Pavement Repair Doweled Special	SY	1,000.000	1,000.000
1040	SPV.0180	Special 02. Concrete Pavement Replacement Doweled Special	SY	5,000.000	5,000.000
1050	SPV.0195	Special 01. Asphaltic Surface Special	TON	724.000	724.000
1060	SPV.0195	Special 02. HMA Pavement Type SMA Special	TON	26,939.000	26,939.000
1070	SPV.0195	Special 03. SMA Pavement Compaction Acceptance	TON	26,939.000	26,939.000

3

REMOVING BUTT JOINTS						
			PAVEMENT BUTT JOINTS	ASPHALTIC SURFACE BUTT JOINTS		
			204.0105	204.0115		
STATION	-	STATION	LOCATION	SY	SY	REMARKS
PROJECT 1198-00-76						
SB USH 53						
39+87	-	42+37	LT/RT	730	250	PROJECT BEGIN
	53+68		RT	0	115	WHALEN LAKE RD
	59+93		LT	0	41	DRIVEWAY
	79+89		LT/RT	0	318	BARRETT RD
	106+00		RT	0	93	SCHNAGEL RD
	132+16		RT	0	103	DRIVEWAY CROSSOVER
	183+75		LT/RT	0	244	OAKRIDGE RD
	210+06		RT	0	118	DRIVEWAY CROSSOVER
	236+51		RT	0	138	DRIVEWAY CROSSOVER
	245+57		RT	0	129	CTH F EAST
	256+40		LT/RT	0	280	CTH F WEST
	283+65		LT/RT	0	220	BIRCHWOOD DR
	291+95		RT	0	86	DRIVEWAY CROSSOVER
	310+57		LT/RT	0	255	PALMER DR
	498+34		RT	0	198	DRIVEWAY CROSSOVER
	522+55		RT	0	112	DRIVEWAY CROSSOVER
	553+50		LT/RT	0	234	BROOKLYN RD
	595+27		RT	0	105	BLOCK DR
	622+72		LT/RT	0	276	TRANSFER ST
625+00	-	627+00	LT/RT	575	210	END SOUTH OVERLAY SECTION
727+50	-	729+50	LT/RT	580	200	BEGIN NORTH OVERLAY OVERLAY SECTION
	759+64		RT	0	105	DRIVEWAY CROSSOVER
	778+00		RT	0	100	LAKESIDE RD
	795+24		RT	0	112	DRIVEWAY CROSSOVER
	842+22		LT/RT	0	234	LAKESIDE RD
	850+77		RT	0	106	DRIVEWAY CROSSOVER
858+21	-	860+21	LT/RT	580	220	SOUTH BRIDGE APPROACH (TOTAGATIC RIVER)
864+19	-	866+19	LT/RT	570	230	NORTH BRIDGE APPROACH (TOTAGATIC RIVER)
	867+34		RT	0	117	DRIVEWAY CROSSOVER
	881+34		RT	0	102	DRIVEWAY CROSSOVER
	889+83		RT	0	99	DRIVEWAY CROSSOVER
	910+47		LT/RT	0	344	NORTHWOODS SCHOOL DRIVEWAY
	922+50		RT	0	86	DRIVEWAY CROSSOVER
	932+32		RT	0	70	DRIVEWAY CROSSOVER
	979+92		LT/RT	0	242	CTH T
999+10	-	1001+60	LT/RT	725	255	PROJECT END
TOTAL				3760	6147	

REMOVING PAVEMENT		
204.0100		
STATION	LOCATION	SY
STAGE 1		
	SE QUADRANT STR B-65-38	40
	NE QUADRANT STR B-65-38	40
STAGE 2		
	SW QUADRANT STR B-65-38	47
	NW QUADRANT STR B-65-38	47
ITEM TOTAL		174

CLEARING AND GRUBBING				
		201.0105	201.0205	
		CLEARING	GRUBBING	
STATION - STATION	LOCATION	STA	STA	REMARKS
85+50 - 88+40	LT / RT	3	3	NEW MAINTENANCE CROSSOVER
TOTAL		3	3	

REMOVING ASPHALTIC SURFACE-MILLING				
			204.0120	
			SY	REMARKS
STATION	-	STATION	LOCATION	
PROJECT 1198-00-76				
SB USH 53 SHOULDERS				
627+00	-	644+63	LT/RT	1728 BEGIN CONCRETE REPAIR SECTION - BUS 53
644+63	-	689+76	LT/RT	4194 BUS 53 - STH 77
689+76	-	705+37	LT/RT	744 STH 77 - WALLACE RD
705+37	-	721+70	LT/RT	1440 WALLACE RD - SHELL CREEK RD
721+70	-	727+50	LT	369 SHELL CREEK RD - END CONCRETE REPAIR SECTION
TOTAL			8475	

REMOVING CURB & GUTTER			
		204.0150	
		LF	REMARKS
STATION - STATION	LOCATION		
689+92 - 690+35	LT	65	RT TURN LANE TO STH 77
TOTAL		65	

SALVAGED RAIL			
		614.0920	
		LF	REMARKS
STATION - STATION	LOCATION		
687+00 - 689+50	RT	250	MEDIAN FOR NB LT TURN
690+25 - 692+72	RT	250	MEDIAN FOR SB LT TURN
ITEM TOTAL		500	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

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EXCAVATION COMMON

LOCATION	205.0100 CY	AIR FILL CY	EXPAND. FILL CY	+BORROW -WASTE CY	REMARKS
USH 53 SB					
689+97 - 696+50 LT	378	88	114	-264	INCLUDES REMOVAL OF EXISTING PAVEMENT
STH 77					
93+00 - 95+72	353	67	87	-154	INCLUDES REMOVAL OF EXISTING PAVEMENT
MAINTENANCE Crossover					
85+15 - 88+65	2557	15	20	-2538	
CULVERT REPLACEMENTS					
183+85 - 867+76	2222	1658	2155	17	INCLUDES REMOVAL OF EXISTING PAVEMENT
TOTALS	5510	1828	2376	-2937	

NOTE: EXPANSION FACTOR = 1.3
*FOR INFORMATION ONLY

REMOVING DELINEATORS

STATION - STATION		LOCATION	204.0180 EACH	REMARKS
PROJECT 1198-00-76				
SB USH 53				
39+87 -	53+67	LT	3	PROJECT BEGIN - WHALEN LAKE RD
53+67 -	79+90	LT	7	WHALEN LAKE RD - BARRETT RD
79+90 -	106+01	LT	7	BARRETT RD - SCHNAGEL RD
106+01 -	183+75	LT	19	SCHNAGEL RD - OAKRIDGE DR
183+75 -	245+60	LT	15	OAKRIDGE RD - CTH F EAST
245+60 -	256+45	LT	3	CTH F EAST - CTH F WEST
256+45 -	283+65	LT	7	CTH F WEST - BIRCHWOOD RD
283+65 -	310+53	LT	7	BIRCHWOOD RD - PALMER DR
310+53 -	553+50	LT	61	PALMER DR - BROOKLYN RD
553+50 -	595+28	LT	10	BROOKLYN RD - W BLOCK RD
595+28 -	622+74	LT	7	W BLOCK RD - TRANSFER ST
622+74 -	644+59	LT	5	TRANSFER ST - BUS 53
644+59 -	689+76	LT	11	BUS 53 - STH 77
689+76 -	705+40	LT	4	STH 77 - WALLACE ST
705+40 -	721+68	LT	4	WALLACE ST - SHELL CREEK RD
721+68 -	842+22	LT	30	SHELL CREEK RD - LAKESIDE RD (NORTH)
842+22 -	867+54	LT	6	LAKESIDE RD (NORTH) - NORTHWOODS SCHOOL D/W
867+54 -	979+92	LT	28	NORTHWOODS SCHOOL D/W - CTH T
979+92 -	1002+25	LT	6	CTH T - PROJECT END
ITEM TOTAL			240	

CONCRETE PAVEMENT HES 9-INCH

STATION		LOCATION	SY	415.1090 EACH	* DRILLED TIE BARS 416.0610 EACH	* DRILLED DOWEL BARS 416.0620 EACH
STAGE 1						
		SE QUADRANT STR B-65-38	20	29	11	
		NE QUADRANT STR B-65-38	20	29	11	
STAGE 2						
		SW QUADRANT STR B-65-38	24	29	13	
		NW QUADRANT STR B-65-38	24	29	13	
ITEM TOTAL			88	116	48	

* QUANTITY ALSO SHOWN ELSEWHERE

SHAPING SHOULDERS

STATION - STATION	LOCATION	305.0500 STA
39+87 - 860+51	LT	821
39+87 - 860+51	RT	821
863+89 - 1001+60	LT	138
863+89 - 1001+60	RT	138
TOTAL		1918

CONCRETE PAVEMENT APPROACH SLAB HES

STATION		LOCATION	415.1410 SY
STAGE 1			
		SE QUADRANT STR B-65-38	20
		NE QUADRANT STR B-65-38	20
STAGE 2			
		SW QUADRANT STR B-65-38	24
		NW QUADRANT STR B-65-38	24
ITEM TOTAL			88

BASE AGGREGATE DENSE

STATION - STATION		LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	REMARKS
PROJECT 1198-00-76					
SB USH 53					
39+87 -	53+68	LT/RT	347		PROJECT BEGIN - WHALEN LAKE RD
53+68 -	79+89	LT/RT	659		WHALEN LAKE RD - BARRETT RD
79+89 -	106+00	LT/RT	658		BARRETT RD - SCHNAGEL RD
106+00 -	183+75	LT/RT	1992		SCHNAGEL RD - OAKRIDGE DR
183+75 -	245+57	LT/RT	1554		OAKRIDGE RD - CTH F EAST
245+57 -	256+40	LT/RT	276		CTH F EAST - CTH F WEST
256+40 -	283+65	LT/RT	697		CTH F WEST - BIRCHWOOD RD
283+65 -	310+57	LT/RT	692		BIRCHWOOD RD - PALMER DR
310+57 -	553+50	LT/RT	6224		PALMER DR - BROOKLYN RD
553+50 -	595+27	LT/RT	1078		BROOKLYN RD - W BLOCK RD
595+27 -	622+72	LT/RT	705		W BLOCK RD - TRANSFER ST
622+72 -	627+00	LT/RT	109		TRANSFER ST - END SOUTH OVERLAY SECTION
727+50 -	778+00	LT/RT	1281		BEGIN NORTH OVERLAY SECTION - LAKESIDE RD
778+00 -	842+22	LT/RT	1640		LAKESIDE RD - LAKESIDE RD
842+22 -	860+27	LT/RT	452		LAKESIDE RD - TOTAGATIC RIVER BRIDGE (SOUTH APPROACH)
864+10 -	979+92	LT/RT	2896		TOTAGATIC RIVER BRIDGE (NORTH APPROACH) - CTH T
979+92 -	1001+60	LT/RT	554		CTH T - PROJECT END
MAINTENANCE Crossover					
85+15 -	88+65	LT/RT	73	863	MAINTENANCE Crossover
STH 77 TURN LANE					
689+87 -	696+50	LT	28	971	STH 77 TURN LANE - NEW CONSTRUCTION
CULVERT REPLACEMENTS					
		183+85	LT	36	
		310+62	LT	24	
		842+30	LT	34	
		850+74	LT	50	
		867+76	LT	31	
UNDISTRIBUTED			3085	266	
TOTAL			25000	2275	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

CULVERT PIPE ITEMS																		
		203.0100	520.7000	521.0118	521.0124	521.1018	521.1024			522.1024	524.0124	524.0624	524.0630	524.0636	606.0200	633.5200	645.0120	SPV.0090.02
		REMOVING	CLEANING	CULVERT PIPE		APRON ENDWALLS				APRON ENDWALLS	CULVERT PIPE	APRON ENDWALLS FOR			RIPRAP	MARKER	GEOTEXTILE	DITCH
		SMALL	CULVERT	CORRUGATED	CULVERT PIPE	18-INCH	24-INCH	THICKNESS (INCHES)		FOR CULVERT PIPE	SALVAGED	CULVERT PIPE SALVAGED			MEDIUM	CULVERT	FABRIC	CLEANING
STATION	LOCATION	PIPE	PIPES	STEEL	PIPE STEEL	18-INCH	24-INCH	STEEL	ALUMINUM	24-INCH	24-INCH	24-INCH	30-INCH	36-INCH	CY	END	TYPE HR	LF
		EACH	EACH	LF	LF	EACH	EACH			EACH	LF	EACH	EACH	EACH		EACH	SY	
USH 53 SB																		
41+01	LT/RT		2															
53+68	RT		1													2		
56+97	LT/RT															1		
59+95	LT									1		1				2		
70+93	LT/RT									2						2		
88+19	LT/RT		2													1		
118+16	LT/RT												1			2		
129+95	LT/RT												1			2		
131+88	LT															2		
132+10	RT		1													2		
137+06	LT/RT															2		10
145+38	LT/RT															2		
153+65	LT/RT															2		
183+85	RT		1															
183+85	LT	1			70		2	0.064	0.075							2		
190+77	LT/RT														5	2	19	10
203+42	LT/RT												1			1		
210+16	RT		1													2		
216+38																2		
223+44	LT/RT												1		5	1	19	
231+52	LT/RT		1											1		1		
235+47	LT/RT										8		1			2		
236+43	RT		1													2		
246+91	LT/RT															1		
257+62	LT/RT									1						1		
257+77	LT															1		
283+50	RT															2		5
283+51	LT		1													2		
290+41	LT/RT															2		10
292+00	RT		1													2		
309+89	LT/RT															1		5
310+45	RT						1									1		
310+62	LT	1			80		2	0.064	0.060							2		
321+98	LT/RT									1						2		
340+51	LT/RT															2		
348+72	LT/RT															2		
372+69	LT															2		10
392+75	LT/RT		1													2		
404+00	LT/RT															2		
412+75	LT/RT		1													2		10
424+90	LT/RT		1													2		10
437+96	LT/RT											1				2		5
451+04	LT/RT															2		
486+11	LT/RT												1			2		5
492+66	LT/RT															2		
500+91	LT/RT												1			2		
522+56	LT															2		20
526+82	LT/RT		1											2		2		
528+67	LT		1													2		
534+69	LT/RT															2		5
SUBTOTALS (1198-00-76; SB USH 53)		2	17	80	70	3	2			5	8	9	2	1	10	86	38	105

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

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CULVERT PIPE ITEMS (CONT.)																		
		203.0100	520.7000	521.0118	521.0124	521.1018	521.1024	522.1024		524.0124	524.0624	524.0630	524.0636	606.0200	633.5200	645.0120	SPV.0090.02	
STATION	LOCATION	REMOVING SMALL PIPE CULVERTS EACH	CLEANING CULVERT PIPES EACH	CULVERT PIPE CORRUGATED STEEL		APRON ENDWALLS CULVERT PIPE PIPE STEEL		APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE		CULVERT PIPE SALVAGED 24-INCH LF	APRON ENDWALLS FOR CULVERT PIPE SALVAGED			RIPRAP MEDIUM CY	MARKER CULVERT END EACH	GEOTEXTILE FABRIC TYPE HR SY	DITCH CLEANING LF	
				18-INCH LF	24-INCH LF	18-INCH EACH	24-INCH EACH	THICKNESS (INCHES) STEEL ALUMINUM	24-INCH EACH		24-INCH EACH	30-INCH EACH	36-INCH EACH					
USH 53 SB																		
542+97	LT/RT										1				2		5	
551+12	LT/RT														2		5	
553+28	LT														2			
553+64	RT		1															
558+72	LT/RT														2		10	
567+96	LT/RT		1								1				2		15	
579+94	LT/RT										1				2			
589+99	LT/RT													2		4		
595+23	LT		1												2			
595+30	RT		1												2			
617+18	LT/RT		1												2		5	
622+70	LT					1									2		15	
622+76	RT		1												2		15	
636+12	LT/RT														2		5	
643+61	LT/RT														2			
644+65	RT													5	2	19		
655+08	LT/RT													5	2	19		
663+12	LT/RT														2			
697+92	LT/RT														2		10	
705+36	RT		1												2			
720+87	LT/RT								1						1		5	
721+18	LT														2			
728+91	LT/RT		2						1						2		10	
740+13	LT/RT														1		5	
752+12	LT/RT														2			
760+62	LT/RT														1		5	
762+16	LT/RT		1												2			
788+19	LT/RT														1			
795+28	LT														2		10	
795+34	RT		1															
798+53	LT/RT								1						2			
810+46	LT/RT														1		10	
820+04	LT/RT														2		10	
826+14	LT/RT														2			
842+30	LT	1		70		2		0.064	0.060						2			
842+30	RT		1															
845+90	LT/RT														2		15	
850+74	LT	1		50		2		0.064	0.060						2			
850+74	RT		1															
858+02	LT/RT		1								1				2			
867+76	LT	1			82		2	0.064	0.075						2			
868+38	LT/RT										1				1			
882+03	LT/RT								1					5	1	19		
882+86	LT/RT		1												1		30	
890+52	LT/RT										1				1		15	
898+09	LT														2			
910+33	RT														2		10	
921+53	LT/RT														2		5	
922+48	RT														2		5	
932+24	LT		1												2			
938+07	LT/RT														1		10	
946+92	LT/RT		1												2		40	
954+75	LT/RT		1												2		40	
962+05	LT/RT		1						1						2		20	
970+06	LT/RT														2		10	
988+00	LT/RT																	
994+66	LT/RT		1												2		15	
SUBTOTALS (1198-00-76; SB USH 53)		3	20	120	82	5	2			5	0	6	0	0	17	92	61	355
ITEM TOTALS		5	37	200	152	8	4			10	8	15	2	1	27	178	99	460

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

HMA PAVEMENT - MAINLINE

				455.0135	-	465.0110	SPV.0170.01			SPV.0195.03	REMARKS	
				ASPHALTIC	455.0605	ASPHALTIC	REHEATING			SMA PAVEMENT		
				MATERIAL	TACK	LONGITUDINAL				COMPACTION		
				PG58-34P	COAT	JOINTS SPECIALS		SPV.0195.02		ACCEPTANCE		
STATION	-	STATION	LOCATION	TON	GAL	TYPE E-3	TON	TON	TON	TON		
PROJECT 1198-00-76												
SB USH 53												
39+87	-	53+68	LT/RT	22	534	374		14	428	428	PROJECT BEGIN - WHALEN LAKE RD	
53+68	-	79+89	LT/RT	43	1027	719		26	824	824	WHALEN LAKE RD - BARRETT RD	
79+89	-	106+00	LT/RT	44	1045	732		26	838	838	BARRETT RD - SCHNAGEL RD	
106+00	-	183+75	LT/RT	126	3009	2106		78	2413	2413	SCHNAGEL RD - OAKRIDGE DR	
183+75	-	245+57	LT/RT	101	2394	1676		62	1920	1920	OAKRIDGE RD - CTH F EAST	
245+57	-	256+40	LT/RT	20	484	339		11	388	388	CTH F EAST - CTH F WEST	
256+40	-	283+65	LT/RT	46	1094	766		27	878	878	CTH F WEST - BIRCHWOOD RD	
283+65	-	310+57	LT/RT	44	1041	728		27	835	835	BIRCHWOOD RD - PALMER DR	
310+57	-	553+50	LT/RT	397	9459	6622		243	7587	7587	PALMER DR - BROOKLYN RD	
553+50	-	595+27	LT/RT	68	1614	1130		42	1294	1294	BROOKLYN RD - W BLOCK RD	
595+27	-	622+72	LT/RT	45	1061	743		27	851	851	W BLOCK RD - TRANSFER ST	
622+72	-	627+00	LT/RT	7	165	115		4	132	132	TRANSFER ST - END SOUTH OVERLAY SECTION	
727+50	-	778+00	LT/RT	82	1950	1365		51	1564	1564	BEGIN NORTH OVERLAY SECTION - LAKESIDE RD	
778+00	-	842+22	LT/RT	104	2483	1738		64	1992	1992	LAKESIDE RD - LAKESIDE RD	
842+22	-	860+27	LT/RT	29	696	487		18	558	558	LAKESIDE RD - TOTAGATIC RIVER BRIDGE (SOUTH APPROACH)	
864+10	-	979+92	LT/RT	192	4577	3204		116	3671	3671	TOTAGATIC RIVER BRIDGE (NORTH APPROACH) - CTH T	
979+92	-	1001+60	LT/RT	40	955	669		22	766	766	CTH T - PROJECT END	
689+87	-	696+50	LT	32	285	532		0	0	0	STH 77 TURN LANE - NEW CONSTRUCTION	
688+68	-	690+90	RT	18	163	304		0	0	0	STH 77 MEDIAN CROSSOVER	
39+87	-	1001+60	LT/RT				1500				MAINLINE PATCHING AS NEEDED	
TOTAL				1460	34036	24349	1500	858	26939	26939		

SMA CALCULATED AT 110 LBS/(SY*IN) CALCULATED AT 29' WIDTH + ADDTL WIDENING FOR TURN LANES
HMA E-3 CALCULATED AT 112 LBS/(SY*IN)

*SHOWN ELSEWHERE IN PLAN

HMA PAVEMENT - SHOULDERS

			455.0110	.	455.0605	*				
			ASPHALTIC		TACK		460.1100			
			MATERIAL		COAT		TYPE E-0.3			
			PG58-34		GAL		TON			
STATION	-	STATION	LOCATION	TON	GAL	TON	REMARKS			
PROJECT 1198-00-76										
SB USH 53										
39+87	-	53+68	LT/RT	10	56	170	PROJECT BEGIN - WHALEN LAKE RD			
53+68	-	79+89	LT/RT	18	101	305	WHALEN LAKE RD - BARRETT RD			
79+89	-	106+00	LT/RT	17	94	286	BARRETT RD - SCHNAGEL RD			
106+00	-	183+75	LT/RT	56	310	939	SCHNAGEL RD - OAKRIDGE DR			
183+75	-	245+57	LT/RT	45	245	743	OAKRIDGE RD - CTH F EAST			
245+57	-	256+40	LT/RT	7	40	122	CTH F EAST - CTH F WEST			
256+40	-	283+65	LT/RT	17	92	279	CTH F WEST - BIRCHWOOD RD			
283+65	-	310+57	LT/RT	18	97	293	BIRCHWOOD RD - PALMER DR			
310+57	-	553+50	LT/RT	175	962	2919	PALMER DR - BROOKLYN RD			
553+50	-	595+27	LT/RT	29	160	485	BROOKLYN RD - W BLOCK RD			
595+27	-	622+72	LT/RT	18	102	308	W BLOCK RD - TRANSFER ST			
622+72	-	627+00	LT/RT	2	14	41	TRANSFER ST - END SOUTH OVERLAY SECTION			
727+50	-	778+00	LT/RT	37	203	616	BEGIN NORTH OVERLAY SECTION - LAKESIDE RD			
778+00	-	842+22	LT/RT	46	253	767	LAKESIDE RD - LAKESIDE RD			
842+22	-	860+27	LT/RT	12	68	208	LAKESIDE RD - TOTAGATIC RIVER BRIDGE (SOUTH APPROACH)			
864+10	-	979+92	LT/RT	80	440	1335	TOTAGATIC RIVER BRIDGE (NORTH APPROACH) - CTH T			
979+92	-	1001+60	LT/RT	13	72	218	CTH T - PROJECT END			
TOTAL				600	3309	10034				

HMA E-0.3 CALCULATED AT 112 LBS/(SY*IN)

*SHOWN ELSEWHERE IN PLAN

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

HMA PAVEMENT - SIDE ROADS AND CROSSEVERS

		455.0110 ASPHALTIC MATERIAL PG58-34 TON	455.0605 TACK COAT GAL	* 460.1100 TYPE E-0.3 TON	REMARKS
STATION	LOCATION				
PROJECT 1198-00-76					
SB USH 53					
53+68	RT	1	7	21	WHALEN LAKE RD
59+93	LT	0	2	8	DRIVEWAY
79+89	LT/RT	7	38	115	BARRETT RD
106+00	RT	1	6	17	SCHNAGEL RD
132+16	RT	1	6	19	DRIVEWAY CROSSOVER
183+75	LT/RT	7	41	124	OAKRIDGE RD
210+06	RT	1	7	21	DRIVEWAY CROSSOVER
236+51	RT	2	8	25	DRIVEWAY CROSSOVER
245+57	RT	1	8	24	CTH F EAST
256+40	LT/RT	10	56	170	CTH F WEST
283+65	LT/RT	8	46	140	BIRCHWOOD DR
291+95	RT	1	5	16	DRIVEWAY CROSSOVER
310+57	LT/RT	8	44	133	PALMER DR
498+34	RT	2	12	36	DRIVEWAY CROSSOVER
522+55	RT	1	7	20	DRIVEWAY CROSSOVER
553+50	LT/RT	7	37	111	BROOKLYN RD
595+27	LT/RT	6	33	99	BLOCK DR
622+72	LT/RT	7	40	120	TRANSFER ST
759+64	RT	1	6	19	DRIVEWAY CROSSOVER
778+00	RT	1	6	18	LAKESIDE RD
795+24	RT	1	7	20	DRIVEWAY CROSSOVER
842+22	LT/RT	8	44	135	LAKESIDE RD
850+77	RT	1	6	19	DRIVEWAY CROSSOVER
867+34	RT	1	7	21	DRIVEWAY CROSSOVER
881+34	RT	1	6	19	DRIVEWAY CROSSOVER
889+83	RT	1	6	18	DRIVEWAY CROSSOVER
910+47	LT/RT	6	32	99	NORTHWOODS SCHOOL DRIVEWAY
922+50	RT	1	5	16	DRIVEWAY CROSSOVER
932+32	RT	1	4	13	DRIVEWAY CROSSOVER
979+92	LT/RT	8	46	140	CTH T
MAINTENANCE CROSSOVER					
421+65	RT	13	119	222	
CULVERT REPLACEMENTS					
183+85	LT	1	8	14	
310+62	LT	1	5	10	
842+30	LT	1	8	16	
TOTAL		118	718	2018	

HMA E-0.3 CALCULATED AT 112 LBS/(SY*IN)

*SHOWN ELSEWHERE IN PLAN

ASPHALTIC SURFACE - SHOULDERS

				455.0605	SPV.0195.01	
				TACK	ASPHALTIC	
				COAT	SURFACE	
				GAL	SPECIAL	
STATION	-	STATION	LOCATION		TON	REMARKS
PROJECT 1198-00-76						
SB USH 53						
627+00	-	644+63	LT/RT	104	145	BEGIN CONCRETE REPAIR SECTION - BUS 53
644+63	-	689+76	LT/RT	252	352	BUS 53 - STH 77
689+76	-	705+37	LT/RT	54	75	STH 77 - WALLACE RD
705+37	-	721+70	LT/RT	86	121	WALLACE RD - SHELL CREEK RD
721+70	-	727+50	LT	22	31	SHELL CREEK RD - END CONCRETE REPAIR SECTION
TOTAL				518	724	

ASPHALTIC SURFACE CALCULATED AT 112 LBS/(SY*IN)

*SHOWN ELSEWHERE IN PLAN

HMA PAVEMENT & ASPHALTIC SURFACE

ITEM TOTALS FOR PROJECT	455.0110 ASPHALTIC MATERIAL PG58-34 TON	455.0135 ASPHALTIC MATERIAL PG58-34P TON	455.0605 TACK COAT GAL	460.1100 TYPE E-0.3 TON	460.1103 TYPE E-3 TON	SPV.0195.01 ASPHALTIC SURFACE SPECIAL TON	SPV.0195.02 TYPE SMA SPECIAL TON	SPV.0195.03 SMA PAVEMENT COMPACTION ACCEPTANCE TON
	718	1460	38581	12052	24349	724	26939	26939

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

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ASPHALTIC SHOULDER RUMBLE STRIPS

STATION - STATION		LOCATION	465.0400 LF	REMARKS
PROJECT 1198-00-76				
SB USH 53				
39+87	- 53+68	LT/RT	2621	PROJECT BEGIN - WHALEN LAKE RD
53+68	- 79+89	LT/RT	4864	WHALEN LAKE RD - BARRETT RD
79+89	- 106+00	LT/RT	4594	BARRETT RD - SCHNAGEL RD
106+00	- 183+75	LT/RT	14920	SCHNAGEL RD - OAKRIDGE DR
183+75	- 245+59	LT/RT	11692	OAKRIDGE RD - CTH F EAST
245+59	- 256+40	LT/RT	1821	CTH F EAST - CTH F WEST
256+40	- 283+65	LT/RT	4765	CTH F WEST - BIRCHWOOD RD
283+65	- 310+57	LT/RT	4920	BIRCHWOOD RD - PALMER DR
310+57	- 553+50	LT/RT	47061	PALMER DR - BROOKLYN RD
553+50	- 595+27	LT/RT	11098	BROOKLYN RD - W BLOCK RD
595+27	- 622+72	LT/RT	5190	W BLOCK RD - TRANSFER ST
622+72	- 644+59	LT/RT	4163	TRANSFER ST - BUS 53
644+59	- 689+76	LT/RT	7938	BUS 53 - STH 77
689+97	- 690+60	LT	332	ALONG 8" LINE IN STH 77 TURN LANE GORE
689+76	- 705+40	LT/RT	1460	STH 77 - WALLACE ST
705+40	- 721+68	LT/RT	2817	WALLACE ST - SHELL CREEK RD
721+68	- 842+22	LT/RT	22739	SHELL CREEK RD - LAKESIDE RD (NORTH)
842+22	- 860+27	LT/RT	3141	LAKESIDE RD (NORTH) - TOTAGATIC RIVER BRIDGE
864+10	- 979+92	LT/RT	21222	TOTAGATIC RIVER BRIDGE - CTH T
979+92	- 1001+60	LT/RT	4231	CTH T - PROJECT END
ITEM TOTAL			181589	

ASPHALTIC INTERSECTION RUMBLE STRIPS

STATION - STATION		LOCATION	465.0450 SY	REMARKS
PROJECT 1198-00-76				
STH 77				
95+47	- 95+71	RT	79	EASTBOUND
95+71	- 95+96	LT	82	WESTBOUND
ITEM TOTAL			161	

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

STATION - STATION		LOCATION	601.0557 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.01 CURE & SEAL TREATMENT LF	REMARKS
689+89	- 690+35	LT	76	76	RT TURN LANE TO STH 77
TOTAL			76	76	

MOBILIZATIONS EROSION CONTROL

STATION - STATION		LOCATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
SB USH 53				
39+87	- 1001+60	LT / RT	2	2
ITEM TOTALS			2	2

EROSION CONTROL, SALVAGED TOPSOIL, MULCHING, FERTILIZER & SEEDING

STATION - STATION		LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 TEMPORARY SEEDING LB	REMARKS
SB USH 53											
392+75		LT/RT			40	40					
412+75		LT/RT			40	40					
420+20		RT					90				
424+90		RT			20	20					
437+96		RT			20	20					
689+87	- 696+50	LT	888	888	800	800		0.6	24	24	STH 77 TURN LANE SLOPES
MAINTENANCE X-OVER											
85+15	- 88+65	LT	958	958	350	350		0.6	26	26	CROSSOVER SLOPES
85+15	- 88+65	RT	914	914	350	350		0.6	25	25	CROSSOVER SLOPES
87+00		LT					50				
88+50		RT					75				
UNDISTRIBUTED		LT/RT		690	180	180	50	0.4	20	20	
ITEM TOTALS			2760	3450	1800	1800	265	2.2	95	95	

DELINEATORS

STATION - STATION		LOCATION	633.0100 POSTS STEEL EACH	633.0500 REFLECTORS EACH	REMARKS
PROJECT 1198-00-76					
SB USH 53					
39+87	- 53+67	LT	3	3	PROJECT BEGIN - WHALEN LAKE RD
53+67	- 79+90	LT	7	7	WHALEN LAKE RD - BARRETT RD
79+90	- 106+01	LT	7	7	BARRETT RD - SCHNAGEL RD
106+01	- 183+75	LT	19	19	SCHNAGEL RD - OAKRIDGE DR
183+75	- 245+60	LT	15	15	OAKRIDGE RD - CTH F EAST
245+60	- 256+45	LT	3	3	CTH F EAST - CTH F WEST
256+45	- 283+65	LT	7	7	CTH F WEST - BIRCHWOOD RD
283+65	- 310+53	LT	7	7	BIRCHWOOD RD - PALMER DR
310+53	- 553+50	LT	61	61	PALMER DR - BROOKLYN RD
553+50	- 595+28	LT	10	10	BROOKLYN RD - W BLOCK RD
595+28	- 622+74	LT	7	7	W BLOCK RD - TRANSFER ST
622+74	- 644+59	LT	5	5	TRANSFER ST - BUS 53
644+59	- 689+76	LT	11	11	BUS 53 - STH 77
689+76	- 705+40	LT	4	4	STH 77 - WALLACE ST
705+40	- 721+68	LT	4	4	WALLACE ST - SHELL CREEK RD
721+68	- 842+22	LT	30	30	SHELL CREEK RD - LAKESIDE RD (NORTH)
842+22	- 867+54	LT	6	6	LAKESIDE RD (NORTH) - NORTHWOODS SCHOOL DAW
867+54	- 979+92	LT	28	28	NORTHWOODS SCHOOL DAW - CTH T
979+92	- 1002+25	LT	6	6	CTH T - PROJECT END
ITEM TOTALS			240	240	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

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ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

SIGNING ITEMS

			SIGN SIZE		637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	638.3000	
SIGN GROUP			W	X	H	SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING
NUMBER	SIGN CODE	SIGN MESSAGE	(INCHES)			REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SMALL
						H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SIGN
						SF	SF	EACH	EACH	EACH	EACH	EACH	SUPPORTS
													EACH
													COMMENTS
PROJECT 1198-00-76													
SB USH 53													
1-1	D10-3	MILE 174	12	X	48	4.00				1		1	1
1-2	D7-67(MOD)	TREGO LAKE TRAIL	54	X	36	13.50				2		1	2
		1-1/4 MILES											
1-3	R4-7	KEEP RIGHT	24	X	30	5.00				1			
1-4	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1		1	1
1-5	R5-1	DO NOT ENTER	36	X	36							1	1
1-6	R5-1A	WRONG WAY	42	X	30							1	1
1-7	D1-1	WHALEN LAKE RD	126	X	21	18.38			3			1	2
1-8	R6-2L	ONE WAY - RIGHT	36	X	48	12.00				1		1	1
2-1	R6-2R	ONE WAY - RIGHT	36	X	48							1	1
	R6-2L	ONE WAY - LEFT	36	X	48								
2-2	R1-1	STOP	36	X	36	7.46					1	1	1
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
2-3	R4-7	KEEP RIGHT	24	X	30	5.00				1			
2-4	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1
2-5	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1
2-6	D1-61	BARRETT RD	78	X	30	16.25			2			1	2
2-7	D10-3	MILE 175	12	X	48	4.00				1		1	1
3-1	J4-1	SOUTH	36	X	54	13.50				1		1	1
		USH 53											
3-2	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1		1	1
3-3	R1-1	STOP	36	X	36	7.46			1			1	1
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
3-4	R6-2L	ONE WAY - LEFT	36	X	48							1	1
3-5	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1
3-6	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1
3-7	I55-56	ADOPT A HIGHWAY	30	X	36	7.50			1			1	1
3-8	M1-94	SCHNAGEL RD	108	X	21	15.75		2				1	2
4-1	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1		1	1
4-2	R1-1	STOP	36	X	36	7.46				1		1	1
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
4-3	R6-2L	ONE WAY - LEFT	24	X	30							1	1
4-4	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1
4-5	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1
4-6	D10-3	MILE 176	12	X	48	4.00				1		1	1
5-1	R6-2R	ONE WAY - RIGHT	36	X	48	12.00				1		1	1
5-2	R6-2L	ONE WAY - LEFT	24	X	30							1	1
	R6-2R	ONE WAY - RIGHT	24	X	30								
5-3	R1-1	STOP	36	X	36	7.46					1	1	1
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
5-4	R1-1	STOP	36	X	36	7.46				1		1	1
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
5-5	R6-2L	ONE WAY - LEFT	24	X	30							1	1
5-6	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1
6-1	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1
6-2	D1-1	OAK RIDGE DR	114	X	21	16.63		2				1	2
6-3	D10-3	MILE 177	12	X	48	4.00				1		1	1
6-4	R6-2-L	ONE WAY	36	X	48	12.00				1			
6-5	R5-1	DO NOT ENTER	36	X	36							1	1
6-6	R5-1A	WRONG WAY	42	X	30							1	1
7-1	R2-1	SPEED LIMIT 65	36	X	48	12.00				1		1	1
7-2	R6-2-L	ONE WAY	36	X	48	12.00				1			
7-3	R5-1	DO NOT ENTER	36	X	36							1	1
7-4	R5-1A	WRONG WAY	42	X	30							1	1
SUB TOTALS (1198-00-76; SB USH 53)						371.80	0	4	15	19	2	41	46

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ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

SIGNING ITEMS (CONTINUED)

			SIGN SIZE		637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	638.3000	
SIGN GROUP			W	X	H	SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING
NUMBER	SIGN CODE	SIGN MESSAGE	(INCHES)			REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SMALL
						H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SIGN
						SF	SF	EACH	EACH	EACH	EACH	EACH	SUPPORTS
													COMMENTS
PROJECT 1198-00-76													
SB USH 53													
7-5	J4-1	SOUTH USH 53	36	X	54	13.50				1		1	1
8-1	R6-2L	ONE WAY - LEFT	36	X	48	12.00		1				1	1
8-2	R6-2R	ONE WAY - RIGHT	36	X	48	12.00							
	J3-1	SOUTH / 53 / LT ARROW	36	X	84	21.00					2	1	1
8-3	R1-2	YIELD	48	X	42	7.00		1				1	1
8-4	R1-2	YIELD	48	X	42	7.00		1				1	1
8-5	J3-1	EAST / CTH F / LT ARROW	36	X	84	21.00					2	1	1
8-6	R5-1	DO NOT ENTER	36	X	36							1	1
8-7	R5-1A	WRONG WAY	42	X	30							1	1
8-8	D10-3	MILE 178	12	X	48	4.00				1		1	1
8-9	D1-1	(LA) / LAMPSON	84	X	21	12.25		2				1	2
8-10	J2-2	SOUTH EAST USH 53 CTH F	72	X	84	42.00					2	1	2
(LT)													
8-11	R1-2	YIELD	48	X	42	7.00		1				1	1
8-12	J3-3	NORTH EAST SOUTH USH 53 CTH F USH 53 (AA) (RA) (RA)	108	X	84	63.00					2	1	2
8-13	R6-2R	ONE WAY - RIGHT	24	X	30							1	1
8-14	R6-2L	ONE WAY - LEFT	24	X	30								
	R1-1	STOP	36	X	36	7.46					1	1	1
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
8-15	R6-1L	ONE WAY	36	X	12	3.00							
	R1-2	YIELD	48	X	42	7.00		1				1	1
8-16	R5-1	DO NOT ENTER	36	X	36	9.00		1				1	1
8-17	J13-1	COUNTY F (AA RA)	36	X	66	16.50				1		1	1
8-18	R5-1A	WRONG WAY	42	X	30	8.75		1				1	1
8-19	J1-1	JCT / CTH F	36	X	57	14.25				1		1	1
8-20	W6-53	CROSS TRAFFIC NEXT 55 MILES	144	X	48		48			2		1	2
9-1	R1-1	STOP	36	X	36	7.46				1		1	1
	R6-1L	ONE WAY	36	X	12	3.00							
	R6-2L	ONE WAY - LEFT	24	X	30							1	1
9-3	R6-2R	ONE WAY - RIGHT	24	X	30							1	1
9-4	R6-2L	ONE WAY - LEFT	24	X	30								
	R1-1	STOP	36	X	36	7.46					1	1	1
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
9-5	R1-1	STOP	36	X	36	7.46		1				1	1
	R6-1L	ONE WAY	36	X	12	3.00							
9-6	R6-2L	ONE WAY - LEFT	24	X	30							1	1
9-7	R5-1	DO NOT ENTER	36	X	36	9.00		1				1	1
9-8	R5-1A	WRONG WAY	42	X	30	8.75		1				1	1
9-9	R6-2L	ONE WAY	36	X	48	12.00				1			
9-10	R5-1	DO NOT ENTER	36	X	36							1	1
9-11	R5-1A	WRONG WAY	42	X	30							1	1
9-12	D1-61	BIRCHWOOD DR	96	X	30	20.00		2				1	2
9-13	D10-3	MILE 179	12	X	48	4.00				1		1	1
10-1	I55-56	ADOPT A HIGHWAY CHRIST LUTHERAN CHURCH LAMPSON MISSOURI SYNOD	30	X	36	7.50						1	1
10-2	R6-2R	ONE WAY - RIGHT	24	X	30							1	1
	R6-2L	ONE WAY - LEFT	24	X	30								
SUB TOTALS (1198-00-76; SB USH 53)						396.34	48.00	2	12	9	10	35	40

3

3

SIGNING ITEMS (CONTINUED)											NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.		
SIGN GROUP		SIGN MESSAGE	SIGN SIZE		637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	638.3000	COMMENTS
NUMBER	SIGN CODE		W	X	H	SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	
					REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SMALL	
					H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SIGN	
					SF	SF	EACH	EACH	EACH	EACH	EACH	SUPPORTS	
PROJECT 1198-00-76													
SB USH 53													
10-3	R1-1	STOP	36	X	36	7.46				1	1	1	
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	36	X	12	3.00							
10-4	R1-1	STOP	36	X	36	7.46		1			1	1	
	R6-1R	ONE WAY	36	X	12	3.00							
10-5	R6-1L	ONE WAY	36	X	12	3.00							
	R6-2R	ONE WAY - RIGHT	24	X	30						1	1	
	R6-2L	ONE WAY - LEFT	24	X	30								
10-6	R5-1	DO NOT ENTER	36	X	36	9.00		1			1	1	
10-7	R5-1A	WRONG WAY	42	X	30	8.75		1			1	1	
10-8	D1-61	PALMER DR	78	X	30	16.25		2			1	2	
11-1	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
11-2	D10-3	MILE 180	12	X	48	4.00			1		1	1	
12-1	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
12-2	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
13-1	D10-3	MILE 181	12	X	48	4.00			1		1	1	
13-2	R6-2R	ONE WAY - RIGHT	36	X	48	12.00		1			1	1	
13-3	R6-1L	ONE WAY - LEFT	36	X	12	3.00		1					
	R1-1	STOP	36	x	36	7.46							
13-4	R6-1L	ONE WAY - LEFT	36	X	12	3.00		1					
	R1-1	STOP	36	x	36	7.46							
14-1	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
15-1	D10-3	MILE 182	12	X	48	4.00			1		1	1	
15-2	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
16-1		DEER CROSSING									1	1	
16-2	R6-2L	ONE WAY - LEFT	36	X	48	12.00			1		1	1	
16-3	R1-1	STOP	36	X	36	7.46		1			1	1	
16-4	D5-62L	WAYSIDE LT ARROW	78	X	42	22.75		2			1	2	
16-5	R5-1	DO NOT ENTER	36	X	36						1	1	
16-6	R5-1A	WRONG WAY	42	X	30						1	1	
16-7	R3-55L	LEFT TURN LANE	36	X	48						1	1	
17-1	D10-3	MILE 183	12	X	48	4.00			1		1	1	
17-2	R3-4B	NO U TURN EXCEPT	36	X	48	12.00			1		1	1	
17-3	R1-1	STOP	36	X	36	7.46		1			1	1	
17-4	D5-61	WAYSIDE 1/2 MILE	78	X	42	22.75		2			1	2	
17-5	R5-1	DO NOT ENTER	36	X	36						1	1	
17-6	R5-1A	WRONG WAY	42	X	30						1	1	
17-7	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
18-1	R6-2R	ONE WAY - RIGHT	24	X	30						1	1	
	R6-2L	ONE WAY - LEFT	24	X	30								
18-2	R1-1	STOP	36	X	36	7.46				1	1	1	
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
18-3	R6-1L	ONE WAY	36	X	12	3.00							
	R1-1	STOP	36	X	36	7.46			1		1	1	
	R6-1R	ONE WAY	36	X	12	3.00							
18-4	R6-1L	ONE WAY	36	X	12	3.00							
	R6-2R	ONE WAY - RIGHT	24	X	30						1	1	
18-5	R6-2L	ONE WAY - LEFT	24	X	30								
	R5-1	DO NOT ENTER	36	X	36	9.00		1			1	1	
18-6	R5-1A	WRONG WAY	42	X	30	8.75		1			1	1	
18-7	D1-61	BROOKLYN RD	90	X	30	18.75		2			1	2	
18-8	D10-3	MILE 184	12	X	48	4.00			1		1	1	
18-9	R6-2R	ONE WAY - RIGHT	36	X	48	12.00			1		1	1	
19-1	R6-2R	ONE WAY - RIGHT	24	X	30						1	1	
19-2	R6-2L	ONE WAY - LEFT	24	X	30								
	R1-1	STOP	36	X	36	7.46				1	1	1	
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00							
	R6-1R	ONE WAY	36	X	12	3.00							
	R6-1L	ONE WAY	37	X	13	3.34							
SUB TOTALS (1198-00-76; SB USH 53)						374.48	0.00	0	18	15	3	40	44

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

SIGNING ITEMS (CONTINUED)

			637.2210			637.2230			634.0612			634.0614			634.0616			634.0618			638.2602			REMOVING					
			SIGN SIZE			SIGN TYPE II			SIGN TYPE II			POSTS WOOD			POSTS WOOD			POSTS WOOD			POSTS WOOD			REMOVING			SMALL		
SIGN GROUP			W X H			H			F			4X6-INCH			4X6-INCH			4X6-INCH			4X6-INCH			SIGN			SIGN		
NUMBER			(INCHES)			SF			SF			12-ft			14-ft			16-ft			18-ft			TYPE II			SUPPORTS		
SIGN CODE												EACH			EACH			EACH			EACH			EACH			EACH		
SIGN MESSAGE																													
PROJECT 1198-00-76																													
SB USH 53																													
19-3	R1-1	STOP	36	X	36	7.46											1					1			1				
	R6-1R	ONE WAY	36	X	12	3.00																							
	R6-1L	ONE WAY	36	X	12	3.00																							
19-4	R6-2R	ONE WAY - RIGHT	24	X	30																		1			1			
	R6-2L	ONE WAY - LEFT	24	X	30																								
19-5	R5-1	DO NOT ENTER	36	X	36	9.00											1					1				1			
19-6	R5-1A	WRONG WAY	42	X	30	8.75											1					1				1			
20-1	D1-1	WEST BLOCK RD RT ARROW	120	X	21	17.50											2					1				2			
20-2	R6-2R	ONE WAY - RIGHT	24	X	30																	1				1			
	R6-2L	ONE WAY - LEFT	24	X	30																								
20-3	R1-1	STOP	36	X	36	7.46																1				1			
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00																							
	R6-1R	ONE WAY	36	X	12	3.00																							
	R6-1L	ONE WAY	36	X	12	3.00																							
20-4	R1-1	STOP	36	X	36	7.46												1					1			1			
	R6-1R	ONE WAY	36	X	12	3.00																							
20-5	R6-1L	ONE WAY	36	X	12	3.00																							
	R6-2R	ONE WAY - RIGHT	24	X	30																		1			1			
20-6	R6-2L	ONE WAY - LEFT	24	X	30																								
	D10-3	MILE 185	12	X	48	4.00												1					1			1			
20-7	R5-1	DO NOT ENTER	36	X	36	9.00											1					1				1			
20-8	R5-1A	WRONG WAY	42	X	30	8.75											1					1				1			
20-9	R2-1	SPEED LIMIT 65	36	X	48	12.00																1				1			
20-10	D1-1	TRANSFER STREET	102	X	21	14.88																1				2			
21-1	J4-1	SOUTH	36	X	54	13.50												1				1				1			
21-2	USH 53																												
	J3-1	SOUTH USH 53	36	X	84	21.00																2		1		1			
21-3	R1-1	STOP	36	X	36	7.46												1					1			1			
	R6-1L	ONE WAY - LEFT	24	X	12	3.00																							
21-4	R6-2L	ONE WAY - LEFT	24	X	30																		1			1			
21-5	R5-1	DO NOT ENTER	36	X	36																		1			1			
21-6	R5-1A	WRONG WAY	42	X	30																		1			1			
21-7	R3-55L	LEFT TURN LANE	36	X	48																		1			1			
22-1	R1-1	STOP	36	X	36	7.46												1					1			1			
22-2	R6-1L	ONE WAY - LEFT	36	X	12	3.00																							
	R6-2L	ONE WAY - LEFT	36	X	48																		1			1			
22-3	R5-1	DO NOT ENTER	36	X	36																		1			1			
22-4	R5-2	DO NOT ENTER	36	X	36	9.00												1					1			1			
22-5	R5-1A	WRONG WAY	42	X	30																		1			1			
22-6	D10-3	MILE 186	12	X	48	4.00																1				1			
22-7	J4-1	SOUTH	36	X	54	13.50																	1			1			
	USH 53																												
22-8	R6-2R	ONE WAY - RIGHT	24	X	30																		1			1			
	R6-2L	ONE WAY - LEFT	24	X	30																								
22-9	R1-1	STOP	36	X	36	7.46												1					1			1			
	R6-1R	ONE WAY	36	X	12	3.00																							
	R6-1L	ONE WAY	36	X	12	3.00																							
22-10	R1-1	STOP	36	X	36	7.46																	1						
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00																				ON FLASHER POLE			
22-11	J2-2	EAST WEST	72	X	84	42.00																2		1		2			
		STH 77 STH 77																											
		(LT) (RT)																											
22-12	R5-1	DO NOT ENTER	36	X	36	9.00																	1			1			
22-13	R5-1A	WRONG WAY	42	X	30	8.75																	1			1			
23-1	R3-55L	LEFT TURN LANE	36	X	54	13.50																1				1			
23-2	R3-55R	RIGHT TURN LANE	36	X	54	13.50																1				1			
23-3	D1-3	(UA) EAU CLAIRE	96	X	54	36.00																	2			2			
		(LA) HAYWARD																											
		(LA) DANBURY (RA)																											
23-4	J2-2	EAST WEST	72	X	84	42.00																2		1		2			
		STH 77 STH 77																											
		(LA) (RA)																											
SUB TOTALS (1198-00-76; SB USH 53)						401.85			0		2		12		13		7		38		42								

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NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

			SIGNING ITEMS (CONTINUED)											
			SIGN SIZE		637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	638.3000		
SIGN GROUP			W	X	H	SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING	
NUMBER	SIGN CODE	SIGN MESSAGE	(INCHES)			REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SMALL	
						H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SIGN	COMMENTS
						SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	
PROJECT 1198-00-76														
SB USH 53														
23-5	R6-2L	ONE WAY - LEFT	24	X	30							1	1	
23-6	R1-1	STOP	36	X	36	7.46				1		1	1	
	R6-1L	ONE WAY	36	X	12	3.00								
23-7	R6-2R	ONE WAY - RIGHT	24	X	30							1	1	
	R6-2L	ONE WAY - LEFT	24	X	30									
23-8	R1-1	STOP	36	X	36	7.46					1	1	1	
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00								
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
23-9	R1-1	STOP	36	X	36	7.46				1		1	1	
	R6-1L	ONE WAY	36	X	12	3.00								
23-10	R6-2L	ONE WAY - LEFT	24	X	30							1	1	
23-11	J1-1	JCT / STH 77	36	X	57	14.25				1		1	1	
23-12	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1	
23-13	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1	
23-14	D1-61	WALLACE ST	78	X	30	16.25			2			1	2	
23-15	R6-2R	ONE WAY - RIGHT	24	X	30							1	1	
	R6-2L	ONE WAY - LEFT	24	X	30									
23-16	R1-1	STOP	36	X	36	7.46				1		1	1	
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00								
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
23-17	R1-2	YIELD	48	X	42	7.00			1			1	1	
23-18	R1-2	YIELD	48	X	42	7.00			1			1	1	
23-19	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1	
23-20	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1	
24-1	R3-55L	LEFT TURN LANE	36	X	54	13.50				1		1	1	
24-2	D1-61	SHELL CREEK RD	102	X	30	21.25			2			1	2	
24-3	D10-3	MILE 187	12	X	48	4.00				1		1	1	
24-4	D1-1	(LA) MINONG	78	X	21	11.38			2			1	2	
	D1-2	(LA) BUSINESS DISTRICT	84	X	36	21.00								
24-5	I3-1	SHELL CREEK	84	X	21	12.25		2				1	2	
24-6	I2-3	MINONG	66	X	24	11.00		2				1	1	
		POPULATION 527												
24-7	W6-53	CROSS TRAFFIC	144	X	48		48			2		1	2	
		NEXT 40 MILES												
24-8		TOURIST ORIENT DIR. SIGNS												
		GAS - NEXT LEFT												
		LODGING NEXT LEFT												
25-1	R6-2L	ONE WAY - LEFT	36	X	48	12.00			1			1	1	
25-2	R5-1	DO NOT ENTER	36	X	36							1	1	
25-3	R5-1A	WRONG WAY	42	X	30							1	1	
25-4	R6-2L	ONE WAY - LEFT	36	X	48	12.00			1			1	1	
25-5	R5-1	DO NOT ENTER	36	X	36							1	1	
25-6	R5-1A	WRONG WAY	42	X	30							1	1	
26-1	D10-3	MILE 188	12	X	48	4.00				1		1	1	
26-2	D1-1	LAKESIDE RD	108	X	21	15.75		2				1	2	
26-3	R6-2R	ONE WAY - RIGHT	24	X	30							1	1	
	R6-2L	ONE WAY - LEFT	24	X	30									
26-4	R1-1	STOP	36	X	36	7.46					1	1	1	
	R6-3	DIVIDED HIGHWAY	30	X	24	5.00								
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
26-5	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1	
26-6	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1	
26-7	D1-1	LAKESIDE RD	108	X	21	15.75		2				1	2	
26-8	D7-95R	TOTAGATIC (RA)	48	X	36	12.00			1			1	2	
		SKI TRAIL												
SUB TOTALS (1198-00-76; SB						339.93	48	8	17	9	2	37	45	0

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SIGNING ITEMS (CONTINUED)														
			SIGN SIZE		637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	638.3000		
SIGN GROUP			W	X	H	SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	REMOVING	
NUMBER	SIGN CODE	SIGN MESSAGE	(INCHES)			REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SMALL	
						H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SIGN	COMMENTS
						SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	
PROJECT 1198-00-76														
SB USH 53														
27-1	D10-3	MILE 189	12	X	48	4.00				1		1	1	
27-2	R6-2R	ONE WAY - RIGHT										1	1	
	R6-2L	ONE WAY - LEFT												
27-3	R1-1	STOP	36	X	36	7.46				1		1	1	
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00								
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
27-4	R5-1	DO NOT ENTER	36	X	36	9.00			1					
27-5	R5-1A	WRONG WAY	42	X	30	8.75			1					
27-6	R4-7	KEEP RIGHT	36	X	48	12.00				1				
27-7	R5-1	DO NOT ENTER	36	X	36							1	1	
27-8	R5-1A	WRONG WAY	42	X	30							1	1	
28-1	D1-1	LAKESIDE ROAD	108	X	21	15.75		2				1	2	
28-2	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1				
28-3	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1	
28-4	R5-1A	WRONG WAY	42	X	30	8.75			1			1	1	
28-5	I3-1	TOTAGATIC RIVER	108	X	21	15.75		2				1	2	
28-6	W5-52R	CLEARANCE STRIPER	18	X	54		6.75			1		1	1	
28-7	W5-52L	CLEARANCE STRIPER	18	X	54		6.75			1		1	1	
28-8	R4-7	KEEP RIGHT	36	X	48	12.00				1				
28-9	R5-1	DO NOT ENTER	36	X	36							1	1	
28-10	R5-1A	WRONG WAY	42	X	30							1	1	
29-1	R5-1	DO NOT ENTER	36	X	36							1	1	
29-2	R5-1A	WRONG WAY	42	X	30							1	1	
29-3	D10-3	MILE 190	12	X	48	4.00				1		1	1	
29-4	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1				
29-5	R5-1	DO NOT ENTER	36	X	36							1	1	
29-6	R5-1A	WRONG WAY	42	X	30							1	1	
29-7	S5-2	END SCHOOL ZONE	36	X	42	10.50			1					
30-1	R6-2R	ONE WAY - RIGHT	24	X	30							1	1	
	R6-2L	ONE WAY - LEFT	24	X	30									
30-2	R1-1	STOP	36	X	36	7.46					1	1	1	
	R6-3A	DIVIDED HIGHWAY - TEE	30	X	24	5.00								
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
30-3	R1-1	STOP	36	X	36	7.46				1		1	1	
	R6-1R	ONE WAY	36	X	12	3.00								
	R6-1L	ONE WAY	36	X	12	3.00								
30-4	R6-2R	ONE WAY - RIGHT	24	X	30							1	1	
	R6-2L	ONE WAY - LEFT	24	X	30									
30-5	R5-1	DO NOT ENTER	36	X	36							1	1	
30-6	R5-1	DO NOT ENTER	36	X	36	9.00			1			1	1	
30-7	R5-1A	WRONG WAY	42	X	30							1	1	
30-8	R3-55R	RIGHT TURN LANE	36	X	48							1	1	
30-9	I2-2	WASHBURN COUNTY	90	X	21	13.13		2				1	2	
30-10	S1-1	SCHOOL ADVANCE	36	X	36		6.75				1	1	1	
	S16-9P	AHEAD	48	X	18		6							
	R2-6P	FINES HIGHER	36	X	24		6							
30-11	R6-2L	ONE WAY - LEFT	36	X	48	12.00				1				
30-12	R5-1	DO NOT ENTER	36	X	36							1	1	
30-13	R5-1A	WRONG WAY	42	X	30							1	1	
30-14	R5-1	DO NOT ENTER	36	X	36							1	1	
30-15	R5-1A	WRONG WAY	42	X	30							1	1	
31-1	D10-3	MILE 191	12	X	48	4.00				1		1	1	
31-2	S3-51	SCHOOL BUS	96	X	48		32			2		1	2	
		TRAFFIC												
32-1	R2-1	SPEED LIMIT 65	36	X	48	12.00				1		1	1	
SUB TOTALS (1198-00-76; SB						234.01	64.25	6	6	15	2	35	39	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

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NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIGN SIZE W X H (INCHES)			637.2210	637.2230	634.0612	634.0614	634.0616	634.0618	638.2602	REMOVING	COMMENTS	
						SIGNS TYPE II	SIGNS TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING	SMALL		
						REFLECTIVE	REFLECTIVE	4X6-INCH	4X6-INCH	4X6-INCH	4X6-INCH	SIGNS	SIGN		
					H	F	12-ft	14-ft	16-ft	18-ft	TYPE II	SUPPORTS			
					SF	SF	EACH	EACH	EACH	EACH	EACH	EACH			
PROJECT 1198-00-76															
SB USH 53															
32-2	J4-1	SOUTH	36	X	54	13.50				1		1	1		
32-3	R6-2R	USH 53	24	X	30							1	1		
	R6-2L	ONE WAY - LEFT	24	X	30										
32-4	R1-1	STOP	48	X	48	13.25					1	1	1		
32-5	R6-3	DIVIDED HIGHWAY	30	X	24	5.00									
	R6-1R	ONE WAY	36	X	12	3.00									
	R6-1L	ONE WAY	36	X	12	3.00									
	R1-2	YIELD	48	X	42	7.00						1	1		
32-6	R1-1	STOP	48	X	48	13.25			1			1	1		
32-7	R6-3	DIVIDED HIGHWAY	30	X	24	5.00							1		
	R1-2	YIELD	48	X	42	7.00							1		
	32-8	CTH T	36	X	66	16.50			1				1	1	
		J13-1	ARROW								1				
32-9	R5-1	DO NOT ENTER	36	X	36	9.00			1				1		
32-10	R5-1A	WRONG WAY	42	X	30	8.75			1				1		
32-11														TO REMAIN	
32-12	R3-55R	RIGHT TURN LANE	36	X	48								1		1
32-13	R3-55L	LEFT TURN LANE	36	X	48								1		1
33-1	J1-1	JCT	36	X	57	14.25					1		1		1
33-2	D1-1	CTH T													
		RED LAKE DR	108	X	21	15.75		2					1	2	
	33-3	MILE 192	12	X	48	4.00					1		1	1	
	33-4	WASCOTT	54	X	24	9.00		1					1	1	
		UNINCORPORATED													
33-5	W6-53	CROSS TRAFFIC NEXT 45 MILES	144	X	48	48.00					2		1	2	
SUB TOTALS (1198-00-76; SB USH 53)						195.25	0.00	3	4	7	1	17	18		
ITEM TOTALS (1198-00-76; SB USH 53)						2313.65	160.25	25	84	87	27	243	274		

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ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL											
649.0400											
TEMPORARY											
PVMT MARKING											
REMOVABLE TAPE											
4-INCH											
LF											
SPV.0045											
PCMS											
CELLULAR											
COMMUNICATIONS											
DAY											
STATION	-	STATION	DRUMS	643.0420	643.0705	643.0715	643.0800	643.0900	643.1050	STAGE	REMARKS
DAY		DAY	TYPE III	LIGHTS	TYPE A	TYPE C	BOARDS	SIGNS	PCMS		
PROJECT 1198-00-76											
SB USH 53											
39+87	-	53+68	270	15	30			30		STAGE 1	PROJECT BEGIN - WHALEN LAKE RD
39+87	-	53+68	238							STAGE 2	PROJECT BEGIN - WHALEN LAKE RD
53+68	-	79+89	390	45	90			60		STAGE 1	WHALEN LAKE RD - BARRETT RD
53+68	-	79+89	510	51	102			102		STAGE 2	WHALEN LAKE RD - BARRETT RD
79+89	-	106+00	450	30	60			75		STAGE 1	BARRETT RD - SCHNAGEL RD
79+89	-	106+00	442	34	68			68		STAGE 2	BARRETT RD - SCHNAGEL RD
106+00	-	183+75	1170	75	150			90		STAGE 1	SCHNAGEL RD - OAKRIDGE DR
106+00	-	183+75	1394	85	170			136		STAGE 2	SCHNAGEL RD - OAKRIDGE DR
183+75	-	245+57	990	75	150			105		STAGE 1	OAKRIDGE RD - CTH F EAST
183+75	-	245+57	1054	85	170			136		STAGE 2	OAKRIDGE RD - CTH F EAST
245+57	-	256+40	165	15	30			15		STAGE 1	CTH F EAST - CTH F WEST
245+57	-	256+40	255	17	34			51		STAGE 2	CTH F EAST - CTH F WEST
256+40	-	283+65	480	30	60			45		STAGE 1	CTH F WEST - BIRCHWOOD RD
256+40	-	283+65	544	34	68			68		STAGE 2	CTH F WEST - BIRCHWOOD RD
283+65	-	310+57	465	30	60			45		STAGE 1	BIRCHWOOD RD - PALMER DR
283+65	-	310+57	527	34	68			68		STAGE 2	BIRCHWOOD RD - PALMER DR
310+57	-	553+50	3705	285	570			300		STAGE 1	PALMER DR - BROOKLYN RD
310+57	-	553+50	4199	323	646			357		STAGE 2	PALMER DR - BROOKLYN RD
553+50	-	595+27	630	45	90			45		STAGE 1	BROOKLYN RD - W BLOCK RD
553+50	-	595+27	782	68	136			102		STAGE 2	BROOKLYN RD - W BLOCK RD
595+28	-	622+74	420	30	60			30		STAGE 1	W BLOCK RD - TRANSFER ST
595+28	-	622+74	544	34	68			68		STAGE 2	W BLOCK RD - TRANSFER ST
622+74	-	644+59	390	30	60			45		STAGE 1	TRANSFER ST - BUS 53
622+74	-	644+59	374	34	68			34		STAGE 2	TRANSFER ST - BUS 53
644+59	-	689+76	675	45	90			45		STAGE 1	BUS 53 - STH 77
644+59	-	689+76	765	51	102			51		STAGE 2	BUS 53 - STH 77
689+76	-	705+40	300	15	30			30		STAGE 1	STH 77 - WALLACE ST
689+76	-	705+40	340	17	34			51		STAGE 2	STH 77 - WALLACE ST
705+40	-	721+68	300	15	30			30		STAGE 1	WALLACE ST - SHELL CREEK RD
705+40	-	721+68	340	17	34			51		STAGE 2	WALLACE ST - SHELL CREEK RD
721+68	-	842+22	1875	165	330			195		STAGE 1	SHELL CREEK RD - LAKESIDE RD (NORTH)
721+68	-	842+22	2057	170	340			238		STAGE 2	SHELL CREEK RD - LAKESIDE RD (NORTH)
842+22	-	867+54	375	30	60			30		STAGE 1	LAKESIDE RD (NORTH) - NORTHWOODS SCHOOL D/W
842+22	-	867+54	493	34	68			68		STAGE 2	LAKESIDE RD (NORTH) - NORTHWOODS SCHOOL D/W
867+54	-	979+92	1740	135	270			150		STAGE 1	NORTHWOODS SCHOOL D/W - CTH T
867+54	-	979+92	1972	153	306			187		STAGE 2	NORTHWOODS SCHOOL D/W - CTH T
979+92	-	1002+25	345	30	60			30		STAGE 1	CTH T - PROJECT END
979+92	-	1002+25	391	34	68			34		STAGE 2	CTH T - PROJECT END
ADVANCED WARNING			4488	136	272	1768	272	3536	68	3300	68
END ROAD WORK								340			
STH 77			465	15	30			30		STAGE 1	
STH 77			374	17	34			51		STAGE 2	
ITEM TOTALS			37683	2583	5166	1768	272	7222	68	3300	68

3

3

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

PAVEMENT MARKING

			646.0106 EPOXY 4-INCH EDGE LINE		646.0126 EPOXY 8-INCH YELLOW	646.0600 REMOVING PAVEMENT MARKINGS	646.2304.S GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE	646.2308.S GROOVED WET REFLECTIVE EPOXY 8-INCH WHITE	647.0566 STOP LINE EPOXY 18-INCH WHITE	647.0726 DIAGONAL EPOXY 12-INCH		* 649.0100 TEMPORARY PAVEMENT MARKING 4-INCH	
STATION	- STATION	LOCATION	WHITE LF	YELLOW LF	LF	LF	LF	LF	LF	WHITE LF	YELLOW LF	LF	REMARKS
PROJECT 1198-00-76													
SB USH 53													
39+87	- 1001+60	C/L				24043	24043					24043	CENTERLINE- 12.5' SKIPS
39+87	- 53+68	LT/RT	1377	1358		2735						2735	PROJECT BEGIN - WHALEN LAKE RD
53+68	- 79+89	LT/RT	2592	2552		5144						5144	WHALEN LAKE RD - BARRETT RD
79+89	- 106+00	LT/RT	2543	2531		5074		130				5074	BARRETT RD - SCHNAGEL RD
106+00	- 183+75	LT/RT	7740	7686		15426						15426	SCHNAGEL RD - OAKRIDGE DR
183+75	- 245+57	LT/RT	6117	6087		12204						12204	OAKRIDGE RD - CTH F EAST
245+57	- 256+40	LT/RT	1024	959		1983		350				1983	CTH F EAST - CTH F WEST
256+40	- 283+65	LT/RT	2561	2640		5201		175				5201	CTH F WEST - BIRCHWOOD RD
283+65	- 310+57	LT/RT	2607	2598		5205						5205	BIRCHWOOD RD - PALMER DR
310+57	- 553+50	LT/RT	24215	24031		48246		400				48246	PALMER DR - BROOKLYN RD
553+50	- 595+27	LT/RT	4087	4091		8178						8178	BROOKLYN RD - W BLOCK RD
595+27	- 622+72	LT/RT	2659	2651		5310						5310	W BLOCK RD - TRANSFER ST
622+72	- 627+00	LT/RT	374	372		746						746	TRANSFER ST - END SOUTH OVERLAY SECTION
627+00	- 644+63	LT/RT	1756	1718		3474						3474	END SOUTH OVERLAY SECTION - BUS 53
644+63	- 689+76	LT/RT	4477	4419		8896		450	40			8896	BUS 53 - STH 77
689+76	- 705+37	LT/RT	1485	1583	110	3068		1300	104	250	33	3068	STH 77 - WALLACE ST
705+37	- 721+70	LT/RT	1538	1552		3090						3090	WALLACE ST - SHELL CREEK RD
721+70	- 727+50	LT/RT	505	522		1027		375				1027	SHELL CREEK RD - BEGIN NORTH OVERLAY SECTION
727+50	- 778+00	LT/RT	5034	5004		10038						10038	BEGIN NORTH OVERLAY SECTION - LAKESIDE RD
778+00	- 842+22	LT/RT	6372	6310		12682						12682	LAKESIDE RD - LAKESIDE RD
842+22	- 979+92	LT/RT	13524	13586		27110		350				27110	LAKESIDE RD - CTH T
979+92	- 1001+60	LT/RT	2140	2091		4231		750				4231	CTH T - PROJECT END
TOTALS			94727	94341	110	213111	24043	4280	144	250	33	213111	
ITEM TOTALS			189068		110	213111	24043	4280	144	283		213111	

*TEMPORARY PAINT FOR SURFACE LIFT DURING 14-DAY SMA WAIT PERIOD

REMOVING PULL BOXES

STATION	LOCATION	653.0905 EACH	REMARKS
690+14	LT	1	LT TURN LANE TO STH 77
692+22	LT	1	
ITEM TOTAL		2	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

CONSTRUCTION STAKING

STATION - STATION	650.4500	650.5000	650.5500	650.8000	650.9910	650.9920	REMARKS
	SUBGRADE LF	BASE LF	CURB & GUTTER LF	RESURFACING REFERENCE LF	SUPPLEMENTAL CONTROL (PROJECT) LS	SLOPE STAKES LF	
SB USH 53							
39+87 - 1001+60				95790	1		OVERLAY AND CRACK REPAIR TURN LANE TO STH 77
689+87 - 696+50	675	675	69			675	
STH 77							
92+84 - 98+87	215	215				215	
MAINTENANCE CROSSOVER							
85+15 - 88+65	350	350				350	
ITEM TOTALS	1240	1240	69	95790	1	1240	

SAWING ASPHALT

690.0150 ASPHALT			
STATION	LOCATION	LF	REMARKS
SB USH 53			
39+87	LT/RT	9	PROJECT BEGIN
53+68	RT	83	WHALEN LAKE RD
59+93	LT	28	DRIVEWAY
79+89	LT/RT	148	BARRETT RD
106+00	RT	57	SCHNAGEL RD
132+16	RT	63	DRIVEWAY CROSSOVER
183+75	LT/RT	105	OAKRIDGE RD
210+06	RT	79	DRIVEWAY CROSSOVER
236+51	RT	90	DRIVEWAY CROSSOVER
245+57	RT	91	CTH F EAST
256+40	LT/RT	110	CTH F WEST
283+65	LT/RT	85	BIRCHWOOD DR
291+95	RT	57	DRIVEWAY CROSSOVER
310+57	LT/RT	104	PALMER DR
498+34	RT	147	DRIVEWAY CROSSOVER
522+55	RT	78	DRIVEWAY CROSSOVER
553+50	LT/RT	97	BROOKLYN RD
595+27	RT	74	BLOCK DR
622+72	LT/RT	103	TRANSFER ST
625+00	LT/RT	9	END SOUTH OVERLAY SECTION
689+87 - 698+00	LT	823	SB USH 53 AT SHOULDER
727+50	LT/RT	9	BEGIN NORTH OVERLAY SECTION
759+64	RT	61	DRIVEWAY CROSSOVER
778+00	RT	60	LAKESIDE RD
795+24	RT	55	DRIVEWAY CROSSOVER
842+22	LT/RT	83	LAKESIDE RD
850+77	RT	60	DRIVEWAY CROSSOVER
867+34	RT	55	DRIVEWAY CROSSOVER
881+34	RT	58	DRIVEWAY CROSSOVER
889+83	RT	64	DRIVEWAY CROSSOVER
910+47	LT/RT	170	NORTHWOODS SCHOOL DRIVEWAY
922+50	RT	53	DRIVEWAY CROSSOVER
932+32	RT	44	DRIVEWAY CROSSOVER
979+92	LT/RT	91	CTH T
1001+60	LT/RT	9	PROJECT END
STH 77			
92+84 - 94+87	LT	215	STH 77 FOR TURN LANE
95+22	LT/RT	168	
96+21	LT/RT	145	
CULVERT REPLACEMENTS			
183+85	LT	76	
310+62	LT	50	
842+30	LT	78	
ITEM TOTAL		4044	

SAWING CONCRETE

STATION	LOCATION	* 690.0250	REMARKS
		CONCRETE LF	
39+87	LT/RT	26	PROJECT BEGIN
627+00	LT/RT	26	END OF SOUTH OVERLAY
727+50	LT/RT	26	BEGIN OF NORTH OVERLAY
1001+60	LT/RT	26	PROJECT END
STAGE 1			
	SE QUADRANT STR B-65-38	84	APPROACH SLAB REMOVAL
	NE QUADRANT STR B-65-38	84	APPROACH SLAB REMOVAL
STAGE 2			
	SW QUADRANT STR B-65-38	54	APPROACH SLAB REMOVAL
	NW QUADRANT STR B-65-38	54	APPROACH SLAB REMOVAL
ITEM TOTAL		380	

* QUANTITY ALSO SHOWN ELSEWHERE.

REMOVE RURAL INTERSECTION COLLISION AVOIDANCE SYSTEM (RICAS)

STATION	LOCATION	SPV.0105.03	REMARKS
		LS	
689+76	LT/RT	1	EQUIPMENT AT STH 77 INTERSECTION
ITEM TOTAL		1	

CONCRETE PAVEMENT REPAIR

STATION	-	STATION	LOCATION	*	*	SPV.0180.01	SPV.0180.02	*	REMARKS
				416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR DOWELED SPECIAL SY	CONCRETE PAVEMENT REPLACEMENT DOWELED SPECIAL SY	690.0250 SAWING CONCRETE LF	
PROJECT 1198-00-76									
USH 53									
SEGMENT 1									
625+00	-	727+50	LT/RT	280	800	1000		2800	CONCRETE REPAIRS
625+00	-	727+50	LT/RT	1400	2800		5000	11000	CONCRETE REPLACEMENTS
PROJECT TOTALS (1198-00-76; USH 53)				1680	3600	1000	5000	13800	

* QUANTITY ALSO SHOWN ELSEWHERE

PROJECT NO: 1198-00-76

HWY: USH 53

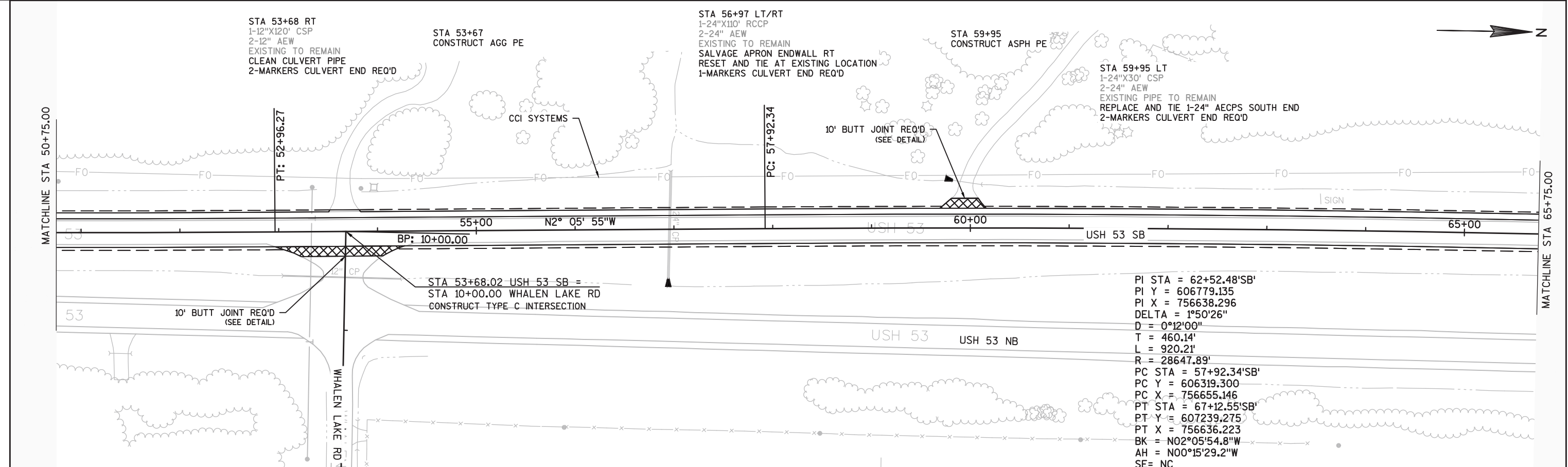
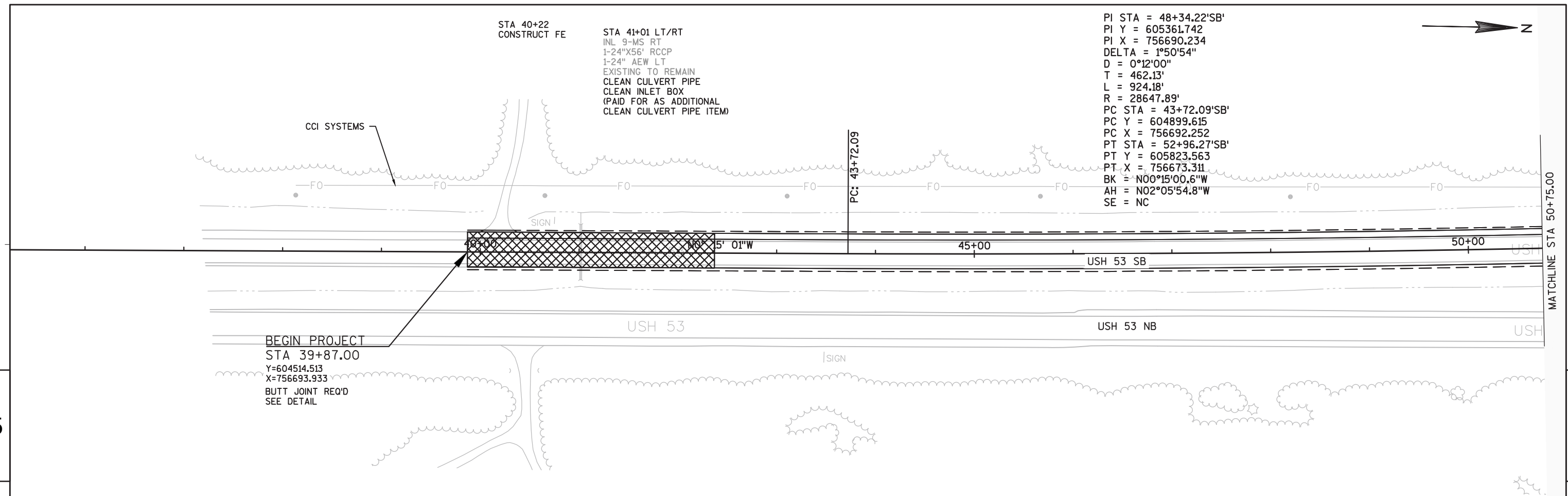
COUNTY: WASHBURN/DOUGLAS

MISCELLANEOUS QUANTITIES

SHEET

75

E



STA 70+93 LT/RT
1-24"X66' RCCP
2-24" AEW
EXISTING PIPE TO REMAIN
REPLACE AND TIE 2-24" AECPRC
2-MARKERS CULVERT END REQ'D

CCI SYSTEMS

BEGIN CONSTRUCTION
STA 18+67
BUTT JOINT REQ'D
SEE DETAIL

STA 79+88.88 USH 53 SB =
STA 20+00.00 BARRETT RD
CONSTRUCT TYPE B2 INTERSECTION

END CONSTRUCTION
STA 21+21
BUTT JOINT REQ'D
SEE DETAIL

EP: 21+20.38

CENTURYLINK

STA 88+19 LT/RT
INL 9-MS RT
1-24"X138' RCCP
1-24" AEW LT
EXISTING TO REMAIN
CLEAN CULVERT PIPE
1-MARKERS CULVERT END REQ'D
CLEAN INLET BOX (PAID FOR
AS ADDITIONAL CLEAN CULVERT
PIPE ITEM)

CCI SYSTEMS

STA 90+26
CONSTRUCT FE

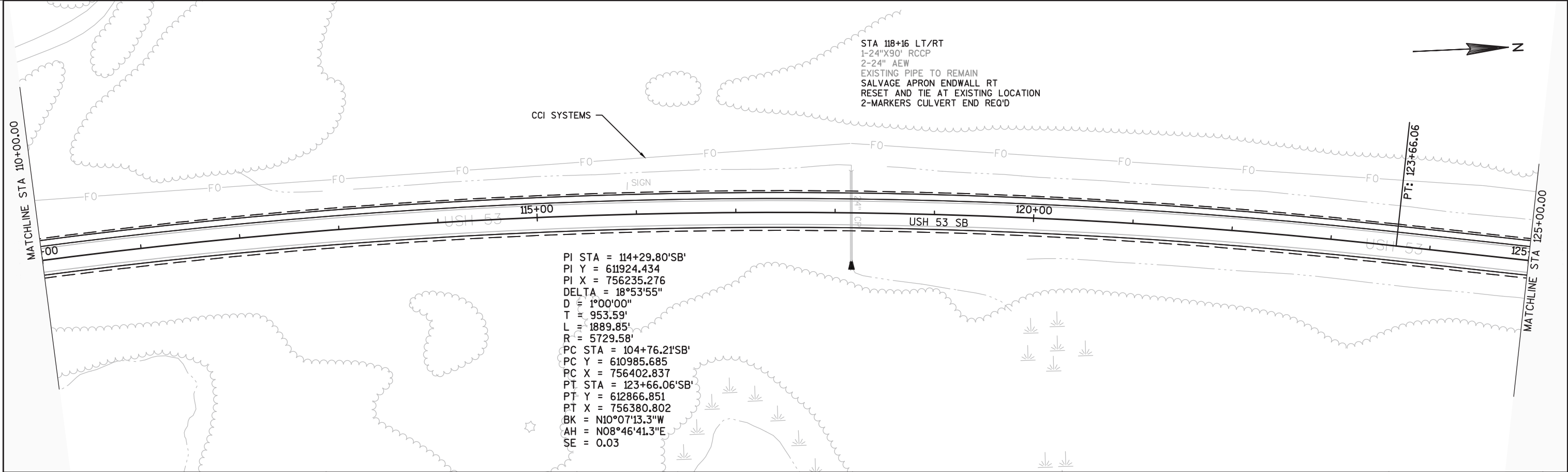
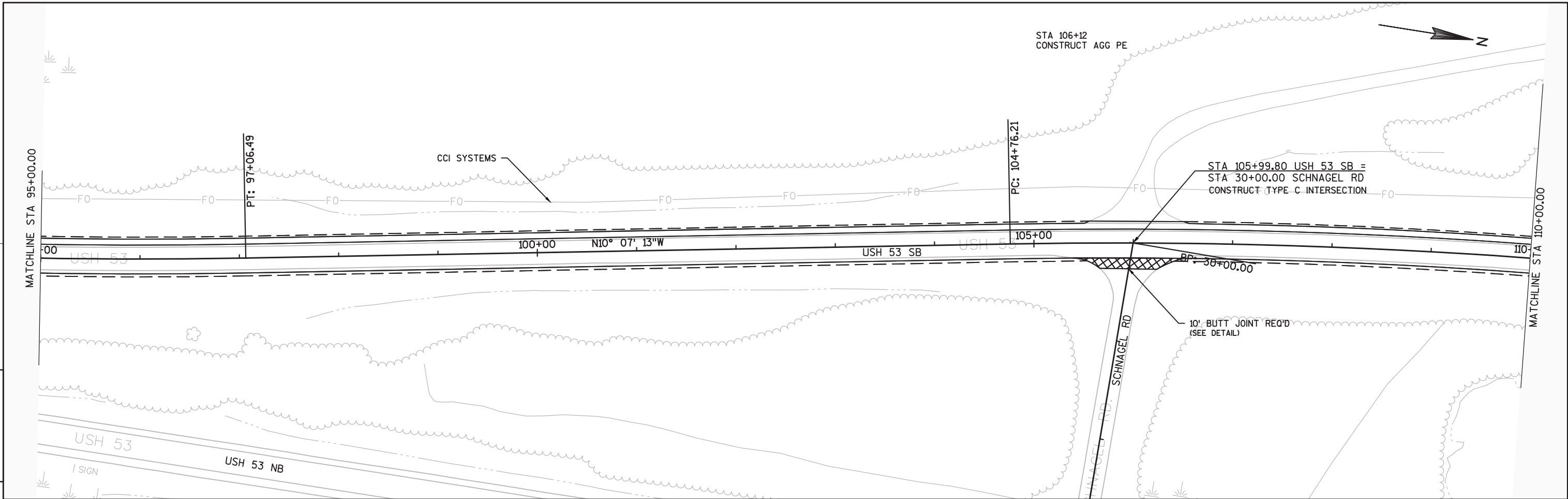
PI STA = 92+14.60'SB'
PI Y = 609741.302
PI X = 756624.951
DELTA = 9°51'44"
D = 1°00'00"
T = 494.33'
L = 986.22'
R = 5729.58'
PC STA = 87+20.27'SB'
PC Y = 609246.974
PC X = 756627.178
PT STA = 97+06.49'SB'
PT Y = 610227.943
PT X = 756538.089
BK = N00°15'29.2"W
AH = N10°07'13.3"W
SE = 0.03

MATCHLINE STA 65+75.00

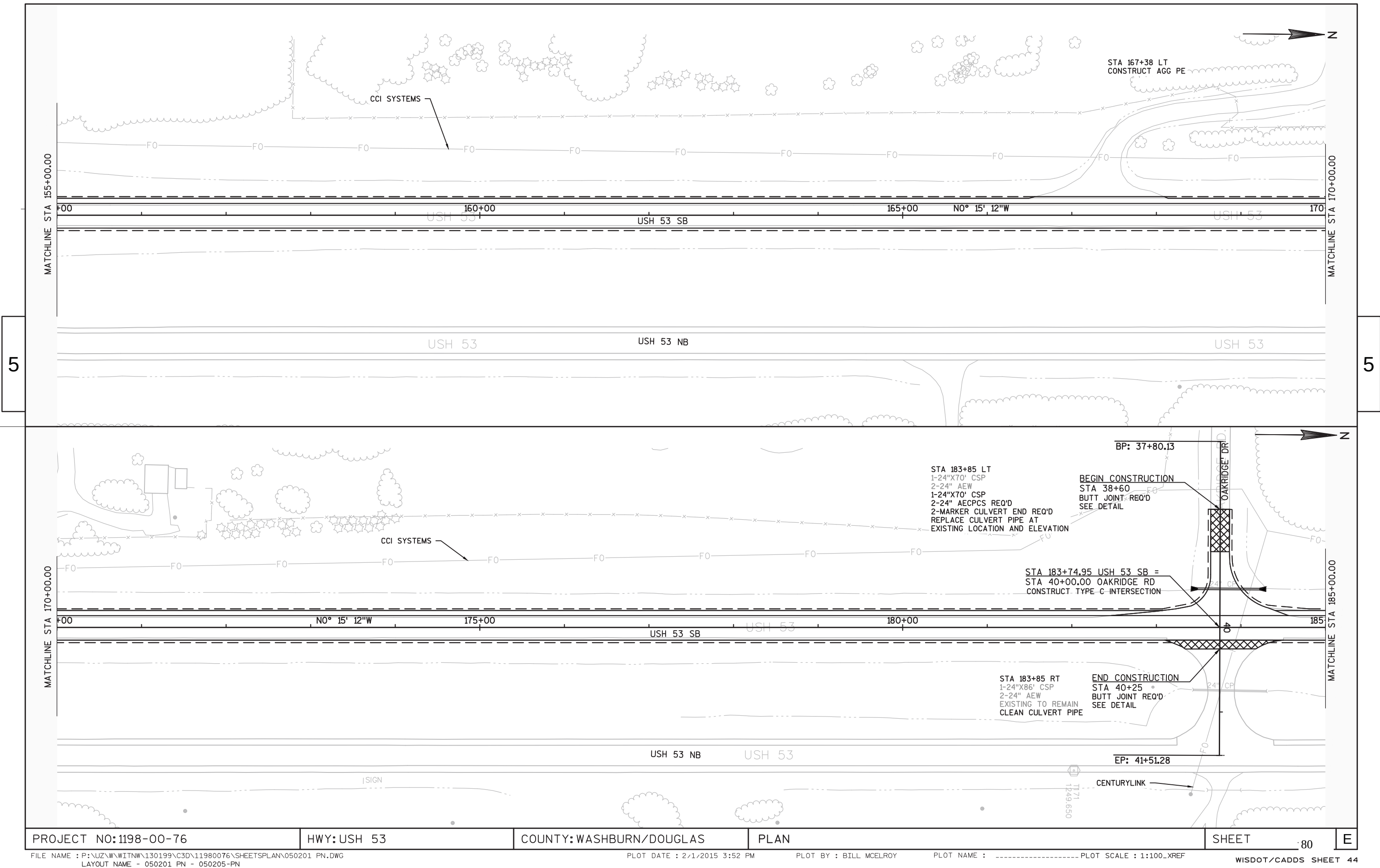
MATCHLINE STA 80+75.00

MATCHLINE STA 80+75.00

MATCHLINE STA 95+00.00



PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PLAN	SHEET 78	E
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STA 190+77 LT/RT
1-24"X110' RCCP
2-24" AEW
EXISTING TO REMAIN
5' DITCH CLEANING LT
5' DITCH CLEANING RT
5.0 CY RIPRAP MEDIUM LT
2-MARKER CULVERT END REQ'D

CCI SYSTEMS

PC: 190+94.65

PT: 199+95.62

Z

1 SIGN

PI STA = 195+45.50'SB'
PI Y = 620033.181
PI X = 756549.230
DELTA = 5°42'22"
D = 0°38'00"
T = 450.86'
L = 900.97'
R = 9046.70'
PC STA = 190+94.65'SB'
PC Y = 619582.327
PC X = 756551.223
PT STA = 199+95.62'SB'
PT Y = 620481.998
PT X = 756592.073
BK = N00°15'11.9"W
AH = N05°27'10.2"E
SE = 0.022

STA 203+42 LT/RT
1-24"X110' RCCP
1-24" AEW
EXISTING TO REMAIN
SALVAGE APRON ENDWALL LT
RESET AND TIE AT EXISTING LOCATION
1-MARKER CULVERT END REQ'D LT

STA 204+71
CONSTRUCT AGG PE

STA 210+16 RT
1-24"X156' RCCP
2-24" AEW
EXISTING TO REMAIN
CLEAN CULVERT PIPE
2-MARKER CULVERT END REQ'D

PC: 211+08.37

Z

10' BUTT JOINT REQ'D
(SEE DETAIL)

205+00N5° 27' 10"E

USH 53 SB

210+00

215+00

USH 53

USH 53 NB

USH

STA 216+39
1-24"x78' RCCP
2-24" AEW
EXISTING TO REMAIN
2-MARKER CULVERT END REQ'D

STA 223+44 LT/RT
1-24"x125' RCCP
1-24" AEW
EXISTING PIPE TO REMAIN
SALVAGE APRON ENDWALL LT
RESET AND TIE AT EXISTING LOCATION
5.0 CY RIPRAP MEDIUM
1-MARKERS CULVERT END REQ'D

STA 223+45
CONSTRUCT AGG PE

PI STA = 215+60.42'SB'
PI Y = 622039.717
PI X = 756740.770
DELTA = 5°43'16"
D = 0°38'00"
T = 452.04'
L = 903.33'
R = 9046.70'
PC STA = 211+08.37'SB'
PC Y = 621589.721
PC X = 756697.814
PT STA = 220+11.71'SB'
PT Y = 622491.753
PT X = 756738.653
BK = N05°27'10.2"E
AH = N00°16'05.8"W
SE = 0.022

SIGN

17348
1172.910

STA 231+52 LT/RT
1-36"x150' RCCP
1-36" AEW
SALVAGE APRON ENDWALL LT
RESET AND TIE AT EXISTING LOCATION
CLEAN CULVERT PIPE
1-MARKER CULVERT END REQ'D

STA 235+47 LT/RT
1-24"x88' RCCP
2-24" AEW REQ'D
EXISTING TO REMAIN
SALVAGED APRON ENDWALL RT
SALVAGE 8' SECTION OF PIPE RT
RESET AND TIE PIPE AND AEW RT
2-MARKERS CULVERT END REQ'D

