LAX

DECEMBER 2020

PROJECT ID: 5996-00-77

WITH: N/A

COUNTY: GRANT

13

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 (Includes Erosion Control Plans)~~
Section No.	5	Plan and Profile (Includes Erosion Control Plans)
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 = 308



N

DESIGN DESIGNATION

A.A.D.T.	2020	=	7400
D.H.V.		=	---
D.D.		=	---
T.		=	---
DESIGN SPEED		=	35 MPH/ 45 MPH
ESALS		=	---

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'FB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C PLATTEVILLE, BUSINESS 151

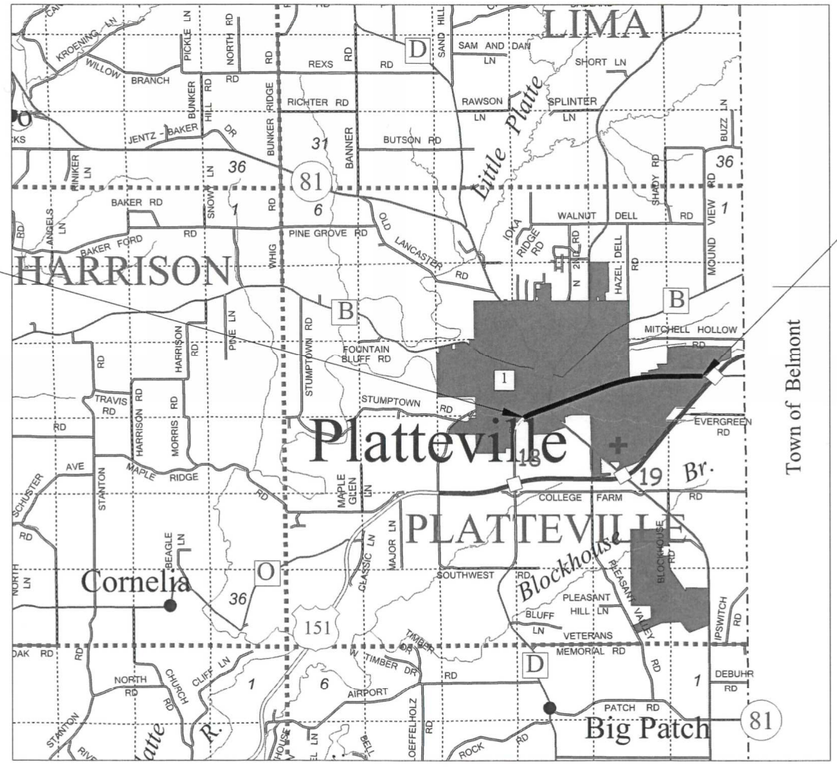
(STALEY AVENUE TO COMMERCIAL DRIVE)

LOC STR

GRANT COUNTY

STATE PROJECT NUMBER
5996-00-77

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5996-00-77	WISC 2021029	1



TOTAL NET LENGTH OF CENTERLINE 2.104 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), GRANT COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88, 2012)

ACCEPTED FOR
CITY OF PLATTEVILLE

Date 07/21/20 *Howard B. Crofoot*
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

IIW, P.C. ©

iiw
INTEGRITY. EXPERTISE. SOLUTIONS.
800.456.4491

WISCONSIN
NOAH J. HOFRICHTER
E-46240
DUBUQUE, IOWA
PROFESSIONAL ENGINEER

DATE: 7/23/20 *Noah J. Hofrichter*
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	IIW, P.C.
Designer	IIW, P.C.
Project Manager	Aleigha Burg
Regional Examiner	SW Region
Regional Supervisor	Ian Winger

APPROVED FOR THE DEPARTMENT

DATE: 7/29/2020 Aleigha Burg, P.E. Digitally signed by Aleigha Burg, P.E. Date: 2020.07.29 08:40:38 -05'00'
(Signature)

E

2

GENERAL NOTES

SEE TITLE SHEET FOR COORDINATE AND ELEVATION REFERENCES.

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

THE CONTRACTOR SHALL COORDINATE ALL UTILITY ADJUSTMENTS WITH THE UTILITY.

DETAILS OF CONSTRUCTION NOT SHOWN IN THE PLANS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE TRAFFIC CONTROL NOTES FOR DETAILS OF ALLOWED IMPACTS TO ADJACENT PROPERTIES AND INTERSECTIONS. IT IS ANTICIPATED SEVERAL TRAFFIC CONTROL STAGES WILL BE NEEDED IN ORDER TO ALLOW TWO WAY TRAFFIC TO BE MAINTAINED WHICH PRECLUDES WORK TAKING PLACE IN ALL INTERSECTION QUADRANTS OR ON BOTH SIDES OF BUSINESS 151 SIMULTANEOUSLY.

THIS PROJECT DOES NOT PROVIDE FOR SAME DAY PAVEMENT MARKING. CHANNELIZING DEVICES MAY BE PLACED ON THE CENTERLINE ALIGNMENT FOR UP TO THREE DAYS. PERMANENT PAVEMENT MARKING THE EDGES OF THE TWO WAY TURN LANES SHALL BE INSTALLED WITHIN THREE CALENDAR DAYS OF THE PLACEMENT OF HMA ULTRA THIN OVERLAY WHICH OBLITERATED THE EXISTING PAVEMENT MARKINGS. ON CONCRETE SURFACES WHERE THE OVERLAY IS NOT BEING INSTALLED, PAVEMENT MARKINGS SHALL NOT BE REMOVED UNTIL PERMANENT MARKINGS CAN BE INSTALLED THE SAME DAY AS THE MARKING REMOVAL.

THE TEMPORARY SUPPORT OF SIGNAL STRUCTURES THAT ARE TO REMAIN IN PLACE DURING CONSTRUCTION SHALL BE INCIDENTAL TO THE PROJECT.

NO TREES OR SHRUBS SHALL BE REMOVED WITHIN THE RIGHT OF WAY WITHOUT PRIOR APPROVAL OF THE ENGINEER OR OWNER.

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN WITH THE EXCEPTION OF THE HMA ULTRA-THIN OVERLAY WHICH IS BASED ON 125 LB/SY/IN.

THE 6-INCH ASPHALTIC SURFACE PATCHING SHALL BE PLACED IN THREE LAYERS, ALL LAYERS TO BE 2-INCHES. THE 4-INCH ASPHALTIC SURFACE ITEMS SHALL BE PLACED IN TWO LAYERS, BOTH LAYERS TO BE 2-INCHES. THE 3" ASPHALTIC SURFACE ITEMS SHALL BE PLACED IN ONE LAYER. LAYER THICKNESS MAY BE ALTERED ONLY WITH PRIOR APPROVAL OF THE ENGINEER.

APPLY TACK COAT BETWEEN LAYERS OF ASPHALTIC SURFACE AT A RATE OF 0.07 GAL/SY.

EXISTING DRIVEWAYS SHALL BE RESTORED WITH IN-KIND MATERIALS (WITH EXCEPTIONS NOTED ON THE PLANS) AND SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

AT ALL LOCATIONS WHERE "REMOVING CURB LIP" IS INDICATED IN PLANS, CURB LIP SHALL BE REMOVED SUCH THAT THE REMAINING GUTTER AND LIP COMPLIES WITH THE REQUIREMENTS OF GENERAL NOTE #2 OF SDD 8D05 IN REGARDS TO SLOPE AND HEIGHT IN A PEDESTRIAN PATHWAY. SEE CURB RAMP CONSTRUCTION DETAILS.

THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

PLAN SHEET EROSION CONTROL IS INDICATED IN TABULATIONS AND ON SHEETS FOR THE VARIOUS SEGMENTS AS FOLLOWS:
- FROM STALEY AVE TO STH 80/STH 81 INTERSECTION: SHOWN ON 5-SERIES SHEETS
- ALONG ENTIRE TRAIL AND INTERSECTION AT EASTSIDE ROAD/MINERAL STREET: SHOWN ON 2-SERIES EROSION CONTROL SHEETS
- INSIGHT DRIVE: SHOWN ON 5-SERIES SHEET

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKERS IS TO BE WITH THE APPROVAL OF THE ENGINEER.

THICKNESS AND QUALITY OF EXISTING BASE STONE MATERIAL UNDER EXISTING SHOULDER AND PAVEMENTS IS UNKNOWN.

ABBREVIATIONS

AC	ACRE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ASPH	ASPHALTIC
AEW	APRON END WALL
BEG	BEGINNING
BM	BENCHMARK
BR	BRIDGE
CL	CENTERLINE
CE	COMMERCIAL ENTRANCE
CEN	CENTER
CONC	CONCRETE
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CABC	CRUSHED AGGREGATE BASE COURSE
CY	CUBIC YARD
CULV	CULVERT
CPCM	CULVERT PIPE CORRUGATED METAL
CPCPE	CULVERT PIPE CORRUGATED POLYETHYLENE
CPRC	CULVERT PIPE REINFORCED CONCRETE
D	DEGREE OF CURVE
DHV	DESIGN HOURLY VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DWY	DRIVEWAY
ELEC	ELECTRIC
EL OR ELV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXIST	EXISTING
FE	FIELD ENTRANCE
FL	FLOW LINE
CWT	HUNDREDWEIGHT
HE	HORIZONTAL ELLIPTICAL
INL	INLET
INV	INVERT
LT	LEFT
L	LENGTH OF CURVE
LF	LINEAR FOOT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PE	PRIVATE ENTRANCE
R/RAD	RADIUS
RL	REFERENCE LINE
REQ'D	REQUIRED
STH	STATE TRUNK HIGHWAY
STA	STATION
SF	SQUARE FEET
SY	SQYARE YARD
SDD	STANDARD DETAIL DRAWINGS
SE	SUPERELEVATION
TLE	TEMPORARY LIMITED EASEMENT
T	TON
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VCL	VERTICAL CURVE LENGTH
W	WALL

PROJECT CONTACTS

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ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
RETAINING WALLS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PLAN DETAILS
CURB RAMPS
EROSION CONTROL SHEETS
TRAFFIC SIGNAL PLANS
PAVEMENT MARKING & SIGNING
TRAFFIC CONTROL
ALIGNMENT DATA

BENCH MARKS

BENCHMARK NO.	ELEVATION	DESCRIPTION	NORTHING	EASTING	STATION, OFFSET
704	874.87	B.M. 704 RR SPIKE PPOLE	479145.35	880456.05	230+72.71, 46.89' RT
705	878.66	B.M. 705 ARROW ON HYDRANT	479264.50	880294.77	229, 92.55' 135.98' LT
711	971.31	B.M. CUT X SW COR CONC STM SLAB	481707.50	887428.17	305+19.10, 79.86' RT
713	979.33	B.M. X ON SOUTH HYD BOLT	481906.06	887620.08	307+48.72, 73.77' LT
71560	877.04	B.M. X HYD SOUTH BOLT AT FIESTA CANCUN	479381.69	881064.05	237+31.36, 53.72' RT
71561	886.01	B.M. X HYD NORTH BOLT AT DAIRY QUEEN	479735.21	881720.29	244+70.22, 44.99' LT
71562	896.29	B.M. CUT X NORTH COR CONC INLET WALGREENS	479912.40	882079.82	248.69.15, 83.94' LT

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

PROJECT OVERVIEW

N

CONVERT TRAFFIC SIGNALS TO MONOTUBE SUPPORTS AND RECONSTRUCT MEDIAN TO CREATE OFFSET LEFT TURN LANES

KEYSTONE PARKWAY

MILLENIUM DR.

TRAFFIC SIGNAL ADJUSTMENTS. ADD OFFSET LEFT TURN LANES. ADD PEDESTRIAN CROSSING TO SOUTH AND EAST LEGS OF INTERSECTION.

E MINERAL ST.

BUSINESS HWY 151

CONVERT FROM 4 LANES TO 3 LANES

EASTSIDE RD.

END PROJECT
STA 339+53.86

INSIGHT DR.

PHILLIPS RD.

WATER ST. (HWY 80/81)

CONVERT FROM 2 LANES TO 3 LANES

SOUTHWEST RD.

ELLEN ST.

VIRGIN AVE.

VALLEY RD.

WALK ACCOMMODATIONS FROM HWY 80/81 TO ELLEN ST.

STALEY AVE.

BUSINESS HWY 151

CONSTRUCT 10' WIDE SHARED USE PATH ALONG SOUTH SIDE OF ROAD

CONNECT NEW SHARED USE PATH TO EXISTING TRAIL

DAVID CANNY ROUNTREE BRANCH TRAIL

WIDEN ROAD BOTH SIDES WITH CURB & GUTTER SOUTH SIDE

TRAFFIC SIGNAL ADJUSTMENTS AND PEDESTRIAN CROSS WALK ACCOMMODATIONS AT INTERSECTION AND CONNECTIONS TO DAVID CANNY ROUNTREE BRANCH TRAIL

CHESTNUT ST.

ADD PEDESTRIAN CROSSING OF BUSINESS 151 AT STALEY AVE.

WISCONSIN HWY 80/81

BEGIN PROJECT
STA 228+45
BEGIN CONVERSION TO TWO WAY CENTER LEFT TURN LANE AND ULTRA-THIN PAVEMENT OVERLAY.

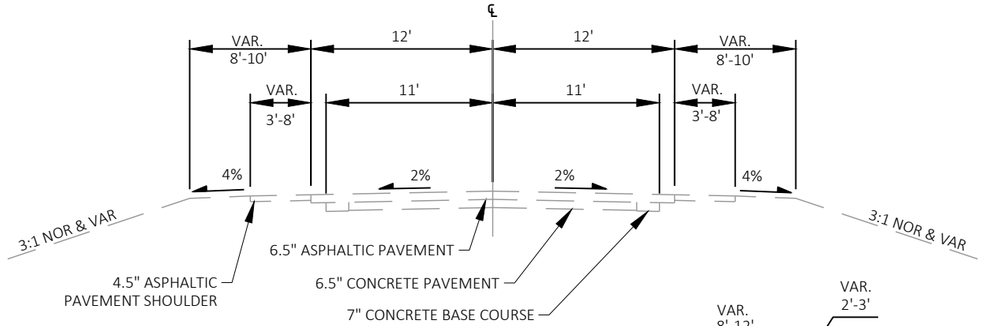
DAVID CANNY ROUNTREE BRANCH TRAIL

BEGIN CONSTRUCTION
STA 227+00
INSTALL RRFB ON LEFT.

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PROJECT OVERVIEW	SHEET 3	E

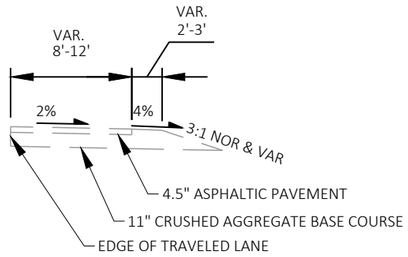
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LAYOUT NAME - 020201
PLOT DATE : 7/30/2020 7:59 AM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:800 FT
WISDOT/CADDS SHEET 42

2



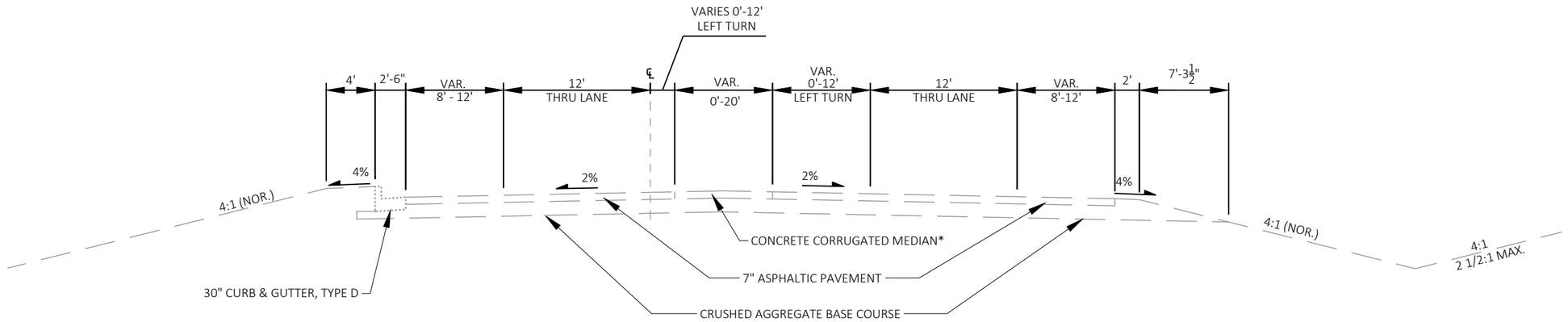
EXISTING BUSINESS 151 TYPICAL SECTION

STA. 228+94 - STA. 239+75
STA. 254+75 - STA. 257+39
STA. 258+62 - STA. 306+00



BYPASS LANE

STA. 301+92 - STA. 306+00

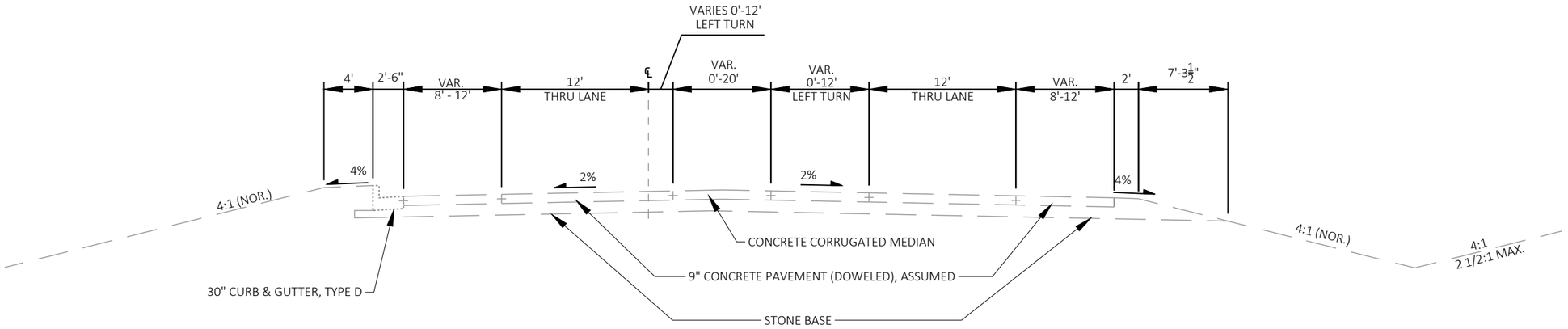


EXISTING BUSINESS 151 TYPICAL SECTION

*STA. 239+75 - STA. 241+57 (NO CONCRETE MEDIAN)
STA. 241+57 - STA. 243+45
STA. 252+58 - STA. 254+75

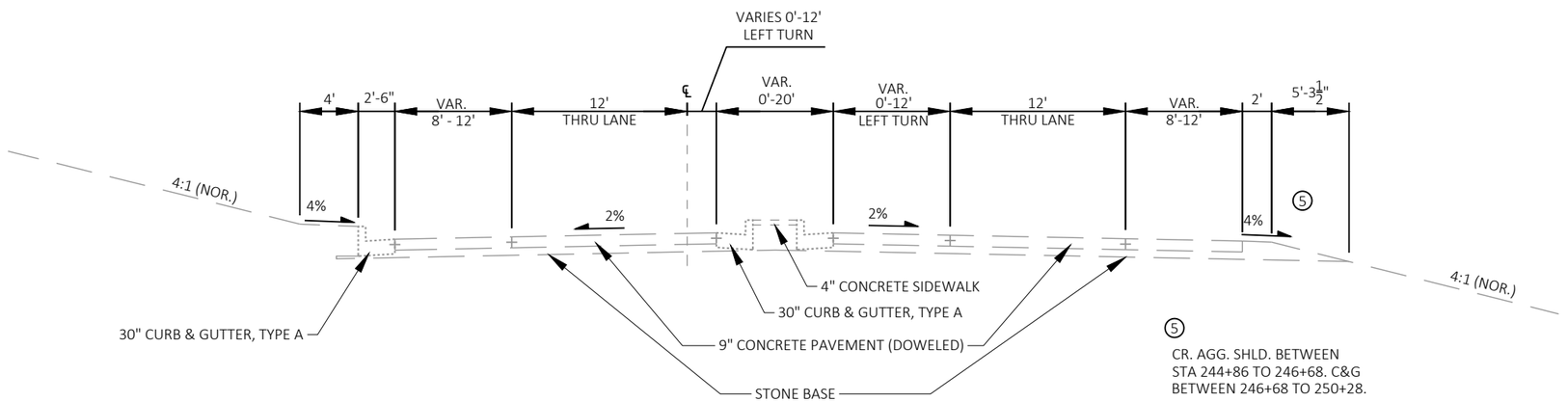
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 4	E

2



EXISTING BUSINESS 151 TYPICAL SECTION

STA. 243+45 - STA. 244+86
STA. 250+28 - STA. 252+58

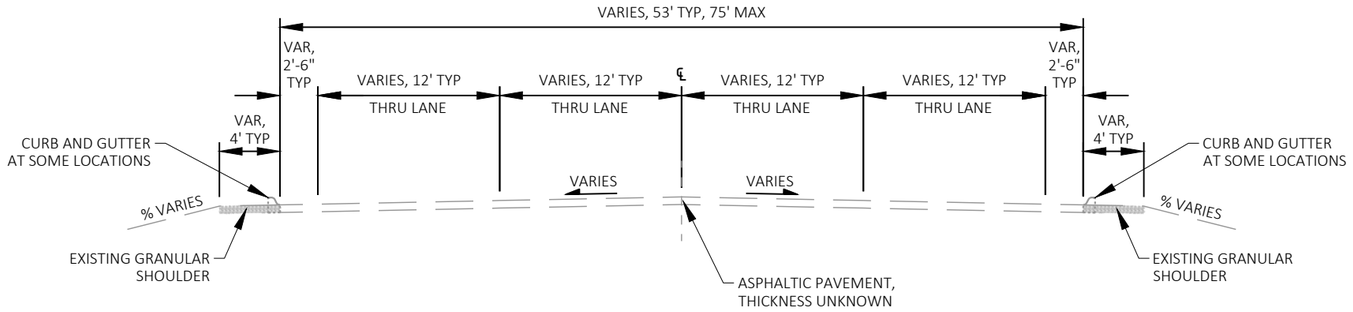


EXISTING BUSINESS 151 TYPICAL SECTION

STA. 244+86 - STA. 250+28

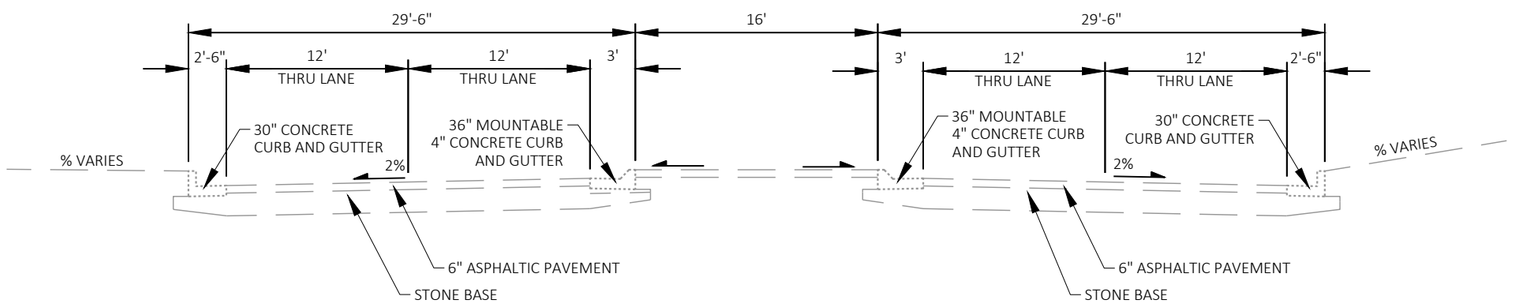
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 5	E

2



EXISTING BUSINESS 151 TYPICAL SECTION

STA. 306+00 - STA. 332+60



EXISTING BUSINESS 151 TYPICAL SECTION

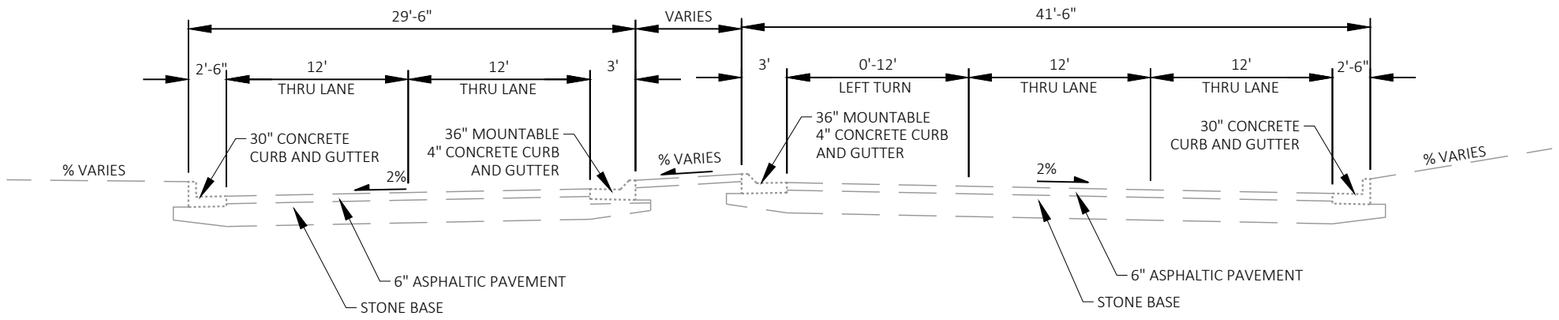
STA. 332+60 - STA. 333+10

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 6	E

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LAYOUT NAME - 3 TYPICAL SECTIONS

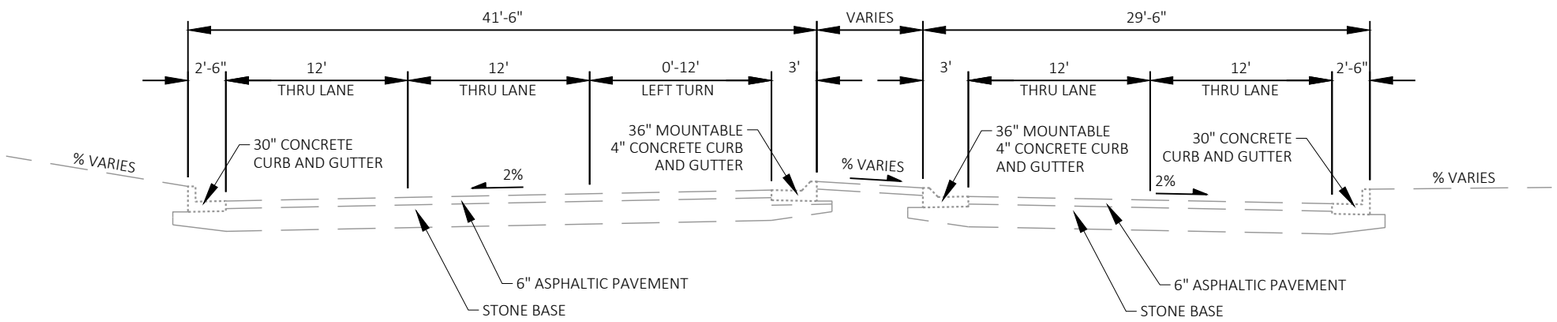
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2



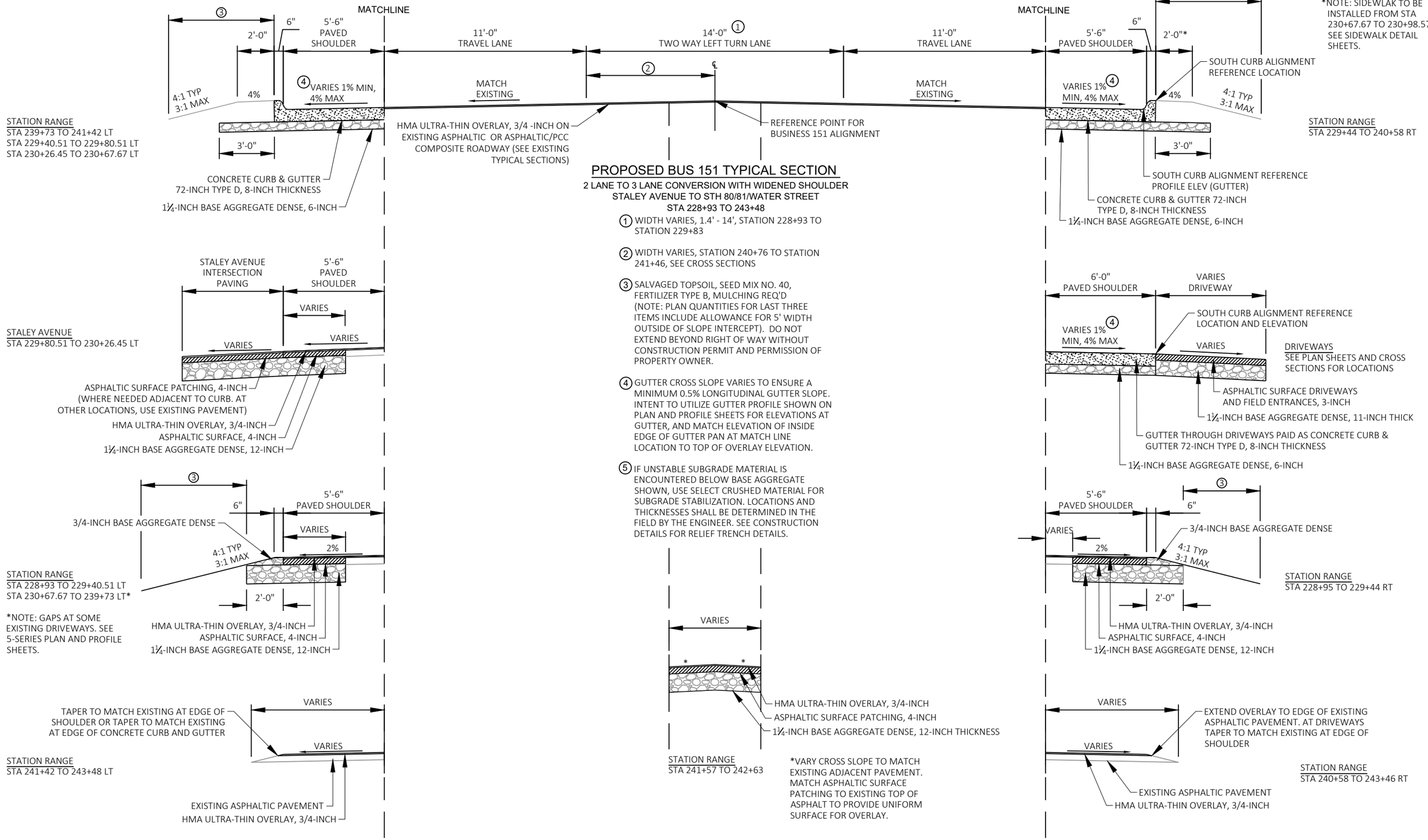
EXISTING BUSINESS 151 TYPICAL SECTION

STA. 333+10 - STA. 337+55



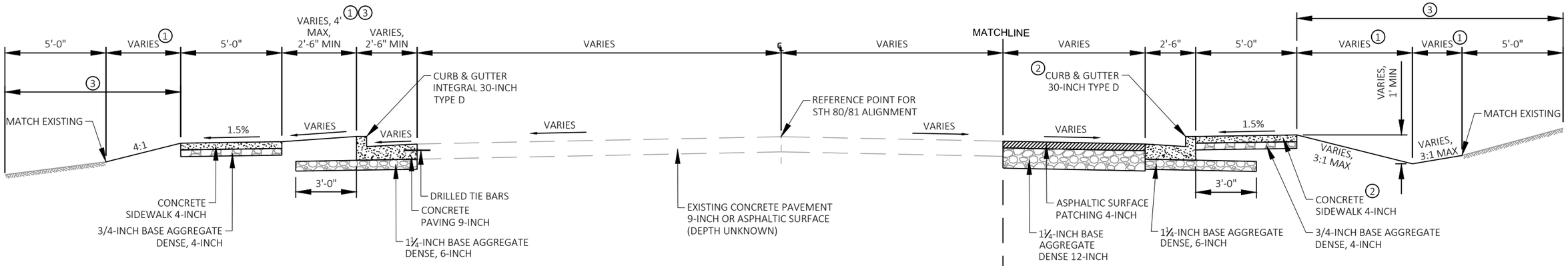
EXISTING BUSINESS 151 TYPICAL SECTION

STA. 337+55 - STA. 340+96



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 5 TYPICAL SECTIONS
PLOT DATE : 12/3/2019 12:09 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42



STATION RANGE
STA 801+77 TO 802+54 LT

STATION RANGE
STA 801+03 TO 801+78 RT

PROPOSED STH 80/81/S. WATER STREET TYPICAL SECTION

PROPOSED SIDEWALK AND PAVEMENT RECONSTRUCTION
SOUTH HALF OF STH 80/81 & BUSINESS 151 INTERSECTION

NOTE: STATION RANGES SHOWN REFERENCE PLAN CENTERLINE LENGTH AND NOT ACTUAL LENGTH ALONG CURB RADII AT THE BUS 151 INTERSECTION

(1) SALVAGED TOPSOIL

(2) DISCONTINUE CURB AND GUTTER 30-INCH & THICKEN SIDEWALK TO CONCRETE SIDEWALK 6-INCH AT DRIVEWAYS

(3) SALVAGED TOPSOIL, SEED MIX NO. 40, FERTILIZER TYPE B, MULCHING REQ'D (NOTE: PLAN QUANTITIES FOR LAST THREE ITEMS INCLUDE ALLOWANCE FOR 5' WIDTH OUTSIDE OF SLOPE INTERCEPT). DO NOT EXTEND BEYOND RIGHT OF WAY WITHOUT CONSTRUCTION PERMIT AND PERMISSION OF PROPERTY OWNER.

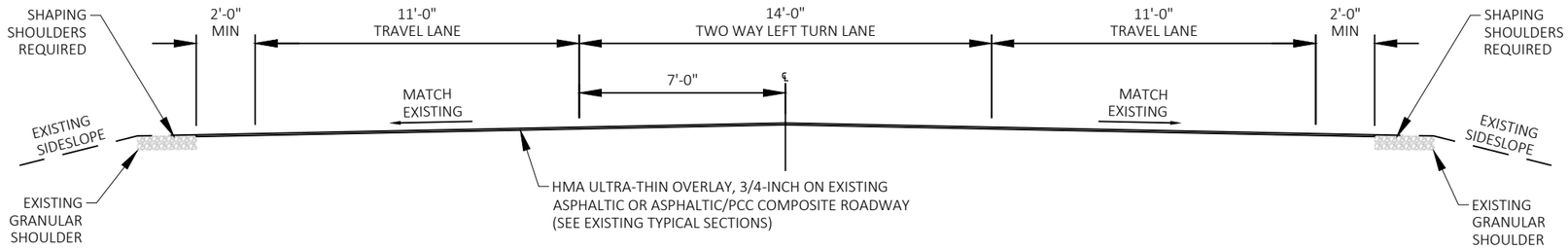
(4) IF UNSTABLE SUBGRADE MATERIAL IS ENCOUNTERED BELOW BASE AGGREGATE SHOWN, USE SELECT CRUSHED MATERIAL FOR SUBGRADE STABILIZATION. LOCATIONS AND THICKNESSES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. SEE CONSTRUCTION DETAILS FOR RELIEF TRENCH DETAILS.

DOWELS REQUIRED AT
TRANSVERSE JOINTS

STATION RANGE
STA 801+78 TO 802+64 RT

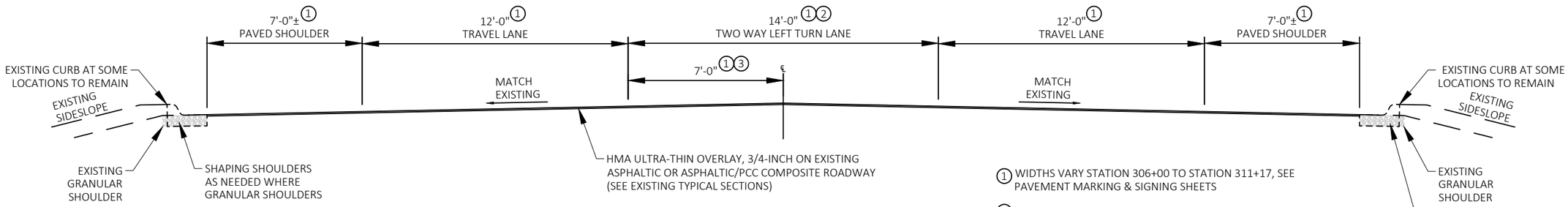
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 9	E

2



PROPOSED BUS 151 TYPICAL SECTION

2 LANE TO 3 LANE CONVERSION
STH 80/81/WATER STREET TO EASTSIDE ROAD/MINERAL STREET
STA 252+58 TO 306+00



PROPOSED BUS 151 TYPICAL SECTION

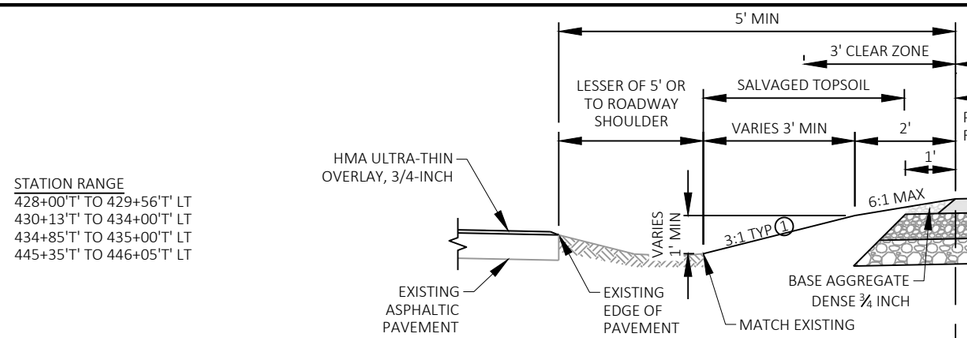
4 LANE TO 3 LANE CONVERSION
EASTSIDE ROAD/MINERAL STREET TO INSIGHT DRIVE
STA 306+00 TO 339+54

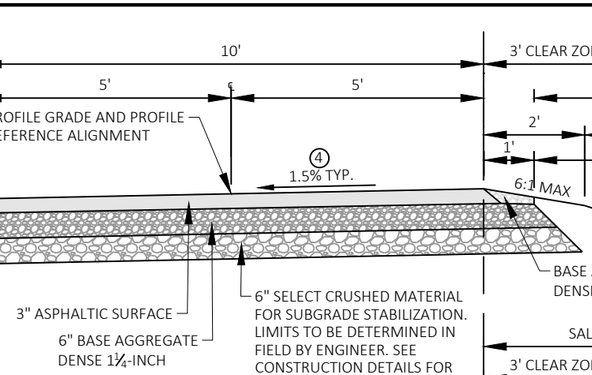
(1) WIDTHS VARY STATION 306+00 TO STATION 311+17, SEE PAVEMENT MARKING & SIGNING SHEETS

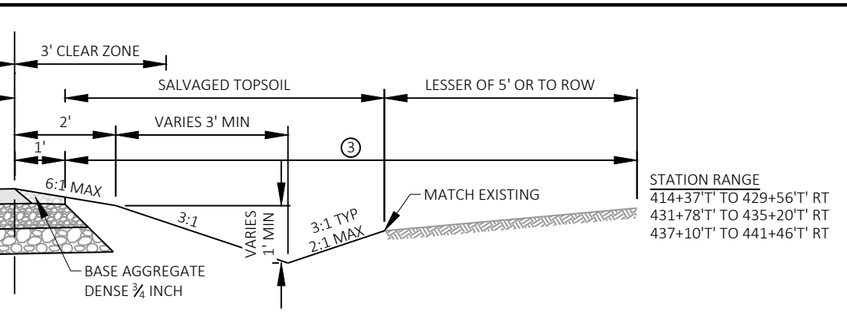
(2) WIDTH VARIES, STATION 330+28 TO STATION 339+54. MEDIAN IS PRESENT FROM STATION 332+50 TO STATION 336+88 AND STATION 337+91 TO STATION 339+54

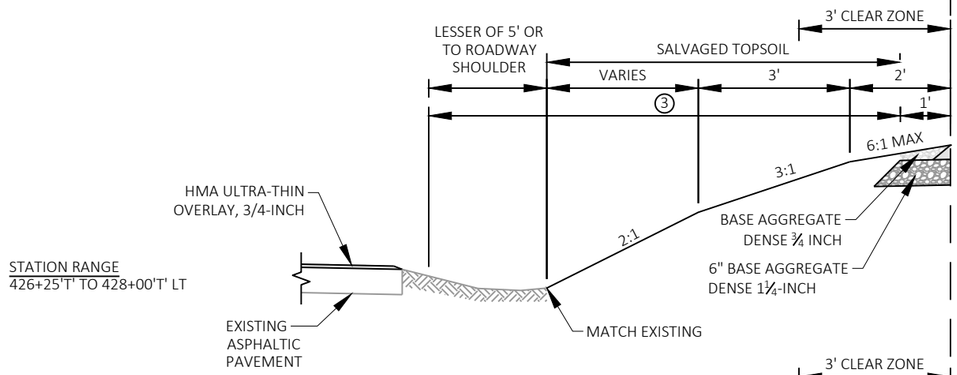
(3) WIDTH VARIES, STA 325+50 TO STATION 339+54, SEE PAVEMENT MARKING & SIGNING SHEETS

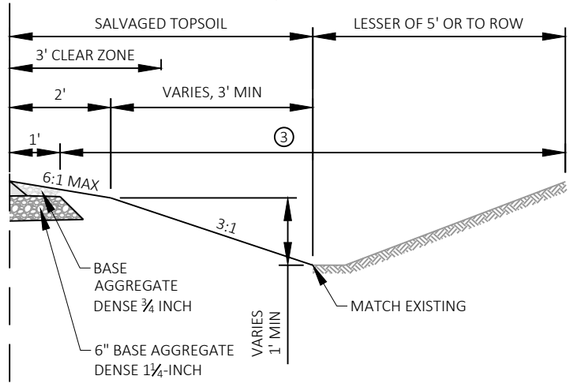
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 10	E

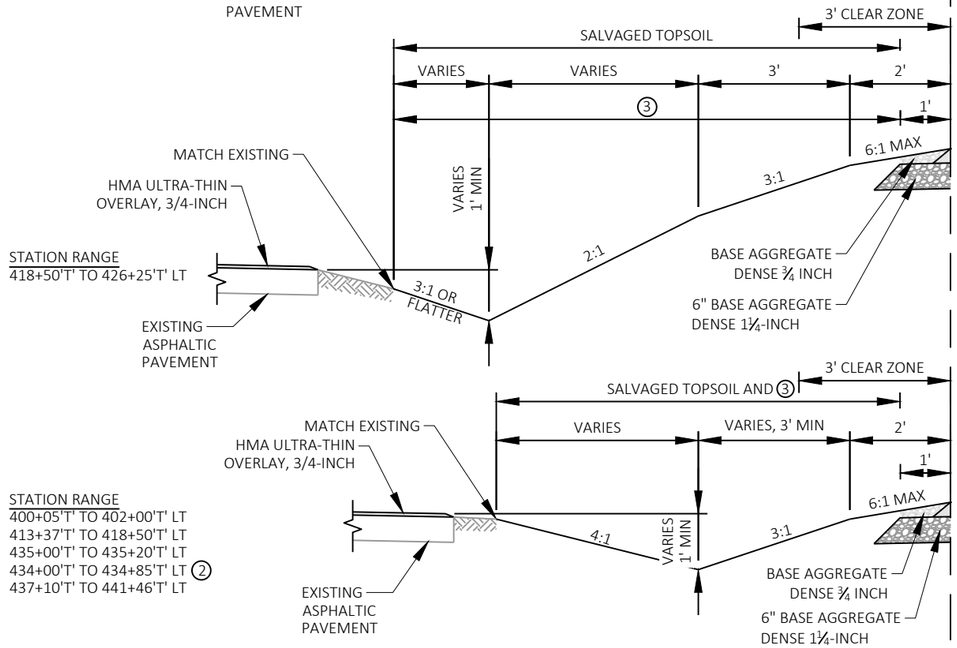


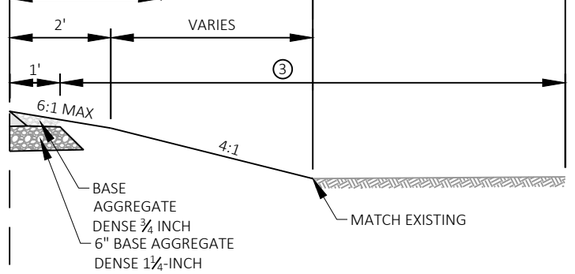












(1) 3:1 MAX AND TYPICAL SLOPE. SLOPE FLATTER AT TRANSITIONS TO DRIVEWAYS AND CURB LINES NEAR PHILLIPS AVE AND EASTSIDE ROAD INTERSECTIONS. SEE CROSS SECTIONS.

(2) THIS STATION RANGE INCLUDES A 4' WIDE FLAT DITCH BOTTOM (NOT DRAWN). FORESLOPE OF TRAIL ALSO VARIES BETWEEN 3:1 AND 4:1. SEE CROSS SECTIONS.

(3) SEED MIX, FERTILIZER TYPE B, & MULCH. SEE 2-SERIES EROSION CONTROL PLAN DETAIL SHEETS FOR SEED MIX TYPE INFORMATION.

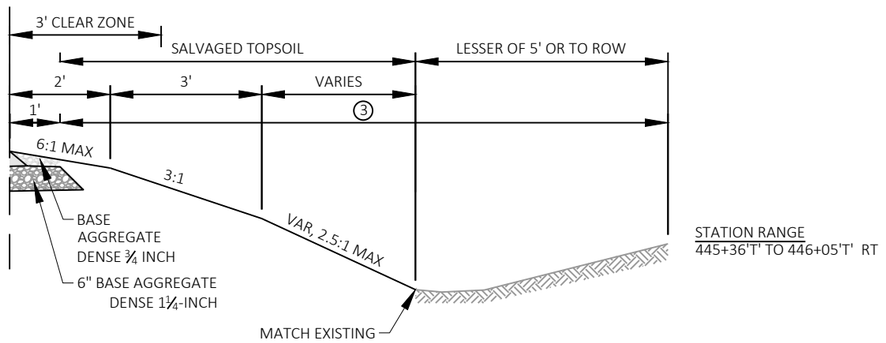
(4) CROSS SLOPE 1.5% LT TYPICAL. VARIES AT FOLLOWING LOCATIONS:

-STA 430+13'T' TO 430+50'T'; TRANSITION TO MATCH PHILLIPS AVE CURB RAMP DIRECTION
-STA 445+38'T' TO 445+50'T'; TRANSITION FROM 1.5% LT TO 1.5% RT.
-STA 445+50'T' TO 446+05'T'; 1.5% RT

(5) UTILIZE EROSION MAT ON SLOPES STEEPER THAN 3:1 AS SHOWN ON THESE SECTIONS AND EROSION CONTROL SHEETS.

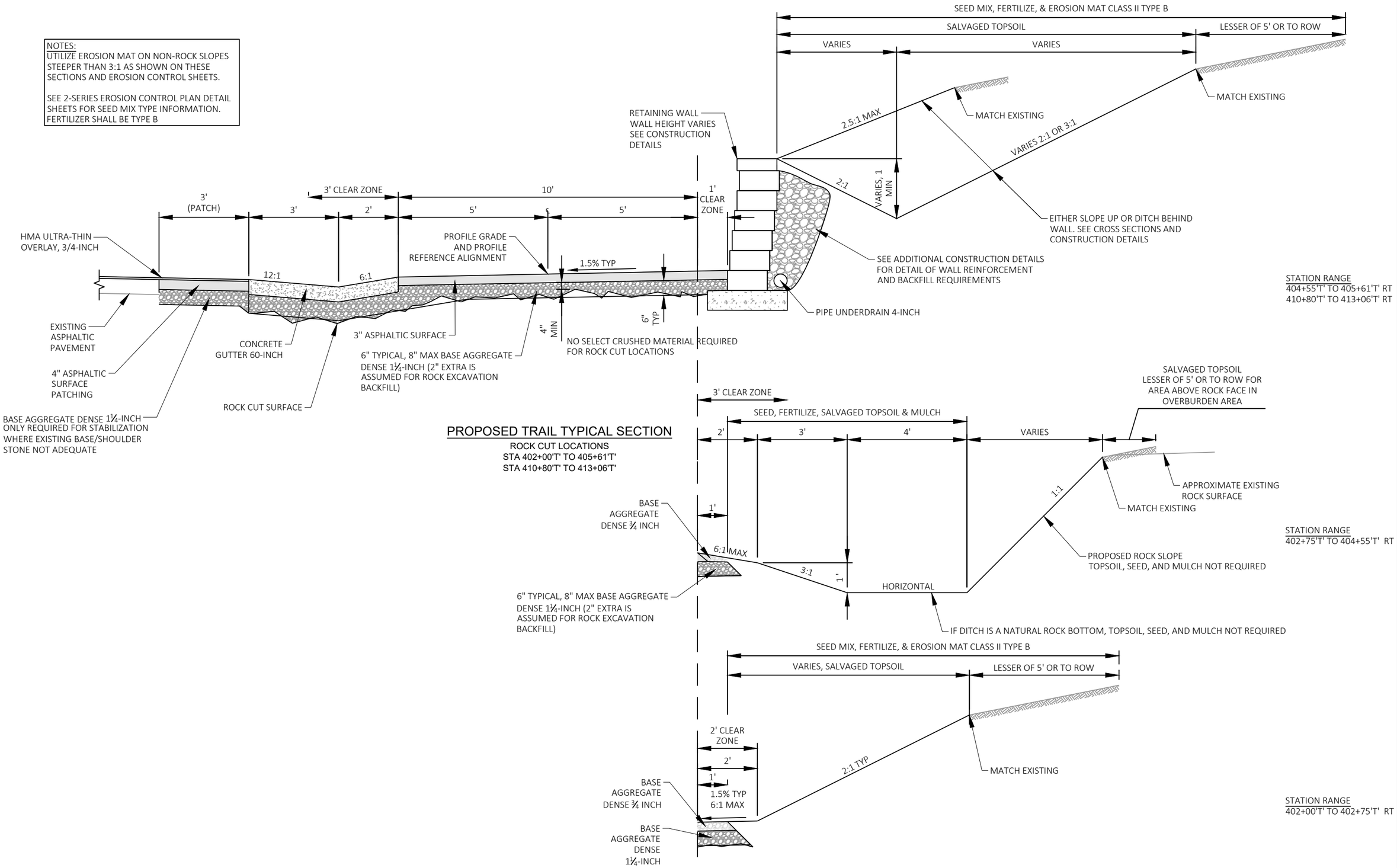
PROPOSED TRAIL TYPICAL SECTION

TYPICAL TRAIL
STA 400+05'T' TO 402+00'T', 414+37'T' TO 429+56'T'
STA 430+13'T' TO 435+20'T', 437+10'T' TO 441+46'T'
STA 445+35'T' TO 446+05'T'



NOTES:
UTILIZE EROSION MAT ON NON-ROCK SLOPES STEEPER THAN 3:1 AS SHOWN ON THESE SECTIONS AND EROSION CONTROL SHEETS.

SEE 2-SERIES EROSION CONTROL PLAN DETAIL SHEETS FOR SEED MIX TYPE INFORMATION. FERTILIZER SHALL BE TYPE B



STATION RANGE
404+55'T' TO 405+61'T' RT
410+80'T' TO 413+06'T' RT

PROPOSED TRAIL TYPICAL SECTION

ROCK CUT LOCATIONS
STA 402+00'T' TO 405+61'T'
STA 410+80'T' TO 413+06'T'

STATION RANGE
402+75'T' TO 404+55'T' RT

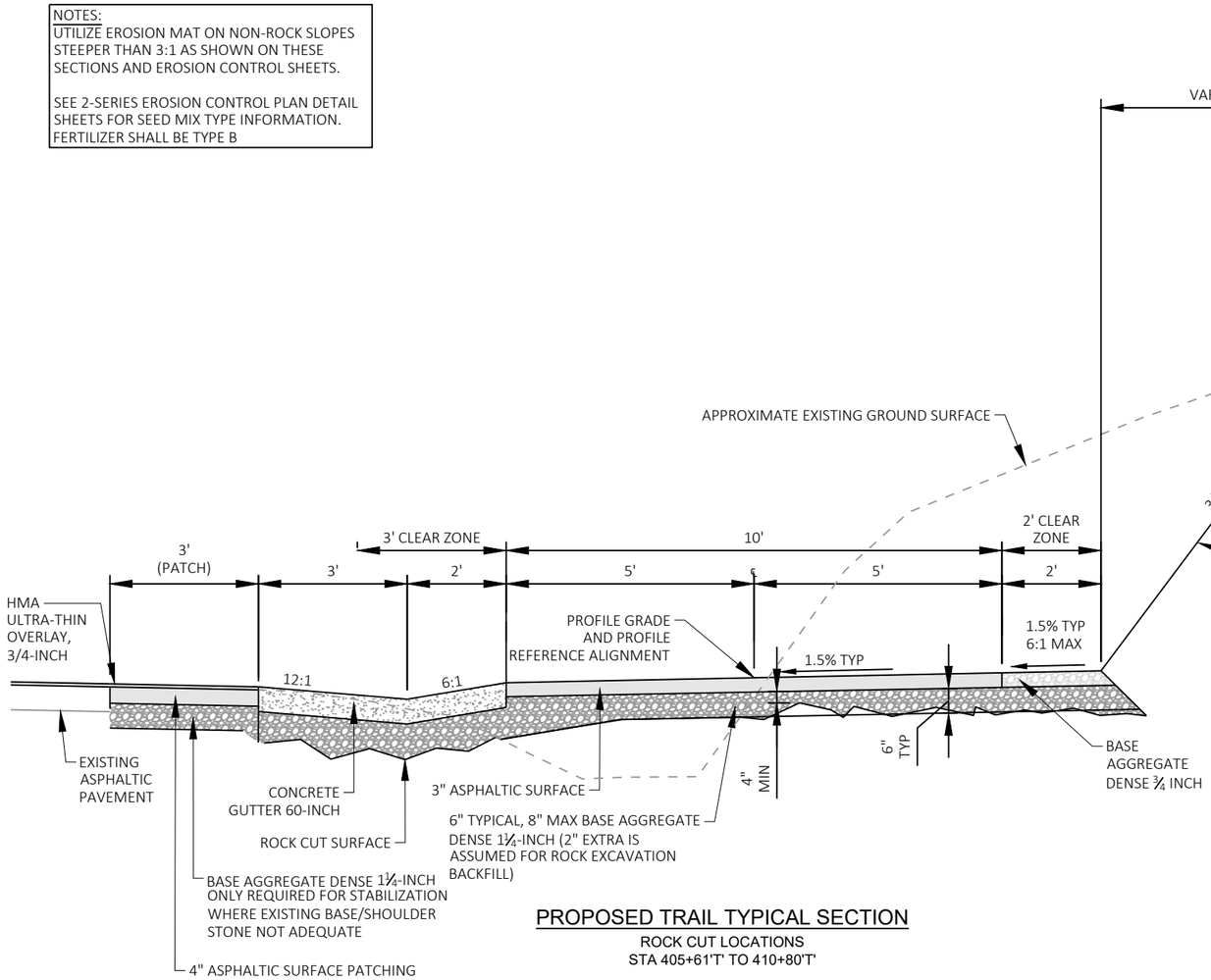
STATION RANGE
402+00'T' TO 402+75'T' RT

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 12	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 9 TYPICAL SECTIONS
PLOT DATE : 12/3/2019 12:09 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:3 FT
WISDOT/CADDS SHEET 42

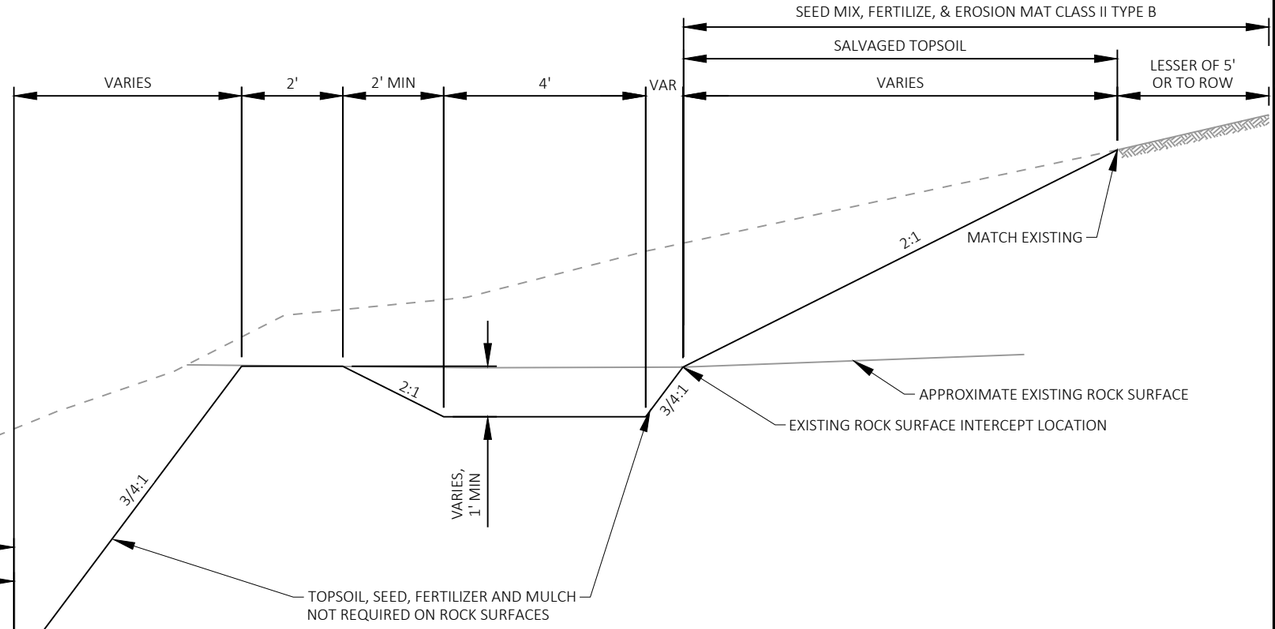
NOTES:
UTILIZE EROSION MAT ON NON-ROCK SLOPES STEEPER THAN 3:1 AS SHOWN ON THESE SECTIONS AND EROSION CONTROL SHEETS.

SEE 2-SERIES EROSION CONTROL PLAN DETAIL SHEETS FOR SEED MIX TYPE INFORMATION. FERTILIZER SHALL BE TYPE B



PROPOSED TRAIL TYPICAL SECTION

ROCK CUT LOCATIONS
STA 405+61'T' TO 410+80'T'

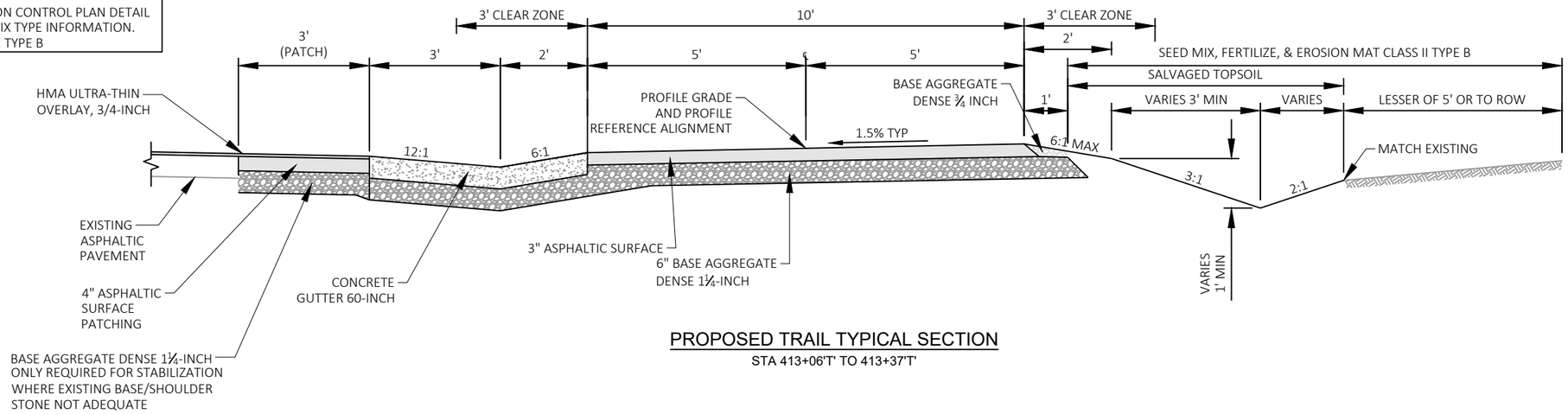


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 10 TYPICAL SECTIONS
PLOT DATE : 12/3/2019 12:09 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:3 FT

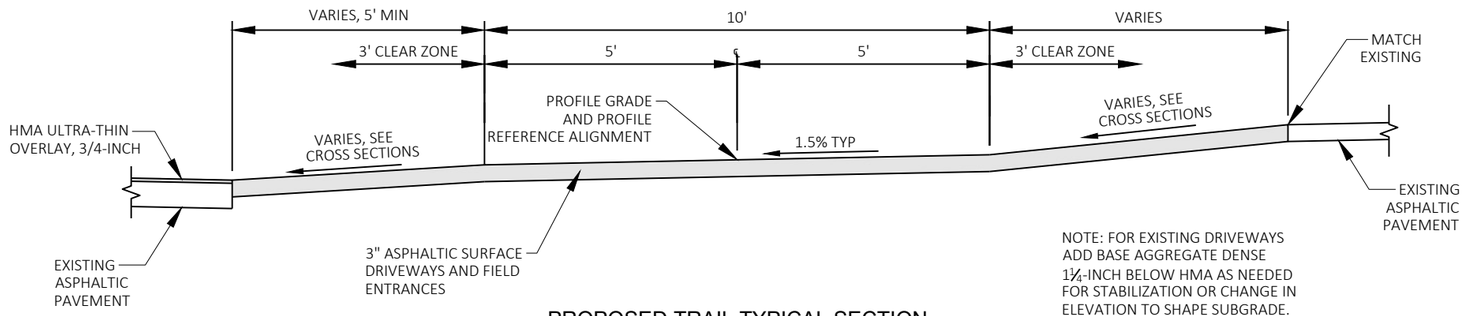
NOTES:
UTILIZE EROSION MAT ON NON-ROCK SLOPES STEEPER THAN 3:1 AS SHOWN ON THESE SECTIONS AND EROSION CONTROL SHEETS.

SEE 2-SERIES EROSION CONTROL PLAN DETAIL SHEETS FOR SEED MIX TYPE INFORMATION.
FERTILIZER SHALL BE TYPE B



PROPOSED TRAIL TYPICAL SECTION

STA 413+06'T' TO 413+37'T'



PROPOSED TRAIL TYPICAL SECTION

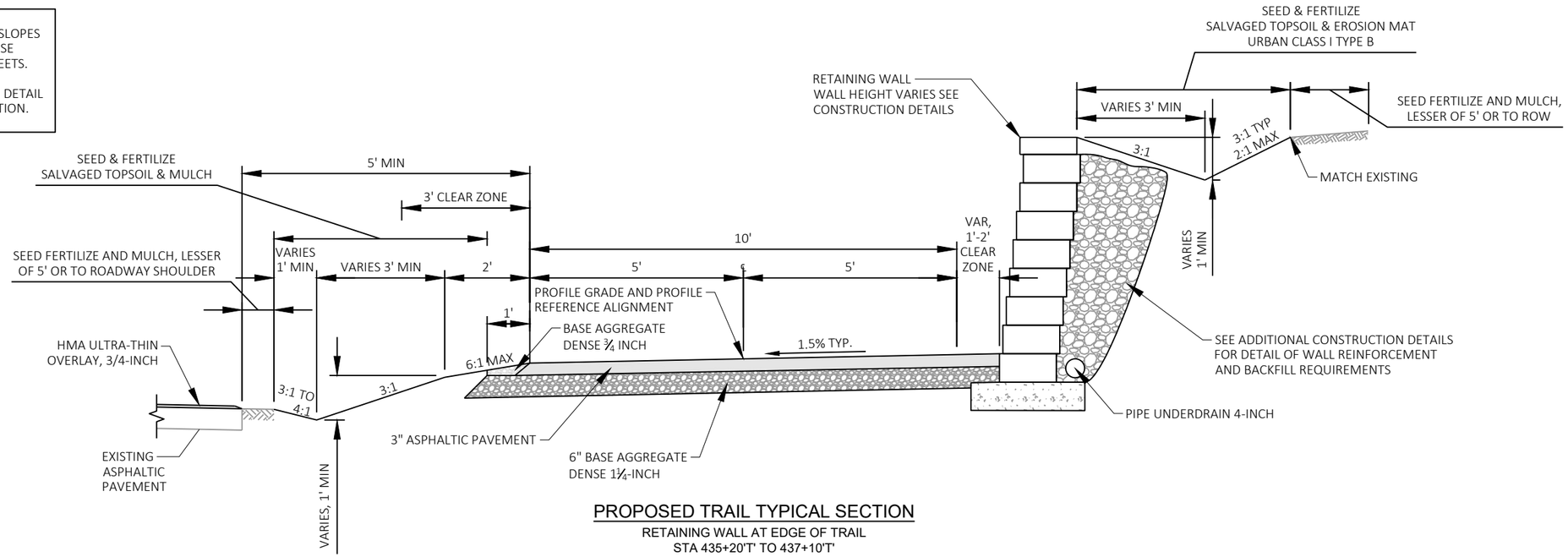
AT DRIVEWAY LOCATIONS

SEE PLAN SHEETS AND CROSS SECTIONS FOR LOCATIONS

NOTE: FOR EXISTING DRIVEWAYS ADD BASE AGGREGATE DENSE 1¼-INCH BELOW HMA AS NEEDED FOR STABILIZATION OR CHANGE IN ELEVATION TO SHAPE SUBGRADE. IF NO EXISTING BASE, USE 6" THICKNESS TYPICAL.

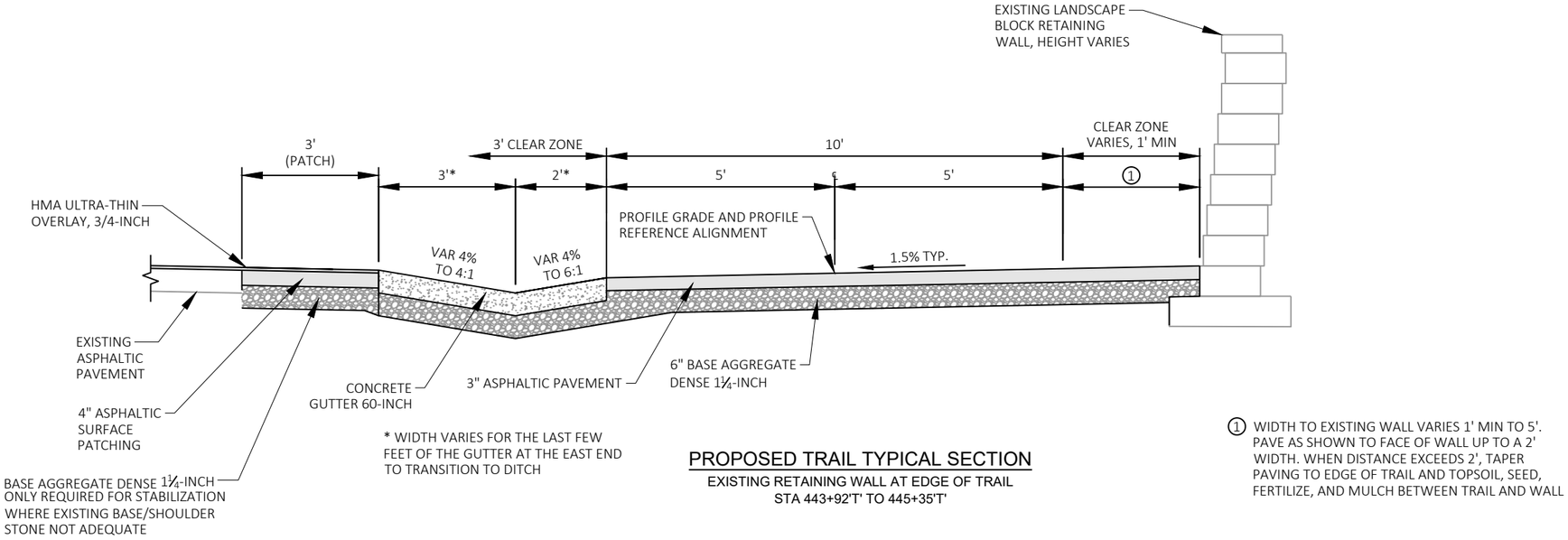
NOTES:
UTILIZE EROSION MAT ON NON-ROCK SLOPES STEEPER THAN 3:1 AS SHOWN ON THESE SECTIONS AND EROSION CONTROL SHEETS.

SEE 2-SERIES EROSION CONTROL PLAN DETAIL SHEETS FOR SEED MIX TYPE INFORMATION. FERTILIZER SHALL BE TYPE B



PROPOSED TRAIL TYPICAL SECTION

RETAINING WALL AT EDGE OF TRAIL
STA 435+20'T' TO 437+10'T'
STA 441+46'T' TO 443+91'T'



* WIDTH VARIES FOR THE LAST FEW FEET OF THE GUTTER AT THE EAST END TO TRANSITION TO DITCH

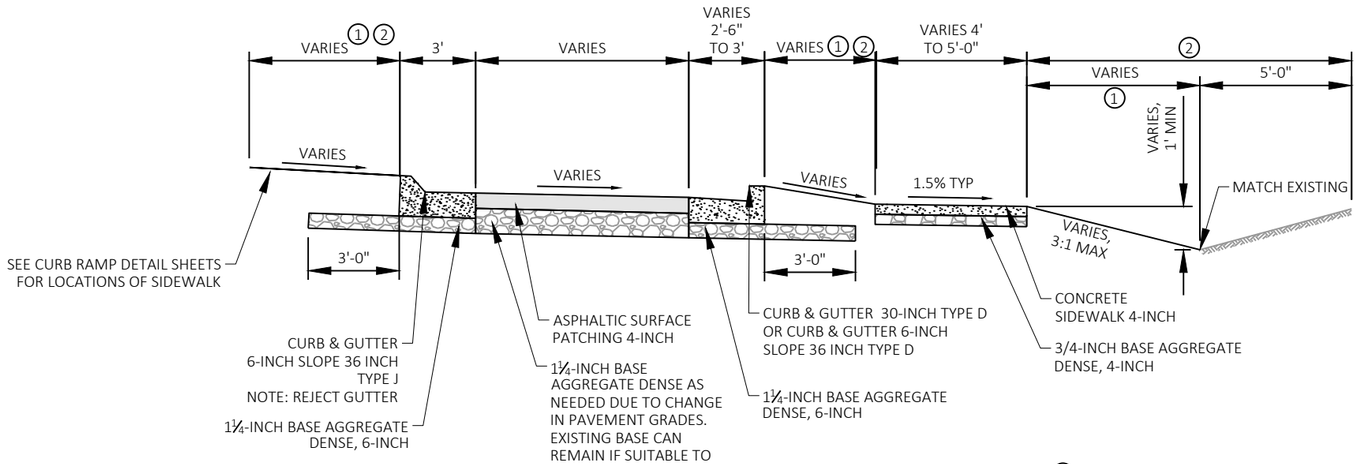
PROPOSED TRAIL TYPICAL SECTION

EXISTING RETAINING WALL AT EDGE OF TRAIL
STA 443+92'T' TO 445+35'T'

① WIDTH TO EXISTING WALL VARIES 1' MIN TO 5'. PAVE AS SHOWN TO FACE OF WALL UP TO A 2' WIDTH. WHEN DISTANCE EXCEEDS 2', TAPER PAVING TO EDGE OF TRAIL AND TOPSOIL, SEED, FERTILIZE, AND MULCH BETWEEN TRAIL AND WALL

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 15	E

2



① SALVAGED TOPSOIL

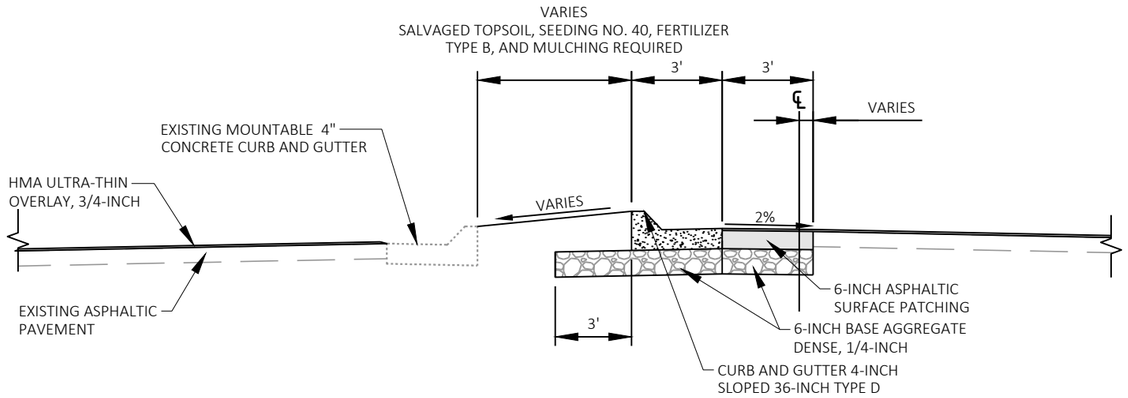
② SEED MIX NO. 40, FERT TYPE B, & MULCH REQD

PROPOSED BUSINESS 151 & MINERAL STREET INTERSECTION

NE CORNER RIGHT TURN LANE
NEAR BUSINESS 151 STA 306+50 LT

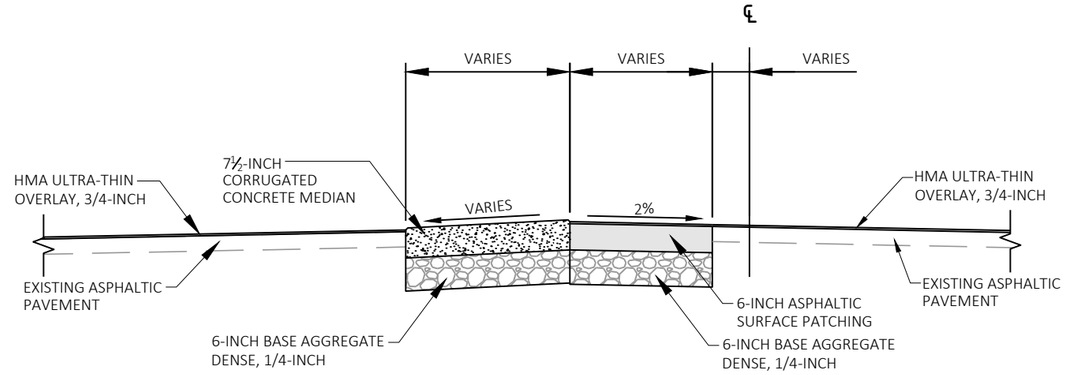
SEE CONSTRUCTION DETAILS FOR
LIMITS OF PAVEMENT REPLACEMENT

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 16	E



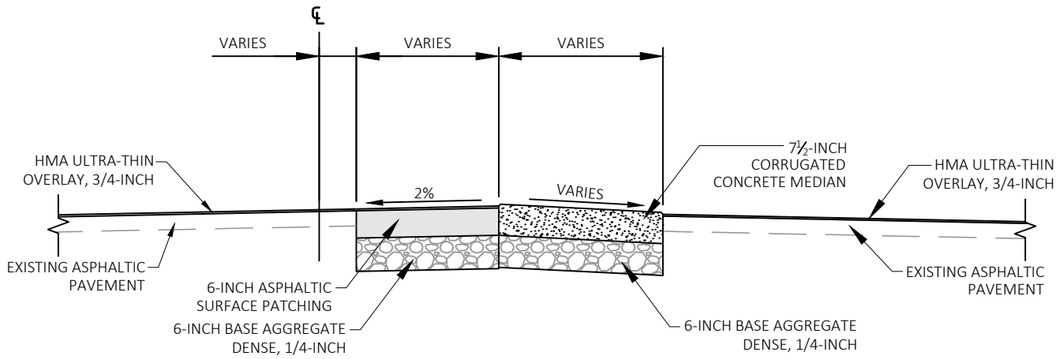
TYPICAL MEDIAN CROSS-SECTION-BUS 151

INSIGHT DRIVE GRASSED MEDIAN (LEFT)
STA 334+58 TO 334+94



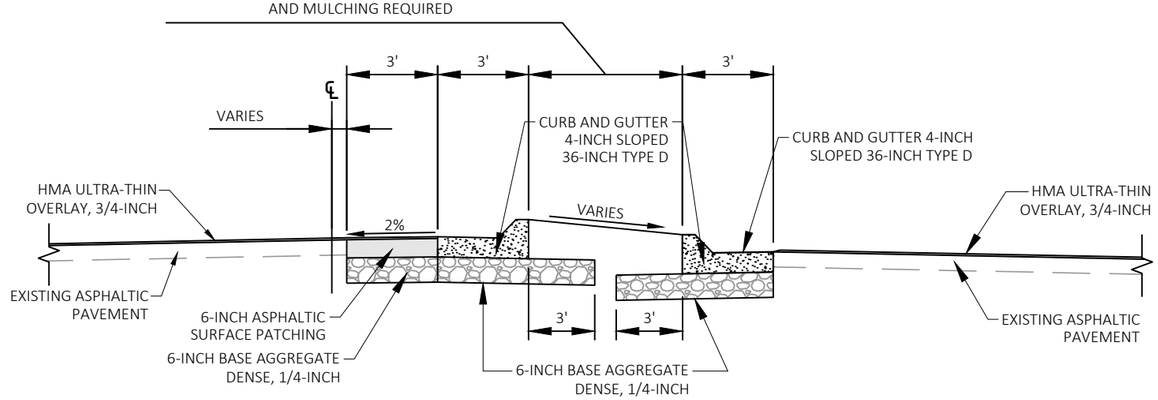
TYPICAL MEDIAN CROSS-SECTION-BUS 151

INSIGHT DRIVE CORRUGATED MEDIAN (LEFT)
STA 334+94 TO 336+88



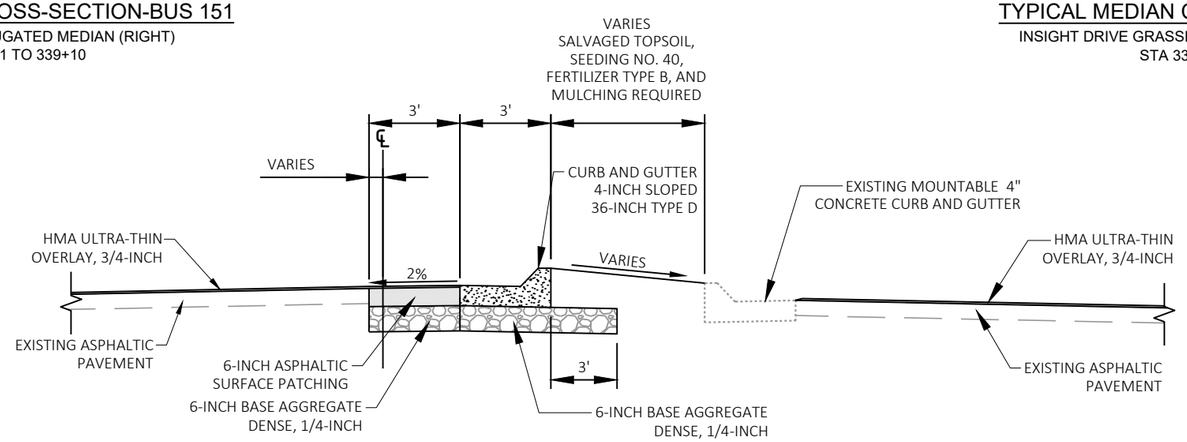
TYPICAL MEDIAN CROSS-SECTION-BUS 151

INSIGHT DRIVE CORRUGATED MEDIAN (RIGHT)
STA 337+91 TO 339+10



TYPICAL MEDIAN CROSS-SECTION-BUS 151

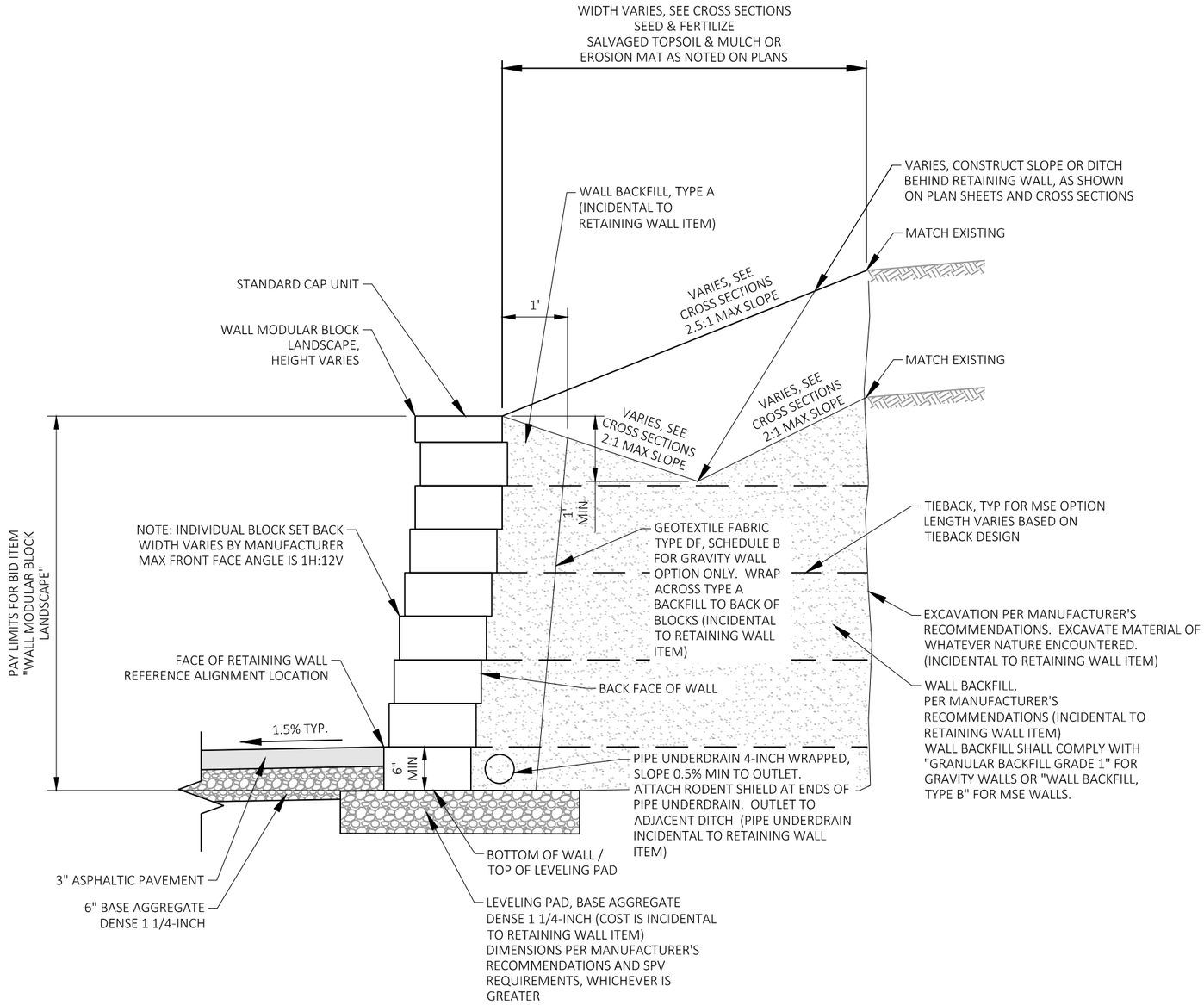
INSIGHT DRIVE GRASSED MEDIAN, NEW CURB (RIGHT)
STA 339+10 TO 339+22



TYPICAL MEDIAN CROSS-SECTION-BUS 151

INSIGHT DRIVE GRASSED MEDIAN (RIGHT)
STA 339+22 TO 339+48

NOTE: 7½-INCH CORRUGATED CONCRETE MEDIAN THICKNESS IS DEPTH DIMENSION REFERENECED IN NOTE 2 ON SDD 11B1. VARIES FROM STANDARD



TYPICAL RETAINING WALL SECTION

GENERAL NOTES

THE PLAN QUANTITY FOR THE BID ITEM "WALL MODULAR BLOCK LANDSCAPE" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO AN ASSUMED DEPTH (MINIMUM 6-INCHES) BELOW FINISHED GRADE (TOP OF LEVELING PAD)

CONTRACTOR HAS OPTION OF USING EITHER GRAVITY WALLS OR MECHANICALLY STABILIZED EARTH WALLS, BUT ONLY ONE TYPE SHALL BE USED WITHIN EACH WALL LOCATION.

WALL APPEARANCE SHALL REASONABLY MATCH BLOCK COLOR AND STYLE OF THE EXISTING WALL NEAR STA 444+00 'T'

EXCAVATION FOR WALL (OF ANY MATERIAL TYPE ENCOUNTERED) IS INCLUDED WITH BID ITEM "WALL MODULAR BLOCK LANDSCAPE"

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF THE WALL UNLESS OTHERWISE NOTED

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK LANDSCAPE"

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

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THE RETAINING WALL DETAILS SHEETS

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 100 PSF EXCEPT FOR BEHIND WALL AT STA 405+00 'T' IN WHICH CASE IT SHALL BE 240 PSF

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

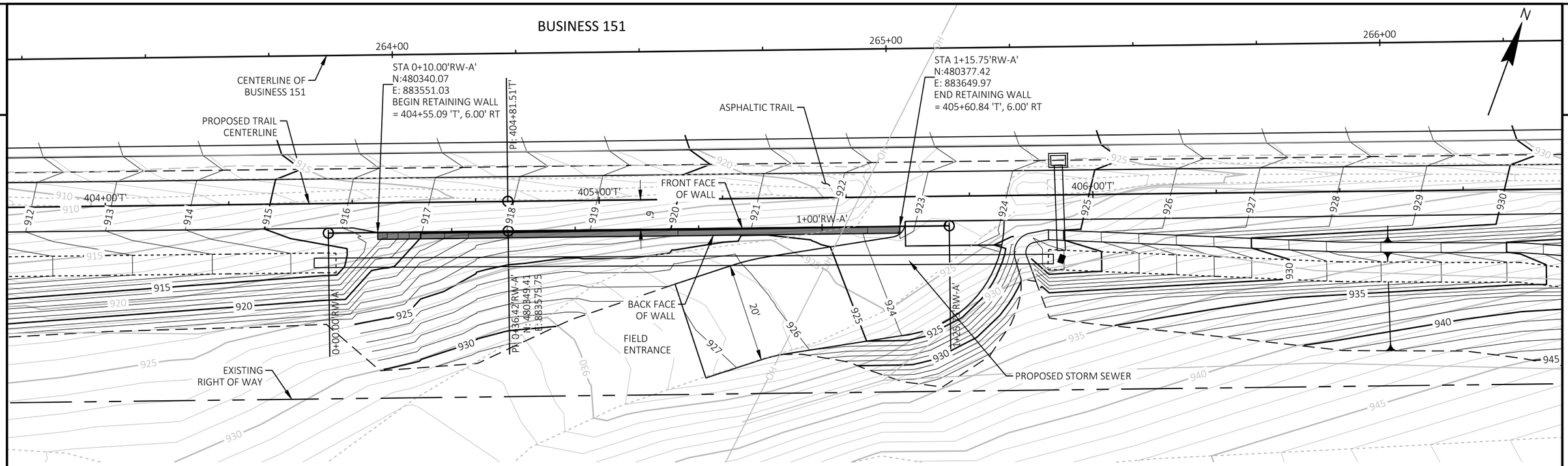
SOIL PARAMETERS

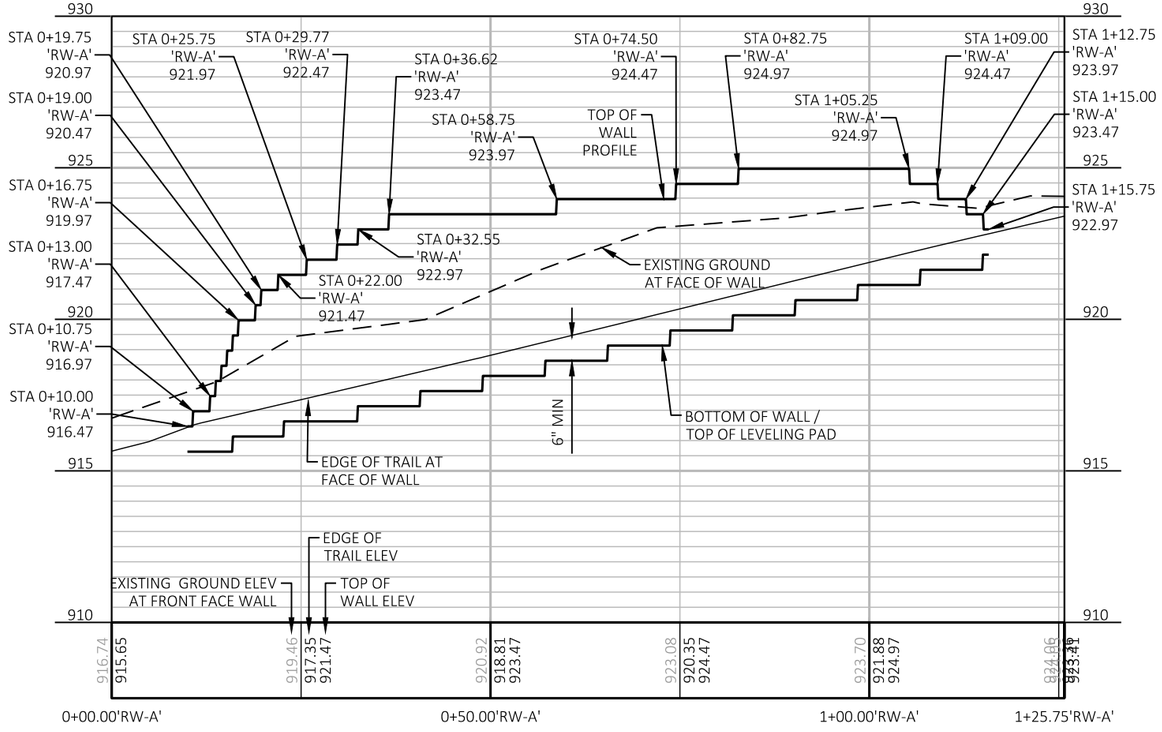
A GEOTECHNICAL EXPLORATION WAS NOT COMPLETED. ASSUMED ALLOWABLE SOIL BEARING CAPACITY = 1000 PSF. HIGHER BEARING CAPACITIES MAY BE USED FOR THE WALL DESIGN IF FIELD VERIFIED AND APPROVED BY ENGINEER.

TOTAL ESTIMATED QUANTITIES

WALL MODULAR BLOCK LANDSCAPE :
STA 405+00 'T' = 485 SF
STA 412+00 'T' = 635 SF
STA 436+00 'T' = 560 SF
STA 443+00 'T' = 945 SF

BUSINESS 151

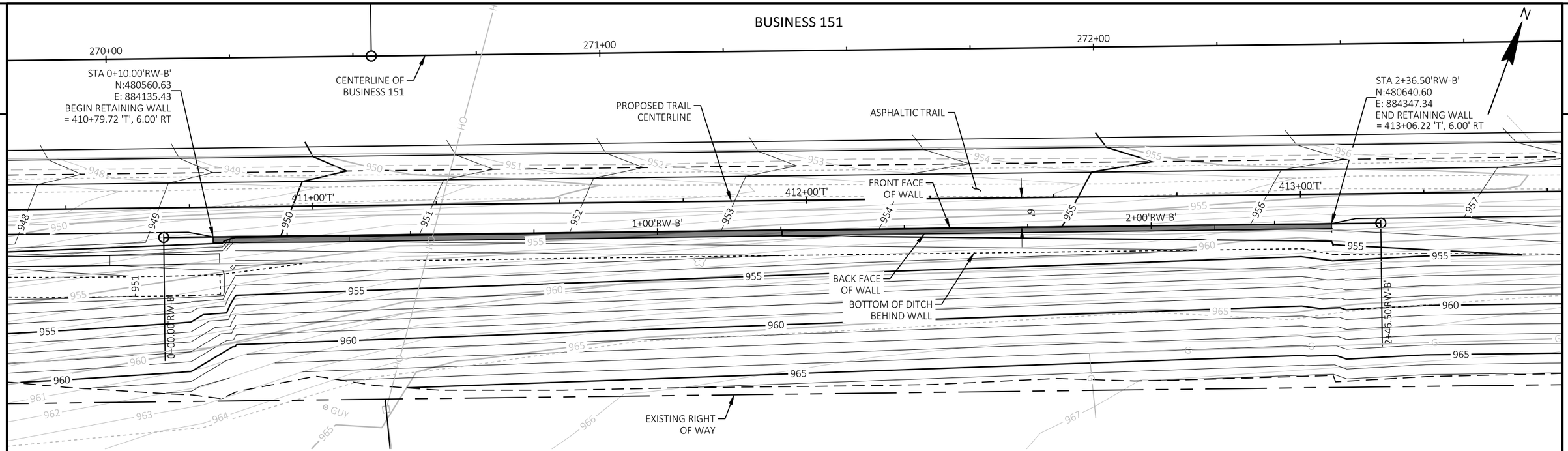


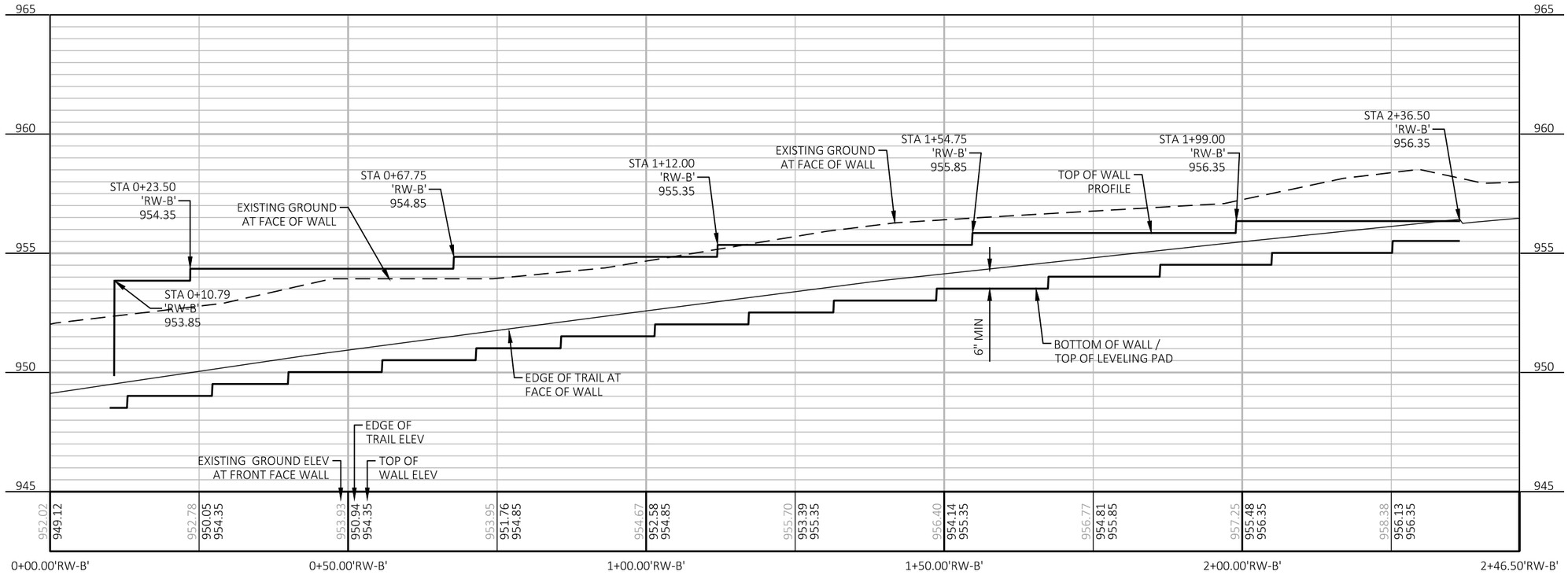


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	RETAINING WALLS - PLAN & PROFILE (STA 405+00'T')	SHEET 19	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021001-CD-RW.DWG
LAYOUT NAME - 021002 RETAINING WALL A P&P
PLOT DATE : 9/15/2015 4:01 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

BUSINESS 151





PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	RETAINING WALLS - PLAN & PROFILE (STA 412+00'T')	SHEET 20	E

BUSINESS 151

294+00 295+00 296+00

STA 0+10.00'RW-C'
N:481404.96
E: 886409.50
BEGIN RETAINING WALL
= 435+20.58 'T', 7.00' RT

CENTERLINE OF
BUSINESS 151

BOTTOM OF DITCH

PROPOSED TRAIL
CENTERLINE

ASPHALTIC TRAIL

STA 1+98.25'RW-C'
N:481472.67
E: 886585.11
END RETAINING WALL
= 437+09.21 'T', 7.00' RT

PC: 435+04.51'T
PT: 435+11.49'T
PC: 435+33.57'T
PT: 435+41.55'T
PC: 437+03.91'T
PT: 437+17.77'T
PC: 437+55.47'T

435+00'T
436+00'T
437+00'T

FRONT FACE
OF WALL

1+00'RW-C'
2+00'RW-C'

PROPOSED CULVERT

CAUTION

CAUTION: EXISTING GAS LINE

PROPOSED CULVERT

EXISTING RIGHT
OF WAY

0+00.00'RW-C'

PC: 0+22.99'RW-C'
N: 481410.49
E: 886421.25

PT: 0+30.41'RW-C'
N: 481443.38
E: 886428.08

BACK FACE
OF WALL

EXISTING RIGHT
OF WAY

BOTTOM OF DITCH BEHIND WALL,
GRADE CONSTANT 1% SLOPE
FROM HIGH POINT TO WEST

DITCH FL HIGH POINT
437+00.00, 11.09' RT
EL 973.27

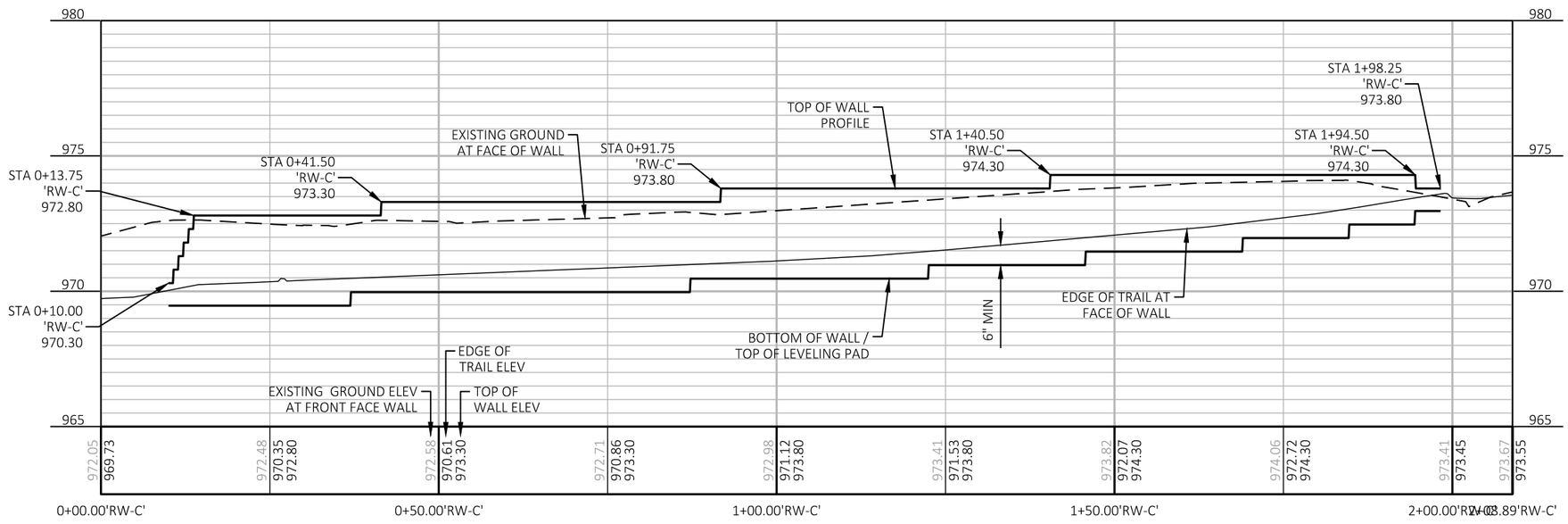
PC: 1+92.76'RW-C'
N: 481470.66
E: 886580.00

PT: 2+07.11'RW-C'
N: 481476.18
E: 886593.24

2+08.89'RW-C'

GRADE TO DRAIN
TO CULVERT FL

NOTE: ALLIANT TO ABANDON STEEL GAS MAIN SHOWN ON THIS SHEET AND RELOCATE MAIN TO THE NORTH SIDE OF BUS 151. SERVICE LINE NEAR STA 437+00 WILL REMAIN IN TRAIL & WALL AREA WITH ADJUSTMENTS. USE CAUTION NEAR REMAINING GAS LINES.



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	RETAINING WALLS - PLAN & PROFILE (STA 436+00'T')	SHEET 21	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021001-CD-RW.DWG
LAYOUT NAME - 021004 RETAINING WALL C P&P

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

BUSINESS 151

N

301+00 302+00 303+00

CENTERLINE OF BUSINESS 151

STA 0+10.00'RW-D'
N:481619.17
E: 886995.57
BEGIN RETAINING WALL
= 441+45.89 'T', 6.00' RT

ASPHALTIC TRAIL

PC: 442+06.51'T'

PT: 442+14.28'T'

R196'

442+00'T'

FRONT FACE OF WALL

1+00'RW-D'

PROPOSED TRAIL CENTERLINE

PROPOSED PVC STORM OUTLET PIPE

443+00'T'

2+00'RW-D'

PC: 443+33.39'T'

R66'

PT: 443+46.94'T'

GRADE DITCH TO DRAIN TO INLET

PC: 443+71.42'T'

R54'

PT: 443+86.09'T'

STA 2+56.03'RW-D'
N:481694.81
E: 887228.95
END RETAINING WALL
AT EDGE OF EXISTING
RETAINING WALL
= 443+92.28 'T', 6.83' RT

444+00'T'

0+00.00'RW-D'

GRADE DITCH AT CONSTANT 1% SLOPE TO WEST

PC: 0+70.62'RW-D'
N: 481637.73
E: 887053.28

PT: 0+78.15'RW-D'
N: 481639.89
E: 887060.49

DITCH FL HIGH POINT
442+66.91, 10.29' RT
EL 977.47

BACK FACE OF WALL

BOTTOM OF DITCH BEHIND WALL

EXISTING RIGHT OF WAY

DITCH FL LOW POINT
443+07.74, 10.29' RT
EL 977.07

DITCH FL HIGH POINT
443+34.74, 10.35' RT
EL 977.35

7.34" MIN DISTANCE BETWEEN FACE OF WALL AND ROW

PVC STORM SEWER INLET AND PIPES COORDINATE PLACEMENT TO AVOID CONFLICT WITH WALL

PC: 1+97.26'RW-D'
N: 481671.93
E: 887175.21

PT: 2+12.17'RW-D'
N: 481677.62
E: 887189.00

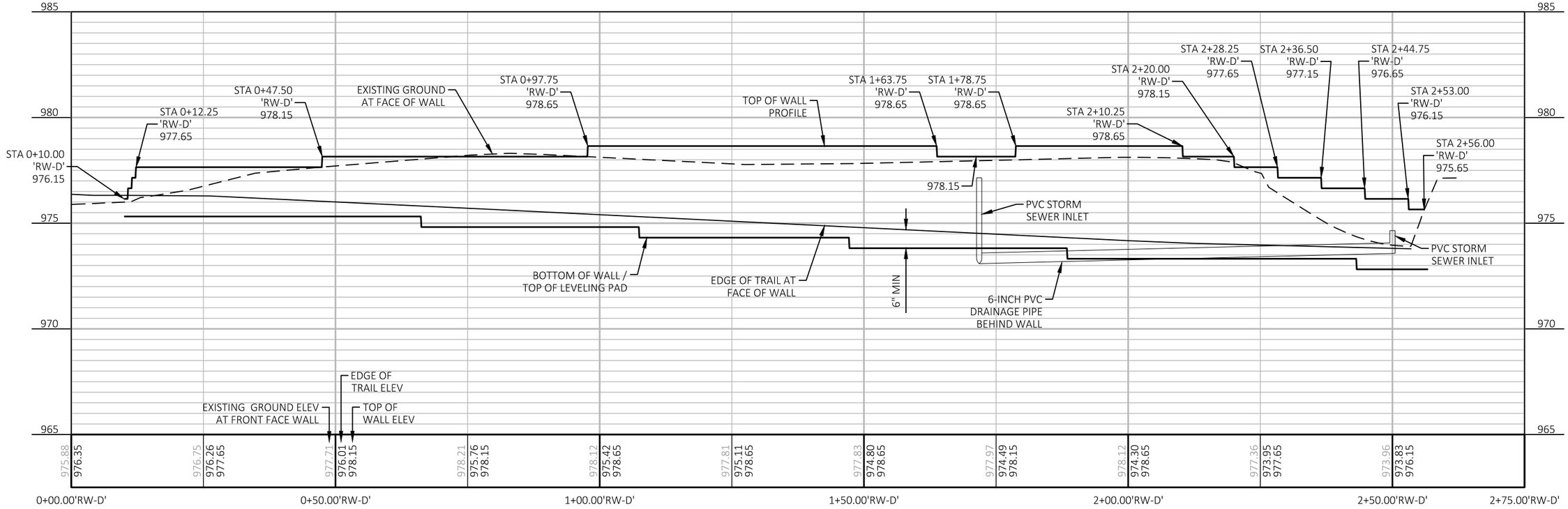
DITCH FL
443+42.35, 10.35' RT
EL 977.27

PC: 2+35.36'RW-D'
N: 481688.60
E: 887200.37

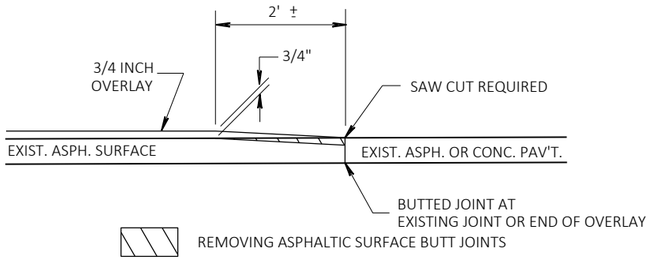
PT: 2+57.2'RW-D'
N: 481694.93
E: 887230.19

PI: 2+58.58'RW-D'
N: 481695.06
E: 887231.50

2+62.14'RW-D'

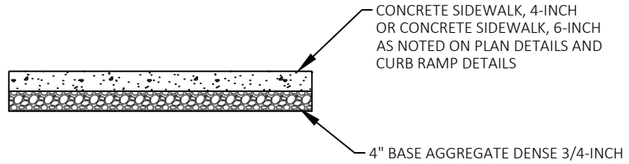


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	RETAINING WALLS - PLAN & PROFILE (STA 443+00'T')	SHEET 22	E



OVERLAP JOINT, BUTTED DETAIL

FOR USE AT BEGIN/END OF OVERLAY AND AT SIDEROADS AS DIRECTED BY THE ENGINEER
LOCATIONS FROM BEGINNING OF PROJECT TO STA 243+48 SHOWN ON 5-SERIES PLAN SHEETS
LOCATIONS FROM STA 252+58 TO STA 339+54 SHOWN ON 2-SERIES PAVEMENT MARKING PLAN DETAIL SHEETS



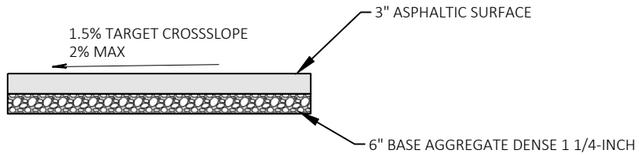
REFER TO STANDARD SPECIFICATIONS FOR
ADDITIONAL DETAILS OF SIDEWALK CONSTRUCTION

SEE CURB RAMP AND PLAN CONSTRUCTION DETAIL
SHEETS FOR LOCATIONS OF SIDEWALK

REFER TO SDD 8D05 FOR DETAILS AT CURB RAMPS

TYPICAL DETAIL, CONCRETE SIDEWALK

AT BUS 151 INTERSECTIONS WITH STALEY AVE, STH
80/81, AND EASTSIDE RD/MINERAL ST



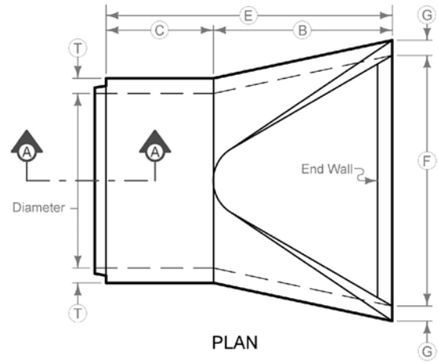
RESTORE TRAIL WHERE DISTURBED WITH TYPICAL SECTION
SHOWN ABOVE.

SIDESLOPES WITHIN 2' OF EXISTING SHALL BE 6:1
MAXIMUM STEEPNESS.

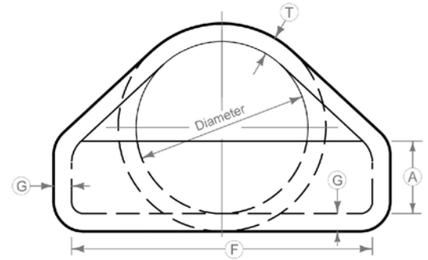
WIDTHS AND ALIGNMENT SHOWN ON 5 SHEETS OR
CONSTRUCTION DETAIL SHEETS.

TYPICAL DETAIL, EXISTING TRAIL PAVEMENT RECONSTRUCTION

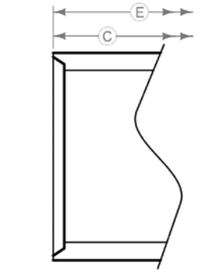
FOR USE AT THE FOLLOWING LOCATIONS:
EXISTING ROUNTREE BRANCH TRAIL CROSSING OF STH 80/81
EXISTING ROUNTREE BRANCH TRAIL AT WEST END OF NEW TRAIL (STA STA 399+94'T')
RECONSTRUCTION OF EXISTING TRAIL, EAST SIDE OF EASTSIDE ROAD



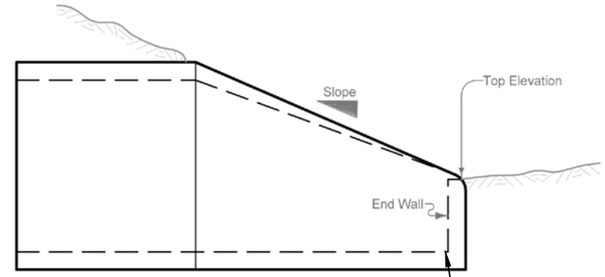
PLAN



END VIEW



SECTION A-A
GROOVE END DETAIL



SIDE VIEW

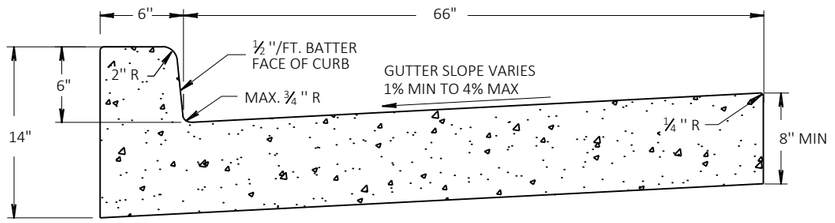
ELEVATION IN MISCELLANEOUS
QUANTITIES TABULATION
REPRESENTS LOWEST FLOWLINE
AT BOTTOM OF END WALL

DIAM.	SLOPE	A	B	MINIMUM C	MINIMUM E	F	G	T
12"	2.4:1	4"	2'-0"	4'-7/8"	6'-7/8"	2'-0"	2"	2"

NOTES:
- TABLE PROVIDES DIMENSIONS FOR 12-INCH DIA CULVERT APRON ENDWALL.
- REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19"X30" DROP APRON: SHOP DRAWING SUBMITTAL REQUIRED FOR HE APRON THAT IS NOT LISTED IN TABLE ABOVE. "A" DIMENSION OF DROP WALL HEIGHT SHALL BE 8 1/2 INCHES. ALL OTHER DIMENSIONS INTENDED TO BE THE SAME AS STANDARD HORIZONTAL ELLIPTICAL.
- APRON SHALL BE PRECAST, EXCEPT THAT VERTICAL END WALL MAY BE PRECAST OR CAST-IN-PLACE. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR A CAST-IN-PLACE END WALL INCLUDING PROPOSED REINFORCING.

DROP APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE

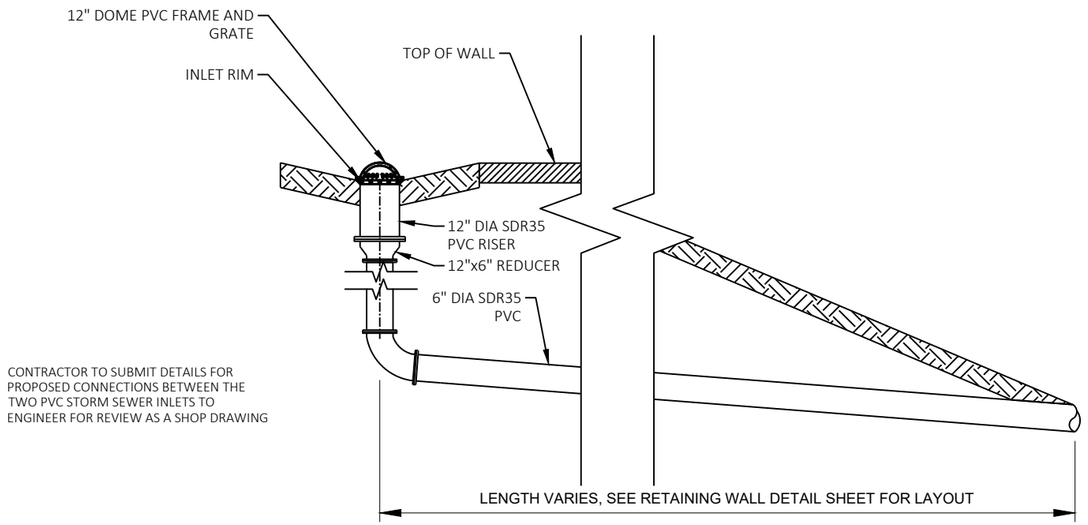
DETAIL FOR APRONS WHICH REQUIRE DROP END WALL:
INLET OF 12" PIPE AT STA 437+15'T' RIGHT
INLET OF 19"X30" HE PIPE AT STA 433+33'T' LEFT



CONCRETE CURB & GUTTER 72-INCH TYPE D

REFER TO SDD 08D1 FOR ADDITIONAL CURB DETAILS.

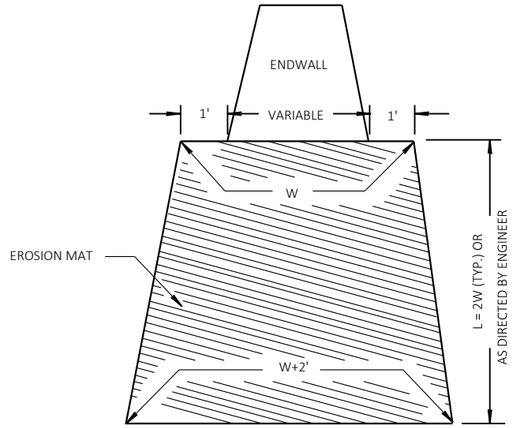
LONGITUDINAL JOINTS IN GUTTER SHALL BE DOWELED.



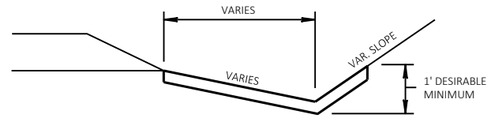
CONTRACTOR TO SUBMIT DETAILS FOR PROPOSED CONNECTIONS BETWEEN THE TWO PVC STORM SEWER INLETS TO ENGINEER FOR REVIEW AS A SHOP DRAWING

PVC STORM SEWER INLET

FOR LOCAL DRAINAGE BEHIND RETAINING WALLS
STA 443+08 RT & 443+85 RT
SEE RETAINING WALL CONSTRUCTION DETAIL SHEETS



EROSION MAT TREATMENT AT CULVERTS



EROSION MAT DETAIL FOR DITCHES

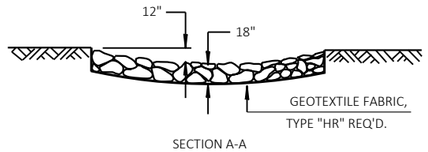
NOTE: DIMENSIONS SHOWN ARE MINIMUM LIMITS FOR MAT. PLACE ADDITIONAL WIDTH AND LENGTH OF MAT AS NECESSARY BASED ON SHAPE OF ADJACENT DITCH, TO ENSURE MAT COVERS SIDESLOPES UP TO AT LEAST 1' OF DITCH DEPTH. CONFIRM PLACEMENT LIMITS WITH ENGINEER.

SEE TABULATIONS, PLAN AND PROFILE, AND EROSION CONTROL PLAN SHEETS FOR MAT TYPES AT SPECIFIC CULVERT OUTLETS.

RUNOFF COEFFICIENT TABLE

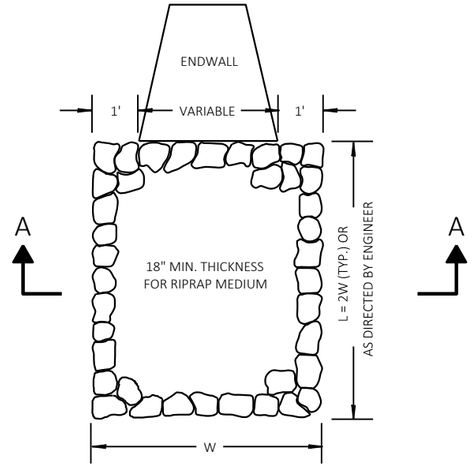
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 25 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.1 ACRES



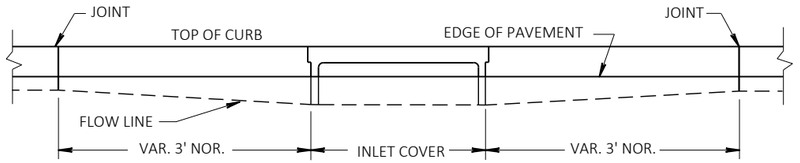
SECTION A-A

NOTE: MATCH ADJACENT DITCH SHAPE AS APPROPRIATE AT CULVERT OUTLET.

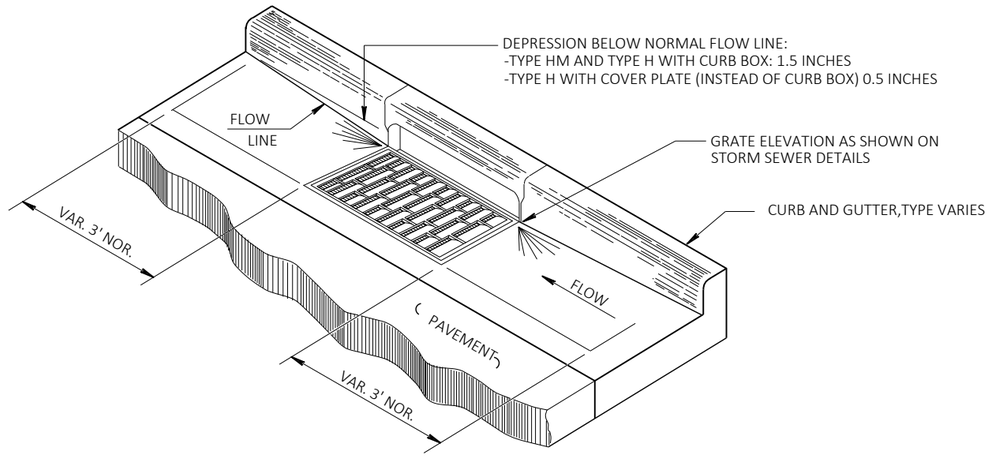


RIPRAP MEDIUM TREATMENT AT CULVERTS

SEE TABULATIONS, PLAN AND PROFILE, AND EROSION CONTROL PLAN SHEETS FOR LOCATIONS

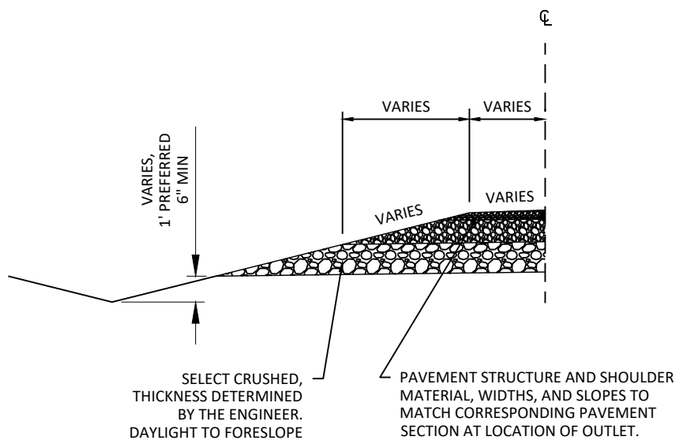


ELEVATION

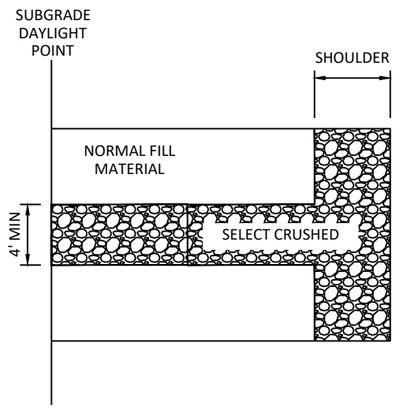


DETAIL OF CURB AND GUTTER AT INLETS

NOTE: TYPE H COVER CURB BOX SHOWN. SAME ELEV REFERENCE POINT AND RELATIONSHIP TO FLOW LINE FOR TYPE HM AND TYPE H WITH COVER PLATE WITH DEPRESSION DEPTH NOTED.

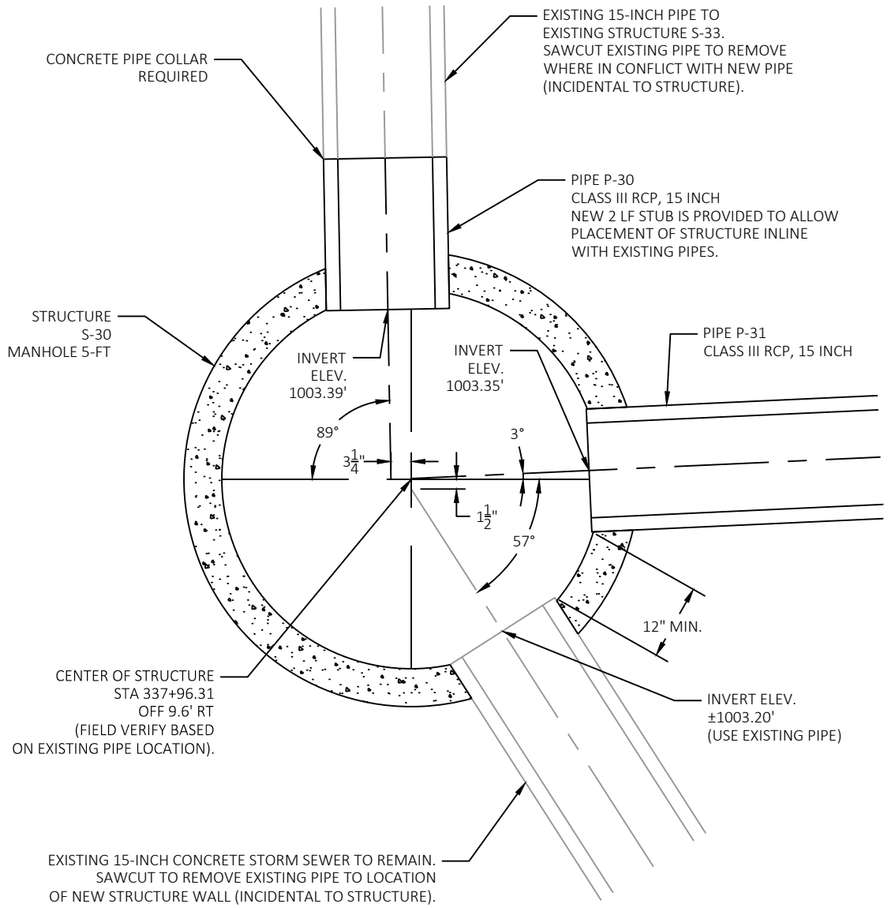


RELIEF TRENCH SECTION VIEW, SELECT CRUSHED FOR SUBGRADE STABILIZATION



SELECT CRUSHED RELIEF TRENCH PLAN VIEW

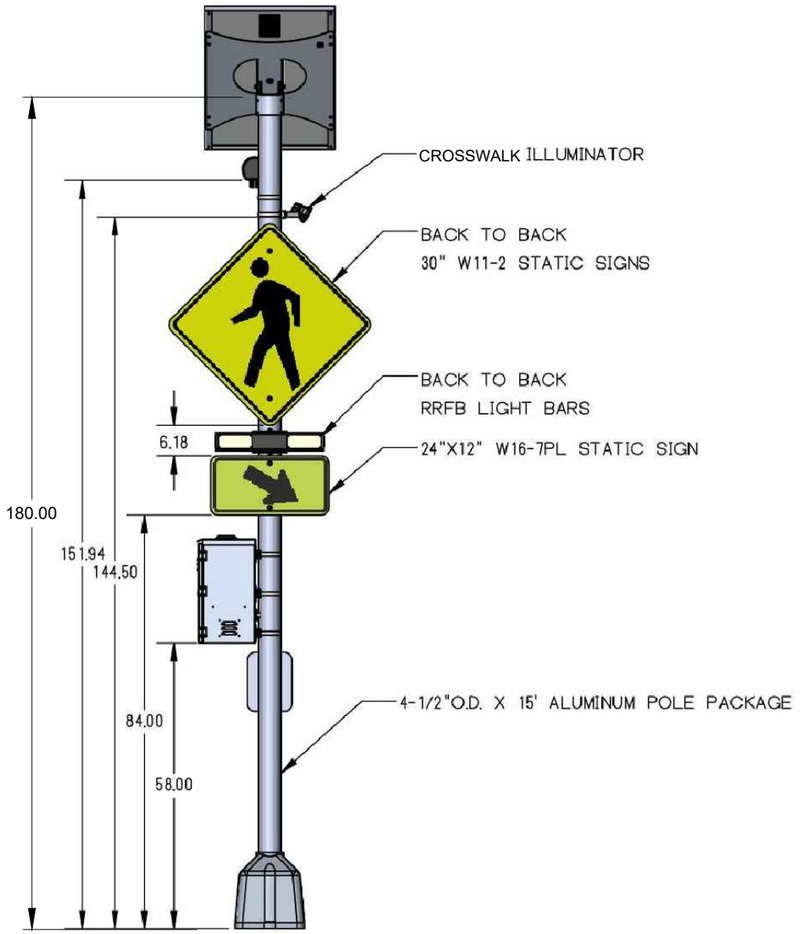
FOR USE UNDER TRAIL OR ROAD PAVEMENT. LOCATIONS TO BE DETERMINED BY THE ENGINEER AS NEEDED IF SELECT CRUSHED MATERIAL IS UTILIZED. PLACE AT LOW POINTS IN SUBGRADE OR AT LOW END OF SUGRADE STABILIZATION AREAS.

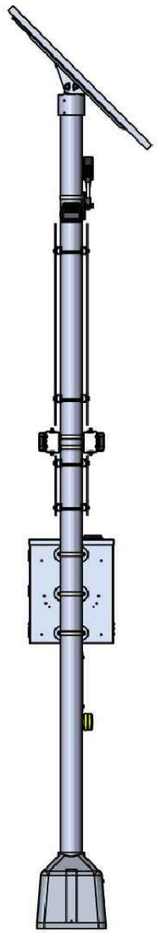


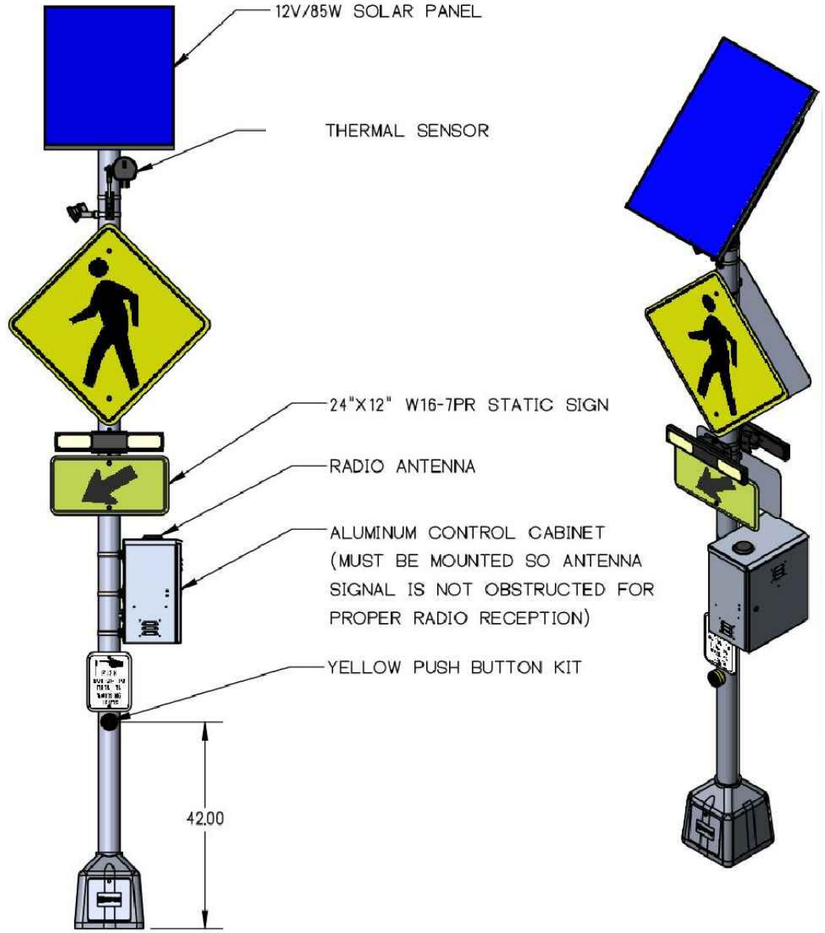
STRUCTURE S-30 LAYOUT DETAIL

STA 337+96.31, OFF 9.6 RT

2







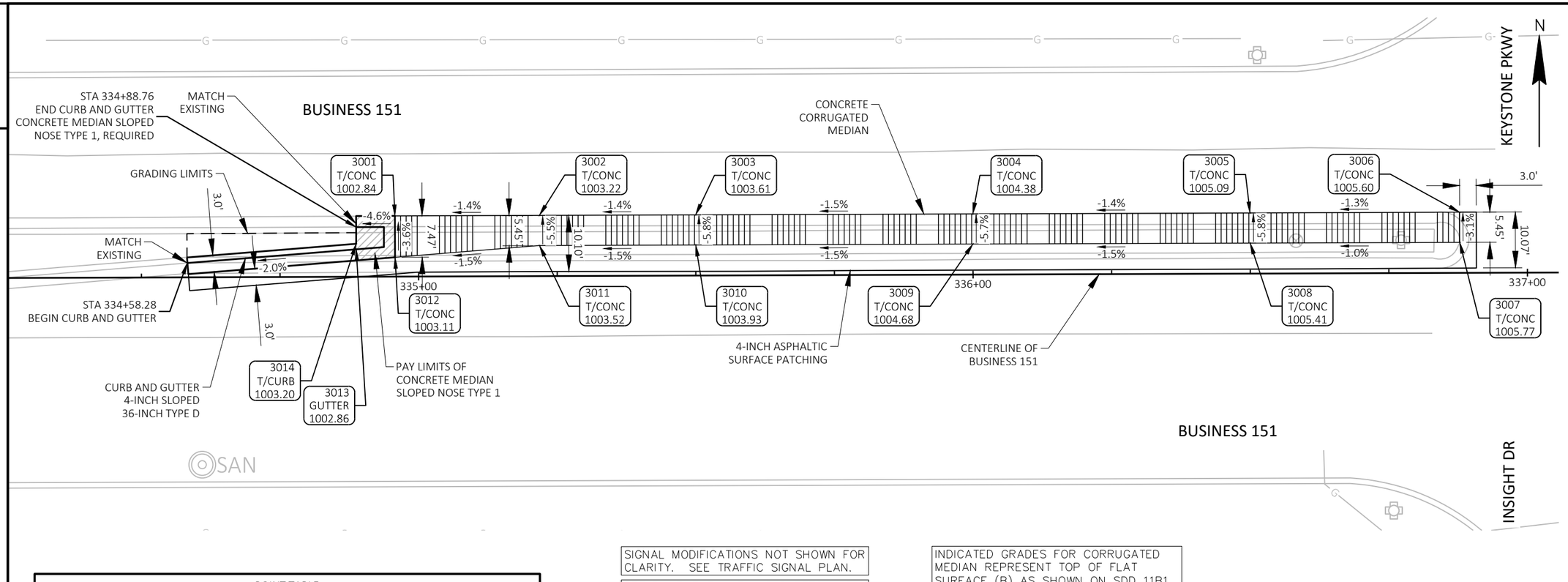
RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM

STA 229+50 RT AND LT

NOTES:

1. ORIENT SOLAR PANEL TOWARDS SOUTHERN SKY FOR MAXIMUM SOLAR EXPOSURE
2. CONTROL CABINET HEIGHT MAY VARY.
3. WORM CLAMPS ARE PROVIDED, STANDARD 3/4" S/S BANDING IS RECOMMENDED
4. J-BOLTS NOT SHOWN
5. ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS WITHOUT NOTED UNITS ARE IN INCHES.

RRFB AT STA 227+00 LT, 227+48 RT, 230+70 LT & 230+70 RT ARE SIMILAR TO THIS DETAIL EXCEPT THEY DO NOT INCLUDE A CROSSWALK ILLUMINATOR, THERMAL SENSOR, YELLOW PUSH BUTTON KIT, AND RRFB LIGHT BARS / SIGNS ARE FACING ONLY ONE DIRECTION (NOT BACK TO BACK). SEE PAVEMENT MARKING & SIGNING SHEETS FOR MORE INFORMATION.



POINT TABLE						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
3001	T/CONC	334+95.76	10.94L	481961.280	890374.689	1002.84
3002	T/CONC	335+21.81	10.94L	481961.371	890400.741	1003.22
3003	T/CONC	335+50.00	10.94L	481961.470	890428.933	1003.61
3004	T/CONC	336+00.00	10.94L	481961.644	890478.932	1004.38
3005	T/CONC	336+50.00	10.94L	481961.818	890528.932	1005.09
3006	T/CONC	336+87.81	10.94L	481961.950	890566.740	1005.60
3007	T/CONC	336+87.81	5.51L	481956.525	890566.759	1005.77
3008	T/CONC	336+50.00	5.51L	481956.393	890528.951	1005.41
3009	T/CONC	336+00.00	5.51L	481956.219	890478.951	1004.68
3010	T/CONC	335+50.00	5.51L	481956.045	890428.952	1003.93
3011	T/CONC	335+21.81	5.51L	481955.946	890400.760	1003.52
3012	T/CONC	334+95.76	3.49L	481953.834	890374.715	1003.11
3013	GUTTER	334+88.76	4.94L	481955.257	890367.710	1002.86
3014	T/CURB	334+88.76	5.95L	481956.267	890367.706	1003.20

SIGNAL MODIFICATIONS NOT SHOWN FOR CLARITY. SEE TRAFFIC SIGNAL PLAN.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

INDICATED GRADES FOR CORRUGATED MEDIAN REPRESENT TOP OF FLAT SURFACE (B) AS SHOWN ON SDD 11B1

NOTE: ALL GRADES AT TIE INS TO EXISTING PAVING SHOULD BE VERIFIED AGAINST EXISTING PAVEMENT AT THAT LOCATION. INTENT OF CORRUGATED MEDIAN IS TO BE ¾ INCHES ABOVE TOP OF OVERLAY SURFACING.

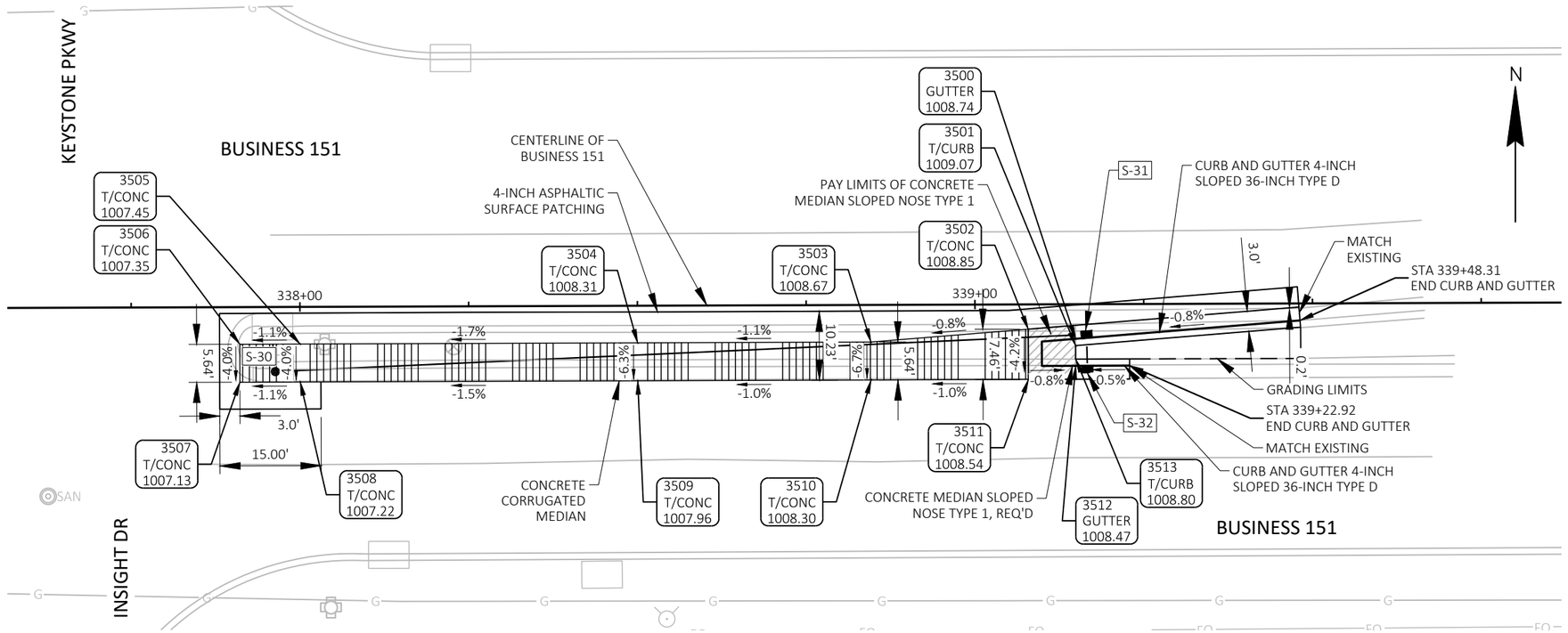
SIGNAL MODIFICATIONS NOT SHOWN FOR CLARITY. SEE TRAFFIC SIGNAL PLAN.

SEE 5–SERIES SHEET, CONSTRUCTION DETAILS, AND TABULATIONS FOR STORM SEWER INFORMATION

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

INDICATED GRADES FOR CORRUGATED MEDIAN REPRESENT TOP OF FLAT SURFACE (B) AS SHOWN ON SDD 11B1

NOTE: ALL GRADES AT TIE INS TO EXISTING PAVING SHOULD BE VERIFIED AGAINST EXISTING PAVEMENT AT THAT LOCATION. INTENT OF CORRUGATED MEDIAN IS TO BE ¾ INCHES ABOVE TOP OF OVERLAY SURFACING.

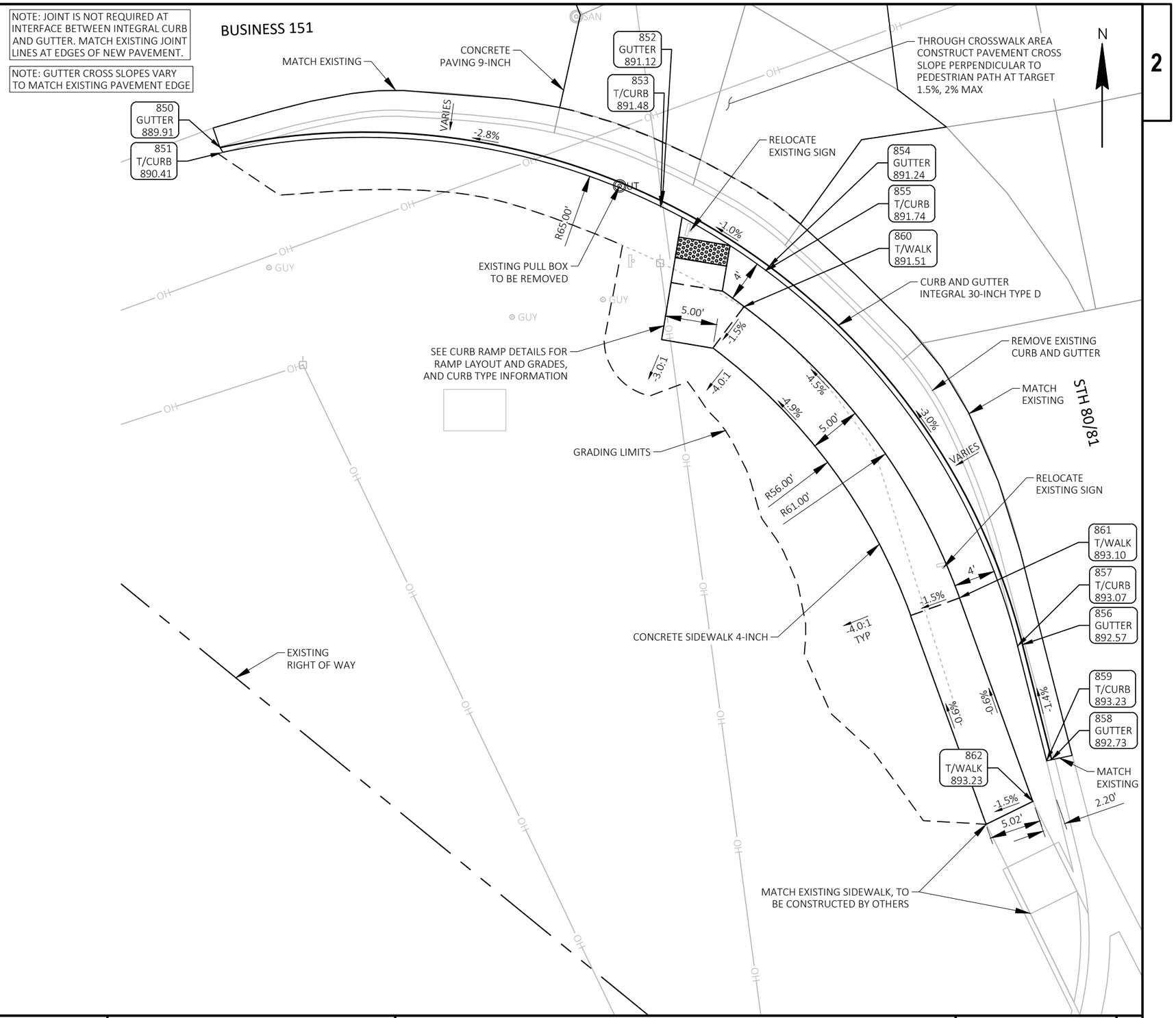


POINT TABLE						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
3500	GUTTER	339+14.89	5.13R	481946.681	890793.873	1008.74
3501	T/CURB	339+14.89	6.14R	481945.671	890793.876	1009.07
3502	T/CONC	339+07.89	3.68R	481948.099	890786.868	1008.85
3503	T/CONC	338+84.57	5.51R	481946.192	890763.556	1008.67
3504	T/CONC	338+50.00	5.51R	481946.071	890728.989	1008.31
3505	T/CONC	338+00.00	5.51R	481945.897	890678.989	1007.45
3506	T/CONC	337+91.07	5.51R	481945.866	890670.056	1007.35
3507	T/CONC	337+91.07	11.13R	481940.250	890670.076	1007.13
3508	T/CONC	338+00.00	11.13R	481940.282	890679.008	1007.22
3509	T/CONC	338+50.00	11.13R	481940.456	890729.008	1007.96
3510	T/CONC	338+84.57	11.13R	481940.577	890763.575	1008.30
3511	T/CONC	339+07.89	11.13R	481940.658	890786.894	1008.54
3512	GUTTER	339+14.89	9.14R	481942.672	890793.887	1008.47
3513	T/CURB	339+14.89	8.13R	481943.682	890793.883	1008.80

POINT TABLE						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
850	GUTTER	802+51.46	98.65L	479719.796	881937.756	889.91
851	T/CURB	802+51.01	98.65L	479719.306	881937.858	890.41
852	GUTTER	802+39.08	57.93L	479714.607	881980.366	891.12
853	T/CURB	802+38.67	58.21L	479714.124	881980.181	891.48
854	GUTTER	802+31.31	49.22L	479708.357	881990.630	891.24
855	T/CURB	802+31.00	49.61L	479707.953	881990.317	891.74
856	GUTTER	801+92.06	34.21L	479671.902	882015.062	892.57
857	T/CURB	801+92.07	34.71L	479671.779	882014.576	893.07
858	GUTTER	801+80.90	34.46L	479660.843	882017.867	892.73
859	T/CURB	801+80.92	34.96L	479660.719	882017.382	893.23
860	T/WALK	802+28.24	52.41L	479704.475	881988.219	891.51
861	T/WALK	801+97.73	38.92L	479676.400	882008.978	893.10
862	T/WALK	801+77.60	37.30L	479656.805	882016.051	893.23

NOTE: JOINT IS NOT REQUIRED AT INTERFACE BETWEEN INTEGRAL CURB AND GUTTER. MATCH EXISTING JOINT LINES AT EDGES OF NEW PAVEMENT.

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT EDGE

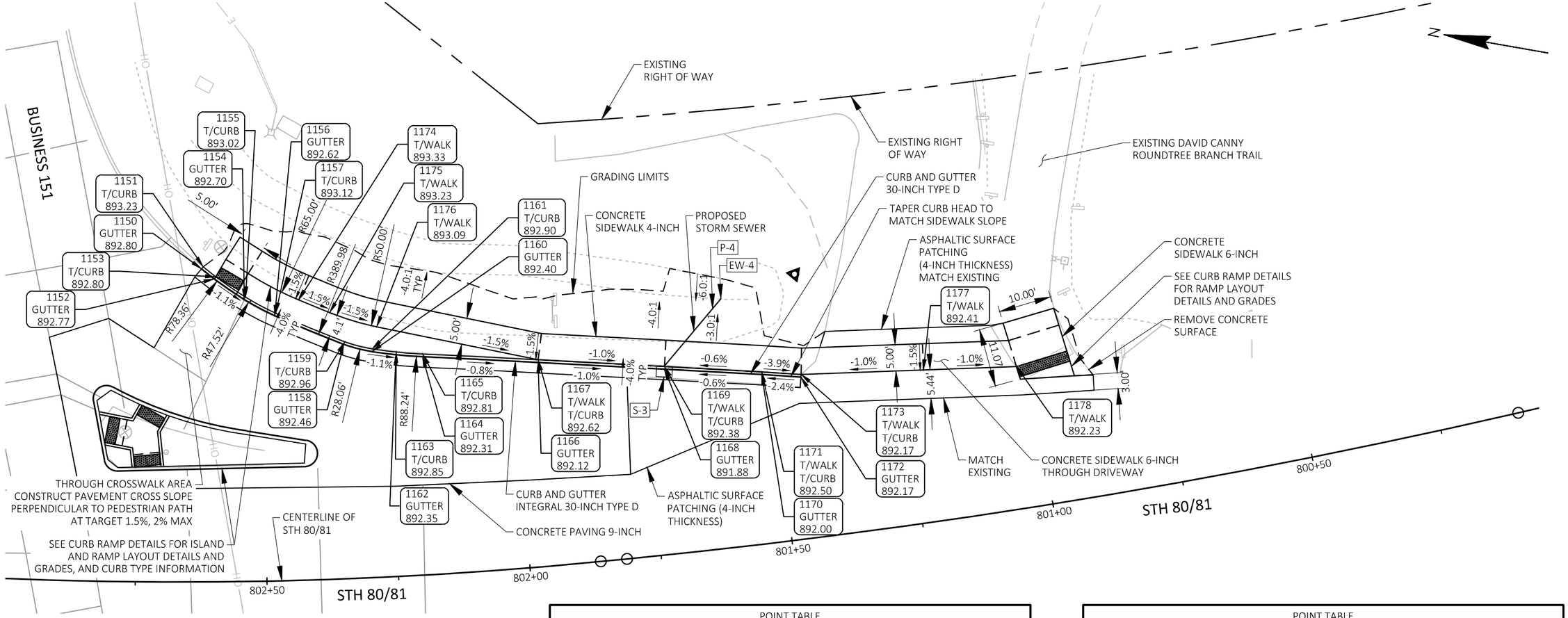


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN DETAILS - SW 80-81 SIDEWALK CONNECTION	SHEET 29	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 1 PLAN DETAILS - SW 80-81 SIDEWALK CONNECTION

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



NOTE: JOINT IS NOT REQUIRED AT INTERFACE BETWEEN INTEGRAL CURB AND GUTTER. MATCH EXISTING JOINT LINES AT EDGES OF NEW PAVEMENT.

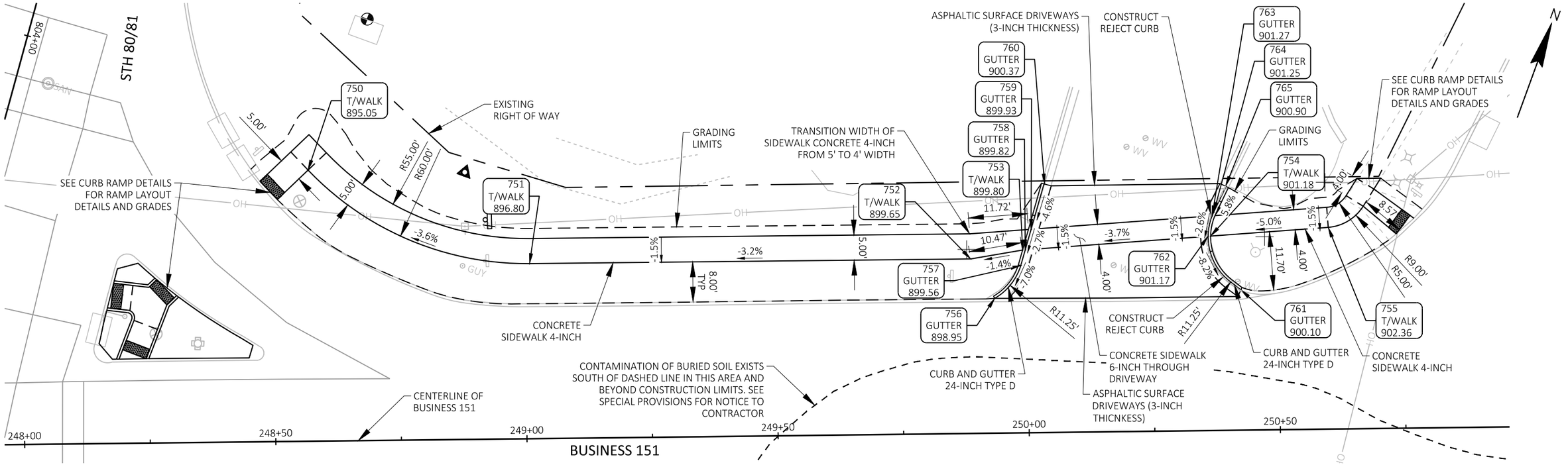
POINT TABLE

POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
1150	GUTTER	802+62.12	59.45R	479759.820	882091.092	892.80
1151	T/CURB	802+61.78	59.84R	479759.572	882091.538	893.23
1152	GUTTER	802+59.51	57.51R	479757.086	882089.629	892.77
1153	T/CURB	802+59.19	57.91R	479756.859	882090.074	892.80
1154	GUTTER	802+53.48	53.55R	479750.825	882086.773	892.70
1155	T/CURB	802+53.19	53.97R	479750.638	882087.237	893.02
1156	GUTTER	802+47.37	50.35R	479744.592	882084.743	892.62
1157	T/CURB	802+47.14	50.81R	479744.472	882085.238	893.12
1158	GUTTER	802+33.64	44.48R	479730.730	882081.642	892.46
1159	T/CURB	802+33.44	44.95R	479730.641	882082.144	892.96
1160	GUTTER	802+28.11	42.89R	479725.276	882081.224	892.40
1161	T/CURB	802+28.01	43.39R	479725.287	882081.733	892.90
1162	GUTTER	802+23.29	42.07R	479720.636	882081.444	892.35
1163	T/CURB	802+23.21	42.57R	479720.674	882081.953	892.85
1164	GUTTER	802+18.02	41.43R	479715.616	882081.960	892.31

POINT TABLE

POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
1165	T/CURB	802+17.96	41.93R	479715.681	882082.466	892.81
1166	GUTTER	801+95.10	38.73R	479693.830	882084.692	892.12
1167		801+95.03	39.23R	479693.891	882085.188	892.62
1168	GUTTER	801+70.66	35.12R	479669.982	882087.602	891.88
1169		801+70.57	35.62R	479670.042	882088.098	892.38
1170	GUTTER	801+51.95	32.02R	479651.615	882089.798	892.00
1171		801+51.85	32.51R	479651.670	882090.295	892.50
1172	GUTTER	801+44.43	30.63R	479644.189	882090.620	892.17
1173		801+44.33	31.14R	479644.247	882091.137	892.17
1174	T/WALK	802+42.43	53.23R	479740.634	882088.491	893.33
1175	T/WALK	802+36.22	50.63R	479734.407	882087.138	893.23
1176	T/WALK	802+26.87	47.54R	479725.154	882086.022	893.09
1177	T/WALK	801+20.68	28.84R	479621.535	882095.980	892.41
1178	T/WALK	801+02.75	26.83R	479604.255	882099.681	892.23

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN DETAILS - SE 80-81 SIDEWALK CONNECTION	SHEET 30	E



POINT TABLE						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	Y	X	ELEVATION
750	T/WALK	248+57.04	54.02L	479880.120	882079.056	895.05
751	T/WALK	249+00.92	34.88L	479877.695	882126.867	896.80
752	T/WALK	249+88.77	34.76L	479908.607	882209.075	899.65
753	T/WALK	249+99.11	36.41L	479913.798	882218.163	899.80
754	T/WALK	250+36.58	38.73L	479929.215	882252.388	901.18
755	T/WALK	250+60.01	40.18L	479938.856	882273.791	902.36
756	GUTTER	249+93.46	26.85L	479902.863	882216.250	898.95
757	GUTTER	249+98.71	33.30L	479910.754	882218.883	899.56
758	GUTTER	249+99.64	36.44L	479914.016	882218.648	899.82
759	GUTTER	250+00.86	40.52L	479918.265	882218.341	899.93
760	GUTTER	250+03.65	49.50L	479927.654	882217.777	900.37
761	GUTTER	250+42.47	27.96L	479921.222	882261.715	900.10
762	GUTTER	250+36.08	38.70L	479929.009	882251.931	901.17
763	GUTTER	250+36.93	42.76L	479933.109	882251.293	901.27
764	GUTTER	250+37.25	43.47L	479933.892	882251.345	901.25
765	GUTTER	250+39.67	48.63L	479939.567	882251.784	900.90

NOTE: GUTTER CROSS SLOPES
VARY TO PROVIDE DRAINAGE

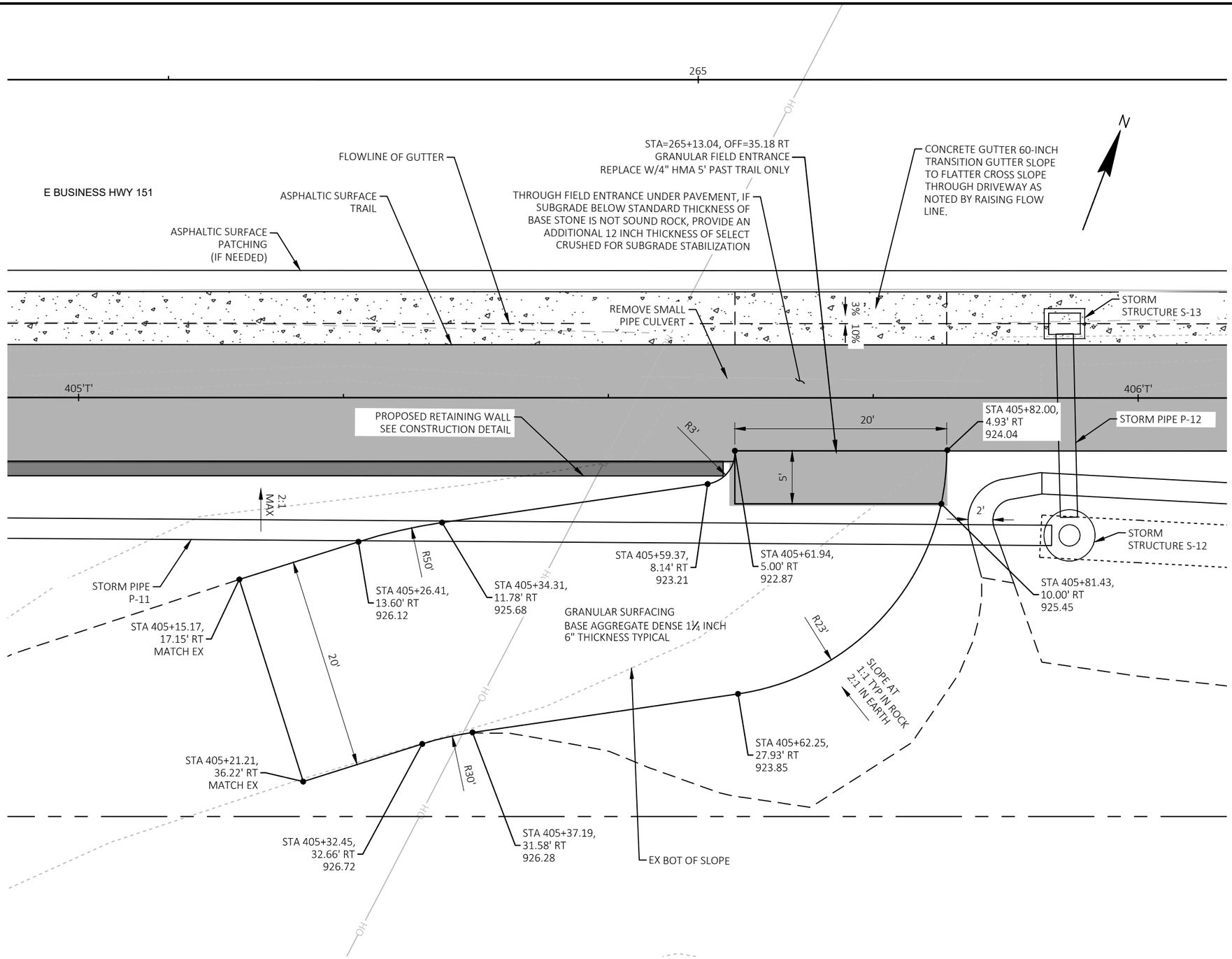
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN DETAILS - SIDEWALK CONNECTION TO ELLEN ST	SHEET 31	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 3 PLAN DETAILS - SIDEWALK CONNECTION TO ELLEN ST
PLOT DATE : 9/15/2015 4:01 PM PLOT BY : ERIC URE PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

SEE TRAIL PLAN AND PROFILE SHEET FOR ADDITIONAL DETAILS OF WORK WITHIN BUSINESS 151 ROW, INCLUDING TRAIL PROFILE AND GRADES

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

SEE TABULATIONS FOR STORM SEWER INFORMATION.



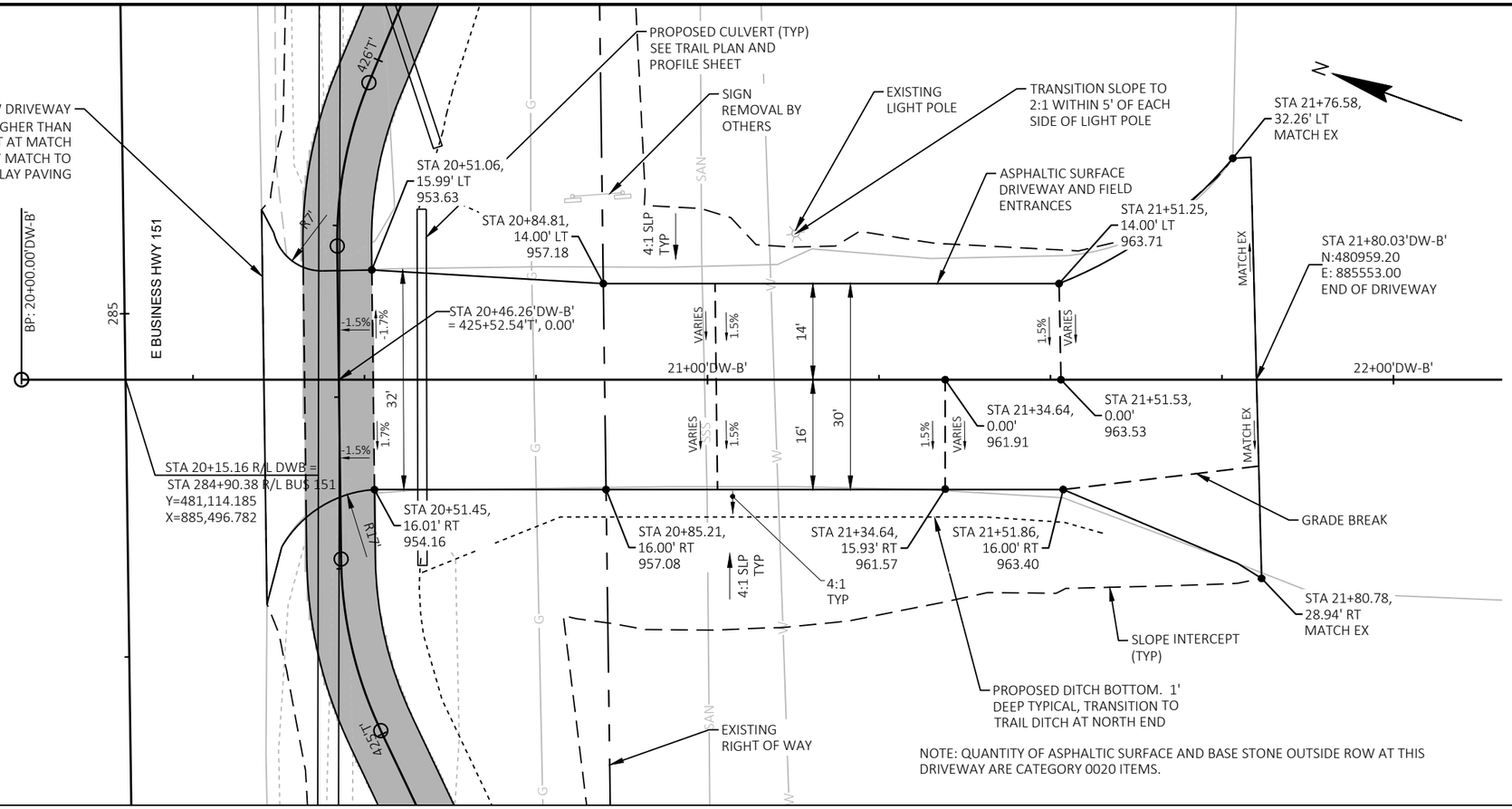
FIELD ENTRANCE DETAIL STA 265+13.04

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	FIELD ENTRANCE STA 265+13.04	SHEET 32	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021210-PD-PFDWY.DWG
LAYOUT NAME - 4 FIELD ENTRANCE STA 265+13.04

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:10 FT

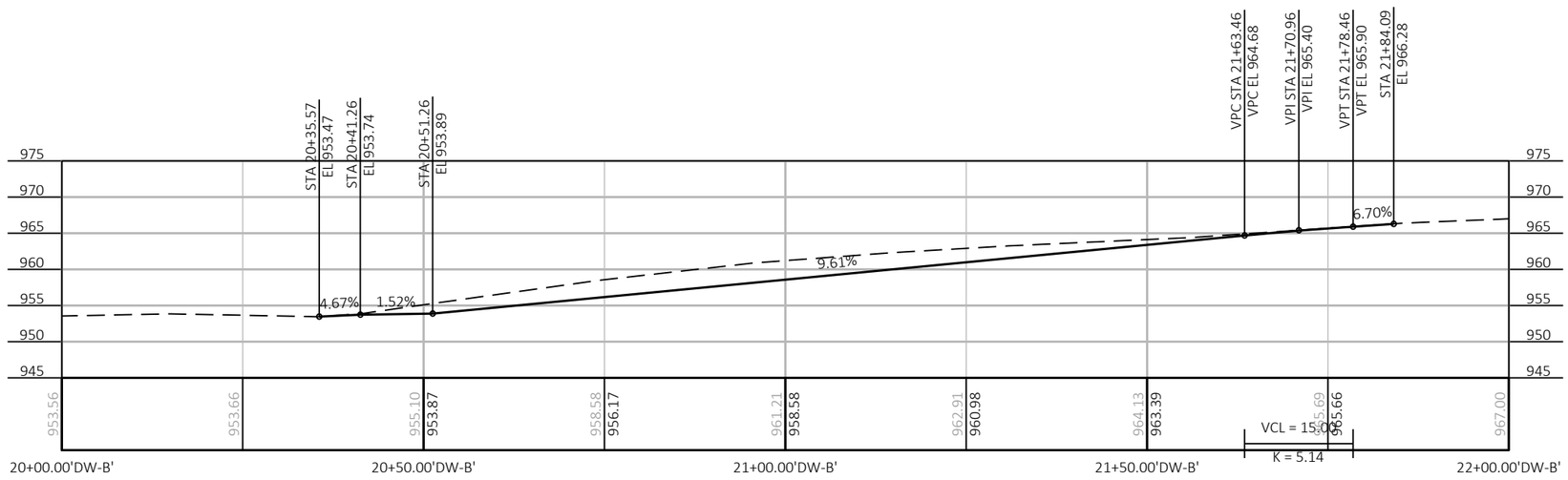
WISDOT/CADDS SHEET 44



SEE TRAIL PLAN AND PROFILE SHEET FOR ADDITIONAL DETAILS OF WORK WITHIN BUSINESS 151 ROW, INCLUDING TRAIL PROFILE AND GRADES

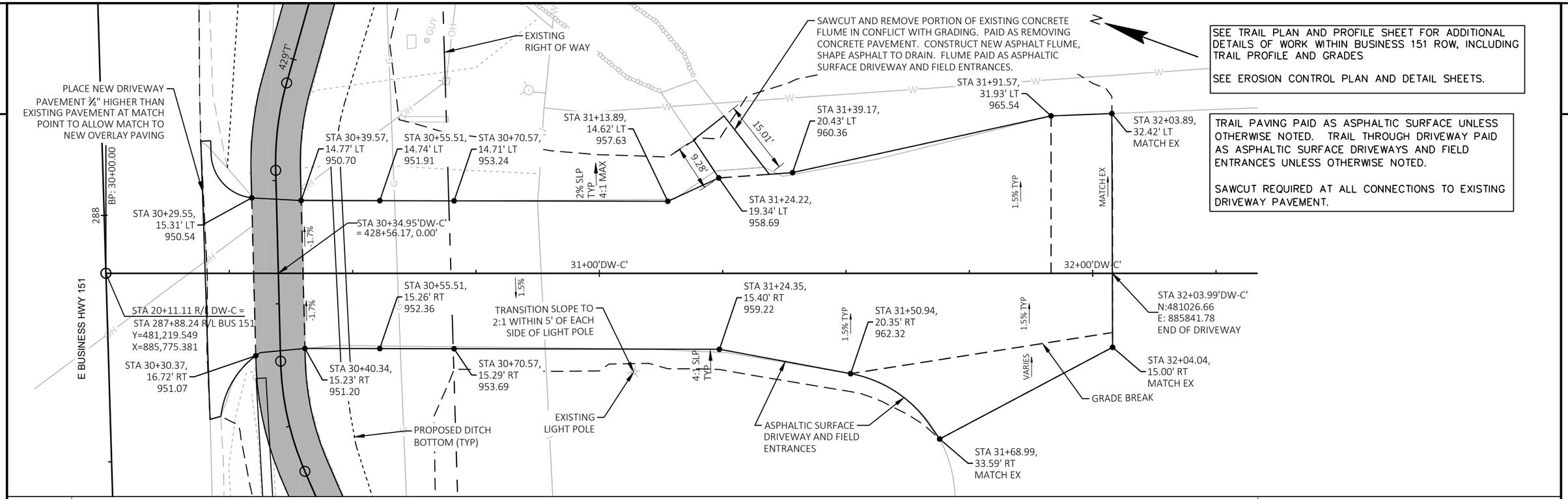
SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

NOTE: QUANTITY OF ASPHALTIC SURFACE AND BASE STONE OUTSIDE ROW AT THIS DRIVEWAY ARE CATEGORY 0020 ITEMS.



PIONEER FORD WEST DRIVEWAY DETAIL

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN DETAILS - PIONEER FORD DRIVEWAY WEST	SHEET 33	E



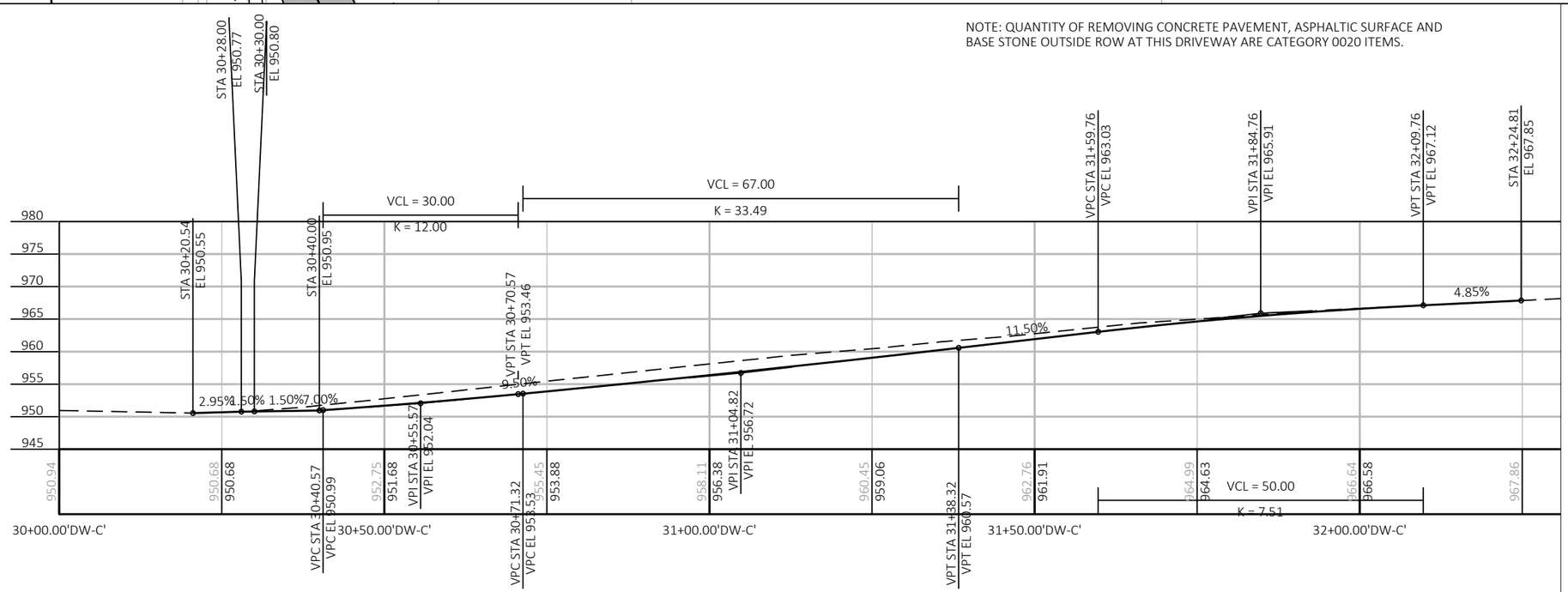
SEE TRAIL PLAN AND PROFILE SHEET FOR ADDITIONAL DETAILS OF WORK WITHIN BUSINESS 151 ROW, INCLUDING TRAIL PROFILE AND GRADES

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

NOTE: QUANTITY OF REMOVING CONCRETE PAVEMENT, ASPHALTIC SURFACE AND BASE STONE OUTSIDE ROW AT THIS DRIVEWAY ARE CATEGORY 0020 ITEMS.



