MAD MARCH 2016

PROJECT ID: 5350-00-74
WITH: N/A

COUNTY: ROCK

ORDER OF SHEETS

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

TOTAL SHEETS = 260

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BELOIT URBANIZED AREA

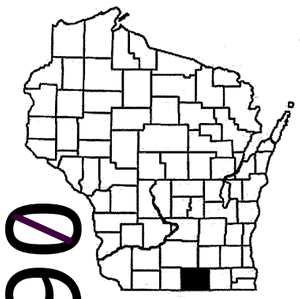
CRANSTON ROAD INTERSECTION

USH 51

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5350-00-74	WISC 2016049	1

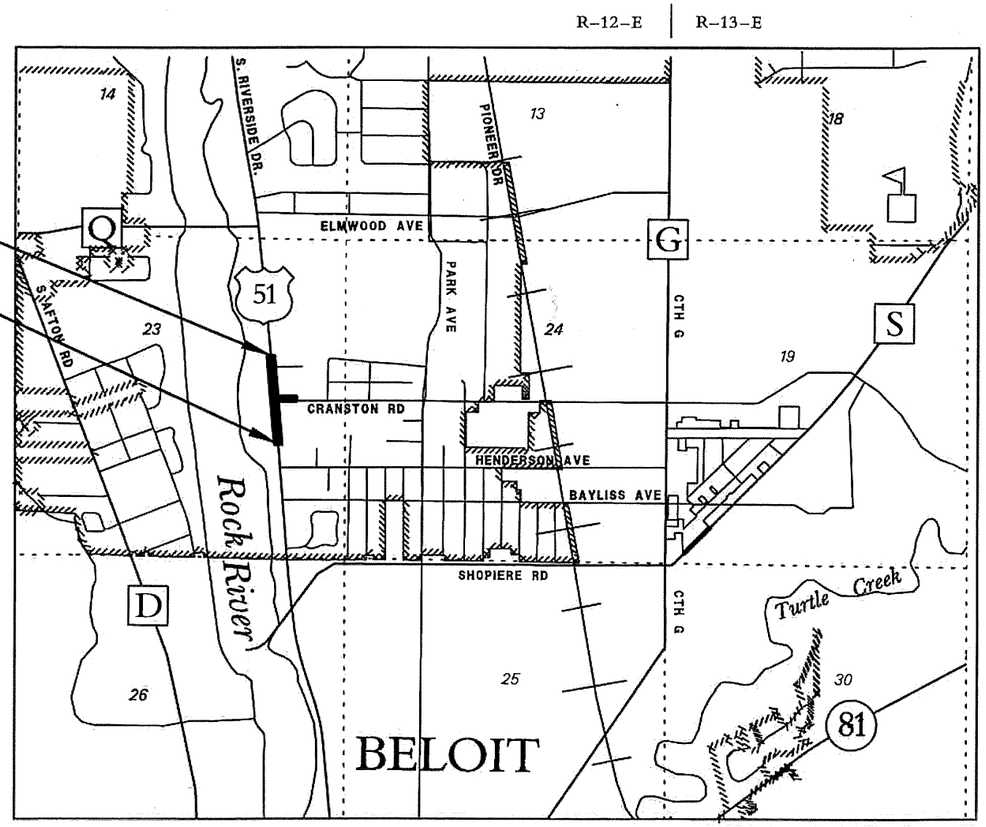
STATE PROJECT NUMBER
5350-00-74



N

END PROJECT
STA. 111+00.00

BEGIN PROJECT
STA. 94+00.00
Y = 213,665.09
X = 489,880.46



LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.322 MI.

COORDINATES AND BEARINGS ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ROCK COUNTY ZONE, NAD 83 (2007) ADJUSTMENT. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 2007 (NAVD88).

DESIGN DESIGNATION

A.A.D.T. (2013)	=	13,200
A.A.D.T. (2033)	=	17,600
D.H.V. (15.3%)	=	2,693
D.D.	=	59/41
T.	=	17.8%
DESIGN SPEED	=	45 MPH
ESALS	=	3,900,000

CONVENTIONAL SYMBOLS

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

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (995.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY:
STRAND ASSOCIATES®
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715
(608) 251-4843

WISCONSIN
KENNETH M. SWANSON
E-40476
MADISON
PROFESSIONAL ENGINEER
10-28-2015

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/STRAND ASSOCIATES, INC.
Designer	STRAND ASSOCIATES, INC.
Project Manager	JIM SIMPSON, P.E., P.L.S.
Regional Examiner	
Regional Supervisor	KURT JOHNSON, P.E.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/29/2015 (Signature)

E

2

GENERAL NOTES

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

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. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OPERATIONS REQUIRE THEIR REMOVAL OR UNLESS THE ENGINEER APPROVES THEIR REMOVAL.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION AND WIDTH OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

STORM SEWER PIPE ELEVATIONS, LENGTH, AND LOCATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

EXISTING STORM SEWER AND CULVERT PIPE SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR WILL BASE IT'S BID ON THE ACTUAL FIELD SIZES.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

ALL BUILDINGS LOCATED WITHIN THE TEMPORARY LIMITED EASEMENT (TLE) SHALL NOT BE AFFECTED BY CONSTRUCTION ACTIVITIES.

5-INCH HMA PAVEMENT SHALL BE CONSTRUCTED WITH ONE 3-INCH 19.0 MM LOWER LAYER (PG58-28) AND ONE 2-INCH 12.5 MM UPPER LAYER (PG64-28).

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES SHALL BE 3.5-INCH OVER BASE AGGREGATE DENSE 1 1/4-INCH, 6-INCH.

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, OR BIKE LANE.

ABBREVIATIONS

AEW	APRON END WALL
AFG	ABOVE FINISHED GROUND
B.	BARN
B.P.	BREAK POINT
COR.	CORNER
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
C.S.P.A.	CORRUGATED STEEL PIPE ARCH
DIM.	DIMENSION
e.	EXTERNAL DISTANCE
E.O.P.	EDGE OF PAVEMENT
H.P.	HIGH POINT
D.	LANE DISTRIBUTION
L.P.	LOW POINT
MAX.	MAXIMUM
M.D.	MEDIAN DRAIN
MIN.	MINIMUM
NOR.	NORMAL
T.	PERCENT OF TRUCKS
R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
S.	SHED
S.P.B.G.	STEEL PLATE BEAM GUARD
SL. ST.	SLOPED STEEL
T.O.C.	TOP OF CURB

UTILITIES

*ALLIANT ENERGY (ELECTRIC/GAS)
ATTENTION: DEAN COPP
935 WBR TOWNLINE ROAD
BELOIT, WI 53511
(608) 364-6431
E-MAIL: deancopp@alliantenergy.com

*AT&T WISCONSIN (COMMUNICATIONS)
ATTENTION: CAROL ANASON
316 W. WASHINGTON AVENUE
MADISON, WI 53703
(608) 252-2385
E-MAIL: ca2624@att.com

*CHARTER COMMUNICATIONS (COMMUNICATIONS)
ATTENTION: TOM PHILLIPS
2016 CRANSTON ROAD
BELOIT, WI 53511
(608) 209-4821
E-MAIL: Thomas.phillips@charter.com

TOWN OF BELOIT (SANITARY SEWER)
ATTENTION: FRANK MCKEARN
2857 BARTELLS DRIVE
BELOIT, WI 53511
(608) 365-4464
FMcKearn@rhbatterman.com

*WISDOT SIGNALS (TRAFFIC SIGNALS)
ATTENTION: DENA DRAMM
2101 WRIGHT STREET
MADISON WI, 53704
(608) 246-5360
dena.dramm@dot.wi.gov

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

*DENOTES DIGGERS HOTLINE MEMBERS

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVEMENT REHABILITATION PLAN
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING/PAVEMENT MARKING
ADVANCED WARNING SIGNING
TRAFFIC SIGNALS
CONSTRUCTION STAGING TYPICALS
CONSTRUCTION STAGING DETAILS
STAGING PLAN
PEDESTRIAN DETOUR PLAN
DETOUR PLAN
ALIGNMENT DATA SHEET
CONTROL POINT DATA SHEET

WISDOT CONTACT

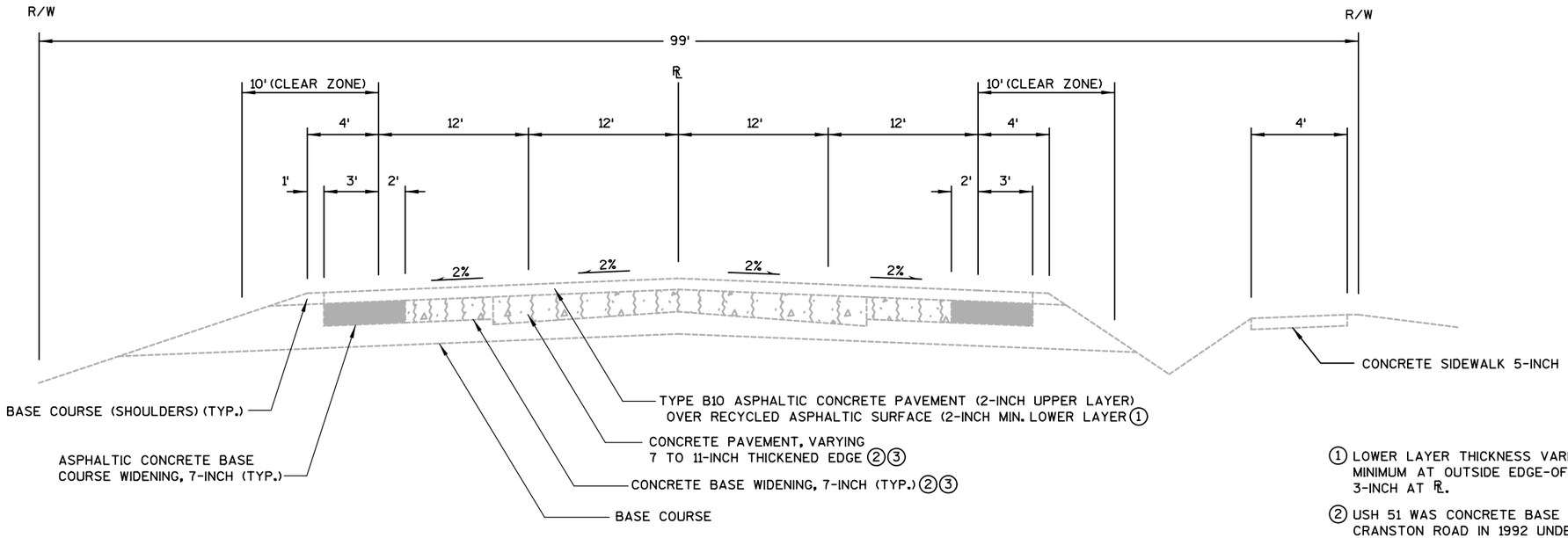
JIM SIMPSON, P.E., P.L.S.
WISDOT SW REGION-MADISON OFFICE
2101 WRIGHT STREET
MADISON, WI 53704
(608) 246-5628
E-MAIL: Jim.Simpson@dot.wi.gov

DESIGN CONTACT

KEN SWANSON, P.E.
STRAND ASSOCIATES, INC.
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608) 251-4843
E-MAIL: ken.swanson@strand.com

DNR LIAISON

LAURA BUB
SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5397
(608) 275-3485
E-MAIL: Laura.Bub@wisconsin.gov



EXISTING TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

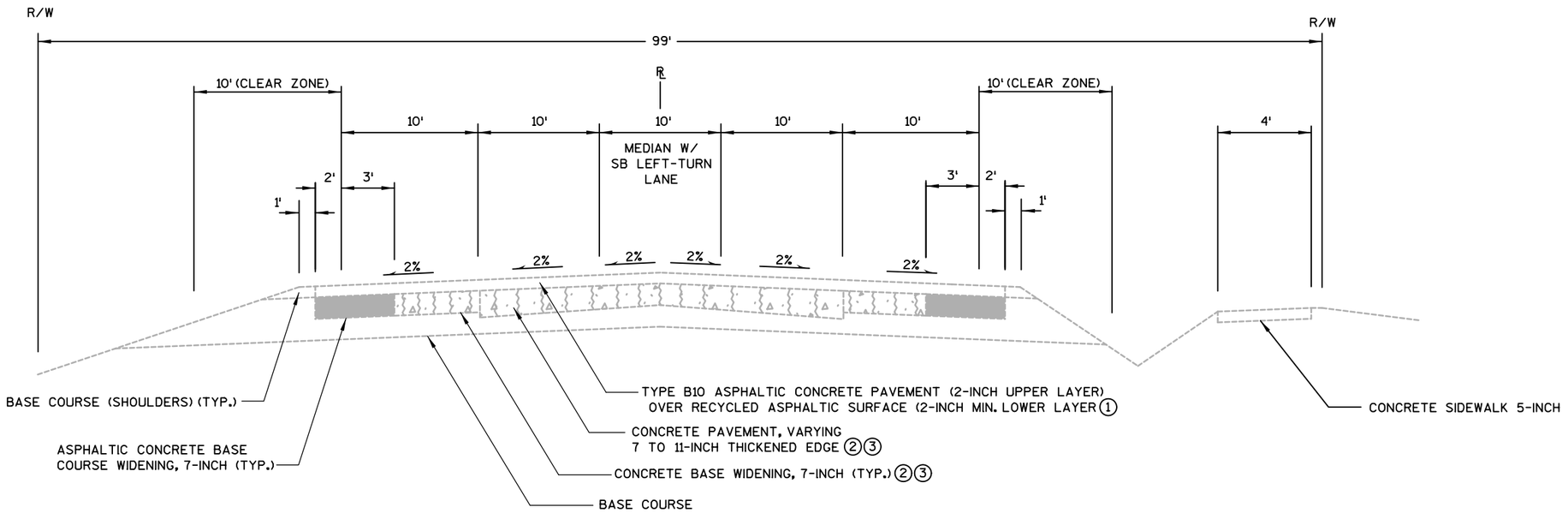
STA. 94+00 - STA. 96+84
STA. 107+75 - STA. 111+00

① LOWER LAYER THICKNESS VARIES FROM 2-INCH MINIMUM AT OUTSIDE EDGE-OF-PAVEMENT TO 3-INCH AT ℄.

② USH 51 WAS CONCRETE BASE PATCHED SOUTH OF CRANSTON ROAD IN 1992 UNDER PROJECT ID 5989-02-56.

③ USH 51 WAS RUBBLELIZED NORTH OF CRANSTON ROAD IN 1992 UNDER PROJECT ID 5989-02-56.

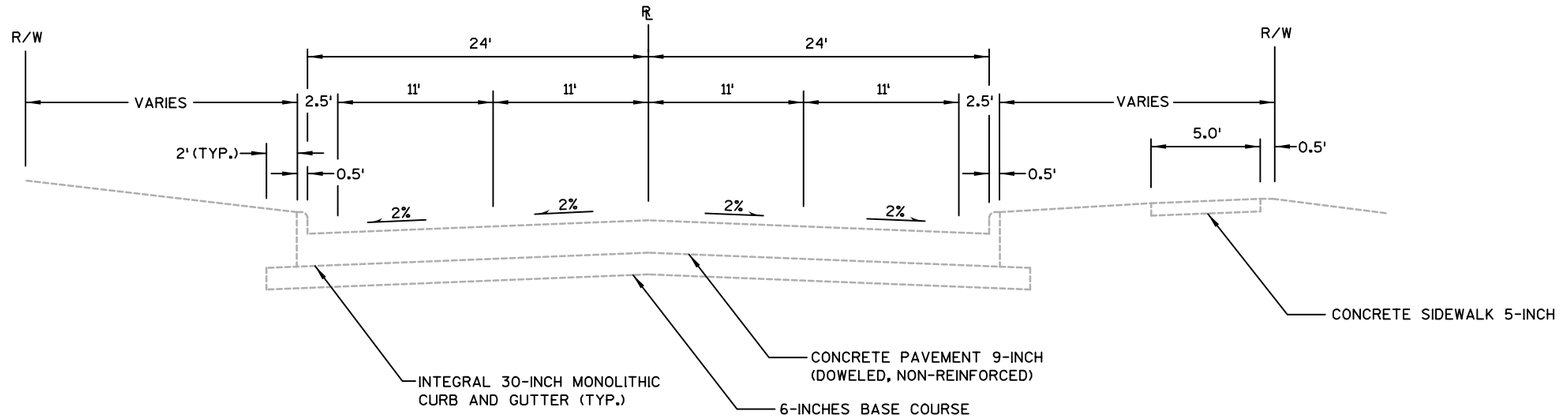
A 1½-INCH LEVELING LAYER OF ASPHALTIC PAVEMENT WAS ADDED TO THE FRACTURED SLAB SECTIONS.



EXISTING TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

STA. 96+84 - STA. 107+75

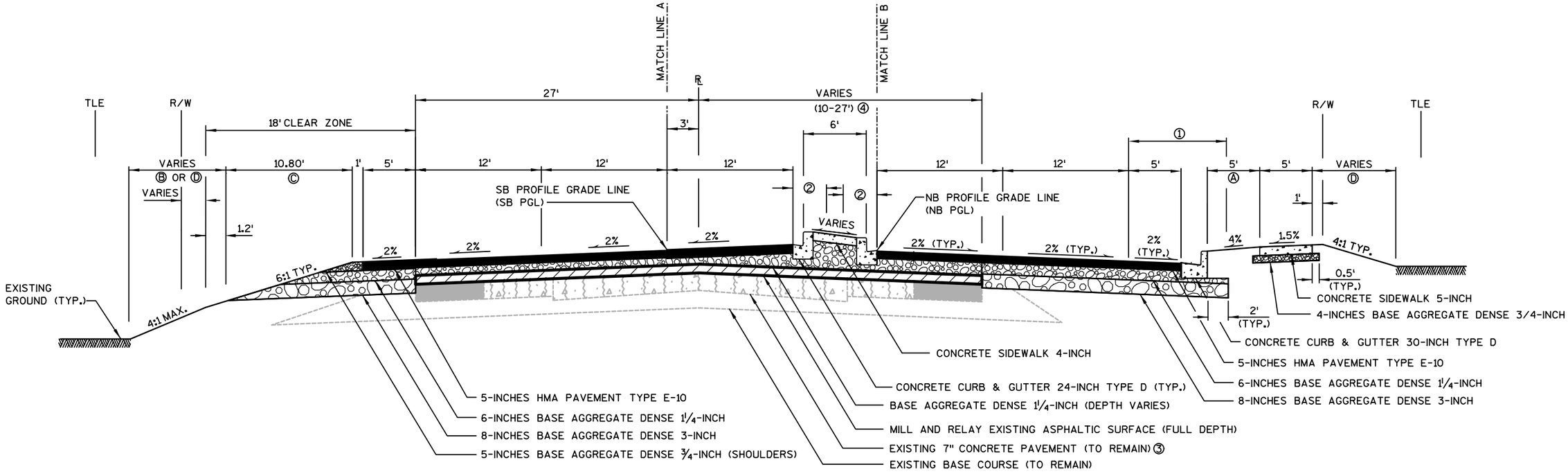
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EXISTING TYPICAL SECTIONS	SHEET 3	E



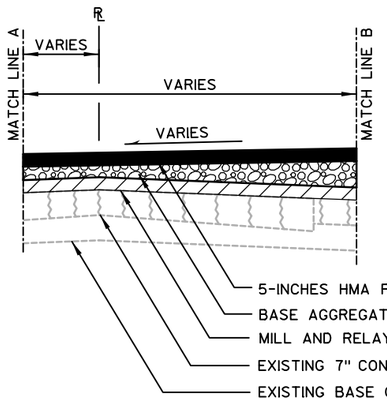
EXISTING TYPICAL SECTION - CRANSTON ROAD

STA. 100+46 CR - STA. 101+93 CR

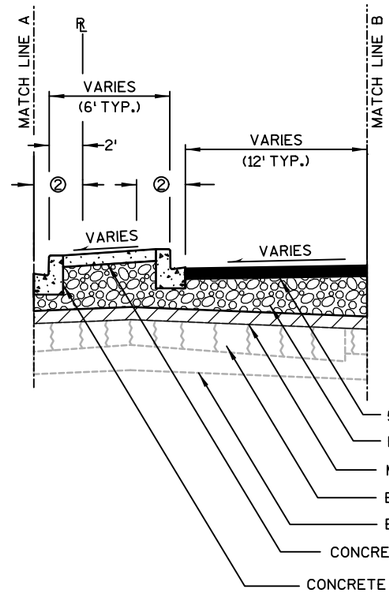
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EXISTING TYPICAL SECTIONS	SHEET 4	E



STA. 94+00 - STA. 105+00
STA. 109+50 - STA. 111+00



STA. 94+00 - STA. 98+02
STA. 99+50 - STA. 100+46
STA. 103+24 - STA. 105+00
STA. 109+50 - STA. 111+00



STA. 98+02 - STA. 99+50

Ⓐ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT URBAN CLASS I TYPE A

Ⓑ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND MULCHING.

Ⓒ SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30.

Ⓓ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT CLASS I TYPE B

① 9' LATERAL CLEARANCE DES./MIN.

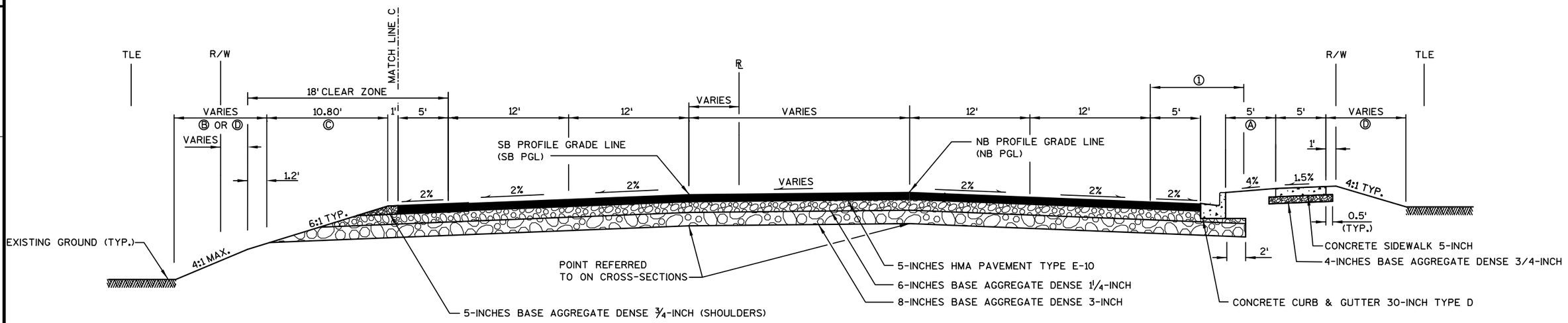
② 4' LATERAL CLEARANCE DES./MIN.

③ SEE EXISTING TYPICAL SECTION - USH 51 FOR EXISTING BASE PATCHING AND RUBBLIZING LIMITS.

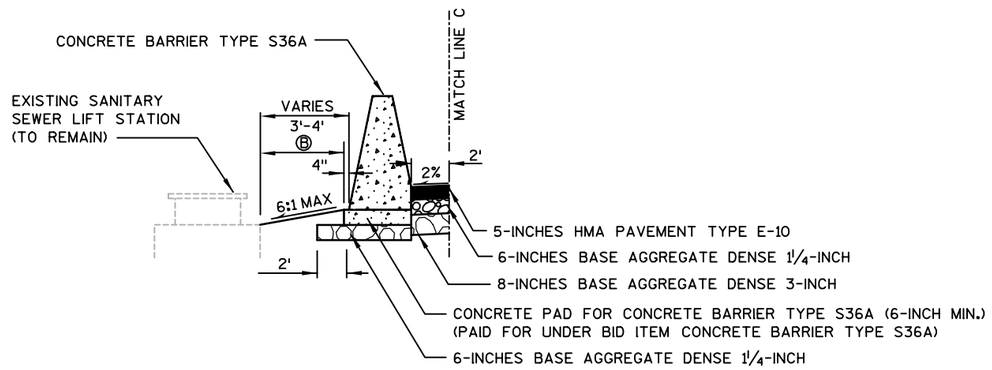
④ SEE PAVEMENT REHABILITATION PLAN AND CROSS SECTIONS FOR ADDITIONAL INFORMATION

TYPICAL FINISHED TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	FINISHED TYPICAL SECTIONS	SHEET 5	E



STA. 105+00 - STA. 109+50



STA. 107+30 - STA. 108+55

FINISHED TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

① 9' LATERAL CLEARANCE DES./MIN.

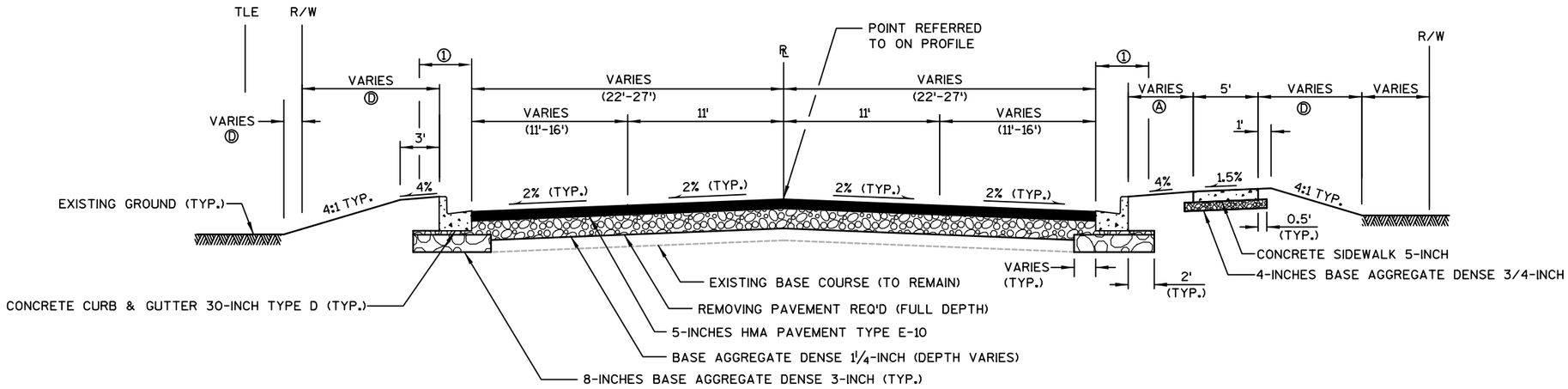
Ⓐ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT URBAN CLASS I TYPE A

Ⓑ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND MULCHING.

Ⓒ SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30.

Ⓓ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT CLASS I TYPE B

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	FINISHED TYPICAL SECTIONS	SHEET 6	E



FINISHED TYPICAL SECTION - CRANSTON ROAD

STA. 100+46 CR - STA. 101+93 CR

① 4' LATERAL CLEARANCE DES./MIN.

Ⓐ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT URBAN CLASS I TYPE A

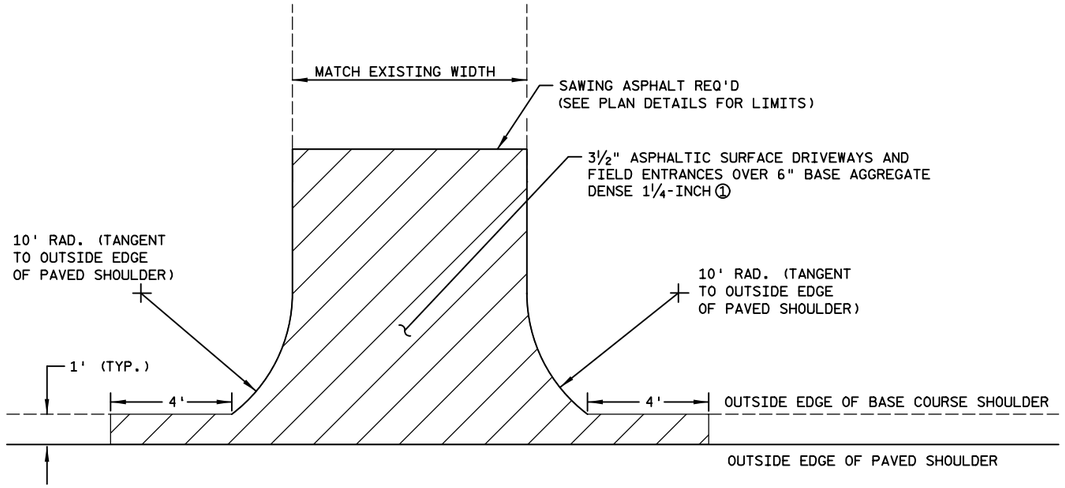
Ⓑ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND MULCHING.

Ⓒ SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30.

Ⓓ TOPSOIL; SEEDING TEMPORARY; FERTILIZER TYPE B; SEEDING MIXTURE NO. 30; AND EROSION MAT CLASS I TYPE B

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	FINISHED TYPICAL SECTIONS	SHEET 7	E

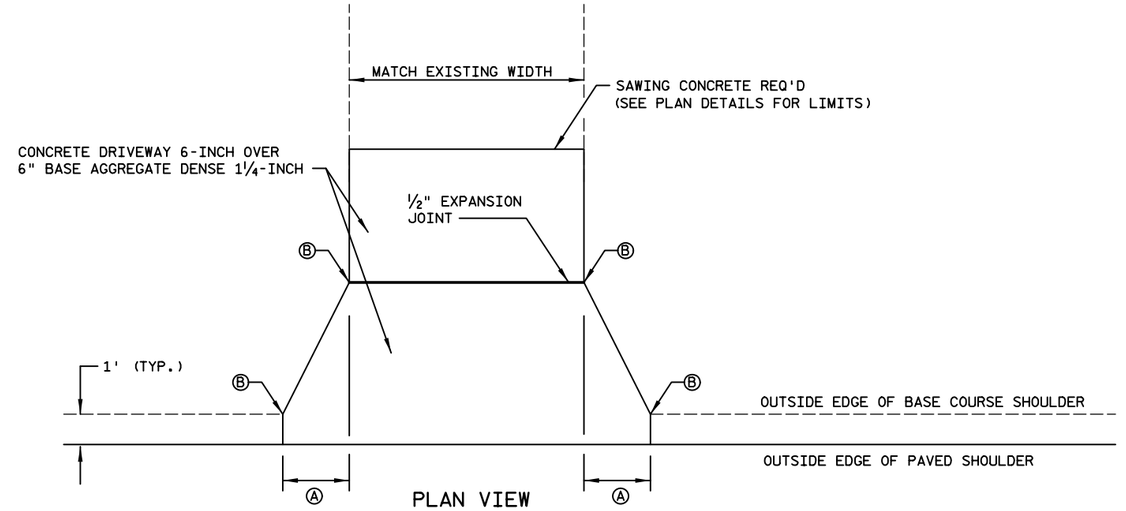
① 4" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 8" BASE AGGREGATE DENSE 1¼-INCH (STA. 104+59 LT)



PLAN VIEW

RURAL ASPAHLT DRIVEWAY ENTRANCE DETAIL WITHOUT SIDEWALK (STATION LT)

STA. 94+57 LT	STA. 100+00 LT
STA. 95+65 LT	STA. 102+00 LT
STA. 96+36 LT	STA. 104+59 LT①
STA. 97+00 LT	STA. 106+00 LT
STA. 97+34 LT	STA. 106+91 LT
STA. 97+86 LT	STA. 110+32 LT
STA. 99+36 LT	



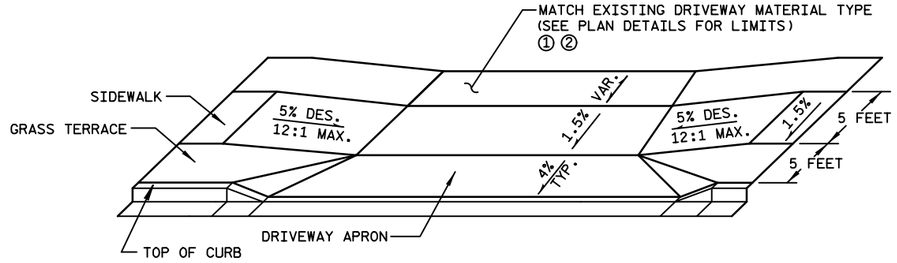
PLAN VIEW

Ⓐ STA. 103+79 LT=4'; STA. 109+00 LT=5.5'

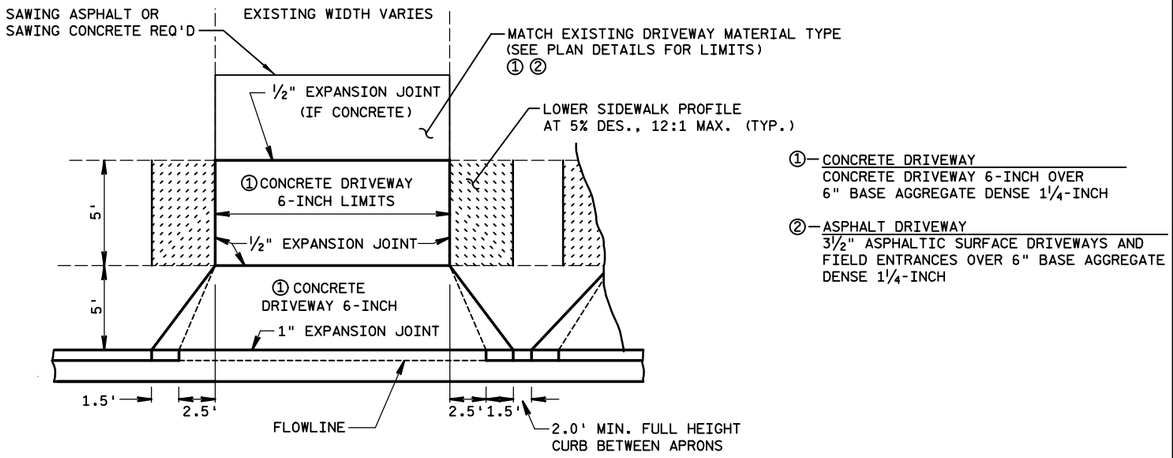
Ⓑ REFER TO PLAN DETAILS FOR LAYOUT POINT INFORMATION

RURAL CONCRETE DRIVEWAY ENTRANCE DETAIL WITHOUT SIDEWALK (STATION LT)

STA. 103+79 LT
STA. 109+00 LT



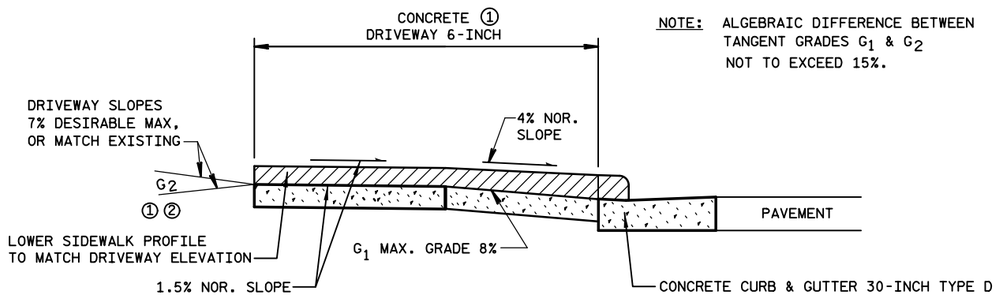
LOWERING SIDEWALK AT DRIVEWAY APRONS



① CONCRETE DRIVEWAY
CONCRETE DRIVEWAY 6-INCH OVER
6" BASE AGGREGATE DENSE 1¼-INCH

② ASPHALT DRIVEWAY
3½" ASPHALTIC SURFACE DRIVEWAYS AND
FIELD ENTRANCES OVER 6" BASE AGGREGATE
DENSE 1¼-INCH

PLAN VIEW

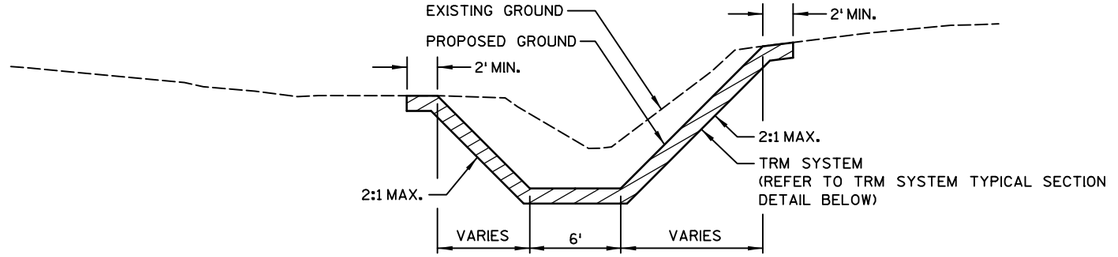


NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G_1 & G_2 NOT TO EXCEED 15%.

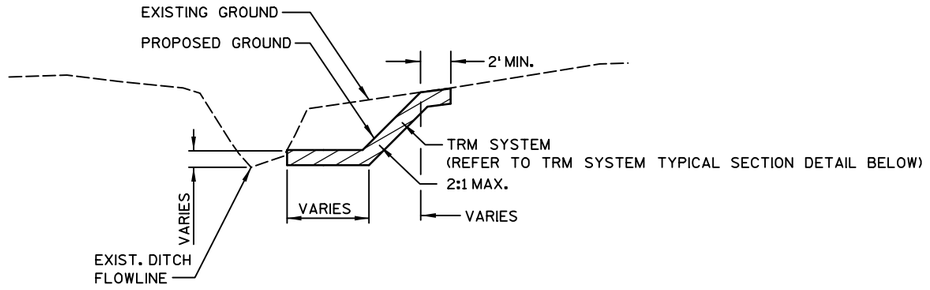
PROFILE VIEW

URBAN DRIVEWAY ENTRANCE DETAIL WITH TERRACE/SIDEWALK (STATION RT)

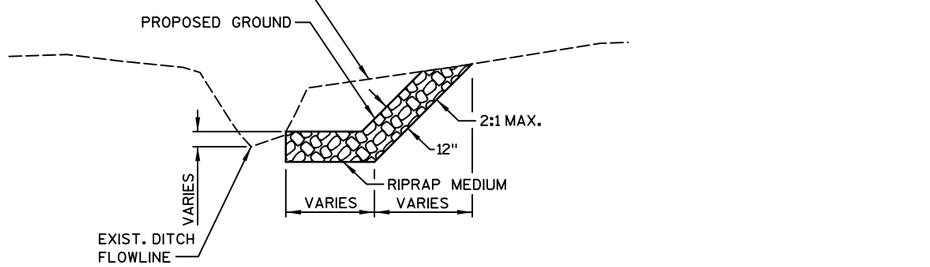
STA. 93+15 RT	STA. 97+22 RT	STA. 107+37 RT
STA. 93+38 RT	STA. 97+89 RT	STA. 108+68 RT
STA. 94+37 RT	STA. 98+50 RT	STA. 109+85 RT
STA. 95+20 RT	STA. 103+00 RT	STA. 110+67 RT
STA. 95+91 RT		



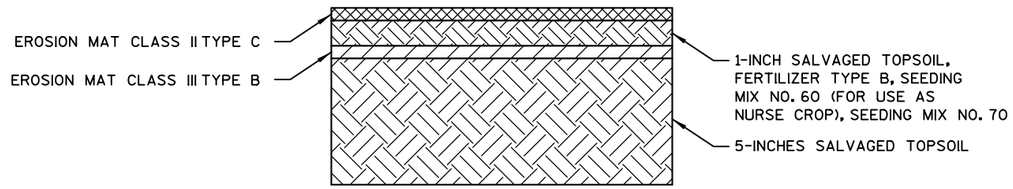
DRAINAGE DITCH TYPICAL SECTION - STA. 10+46 D TO STA. 13+50 D



DRAINAGE DITCH TYPICAL SECTION - STA. 13+50 D TO STA. 13+85 D

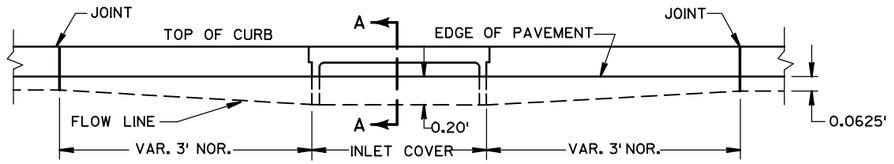


DRAINAGE DITCH TYPICAL SECTION - STA. 13+85 D TO ROCK RIVER

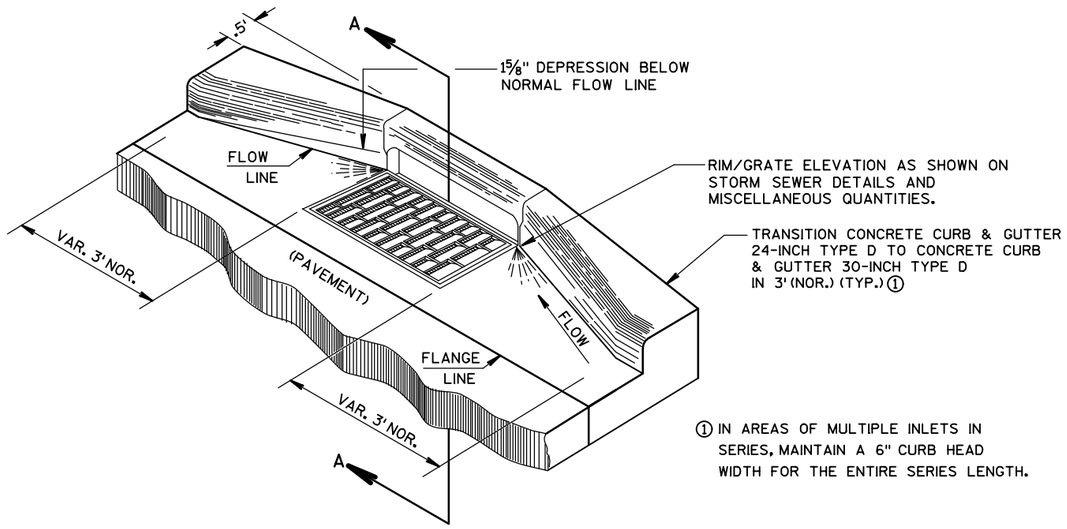


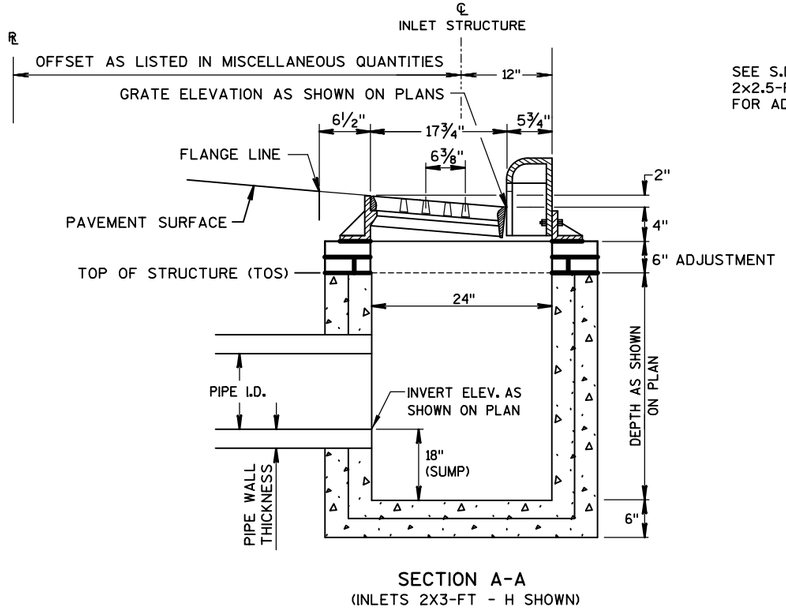
TRM SYSTEM TYPICAL SECTION

TURF REINFORCEMENT MAT (TRM) SYSTEM - D LINE



ELEVATION

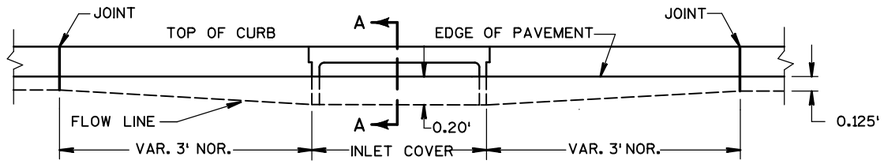




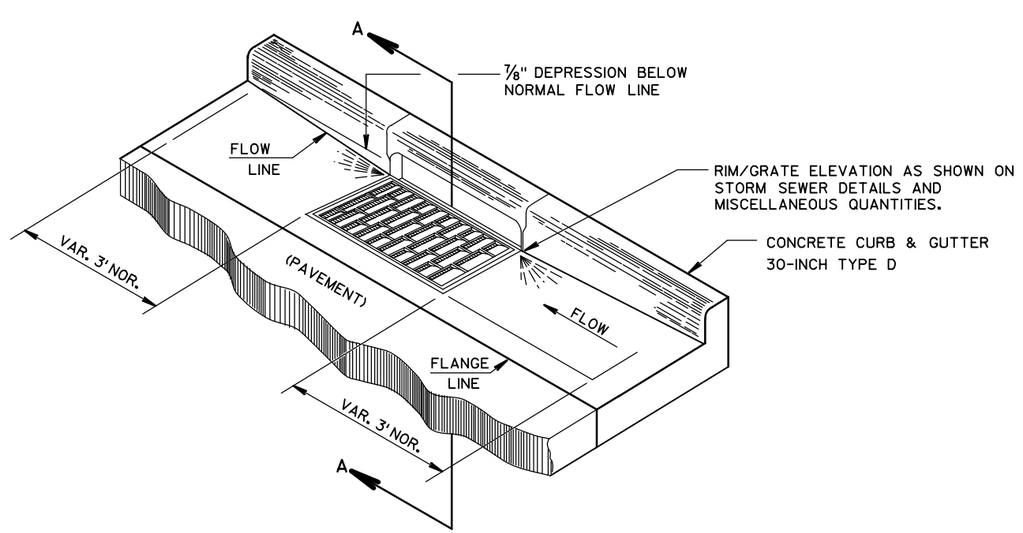
SEE S.D.D. "INLETS 2x2-FT, 2x2.5-FT, 2x3-FT, & 2.5x3-FT" FOR ADDITIONAL INFORMATION.

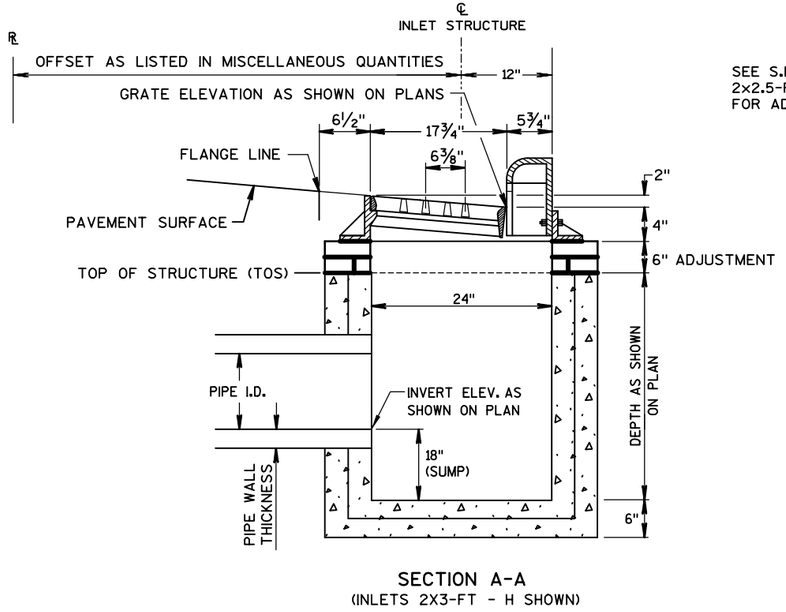
SECTION A-A
(INLETS 2X3-FT - H SHOWN)

DETAIL OF CONCRETE CURB & GUTTER 24-INCH TYPE D AT INLETS - MAINLINE (MEDIAN CURB)



ELEVATION

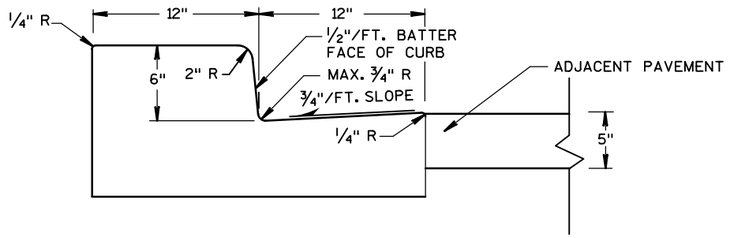




SEE S.D.D. "INLETS 2x2-FT, 2x2.5-FT, 2x3-FT, & 2.5x3-FT" FOR ADDITIONAL INFORMATION.

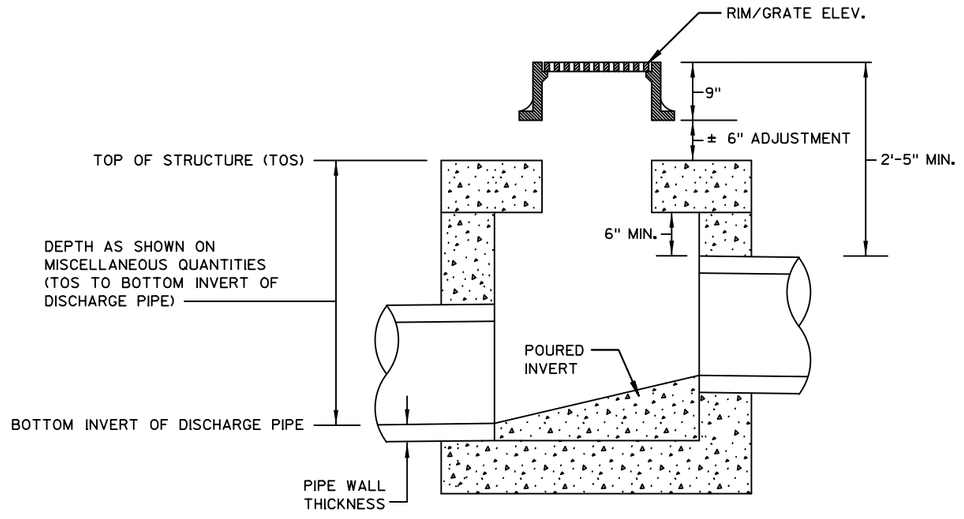
SECTION A-A
(INLETS 2X3-FT - H SHOWN)

DETAIL OF CONCRETE CURB & GUTTER 30-INCH TYPE D AT INLETS - MAINLINE RT (OUTSIDE CURB)



NOTE: SEE S.D.D. "CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES" FOR ADDITIONAL INFORMATION.

CONCRETE CURB & GUTTER 24-INCH TYPE D - MAINLINE MEDIAN



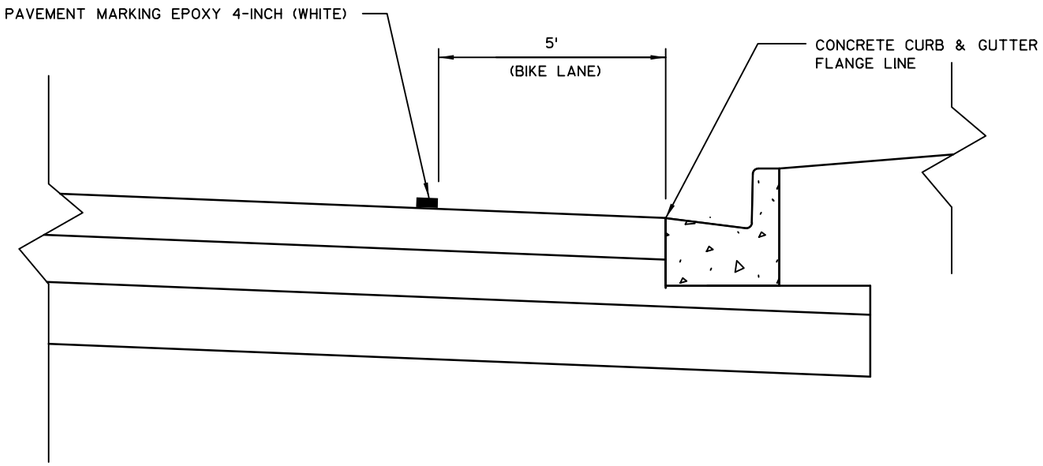
(MANHOLES 6-FT DIAMETER SHOWN)

DETAIL FOR COMPUTING MANHOLE ELEVATIONS

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 = 6.85 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.78 ACRES



NOTE: SEE PAVEMENT MARKING SHEETS FOR ADDITIONAL INFORMATION.
SEE S.D.D "PAVEMENT MARKING FOR BIKE LANES" FOR ADDITIONAL INFORMATION.

BIKE LANE PAVEMENT MARKING LOCATION

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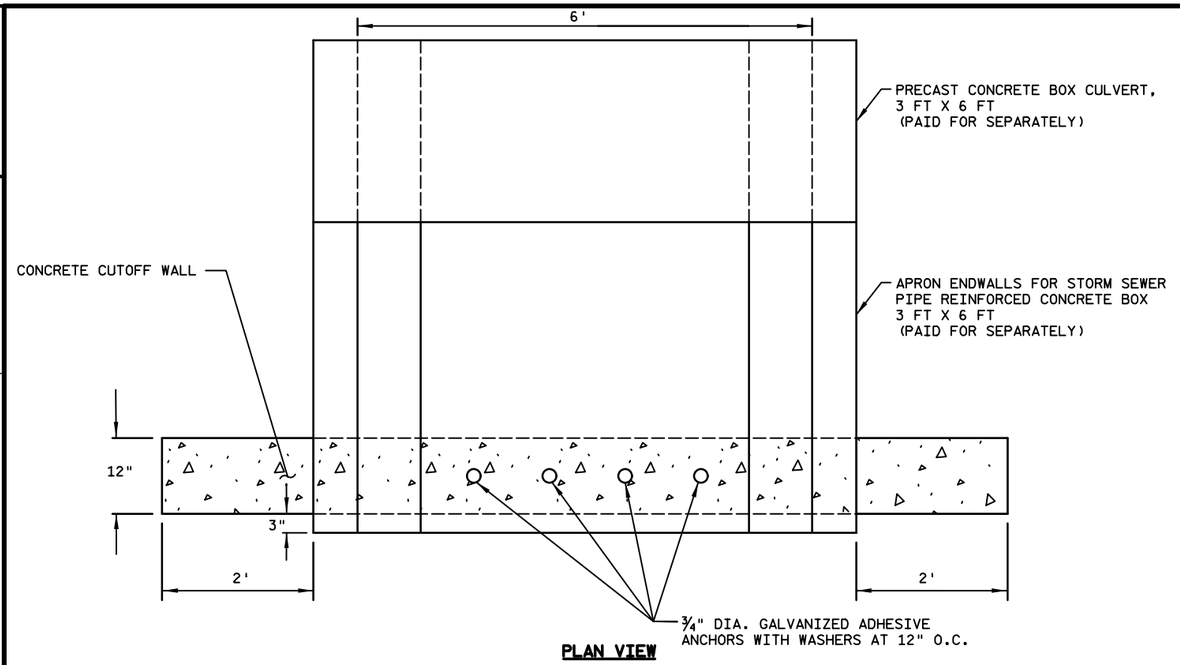
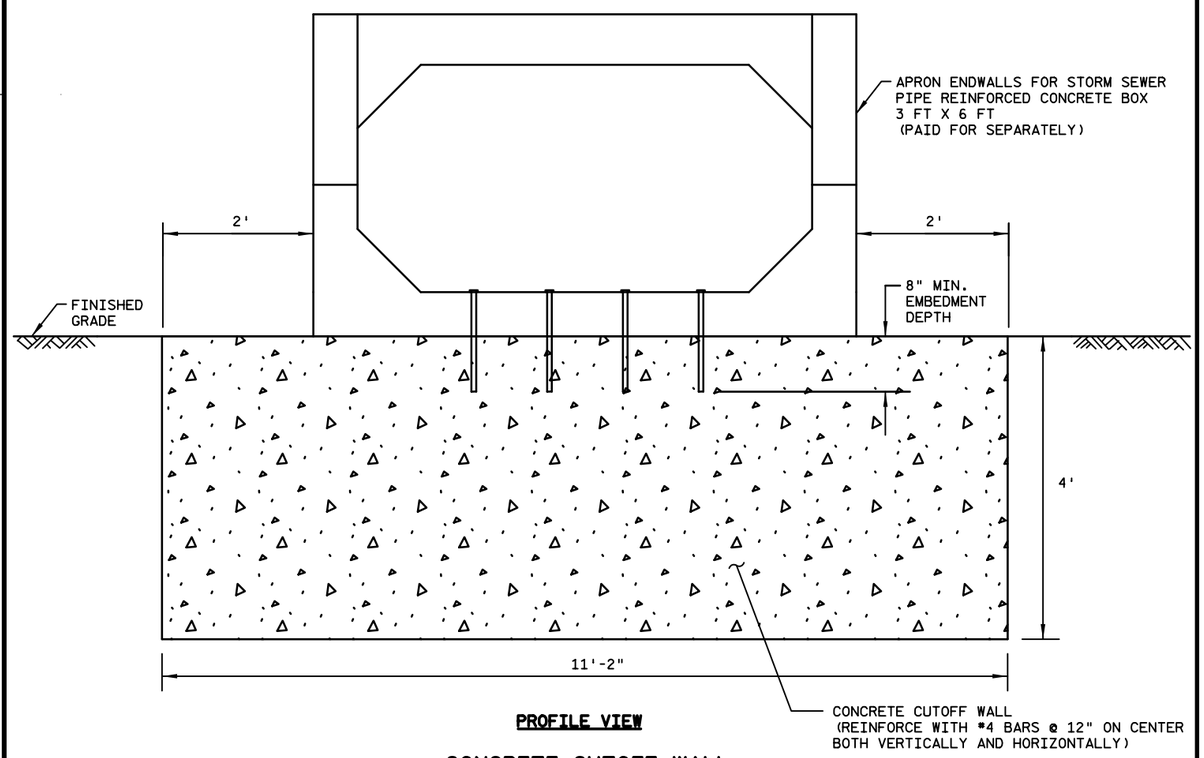
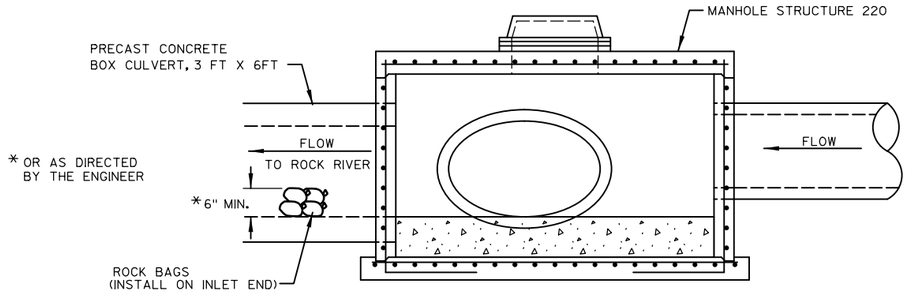


PLAN VIEW



PROFILE VIEW

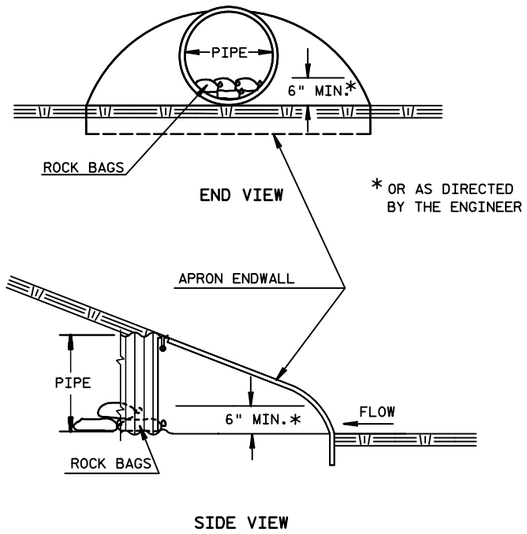
CONCRETE CUTOFF WALL



SIDE VIEW - FACING NORTH

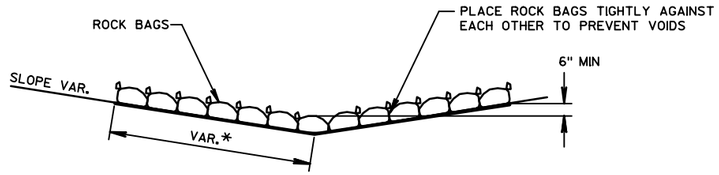
ROCK BAGS DETAIL AT STORM SEWER PIPE LOCATIONS

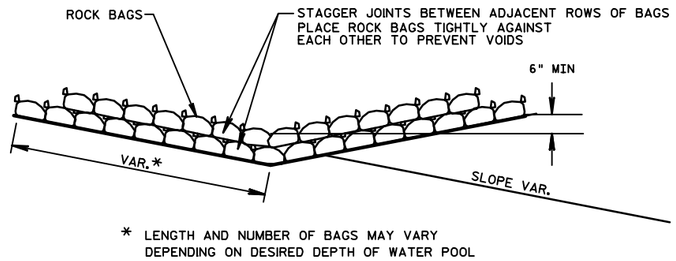
MANHOLE STRUCTURE 220 - STA. 106+17, 23.6' RT



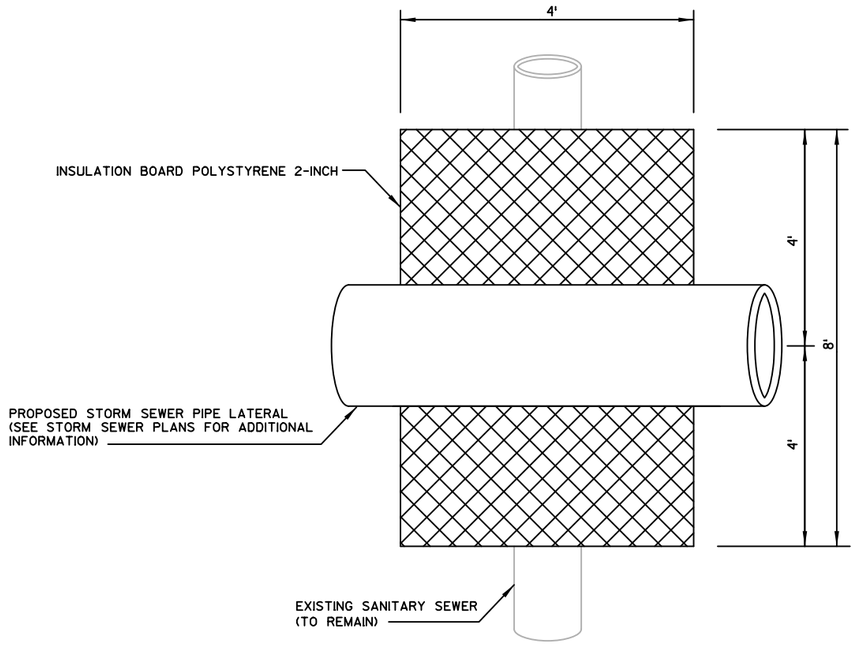
ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
18"	2
24"	3
30"	5
48"	10
54"	10
60"	13
72"	16