CCI SYSTEMS

PI STA = 234+28.38'SB'
PI Y = 623908.409
PI X = 756732.020
DELTA = 0°01'58"
D = 0°12'00"
T = 8.17'
L = 16.34'
R = 28647.89'
PC STA = 234+20.21'SB'
PC Y = 623900.239
PC X = 756732.058
PT STA = 234+36.55'SB'
PT Y = 623916.580
PT X = 756731.987
BK = N00°16'05.8"W
AH = N00°14'08.1"W
SE = NC

STA 236+43 RT
1-18"x88' CSP
2-18" AEW
EXISTING TO REMAIN
CLEAN CULVERT PIPE
2-MARKERS CULVERT END REQ'D

10' BUTT JOINT REQ'D
(SEE DETAIL)

18" CP

18" CP

PROJECT NO:1198-00-76

HWY:USH 53

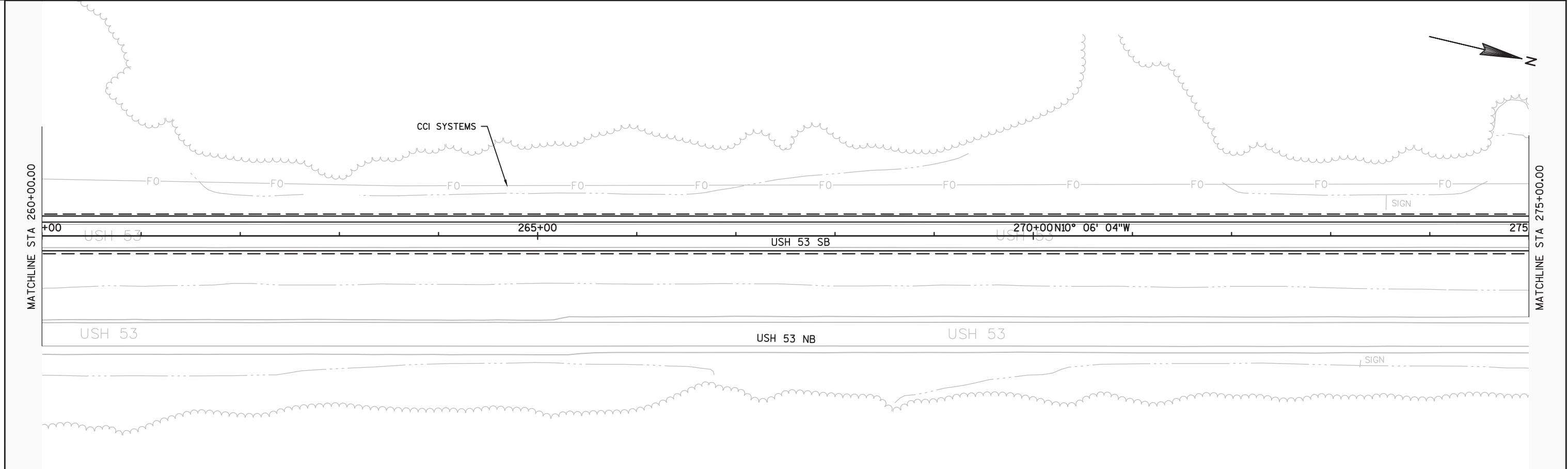
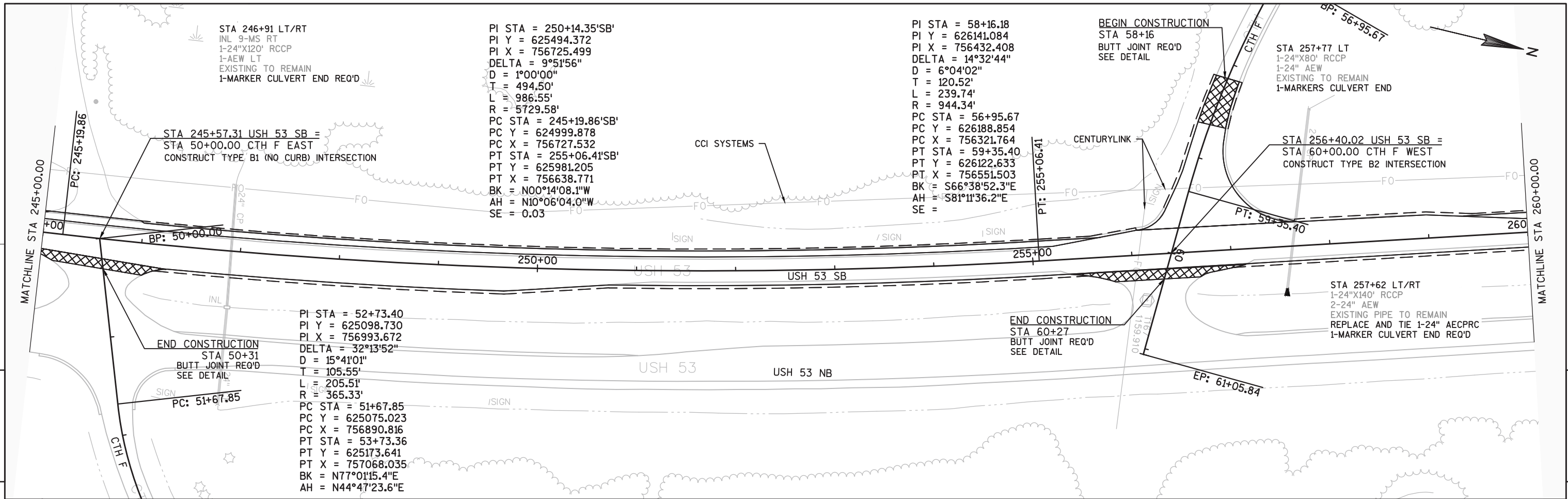
COUNTY:WASHBURN/DOUGLAS

PLAN

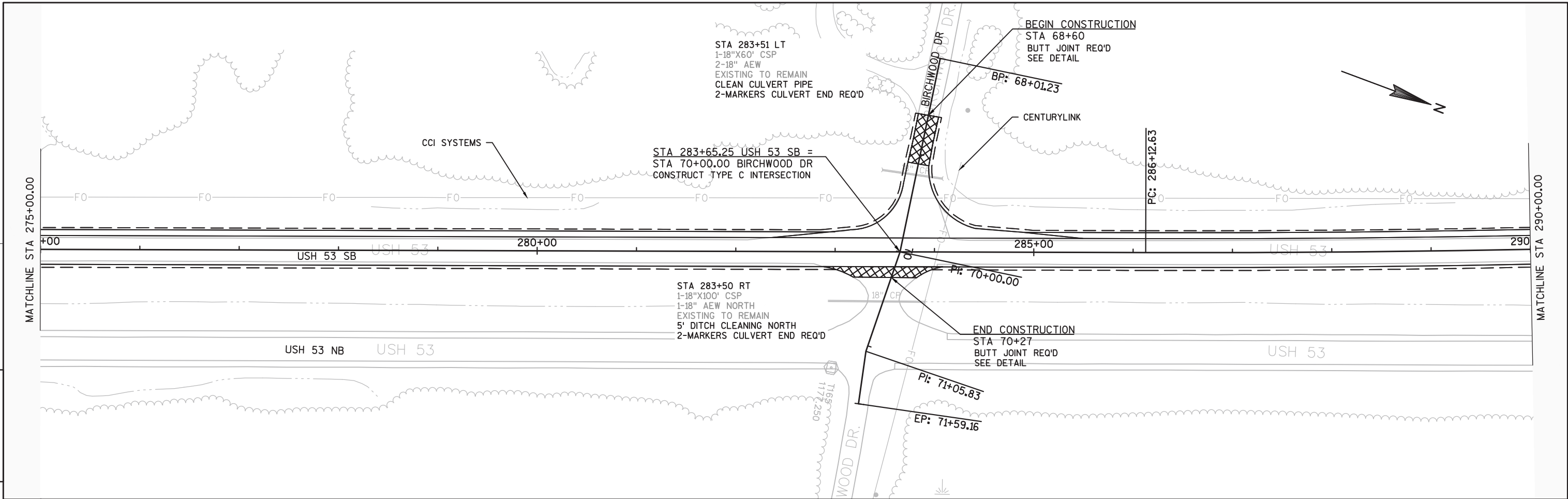
SHEET

82

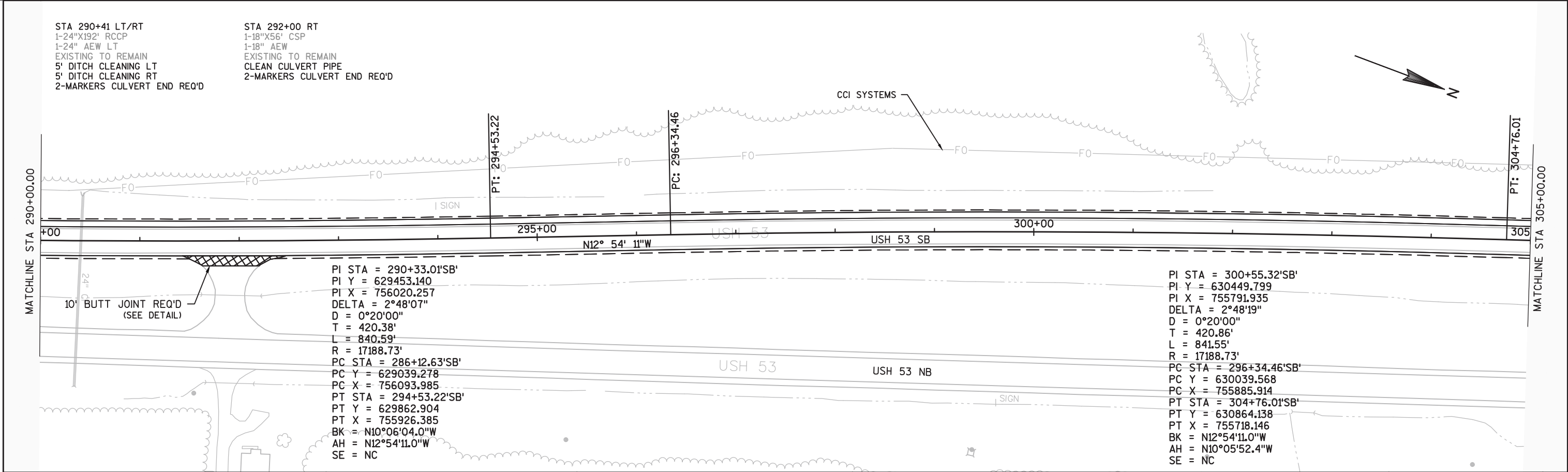
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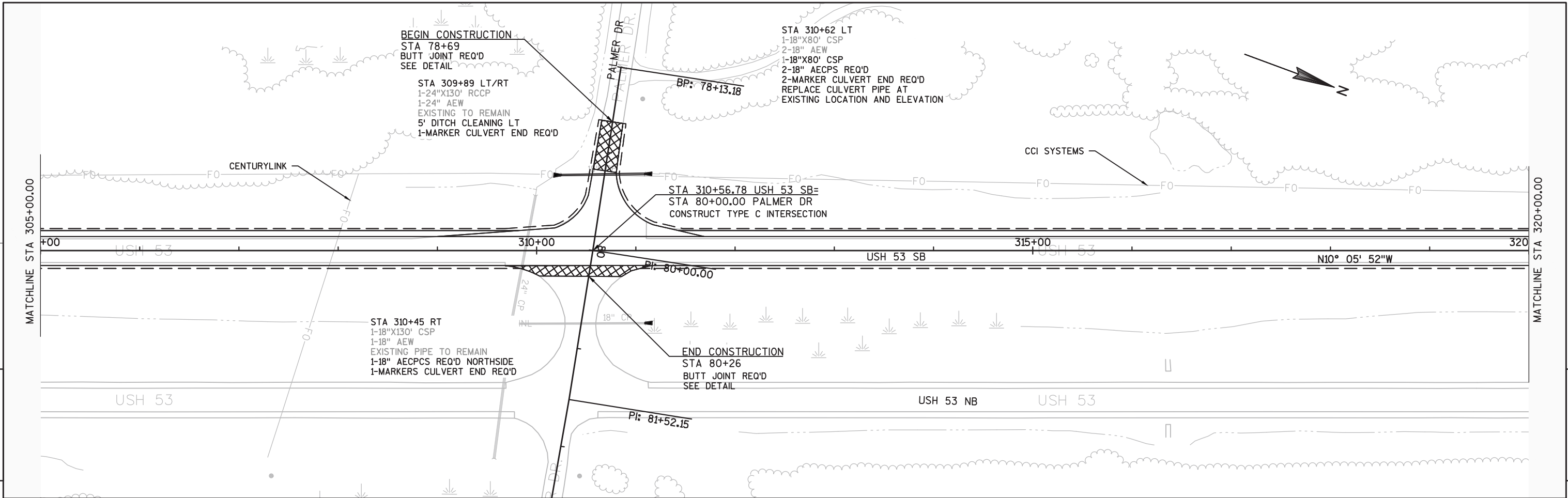
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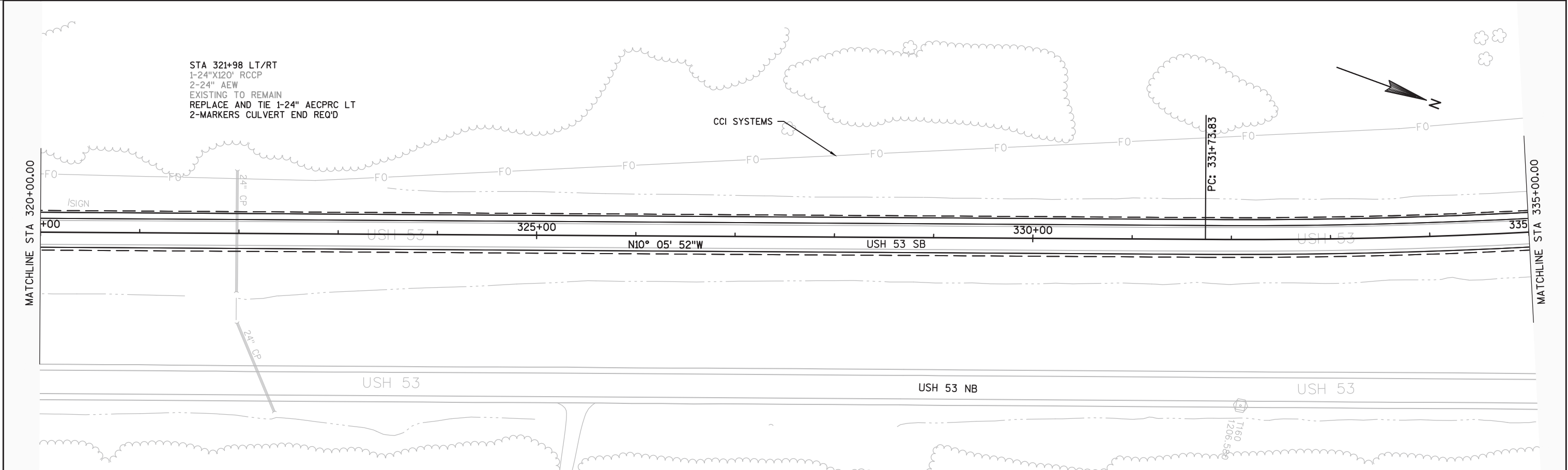
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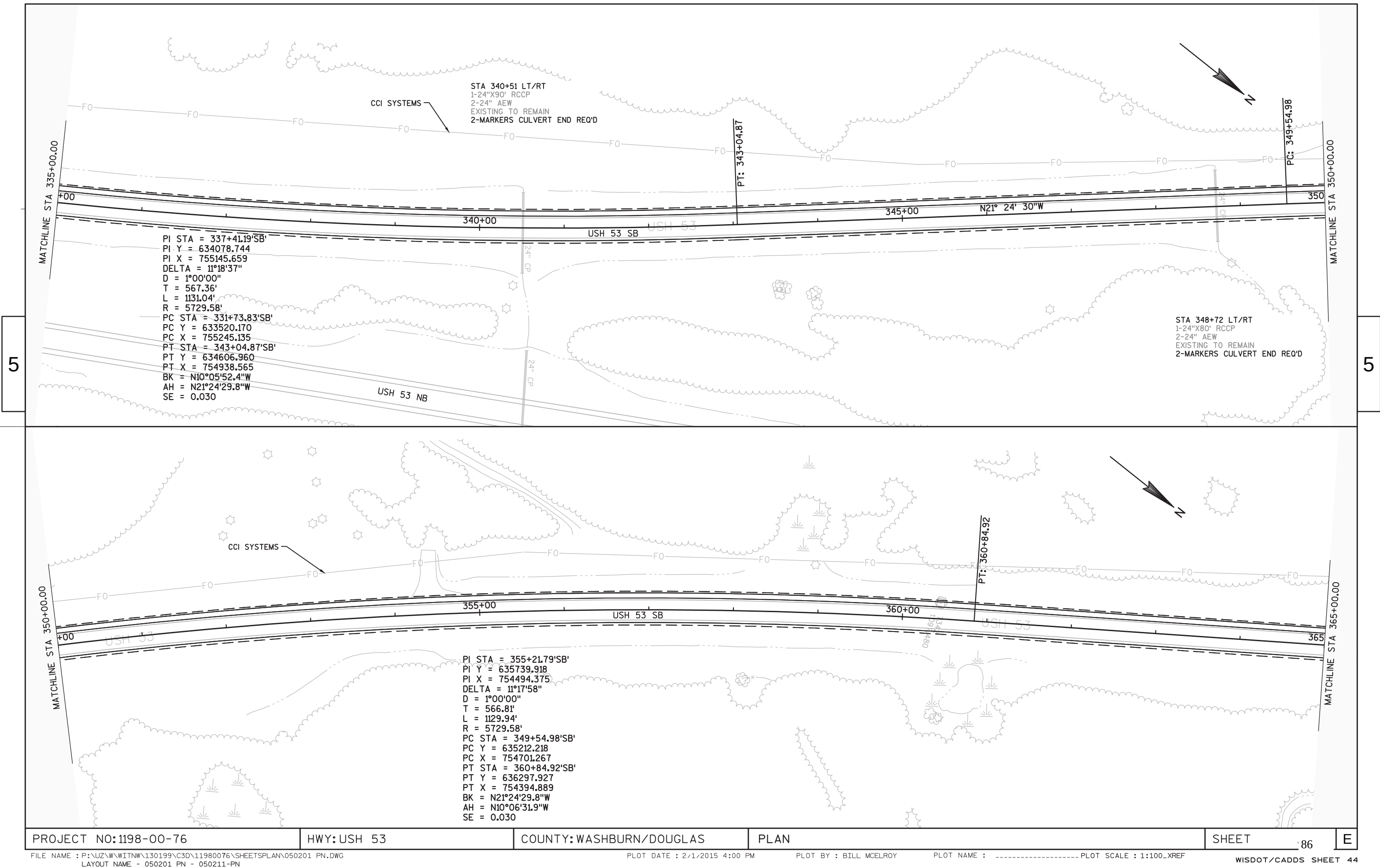
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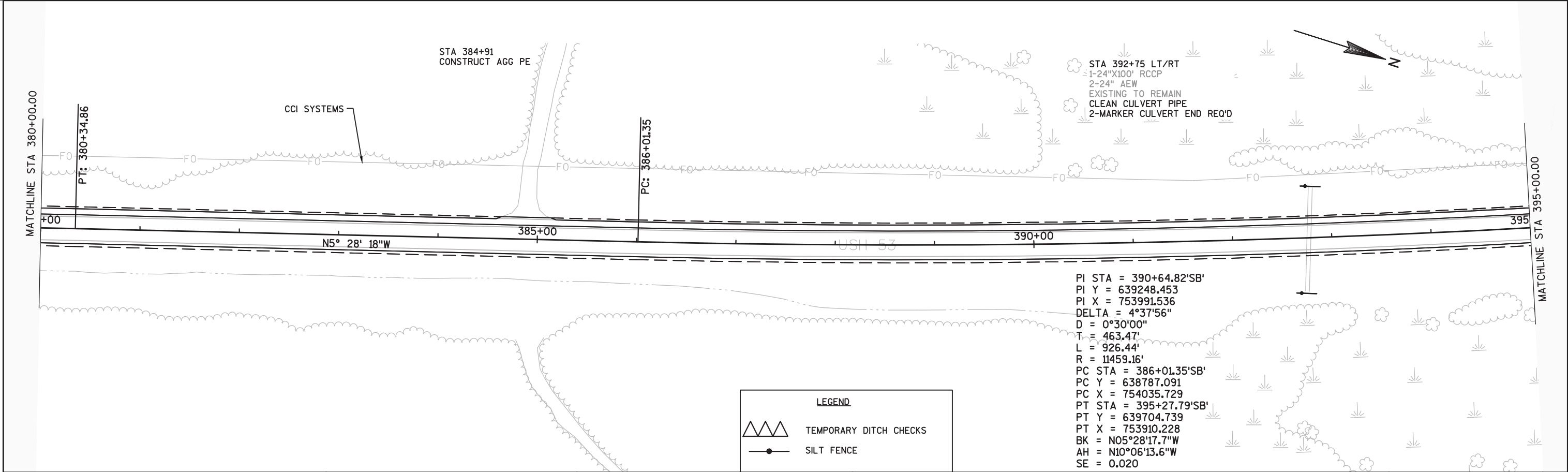
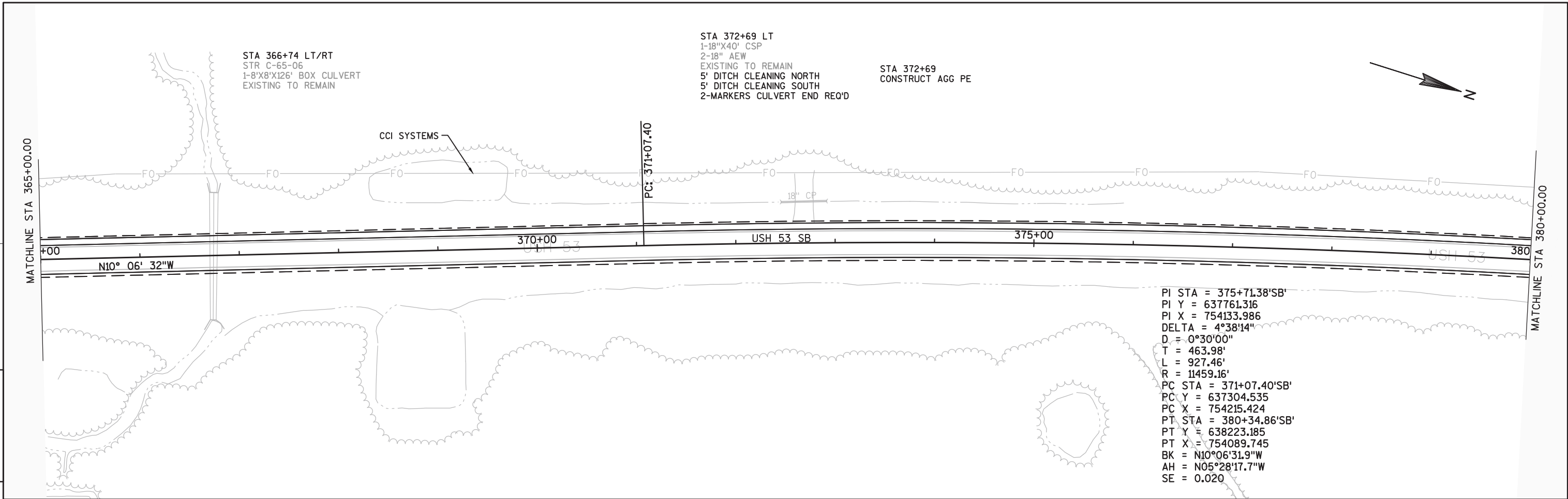


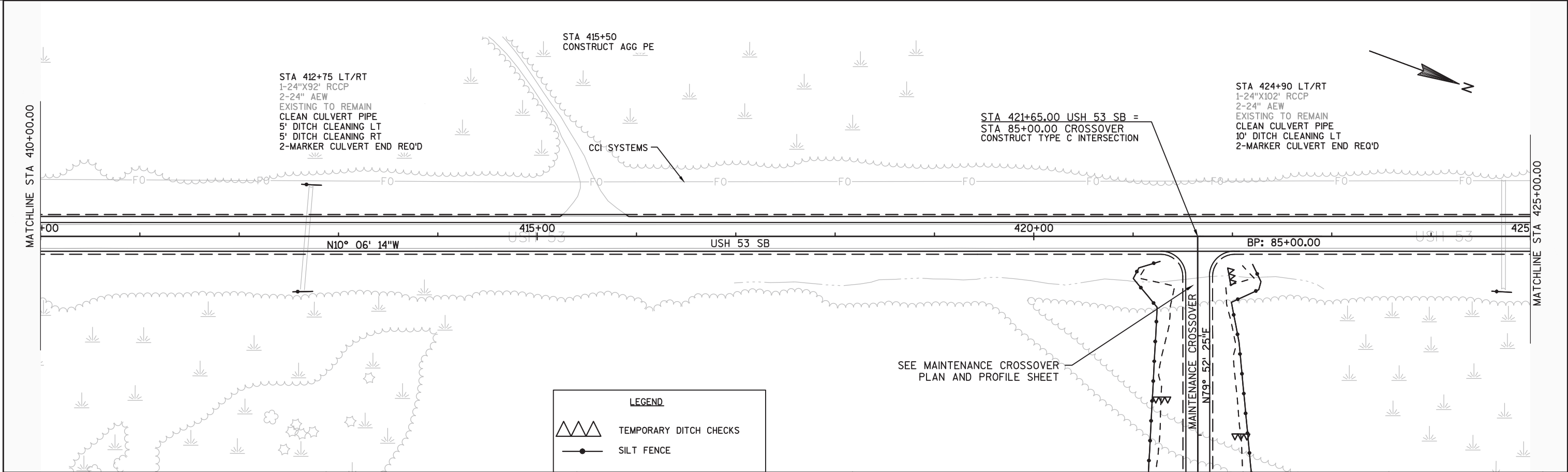
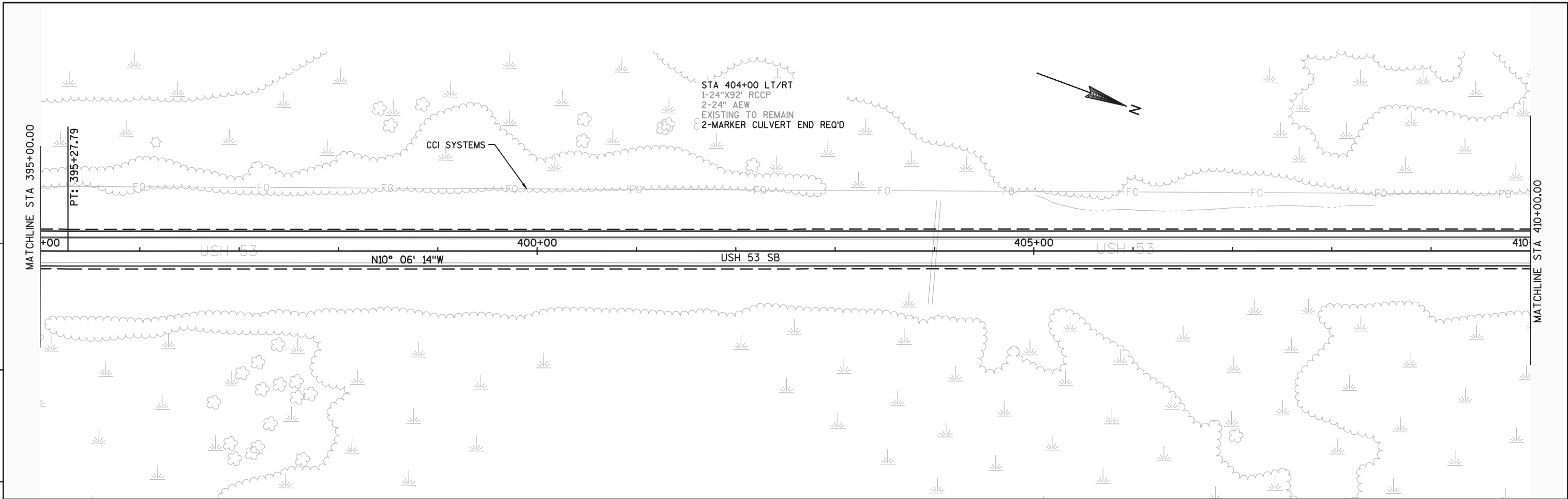
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PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PLAN	SHEET	85	E
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LEGEND



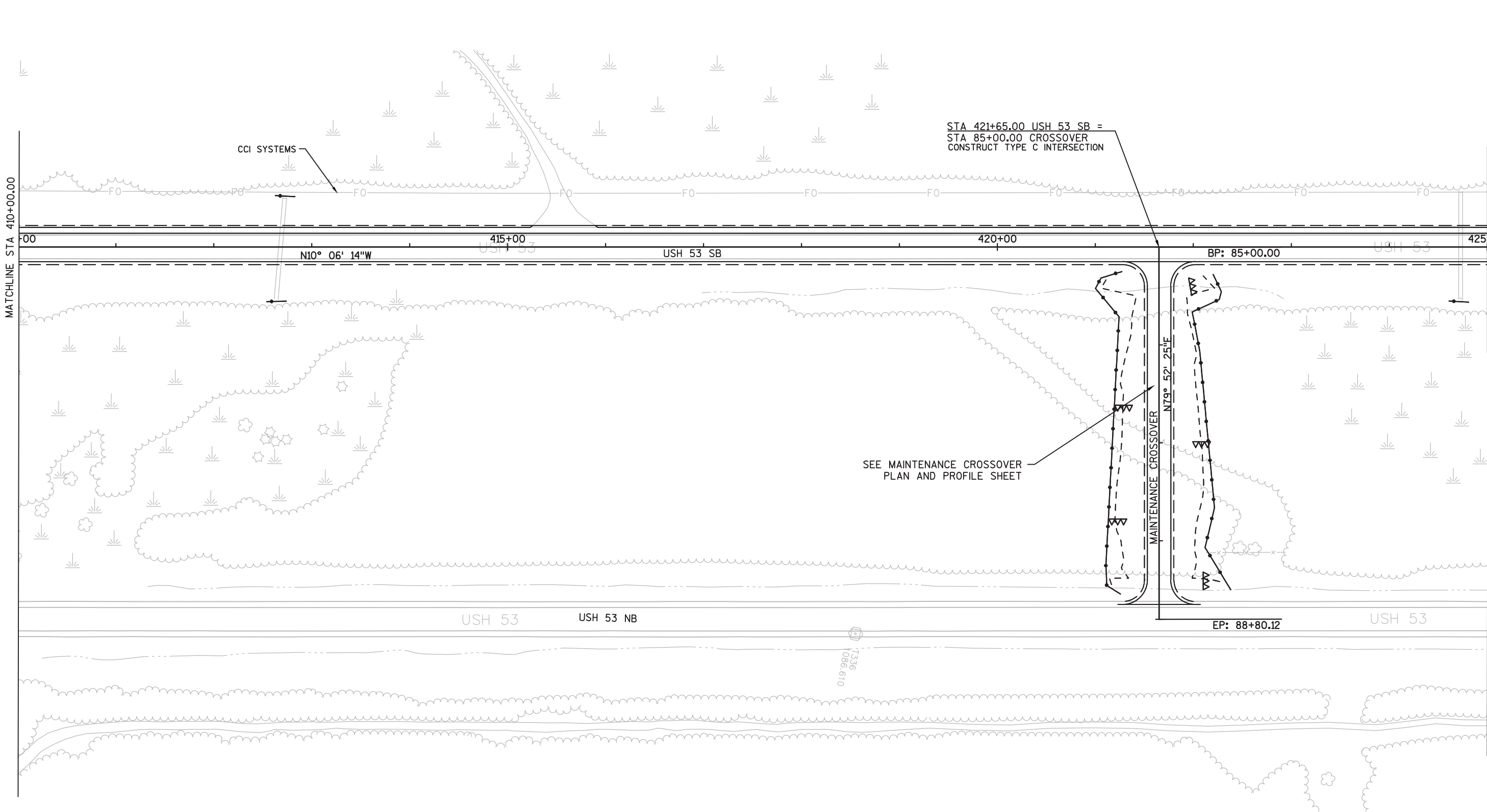
TEMPORARY DITCH CHECKS



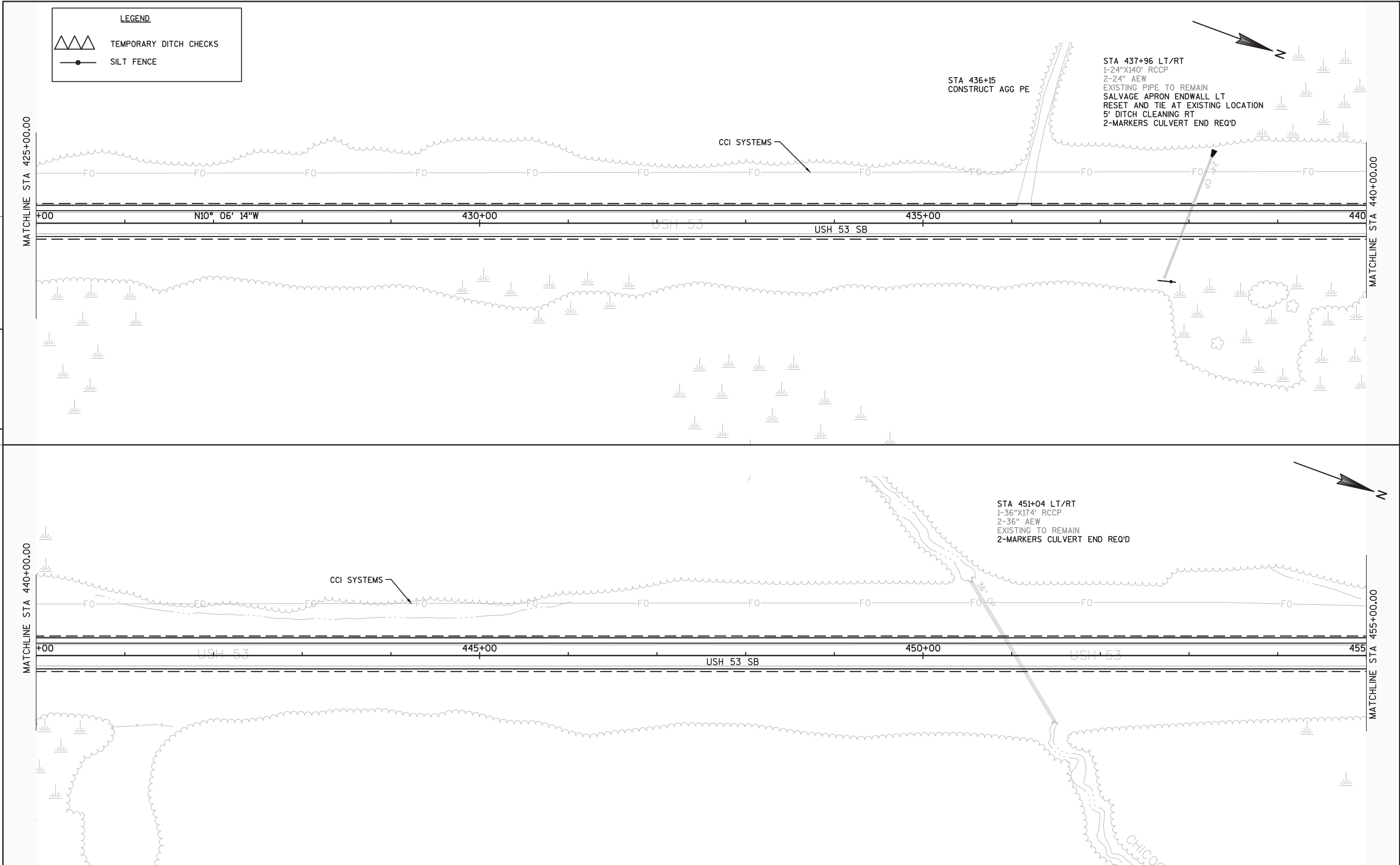
SILT FENCE

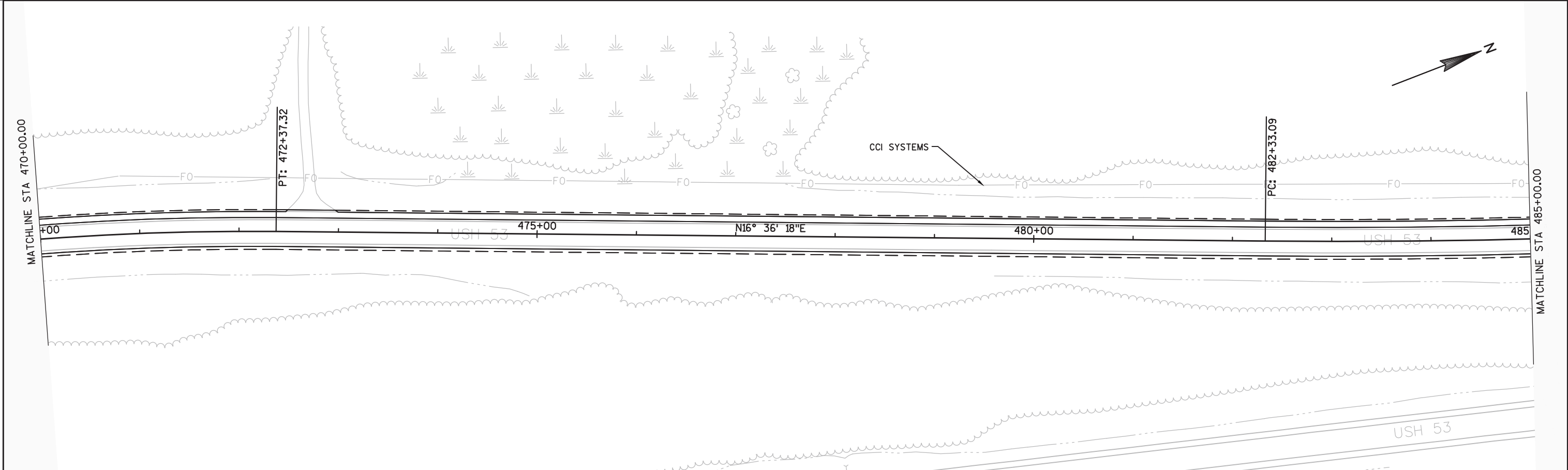
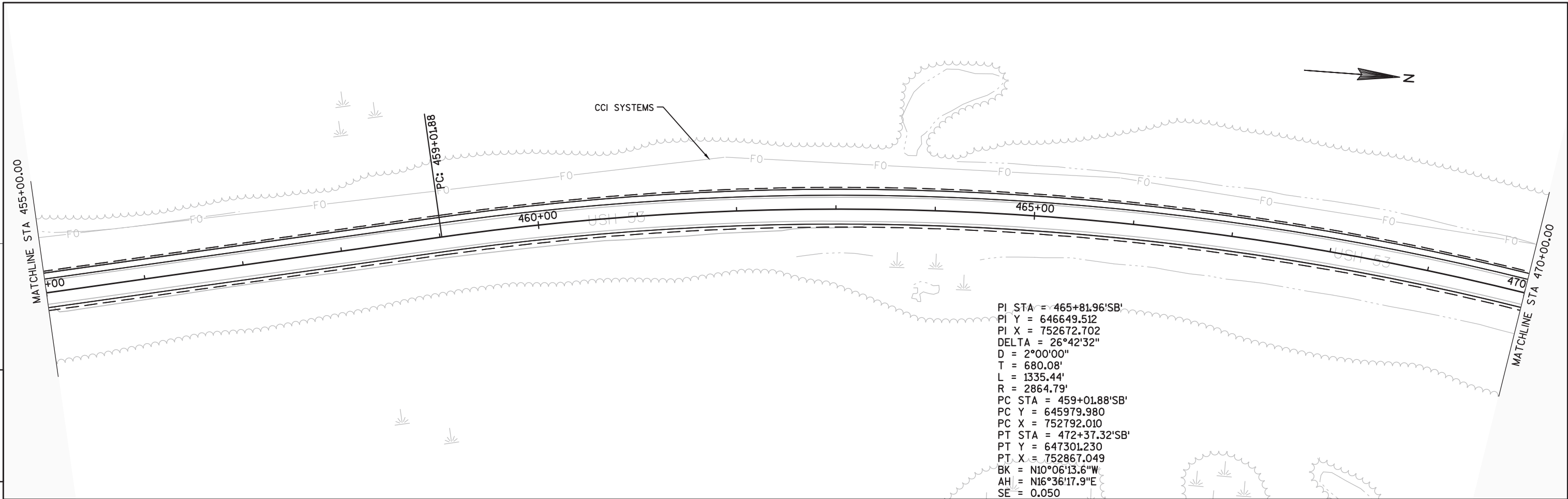


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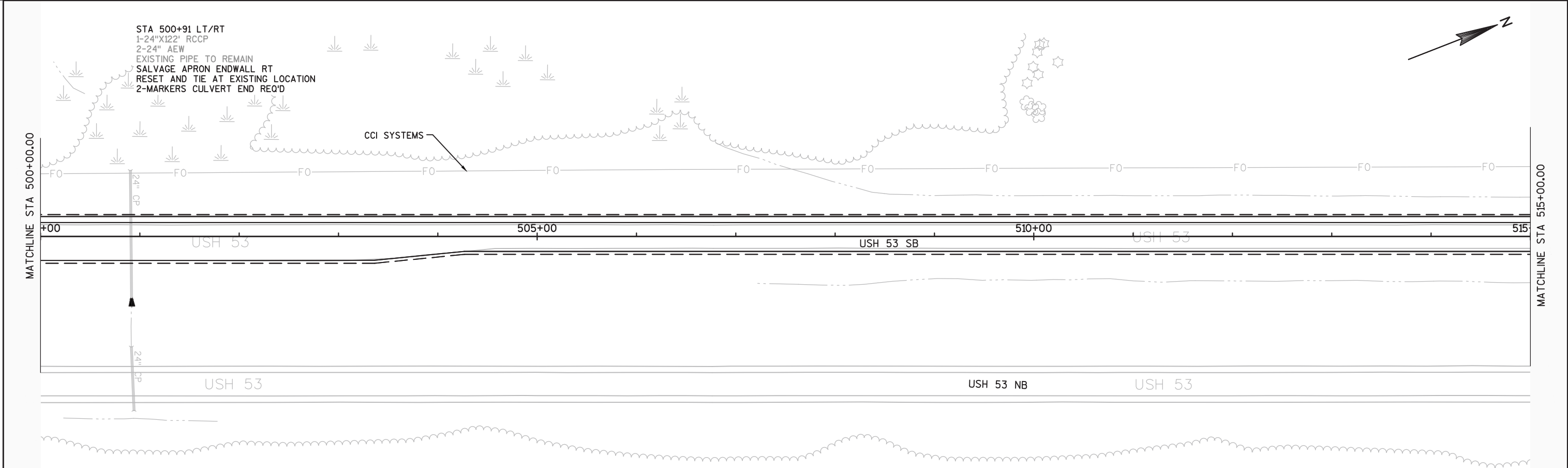
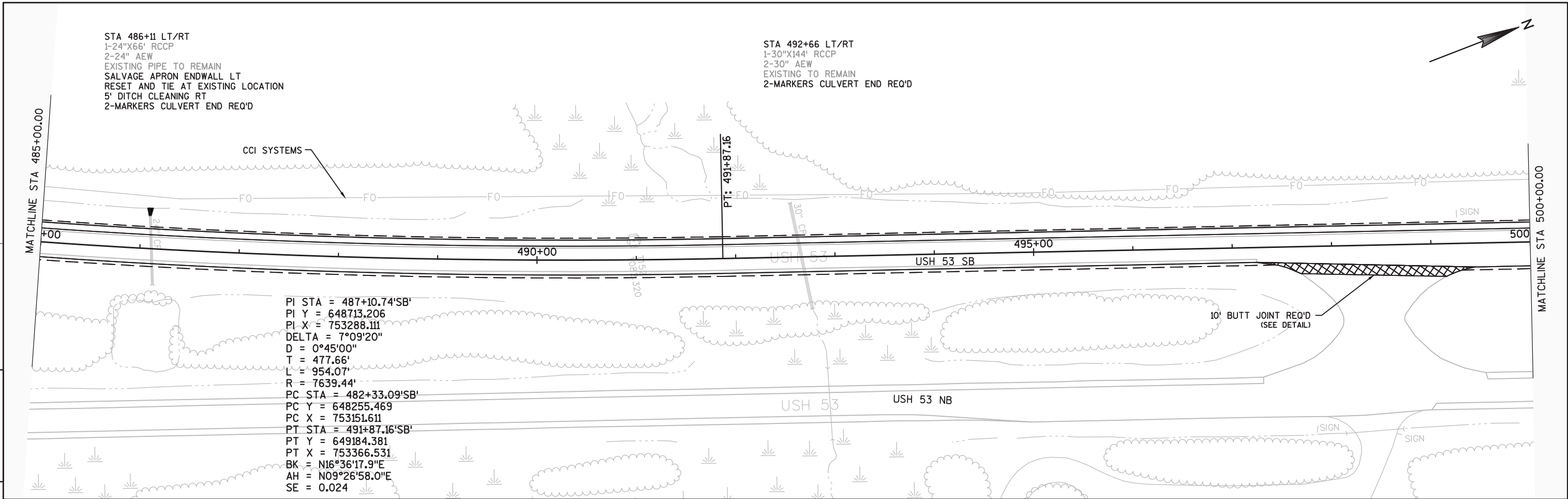


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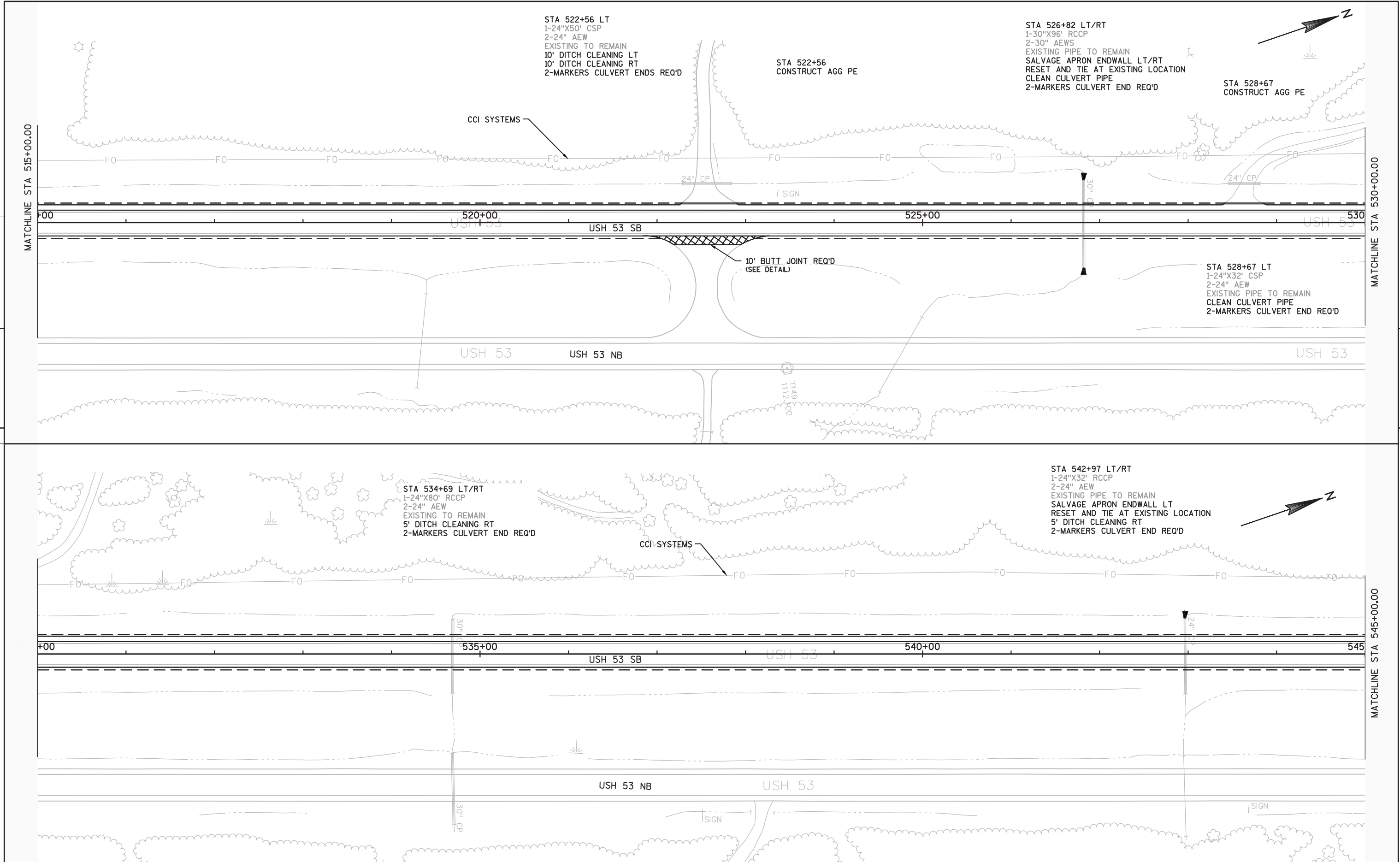




PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PLAN	SHEET 91	E
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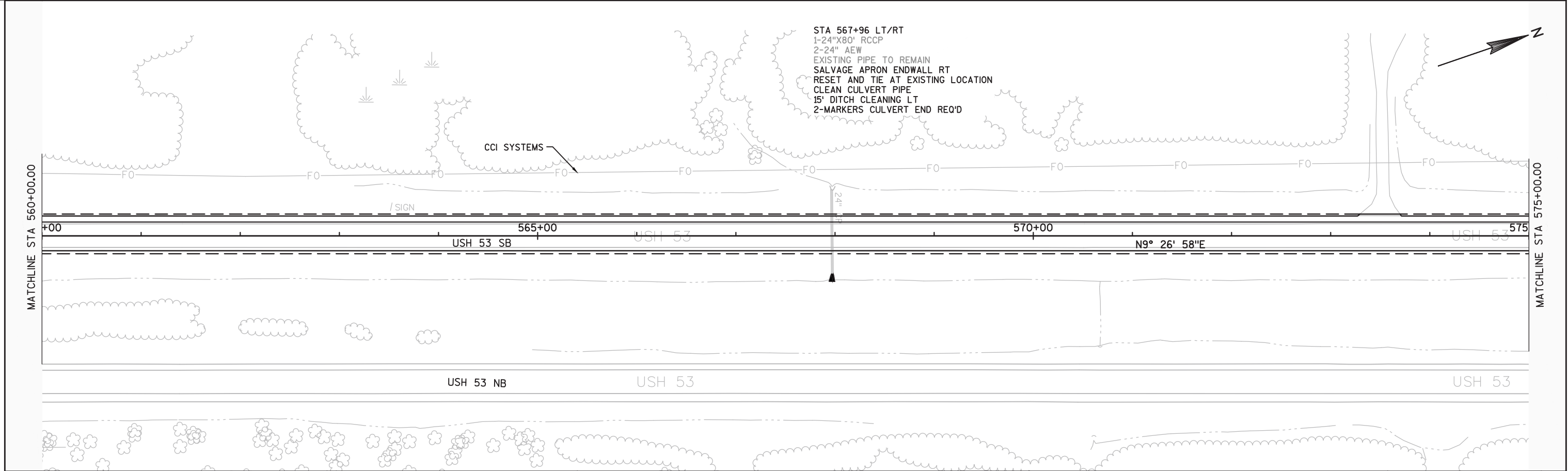
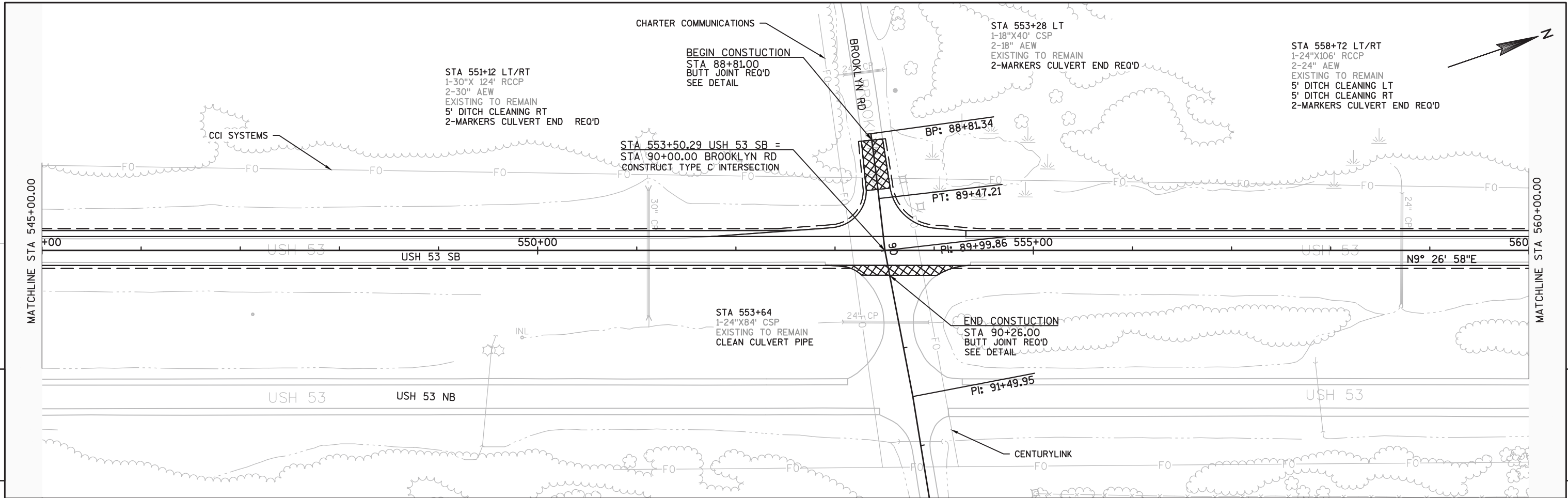


PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PLAN	SHEET .92	E
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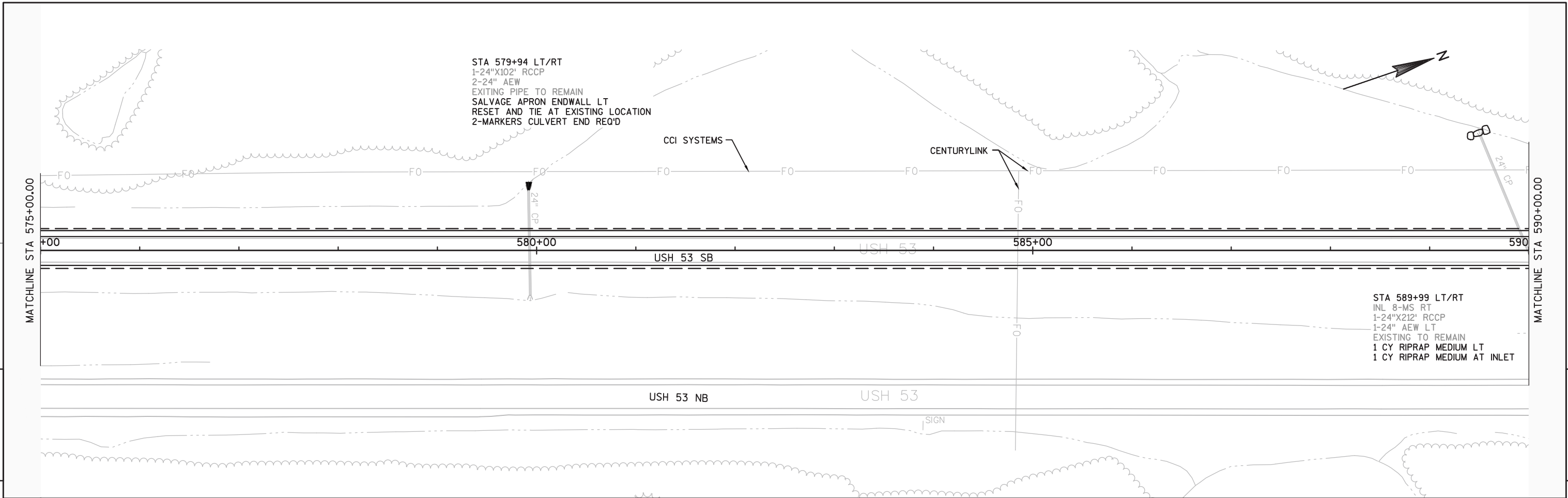


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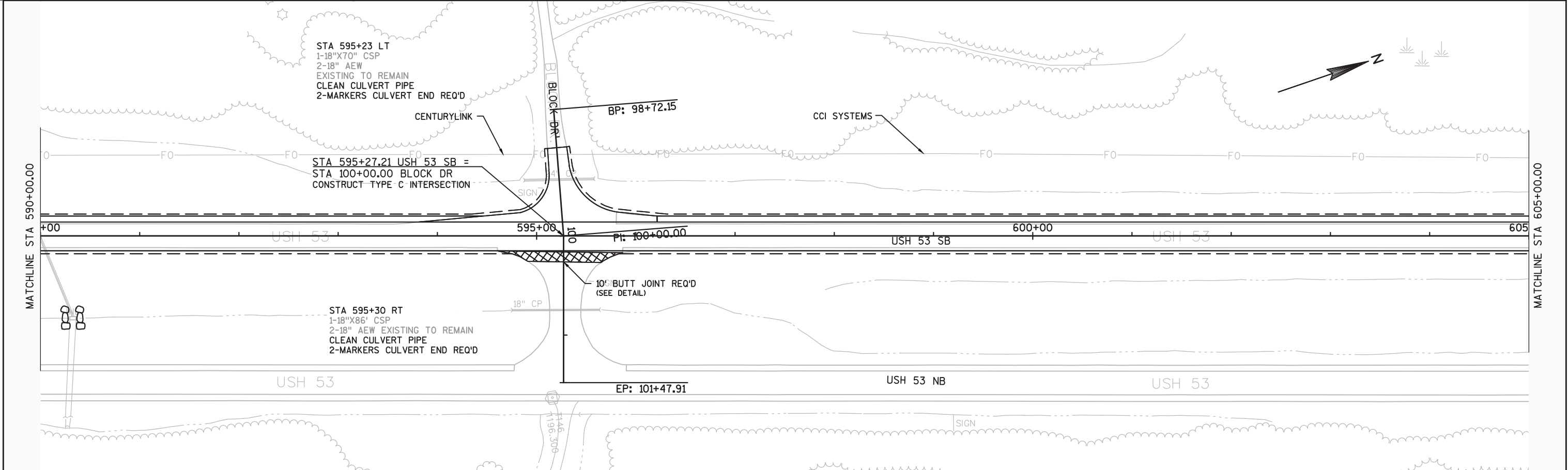
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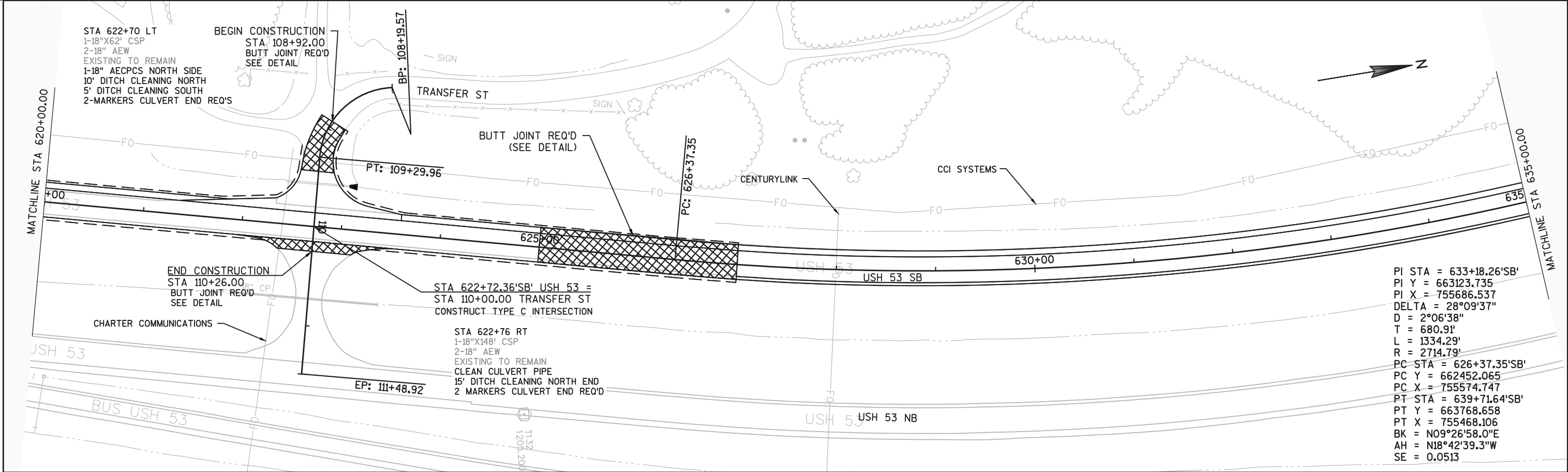
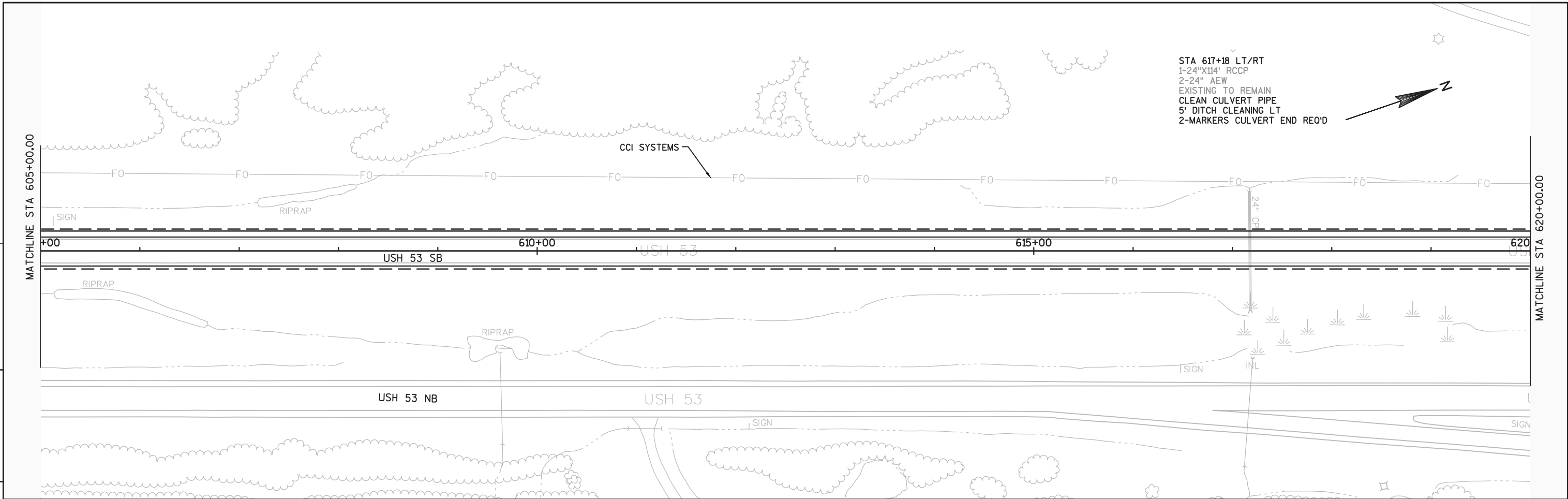
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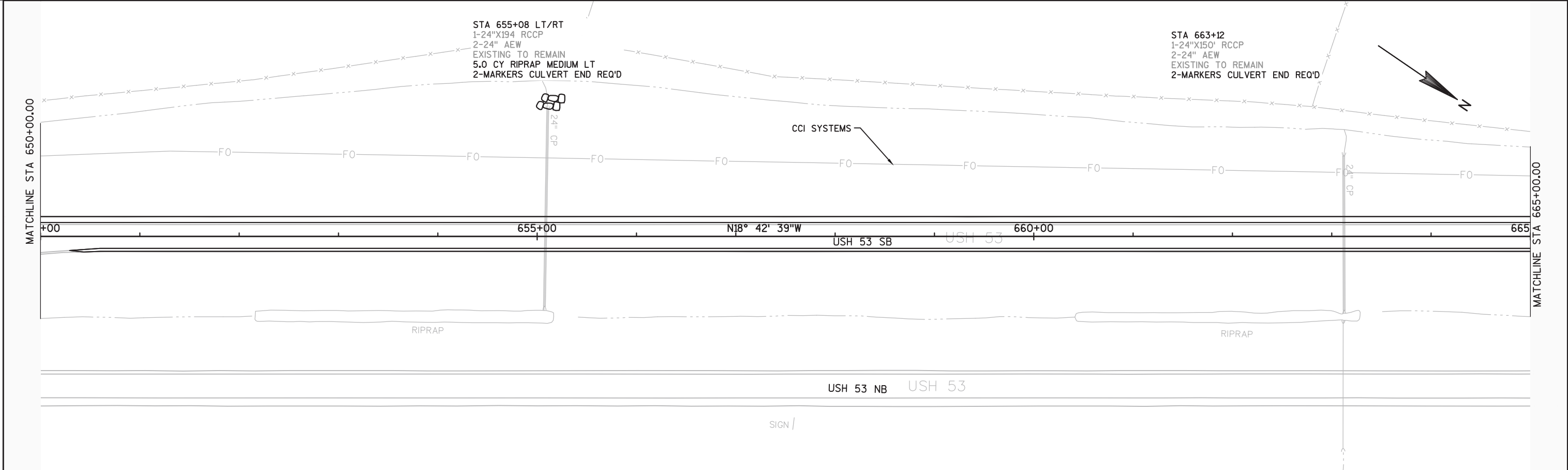
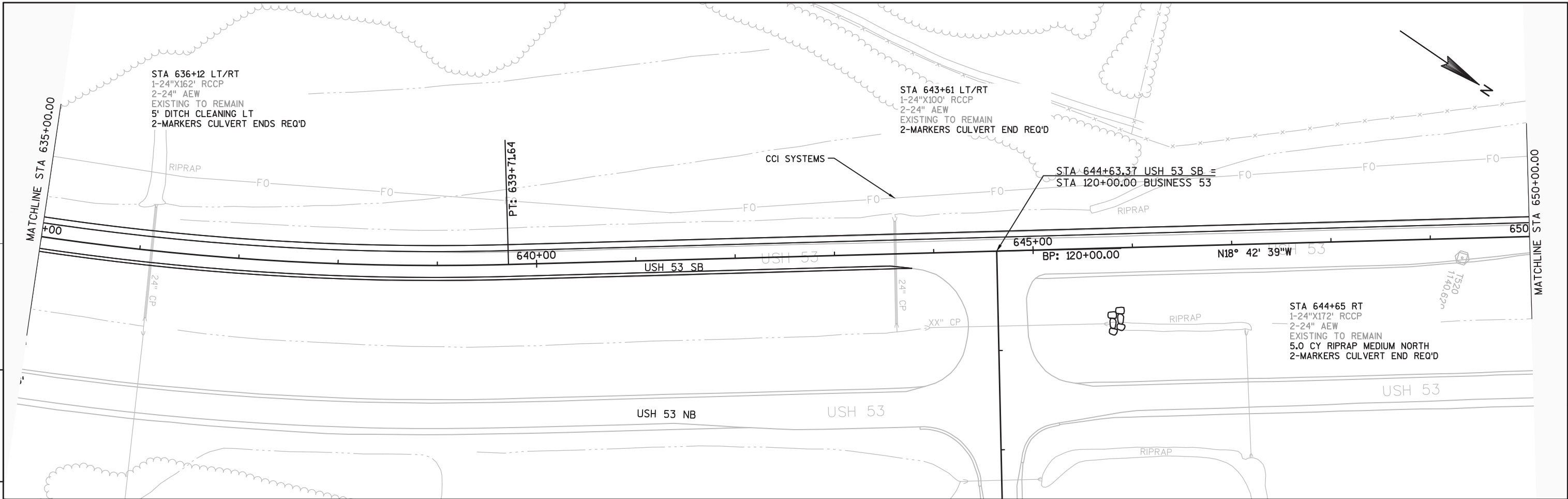


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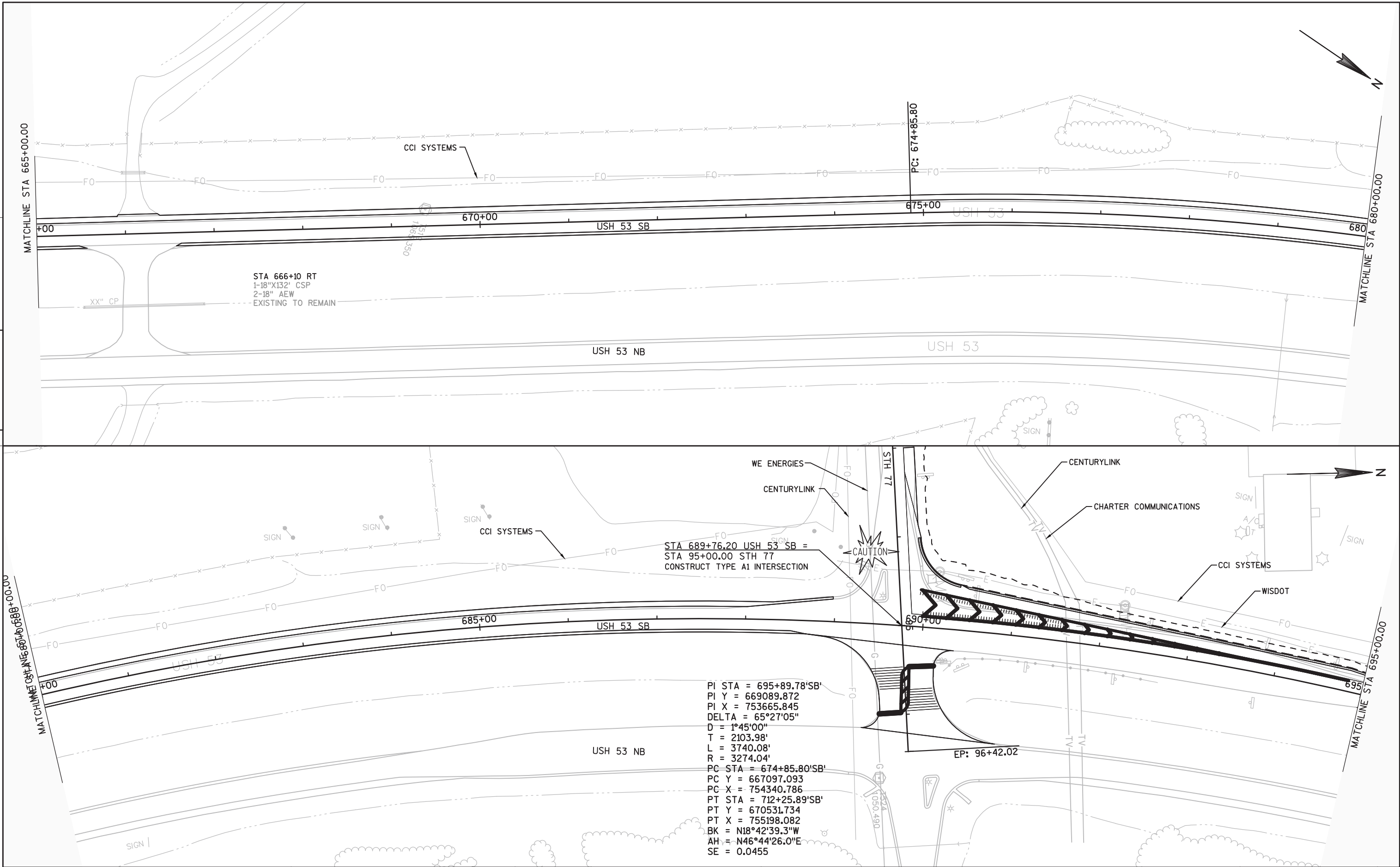


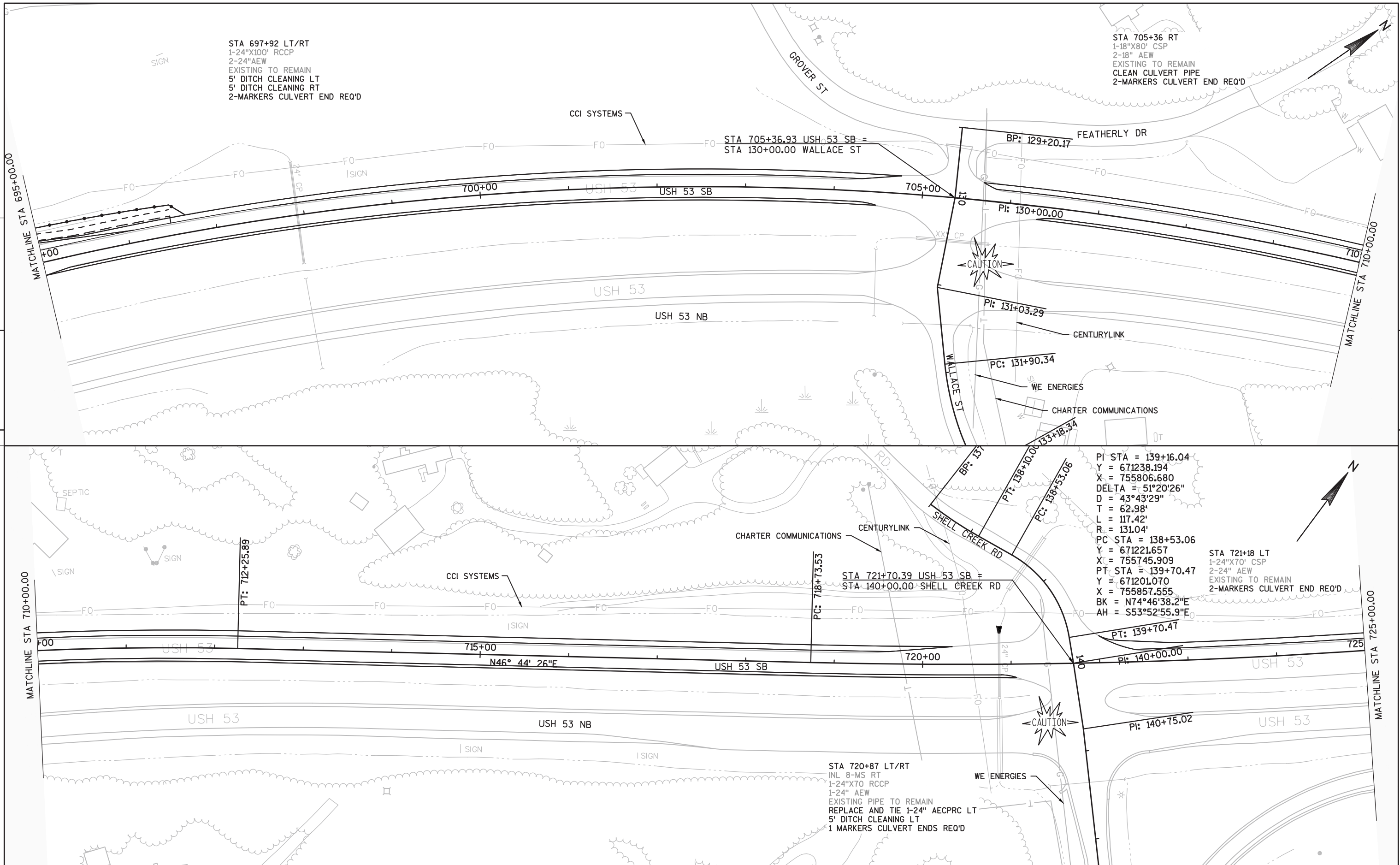
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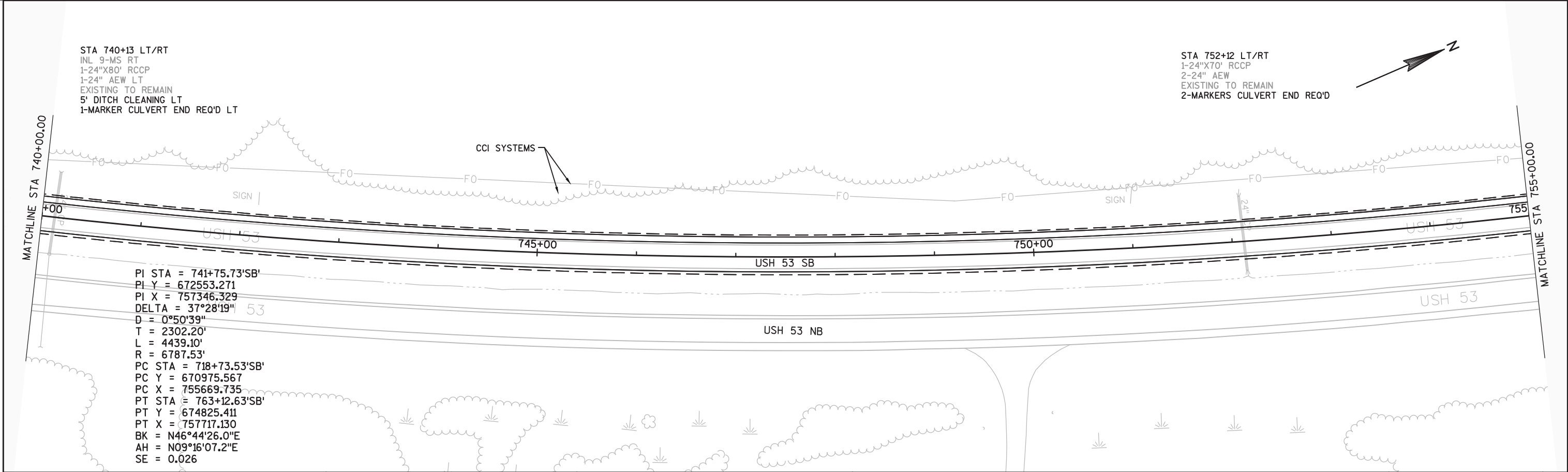
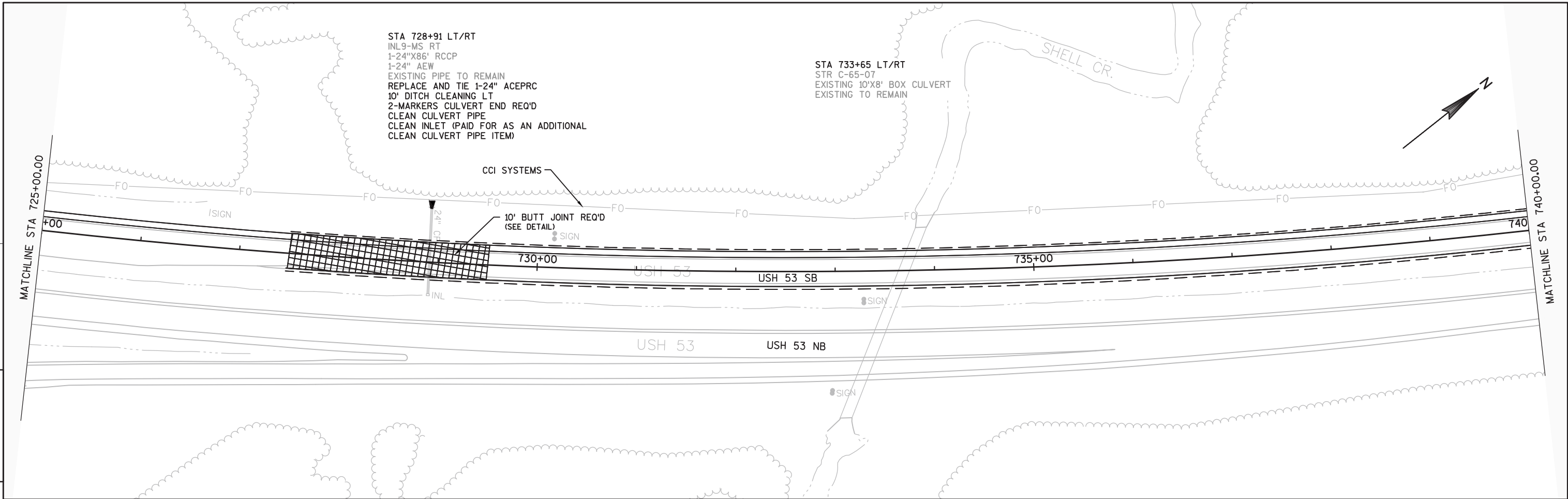




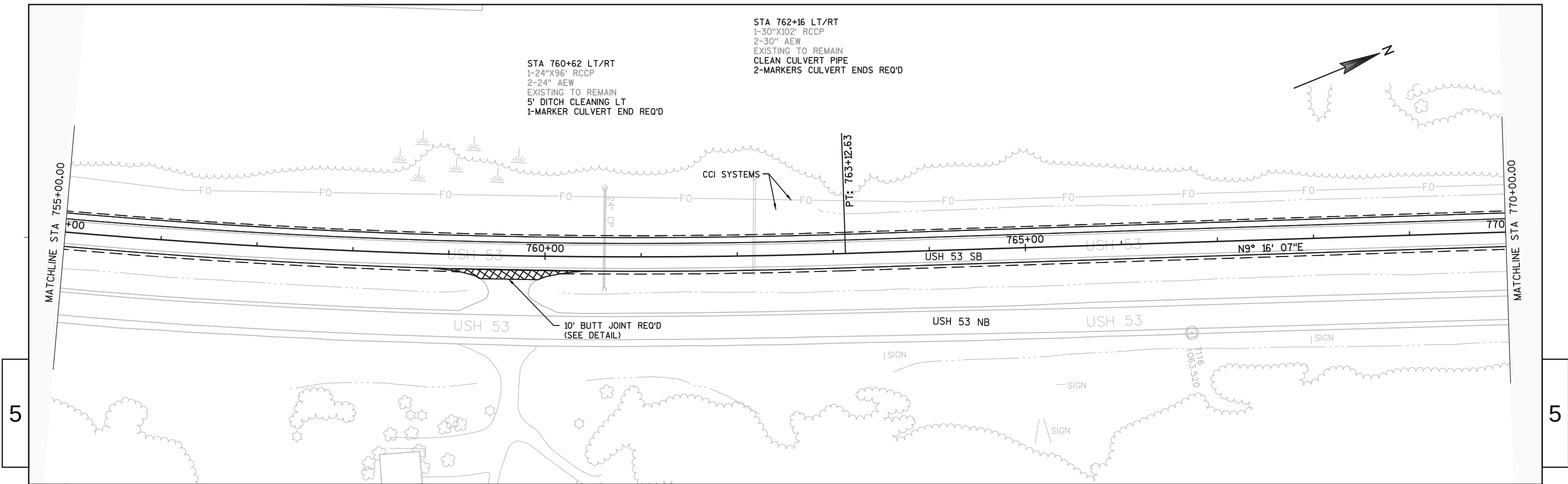
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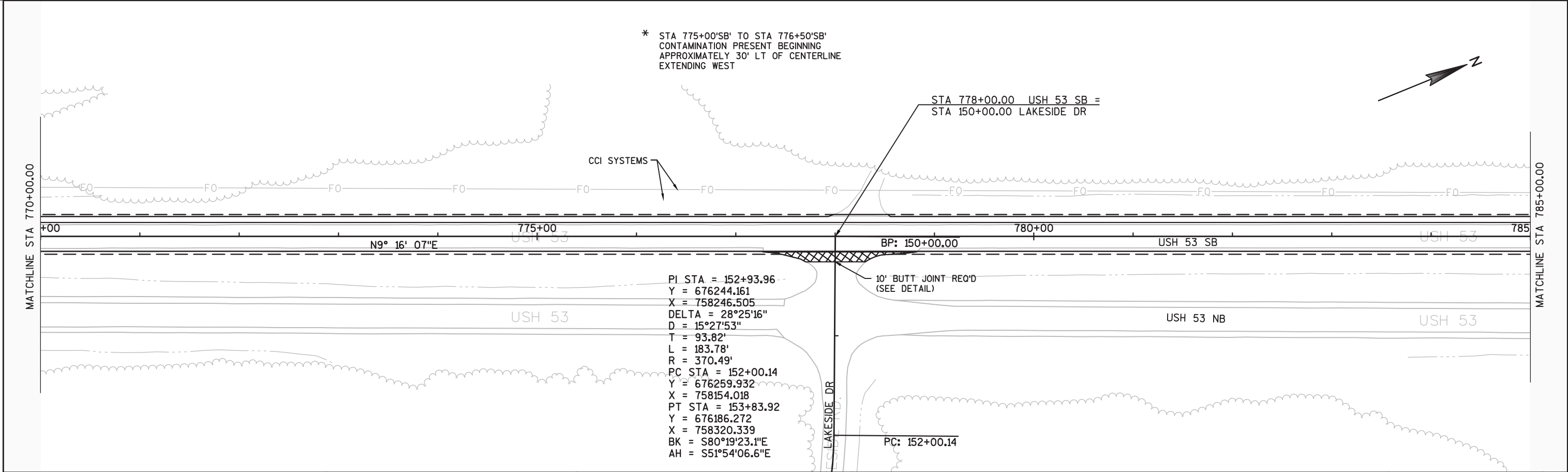


PROJECT NO:1198-00-76	HWY:USH 53	COUNTY:WASHBURN/DOUGLAS	PLAN	SHEET 100	E
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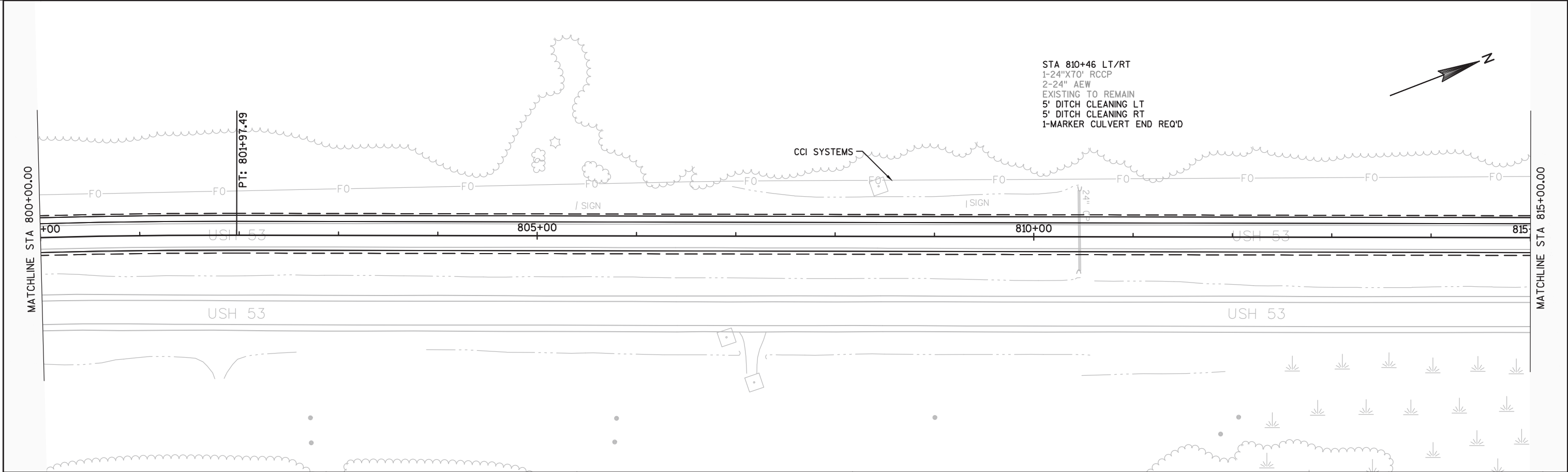
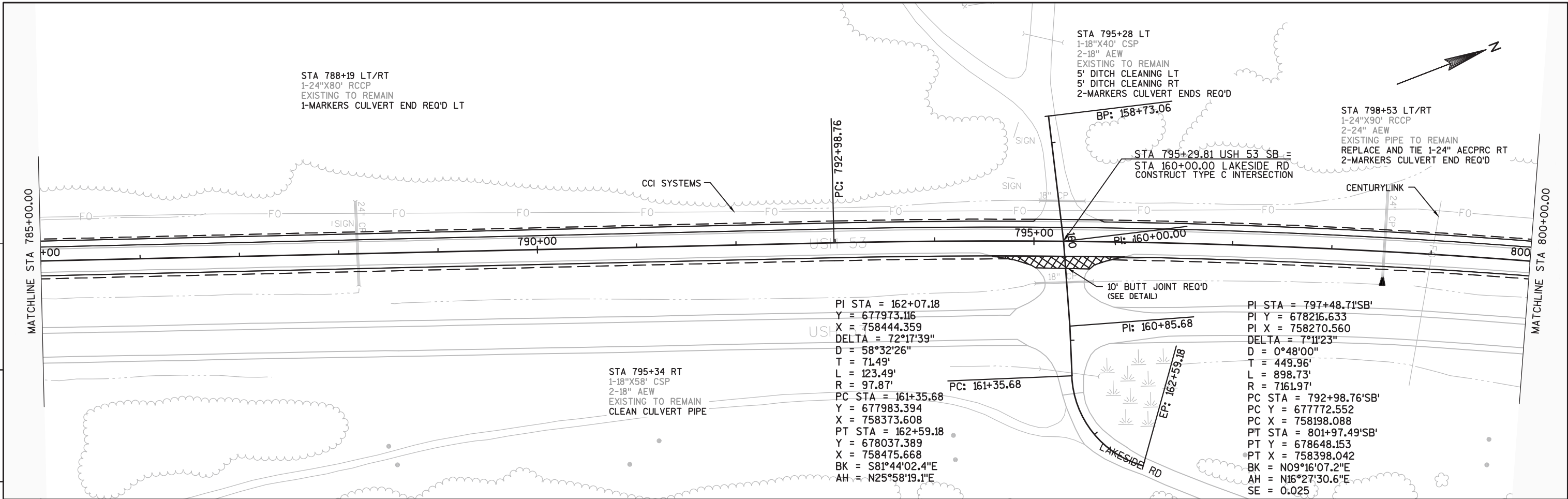