PIONEER FORD EAST DRIVEWAY DETAIL

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN DETAILS - PIONEER FORD DRIVEWAY EAST	SHEET 34	E

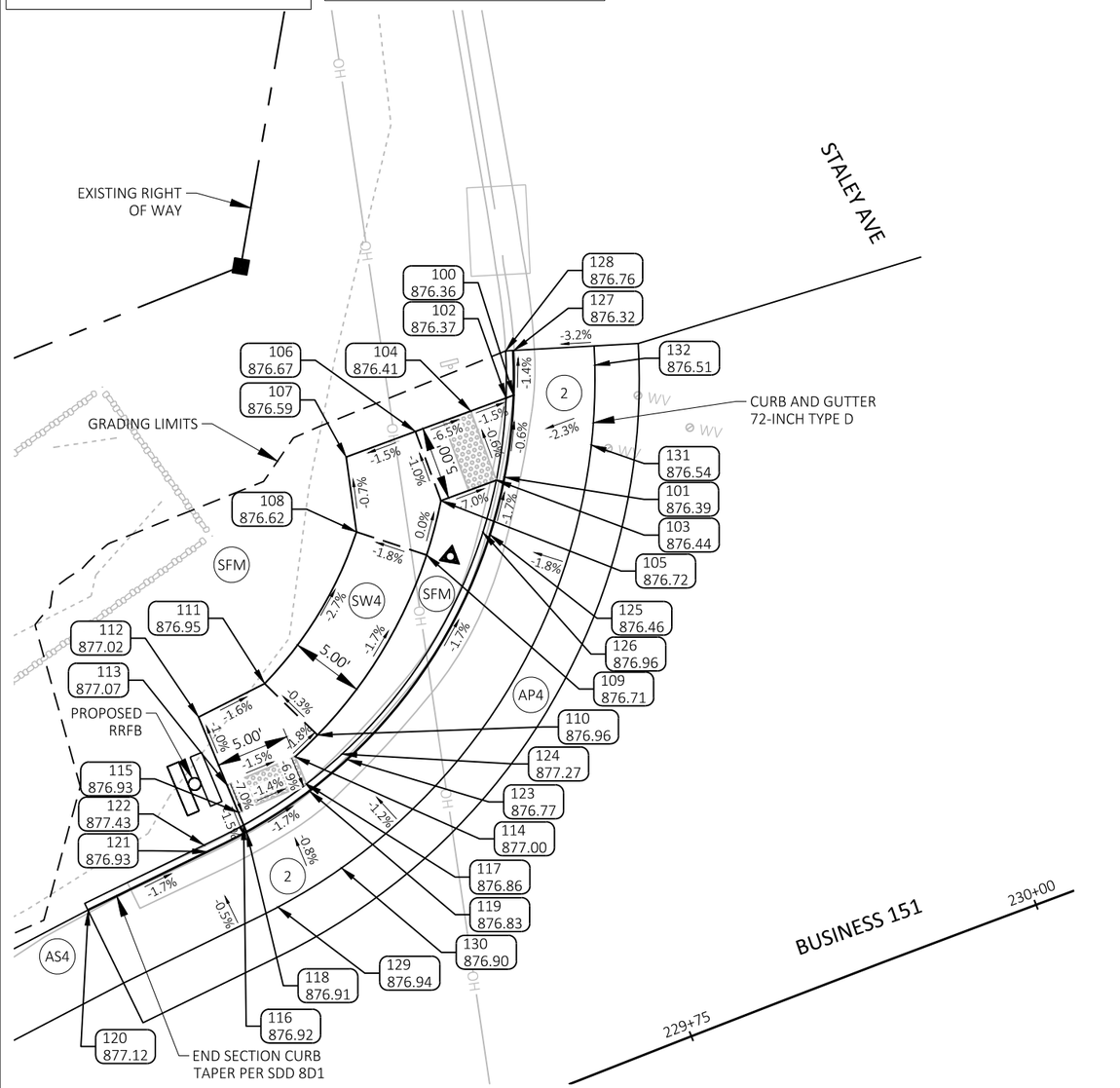
2

LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (AS4) ASPHALTIC SURFACE (4-INCH)
- (AP4) ASPHALTIC SURFACE PATCHING (4-INCH)
- (XX YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

NOTE: GUTTER CROSS SLOPES VARY TO MATCH PROPOSED OVERLAY ELEVATIONS



POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
100	229+79.45	44.84L	479179.205	880329.768	876.36
101	229+76.92	39.88L	479173.624	880330.125	876.39
102	229+78.92	44.85L	479178.933	880329.302	876.37
103	229+76.35	39.89L	479173.328	880329.619	876.44
104	229+76.44	44.89L	479177.646	880327.098	876.41
105	229+72.45	39.97L	479171.311	880326.165	876.72
106	229+72.54	44.96L	479175.628	880323.644	876.67
107	229+67.68	45.07L	479173.107	880319.326	876.59
108	229+66.49	40.10L	479168.234	880320.897	876.62
109	229+70.25	36.89L	479167.516	880325.845	876.71
110	229+59.10	28.29L	479154.221	880320.685	876.96
111	229+57.11	32.86L	479157.029	880316.548	876.95
112	229+52.21	32.44L	479154.026	880312.535	877.02
113	229+52.26	27.44L	479149.817	880315.233	877.07
114	229+57.17	27.50L	479152.515	880319.442	877.00
115	229+52.27	25.44L	479148.133	880316.312	876.93
116	229+52.28	24.52L	479147.352	880316.812	876.92

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
117	229+57.20	25.50L	479150.831	880320.521	876.86
118	229+52.29	24.01L	479146.929	880317.084	876.91
119	229+57.20	24.98L	479150.396	880320.800	876.83
120	229+40.51	23.15L	479139.812	880307.449	877.12
121	229+49.36	23.77L	479145.142	880314.700	876.93
122	229+49.33	24.27L	479145.547	880314.406	877.43
123	229+60.31	26.01L	479152.935	880322.939	876.77
124	229+60.14	26.48L	479153.239	880322.542	877.27
125	229+74.65	36.62L	479169.623	880329.831	876.46
126	229+74.27	36.93L	479169.688	880329.335	876.96
127	229+80.53	47.66L	479182.195	880329.268	876.32
128	229+80.01	47.83L	479182.066	880328.718	876.76
129	229+52.34	18.49L	479142.275	880320.067	876.94
130	229+57.27	19.33L	479145.634	880323.852	876.90
131	229+83.05	39.79L	479176.789	880335.546	876.54
132	229+85.16	44.76L	479182.165	880334.836	876.51

2

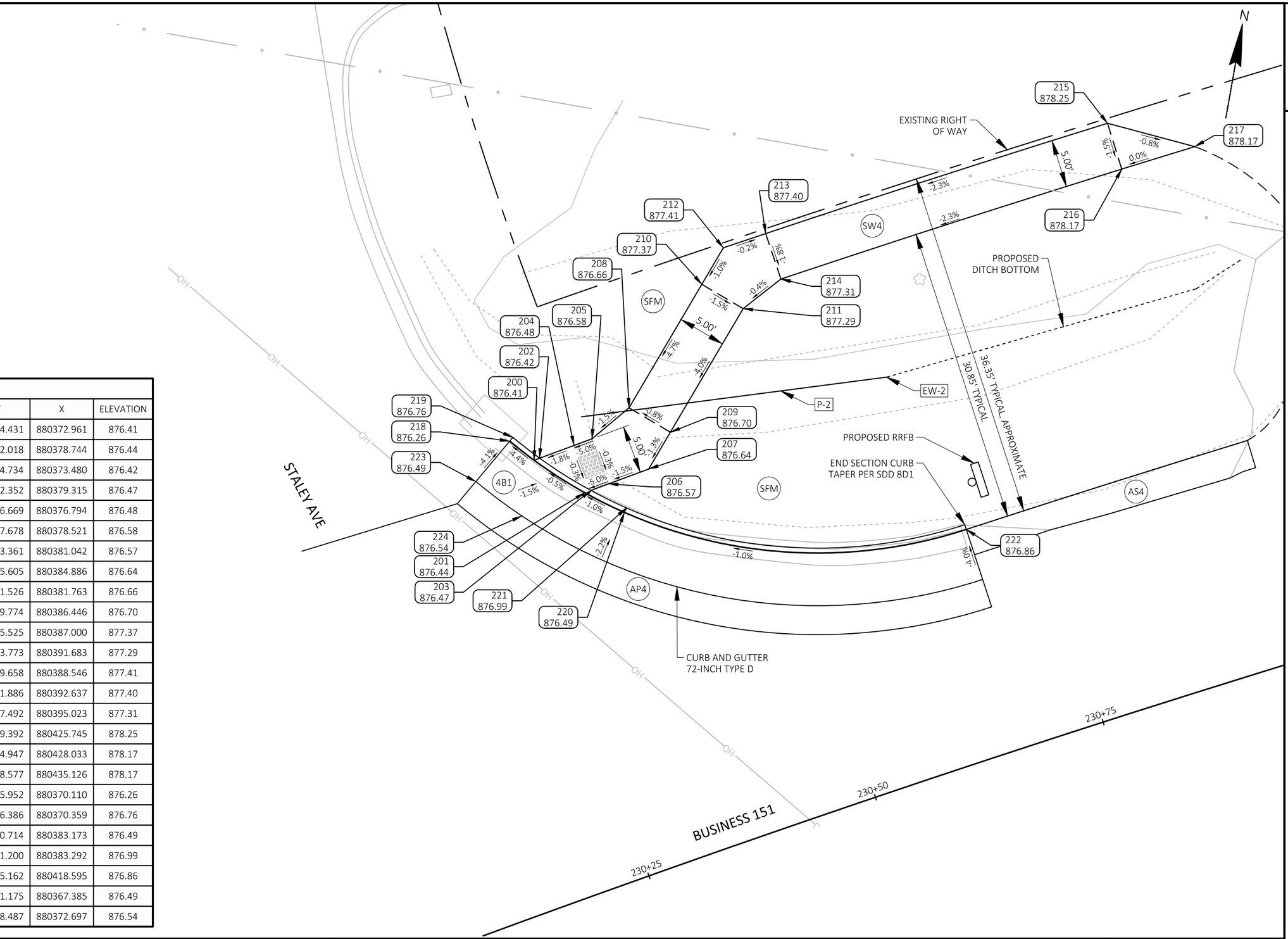
LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (AS4) ASPHALTIC SURFACE (4-INCH)
- (AP4) ASPHALTIC SURFACE PATCHING (4-INCH)
- (XX / YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

NOTE: GUTTER CROSS SLOPES VARY TO MATCH PROPOSED OVERLAY ELEVATIONS

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
200	230+28.13	44.82L	479204.431	880372.961	876.41
201	230+31.89	39.88L	479202.018	880378.744	876.44
202	230+28.72	44.83L	479204.734	880373.480	876.42
203	230+32.54	39.89L	479202.352	880379.315	876.47
204	230+32.45	44.89L	479206.669	880376.794	876.48
205	230+34.40	44.93L	479207.678	880378.521	876.58
206	230+34.49	39.93L	479203.361	880381.042	876.57
207	230+38.83	40.01L	479205.605	880384.886	876.64
208	230+38.98	46.71L	479211.526	880381.763	876.66
209	230+42.14	42.90L	479209.774	880386.446	876.70
210	230+49.98	56.43L	479225.525	880387.000	877.37
211	230+53.14	52.65L	479223.773	880391.683	877.29
212	230+53.20	59.32L	479229.658	880388.546	877.41
213	230+57.70	59.33L	479231.886	880392.637	877.40
214	230+57.71	54.33L	479227.492	880395.023	877.31
215	230+93.84	59.38L	479249.392	880425.745	878.25
216	230+93.85	54.38L	479244.947	880428.033	878.17
217	231+01.56	54.39L	479248.577	880435.126	878.17
218	230+26.45	47.55L	479205.952	880370.110	876.26
219	230+26.87	47.80L	479206.386	880370.359	876.76
220	230+35.04	36.58L	479200.714	880383.173	876.49
221	230+35.38	36.94L	479201.200	880383.292	876.99
222	230+67.67	23.50L	479205.162	880418.595	876.86
223	230+21.85	44.74L	479201.175	880367.385	876.49
224	230+25.06	39.78L	479198.487	880372.697	876.54



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - STALEY AVE NE QUAD	SHEET 36	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021301-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - STALEY AVE NE QUAD

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

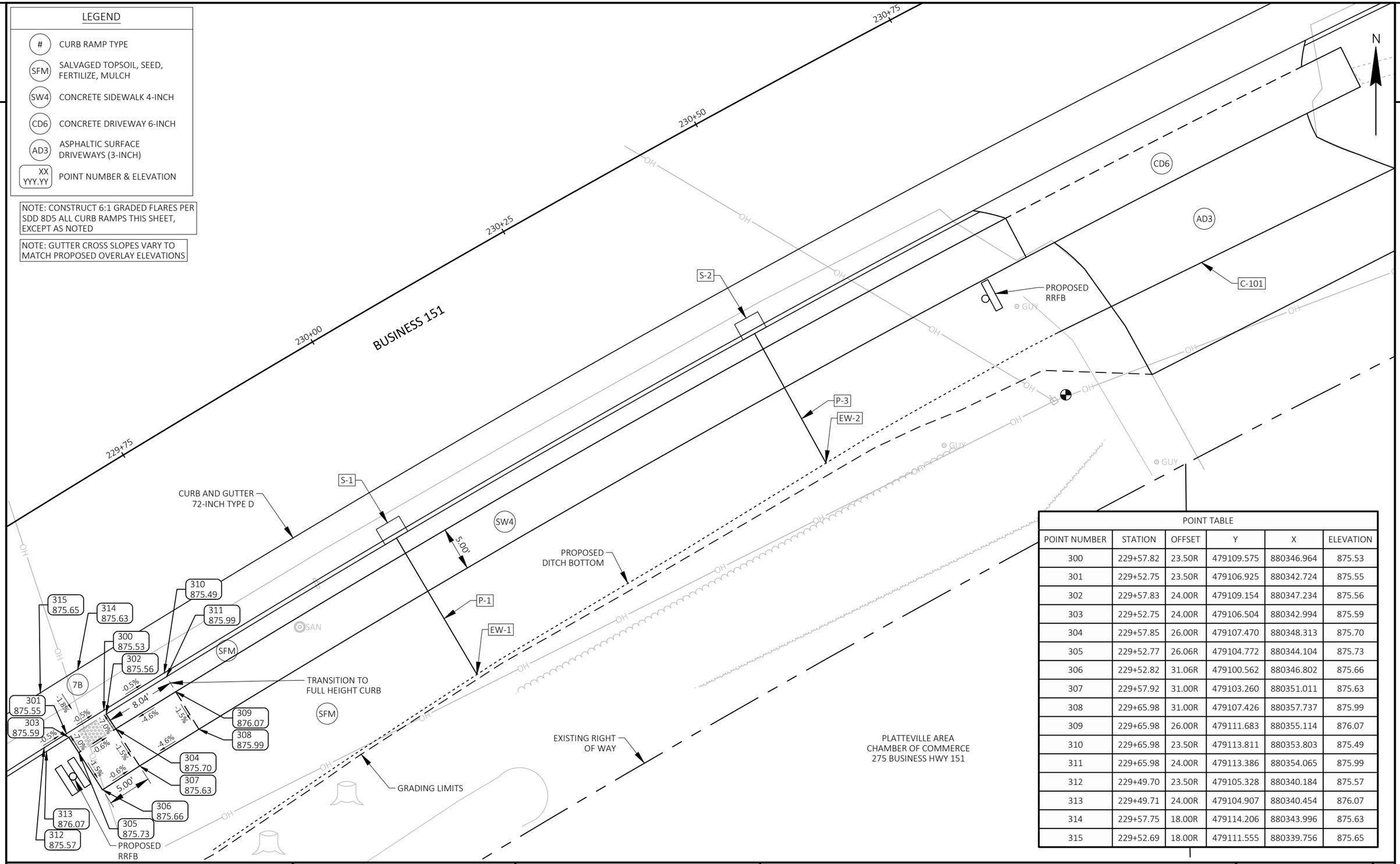
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LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
CD6	CONCRETE DRIVEWAY 6-INCH
AD3	ASPHALTIC SURFACE DRIVEWAYS (3-INCH)
XX YYY.YY	POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET, EXCEPT AS NOTED

NOTE: GUTTER CROSS SLOPES VARY TO MATCH PROPOSED OVERLAY ELEVATIONS



POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
300	229+57.82	23.50R	479109.575	880346.964	875.53
301	229+52.75	23.50R	479106.925	880342.724	875.55
302	229+57.83	24.00R	479109.154	880347.234	875.56
303	229+52.75	24.00R	479106.504	880342.994	875.59
304	229+57.85	26.00R	479107.470	880348.313	875.70
305	229+52.77	26.06R	479104.772	880344.104	875.73
306	229+52.82	31.06R	479100.562	880346.802	875.66
307	229+57.92	31.00R	479103.260	880351.011	875.63
308	229+65.98	31.00R	479107.426	880357.737	875.99
309	229+65.98	26.00R	479111.683	880355.114	876.07
310	229+65.98	23.50R	479113.811	880353.803	875.49
311	229+65.98	24.00R	479113.386	880354.065	875.99
312	229+49.70	23.50R	479105.328	880340.184	875.57
313	229+49.71	24.00R	479104.907	880340.454	876.07
314	229+57.75	18.00R	479114.206	880343.996	875.63
315	229+52.69	18.00R	479111.555	880339.756	875.65

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - STALEY AVE S HALF	SHEET 37	E

2

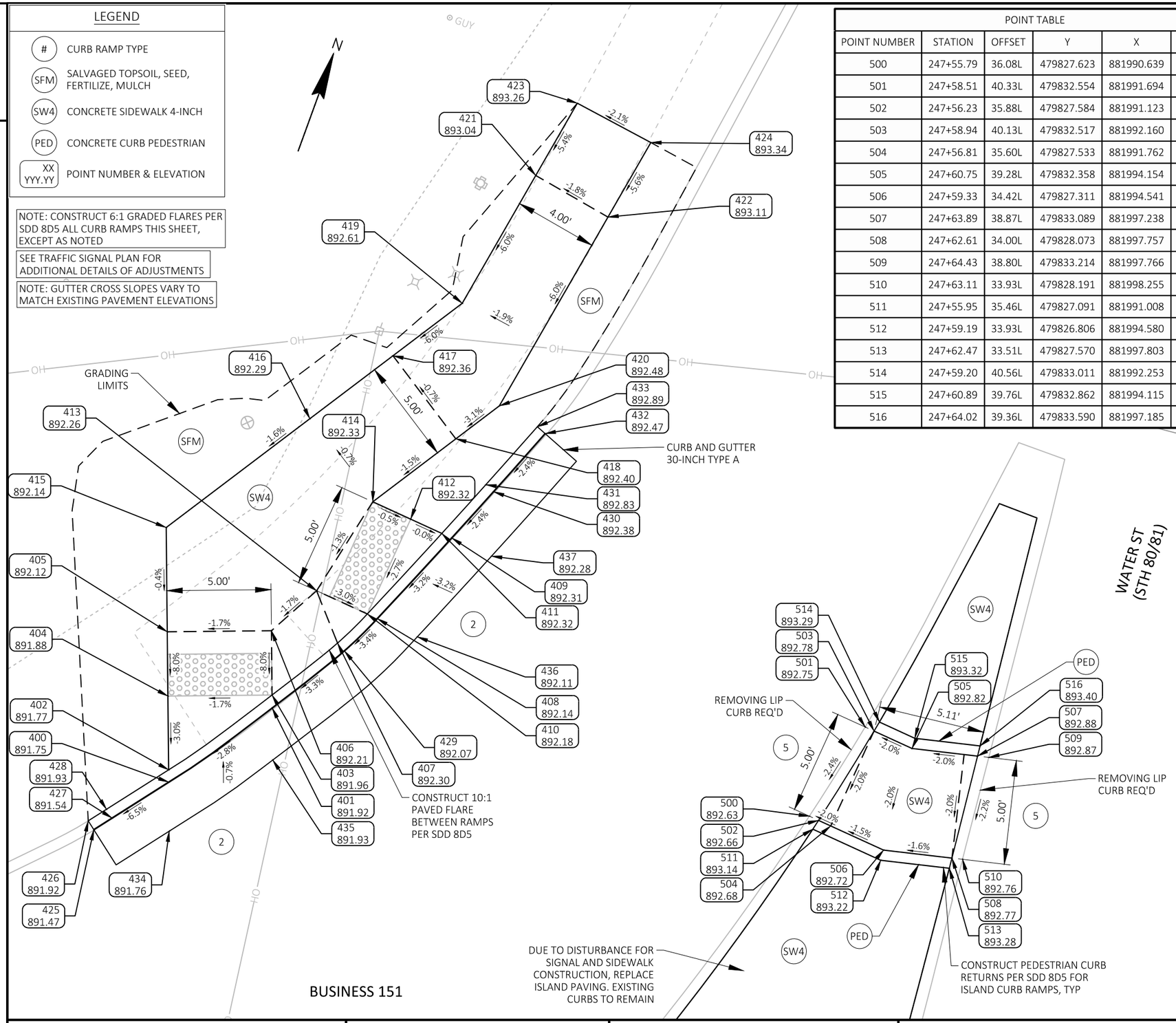
LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- (XX YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET, EXCEPT AS NOTED

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS



POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
500	247+55.79	36.08L	479827.623	881990.639	892.63
501	247+58.51	40.33L	479832.554	881991.694	892.75
502	247+56.23	35.88L	479827.584	881991.123	892.66
503	247+58.94	40.13L	479832.517	881992.160	892.78
504	247+56.81	35.60L	479827.533	881991.762	892.68
505	247+60.75	39.28L	479832.358	881994.154	892.82
506	247+59.33	34.42L	479827.311	881994.541	892.72
507	247+63.89	38.87L	479833.089	881997.238	892.88
508	247+62.61	34.00L	479828.073	881997.757	892.77
509	247+64.43	38.80L	479833.214	881997.766	892.87
510	247+63.11	33.93L	479828.191	881998.255	892.76
511	247+55.95	35.46L	479827.091	881991.008	893.14
512	247+59.19	33.93L	479826.806	881994.580	893.22
513	247+62.47	33.51L	479827.570	881997.803	893.28
514	247+59.20	40.56L	479833.011	881992.253	893.29
515	247+60.89	39.76L	479832.862	881994.115	893.32
516	247+64.02	39.36L	479833.590	881997.185	893.40

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
400	247+25.07	38.07L	479818.644	881961.196	891.75
401	247+30.07	41.56L	479823.680	881964.646	891.92
402	247+25.07	38.66L	479819.195	881960.990	891.77
403	247+30.07	42.19L	479824.265	881964.426	891.96
404	247+25.08	42.20L	479822.506	881959.746	891.88
405	247+25.08	45.28L	479825.392	881958.662	892.12
406	247+30.08	45.27L	479827.150	881963.343	892.21
407	247+33.24	44.64L	479827.678	881966.525	892.30
408	247+35.17	45.80L	479829.438	881967.919	892.14
409	247+38.78	49.62L	479834.291	881969.953	892.31
410	247+34.69	46.02L	479829.480	881967.393	892.18
411	247+38.31	49.85L	479834.333	881969.430	892.32
412	247+36.82	50.55L	479834.464	881967.791	892.32
413	247+32.27	47.16L	479829.693	881964.723	892.26
414	247+35.01	51.40L	479834.623	881965.797	892.33
415	247+25.09	50.28L	479830.073	881956.905	892.14
416	247+32.04	55.42L	479837.337	881961.598	892.29
417	247+36.06	58.39L	479841.536	881964.311	892.36
418	247+39.03	54.37L	479838.823	881968.511	892.40
419	247+39.41	60.87L	479845.038	881966.574	892.61
420	247+41.14	55.93L	479841.022	881969.932	892.48
421	247+43.01	66.96L	479852.004	881967.794	893.04
422	247+46.45	64.92L	479851.315	881971.734	893.11
423	247+45.05	70.40L	479855.944	881968.483	893.26
424	247+48.55	68.47L	479855.374	881972.444	893.34
425	247+21.45	35.83L	479815.270	881958.596	891.47
426	247+21.18	36.26L	479815.575	881958.200	891.92
427	247+22.33	36.38L	479816.094	881959.231	891.54
428	247+22.07	36.80L	479816.399	881958.835	891.93
429	247+33.57	44.26L	479827.438	881966.964	892.07
430	247+40.81	51.82L	479837.061	881971.080	892.38
431	247+40.45	52.15L	479837.248	881970.616	892.83
432	247+43.32	54.57L	479840.524	881972.454	892.47
433	247+42.95	54.91L	479840.706	881971.988	892.89
434	247+25.07	35.72L	479816.441	881962.024	891.76
435	247+30.07	39.07L	479821.344	881965.523	891.93
436	247+37.08	44.90L	479829.270	881970.021	892.11
437	247+40.68	48.73L	479834.124	881972.046	892.28

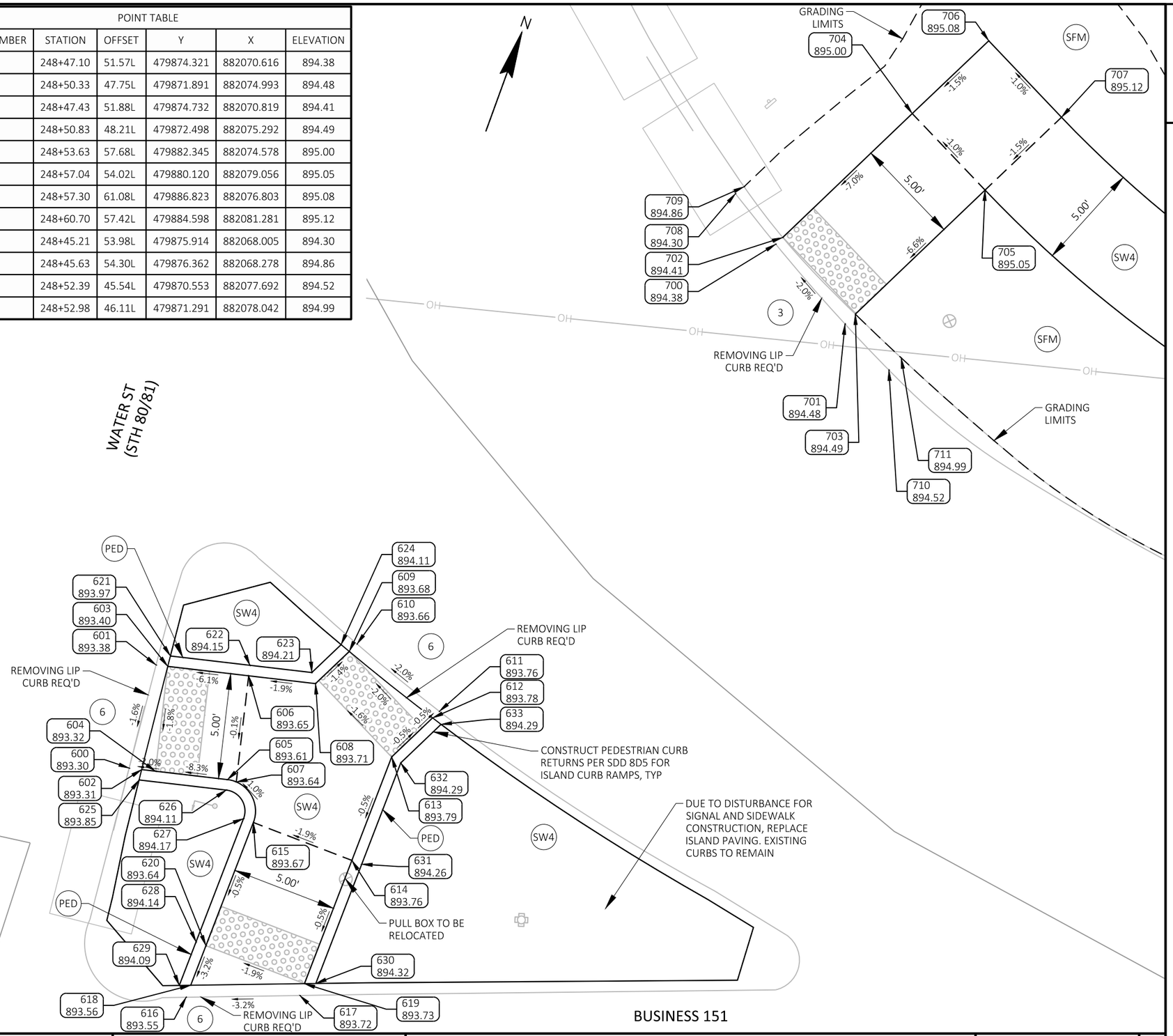
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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - 80-81 NW QUAD	SHEET 38	E

2

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
600	248+16.19	27.11L	479840.532	882050.322	893.30
601	248+17.52	31.98L	479845.558	882049.847	893.38
602	248+16.78	27.03L	479840.669	882050.900	893.31
603	248+18.07	31.91L	479845.686	882050.389	893.40
604	248+17.43	26.95L	479840.821	882051.542	893.32
605	248+20.84	26.51L	479841.613	882054.883	893.61
606	248+21.89	31.42L	479846.576	882054.143	893.65
607	248+21.25	26.40L	479841.651	882055.311	893.64
608	248+25.06	31.01L	479847.312	882057.249	893.71
609	248+26.67	32.51L	479849.288	882058.227	893.68
610	248+27.05	32.86L	479849.746	882058.453	893.66
611	248+30.91	29.63L	479848.083	882063.209	893.76
612	248+30.58	29.32L	479847.682	882063.011	893.78
613	248+28.63	27.50L	479845.286	882061.825	893.79
614	248+26.68	22.62L	479840.033	882061.728	893.76
615	248+22.04	24.47L	479840.126	882056.729	893.67
616	248+18.76	16.23L	479831.259	882056.565	893.55
617	248+24.15	16.25L	479833.179	882061.601	893.72
618	248+18.98	16.80L	479831.867	882056.576	893.56
619	248+24.37	16.81L	479833.781	882061.612	893.73
620	248+19.72	18.66L	479833.874	882056.613	893.64
621	248+18.20	32.40L	479846.188	882050.340	893.97
622	248+21.96	31.91L	479847.063	882054.028	894.15
623	248+24.89	31.54L	479847.744	882056.905	894.21
624	248+26.29	32.84L	479849.459	882057.754	894.11
625	248+16.65	26.55L	479840.167	882050.953	893.85
626	248+20.77	26.02L	479841.126	882054.998	894.11
627	248+21.57	24.65L	479840.135	882056.229	894.17
628	248+19.26	18.85L	479833.883	882056.113	894.14
629	248+18.44	16.79L	479831.675	882056.072	894.09
630	248+24.91	16.81L	479833.973	882062.116	894.32
631	248+27.15	22.43L	479840.024	882062.228	894.26
632	248+29.05	27.21L	479845.165	882062.323	894.29
633	248+30.98	29.01L	479847.533	882063.495	894.29

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
700	248+47.10	51.57L	479874.321	882070.616	894.38
701	248+50.33	47.75L	479871.891	882074.993	894.48
702	248+47.43	51.88L	479874.732	882070.819	894.41
703	248+50.83	48.21L	479872.498	882075.292	894.49
704	248+53.63	57.68L	479882.345	882074.578	895.00
705	248+57.04	54.02L	479880.120	882079.056	895.05
706	248+57.30	61.08L	479886.823	882076.803	895.08
707	248+60.70	57.42L	479884.598	882081.281	895.12
708	248+45.21	53.98L	479875.914	882068.005	894.30
709	248+45.63	54.30L	479876.362	882068.278	894.86
710	248+52.39	45.54L	479870.553	882077.692	894.52
711	248+52.98	46.11L	479871.291	882078.042	894.99



LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
PED	CONCRETE CURB PEDESTRIAN
XX YYY.YY	POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET, EXCEPT AS NOTED

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - 80-81 NE QUADRANT	SHEET 39	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021301-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - 80-81 NE QUADRANT
PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

2

2

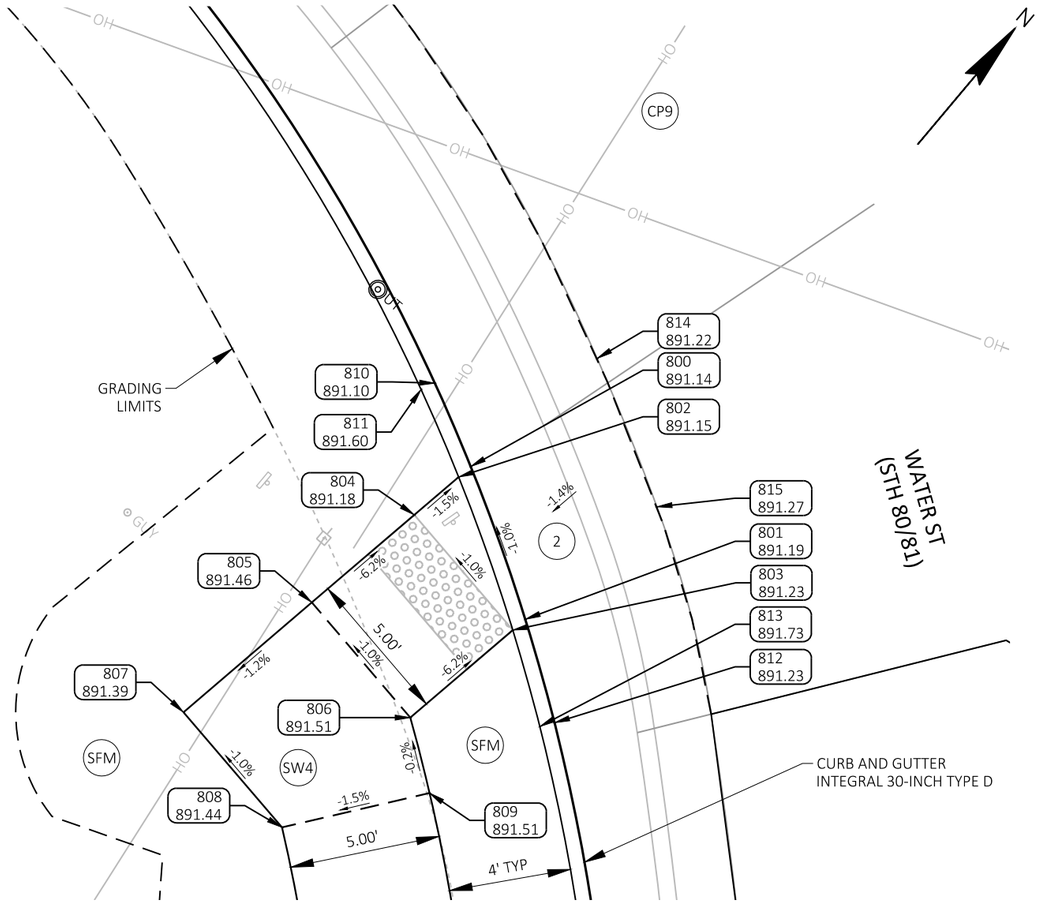
LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
CP9	CONCRETE PAVING 9-INCH
XX YYY.YY	POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS



POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
800	247+07.79	67.68R	479713.601	881982.336	891.14
801	247+11.16	71.84R	479710.898	881986.954	891.19
802	247+07.53	68.13R	479713.081	881982.249	891.15
803	247+10.89	72.31R	479710.361	881986.864	891.23
804	247+06.56	69.80R	479711.183	881981.932	891.18
805	247+04.33	73.64R	479706.796	881981.201	891.46
806	247+08.66	76.15R	479705.973	881986.133	891.51
807	247+01.53	78.46R	479701.300	881980.284	891.39
808	247+05.86	80.97R	479700.477	881985.216	891.44
809	247+10.08	78.29R	479704.475	881988.219	891.51
810	247+05.76	65.47R	479714.948	881979.658	891.10
811	247+05.40	65.82R	479714.496	881979.444	891.60
812	247+13.20	74.74R	479708.901	881989.887	891.23
813	247+12.78	75.02R	479708.495	881989.595	891.73
814	247+10.55	62.93R	479719.016	881983.239	891.22
815	247+14.03	66.89R	479716.533	881987.894	891.27

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - 80-81 SW QUAD	SHEET 40	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021301-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - 80-81 SW QUAD

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

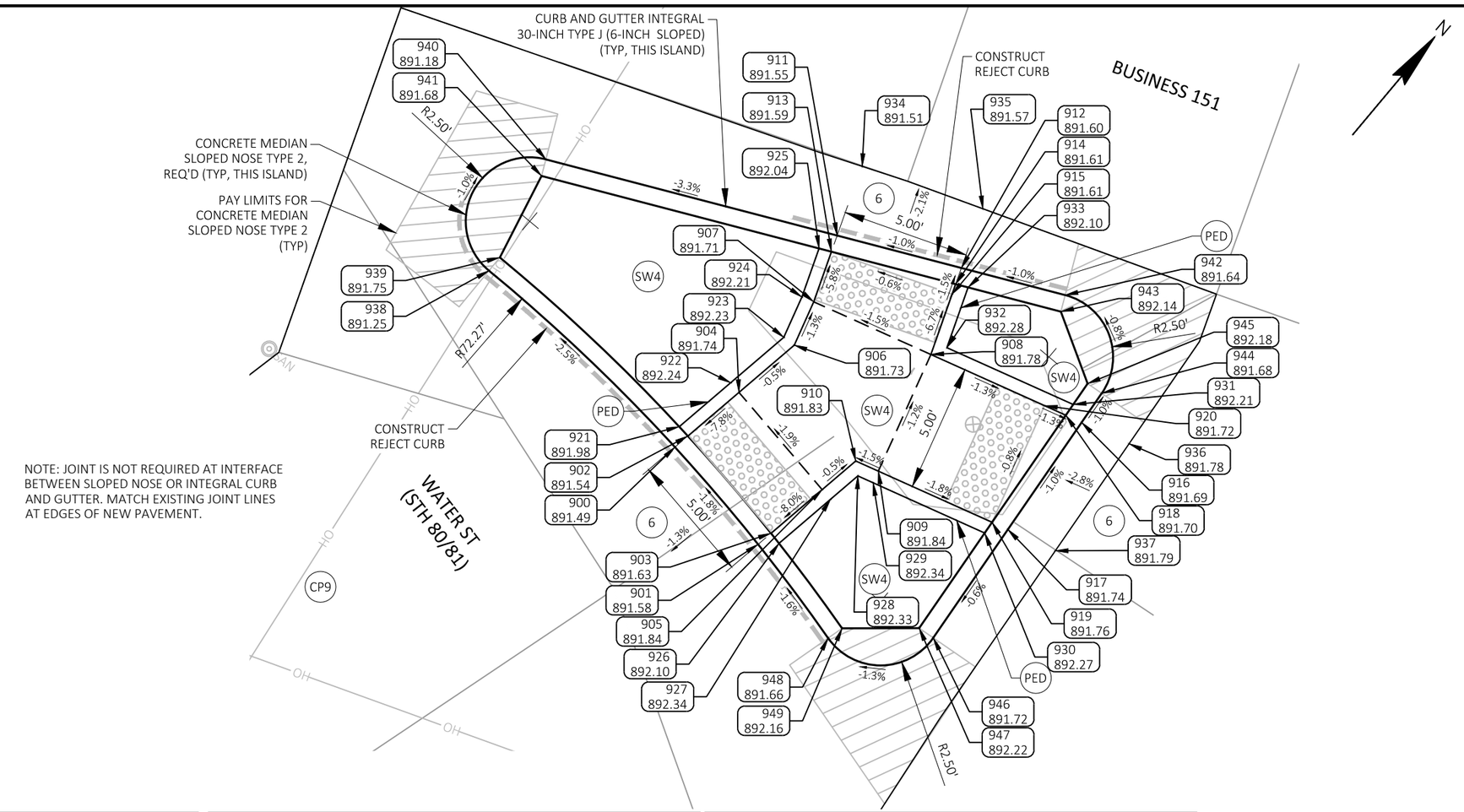
LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
CP9	CONCRETE PAVING 9-INCH
PED	CONCRETE CURB PEDESTRIAN
XX YYY.YY	POINT NUMBER & ELEVATION

NOTE: CONSTRUCT PEDESTRIAN CURB RETURNS PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS



POINT TABLE

POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
900	247+21.07	44.80R	479739.689	881986.686	891.49
901	247+25.39	47.31R	479738.867	881991.618	891.58
902	247+21.40	44.22R	479740.347	881986.796	891.54
903	247+25.73	46.73R	479739.525	881991.727	891.63
904	247+22.72	41.95R	479742.936	881987.227	891.74
905	247+27.04	44.46R	479742.114	881992.159	891.84
906	247+24.15	39.49R	479745.740	881987.695	891.73
907	247+24.30	37.64R	479747.528	881987.190	891.71
908	247+29.30	38.07R	479748.892	881992.019	891.78
909	247+28.88	43.05R	479744.080	881993.378	891.84
910	247+27.91	42.97R	479743.816	881992.443	891.83
911	247+24.31	34.90R	479750.099	881986.224	891.55
912	247+29.31	34.49R	479752.248	881990.759	891.60

POINT TABLE

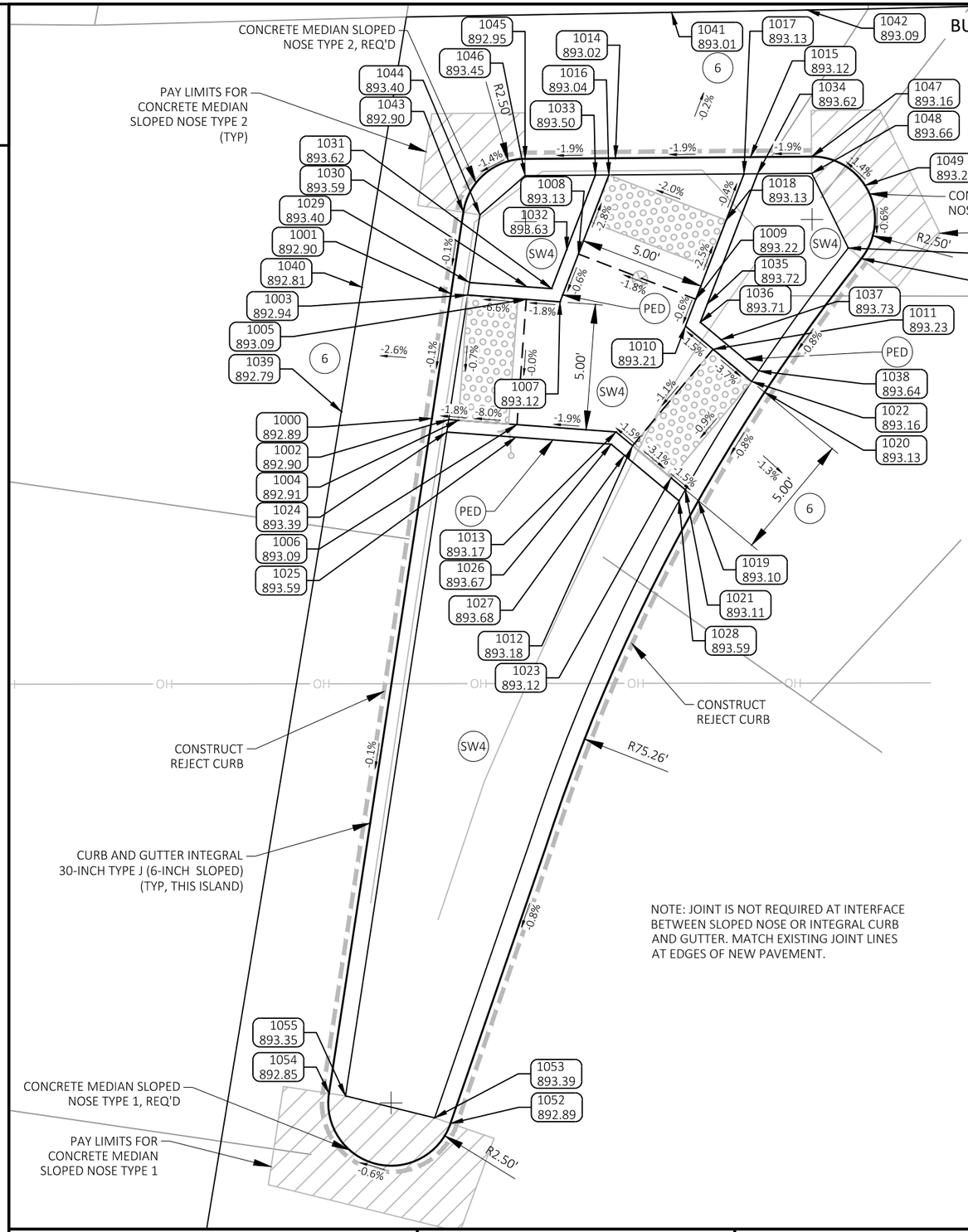
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
913	247+24.31	35.57R	479749.473	881986.460	891.59
914	247+29.31	35.16R	479751.621	881990.994	891.61
915	247+29.31	35.57R	479751.231	881991.140	891.61
916	247+35.74	38.62R	479750.648	881998.238	891.69
917	247+34.41	43.53R	479745.588	881998.720	891.74
918	247+35.07	38.56R	479750.464	881997.586	891.70
919	247+33.73	43.47R	479745.404	881998.068	891.76
920	247+34.16	38.49R	479750.216	881996.709	891.72
921	247+20.96	43.99R	479740.411	881986.299	891.98
922	247+22.29	41.70R	479743.019	881986.734	892.24
923	247+23.66	39.34R	479745.712	881987.183	892.23
924	247+23.80	37.62R	479747.372	881986.714	892.21
925	247+23.81	35.61R	479749.258	881986.006	892.04

POINT TABLE

POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
926	247+26.15	47.00R	479739.424	881992.218	892.10
927	247+27.48	44.71R	479742.032	881992.652	892.34
928	247+28.18	43.50R	479743.421	881992.884	892.33
929	247+28.83	43.55R	479743.599	881993.513	892.34
930	247+33.60	43.96R	479744.898	881998.116	892.27
931	247+35.20	38.07R	479750.970	881997.538	892.21
932	247+29.80	37.61R	479749.498	881992.325	892.28
933	247+29.81	35.11R	479751.836	881991.447	892.10
934	247+24.34	32.02R	479752.799	881985.239	891.51
935	247+29.33	32.02R	479754.561	881989.914	891.57
936	247+37.77	38.80R	479751.200	882000.195	891.78
937	247+36.43	43.70R	479746.141	882000.676	891.79
938	247+11.93	40.70R	479740.303	881976.685	891.25

POINT TABLE

POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
939	247+12.16	40.07R	479740.969	881976.679	891.75
940	247+12.58	35.86R	479745.062	881975.594	891.18
941	247+12.64	36.53R	479744.459	881975.879	891.68
942	247+33.49	34.14R	479754.043	881994.548	891.64
943	247+33.54	34.81R	479753.441	881994.834	892.14
944	247+36.11	37.29R	479752.021	881998.108	891.68
945	247+35.46	37.12R	479751.958	881997.444	892.18
946	247+33.06	48.49R	479740.469	881999.207	891.72
947	247+32.41	48.31R	479740.406	881998.543	892.22
948	247+29.19	49.86R	479737.818	881996.068	891.66
949	247+29.58	49.32R	479738.462	881996.241	892.16



NOTE: CONSTRUCT PEDESTRIAN CURB RETURNS PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS

LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
CP9	CONCRETE PAVING 9-INCH
PED	CONCRETE CURB PEDESTRIAN
XX YYY.YY	POINT NUMBER & ELEVATION

POINT TABLE

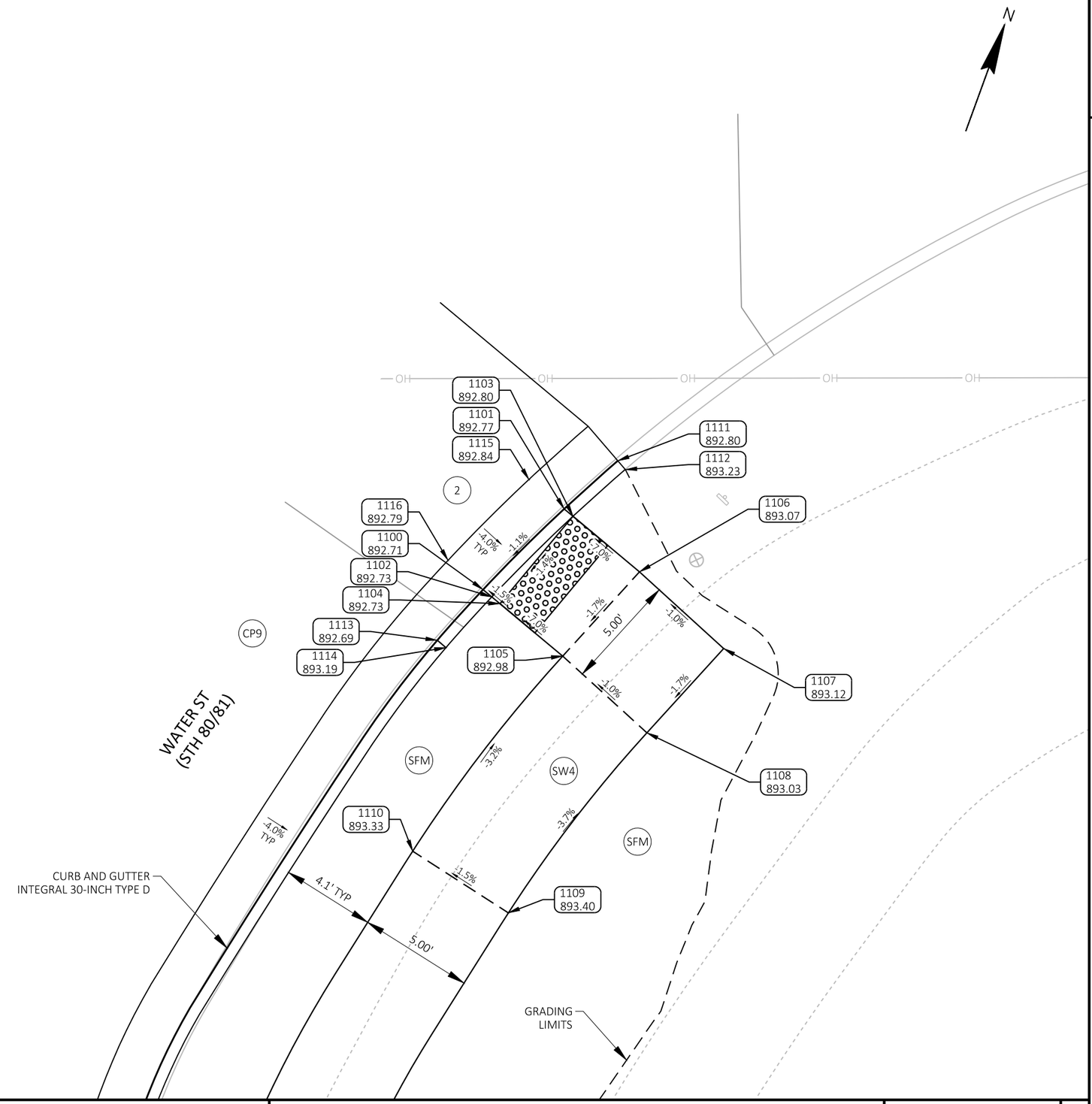
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1000	247+89.75	48.26R	479760.682	882052.169	892.89
1001	247+90.56	43.31R	479765.599	882051.184	892.90
1002	247+90.41	48.32R	479760.864	882052.813	892.90
1003	247+91.23	43.37R	479765.781	882051.827	892.94
1004	247+90.80	48.35R	479760.969	882053.186	892.91
1005	247+93.55	43.57R	479766.416	882054.075	893.09
1006	247+93.13	48.55R	479761.604	882055.434	893.09
1007	247+94.89	43.68R	479766.782	882055.371	893.12
1008	247+95.65	41.79R	479768.819	882055.409	893.13
1009	248+00.29	43.64R	479768.727	882060.408	893.22
1010	247+99.87	44.70R	479767.578	882060.387	893.21
1011	248+00.96	45.64R	479767.091	882061.737	893.23
1012	247+97.71	49.44R	479762.388	882060.039	893.18
1013	247+97.06	48.88R	479762.678	882059.236	893.17
1014	247+97.16	37.99R	479772.906	882055.484	893.02
1015	248+02.54	38.01R	479774.785	882060.520	893.12
1016	247+96.90	38.66R	479772.190	882055.471	893.04
1017	248+02.27	38.67R	479774.069	882060.507	893.13
1018	248+01.54	40.51R	479772.097	882060.470	893.13
1019	248+00.31	51.65R	479761.230	882063.247	893.10
1020	248+02.99	47.37R	479766.184	882064.249	893.13
1021	247+99.79	51.21R	479761.460	882062.610	893.11
1022	248+02.48	46.94R	479766.412	882063.618	893.16
1023	247+99.23	50.74R	479761.709	882061.920	893.12
1024	247+90.33	48.81R	479760.372	882052.911	893.39
1025	247+93.08	49.05R	479761.123	882055.570	893.59
1026	247+96.86	49.37R	479762.153	882059.218	893.67
1027	247+97.39	49.82R	479761.918	882059.869	893.68
1028	247+99.54	51.65R	479760.958	882062.527	893.59
1029	247+91.31	42.87R	479766.273	882051.729	893.40

POINT TABLE

POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1030	247+93.60	43.07R	479766.897	882053.940	893.59
1031	247+94.57	43.15R	479767.162	882054.878	893.62
1032	247+95.18	41.60R	479768.828	882054.909	893.63
1033	247+96.36	38.65R	479772.002	882054.968	893.50
1034	248+02.81	38.68R	479774.256	882061.010	893.62
1035	248+00.76	43.82R	479768.717	882060.908	893.72
1036	248+00.47	44.56R	479767.927	882060.893	893.71
1037	248+01.28	45.26R	479767.561	882061.906	893.73
1038	248+02.76	46.52R	479766.901	882063.736	893.64
1039	247+86.14	47.95R	479759.700	882048.690	892.79
1040	247+87.02	43.01R	479764.633	882047.762	892.81
1041	247+99.46	32.21R	479779.125	882055.600	893.01
1042	248+04.86	32.18R	479781.058	882060.636	893.09
1043	247+91.09	40.07R	479768.816	882050.540	892.90
1044	247+91.75	40.18R	479768.947	882051.193	893.40
1045	247+93.57	37.98R	479771.650	882052.117	892.95
1046	247+93.56	38.64R	479771.025	882052.350	893.45
1047	248+04.97	38.02R	479775.635	882062.798	893.16
1048	248+04.96	38.68R	479775.010	882063.031	893.66
1049	248+07.07	39.18R	479775.285	882065.182	893.20
1050	248+06.90	42.09R	479772.505	882066.044	893.18
1051	248+06.38	41.67R	479772.715	882065.412	893.68
1052	247+90.16	76.32R	479734.573	882062.457	892.89
1053	247+89.53	76.09R	479734.562	882061.790	893.39
1054	247+85.34	75.07R	479734.036	882057.507	892.85
1055	247+86.00	75.18R	479734.168	882058.160	893.35

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - 80-81 SE ISLAND	SHEET 42	E

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1100	248+19.88	68.38R	479752.485	882087.466	892.71
1101	248+23.48	64.88R	479757.030	882089.600	892.77
1102	248+20.26	68.71R	479752.315	882087.937	892.73
1103	248+23.87	65.21R	479756.859	882090.074	892.80
1104	248+20.62	69.01R	479752.156	882088.376	892.73
1105	248+23.35	71.34R	479750.937	882091.754	892.98
1106	248+26.76	67.68R	479755.566	882093.656	893.07
1107	248+30.42	71.09R	479753.665	882098.281	893.12
1108	248+27.00	74.75R	479749.036	882096.378	893.03
1109	248+20.83	82.59R	479739.526	882093.366	893.40
1110	248+16.66	79.83R	479740.634	882088.491	893.33
1111	248+25.86	62.80R	479759.820	882091.092	892.80
1112	248+26.19	63.19R	479759.572	882091.538	893.23
1113	248+17.84	70.58R	479749.703	882086.336	892.69
1114	248+18.22	70.91R	479749.528	882086.805	893.19
1115	248+21.95	63.57R	479757.715	882087.705	892.84
1116	248+18.36	67.08R	479753.165	882085.582	892.79



NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

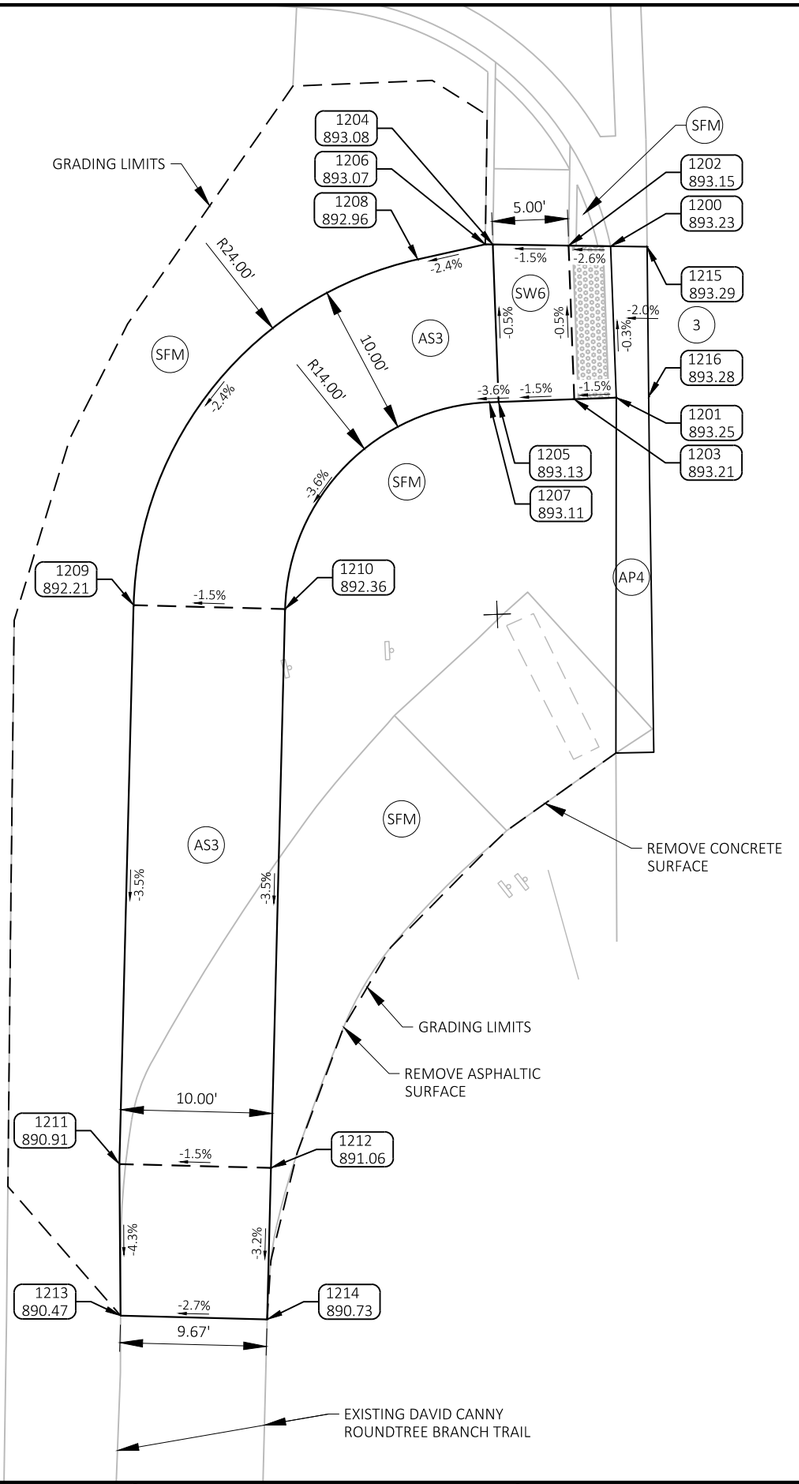
LEGEND

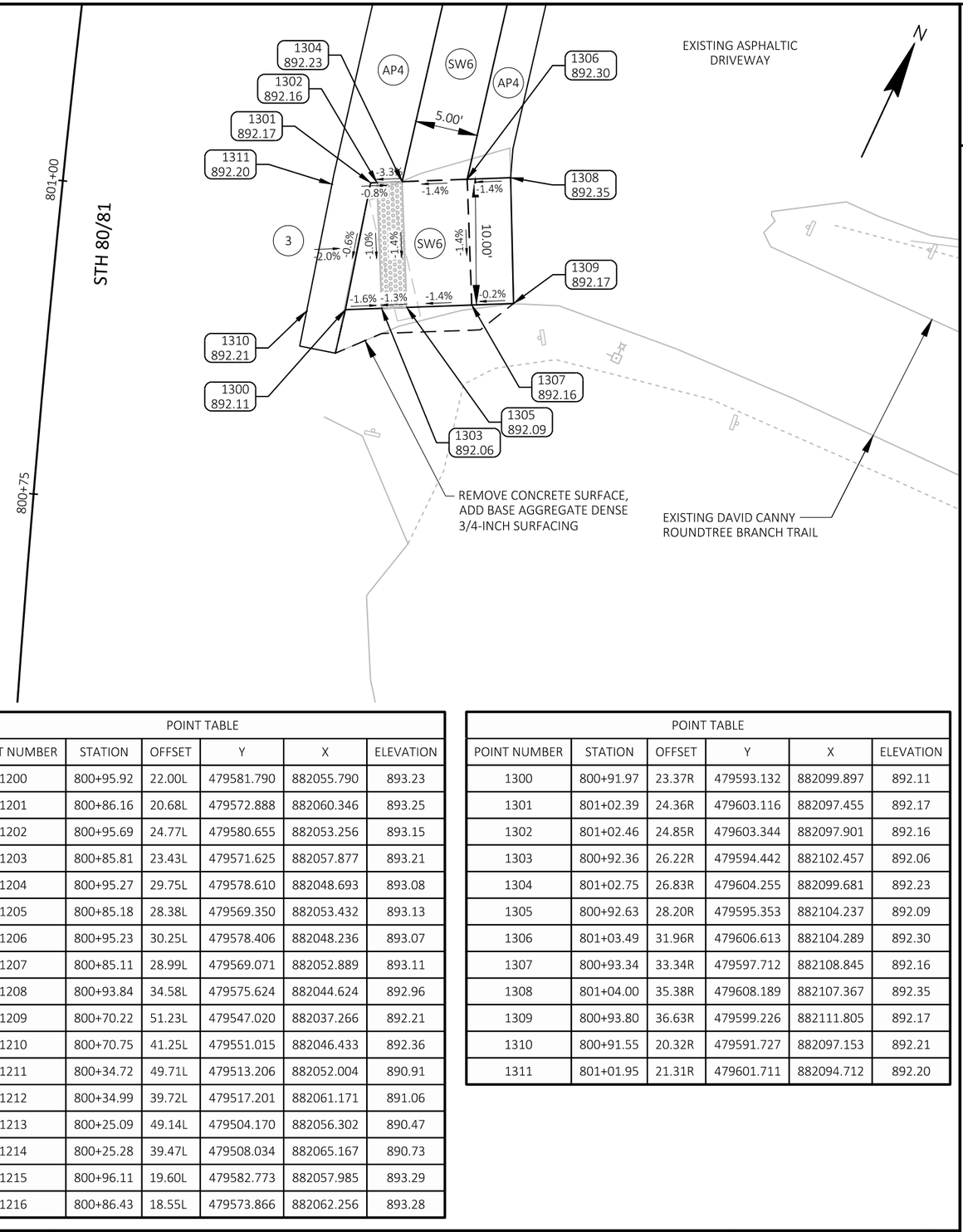
- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (CP9) CONCRETE PAVING 9-INCH
- (XX / YYY.YY) POINT NUMBER & ELEVATION

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - 80-81 SE QUAD	SHEET 43	E

LEGEND

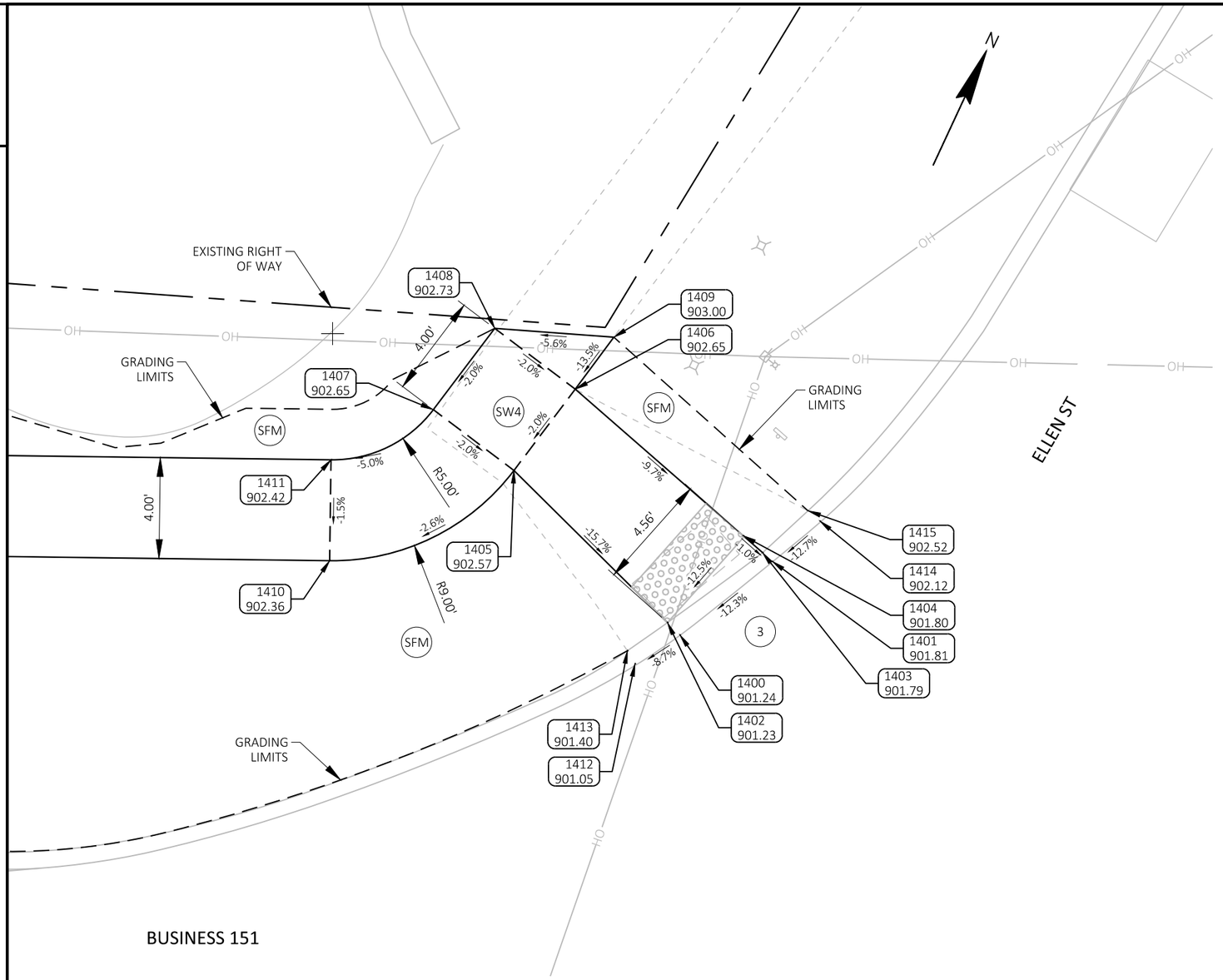
#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW6	CONCRETE SIDEWALK 6-INCH
AS3	ASPHALTIC SURFACE (3-INCH)
AP4	ASPHALTIC SURFACE PATCHING (4-INCH)
XX YYY.YY	POINT NUMBER & ELEVATION





POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1200	800+95.92	22.00L	479581.790	882055.790	893.23
1201	800+86.16	20.68L	479572.888	882060.346	893.25
1202	800+95.69	24.77L	479580.655	882053.256	893.15
1203	800+85.81	23.43L	479571.625	882057.877	893.21
1204	800+95.27	29.75L	479578.610	882048.693	893.08
1205	800+85.18	28.38L	479569.350	882053.432	893.13
1206	800+95.23	30.25L	479578.406	882048.236	893.07
1207	800+85.11	28.99L	479569.071	882052.889	893.11
1208	800+93.84	34.58L	479575.624	882044.624	892.96
1209	800+70.22	51.23L	479547.020	882037.266	892.21
1210	800+70.75	41.25L	479551.015	882046.433	892.36
1211	800+34.72	49.71L	479513.206	882052.004	890.91
1212	800+34.99	39.72L	479517.201	882061.171	891.06
1213	800+25.09	49.14L	479504.170	882056.302	890.47
1214	800+25.28	39.47L	479508.034	882065.167	890.73
1215	800+96.11	19.60L	479582.773	882057.985	893.29
1216	800+86.43	18.55L	479573.866	882062.256	893.28

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1300	800+91.97	23.37R	479593.132	882099.897	892.11
1301	801+02.39	24.36R	479603.116	882097.455	892.17
1302	801+02.46	24.85R	479603.344	882097.901	892.16
1303	800+92.36	26.22R	479594.442	882102.457	892.06
1304	801+02.75	26.83R	479604.255	882099.681	892.23
1305	800+92.63	28.20R	479595.353	882104.237	892.09
1306	801+03.49	31.96R	479606.613	882104.289	892.30
1307	800+93.34	33.34R	479597.712	882108.845	892.16
1308	801+04.00	35.38R	479608.189	882107.367	892.35
1309	800+93.80	36.63R	479599.226	882111.805	892.17
1310	800+91.55	20.32R	479591.727	882097.153	892.21
1311	801+01.95	21.31R	479601.711	882094.712	892.20



LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
XX YYY.YY	POINT NUMBER & ELEVATION

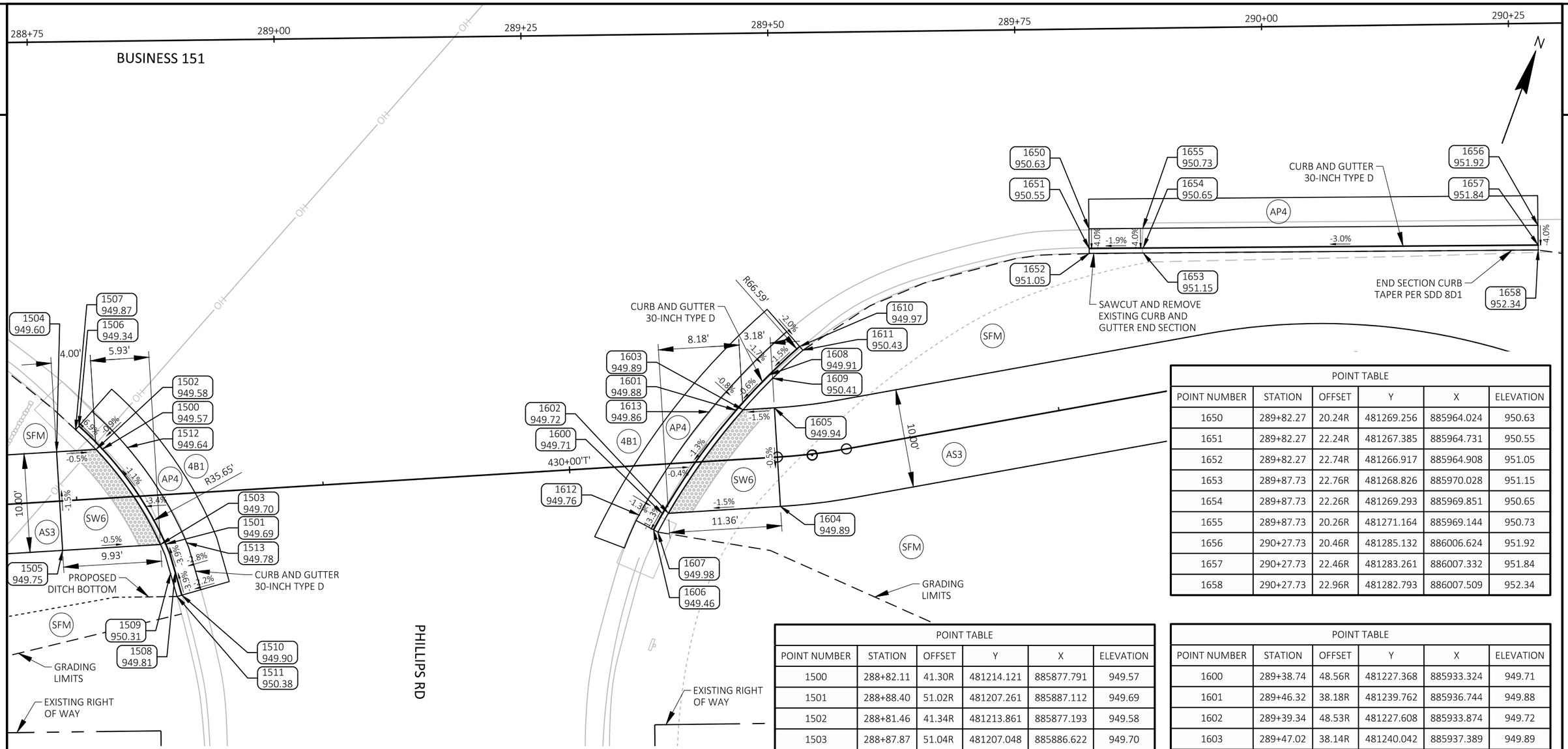
POINT TABLE

POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1400	250+74.07	38.30L	479942.062	882287.611	901.24
1401	250+77.50	41.47L	479946.248	882289.702	901.81
1402	250+73.54	38.74L	479942.293	882286.959	901.23
1403	250+77.09	41.79L	479946.399	882289.203	901.79
1404	250+76.27	42.40L	479946.681	882288.227	901.80
1405	250+67.02	44.30L	479945.185	882278.897	902.57
1406	250+69.20	47.69L	479949.132	882279.739	902.65
1407	250+63.65	46.46L	479946.019	882274.985	902.65
1408	250+65.84	49.86L	479949.967	882275.827	902.73
1409	250+70.57	49.86L	479951.646	882280.252	903.00
1410	250+60.01	40.18L	479938.856	882273.791	902.36
1411	250+59.76	44.18L	479942.504	882272.149	902.42
1412	250+72.38	37.02L	479940.271	882286.482	901.05
1413	250+72.04	37.51L	479940.611	882285.993	901.40
1414	250+79.26	43.21L	479948.497	882290.732	902.12
1415	250+78.76	43.58L	479948.663	882290.136	902.52

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

2

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - ELLEN ST NW QUADRANT	SHEET 45	E



POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1650	289+82.27	20.24R	481269.256	885964.024	950.63
1651	289+82.27	22.24R	481267.385	885964.731	950.55
1652	289+82.27	22.74R	481266.917	885964.908	951.05
1653	289+87.73	22.76R	481268.826	885970.028	951.15
1654	289+87.73	22.26R	481269.293	885969.851	950.65
1655	289+87.73	20.26R	481271.164	885969.144	950.73
1656	290+27.73	20.46R	481285.132	886006.624	951.92
1657	290+27.73	22.46R	481283.261	886007.332	951.84
1658	290+27.73	22.96R	481282.793	886007.509	952.34

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1500	288+82.11	41.30R	481214.121	885877.791	949.57
1501	288+88.40	51.02R	481207.261	885887.112	949.69
1502	288+81.46	41.34R	481213.861	885877.193	949.58
1503	288+87.87	51.04R	481207.048	885886.622	949.70
1504	288+77.46	41.53R	481212.266	885873.525	949.60
1505	288+77.95	51.52R	481203.096	885877.514	949.75
1506	288+79.75	38.95R	481215.494	885874.753	949.34
1507	288+79.42	39.31R	481215.029	885874.569	949.87
1508	288+89.32	53.87R	481204.920	885888.984	949.81
1509	288+88.84	54.00R	481204.627	885888.579	950.31
1510	288+89.96	56.21R	481202.959	885890.407	949.90
1511	288+89.48	56.34R	481202.665	885890.002	950.38
1512	288+84.65	41.18R	481215.136	885880.126	949.64
1513	288+90.53	50.91R	481208.112	885889.067	949.78

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1600	289+38.74	48.56R	481227.368	885933.324	949.71
1601	289+46.32	38.18R	481239.762	885936.744	949.88
1602	289+39.34	48.53R	481227.608	885933.874	949.72
1603	289+47.02	38.14R	481240.042	885937.389	949.89
1604	289+50.68	47.98R	481232.139	885944.293	949.89
1605	289+50.20	37.99R	481241.309	885940.305	949.94
1606	289+37.81	50.18R	481225.520	885933.028	949.46
1607	289+38.24	50.42R	481225.448	885933.523	949.98
1608	289+49.72	34.63R	481244.279	885938.669	949.91
1609	289+50.07	34.99R	481244.066	885939.122	950.41
1610	289+52.83	31.80R	481248.030	885940.581	949.97
1611	289+53.16	32.18R	481247.789	885941.019	950.43
1612	289+36.36	48.67R	481226.418	885931.141	949.76
1613	289+43.56	38.31R	481238.659	885934.209	949.86

LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW6) CONCRETE SIDEWALK 6-INCH
- (AS3) ASPHALTIC SURFACE (3-INCH)
- (AP4) ASPHALTIC SURFACE PATCHING (4-INCH)
- (XX / YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

NOTE: GUTTER AND PAVEMENT PATCH CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - PHILLIPS RD S HALF	SHEET 46	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021302-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - PHILLIPS RD S HALF

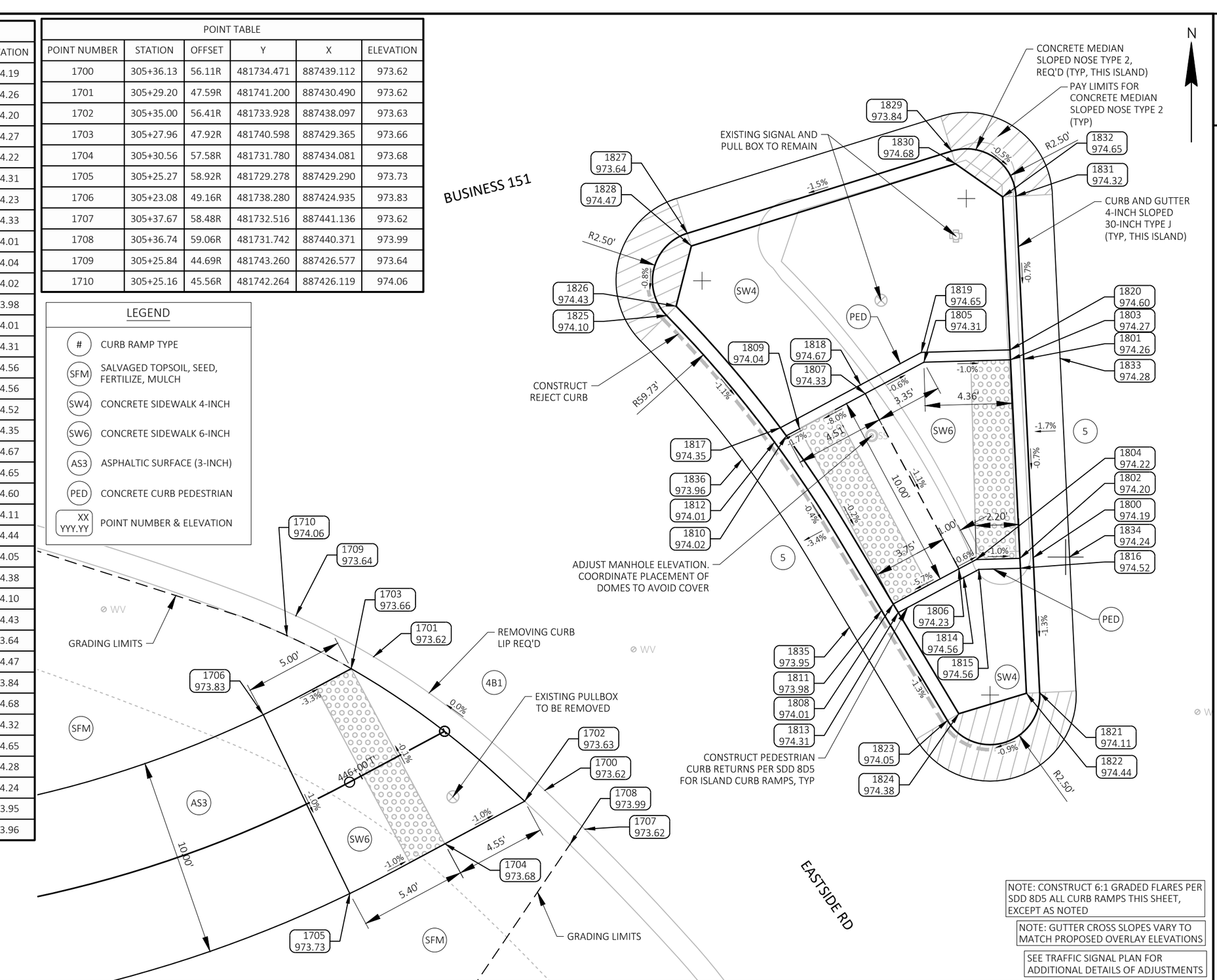
PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:10 FT

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1800	305+62.97	50.24R	481746.182	887463.699	974.19
1801	305+64.74	40.40R	481756.173	887463.222	974.26
1802	305+62.31	50.13R	481746.150	887463.033	974.20
1803	305+64.08	40.28R	481756.141	887462.556	974.27
1804	305+60.13	49.69R	481746.090	887460.832	974.22
1805	305+59.78	39.42R	481756.021	887458.197	974.31
1806	305+59.17	49.95R	481745.623	887459.960	974.23
1807	305+56.52	40.30R	481754.441	887455.243	974.33
1808	305+55.51	50.94R	481743.852	887456.649	974.01
1809	305+52.87	41.29R	481752.670	887451.932	974.04
1810	305+52.14	41.48R	481752.316	887451.270	974.02
1811	305+54.86	51.12R	481743.529	887456.065	973.98
1812	305+51.49	41.66R	481751.998	887450.676	974.01
1813	305+55.66	51.41R	481743.424	887456.904	974.31
1814	305+59.30	50.43R	481745.182	887460.195	974.56
1815	305+60.15	50.21R	481745.593	887460.964	974.56
1816	305+62.22	50.62R	481745.654	887463.058	974.52
1817	305+51.94	41.02R	481752.722	887450.967	974.35
1818	305+56.39	39.82R	481754.882	887455.007	974.67
1819	305+59.76	38.91R	481756.518	887458.065	974.65
1820	305+64.17	39.79R	481756.641	887462.533	974.60
1821	305+61.76	56.94R	481739.390	887464.024	974.11
1822	305+61.10	56.82R	481739.358	887463.359	974.44
1823	305+56.87	57.27R	481737.987	887459.381	974.05
1824	305+57.51	57.06R	481738.328	887459.953	974.38
1825	305+47.61	34.23R	481758.370	887445.246	974.10
1826	305+48.18	33.88R	481758.837	887445.722	974.43
1827	305+49.57	30.43R	481762.509	887446.288	973.64
1828	305+49.62	31.09R	481761.872	887446.486	974.47
1829	305+63.54	29.38R	481766.649	887459.599	973.84
1830	305+63.58	30.04R	481766.009	887459.787	974.68
1831	305+66.20	32.31R	481764.377	887462.829	974.32
1832	305+65.54	32.20R	481764.345	887462.164	974.65
1833	305+66.55	40.77R	481756.210	887465.055	974.28
1834	305+64.78	50.62R	481746.219	887465.533	974.24
1835	305+53.07	51.59R	481742.672	887454.442	973.95
1836	305+49.68	42.14R	481751.124	887449.042	973.96

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1700	305+36.13	56.11R	481734.471	887439.112	973.62
1701	305+29.20	47.59R	481741.200	887430.490	973.62
1702	305+35.00	56.41R	481733.928	887438.097	973.63
1703	305+27.96	47.92R	481740.598	887429.365	973.66
1704	305+30.56	57.58R	481731.780	887434.081	973.68
1705	305+25.27	58.92R	481729.278	887429.290	973.73
1706	305+23.08	49.16R	481738.280	887424.935	973.83
1707	305+37.67	58.48R	481732.516	887441.136	973.62
1708	305+36.74	59.06R	481731.742	887440.371	973.99
1709	305+25.84	44.69R	481743.260	887426.577	973.64
1710	305+25.16	45.56R	481742.264	887426.119	974.06

LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (SW6) CONCRETE SIDEWALK 6-INCH
- (AS3) ASPHALTIC SURFACE (3-INCH)
- (PED) CONCRETE CURB PEDESTRIAN
- (XX YYY.YY) POINT NUMBER & ELEVATION



NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET, EXCEPT AS NOTED

NOTE: GUTTER CROSS SLOPES VARY TO MATCH PROPOSED OVERLAY ELEVATIONS

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - EASTSIDE RD SW QUAD	SHEET 47	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021302-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - EASTSIDE RD SW QUAD

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

2

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
1900	306+14.04	60.14R	481747.588	887515.222	973.99
1901	306+19.93	51.07R	481757.696	887518.980	974.21
1902	306+14.73	60.27R	481747.607	887515.913	974.00
1903	306+20.88	51.25R	481757.722	887519.938	974.27
1904	306+19.00	61.07R	481747.726	887520.214	974.08
1905	306+24.07	62.02R	481747.866	887525.312	974.49
1906	306+25.94	52.20R	481757.863	887525.037	974.62
1907	306+36.03	53.15R	481759.044	887535.008	974.78
1908	306+34.00	63.87R	481748.142	887535.308	974.64
1909	306+25.98	44.97R	481764.930	887523.543	974.41
1910	306+36.09	38.48R	481773.402	887531.972	974.72
1911	306+25.98	46.20R	481763.730	887523.796	974.50
1912	306+36.08	39.59R	481772.314	887532.203	974.74
1913	306+25.96	48.90R	481761.092	887524.354	974.55
1914	306+36.05	48.94R	481763.160	887534.138	974.74
1915	306+20.20	74.53R	481734.831	887524.245	974.09
1916	306+27.70	82.34R	481728.778	887533.129	973.89
1917	306+13.19	90.58R	481717.674	887520.930	973.77
1918	306+21.40	94.66R	481715.421	887529.693	973.64
1919	306+09.16	99.76R	481707.856	887519.033	973.54
1920	306+16.84	103.55R	481705.781	887527.214	973.29
1921	306+12.81	62.83R	481744.697	887514.609	973.89
1922	306+13.38	63.07R	481744.587	887515.206	974.31
1923	306+23.72	47.00R	481762.470	887521.780	974.34
1924	306+24.35	47.65R	481761.969	887522.529	974.67
1925	306+38.73	37.32R	481775.087	887534.295	974.79
1926	306+39.11	38.24R	481774.260	887534.857	975.28
1927	306+41.27	36.37R	481776.539	887536.563	974.85
1928	306+41.60	37.32R	481775.685	887537.083	975.26
1929	306+11.95	59.74R	481747.530	887513.111	974.01
1930	306+17.54	50.62R	481757.629	887516.564	974.20
1931	306+26.00	42.25R	481767.597	887522.979	974.47
1932	306+36.10	36.27R	481775.564	887531.515	974.81

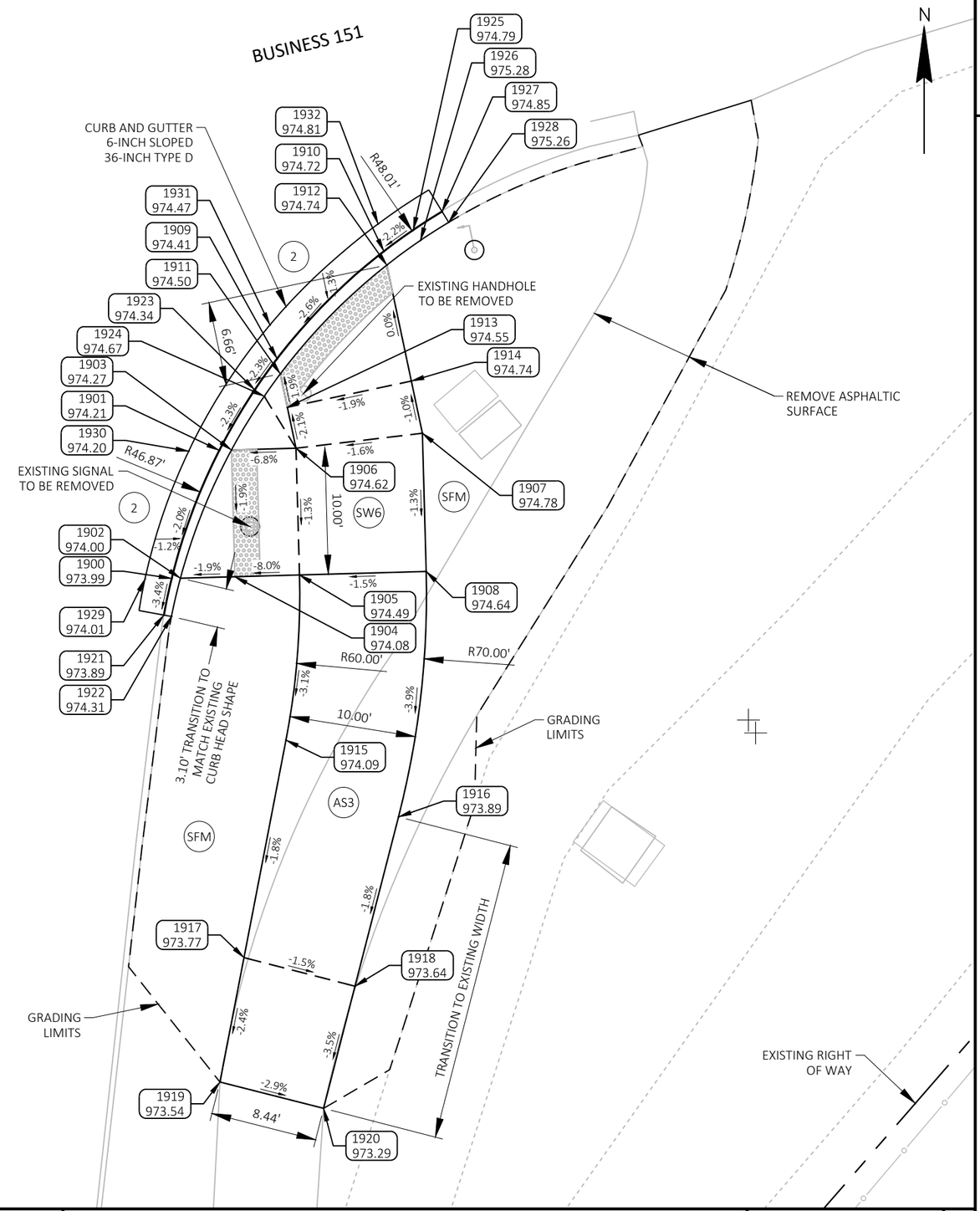
LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW6) CONCRETE SIDEWALK 6-INCH
- (AS3) ASPHALTIC SURFACE (3-INCH)
- (XX / YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING PAVEMENT ELEVATIONS. CONSTRUCT OVERLAY TO MATCH EXISTING PAVEMENT ELEVATIONS AT EDGE OF PROPOSED GUTTER.



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - EASTSIDE RD SE QUAD	SHEET 48	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021302-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - EASTSIDE RD SE QUAD

PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
2000	306+26.33	16.06L	481824.644	887510.919	975.67
2001	306+36.30	16.96L	481827.640	887520.507	975.80
2002	306+26.33	16.74L	481825.308	887510.778	975.68
2003	306+36.30	17.64L	481828.305	887520.366	975.81
2004	306+26.33	17.69L	481826.236	887510.582	975.69
2005	306+26.34	19.73L	481828.240	887510.158	975.71
2006	306+36.31	19.69L	481830.308	887519.942	975.83
2007	306+27.08	23.90L	481832.468	887509.996	975.76
2008	306+36.46	20.52L	481831.154	887519.910	975.84
2009	306+30.27	28.78L	481837.920	887512.097	975.68
2010	306+37.09	21.50L	481832.244	887520.330	975.83
2011	306+32.97	31.33L	481840.987	887514.211	975.63
2012	306+39.79	24.05L	481835.310	887522.444	975.78
2013	306+34.50	32.78L	481842.722	887515.408	975.47
2014	306+41.36	25.53L	481837.089	887523.670	975.62
2015	306+35.01	33.22L	481843.260	887515.818	975.42
2016	306+41.86	25.99L	481837.642	887524.063	975.57
2017	306+25.83	16.69L	481825.159	887510.299	976.15
2018	306+25.85	19.74L	481828.136	887509.669	976.20
2019	306+26.61	24.07L	481832.534	887509.501	976.25
2020	306+29.93	29.15L	481838.204	887511.685	975.96
2021	306+32.64	31.70L	481841.270	887513.801	976.13
2022	306+34.18	33.16L	481843.025	887515.013	975.90
2023	306+36.81	19.69L	481830.411	887520.431	976.33
2024	306+36.80	17.69L	481828.454	887520.845	976.29
2025	306+36.93	20.35L	481831.088	887520.405	976.34
2026	306+37.44	21.13L	481831.960	887520.741	976.32
2027	306+40.14	23.69L	481835.028	887522.854	976.29
2028	306+41.72	25.19L	481836.832	887524.096	976.07
2029	306+21.01	26.31L	481833.522	887503.523	975.43
2030	306+21.68	26.24L	481833.604	887504.195	975.92
2031	306+20.27	18.50L	481825.734	887504.469	975.57
2032	306+20.94	18.43L	481825.815	887505.141	976.06
2033	306+22.98	15.76L	481823.640	887507.709	975.62
2034	306+22.92	16.44L	481824.286	887507.507	976.11
2035	306+44.79	17.74L	481830.189	887528.665	975.91
2036	306+44.72	18.41L	481830.835	887528.463	976.40
2037	306+46.95	19.50L	481832.359	887530.416	975.88
2038	306+46.16	22.17L	481834.808	887529.083	975.79
2039	306+45.72	21.65L	481834.209	887528.768	976.28

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
2040	306+27.15	43.98L	481852.100	887505.801	974.86
2041	306+26.58	43.62L	481851.626	887505.318	975.35
2042	306+26.31	14.23L	481822.852	887511.297	975.72
2043	306+36.29	15.13L	481825.848	887520.885	975.84
2044	306+43.17	27.25L	481839.151	887525.091	975.54
2045	306+36.31	34.49L	481844.783	887516.828	975.39

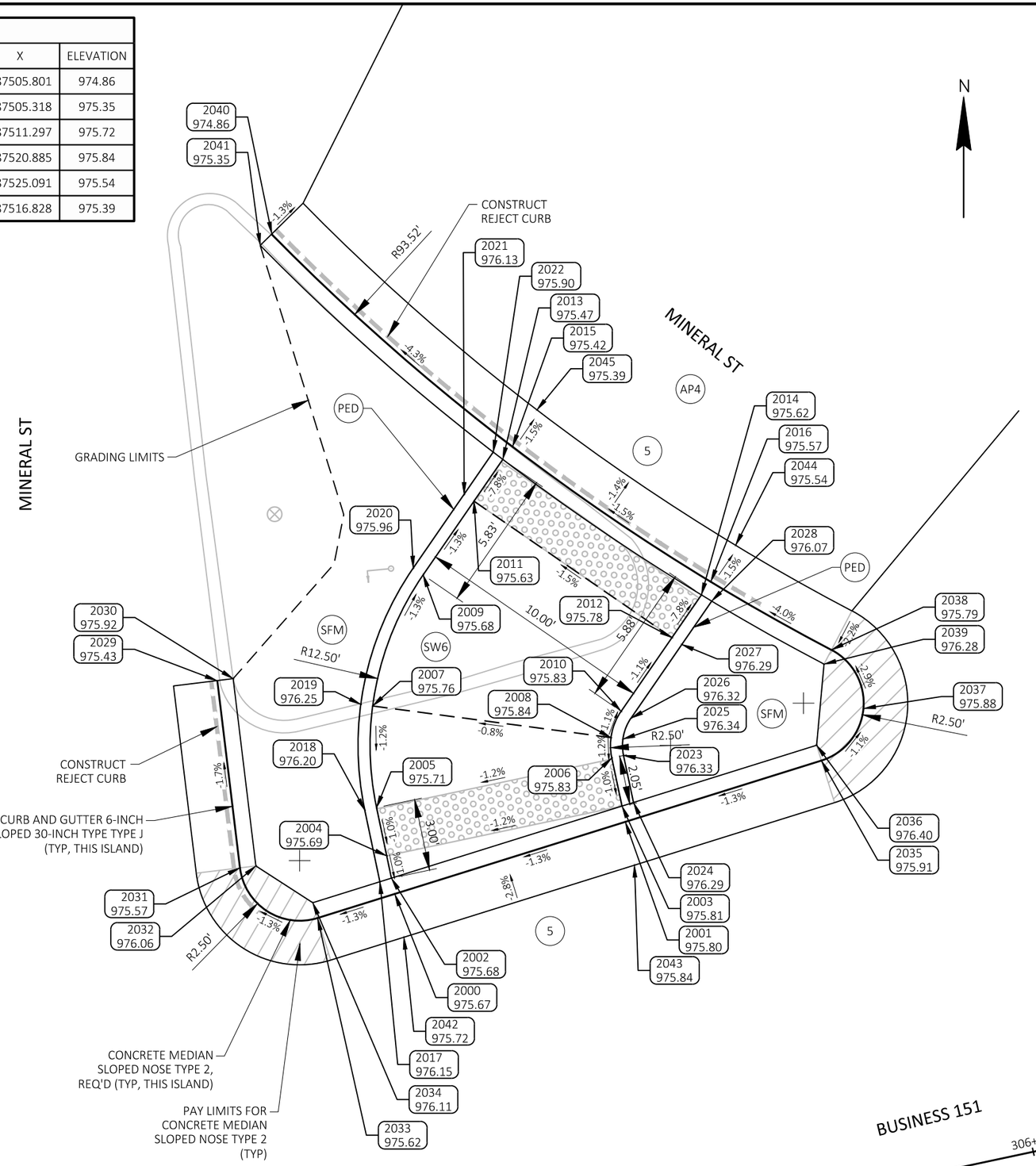
LEGEND

- (#) CURB RAMP TYPE
- (SFM) SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
- (SW6) CONCRETE SIDEWALK 6-INCH
- (AP4) ASPHALTIC SURFACE PATCHING (4-INCH)
- (PED) CONCRETE CURB PEDESTRIAN
- (XX YYY.YY) POINT NUMBER & ELEVATION

NOTE: CONSTRUCT PEDESTRIAN CURB RETURNS PER SDD 8D5 ALL CURB RAMPS THIS SHEET

SEE TRAFFIC SIGNAL PLAN FOR ADDITIONAL DETAILS OF ADJUSTMENTS

NOTE: GUTTER CROSS SLOPES VARY TO MATCH EXISTING AND PROPOSED PAVEMENT ELEVATIONS. CONSTRUCT OVERLAY TO MATCH EXISTING PAVEMENT ELEVATIONS AT EDGE OF PROPOSED GUTTER.



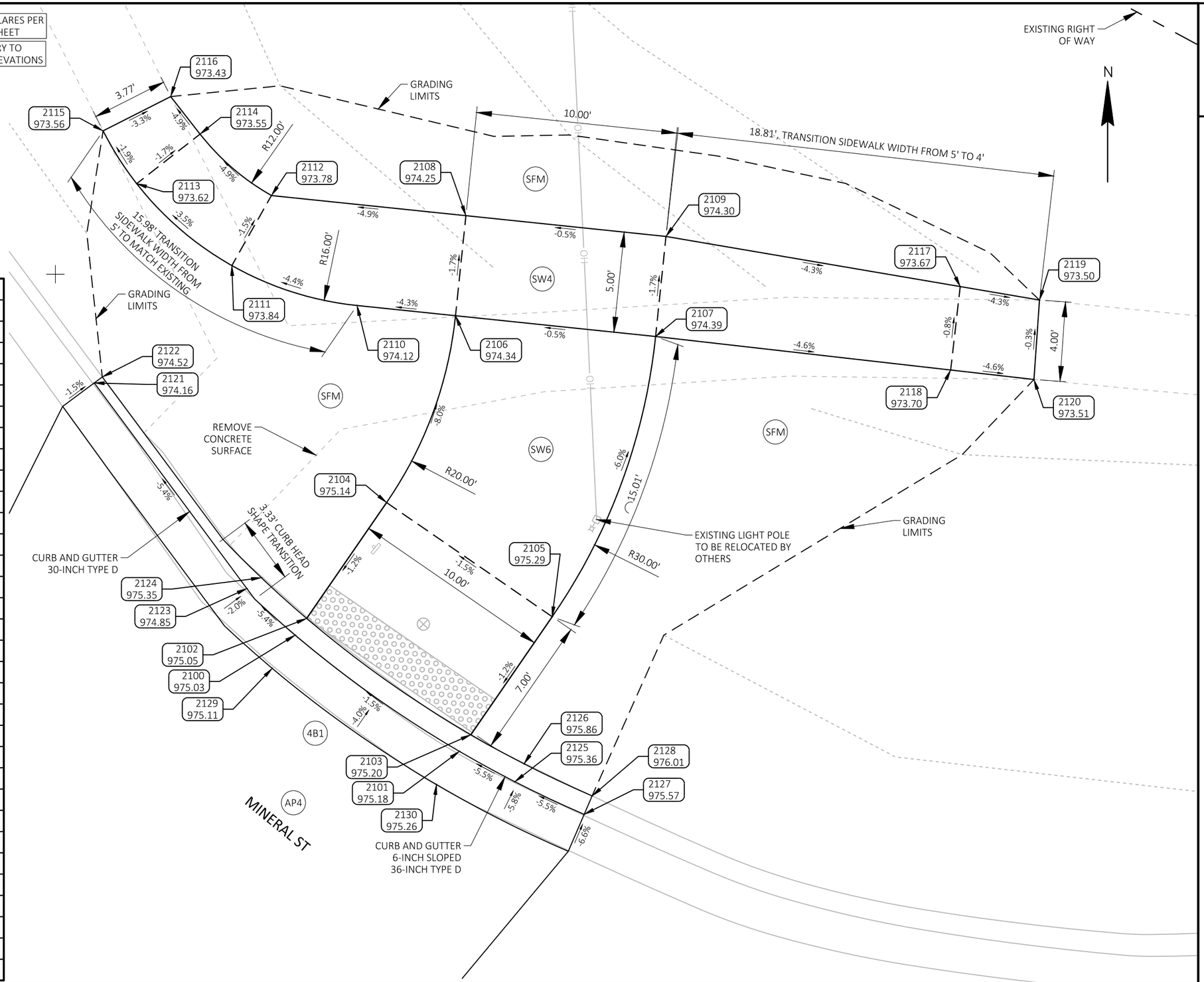
LEGEND

#	CURB RAMP TYPE
SFM	SALVAGED TOPSOIL, SEED, FERTILIZE, MULCH
SW4	CONCRETE SIDEWALK 4-INCH
SW6	CONCRETE SIDEWALK 6-INCH
AS3	ASPHALTIC SURFACE PATCHING (4-INCH)
XX YYY.YY	POINT NUMBER & ELEVATION

NOTE: CONSTRUCT 6:1 GRADED FLARES PER SDD 8D5 ALL CURB RAMPS THIS SHEET

NOTE: GUTTER CROSS SLOPES VARY TO MATCH PROPOSED PAVEMENT ELEVATIONS

POINT TABLE					
POINT NUMBER	STATION	OFFSET	Y	X	ELEVATION
2100	306+51.29	48.73L	481861.861	887528.603	975.03
2101	306+58.03	41.38L	481856.082	887536.765	975.18
2102	306+52.02	49.42L	481862.689	887529.174	975.05
2103	306+58.75	42.07L	481856.907	887537.334	975.20
2104	306+57.06	54.23L	481868.452	887533.147	975.14
2105	306+63.88	46.98L	481862.776	887541.380	975.29
2106	306+62.28	62.61L	481877.742	887536.575	974.34
2107	306+71.70	59.56L	481876.710	887546.521	974.39
2108	306+63.79	67.38L	481882.715	887537.090	974.25
2109	306+73.20	64.33L	481881.684	887547.037	974.30
2110	306+57.64	64.12L	481878.249	887531.678	974.12
2111	306+52.03	67.36L	481880.235	887525.455	973.84
2112	306+54.65	70.35L	481883.717	887527.424	973.78
2113	306+48.30	72.32L	481884.307	887520.725	973.62
2114	306+51.85	74.08L	481886.772	887523.876	973.55
2115	306+47.22	75.24L	481886.934	887519.055	973.56
2116	306+50.82	76.21L	481888.637	887522.417	973.43
2117	306+86.87	58.92L	481879.192	887561.663	973.67
2118	306+85.58	54.95L	481875.041	887561.191	973.70
2119	306+90.56	57.46L	481878.520	887565.606	973.50
2120	306+89.51	53.65L	481874.570	887565.332	973.51
2121	306+44.21	63.08L	481874.400	887518.614	974.16
2122	306+44.66	63.28L	481874.698	887519.016	974.52
2123	306+49.45	51.49L	481864.177	887526.204	974.85
2124	306+50.26	51.87L	481864.712	887526.925	975.35
2125	306+60.40	39.33L	481854.571	887539.525	975.36
2126	306+61.02	40.11L	481855.461	887539.980	975.86
2127	306+63.41	37.04L	481852.948	887542.970	975.57
2128	306+63.99	37.85L	481853.867	887543.366	976.01
2129	306+49.85	47.35L	481860.207	887527.462	975.11
2130	306+56.58	40.00L	481854.431	887535.626	975.26



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CURB RAMPS - MINERAL ST NE QUAD	SHEET 50	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\021302-CD-CR.DWG
LAYOUT NAME - CURB RAMPS - MINERAL ST NE QUAD

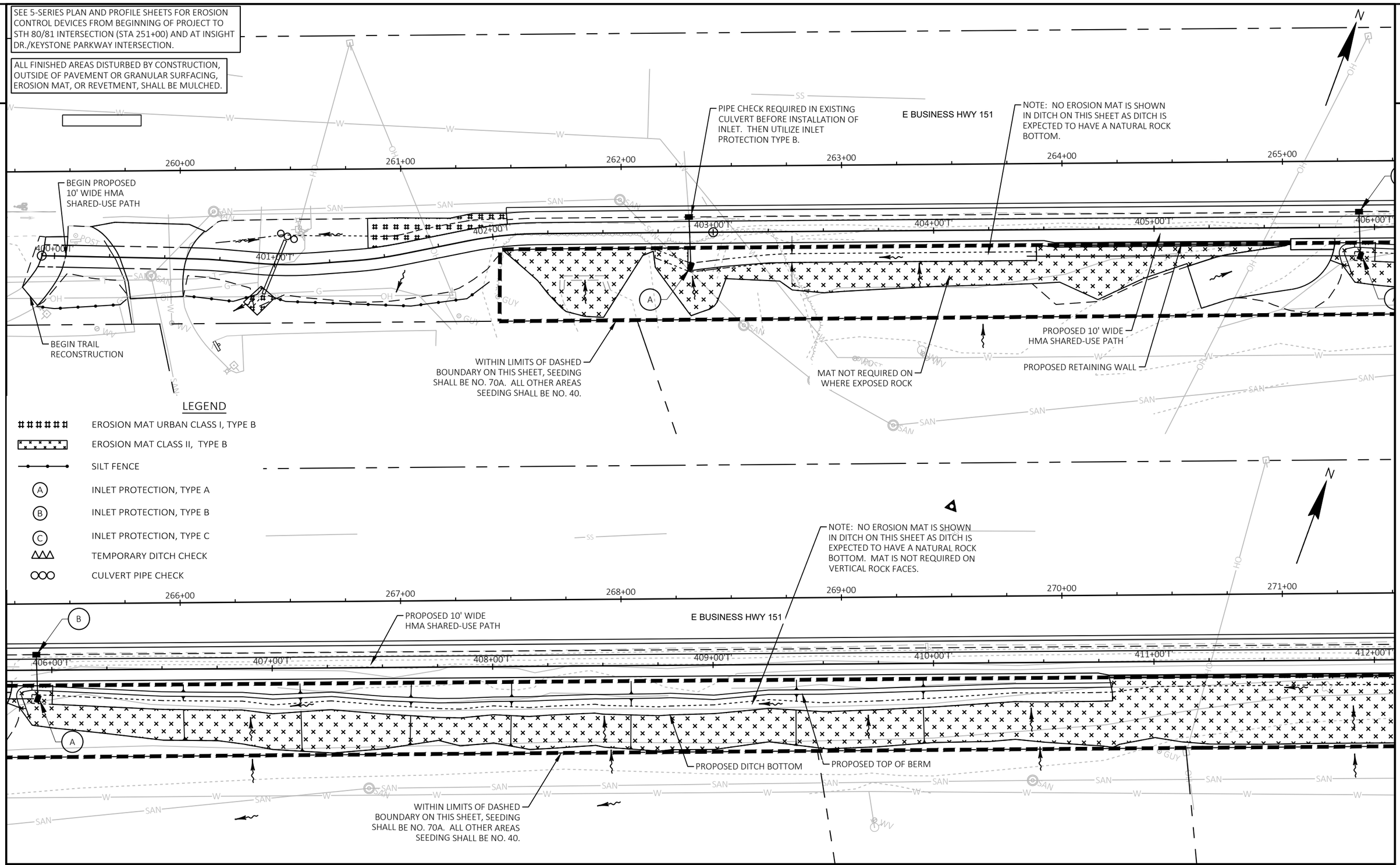
PLOT DATE : 9/15/2015 4:01 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

SEE 5-SERIES PLAN AND PROFILE SHEETS FOR EROSION CONTROL DEVICES FROM BEGINNING OF PROJECT TO STH 80/81 INTERSECTION (STA 251+00) AND AT INSIGHT DR./KEYSTONE PARKWAY INTERSECTION.

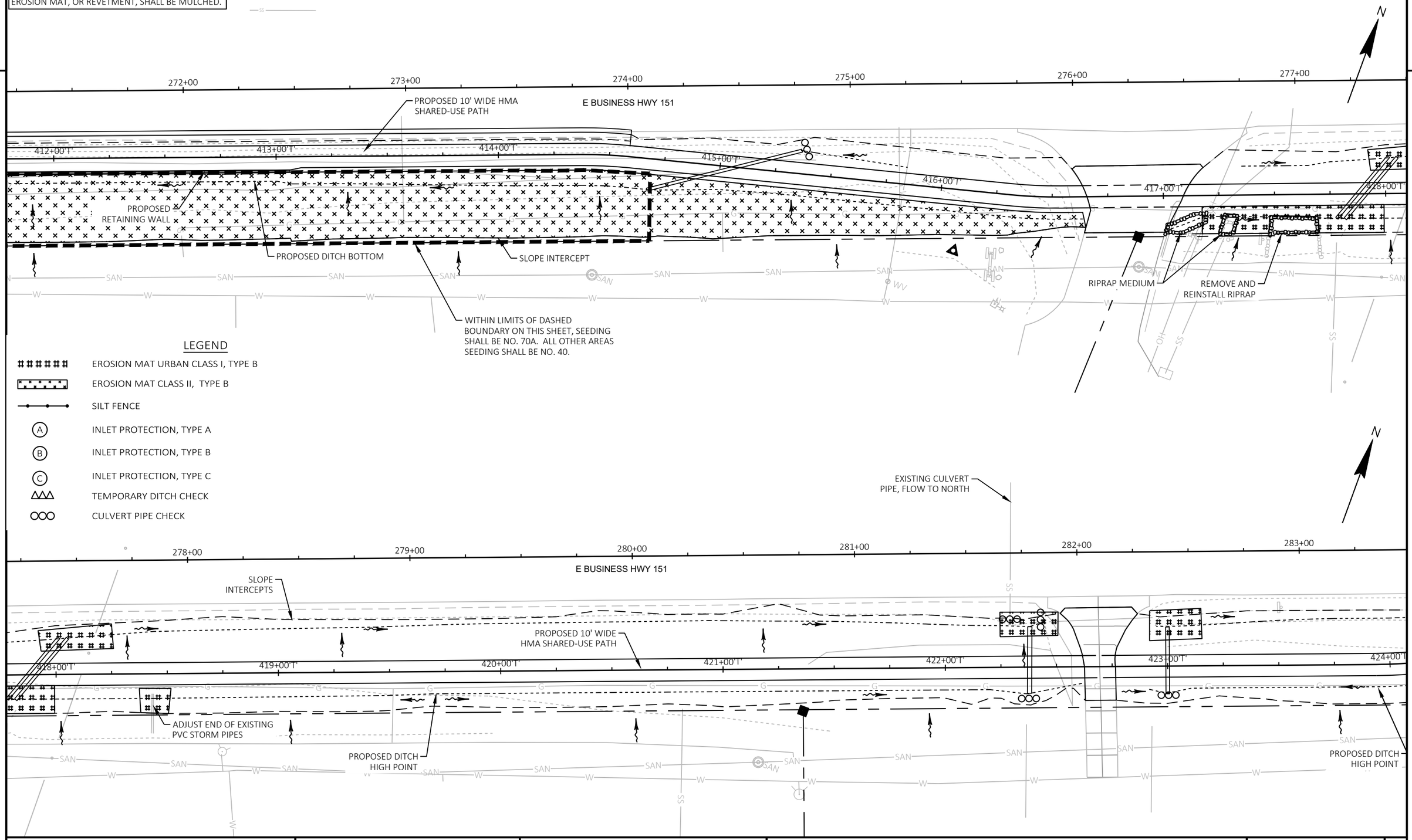
ALL FINISHED AREAS DISTURBED BY CONSTRUCTION, OUTSIDE OF PAVEMENT OR GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.

2



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	EROSION CONTROL	SHEET 51	E

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION, OUTSIDE OF PAVEMENT OR GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.



LEGEND

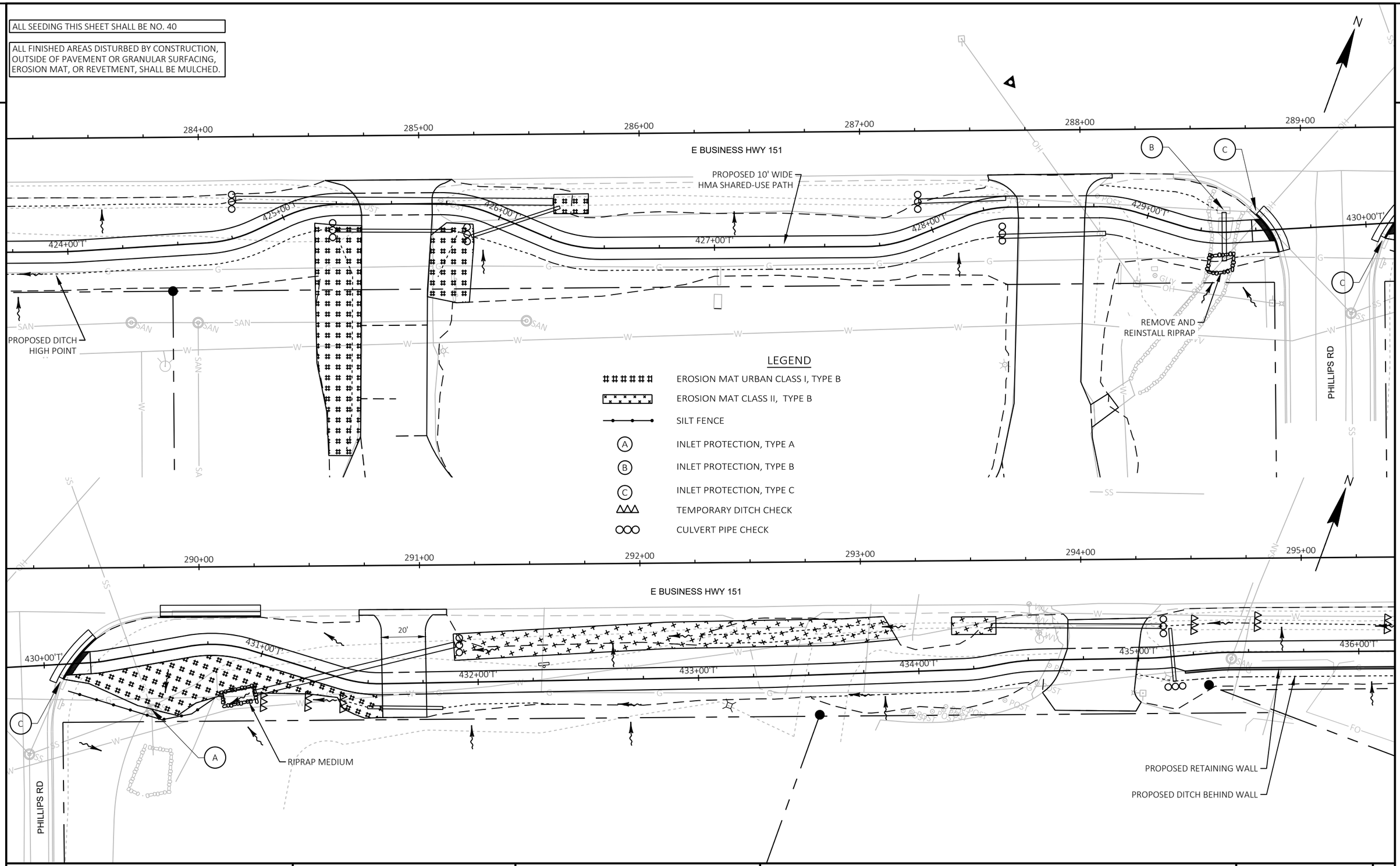
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

PROJECT NO: 5996-00-77	HWY:	COUNTY: GRANT	EROSION CONTROL	SHEET 52	E

2

ALL SEEDING THIS SHEET SHALL BE NO. 40

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION, OUTSIDE OF PAVEMENT OR GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	EROSION CONTROL	SHEET 53	E

ALL SEEDING THIS SHEET SHALL BE NO. 40

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION, OUTSIDE OF PAVEMENT OR GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.

E BUSINESS HWY 151

296+00 297+00 298+00 299+00 300+00 301+00

436+00'I' 437+00'I' 438+00'I' 439+00'I' 440+00'I' 441+00'I' 442+00'I'

PROPOSED 10' WIDE SHARED-USE PATH

PROPOSED RETAINING WALL

PROPOSED DITCH BEHIND WALL

NOTE: DUE TO POTENTIAL IMPACTS OF PONDING AND THAT THERE IS ONLY A SMALL AMOUNT OF GRADING WITHIN AREA THAT DRAINS TO CULVERT, DO NOT PLACE PIPE CHECKS IN THESE PIPES

REMOVE AND REINSTALL RIPRAP

PROPOSED DITCH BEHIND WALL

PROPOSED RETAINING WALL

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE B
- SILT FENCE
- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK

303+00 304+00 305+00 306+00 307+00

E BUSINESS HWY 151

442+00'I' 443+00'I' 444+00'I' 445+00'I' 446+00'I'

PROPOSED RETAINING WALL

PROPOSED DITCH BEHIND WALL

PROPOSED 10' WIDE HMA SHARED-USE PATH

PLACE TYPE C INLET PROTECTION AT NEXT DOWNSTREAM INLET IN CURB

MINERAL ST

EAST SIDE RD

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	EROSION CONTROL	SHEET 54	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\022001-EC1.DWG
LAYOUT NAME - EROSION CONTROL - 4

PLOT DATE : 9/29/2020 12:48 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : ##########

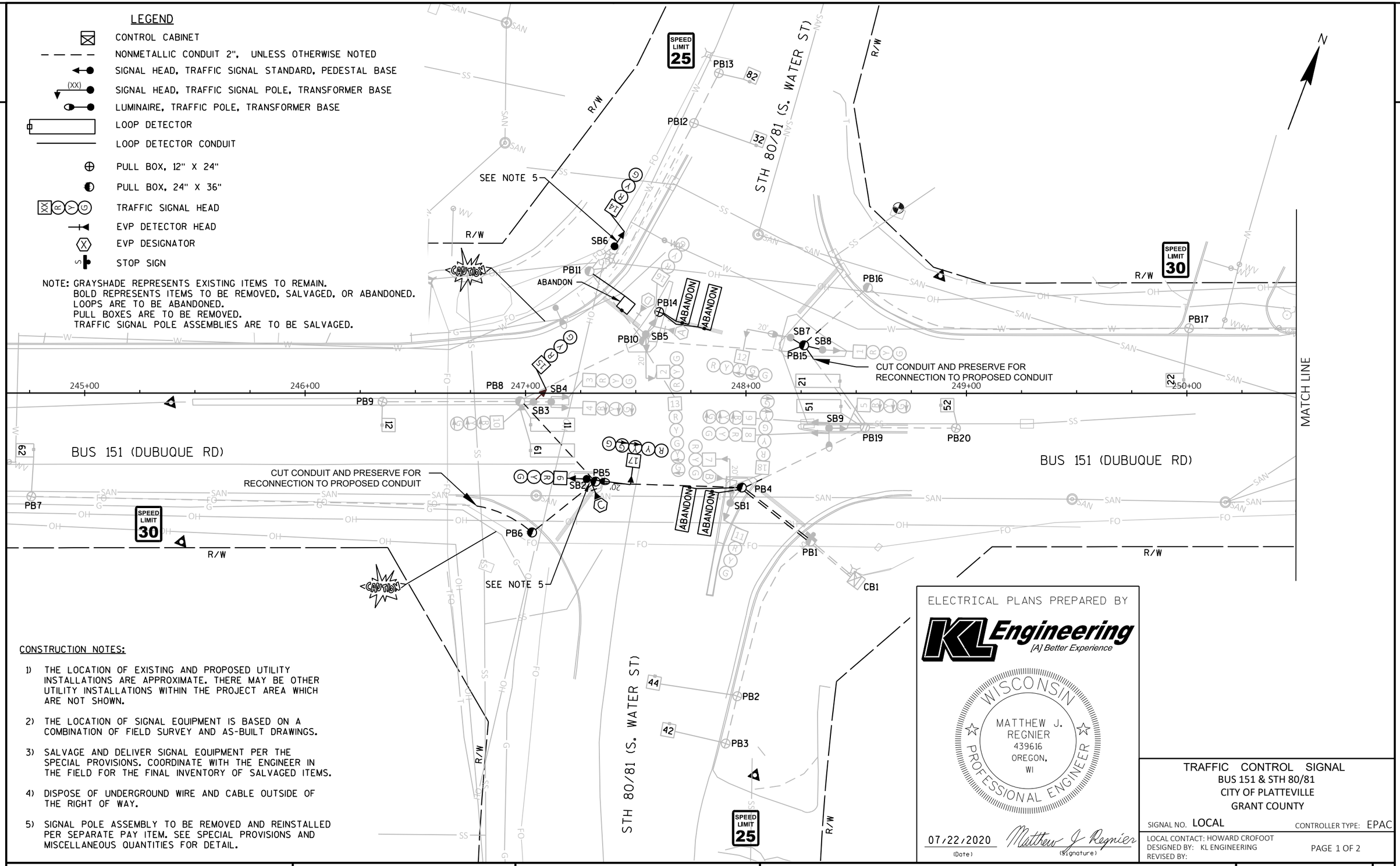
WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR
- LOOP DETECTOR CONDUIT
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 36"
- TRAFFIC SIGNAL HEAD
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- STOP SIGN

NOTE: GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN.
BOLD REPRESENTS ITEMS TO BE REMOVED, SALVAGED, OR ABANDONED.
LOOPS ARE TO BE ABANDONED.
PULL BOXES ARE TO BE REMOVED.
TRAFFIC SIGNAL POLE ASSEMBLIES ARE TO BE SALVAGED.



CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.
3) SALVAGE AND DELIVER SIGNAL EQUIPMENT PER THE SPECIAL PROVISIONS. COORDINATE WITH THE ENGINEER IN THE FIELD FOR THE FINAL INVENTORY OF SALVAGED ITEMS.
4) DISPOSE OF UNDERGROUND WIRE AND CABLE OUTSIDE OF THE RIGHT OF WAY.
5) SIGNAL POLE ASSEMBLY TO BE REMOVED AND REINSTALLED PER SEPARATE PAY ITEM. SEE SPECIAL PROVISIONS AND MISCELLANEOUS QUANTITIES FOR DETAIL.

ELECTRICAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
MATTHEW J. REGNIER
439616
OREGON, WI
PROFESSIONAL ENGINEER

07/22/2020 (Date)
Matthew J Regnier (Signature)

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 55	E

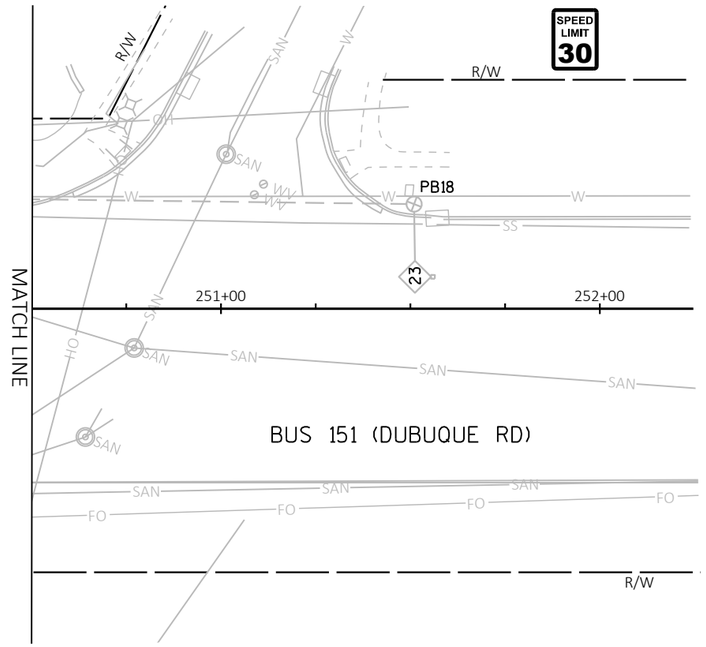
FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024001-SR(80-81).DWG PLOT DATE : 7/22/2020 2:58 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 12" X 24"
- LOOP DETECTOR CONDUIT



BUS 151 (DUBUQUE RD)

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 56	E

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024001-SR(80-81).DWG
LAYOUT NAME - TAILS

PLOT DATE : 6/19/2020 11:05 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT
- LANE DESIGNATION FOR INFO ONLY
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- XX R Y G TRAFFIC SIGNAL HEAD
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- S STOP SIGN
- CS3 CONDUIT SPECIAL 3-INCH

NOTE: GRAYSHADE REPRESENTS EXISTING.
ALL LENSES ARE 12-INCH

N

SPEED LIMIT 25

STH 80/81 (S. WATER ST)

PB13 PB12 PB24 PB11 PB10 PB9 PB8 PB22 PB23 PB7 PB15 PB16 PB25 PB18 PB19 PB1 PB2 PB3

SB14 SB15 SB13 SB5 SB4 SB3 SB12 SB11 SB7 SB16 SB8 SB9 SB1 SB10

CS3

83 6' X 30' 3 TURNS
81 6' X 30' 3 TURNS
31 6' X 30' 3 TURNS
71 6' X 30' 3 TURNS
41 6' X 30' 3 TURNS

R/W

LIGHT POLE NOT INCLUDED IN SIGNAL SYSTEM

CAUTION

ADJUST PULL BOX

SPEED LIMIT 30

245+00 246+00 247+00 248+00 249+00 250+00

MATCH LINE

BUS 151 (DUBUQUE RD)

BUS 151 (DUBUQUE RD)

SPEED LIMIT 30

R/W

CAUTION

INSTALL SIGNAL POLE SB6 & SB2 (REMOVAL PLANS) ON NEW CONCRETE BASES FOR SB12 AND SB11 RESPECTIVELY

CB1

STH 80/81 (S.WATER ST)

SPEED LIMIT 25

CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2) THE LOCATION OF EXISTING SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.

3) THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS IN THIS PROJECT TO AVOID CONFLICTS IN THE FIELD.

4) THE FINAL LOCATION AND ORIENTATION OF PEDESTRIAN BUTTONS MUST ADHERE TO THE LATEST STANDARDS OF THE AMERICANS WITH DISABILITIES ACT.

5) PROPOSED PAVEMENT MARKINGS ARE SHOWN AS GRAYSHADE FOR PLAN CLARITY

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5996-00-07	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL PLAN	SHEET 57	E

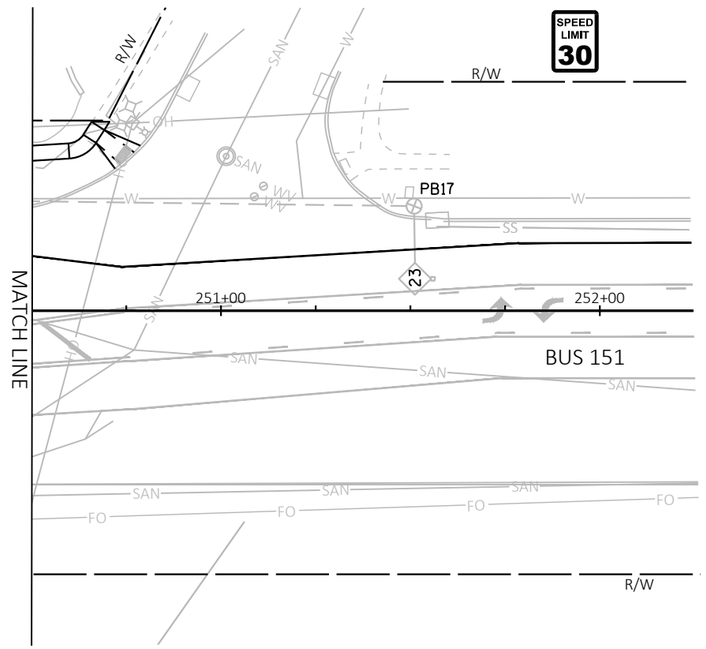
FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(80-81).DWG PLOT DATE : 7/22/2020 2:58 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 12" X 24"
- LOOP DETECTOR CONDUIT



CONSTRUCTION NOTES:

1) RE-CABLING LOOP LEAD TO PB17 IS THE ONLY ELECTRICAL WORK ON THIS SHEET.

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

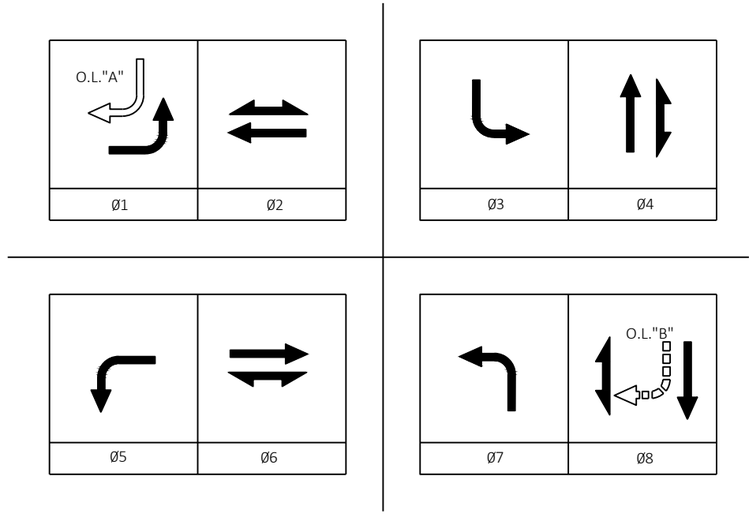
SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

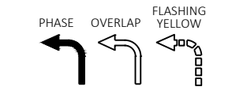
LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL PLAN	SHEET 58	E

	HEAD NUMBERS	FLASH
Ø1	9,10	R
Ø2	1,2,3	R
Ø3	17,18	
Ø4	11,12,13	R
Ø5	4,5	R
Ø6	6,7,8	R
Ø7	12,13	
Ø8	16,17,18	R
Ø2 PED	2A,2B	
Ø4 PED	4A,4B	
Ø6 PED	6A,6B	
Ø8 PED	8A,8B	
O.L."A"	14,15	R
O.L."B"	14,15	-







CONTROLLER LOGIC

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	23	31	41	51	61	71
PHASE CALLED	1	2	2	3	4	5	6	7
PHASE EXTENDED	1	2	2	3	4	5	6	7
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)	81	83						
PHASE CALLED	8	8						
PHASE EXTENDED	8	8						
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12	22		32	42	52	62	72
PHASE CALLED	1	2		3	4	5	6	7
PHASE EXTENDED	1	2		3	4	5	6	7
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)	82							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

VERIFY EXTENSION STRETCH, CALLING DELAY, AND DISCONNECT TIME WITH EXISTING SIGNAL CONTROLLER SETTINGS

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

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

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5996-00-77 | HWY: BUS 151 | COUNTY: GRANT | TRAFFIC SIGNAL PLAN | SHEET 59 | E

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(80-81).DWG PLOT DATE : 6/19/2020 11:07 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

BUS 151 & STH 80/81 TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR
CB1 TO SB1	15C	7	EB	R	RED
				Y	ORG
				G	GRN
		11	NB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		18	SB	R	RED/WHT
				Y	BLK/WHT
				G	GRN/WHT
				Y←	BLU/BLK
				G←	BLU/WHT
		2A	Φ2 PED	W	BLU
				DW	BLK
		-	Φ2 PED	BUTTON	WHT/BLK
CB1 TO SB10	7C	8B	Φ8 PED	W	BLU
				DW	BLK
		-	Φ8 PED	BUTTON	WHT/BLK
CB1 TO SB11	12C	17	SB	R	RED
				Y	ORG
				G	GRN
				Y←	ORG/BLK
				G←	GRN/BLK
		2B	Φ2 PED	W	BLU
				DW	BLK
		-	Φ2 PED	BUTTON	WHT/BLK
CB1 TO SB12	9C	6	EB	R	RED
				Y	ORG
				G	GRN
		4A	Φ4 PED	W	BLU
				DW	BLK
		-	Φ4 PED	BUTTON	WHT/BLK
CB1 TO SB3	12C	10	WBLT	R←	RED
				Y←	ORG
				G←	GRN
		15	SBRT	R	RED/BLK
				Y→	ORG/BLK
				FY→	BLU/BLK
				G→	GRN/BLK
CB1 TO SB4	12C	11	NB	R	RED
				Y	ORG
				G	GRN
		4	WBLT	R←	RED/BLK
				Y←	ORG/BLK
				G←	GRN/BLK

BUS 151 & STH 80/81 TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR
CB1 TO SB5	15C	2	WB	R	RED
				Y	ORG
				G	GRN
		13	NB	R	RED/WHT
				Y	BLK/WHT
				G	GRN/WHT
				Y←	BLU/BLK
				G←	BLU/WHT
		16	SB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
CB1 TO SB13	5C	-	Φ6 PED	BUTTON	BLK
CB1 TO SB14	7C	4B	Φ4 PED	W	BLU
				DW	BLK
		-	Φ4 PED	BUTTON	WHT/BLK
CB1 TO SB15	12C	14	SBRT	R	RED
				Y→	ORG
				FY→	GRN/BLK
				G→	GRN
		6A	Φ6 PED	W	BLU
				DW	BLK
		-	Φ6 PED	BUTTON	WHT/BLK
CB1 TO SB7	12C	12	NB	R	RED
				Y	ORG
				G	GRN
				Y←	ORG/BLK
				G←	GRN/BLK
		6B	Φ6 PED	W	BLU
				DW	BLK
		-	Φ6 PED	BUTTON	WHT/BLK
CB1 TO SB8	5C	1	WB	R	RED
				Y	ORG
				G	GRN
CB1 TO SB16	7C	8B	Φ8 PED	W	BLU
				DW	BLK
		-	Φ8 PED	BUTTON	WHT/BLK
CB1 TO SB9	12C	5	WBLT	R←	RED/BLK
				Y←	ORG/BLK
				G←	GRN/BLK
		8	EB	R	RED
				Y	ORG
				G	GRN
		9	EBLT	R←	BLK
				Y←	BLU/BLK
				G←	BLU

BUS 151 & STH 80/81 EMERGENCY VEHICLE PREEMPT	
FROM	TO
CB1	SB1 ("B")
CB1	SB11 ("C")
CB1	SB5 ("A")
CB1	SB5 ("D")

BUS 151 & STH 80/81 LIGHTING CABLE CHART TYPE UF 2-12 AWG GROUNDED		
CABLE	CABLE RUN	LUMINAIRE LOCATION
2/C WITH GROUND	CB1 TO SB11	SW QUADRANT
	CB1 TO SB9	E MEDIAN
	CB1 TO SB7	NW QUADRANT

BUS 151 & STH 80/81 EQUIPMENT GROUNDING CONDUCTOR TRAFFIC SIGNALS 10 AWG	
FROM	TO
CB1	SB1
SB1	SB10
SB10	SB11
SB11	SB12
SB12	SB3
SB3	SB4
SB4	SB5
SB5	SB13
SB13	SB14
SB14	SB15
SB15	SB7
SB7	SB8
SB8	SB16
SB16	SB9
SB9	CB1

BUS 151 & STH 80/81 PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
CB1	PB1
SB1	PB21
SB12	PB22
SB3	PB8
SB5	PB10
SB14	PB11
SB8	PB25

TRAFFIC CONTROL SIGNAL
BUS 151 & STH 80/81
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	CABLE ROUTING	SHEET 60	E

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(80-81).DWG PLOT DATE : 6/19/2020 11:07 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 42

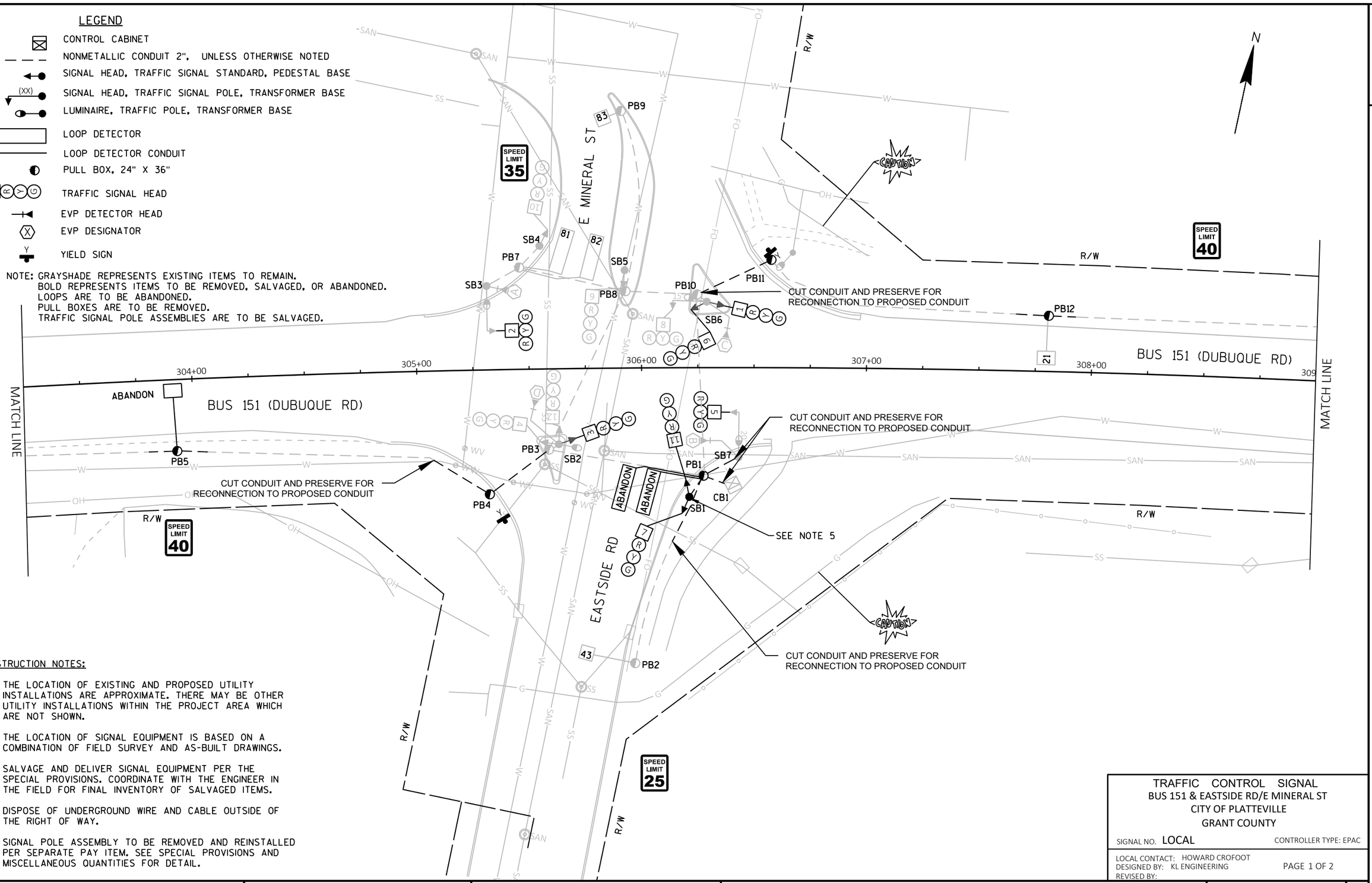
2

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR
- LOOP DETECTOR CONDUIT
- PULL BOX, 24" X 36"
- TRAFFIC SIGNAL HEAD
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- Y YIELD SIGN

NOTE: GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN.
BOLD REPRESENTS ITEMS TO BE REMOVED, SALVAGED, OR ABANDONED.
LOOPS ARE TO BE ABANDONED.
PULL BOXES ARE TO BE REMOVED.
TRAFFIC SIGNAL POLE ASSEMBLIES ARE TO BE SALVAGED.



CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2) THE LOCATION OF SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.

3) SALVAGE AND DELIVER SIGNAL EQUIPMENT PER THE SPECIAL PROVISIONS. COORDINATE WITH THE ENGINEER IN THE FIELD FOR FINAL INVENTORY OF SALVAGED ITEMS.

4) DISPOSE OF UNDERGROUND WIRE AND CABLE OUTSIDE OF THE RIGHT OF WAY.

5) SIGNAL POLE ASSEMBLY TO BE REMOVED AND REINSTALLED PER SEPARATE PAY ITEM. SEE SPECIAL PROVISIONS AND MISCELLANEOUS QUANTITIES FOR DETAIL.

TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

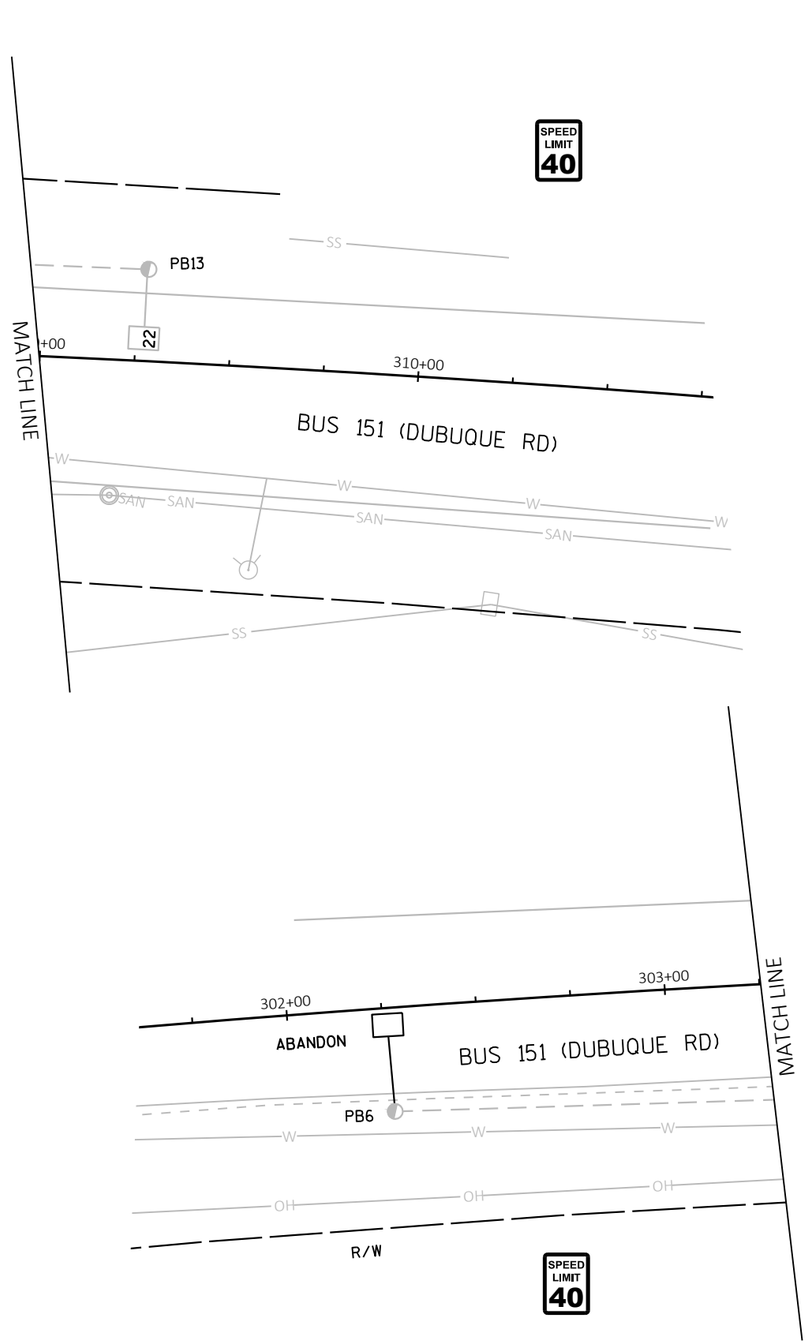
PAGE 1 OF 2

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 61	E

2

LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR
- LOOP DETECTOR CONDUIT
- PULL BOX, 24" X 36"



N

2

TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 5996-00-77	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 62	E

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024001-SR(EASTSIDE).DWG PLOT DATE : 6/19/2020 11:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

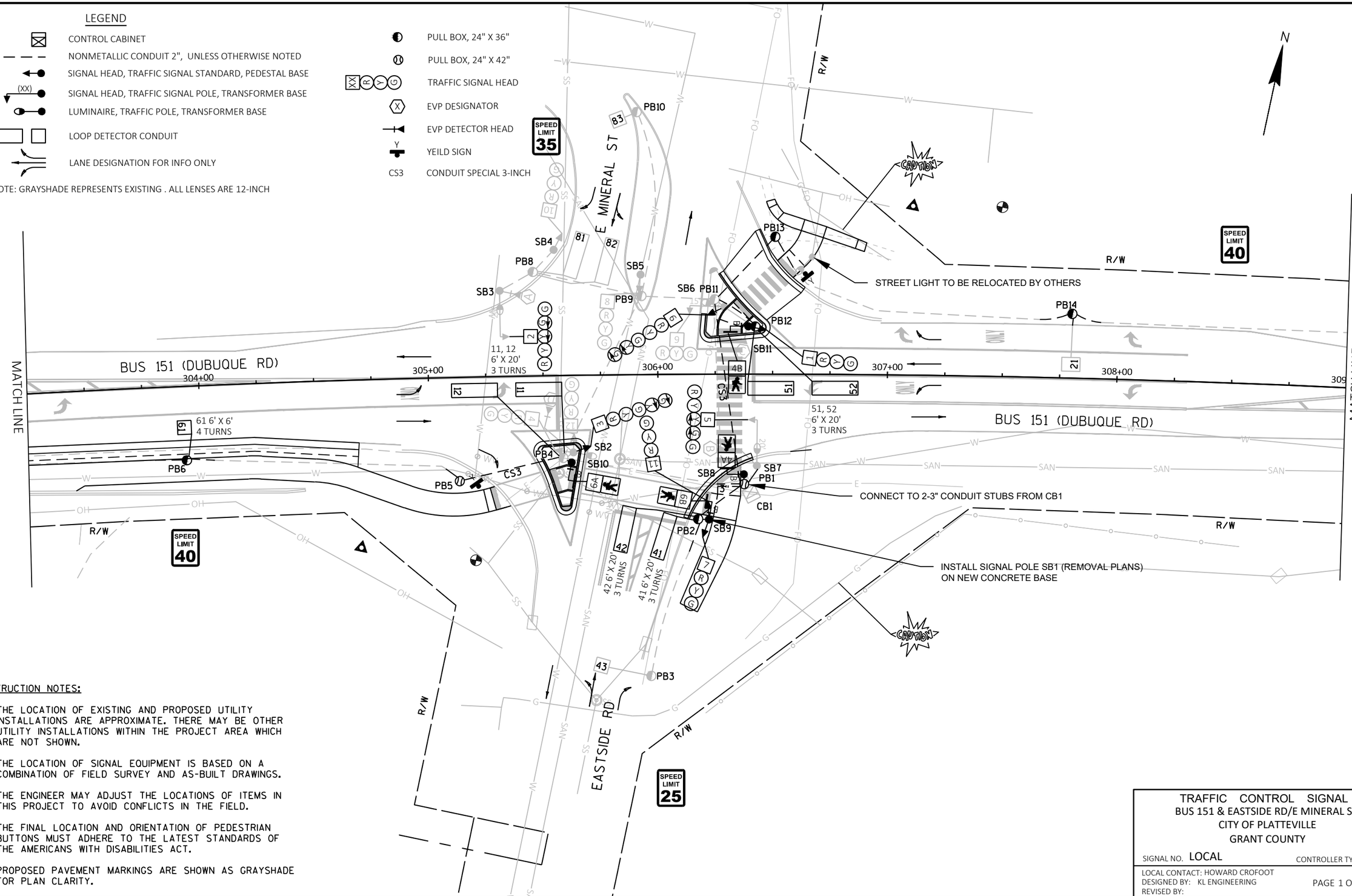
2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT
- LANE DESIGNATION FOR INFO ONLY

NOTE: GRAYSHADE REPRESENTS EXISTING . ALL LENSES ARE 12-INCH

- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- TRAFFIC SIGNAL HEAD
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- YEILD SIGN
- CS3 CONDUIT SPECIAL 3-INCH



CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2) THE LOCATION OF SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.

3) THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS IN THIS PROJECT TO AVOID CONFLICTS IN THE FIELD.

4) THE FINAL LOCATION AND ORIENTATION OF PEDESTRIAN BUTTONS MUST ADHERE TO THE LATEST STANDARDS OF THE AMERICANS WITH DISABILITIES ACT.

5) PROPOSED PAVEMENT MARKINGS ARE SHOWN AS GRAYSHADE FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5996-00-07	HWY: BUISNESS 151	COUNTY: GRANT	TRAFFIC SIGNAL PLAN	SHEET 63	E

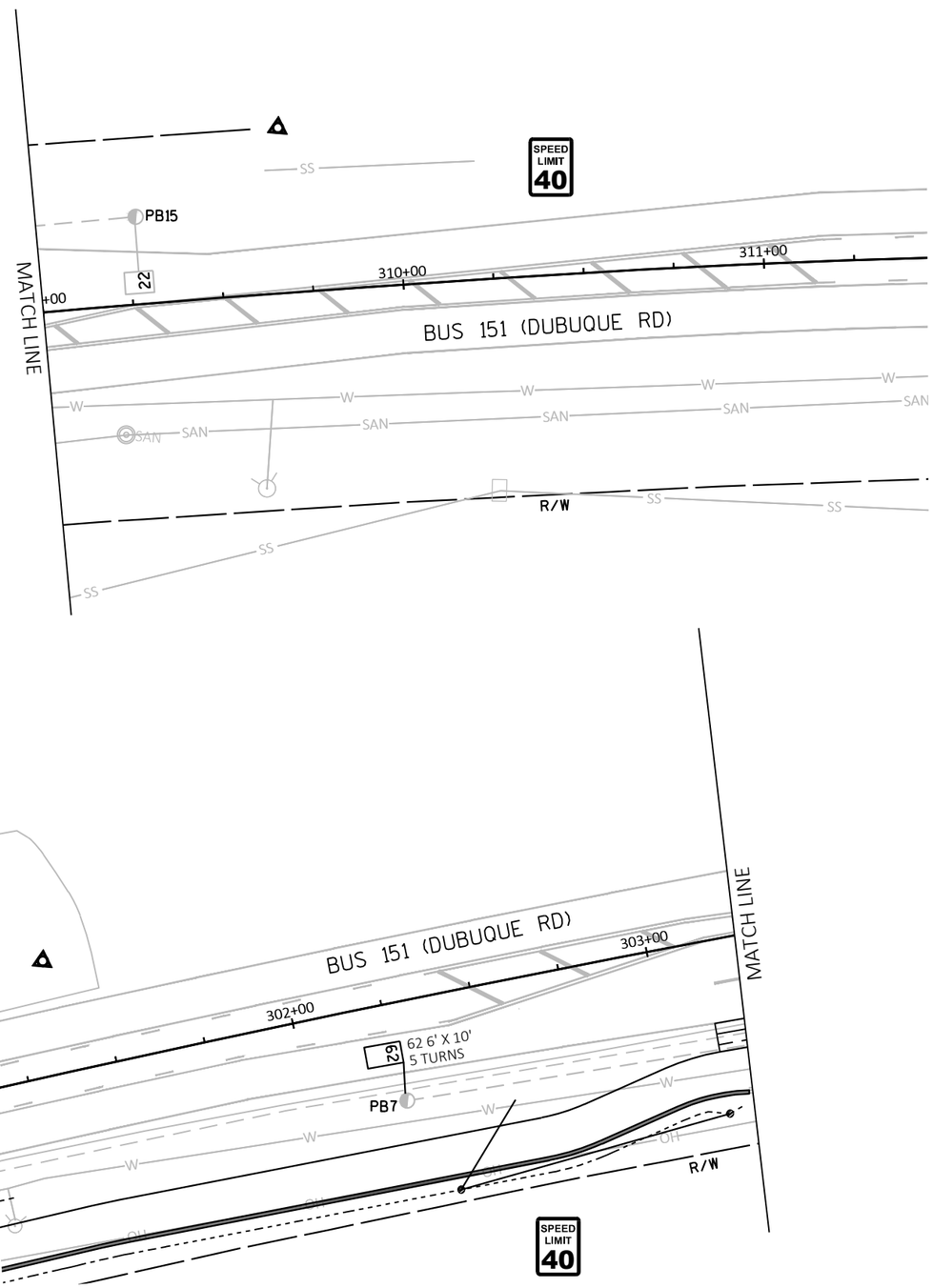
FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(EASTSIDE).DWG PLOT DATE : 7/22/2020 3:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 24" X 36"
- LOOP DETECTOR CONDUIT



TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 4

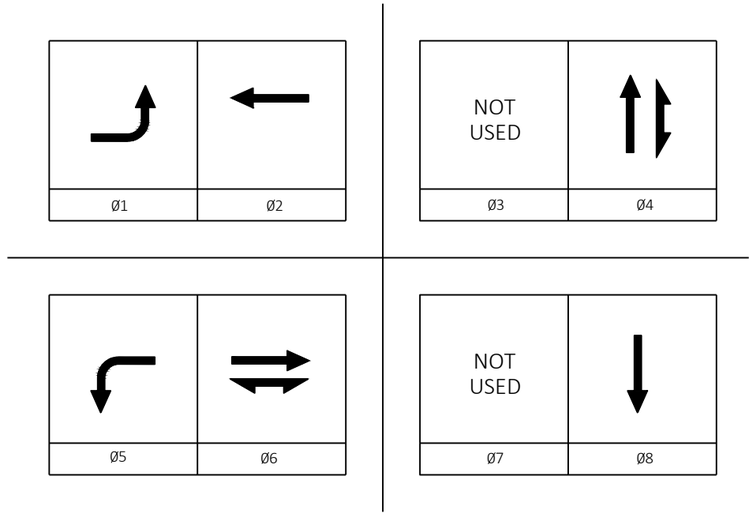
PROJECT NO: 5996-00-07	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL PLAN	SHEET 64	E

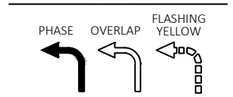
FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(EASTSIDE).DWG
LAYOUT NAME - BUS 151 & Eastside_Pg 2

PLOT DATE : 7/22/2020 2:59 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6	-
Ø2	1,2,3	R
Ø4	7,8,9	R
Ø5	2,3	-
Ø6	4,5,6	R
Ø8	10,11,12	R
Ø4 PED	4A,4B	
Ø6 PED	6A,6B	







CONTROLLER LOGIC

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR #(S)	11	21	41	43	51	61	81	83								
PHASE CALLED	1	2	4	4	5	6	8	8								
PHASE EXTENDED	1	2	4	4	5	6	8	8								
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR #(S)	12	22	42		52	62	82									
PHASE CALLED	1	2	4		5	6	8									
PHASE EXTENDED	1	2	4		5	6	8									
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

VERIFY EXTENSION STRETCH, CALLING DELAY, AND DISCONNECT TIME WITH EXISTING SIGNAL CONTROLLER SETTINGS

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

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

TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 5996-00-77 | HWY: BUS 151 | COUNTY: GRANT | SEQUENCE OF OPERATIONS | SHEET 65 | E

2

BUS 151 & EASTSIDE RD/E MINERAL ST TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR
CB1 TO SB7	7C	5	EB	R	RED
				Y	ORG
				G	GRN
				Y←	BLU
				G←	BLK
CB1 TO SB8	7C	4A	Φ4 PED	W	BLU
				DW	BLK
		-	Φ4 PED	BUTTON	WHT/BLK
CB1 TO SB9	12C	7	NB	R	RED
				Y	ORG
				G	GRN
		11	SB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		6B	Φ6 PED	W	BLU
				DW	BLK
		-	Φ6 PED	BUTTON	WHT/BLK
CB1 TO SB2	15C	3	WB	R	RED
				Y	ORG
				G	GRN
				Y←	BLU
				G←	BLK
		4	EB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		12	SB	R	RED/WHT
				Y	BLK/WHT
				G	GRN/WHT
CB1 TO SB10	7C	6A	Φ6 PED	W	BLU
				DW	BLK
		-	Φ6 PED	BUTTON	WHT/BLK
CB1 TO SB3	7C	5	EB	R	RED
				Y	ORG
				G	GRN
				Y←	BLU
				G←	BLK
CB1 TO SB4	5C	10	SB	R	RED
				Y	ORG
				G	GRN
CB1 TO SB5	5C	8	NB	R	RED
				Y	ORG
				G	GRN
CB1 TO SB6	12C	6	EB	R	RED
				Y	ORG
				G	GRN
				Y←	BLU
				G←	BLK
		9	NB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
CB1 TO SB12	12C	1	WB	R	RED
				Y	ORG
				G	GRN
		4B	Φ4 PED	W	BLU
				DW	BLK
		-	Φ4 PED	BUTTON	WHT/BLK

BUS 151 & EASTSIDE RD/E MINERAL ST EMERGENCY VEHICLE PREEMPT	
FROM	TO
CB1	SB7 ("B")
CB1	SB2 ("D")
CB1	SB3 ("A")
CB1	SB11 ("C")

BUS 151 & EASTSIDE RD/E MINERAL ST LIGHTING CABLE CHART TYPE UF 2-12 AWG GROUNDED		
CABLE	CABLE RUN	LUMINAIRE LOCATION
2/C WITH GROUND	CB1 TO SB2	SW QUADRANT
	SB2 TO SB3	NW QUADRANT
	CB1 TO SB7	SE QUADRANT
	CB1 TO SB6	NE QUADRANT

BUS 151 & EASTSIDE RD/E MINERAL ST EQUIPMENT GROUNDING CONDUCTOR TRAFFIC SIGNALS 10 AWG	
FROM	TO
CB1	SB7
SB7	SB8
SB8	SB9
SB9	SB2
SB2	SB10
SB10	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB11
SB11	CB1

BUS 151 & EASTSIDE RD/E MINERAL ST PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
CB1	PB1
SB9	PB2
SB2	PB4
SB4	PB8
SB5	PB9
SB6	PB11
SB11	PB12

TRAFFIC CONTROL SIGNAL
BUS 151 & EASTSIDE RD/E MINERAL ST
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(EASTSIDE).DWG
LAYOUT NAME - Cable Routing
PLOT DATE : 6/19/2020 11:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

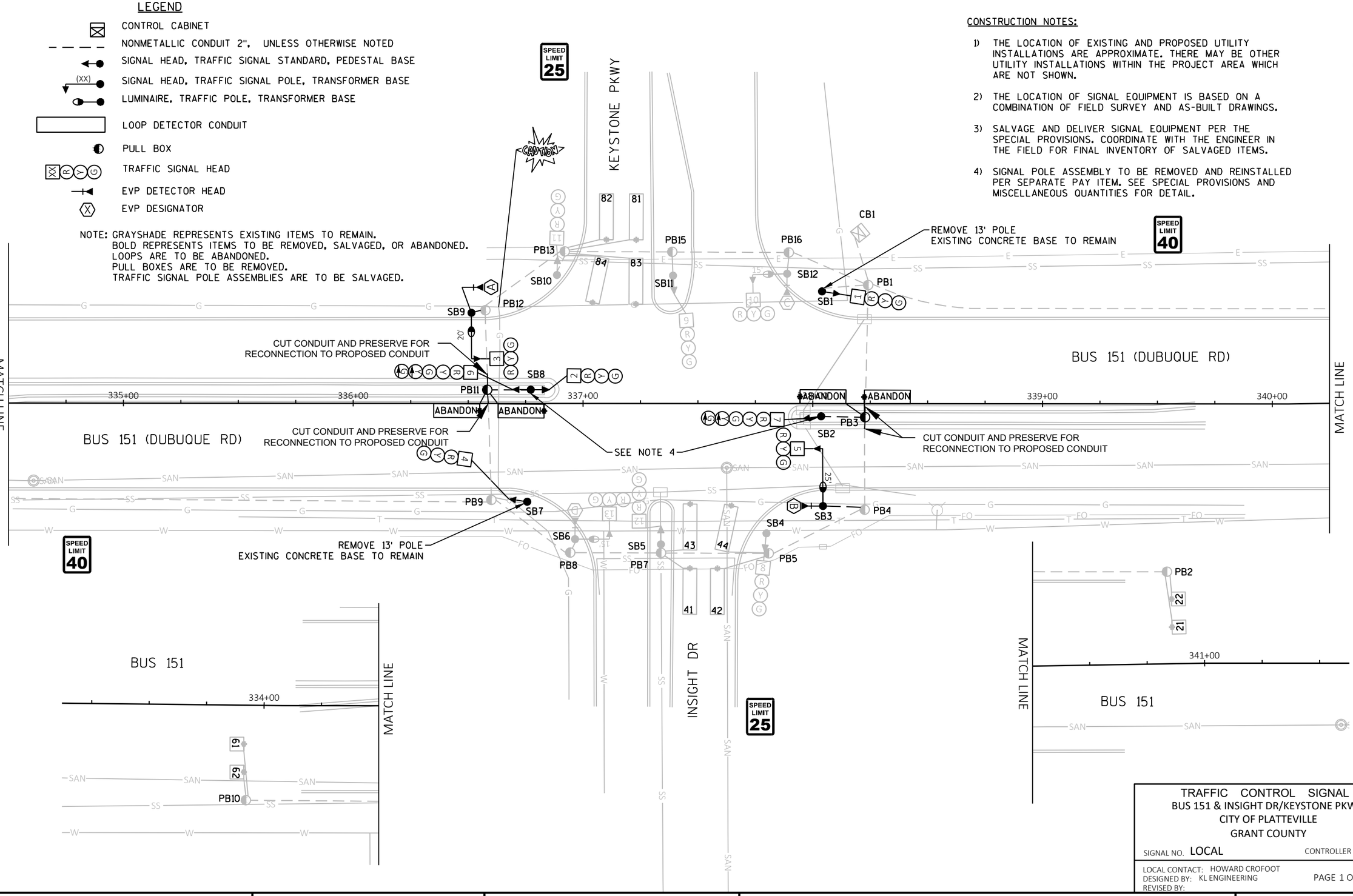
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT
- PULL BOX
- TRAFFIC SIGNAL HEAD
- EVP DETECTOR HEAD
- EVP DESIGNATOR

NOTE: GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN.
BOLD REPRESENTS ITEMS TO BE REMOVED, SALVAGED, OR ABANDONED.
LOOPS ARE TO BE ABANDONED.
PULL BOXES ARE TO BE REMOVED.
TRAFFIC SIGNAL POLE ASSEMBLIES ARE TO BE SALVAGED.

CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.
3) SALVAGE AND DELIVER SIGNAL EQUIPMENT PER THE SPECIAL PROVISIONS. COORDINATE WITH THE ENGINEER IN THE FIELD FOR FINAL INVENTORY OF SALVAGED ITEMS.
4) SIGNAL POLE ASSEMBLY TO BE REMOVED AND REINSTALLED PER SEPARATE PAY ITEM. SEE SPECIAL PROVISIONS AND MISCELLANEOUS QUANTITIES FOR DETAIL.



PROJECT NO: 5996-00-07	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 67 E

TRAFFIC CONTROL SIGNAL
BUS 151 & INSIGHT DR/KEYSTONE PKWY
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 1

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024001-SR(INSIGHT).DWG PLOT DATE : 7/23/2020 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

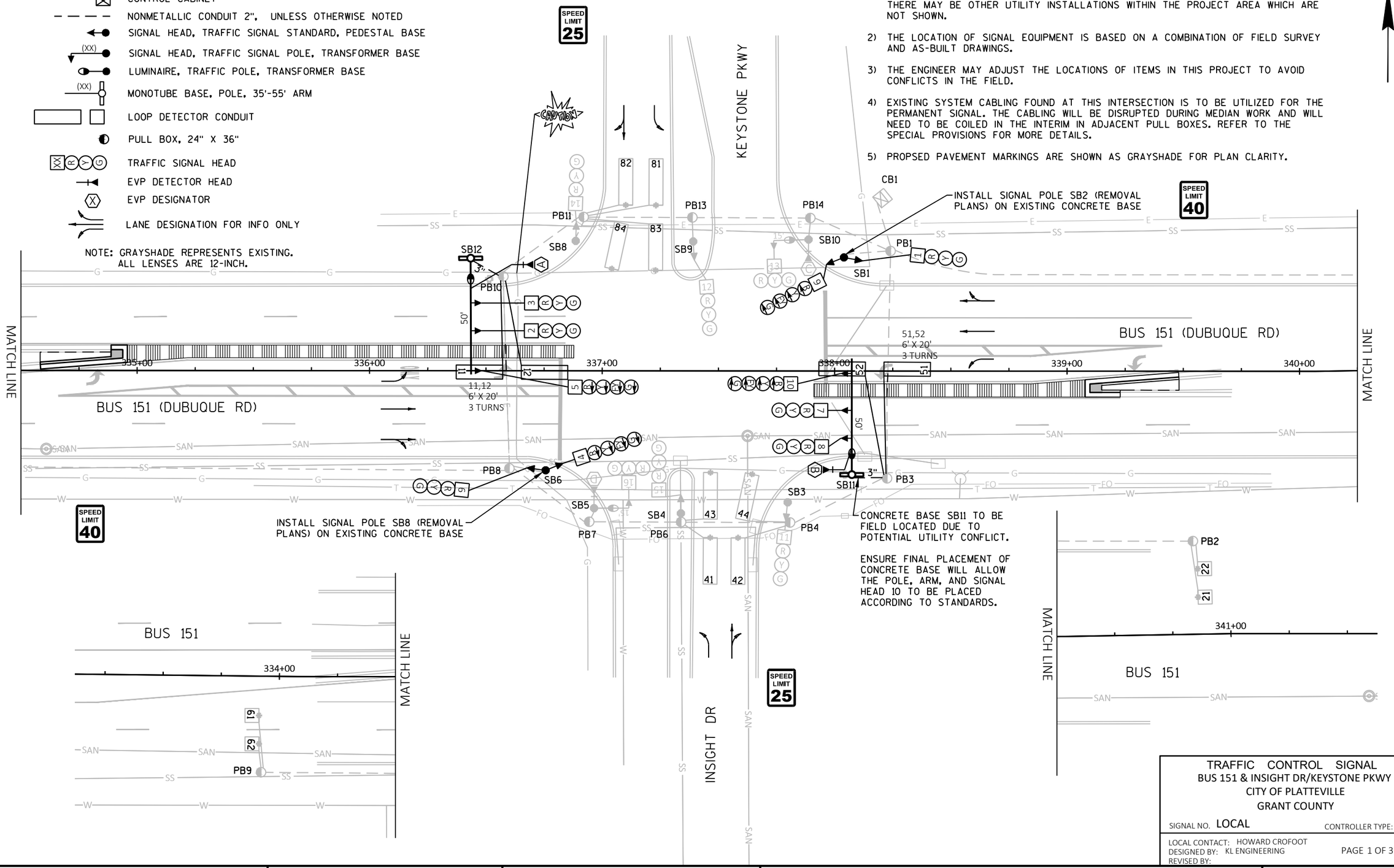
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR CONDUIT
- PULL BOX, 24" X 36"
- TRAFFIC SIGNAL HEAD
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- LANE DESIGNATION FOR INFO ONLY

NOTE: GRAYSHADE REPRESENTS EXISTING.
ALL LENSES ARE 12-INCH.

CONSTRUCTION NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.
3) THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS IN THIS PROJECT TO AVOID CONFLICTS IN THE FIELD.
4) EXISTING SYSTEM CABLING FOUND AT THIS INTERSECTION IS TO BE UTILIZED FOR THE PERMANENT SIGNAL. THE CABLING WILL BE DISRUPTED DURING MEDIAN WORK AND WILL NEED TO BE COILED IN THE INTERIM IN ADJACENT PULL BOXES. REFER TO THE SPECIAL PROVISIONS FOR MORE DETAILS.
5) PROPSED PAVEMENT MARKINGS ARE SHOWN AS GRAYSHADE FOR PLAN CLARITY.