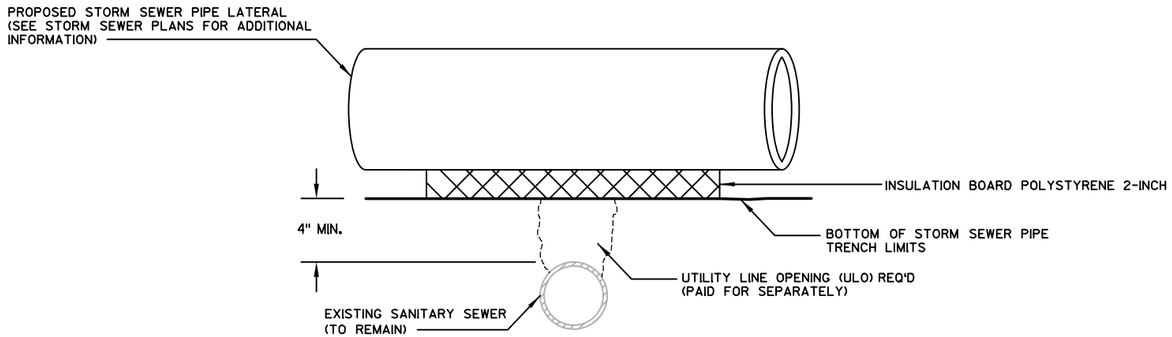
CULVERT PIPE CHECKS





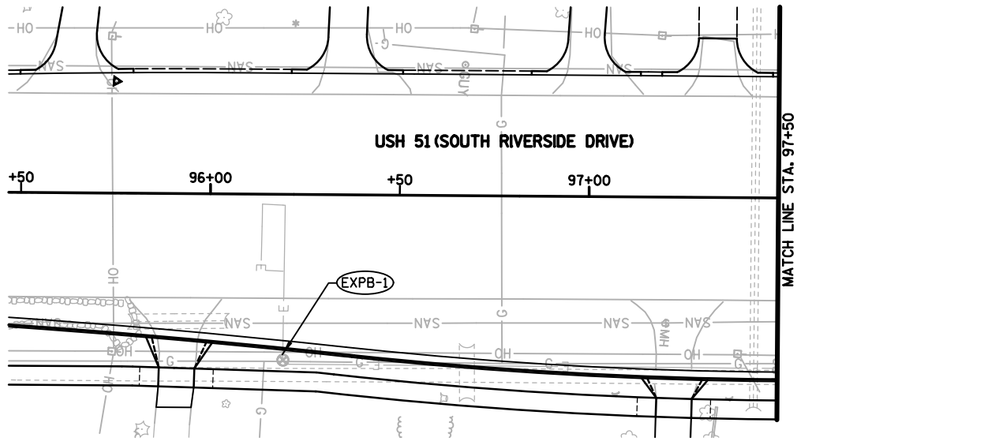
DITCH CHECK (ROCK BAGS)





INSULATION BOARD POLYSTYRENE DETAIL (STORM SEWER CROSSING OF EXISTING SANITARY SEWER TO REMAIN)

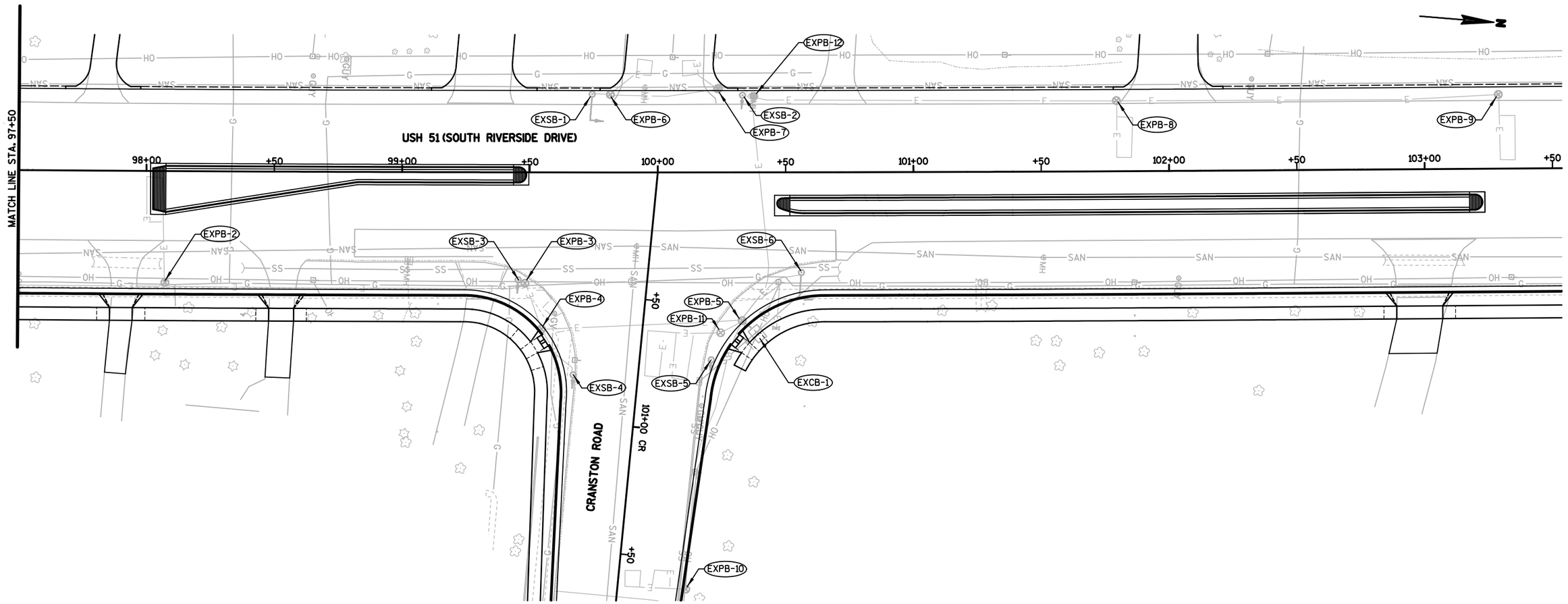
NOTE: REFER TO STORM SEWER PLANS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION

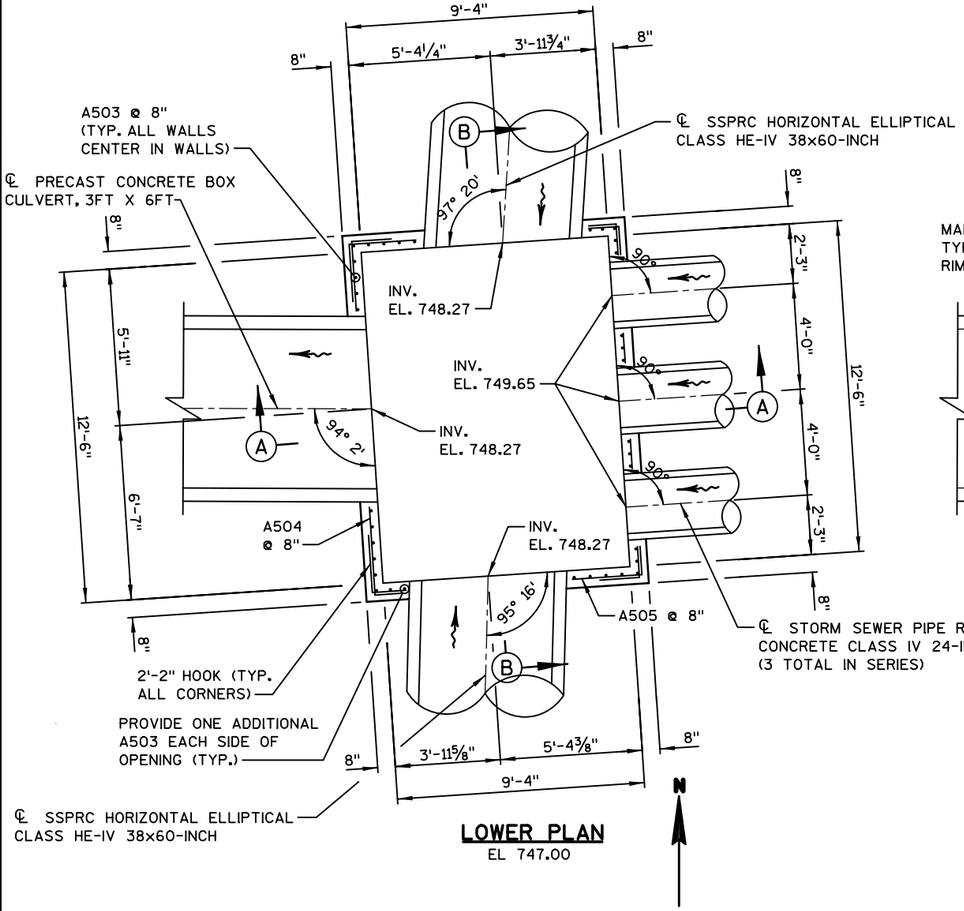


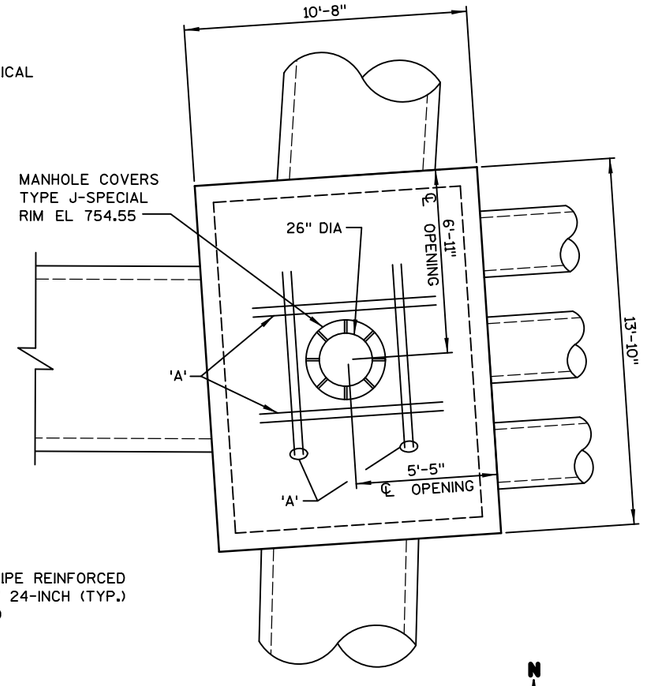
POINT NO.	STATION	OFFSET
EXCB-1	100+39	63' RT
EXPB-1	96+19	44' RT
EXPB-2	98+07	44' RT
EXPB-3	99+48	43' RT
EXPB-4	99+55	61' RT
EXPB-5	100+33	58' RT
EXPB-6	99+81	30' LT
EXPB-7	100+24	33' LT
EXPB-8	101+80	28' LT
EXPB-9	103+29	29' LT
EXPB-10	101+61 CR	27' LT
EXPB-11	100+25	63' RT
EXPB-12	100+38	30' LT
EXSB-1	99+74	31' LT
EXSB-2	101+33	30' LT
EXSB-3	99+45	42' RT
EXSB-4	100+82 CR	25' RT
EXSB-5	100+71 CR	28' LT
EXSB-6	100+56	39' RT

NOTE:

EXCB-# = EXISTING CABINET BASE TO BE REMOVED (PAID FOR AS REMOVING CONCRETE BASES)
EXPB-# = EXISTING PULL BOX TO BE REMOVED (PAID FOR AS REMOVING PULL BOXES)
EXSB-# = EXISTING SIGNAL BASE TO BE REMOVED (PAID FOR AS REMOVING CONCRETE BASES)

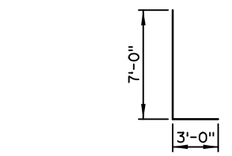




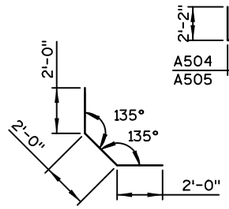


BILL OF BARS (FOR INFORMATION ONLY)

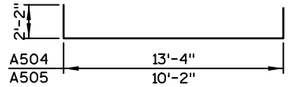
MARK	NO.	LENGTH	BENT	COAT	LOCATION
A501	18	14'-6"			BASE SLAB - TRANSV.
A502	23	11'-4"			BASE SLAB - LONGIT.
A503	82	9'-10"	X		WALLS - VERT.
A504	22	17'-5"	X		WALLS - HORIZ.
A505	22	14'-3"	X		WALLS - HORIZ.
A506	4	5'-11"	X		WALLS - DIAG. - ADD'L @ W WALL
A507	8	9'-0"	X		WALLS - DIAG. - ADD'L @ N-S WALLS
A508	21	10'-4"			TOP SLAB - TRANS.
A509	17	13'-6"			TOP SLAB - LONGIT.
A510	8	5'-6"			TOP SLAB - ADD'L TRANSV.-LONGIT. @ OPN'G
A511	3	11'-1"	X		WALLS - ADD'L @ E WALL



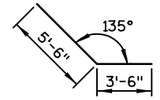
A503



A506



A504, A505



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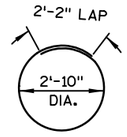

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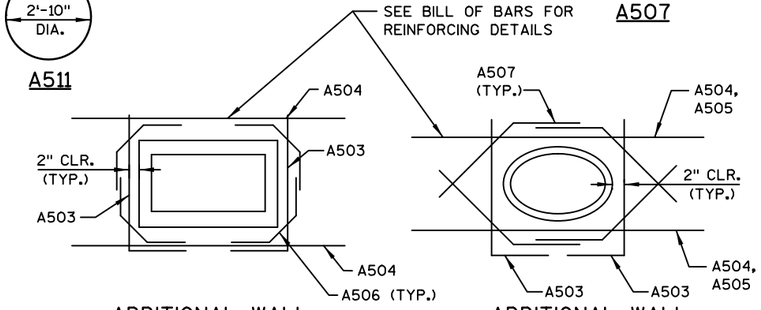
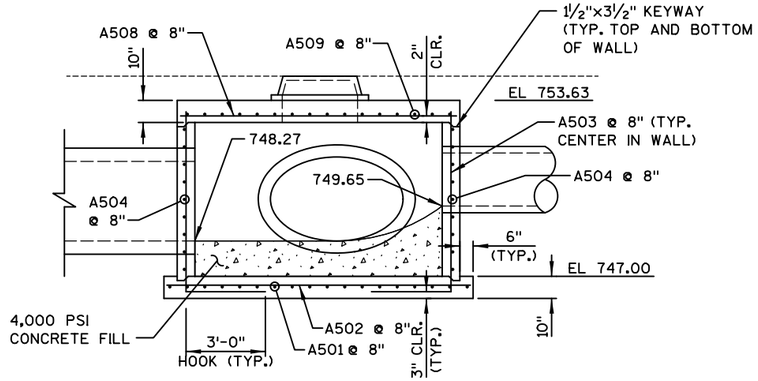
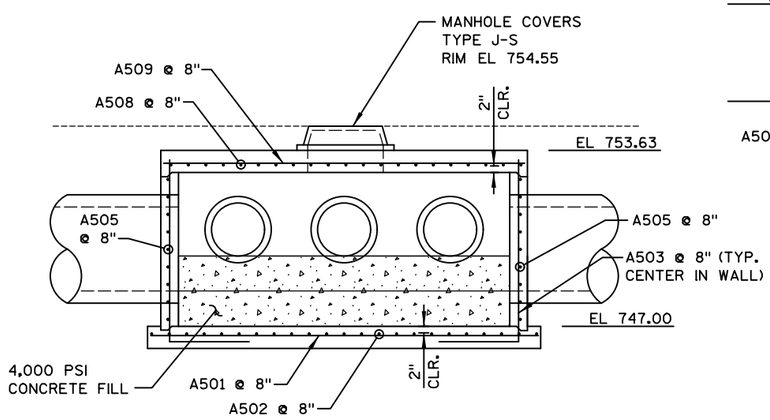


ADDITIONAL WALL REINFORCEMENT AT RECTANGULAR BOX OPENING

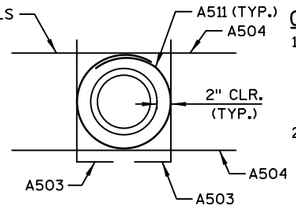
ADDITIONAL WALL REINFORCEMENT AT TYPICAL ELLIPTICAL PIPE OPENING



SECTION A-A



SECTION B-B



ADDITIONAL WALL REINFORCING AT TYPICAL 24" PIPE OPENING

MANHOLE STRUCTURE 220

STA. 106+17, 23.6' RT

GENERAL NOTES

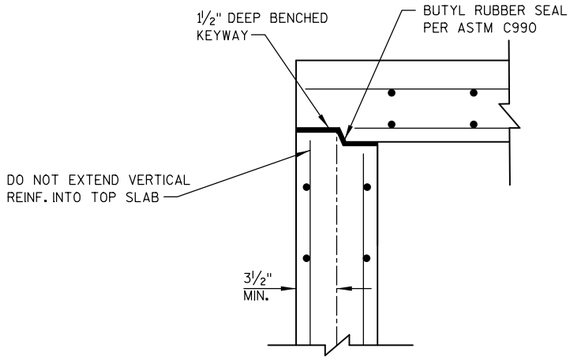
1. A PRECAST CONCRETE VAULT CONFORMING TO ASTM C913-08 MAY BE PROVIDED IN LIEU OF THE CAST-IN-PLACE VAULT DETAILED AT CONTRACTOR'S OPTION AND SUBJECT TO ENGINEER'S APPROVAL.
2. CONCRETE TOP SLAB MAY BE CAST ON THE GROUND AND PLACED ON TOP OF WALLS AT CONTRACTOR'S OPTION AND SUBJECT TO ENGINEER'S APPROVAL. FOR THAT OPTION, THE TOP SHALL BE SET ON A BED OF MORTAR AND WALL REINFORCING SHALL NOT EXTEND ABOVE THE TOP OF WALL BUT SHALL BE PROVIDED WITH KEYWAY AS SHOWN.
3. AT CONTRACTOR'S OPTION, TOP SLAB MAY BE FORMED USING 3.0 C18 (3" DEEP, 18 GAUGE) GALVANIZED STEEL STAY-IN-PLACE FORM DECK CONFORMING TO ASTM A653 GRADE A AND ASTM A924 G90. FORM DECK SHALL BEAR A MINIMUM OF 4" ON WALLS.
4. THE FIRST ONE OR TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
5. BAR QUANTITIES ARE FOR INFORMATION ONLY.
6. FIELD CUT WALL REINFORCING AROUND PIPE OPENINGS AS REQUIRED. PROVIDE 2" MIN. CLEARANCE AT OPENING.
7. FIELD CUT TOP SLAB REINFORCING AROUND MANHOLE COVER OPENINGS AS REQUIRED. PROVIDE 2" MIN. CLEARANCE AT OPENING.

DESIGN DATA:

CONCRETE MASONRY: f'c = 4000 PSI
STEEL REINFORCING: Fy = 60 KSI

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\021008_cd.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



ALTERNATE CONSTRUCTION JOINT

GENERAL NOTES

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

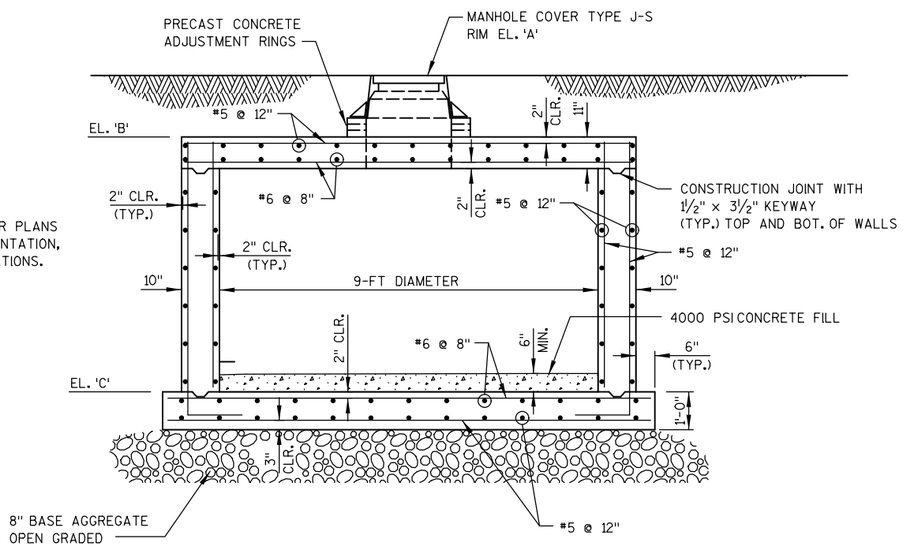
A PRECAST CONCRETE STRUCTURE MAY BE PROVIDED IN LIEU OF CAST-IN-PLACE CONCRETE STRUCTURE. DETAILS OF PRECAST STRUCTURE SHALL COMPLY WITH STANDARD DETAIL DRAWING "MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER" EXCEPT THAT A MINIMUM 4" OVERHANG IS REQUIRED FOR ALL STRUCTURES WITH INTEGRAL OR MONOLITHIC BASES. PRECAST CONCRETE STRUCTURE WALL AND SLAB THICKNESSES AND REINFORCING SHALL MATCH THAT FOR CAST-IN-PLACE STRUCTURE, AS DETAILED ON THIS DRAWING. ALTERNATIVELY, CONTRACTOR MAY PROVIDE AN ALTERNATE DESIGN, COMPLETE WITH DESIGN CALCULATIONS PREPARED BY AND BEARING THE SEAL OF A STATE OF WISCONSIN LICENSED PROFESSIONAL ENGINEER. ALTERNATE DESIGN WILL BE SUBJECT TO APPROVAL BY ENGINEER.

TOP SLAB MAY BE CAST IN ANOTHER LOCATION ON-SITE OR OFF-SITE ON TOP OF A FORMED SURFACE APPROVED BY ENGINEER, AND THEN LIFTED INTO PLACE ON THE STRUCTURE. USE ALTERNATE CONSTRUCTION JOINT DETAIL FOR THIS OPTION.

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

REFER TO STORM SEWER PLANS FOR MANHOLE PIPE ORIENTATION, SIZE, AND INVERT ELEVATIONS.

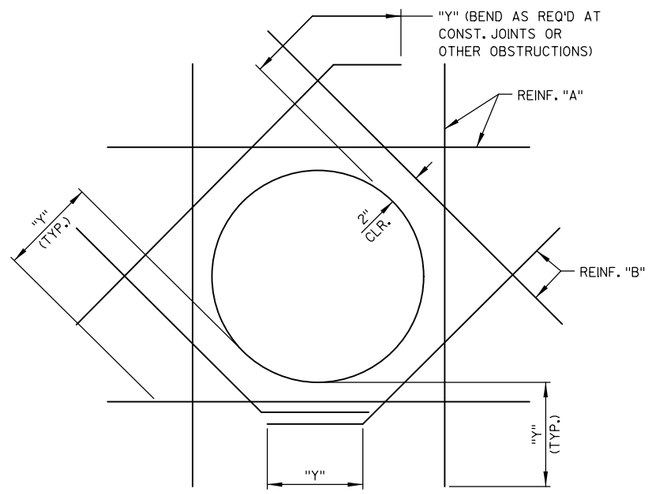
REFER TO STANDARD DETAIL DRAWING "MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER" FOR ADDITIONAL INFORMATION.



NOTE: REFER TO STORM SEWER PLANS FOR MANHOLE PIPE ORIENTATION, SIZE, AND INVERT ELEVATIONS.

MANHOLES 9-FT DIAMETER - STRUCTURE MH-120 & MH-250

MH	EL. 'A'	EL. 'B'	EL. 'C'
MH-120	757.75	756.50	750.83
MH-250	756.62	755.37	749.70



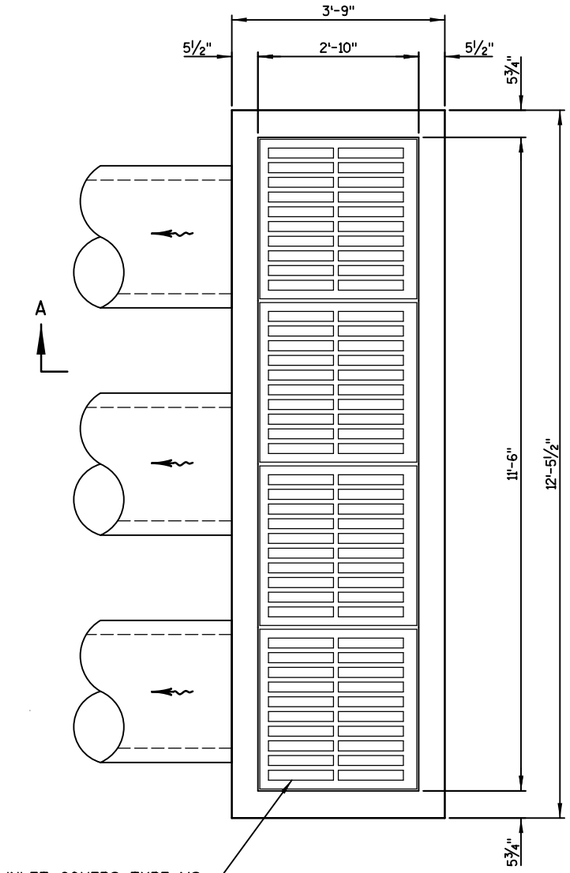
ADDITIONAL REINFORCEMENT AT CONCRETE OPENINGS

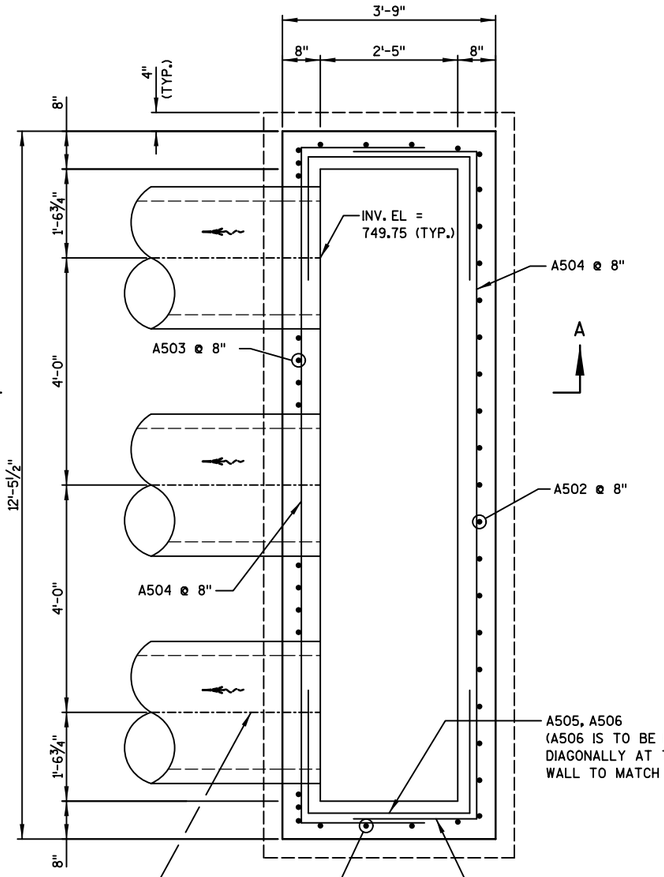
NOTES (SLABS):

1. MOVE REINF. MAX. OF 2" TO CLEAR OPENING TO AVOID CUTTING REINF. CUT REMAINING BARS THAT PASS THROUGH OPENING.
2. WHERE REINF. MUST BE CUT, ADD REINF. "A" AT LEAST EQUAL IN AREA TO THAT WHICH WAS CUT AND EXTEND BEYOND OPENING DISTANCE "Y".
3. DIAGONAL BARS "B" TO BE PLACED:
   A. AT EACH FACE OF WALL WHERE TWO LAYERS OF REINF. ARE PROVIDED.
   B. AT TOP & BOTTOM OF ALL SLABS.
4. UNLESS OTHERWISE NOTED, SIZE OF REINF. "B" SHALL BE THE SIZE OF THE LARGEST REINF. BAR CUT.
5. Y = CLASS B LAP { #5 BAR = 1'-10" / #6 BAR = 2'-3" }

NOTES (WALLS):

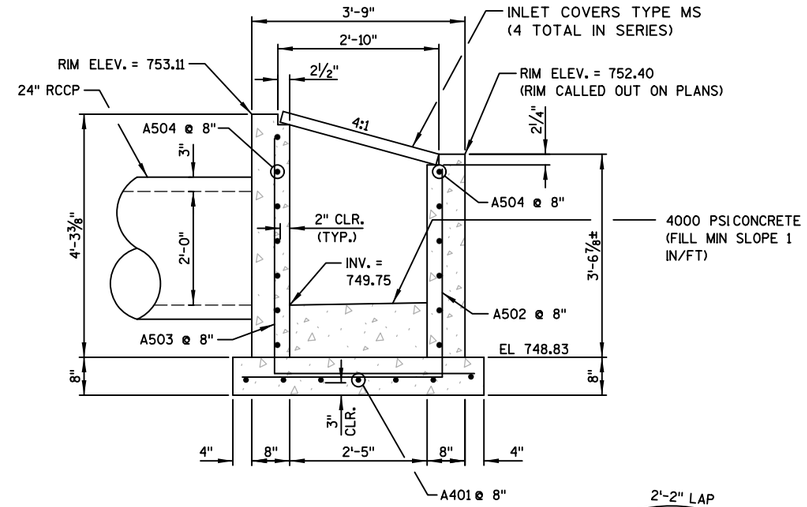
1. MOVE REINF. MAX. OF 2" TO CLEAR OPENING TO AVOID CUTTING REINF. CUT REMAINING BARS THAT PASS THROUGH OPENING.
2. REINF. "A" SHALL BE ONE BAR OF SAME SIZE AS CUT BARS. EXTEND REINF. "A" BEYOND OPENING DISTANCE "Y".
3. ADDITIONAL DIAGONAL REINF. BARS "B" ARE NOT REQUIRED.



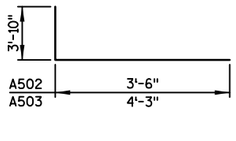


BILL OF BARS

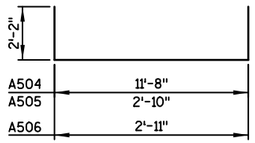
MARK	NO.	LENGTH	BENT	COAT	LOCATION
A401	7	12'-9"			BASE SLAB - LONGIT.
A502	19	7'-3"	X		WALLS - VERT.
A503	31	8'-0"	X		WALLS - VERT.
A504	15	15'-1"	X		WALLS - HORIZ.
A505	10	6'-3"	X		WALLS - HORIZ.
A506	2	6'-4"	X		WALLS - HORIZ.
A507	3	11'-1"	X		WALLS - ADD'L REINFORCING



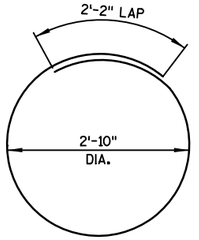
SECTION A-A



A502, A503



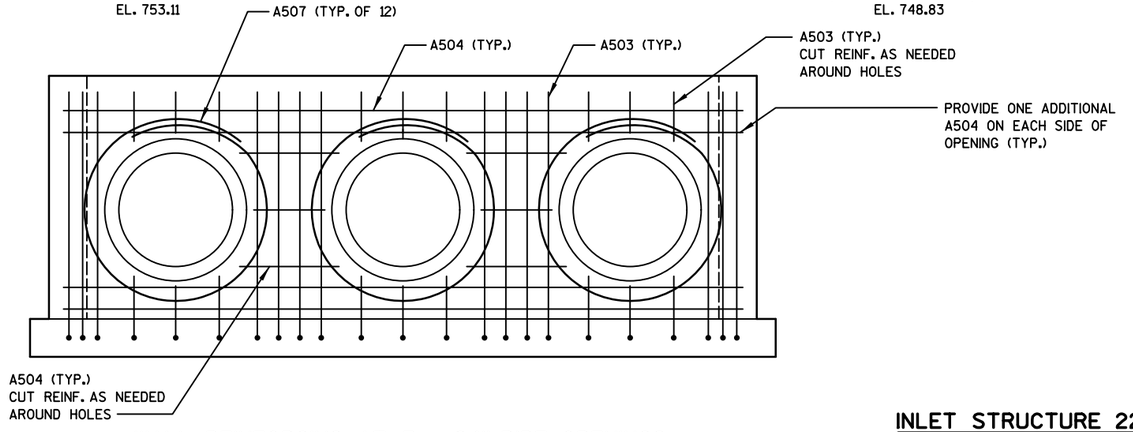
A504, A505, A506



A507

TOP PLAN
EL. 753.11

LOWER PLAN
EL. 748.83



WALL REINFORCING AT 3 - 24" PIPE OPENINGS

GENERAL NOTES:

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWING "INLETS MEDIAN 1 & 2 GRATE".

GENERAL NOTES ON STANDARD DETAIL DRAWING "INLETS MEDIAN 1 & 2 GRATE" APPLY TO THIS DETAIL.

SEE STANDARD DETAIL DRAWING "INLETS MEDIAN 1 & 2 GRATE" FOR PRECAST STRUCTURE DETAILS.

THE FIRST ONE OR TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR QUANTITIES ARE FOR INFORMATION ONLY.

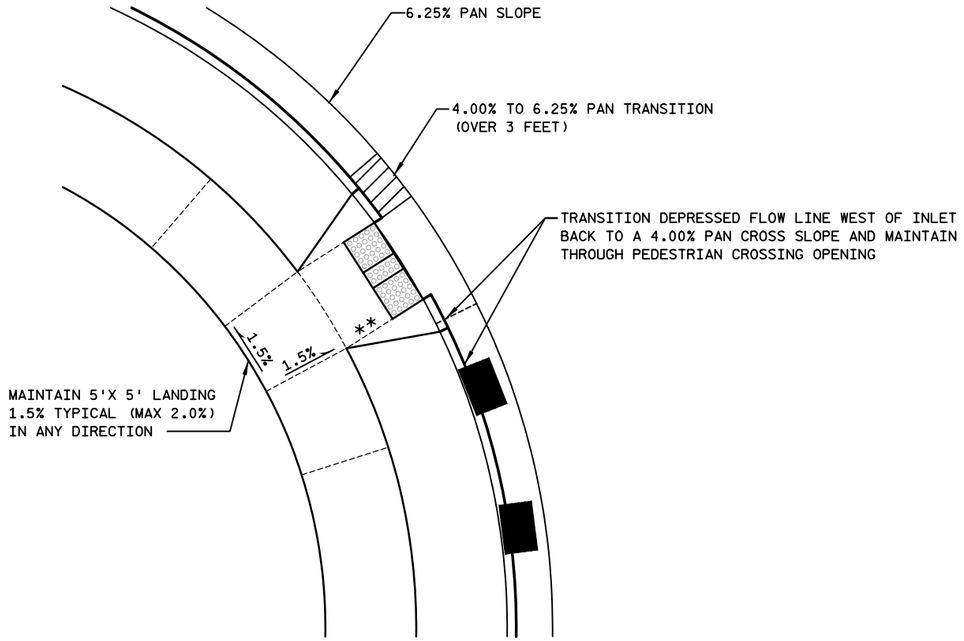
FIELD CUT WALL REINFORCING AROUND PIPE OPENINGS AS REQUIRED.

DESIGN DATA:

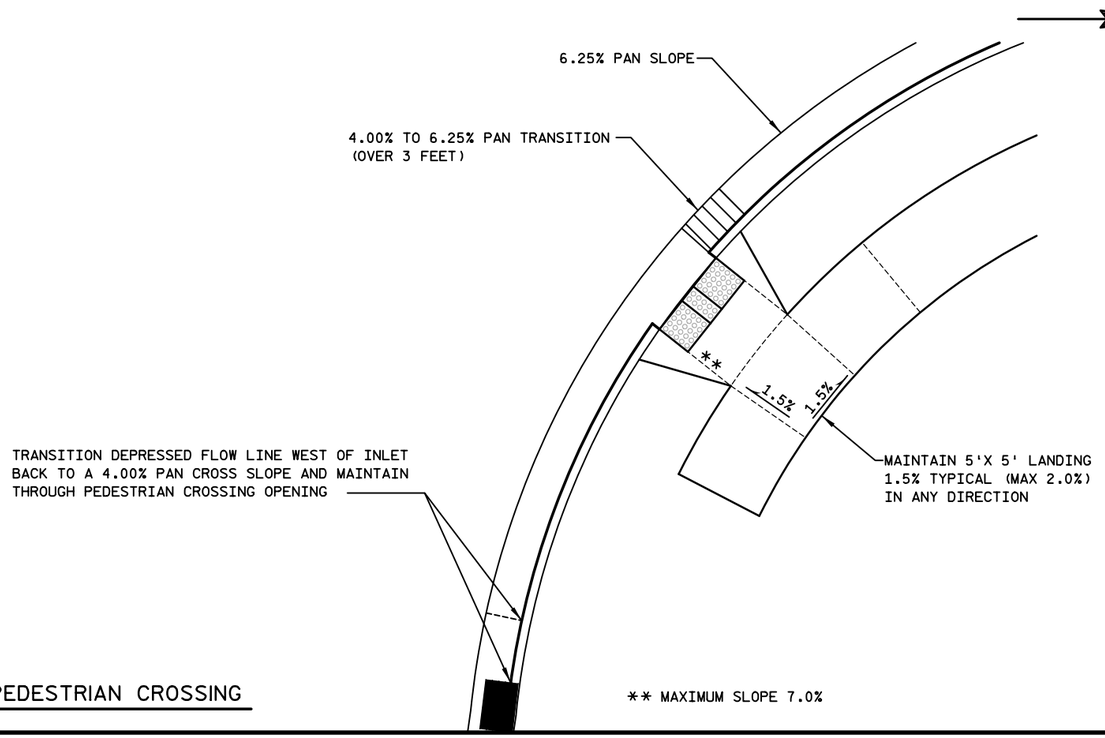
CONCRETE MASONRY: f'c = 4000 PSI
STEEL REINFORCING: Fy = 60 KSI

INLET STRUCTURE 220A

STA. 106+20, 68.7' RT

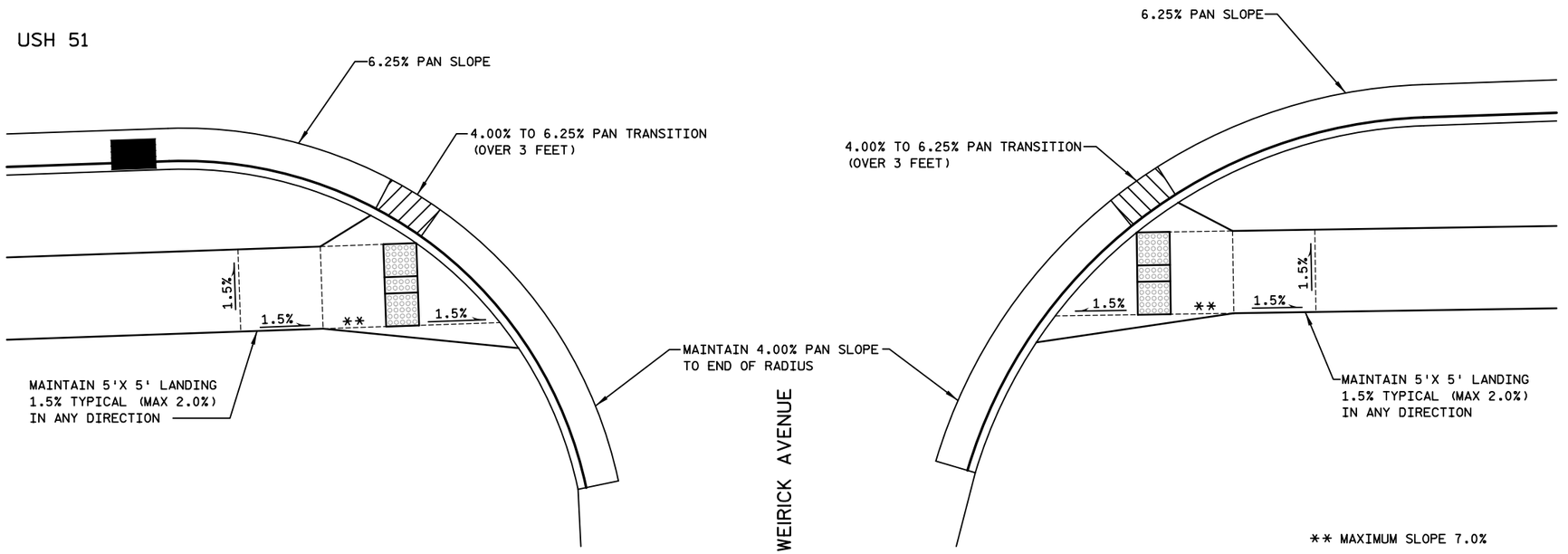


CRANSTON ROAD



CRANSTON ROAD PEDESTRIAN CROSSING

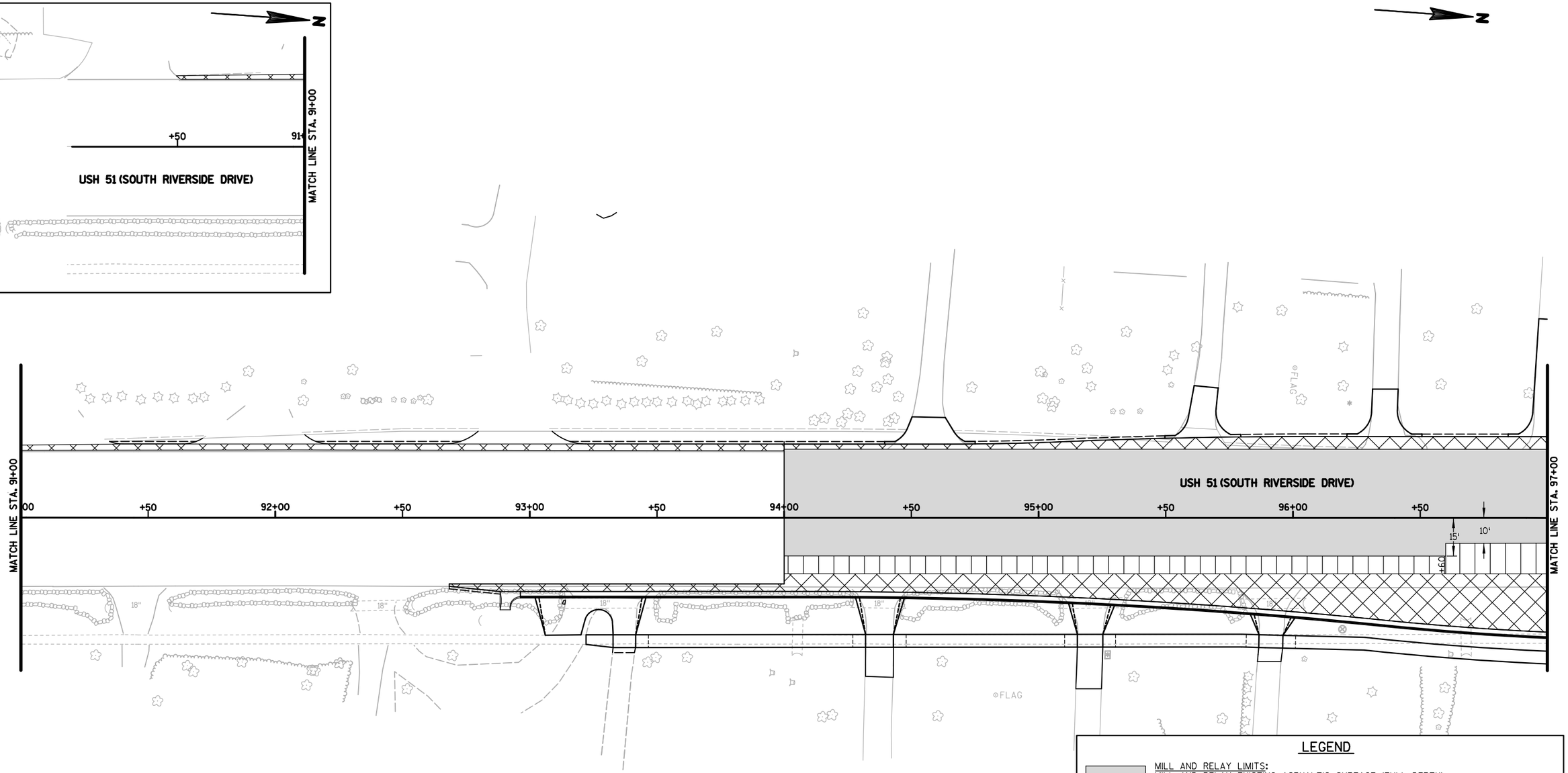
** MAXIMUM SLOPE 7.0%



WEIRICK AVENUE PEDESTRIAN CROSSING

** MAXIMUM SLOPE 7.0%

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CONSTRUCTION DETAILS - CURB RAMP DETAILS	SHEET 18	E



LEGEND

MILL AND RELAY LIMITS:
MILL AND RELAY EXISTING ASPHALTIC SURFACE (FULL DEPTH);
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES) OVER REMAINING ASPHALTIC SURFACE MILLINGS (5-INCHES).

RECONSTRUCTION LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

RECONSTRUCTION LIMITS:
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

REMOVING PAVEMENT LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PAVEMENT REHABILITATION PLAN	SHEET 19	E

2

N

REMOVING PAVEMENT REQ'D FOR STORM SEWER INSTALLATION. SEE STORM SEWER PLANS FOR ADDITIONAL INFORMATION.

REMOVING PAVEMENT REQ'D FOR SIGNAL AND STORM SEWER INSTALLATION. SEE TRAFFIC SIGNAL AND STORM SEWER PLANS FOR ADDITIONAL INFORMATION.

MATCH LINE STA. 97+00

MATCH LINE STA. 103+00

USH 51 (SOUTH RIVERSIDE DRIVE)

+50 98+00 +50 99+00 +50 100+00 +50 101+00 +50 102+00 +50

10'

+81.5

+69.5

SS

+50

101+00 CR

+50

CRANSTON ROAD

102+00 CR

LEGEND

MILL AND RELAY LIMITS:
MILL AND RELAY EXISTING ASPHALTIC SURFACE (FULL DEPTH);
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES) OVER REMAINING ASPHALTIC SURFACE MILLINGS (5-INCHES).

RECONSTRUCTION LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

RECONSTRUCTION LIMITS:
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

REMOVING PAVEMENT LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PAVEMENT REHABILITATION PLAN	SHEET 20	E

2

N

REMOVING PAVEMENT REQ'D FOR STORM SEWER INSTALLATION.
SEE STORM SEWER PLANS FOR ADDITIONAL INFORMATION.

MATCH LINE STA. 103+00

USH 51 (SOUTH RIVERSIDE DRIVE)

+50 104+00 +50 105+00 +50 106+00 +50 107+00 +50 108+00 +50

10'

11+00 D

10+70 D

MATCH LINE STA. 109+00

E WEIRICK AVE

LEGEND

MILL AND RELAY LIMITS:
MILL AND RELAY EXISTING ASPHALTIC SURFACE (FULL DEPTH);
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES) OVER REMAINING ASPHALTIC SURFACE MILLINGS (5-INCHES).

RECONSTRUCTION LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

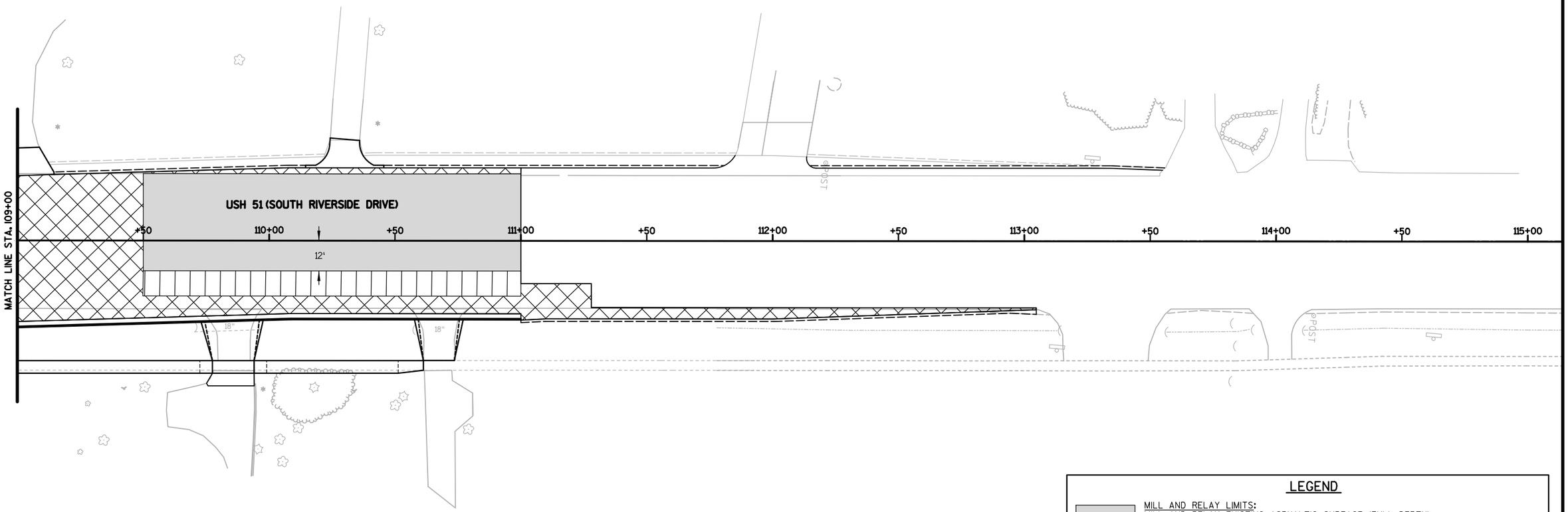
RECONSTRUCTION LIMITS:
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

REMOVING PAVEMENT LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PAVEMENT REHABILITATION PLAN	SHEET 21	E

2

N



LEGEND

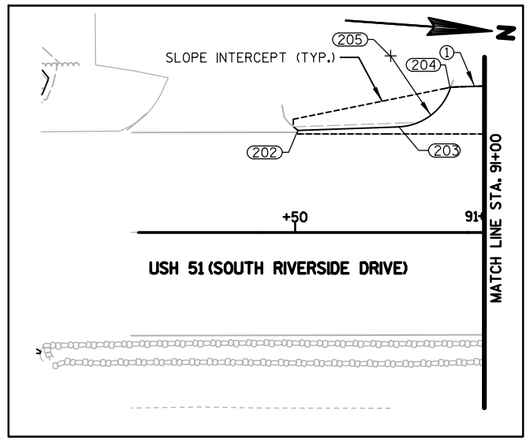
MILL AND RELAY LIMITS:
MILL AND RELAY EXISTING ASPHALTIC SURFACE (FULL DEPTH);
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES) OVER REMAINING ASPHALTIC SURFACE MILLINGS (5-INCHES).

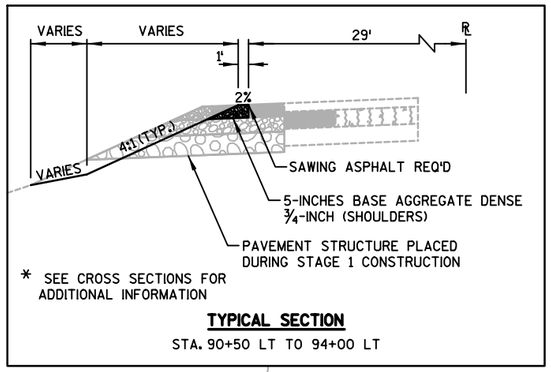
RECONSTRUCTION LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

RECONSTRUCTION LIMITS:
5-INCHES HMA PAVEMENT TYPE E-10 OVER 6-INCHES BASE AGGREGATE DENSE 1¼-INCH OVER 8-INCHES BASE AGGREGATE DENSE 3-INCH.

REMOVING PAVEMENT LIMITS:
REMOVING PAVEMENT; SAWING CONCRETE REQUIRED
5-INCHES HMA PAVEMENT TYPE E-10 OVER BASE AGGREGATE DENSE 1¼-INCH (DEPTH VARIES)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PAVEMENT REHABILITATION PLAN	SHEET 22	E



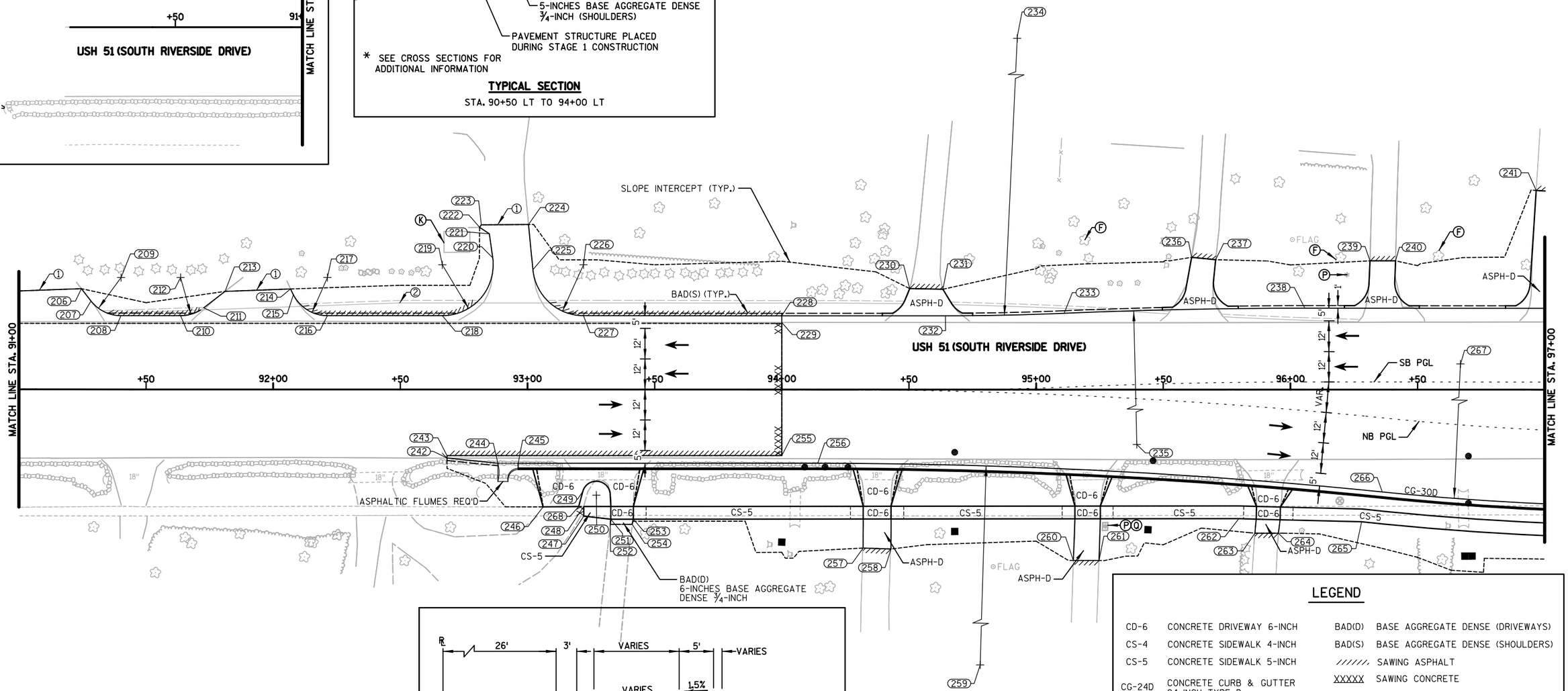


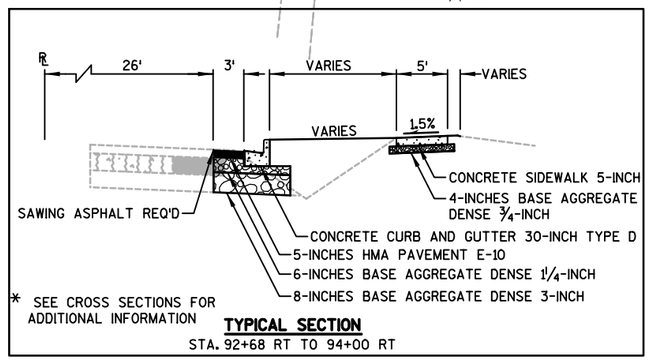
TYPICAL SECTION

STA. 90+50 LT TO 94+00 LT

① LIMITS OF ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES PLACED DURING STAGE 1 CONSTRUCTION. REFER TO CONSTRUCTION STAGING PLANS FOR ADDITIONAL INFORMATION.

② LIMITS OF HMA PAVEMENT TYPE E-10 PLACED DURING STAGE 1 CONSTRUCTION. REFER TO CONSTRUCTION STAGING PLANS FOR ADDITIONAL INFORMATION.





TYPICAL SECTION

STA. 92+68 RT TO 94+00 RT

LEGEND

- (F) EXISTING TREE TO BE REMOVED (CLEARING AND GRUBBING OR EXCAVATION COMMON)
- (K) EXISTING SHED TO REMAIN
- (P) REMOVING RESIDENTIAL LIGHT POLE REQUIRED
- (Q) REMOVING CONCRETE BASES REQUIRED

NOTES:

ALL POINTS & RADII ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

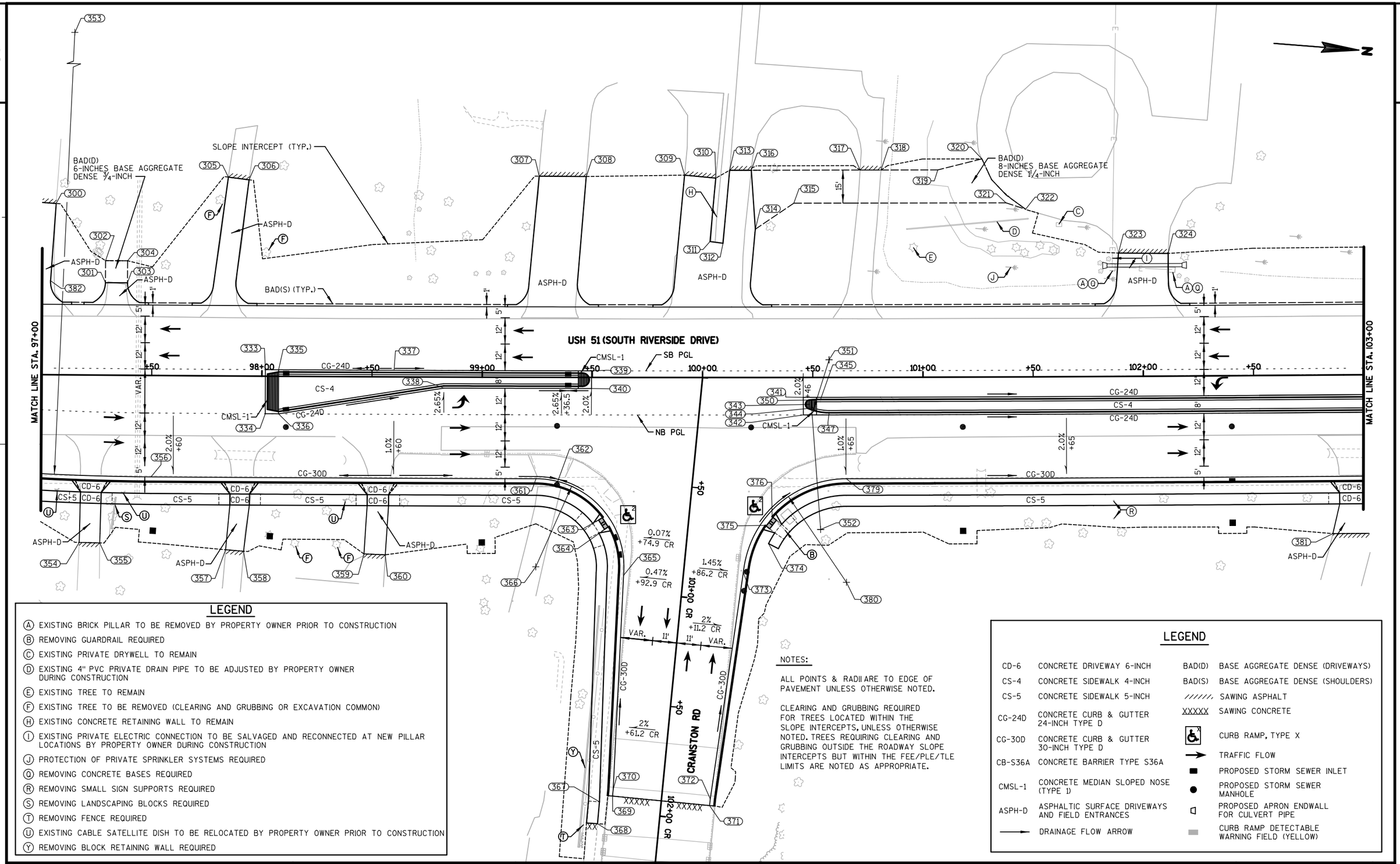
CLEARING AND GRUBBING REQUIRED FOR TREES LOCATED WITHIN THE SLOPE INTERCEPTS, UNLESS OTHERWISE NOTED. TREES REQUIRING CLEARING AND GRUBBING OUTSIDE THE ROADWAY SLOPE INTERCEPTS BUT WITHIN THE FEE/PLE/TLE LIMITS ARE NOTED AS APPROPRIATE.