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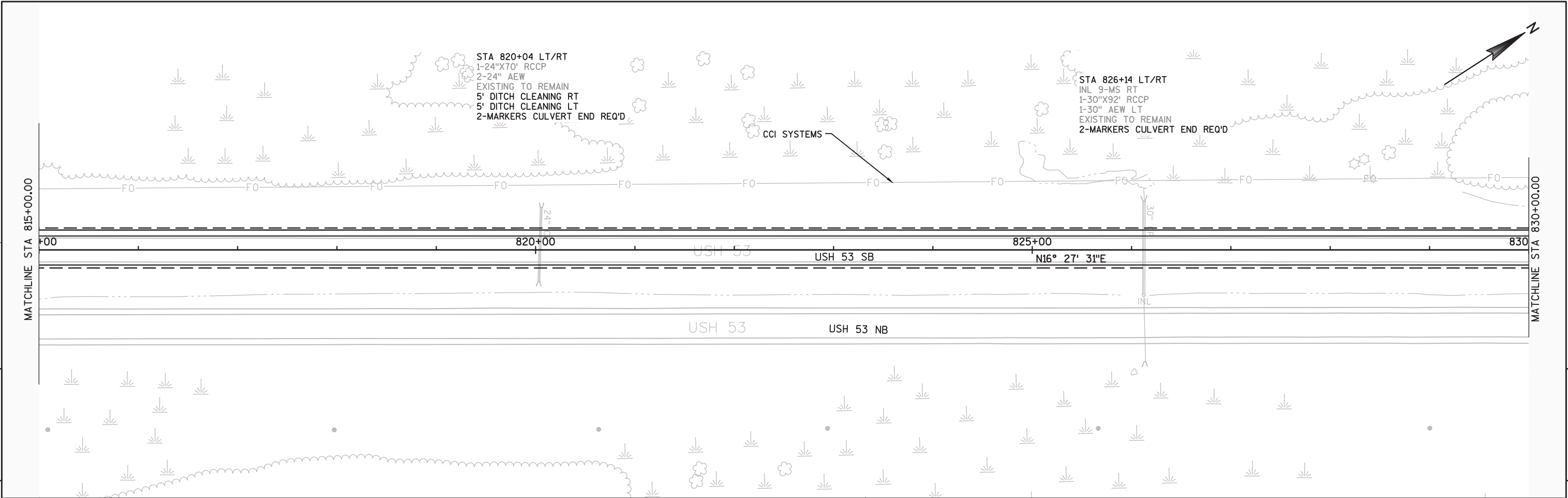
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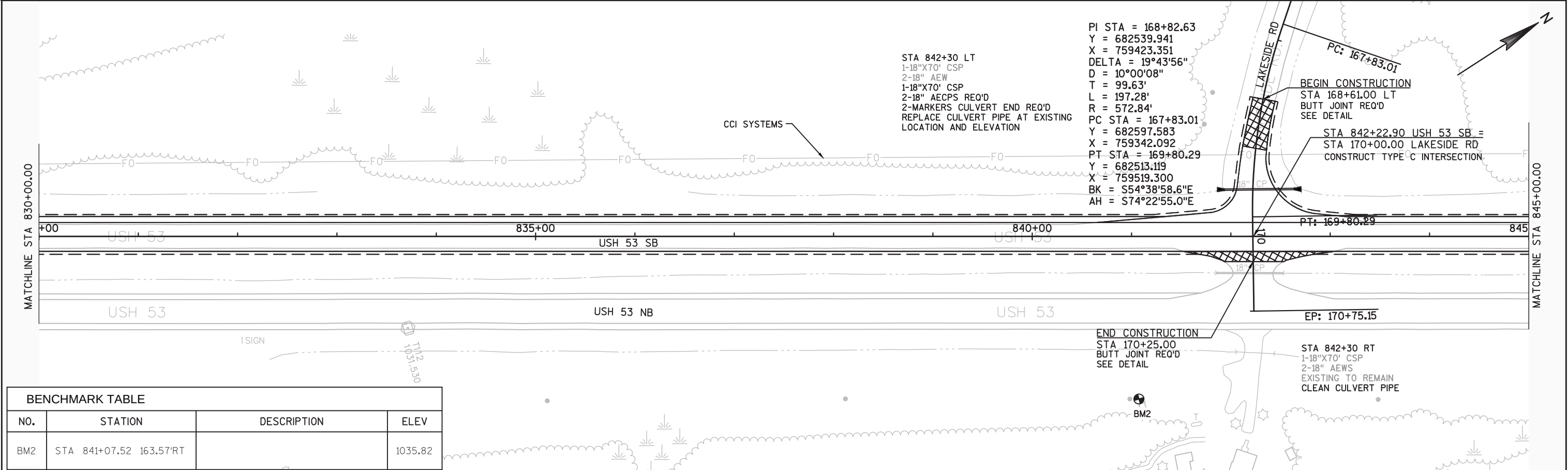
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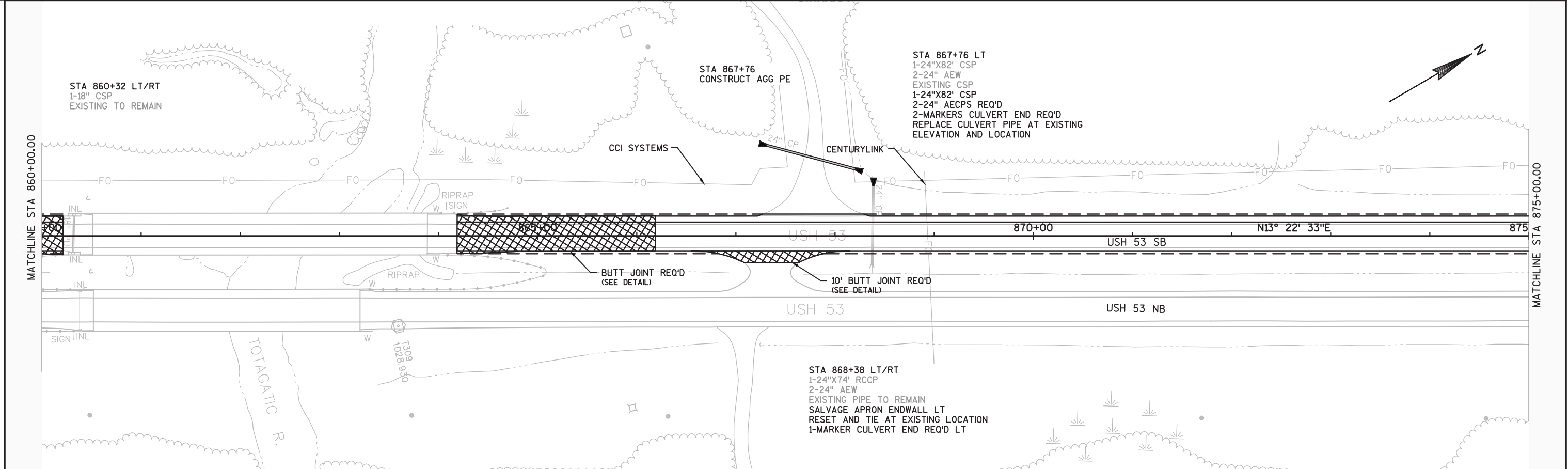
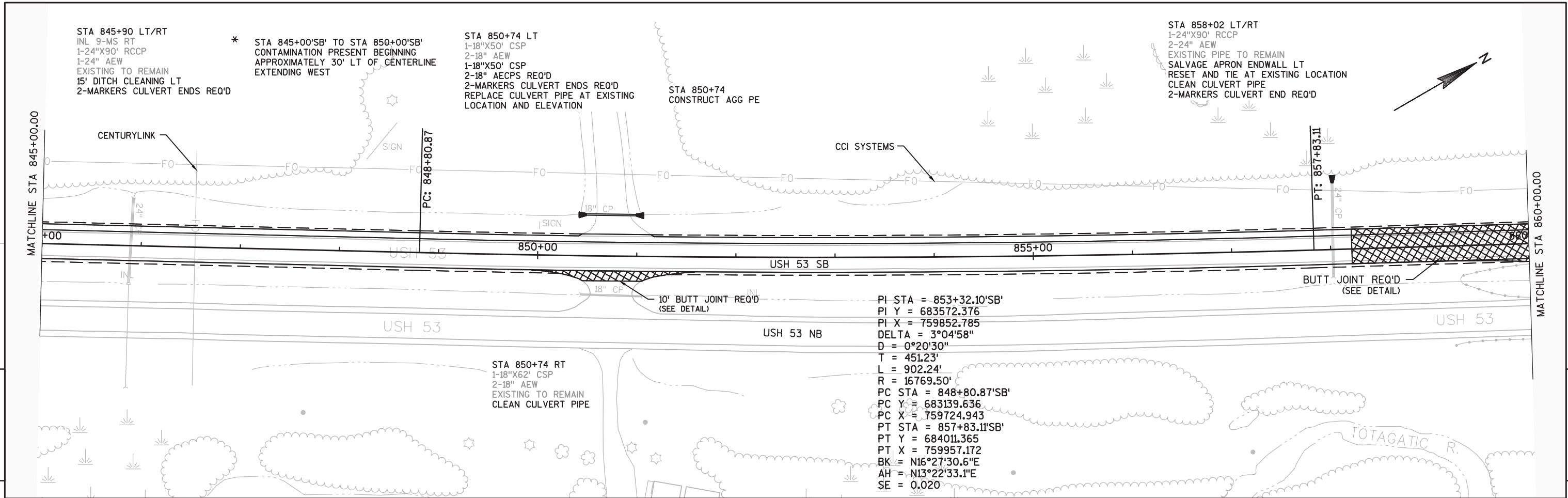
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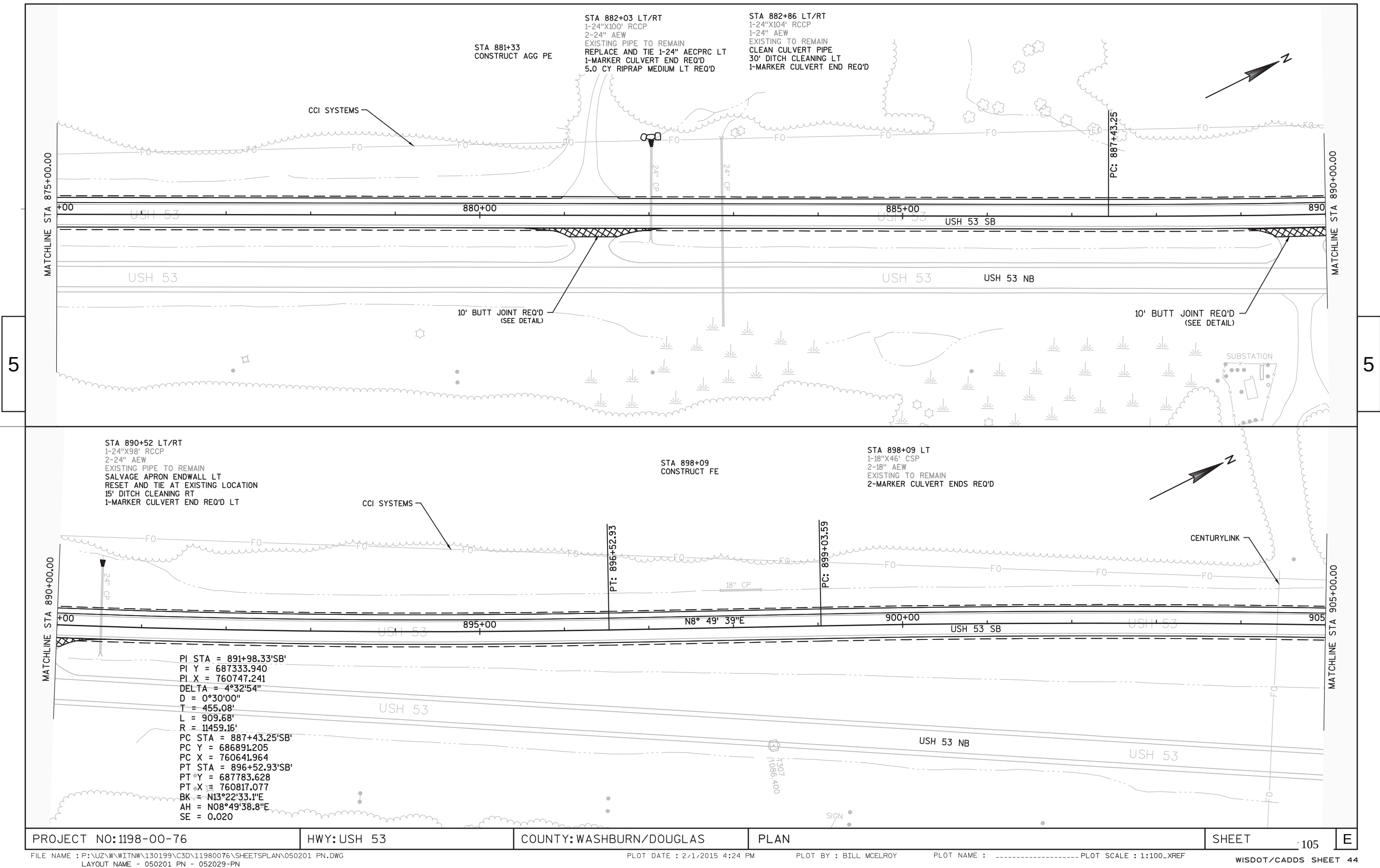


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BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEV
BM2	STA 841+07.52 163.57'RT		1035.82





PROJECT NO:1198-00-76

HWY:USH 53

COUNTY:WASHBURN/DOUGLAS

PLAN

SHEET 105

E

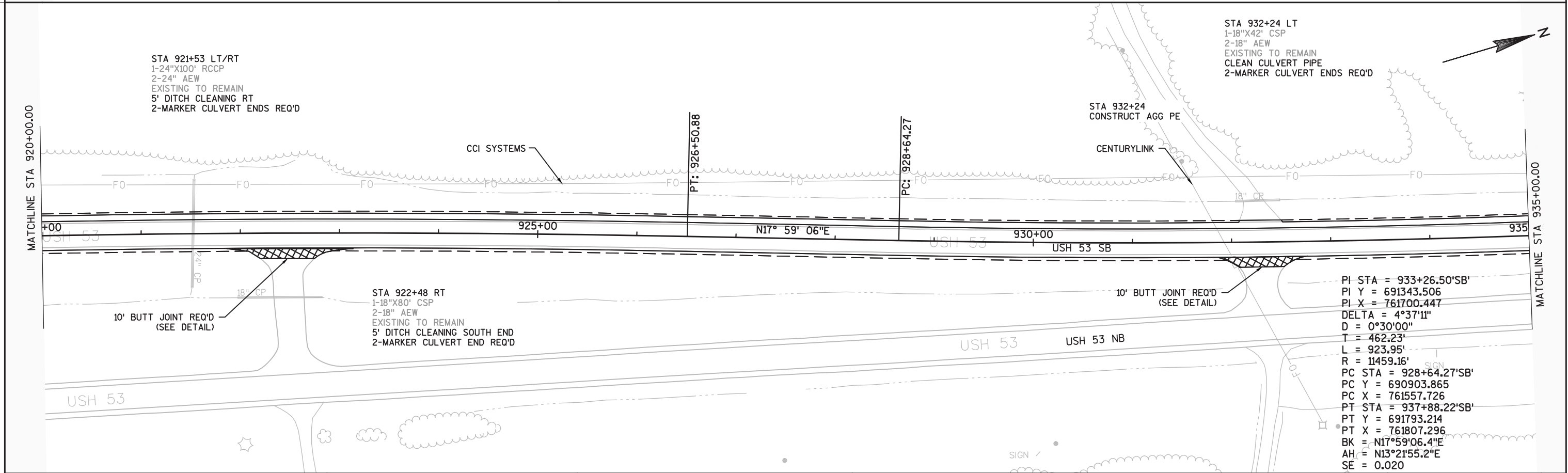
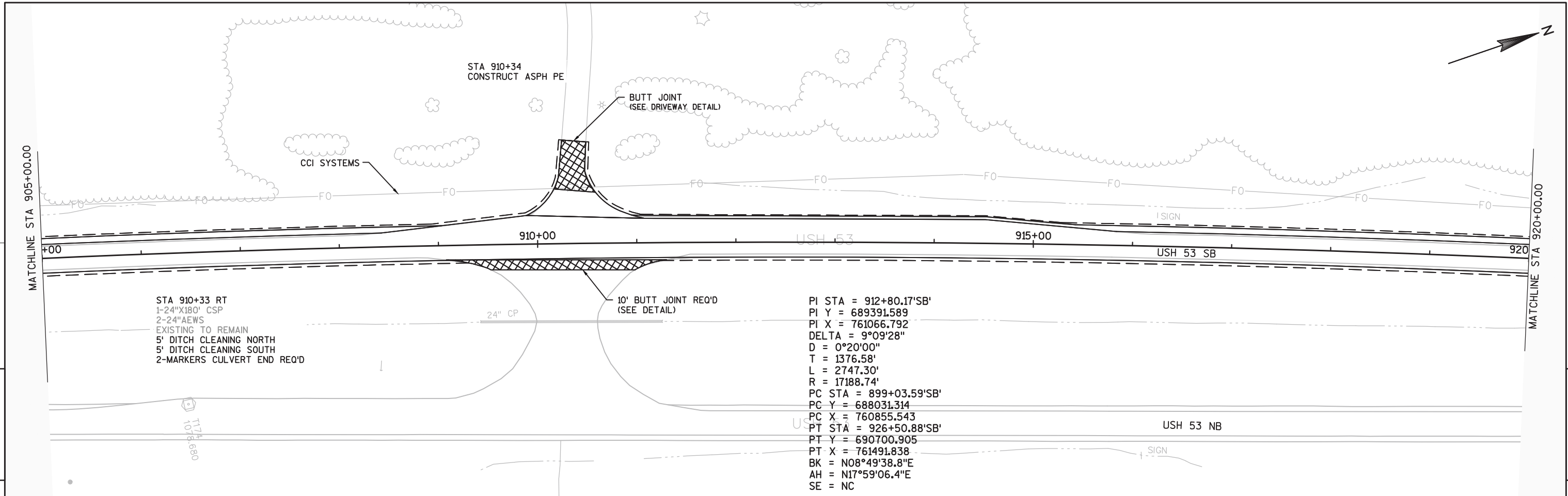
FILE NAME : P:\UZ\W\WITNW\130199\C3D\11980076\SHEETSP\PLAN\050201 PN.DWG
LAYOUT NAME - 050201 PN - 052029-PN

PLOT DATE : 2/1/2015 4:24 PM

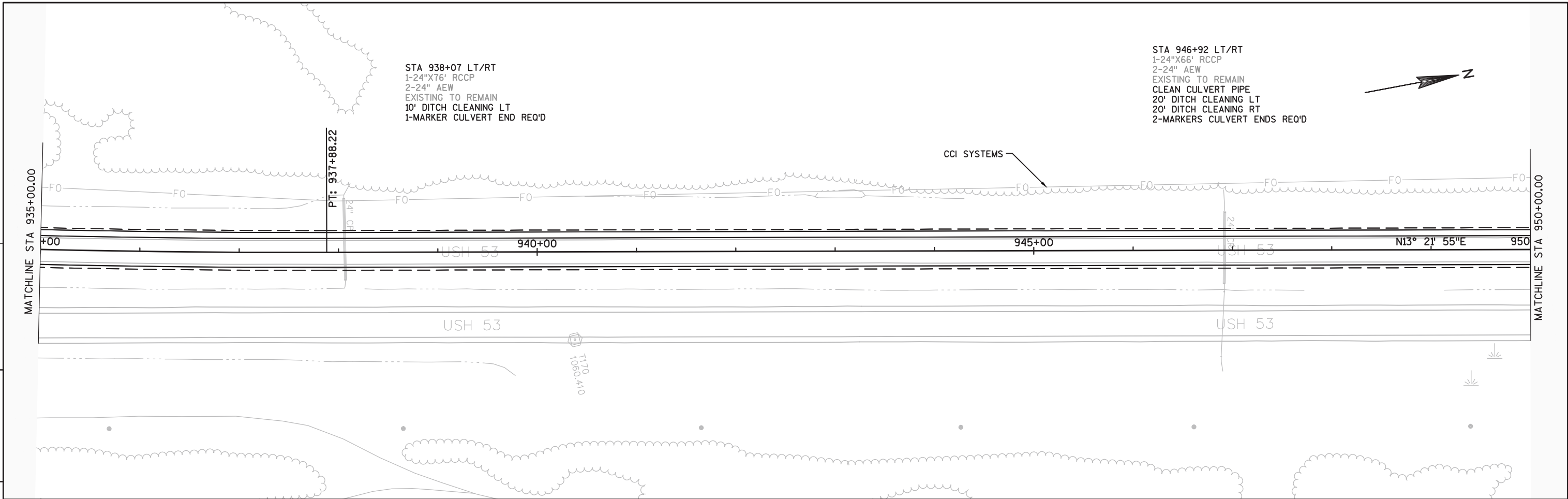
PLOT BY : BILL MCELROY

PLOT NAME : PLOT SCALE : 1:100_XREF

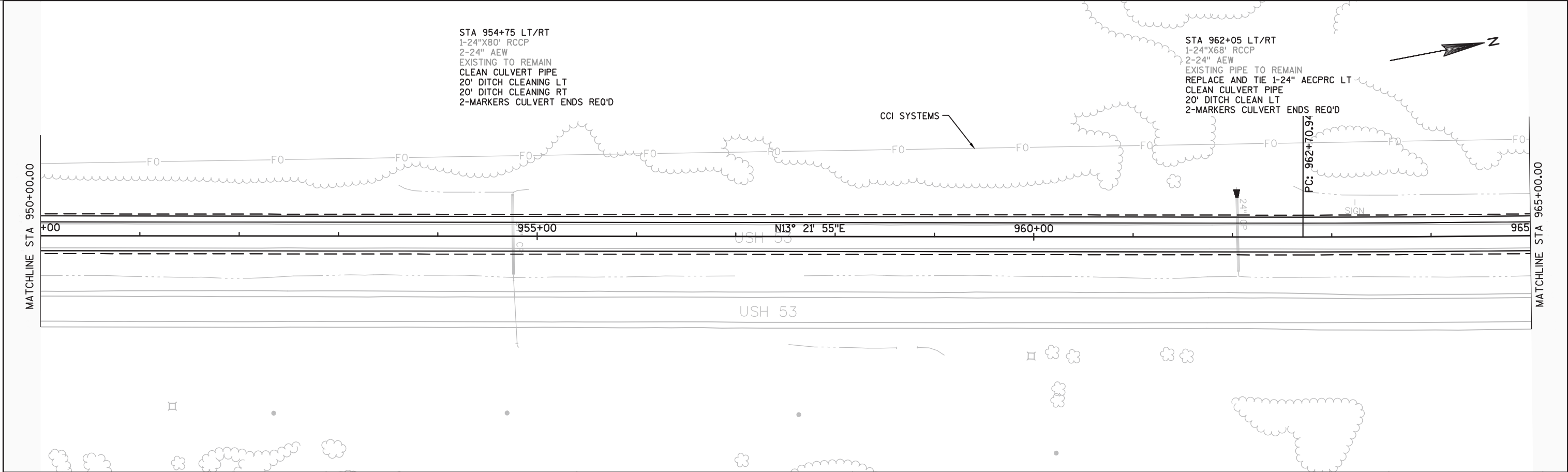
WISDOT/CADDs SHEET 44



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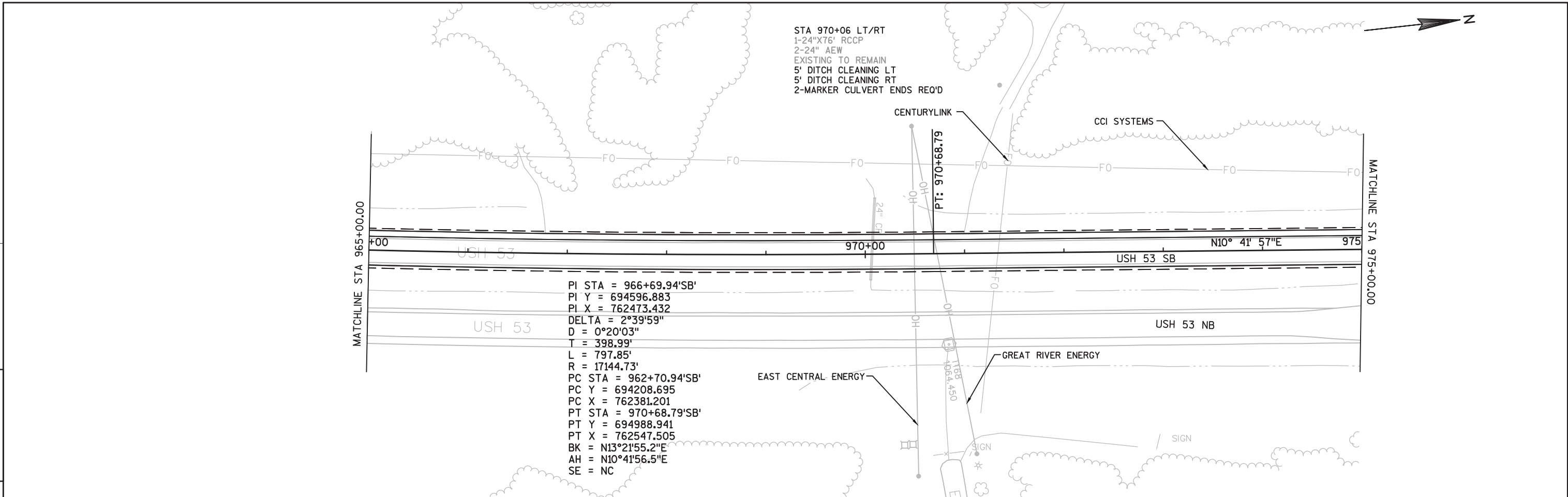


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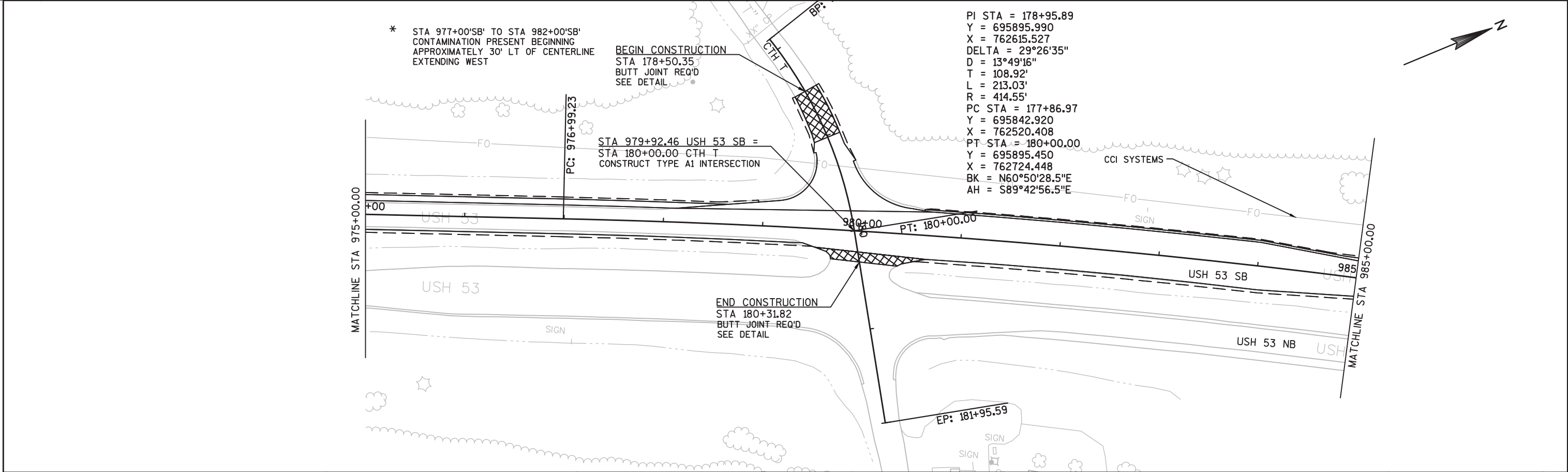


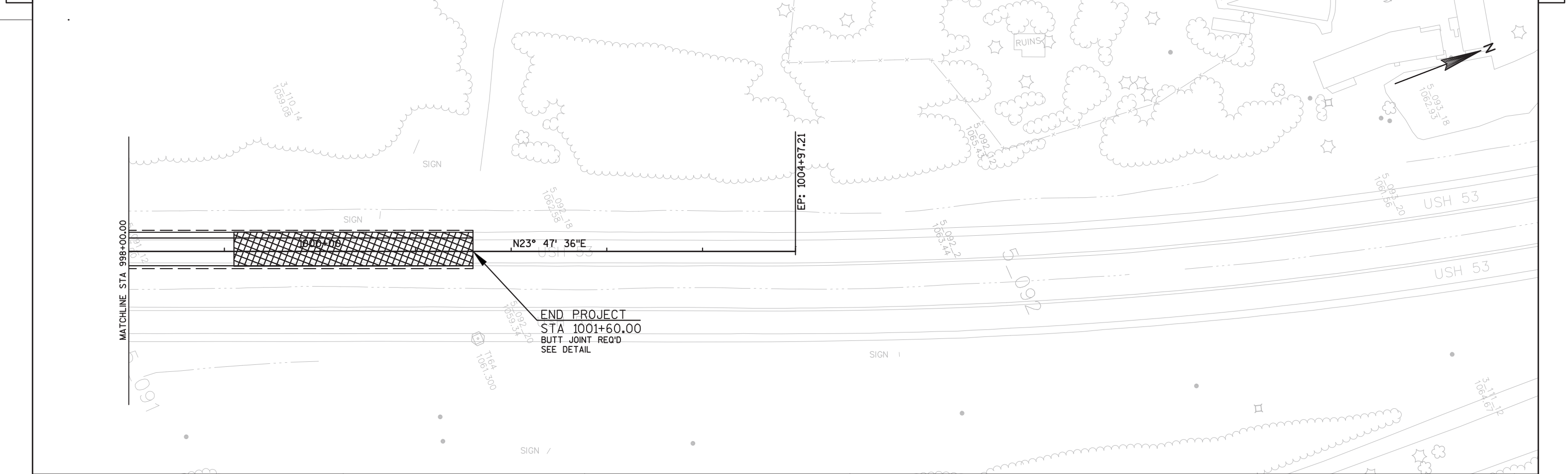
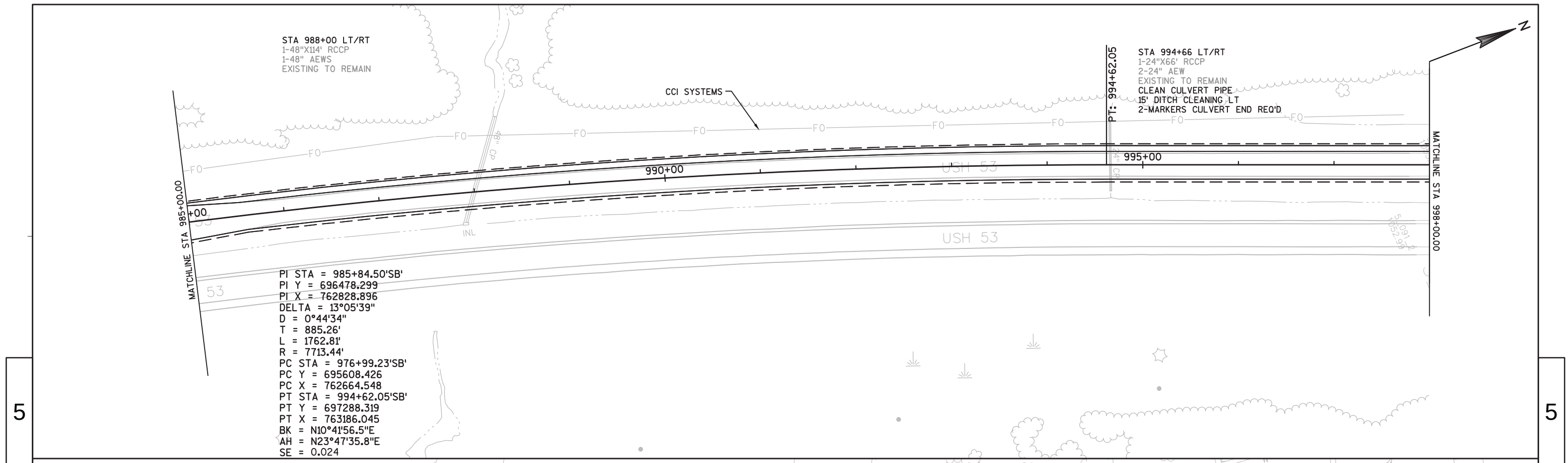
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5



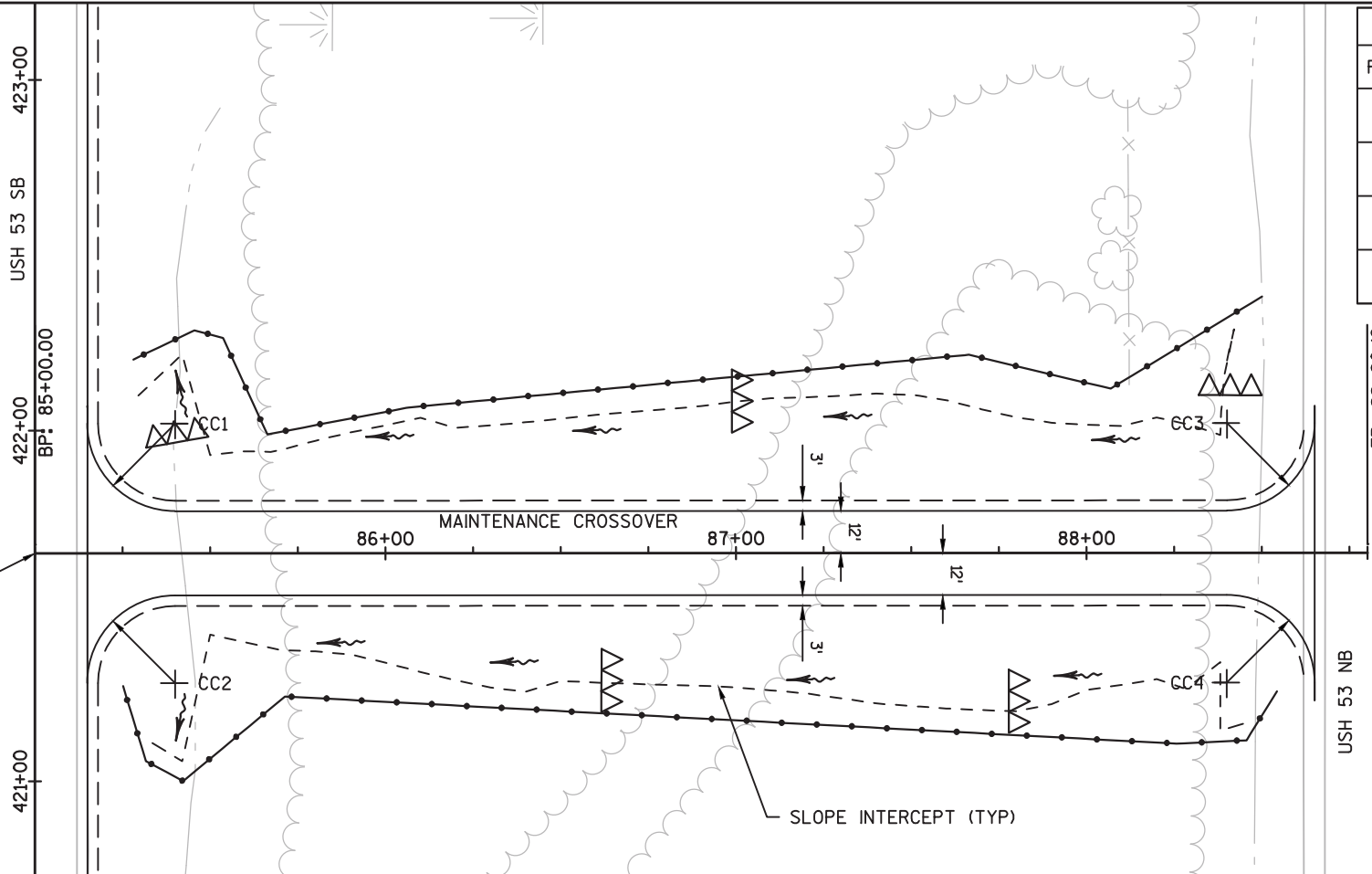
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5

STA 421+65.00 USH 53 SB =
STA 85+00.00 CROSSOVER
CONSTRUCT MAINTENANCE CROSSOVER



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	422+02.02 USH 53	40.0' RT	25.0'R	Y= 642344.509
	85+40.01 MAINTENANCE CROSSOVER	37.0' LT		X= 753480.464
CC2	421+28.02 USH 53	40.0' RT	25.0'R	Y= 642271.657
	85+39.99 MAINTENANCE CROSSOVER	37.0' RT		X= 753493.445
CC3	422+02.13 USH 53	340.1' RT	25.0'R	Y= 642397.267
	88+40.09 MAINTENANCE CROSSOVER	37.0' LT		X= 753775.861
CC4	421+28.13 USH 53	340.1' RT	25.0'R	Y= 642324.405
	88+40.00 MAINTENANCE CROSSOVER	37.0' RT		X= 753788.789

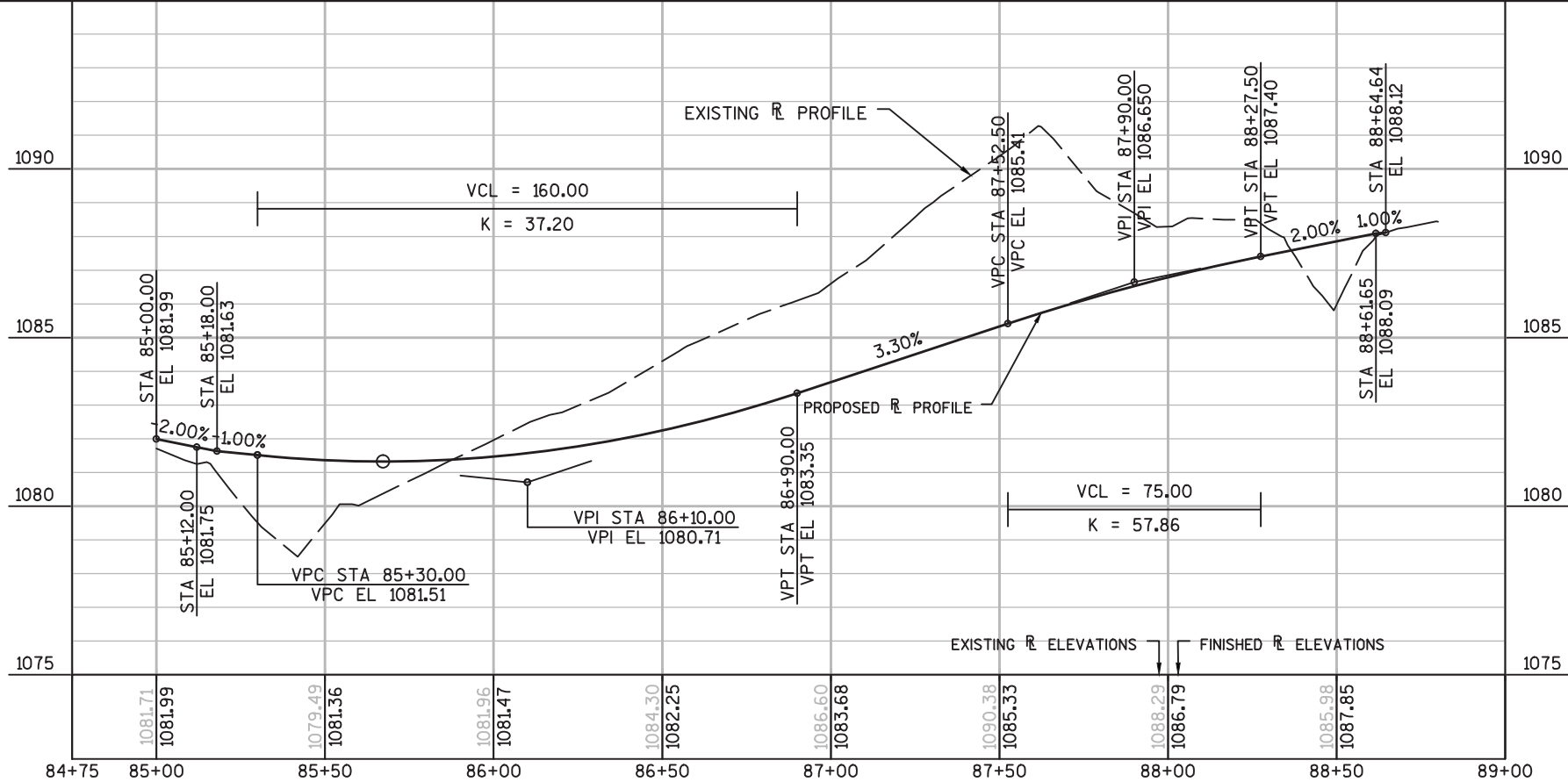
LEGEND

TEMPORARY DITCH CHECKS

SILT FENCE

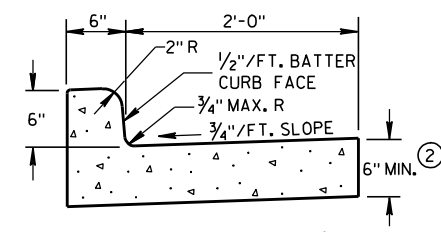


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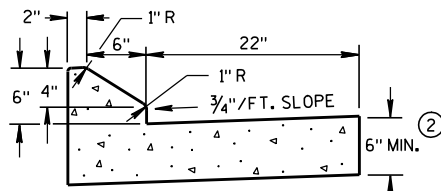


Standard Detail Drawing List

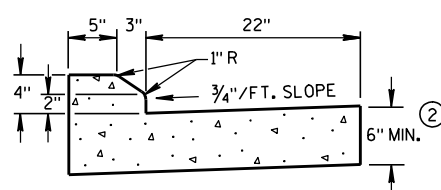
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
13B02-07A	CONCRETE BRIDGE APPROACH
13B02-07B	STRUCTURAL APPROACH SLAB AND CONCRETE BRIDGE APPROACH
13C09-11A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-04	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE



TYPES A & D ①



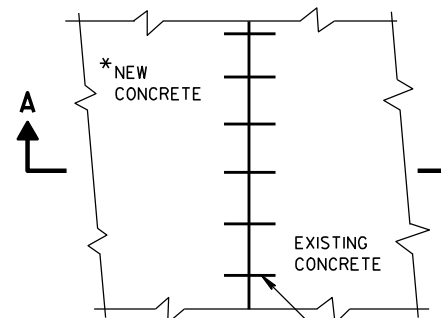
6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

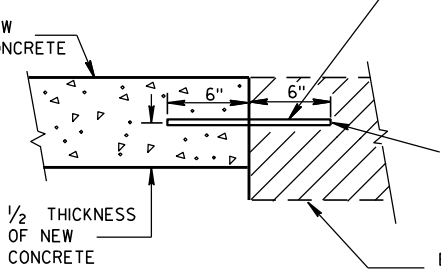
CONCRETE CURB & GUTTER 30"

* NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



PLAN VIEW

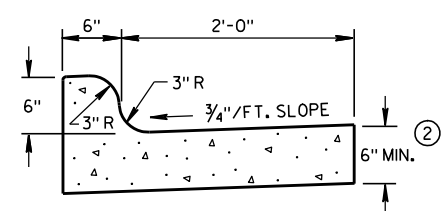
NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



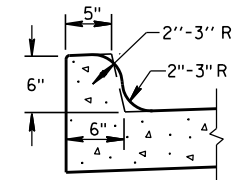
MAXIMUM DRILL HOLE SIZE IS 1/8" GREATER THAN TIE BAR DIAMETER

EXISTING CONCRETE

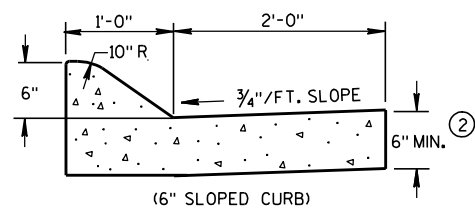
SECTION A-A
TIE BARS DRILLED INTO EXISTING PAVEMENT



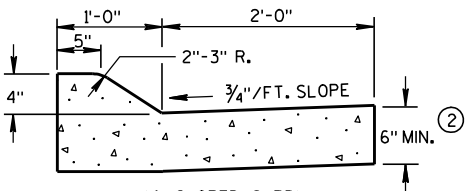
TYPES K & L ①



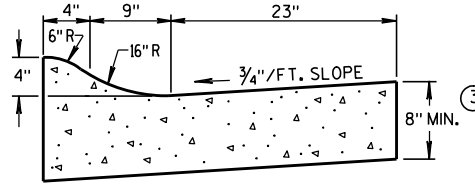
OPTIONAL CURB SHAPE FOR TYPES K & L ①



(6" SLOPED CURB)

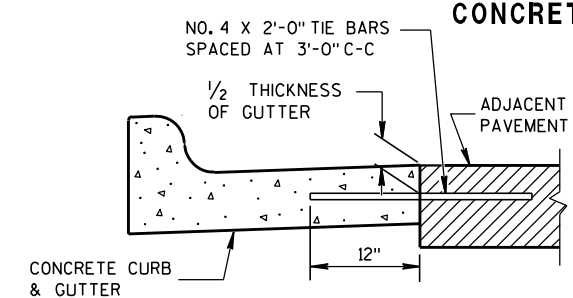


(4" SLOPED CURB)

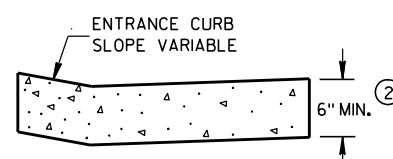


4" SLOPED CURB TYPES R & T ① ④

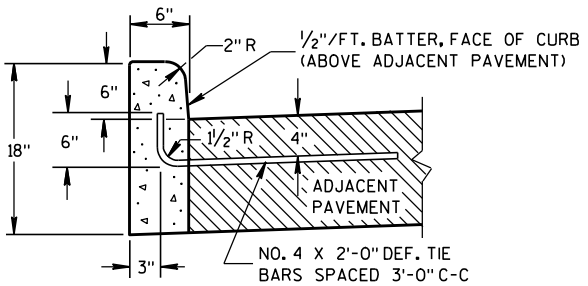
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

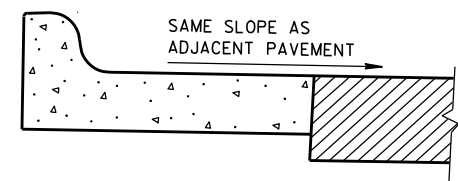


DRIVEWAY ENTRANCE CURB (WHEN DIRECTED BY THE ENGINEER)

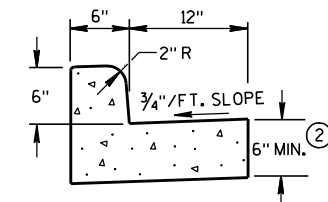


TYPES A & D ①

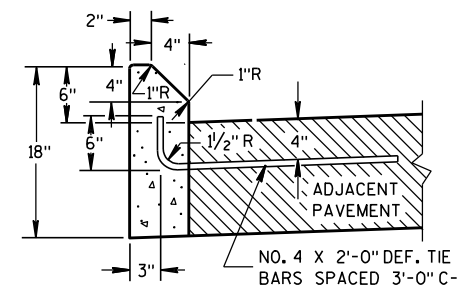
CONCRETE CURB



REVERSE SLOPE GUTTER (TYPICAL FOR ALL CURB & GUTTER TYPES) ⑤



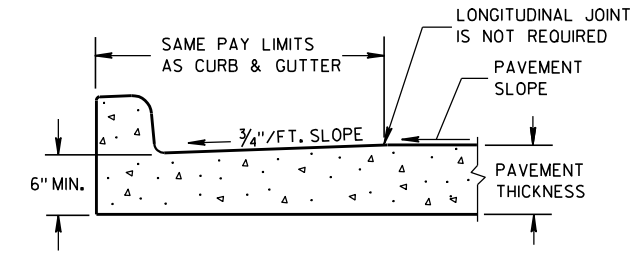
TYPES A & D
CONCRETE CURB & GUTTER 18"



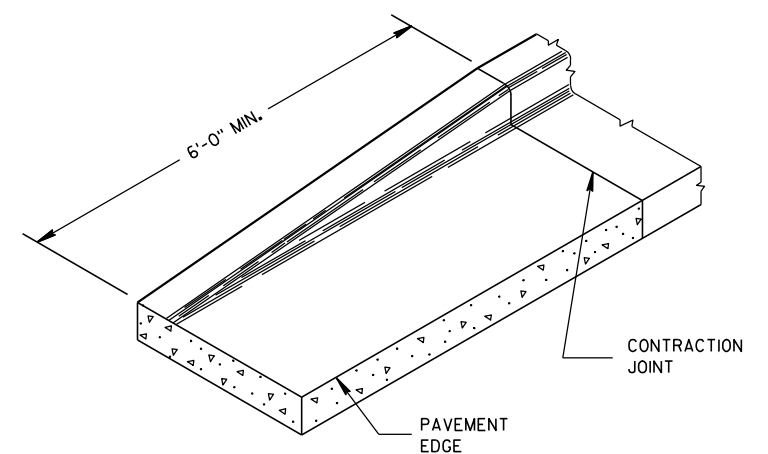
TYPES G & J ①

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.
- WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
 - ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
 - ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

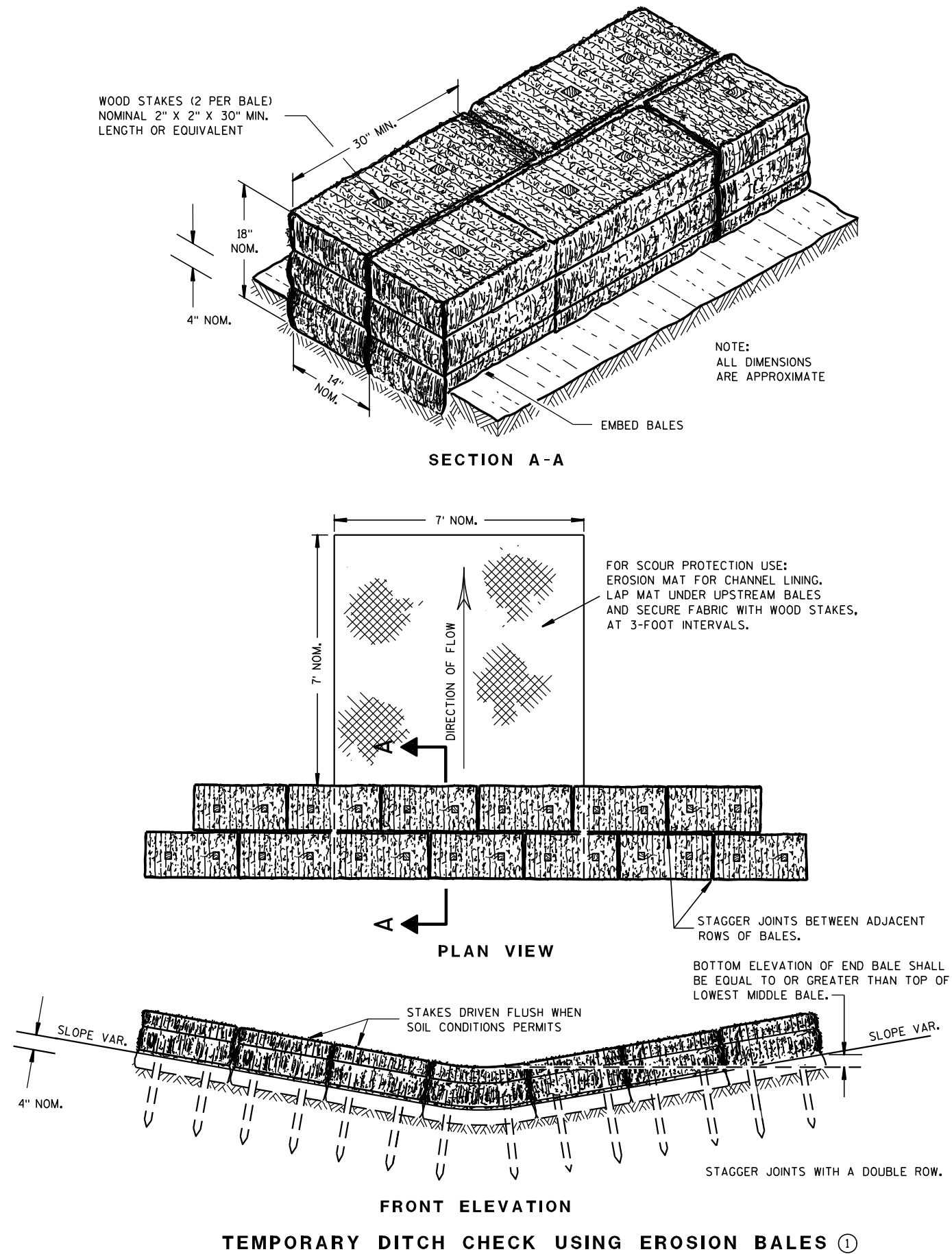


END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

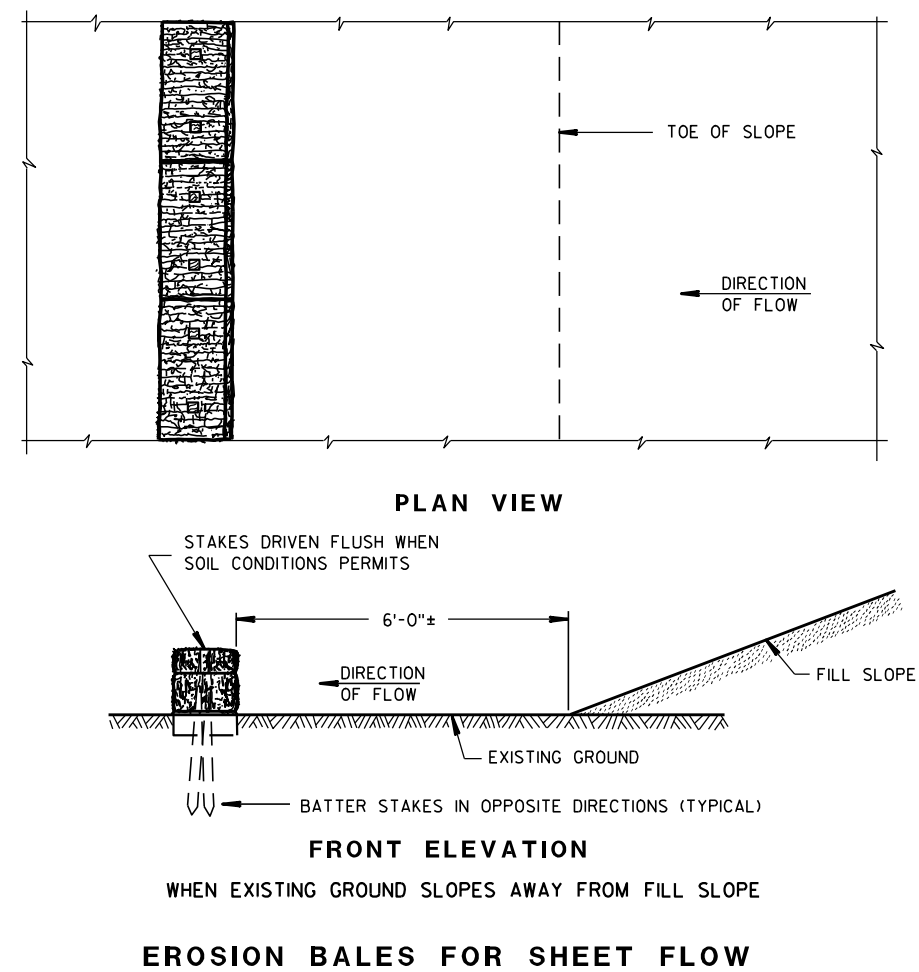
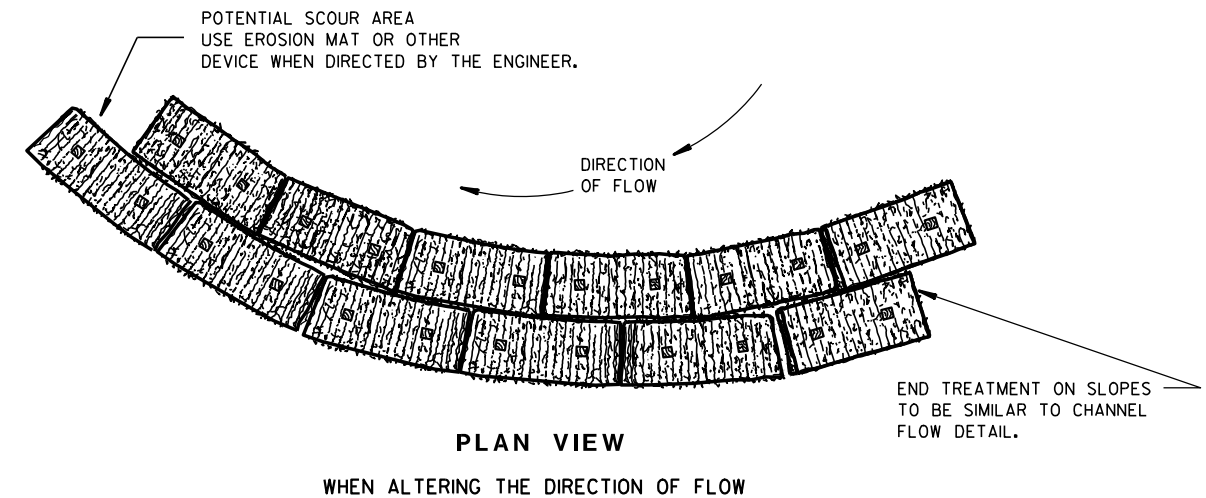
APPROVED
9/4/08 /S/ Jerry H. 112 ENT
DATE ROADWAY STANDARDS ENGINEER
FHWA



GENERAL NOTES

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

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

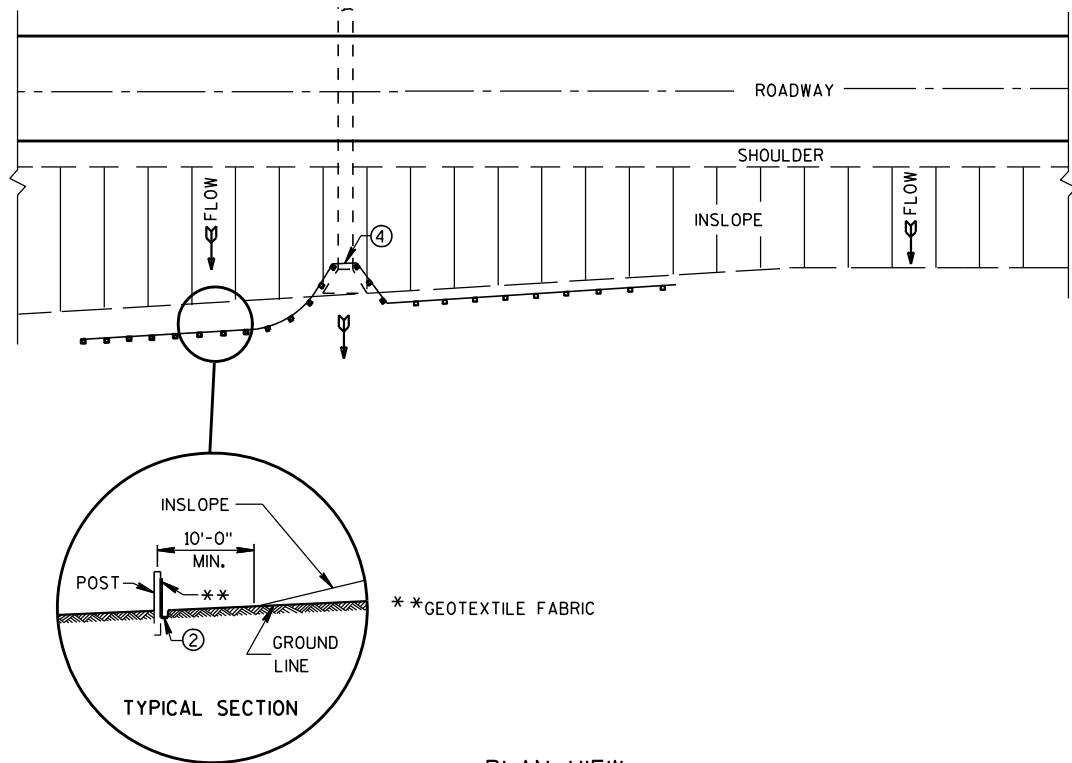
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

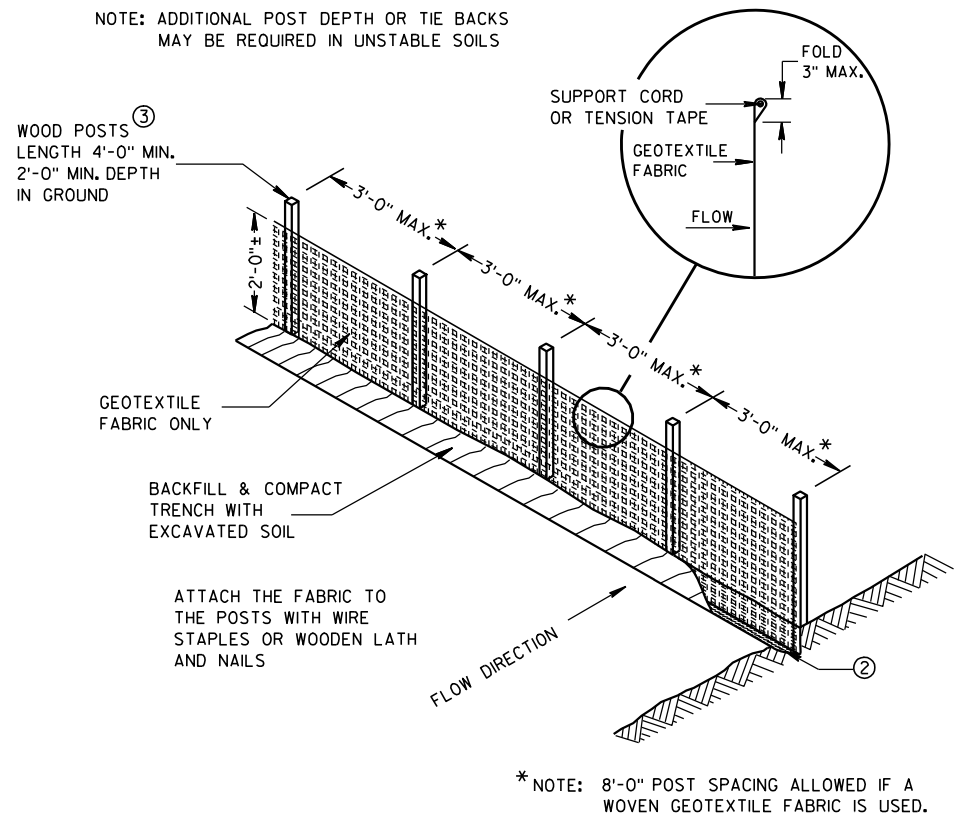
APPROVED

6/04/02
DATE/S/ Beth Conn
CHIEF ROADWAY DEVELOPER 113 ENGINEER

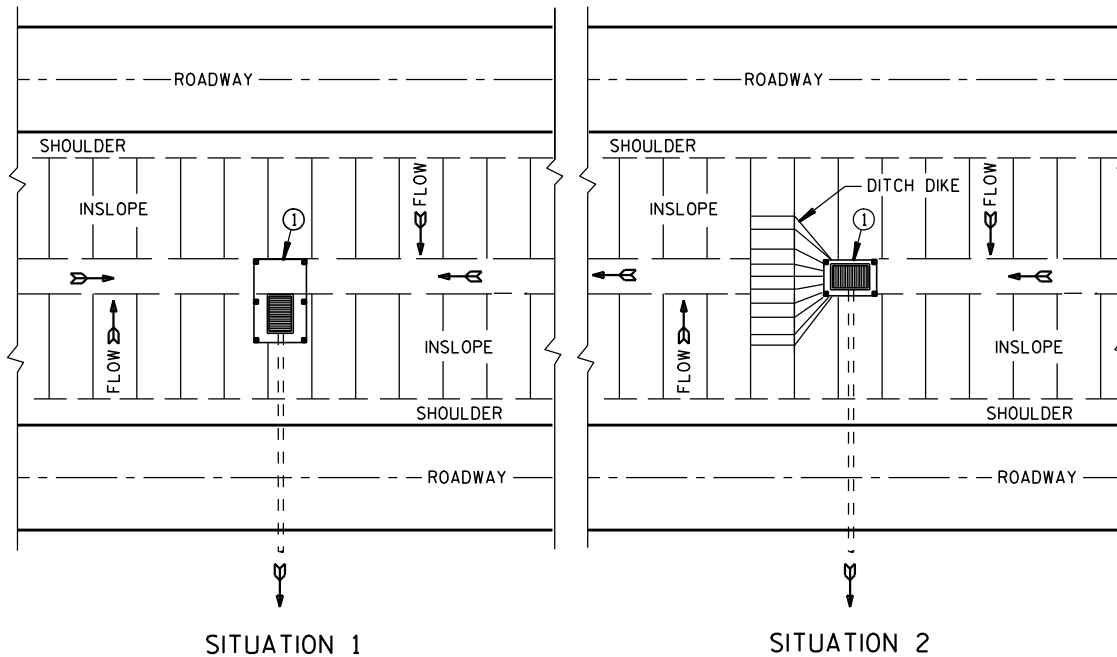
FHWA



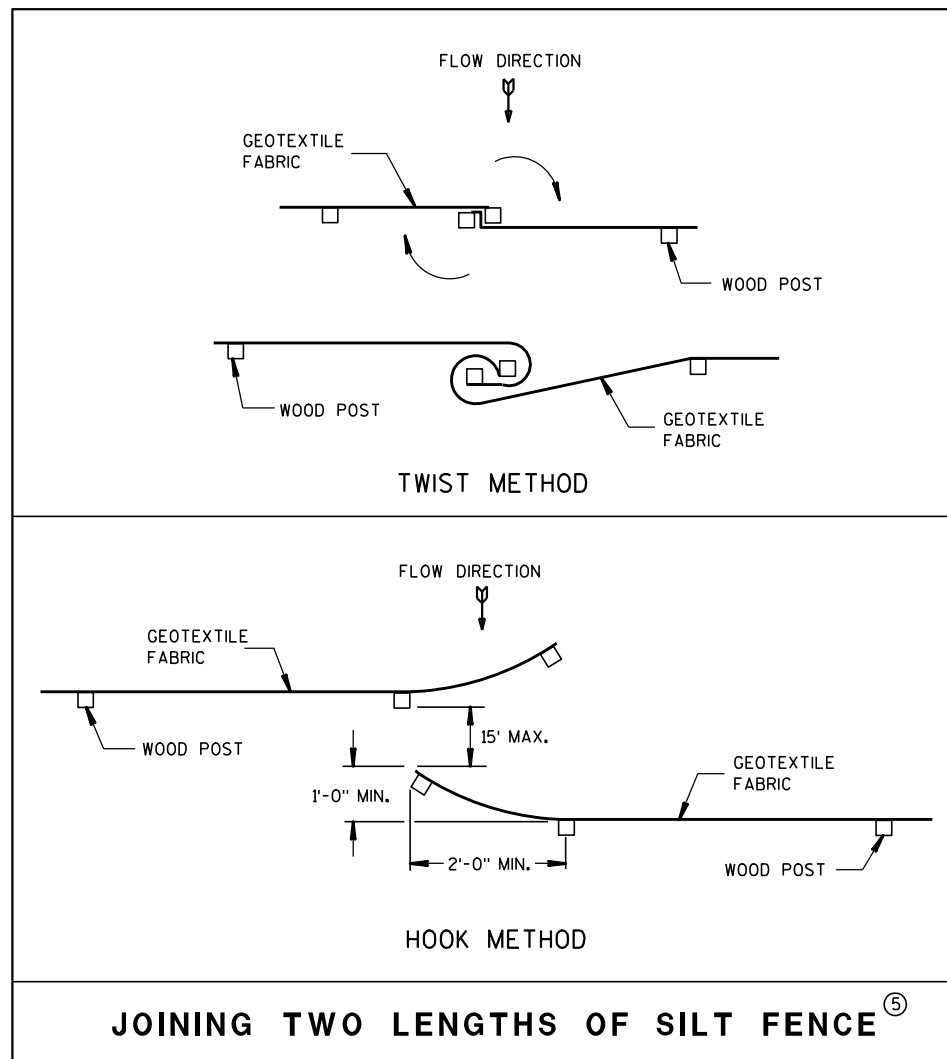
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

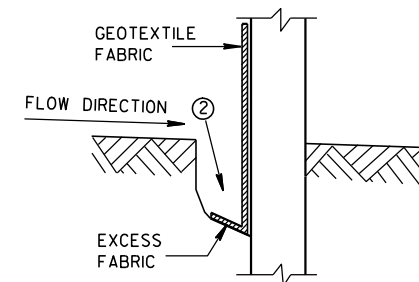


JOINING TWO LENGTHS OF SILT FENCE (5)

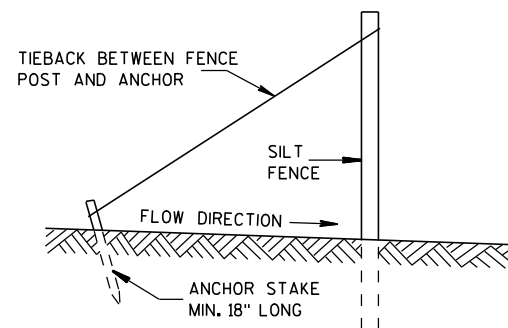
GENERAL NOTES

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

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



TRENCH DETAIL

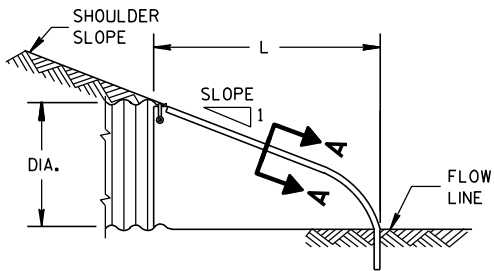
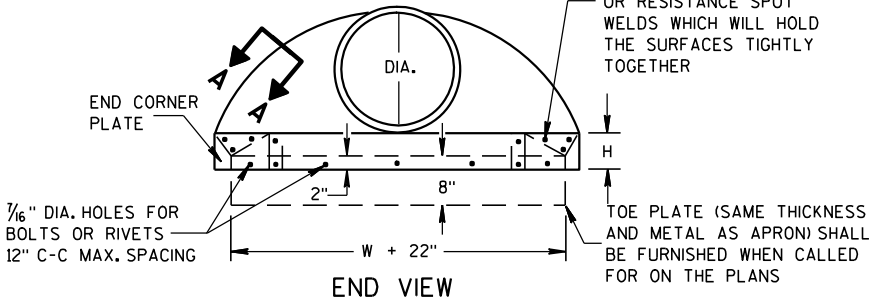
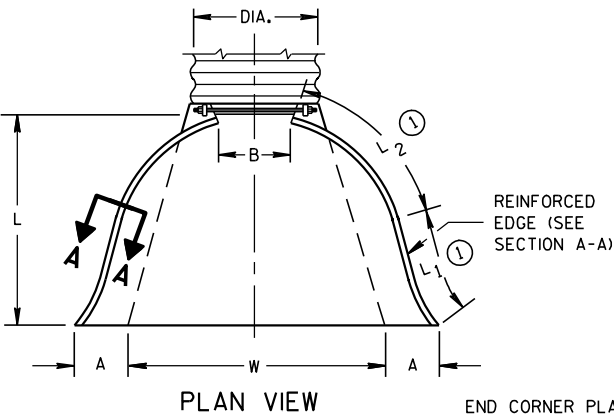


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Conn CHIEF ROADWAY DEVELOPER 114 ENGINEER
FHWA	

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

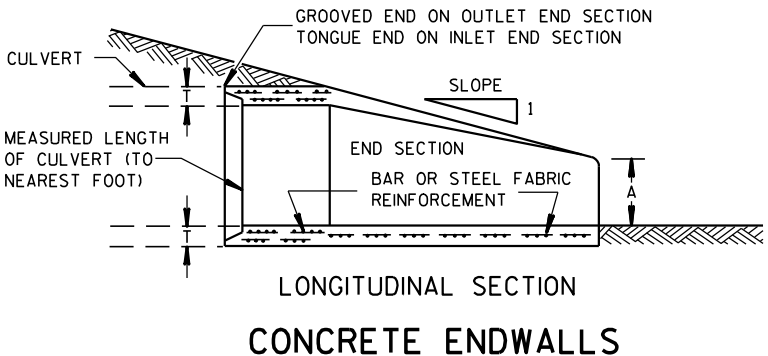
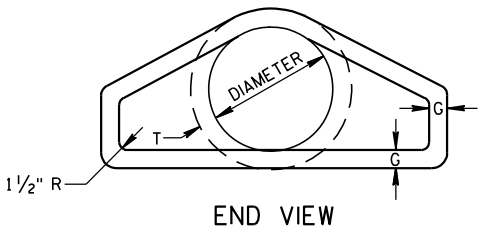
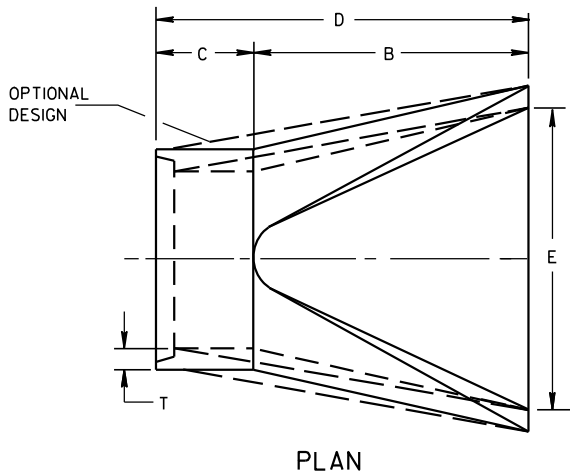
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

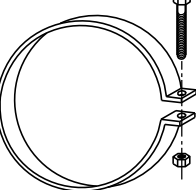
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9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

* MINIMUM
** MAXIMUM

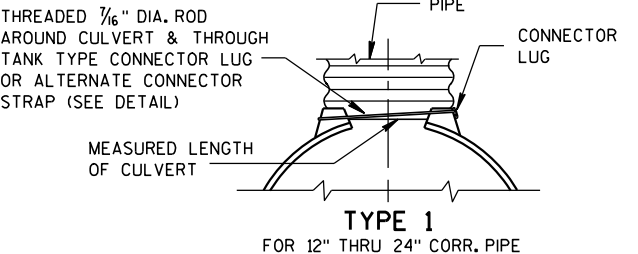


LONGITUDINAL SECTION
CONCRETE ENDWALLS

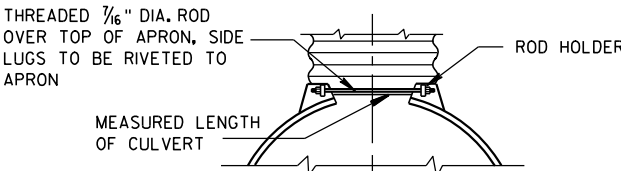
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



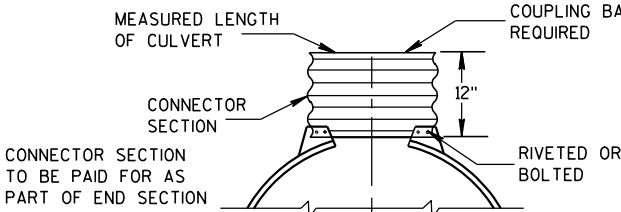
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



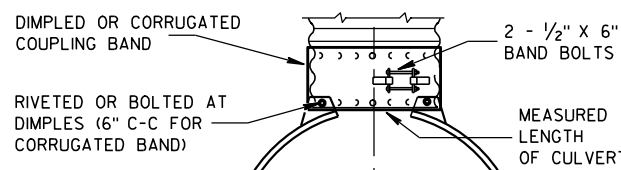
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

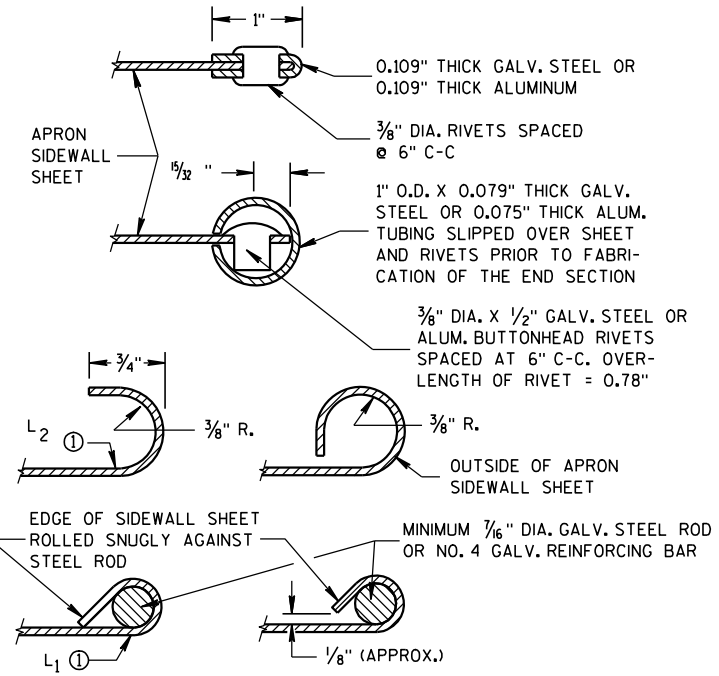
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

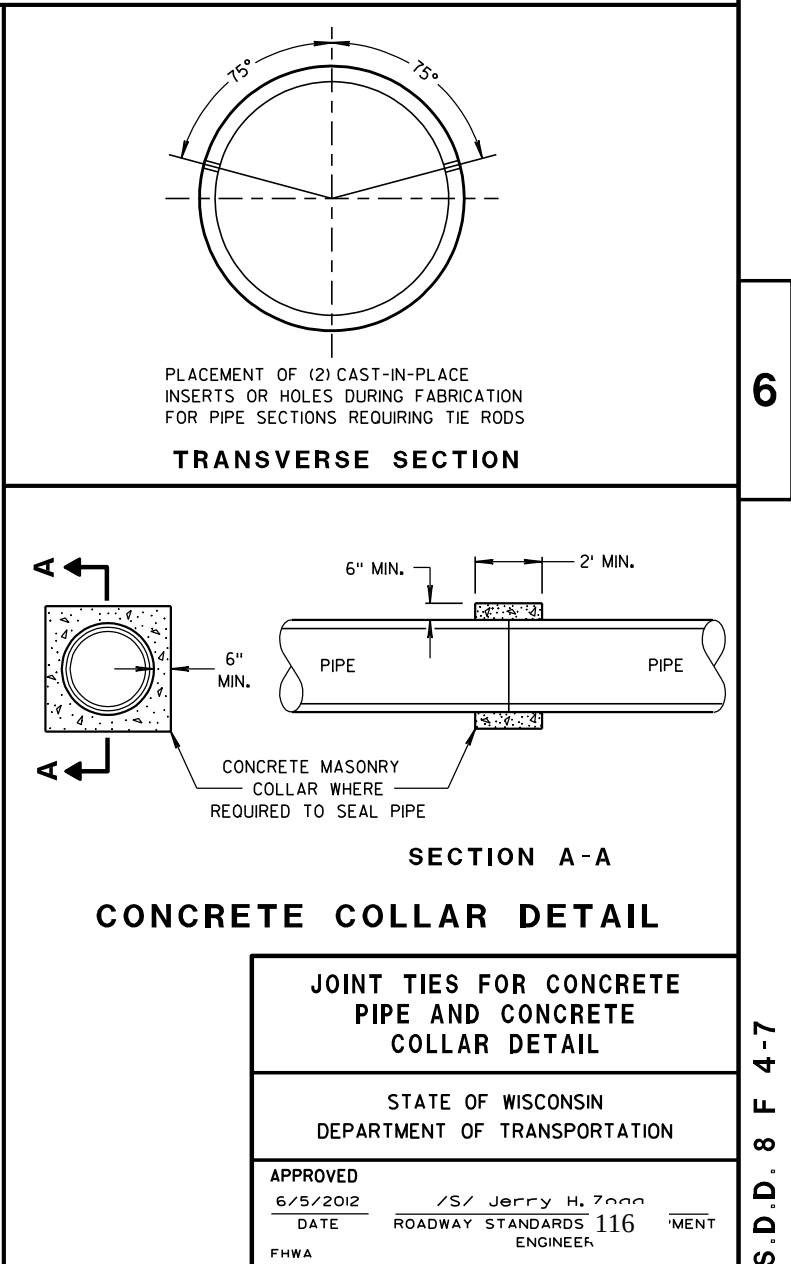
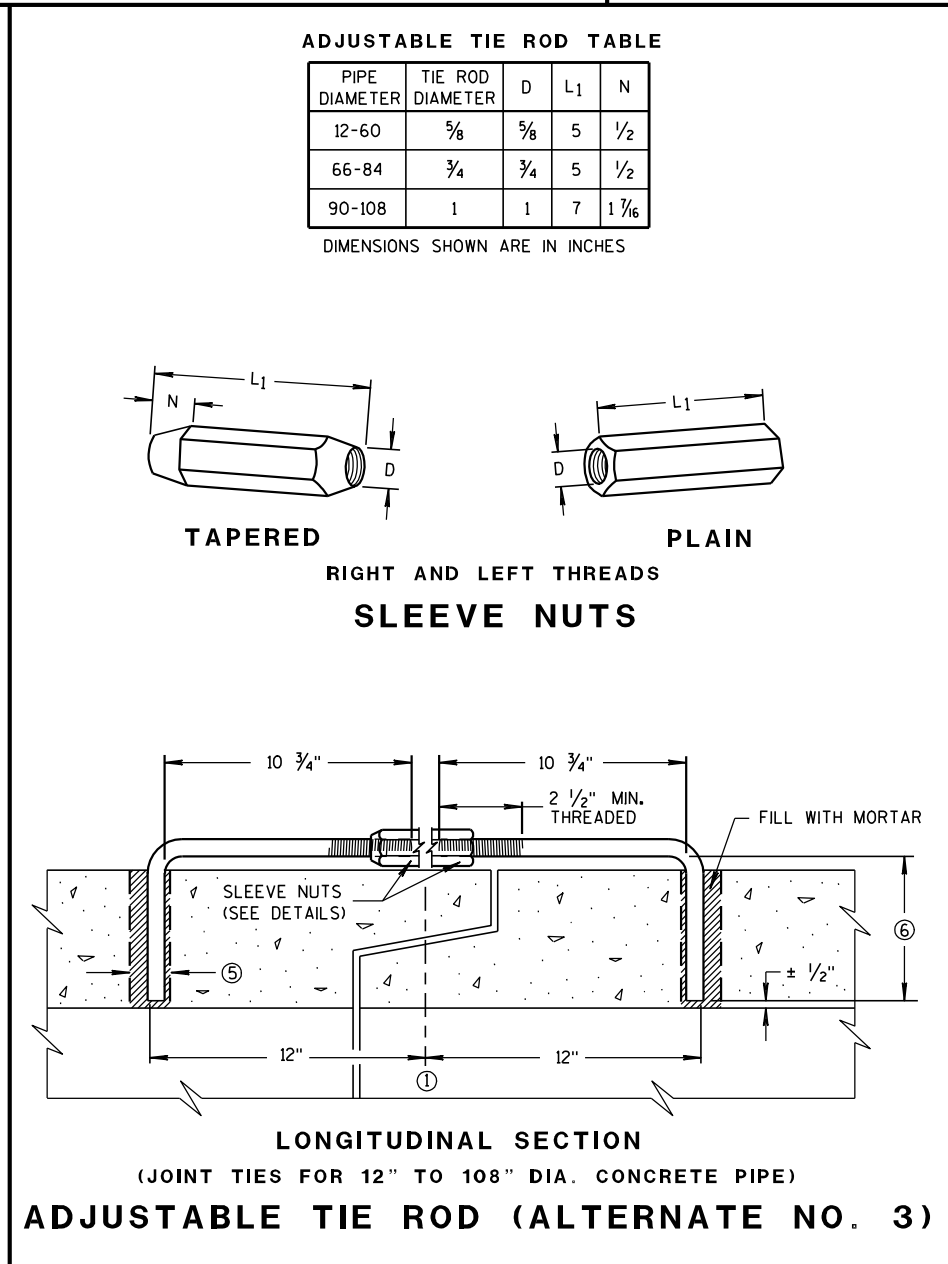
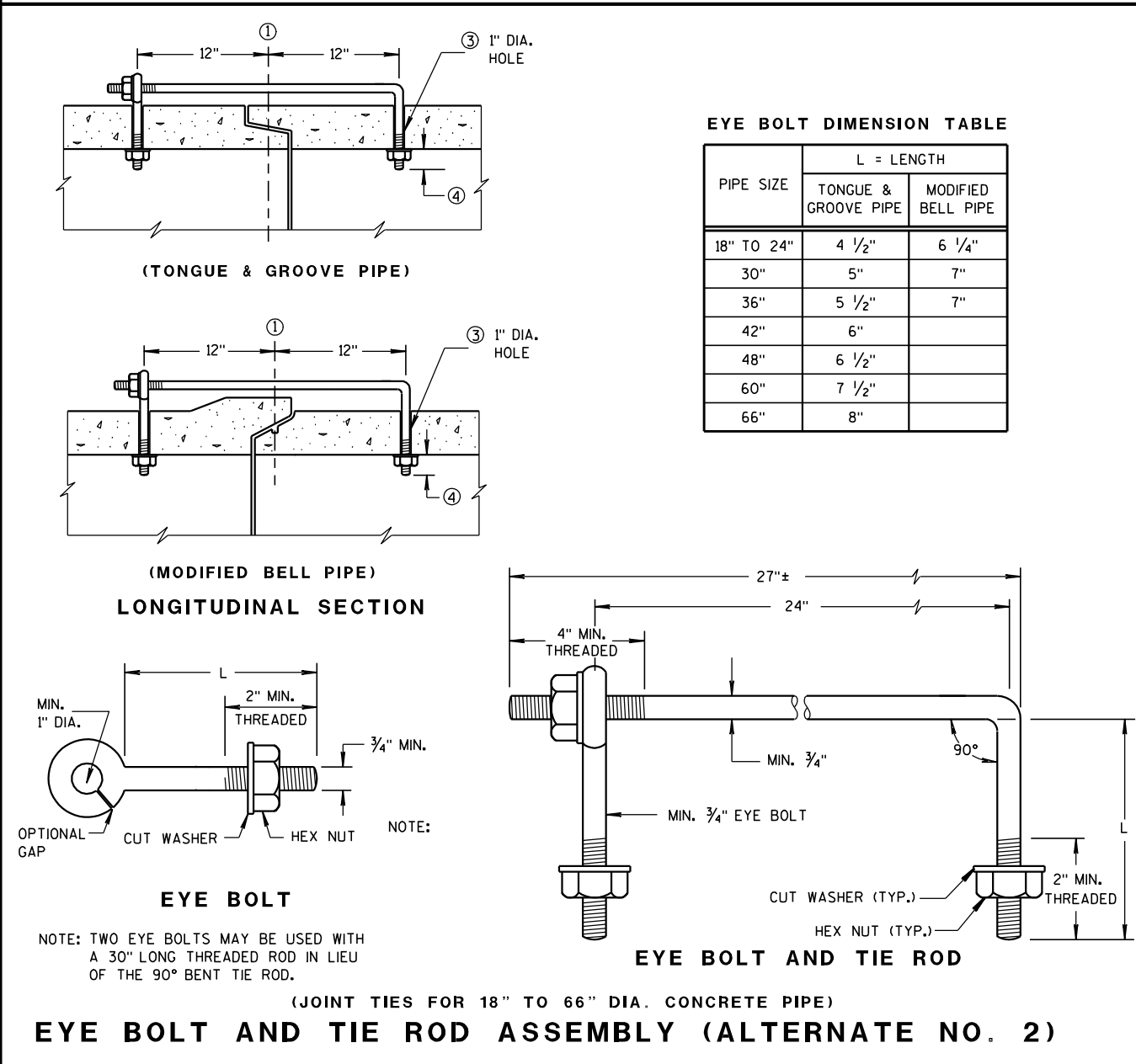
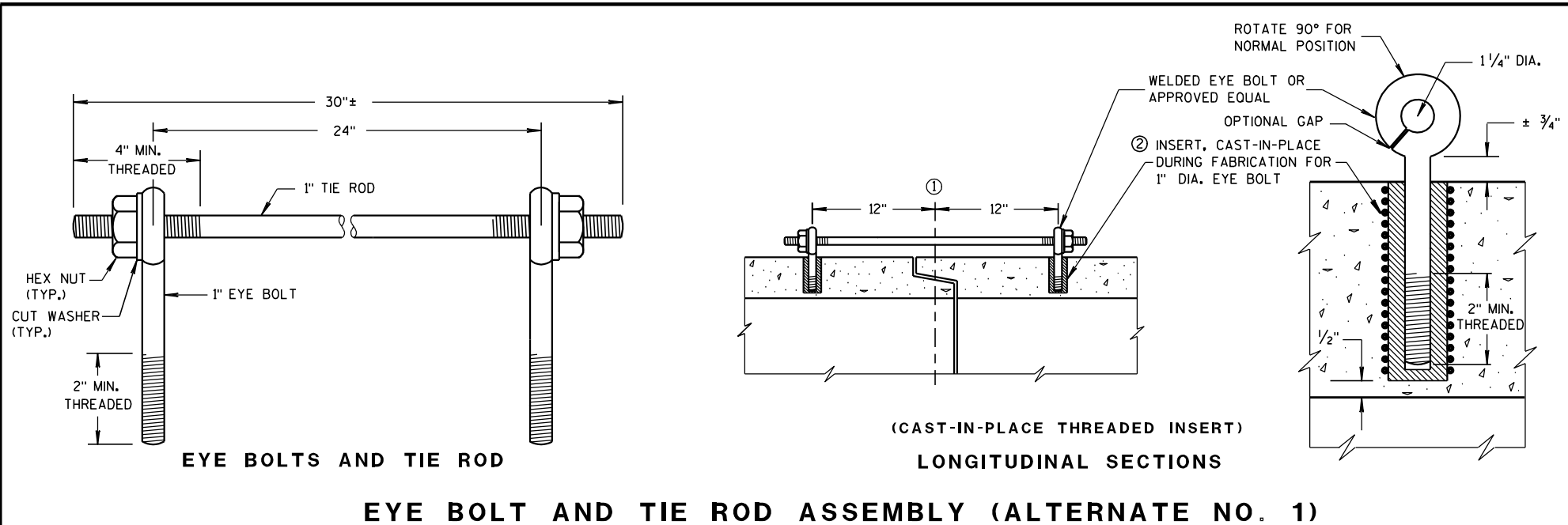
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

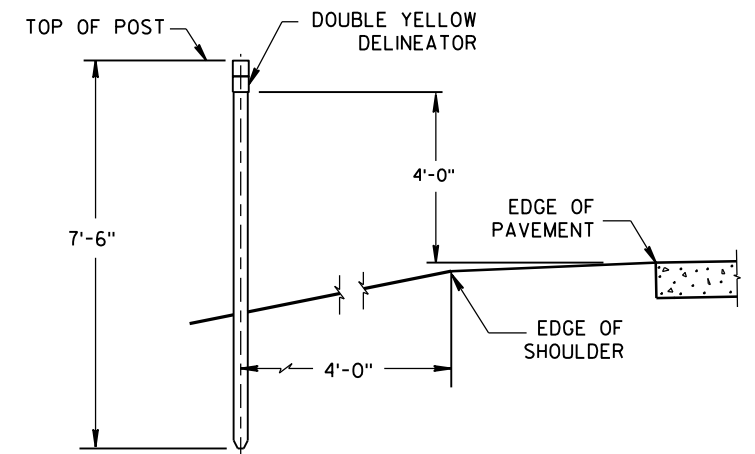
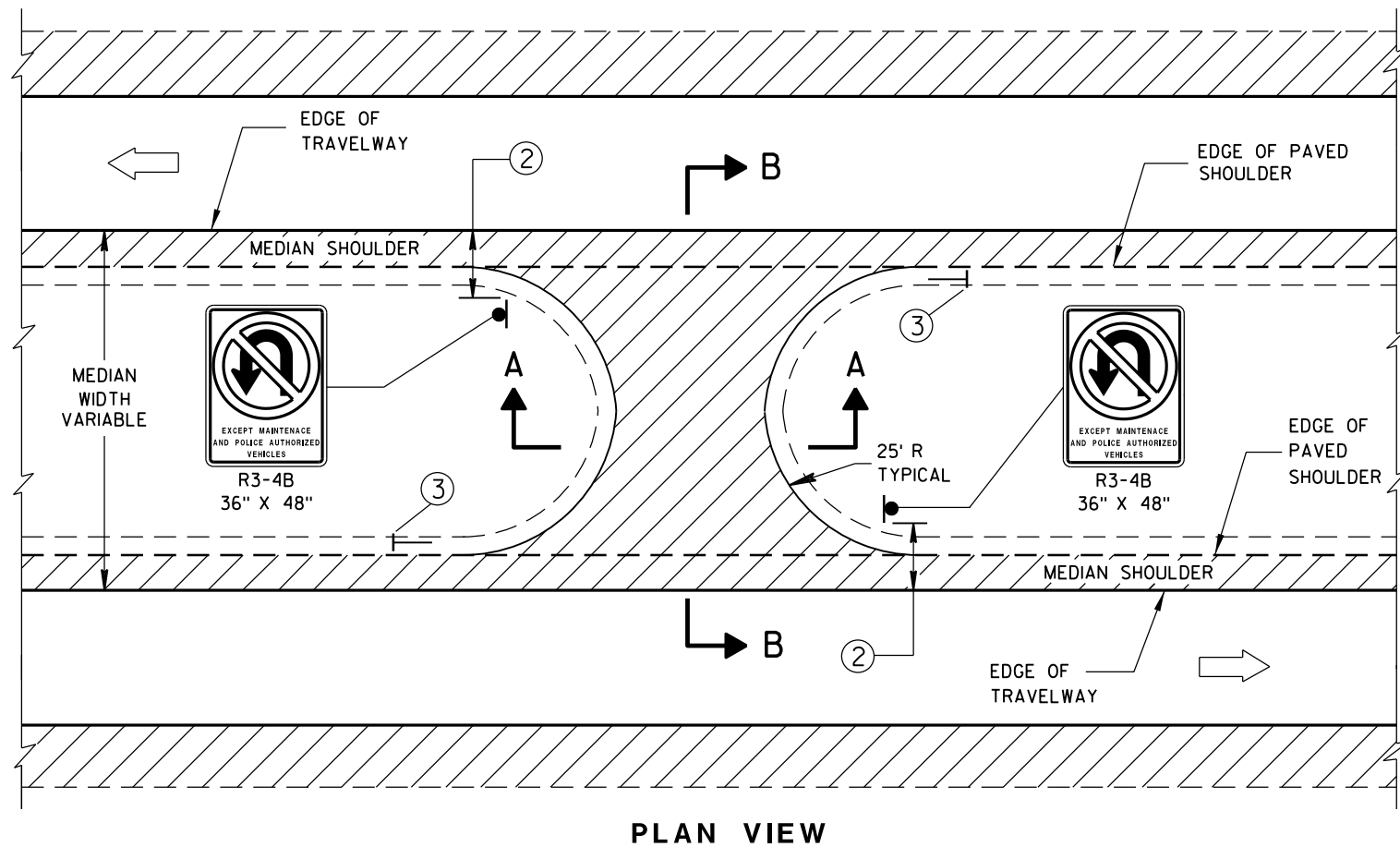
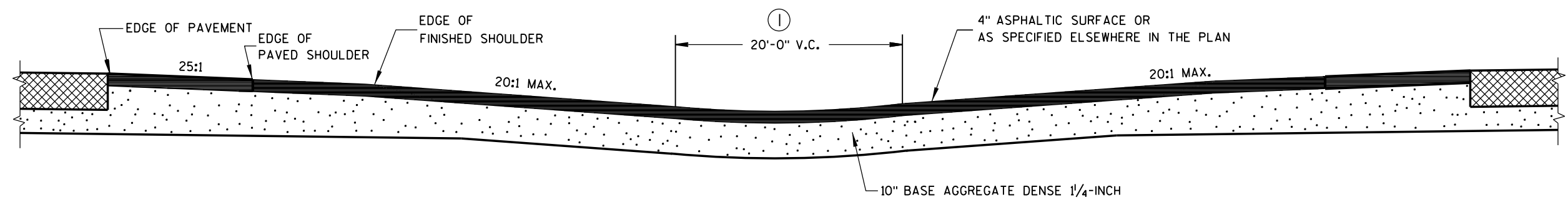
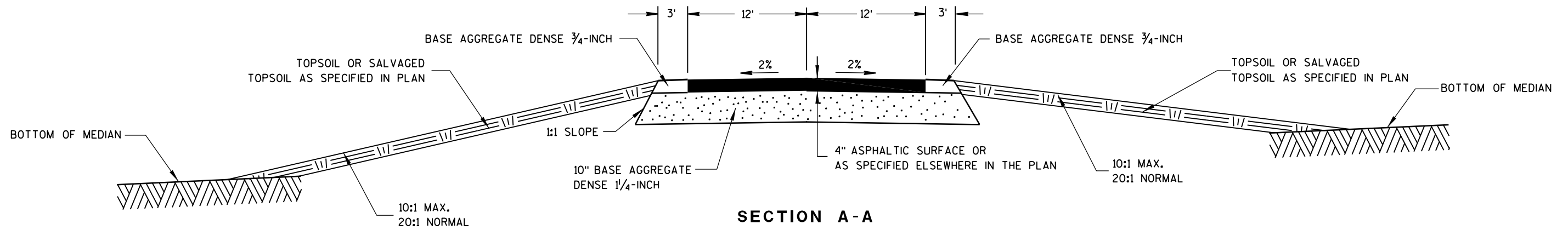
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES.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

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

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

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOPMENT	115	NEER
FHWA			





GENERAL NOTES

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

- 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

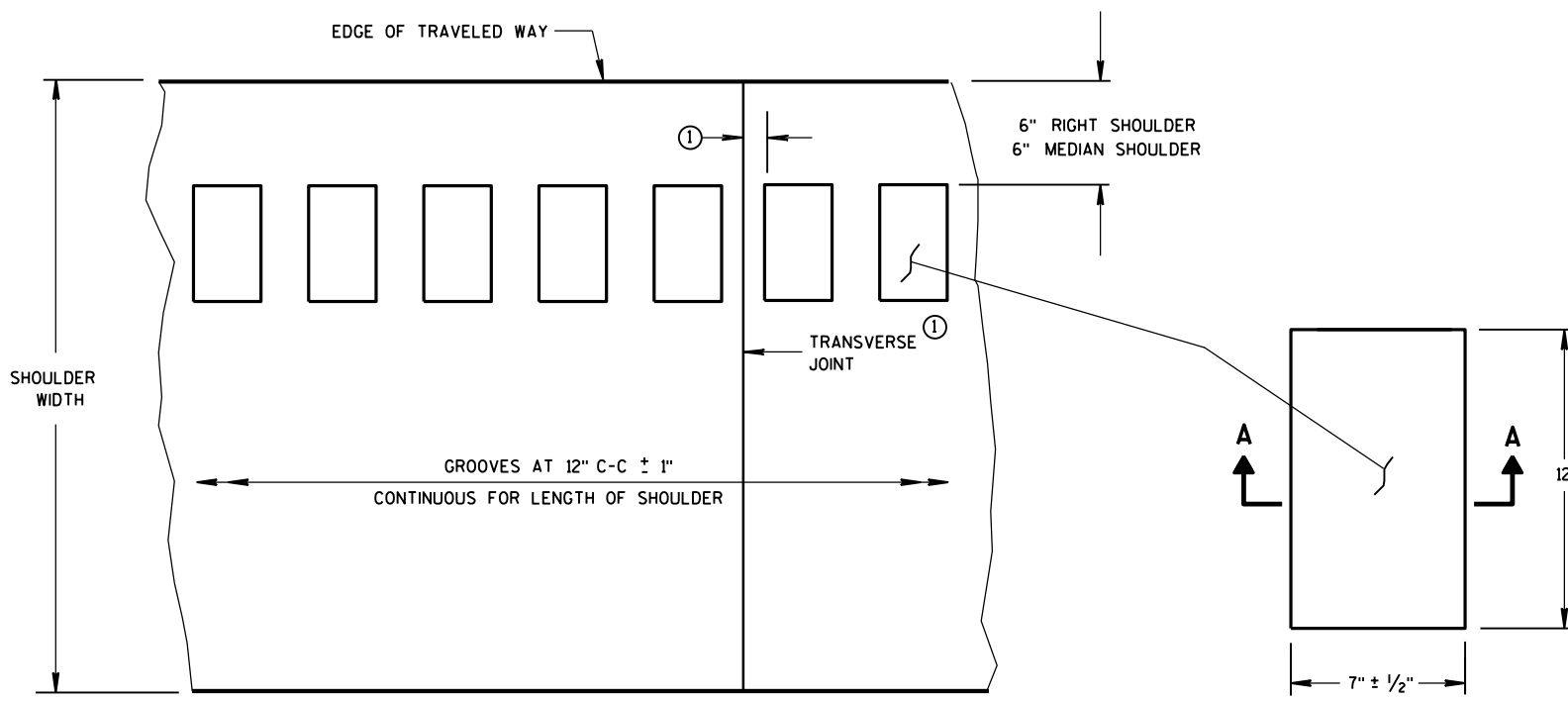
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

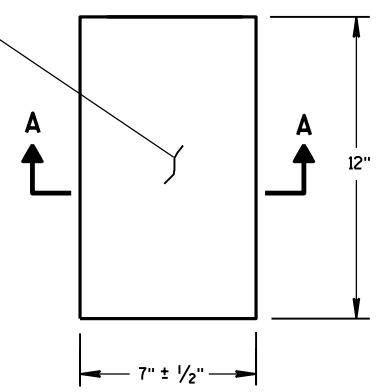
8/2013
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
117 NT



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

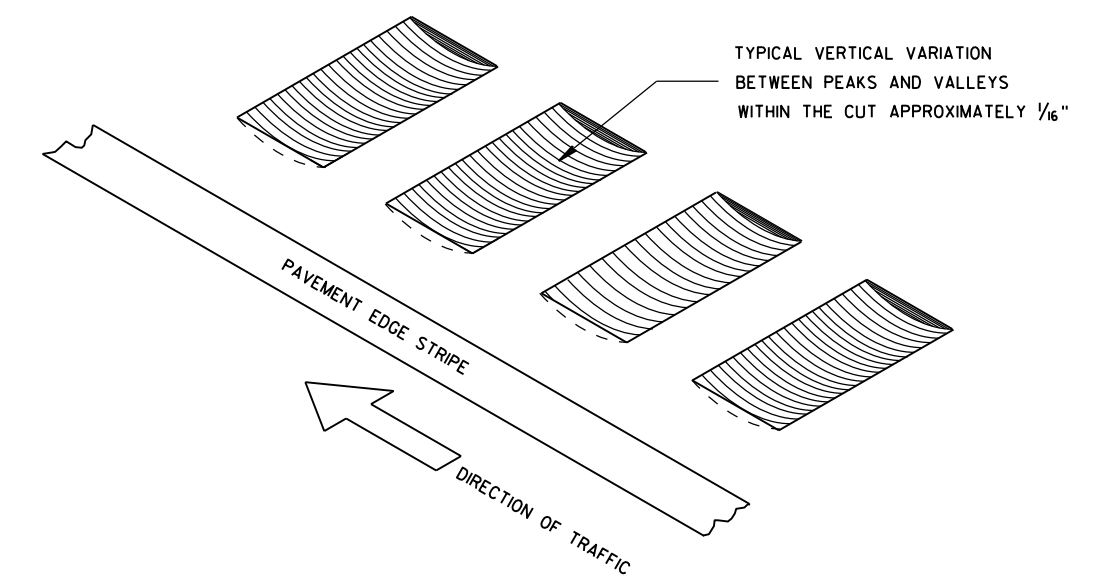
GENERAL NOTES

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

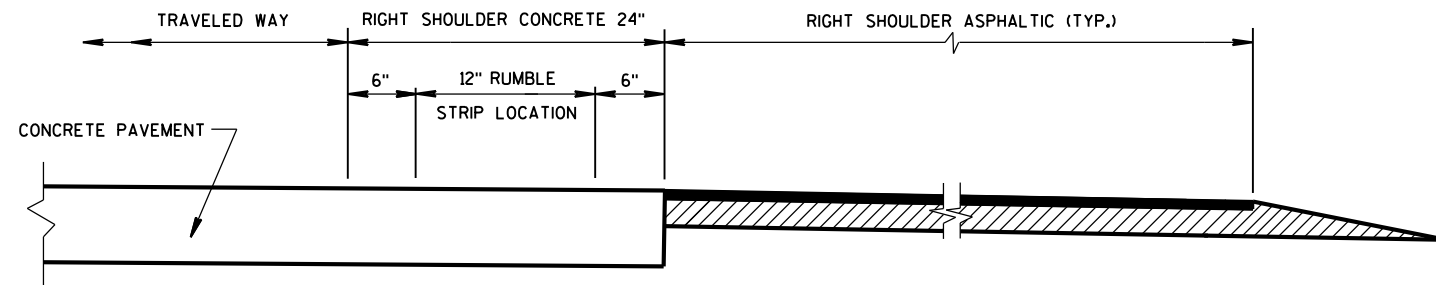
RUMBLE STRIPS ON EXPRESSWAYS

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.