N



TRAFFIC CONTROL SIGNAL

BUS 151 & INSIGHT DR/KEYSTONE PKWY
CITY OF PLATTEVILLE
GRANT COUNTY

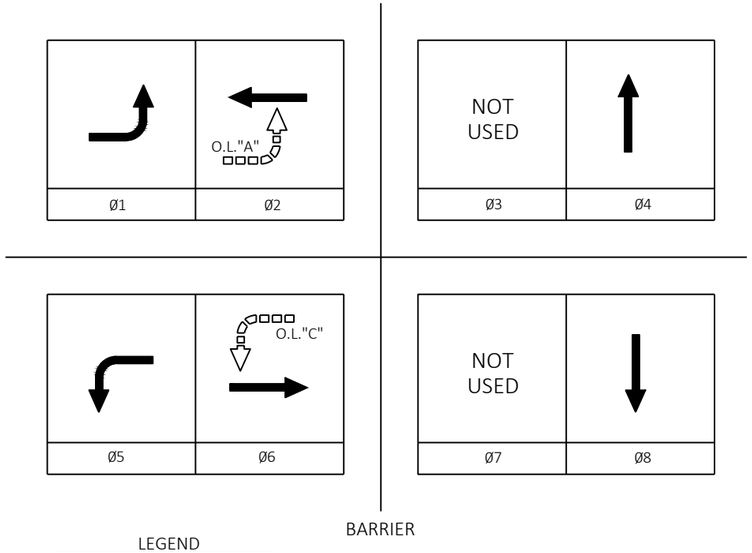
SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

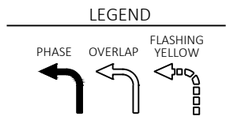
LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 5996-00-07	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL PLAN	SHEET 68	E

FILE NAME : G:\IIW\PLATTEVILLE HSIP\3_CIVIL3D\SHEETS PLAN\024201-SP(INSIGHT).DWG PLOT DATE : 7/22/2020 2:53 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	9,10	R
Ø2	1,2,3	R
Ø4	11,12,13	R
Ø5	4,5	R
Ø6	6,7,8	R
Ø8	14,15,16	R
O.L."A"	9,10	-
O.L."C"	4,5	-







CONTROLLER LOGIC

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR #(S)	11	21	41	43	51	61	81	83								
PHASE CALLED	1	2	4	4	5	6	8	8								
PHASE EXTENDED	1	2	4	4	5	6	8	8								
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR #(S)	12	22	42	44	52	62	82	84								
PHASE CALLED	1	2	4	4	5	6	8	8								
PHASE EXTENDED	1	2	4	4	5	6	8	8								
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

VERIFY EXTENSION STRETCH, CALLING DELAY, AND DISCONNECT TIME WITH EXISTING SIGNAL CONTROLLER SETTINGS

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

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

TRAFFIC CONTROL SIGNAL
BUS 151 & INSIGHT DR/KEYSTONE PKWY
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 3

2

BUS 151 & INSIGHT DR/KEYSTONE PKWY TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR
CB1 TO SB1	12C	1	WB	R	RED
				Y	ORG
				G	GRN
		9	EBLT	R←	RED/BLK
				Y←	ORG/BLK
				FY←	BLU/BLK
				G←	GRN/BLK
CB1 TO SB11	12C	7	EB	R	RED
				Y	ORG
				G	GRN
		8	EB	R	RED
				Y	ORG
				G	GRN
		10	EBLT	R←	RED/BLK
				Y←	ORG/BLK
				FY←	BLU/BLK
				G←	GRN/BLK
CB1 TO SB6	12C	9	WBLT	R←	RED/BLK
				Y←	ORG/BLK
				FY←	BLU/BLK
				G←	GRN/BLK
		6	EB	R	RED
				Y	ORG
				G	GRN
CB1 TO SB12	12C	2	WB	R	RED
				Y	ORG
				G	GRN
		3	WB	R	RED
				Y	ORG
				G	GRN
		5	WBLT	R←	RED/BLK
				Y←	ORG/BLK
				FY←	BLU/BLK
				G←	GRN/BLK

BUS 151 & INSIGHT DR/KEYSTONE PKWY	
FROM	TO
CB1	SB11 ("B")
CB1	SB12 ("A")

BUS 151 & INSIGHT DR/KEYSTONE PKWY LIGHTING CABLE CHART TYPE UF 2-12 AWG GROUNDED		
CABLE	CABLE RUN	LUMINAIRE LOCATION
2/C WITH GROUND	CB1 TO SB11	SE QUADRANT
	SB10 TO SB12	NW QUADRANT

TRAFFIC CONTROL SIGNAL
BUS 151 & INSIGHT DR/KEYSTONE PKWY
CITY OF PLATTEVILLE
GRANT COUNTY

SIGNAL NO. LOCAL CONTROLLER TYPE: EPAC

LOCAL CONTACT: HOWARD CROFOOT
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 3

NOTE: SEE PLAN & PROFILE SHEETS FOR HMA ULTRA-THIN OVERLAY LIMITS.

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
- (G) MARKING ARROW EPOXY (WHITE)
- (J) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (K) MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
- (L) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)

N

1 W11-2 30"X30" AHEAD W16-9P 24"X12"

INSTALL ON RRFB STATION 227+00 LT. RRFB CONSISTS OF ALL MATERIALS LISTED IN THE SPECIAL PROVISIONS EXCEPT CROSSWALK ILLUMINATOR, THERMAL DETECTOR, AND PUSHBUTTON

LAS PALMAS
LOS CABOS NORTE LLC
300 W BUSINESS HWY 151

EXISTING RIGHT OF WAY

BEGIN CONSTRUCTION
STA 227+00.00
Y=478,976.578
X=880,127.315

3 W11-2 30"X30" W16-7R 24"X12" W11-2 30"X30" W16-7L 24"X12" R10-25 9"X12"

INSTALL PROPOSED PEDESTRIAN CROSSING WARNING SIGNS (DOUBLE FACING) AND PUSHBUTTON SIGNS (DOUBLE FACING) WITH RRFB STATION 229+50 LT AND 229+50 RT AS SHOWN IN THE CONSTRUCTION DETAILS.

MATCH EXISTING EDGELINE

STALEY AVE

W BUSINESS HWY 151

227 228 229 230 231 232 233

228+76.93

230+76.20, 6.1', LT

BEGIN PROJECT
STA 228+45.00
Y=479,066.622
X=880,240.907

2 W11-2 30"X30" AHEAD W16-9P 24"X12"

INSTALL ON RRFB STATION 227+48 RT. RRFB CONSISTS OF ALL MATERIALS LISTED IN THE SPECIAL PROVISIONS EXCEPT CROSSWALK ILLUMINATOR, THERMAL DETECTOR, AND PUSHBUTTON.

4 5 RELOCATE EXISTING SIGN "NO PARKING THIS SIDE OF STREET" ON NEW POST

EXISTING RIGHT OF WAY

JOHN R UTLEY
250 W BUSINESS HWY 151

7 W11-2 30"X30" AHEAD W16-9P 24"X12"

INSTALL ON RRFB STATION 230+70 LT. RRFB CONSISTS OF ALL MATERIALS LISTED IN THE SPECIAL PROVISIONS EXCEPT CROSSWALK ILLUMINATOR, THERMAL DETECTOR, AND PUSHBUTTON.

PIZZA HUT
230 DUBUQUE RD
PLATTEVILLE WI LLC
230 W BUSINESS HWY 151

PT: 232+76.66

5.5' 11' 14' 11' 6'

8 RELOCATE EXISTING SIGN ON NEW POST

INSTALL 9 CENTER LANE ONLY R3-9B 24"X36"

INSTALL ON RRFB STATION 230+70 RT. RRFB CONSISTS OF ALL MATERIALS LISTED IN THE SPECIAL PROVISIONS EXCEPT FOR CROSSWALK ILLUMINATOR, THERMAL DETECTOR, AND PUSHBUTTON

6 W11-2 30"X30" AHEAD W16-9P 24"X12"

PLATTEVILLE AREA
CHAMBER OF COMMERCE
275 BUSINESS HWY 151

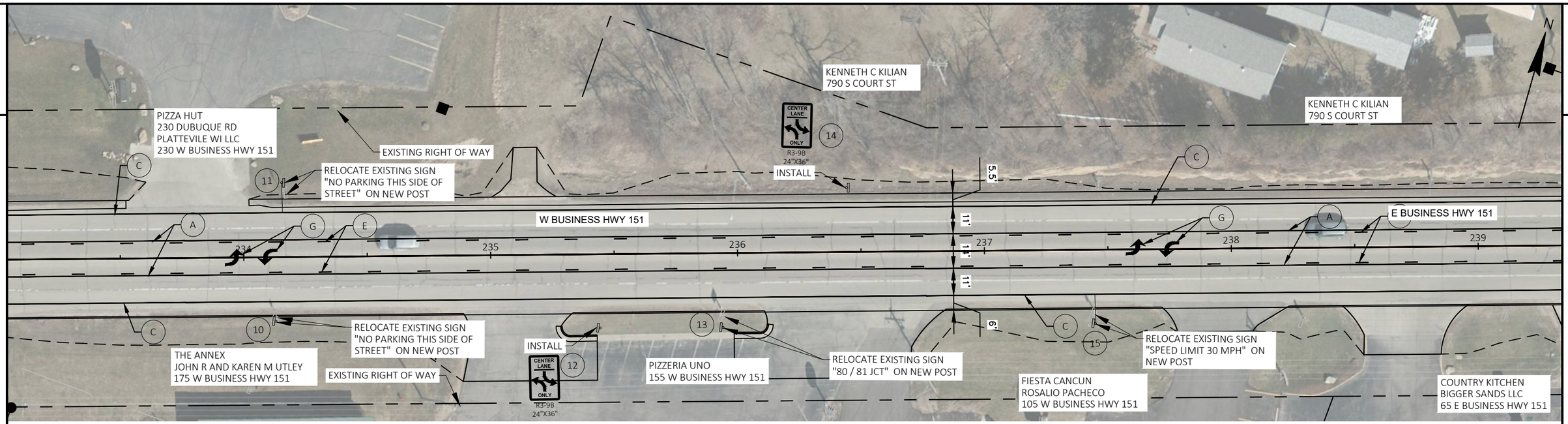
NOTE: SEE PLAN & PROFILE SHEETS FOR HMA ULTRA-THIN OVERLAY LIMITS.

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 71	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 1.DWG
LAYOUT NAME - PAVEMENT MARKINGS-1

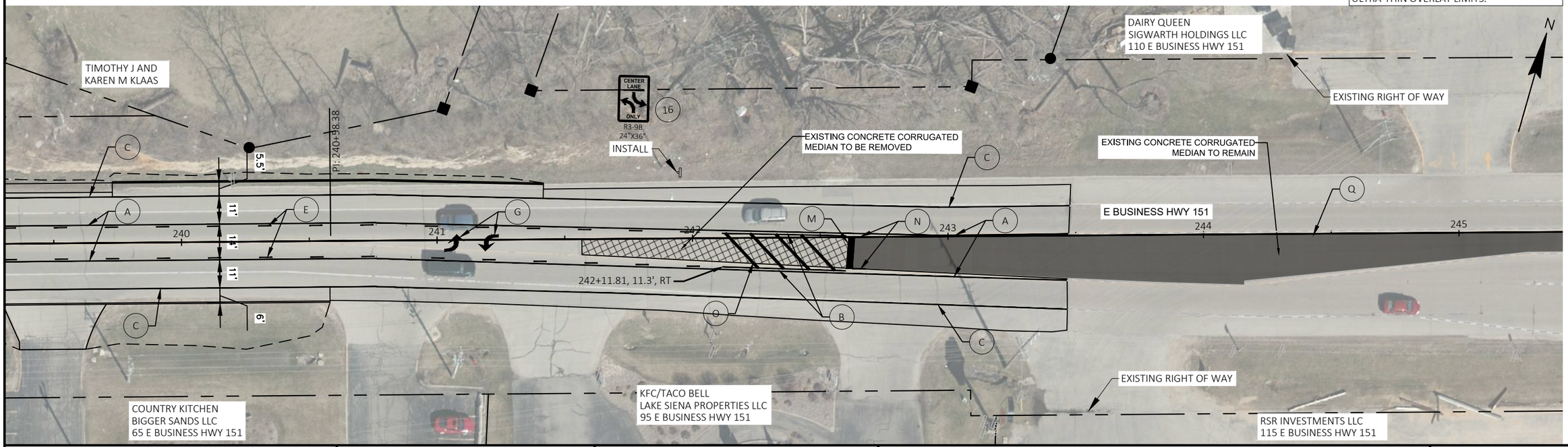
PLOT DATE : 9/29/2020 12:40 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



(A) MARKING LINE EPOXY 4-INCH (YELLOW)
(B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
(C) MARKING LINE EPOXY 4-INCH (WHITE)
(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
(G) MARKING ARROW EPOXY (WHITE)
(M) MARKING ISLAND NOSE EPOXY (YELLOW)
(N) MARKING CURB EPOXY (YELLOW)
(O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
(Q) MARKING CORRUGATED MEDIAN (YELLOW)

NOTE: SEE PLAN & PROFILE SHEETS FOR HMA ULTRA-THIN OVERLAY LIMITS.



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 72	E

2

2

DAIRY QUEEN
SIGWARTH HOLDINGS LLC
110 E BUSINESS HWY 151

EXISTING RIGHT OF WAY

REMOVE ANY EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS

WALGREENS
JAMES P AND ANNETTE C DOWD
675 S WATER ST

RELOCATE EXISTING SIGN "STOP" ON NEW POST

EXISTING RIGHT OF WAY

PI: 249+81.83

ELLEN ST

REMO

250+73.61, 11.6', LT

249+77.59, 23.4', LT

246 247 248 249 250 251

E BUSINESS HWY 151

EXISTING RIGHT OF WAY

RELOCATE EXISTING SIGN "STOP" ON NEW POST

RELOCATE EXISTING SIGN "STOP" ON NEW POST

RSR INVESTMENTS LLC
115 E BUSINESS HWY 151

S WATER ST / WISCONSIN HWY 80/81

EXISTING RIGHT OF WAY

DUNKIN DONUTS/WORLD FINANCE/MILIOS SANDWHICHES
JT PLATTEVILLE LLC
245 E BUSINESS HWY 151

GIRL SCOUTS/STATE FARM/EDWARD JONES
POND DEVELOPMENT LLC
305 E BUSINESS HWY 151

RELOCATE EXISTING SIGN "NO MOTOR VEHICLES" ON NEW POST

PROPOSED LOCATION FOR RELOCATED EXISTING TRAIL POST

RELOCATE EXISTING SIGN "STOP" ON NEW POST

RELOCATE EXISTING TRAIL POST

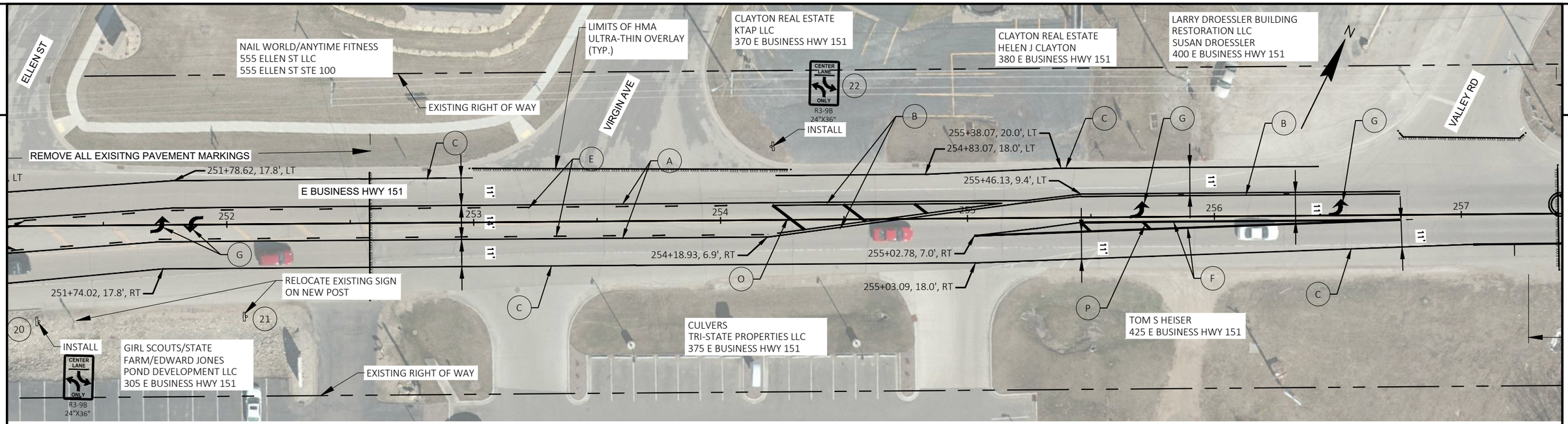
SUPER 8 MOTEL
100 STATE RD 80 & 81 S

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5 GAP
- (E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
- (F) MARKING LINE EPOXY 8-INCH (WHITE)
- (G) MARKING ARROW EPOXY (WHITE)
- (H) MARKING WORD EPOXY (WHITE)
- (I) MARKING SYMBOL EPOXY (WHITE)
- (J) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (L) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (M) MARKING ISLAND NOSE EPOXY (YELLOW)
- (N) MARKING CURB EPOXY (YELLOW)
- (O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (Q) MARKING CORRUGATED MEDIAN (YELLOW)
- (R) MARKING PARKING STALL PAINT (WHITE)
- (S) MARKING REMOVAL LINE 4-INCH
- (U) MARKING REMOVAL LINE WIDE

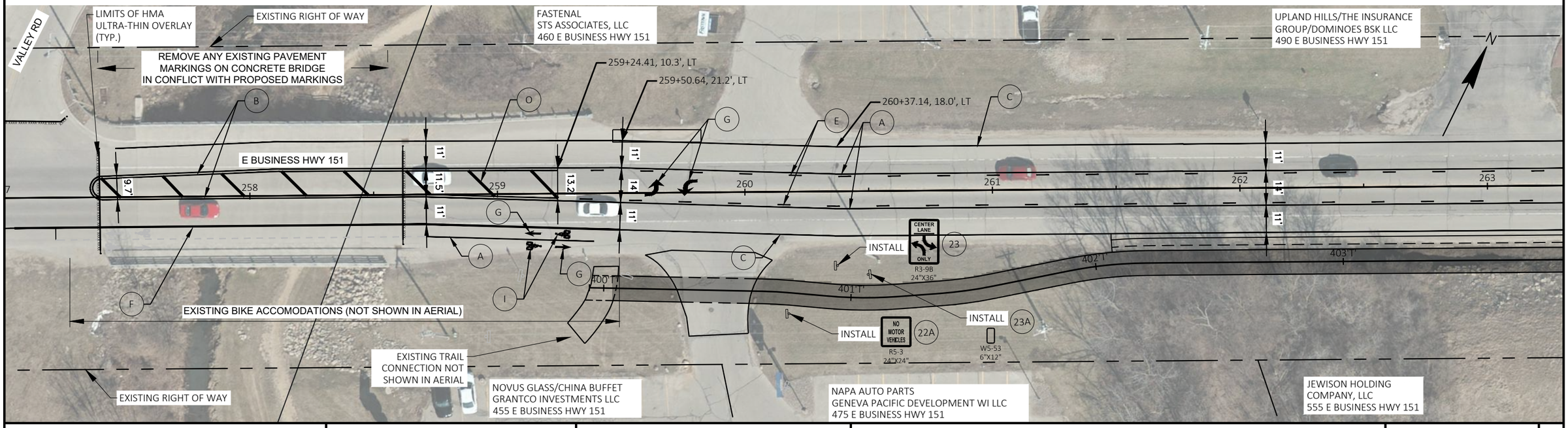
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 73	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 1.DWG
LAYOUT NAME - PAVEMENT MARKINGS - 3

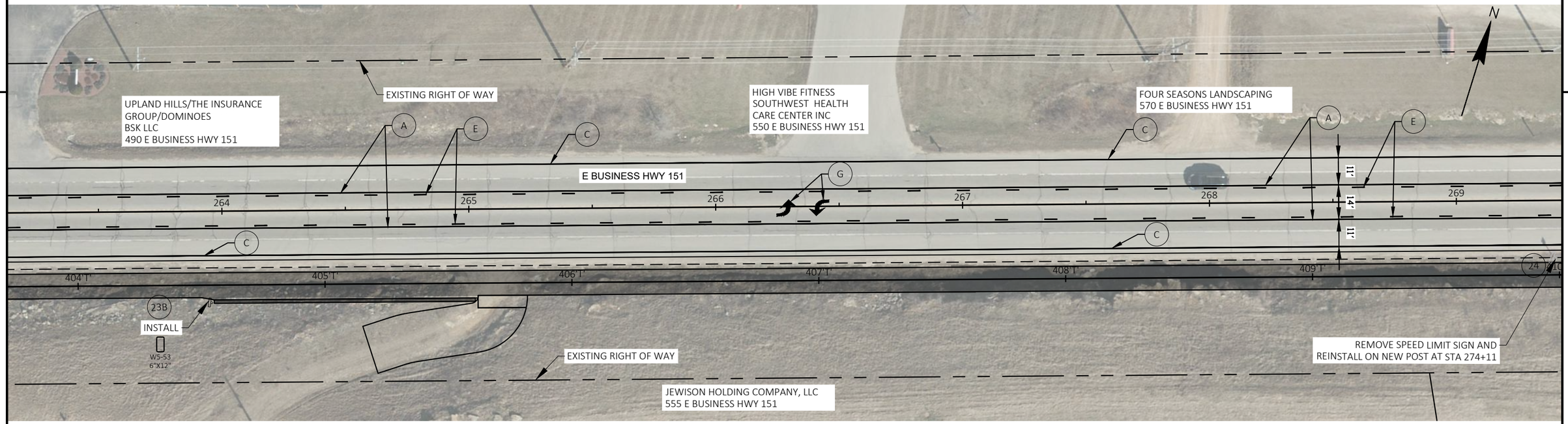
PLOT DATE : 9/29/2020 12:43 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : 1 IN:40 FT



(A) MARKING LINE EPOXY 4-INCH (YELLOW)
(B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
(C) MARKING LINE EPOXY 4-INCH (WHITE)
(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
(F) MARKING LINE EPOXY 8-INCH (WHITE)
(G) MARKING ARROW EPOXY (WHITE)
(I) MARKING SYMBOL EPOXY (WHITE)
(O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
(P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 74	E

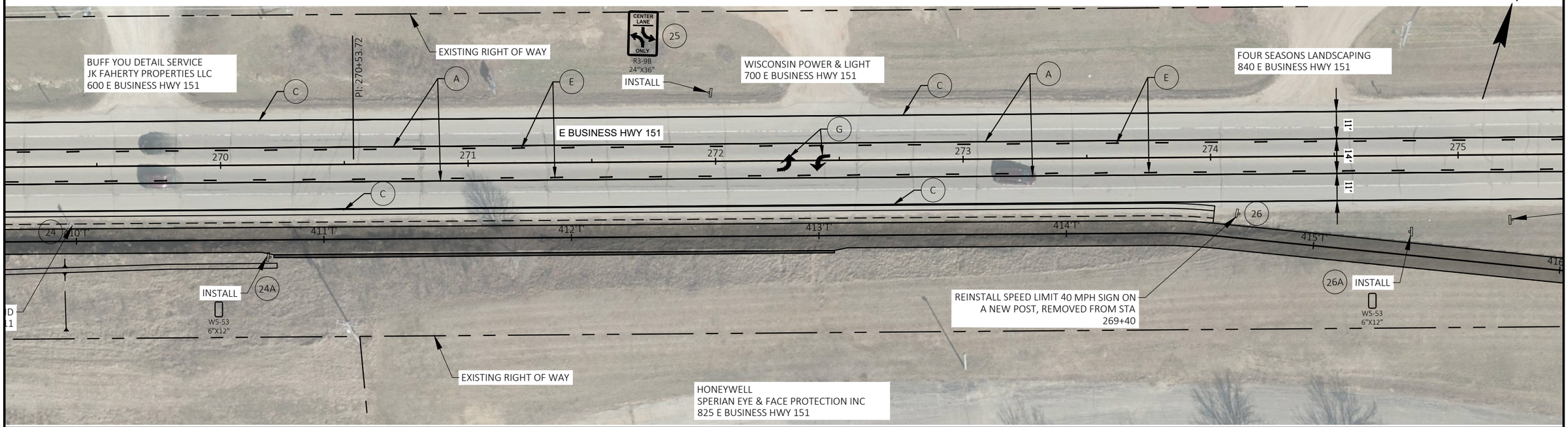


(A) MARKING LINE EPOXY 4-INCH (YELLOW)

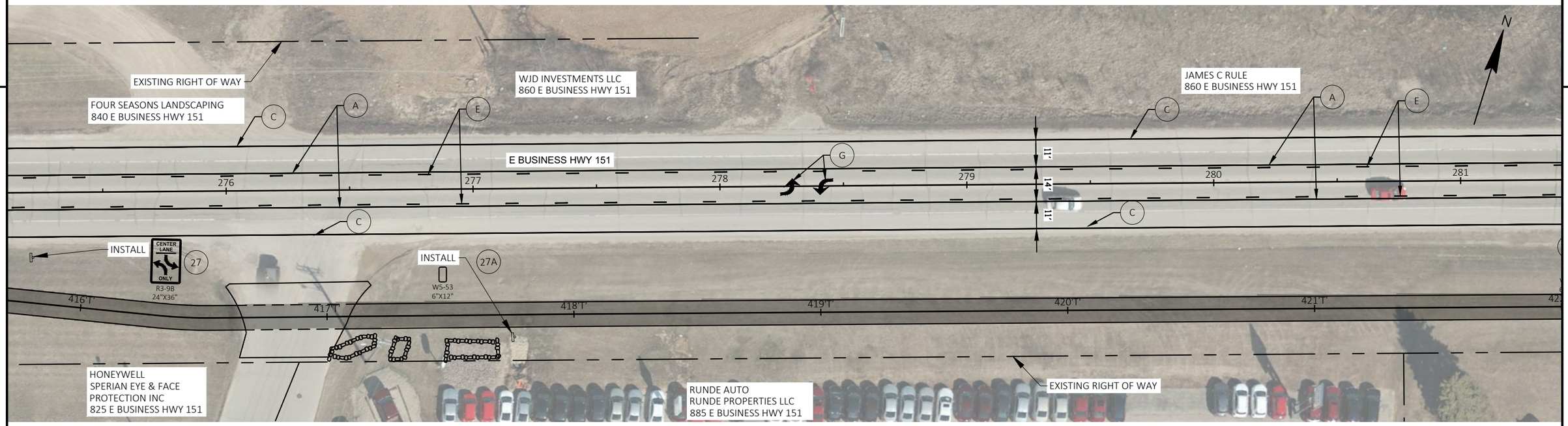
(C) MARKING LINE EPOXY 4-INCH (WHITE)

(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP

(G) MARKING ARROW EPOXY (WHITE)



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 75	E

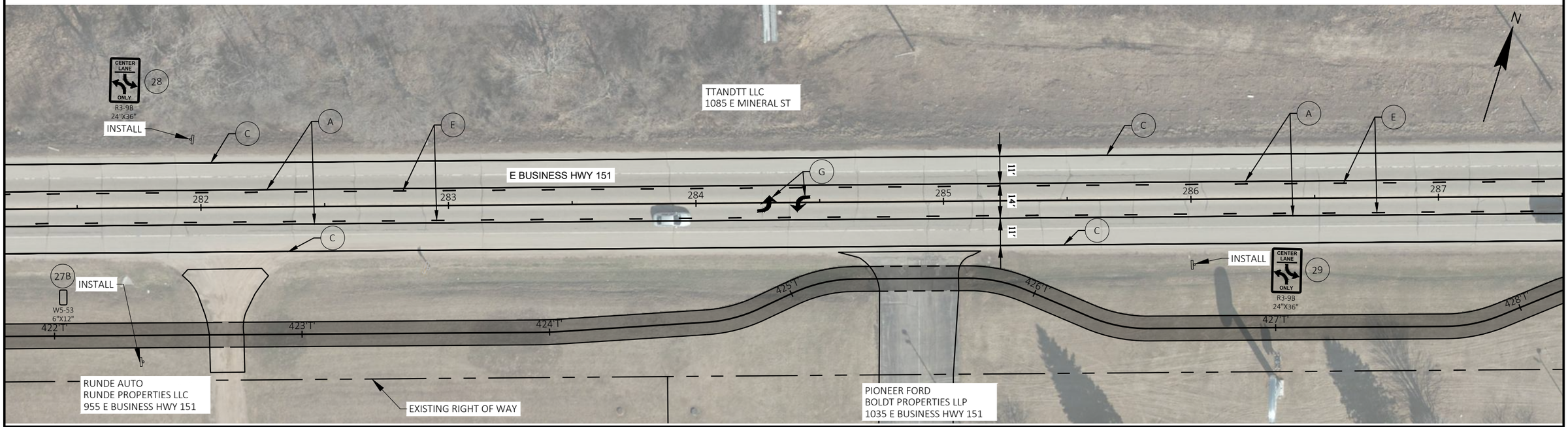


(A) MARKING LINE EPOXY 4-INCH (YELLOW)

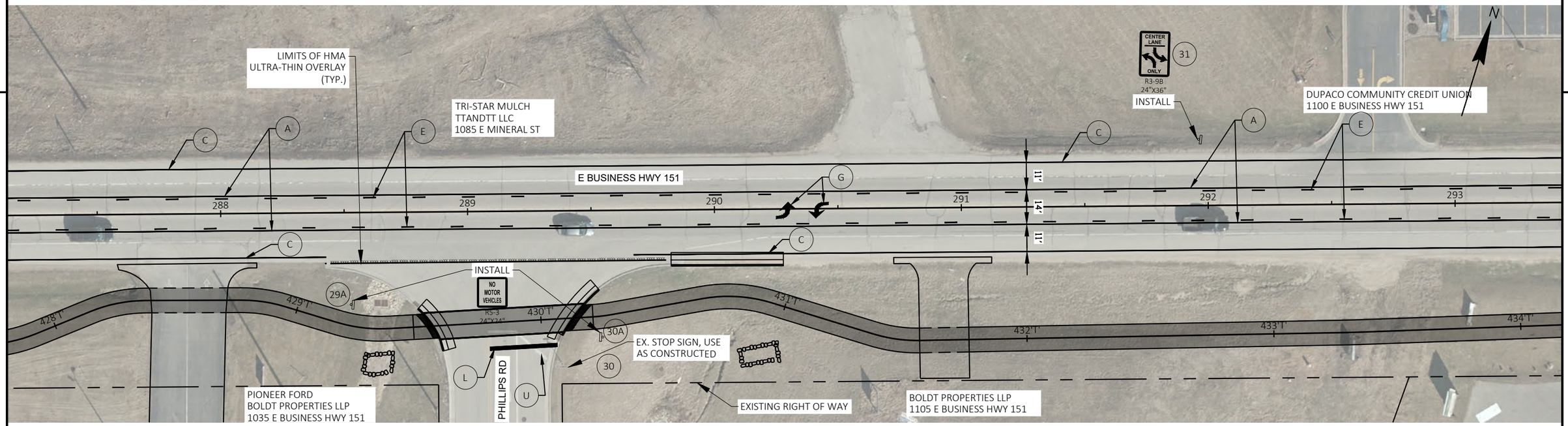
(C) MARKING LINE EPOXY 4-INCH (WHITE)

(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP

(G) MARKING ARROW EPOXY (WHITE)



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 76	E



(A) MARKING LINE EPOXY 4-INCH (YELLOW)

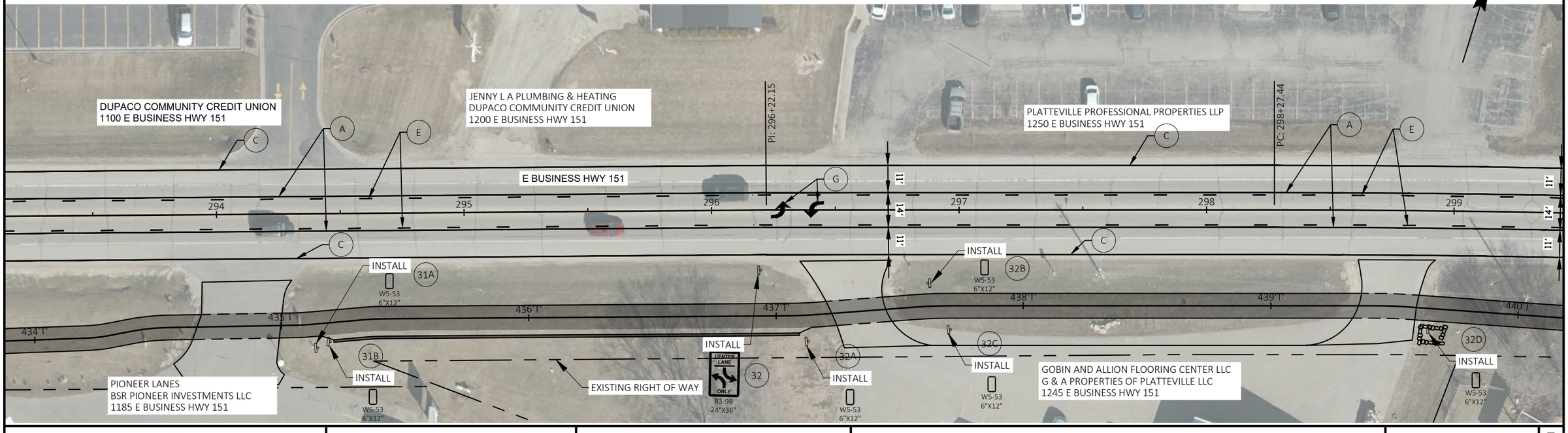
(C) MARKING LINE EPOXY 4-INCH (WHITE)

(L) MARKING STOP LINE EPOXY 18-INCH (WHITE)

(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP

(G) MARKING ARROW EPOXY (WHITE)

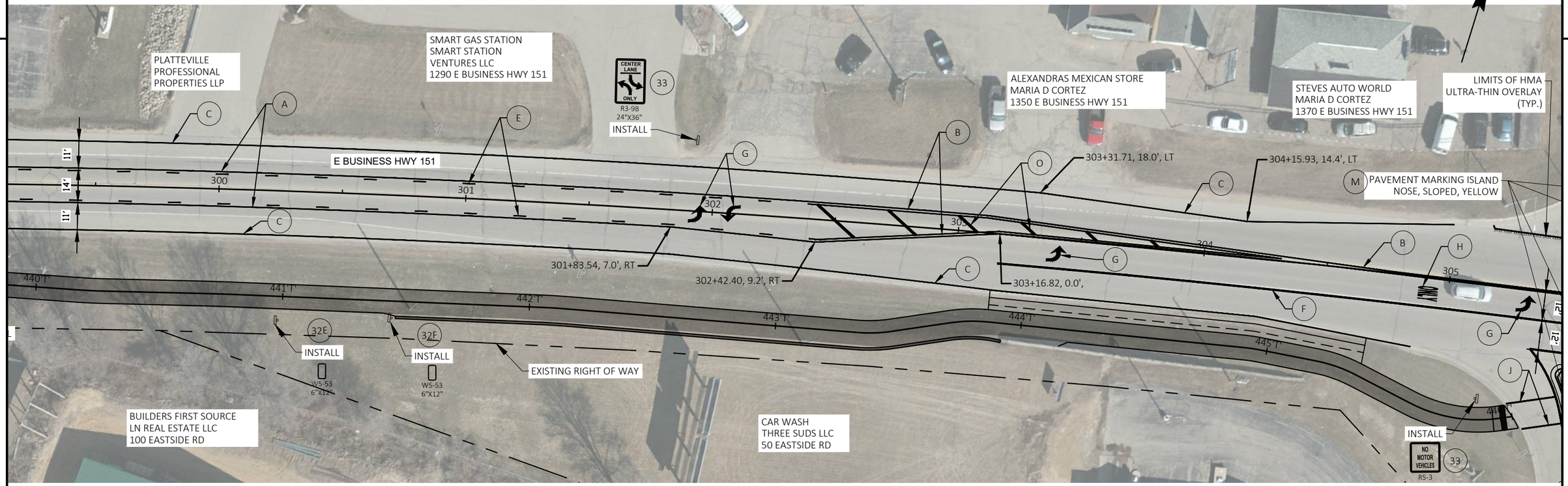
(U) MARKING REMOVAL LINE WIDE



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 77	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 2.DWG
LAYOUT NAME - PAVEMENT MARKING - 7
PLOT DATE : 9/29/2020 12:43 PM
PLOT BY : WENDY NUNEZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
- (F) MARKING LINE EPOXY 8-INCH (WHITE)
- (G) MARKING ARROW EPOXY (WHITE)
- (H) MARKING WORD EPOXY (WHITE)
- (J) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (M) MARKING ISLAND NOSE EPOXY (YELLOW)
- (O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)

2

- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP
- (F) MARKING LINE EPOXY 8-INCH (WHITE)
- (G) MARKING ARROW EPOXY (WHITE)
- (H) MARKING WORD EPOXY (WHITE)
- (J) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (K) MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
- (L) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (M) MARKING ISLAND NOSE EPOXY (YELLOW)
- (N) MARKING CURB EPOXY (YELLOW)
- (O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)

N

ALEXANDRAS MEXICAN STORE
MARIA D CORTEZ
1350 E BUSINESS HWY 151

STEVES AUTO WORLD
MARIA D CORTEZ
1370 E BUSINESS HWY 151

LIMITS OF HMA ULTRA-THIN OVERLAY (TYP.)

E MINERAL ST

ADVANCE AUTO
WELTHA E LC
1400 E BUSINESS HWY 151

303+31.71, 18.0', LT

304+15.93, 14.4', LT

PAVEMENT MARKING ISLAND NOSE, SLOPED, YELLOW

EXISTING SIDEWALK TO EAST IS NOT SHOWN IN AERIAL

RELOCATE EX. YIELD SIGN ON NEW POST

EXISTING RIGHT OF WAY

303+16.82, 0.0',

E BUSINESS HWY 151

444'

445'

446'

INSTALL NO MOTOR VEHICLES R5-3 24"X24"

BEGIN TAPER
308+57.14, 22.7', LT

CAR WASH
THREE SUDS LLC
50 EASTSIDE RD

EAST SIDE RD

EXISTING RIGHT OF WAY

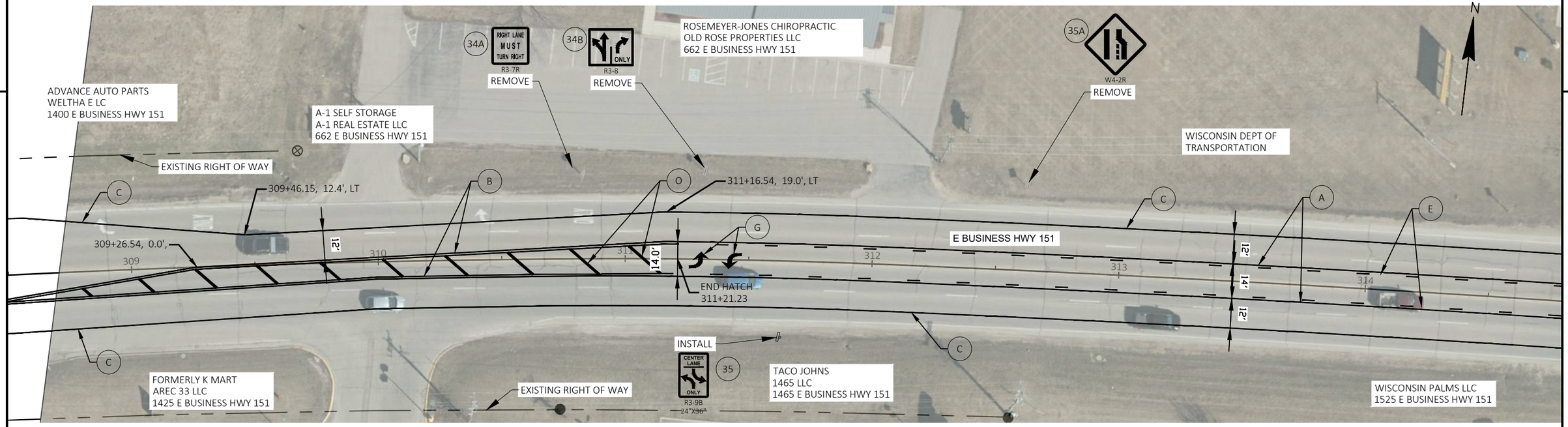
U-HAUL
AREC 33 LLC
1425 E BUSINESS HWY 151

BUILDERS FIRST SOURCE
LN REAL ESTATE LLC
100 EASTSIDE RD

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 79	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 2.DWG
LAYOUT NAME - PAVEMENT MARKING - 9

PLOT DATE : 9/29/2020 12:41 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : 1 IN:40 FT



(A) MARKING LINE EPOXY 4-INCH (YELLOW)

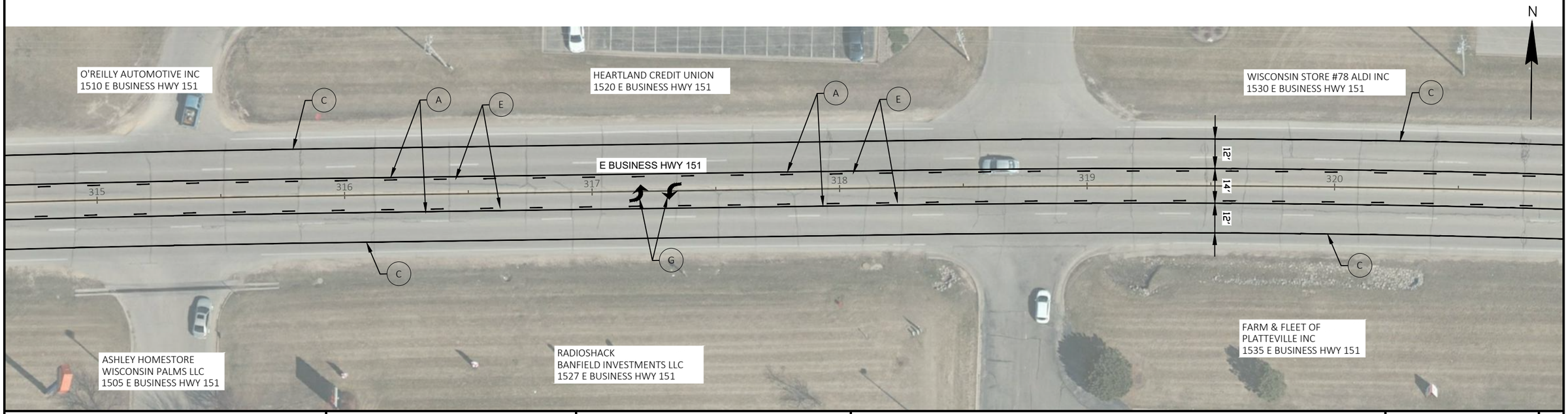
(B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

(C) MARKING LINE EPOXY 4-INCH (WHITE)

(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP

(G) MARKING ARROW EPOXY (WHITE)

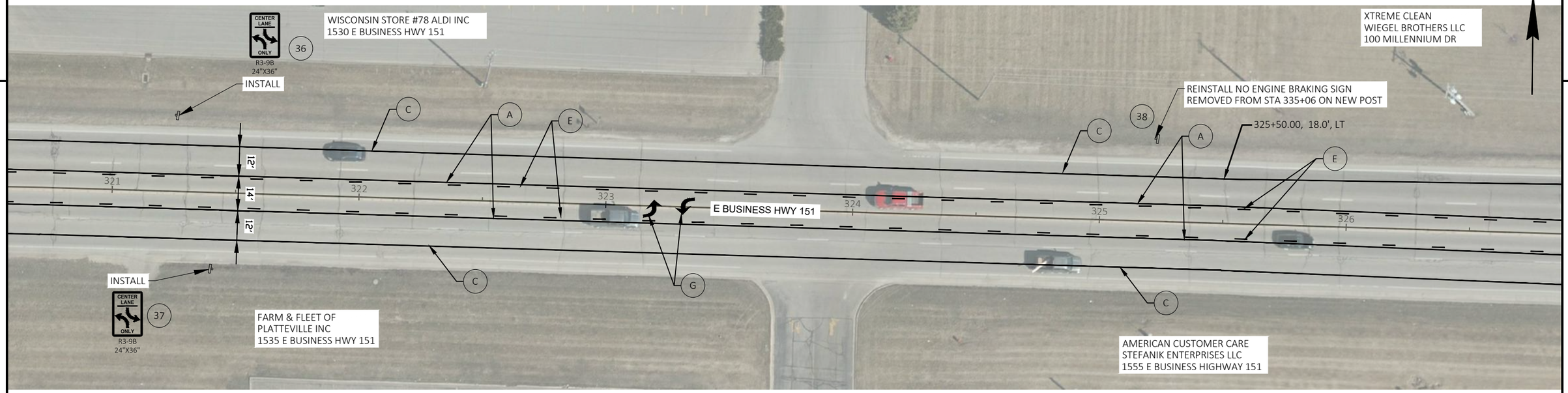
(O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 80	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 3.DWG
LAYOUT NAME - PAVEMENT MARKING - 10

PLOT DATE : 7/24/2020 2:54 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:40 FT



(A) MARKING LINE EPOXY 4-INCH (YELLOW)

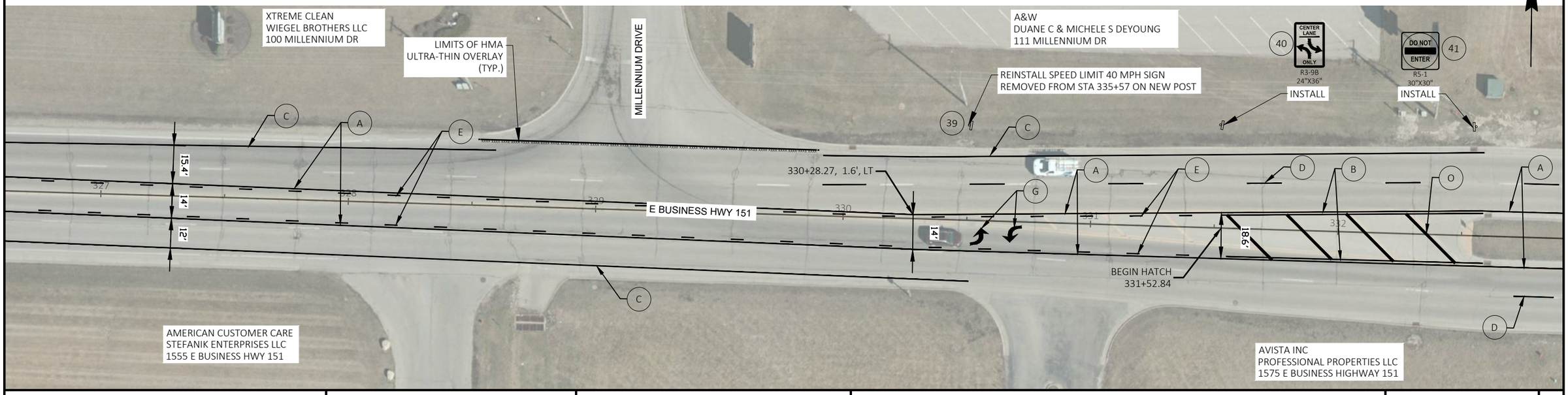
(B) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

(C) MARKING LINE EPOXY 4-INCH (WHITE)

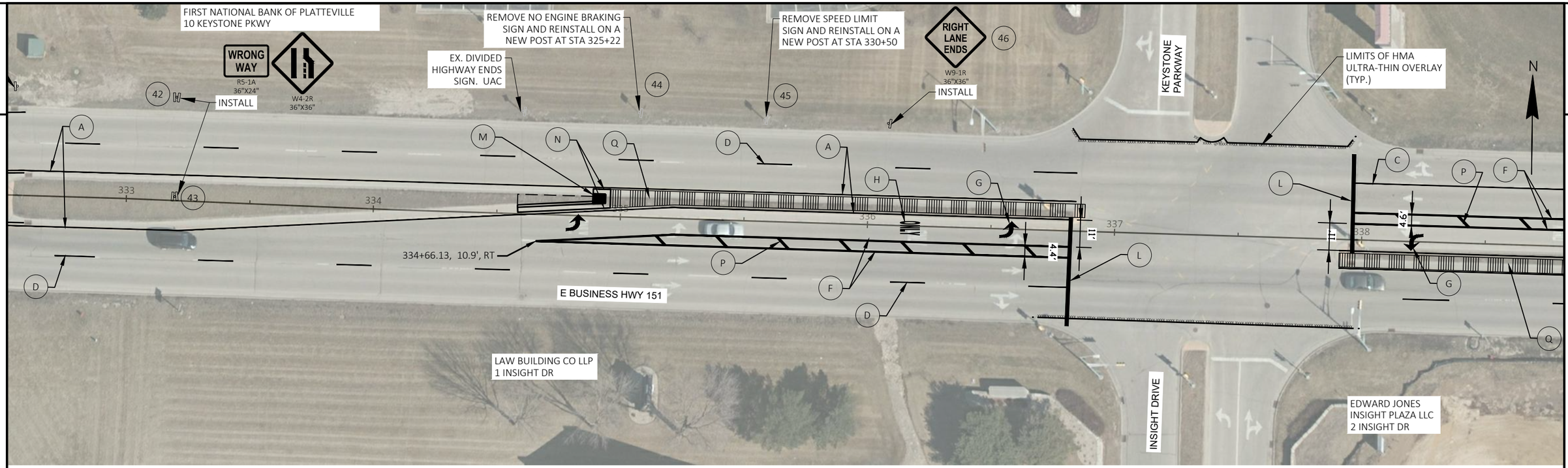
(E) MARKING LINE EPOXY 4-INCH (YELLOW) 12.5' LINE 37.5 GAP

(G) MARKING ARROW EPOXY (WHITE)

(O) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 81	E





- (A) MARKING LINE EPOXY 4-INCH (YELLOW)
- (C) MARKING LINE EPOXY 4-INCH (WHITE)
- (D) MARKING LINE EPOXY 4-INCH (WHITE) 12.5' LINE 37.5 GAP
- (F) MARKING LINE EPOXY 8-INCH (WHITE)
- (G) MARKING ARROW EPOXY (WHITE)
- (H) MARKING WORD EPOXY (WHITE)
- (L) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (M) MARKING ISLAND NOSE EPOXY (YELLOW)
- (N) MARKING CURB EPOXY (YELLOW)
- (P) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (Q) MARKING CORRUGATED MEDIAN (YELLOW)

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PAVEMENT MARKING & SIGNING	SHEET 82	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\024501-PM-SEG 3.DWG
LAYOUT NAME - PAVEMENT MARKING - 12

PLOT DATE : 7/24/2020 2:54 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL NOTES:

BUSINESS 151 INTERSECTION WITH STH 80/81/WATER STREET SHALL STAY OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES. IF THE TRAFFIC SIGNAL CANNOT CONTINUE TO BE OPERATIONAL, THE INTERSECTION SHALL BE CONVERTED INTO AN ALL WAY STOP BY USE OF 36"X36" R1-1 (STOP) SIGNS WITH AN 18"X 18" R1-3 (ALL WAY) PLAQUE. WHEN THE INTERSECTION IS OPERATING AS AN ALL WAY STOP, ALL SIGNAL AHEAD SIGNS SHALL BE COVERED WITH 30"X30" W3-1 (STOP AHEAD) SIGNS. THE WORK IN THE SOUTHWEST QUADRANT CANNOT TAKE PLACE AT THE SAME TIME AS THE WORK IN THE SOUTHEAST QUADRANT OF THE INTERSECTION. DURING CONSTRUCTION IN THE SOUTHEAST QUADRANT, THE NORTHBOUND RIGHT TURN LANE, NORTHBOUND THROUGH TRAFFIC LANE, AND NORTHBOUND LEFT TURN LANE ARE ALLOWED TO SHARE A SINGLE LANE, THE EASTBOUND THROUGH LANE AND EASTBOUND LEFT TURN LANE ARE ALLOWED TO SHARE A LANE. USING TYPICAL SHOULDER CLOSURE SIGNING AS NOTED IN SDD 15D-28, DO NOT ALLOW THE RIGHT TURN LANE OR THE LEFT TURN LANE TO BE CREATED IF THE LANE IS CLOSED AT THE INTERSECTION. DURING CONSTRUCTION IN THE SOUTHWEST QUADRANT THE NORTHBOUND THROUGH TRAFFIC AND NORTHBOUND LEFT TURN TRAFFIC ARE ALLOWED TO SHARE A LANE, THE EASTBOUND RIGHT TURN TRAFFIC, EASTBOUND THROUGH TRAFFIC, AND EASTBOUND LEFT TURN TRAFFIC ARE ALLOWED TO SHARE A LANE. USING TYPICAL SHOULDER CLOSURE SIGNING AS NOTED IN SDD 15D-28, DO NOT ALLOW THE RIGHT TURN LANE OR THE LEFT TURN LANE TO BE CREATED IF THE LANE IS CLOSED AT THE INTERSECTION. THE RIGHT TURN LANE IN THE NORTHEAST QUADRANT AND THE RIGHT TURN LANE IN THE NORTHWEST QUADRANT MAY BE REDUCED IN WIDTH TO 14' WITH CHANNELIZING DEVICES TO ALLOW WORK IN THE ISLANDS AND BEHIND THE CURB. DURING THE FOUR WAY STOP CONFIGURATION, INSTALL STOP SIGNS IN THE MEDIAN AND TURN LANE ISLANDS SO THERE ARE TWO STOP SIGNS VISIBLE TO THROUGH OR LEFT TURNING TRAFFIC. DURING LOOP DETECTOR AND OTHER SIGNAL EQUIPMENT INSTALLATION, THROUGH, LEFT, OR RIGHT TURNING TRAFFIC CAN TEMPORARILY BE SHIFTED INTO AN ADJACENT LANE TO ALLOW TEMPORARY CLOSURE OF THE LANE WHERE A LOOP DETECTOR IS BEING INSTALLED WHILE MAINTAINING TRAFFIC.

BUSINESS 151 INTERSECTION WITH EASTSIDE RD/MINERAL STREET SHALL STAY OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES, EXCEPT FOR A ONE NIGHT DETOUR TO ALLOW THE INSTALLATION OF THE TROMBONE ARMS. IF THE TRAFFIC SIGNAL CANNOT CONTINUE TO BE OPERATIONAL, THE INTERSECTION SHALL BE CONVERTED INTO AN ALL WAY STOP BY USE OF 36"X36" R1-1 (STOP) SIGNS WITH AN 18"X 18" R1-3 (ALL WAY) PLAQUE. WHEN THE INTERSECTION IS OPERATING AS AN ALL WAY STOP, ALL SIGNAL AHEAD SIGNS SHALL BE COVERED WITH 30"X30" W3-1 (STOP AHEAD) SIGNS. DURING CONSTRUCTION IN THE SOUTHWEST QUADRANT, THE EASTBOUND RIGHT TURN TRAFFIC, EASTBOUND THROUGH TRAFFIC, AND EASTBOUND LEFT TURN TRAFFIC ARE ALLOWED TO SHARE A LANE. USING TYPICAL SHOULDER CLOSURE SIGNING AS NOTED IN SDD 15D28, DO NOT ALLOW THE RIGHT TURN LANE OR THE LEFT TURN LANE TO BE CREATED IF THE LANE IS CLOSED AT THE INTERSECTION. DURING CONSTRUCTION IN THE NORTHEAST QUADRANT, THE WESTBOUND RIGHT TURN TRAFFIC, WESTBOUND THROUGH TRAFFIC, AND WESTBOUND LEFT TURN TRAFFIC ARE ALLOWED TO SHARE A LANE. FOLLOW SDD 15D20 FOR THE RGHT LANE CLOSURE. FOLLOW SDD 15D21 FOR INTERSECTION LANE CLOSURES. ALL RIGHT LANE TURN ONLY PERMANENT SIGNING SHALL BE COVERED WHEN THE EXISTING RIGHT TURN LANE IS CLOSED.

BUSINESS 151 INTERSECTION WITH KEYSTONE PARKWAY/INSIGHT DRIVE SHALL STAY OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES, EXCEPT FOR WHEN A ONE NIGHT DETOUR TO ALLOW THE INSTALLATION OF MONOTUBE SIGNALS. IF THE TRAFFIC SIGNAL CANNOT CONTINUE TO BE OPERATIONAL, THE INTERSECTION SHALL BE CONVERTED TO A TWO WAY STOP SUCH THAT BUSINESS 151 DOES NOT STOP AND KEYSTONE PARKWAY AND INSIGHT DRIVE ARE STOP CONTROLLED BY USE OF 36"X36" R1-1 (STOP) SIGNS MOUNTED WITH TWO SIGNS VISIBLE FOR NORTHBOUND TRAFFIC AND TWO SIGNS VISIBLE FOR SOUTHBOUND TRAFFIC. WHEN THE INTERSECTION IS OPERATING AS A TWO WAY STOP, ALL SIGNAL AHEAD SIGNS SHALL BE COVERED. THE SIGNAL AHEAD SIGNS ON KEYSTONE PARKWAY AND INSIGHT DRIVE SHALL BE COVERED WITH 30"X30" W3-1 (STOP AHEAD) SIGNS. DURING MEDIAN ISLAND RECONSTRUCTION LEFT LANES MAY BE CLOSURED AS NOTED IN SDD 15D20 AND INTERSECTION LANE CLOSURES AS NOTED IN SDD 15D-21. LEFT TURNS AND THROUGH TRAFFIC CAN BE COMBINED INTO ONE LANE DURING CONSTRUCTION, A LEFT TURN POCKET DOES NOT NEED TO BE CREATED TO PROVIDE A SEPARATE LEFT TURN LANE FOR BUSINESS 151 TRAFFIC WHILE MEDIAN RECONSTRUCTION IS TAKING PLACE. BEFORE OR AFTER MEDIAN RECONSTRUCTION IS COMPLETE, AND WHEN THE TRAFFIC SIGNAL IS NOT OPERATIONAL, CREATE A LEFT TURN LANE AS SHOWN IN SDD 15D21.

DURING CONSTRUCTION OF EXISTING SIDEWALKS AND TRAILS, USE SDD 15D-30 TO CLOSE THE EXISTING SIDEWALK OR TRAIL.

WHEN WORK CAUSES THE DAVID CANNY ROUNTREE BRANCH TRAIL CROSSING OF STH 80/81 TO BE CLOSED AND DURING RECONSTRUCTION OF THE TRAIL CROSSING, PLACE ADVANCE TRAIL CLOSURE SIGNS (R9-11 MODIFIED TO INDICATE "TRAIL CLOSED AHEAD AT STH 80/81") AT THE ROUNTREE BRANCH TRAIL BRIDGE LOCATED BEHIND THE BUSINESSES AT APPROXIMATE STATION 240+00 AND ALSO AT THE TRAIL AT STATION 257+50. THE DAVID CANNY ROUNTREE BRANCH TRAIL CROSSING OF STH 80/81 AND NEAR STATION 400T+00 MAY BE CLOSED FOR UP TO 6 WEEKS. DURING TIMES WHEN THE NEWLY CONSTRUCTED SIDEWALKS LOOK COMPLETE, BUT ARE NOT READY FOR PUBLIC USE, SIDEWALK CLOSURE SIGNS FOR PEDESTRIAN CLOSURES SHALL BE INSTALLED.

DURING PAVING OF THE ULTRA-THIN ASPHALTIC OVERLAY, FLAGGERS WILL BE USED TO MAINTAIN TWO-WAY TRAFFIC, AND TO DIRECT TRAFFIC AT DRIVEWAYS AND INTERSECTIONS. THE CONTRACTOR HAS THE OPTION TO SHIFT ALL TRAFFIC TO THE SHOULDER AND THROUGH LANE USING SHIFTING TAPERS. IF THIS OPTION IS SELECTED, DEVICES AND SIGNS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE COST OF PAVING.

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, EXCEPT FOR STOP SIGNS. STOP SIGNS, AND ADDED STOP AHEAD SIGNS THAT ARE NOT COVERING SIGNAL AHEAD SIGNS, SHALL BE MOUNTED ON TEMPORARY TRAFFIC CONTROL SIGN MOUNTING AS SHOWN IN SDD 15D38.

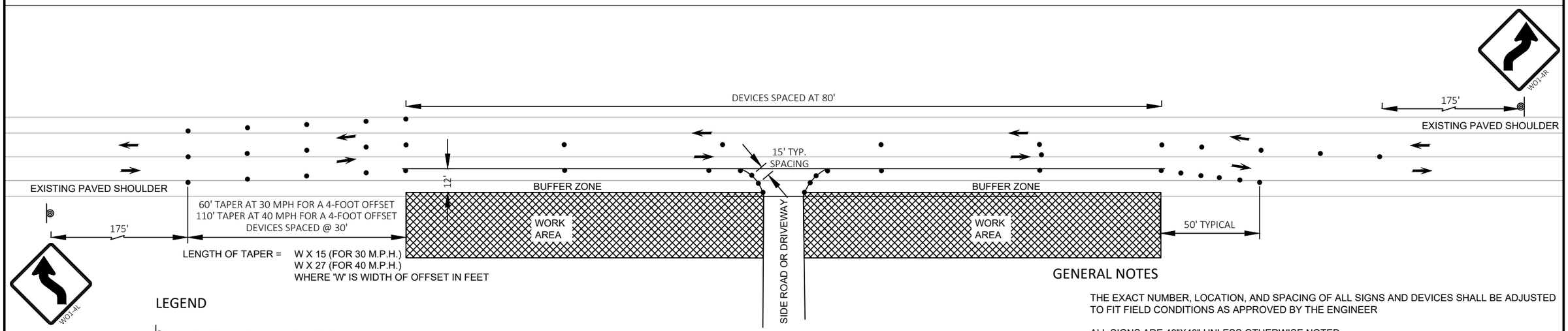
SEE SDD 15C02-a, DETAIL B, FOR SIGN SPACING AND BARRICADE LOCATIONS DURING DETOURS.

SEE SDD 15C02-b, DETAIL E FOR BARRICADE DETAILS.

DURING LINE PAINTING OPERATIONS, FOLLOW SDD15C19 TO MAINTAIN TRAFFIC. DURING PAVEMENT MARKING IN INTERSECTION, THE CONTRACTOR HAS THE OPTION TO SHIFT TRAFFIC TO ADJACENT LANES. DEVICES AND SIGNS TO ALLOW PAVEMENT MARKINGS TO BE INSTALLED SHALL NOT BE PAID FOR SEPARATLEY BUT SHALL BE INCIDENTAL TO THE COST OF PAVEMENT MARKING, EXCEPT FOR THE CHANNELIZING DEVICES USED INSTEAD OF SAME DAY MARKING AS NOTED.

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TRAFFIC CONTROL NOTES	SHEET 83	E

2



LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

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

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

SEE SDD 15C5 FOR ADDITIONAL TRAFFIC CONTROL. THIS DETAIL IS FOR DAYTIME USE ONLY. DEVICES SHALL BE PLACED ALONG WORK AREA AND TRAFFIC FLOW RESTORED TO NORMAL PRIOR TO THE END OF EACH WORK DAY.

LANE SHIFT FOR SHOULDER WORK

DETAIL

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	LANE SHIFT FOR SHOULDER WORK DETAIL	SHEET 84	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - LANE SHIFT FOR SHOULDER WORK DETAIL
PLOT DATE : 7/24/2020 2:56 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

A — ROAD CLOSED AHEAD (W20-3A) 48"X48"

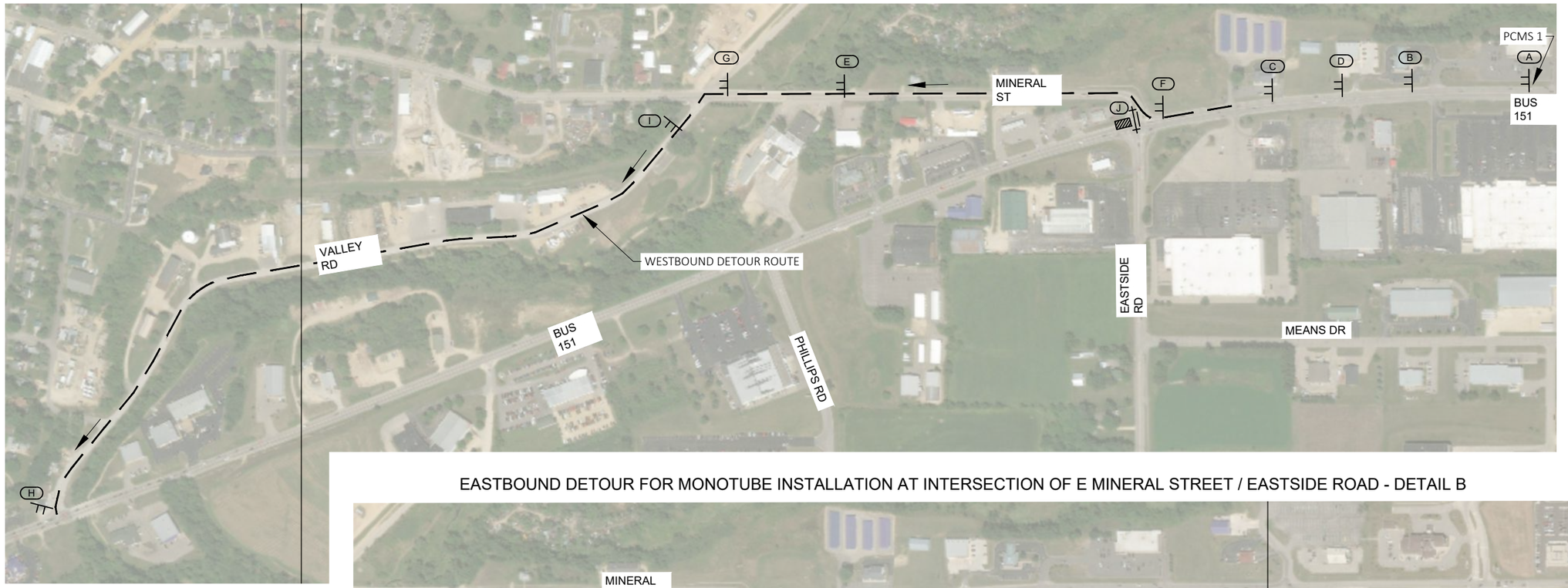
B — DETOUR AHEAD (W20-2A) 48"X48"

C — ROAD CLOSED 500 FT (W20-3D) 48"X48"

D — DETOUR / BUSINESS / 151 / MO5-1R
M4-8 24"X12"
M4-3 24"X12"
M1-4 24"X24"
MO5-1R 21"X21"

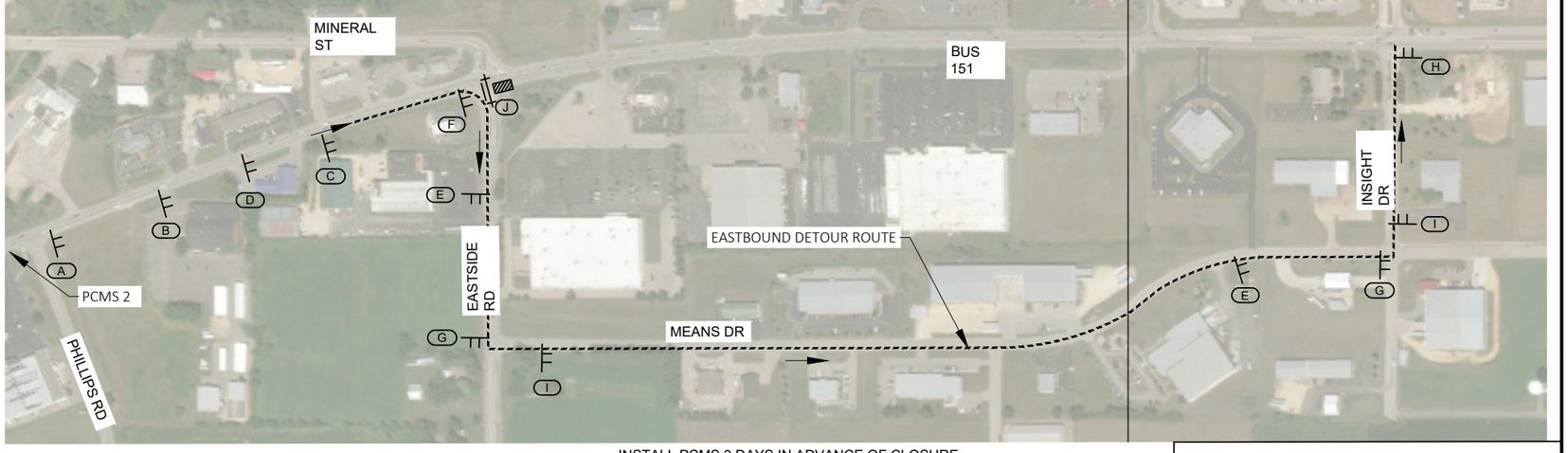
WESTBOUND DETOUR FOR SIGNAL INSTALLATION AT INTERSECTION OF E MINERAL STREET / EASTSIDE ROAD - DETAIL A

PRIOR TO DETOUR, CLOSE THE WESTBOUND THROUGH LANE EAST OF THE INTERSECTION SO THAT ALL TRAFFIC IS IN THE RIGHT LANE APPROACHING THE INTERSECTION. FOLLOW SDD 15D20.



M4-8 24"X12" / M4-3 24"X12" / M1-4 24"X24" / MO6-1 21"X21"

EASTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF E MINERAL STREET / EASTSIDE ROAD - DETAIL B



E — DETOUR / BUSINESS / 151 / MO5-1L
M4-8 24"X12"
M4-3 24"X12"
M1-4 24"X24"
MO5-1L 21"X21"

F — DETOUR / BUSINESS / 151 / MO6-1
M4-8 24"X12"
M4-3 24"X12"
M1-4 24"X24"
MO6-1 21"X21"

G — DETOUR / BUSINESS / 151 / MO6-1
M4-8 24"X12"
M4-3 24"X12"
M1-4 24"X24"
MO6-1 21"X21"

H — END DETOUR / BUSINESS / 151
M4-8A 24"X18"
M4-3 24"X12"
M1-4 24"X24"

I — DETOUR / BUSINESS / 151
M4-8 24"X12"
M4-3 24"X12"
M1-4 24"X24"

J — M4-9R 30"X24" DETOUR OR DETOUR M4-9L 30"X24"

INSTALL PCMS 3 DAYS IN ADVANCE OF CLOSURE

PCMS 1		PCMS 2	
WB BUS 151 CLOSED	7 PM - 5:30 AM ON DATE	EB BUS 151 CLOSED	7 PM - 5:30 AM ON DATE
FRAME 1	FRAME 2	FRAME 1	FRAME 2

WORK AREA

SIGN ON TEMPORARY SUPPORTS

TYPE III BARRICADE WITH ATTACHED SIGN

TYPE A WARNING LIGHT (FLASHING)

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TRAFFIC CONTROL - DETOUR BUS 151 & EASTSIDE RD - MINERAL ST	SHEET 85 E

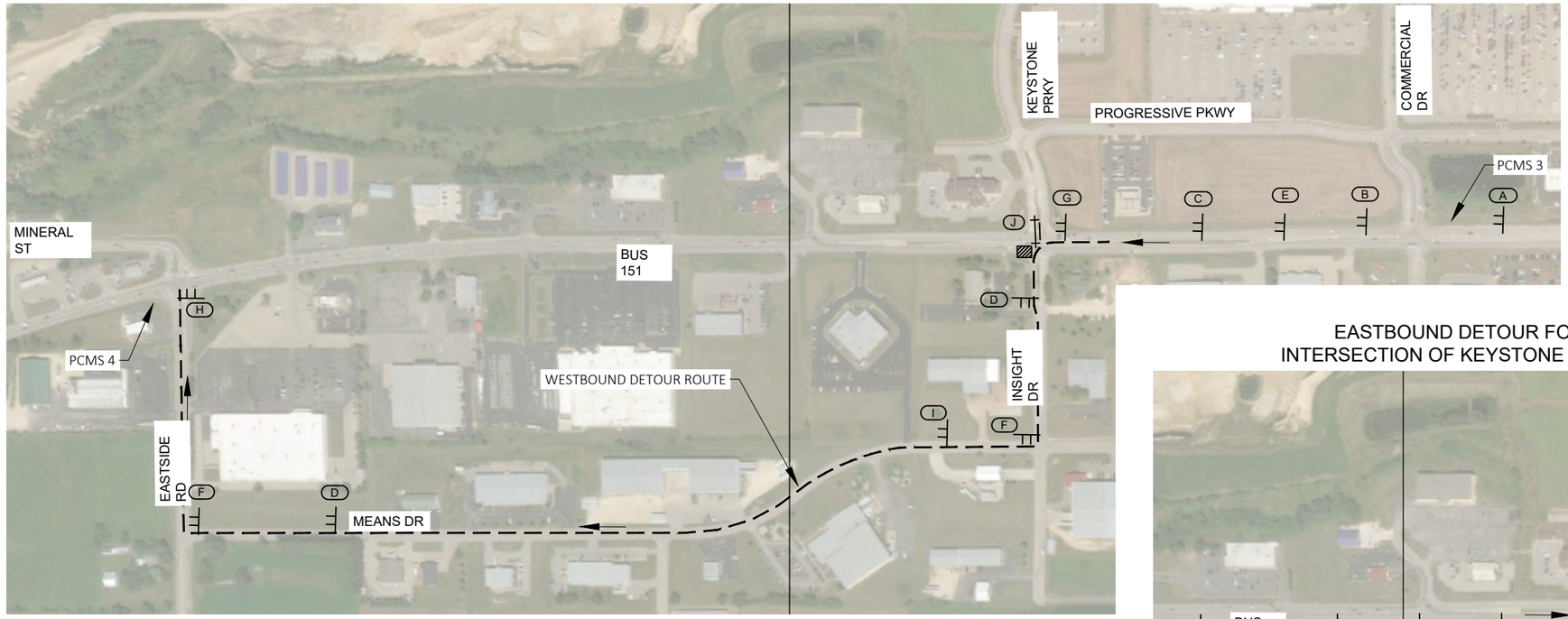
FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - TRAFFIC CONTROL - DETOUR BUS 151 & EASTSIDE RD - MINERAL ST

PLOT DATE : 7/24/2020 2:56 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

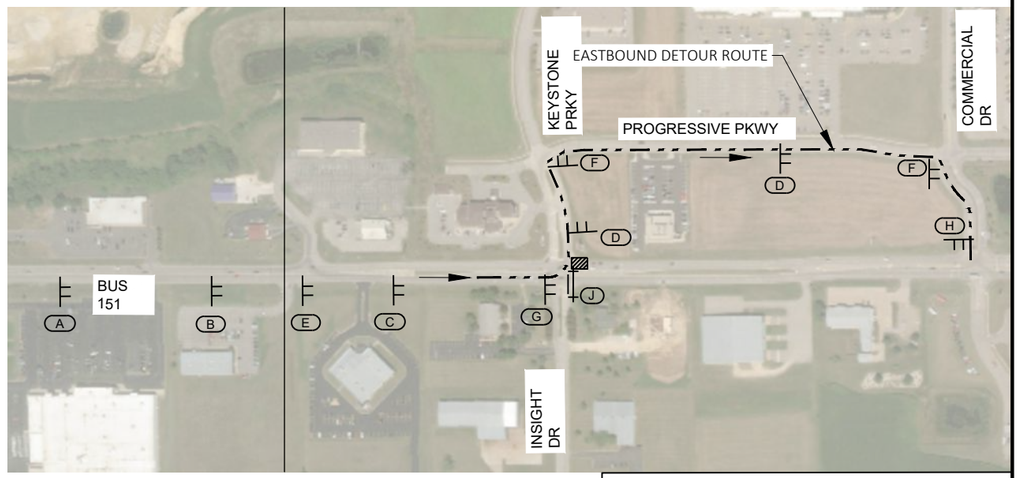
WESTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE - DETAIL C



N

NOT TO SCALE

EASTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE - DETAIL D



PRIOR TO THE DETOURS, CLOSE THE RIGHT THRU LANE ON BUSINESS 151 IN BOTH DIRECTIONS SO THAT ALL TRAFFIC IS IN ONE LANE APPROACHING THE INTERSECTION. FOLLOW SDD 15D20.

INSTALL PCMS 3 DAYS IN ADVANCE OF CLOSURE

PCMS 3		PCMS 4	
WB BUS 151 CLOSED	7 PM - 5:30 AM ON DATE	EB BUS 151 CLOSED	7 PM - 5:30 AM ON DATE
FRAME 1	FRAME 2	FRAME 1	FRAME 2

A — ROAD CLOSED AHEAD (W20-3A) 48"X48"

B — DETOUR AHEAD (W20-2A) 48"X48"

C — ROAD CLOSED 500 FT (W20-3D) 48"X48"

D — DETOUR / BUSINESS 151: M4-8 24"X12", M4-3 24"X12", M1-4 24"X24", MO5-1R 21"X21"

E — DETOUR / BUSINESS 151: M4-8 24"X12", M4-3 24"X12", M1-4 24"X24", MO5-1L 21"X21"

F — DETOUR / BUSINESS 151: M4-8 24"X12", M4-3 24"X12", M1-4 24"X24", MO6-1 21"X21"

G — DETOUR / BUSINESS 151: M4-8 24"X12", M4-3 24"X12", M1-4 24"X24", MO6-1 21"X21"

H — END DETOUR / BUSINESS 151: M4-8A 24"X18", M4-3 24"X12", M1-4 24"X24"

I — DETOUR / BUSINESS 151: M4-8 24"X12", M4-3 24"X12", M1-4 24"X24"

J — M4-9R 30"X24" DETOUR OR DETOUR M4-9L 30"X24"

WORK AREA

SIGN ON TEMPORARY SUPPORTS

TYPE III BARRICADE WITH ATTACHED SIGN

TYPE A WARNING LIGHT (FLASHING)

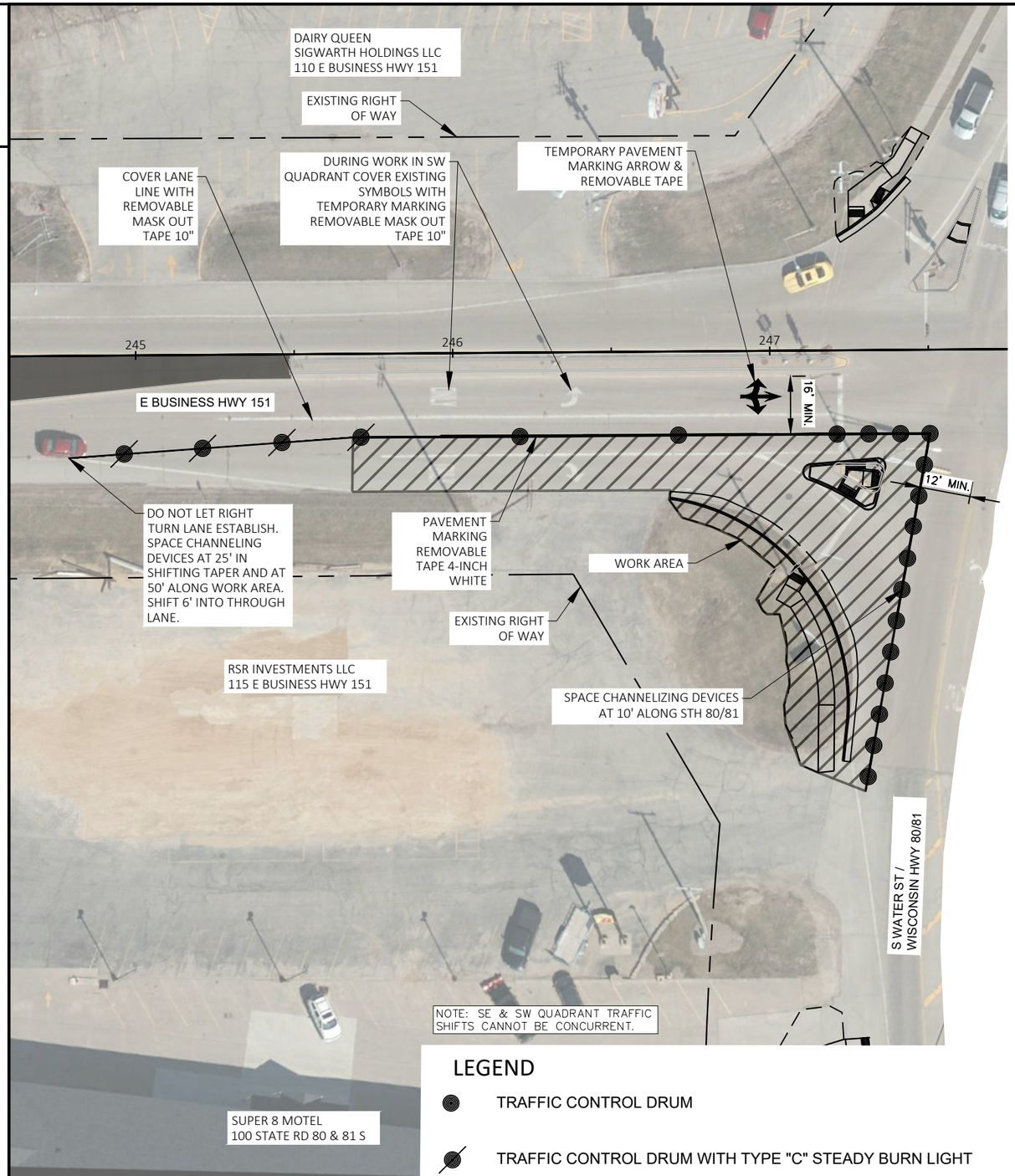
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TRAFFIC CONTROL - DETOUR BUS 151 & INSIGHT DR - KEYSTONE PKWY	SHEET 86	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - TRAFFIC CONTROL - DETOUR BUS 151 & INSIGHT DR - KEYSTONE PKWY

PLOT DATE : 7/24/2020 2:56 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

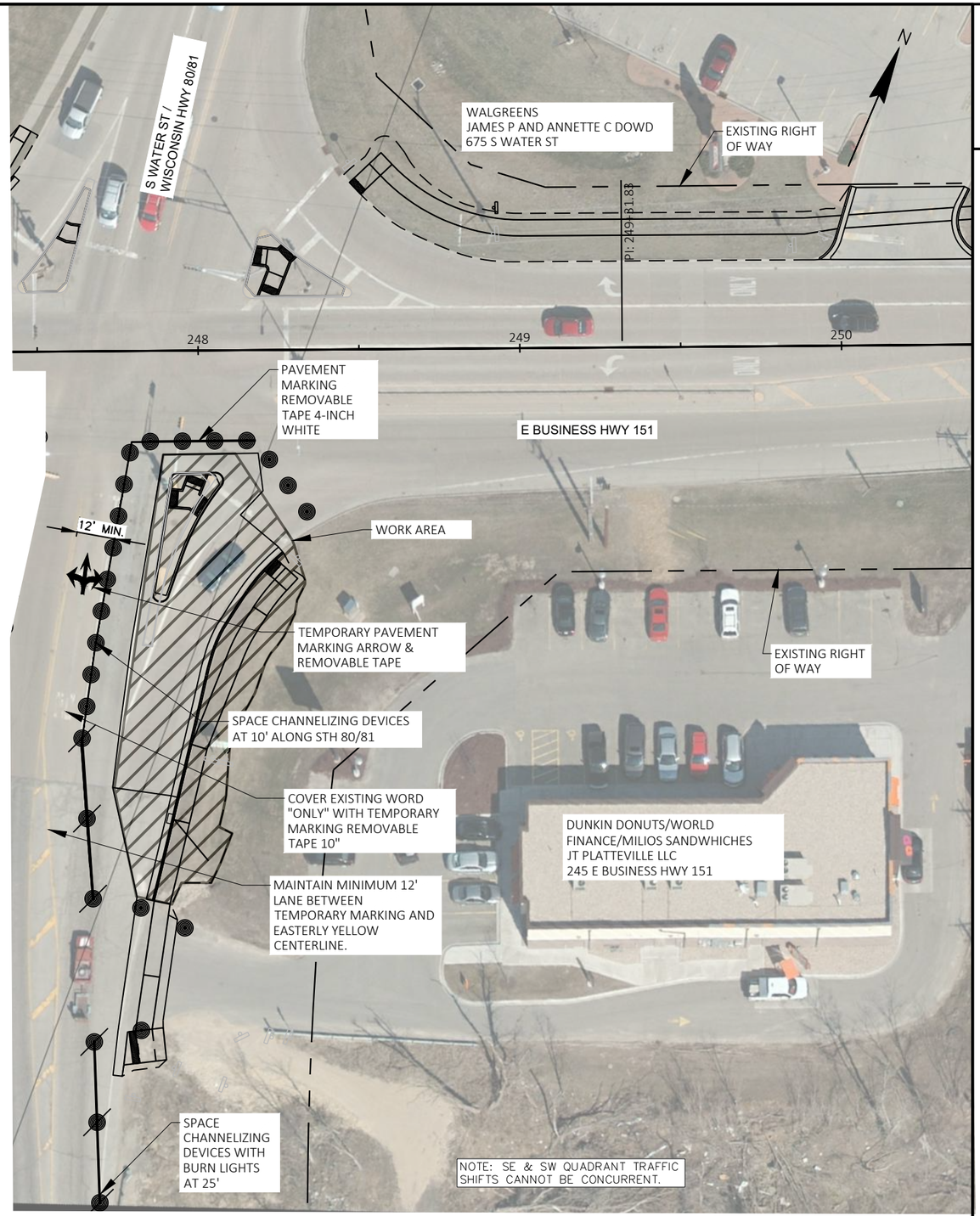


LEGEND

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

DURING WORK IN SW QUADRANT



DURING WORK IN SE QUADRANT

2

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TRAFFIC CONTROL - STH 80/81 INTERSECTION	SHEET 87	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - TRAFFIC CONTROL - STH 80-81 INTERSECTION
PLOT DATE : 7/24/2020 2:56 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

TRAFFIC CONTROL DRUM

N

ALEXANDRAS MEXICAN STORE
MARIA D CORTEZ
1350 E BUSINESS HWY 151

STEVES AUTO WORLD
MARIA D CORTEZ
1370 E BUSINESS HWY 151

E MINERAL ST

PAVEMENT MARKING
REMOVABLE TAPE
4-INCH WHITE

ADVANCE AUTO
WELTHA E LC
1400 E BUSINESS HWY 151

WORK AREA
INSTALL CHANNELIZING DEVICES
AROUND PERIMETER
SPACED AT 10' APART

EXISTING RIGHT OF WAY

RIGHT LANE
CLOSURE PER
SDD 15D-20

USE EXISTING MARKING

304 305 306 307 308 309

E BUSINESS HWY 151

444'

445'

440'

11'

CLOSE RIGHT TURN LANE
AT BEGINNING OF TAPER.
CHANNELIZING DEVICES
SPACED AT 45' APART.

PAVEMENT MARKING
REMOVABLE TAPE
4-INCH WHITE

CAR WASH
THREE SUDS LLC
50 EASTSIDE RD

WORK AREA
INSTALL CHANNELIZING
DEVICES AROUND PERIMETER
SPACED AT 10' APART

EAST SIDE RD

EXISTING RIGHT OF WAY

BUILDERS FIRST SOURCE
LN REAL ESTATE LLC
100 EASTSIDE RD

U-HAUL
AREC 33 LLC
1425 E BUSINESS HWY 151

PAVEMENT MARKING
REMOVABLE TAPE
4-INCH WHITE

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	TRAFFIC CONTROL - EASTSIDE RD/MINERAL ST INTERSECTION	SHEET 88	E

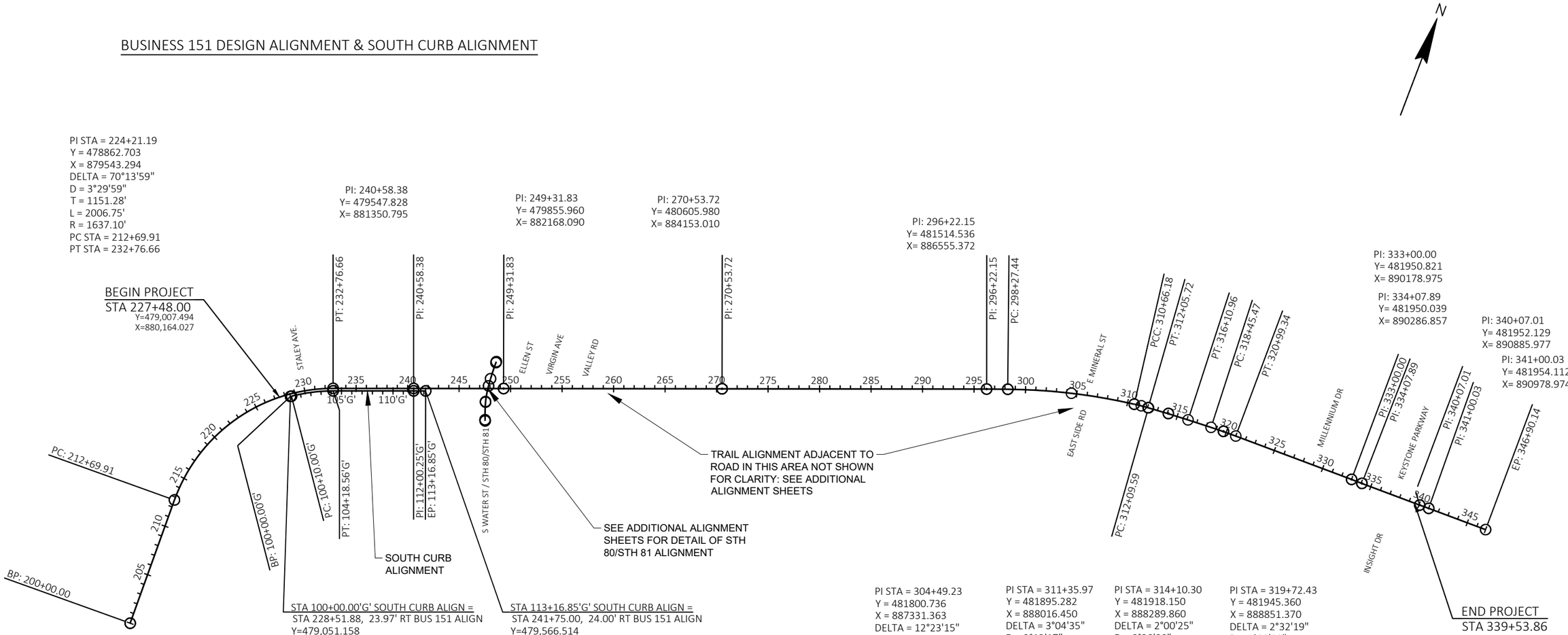
FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - TRAFFIC CONTROL - EASTSIDE RD - MINERAL ST INTERSECTION

PLOT DATE : 7/24/2020 2:56 PM PLOT BY : NATE SKARLUPKA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

BUSINESS 151 DESIGN ALIGNMENT & SOUTH CURB ALIGNMENT



STA 100+00.00'G' SOUTH CURB ALIGN =
STA 228+51.88, 23.97' RT BUS 151 ALIGN
Y=479,051.158
X=880,260.452

STA 113+16.85'G' SOUTH CURB ALIGN =
STA 241+75.00, 24.00' RT BUS 151 ALIGN
Y=479,566.514
X=881,468.388

PI STA = 102+15.38'G'
Y = 479175.524
X = 880436.293
DELTA = 14°30'41"
D = 3°33'07"
T = 205.38'
L = 408.56'
R = 1613.10'
PC STA = 100+10.00'G'
PT STA = 104+18.56'G'

PI: 112+00.25'G'
Y= 479525.379
X= 881359.281

PI STA = 304+49.23
Y = 481800.736
X = 887331.363
DELTA = 12°23'15"
D = 1°00'00"
T = 621.79'
L = 1238.74'
R = 5729.58'
PC STA = 298+27.44
PT STA = 310+66.18

PI STA = 311+35.97
Y = 481895.282
X = 888016.450
DELTA = 3°04'35"
D = 2°12'17"
T = 69.79'
L = 139.54'
R = 2598.88'
PC STA = 310+66.18
PT STA = 312+05.72

PI STA = 314+10.30
Y = 481918.150
X = 888289.860
DELTA = 2°00'25"
D = 0°30'00"
T = 200.71'
L = 401.37'
R = 11459.16'
PC STA = 312+09.59
PT STA = 316+10.96

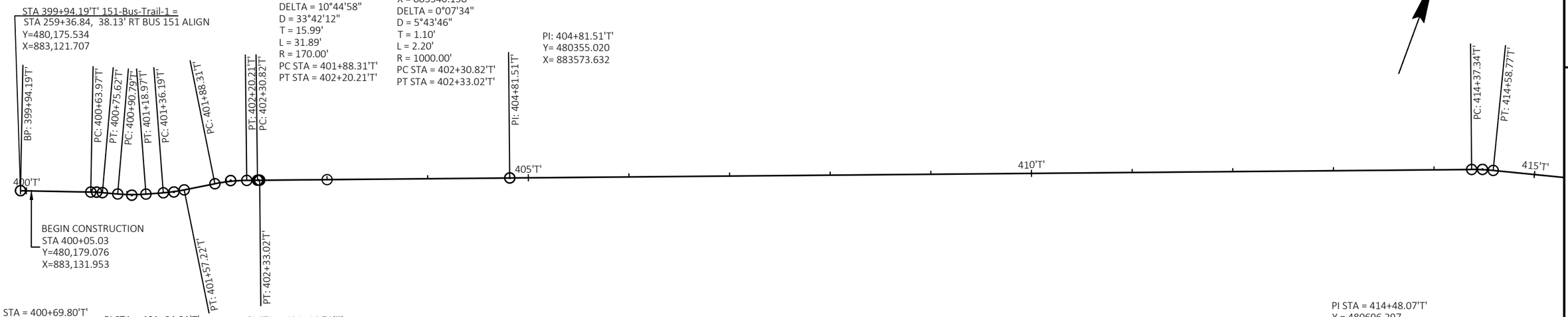
PI STA = 319+72.43
Y = 481945.360
X = 888851.370
DELTA = 2°32'19"
D = 1°00'00"
T = 126.95'
L = 253.86'
R = 5729.58'
PC STA = 318+45.47
PT STA = 320+99.34

NOTE: CENTERLINES INDICATED
ARE NOT BASIS OF RIGHT OF WAY

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	ALIGNMENT DATA	SHEET 89	E

2

TRAIL ALIGNMENT



PI STA = 402+04.31'T'
Y = 480256.987
X = 883314.243
DELTA = 10°44'58"
D = 33°42'12"
T = 15.99'
L = 31.89'
R = 170.00'
PC STA = 401+88.31'T'
PT STA = 402+20.21'T'

PI STA = 402+31.92'T'
Y = 480266.833
X = 883340.138
DELTA = 0°07'34"
D = 5°43'46"
T = 1.10'
L = 2.20'
R = 1000.00'
PC STA = 402+30.82'T'
PT STA = 402+33.02'T'

NOTE: CENTERLINES INDICATED
ARE NOT BASIS OF RIGHT OF WAY

PI STA = 400+69.80'T'
Y = 480200.237
X = 883193.165
DELTA = 3°48'55"
D = 32°44'26"
T = 5.83'
L = 11.65'
R = 175.00'
PC STA = 400+63.97'T'
PT STA = 400+75.62'T'

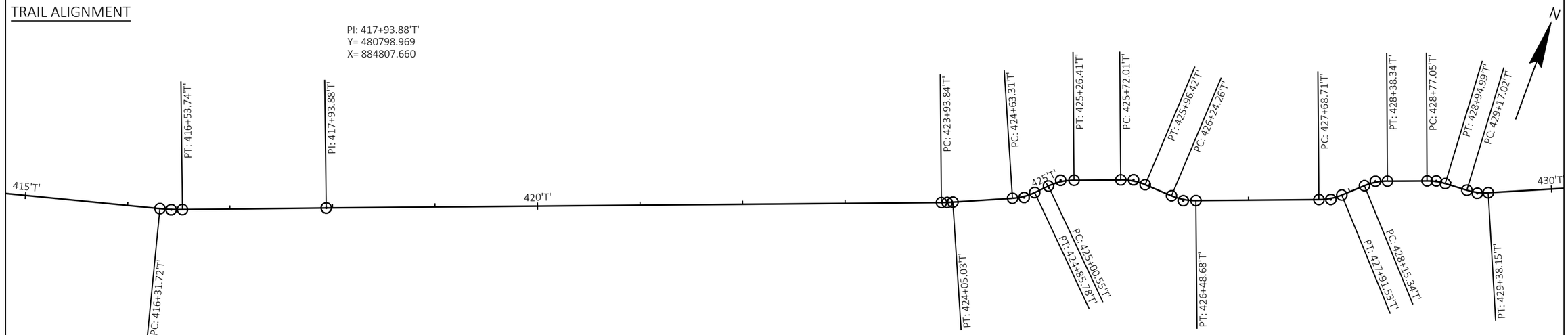
PI STA = 401+04.91'T'
Y = 480209.477
X = 883227.047
DELTA = 9°13'28"
D = 32°44'26"
T = 14.12'
L = 28.17'
R = 175.00'
PC STA = 400+90.79'T'
PT STA = 401+18.97'T'

PI STA = 401+46.72'T'
Y = 480226.826
X = 883265.152
DELTA = 7°05'14"
D = 33°42'12"
T = 10.53'
L = 21.03'
R = 170.00'
PC STA = 401+36.19'T'
PT STA = 401+57.22'T'

PI STA = 414+48.07'T'
Y = 480696.297
X = 884477.932
DELTA = 6°08'17"
D = 28°38'52"
T = 10.72'
L = 21.43'
R = 200.00'
PC STA = 414+37.34'T'
PT STA = 414+58.77'T'

2

TRAIL ALIGNMENT



PI STA = 416+42.74'T'
Y = 480745.171
X = 884666.395
DELTA = 6°18'38"
D = 28°38'52"
T = 11.03'
L = 22.03'
R = 200.00'
PC STA = 416+31.72'T'
PT STA = 416+53.74'T'

PI STA = 423+99.43'T'
Y = 481012.730
X = 885374.229
DELTA = 3°12'16"
D = 28°38'52"
T = 5.59'
L = 11.19'
R = 200.00'
PC STA = 423+93.84'T'
PT STA = 424+05.03'T'

PI STA = 424+74.68'T'
Y = 481043.188
X = 885443.040
DELTA = 21°27'22"
D = 95°29'35"
T = 11.37'
L = 22.47'
R = 60.00'
PC STA = 424+63.31'T'
PT STA = 424+85.78'T'

PI STA = 425+13.68'T'
Y = 481071.115
X = 885470.646
DELTA = 24°41'40"
D = 95°29'35"
T = 13.13'
L = 25.86'
R = 60.00'
PC STA = 425+00.55'T'
PT STA = 425+26.41'T'

PI STA = 425+84.39'T'
Y = 481096.178
X = 885537.195
DELTA = 23°18'27"
D = 95°29'35"
T = 12.37'
L = 24.41'
R = 60.00'
PC STA = 425+72.01'T'
PT STA = 425+96.42'T'

PI STA = 426+36.64'T'
Y = 481093.728
X = 885589.732
DELTA = 23°19'01"
D = 95°29'35"
T = 12.38'
L = 24.42'
R = 60.00'
PC STA = 426+24.26'T'
PT STA = 426+48.68'T'

PI STA = 427+80.26'T'
Y = 481144.489
X = 885724.448
DELTA = 21°47'01"
D = 95°29'35"
T = 11.55'
L = 22.81'
R = 60.00'
PC STA = 427+68.71'T'
PT STA = 427+91.53'T'

PI STA = 428+26.98'T'
Y = 481176.201
X = 885759.140
DELTA = 21°58'12"
D = 95°29'35"
T = 11.65'
L = 23.01'
R = 60.00'
PC STA = 428+15.34'T'
PT STA = 428+38.34'T'

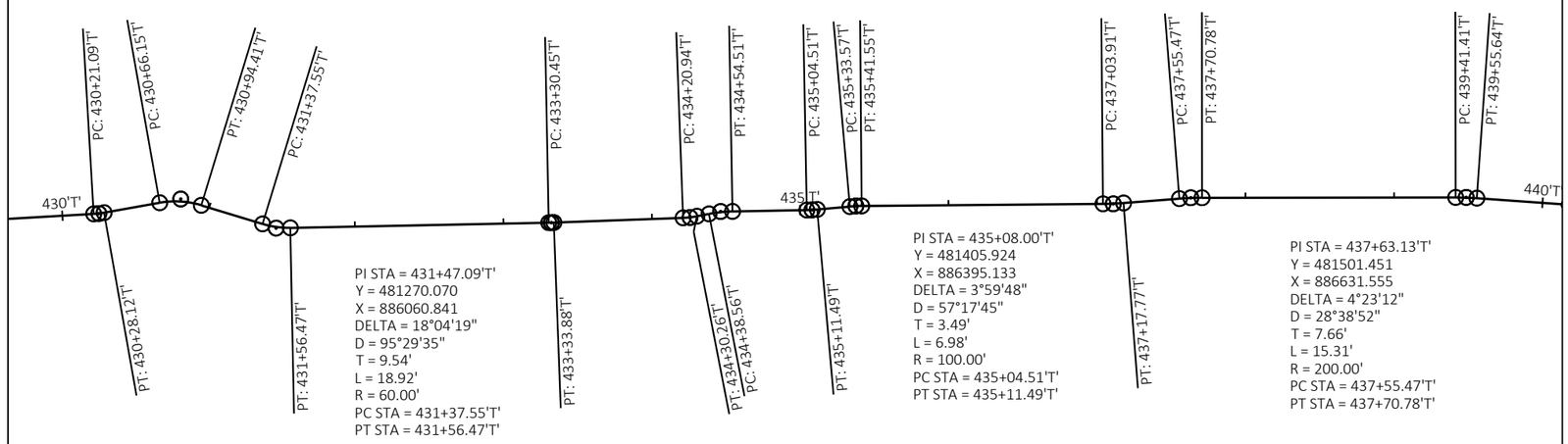
PI STA = 428+86.09'T'
Y = 481196.962
X = 885814.786
DELTA = 17°07'36"
D = 95°29'35"
T = 9.03'
L = 17.94'
R = 60.00'
PC STA = 428+77.05'T'
PT STA = 428+94.99'T'

PI STA = 429+27.69'T'
Y = 481199.389
X = 885856.454
DELTA = 20°10'18"
D = 95°29'35"
T = 10.67'
L = 21.12'
R = 60.00'
PC STA = 429+17.02'T'
PT STA = 429+38.15'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	ALIGNMENT DATA	SHEET 90	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 2 TRAIL
PLOT DATE : 5/9/2018 2:47 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

TRAIL ALIGNMENT



PI STA = 431+47.09'T'
Y = 481270.070
X = 886060.841
DELTA = 18°04'19"
D = 95°29'35"
T = 9.54'
L = 18.92'
R = 60.00'
PC STA = 431+37.55'T'
PT STA = 431+56.47'T'

PI STA = 435+08.00'T'
Y = 481405.924
X = 886395.133
DELTA = 3°59'48"
D = 57°17'45"
T = 3.49'
L = 6.98'
R = 100.00'
PC STA = 435+04.51'T'
PT STA = 435+11.49'T'

PI STA = 437+63.13'T'
Y = 481501.451
X = 886631.555
DELTA = 4°23'12"
D = 28°38'52"
T = 7.66'
L = 15.31'
R = 200.00'
PC STA = 437+55.47'T'
PT STA = 437+70.78'T'

PI STA = 430+24.61'T'
Y = 481238.128
X = 885945.528
DELTA = 6°42'59"
D = 95°29'35"
T = 3.52'
L = 7.03'
R = 60.00'
PC STA = 430+21.09'T'
PT STA = 430+28.12'T'

PI STA = 430+80.55'T'
Y = 481266.290
X = 885993.872
DELTA = 26°59'25"
D = 95°29'35"
T = 14.40'
L = 28.26'
R = 60.00'
PC STA = 430+66.15'T'
PT STA = 430+94.41'T'

PI STA = 433+32.17'T'
Y = 481337.368
X = 886233.423
DELTA = 0°58'58"
D = 28°38'52"
T = 1.72'
L = 3.43'
R = 200.00'
PC STA = 433+30.45'T'
PT STA = 433+33.88'T'

PI STA = 434+25.61'T'
Y = 481372.803
X = 886319.884
DELTA = 8°53'35"
D = 95°29'35"
T = 4.67'
L = 9.31'
R = 60.00'
PC STA = 434+20.94'T'
PT STA = 434+30.26'T'

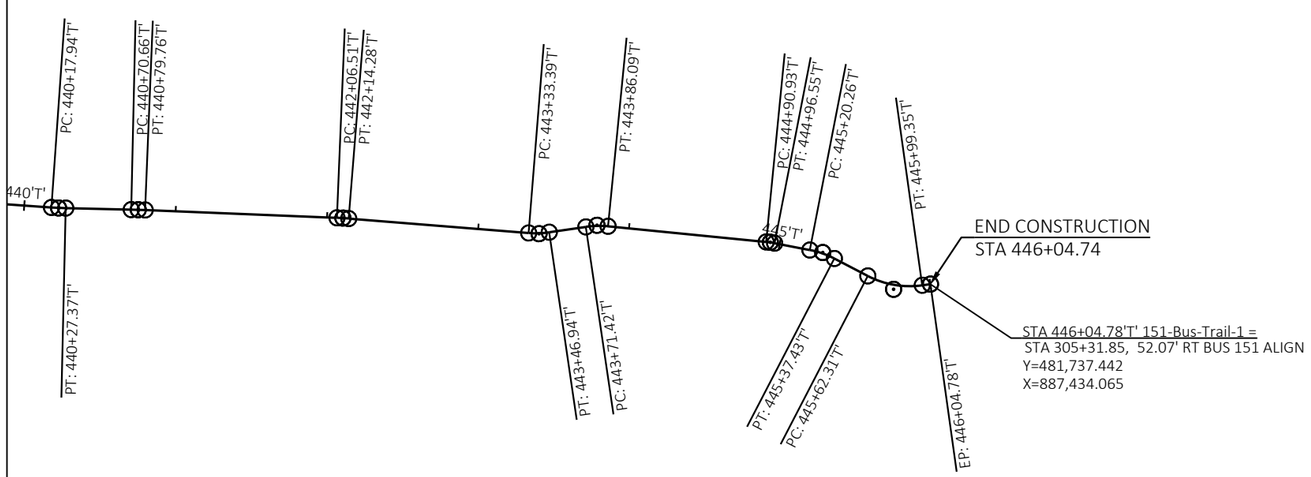
PI STA = 434+46.55'T'
Y = 481383.657
X = 886337.820
DELTA = 9°56'47"
D = 62°20'27"
T = 8.00'
L = 15.95'
R = 91.91'
PC STA = 434+38.56'T'
PT STA = 434+54.51'T'

PI STA = 435+37.56'T'
Y = 481418.526
X = 886421.878
DELTA = 4°34'17"
D = 57°17'45"
T = 3.99'
L = 7.98'
R = 100.00'
PC STA = 435+33.57'T'
PT STA = 435+41.55'T'

PI STA = 437+10.84'T'
Y = 481479.657
X = 886584.016
DELTA = 3°58'15"
D = 28°38'52"
T = 6.93'
L = 13.86'
R = 200.00'
PC STA = 437+03.91'T'
PT STA = 437+17.77'T'

PI STA = 439+48.53'T'
Y = 481565.599
X = 886805.510
DELTA = 4°04'27"
D = 28°38'52"
T = 7.11'
L = 14.22'
R = 200.00'
PC STA = 439+41.41'T'
PT STA = 439+55.64'T'

TRAIL ALIGNMENT



STA 446+04.78'T' 151-Bus-Trail-1 =
STA 305+31.85, 52.07' RT BUS 151 ALIGN
Y=481,737.442
X=887,434.065

PI STA = 440+22.65'T'
Y = 481586.242
X = 886876.709
DELTA = 2°42'06"
D = 28°38'52"
T = 4.72'
L = 9.43'
R = 200.00'
PC STA = 440+17.94'T'
PT STA = 440+27.37'T'

PI STA = 440+75.21'T'
Y = 481603.240
X = 886926.444
DELTA = 1°02'34"
D = 11°27'33"
T = 4.55'
L = 9.10'
R = 500.00'
PC STA = 440+70.66'T'
PT STA = 440+79.76'T'

PI STA = 442+10.40'T'
Y = 481644.626
X = 887055.139
DELTA = 2°13'27"
D = 28°38'52"
T = 3.88'
L = 7.76'
R = 200.00'
PC STA = 442+06.51'T'
PT STA = 442+14.28'T'

PI STA = 443+40.19'T'
Y = 481679.537
X = 887180.153
DELTA = 12°56'31"
D = 95°29'35"
T = 6.81'
L = 13.55'
R = 60.00'
PC STA = 443+33.39'T'
PT STA = 443+46.94'T'

PI STA = 443+78.79'T'
Y = 481698.009
X = 887214.112
DELTA = 14°00'26"
D = 95°29'35"
T = 7.37'
L = 14.67'
R = 60.00'
PC STA = 443+71.42'T'
PT STA = 443+86.09'T'

PI STA = 444+93.74'T'
Y = 481726.881
X = 887325.449
DELTA = 5°22'05"
D = 95°29'35"
T = 2.81'
L = 5.62'
R = 60.00'
PC STA = 444+90.93'T'
PT STA = 444+96.55'T'

PI STA = 445+28.90'T'
Y = 481732.485
X = 887360.168
DELTA = 16°23'53"
D = 95°29'35"
T = 8.65'
L = 17.17'
R = 60.00'
PC STA = 445+20.26'T'
PT STA = 445+37.43'T'

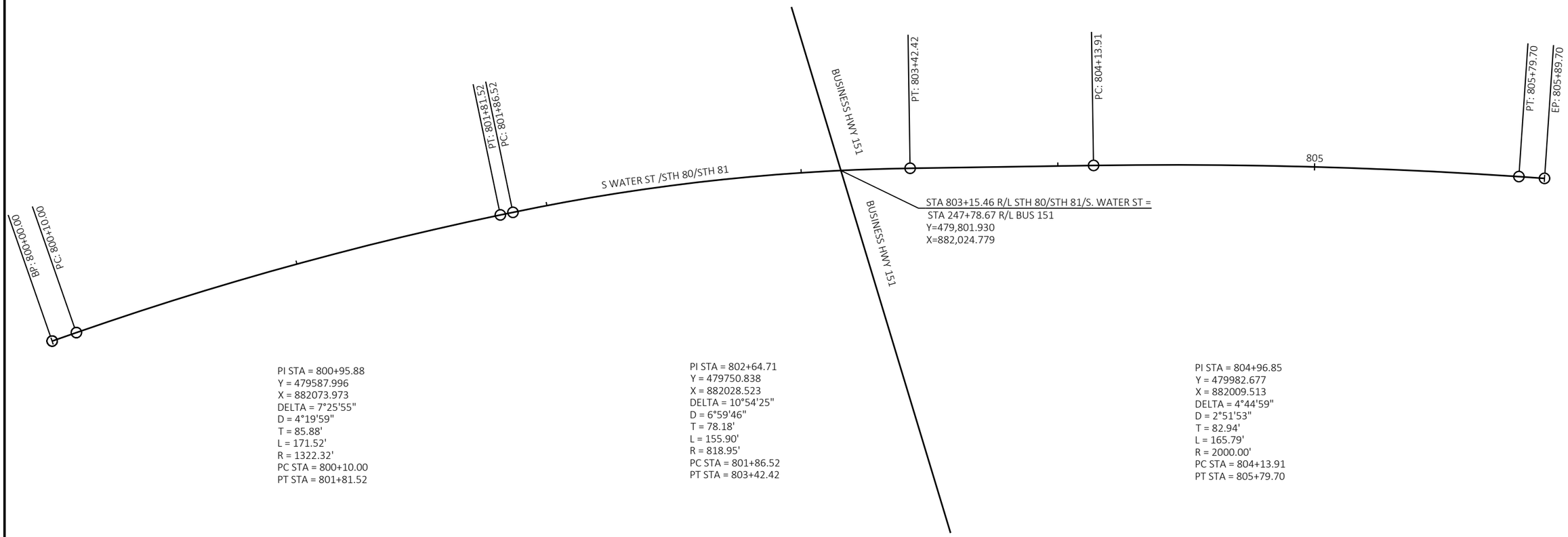
PI STA = 445+81.44'T'
Y = 481725.858
X = 887412.410
DELTA = 35°22'19"
D = 95°29'35"
T = 19.13'
L = 37.04'
R = 60.00'
PC STA = 445+62.31'T'
PT STA = 445+99.35'T'

NOTE: CENTERLINES INDICATED ARE NOT BASIS OF RIGHT OF WAY

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	ALIGNMENT DATA	SHEET 91 E

STH 80/STH 81/S WATER ST ALIGNMENT

2



PI STA = 800+95.88
Y = 479587.996
X = 882073.973
DELTA = 7°25'55"
D = 4°19'59"
T = 85.88'
L = 171.52'
R = 1322.32'
PC STA = 800+10.00
PT STA = 801+81.52

PI STA = 802+64.71
Y = 479750.838
X = 882028.523
DELTA = 10°54'25"
D = 6°59'46"
T = 78.18'
L = 155.90'
R = 818.95'
PC STA = 801+86.52
PT STA = 803+42.42

PI STA = 804+96.85
Y = 479982.677
X = 882009.513
DELTA = 4°44'59"
D = 2°51'53"
T = 82.94'
L = 165.79'
R = 2000.00'
PC STA = 804+13.91
PT STA = 805+79.70

NOTE: CENTERLINES INDICATED
ARE NOT BASIS OF RIGHT OF WAY

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0100	Removing Small Pipe Culverts	EACH	8.000	8.000
0008	203.0200	Removing Old Structure (station) 01. 402+40.98'T'	LS	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	698.000	698.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	285.000	285.000
0014	204.0150	Removing Curb & Gutter	LF	1,369.000	1,369.000
0016	204.0155	Removing Concrete Sidewalk	SY	69.000	69.000
0018	204.0160	Removing Lip Curb	LF	58.000	58.000
0020	204.0195	Removing Concrete Bases	EACH	7.000	7.000
0022	204.0220	Removing Inlets	EACH	1.000	1.000
0024	205.0100	Excavation Common	CY	7,258.000	7,258.000
0026	205.0200	Excavation Rock	CY	1,654.000	1,654.000
0028	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5996-00-77	LS	1.000	1.000
0030	213.0100	Finishing Roadway (project) 01. 5996-00-77	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	645.000	645.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,680.000	6,680.000
0036	305.0500	Shaping Shoulders	STA	99.000	99.000
0038	312.0110	Select Crushed Material	TON	1,200.000	1,200.000
0040	415.0090	Concrete Pavement 9-Inch	SY	438.000	438.000
0042	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0044	416.0160	Concrete Driveway 6-Inch	SY	117.000	117.000
0046	416.0610	Drilled Tie Bars	EACH	170.000	170.000
0048	455.0605	Tack Coat	GAL	3,900.000	3,900.000
0050	465.0105	Asphaltic Surface	TON	954.000	954.000
0052	465.0110	Asphaltic Surface Patching	TON	200.000	200.000
0054	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	527.000	527.000
0056	520.1012	Apron Endwalls for Culvert Pipe 12-Inch	EACH	5.000	5.000
0058	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	1.000	1.000
0060	520.3612	Culvert Pipe Class III-B Non-metal 12-Inch	LF	30.000	30.000
0062	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0064	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0066	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	36.000	36.000
0068	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	8.000	8.000
0070	522.0412	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	344.000	344.000
0072	522.0415	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	18.000	18.000
0074	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	119.000	119.000
0076	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	82.000	82.000
0078	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete	EACH	25.000	25.000

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
		12-Inch			
0080	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0082	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	7.000	7.000
0084	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	3.000	3.000
0086	522.2414	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	36.000	36.000
0088	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	132.000	132.000
0090	522.2614	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000
0092	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	3.000	3.000
0094	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	1.000	1.000
0096	524.0636	Apron Endwalls for Culvert Pipe Salvaged 36-Inch	EACH	1.000	1.000
0098	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	29.000	29.000
0100	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	170.000	170.000
0102	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	60.000	60.000
0104	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	197.000	197.000
0106	601.0454	Concrete Curb & Gutter Integral 30-Inch Type J	LF	139.000	139.000
0108	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	72.000	72.000
0110	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	60.000	60.000
0112	601.0576	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type J	LF	64.000	64.000
0114	601.0600	Concrete Curb Pedestrian	LF	161.000	161.000
0116	602.0405	Concrete Sidewalk 4-Inch	SF	4,754.000	4,754.000
0118	602.0415	Concrete Sidewalk 6-Inch	SF	1,490.000	1,490.000
0120	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	369.000	369.000
0122	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	76.000	76.000
0124	606.0200	Riprap Medium	CY	20.000	20.000
0126	608.0005	Storm Sewer Rock Excavation	CY	120.000	120.000
0128	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	132.000	132.000
0130	608.0321	Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	LF	23.000	23.000
0132	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	24.000	24.000
0134	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	16.000	16.000
0136	608.2319	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	256.000	256.000

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
0138	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	37.000	37.000
0140	608.3615	Storm Sewer Pipe Class III-B 15-Inch	LF	20.000	20.000
0142	608.3618	Storm Sewer Pipe Class III-B 18-Inch	LF	146.000	146.000
0144	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0146	611.0606	Inlet Covers Type B	EACH	1.000	1.000
0148	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0150	611.0624	Inlet Covers Type H	EACH	3.000	3.000
0152	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0154	611.3003	Inlets 3-FT Diameter	EACH	1.000	1.000
0156	611.3004	Inlets 4-FT Diameter	EACH	3.000	3.000
0158	611.3230	Inlets 2x3-FT	EACH	6.000	6.000
0160	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0162	611.9710	Salvaged Inlet Covers	EACH	2.000	2.000
0164	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-inch	SY	100.000	100.000
0166	619.1000	Mobilization	EACH	1.000	1.000
0168	620.0100	Concrete Corrugated Median	SF	1,753.000	1,753.000
0170	620.0300	Concrete Median Sloped Nose	SF	357.000	357.000
0172	625.0500	Salvaged Topsoil	SY	14,000.000	14,000.000
0174	627.0200	Mulching	SY	16,400.000	16,400.000
0176	628.1504	Silt Fence	LF	813.000	813.000
0178	628.1520	Silt Fence Maintenance	LF	813.000	813.000
0180	628.1905	Mobilizations Erosion Control	EACH	10.000	10.000
0182	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0184	628.2008	Erosion Mat Urban Class I Type B	SY	1,427.000	1,427.000
0186	628.2023	Erosion Mat Class II Type B	SY	4,642.000	4,642.000
0188	628.7005	Inlet Protection Type A	EACH	6.000	6.000
0190	628.7010	Inlet Protection Type B	EACH	6.000	6.000
0192	628.7015	Inlet Protection Type C	EACH	22.000	22.000
0194	628.7504	Temporary Ditch Checks	LF	195.000	195.000
0196	628.7555	Culvert Pipe Checks	EACH	95.000	95.000
0198	629.0210	Fertilizer Type B	CWT	10.000	10.000
0200	630.0140	Seeding Mixture No. 40	LB	286.000	286.000
0202	630.0171	Seeding Mixture No. 70A	LB	18.000	18.000
0204	630.0200	Seeding Temporary	LB	100.000	100.000
0206	630.0400	Seeding Nurse Crop	LB	36.000	36.000
0208	630.0500	Seed Water	MGAL	486.000	486.000
0210	633.0100	Delineator Posts Steel	EACH	14.000	14.000
0212	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000
0214	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	2.000	2.000
0216	634.0811	Posts Tubular Steel 2x2-Inch X 11-FT	EACH	30.000	30.000

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
0218	637.2210	Signs Type II Reflective H	SF	132.000	132.000
0220	637.2230	Signs Type II Reflective F	SF	100.000	100.000
0222	638.2102	Moving Signs Type II	EACH	14.000	14.000
0224	638.2602	Removing Signs Type II	EACH	3.000	3.000
0226	638.3000	Removing Small Sign Supports	EACH	14.000	14.000
0228	642.5001	Field Office Type B	EACH	1.000	1.000
0230	643.0300	Traffic Control Drums	DAY	9,100.000	9,100.000
0232	643.0420	Traffic Control Barricades Type III	DAY	350.000	350.000
0234	643.0705	Traffic Control Warning Lights Type A	DAY	700.000	700.000
0236	643.0715	Traffic Control Warning Lights Type C	DAY	1,335.000	1,335.000
0238	643.0800	Traffic Control Arrow Boards	DAY	70.000	70.000
0240	643.0900	Traffic Control Signs	DAY	5,600.000	5,600.000
0242	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0244	643.1050	Traffic Control Signs PCMS	DAY	12.000	12.000
0246	643.5000	Traffic Control	EACH	1.000	1.000
0248	645.0120	Geotextile Type HR	SY	50.000	50.000
0250	646.1020	Marking Line Epoxy 4-Inch	LF	45,531.000	45,531.000
0252	646.3020	Marking Line Epoxy 8-Inch	LF	2,186.000	2,186.000
0254	646.5020	Marking Arrow Epoxy	EACH	52.000	52.000
0256	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0258	646.5220	Marking Symbol Epoxy	EACH	2.000	2.000
0260	646.6120	Marking Stop Line Epoxy 18-Inch	LF	357.000	357.000
0262	646.7120	Marking Diagonal Epoxy 12-Inch	LF	699.000	699.000
0264	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	938.000	938.000
0266	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	124.000	124.000
0268	646.8020	Marking Corrugated Median Epoxy	SF	2,348.000	2,348.000
0270	646.8120	Marking Curb Epoxy	LF	40.000	40.000
0272	646.8220	Marking Island Nose Epoxy	EACH	12.000	12.000
0274	646.9000	Marking Removal Line 4-Inch	LF	1,136.000	1,136.000
0276	646.9200	Marking Removal Line Wide	LF	314.000	314.000
0278	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,450.000	1,450.000
0280	649.0550	Temporary Marking Arrow Removable Tape	EACH	2.000	2.000
0282	649.0970	Temporary Marking Removable Mask Out Tape 10-Inch	LF	640.000	640.000
0284	650.4000	Construction Staking Storm Sewer	EACH	21.000	21.000
0286	650.4500	Construction Staking Subgrade	LF	6,632.000	6,632.000
0288	650.5000	Construction Staking Base	LF	6,632.000	6,632.000
0290	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,629.000	3,629.000
0292	650.6000	Construction Staking Pipe Culverts	EACH	24.000	24.000
0294	650.6500	Construction Staking Structure Layout (structure) 01. Wall Modular Block Landscape (STA 405+00'T')	LS	1.000	1.000

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
0296	650.6500	Construction Staking Structure Layout (structure) 02. Wall Modular Block Landscape (STA 412+00'T')	LS	1.000	1.000
0298	650.6500	Construction Staking Structure Layout (structure) 03. Wall Modular Block Landscape (STA 436+00'T')	LS	1.000	1.000
0300	650.6500	Construction Staking Structure Layout (structure) 04. Wall Modular Block Landscape (STA 443+00'T')	LS	1.000	1.000
0302	650.7000	Construction Staking Concrete Pavement	LF	424.000	424.000
0304	650.8000	Construction Staking Resurfacing Reference	LF	3,725.000	3,725.000
0306	650.8500	Construction Staking Electrical Installations (project) 001. 5996-00-77	LS	1.000	1.000
0308	650.9000	Construction Staking Curb Ramps	EACH	33.000	33.000
0310	650.9910	Construction Staking Supplemental Control (project) 01. 5996-00-77	LS	1.000	1.000
0312	650.9920	Construction Staking Slope Stakes	LF	6,210.000	6,210.000
0314	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	281.000	281.000
0316	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	315.000	315.000
0318	652.0615	Conduit Special 3-Inch	LF	253.000	253.000
0320	652.0700.S	Install Conduit into Existing Item	EACH	11.000	11.000
0322	652.0800	Conduit Loop Detector	LF	1,430.000	1,430.000
0324	652.0900	Loop Detector Slots	LF	1,360.000	1,360.000
0326	653.0135	Pull Boxes Steel 24x36-Inch	EACH	6.000	6.000
0328	653.0140	Pull Boxes Steel 24x42-Inch	EACH	5.000	5.000
0330	653.0900	Adjusting Pull Boxes	EACH	2.000	2.000
0332	653.0905	Removing Pull Boxes	EACH	12.000	12.000
0334	654.0101	Concrete Bases Type 1	EACH	10.000	10.000
0336	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0338	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
0340	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,779.000	1,779.000
0342	655.0240	Cable Traffic Signal 7-14 AWG	LF	1,392.000	1,392.000
0344	655.0250	Cable Traffic Signal 9-14 AWG	LF	204.000	204.000
0346	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,970.000	2,970.000
0348	655.0270	Cable Traffic Signal 15-14 AWG	LF	580.000	580.000
0350	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,685.000	1,685.000
0352	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	3,070.000	3,070.000
0354	655.0610	Electrical Wire Lighting 12 AWG	LF	351.000	351.000
0356	655.0700	Loop Detector Lead In Cable	LF	7,552.000	7,552.000
0358	655.0900	Traffic Signal EVP Detector Cable	LF	2,176.000	2,176.000
0360	657.0100	Pedestal Bases	EACH	8.000	8.000
0362	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000
0364	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	2.000	2.000
0366	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000

5996-00-77

Line	Item	Item Description	Unit	Total	Qty
0368	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	4.000	4.000
0370	658.0173	Traffic Signal Face 3S 12-Inch	EACH	10.000	10.000
0372	658.0174	Traffic Signal Face 4S 12-Inch	EACH	6.000	6.000
0374	658.0175	Traffic Signal Face 5S 12-Inch	EACH	5.000	5.000
0376	658.0416	Pedestrian Signal Face 16-Inch	EACH	12.000	12.000
0378	658.0500	Pedestrian Push Buttons	EACH	13.000	13.000
0380	658.5069	Signal Mounting Hardware (location) 001. BUS 151 & STH 80/81	LS	1.000	1.000
0382	658.5069	Signal Mounting Hardware (location) 002. Eastside Rd	LS	1.000	1.000
0384	658.5069	Signal Mounting Hardware (location) 003. Insight Dr	LS	1.000	1.000
0386	659.1125	Luminaires Utility LED C	EACH	2.000	2.000
0388	690.0150	Sawing Asphalt	LF	6,900.000	6,900.000
0390	690.0250	Sawing Concrete	LF	585.000	585.000
0392	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0394	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0396	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000
0398	SPV.0035	Special 01. Remove and Reinstall Riprap	CY	21.000	21.000
0400	SPV.0060	Special 01. Inlet Cover Cone Grate 3-Ft	EACH	1.000	1.000
0402	SPV.0060	Special 02. Inlet Cover Cone Grate 4-Ft	EACH	1.000	1.000
0404	SPV.0060	Special 03. Drop Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0406	SPV.0060	Special 04. Drop Apron Endwalls for Culvert Pipe Rein. Conc. Horiz. Ellip. 19x30-inch	EACH	1.000	1.000
0408	SPV.0060	Special 05. Inlet Cover Type H Modified	EACH	2.000	2.000
0410	SPV.0060	Special 06. Inlet Cover Rectangular Grate	EACH	1.000	1.000
0412	SPV.0060	Special 07. Repositioning Traffic Control Devices for Closures	EACH	110.000	110.000
0414	SPV.0060	Special 08. Remove and Reinstall Traffic Signal Pole Assembly	EACH	5.000	5.000
0416	SPV.0060	Special 09. Install Poles Type 13	EACH	2.000	2.000
0418	SPV.0060	Special 10. Install Monotube Arms 50-FT	EACH	2.000	2.000
0420	SPV.0060	Special 11. Install Luminaire Arms Steel 8-FT	EACH	2.000	2.000
0422	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type D	LF	51.000	51.000
0424	SPV.0090	Special 02. Concrete Curb & Gutter 72-Inch Type D	LF	1,380.000	1,380.000
0426	SPV.0090	Special 03. Concrete Gutter 60-Inch	LF	1,407.000	1,407.000
0428	SPV.0105	Special 01. Rectangular Rapid Flashing Beacon (RRFB) System Station 227+00 LT	LS	1.000	1.000
0430	SPV.0105	Special 02. Rectangular Rapid Flashing Beacon (RRFB) System Station 227+48 RT	LS	1.000	1.000
0432	SPV.0105	Special 03. Rectangular Rapid Flashing Beacon (RRFB) System Station 229+50 LT	LS	1.000	1.000

Line	Item	Item Description	Unit	Total	Qty
0434	SPV.0105	Special 04. Rectangular Rapid Flashing Beacon (RRFB) System Station 229+50 RT	LS	1.000	1.000
0436	SPV.0105	Special 05. Rectangular Rapid Flashing Beacon (RRFB) System Station 230+70 LT	LS	1.000	1.000
0438	SPV.0105	Special 06. Rectangular Rapid Flashing Beacon (RRFB) System Station 230+70 RT	LS	1.000	1.000
0440	SPV.0105	Special 07. PVC Storm Sewer Inlet, Cover, and Pipe	LS	1.000	1.000
0442	SPV.0105	Special 08. Remove Traffic Signal (Bus 151 & STH 80/81)	LS	1.000	1.000
0444	SPV.0105	Special 09. Remove Traffic Signal (Bus 151 & Eastside Rd)	LS	1.000	1.000
0446	SPV.0105	Special 10. Disconnect and Reinstall Cables & Salvage Equipment (Insight Dr)	LS	1.000	1.000
0448	SPV.0105	Special 11. Install Salvaged EVP Equipment (BUS 151 & STH 80/81)	LS	1.000	1.000
0450	SPV.0105	Special 12. Install Salvaged EVP Equipment (BUS 151 & Eastside Rd)	LS	1.000	1.000
0452	SPV.0105	Special 13. Install Salvaged EVP Equipment (BUS 151 & Insight Dr)	LS	1.000	1.000
0454	SPV.0165	Special 01. Wall Modular Block Landscape (STA 405+00'T')	SF	485.000	485.000
0456	SPV.0165	Special 02. Wall Modular Block Landscape (STA 412+00'T')	SF	635.000	635.000
0458	SPV.0165	Special 03. Wall Modular Block Landscape (STA 436+00'T')	SF	560.000	560.000
0460	SPV.0165	Special 04. Wall Modular Block Landscape (STA 443+00'T')	SF	945.000	945.000
0462	SPV.0195	Special 01. HMA Ultra-Thin Overlay	TON	2,500.000	2,500.000

CLEARING AND GRUBBING

STATION	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
401+75T	403+75T	2	2	ALSO INCLUDES REMOVAL OF TREE AT STA 411+80 RT
PROJECT TOTALS		2	2	

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

REMOVE ASPHALTIC SURFACE BUTT JOINT

STATION	–	STATION	LOCATION	204.0115 REMOVE ASPHALTIC SURFACE BUTT JOINT SY
BEGIN PROJECT TO STH 80/81				
228+47			LT/RT	9
229+86		230+22	LT	9
243+48			LT	5
243+48			RT	5
ELLEN ST TO VALLEY RD				
252+58			LT/RT	12
252+99		254+29	LT	29
256+75		257+26	LT	12
257+39			LT/RT	10
VALLEY RD TO MINERAL ST/EASTSIDE DR				
258+62			LT/RT	9
288+42		289+80	RT	32
INTERSECTION OF MINERAL ST/EASTSIDE DR				
305+15		306+19	LT	24
305+48		305+98	RT	12
306+19		306+29	LT	5
MINERAL ST/EASTSIDE DR TO KEYSTONE PKWY/INSIGHT DR				
328+53		329+89	LT	31
336+68		338+00	RT	30
336+81		337+96	LT	28
KEYSTONE PKWY/INSIGHT DR TO END PROJECT				
339+54			LT	8
339+54			RT	6
UNDISTRIBUTED PATCHING				9
PROJECT TOTALS				285

REMOVING SMALL PIPE CULVERTS & INLETS

STATION	LOCATION	PIPE SIZE (IN.)	PIPE TYPE	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0220 REMOVING INLETS EACH	REMARKS
230+96	RT	12	CPCPE	1	--	
262+31	RT	21	CPRC	1	--	SAWCUT & REMOVAL OF EXISTING END ONLY
265+13	RT	24	CPCM	1	--	
284+86	RT	24	CPCM	1	--	
287+86	RT	24	CPCM	1	--	
292+62	RT	15	CPCPE	1	--	
294+12	RT	18	CPCM	1	--	INCLUDES REMOVAL OF CONCRETE AROUND ENDS OF PIPE
296+54	RT	18	CPCM	1	--	
337+96	RT	--	--	--	1	
PROJECT TOTALS				8	1	

REMOVING CONCRETE PAVEMENT, REMOVING CURB & GUTTER, REMOVING CONCRETE SIDEWALK, REMOVING LIP CURB

STATION	–	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0160 REMOVING LIP CURB LF	REMARKS
BEGIN PROJECT TO STH 80/81								
229+44		241+42	LT		262			CURB AT STALEY AVE INT, ALONG BUS 151
235+28		236+12	RT		34			CURB IN UNO'S PARKING LOT
241+56		242+63	LT/RT	107				REMOVAL OF EXISTING CORRUGATED MEDIAN
INTERSECTION OF STH 80/81								
			NW QUADRANT		29		12	
			NE QUADRANT				29	
			SW QUADRANT	152				
			SE QUADRANT	337				
STH 80/81 SOUTH OF BUS US 151								
800+58		801+78	LT			15		
800+58		801+78	RT		33	16		
STH 80/81 TO ELLEN ST								
249+93		250+79	LT		50	10		
TRAIL SEGMENT								
400+00'T'		446+05'T'	RT	102	65			PAVMT REMVL INCLUDES CONC DRIVE STA 422+69'T' AND CONC USED AS FLUME NEAR STA 428+80'T' RT. CURB & GUTTER INCLUDES GUTTER NEAR STA 416+75'T' RT AND PHILLIPS AVE.
INTERSECTION OF MINERAL ST/EASTSIDE DR								
			NE QUADRANT		76	28		
			SW QUADRANT		59		17	
			SE QUADRANT		40			
MINERAL ST/EASTSIDE DR TO END PROJECT								
334+58		339+48	LT		429			INCLUDES REMOVAL OF MEDIAN NOSE CONTIGUOUS WITH CURB AND GUTTER.
334+58		339+48	RT		292			INCLUDES REMOVAL OF MEDIAN NOSE CONTIGUOUS WITH CURB AND GUTTER.
PROJECT TOTALS				**698**	**1369**	**69**	**58**	

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	205.0200 ROCK EXCAVATION (3)	EXPANDED ROCK (4)	UNEXPANDED FILL	EXPANDED FILL (5)	WASTE
			CUT (2)		FACTOR 1.10		FACTOR 1.25	
DIVISION 1								
CURB AND SHOULDER WIDENING - STALEY AVE & PAVEMENT PATCHES	228+45 TO 241+41.73	BUS 151	774	0	0	397	500	419
DIVISION 1 SUBTOTAL			774	0	0	397	500	419
DIVISION 2								
BUS 151 & STH 80/81 INTERSECTION, SIDEWALK CONNECTIONS TO ELLEN ST ALONG BUS 151, ALONG STH 80/81 TO SOUTH, AND SHOULDER PATCH NEAR STA 259+75 RT	NW QUADRANT & ISLAND	BUS 151 & STH 80/81	9	0	0	1	1	8
	NE ISLAND, CORNER, AND SIDEWALK CONNECTION TO ELLEN ST.	BUS 151 & STH 80/81	38	0	0	8	10	28
	SW ISLAND, CORNER AND SIDEWALK CONNECTION TO DRIVEWAY	BUS 151 & STH 80/81	105	0	0	4	5	100
	SE ISLAND, CORNER AND SIDEWALK CONNECTION TO ROUNTREE BRANCH TRAIL	BUS 151 & STH 80/81	49	0	0	13	17	32
	ROUNTREE BRANCH TRAIL ON WEST SIDE STH 80/81 CROSSING	WEST SIDE STH 80/81	16	0	0	3	4	12
	SHOULDER WIDENING NEAR STA 259+47-259+83	LEFT SHOULDER	3	0	0	0	0	0
DIVISION 2 SUBTOTAL			220	0	0	29	37	180
DIVISION 3								
PROPOSED TRAIL ALONG BUS 151	400+00'T' TO 446+01'T'	TRAIL	6,053	1,654	1,819	2,065	2,685	5,187
DIVISION 3 SUBTOTAL			6,053	1,654	1,819	2,065	2,685	5,187
DIVISION 4								
BUS 151 & EASTSIDE RD/MINERAL ST INTERSECTION	NE ISLAND, PAVEMENT PATCH, AND CORNER	BUS 151 & MINERAL ST	44	0	0	11	14	30
	SE CORNER INCLUDING TRAIL CONNECTION	BUS 151 & EASTSIDE RD	21	0	0	25	31	-10
	SW ISLAND	BUS 151 & EASTSIDE RD	19	0	0	0	0	19
DIVISION 4 SUBTOTAL			84	0	0	36	45	39
DIVISION 5								
BUS 151 MEDIAN	334+58 TO 336+90	BUS 151 MEDIAN	77	0	0	0	0	77
ALTERATIONS AT INSIGHT	337+88 TO 339+48	BUS 151 MEDIAN	50	0	0	0	0	50
DIVISION 5 SUBTOTAL			127	0	0	0	0	127
GRAND TOTAL			7,258	1,654	1,819	2,527	3,267	5,952
TOTAL BID ITEM QUANTITIES			**7,258**	**1,654**				

NOTES:

(1) TOTAL COMMON EXCAVATION IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100

(2) CONCRETE PAVEMENT TO REMOVED THAT IS UNUSABLE HAS BEEN REMOVED FROM CUT. VOLUMES HAVE NOT BEEN ADJUSTED FOR ASPHALT SURFACE REMOVALS.

(3) TOTAL ROCK EXCAVATION IS ROCK EXCAVATION ITEM NUMBER 205.0200. ROCK EXCAVATION PAID UNDER THIS ITEM IS ONLY FOR EXCAVATION TO FINAL FINISHED GRADES SHOWN ON CROSS SECTIONS. ROCK EXCAVATION FOR STORM SEWER IS TABULATED SEPARATELY. SEE RETAINING WALL DETAILS AND SPECIFICATIONS FOR BASIS OF PAYMENT OF ROCK EXCAVATION THAT IS INCIDENTAL TO RETAINING WALL BID ITEM.

(4) EXPANDED ROCK FACTOR = 1.1

(5) EXPANDED FILL FACTOR = 1.25

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

BASE AGGREGATE DENSE

CATEGORY	STATION	–	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	REMARKS
0010	228+95		242+63	60	2300	BEGIN PROJECT TO STH 80/81 INTERSECTION
0010	246+68		250+42	120	380	STH 80/81 INTERSECTION TO ELLEN ST
0010	400+05'T'		445+97'T'	125	3400	TRAIL
0010	305+45		306+66	40	120	MINERAL ST/EASTSIDE RD INTERSECTION
0010	334+58		339+48	–	140	KEYSTONE PKWY/INSIGHT DR INTERSECTION
0010	UNDISTRIBUTED			300	–	FOR SHAPING SHOULDERS ADJACENT TO HMA OVERLAY
TOTAL CATEGORY 0010				**645**	**6340**	
20					340	FOR DRIVEWAYS OFF RIGHT OF WAY
TOTAL CATEGORY 0020				**0**	**340**	
	PROJECT TOTALS			**645**	**6680**	

SHAPING SHOULDERS

STATION	–	STATION	LOCATION	305.0500 SHAPING SHOULDERS STA	REMARKS
BEGIN PROJECT TO STALEY AVE					
228+47		229+44	LT	1	
228+47		229+44	RT	1	
ELLEN ST TO VALLEY RD					
252+58		257+39	RT	4	GAPPED AT DRIVEWAYS, FOR USE AS DIRECTED BY ENGINEER
TRAIL SEGMENT					
400+76'T'		446+05'T'	LT	25	GAPPED AT DRIVEWAYS, FOR USE AS DIRECTED BY ENGINEER
400+76'T'		446+05'T'	RT	37	GAPPED AT DRIVEWAYS, FOR USE AS DIRECTED BY ENGINEER
EASTSIDE RD/MINERAL ST TO KEYSTONE PKWY/INSIGHT DR					
306+67		339+54	LT	18	GAPPED AT DRIVEWAYS, FOR USE AS DIRECTED BY ENGINEER
306+67		339+54	RT	13	GAPPED AT DRIVEWAYS, FOR USE AS DIRECTED BY ENGINEER
PROJECT TOTALS				99	

CONCRETE DRIVEWAY 6-INCH

STATION	–	STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
BEGIN PROJECT TO STH 80/81					
230+76		231+19	RT	24	TYPE Y DRIVEWAY PER SDD 8D18, BUT WITH GRADES PITCHED AWAY FROM ROAD. SEE CROSS SECTIONS.
TRAIL					
282+09			RT	93	DRIVEWAY DOES NOT CORRESPOND TO A PARTICULAR TYPE FROM SDD. SEE CROSS SECTIONS FOR INTENT OF DRIVEWAY SLOPES.
PROJECT TOTALS				**117**	

CONCRETE PAVEMENT, DRILLED TIE BARS

STATION	–	STATION	LOCATION	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0610 DRILLED TIE BARS EACH	REMARKS
INTERSECTION OF BUS 151 & STH 80/81						
			SW QUADRANT	144	90	WIDTH OF INTEGRAL CURB AND GUTTER AND AREA OF CONCRETE MEDIAN NOSES IS NOT INCLUDED IN PAY LIMITS FOR CONCRETE PAVEMENT AND SHALL BE PAID UNDER THOSE SEPARATE ITEMS. NO JOINT IS REQUIRED AT 30 OR 36 INCHES FROM BACK OF CURB.
			SE QUADRANT	294	80	WIDTH OF INTEGRAL CURB AND GUTTER AND AREA OF CONCRETE MEDIAN NOSES IS NOT INCLUDED IN PAY LIMITS FOR CONCRETE PAVEMENT AND SHALL BE PAID UNDER THOSE SEPARATE ITEMS. NO JOINT IS REQUIRED AT 30 OR 36 INCHES FROM BACK OF CURB.
PROJECT TOTALS				**438**	**170**	

TACK COAT

STATION	–	STATION	LOCATION	455.0605 TACK COAT GAL	REMARKS
BEGIN PROJECT TO STH 80/81-PATCHING					
228+47		243+48	LT	43	
228+47		243+48	RT	10	
STH 80/81 SOUTH OF BUS US 151 - PATCHING					
801+02		801+79	RT	6	LANE PATCH, INCLUDES PATCH IN DRIVEWAY
TRAIL					
402+07'T'		414+59'T'	LT	20	GUTTER PATCH, BUS 151
443+86'T'		445+36'T'	LT	4	GUTTER PATCH, BUS 151
INTERSECTION OF MINERAL STREET - PATCHING					
306+50			LT	5	LANE PATCH FOR SLIP LANE
INSIGHT DRIVE MEDIANS - PATCHING					
334+58		336+91	LT/RT	16	LANE PATCH
337+88		339+48	LT/RT	12	LANE PATCH
HMA OVERLAY					
228+47		243+48		505	
252+58		257+39		172	
258+62		306+97		1632	
306+97		339+54		1391	
UNDISTRIBUTED PATCHING				84	
PROJECT TOTALS				**3900**	

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

ASPHALTIC SURFACE

STATION	–	STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON
BEGIN PROJECT TO STH 80/81, SHOULDER WIDENING				
228+94		229+41	LT	7
228+94		229+44	RT	7
230+68		239+73	LT	72
RELOCATED ROUNTREE BRANCH TRAIL ALONG STH 80/81				
800+25		800+96	LT	16
NEW TRAIL				
400+05'T'		429+83'T'	LT/RT	553
429+83'T'		445+97'T'	LT/RT	290
TRAIL RECONSTRUCTION AT SE CORNER EASTSIDE RD INTERSECTION				
306+30			RT	8
PROJECT TOTALS				**954**

ASPHALTIC SURFACE PATCHING

STATION	–	STATION	LOCATION	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
BEGIN PROJECT TO STH 80/81					
228+47		243+48	LT	9	CURB PATCHES, 4" THICKNESS
241+57		242+62	RT	25	MEDIAN PATCH, 4" THICKNESS
INTERSECTION OF STH 80/81					
800+63		801+03	LT	3	SHOULDER PATCH, 4" THICKNESS
801+02		801+79	RT	17	LANE PATCH, 4" THICKNESS, INCLUDES PATCH IN DRIVEWAY
TRAIL					
402+07'T'		414+59'T'	LT	49	GUTTER PATCH BUS 151, 4" THICKNESS
443+86'T'		445+36'T'	LT	9	GUTTER PATCH, BUS 151, 4" THICKNESS
INTERSECTION OF BUS US 151 & MINERAL ST/EASTSIDE RD					
306+50			LT	12	LANE PATCH FOR SLIP LANE, 4" THICKNESS
INSIGHT DRIVE MEDIANS					
402+07'T'		414+59'T'	LT	39	LANE PATCH, 6" THICKNESS
443+86'T'		445+36'T'	LT	28	LANE PATCH, 6" THICKNESS
UNDISTRIBUTED PATCHING				18	
PROJECT TOTALS				**200**	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

Category	STATION	SIDE	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
BEGIN PROJECT TO STH 80/81				
0010	230+97	RT	12	
0010	232+57	RT	27	
0010	235+11	RT	25	
0010	236+44	RT	37	
0010	237+97	RT	8	
0010	238+71	RT	14	
0010	239+50	RT	11	
STH 80/81 TO TRAIL				
0010	250+18	LT	14	
TRAIL SEGMENT				
0010	259+85	LT	27	
0010	265+13	LT	6	
0010	276+29	LT	28	
0010	284+86	LT	32	PAVING WITHIN RIGHT OF WAY
0010	287+86	LT	32	PAVING WITHIN RIGHT OF WAY
0010	290+92	LT	21	
0010	294+12	LT	35	
0010	296+54	LT	18	
0010	298+77	LT	18	
TOTAL CATEGORY 0010			**363**	
TRAIL SEGMENT				
0020	284+86	LT	58	PAVING OFF RIGHT OF WAY
0020	287+86	LT	106	PAVING OFF RIGHT OF WAY
TOTAL CATEGORY 0020			**164**	
PROJECT TOTALS			**527**	

SELECT CRUSHED MATERIAL

LOCATION	312.0110 SELECT CRUSHED MATERIAL TON	REMARKS
UNDISTRIBUTED	1200	FOR USE AS STABILIZATION MATERIAL WITHIN TRAIL AREA AS DIRECTED BY ENGINEER
PROJECT TOTALS	**1200**	

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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CULVERT PIPES AND CONSTRUCTION STAKING CULVERT PIPES

			CULVERT PIPE REINFORCED CONCRETE								
	520.3612	521.3124	522.0124	522.0412	522.0415	522.0418	522.0424	522.2414	522.2419	650.6000	
CULVERT ID	CULVERT PIPE CLASS III-B NON-METAL 12-INCH LF	CULVERT PIPE CORRUGATED STEEL 24-INCH LF	CLASS III 24-INCH LF	CLASS IV 12-INCH LF	CLASS IV 15-INCH LF	CLASS IV 18-INCH LF	CLASS IV 24-INCH LF	HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	CONSTRUCTION STAKING CULVERT PIPES EACH	SLOPE FT/FT
BUS 151, STALEY TO STH 80/81											
C-101	--	--	--	38	--	--	--	--	--	1	0.0100
C-102	--	--	8	--	--	--	--	--	--	1	0.0149
TRAIL											
C-201	--	--	--	14	--	--	--	--	--	1	0.0276
C-202	--	--	--	60	--	--	--	--	--	1	0.0180
C-203	--	--	--	24	--	--	--	--	--	1	0.0388
C-204	--	--	--	24	--	--	--	--	--	1	0.0388
C-205	--	--	--		--	18	--	--	--	1	0.1086
C-206	--	--	--	--	--	--	--	--	--	1	0.0105
C-207	--	--	--	--	18	--	--	--	--	1	0.1105
C-208	--	--	--	--	--	--	--	--	132	1	0.0086
C-209	--	--	--	40	--	--	--	--	--	1	0.0173
C-210	30	--	--	--	--	--	--	--	--	1	0.0236
C-211	--	36	--	--	--	--	--	--	--	1	0.0211
C-212	--	--	--	--	--	36	--	--	--	1	0.0100
C-213	--	--	--	--	--	--	82	--	--	1	0.0425
C-214	--	--	--	22	--	--	--	--	--	1	0.0411
C-215	--	--	--	--	--	65	--	--	--	1	0.0374
C-216	--	--	--	12	--		--	--	--	1	0.0415
C-217	--	--	--	14	--	--	--	--	--	1	0.0364
C-218	--	--	--		--	--	--	36	--	1	0.0183
C-219	--	--	--	12	--	--	--	--	--	1	0.0141
C-220	--	--	--	36	--	--	--	--	--	1	0.0083
C-221	--	--	--	36	--	--	--	--	--	1	0.0083
C-222	--	--	--	12	--	--	--	--	--	1	0.0363
PROJECT TOTALS	**30**	**36**	**8**	**344**	**18**	**119**	**82**	**36**	**132**	**24**	

NOTE: MINIMUM THICKNESS FOR CORRUGATED STEEL CULVERT PIPE, 12-INCH, 15-INCH, 18-INCH, & 24-INCH SHALL BE 0.064 INCHES.

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

ENDWALLS

								APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE								
		INLET			OUTLET			520.1012**	521.1018	522.1012	522.1015	522.1018**	522.1024	522.2614	522.2619**	524.0624	SPV.0060.03
CULVERT ID	STATION	OFFSET	INVERT ELEV	TO	STATION	OFFSET	INVERT ELEV	APRON ENDWALLS FOR CULVERT PIPE 12-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	12-INCH EACH	15-INCH EACH	18-INCH EACH	24-INCH EACH	HORIZONTAL ELLIPTICAL 14x23-INCH EACH	HORIZONTAL ELLIPTICAL 19x30-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH EACH	DROP APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH
BUS 151, STALEY TO STH 80/81																	
C-101	231+26.73'	41.015' RT	873.52		230+75.34'	40.24' RT	874.02	--	--	2	--	--		--	--	--	--
C-102	234+77.32'	28.15' RT	873.32		234+77.36'	42.29' RT	874.32	--	--		--	--	1	--	--	--	--
TRAIL																	
C-201	401+04.71'T'	10.92' LT	895.83	-	400+95.67'T'	13.56' RT	895.11	--	--	2	--	--	--	--	--	--	--
C-202	415+36.03'T'	10.41' LT	957.80	-	414+68.17'T'	13.97' RT	956.50	--	--	2	--	--	--	--	--	--	--
C-203	417+77.96'T'	10.88' RT	959.40	-	418+01.36'T'	16.57' LT	958.00	--	--	2	--	--	--	--	--	--	--
C-204	417+81.77'T'	11.16' RT	959.40	-	418+05.25'T'	16.28' LT	958.00	--	--	2	--	--	--	--	--	--	--
C-205	422+37.77'T'	11.75' RT	956.70	-	422+38.12'T'	18.18' LT	953.54	--	--		--	2	--	--	--	--	--
C-206	422+44.13'T'	20.26' LT	953.53		422+95.93'T'	21.97'LT	952.98	--	2	--	-	--	--	--	--	--	--
C-207	423+00.00'T'	12.46' RT	956.42	-	423+00.00'T'	17.59' LT	953.10	--	--	--	2	--	--	--	--	--	--
C-208	424+83.14'T'	16.40' LT	951.75	-	426+19.60'T'	15.79' LT	950.51	--	--	--	--	--	--	--	2	--	--
C-209	425+25.09'T'	11.84' RT	952.60	-	425+78.55'T'	12.09' RT	951.70	--	--	2	--	--	--	--	--	--	--
C-210	425+90.33'T'	12.65' RT	951.50	-	426+23.40'T'	14.73' LT	950.51	2	--	--	--	--	--	--	--	--	--
C-211	427+99.18'T'	14.28' LT	948.97	-	428+35.21'T'	4.140' LT	948.14	--	--	--	--	--	--	--	--	1	--
C-212	428+30.49'T'	12.88' RT	949.00	-	428+81.11'T'	11.98' RT	948.52	--	--	--	--	2	--	--	--	--	--
C-213	431+89.82'T'	17.09' LT	953.00	-	431+01.46'T'	18.33' RT	949.00	--	--	--	--	--	2	--	--	--	--
C-214	431+83.77'T'	11.49' RT	954.90	-	431+50.73'T'	10.88' RT	953.50	--	--	2	--	--	--	--	--	--	--
C-215	435+11.44'T'	14.16' LT	967.00	-	434+36.42'T'	18.06' LT	964.12	--	--	--	--	2	--	--	--	--	--
C-216	435+15.50'T'	11.26' RT	968.30	-	435+15.45'T'	12.84' LT	967.30	--	--	2	--	--	--	--	--	--	--
C-217	437+14.63'T'	11.03' RT	971.95	-	437+00.86'T'	11.06' LT	971.00	--	--	1	--	--	--	--	--	--	1
C-218	437+54.16'T'	11.57' LT	972.00	-	437+05.41'T'	12.24' LT	971.12	--	--		--	--	--	2	--	--	--
C-219	437+72.67'T'	10.12' RT	972.50	-	437+59.35'T'	9.94' LT	972.16	--	--	2	--	--	--	--	--	--	--
C-220	439+66.39'T'	10.02' RT	975.40	-	440+07.79'T'	14.54' LT	975.00	--	--	2	--	--	--	--	--	--	--
C-221	439+67.66'T'	12.17' RT	975.40	-	440+09.06'T'	12.39' LT	975.00	--	--	2	--	--	--	--	--	--	--
C-222	440+99.91'T'	11.08' RT	975.13	-	440+99.98'T'	13.03' LT	974.26	--	--	2	--	--	--	--	--	--	--
PROJECT TOTALS								**2**	**2**	**25**	**2**	**6**	**3**	**2**	**2**	**1**	**1**

** ADDITIONAL QUANTITIES OF THIS ITEM ARE FOUND IN OTHER TABULATIONS

NOTE: MINIMUM THICKNESS FOR CORRUGATED STEEL CULVERT PIPE, 12-INCH, 15-INCH, 18-INCH, & 24-INCH SHALL BE 0.064 INCHES.

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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PEDESTRIAN CURB, CURB RAMP SIDEWALK, AND ISLAND INTERIOR PAVING ITEMS

LOCATION	QUADRANT	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0405* CONCRETE SIDEWALK 4-INCH SF	602.0415* CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	REMARKS
BUS US 151 & STALEY AVE	NW	--	174	--	20	--	2	
BUS US 151 & STALEY AVE	NE	--	378	--	10	--	1	INCLUDES CONNECTION TO DRIVEWAY
BUS US 151 & STALEY AVE	SW	--	36	--	10	--	1	
BUS US 151 & STH 80/81	NW	--	209	--	20	--	2	
BUS US 151 & STH 80/81	NW ISLAND, SIDEWALK/RAMP	12	30	--	--	--	2	
BUS US 151 & STH 80/81	NW ISLAND, INTERIOR PAVING	--	205	--	--	--	--	
BUS US 151 & STH 80/81	NE	--	67	--	10	--	1	
BUS US 151 & STH 80/81	NE ISLAND, SIDEWALK/RAMP	39	113	--	30	--	3	
BUS US 151 & STH 80/81	NE ISLAND, INTERIOR PAVING	--	210	--	--	--	--	
BUS US 151 & STH 80/81	SW	--	56	--	10	--	1	
BUS US 151 & STH 80/81	SW ISLAND, SIDEWALK/RAMP	30	85	--	30	--	3	
BUS US 151 & STH 80/81	SW ISLAND, INTERIOR PAVING	--	110	--	--	--	--	
BUS US 151 & STH 80/81	SE	--	43	--	10	--	1	
BUS US 151 & STH 80/81	SE ISLAND, SIDEWALK/RAMP	31	85	--	30	--	3	
BUS US 151 & STH 80/81	SE ISLAND, INTERIOR PAVING	--	217	--	--	--	--	
TRAIL CROSSING AT STH 80/81	W	--	--	81	20	--	1	
TRAIL CROSSING AT STH 80/81	E	--	--	123	20	--	1	
BUS US 151 & ELLEN ST	NW	--	78	--	9	--	1	
BUS US 151 & PHILLIPS RD	SW	--	--	74	--	24	1	
BUS US 151 & PHILLIPS RD	SE	--	--	76	--	27	1	
BUS US 151 & EASTSIDE RD	SW	--	--	78	20	--	1	
BUS US 151 & EASTSIDE RD	SW ISLAND, SIDEWALK/RAMP	20	--	95	40	--	2	
BUS US 151 & EASTSIDE RD	SW ISLAND, INTERIOR PAVING	--	172	--	--	--	--	
BUS US 151 & EASTSIDE RD	SE	--	--	296	20	25	2	
BUS US 151 & MINERAL ST	NE	--	218	198	20	--	1	
BUS US 151 & MINERAL ST	NE ISLAND	29	--	144	40	--	2	
	PROJECT TOTALS	**161**	**2486**	**1165**	**369**	**76**	**33**	

*ADDITIONAL QUANTITY OF THIS ITEM INCLUDED IN OTHER TABULATIONS

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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CURB & GUTTER ITEMS

STATION	–	STATION	LOCATION	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF	601.0452 CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D LF	601.0454 CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE J LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0576 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE J LF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	SPV.0900.01 CONCRETE CURB & GUTTER 24-INCH TYPE D LF	SPV.0900.02 CONCRETE CURB & GUTTER 72-INCH TYPE D LF	SPV.0900.03 CONCRETE GUTTER 60-INCH LF
INTERSECTION OF BUS 151 & STALEY AVE - NORTHERN SECTION																
229+41		230+68	LT	--	--	--	--	--	--	--	--	--	102	--	102	--
INTERSECTION OF BUS 151 & STALEY AVE - SOUTHERN SECTION																
229+44		230+73	RT	--	--	--	--	--	--	--	--	--	127	--	127	--
STALEY AVE TO STH 80/81																
230+73		240+58	RT	--	33	--	--	--	--	--	--	--	1015	--	982	--
239+73		241+42	LT	--	--	--	--	--	--	--	--	--	169	--	169	--
INTERSECTION OF BUS 151 & STH 80/81																
			NW QUADRANT	29	--	--	--	--	--	--	--		29	--	--	--
			SW QUADRANT	--	--	--	112	53	--	--	--	84	165	--	--	--
			SE QUADRANT	--	--	--	85	86	--	--	--	71	171	--	--	--
STH 80/81 SOUTH OF BUS 151 INTERSECTION																
801+44		801+78	RT	--	33	--	--	--	--	--	--	--	33	--	--	--
STH 80/81 TO ELLEN ST																
249+92		250+42	LT	--	--	--	--	--	--	--	--	--	51	51	--	--
TRAIL																
400+00'T'		446+05'T'	LT/RT	--	90	--	--	--	--	--	--	--	1497	--	--	1407
INTERSECTION OF BUS 151 & MINERAL ST/EASTSIDE RD																
			NE QUADRANT	--	14	60	--	--	--	20	--	36	94	--	--	--
			SW QUADRANT	--	--	--	--	--	--	--	64	57	64	--	--	--
			SE QUADRANT	--	--	--	--	--	--	40	--	--	40	--	--	--
INTERSECTION OF BUS 151 & KEYSTONE PKWY/INSIGHT DR																
334+58		339+48	LT/RT	--	--	--	--	--	72	--	--	109	72	--	--	--
PROJECT TOTALS				**29**	**170**	**60**	**197**	**139**	**72**	**60**	**64**	**357**	**3629**	**51**	**1380**	**1407**

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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CONCRETE SIDEWALK

STATION	TO	STATION	OFFSET	ROADWAY	602.0405* CONCRETE SIDEWALK 4-INCH SF	602.0415* CONCRETE SIDEWALK 6-INCH SF
229+58		230+76	RT	BUS US 151	583	--
801+03		801+40	RT	STH 80/81	--	192
801+40		802+53	RT	STH 80/81	543	--
801+77		802+30	LT	STH 80/81	283	--
248+57		250+01	LT	BUS US 151	732	--
250+01		250+35	LT	BUS US 151	--	133
250+35		250+67	LT	BUS US 151	127	--
PROJECT TOTALS					2268	325

*ADDITIONAL QUANTITY OF THIS ITEM INCLUDED IN OTHER TABULATIONS

STORM SEWER ROCK EXCAVATION

			608.0005 STORM SEWER ROCK EXCAVATION	Remarks
404+42	405+93	RT/LT	120	DOES NOT INCLUDE EXCAVATION WITHIN THE AREA BEHIND THE RETAINING WALL WHICH WILL OCCUR ABOVE THE STORM SEWER AND IS INCLUDED IN THE PRICE OF THE WALL BID ITEM
PROJECT TOTALS			120	

STORM SEWER PIPES

PIPE ID	FROM	-	TO	608.0315 STORM SEWER PIPE REINF. CONC. CLASS III 15-INCH LF	608.0321 STORM SEWER PIPE REINF. CONC. CLASS III 21-INCH LF	608.0336 STORM SEWER PIPE REINF. CONC. CLASS III 36-INCH LF	608.0418 STORM SEWER PIPE REINF. CONC. CLASS IV 18-INCH LF	608.2319 STORM SEWER PIPE REINF. CONC. HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	608.3615 STORM SEWER PIPE CLASS III-B 15-INCH LF	608.3618 STORM SEWER PIPE CLASS III-B 18-INCH LF	INLET ELEV	DISCHARGE ELEV	SLOPE FT/FT
BEGINNING OF PROJECT TO STA 231+00 (STALEY AVE INTERSECTION AREA)														
P-1	S-1	-	EW-1	--	--	--	--	--	13	--	--	872.50	872.22	0.0154
P-2	EX. PIPE	-	EW-2	--	--	24	--	--		--	--	871.80	871.47	0.0103
P-3	S-2	-	EW-3	--	--	--	--	--	12	--	--	872.90	872.69	0.0125
STH 80/81														
P-4	S-3	-	EW-4						12			889.70	889.60	0.0058
TRAIL														
P-10	S-11	-	S-10	--	23	--	--	--	--	--	--	901.20	900.63	0.0278
P-11	S-12	-	EW-10	--	--	--	--	--	--	--	146	920.79	914.30	0.0434
P-12	S-13	-	S-12	--	--	--	--	--	--	20	--	921.15	920.90	0.0144
P-13	EW-11	-	S-14 (EXIST)	--	--	--	16	--	--	--	--	948.00	946.10	0.0864
P-14	EW-12	-	S-15	--	--	--	--	210	--	--	--	971.20	969.11	0.0098
P-15	S-15	-	EW-13					46				969.00	968.50	0.0100
INSIGHT DRIVE INTERSECTION														
P-30	EXIST STUB	-	S-30	5	--	--	--	--	--	--	--	1003.41	1003.39	0.0040
P-31	S-31	-	S-30	121	--	--	--	--	--	--	--	1004.60	1003.35	0.0107
P-32	S-32	-	S-31	6	--	--	--	--	--	--	--	1004.80	1004.70	0.0400
PROJECT TOTALS				132	23	24	16	256	37	20	146			

* NON-BID ITEM: FOR INFORMATION ONLY

DISCHARGE ELEVATIONS REFLECT EITHER ELEVATION AT STRUCTURE WALL OR ELEVATION AT END OF APRON ENDWALL

PIPE LENGTHS INDICATED ARE TO THE CENTER OF STRUCTURE, TO NEAREST 1'. SLOPES AND ELEVATIONS ARE BASED ON ACTUAL PIPE LENGTH BETWEEN STRUCTURE WALLS OR ENDWALL AS APPLICABLE.

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

STORM SEWER STRUCTURES: STAKING STORM SEWER - PART 1

STRUCTURE	STATION	OFFSET*	520.1012** APRON ENDWALLS FOR CULVERT PIPE 12-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH	611.0624 INLET COVERS TYPE H EACH	611.3230** INLETS 2X3-FT EACH	650.4000** CONSTRUCTION STAKING STORM SEWER EACH	RIM ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	REMARKS
BEGINNING OF PROJECT TO STA 231+00 (STALEY AVE INTERSECTION AREA)											
S-1	229+96.89	23' RT			1	1	1	875.24	872.50	2.07	
S-2	230+44.36	23' RT			1	1	1	875.32	872.90	1.75	
EW-1	229+96.89	42' RT	1				1	-	872.22	-	
EW-2	230+64.75	41.2' LT		1			1	-	871.80	-	
EW-3	230+44.36	40.7' RT	1				1	-	872.69	-	
STH 80/81											
S-3	801+70.74	34.6' RT			1	1	1	892.38	889.70	2.01	
EW-4	801+58.33	47.1' RT	1				1	-	889.60	-	
PROJECT TOTALS			**3**	**1**	**3**	**3**	**7**				

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** ADDITIONAL QUANTITIES OF THIS ITEM ARE FOUND IN OTHER TABULATIONS

*** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE. FOR APRONS, INVERT ELEVATION IS AT THE END OF THE APRON

**** DEPTH (AS SHOWN ON SDD FOR INLETS/MANHOLES) = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

"RIM ELEV" REFERENCED ADJUSTED FOR COVERS AS NOTED:

- TYPE B COVER: ELEV AT HIGHEST POINT ON EDGE OF FRAME (COVER HEIGHT = 10 INCHES)
- TYPE C COVER: TOP OF FRAME (COVER HEIGHT = 8 7/8 INCHES)
- TYPE H AND TYPE HM COVERS = FRAME/GRATE ELEVATION AT GUTTER. SEE CONSTRUCTION DETAIL FOR RELATIONSHIP TO NORMAL GUTTER FLOW LINE. (COVER FRAME HEIGHT = 4 INCHES)
- VERTICAL RISER PIPE INLETS: RIM IS TOP OF CONCRETE AT RIM. NO "COVER HEIGHT" OR "6-INCH ADJUSTMENT RING HEIGHT" IS INCLUDED IN DEPTH CALCULATION FOR THESE TWO STRUCTURES.

"TOP OF STRUCTURE BASE ELEV" = LOWEST PIPE INVERT - PIPE WALL THICKNESS

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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STORM SEWER STRUCTURES: STAKING STORM SEWER - PART 2

STRUCT.	STATION	OFFSET*	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1018 ** APRON ENDWALLS FOR CULV. PIPE REINF. CONC. 18-INCH EACH	522.2619** APRON ENDWALLS FOR CUL. PIPE REINF. CONC. HOR. ELL. 19x30-INCH EACH	611.0430 RECON-STRUCTING INLETS EACH	611.0606 INLET COVERS TYPE B EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004** INLETS 4-FT DIAMETER EACH	611.3230** INLETS 2X3-FT EACH	650.4000** CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.01 INLET COVER CONE GRATE 3-FT EACH	SPV.0060.02 INLET COVER CONE GRATE 4-FT EACH	SPV.0060.04 DROP APRON ENDWALLS FOR CULVERT PIPE REINF. CONC. HORIZONTAL ELLIPTICAL 19x30-INCH EACH	SPV.0060.05 INLET COVER TYPE H MODIFIED EACH	RIM ELEV	INVERT*** ELEV	DEPTH**** FT	REMARKS
TRAIL																				
S-10	402+89.06'T'	7'LT		1							1	1				1	905.71	900.50	4.61	SEE NOTE 1 BELOW
S-11	402+89.77'T'	15.3'RT							1			1	1				903.68	901.20	2.71	SEE NOTE 2 BELOW
S-12	405+93.52'T'	13'RT								1		1		1			924.00	920.79	3.42	SEE NOTE 2 BELOW
S-13	405+93.04'T'	7'LT									1	1				1	924.10	921.15	2.30	SEE NOTE 1 BELOW
S-14	429+35.4'T'	10'LT					1					1					949.40	-	-	SEE NOTE 3 BELOW
S-15	445+46.92'T'	9.6'LT						1		1		1					972.60	969.00	2.54	
EW-10	404+42.1'T'	12'RT	1									1					-	914.30	-	
EW-11	429+35.69'T'	13.7'RT			1							1					-	948.00	-	
EW-12	443+33.32'T'	11.8'LT										1			1		-	971.20	-	
EW-13	445+87.04'T'	18'RT				1						1					-	968.50	-	
PROJECT TOTALS			1	1	1	1	1	1	1	2	2	10	1	1	1	2				

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** ADDITIONAL QUANTITIES OF THIS ITEM ARE FOUND IN OTHER TABULATIONS

*** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE. FOR APRONS, INVERT ELEVATION IS AT THE END OF THE APRON

**** DEPTH (AS SHOWN ON SDD FOR INLETS/MANHOLES) = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

"RIM ELEV" REFERENCED ADJUSTED FOR COVERS AS NOTED:

- TYPE B COVER: ELEV AT HIGHEST POINT ON EDGE OF FRAME (COVER HEIGHT = 10 INCHES)
- TYPE C COVER: TOP OF FRAME (COVER HEIGHT = 8 7/8 INCHES)
- TYPE H AND TYPE HM COVERS = FRAME/GRATE ELEVATION AT GUTTER. SEE CONSTRUCTION DETAIL FOR RELATIONSHIP TO NORMAL GUTTER FLOW LINE. (COVER FRAME HEIGHT = 4 INCHES)
- VERTICAL RISER PIPE INLETS: RIM IS TOP OF CONCRETE AT RIM. NO "COVER HEIGHT" OR "6-INCH ADJUSTMENT RING HEIGHT" IS INCLUDED IN DEPTH CALCULATION FOR THESE TWO STRUCTURES.

"TOP OF STRUCTURE BASE ELEV" = LOWEST PIPE INVERT - PIPE WALL THICKNESS

NOTES

1	RIM ELEV IS LOW END OF INTAKE COVER. SLOPE COVER WITH GUTTER GRADE. TYPE H MODIFIED COVER COVER SHALL BE AS PER REQUIREMENTS FOR TYPE H COVER SEPCIFICATION SECTION 611 AND SDD 08A05 EXCEPT A STANDARD FLAT CURB PLATE SHALL BE SUBSTITUTED FOR CURB BOX INSERT. PLATE SHALL HAVE ACCOMODATIONS TO BOLT TO FRAME.
2	PRECAST TOP SHOWN IN SDD NOT REQUIRED. CONE GRATE MOUNTS DIRECTLY TO TOP OF WALL. SEE SPECIAL PROVISION
3	STRUCTURE S-14 IS AN EXISTING STRUCTURE WHICH APPEARS TO BE PREVIOUSLY CONSTRUCTED BASED ON WISDOT INLETS MEDIAN 2 GRATE STANDARD (SDD 8C08). INLET HAS A FLAT TOP RATHER THAN ANGLED TOP. RECONSTRUCTION OF INLET REQUIRED TO RAISE ELEVATION OF TOP OF STRUCTURE/CASTING TO NEW GRATE ELEVATION INDICATED. PRECAST RISER OR CAST IN PLACE METHODS ARE ACCEPTABLE. VERIFY NEEDED ADJUSTMENT HEIGHT AND INLET DIMENSIONS. EXISTING INLET ELEVATION APPROXIMATELY 948.6. CREATION OF AN OPENING IN EXISTING WALL FOR CONNECTION FOR NEW PIPE P-13 IS INCIDENTAL TO RECONSTRUCTING INLETS BID ITEM.

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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STORM SEWER STRUCTURES: STAKING STORM SEWER - PART 3

			611.0612	611.2005	611.3004**	611.3230**	611.9710	650.4000*	SPV.0060.06				
STRUCTURE	STATION	OFFSET*	INLET COVERS TYPE C EACH	MANHOLES 5-FT DIAMETER EACH	INLETS 4-FT DIAMETER EACH	INLETS 2X3-FT EACH	SALVAGED INLET COVERS EACH	CONSTRUCTION STAKING STORM SEWER EACH	INLET COVER RECTANGULAR GRATE EACH	RIM ELEV	INVERT*** ELEV	DEPTH**** FT	REMARKS
INSIGHT DRIVE INTERSECTION													
S-30	337+96.31	9.6' RT	1	1				1		1007.20	1003.20	2.95	
S-31	339+16.51	4.5' RT			1		1	1		1007.78	1004.60	2.53	SEE NOTE 4 BELOW
S-32	339+16.64	9.6' RT				1	1	1		1007.36	1004.80	2.06	SEE NOTE 5 BELOW
S-33	337+96	LT						1	1	1007.25	EXIST	-	SEE NOTE 6 BELOW
PROJECT TOTALS			1	1	1	1	2	4	1				

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** ADDITIONAL QUANTITIES OF THIS ITEM ARE FOUND IN OTHER TABULATIONS

*** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE. FOR APRONS, INVERT ELEVATION IS AT THE END OF THE APRON

**** DEPTH (AS SHOWN ON SDD FOR INLETS/MANHOLES) = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

"RIM ELEV" REFERENCED ADJUSTED FOR COVERS AS NOTED:

- TYPE B COVER: ELEV AT HIGHEST POINT ON EDGE OF FRAME (COVER HEIGHT = 10 INCHES)
- TYPE C COVER: TOP OF FRAME (COVER HEIGHT = 8 7/8 INCHES)
- TYPE H AND TYPE HM COVERS = FRAME/GRATE ELEVATION AT GUTTER. SEE CONSTRUCTION DETAIL FOR RELATIONSHIP TO NORMAL GUTTER FLOW LINE. (COVER FRAME HEIGHT = 4 INCHES)
- VERTICAL RISER PIPE INLETS: RIM IS TOP OF CONCRETE AT RIM. NO "COVER HEIGHT" OR "6-INCH ADJUSTMENT RING HEIGHT" IS INCLUDED IN DEPTH CALCULATION FOR THESE TWO STRUCTURES.