LEGEND

CD-6	CONCRETE DRIVEWAY 6-INCH	BAD(D)	BASE AGGREGATE DENSE (DRIVEWAYS)
CS-4	CONCRETE SIDEWALK 4-INCH	BAD(S)	BASE AGGREGATE DENSE (SHOULDERS)
CS-5	CONCRETE SIDEWALK 5-INCH	//////	SAWING ASPHALT
CG-24D	CONCRETE CURB & GUTTER 24-INCH TYPE D	XXXXX	SAWING CONCRETE
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D		CURB RAMP, TYPE X
CB-S36A	CONCRETE BARRIER TYPE S36A		TRAFFIC FLOW
CMSL-1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)		PROPOSED STORM SEWER INLET
ASPH-D	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES		PROPOSED STORM SEWER MANHOLE
	DRAINAGE FLOW ARROW		PROPOSED APRON ENDWALL FOR CULVERT PIPE
			CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN DETAILS	SHEET 23	E

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING	REMARKS
202	90+50.77	26.95' LT	---	213,314.82	489,879.40	---
203	90+77.32	27.89' LT	---	213,341.23	489,876.50	---
204	90+91.09	38.38' LT	---	213,354.19	489,865.01	MATCH EXIST. DRIVEWAY
205	90+76.78	42.88' LT	---	213,339.59	489,861.59	R = 15'
206	91+24.59	39.57' LT	---	213,387.51	489,861.35	MATCH EXIST. DRIVEWAY
207	91+28.32	34.78' LT	---	213,391.58	489,865.85	BEGIN DRIVEWAY RADIUS
208	91+40.15	29.00' LT	---	213,403.81	489,870.74	END DRIVEWAY RADIUS
209	91+40.15	44.00' LT	---	213,402.70	489,855.79	R = 15'
210	91+63.55	29.00' LT	---	213,427.14	489,869.01	BEGIN DRIVEWAY RADIUS
211	91+72.70	32.12' LT	---	213,436.04	489,865.23	END DRIVEWAY RADIUS
212	91+63.55	44.00' LT	---	213,426.03	489,854.06	R = 15'
213	91+81.08	38.57' LT	---	213,443.92	489,858.18	MATCH EXIST. DRIVEWAY
214	92+06.79	39.48' LT	---	213,469.49	489,855.37	MATCH EXIST. DRIVEWAY
215	92+07.92	37.24' LT	---	213,470.78	489,857.52	BEGIN DRIVEWAY RADIUS
216	92+21.31	29.00' LT	---	213,484.74	489,864.75	END DRIVEWAY RADIUS
217	92+21.31	44.00' LT	---	213,483.63	489,849.79	R = 15'
218	92+66.49	29.00' LT	---	213,529.80	489,861.41	BEGIN DRIVEWAY RADIUS
219	92+66.49	49.00' LT	---	213,528.33	489,841.46	R = 20'
220	92+86.31	51.74' LT	---	213,547.88	489,837.27	END DRIVEWAY RADIUS
221	92+84.99	61.21' LT	---	213,545.87	489,827.92	---
222	92+81.19	63.76' LT	---	213,541.89	489,825.66	MATCH EXIST. DRIVEWAY
223	92+81.84	64.73' LT	---	213,542.47	489,824.64	MATCH EXIST. DRIVEWAY
224	93+00.41	64.87' LT	---	213,560.97	489,823.13	MATCH EXIST. DRIVEWAY
225	93+02.11	47.09' LT	---	213,563.99	489,840.73	BEGIN DRIVEWAY RADIUS
226	93+22.02	49.00' LT	---	213,583.70	489,837.36	R = 20'
227	93+22.02	29.00' LT	---	213,585.18	489,857.31	END DRIVEWAY RADIUS
228	94+00.00	29.00' LT	---	213,662.95	489,851.54	---
229	94+00.00	26.38' LT	---	213,663.14	489,854.16	MATCH EXIST. PAVEMENT
230	94+50.25	39.71' LT	---	213,712.27	489,837.15	MATCH EXIST. DRIVEWAY
231	94+63.36	39.47' LT	---	213,725.36	489,836.42	MATCH EXIST. DRIVEWAY
232	94+64.34	29.00' LT	---	213,727.11	489,846.79	---
233	95+11.03	29.99' LT	---	213,773.59	489,842.35	---
234	94+64.34	1129.00' LT	---	213,645.83	488,749.80	R = 1100'
235	96+05.63	2197.00' RT	---	214,032.50	492,056.26	R = 2229'
236	95+61.14	52.04' LT	---	213,821.94	489,816.65	MATCH EXIST. DRIVEWAY
237	95+70.60	51.07' LT	---	213,831.45	489,816.92	MATCH EXIST. DRIVEWAY
238	96+05.63	32.00' LT	---	213,867.80	489,833.36	---
239	96+31.25	50.65' LT	---	213,891.97	489,812.86	MATCH EXIST. DRIVEWAY
240	96+41.33	50.65' LT	---	213,902.02	489,812.12	MATCH EXIST. DRIVEWAY
241	96+96.61	78.35' LT	---	213,955.10	489,780.41	MATCH EXIST. DRIVEWAY
242	92+68.35	26.98' RT	---	213,535.79	489,917.09	MATCH EXIST. PAVEMENT
243	92+68.35	26.00' RT	---	213,535.72	489,916.12	MATCH EXIST. PAVEMENT
244	92+88.35	29.00' RT	---	213,555.89	489,917.63	---
245	92+96.35	29.00' RT	755.26	213,563.87	489,917.04	END CURB AND GUTTER
246	93+06.15	46.15' RT	---	213,574.90	489,933.42	MATCH EXIST. SIDEWALK
247	93+22.13	49.76' RT	---	213,591.11	489,935.85	MATCH EXIST. SIDEWALK
248	93+22.15	46.01' RT	---	213,590.86	489,932.10	MATCH EXIST. SIDEWALK
249	93+21.75	40.12' RT	---	213,590.02	489,926.26	END DRIVEWAY RADIUS
250	93+27.06	41.55' RT	---	213,595.42	489,927.29	R = 5.5'
251	93+32.75	51.01' RT	---	213,601.79	489,936.30	BACK OF SIDEWALK
252	93+32.55	53.01' RT	---	213,601.74	489,938.31	MATCH EXIST. DRIVEWAY
253	93+41.63	51.00' RT	---	213,610.64	489,935.63	BACK OF SIDEWALK
254	93+41.16	53.00' RT	---	213,610.32	489,937.66	MATCH EXIST. DRIVEWAY
255	94+00.00	26.00' RT	---	213,667.01	489,906.39	MATCH EXIST. PAVEMENT
256	94+14.10	29.00' RT	755.89	213,681.29	489,908.34	---
257	94+32.00	62.35' RT	---	213,701.61	489,940.28	MATCH EXIST. DRIVEWAY
258	94+42.97	62.68' RT	---	213,712.57	489,939.80	MATCH EXIST. DRIVEWAY
259	94+14.10	2229.00' RT	---	213,843.85	492,102.33	R = 2220'
260	95+14.65	67.20' RT	---	213,784.39	489,939.01	MATCH EXIST. DRIVEWAY
261	95+24.76	67.20' RT	---	213,794.47	489,938.26	MATCH EXIST. DRIVEWAY
262	95+79.71	50.75' RT	---	213,848.06	489,917.80	BACK OF SIDEWALK
263	95+86.08	56.44' RT	---	213,854.83	489,923.00	MATCH EXIST. DRIVEWAY
264	95+95.28	56.44' RT	---	213,864.01	489,922.32	MATCH EXIST. DRIVEWAY
265	96+27.99	51.95' RT	---	213,896.30	489,915.43	BACK OF SIDEWALK
266	96+36.15	40.23' RT	757.22	213,903.56	489,903.14	---
267	97+50.10	1083.00' LT	---	213,934.21	488,774.56	R = 1129'
268	93+20.15	46.03' RT	---	213,588.86	489,932.27	MATCH EXIST. SIDEWALK



LEGEND

- (A) EXISTING BRICK PILLAR TO BE REMOVED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- (B) REMOVING GUARDRAIL REQUIRED
- (C) EXISTING PRIVATE DRYWELL TO REMAIN
- (D) EXISTING 4" PVC PRIVATE DRAIN PIPE TO BE ADJUSTED BY PROPERTY OWNER DURING CONSTRUCTION
- (E) EXISTING TREE TO REMAIN
- (F) EXISTING TREE TO BE REMOVED (CLEARING AND GRUBBING OR EXCAVATION COMMON)
- (H) EXISTING CONCRETE RETAINING WALL TO REMAIN
- (I) EXISTING PRIVATE ELECTRIC CONNECTION TO BE SALVAGED AND RECONNECTED AT NEW PILLAR LOCATIONS BY PROPERTY OWNER DURING CONSTRUCTION
- (J) PROTECTION OF PRIVATE SPRINKLER SYSTEMS REQUIRED
- (Q) REMOVING CONCRETE BASES REQUIRED
- (R) REMOVING SMALL SIGN SUPPORTS REQUIRED
- (S) REMOVING LANDSCAPING BLOCKS REQUIRED
- (T) REMOVING FENCE REQUIRED
- (U) EXISTING CABLE SATELLITE DISH TO BE RELOCATED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- (Y) REMOVING BLOCK RETAINING WALL REQUIRED

NOTES:

ALL POINTS & RADII ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

CLEARING AND GRUBBING REQUIRED FOR TREES LOCATED WITHIN THE SLOPE INTERCEPTS, UNLESS OTHERWISE NOTED. TREES REQUIRING CLEARING AND GRUBBING OUTSIDE THE ROADWAY SLOPE INTERCEPTS BUT WITHIN THE FEE/PLE/TLE LIMITS ARE NOTED AS APPROPRIATE.

LEGEND

CD-6	CONCRETE DRIVEWAY 6-INCH	BAD(D)	BASE AGGREGATE DENSE (DRIVEWAYS)
CS-4	CONCRETE SIDEWALK 4-INCH	BAD(S)	BASE AGGREGATE DENSE (SHOULDERS)
CS-5	CONCRETE SIDEWALK 5-INCH	//////	SAWING ASPHALT
CG-24D	CONCRETE CURB & GUTTER 24-INCH TYPE D	XXXXX	SAWING CONCRETE
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D		CURB RAMP, TYPE X
CB-S36A	CONCRETE BARRIER TYPE S36A		TRAFFIC FLOW
CMSL-1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)		PROPOSED STORM SEWER INLET
ASPH-D	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES		PROPOSED STORM SEWER MANHOLE
	DRAINAGE FLOW ARROW		PROPOSED APRON ENDWALL FOR CULVERT PIPE
			CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN DETAILS	SHEET 25	E

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING	REMARKS
300	97+06.09	77.74' LT	---	213,964.60	489,780.32	MATCH EXIST. DRIVEWAY
301	97+28.69	41.99' LT	---	213,989.78	489,814.30	END OF ASPHALT DRIVEWAY
302	97+28.70	51.97' LT	---	213,989.78	489,814.30	END OF BASE DRIVEWAY
303	97+38.70	41.99' LT	---	213,999.76	489,813.56	END OF ASPHALT DRIVEWAY
304	97+38.70	51.97' LT	---	213,998.99	489,803.77	END OF BASE DRIVEWAY
305	97+84.24	90.27' LT	---	214,041.53	489,762.04	MATCH EXIST. DW
306	97+93.66	89.11' LT	---	214,050.98	489,762.49	MATCH EXIST. DW
307	99+25.62	91.30' LT	---	214,182.04	489,750.18	MATCH EXIST. DRIVEWAY
308	99+47.09	91.18' LT	---	214,203.39	489,748.60	MATCH EXIST. DRIVEWAY
309	99+91.77	91.84' LT	---	214,247.76	489,744.37	MATCH EXIST. DRIVEWAY
310	100+05.97	90.51' LT	---	214,261.98	489,744.54	MATCH EXIST. DRIVEWAY
311	100+03.36	61.71' LT	---	214,261.72	489,773.47	---
312	100+09.28	60.94' LT	---	214,267.68	489,773.75	---
313	100+12.29	94.06' LT	---	214,267.98	489,740.50	MATCH EXIST. DRIVEWAY
314	100+23.95	67.31' LT	---	214,281.75	489,766.21	---
315	100+41.48	79.08' LT	---	214,298.21	489,753.05	EDGE OF BASE DRIVEWAY
316	100+22.17	94.07' LT	---	214,277.80	489,739.69	MATCH EXIST. DRIVEWAY
317	100+71.65	94.08' LT	---	214,326.97	489,735.61	MATCH EXIST. DRIVEWAY
318	100+81.14	94.08' LT	---	214,336.40	489,734.82	MATCH EXIST. DRIVEWAY
319	101+07.01	94.05' LT	---	214,362.11	489,732.69	EDGE OF BASE DRIVEWAY
320	101+27.08	99.01' LT	---	214,381.63	489,726.05	MATCH EXIST. DRIVEWAY
321	101+38.00	78.99' LT	---	214,394.18	489,745.08	EDGE OF BASE DRIVEWAY
322	101+46.90	76.05' LT	---	214,403.28	489,747.25	MATCH EXIST. DRIVEWAY
323	101+89.00	56.00' LT	---	214,446.87	489,763.62	MATCH EXIST. DRIVEWAY
324	102+11.61	55.71' LT	---	214,469.38	489,761.95	MATCH EXIST. DRIVEWAY
333	98+01.57	3.00' LT	758.38	214,065.33	489,847.77	---
334	98+01.62	17.00' RT	758.74	214,066.89	489,867.71	---
335	98+07.57	3.00' LT	758.40	214,071.32	489,847.31	---
336	98+07.61	17.00' RT	758.77	214,072.87	489,867.25	---
337	98+60.00	3.00' LT	758.49	214,123.59	489,843.32	---
338	98+82.58	5.00' RT	758.54	214,146.72	489,849.55	---
339	99+49.57	3.00' LT	758.18	214,212.87	489,836.31	---
340	99+49.57	5.00' RT	758.35	214,213.51	489,844.28	---

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING	REMARKS
341	100+45.67	9.00' RT	757.89	214,309.64	489,840.48	---
342	100+45.67	17.00' RT	758.05	214,310.30	489,848.46	---
343	100+48.67	12.20' RT	---	214,312.89	489,843.43	R = 2'; CONCRETE MEDIAN NOSE
344	100+47.88	14.04' RT	---	214,312.25	489,845.32	END RADIUS; CONCRETE MEDIAN NOSE
345	100+53.46	10.00' RT	---	214,317.48	489,840.84	END RADIUS; CONCRETE MEDIAN NOSE
347	100+57.38	16.00' RT	---	214,321.89	489,846.49	END RADIUS; CONCRETE MEDIAN NOSE
350	100+48.50	10.21' RT	---	214,312.56	489,841.45	BEGIN RADIUS; CONCRETE MEDIAN NOSE
351	100+57.38	8.00' LT	---	214,319.90	489,822.57	R = 24'; CONCRETE MEDIAN NOSE
352	100+53.46	69.00' RT	---	214,322.36	489,899.64	R = 59'; CONCRETE MEDIAN NOSE
353	97+50.10	1083.0' LT	---	213,934.21	488,774.56	R = 1129'
354	97+17.64	76.01' RT	---	213,987.47	489,932.79	MATCH EXIST. DRIVEWAY
355	97+26.96	76.15' RT	---	213,996.78	489,932.25	MATCH EXIST. DRIVEWAY
356	97+50.00	46.00' RT	757.94	214,017.53	489,900.48	---
357	97+84.04	78.83' RT	---	214,053.97	489,930.68	MATCH EXIST. DRIVEWAY
358	97+92.20	79.45' RT	---	214,062.17	489,930.68	MATCH EXIST. DRIVEWAY
359	98+46.71	80.39' RT	---	214,116.73	489,927.48	MATCH EXIST. DRIVEWAY
360	98+56.33	80.75' RT	---	214,126.37	489,927.10	MATCH EXIST. DRIVEWAY
361	99+24.50	46.00' RT	---	214,191.75	489,887.14	---
362	99+34.33	47.23' RT	758.39	214,201.66	489,887.59	---
363	99+54.96	63.37' RT	---	214,223.54	489,902.04	FACE OF CURB; CURB RAMP OPENING
364	99+57.66	67.58' RT	---	214,226.58	489,906.01	FACE OF CURB; CURB RAMP OPENING
365	100+92.85 CR	27.00' RT	759.23	214,234.90	489,927.65	---
366	99+24.50	86.00' RT	---	214,194.90	489,927.01	R = 40'
367	101+96.15 CR	27.91' RT	---	214,232.34	490,030.93	FRONT OF SIDEWALK
368	102+06.16 CR	27.84' RT	---	214,232.24	490,040.93	MATCH EXIST. SIDEWALK
369	101+93.00 CR	22.25' RT	---	214,238.05	490,027.86	MATCH EXIST. PAVEMENT
370	101+90.00 CR	22.25' RT	763.36	214,238.10	490,024.87	---
371	101+93.00 CR	22.00' LT	---	214,282.29	490,028.57	MATCH EXIST. PAVEMENT
372	101+90.00 CR	22.00' LT	763.36	214,282.34	490,025.57	---
373	100+86.17 CR	27.00' LT	758.75	214,289.00	489,921.83	---
374	100+72.10 CR	37.09' LT	---	214,299.31	489,907.93	FRONT OF SIDEWALK
375	100+28.40	67.10' RT	---	214,297.18	489,899.81	FACE OF CURB; CURB RAMP OPENING
376	100+31.50	63.18' RT	---	214,299.95	489,895.64	FACE OF CURB; CURB RAMP OPENING
379	100+65.12	46.00' RT	757.64	214,332.10	489,875.75	---
380	100+65.12	93.00' RT	---	214,335.99	489,922.59	R = 47'
381	102+85.49	72.00' RT	---	214,554.19	489,882.66	MATCH EXIST. DRIVEWAY
382	97+03.81	42.65' LT	---	213,964.92	489,815.48	END OF RADIUS

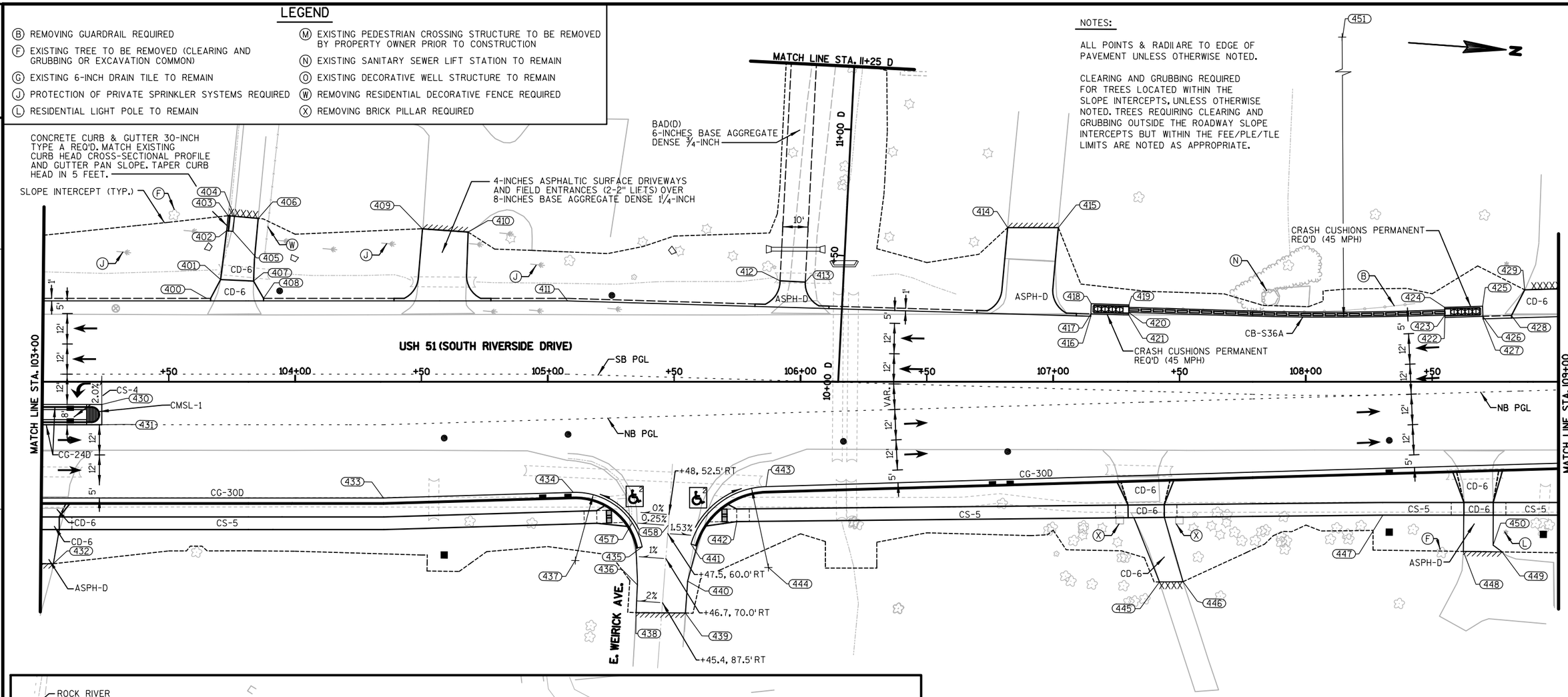
LEGEND

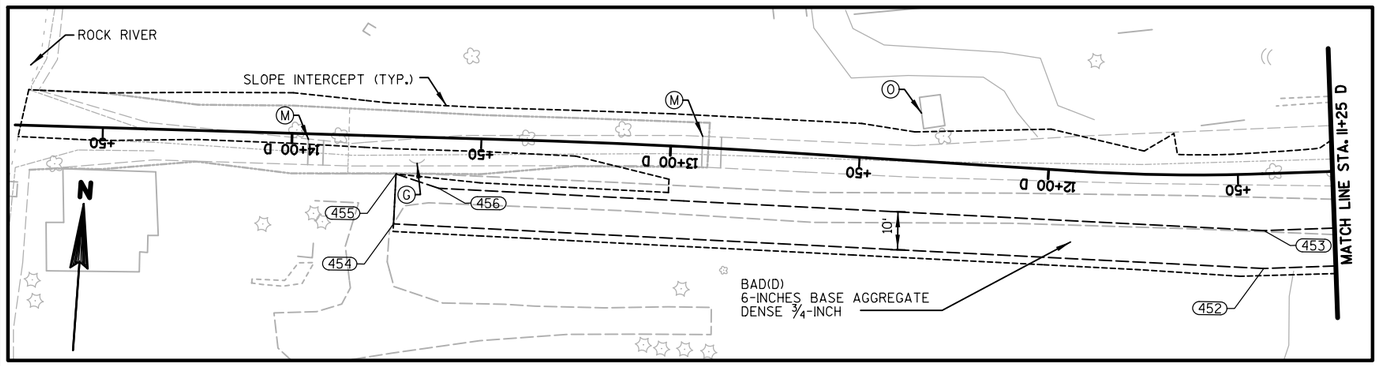
- (B) REMOVING GUARDRAIL REQUIRED
- (F) EXISTING TREE TO BE REMOVED (CLEARING AND GRUBBING OR EXCAVATION COMMON)
- (G) EXISTING 6-INCH DRAIN TILE TO REMAIN
- (J) PROTECTION OF PRIVATE SPRINKLER SYSTEMS REQUIRED
- (L) RESIDENTIAL LIGHT POLE TO REMAIN
- (M) EXISTING PEDESTRIAN CROSSING STRUCTURE TO BE REMOVED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- (N) EXISTING SANITARY SEWER LIFT STATION TO REMAIN
- (O) EXISTING DECORATIVE WELL STRUCTURE TO REMAIN
- (W) REMOVING RESIDENTIAL DECORATIVE FENCE REQUIRED
- (X) REMOVING BRICK PILLAR REQUIRED

NOTES:

ALL POINTS & RADII ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

CLEARING AND GRUBBING REQUIRED FOR TREES LOCATED WITHIN THE SLOPE INTERCEPTS, UNLESS OTHERWISE NOTED. TREES REQUIRING CLEARING AND GRUBBING OUTSIDE THE ROADWAY SLOPE INTERCEPTS BUT WITHIN THE FEE/PLE/TLE LIMITS ARE NOTED AS APPROPRIATE.





LEGEND

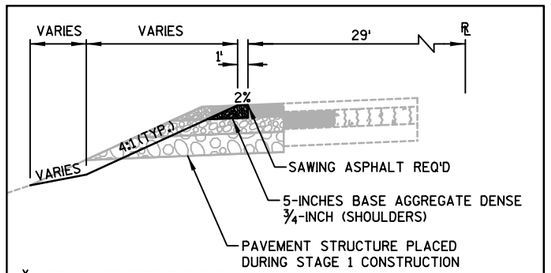
CD-6	CONCRETE DRIVEWAY 6-INCH	BAD(D)	BASE AGGREGATE DENSE (DRIVEWAYS)
CS-4	CONCRETE SIDEWALK 4-INCH	BAD(S)	BASE AGGREGATE DENSE (SHOULDERS)
CS-5	CONCRETE SIDEWALK 5-INCH	//////	SAWING ASPHALT
CG-24D	CONCRETE CURB & GUTTER 24-INCH TYPE D	XXXXX	SAWING CONCRETE
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D		CURB RAMP, TYPE X
CB-S36A	CONCRETE BARRIER TYPE S36A		TRAFFIC FLOW
CMSL-1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)		PROPOSED STORM SEWER INLET
ASPH-D	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES		PROPOSED STORM SEWER MANHOLE
	DRAINAGE FLOW ARROW		PROPOSED APRON ENDWALL FOR CULVERT PIPE
			CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN DETAILS	SHEET 27	E

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING	REMARKS
400	103+65.00	32.99' LT	---	214,624.12	489,771.05	EDGE OF CONCRETE DRIVEWAY
401	103+70.52	40.44' LT	---	214,628.96	489,763.15	EDGE OF CONCRETE DRIVEWAY
402	103+72.91	59.78' LT	---	214,629.63	489,743.67	BEGIN CURB AND GUTTER
403	103+73.50	65.75' LT	---	214,629.69	489,737.67	MATCH EXIST. CURB AND GUTTER
404	103+75.97	65.53' LT	---	214,632.17	489,737.68	MATCH EXIST. CURB AND GUTTER
405	103+75.40	59.56' LT	---	214,632.13	489,743.68	CURB AND GUTTER FLANGE LINE
406	103+85.40	64.67' LT	---	214,641.63	489,737.69	MATCH EXIST. DRIVEWAY
407	103+83.55	39.86' LT	---	214,641.98	489,762.57	EDGE OF CONCRETE DRIVEWAY
408	103+87.54	33.00' LT	---	214,646.56	489,769.05	EDGE OF CONCRETE DRIVEWAY
409	104+50.39	60.55' LT	---	214,706.73	489,736.06	MATCH EXIST. DRIVEWAY
410	104+68.50	59.26' LT	---	214,724.89	489,735.74	MATCH EXIST. DRIVEWAY
411	105+07.84	32.00' LT	---	214,766.49	489,759.42	---
412	105+91.93	39.97' LT	---	214,849.54	489,744.05	END OF ASPHALT DRIVEWAY
413	106+01.92	39.46' LT	---	214,859.53	489,743.68	END OF ASPAHLT DRIVEWAY
414	106+81.97	61.00' LT	---	214,937.37	489,715.14	MATCH EXIST. DRIVEWAY
415	107+02.05	61.00' LT	---	214,957.38	489,713.37	MATCH EXIST. DRIVEWAY
416	107+14.91	25.91' LT	---	214,973.29	489,747.18	---
417	107+14.94	26.91' LT	---	214,973.23	489,746.18	CRASH CUSHION PAD
418	107+15.06	30.91' LT	---	214,972.99	489,742.19	CRASH CUSHION PAD
419	107+30.01	30.47' LT	---	214,987.93	489,741.31	CRASH CUSHION PAD
420	107+29.93	27.47' LT	---	214,988.10	489,744.30	CRASH CUSHION PAD
421	107+29.90	26.47' LT	---	214,988.16	489,745.30	---
422	108+55.07	25.47' LT	---	215,112.93	489,735.23	---
423	108+55.04	26.47' LT	---	215,112.81	489,734.24	CRASH CUSHION PAD
424	108+54.95	29.47' LT	---	215,112.46	489,731.26	CRASH CUSHION PAD
425	108+69.94	29.92' LT	---	215,127.35	489,729.49	CRASH CUSHION PAD
426	108+70.06	25.92' LT	---	215,127.82	489,733.46	CRASH CUSHION PAD
427	108+70.09	24.92' LT	---	215,127.94	489,734.46	---
428	108+81.38	26.25' LT	---	215,139.07	489,732.13	EDGE OF CONCRETE DRIVEWAY
429	108+86.58	36.41' LT	---	215,143.36	489,721.55	MATCH EXIST. DRIVEWAY
430	103+23.50	9.00' RT	756.36	214,586.49	489,816.55	---
431	103+23.50	17.00' RT	756.46	214,587.20	489,824.51	---
432	103+04.32	72.00' RT	---	214,572.95	489,880.99	MATCH EXIST. DRIVEWAY
433	104+34.96	46.00' RT	755.24	214,700.78	489,843.55	---
434	105+10.10	43.77' RT	754.82	214,775.44	489,834.69	---
435	105+37.35	65.34' RT	754.83	214,804.49	489,853.77	---
436	105+35.55	80.54' RT	---	214,804.03	489,869.07	---
437	105+10.90	70.76' RT	---	214,778.62	489,861.50	R = 27'
438	105+34.92	91.38' RT	---	214,804.37	489,879.92	MATCH EXIST. PAVEMENT
439	105+54.45	91.54' RT	---	214,823.83	489,878.35	MATCH EXIST. PAVEMENT
440	105+55.35	78.92' RT	---	214,823.61	489,865.70	---
441	105+56.66	64.24' RT	754.79	214,823.62	489,850.96	---
442	105+74.80	55.35' RT	---	214,840.91	489,840.51	BACK OF SIDEWALK
443	105+86.34	41.51' RT	---	214,851.17	489,825.71	---
444	105+87.29	73.50' RT	---	214,854.95	489,857.48	R = 32'
445	107+42.08	79.24' RT	---	215,009.64	489,849.52	MATCH EXIST. DRIVEWAY
446	107+51.39	79.15' RT	---	215,018.90	489,848.61	MATCH EXIST. DRIVEWAY
447	108+30.50	52.80' RT	---	215,095.38	489,815.37	BACK OF SIDEWALK
448	108+62.34	67.12' RT	---	215,128.36	489,826.82	MATCH EXIST. DRIVEWAY
449	108+77.67	67.34' RT	---	215,143.65	489,825.69	MATCH EXIST. DRIVEWAY
450	108+74.13	64.68' RT	---	215,139.89	489,823.34	---
451	108+09.47	1068.58' LT	---	214,975.33	488,700.24	R = 1043'
452	105+97.12	141.41' LT	---	214,845.75	489,642.54	EDGE OF BASE DRIVEWAY
453	106+07.18	142.29' LT	---	214,855.69	489,640.78	EDGE OF BASE DRIVEWAY
454	106+28.83	373.04' LT	---	214,856.86	489,409.02	MATCH EXIST. DRIVEWAY
455	106+41.83	371.24' LT	---	214,869.97	489,409.66	MATCH EXIST. DRIVEWAY
456	106+37.16	360.36' LT	---	214,866.28	489,420.91	EDGE OF BASE DRIVEWAY
457	105+33.38	55.80' RT	754.94	214,799.68	489,845.26	CURB AND GUTTER FLANGE LINE HIGH POINT
458	105+47.64	56.85' RT	754.98	214,813.98	489,844.40	HIGH POINT

① LIMITS OF ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES AND CONCRETE DRIVEWAY 6-INCH PLACED DURING STAGE 1 CONSTRUCTION. REFER TO CONSTRUCTION STAGING PLANS FOR ADDITIONAL INFORMATION.

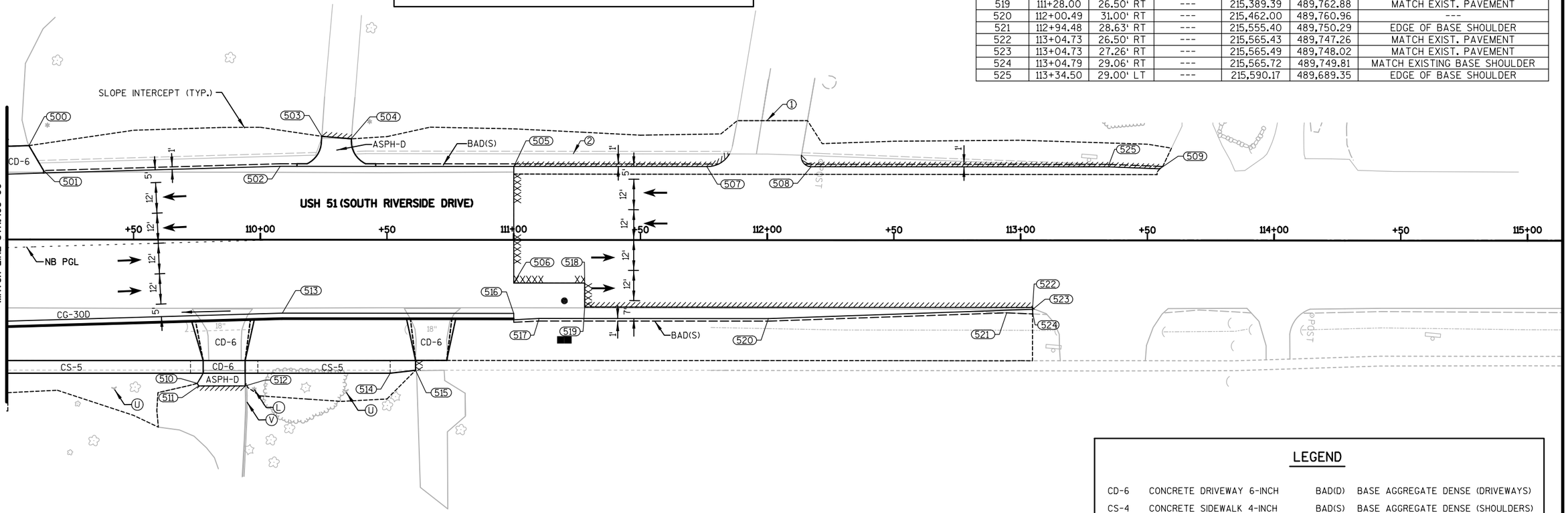
② LIMITS OF HMA PAVEMENT TYPE E-10 PLACED DURING STAGE 1 CONSTRUCTION. REFER TO CONSTRUCTION STAGING PLANS FOR ADDITIONAL INFORMATION.



TYPICAL SECTION

STA. 111+00 LT TO 113+55 LT

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING	REMARKS
500	109+08.68	37.07' LT		215,165.31	489,718.95	MATCH EXIST. DRIVEWAY
501	109+14.55	27.24' LT	---	215,172.02	489,728.22	EDGE OF CONCRETE DRIVEWAY
502	110+07.85	29.00' LT	---	215,264.81	489,718.22	---
503	110+24.23	40.82' LT	---	215,280.07	489,704.99	MATCH EXIST. DRIVEWAY
504	110+35.93	40.00' LT	---	215,291.80	489,704.78	MATCH EXIST. DRIVEWAY
505	111+00.00	29.00' LT	---	215,356.59	489,710.07	---
506	111+00.00	17.00' RT	---	215,360.66	489,755.89	MATCH EXIST. PAVEMENT
507	111+76.16	29.00' LT	---	215,432.45	489,703.34	---
508	112+17.31	29.00' LT	---	215,473.45	489,699.71	---
509	113+54.90	28.24' LT	---	215,610.57	489,688.30	---
510	109+75.19	56.74' RT	---	215,239.85	489,806.51	MATCH EXIST. DRIVEWAY
511	109+75.70	57.72' RT	---	215,240.44	489,807.44	MATCH EXIST. DRIVEWAY
512	109+94.11	57.71' RT	---	215,258.78	489,805.80	MATCH EXIST. DRIVEWAY
513	110+08.71	29.00' RT	755.86	215,270.79	489,775.91	---
514	110+51.30	52.68' RT	---	215,315.31	489,795.74	BACK OF SIDEWALK
515	110+61.30	51.47' RT	---	215,325.16	489,793.65	MATCH EXIST. SIDEWALK
516	111+00.00	29.00' RT	756.39	215,361.72	489,767.85	END OF CURB AND GUTTER
517	111+10.00	31.00' RT	---	215,371.86	489,768.95	---
518	111+28.00	17.00' RT	---	215,388.55	489,753.42	MATCH EXIST. PAVEMENT
519	111+28.00	26.50' RT	---	215,389.39	489,762.88	MATCH EXIST. PAVEMENT
520	112+00.49	31.00' RT	---	215,462.00	489,760.96	---
521	112+94.48	28.63' RT	---	215,555.40	489,750.29	EDGE OF BASE SHOULDER
522	113+04.73	26.50' RT	---	215,565.43	489,747.26	MATCH EXIST. PAVEMENT
523	113+04.73	27.26' RT	---	215,565.49	489,748.02	MATCH EXIST. PAVEMENT
524	113+04.79	29.06' RT	---	215,565.72	489,749.81	MATCH EXISTING BASE SHOULDER
525	113+34.50	29.00' LT	---	215,590.17	489,689.35	EDGE OF BASE SHOULDER



LEGEND

CD-6	CONCRETE DRIVEWAY 6-INCH	BAD(D)	BASE AGGREGATE DENSE (DRIVEWAYS)
CS-4	CONCRETE SIDEWALK 4-INCH	BAD(S)	BASE AGGREGATE DENSE (SHOULDERS)
CS-5	CONCRETE SIDEWALK 5-INCH	//////	SAWING ASPHALT
CG-24D	CONCRETE CURB & GUTTER 24-INCH TYPE D	XXXXX	SAWING CONCRETE
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D		CURB RAMP, TYPE X
CB-S36A	CONCRETE BARRIER TYPE S36A	→	TRAFFIC FLOW
CMSL-1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)	■	PROPOSED STORM SEWER INLET
ASPH-D	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	●	PROPOSED STORM SEWER MANHOLE
→	DRAINAGE FLOW ARROW	◁	PROPOSED APRON ENDWALL FOR CULVERT PIPE
		▬	CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

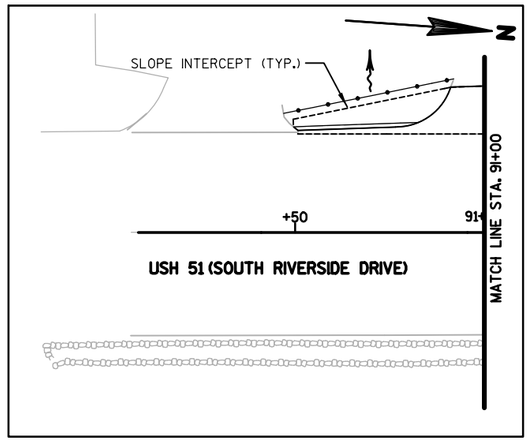
NOTES:

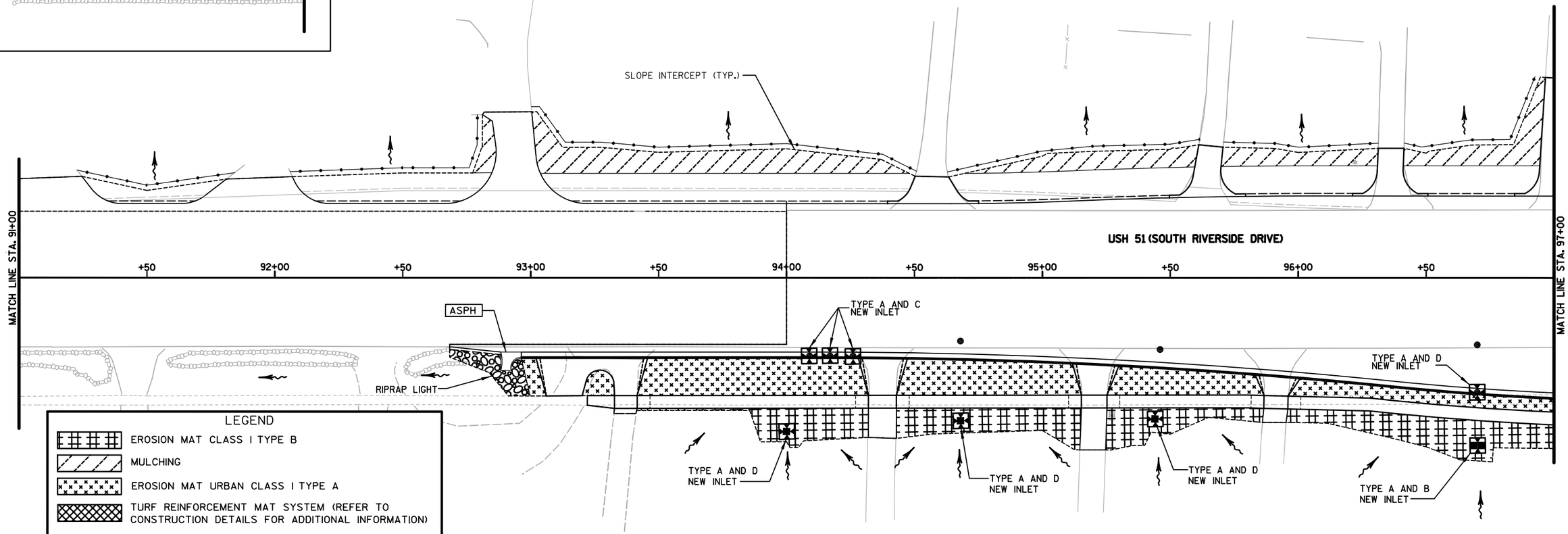
ALL POINTS & RADII ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

CLEARING AND GRUBBING REQUIRED FOR TREES LOCATED WITHIN THE SLOPE INTERCEPTS, UNLESS OTHERWISE NOTED. TREES REQUIRING CLEARING AND GRUBBING OUTSIDE THE ROADWAY SLOPE INTERCEPTS BUT WITHIN THE FEE/PLE/TLE LIMITS ARE NOTED AS APPROPRIATE.

LEGEND

- Ⓛ RESIDENTIAL LIGHT POLE TO REMAIN
- Ⓤ EXISTING CABLE SATELLITE DISH TO BE RELOCATED BY PROPERTY OWNER PRIOR TO CONSTRUCTION
- Ⓥ EXISTING TIMBER WALL TO REMAIN





LEGEND

- EROSION MAT CLASS I TYPE B
- MULCHING
- EROSION MAT URBAN CLASS I TYPE A
- TURF REINFORCEMENT MAT SYSTEM (REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)
- SILT FENCE
- RIPRAP MEDIUM (UNLESS OTHERWISE NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUMES
- TURBIDITY BARRIERS
- INLET PROTECTION
- DITCH CHECK (ROCK BAGS REQ'D)
- CULVERT PIPE CHECK (ROCK BAGS REQ'D)
- SURFACE WATER FLOW

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\022001_ec.dgn PLOT DATE : 12/22/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

SLOPE INTERCEPT (TYP.)

USH 51 (SOUTH RIVERSIDE DRIVE)

MATCH LINE STA. 97+00

MATCH LINE STA. 103+00

+50 98+00 +50 99+00 +50 100+00 +50 101+00 +50 102+00 +50

TYPE A AND C NEW INLET

TYPE A AND C NEW INLET

TYPE C EXISTING INLET

TYPE A AND C NEW INLET

TYPE A AND C NEW INLET

TYPE A AND C NEW INLET

TYPE A AND D NEW INLET

TYPE A AND D NEW INLET

TYPE A AND B NEW INLET

TYPE A AND D NEW INLET

TYPE D EXISTING INLET

TYPE A AND D NEW INLET

TYPE A AND B NEW INLET

101+00 CR

102+00 CR

CRANSTON RD

RESTORE DISTURBED AREA RESULTING FROM SITE CLEARANCE (PARCEL 1 TPP 5350-00-23) OPERATIONS. REFER TO MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

LEGEND

- EROSION MAT CLASS I TYPE B
- MULCHING
- EROSION MAT URBAN CLASS I TYPE A
- TURF REINFORCEMENT MAT SYSTEM (REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)
- SILT FENCE
- RIPRAP MEDIUM (UNLESS OTHERWISE NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUMES
- TURBIDITY BARRIERS
- INLET PROTECTION
- DITCH CHECK (ROCK BAGS REQ'D)
- CULVERT PIPE CHECK (ROCK BAGS REQ'D)
- SURFACE WATER FLOW

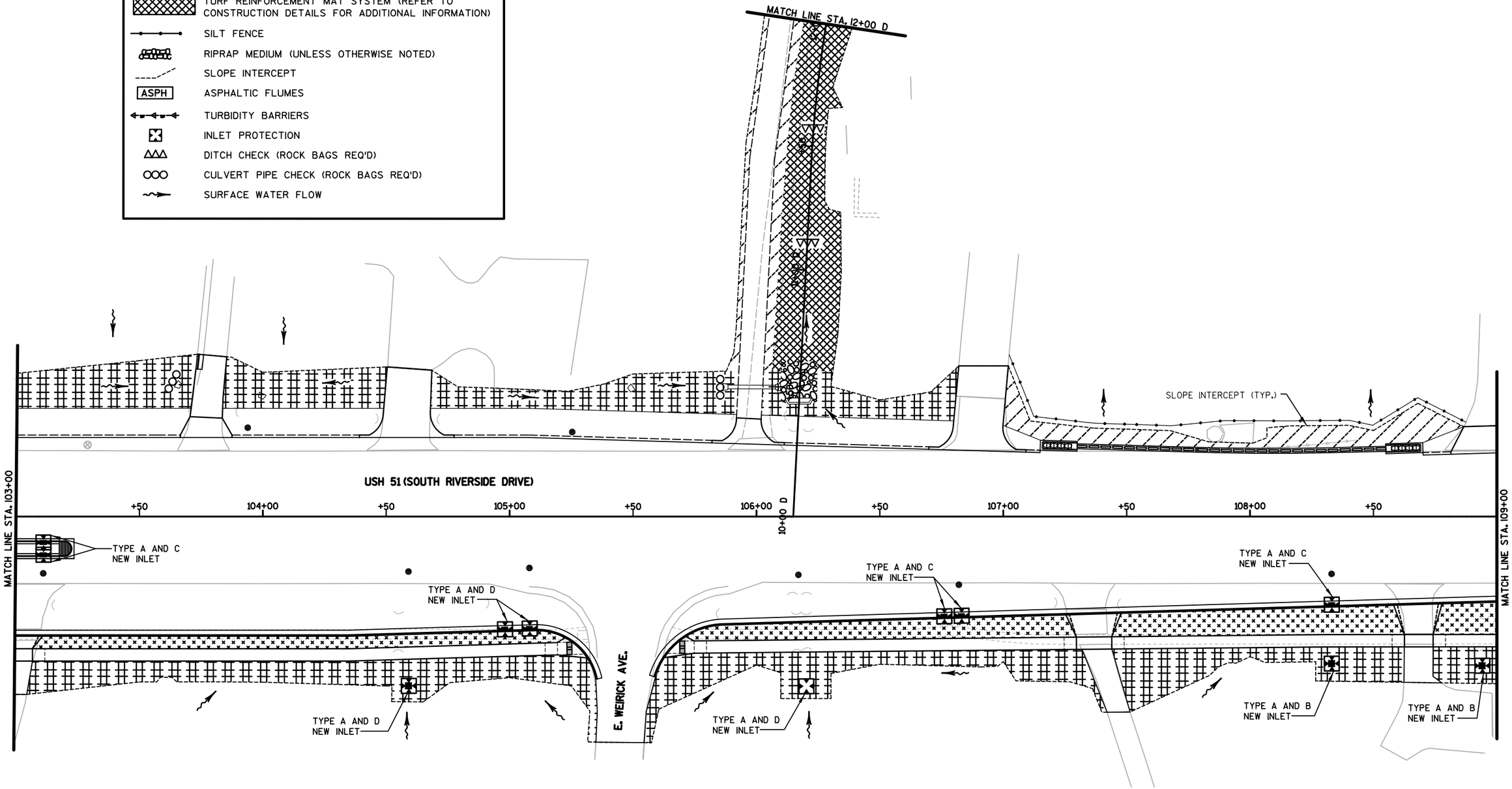
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EROSION CONTROL	SHEET 31	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- MULCHING
- EROSION MAT URBAN CLASS I TYPE A
- TURF REINFORCEMENT MAT SYSTEM (REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)
- SILT FENCE
- RIPRAP MEDIUM (UNLESS OTHERWISE NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUMES
- TURBIDITY BARRIERS
- INLET PROTECTION
- DITCH CHECK (ROCK BAGS REQ'D)
- CULVERT PIPE CHECK (ROCK BAGS REQ'D)
- SURFACE WATER FLOW

N



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\022003_ec.dgn PLOT DATE : 12/22/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

2

N

SLOPE INTERCEPT (TYP.)

USH 51 (SOUTH RIVERSIDE DRIVE)

MATCH LINE STA. 109+00

+50 110+00 +50 111+00 +50 112+00 +50 113+00 +50 114+00 +50 115+00

+05

+00

TYPE A AND D
NEW INLET

LEGEND

- EROSION MAT CLASS I TYPE B
- MULCHING
- EROSION MAT URBAN CLASS I TYPE A
- TURF REINFORCEMENT MAT SYSTEM (REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)
- SILT FENCE
- RIPRAP MEDIUM (UNLESS OTHERWISE NOTED)
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUMES
- TURBIDITY BARRIERS
- INLET PROTECTION
- DITCH CHECK (ROCK BAGS REQ'D)
- CULVERT PIPE CHECK (ROCK BAGS REQ'D)
- SURFACE WATER FLOW

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\022004_ec.dgn PLOT DATE : 12/22/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

NOTE: ANTICIPATED WETLAND IMPACTS = 0.05 ACRES (WET MEADOWS)

ROCK RIVER

FLAG

PIER

TOP OF EXISTING SLOPE

APPROX. NAVIGABILITY LIMITS
STA. 13+85 D

APPROX. EXISTING EDGE OF WATER

TOP OF EXISTING SLOPE

APPROX. WETLAND BOUNDARY

APPROX. NAVIGABILITY LIMITS
STA. 13+85

SLOPE INTERCEPT (TYP.)

APPROX. WETLAND BOUNDARY
(EASTERMOST BOUNDARY - STA. 12+90 D)

+50

14+00 D

+50

13+00 D

+50

MATCH LINE STA. 12+00 D

PIER

APPROX. WETLAND BOUNDARY

BOTTOM OF
EXISTING SLOPE
(TYP.)

APPROX. EXISTING EDGE OF WATER

TOP OF EXISTING SLOPE

PIER

BLDG

LEGEND

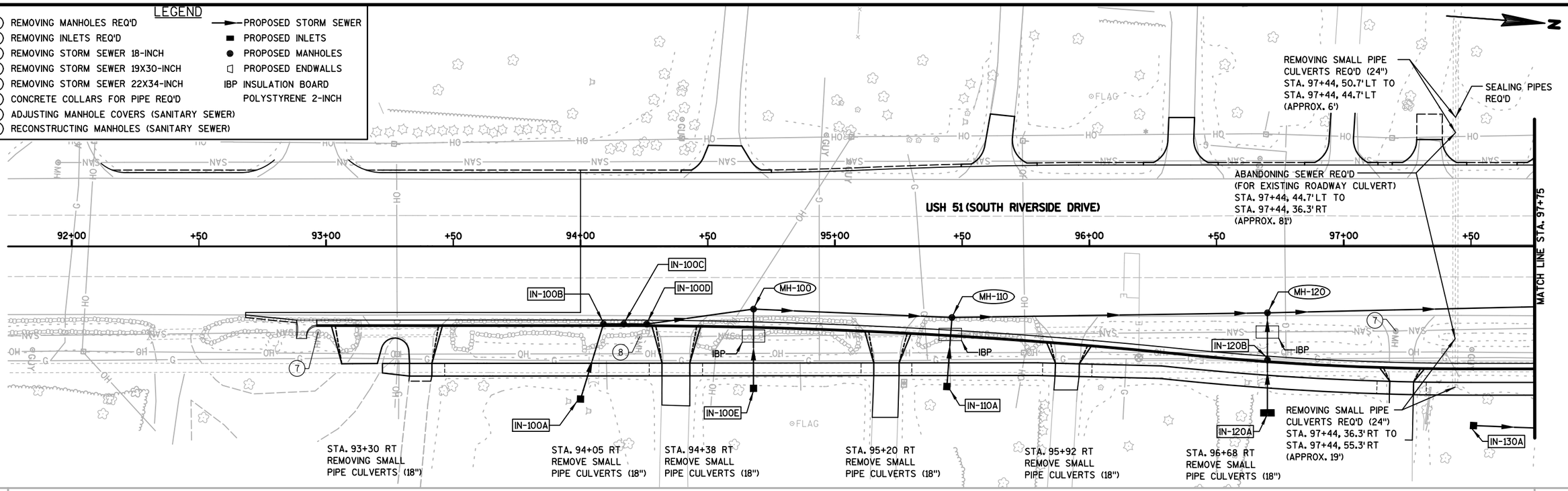
- MULCHING
- TURF REINFORCEMENT MAT SYSTEM (REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION)
- RIPRAP MEDIUM (UNLESS OTHERWISE NOTED)
- SLOPE INTERCEPT
- TURBIDITY BARRIERS
- DITCH CHECK (ROCK BAGS REQ'D)
- SURFACE WATER FLOW

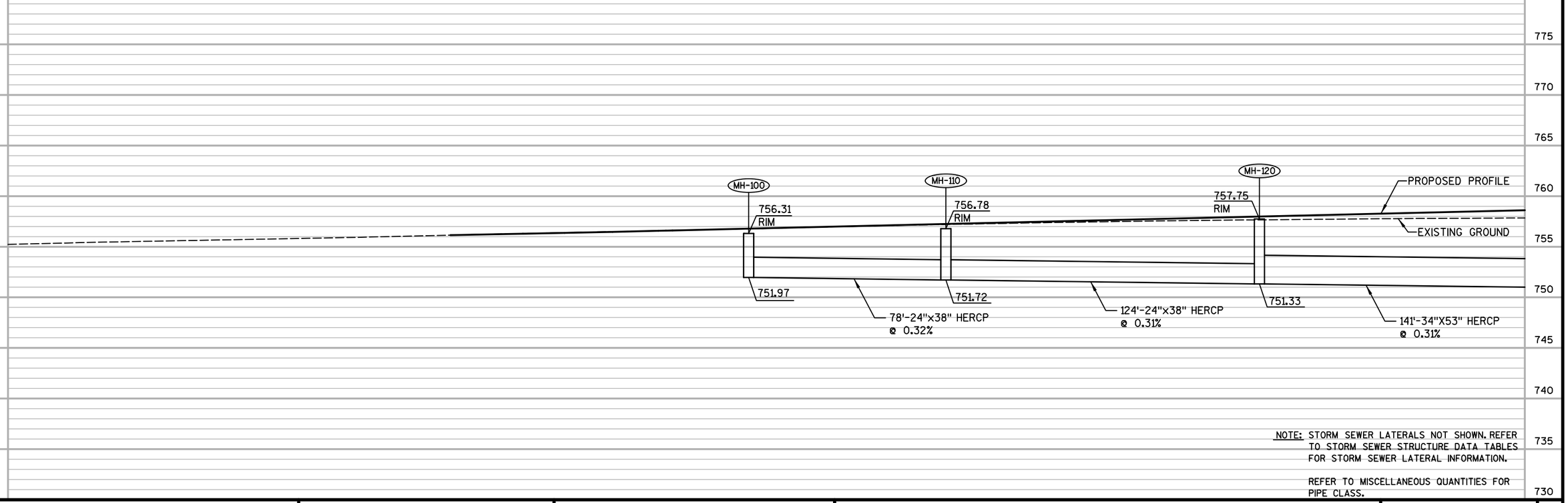
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	EROSION CONTROL - OUTLET TO ROCK RIVER	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\022005_ec.dgn PLOT DATE : 12/22/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

LEGEND

(1) REMOVING MANHOLES REQ'D	PROPOSED STORM SEWER
(2) REMOVING INLETS REQ'D	PROPOSED INLETS
(3) REMOVING STORM SEWER 18-INCH	PROPOSED MANHOLES
(4) REMOVING STORM SEWER 19X30-INCH	PROPOSED ENDWALLS
(5) REMOVING STORM SEWER 22X34-INCH	IBP INSULATION BOARD POLYSTYRENE 2-INCH
(6) CONCRETE COLLARS FOR PIPE REQ'D	
(7) ADJUSTING MANHOLE COVERS (SANITARY SEWER)	
(8) RECONSTRUCTING MANHOLES (SANITARY SEWER)	





NOTE: STORM SEWER LATERALS NOT SHOWN. REFER TO STORM SEWER STRUCTURE DATA TABLES FOR STORM SEWER LATERAL INFORMATION.

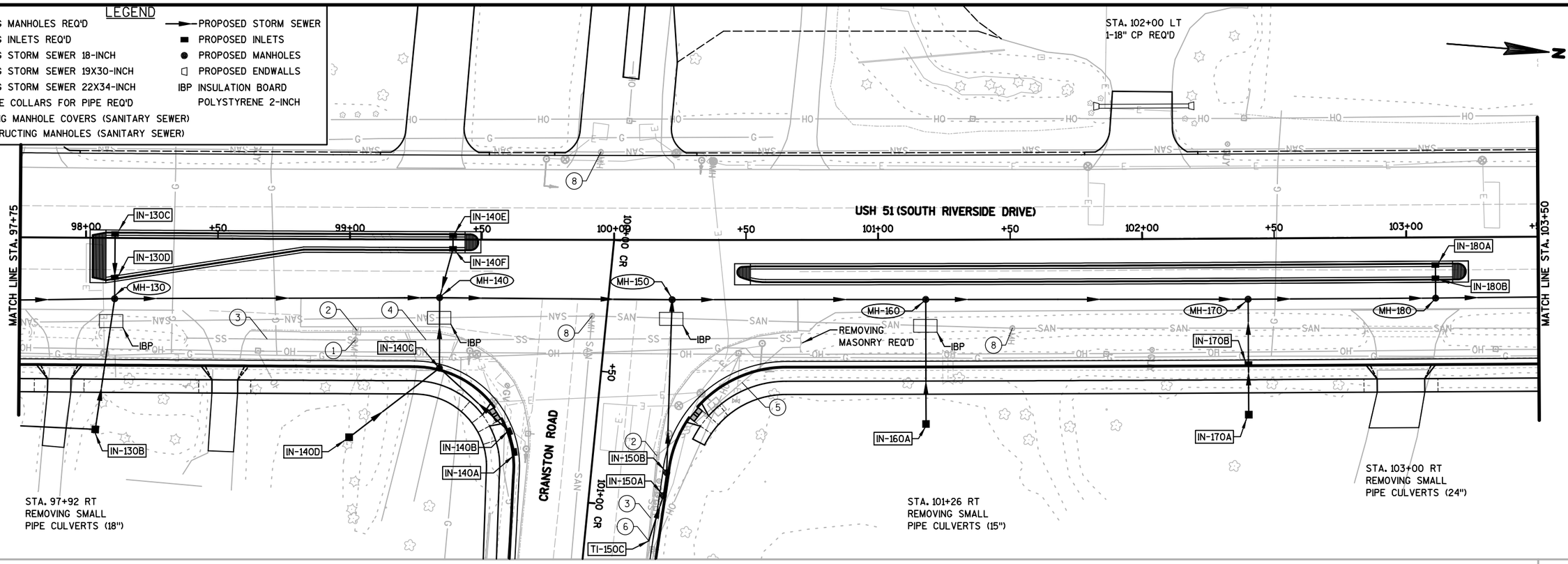
REFER TO MISCELLANEOUS QUANTITIES FOR PIPE CLASS.

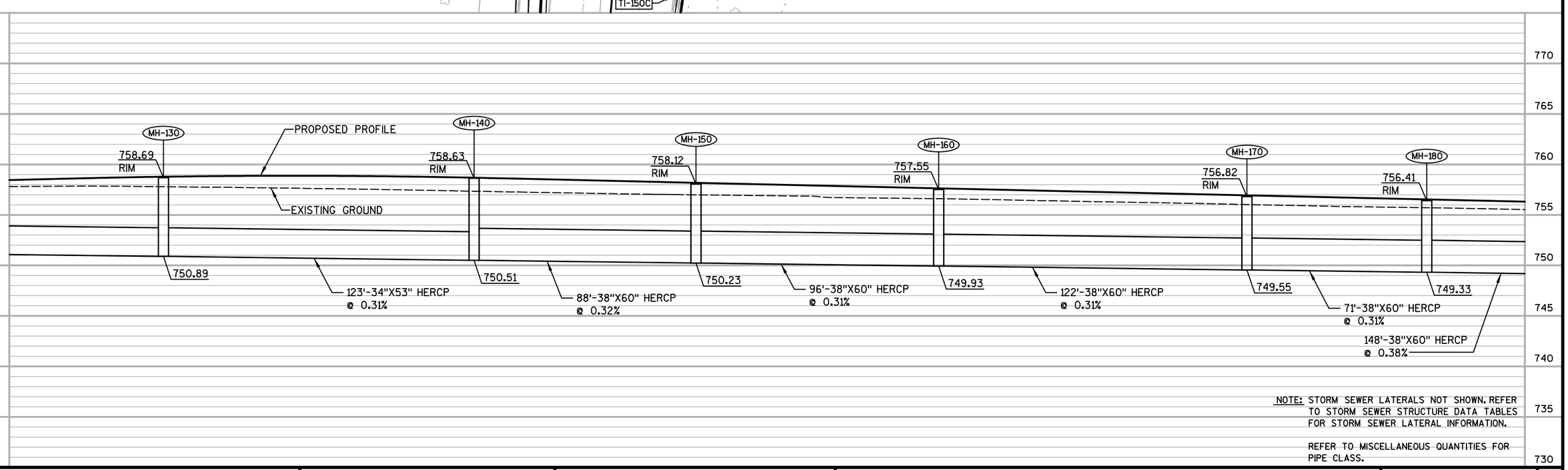
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STORM SEWER	SHEET 35	E

STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
MH-100	94+68.00	24.7	' RT	78.1	MH-110	--	--	6-FOOT	J-S	756.31	755.39	3.42	24X38	751.97	751.72	78	0.32%	2-INCHES OF ADJUSTING RINGS
IN-100A	94+00.00	60.0	' RT	30.9	IN-100B	MEDIAN 1 GRATE	MS	--	--	755.32	755.32	3.07	18	752.25	752.16	31	0.29%	0% GRATE SLOPE
IN-100B	94+09.00	30.5	' RT	8.0	IN-100C	--	H	5-FOOT	--	755.66	754.83	4.17	19X30	752.16	752.13	8	0.37%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
IN-100C	94+17.00	30.5	' RT	9.0	IN-100D	--	H	5-FOOT	--	755.71	754.88	4.25	19X30	752.13	752.10	9	0.33%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
IN-100D	94+26.00	30.5	' RT	42.4	MH-100	--	H	6-FOOT	--	755.76	755.10	4.50	24X38	752.10	751.97	42	0.31%	4-INCHES OF ADJUSTING RINGS; FLAT TOP SLAB REQ'D;18-INCH SUMP REQ'D
IN-100E	94+68.00	55.8	' RT	31.1	MH-100	MEDIAN 1 GRATE	MS	--	--	756.37	756.37	2.37	12	754.00	753.30	31	2.26%	0% GRATE SLOPE
MH-110	95+46.00	28.0	' RT	124.0	MH-120	--	--	6-FOOT	J-S	756.78	755.53	3.81	24X38	751.72	751.33	124	0.31%	
IN-110A	95+44.00	55.1	' RT	27.2	MH-110	MEDIAN 1 GRATE	MS	--	--	756.81	756.81	2.81	12	754.00	753.25	27	2.78%	0% GRATE SLOPE
MH-120	96+70.00	26.1	' RT	141.1	MH-130	--	--	9-FOOT	J-S	757.75	756.50	5.17	34X53	751.33	750.89	141	0.31%	
IN-120A	96+70.00	65.4	' RT	20.7	IN-120B	MEDIAN 2 GRATE	MS	--	--	755.83	755.83	2.93	24X38	752.90	752.86	21	0.19%	2 MS GRATES REQ'D; 0% GRATE SLOPE
IN-120B	96+70.00	44.7	' RT	18.5	MH-120	--	H	6-FOOT	--	757.22	756.39	5.03	24X38	752.86	752.82	19	0.21%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
IN-130A	97+51.00	70.4	' RT	53.1	IN-130B	MEDIAN 1 GRATE	MS	--	--	755.81	755.81	2.41	18	753.40	753.15	53	0.47%	0% GRATE SLOPE

LEGEND

(1) REMOVING MANHOLES REQ'D	PROPOSED STORM SEWER
(2) REMOVING INLETS REQ'D	PROPOSED INLETS
(3) REMOVING STORM SEWER 18-INCH	PROPOSED MANHOLES
(4) REMOVING STORM SEWER 19X30-INCH	PROPOSED ENDWALLS
(5) REMOVING STORM SEWER 22X34-INCH	IBP INSULATION BOARD POLYSTYRENE 2-INCH
(6) CONCRETE COLLARS FOR PIPE REQ'D	
(7) ADJUSTING MANHOLE COVERS (SANITARY SEWER)	
(8) RECONSTRUCTING MANHOLES (SANITARY SEWER)	





NOTE: STORM SEWER LATERALS NOT SHOWN. REFER TO STORM SEWER STRUCTURE DATA TABLES FOR STORM SEWER LATERAL INFORMATION.