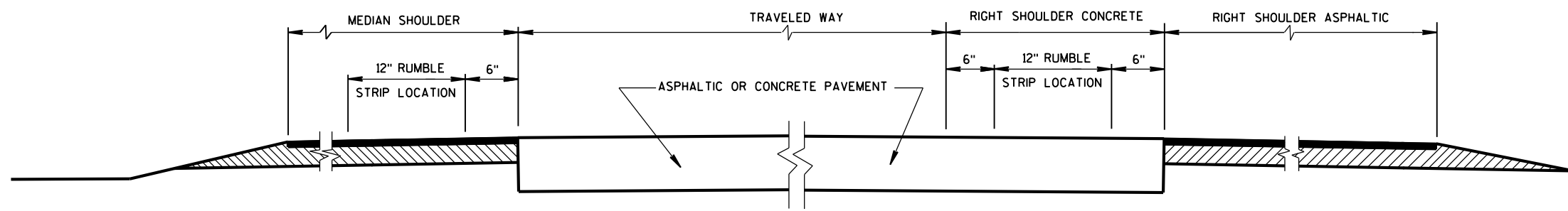
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



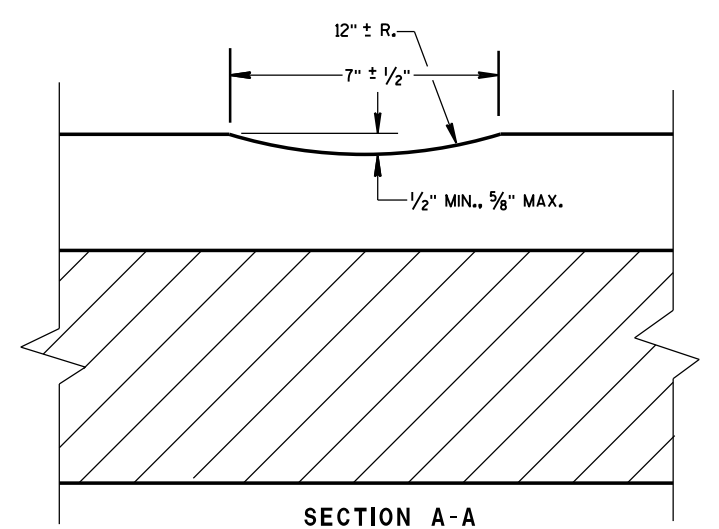
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



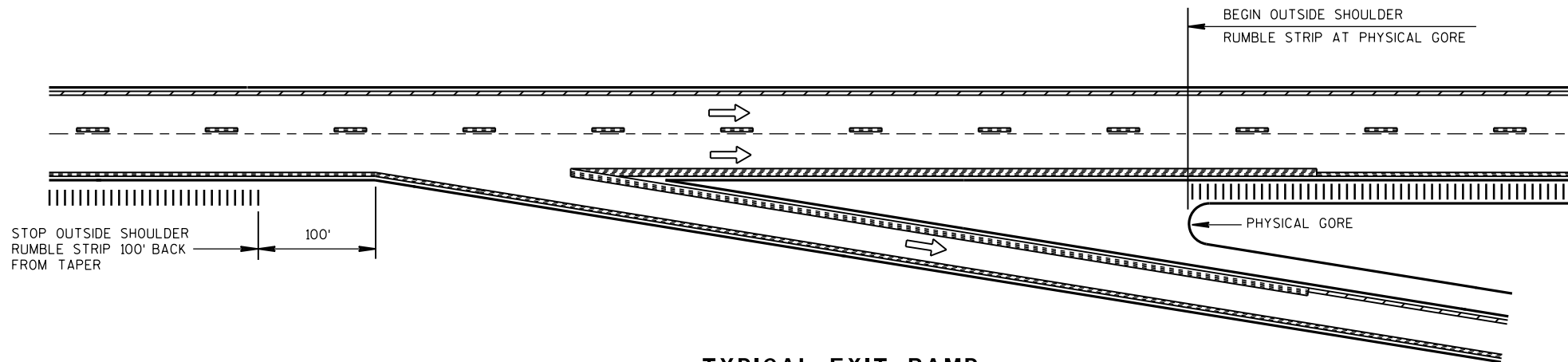
SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 118



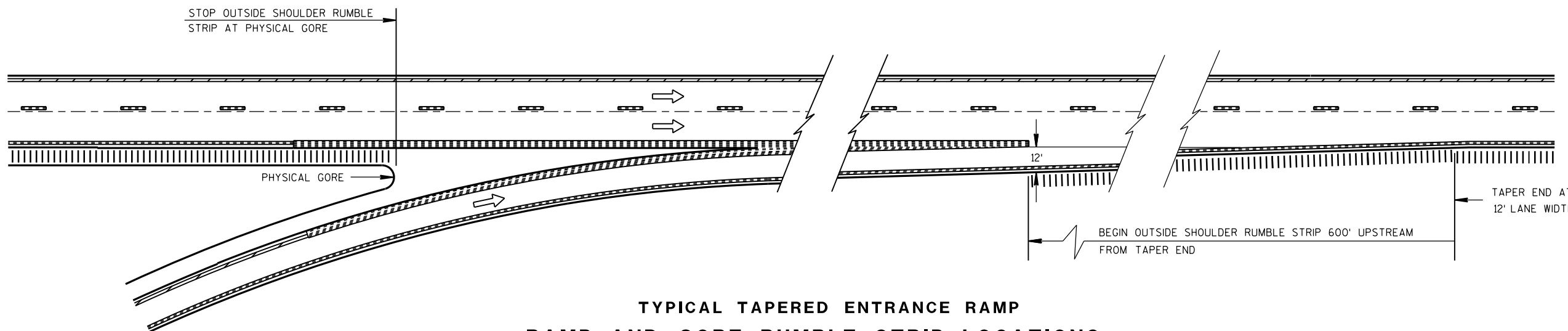
TYPICAL EXIT RAMP

NOTES:

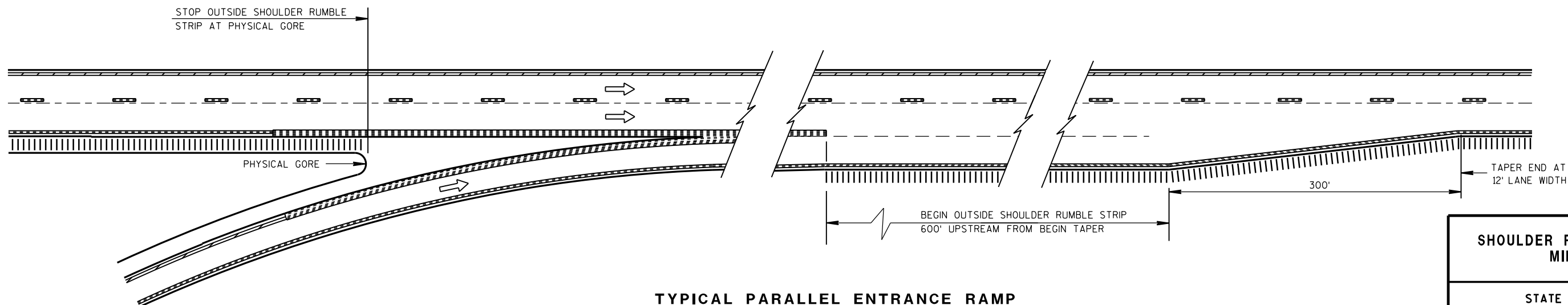
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

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

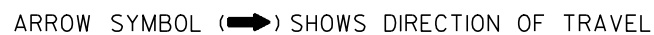
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012
DATE
FHWA

/S/ Jerry H. Zoagg
ROADWAY STANDARDS ENGINEER

119

ENT



PLAN VIEW

RUMBLE STRIP LOCATION

TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST. B	DIST. C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	(1)	550'
35	175'	(1)	475'
≤ 30	125'	(1)	425'

- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY $\frac{1}{16}$ "
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

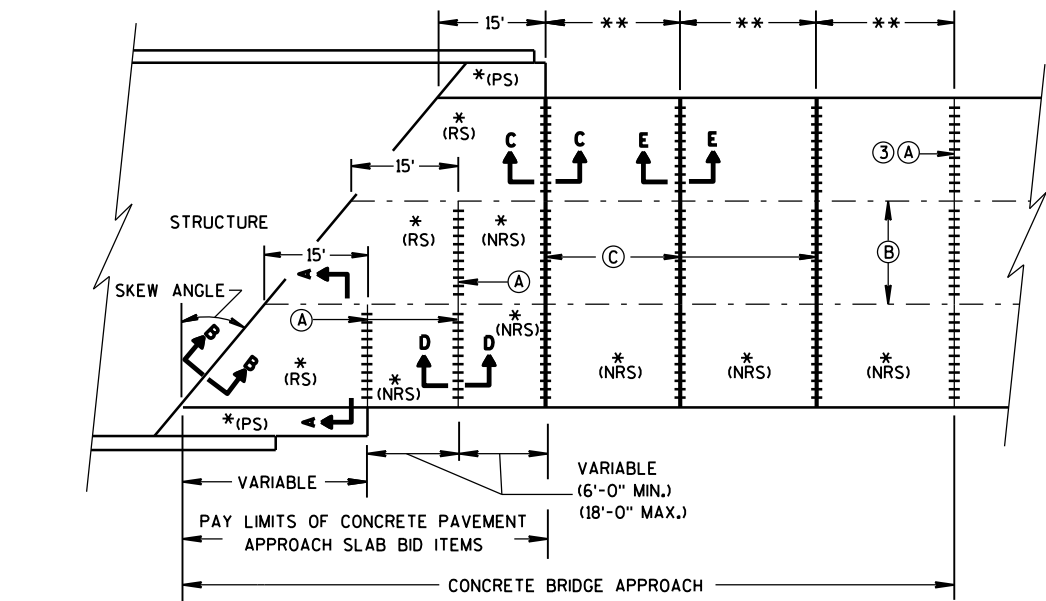
PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.



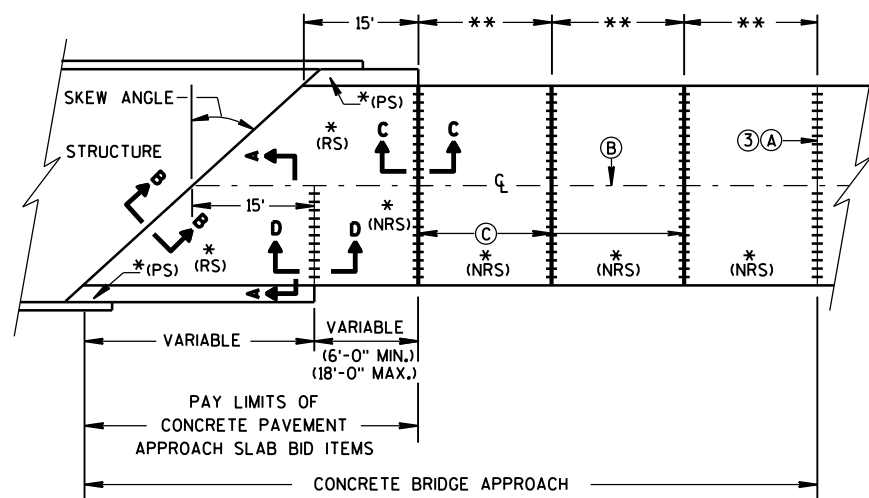
ASPHALTIC RUMBLE STRIPS AT INTERSECTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

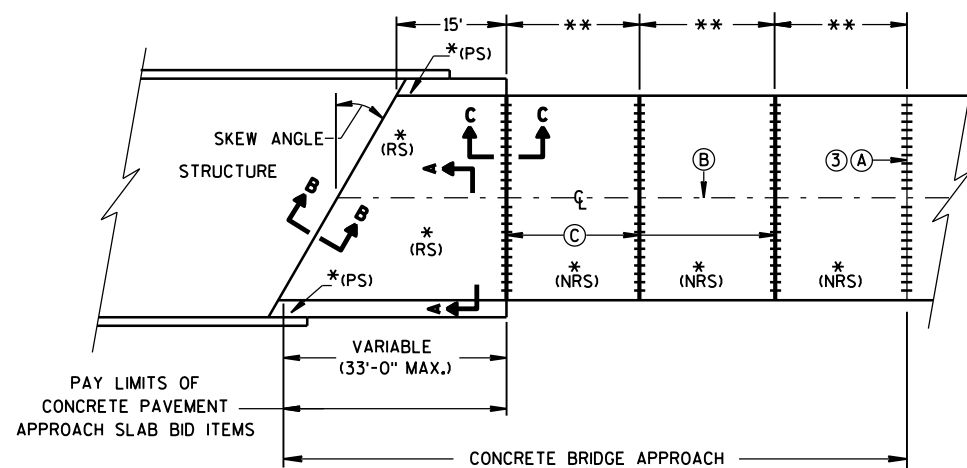
APPROVED
8/17/2011 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 120 ENT
ENGINEER



SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)



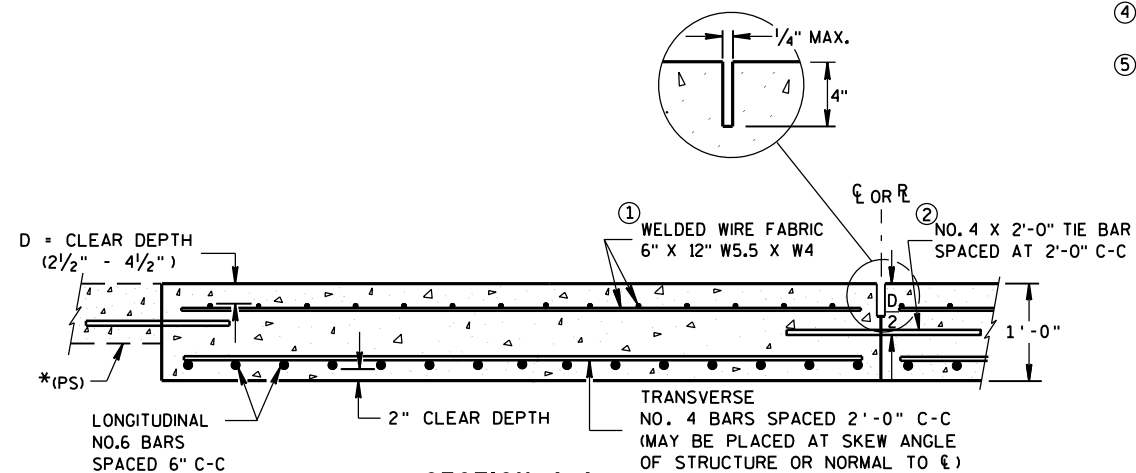
SKEWS > 30°
(PAVEMENT WIDTH ≤ 30')



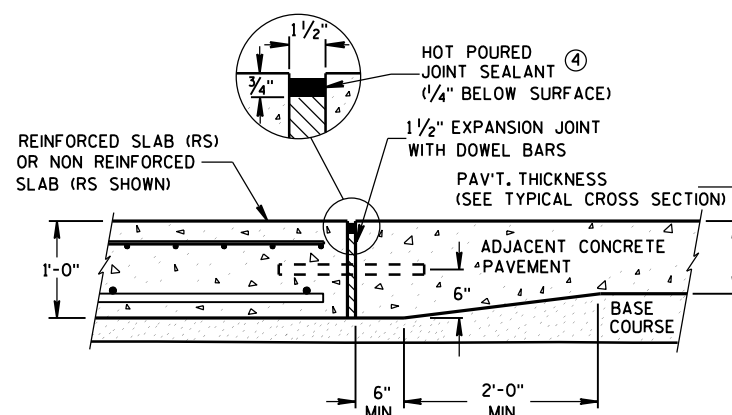
SKEWS ≤ 30°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT

- *(RS) = REINFORCED CONCRETE SLAB
 *(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
 (SEE DETAILS ELSEWHERE IN THE PLAN)
 *(NRS) = NON-REINFORCED CONCRETE SLAB
 **STANDARD TRANSVERSE JOINT SPACING
 (SEE SDD 13C4, SDD 13C11, & SDD 13C13)
 ***STANDARD DOWEL BAR DIAMETER
 (SEE SDD 13C11, & SDD 13C13)

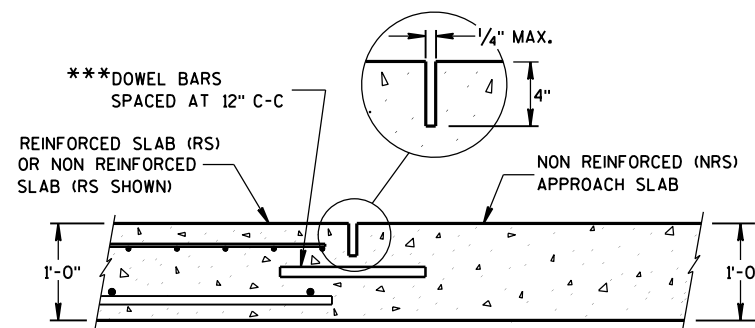
- (A) STANDARD CONTRACTION JOINT NORMAL TO R_L OR R_C
 (B) STANDARD LONGITUDINAL JOINT AND TIE BARS.
 (C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L OR R_C



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



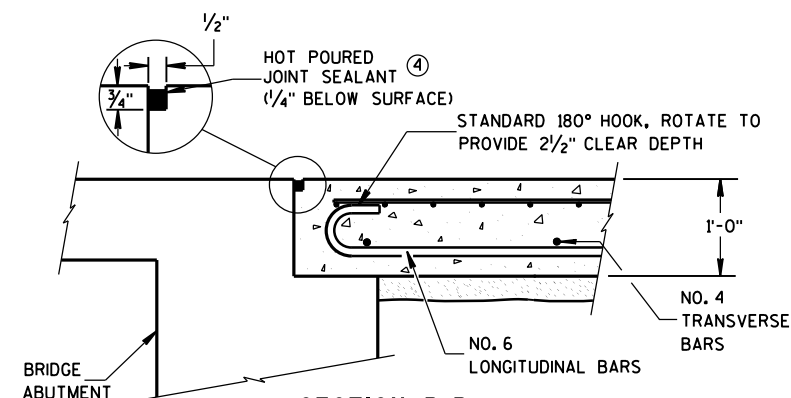
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

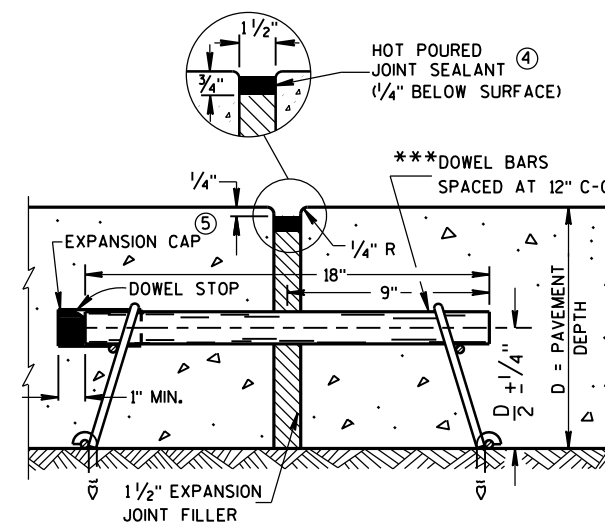
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION E-E
EXPANSION JOINT

CONCRETE BRIDGE
APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

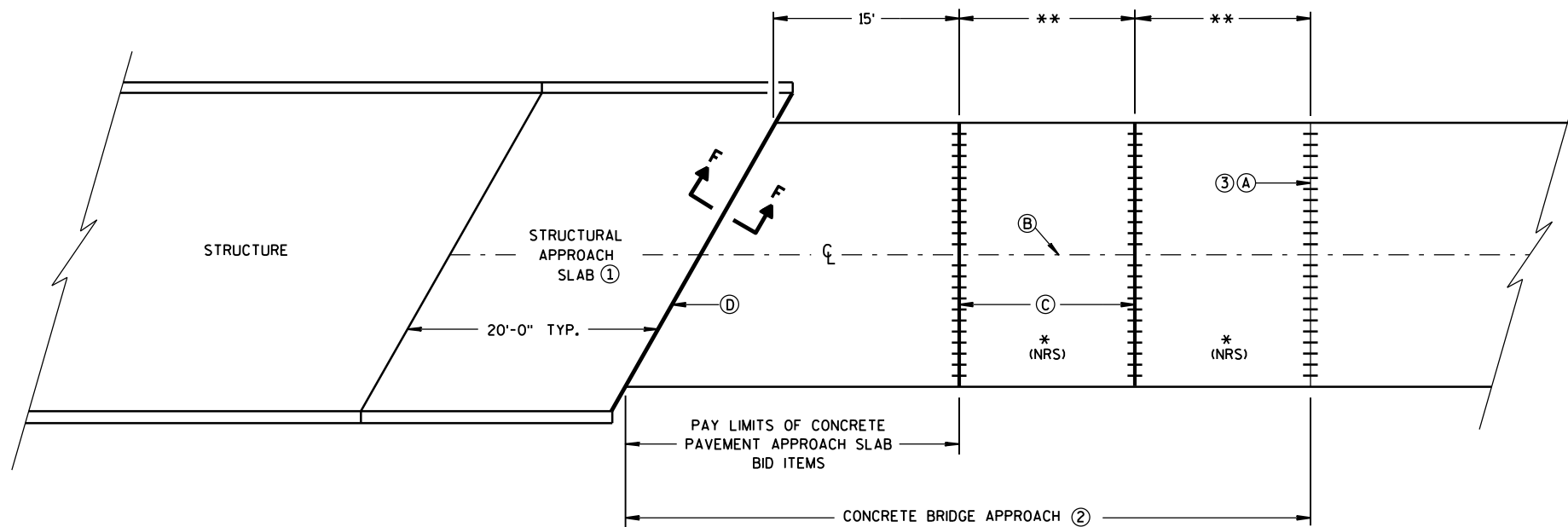
June, 2014

DATE

FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DE 121

EER



BRIDGE APPROACHES

GENERAL NOTES

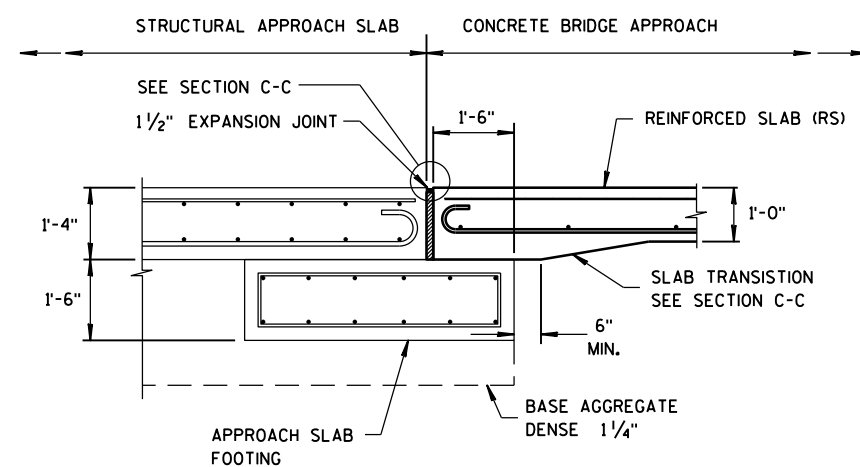
ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE BRIDGE APPROACH.

- ① CONFORM TO APPLICABLE BRIDGE MANUAL STANDARD DRAWINGS FOR *STRUCTURAL APPROACH SLABS* (SEE CHAPTER 12 - ABUTMENTS).
- ② CONFORM TO SHEET (a) OF THIS SET FOR *CONCRETE BRIDGE APPROACH* DETAILS, WITH ONE EXCEPTION—WHEN CONSTRUCTING A *CONCRETE BRIDGE APPROACH* NEXT TO A *STRUCTURAL APPROACH SLAB*, AS SHOWN IN THE DETAIL DRAWING, THE *CONCRETE BRIDGE APPROACH* WILL ONLY HAVE TWO EXPANSION JOINTS; THE THIRD EXPANSION JOINT IS AT THE END OF THE *STRUCTURAL APPROACH SLAB*.
- ③ DO NOT DOWEL A CONTRACTION JOINT THAT ABUTS AN HMA PAVEMENT.

*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

- Ⓐ STANDARD CONTRACTION JOINT NORMAL TO R_L OR C_L
- Ⓑ STANDARD LONGITUDINAL JOINT AND TIE BARS.
- Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO R_L OR C_L
- Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION F-F

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB
AND
CONCRETE BRIDGE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2014

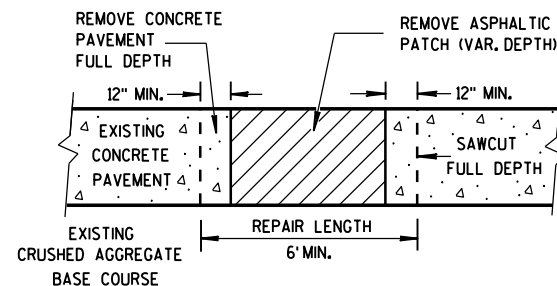
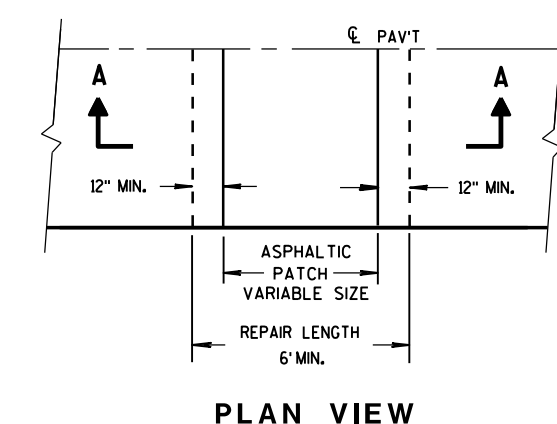
DATE

FHWA

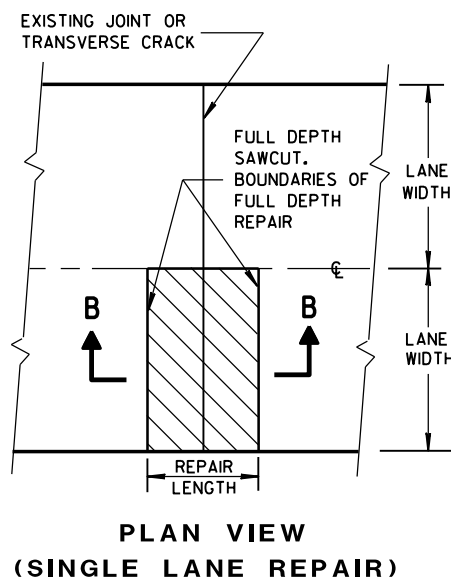
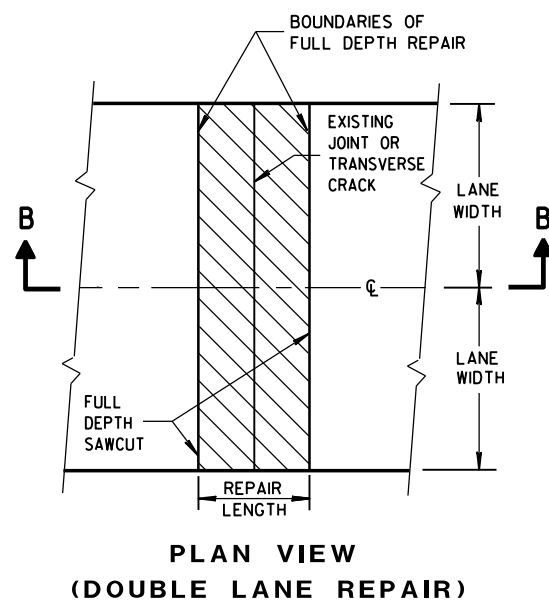
/S/ Deb Bischoff

PAVEMENT POLICY & DE 122

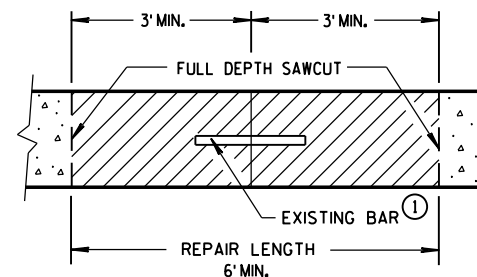
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SECTION A-A
HMA PATCH REMOVAL



FULL DEPTH CONCRETE PAVEMENT REMOVAL
(SEE NOTE)



SECTION B-B
CONCRETE REMOVAL

GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

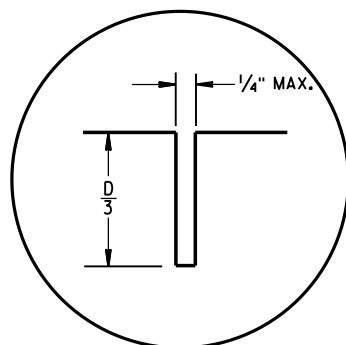
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

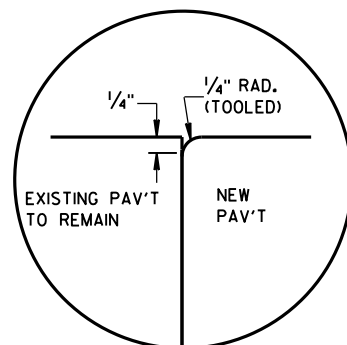
① DOWEL BARS MIGHT NOT EXIST.

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"

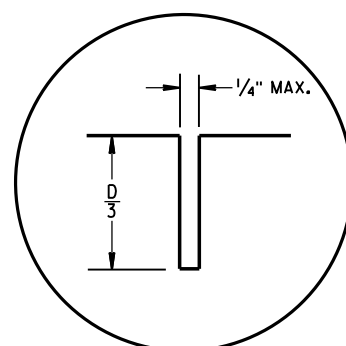


C1

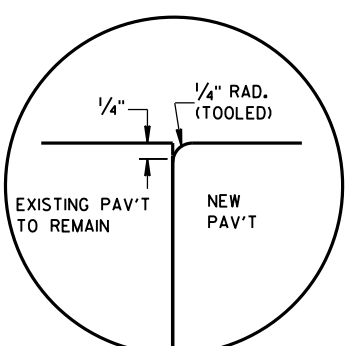


C2

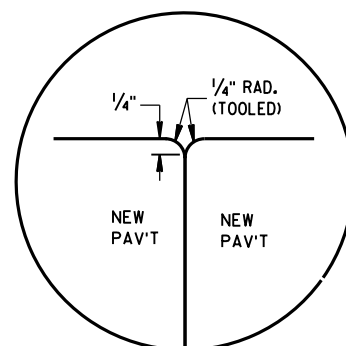
TRANSVERSE JOINTS



L1

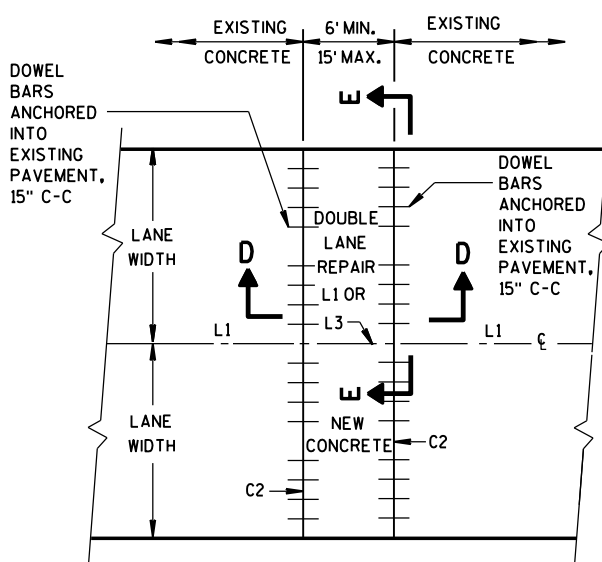


L2



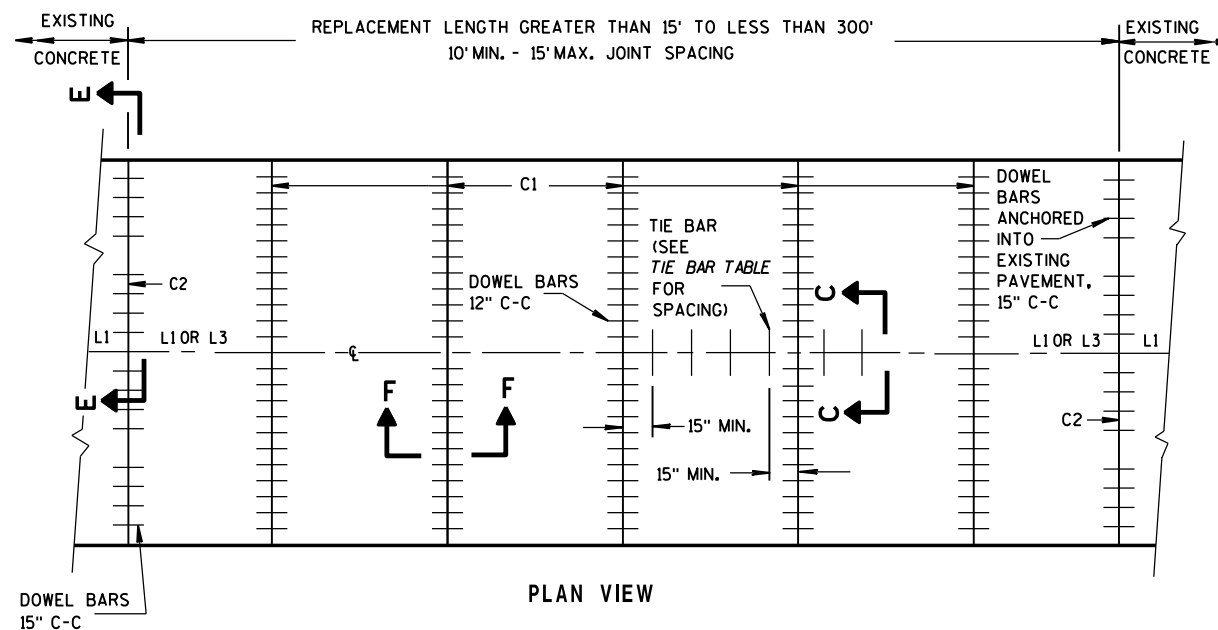
L3

LONGITUDINAL JOINTS



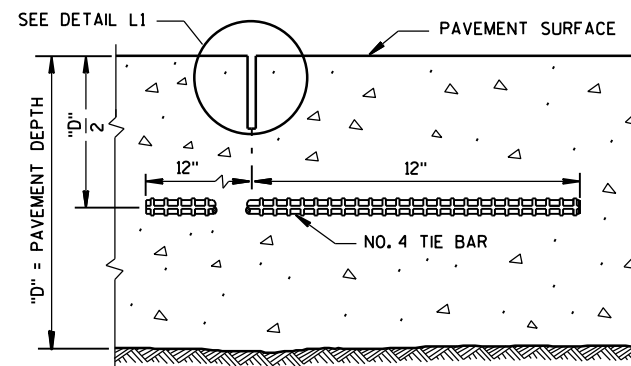
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



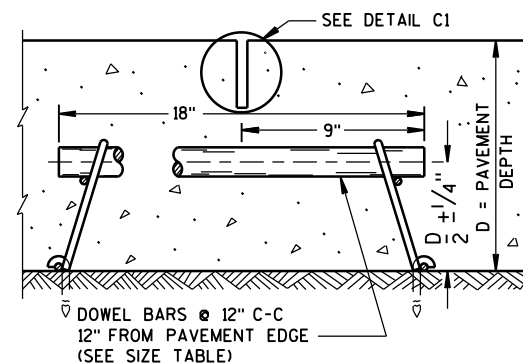
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



SECTION C-C

SAWED LONGITUDINAL JOINT

SECTION F-F
CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

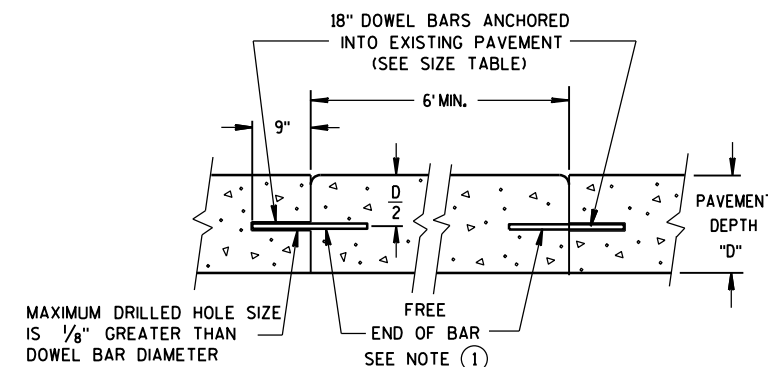
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

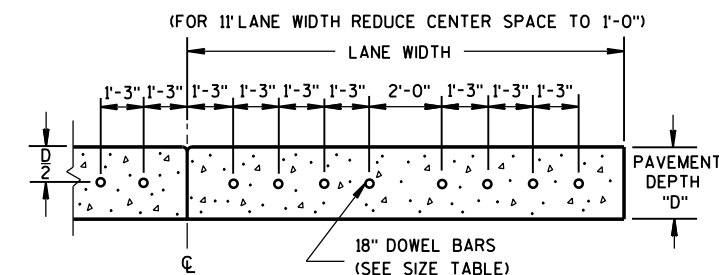
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D



SECTION E-E

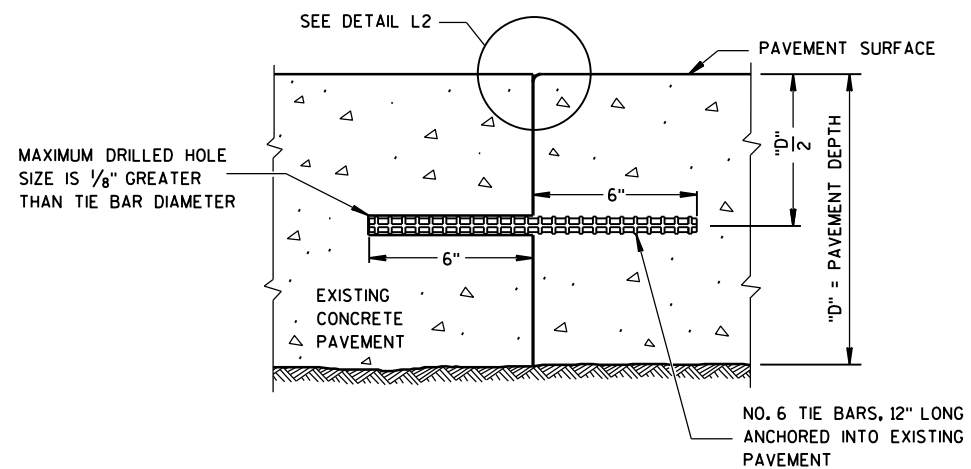
DRILLED DOWEL BAR CONSTRUCTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6, 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

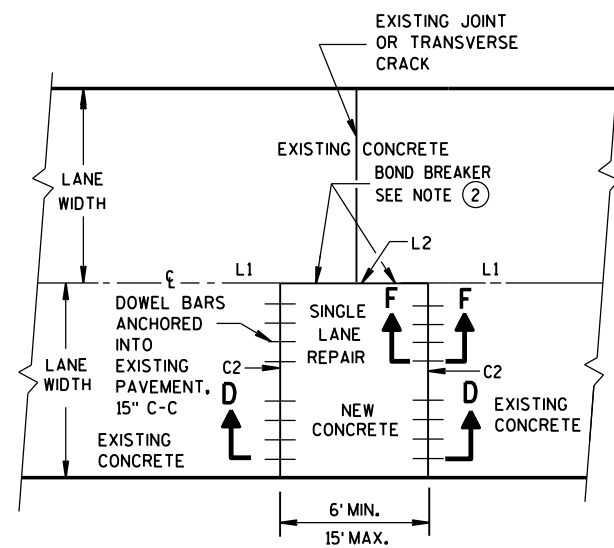
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 124



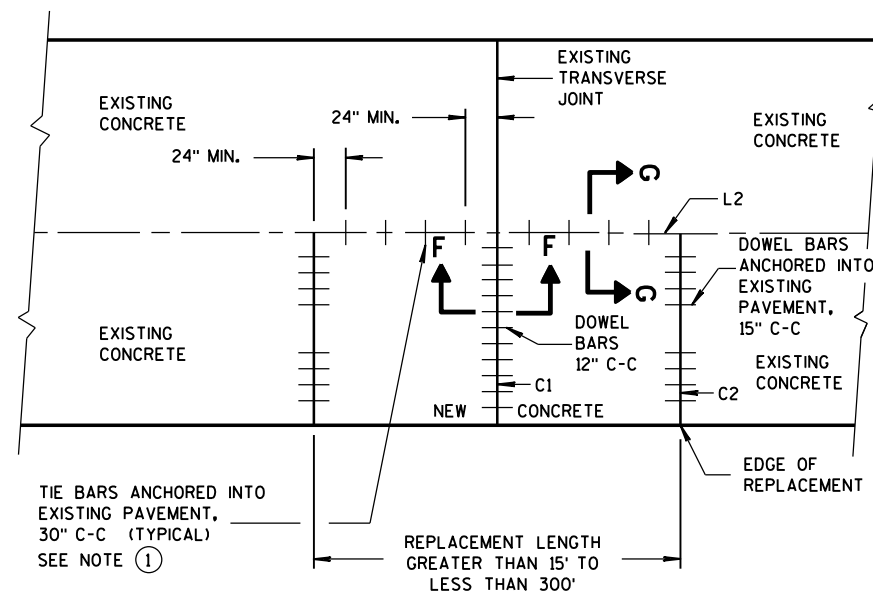
SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

GENERAL NOTES

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR

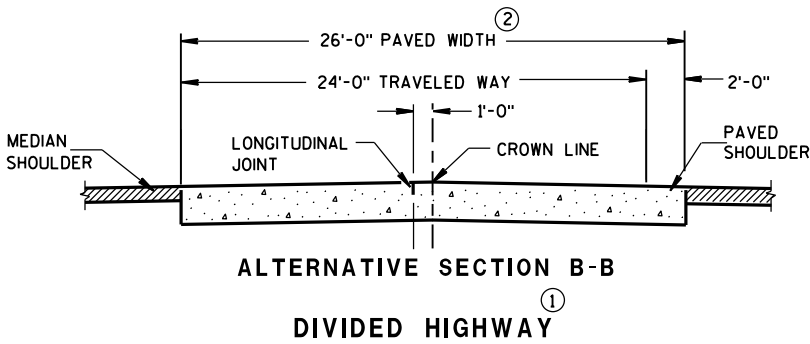
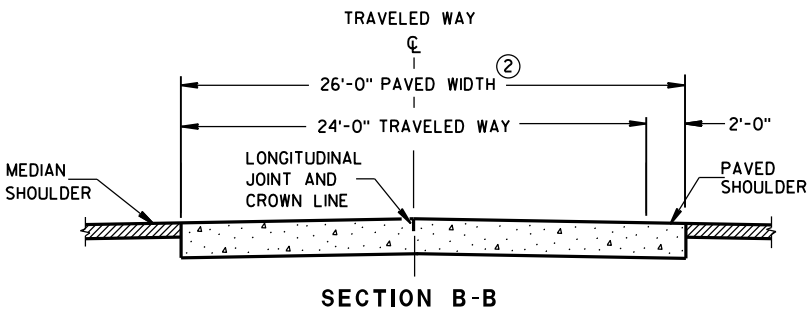
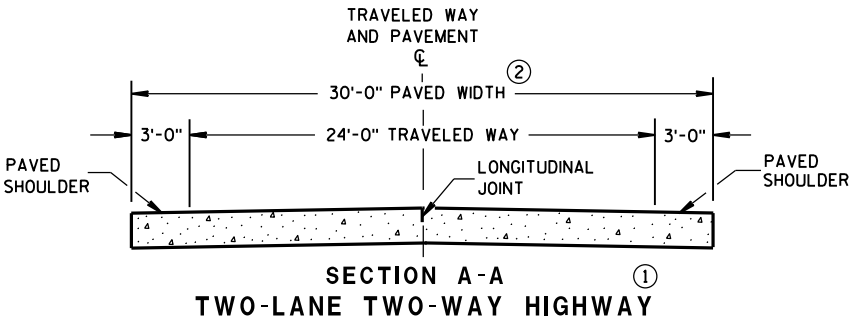


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-2013 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DE 125 IER
FHWA



GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

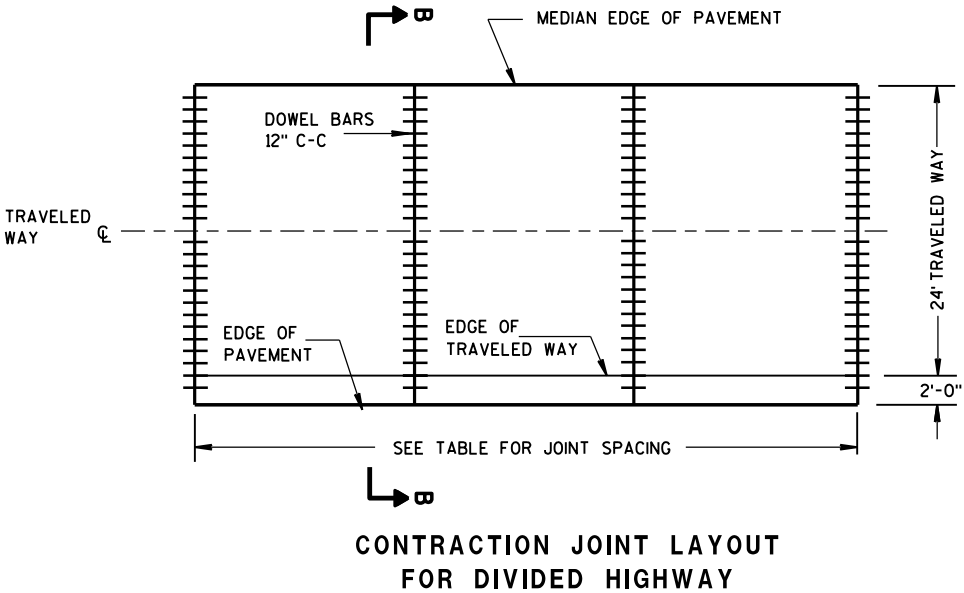
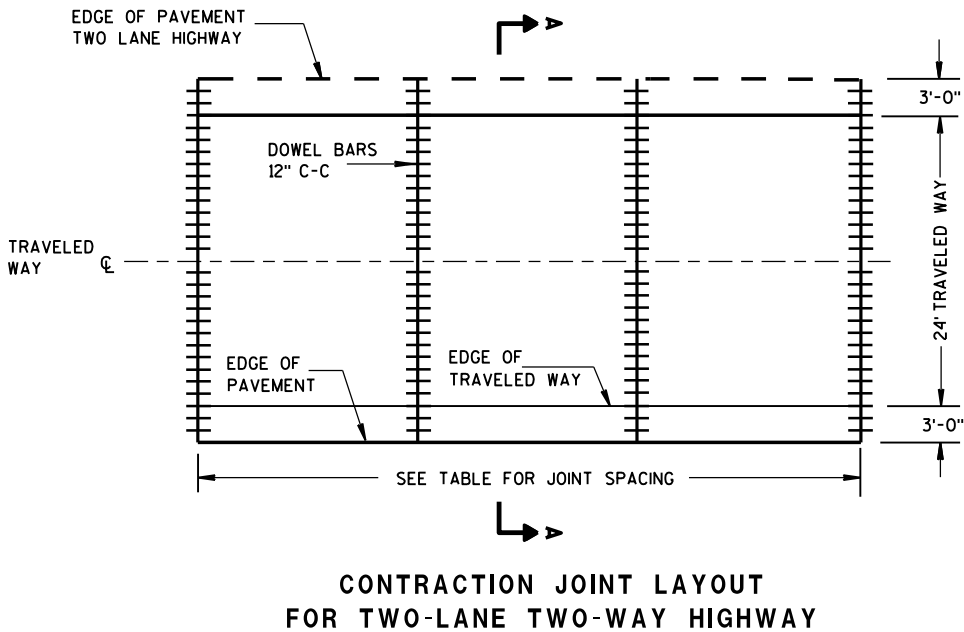
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

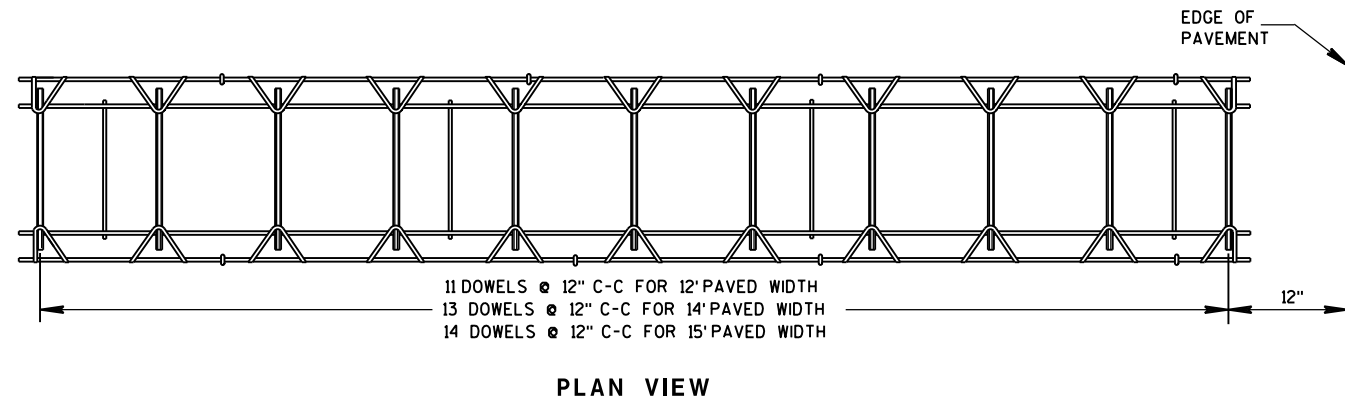
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

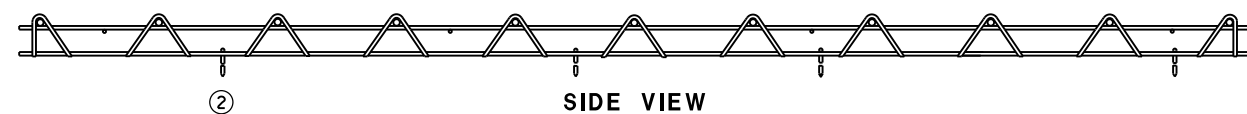
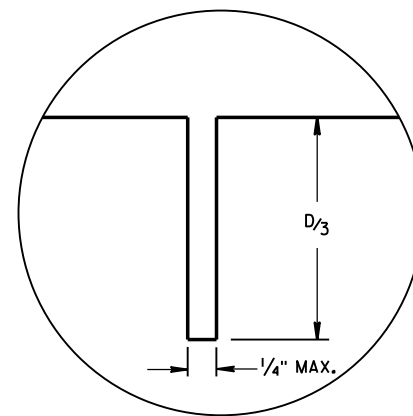


RURAL DOWELED
CONCRETE PAVEMENT

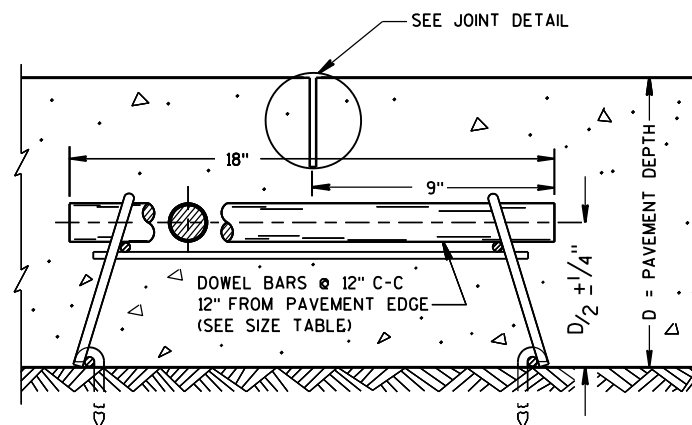
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 126



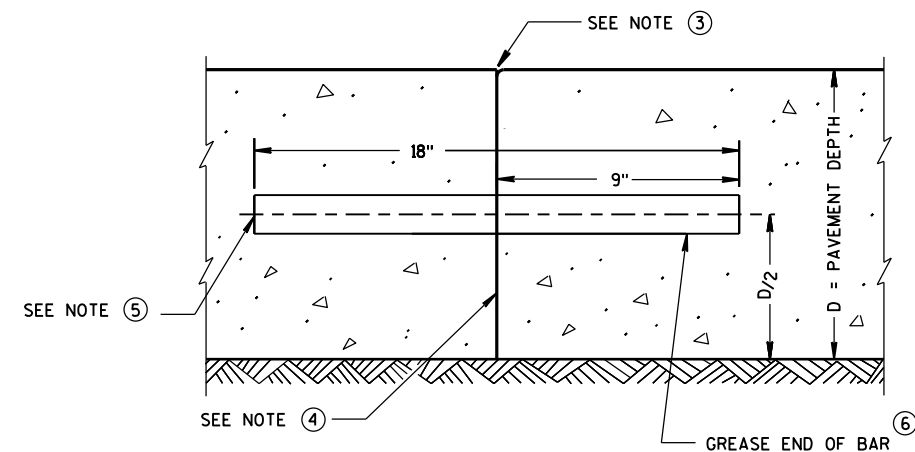
PLAN VIEW

SIDE VIEW
(NORMAL TO CENTERLINE)CONTRACTION JOINT DOWEL ASSEMBLY^①

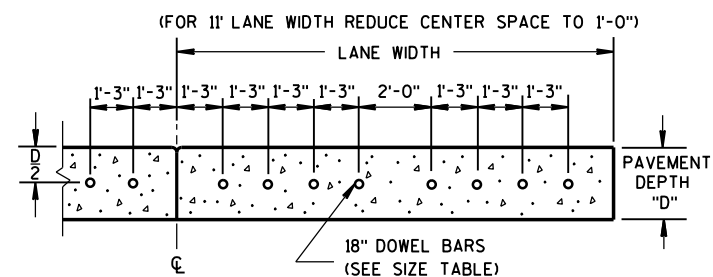
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

DRILLED DOWEL BAR CONSTRUCTION JOINT^⑦

GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A $1/4$ -INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS $1/8$ -INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

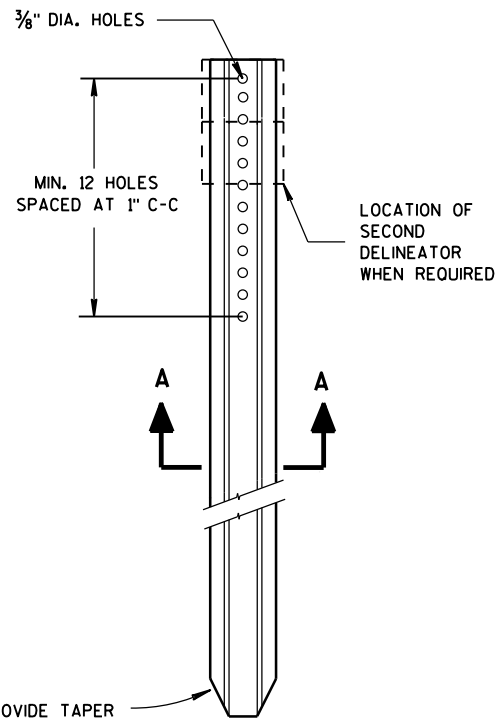
RURAL DOWELED
CONCRETE PAVEMENTSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

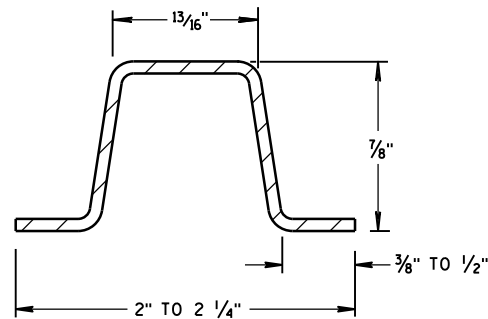
5/3/2013
DATE/S/ Deb Bischoff
PAVEMENT POLICY & DE 127

VEER

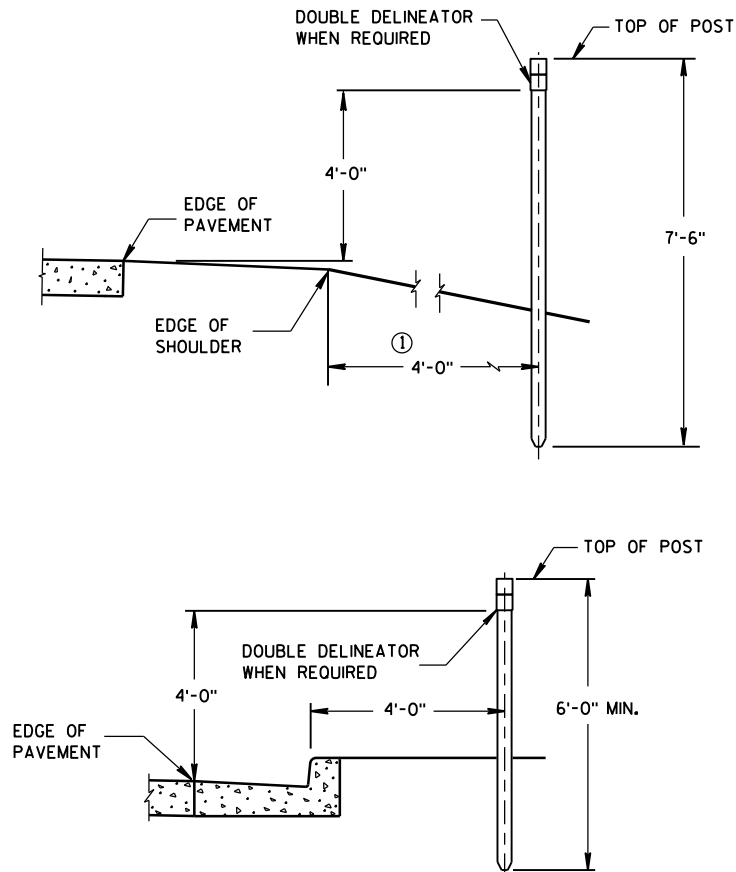
FHWA



DELINEATOR POST



SECTION A-A
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

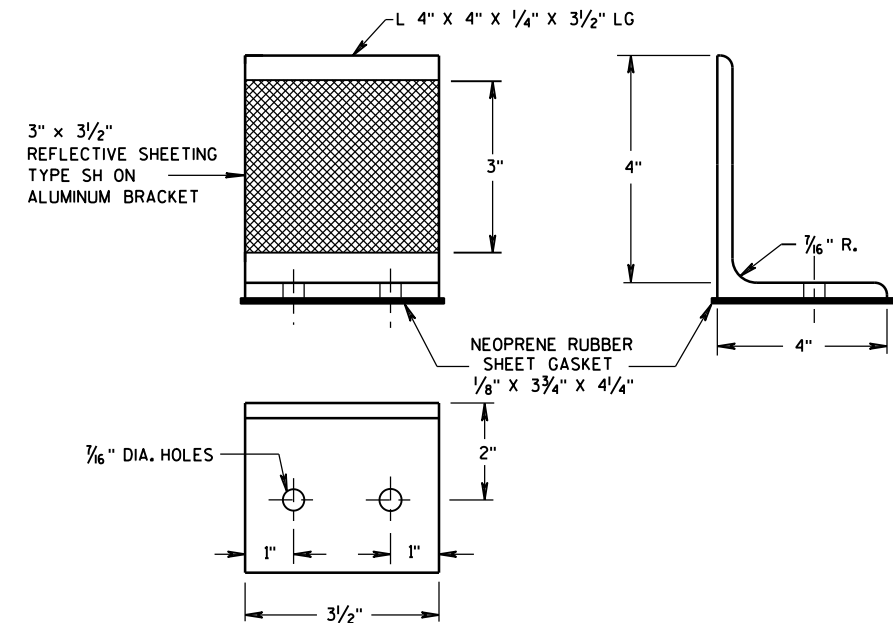


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

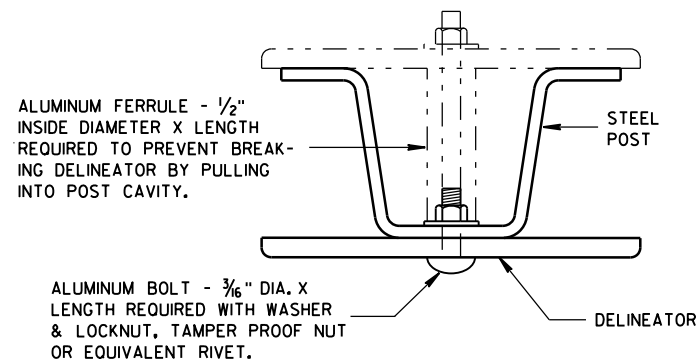
GENERAL NOTES

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

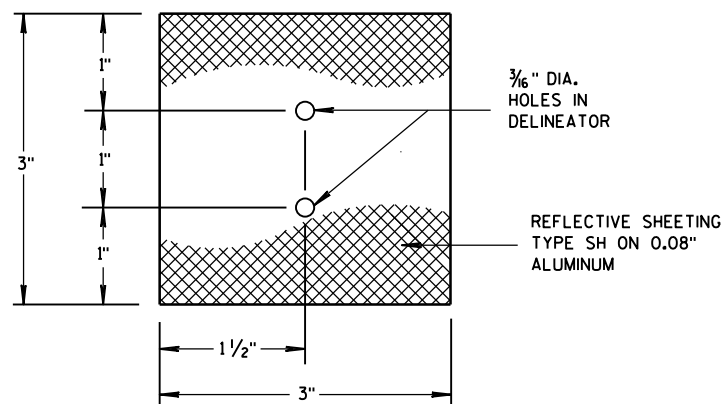
- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



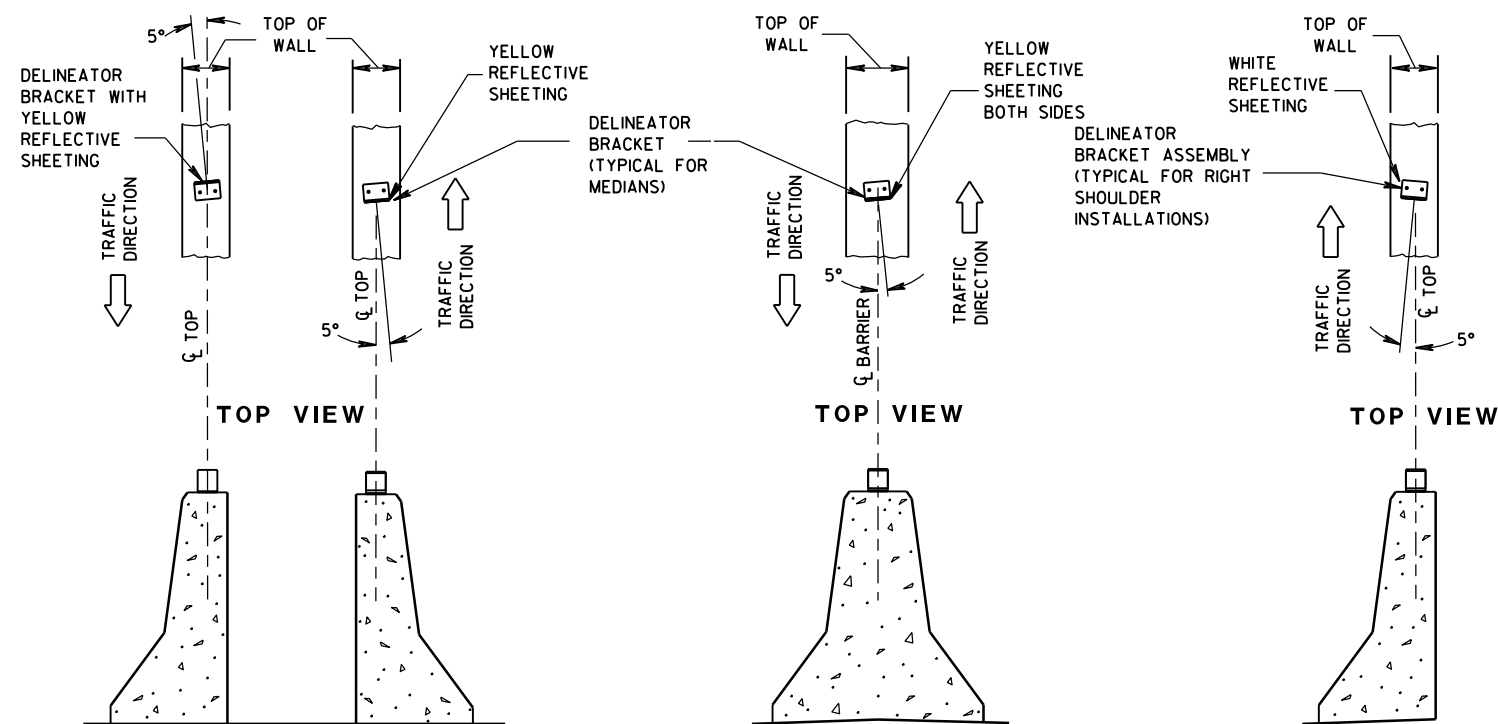
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



3" x 3" DELINEATOR

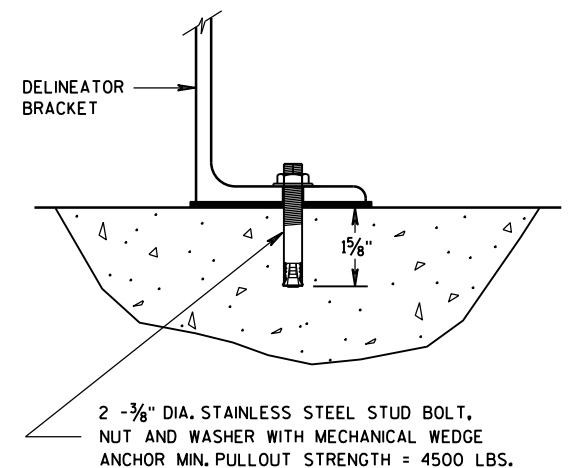


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS

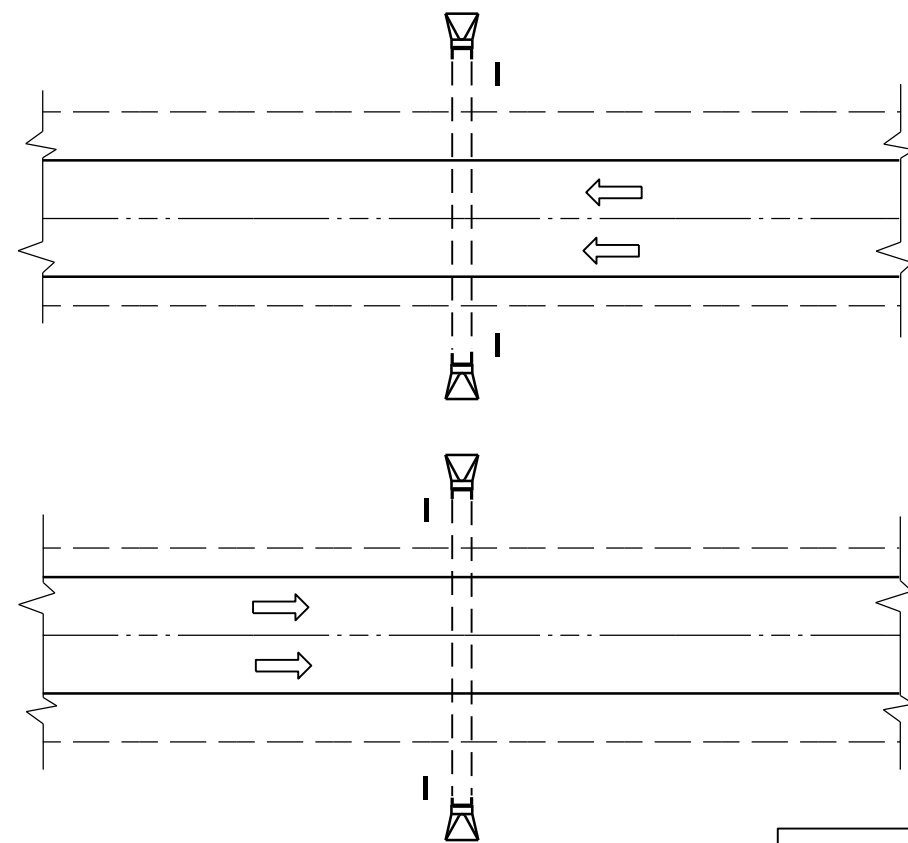


DELINEATOR BRACKET MOUNTING DETAIL

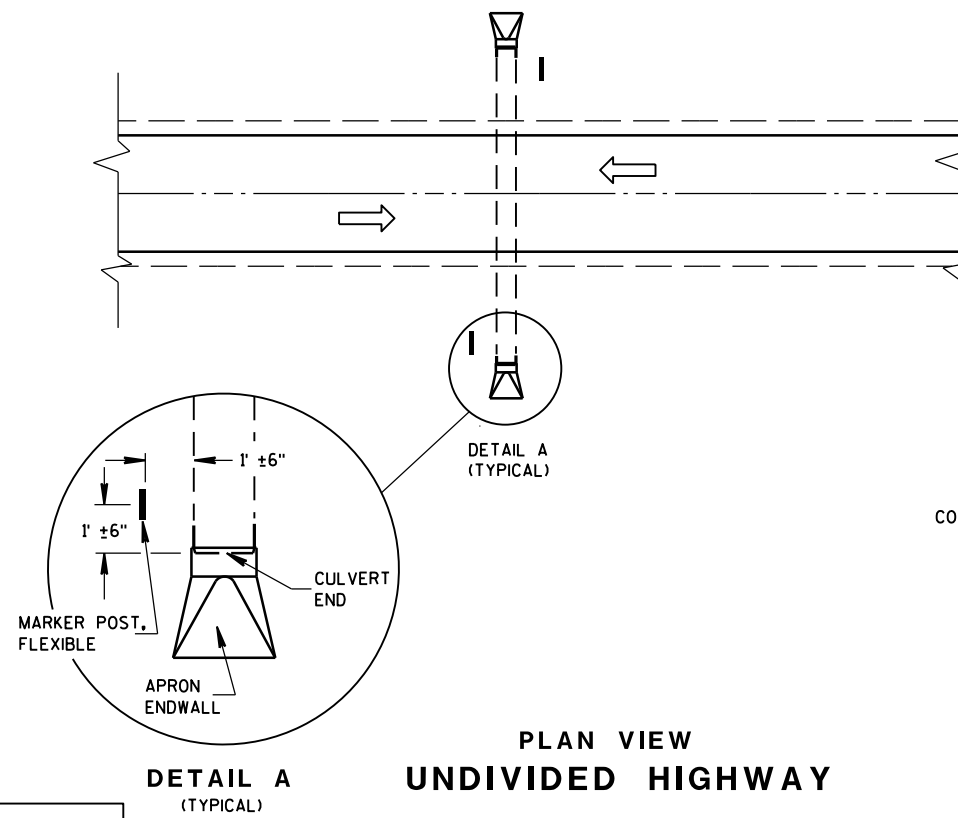
DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

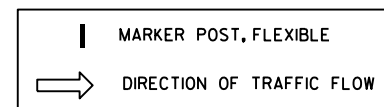
APPROVED
7/2013 DATE /S/ Travis Feltes
STATE TRAFFIC E 128
FHWA



PLAN VIEW
DIVIDED HIGHWAY



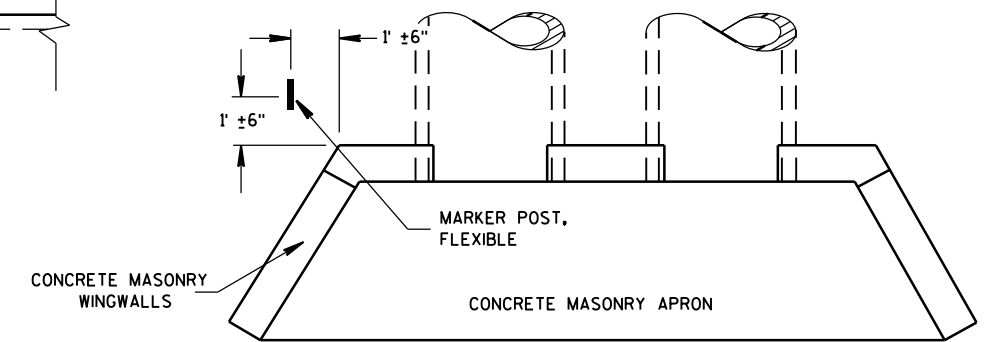
PLAN VIEW
UNDIVIDED HIGHWAY



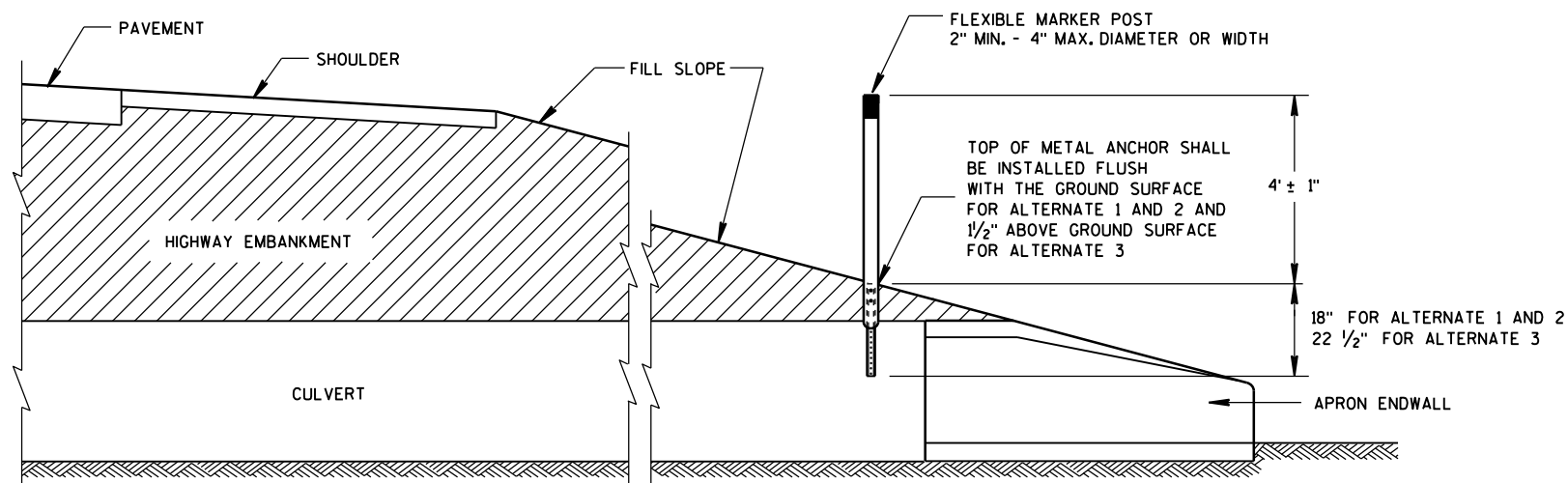
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



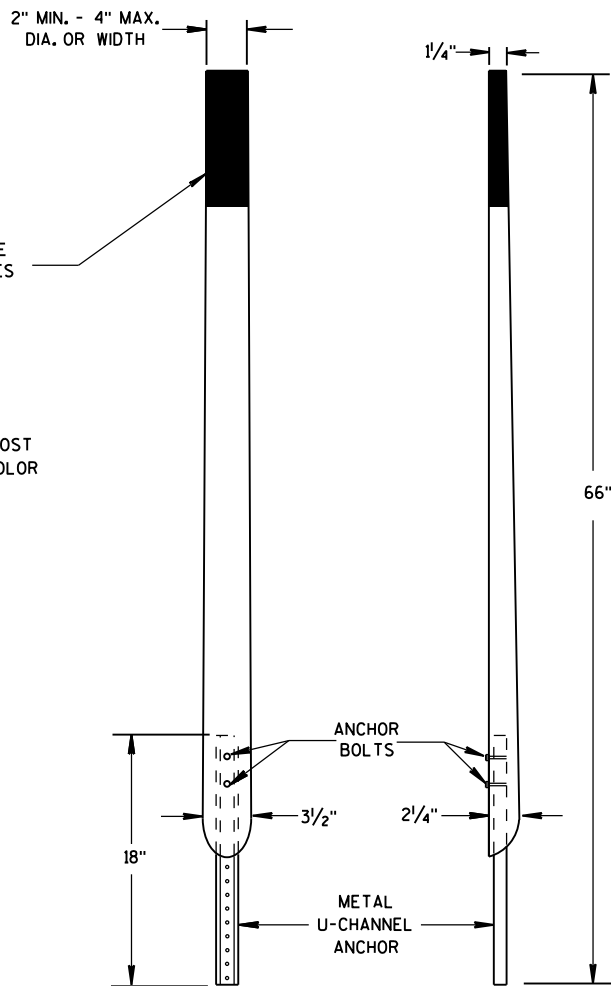
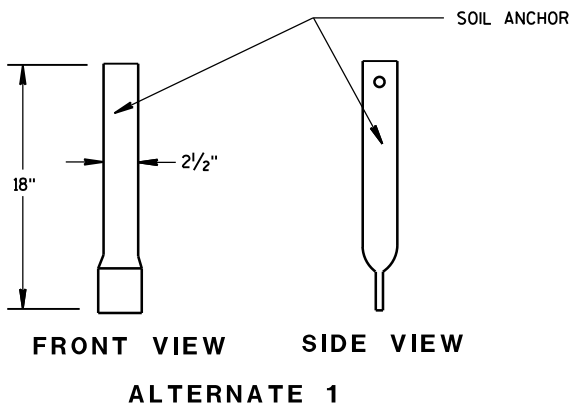
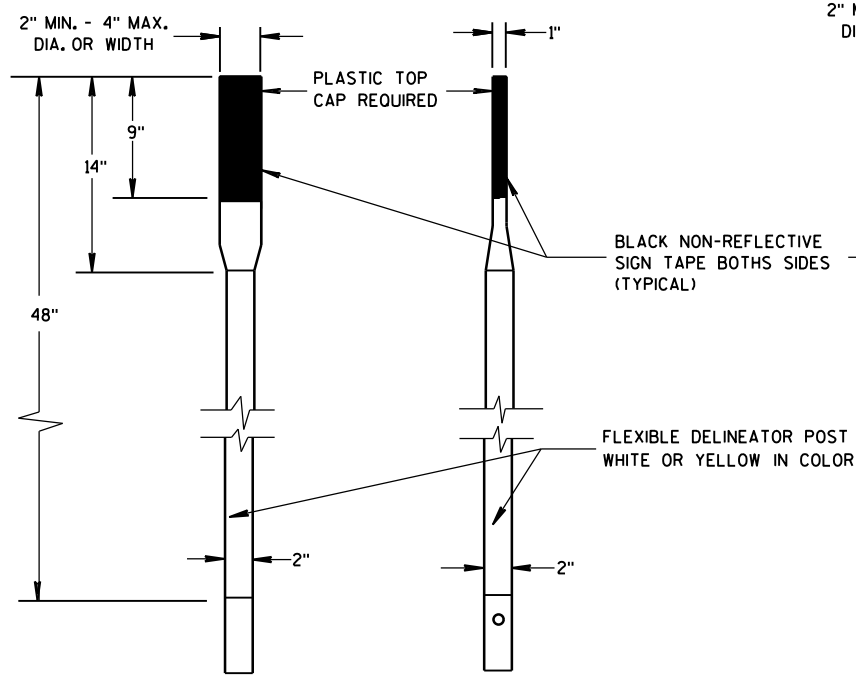
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

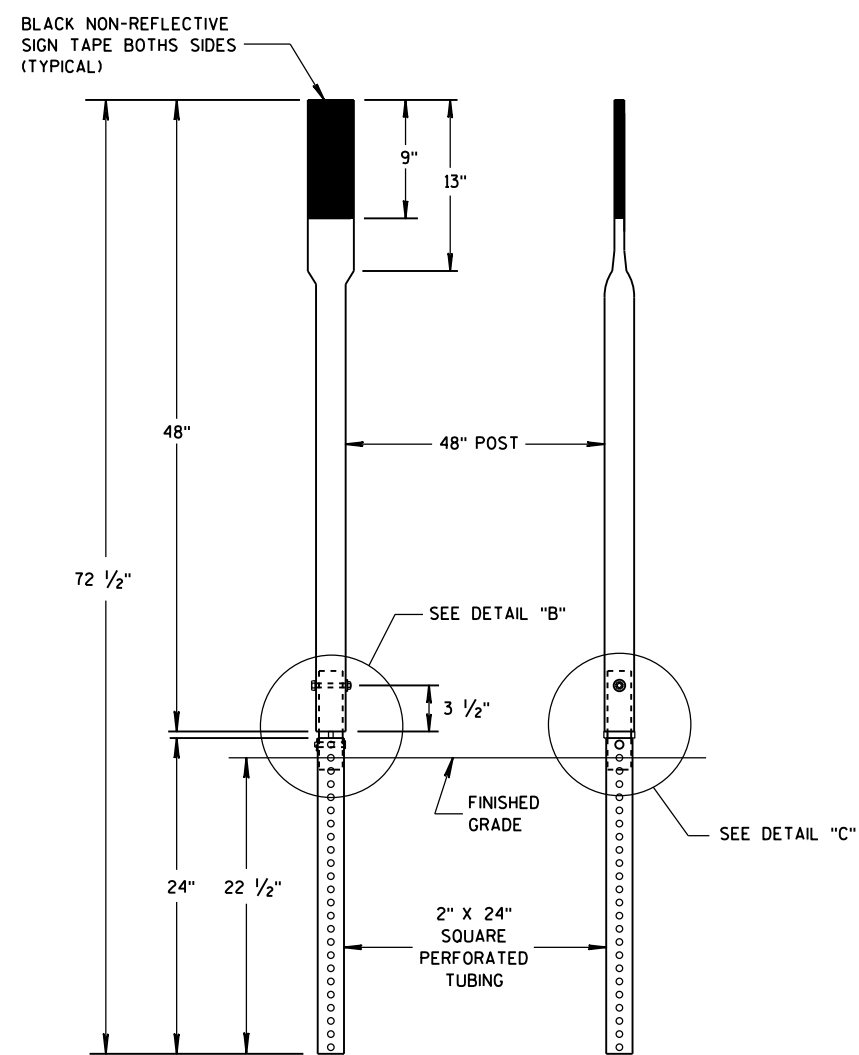
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 129