"TOP OF STRUCTURE BASE ELEV" = LOWEST PIPE INVERT - PIPE WALL THICKNESS

NOTES

4	SQUARE LID OPENING REQUIRED FOR SALVAGED TYPE HM COVER FROM INTAKE NEAR STA 337+95 LT.
5	SALVAGED COVER IS TYPE HM FROM EXISTING INTAKE NEAR STA 337+95 RT.
6	EXISTING STRUCTURE TO REMAIN, INSTALL NEW COVER. "INLET COVER RECTANGULAR GRATE" SHALL BE AS PER REQUIREMENTS OF SPECIFICATION SECTION 611. COVER SHALL BE A RECTANGULAR FRAME WITH GRATE SUITABLE FOR HEAVY DUTY TRAFFIC LOADING. GRATE AND FRAME SHALL HAVE DIMENSIONS TO FIT THE EXISTING INLET OPENING OF THE TYPE HM CASTING IT WILL REPLACE. TOP OF GRATE SHALL BE FLAT SO AS TO MATCH ADJACENT PAVEMENT GRADES. FIELD VERIFY RIM ELEVATION TO MATCH ADJACENT PAVING.

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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INSULATION BOARD POLYSTYRENE 2-INCH

STATION	–	STATION	LOCATION	612.0902.S INSULATION BOARD POLYSTYRENE 2-INCH SY	REMARKS
TRAIL					
443+33T		445+56T	LT/RT	100	FOR PIPES P-14 & P-15 (19 X 30 HORIZONTAL ELLIPTICAL CLASS HE-III) FROM EW-12 TO BEYOND EXISTING WATER MAIN
PROJECT TOTALS				100	

ADJUSTING MANHOLE COVERS

STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH
EASTSIDE RD/MINERAL ST INTERSECTION		
305+63	RT	1
PROJECT TOTALS		1

CONCRETE CORRUGATED MEDIAN

STATION	–	STATION	LOCATION	620.0100 CONCRETE CORRUGATED MEDIAN SF
INTERSECTION OF BUS 151 & KEYSTONE PKWY/INSIGHT DR				
334+96		336+88	LT	1073
337+91		339+08	RT	680
PROJECT TOTALS				1753

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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EROSION CONTROL

STA	–	STA	LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECK LF	628.7555 CULVERT PIPE CHECKS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	SPV.0035.01 REMOVE AND REINSTALL RIRPRAP CY	REMARKS
STALEY AVE TO STH 80/81																
228+81			RT									12				
229+32			LT									12				
229+44			RT									12				
229+44		229+57	LT												3	18" RIPRAP THICKNESS
229+83			LT								1					
229+97			RT								1					
230+25			LT								1					
230+45			RT								1					
230+55			LT										8			36" CULVERT PIPE
231+29			RT										2			18" CULVERT PIPE
231+86			LT										3			24" CULVERT PIPE
233+99			LT										2			18" CULVERT PIPE
234+77			RT/LT									12	3			24" CULVERT PIPE
235+33			LT										2			18" CULVERT PIPE
238+13			RT										2			18" CULVERT PIPE
238+92			RT										2			18" CULVERT PIPE
239+70			RT										2			18" CULVERT PIPE
INTERSECTION OF BUS 151 & STH 80/81																
246+66		247+13	RT		104	104			1							
247+17		247+43	LT		55	55										
247+94		248+35	RT		80	80	19									
248+15			LT								1					
248+40			LT								1					
248+44			LT								1					
STH 80/81 (WATER ST) SOUTH OF BUS 151																
800+16		801+08	LT		123	123										
801+53			RT										2			18" CULVERT PIPE
801+71			RT								1					
TRAIL																
400+00'T'		400+33'T'	RT		42	42										
400+60'T'		400+95'T'	RT		36	36										
400+94'T'			RT				11									
400+98'T'		401+95'T'	RT		104	104										
401+06'T'			LT										1			12" CULVERT PIPE
401+43'T'		402+07'T'	LT				62									
402+04'T'		405+60'T'	RT					582								
402+89'T'			LT							1			3			21" CULVERT PIPE
402+90'T'			RT						1							

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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EROSION CONTROL

STA	–	STA	LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECK LF	628.7555 CULVERT PIPE CHECKS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	SPV.0035.01 REMOVE AND REINSTALL RIRPRAP CY	REMARKS
405+80'T'		416+64'T'	RT					2840								
405+93'T'			LT							1						
405+94'T'			RT						1							
415+38'T'			LT										1			12" CULVERT PIPE
417+00'T'		417+20'T'	RT	6												18" RIPRAP THICKNESS
417+17'T'		417+99'T'	RT				87									
417+25'T'		417+34'T'	RT	3										5		18" RIPRAP THICKNESS
417+47'T'		417+69'T'	RT											17	9	18" RIPRAP THICKNESS
417+92'T'		418+26'T'	LT				38									
418+37'T'		418+52'T'	RT				17									
422+25'T'		422+51'T'	LT				32									
422+29'T'			LT										3			24" CULVERT PIPE
422+37'T'			RT										1			18" CULVERT PIPE
422+43'T'			LT										1			18" CULVERT PIPE
422+92'T'		423+16'T'	LT				36									
423+00'T'			RT										2			15" CULVERT PIPE
424+80'T'			LT										5			30" CULVERT PIPE
425+22'T'			RT				220						1			12" CULVERT PIPE
425+75'T'		425+89'T'	RT				80									
425+88'T'			RT										1			12" CULVERT PIPE
426+19'T'		426+41'T'	LT				16									
427+99'T'			LT										3			24" CULVERT PIPE
428+32'T'			RT										2	9	5	18" CULVERT PIPE. SALVAGE REVETMENT FROM AROUND EXISTING STRUCTURE S-14, IMMEDIATELY ADJACENT TO PIPE.
429+36'T'			LT							1						
429+50'T'			LT								1					
430+07'T'			RT								1					
430+09'T'		431+56'T'					202									
430+10'T'		430+79'T'	RT		72	72										
430+45'T'			RT						1							
430+82'T'		431+01'T'	RT	5										10		
431+05'T'			RT									12				
431+24'T'			RT									12				
431+39'T'			RT									12				
431+90'T'		433+91'T'	LT					263								
431+92'T'			LT										3			24" CULVERT PIPE

EROSION CONTROL

STA	–	STA	LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECK LF	628.7555 CULVERT PIPE CHECKS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	SPV.0035.01 REMOVE AND REINSTALL RIRPRAP CY	REMARKS
434+15'T'		434+38'T'	LT					18								
435+12'T'			LT										2			18" CULVERT PIPE
435+16'T'			RT										1			12" CULVERT PIPE
435+25'T'			LT									12				
435+53'T'			LT									12				
436+12'T'			LT									12				
436+58'T'			LT									12				
436+89'T'		437+04'T'	LT				14									
437+16'T'			RT										1			12" CULVERT PIPE
437+56'T'			LT										3			23" CULVERT PIPE
437+74'T'			RT										1			12" CULVERT PIPE
437+85'T'			LT									12				
438+79'T'			LT									12				
439+65'T'			LT												4	18" RIPRAP THICKNESS ASSUMED
440+07'T'		440+22'T'	LT				17									
441+00'T'			RT										1			12" CULVERT PIPE
441+41'T'		443+93'T'	RT				183									
443+32'T'			LT										5			30" CULVERT PIPE
445+47'T'			LT							1						
445+62'T'		446+05'T'	RT				59									
445+88'T'			RT										5			30" CULVERT PIPE
INTERSECTION OF BUS 151 & EASTSIDE RD																
305+94			RT								1					
306+45			RT						1							
Unknown			LT								1					TO BE PLACED IN FIRST DOWNSTREAM INLET IN CURB ON NORTH SIDE OF MINERAL ST
INTERSECTION OF BUS 151 & KEYSTONE PKWY/INSIGHT DR																
337+96			RT								3					
339+17			RT								2					
			UNDISTRIBUTED	6	197	197	334	939	1	2	5	39	21	9		
PROJECT TOTALS				**20**	**813**	**813**	**1427**	**4642**	**6**	**6**	**22**	**195**	**95**	**50**	**21**	

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	MISCELLANEOUS QUANTITIES	SHEET 115	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\030201- MQ.DWG
LAYOUT NAME - 16 MISC QTY

PLOT DATE : 10/8/2020 11:00 AM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 42

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
227+48 TO 339+48	10	5
PROJECT TOTALS	**10**	**5**

FINISHING ITEMS

STATION	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0171 SEEDING MIXTURE NO. 70A LB	630.0200 SEEDING TEMPORARY LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	NOTES
BEGIN PROJECT TO STH 80/81 INTERSECTION											
228+80	241+43	LT/RT	2037	3103	2	56				70	
STH 80/81 INTERSECTION TO ELLEN ST											
246+64	250+72	LT/RT	614	964	1	17				22	SEED WATER INCLUDES MULCHING AND EROSION MAT AREA
TRAIL											
400+00'T'	446+05'T'	LT/RT	10679	10819	7	186	16		33	350	SEED WATER INCLUDES MULCHING AND EROSION MAT AREA
	UNDISTRIBUTED		670	1514	1	26	2	100	3	44	INCLUDES INSIGHT DRIVE INTERSECTION AREA
	PROJECT TOTALS		**14000**	**16400**	**10**	**286**	**18**	**100**	**36**	**486**	

PERMANENT SIGNING

SIGN NO.	STATION	SIDE	SIGN CODE	FACE DIR	SIGN DIMENSIONS W X H IN X IN	SIGN DIMENSIONS AREA SF	633.0100 DELINEATOR POSTS STEEL EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0811 POSTS TUBULAR STEEL 2X2-INCH X 11-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	227+00	LT	W11-2	W	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
1	227+00	LT	W16-9P	W	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
2	227+48	RT	W11-2	W	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
2	227+48	RT	W16-9P	W	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
3	229+50	LT	W11-2	W	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
3	229+50	LT	W11-2	E	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
3	229+50	LT	W16-7R	W	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
3	229+50	LT	W16-7L	E	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
3	229+50	LT	R10-25	E	9 x 12	0.75					0.75					RRFB ON SAME POST, SEE RRFB QTYS
4	229+51	RT	W11-2	W	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
4	229+51	RT	W11-2	E	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
4	229+51	RT	W16-7L	W	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
4	229+51	RT	W16-7R	E	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
4	229+51	RT	R10-25	E	9 x 12	0.75					0.75					RRFB ON SAME POST, SEE RRFB QTYS
5	229+86	RT		W						1			1		1	RELOCATE EXISTING SIGN "NO PARKING THIS SIDE OF STREET" ON NEW POST, EXISTING POST IS STEEL
6	230+70	RT	W11-2	W	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
6	230+70	RT	W16-9P	W	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
7	230+70	LT	W11-2	E	30 x 30	6.25						6.25				RRFB ON SAME POST, SEE RRFB QTYS
7	230+70	LT	W16-9P	E	24 x 12	2						2				RRFB ON SAME POST, SEE RRFB QTYS
8	231+31	RT		W						1			1		1	RELOCATE EXISTING SIGN ON NEW POST
9	231+79	RT	R3-9B	W	24 x 36	6				1	6					
10	234+13	RT		W						1			1		1	RELOCATE EXISTING SIGN "NO PARKING THIS SIDE OF STREET" ON NEW POST, EXISTING POST IS STEEL
11	234+16	LT		E						1			1		1	RELOCATE EXISTING SIGN "NO PARKING THIS SIDE OF STREET" ON NEW POST, EXISTING POST IS STEEL
12	235+44	RT	R3-9B	W	24 x 36	6				1	6					
13	235+94	RT	M1-6	W	24 x 24	4			1				1		1	RELOCATE EXISTING SIGNS "JCT" & "STH 80/81" ON NEW POST, EXISTING POST IS WOOD
13	235+94	RT	M2-1	W	21 x 15	2.19										
14	236+44	LT	R3-9B	E	24 x 36	6				1	6					
15	237+45	RT	R2-1	W	24 x 30	5		1					1		1	RELOCATE EXISTING SIGN "SPEED LIMIT 30 MPH" ON NEW POST, EXISTING POST IS WOOD
16	241+95	LT	R3-9B	E	24 x 36	6				1	6					
17	247+01	RT	R1-1	W						1			1		1	RELOCATE EXISTING SIGN "STOP" ON NEW POST
18	248+19	RT	R1-1	S						1			1		1	RELOCATE EXISTING SIGN "STOP" ON NEW POST
19	248+56	RT	R1-1	E						1			1		1	RELOCATE EXISTING SIGN "STOP" ON NEW POST
20	251+24	RT	R3-9B	W	24 x 36	6				1	6					
21	252+08	RT	M1-85	W	24 x 24	4			1				1		1	RELOCATE EXISTING SIGN FROM STA 251+37 ON NEW POST, EXISTING POST IS WOOD
21	252+08	RT		W	12 x 24	2										
22	254+21	LT	R3-9B	E	24 x 36	6				1	6					
22A	260+17	RT	R5-3	W	24 x 24	4		1			4					

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PERMANENT SIGNING

SIGN NO.	STATION	SIDE	SIGN CODE	FACE DIR	SIGN DIMENSIONS W X H IN X IN	SIGN DIMENSIONS AREA SF	633.0100 DELINEATOR POSTS STEEL EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0811 POSTS TUBULAR STEEL 2X2-INCH X 11-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
23	260+37	RT	R3-9B	W	24 x 36	6				1	6					
23A	260+50	RT	W5-53	E	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
23B	263+96	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACE AT END OF WALL, LINE UP NORTH EDGE OF SIGN WITH EDGE OF WALL CLOSEST TO THE TRAIL
24	269+40	RT	R2-1	W	24 x 30	5							1		1	REMOVE SPEED LIMIT 40 MPH SIGN AND REINSTALL ON NEW POST AT STA 274+11
24A	270+20	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACE AT END OF WALL, LINE UP NORTH EDGE OF SIGN WITH EDGE OF WALL CLOSEST TO THE TRAIL
25	271+97	LT	R3-9B	E	24 x 36	6				1	6					
26	274+11	RT	R2-1	W	24 x 30	5		1								REINSTALL SPEED LIMIT 40 MPH SIGN ON NEW POST, REMOVED FROM STA 269+40
26A	274+80	RT	W5-53	E	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
27	275+22	RT	R3-9B	W	24 x 36	6				1	6					
27A	277+16	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
27B	281+76	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
28	281+96	LT	R3-9B	E	24 x 36	6				1	6					
29	286+01	RT	R3-9B	W	24 x 36	6				1	6					
29A	288+53	RT	R5-3	E	24 x 24	4		1								
30	289+39	RT	R1-1	S												EX. STOP SIGN, USE AS CONSTRUCTED
30A	289+54	RT	R5-3	W	24 x 24	4		1								
31	291+96	LT	R3-9B	E	24 x 36	6				1	6					
31A	294+40	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
31B	294+46	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACE AT END OF WALL, LINE UP NORTH EDGE OF SIGN WITH EDGE OF WALL CLOSEST TO THE TRAIL
32	296+20	RT	R3-9B	W	24 x 36	6				1	6					
32A	296+39	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
32B	296+87	RT	W5-53	E	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
32C	296+97	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
32D	298+91	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
32E	300+25	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACED AT CULVERT END, MIN 3' FROM TRAIL EDGE
32F	300+72	RT	W5-53	W	6 x 12	0.5	1					0.5				PLACE AT END OF WALL, LINE UP NORTH EDGE OF SIGN WITH EDGE OF WALL CLOSEST TO THE TRAIL
33	301+92	LT	R3-9B	E	24 x 36	6				1	6					
34	306+63	LT	R1-2	E	30 x 26	2.71		1					1		1	RELOCATE EXISTING YIELD SIGN ON NEW POST
34A	310+82	LT	R3-7R	E										1		
34B	311+32	LT	R3-8	E										1		
35	311+63	RT	R3-9B	W	24 x 36	6				1	6					
35A	312+61	LT	W4-2R	E										1		
36	321+25	LT	R3-9B	E	24 x 36	6				1	6					
37	321+41	RT	R3-9B	W	24 x 36	6				1	6					
38	325+22	LT		E						1			1			RELOCATE EXISTING SIGN "NO ENGINE BRAKING" REMOVED FROM STA 335+06 ON NEW POST
39	330+50	LT	R2-1	E	24 x 30	5		1					1			REINSTALL SPEED LIMIT 40 MPH SIGN REMOVED FROM STA 335+57 ON NEW POST
40	331+51	LT	R3-9B	E	24 x 36	6				1	6					
41	332+55	LT	R5-1	E	30 x 30	6.25				1	6.25					

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3

3

PERMANENT SIGNING

SIGN NO.	STATION	SIDE	SIGN CODE	FACE DIR	SIGN DIMENSIONS W X H IN X IN	SIGN DIMENSIONS AREA SF	633.0100 DELINEATOR POSTS STEEL EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0811 POSTS TUBULAR STEEL 2X2-INCH X 11-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
42	333+19	LT	R5-1A	W	36 x 24	6				1	6					
	333+19	LT	W4-2R	E	36 x 36	9						9				
43	333+20	LT	R5-1A	W	36 x 24	6				1	6					
	333+20	LT	W4-2R	E	36 x 36	9						9				
44	335+06	LT		E											1	REMOVE NO ENGINE BRAKING SIGN AND REINSTALL ON A NEW POST AT STA 325+22
45	335+57	LT	R2-1	E	24 x 30	5									1	REMOVE SPEED LIMIT 40 MPH SIGN AND REINSTALL ON A NEW POST AT STA 330+50
46	336+07	LT	W9-1R	E	36 x 36	9				1		9				
PROJECT TOTALS							14	7	2	30	132	100	14	3	14	

TEMPORARY MARKING

LOCATION	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	649.0550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	649.0970 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 10-INCH LF
80/81 INTERSECTION WITH BUSINESS 151, SW CORNER AND SW ISLAND	400	1	220
80/81 INTERSECTION WITH BUSINESS 151, SE CORNER AND SE ISLAND	200	1	110
EASTSIDE RD/MINERAL ST INTERSECTION WITH BUSINESS 151, SW QUADRANT	200		240
EASTSIDE RD/MINERAL ST INTERSECTION WITH BUSINESS 151, NE QUADRANT	500		
UNDISTRIBUTED	150		70
TOTAL	**1450**	**2**	**640**

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3

3

TRAFFIC CONTROL -DETOUR SIGNS

DETAIL	LOCATION	DURATION DAYS	SIGN CODE	SIZE W X H	MESSAGE	NO.	643.0900 * TRAFFIC CONTROL SIGNS DAY
	WESTBOUND DETOUR FOR TRAFFIC SIGNAL INSTALLATION AT INTERSECTION OF E MINERAL ST / EASTSIDE ROAD						
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 0.3 MILE E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-3A	48 X 48	ROAD CLOSED AHEAD	A	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 0.2 MILE E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-2A	48 X 48	DETOUR AHEAD	B	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 800' E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 800' E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 800' E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 800' E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 500' E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-3D	48 X 48	ROAD CLOSED 500 FT	C	1
A	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
A	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
A	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
A	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
A	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-9R	30 X 24	DETOUR RIGHT ARROW	J	1
A	MINERAL ST, E. OF VALLEY RD, PLACE 500' E. OF VALLEY RD INTERSECTION	1	M4-8	24 X 12	DETOUR	E	1
A	MINERAL ST, E. OF VALLEY RD, PLACE 500' E. OF VALLEY RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	E	1
A	MINERAL ST, E. OF VALLEY RD, PLACE 500' E. OF VALLEY RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	E	1
A	MINERAL ST, E. OF VALLEY RD, PLACE 500' E. OF VALLEY RD INTERSECTION	1	MO5-1L	21 X 21	ADVANCE LEFT ARROW	E	1
A	MINERAL ST, AT VALLEY RD INTERSECTION	1	M4-8	24 X 12	DETOUR	G	1
A	MINERAL ST, AT VALLEY RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	G	1
A	MINERAL ST, AT VALLEY RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	G	1
A	MINERAL ST, AT VALLEY RD INTERSECTION	1	MO6-1	21 X 21	LEFT ARROW	G	1
A	VALLEY RD, S. OF MINERAL ST, PLACE 100' S. OF MINERAL ST INTERSECTION	1	M4-8	24 X 12	DETOUR	I	1
A	VALLEY RD, S. OF MINERAL ST, PLACE 100' S. OF MINERAL ST INTERSECTION	1	M4-3	24 X 12	BUSINESS	I	1
A	VALLEY RD, S. OF MINERAL ST, PLACE 100' S. OF MINERAL ST INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	I	1
A	VALLEY RD, AT BUS US 151 INTERSECTION	1	M4-8A	24 X 18	END DETOUR	H	1
A	VALLEY RD, AT BUS US 151 INTERSECTION	1	M4-3	24 X 12	BUSINESS	H	1
A	VALLEY RD, AT BUS US 151 INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	H	1
A	BUS US 151, E. OF MINERAL ST/EASTSIDE RD, PLACE 0.3 MILE E. OF MINERAL ST/EASTSIDE RD INTERSECTION	3	PCMS 1		SEE DETOUR SHEET		
	EASTBOUND DETOUR FOR TRAFFIC SIGNAL INSTALLATION AT INTERSECTION OF E MINERAL ST / EASTSIDE ROAD						
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 0.3 MILE E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-3A	48 X 48	ROAD CLOSED AHEAD	A	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 0.2 MILE E. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-2A	48 X 48	DETOUR AHEAD	B	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 800' W. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 800' W. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 800' W. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 800' W. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
B	BUS US 151, W. OF MINERAL ST/EASTSIDE RD, PLACE 500' W. OF MINERAL ST/EASTSIDE RD INTERSECTION	1	W20-3D	48 X 48	ROAD CLOSED 500 FT	C	1
B	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
B	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
B	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1

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3

3

TRAFFIC CONTROL -DETOUR SIGNS

DETAIL	LOCATION	DURATION DAYS	SIGN CODE	SIZE W X H	MESSAGE	NO.	643.0900 * TRAFFIC CONTROL SIGNS DAY
	EASTBOUND DETOUR FOR TRAFFIC SIGNAL INSTALLATION AT INTERSECTION OF E MINERAL ST / EASTSIDE ROAD						
B	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M06-1	21 X 21	RIGHT ARROW	F	1
B	BUS US 151, AT MINERAL ST/EASTSIDE RD INTERSECTION	1	M4-9R	30 X 24	DETOUR RIGHT ARROW	J	1
B	EASTSIDE RD, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M4-8	24 X 12	DETOUR	E	1
B	EASTSIDE RD, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	E	1
B	EASTSIDE RD, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	E	1
B	EASTSIDE RD, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M05-1L	21 X 21	ADVANCE LEFT ARROW	E	1
B	EASTSIDE RD, AT MEANS DR INTERSECTION	1	M4-8	24 X 12	DETOUR	G	1
B	EASTSIDE RD, AT MEANS DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	G	1
B	EASTSIDE RD, AT MEANS DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	G	1
B	EASTSIDE RD, AT MEANS DR INTERSECTION	1	M06-1	21 X 21	LEFT ARROW	G	1
B	MEANS DR, E. OF EASTSIDE RD, PLACE 120' E. OF EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	I	1
B	MEANS DR, E. OF EASTSIDE RD, PLACE 120' E. OF EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	I	1
B	MEANS DR, E. OF EASTSIDE RD, PLACE 120' E. OF EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	I	1
B	MEANS DR, W. OF INSIGHT DR, PLACE 500' W. OF INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	E	1
B	MEANS DR, W. OF INSIGHT DR, PLACE 500' W. OF INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	E	1
B	MEANS DR, W. OF INSIGHT DR, PLACE 500' W. OF INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	E	1
B	MEANS DR, W. OF INSIGHT DR, PLACE 500' W. OF INSIGHT DR INTERSECTION	1	M05-1L	21 X 21	ADVANCE LEFT ARROW	E	1
B	MEANS DR, AT INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	G	1
B	MEANS DR, AT INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	G	1
B	MEANS DR, AT INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	G	1
B	MEANS DR, AT INSIGHT DR INTERSECTION	1	M06-1	21 X 21	LEFT ARROW	G	1
B	INSIGHT DR, N. OF MEANS DR, PLACE 60' N. OF MEANS DR INTERSECTION	1	M4-8	24 X 12	DETOUR	I	1
B	INSIGHT DR, N. OF MEANS DR, PLACE 60' N. OF MEANS DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	I	1
B	INSIGHT DR, N. OF MEANS DR, PLACE 60' N. OF MEANS DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	I	1
B	INSIGHT DR, AT BUS US 151 INTERSECTION	1	M4-8A	24 X 18	END DETOUR	H	1
B	INSIGHT DR, AT BUS US 151 INTERSECTION	1	M4-3	24 X 12	BUSINESS	H	1
B	INSIGHT DR, AT BUS US 151 INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	H	1
B	BUS US 151 AT PHILLIPS RD INTERSECTION	3	PCMS 2		SEE DETOUR SHEET		
	WESTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE						
C	BUS US 151, E. OF COMMERCIAL DR, PLACE 260' E. OF COMMERCIAL DR INTERSECTION	1	W20-3A	48 X 48	ROAD CLOSED AHEAD	A	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 0.2 MILE E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	W20-2A	48 X 48	DETOUR AHEAD	B	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	E	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	E	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	E	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M05-1L	21 X 21	ADVANCE LEFT ARROW	E	1
C	BUS US 151, E. OF KEYSTONE PKWY/INSIGHT DR, PLACE 500' E. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	W20-3D	48 X 48	ROAD CLOSED 500 FT	C	1
C	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	G	1
C	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	G	1
C	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	G	1

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TRAFFIC CONTROL -DETOUR SIGNS

DETAIL	LOCATION	DURATION DAYS	SIGN CODE	SIZE W X H	MESSAGE	NO.	643.0900 * TRAFFIC CONTROL SIGNS DAY
	WESTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE						
C	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	MO6-1	21 X 21	LEFT ARROW	G	1
C	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-9L	30 X 24	DETOUR LEFT ARROW	J	1
C	INSIGHT DR, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
C	INSIGHT DR, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
C	INSIGHT DR, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
C	INSIGHT DR, N. OF MEANS DR, PLACE 500' N. OF MEANS DR INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
C	INSIGHT DR, AT MEANS DR INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
C	INSIGHT DR, AT MEANS DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
C	INSIGHT DR, AT MEANS DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
C	INSIGHT DR, AT MEANS DR INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
C	MEANS DR, W. OF INSIGHT DR, PLACE 300" W. OF INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	I	1
C	MEANS DR, W. OF INSIGHT DR, PLACE 300" W. OF INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	I	1
C	MEANS DR, W. OF INSIGHT DR, PLACE 300" W. OF INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	I	1
C	INSIGHT DR, E. OF EASTSIDE RD, PLACE 500' E. OF EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
C	INSIGHT DR, E. OF EASTSIDE RD, PLACE 500' E. OF EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
C	INSIGHT DR, E. OF EASTSIDE RD, PLACE 500' E. OF EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
C	INSIGHT DR, E. OF EASTSIDE RD, PLACE 500' E. OF EASTSIDE RD INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
C	MEANS DR, AT EASTSIDE RD INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
C	EASTSIDE RD, AT BUS US 151 INTERSECTION	1	M4-8A	24 X 18	END DETOUR	H	1
C	EASTSIDE RD, AT BUS US 151 INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	H	1
C	EASTSIDE RD, AT BUS US 151 INTERSECTION	1	M4-3	24 X 12	BUSINESS	H	1
C	BUS US 151 INTERSECTION EAST OF COMMERCIAL DRIVE	3	PCMS 3		SEE DETOUR SHEET		
	EASTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE						
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 0.3 MILE' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	W20-3A	48 X 48	ROAD CLOSED AHEAD	A	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 0.2 MILE' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	W20-2A	48 X 48	DETOUR AHEAD	B	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	E	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	E	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	E	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 800' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	MO5-1L	21 X 21	ADVANCE LEFT ARROW	E	1
D	BUS US 151, W. OF KEYSTONE PKWY/INSIGHT DR, PLACE 500' W. OF KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	W20-3D	48 X 48	ROAD CLOSED 500 FT	C	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-8	24 X 12	DETOUR	G	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	G	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	G	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	MO6-1	21 X 21	LEFT ARROW	G	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-9L	30 X 24	DETOUR LEFT ARROW	J	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225' S. OF PROGRESSIVE PKWY INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225' S. OF PROGRESSIVE PKWY INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225' S. OF PROGRESSIVE PKWY INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

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TRAFFIC CONTROL -DETOUR SIGNS

DETAIL	LOCATION	DURATION DAYS	SIGN CODE	SIZE W X H	MESSAGE	NO.	643.0900 * TRAFFIC CONTROL SIGNS DAY
	EASTBOUND DETOUR FOR MONOTUBE INSTALLATION AT INTERSECTION OF KEYSTONE PARKWAY / INSIGHT DRIVE						
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	MO6-1	21 X 21	LEFT ARROW	G	1
D	BUS US 151, AT KEYSTONE PKWY/INSIGHT DR INTERSECTION	1	M4-9L	30 X 24	DETOUR LEFT ARROW	J	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225'S. OF PROGRESSIVE PKWY INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225'S. OF PROGRESSIVE PKWY INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225'S. OF PROGRESSIVE PKWY INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
D	KEYSTONE PKWY, S. OF PROGRESSIVE PKWY, PLACE 225'S. OF PROGRESSIVE PKWY INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
D	KEYSTONE PKWY, AT PROGRESSIVE PKWY INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
D	KEYSTONE PKWY, AT PROGRESSIVE PKWY INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
D	KEYSTONE PKWY, AT PROGRESSIVE PKWY INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
D	KEYSTONE PKWY, AT PROGRESSIVE PKWY INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
D	PROGRESSIVE PKWY, W. OF COMMERCIAL DR, PLACE 500' W. OF COMMERCIAL DR INTERSECTION	1	M4-8	24 X 12	DETOUR	D	1
D	PROGRESSIVE PKWY, W. OF COMMERCIAL DR, PLACE 500' W. OF COMMERCIAL DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	D	1
D	PROGRESSIVE PKWY, W. OF COMMERCIAL DR, PLACE 500' W. OF COMMERCIAL DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	D	1
D	PROGRESSIVE PKWY, W. OF COMMERCIAL DR, PLACE 500' W. OF COMMERCIAL DR INTERSECTION	1	MO5-1R	21 X 21	ADVANCE RIGHT ARROW	D	1
D	PROGRESSIVE PKWY, AT COMMERCIAL DR INTERSECTION	1	M4-8	24 X 12	DETOUR	F	1
D	PROGRESSIVE PKWY, AT COMMERCIAL DR INTERSECTION	1	M4-3	24 X 12	BUSINESS	F	1
D	PROGRESSIVE PKWY, AT COMMERCIAL DR INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	F	1
D	PROGRESSIVE PKWY, AT COMMERCIAL DR INTERSECTION	1	MO6-1	21 X 21	RIGHT ARROW	F	1
D	COMMERCIAL DR, AT BUS US 151 INTERSECTION	1	M4-8A	24 X 18	END DETOUR	H	1
D	COMMERCIAL DR, AT BUS US 151 INTERSECTION	1	M4-3	24 X 12	BUSINESS	H	1
D	COMMERCIAL DR, AT BUS US 151 INTERSECTION	1	M1-4	24 X 24	US HIGHWAY 151	H	1
C	BUSINESS 151 AT EASTSIDE ROAD	3	PCMS 4		SEE DETOUR SHEET		
PROJECT TOTALS							**128**

*ADDITIONAL QUANTITY OF THIS ITEM INCLUDED IN OTHER TABULATIONS

TRAFFIC CONTROL - COVERING SIGNS

STA	DESCRIPTION	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
310+82, L	R3-7, RIGHT LANE MUST TURN RIGHT	1	COVER SIGN DURING WESTBOUND 151 DETOUR
311+32, L	R3-8, ADVANCE INTERSECTION LANE CONTROL	1	COVER SIGN WHEN NOT APPLICABLE DURING CONSTRUCTION
312+61, L	W4-2, LANE ENDS	1	COVER SIGN DURING WESTBOUND 151 DETOUR
333+23, R	R3-8, ADVANCE INTERSECTION LANE CONTROL	1	COVER SIGN WHEN NOT APPLICABLE DURING CONSTRUCTION
341+55, L	R3-8, ADVANCE INTERSECTION LANE CONTROL	1	COVER SIGN WHEN NOT APPLICABLE DURING CONSTRUCTION
NOTE: ALL TABULATED SIGN COVERINGS ARE ONE CYCLE.			
PROJECT TOTALS		**5**	

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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TRAFFIC CONTROL

	DAYS	DRUMS EACH	643.0300 DRUMS DAYS	BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	SIGNS EACH	643.0900 * TRAFFIC CONTROL SIGNS DAYS	SPV.0060.07 Repositioning Traffic Control Devices for Closures EACH	REMARKS
ROAD WORK AHEAD / END ROAD WORK, BOP AND SIDE ROADS	168										0	20	3360		SDD 15C05
STALEY AVE, 228+94 TO 230+69 L	5	30	150		0		0		0		0	1	5	3	SDD 15D28, SDD 15D21
5.5' HMA WIDENING AND DRVWY REPLACEMENTS 230+69 TO 239+73 L	5	60	300		0		0		0		0	1	5	3	SDD 15D28
HMA WIDENING AND PCC C&G, 228+94 TO 240+58 R	14	100	1400		0		0		0		0	4	56	12	LANE SHIFT DETAIL, 15D28
72" C&G, TYPE D 239+78 TO 241+42 L	14	30	420		0		0	5	70		0	2	28	12	15D28
REMOVE AND REPLACE EX. CONC. CORRUGATED MEDIAN 241+57 TO 242+63	3	40	120	2	6	4	12		0		0	3	9		SDD 15D21
80/81 INTERSECTION, NW CORNER AND NW ISLAND, SIGNAL WORK	5	30	150	3	15	4	20	10	50		0	6	30		SDD 15D28, SDD 15D21, 15D30, NOTE 1
80/81 INTERSECTION, NE CORNER AND NE ISLAND, SIGNAL WORK	5	30	150	2	10	4	20	10	50		0	5	25		SDD 15D21
80/81 INTERSECTION, SW CORNER AND SW ISLAND, SIGNAL WORK	28	35	980	4	112	8	224	10	280		0	7	196		SDD 15D28, SDD 15D21, 15D30, NOTE 1
80/81 INTERSECTION, SE CORNER AND SE ISLAND, SIGNAL WORK, DRVWY	28	45	1260	4	112	8	224	10	280		0	7	196		SDD 15D28, SDD 15D21, 15D30, NOTE 1
ELLEN ST INTERSECTION	5	20	100	1	5	2	10		0		0	3	15		SDD 15D28, SDD 15D21, 15D30, NOTE 1
BEGIN TRAIL CONSTRUCTION	3		0	2	6	4	12		0		0	3	9		15D30, NOTE 1
60-INCH CONCRETE GUTTER, STA 261+48 TO 273+79 R	21	60	1260		0		0	15	315		0	2	42	15	LANE SHIFT DETAIL
PHILLIPS RD INTERSECTION, C&G STA 289+88 TO 290+28 R	7	15	105		0		0		0		0	1	7		SDD 15D28, SDD 15D21
60-INCH CONC GUTTER, STA 303+15 TO 304+69 R, SW ISLAND, SIGNAL WORK	21	15	315		0		0		0		0	3	63	18	SDD 15D28, SDD 15D21, NOTE 2
EAST SIDE/MINERAL NE & SE CORNER, SIGNAL WORK, WALK CLOSURE	14	40	560		0		0	10	140		0	4	56	15	SDD 15D28, SDD 15D21, 15D30, NOTE 1, NOTE 3
EAST SIDE/MINERAL, INSTALL TROMBONE ARMS	1	30	30	2	2	4	4	10	10	1	1	4	4		SDD 15C2, NOTE 4
INSIGHT/KEYSTONE INTERSECTION, MEDIANS	28	20	560	2	56	4	112		0	2	56	3	84	21	SDD 15D20
INSIGHT/KEYSTONE INTERSECTION SIGNAL WORK	1	30	30	2	2	4	4	5	10	2	2	4	4		SDD 15C2, NOTE 4
PAVEMENT MARKING	5	160	800		0		0		0			4	20		SDD 15C19 NOTE 5
ROAD WORK AHEAD / END ROAD WORK	168											6	1008		SDD 15C05
SUM			8690		326		642		1205		59		5222	99	
UNDISTRIBUTED			410		24		58		130		11		250	11	
PROJECT TOTALS			**9100**		**350**		**700**		**1335**		**70**		**5472**	**110**	

*ADDITIONAL QUANTITY OF THIS ITEM INCLUDED IN OTHER TABULATIONS

NOTE 1: SIDEWALK AND TRAIL CLOSURE IS ALLOWED WITHOUT PROVIDING DIVERSION OR DETOUR. INSTALL BARRICADES AND ADVANCE WARNING OF CLOSURE PER SDD 15D30. PLACE TRAIL CLOSED AHEAD SIGNS AS NOTED IN TRAFFIC CONTROL NOTES.

NOTE 2: DO NOT ALLOW EASTBOUND RIGHT TURN LANE WEST OF EASTSIDE ROAD TO DEVELOP.

NOTE 3: RIGHT/THRU LANE CLOSURE WHILE CONSTRUCTION IN WESTBOUND RIGHT TURN LANE TO MINERAL ST., USE 15D20. COVER ADVANCE RIGHT TURN LANE SIGNS.

NOTE 4: SEE DETOUR SIGNING LAYOUT. LANE CLOSURES PER SDD 15D20 NEEDED IN CONJUNCTION WITH DETOUR.

NOTE 5: PLACE DRUMS TO DELINEATE CENTER OF ROADWAY WHEN PAVING IS COMPLETE AND MARKINGS ARE NOT PRESENT. INSTALL ORANGE W8-12 (NO CENTER LINE) SIGNS. SEE GENERAL NOTES.

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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PAVEMENT MARKINGS

STATION	–	STATION	LOCATION	646.1020 LINE EPOXY 4-INCH LF	646.3020 LINE EPOXY 8-INCH LF	646.5020 MARKING ARROW EPOXY EA	646.5120 MARKING WORD EPOXY EA	646.5220 MARKING SYMBOL EPOXY EA	646.6120 STOP LINE EPOXY 18 -INCH LF	646.7120 DIAGONAL EPOXY 12 -INCH LF	646.7420 CROSSWALK EPOXY TRANSVERSE LINE 6 -INCH LF	646.7520 CROSSWALK EPOXY BLOCK STYLE 24-INCH LF	646.8020 CORRUGATED MEDIAN EPOXY SF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EA	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF
BEGIN PROJECT TO STALEY AVE																	
228+46		229+58	RT	243													
228+46		229+58	LT	244													
228+46		229+58	LT/RT							48		49					
INTERSECTION OF BUS 151 & STALEY AVE																	
229+58		230+76	RT	239													
229+58		230+76	LT	176					23		108						
229+58		230+76	RT/LT							69							
STALEY AVE TO STH 80/81 (WATER ST)																	
230+76		245+54	RT	2867									1646	20	2		
230+76		245+54	LT	2877													
230+76		245+54	RT/LT			8				76							
INTERSECTION OF BUS 151 & STH 80/81 (WATER ST)																	
246+68		248+73	RT/LT	296	330	2			142		691				4		176
STH 80/81 (WATER ST) TO VALLEY RD																	
249+78		257+05	RT	1415	346					10							109
249+78		257+05	LT	1478						7						297	
249+78		257+05	RT/LT			4				28						364	
VALLEY RD TO MINERAL ST/EASTSIDE RD																	
257+05		304+31	RT	10781	116	3		2	27							166	29
257+05		304+31	LT	10970												309	
257+05		304+31	RT/LT			16				170							
INTERSECTION OF BUS 151 & MINERAL ST/EASTSIDE RD																	
304+31		308+31	RT	862	368	5	2		32		139				2		
304+31		308+31	LT	327	299	2	1					20			2		
304+31		308+31	LT/RT						48			55					
MINERAL ST/EASTSIDE RD TO MILLENIUM DR																	
308+31		328+60	RT	4976						36							
308+31		328+60	LT	4555													
308+31		328+60	RT/LT			6				80							
MILLENIUM DR TO KEYSTONE PKWY/INSIGHT DR																	
328+60		336+88	RT	1076	437	2				43							
328+60		336+88	LT	1663										10	1		
328+60		336+88	RT/LT			2	1		44	107			430				
KEYSTONE PKWY/INSIGHT DR TO END PROJECT																	
337+91		339+54	RT	322									272	10	1		
337+91		339+54	LT	164	290	1				25							
337+91		339+54	RT/LT			1			41								
PROJECT TOTALS				**45531**	**2186**	**52**	**4**	**2**	**357**	**699**	**938**	**124**	**2348**	**40**	**12**	**1136**	**314**

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CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.7000 CONCRETE PAVEMENT LF	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF	NOTES
BUS 151, BEGINNING OF PROJECT TO STH 80/81 INTERSECTION										
228+94	-	241+42	LT/RT	1,248	1,248	--	--	--	1,248	FOR SUBGRADE, BASE, AND SLOPE LIMITS ADJACENT TO WIDENED SHOULDER, CURBS, AND DRIVEWAYS.
248+60	-	250+67	LT	207	207	--	--	--	207	FOR SIDEWALK AND DRIVEWAY IN THIS SEGMENT EXCEPT CURB RAMPS
BUS 151 STH 80/81 TO INSIGHT DRIVE INTERSECTION										
250+75		259+50	LT/RT	--	--	--	875	--	--	INCLUDED FOR PROVIDING STATIONING REFERENCE STAKES ALONG BUS 151 CENTERLINE IN AREAS WITHOUT OTHER STAKING
306+00		334+50	LT/RT	--	--	--	2,850	--	--	INCLUDED FOR PROVIDING STATIONING REFERENCE STAKES ALONG BUS 151 CENTERLINE IN AREAS WITHOUT OTHER STAKING
BUS 151, INSIGHT DRIVE INTERSECTION AREA										
334+96	-	336+88	LT	-	-	192	--	--	--	FOR MEDIAN REPLACEMENT
337+91	-	339+08	RT	-	-	117	--	--	--	FOR MEDIAN REPLACEMENT
334+58	-	336+88	RT	230	230	-	--	--	--	FOR AREA OF BOTH CURB AND CONCRETE MEDIAN
337+91	-	339+48	RT	192	192	-	--	--	--	FOR AREA OF BOTH CURB AND CONCRETE MEDIAN
TRAIL										
399+94'T'	-	429+48'T'	LT/RT	2,954	2,954	--	--	--	2954	INCLUDES STAKING FOR ALL DRIVEWAYS WITHIN LIMITS.
430+21'T'	-	445+97"T'	LT/RT	1,576	1,576	--	--	--	1576	INCLUDES STAKING FOR ALL DRIVEWAYS WITHIN LIMITS.
STH 80/81										
800+25	-	802+50	LT/RT	225	225	--	--	--	225	FOR STAKING OF SUBGRADE, BADE, AND ASPHALT PAVEMENT FOR ROAD AND TRAIL AND SIDEWALK ALONG EACH SIDE OF STH 80/81 IN THIS SEGMENT AS NECESSARY, EXCEPT CURB RAMPS.
801+78	-	802+93	LT/RT	--	--	115	--	--	--	ITEM INCLUDES STAKING OF CURB AND ISLANDS THAT ARE INTEGRAL TO CONCRETE PAVEMENT. CURB RAMPS PAID SEPARATELY. MEASURED ALONG CENTERLINE
PROJECT 5996-00-77								1		
PROJECT TOTALS				**6,632**	**6,632**	**424**	**3,725**	**1**	**6,210**	

NOTE: SEE OTHER TABULATIONS FOR CURB AND GUTTER, PIPE CULVERT, STRUCTURE LAYOUT, AND CURB RAMP STAKING ITEMS.

NOTE: BID ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE.

3

SAWCUT ASPHALT & CONCRETE

STATION	–	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
BUS US 151 & STALEY AVE INTERSECTION						
228+94		230+76	LT	223	5	
228+94		230+76	RT	185		
STALEY AVE INTERSECTION TO STH 80/81 INTERSECTION						
230+76		241+42	LT	952	3	INCLUDES SAWCUT FOR ASPHALT DRIVEWAYS
230+76		241+42	RT	1295		INCLUDES SAWCUT FOR ASPHALT DRIVEWAYS
STH 80/81 INTERSECTION						
			NW QUADRANT		35	
			SW QUADRANT		213	
			SE QUADRANT		176	
STH 80/81 SOUTH OF BUS US 151						
800+25		800+96	LT		25	
800+89		801+79	RT	128		
STH 80/81 INTERSECTION TO ELLEN ST						
250+04		250+69	LT	34	4	INCLUDES SAWCUT FOR ASPHALT DRIVEWAY
TRAIL SEGMENT						
400+00'T'		446+05'T'		1992	52	INCLUDES SAWCUT FOR ASPHALT AND CONCRETE DRIVEWAYS
BUS US 151 & PHILLIPS RD INTERSECTION						
			SW QUADRANT	30	5	
			SE QUADRANT	39	5	
289+82		290+28		46	3	
BUS US 151 & MINERAL ST/EASTSIDE RD INTERSECTION						
			NE QUADRANT	152	10	
			SW QUADRANT	98		
			SE QUADRANT	42	5	
BUS US 151 & KEYSTONE PKWY/INSIGHT DR INTERSECTION						
334+58		339+48	LT/RT	445	10	
BUTT JOINTS						
				1200		
UNDISTRIBUTED				39	34	
PROJECT TOTALS				**6900**	**585**	

ASPHALTIC ULTRA-THIN OVERLAY

STATION	–	STATION	SPV.0195.01 HMA ULTRA-THIN OVERLAY TON
228+47		243+48	338
252+58		257+39	115
258+62		306+97	1091
306+97		339+54	932
UNDISTRIBUTED			24
PROJECT TOTALS			**2500**

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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	MISCELLANEOUS QUANTITIES	SHEET 127	E

NOTE: BID ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

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RECTANGULAR RAPID FLASHING BEACON SYSTEM

LOCATION	SPV.0105.01 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 227+00 LT LS	SPV.0105.02 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 227+48 RT LS	SPV.0105.03 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 229+50 LT LS	SPV.0105.04 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 229+50 RT LS	SPV.0105.05 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 230+70 LT LS	SPV.0105.06 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 230+70 RT LS	REMARKS
STA 227+00 LT	1	--	--	--	--	--	15' PEDESTAL SHAFT, 5' MIN MOUNTING HEIGHT FROM EDGE OF SHOULDER TO TO BOTTOM OF S1-1. NO PEDESTRIAN BUTTON, THERMAL DETECTOR, OR CROSSWALK ILLUMINATOR
STA 227+48 RT	--	1	--	--	--	--	15' PEDESTAL SHAFT, 5' MIN MOUNTING HEIGHT FROM EDGE OF SHOULDER TO TO BOTTOM OF S1-1. NO PEDESTRIAN BUTTON, THERMAL DETECTOR, OR CROSSWALK ILLUMINATOR
STA 229+50 LT	--	--	1	--	--	--	15' PEDESTAL SHAFT, 6' MIN MOUNTING HEIGHT FROM TOP OF CURB TO TO BOTTOM OF S16-7. WITH PEDESTRIAN BUTTON, THERMAL DETECTOR, AND CROSSWALK ILLUMINATOR
STA 229+50 RT	--	--	--	1	--	--	15' PEDESTAL SHAFT, 6' MIN MOUNTING HEIGHT FROM TOP OF CURB TO TO BOTTOM OF S16-7. WITH PEDESTRIAN BUTTON, THERMAL DETECTOR, AND CROSSWALK ILLUMINATOR
STA 230+70 RT		--	--	--	--	1	15' PEDESTAL SHAFT, 7' MIN MOUNTING HEIGHT FROM EDGE OF SHOULDER TO TO BOTTOM OF S1-1. NO PEDESTRIAN BUTTON, THERMAL DETECTOR, OR CROSSWALK ILLUMINATOR
STA 230+70 LT					1		15' PEDESTAL SHAFT, 7' MIN MOUNTING HEIGHT FROM EDGE OF SHOULDER TO TO BOTTOM OF S1-1. NO PEDESTRIAN BUTTON, THERMAL DETECTOR, OR CROSSWALK ILLUMINATOR
PROJECT TOTALS	**1**	**1**	**1**	**1**	**1**	**1**	

PVC STORM SEWER INLET, COVER, AND PIPE

STATION	STATION	LOCATION	SPV.0105.07 PVC STORM SEWER INLET, COVER, AND PIPE LS
443+08'T'	443+86'T'	RT	1
PROJECT TOTALS			1

CONSTRUCTION STAKING STRUCTURE LAYOUT, WALL MODULAR BLOCK LANDSCAPE

STATION	LOCATION	SPV.0165.01 WALL MODULAR BLOCK LANDSCAPE (STA 405+00'T') SF	SPV.0165.02 WALL MODULAR BLOCK LANDSCAPE (STA 412+00'T') SF	SPV.0165.03 WALL MODULAR BLOCK LANDSCAPE (STA 436+00'T') SF	SPV.0165.04 WALL MODULAR BLOCK LANDSCAPE (STA 443+00'T') SF	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (structure) 01. WALL MODULAR BLOCK LANDSCAPE (STA 405+00'T') LS	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (structure) 02. WALL MODULAR BLOCK LANDSCAPE (STA 412+00'T') LS	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (structure) 03. WALL MODULAR BLOCK LANDSCAPE (STA 436+00'T') LS	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (structure) 04. WALL MODULAR BLOCK LANDSCAPE (STA 443+00'T') LS
405+00'T'	RT	485				1			
412+00'T'	RT		635				1		
436+00'T'	RT			560				1	
443+00'T'	RT				945				1
PROJECT TOTALS		**485**	**635**	**560**	**945**	**1**	**1**	**1**	**1**

TRAFFIC SIGNAL REMOVALS

LOCATION / ITEM NUMBER	204.0195 REMOVING CONCRETE BASES EACH	653.0900 ADJUSTING PULL BOXES EACH	653.0905 REMOVING PULL BOXES EACH
BUS 151 & STH 80/81			
SB2	1	--	--
SB6	1	--	--
PB4	--	--	1
PB5	--	--	1
PB6	--	--	1
PB14	--	--	1
PB15	--	--	1
PB15	--	1	--
BUS 151 & STH 80/81 TOTAL	**2**	**1**	**5**
BUS 151 & EASTSIDE RD/E MINERAL ST			
SB1	1	--	--
PB1	--	--	1
PB3	--	1	--
PB4	--	--	1
PB5	--	--	1
PB11	--	--	1
PB12	--	--	1
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL	**1**	**1**	**5**
BUS 151 & INSIGHT DR/KEYSTONE PKWY			
SB2	1	--	--
SB3	1	--	--
SB8	1	--	--
SB9	1	--	--
PB3	--	--	1
PB11	--	--	1
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL	**4**	**0**	**2**
PROJECT TOTAL	**7**	**2**	**12**

TRAFFIC SIGNAL PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	653.0135 PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
BUS 151 & STH 80/81						
PB1	EXISTING			--	--	2
PB8	EXISTING			--	--	1
PB11	EXISTING			--	--	2
PB21	247+94	53.7'	RT	--	1	--
PB22	247+19	40.5'	RT	--	1	--
PB23	246+90	58.6'	RT	1	--	--
PB24	247+41	68.3'	LT	1	--	--
PB25	248+30	24.3'	LT	--	1	--
BUS 151 & STH 80/81 TOTAL				**2**	**3**	**5**
BUS 151 & EASTSIDE RD/E MINERAL ST						
PB1	306+38	47.9'	RT	--	1	--
PB2	306+17	63.1'	RT	1	--	--
PB4	EXISTING			--	--	1
PB5	305+13	45.2'	RT	--	1	--
PB6	303+93	32.3'	RT	1	--	--
PB11	EXISTING			--	--	3
PB12	306+42	20.8'	LT	1	--	--
PB13	306+51	59.8'	LT	1	--	--
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL				**4**	**2**	**4**
BUS 151 & INSIGHT DR/KEYSTONE PKWY						
PB3	EXISTING			--	--	1
PB10	EXISTING			--	--	1
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL				**0**	**0**	**2**
PROJECT TOTAL				**6**	**5**	**11**

TRAFFIC SIGNAL CONDUIT

LOCATION	FROM	-	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
BUS 151 & STH 80/81						
	PB1	-	PB21	--	78	--
	PB21	-	SB1	5	--	--
	PB21	-	SB10	13	--	--
	PB21	-	PB22	--	--	78
	PB22	-	SB11	14	--	--
	PB22	-	SB12	5	--	--
	PB22	-	PB23	--	36	--
	PB23	-	PB7	20	--	--
	PB22	-	PB8	--	--	44
	PB10	-	SB13	5	--	--
	PB11	-	SB14	10	--	--
	PB11	-	SB15	10	--	--
	PB11	-	PB24	10	--	--
	PB10	-	PB25	--	20	--
	PB25	-	SB7	10	--	--
	PB25	-	SB8	8	--	--
	PB25	-	SB16	5	--	--
	PB25	-	PB15	--	10	--
	PB25	-	PB18	--	10	--
	PB18	-	PB21	--	35	--
BUS 151 & STH 80/81 TOTAL				**115**	**189**	**122**
BUS 151 & EASTSIDE RD/E MINERAL ST						
	CB1	-	PB1	--	10	--
	PB1	-	SB7	11	--	--
	PB1	-	SB8	5	--	--
	PB1	-	PB2	27	--	--
	PB2	-	SB9	5	--	--
	PB2	-	PB3	16	--	--
	PB1	-	PB4	--	15	--
	PB4	-	SB10	5	--	--
	PB4		PB5	--	--	50
	PB5		PB6	15	--	--
	PB6		PB7	10	--	--
	PB11		PB12	22	--	--
	PB12		SB12	5	--	--
	PB11		PB13	--	40	--
	PB13		PB14	30	--	--
	PB14		PB15	15	--	--
	PB11		PB1	--	--	81
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL				**166**	**65**	**131**
BUS 151 & INSIGHT DR/KEYSTONE PKWY						
	PB1	-	PB3	--	15	--
	SB3	-	SB11	--	15	--
	PB8	-	PB10	--	15	--
	PB10	-	PB12	--	16	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL				**0**	**61**	**0**
PROJECT TOTAL				**281**	**315**	**253**

PEDESTRIAN PUSH BUTTONS

LOCATION / BASE NUMBER	658.0500 PEDESTRIAN PUSH BUTTON EACH
BUS 151 & STH 80/81	
SB1	1
SB7	1
SB10	1
SB11	1
SB12	1
SB13	1
SB14	1
SB15	1
SB16	1
BUS 151 & STH 80/81 TOTAL	**9**
BUS 151 & EASTSIDE RD/E MINERAL ST	
SB8	1
SB9	1
SB10	1
SB12	1
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL	**4**
BUS 151 & INSIGHT DR/KEYSTONE PKWY	
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL	**0**
PROJECT TOTAL	**13**

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MATTHEW J. REGNIER
439616
OREGON, WI
PROFESSIONAL ENGINEER

07/22/2020 (Date)

Matthew J Regnier (Signature)

PROJECT NO: 5996-00-07	HWY: BUS 151	COUNTY: GRANT	TRAFFIC SIGNAL QUANTITIES	SHEET 129	E

2

TRAFFIC SIGNAL LOOP DETECTORS

LOCATION / LOOP NO.	STATION **	OFFSET	L/R	SIZE FT X FT	NO. OF TURNS	INSTALLATION METHOD	652.0900 LOOP DETECTOR SLOTS LF	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF
BUS 151 & STH 80/81										
11		EXISTING				--	--	--	--	185
12		EXISTING				--	--	--	--	245
21		EXISTING				--	--	--	--	140
22		EXISTING				--	--	--	--	370
23		EXISTING				--	--	--	--	520
31	247+85	32'	LT	6 X 30	3	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT	80	122	528	305
32		EXISTING				--	--	--	--	370
41	247+81	49'	RT	6 X 30	3	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT	85	84	300	65
42		EXISTING				--	--	--	--	130
51		EXISTING				--	--	--	--	140
52		EXISTING				--	--	--	--	180
61		EXISTING				--	--	--	--	185
62		EXISTING				--	--	--	--	395
71	247+71	43'	RT	6 X 30	3	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT	85	96	372	65
72		EXISTING				--	--	--	--	110
81	247+73	34'	LT	6 X 30	3	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT	105	110	456	305
82		EXISTING				--	--	--	--	395
83	247+46	39'	LT	6 X 30	3	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT	85	92	348	290
BUS 151 & STH 80/81 TOTAL							**440**	**504**	**0**	**4395**
BUS 151 & EASTSIDE RD/E MINERAL ST										
11	305+58	6'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	75	80	336	80
12	305+30	6'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	80	92	408	80
21		EXISTING				--	--	0	12	265
22		EXISTING				--	--	0	12	415
41	306+05	61'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	65	62	228	30
42	305+87	58'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	70	79	330	30
43		EXISTING				--	--	0	12	100
51	306+39	6'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	75	75	306	110
52	306+67	6'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	85	87	378	110
61	303+96	18'	RT	6 X 6	4	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	35	36	204	250
62	302+28	14'	RT	6 X 10	5	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	45	43	282	415
81		EXISTING				--	--	0	12	170
82		EXISTING				--	--	0	12	170
83		EXISTING				--	--	0	12	200
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL							**530**	**554**	**0**	**2425**
BUS 151 & INSIGHT DR/KEYSTONE PKWY										
11	336+57	1'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	95	95	426	205
12	336+85	1'	RT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	95	95	426	205
51	338+21	1'	LT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	100	91	402	125
52	337+93	1'	LT	6 X 20	3	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT	100	91	402	125
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL							**390**	**372**	**0**	**660**
PROJECT TOTAL							**1,360**	**1,430**	**0**	**7,480**

**AT FRONT CENTER OF LOOP

TRAFFIC SIGNAL STRUCTURES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	SPV.0060.08 REMOVE AND REINSTALL TRAFFIC POLE ASSEMBLY EACH	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
BUS 151 & STH 80/81											
SB10	248+02	44.1'	RT	1	--	--	1	--	1	--	--
SB11	247+30	44.7'	RT	--	1	1	--	--	--	--	--
SB12	247+23	39.0'	RT	1	--	1	--	--	--	--	--
SB13	247+59	33.0'	LT	1	--	--	1	1	--	--	--
SB14	247+23	45.2'	LT	1	--	--	1	--	1	--	--
SB15	247+38	51.9'	LT	1	--	--	1	--	--	--	1
SB16	248+27	20.0'	LT	1	--	--	1	--	1	--	--
BUS 151 & STH 80/81 TOTAL				**6**	**1**	**2**	**5**	**1**	**3**	**0**	**1**
BUS 151 & EASTSIDE RD/E MINERAL ST											
SB8	306+37	43.6'	RT	1	--	--	1	--	--	1	--
SB9	306+22	63.3'	RT	1	--	1	--	--	--	--	--
SB10	305+62	38.0'	RT	1	--	--	1	--	1	--	--
SB11	306+39	20.8'	LT	1	--	--	1	--	--	1	--
BUS 151 & EASTSIDE RD/E MINERAL ST TOTA				**4**	**0**	**1**	**3**	**0**	**1**	**2**	**0**
BUS 151 & INSIGHT DR/KEYSTONE PKWY											
SB1		EXISTING		--	--	1	--	--	--	--	--
SB6		EXISTING		--	--	1	--	--	--	--	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOT				**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
PROJECT TOTAL				**10**	**1**	**5**	**8**	**1**	**4**	**2**	**1**

TRAFFIC SIGNAL STRUCTURES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0113 CONCRETE BASES TYPE 13 EACH	SPV.0060.09 INSTALL POLES TYPE 13 EACH	SPV.0060.10 INSTALL MONOTUBE ARMS ARMS 50-FT EACH	SPV.0060.11 INSTALL LUMINAIRE ARMS STEEL 8-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
BUS 151 & STH 80/81								
BUS 151 & STH 80/81 TOTAL				**0**	**0**	**0**	**0**	**0**
BUS 151 & EASTSIDE RD/E MINERAL ST								
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL				**0**	**0**	**0**	**0**	**0**
BUS 151 & INSIGHT DR/KEYSTONE PKWY								
SB11	FIELD LOCATE - UTILITY CONFLICT		RT	1	1	1	1	1
SB12	336+43	48.4'	LT	1	1	1	1	1
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL				**2**	**2**	**2**	**2**	**2**
PROJECT TOTAL				**2**	**2**	**2**	**2**	**2**

TRAFFIC SIGNAL HEADS

LOCATION	SIGNAL BASE NO.	HEAD NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
BUS 151 & STH 80/81						
	SB1	2A	--	--	--	1
	SB3	15	--	1	--	--
	SB7	6B	--	--	--	1
	SB10	8B	--	--	--	1
	SB11	17	--	--	1	--
	SB11	2B	--	--	--	1
	SB12	6	1	--	--	--
	SB12	4A	--	--	--	1
	SB14	4B	--	--	--	1
	SB15	14	--	1	--	--
	SB15	6A	--	--	--	1
	SB16	8A	--	--	--	1
BUS 151 & STH 80/81 TOTAL			**1**	**2**	**1**	**8**
BUS 151 & EASTSIDE RD/E MINERAL ST						
	SB2	3	--	--	1	--
	SB3	2	--	--	1	--
	SB6	6	--	--	1	--
	SB7	5	--	--	1	--
	SB8	4A	--	--	--	1
	SB9	7	1	--	--	--
	SB9	11	1	--	--	--
	SB9	6B	--	--	--	1
	SB10	6A	--	--	--	1
	SB11	1	1	--	--	--
	SB11	4B	--	--	--	1
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL			**3**	**0**	**4**	**4**
BUS 151 & INSIGHT DR/KEYSTONE PKWY						
	SB1	1	1	--	--	--
	SB1	9	--	1	--	--
	SB6	4	--	1	--	--
	SB6	6	1	--	--	--
	SB11	7	1	--	--	--
	SB11	8	1	--	--	--
	SB11	10	--	1	--	--
	SB12	2	1	--	--	--
	SB12	3	1	--	--	--
	SB12	5	--	1	--	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL			**6**	**4**	**0**	**0**
PROJECT TOTAL			**10**	**6**	**5**	**12**

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND

LOCATION	FROM	-	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
BUS 151 & STH 80/81											
	CB1	-	SB1	--	--	--	--	111	--	111	111
	CB1	-	SB10	--	120	--	--	--	--	--	--
	CB1	-	SB11	--	--	--	203	--	203	--	203
	CB1	-	SB12	--	--	204	--	--	--	--	--
	CB1	-	SB3	--	--	--	263	--	--	--	--
	CB1	-	SB4	--	--	--	271	--	--	--	--
	CB1	-	SB13	343	--	--	--	--	--	--	--
	CB1	-	SB5	--	--	--	--	336	--	--	672
	CB1	-	SB14	--	397	--	--	--	--	--	--
	CB1	-	SB15	--	--	--	397	--	--	--	--
	CB1	-	SB7	--	--	--	268	--	268	--	--
	CB1	-	SB8	266	--	--	--	--	--	--	--
	CB1	-	SB16	--	264	--	--	--	--	--	--
	CB1	-	SB9	--	--	--	212	--	212	212	--
	SB1	-	SB10	--	--	--	--	--	--	41	--
	SB10	-	SB11	--	--	--	--	--	--	140	--
	SB11	-	SB12	--	--	--	--	--	--	41	--
	SB12	-	SB3	--	--	--	--	--	--	94	--
	SB3	-	SB4	--	--	--	--	--	--	46	--
	SB4	-	SB5	--	--	--	--	--	--	119	--
	SB5	-	SB13	--	--	--	--	--	--	38	--
	SB13	-	SB14	--	--	--	--	--	--	101	--
	SB14	-	SB15	--	--	--	--	--	--	44	--
	SB15	-	SB7	--	--	--	--	--	--	195	--
	SB7	-	SB8	--	--	--	--	--	--	43	--
	SB8	-	SB16	--	--	--	--	--	--	38	--
	SB16	-	SB9	--	--	--	--	--	--	108	--
	CB1	-	PB1	--	--	--	--	--	--	37	--
	SB1	-	PB21	--	--	--	--	--	--	15	--
	SB12	-	PB22	--	--	--	--	--	--	15	--
	SB3	-	PB8	--	--	--	--	--	--	20	--
	SB5	-	PB10	--	--	--	--	--	--	15	--
	SB14	-	PB11	--	--	--	--	--	--	22	--
	SB8	-	PB25	--	--	--	--	--	--	20	--
BUS 151 & STH 80/81 TOTAL				**609**	**781**	**204**	**1614**	**447**	**683**	**1515**	**986**
BUS 151 & EASTSIDE RD/E MINERAL ST											
	CB1	-	SB7	--	43	--	--	--	43	43	43
	CB1	-	SB8	--	38	--	--	--	--	--	--
	CB1	-	SB9	--	--	--	79	--	--	--	--
	CB1	-	SB2	--	--	--	--	133	133	--	133
	CB1	-	SB10	--	132	--	--	--	--	--	--
	CB1	-	SB3	--	256	--	--	--	--	--	256
	CB1	-	SB4	253	--	--	--	--	--	--	--
	CB1	-	SB5	186	--	--	--	--	--	--	--
	CB1	-	SB6	--	--	--	134	--	134	--	--
	CB1	-	SB11	--	--	--	169	--	--	169	169
	SB7	-	SB8	--	--	--	--	--	--	40	--
	SB8	-	SB9	--	--	--	--	--	--	75	--
	SB9	-	SB2	--	--	--	--	--	--	170	--
	SB2	-	SB10	--	--	--	--	--	--	40	--
	SB10	-	SB3	--	--	--	--	--	--	203	--
	SB2	-	SB3	--	--	--	--	--	205	--	--
	SB3	-	SB4	--	--	--	--	--	--	55	--
	SB4	-	SB5	--	--	--	--	--	--	112	--
	SB5	-	SB6	--	--	--	--	--	--	87	--
	SB6	-	SB12	--	--	--	--	--	--	40	--
	CB1	-	PB1	--	--	--	--	--	--	15	--
	SB9	-	PB2	--	--	--	--	--	--	15	--
	SB2	-	PB4	--	--	--	--	--	--	15	--
	SB4	-	PB8	--	--	--	--	--	--	25	--
	SB5	-	PB9	--	--	--	--	--	--	20	--
	SB6	-	PB11	--	--	--	--	--	--	15	--
	SB11	-	PB12	--	--	--	--	--	--	15	--
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL				**439**	**469**	**0**	**382**	**133**	**515**	**1154**	**601**
BUS 151 & INSIGHT DR/KEYSTONE PKWY											
	CB1	-	SB1	--	--	--	69	--	--	69	--
	CB1	-	SB11	--	--	--	183	--	183	--	183
	CB1	-	SB6	--	--	--	418	--	--	--	--
	CB1	-	SB12	--	--	--	304	--	304	--	304
	SB11	-	SB3	--	--	--	--	--	--	112	--
	SB8	-	SB12	--	--	--	--	--	--	115	--
	SB5	-	SB6	--	--	--	--	--	--	105	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL				**0**	**0**	**0**	**974**	**0**	**487**	**401**	**487**
PROJECT TOTAL				**1,048**	**1,250**	**204**	**2,970**	**580**	**1,685**	**3,070**	**2,074**

2

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND

LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
BUS 151 & STH 80/81								
	SB1	-	2A	15	--	--	--	--
	SB1	-	BUTTON	--	--	--	6	--
	SB10	-	8B	15	--	--	--	--
	SB10	-	BUTTON	--	--	--	--	--
	SB11	-	17	--	48	--	--	--
	SB11	-	2B	15	--	--	--	--
	SB11	-	EVP "C"	--	--	--	--	30
	SB11	-	BUTTON	--	--	--	6	--
	SB11	-	LUMINAIRE	--	--	117	--	--
	SB12	-	HEAD 6	19	--	--	--	--
	SB12	-	4A	15	--	--	--	--
	SB12	-	BUTTON	--	--	--	6	--
	SB3	-	15	22	--	--	--	--
	SB13	-	BUTTON	--	--	--	6	--
	SB14	-	4B	15	--	--	--	--
	SB14	-	BUTTON	--	--	--	6	--
	SB15	-	14	22	--	--	--	--
	SB15	-	6A	15	--	--	--	--
	SB15	-	BUTTON	--	--	--	6	--
	SB7	-	6B	15	--	--	--	--
	SB7	-	BUTTON	--	--	--	6	--
	SB16	-	8A	15	--	--	--	--
	SB16	-	BUTTON	--	--	--	6	--
BUS 151 & STH 80/81 TOTAL				**183**	**48**	**117**	**48**	**30**
BUS 151 & EASTSIDE RD/E MINERAL ST								
	SB7	-	5	--	48	--	--	--
	SB8	-	4A	15	--	--	--	--
	SB8	-	BUTTON	--	--	--	6	--
	SB9	-	7	19	--	--	--	--
	SB9	-	11	19	--	--	--	--
	SB9	-	6B	15	--	--	--	--
	SB9	-	BUTTON	--	--	--	6	--
	SB10	-	6A	15	--	--	--	--
	SB10	-	BUTTON	--	--	--	6	--
	SB2	-	3	--	23	--	--	--
	SB6	-	6	--	23	--	--	--
	SB11	-	1	15	--	--	--	--
	SB11	-	4B	15	--	--	--	--
	SB11	-	BUTTON	--	--	--	6	--
BUS 151 & EASTSIDE RD/E MINERAL ST TOTAL				**113**	**94**	**0**	**24**	**0**
BUS 151 & INSIGHT DR/KEYSTONE PKWY								
	SB1	-	1	19	--	--	--	--
	SB1	-	9	22	--	--	--	--
	SB11	-	7	56	--	--	--	--
	SB11	-	8	44	--	--	--	--
	SB11	-	10	71	--	--	--	--
	SB11	-	EVP "B"	--	--	--	--	36
	SB11	-	LUMINAIRE	--	--	117	--	--
	SB6	-	4	22	--	--	--	--
	SB6	-	6	19	--	--	--	--
	SB12	-	2	59	--	--	--	--
	SB12	-	3	47	--	--	--	--
	SB12	-	5	76	--	--	--	--
	SB12	-	EVP "A"	--	--	--	--	36
	SB12	-	LUMINAIRE	--	--	117	--	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY TOTAL				**435**	**0**	**234**	**0**	**72**
PROJECT TOTAL				**731**	**142**	**351**	**72**	**102**

CONSTRUCTION STAKING

LOCATION	650.8500.001 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 5996-00-07 LS
5996-00-07	1
PROJECT TOTAL	**1**

REMOVE TRAFFIC SIGNALS

LOCATION	SPV.0105.08 REMOVE TRAFFIC SIGNAL BUS 151 & STH 80/81 LS	SPV.0105.09 REMOVE TRAFFIC SIGNAL BUS 151 & EASTSIDE RD LS
BUS 151 & STH 80/81	1	--
BUS 151 & EASTSIDE RD/E MINERAL ST	--	1
PROJECT TOTAL	**1**	**1**

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.001 SIGNAL MOUNTING HARDWARE BUS 151 & STH 80/81 LS	658.5069.002 SIGNAL MOUNTING HARDWARE BUS 151 & EASTSIDE RD LS	658.5069.003 SIGNAL MOUNTING HARDWARE BUS 151 & INSIGHT DR LS
BUS 151 & STH 80/81	1	--	--
BUS 151 & EASTSIDE RD/E MINERAL ST	--	1	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY	--	--	1
PROJECT TOTAL	**1**	**1**	**1**

LOCATION	SPV.0105.10 DISCONNECT AND REINSTALL CABLE & SALVAGE EQUIPMENT BUS 151 & INSIGHT DR LS
BUS 151 & INSIGHT DR/KEYSTONE PKWY	1
PROJECT TOTAL	**1**

LOCATION	SPV.0105.11 INSTALL SALVAGED EVP EQUIPMENT BUS 151 & STH 80/81 LS	SPV.0105.12 INSTALL SALVAGED EVP EQUIPMENT BUS 151 & EASTSIDE RD LS	SPV.0105.13 INSTALL SALVAGED EVP EQUIPMENT BUS 151 & INSIGHT DR LS
BUS 151 & STH 80/81	1	--	--
BUS 151 & EASTSIDE RD/E MINERAL ST	--	1	--
BUS 151 & INSIGHT DR/KEYSTONE PKWY	--	--	1
PROJECT TOTAL	**1**	**1**	**1**

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

SEE CONSTRUCTION DETAILS FOR SIDEWALK AND CURB RAMP GRADES

ALL SEEDING THIS SHEET SHALL BE NO. 40.

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION OUTSIDE OF PAVEMENT, GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.

N

LAS PALMAS
LOS CABOS NORTE LLC
300 W BUSINESS HWY 151

LIMIT OF HMA
ULTRA-THIN OVERLAY
SAW CUT REQUIRED
BUTT JOINT REQUIRED

STALEY AVE

EXTEND EXISTING 36-INCH CULVERT PIPE. REMOVE AND REINSTALL 36-INCH APRON

JOHN R UTLEY
250 W BUSINESS HWY 151

SLOPE INTERCEPT (TYP)

EXISTING RIGHT OF WAY

PIZZA HUT
230 DUBUQUE RD
PLATTEVILLE WI LLC
230 W BUSINESS HWY 151

CONCRETE SIDEWALK, 4-INCH

REMOVE & REINSTALL RIPRAP

EXISTING RIGHT OF WAY

229+40.51
BEGIN CURB AND GUTTER, 72-INCH, TYPE D

230+67.67
END CURB AND GUTTER,

P-2

EW-2

APPROXIMATE FLOW LINE OF V DITCH

HMA WIDENING

PT: 232+76.66

BEGIN PROJECT
STA 228+45.00
Y=479,066.622
X=880,240.907

228+93.29
BEGIN HMA SHOULDER

W BUSINESS HWY 151

5.5' HMA WIDENING

STA=230+96.34, OFF=23.50 RT
REMOVE APRON OF HMA DRIVEWAY
REPLACE W/ 6" PCC

REMOVE SMALL PIPE CULVERT

STA=232+57.21, OFF=23.50 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

6' WIDE CURB AND GUTTER

BEGIN HMA ULTRA THIN OVERLAY
SAW CUT REQUIRED
BUTT JOINT REQUIRED

BPT 100+00.00'G'

PC 100+10.00'G'

S-2

S-1

C-101

101+00'G'

102+00'G'

103+00'G'

104+00'G'

P-3

EW-3

STA=230+96.93, OFF=31.00 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

SLOPE INTERCEPT (TYP)

PT: 104+08.56'G'

BEGIN CONSTRUCTION
227+00.00
(AT RRFB INSTALLATION LOCATION)

P-1

EW-1

INLET, 2'X3' AND 12-INCH PIPE WITH INLET PROPTECTION REQUIRED

EXISTING RIGHT OF WAY

REFERENCE, SOUTH CURB ALIGNMENT

ROADWAY CENTERLINE ALIGNMENT

228+94.54
BEGIN HMA SHOULDER

229+43.62
BEGIN CURB AND GUTTER, 72-INCH, TYPE D

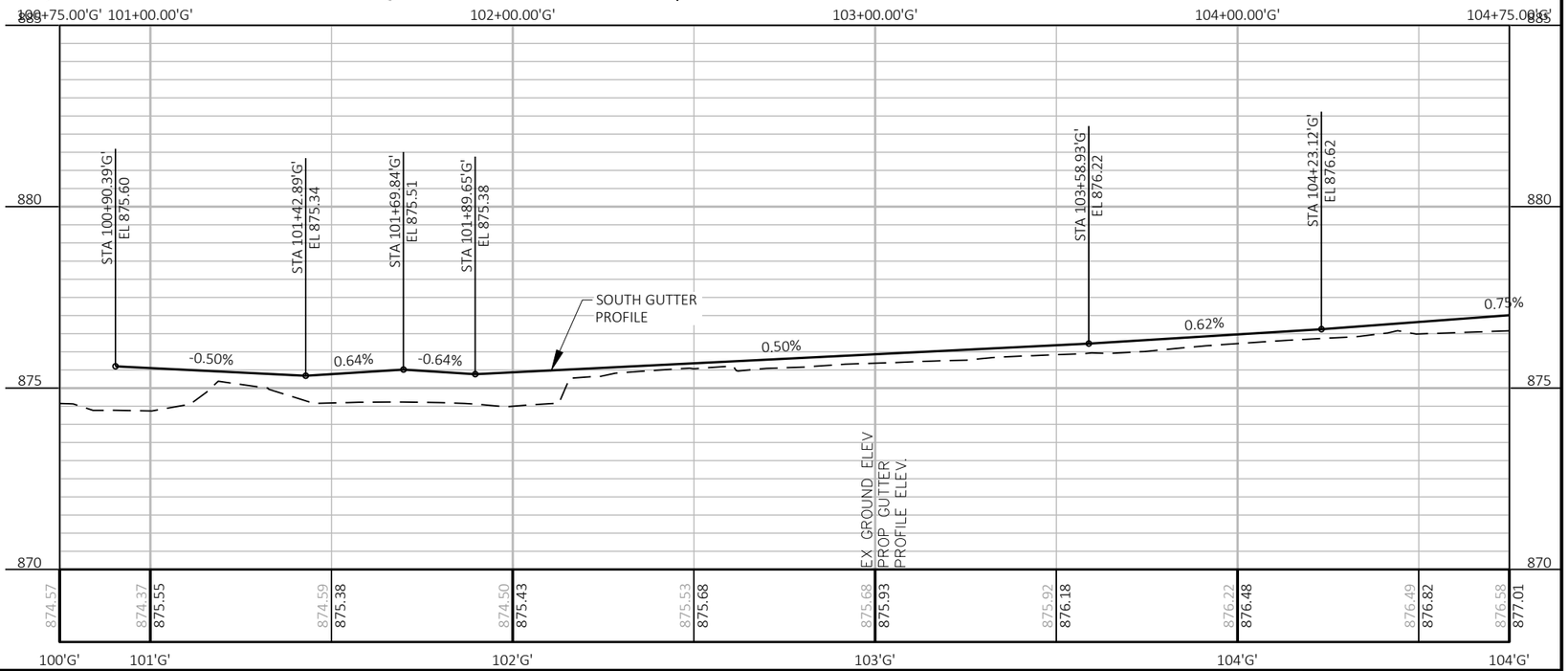
CONCRETE SIDEWALK, 4-INCH

ADJUST SANITARY MANHOLE (BY OTHERS)

PLATTEVILLE AREA
CHAMBER OF COMMERCE
275 BUSINESS HWY 151

LEGEND

- (C) INLET PROTECTION, TYPE C
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	BUSINESS 151	SHEET 134	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 1 P&P

PLOT DATE : 9/29/2020 12:51 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : 1" = 40'

WISDOT/CADDS SHEET 44

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

SEE CONSTRUCTION DETAILS FOR SIDEWALK AND CURB RAMP GRADES

ALL SEEDING THIS SHEET SHALL BE NO. 40.

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION OUTSIDE OF PAVEMENT, GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.

N

PIZZA HUT
230 DUBUQUE RD
PLATTEVILE WI LLC
230 W BUSINESS HWY 151

EXISTING RIGHT OF WAY

EXISTING CULVERT TO REMAIN

SLOPE INTERCEPT (TYP)

EXISTING CULVERT TO REMAIN

HMA WIDENING

STA=235+13.62, OFF=-23.50 LT
GRAVEL DRIVEWAY
BASE AGG DENSE 3/4"

W BUSINESS HWY 151

HMA WIDENING

E BUSINESS HWY 151

KENNETH C KILIAN
790 S COURT ST

EXISTING RIGHT OF WAY

234 235 236 237 238 239

CURB AND GUTTER, 72-INCH, TYPE D

105+00'G' 106+00'G' 107+00'G' 108+00'G' 109+00'G' 110+00'G'

STA=235+10.64, OFF=23.50 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

STA=236+44.15, OFF=23.50 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

STA=237+97.30, OFF=23.50 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

STA=238+70.65, OFF=23.50 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

CURB AND GUTTER, 72-INCH, TYPE D

EXTEND EXISTING 24"Ø RCP CULVERT

C-102

SLOPE INTERCEPT (TYP)

EXISTING RIGHT OF WAY

EXISTING CULVERT TO REMAIN

EXISTING CULVERT TO REMAIN

THE ANNEX
JOHN R AND KAREN M UTLEY
175 W BUSINESS HWY 151

REFERENCE, SOUTH CURB ALIGNMENT

PIZZERIA UNO
155 W BUSINESS HWY 151

REMOVE EXISTING CURB & GUTTER
CURB & GUTTER 30-INCH TYPE D REQUIRED

FIESTA CANCUN
ROSALIO PACHECO
105 W BUSINESS HWY 151

COUNTRY KITCHEN
BIGGER SANDS LLC
65 E BUSINESS HWY 151

TEMPORARY DITCH CHECK

CULVERT PIPE CHECK

104+75.00'G' 105+00.00'G' 106+00.00'G' 107+00.00'G' 108+00.00'G' 109+00.00'G' 110+00.00'G' 110+75.00'G'

890 885 880 875

STA 105+24.42'G'
EL 877.38

STA 107+46.13'G'
EL 878.52

STA 107+89.52'G'
EL 878.79

STA 109+37.60'G'
EL 879.53

STA 109+61.74'G'
EL 879.61

STA 109+91.14'G'
EL 879.76

STA 110+61.85'G'
EL 880.24

SOUTH GUTTER PROFILE

0.51% 0.62% 0.50% 0.34% 0.50% 0.67%

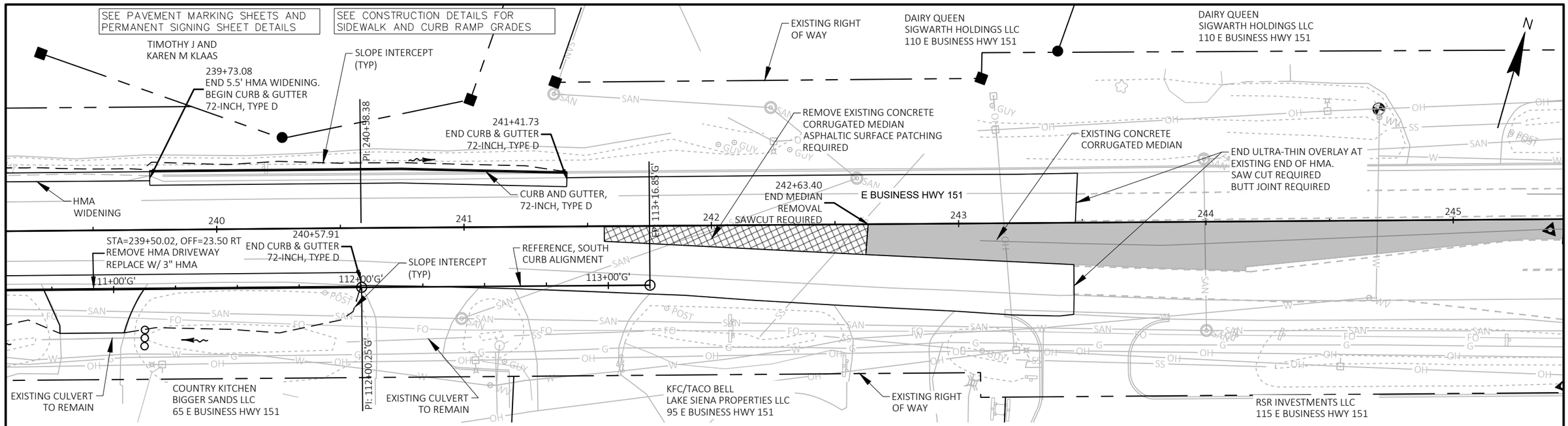
	104'G'	105'G'	106'G'	107'G'	108'G'	109'G'	110'G'	110'G'
EX GROUND ELEV	876.58	877.01	876.80	877.20	877.28	877.51	877.50	877.77
PROP GUTTER PROFILE ELEV.	877.72	878.02	878.09	878.28	878.26	878.54	878.68	878.84
	878.97	879.09	879.17	879.34	879.45	879.57	879.53	879.82
	879.93	880.16	880.11	880.30				

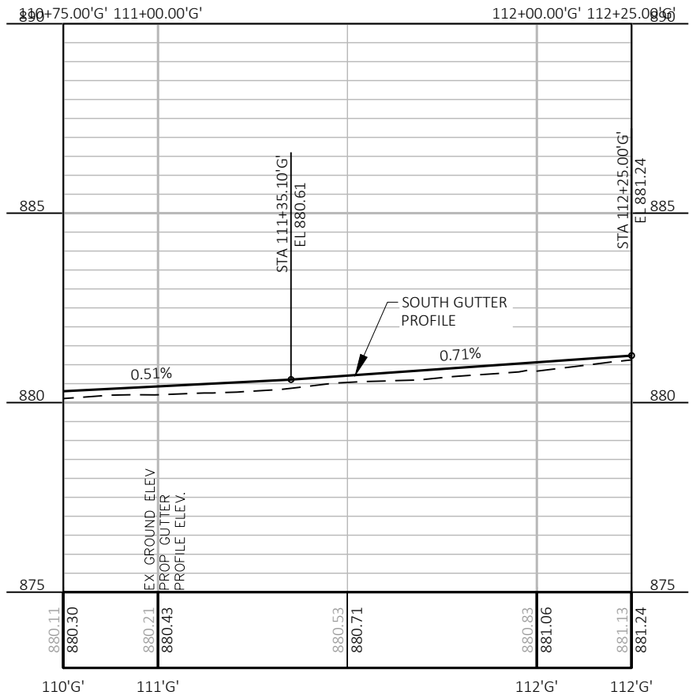
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	BUSINESS 151	SHEET 135	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 2 P&P

PLOT DATE : 9/29/2020 12:51 PM PLOT BY : WENDY NUNEZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





ALL SEEDING THIS SHEET SHALL BE NO. 40.

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION OUTSIDE OF PAVEMENT, GRANULAR SURFACING, EROSION MAT, OR REVETMENT, SHALL BE MULCHED.

NOTE:
STA 242+00 TO 244+50 RIGHT:
CONTAMINATION OF BURIED SOIL EXISTS BEYOND CONSTRUCTION LIMITS. SEE SPECIAL PROVISIONS FOR NOTICE TO CONTRACTOR.

LEGEND

CULVERT PIPE CHECK

5

5

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	BUSINESS 151	SHEET 136	E

DAIRY QUEEN
SIGWARTH HOLDINGS LLC
110 E BUSINESS HWY 151

EXISTING RIGHT OF WAY

SLOPE INTERCEPT (TYP)

PROPOSED CURB RAMP RECONSTRUCTION SEE CONSTRUCTION DETAILS

CAUTION

PT: 803+42.42

804+00

C

WALGREENS
JAMES P AND ANNETTE C DOWD
675 S WATER ST

STA 248+00 TO 249+50 LT AND CONTAMINATION OF BURIED SOIL EXISTS BEYOND CONSTRUCTION LMIITS. SEE SPECIAL PROVISIONS FOR NOTICE TO CONTRACTOR.

701+00 FOD

PI: 249+81.83

701+00

702+00

ELLEN ST

PROPOSED 5' WIDE CONCRETE SIDEWALK, 4-INCH, SEE PLAN DETAIL

PROPOSED CURB RAMP RECONSTRUCTION SEE CONSTRUCTION DETAILS

246 247 248 249 250 251

EXISTING CONCRETE CORRUGATED MEDIAN TO REMAIN

PROPOSED ISLAND RECONSTRUCTION SEE CONSTRUCTION DETAILS

REMOVE AND REPLACE INTEGRAL CURB & GUTTER 30-INCH TYPE A

803+00

PROPOSED ISLAND RECONSTRUCTION SEE CONSTRUCTION DETAILS

E BUSINESS HWY 151

PROPOSED 4' WIDE CONCRETE SIDEWALK, 4-INCH, 6-INCH (THROUGH DRIVEWAY)

STA=250+18.25, OFF=-26.64 LT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

CAUTION

A

DRIVEWAY REMOVED BY OTHERS

EXISTING RIGHT OF WAY

REMOVE AND REPLACE CONCRETE PAVEMENT 9-INCH

SLOPE INTERCEPT (TYP)

EXISTING RIGHT OF WAY (TYP)

RSR INVESTMENTS LLC
115 E BUSINESS HWY 151

SLOPE INTERCEPT (TYP)

PROPOSED 5' WIDE CONCRETE SIDEWALK, 4-INCH

5'

802+00

C

PC: 801+86.52
PT: 801+81.52

S-3

P-4

REMOVE AND REPLACE INTEGRAL CURB & GUTTER 30-INCH, TYPE A

STA 249+00 TO 251+00 RT
CONTAMINATION OF BURIED SOIL EXISTS BEYOND CONSTRUCTION LMIITS. SEE SPECIAL PROVISIONS FOR NOTICE TO CONTRACTOR.

PROPOSED 5' WIDE CONCRETE SIDEWALK, 4-INCH, SEE PLAN DETAIL

2'x3' INLET WITH INLET PROTECTION REQUIRED

PROPOSED STORM SEWER

ASPHALTIC SURFACING PATCHING REQUIRED

EW-4

5'

DUNKIN DONUTS/WORLD FINANCE/MILIOS SANDWHICHES
JT PLATTEVILLE LLC
245 E BUSINESS HWY 151

GIRL SCOUTS/STATE FARM/EDWARD JONES
POND DEVELOPMENT LLC
305 E BUSINESS HWY 151

PROPOSED ASPHALT DRIVEWAY RECONSTRUCTION

END TRAIL RECONSTRUCTION SAW CUT REQUIRED

EXISTING DRIVEWAYS TO BE REMOVED, RELOCATED DRIVEWAY (SHOWN) TO BE CONSTRUCTED BY OTHERS.

CAUTION

10'

801+00

SUPER 8 MOTEL
100 STATE RD 80 & 81 S

RELOCATED ROUNTREE BRANCH TRAIL SEE CURB RAMP CONSTRUCTION DETAILS

RELOCATED CROSSING CONCRETE SIDEWALK 6-INCH WITH CURB RAMP DETECTABLE WARNING FIELDS

S WATER ST / WISCONSIN HWY 80/81

REMOVE EXISTING TRAIL CROSSING APPROACH

EXISTING DAVID CANNY ROUNTREE BRANCH TRAIL

BEGIN TRAIL RECONSTRUCTION SAW CUT REQUIRED

PC: 800+10.00

LEGEND

EROSION MAT URBAN CLASS I, TYPE B

SILT FENCE

(A) INLET PROTECTION, TYPE A

(C) INLET PROTECTION, TYPE C

CULVERT PIPE CHECK

SIGNAL MODIFICATIONS NOT SHOWN FOR CLARITY. SEE TRAFFIC SIGNAL PLAN.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

SEE CONSTRUCTION DETAILS FOR SIDEWALK AND CURB RAMP GRADES

ALL SEEDING THIS SHEET SHALL BE NO. 40

ALL FINISHED AREAS DISTURBED BY CONSTRUCTION OUTSIDE OF PAVEMENT, GRANULAR SURFACING OR EROSION MAT, SHALL BE MULCHED.

5

5

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	BUSINESS 151	SHEET 137	E

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

SEE CONSTRUCTION DETAILS FOR SIDEWALK AND CURB RAMP GRADES

VALLEY ROAD

LARRY DROESSLER BUILDING
RESTORATION LLC
SUSAN DROESSLER
400 E BUSINESS HWY 151

CLAYTON REAL ESTATE
HELEN J CLAYTON
380 E US HWY 151

EXISTING RIGHT OF WAY

FASTENAL
STS ASSOCIATES, LLC
460 E US HWY 151

STA = 259+46.78 TO STA = 259+82.48
ASPHALTIC SURFACE PATCHING, 4-INCH
SAW CUT EXISTING PAVEMENT
REQUIRED TO ACCOMMODATE SHIFT IN LANES
5' WIDTH TYPICAL

PROPOSED PAVEMENT MARKINGS (TYP)

BUSINESS 151

256 257 258 259 260 261

STA=259+85.14, OFF=23.79 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

C-201

5

5

EXISTING DAVID CANNY ROUNTREE BRANCH TRAIL (NOT SHOWN IN AERIAL)

BEGIN TRAIL RECONSTRUCTION

PROPOSED SHARED USE PATH
SEE ADDITIONAL PLAN AND PROFILE SHEETS

TOM S HEISER
425 E BUSINESS HWY 151

EXISTING DAVID CANNY ROUNTREE BRANCH TRAIL (NOT SHOWN IN AERIAL)

EXISTING RIGHT OF WAY

NOVUS GLASS/CHINA BUFFET
GRANTCO INVESTMENTS LLC
455 E US HWY 151

NAPA AUTO PARTS
GENEVA PACIFIC DEVELOPMENT WI LLC
475 E US HWY 151

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	BUSINESS 151	SHEET 138	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 5 P&P

PLOT DATE : 7/23/2020 4:36 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

FASTENAL
STS ASSOCIATES, LLC
460 E BUSINESS HWY 151

UPLAND HILLS/THE INSURANCE GROUP/DOMINOES
BSK LLC
490 E BUSINESS HWY 151

INLET 2'X3' AND INLET COVER TYPE H MODIFIED REQUIRED. (COVER PLATE INSTEAD OF CURB BOX)

STA=265+13.04, OFF=35.18 RT
GRANULAR FIELD ENTRANCE REPLACE W/3" HMA 5' PAST TRAIL ONLY. SEE PLAN DETAIL OF DRIVEWAY FOR ADD'L GRADES & INFORMATION ON TRANSITION OF CURB THROUGH DRIVEWAY

STA=259+85.14, OFF=23.79 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

STA 402+07.24'T'
BEGIN CONCRETE GUTTER
60-INCH

SAWCUT REQUIRED
ASPHALTIC SURFACE PATCHING
REQUIRED

SAWCUT AND REMOVE END OF EXISTING CONCRETE PIPE TO ALIGN WITH NEW STRUCTURE WALL. PAID AS REMOVE SMALL PIPE CULVERTS

E BUSINESS HWY 151

REMOVE SMALL
PIPE CULVERT

PROPOSED DITCH
BOTTOM

STA 400+05.03'T'
BEGIN PROPOSED
10' WIDE HMA
SHARED-USE PATH

INLET 2'X3' AND INLET COVER
TYPE H MODIFIED REQUIRED
(COVER PLATE INSTEAD OF CURB BOX)

BP: 399+91.19'T'
PC: 400+63.97'
PT: 400+75.52'
PC: 400+90.79'T'
PT: 401+18.47'T'
PC: 401+36.19'T'
PT: 401+53.22'T'
PC: 401+88.31'T'
PT: 402+20.21'T'
PC: 402+30.82'T'
PI: 404+81.51'T'

S-10 S-13 P-12 P-10 S-11 S-12 P-11 EW-10 C-201

260 261 262 263 264 265

400'T 401'T 402'T 403'T 404'T 405'T 406'T

10' MIN

BEGIN TRAIL
RECONSTRUCTION
SAWCUT REQUIRED

CAUTION

NOVUS GLASS/CHINA BUFFET
GRANTCO INVESTMENTS LLC
455 E BUSINESS HWY 151

ADJUST SANITARY
MANHOLE MAJOR
(BY OTHERS)

NAPA AUTO PARTS
GENEVA PACIFIC
DEVELOPMENT WI LLC
475 E BUSINESS HWY 151

SLOPE
INTERCEPT (TYP)

PT: 402+33.02'T'

REMOVING OLD STRUCTURE
STA 402+40.98'T'
(FORMER BRIDGE ABUTMENT)

JEWISON HOLDING
COMPANY, LLC
555 E BUSINESS HWY 151

PROPOSED DITCH BOTTOM

PROPOSED 10' WIDE
HMA SHARED-USE PATH

PROPOSED RETAINING WALL
SEE CONSTRUCTION DETAIL

20'

MIN. 10'X10' TURNING SPACE CREATED BY INTERSECTION OF TWO TRAILS SHALL NOT EXCEED 2% CROSS SLOPE IN EITHER DIRECTION. FOR RESTORATION OF EXISTING DAVID CANNY TRAIL, LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.

5

400+00.00'T' 401+00.00'T' 402+00.00'T' 403+00.00'T' 404+00.00'T' 405+00.00'T' 406+00.00'T'

930 925 920 915 910 905 900 895 890

NOTE:ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

VCL = 50.00
K = 15.31

VCL = 50.00
K = 35.79

VPC STA 400+39.88'T'
VPC EL 895.99

VPI STA 400+64.88'T'
VPI EL 896.11

VPT STA 400+89.88'T'
VPT EL 897.05

VPC STA 401+54.18'T'
VPC EL 899.47

VPI STA 401+79.18'T'
VPI EL 900.42

VPT STA 402+04.18'T'
VPT EL 901.71

STA 402+68.01'T'
EL 905.00

STA 402+98.22'T'
EL 906.77

STA 403+57.74'T'
EL 910.31

STA 404+26.40'T'
EL 914.56

STA 404+56.93'T'
EL 916.49

STA 404+93.87'T'
EL 918.65

STA 405+53.57'T'
EL 922.31

STA 405+85.97'T'
EL 924.20

0.50% -1.58% 3.77% 3.75% 4.58% 7.97% 5.16% 5.86% 9.55% 7.72% 5.95% 7.83% 6.19% 6.33% 5.84% 6.13% 5.85%

SPECIAL DITCH
GRADING (LEFT)

SPECIAL DITCH
GRADING (RIGHT)

PROPOSED TRAIL
CENTERLINE

EXISTING GROUND
AT PROPOSED TRAIL
CENTERLINE

895.81	895.99	896.31	897.12	900.98
895.79	896.07	897.43	899.32	901.49
904.35	902.65	908.06	910.21	914.19
904.07	906.88	909.85	912.93	916.05
917.00	920.64	923.45		
919.02	922.09	925.05		

400'T' 401'T' 402'T' 403'T' 404'T' 405'T' 406'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 139 E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 1 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

HIGH VIBE FITNESS
SOUTHWEST HEALTH
CARE CENTER INC
550 E BUSINESS HWY 151

FOUR SEASONS LANDSCAPING
570 E BUSINESS HWY 151

BUFF YOU DETAIL SERVICE
JK FAHERTY PROPERTIES LLC
600 E BUSINESS HWY 151

PI: 270+53.72

N

S-13

S-12

266 267 268 269 270 271

406'T' 407'T' 408'T' 409'T' 410'T' 411'T' 412'T'

SAWCUT REQUIRED
ASPHALTIC SURFACE PATCHING
REQUIRED

CONCRETE GUTTER
60-INCH

PROPOSED 10' WIDE
HMA SHARED-USE PATH

E BUSINESS HWY 151

PROPOSED RETAINING WALL
SEE CONSTRUCTION DETAIL

JEWISON HOLDING COMPANY, LLC
555 E BUSINESS HWY 151

SLOPE INTERCEPT
(TYP)

PROPOSED DITCH BOTTOM

PROPOSED TOP OF BERM

5

5

406+00.00'T' 407+00.00'T' 408+00.00'T' 409+00.00'T' 410+00.00'T' 411+00.00'T' 412+00.00'T'

NOTE:ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

960 955 950 945 940 935 930 925 920

SPECIAL DITCH
GRADING (RIGHT)

SPECIAL DITCH
GRADING (RIGHT)

STA 406+15.76'T'
EL 926.00

STA 406+86.49'T'
EL 930.19

STA 407+26.97'T'
EL 932.65

STA 407+85.20'T'
EL 935.92

STA 408+16.60'T'
EL 937.57

STA 408+46.51'T'
EL 939.07

STA 408+80.66'T'
EL 940.81

STA 409+51.22'T'
EL 944.10

STA 409+90.20'T'
EL 945.88

STA 410+36.85'T'
EL 947.79

STA 410+70.70'T'
EL 949.07

STA 411+12.32'T'
EL 950.61

STA 411+68.06'T'
EL 952.44

6.03% 5.92% 6.08% 2.50% 5.62% 5.28% 4.99% 5.12% 4.65% 4.00% 2.18% 3.91% 2.10% 4.57% 2.08% 4.11% 3.31% 3.78% 3.69% 3.29% 3.22%

406'T'	407'T'	408'T'	409'T'	410'T'	411'T'	412'T'
923.45	928.14	930.17	931.61	934.54	938.10	939.86	944.10	944.34	946.93	949.15	951.10	951.77
925.05	928.03	931.01	933.94	936.70	939.24	941.71	944.04	946.28	948.29	950.15	951.85	953.47

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 140	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 2 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

WISCONSIN POWER & LIGHT
700 E BUSINESS HWY 151

FOUR SEASONS LANDSCAPING
840 E BUSINESS HWY 151

SAWCUT REQUIRED
ASPHALTIC SURFACE PATCHING REQUIRED

PROPOSED 10' WIDE HMA SHARED-USE PATH

PC: 414+37.34'T'

PT: 414+58.77'T'

STA 414+58.77'T'
END CONCRETE CURB & GUTTER
60-INCH

SLOPE INTERCEPT (TYP)

E BUSINESS HWY 151

PC: 416+31.72'T'

PT: 416+53.74'T'

STA=276+28.77, OFF=37.44 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

C-203

PI: 417+93.88'T'

PROPOSED RETAINING WALL
SEE CONSTRUCTION DETAIL

C-202

C-204

PROPOSED DITCH BOTTOM

SLOPE INTERCEPT (TYP)

NOTE: ALLIANT TO ABANDON EXISTING STEEL GAS MAIN SHOWN ON THE SHEET AND RELOCATE MAIN TO NORTH SIDE OF BUS 151. SOME SERVICE LINES WILL REMAIN IN TRAIL AREA. USE CAUTION NEAR REMAINING GAS LINES.

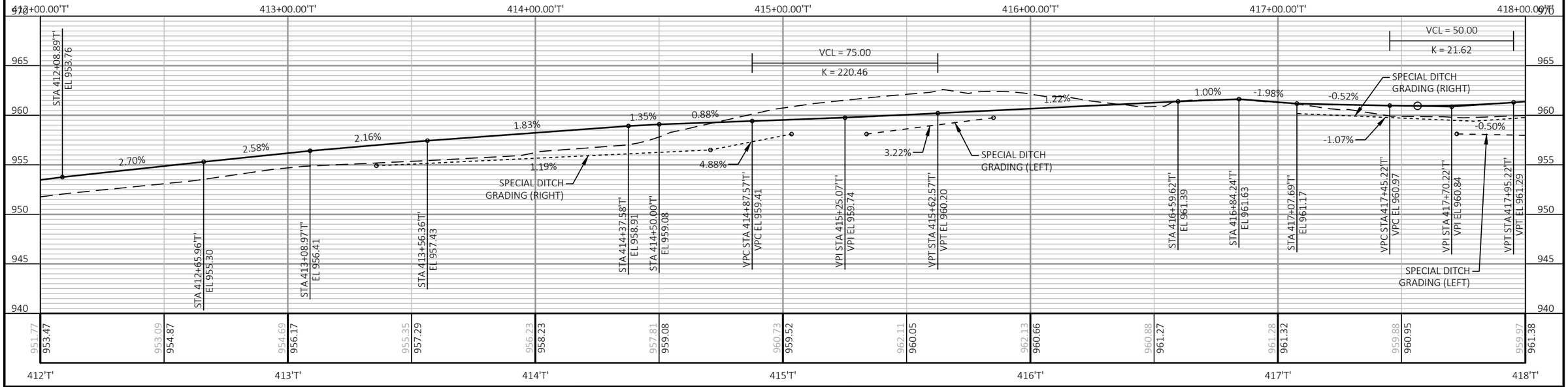
HONEYWELL
SPERIAN EYE & FACE PROTECTION INC
825 E BUSINESS HWY 151

HONEYWELL
SPERIAN EYE & FACE PROTECTION INC
825 E BUSINESS HWY 151

SAWCUT END OF EXISTING CONCRETE GUTTER. INSTALL EMBEDDED RIPRAP MEDIUM IN SWALE TO DIRECT FLOW TO DITCH ALONG TRAIL

REMOVE AND REINSTALL RIP-RAP

NOTE: ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 141	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 3 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

WJD INVESTMENTS LLC
860 E BUSINESS HWY 151

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

JAMES C RULE
860 E BUSINESS HWY 151

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

N

EXISTING CULVERT
PIPE, FLOW TO NORTH

278 279 280 281 282 283

PI: 417+93.88'T'

SLOPE INTERCEPT
(TYP)

E BUSINESS HWY 151

PROPOSED DITCH
BOTTOM (TYP)

C-206 (EXISTING METAL CULVERT).
2 APRON ENDWALLS REQ'D - SEE TABULATION

STA=282+09.38, OFF=24.86 RT
REMOVE PCC DRIVEWAY
REPLACE W/ CONCRETE DRIVE
6-INCH

PC: 423+93.84'T'
PT: 424+05.03'T'

C-205

C-207

PROPOSED 10' WIDE
HMA SHARED-USE PATH

418'T' 419'T' 420'T' 421'T' 422'T' 423'T' 424'T'

C-204

SAWCUT ENDS OF TWO EXISTING 6-INCH PVC PIPES TO MATCH TO NEW SLOPE. INCIDENTAL TO COMMON EXCAVATION.

PROPOSED DITCH
HIGH POINT

SLOPE INTERCEPT
(TYP)

NOTE: ALLIANT TO ABANDON EXISTING STEEL GAS MAIN SHOWN ON THE SHEET AND RELOCATE MAIN TO NORTH SIDE OF BUS 151. SOME SERVICE LINES WILL REMAIN IN TRAIL AREA. USE CAUTION NEAR REMAINING GAS LINES.

RUNDE AUTO
RUNDE PROPERTIES LLC
885 E BUSINESS HWY 151

RUNDE AUTO
RUNDE PROPERTIES LLC
955 E BUSINESS HWY 151

NOTE: ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

418+00.00'T' 419+00.00'T' 420+00.00'T' 421+00.00'T' 422+00.00'T' 423+00.00'T' 424+00.00'T'

970 965 960 955 950 945 940

1.79% 1.60% 1.76% -0.50% -1.00% -1.26% -2.03% -4.18% -6.12% -2.03% 5.44% 2.77% -0.56% -5.07% 7.32% 2.35% -0.71%

SPECIAL DITCH GRADING (RIGHT)
SPECIAL DITCH GRADING (LEFT)
SPECIAL DITCH GRADING (RIGHT)
SPECIAL DITCH GRADING (RIGHT)
SPECIAL DITCH GRADING (LEFT)

VCL = 50.00
K = 19.23
VCL = 50.00
K = 23.20
VCL = 50.00
K = 13.79
VCL = 50.00
K = 17.20
VCL = 120.00
K = 17.55

STA 418+43.78'T' EL 962.16
VPC STA 419+43.78'T' VPC EL 963.76
VPI STA 419+68.78'T' VPI EL 964.16
VPT STA 419+93.78'T' VPT EL 963.91
STA 420+93.78'T' EL 962.91
VPC STA 421+25.20'T' VPC EL 962.28
VPI STA 421+50.20'T' VPI EL 961.77
VPT STA 421+75.20'T' VPT EL 960.72
VPC STA 421+99.55'T' VPC EL 959.71
VPI STA 422+24.55'T' VPI EL 958.66
VPT STA 422+49.55'T' VPT EL 958.52
VPC STA 422+78.72'T' VPC EL 958.36
VPI STA 423+03.72'T' VPI EL 958.22
VPT STA 423+28.72'T' VPT EL 958.81
VPC STA 423+31.66'T' VPC EL 958.88
VPI STA 423+91.66'T' VPI EL 960.29

959.97 961.38 960.84 962.26 961.75 963.06 961.96 963.85 961.98 963.85 961.53 963.35 961.20 962.79 960.52 961.64 958.03 959.69 956.64 958.52 956.22 958.37 957.89 959.21 958.33 959.15

418'T' 419'T' 420'T' 421'T' 422'T' 423'T' 424'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 142	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 4 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

TTANDTT LLC
1085 E MINERAL ST

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

TRI-STAR MULCH
TTANDTT LLC
1085 E MINERAL ST

REMOVE SMALL PIPE CULVERT

STA=284+86.14, OFF=20.18 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

STA=287+86.22, OFF=20.12 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

GRADE TO DRAIN

PC: 423+93.84'T'
PT: 424+05.03'T'
PC: 424+63.31'T'
PT: 424+85.78'T'
PC: 425+00.55'T'
PT: 426+26.41'T'
PC: 425+72.01'T'
PT: 425+96.42'T'
PC: 426+24.26'T'
PT: 426+48.68'T'
PC: 427+68.71'T'
PT: 427+91.53'T'
PC: 428+15.34'T'
PT: 428+38.34'T'
PC: 428+77.05'T'
PT: 428+99.99'T'
PC: 429+17.02'T'
PT: 429+38.15'T'

284 285 286 287 288 289

424'T' 425'T' 426'T' 427'T' 428'T' 429'T' 430'T'

C-208 C-209 C-210 C-211 C-212

SLOPE INTERCEPT (TYP)

E BUSINESS HWY 151

PROPOSED 10' WIDE HMA SHARED-USE PATH

S-14 (EXISTING STRUCTURE)

P-13

EW-11

PROPOSED DITCH BOTTOM (TYP)

EXISTING SIGNS TO REMAIN

SEE NOTE (A)

REINSTALL A PORTION OF REVETMENT REMOVED FROM AROUND S-14 (LARGER ROCK) AT INLET OF NEW PIPE.

PHILLIPS RD

NOTE: ALLIANT TO ABANDON EXISTING STEEL GAS MAIN SHOWN ON THE SHEET AND RELOCATE MAIN TO NORTH SIDE OF BUS 151. SOME SERVICE LINES WILL REMAIN IN TRAIL AREA. USE CAUTION NEAR REMAINING GAS LINES.

PIONEER FORD
BOLDT PROPERTIES LLP
1035 E BUSINESS HWY 151

SEE 2-SERIES PLAN DETAIL FOR PIONEER FORD DRIVEWAYS

CONCRETE SIDEWALK 6-INCH

REMOVE CURB AND GUTTER
INSTALL CURB AND GUTTER, 30-INCH, TYPE D.
SEE CONSTRUCTION DETAIL

(A) REMOVE EXISTING GROUTED REVETMENT IN CONFLICT WITH PROPOSED GRADING. INCIDENTAL TO COMMON EXCAVATION

NOTE: ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

VPT STA 424+51.66'T'
VPT EL 957.59

VCL = 120.00
K = 17.55

SPECIAL DITCH GRADING (LEFT)
-4.49%
-0.71%

SPECIAL DITCH GRADING (RIGHT)
-6.28%

VCL = 25.00
K = 4.08

VCL = 25.00
K = 8.83

VPC STA 425+13.73'T'
VPC EL 954.81
VPI STA 425+26.23'T'
VPI EL 954.25
VPT STA 425+38.73'T'
VPT EL 954.04

VPC STA 425+68.31'T'
VPC EL 953.55
VPI STA 425+80.81'T'
VPI EL 953.35
VPT STA 425+93.31'T'
VPT EL 953.91

-1.65%
-15.91%
4.47%
-1.66%
8.99%

VPC STA 425+96.54'T'
VPC EL 954.05

SPECIAL DITCH GRADING (RIGHT)

VPI STA 426+54.04'T'
VPI EL 956.62

VCL = 115.00
K = 18.13

VPT STA 427+11.54'T'
VPT EL 955.55

VPC STA 427+29.16'T'
VPC EL 955.22

VPI STA 427+54.16'T'
VPI EL 954.75

VPT STA 427+79.16'T'
VPT EL 953.60

-1.87%

VCL = 50.00
K = 18.54

-4.57%
-7.91%

SPECIAL DITCH GRADING (RIGHT)

VCL = 25.00
K = 8.64

VPC STA 428+16.59'T'
VPC EL 951.89
VPI STA 428+29.09'T'
VPI EL 951.32
VPT STA 428+41.59'T'
VPT EL 951.11

25.68%
-1.68%

VCL = 25.00
K = 15.70

VPC STA 428+68.93'T'
VPC EL 950.65
VPI STA 428+81.43'T'
VPI EL 950.45
VPT STA 428+93.93'T'
VPT EL 950.43

-17.26%
-0.08%
-0.95%

STA 429+31.68'T'
EL 950.40

STA 429+48.26'T'
EL 949.68

-4.39%
0.51%
9.67%

STA 429+56.31'T'
EL 949.63

1.65%

STA 429+77.41'T'
EL 949.98

-0.54%

965 960 955 950 945 940 935

958.33 959.15
957.71 957.67
953.39 955.43
954.54 953.86
953.42 954.20
955.00 955.65
953.25 955.72
952.56 954.71
951.99 952.65
951.32 950.97
949.94 950.43
949.80 949.67
949.86 949.86

424'T' 425'T' 426'T' 427'T' 428'T' 429'T' 430'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 143	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 5 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

EXISTING CENTURYLINK TELECOM LINE FROM APPROX. STA 289+25 TO STA 305+50 NOT SHOWN. RELOCATION OF LINE ANTICIPATED PRIOR TO CONSTRUCTION.

DUPACO COMMUNITY CREDIT UNION
1100 E BUSINESS HWY 151

REMOVE CURB & GUTTER
INSTALL CURB & GUTTER 30-INCH, TYPE D.
SEE CONSTRUCTION DETAIL

INSTALL CURB & GUTTER
30-INCH, TYPE D
SEE CONSTRUCTION DETAIL

STA=294+12.08, OFF=26.97 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

RELOCATE HYDRANT
(BY OTHERS)

REMOVE SMALL
PIPE CULVERT

RELOCATED ENTRANCE FROM STA 292+55
STA=290+92.29, OFF=20.03 RT
PROPOSED 3" HMA DRIVEWAY

E BUSINESS HWY 151

REMOVE SMALL PIPE CULVERT.
PROPOSED 4' WIDE DITCH
THROUGH EXISTING FIELD
ENTRANCE.

SLOPE INTERCEPT
(TYP)

PC: 430+21.09'T'
PT: 430+28.21'T'
PC: 430+66.15'T'
PT: 430+94.41'T'
PC: 431+37.55'T'
PT: 431+56.47'T'
PC: 433+30.45'T'
PT: 433+33.88'T'
PC: 434+20.04'T'
PT: 434+30.26'T'
PC: 434+38.56'T'
PT: 434+54.51'T'
PC: 435+04.51'T'
PT: 435+11.49'T'
PC: 435+33.57'T'
PT: 435+41.95'T'

C-213
C-214
C-215
C-216

20'

430'T' 431'T' 432'T' 433'T' 434'T' 435'T' 436'T'

290 291 292 293 294 295

PHILLIPS RD

CONCRETE SIDEWALK
6-INCH

NOTE: ALLIANT TO ABANDON EXISTING STEEL GAS MAIN SHOWN ON THE SHEET AND RELOCATE MAIN TO NORTH SIDE OF BUS 151. SOME SERVICE LINES WILL REMAIN IN TRAIL AREA. USE CAUTION NEAR REMAINING GAS LINES.

SLOPE INTERCEPT
(TYP)

BOLDT PROPERTIES LLP
1105 E BUSINESS HWY 151

PROPOSED DITCH
BOTTOM (TYP)

REMOVE EXISTING LANDSCAPE
POSTS IN CONFLICT WITH
GRADING (INCIDENTAL TO
COMMON EXCAVATION)

PIONEER LANES
BSR PIONEER INVESTMENTS LLC
1185 E BUSINESS HWY 151

EXISTING LIGHT POLE
TO REMAIN

ADJUST SANITARY
MANHOLE MAJOR
(BY OTHERS)

PROPOSED RETAINING WALL
SEE CONSTRUCTION DETAIL

PROPOSED DITCH BEHIND WALL

N

5

5

430+00.00'T' 431+00.00'T' 432+00.00'T' 433+00.00'T' 434+00.00'T' 435+00.00'T' 436+00.00'T'

NOTE:ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

980 975 970 965 960 955 950 945 940

STA 430+13.41'T'
EL 949.79

STA 430+21.09'T'
EL 949.91

VPC STA 430+47.50'T'
VPC EL 951.09

VPI STA 430+60.00'T'
VPI EL 951.64

VPT STA 430+72.50'T'
VPT EL 951.98

VPC STA 430+87.50'T'
VPC EL 952.39

VPI STA 431+00.00'T'
VPI EL 952.73

VPT STA 431+12.50'T'
VPT EL 953.33

VCL = 25.00
K = 12.33

4.45%
2.72%
4.75%
4.71%
1.61%
2.00%
1.01%
1.68%
7.62%
16.61%

SPECIAL DITCH
GRADING (LEFT)

SPECIAL DITCH
GRADING (RIGHT)

VPC STA 433+95.35'T'
VPC EL 966.76

VPI STA 434+32.85'T'
VPI EL 968.54

VPT STA 434+70.35'T'
VPT EL 969.29

STA 434+99.80'T'
EL 969.88

VCL = 75.00
K = 27.27

VCL = 25.00
K = 14.44

949.86 949.86 951.20 951.20 952.80 953.25 955.11 955.23 957.48 956.90 959.86 960.16 962.23 962.82 964.61 966.95 966.98 968.48 968.81 970.11 969.88 971.65 970.39 972.18 970.90

430'T' 431'T' 432'T' 433'T' 434'T' 435'T' 436'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 144	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 6 PLAN AND PROFILE

PLOT DATE : 1/13/2020 1:08 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

EXISTING CENTURYLINK TELECOM LINE FROM APPROX. STA 289+25 TO STA 305+50 NOT SHOWN. RELOCATION OF LINE ANTICIPATED PRIOR TO CONSTRUCTION.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS FOR BUS 151 IMPROVEMENTS IN THE AREA OF THIS SHEET.

SEE EROSION CONTROL PLAN AND DETAIL SHEETS.

TRAIL PAVING PAID AS ASPHALTIC SURFACE UNLESS OTHERWISE NOTED. TRAIL THROUGH DRIVEWAY PAID AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES UNLESS OTHERWISE NOTED.

SAWCUT REQUIRED AT ALL CONNECTIONS TO EXISTING DRIVEWAY PAVEMENT.

N

JENNY L A PLUMBING & HEATING
DUPACO COMMUNITY CREDIT UNION
1200 E BUSINESS HWY 151

PI: 296+22.15

STA=296+54.16, OFF=20.43 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

PLATTEVILLE PROFESSIONAL PROPERTIES LLP
1250 E BUSINESS HWY 151

PC: 298+27.44

E BUSINESS HWY 151

STA=298+77.10, OFF=19.94 RT
REMOVE HMA DRIVEWAY
REPLACE W/ 3" HMA

PLATTEVILLE PROFESSIONAL PROPERTIES LLP

REMOVE SMALL PIPE CULVERT

296 298 299 300 301

PC: 437+03.91'T'
RT: 437+17.77'T'
PC: 437+55.47'T'
PT: 437+74.28'T'
PC: 439+41.41'T'
PT: 439+55.64'T'
PC: 440+17.47'T'
PT: 440+27.37'T'
PC: 440+70.48'T'
PT: 440+79.76'T'
PC: 442+06.91'T'

C-218
C-219
C-220
C-221
C-222
C-217

SLOPE INTERCEPT (TYP)
RELOCATE HYDRANT (BY OTHERS)
PROPOSED 10' WIDE SHARED-USE PATH
PROPOSED DITCH BOTTOM (TYP)
RELOCATE HYDRANT (BY OTHERS)

436'T' 437'T' 438'T' 439'T' 440'T' 441'T' 442'T'

NOTE: ALLIANT TO ABANDON EXISTING STEEL GAS MAIN SHOWN ON THE SHEET AND RELOCATE MAIN TO NORTH SIDE OF BUS 151. SOME SERVICE LINES WILL REMAIN IN TRAIL AREA. USE CAUTION NEAR REMAINING GAS LINES.

EXISTING EDGE OF PARKING LOT

REMOVE AND REINSTALL RIPRAP

GRADE TO MAINTAIN EXISTING EARTH ENTRANCE

SLOPE INTERCEPT (TYP)

PROPOSED RETAINING WALL SEE CONSTRUCTION DETAIL

PROPOSED DITCH BEHIND WALL

REMOVE EXISTING ASPHALTIC LOT PAVEMENT IN CONFLICT WITH GRADING. SAWCUT REQUIRED

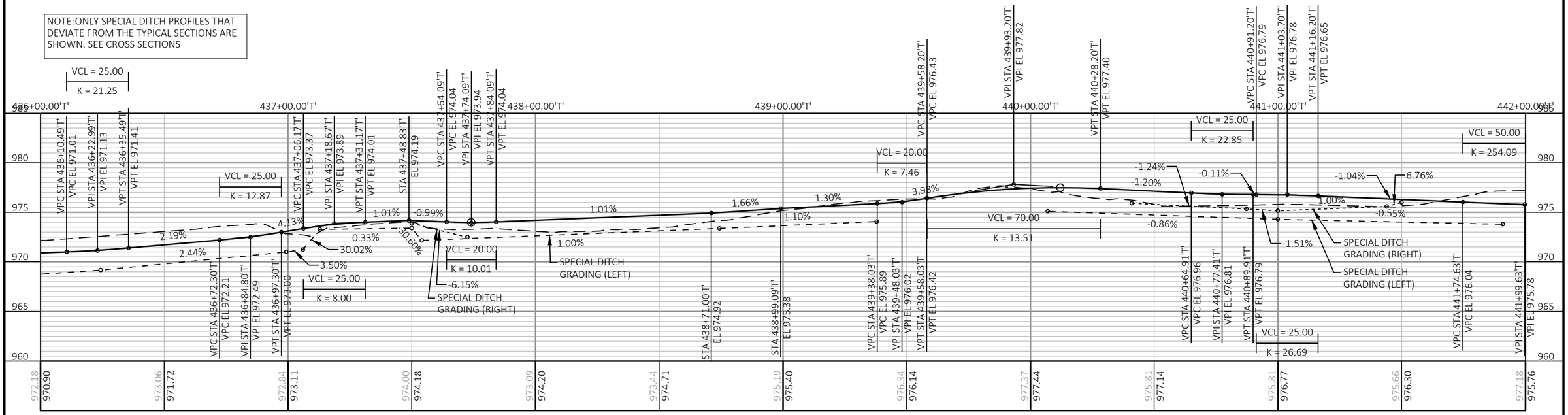
GOBIN AND ALLION FLOORING CENTER LLC
G & A PROPERTIES OF PLATTEVILLE LLC
1245 E BUSINESS HWY 151

BUILDERS FIRST SOURCE
LN REAL ESTATE LLC
100 EASTSIDE RD

PROPOSED DITCH BEHIND WALL SEE WALL CONSTRUCTION DETAIL FOR GRADES

PROPOSED RETAINING WALL SEE CONSTRUCTION DETAIL

NOTE: ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 145	E

SMART GAS STATION
SMART STATION VENTURES LLC
1290 E BUSINESS HWY 151

ALEXANDRAS MEXICAN STORE
MARIA D CORTEZ
1350 E BUSINESS HWY 151

STEVES AUTO WORLD
MARIA D CORTEZ
1370 E BUSINESS HWY 151

E MINERAL ST

E BUSINESS HWY 151

EAST SIDE RD

PC: 442+06.91'T'
PT: 442+14.28'T'
442'T'
443'T'
444'T'
445'T'
302
303
304
305
306
307
Mid: 304+46.81

SLOPE INTERCEPT (TYP)
EW-12
P-14
PC: 443+33.33'T'
PT: 443+46.94'T'
PC: 443+71.42'T'
PT: 443+86.09'T'
STA 443+86.09'T'
BEGIN CONCRETE GUTTER
60-INCH
SAWCUT REQUIRED
ASPHALTIC SURFACE
PATCHING REQUIRED
PC: 444+90.93'T'
PT: 444+96.55'T'
PC: 445+20.26'T'
STA 445+35.64'T'
END CONCRETE GUTTER
60-INCH
PT: 445+37.43'T'
S-15
PC: 445+62.31'T'
PT: 445+99.35'T'
EP: 446+04.78'T'
STA 446+04.78'T'
END PROPOSED 10' WIDE
HMA SHARED-USE PATH

PROPOSED RETAINING WALL
SEE CONSTRUCTION DETAIL
STA 443+07.73'T'
PVC STORM SEWER INLET
AND PIPE REQUIRED
SEE CONSTRUCTION DETAIL
PROPOSED DITCH BEHIND WALL
SEE WALL CONSTRUCTION
DETAIL FOR GRADES
CAR WASH
THREE SUDS LLC
50 EASTSIDE RD
STA 443+85.86'T'
PVC STORM SEWER INLET
AND PIPE REQUIRED
SEE CONSTRUCTION DETAIL
PROPOSED 10' WIDE HMA
SHARED-USE PATH
EXISTING RETAINING
WALL TO REMAIN
SLOPE INTERCEPT
(TYP)
EW-13
P-15
END TRAIL
CONSTRUCTION

CAR WASH
THREE SUDS LLC
50 EASTSIDE RD

EXISTING ASTREA FIBER LINE ON SOUTH SIDE OF BUS 151 FROM APPROX. STA 276+50 TO STA 312+50 NOT SHOWN. RELOCATION OF LINE TO NORTH SIDE OF ROAD ANTICIPATED PRIOR TO CONSTRUCTION.

EXISTING CENTURYLINK TELECOM LINE FROM APPROX. STA 289+25 TO STA 305+50 NOT SHOWN. RELOCATION OF LINE ANTICIPATED PRIOR TO CONSTRUCTION.

SIGNAL MODIFICATIONS NOT SHOWN FOR CLARITY. SEE TRAFFIC SIGNAL PLAN.

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS.

SEE CONSTRUCTION DETAILS FOR SIDEWALK, CURB RAMP, AND ISLAND DETAILS AT INTERSECTION.

NOTE:ONLY SPECIAL DITCH PROFILES THAT DEVIATE FROM THE TYPICAL SECTIONS ARE SHOWN. SEE CROSS SECTIONS

442+00.00'T'
443+00.00'T'
444+00.00'T'
445+00.00'T'
446+00.00'T'
447+00.00'T'
448+00.00'T'

VCL = 50.00
K = 254.09
VPT STA 442+24.63'T'
VPT EL 975.47
-1.24%
VCL = 50.00
K = 56.23
VPC STA 443+34.42'T'
VPC EL 974.11
VPI STA 443+59.42'T'
VPI EL 973.80
VPT STA 443+84.42'T'
VPT EL 973.71
-0.35%
VPC STA 445+20.94'T'
VPC EL 973.23
VPI STA 445+33.44'T'
VPI EL 973.19
VPT STA 445+45.94'T'
VPT EL 972.98
-1.71%
VCL = 25.00
K = 18.33
VPC STA 445+51.25'T'
VPC EL 972.89
VPI STA 445+63.75'T'
VPI EL 972.67
VPT STA 445+76.25'T'
VPT EL 973.24
4.55%
VCL = 25.00
K = 3.99
-3.48%
STA 445+96.92'T'
EL 973.78
-1.26%
STA 445+91.92'T'
EL 973.95
STA 446+04.60'T'
EL 973.68

977.18 975.76
977.11 975.16
977.15 974.54
975.73 973.94
972.62 973.66
972.28 973.48
972.10 973.31
970.92 972.91
973.60 973.74

980
975
970
965
960
955

442'T'
443'T'
444'T'
445'T'
446'T'
447'T'
448'T'

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	PLAN AND PROFILE: SHARED USE PATH	SHEET 146	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 8 PLAN AND PROFILE
PLOT DATE : 1/13/2020 1:08 PM
PLOT BY : NOAH HOFRICHTER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

SIGNAL MODIFICATIONS NOT SHOWN FOR CLARITY. SEE TRAFFIC SIGNAL PLAN.

SEE 2-SERIES PLAN DETAILS FOR INTERSECTION LAYOUT AND GRADES

SEE PAVEMENT MARKING SHEETS AND PERMANENT SIGNING SHEET DETAILS

FIRST NATIONAL BANK OF PLATTEVILLE
10 KEYSTONE PKWY

KEYSTONE PKWY

PLATTEVILLE DEVELOPMENT GROUP
1601 PROGRESSIVE PKWY

JMBF REAL ESTATE LLC
1621 PROGRESSIVE PKWY

N

STA 334+95.76
BEGIN CONCRETE CORRUGATED MEDIAN, TYPE 1

PROPOSED CORRUGATED MEDIAN

STA 334+88.76
END CURB AND GUTTER
CONCRETE MEDIAN
SLOPED NOSE REQUIRED

STA 336+87.81
END CONCRETE
CORRUGATED MEDIAN

SAWCUT REQUIRED
ASPHALTIC SURFACE
PATCHING REQUIRED

STRUCTURE S-33 (EXISTING)
INLET COVER RECTANGULAR
GRATE REQ'D

STA 339+14.96
BEGIN CURB AND GUTTER 4-INCH
SLOPED 36-INCH, TYPE D
BOTH SIDES OF MEDIAN

S-31 STA 339 +17, 4.5' RT
INLETS 4-HM

STA 339+48.31
END CURB AND GUTTER

PI: 340+07.01

335 336 337 338 339 340

STA 337+91.07
BEGIN CONCRETE
CORRUGATED MEDIAN

EXISTING INLET:
SALVAGED INLET COVER
REMOVING INLET

STA 339+22.92
END CURB AND GUTTER

E BUSINESS HWY 151

STA 337+96, 9.6' RT
MANHOLES 5-C

S-30

S-32 STA 339 +17, 9.6' RT
INLETS 2X3-SALVAGED HM

STA 334+58.28
BEGIN CURB AND GUTTER 4-INCH
SLOPED 36-INCH, TYPE D

SAWCUT REQUIRED
ASPHALTIC SURFACE
PATCHING REQUIRED

LAW BUILDING CO LLP
1 INSIGHT DDR

FIDELITY BANK AND TRUST

INSIGHT PLAZA LLC
2 INSIGHT DR

INSIGHT DR

5

5

PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	INSIGHT DRIVE	SHEET 147	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\050301-PP.DWG
LAYOUT NAME - 050301

PLOT DATE : 1/20/2020 4:19 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

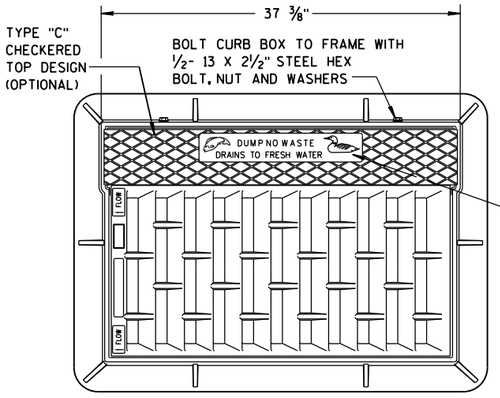
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F03-03	DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F10-04	LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY
09F12-04	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT
09F13-04	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-17	URBAN NON-DOWELED CONCRETE PAVEMENT
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
15A07-02	OBJECT MARKER FOR HAZARDOUS CULVERT
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15D	ROUNDABOUT ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES

6

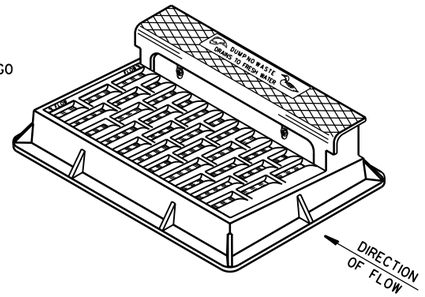
Standard Detail Drawing List

15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C21-10	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C27-03A	DOUBLE ARROW WARNING SIGN PLACEMENT
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-05B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-05C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-06A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-06B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-06	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D43-01	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D47-01A	TRAFFIC CONTROL, INGRESS/EGRESS WITH BARRIER
15D47-01B	TRAFFIC CONTROL, INGRESS/EGRESS WITHOUT BARRIER

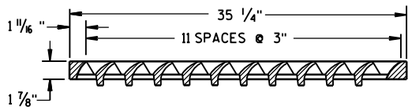
6

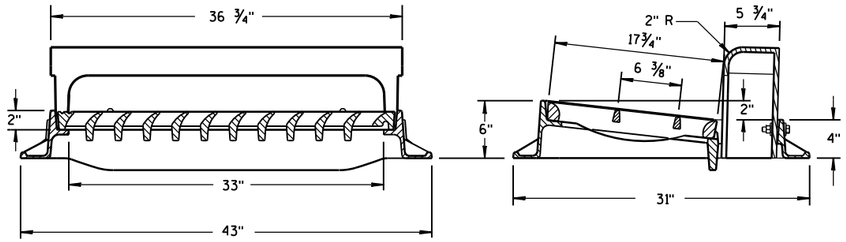


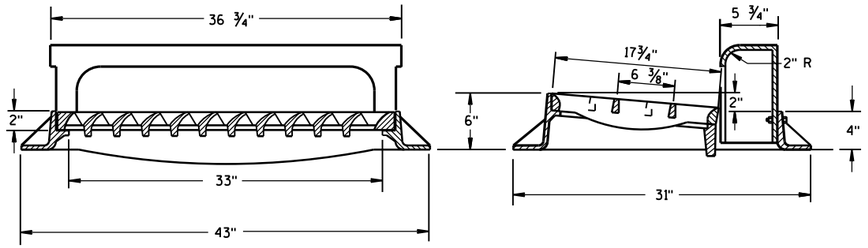
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

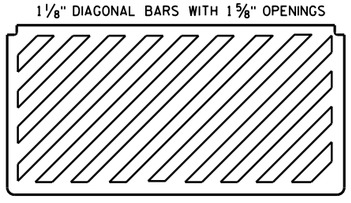






TYPE "H"

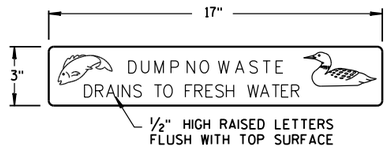
NOTE: EITHER CASTING IS ACCEPTABLE



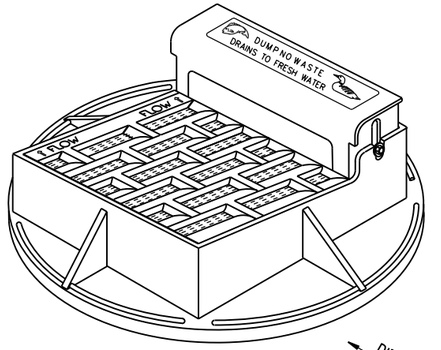
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

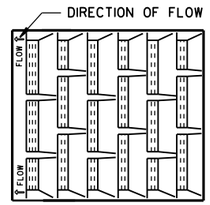
NOTE:
GRATE IS REVERSIBLE.

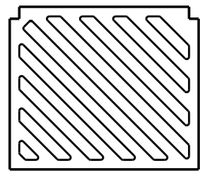
GENERAL NOTES

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

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

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

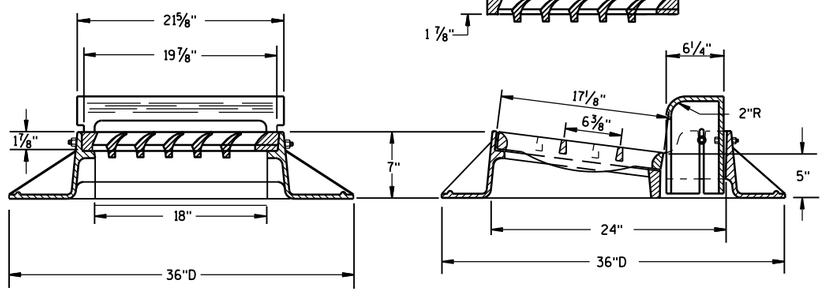




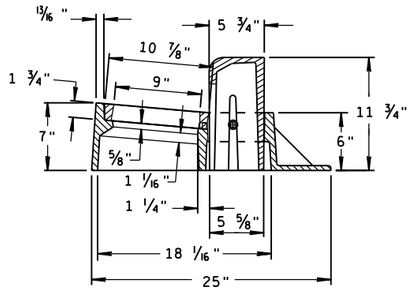
SPECIAL GRATE FOR TYPE "A" COVER

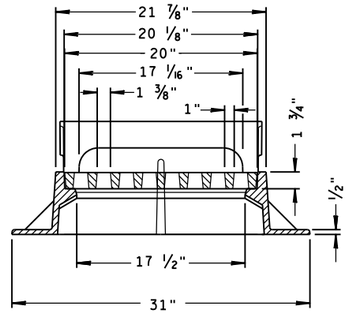
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

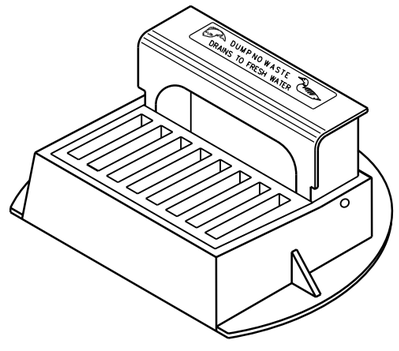


TYPE "A"





TYPE "Z"



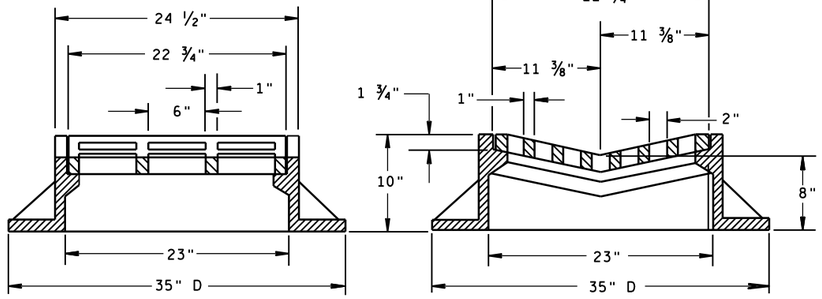
INLET COVERS
TYPE A, H, A-S, H-S & Z

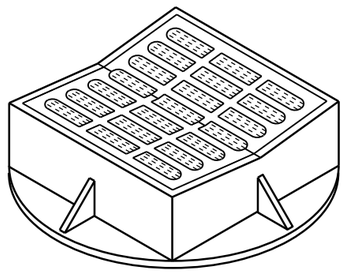
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

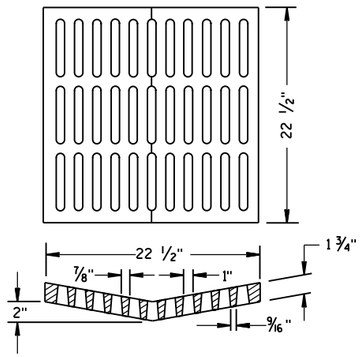
6

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



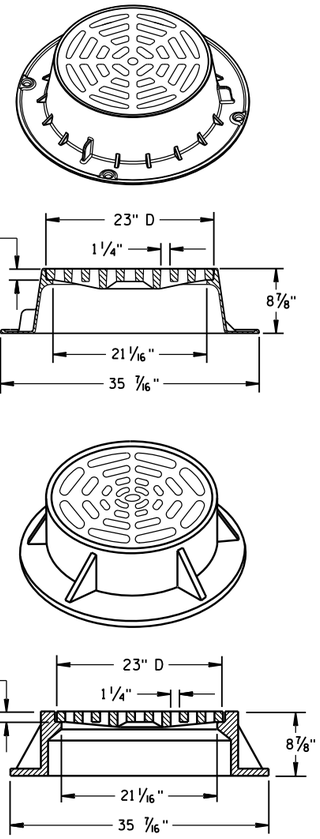


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

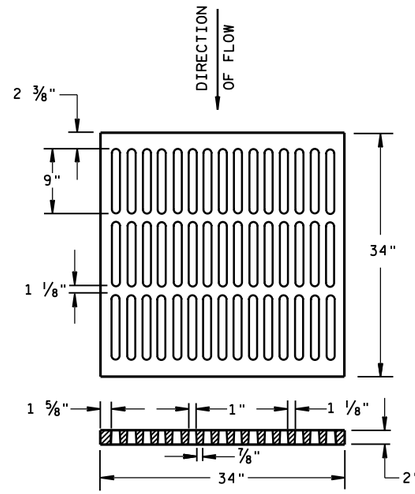
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

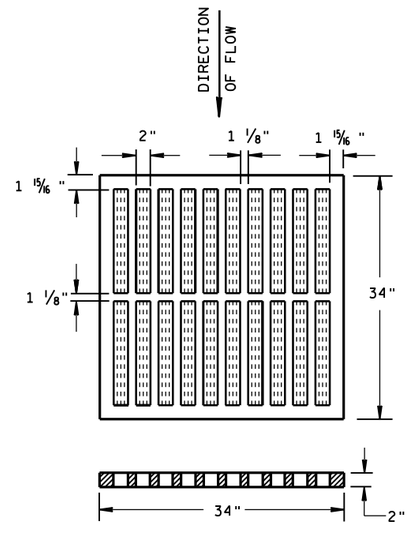
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



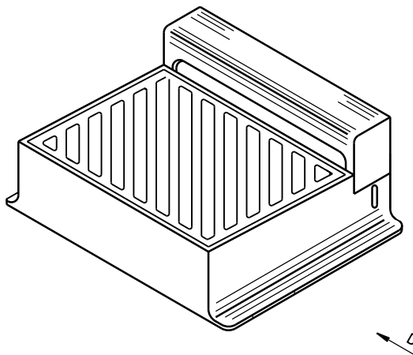
ALTERNATIVE TYPE "MS"

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



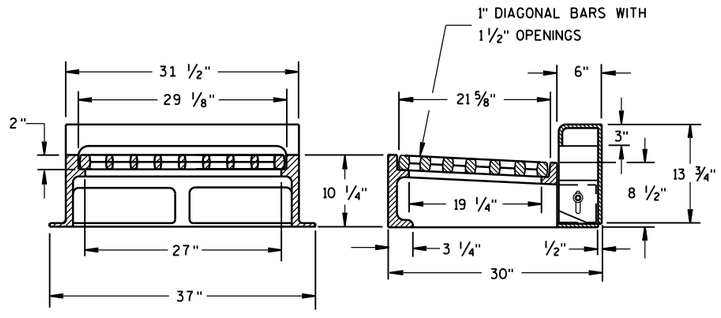
TYPE "MS"

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



DIRECTION OF FLOW

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

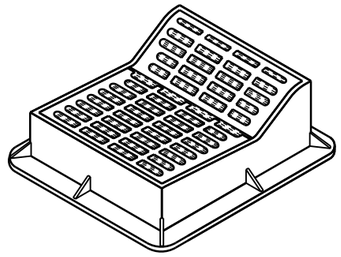
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

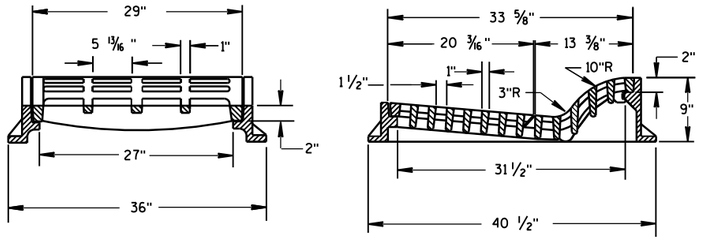
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

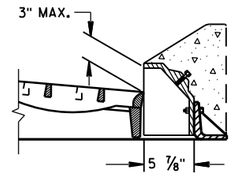
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

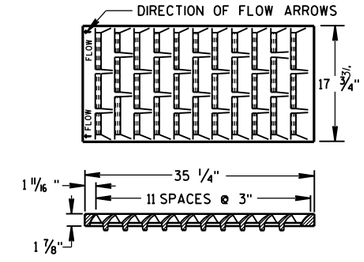
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

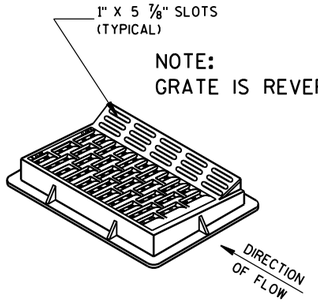
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

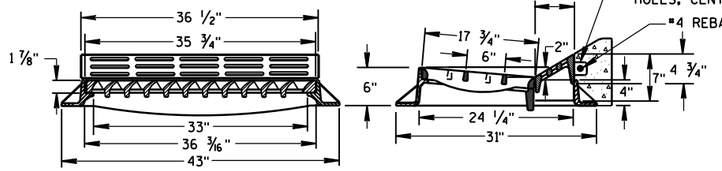
GENERAL NOTES

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

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



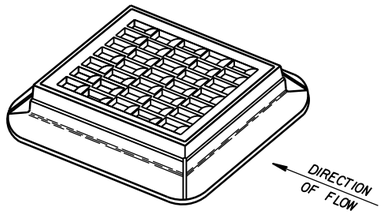


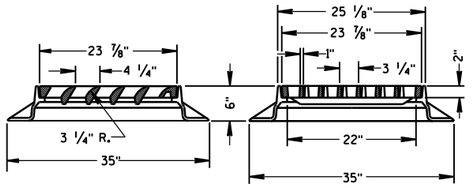


TYPE "HM"

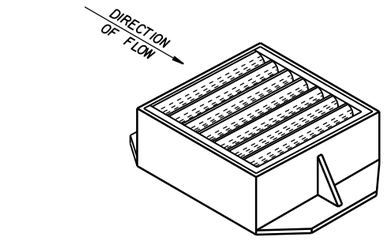
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

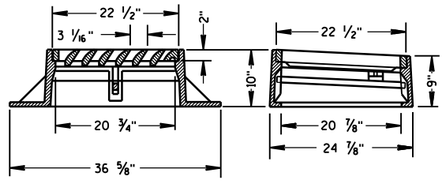
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



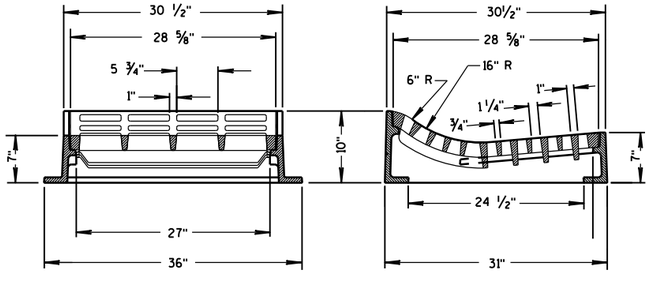


TYPE "S"



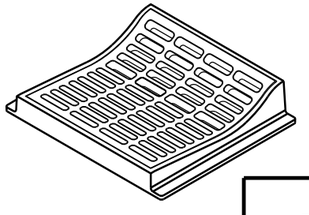


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

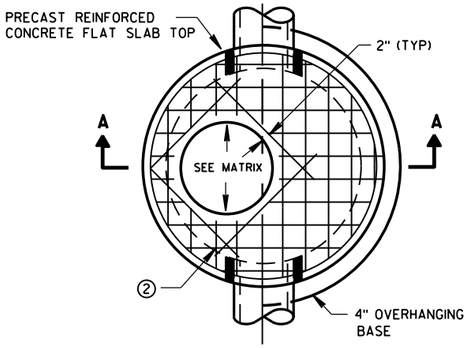
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

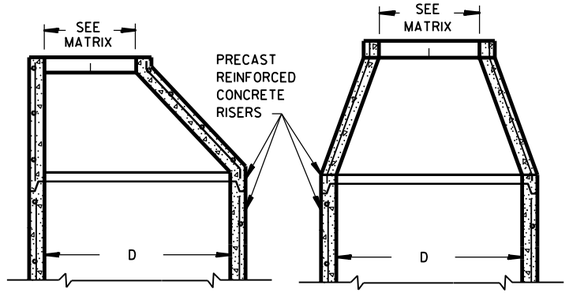
FHWA

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

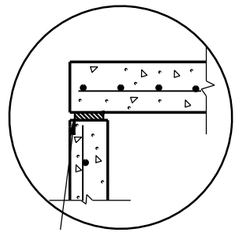


PLAN VIEW CIRCULAR OPENING

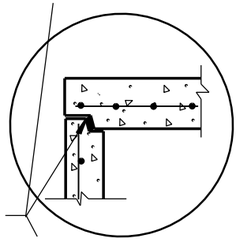


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

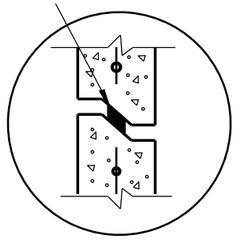


TOP WITH PLAIN END JOINT



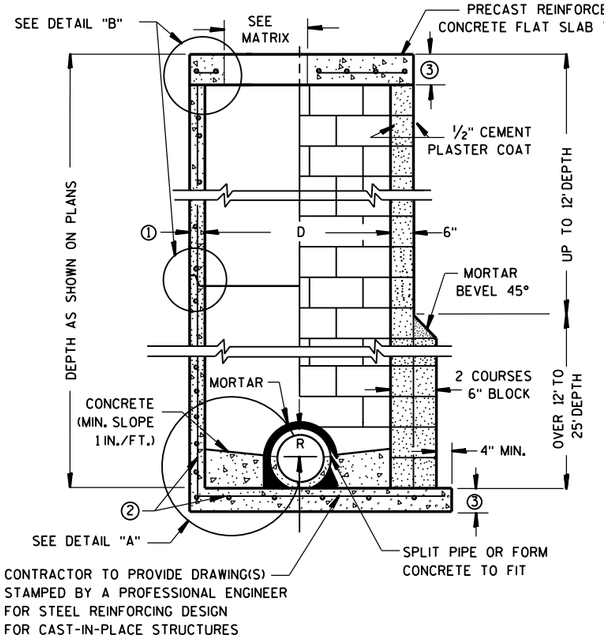
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



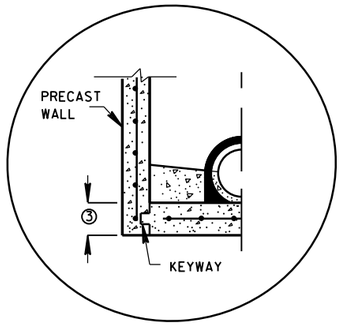
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

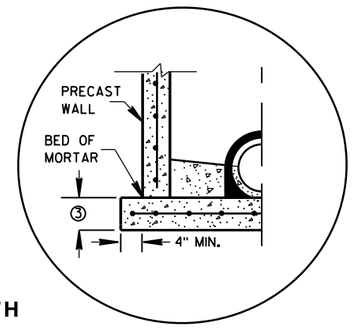


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

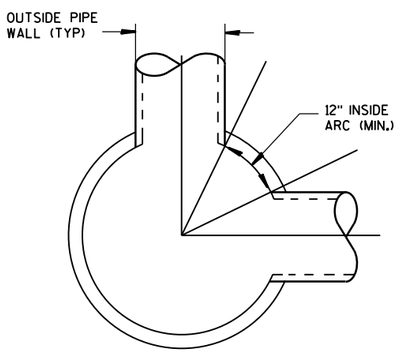


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

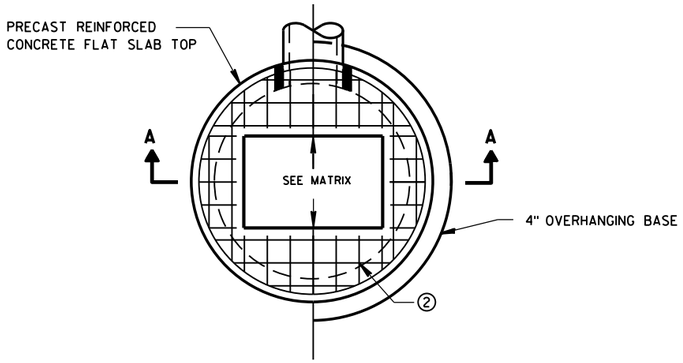
APPROVED

Sept., 2016
DATE

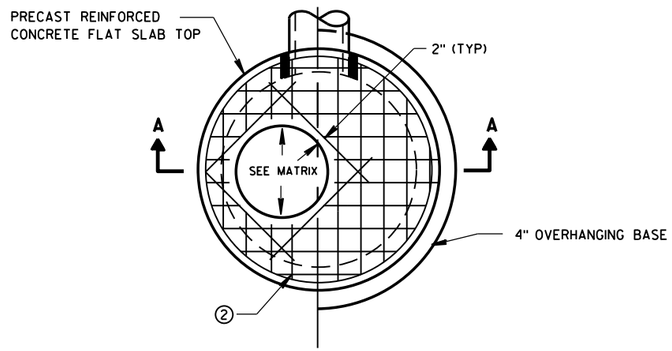
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

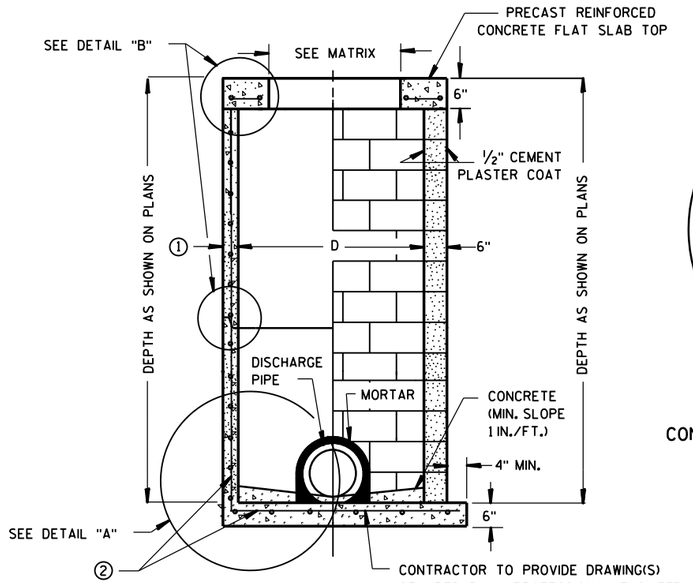
6
S.D.D. 8 B 9-2



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

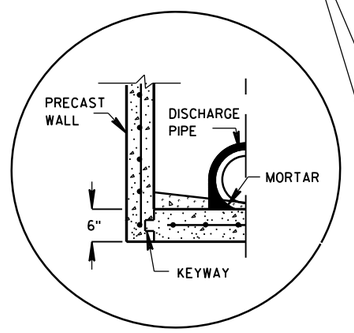


SECTION A-A

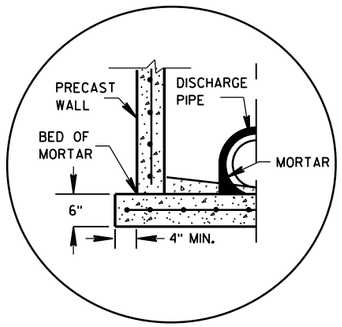
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

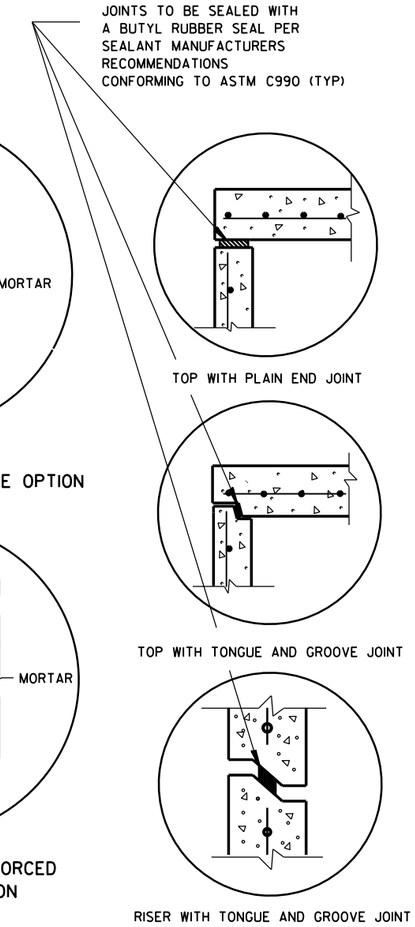


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

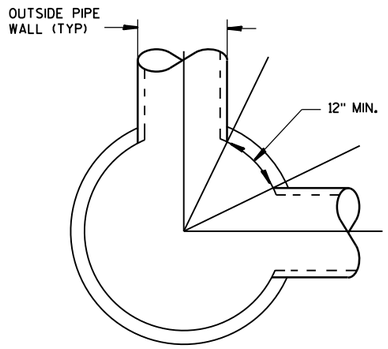
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

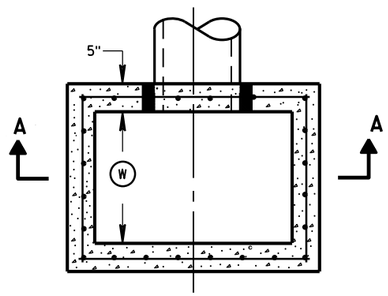
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

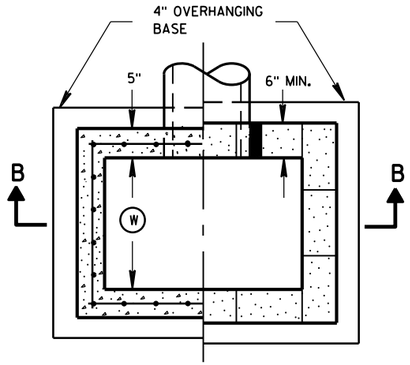
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept.. 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS | UNIT SUPERVI — ENT
FHWA

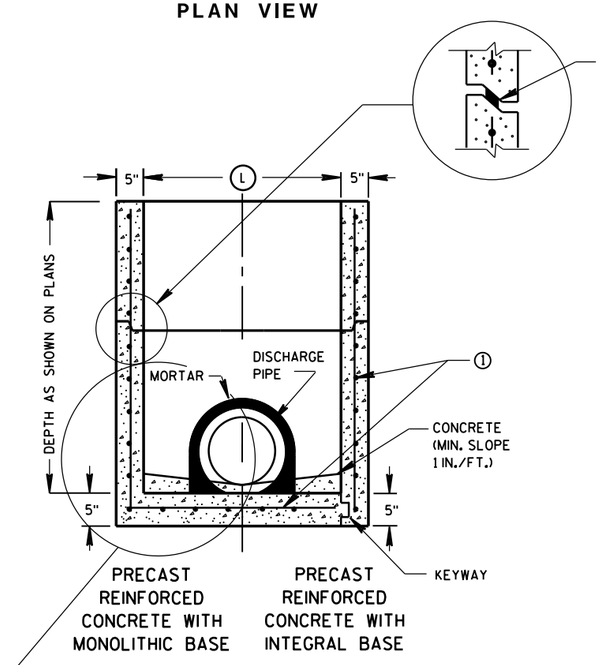
INLETS 3-FT AND 4-FT DIAMETER



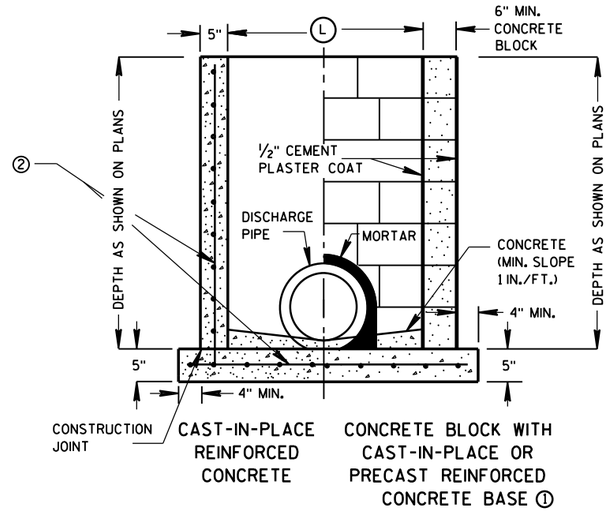
PLAN VIEW



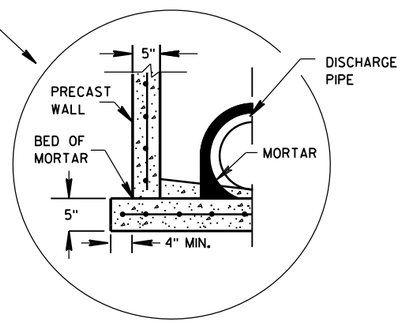
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

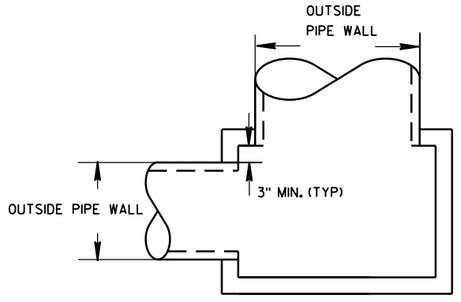
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



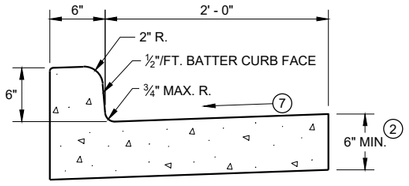
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

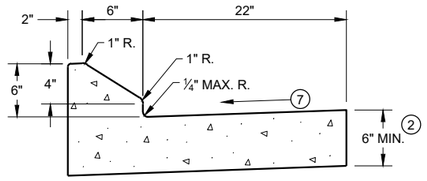
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

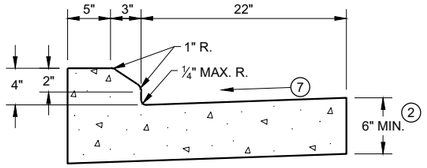
6
S.D.D. 8 C 7-2



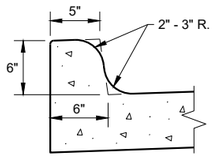
TYPES A[1] & D



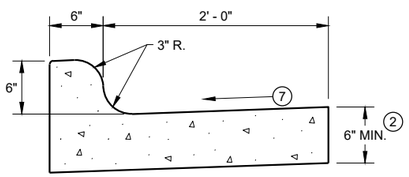
6" SLOPED CURB TYPES G[1] & J



4" SLOPED CURB TYPES G[1] & J

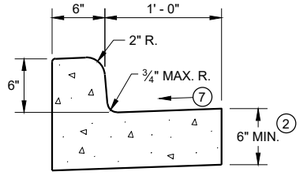


TYPES K[1] & L
(OPTIONAL CURB SHAPE)



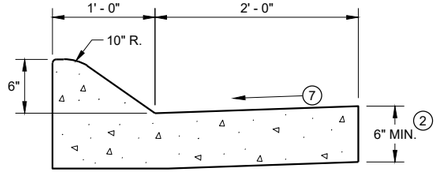
TYPES K[1] & L

CONCRETE CURB AND GUTTER 30"

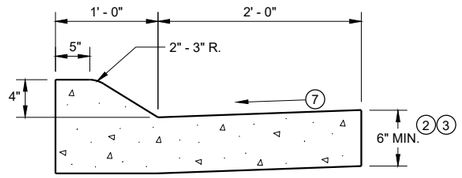


TYPES A[1] & D

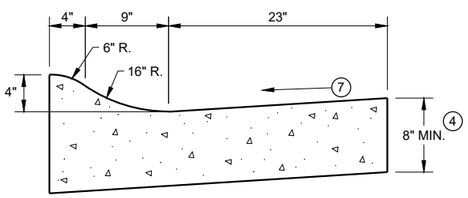
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A[1] & D



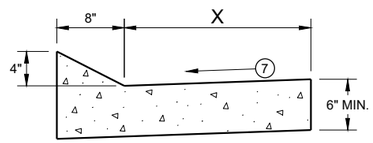
4" SLOPED CURB TYPES A[1] & D



4" SLOPED CURB TYPES R[1] & T[5]

CONCRETE CURB AND GUTTER 36"

TBT & TBTT	X
30"	22"
36"	28"

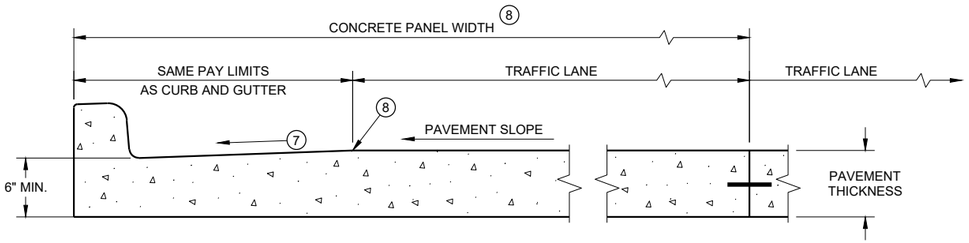


TYPES TBT & TBTT[1]

CONCRETE CURB AND GUTTER

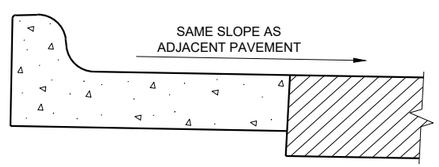
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER[6]
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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 AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

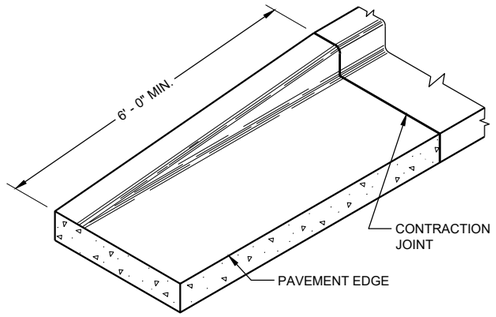
1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
3. USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
4. 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.
5. THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
6. WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
7. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
8. INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

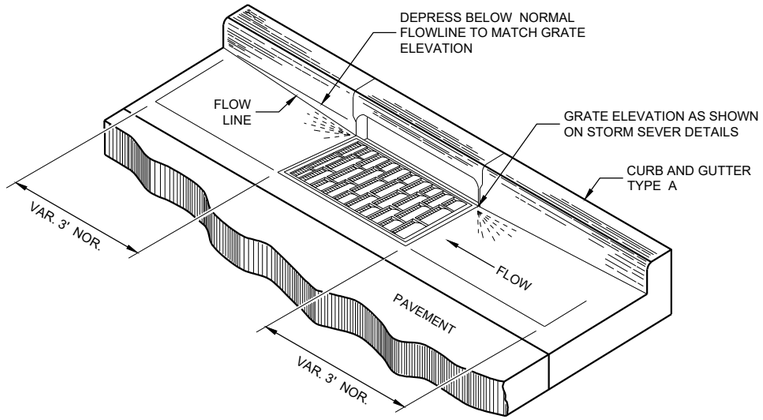
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 21a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

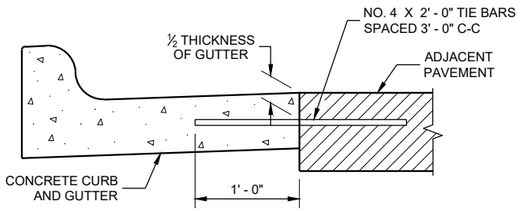
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

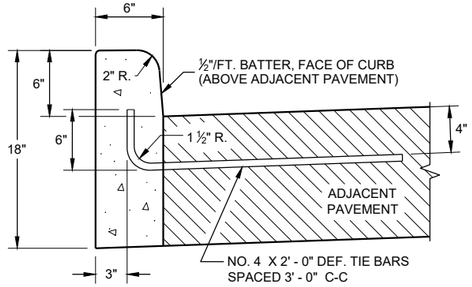
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

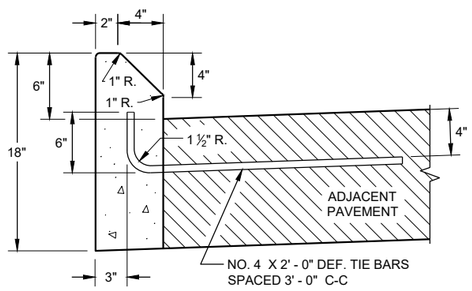
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

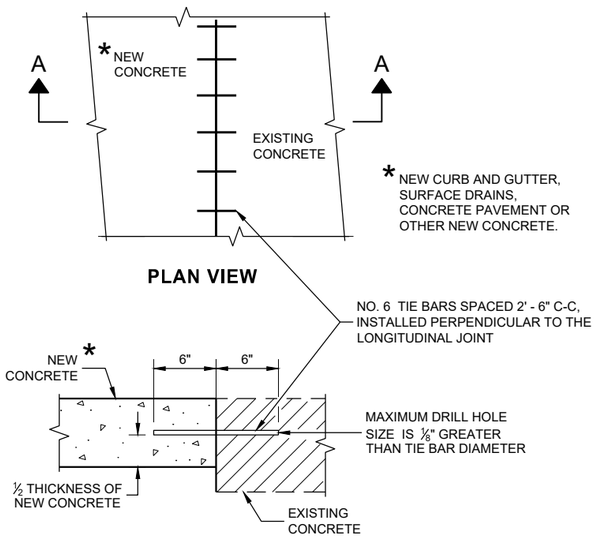


TYPES A (1) & D



TYPES G (1) & J

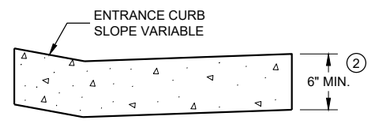
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

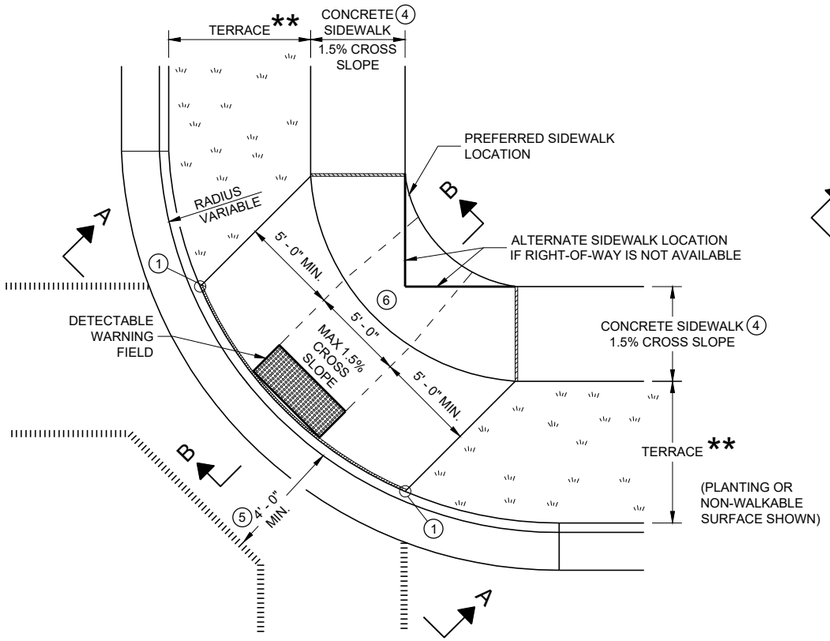
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

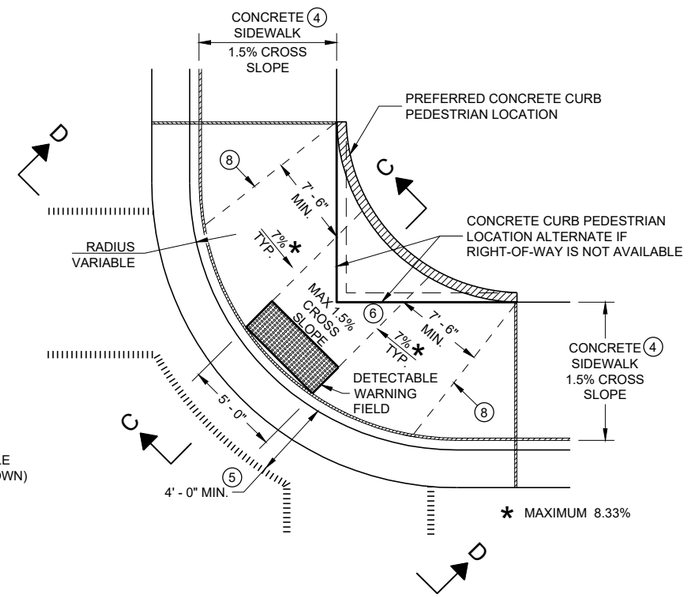
SDD08D01 - 21b



PLAN VIEW

CURB RAMP TYPE 1

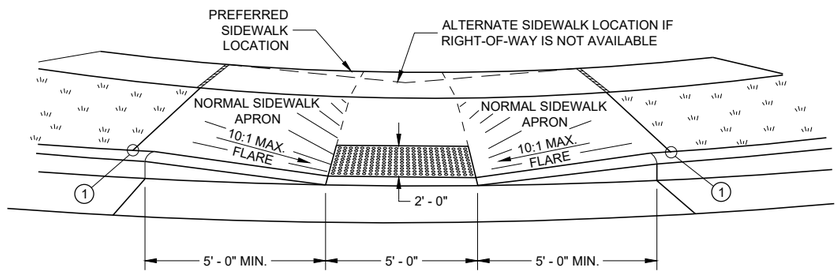
(CENTER OF CORNER RADIUS)