REFER TO MISCELLANEOUS QUANTITIES FOR PIPE CLASS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STORM SEWER	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\022502_ss.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41

STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE					REMARKS
													SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)	SLOPE (%)	
MH-130	98+11.00	23.0	' RT	123.1	MH-140	--	--	8-FOOT	J-S	758.69	757.44	6.55	34X53	750.89	750.51	123	0.31%	
IN-130B	98+04.00	72.6	' RT	50.0	MH-130	MEDIAN 1 GRATE	MS	--	--	755.70	755.70	2.55	18	753.15	752.90	50	0.50%	0% GRATE SLOPE
IN-130C	98+11.00	1.5	' LT	16.4	IN-130D	2x3-FT	H	--	--	758.22	757.39	5.65	12	753.24	753.08	16	1.00%	18-INCH SUMP REQ'D
IN-130D	98+11.00	14.9	' RT	8.1	MH-130	2x3-FT	H	--	--	758.57	757.74	6.16	12	753.08	753.00	8	1.00%	18-INCH SUMP REQ'D
MH-140	99+34.00	22.0	' RT	88.1	MH-150	--	--	8-FOOT	J-S	758.63	757.38	6.87	38X60	750.51	750.23	88	0.32%	
IN-140A	99+62.50	80.4	' RT	8.0	IN-140B	2x3-FT	H	--	--	758.89	758.06	4.48	12	755.08	755.00	8	1.00%	18-INCH SUMP REQ'D
IN-140B	99+60.53	72.6	' RT	35.8	IN-140C	2x3-FT	H	--	--	758.76	757.93	6.92	12	752.51	752.27	36	0.67%	18-INCH SUMP REQ'D
IN-140C	99+34.00	48.7	' RT	26.7	MH-140	--	H-S	4-FOOT	--	758.19	757.36	6.59	15	752.27	752.00	27	1.00%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
IN-140D	99+00.00	75.0	' RT	43.0	IN-140C	MEDIAN 1 GRATE	MS	--	--	755.34	755.34	2.64	12	752.70	752.27	43	1.00%	0% GRATE SLOPE
IN-140E	99+39.00	1.5	' LT	5.0	IN-140F	2x3-FT	H	--	--	758.04	757.21	5.47	12	753.24	753.19	5	1.00%	18-INCH SUMP REQ'D
IN-140F	99+39.00	3.5	' RT	19.2	MH-140	2x3-FT	H	--	--	758.26	757.43	5.74	12	753.19	753.00	19	1.00%	18-INCH SUMP REQ'D
MH-150	100+22.00	22.6	' RT	96.1	MH-160	--	--	8-FOOT	J-S	758.12	756.87	6.64	38X60	750.23	749.93	96	0.31%	
IN-150A	100+18.75	96.8	' RT	8.8	IN-150B	--	H	4-FOOT	--	758.69	757.86	6.61	24	752.75	752.66	9	1.00%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
IN-150B	100+20.00	88.1	' RT	65.6	MH-150	--	H	4-FOOT	--	758.38	757.55	6.39	24	752.66	752.00	66	1.00%	FLAT TOP SLAB REQ'D; 18-INCH SUMP REQ'D
TI-150C	100+13.24	113.9	' RT	18.0	IN-150A	--	--	--	--	-	-	-	18	754.85	754.67	18	1.00%	CONCRETE COLLAR REQ'D
MH-160	101+18.00	22.6	' RT	122.1	MH-170	--	--	8-FOOT	J-S	757.55	756.30	6.37	38X60	749.93	749.55	122	0.31%	
IN-160A	101+18.00	69.8	' RT	47.2	MH-160	MEDIAN 1 GRATE	MS	--	--	755.23	755.23	2.76	18	752.47	752.00	47	1.00%	0% GRATE SLOPE
MH-170	102+40.00	23.0	' RT	71.0	MH-180	--	--	8-FOOT	J-S	756.82	755.57	6.02	38X60	749.55	749.33	71	0.31%	
IN-170A	102+40.00	66.7	' RT	19.2	IN-170B	MEDIAN 1 GRATE	MS	--	--	755.22	755.22	2.72	12	752.50	752.31	19	1.00%	0% GRATE SLOPE
IN-170B	102+40.00	47.5	' RT	24.5	MH-170	2x3-FT	H	--	--	756.15	755.32	4.51	12	752.31	752.06	25	1.00%	18-INCH SUMP REQ'D
MH-180	103+11.00	23.0	' RT	148.0	MH-200	--	--	8-FOOT	J-S	756.41	755.16	5.83	38X60	749.33	748.77	148	0.38%	
IN-180A	103+11.00	10.5	' RT	5.0	IN-180B	2x3-FT	H	--	--	755.87	755.04	4.41	12	752.13	752.08	5	1.00%	18-INCH SUMP REQ'D
IN-180B	103+11.00	15.5	' RT	7.5	MH-180	2x3-FT	H	--	--	756.33	755.50	4.92	12	752.08	752.00	8	1.00%	18-INCH SUMP REQ'D

STA. 103+78 LT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 104+59 LT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 106+00 LT
REMOVING SMALL
PIPE CULVERTS (15")
1-18" CP REQ'D

LEGEND

(1) REMOVING MANHOLES REQ'D	PROPOSED STORM SEWER
(2) REMOVING INLETS REQ'D	PROPOSED INLETS
(3) REMOVING STORM SEWER 18-INCH	PROPOSED MANHOLES
(4) REMOVING STORM SEWER 19X30-INCH	PROPOSED ENDWALLS
(5) REMOVING STORM SEWER 22X34-INCH	IBP INSULATION BOARD POLYSTYRENE 2-INCH
(6) CONCRETE COLLARS FOR PIPE REQ'D	
(7) ADJUSTING MANHOLE COVERS (SANITARY SEWER)	
(8) RECONSTRUCTING MANHOLES (SANITARY SEWER)	

EW-A EW-D EW-B EW-C

MH-A MH-B

REMOVING MASONRY REQ'D

USH 51 (SOUTH RIVERSIDE DRIVE)

LENGTH OF PIPE SHOWN IN QUANTITIES
FROM CENTER OF JUNCTION CHAMBER
TO OUTFALL OF AEW

MATCH LINE STA. 103+50

104+00 +50 105+00 +50 106+00 10+00 D +50 107+00 +50 108+00 +50 109+00

MATCH LINE STA. 109+25

MH-200 MH-210 MH-220 MH-230 MH-240

REMOVING MASONRY REQ'D

IN-210A IN-210B IBP IBP IBP IBP IBP IBP

IN-200A IN-220A IN-230A IN-230B IN-240B IN-240C IN-240A

WEIRICK AVENUE

STA. 104+55 RT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 105+45 RT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 106+18 RT
REMOVING SMALL
PIPE CULVERTS (2-30")

STA. 106+18 RT
REMOVING SMALL
PIPE CULVERTS (2-24"X38")

STA. 107+34 RT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 108+67 RT
REMOVING SMALL
PIPE CULVERTS (18")

STA. 108+95 RT
REMOVING SMALL
PIPE CULVERTS (18")

775 770 765 760 755 750 745 740 735 730

PROPOSED PROFILE
EXISTING GROUND

MH-200 755.57 RIM
MH-210 755.29 RIM
MH-220 754.55 RIM
MH-230 754.30 RIM
MH-240 755.04 RIM

748.77
748.62
748.27
748.54
749.12

148'-38"X60" HERCP @ 0.38%
49'-38"X60" HERCP @ 0.31%
109'-38"X60" HERCP @ 0.32%
65'-38"X60" HERCP @ 0.42%
151'-34"X53" HERCP @ 0.38%
287'-34"X53" HERCP @ 0.39%

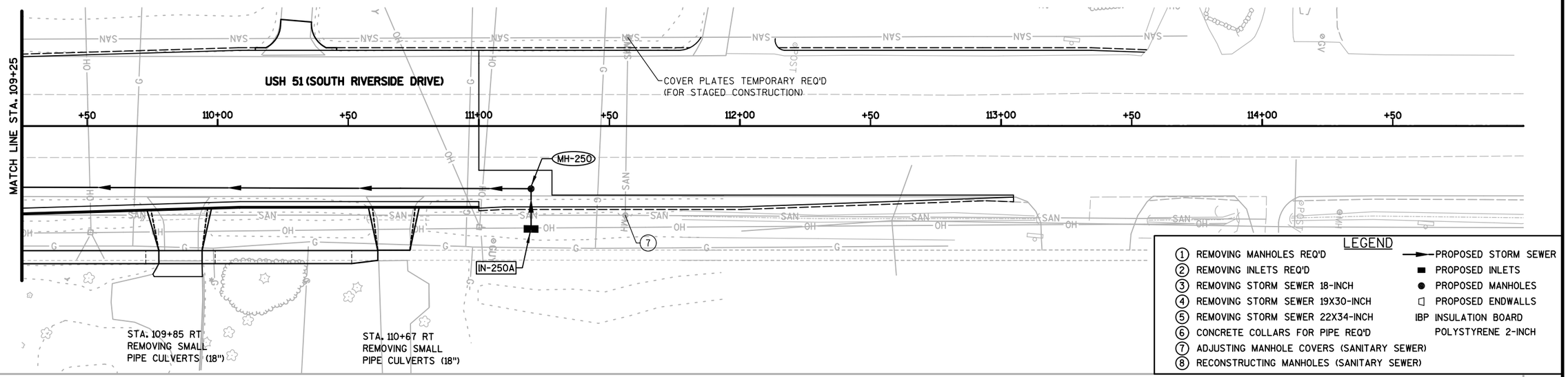
NOTE: STORM SEWER LATERALS NOT SHOWN. REFER TO STORM SEWER STRUCTURE DATA TABLES FOR STORM SEWER LATERAL INFORMATION.

REFER TO MISCELLANEOUS QUANTITIES FOR PIPE CLASS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STORM SEWER	SHEET 39	E

STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
MH-200	104+59.00	22.3	' RT	49.0	MH-210	--	--	8-FOOT	J-S	755.57	754.32	5.55	38X60	748.77	748.62	49	0.31%	
IN-200A	104+59.00	68.5	' RT	46.3	MH-200	MEDIAN 1 GRATE	MS	--	--	753.32	753.32	2.32	15	751.00	750.54	46	1.00%	0% GRATE SLOPE
MH-210	105+08.00	20.8	' RT	109.0	MH-220	--	--	8-FOOT	J-S	755.29	754.04	5.42	38X60	748.62	748.27	109	0.32%	
IN-210A	105+08.00	45.3	' RT	24.5	MH-210	2x3-FT	H	--	--	754.63	753.80	5.21	15	750.09	750.00	25	0.36%	18-INCH SUMP REQ'D
IN-210B	104+98.00	45.6	' RT	10.0	IN-210A	2x3-FT	H	--	--	754.69	753.86	5.17	12	750.19	750.09	10	1.00%	18-INCH SUMP REQ'D
MH-220	106+17.00	23.6	' RT	71.6	EW-C	--	--	--	J-S	754.55	-	-	3'X6'	748.27	748.17	72	0.14%	2-INCHES OF ADJUSTING RINGS; MANHOLE STRUCTURE 220 REQ'D
IN-220A	106+20.00	68.7	' RT	45.2	MH-220	--	MS	--	--	752.40	752.40	2.65	24	749.75	749.65	45	0.22%	INLET STRUCTURE 220A REQ'D; 3 24-INCH PIPES REQ'D; 4 MS GRATES REQ'D
EW-C	106+17.28	48.0	' LT	-	-	--	--	--	--	-	-	-	-	748.17	-	-	-	3'X6' AEW REQ'D
MH-230	106+82.00	27.6	' RT	65.1	MH-220	--	--	8-FOOT	J-S	754.30	753.05	4.51	38X60	748.54	748.27	65	0.42%	
IN-230A	106+76.00	40.4	' RT	7.0	IN-230B	2x3-FT	H-S	--	--	753.88	753.05	4.85	12	749.70	749.63	7	1.00%	18-INCH SUMP REQ'D
IN-230B	106+83.00	40.2	' RT	12.6	MH-230	2x3-FT	H-S	--	--	753.88	753.05	4.92	12	749.63	749.50	13	1.00%	18-INCH SUMP REQ'D
MH-240	108+33.00	23.2	' RT	151.1	MH-230	--	--	8-FOOT	J-S	755.04	753.79	4.67	34X53	749.12	748.54	151	0.38%	
IN-240A	108+94.00	60.4	' RT	61.0	IN-240B	MEDIAN 1 GRATE	MS	--	--	754.43	754.43	2.46	12	751.97	751.37	61	0.98%	0% GRATE SLOPE
IN-240B	108+33.00	59.5	' RT	23.8	IN-240C	MEDIAN 1 GRATE	MS	--	--	754.24	754.24	2.87	15	751.37	751.13	24	1.00%	0% GRATE SLOPE
IN-240C	108+33.00	35.7	' RT	12.5	MH-240	2x3-FT	H	--	--	754.62	753.79	2.66	15	751.13	750.74	13	3.00%	
EW-A	103+64.90	53.8	' LT	28.0	MH-A	--	--	--	--	-	-	-	18	751.62	751.27	28	1.25%	18-INCH SSPRC AEW REQ'D
MH-A	103+93.90	36.0	' LT	131.5	MH-B	--	--	5-FOOT	L	754.59	753.76	2.49	18	751.27	750.91	132	0.27%	
EW-D	104+00.00	49.8	' LT	9.1	MH-A	--	--	--	--	-	-	-	12	752.30	751.27	9	11.44%	12-INCH SSPRC AEW REQ'D
MH-B	105+25.35	34.2	' LT	24.7	EW-B	--	--	4-FOOT	L	754.12	753.29	2.38	18	750.91	750.83	25	0.32%	
EW-B	105+50.00	52.5	' LT	-	-	--	--	--	--	-	-	-	18	750.83	-	-	-	18-INCH SSPRC AEW REQ'D

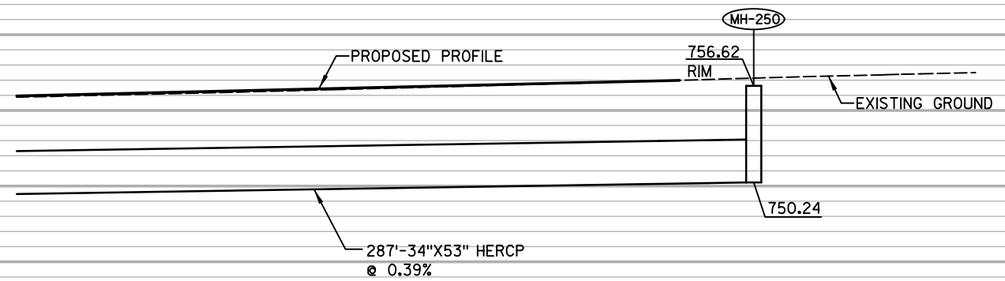
STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
MH-250	111+20.00	24.0	' RT	287.0	MH-240	--	--	9-FOOT	J-S	756.62	755.37	5.13	34X53	750.24	749.12	287	0.39%	
IN-250A	111+20.00	39.6	' RT	15.5	MH-250	MEDIAN 2 GRATE	MS	--	--	754.57	754.57	4.17	24X38	750.40	750.24	16	1.00%	2 MS GRATES REQ'D; 0% GRATE SLOPE



LEGEND

1. REMOVING MANHOLES REQ'D
2. REMOVING INLETS REQ'D
3. REMOVING STORM SEWER 18-INCH
4. REMOVING STORM SEWER 19X30-INCH
5. REMOVING STORM SEWER 22X34-INCH
6. CONCRETE COLLARS FOR PIPE REQ'D
7. ADJUSTING MANHOLE COVERS (SANITARY SEWER)
8. RECONSTRUCTING MANHOLES (SANITARY SEWER)

PROPOSED STORM SEWER
PROPOSED INLETS
PROPOSED MANHOLES
PROPOSED ENDWALLS
IBP INSULATION BOARD POLYSTYRENE 2-INCH



NOTE: STORM SEWER LATERALS NOT SHOWN. REFER TO STORM SEWER STRUCTURE DATA TABLES FOR STORM SEWER LATERAL INFORMATION.

REFER TO MISCELLANEOUS QUANTITIES FOR PIPE CLASS.

2

N

CONTINUE CENTERLINE
AND EDGELINE PAVEMENT
MARKINGS 840' SOUTH

+50

1-4

W6-3
36" X 36"

5'
12'
12'
12'
5'

91+00 +50 92+00 +50 93+00 +50 94+00 +50 +61 95+00 +50 96+00 +50

25'
(TYP.)

45° (TYP.)

MATCH LINE STA. 97+00

USH 51 (SOUTH RIVERSIDE DRIVE)

1-1
REMOVE

BUS STOP

LOCAL SIGN TO
BE ADJUSTED BY OTHERS
TO PROPER HEIGHT ON
EXISTING POST TO REMAIN

1-1
W3-3
36" X 36"

1-2
W6-1
36" X 36"

Big Hill Park
Snappers/
Ice Arena

LOCAL SIGN
MOVE BY OTHERS

1-3

Cranston Rd
REMOVE

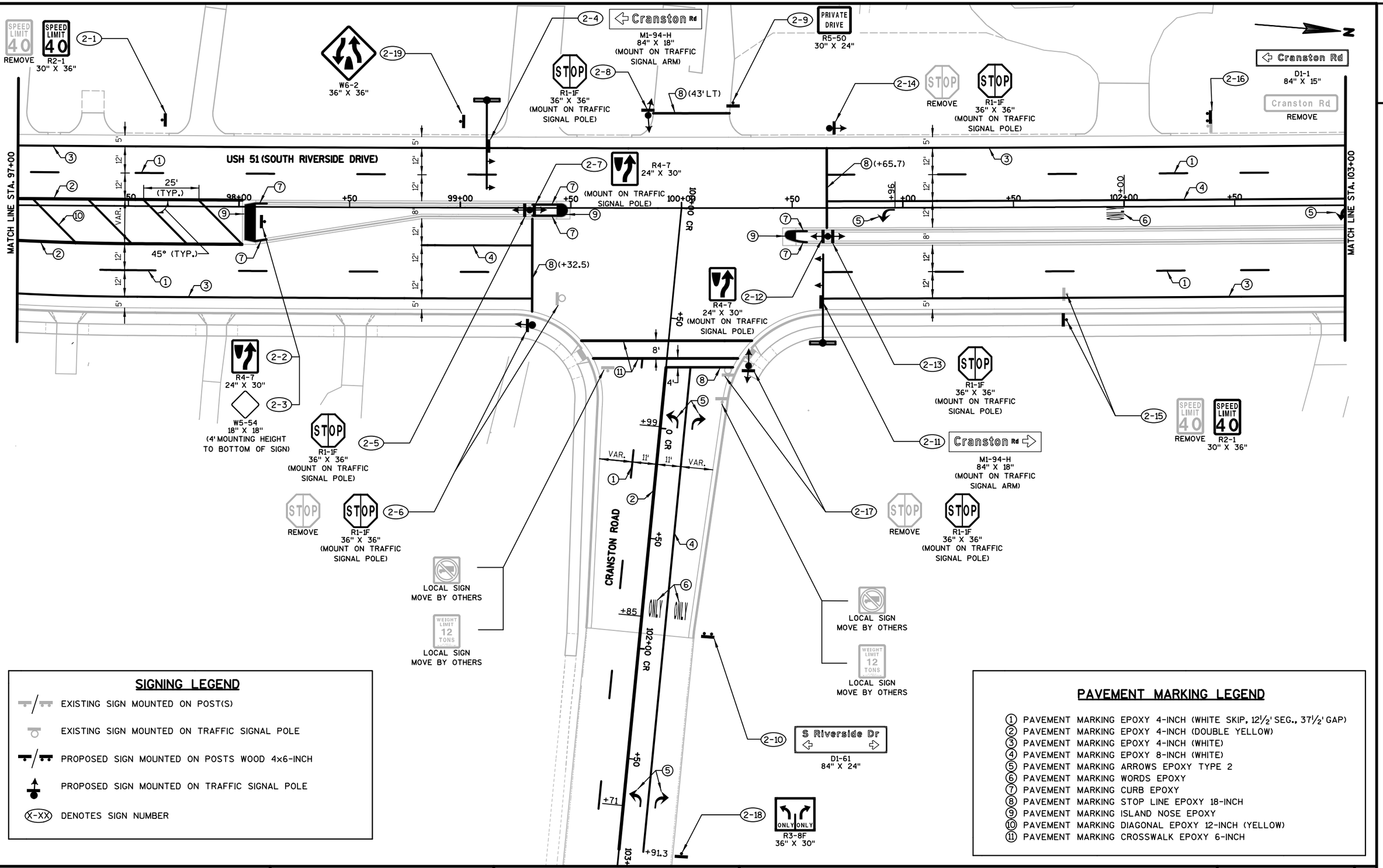
Cranston Rd
D1-1
84" X 15"

SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- PROPOSED SIGN MOUNTED ON POSTS WOOD 4x6-INCH
- PROPOSED SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- X-XX DENOTES SIGN NUMBER

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12½' SEG., 37½' GAP)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
5. PAVEMENT MARKING ARROWS EPOXY TYPE 2
6. PAVEMENT MARKING WORDS EPOXY
7. PAVEMENT MARKING CURB EPOXY
8. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
9. PAVEMENT MARKING ISLAND NOSE EPOXY
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
11. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH



SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- PROPOSED SIGN MOUNTED ON POSTS WOOD 4x6-INCH
- PROPOSED SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12½' SEG., 37½' GAP)
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8. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
9. PAVEMENT MARKING ISLAND NOSE EPOXY
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
11. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 43	E

2

N

MATCH LINE STA. 103+00

USH 51 (SOUTH RIVERSIDE DRIVE)

MATCH LINE STA. 109+00

11+00 D

10+00 D

* RAD. = 7'
X = 489,790.77
Y = 214,842.04

** RAD. = 8.75'
X = 489,796.73
Y = 214,775.03

25' (TYP.)

45° (TYP.)

VAR.

3-3
W3-3
36" X 36"

3-4
W6-3
36" X 36"

3-1
W6-2
36" X 36"

S. RIVERSIDE DR.
E. WEIRICK AVE.
LOCAL CROSSROAD SIGNS
MOVE BY OTHERS

E. WEIRICK AVENUE

3-2
STOP
REMOVE

STOP
R1-1
36" X 36"

SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- PROPOSED SIGN MOUNTED ON POSTS WOOD 4x6-INCH
- PROPOSED SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER

PAVEMENT MARKING LEGEND

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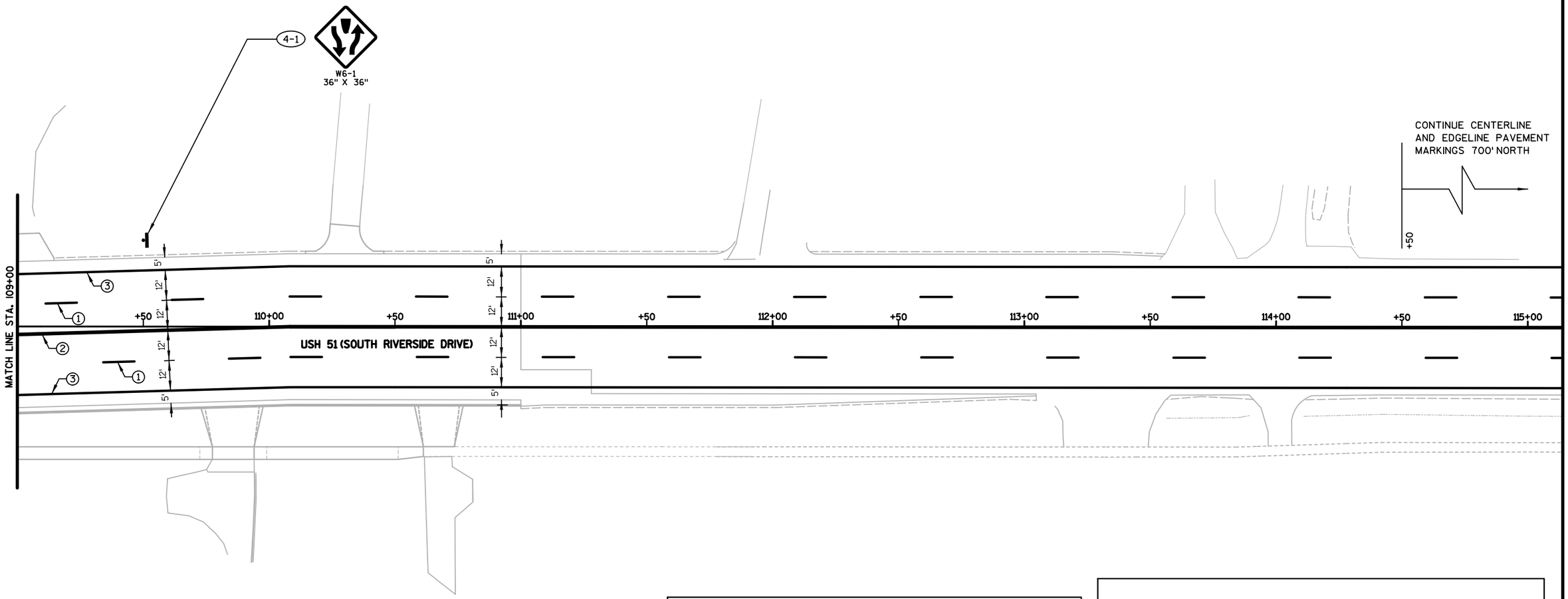
3. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
5. PAVEMENT MARKING ARROWS EPOXY TYPE 2
6. PAVEMENT MARKING WORDS EPOXY
7. PAVEMENT MARKING CURB EPOXY
8. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
9. PAVEMENT MARKING ISLAND NOSE EPOXY
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
11. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

2



SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- PROPOSED SIGN MOUNTED ON POSTS WOOD 4x6-INCH
- PROPOSED SIGN MOUNTED ON TRAFFIC SIGNAL POLE
- (X-XX) DENOTES SIGN NUMBER

PAVEMENT MARKING LEGEND

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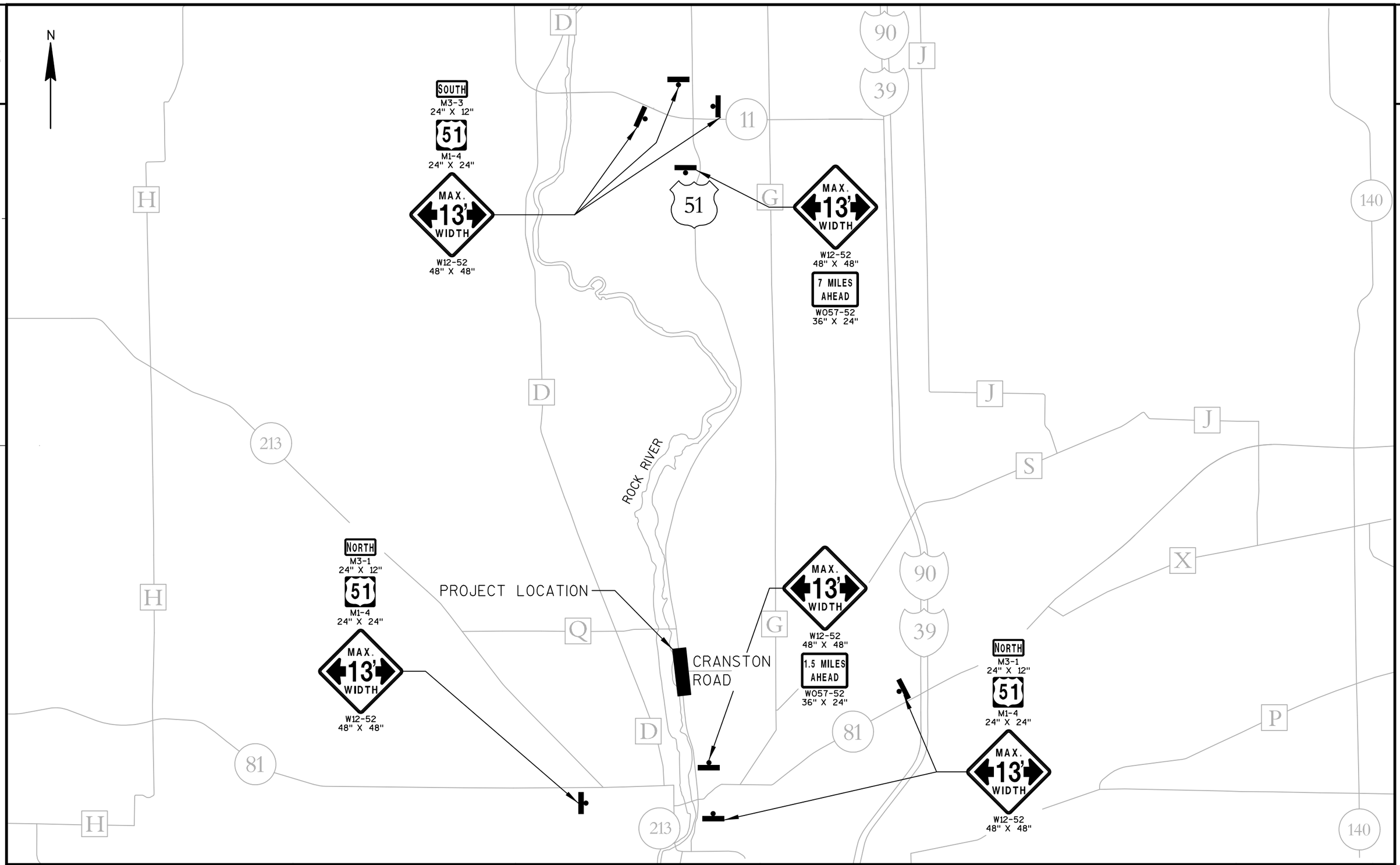
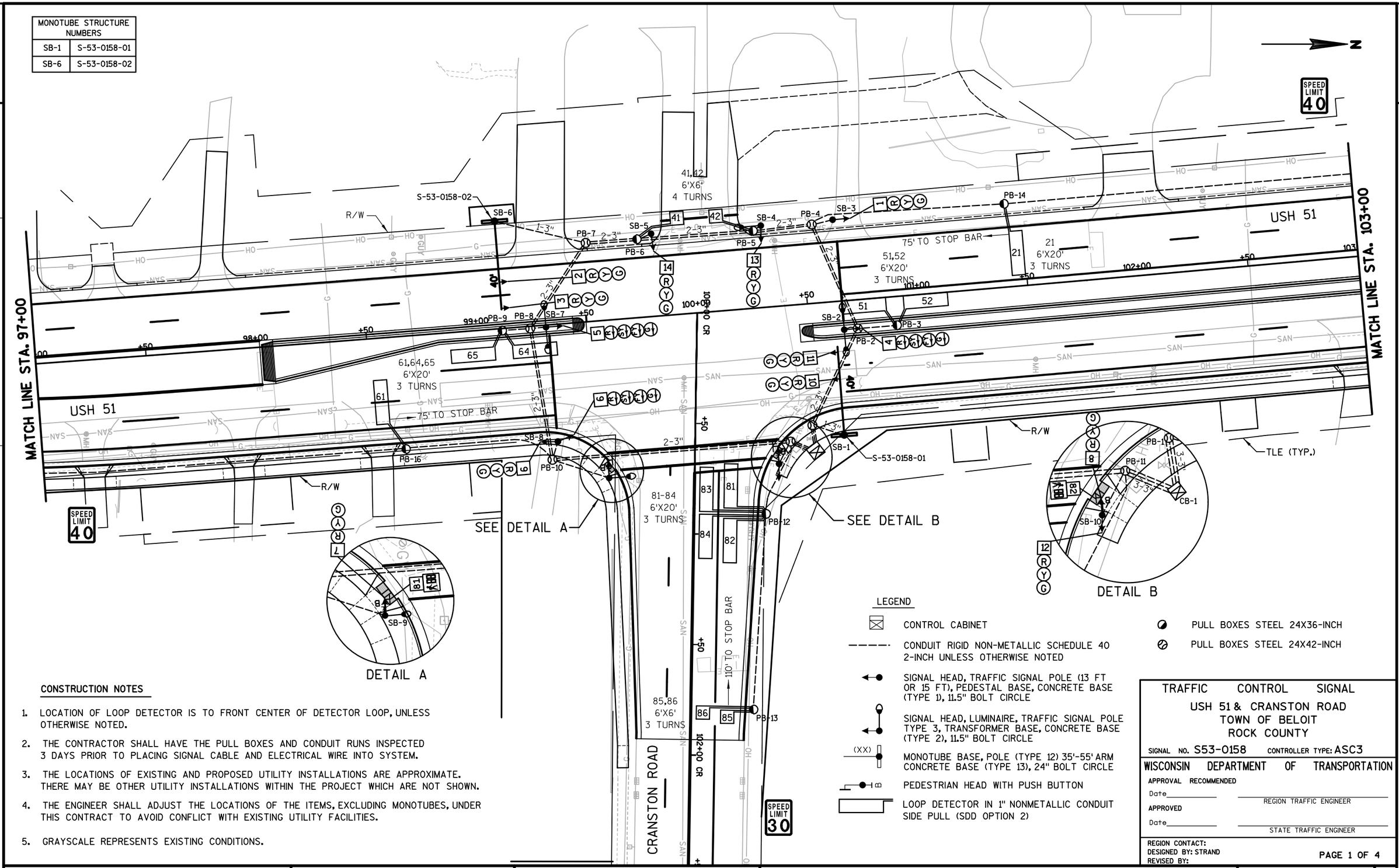
8. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
9. PAVEMENT MARKING ISLAND NOSE EPOXY
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
11. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 45	E



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	ADVANCED WARNING SIGNING	SHEET 46	E

MONOTUBE STRUCTURE NUMBERS	
SB-1	S-53-0158-01
SB-6	S-53-0158-02



CONSTRUCTION NOTES

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF DETECTOR LOOP, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE AND ELECTRICAL WIRE INTO SYSTEM.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER SHALL ADJUST THE LOCATIONS OF THE ITEMS, EXCLUDING MONOTUBES, UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. GRAYSCALE REPRESENTS EXISTING CONDITIONS.

LEGEND

- CONTROL CABINET
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (13 FT OR 15 FT), PEDESTAL BASE, CONCRETE BASE (TYPE 1), 11.5" BOLT CIRCLE
- SIGNAL HEAD, LUMINAIRE, TRAFFIC SIGNAL POLE TYPE 3, TRANSFORMER BASE, CONCRETE BASE (TYPE 2), 11.5" BOLT CIRCLE
- (XX) MONOTUBE BASE, POLE (TYPE 12) 35'-55' ARM CONCRETE BASE (TYPE 13), 24" BOLT CIRCLE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT SIDE PULL (SDD OPTION 2)
- PULL BOXES STEEL 24X36-INCH
- PULL BOXES STEEL 24X42-INCH

TRAFFIC CONTROL SIGNAL

USH 51 & CRANSTON ROAD
TOWN OF BELOIT
ROCK COUNTY

SIGNAL NO. S53-0158 CONTROLLER TYPE: ASC3

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED

Date_____ REGION TRAFFIC ENGINEER

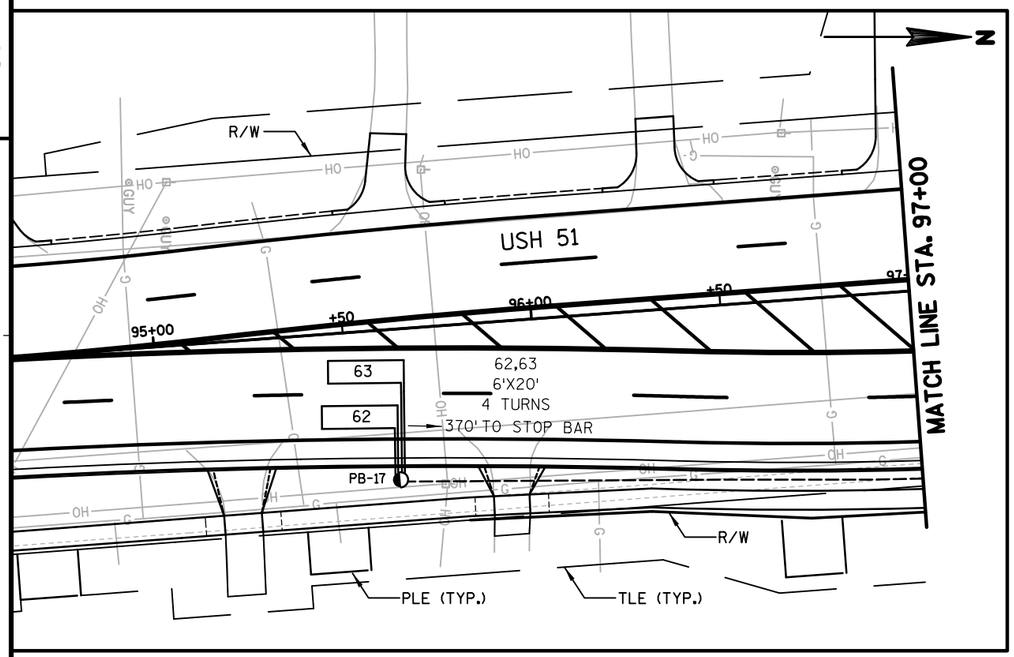
APPROVED

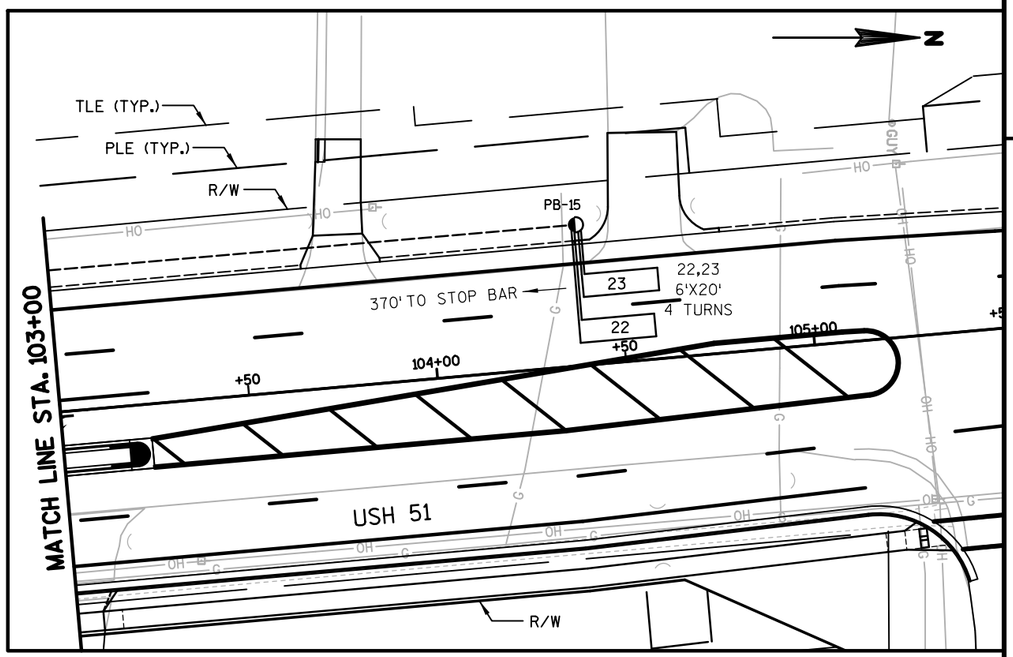
Date_____ STATE TRAFFIC ENGINEER

REGION CONTACT:
DESIGNED BY: STRAND
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	TRAFFIC SIGNAL PLAN	SHEET 47	E





LEGEND

- CONTROL CABINET
- CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL POLE (13 FT OR 15 FT), PEDESTAL BASE, CONCRETE BASE (TYPE 1), 11.5" BOLT CIRCLE
- SIGNAL HEAD, LUMINAIRE, TRAFFIC SIGNAL POLE TYPE 3, TRANSFORMER BASE, CONCRETE BASE (TYPE 2), 11.5" BOLT CIRCLE
- (XX) MONOTUBE BASE, POLE (TYPE 12) 35'-55' ARM CONCRETE BASE (TYPE 13), 24" BOLT CIRCLE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT SIDE PULL (SDD OPTION 2)
- PULL BOXES STEEL 24X36-INCH
- PULL BOXES STEEL 24X42-INCH

CONSTRUCTION NOTES

1. LOCATION OF LOOP DETECTOR IS TO FRONT CENTER OF DETECTOR LOOP, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE AND ELECTRICAL WIRE INTO SYSTEM.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER SHALL ADJUST THE LOCATIONS OF THE ITEMS, EXCLUDING MONOTUBES, UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. GRAYSCALE REPRESENTS EXISTING CONDITIONS.

TRAFFIC CONTROL SIGNAL
USH 51 & CRANSTON ROAD
TOWN OF BELOIT
ROCK COUNTY

SIGNAL NO. S53-0158

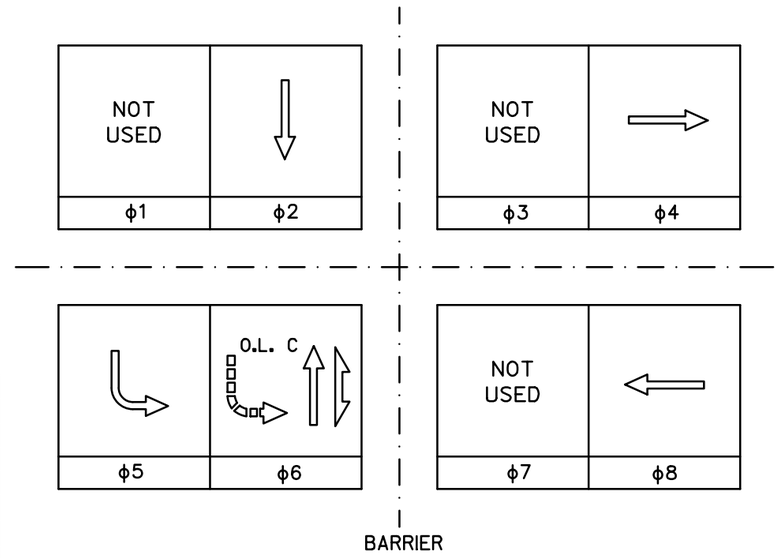
REGION CONTACT:
DESIGNED BY: STRAND
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	TRAFFIC SIGNAL PLAN	SHEET 48	E

	HEAD NUMBERS	FLASH
ϕ1		
ϕ2	1-3	R
ϕ3		
ϕ4	7,8	R
ϕ5	4-6	R
ϕ6	9-11	R
ϕ7		
ϕ8	12-14	R
ϕ2 PED		
ϕ4 PED		
ϕ6 PED	81,82	
ϕ8 PED		
OLA		
OLB		
OLC	4-6	R
OLD		
OLE		
OLF		
OLG		
OLH		

O.L. ASSIGNMENTS
ϕ5, ϕ6



CONTROLLER LOGIC

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	22	23	42	52	62	63	65	-
PHASE CALLED	2	2	4	5	6	6	6	
PHASE EXTENDED	2	2	4	5	6	6	6	
DISCONNECT TIME								
CALLING DELAY			5					
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
82	84	86						DETECTOR #(S)
8	8							PHASE CALLED
8	8	8						PHASE EXTENDED
								DISCONNECT TIME
16								CALLING DELAY
		1.2						EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	-	21	41	51	-	61	64	-
PHASE CALLED		2	4	5		6	6	
PHASE EXTENDED		2	4	5		6	6	
DISCONNECT TIME		35				35		
CALLING DELAY			10					
EXTENSION STRETCH								
LOOP FUNCTION		DIS-CONNECT				DIS-CONNECT		

20	18	24	22	28	26	32	30	DETECTOR INPUT
81	83	85						DETECTOR #(S)
8	8							PHASE CALLED
8	8	8						PHASE EXTENDED
								DISCONNECT TIME
16								CALLING DELAY
		1.2						EXTENSION STRETCH
								LOOP FUNCTION

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER NO: S-
SIGNAL SYSTEM #: SS- -

TRAFFIC CONTROL SIGNAL
USH 51 & CRANSTON ROAD
TOWN OF BELOIT
ROCK COUNTY

SIGNAL NO. S53-0158

REGION CONTACT:
DESIGNED BY:
REVISED BY:

PAGE NO. 3 OF 4

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	SEQUENCE OF OPERATIONS	SHEET 49	E

USH 51 & CRANSTON ROAD TRAFFIC SIGNAL CABLING CHART NO. 14 CABLE						
CABLE RUN	CABLE	HEAD NO.	MOVEMENT	LENS	CONDUCTOR COLOR	REMARKS
CONTROL CABINET TO SB-1	7/C	10	NB	R	R	Ø 6
				Y	O	
				G	G	
		11	NB	R	R	Ø 6
				Y	O	
				G	G	
CONTROL CABINET TO SB-2	7/C	6	SBL	R	R	Ø 5
				←SY	BLK	
				←FY	O	
				← G	G	
CONTROL CABINET TO SB-3	7/C	1	SB	R	R	Ø 2
				Y	O	
				G	G	
CONTROL CABINET TO SB-4	5/C	13	WB	R	R	Ø 8
				Y	O	
				G	G	
CONTROL CABINET TO SB-5	5/C	14	WB	R	R	Ø 8
				Y	O	
				G	G	
CONTROL CABINET TO SB-6	5/C	2	SB	R	R	Ø 2
				Y	O	
				G	G	
		3	SB	R	R	Ø 2
				Y	O	
				G	G	
CONTROL CABINET TO SB-7	5/C	4	SBL	R	R	Ø 5
				←SY	W	
				←FY	O	
				← G	G	
CONTROL CABINET TO SB-8	9/C	5	SBL	R	R	Ø 5
				←SY	W	
				←FY	O	
				← G	G	
		9	NB	R	R/BLK	Ø 6
				Y	W/BLK	
				G	G/BLK	
CONTROL CABINET TO SB-9	7/C	7	EB	R	R	Ø 4
				Y	O	
				G	G	
		81	Ø 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON
CONTROL CABINET TO SB-10	12/C	8	EB	R	R/BLK	Ø 4
				Y	O/BLK	
				G	G/BLK	
		12	WB	R	R	Ø 8
				Y	O	
				G	G	
		82	Ø 6 PED	D/WALK	BLK	
				WALK	BLU	
				PED BUTTON	W/BLK	BUTTON

EQUIPMENT GROUNDING CONDUCTOR 10 AWG	
FROM	TO
CB-1	SB-1
SB-1	SB-2
SB-2	SB-3
SB-3	SB-4
SB-4	SB-5
SB-5	SB-6
SB-6	SB-7
SB-7	SB-8
SB-8	SB-9
SB-9	SB-10
SB-10	CB-1

LIGHTING UF 12 AWG W/ GROUND	
FROM	TO
CB-1	SB-2
SB-2	SB-4
CB-1	SB-9
SB-9	SB-7

PULL BOX BONDING JUMPER 10 AWG	
FROM	TO
SB-1	PB-1
SB-2	PB-2
SB-3	PB-4
SB-4	PB-5
SB-5	PB-6
SB-6	PB-7
SB-7	PB-8
SB-8	PB-10
SB-10	PB-11

BLK = BLACK
W = WHITE
R = RED
G = GREEN
O = ORANGE
BLU = BLUE

1. ENSURE THE GROUNDED CONDUCTORS AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
2. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
3. USE SEPARATE WHITE CONDUCTOR AS THE GROUNDED CONDUCTOR (NEUTRAL) FOR ALL TRAFFIC SIGNAL INDICATIONS.

TRAFFIC CONTROL SIGNAL

USH 51 & CRANSTON ROAD
TOWN OF BELOIT
ROCK COUNTY

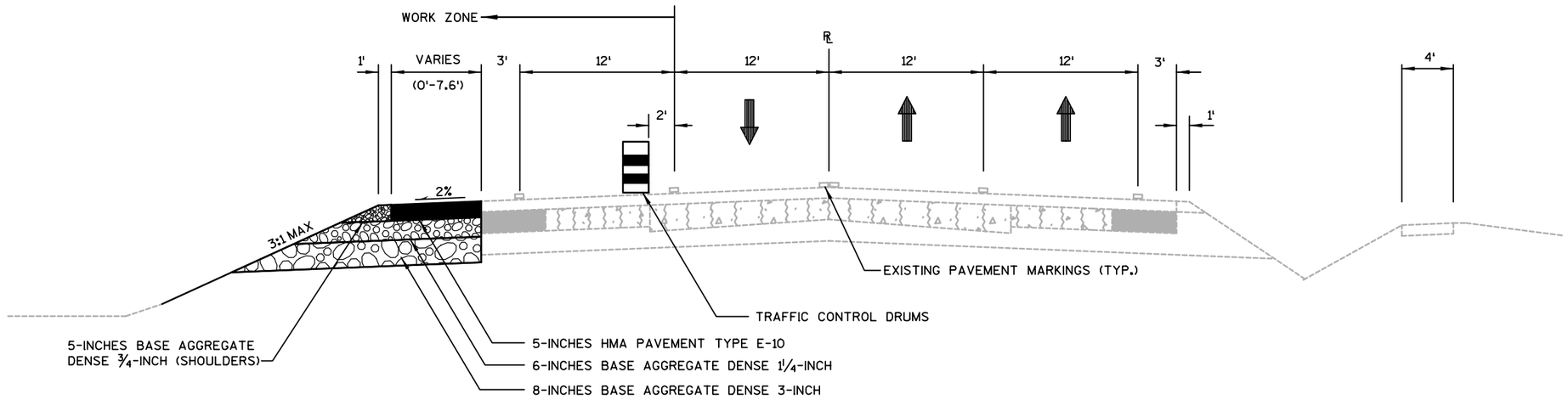
SIGNAL NO. S53-0158

DESIGNED BY: STRAND
REVISED BY:

PAGE 4 OF 4

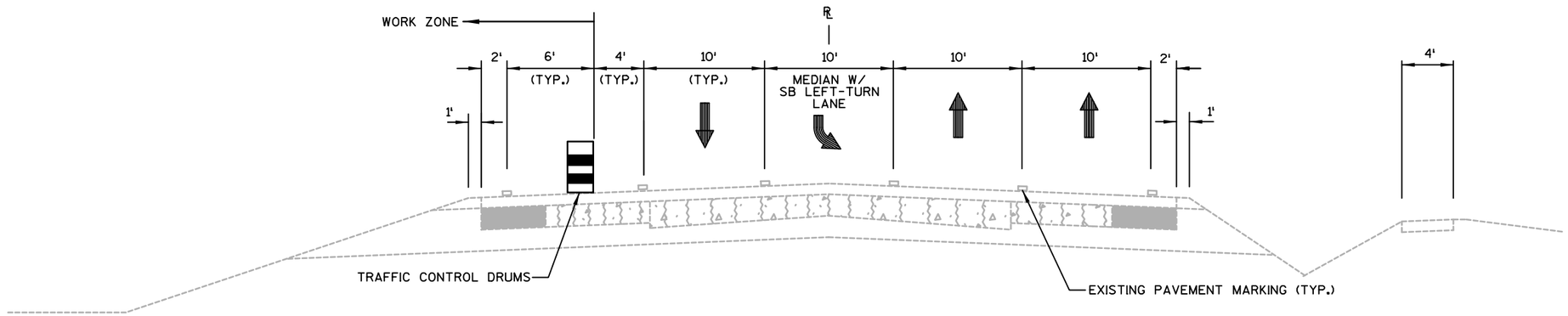
PROJECT NO: 5350-00-74 | HWY: USH 51 | COUNTY: ROCK | CABLE ROUTING | SHEET | E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\024004_cr.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



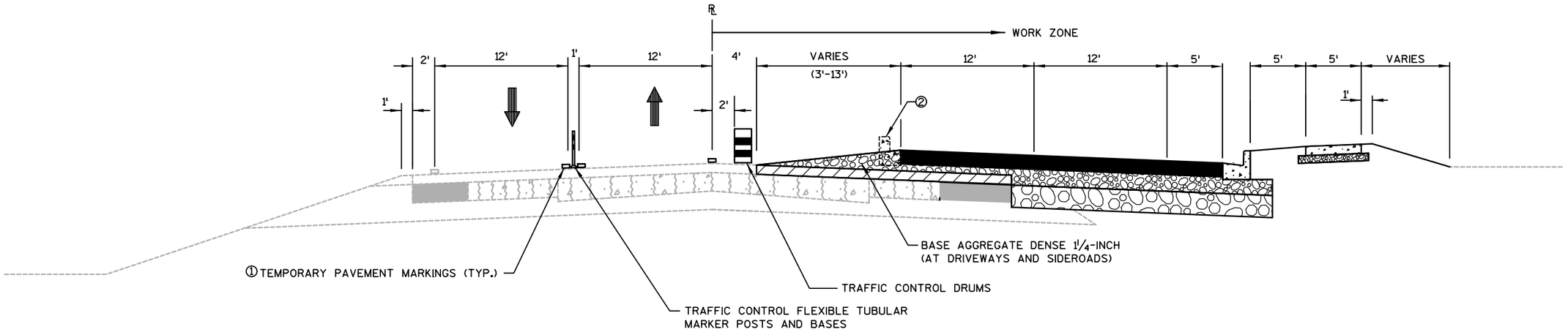
CONSTRUCTION STAGE 1 TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

STA. 90+45 TO STA. 96+26
STA. 108+13 TO STA. 113+54

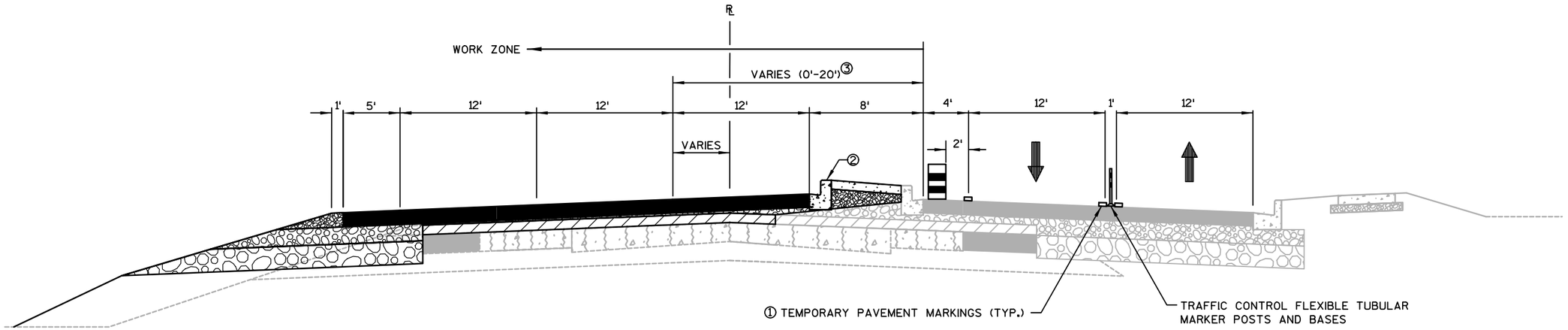


CONSTRUCTION STAGE 1 TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

STA. 96+26 TO STA. 108+13



CONSTRUCTION STAGE 2 TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)



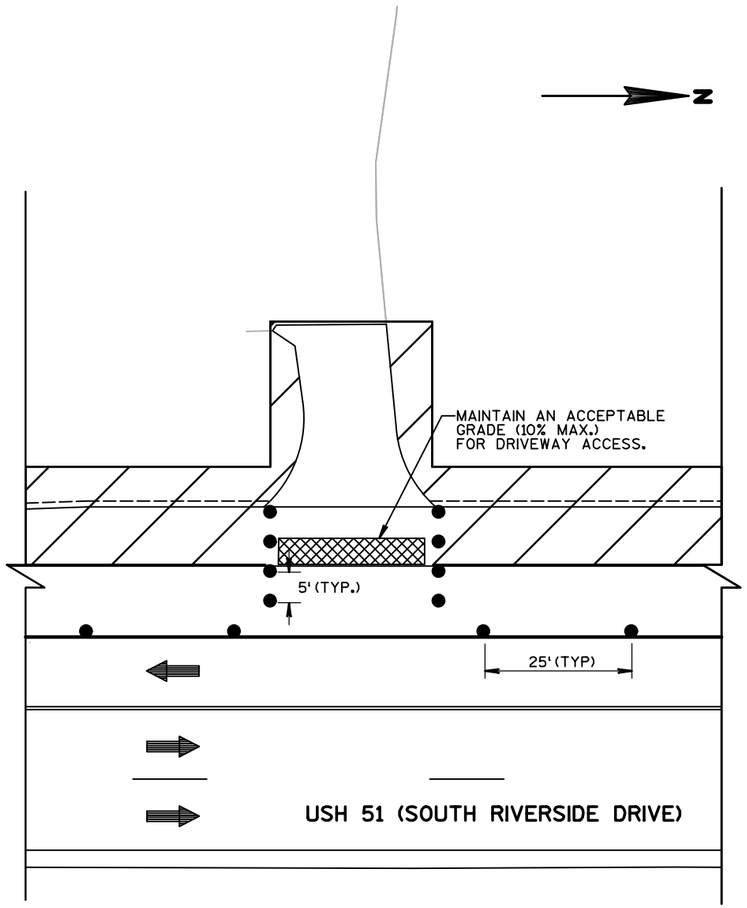
CONSTRUCTION STAGE 3 TYPICAL SECTION - USH 51 (SOUTH RIVERSIDE DRIVE)

① REFER TO CONSTRUCTION STAGING PLANS FOR ADDITIONAL INFORMATION.

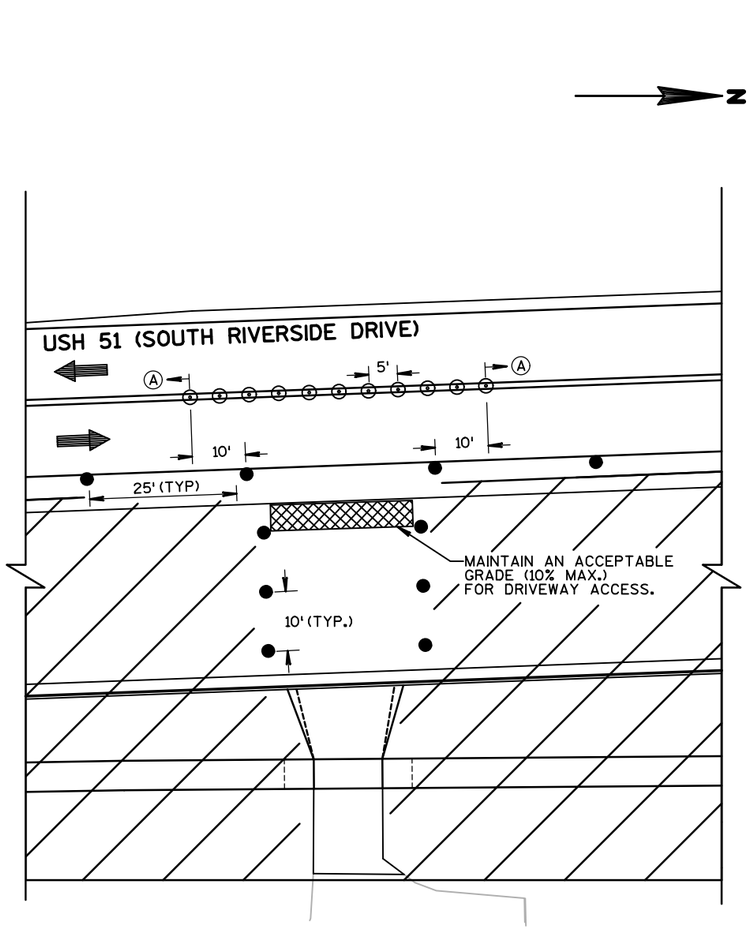
② REFER TO CONSTRUCTION STAGING PLANS FOR MEDIAN CONCRETE CURB AND GUTTER LOCATIONS.