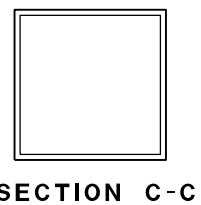


FRONT VIEW SIDE VIEW
ALTERNATE 2

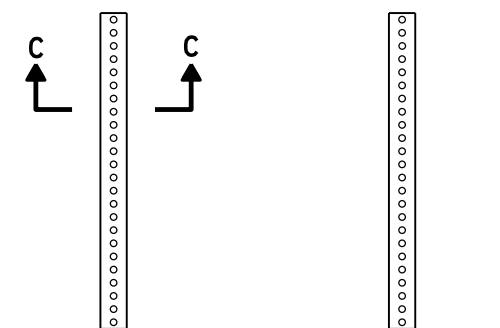
FLEXIBLE MARKER POSTS



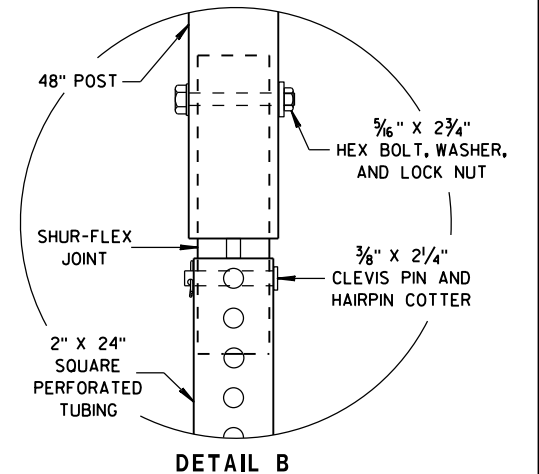
FRONT VIEW SIDE VIEW
ALTERNATE 3



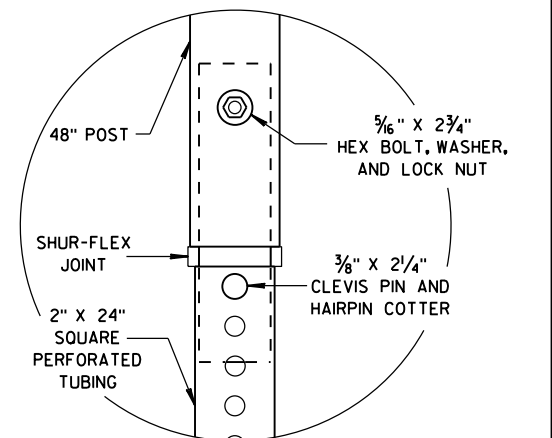
SECTION C-C



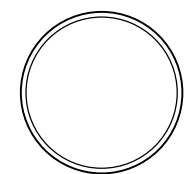
FRONT VIEW SIDE VIEW
ALTERNATE 3



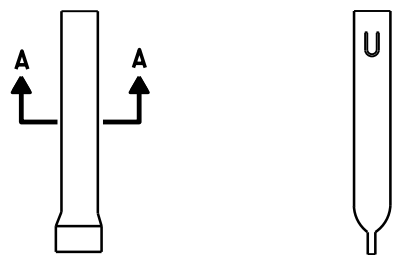
DETAIL B



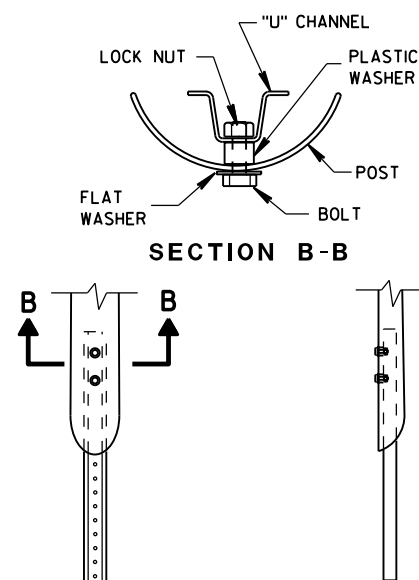
DETAIL C



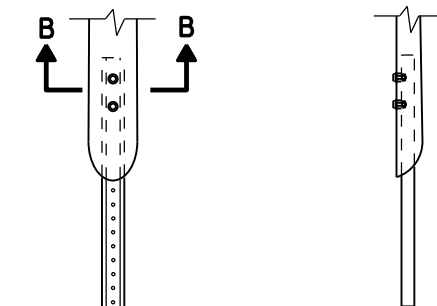
SECTION A-A



FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION B-B



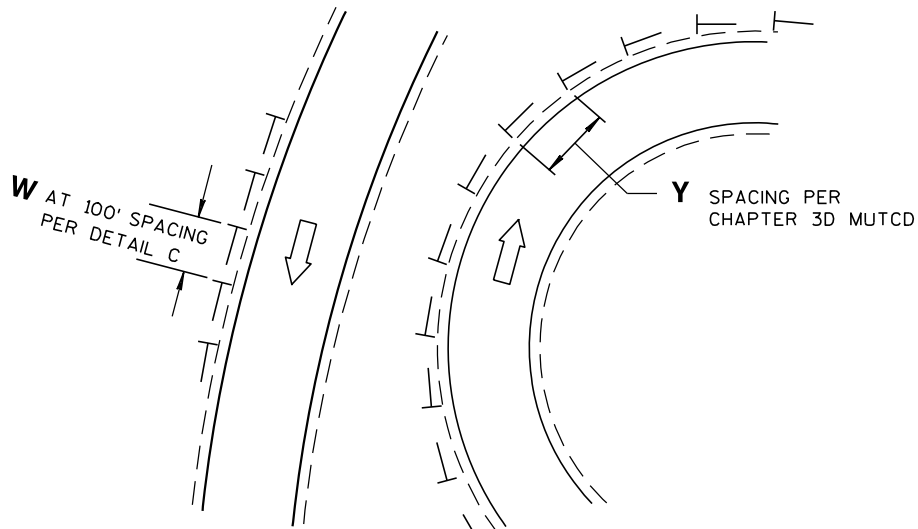
FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS

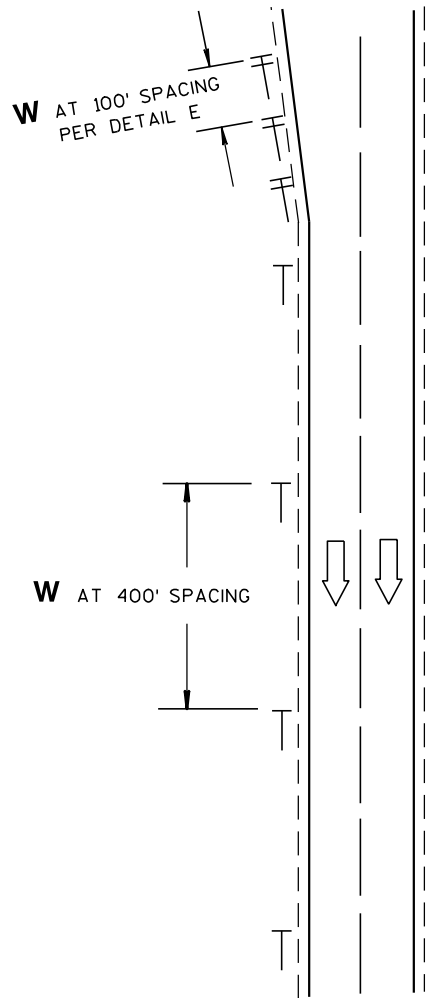
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

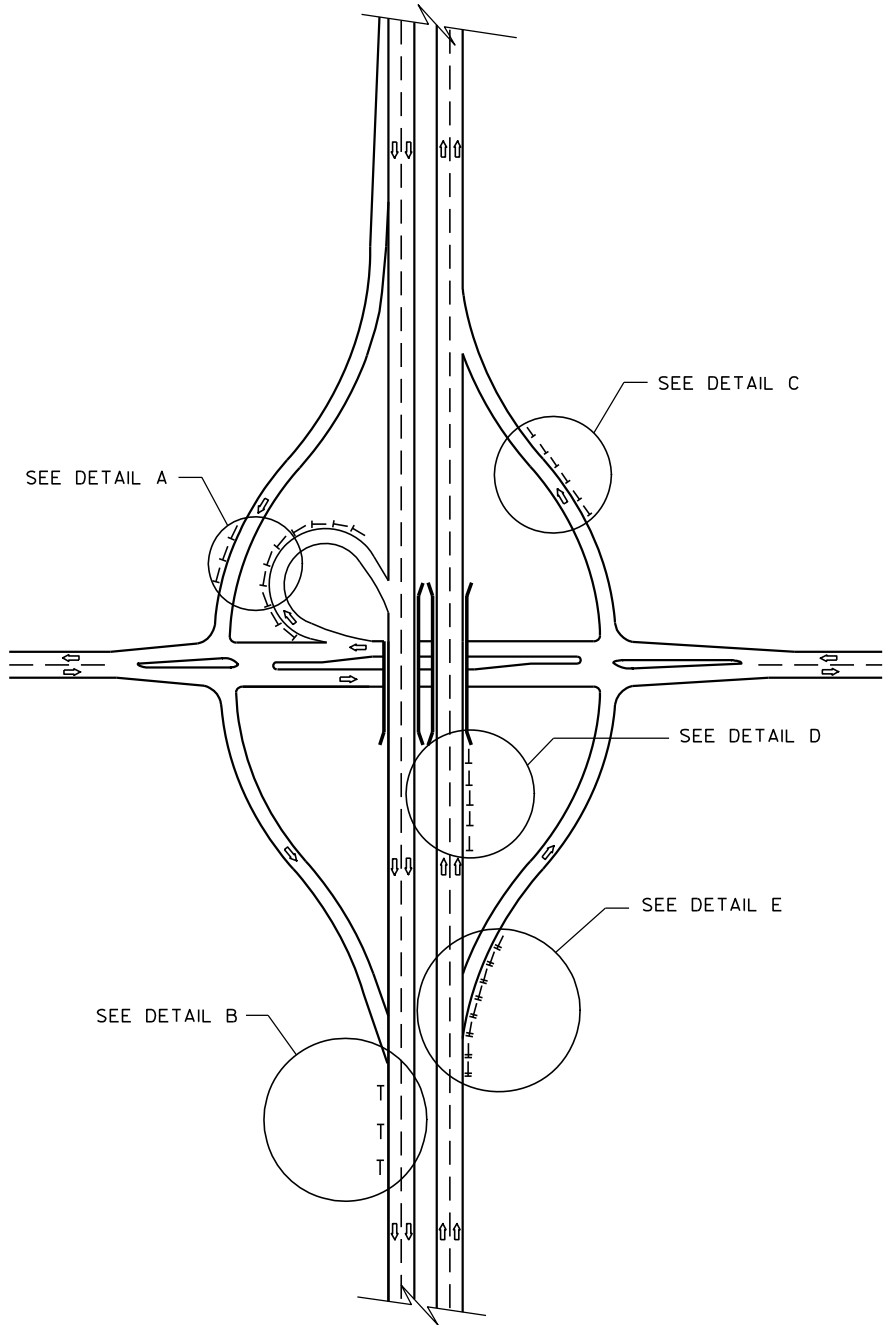
APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER 130 IGN
FHWA



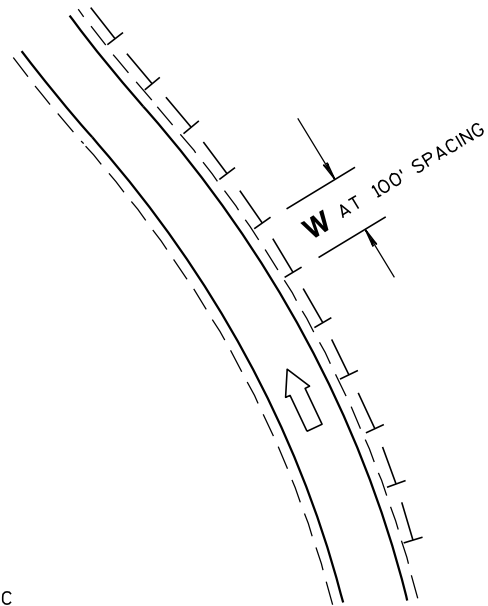
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



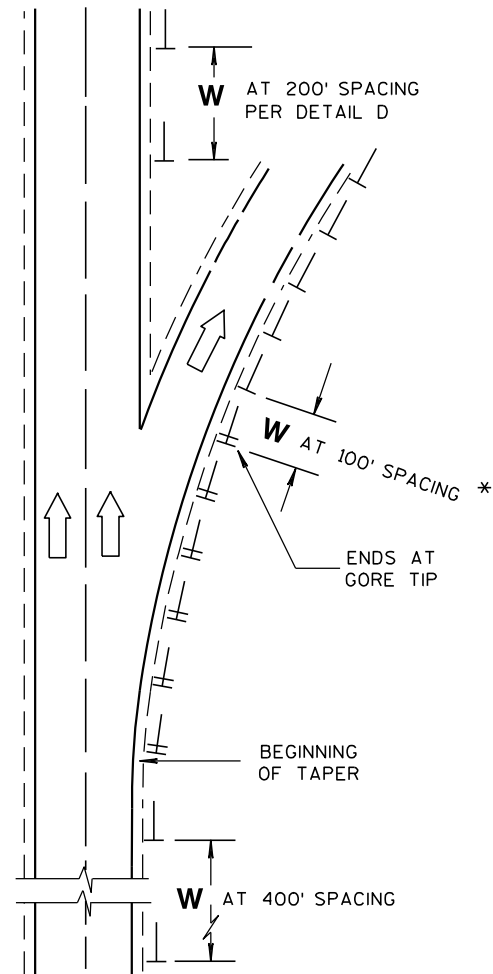
DETAIL B
DELINEATOR LAYOUT
ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL C
DELINEATOR LAYOUT ALONG RAMP



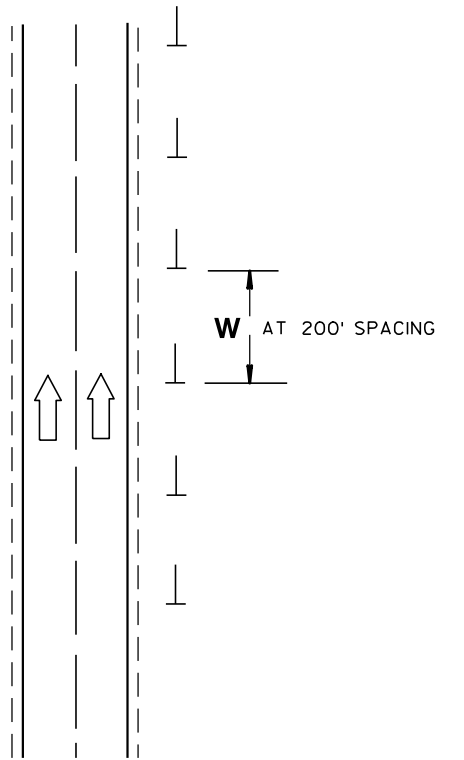
DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION
- DECELERATION LANES AND TAPERS AT RAMPS

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS.
USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.

LEGEND

- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W** WHITE
- Y** YELLOW

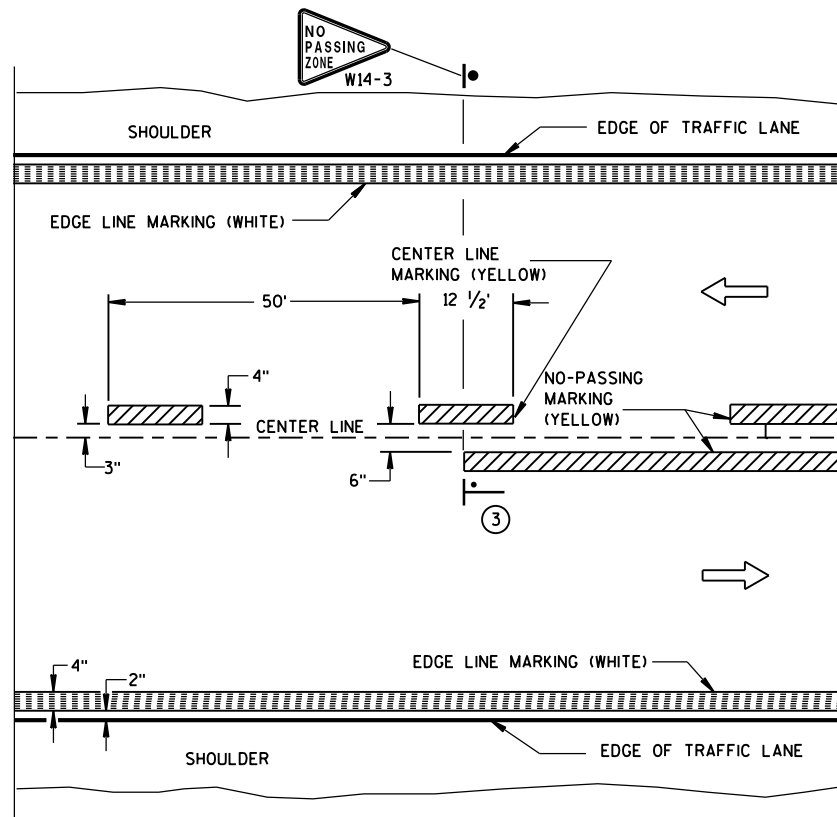


DETAIL D
DELINEATOR LAYOUT
BETWEEN INTERCHANGE RAMPS

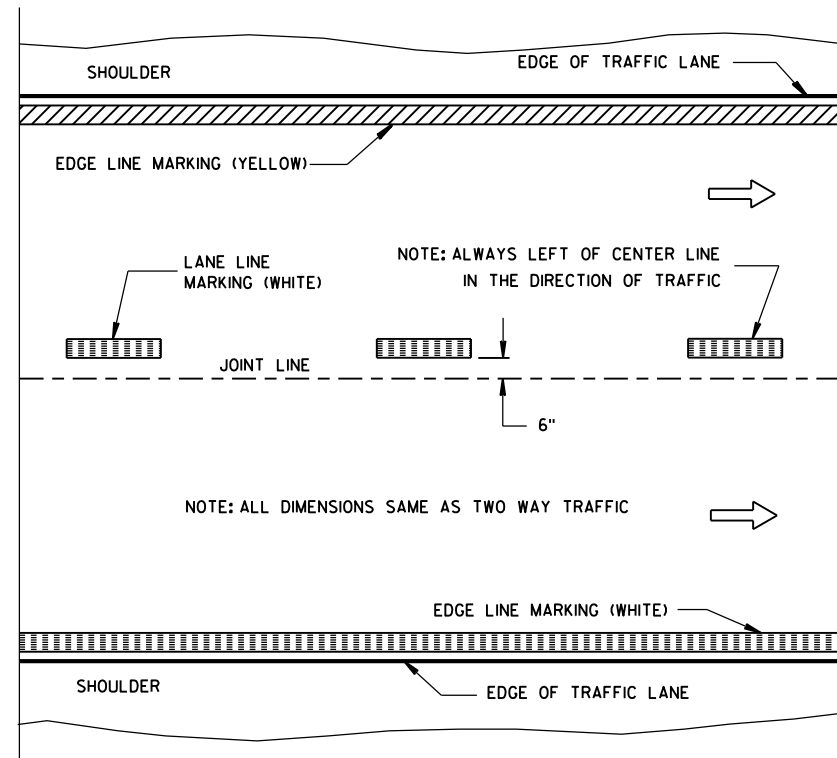
DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 /S/ Thomas N. Nothmann
DATE STATE TRAFFIC ENGINEER 131 SIGN
FHWA

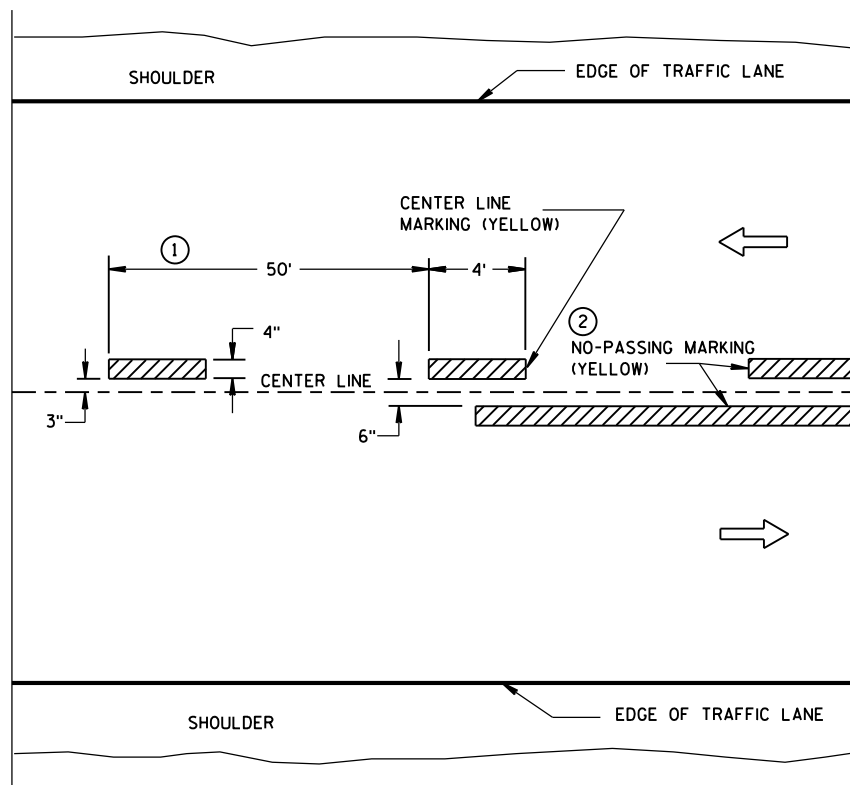


TWO WAY TRAFFIC

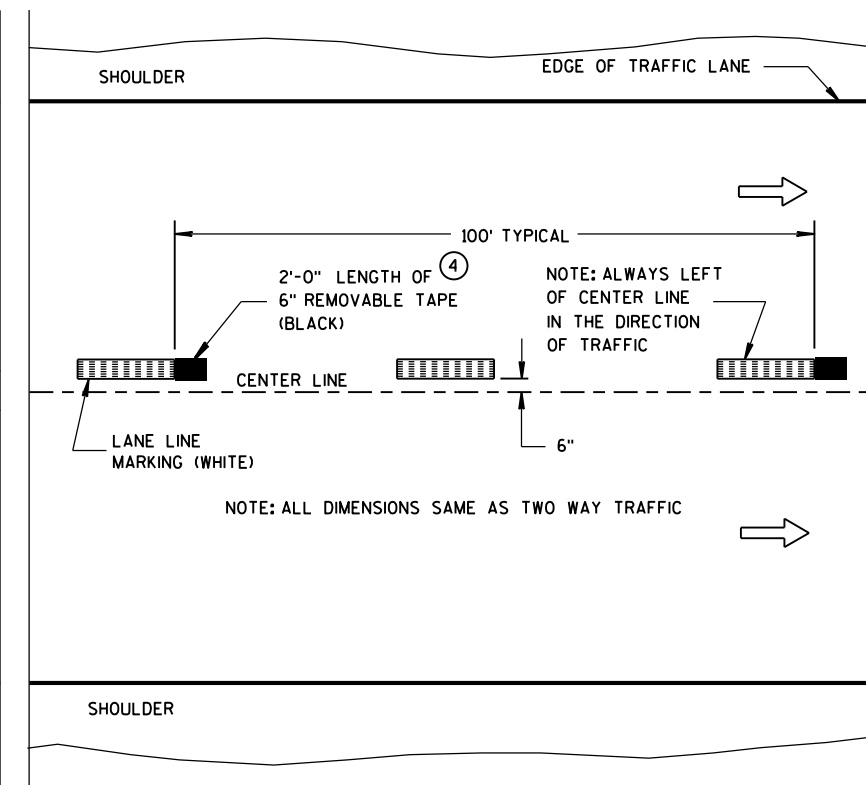


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

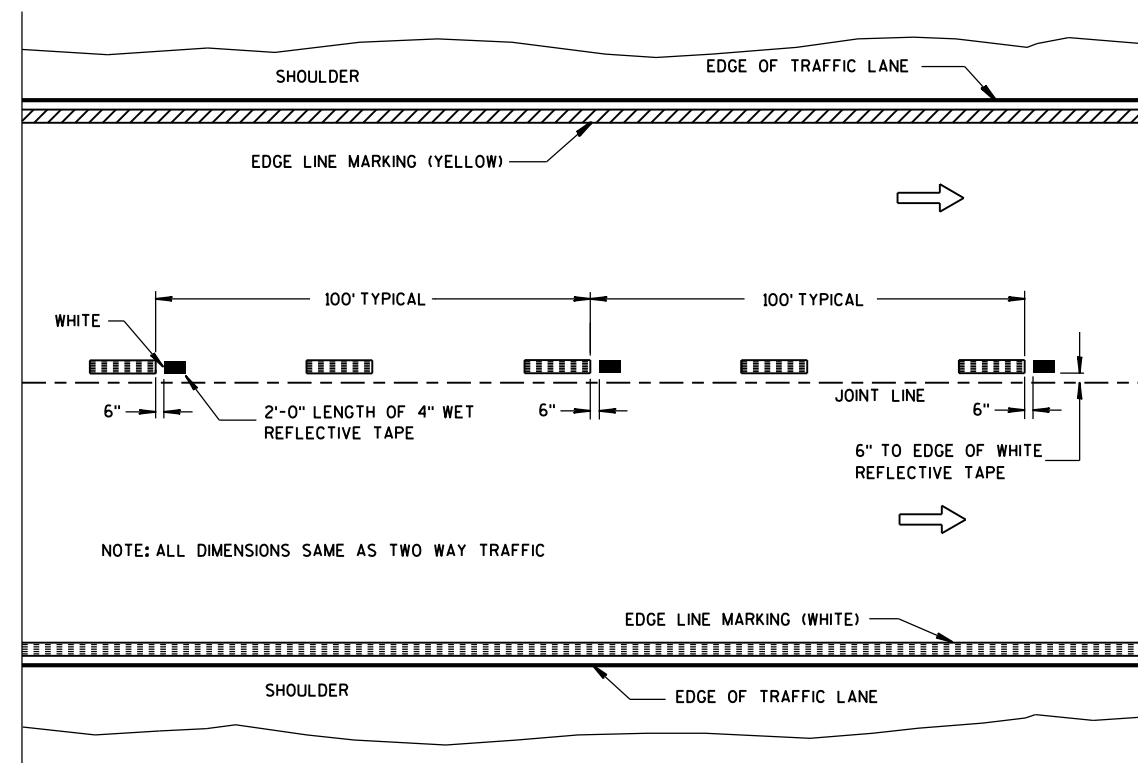
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



**WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE**

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

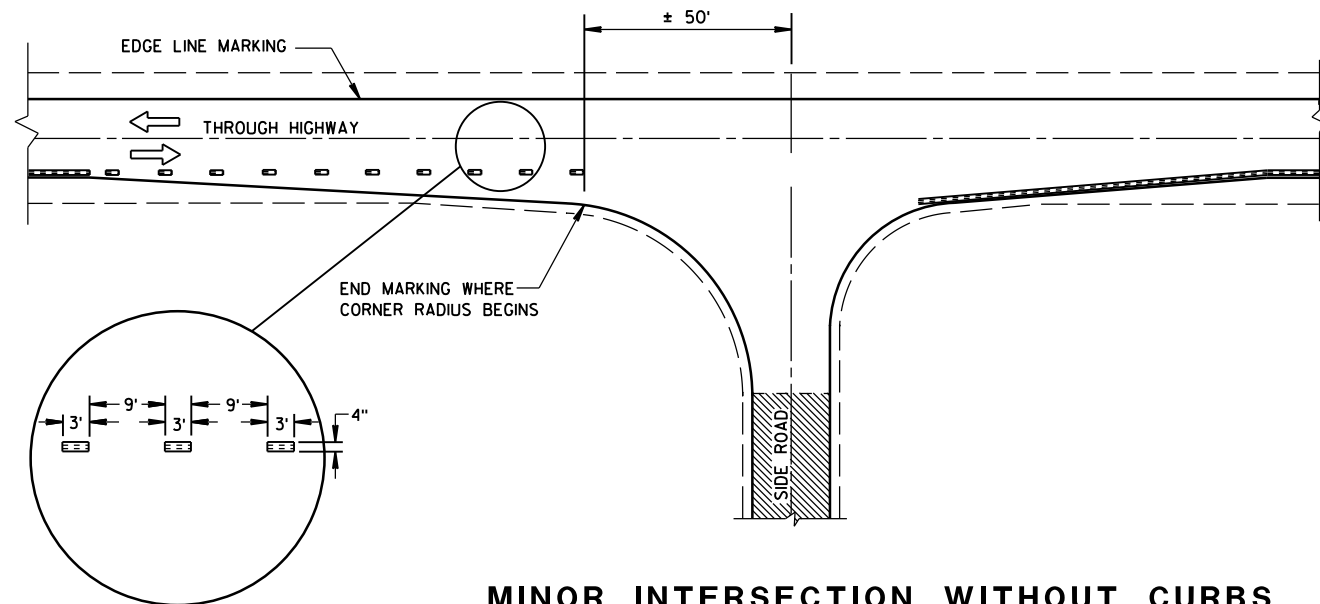
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

FHWA

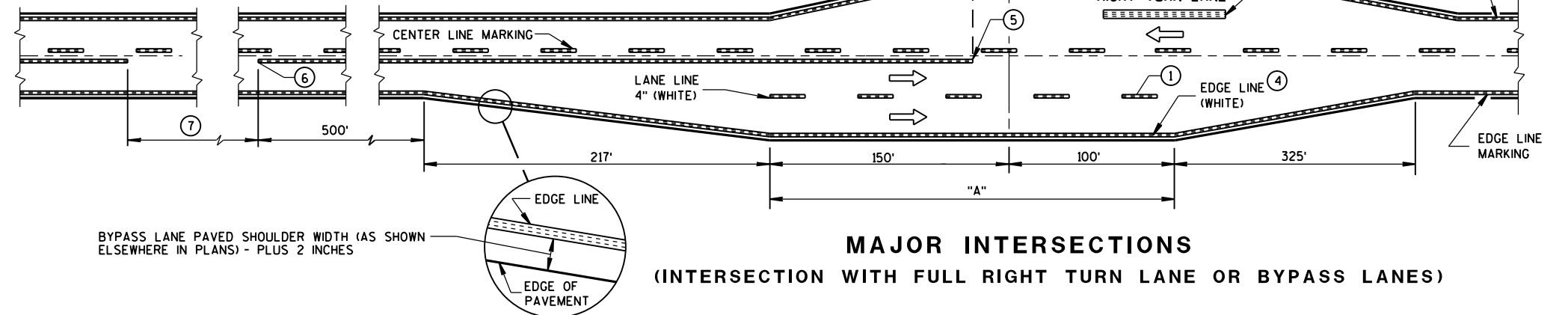
/S/ Travis Feltes
STATE TRAFFIC E 132



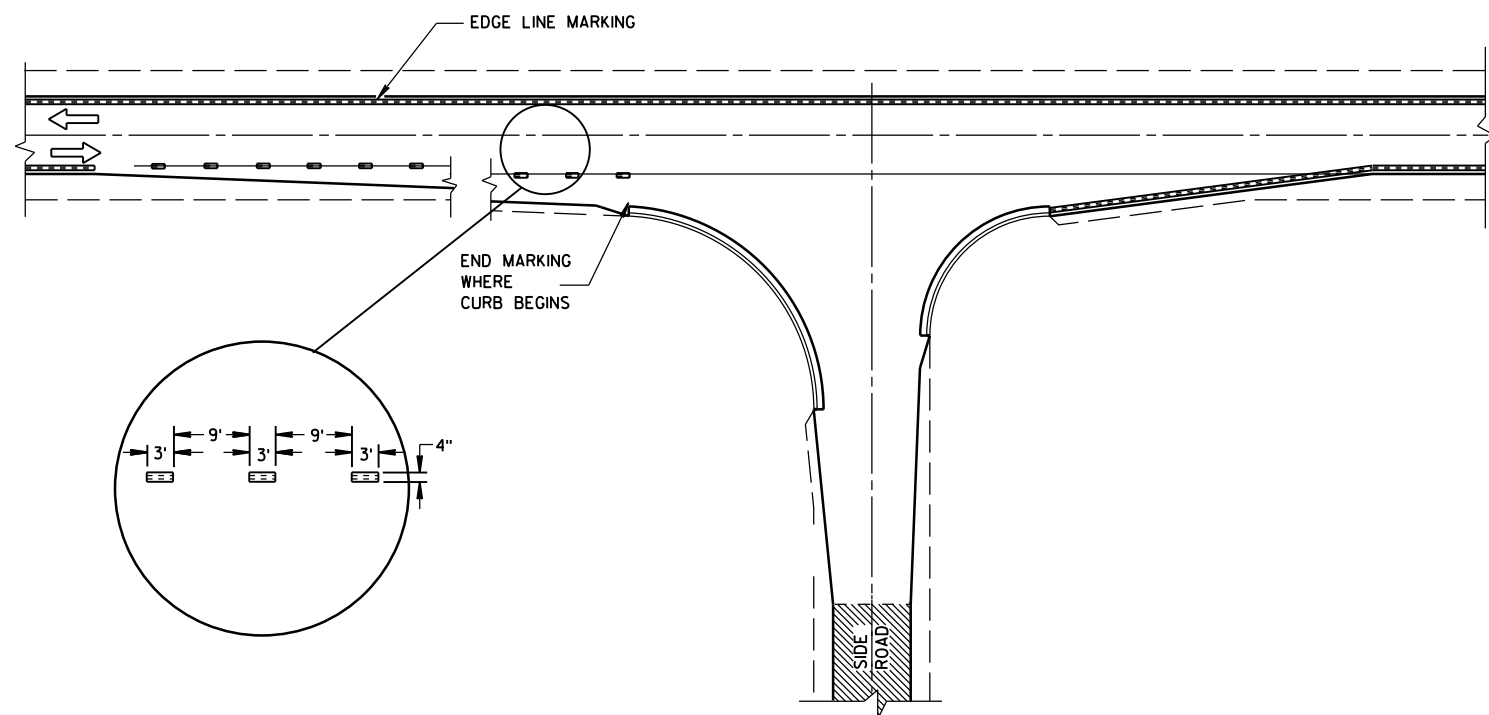
MINOR INTERSECTION WITHOUT CURBS

⑦

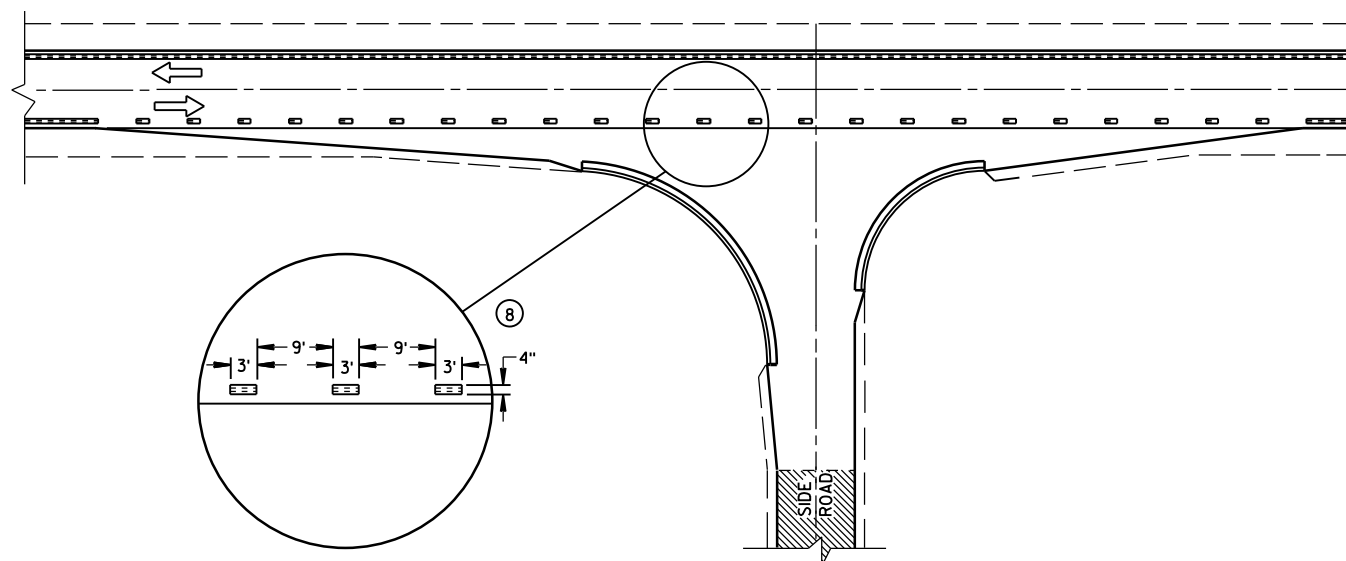
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



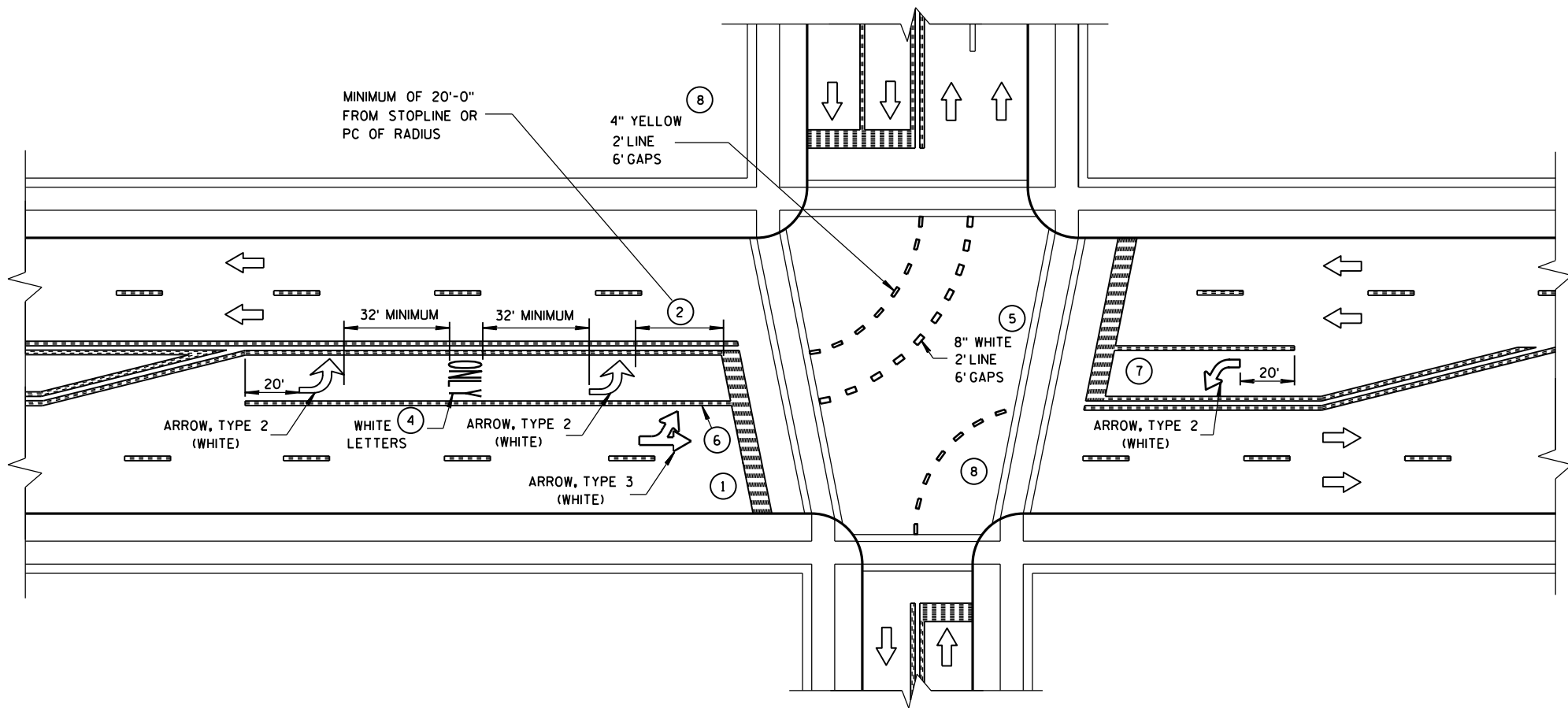
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

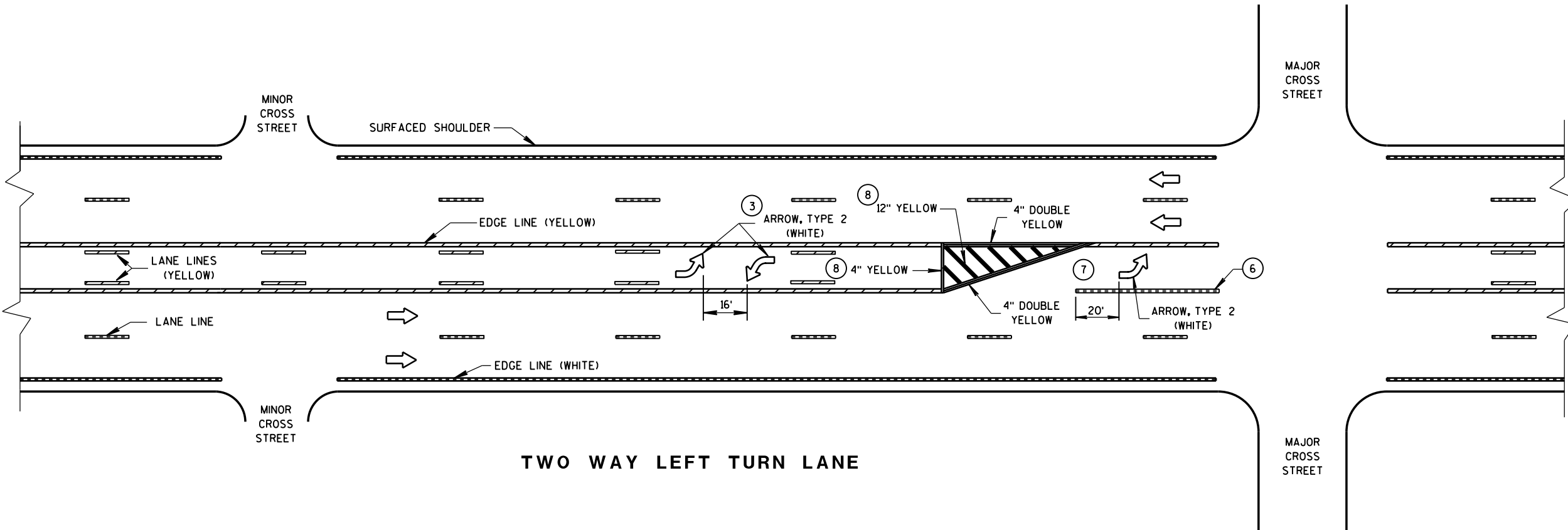
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 133



GENERAL NOTES

- 1 STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- 2 DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
- 3 A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- 4 ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- 5 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- 6 8" WHITE
- 7 ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- 8 REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL



PAVEMENT MARKING
(LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

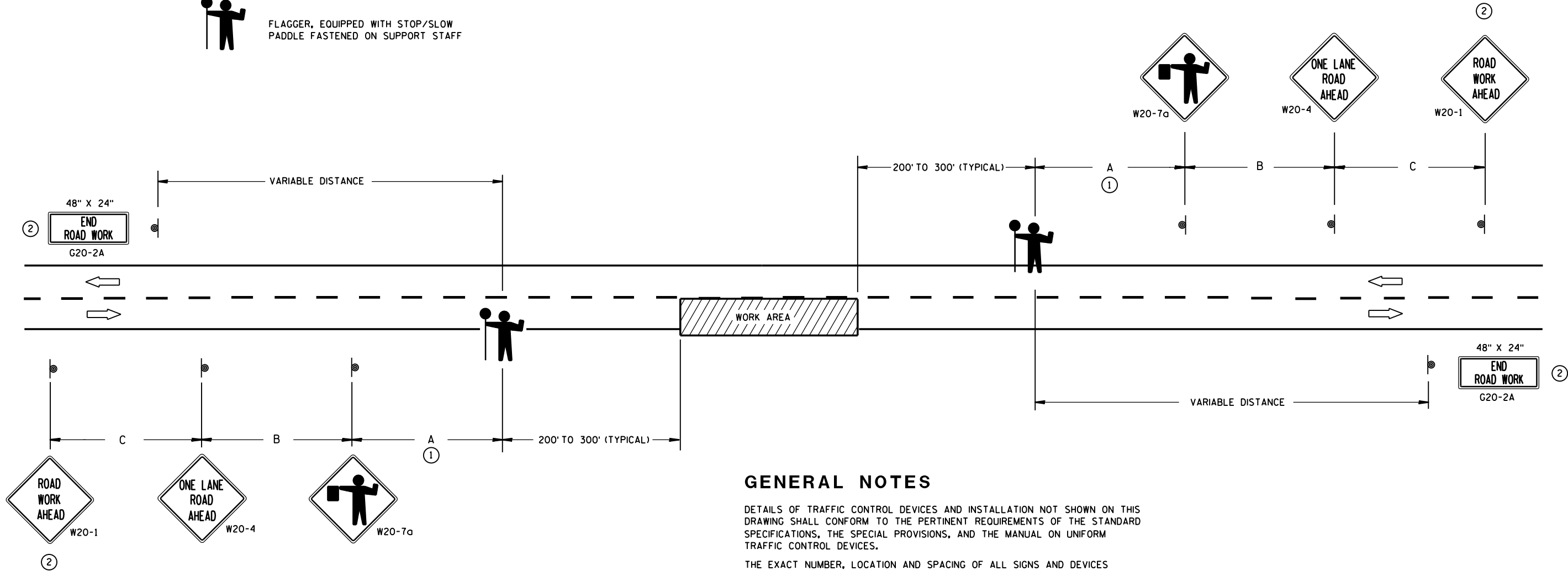
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

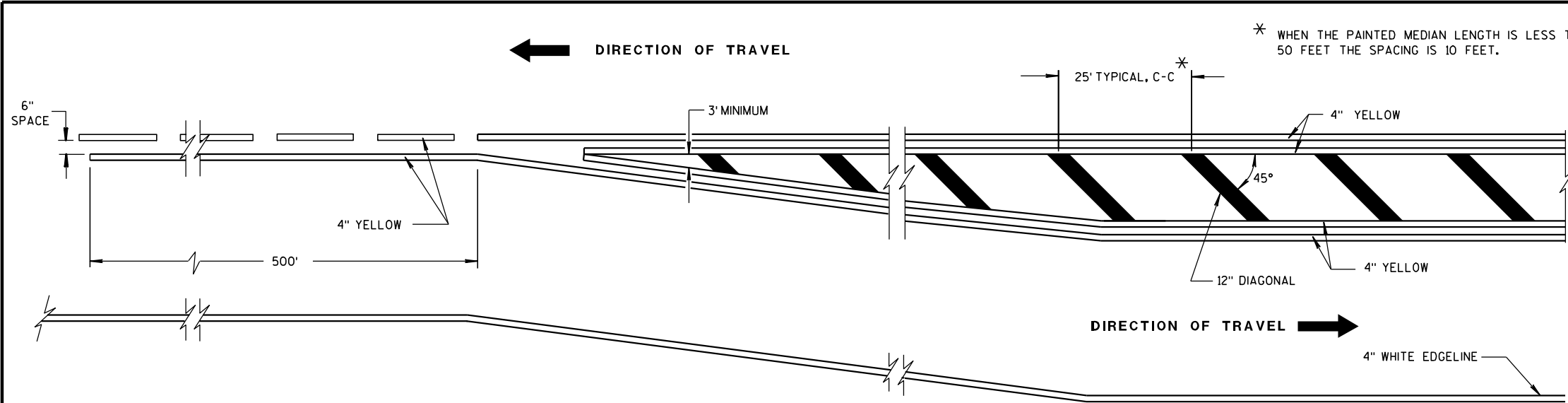
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

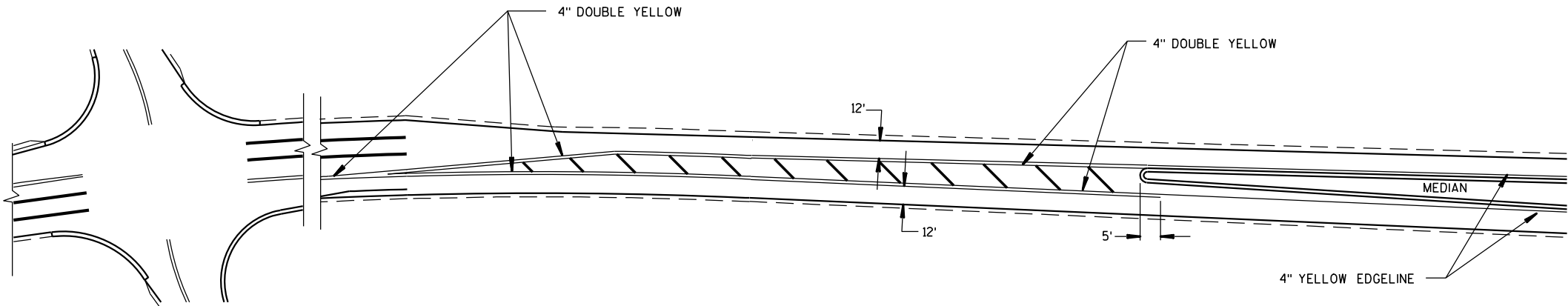
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINE 135	FSIGN
FHWA		



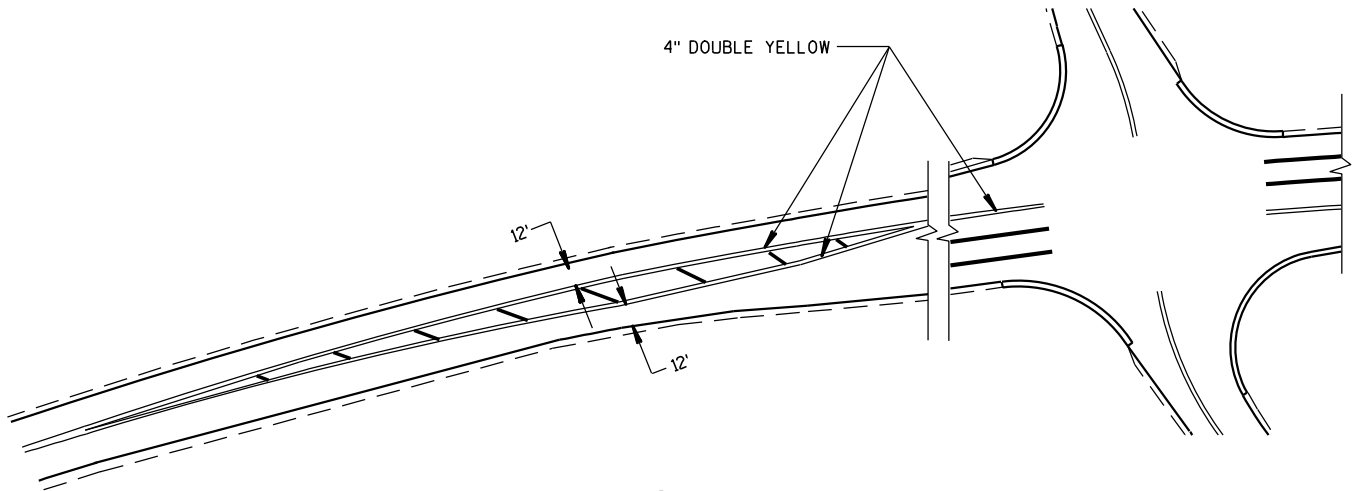
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

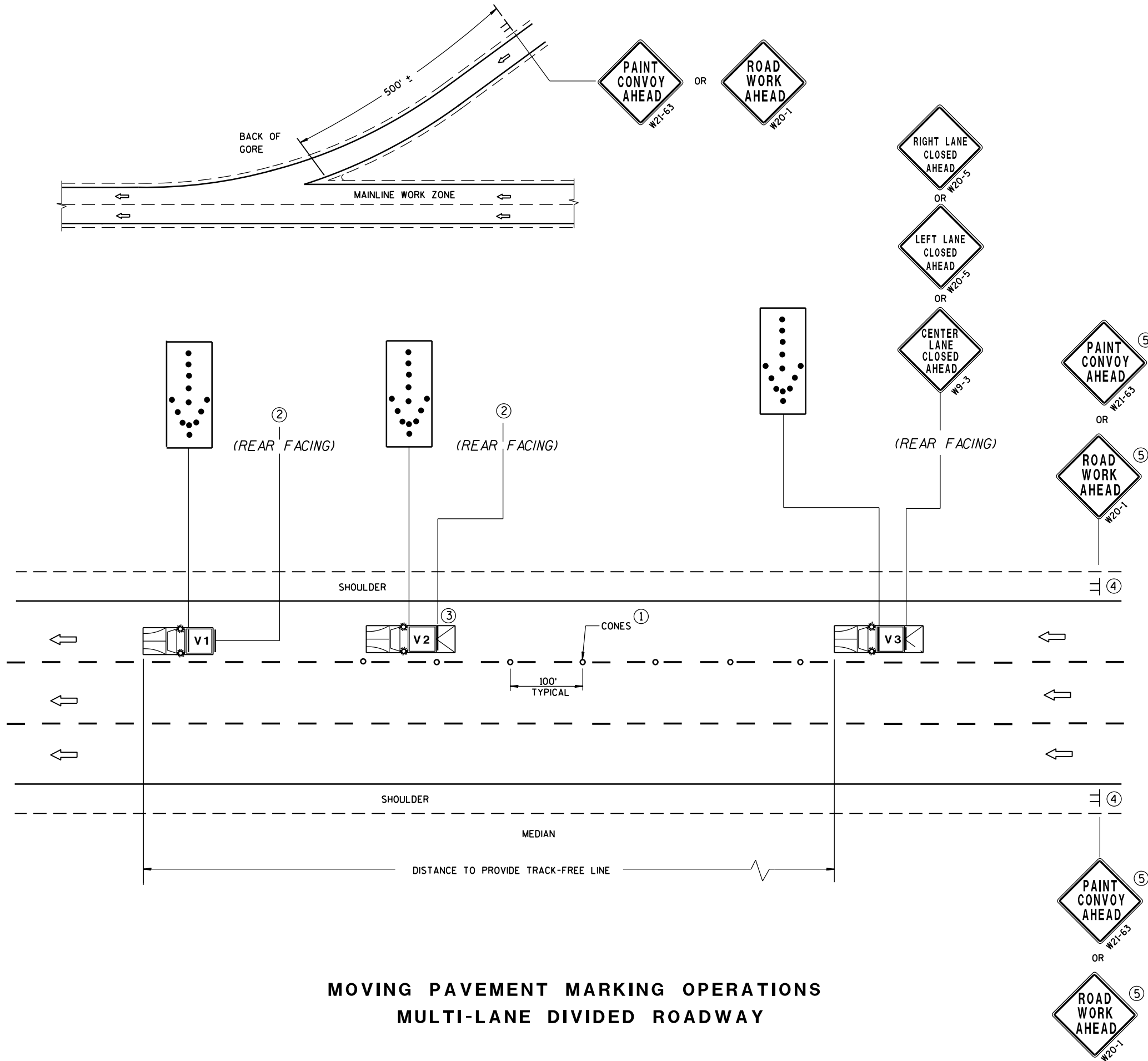


APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED	/S/ Thomas N. Nothohm		
2-5-09	DATE	STATE TRAFFIC ENGINEE 136	IGN
FHWA			



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGE LINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

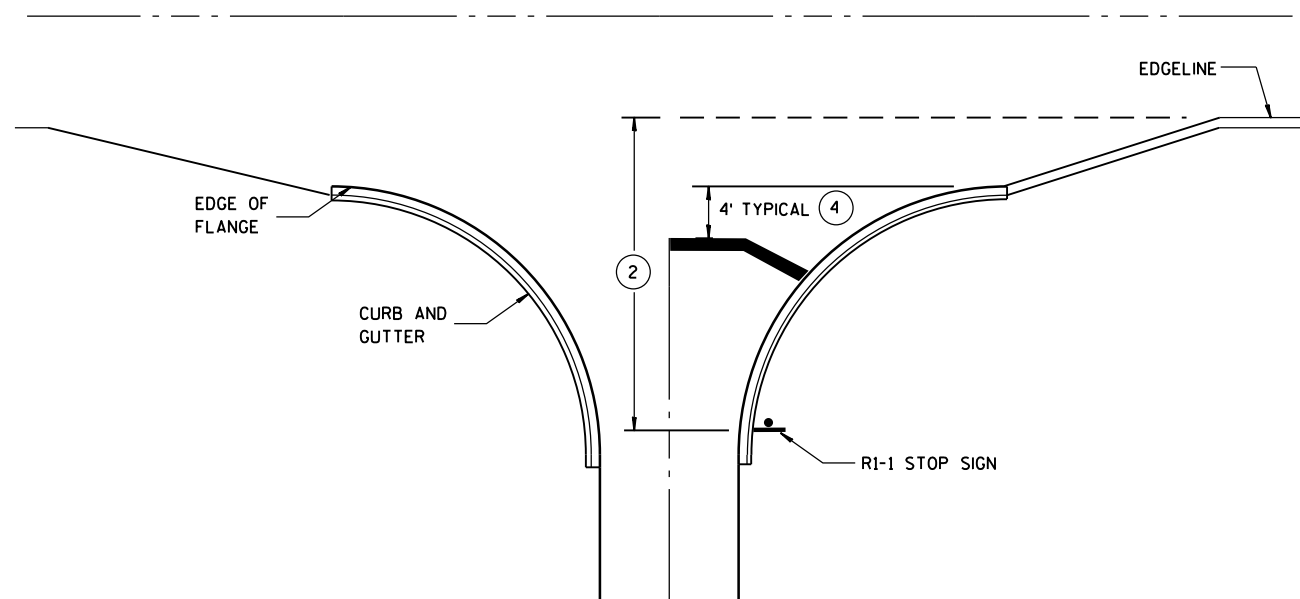
THIS DRAWING SHALL BE USED FOR EDGE LINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

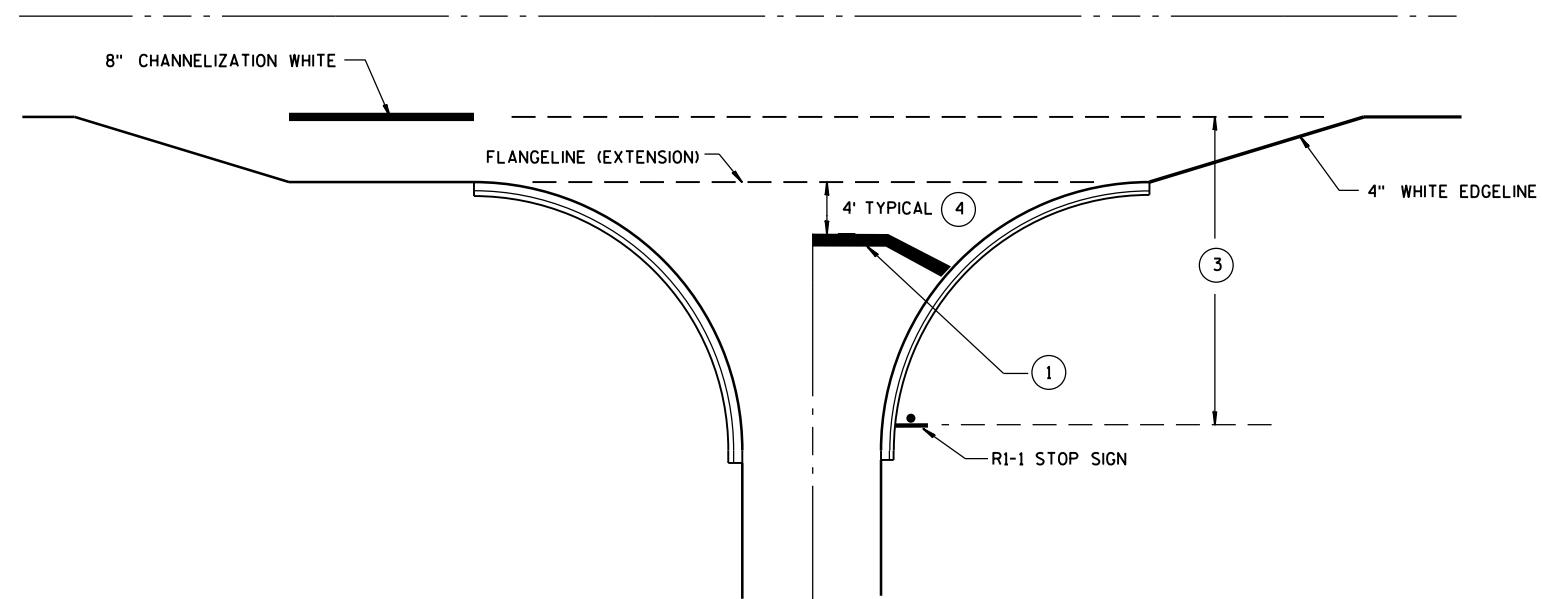
LEGEND

- V1 LEAD VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE WITH TMA
- TMA TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (MERGE)

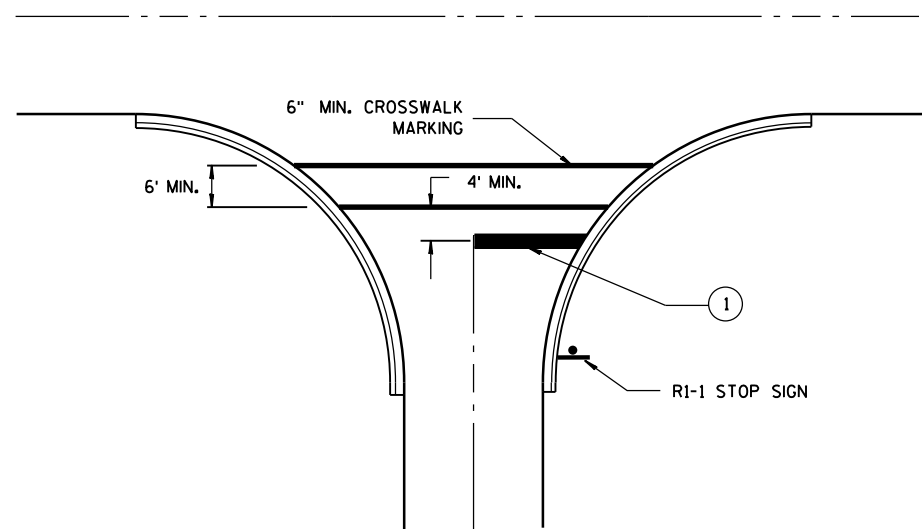
MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 5/3/2013	/S/ Travis Feltes STATE TRAFFIC ENGINEER 137
FHWA	



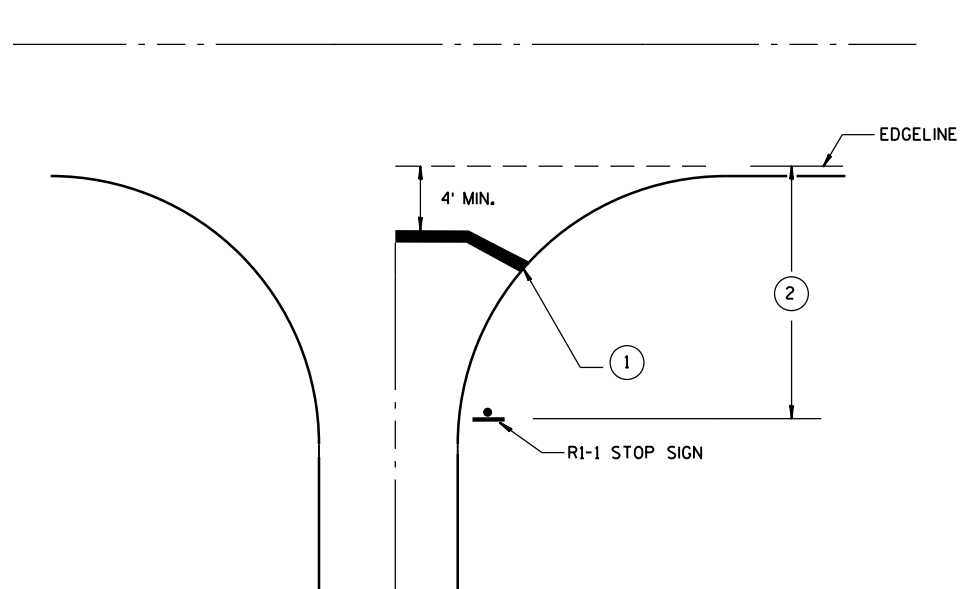
**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING**



**TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER**

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 138

LEGEND

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

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

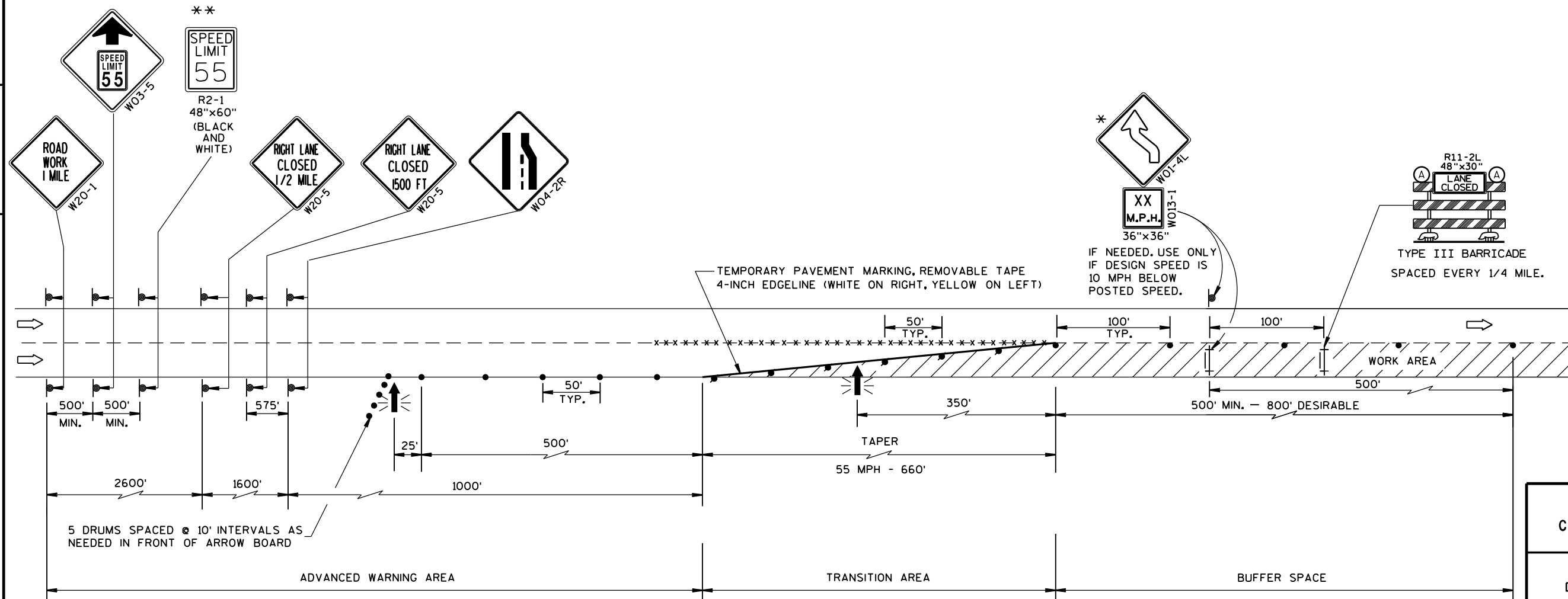
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

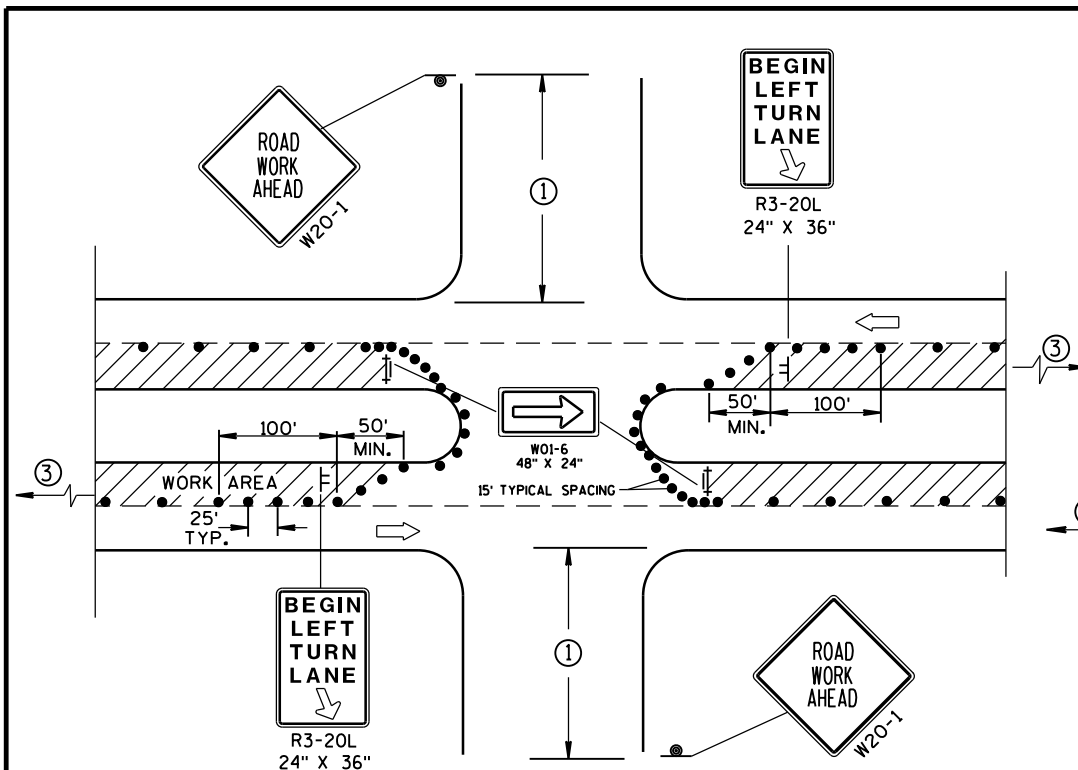
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

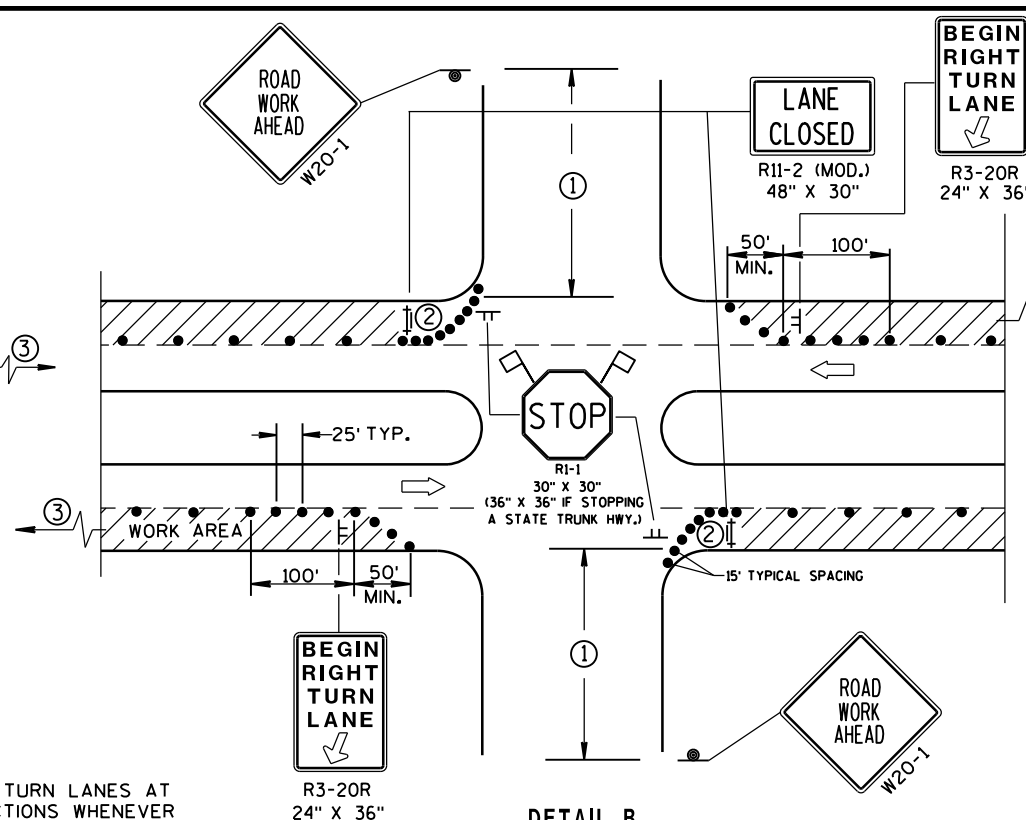


TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3-2014 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER 139 SIGN
FHWA	



DETAIL A
FOR LEFT LANE CLOSURE AT
INTERSECTION OR MEDIAN OPENING

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



DETAIL B
FOR RIGHT LANE CLOSURE
AT INTERSECTION

GENERAL NOTES

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

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

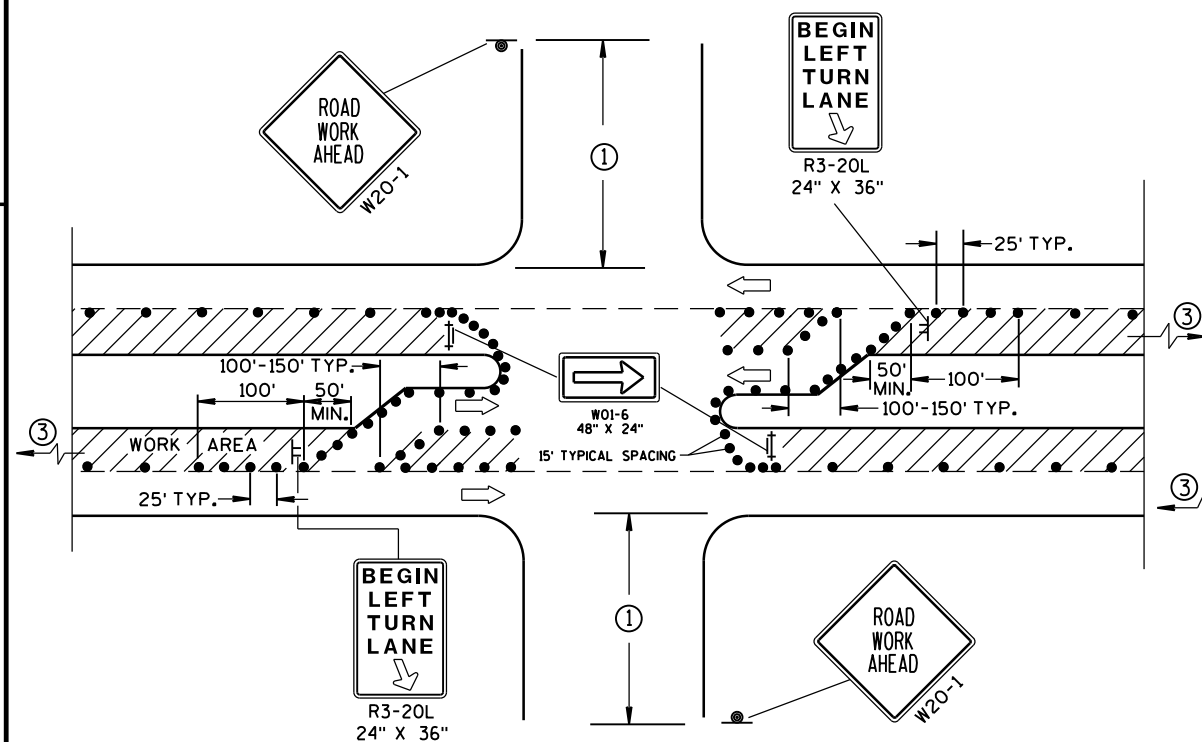
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

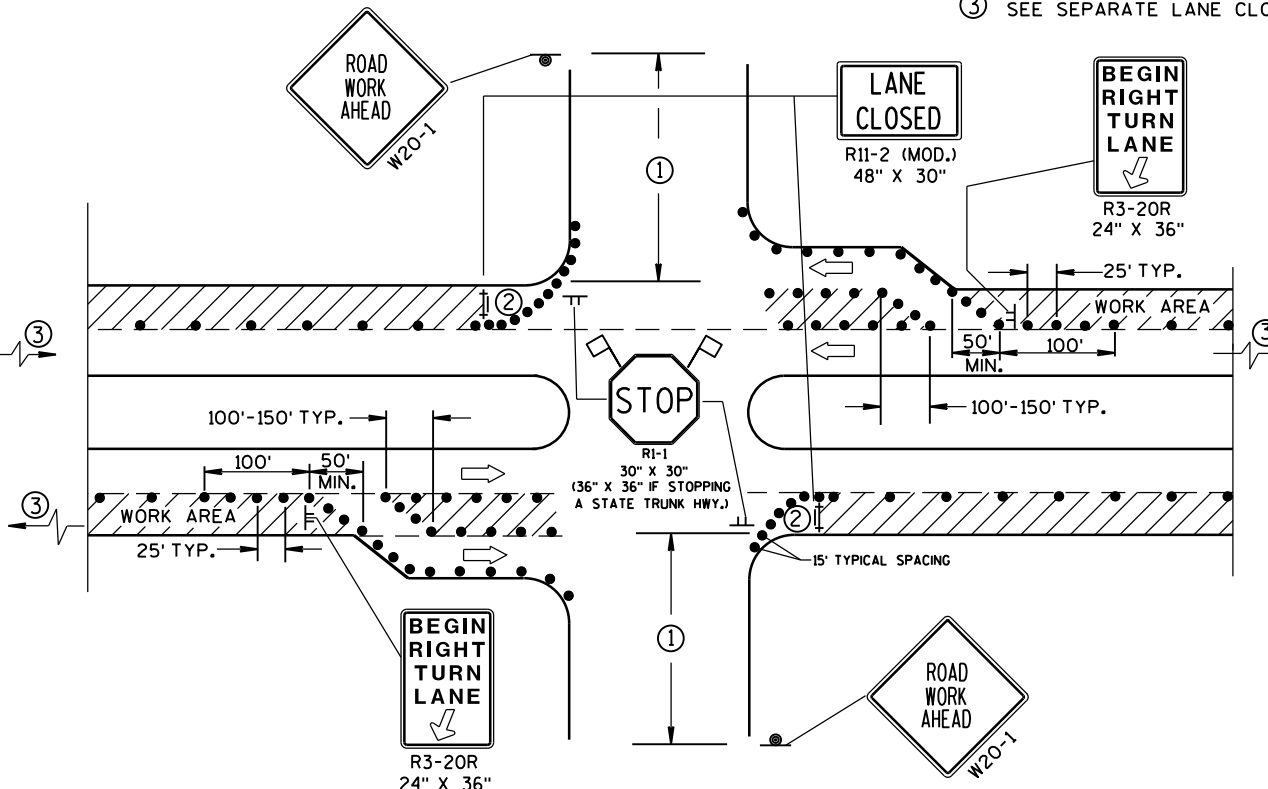
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.
- ② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



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



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

LEGEND

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

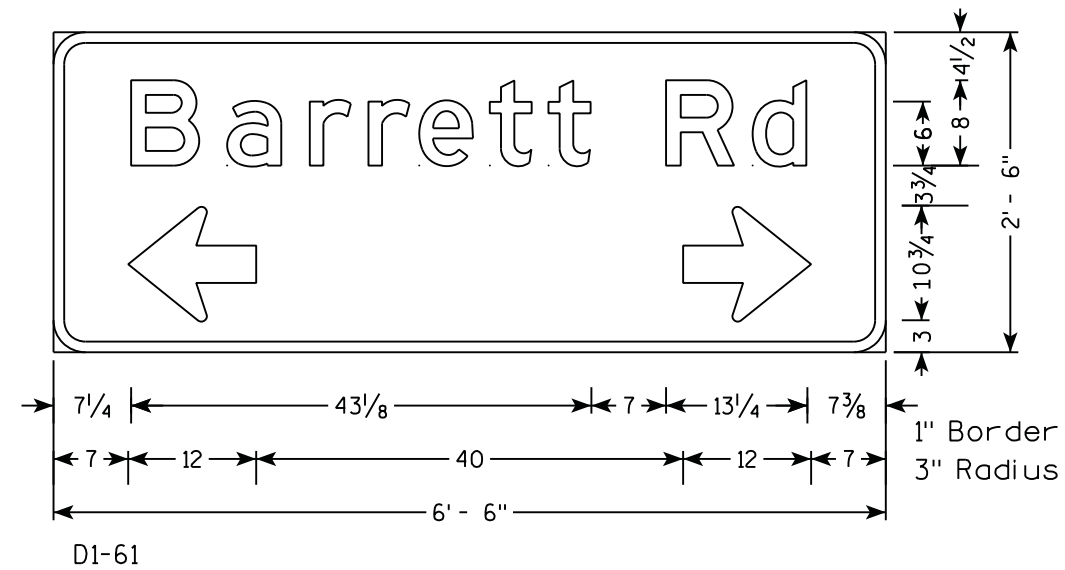
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

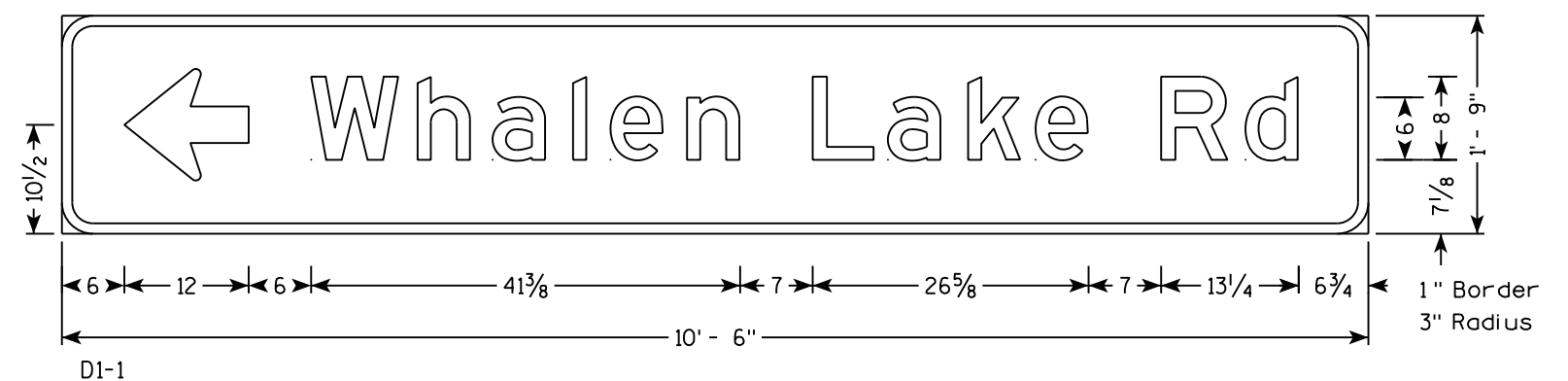
APPROVED
Nov. 2014 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 140 SIGN
FHWA

NOTES

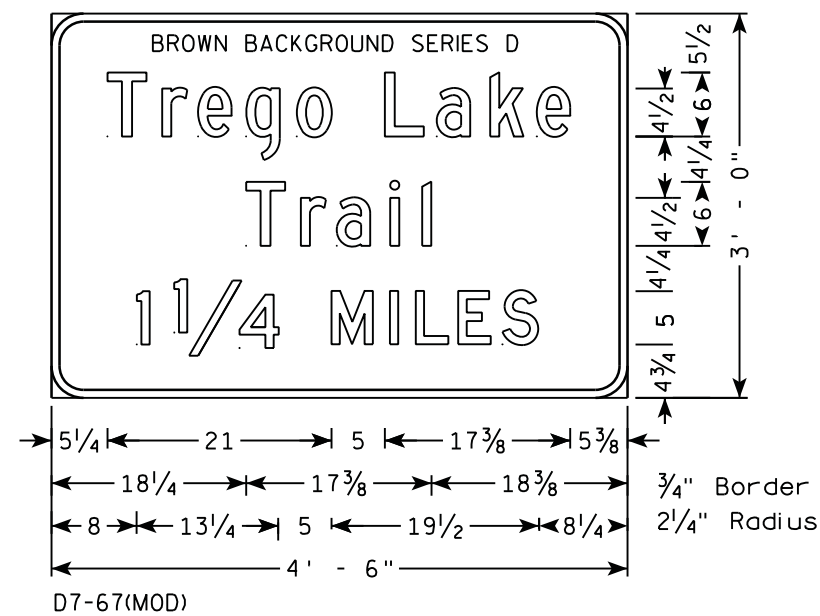
1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN except as Shown
Message - WHITE
3. Message Series - E except as Shown



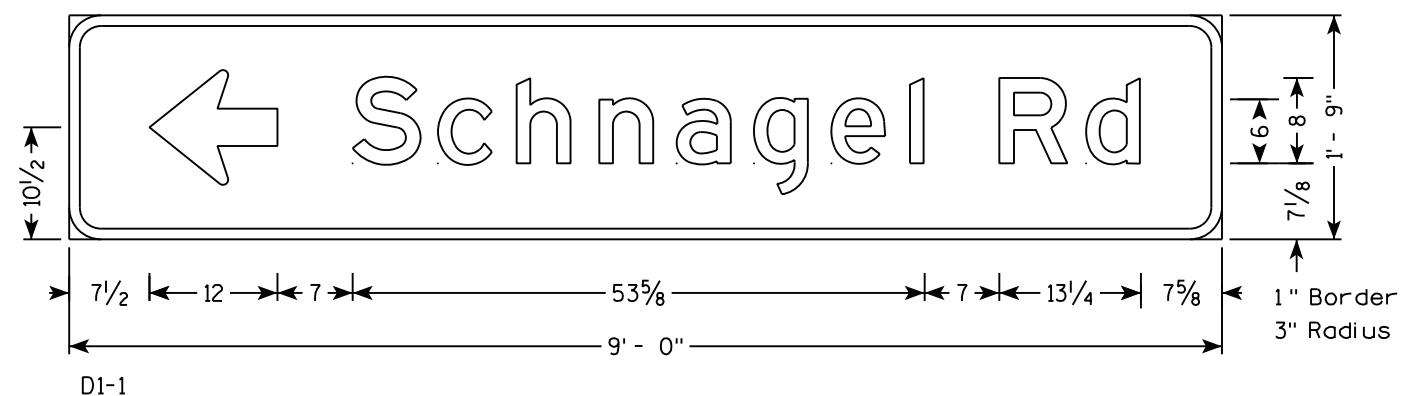
2-6



1-7



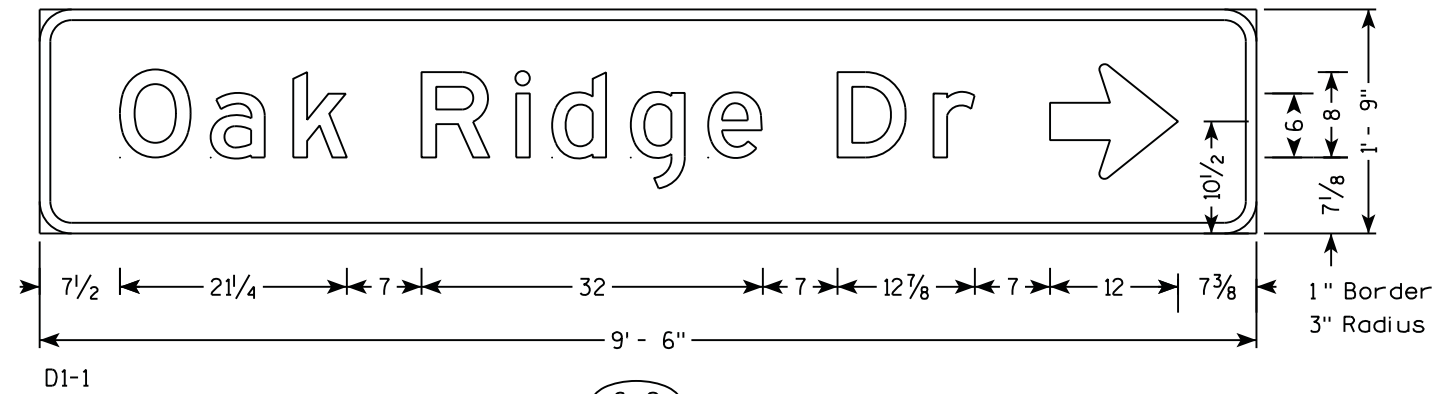
1-2



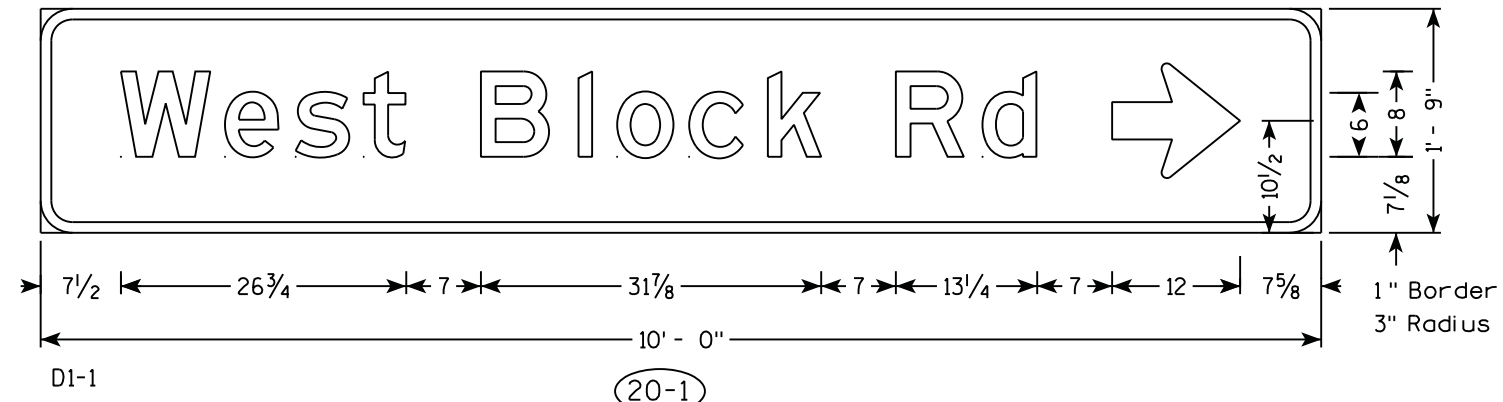
3-8

NOTES

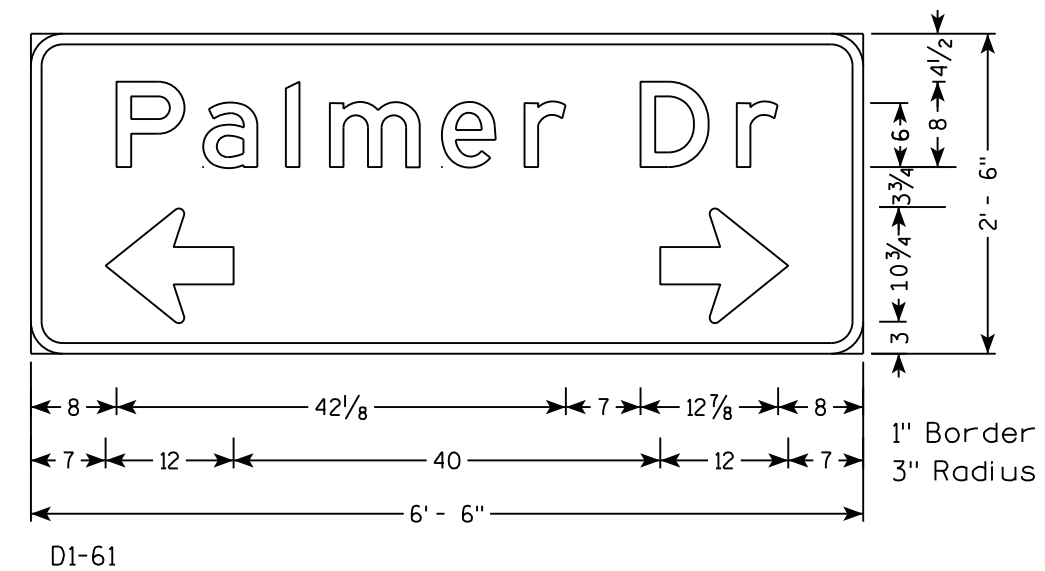
1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E