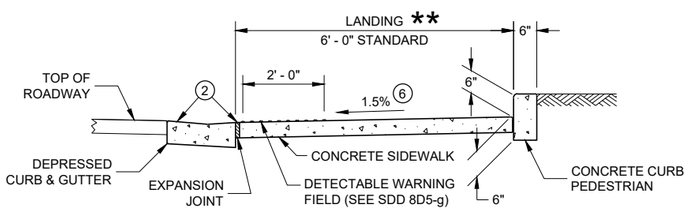
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

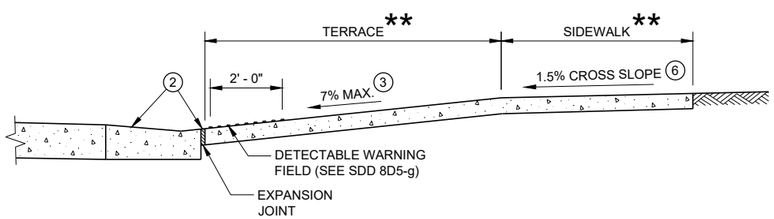


VIEW A - A FOR TYPE 1

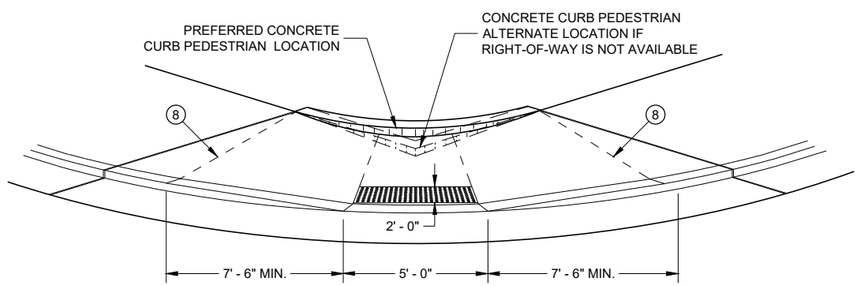


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

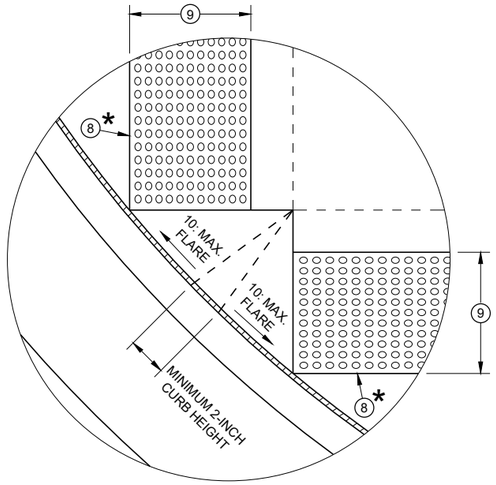
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

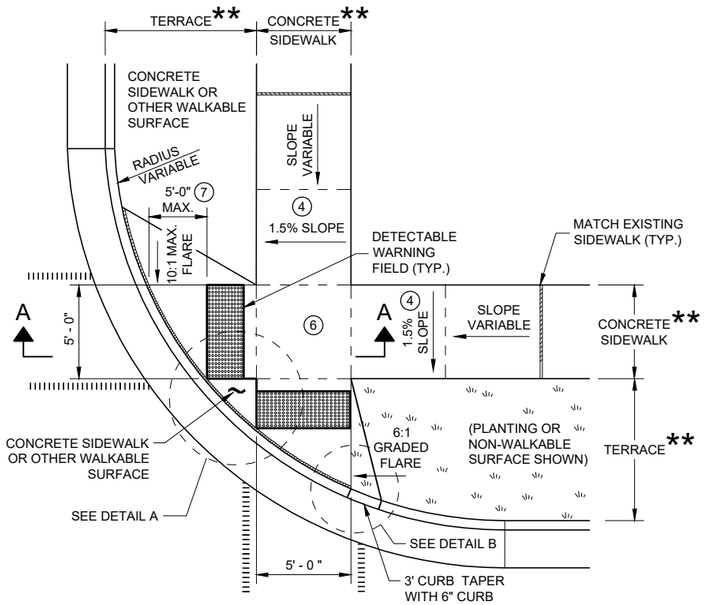
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

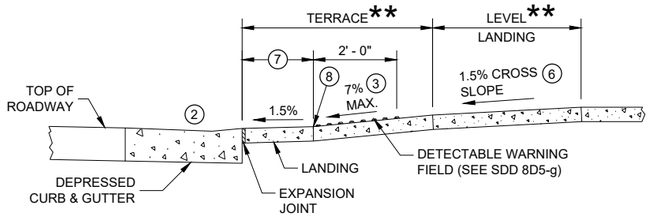
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

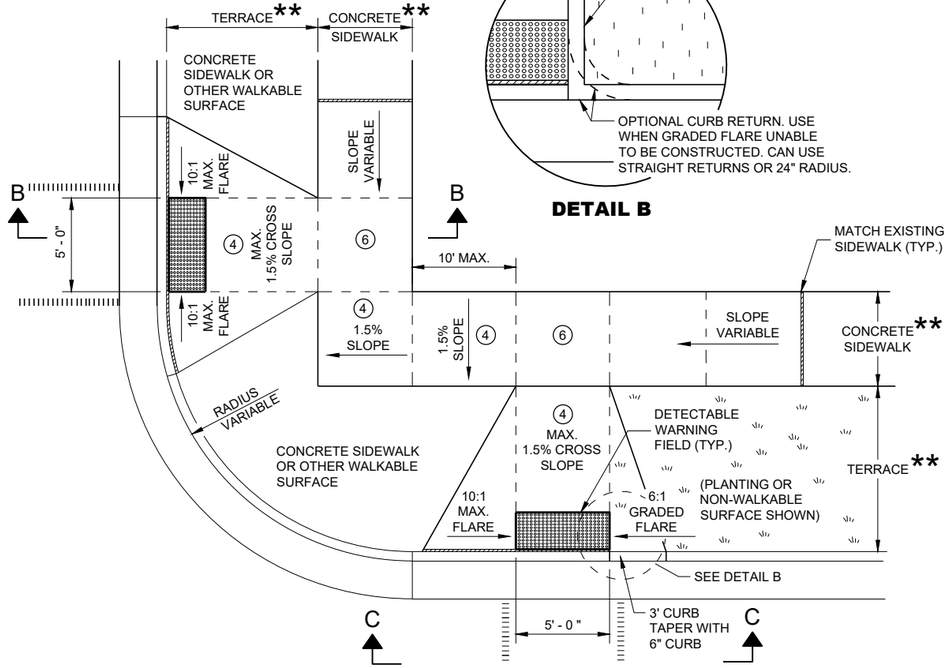
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



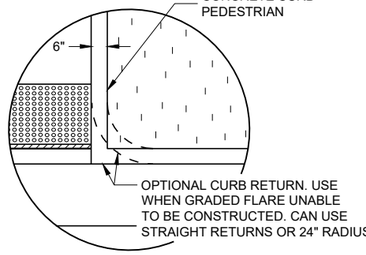
SECTION A - A FOR TYPE 2

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

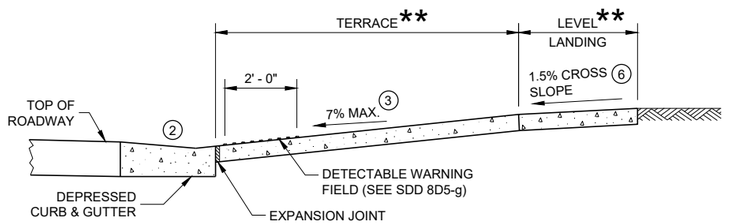
** WIDTH SHOWN ELSEWHERE IN THE PLANS



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



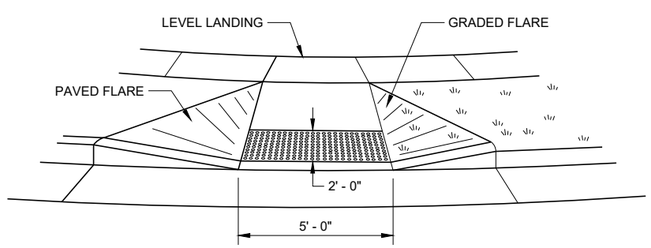
DETAIL B



SECTION B - B FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



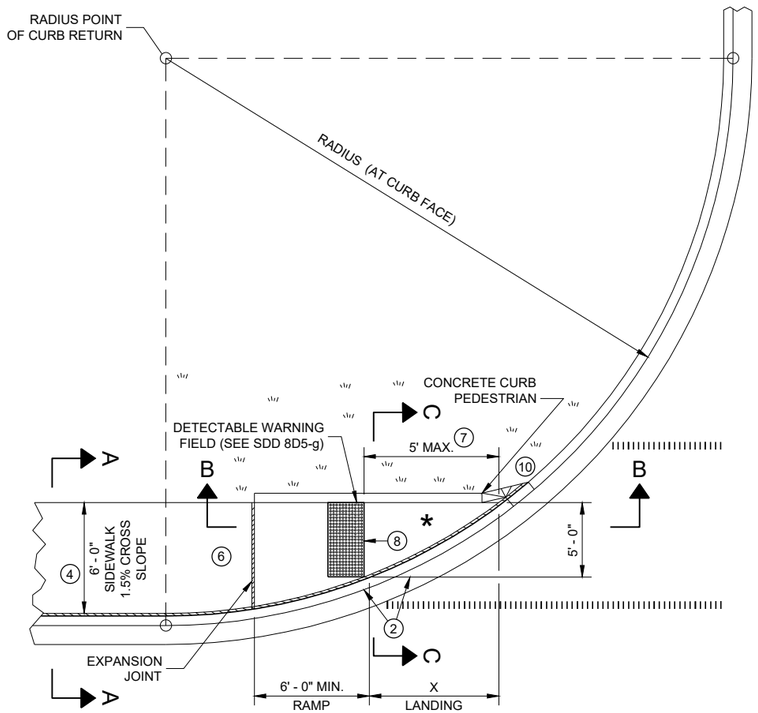
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

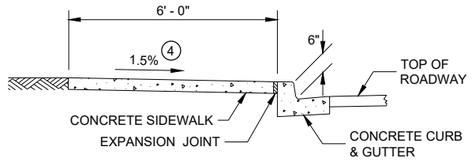


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

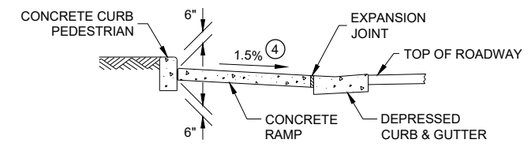
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

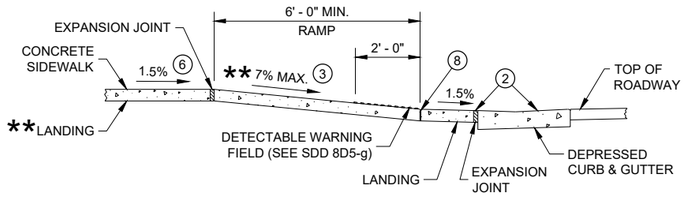
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



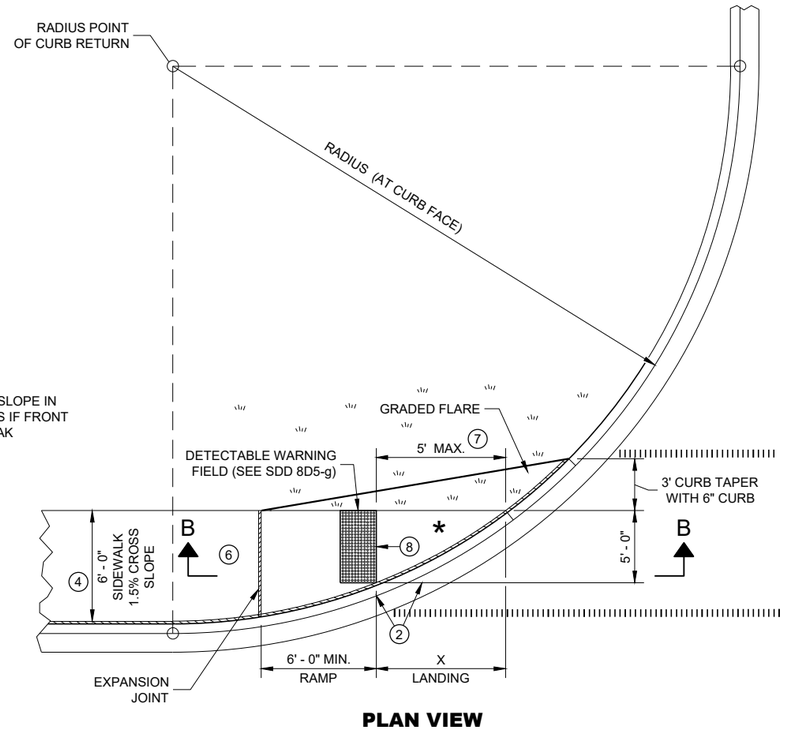
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

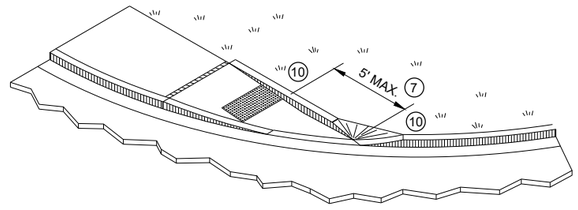
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

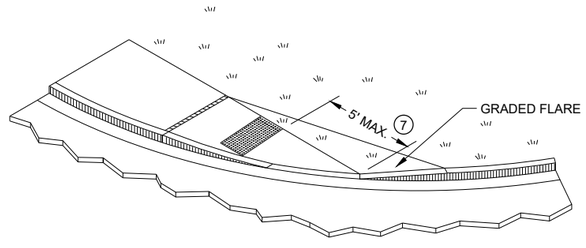


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



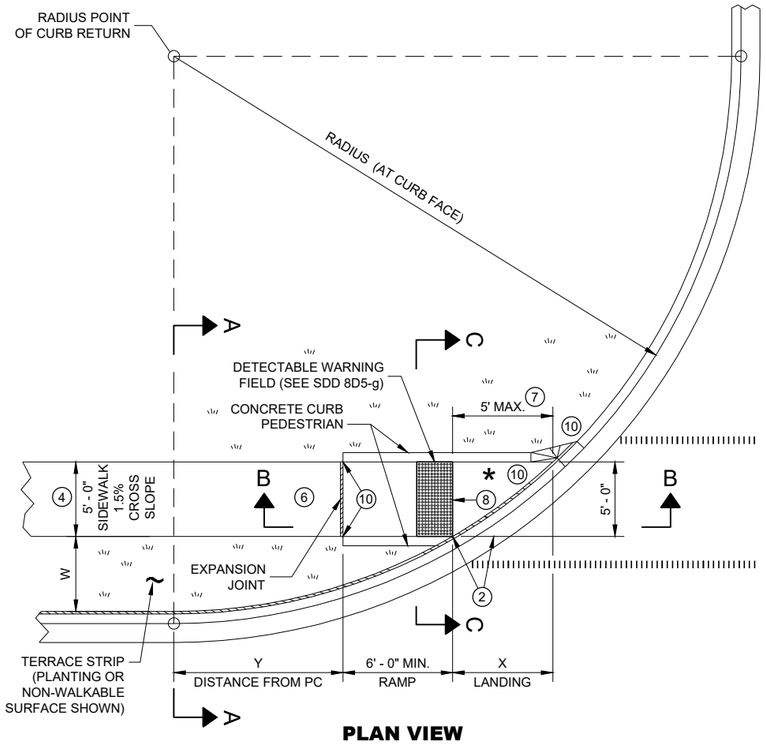
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

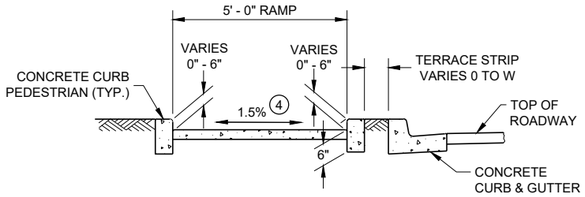


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

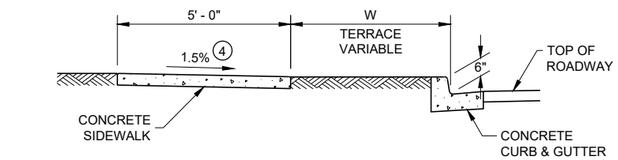
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

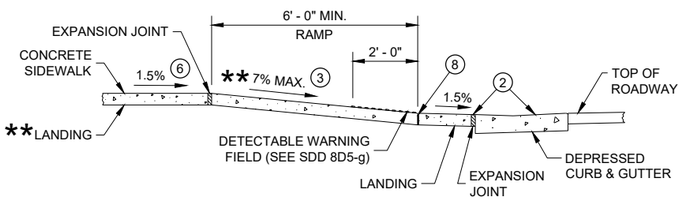
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



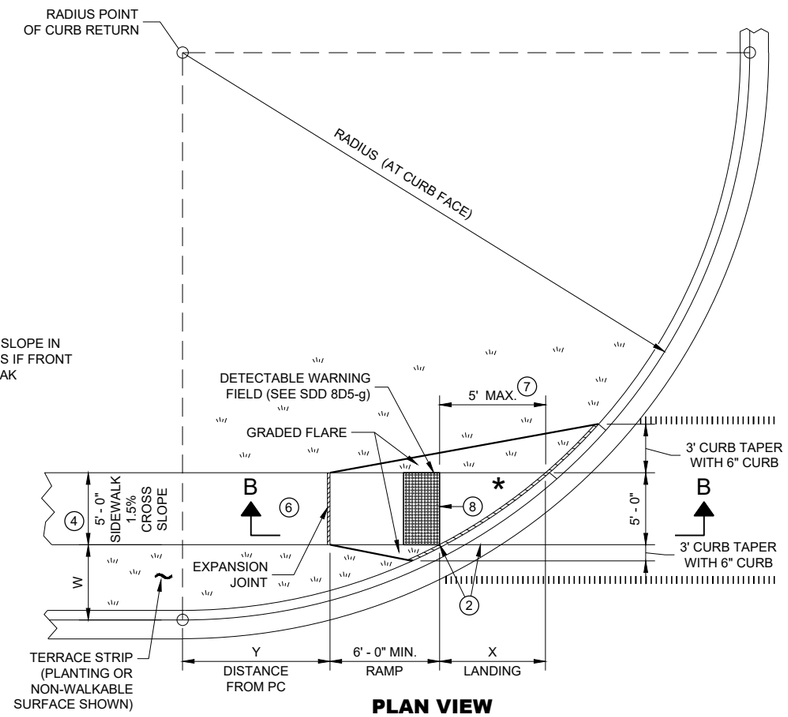
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

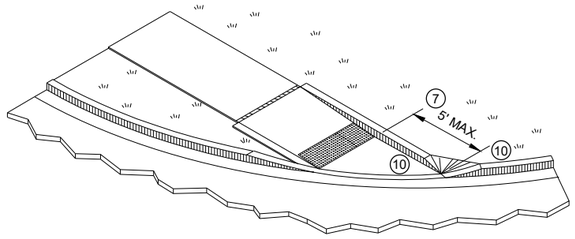
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

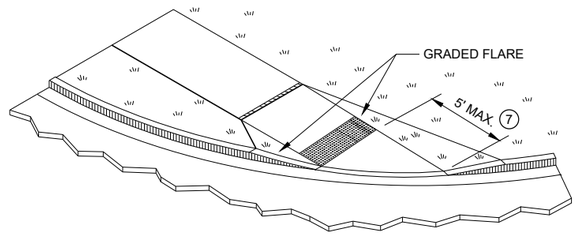


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



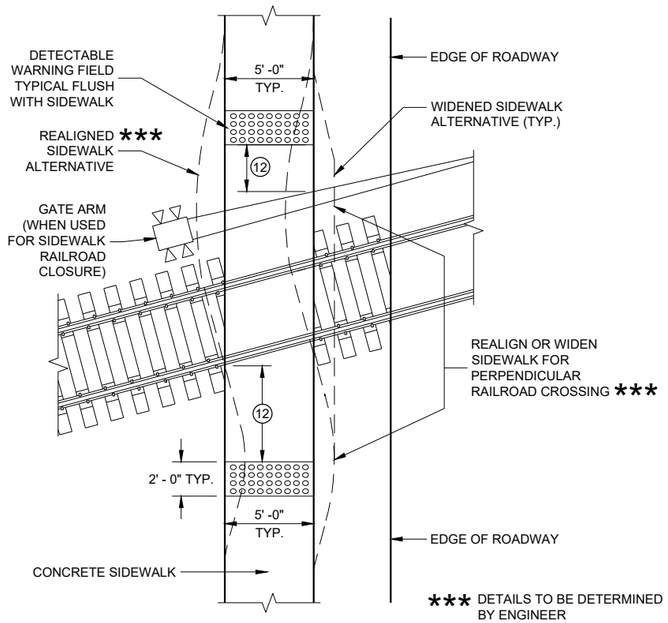
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

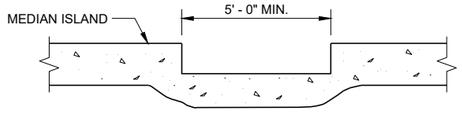
6

SDD 08D05 - 20d

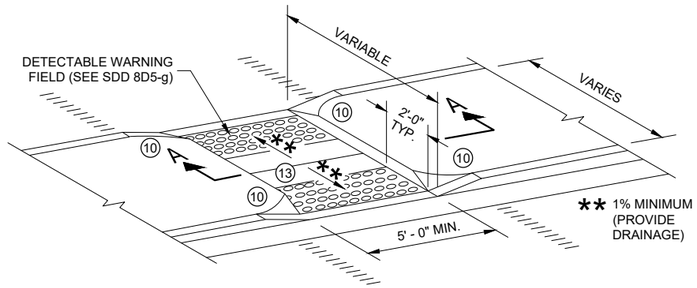


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

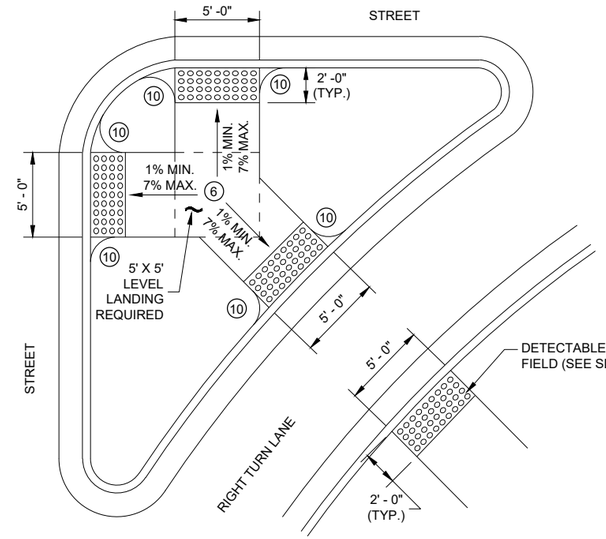
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

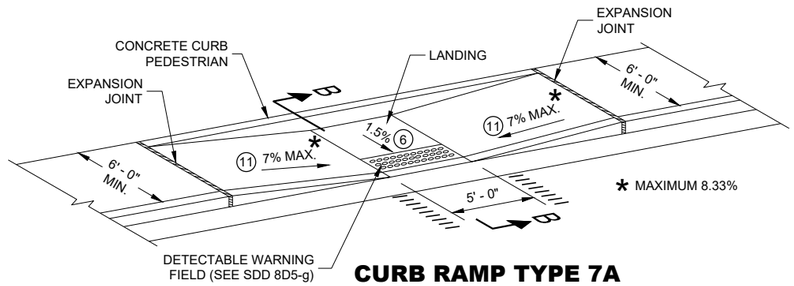
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

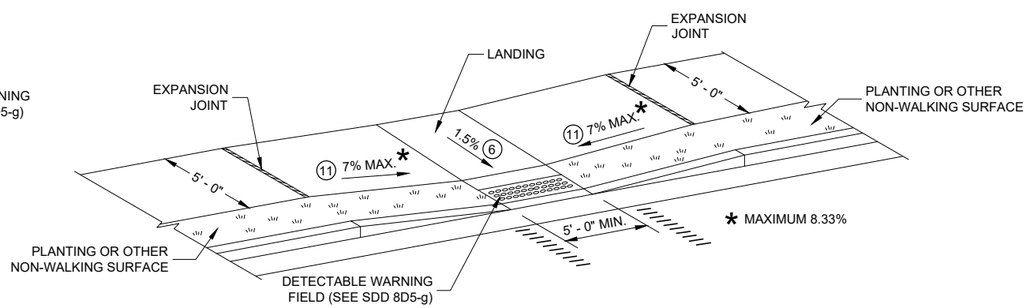
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

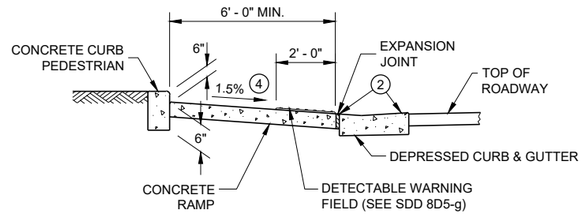
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

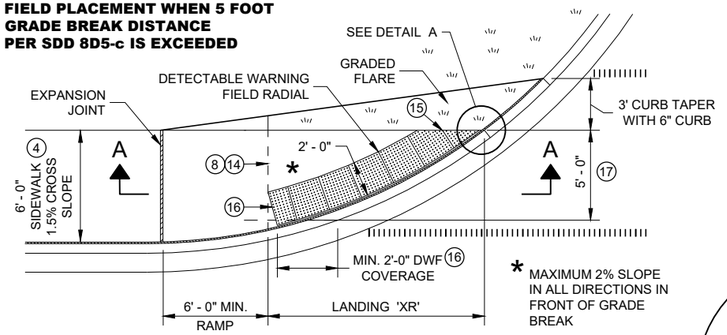
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

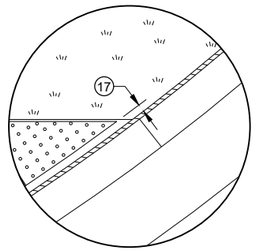
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



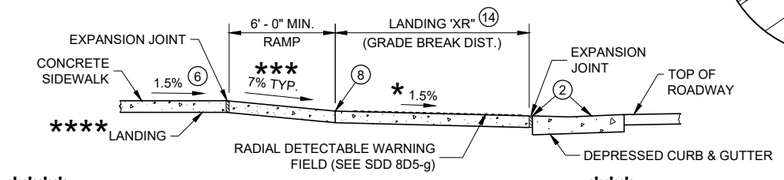
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

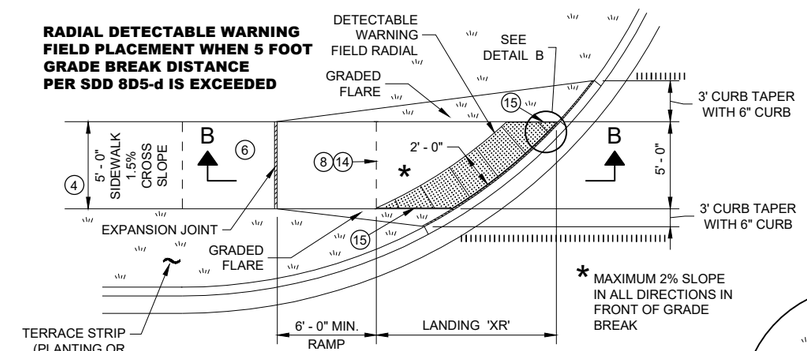
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

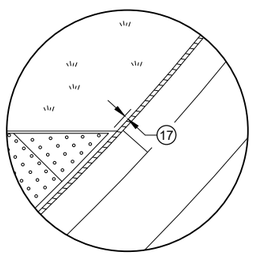
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



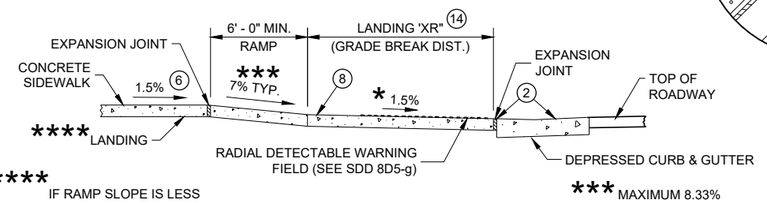
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

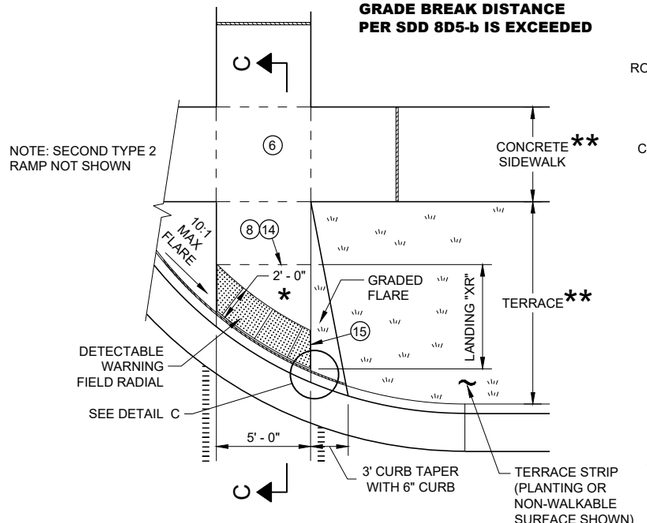


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

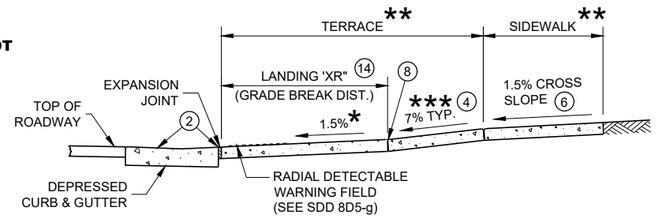


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

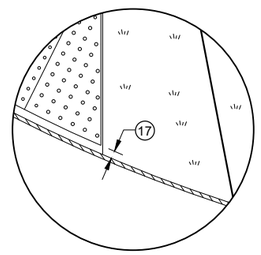


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

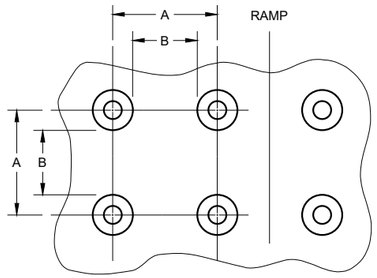
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20f

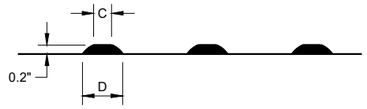
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

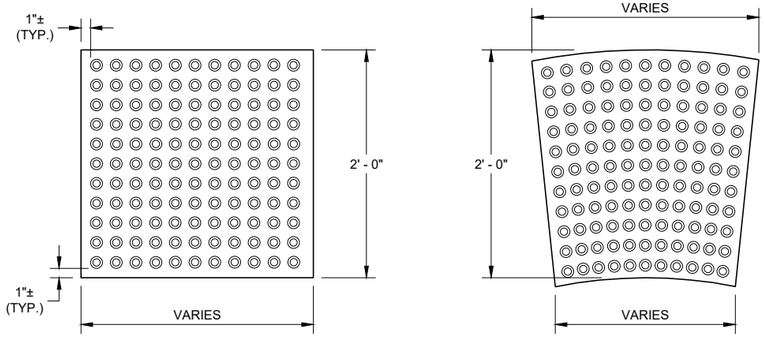


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

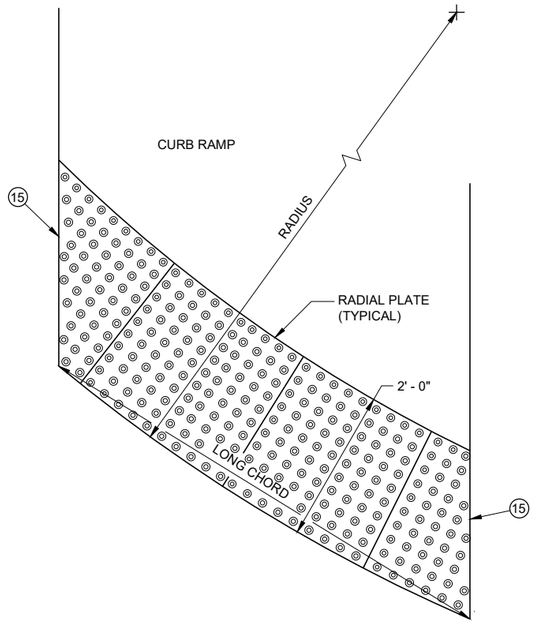
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

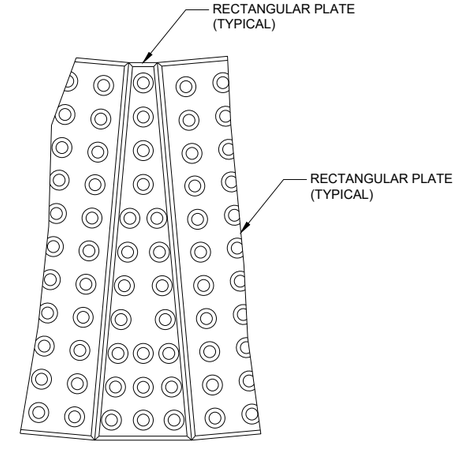
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

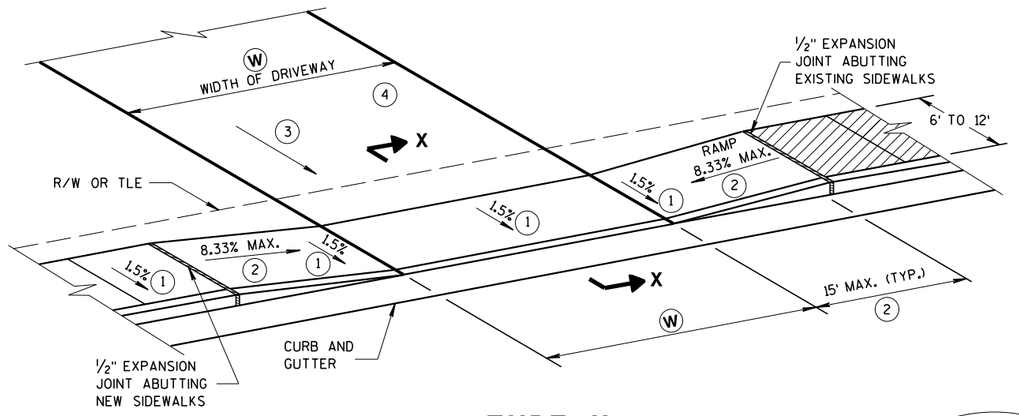
FHWA

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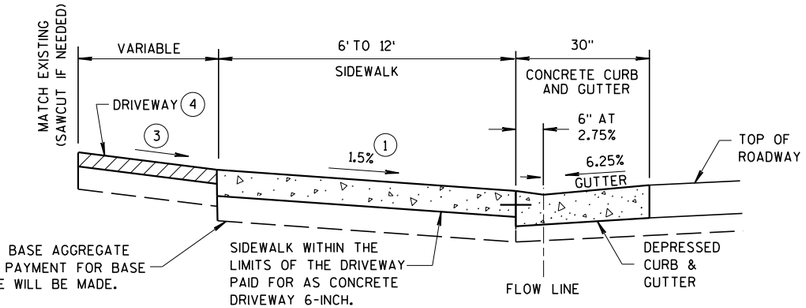
SDD 08D05 - 20g

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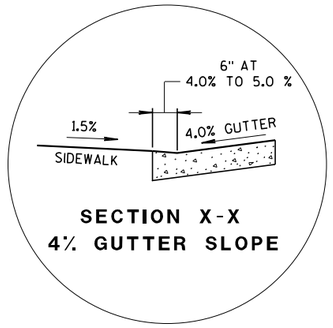
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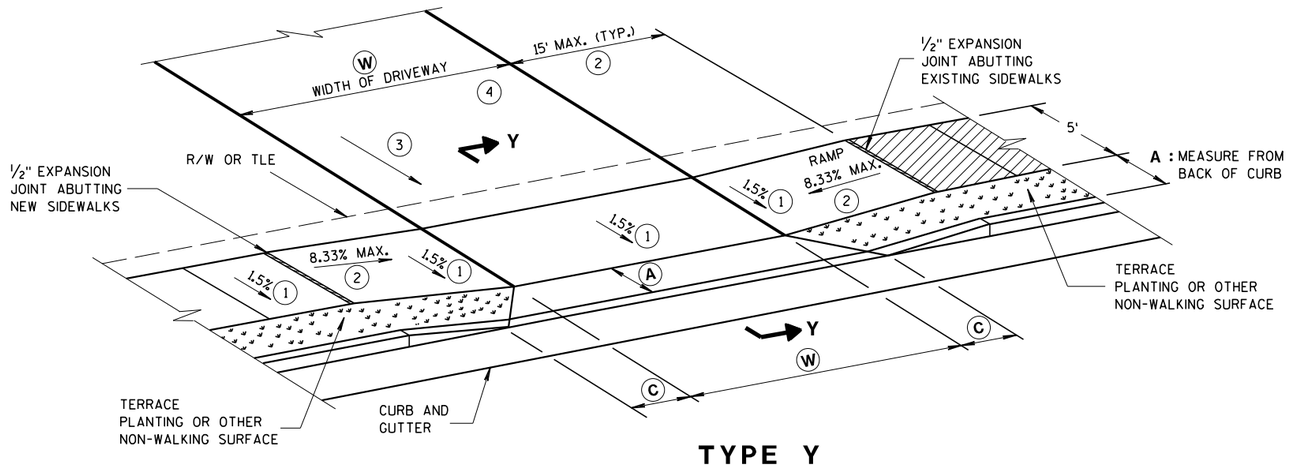
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W
12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

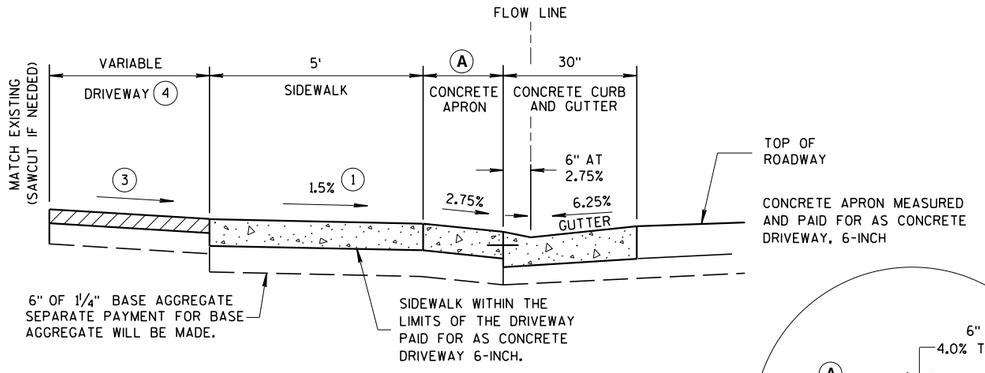
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

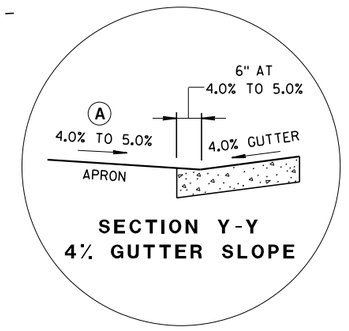
(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y



SECTION Y-Y
4% GUTTER SLOPE

DRIVEWAY DETAIL
WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

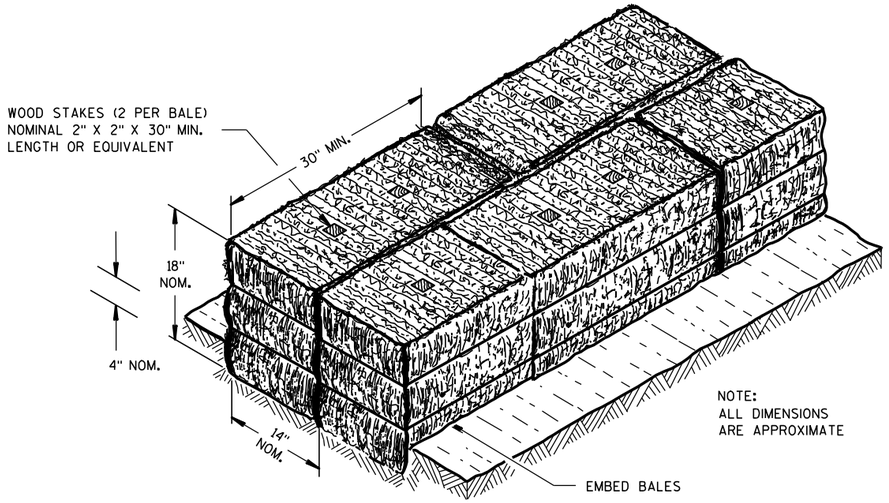
DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

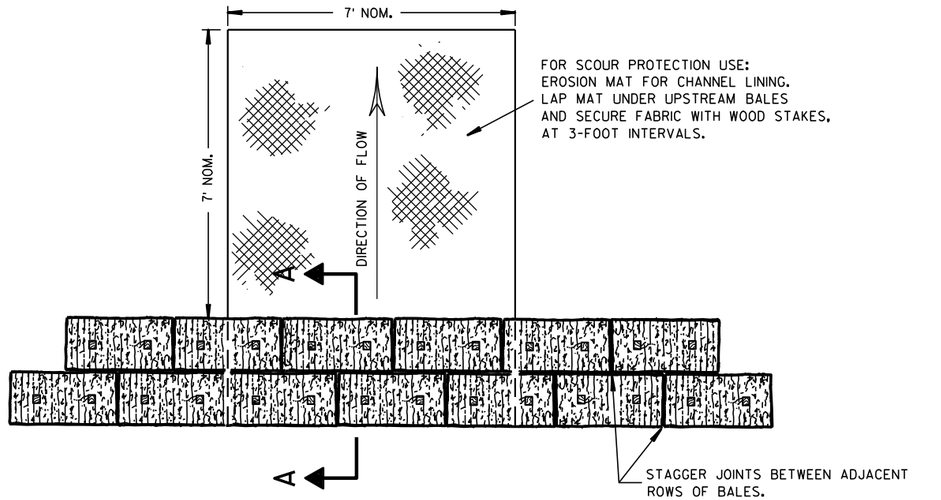
APPROVED
March 2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

S.D.D. 8 D 18-2

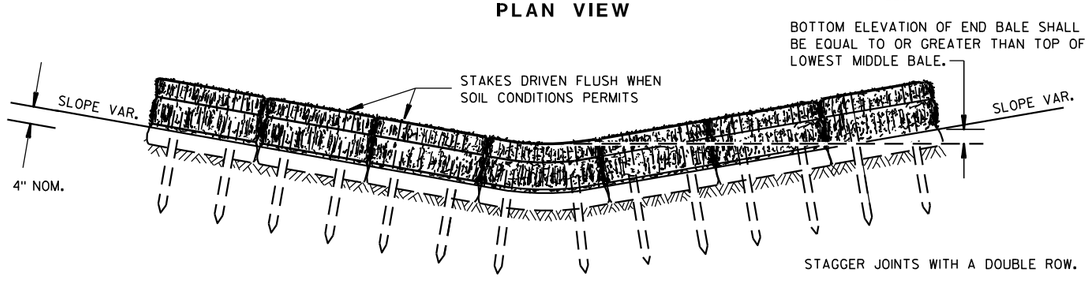
S.D.D. 8 D 18-2



SECTION A-A



PLAN VIEW



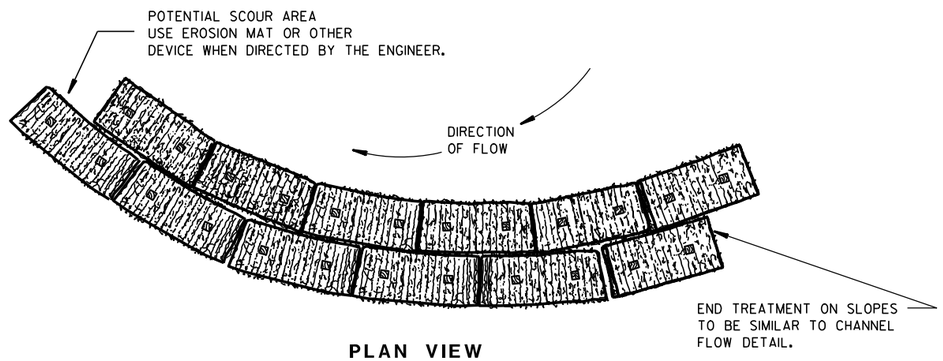
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

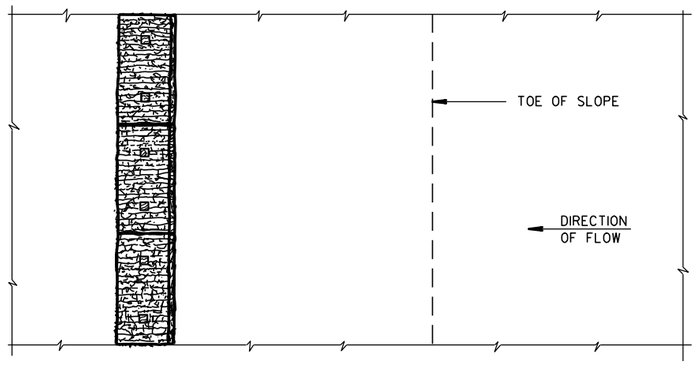
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

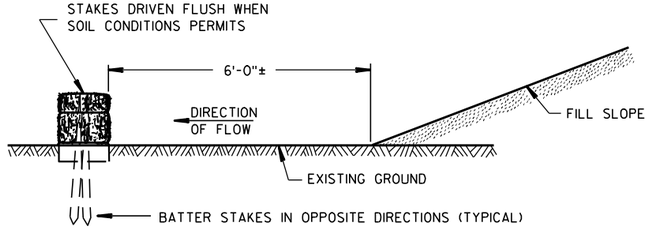


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

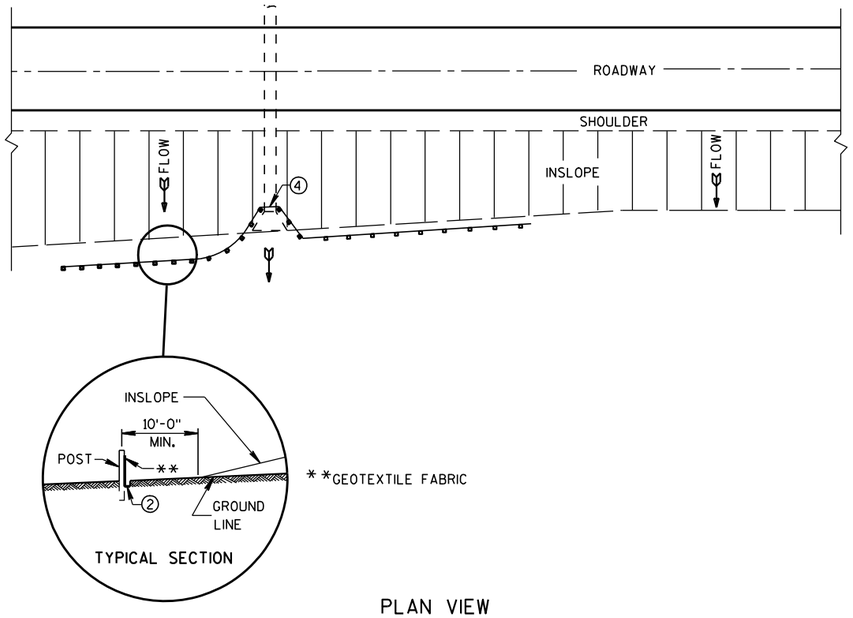
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

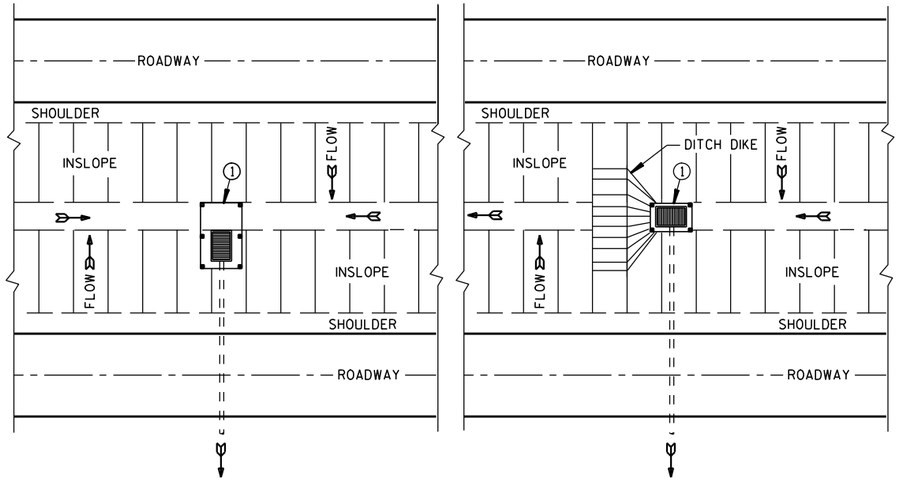
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

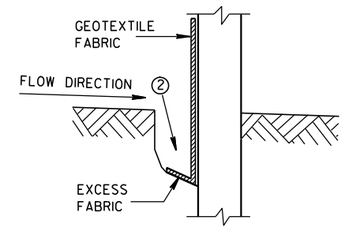
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

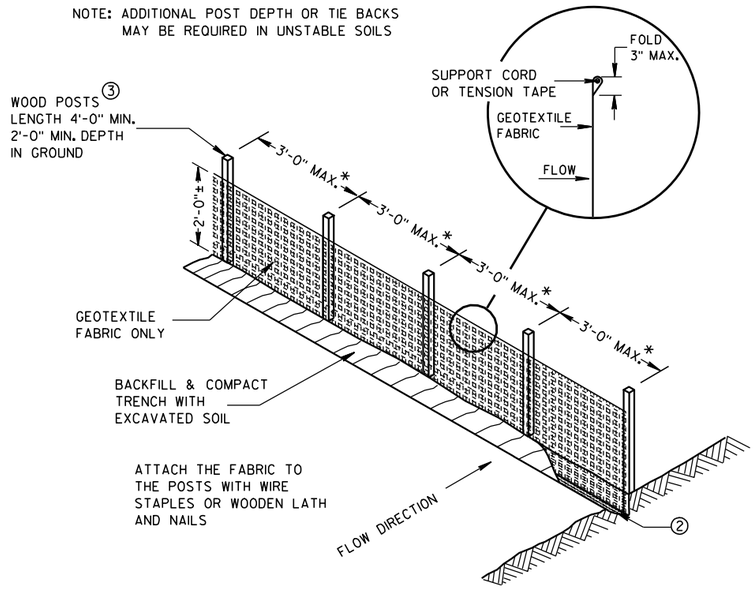
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

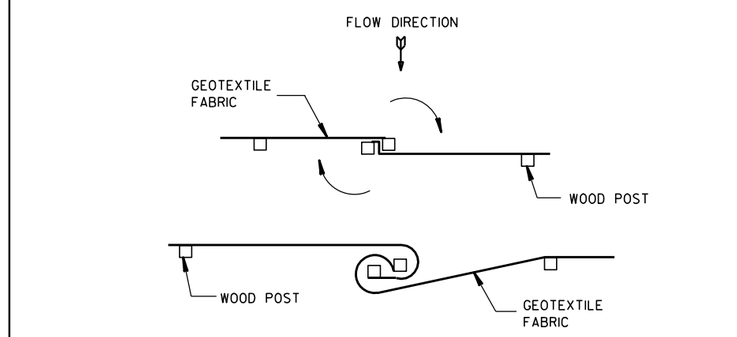


TRENCH DETAIL

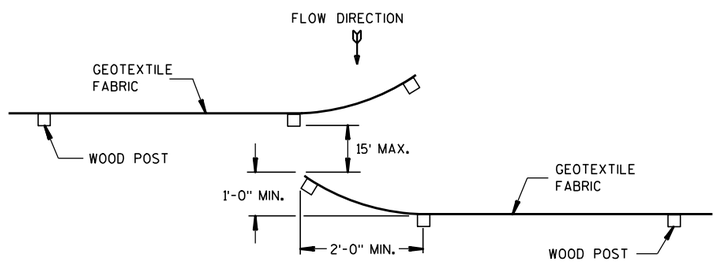


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

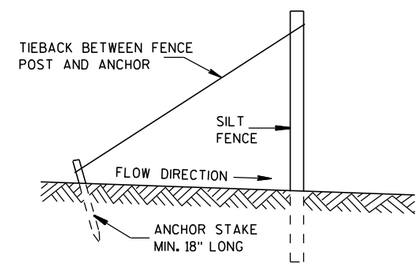


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

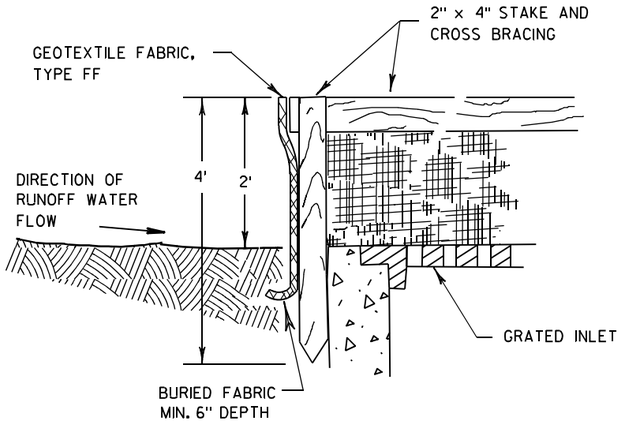
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

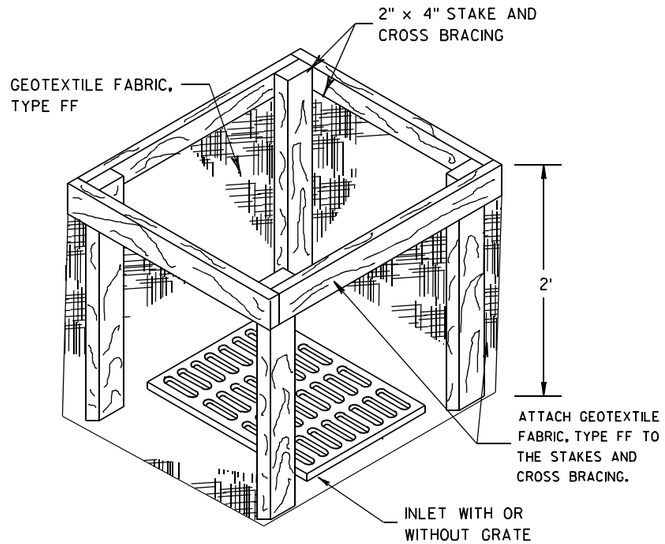
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S.D.D. 8 E 9-6

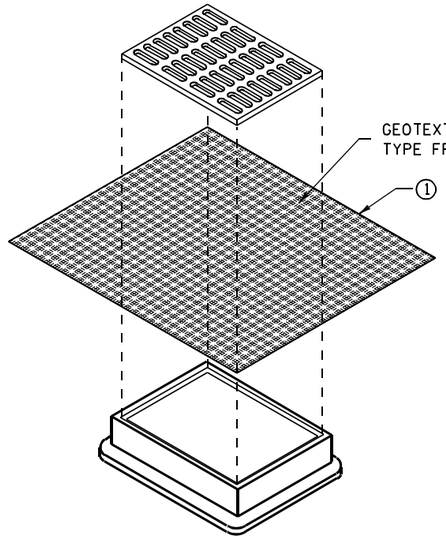
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S.D.D. 8 E 9-6



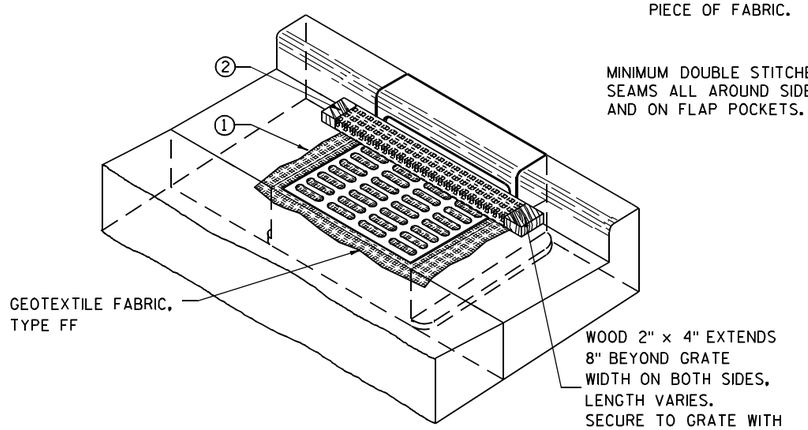


INLET PROTECTION, TYPE A

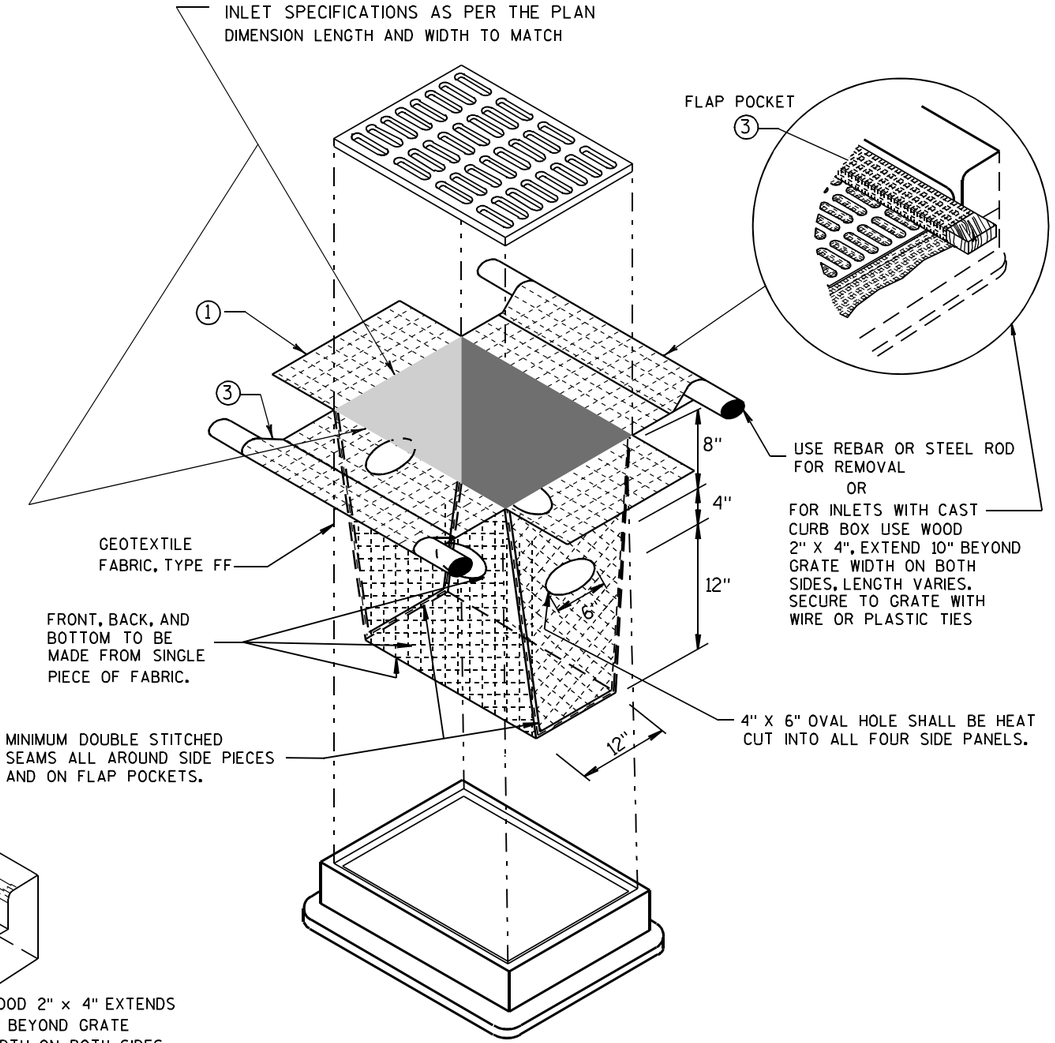


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

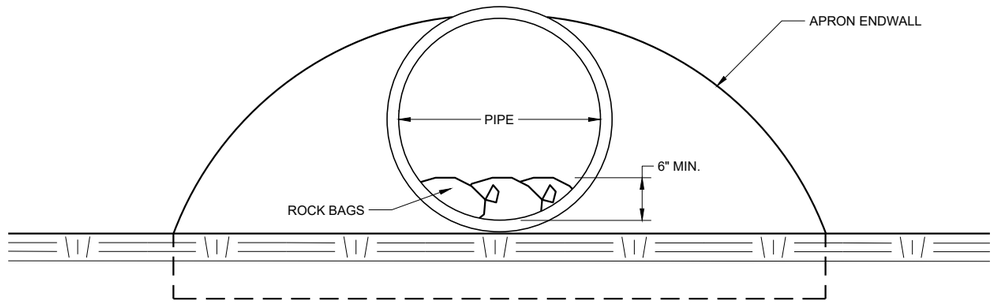
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

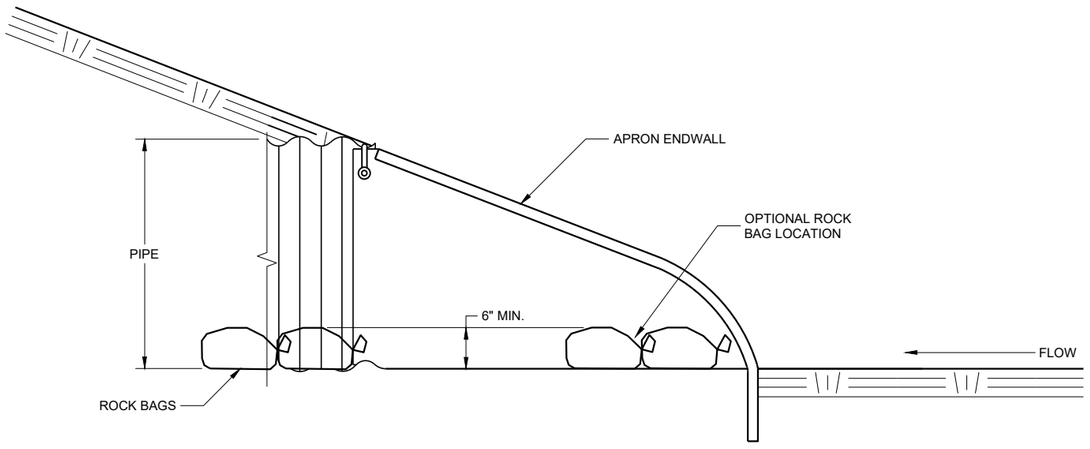
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Daniel Schave
EROSION CONTROL ENGI
FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

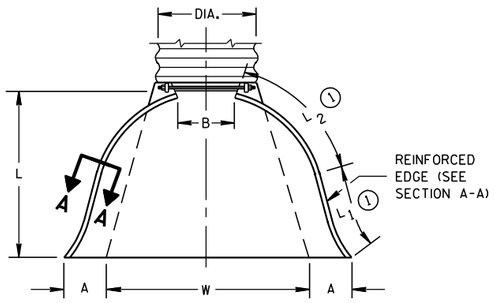
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

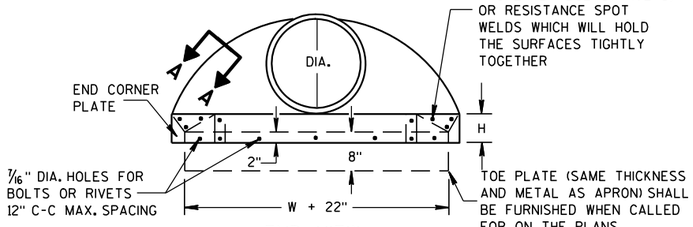
REINFORCED CONCRETE APRON ENDWALLS

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

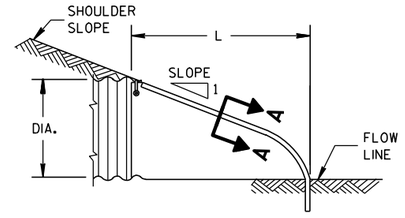
*MINIMUM
**MAXIMUM



PLAN VIEW

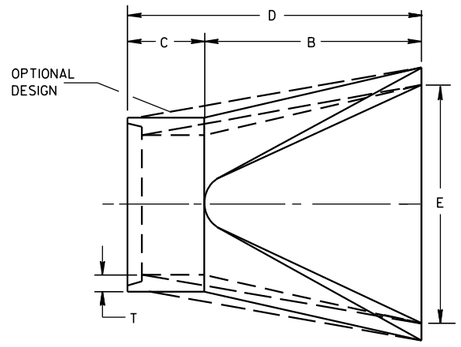


END VIEW

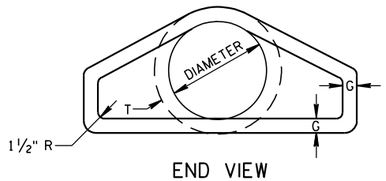


SIDE ELEVATION

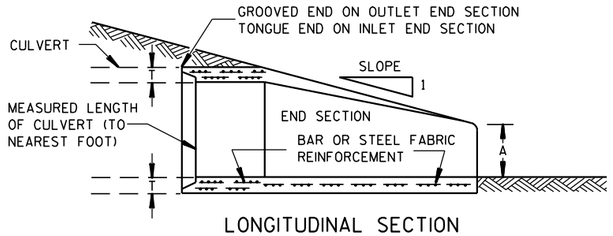
METAL ENDWALLS



PLAN

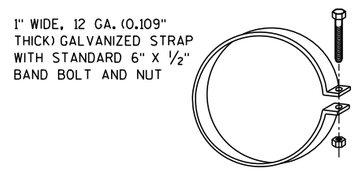


END VIEW



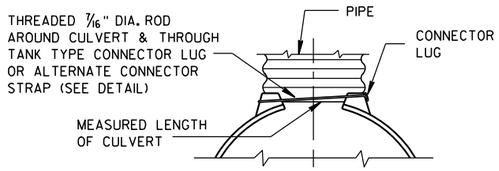
LONGITUDINAL SECTION

CONCRETE ENDWALLS

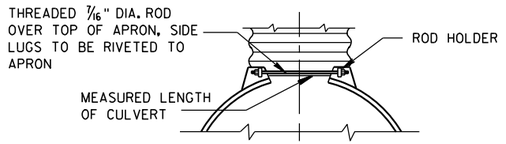


ALTERNATE FOR TYPE 1 CONNECTION

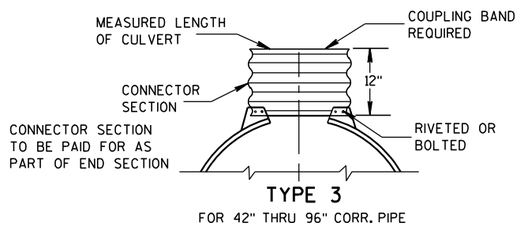
END SECTION CONNECTOR STRAP



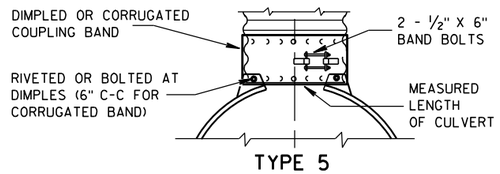
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

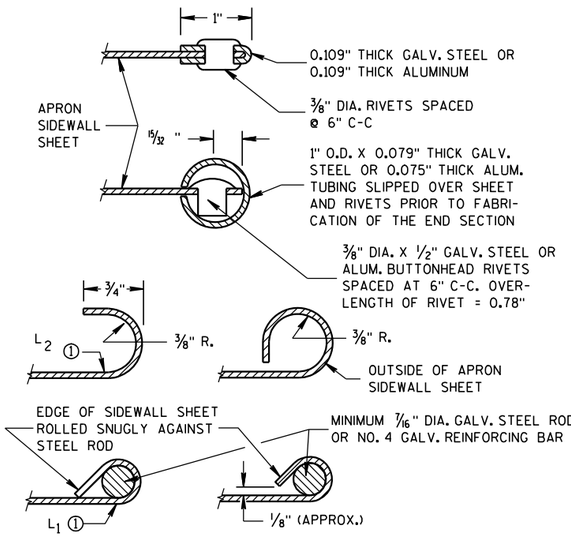
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

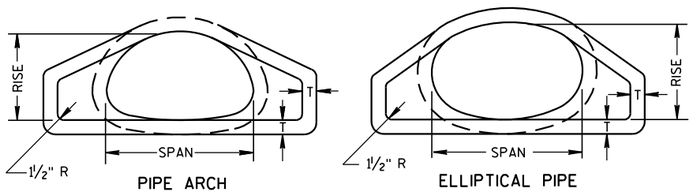
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

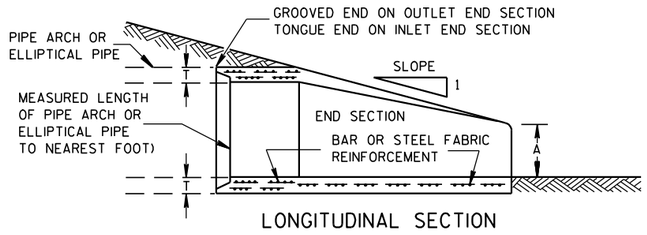
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

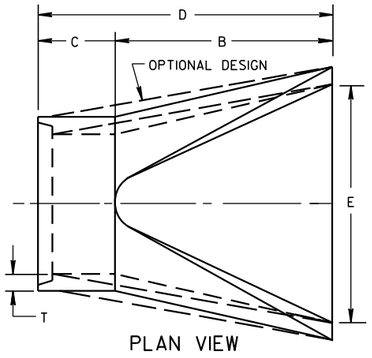
6
S.D.D. 8 F 1-11



END VIEW

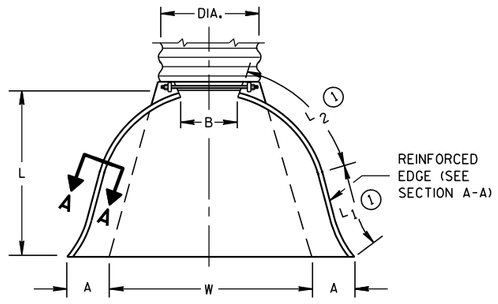


LONGITUDINAL SECTION

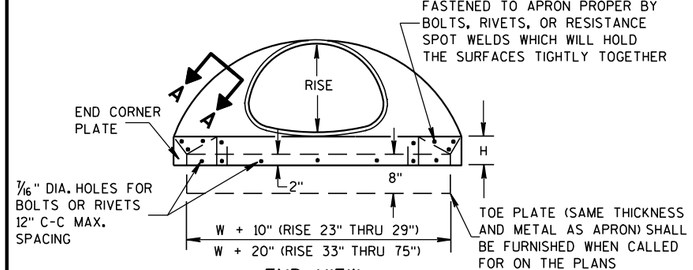


PLAN VIEW

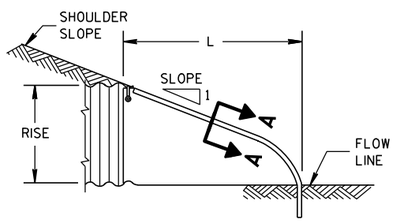
CONCRETE ENDWALLS



PLAN VIEW

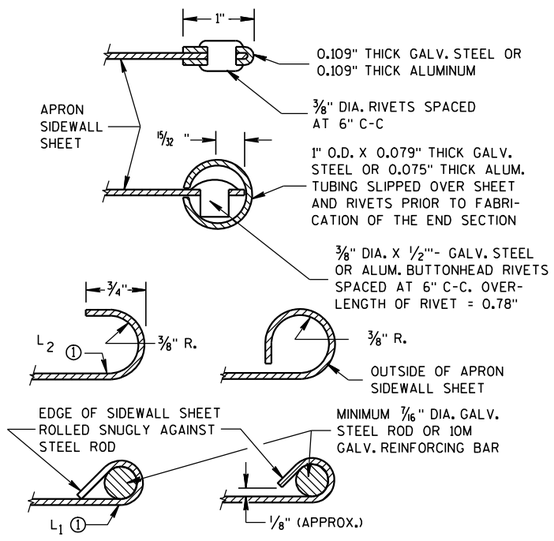


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

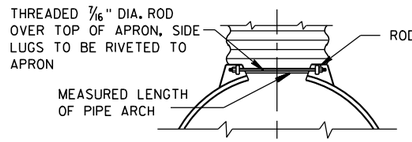
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

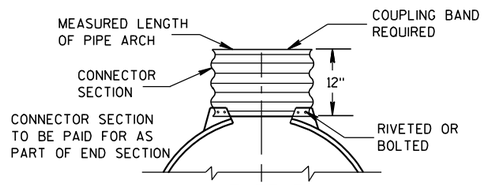
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



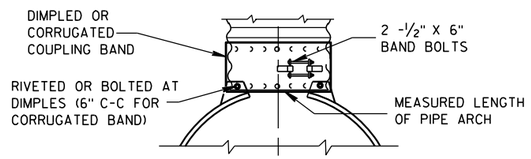
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

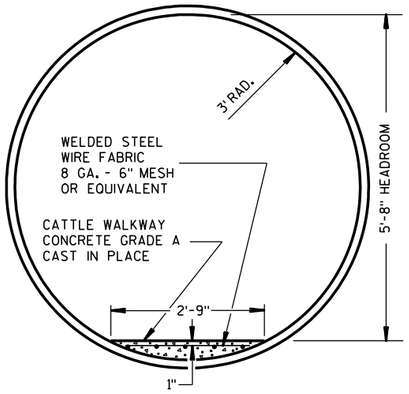
FHWA

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S.D.D. 8 F 2-1

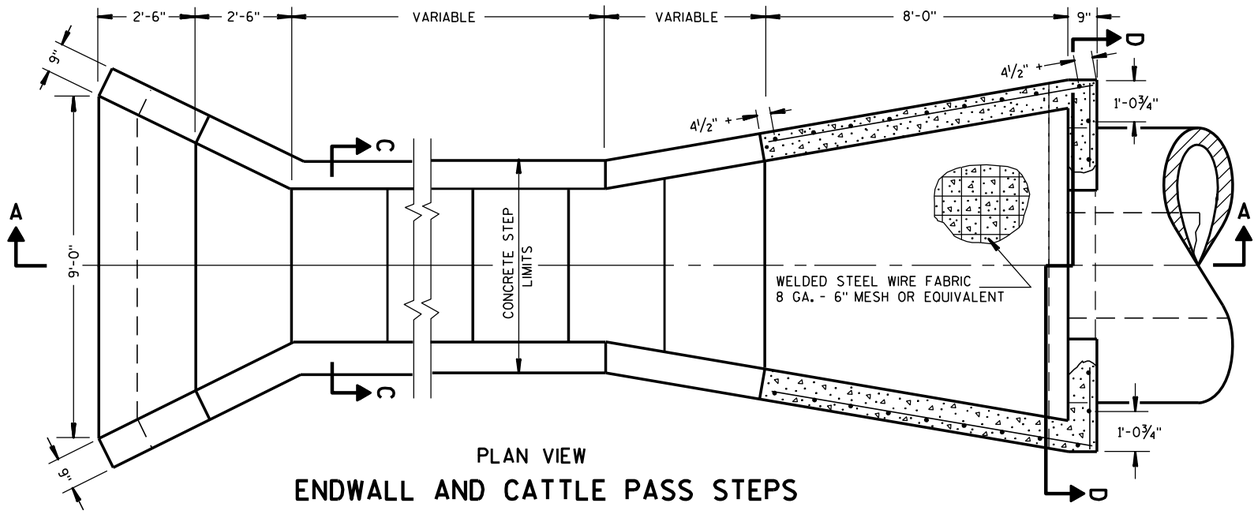
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S.D.D. 8 F 2-1



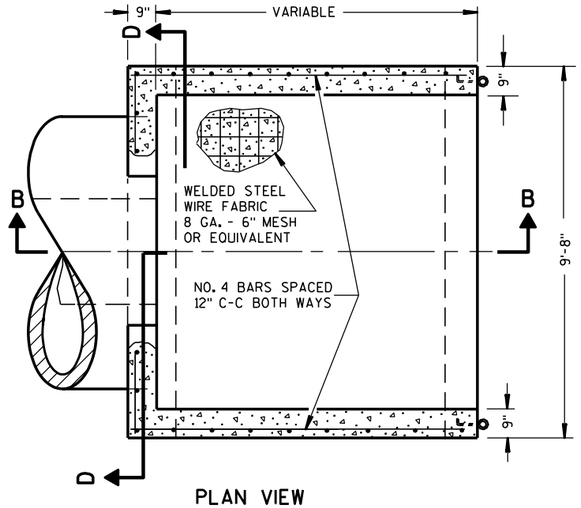
CROSS SECTION

CORRUGATED METAL PIPE CATTLE PASS



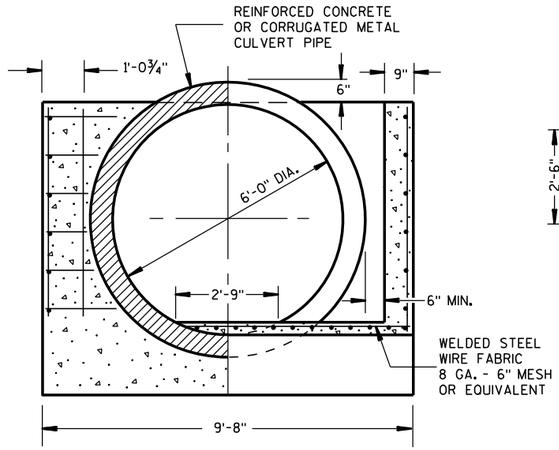
PLAN VIEW

ENDWALL AND CATTLE PASS STEPS

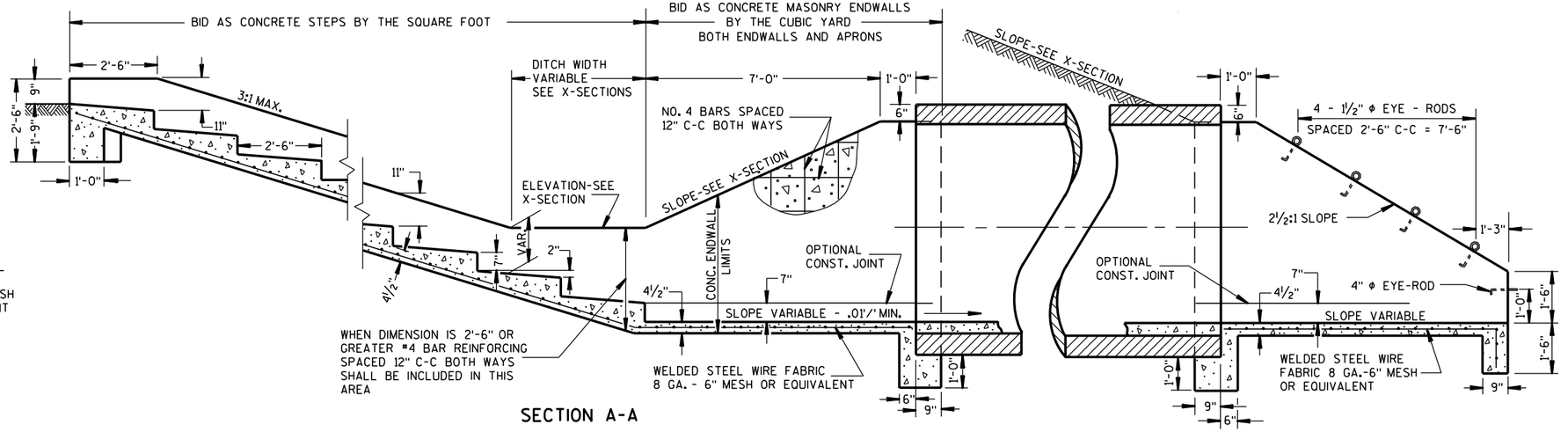


PLAN VIEW

ENDWALL FOR CATTLE PASS

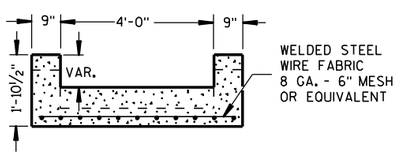


SECTION D-D

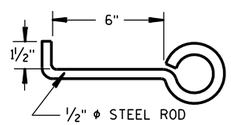


SECTION A-A

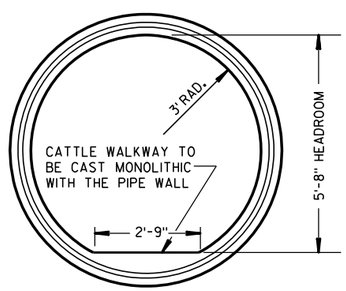
SECTION B-B



SECTION C-C



EYE-ROD ANCHOR



END VIEW

REINFORCED CONCRETE PIPE CATTLE PASS

GENERAL NOTES

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

ALL STEEL REINFORCEMENT IN ENDWALLS AND CATTLE PASS STEPS SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

ALL STEEL REINFORCEMENT OR FABRIC USED AS SHOWN ABOVE SHALL BE INCIDENTAL TO THE BID ITEM OF WHICH IT IS AN INTEGRAL PART.

EYE-RODS FOR FENCE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AS AN INCIDENTAL TO THE BID ITEM OF CONCRETE MASONRY, ENDWALLS AND SHALL BE GALVANIZED.

CONCRETE USED FOR THE CATTLE WALKWAY WITHIN THE PIPE SHALL BE INCIDENTAL TO THE BID ITEM OF PIPE CATTLE PASS.

DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALL AND STEPS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/6/75 — DATE

/S/ Harold Fiedler — STATE DESIGN ENGINE

172

HWYS

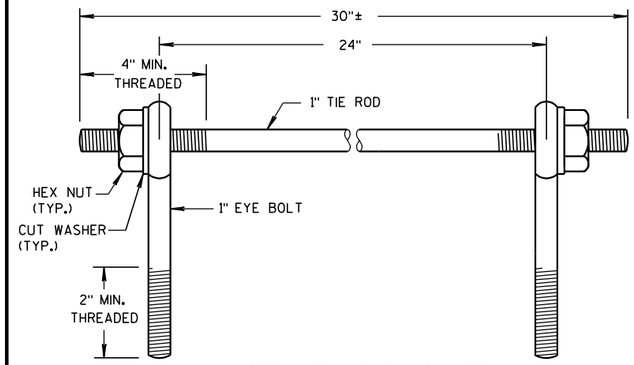
FHWA

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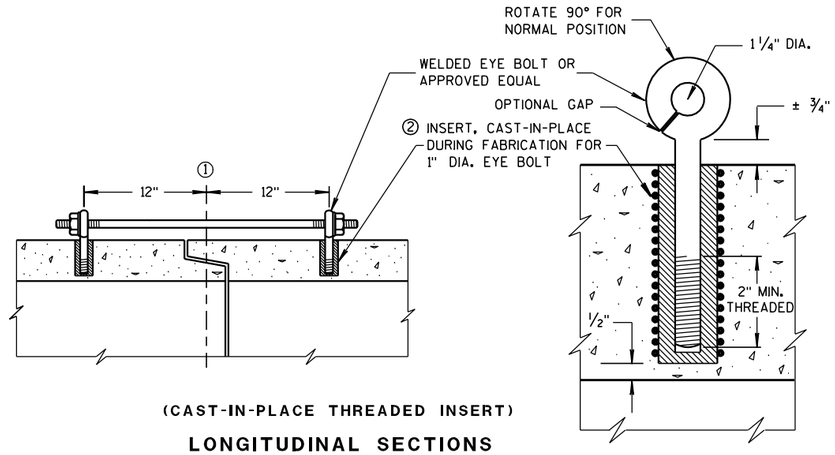
S.D.D. 8 F 3-3

6

S.D.D. 8 F 3-3



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

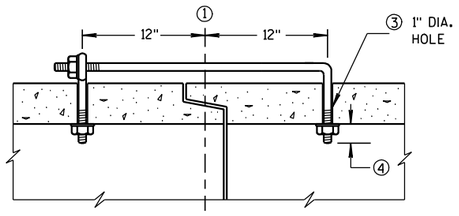
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

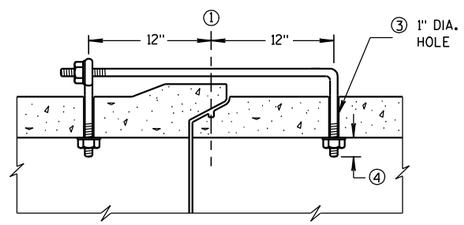
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

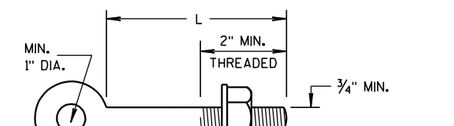


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

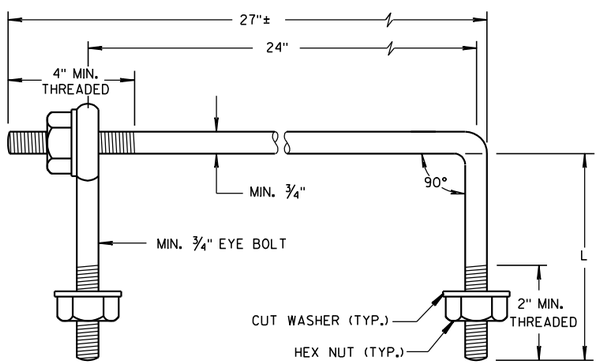
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

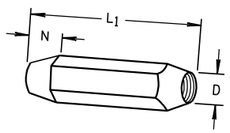
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

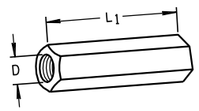
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



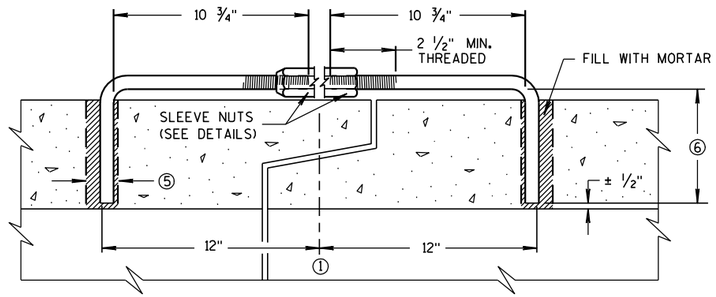
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PLAIN

RIGHT AND LEFT THREADS

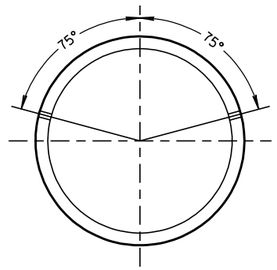
SLEEVE NUTS



LONGITUDINAL SECTION

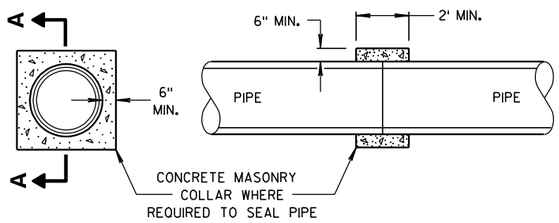
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

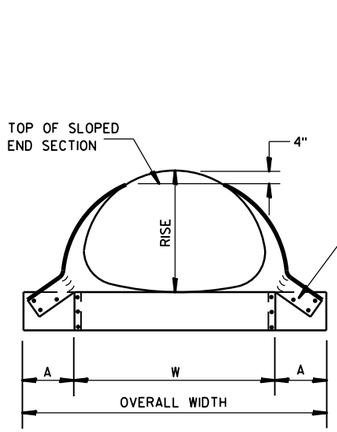
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

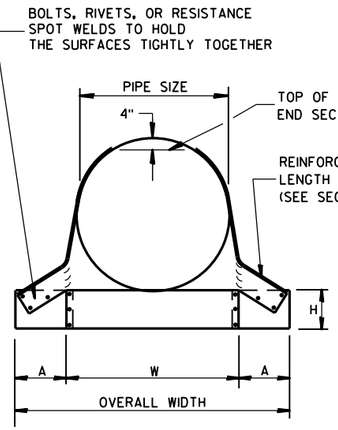
S.D.D. 8 F 4-7

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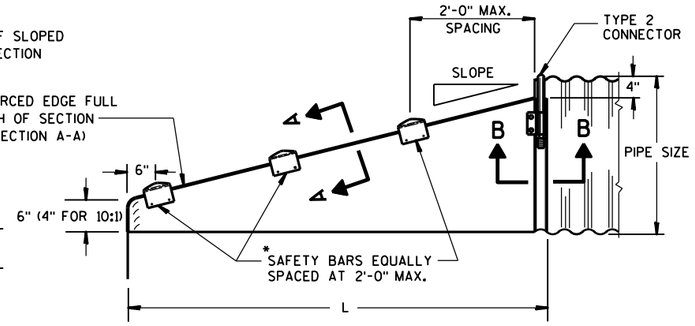
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

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.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

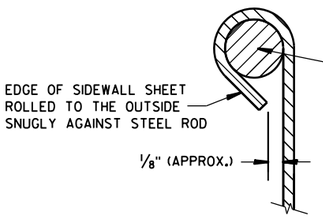
STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——

STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

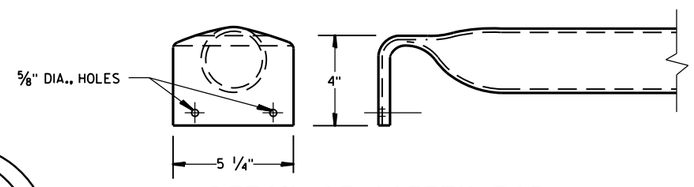
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



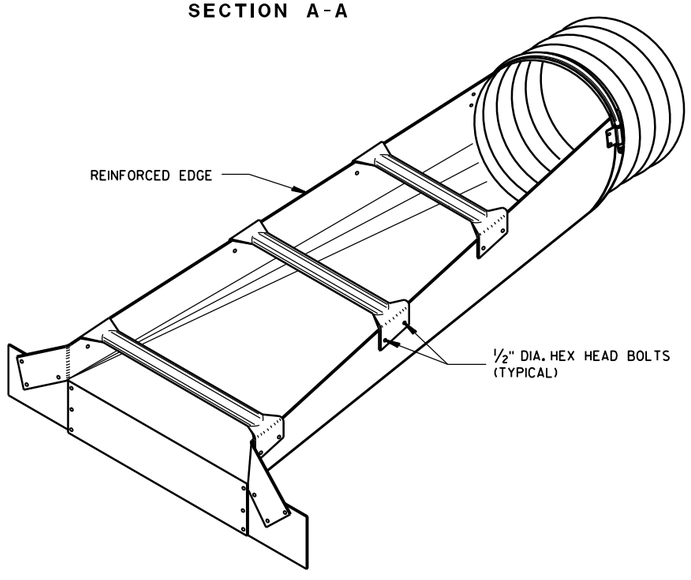
SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

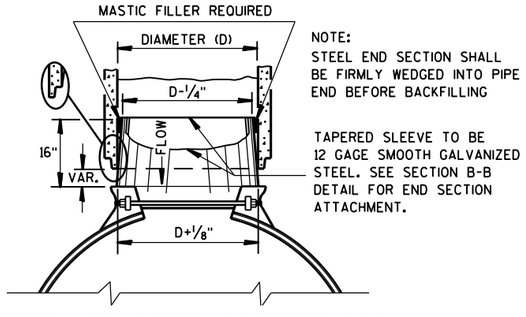
3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.



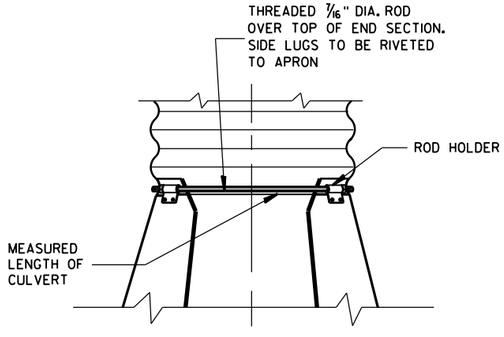
DETAIL OF SAFETY BAR



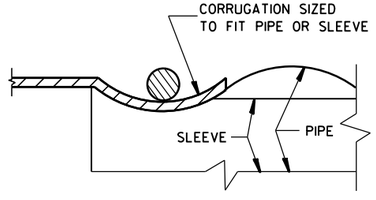
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

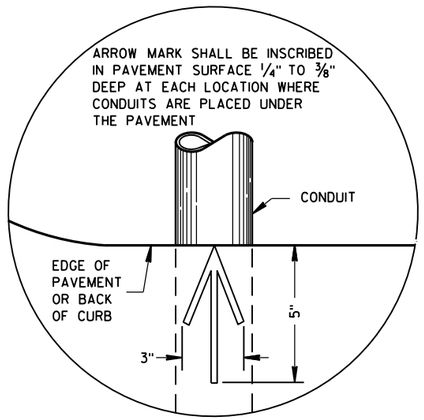
APPROVED
9/14/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 7-5

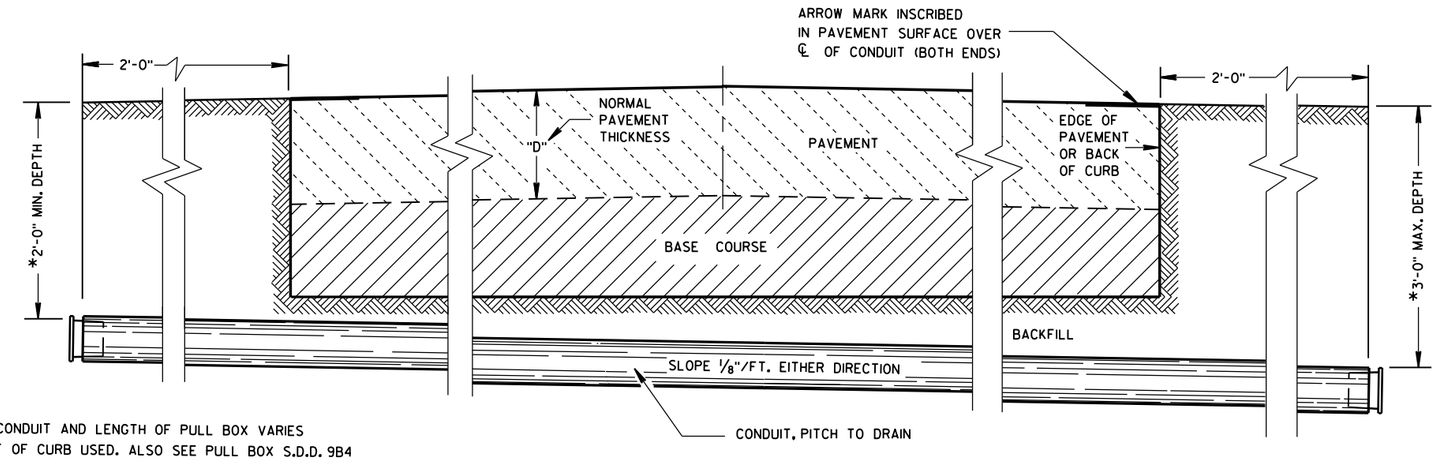
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S.D.D. 8 F 7-5



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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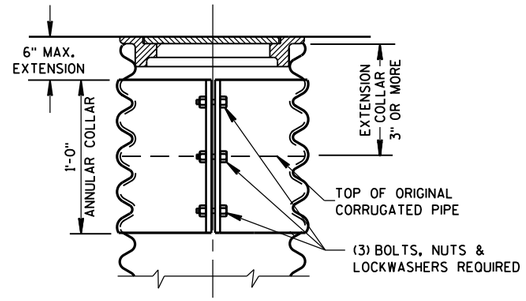
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

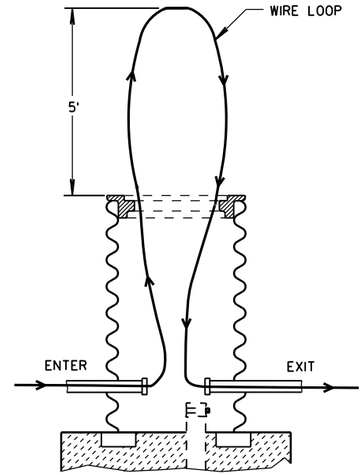
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

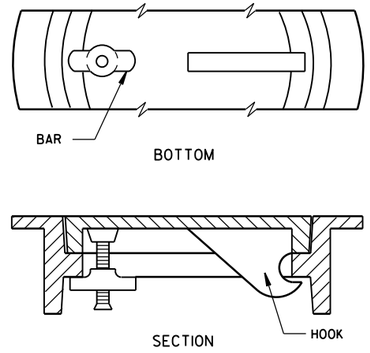
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

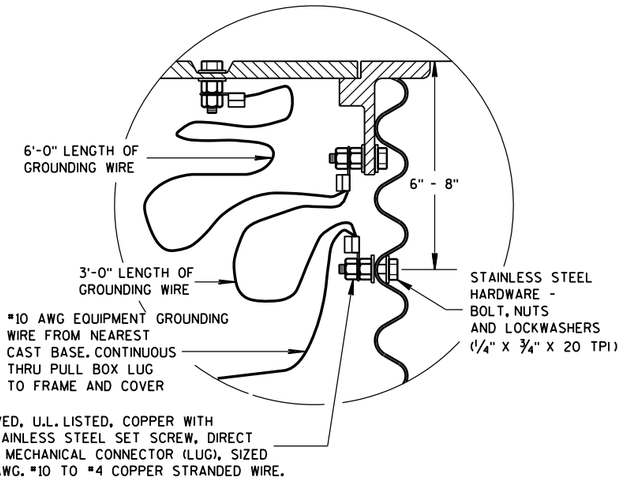


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

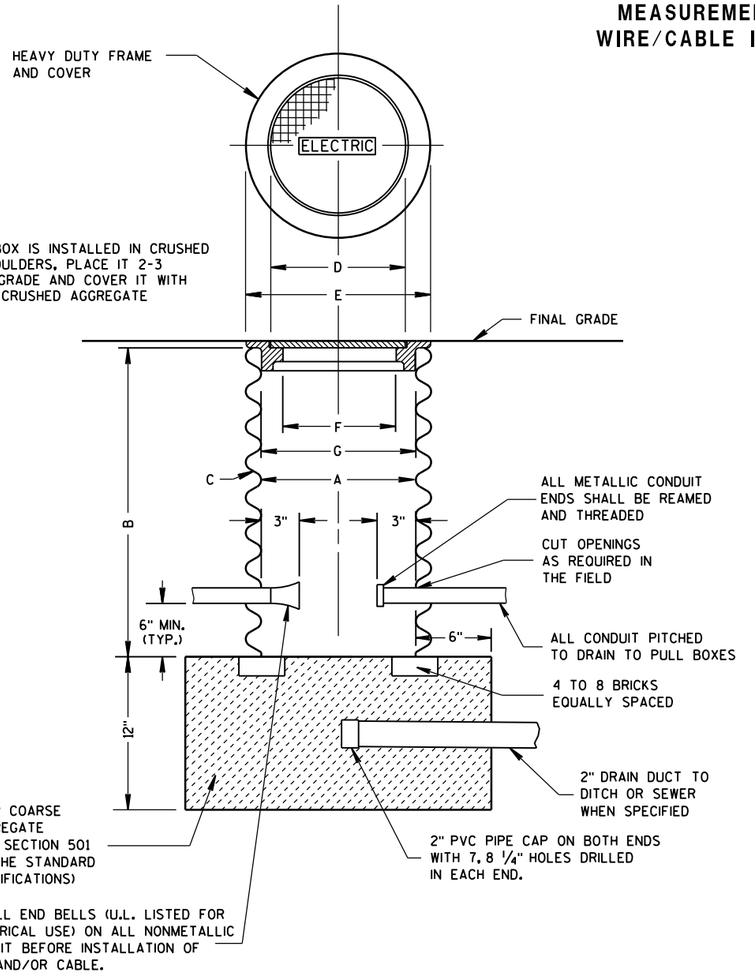


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

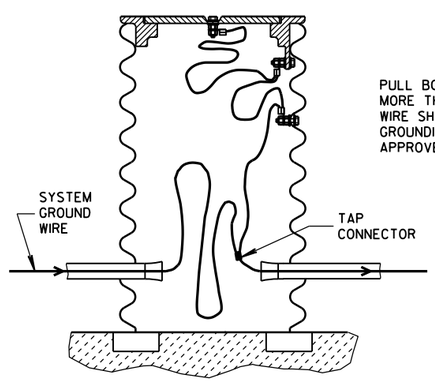
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

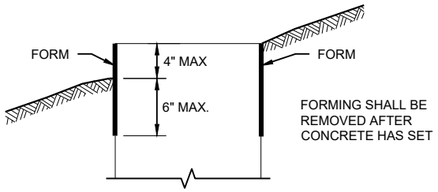
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 4-11

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

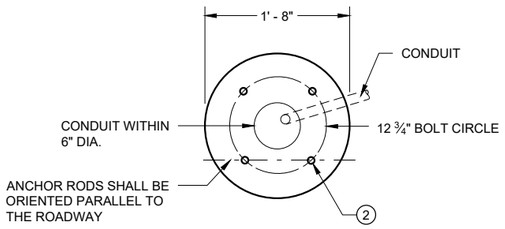
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

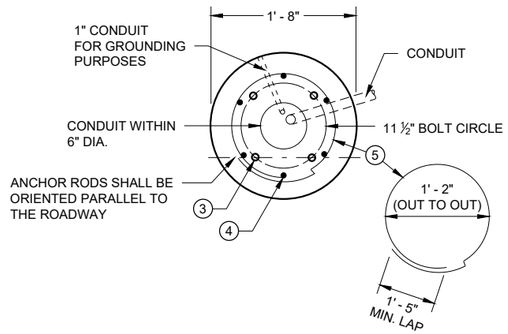
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

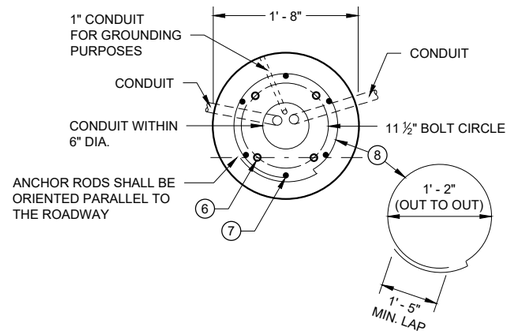
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

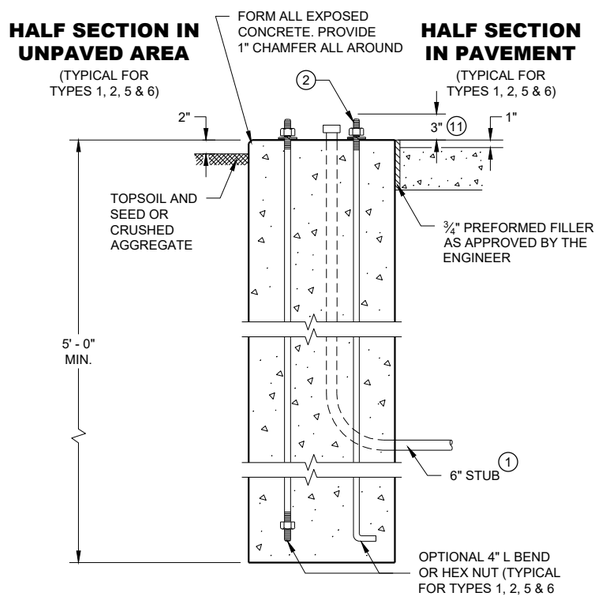
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

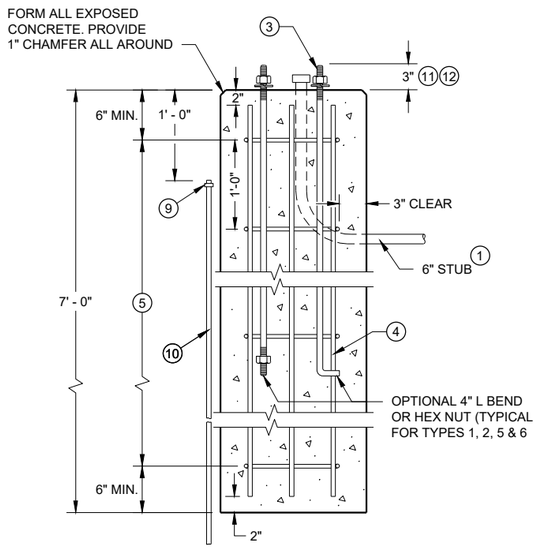




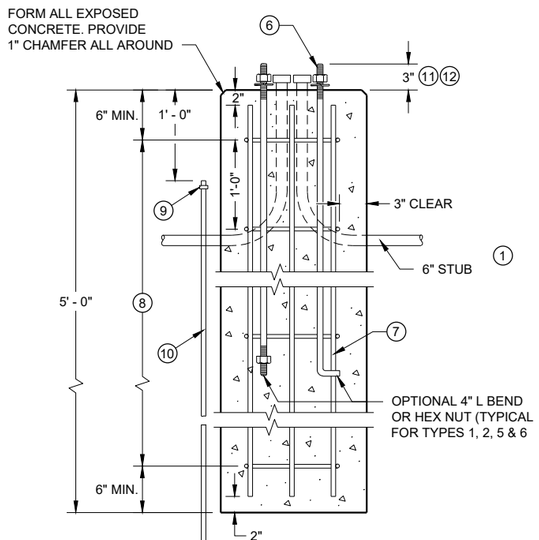




TYPE 1



TYPE 2



TYPE 5 & 6

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 177
FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

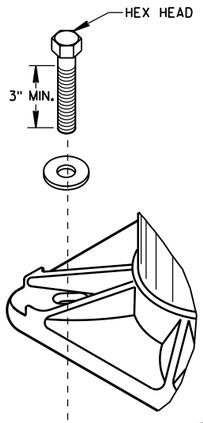
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

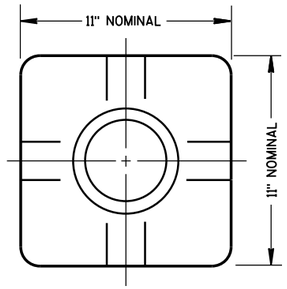
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

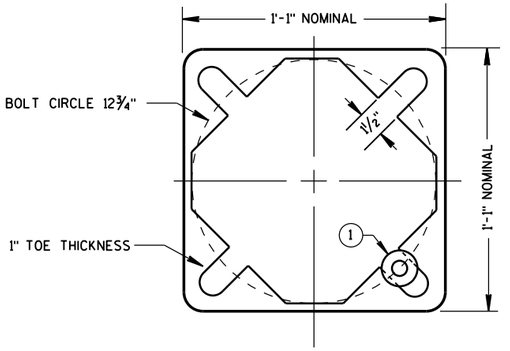
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

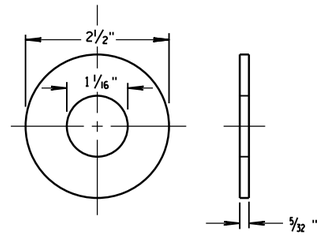




TOP VIEW
(PEDESTAL BASE)

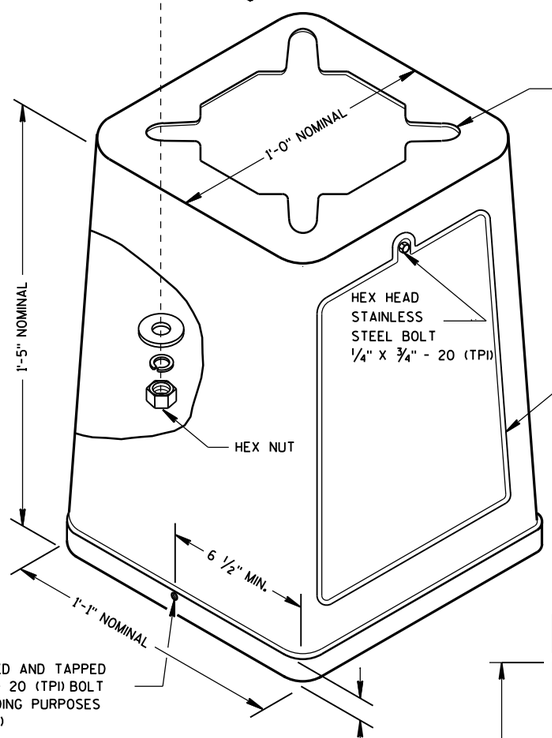


BOTTOM VIEW
(PEDESTAL BASE)

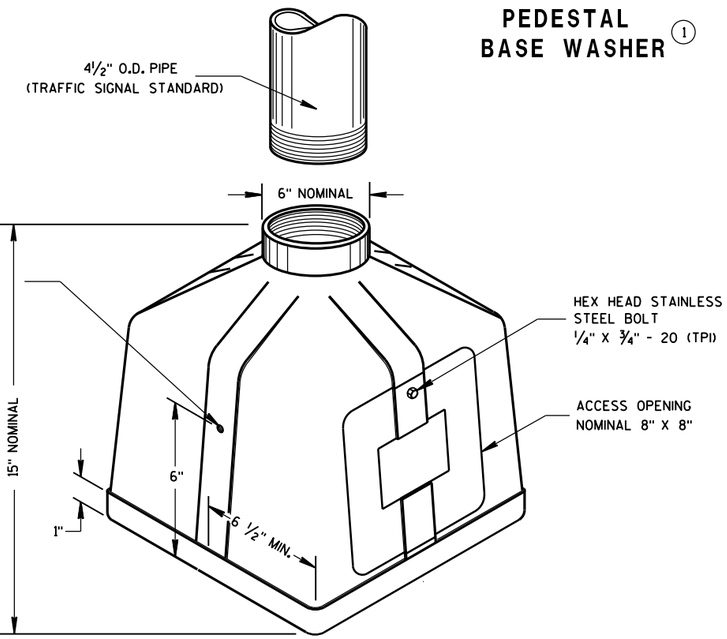


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

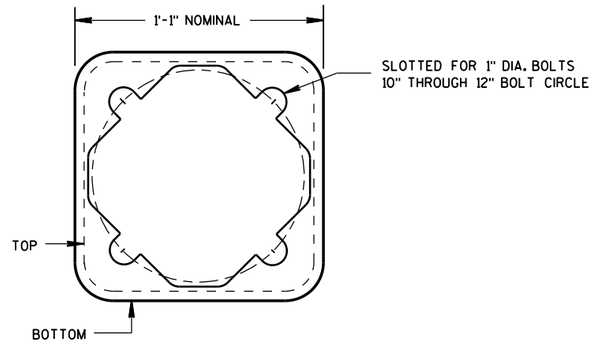


ISOMETRIC VIEW

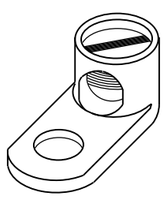


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

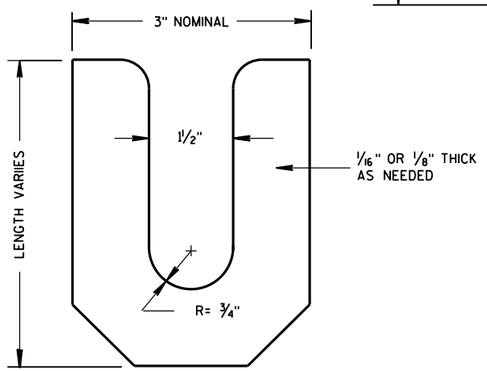


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

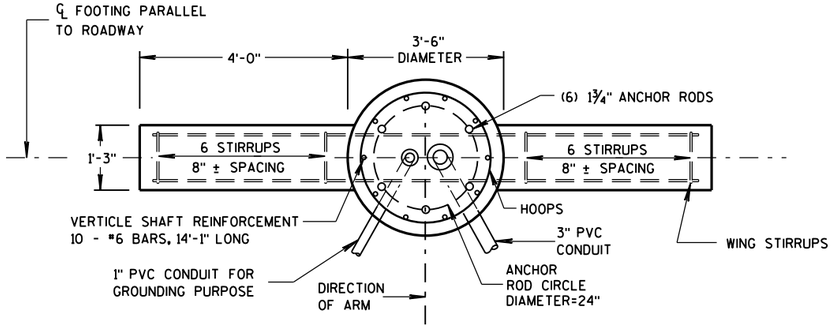
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

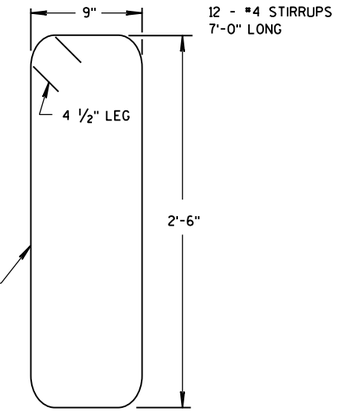
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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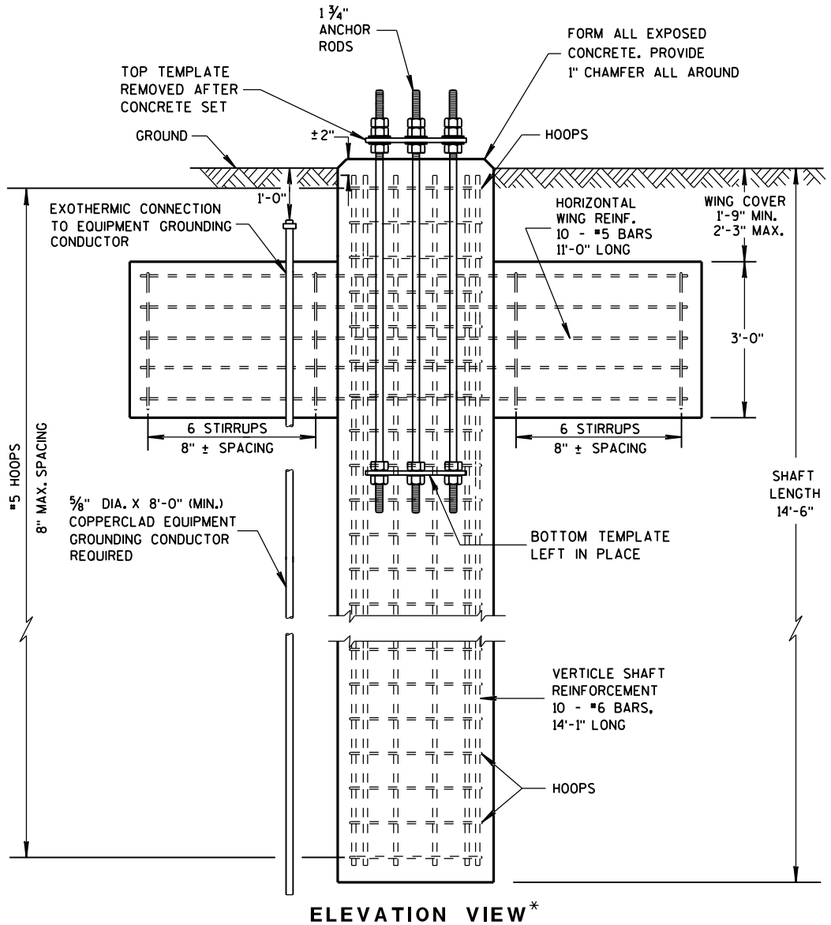
S.D.D. 9 C 3-4



PLAN VIEW

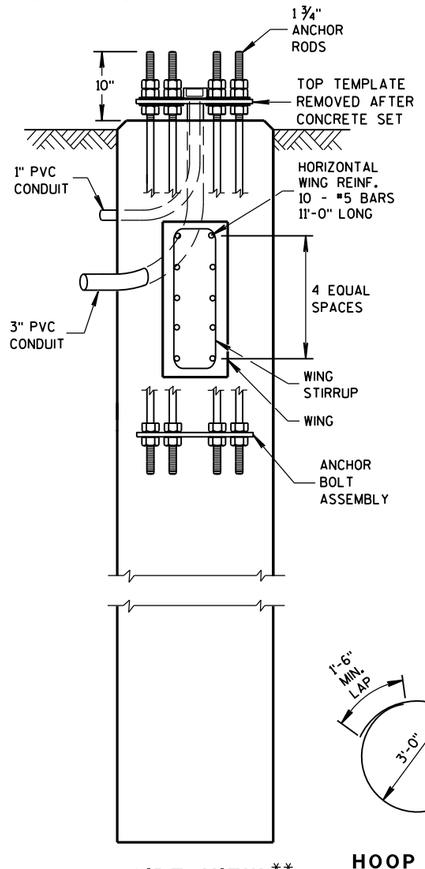


WING STIRRUP



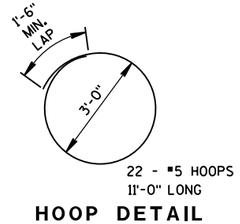
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

** HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY



HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

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

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

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

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

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 & OVER HEIGHT (OH) POLES)

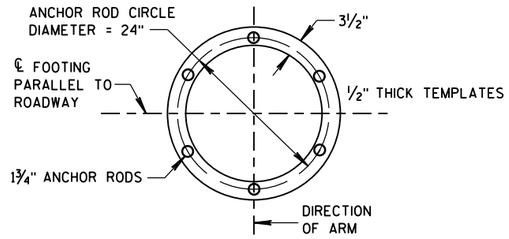
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

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

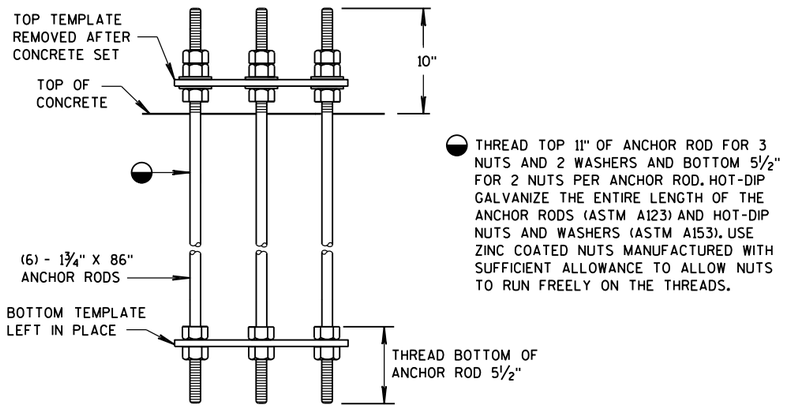
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 9 C 12-9a

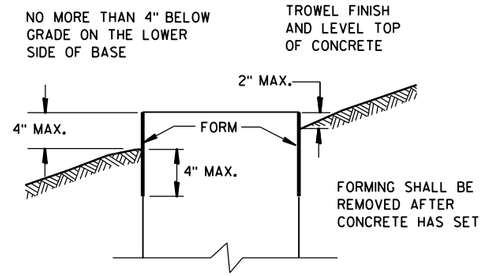


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

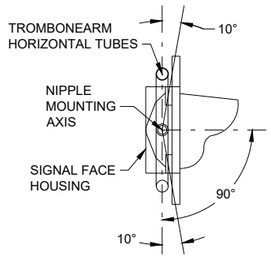
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 12-9b

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S.D.D. 9 C 12-9b

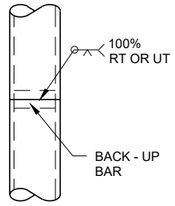


SECTION A-A

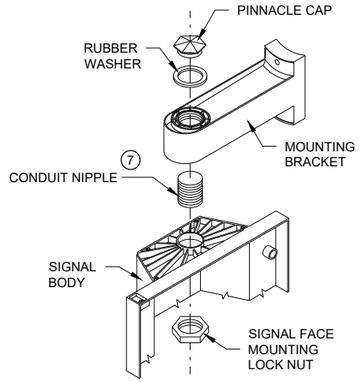
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

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



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

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

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

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

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

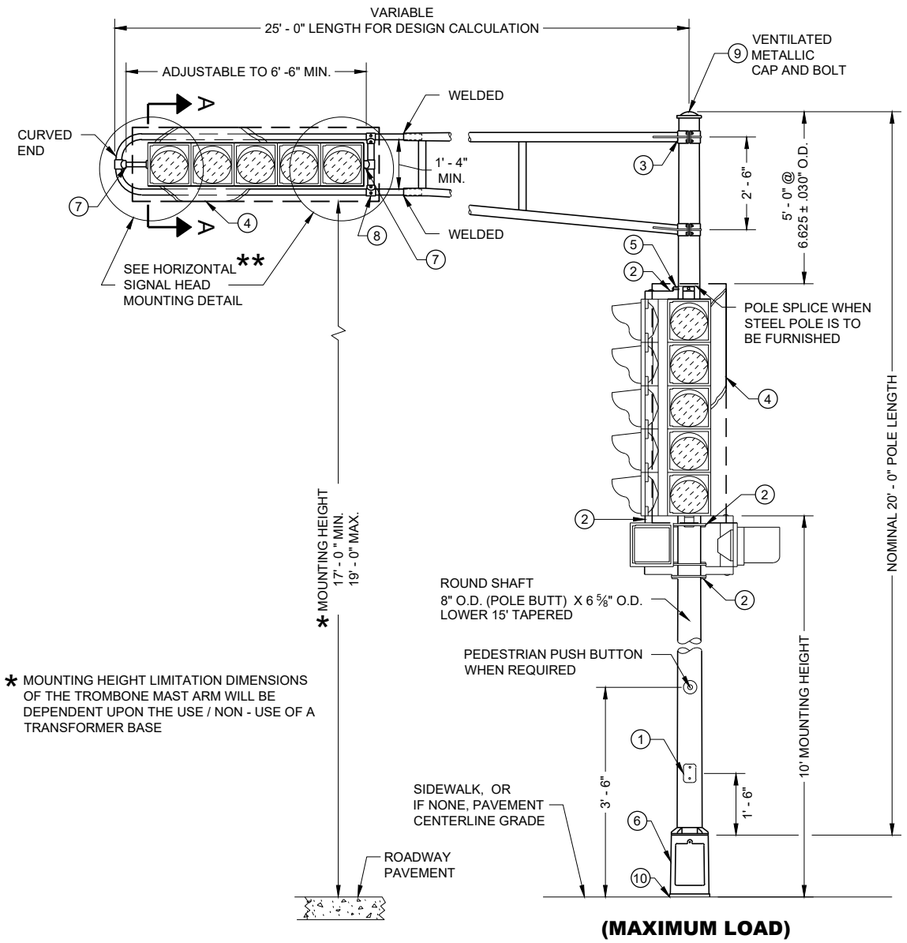
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

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

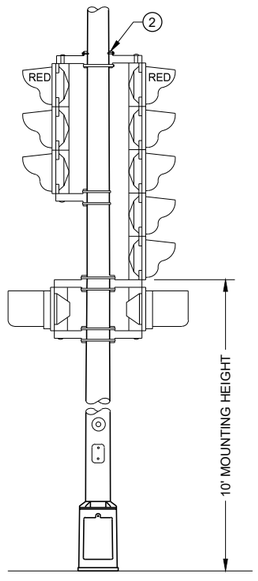
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

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

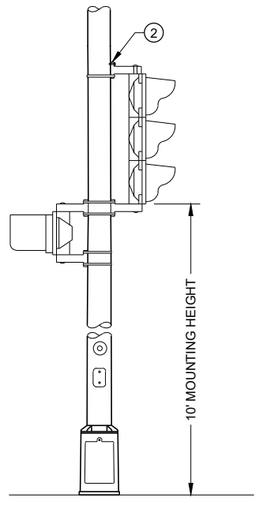


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

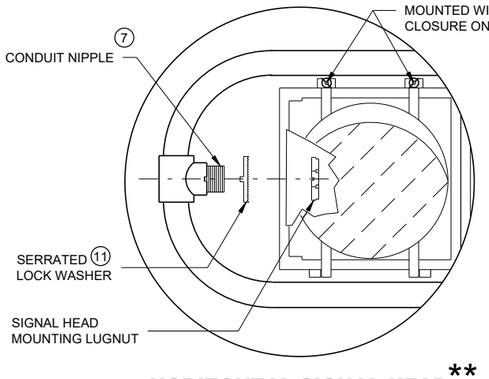
(MAXIMUM LOAD)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

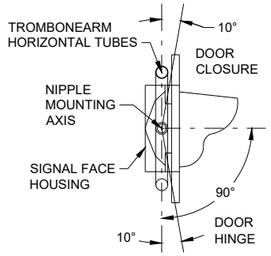
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

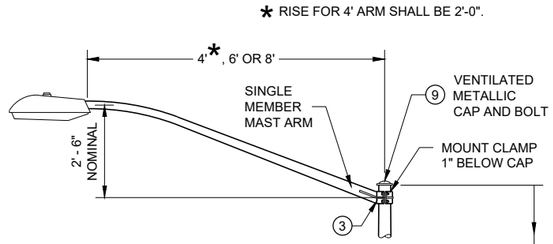
POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

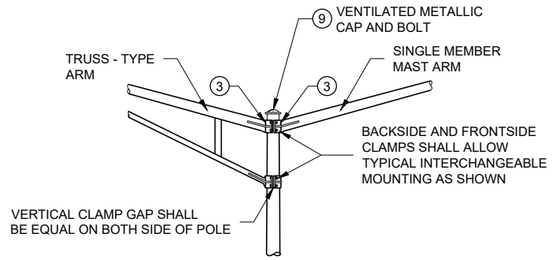
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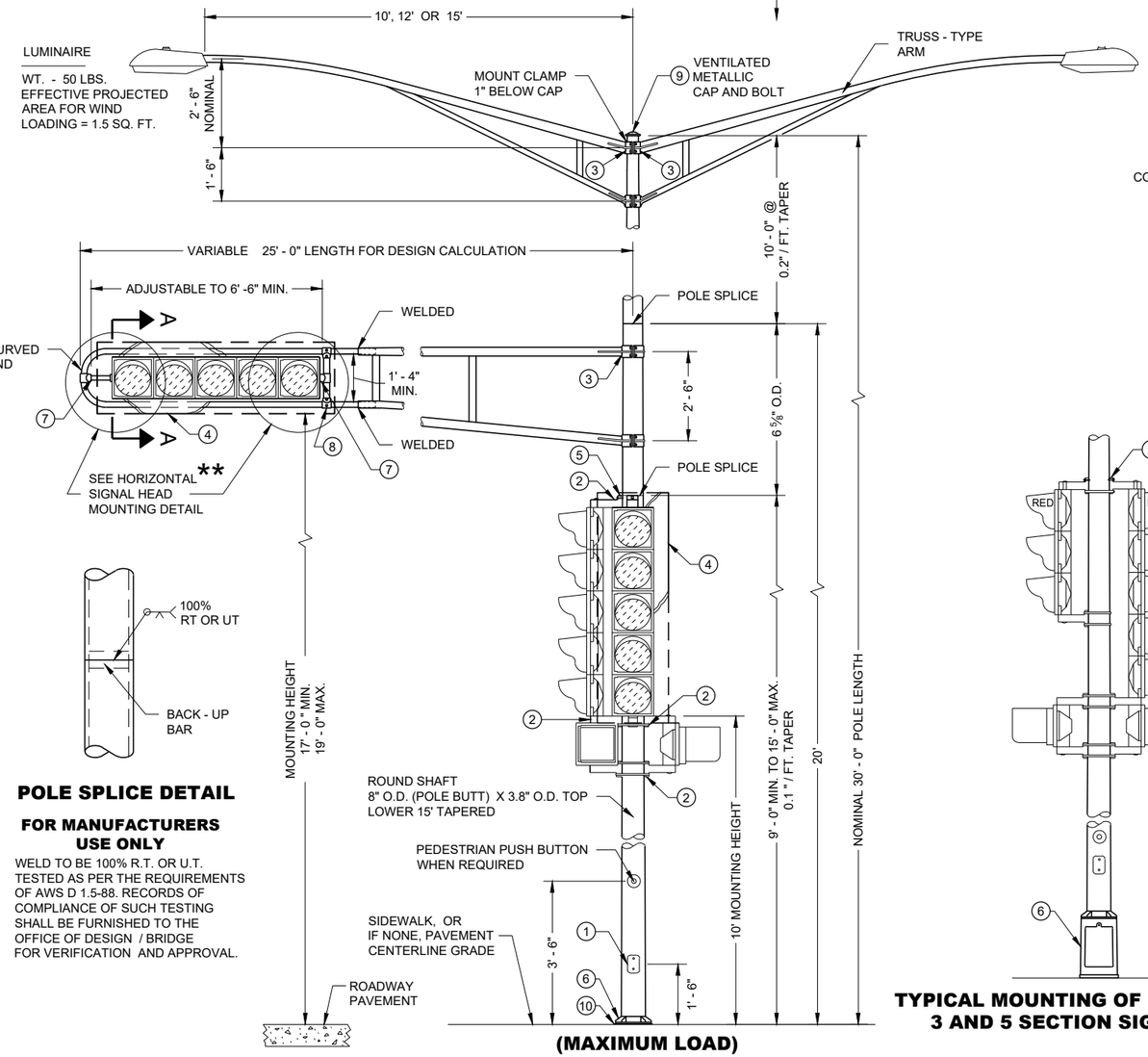


SECTION A-A





INTERCHANGEABLE MOUNTING DETAIL

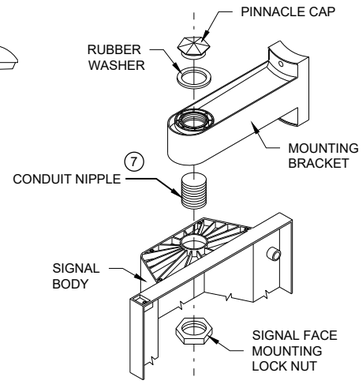


POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

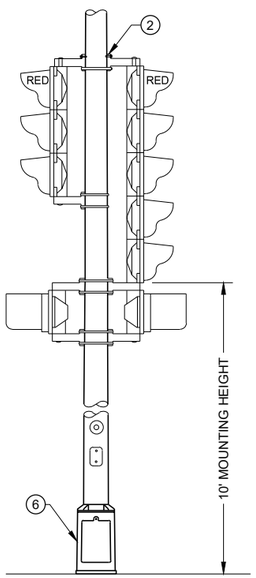
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

(MAXIMUM LOAD)

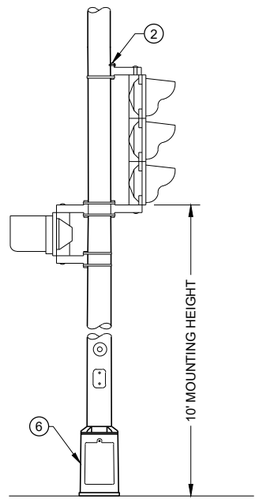


SIGNAL FACE MOUNTING DETAIL

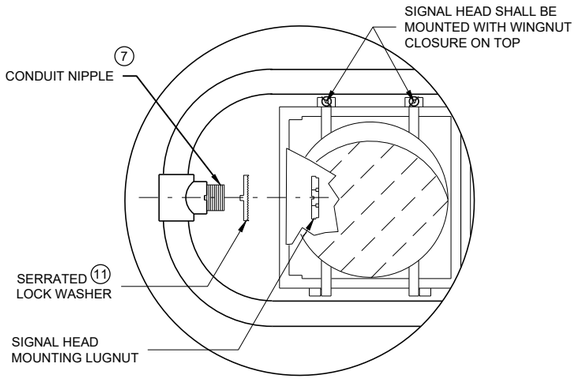
(BANDED)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

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

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

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

POLES SHALL BE GALVANIZED STEEL.

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

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.

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

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

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

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

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

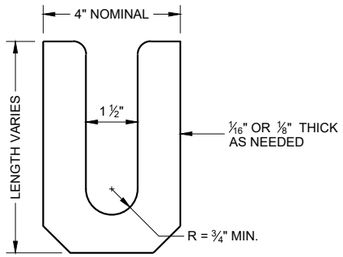
(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

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

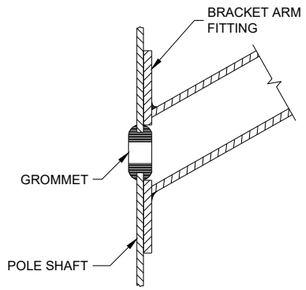
STATE OF WISCONSIN
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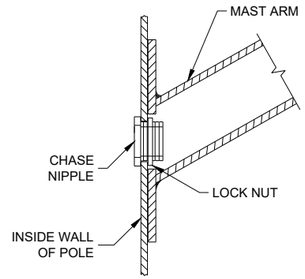
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SDD 09E01 - 15b



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

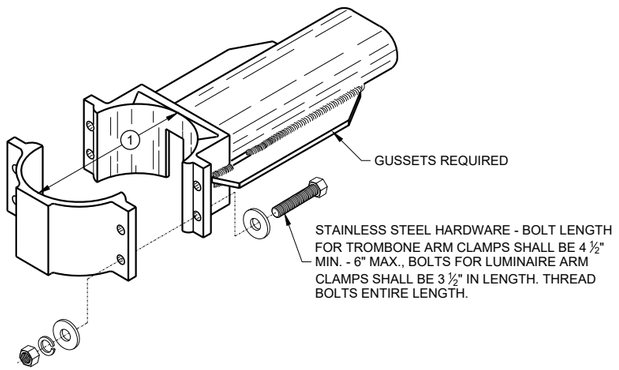
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

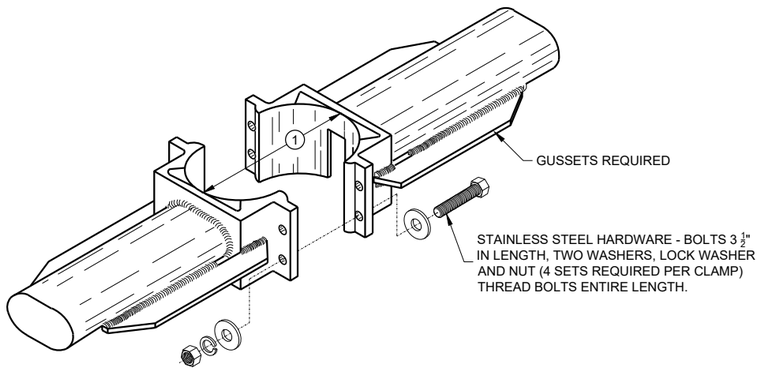
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

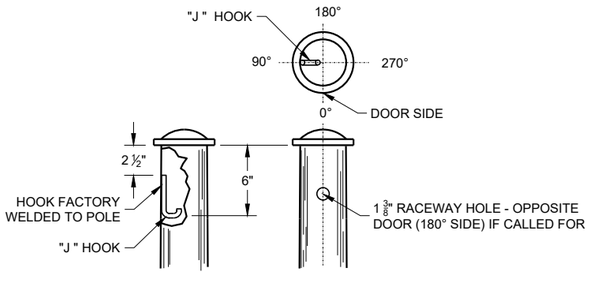
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



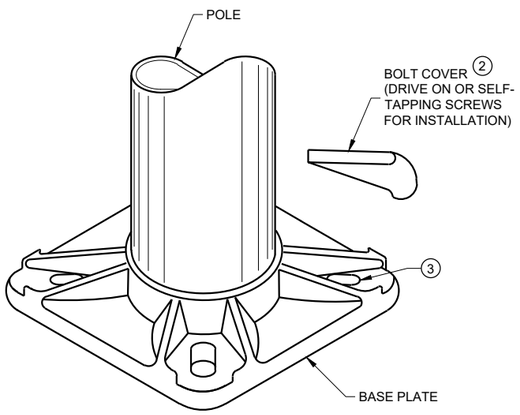
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



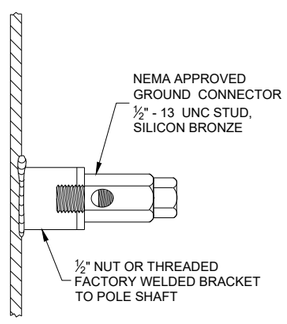
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

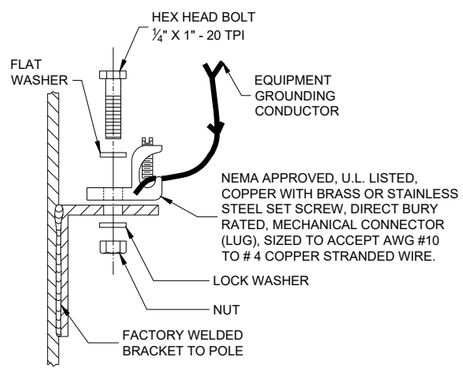


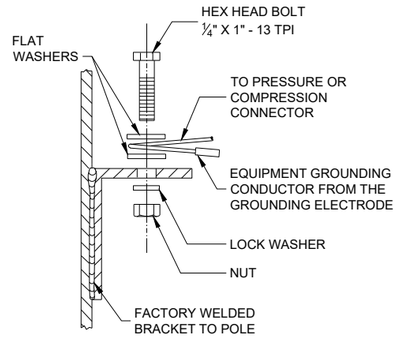
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 183

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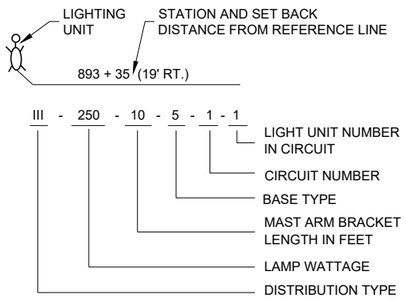
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GENERAL NOTES

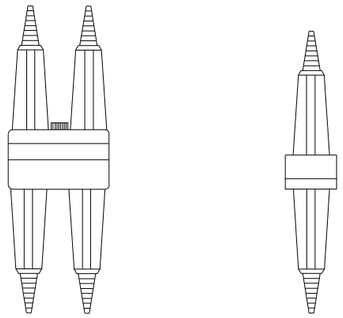
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

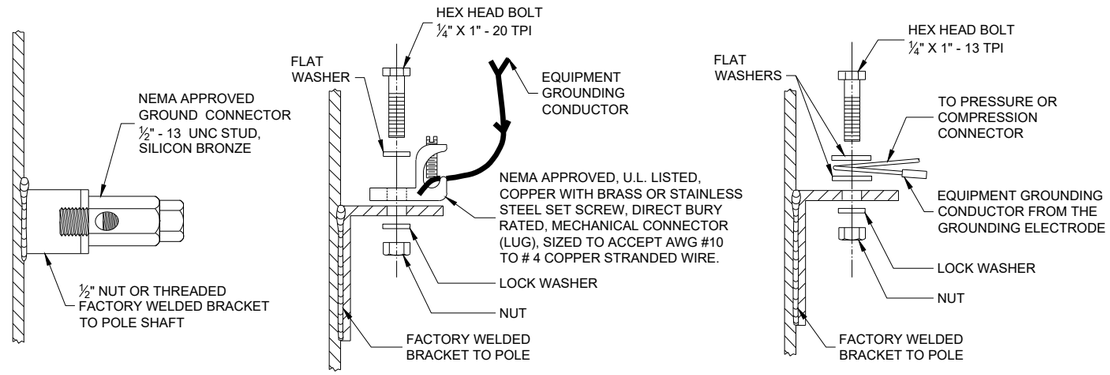


LIGHTING UNIT CODE
(TYPICAL)

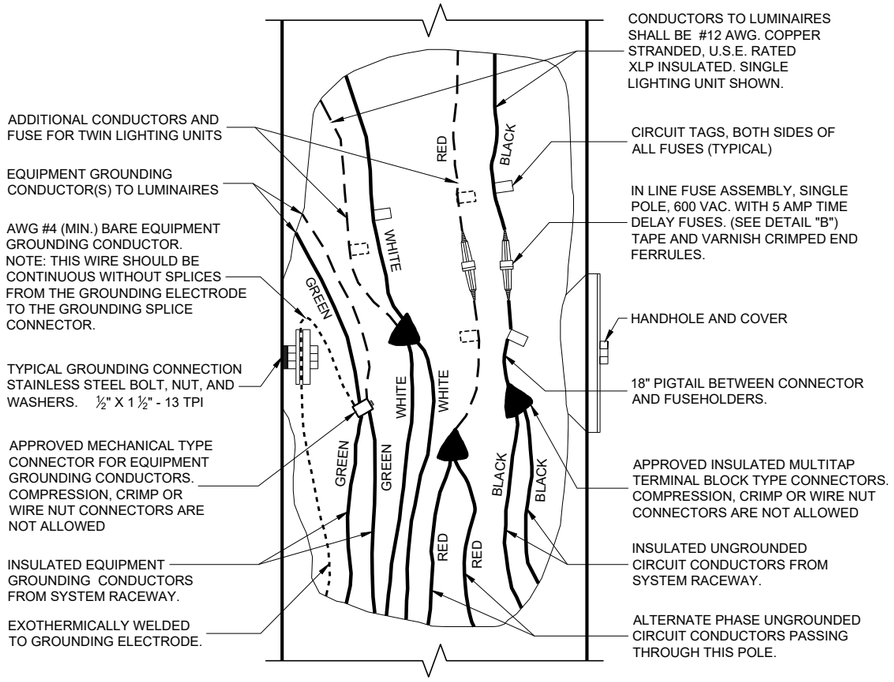


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

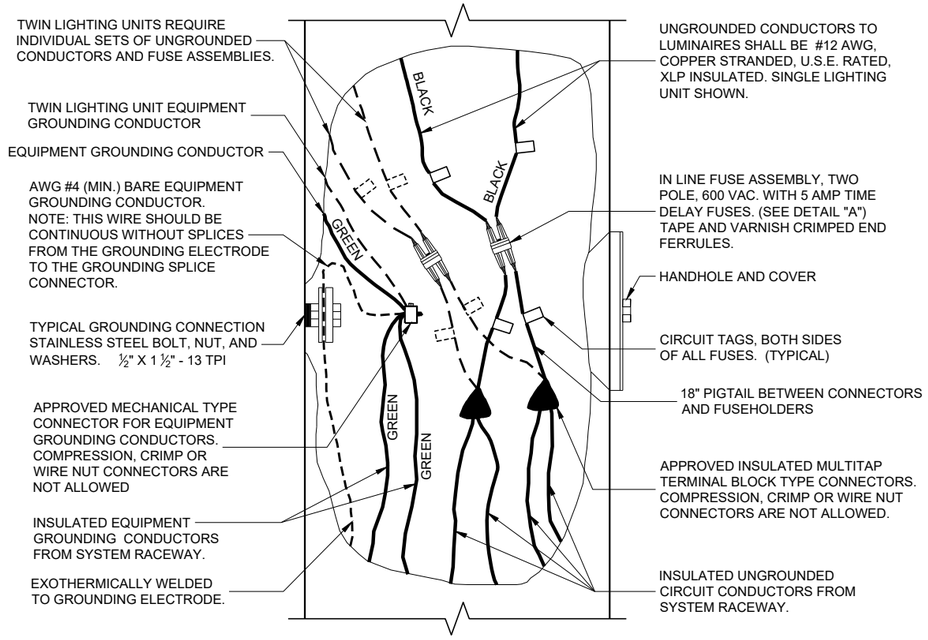
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



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



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



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

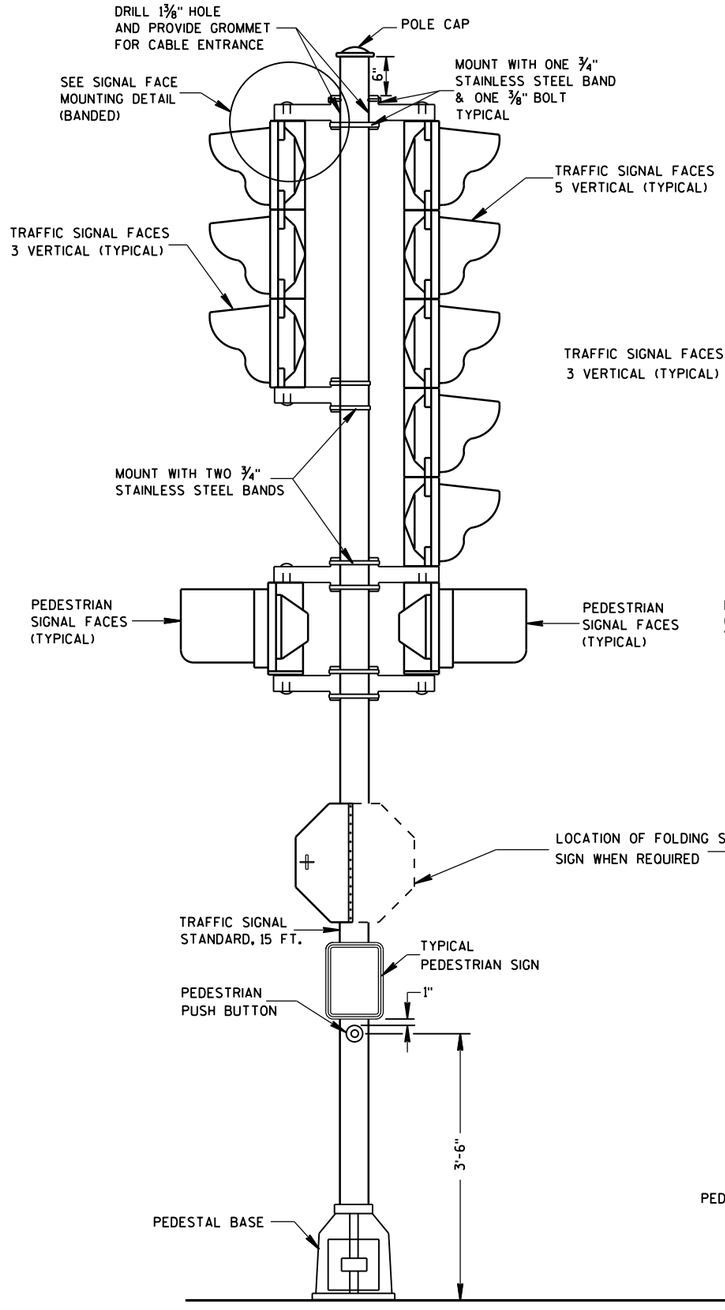
NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

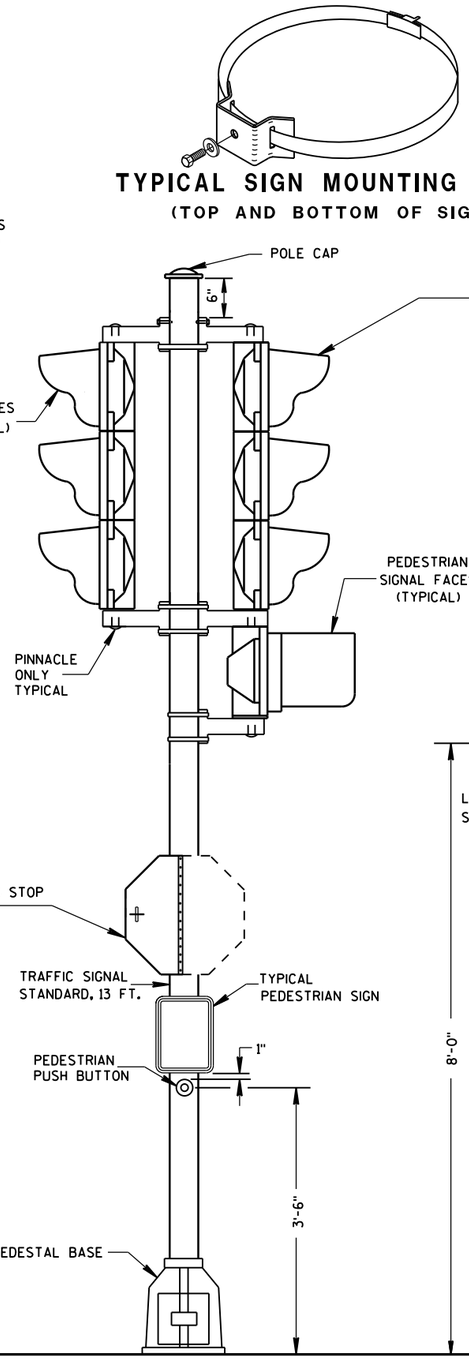
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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SDD 09E03 - 06

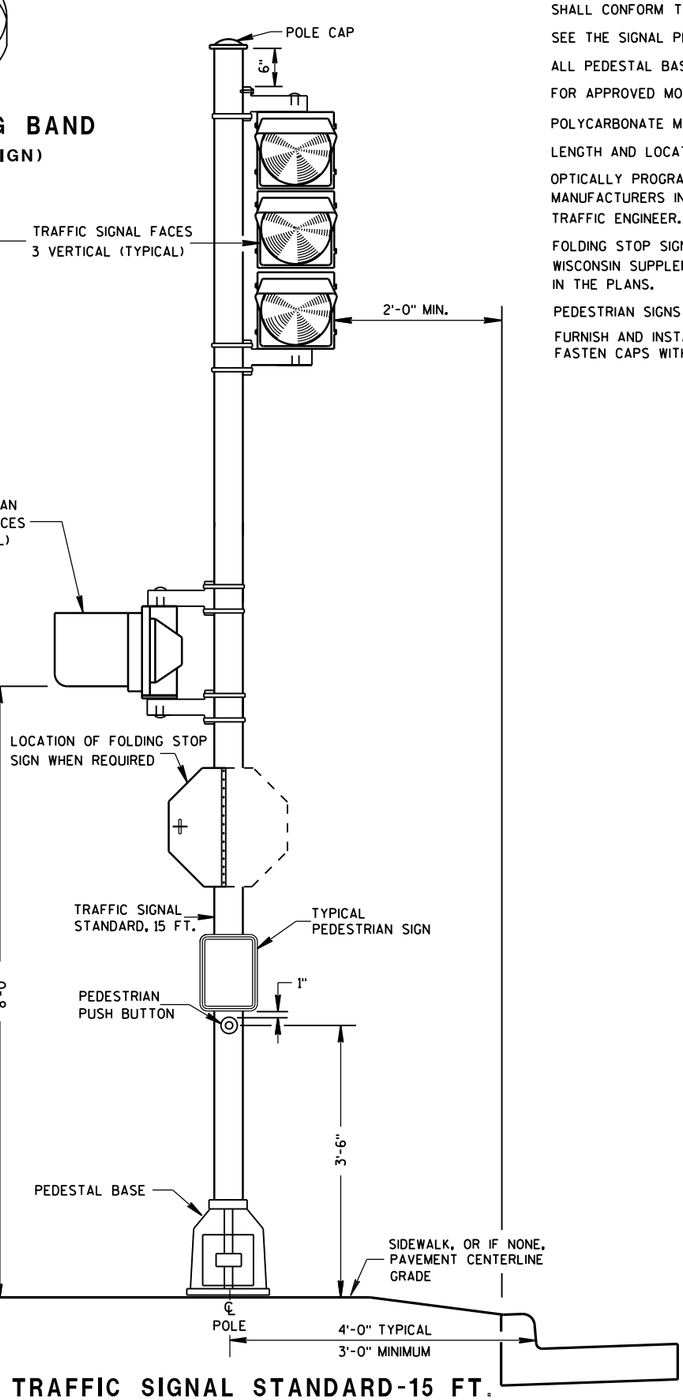


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

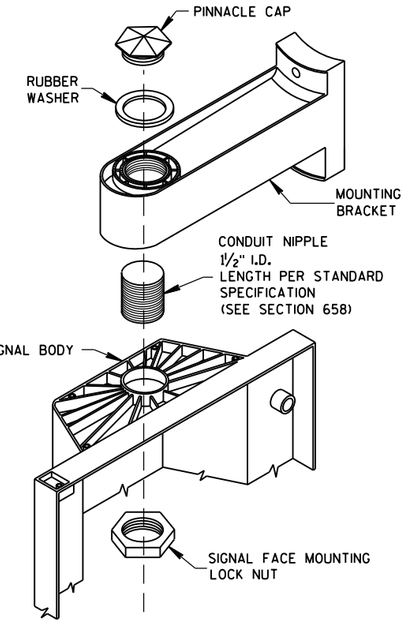
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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



SIGNAL FACE MOUNTING DETAIL
(BANDED)

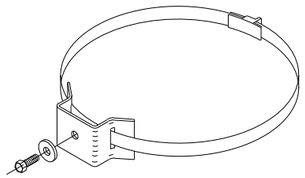
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

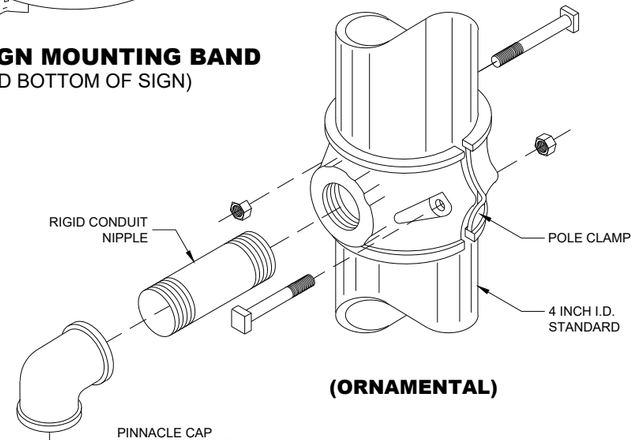
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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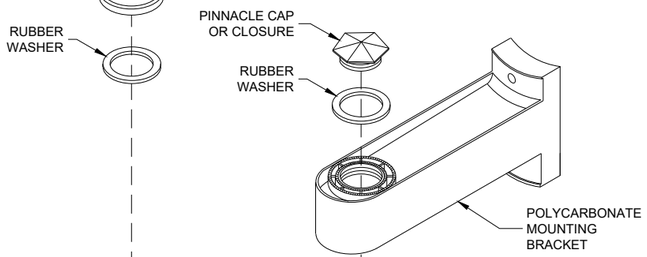
S.D.D. 9 E 6-5



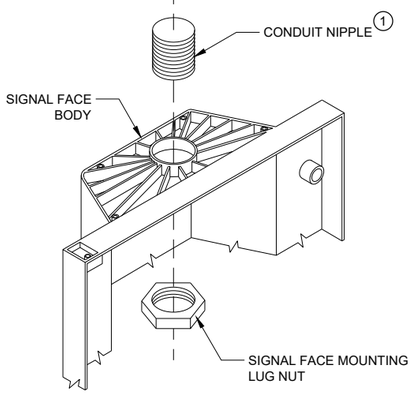
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



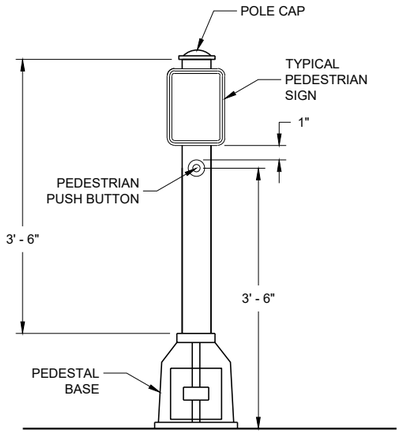
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

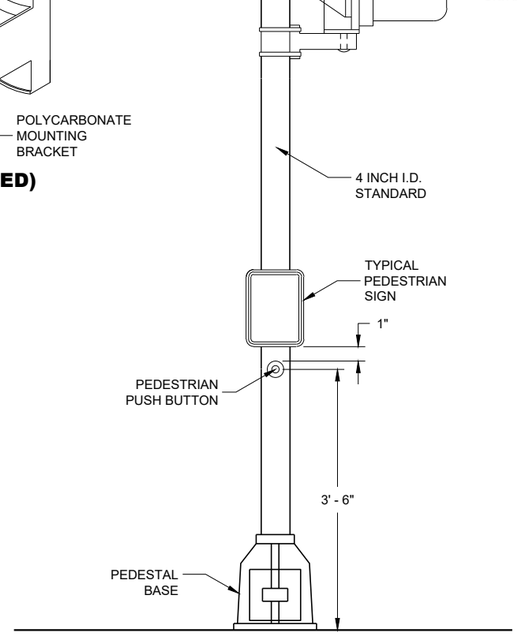
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

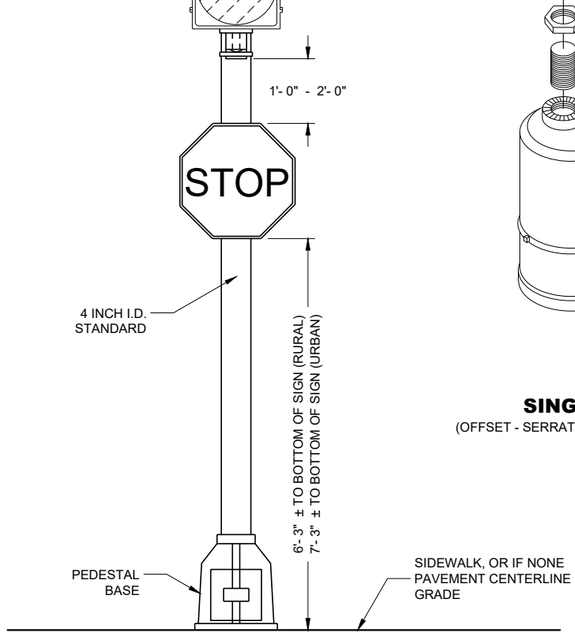
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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

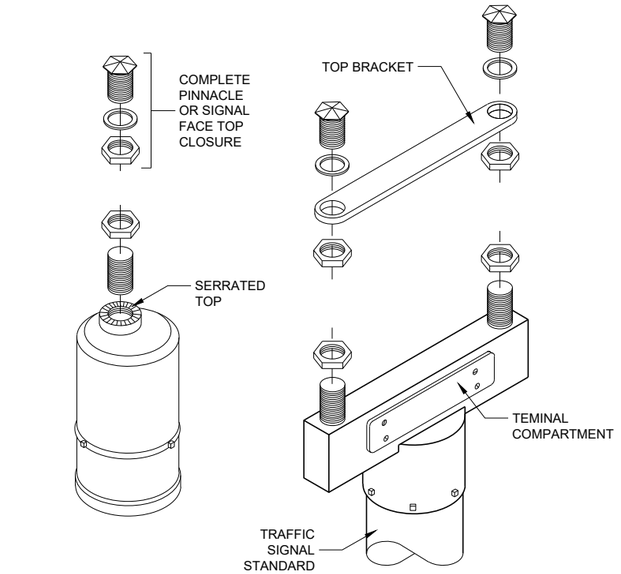
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

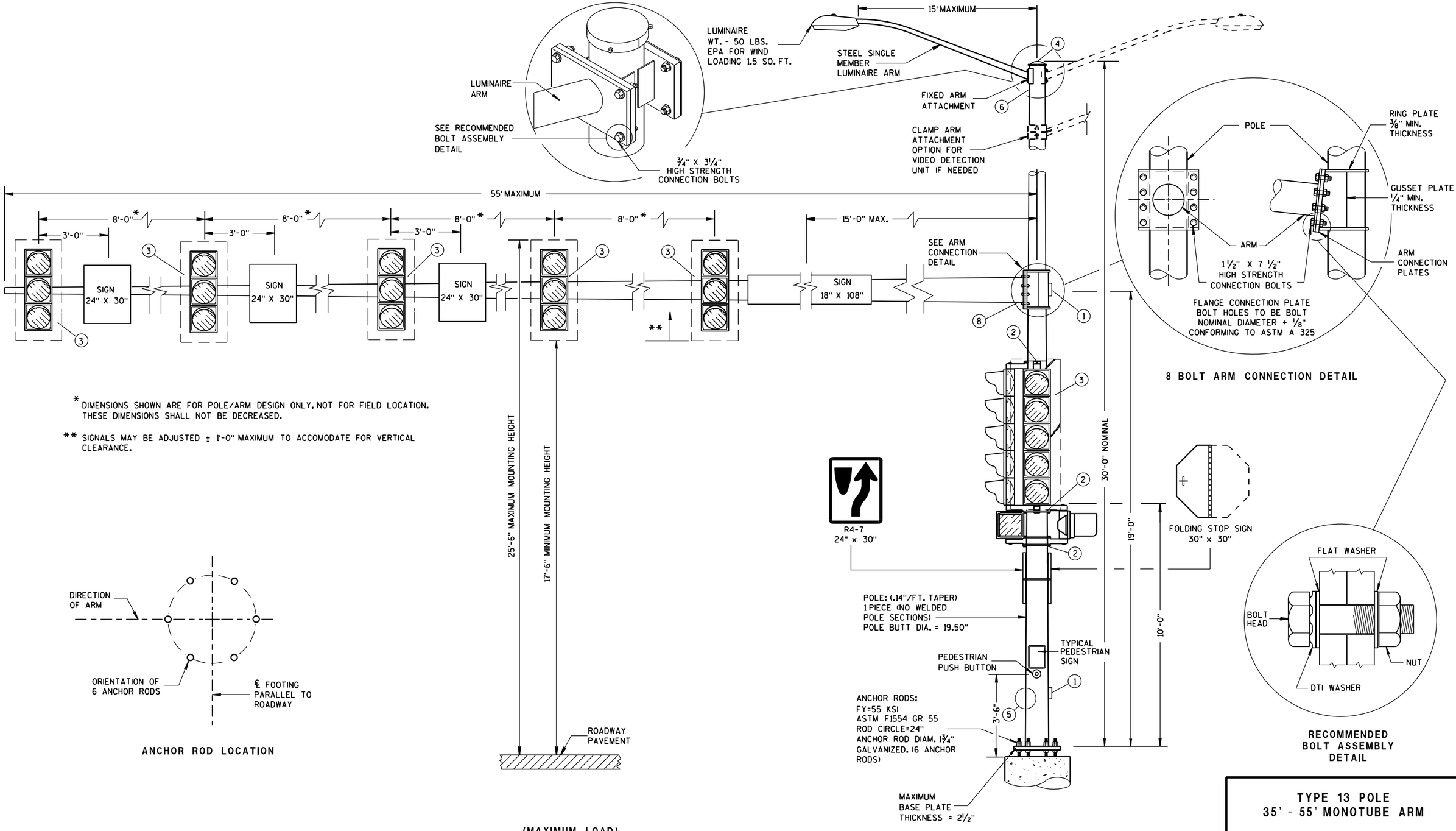
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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

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

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

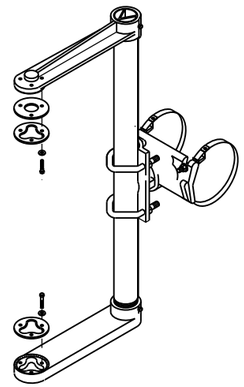
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

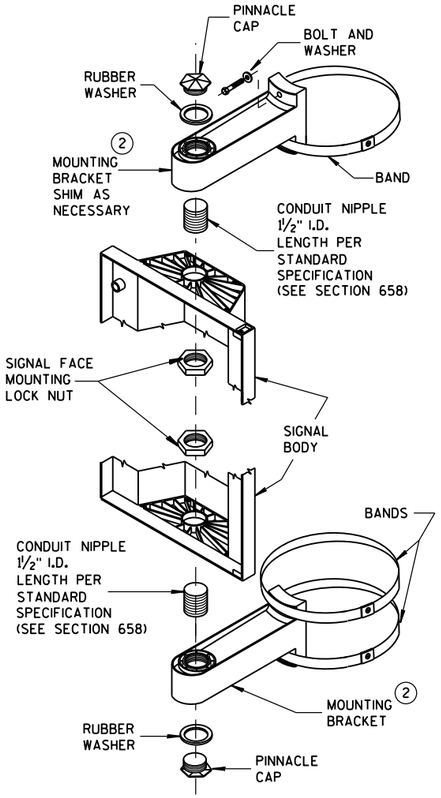
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

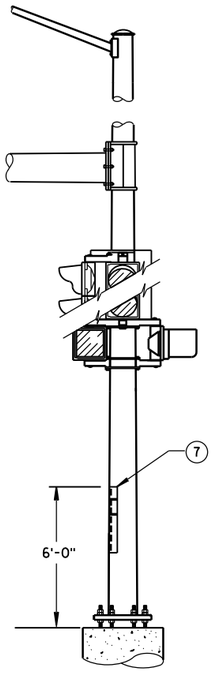


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

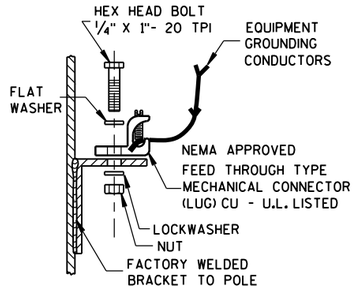
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

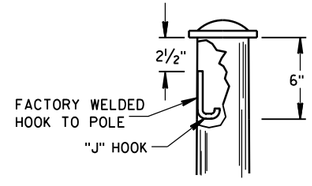


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



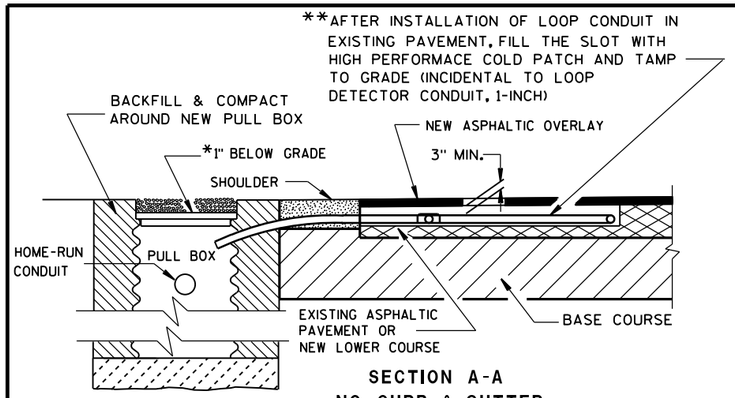
"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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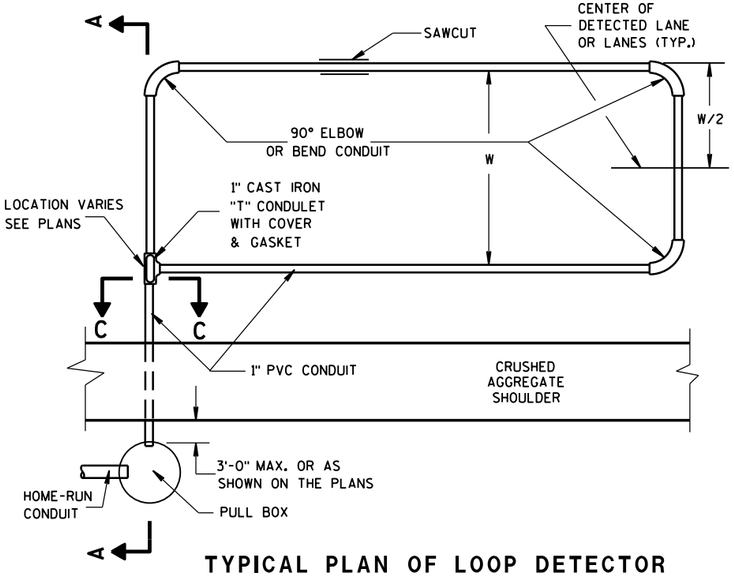


SECTION A-A

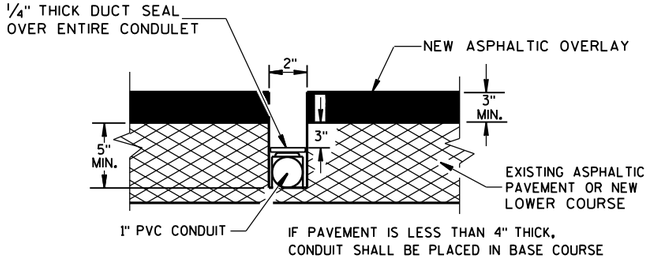
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW

SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY ½ INCH. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

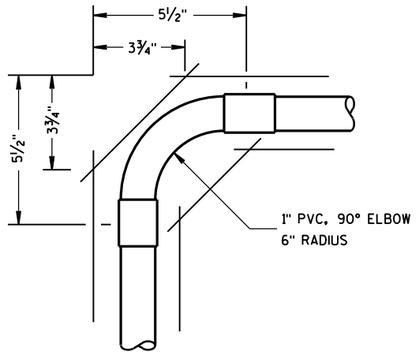
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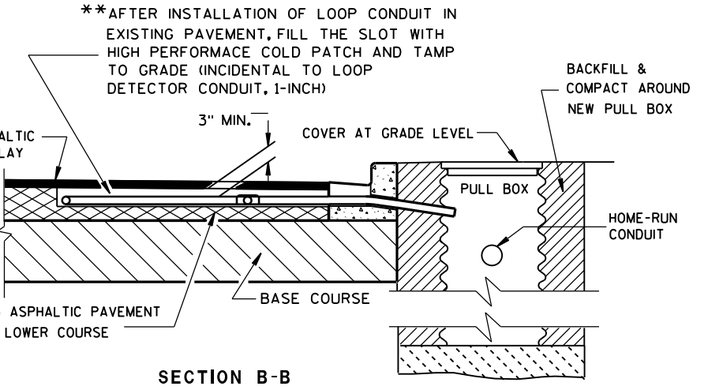
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TOP VIEW

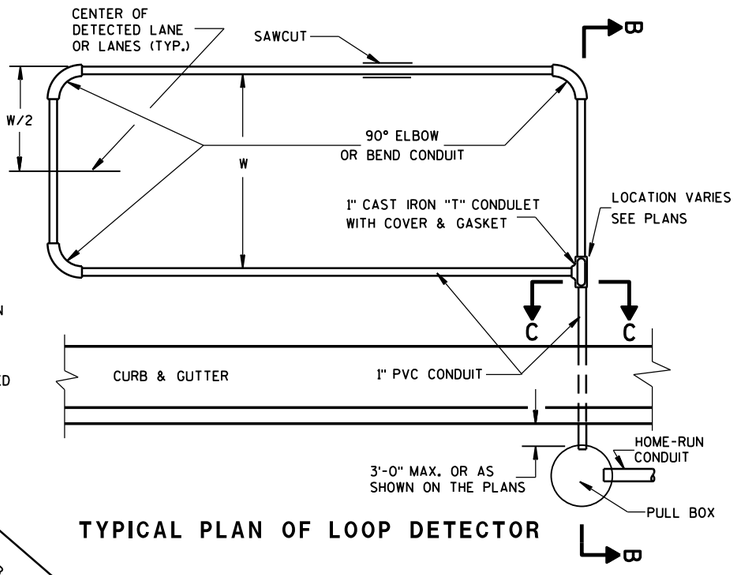
CORNER SAW SLOT DETAIL



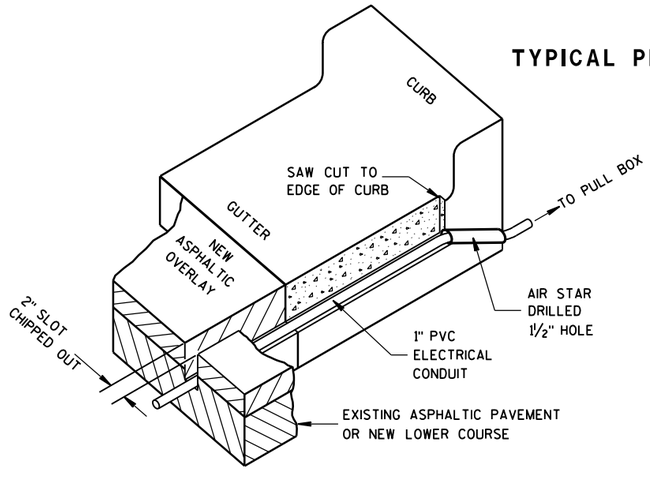
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING OR NEW ASPHALTIC PAVEMENT WITH NEW ASPHALTIC OVERLAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