③ SOUTHBOUND LEFT-TURN LANE SHOWN. REFER TO CONSTRUCTION STAGING PLANS FOR NORTHBOUND LEFT-TURN LANE LOCATION. (MIRROR IMAGE WITH MEDIAN CURB LT/RT INSTALLED IN STAGE 3)

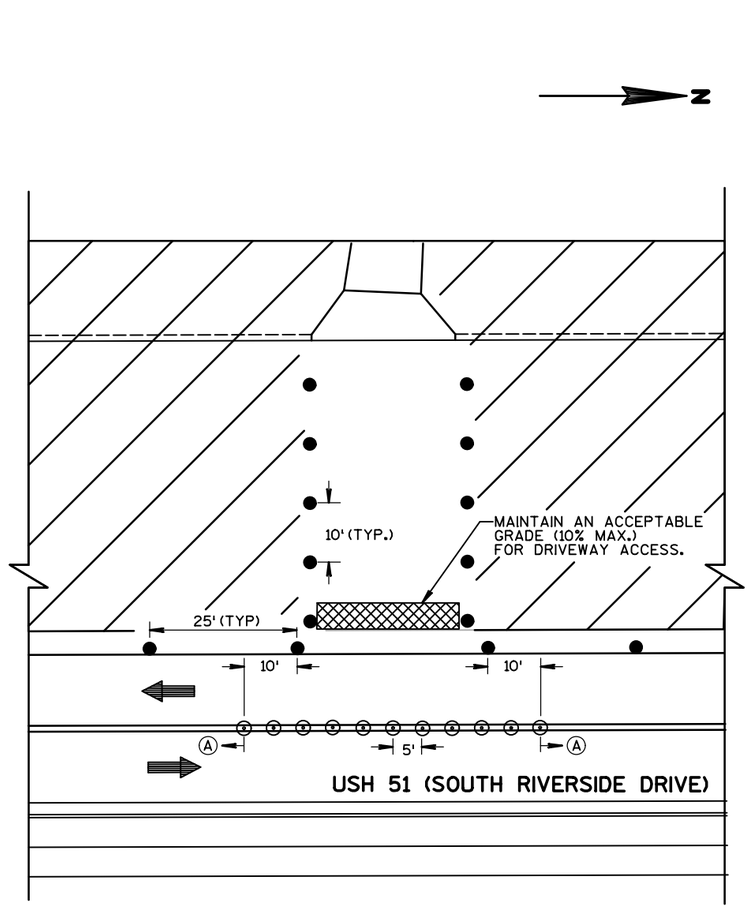
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CONSTRUCTION STAGING TYPICALS - STAGES 2 & 3	SHEET 52	E



TEMPORARY ACCESS TO DRIVEWAY DETAIL - STAGE 1



TEMPORARY ACCESS TO DRIVEWAY DETAIL - STAGE 2



TEMPORARY ACCESS TO DRIVEWAY DETAIL - STAGE 3

LEGEND

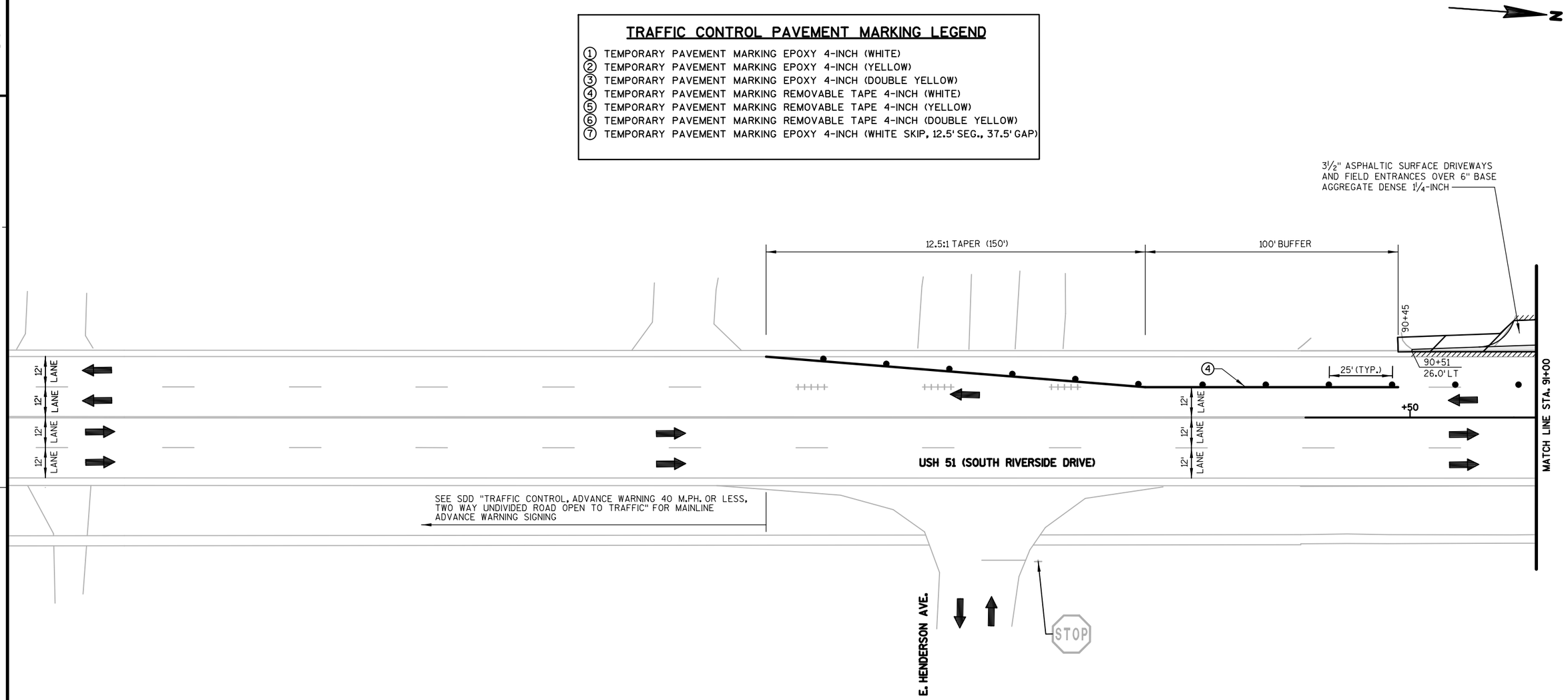
- WORK ZONE
- TRAFFIC FLOW ARROW
- DRUM WITHOUT LIGHT
- FLEXIBLE TUBULAR MARKER POSTS BASES
- BASE AGGREGATE DENSE 1¼-INCH (WEDGING)

Ⓐ INCREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 25' BETWEEN DRIVEWAY LOCATIONS

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CONSTRUCTION STAGING DETAILS	SHEET 53	E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

① TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
② TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
③ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
④ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
⑤ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
⑥ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
⑦ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- 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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

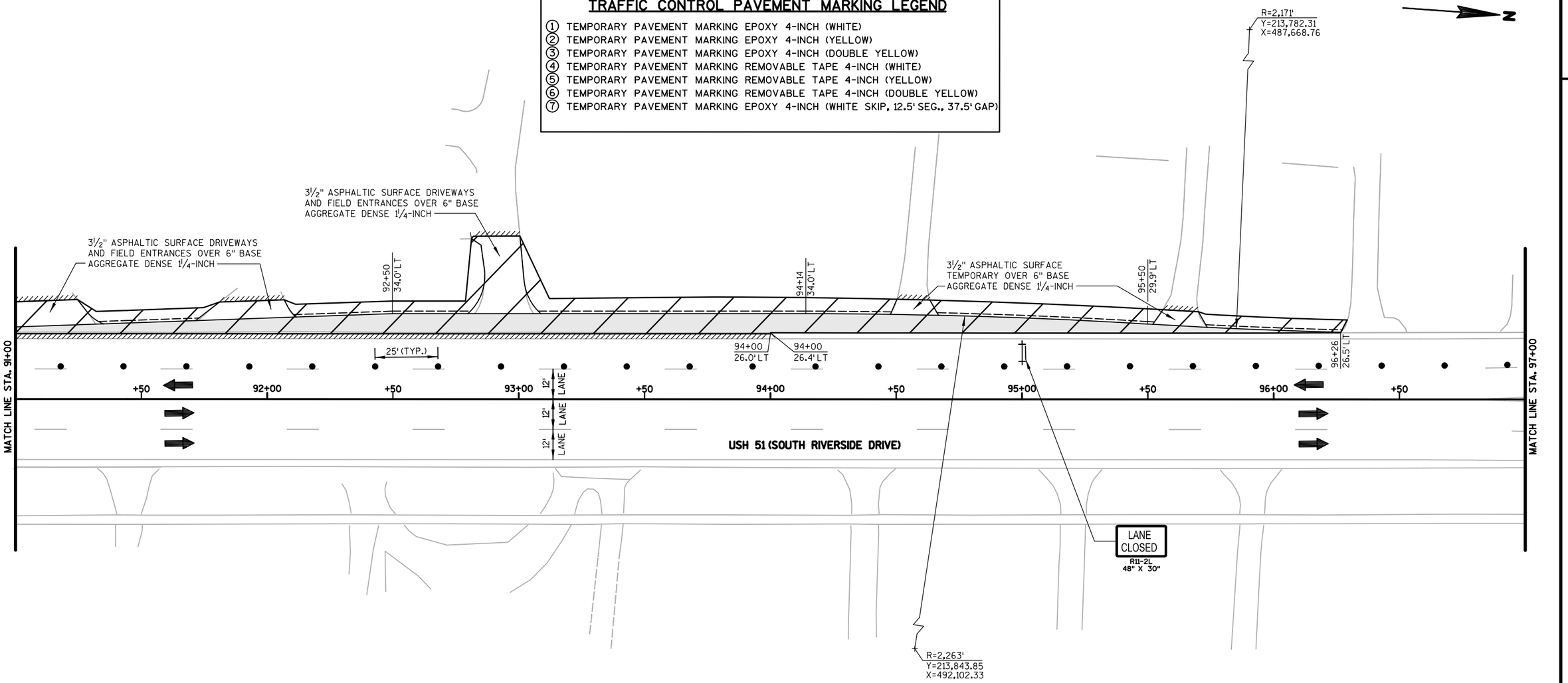
NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\026101_s1.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- -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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- -SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- -PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- -ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- -ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- -FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- -MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

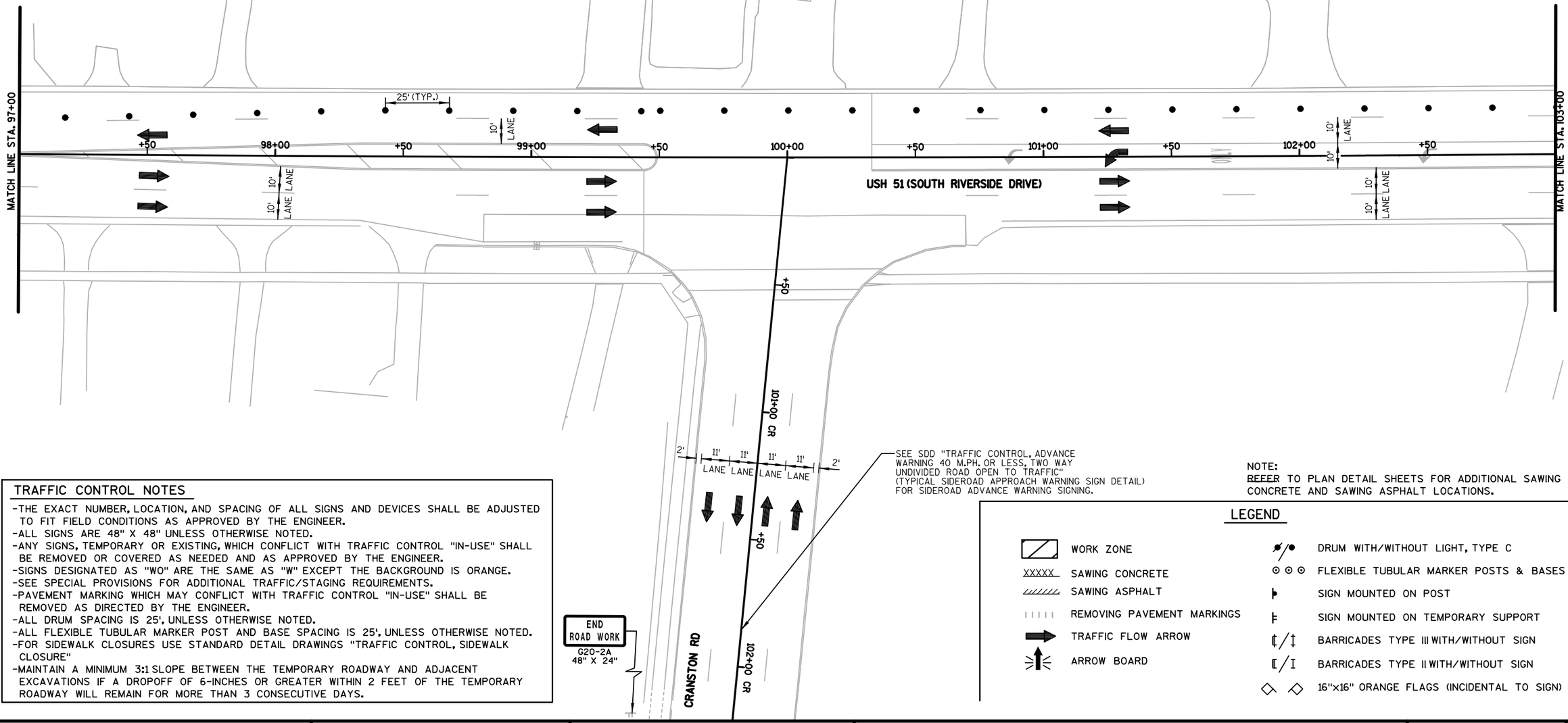
- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 1	SHEET 55	E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

① TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
② TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
③ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
④ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
⑤ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
⑥ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
⑦ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



TRAFFIC CONTROL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
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- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
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- FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 1	SHEET 56	E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
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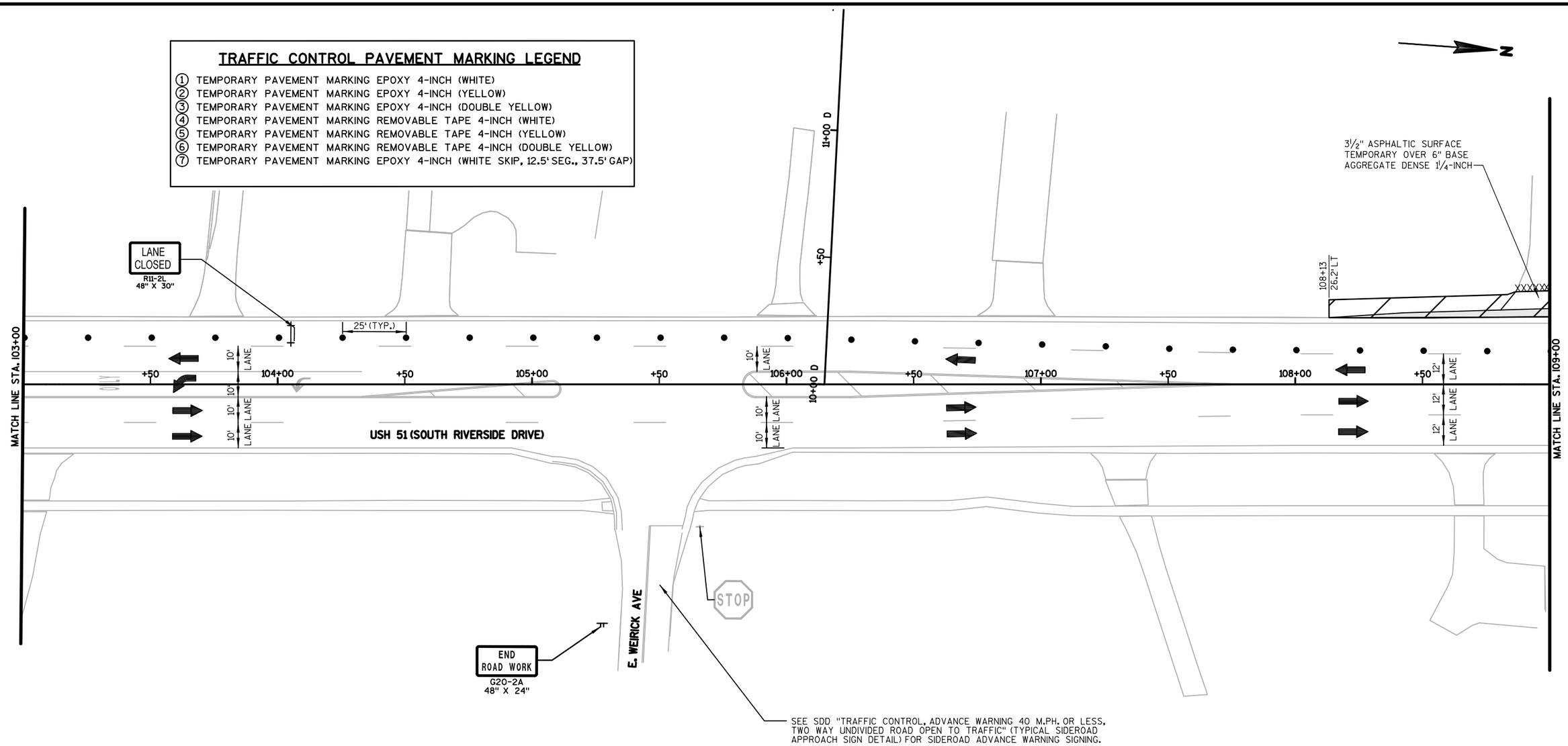

TRAFFIC CONTROL NOTES

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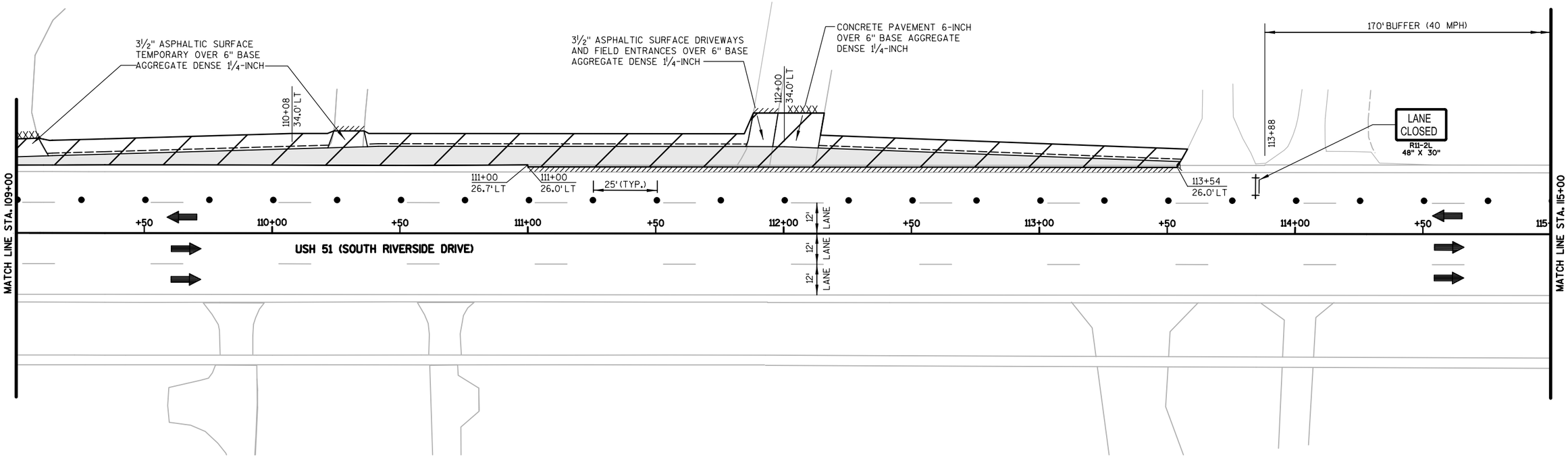
LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



TRAFFIC CONTROL NOTES

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LEGEND

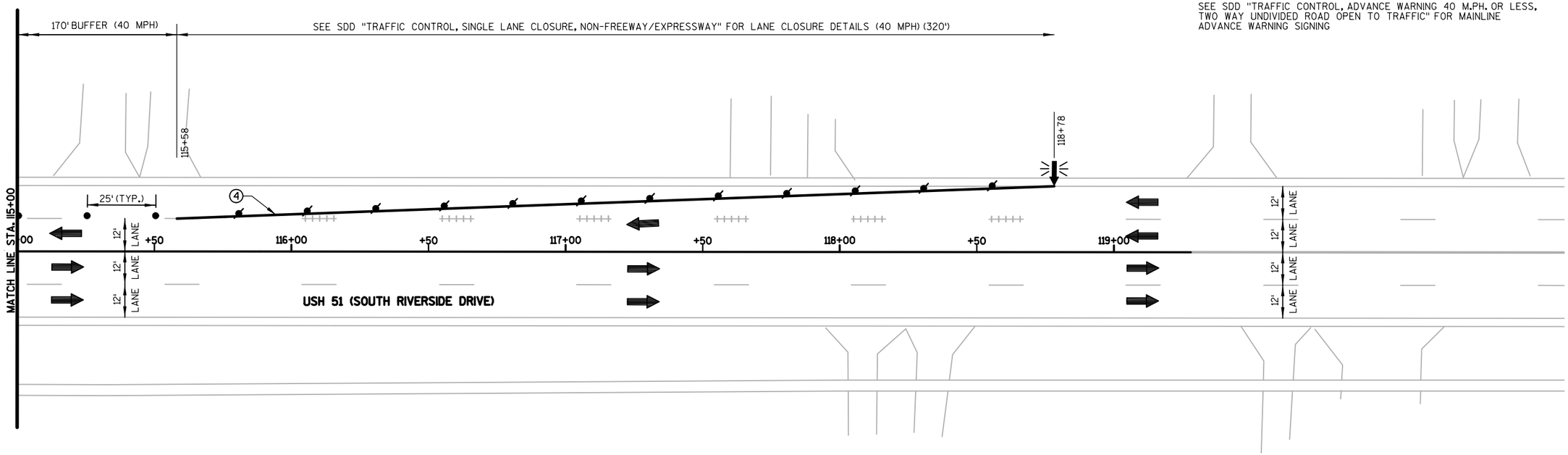
- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)

N



TRAFFIC CONTROL NOTES

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- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

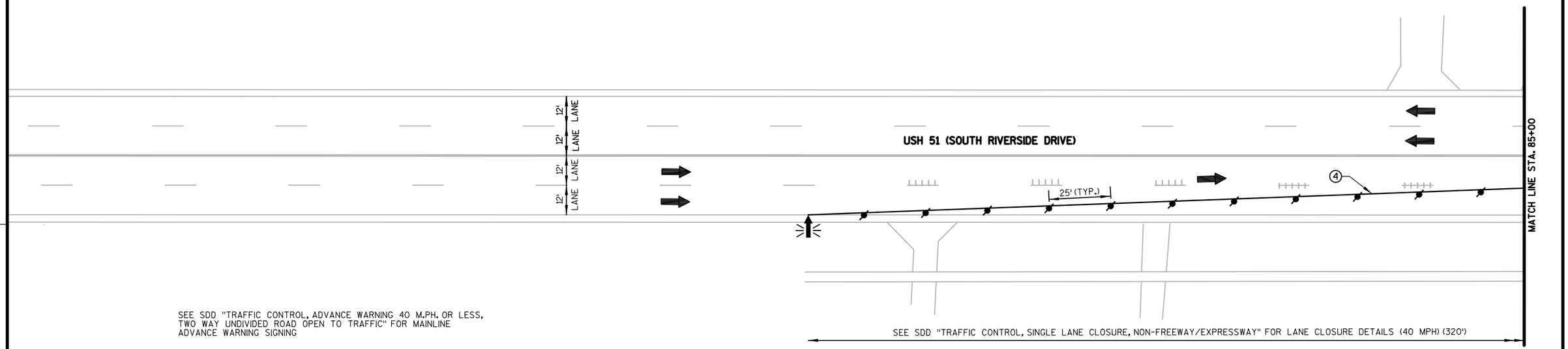
2

2

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)

N



SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING 40 M.PH. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR MAINLINE ADVANCE WARNING SIGNING

TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- -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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- -SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- -PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- -ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- -ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- -FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- -MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 2	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\026201_s2.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
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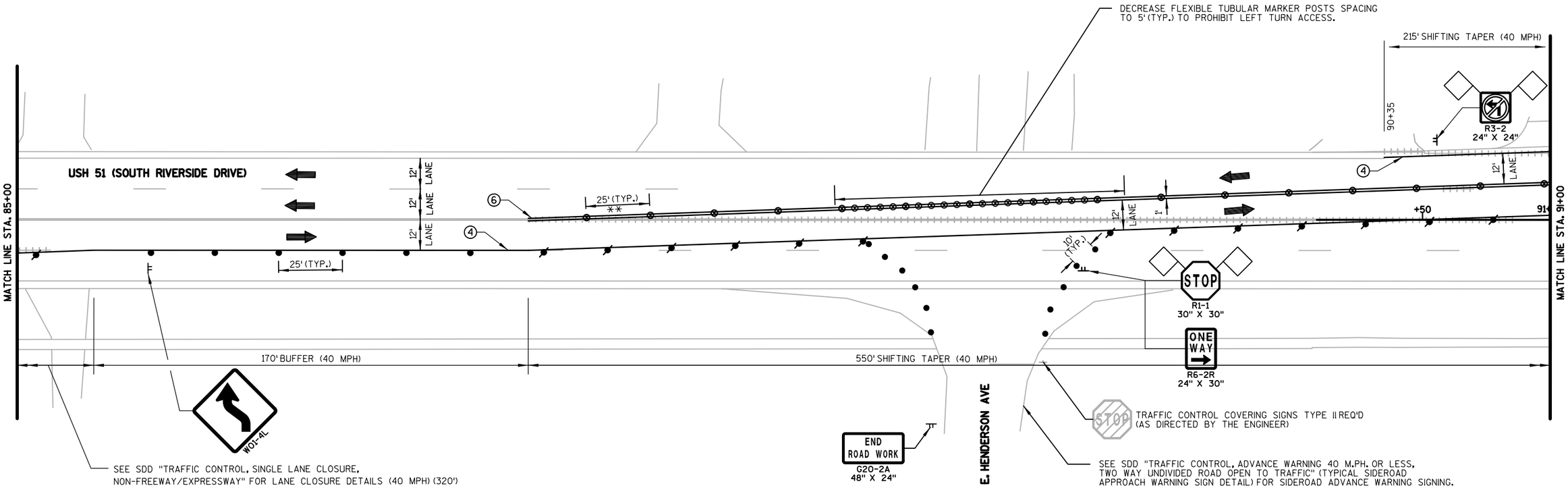

TRAFFIC CONTROL NOTES

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LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
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- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
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TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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④ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
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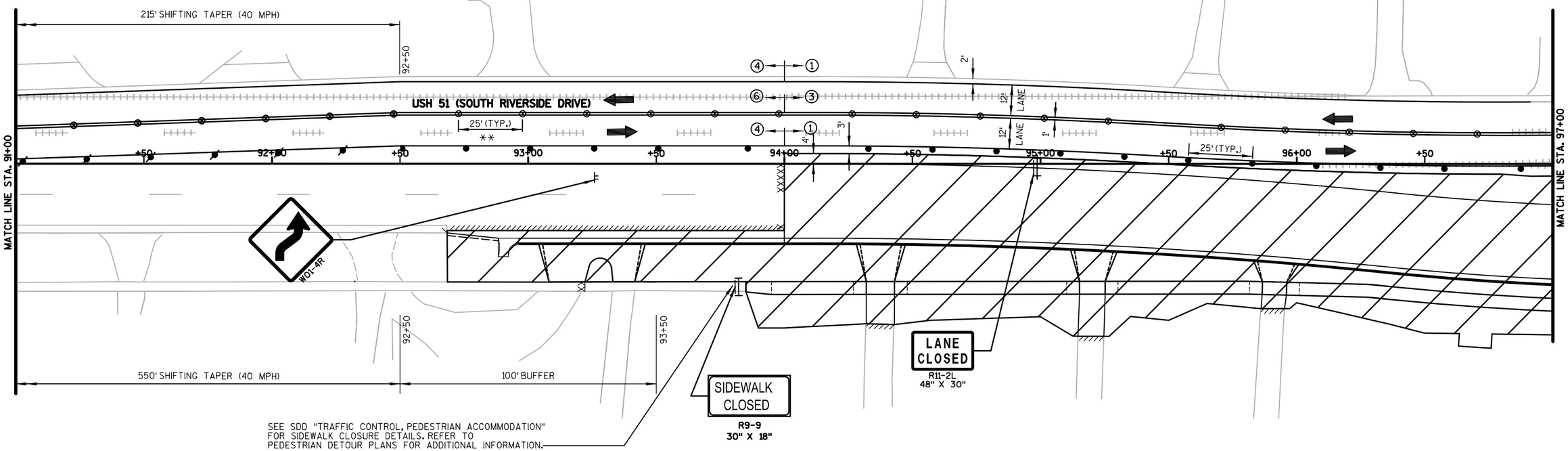
** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.



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LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
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- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
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NOTE:
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PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 2	SHEET 62	E

** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
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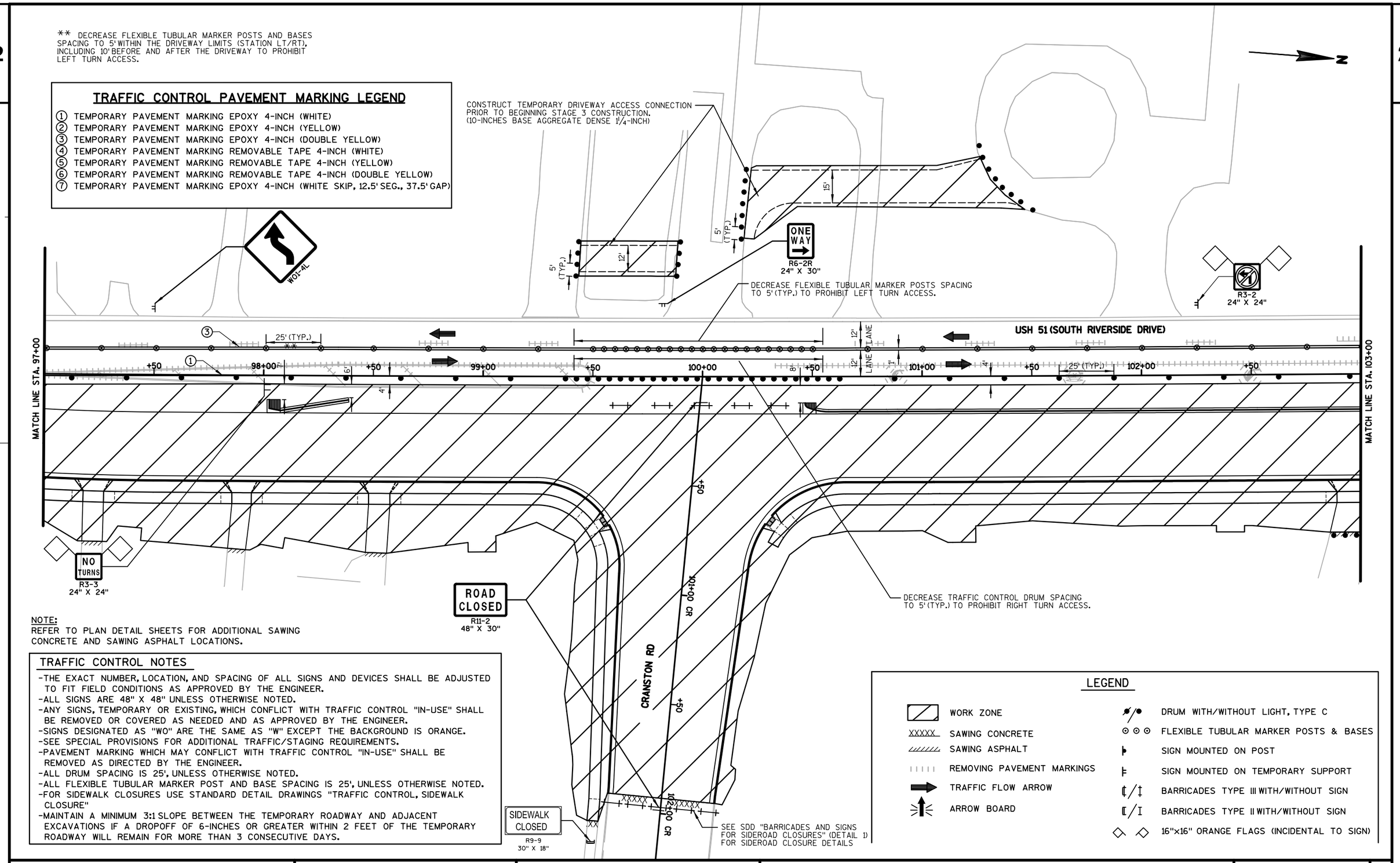

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LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 2	SHEET 63 E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
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7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)

(A) INSTALL THE STORM SEWER CROSSING AT STATION 106+18 IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS. REFER TO THE STORM SEWER PLAN SHEETS AND USH 51 DETOUR PLANS FOR ADDITIONAL INFORMATION.

N

DECREASE FLEXIBLE TUBULAR MARKER POSTS SPACING TO 5'(TYP.) TO PROHIBIT LEFT TURN ACCESS.

5-INCHES OF ASPHALTIC SURFACE TEMPORARY OVER 10-INCHES OF BASE AGGREGATE DENSE 1¼-INCH

265' SHIFTING TAPER

EW-C

R3-2
24" X 24"

MATCH LINE STA. 103+00

MATCH LINE STA. 109+00

USH 51 (SOUTH RIVERSIDE DRIVE)

11+00 D

10+90 D

25'(TYP.)

12' LANE

MH-220

(A) TRAFFIC CONTROL COVERING SIGNS TYPE II REQ'D (AS DIRECTED BY THE ENGINEER)

STOP
R1-1
30" X 30"

ONE WAY
R6-2R
24" X 30"

LANE CLOSED
R11-2L
48" X 30"

W01-4L

END ROAD WORK
G20-2A
48" X 24"

E WEIRICK AVE

SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING 40 M.PH. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" (TYPICAL SIDEROAD APPROACH SIGN DETAIL) FOR SIDEROAD ADVANCE WARNING SIGNING.

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LEGEND

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- SAWING ASPHALT
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NOTE:
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2

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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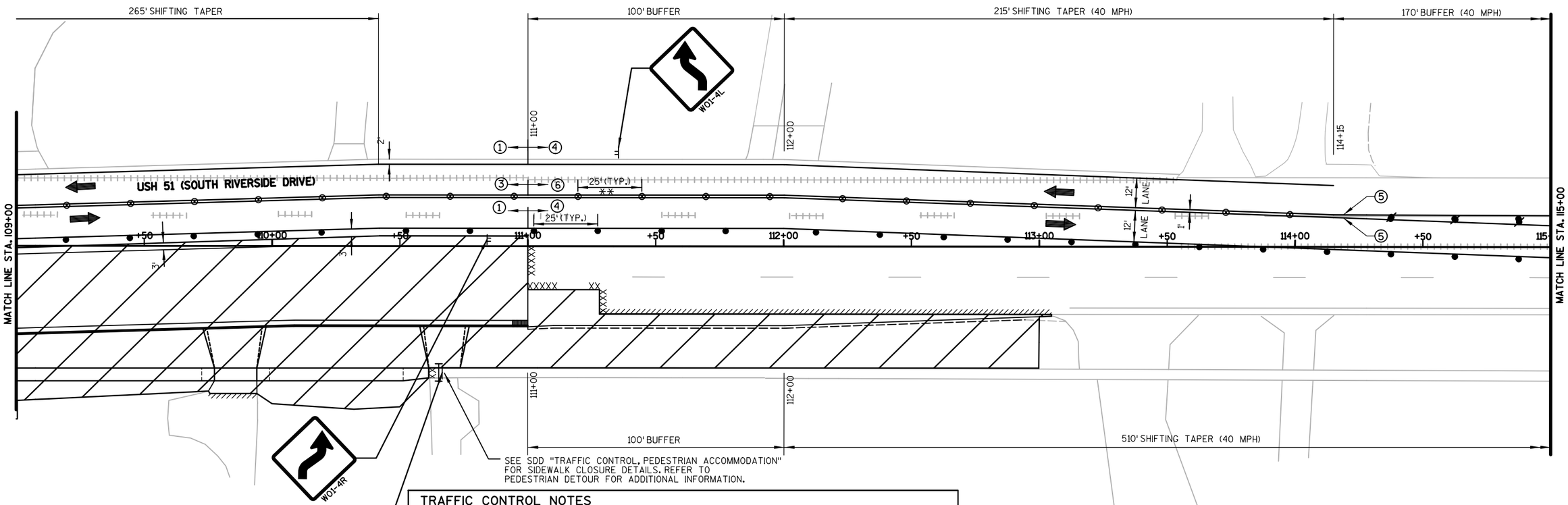

TRAFFIC CONTROL NOTES

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LEGEND

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- SAWING ASPHALT
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TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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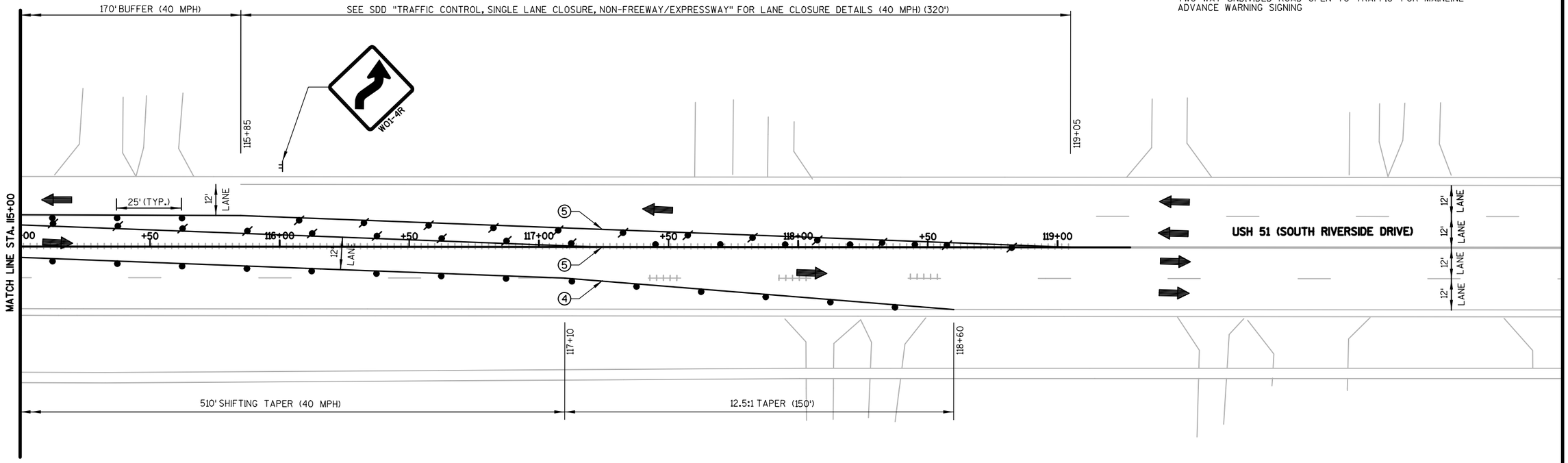
SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING 40 M.PH. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR MAINLINE ADVANCE WARNING SIGNING



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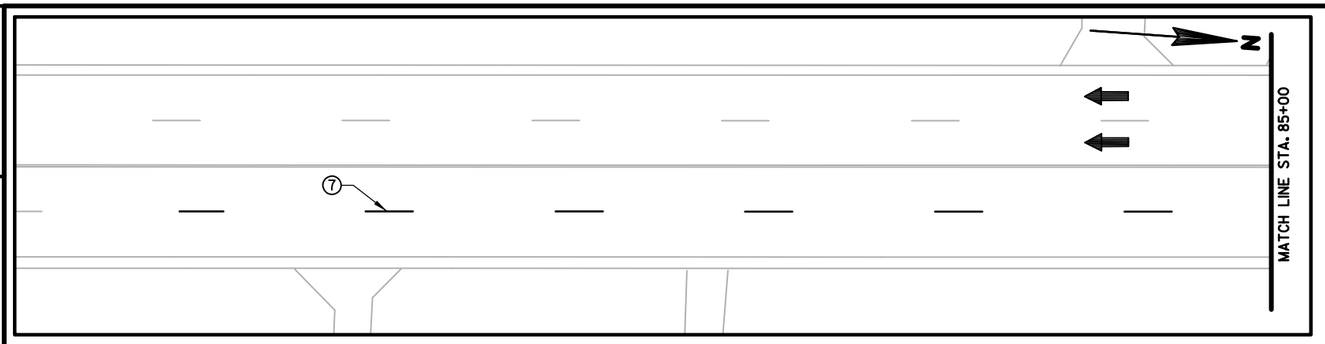
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 2	SHEET 66 E



TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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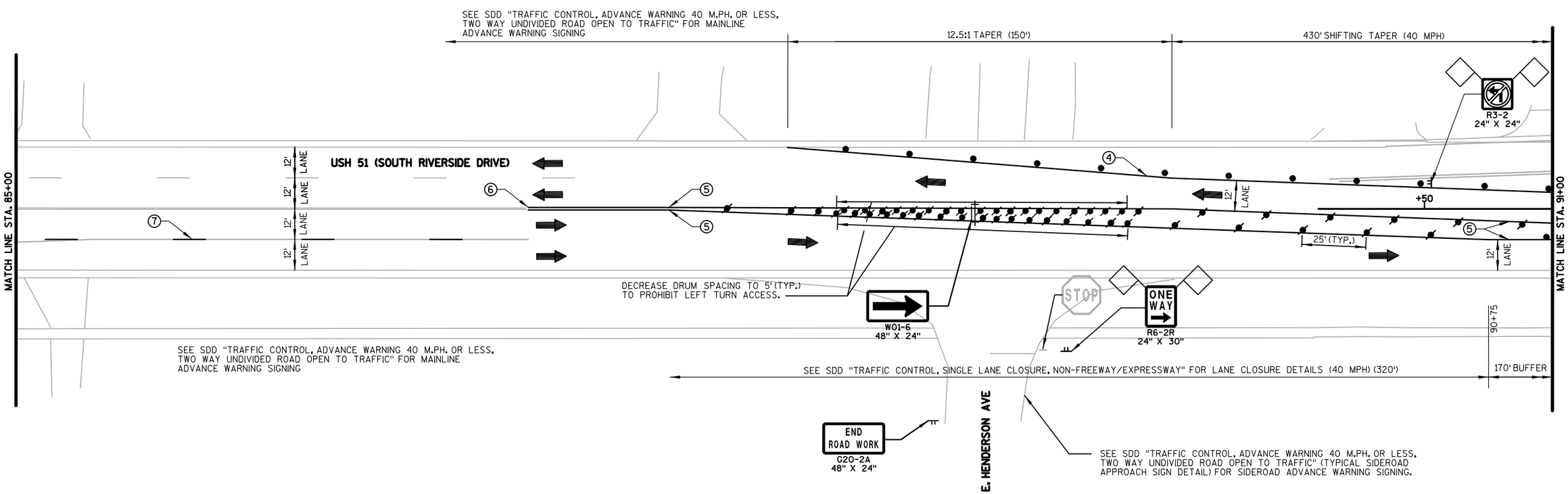

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- FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

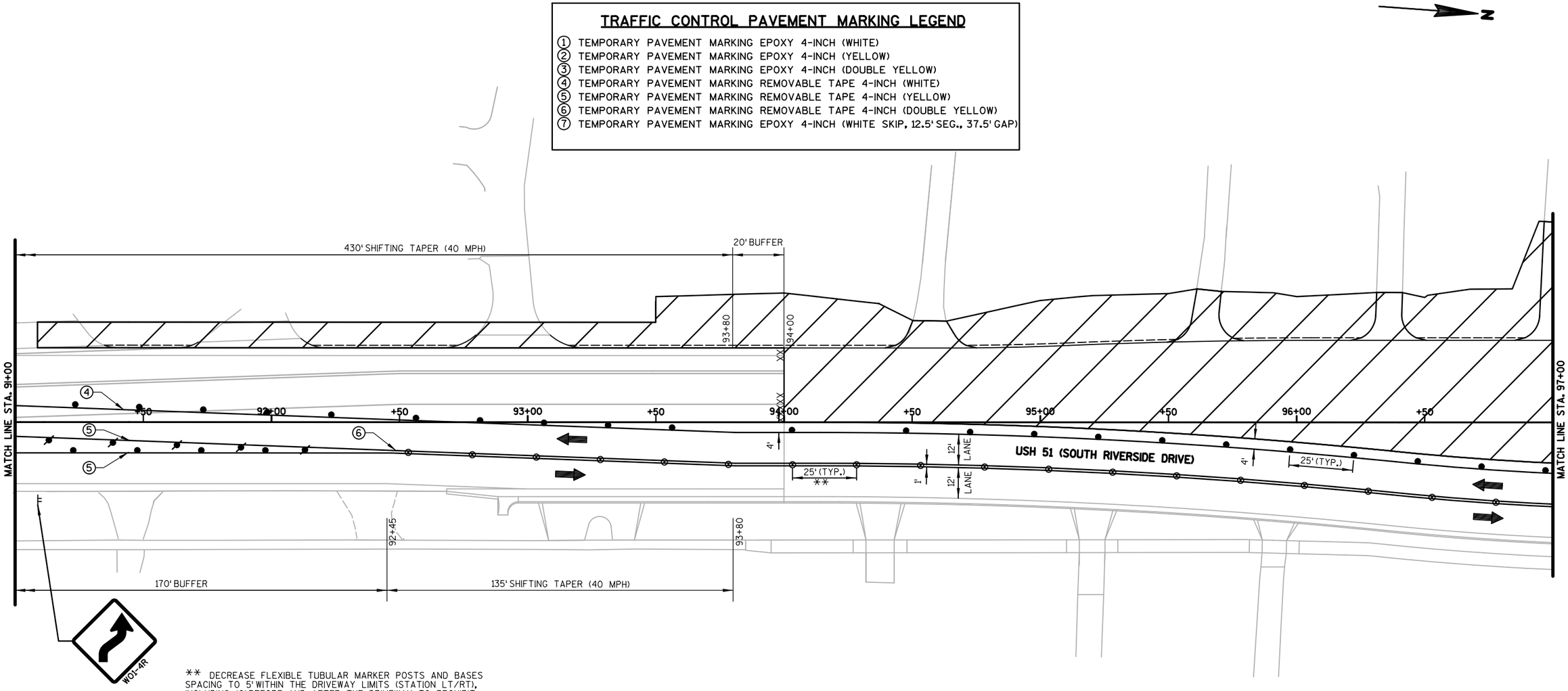
LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- 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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 3	SHEET 68	E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)

N

REMOVE TEMPORARY ACCESS CONNECTION AT THE END OF STAGE 3 CONSTRUCTION ONCE SOUTHBOUND TRAFFIC IS SWITCHED TO THE NEW SOUTHBOUND PAVEMENT.

MATCH LINE STA. 97+00

MATCH LINE STA. 103+00

98+00 99+00 100+00 101+00 102+00 +50

5' (TYP.)

12'

10' (TYP.)

LANE CLOSED
R11-2L
48" X 30"

M01-4R

DECREASE FLEXIBLE TUBULAR MARKER POSTS SPACING TO 5'(TYP.) TO PROHIBIT LEFT TURN ACCESS.

12' LANE
12' LANE
1'
4'
25'(TYP.)
25'(TYP.) **

USH 51 (SOUTH RIVERSIDE DRIVE)

R3-2
24" X 24"

NO TURNS
R3-3
24" X 24"

ONE WAY
R6-2R
24" X 30"

DECREASE TRAFFIC CONTROL DRUM SPACING TO 5'(TYP.) TO PROHIBIT RIGHT TURN ACCESS.

101+00 CR

CRANSTON RD

+50

2' 11' 11' 11' 11' 2'
LANE LANE LANE LANE

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" (DETAIL 1) FOR SIDEROAD CLOSURE DETAILS

NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- -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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- -SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- -PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- -ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- -ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- -FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- -MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

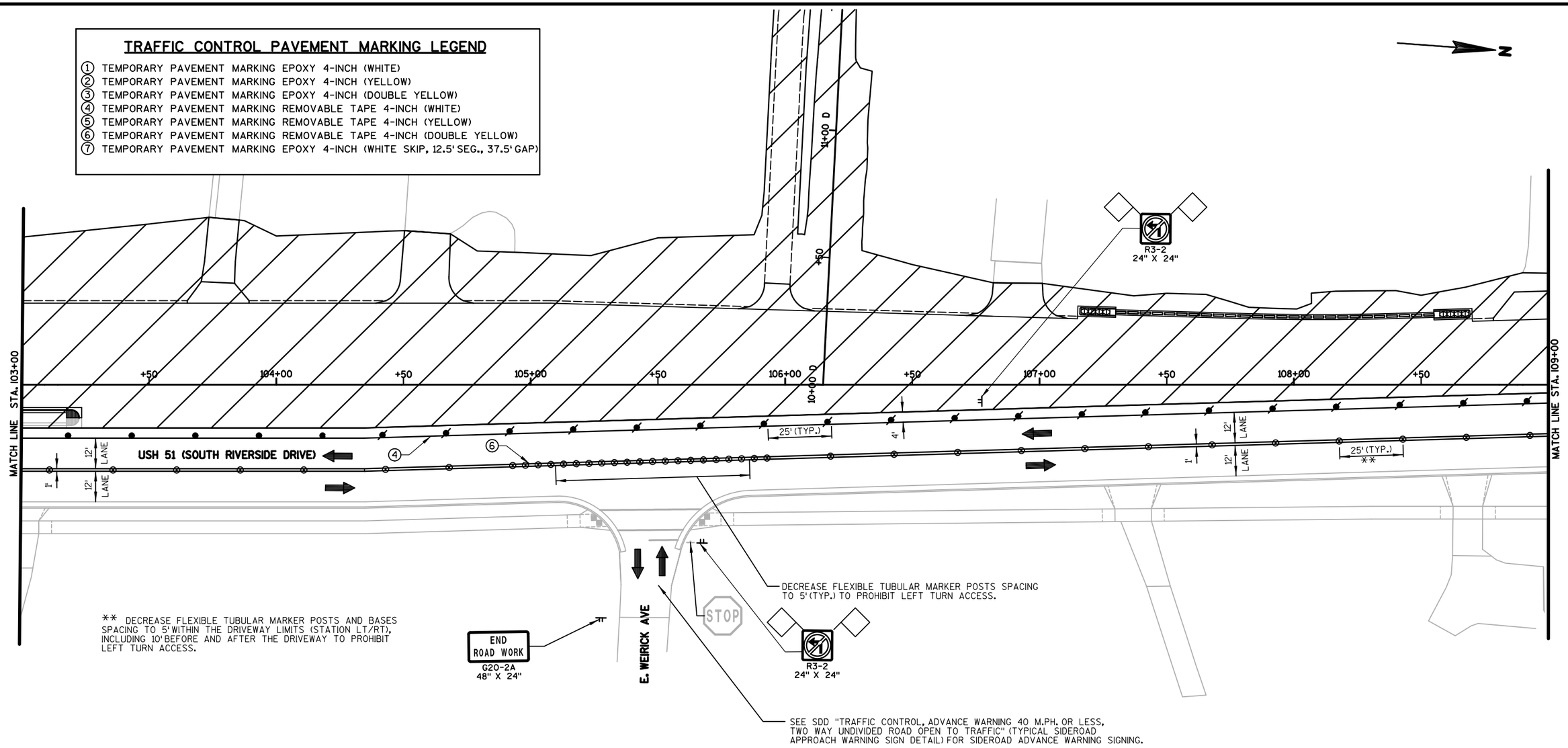
LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 3	SHEET 69	E

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

① TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
② TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
③ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
④ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
⑤ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
⑥ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
⑦ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



TRAFFIC CONTROL 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" X 48" UNLESS OTHERWISE NOTED.
- 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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
- PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
- ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
- ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
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- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
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- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

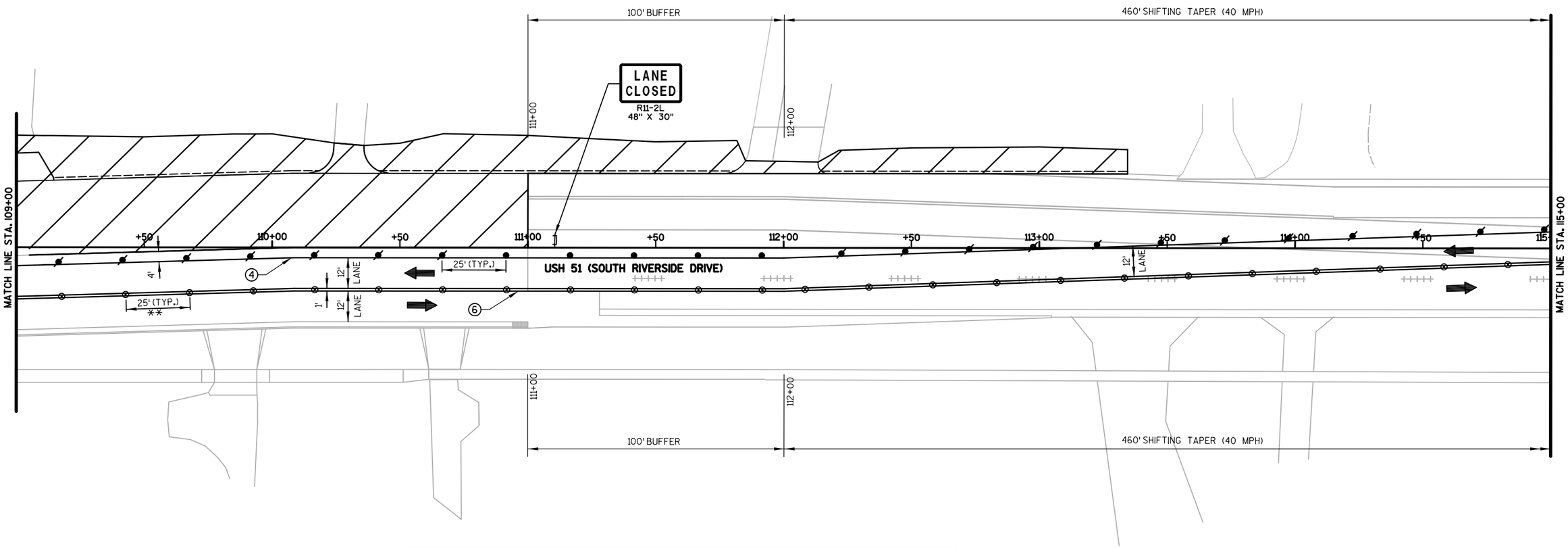
NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 3	SHEET 70	E

** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



NOTE:
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TRAFFIC CONTROL NOTES

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- ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
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LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
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- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

2

** DECREASE FLEXIBLE TUBULAR MARKER POSTS AND BASES SPACING TO 5' WITHIN THE DRIVEWAY LIMITS (STATION LT/RT), INCLUDING 10' BEFORE AND AFTER THE DRIVEWAY TO PROHIBIT LEFT TURN ACCESS.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

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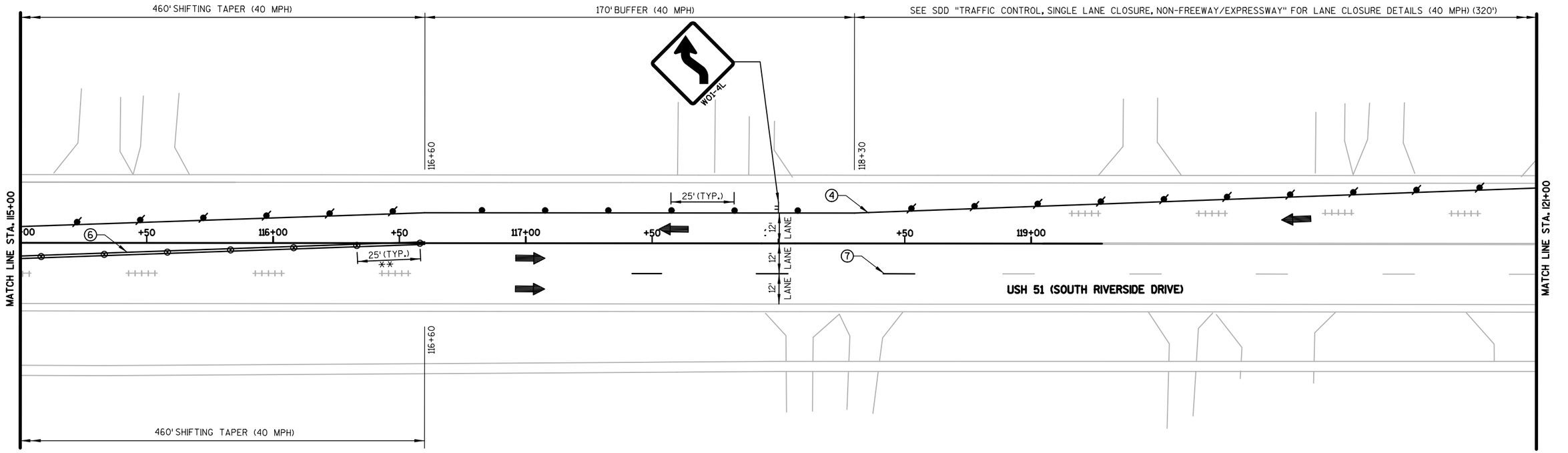
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
5. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
6. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
7. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)



NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

TRAFFIC CONTROL NOTES

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- ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
- FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
- MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

2

2

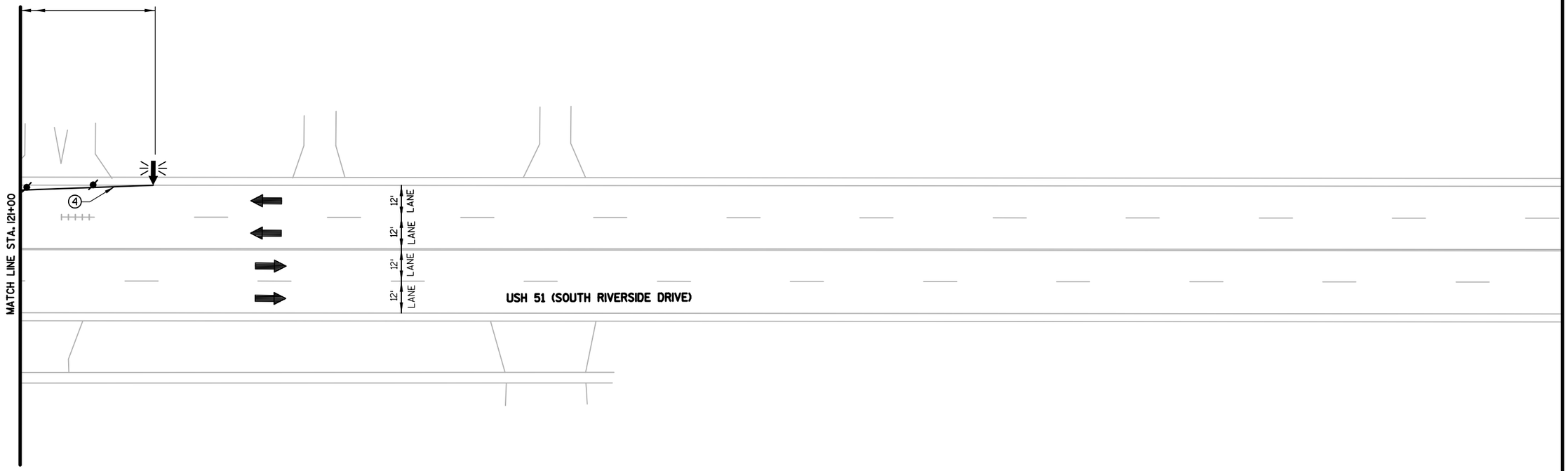
TRAFFIC CONTROL PAVEMENT MARKING LEGEND

① TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
② TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
③ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
④ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
⑤ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
⑥ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
⑦ TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)

N

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR LANE CLOSURE DETAILS (40 MPH) (320')

SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING 40 M.PH. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR MAINLINE ADVANCE WARNING SIGNING



NOTE:
REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL SAWING CONCRETE AND SAWING ASPHALT LOCATIONS.