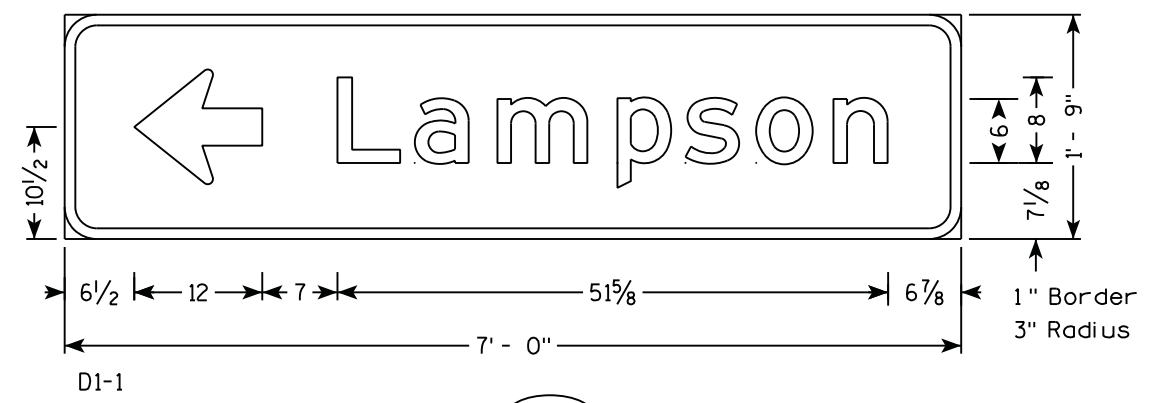
6-2



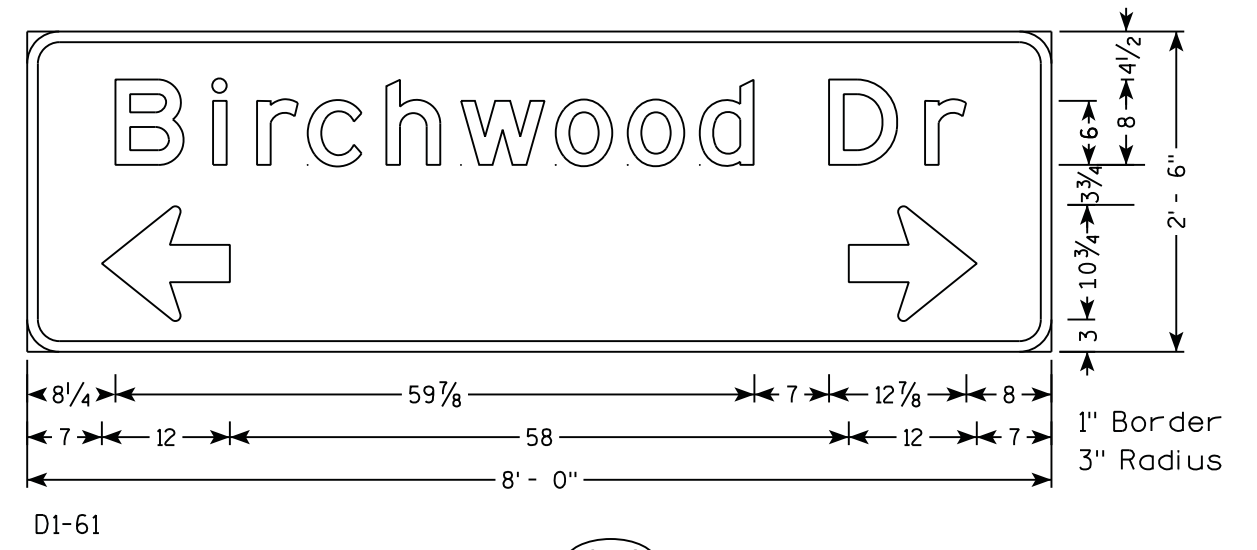
20-1



10-8



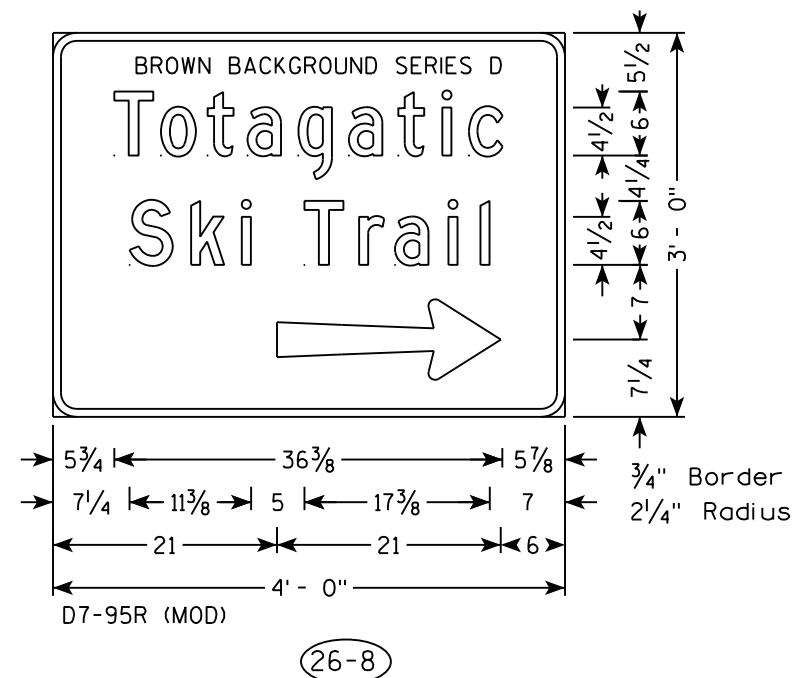
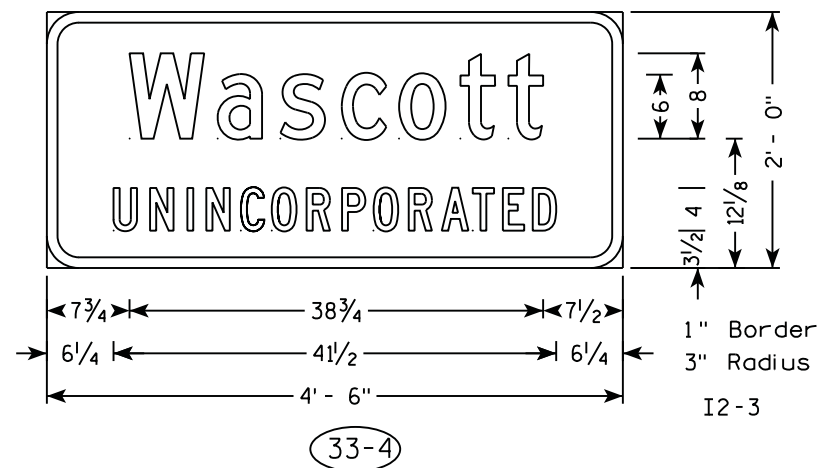
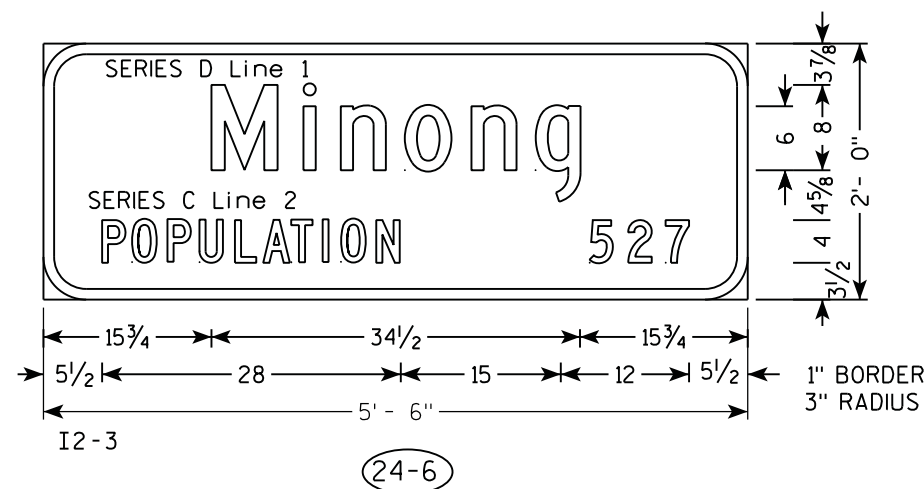
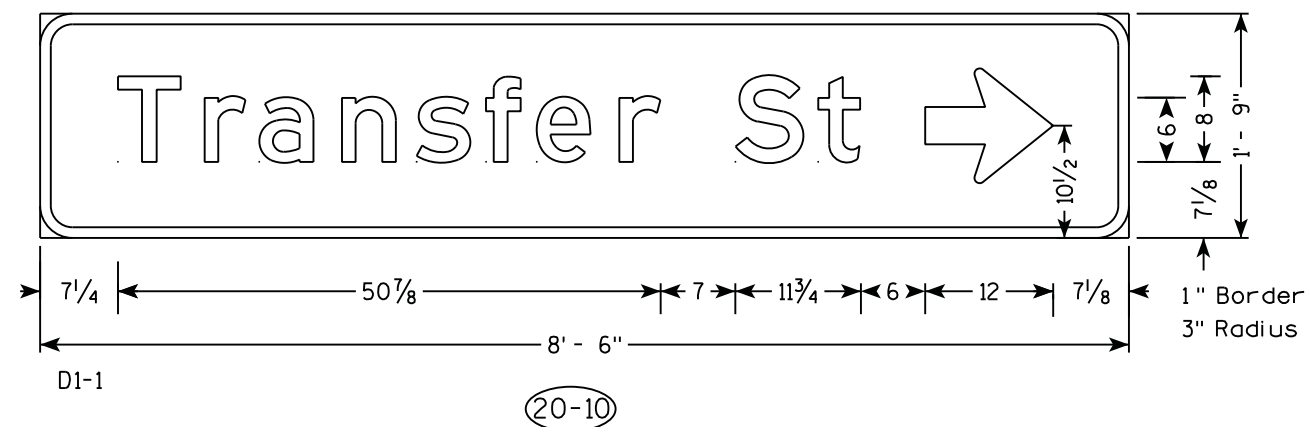
8-9



9-12

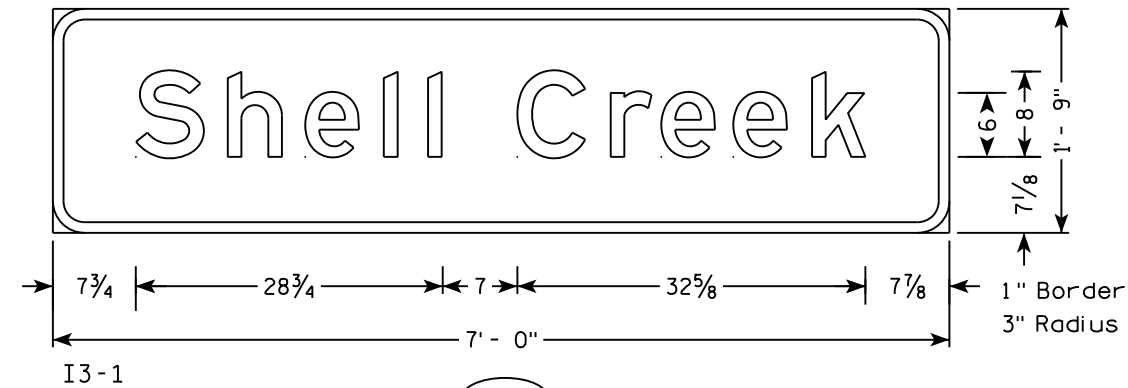
NOTES

1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN except as Shown
Message - WHITE
3. Message Series - E except as Shown

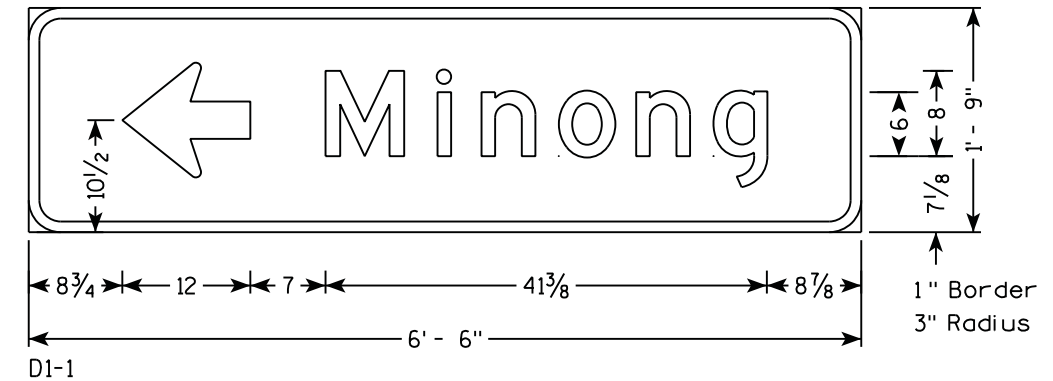


NOTES

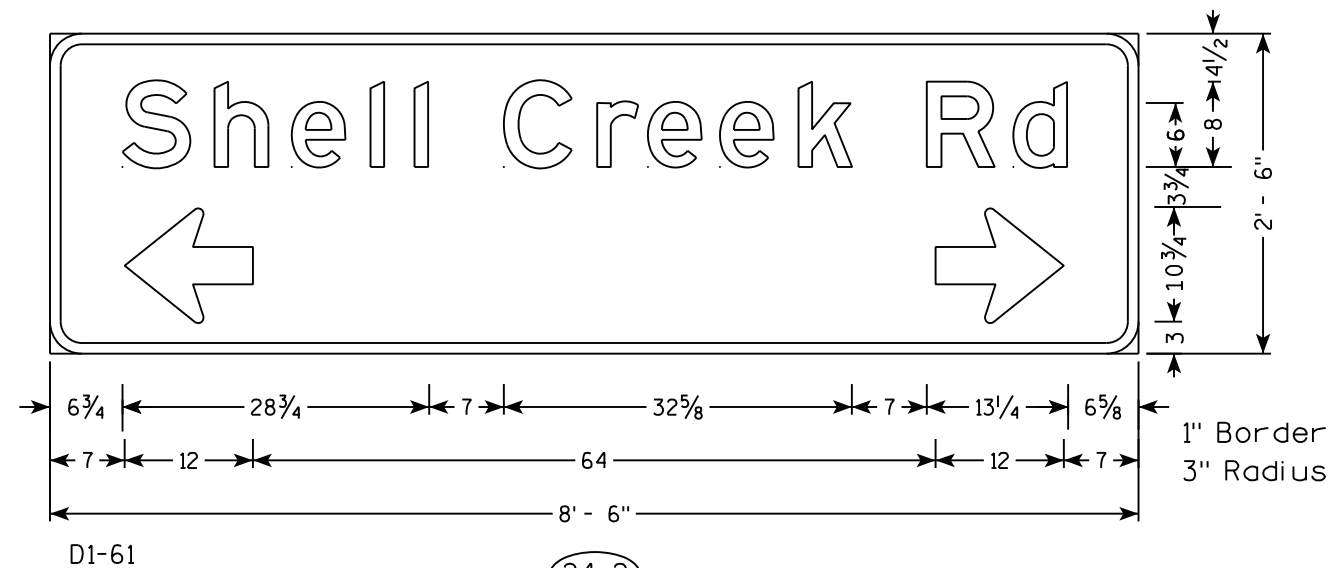
1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E



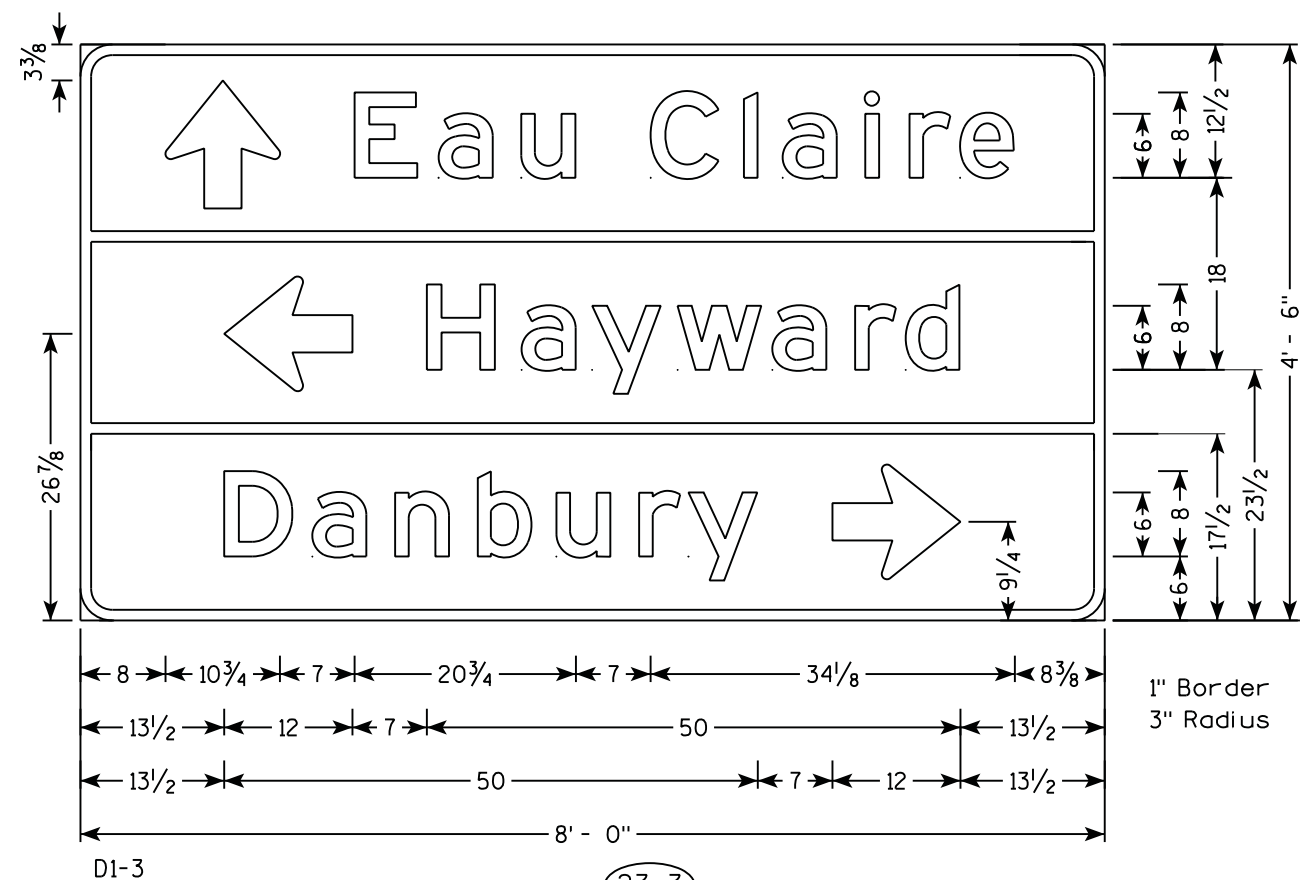
(24-5)



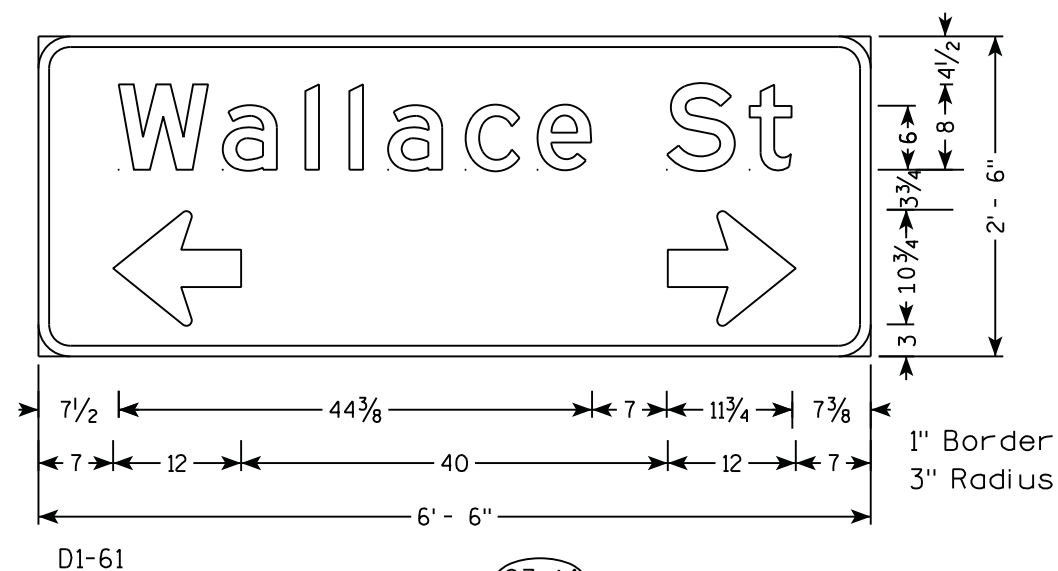
(24-4)



(24-2)



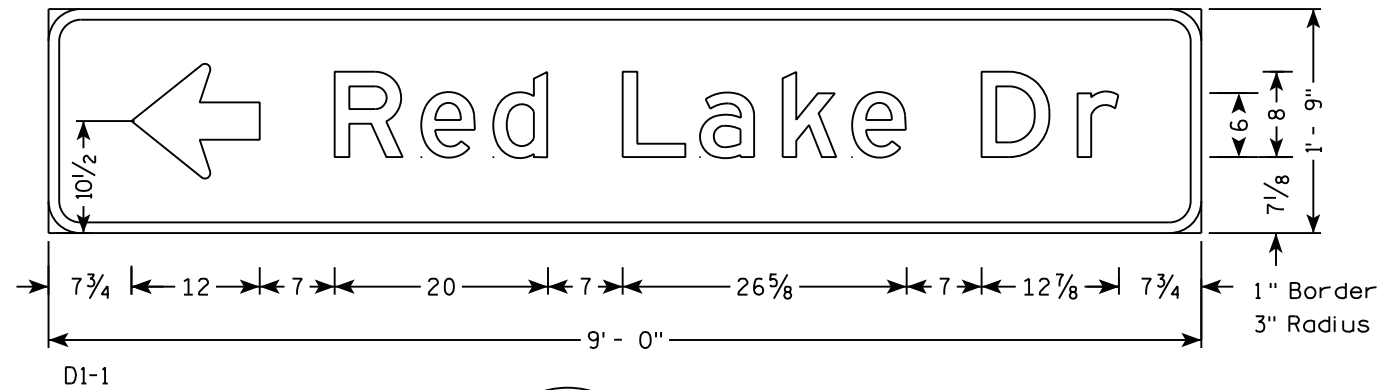
(23-3)



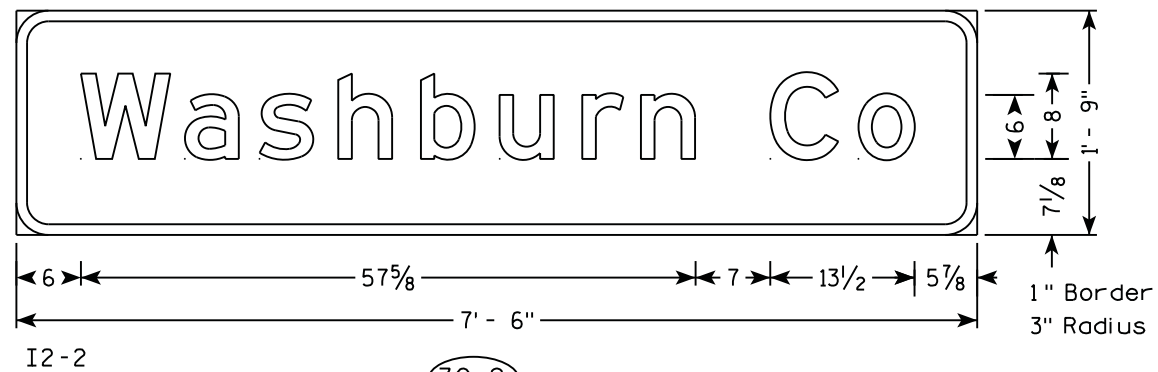
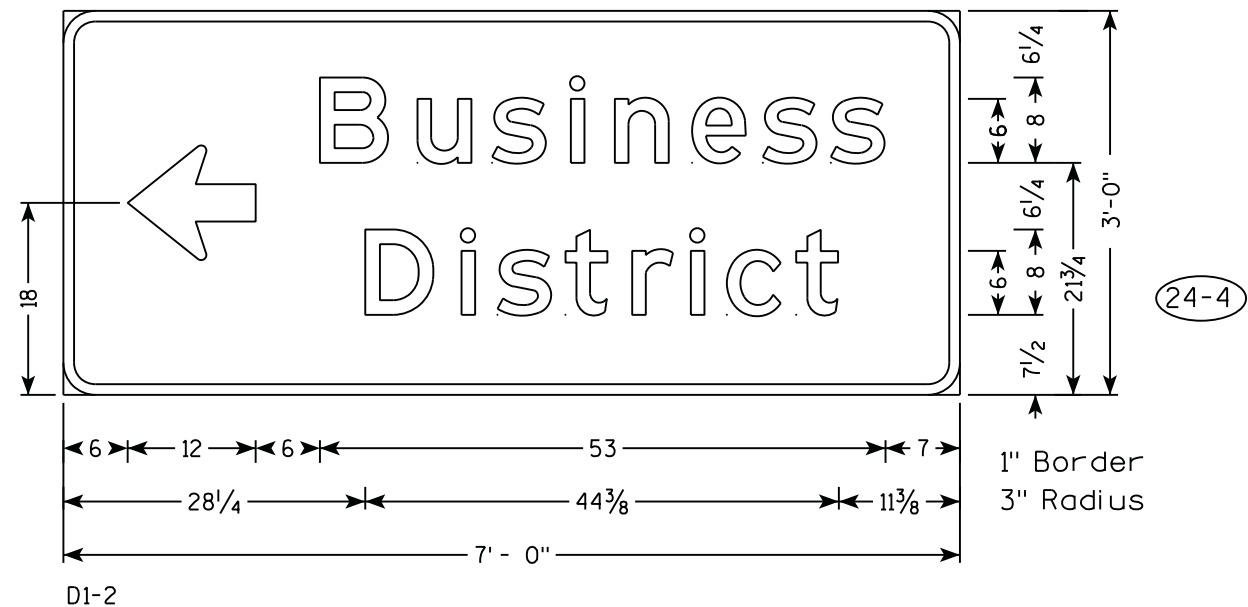
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NOTES

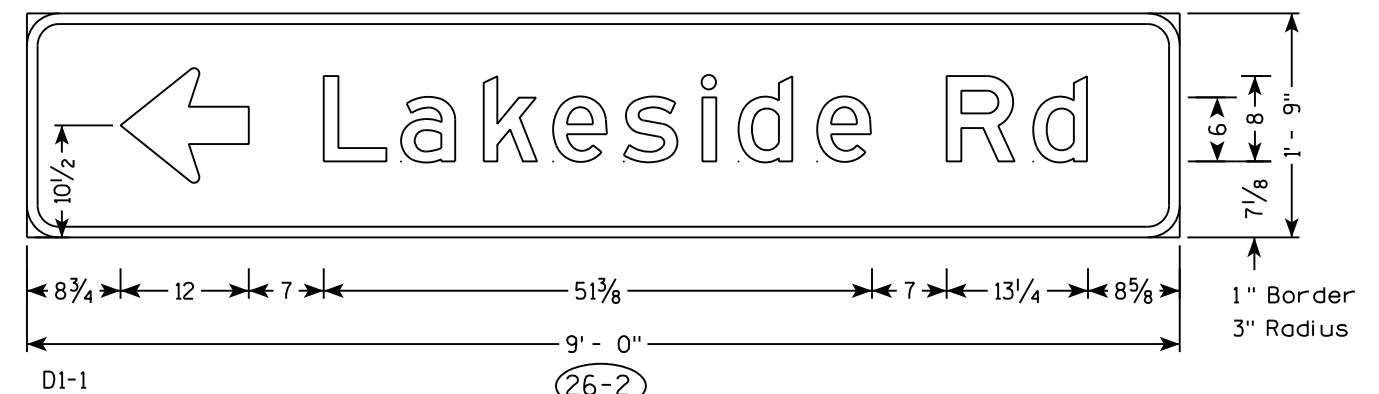
1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E



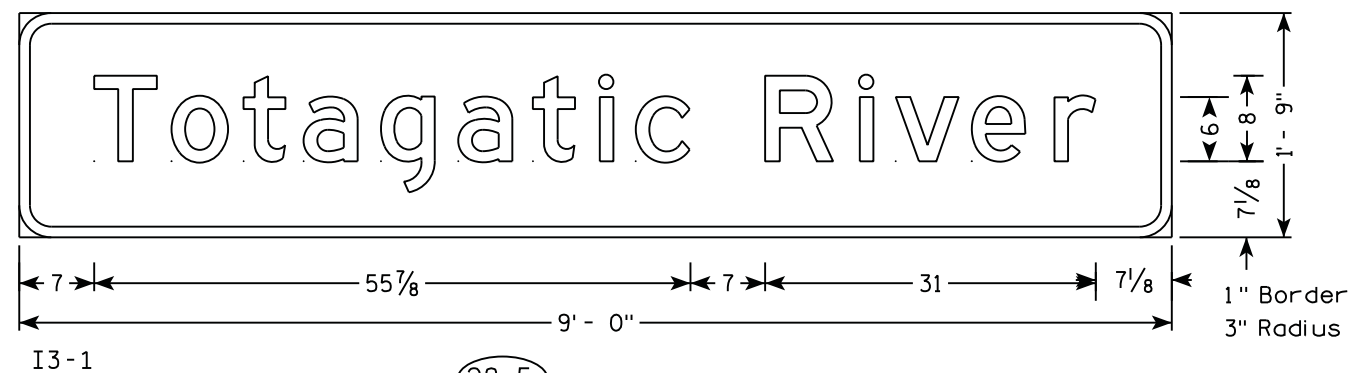
(33-2)



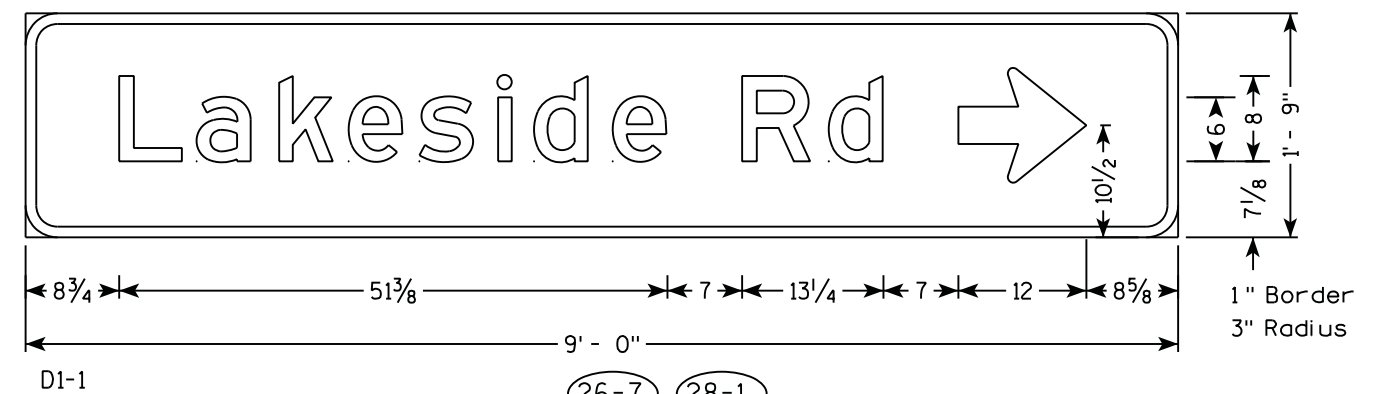
(30-9)



(26-2)



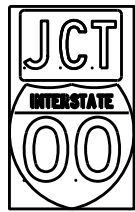
(28-5)



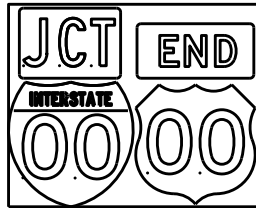
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(28-1)

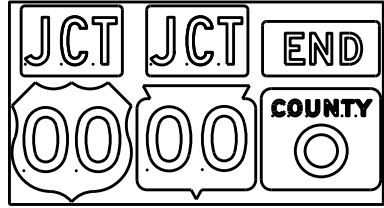
TYPICAL ASSEMBLIES



J1-1



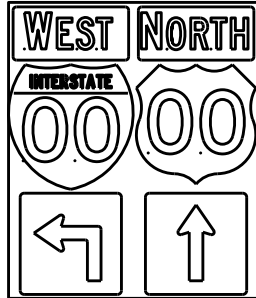
J1-2



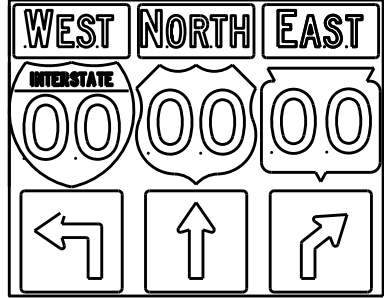
J1-3



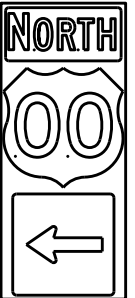
J2-1



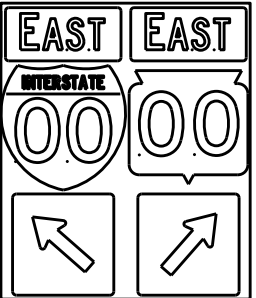
J2-2



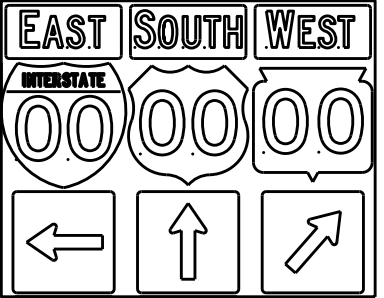
J2-3



J3-1



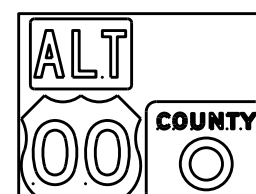
J3-2



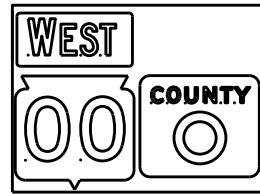
J3-3



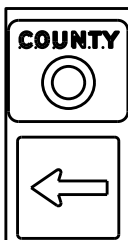
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

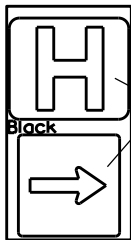


J22-1



JV

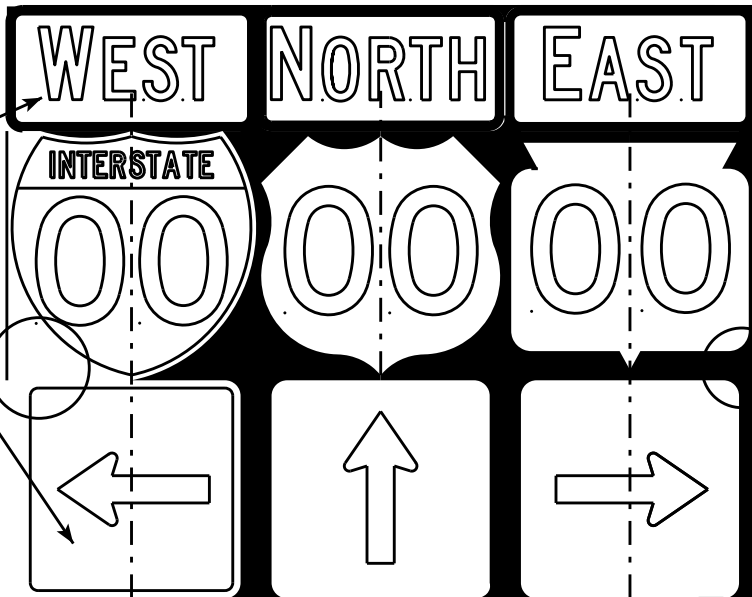
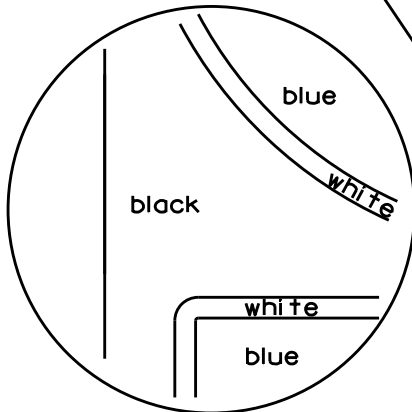
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

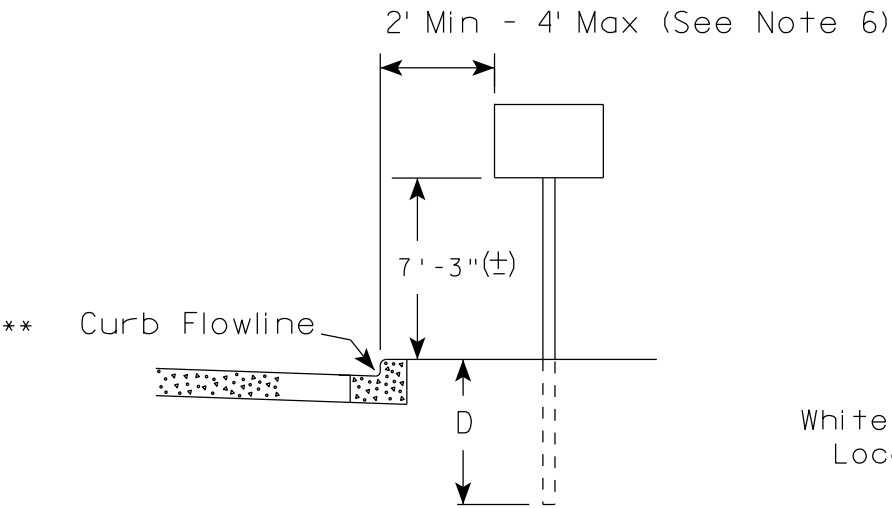
DATE 2/06/14 PL 146 A2-1S.8

SHEET NO: E

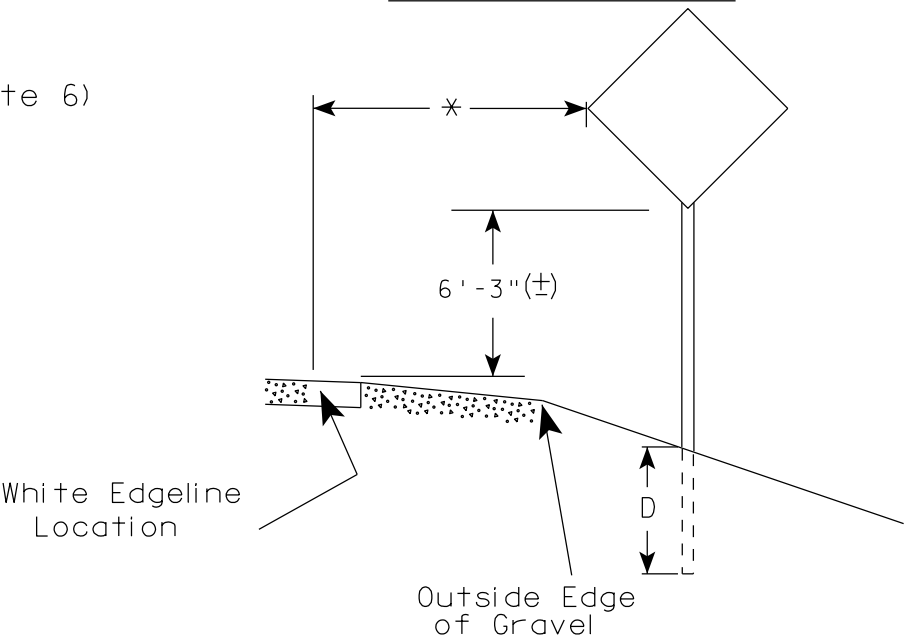
NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

×× The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

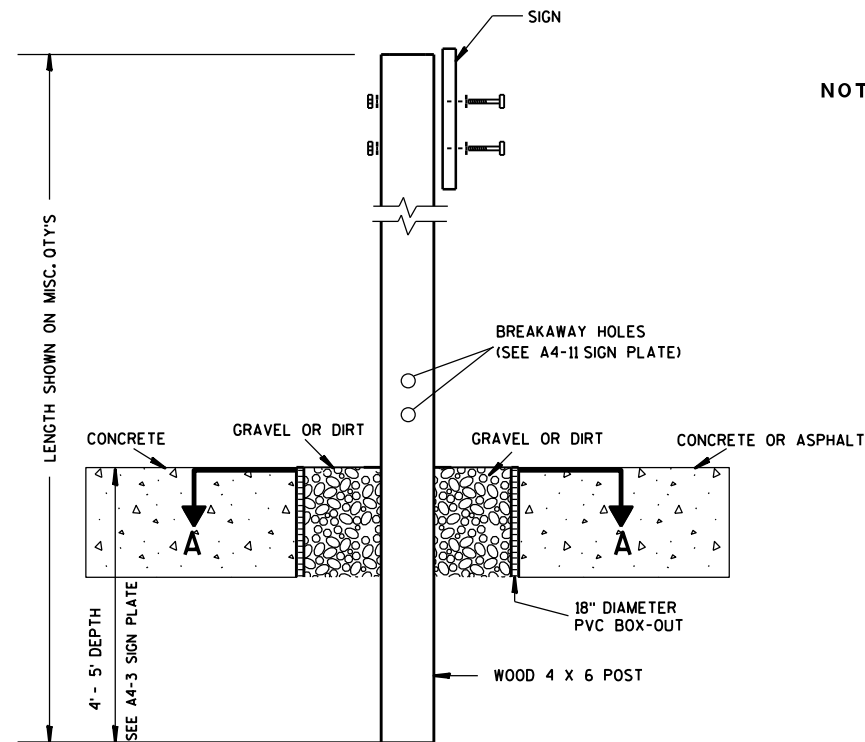
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

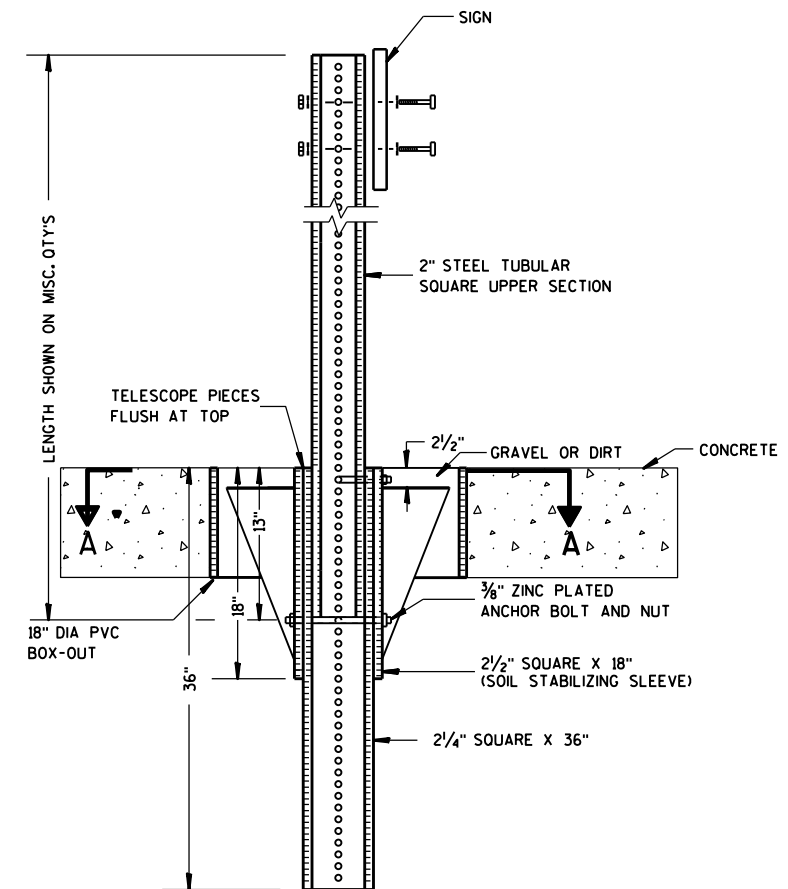
DATE 11/12/14 PLATE NO. A4-3.19



ELEVATION VIEW

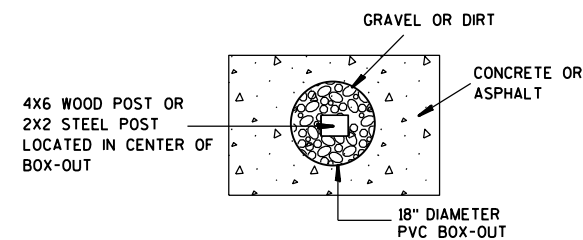
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 148 A4-3B.1

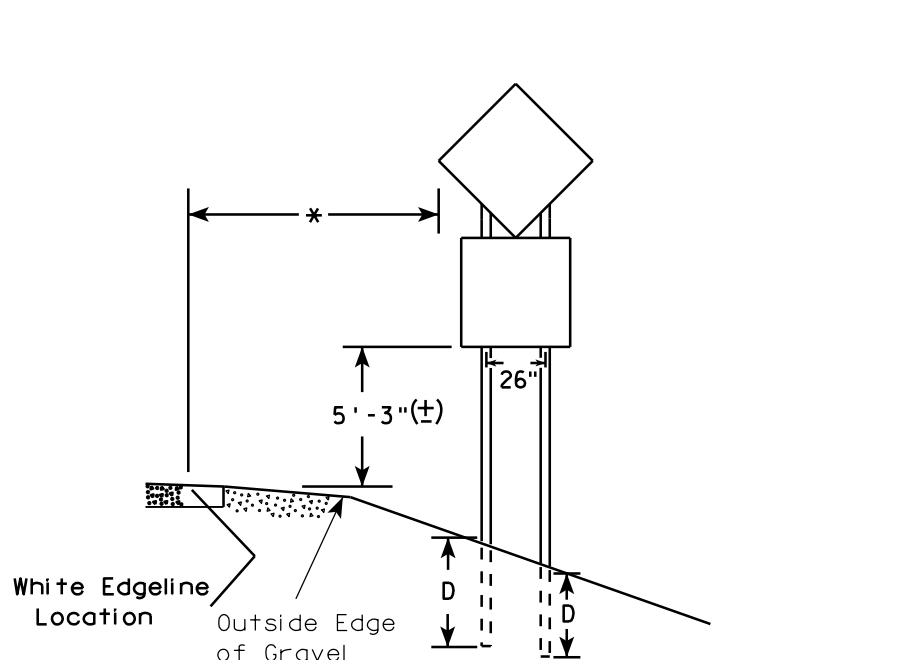
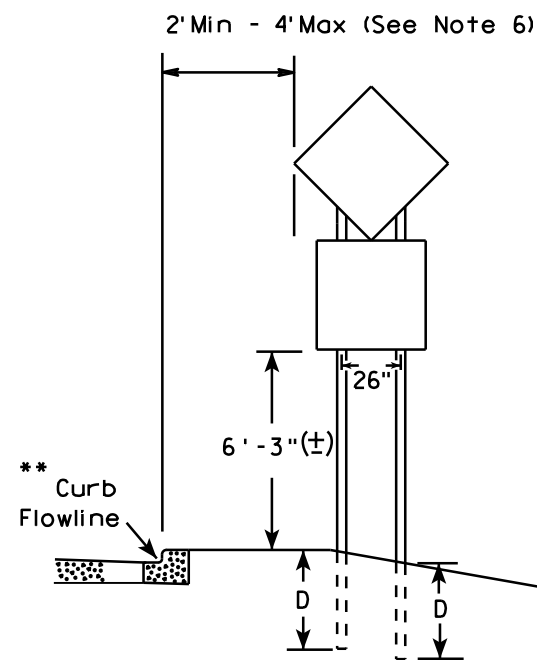
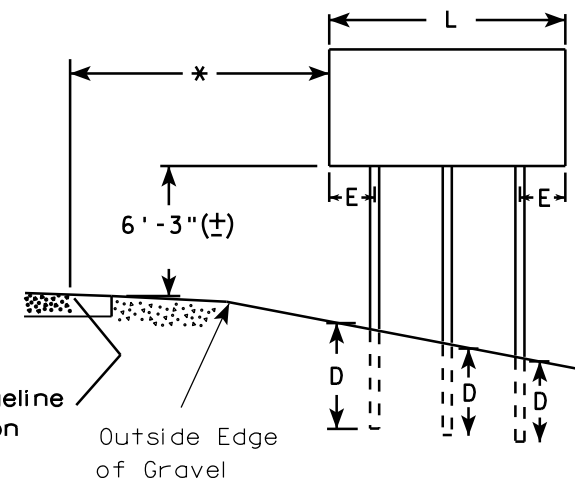
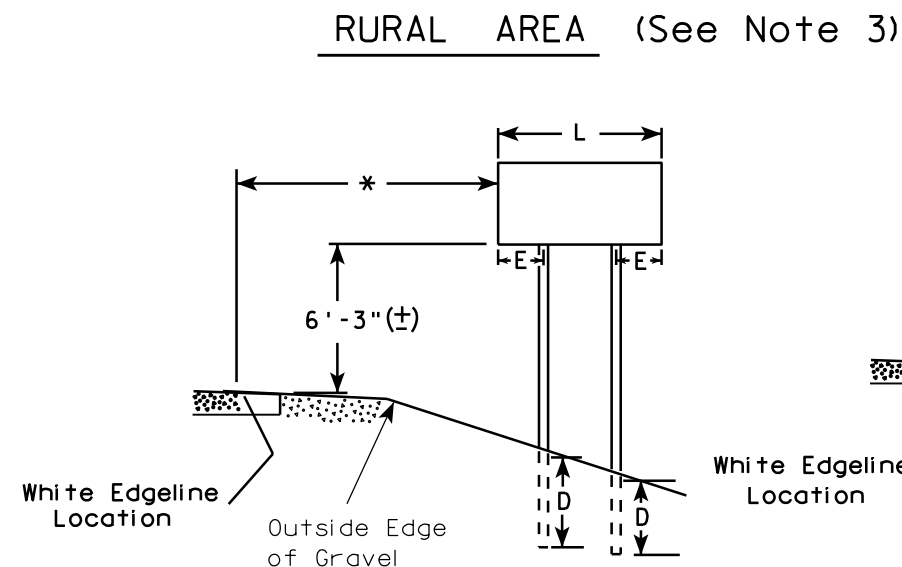
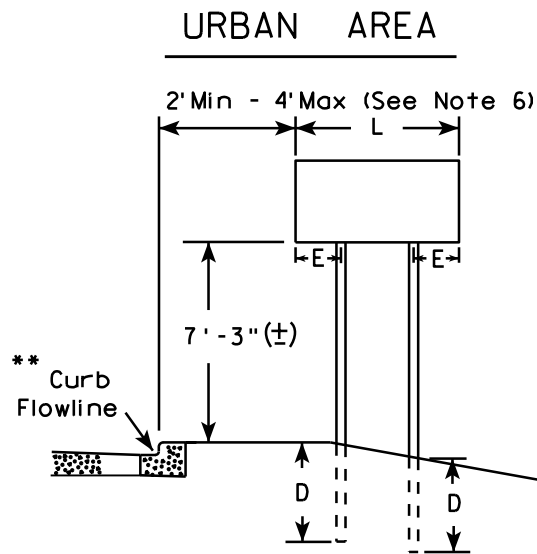
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

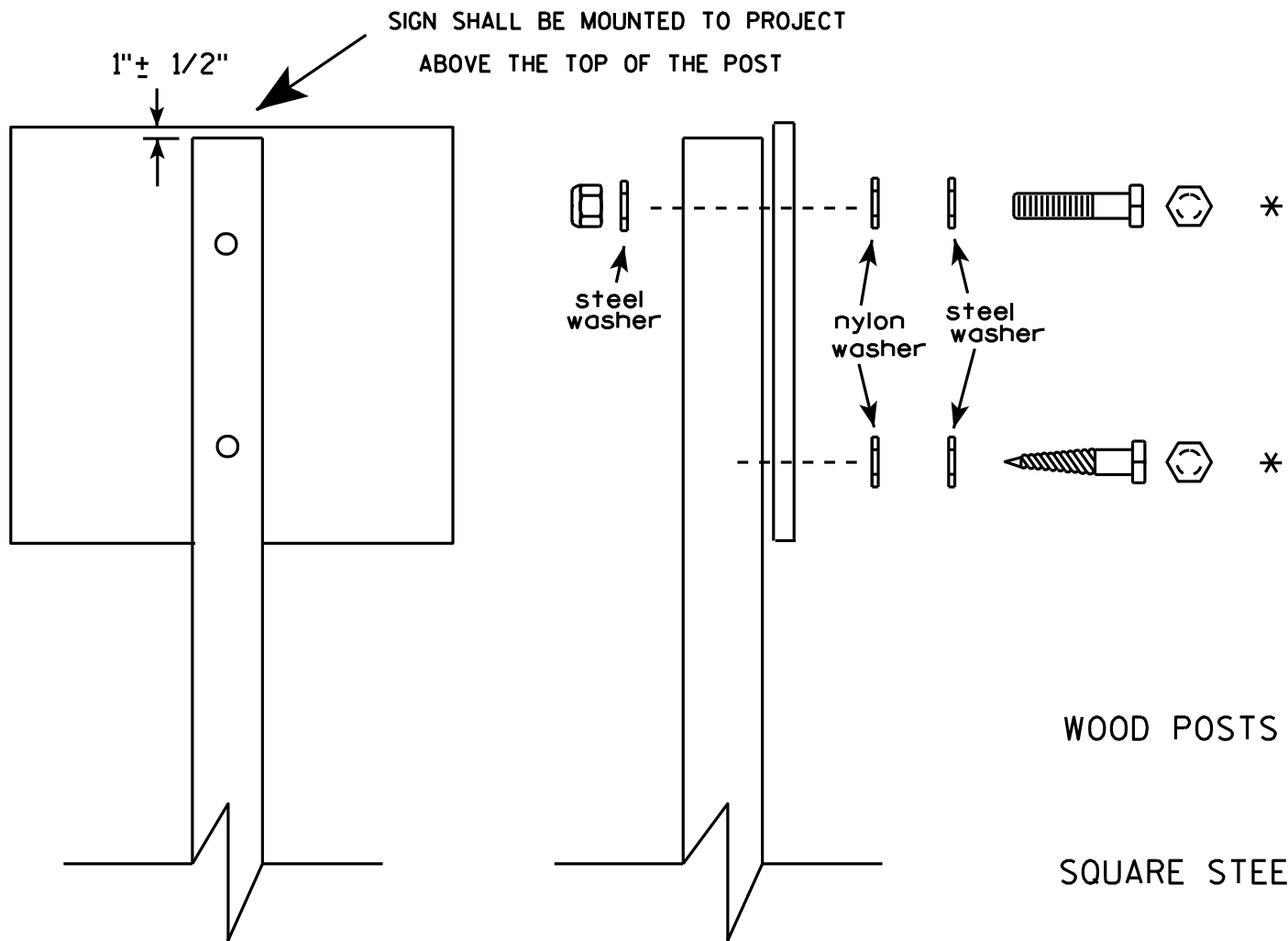
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/12/14	PLATE NO. ^{A4-A} 149 ¹³

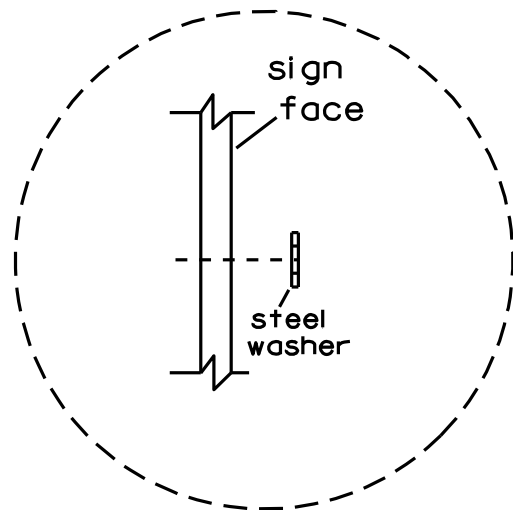


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

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

4" x 10" x 10 GA. ———→
STEEL PLATE (CUT
AS SHOWN) WELDED
TO ALL FOUR CORNERS
OF TELESPAR TUBE

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

2 1/2" TELES PAR TUBE

4" x 10" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELES PAR TUBE

4"

2 1/2"

10"

3 1/2"

16"

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

18" DIA SCHEDULE 40 PVC BOX-OUT

36"

18"

13"

2 1/2"

2 1/4" SQUARE X 36"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

3/8" ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- Sign:** A rectangular sign plate is mounted at the top, secured with bolts. A note indicates: "SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL".
- Upper Section:** A "2" STEEL TUBULAR SQUARE UPPER SECTION" supports the sign.
- Telescope Pieces:** "TELESCOPE PIECES FLUSH AT TOP" are shown below the upper section.
- Dimensions:**
 - Overall height from the base to the top of the sign: "LENGTH SHOWN ON MISC. QTY'S"
 - Distance from the base to the top of the telescope pieces: "36"
 - Distance from the base to the top of the upper section: "18"
 - Distance from the base to the top of the telescope pieces: "12"
- Base Assembly:**
 - The base is a "2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)".
 - It is secured with "3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT" and "2 1/4" SQUARE X 36"
 - Dimensions for the base assembly are "18" and "12"
- Other Details:**
 - "ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES"
 - "3/8" ZINC PLATED ANCHOR BOLT AND NUT"
 - "1" dimension for the base assembly

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT

DIRECTION
OF TRAFFIC

SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthaeus R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 151 14-9.9

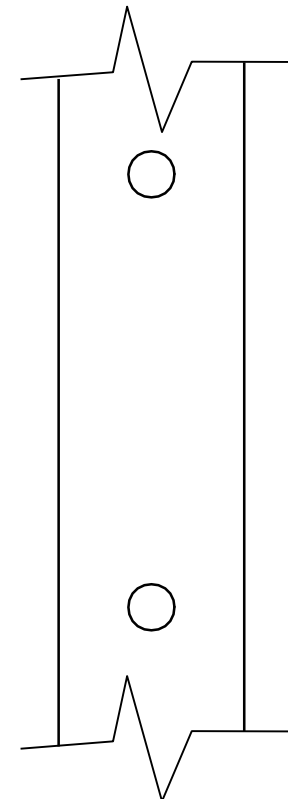
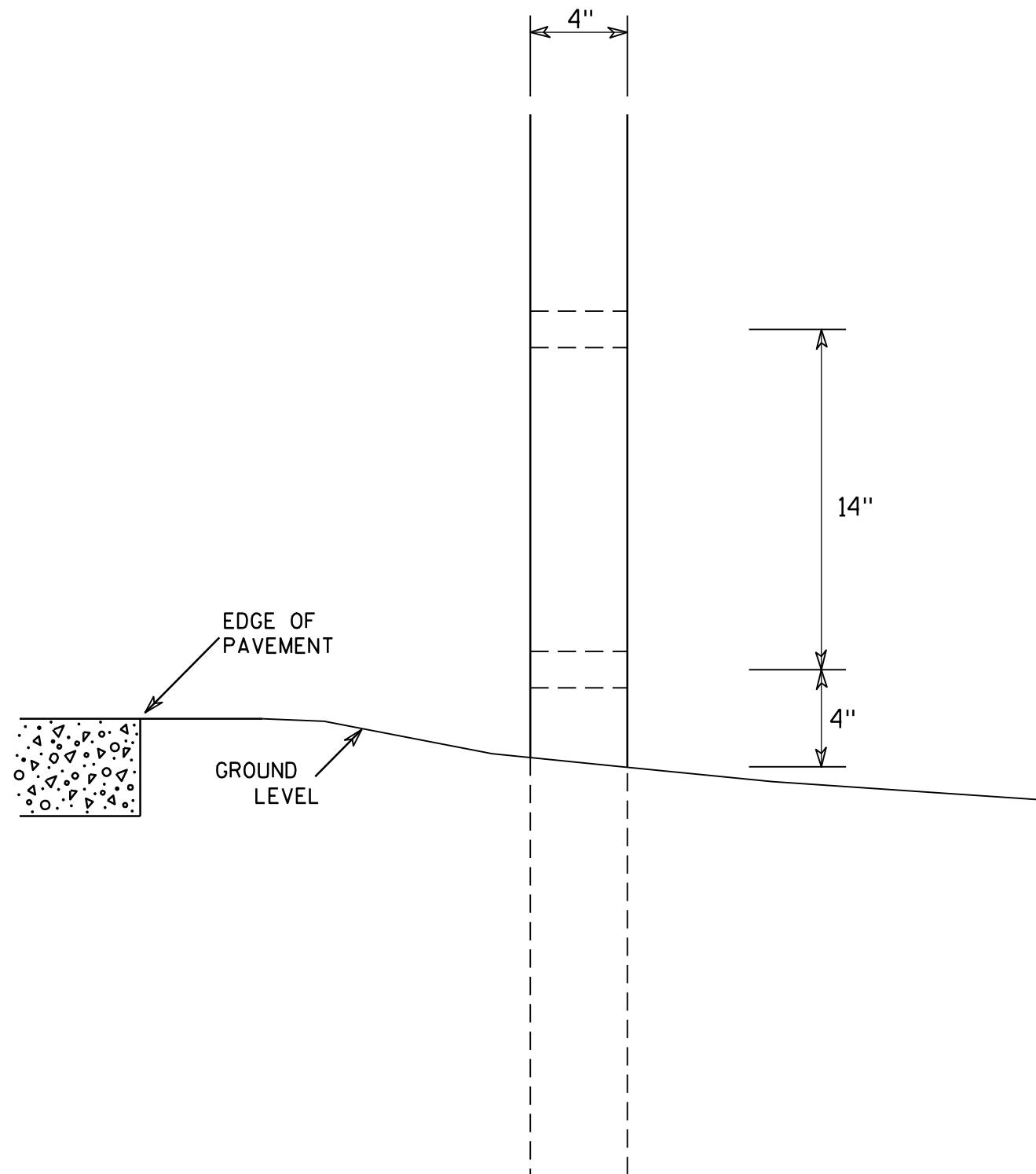
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

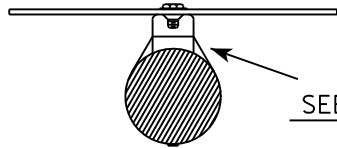
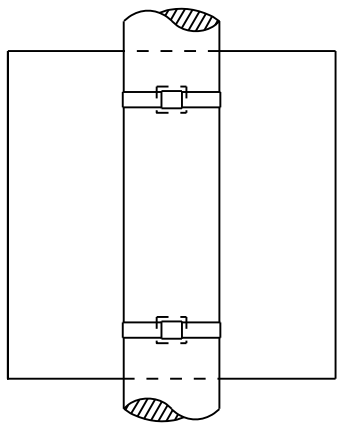
COUNTY:

SHEET NO: 152

E

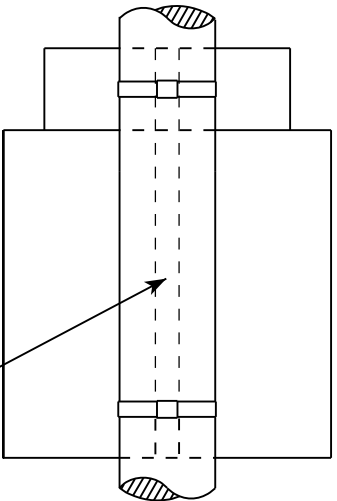
BANDING

SINGLE SIGN

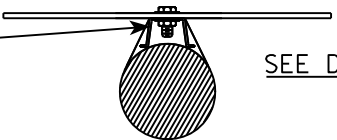


SEE DETAIL A

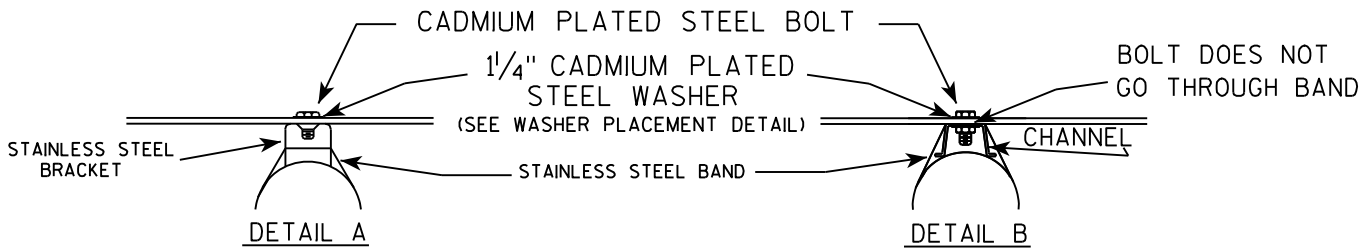
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



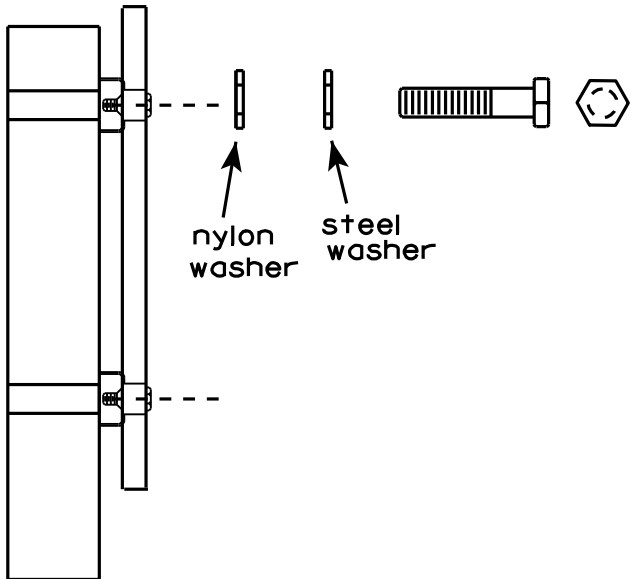
SEE DETAIL B



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



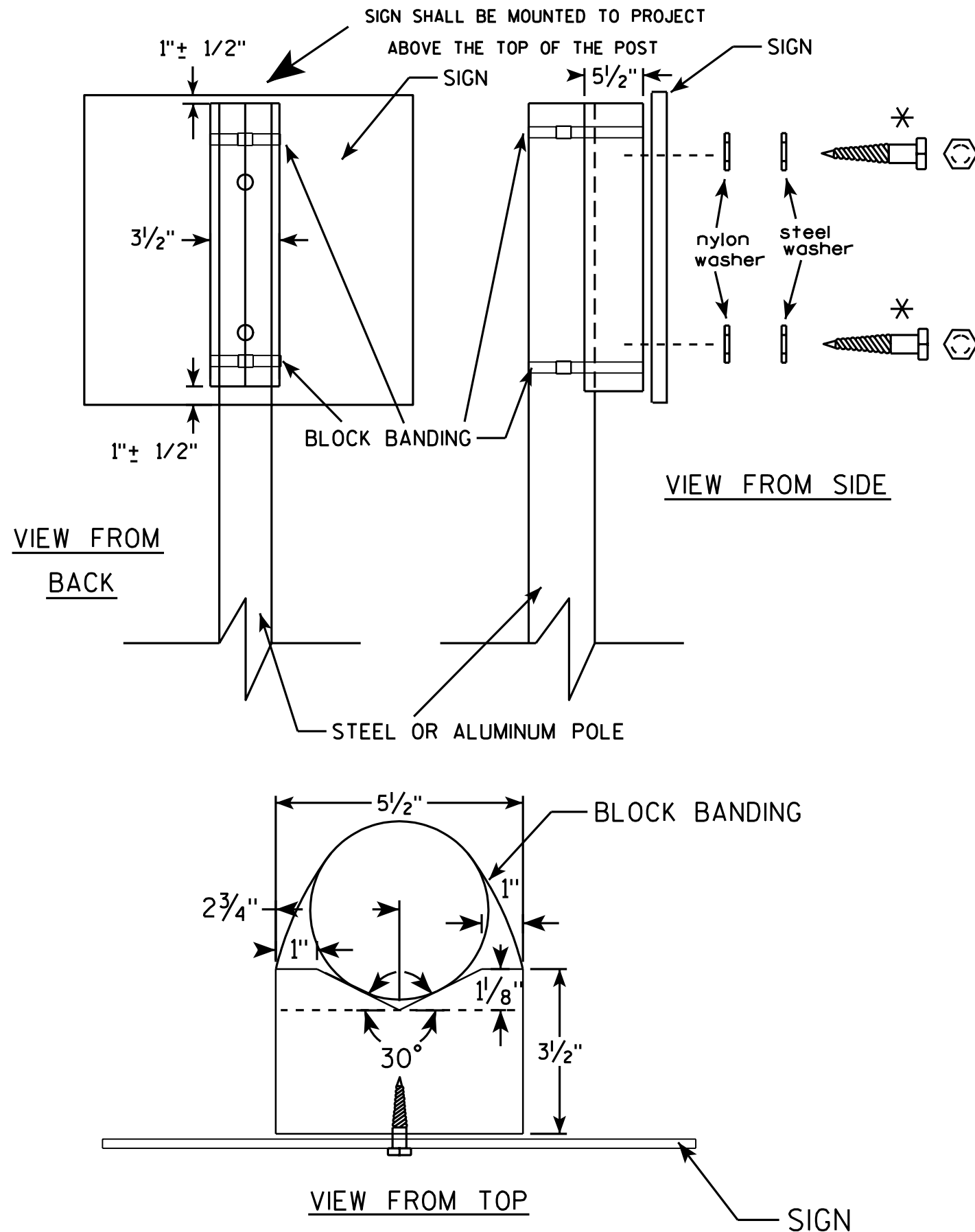
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

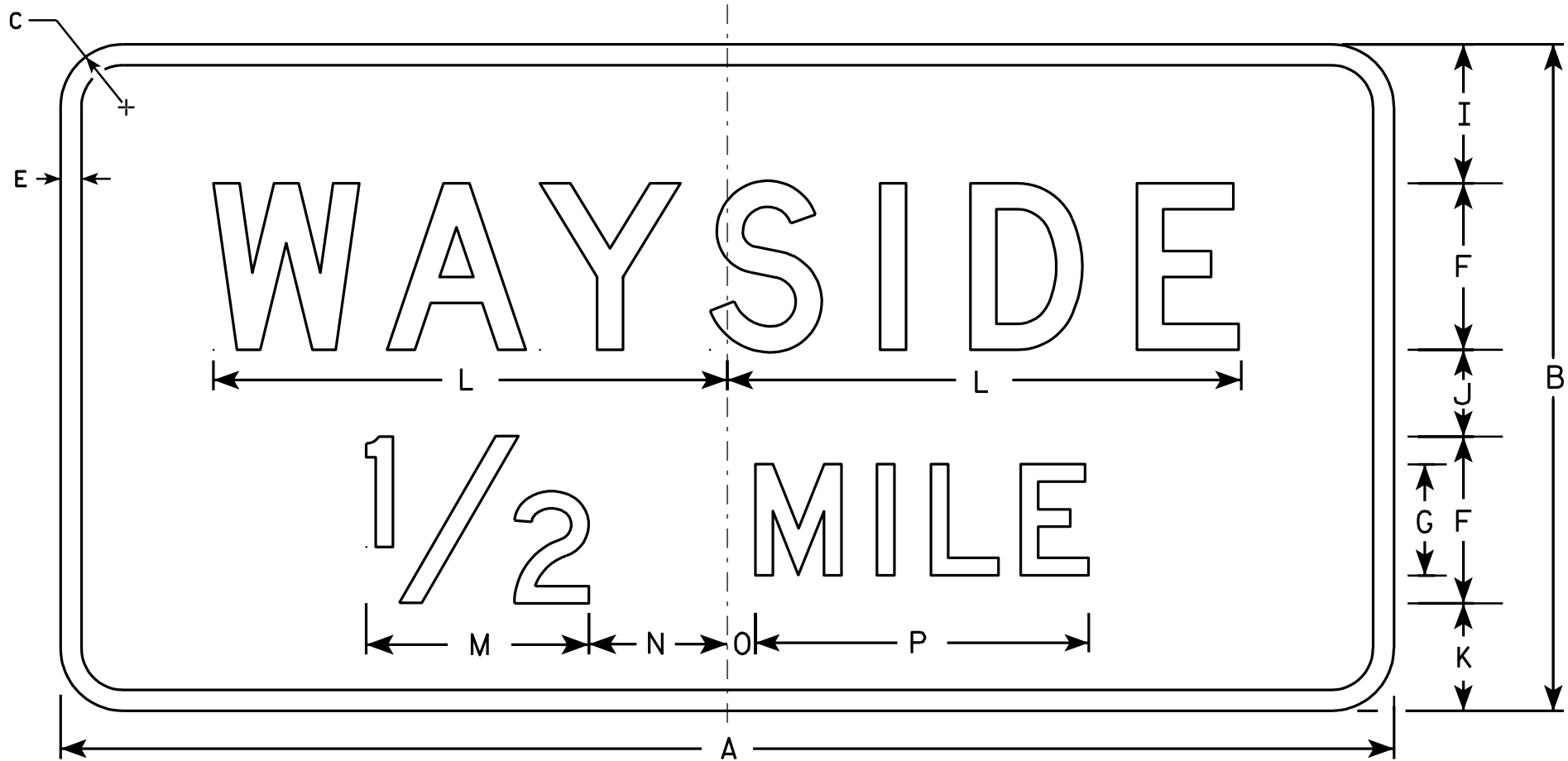
SHEET NO: 154

E

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D5-61

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Blue
 - Message - White
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
1																												
2	48	24	2 1/4		3/4	6	4	6	5	3 1/8	3 7/8	18 1/2	8	5	1	12											8.0	0.72
3																												
4	78	42	3		1	10	7	10 1/2	8 3/4	5 3/4	7	30 1/8	14	8 3/4	1 3/4	21											22.8	2.05
5																												

STANDARD SIGN
D5-61

WISCONSIN DEPT OF TRANSPORTATION

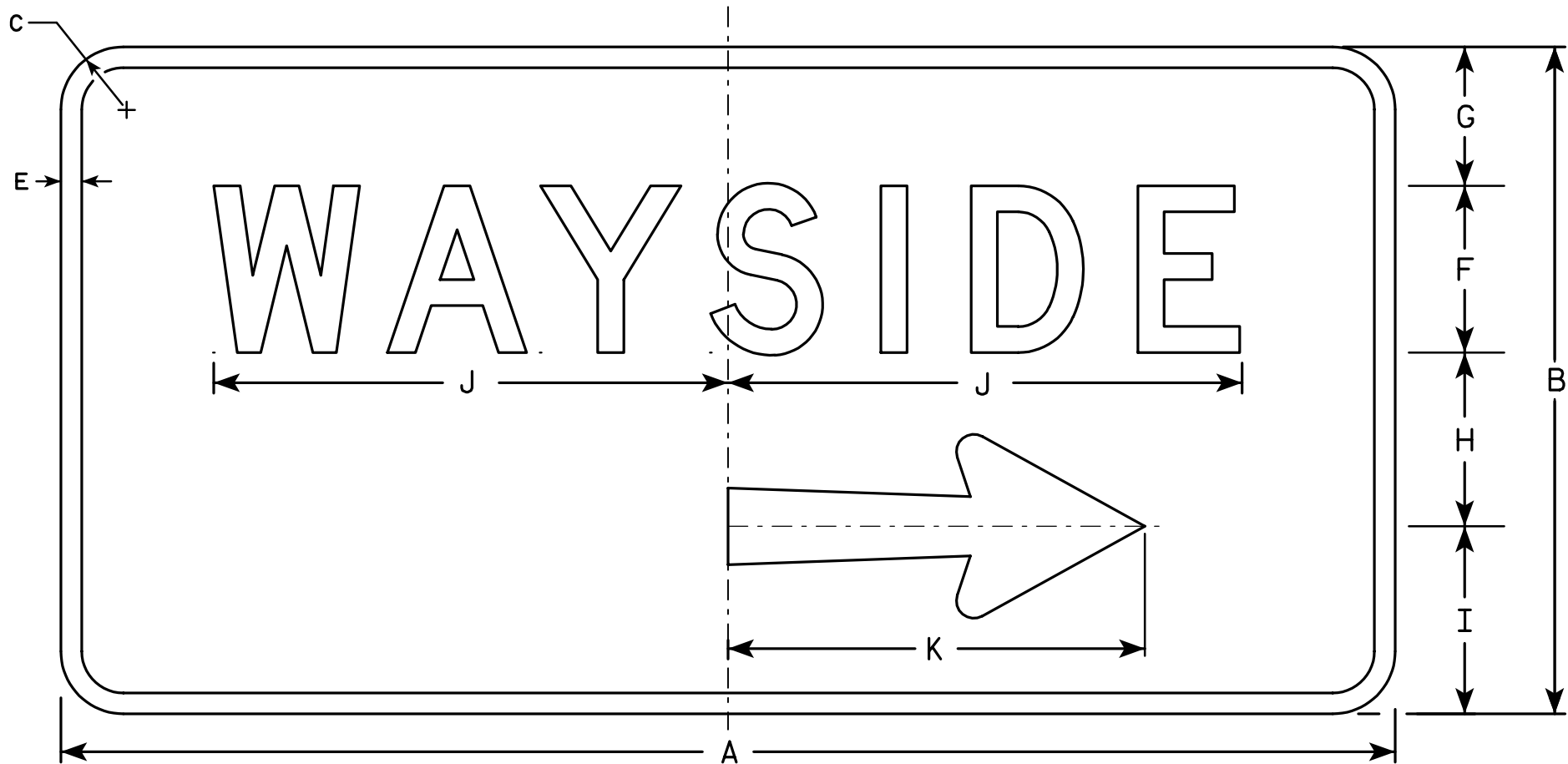
APPROVED
Charles J. Spang
for State Traffic Engineer

DATE 1/09/02
PLATE NO. D5-61.9

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 14, 10,



D5-62R

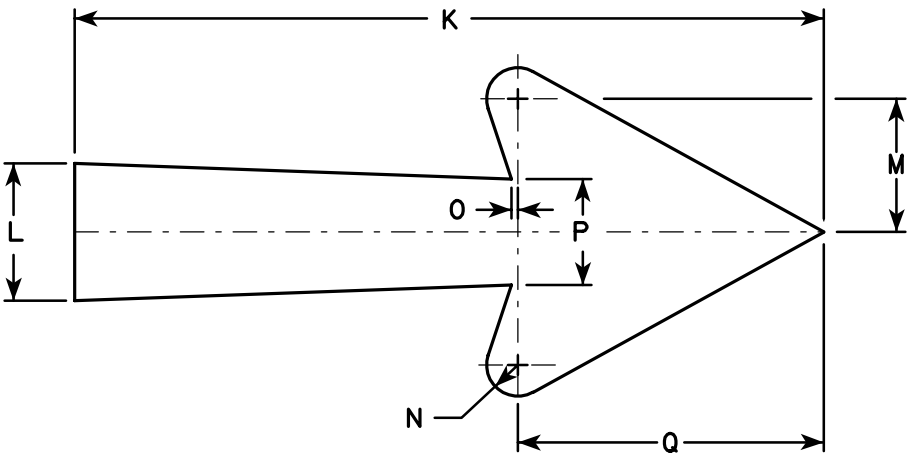
Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	48	24	2 1/4		3/4	6	4	6 1/4	6 3/4	18 1/2	15	2 3/4	3 1/8	5/8	1/8	2 1/8	6 1/8										8.0	0.72
3																												
4	78	42	3		1	10	8 3/4	11	12 1/4	30 1/8	26 1/4	4 3/4	4 5/8	1 1/8	1/4	3 3/4	10 3/4										22.8	2.05
5																												

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Blue
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-62L is the same as D5-62R except that the arrow is rotated 180° about the vertical center line.



Arrow Detail

STANDARD SIGN
D5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

DATE 1/09/02

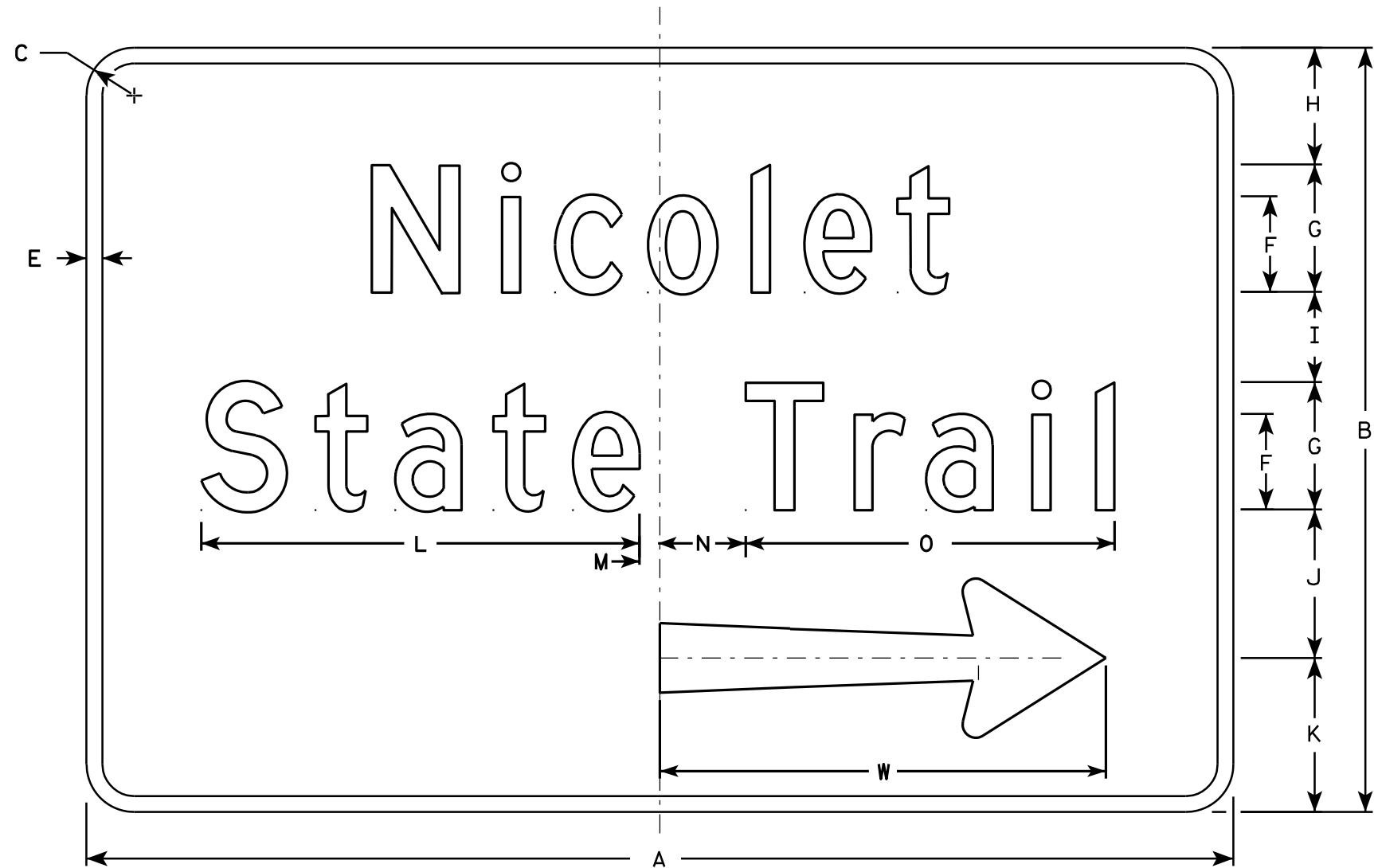
PLATE NO. D5-62.10

STATE PROJECT NUMBER:

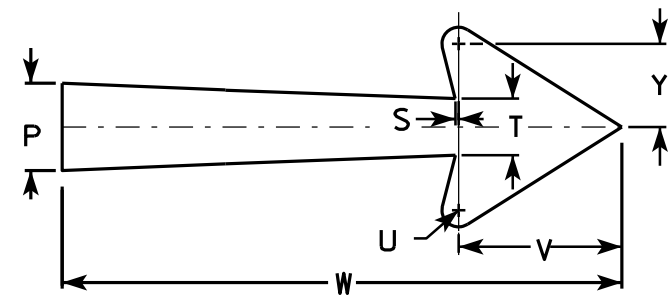
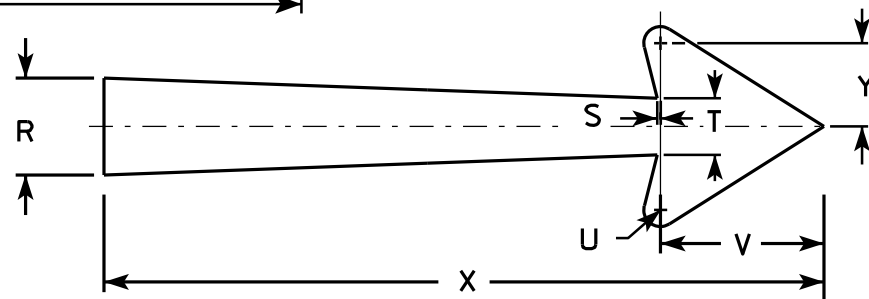
SHEET NO: 156

E

7



D7-95R



Arrow Details

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate name and optically adjust spacing to achieve proper balance. When necessary to accommodate name, lengthen board by 6" increments. Minimum sign width is 54".
6. Use 21" arrow (dimension W) for lengths of 54" to 72". Use 27" arrow (dimension X) for 78" and longer.
7. D7-95L is the same as D7-95R except the arrow is reversed.

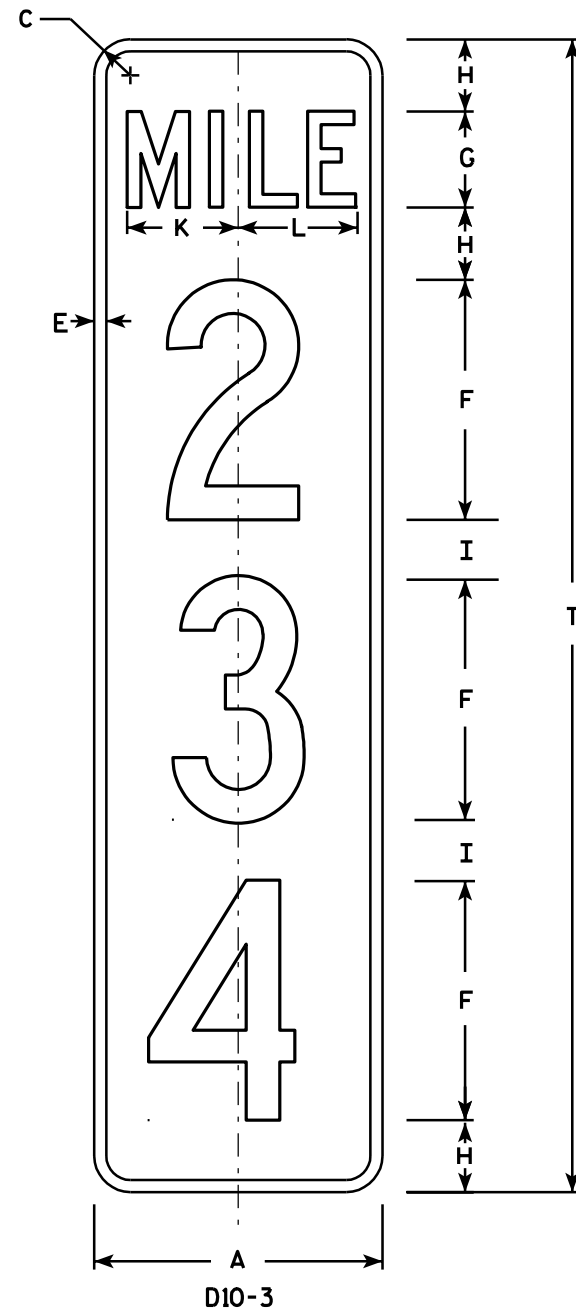
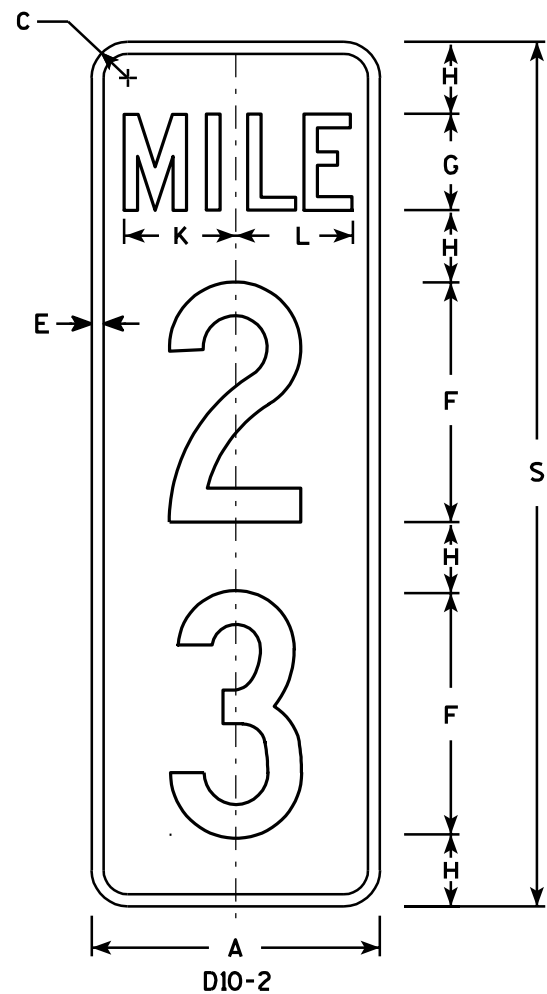
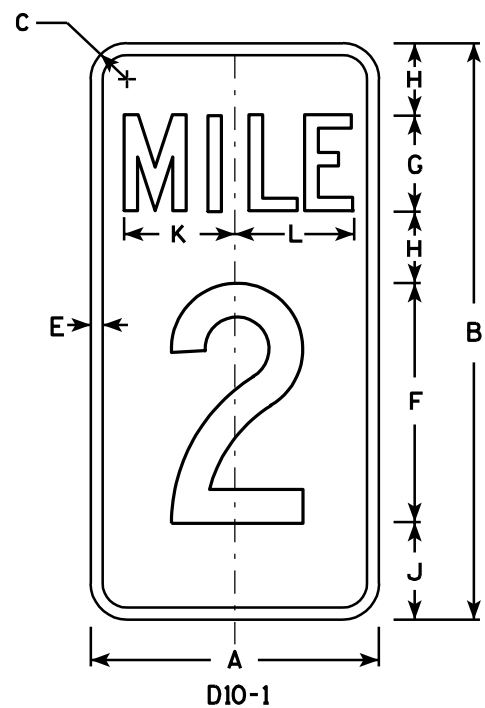
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1																										
2	varies	36	2 1/4		3/4	4 1/2	6	5 1/2	4 1/4	7	7 1/4	20 5/8	7/8	4 1/8	17 3/8	3 1/4		3 5/8	1/8	2 1/8	5/8	6 1/8	21	27	3 1/8	
3																										
4																										
5																										

STANDARD SIGN
D7-95

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/23/11 PLATE NO. D7-95.1



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Green
Message - White - Type H Reflective
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Optically adjust numerals about the centerline of the sign to achieve proper balance.