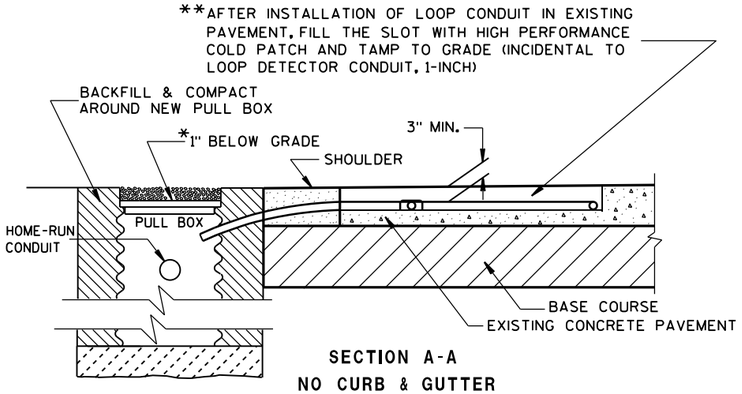
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Sept. 2014 — DATE
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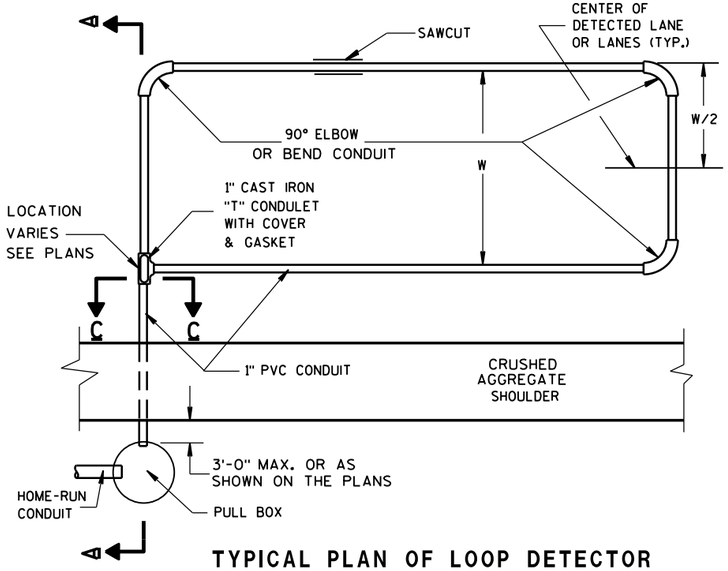
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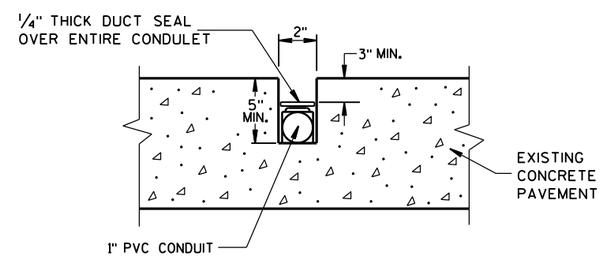
SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

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TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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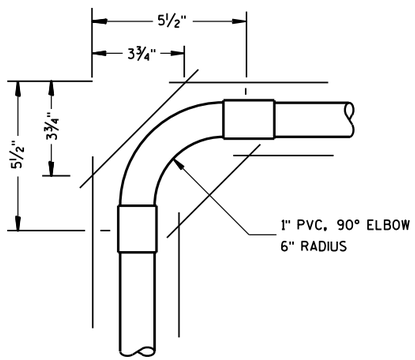
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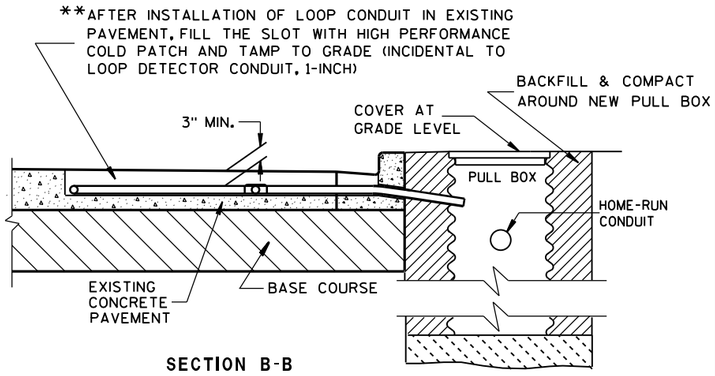
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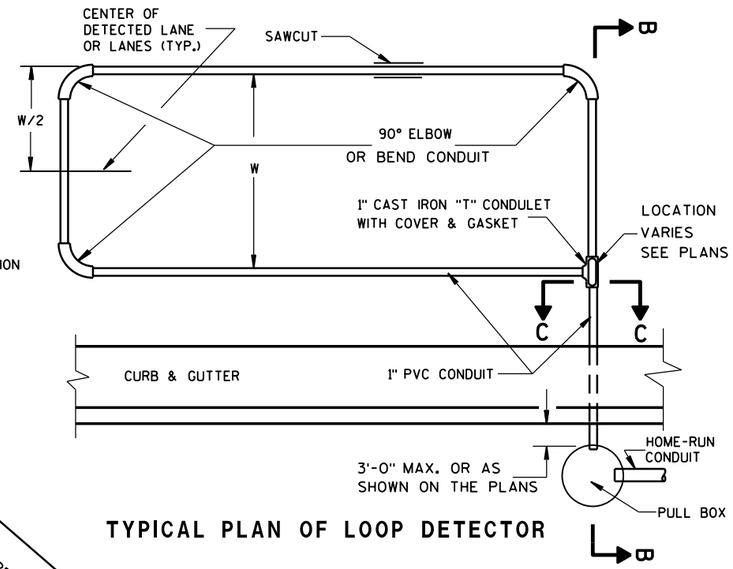
TOP VIEW

CORNER SAW SLOT DETAIL

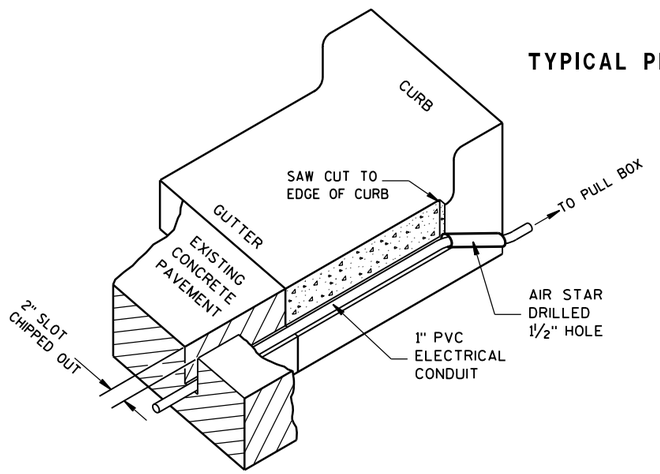


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

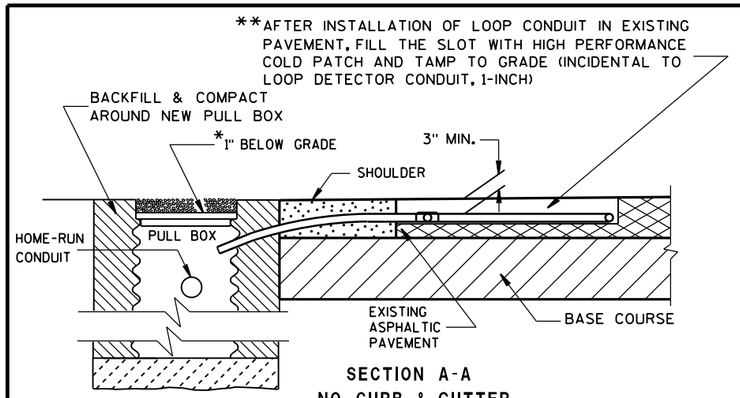
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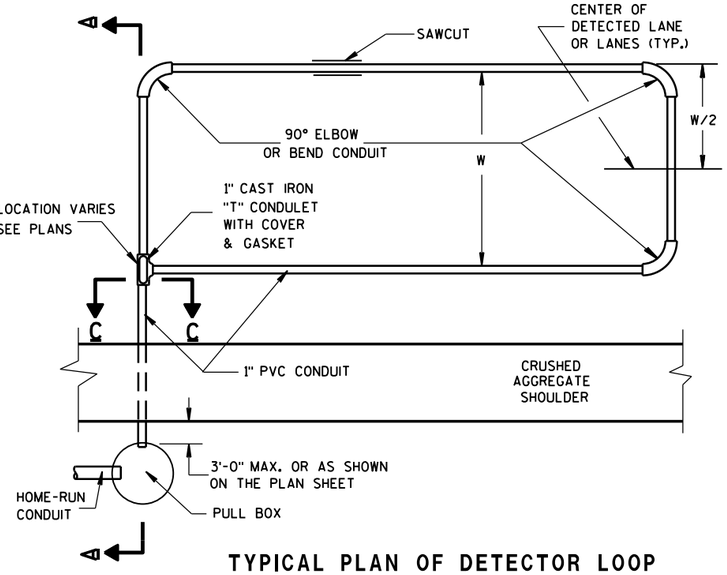
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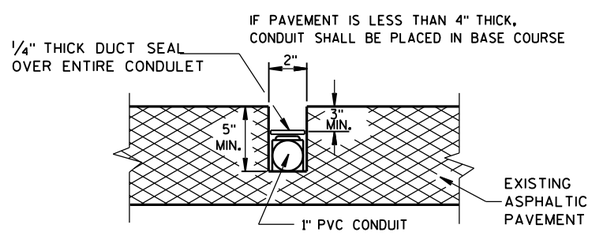
SECTION A-A
NO CURB & GUTTER

TYPICAL PLAN OF LOOP DETECTOR

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF DETECTOR LOOP



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

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THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

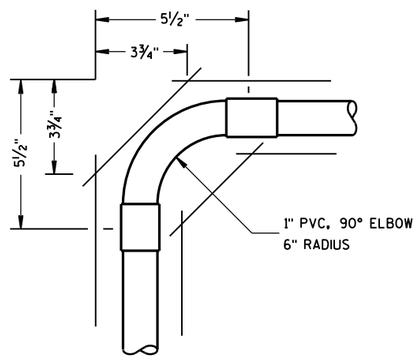
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

IN THE EVENT THAT THE EXISTING PAVEMENT IS MORE THAN 5 INCHES THICK, AND THEREFORE , THE 1 INCH CONDUIT DOES NOT REQUIRE INSTALLATION BELOW THE PAVEMENT INTO THE BASE COURSE, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH BEFORE INSTALLATION OF THE CONDUIT. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

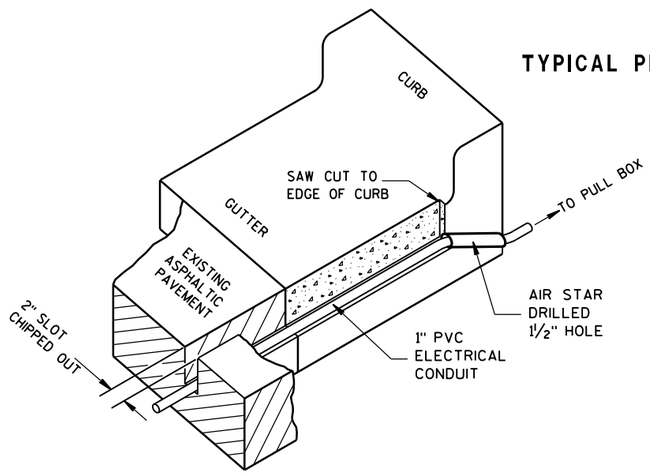
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



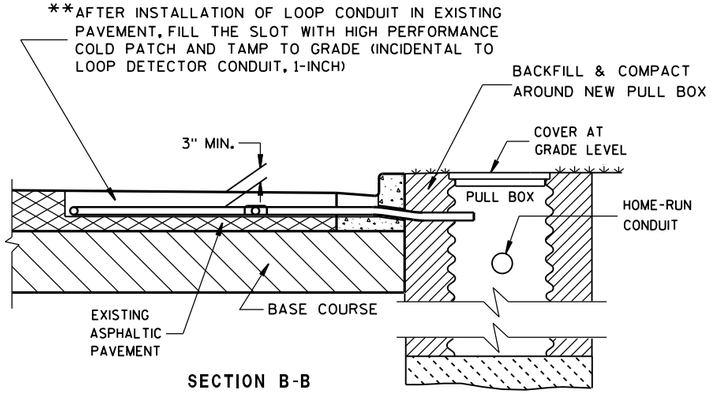
TOP VIEW

CORNER SAW SLOT DETAIL



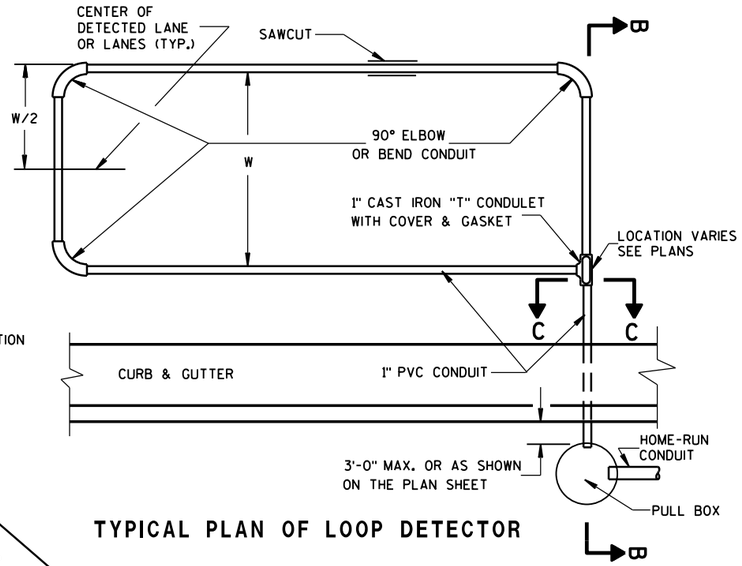
ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



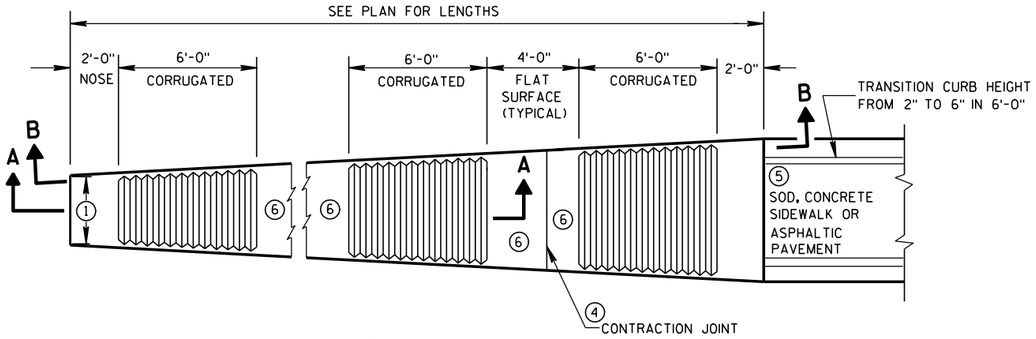
TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

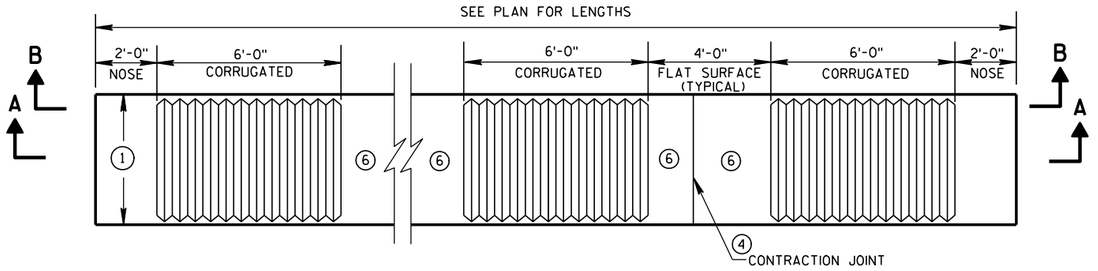
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

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S.D.D. 9 F 13-4



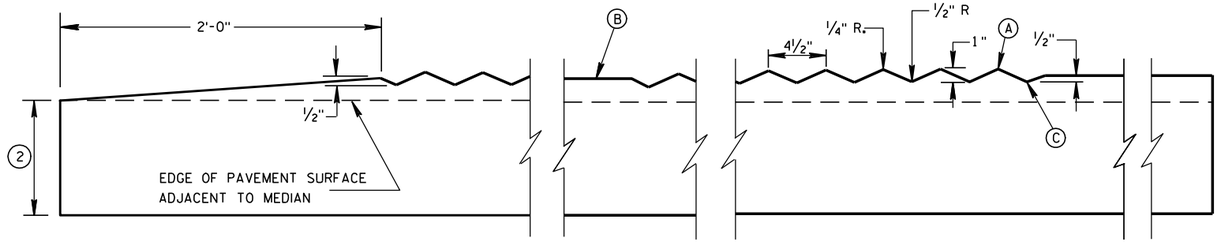
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

(3) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

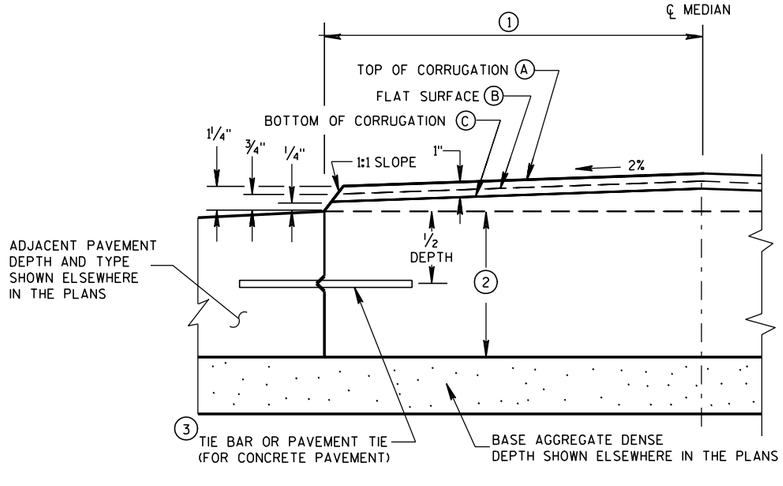
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

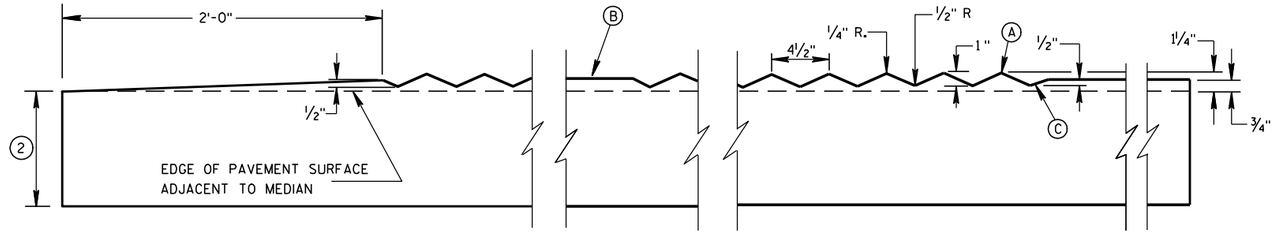
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B

LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

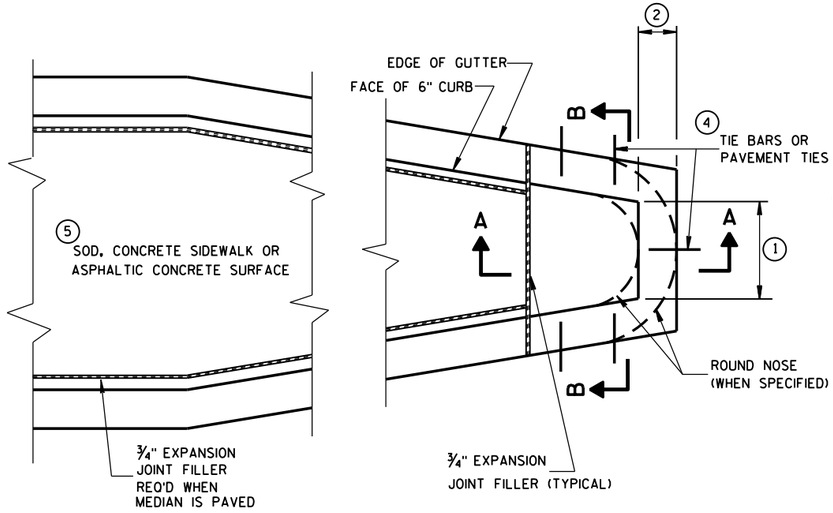
FHWA

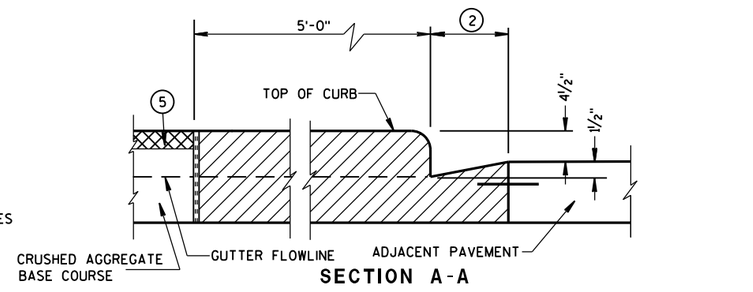
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S.D.D. 11 B 1-5





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

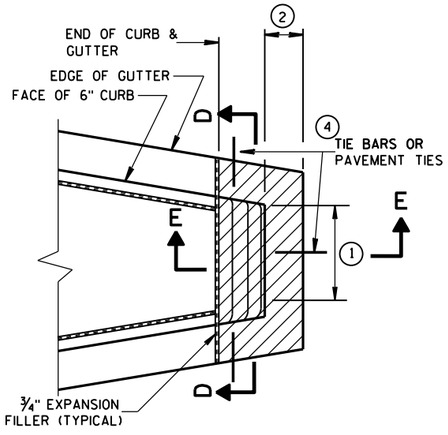
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

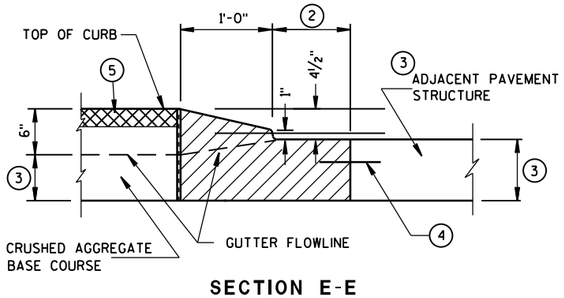
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

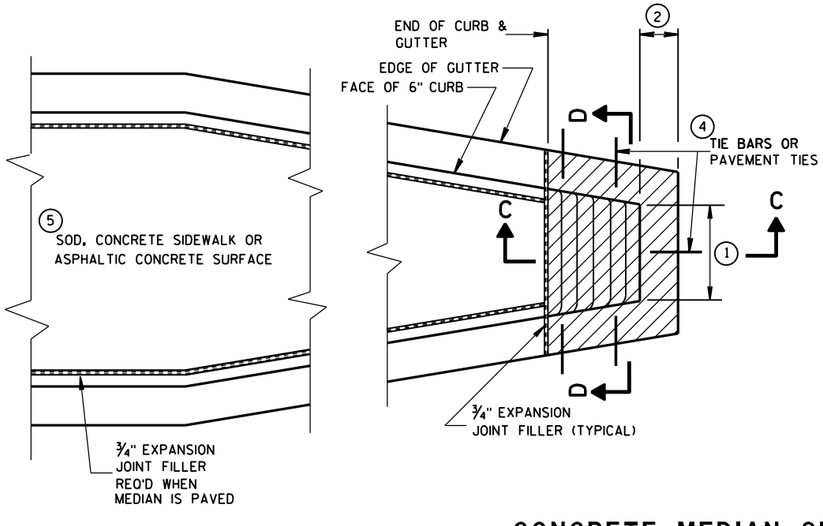
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

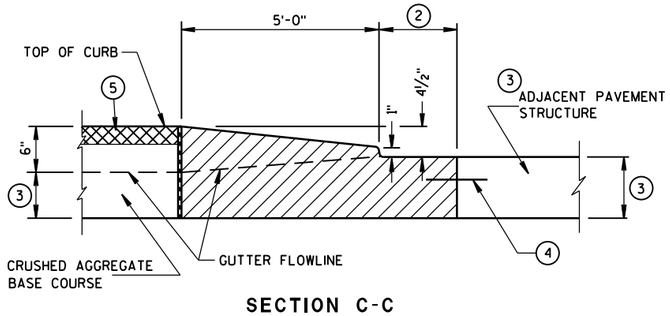




SECTION E-E

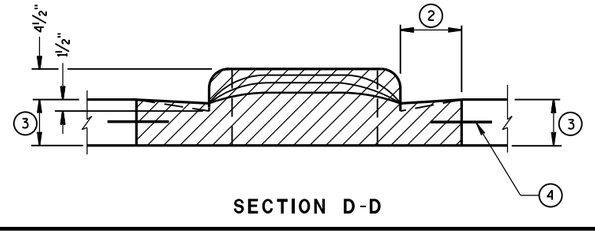
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

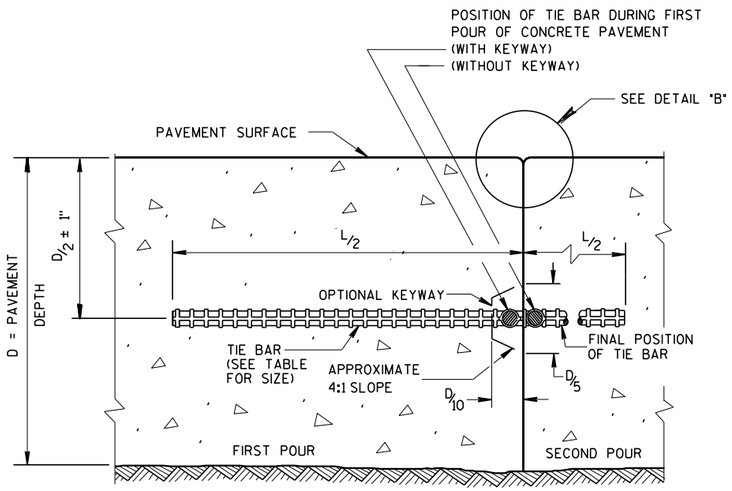
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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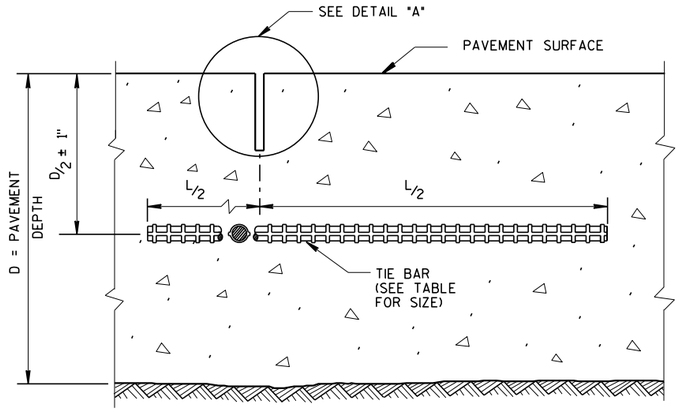
S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

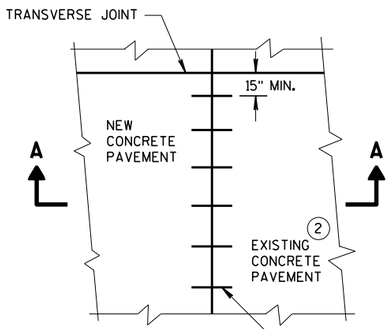
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

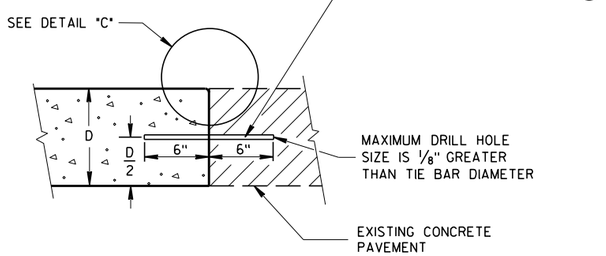
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

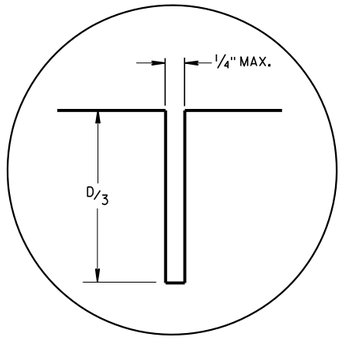


PLAN VIEW

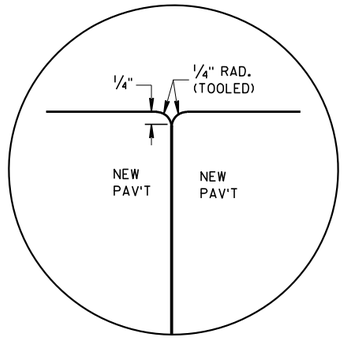


SECTION A-A

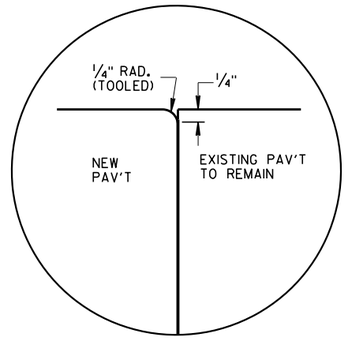
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



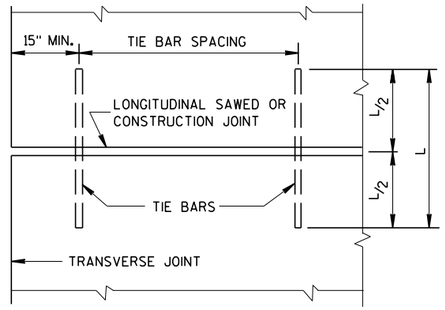
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

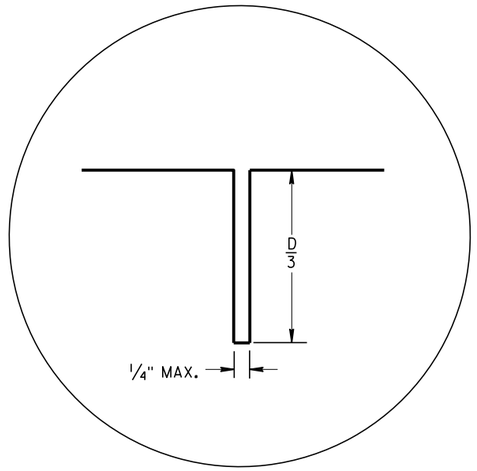
APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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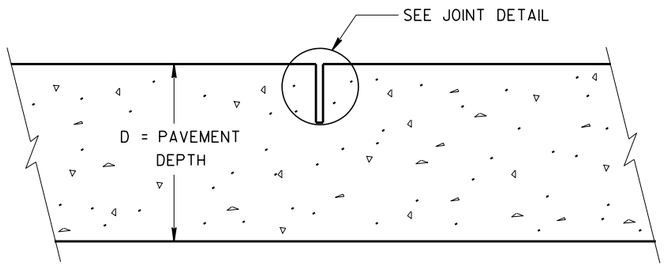
S.D.D. 13 C 1-19

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S.D.D. 13 C 1-19



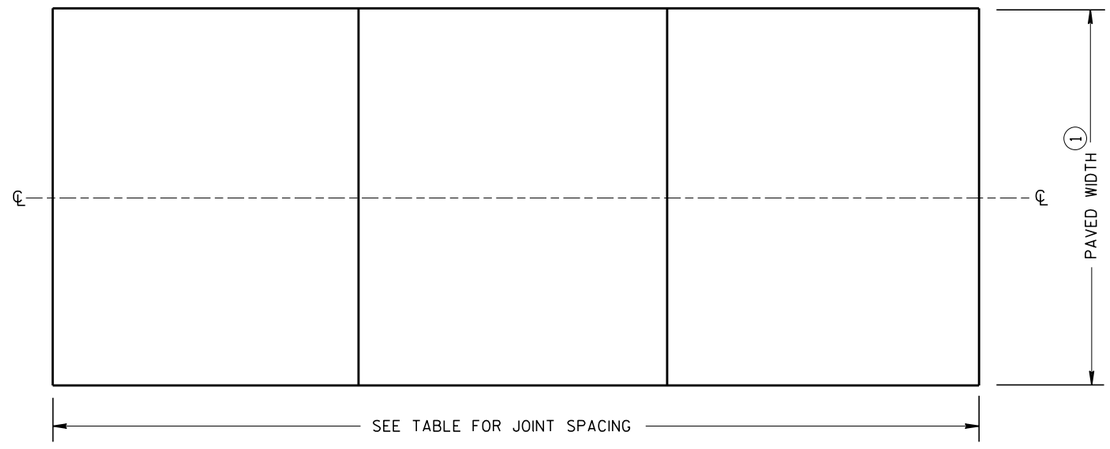
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION JOINTS

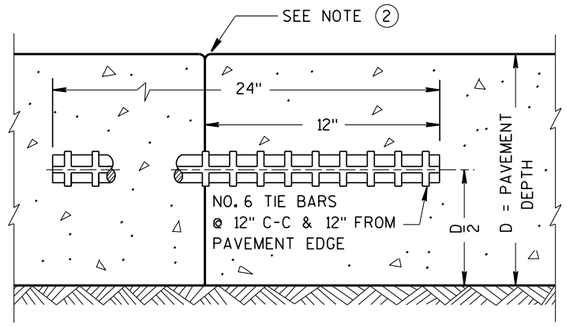
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

URBAN
NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPI

FHWA

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S.D.D. 13 C 4-17

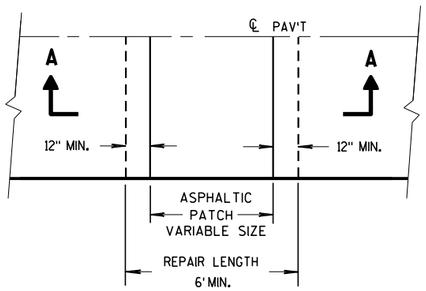
GENERAL NOTES

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.

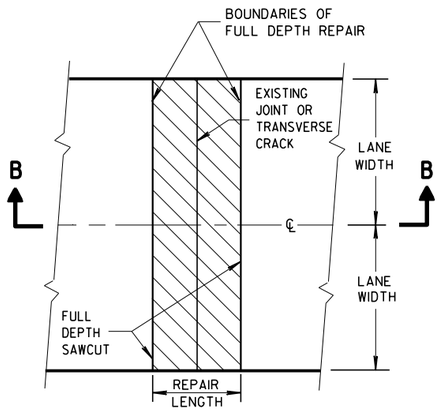
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

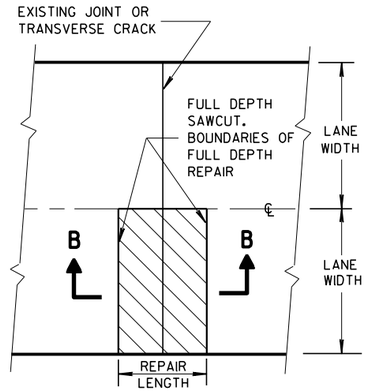
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

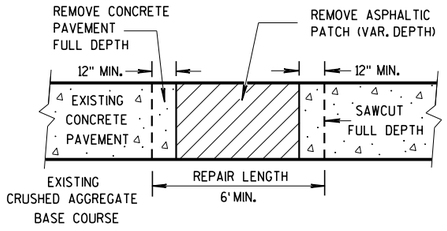


PLAN VIEW
(DOUBLE LANE REPAIR)



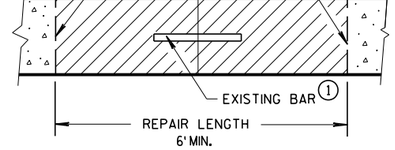
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



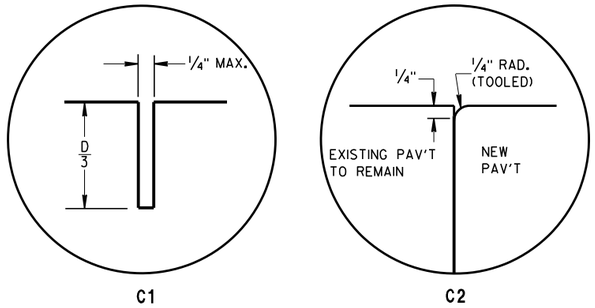
SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 13 C 9-15a



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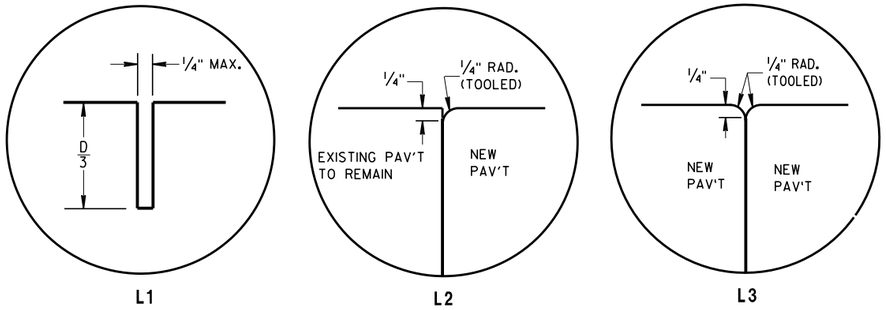
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

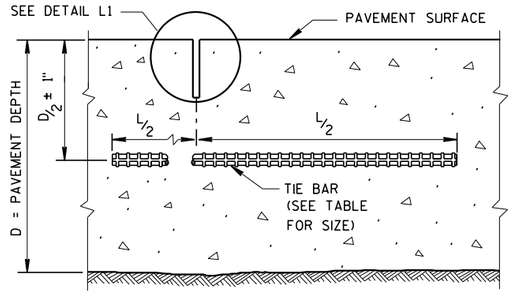
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

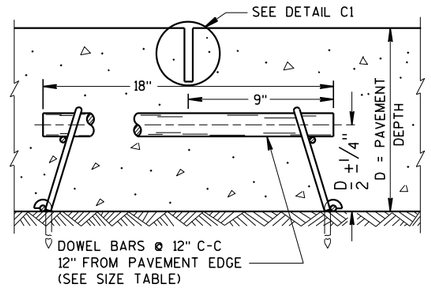
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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

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

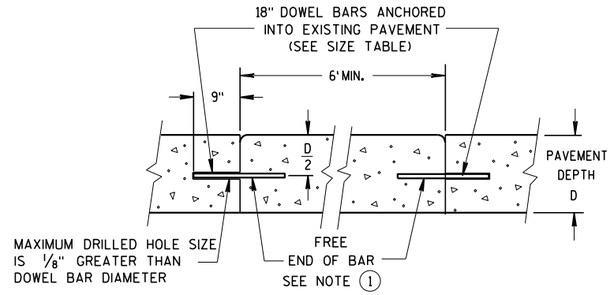
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

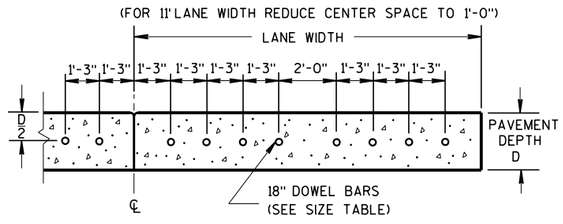


SECTION F-F

CONTRACTION JOINT



SECTION D-D

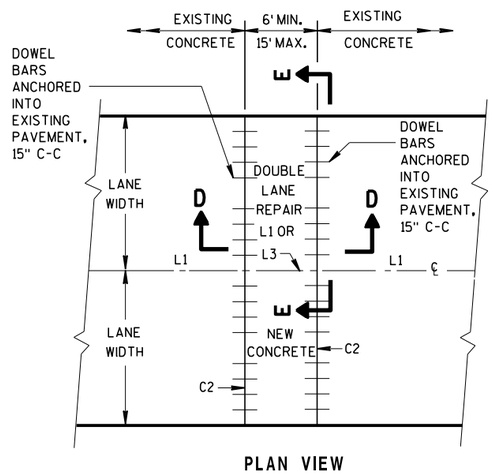


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

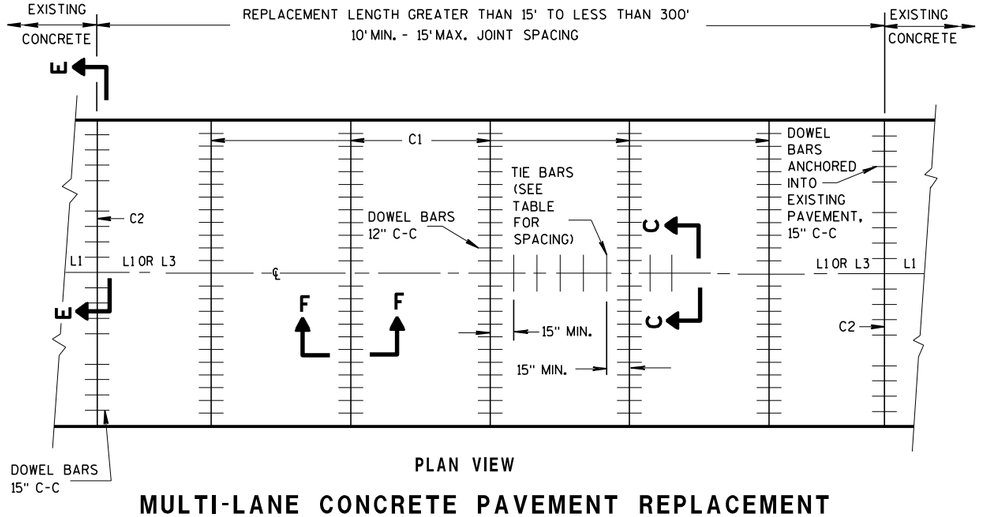
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR

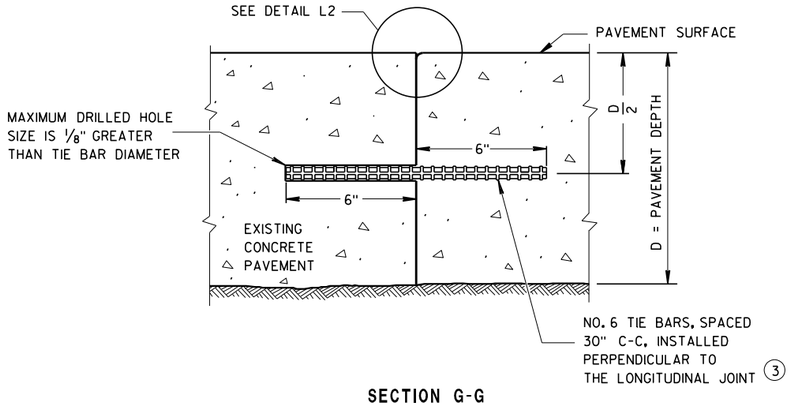


PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

6
S.D.D. 13 C 9-15b



SECTION G-G

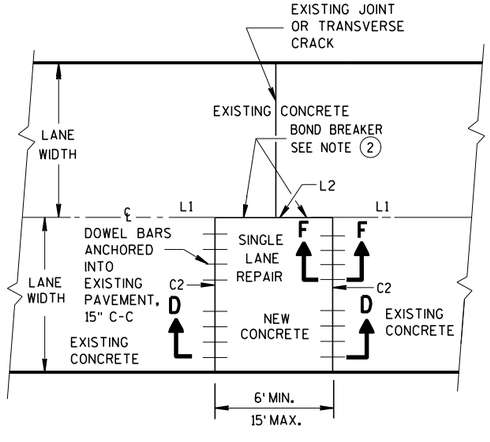
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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 IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

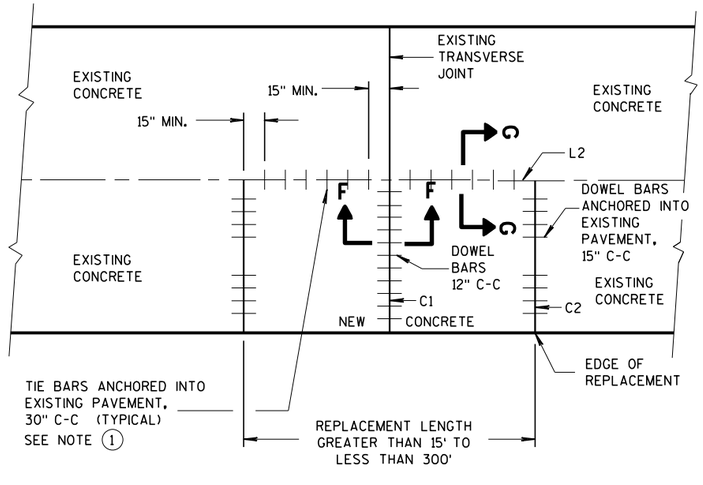
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

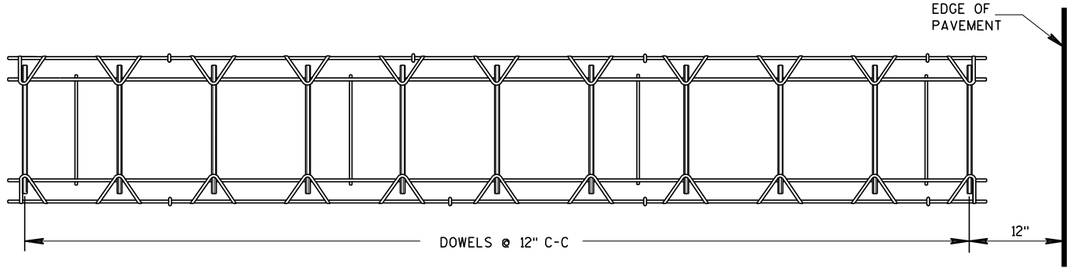
SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... — PAVEMENT SUPE...
FHWA

6
S.D.D. 13 C 9-15c



PLAN VIEW



SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

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.

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 LONGITUDINAL JOINT AND 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 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.

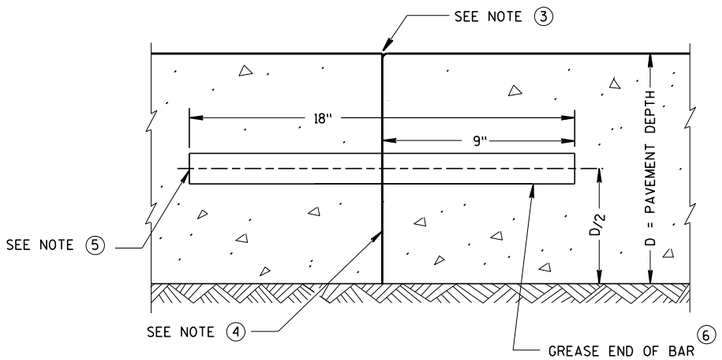
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

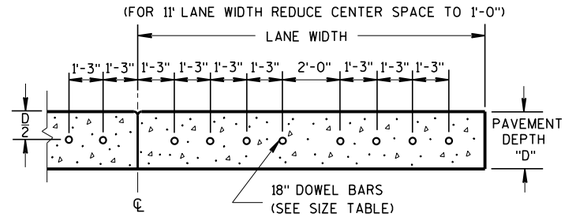
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

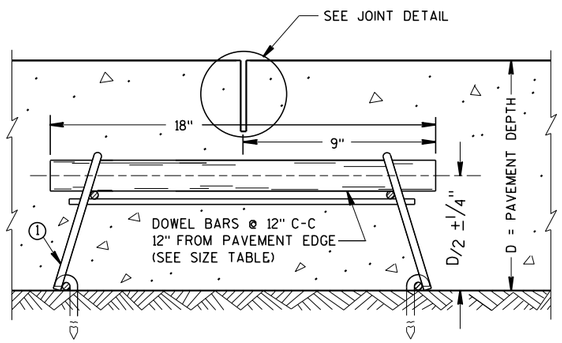
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



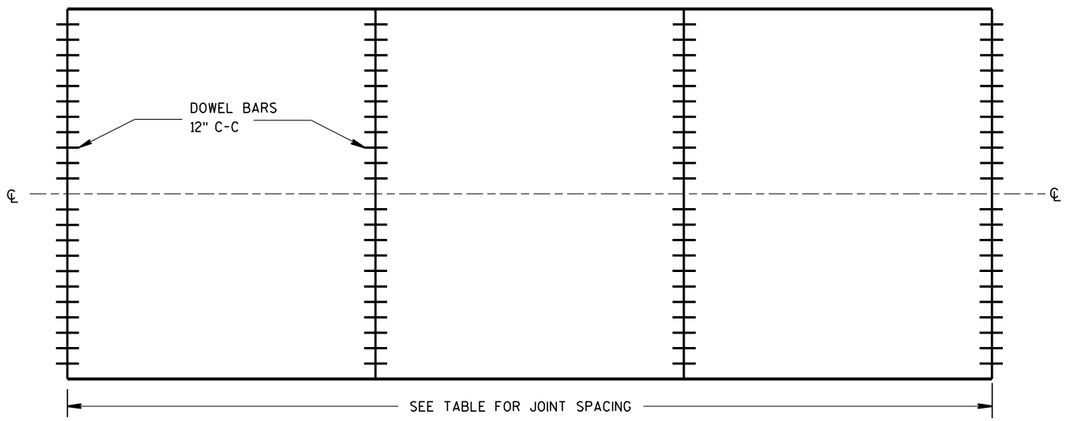
TRANSVERSE CONSTRUCTION JOINT



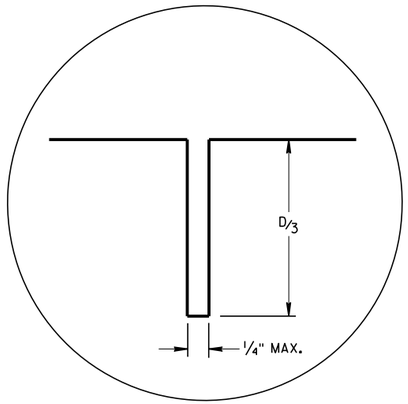
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

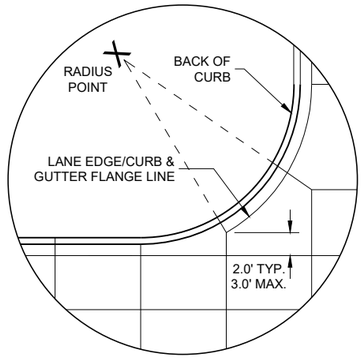
APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUP

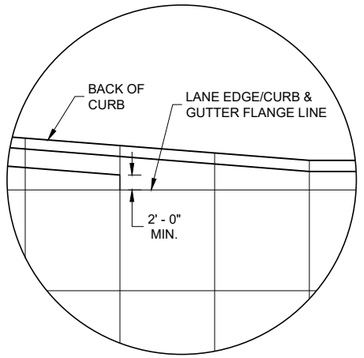
FHWA

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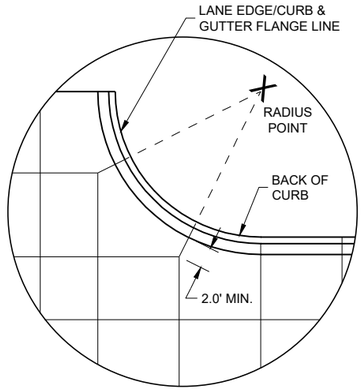
S.D.D. 13 C 13-9



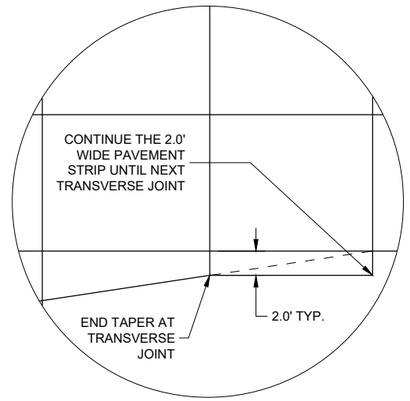
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

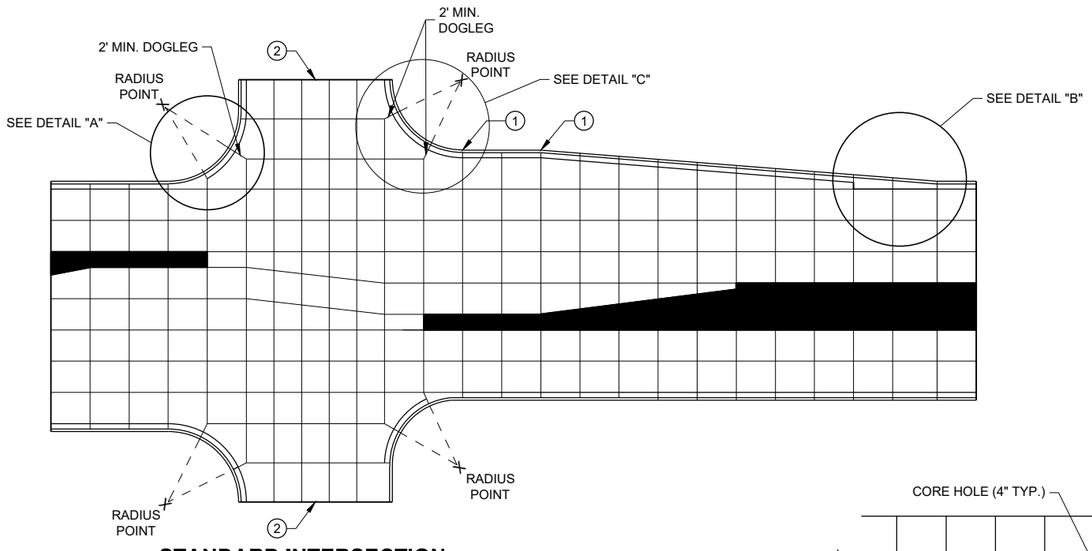
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

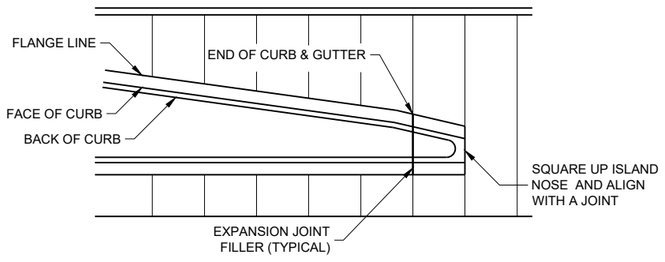


STANDARD INTERSECTION

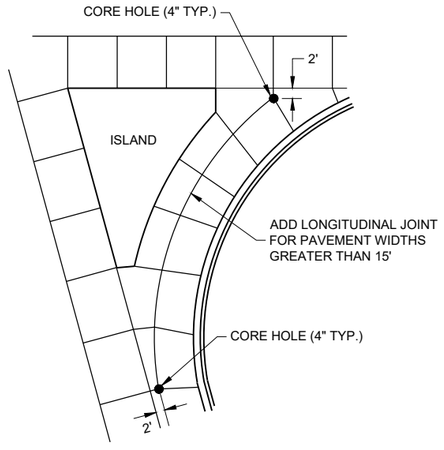
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

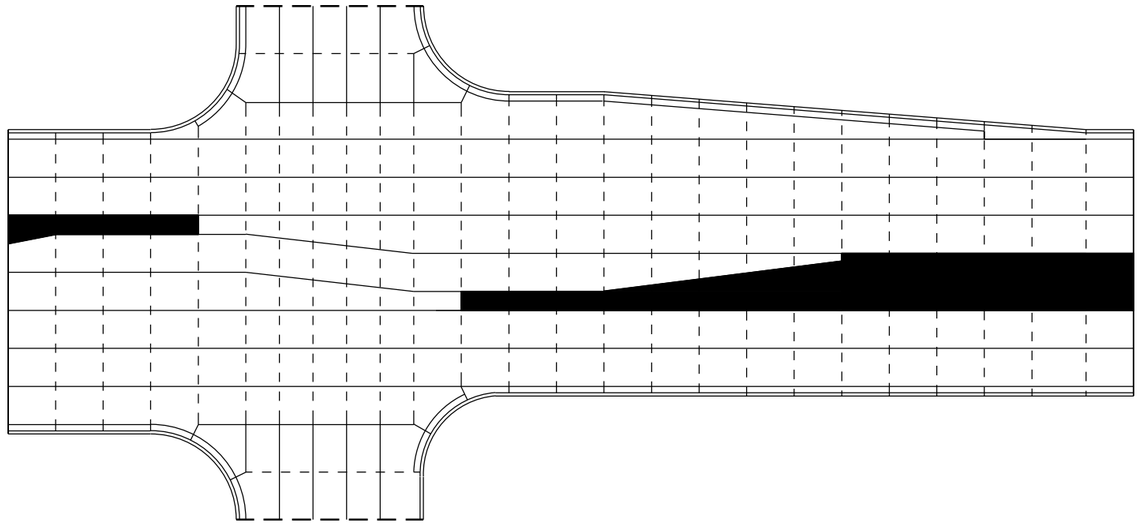
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

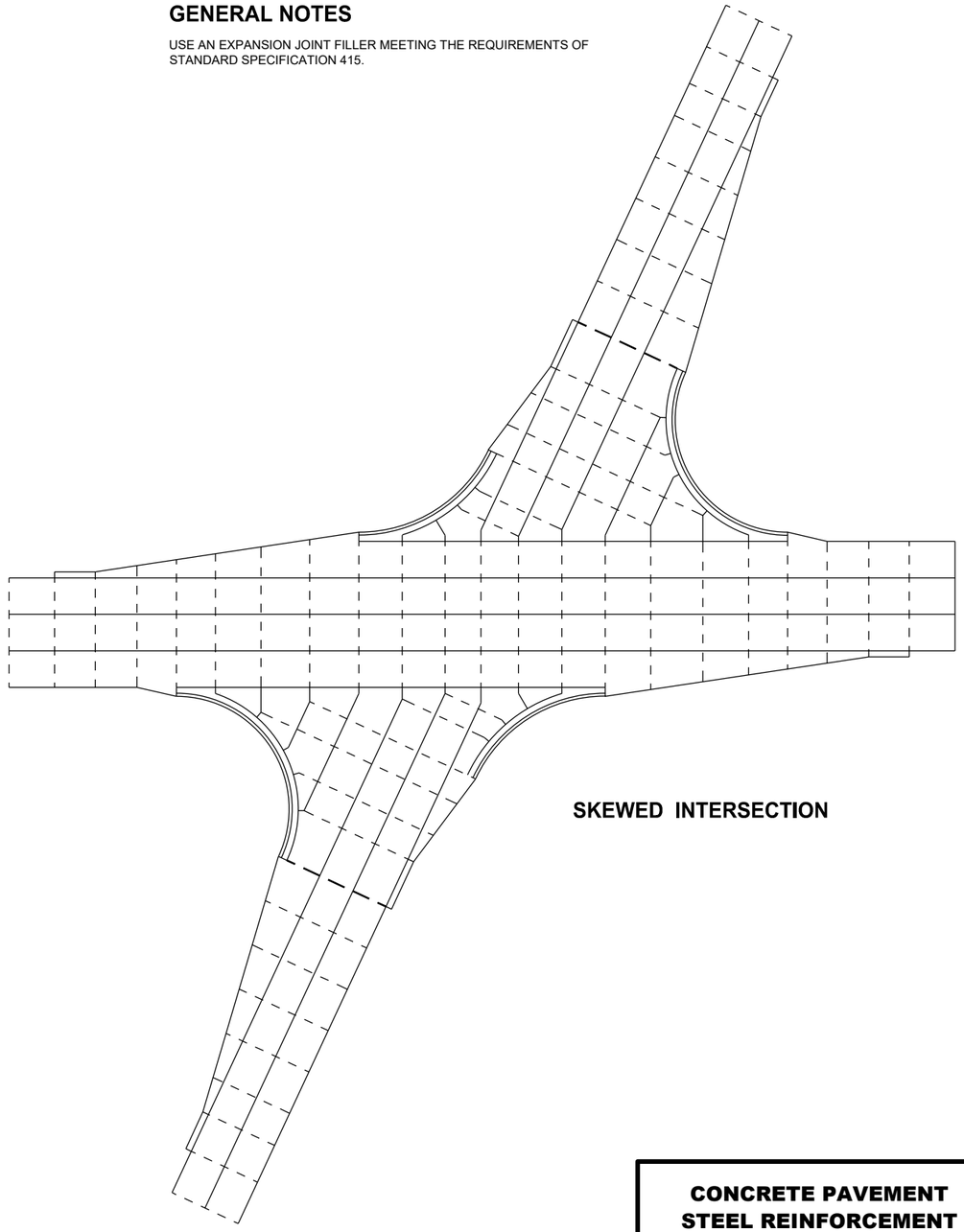
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

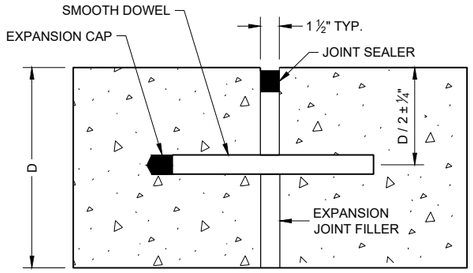
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

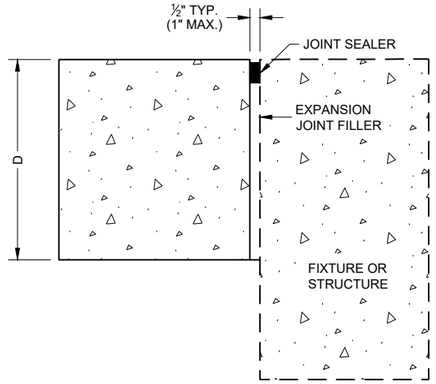
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

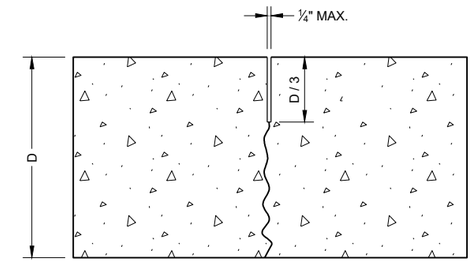
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

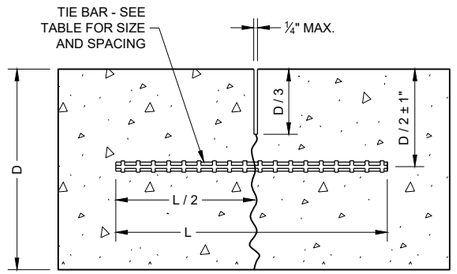
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

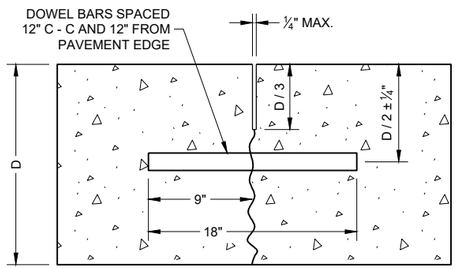
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

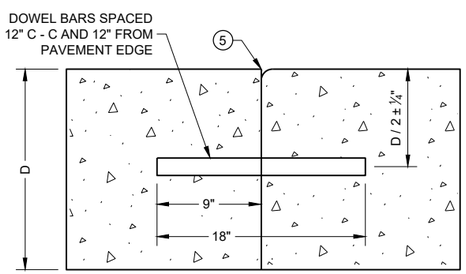


TIED LONGITUDINAL

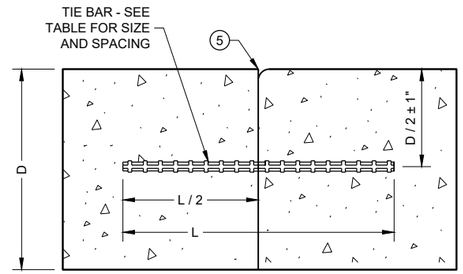


DOWELED TRANSVERSE

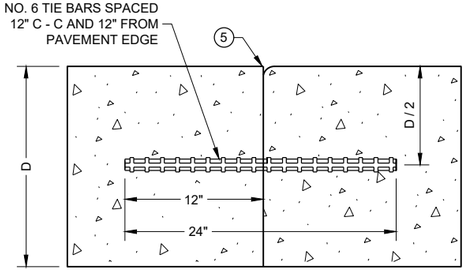
CONTRACTION JOINTS (2)



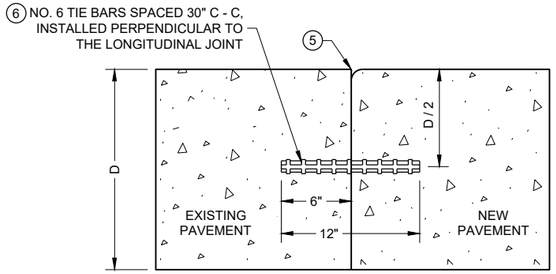
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

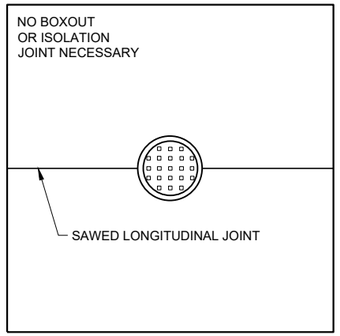
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

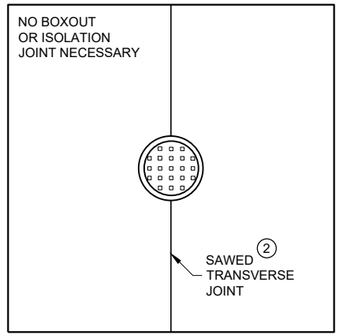
SDD 13C18 - 07c

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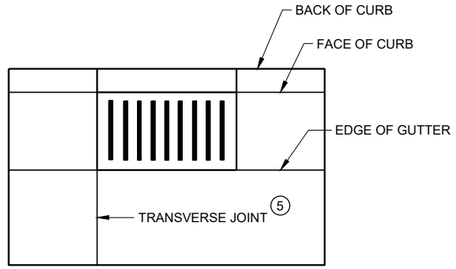
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



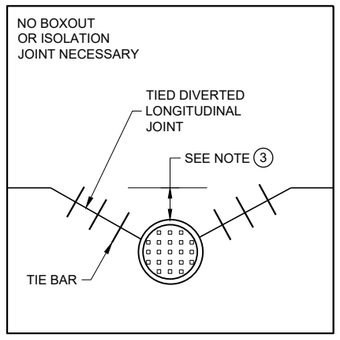
MANHOLE WITH TRANSVERSE JOINT



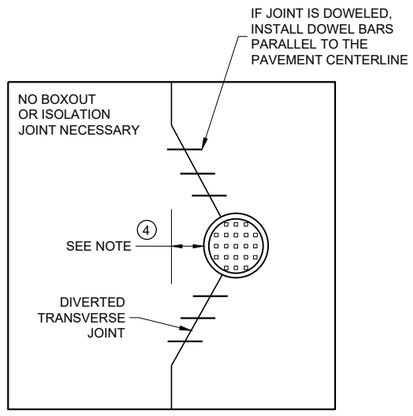
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

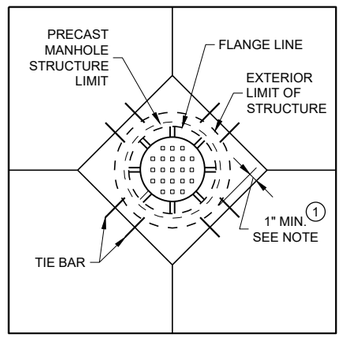
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

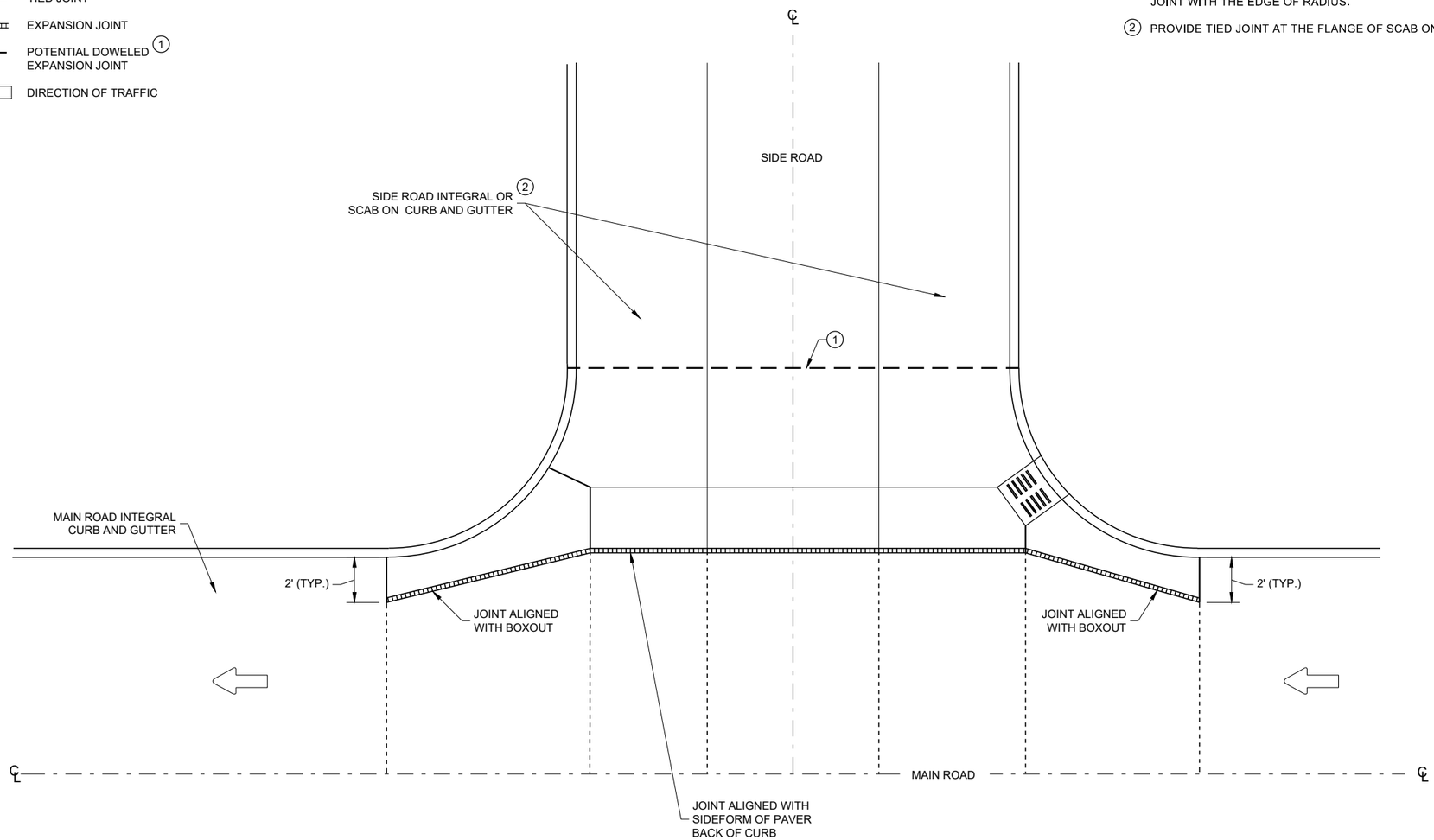
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SDD13C18 - 07d
SDD13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

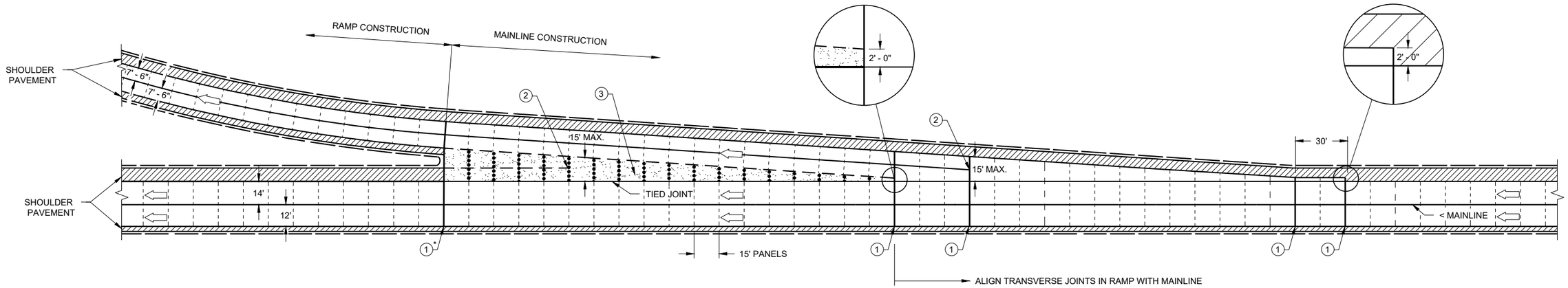
FHWA

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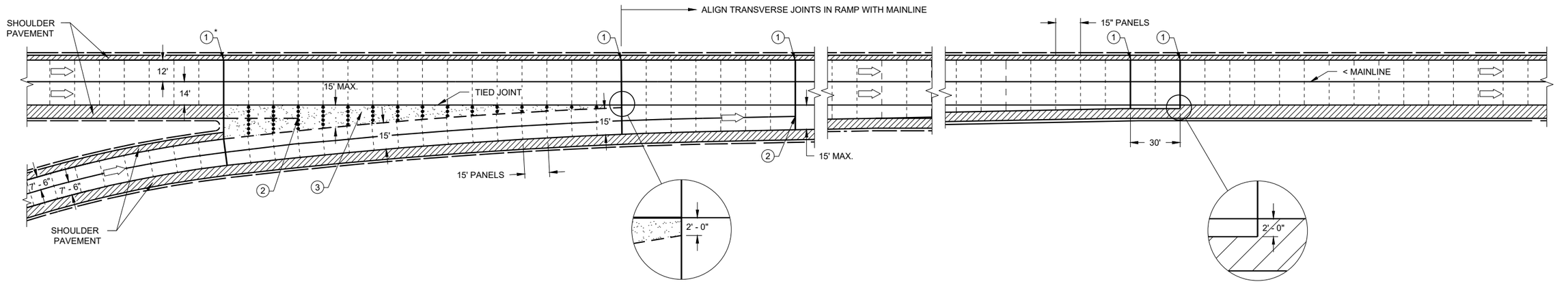
SDD 13C18 - 07f

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SDD 13C18 - 07f



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

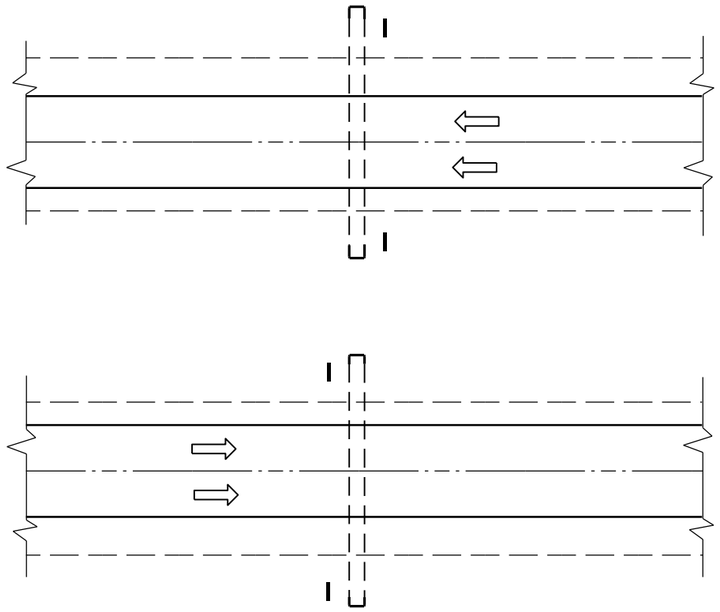
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SDD13C18 - 07g

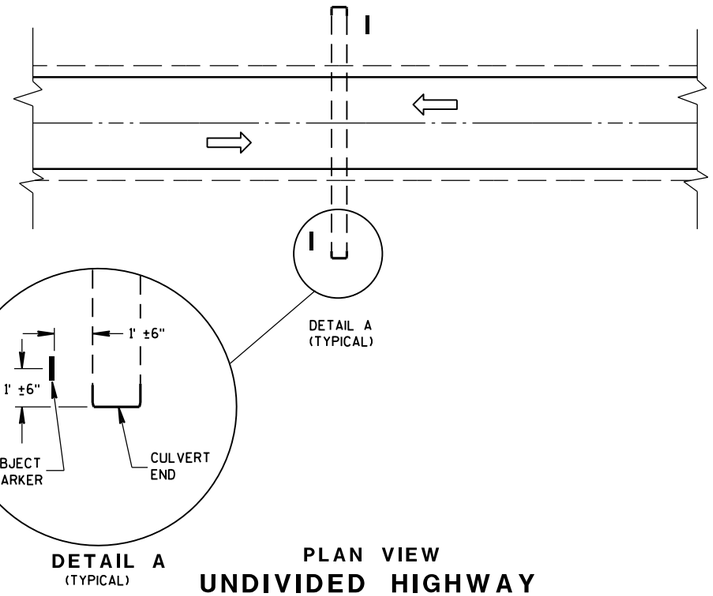
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SDD13C18 - 07g



PLAN VIEW

DIVIDED HIGHWAY



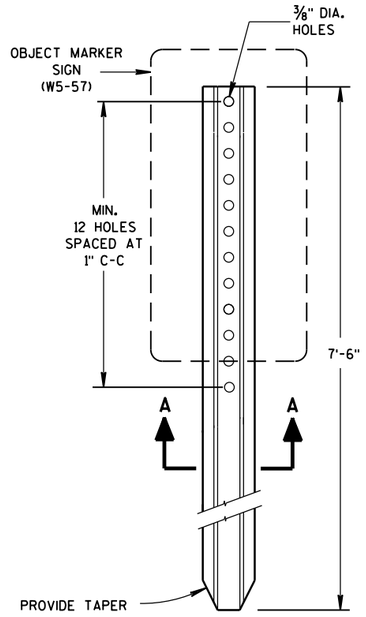
DETAIL A
(TYPICAL)

PLAN VIEW

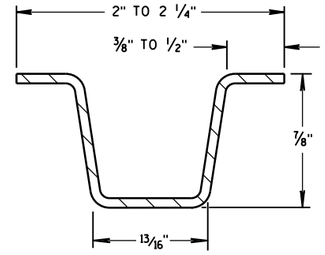
UNDIVIDED HIGHWAY

OBJECT MARKER

DIRECTION OF TRAFFIC FLOW



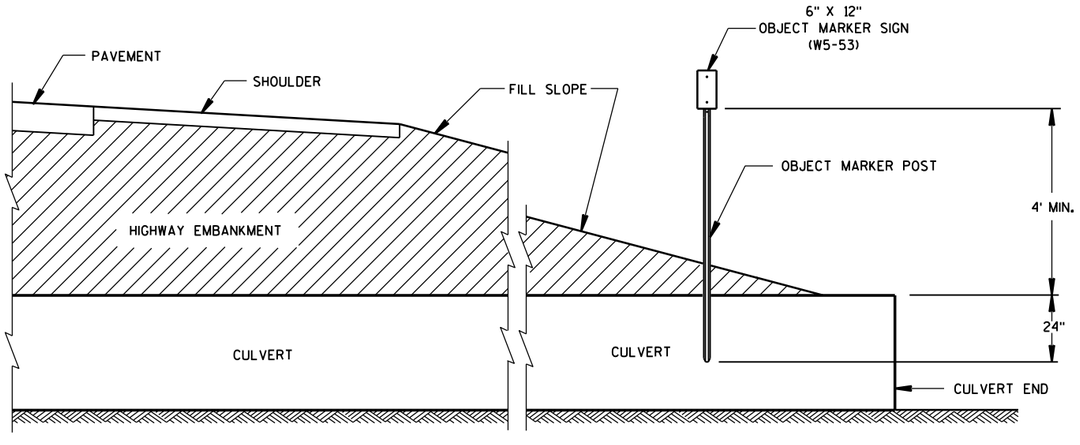
OBJECT MARKER POST



SECTION A-A

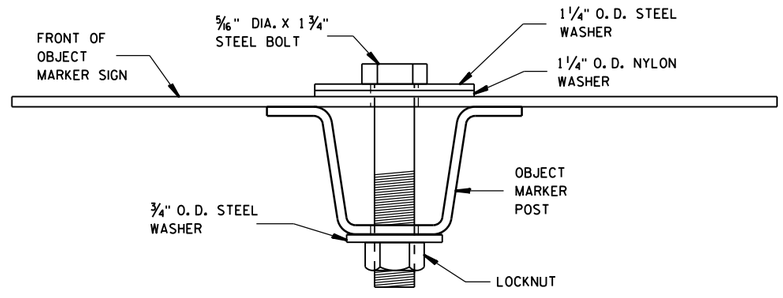
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

OBJECT MARKER LOCATION



CROSS SECTION

OBJECT MARKER PLACEMENT



MOUNTING DETAIL FOR OBJECT MARKER SIGN

OBJECT MARKER FOR HAZARDOUS CULVERT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARK EER

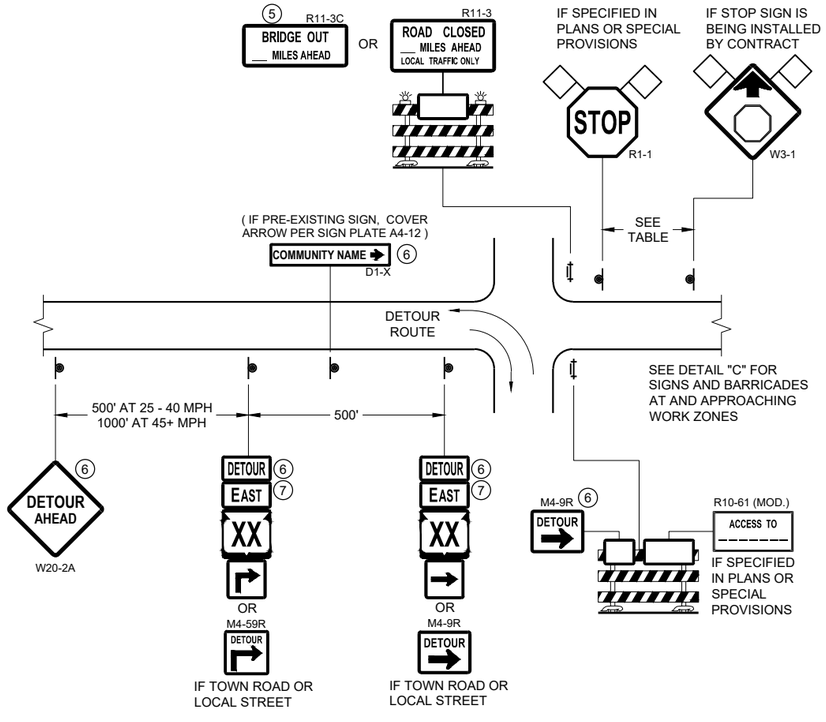
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S.D.D. 15 A 7-2

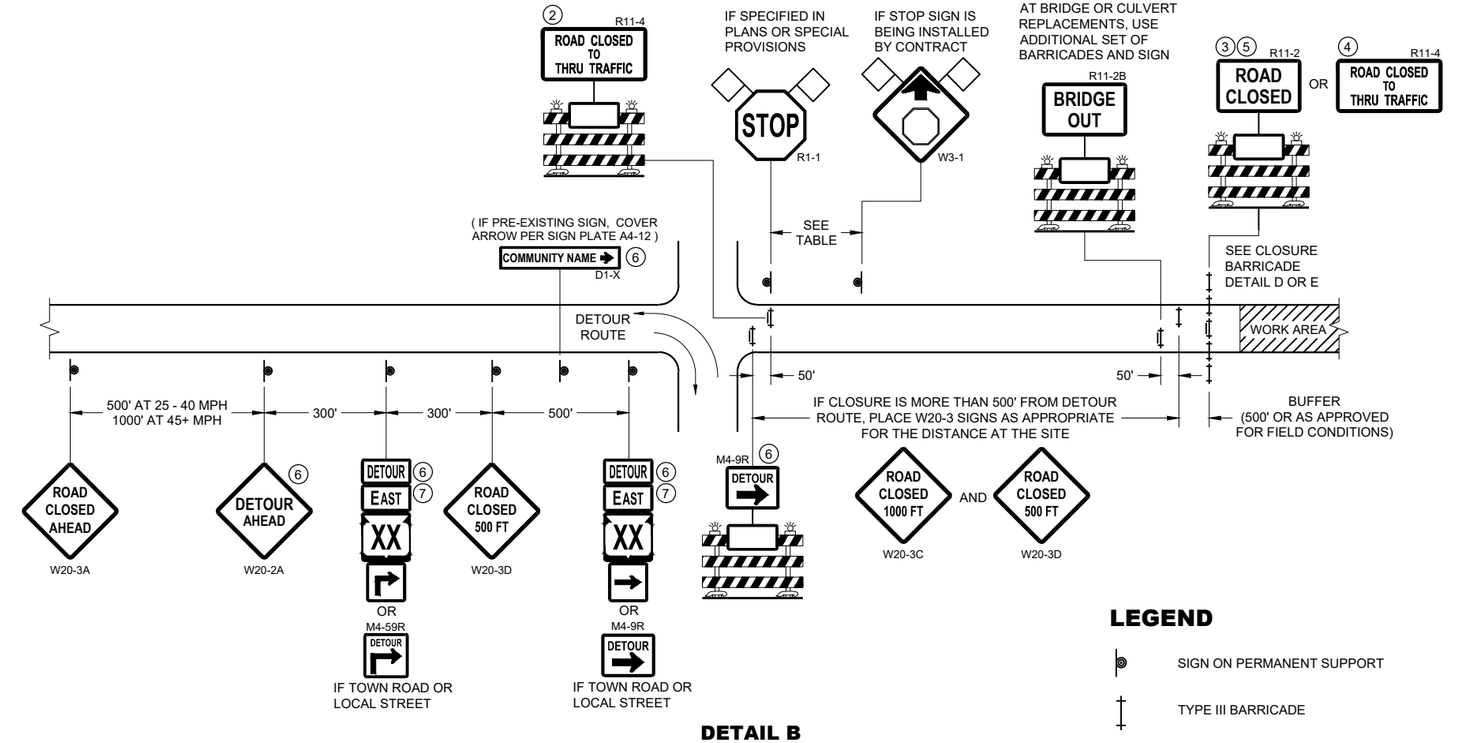
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S.D.D. 15 A 7-2



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



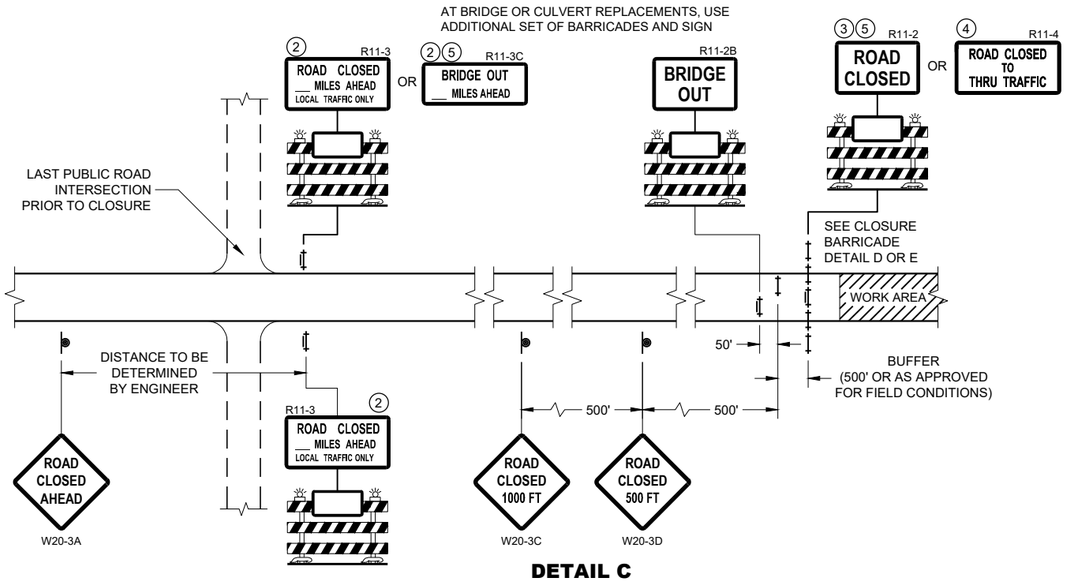
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

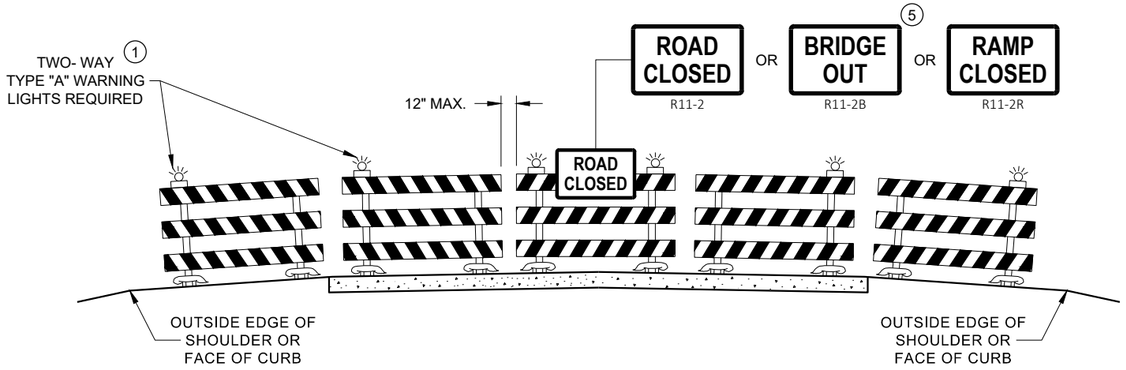
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

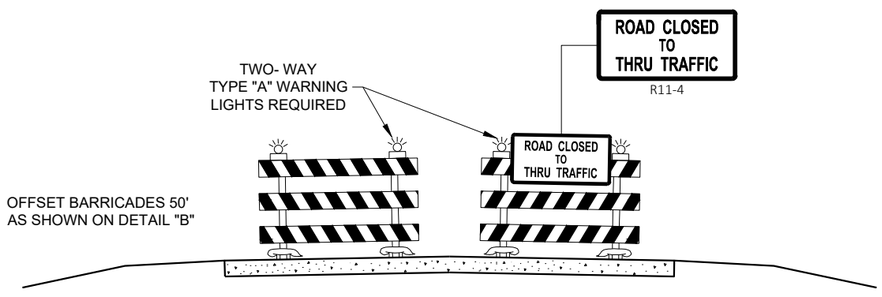
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SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C02 - 08b

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SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

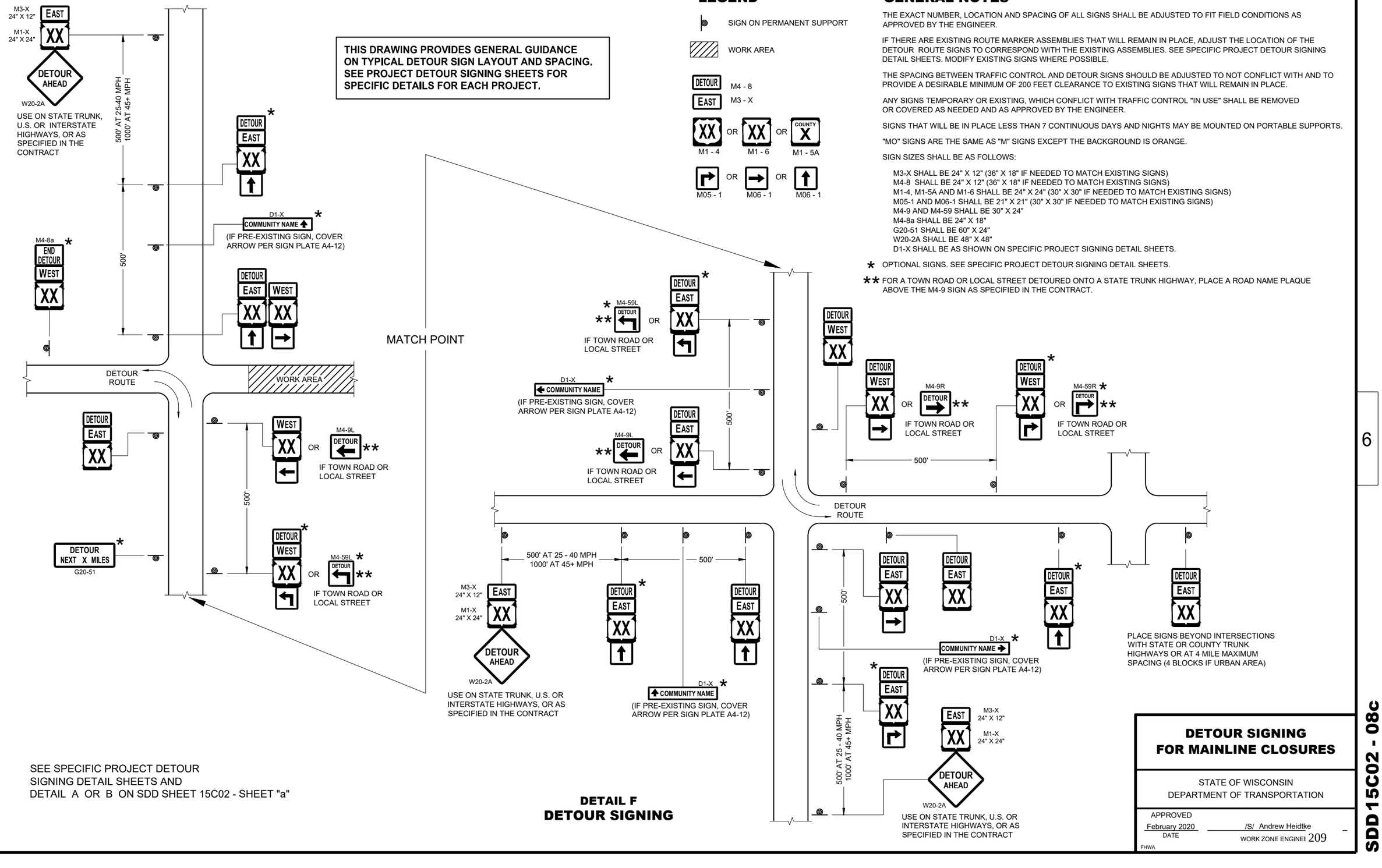
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

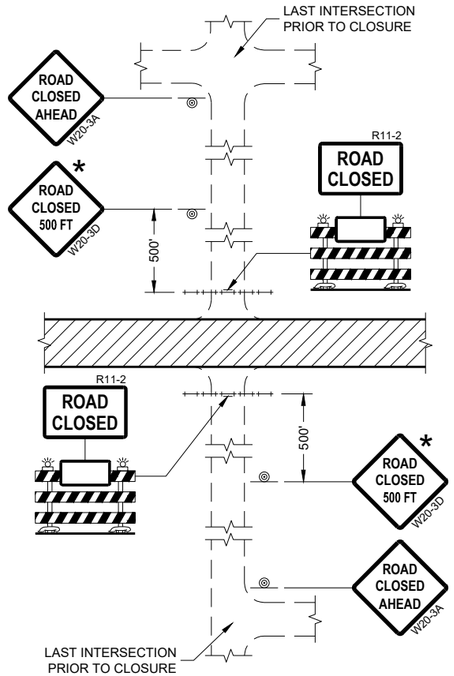
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

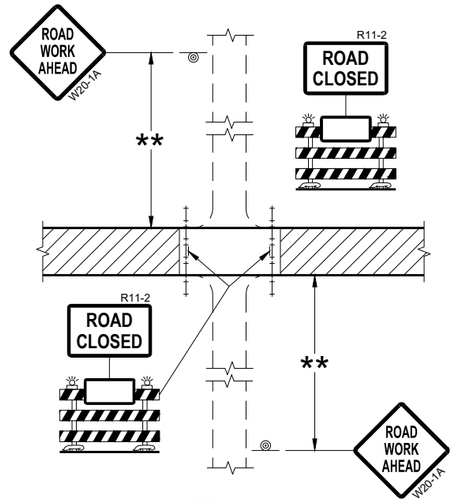
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SDD 15C02 - 08c

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DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

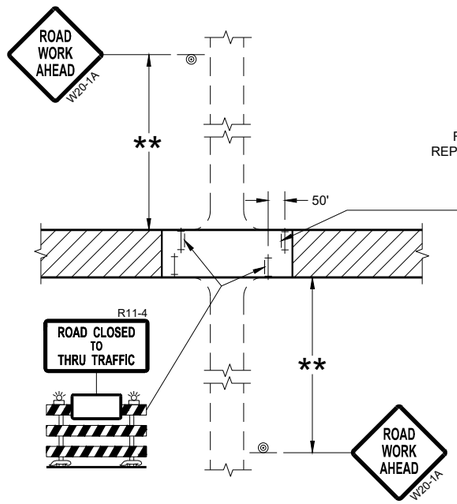
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

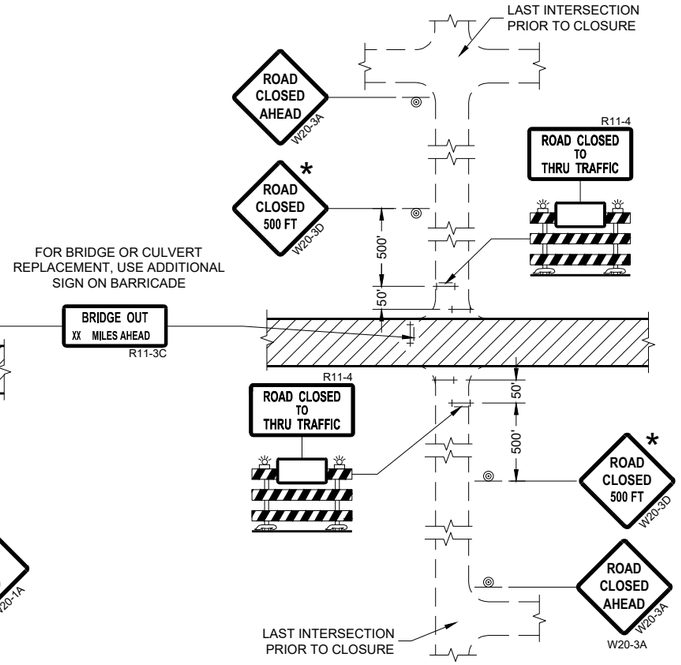
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C03 - 05

GENERAL NOTES

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

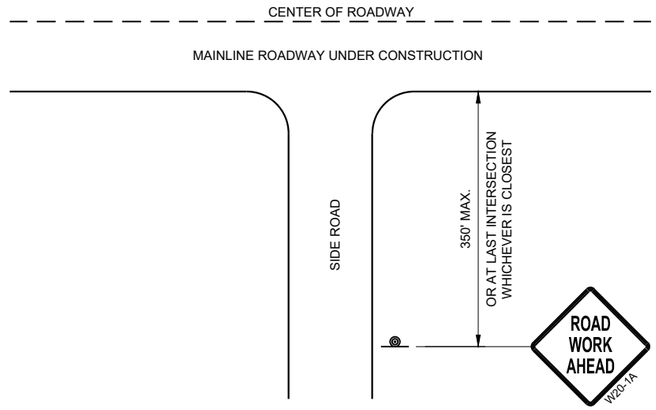
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



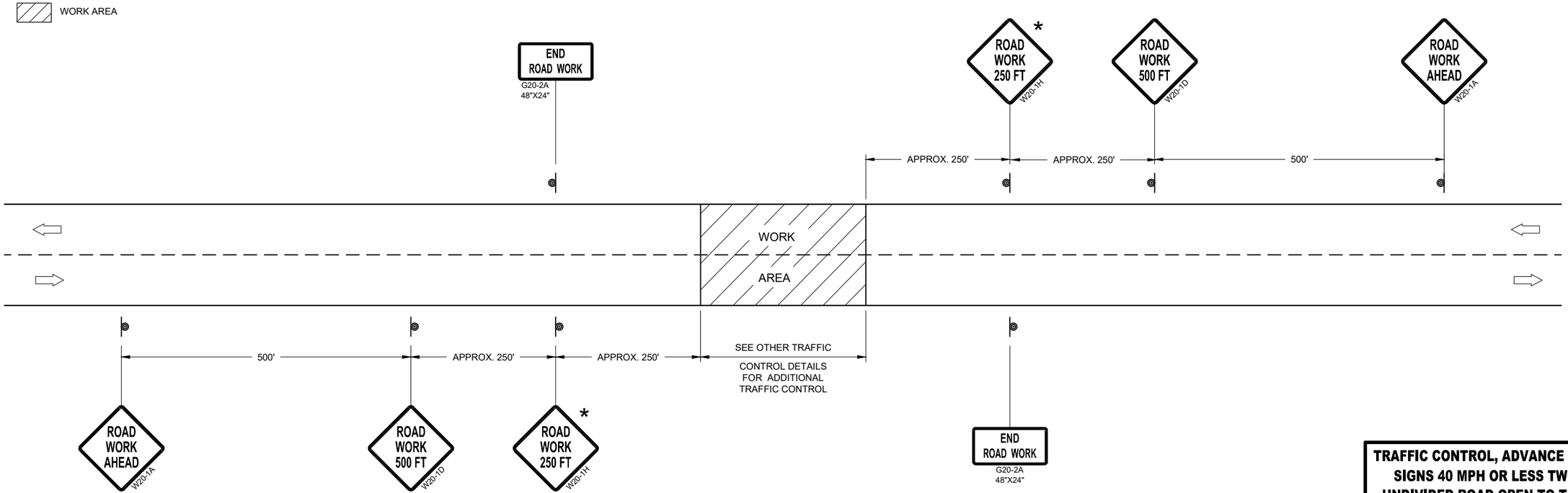
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

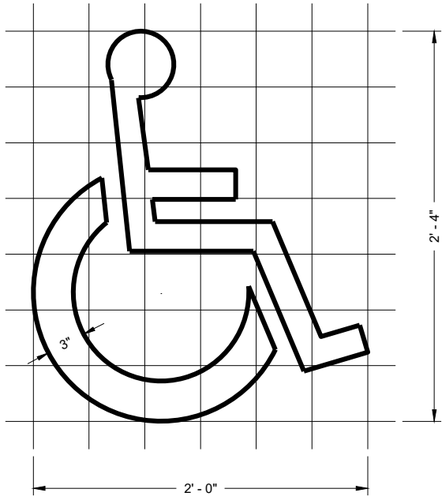
FHWA

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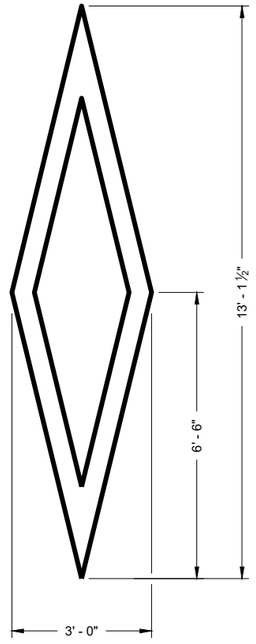
SDD 15C05 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

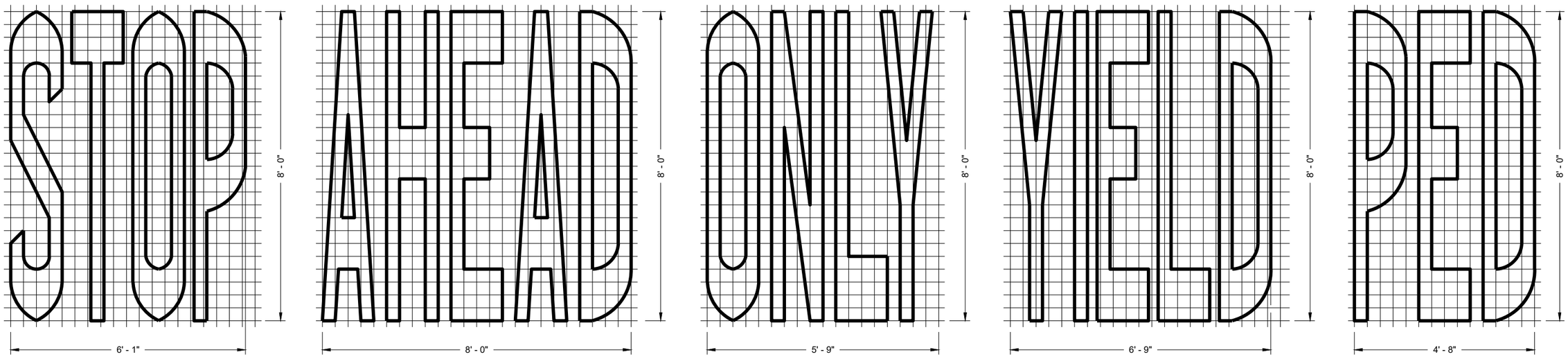
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

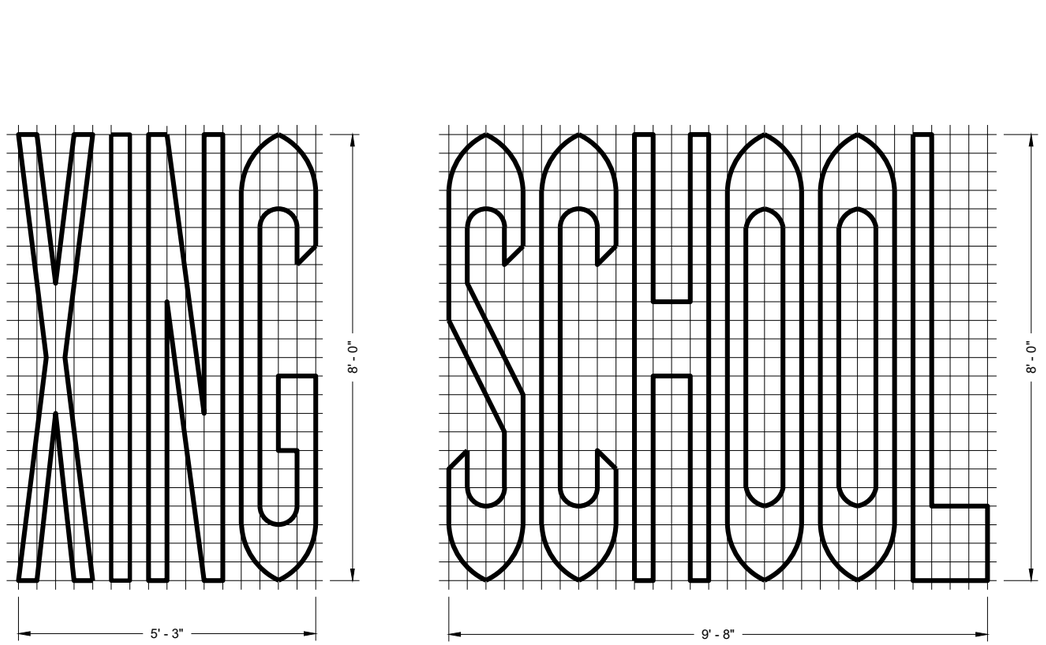
APPROVED

November 2019
DATE

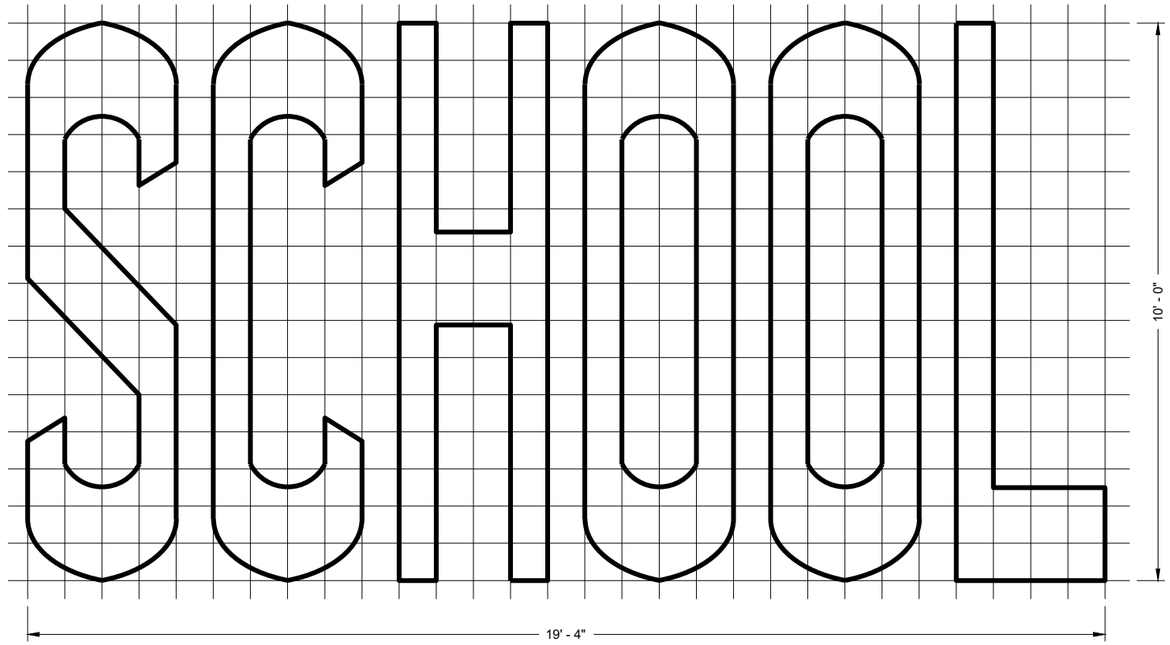
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
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/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

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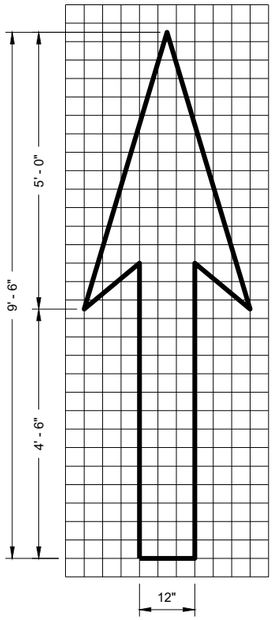
SDD 15C07 - 15b

6

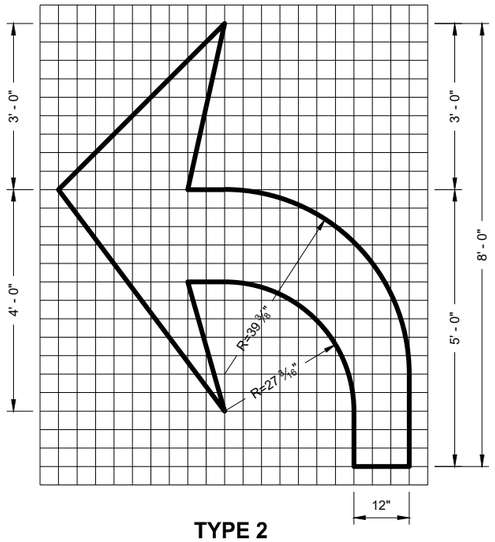
SDD 15C07 - 15b

GENERAL NOTES

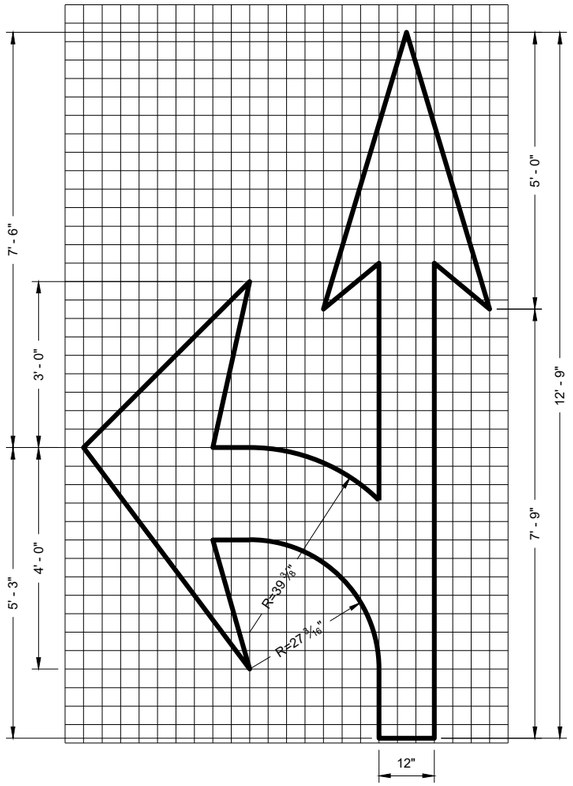
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



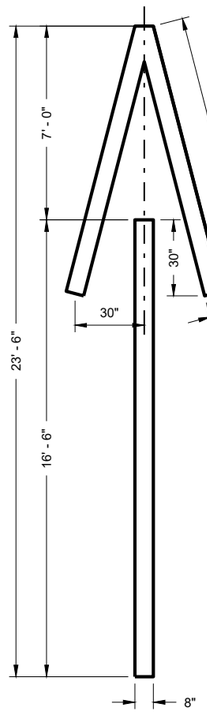
TYPE 1



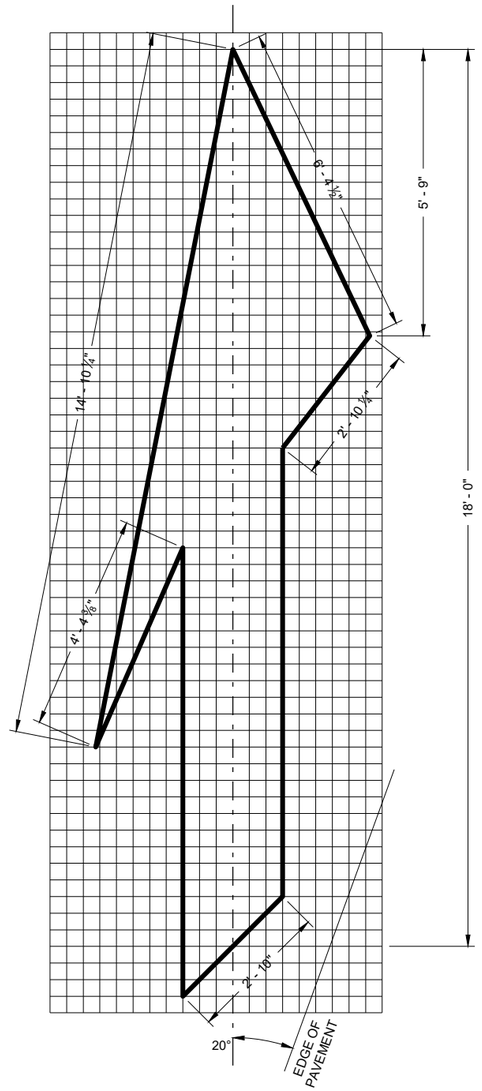
TYPE 2



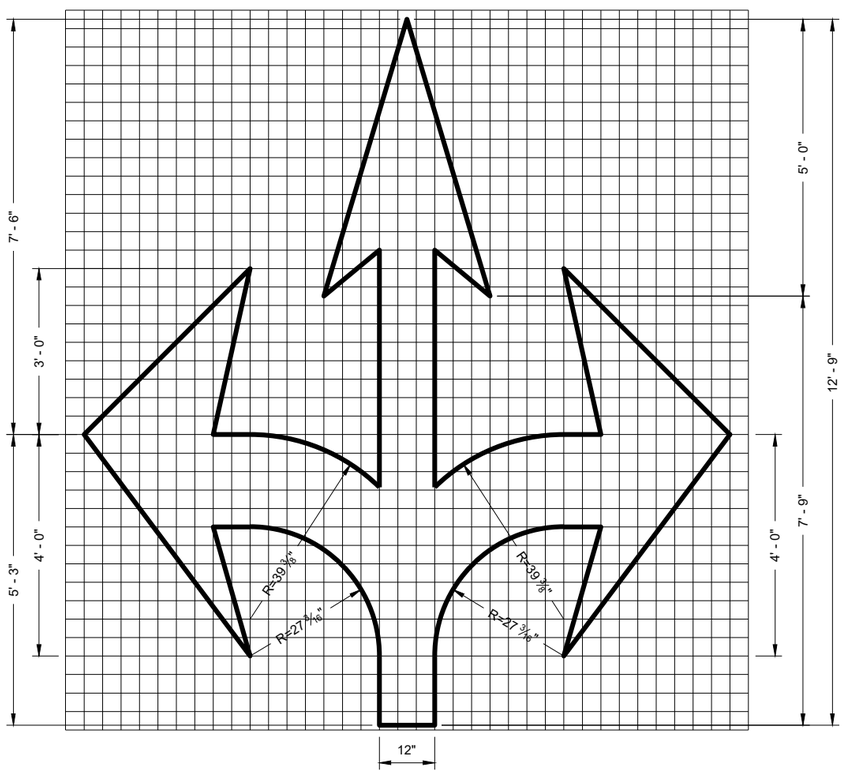
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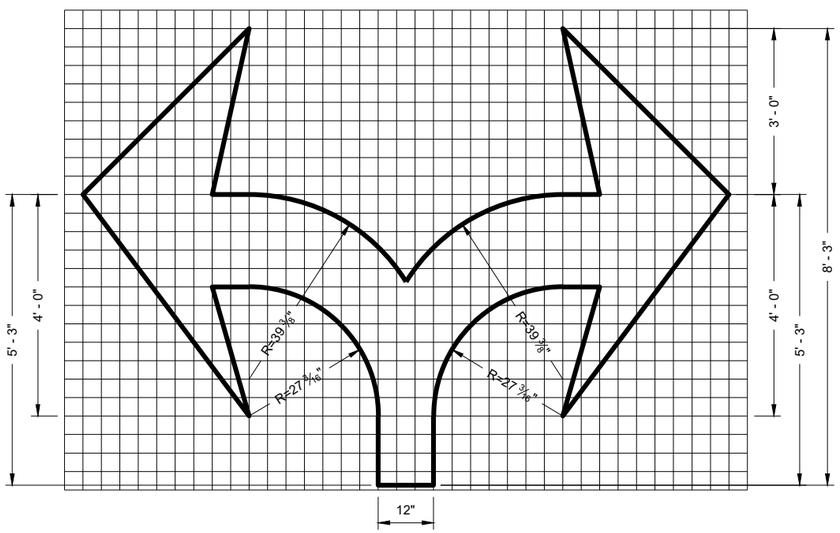
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

214

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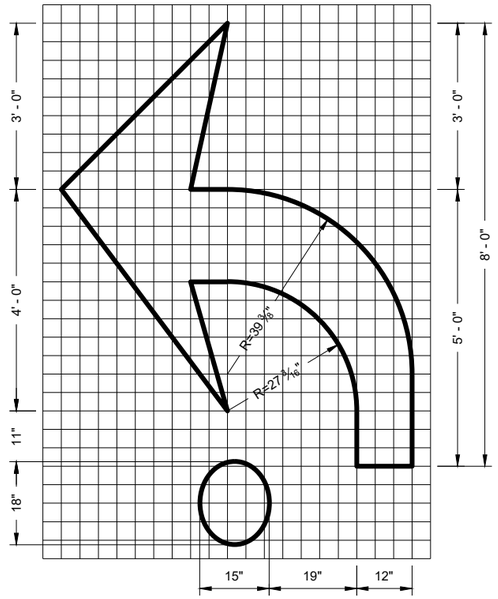
SDD 15C07 - 15c

6

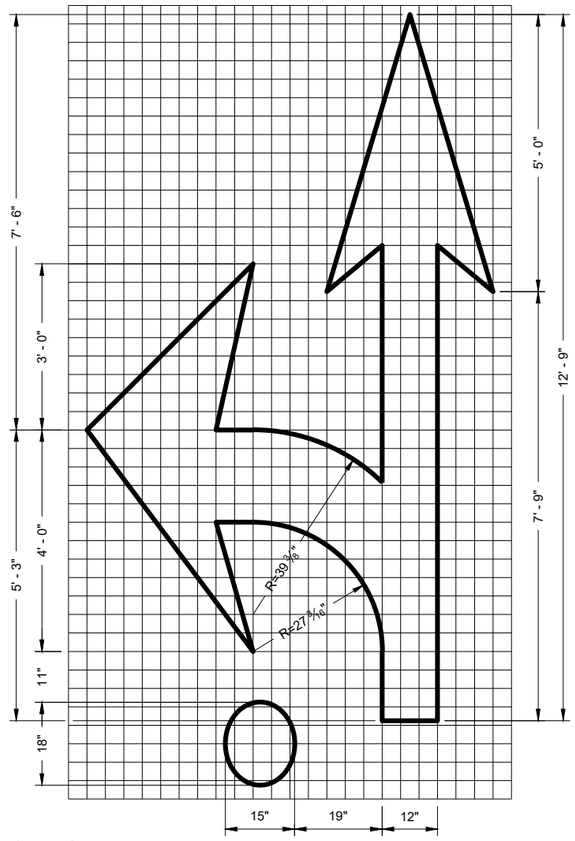
SDD 15C07 - 15c

GENERAL NOTES

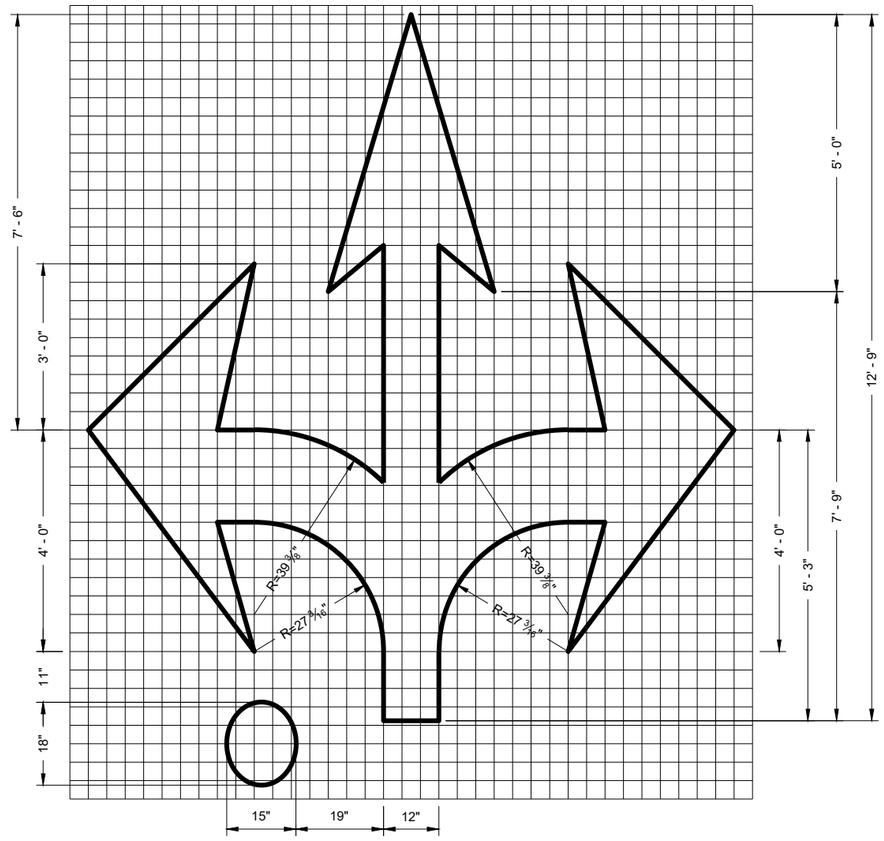
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



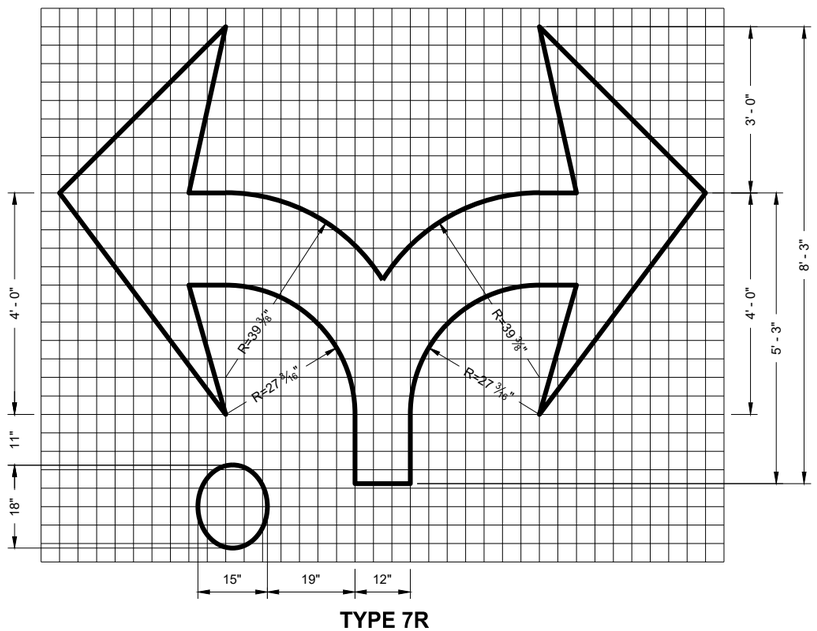
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

ROUNDABOUT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019
DATE

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STATE SIGNING AND MAF ENGINEER

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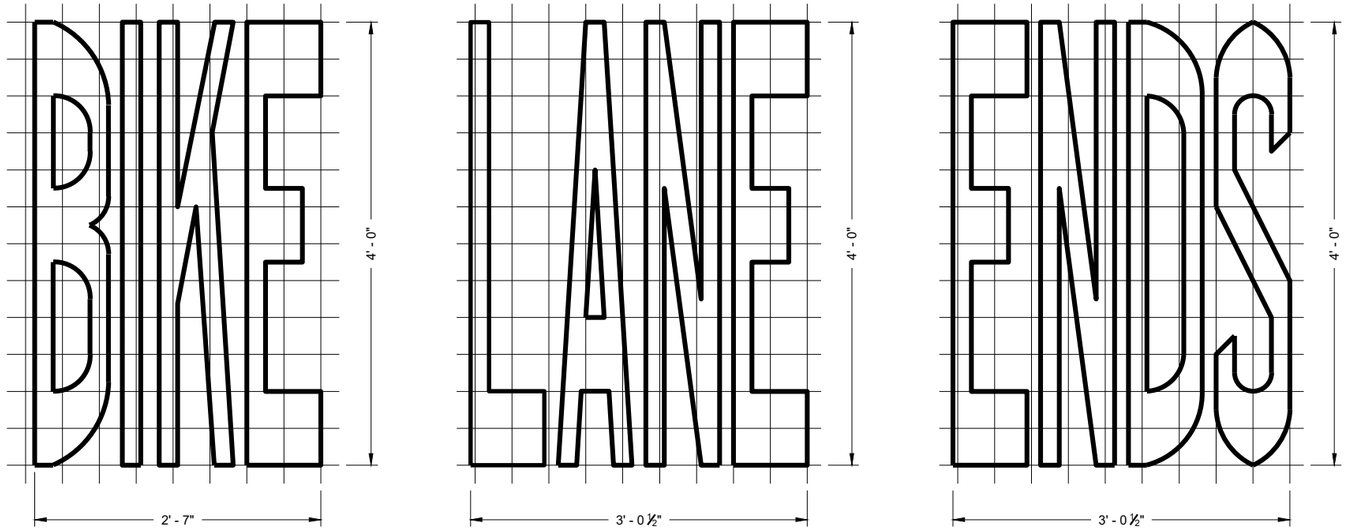
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SDD 15C07 - 15d

6

SDD 15C07 - 15d

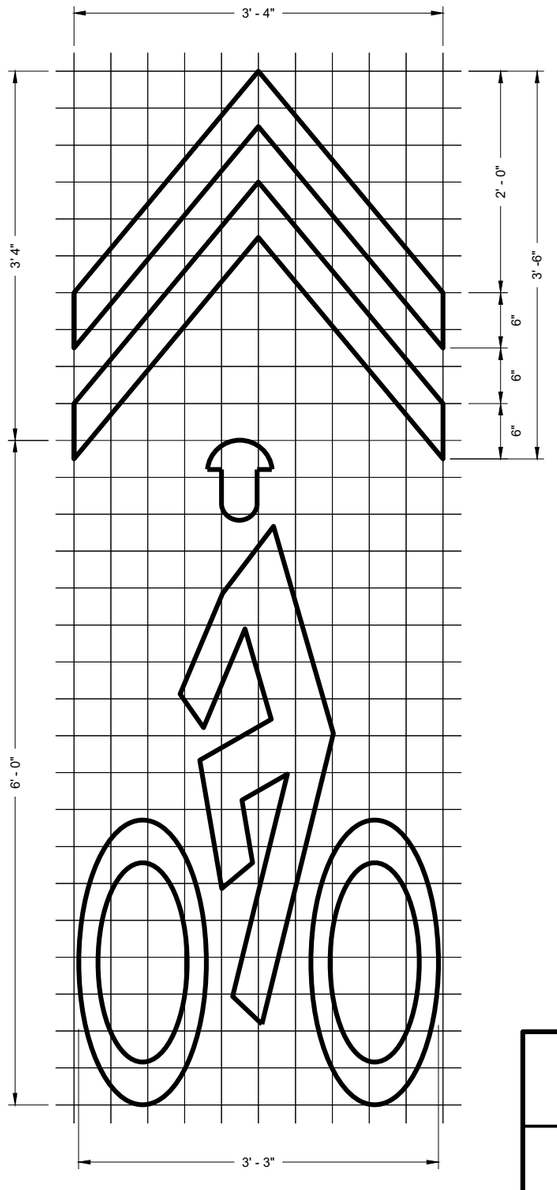
SDD 15C7-e Pavement Marking For Bike Lanes

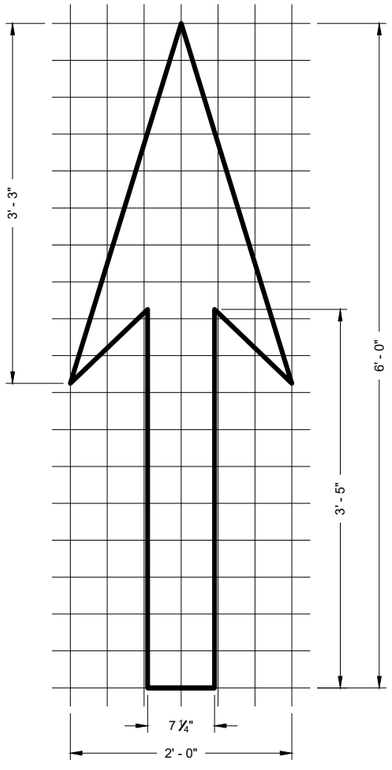


BIKE LANE WORDS

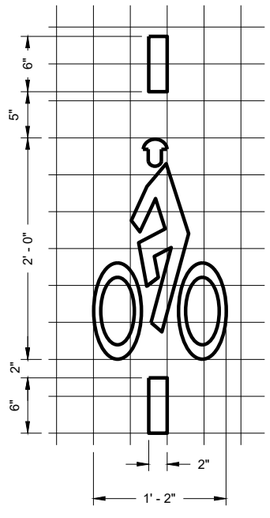
GENERAL NOTES

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

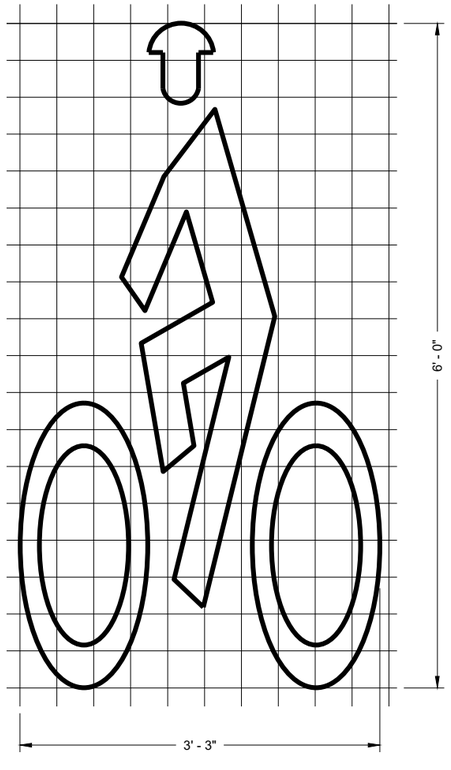




BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

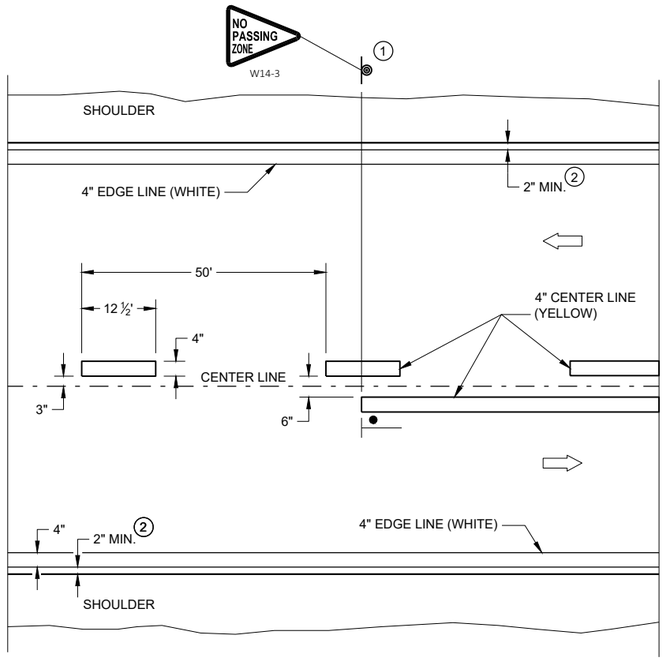
APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

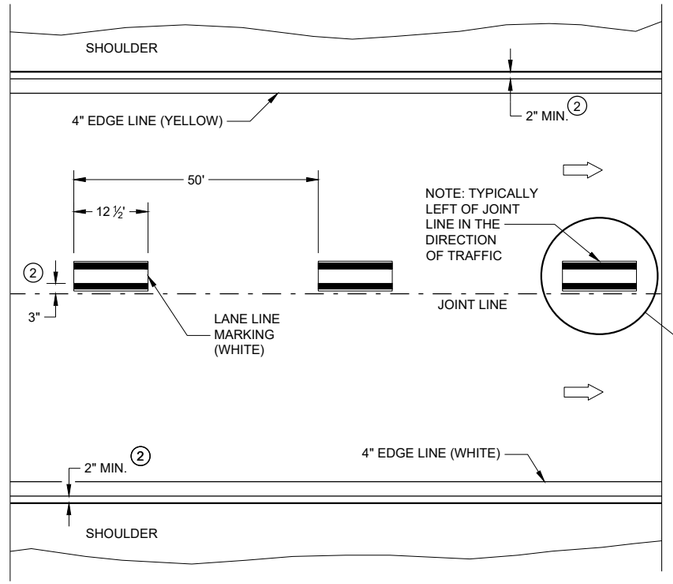
FHWA

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SDD 15C07 - 15e

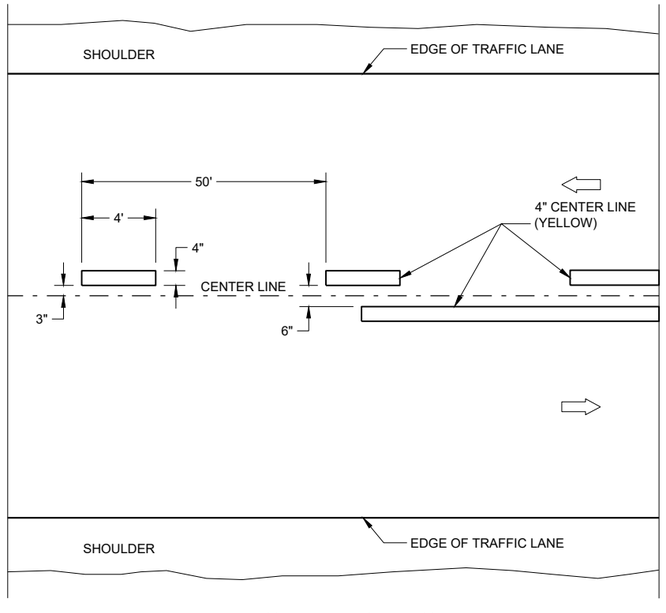


TWO WAY TRAFFIC

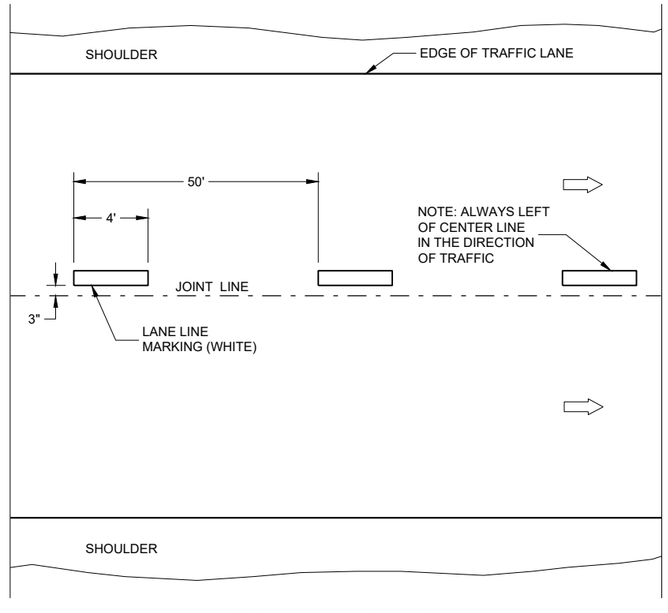


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

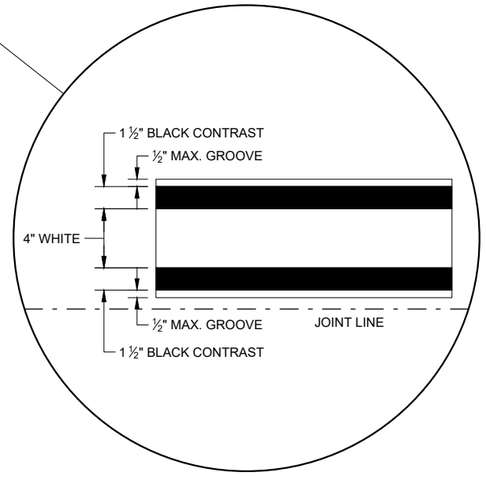
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Matthew Rauch
STATEWIDE SIGNING AND M ENGINEER

FHWA

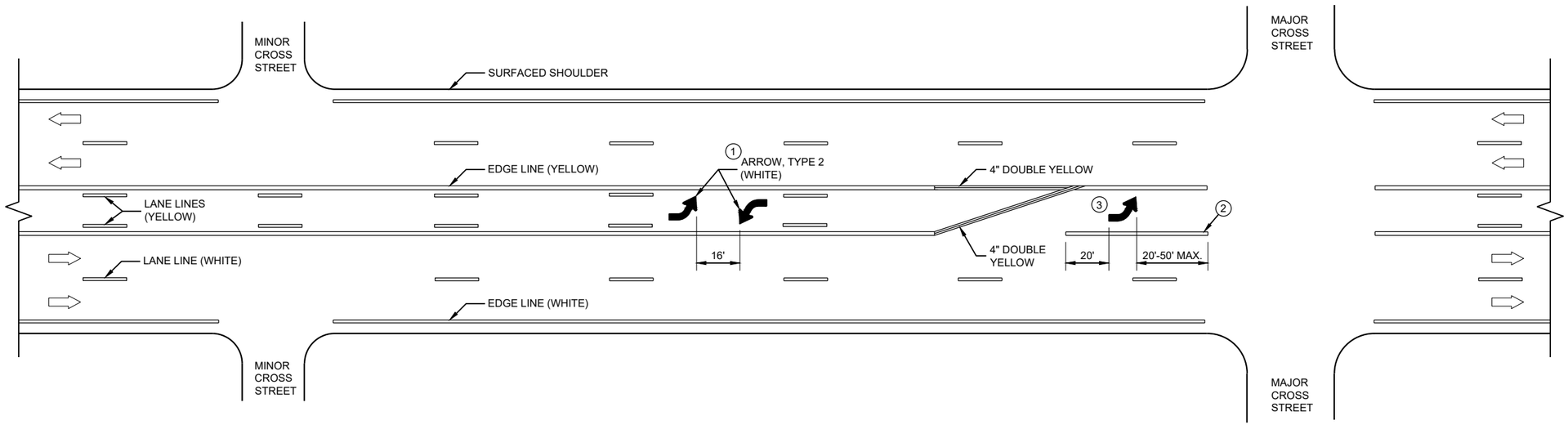
SDD 15C08 - 20a

SDD 15C08 - 20a

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

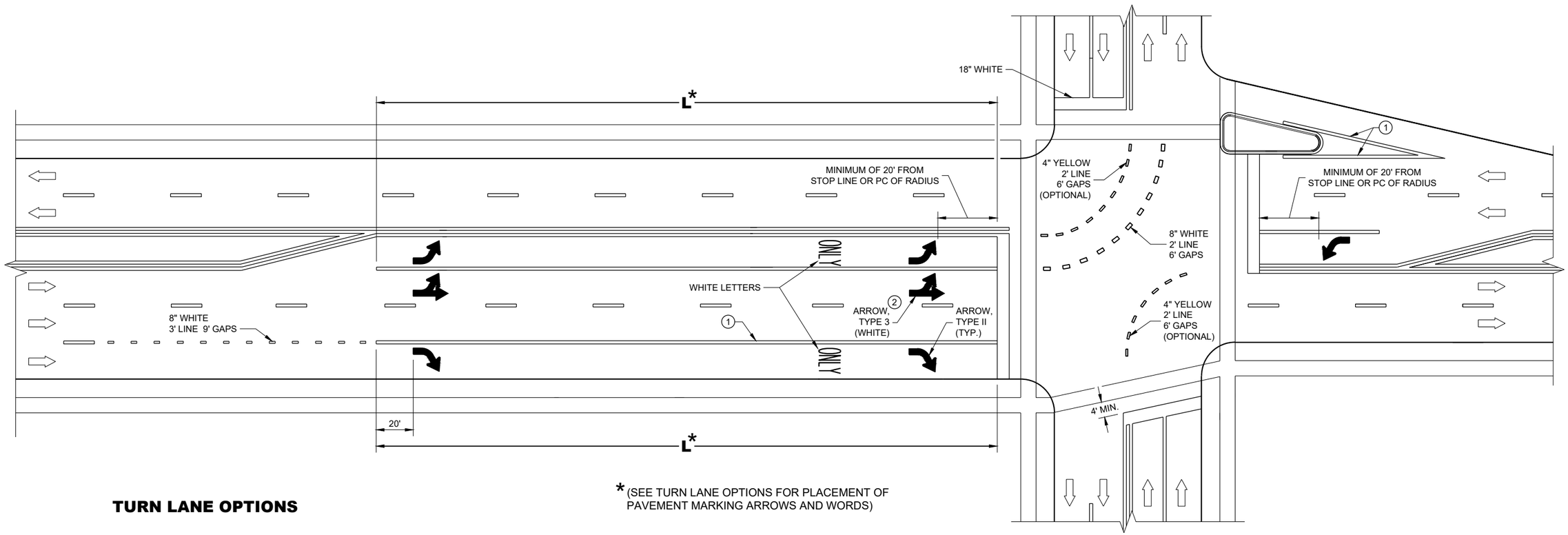
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

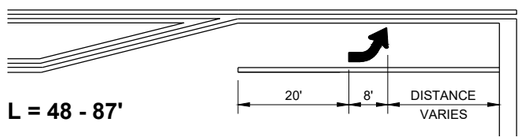
SDD 15C08 - 20b



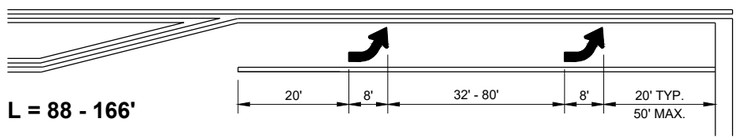
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

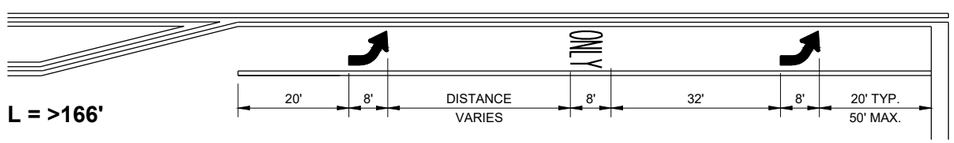
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

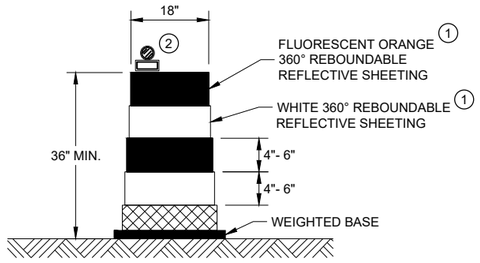
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

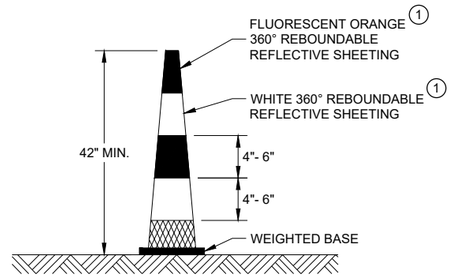
SDD 15C08 - 20c

GENERAL NOTES

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

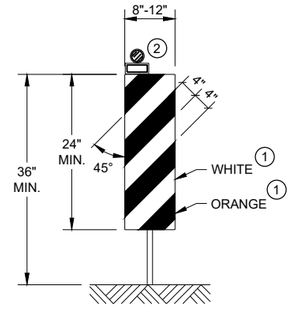


DRUM



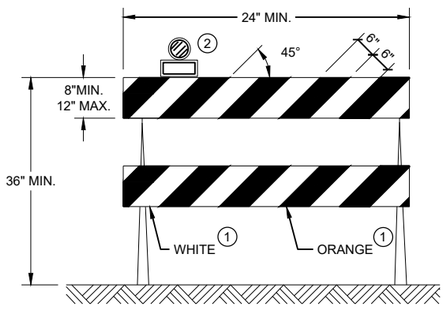
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



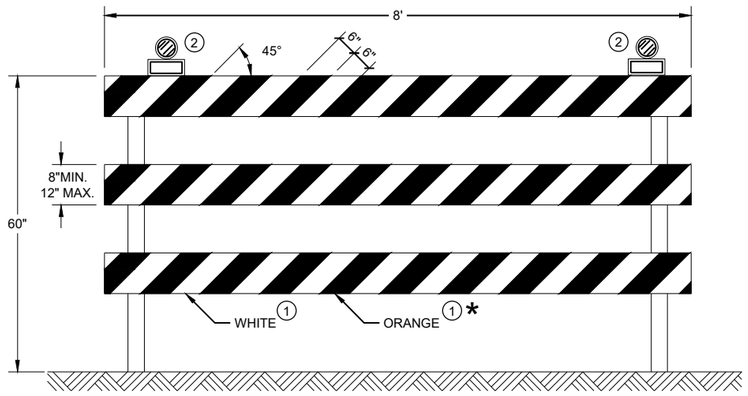
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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6

SDD 15C11 - 07b

SDD 15C11 - 07b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

FLAGGING

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 REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

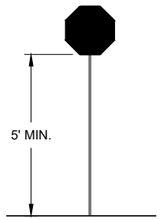
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

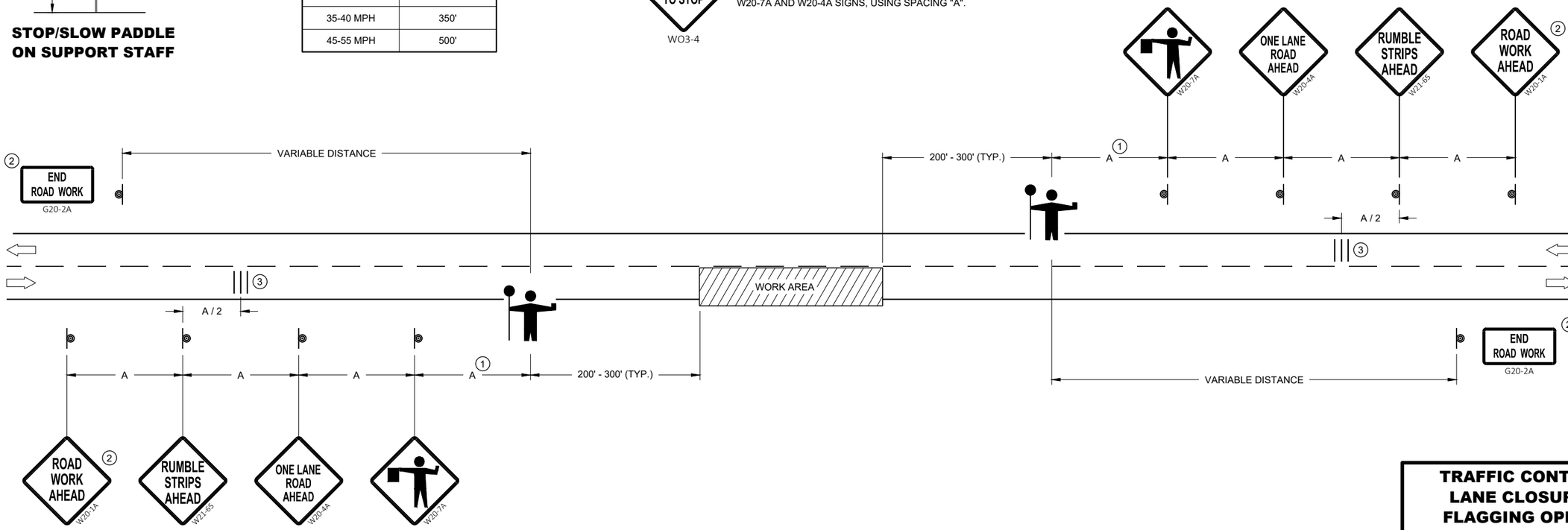
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

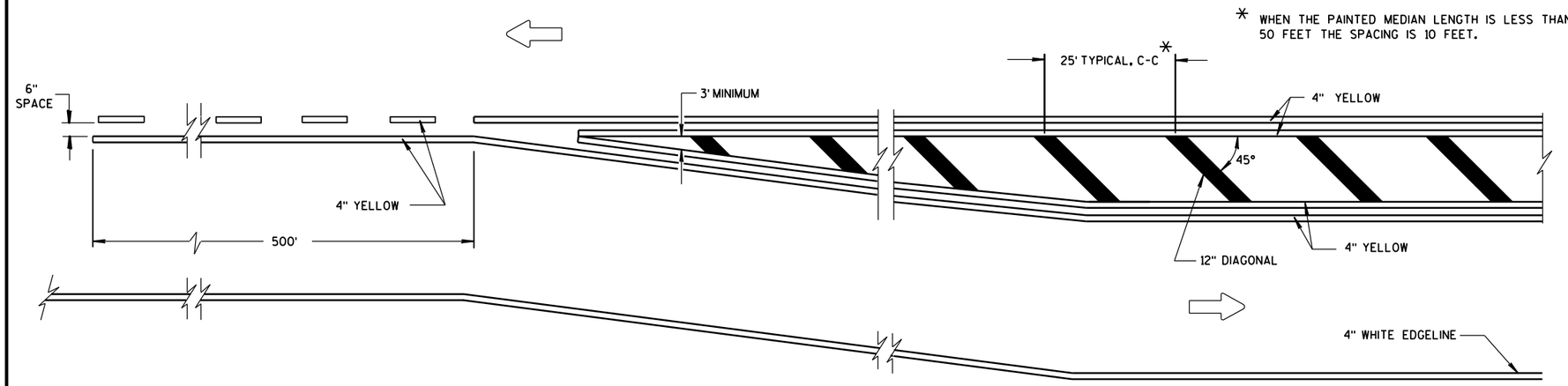
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 07

SDD 15C12 - 07



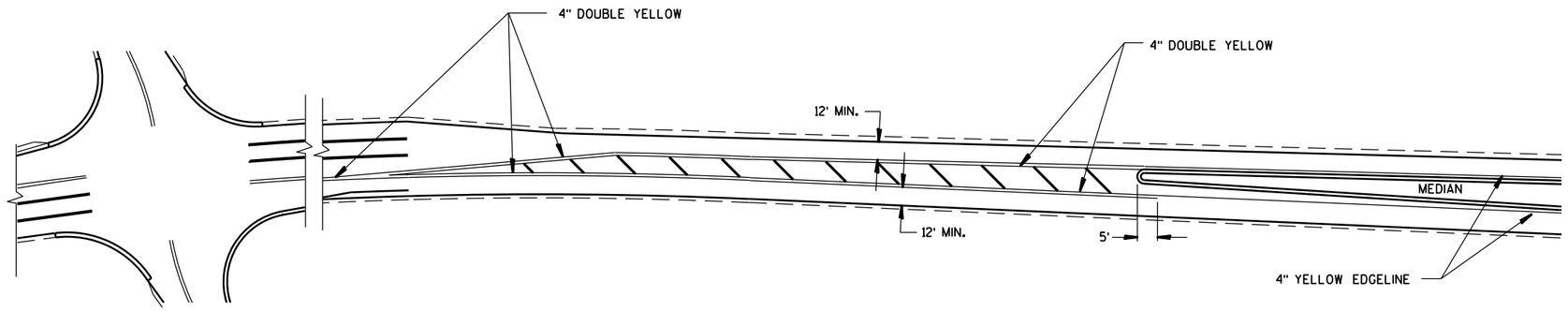
* WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10 FEET.

MEDIAN ISLAND DETAIL

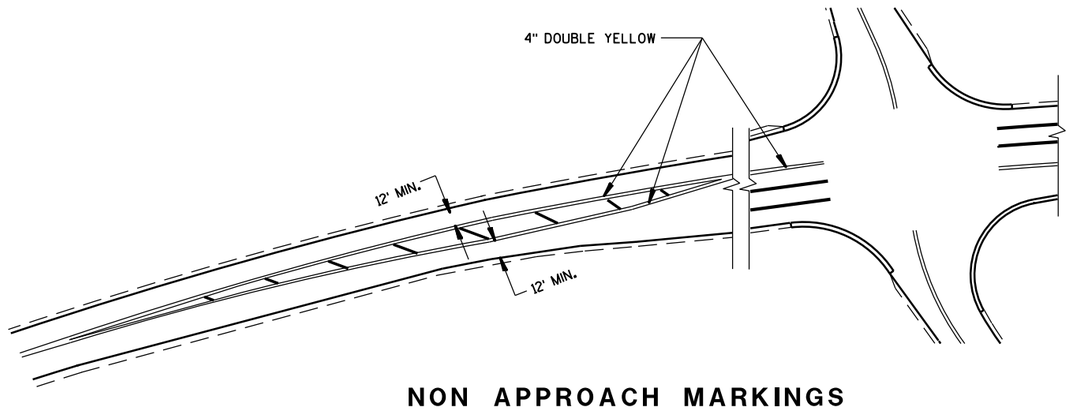
GENERAL NOTE

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

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

6

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S.D.D. 15 C 18-4

S.D.D. 15 C 18-4

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

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 OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

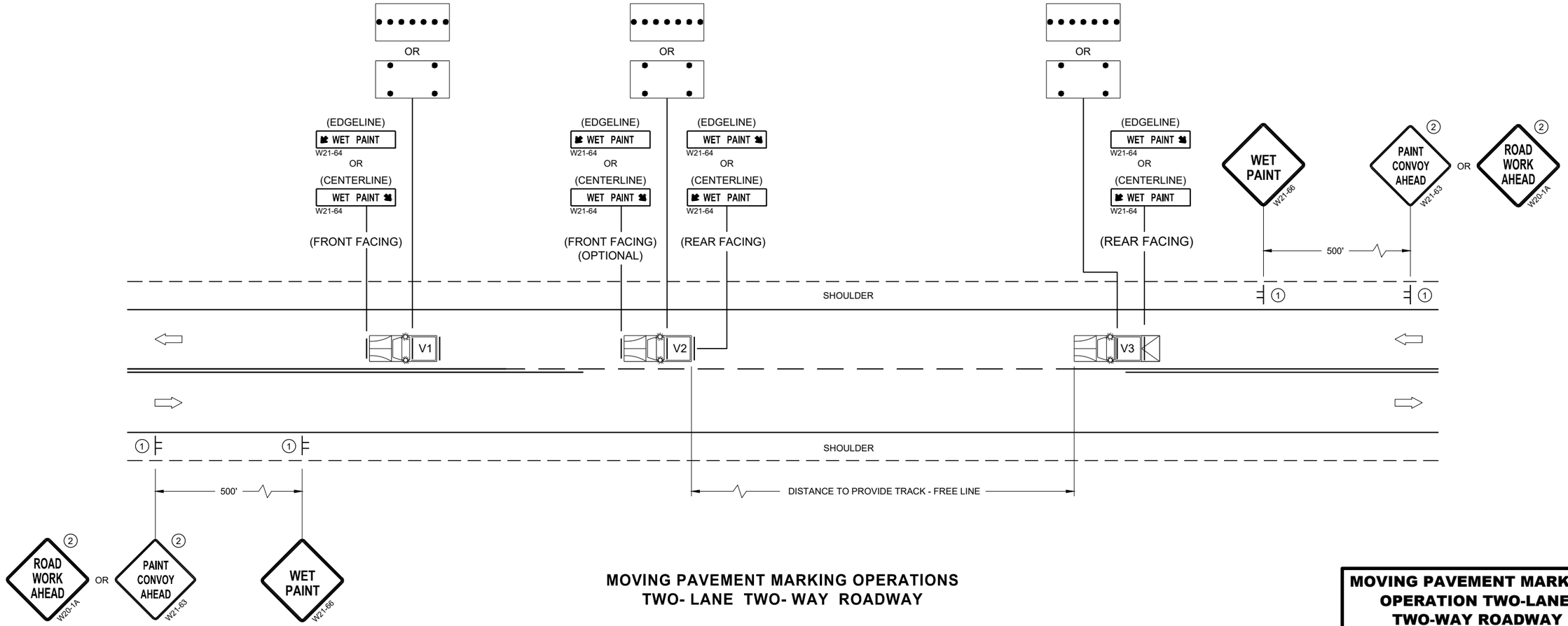
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C19 - 06a

6

SDD 15C19 - 06a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

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.

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 AND 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.

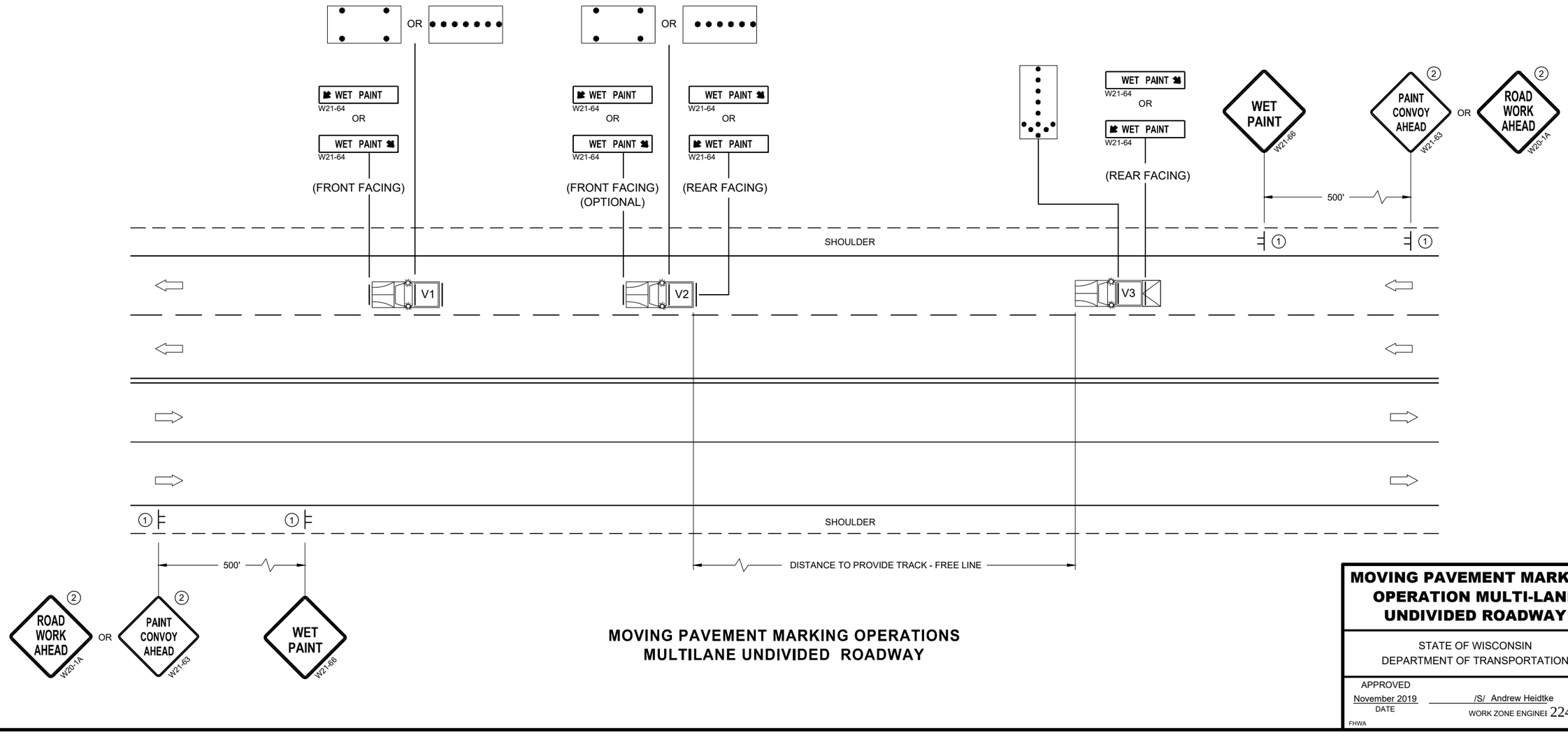
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15C19 - 06b

GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

(1) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT PLACEMENT.