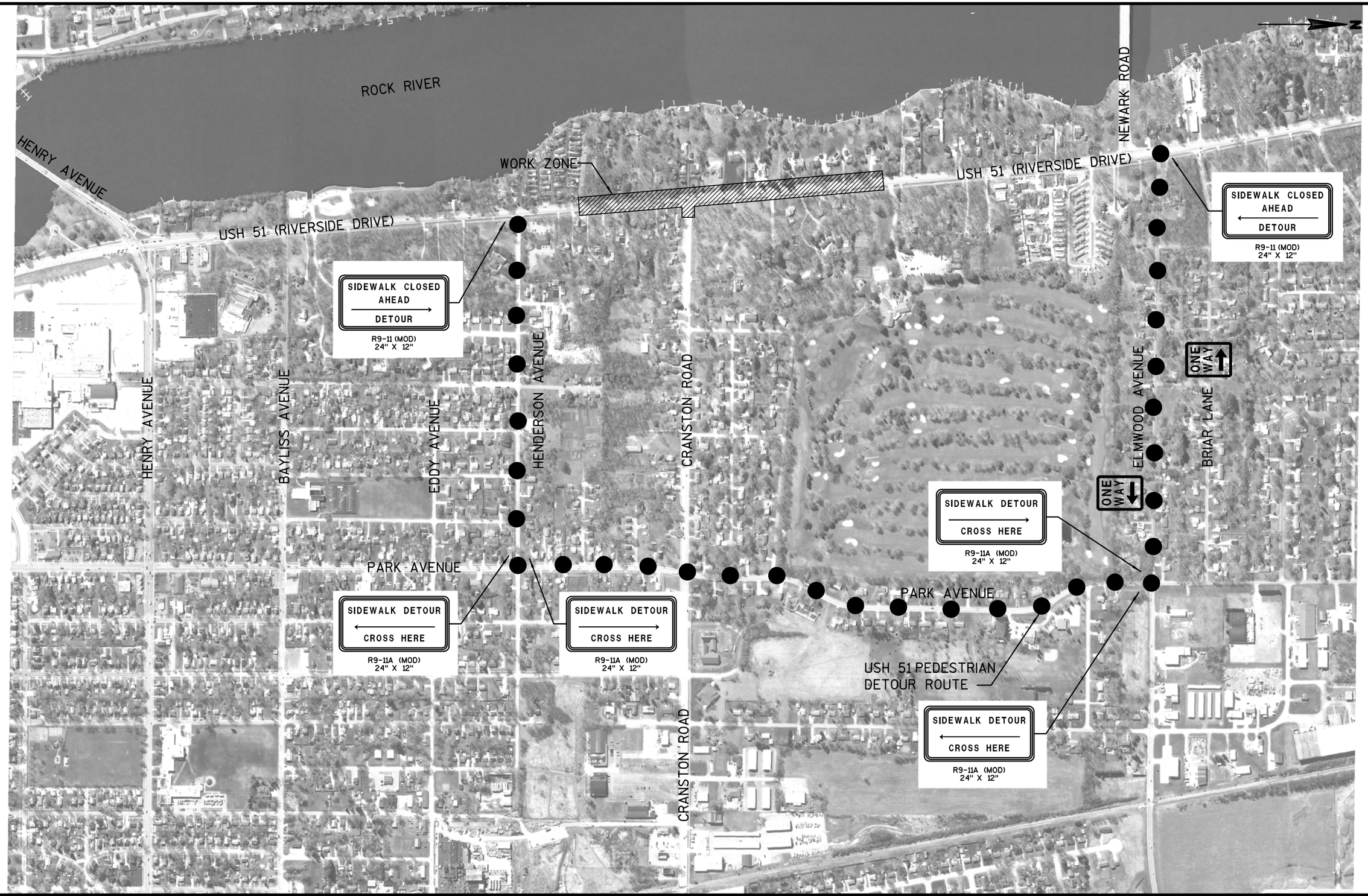
TRAFFIC CONTROL NOTES

-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" X 48" UNLESS OTHERWISE NOTED.
-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 DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
-SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
-PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
-ALL DRUM SPACING IS 25', UNLESS OTHERWISE NOTED.
-ALL FLEXIBLE TUBULAR MARKER POST AND BASE SPACING IS 25', UNLESS OTHERWISE NOTED.
-FOR SIDEWALK CLOSURES USE STANDARD DETAIL DRAWINGS "TRAFFIC CONTROL, SIDEWALK CLOSURE"
-MAINTAIN A MINIMUM 3:1 SLOPE BETWEEN THE TEMPORARY ROADWAY AND ADJACENT EXCAVATIONS IF A DROPOFF OF 6-INCHES OR GREATER WITHIN 2 FEET OF THE TEMPORARY ROADWAY WILL REMAIN FOR MORE THAN 3 CONSECUTIVE DAYS.

LEGEND

- WORK ZONE
- XXXXX SAWING CONCRETE
- SAWING ASPHALT
- REMOVING PAVEMENT MARKINGS
- TRAFFIC FLOW ARROW
- ARROW BOARD
- DRUM WITH/WITHOUT LIGHT, TYPE C
- FLEXIBLE TUBULAR MARKER POSTS & BASES
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON TEMPORARY SUPPORT
- BARRICADES TYPE III WITH/WITHOUT SIGN
- BARRICADES TYPE II WITH/WITHOUT SIGN
- 16"x16" ORANGE FLAGS (INCIDENTAL TO SIGN)

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	STAGING PLANS - STAGE 3	SHEET 73	E



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PEDESTRIAN DETOUR PLAN - USH 51 (STAGE 2)	SHEET 74	E

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WISDOT/CADDS SHEET 42

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL AND ROAD CLOSED 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.

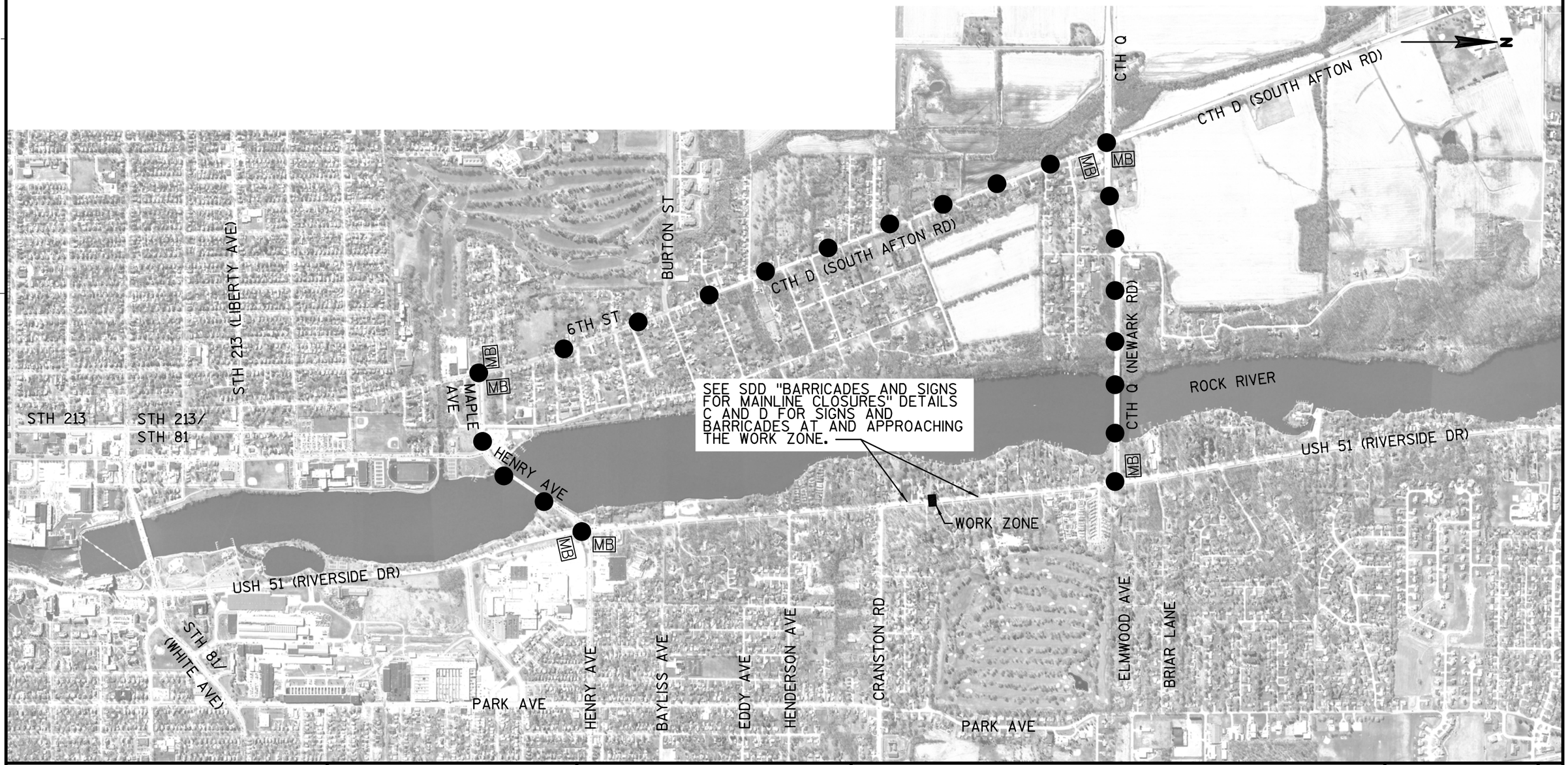
ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL.

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAILS C AND D, FOR ADDITIONAL INFORMATION.

LEGEND

DETOUR ROUTE

MB TRAFFIC CONTROL SIGNS PCMS



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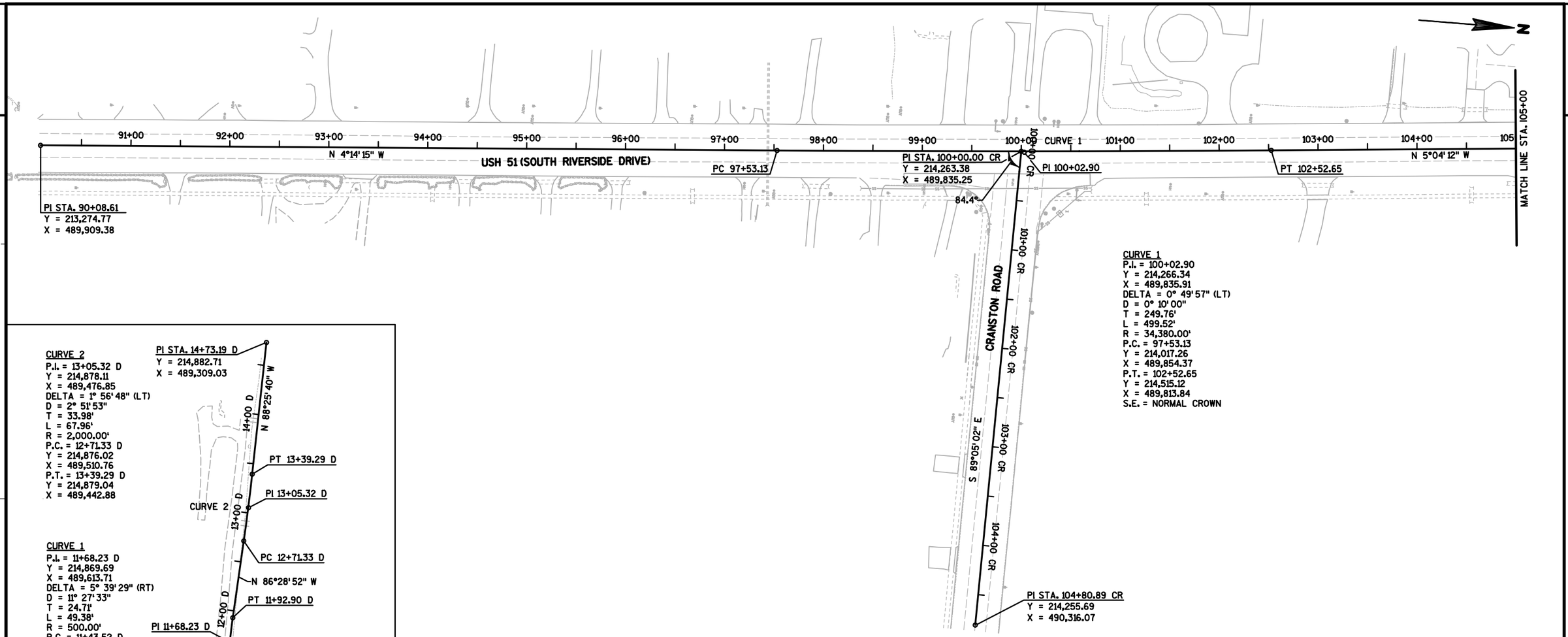
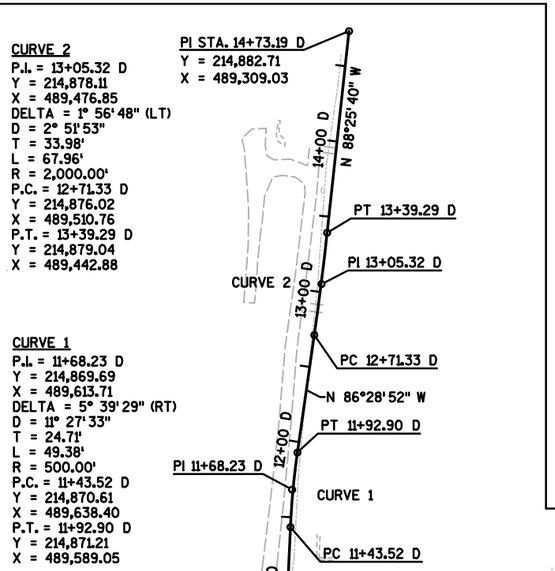
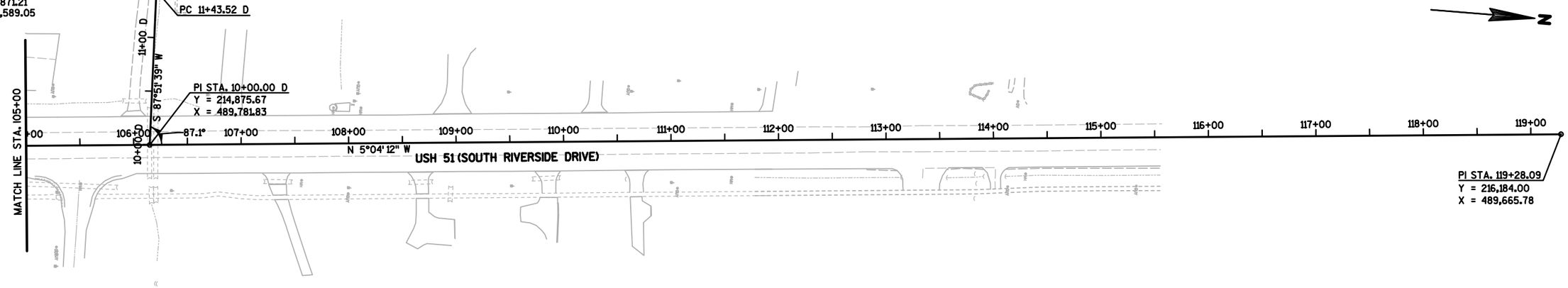
2







PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	ALIGNMENT DATA SHEET	SHEET	E

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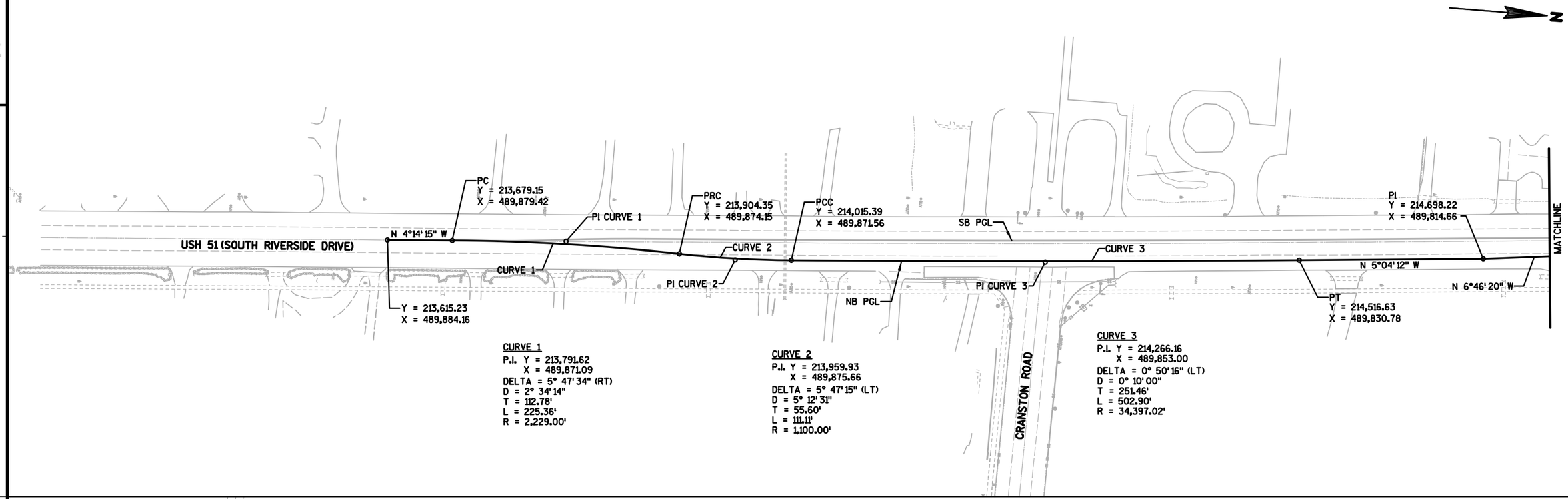
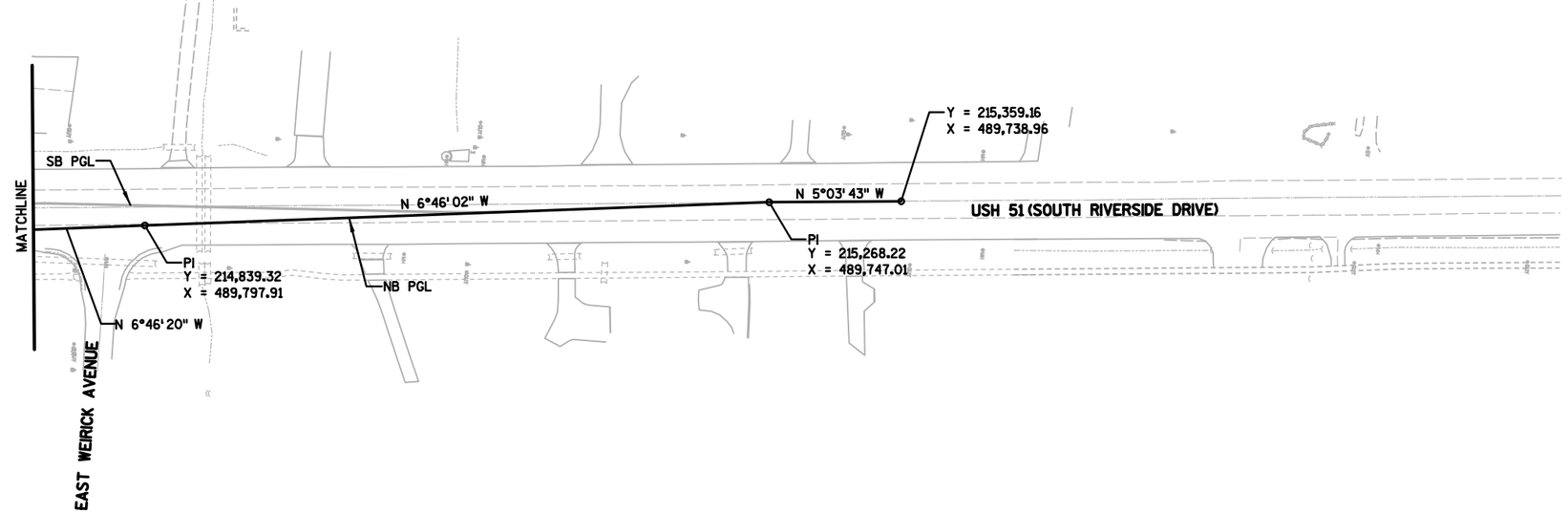
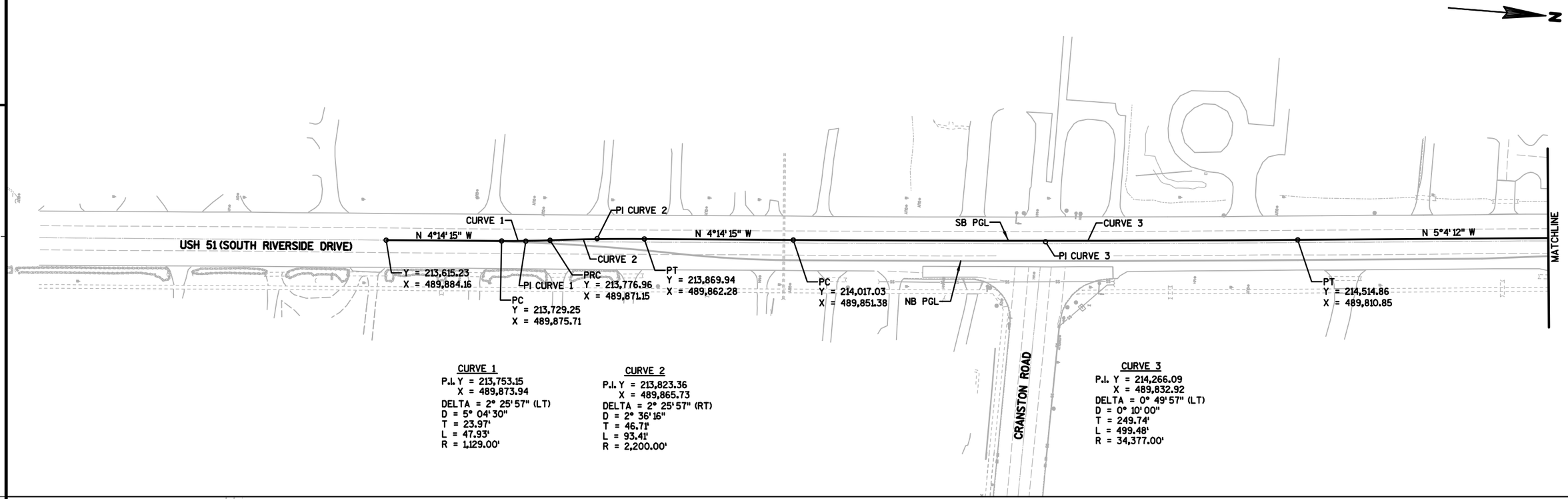
WISDOT/CADDS SHEET 42

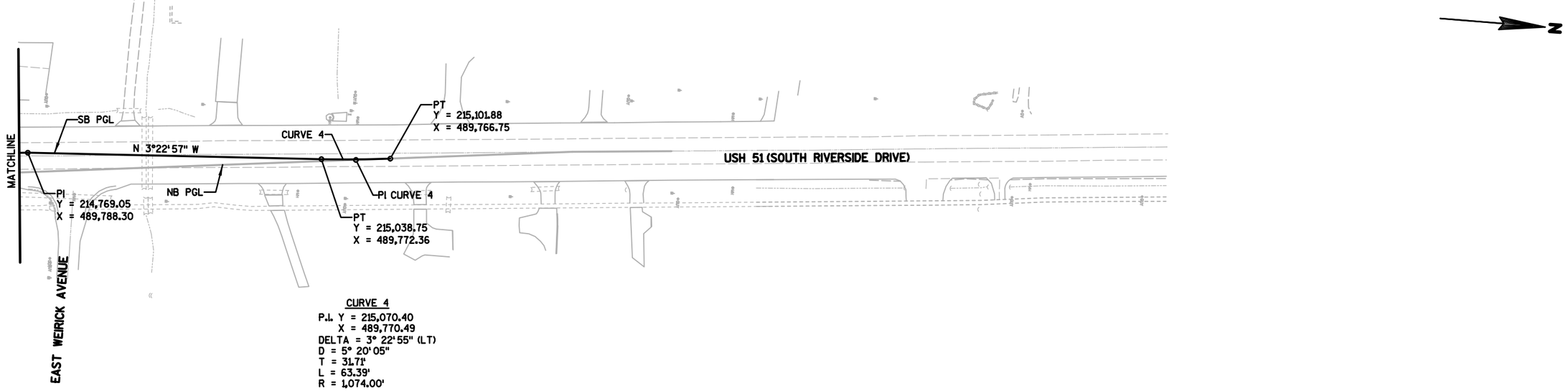




PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	ALIGNMENT DATA SHEET - NB PGL	SHEET 77	E

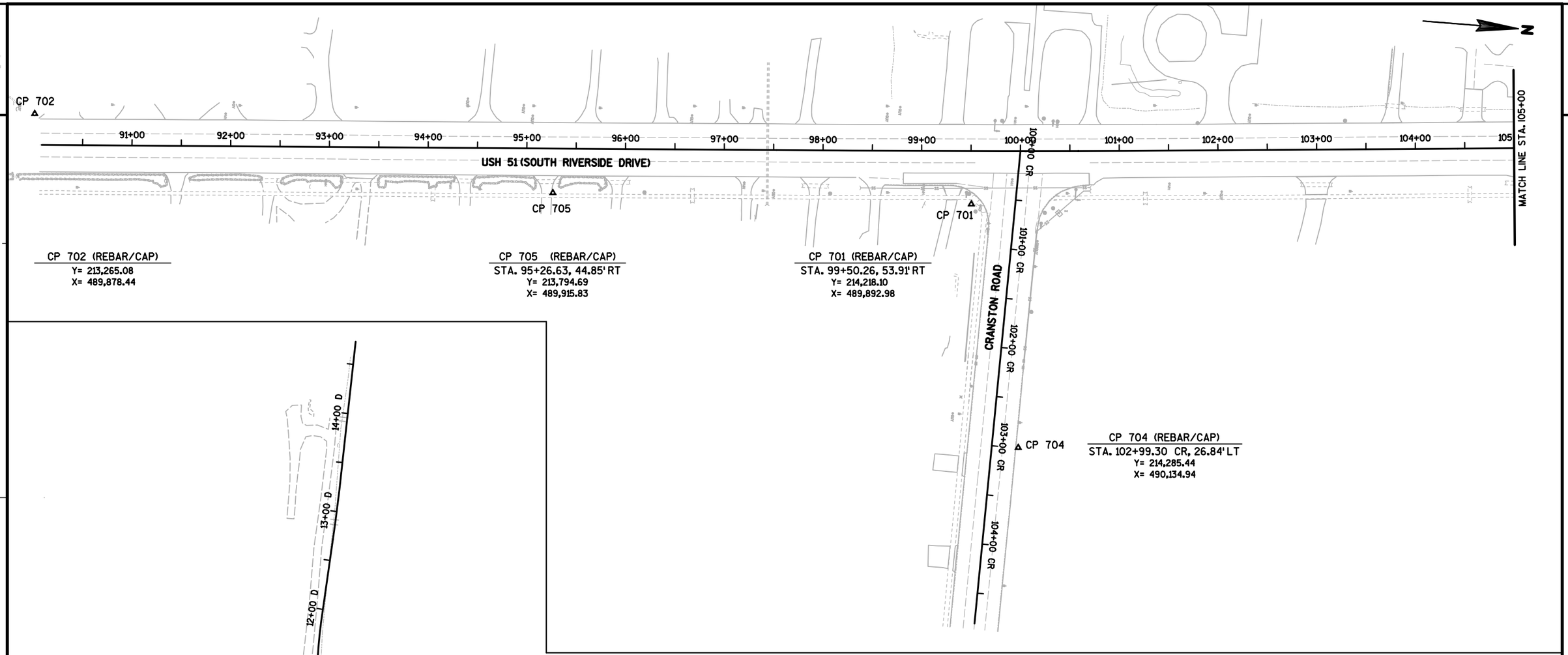
2





PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	ALIGNMENT DATA SHEET - SB PGL	SHEET 78	E

2



CP 702 (REBAR/CAP)
Y= 213,265.08
X= 489,878.44

CP 705 (REBAR/CAP)
STA. 95+26.63, 44.85' RT
Y= 213,794.69
X= 489,915.83

CP 701 (REBAR/CAP)
STA. 99+50.26, 53.91' RT
Y= 214,218.10
X= 489,892.98

CP 704 (REBAR/CAP)
STA. 102+99.30 CR, 26.84' LT
Y= 214,285.44
X= 490,134.94

CP 703 (REBAR/CAP)
STA. 107+30.70, 31.92' LT
Y= 214,988.52
X= 489,739.80

CP 700 (REBAR/CAP)
STA. 112+28.69, 30.29' LT
Y= 215,484.67
X= 489,697.41

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CONTROL POINT DATA SHEET	SHEET 79	E

DATE 04JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5350-00-74 QUANTITY
0010	201.0105	Clearing	STA	20.000	20.000
0020	201.0205	Grubbing	STA	20.000	20.000
0030	203.0100	Removing Small Pipe Culverts	EACH	25.000	25.000
0040	204.0100	Removing Pavement	SY	2,272.000	2,272.000
0050	204.0150	Removing Curb & Gutter	LF	85.000	85.000
0060	204.0155	Removing Concrete Sidewalk	SY	772.000	772.000
0070	204.0165	Removing Guardrail	LF	125.000	125.000
0080	204.0170	Removing Fence	LF	110.000	110.000
0090	204.0180	Removing Delineators and Markers	EACH	12.000	12.000
0100	204.0185	Removing Masonry	CY	8.600	8.600
0110	204.0195	Removing Concrete Bases	EACH	10.000	10.000
0120	204.0210	Removing Manholes	EACH	1.000	1.000
0130	204.0220	Removing Inlets	EACH	2.000	2.000
0140	204.0235	Removing Buildings (parcel) 01. Parcel 1 TPP 5350-00-23	LS	1.000	1.000
0150	204.0240	Site Clearance (parcel) 01. Parcel 1 TPP 5350-00-23	LS	1.000	1.000
0160	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	111.000	111.000
0170	204.0245	Removing Storm Sewer (size) 02. 19x30-Inch	LF	170.000	170.000
0180	204.0245	Removing Storm Sewer (size) 03. 22x34-Inch	LF	69.000	69.000
0190	204.0280	Sealing Pipes	EACH	1.000	1.000
0200	204.0291.S	Abandoning Sewer	CY	9.500	9.500
0210	204.9060.S	Removing (item description) 01. Residential Light Pole	EACH	2.000	2.000
0220	204.9060.S	Removing (item description) 02. Brick Pillar	EACH	2.000	2.000
0230	204.9090.S	Removing (item description) 01. Landscaping Blocks	LF	15.000	15.000
0240	204.9090.S	Removing (item description) 02. Residential Decorative Fence	LF	20.000	20.000
0250	204.9165.S	Removing (item description) 01. Block Retaining Wall	SF	413.000	413.000
0260	205.0100	Excavation Common	CY	5,492.000	5,492.000
0270	213.0100	Finishing Roadway (project) 01. 5350-00-74	EACH	1.000	1.000
0280	305.0110	Base Aggregate Dense 3/4-Inch	TON	385.000	385.000
0290	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,670.000	5,670.000
0300	305.0130	Base Aggregate Dense 3-Inch	TON	6,230.000	6,230.000
0310	330.0100	Mill and Relay	SY	5,300.000	5,300.000
0320	416.0160	Concrete Driveway 6-Inch	SY	455.000	455.000
0330	440.4410	Incentive IRI Ride	DOL	2,560.000	2,560.000
0340	455.0105	Asphaltic Material PG58-28	TON	137.000	137.000
0350	455.0120	Asphaltic Material PG64-28	TON	90.000	90.000
0360	455.0605	Tack Coat	GAL	886.000	886.000
0370	460.1110	HMA Pavement Type E-10	TON	4,146.000	4,146.000
0380	460.2000	Incentive Density HMA Pavement	DOL	2,660.000	2,660.000
0390	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	1,420.000	1,420.000
0400	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0410	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	225.000	225.000
0420	465.0125	Asphaltic Surface Temporary	TON	32.000	32.000
0430	465.0315	Asphaltic Flumes	SY	5.000	5.000

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DATE 04JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5350-00-74 QUANTITY
0440	504.2000.S	Precast Concrete Box Culvert (ft X ft) 01. 3 FT x 6 FT	LF	72.000	72.000
0450	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	4.000	4.000
0460	520.3318	Culvert Pipe Class III-A 18-Inch	LF	54.000	54.000
0470	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0480	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0490	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0500	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	6.000	6.000
0510	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,995.000	1,995.000
0520	602.0405	Concrete Sidewalk 4-Inch	SF	2,850.000	2,850.000
0530	602.0410	Concrete Sidewalk 5-Inch	SF	8,280.000	8,280.000
0540	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000
0550	603.1236	Concrete Barrier Type S36A	LF	125.000	125.000
0560	606.0100	Riprap Light	CY	9.000	9.000
0570	606.0200	Riprap Medium	CY	74.000	74.000
0580	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	65.000	65.000
0590	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	27.000	27.000
0600	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	50.000	50.000
0610	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	276.000	276.000
0620	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	108.000	108.000
0630	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	343.000	343.000
0640	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	210.000	210.000
0650	610.0134	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	LF	123.000	123.000
0660	610.0419	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	17.000	17.000
0670	610.0424	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	LF	300.000	300.000
0680	610.0434	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	LF	579.000	579.000
0690	611.0420	Reconstructing Manholes	EACH	5.000	5.000
0700	611.0535	Manhole Covers Type J-Special	EACH	15.000	15.000
0710	611.0545	Manhole Covers Type L	EACH	2.000	2.000
0720	611.0624	Inlet Covers Type H	EACH	18.000	18.000
0730	611.0639	Inlet Covers Type H-S	EACH	3.000	3.000
0740	611.0642	Inlet Covers Type MS	EACH	19.000	19.000
0750	611.2004	Manholes 4-FT Diameter	EACH	4.000	4.000
0760	611.2005	Manholes 5-FT Diameter	EACH	3.000	3.000
0770	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000
0780	611.2008	Manholes 8-FT Diameter	EACH	10.000	10.000
0790	611.3230	Inlets 2x3-FT	EACH	14.000	14.000
0800	611.3901	Inlets Median 1 Grate	EACH	11.000	11.000

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DATE 04JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5350-00-74 QUANTITY
0810	611.3902	Inlets Median 2 Grate	EACH	2.000	2.000
0820	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0830	611.8120.S	Cover Plates Temporary	EACH	1.000	1.000
0840	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	46.700	46.700
0850	614.0800	Crash Cushions Permanent	EACH	2.000	2.000
0860	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5350-00-74	EACH	1.000	1.000
0870	619.1000	Mobilization	EACH	1.000	1.000
0880	620.0300	Concrete Median Sloped Nose	SF	270.000	270.000
0890	623.0200	Dust Control Surface Treatment	SY	14,500.000	14,500.000
0900	624.0100	Water	MGAL	27.500	27.500
0910	625.0100	Topsoil	SY	7,520.000	7,520.000
0920	625.0500	Salvaged Topsoil	SY	640.000	640.000
0930	627.0200	Mulching	SY	3,500.000	3,500.000
0940	628.1504	Silt Fence	LF	1,650.000	1,650.000
0950	628.1520	Silt Fence Maintenance	LF	3,300.000	3,300.000
0960	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000
0970	628.1910	Mobilizations Emergency Erosion Control	EACH	9.000	9.000
0980	628.2004	Erosion Mat Class I Type B	SY	31,735.000	31,735.000
0990	628.2006	Erosion Mat Urban Class I Type A	SY	1,617.000	1,617.000
1000	628.2027	Erosion Mat Class II Type C	SY	704.000	704.000
1010	628.2033	Erosion Mat Class III Type B	SY	704.000	704.000
1020	628.6005	Turbidity Barriers	SY	45.000	45.000
1030	628.7005	Inlet Protection Type A	EACH	35.000	35.000
1040	628.7010	Inlet Protection Type B	EACH	5.000	5.000
1050	628.7015	Inlet Protection Type C	EACH	17.000	17.000
1060	628.7020	Inlet Protection Type D	EACH	15.000	15.000
1070	628.7555	Culvert Pipe Checks	EACH	24.000	24.000
1080	628.7570	Rock Bags	EACH	128.000	128.000
1090	629.0210	Fertilizer Type B	CWT	6.400	6.400
1100	630.0130	Seeding Mixture No. 30	LB	165.000	165.000
1110	630.0160	Seeding Mixture No. 60	LB	11.000	11.000
1120	630.0170	Seeding Mixture No. 70	LB	3.000	3.000
1130	630.0200	Seeding Temporary	LB	248.000	248.000
1140	633.5200	Markers Culvert End	EACH	2.000	2.000
1150	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	6.000	6.000
1160	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	14.000	14.000
1170	637.2210	Signs Type II Reflective H	SF	104.000	104.000
1180	637.2215	Signs Type II Reflective H Folding	SF	54.000	54.000
1190	637.2230	Signs Type II Reflective F	SF	74.250	74.250
1200	638.2602	Removing Signs Type II	EACH	9.000	9.000
1210	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
1220	642.5201	Field Office Type C	EACH	1.000	1.000
1230	643.0100	Traffic Control (project) 01. 5350-00-74	EACH	1.000	1.000
1240	643.0300	Traffic Control Drums	DAY	46,165.000	46,165.000
1250	643.0410	Traffic Control Barricades Type II	DAY	130.000	130.000
1260	643.0420	Traffic Control Barricades Type III	DAY	1,300.000	1,300.000
1270	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	286.000	286.000
1280	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	286.000	286.000
1290	643.0705	Traffic Control Warning Lights Type A	DAY	2,714.000	2,714.000
1300	643.0715	Traffic Control Warning Lights Type C	DAY	7,835.000	7,835.000

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DATE 04JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5350-00-74 QUANTITY
1310	643.0800	Traffic Control Arrow Boards	DAY	110.000	110.000
1320	643.0900	Traffic Control Signs	DAY	6,411.000	6,411.000
1330	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
1340	643.1050	Traffic Control Signs PCMS	DAY	63.000	63.000
1350	643.2000	Traffic Control Detour (project) 01. 5350-00-74	EACH	1.000	1.000
1360	643.3000	Traffic Control Detour Signs	DAY	252.000	252.000
1370	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	500.000	500.000
1380	644.1420.S	Temporary Pedestrian Surface Plywood	SF	250.000	250.000
1390	644.1430.S	Temporary Pedestrian Surface Plate	SF	250.000	250.000
1400	644.1601.S	Temporary Curb Ramp	EACH	2.000	2.000
1410	644.1616.S	Temporary Pedestrian Safety Fence	LF	400.000	400.000
1420	645.0120	Geotextile Fabric Type HR	SY	195.000	195.000
1430	645.0130	Geotextile Fabric Type R	SY	40.000	40.000
1440	646.0106	Pavement Marking Epoxy 4-Inch	LF	18,350.000	18,350.000
1450	646.0126	Pavement Marking Epoxy 8-Inch	LF	530.000	530.000
1460	646.0600	Removing Pavement Markings	LF	5,940.000	5,940.000
1470	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	6.000	6.000
1480	647.0356	Pavement Marking Words Epoxy	EACH	3.000	3.000
1490	647.0456	Pavement Marking Curb Epoxy	LF	52.000	52.000
1500	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	153.000	153.000
1510	647.0606	Pavement Marking Island Nose Epoxy	EACH	4.000	4.000
1520	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	465.000	465.000
1530	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	205.000	205.000
1540	647.0955	Removing Pavement Markings Arrows	EACH	3.000	3.000
1550	647.0965	Removing Pavement Markings Words	EACH	2.000	2.000
1560	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	15,625.000	15,625.000
1570	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	5,880.000	5,880.000
1580	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,000.000	1,000.000
1590	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	976.000	976.000
1600	652.0800	Conduit Loop Detector	LF	1,386.000	1,386.000
1610	653.0135	Pull Boxes Steel 24x36-Inch	EACH	10.000	10.000
1620	653.0140	Pull Boxes Steel 24x42-Inch	EACH	7.000	7.000
1630	653.0905	Removing Pull Boxes	EACH	12.000	12.000
1640	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
1650	654.0102	Concrete Bases Type 2	EACH	4.000	4.000
1660	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
1670	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
1680	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,597.000	1,597.000
1690	655.0240	Cable Traffic Signal 7-14 AWG	LF	560.000	560.000
1700	655.0250	Cable Traffic Signal 9-14 AWG	LF	180.000	180.000
1710	655.0260	Cable Traffic Signal 12-14 AWG	LF	57.000	57.000
1720	655.0305	Cable Type UF 2-12 AWG Grounded	LF	570.000	570.000
1730	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,531.000	2,531.000
1740	655.0610	Electrical Wire Lighting 12 AWG	LF	750.000	750.000
1750	655.0700	Loop Detector Lead In Cable	LF	4,131.000	4,131.000
1760	655.0800	Loop Detector Wire	LF	4,640.000	4,640.000
1770	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. USH 51/Cranston Road Intersection	LS	1.000	1.000
1780	657.0100	Pedestal Bases	EACH	4.000	4.000

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DATE 04JAN16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5350-00-74 QUANTITY
1790	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	4.000	4.000
1800	657.0310	Poles Type 3	EACH	4.000	4.000
1810	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
1820	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
1830	657.0614	Luminaire Arms Single Member 4-Inch Clamp 8-FT	EACH	6.000	6.000
1840	657.1355	Install Poles Type 12	EACH	2.000	2.000
1850	657.1540	Install Monotube Arms 40-FT	EACH	2.000	2.000
1860	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	11.000	11.000
1870	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	3.000	3.000
1880	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	11.000	11.000
1890	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	3.000	3.000
1900	658.0416	Pedestrian Signal Face 16-Inch	EACH	2.000	2.000
1910	658.0500	Pedestrian Push Buttons	EACH	2.000	2.000
1920	658.0600	Led Modules 12-Inch Red Ball	EACH	11.000	11.000
1930	658.0605	Led Modules 12-Inch Yellow Ball	EACH	11.000	11.000
1940	658.0610	Led Modules 12-Inch Green Ball	EACH	11.000	11.000
1950	658.0615	Led Modules 12-Inch Red Arrow	EACH	3.000	3.000
1960	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	6.000	6.000
1970	658.0625	Led Modules 12-Inch Green Arrow	EACH	3.000	3.000
1980	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	2.000	2.000
1990	658.5069	Signal Mounting Hardware (location) 01. USH 51/Cranston Road Intersection	LS	1.000	1.000
2000	659.1125	Luminaires Utility LED C	EACH	6.000	6.000
2010	690.0150	Sawing Asphalt	LF	1,785.000	1,785.000
2020	690.0250	Sawing Concrete	LF	1,613.000	1,613.000
2030	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
2040	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	350.000	350.000
2050	SPV.0060	Special 01. Apron Endwalls For Storm Sewer Pipe Reinforced Concrete Box 3 FT x 6 FT	EACH	1.000	1.000
2060	SPV.0060	Special 02. Concrete Cutoff Wall	EACH	1.000	1.000
2070	SPV.0060	Special 03. Manholes 9-FT Diameter	EACH	2.000	2.000
2080	SPV.0060	Special 04. Manhole Structure 220	EACH	1.000	1.000
2090	SPV.0060	Special 05. Inlet Structure 220A	EACH	1.000	1.000
2100	SPV.0060	Special 06. Utility Line Opening (ULO)	EACH	19.000	19.000
2110	SPV.0090	Special 01. Concrete Curb and Gutter 24-Inch Type D	LF	801.000	801.000
2120	SPV.0090	Special 02. SSPRC Horizontal Elliptical Class HE-IV 38x60-Inch	LF	748.000	748.000
2130	SPV.0090	Special 03. Protection of Private Sprinkler Systems	LF	449.000	449.000
2140	SPV.0105	Special 01. Remove and Transport Traffic Signals USH 51/Cranston Road Intersection	LS	1.000	1.000
2150	SPV.0105	Special 02. Survey Project 5350-00-74	LS	1.000	1.000
2160	SPV.0120	Special 01. Water For Seeded Areas	MGAL	915.000	915.000

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CLEARING AND GRUBBING

CATEGORY	STATION	-	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	94+00	-	111+00	17	17
	101+00 CR	-	102+00 CR	1	1
	10+00 D	-	12+00 D	2	2
	TOTALS			20	20

ABANDONING SEWER

CATEGORY	STATION	OFFSET	204.0291.S CY
0010	97+44	36.3' RT - 44.7' LT	9.5

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	OFFSET	203.0100 EACH	REMARKS
0010	93+30	33.7' RT	1	18" X 38' CPCS
	94+05	40.1' RT	1	18" X 15' CPCS
	94+37	33.3' RT	1	18" X 21' CPCS
	95+20	33.7' RT	1	18" X 26' CPCS
	95+92	33.9' RT	1	18" X 25' CPCS
	96+68	40.1' RT	1	18" X 14' CPCS
	97+44	46.0' RT	1	24" X 19' CPCS; PARTIAL PIPE REMOVAL
	97+44	47.0' LT	1	24" X 6' CPCS; PARTIAL PIPE REMOVAL
	97+92	35.7' RT	1	18" X 26' CPCS
	101+26	42.8' RT	1	18" X 12' CPCS
	103+00	35.4' RT	1	24" X 31' CPCS
	103+78	44.4' LT	1	18" X 19' CPCS
	104+55	39.3' RT	1	18" X 15' CPCS
	104+59	39.5' LT	1	18" X 24' CPCS
	105+45	35.2' RT	1	18" X 93' CPCS
	106+00	41.0' LT	1	15" X 21' CPCS
	106+16	39.6' RT	1	30" X 15' CPCS
	106+20	39.7' RT	1	30" X 15' CPCS
	106+14	30.7' RT	1	24"x38" X 66' CPRC
	106+20	30.7' RT	1	24"x38" X 66' CPRC
	107+34	34.8' RT	1	18" X 25' CPCS
	108+67	36.7' RT	1	18" X 21' CPCS
	108+95	41.5' RT	1	18" X 13' CPCS
	109+85	34.3' RT	1	18" X 25' CPCS
	110+67	34.5' RT	1	18" X 26' CPCS
		TOTAL	25	

REMOVING PAVEMENT

CATEGORY	STAGE	STATION - STATION	LOCATION	204.0100 SY
0010	STAGE 1	108+78 - 112+16	LT	70
		SUBTOTAL (STAGE 1)		70
	STAGE 2	94+00 - 1111+00	RT	1,340
		100+46 CR - 101+93 CR	RT/LT	805
		SUBTOTAL (STAGE 2)		2,145
	STAGE 3	103+65 - 103+87	LT	57
		SUBTOTAL (STAGE 3)		57
		TOTAL		2,272

SEALING PIPES

CATEGORY	STATION	OFFSET	204.0280 EACH
0010	97+44	50.7' LT	1

EARTHWORK SUMMARY

DIVISION	CATEGORY	STAGE	STATION - STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2) CY	205.0100 EXCAVATION COMMON (1) EBS EXCAVATION (3) 5% OF CUT CY	UNUSABLE PAVEMENT MATERIAL CY	AVAILABLE MATERIAL (4) CY	UNEXPANDED FILL CY	EXPANDED FILL (6) FACTOR 1.25 CY	MASS ORDINATE +/- (7)	WASTE CY	*305.0130 BASE AGGREGATE DENSE 3-INCH MATERIAL (8) TON
1	0010	US 51 STAGE 1	90+50 - 113+50	MAINLINE	484	24	0	484	49	61	423	423	55
2	0010	US 51 STAGE 2	90+50 - 113+50	MAINLINE	2,043	102	361	1,682	1,213	1,516	166	166	220
	0010	CRANSTON ROAD	100+47 CR - 101+93 CR	SIDEROAD	297	15	203	94	95	119	-25	-25	35
		SUBTOTALS (DIVISION 2)			2,340	117	564	1,776	1,308	1,635	141	141	255
3	0010	US 51 STAGE 3	90+50 - 113+50	MAINLINE	1,942	97	0	1,942	410	513	1,430	1,430	210
	0010	DRAINAGE DITCH	10+46 D - 14+79 D	DITCH	465	23	0	465	4	5	460	460	50
		SUBTOTALS (DIVISION 3)			2,407	120	0	2,407	414	518	1,890	1,890	260
		TOTALS			5,231	261	564	4,667	1,771	2,214	2,454	2,454	570

1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100.
2) UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH.
4) AVAILABLE MATERIAL = CUT - UNUSABLE PAVEMENT MATERIAL.
5) EXCAVATED EBS MATERIAL IS UNUSABLE IN FILLS OUTSIDE THE 1:1 SLOPE.
6) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25.
7) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR).
PLUS MASS ORDINATE QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS MASS ORDINATE QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
8) USED FOR BACKFILL OF EBS.

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE

3

REMOVING CURB AND GUTTER

CATEGORY	STATION - STATION	LOCATION	204.0150 LF
0010	105+08 - 105+88	RT	85

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	204.0155 SY
0010	93+22 - 100+00	RT	260
	100+00 - 110+61	RT	425
	100+50 CR - 102+06 CR	RT	87
		TOTAL	772

REMOVING GUARDRAIL

CATEGORY	STATION - STATION	OFFSET	204.0165 LF
0010	107+45 - 108+43	LT	99
	100+47 CR - 100+66 CR	LT	26
		TOTAL	125

REMOVING FENCE

CATEGORY	STATION - STATION	OFFSET	204.0170 LF
0010	101+7 CR - 102+18 CR	36' RT	110

REMOVING BUILDINGS

CATEGORY	STATION-STATION	204.0235.01 PARCEL 1 TPP 5350-00-23 LS
0010	100+56 CR - 102+49 CR	1

SITE CLEARANCE

CATEGORY	STATION-STATION	204.0240.01 PARCEL 1 TPP 5350-00-23 LS
0010	100+56 CR - 102+49 CR	1

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION	OFFSET	204.0180 EACH	REMARKS
0010	100+00 - 108+00	RT	10	ALONG EDGELINE
	106+17	LT	2	CULVERT END MARKER
		TOTAL	12	

REMOVING MASONRY

CATEGORY	STATION	LOCATION	204.0185 CY
0010	100+71	RT	3.7
	106+17	RT	4.9
		TOTAL	8.6

REMOVING CONCRETE BASES

CATEGORY	LOCATION	EQUIP. LOCATION	STATION	LOCATION	204.0195 EACH
0010	USH 51 & CRANSTON ROAD	PRIVATE	95+27	54' RT	1
		PRIVATE	101+86	50' LT	1
		PRIVATE	102+13	48' LT	1
		EXSB-1	99+74	31' LT	1
		EXSB-2	101+33	30' LT	1
		EXSB-3	99+45	42' RT	1
		EXSB-4	100+82 CR	25' RT	1
		EXSB-5	100+71 CR	28' LT	1
		EXSB-6	100+56	39' RT	1
		EXCB-1	100+39	63' RT	1
				TOTAL	10

REMOVING RESIDENTIAL LIGHT POLE

CATEGORY	STATION	LOCATION	204.9060.S.01 EACH
0010	95+27	54' RT	1
	96+22	45' LT	1
		TOTAL	2

REMOVING BRICK PILLAR

CATEGORY	STATION	LOCATION	204.9060.S.02 EACH	REMARKS
0010	107+26	55' RT	1	3'X3'X10'
	107+50	55' RT	1	3'X3'X10'
		TOTAL	2	

REMOVING MANHOLES

CATEGORY	STATION	OFFSET	204.0210 EACH
0010	99+02	38.2' RT	1

REMOVING INLETS

CATEGORY	STATION	OFFSET	204.0220 EACH
0010	99+02	34.6' RT	1
	100+80 CR	24.1' LT	1
		TOTAL	2

REMOVING LANDSCAPING BLOCKS

CATEGORY	STATION-STATION	LOCATION	204.9090.S.01 LF
0010	97+32 - 97+34	63' RT	15

REMOVING RESIDENTIAL DECORATIVE FENCE

CATEGORY	STATION-STATION	LOCATION	204.9090.S.02 LF
0010	103+87 - 103+90	56' LT	20

REMOVING BLOCK RETAINING WALL

CATEGORY	STATION-STATION	LOCATION	204.9165.S.01 SF
0010	101+07 CR - 102+18 CR	36' RT	413

REMOVING STORM SEWER

CATEGORY	STATION - STATION	OFFSET	204.0245 .01 18-INCH LF	.02 19X30-INCH LF	.03 22X34-INCH LF
0010	98+38 - 99+02	RT	64	---	---
	99+02 - 99+03	RT	15	---	---
	99+02 - 100+70	RT	---	170	---
	100+16 - 100+70	RT	---	---	69
	100+79 CR - 101+12 CR	LT	32	---	---
		TOTALS	111	170	69

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 EACH
0010	01. 5350-00-74	1

MILL AND RELAY

CATEGORY	STAGE	STATION	-	STATION	330.0100 SY
0010	STAGE 2	94+00	-	100+00	670
		100+00	-	111+00	580
		SUBTOTAL (STAGE 2)			1,250
	STAGE 3	94+00	-	100+00	1,950
		100+00	-	111+00	2,100
		SUBTOTAL (STAGE 3)			4,050
		TOTAL			5,300

BASE AGGREGATE DENSE

CATEGORY	STAGE	STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	*305.0130 BASE AGGREGATE DENSE 3-INCH TON	REMARKS
0010	STAGE 1	90+50 - 100+00	LT	---	230	320	
		100+00 - 113+54	LT	---	190	250	
		SUBTOTALS (STAGE 1)		0	420	570	
	STAGE 2	91+35 - 100+00	RT	95	880	1,100	
		100+00 - 113+50	RT	160	1,700	2,250	
		100+50 CR - 101+93 CR	LT	---	180	45	
		100+50 CR - 101+93 CR	RT	20	180	45	
		SUBTOTALS (STAGE 2)		275	2,940	3,440	
	STAGE 3	91+35 - 100+00	LT	40	560	400	
		100+00 - 113+50	LT	70	1,400	1,250	
		SUBTOTALS (STAGE 3)		110	1,960	1,650	
		UNDISTRIBUTED		---	350	---	FOR TEMPORARY DRIVEWAY ACCESS AND EDGE OF PAVEMENT DROP-OFF PROTECTION
		TOTALS		385	5,670	5,660	

CONCRETE DRIVEWAY 6-INCH

CATEGORY	STAGE	STATION	OFFSET	416.0160 SY
0010	STAGE 1	111+95	34' LT	25
		SUBTOTAL (STAGE 1)		25
	STAGE 2	93+04	31.6' RT	60
		94+28	31.6' RT	30
		95+12	33.7' RT	25
		95+83	37.9' RT	15
		97+14	47.9' RT	15
		97+82	48.4' RT	10
		98+44	48.5' RT	15
		102+85	48.5' RT	20
		107+25	40.0' RT	55
		108+58	36.2' RT	25
		109+73	32.6' RT	45
		110+58	31.7' RT	30
		SUBTOTAL (STAGE 2)		345
	STAGE 3	103+65	31.9' LT	50
		108+78	25.2' LT	35
		SUBTOTAL (STAGE 3)		85
		TOTAL		455

3

ASPHALTIC ITEMS

CATEGORY	STAGE	STATION - STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0600 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON
0010	STAGE 1	90+51 - 96+27	LT	3	2	21	99
		108+13 - 113+55	LT	3	2	20	92
		SUBTOTALS (STAGE 1)		6	4	41	191
	STAGE 2	92+68 - 100+00	RT	20	13	130	610
		100+00 - 113+00	RT	37	25	240	1,130
		101+00 CR - 101+93 CR	RT/LT	5	3	30	140
		SUBTOTALS (STAGE 2)		62	41	400	1,880
	STAGE 3	94+00 - 100+00	RT/LT	25	16	160	745
		100+00 - 111+00	RT/LT	44	29	285	1,330
		SUBTOTALS (STAGE 3)		69	45	445	2,075
		TOTALS		137	90	886	4,146

NOTES:
A UNIT WEIGHT OF 112 POUNDS PER SQUARE YARD PER INCH OF THICKNESS WAS USED TO ESTIMATE ALL ASPHALT QUANTITIES.
ASPHALTIC MATERIAL WAS MEASURED AT 5.5% OF THE HMA PAVEMENT TONNAGE.