Metric equivalent
for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

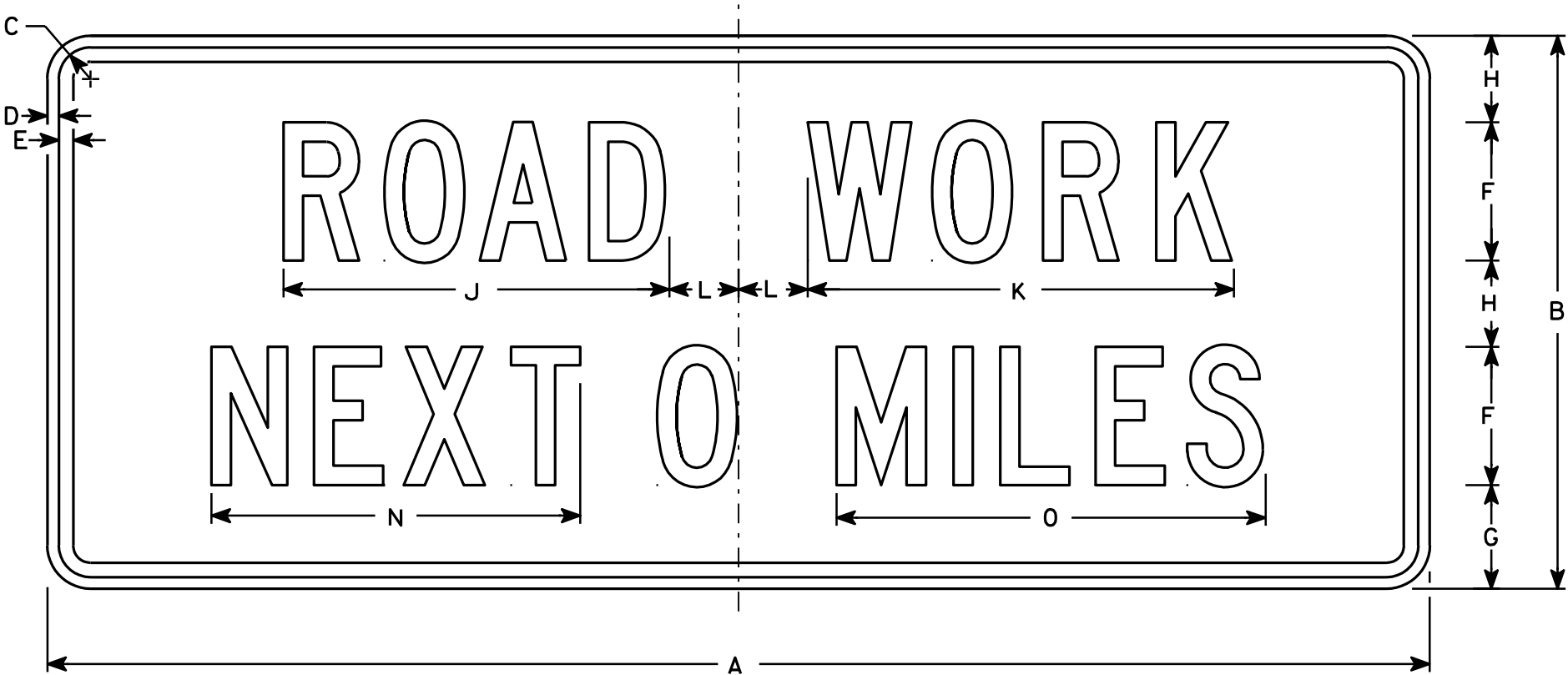
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3																										
4	12	24	1 1/2		1/2	10	4	3	2 1/2	4	4 5/8	4 7/8							36	48						
5	12	24	1 1/2		1/2	10	4	3	2 1/2	4	4 5/8	4 7/8							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN D10-1 , D10-2 & D10-3	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Sperry</i> for Director, Office of Traffic
DATE 1/16/02	PLATE NO. D10-3.2

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-1

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

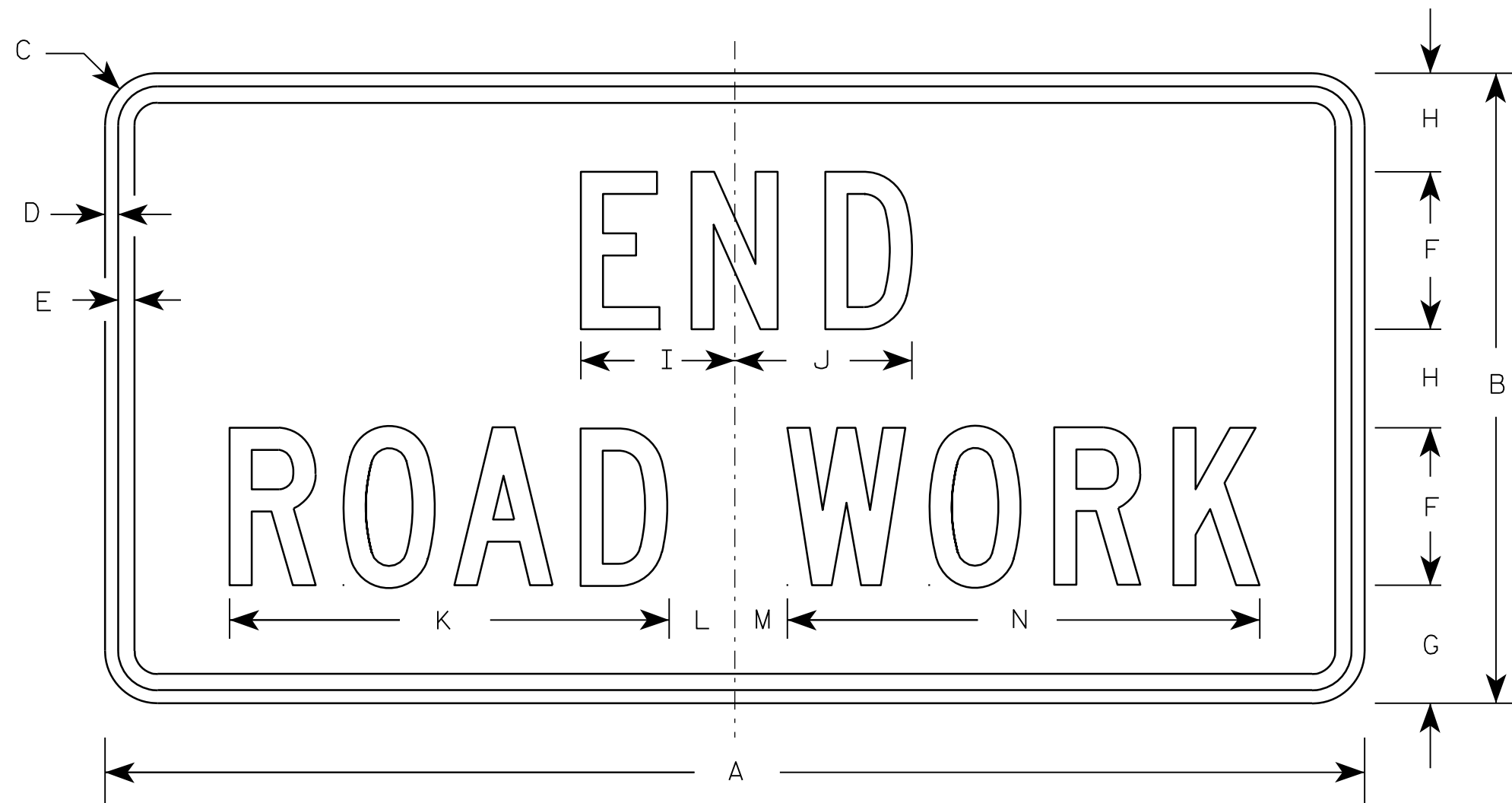
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chris J. Spay
State Traffic Engineer
DATE 4/8/97 PLATE NO. G20-1.7

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

PROJECT NO:

HWY:

COUNTY:

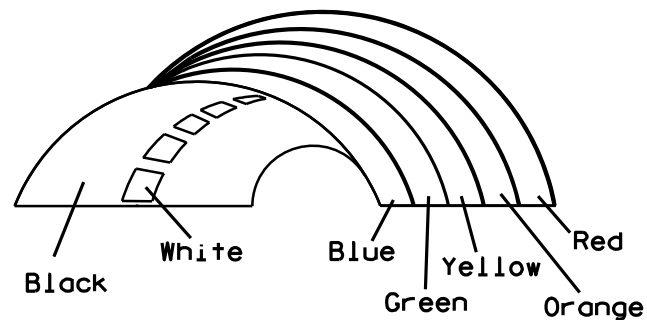
SHEET NO: 160

E



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 161

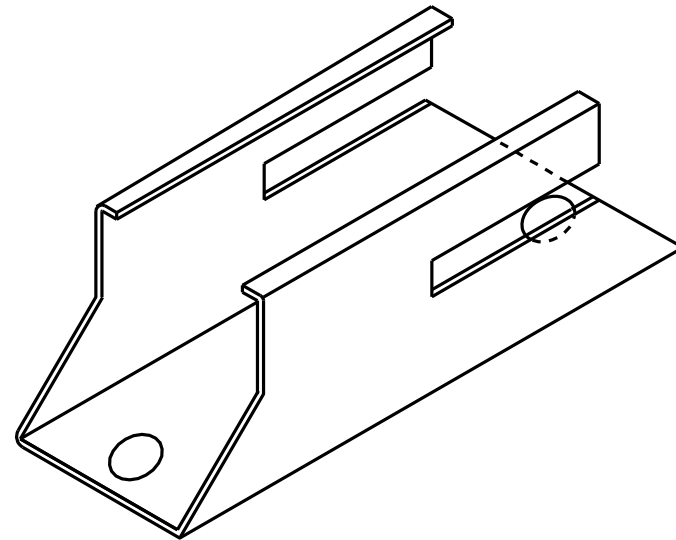
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

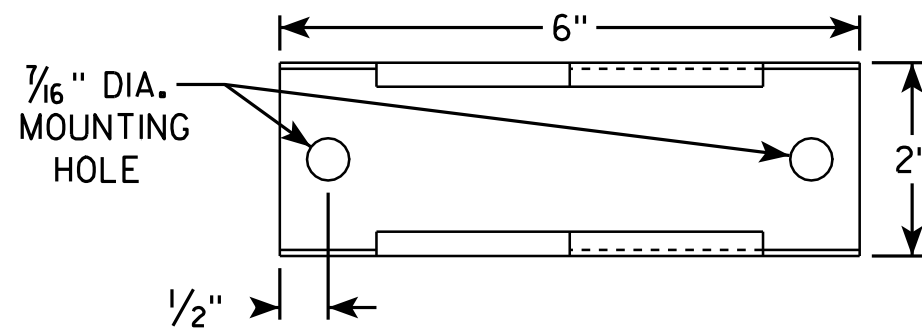
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

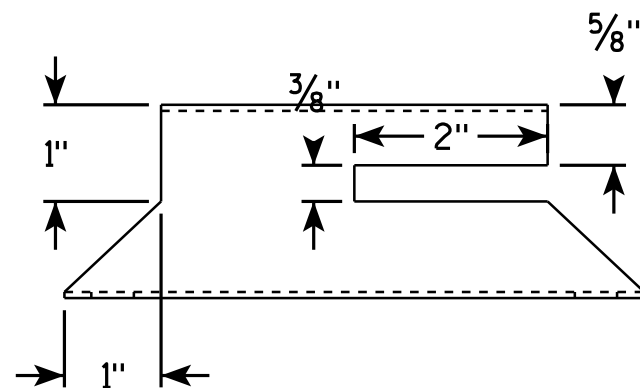
ISOMETRIC VIEW



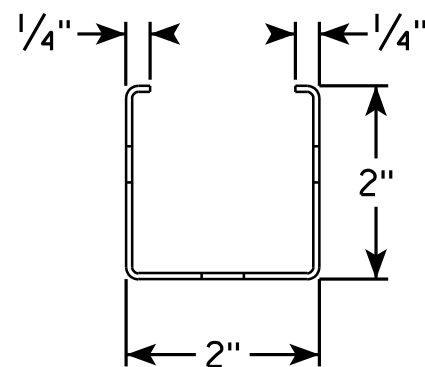
TOP VIEW



SIDE VIEW



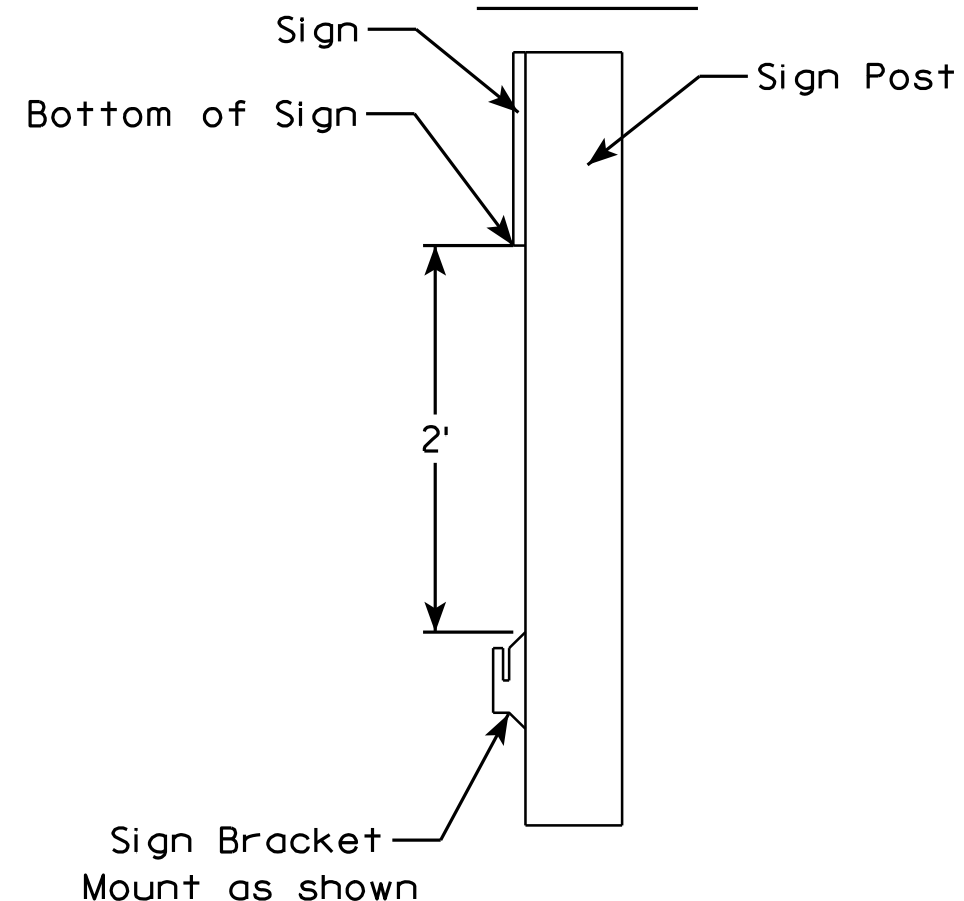
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

HWY:

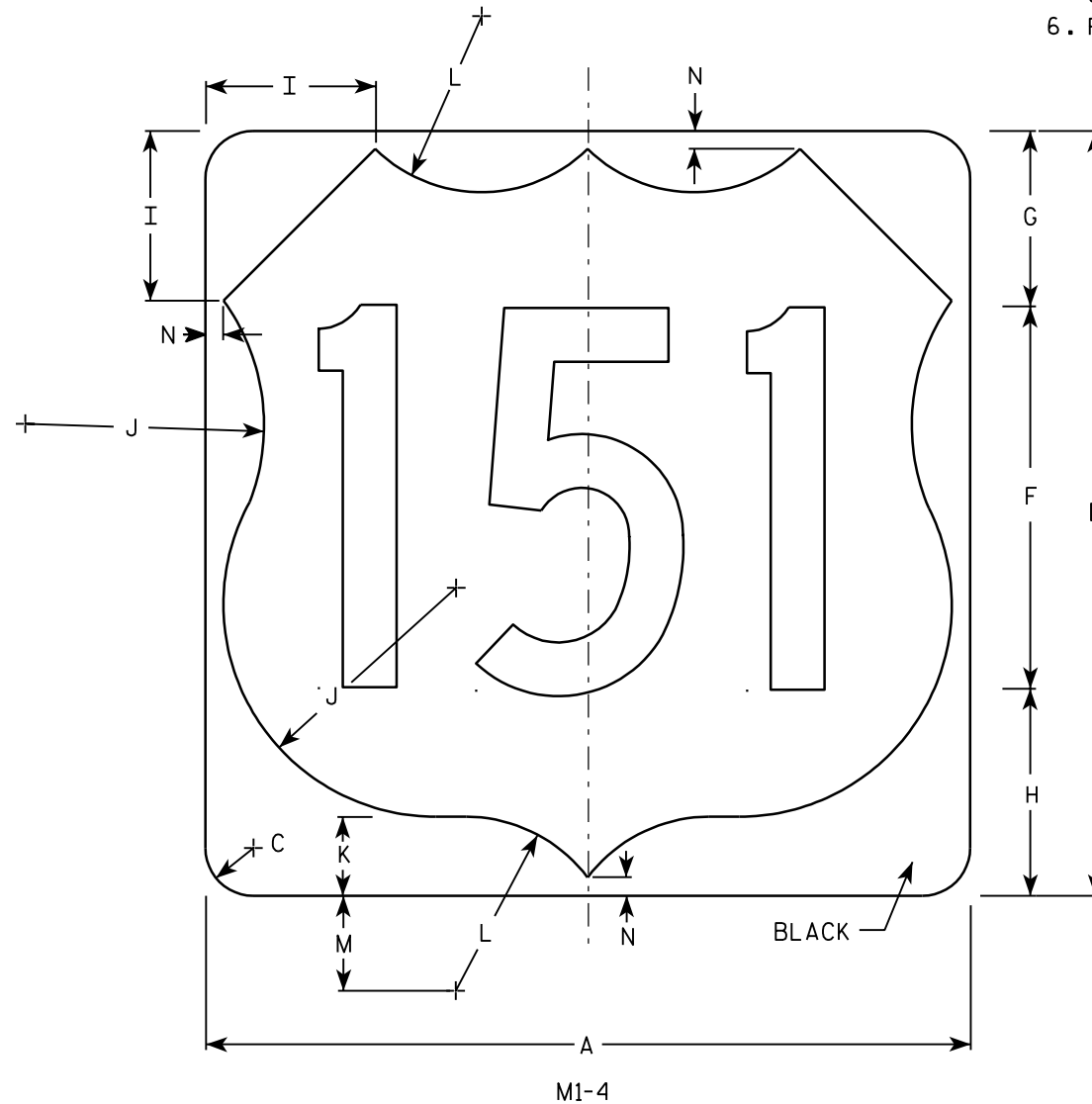
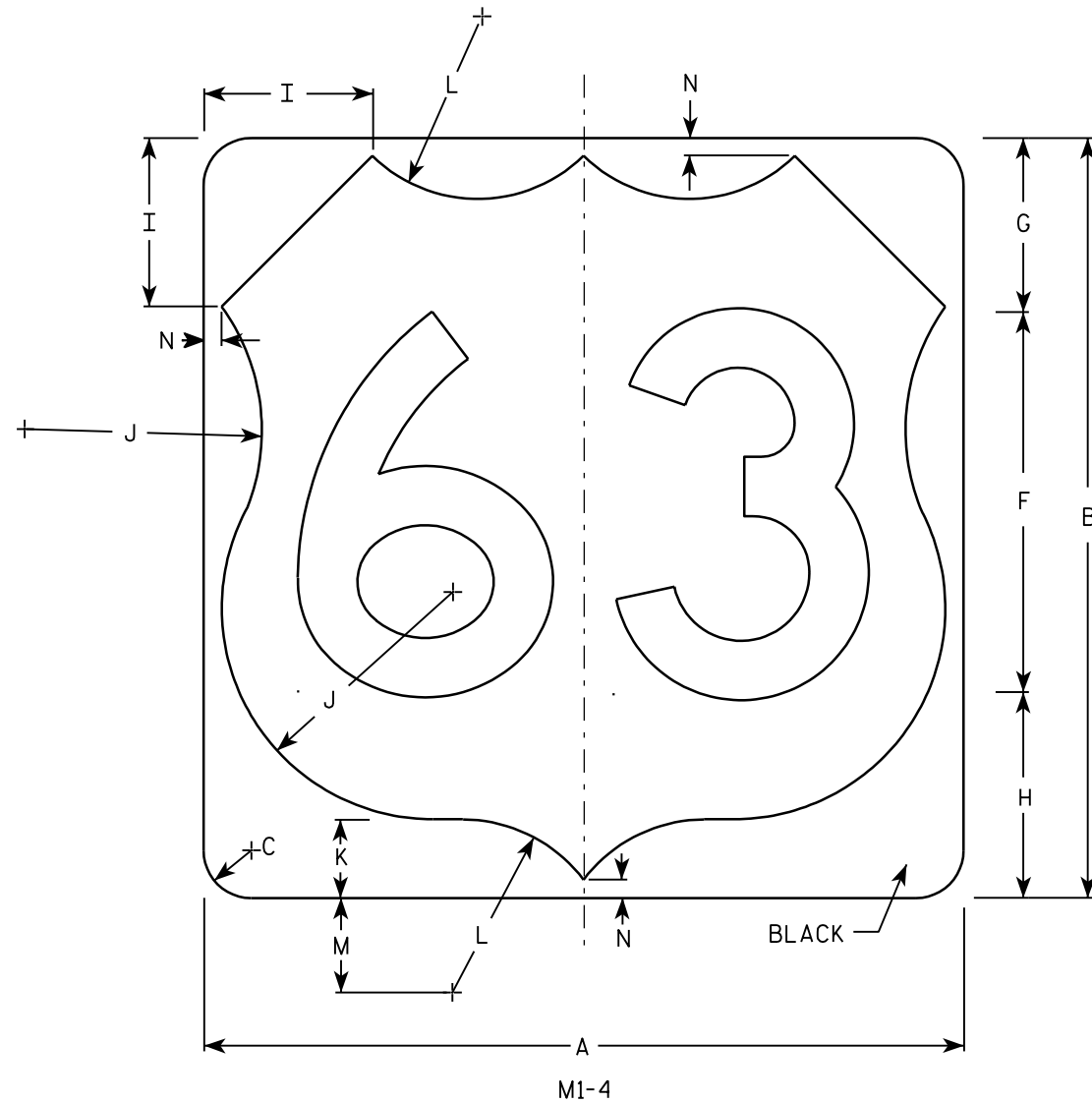
COUNTY:

SHEET NO: 162

E

NOTES

1. Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



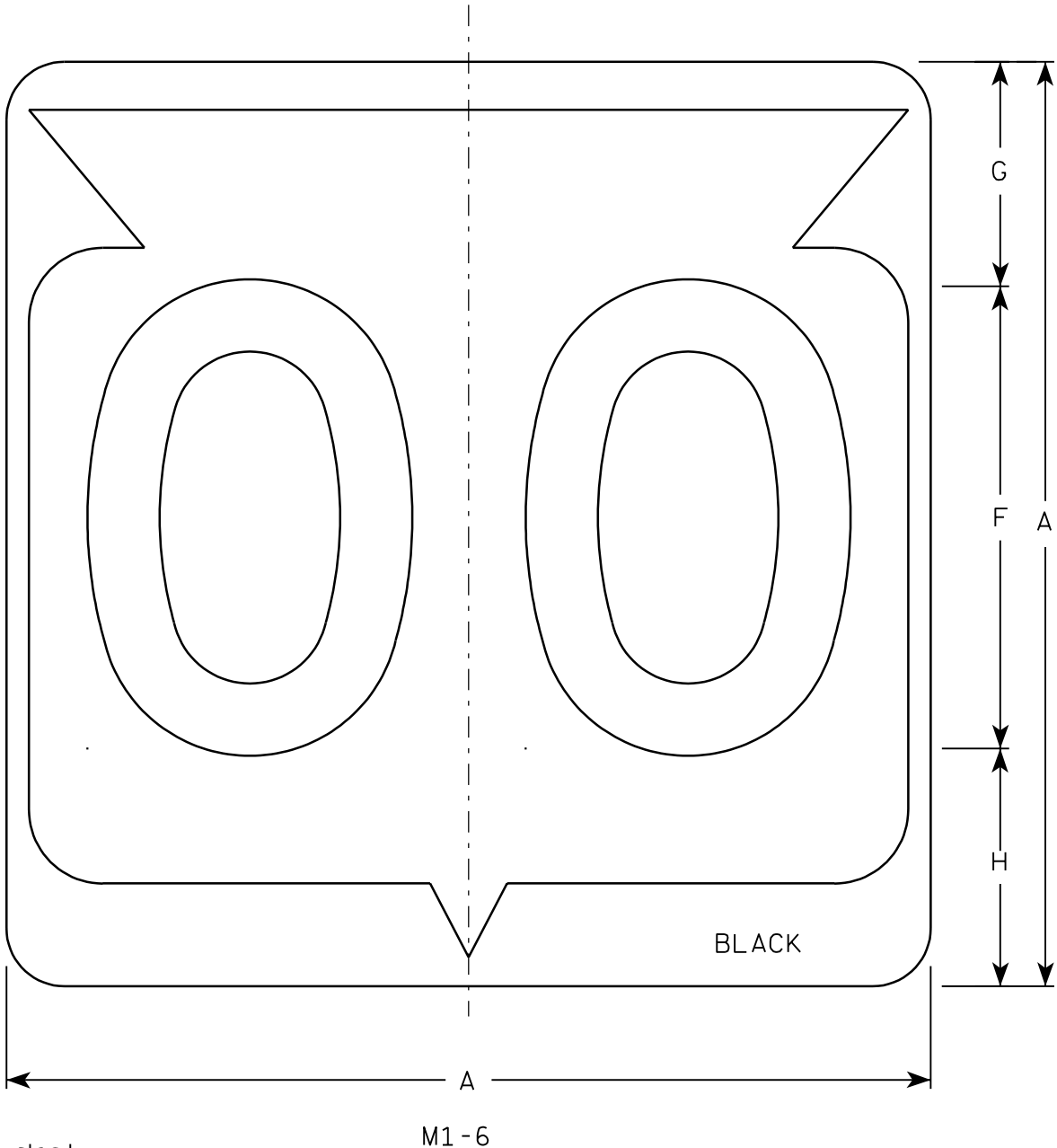
Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.	Areq m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: 163 E

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

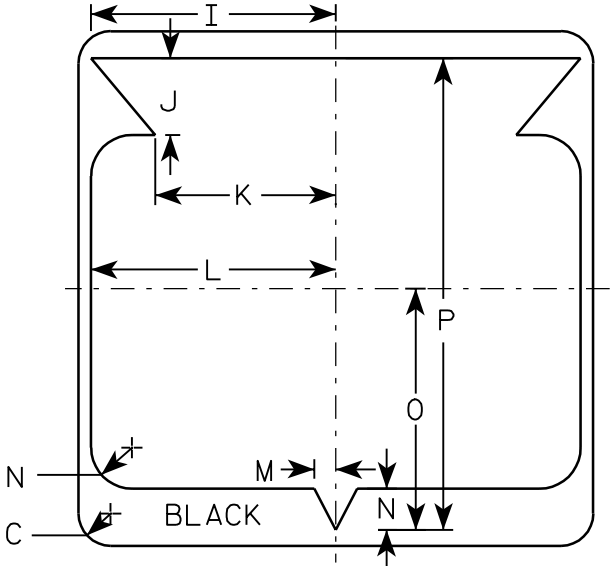
COUNTY:

SHEET NO: 164

E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

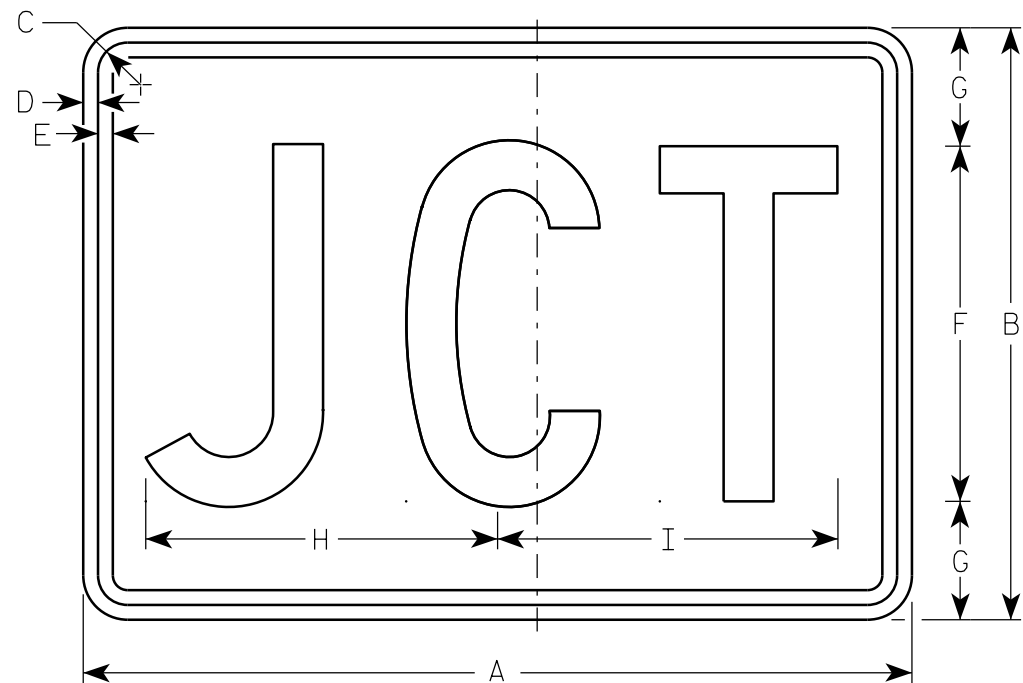
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

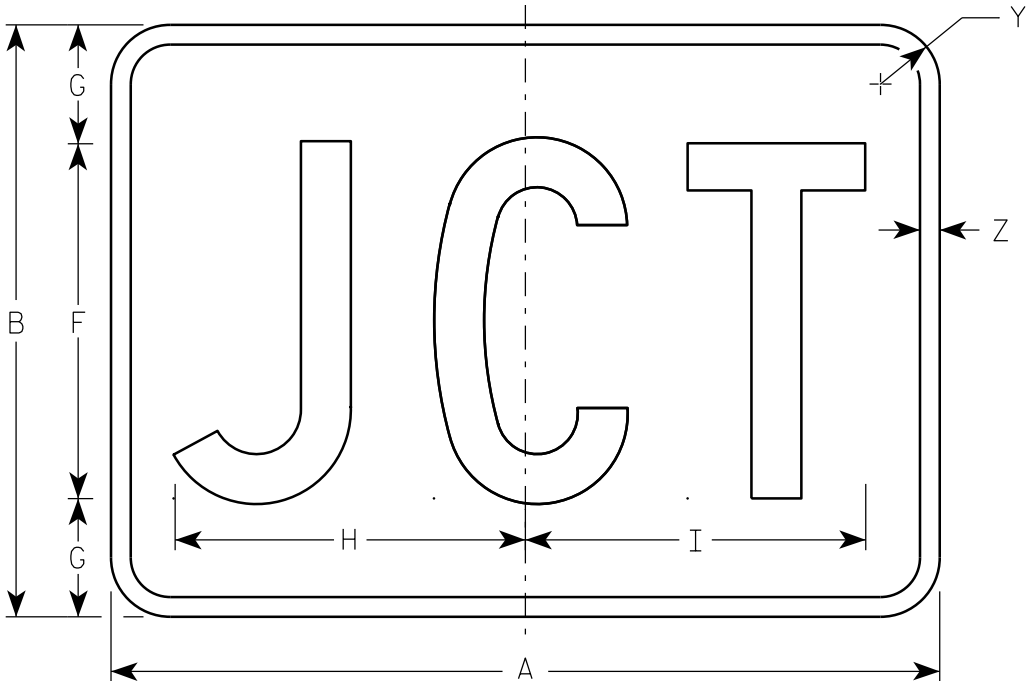
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

PLATE NO. M1-6.9



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

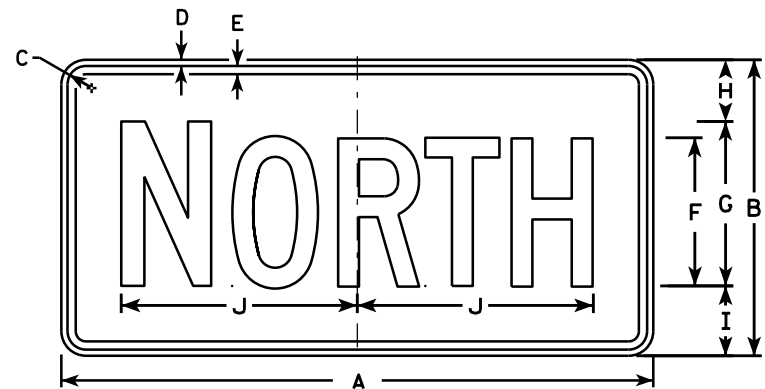
Matthew R. Rauch

For State Traffic Engineer

DATE 6/30/14

PLATE 165

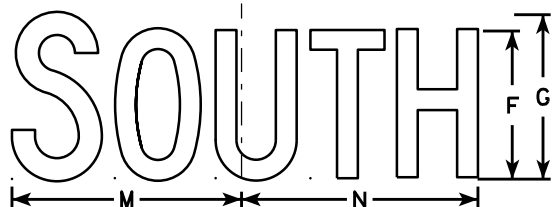
'2-1.11



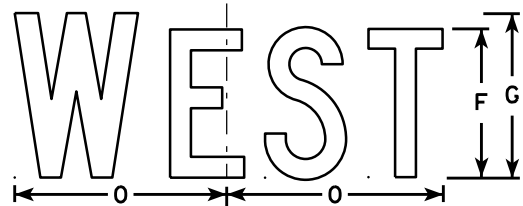
M3-1
MK3-1
MM3-1
MN3-1



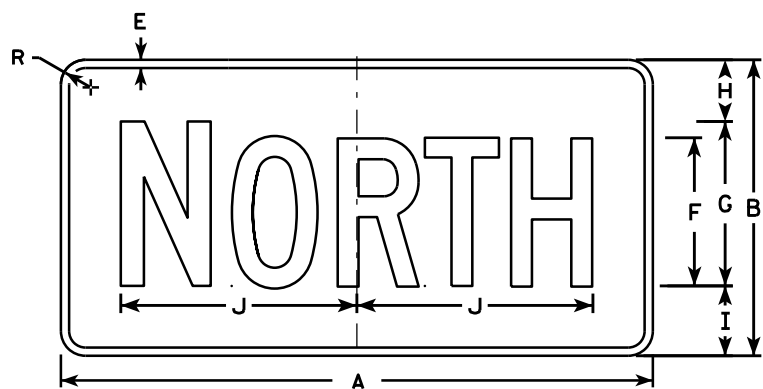
M3-2
MK3-2
MM3-2
MN3-2



M3-3
MK3-3
MM3-3
MN3-3



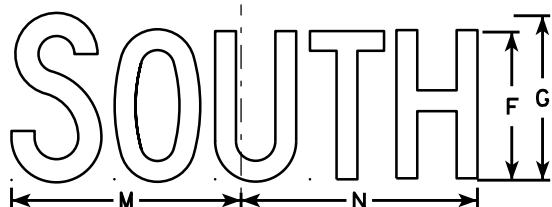
M3-4
MK3-4
MM3-4
MN3-4



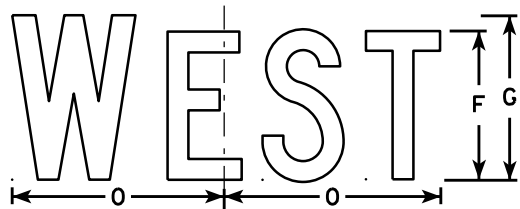
MB3-1



MB3-2



MB3-3



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

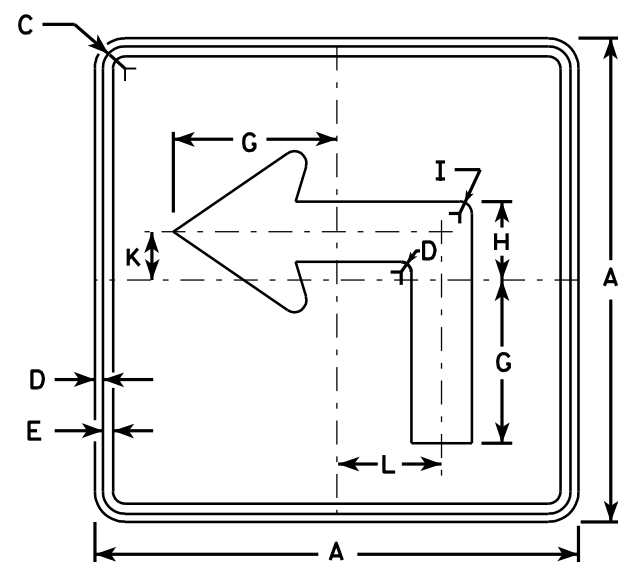
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

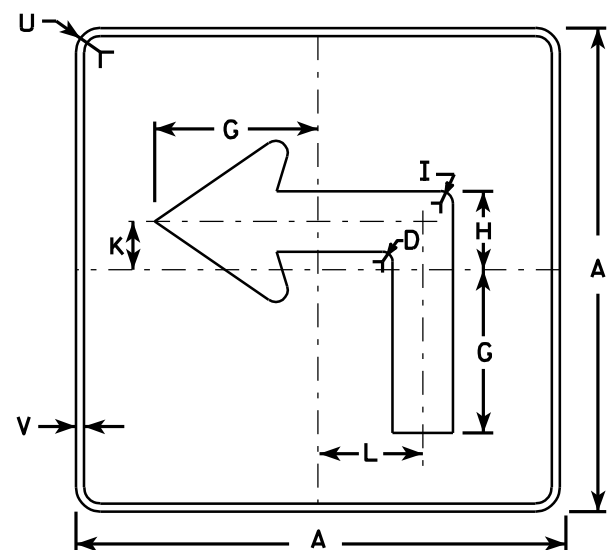
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

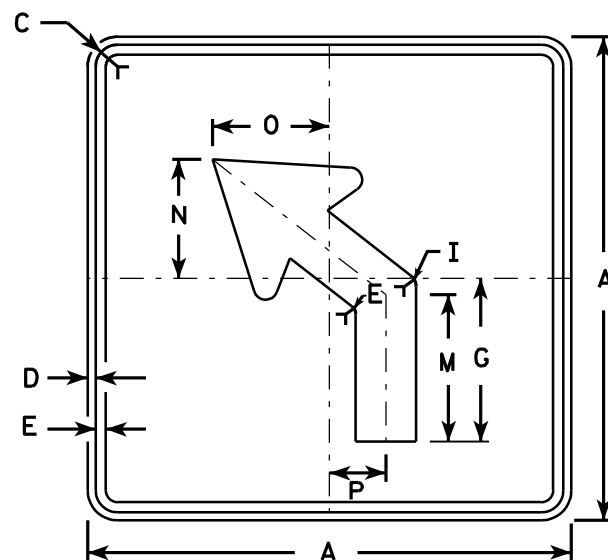
DATE 6/30/14 PLAT 166 M3-1.13



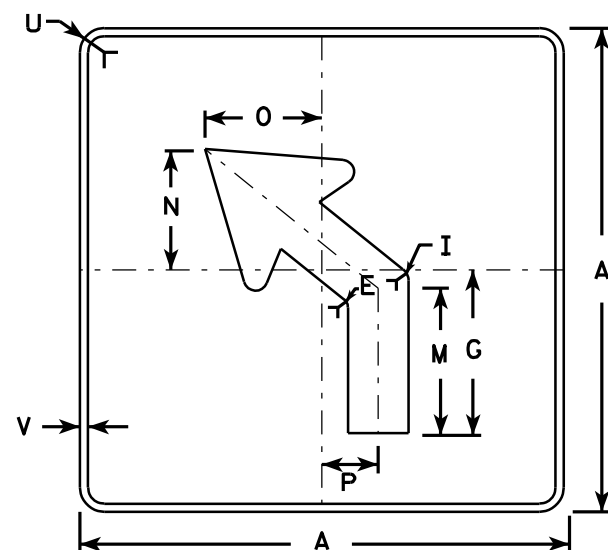
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



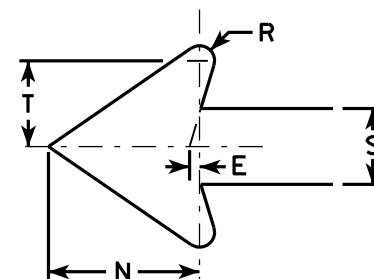
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L

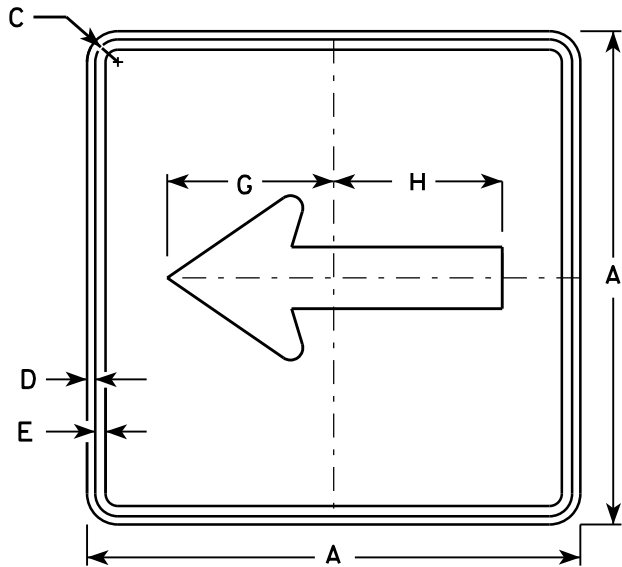


NOTES

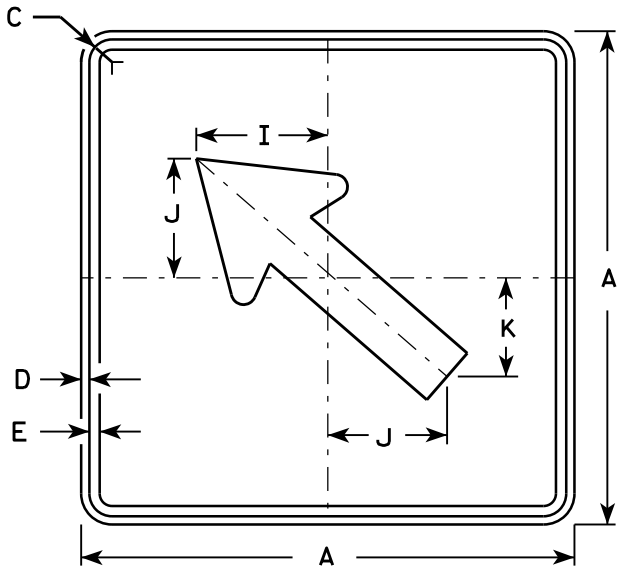
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

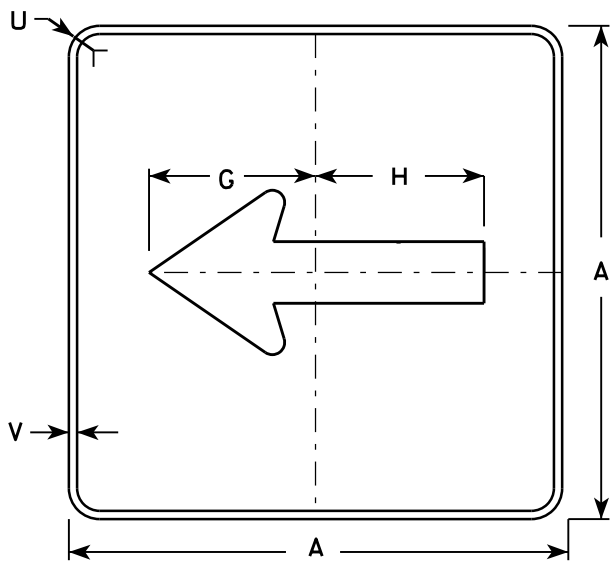
STANDARD SIGN	
M5-1 & M5-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/29/13	PLATE NO. M5-1.12



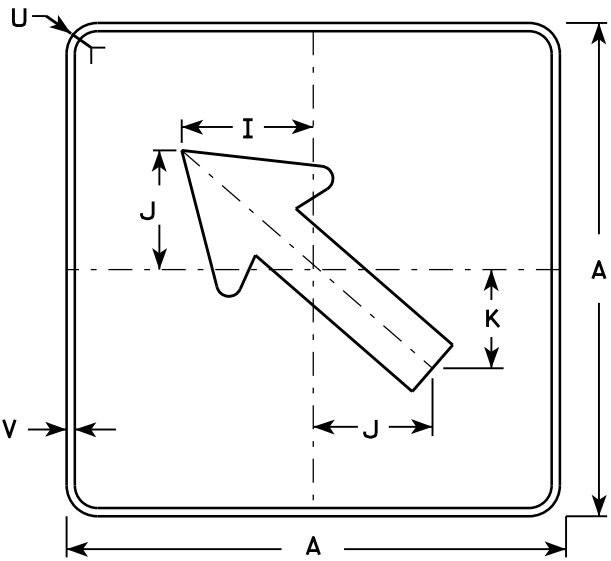
M6 - 1
MK6 - 1
MM6 - 1
MN6 - 1
M06 - 1
MP6 - 1
MR6 - 1



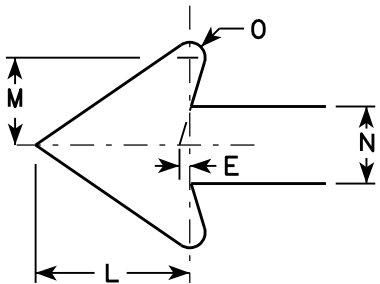
M6 - 2
MK6 - 2
MM6 - 2
MN6 - 2
M06 - 2
MP6 - 2
MR6 - 2



MB6 - 1



MB6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MG6-1 and MG6-2 Background - Green
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

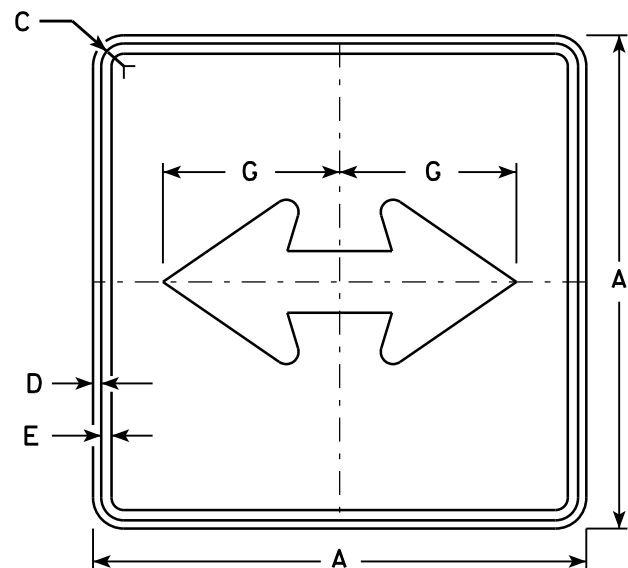
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

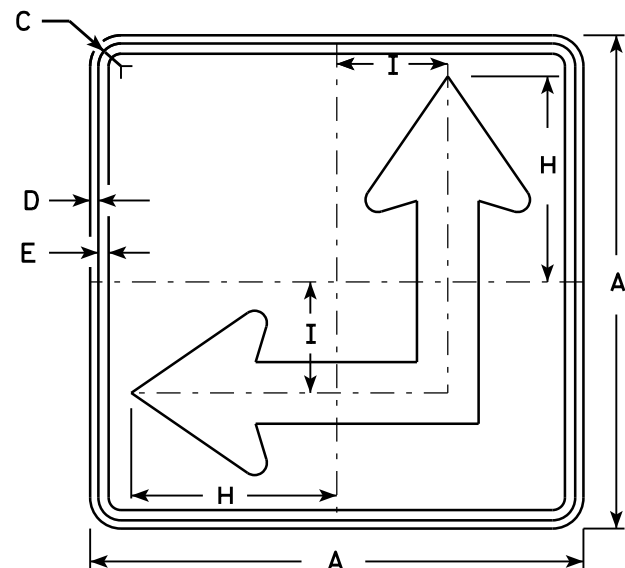
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

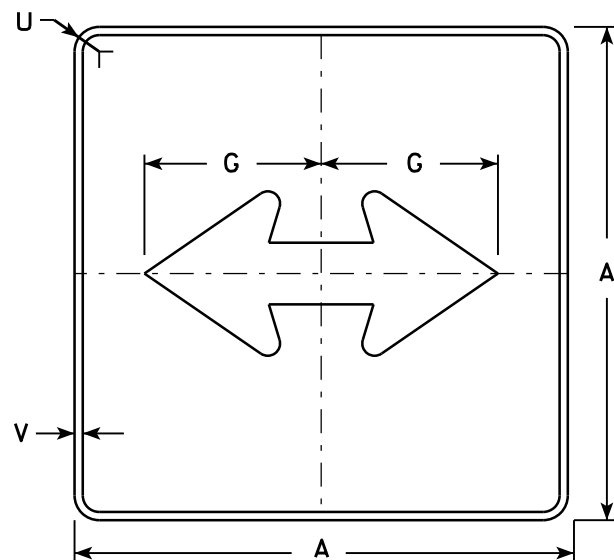
DATE 7/03/14 PLAT 168 M6-1.14



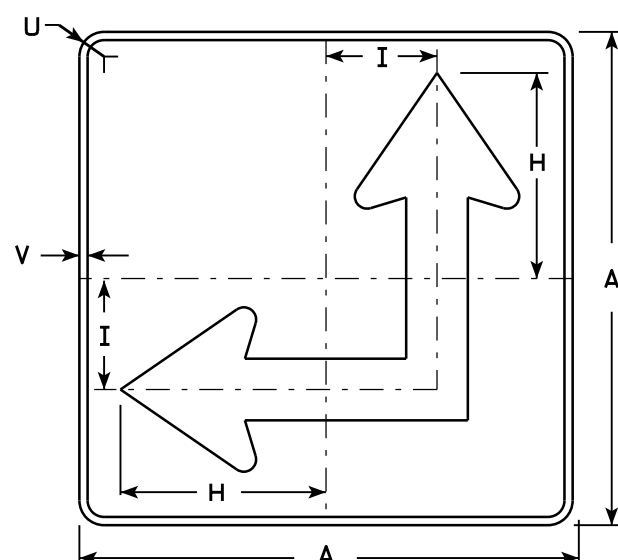
M6 - 4
MK6 - 4
MM6 - 4
MN6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MN6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



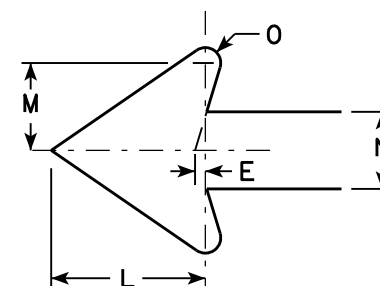
MB6 - 4



MB6 - 6

NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.



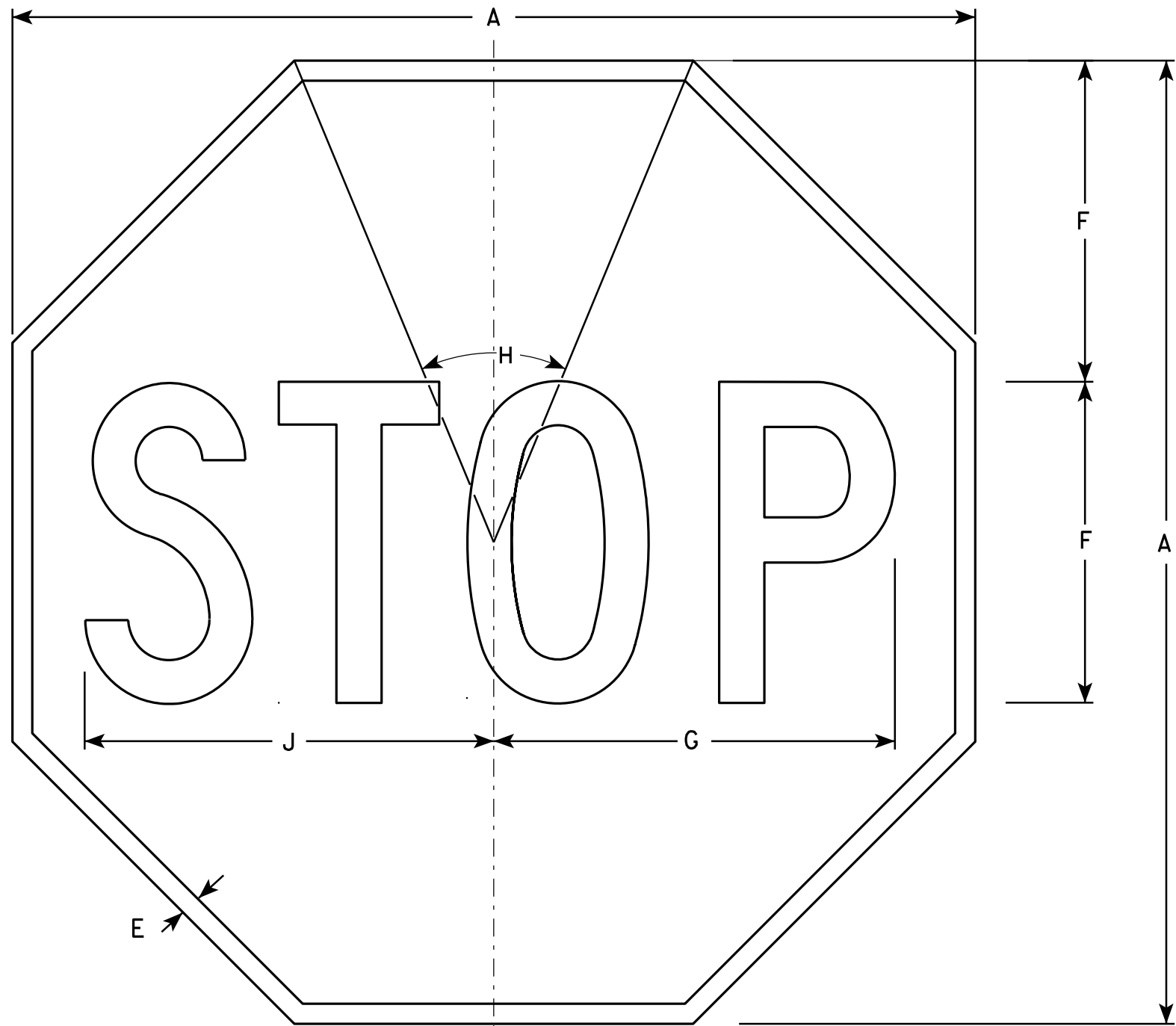
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 7/03/14 PLAT 169 '16-4.9



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

R1-1

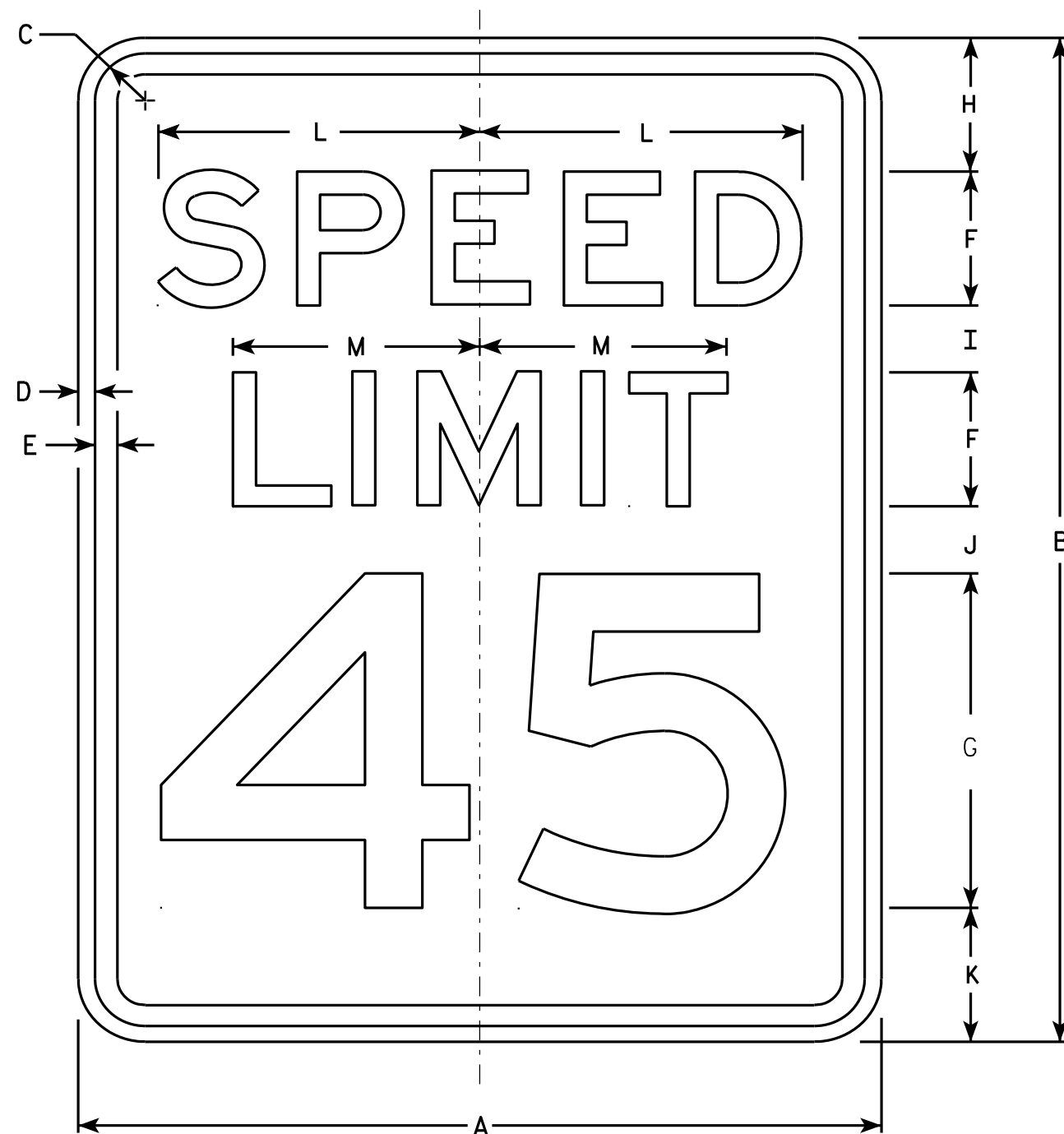
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 171 E



R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

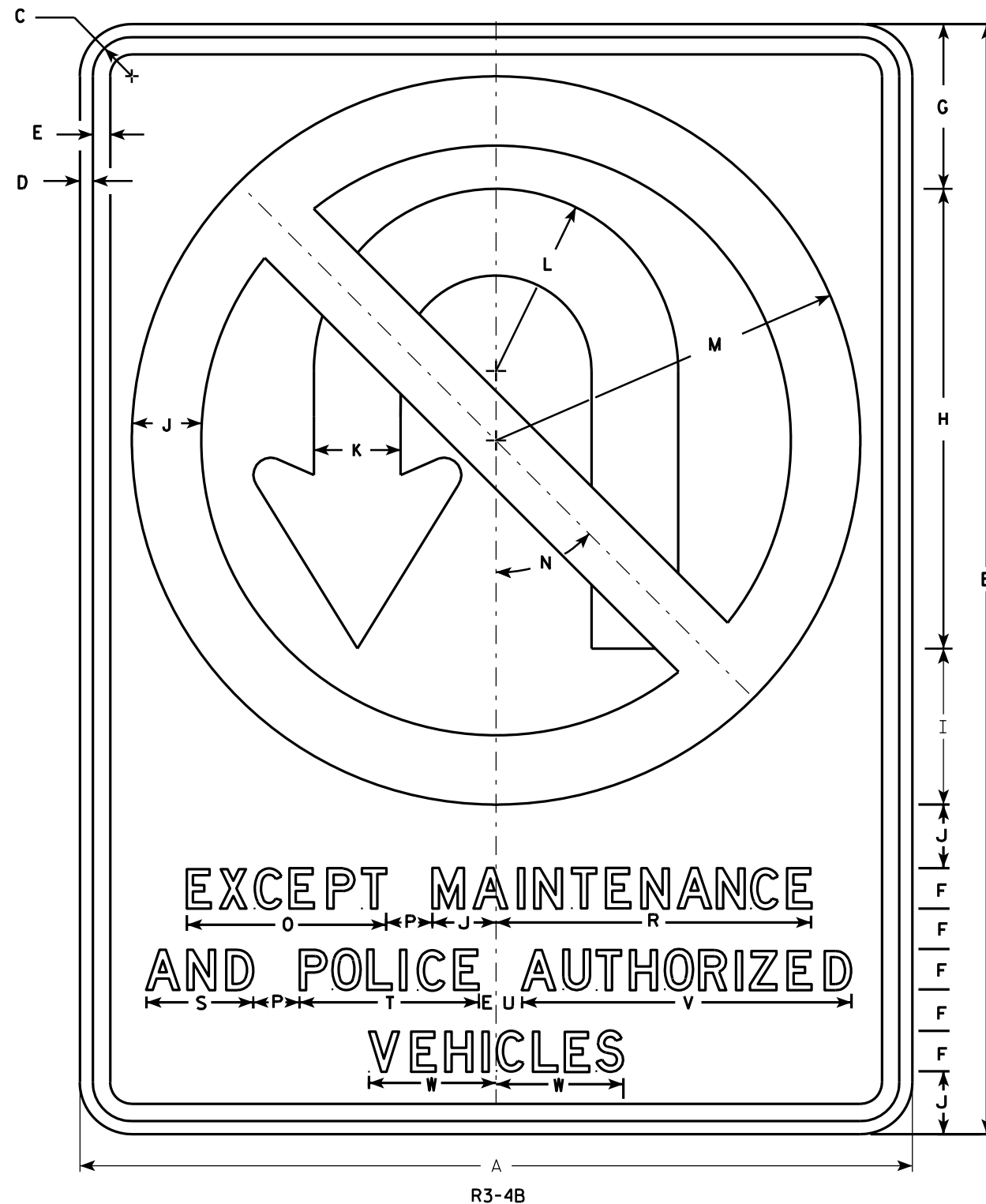
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

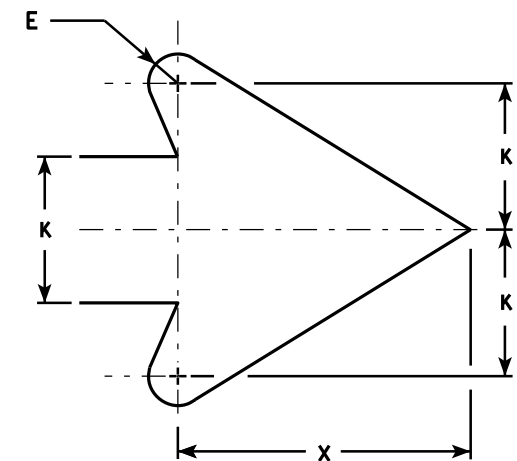
DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: HWY: COUNTY: SHEET NO: 172 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36	48	1 5⁄8	5⁄8	3⁄4	1 3⁄4	7 1⁄8	19 7⁄8	6 3⁄4	2 3⁄4	3 3⁄4	7 7⁄8	15 3⁄4	45°	8 5⁄8	2		13 5⁄8	4 5⁄8	7 3⁄4	1 1⁄8	14 1⁄4	5 1⁄2	7 5⁄8			12.0
5	36	48	1 5⁄8	5⁄8	3⁄4	1 3⁄4	7 1⁄8	19 7⁄8	6 3⁄4	2 3⁄4	3 3⁄4	7 7⁄8	15 3⁄4	45°	8 5⁄8	2		13 5⁄8	4 5⁄8	7 3⁄4	1 1⁄8	14 1⁄4	5 1⁄2	7 5⁄8			12.0

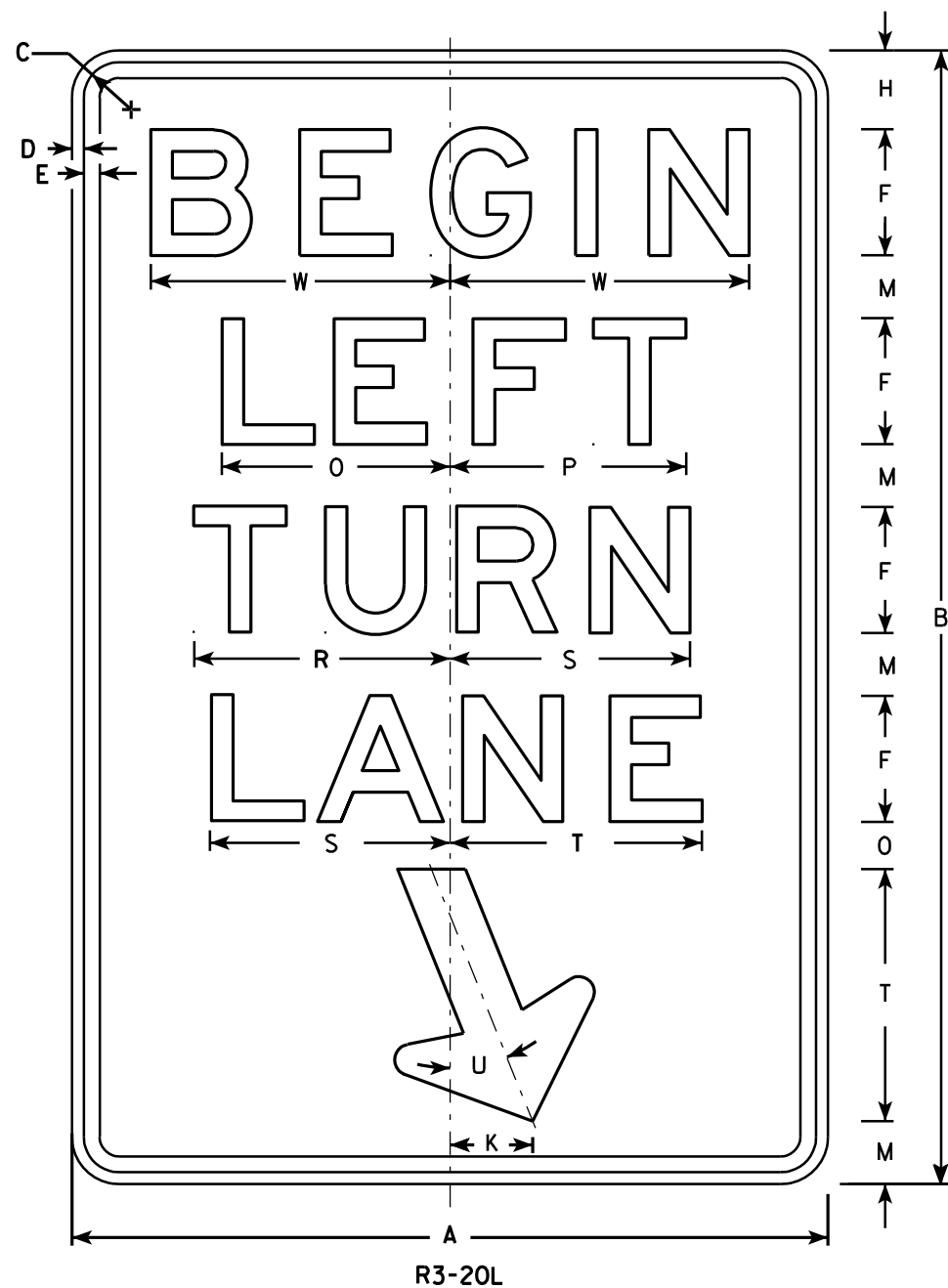
STANDARD SIGN R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

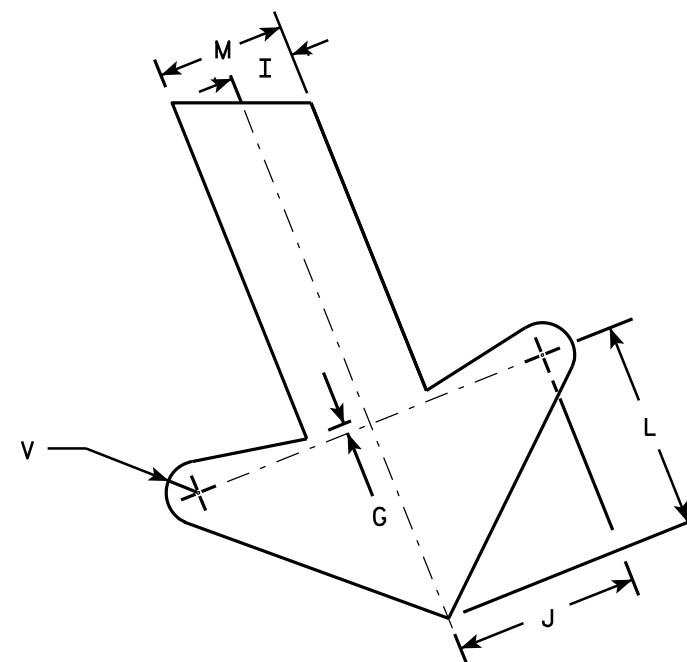
DATE 3/17/2011 PLATE NO. R3-4B.2

PROJECT NO: HWY: COUNTY: SHEET NO: 173



NOTES

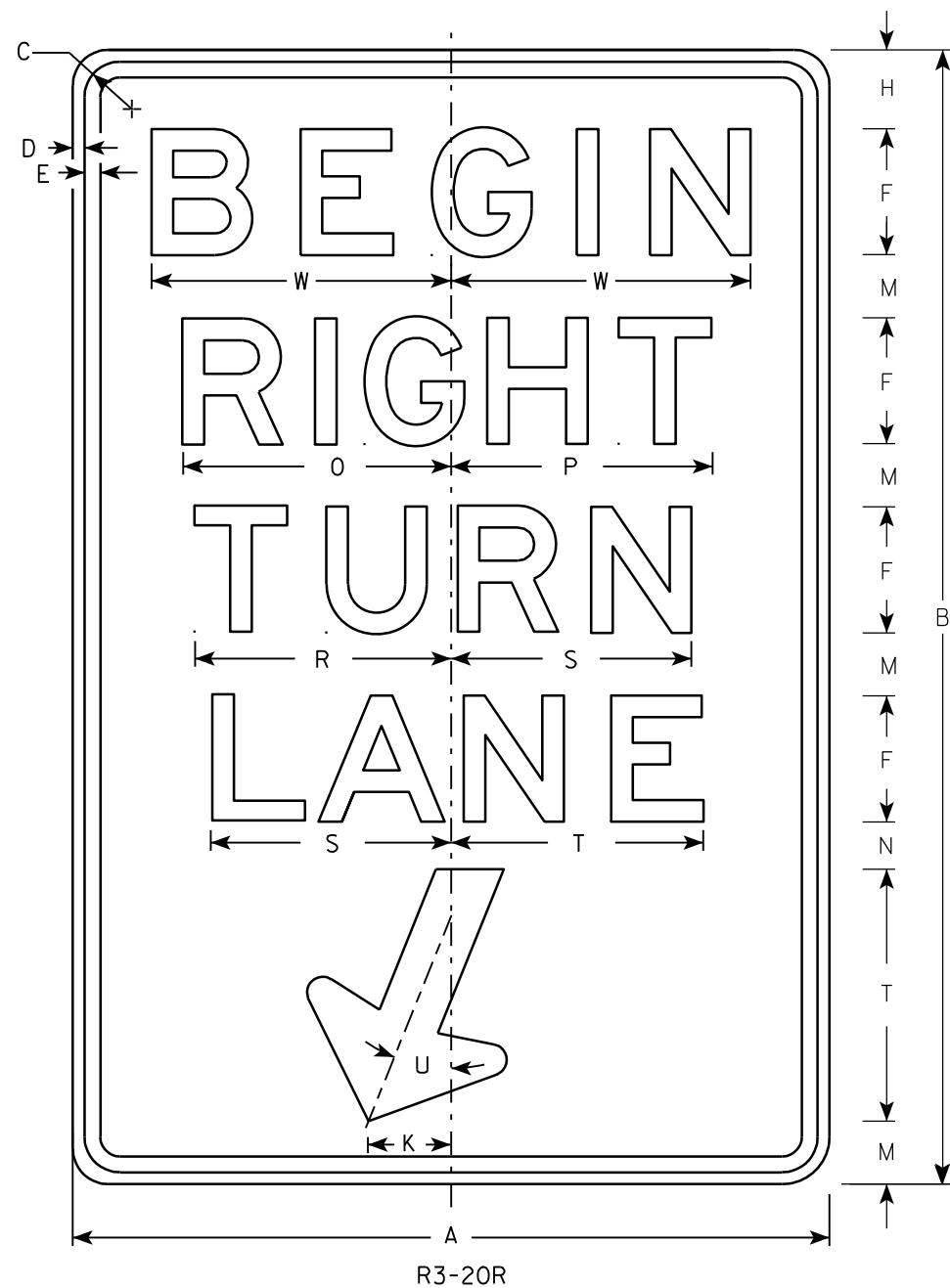
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

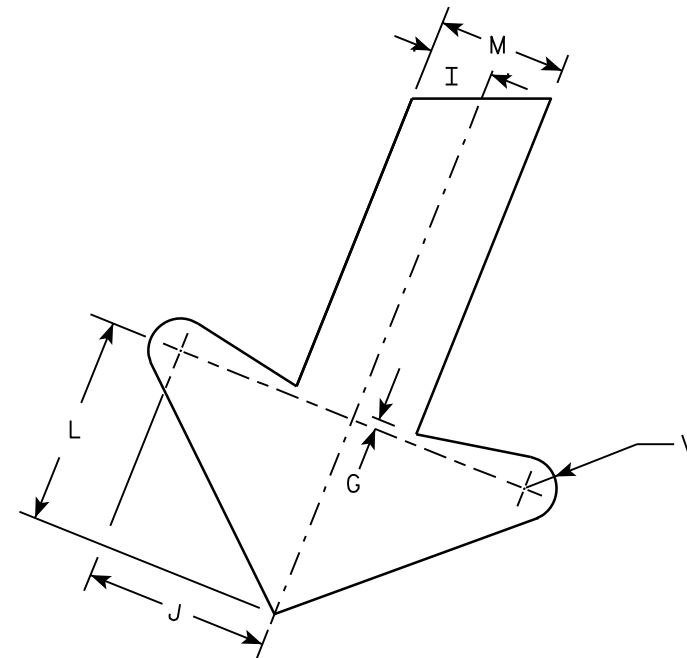
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN R3-20L	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 10/18/10	PLATE NO. R3-20L.7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



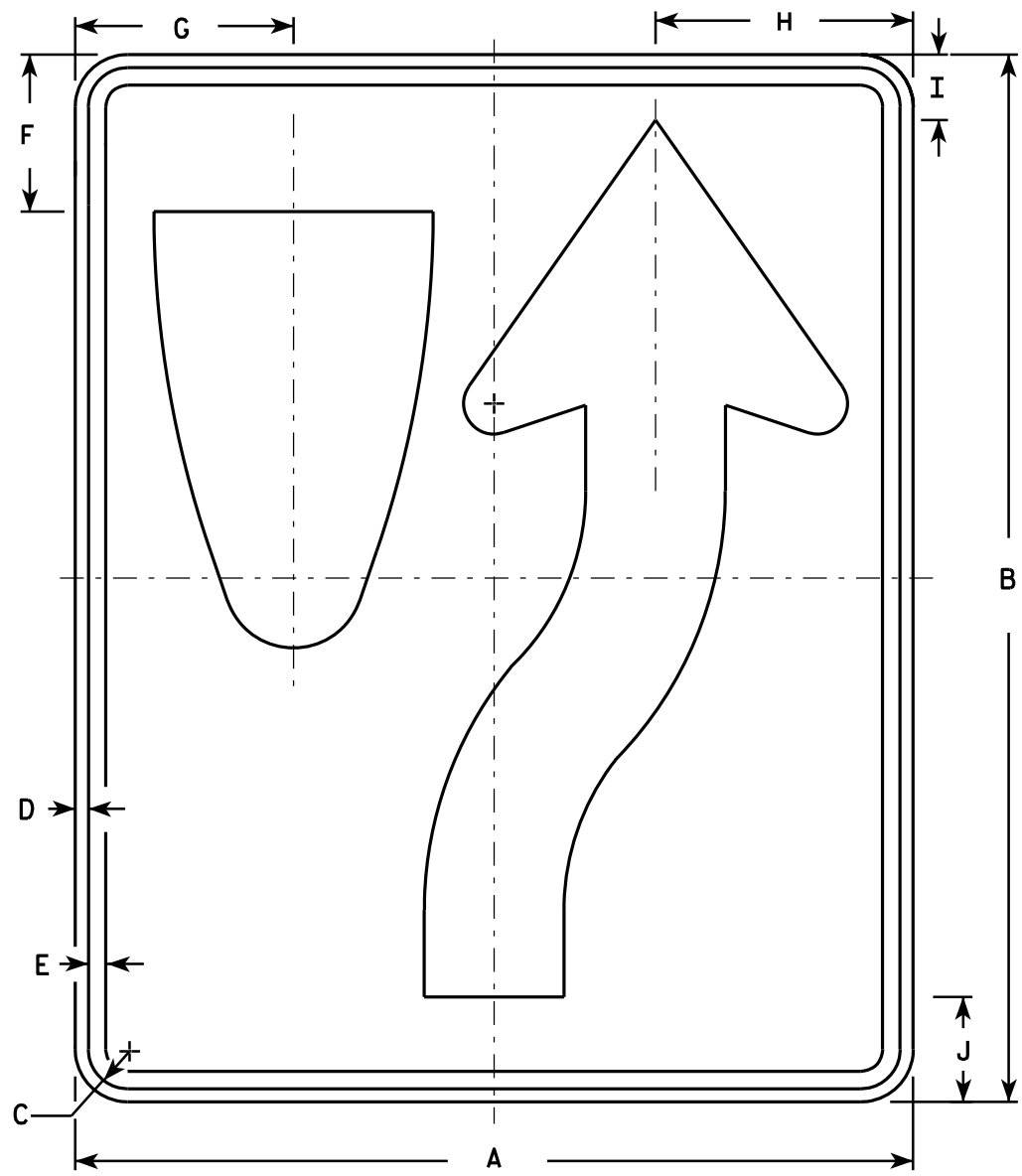
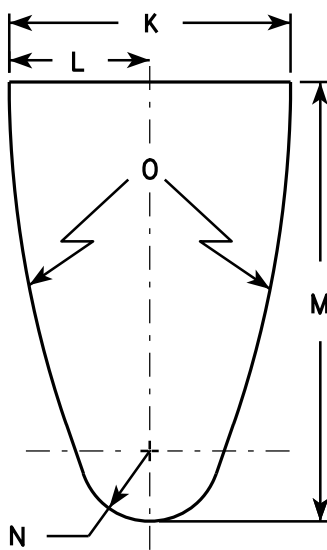
ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

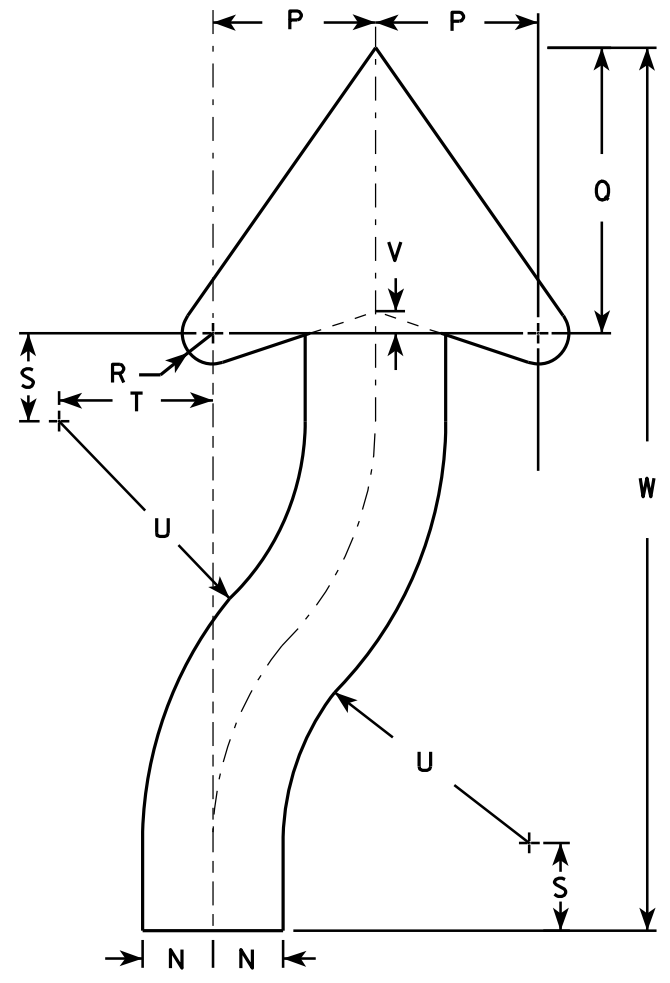
STANDARD SIGN R3-20R	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/18/10	PLATE NO. R3-20R.6

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
- 2. Color:
Background - White
Message - Black
- 3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
- 4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 176

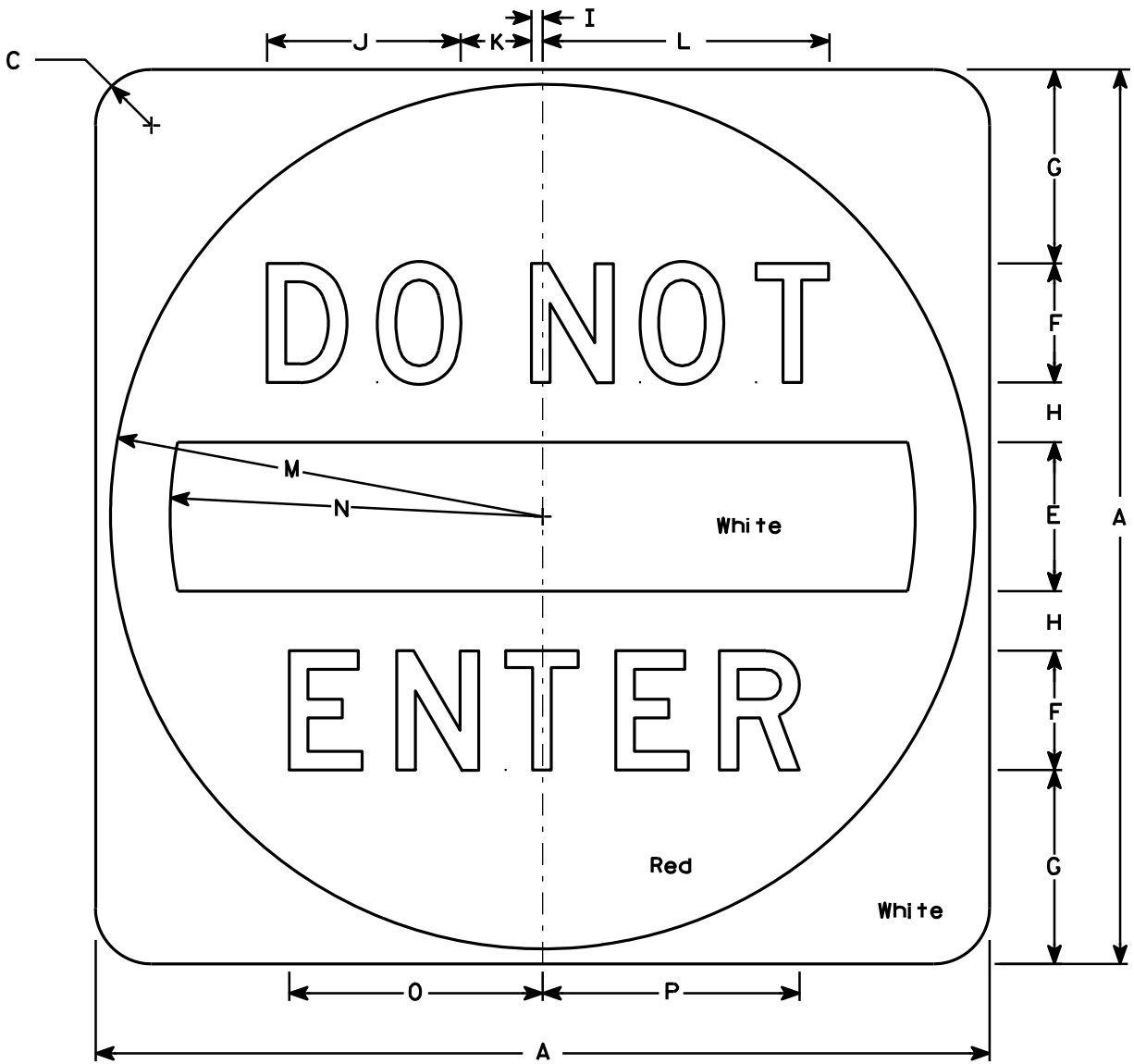
E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - See detail

Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners shall be rounded.