** IF POSTED SPEED IS 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN).

LEGEND

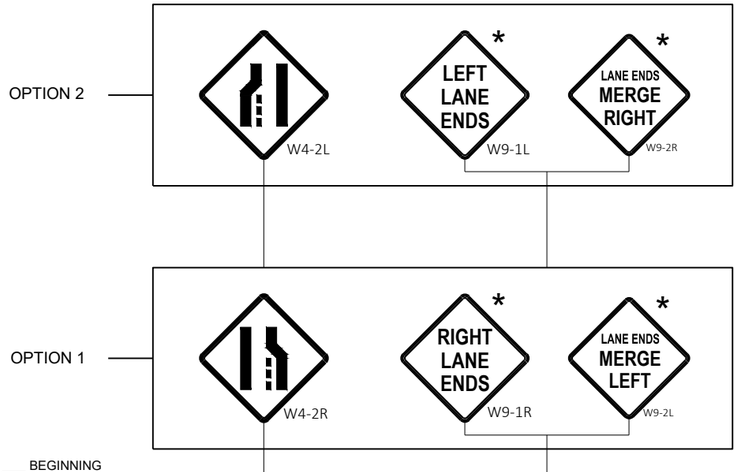
A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

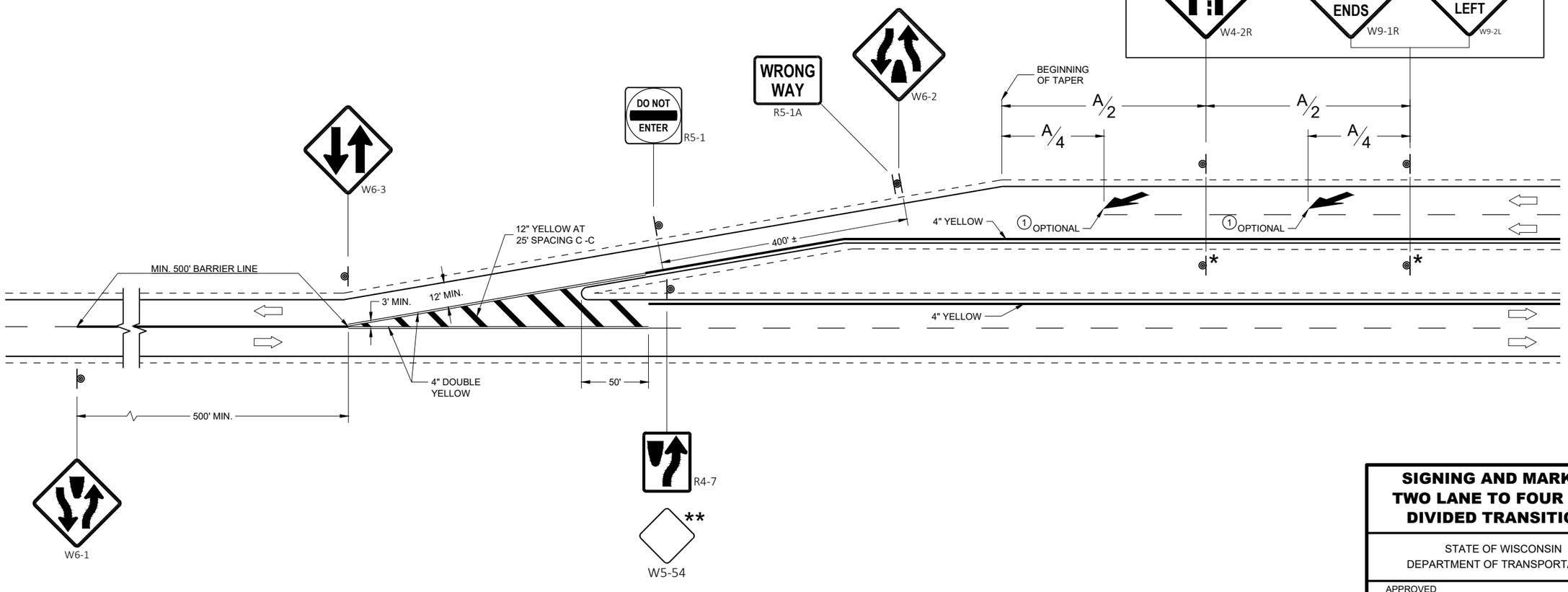
SIGN MOUNTED ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	325'
30	460'
35	565'
40	670'
45	775'
50	885'
55	990'
65	1200'
70	1250'





SIGNING AND MARKING TWO LANE TO FOUR LANE DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

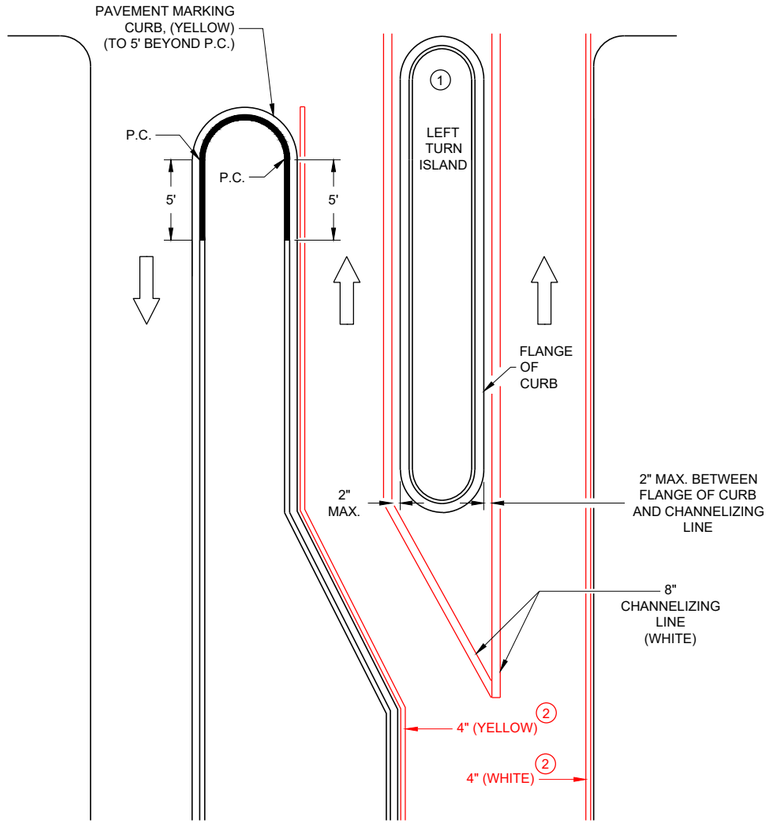
APPROVED
May 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAR ENGINEER

FHWA

SDD 15C21 - 10

SDD 15C21 - 10

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

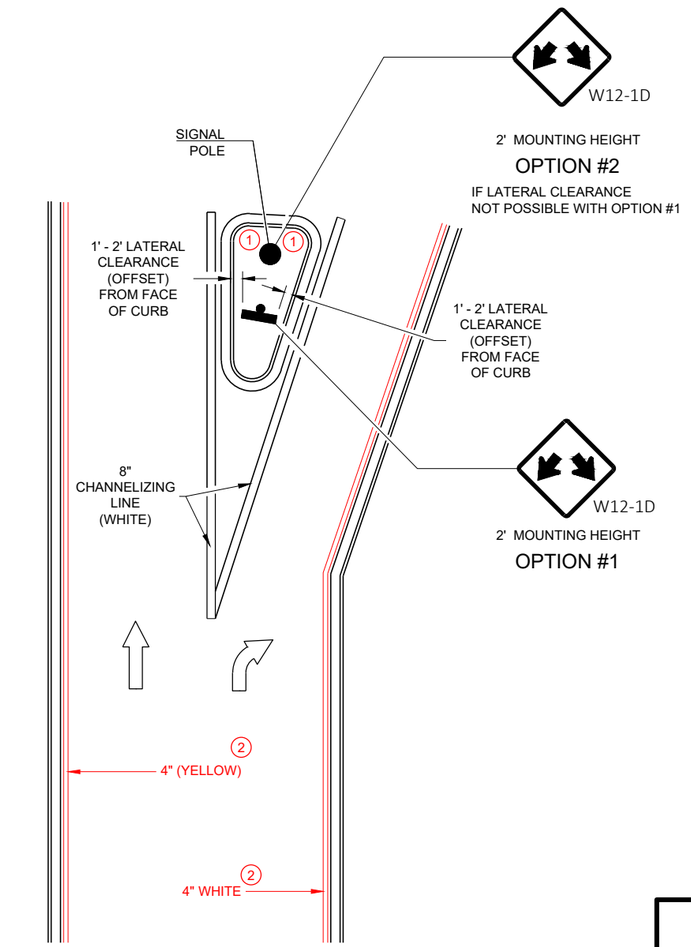
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

DOUBLE ARROW
WARNING SIGN PLACEMENT

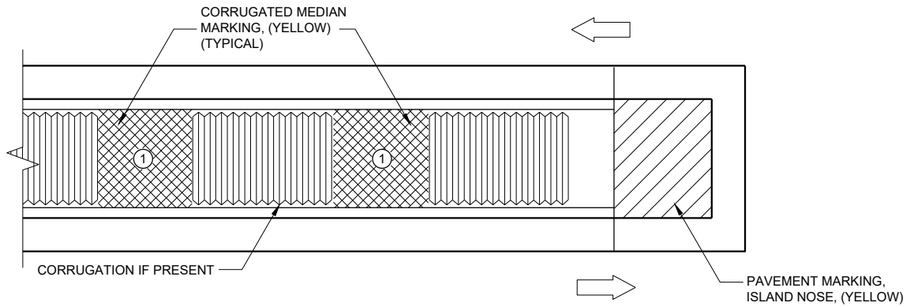
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

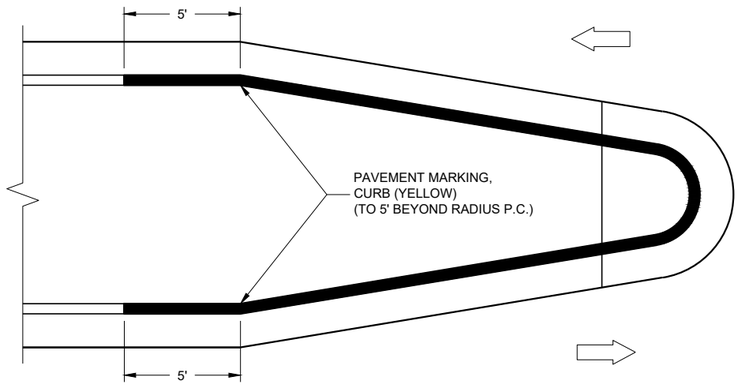
FHWA

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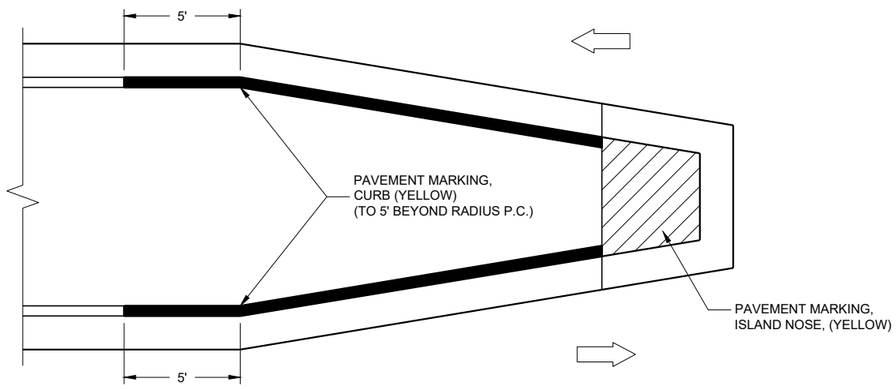
SDD 15C27 - 03a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE

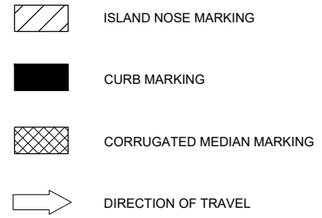


MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

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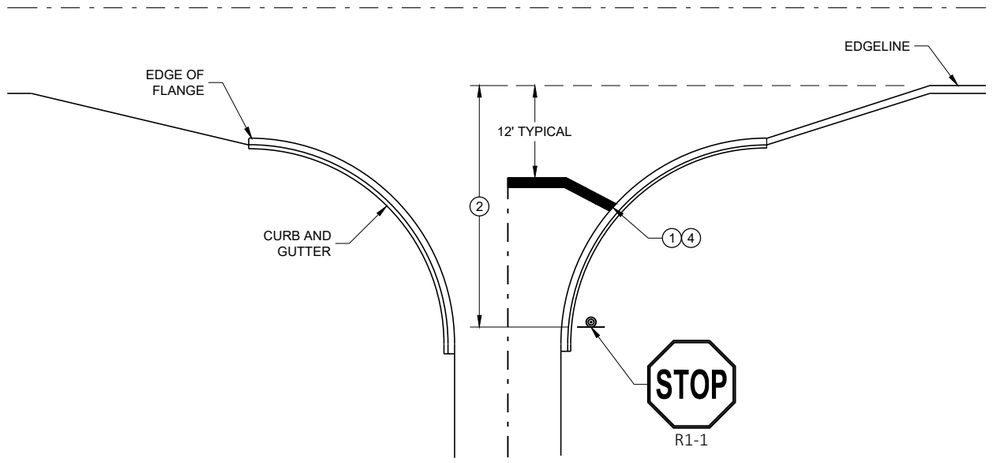
SDD 15C27 - 03b

SDD15C27 - 03b

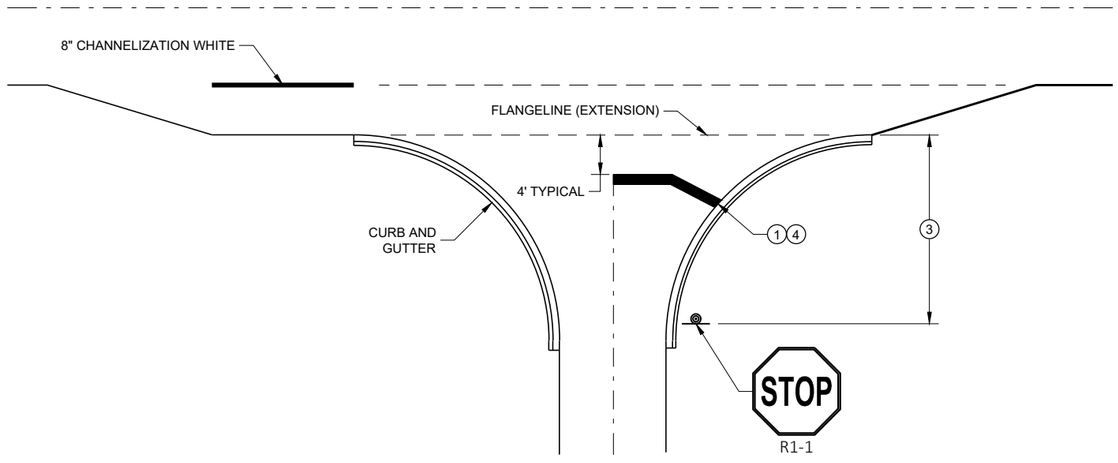
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

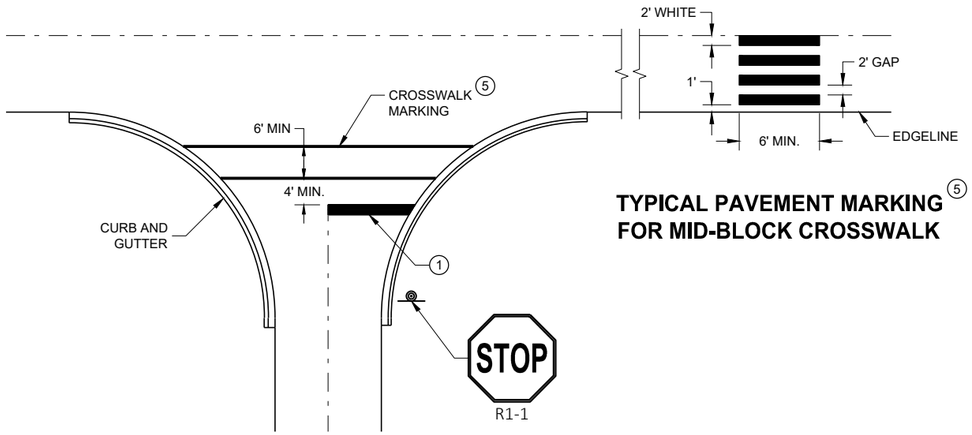
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

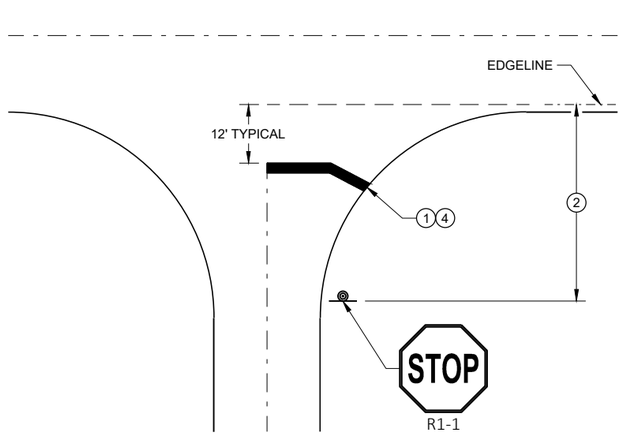


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C33 - 04
SDD 15C33 - 04

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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

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

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

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

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

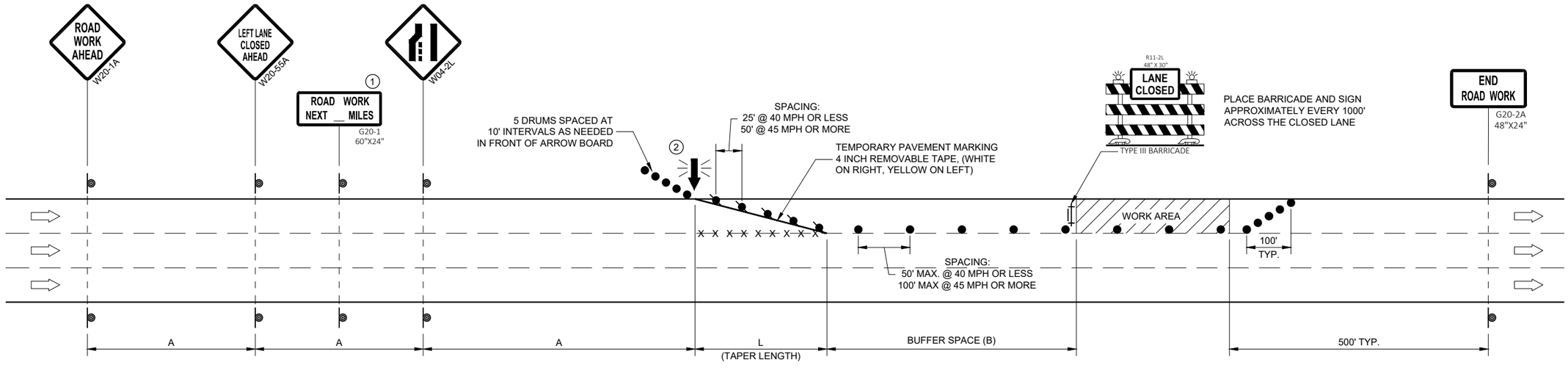
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

6

SDD 15D20 - 05a

6

SDD15D20 - 05a

LEGEND

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



GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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

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

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

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

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

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

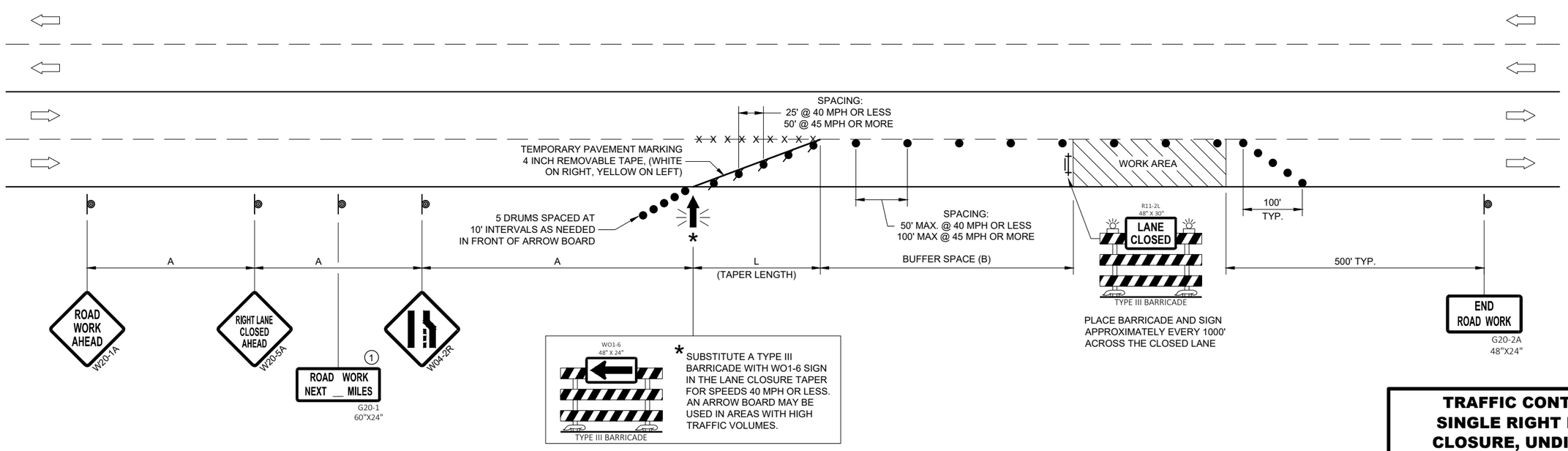
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'





TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D20 - 05b

SDD 15D20 - 05b

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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

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

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

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

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

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

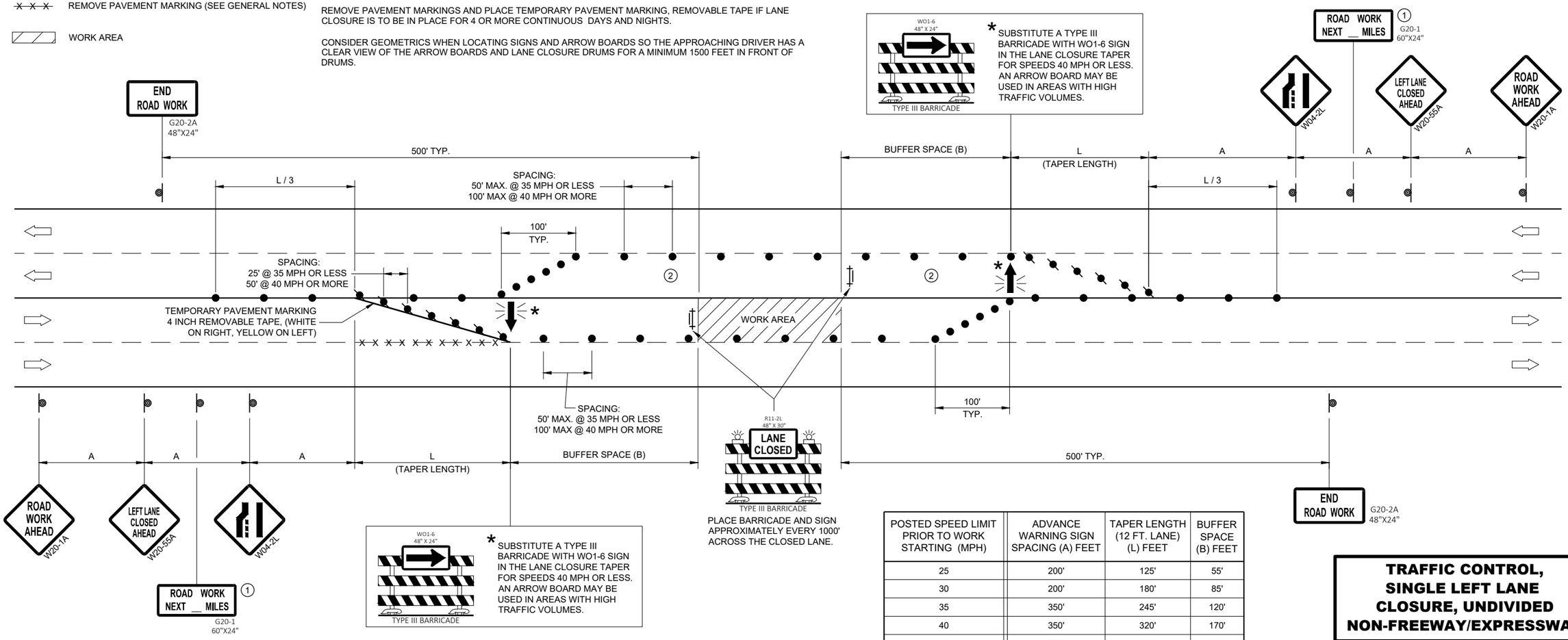
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

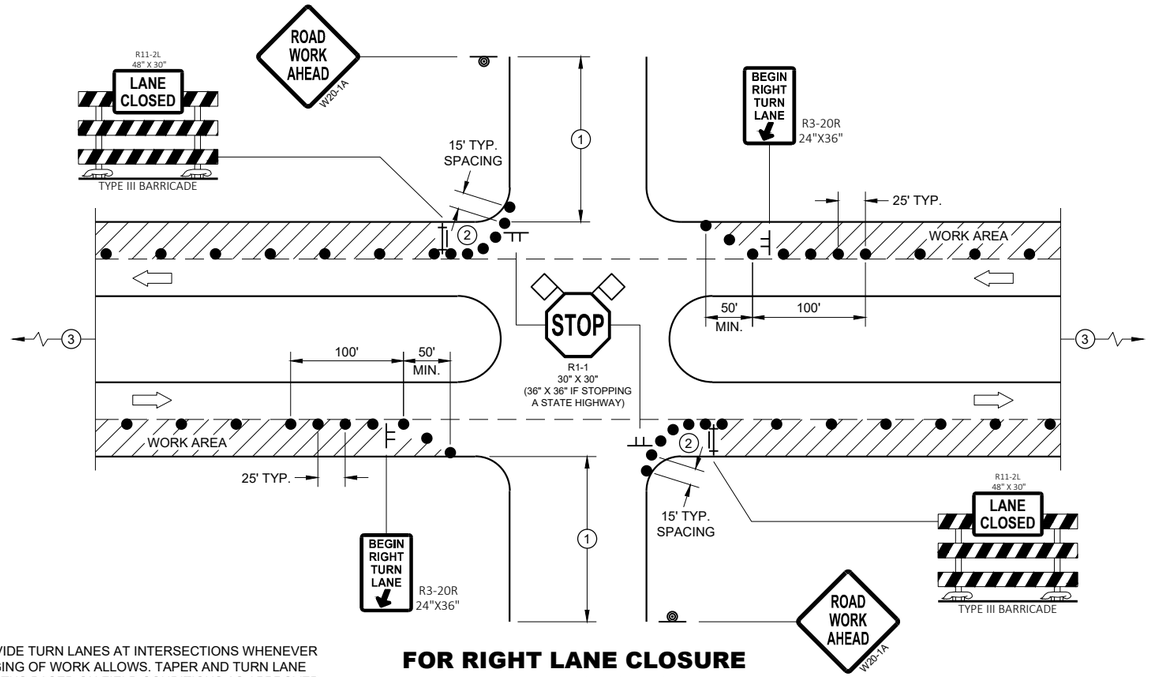
APPROVED
May 2020 — DATE
/S/ Andrew Heidtke — STATEWIDE WORK ZONE T SAFETY ENGINEER
FHWA

6

SDD 15D20 - 05c

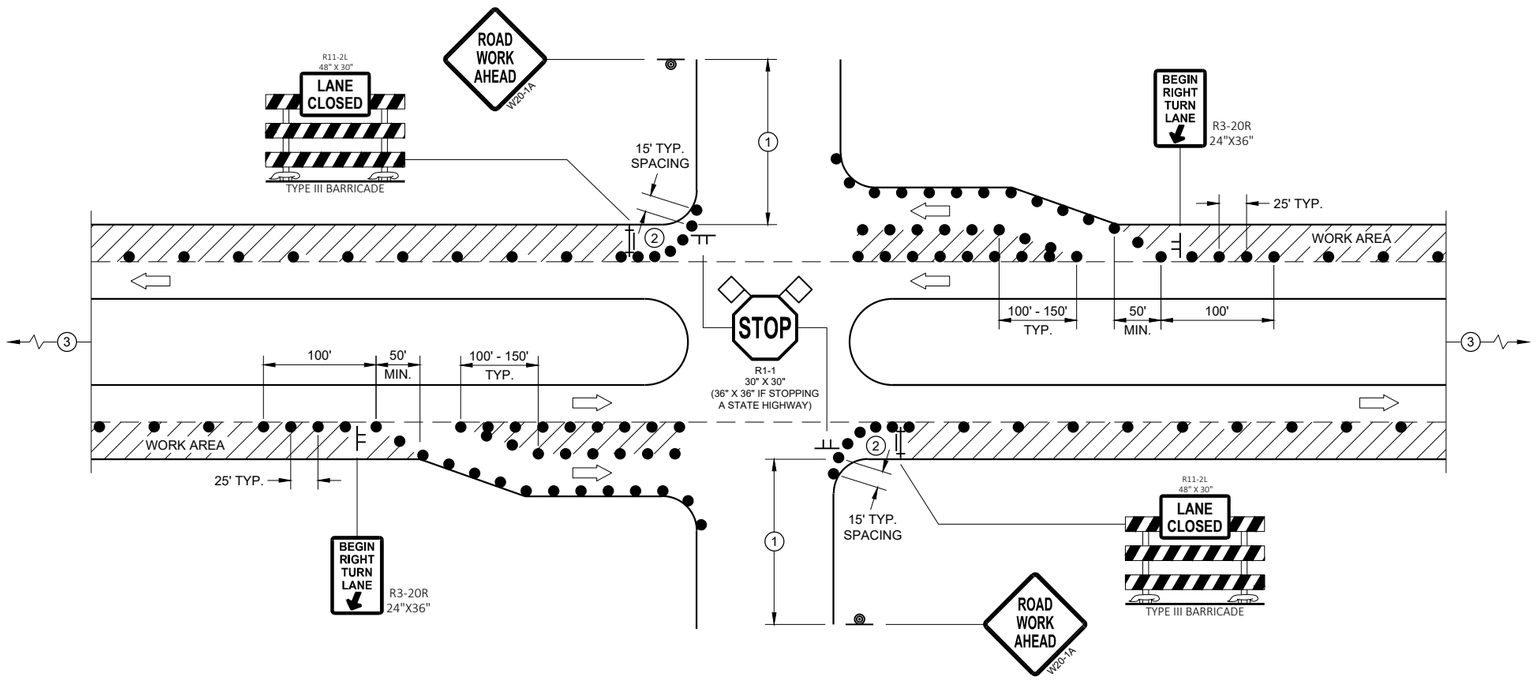
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SDD 15D20 - 05c



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

FOR RIGHT LANE CLOSURE AT INTERSECTION



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

(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.

LEGEND

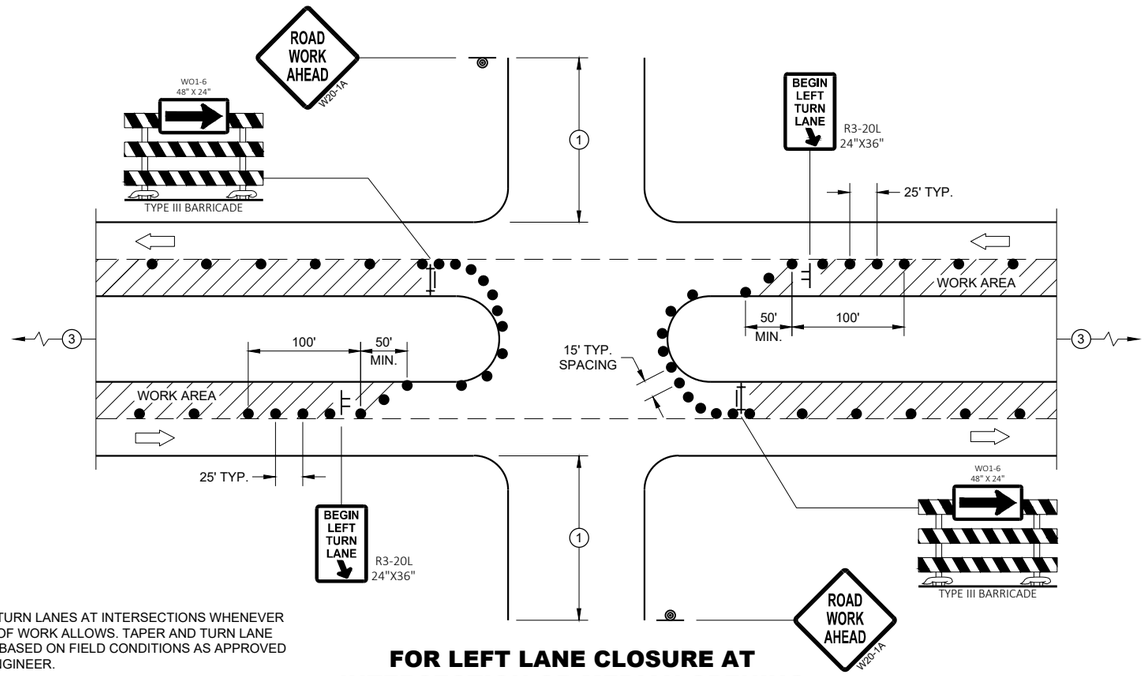
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D21 - 06a

SDD 15D21 - 06a



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

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

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

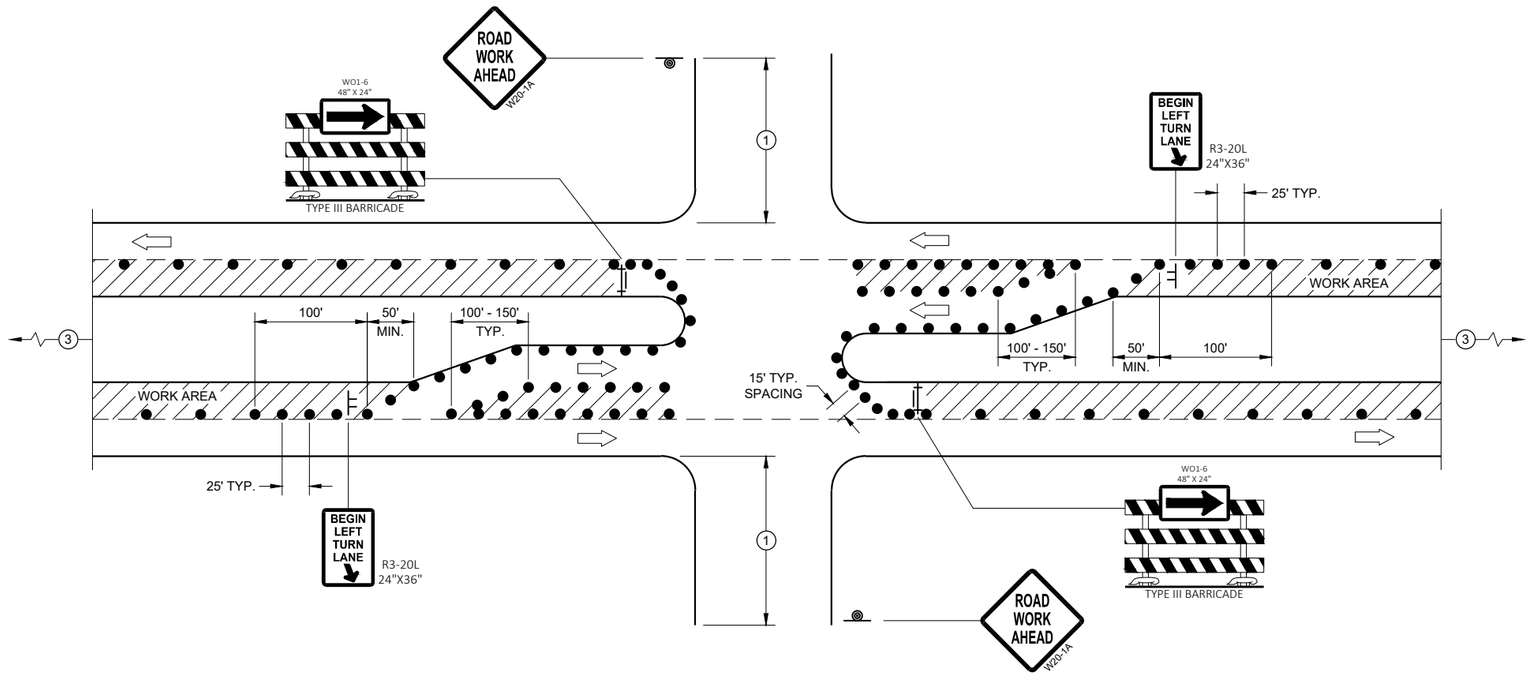
(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA



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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15D21 - 06b

SDD 15D21 - 06b

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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 THE REGIONAL TRAFFIC UNIT.

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

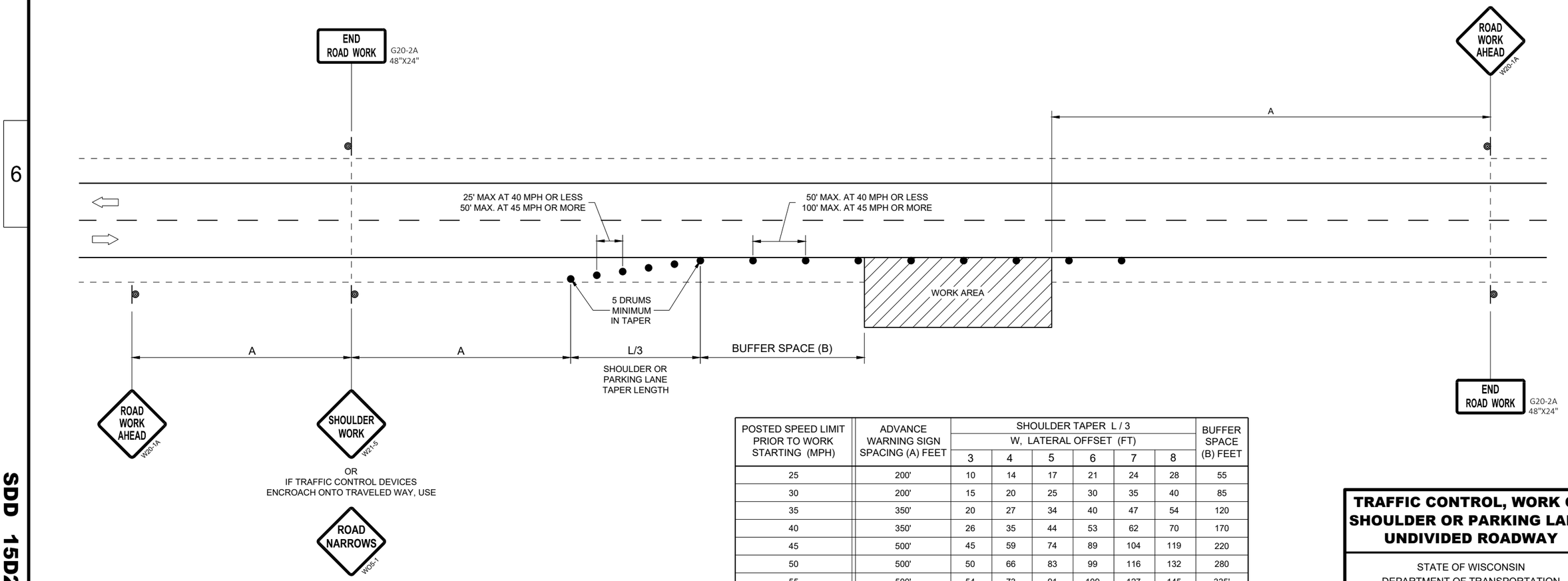
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THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET
0-30	200'
35-40	350'
45-55	500'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

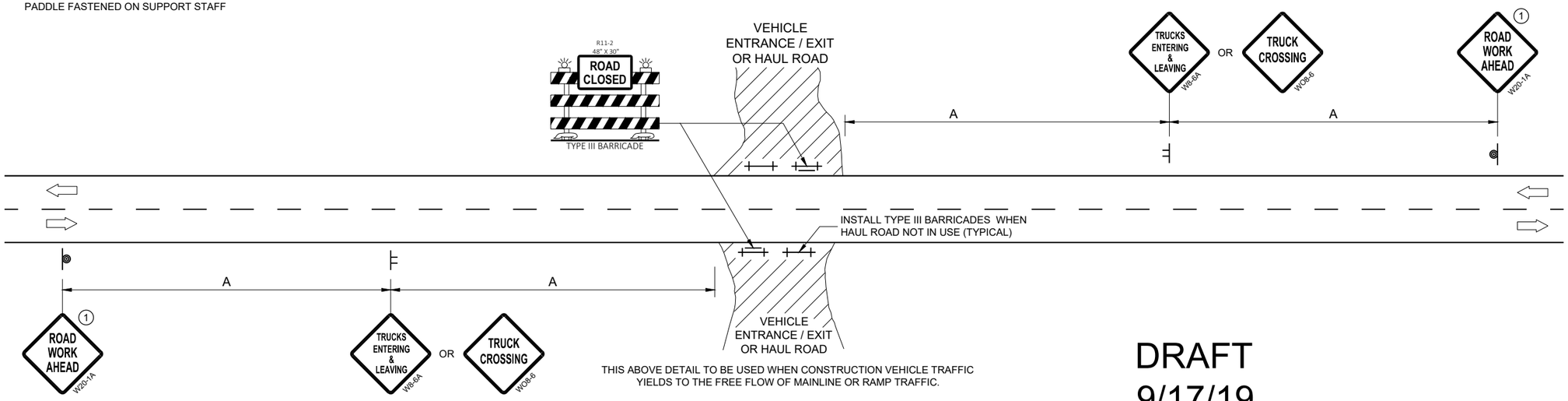
WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

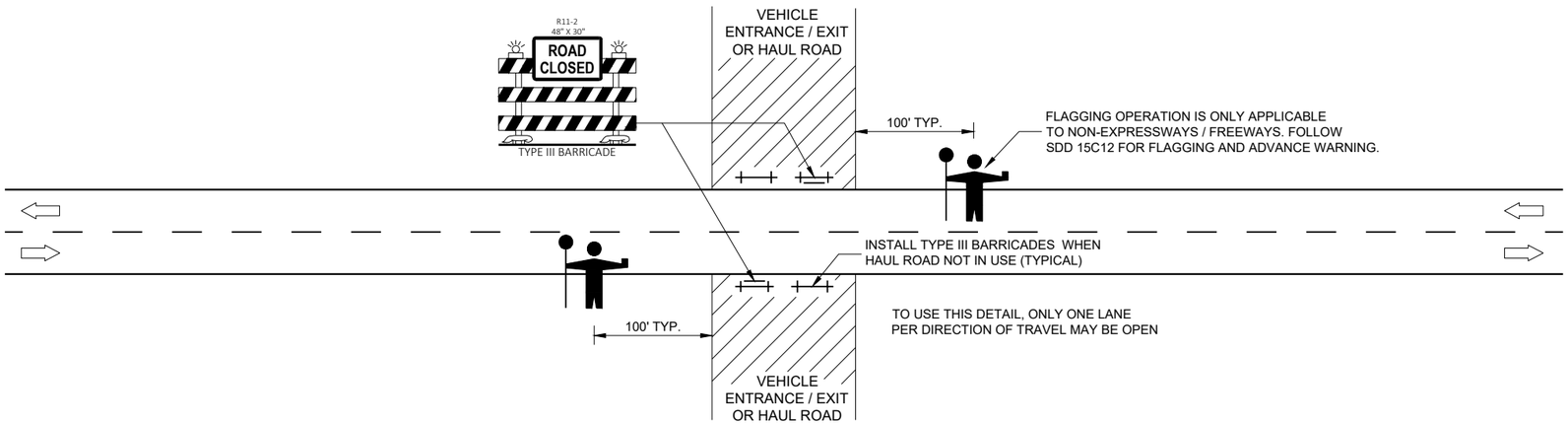
PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

(1) THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.



THIS ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC.

DRAFT
9/17/19



TO USE THIS DETAIL, ONLY ONE LANE PER DIRECTION OF TRAVEL MAY BE OPEN

THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

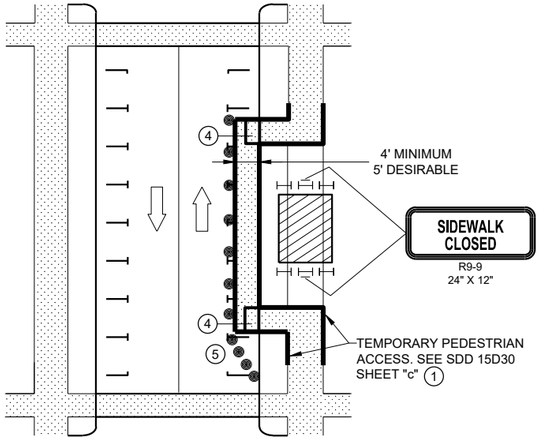
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SDD 15D29 - 06

6

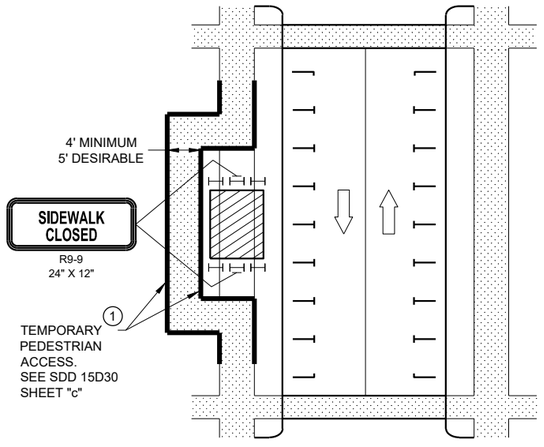
SDD 15D29 - 06

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

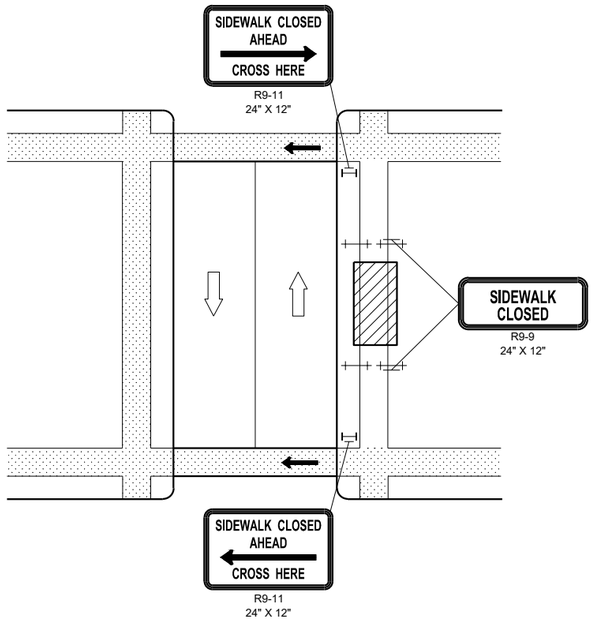


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

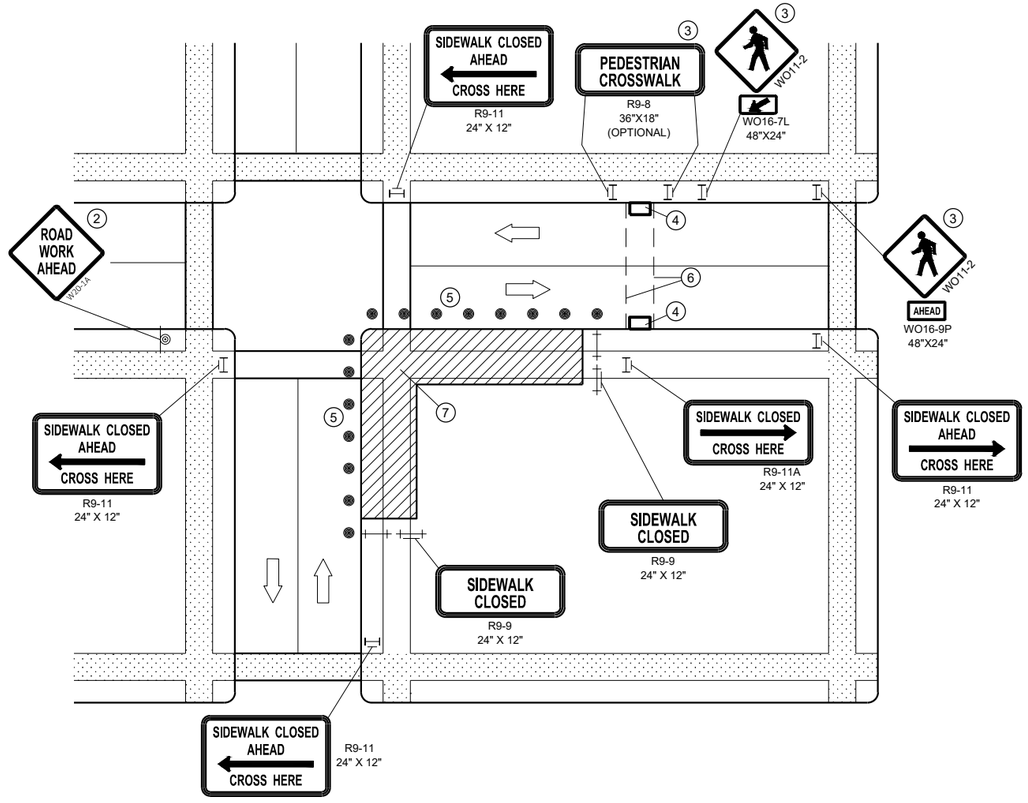
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
2. "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
3. IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
4. TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
5. DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
6. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
7. LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

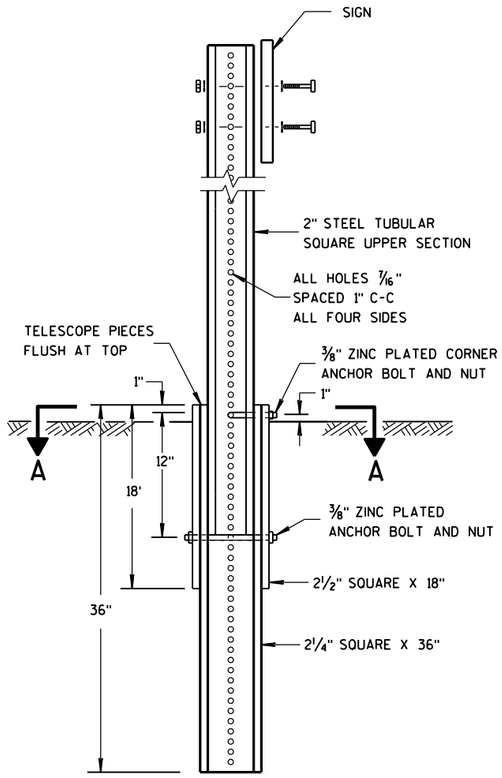
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

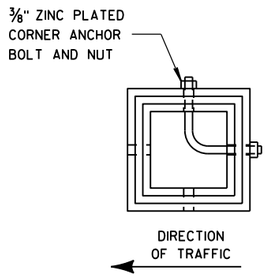
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

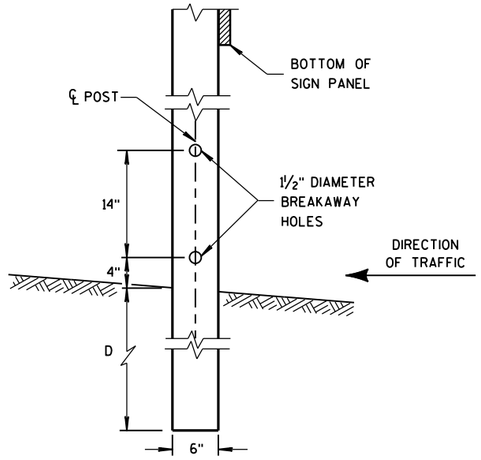
SDD 15D30 - 06a
SDD15D30 - 06a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



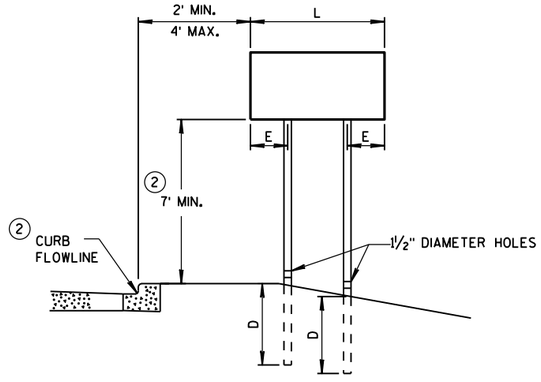
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

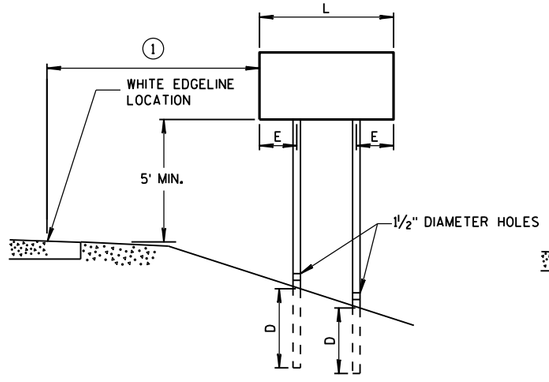
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

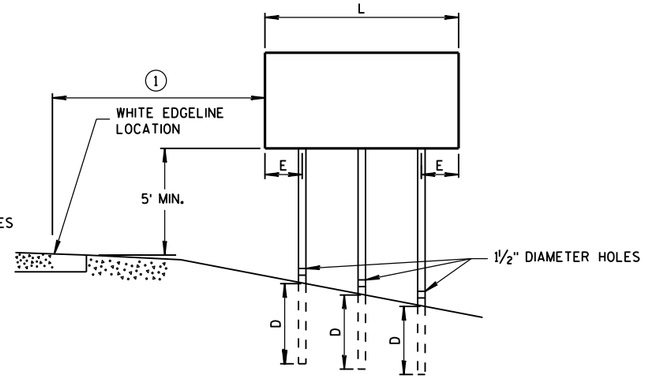
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

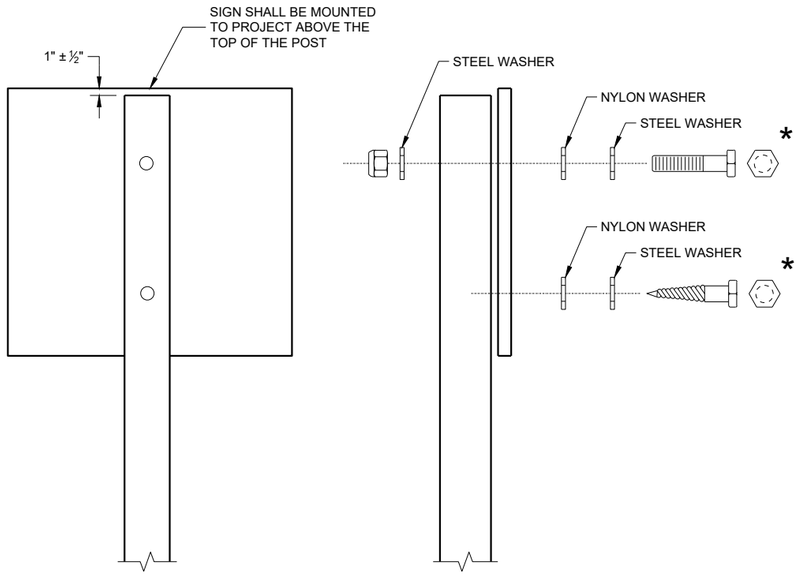
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



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 POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

6

6

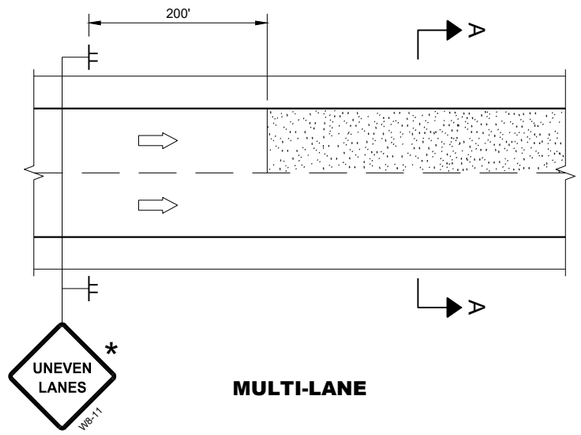
SDD 15D38 - 02b

SDD15D38 - 02b

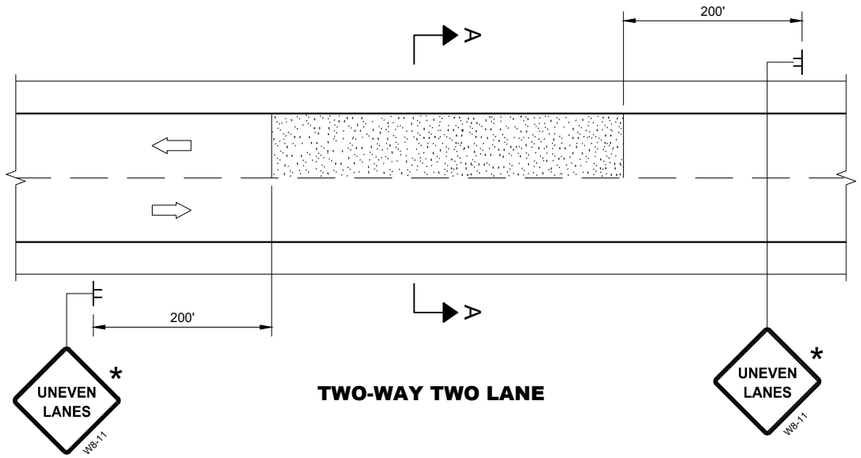
ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

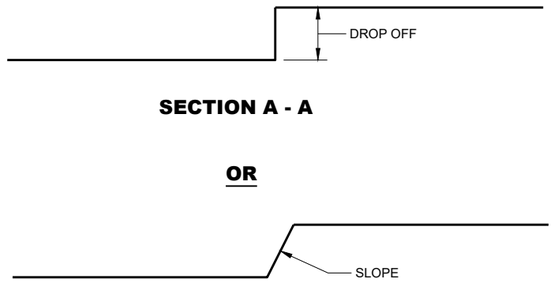
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

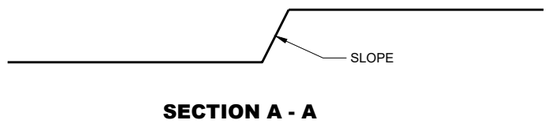
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

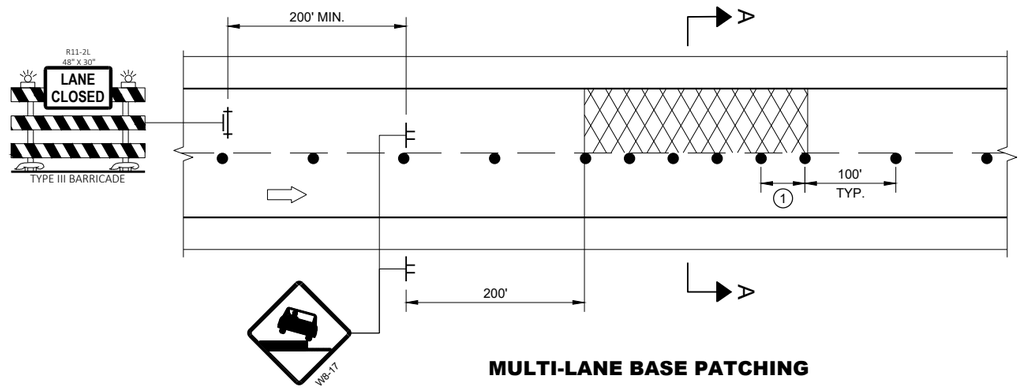


SECTION A - A

OR

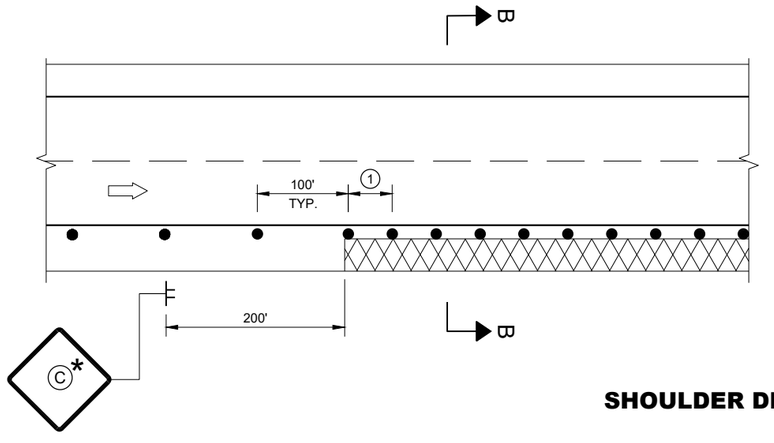


SECTION A - A

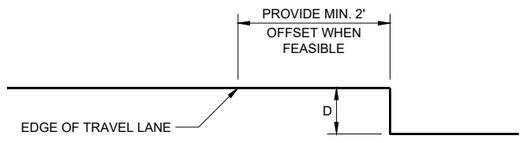


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

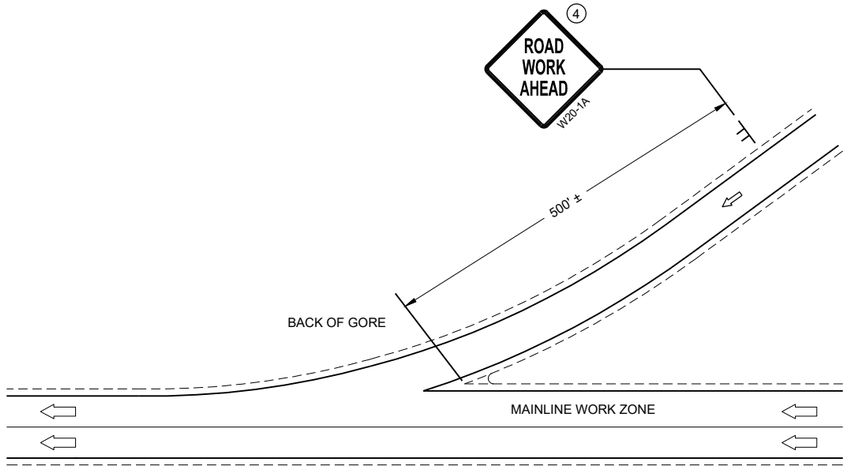
SDD 15D39 - 02

6

SDD 15D39 - 02

LEGEND

- V1 MARKING VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE
- ● TRAFFIC CONTROL DRUM
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA



GENERAL NOTES

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

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.

WHEN WORK ACTIVITY BLOCKS THE RIGHT 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 DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

(1) DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE 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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.

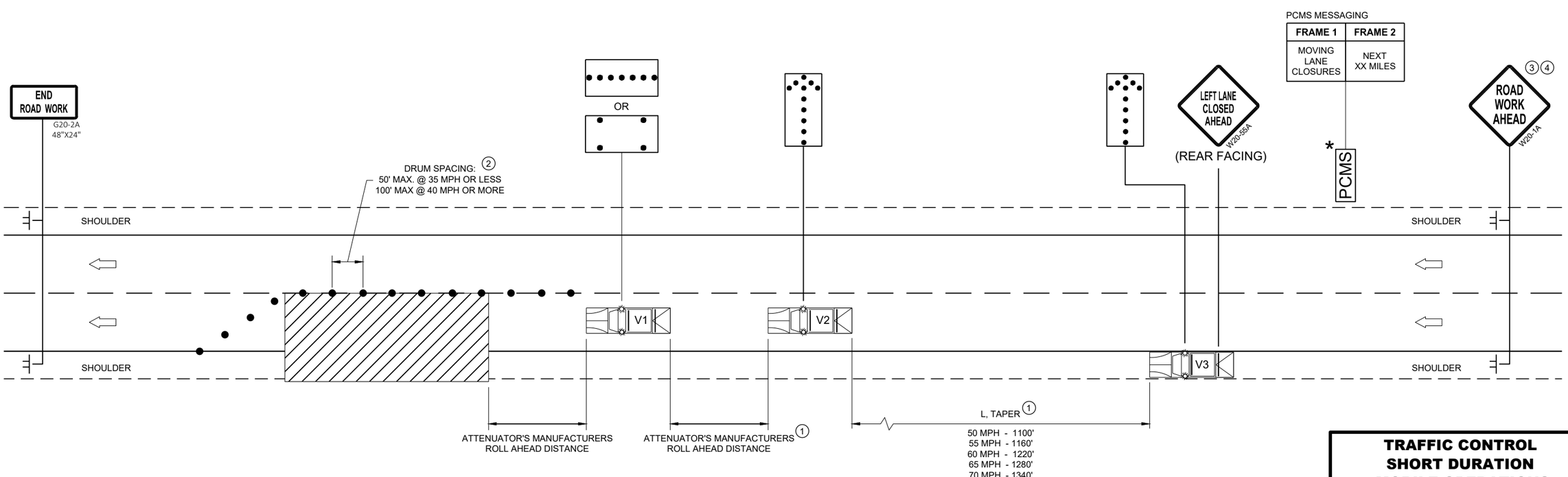
(3) WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.

(4) SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

* PCMS OPTIONAL

PCMS MESSAGING

FRAME 1	FRAME 2
MOVING LANE CLOSURES	NEXT XX MILES



TRAFFIC CONTROL SHORT DURATION MOBILE OPERATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D43 - 01

6

SDD 15D43 - 01

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR, FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK AREA
- CC — CRASH CUSHION TEMPORARY
- EXISTING CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

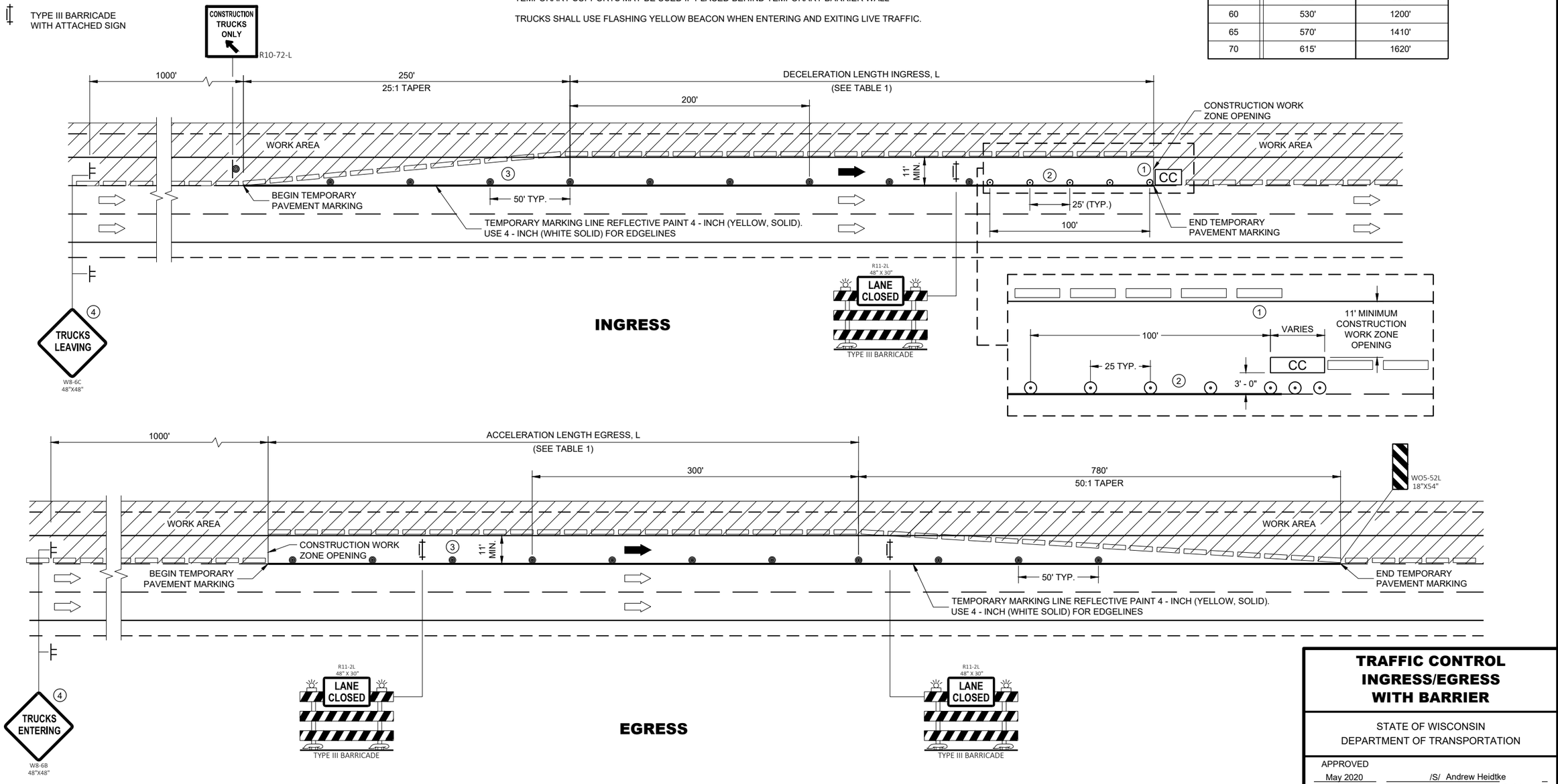
TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

1. WIDEN BARRIER AS NECESSARY TO ACCOMMODATE CRASH CUSHION WIDTH.
2. USE TUBULAR MARKERS TO HELP DELINEATE TEMPORARY CRASH CUSHION.
3. REMOVE DRUMS / BARRICADES WHEN INGRESS / EGRESS ARE IN USE.
4. REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'



TRAFFIC CONTROL INGRESS/EGRESS WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D47 - 01a

SDD 15D47 - 01a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK AREA

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'

LEGEND

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

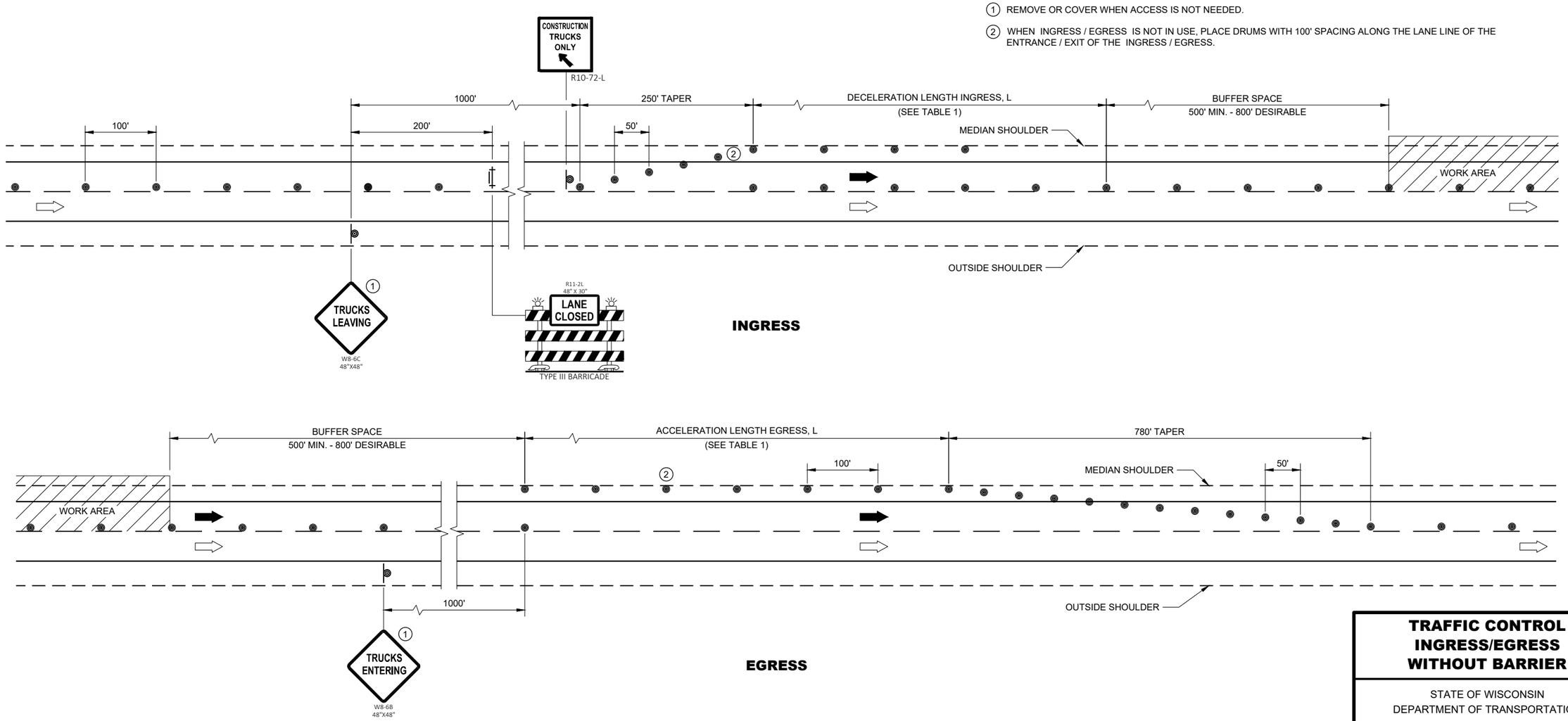
THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

(1) REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

(2) WHEN INGRESS / EGRESS IS NOT IN USE, PLACE DRUMS WITH 100' SPACING ALONG THE LANE LINE OF THE ENTRANCE / EXIT OF THE INGRESS / EGRESS.



TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

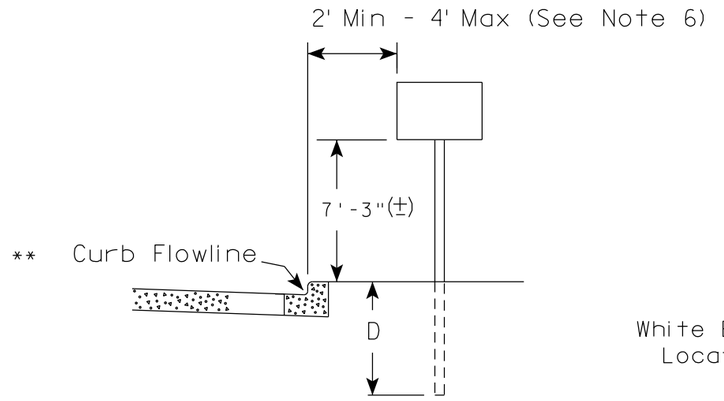
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SDD 15D47 - 01b

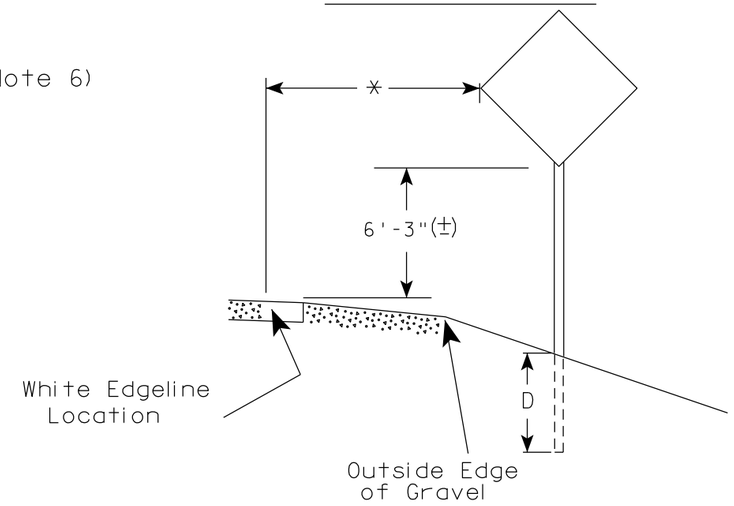
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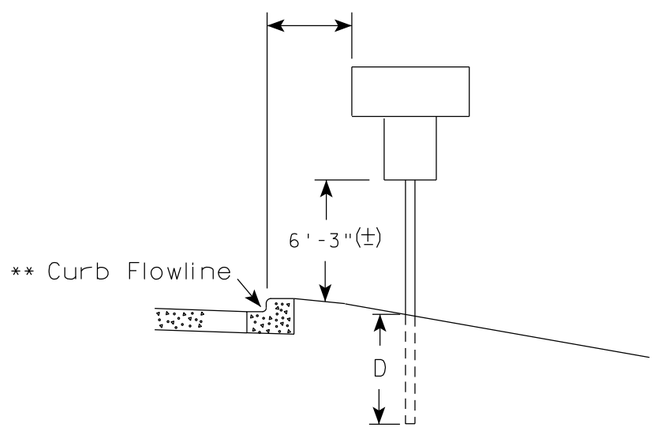
SDD 15D47 - 01b

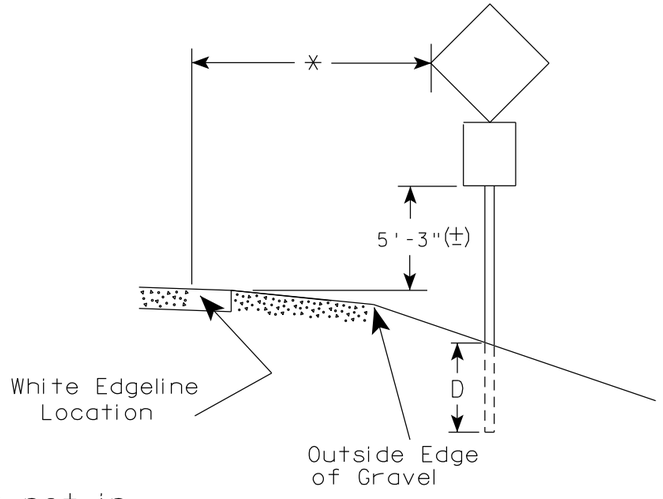
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) 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" (±).
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 signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

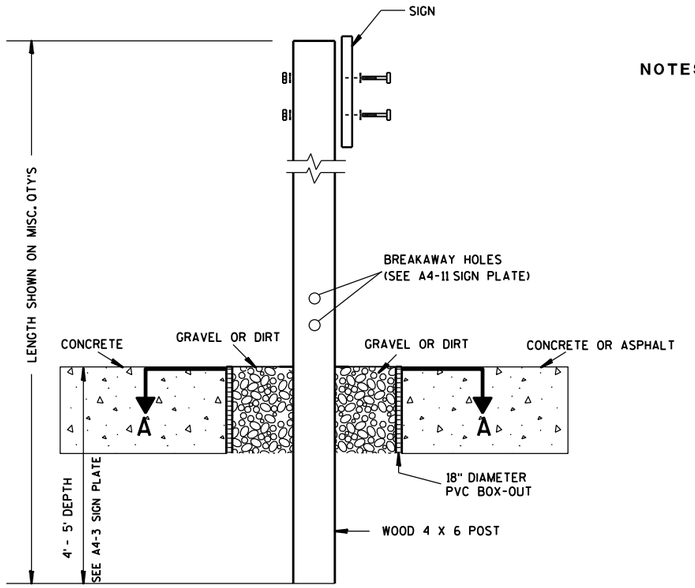
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

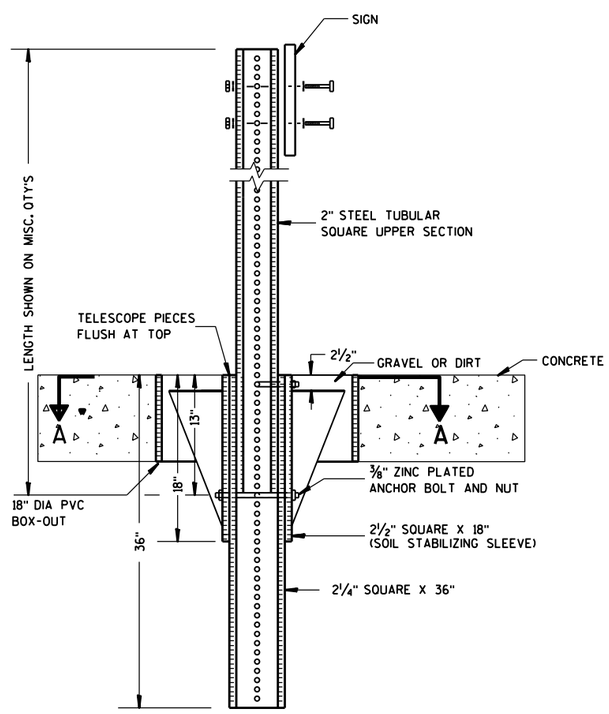
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 243	E



ELEVATION VIEW

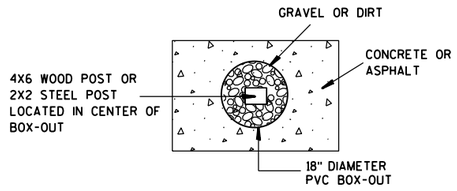
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

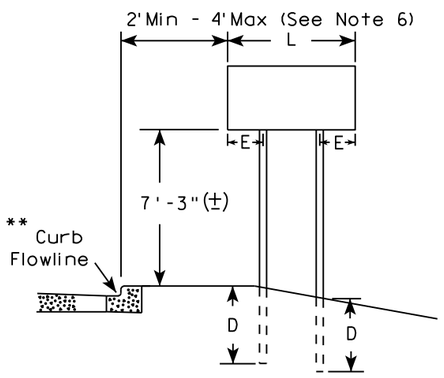
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

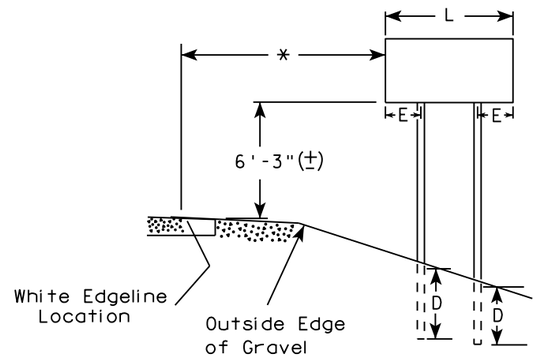
DATE 1/27/14 PLATE NO. A4-3B.1

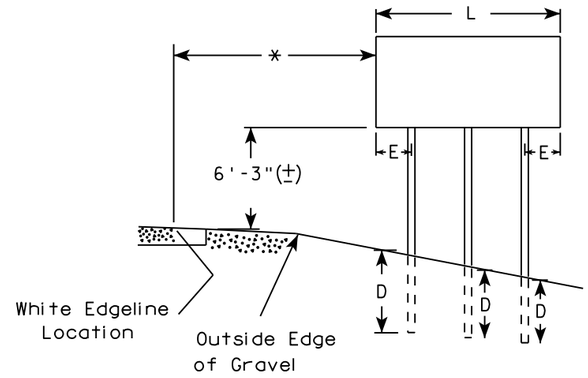
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

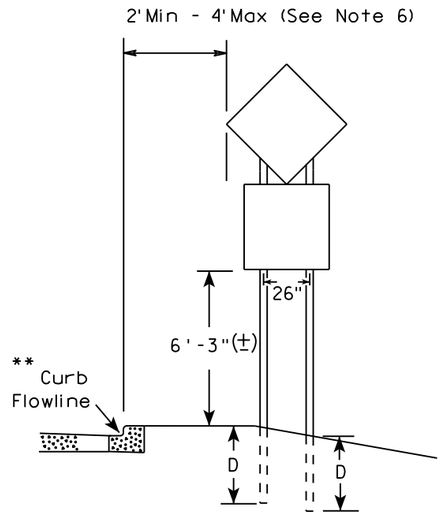
URBAN AREA



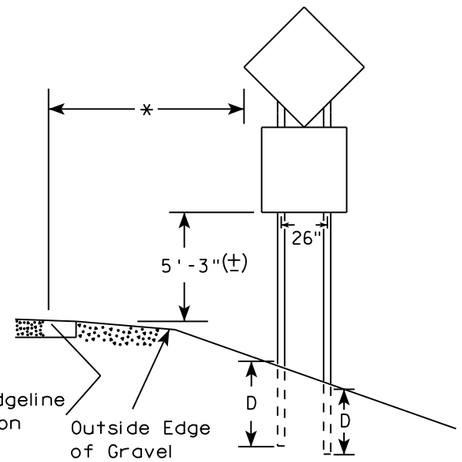
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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. J-Assemblies are considered to be one sign for mounting height.
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 and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

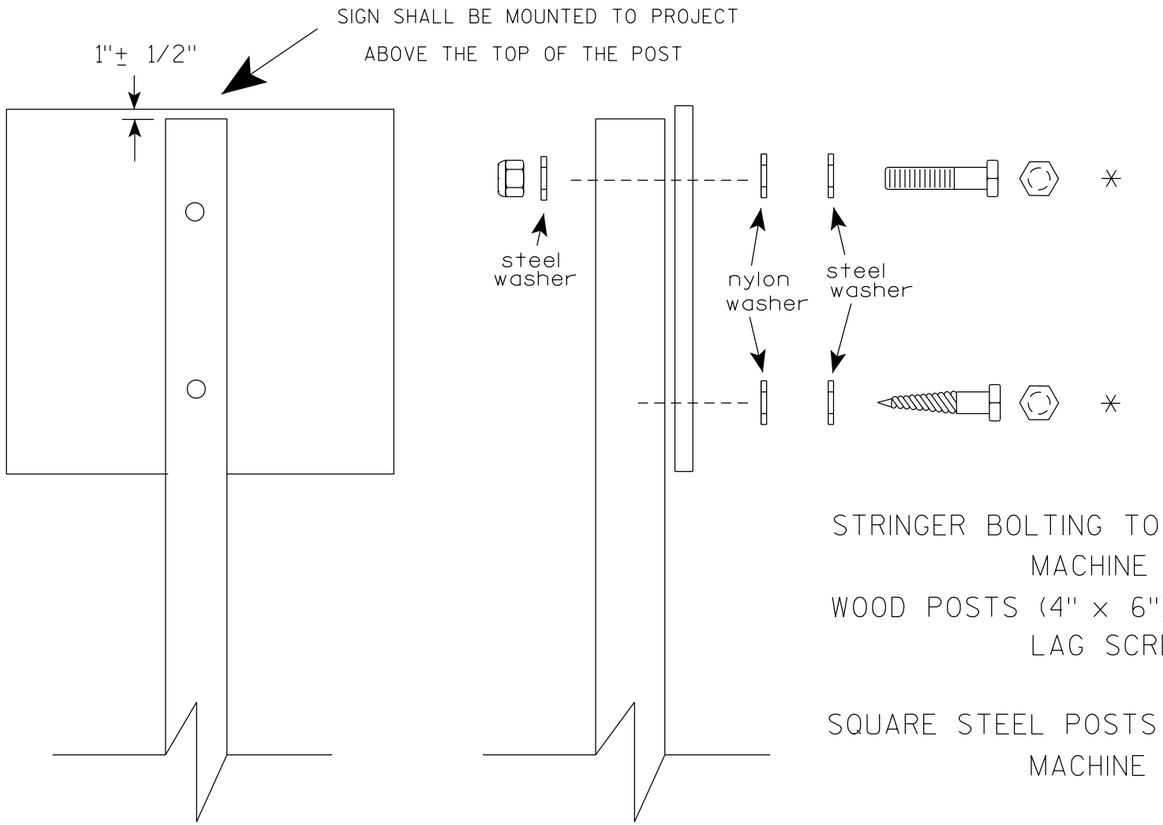
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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 Matthew R Rauch
for State Traffic Engineer

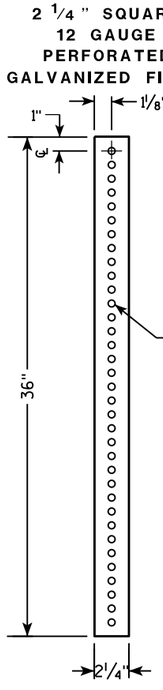
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

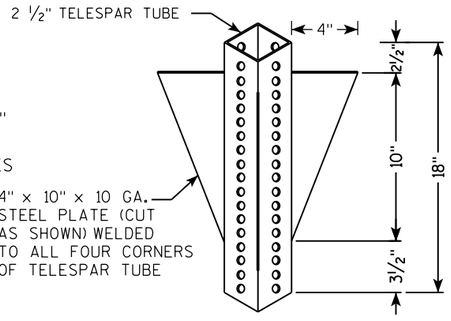
SHEET NO: 246 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

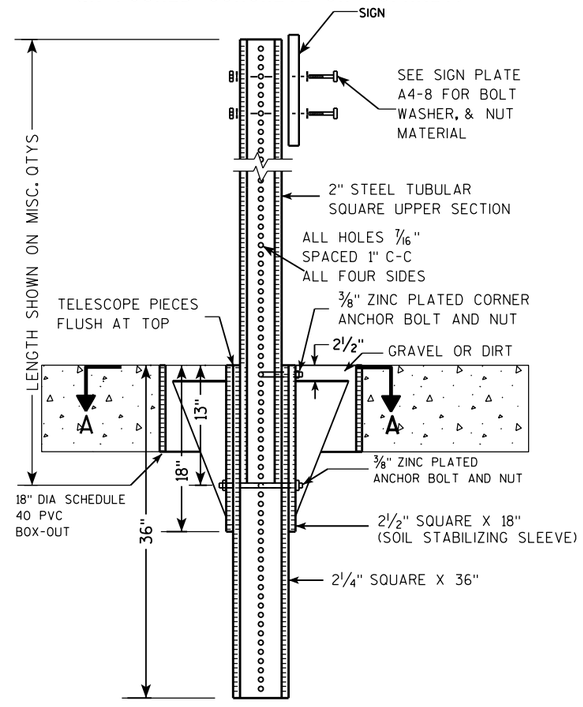
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



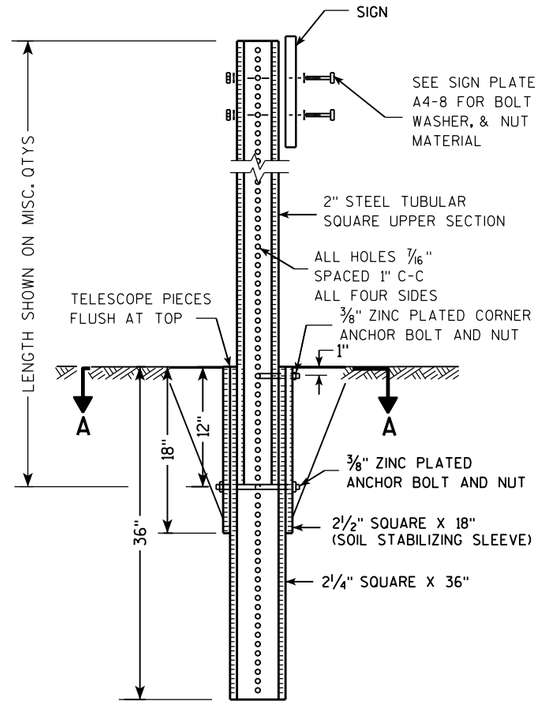
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

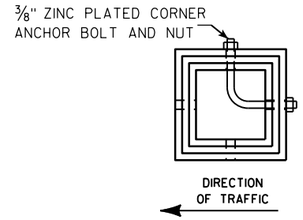


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

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

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

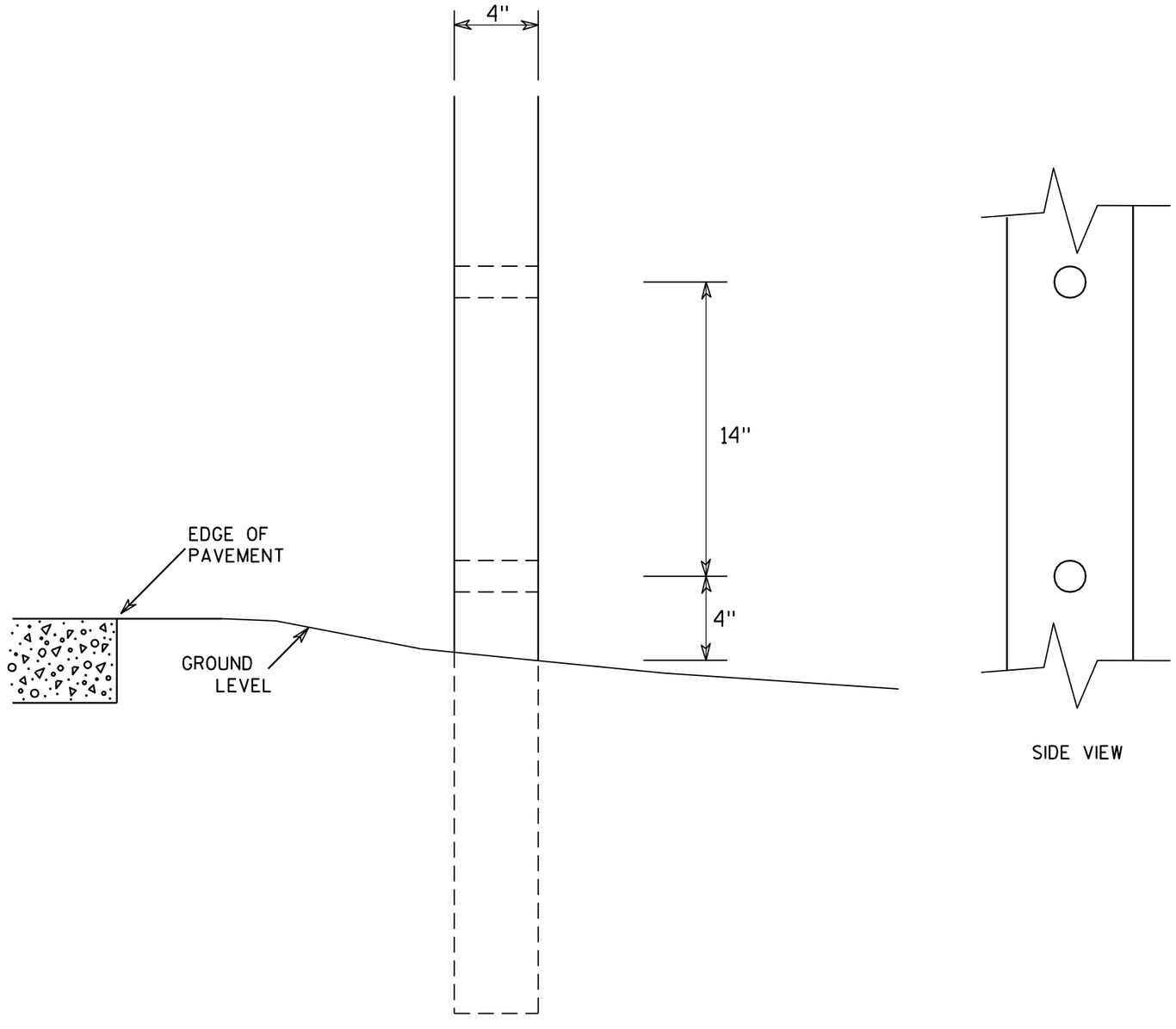
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 247 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

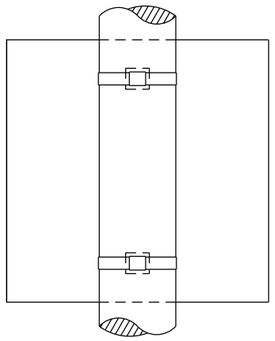
APPROVED Chester J Spang for State Traffic Engineer

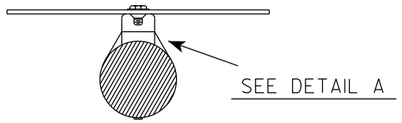
DATE 3/27/97 PLATE NO. A4-11.2

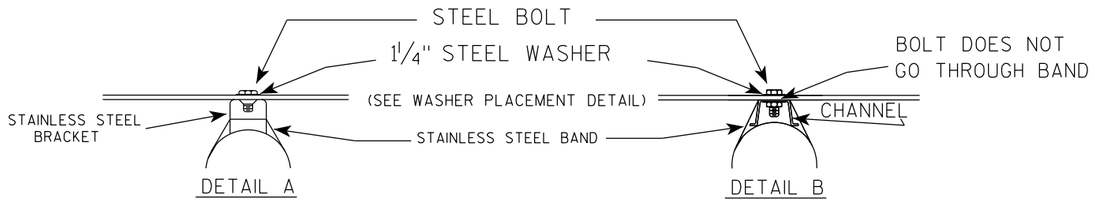
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 248	E

BANDING

SINGLE SIGN



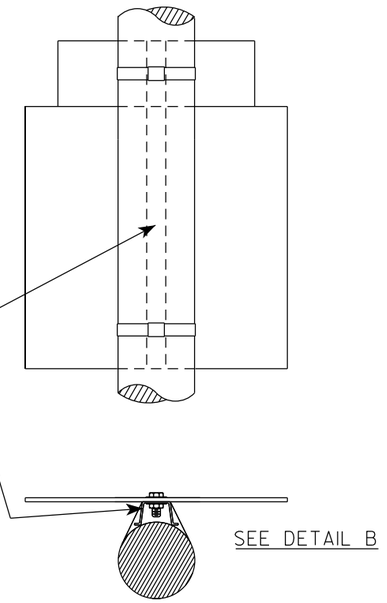




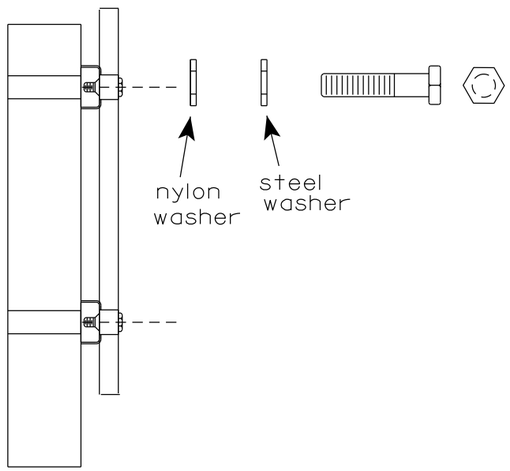
GENERAL NOTES

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 ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" 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

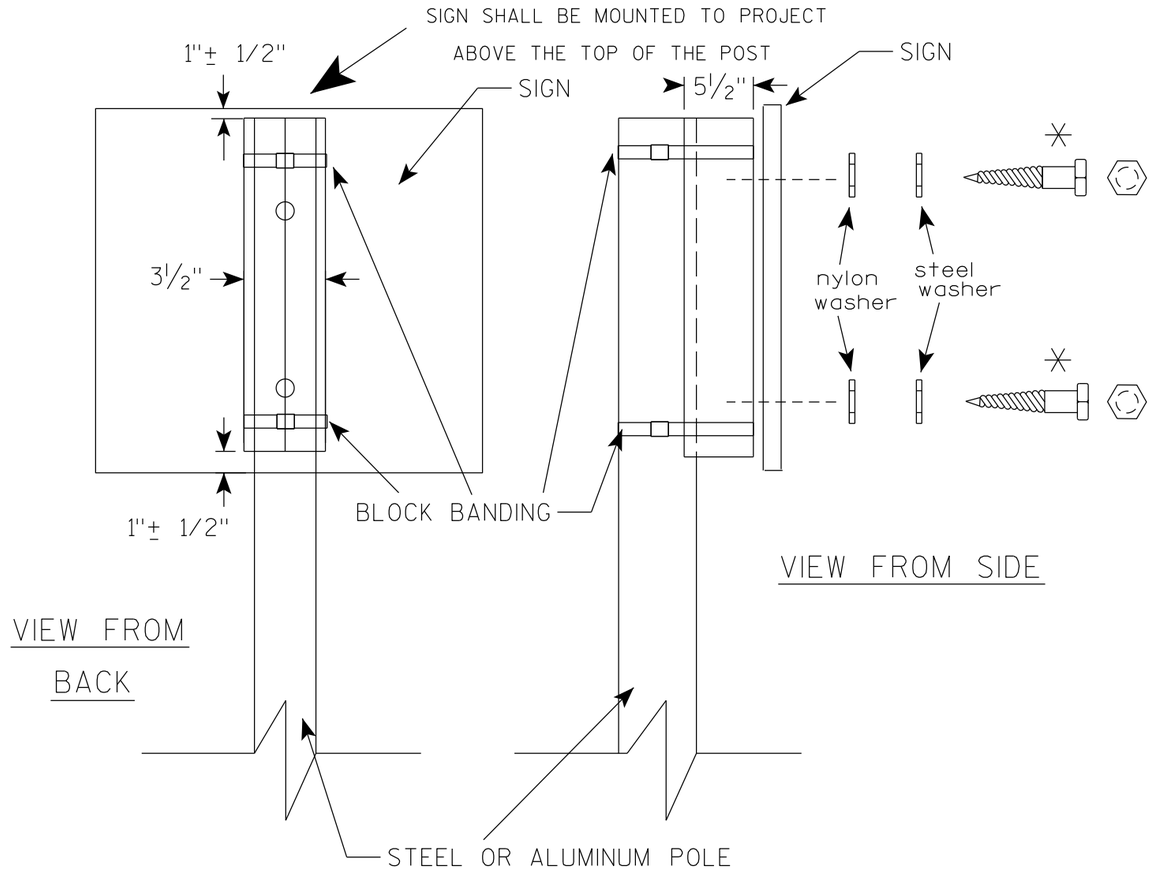
DATE 6/10/19 PLATE NO. A5-9.4

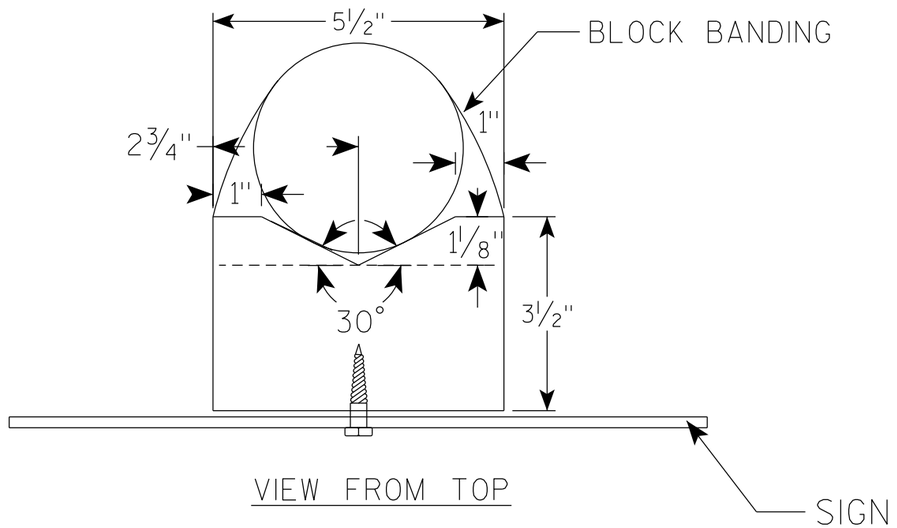
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 249	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





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, ¾" 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 NORNALLY 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
   b. 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

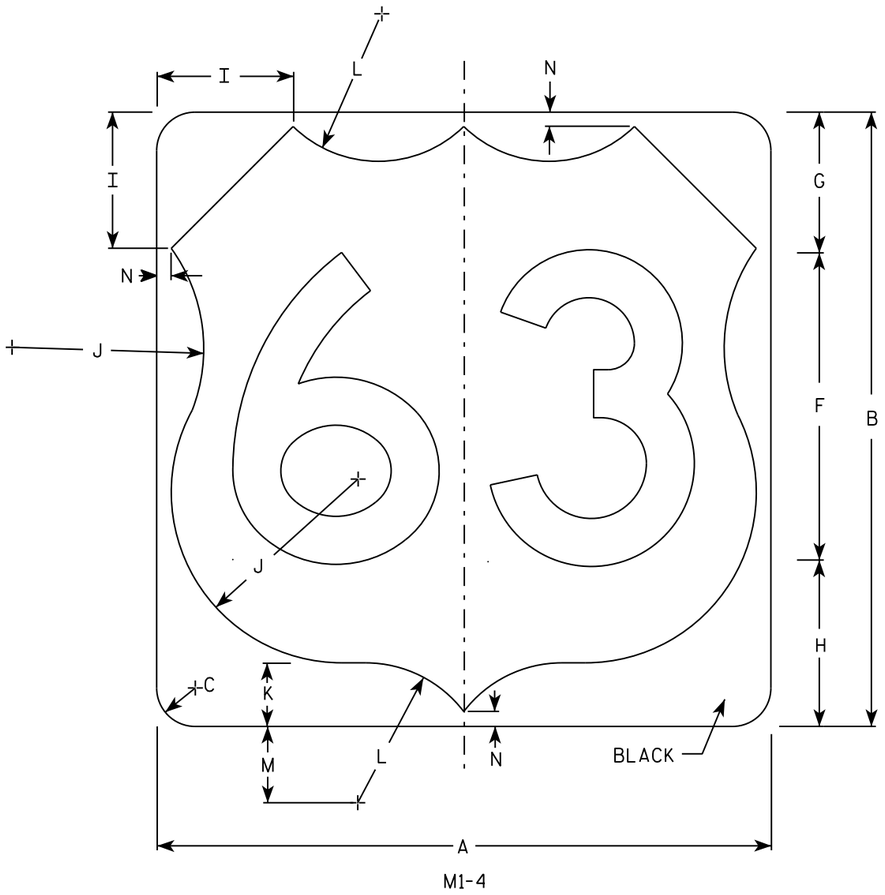
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

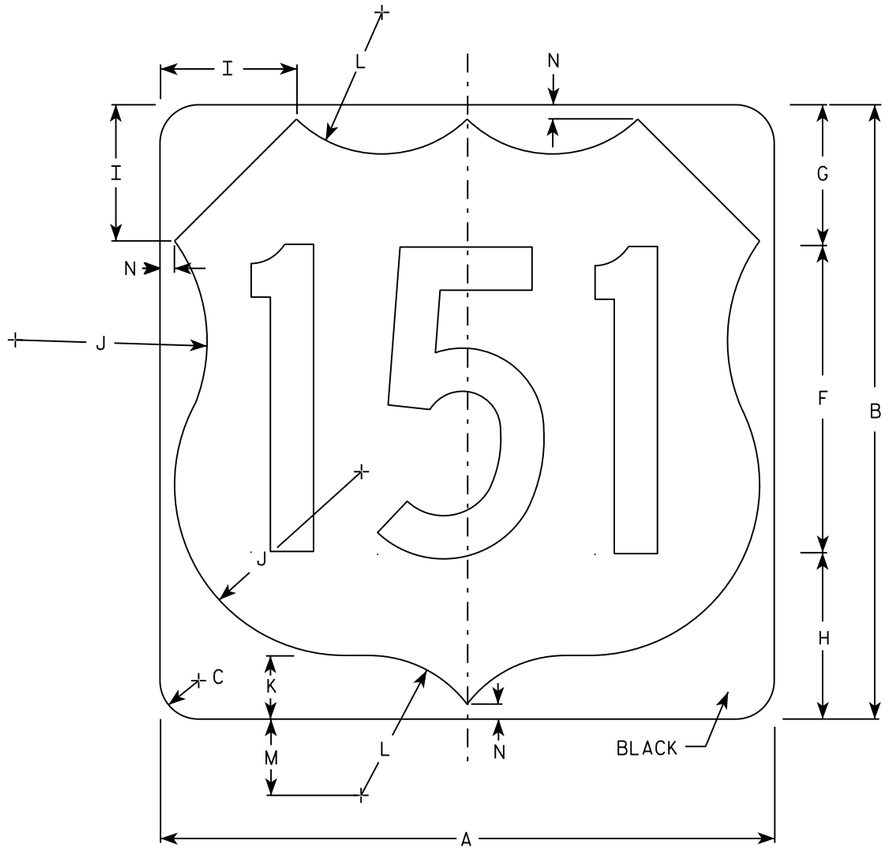
PROJECT NO:				SHEET NO: 250	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs 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.



M1-4



M1-4

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	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
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
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
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

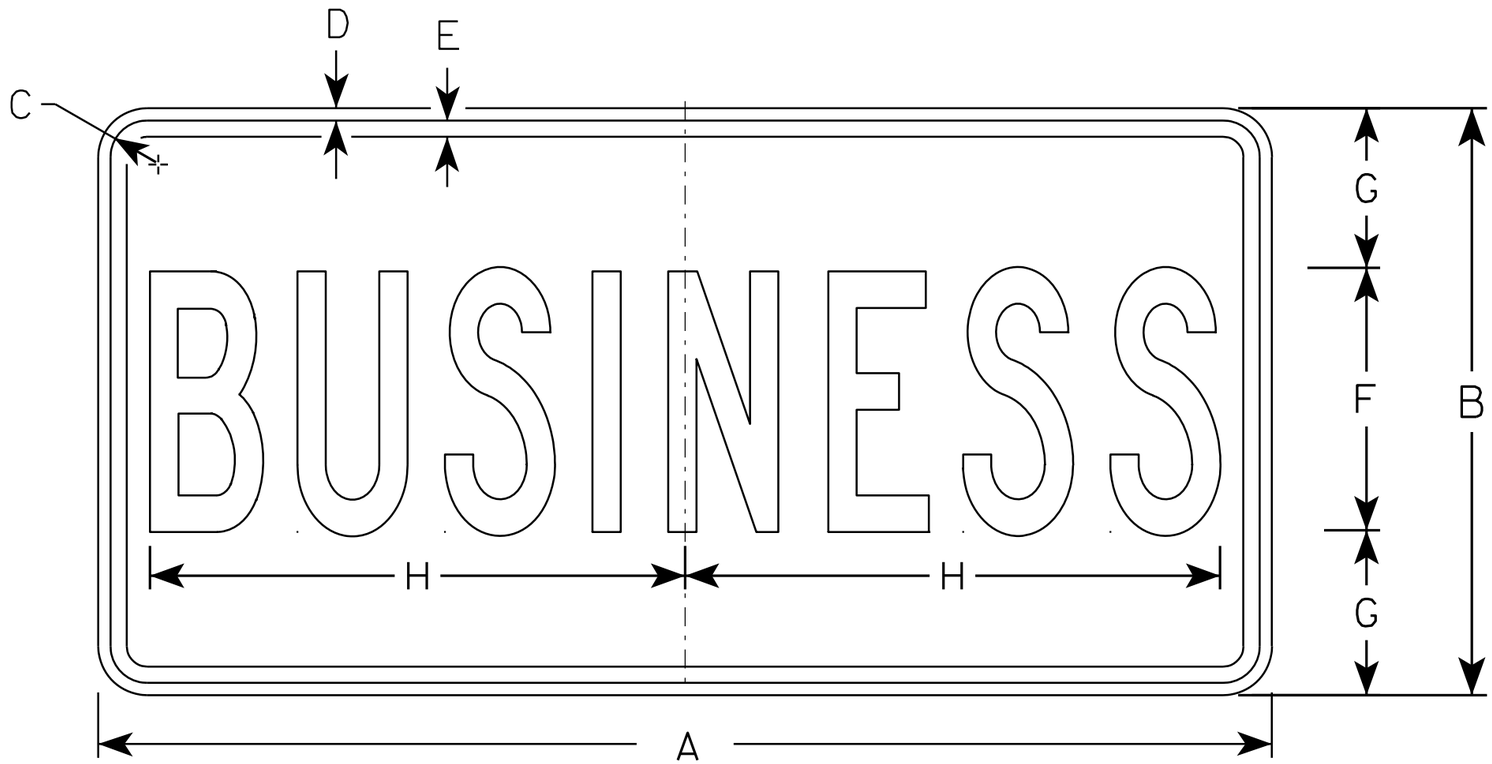
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 251	E



M4-3

NOTES

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

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	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

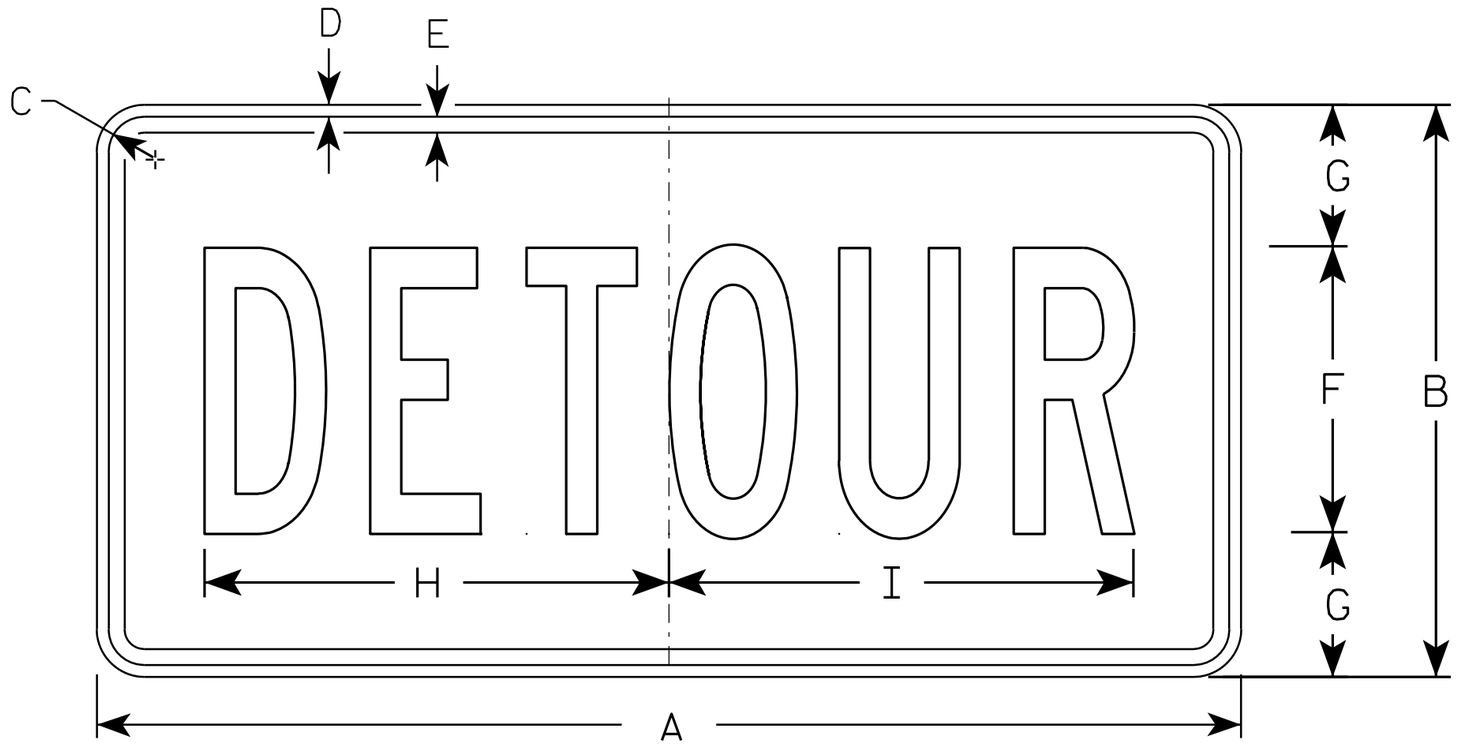
STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 252 | E



M4-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

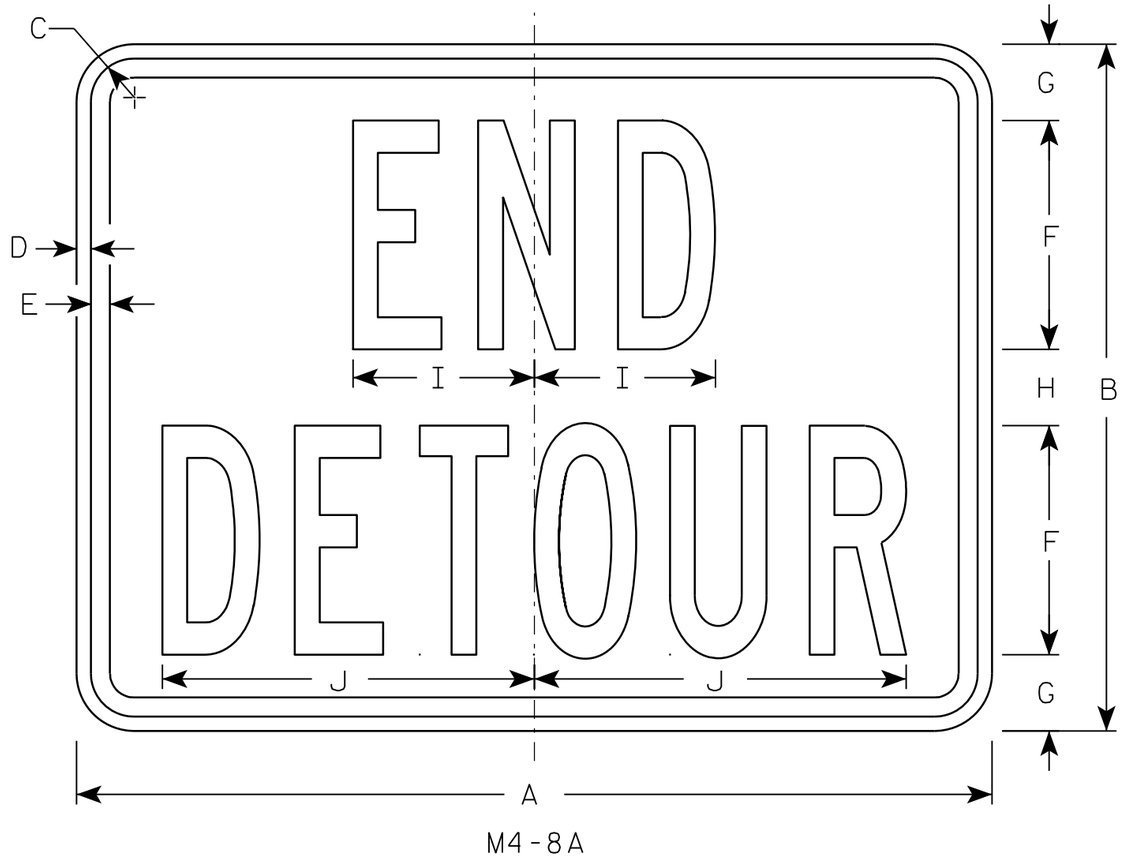
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 253	E



M4-8A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

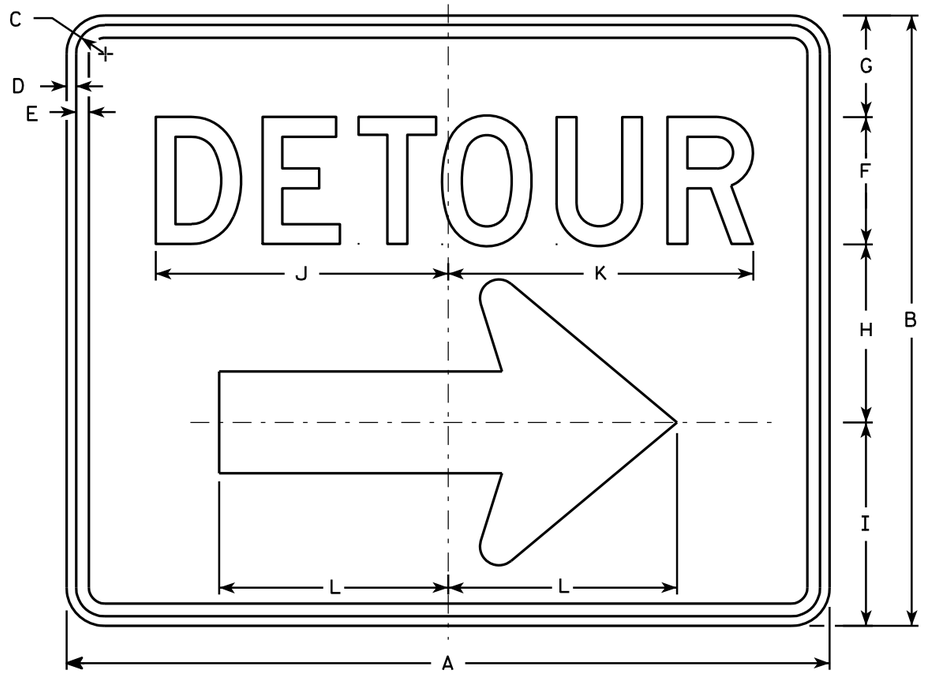
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

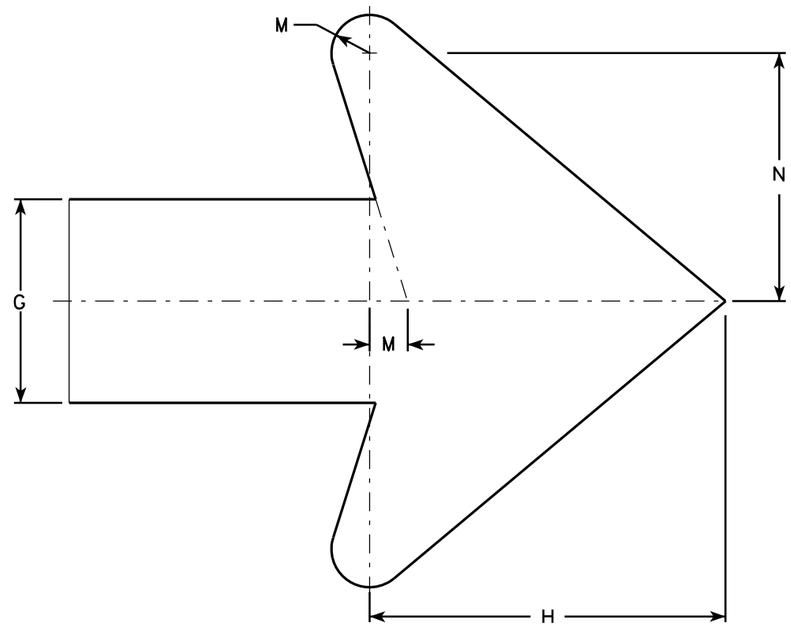
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 254	E



M4-9R

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 - 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. M4-9L is the same as M4-9R except the arrow is reversed.



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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

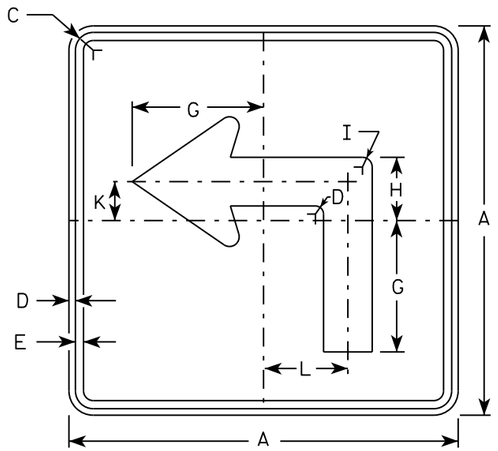
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

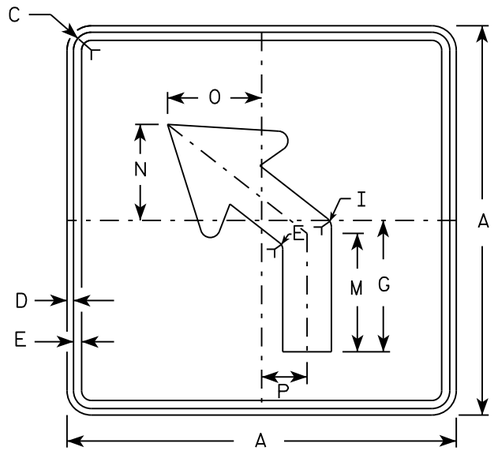
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

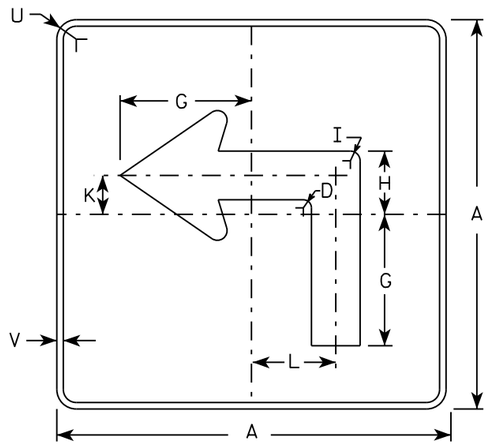
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 255 | E



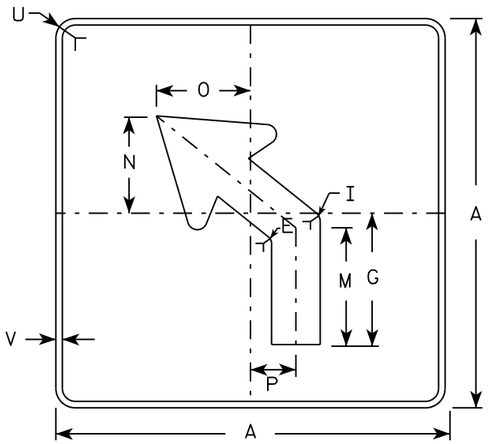
M5-1L
MM5-1L
MO5-1L
MP5-1L



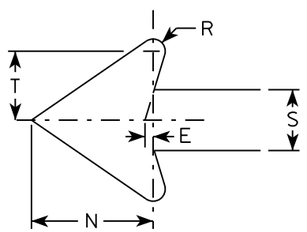
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective 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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

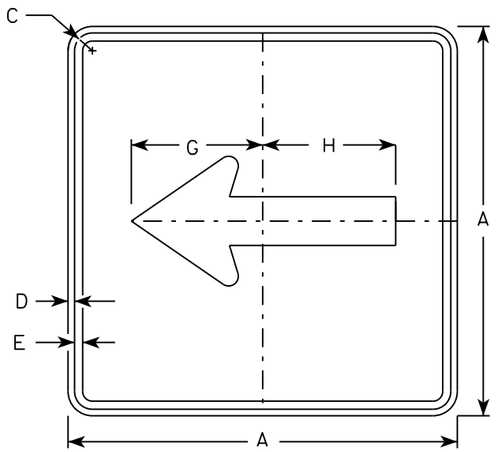
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

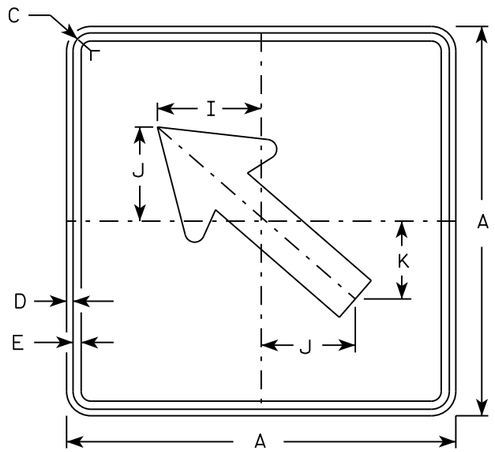
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



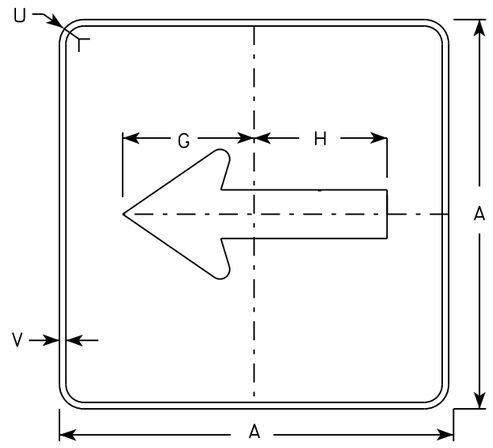
M6-1
MM6-1
MO6-1
MP6-1



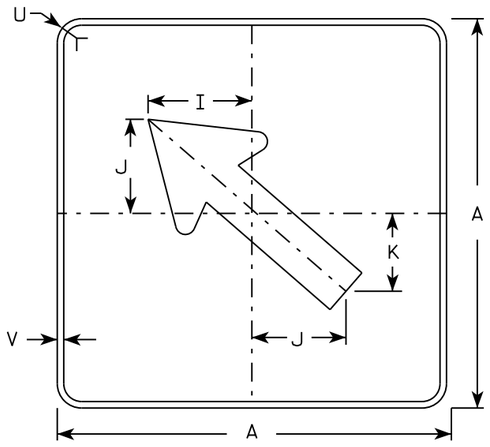
M6-2
MM6-2
MO6-2
MP6-2

NOTES

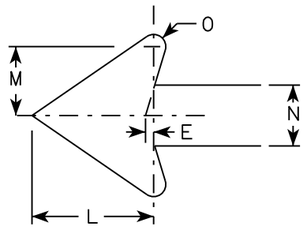
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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

STANDARD SIGN
M6-1 & M6-2
SERIES

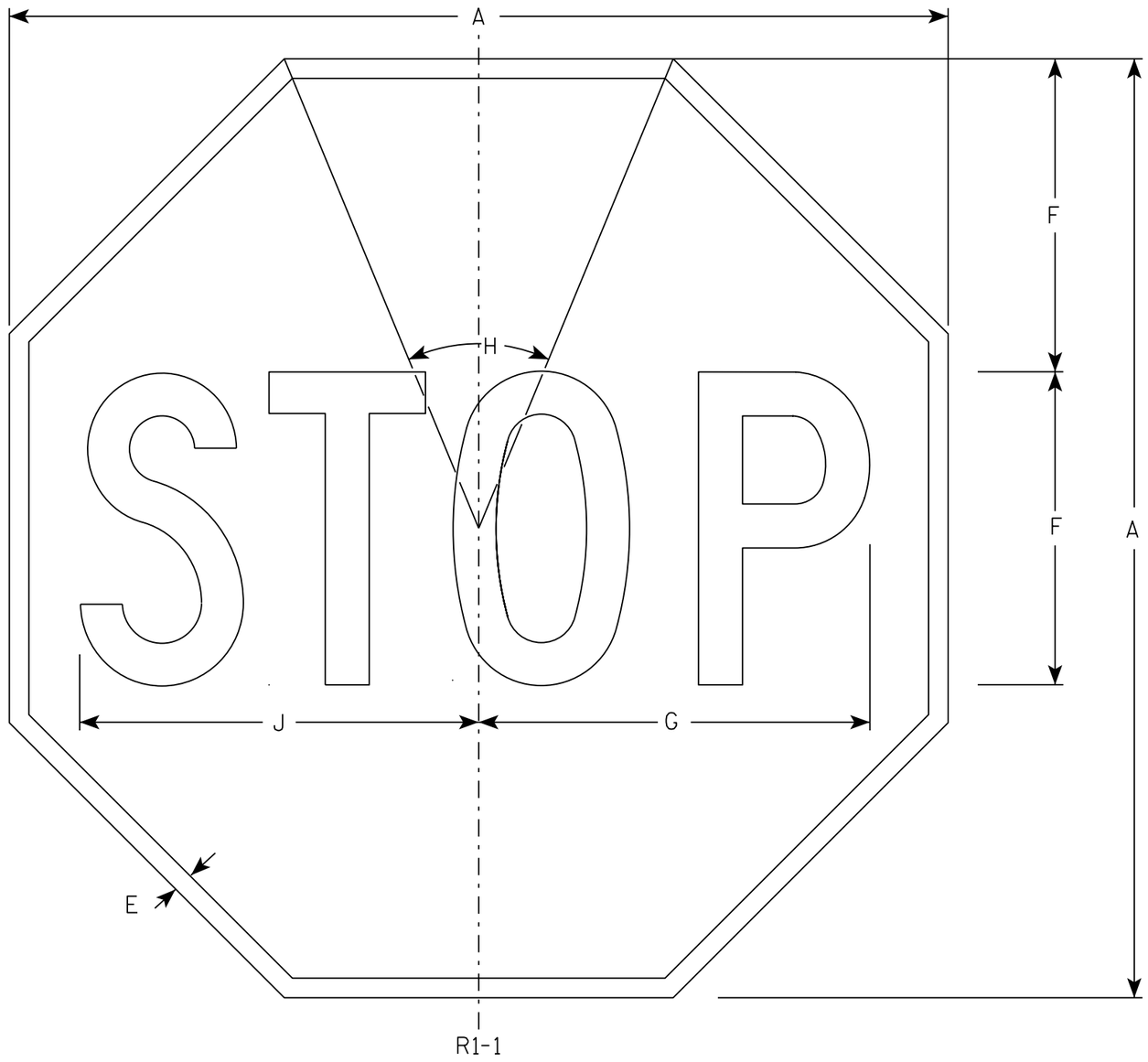
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 257 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

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				5/8	10	12 1/2	45°		12 3/4																	5.18
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

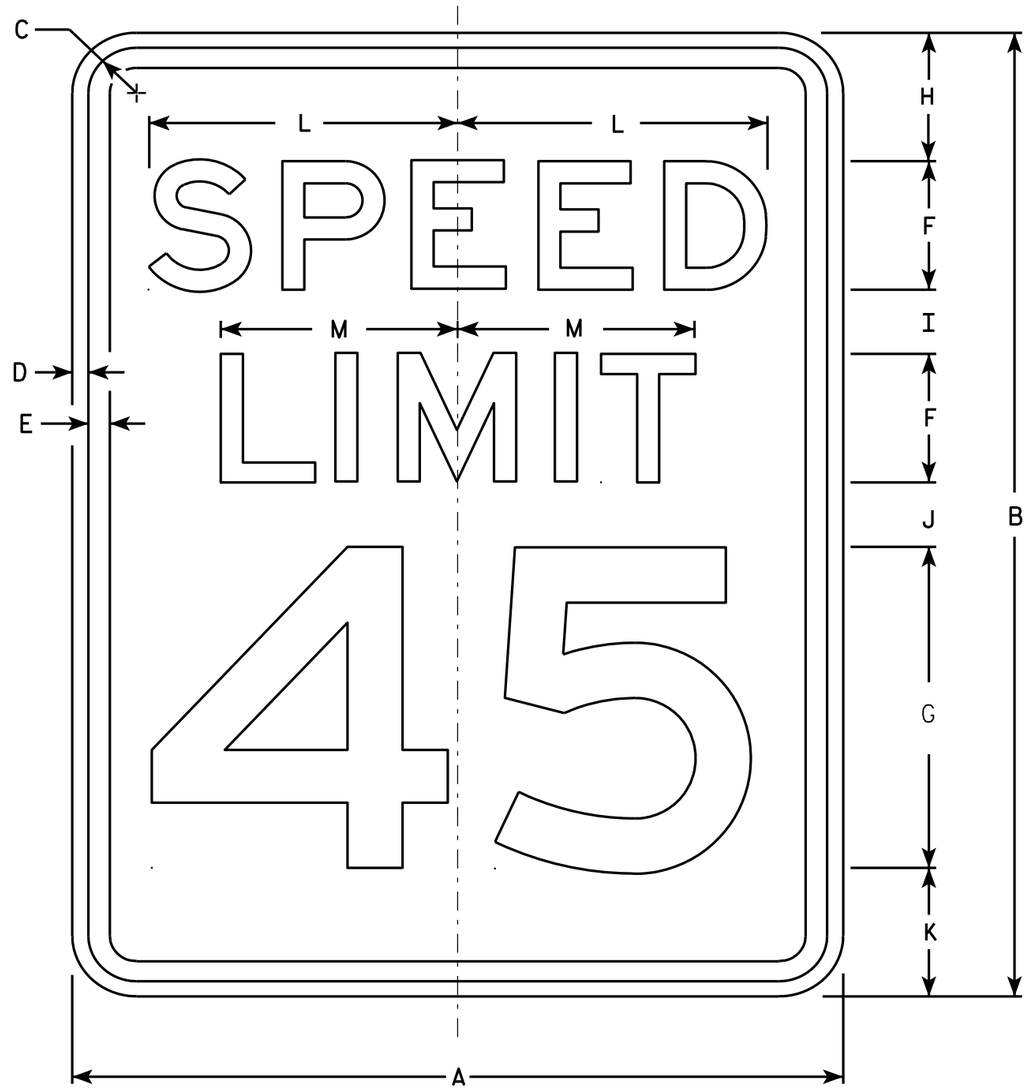
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 258	E



R2-1

NOTES

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

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

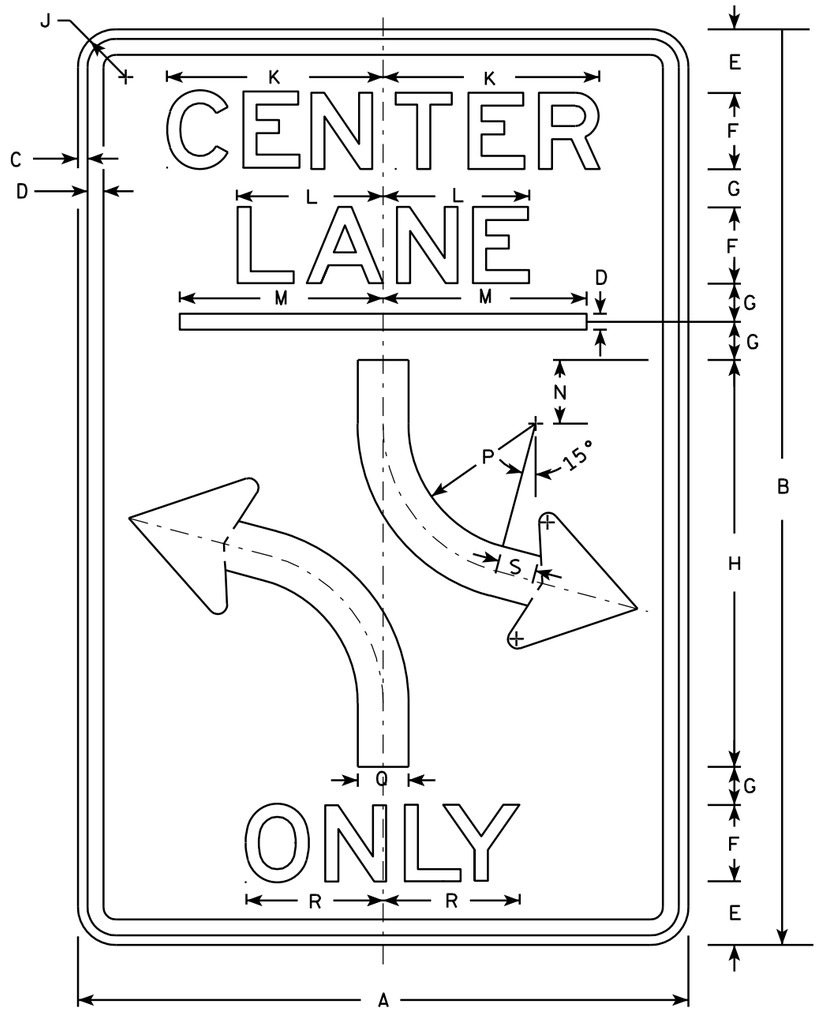
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

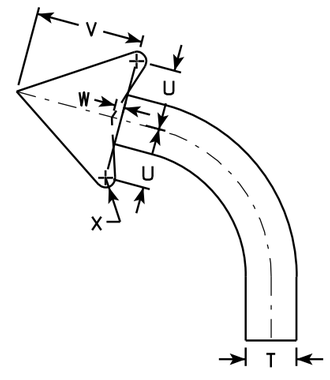
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 259 | E



R3-9B

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	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

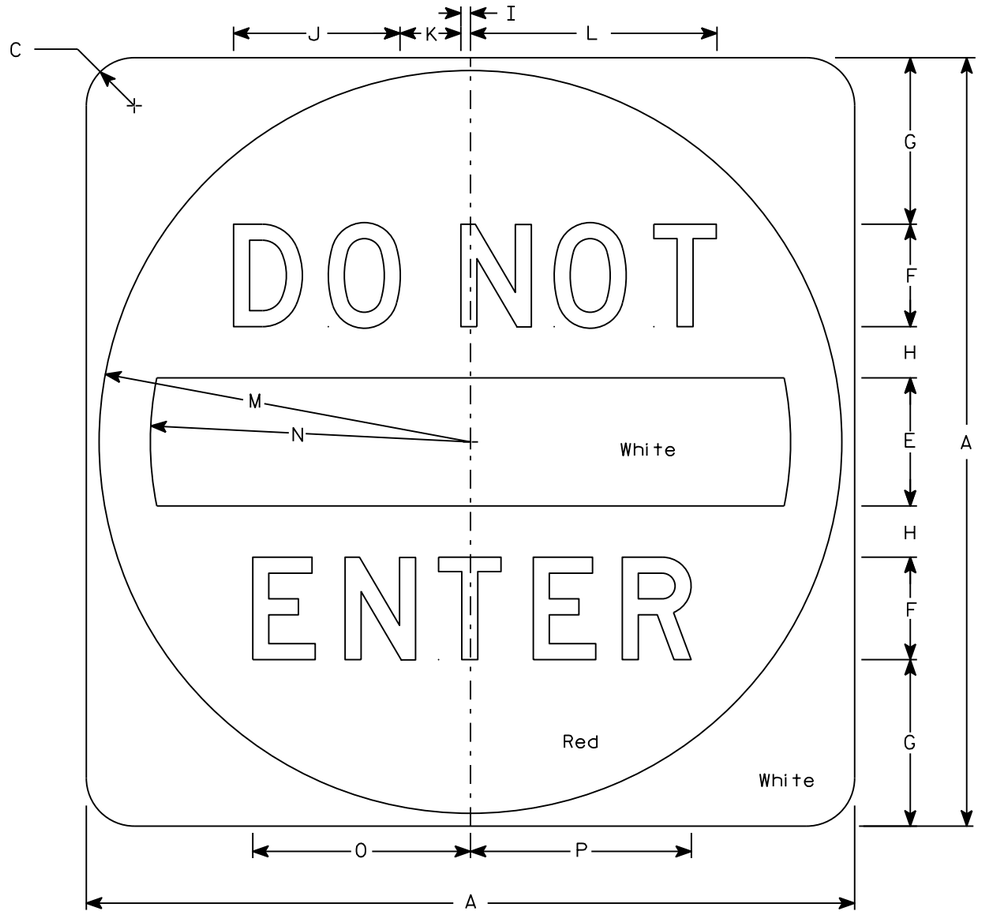
STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 260	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	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											6.25
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

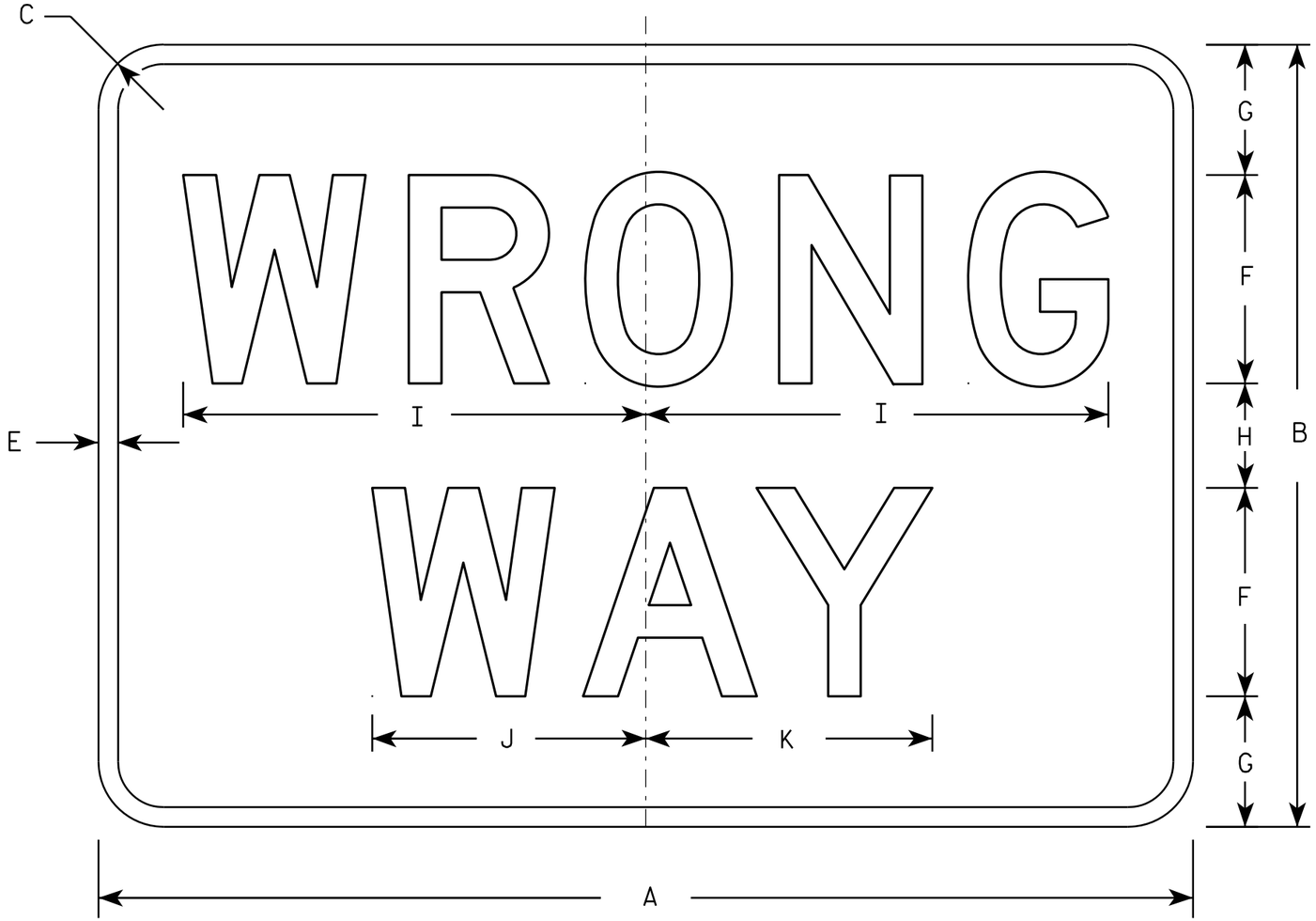
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 261 | E



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

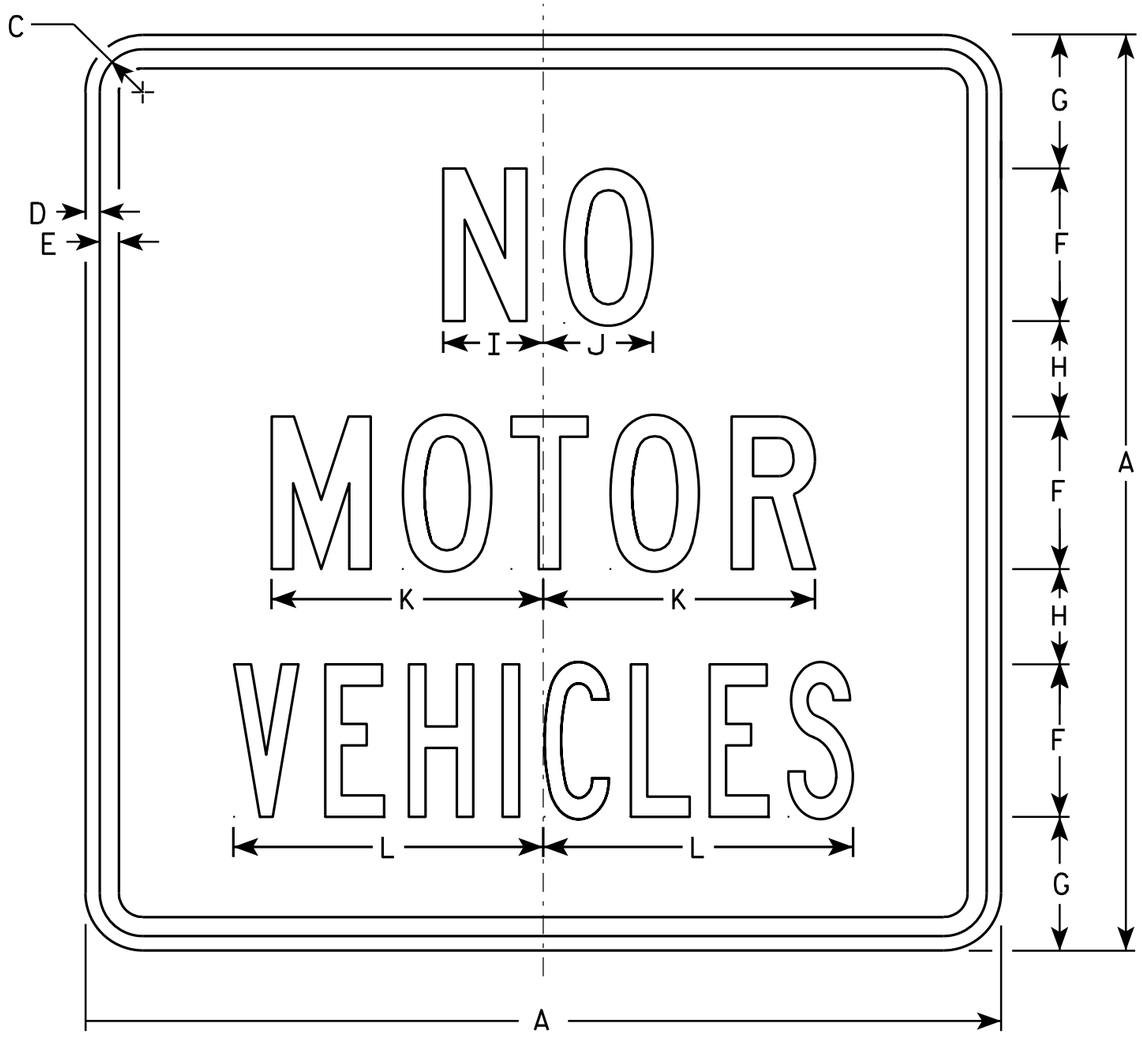
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 262 | E



R5-3

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 - 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. Lines 1 & 2 are Series C.
   Line 3 is Series B.

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		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
3																											
4																											
5																											

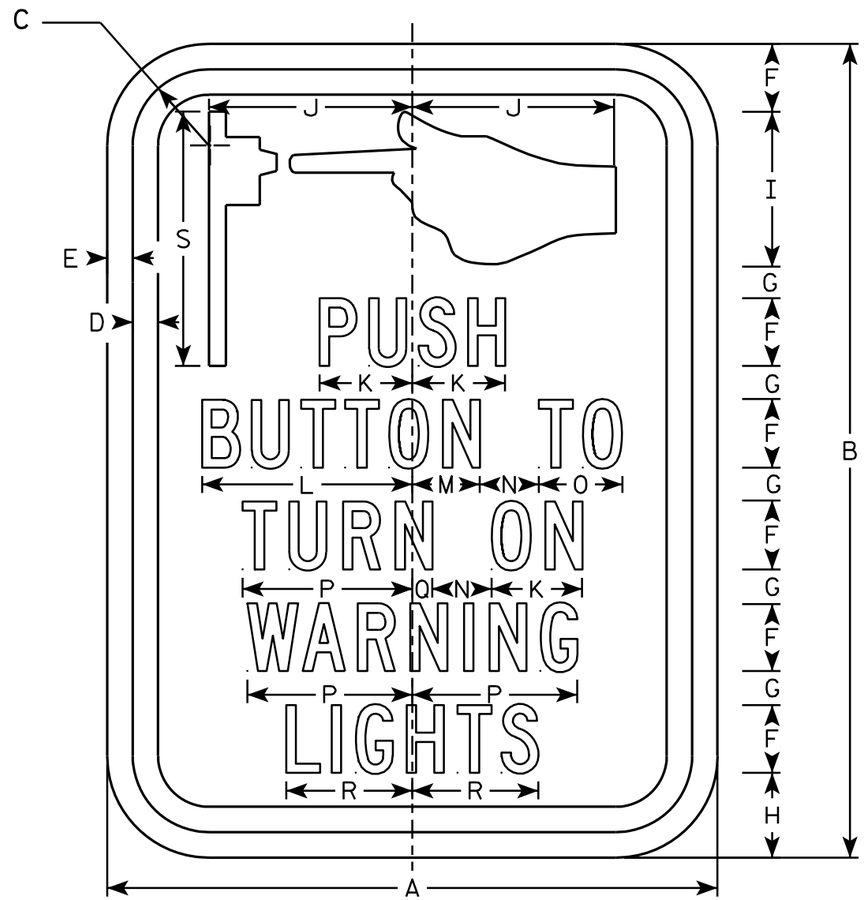
STANDARD SIGN
R5-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-3.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 263 | E



R10-25

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 - 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. Size (1) comes as a decal only.

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	6	9	1 1/8	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

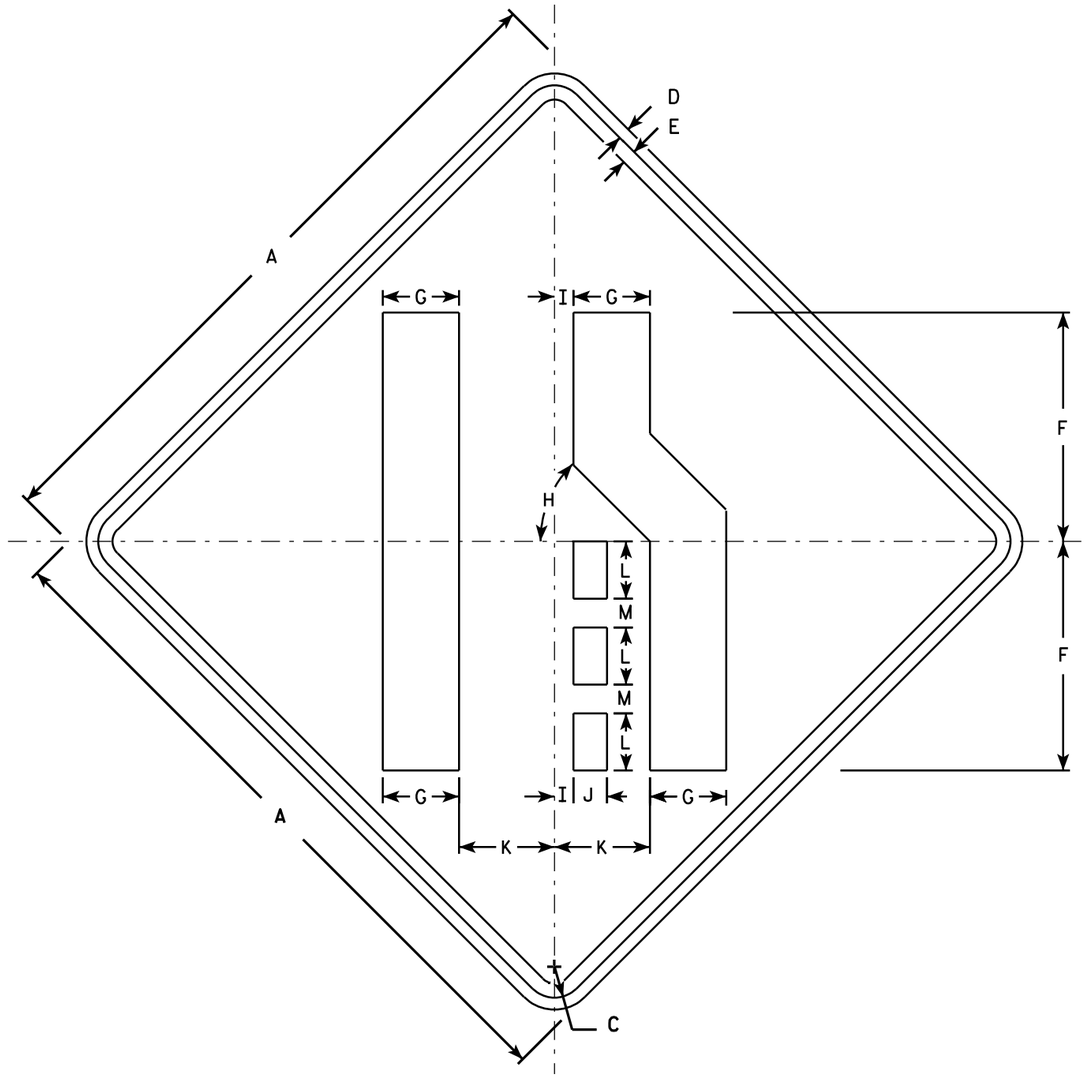
STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. R10-25.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 264	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

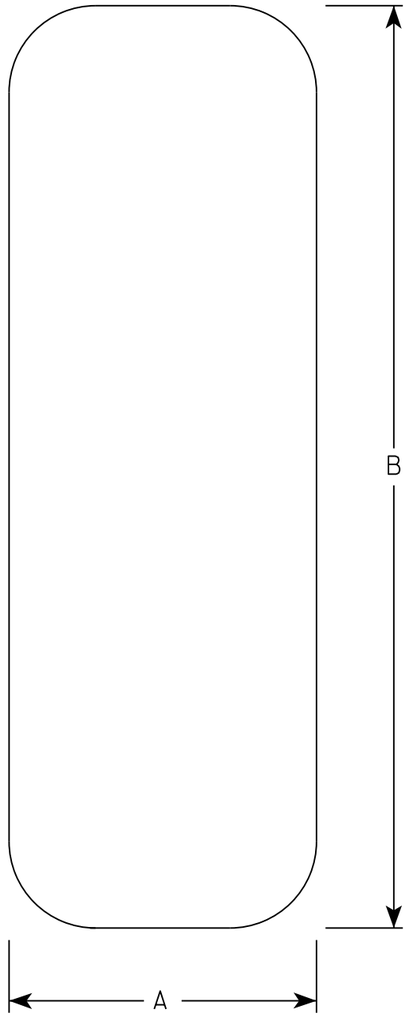
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 265 E



W5-53

NOTES

1. Sign is Type II -Type F Reflective
2. Color:
   Background - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	6	12	1 1/8																								.5
2M	6	12	1 1/8																								.5
3																											
4																											
5																											

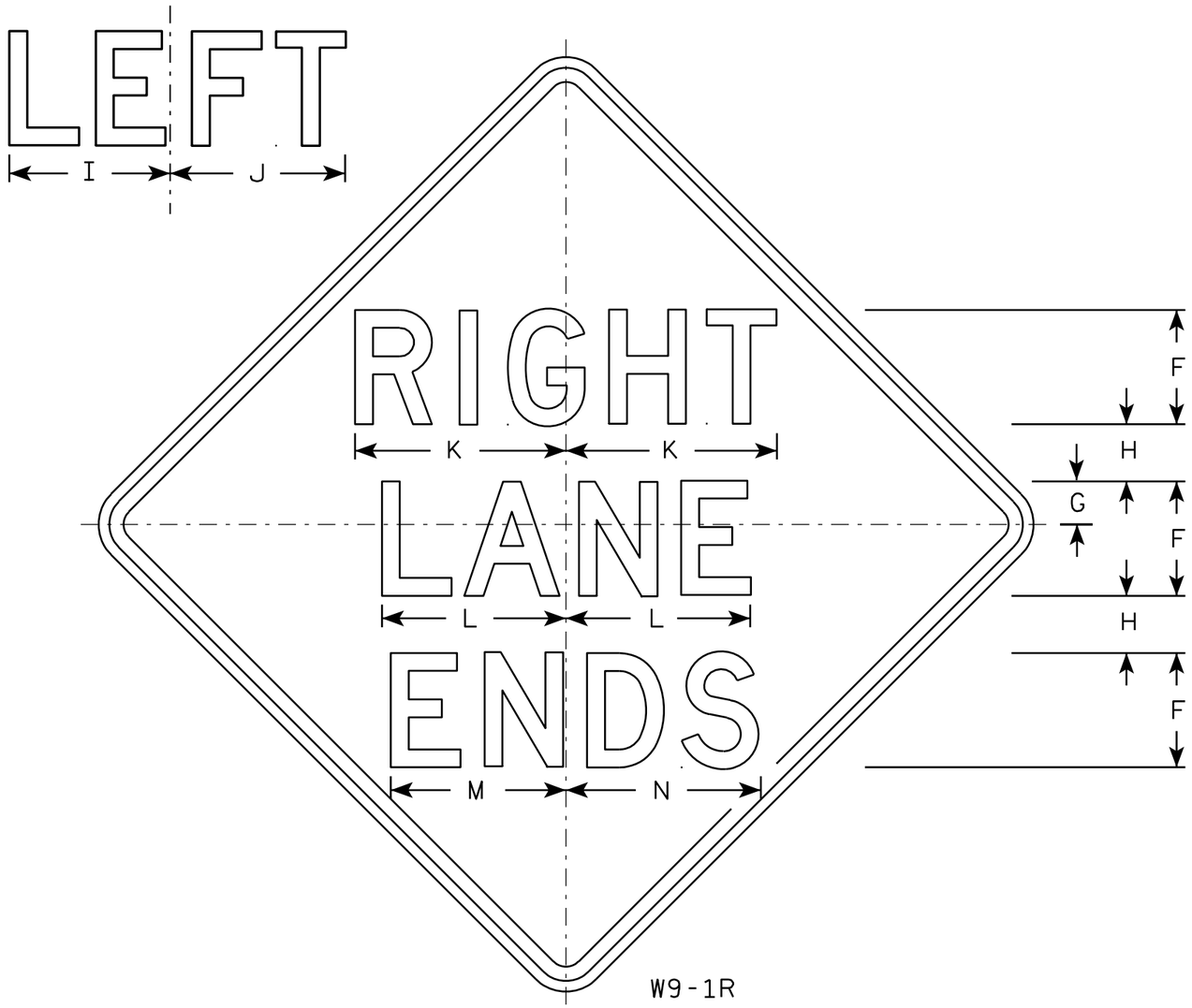
STANDARD SIGN
W5-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/17 PLATE NO. W5.53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 266	E



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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. W9-1L same as W9-1R except the word Left replaces 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	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

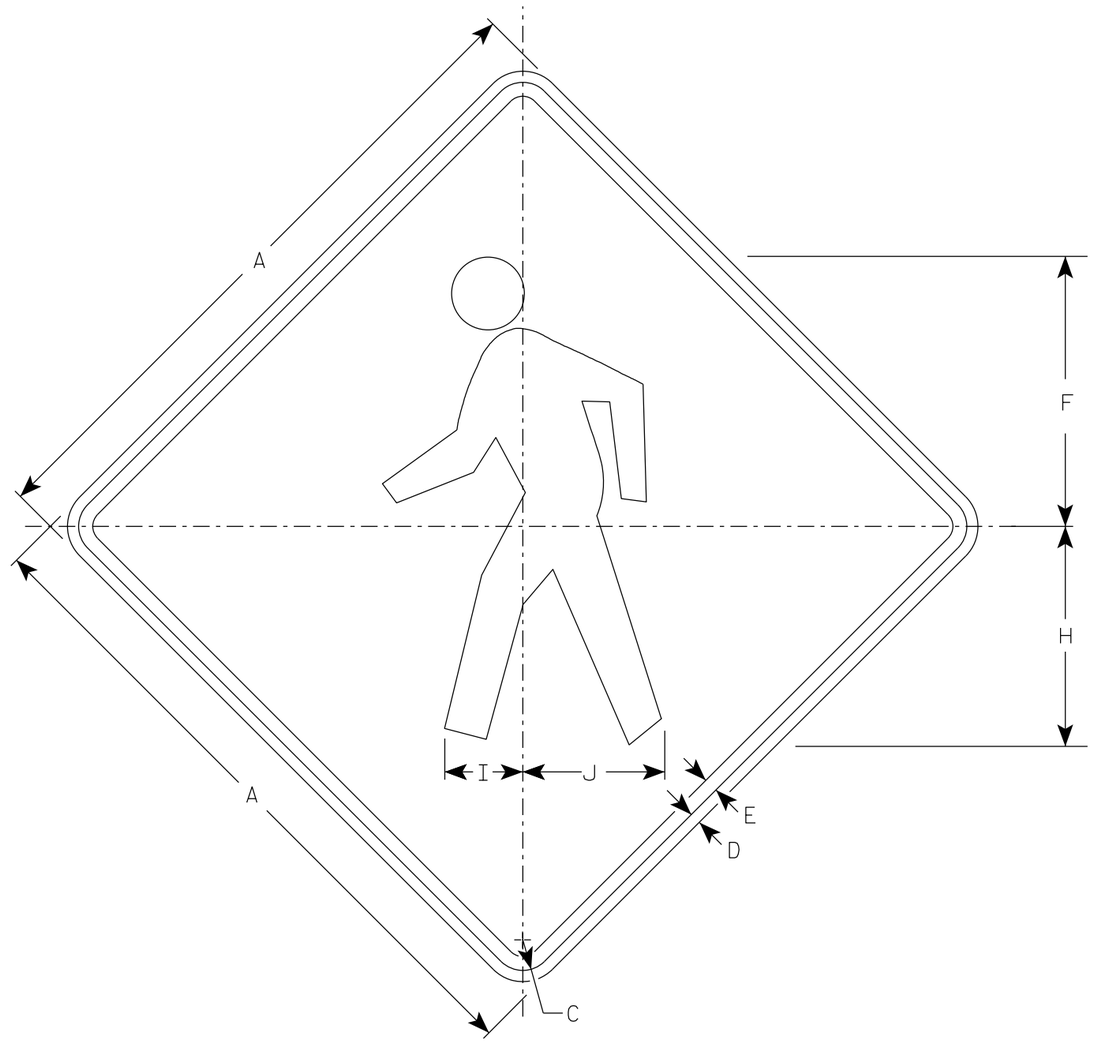
SHEET NO: 267 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



W11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

W11-2

WISCONSIN DEPT OF TRANSPORTATION

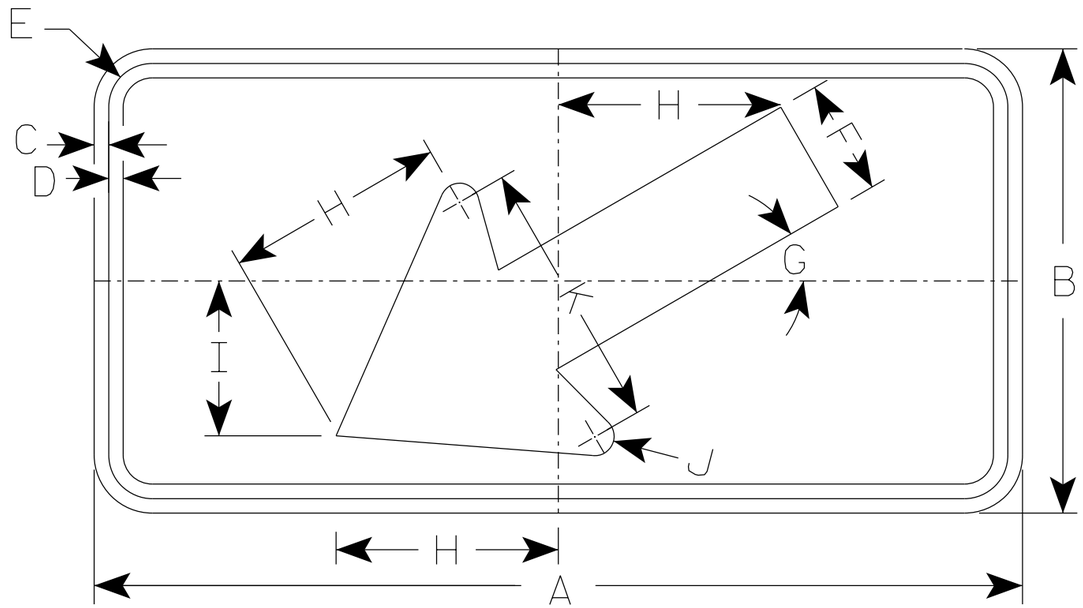
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/8/2020 PLATE NO. W11-2.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 268 E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-7L
   except the arrow is reversed along the vertical centerline.