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS

CATEGORY	STATION	460.4110.S LF	REMARKS
0010	94+00 - 100+45	645	STAGING JOINT
	103+25 - 111+00	775	STAGING JOINT
	TOTAL	1,420	

3

ASPHALTIC SURFACE PATCHING

CATEGORY	LOCATION	465.0110 TON	REMARKS
0010	UNDISTRIBUTED	50	FILLING POT HOLES ON EXISTING PAVEMENT

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STAGE	STATION - STATION	LOCATION	465.0125 TON
0010	2	106+04 - 106+27	LT/RT	32

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STAGE	STATION - STATION	LOCATION	465.0120 TON
0010	STAGE 1	90+77 - 94+00	LT	26
		100+00 - 110+09	LT	3
		SUBTOTAL (STAGE 1)		29
	STAGE 2	92+68.35 - 100+00	RT	20
		100+00 - 113+00	RT	11
		SUBTOTAL (STAGE 2)		31
	STAGE 3	94+00 - 100+50	LT	115
		101+78 - 102+21	LT	13
		104+40 - 104+75	LT	14
		106+75 - 111+00	LT	23
		SUBTOTAL (STAGE 3)		165
		TOTAL		225

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 SY
0010	92+96	RT	5

CULVERT PIPE SUMMARY

CATEGORY	INLET STATION	OUTLET STATION	INLET OFFSET/ LOCATION	INLET ELEV.	OUTLET OFFSET/ LOCATION	OUTLET ELEV.	SLOPE	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH EACH	THICKNESS (INCHES) STEEL
	MINOR SIDE ROAD, PRIVATE ENTRANCE AND SLOPE DRAINS									
0010	101+83.9	- 102+17.9	50.3' LT	753.18	50.2' LT	752.98	0.59%	34	2	0.064
	105+88.5	- 106+07.7	52.5' LT	750.32	52.4' LT	749.97	1.75%	20	2	0.064
							TOTALS	54	4	

NOTES
1) STATION OFFSETS AND INVERT ELEVATIONS SHOWN ARE TO THE END OF APRON ENDWALLS
2) GRANULAR BACKFILL IS INCIDENTAL TO THE COST OF THE PIPE
3) PIPE LENGTH IS FROM END OF PIPE TO END OF PIPE AND DOES NOT INCLUDE LENGTH OF APRON ENDWALLS

CONCRETE SIDEWALK

CATEGORY	STAGE	STATION - STATION	LOCATION	602.0405 4-INCH SF	602.0410 5-INCH SF
0010	STAGE 2	93+18 - 100+00	RT	---	2,900
		100+00 - 110+09	RT	---	4,750
		100+92 CR - 101+90 CR	RT	---	630
		SUBTOTALS (STAGE 2)		0	8,280
	STAGE 3	93+18 - 100+00	RT/LT	1,250	---
		100+00 - 110+09	RT	1,600	---
		SUBTOTALS (STAGE 3)		2,850	0
		TOTALS		2,850	8,280

STORM SEWER

CATEGORY	STRUCTURE	STATION	LOCATION	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	SPV.0060.01 APRON ENDWALLS FOR STORM SEWER PIPE REINFORCED CONCRETE BOX 3 FT X 6 FT EACH	SPV.0060.02 CONCRETE CUTOFF WALL EACH	633.5200 MARKERS CULVERT ENDWALLS EACH
0010	EW-A	103+64.9	53.5' LT	---	1	---	---	---
	EW-B	105+50.0	52.5' LT	---	1	---	---	---
	EW-C	106+17.3	48.0' LT	---	---	1	1	2
	EW-D	104+00.0	49.8' LT	1	---	---	---	---
			TOTALS	1	2	1	1	2

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION	LOCATION	602.0505 SF
0010	99+55	RT	10
	100+30	RT	10
	105+25	RT	10
	105+68	RT	10
		TOTAL	40

CONCRETE BARRIER TYPE S36A

CATEGORY	STATION - STATION	LOCATION	603.1236 LF	REMARKS
0010	107+30 - 108+55	LT	125	PROTECTING SANITARY SEWER LIFT STATION TO REMAIN

CURB AND GUTTER

CATEGORY	STAGE	STATION - STATION	LOCATION	SPV.0090.01 CONCRETE CURB AND GUTTER 24-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF
0010	STAGE 2	93+18 - 100+00	RT	31	---	690
		100+00 - 111+00	RT	265	---	1,100
		100+92 CR - 101+90 CR	RT	---	---	100
		100+86 CR - 101+90 CR	LT	---	---	105
		SUBTOTALS (STAGE 2)		296	0	1,995
	STAGE 3	98+07 - 99+45	RT/LT	240	---	---
		100+53 - 103+75	RT/LT	265	6	---
		SUBTOTALS (STAGE 3)		505	6	0
			TOTALS	801	6	1,995

RIPRAP ITEMS

CATEGORY	STATION - STATION	LOCATION	606.0100 LIGHT CY	606.0200 MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0130 GEOTEXTILE FABRIC TYPE R SY
0010	92+68 - 93+00	RT	9	---	---	40
	10+45 D - 10+63 D	RT/LT	---	13	40	---
	13+85 D - 14+72 D	RT/LT	---	61	155	---
	TOTALS		9	74	195	40

STORM SEWER

			STORM SEWER PIPE REINFORCED CONCRETE														
											HORIZONTAL ELLIPTICAL				504.2000.S.01	
			CLASS III			CLASS IV				CLASS HE-III	CLASS HE-IV				PRECAST CONCRETE	520.8000
			608.0312	608.0315	608.0318	608.0412	608.0415	608.0418	608.0424	610.0134	610.0419	610.0424	610.0434	SPV.0090.02	BOX CULVERT,	CONCRETE
	FROM	TO	12-INCH	15-INCH	18-INCH	12-INCH	15-INCH	18-INCH	24-INCH	34X53-INCH	19X30-INCH	24X38-INCH	34X53-INCH	38X60-INCH	3 FT X 6 FT	COLLARS FOR PIPE
CATEGORY	STRUCTURE	STRUCTURE	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH
0010	MH-100	MH-110	---	---	---	---	---	---	---	---	---	78	---	---	---	---
	IN-100A	IN-100B	---	---	---	---	---	31	---	---	---	---	---	---	---	---
	IN-100B	IN-100C	---	---	---	---	---	---	---	---	8	---	---	---	---	---
	IN-100C	IN-100D	---	---	---	---	---	---	---	---	9	---	---	---	---	---
	IN-100D	MH-100	---	---	---	---	---	---	---	---	---	42	---	---	---	---
	IN-100E	MH-100	---	---	---	31	---	---	---	---	---	---	---	---	---	---
	MH-110	MH-120	---	---	---	---	---	---	---	---	---	124	---	---	---	---
	IN-110A	MH-110	---	---	---	27	---	---	---	---	---	---	---	---	---	---
	MH-120	MH-130	---	---	---	---	---	---	---	---	---	---	141	---	---	---
	IN-120A	IN-120B	---	---	---	---	---	---	---	---	---	21	---	---	---	---
	IN-120B	MH-120	---	---	---	---	---	---	---	---	---	19	---	---	---	---
	IN-130A	IN-130B	---	---	---	---	---	53	---	---	---	---	---	---	---	---
	MH-130	MH-140	---	---	---	---	---	---	---	123	---	---	---	---	---	---
	IN-130B	MH-130	---	---	50	---	---	---	---	---	---	---	---	---	---	---
	IN-130C	IN-130D	16	---	---	---	---	---	---	---	---	---	---	---	---	---
	IN-130D	MH-130	8	---	---	---	---	---	---	---	---	---	---	---	---	---
	MH-140	MH-150	---	---	---	---	---	---	---	---	---	---	---	88	---	---
	IN-140A	IN-140B	---	---	---	8	---	---	---	---	---	---	---	---	---	---
	IN-140B	IN-140C	36	---	---	---	---	---	---	---	---	---	---	---	---	---
	IN-140C	MH-140	---	27	---	---	---	---	---	---	---	---	---	---	---	---
	IN-140D	IN-140C	---	---	---	43	---	---	---	---	---	---	---	---	---	---
	IN-140E	IN-140F	5	---	---	---	---	---	---	---	---	---	---	---	---	---
	IN-140F	MH-140	---	---	---	19	---	---	---	---	---	---	---	---	---	---
	MH-150	MH-160	---	---	---	---	---	---	---	---	---	---	---	96	---	---
	IN-150A	IN-150B	---	---	---	---	---	---	9	---	---	---	---	---	---	---
	IN-150B	MH-150	---	---	---	---	---	---	66	---	---	---	---	---	---	---
	TI-150C	IN-150A	---	---	---	---	---	18	---	---	---	---	---	---	---	1
	MH-160	MH-170	---	---	---	---	---	---	---	---	---	---	---	122	---	---
	IN-160A	MH-160	---	---	---	---	---	47	---	---	---	---	---	---	---	---
	MH-170	MH-180	---	---	---	---	---	---	---	---	---	---	---	71	---	---
	IN-170A	IN-170B	---	---	---	19	---	---	---	---	---	---	---	---	---	---
	IN-170B	MH-170	---	---	---	25	---	---	---	---	---	---	---	---	---	---
	MH-180	MH-200	---	---	---	---	---	---	---	---	---	---	---	148	---	---
	IN-180A	IN-180B	---	---	---	5	---	---	---	---	---	---	---	---	---	---
	IN-180B	MH-180	---	---	---	8	---	---	---	---	---	---	---	---	---	---
	MH-200	MH-210	---	---	---	---	---	---	---	---	---	---	---	49	---	---
	IN-200A	MH-200	---	---	---	---	46	---	---	---	---	---	---	---	---	---
	MH-210	MH-220	---	---	---	---	---	---	---	---	---	---	---	109	---	---
	IN-210A	MH-210	---	---	---	---	25	---	---	---	---	---	---	---	---	---
	IN-210B	IN-210A	---	---	---	10	---	---	---	---	---	---	---	---	---	---
	MH-220	EW-C	---	---	---	---	---	---	---	---	---	---	---	---	72	---
	IN-220A	MH-220	---	---	---	---	---	---	135	---	---	---	---	---	---	---
	MH-230	MH-220	---	---	---	---	---	---	---	---	---	---	---	65	---	---
	IN-230A	IN-230B	---	---	---	7	---	---	---	---	---	---	---	---	---	---
	IN-230B	MH-230	---	---	---	13	---	---	---	---	---	---	---	---	---	---
	MH-240	MH-230	---	---	---	---	---	---	---	---	---	---	151	---	---	---
	IN-240A	IN-240B	---	---	---	61	---	---	---	---	---	---	---	---	---	---
	IN-240B	IN-240C	---	---	---	---	24	---	---	---	---	---	---	---	---	---
	IN-240C	MH-240	---	---	---	---	13	---	---	---	---	---	---	---	---	---
	EW-A	MH-A	---	---	---	---	---	28	---	---	---	---	---	---	---	---
	EW-D	MH-A	---	---	---	---	---	9	---	---	---	---	---	---	---	---
	MH-A	MH-B	---	---	---	---	---	132	---	---	---	---	---	---	---	---
	MH-B	EW-B	---	---	---	---	---	25	---	---	---	---	---	---	---	---
	MH-250	MH-240	---	---	---	---	---	---	---	---	---	---	287	---	---	---
	MH-250A	MH-250	---	---	---	---	---	---	---	---	---	16	---	---	---	---
	TOTALS		65	27	50	276	108	343	210	123	17	300	579	748	72	1

INLETS, MANHOLES, MANHOLE COVERS, AND INLET COVERS

CATEGORY	STRUCT. ID#	STATION	LOCATION	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2007 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	SPV.0060.03 MANHOLES 9-FT DIAMETER EACH	SPV.0060.04 MANHOLE STRUCTURE 220 EACH	SPV.0060.05 INLET STRUCTURE 220A EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0545 MANHOLE COVERS TYPE L EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH
0010	MH-100	94+68	24.7' RT	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---
	IN-100A	94+00	60.0' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-100B	94+09	30.5' RT	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---
	IN-100C	94+17	30.5' RT	---	1	---	---	---	---	---	---	---	---	---	---	1	---	---
	IN-100D	94+26	30.5' RT	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---
	IN-100E	94+68	55.8' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH-110	95+46	28.0' RT	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---
	IN-110A	95+44	55.1' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH-120	96+70	26.1' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---
	IN-120A	96+70	65.4' RT	---	---	---	---	---	---	---	---	---	1	---	---	---	---	2
	IN-120B	96+70	44.7' RT	---	---	1	---	---	---	---	---	---	---	---	---	1	---	---
	IN-130A	97+51	70.4' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH-130	98+11	23.0' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-130B	98+04	72.6' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-130C	98+11	1.5' LT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-130D	98+11	14.9' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-140	99+34	22.0' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-140A	99+63	80.4' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-140B	99+61	72.6' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-140C	99+34	48.7' RT	1	---	---	---	---	---	---	---	---	---	---	---	---	1	---
	IN-140D	99+00	75.0' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-140E	99+39	1.5' LT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-140F	99+39	3.5' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-150	100+22	22.6' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-150A	100+19	96.8' RT	1	---	---	---	---	---	---	---	---	---	---	---	1	---	---
	IN-150B	100+20	88.1' RT	1	---	---	---	---	---	---	---	---	---	---	---	1	---	---
	MH-160	101+18	22.6' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-160A	101+18	69.8' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH-170	102+40	23.0' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-170A	102+40	66.7' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-170B	102+40	47.5' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-180	103+11	23.0' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-180A	103+11	10.5' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-180B	103+11	15.5' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-200	104+59	22.3' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-200A	104+59	68.5' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH-210	105+08	20.8' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-210A	105+08	45.3' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	IN-210B	104+98	45.6' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-220	106+17	23.6' RT	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---
	IN-220A	106+20	68.7' RT	---	---	---	---	---	---	1	---	---	---	---	---	---	---	4
	MH-230	106+82	27.6' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-230A	106+76	40.4' RT	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---
	IN-230B	106+83	40.2' RT	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---
	MH-240	108+33	23.2' RT	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
	IN-240A	108+94	60.4' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-240B	108+33	59.5' RT	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1
	IN-240C	108+33	35.7' RT	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---
	MH-A	104+79	34.8' LT	---	1	---	---	---	---	---	---	---	---	---	1	---	---	---
	MH-B	105+25	34.2' LT	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---
	MH-250	111+20	24.0' RT	---	---	---	---	1	---	---	---	---	---	1	---	---	---	---
	IN-250A	111+20	39.6' RT	---	---	---	---	---	---	---	---	---	1	---	---	---	---	2
		TOTALS		4	3	4	10	2	1	1	14	11	2	15	2	18	3	19

NOTE: STATION AND OFFSETS ARE TO THE CENTER OF STRUCTURES

3

SANITARY SEWER ITEM SUMMARY (TOWN OF BELOIT)

CATEGORY	STATION	OFFSET	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLES EACH	611.8120.S COVER PLATES TEMPORARY EACH	REMARKS
0020	92+97	33.7' RT	---	1	---	
	94+23	35.5' RT	1	---	---	
	97+20	33.4' RT	---	1	---	
	99+91	28.8' RT	1	---	---	
	99+95	33.3' LT	1	---	---	
	101+51	33.6' RT	1	---	---	
	105+51	35.8' RT	---	1	---	
	107+56	34.1' RT	1	---	---	
	111+56	34.2' RT	---	1	---	
	111+57	33.9' LT	---	---	1	TO COVER EXISTING MANHOLE TO REMAIN DURING TEMPORARY WIDENING OPERATIONS
		TOTAL	5	4	1	

CRASH CUSHIONS PERMANENT

CATEGORY	STATION	LOCATION	614.0800 EACH
0010	107+15.8	LT	1
	108+69.2	LT	1
		TOTAL	2

3

MAINTENANCE AND REPAIR OF HAUL ROADS 5350-00-74

CATEGORY	PROJECT	618.0100 EACH
0010	01. 5350-00-74	1

MOBILIZATION

CATEGORY	PROJECT	619.1000 EACH
0010	5350-00-74	1

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION	LOCATION	620.0300 SF	REMARKS
0010	98+02	7.0' RT	120	TYPE 1
	99+50	1.0' RT	50	TYPE 1
	100+45	13.0' RT	50	TYPE 1
	103+23	13.0' RT	50	TYPE 1
		TOTAL	270	

DUST CONTROL SURFACE TREATMENT

CATEGORY	STATION - STATION	LOCATION	623.0200 SY
0010	93+00 - 100+00	RT/LT	5,250
	100+00 - 113+00	RT/LT	9,250
		TOTAL	14,500

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\030208_mq.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 43

WATER

CATEGORY	STAGE	STATION - STATION		624.0100 MGAL
0010	STAGE 1	90+50 - 100+00	LT	1.6
		100+00 - 113+50	LT	1.3
		SUBTOTAL (STAGE 1)		2.9
	STAGE 2	91+35 - 100+00	RT	5.4
		100+00 - 113+50	RT	5.4
		100+50 CR - 101+93 CR	LT	0.8
		100+50 CR - 101+93 CR	RT	0.8
		SUBTOTAL (STAGE 2)		12.4
	STAGE 3	91+35 - 100+00	LT	2.6
		100+00 - 113+50	LT	9.6
		SUBTOTAL (STAGE 3)		12.2
		TOTAL		27.5

NOTE: FOR BASE AGGREGATE DENSE COMPACTION

SILT FENCE

CATEGORY	STATION - STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
0010	90+47 - 100+00	LT	920	1,840
	100+00 - 113+62	LT	730	1,460
		TOTALS	1,650	3,300

MOBILIZATIONS EROSION CONTROL

CATEGORY	STAGE	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	STAGE 1	1	3
	STAGE 2	3	3
	STAGE 3	3	3
	TOTALS	7	9

EROSION MAT ITEMS

CATEGORY	STAGE	STATION - STATION	LOCATION	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.2033 EROSION MAT CLASS III TYPE B SY
0010	STAGE 2	94+00 - 100+00	RT	7,450	570	---	---
		100+00 - 113+00	RT	13,500	900	---	---
		STAGE 2 (SUBTOTAL)		20,950	1,470	0	0
	STAGE 3	101+30 - 107+00	LT	7,900	---	640	640
		STAGE 3 (SUBTOTAL)		7,900	0	640	640
		UNDISTRIBUTED		2,885	147	64	64
		TOTALS		31,735	1,617	704	704

TURBIDITY BARRIERS

CATEGORY	STATION	LOCATION	628.6005 SY	REMARKS
0010	14+75 D	RT/LT	45	ROCK RIVER OUTFALL

INLET PROTECTION SUMMARY

CATEGORY	STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
0010	94+00	60' RT	1	---	---	1
	94+09	30.5' RT	1	---	1	---
	94+17	30.5' RT	1	---	1	---
	94+26	30.5' RT	1	---	1	---
	94+68	55.8' RT	1	---	---	1
	95+44	55.1' RT	1	---	---	1
	96+70	65.4' RT	1	1	---	---
	96+70	44.7' RT	1	---	---	1
	97+51	70.4' RT	1	---	---	1
	98+04	72.6' RT	1	---	---	1
	98+11	1.5' LT	1	---	1	---
	98+11	3.5' RT	1	---	1	---
	99+03	35.6' RT	---	---	1	---
	99+62	80.4' RT	1	---	1	---
	99+60	72.6' RT	1	---	1	---
	99+34	48.7' RT	1	---	1	---
	99+00	75.0' RT	1	1	---	---
	99+39	1.5' LT	1	---	1	---
	99+39	3.5' RT	1	---	1	---
	100+16	82.9' RT	---	---	---	1
	100+18	96.8' RT	1	---	---	1
	100+20	88.1' RT	1	---	---	1
	101+18	69.8' RT	1	---	---	1
	102+40	66.7' RT	1	1	---	---
	102+40	47.5' RT	1	---	1	---
	103+11	10.5' RT	1	---	1	---
	103+11	15.5' RT	1	---	1	---
	104+59	68.5' RT	1	---	---	1
	105+08	45.3' RT	1	---	---	1
	104+98	45.6' RT	1	---	---	1
	106+20	68.7' RT	1	---	---	1
	106+76	40.4' RT	1	---	1	---
	106+83	40.2' RT	1	---	1	---
	108+94	60.4' RT	1	1	---	---
	108+33	59.5' RT	1	1	---	---
	108+33	35.7' RT	1	---	1	---
	111+20	39.6' RT	1	---	---	1
	TOTALS		35	5	17	15

CULVERT PIPE CHECKS

CATEGORY	LOCATION	628.7555 EACH
0010	101+82 LT	2
	103+65 LT	2
	105+86 LT	2
	106+17 RT	16
	UNDISTRIBUTED	2
	TOTAL	24

MULCHING

CATEGORY	STAGE	STATION - STATION	LOCATION	627.0200 SY	REMARKS
0010	STAGE 2	100+75 CR - 102+10 CR	RT	1,000	SITE CLEARANCE RESTORATION
		SUBTOTAL (STAGE 2)		1,000	
	STAGE 3	90+50 - 100+00	LT	1,000	
		100+00 - 113+60	LT	800	
		SUBTOTAL (STAGE 3)		1,800	
		UNDISTRIBUTED		700	
		TOTAL		3,500	

ROCK BAGS

CATEGORY	STATION	LOCATION	625.7570 EACH	REMARKS
0010	101+60	LT	8	SINGLE LAYER
	102+50	LT	8	SINGLE LAYER
	103+01	LT	8	SINGLE LAYER
	111+45	RT	8	SINGLE LAYER
	112+50	RT	8	SINGLE LAYER
	11+15 D	LT/RT	8	SINGLE LAYER
	11+65 D	LT/RT	16	MULTIPLE LAYER
	12+15 D	LT/RT	8	SINGLE LAYER
	12+65 D	LT/RT	16	MULTIPLE LAYER
	13+15 D	LT/RT	8	SINGLE LAYER
	13+65 D	LT/RT	16	MULTIPLE LAYER
	UNDISTRIBUTED		16	
	TOTAL		128	

FINISHING ITEMS

CATEGORY	STAGE	STATION - STATION	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0170 SEEDING MIXTURE NO. 70 LB	630.0200 SEEDING TEMPORARY LB	630.0160 SEEDING MIXTURE NO. 60 LB	SPV.0120.01 WATER FOR SEEDED AREAS MGAL	REMARKS
0010	STAGE 2	92+68 - 100+00	RT	1,200	---	0.8	20	---	35	---	140	
		100+00 - 113+00	RT	2,300	---	1.4	40	---	60	---	260	
		100+75 CR - 102+10 CR	RT	1,200	---	0.7	20	---	30	---	130	
		100+75 CR - 102+10 CR	LT	120	---	0.1	2	---	3	---	15	
		SUBTOTALS (STAGE 2)		4,820	0	3.0	82	0	128	0	545	
	STAGE 3	90+50 - 100+00	LT	1,000	---	0.6	20	---	25	---	110	
		100+00 - 113+60	LT	1,700	---	1.1	30	---	45	---	190	
		10+59 D - 14+74 D	LT/RT	---	640	0.4	---	3	---	9	70	SEEDING MIXTURE NO. 60 USED AS NURSE CROP
		SUBTOTALS (STAGE 3)		2,700	640	2.1	50	3	70	9	370	
		UNDISTRIBUTED		---	---	1.3	33	---	50	2	---	
		TOTALS		7,520	640	6.4	165	3	248	11	915	

PERMANENT SIGNING/ SIGN REMOVAL SUMMARY

SIGN NO.	APPROX. STA.	LOC.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6-INCH x 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1 - 1	92+00	RT	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	1	1	---	
1 - 2	93+60	RT	W6-1	DIVIDED HIGHWAY AHEAD SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
1 - 3	95+65	RT	D1-1	ONE DESTINATION (ARROW)	84 x 15	8.75	---	---	2	---	1	1	
1 - 4	94+90	LT	W6-3	TWOWAY TRAFFIC SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
2 - 1	97+65	LT	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	1	1	1	
2 - 2	98+10	MEDIAN	R4-7	KEEP RIGHT	24 x 30	5.00	---	---	---	1	---	---	
2 - 3	98+10	MEDIAN	W5-54	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING	18 x 18	---	---	2.25	---	---	---	---	BOTTOM OF SIGN MOUNTED AT HEIGHT OF 4'
2 - 4	99+10	LT	M1-94H	OVERHEAD STREET NAME SIGN	84 x 18	10.50	---	---	---	---	---	---	
2 - 5	99+30	MEDIAN	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	---	---	
2 - 6	99+30	RT	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	1	---	
2 - 7	99+35	MEDIAN	R4-7	KEEP RIGHT	24 x 30	5.00	---	---	---	---	---	---	
2 - 8	99+85	LT	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	---	---	
2 - 9	100+25	LT	R5-50	PRIVATE DRIVE	30 x 24	5.00	---	---	---	1	---	---	
2 - 10	101+95 CR	LT	D1-61	ADVANCED CROSSROAD NAME WITH ARROWS (NO CARDINALS)	84 x 24	14.00	---	---	2	---	---	---	
2 - 11	100+65	RT	M1-94H	OVERHEAD STREET NAME SIGN	84 x 18	10.50	---	---	---	---	---	---	
2 - 12	100+65	MEDIAN	R4-7	KEEP RIGHT	24 x 30	5.00	---	---	---	---	---	---	
2 - 13	100+70	MEDIAN	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	---	---	
2 - 14	100+70	LT	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	1	---	
2 - 15	101+75	RT	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	1	1	1	
2 - 16	102+40	LT	D1-1	ONE DESTINATION (ARROW)	84 x 15	8.75	---	---	2	---	1	1	
2 - 17	100+70 CR	LT	R1-1F	STOP (FOLDING)	36 x 36	---	9.00	---	---	---	1	---	
2 - 18	102+90 CR	LT	R3-8F	LEFT ONLY/RIGHT ONLY	36 x 30	7.50	---	---	---	1	---	---	
2 - 19	99+00	LT	W6-2	DIVIDED HIGHWAY ENDS SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
3 - 1	104+50	RT	W6-2	DIVIDED HIGHWAY ENDS SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
3 - 2	105+65	RT	R1-1	STOP	36 x 36	9.00	---	---	---	1	1	1	
3 - 3	107+50	LT	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	1	---	---	
3 - 4	108+15	RT	W6-3	TWOWAY TRAFFIC SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
4 - 1	109+50	LT	W6-1	DIVIDED HIGHWAY AHEAD SYMBOL	36 x 36	---	---	9.00	---	1	---	---	
---	101+86	RT	---	---	---	---	---	---	---	---	---	2	
				TOTALS		104.00	54.00	74.25	6	14	9	7	

FIELD OFFICE TYPE C

CATEGORY	PROJECT	642.5201 EACH
0010	5350-00-74	1

TRAFFIC CONTROL DETOUR

CATEGORY	PROJECT	643.2000 EACH
0010	01. 5350-00-74	1

TRAFFIC CONTROL PROJECT

CATEGORY	PROJECT	643.0100 EACH
0010	01. 5350-00-74	1

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	DURATION (DAYS)	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAYS	*643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	*643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	*643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	*643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	*643.0900 TRAFFIC CONTROL SIGNS EACH	*643.0900 TRAFFIC CONTROL SIGNS DAYS	*643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	*643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH
0010	STAGE 1	ADVANCE NOTIFICATION	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2	28	---	---
		USH 51	15	313	4,695	---	---	3	45	6	90	12	180	1	15	13	195	---	---	---	---
		SIDEROADS	15	---	---	---	---	---	---	---	---	---	---	---	---	2	30	---	---	---	---
		SUBTOTALS (STAGE 1)			4,695		0		45		90		180		15		225		28	0	0
	STAGE 2	USH 51	65	374	24,310	2	130	8	520	18	1,170	55	3,575	1	65	34	2,210	---	---	157	157
		CRANSTON ROAD - ADVANCE NOTIFICATION	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	7	---	---
		SIDEROADS	65	---	---	---	---	5	325	10	650	---	---	---	---	8	520	---	---	---	---
		SUBTOTALS (STAGE 2)			24,310		130		845		1,820		3,575		65		2,730		7	157	157
	STAGE 3	USH 51	30	572	17,160	---	---	3	90	6	180	136	4,080	1	30	25	750	---	---	129	129
		SIDEROADS	30	---	---	---	---	10	300	20	600	---	---	---	---	9	270	---	---	---	---
		SUBTOTALS (STAGE 3)			17,160		0		390		780		4,080		30		1,020		---	129	129
		ADVANCED WARNING SIGNING - WIDTH RESTRICTIONS	110	---	---	---	---	---	---	---	---	---	---	---	---	22	2,420	---	---	---	---
		TOTALS			46,165		130		1,280		2,690		7,835		110		6,395		35	286	286

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	STAGE	LOCATION	NUMBER OF CYCLES	NUMBER OF SIGNS	643.0920 EACH
0010	STAGE 2	E. HENDERSON AVE.	1	1	1
		E. WEIRICK AVE.	1	1	1
		TOTAL			2

3

TRAFFIC CONTROL DETOUR

CATEGORY	STAGE	DETOUR TYPE	DURATION (DAYS)	*643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	*643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	*643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	*643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	*643.0900 TRAFFIC CONTROL SIGNS EACH	*643.0900 TRAFFIC CONTROL SIGNS DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS	*643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	*643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
0010	STAGE 1 - ADVANCE NOTIFICATION	USH 51	7	---	---	---	---	---	---	---	---	2	14
	STAGE 2	USH 51	2	10	20	12	24	8	16	---	---	7	14
	STAGE 2	PEDESTRIAN	42	---	---	---	---	---	---	6	252	---	---
		TOTALS			20		24		16		252		28

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TEMPORARY CURB RAMP

CATEGORY	LOCATION	644.1601.S EACH
0010	UNDISTRIBUTED	2

TEMPORARY PEDESTRIAN SAFETY FENCE

CATEGORY	LOCATION	644.1616.S LF
0010	UNDISTRIBUTED	400

REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	STATION - STATION	LOCATION	646.0600 LF	647.0955 ARROWS EACH	647.0965 WORDS EACH
0010	STAGE 1	88+00 - 118+50	LT	115	---	---
	STAGE 2	82+50 - 119+05	RT/LT	5,630	3	2
	STAGE 3	87+00 - 121+50	LT	195	---	---
			TOTALS	5,940	3	2

TEMPORARY PEDESTRIAN ACCOMMODATION SUMMARY

CATEGORY	LOCATION	644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1430.S TEMPORARY PEDESTRIAN SURFACE PLATE SF
0010	UNDISTRIBUTED	500	250	250

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	STATION - STATION	649.0403 TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	649.0403 (YELLOW) LF	649.0403 (DOUBLE YELLOW) LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) LF	649.0400 (YELLOW) LF	649.0400 (DOUBLE YELLOW) LF
0010	STAGE 1	88+00 - 118+80	---	---	---	570	---	---
		SUBTOTALS (STAGE 1)		0			570	
	STAGE 2	82+50 - 119+05	2,320	---	3,400	2,630	980	2,030
		SUBTOTALS (STAGE 2)		5,720			5,640	
	STAGE 3	87+00 - 121+50	160	---	---	3,490	985	4,940
		SUBTOTALS (STAGE 3)		160			9,415	
		TOTALS		5,880			15,625	

PAVEMENT MARKING ITEMS

CATEGORY	STATION - STATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106 (YELLOW) LF	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE) LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH (WHITE) LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0356 PAVEMENT MARKING WORDS EPOXY (WHITE) EACH	647.0456 PAVEMENT MARKING CURB EPOXY (YELLOW) LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW) EACH
0010	85+30 - 100+00	4,380	3,870	---	50	230	---	---	32	76	2
	100+00 - 105+50	1,240	815	---	260	150	2	1	20	36	2
	105+50 - 119+30	3,960	3,590	---	---	85	---	---	---	---	---
	100+00 CR - 103+00 CR	55	440	140	220	---	4	2	---	30	---
	EAST WEIRICK AVENUE	---	---	65	---	---	---	---	---	11	---
	SUBTOTALS	9,635	8,715	205	530	465	6	3	52	153	4
	TOTALS	18,350		205	530	465	6	3	52	153	4

3

TRAFFIC SIGNAL CONDUIT SUMMARY

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
0010	USH 51 & CRANSTON ROAD	CB-1	PB-1	---	39
		PB-1	SB-1	---	16
		PB-1	PB-2	---	98
		PB-2	SB-2	5	---
		PB-2	PB-3	18	---
		PB-2	PB-4	---	105
		PB-4	SB-3	13	---
		PB-4	PB-14	88	---
		PB-14	PB-15	300	---
		PB-4	PB-5	---	54
		PB-5	SB-4	5	---
		PB-5	PB-6	---	105
		PB-6	SB-5	7	---
		PB-6	PB-7	---	48
		PB-7	SB-6	---	43
		PB-7	PB-8	---	94
		PB-8	SB-7	8	---
		PB-8	PB-9	13	---
		PB-8	PB-10	---	120
		PB-10	SB-8	9	---
		PB-10	PB-16	70	---
		PB-16	PB-17	300	---
		PB-10	SB-9	27	---
		PB-10	PB-11	---	215
		PB-11	SB-10	12	---
		PB-11	PB-12	36	---
		PB-12	PB-13	89	---
		PB-11	CB-1	---	39
			TOTALS	1,000	976

REMOVING PULL BOXES

CATEGORY	LOCATION	EQUIP. LOCATION	STATION	LOCATION	653.0905 EACH
0010	USH 51 & CRANSTON ROAD	EXPB-1	96+19	44' RT	1
		EXPB-2	98+07	44' RT	1
		EXPB-3	99+48	43' RT	1
		EXPB-4	99+55	61' RT	1
		EXPB-5	100+33	58' RT	1
		EXPB-6	99+81	30' LT	1
		EXPB-7	100+24	33' LT	1
		EXPB-8	101+80	28' LT	1
		EXPB-9	103+29	29' LT	1
		EXPB-10	101+61 CR	27' LT	1
		EXPB-11	100+25	63' RT	1
		EXPB-12	100+38	30' LT	1
				TOTAL	12

LOOP DETECTOR INSTALLATION

CATEGORY	INTERSECTION	LOOP NO.	STATION	LOCATION	SIZE FT x FT	NO. OF TURNS	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF	REMARKS/SDD INSTALLATION REFERENCE
0010	USH 51 & CRANSTON ROAD	21	101+43.5	15.0'LT	6X20	3	78	225	235	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		22	104+38.5	9.0'LT	6X20	4	105	530	415	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		23	104+40.3	21.0'LT	6X20	4	80	530	320	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		41	99+94.2	40.4'LT	6X6	4	60	230	240	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		42	100+11.9	40.0'LT	6X6	4	54	170	215	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		51	100+65.4	3.0'RT	6X20	3	70	99	210	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		52	100+93.4	3.0'RT	6X20	3	68	99	205	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		61	98+57.6	29.0'RT	6X20	3	80	210	240	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		62	95+62.9	23.1'RT	6X20	4	80	520	320	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		63	95+65.4	11.3'RT	6X20	4	105	520	415	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		64	99+35.6	11.0'RT	6X20	3	70	220	210	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		65	99+07.6	11.0'RT	6X20	3	70	220	210	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		81	100+68.0 CR	16.5'LT	6X20	3	80	62	240	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		82	100+92.8 CR	16.5'LT	6X20	3	80	62	240	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		83	100+69.8 CR	5.5'LT	6X20	3	100	62	305	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		84	100+91.0 CR	5.5'LT	6X20	3	100	62	305	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		85	101+79.5 CR	16.5'LT	6X6	3	42	155	125	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
		86	101+77.7 CR	5.5'LT	6X6	3	64	155	190	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
						TOTALS	1,386	4,131	4,640	

3

TRAFFIC SIGNAL PULL BOX SUMMARY

CATEGORY	INTERSECTION	PULL BOX NO.	STATION	LOCATION	653.0135 PULL BOXES STEEL 24X36-INCH EACH	653.0140 PULL BOXES STEEL 24X42-INCH EACH
0010	USH 51 & CRANSTON ROAD	PB-1	100+47.7	54.9' RT	---	1
		PB-2	100+71.9	12.9' RT	---	1
		PB-3	100+89.6	13.0' RT	1	---
		PB-4	100+54.9	35.6' LT	---	1
		PB-5	100+28.2	34.9' LT	1	---
		PB-6	99+75.4	35.4' LT	1	---
		PB-7	99+52.3	35.6' LT	---	1
		PB-8	99+24.2	1.0' RT	---	1
		PB-9	99+11.4	1.0' RT	1	---
		PB-10	99+29.5	61.0' RT	---	1
		PB-11	100+37.3	61.4' RT	---	1
		PB-12	100+90.4 CR	32.5' LT	1	---
		PB-13	101+79.0 CR	28.3' LT	1	---
		PB-14	101+42.4	37.6' LT	1	---
		PB-15	104+39.9	37.2' LT	1	---
		PB-16	98+63.9	51.0' RT	1	---
		PB-17	95+62.4	39.8' RT	1	---
				TOTALS	10	7

TRAFFIC SIGNAL CABLE SUMMARY

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION 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
0010	USH 51 & CRANSTON ROAD	CB-1	SB-1	---	60	---	---
		SB-1	HEAD 10	52	---	---	---
		SB-1	HEAD 11	64	---	---	---
		CB-1	SB-2	---	115	---	---
		SB-2	HEAD 4	22	---	---	---
		CB-1	SB-3	---	190	---	---
		SB-3	HEAD 1	19	---	---	---
		CB-1	SB-4	230	---	---	---
		SB-4	HEAD 13	19	---	---	---
		CB-1	SB-5	290	---	---	---
		SB-5	HEAD 14	19	---	---	---
		CB-1	SB-6	350	---	---	---
		SB-6	HEAD 2	53	---	---	---
		SB-6	HEAD 3	65	---	---	---
		CB-1	SB-7	255	---	---	---
		SB-7	HEAD 5	22	---	---	---
		CB-1	SB-8	---	---	180	---
		SB-8	HEAD 6	22	---	---	---
		SB-8	HEAD 9	22	---	---	---
		CB-1	SB-9	---	195	---	---
		SB-9	HEAD 7	19	---	---	---
		SB-9	81	12	---	---	---
		SB-9	BUTTON	6	---	---	---
		CB-1	SB-10	---	---	---	57
		SB-10	HEAD 8	19	---	---	---
		SB-10	HEAD 12	19	---	---	---
		SB-10	82	12	---	---	---
		SB-10	BUTTON	6	---	---	---
			TOTALS	1,597	560	180	57

CONCRETE BASE SUMMARY

CATEGORY	INTERSECTION	BASE NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH
0010	USH 51 & CRANSTON ROAD	CB-1	100+48.8	67.4' RT	---	---	---	1	---	---
		SB-1	100+61.7	60.5' RT	---	---	1	---	---	---
		SB-2	100+65.7	13.0' RT	---	1	---	---	---	1
		SB-3	100+64.5	37.0' LT	1	---	---	---	1	---
		SB-4	100+31.9	37.0' LT	---	1	---	---	---	1
		SB-5	99+82.1	37.4' LT	1	---	---	---	1	---
		SB-6	99+11.9	48.6' LT	---	---	1	---	---	---
		SB-7	99+31.3	1.0' RT	---	1	---	---	---	1
		SB-8	99+32.6	52.9' RT	1	---	---	---	1	---
		SB-9	99+54.4	71.2' RT	---	1	---	---	---	1
		SB-10	100+31.3	71.0' RT	1	---	---	---	1	---
				TOTALS	4	4	2	1	4	4

ELECTRICAL WIRE, LIGHTING (LUMINAIRES)

CATEGORY	LOCATION	LOCATION FROM	LOCATION TO	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
0010	USH 51 & CRANSTON ROAD	CB-1	SB-2	115	---
			POLE	---	250
		SB-2	SB-4	120	---
			POLE	---	125
		CB-1	SB-9	200	---
			POLE	---	125
		SB-9	SB-7	135	---
			POLE	---	250
			TOTALS	570	750

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CATEGORY	LOCATION	STATION/OFFSET	656.0200 LS
0010	01. USH 51/CRANSTON ROAD INTERSECTION	100+49, 67' RT	1

SIGNAL MOUNTING HARDWARE

CATEGORY	LOCATION	658.5069 LS
0010	01. USH 51/CRANSTON ROAD INTERSECTION	1

REMOVE AND TRANSPORT TRAFFIC SIGNALS

CATEGORY	LOCATION	SPV.0105.01 LS
0010	USH 51/CRANSTON ROAD INTERSECTION	1

TRAFFIC SIGNAL EQUIPMENT GROUNDING AND GROUNDED CONDUCTORS

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (WHITE) LF
0010	USH 51 & CRANSTON ROAD	CB-1	SB-1	64	64
		SB-1	SB-2	105	105
		SB-2	SB-3	105	105
		SB-3	SB-4	79	79
		SB-4	SB-5	100	100
		SB-5	SB-6	115	115
		SB-6	SB-7	135	135
		SB-7	SB-8	115	115
		SB-8	SB-9	58	58
		SB-9	SB-10	185	185
		SB-10	CB-1	60	60
		SB-1	PB-1	35	---
		SB-2	PB-2	24	---
		SB-3	PB-4	32	---
		SB-4	PB-5	24	---
		SB-5	PB-6	26	---
		SB-6	PB-7	62	---
		SB-7	PB-8	27	---
		SB-8	PB-10	28	---
		SB-10	PB-11	31	---
			SUBTOTALS	1,410	1,121
			TOTAL	2,531	

TRAFFIC SIGNAL POLES

CATEGORY	INTERSECTION	BASE NO.	STATION	LOCATION	657.0310 POLES TYPE 3 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	659.1125 LUMINAIRES UTILITY LED C EACH
0010	USH 51 & CRANSTON ROAD	SB-1	100+61.7	60.5' RT	---	---	---	---	1	1	---	---
		SB-2	100+65.7	13.0' RT	1	---	---	2	---	---	---	2
		SB-3	100+64.5	37.0' LT	---	1	---	---	---	---	---	---
		SB-4	100+31.9	37.0' LT	1	---	---	1	---	---	---	1
		SB-5	99+82.1	37.4' LT	---	1	---	---	---	---	---	---
		SB-6	99+11.9	48.6' LT	---	---	---	---	1	1	---	---
		SB-7	99+31.3	1.0' RT	1	---	---	2	---	---	---	2
		SB-8	99+32.6	52.9' RT	---	---	1	---	---	---	---	---
		SB-9	99+54.4	71.2' RT	1	---	---	1	---	---	1	1
		SB-10	100+31.3	71.0' RT	---	1	---	---	---	---	1	---
				TOTALS	4	3	1	6	2	2	2	6

LED MODULE SUMMARY

CATEGORY	INTERSECTION	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH
0010	USH 51 & CRANSTON ROAD	11	11	11	3	6	3

TRAFFIC SIGNAL FACES SUMMARY

CATEGORY	INTERSECTION	BASE NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
0010	USH 51 & CRANSTON ROAD	SB-1	10	1	---	1	---	---	---
			11	1	---	1	---	---	---
		SB-2	4	---	1	---	1	---	---
		SB-3	1	1	---	1	---	---	---
		SB-4	13	1	---	1	---	---	---
		SB-5	14	1	---	1	---	---	---
		SB-6	2	1	---	1	---	---	---
			3	1	---	1	---	---	---
		SB-7	5	---	1	---	1	---	---
		SB-8	6	---	1	---	1	---	---
			9	1	---	1	---	---	---
		SB-9	7	1	---	1	---	---	---
			81	---	---	---	---	1	1
		SB-10	8	1	---	1	---	---	---
			12	1	---	1	---	---	---
			82	---	---	---	---	1	1
			TOTALS	11	3	11	3	2	2

UTILITY LINE OPENING (ULO)

CATEGORY	LOCATION	SPV.0060.06 EACH
0010	STORM SEWER CROSSING OF SANITARY TRUNKLINE	14
	UNDISTRIBUTED	5
	TOTAL	19

SAWING ASPHALT

CATEGORY	STAGE	STATION	LOCATION	690.0150 LF
0010	STAGE 1	90+50 - 96+50	LT	455
		106+00 - 113+50	LT	280
		SUBTOTAL (STAGE 1)		735
	STAGE 2	90+50 - 100+00	RT	190
		100+00 - 113+50	RT	250
		SUBTOTAL (STAGE 2)		440
	STAGE 3	90+50 - 100+00	LT	275
		100+00 - 113+50	LT	335
		SUBTOTAL (STAGE 3)		610
			TOTAL	1,785

SAWING CONCRETE

CATEGORY	STAGE	STATION	LOCATION	690.0250 LF
0010	STAGE 1	106+00 - 113+50	LT	140
		SUBTOTAL (STAGE 1)		140
	STAGE 2	90+50 - 100+00	RT	635
		100+00 - 113+50	RT	640
		101+93 CR	LT/RT	54
		SUBTOTAL (STAGE 2)		1,329
	STAGE 3	90+50 - 100+00	LT	29
		100+00 - 113+50	LT	115
		SUBTOTAL (STAGE 3)		144
			TOTAL	1,613

PROTECTION OF PRIVATE SPRINKLER SYSTEMS

CATEGORY	STATION - STATION	LOCATION	SPV.0090.03 LF
0010	100+77.4 - 105+26.4	LT	449

INSULATION BOARD POLYSTYRENE 2-INCH

CATEGORY	STATION	LOCATION	612.0902.S.01 SY
0020	94+68	35.2' RT	3.6
	95+46	34.6' RT	3.6
	96+70	33.6' RT	3.6
	98+10	31.6' RT	3.6
	99+34	29.6' RT	3.6
	100+22	29.6' RT	3.6
	101+18	32.5' RT	3.6
	104+59	35.3' RT	3.6
	105+08	35.6' RT	3.6
	106+18	35.3' RT	7.1
	106+83	34.7' RT	3.6
	108+33	34.1' RT	3.6
		TOTAL	46.7

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

5350-00-24

BELOIT URBANIZED AREA

CRANSTON ROAD INTERSECTION

USH 51

ROCK COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS — CAUTION
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES — CAUTION
BRIDGE

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND CHISELED X — CX
FOUND IRON PIN — IP
VALVE (GAS, WATER, ETC.) — (TYPE)
SIGN
OFF-PREMISE SIGN — I-25 — SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)

PARCEL NUMBER 25
UTILITY NUMBER 40

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF CURVATURE	PC
ACRES	AC	POINT OF COMPOUND CURVE	PCC
AHEAD	AH	POINT OF INTERSECTION	PI
ALUMINUM	ALUM	PROPERTY LINE	P.L.
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	SUBDIVISION	SUBD
EASEMENT	EASE	TANGENT	TAN
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED EASEMENT	TLE
GOVERNMENT LOT	GL	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		

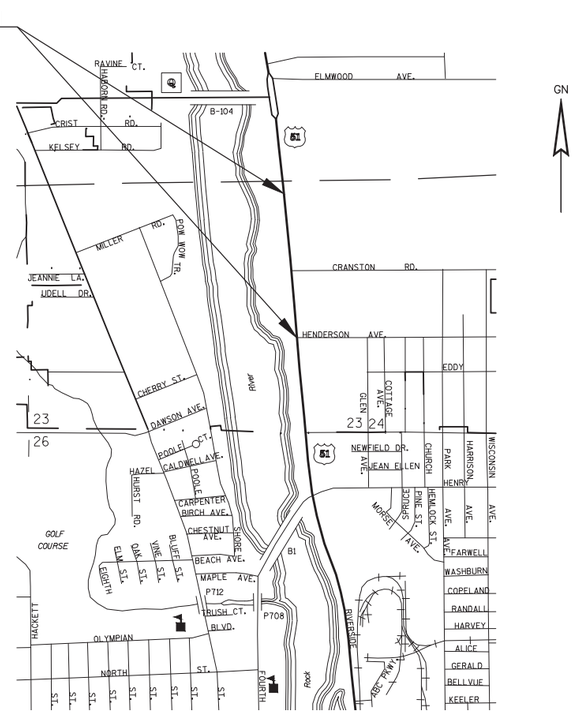
CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER — W
GAS — G
TELEPHONE — T
OVERHEAD TRANSMISSION LINES — OH
ELECTRIC — E
CABLE TELEVISION — TV
FIBER OPTIC — FO
SANITARY SEWER — SAN
STORM SEWER — SS

PROJECT LOCATION



LAYOUT
SCALE 0 .08 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5350-00-24.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83(2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
RIGHT-OF-WAY FOR USH 51 ESTABLISHED FROM PREVIOUS PROJECTS 5350-00-23, DJ 1436, CSM (V 31, P 27-29 OF CSM'S, DOC 1783639), CSM (V 1, P 23 OF CSM'S, DOC 608622), CSM (V 1, P 68 OF CSM'S, DOC 645373), NORTHERN HEIGHTS ADDITION, RIVER DRIVE TERRACE, CLUB SUBDIVISION, CLUB WEST, COUNTRY CLUB HEIGHTS, A RESUBDIVISION OF LOT 1 AND PART OF LOT 2 FAIR OAKS, WEIRICK'S SUBDIVISION, PLAT OF SURVEY (ORDER NO. 19568), PLAT OF SURVEY (ORDER NO. 26609) AND THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CRANSTON ROAD ESTABLISHED FROM PREVIOUS PROJECT 5989-2-35 AND RIVER DRIVE TERRACE.

EXISTING HIGHWAY RIGHT-OF-WAY FOR WEIRICK AVENUE ESTABLISHED FROM RIVER DRIVE TERRACE, CLUB WEST AND COUNTRY CLUB HEIGHTS.

EXISTING HIGHWAY RIGHT-OF-WAY FOR HENDERSON AVENUE ESTABLISHED FROM CSM (V 1, P 23 OF CSM'S, DOC 608622), FROEBEL HEIGHTS AND THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5350-00-24- 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : N:\PDS\RW-PLAT\53500004\040400.DWG
APPRAISAL PLAT DATE :
PLOT DATE : 12/14/2012 7:46 PM
PLOT BY : CLARK, CLYDE J
PLOT NAME : ----------
5350-00-24 4.01

TRANSPORTATION PROJECT PLAT NO: 5350-00-24 - 4.01

THAT PART OF LOTS 1 AND 2 CSM VOL. 31, P. 27-29, DOC. NO. 1783639, LOTS 1 THRU 7 OF NORTHERN HEIGHTS ADDITION, LOTS 1 AND 2 OF RIVER DRIVE TERRACE ADDITION, VACATED CRANSTON ROAD, OUTLOTS 23-27, 23-49, 23-50, 23-51, 23-52, 23-55, 23-56 OF ASSESSORS PLAT OF BELOIT AND GOVERNMENT LOT 6. ALL LOCATED IN THE NE¼ OF THE SE¼ OF SECTION 23, T 1N, R 12 E, TOWN OF BELOIT, ROCK COUNTY, WISCONSIN

RELOCATION ORDER USH 51 BELOIT URBANIZED AREA (CRANSTON ROAD INTERSECTION)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

HEREBY ORDERS THAT:
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

PI 100+02.90
Y = 214,266.338
X = 489,835.915
Delta = 00° 49' 57" LT
D = 00° 10' 00"
T = 249.76
L = 499.52
R = 34,380
DA = N 5° 04' 12" W

POT 90+08.61
Y = 213,274.768
X = 489,909.385

POT 100+00.00 CR
Y = 214,263.381
X = 489,835.245

POT 104+80.86 CR
Y = 214,255.693
X = 490,316.073

GN

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEED IN ROCK COUNTY, WISCONSIN AT 12:48 PM ON 18th November 2014 AS DOCUMENT # 2015705 AND FILED IN 152

Randal Leyes
SIGNATURE OF REGISTER OF DEEDS

THIS IS A COPY, ORIGINAL DOCUMENT IS FILED AT THE COUNTY REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5350-00-24 - 4.01
SHEET 1 OF 2

103

5350-00-24 4.01

POLY MON.
Y 214,353.168
X 485,582.294

S 88°54'49" E, 47.80' R/W TO TAN

S 88°54'49" E, 208.97' TAN TO TRAVERSE PT.

6.19' FROM CURVE PI ALONG TAN TO SEC. LINE

S 88°54'49" E, 4206.03' SEC. CORNER TO R/W

9' ACCESS EASEMENT CARD 294, IMAGE 74, DOC. 1044750

10' PERMANENT HIGHWAY EASEMENT CARD 387, IMAGE 984-985, DOC. 1088790

N 88°54'49" W, 923.66' SEC. CORNER TO TRAVERSE PT.

COMPUTED FROM TIES
Y 214,251.033
X 490,367.788

PART OF GL 6

STA. 100+09.18

PI: 100+02.90

102CR

S89° 05' 02"E

104CR

CRANSTON RD.

POT 100+00.00 CR =100+00.00

S 38°19'17" W, 10.71' SEC. LINE TO R/L

POT 104+80.86 CR

S 38°19'17" W, 44.36' R/L TO R/W

LAND WAS ACQUIRED WITH WISDOT PROJECT 5350-00-23 PARCEL 1

VACATED CRANSTON RD.

LOT 2

TOWN

LOT 3

LOT 1

RIVER DRIVE TERRACE ADDITION

OL 23-56

OL 23-55

OL 23-54

LOT 1 CSM VOL. 31, P. 27-29, DOC. 1783639

LOT 2 CSM VOL. 31, P. 27-29, DOC. 1783639

OL 23-53

OL 23-52

OL 23-51

OL 23-50

OL 23-49

OL 23-48

OL 23-47

OL 23-46

OL 23-45

OL 23-44

OL 23-43

OL 23-27

OL 23-28

LOT 83

LOT 84

LOT 85

LOT 86

LOT 87

LOT 88

LOT 89

LOT 90

LOT 3

LOT 4

LOT 5

LOT 6

LOT 7

RIVER DRIVE TERRACE

NORTHERN HEIGHTS ADDITION

ASSESSOR'S PLAT OF BELOIT TOWNSHIP

OF

BELOIT

PLAT

ASSESSORS

NE-SE

USH 51 (RIVERSIDE DR.)

HENDERSON AVE.

WISCONSIN POWER & LIGHT COMPANY DOC. 1523923

EX C/L

N4° 14' 15"W

PC: 97+53.13

POT 90+08.61

S 85°42'15" W, 46.93' R/L TO R/W

S 85°42'15" W, 52.07'

49'

50'

48'

TLE - GRADING 1990 SF

TLE - GRADING 257 SF

TLE - GRADING 321 SF

TLE - GRADING 2150 SF

TLE - GRADING 285 SF

TLE - GRADING 225 SF

TLE - GRADING 1220 SF

TLE - GRADING 1074 SF

TLE - GRADING 1030 SF

TLE - GRADING 516 SF

TLE - GRADING 360 SF

TLE - GRADING 426 SF

TLE - GRADING 105 SF

PLE - DRAINAGE 317 SF

PLE - DRAINAGE 99 SF

PLE - DRAINAGE 1331 SF

PLE - DRAINAGE 245 SF

PLE - DRAINAGE 179 SF

PLE - DRAINAGE 194 SF

PLE - DRAINAGE 241 SF

CITY OF BELOIT T1N R12E

SHEET LOCATION

PROJECT LOCATION

LOCATION SKETCH NOT TO SCALE

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83/2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

TLE Station & Offset Table

Point No.	Station	Offset
T1	99+04.61	85.34'
T2	97+43.00	85.00'
T3	97+07.00	80.50'
T4	97+07.00	77.00'
T5	96+60.00	77.00'
T6	96+30.00	66.00'
T7	95+37.00	66.00'
T8	95+37.00	72.00'
T9	95+00.00	72.00'
T10	95+00.00	64.00'
T11	94+60.00	67.00'
T12	93+85.00	67.00'
T13	93+85.00	51.95'
T14	92+76.00	52.00'
T15	92+76.00	70.00'
T16	93+15.00	70.00'
T17	93+15.00	59.00'
T18	94+00.00	59.00'
T19	94+47.00	53.00'
T20	94+47.00	47.11'
T21	94+75.00	47.14'
T22	94+75.00	53.00'
T23	95+20.00	59.00'
T24	96+78.00	59.00'
T25	96+87.00	83.00'
T26	97+12.00	83.00'
T27	97+34.00	59.00'
T28	97+48.00	59.00'
T29	97+77.00	96.00'
T30	98+06.00	96.00'
T31	98+06.00	68.00'
T32	98+95.00	68.00'
T33	99+19.00	97.00'
T34	99+81.00	97.00'
T35	99+81.00	99.00'
T36	100+19.18	99.06'

R/W Course Table

100-101	S 87° 16' 23" W	82.74'
101-102	S 28° 47' 17" W	39.98'
102-103	S 28° 47' 17" W	12.97'
103-104	S 4° 21' 47" E	14.68'
104-105	S 4° 21' 47" E	81.14'
105-106	S 4° 21' 47" E	61.10'
106-107	S 3° 05' 30" E	7.00'
107-108	S 3° 05' 30" E	65.01'
108-109	S 3° 05' 31" E	8.00'
109-110	S 2° 25' 02" W	8.05'
110-111	S 2° 25' 00" W	34.23'
111-112	S 2° 45' 00" E	48.02'
112-113	S 4° 17' 53" E	27.00'
113-114	S 4° 17' 32" E	16.00'
114-115	S 4° 17' 45" E	61.00'
115-116	S 4° 17' 45" E	16.00'
116-117	S 4° 17' 45" E	52.00'
117-118	S 4° 17' 45" E	16.00'
118-119	S 4° 17' 45" E	120.90'
120-121	N 4° 17' 45" W	629.68'
121-122	S 85° 42' 15" W	8.50'
122-123	N 4° 17' 45" W	20.00'
123-124	N 85° 42' 15" E	8.50'
124-125	N 4° 17' 45" W	92.85'
102-126	S 61° 12' 43" E	19.00'
126-127	S 4° 21' 47" E	15.11'
127-104	S 85° 31' 52" W	23.00'
105-128	N 85° 39' 58" E	21.00'
128-129	S 4° 21' 00" E	68.14'
129-107	S 85° 45' 45" W	21.14'
108-130	N 85° 45' 45" E	14.94'
130-131	S 4° 14' 15" E	16.00'
131-110	S 85° 45' 45" W	16.03'
113-132	N 85° 45' 45" E	11.22'
132-133	S 4° 14' 15" E	16.00'
133-114	S 85° 45' 45" W	11.20'
115-134	N 85° 45' 45" E	12.14'
134-135	S 4° 14' 15" E	16.00'
135-116	S 85° 45' 45" W	12.12'
117-136	N 85° 45' 45" E	15.07'
136-137	S 4° 14' 15" E	16.00'
137-118	S 85° 45' 45" W	15.05'

R/W Station & Offset Table

Point No.	Station	Offset
100	101+75.49 CR	35.24'
101	100+92.92 CR	40.50'
102	99+17.48	66.62'
103	99+06.66	59.50'
104	98+92.00	59.47'
105	98+11.00	59.42'
106	97+50.00	59.50'
107	97+43.00	59.36'
108	96+78.00	58.06'
109	96+70.00	57.90'
110	96+62.00	56.97'
111	96+28.00	53.00'
112	95+80.00	51.75'
113	95+53.00	51.78'
114	95+37.00	51.80'
115	94+76.00	51.86'
116	94+60.00	51.88'
117	94+08.00	51.93'
118	93+92.00	51.95'
119	92+71.10	52.07'
120	92+71.00	46.93'
121	99+00.88	47.26'
122	99+00.91	55.76'
123	99+20.94	55.69'
124	99+20.91	47.19'
125	100+13.88	46.70'
126	99+07.07	82.50'
127	98+92.00	82.47'
128	98+11.00	80.42'
129	97+43.00	80.50'
130	96+78.00	73.00'
131	96+62.00	73.00'
132	95+53.00	63.00'
133	95+37.00	63.00'
134	94+76.00	64.00'
135	94+60.00	64.00'
136	94+08.00	67.00'
137	93+92.00	67.00'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED NEW	EXISTING	TOTAL	PLE ACRES OR S.F.	TLE ACRES OR S.F.
1	PETER C & NANCY L HALVERSON LIVING TRUST	TLE					2027
2	PETER C & NANCY L HALVERSON LIVING TRUST AND QUITA M CHRISTENSON	TLE					578
3	RONALD L BETKER	TLE					770
4	RICHARD E & CANDY G NELSON	TLE					2126
6	RVB PARTNERSHIP	TLE					1553
7	RICHARD A & PAMELA S WYATT	TLE					2877
8	2180 RIVERSIDE DRIVE LLC	FEE & TLE	170		170		1990
9	PETER W & JULIE E WYSS	TLE					3584
11	PETER GABRIELE	TLE					492
12	BRANDT, SALLY & FLOSSIE JOHNSON	TLE					116
14	JOHN H & BARBARA J EDDY	PLE & TLE				241	531
16	KATHERINE JOANNE WISCH	PLE & TLE				194	876
17	ROBERT J SHACKETT & LISA M LANG-SHACKETT	FEE, PLE & TLE	0.46		0.46	179	1030
18	VIRENDRA THAKUR	FEE & TLE	131		131		1074
19	JANET L KOLMAN	FEE, PLE & TLE	497		497	245	1220
21	DENNIS P & DARLA L STEARNS	FEE, PLE & TLE	581		581	1331	510
22	FLOYD N JOHNSON	FEE, PLE & TLE	777		777	416	2150
			ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.				
			* PURPOSE OF ALL OF THE TLES IS FOR GRADING, UNLESS NOTED.				

LOT 1 CSM VOL. 1, P. 23, DOC. 608622

BELOIT

SCALE, FEET
0 50 100

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 51 ESTABLISHED FROM PREVIOUS PROJECT DJ 1436, CSM (V 31, P 27-29 OF CSM'S, DOC 1783639), CSM (V 1, P 23 OF CSM'S, DOC 608622), CSM (V 1, P 68 OF CSM'S, DOC 645373), NORTHERN HEIGHTS ADDITION, RIVER DRIVE TERRACE AND THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CRANSTON ROAD ESTABLISHED FROM PREVIOUS PROJECT 5989-2-35 AND RIVER DRIVE TERRACE.

EXISTING HIGHWAY RIGHT-OF-WAY FOR HENDERSON AVENUE ESTABLISHED FROM CSM (V 1, P 23 OF CSM'S, DOC 608622), FROEBEL HEIGHTS AND THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

I, KEIF S. CALLAWAY PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN Keif S. Callaway S-2607 Sun Prairie, WI LAND SURVEYOR

SIGNATURE: Keif S. Callaway DATE: 11/11/14
PRINT NAME: KEIF S. CALLAWAY
REGISTRATION NUMBER: S-2607

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SW REGION - MADISON OFFICE
SIGNATURE: Cory Schlagel DATE: 11/11/14
PRINT NAME: CORY SCHLAGEL

FILE NAME : N:\PDS\RW-PLAT\5350004\04401.DWG
APPRAISAL PLAT DATE : NOVEMBER 11, 2014

PLOT DATE : 11/24/2014 1:14 PM PLOT BY : CLARK, CLYDE J PLOT NAME : PLOT SCALE : 1.000000

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE CITY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR S.F. REQUIRED NEW	EXISTING	TOTAL	PLE ACRES OR S.F.	TLE ACRES OR S.F.
11	PETER GABRIELE	TLE					3291
12	BRANDT, SALLY & FLOSSIE JOHNSON	TLE					14
23	CHARLES L & PATRICIA A VINKE REVOCABLE TRUST	FEE, PLE & TLE	5457		5457	762	7734
24	THE ANNA GABRIELE LIVING TRUST	PLE & TLE				1103	4195
26	GARY B ADAMSKI	PLE & TLE				1789	1380
27	ALLAN J BRILLMAN	PLE & TLE				785	487
28	TODD H & TERESA SALLINGER	PLE & TLE				173	674
29	LARRY R & LYNETTE G RAMSEY	PLE & TLE				6900	6314
31	KEN & MEGGAN JOHNSON FAMILY REVOCABLE TRUST	PLE & TLE				4202	1065
32	JOAN C JACOBSON	FEE, PLE & TLE	899		899	555	2415
33	TERESA A GRANBERG	FEE, PLE & TLE	714		714	991	2611
34	FOTI G & BESSIE PAPAGEORGE	FEE & TLE	285		285		887
36	MICHAEL W HOLLAND	FEE & TLE	191		191		804
37	MICHAEL G & KARI J CHRISTOPHERSON	TLE					455
		ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.					
		* PURPOSE OF ALL OF THE TLES IS FOR GRADING, UNLESS NOTED.					