R5 - 1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.26
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 177

E

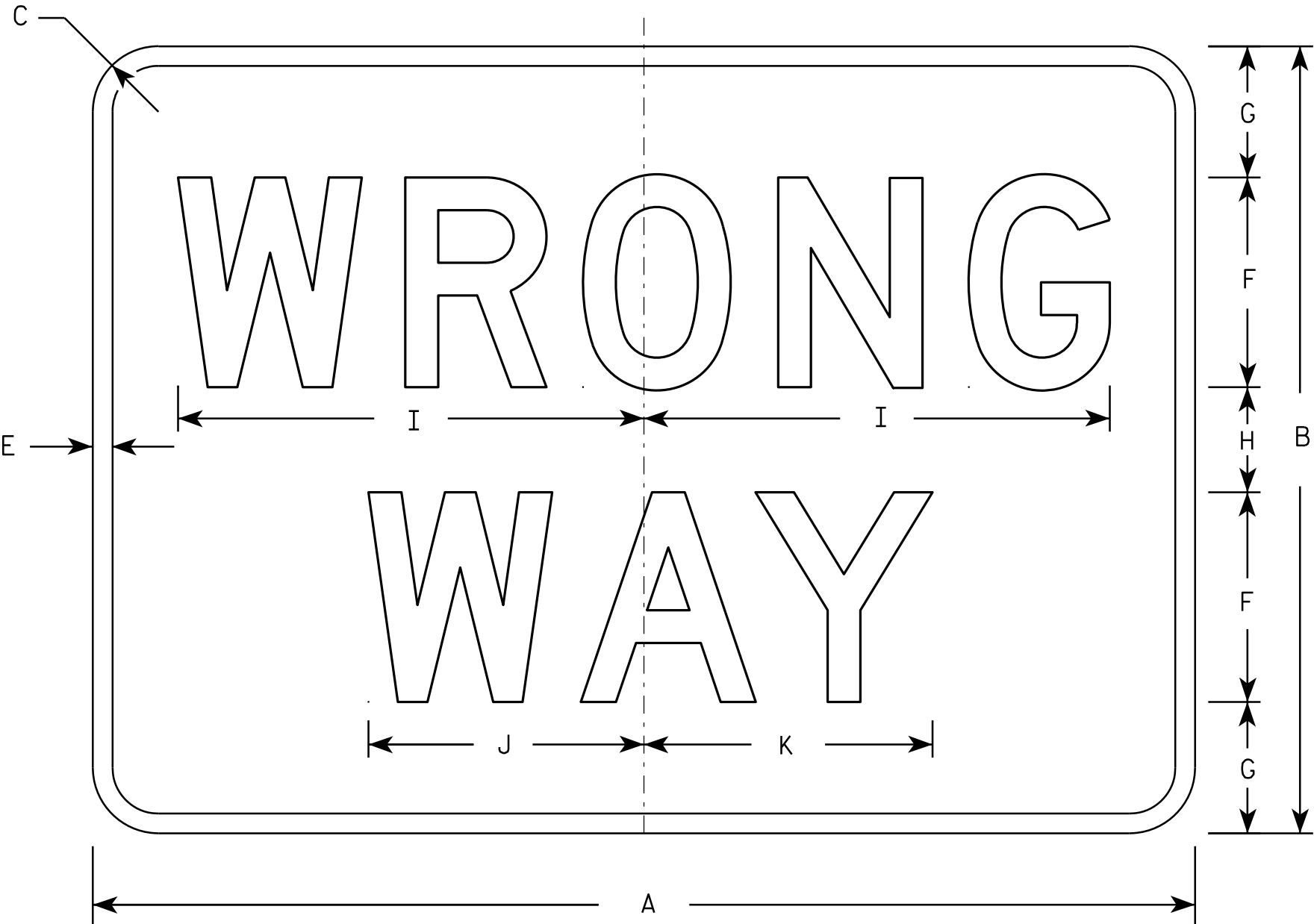
STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15



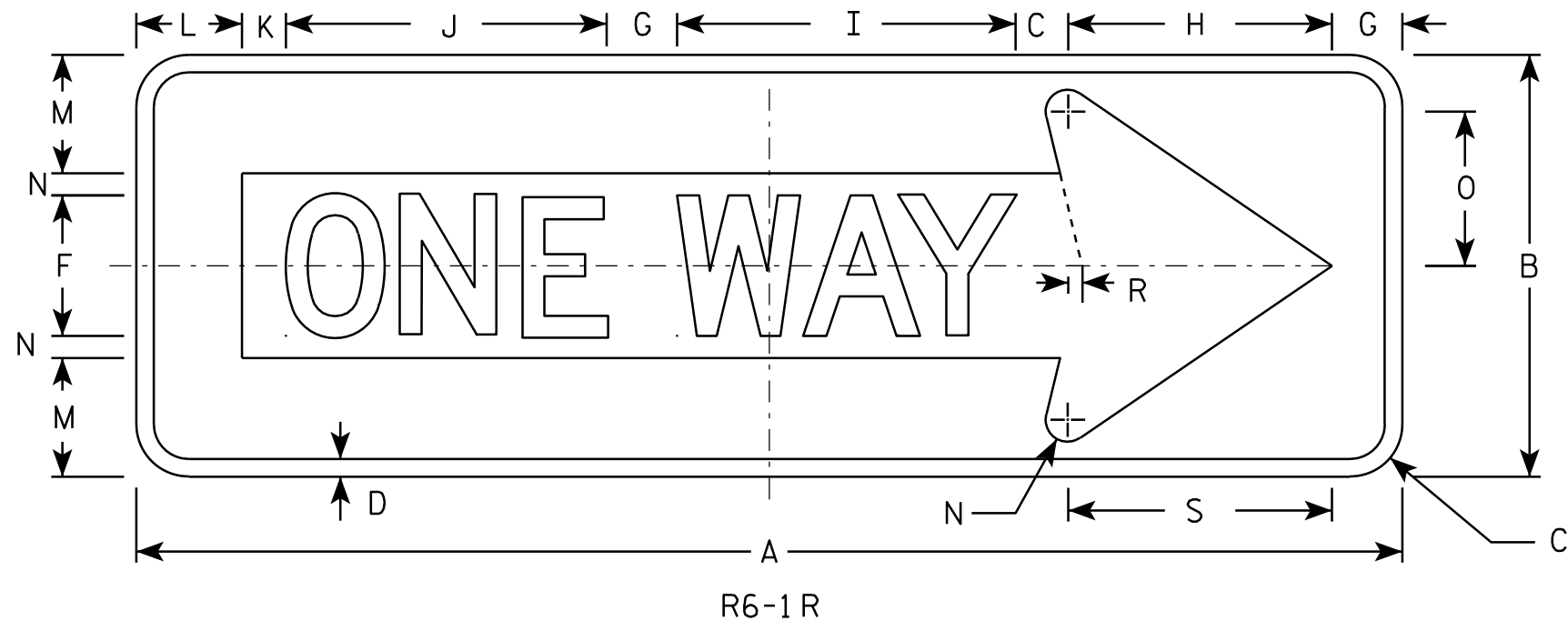
R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

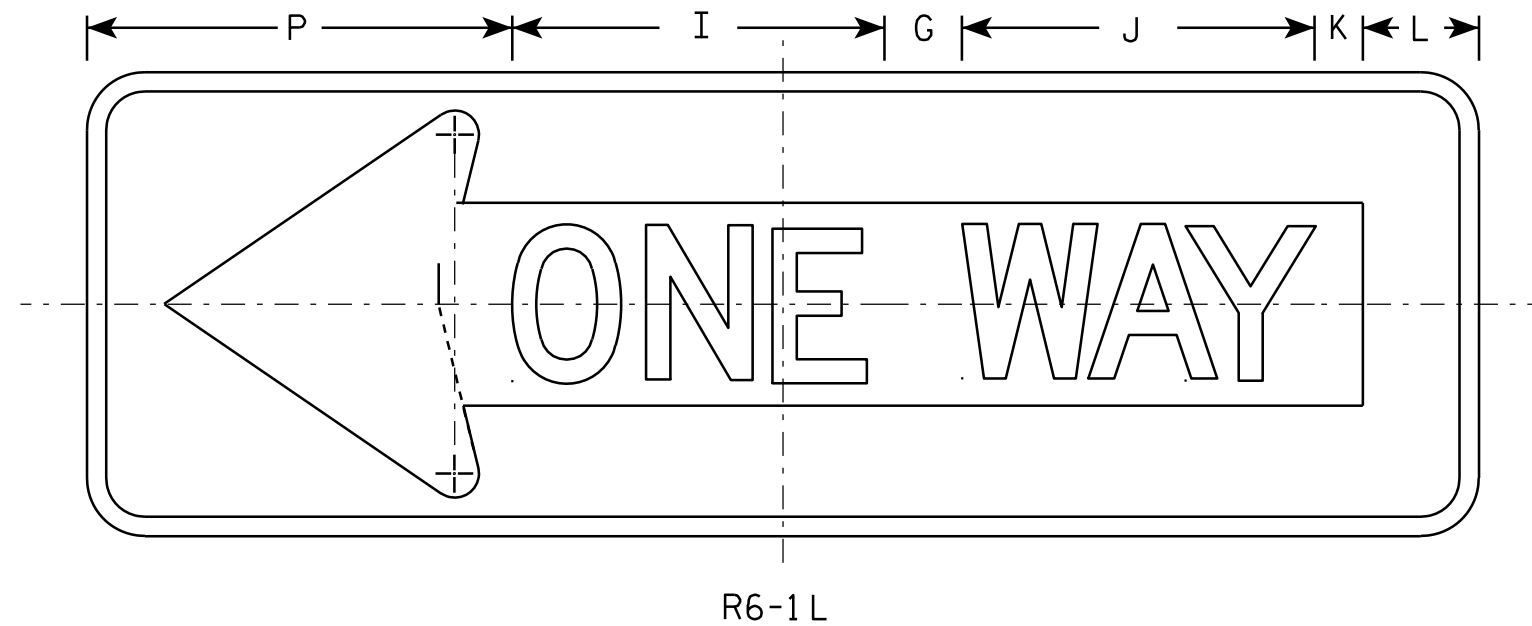
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN R5-1A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/17/10	PLATE NO. R5-1A.2



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - BLACK
Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2							3.0	
2M	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4							6.75	
3	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4							6.75	
4	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4							6.75	
5																											

STANDARD SIGN R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

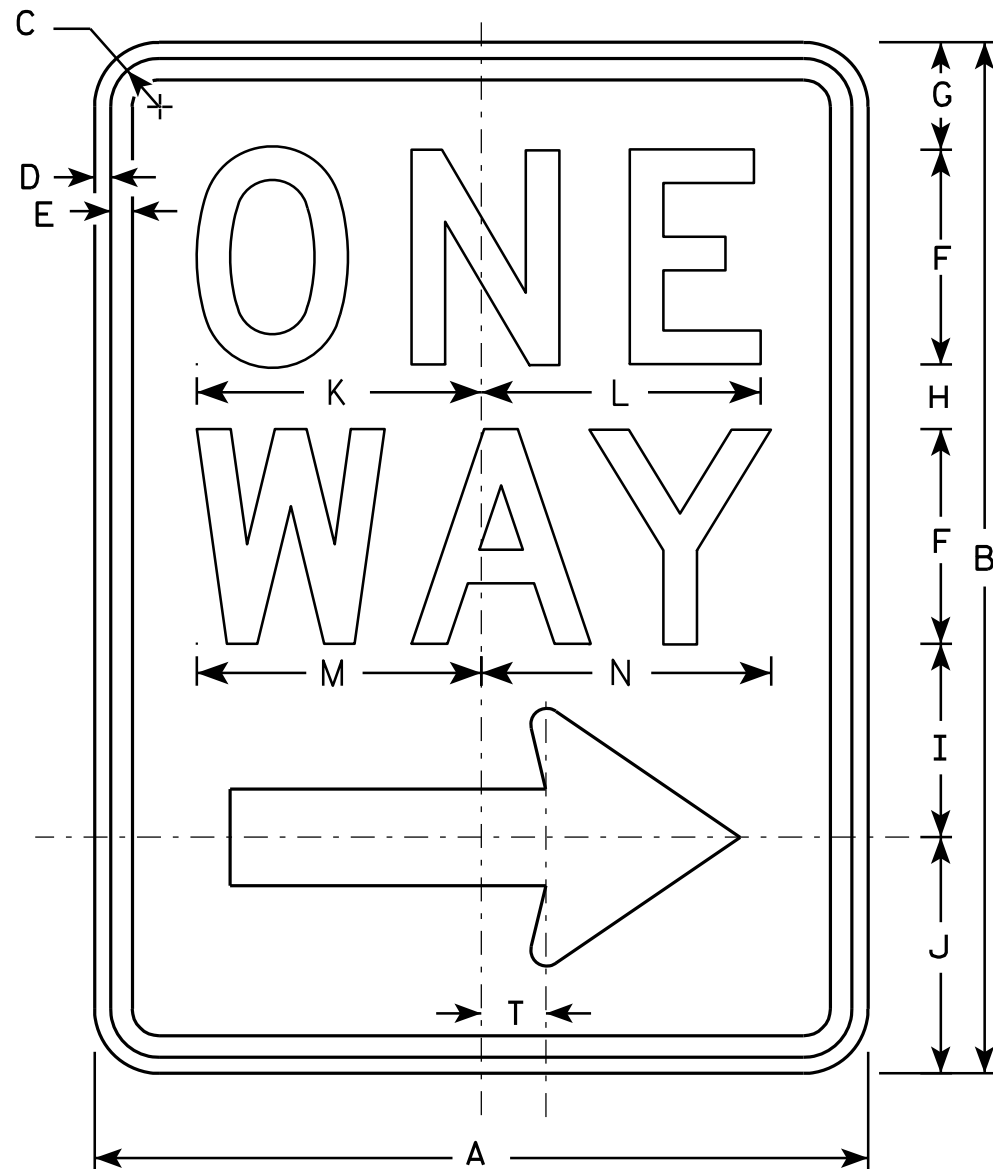
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

SHEET NO: 179

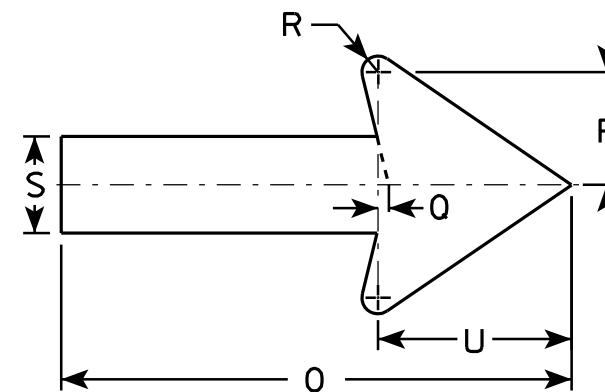
E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

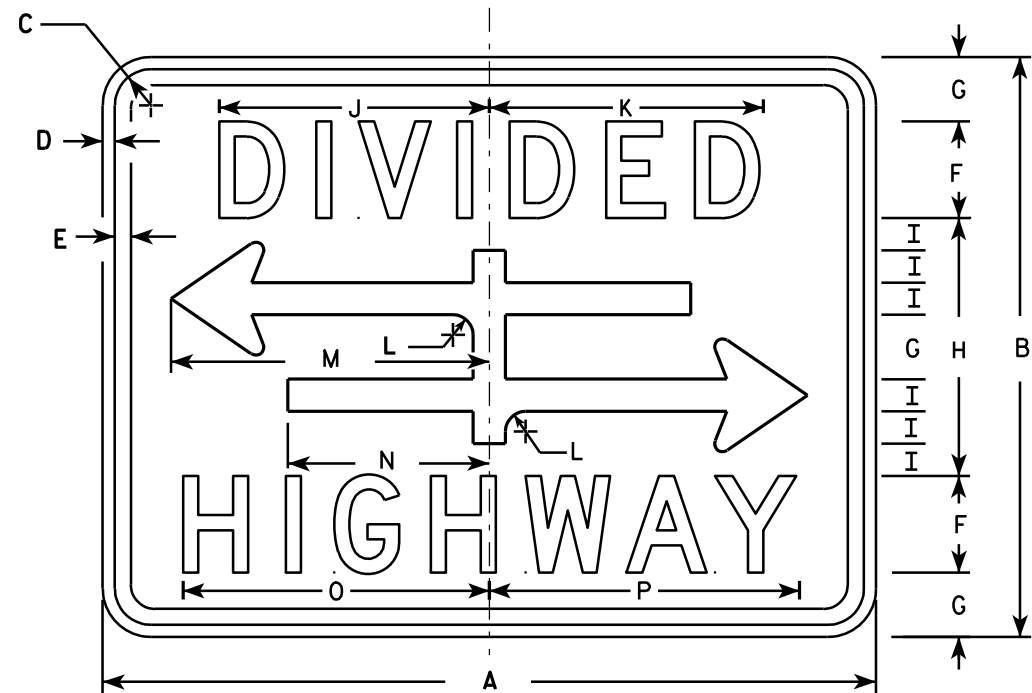
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

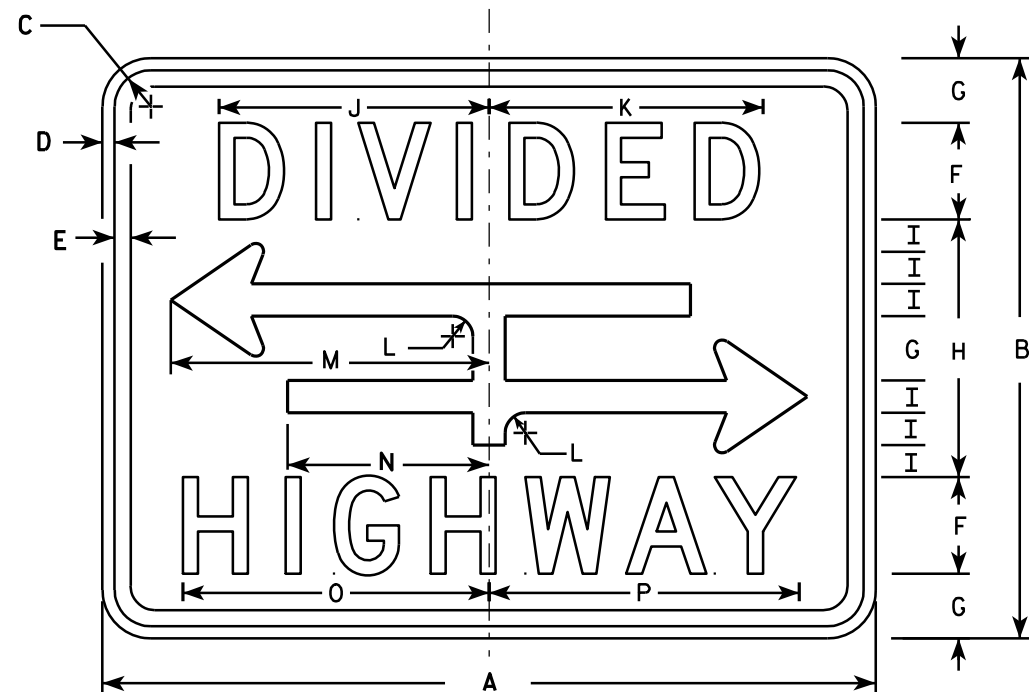
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 180 **E**



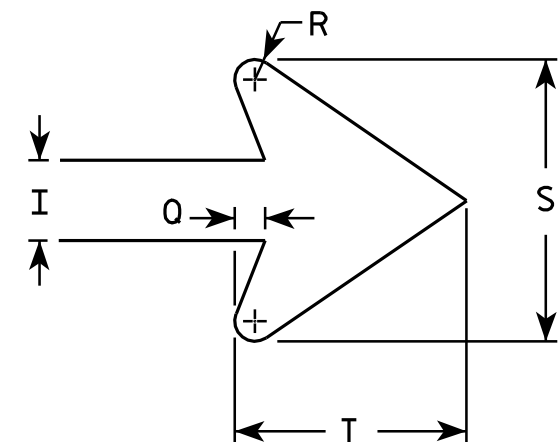
R6-3



R6-3A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

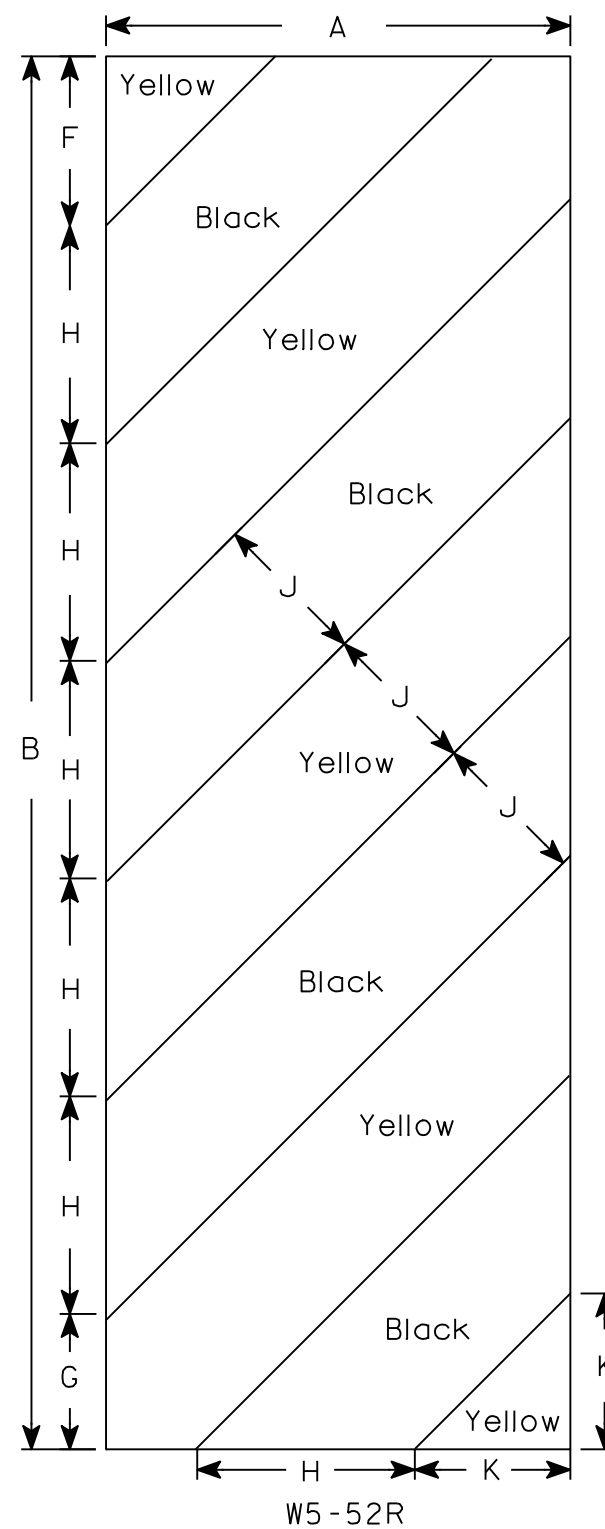
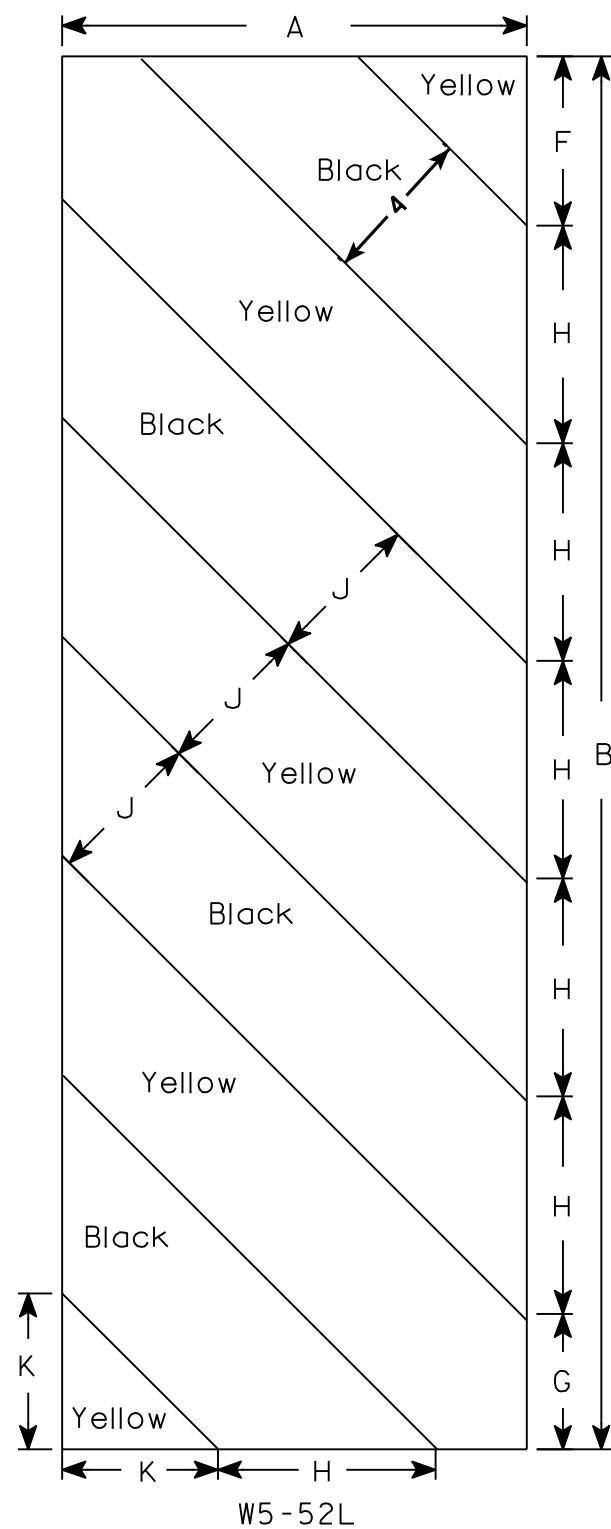
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 181

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - Yellow
 - Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:

HWY:

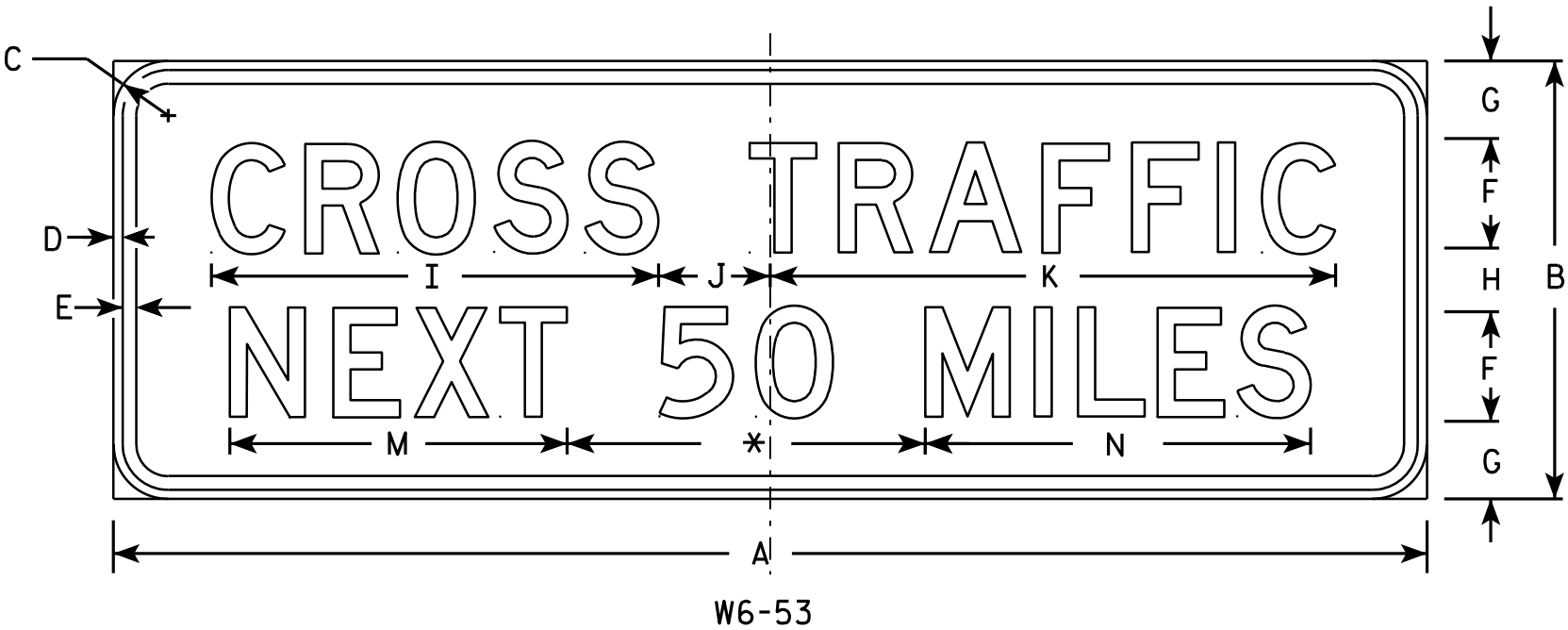
COUNTY:

SHEET NO: 182

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Yellow
 - Message - Black Non - reflective
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.



* Varies (See Note 5)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	144	48	6	1	1½	12	9	6	49	12 ¼	62		37	42 ¼													48.0
5																											

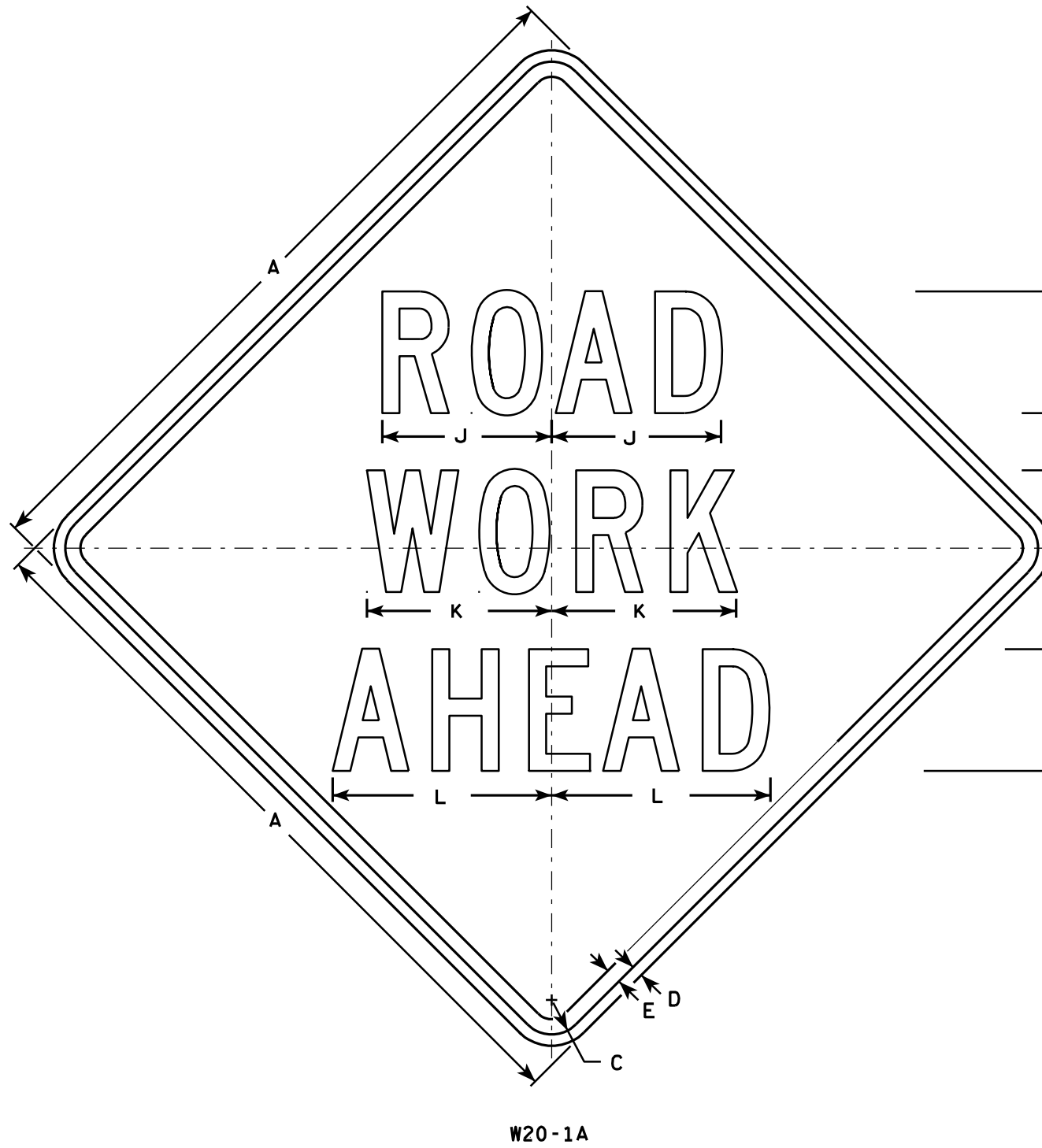
STANDARD SIGN
W6 - 53

WISCONSIN DEPT OF TRANSPORTATION

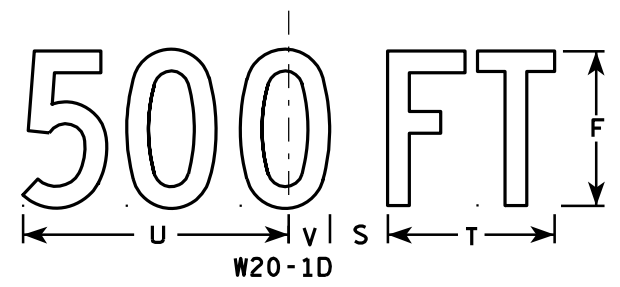
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-53.6

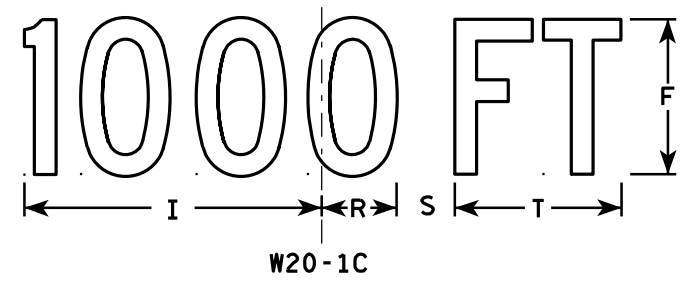
7



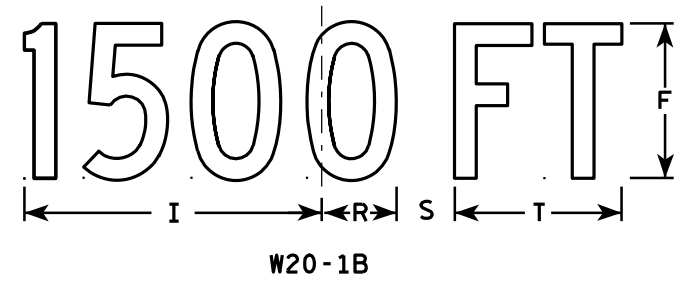
W20-1A



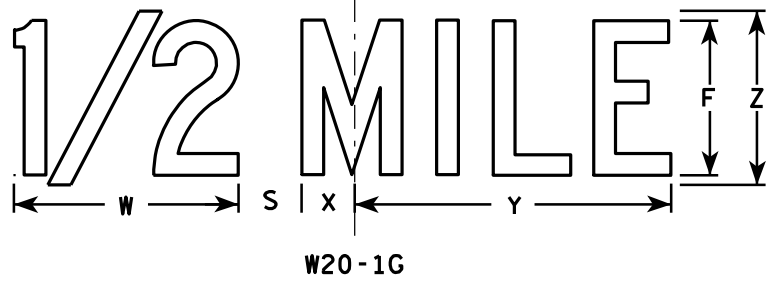
W20-1D



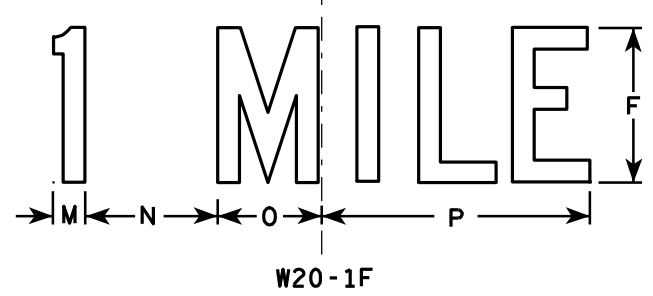
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

PROJECT NO:

SHEET NO: 184

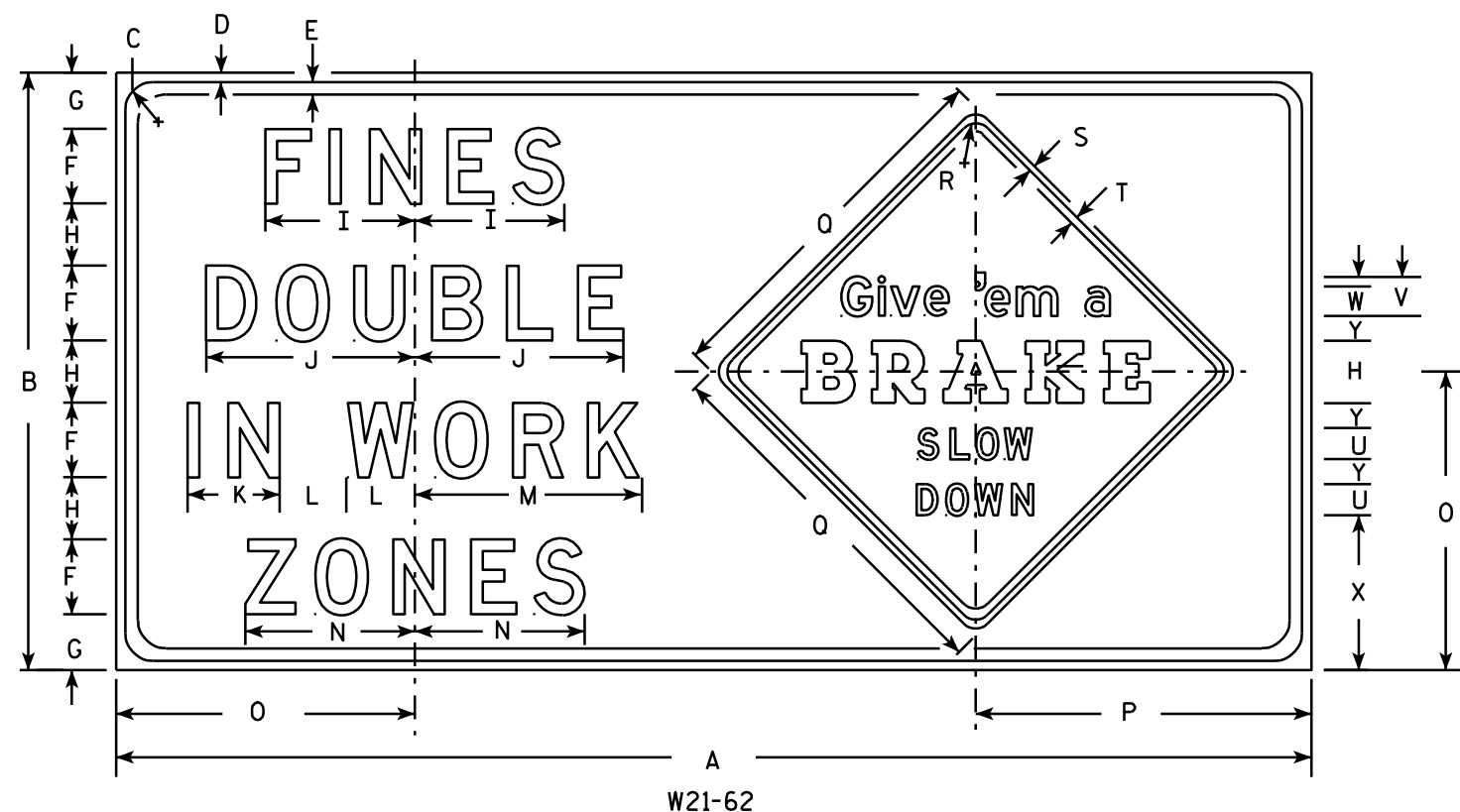
E

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

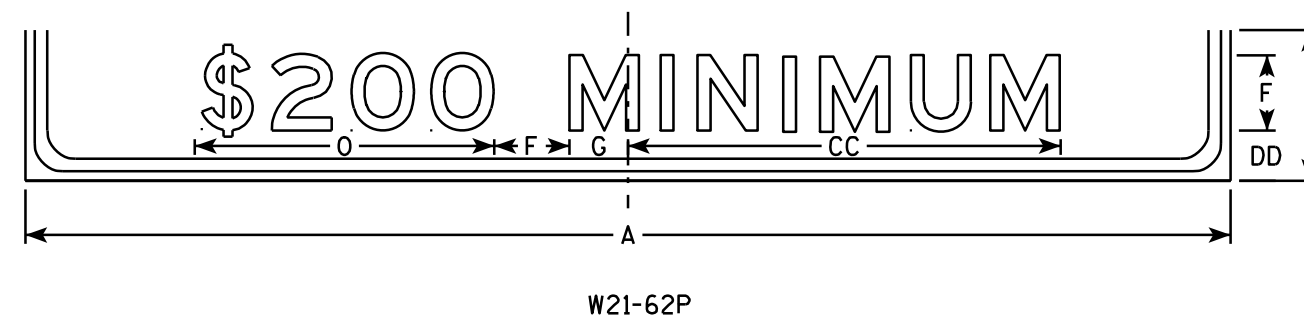
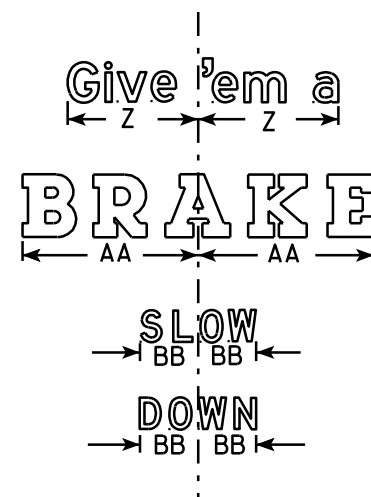
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-19



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White - (See Note 5)
Message - Black
- Message Series -
Fines Double Message - All lines are Series D
Give 'em a Brake -
Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
- The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a separate sheet of aluminum with the corners and borders rounded as shown. This separate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
- Background for the Give 'em a Brake sign shall be Type F reflective orange.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

STANDARD SIGN W21-62	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/21/11	PLATE NO. W21-62.5

STATION	Real Station	Distance	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)										Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut 1.00	Expanded Fill 1.30	Expanded Marsh		Expanded EBS		Reduced Marsh		Reduced EBS		
																	Backfill 1.50	Expanded Rock 1.10	Backfill 1.30	in Fill 0.60	in Fill 0.80				
Note 1	Note 2	Note 4	Note 5	Note 3	Note 1	Note 11	Note 8	Note 10	Note 9	Note 6	Note 7	Note 14													
USH 53 SB																									
690+40	69040.00	0.00	24.67	0.00	29.61	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00				
690+50	69050.00	10.00	19.63	0.00	32.28	0.00	0.00	0.00	8	0	11	0	0	0	8	15	0	0	0.00	0.00	-6.70				
691+00	69100.00	50.00	20.49	0.00	18.57	0.00	0.00	0.00	37	0	47	0	0	0	45	76	0	0	0.00	0.00	-30.75				
691+50	69150.00	50.00	21.85	0.00	3.66	0.00	0.00	0.00	39	0	21	0	0	0	85	103	0	0	0.00	0.00	-18.30				
692+00	69200.00	50.00	22.67	0.00	0.95	0.00	0.00	0.00	41	0	4	0	0	0	126	108	0	0	0.00	0.00	17.37				
692+50	69250.00	50.00	18.93	0.00	0.15	0.00	0.00	0.00	39	0	1	0	0	0	164	110	0	0	0.00	0.00	54.56				
693+00	69300.00	50.00	16.27	0.00	0.05	0.00	0.00	0.00	33	0	0	0	0	0	197	110	0	0	0.00	0.00	86.90				
693+50	69350.00	50.00	15.26	0.00	0.31	0.00	0.00	0.00	29	0	0	0	0	0	226	110	0	0	0.00	0.00	115.67				
694+00	69400.00	50.00	14.09	0.00	0.00	0.00	0.00	0.00	27	0	0	0	0	0	253	111	0	0	0.00	0.00	142.47				
694+50	69450.00	50.00	13.46	0.00	0.74	0.00	0.00	0.00	26	0	1	0	0	0	279	112	0	0	0.00	0.00	167.08				
695+00	69500.00	50.00	13.91	0.00	0.15	0.00	0.00	0.00	25	0	1	0	0	0	304	113	0	0	0.00	0.00	191.34				
695+50	69550.00	50.00	10.20	0.00	0.26	0.00	0.00	0.00	22	0	0	0	0	0	326	113	0	0	0.00	0.00	213.16				
696+00	69600.00	50.00	14.73	0.00	0.00	0.00	0.00	0.00	23	0	0	0	0	0	349	114	0	0	0.00	0.00	235.92				
696+50	69650.00	50.00	15.97	0.00	0.00	0.00	0.00	0.00	28	0	0	0	0	0	378	114	0	0	0.00	0.00	264.35				
STH 77																									
93+00	9300.00	0.00	21.35	0.00	0.68	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00				
93+50	9350.00	50.00	16.67	0.00	0.08	0.00	0.00	0.00	35	0	1	0	0	0	35	1	0	0	0.00	0.00	34.29				
94+00	9400.00	50.00	19.12	0.00	0.12	0.00	0.00	0.00	33	0	0	0	0	0	68	1	0	0	0.00	0.00	67.20				
94+02.34	9402.34	2.34	18.29	0.00	1.96	0.00	0.00	0.00	2	0	0	0	0	0	70	1	0	0	0.00	0.00	68.70				
95+72									150	112	0	0	0	0	220	1	0	0	0.00	0.00	106.70				
NW Radius																									
Begin		0.00	18.29	0.00	1.96	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00				
Middle		39.33	38.44	0.00	9.98	0.00	0.00	0.00	41	0	9	0	0	0	41	11	0	0	0.00	0.00	30.02				
End		78.66	24.67	0.00	29.61	0.00	0.00	0.00	92	0	58	0	0	0	133	86	0	0	0.00	0.00	46.98				
Maintenance Crossover																									
85+40	8540.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00				
85+50	8550.00	10.00	3.10	0.00	24.23	0.00	0.00	0.00	1	0	4	0	0	0	1	6	0	0	0.00	0.00	-5.26				
85+75	8575.00	25.00	51.27	0.00	0.00	0.00	0.00	0.00	25	0	11	0	0	0	26	20	0	0	0.00	0.00	5.33				
86+00	8600.00	25.00	117.93	0.00	0.00	0.00	0.00	0.00	78	0	0	0	0	0	104	20	0	0	0.00	0.00	83.66				
86+25	8625.00	25.00	175.68	0.00	0.00	0.00	0.00	0.00	136	0	0	0	0	0	240	20	0	0	0.00	0.00	219.59				
86+50	8650.00	25.00	225.92	0.00	0.00	0.00	0.00	0.00	186	0	0	0	0	0	426	20	0	0	0.00	0.00	405.52				
86+75	8675.00	25.00	276.49	0.00	0.00	0.00	0.00	0.00	233	0	0	0	0	0	659	20	0	0	0.00	0.00	638.12				
87+00	8700.00	25.00	305.84	0.00	0.00	0.00	0.00	0.00	270	0	0	0	0	0	928	20	0	0	0.00	0.00	907.71				
87+25	8725.00	25.00	392.10	0.00	0.01	0.00	0.00	0.00	323	0	0	0	0	0	1,251	20	0	0	0.00	0.00	1,230.82				
87+50	8750.00	25.00	453.54	0.00	0.00	0.00	0.00	0.00	391	0	0	0	0	0	1,643	20	0	0	0.00	0.00	1,622.32				
87+75	8775.00	25.00	384.20	0.00	0.00	0.00	0.00	0.00	388	0	0	0	0	0	2,031	20	0	0	0.00	0.00	2,010.16				
88+00	8800.00	25.00	212.40	0.00	0.00	0.00	0.00	0.00	276	0	0	0	0	0	2,307	20	0	0	0.00	0.00	2,286.37				
88+25	8825.00	25.00	173.63	0.00	0.00	0.00	0.00	0.00	179	0	0	0	0	0	2,486	20	0	0	0.00	0.00	2,465.08				
88+40	8840.00	15.00	85.01	0.00	0.02	0.00	0.00	0.00	72	0	0	0	0	0	2,557	20	0	0	0.00	0.00	2,536.92				
Culvert Replacements (USH 53)																									
183+85									156	8	117	0	0	0	156	152					-4.10				
310+62									160	5	119	0	0	0	316	307					-3.80				
842+30									140	8	104	0	0	0	456	442					-7.00				
850+74									100	0	74	0	0	0	556	538					-3.20				
867+76									182	0	137	0	0	0	738	716					0.70				
Totals															5,510	2,376	0	0	0	0	0	0			

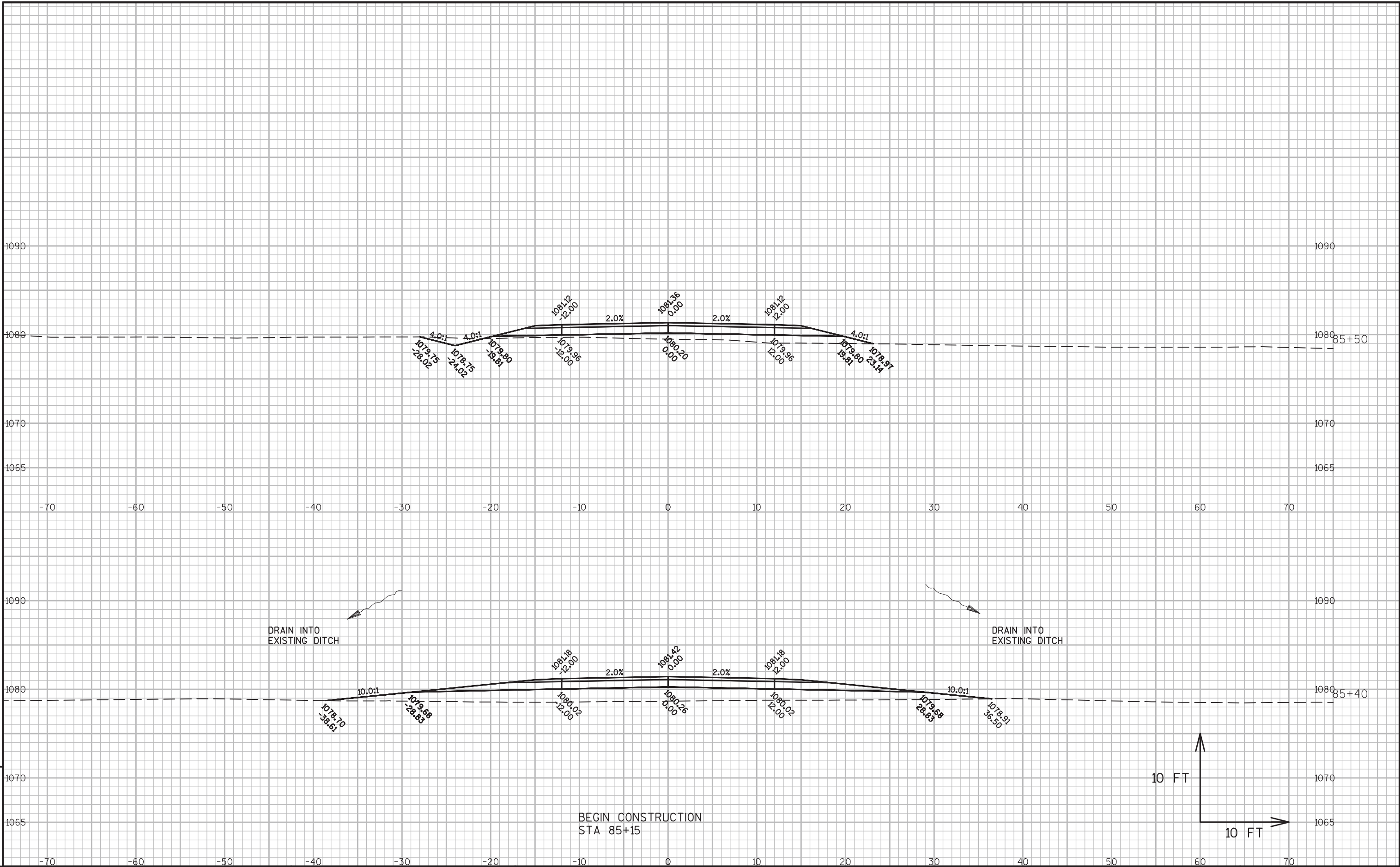
- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unusable Pavement Material is included in Cut
- 3) EBS Excavation to be backfilled with Borrow material.
- 4) Marsh Excavation - to be backfilled with Borrow Material. Item number 205.0500
- 5) Rock Excavation item number 205.0200
- 6) Reduced Marsh in Fill - Excavated Marsh material is useable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
- 7) Reduced EBS in Fill - Excavated EBS material is useable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
- 8) Expanded Marsh Backfill - This is to be filled with Borrow material. Marsh Backfill Factor = 1.5. Item number 208.11
- 9) Expanded EBS Backfill - This is to be filled with Borrow material. EBS Backfill Factor = 1.3. Item number 208.11
- 10) Expanded Rock - Factor = 1.1.
- 11) Expanded Fill. Factor = 1.25
- Depending on selections:
- Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor

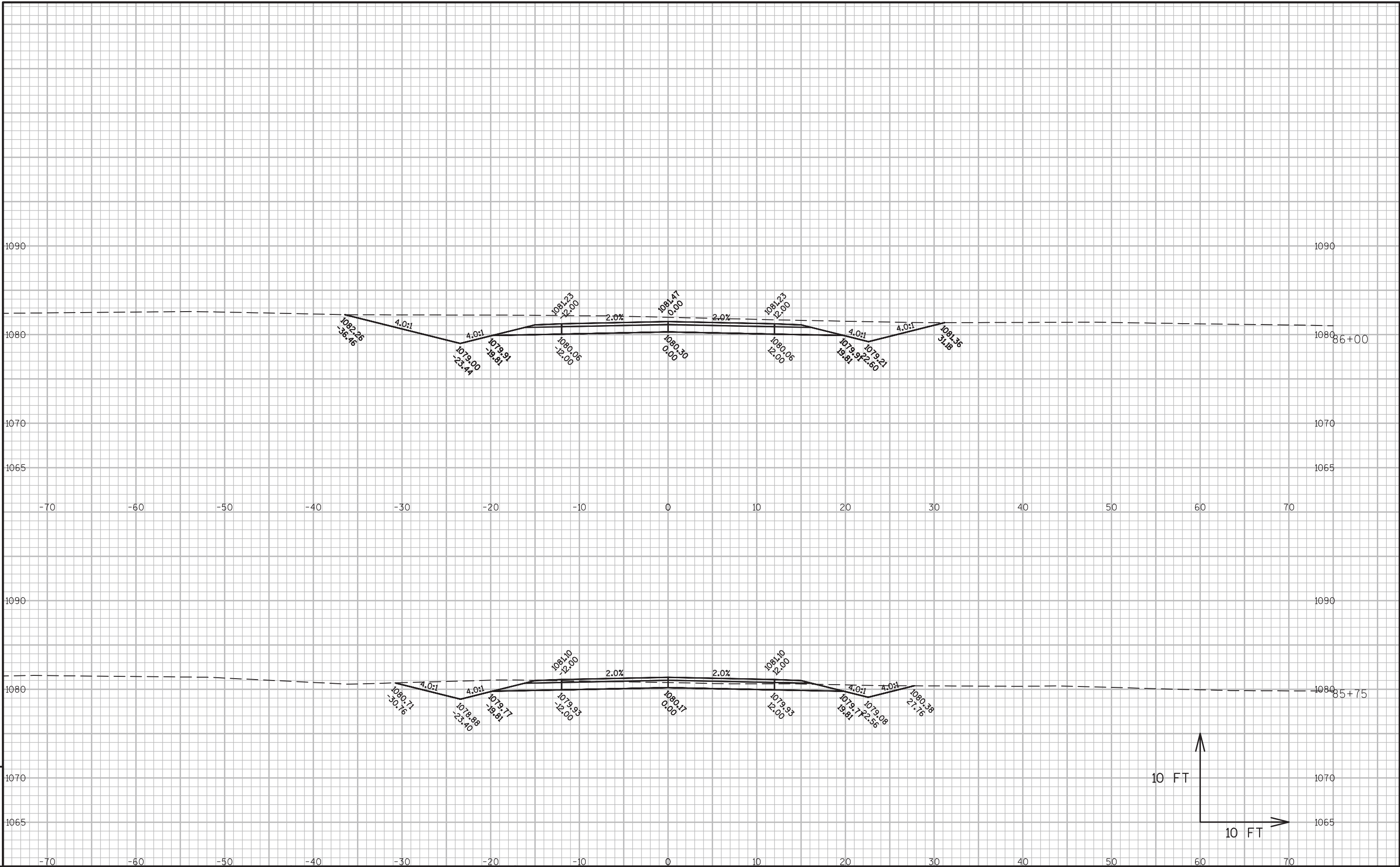
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor

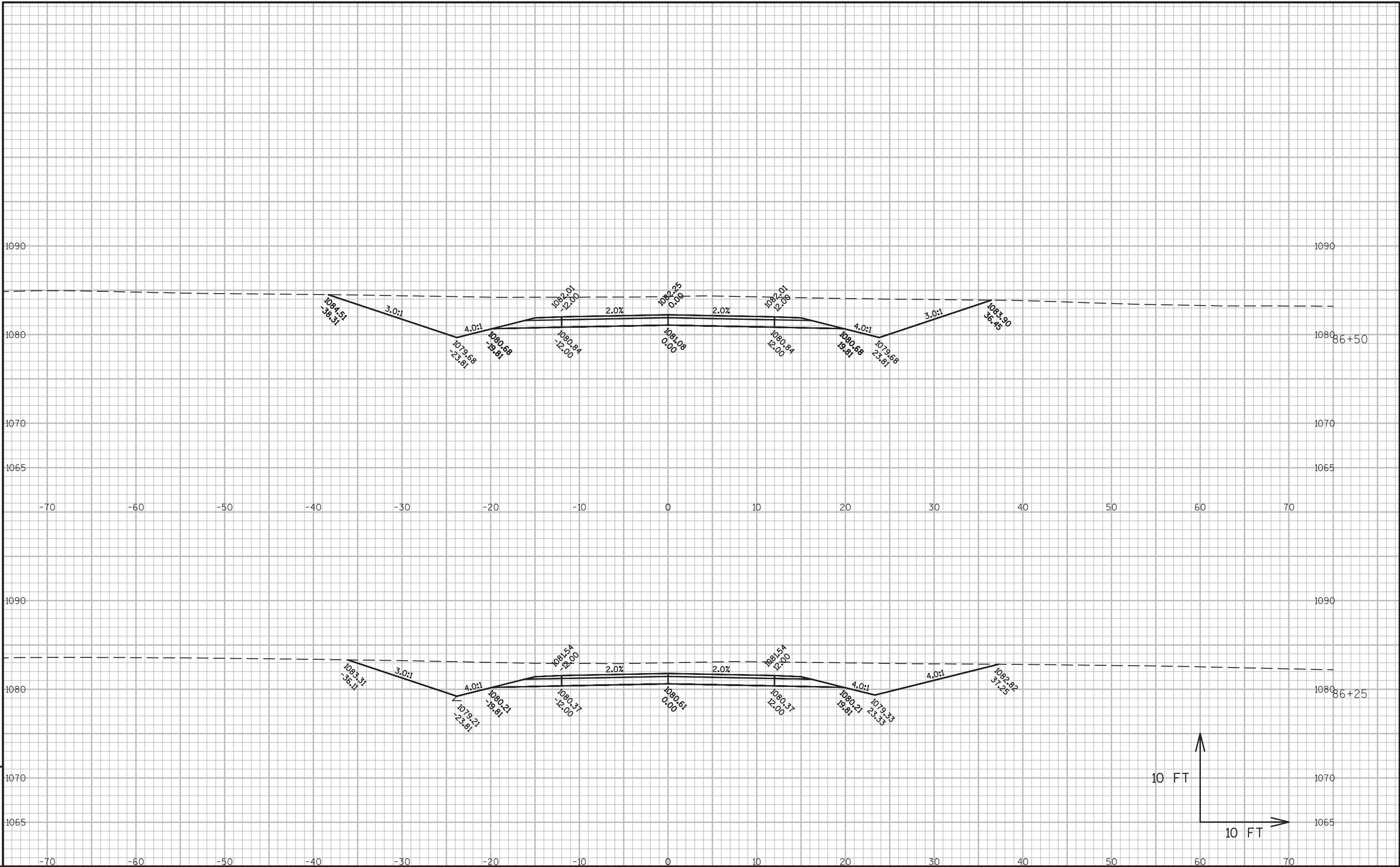
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor

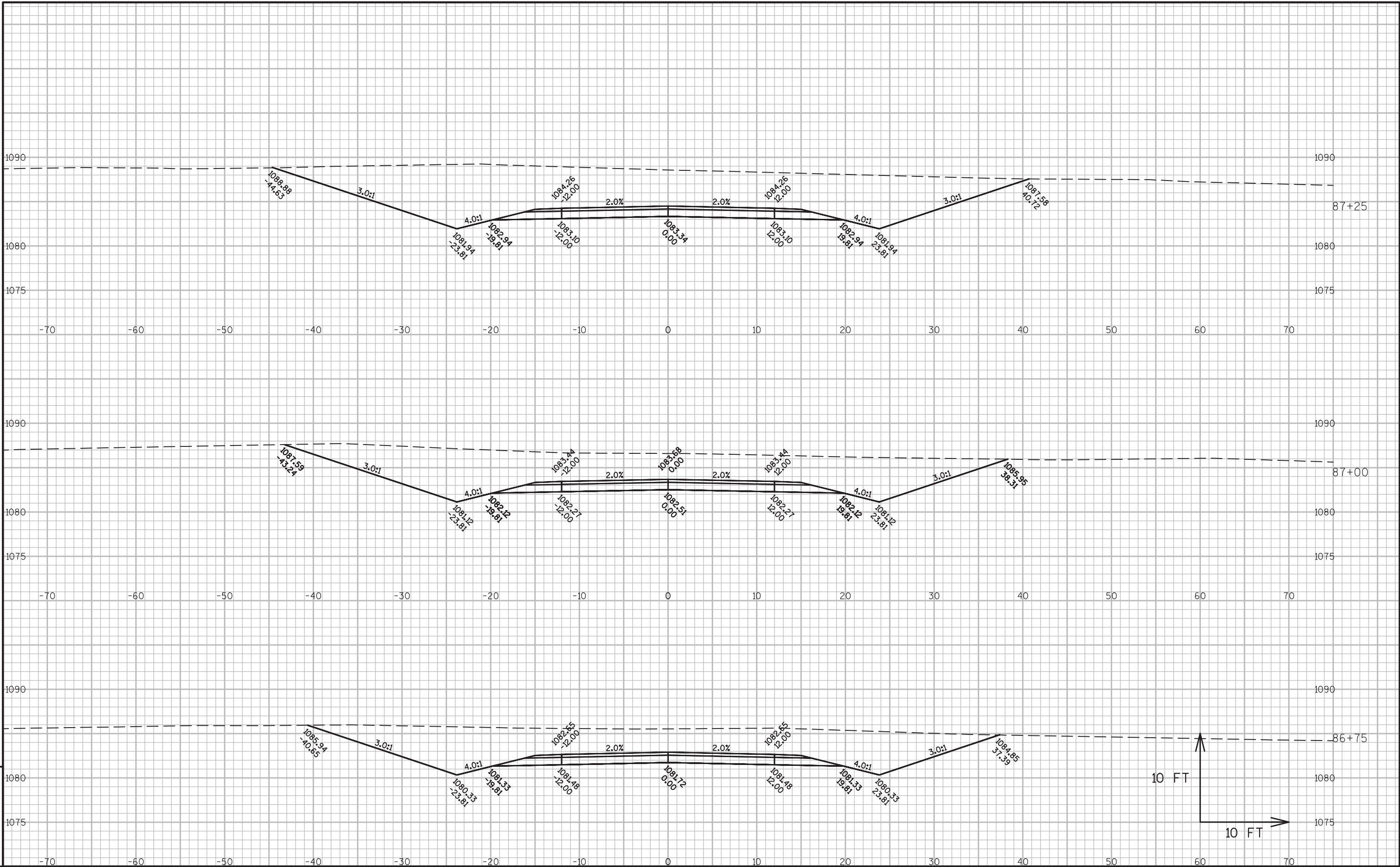
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
- 14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

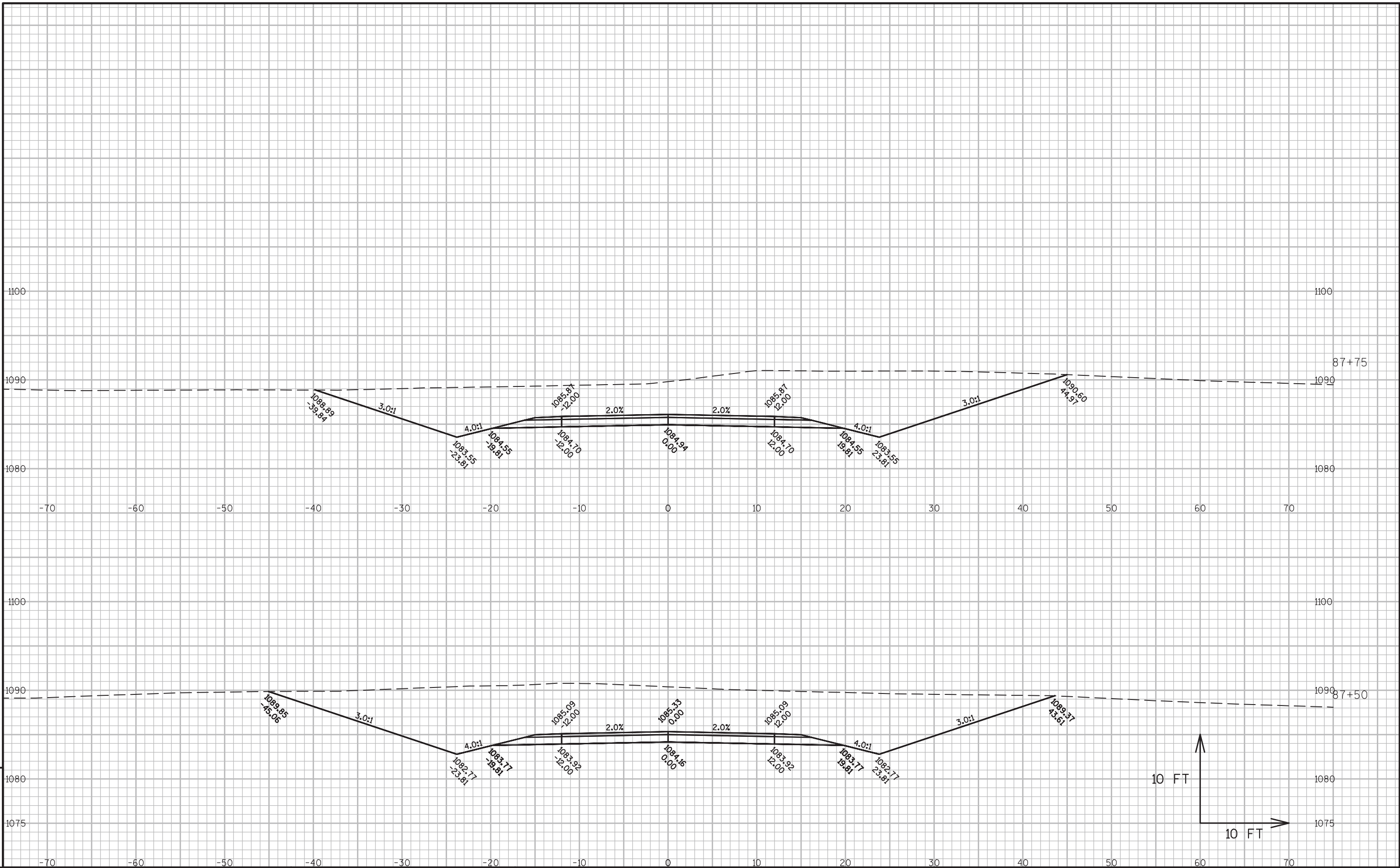
NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER
ESTIMATE CATEGORY 0010, UNLESS OTHERWISE NOTED.

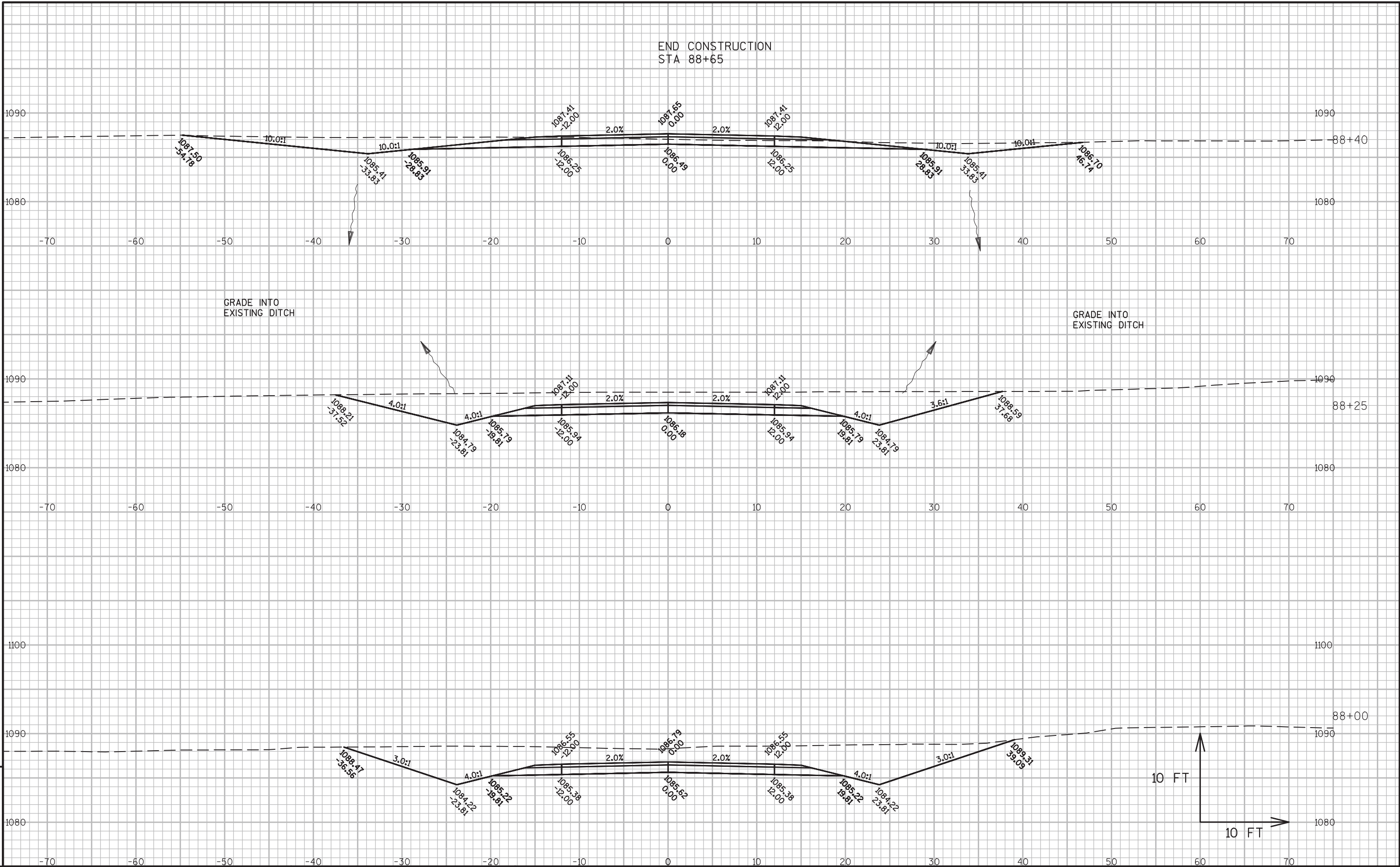


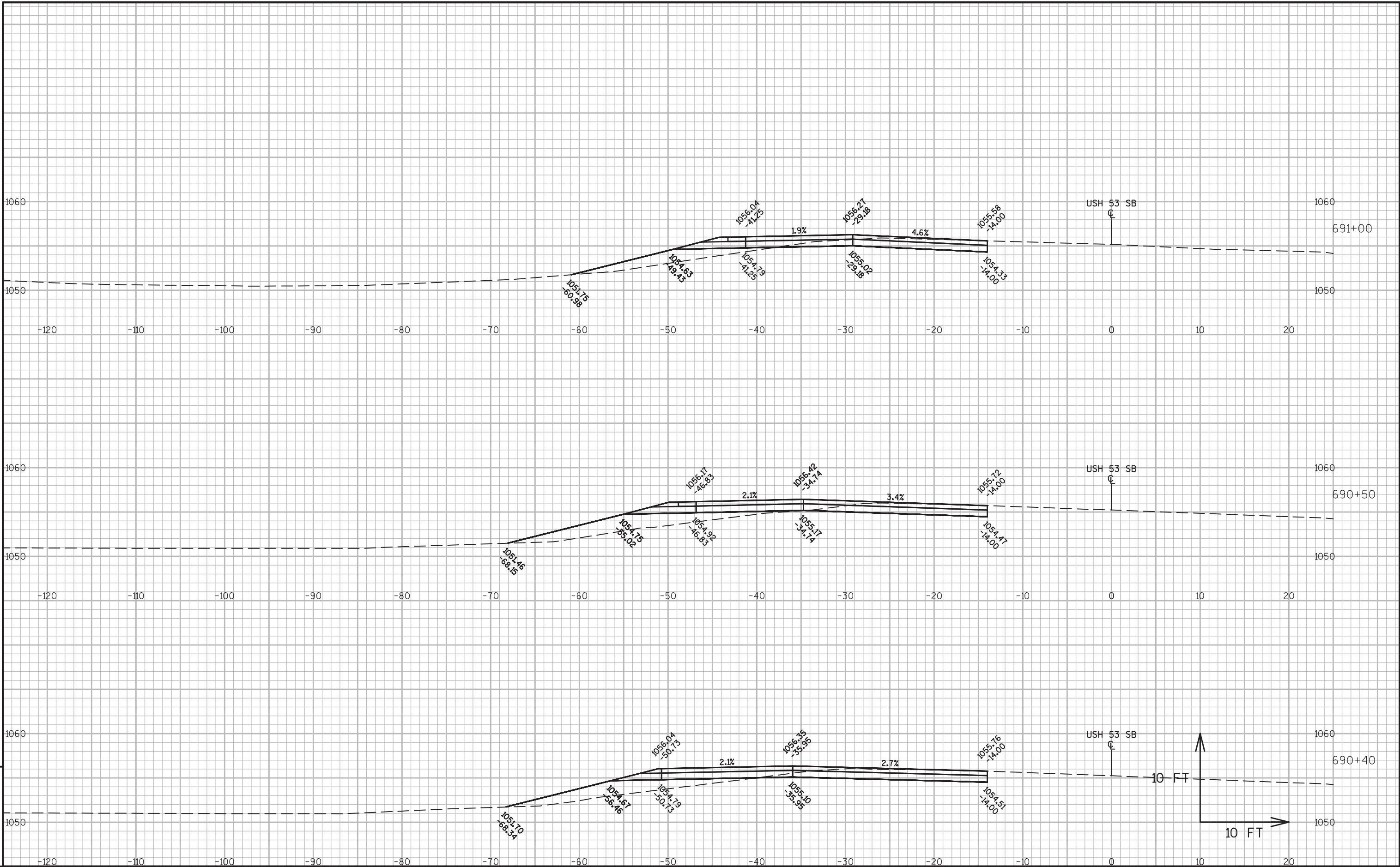


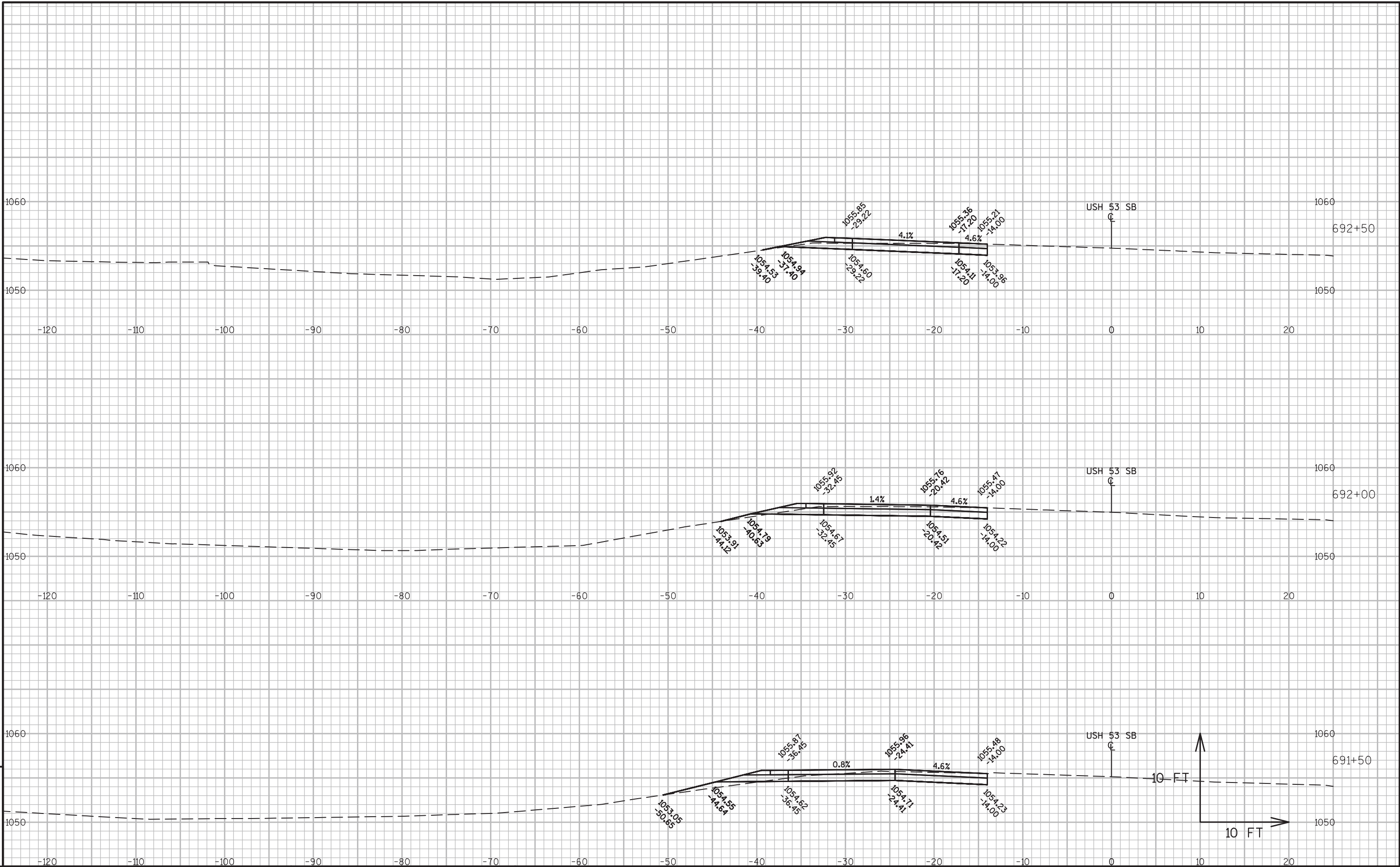


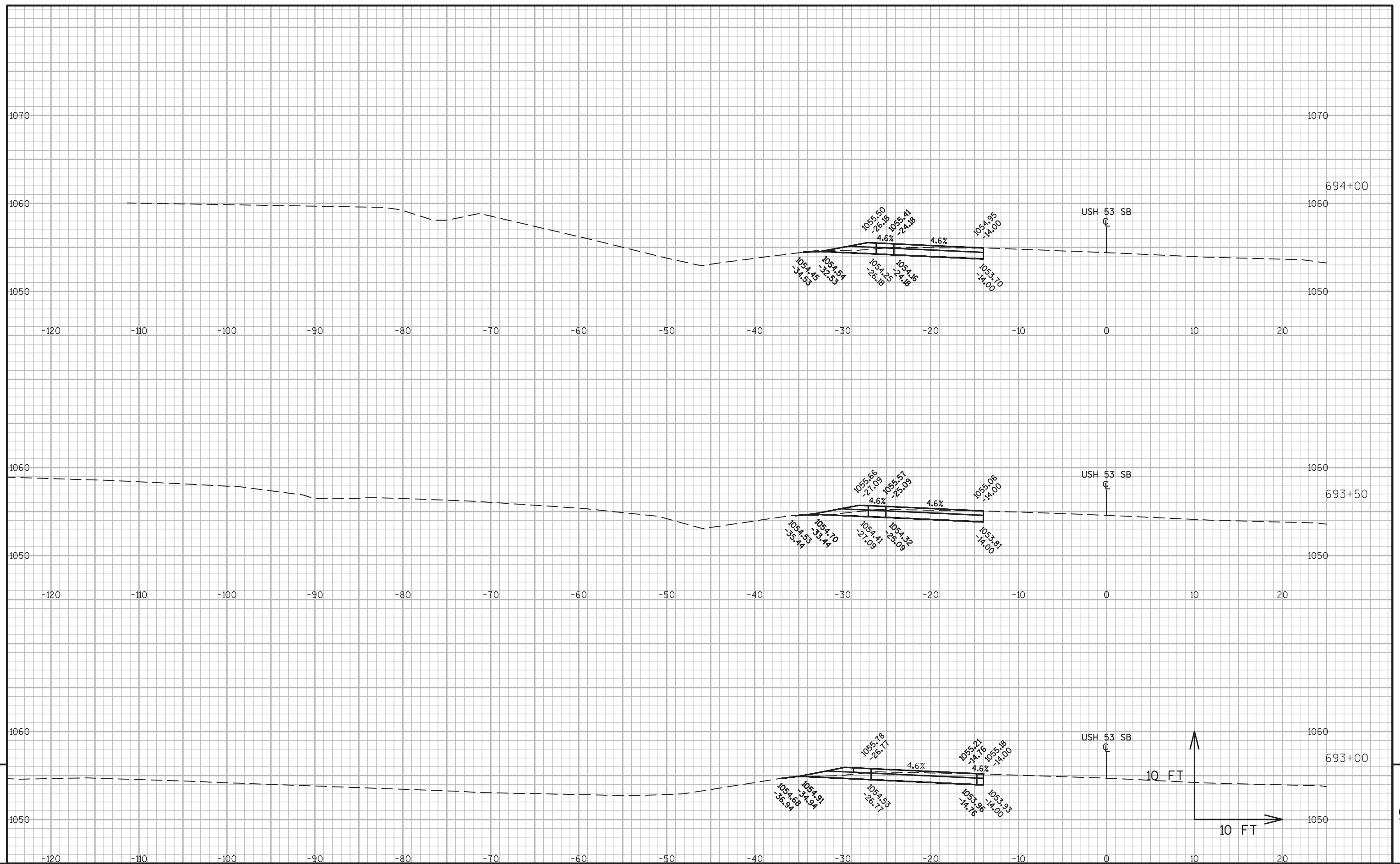


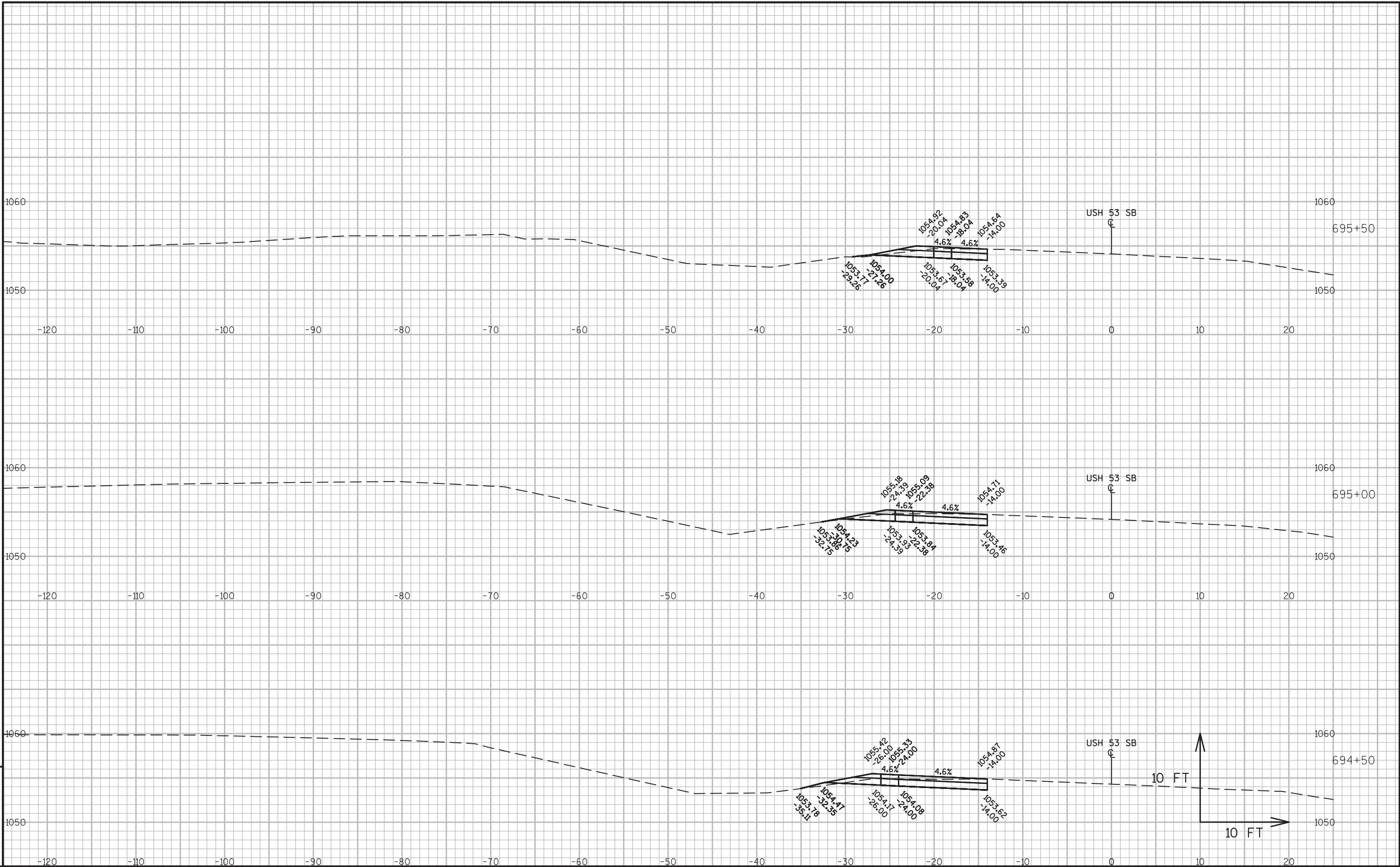


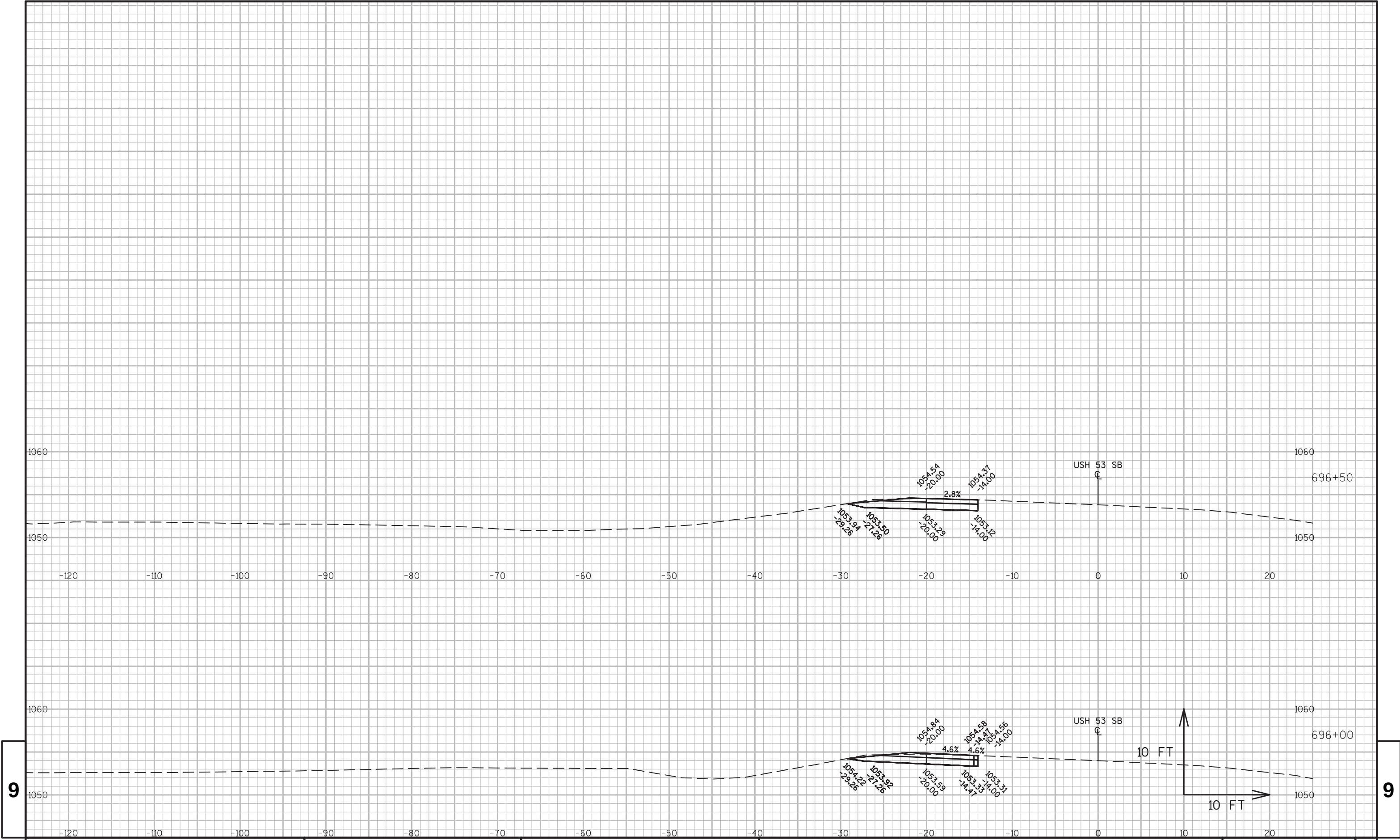






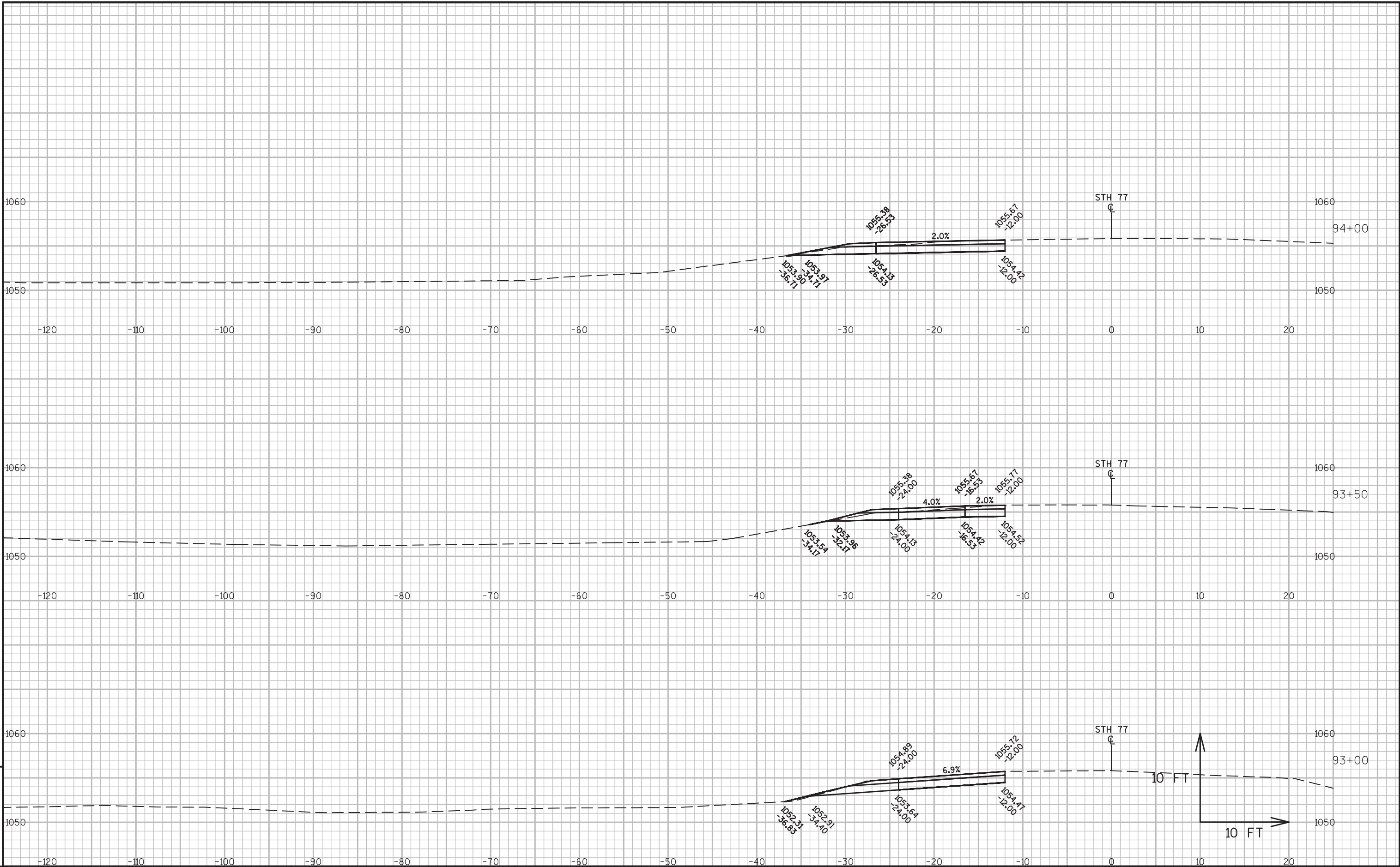




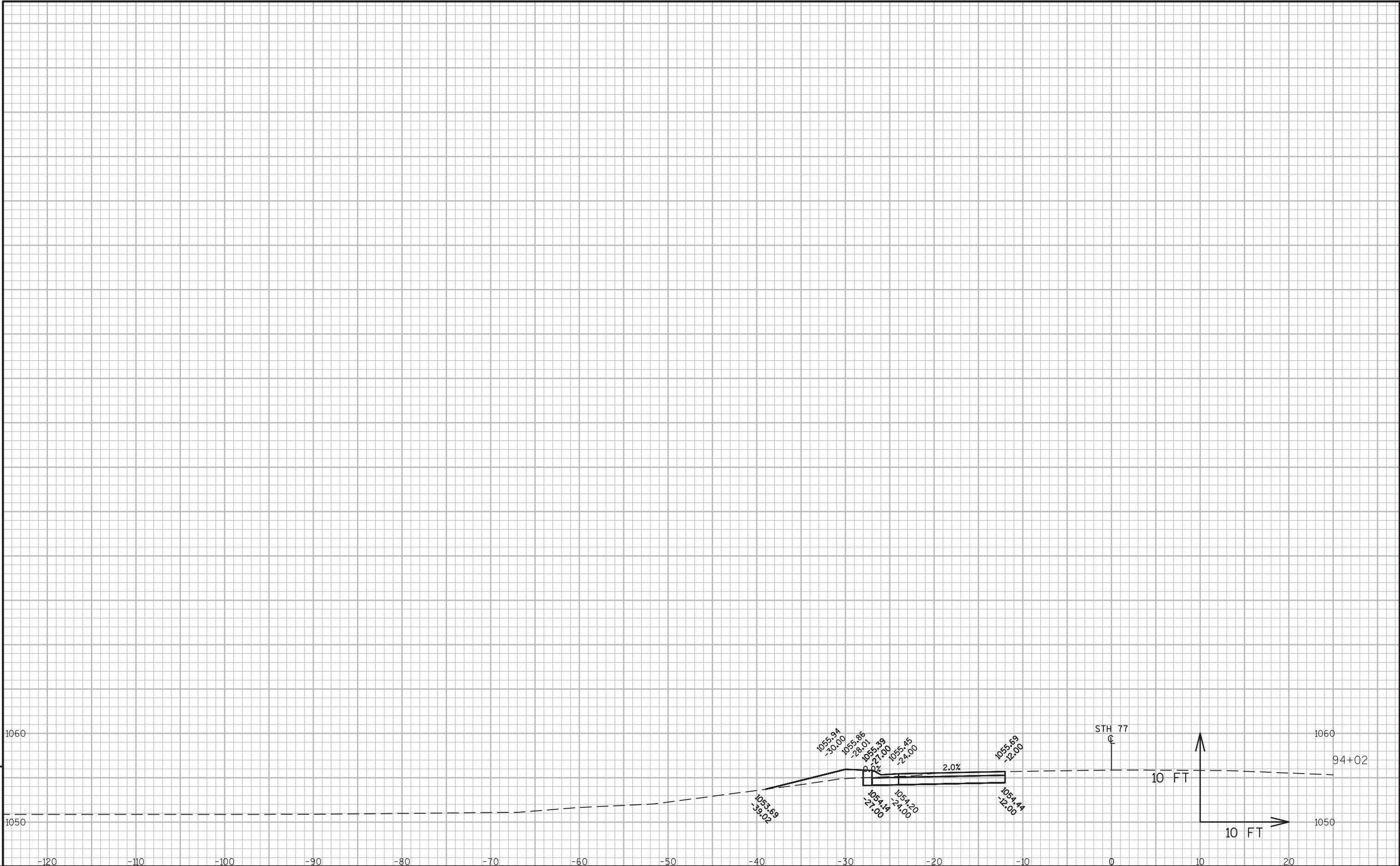


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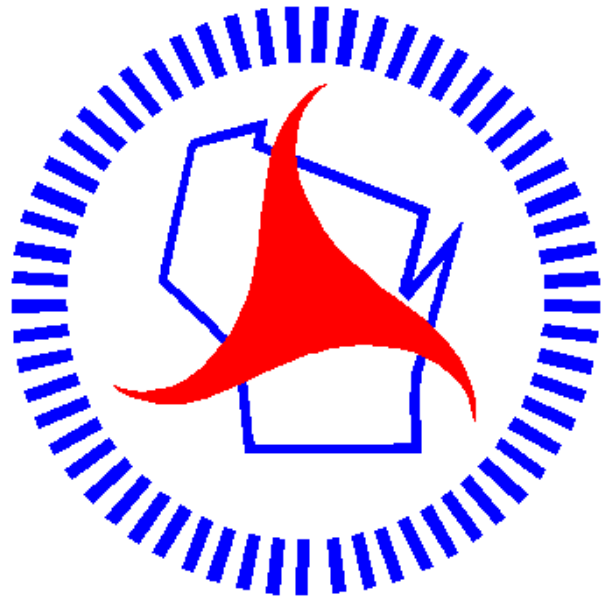
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Wisconsin Department of Transportation

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