W16-7L

* For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

	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	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
*	2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
*	3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
*	4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
	5																											

STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

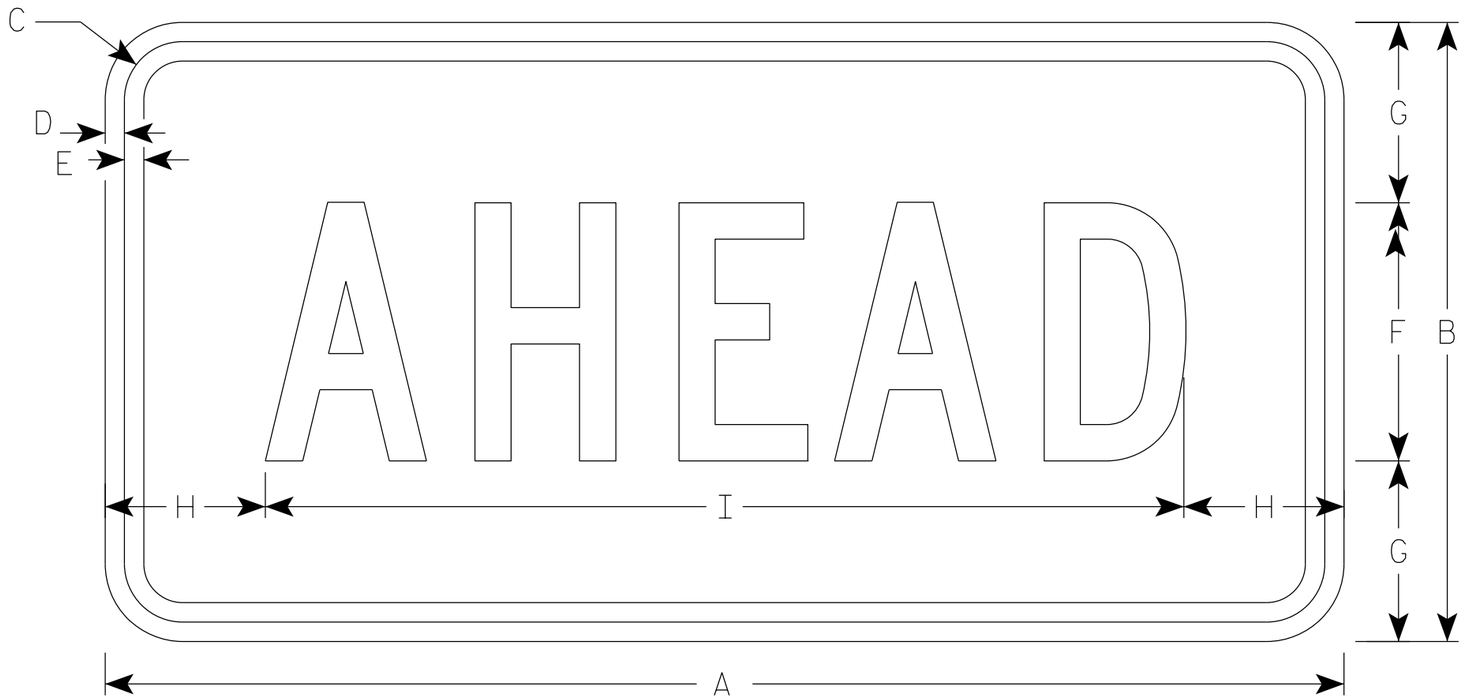
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/25/2020 PLATE NO. W16-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 269 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C



W16-9P

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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

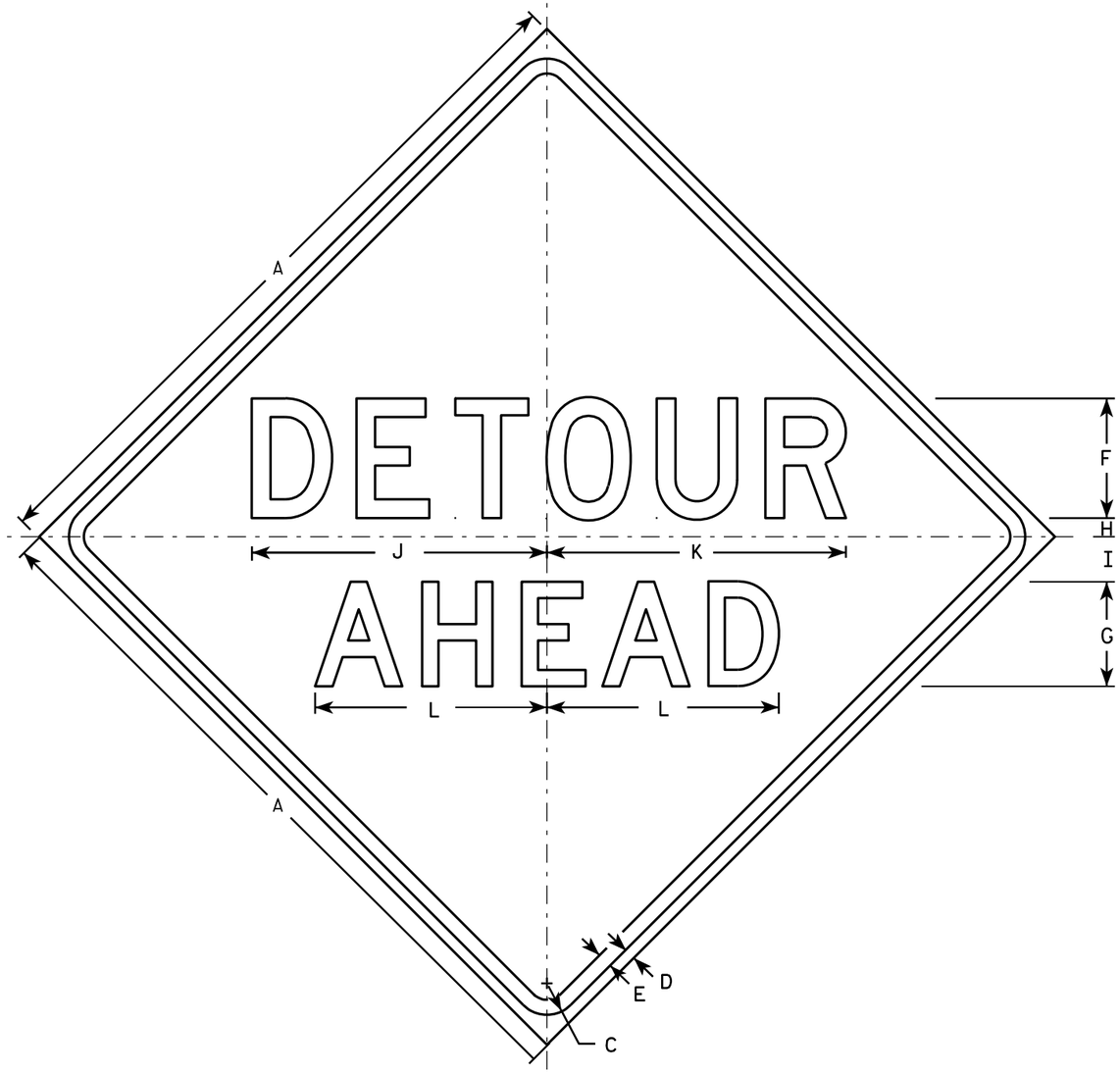
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/7/19 PLATE NO. W16-9P.7

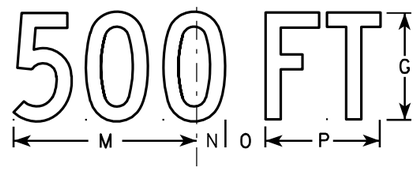
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 270 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W169P.DGN PLOT DATE : 07-MAR-2019 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

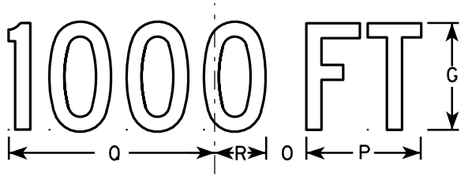
7



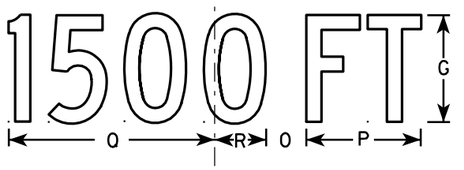
W20-2A



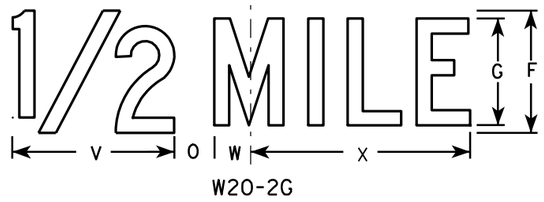
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

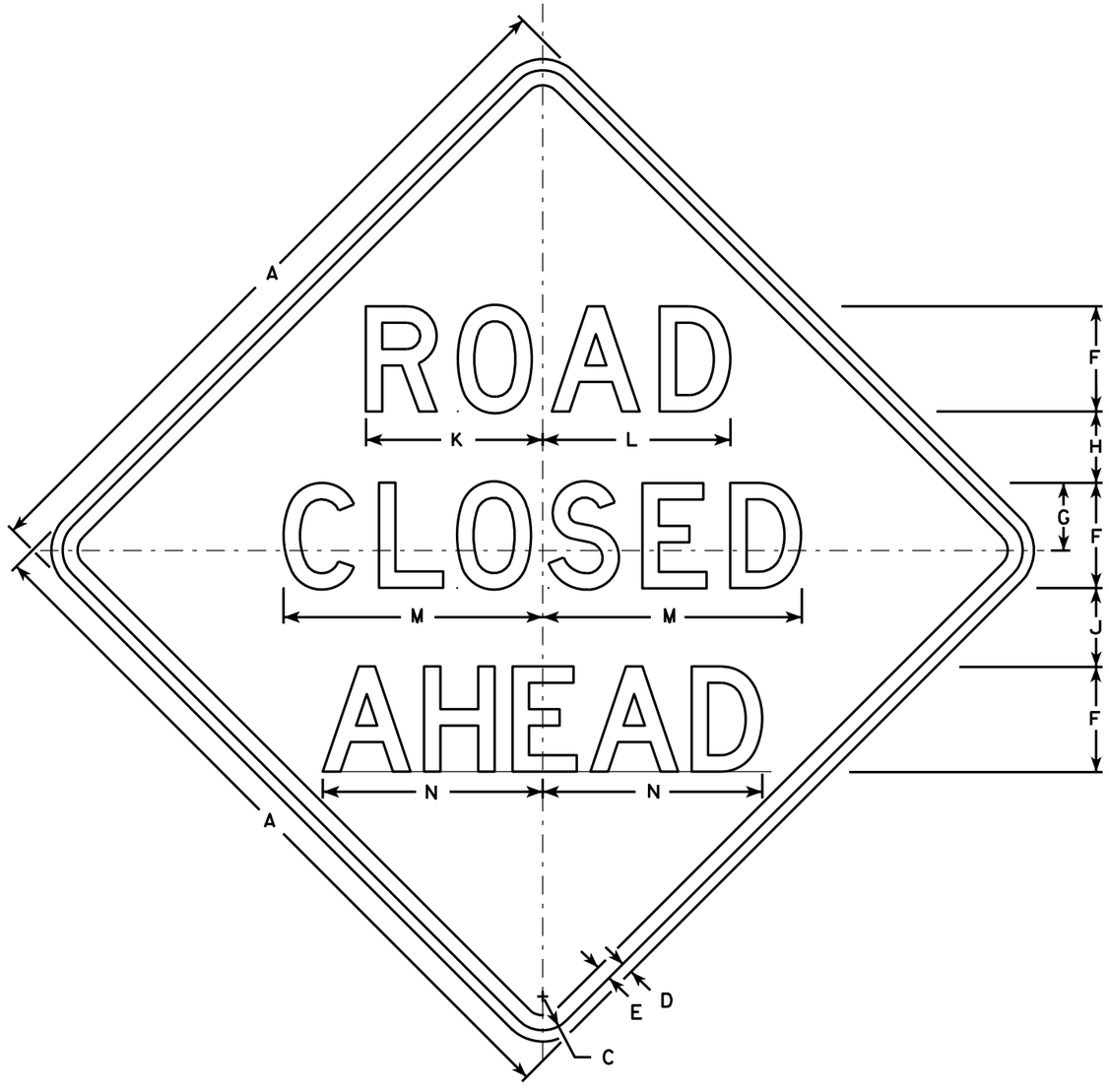
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

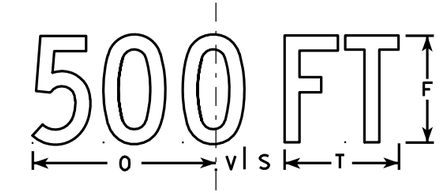
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

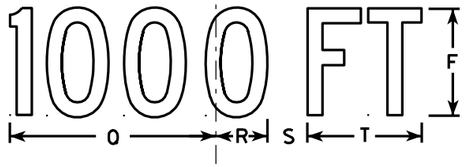
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 271	E



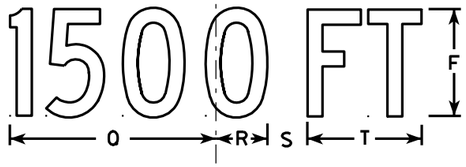
W20-3A



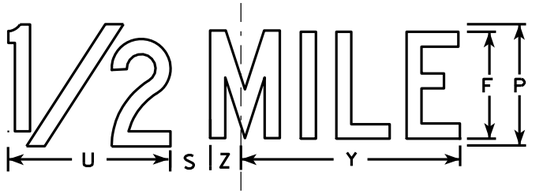
W20-3D



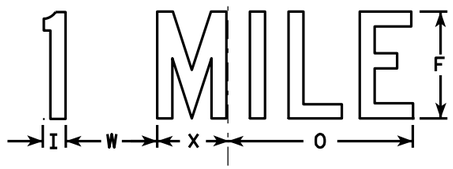
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

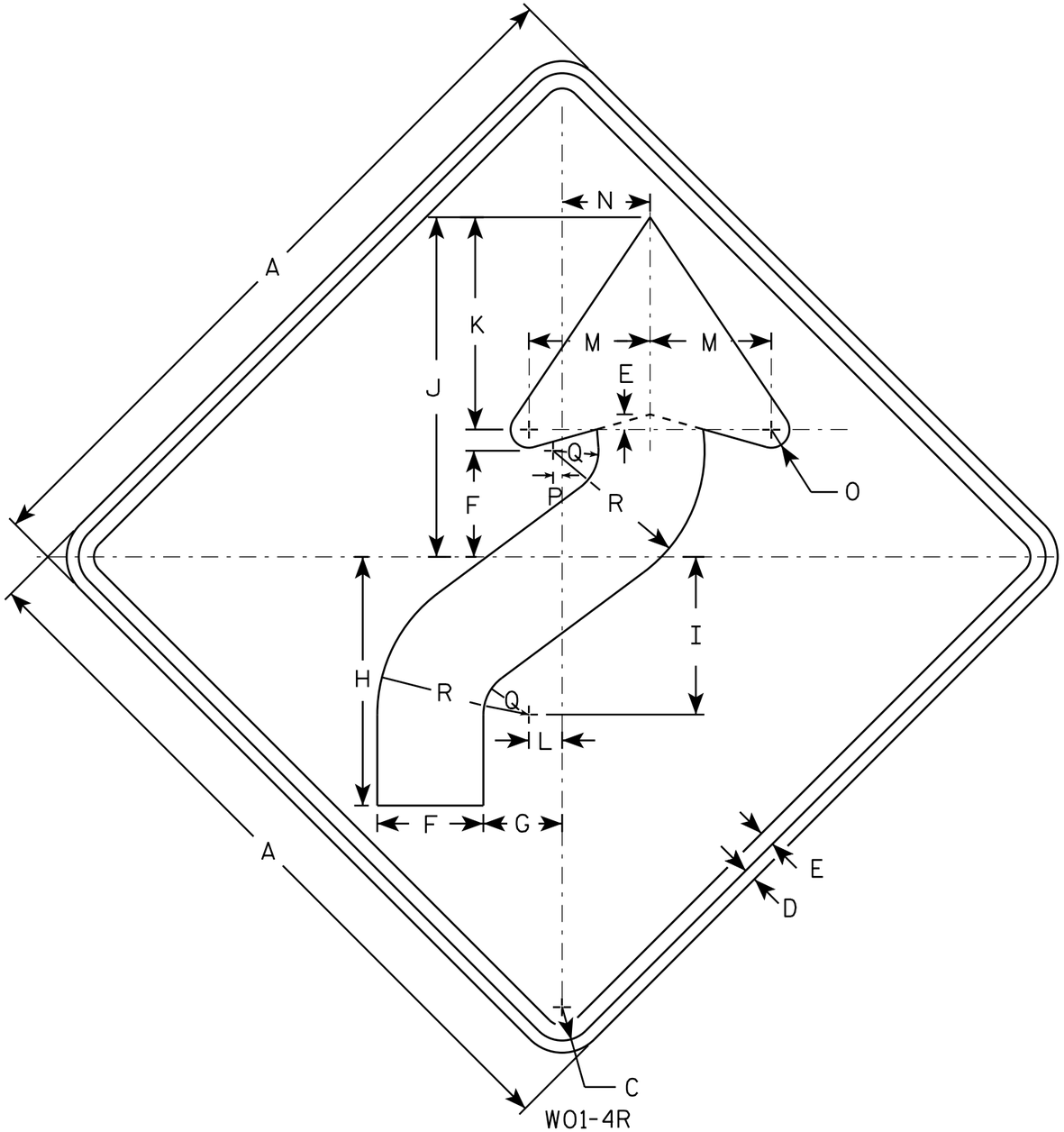
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 272 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000

WISDOT/CADDS SHEET 42

7

7



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42

NOTE: TABLES THAT FOLLOW ARE ONLY FOR SECTIONS OF PROJECT LABELED EARTHWORK DIVISIONS 1 AND 3. SEE EARTHWORK SUMMARY TABULATION IN THE MISCELLANEOUS QUANTITIES FOR ADDITIONAL EARTHWORK QUANTITIES AND DETAILS

DIVISION 1 - BEGINNING OF PROJECT TO STA 241+41.73

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED /UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	ROCK EXC	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED ROCK 1.10
229+00	22900.00	0.00	8.35	0.00	0.00	0.00	0	0	0	0	0	0	0
230+00	23000.00	100.00	6.23	0.00	16.23	0.00	27	0	30	0	27	38	0
230+50	23050.00	50.00	5.75	0.00	21.33	0.00	11	0	35	0	38	81	0
231+00	23100.00	50.00	25.61	0.00	0.00	0.00	29	0	20	0	67	106	0
231+41.774	23141.77	41.77	8.72	0.00	4.83	0.00	27	0	4	0	94	111	0
232+00	23200.00	58.23	11.76	0.00	17.33	0.00	22	0	24	0	116	141	0
232+58.143	23258.14	58.14	16.17	0.00	16.68	0.00	30	0	37	0	146	188	0
233+00	23300.00	41.86	12.22	0.00	12.36	0.00	22	0	23	0	168	216	0
233+80.932	23380.93	80.93	7.17	0.00	6.68	0.00	29	0	29	0	197	253	0
234+00	23400.00	19.07	7.26	0.00	6.98	0.00	5	0	5	0	202	259	0
234+77.477	23477.48	77.48	10.20	0.00	30.97	0.00	25	0	54	0	227	326	0
235+00	23500.00	22.52	19.05	0.00	0.00	0.00	12	0	13	0	239	343	0
235+13.792	23513.79	13.79	32.37	0.00	0.00	0.00	13	0	0	0	252	343	0
236+00	23600.00	86.21	30.69	0.00	7.39	0.00	101	0	12	0	353	358	0
236+50	23650.00	50.00	20.05	0.00	2.44	0.00	47	0	9	0	400	369	0
237+00	23700.00	50.00	13.83	0.00	2.32	0.00	31	0	4	0	431	374	0
238+00	23800.00	100.00	16.13	0.00	0.00	0.00	55	0	4	0	486	379	0
238+73.371	23873.37	73.37	18.35	0.00	0.00	0.00	47	0	0	0	533	379	0
239+00	23900.00	26.63	13.34	0.00	3.07	0.00	16	0	2	0	549	381	0
239+50	23950.00	50.00	17.07	0.00	0.00	0.00	28	0	3	0	577	385	0
240+00	24000.00	50.00	21.82	0.00	8.10	0.00	36	0	7	0	613	394	0
240+57.906	24057.91	57.91	21.62	0.00	1.46	0.00	47	0	10	0	660	406	0
241+00	24100.00	42.09	12.47	0.00	0.00	0.00	27	0	1	0	687	408	0
						SUBTOTALS	687	0	326	0	687	408	0

ADDITIONAL EARTHWORK

ADDITIONAL EARTHWORK IN THIS DIVISION CONTIGUOUS TO THE TRAIL EARTHWORK BUT NOT INCLUDED WITHIN THE VOLUME BREAKDOWNS ABOVE INCLUDE:

LOCATION	CUMULATIVE VOL (CY) CUT	EXPANDED FILL
STALEY AVE INTERSECTION, NORTHWEST AND NORTHEAST QUADRANT CURB AND SIDEWALK GRADING	66	92
241+57 TO STA 242+63 (ASSUMED 7" OF EXCAVATION BELOW EXISTING PAVEMENT REMOVAL)	21	0

TOTALS DIVISION 1	
CUMULATIVE VOL (CY)	
CUT	EXPANDED FILL
774	500

DIVISION 3 - PROPOSED TRAIL ALONG BUS 151														
			AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
STATION	REAL STATION	DISTANCE	CUT	SALVAGED /UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	ROCK EXC	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED ROCK 1.10
400+00 'T'	40000.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
400+16.445 'T'	40016.44	16.44	5.11	0.00	1.69	0.00	2	0	1	0	2	1	0
400+50 'T'	40050.00	33.56	23.39	0.00	0.00	0.00	18	0	1	0	20	3	0
400+63.967 'T'	40063.97	13.97	8.81	0.00	0.39	0.00	8	0	0	0	28	3	0
400+75.62 'T'	40075.62	11.65	13.83	0.00	0.74	0.00	5	0	0	0	33	3	0
400+90.793 'T'	40090.79	15.17	5.12	0.00	5.34	0.00	5	0	2	0	38	5	0
401+00 'T'	40100.00	9.21	6.87	0.00	9.95	0.00	2	0	3	0	40	9	0
401+18.968 'T'	40118.97	18.97	5.28	0.00	22.80	0.00	4	0	12	0	44	24	0
401+36.191 'T'	40136.19	17.22	3.21	0.00	33.80	0.00	3	0	18	0	47	46	0
401+50 'T'	40150.00	13.81	1.70	0.00	40.42	0.00	1	0	19	0	48	70	0
401+57.219 'T'	40157.22	7.22	1.43	0.00	39.95	0.00	0	0	11	0	48	84	0
401+88.314 'T'	40188.31	31.09	0.60	0.00	14.71	0.00	1	0	31	0	49	123	0
402+00 'T'	40200.00	11.69	2.20	0.00	1.80	0.00	1	0	4	0	50	128	0
402+20.208 'T'	40220.21	20.21	77.74	0.00	0.01	0.00	30	0	1	0	80	129	0
402+33.018 'T'	40233.02	12.81	165.50	0.00	0.01	0.00	58	0	0	0	138	129	0
402+50 'T'	40250.00	16.98	170.81	0.00	0.04	0.00	106	0	0	0	244	129	0
403+00 'T'	40300.00	50.00	3.99	0.00	31.56	50.98	162	0	29	47	406	165	52
403+50 'T'	40350.00	50.00	3.77	0.00	7.37	118.76	7	0	36	157	413	210	224
404+00 'T'	40400.00	50.00	4.02	0.00	10.54	54.56	7	0	17	160	420	231	400
404+50 'T'	40450.00	50.00	5.27	0.00	6.35	54.95	9	0	16	101	429	251	512
404+81.51 'T'	40481.51	31.51	7.22	0.00	14.11	5.26	7	0	12	35	436	266	550
405+00 'T'	40500.00	18.49	10.54	0.00	9.04	8.79	6	0	8	5	442	276	556
405+50 'T'	40550.00	50.00	4.76	0.00	4.81	4.78	14	0	13	13	456	293	570
406+00 'T'	40600.00	50.00	9.76	0.00	5.15	54.70	13	0	9	55	469	304	630
406+50 'T'	40650.00	50.00	13.08	0.00	3.02	45.21	21	0	8	93	490	314	733
407+00 'T'	40700.00	50.00	31.15	0.00	5.03	47.93	41	0	7	86	531	323	827
407+50 'T'	40750.00	50.00	35.03	0.00	10.16	30.89	61	0	14	73	592	340	908
408+00 'T'	40800.00	50.00	25.14	0.00	7.59	62.41	56	0	16	86	648	360	1,002
408+50 'T'	40850.00	50.00	32.94	0.00	6.12	85.34	54	0	13	137	702	376	1,153
409+00 'T'	40900.00	50.00	37.23	0.00	6.79	40.97	65	0	12	117	767	391	1,282
409+50 'T'	40950.00	50.00	44.61	0.00	4.71	55.48	76	0	11	89	843	405	1,379
410+00 'T'	41000.00	50.00	43.57	0.00	6.41	33.15	82	0	10	82	925	418	1,470
410+50 'T'	41050.00	50.00	49.64	0.00	4.17	27.45	86	0	10	56	1,011	430	1,531
411+00 'T'	41100.00	50.00	50.04	0.00	6.45	15.64	92	0	10	40	1,103	443	1,575
411+50 'T'	41150.00	50.00	108.41	0.00	5.13	2.52	147	0	11	17	1,250	456	1,594
412+00 'T'	41200.00	50.00	131.55	0.00	6.34	0.03	222	0	11	2	1,472	470	1,596
412+50 'T'	41250.00	50.00	126.82	0.00	5.78	5.84	239	0	11	5	1,711	484	1,602
413+00 'T'	41300.00	50.00	113.75	0.00	6.34	18.39	223	0	11	22	1,934	498	1,626
413+50 'T'	41350.00	50.00	125.11	0.00	8.43	19.94	221	0	14	35	2,155	515	1,664
414+00 'T'	41400.00	50.00	145.26	0.00	9.07	13.67	250	0	16	31	2,405	535	1,698
414+37.342 'T'	41437.34	37.34	153.83	0.00	9.00	8.99	207	0	12	16	2,612	550	1,716
414+50 'T'	41450.00	12.66	151.20	0.00	7.55	7.62	72	0	4	4	2,684	555	1,720

DIVISION 3 - PROPOSED TRAIL ALONG BUS 151														
			AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
STATION	REAL STATION	DISTANCE	CUT	SALVAGED /UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	ROCK EXC	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED ROCK 1.10
414+58.768 'T'	41458.77	8.77	152.26	0.00	6.10	6.74	49	0	2	2	2,733	558	1,723
415+00 'T'	41500.00	41.23	133.64	0.00	5.03	0.01	218	0	8	5	2,951	568	1,728
415+50 'T'	41550.00	50.00	103.35	0.00	0.88	0.00	219	0	5	0	3,170	574	1,728
416+00 'T'	41600.00	50.00	63.86	0.00	0.02	0.00	155	0	1	0	3,325	575	1,728
416+31.717 'T'	41631.72	31.72	29.27	0.00	2.00	0.00	55	0	1	0	3,380	576	1,728
416+50 'T'	41650.00	18.28	11.25	0.00	1.21	0.00	14	0	1	0	3,394	578	1,728
416+53.745 'T'	41653.74	3.74	10.43	0.00	0.33	0.00	2	0	0	0	3,396	578	1,728
416+80.523 'T'	41680.52	26.78	23.14	0.00	0.00	0.00	17	0	0	0	3,413	578	1,728
417+00 'T'	41700.00	19.48	23.48	0.00	0.00	0.00	17	0	0	0	3,430	578	1,728
417+50 'T'	41750.00	50.00	9.39	0.00	6.43	0.00	30	0	6	0	3,460	585	1,728
418+00 'T'	41800.00	50.00	11.19	0.00	13.92	0.00	19	0	19	0	3,479	609	1,728
418+50 'T'	41850.00	50.00	16.03	0.00	15.72	0.00	25	0	27	0	3,504	643	1,728
419+00 'T'	41900.00	50.00	15.06	0.00	18.43	0.00	29	0	32	0	3,533	683	1,728
419+50 'T'	41950.00	50.00	11.22	0.00	35.87	0.00	24	0	50	0	3,557	745	1,728
420+00 'T'	42000.00	50.00	10.95	0.00	38.93	0.00	21	0	69	0	3,578	831	1,728
420+50 'T'	42050.00	50.00	11.77	0.00	37.38	0.00	21	0	71	0	3,599	920	1,728
421+00 'T'	42100.00	50.00	12.59	0.00	30.37	0.00	23	0	63	0	3,622	999	1,728
421+50 'T'	42150.00	50.00	9.92	0.00	14.28	0.00	21	0	41	0	3,643	1,050	1,728
422+00 'T'	42200.00	50.00	4.10	0.00	22.26	0.00	13	0	34	0	3,656	1,093	1,728
422+50 'T'	42250.00	50.00	1.05	0.00	36.08	0.00	5	0	54	0	3,661	1,160	1,728
422+75 'T'	42275.00	25.00	30.27	0.00	0.00	0.00	14	0	17	0	3,675	1,181	1,728
423+00 'T'	42300.00	25.00	7.44	0.00	34.03	0.00	17	0	16	0	3,692	1,201	1,728
423+50 'T'	42350.00	50.00	7.65	0.00	17.78	0.00	14	0	48	0	3,706	1,261	1,728
423+93.84 'T'	42393.84	43.84	12.63	0.00	11.44	0.00	16	0	24	0	3,722	1,291	1,728
424+00 'T'	42400.00	6.16	12.55	0.00	11.65	0.00	3	0	3	0	3,725	1,295	1,728
424+05.025 'T'	42405.03	5.03	12.41	0.00	12.27	0.00	2	0	2	0	3,727	1,298	1,728
424+50 'T'	42450.00	44.97	29.54	0.00	8.72	0.00	35	0	17	0	3,762	1,319	1,728
424+63.315 'T'	42463.31	13.31	37.61	0.00	7.44	0.00	17	0	4	0	3,779	1,324	1,728
424+85.784 'T'	42485.78	22.47	37.53	0.00	19.98	0.00	31	0	11	0	3,810	1,338	1,728
425+00 'T'	42500.00	14.22	30.91	0.00	29.58	0.00	18	0	13	0	3,828	1,354	1,728
425+50 'T'	42550.00	50.00	18.92	0.00	0.00	0.00	46	0	27	0	3,874	1,388	1,728
425+72.014 'T'	42572.01	22.01	10.83	0.00	1.03	0.00	12	0	0	0	3,886	1,388	1,728
425+96.421 'T'	42596.42	24.41	65.17	0.00	14.50	0.00	34	0	7	0	3,920	1,396	1,728
426+00 'T'	42600.00	3.58	58.67	0.00	15.29	0.00	8	0	2	0	3,928	1,399	1,728
426+24.261 'T'	42624.26	24.26	53.00	0.00	5.37	0.00	50	0	9	0	3,978	1,410	1,728
426+48.678 'T'	42648.68	24.42	21.64	0.00	10.00	0.00	34	0	7	0	4,012	1,419	1,728
426+50 'T'	42650.00	1.32	20.00	0.00	10.84	0.00	1	0	1	0	4,013	1,420	1,728
427+00 'T'	42700.00	50.00	1.10	0.00	38.04	0.00	20	0	45	0	4,033	1,476	1,728
427+50 'T'	42750.00	50.00	2.18	0.00	30.78	0.00	3	0	64	0	4,036	1,556	1,728
427+68.714 'T'	42768.71	18.71	4.93	0.00	17.62	0.00	2	0	17	0	4,038	1,578	1,728
427+91.526 'T'	42791.53	22.81	11.09	0.00	7.42	0.00	7	0	11	0	4,045	1,591	1,728
428+00 'T'	42800.00	8.47	16.61	0.00	9.15	0.00	4	0	3	0	4,049	1,595	1,728
428+15.337 'T'	42815.34	15.34	34.57	0.00	12.13	0.00	15	0	6	0	4,064	1,603	1,728
428+38.344 'T'	42838.34	23.01	42.69	0.00	0.00	0.00	33	0	5	0	4,097	1,609	1,728

DIVISION 3 - PROPOSED TRAIL ALONG BUS 151													
			AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
STATION	REAL STATION	DISTANCE	CUT	SALVAGED /UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	ROCK EXC	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED ROCK 1.10
428+50 'T'	42850.00	11.66	18.00	0.00	0.00	0.00	13	0	0	0	4,110	1,609	1,728
428+77.055 'T'	42877.05	27.05	33.57	0.00	0.01	0.00	26	0	0	0	4,136	1,609	1,728
428+94.99 'T'	42894.99	17.94	22.11	0.00	0.29	0.00	18	0	0	0	4,154	1,609	1,728
429+00 'T'	42900.00	5.01	14.62	0.00	0.91	0.00	3	0	0	0	4,157	1,609	1,728
429+17.022 'T'	42917.02	17.02	8.63	0.00	6.97	0.00	7	0	2	0	4,164	1,611	1,728
429+38.145 'T'	42938.15	21.12	8.79	0.00	2.22	0.00	7	0	4	0	4,171	1,616	1,728
429+50 'T'	42950.00	11.85	12.75	0.00	0.34	0.00	5	0	1	0	4,176	1,618	1,728
430+28.119 'T'	43028.12	0.00	0.85	0.00	11.41	0.00	0	0	0	0	4,176	1,618	1,728
430+50 'T'	43050.00	21.88	0.00	0.00	83.03	0.00	0	0	38	0	4,176	1,665	1,728
430+66.147 'T'	43066.15	16.15	0.00	0.00	98.47	0.00	0	0	54	0	4,176	1,733	1,728
430+94.411 'T'	43094.41	28.26	0.00	0.00	94.13	0.00	0	0	101	0	4,176	1,859	1,728
431+00 'T'	43100.00	5.59	0.00	0.00	88.18	0.00	0	0	19	0	4,176	1,883	1,728
431+37.546 'T'	43137.55	37.55	0.00	0.00	63.88	0.00	0	0	106	0	4,176	2,015	1,728
431+50 'T'	43150.00	12.45	6.10	0.00	59.97	0.00	1	0	29	0	4,177	2,051	1,728
431+56.471 'T'	43156.47	6.47	4.43	0.00	48.23	0.00	1	0	13	0	4,178	2,068	1,728
431+71.496 'T'	43171.50	15.02	3.89	0.00	44.65	0.00	2	0	26	0	4,180	2,100	1,728
432+00 'T'	43200.00	28.50	0.58	0.00	35.99	0.00	2	0	43	0	4,182	2,154	1,728
432+50 'T'	43250.00	50.00	0.00	0.00	49.96	0.00	1	0	80	0	4,183	2,254	1,728
433+00 'T'	43300.00	50.00	0.00	0.00	30.10	0.00	0	0	74	0	4,183	2,346	1,728
433+30.452 'T'	43330.45	30.45	16.68	0.00	15.93	0.00	9	0	26	0	4,192	2,379	1,728
433+33.883 'T'	43333.88	3.43	17.05	0.00	16.52	0.00	2	0	2	0	4,194	2,381	1,728
433+50 'T'	43350.00	16.12	7.87	0.00	21.86	0.00	7	0	11	0	4,201	2,395	1,728
434+00 'T'	43400.00	50.00	17.36	0.00	0.02	0.00	23	0	20	0	4,224	2,420	1,728
434+20.943 'T'	43420.94	20.94	15.58	0.00	1.37	0.00	13	0	1	0	4,237	2,421	1,728
434+30.256 'T'	43430.26	9.31	12.28	0.00	4.20	0.00	5	0	1	0	4,242	2,423	1,728
434+38.556 'T'	43438.56	8.30	9.53	0.00	14.63	0.00	3	0	3	0	4,245	2,426	1,728
434+50 'T'	43450.00	11.44	5.69	0.00	24.54	0.00	3	0	8	0	4,248	2,436	1,728
434+54.511 'T'	43454.51	4.51	5.89	0.00	24.88	0.00	1	0	4	0	4,249	2,441	1,728
434+84.864 'T'	43484.86	30.35	41.83	0.00	0.00	0.00	27	0	14	0	4,276	2,459	1,728
435+00 'T'	43500.00	15.14	18.62	0.00	0.06	0.00	17	0	0	0	4,293	2,459	1,728
435+04.511 'T'	43504.51	4.51	33.09	0.00	0.38	0.00	4	0	0	0	4,297	2,459	1,728
435+11.487 'T'	43511.49	6.98	57.15	0.00	0.00	0.00	12	0	0	0	4,309	2,459	1,728
435+33.571 'T'	43533.57	22.08	29.97	0.00	4.21	0.00	36	0	2	0	4,345	2,461	1,728
435+41.55 'T'	43541.55	7.98	28.83	0.00	4.29	0.00	9	0	1	0	4,354	2,463	1,728
435+50 'T'	43550.00	8.45	28.64	0.00	3.64	0.00	9	0	1	0	4,363	2,464	1,728
436+00 'T'	43600.00	50.00	28.95	0.00	1.95	0.00	53	0	5	0	4,416	2,470	1,728
436+50 'T'	43650.00	50.00	33.67	0.00	0.08	0.00	58	0	2	0	4,474	2,473	1,728
437+00 'T'	43700.00	50.00	12.51	0.00	2.66	0.00	43	0	3	0	4,517	2,476	1,728
437+03.905 'T'	43703.91	3.91	15.16	0.00	2.14	0.00	2	0	0	0	4,519	2,476	1,728
437+17.766 'T'	43717.77	13.86	8.83	0.00	0.88	0.00	6	0	1	0	4,525	2,478	1,728
437+38.51 'T'	43738.51	20.74	19.83	0.00	0.00	0.00	11	0	0	0	4,536	2,478	1,728
437+50 'T'	43750.00	11.49	7.49	0.00	4.65	0.00	6	0	1	0	4,542	2,479	1,728
437+55.469 'T'	43755.47	5.47	12.28	0.00	8.61	0.00	2	0	1	0	4,544	2,480	1,728
437+70.781 'T'	43770.78	15.31	21.07	0.00	6.96	0.00	9	0	4	0	4,553	2,485	1,728
438+00 'T'	43800.00	29.22	15.08	0.00	6.76	0.00	20	0	7	0	4,573	2,494	1,728
438+50 'T'	43850.00	50.00	13.18	0.00	6.99	0.00	26	0	13	0	4,599	2,510	1,728

DIVISION 3 - PROPOSED TRAIL ALONG BUS 151													
			AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
STATION	REAL STATION	DISTANCE	CUT	SALVAGED /UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	ROCK EXC	CUT 1.00	EXPANDED FILL 1.25	EXPANDED ROCK 1.10
							NOTE 1	NOTE 2	NOTE 3		NOTE 1		
439+00 'T'	43900.00	50.00	22.40	0.00	0.88	0.00	33	0	7	0	4,632	2,519	1,728
439+41.414 'T'	43941.41	41.41	31.43	0.00	0.00	0.00	41	0	1	0	4,673	2,520	1,728
439+55.635 'T'	43955.64	14.22	24.89	0.00	0.00	0.00	15	0	0	0	4,688	2,520	1,728
440+00 'T'	44000.00	44.36	19.05	0.00	3.77	0.00	36	0	3	0	4,724	2,524	1,728
440+17.937 'T'	44017.94	17.94	7.22	0.00	5.77	0.00	9	0	3	0	4,733	2,528	1,728
440+27.367 'T'	44027.37	9.43	7.54	0.00	8.85	0.00	3	0	3	0	4,736	2,531	1,728
440+50 'T'	44050.00	22.63	3.63	0.00	13.16	0.00	5	0	9	0	4,741	2,543	1,728
440+70.66 'T'	44070.66	20.66	1.98	0.00	13.30	0.00	2	0	10	0	4,743	2,555	1,728
440+79.76 'T'	44079.76	9.10	2.42	0.00	11.76	0.00	1	0	4	0	4,744	2,560	1,728
441+00 'T'	44100.00	20.24	4.31	0.00	8.91	0.00	3	0	8	0	4,747	2,570	1,728
441+50 'T'	44150.00	50.00	3.47	0.00	5.06	0.00	7	0	13	0	4,754	2,586	1,728
442+00 'T'	44200.00	50.00	31.11	0.00	0.00	0.00	32	0	5	0	4,786	2,593	1,728
442+06.513 'T'	44206.51	6.51	32.98	0.00	0.00	0.00	8	0	0	0	4,794	2,593	1,728
442+14.277 'T'	44214.28	7.76	34.57	0.00	0.00	0.00	10	0	0	0	4,804	2,593	1,728
442+50 'T'	44250.00	35.72	33.49	0.00	0.39	0.00	45	0	0	0	4,849	2,593	1,728
443+00 'T'	44300.00	50.00	40.73	0.00	0.21	0.00	69	0	1	0	4,918	2,594	1,728
443+33.387 'T'	44333.39	33.39	41.82	0.00	1.04	0.00	51	0	1	0	4,969	2,595	1,728
443+46.94 'T'	44346.94	13.55	38.35	0.00	6.95	0.00	20	0	2	0	4,989	2,598	1,728
443+50 'T'	44350.00	3.06	35.80	0.00	7.39	0.00	4	0	1	0	4,993	2,599	1,728
443+71.421 'T'	44371.42	21.42	12.20	0.00	7.97	0.00	19	0	6	0	5,012	2,606	1,728
443+86.089 'T'	44386.09	14.67	11.75	0.00	4.96	0.00	7	0	4	0	5,019	2,611	1,728
444+00 'T'	44400.00	13.91	4.23	0.00	2.24	0.00	4	0	2	0	5,023	2,614	1,728
444+50 'T'	44450.00	50.00	3.80	0.00	5.06	0.00	7	0	7	0	5,030	2,623	1,728
444+90.926 'T'	44490.93	40.93	4.68	0.00	4.01	0.00	6	0	7	0	5,036	2,631	1,728
444+96.547 'T'	44496.55	5.62	4.58	0.00	4.03	0.00	1	0	1	0	5,037	2,633	1,728
445+00 'T'	44500.00	3.45	4.35	0.00	3.94	0.00	1	0	1	0	5,038	2,634	1,728
445+20.257 'T'	44520.26	20.26	4.29	0.00	5.86	0.00	3	0	4	0	5,041	2,639	1,728
445+37.429 'T'	44537.43	17.17	5.94	0.00	11.23	0.00	3	0	5	0	5,044	2,645	1,728
445+50.035 'T'	44550.03	12.61	4.18	0.00	16.57	0.00	2	0	6	0	5,046	2,653	1,728
445+62.313 'T'	44562.31	12.28	0.00	0.00	22.98	0.00	1	0	9	0	5,047	2,664	1,728
446+01.141 'T'	44601.14	38.83	0.00	0.00	0.00	0.00	0	0	17	0	5,047	2,685	1,728

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS. VOLUMES HAVE NOT BEEN ADJUSTED FOR ASPHALTIC SURFACE REMOVAL
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

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PROJECT NO: 5996-00-77 | HWY: BUSINESS 151 | COUNTY: GRANT | EARTHWORK SUMMARY | SHEET 278 | E

ADDITIONAL EARTHWORK

ADDITIONAL EARTHWORK IN THIS DIVISION CONTIGUOUS TO THE TRAIL EARTHWORK BUT NOT INCLUDED WITHIN THE VOLUME BREAKDOWNS ABOVE INCLUDE:

LOCATION	CUMULATIVE VOL (CY)		
	CUT	EXPANDED FILL	ROCK EXC
FIELD ENTRANCE AT STA 265+13/405+72'T'	9	0	83
DRIVEWAY STA 425+20'T'	565	0	0
DRIVEWAY STA 428+55'T'	432	0	0

TOTALS DIVISION 3		
CUMULATIVE VOL (CY)		
CUT	EXPANDED FILL	ROCK EXC
6053	2685	1654

9

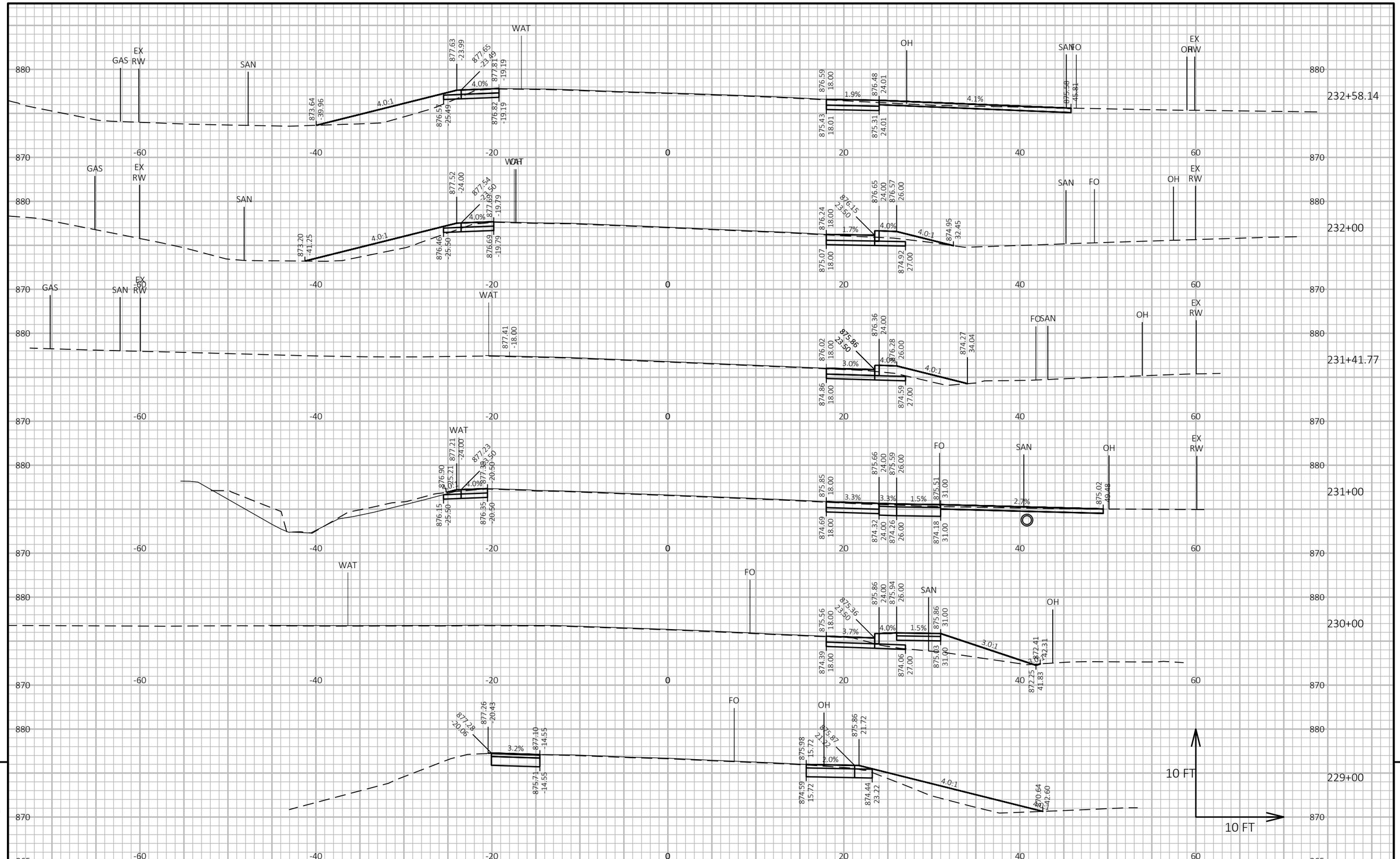
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PROJECT NO: 5996-00-77 | HWY: BUSINESS 151 | COUNTY: GRANT | EARTHWORK SUMMARY | SHEET 279 | E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-EARTHWORK.DWG
LAYOUT NAME - 6 EARTHWORK

PLOT DATE : 7/23/2020 5:13 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: WIDENING - STALEY TO 80-81	SHEET 280 E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-WIDENING.DWG
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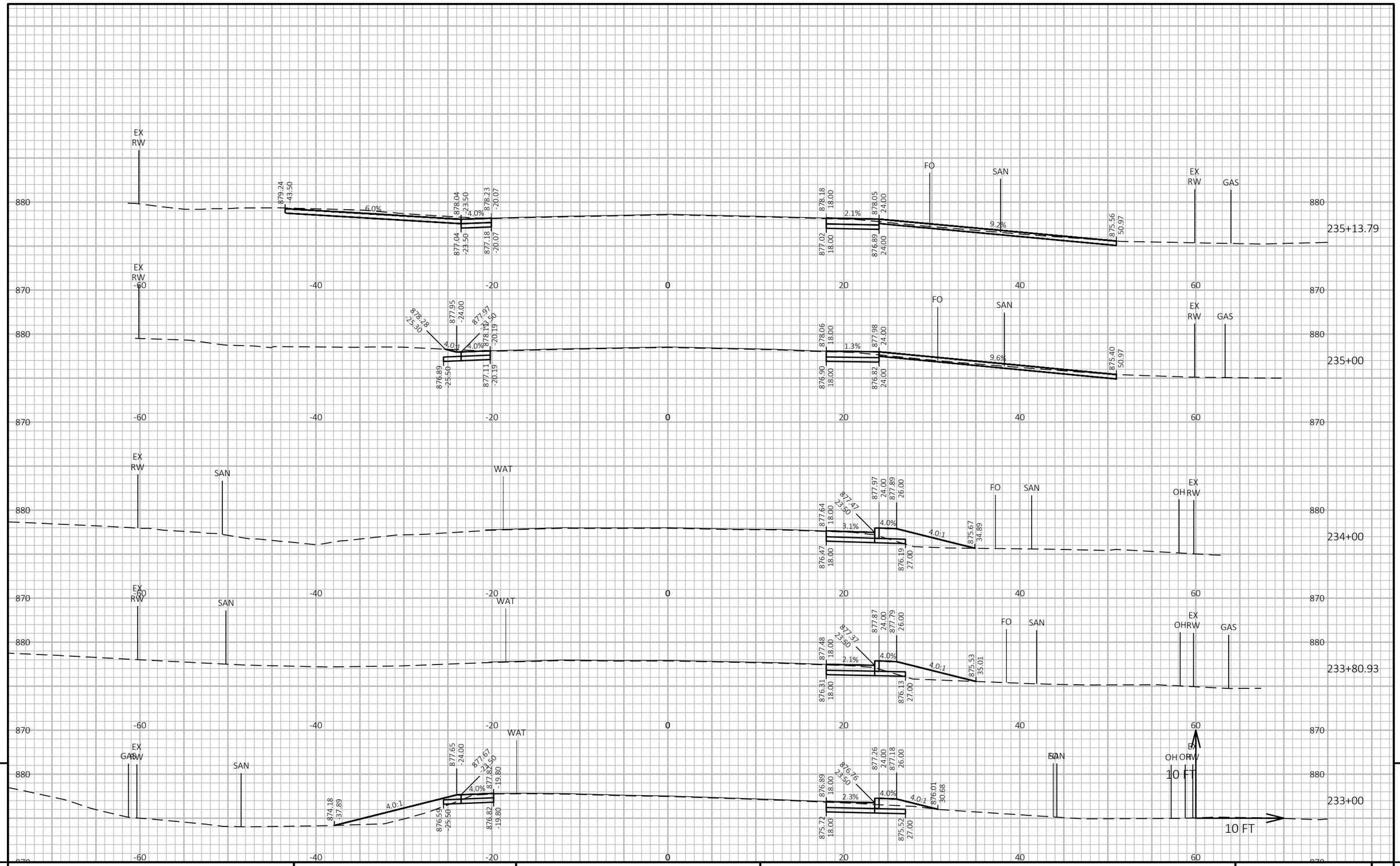
PLOT DATE : ----

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: WIDENING - STALEY TO 80-81	SHEET 281	E

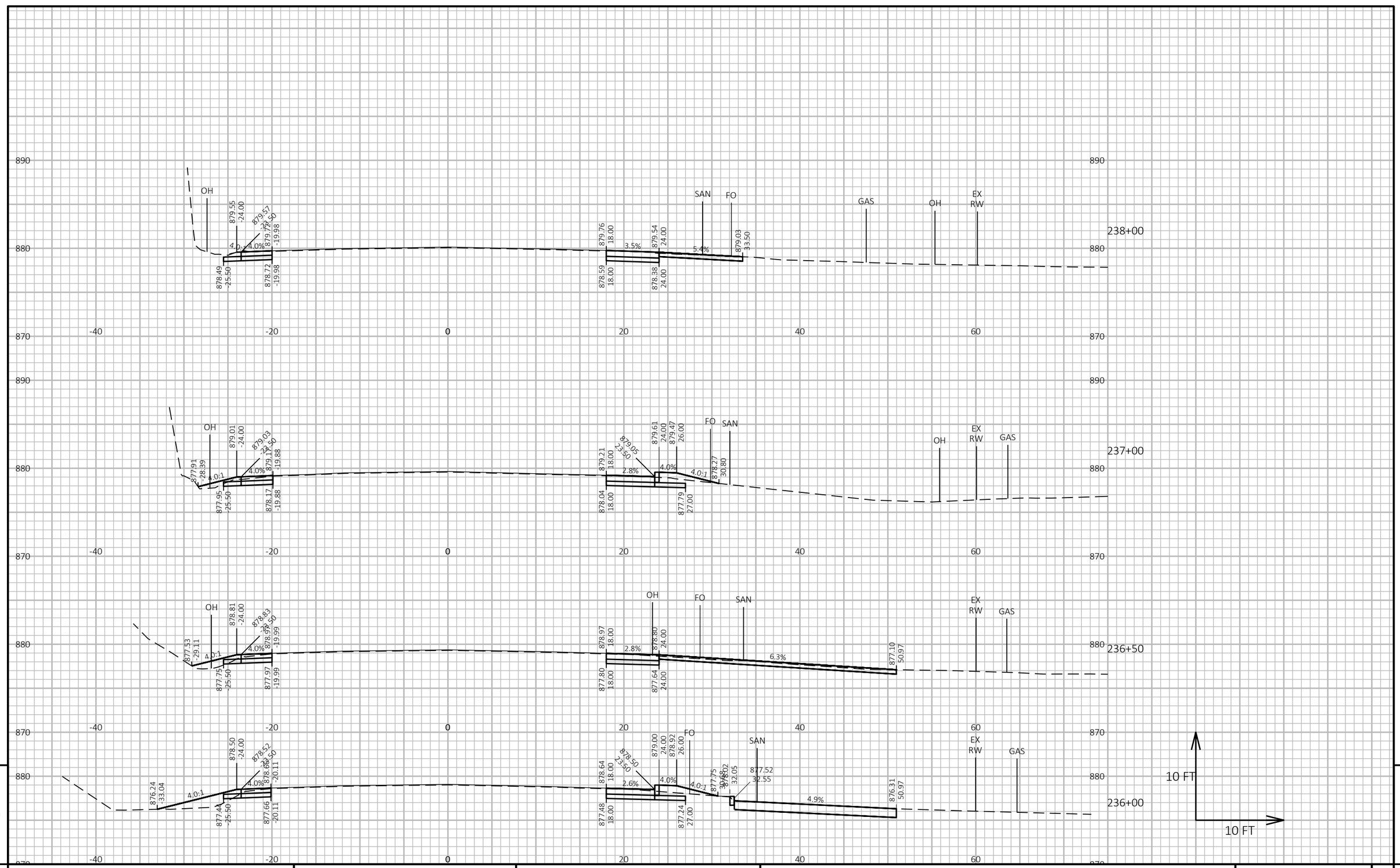
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LAYOUT NAME - 090202 CROSS SECTIONS

PLOT DATE : ----

PLOT BY : NOAH HOFRICHTER PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: WIDENING - STALEY TO 80-81	SHEET 282	E

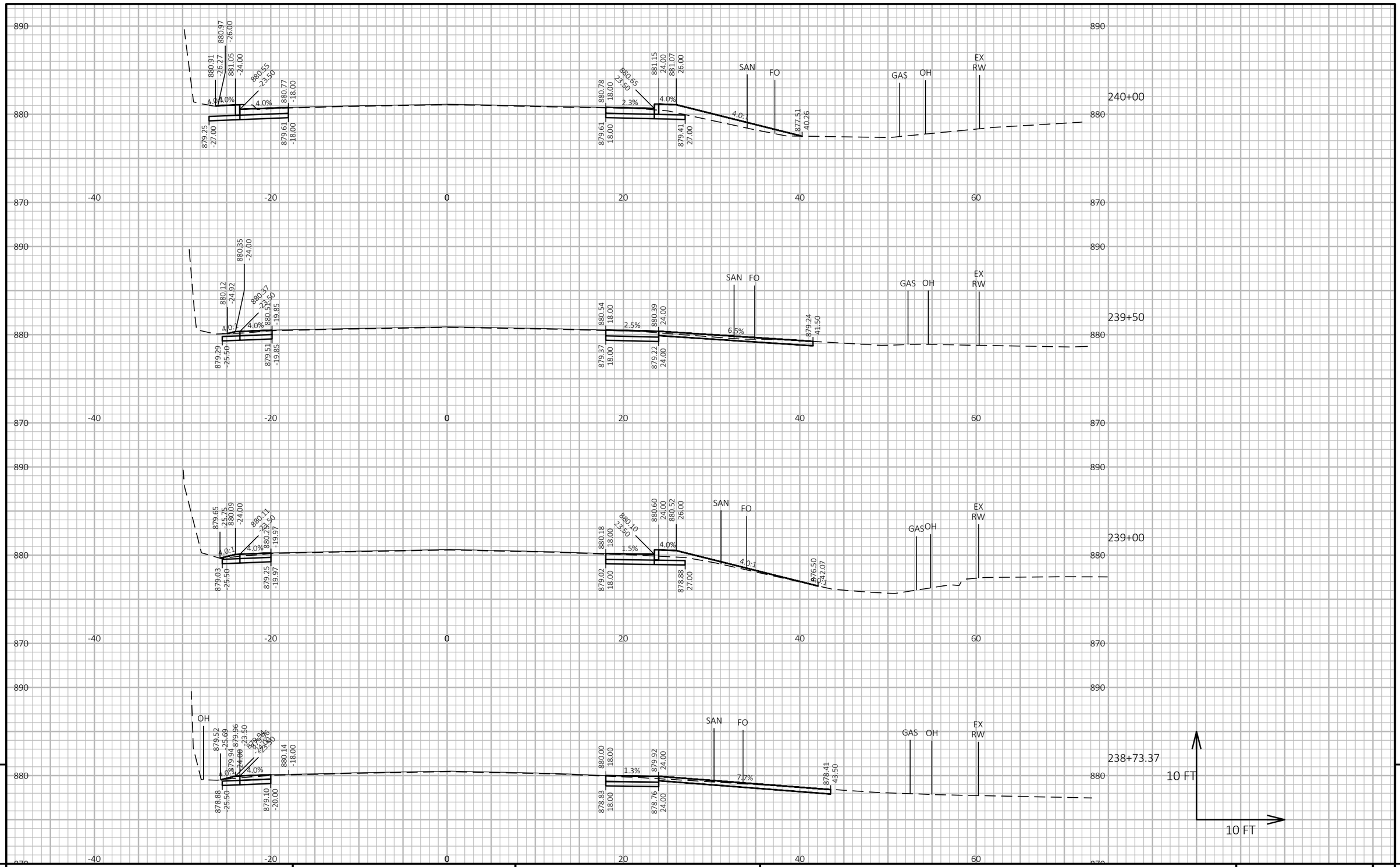
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LAYOUT NAME - 090203 CROSS SECTIONS

PLOT DATE : ----

PLOT BY : NOAH HOFRICHTER PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: WIDENING - STALEY TO 80-81	SHEET 283	E

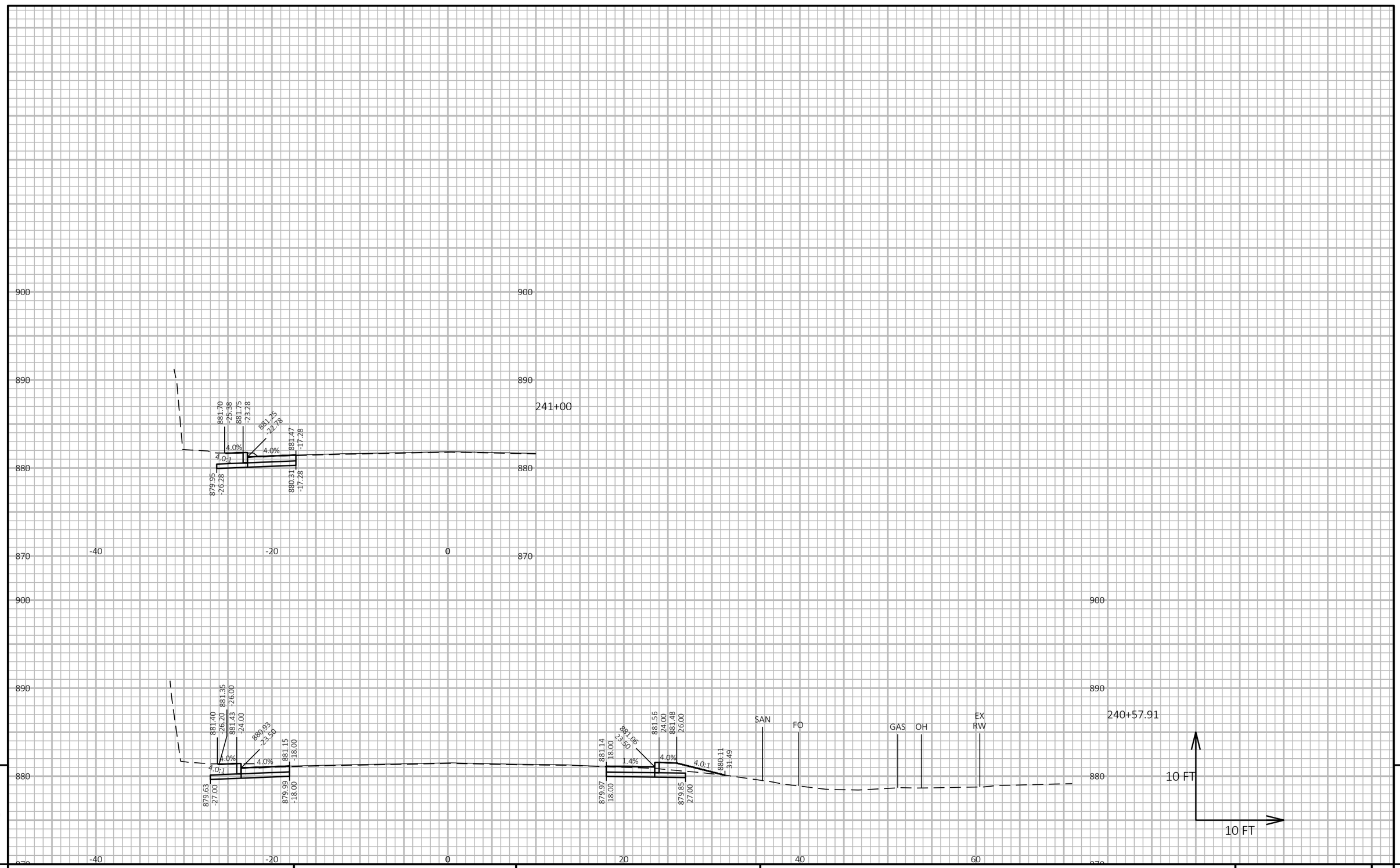
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LAYOUT NAME - 090204 CROSS SECTIONS

PLOT DATE : ----

PLOT BY : NOAH HOFRICHTER PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: WIDENING - STALEY TO 80-81	SHEET 284	E

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LAYOUT NAME - 090205 CROSS SECTIONS

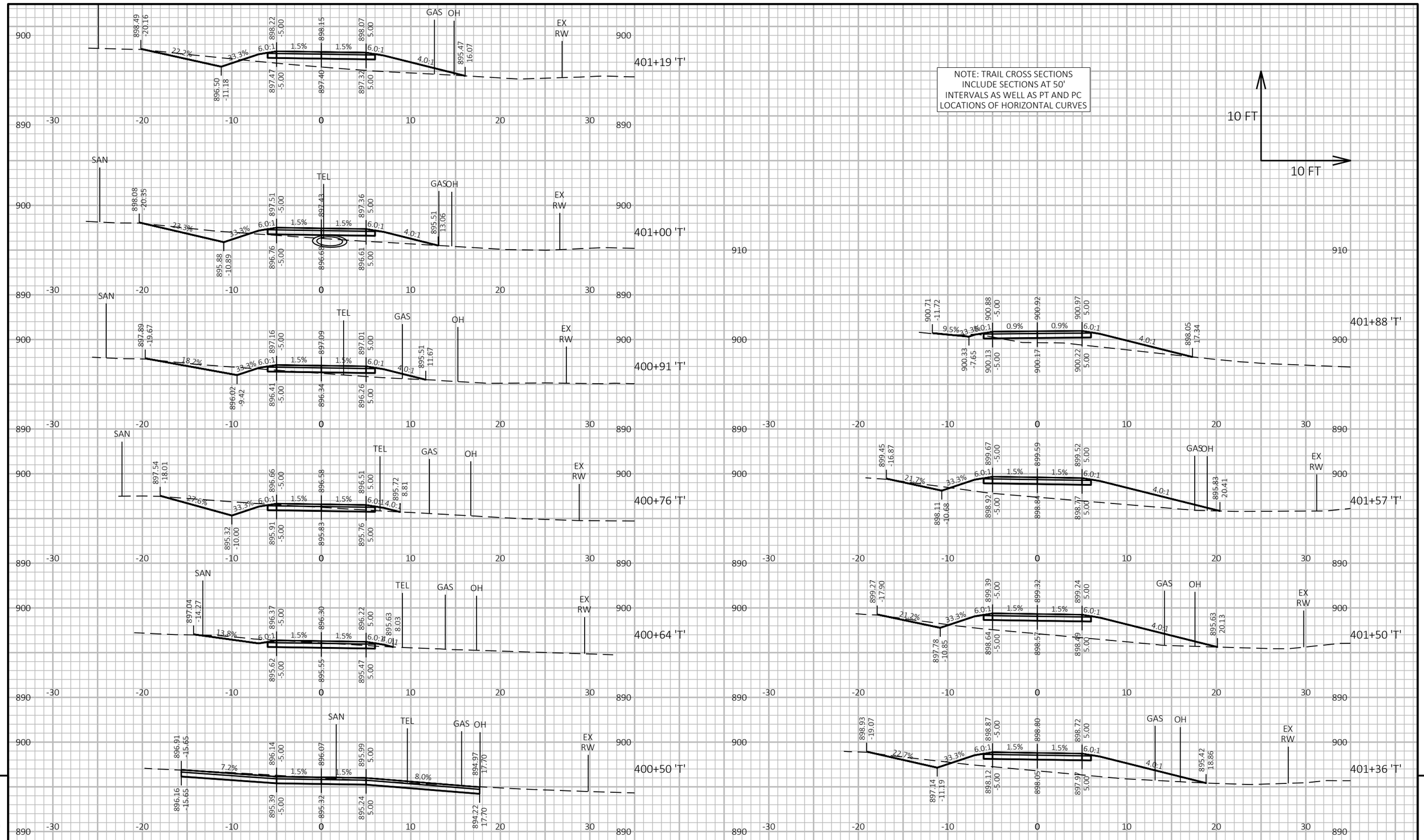
PLOT DATE : ----

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 285 E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 1 CROSS SECTIONS

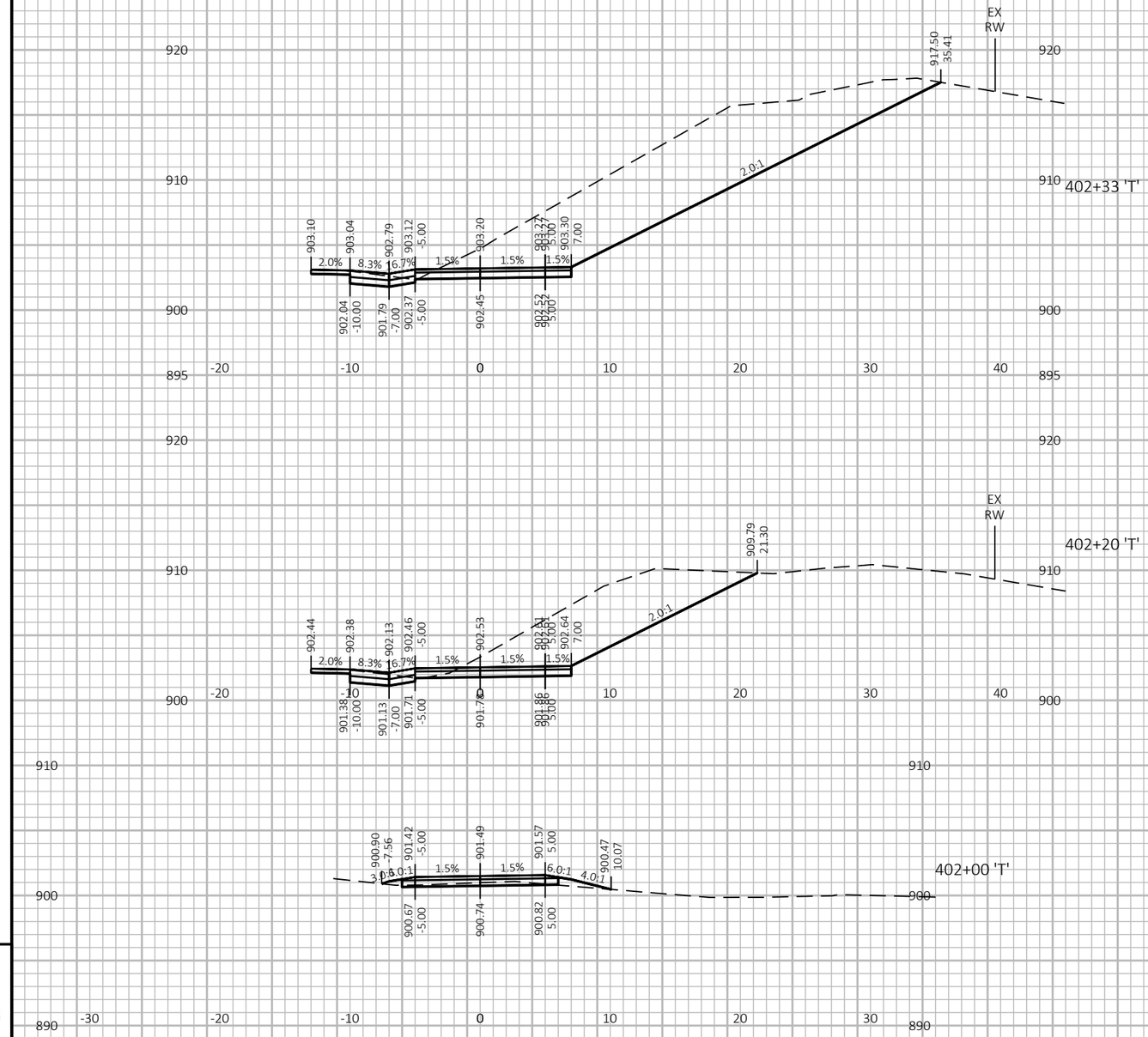
PLOT DATE : 7/23/2020 5:26 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 286	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 2 CROSS SECTIONS

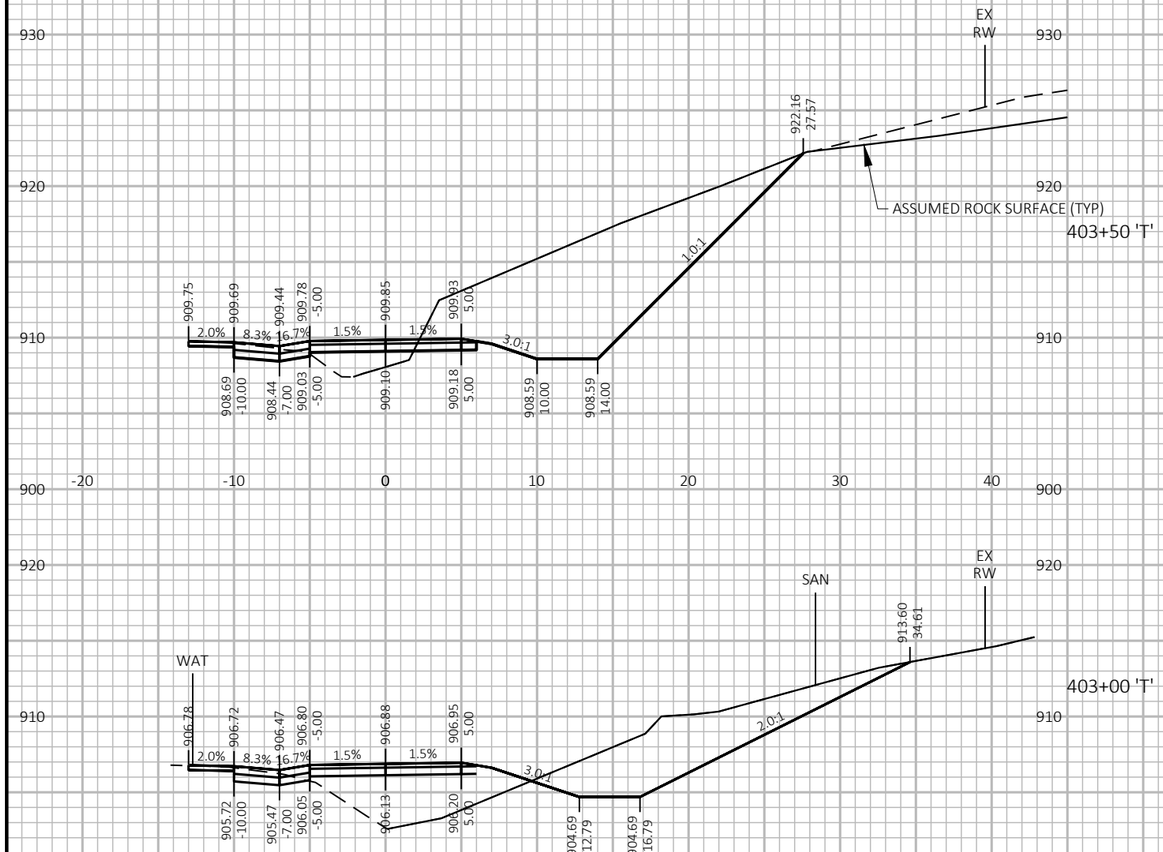
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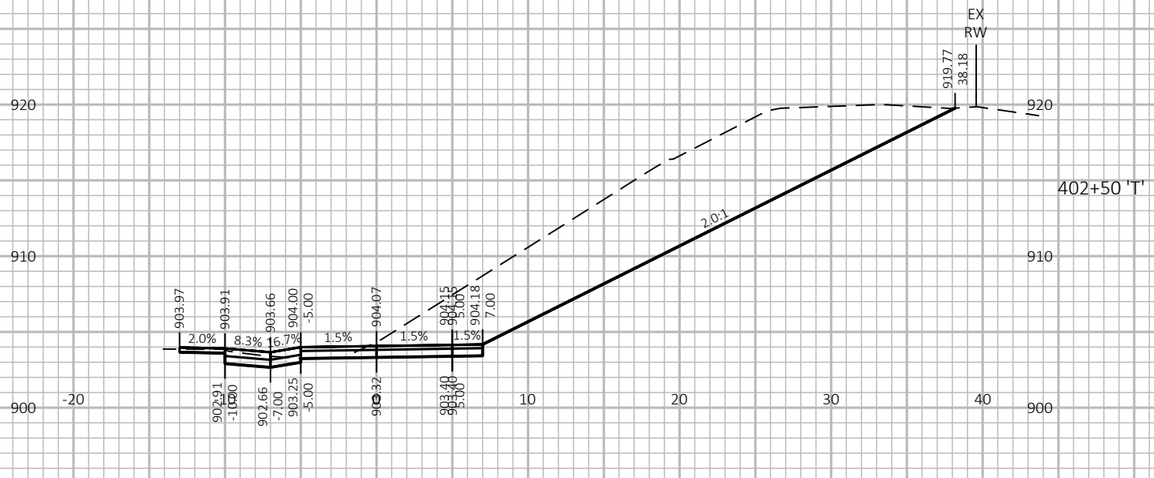
PLOT BY : NOAH HOFRICHTER

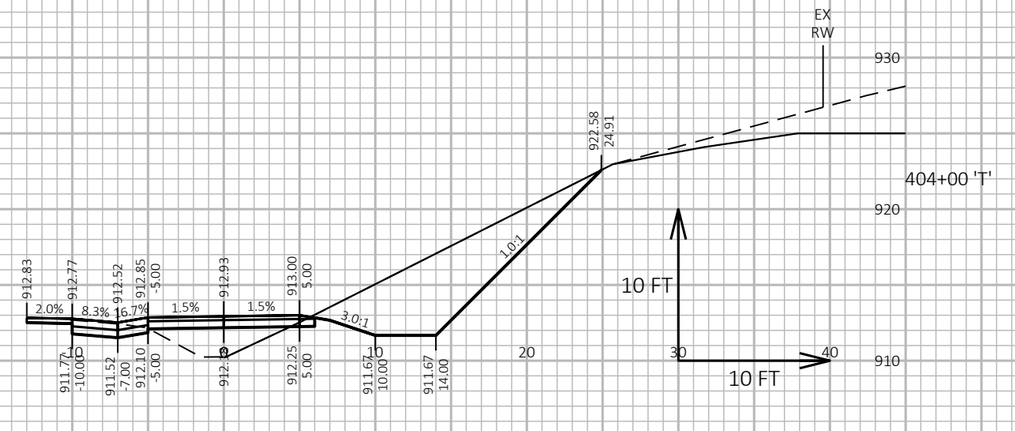
PLOT NAME :

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

WISDOT/CADDS SHEET 49







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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 287	E

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LAYOUT NAME - 3 CROSS SECTIONS

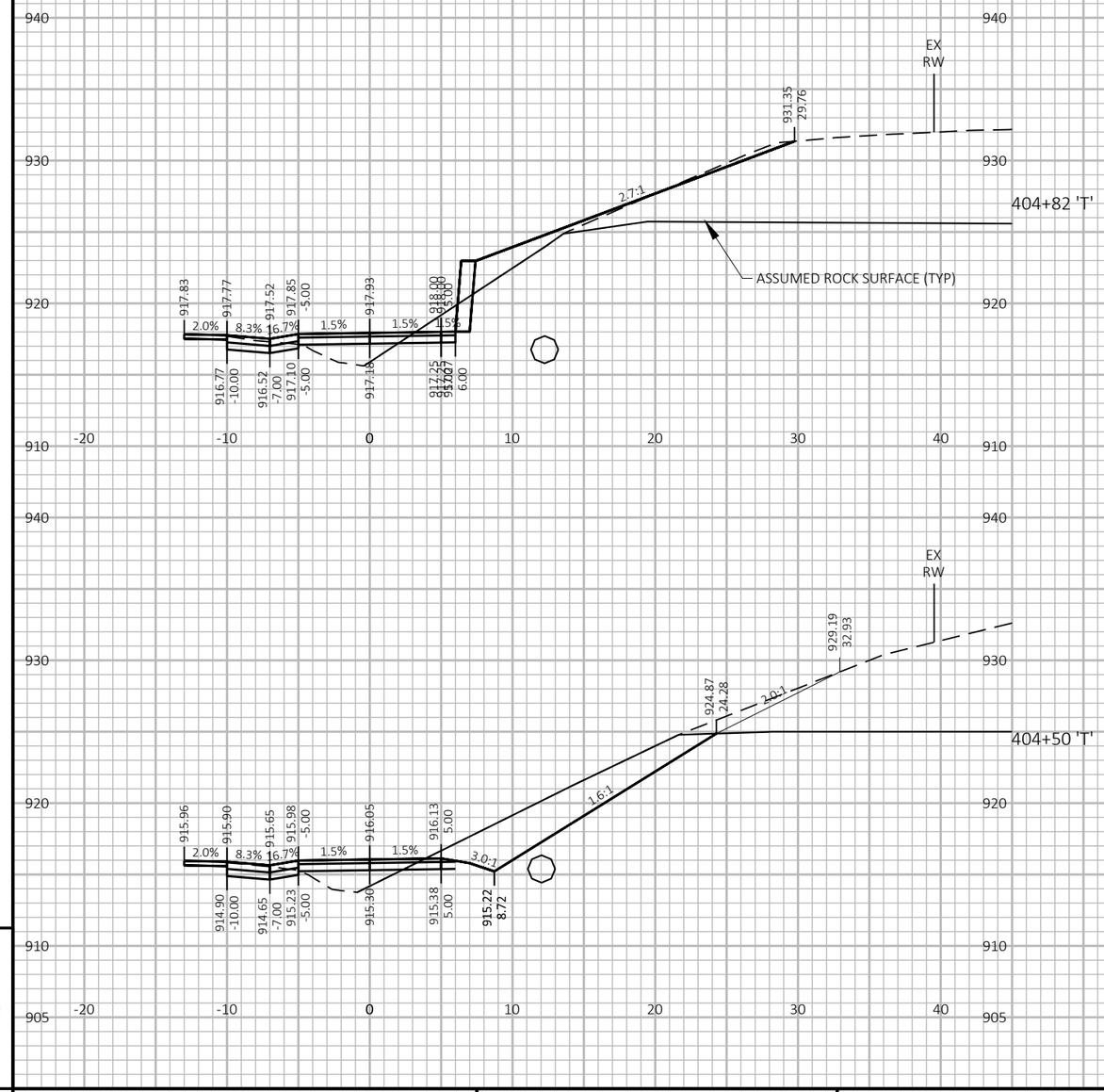
PLOT DATE : 7/23/2020 5:26 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

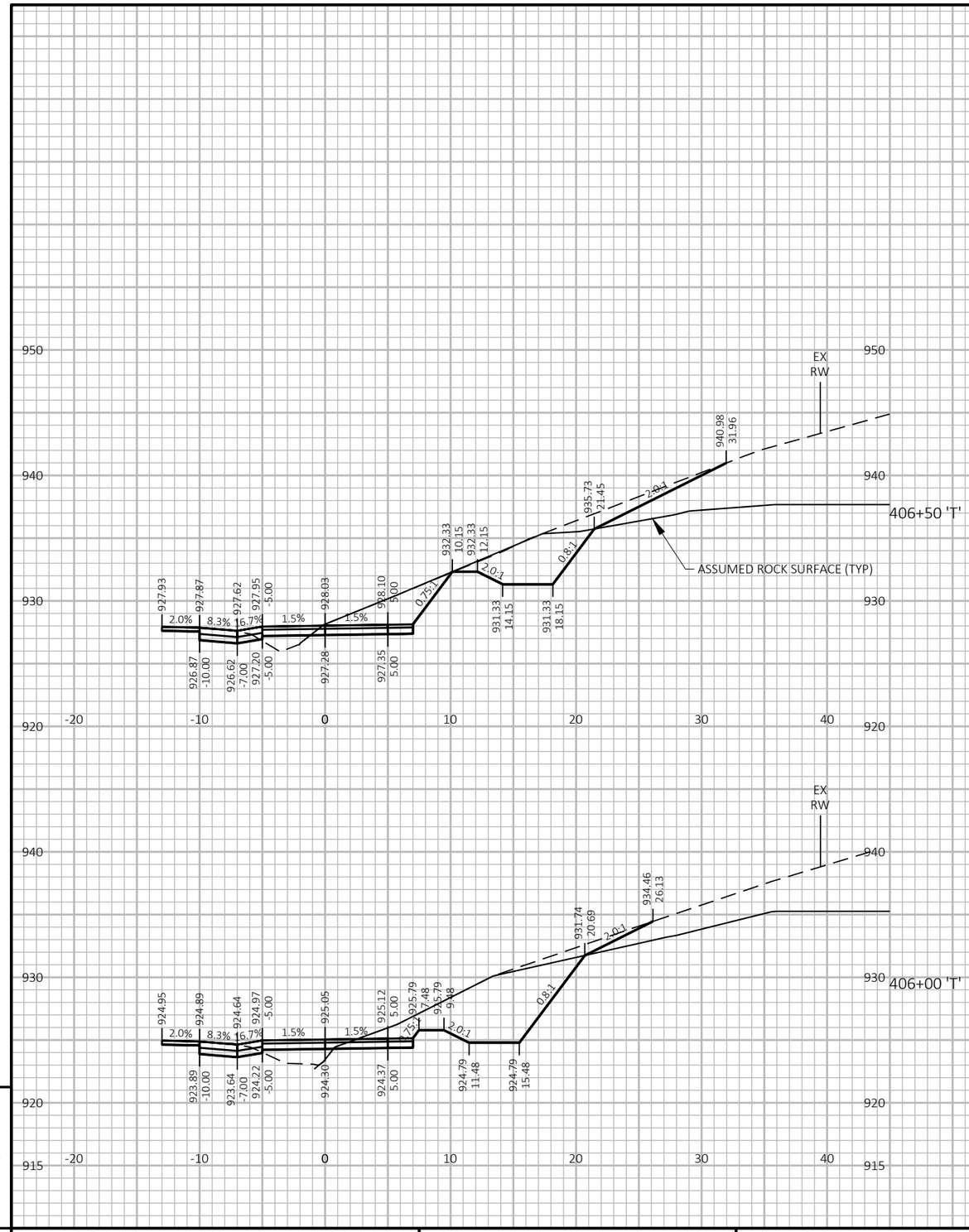


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 288	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 4 CROSS SECTIONS

PLOT DATE : 7/23/2020 5:26 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 289	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
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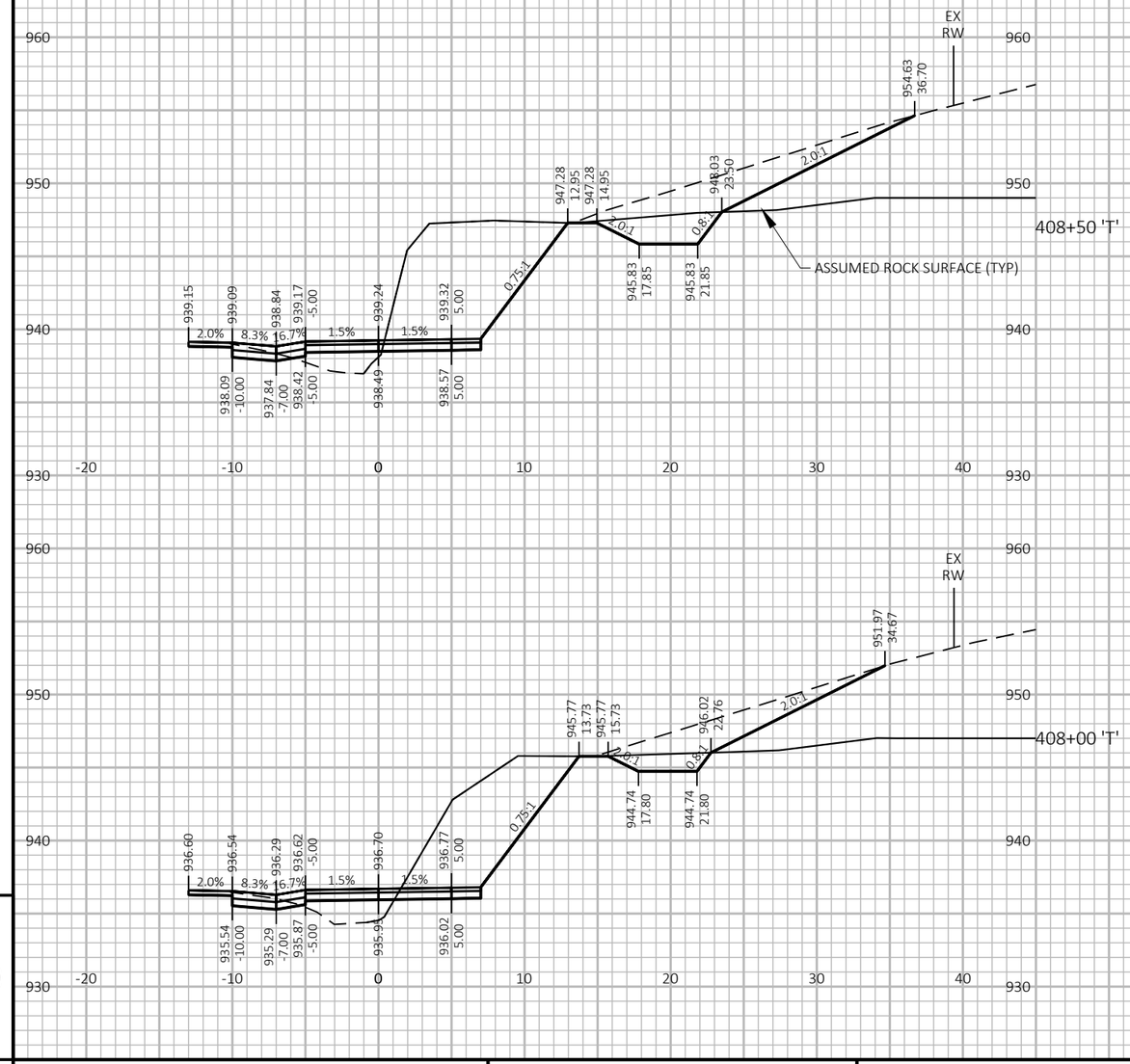
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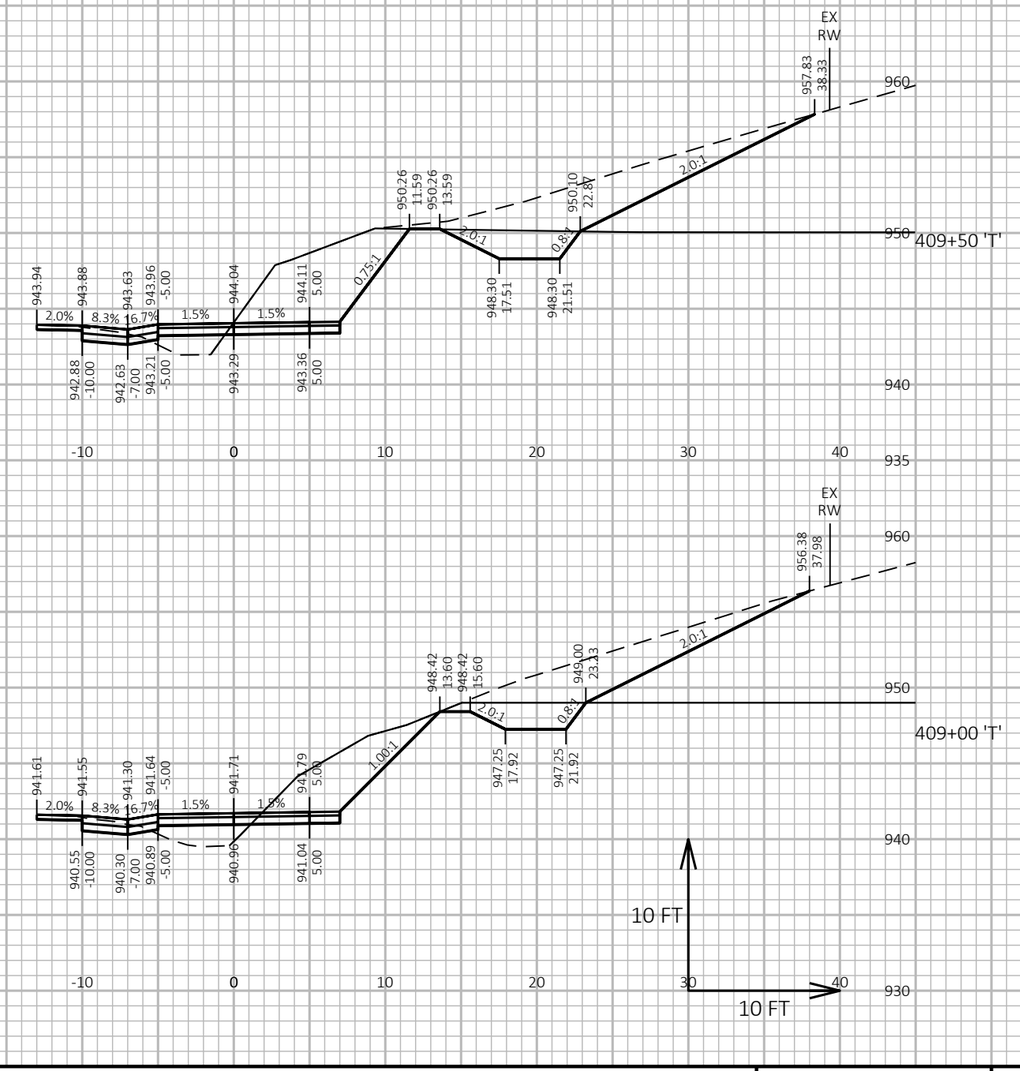
PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49





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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 290	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 6 CROSS SECTIONS

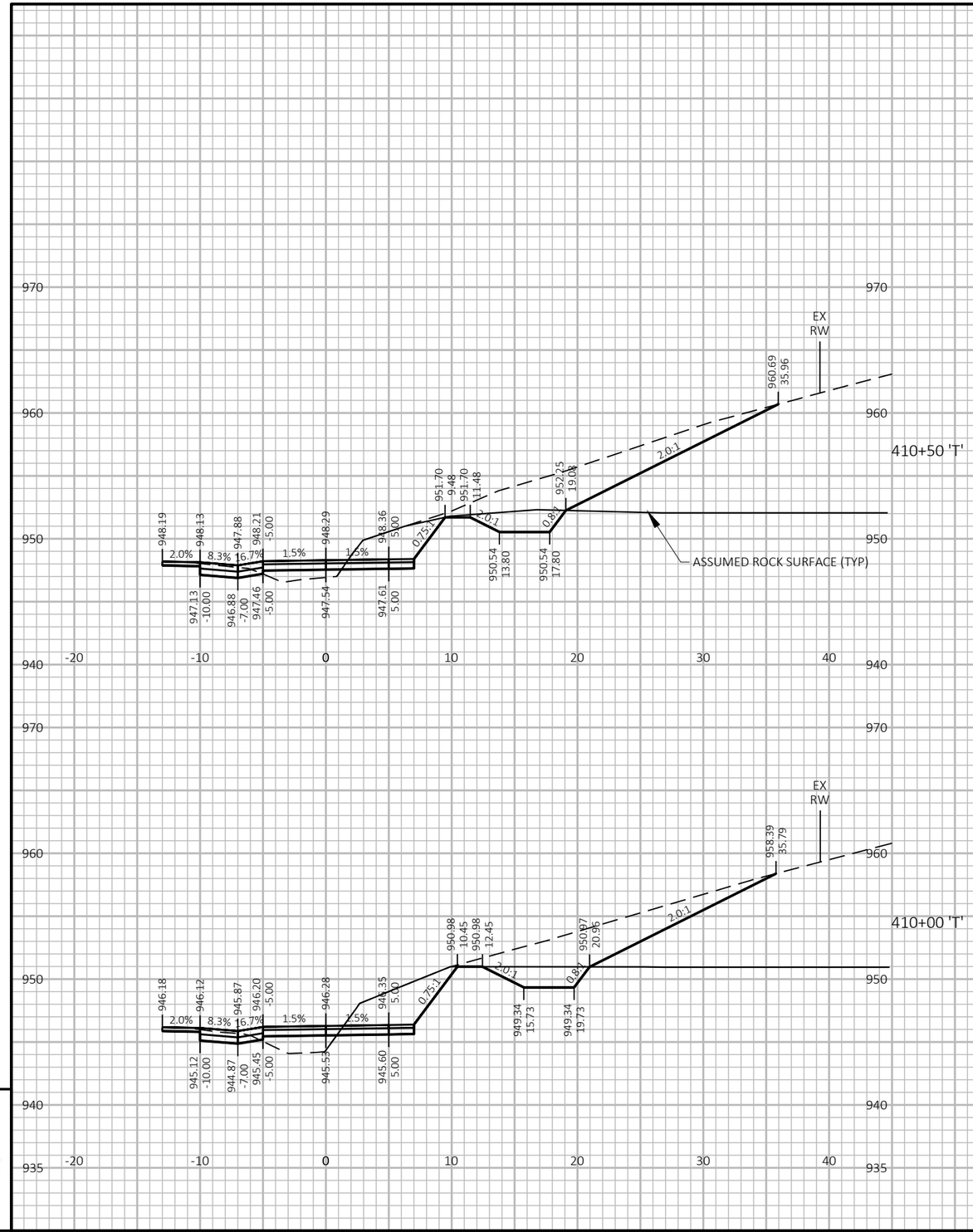
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PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 291	E

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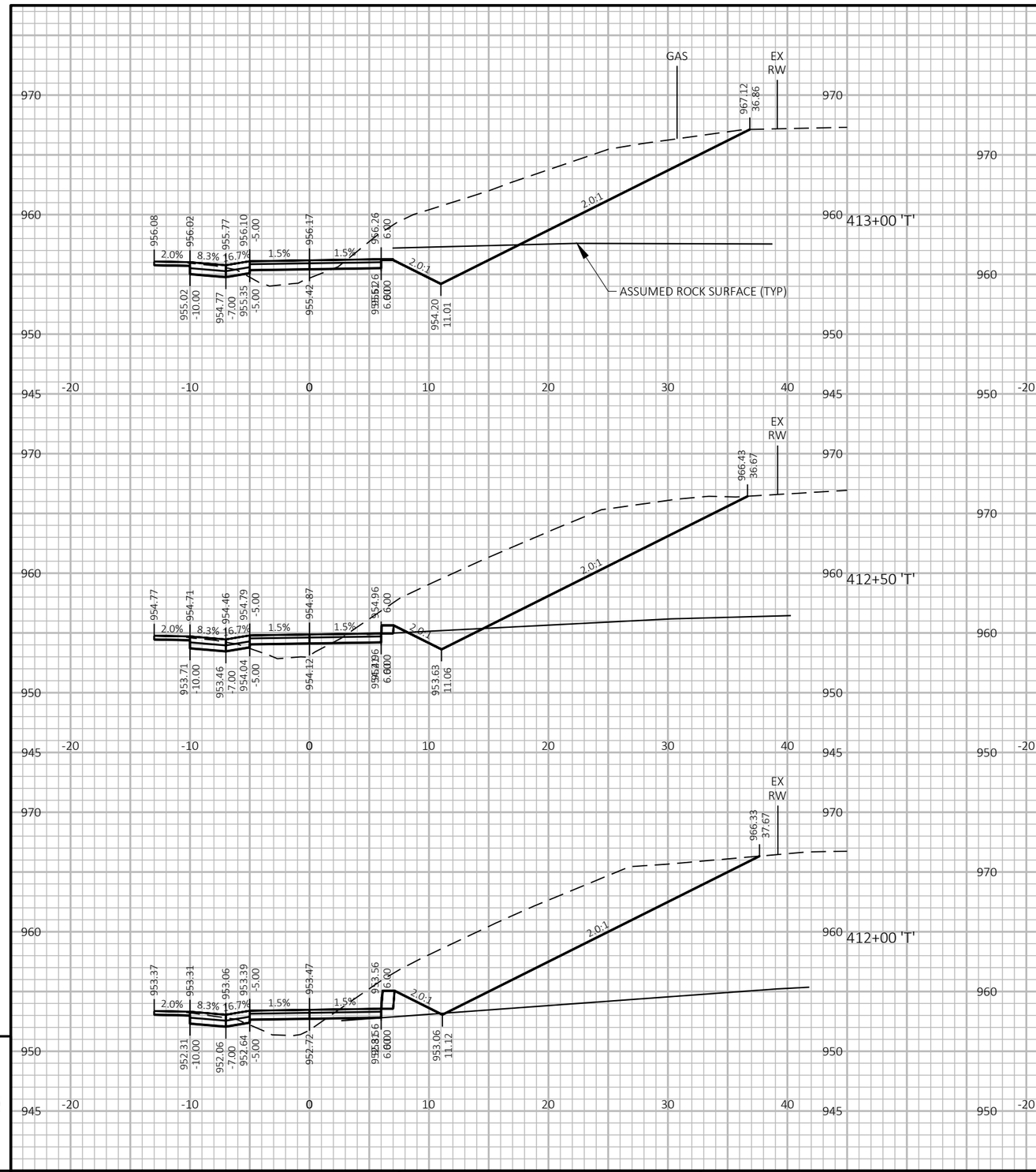
PLOT DATE : 7/23/2020 5:26 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 292	E

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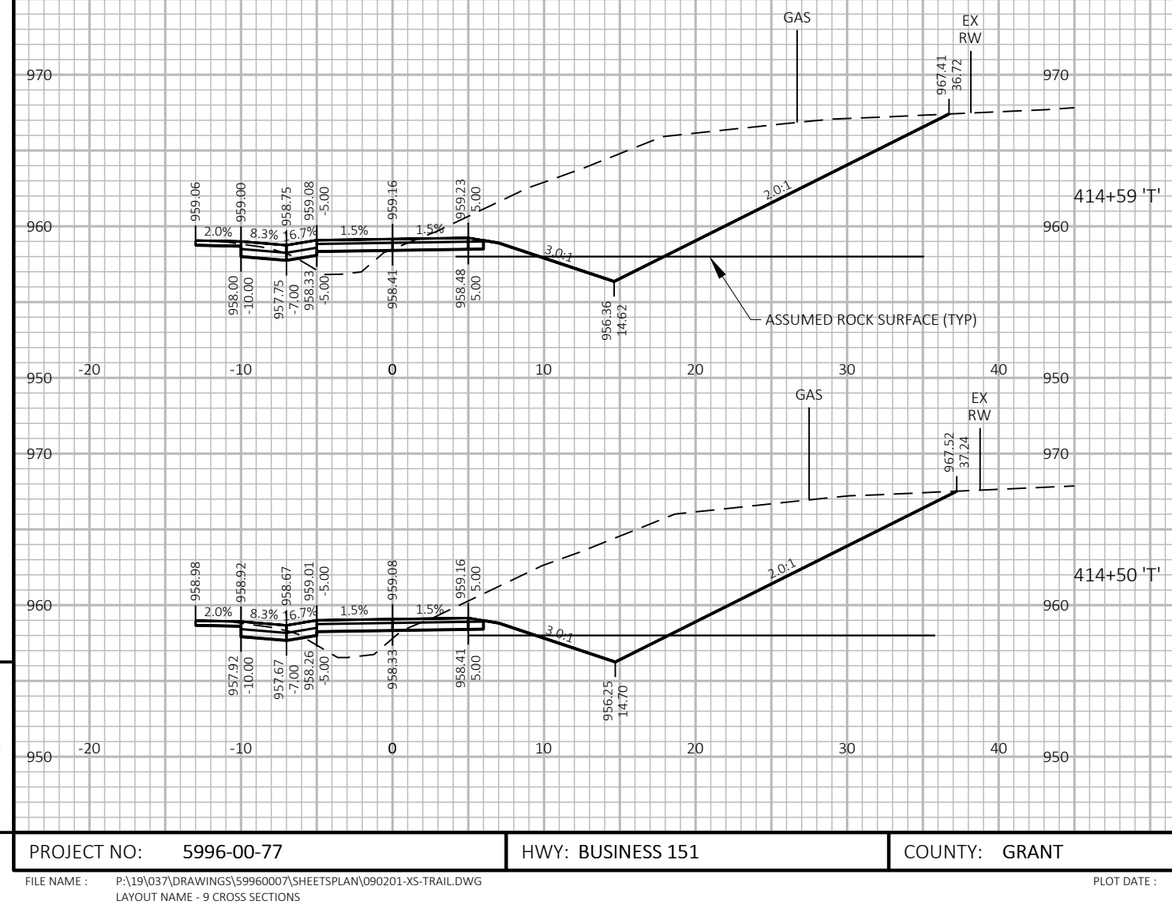
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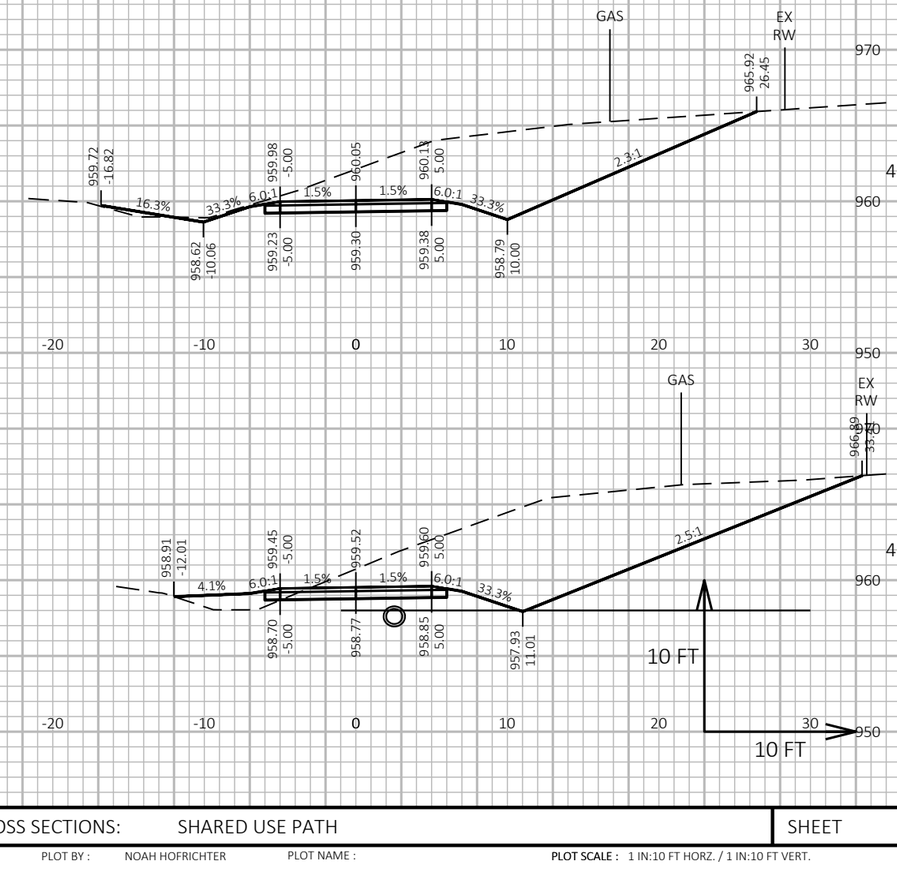
PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49





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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 293	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 9 CROSS SECTIONS

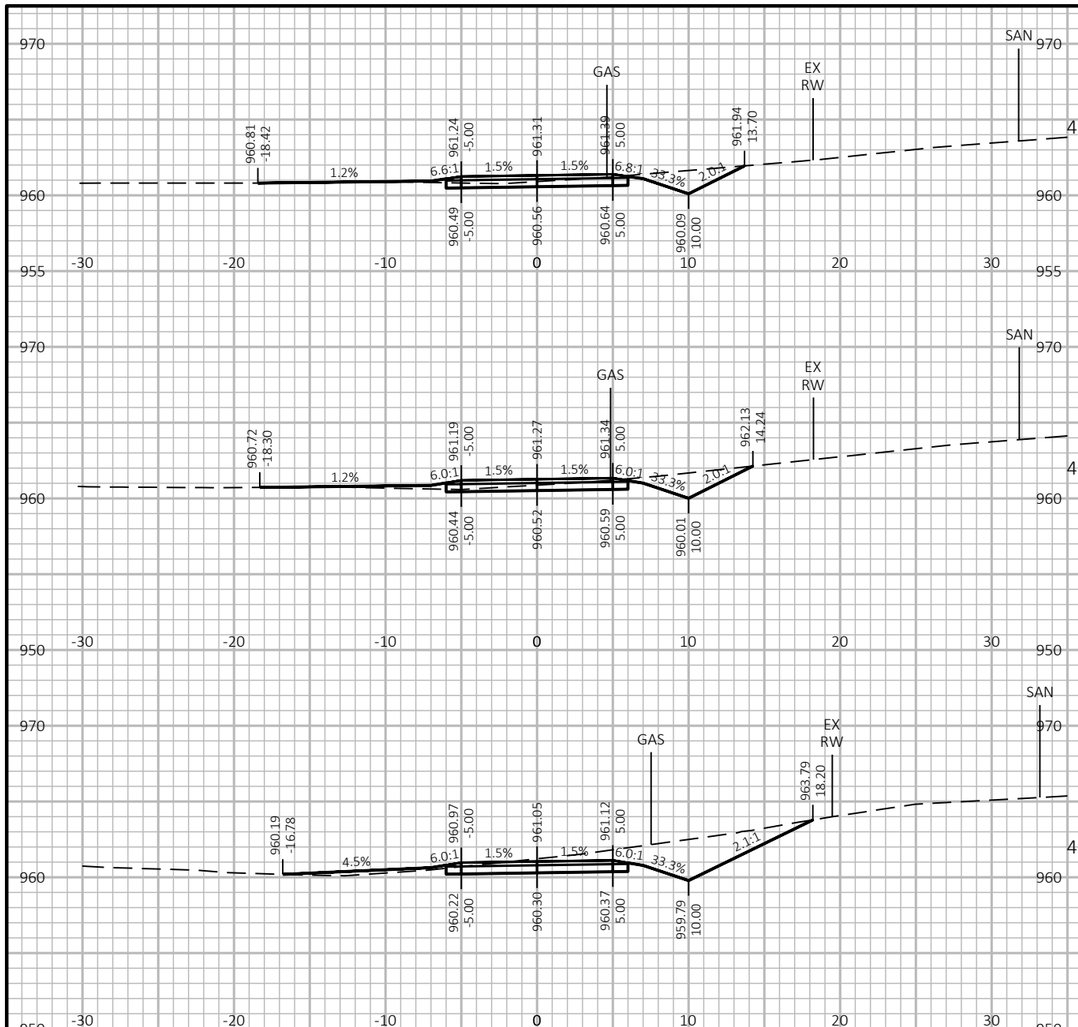
PLOT DATE : 7/23/2020 5:26 PM

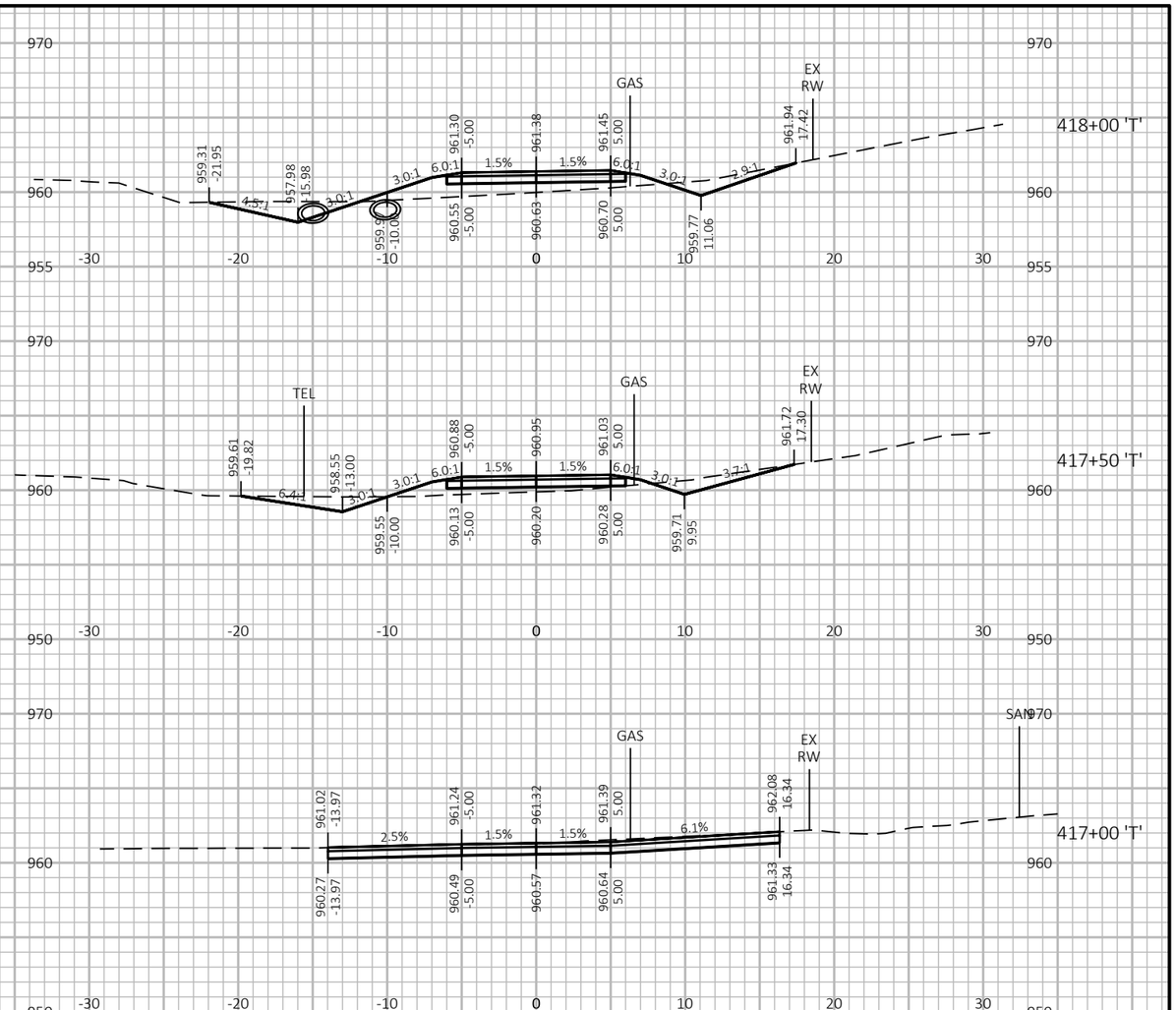
PLOT BY : NOAH HOFRICHTER

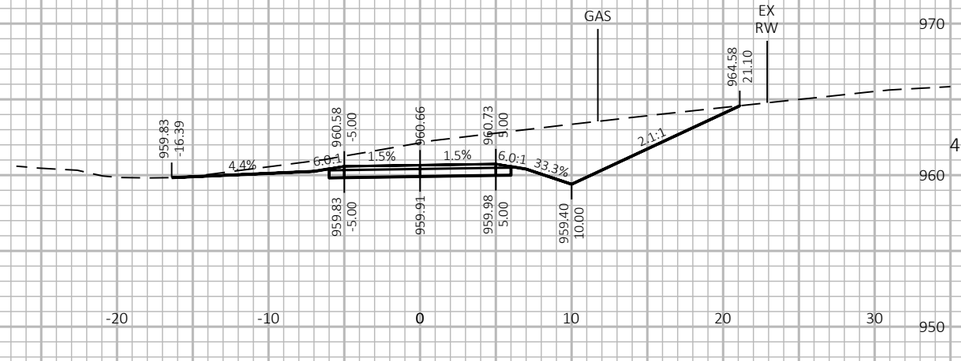
PLOT NAME :

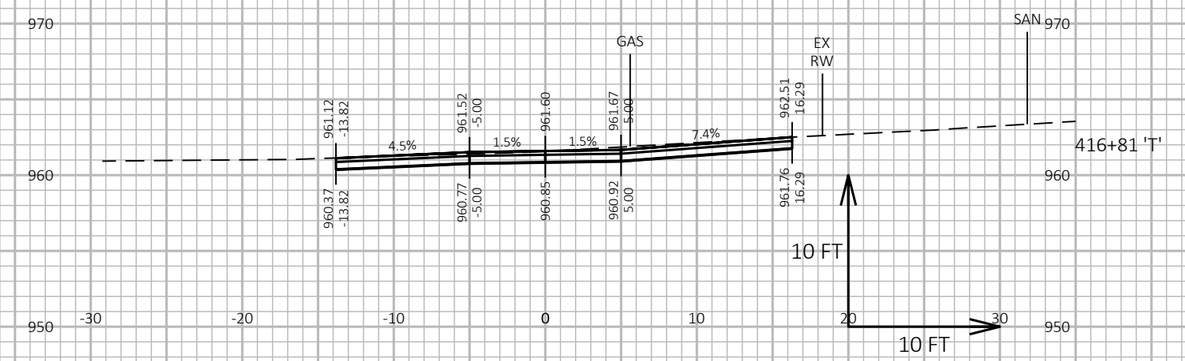
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 294	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 10 CROSS SECTIONS

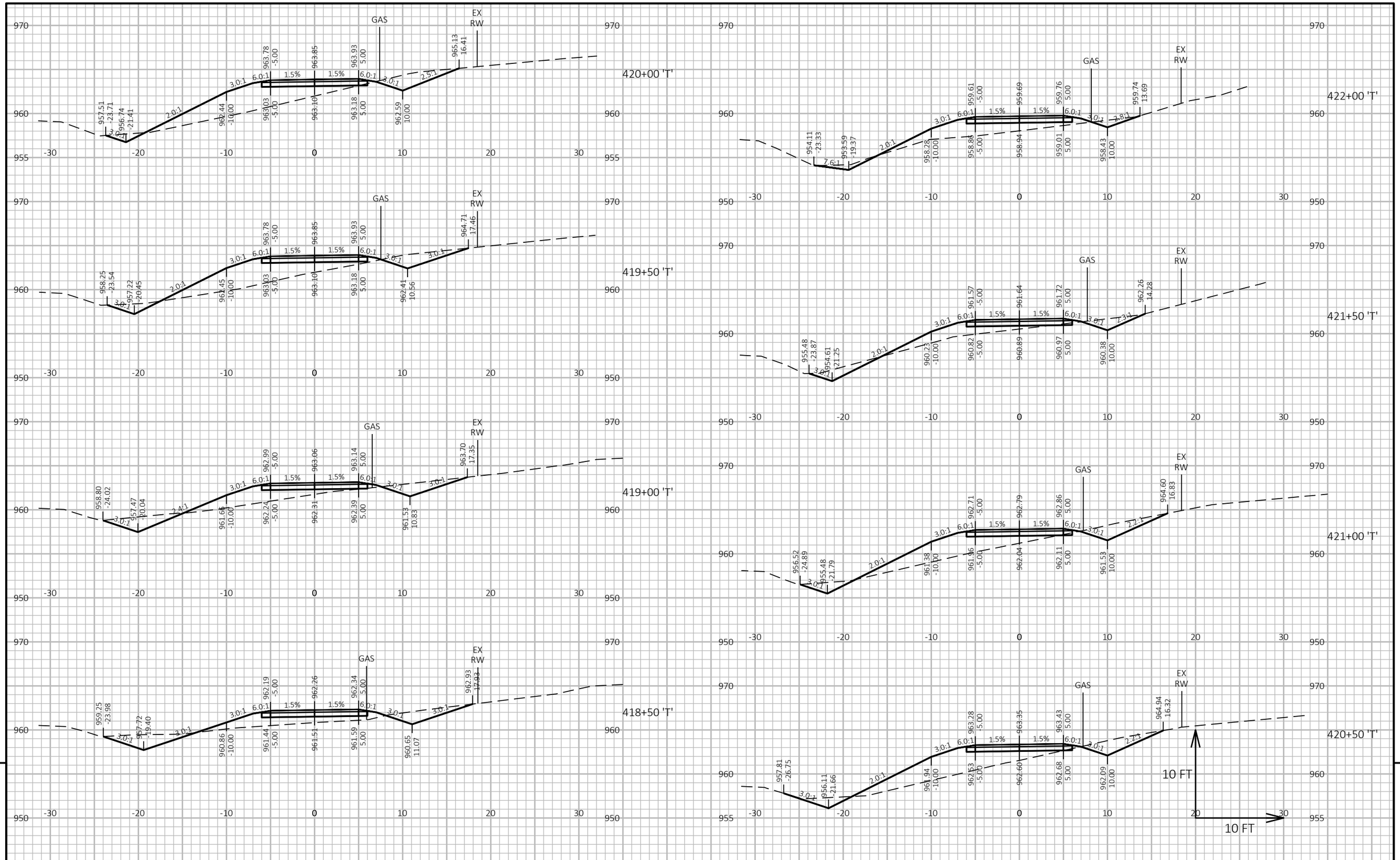
PLOT DATE : 7/23/2020 5:26 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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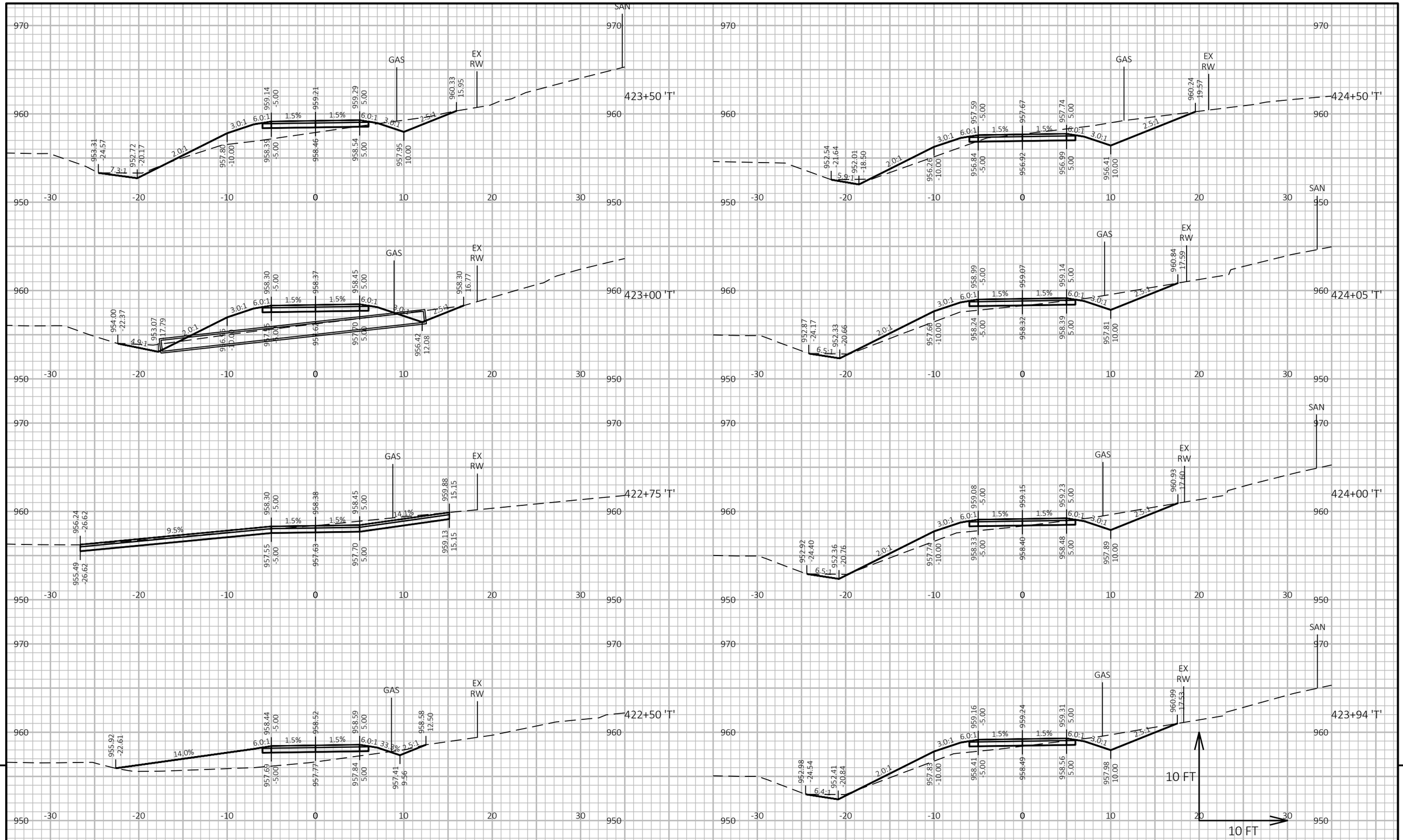
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 295	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 11 CROSS SECTIONS

PLOT DATE : 7/23/2020 5:27 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 296	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 12 CROSS SECTIONS

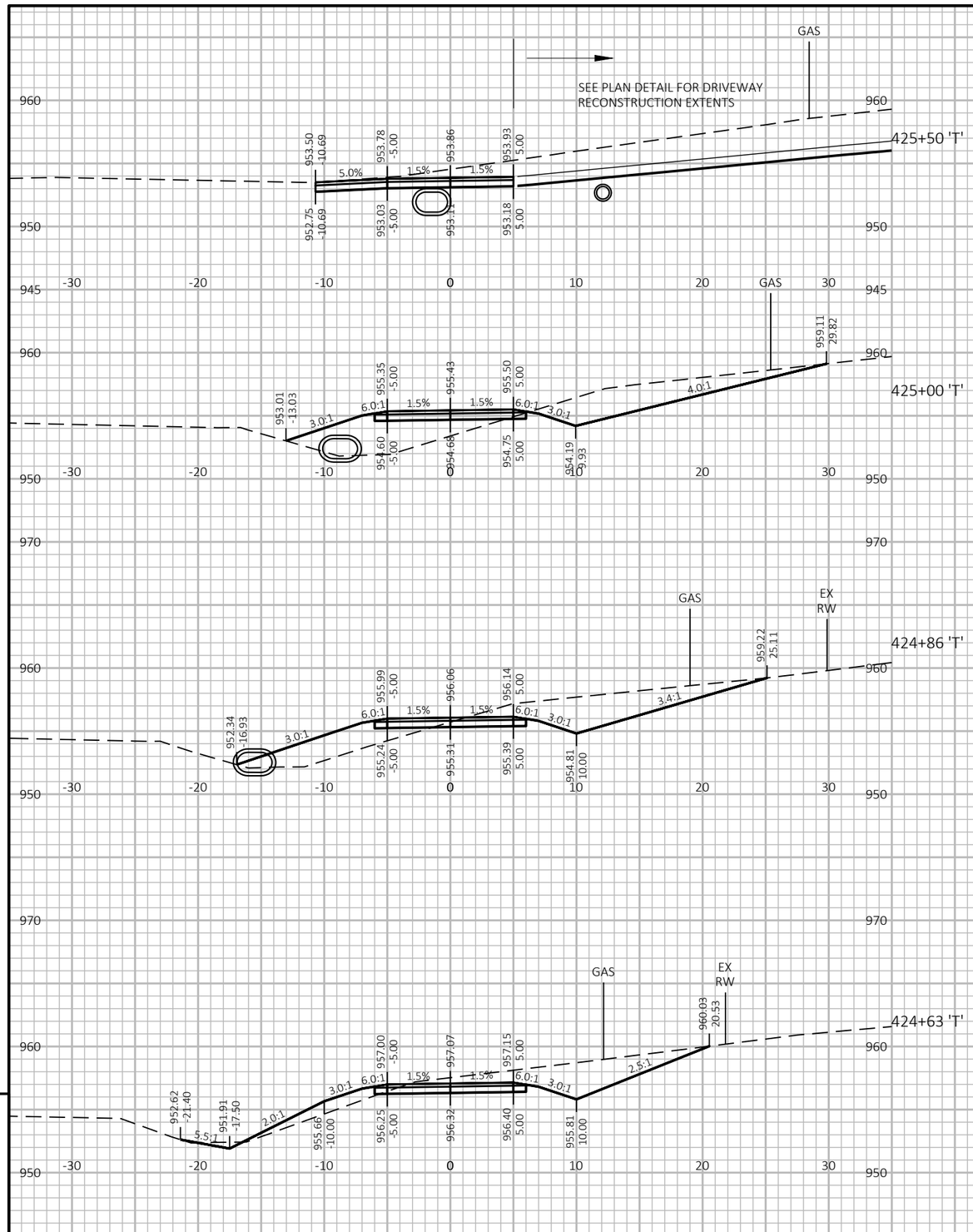
PLOT DATE : 7/23/2020 5:27 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 297	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 13 CROSS SECTIONS

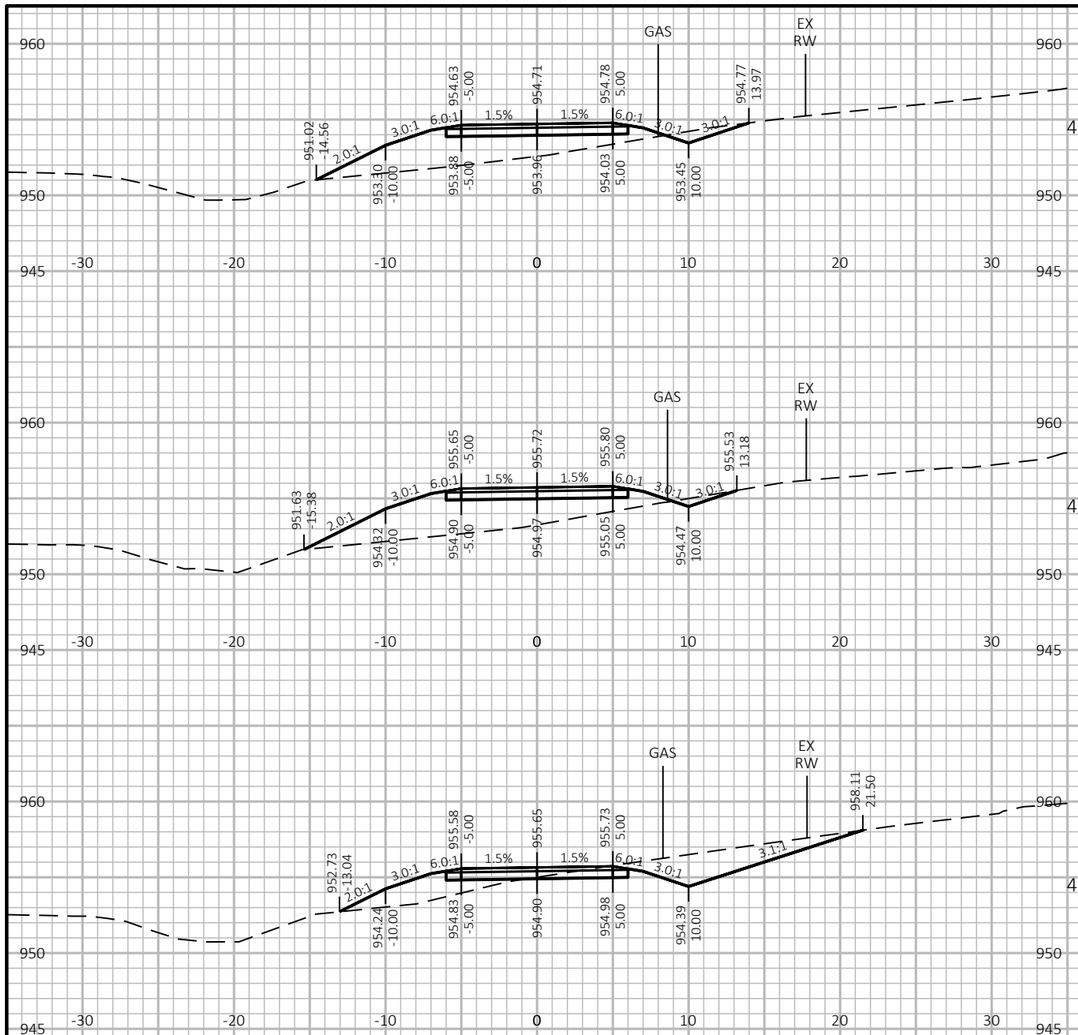
PLOT DATE : 7/23/2020 5:27 PM

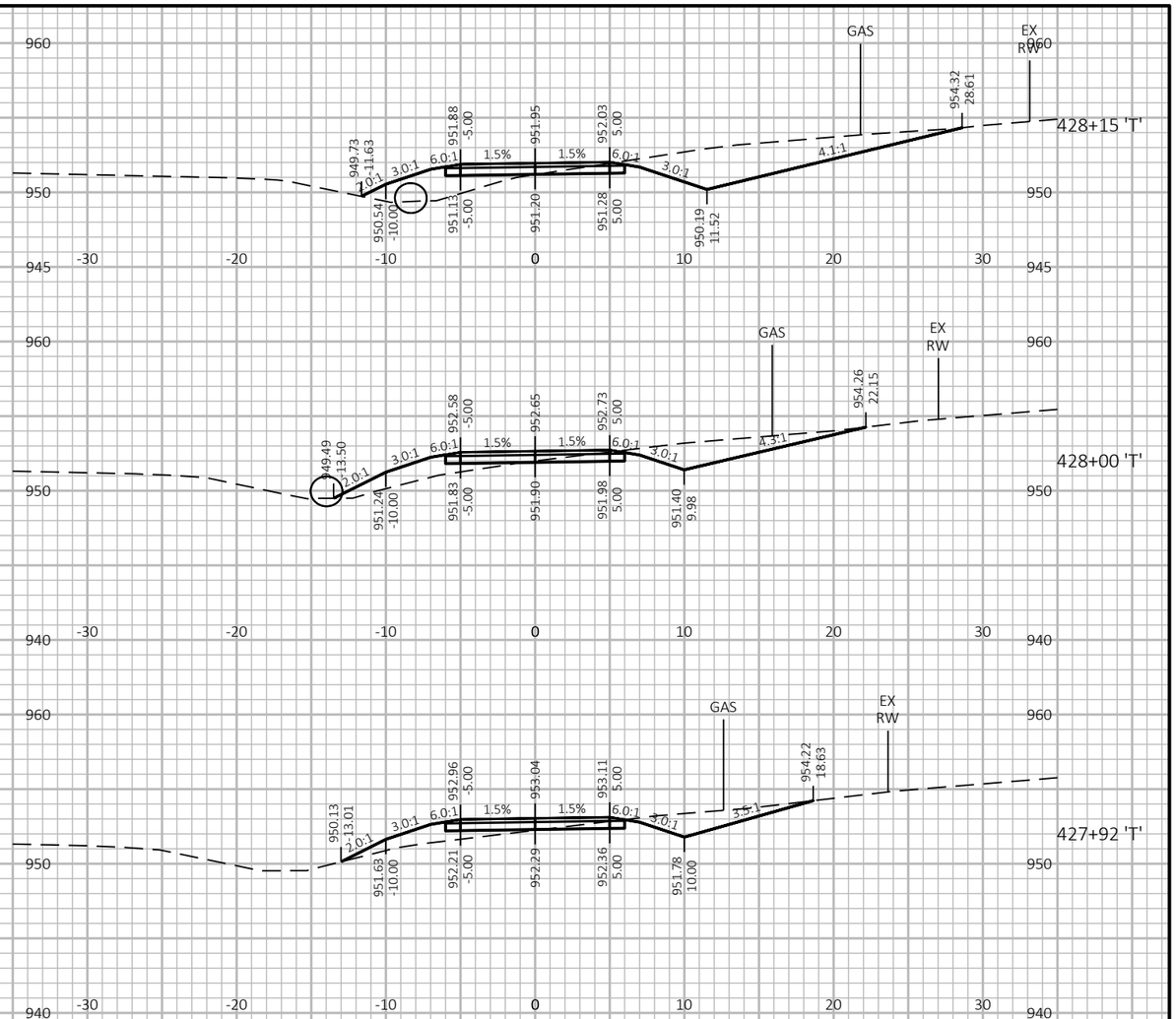
PLOT BY : NOAH HOFRICHTER

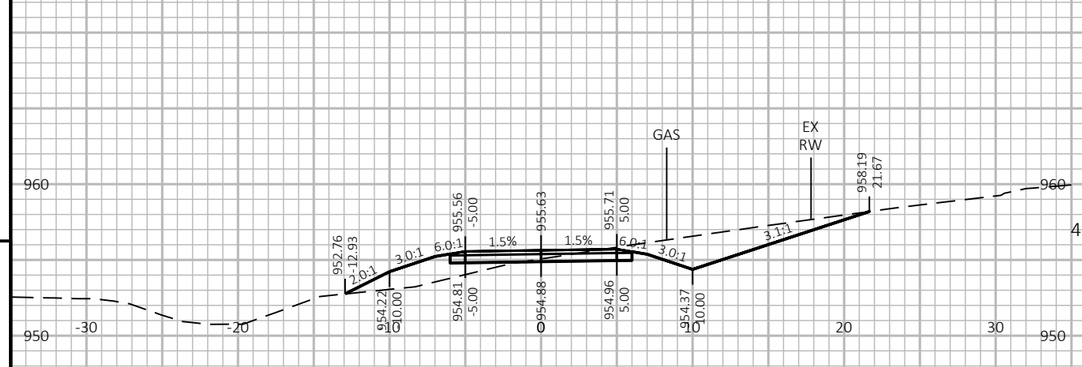
PLOT NAME :

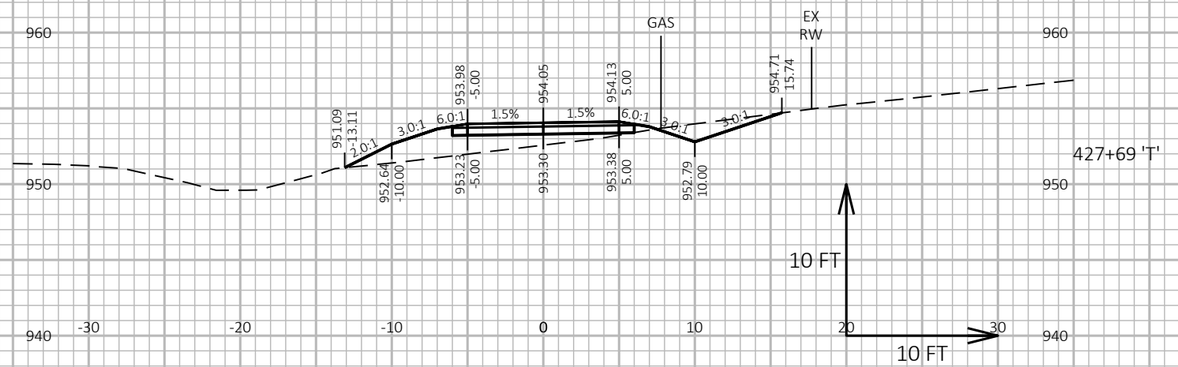
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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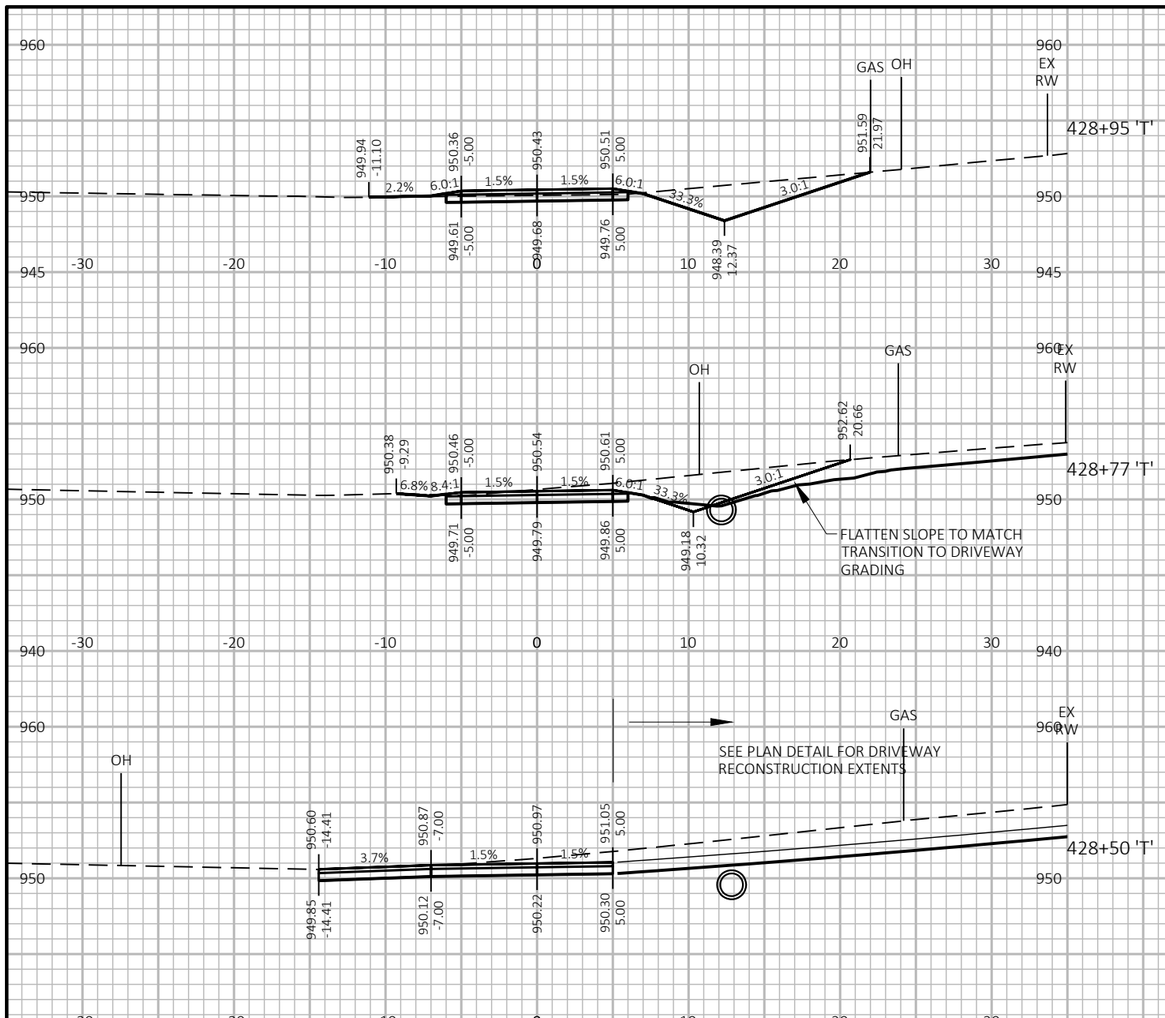
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 298	E

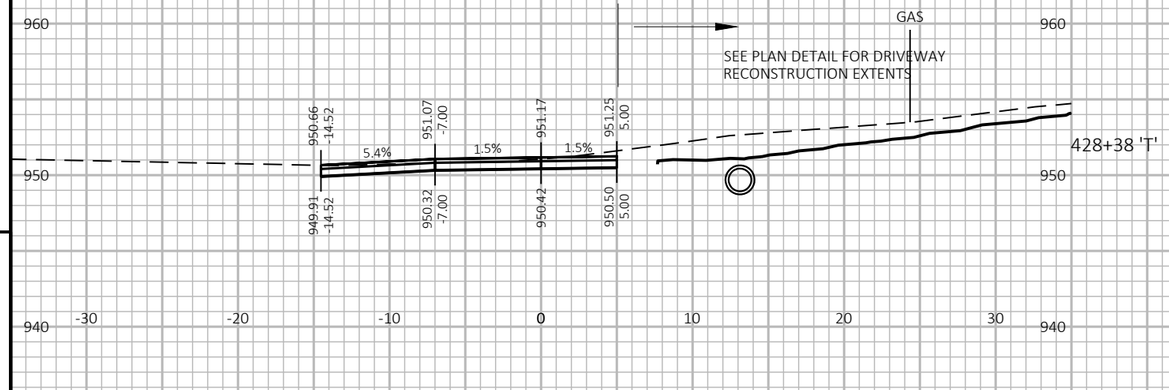
FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 14 CROSS SECTIONS

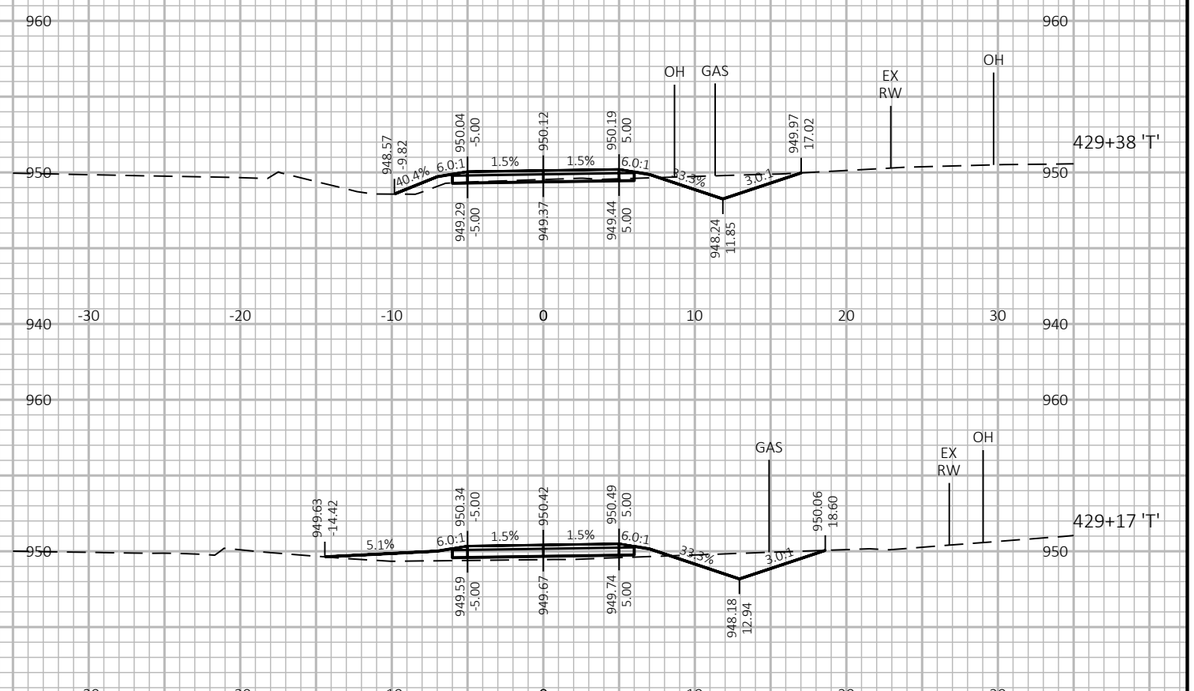
PLOT DATE : 7/23/2020 5:27 PM PLOT BY : NOAH HOFRICHTER PLOT NAME :

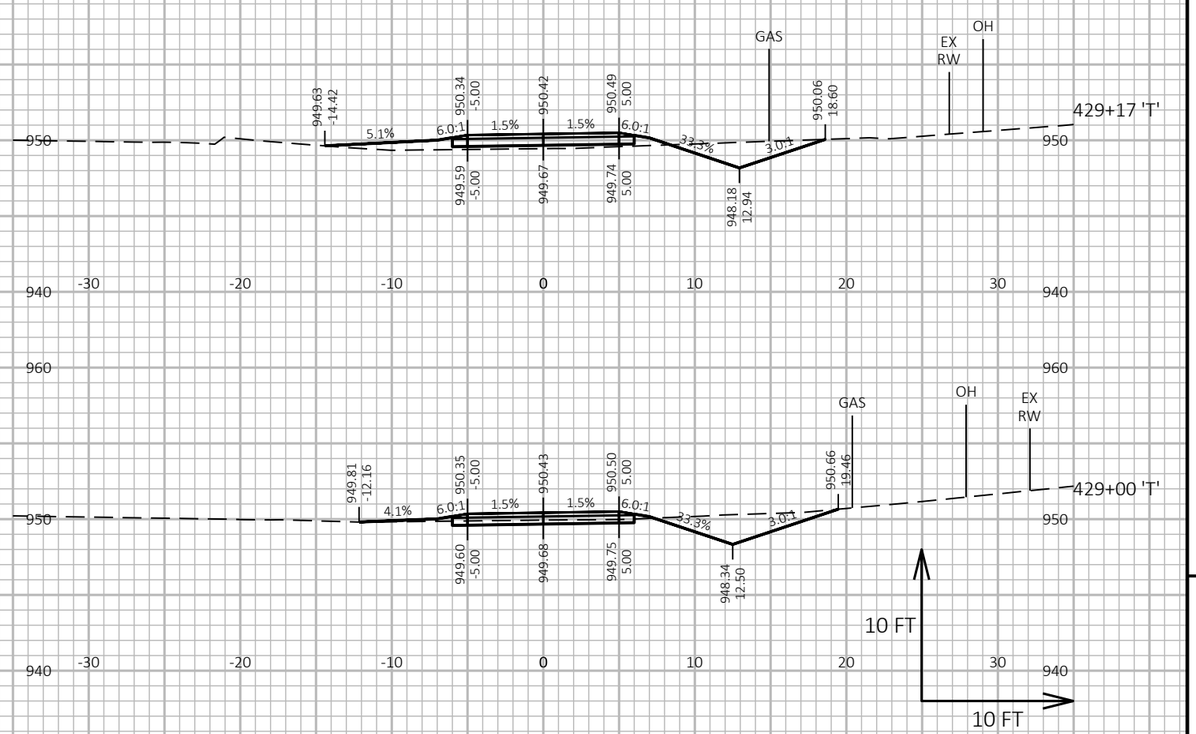
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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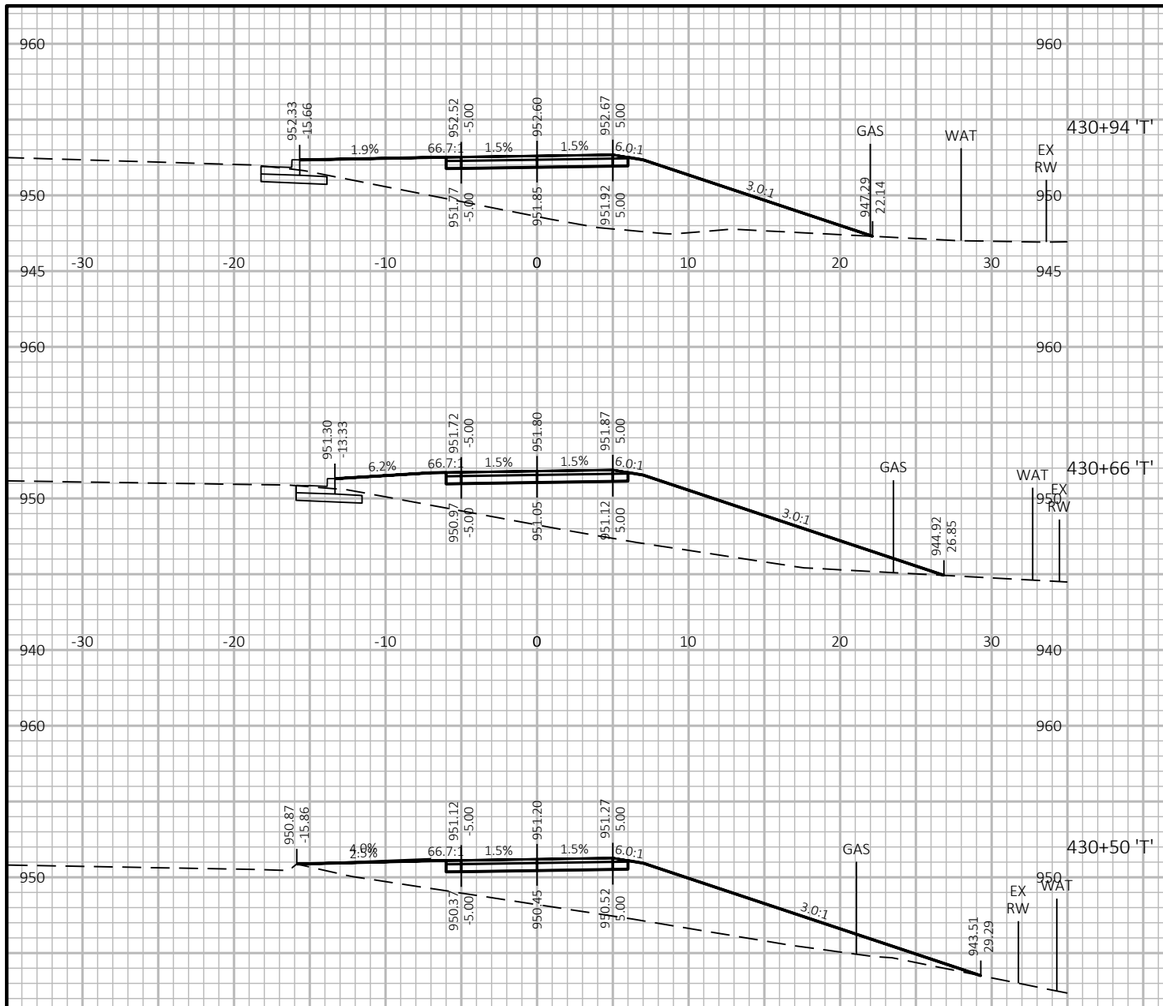
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 299	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090201-XS-TRAIL.DWG
LAYOUT NAME - 15 CROSS SECTIONS

PLOT DATE : 7/23/2020 5:27 PM PLOT BY : NOAH HOFRICHTER PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 300	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 16 CROSS SECTIONS

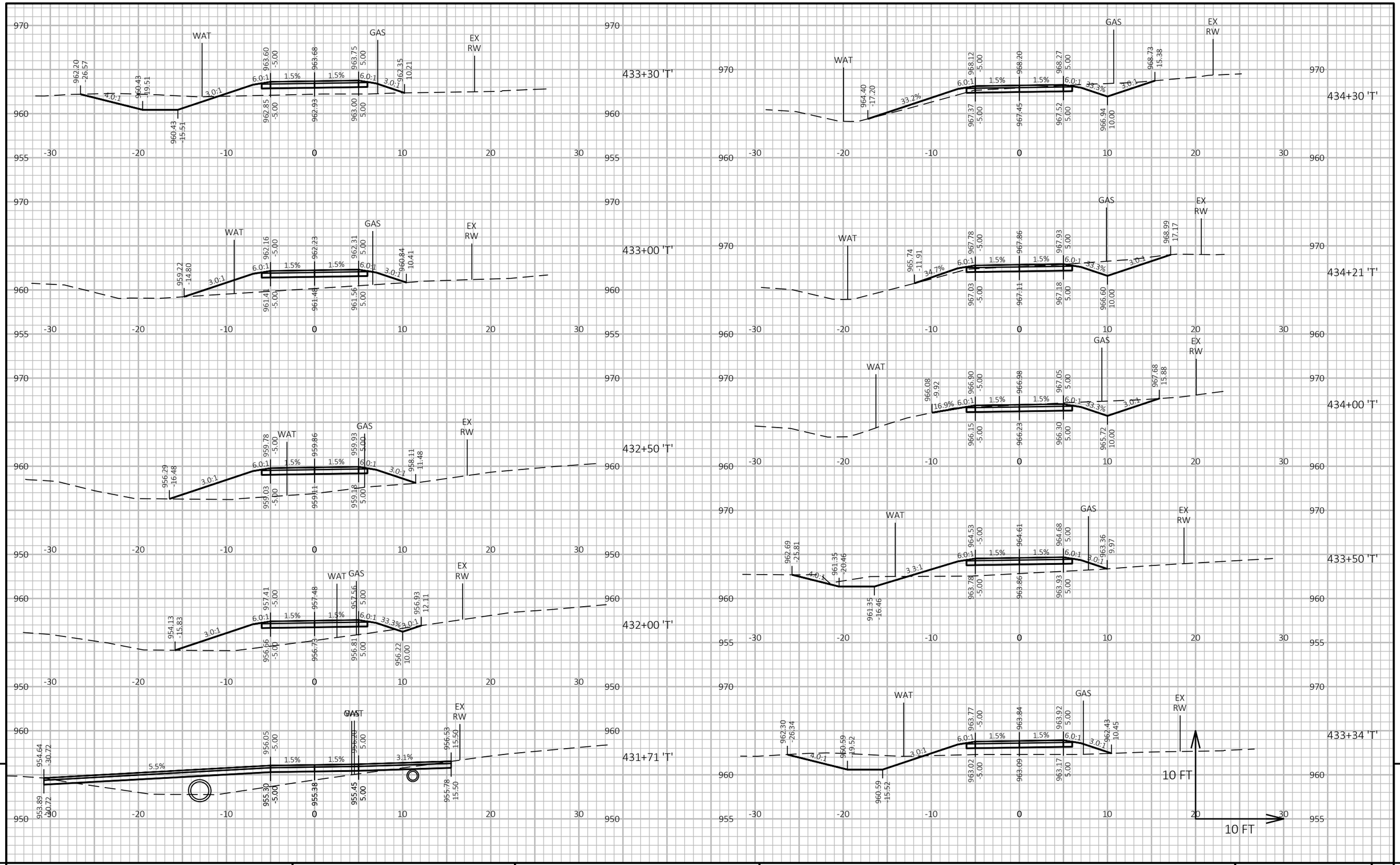
PLOT DATE : 1/13/2020 1:19 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

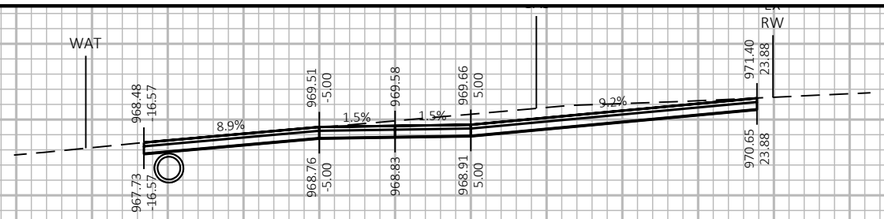


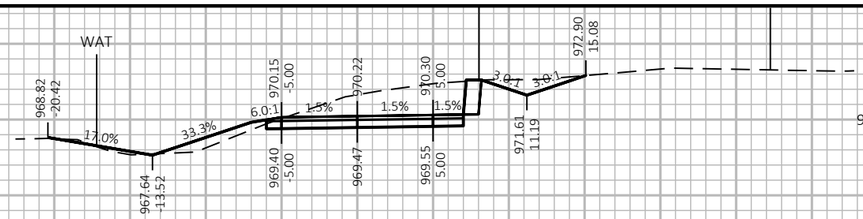
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 301	E

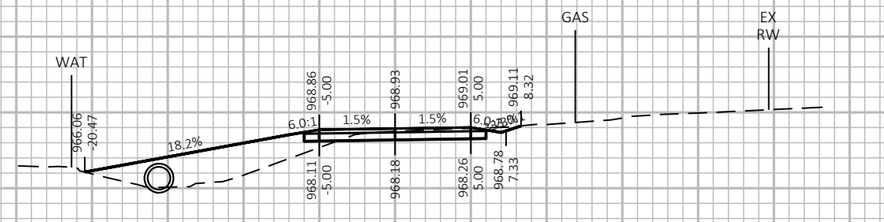
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LAYOUT NAME - 17 CROSS SECTIONS

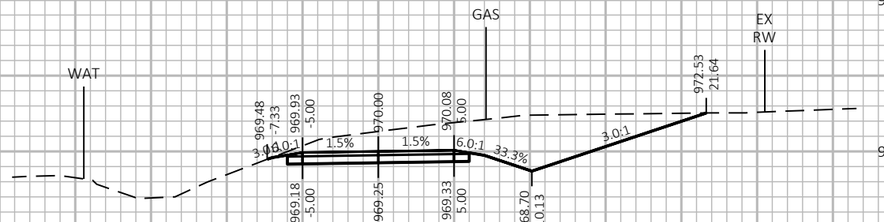
PLOT DATE : 1/13/2020 1:19 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

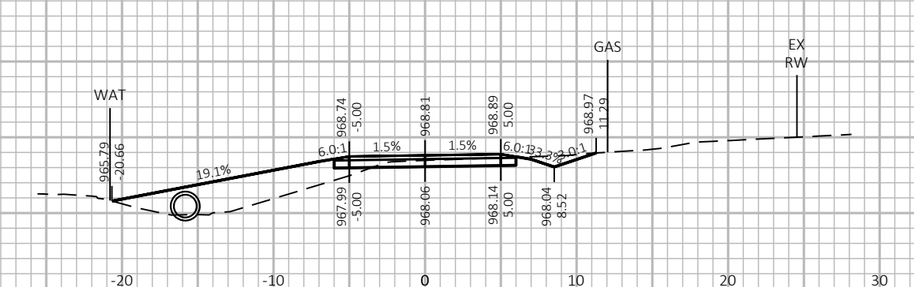
WISDOT/CADDS SHEET 49

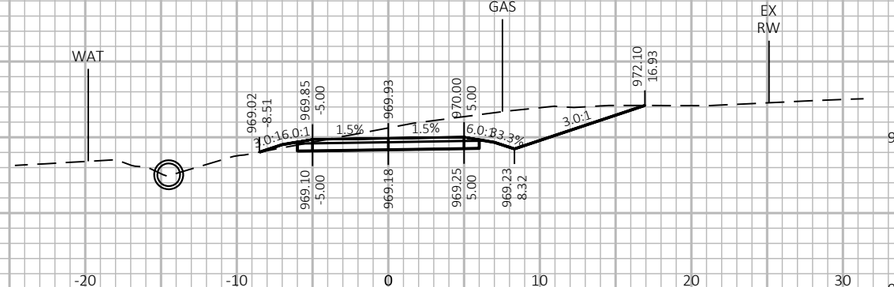


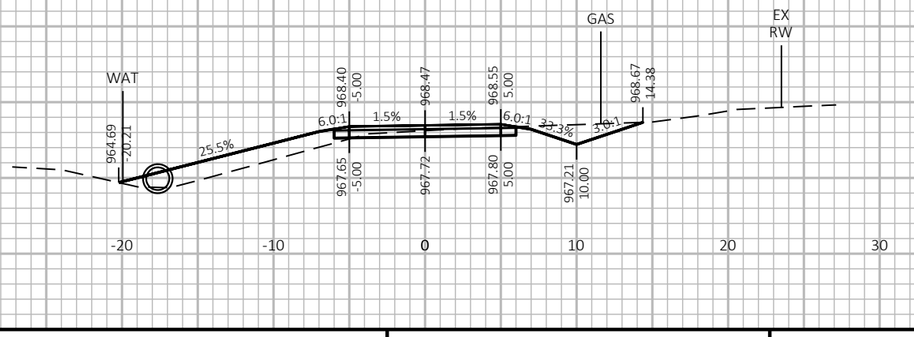


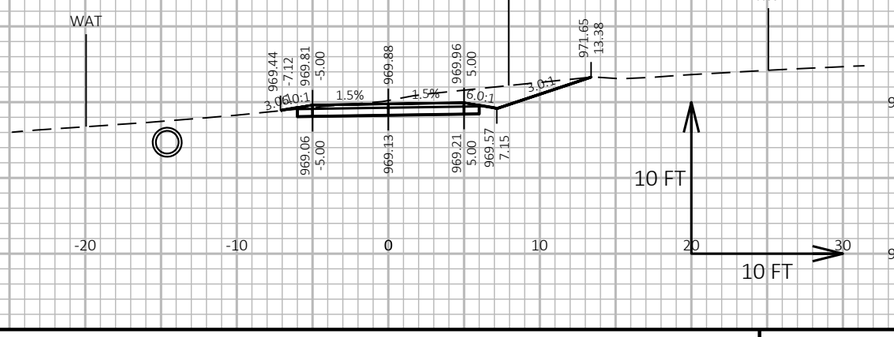












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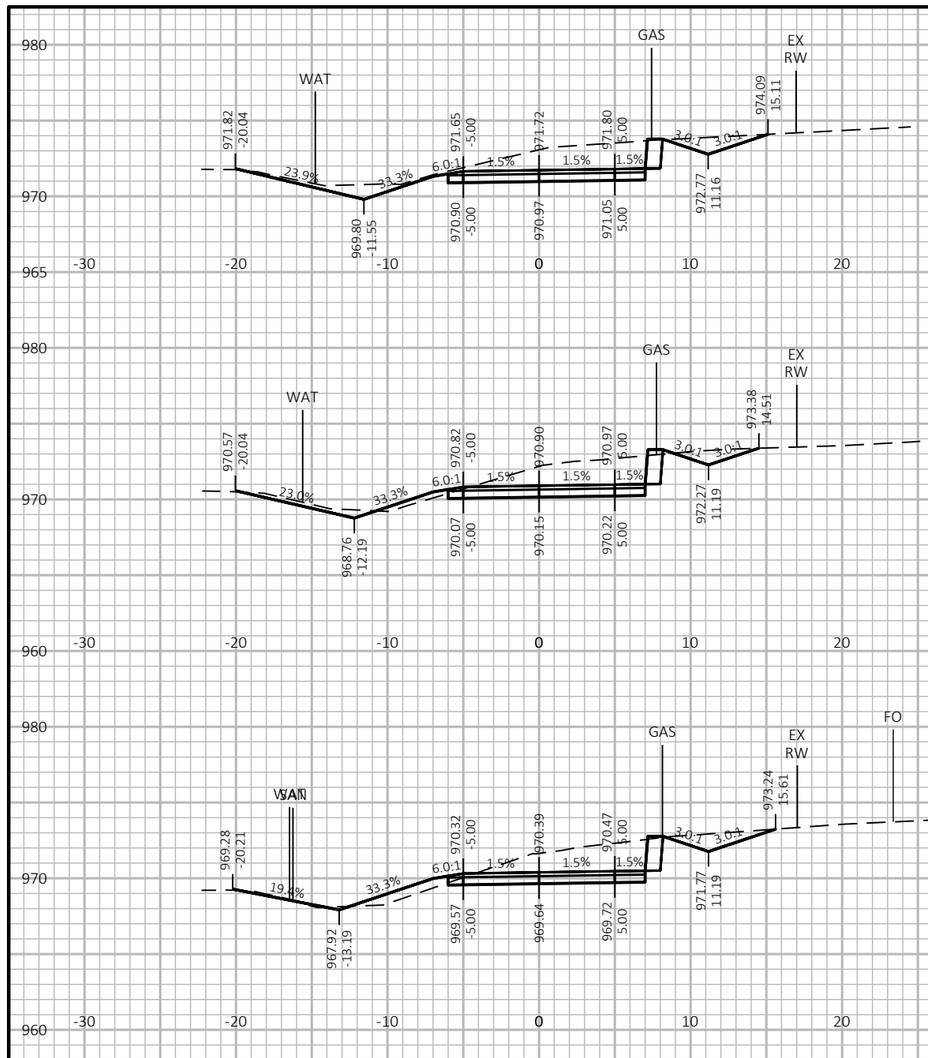
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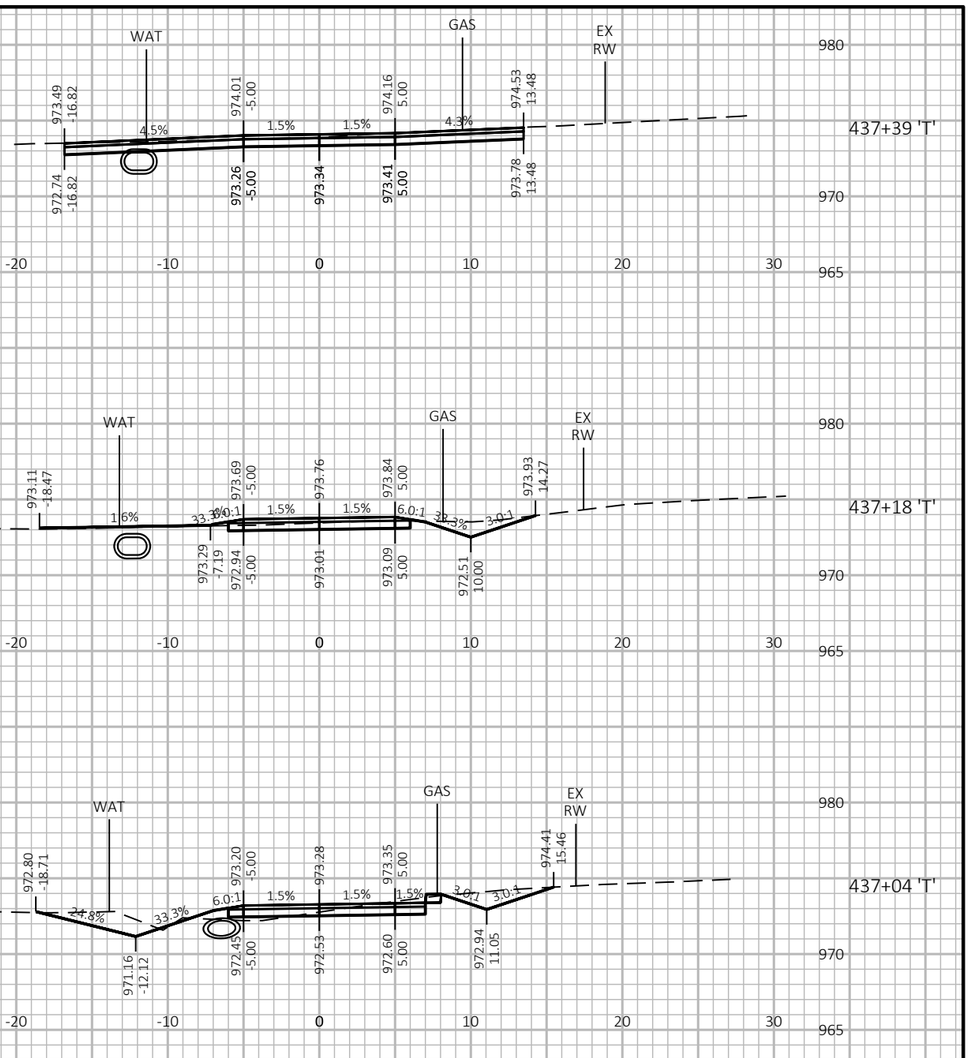
PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 302	E

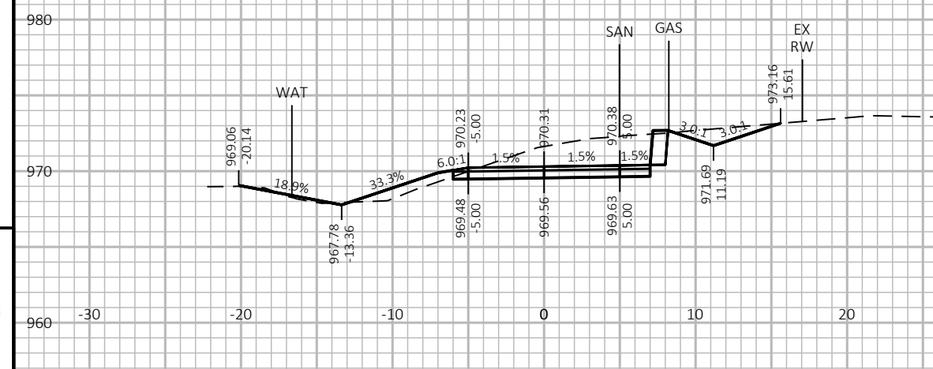
FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 18 CROSS SECTIONS

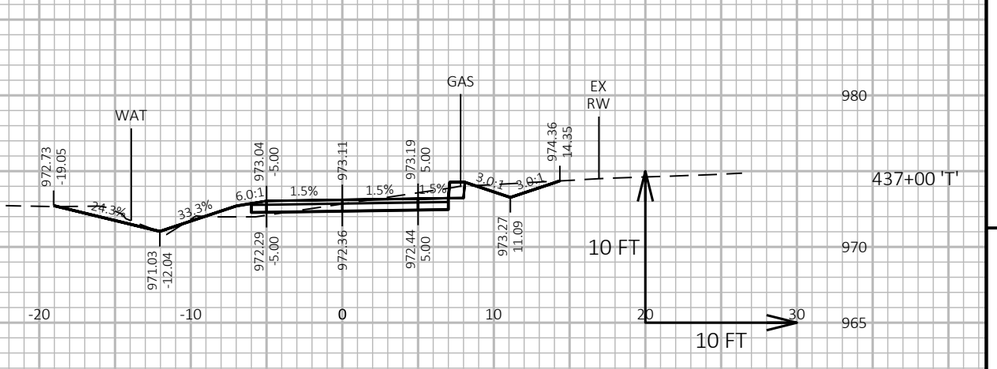
PLOT DATE : 1/13/2020 1:19 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 303	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 19 CROSS SECTIONS

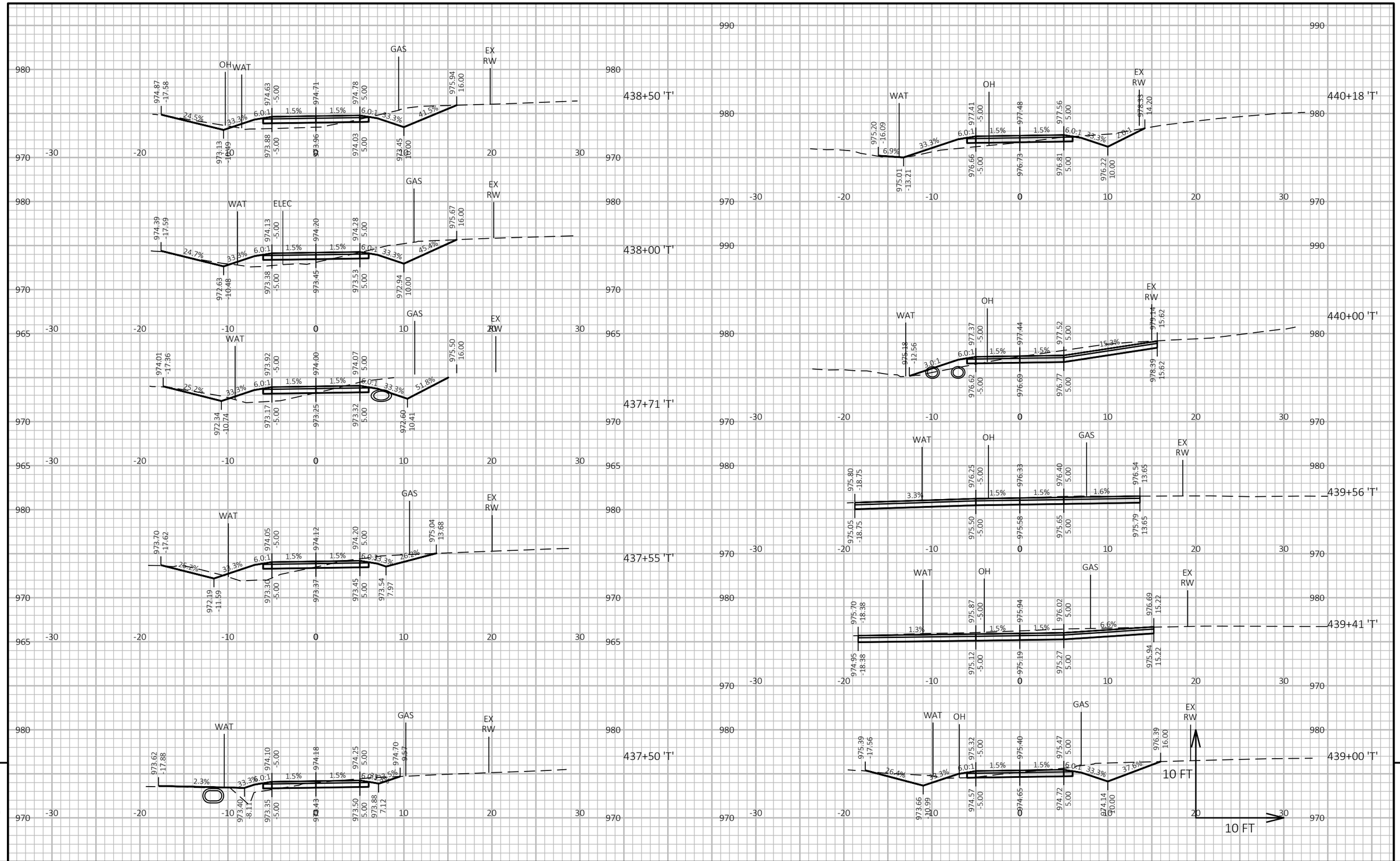
PLOT DATE : 1/13/2020 1:19 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 304	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 20 CROSS SECTIONS

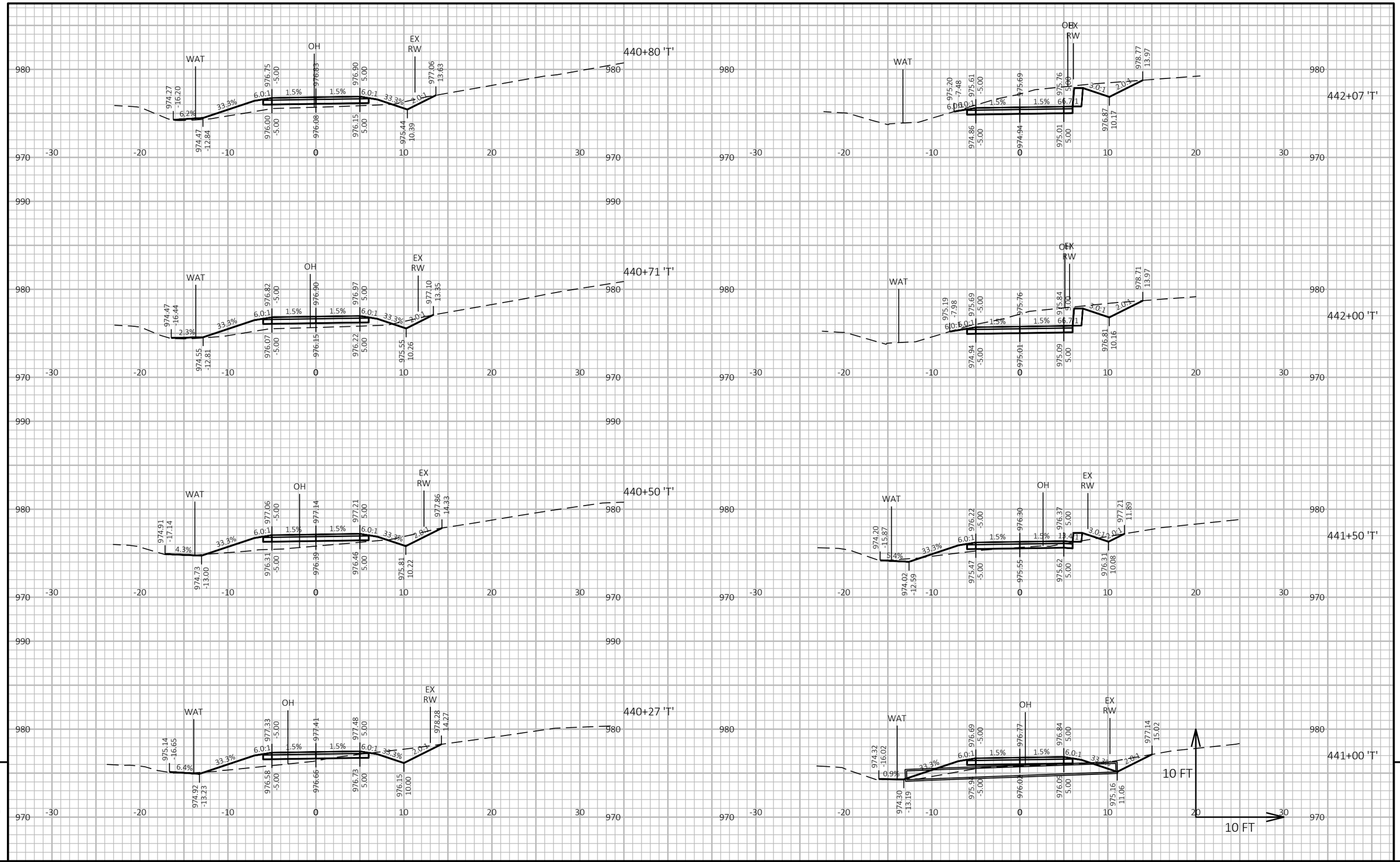
PLOT DATE : 1/13/2020 1:19 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 305	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 21 CROSS SECTIONS

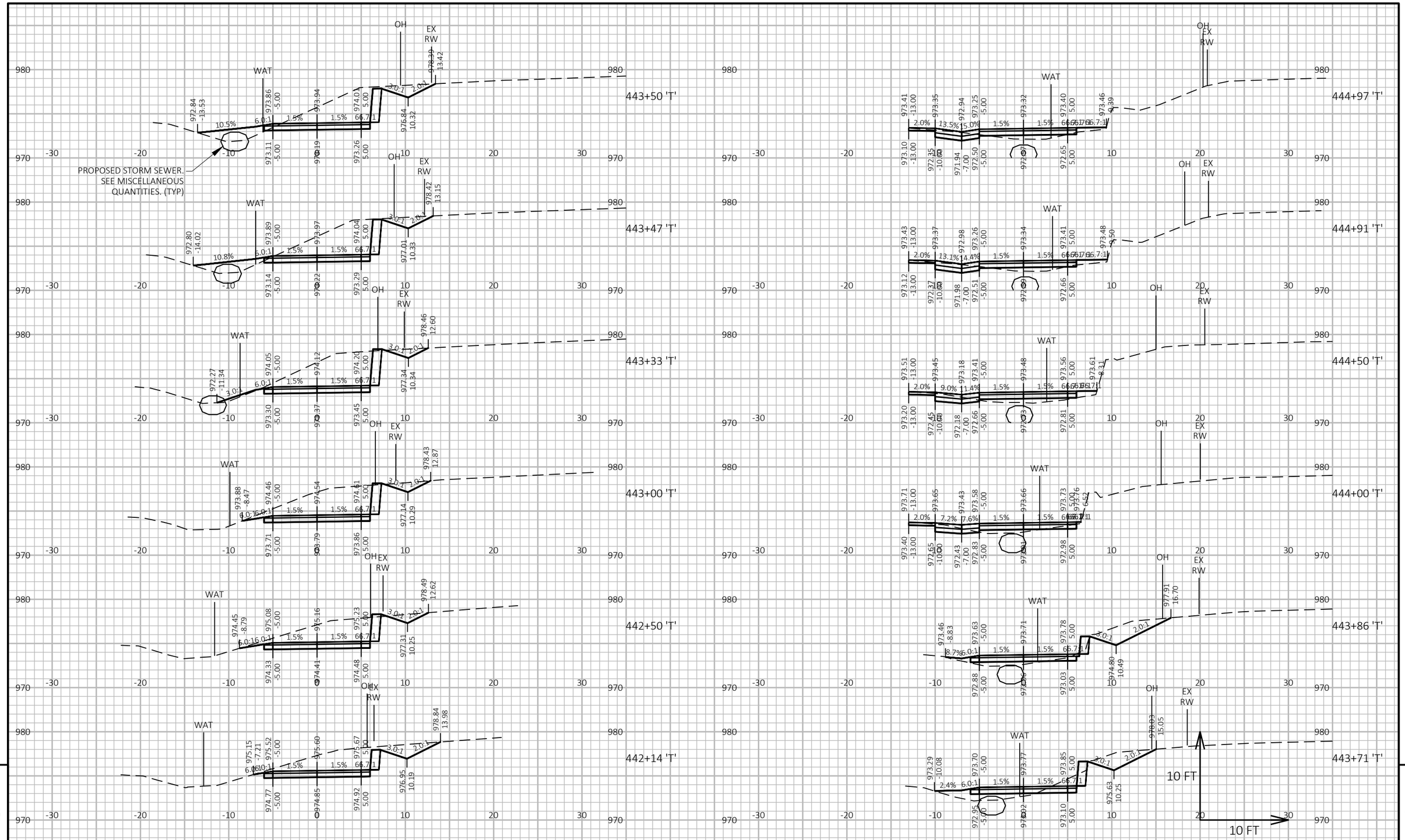
PLOT DATE : 1/13/2020 1:19 PM

PLOT BY : NOAH HOFRICHTER

PLOT NAME :

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

WISDOT/CADDS SHEET 49

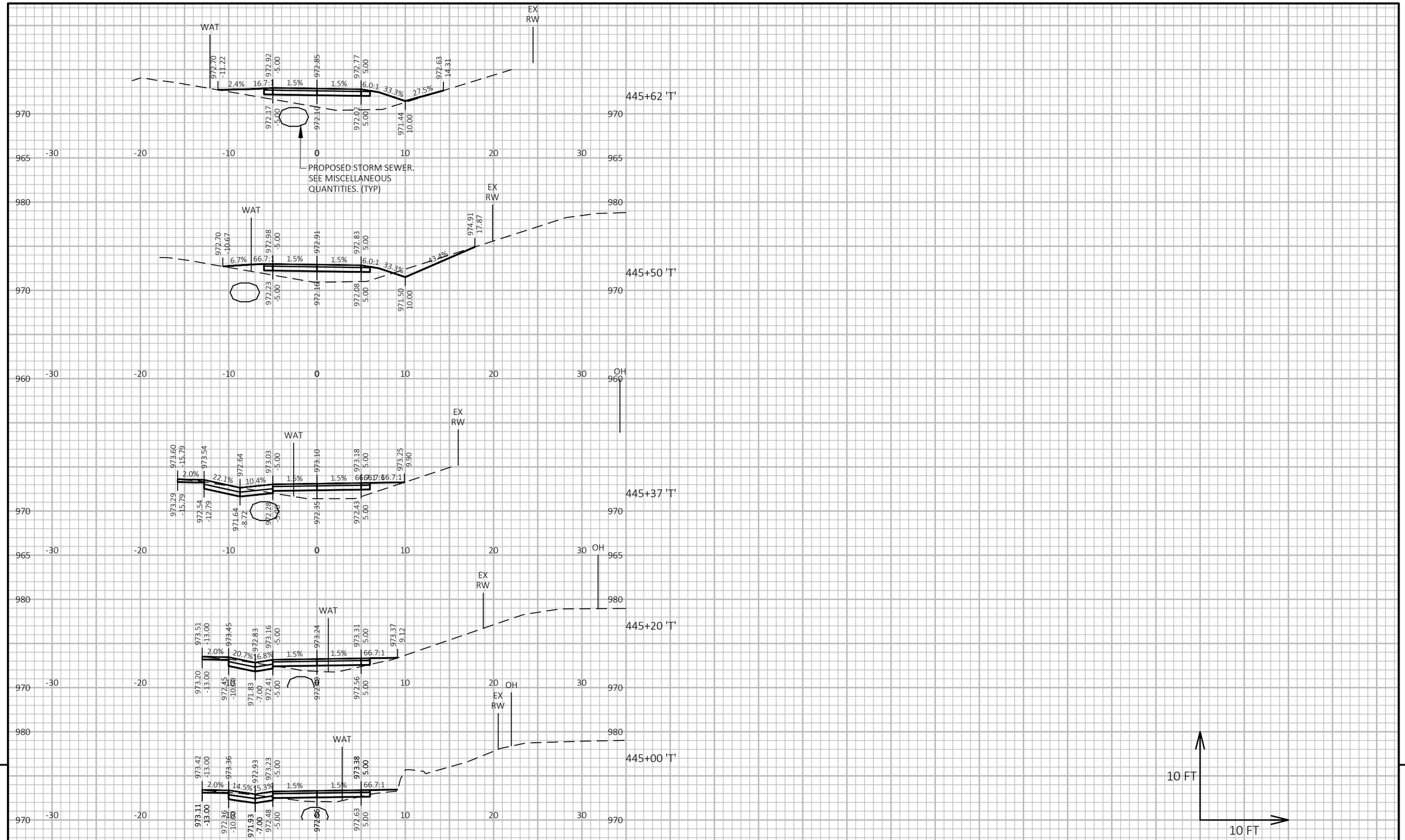


PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 306	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 22 CROSS SECTIONS

PLOT DATE : 1/13/2020 1:19 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 5996-00-77	HWY: BUSINESS 151	COUNTY: GRANT	CROSS SECTIONS: SHARED USE PATH	SHEET 307	E

FILE NAME : P:\19\037\DRAWINGS\59960007\SHEETSPLAN\090215-XS-TRAIL.DWG
LAYOUT NAME - 23 CROSS SECTIONS

PLOT DATE : 1/13/2020 1:19 PM PLOT BY : NOAH HOFRICHTER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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