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83/2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEED IN ROCK COUNTY, WISCONSIN AT 1:22 PM ON 25th November 2014 AS DOCUMENT # 2016103 AND FILED IN 155

104

Randal Leyes
SIGNATURE OF REGISTER OF DEEDS

THIS IS A COPY, ORIGINAL DOCUMENT IS FILED AT THE COUNTY REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5350-00-24 - 4.02
AMENDMENT NO:___

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

I, KEIF S. CALLAWAY PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN Keif S. Callaway S-2607 Sun Prairie, WI LAND SURVEYOR

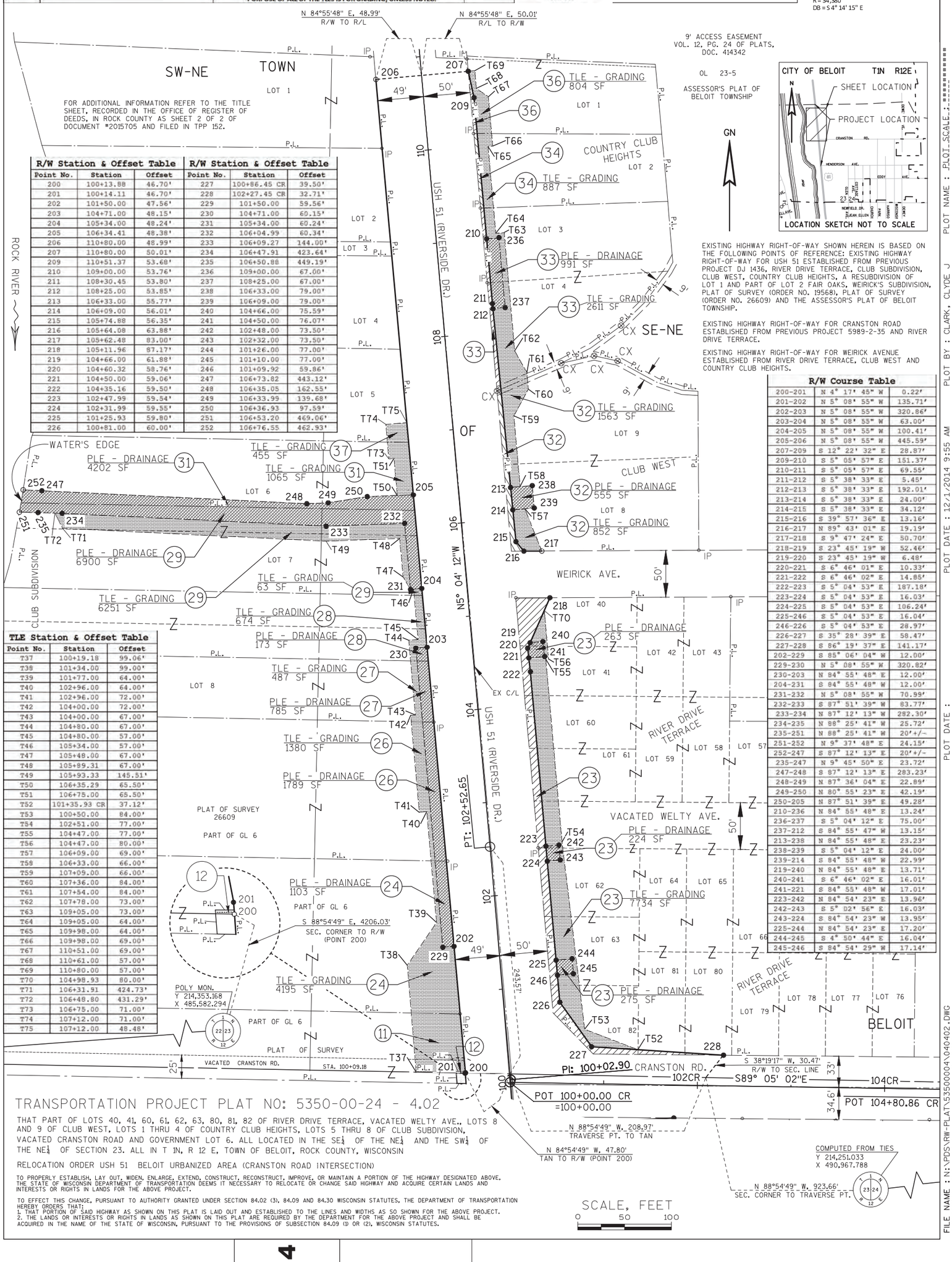
SIGNATURE: _____ DATE: 11/20/14
PRINT NAME: KEIF S. CALLAWAY
REGISTRATION NUMBER: S-2607

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION SW REGION - MADISON OFFICE
SIGNATURE: Cory Schlagel DATE: 11/20/14
PRINT NAME: CORY SCHLAGEL

PI 100+02.90
Y = 214,266.338
X = 489,835.915
Delta = 00° 49' 57" LT
D = 00° 10' 00"
T = 249.76
L = 499.52
R = 34,380
DB = S 4° 14' 15" E

POT 100+00.00 CR
Y = 214,263.381
X = 489,835.245

POT 104+80.86 CR
Y = 214,255.693
X = 490,316.073



R/W Station & Offset Table			R/W Station & Offset Table		
Point No.	Station	Offset	Point No.	Station	Offset
200	100+13.88	46.70'	227	100+86.45 CR	39.50'
201	100+14.11	46.70'	228	102+27.45 CR	32.71'
202	101+50.00	47.56'	229	101+50.00	59.56'
203	104+71.00	48.15'	230	104+71.00	60.15'
204	105+34.00	48.24'	231	105+34.00	60.24'
205	106+34.41	48.38'	232	106+04.99	60.34'
206	110+80.00	48.99'	233	106+09.27	144.00'
207	110+80.00	50.01'	234	106+47.91	423.64'
209	110+51.37	53.68'	235	106+50.88	449.19'
210	109+00.00	53.76'	236	109+00.00	67.00'
211	108+30.45	53.80'	237	108+25.00	67.00'
212	108+25.00	53.85'	238	106+33.00	79.00'
213	106+33.00	55.77'	239	106+09.00	79.00'
214	106+09.00	56.01'	240	104+66.00	75.59'
215	105+74.88	56.35'	241	104+50.00	76.07'
216	105+64.08	63.88'	242	102+48.00	73.50'
217	105+62.48	83.00'	243	102+32.00	73.50'
218	105+11.96	87.17'	244	101+26.00	77.00'
219	104+66.00	61.88'	245	101+10.00	77.00'
220	104+60.32	58.76'	246	101+09.92	59.86'
221	104+50.00	59.06'	247	106+73.82	443.12'
222	104+35.16	59.50'	248	106+35.05	162.55'
223	102+47.99	59.54'	249	106+33.99	139.68'
224	102+31.99	59.55'	250	106+36.93	97.59'
225	101+25.93	59.80'	251	106+53.20	469.06'
226	100+81.00	60.00'	252	106+76.55	462.93'

TLE Station & Offset Table		
Point No.	Station	Offset
T37	100+19.18	99.06'
T38	101+34.00	99.00'
T39	101+77.00	64.00'
T40	102+96.00	64.00'
T41	102+96.00	72.00'
T42	104+00.00	72.00'
T43	104+00.00	67.00'
T44	104+80.00	67.00'
T45	104+80.00	57.00'
T46	105+34.00	57.00'
T47	105+48.00	67.00'
T48	105+89.31	67.00'
T49	105+93.33	145.51'
T50	106+35.29	65.50'
T51	106+75.00	65.50'
T52	101+35.93 CR	37.12'
T53	100+50.00	84.00'
T54	102+51.00	77.00'
T55	104+47.00	77.00'
T56	104+47.00	80.00'
T57	106+09.00	69.00'
T58	106+33.00	66.00'
T59	107+09.00	66.00'
T60	107+36.00	84.00'
T61	107+54.00	84.00'
T62	107+78.00	73.00'
T63	109+05.00	73.00'
T64	109+05.00	64.00'
T65	109+98.00	64.00'
T66	109+98.00	69.00'
T67	110+51.00	69.00'
T68	110+61.00	57.00'
T69	110+80.00	57.00'
T70	104+98.93	80.00'
T71	106+31.91	424.73'
T72	106+48.80	431.29'
T73	106+75.00	71.00'
T74	107+12.00	71.00'
T75	107+12.00	48.48'

R/W Course Table		
200-201	N 4° 17' 45" W	0.22'
201-202	N 5° 08' 55" W	135.71'
202-203	N 5° 08' 55" W	320.86'
203-204	N 5° 08' 55" W	63.00'
204-205	N 5° 08' 55" W	100.41'
205-206	N 5° 08' 55" W	445.59'
207-209	S 12° 22' 32" E	28.87'
209-210	S 5° 05' 57" E	151.37'
210-211	S 5° 05' 57" E	69.55'
211-212	S 5° 38' 33" E	5.45'
212-213	S 5° 38' 33" E	192.01'
213-214	S 5° 38' 33" E	24.00'
214-215	S 5° 38' 33" E	34.12'
215-216	S 39° 57' 36" E	13.16'
216-217	N 89° 43' 01" E	19.19'
217-218	S 9° 47' 24" E	50.70'
218-219	S 23° 45' 19" W	52.46'
219-220	S 23° 45' 19" W	6.48'
220-221	S 6° 46' 01" E	10.33'
221-222	S 6° 46' 02" E	14.85'
222-223	S 5° 04' 53" E	187.18'
223-224	S 5° 04' 53" E	16.03'
224-225	S 5° 04' 53" E	106.24'
225-246	S 5° 04' 53" E	16.04'
246-226	S 5° 04' 53" E	28.97'
226-227	S 35° 28' 39" E	58.47'
227-228	S 86° 19' 37" E	141.17'
202-229	N 85° 06' 04" W	12.00'
229-230	N 5° 08' 55" W	320.82'
230-203	N 84° 55' 48" E	12.00'
204-231	S 84° 55' 48" W	12.00'
231-232	N 5° 08' 55" W	70.99'
232-233	S 87° 51' 39" W	83.77'
233-234	N 87° 12' 13" W	282.30'
234-235	N 88° 25' 41" W	25.72'
235-251	N 88° 25' 41" W	20'+/-
251-252	N 9° 37' 48" E	24.15'
252-247	S 87° 12' 13" E	20'+/-
235-247	N 9° 45' 50" E	23.72'
247-248	S 87° 12' 13" E	283.23'
248-249	N 87° 36' 04" E	22.89'
249-250	N 80° 55' 23" E	42.19'
250-205	N 87° 51' 39" E	49.28'
210-236	N 84° 55' 48" E	13.24'
236-237	S 5° 04' 12" E	75.00'
237-212	S 84° 55' 47" W	13.15'
213-238	N 84° 55' 48" E	23.23'
238-239	S 5° 04' 12" E	24.00'
239-214	S 84° 55' 48" W	22.99'
219-240	N 84° 55' 48" E	13.71'
240-241	S 6° 46' 02" E	16.01'
241-221	S 84° 55' 48" W	17.01'
223-242	N 84° 54' 23" E	13.96'
242-243	S 5° 02' 56" E	16.03'
243-224	S 84° 54' 23" W	13.95'
225-244	N 84° 54' 23" E	17.20'
244-245	S 4° 50' 44" E	16.04'
245-246	S 84° 54' 29" W	17.14'

TRANSPORTATION PROJECT PLAT NO: 5350-00-24 - 4.02

THAT PART OF LOTS 40, 41, 60, 61, 62, 63, 80, 81, 82 OF RIVER DRIVE TERRACE, VACATED WELTY AVE., LOTS 8 AND 9 OF CLUB WEST, LOTS 1 THRU 4 OF COUNTRY CLUB HEIGHTS, LOTS 5 THRU 8 OF CLUB SUBDIVISION, VACATED CRANSTON ROAD AND GOVERNMENT LOT 6. ALL LOCATED IN THE SE¼ OF THE NE¼ AND THE SW¼ OF THE NE¼ OF SECTION 23. ALL IN T 1N, R 12 E, TOWN OF BELOIT, ROCK COUNTY, WISCONSIN

RELOCATION ORDER USH 51 BELOIT URBANIZED AREA (CRANSTON ROAD INTERSECTION)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCALE, FEET
0 50 100

FILE NAME : N:\PDS\RW-PLAT\5350004\04002.DWG
APPRAISAL PLAT DATE : November 11, 2014
PLOT NAME : PLOT SCALE.1.=========
PLOT BY : CLARK, CLYDE J
PLOT DATE : 12/1/2014 9:55 AM
PLOT DATE :
5350-00-24 4.02

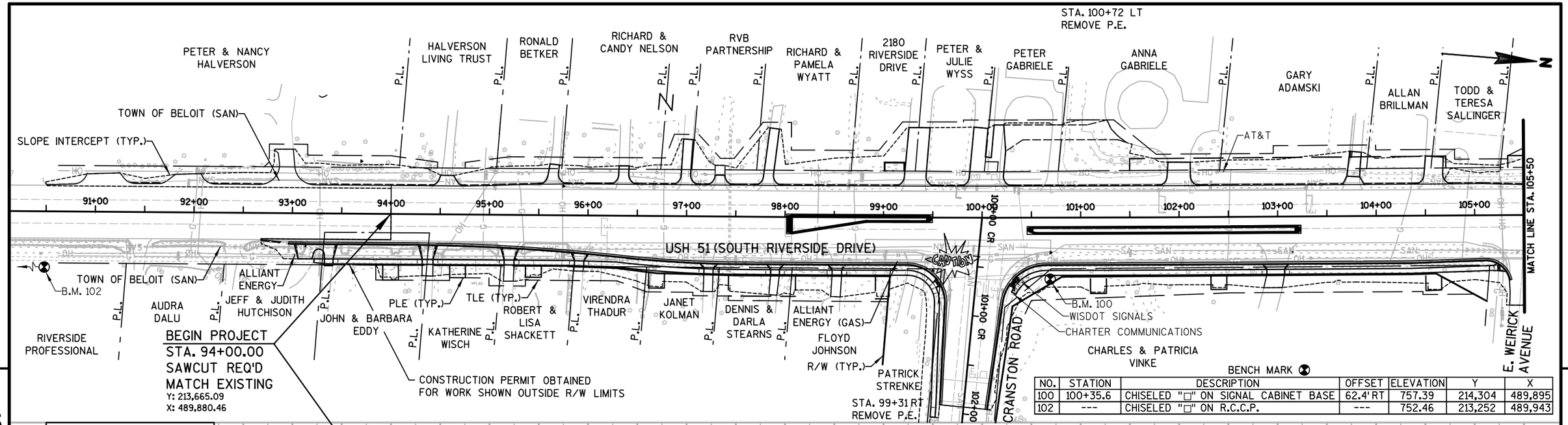
DATE: SEPT. 18, 2014	REVISION DATE

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE

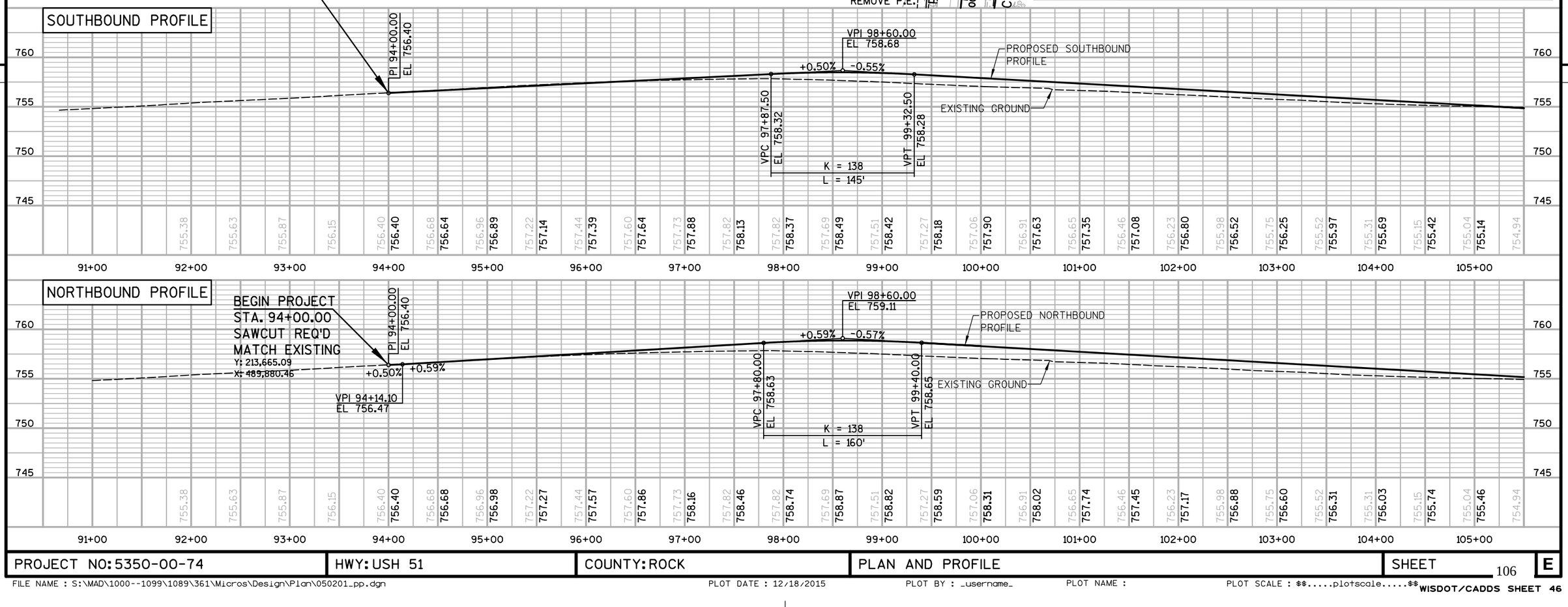
R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
100	214,225.339	490,010.147
101	214,221.402	489,927.501
102	214,186.362	489,908.247
103	214,174.996	489,902.001
104	214,160.356	489,903.118
105	214,079.451	489,909.291
106	214,018.528	489,913.939
107	214,011.537	489,914.317
108	213,946.619	489,917.823
109	213,938.629	489,918.255
110	213,930.582	489,917.915
111	213,896.381	489,916.472
112	213,848.420	489,918.776
113	213,821.496	489,920.799
114	213,805.541	489,921.997
115	213,744.713	489,926.566
116	213,728.758	489,927.765
117	213,676.904	489,931.660
118	213,660.949	489,932.858
119	213,540.389	489,941.915
120	213,532.973	489,843.193
121	214,160.885	489,796.025
122	214,160.248	489,787.548
123	214,180.192	489,786.050
124	214,180.828	489,794.526
125	214,273.416	489,787.571
126	214,177.211	489,924.899
127	214,162.148	489,926.048
128	214,081.038	489,930.231
129	214,013.099	489,935.399
130	213,947.723	489,932.722
131	213,931.766	489,933.905
132	213,822.325	489,931.986
133	213,806.369	489,933.169
134	213,745.610	489,938.673
135	213,729.653	489,939.856
136	213,678.017	489,946.690
137	213,662.061	489,947.872

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
200	214,273.416	489,787.571
201	214,273.637	489,787.555
202	214,408.799	489,775.376
203	214,728.362	489,746.583
204	214,791.108	489,740.929
205	214,891.117	489,731.918
206	215,334.906	489,691.932
207	215,343.655	489,790.545
209	215,315.456	489,796.732
210	215,164.690	489,810.185
211	215,095.418	489,816.366
212	215,089.991	489,816.903
213	214,898.912	489,835.782
214	214,875.027	489,838.141
215	214,841.070	489,841.496
216	214,830.983	489,849.948
217	214,831.078	489,869.137
218	214,781.120	489,877.757
219	214,733.106	489,856.625
220	214,727.174	489,854.014
221	214,716.919	489,855.231
222	214,702.176	489,856.981
223	214,515.736	489,873.559
224	214,499.765	489,874.979
225	214,393.942	489,884.389
226	214,349.110	489,888.376
227	214,301.495	489,922.311
228	214,292.451	490,063.190
229	214,407.774	489,763.420
230	214,727.302	489,734.630
231	214,790.048	489,728.976
232	214,860.749	489,722.606
233	214,857.622	489,638.890
234	214,871.394	489,356.928
235	214,872.100	489,331.214
236	215,165.860	489,823.372
237	215,091.153	489,830.000
238	214,900.965	489,858.921
239	214,877.059	489,861.042
240	214,734.318	489,870.286
241	214,718.422	489,872.172
242	214,516.975	489,887.466
243	214,501.003	489,888.878
244	214,395.469	489,901.526
245	214,379.491	489,902.880
246	214,377.970	489,885.810
247	214,895.481	489,335.238
248	214,881.663	489,618.131
249	214,882.621	489,641.005
250	214,889.278	489,682.671
251	214,872.649	489,311.222
252	214,896.457	489,315.261

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD83/2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

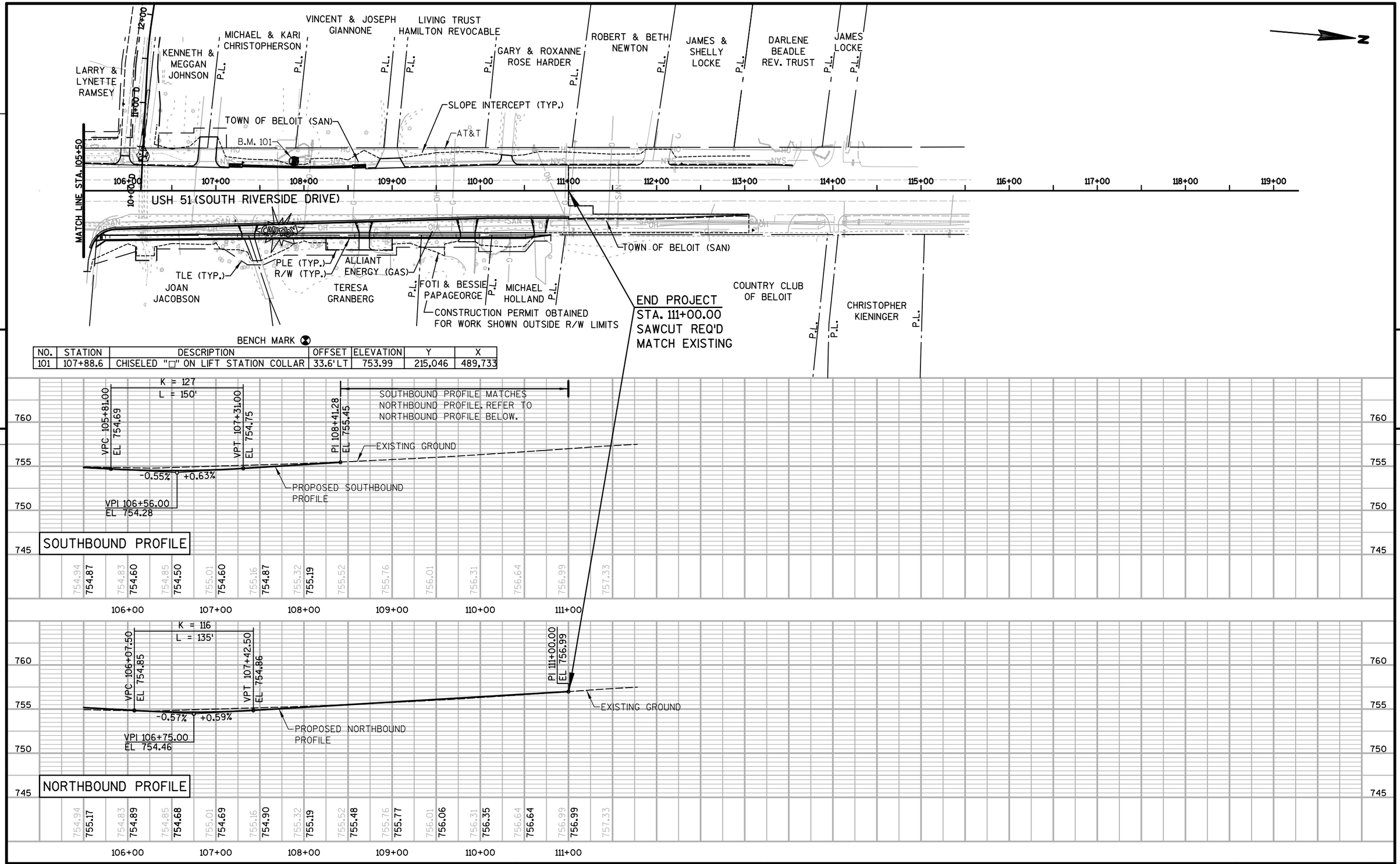


NO.	STATION	DESCRIPTION	OFFSET	ELEVATION	Y	X
100	100+35.6	CHISELED "□" ON SIGNAL CABINET BASE	62.4' RT	757.39	214,304	489,895
102	---	CHISELED "□" ON R.C.C.P.	---	752.46	213,252	489,943



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

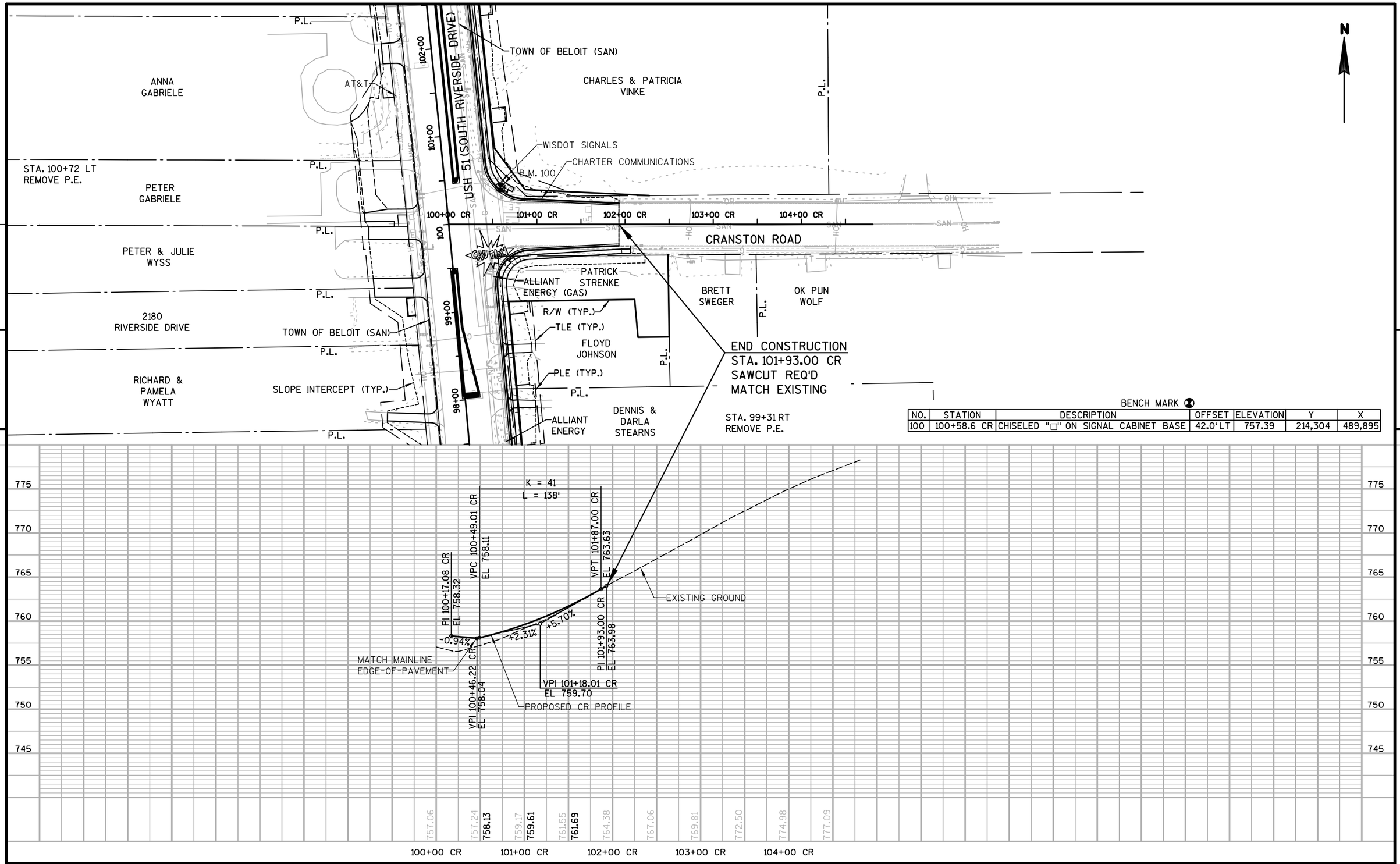
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\050201_pp.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



NO.	STATION	DESCRIPTION	OFFSET	ELEVATION	Y	X
101	107+88.6	CHISELED "□" ON LIFT STATION COLLAR	33.6'LT	753.99	215,046	489,733

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\050202_pp.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 46



BENCH MARK

NO.	STATION	DESCRIPTION	OFFSET	ELEVATION	Y	X
100	100+58.6 CR	CHISELED "□" ON SIGNAL CABINET BASE	42.0' LT	757.39	214,304	489,895

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN AND PROFILE - CRANSTON ROAD	SHEET 108	E

CHARLES & PATRICIA VINKE

TOWN OF BELOIT (SAN)

ALLAN BRILLMAN

P.L.

TODD & TERESA SALLINGER

R/W (TYP.)

R/W

P.L.

WIERICK AVENUE

AT&T

LARRY & LYNETTE RAMSEY

TLE (TYP.)

R/W

ALLIANT ENERGY (GAS)

10+00 D

11+00 D

12+00 D

13+00 D

14+00 D

ROCK RIVER

JOAN JACOBSON

PLE (TYP.)

KENNETH & MEGGAN JOHNSON

P.L.

SLOPE INTERCEPT (TYP.)

ALLIANT ENERGY

MICHAEL & KARI CHRISTOPHERSON

B.M. 101

P.L.

END CONSTRUCTION
STA. 14+73.07 D

TOWN OF BELOIT (SAN)

TERESA GRANBERG

USH 51 (SOUTH RIVERSIDE DRIVE)

VINCENT & JOSEPH GIANNONE

104+00

105+00

106

107+00

108+00

N

5

5

BENCH MARK

NO.	STATION	DESCRIPTION	OFFSET	ELEVATION	Y	X
101	107+88.6	CHISELED "□" ON LIFT STATION COLLAR	33.6' LT	753.99	215,046	489,733

760
755
750
745
740
735
730

VPI 10+46.31 D
EL 748.17

VPI 12+00.00 D
EL 747.40

PI 14+73.07 D
EL 743.74

EXISTING GROUND

BEGIN DITCH PROFILE /
SS OUTFALL ELEVATION
STA. 10+46.31

-0.50%

-2.46%

-1.31%

-0.60%

PROPOSED D PROFILE

VPI 12+65.00 D
EL 745.80

VPI 13+80.00 D
EL 744.29

10+00 D	11+00 D	12+00 D	13+00 D	14+00 D
754.80	749.41 / 748.15	749.44 / 747.90	749.27 / 747.65	747.74 / 747.40
741.03 / 746.17	746.95 / 745.34	746.30 / 744.69	745.81 / 744.17	744.31 / 743.88

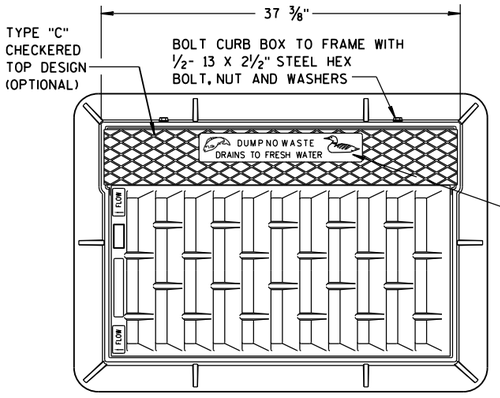
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	PLAN AND PROFILE - DRAINAGE DITCH (D-LINE)	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\050204_pp.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

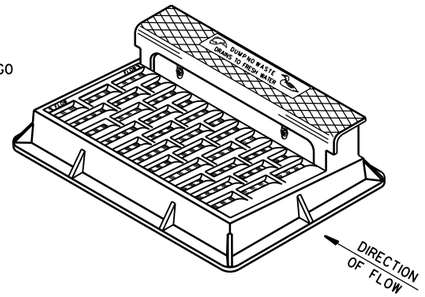
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-07A	CONCRETE BASE TYPE 13
09C12-07B	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-07C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
14B32-03A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-02	FLEXIBLE DELINEATOR POST
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

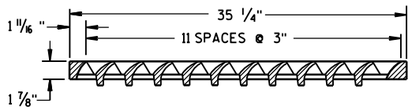
6

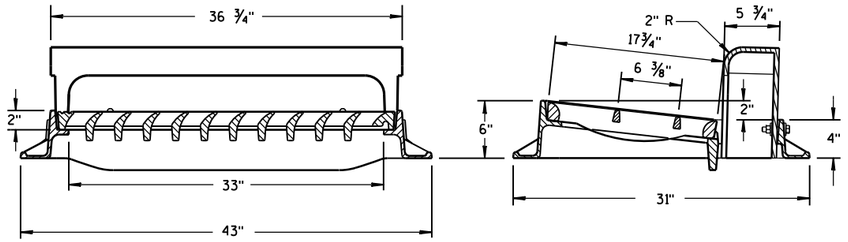


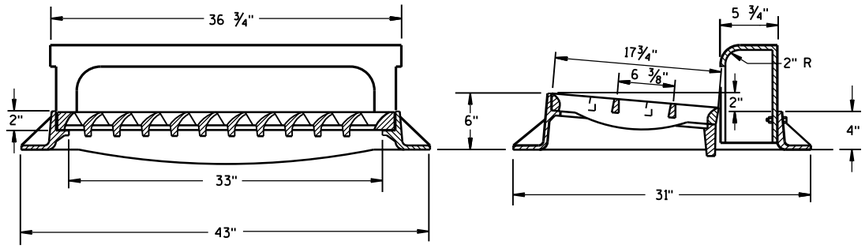
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

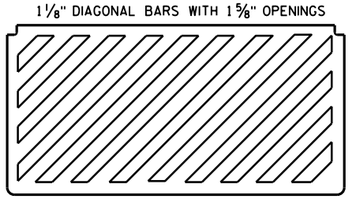






TYPE "H"

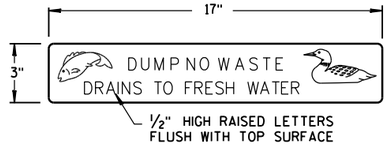
NOTE: EITHER CASTING IS ACCEPTABLE



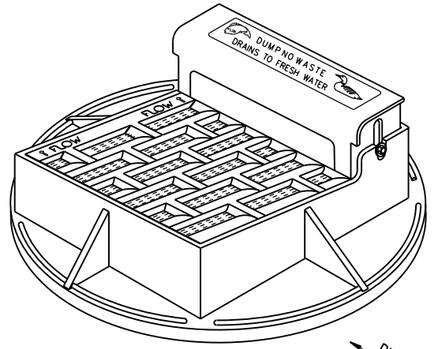
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

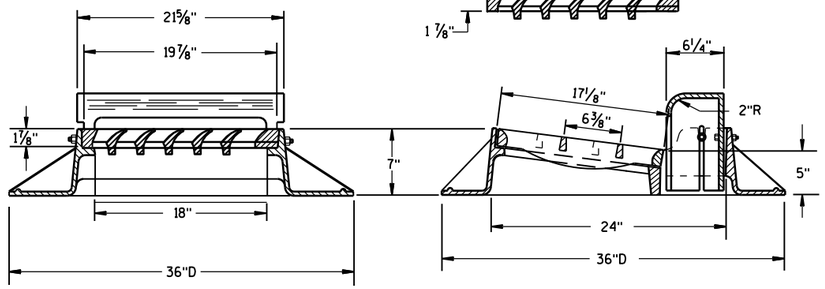


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



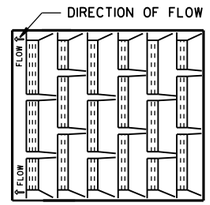
TYPE "A"

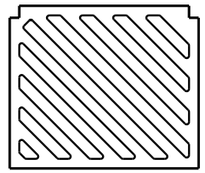
GENERAL NOTES

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

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

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

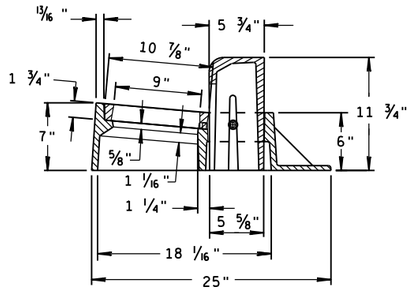


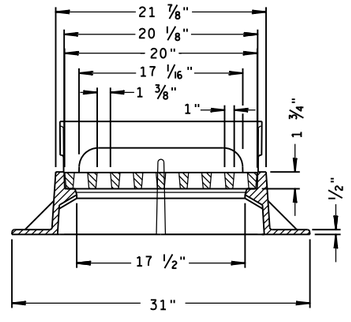


SPECIAL GRATE FOR TYPE "A" COVER

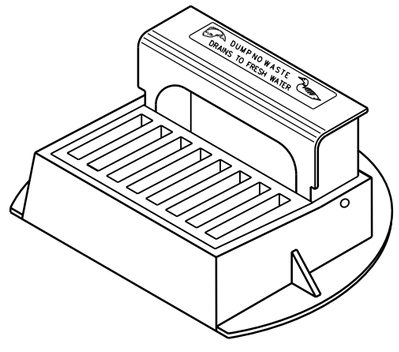
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



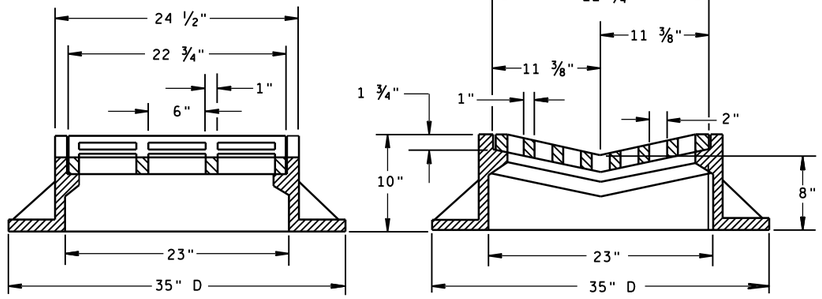
INLET COVERS TYPE A, H, A-S, H-S & Z

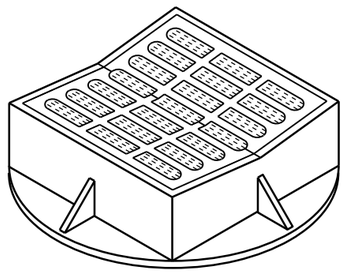
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

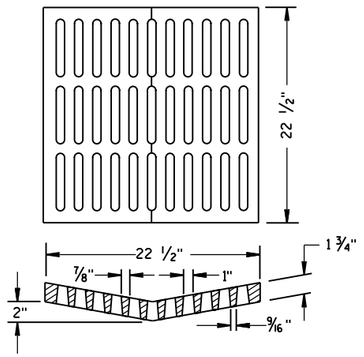
6

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



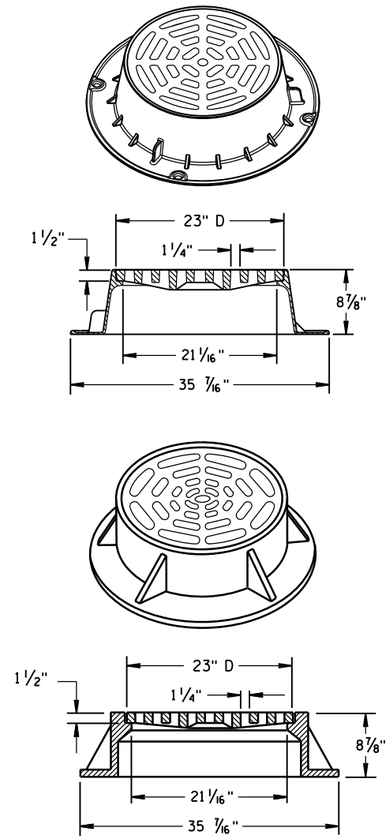


TYPE "B"



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"

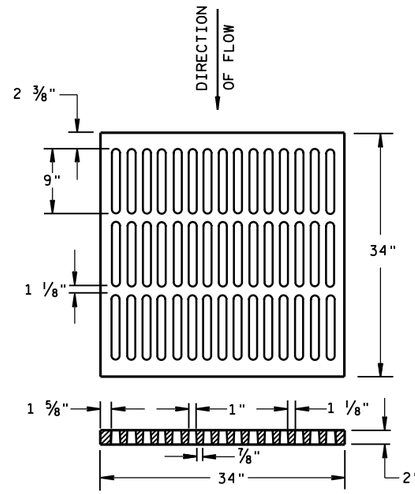
NOTE: EITHER CASTING IS ACCEPTABLE

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.

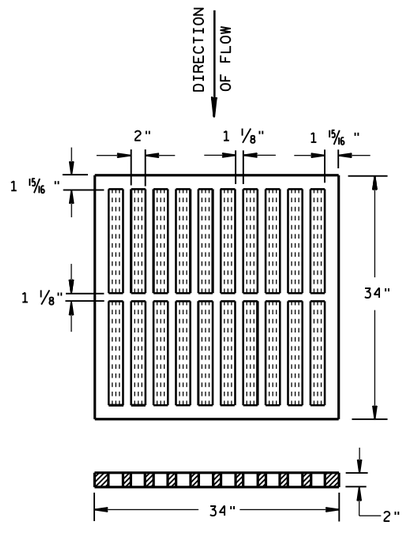
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



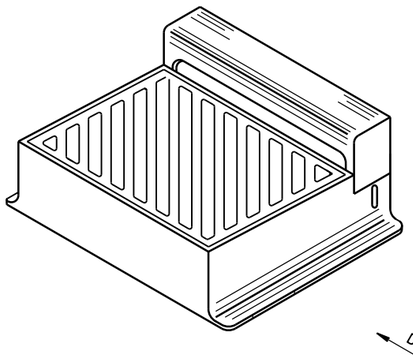
ALTERNATIVE TYPE "MS"

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



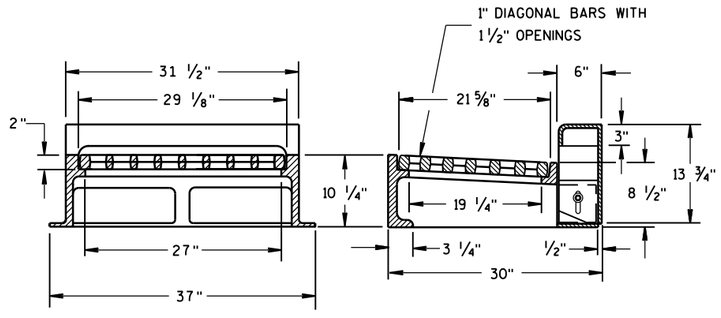
TYPE "MS"

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"

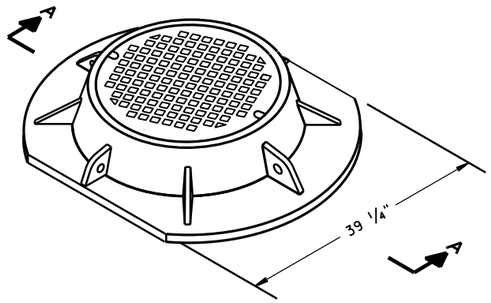
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

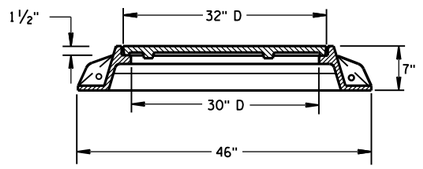
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

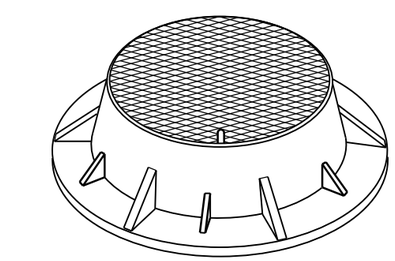
6

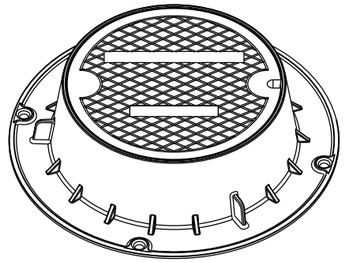
S.D.D. 8 A 5-19b

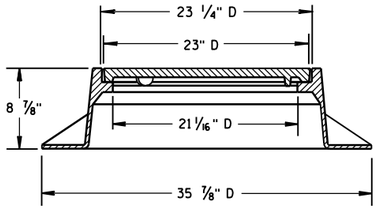


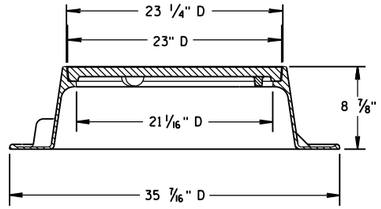


SECTION A-A
TYPE "K"









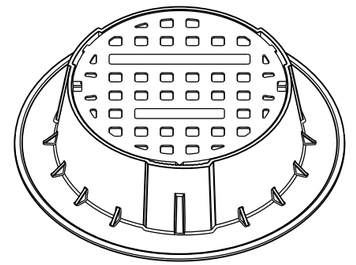
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

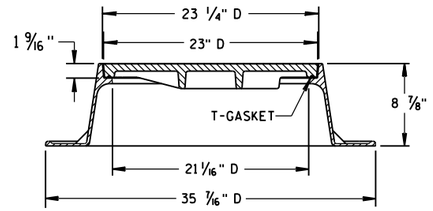
GENERAL NOTES

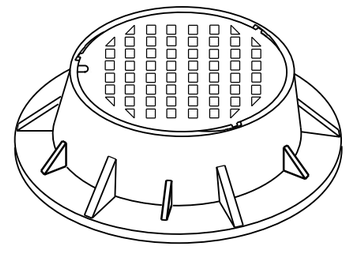
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

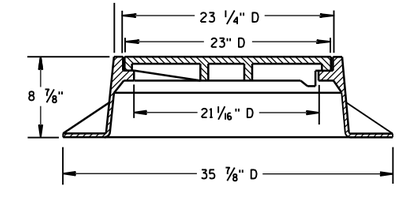
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

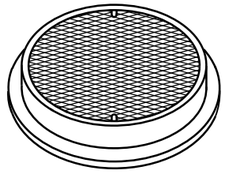


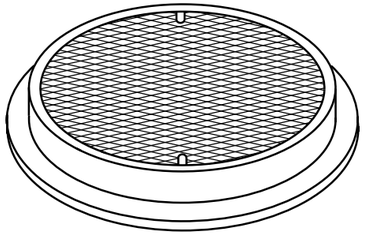


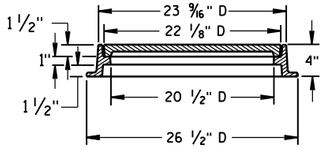




TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE







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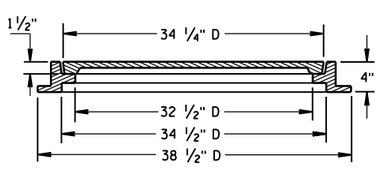

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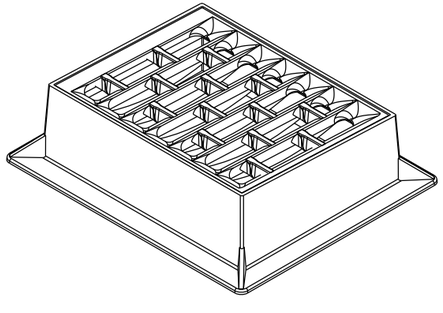
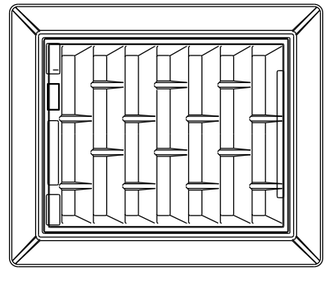
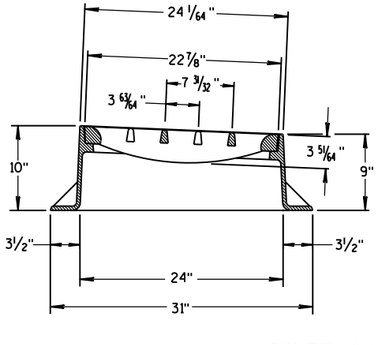
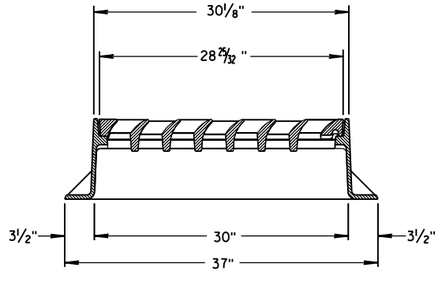








INLET COVER TYPE "BW"

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

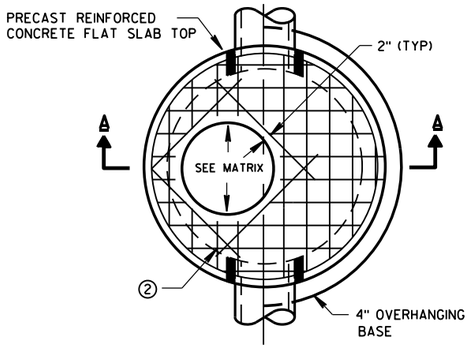
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

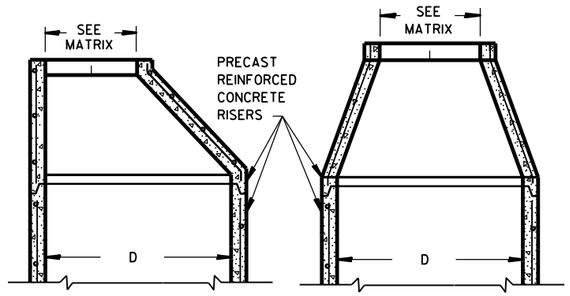
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

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

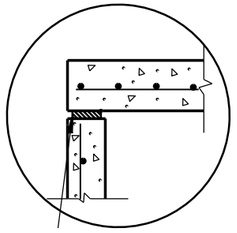


PLAN VIEW CIRCULAR OPENING

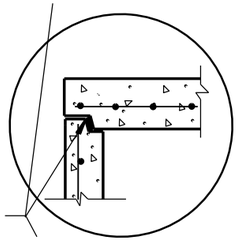


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

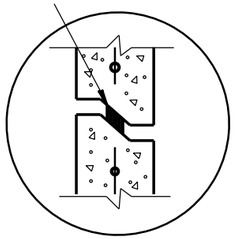


TOP WITH PLAIN END JOINT



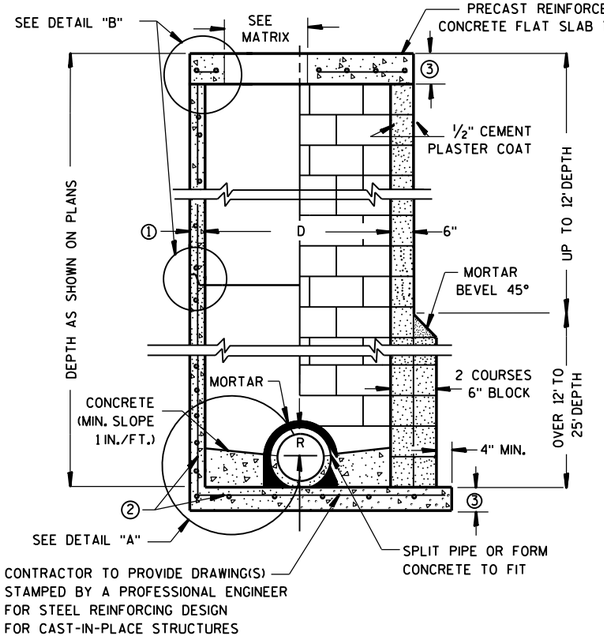
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



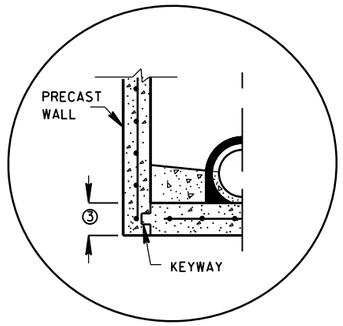
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

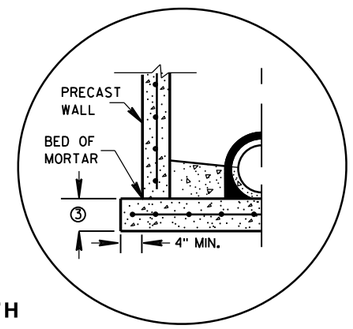


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

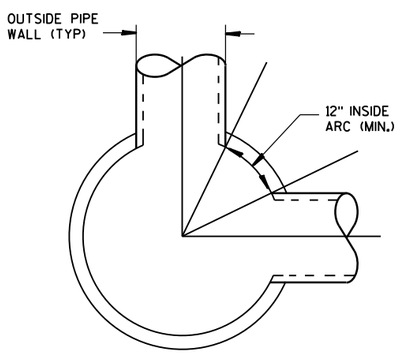


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

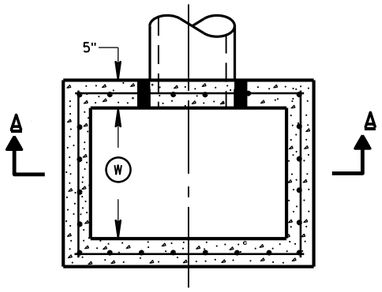
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

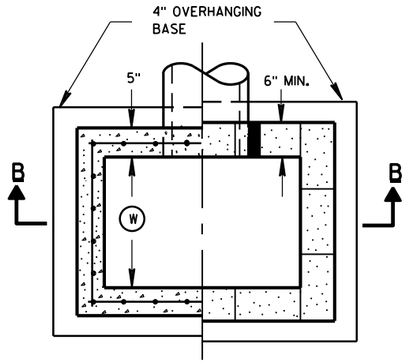
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

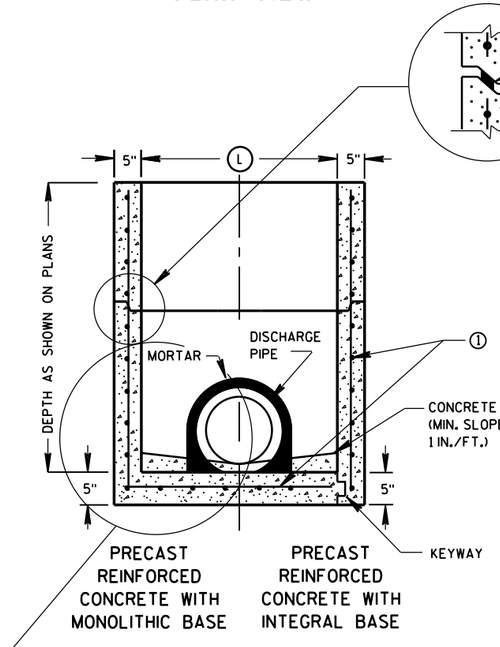
6
S.D.D. 8 B 9-1



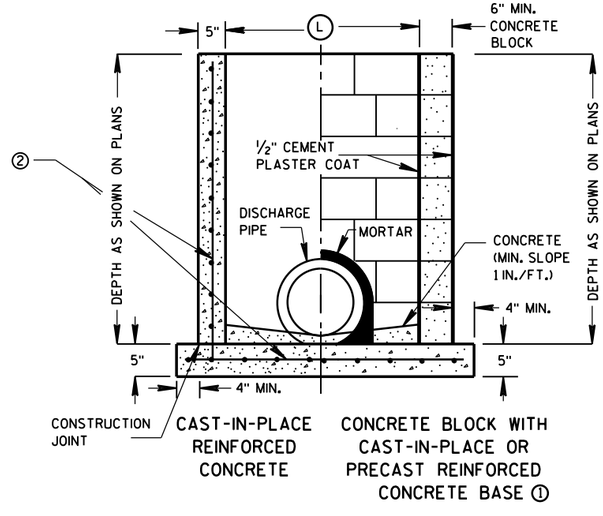
PLAN VIEW



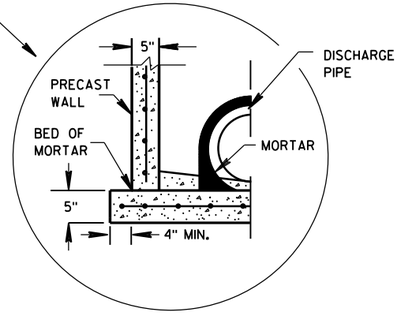
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

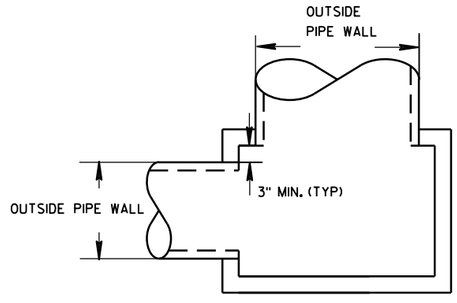
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

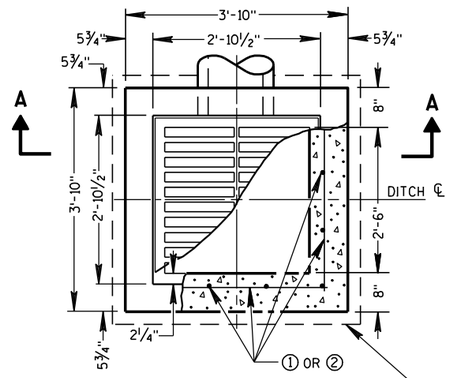
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

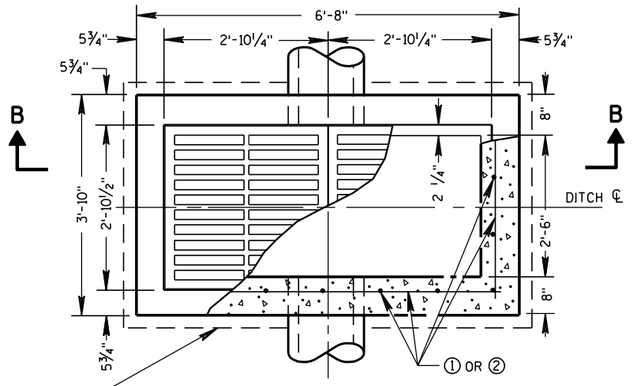
6

S.D.D. 8 C 7-1

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

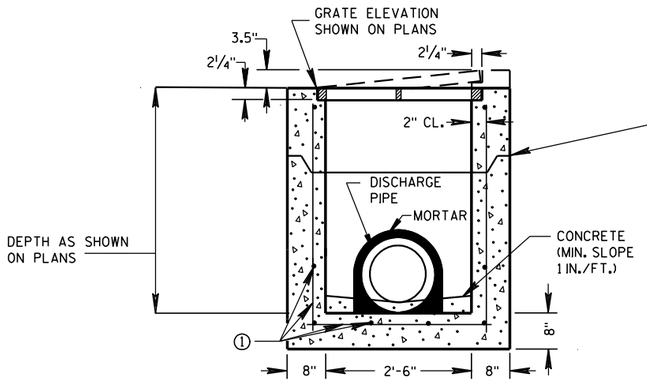


PLAN VIEW

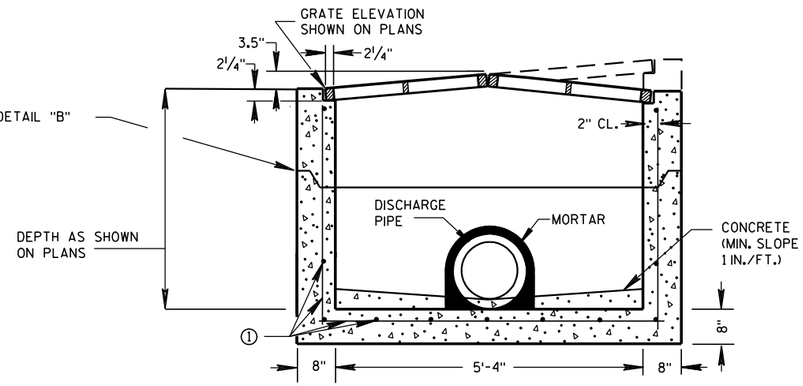


PLAN VIEW

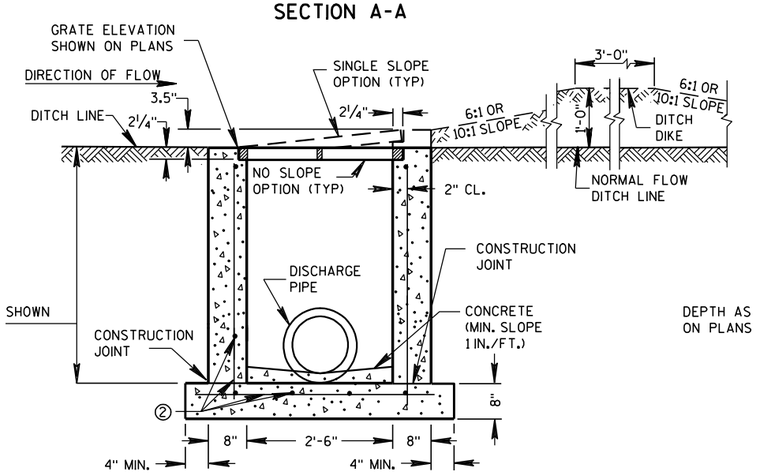
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



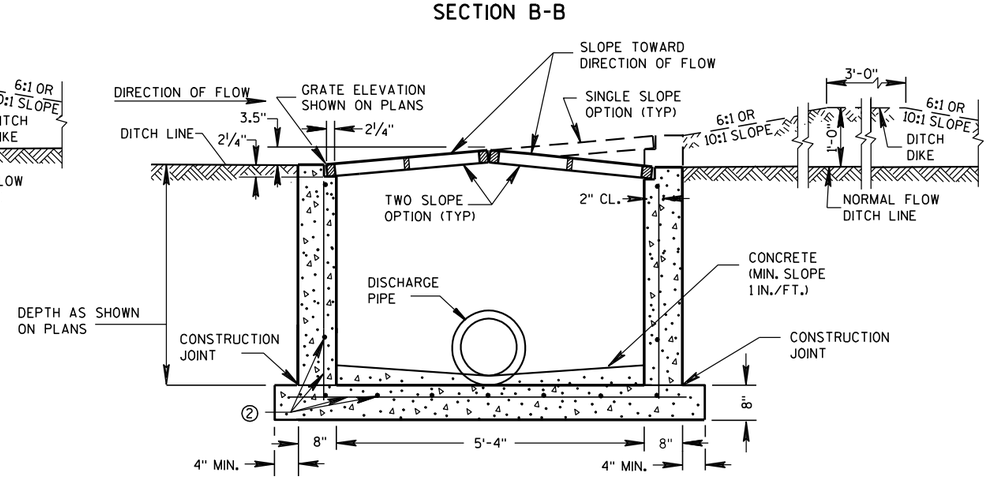
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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

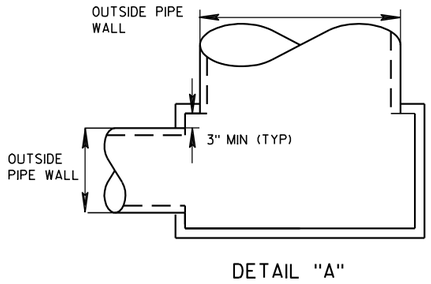
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

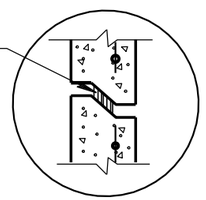
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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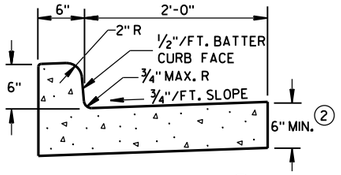
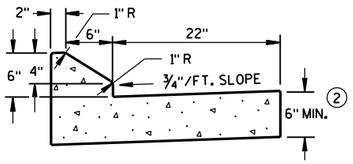
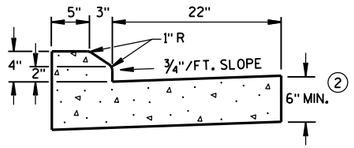
S.D.D. 8 C 8-1



TYPES A & D ①

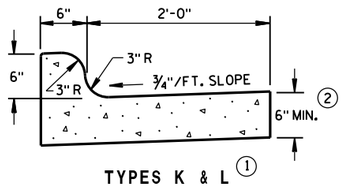


6" SLOPED CURB TYPES G & J ①

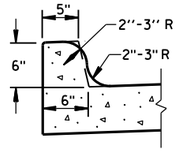


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

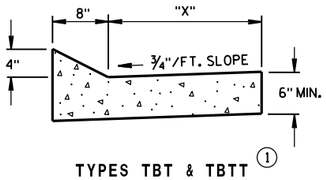


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

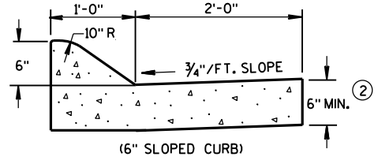
CONCRETE CURB & GUTTER 30"



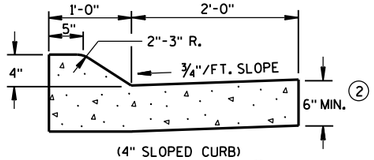
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

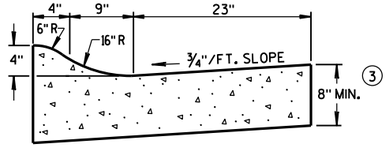


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

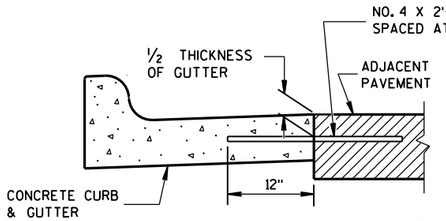
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

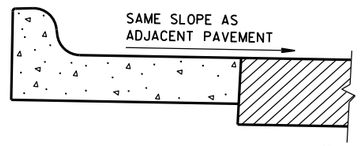
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

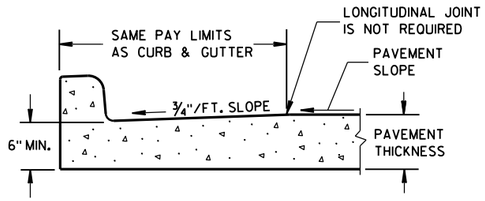
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



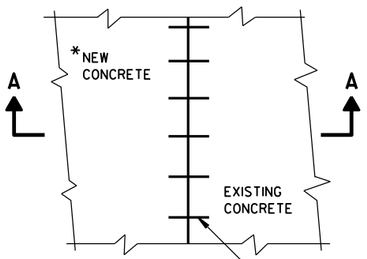
TYPICAL TIE BAR LOCATION ①



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

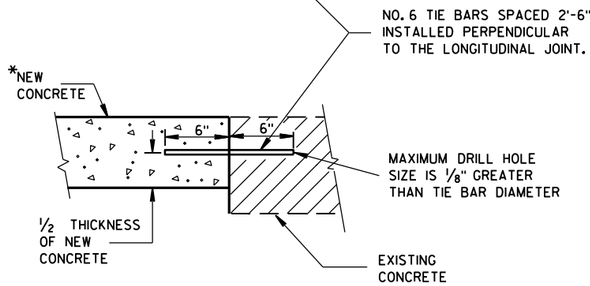


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



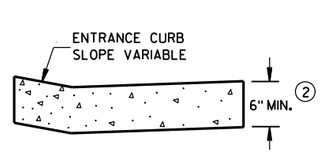
PLAN VIEW

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

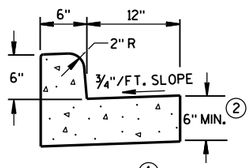


SECTION A-A

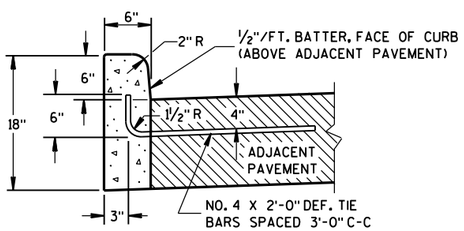
TIE BARS DRILLED
INTO EXISTING PAVEMENT



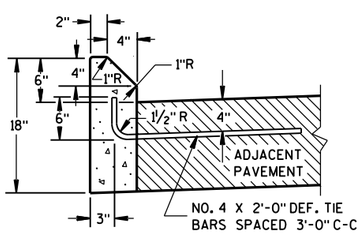
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



①
TYPES A & D
CONCRETE CURB & GUTTER 18"

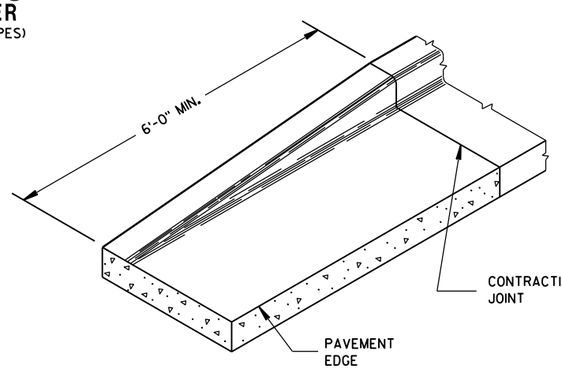


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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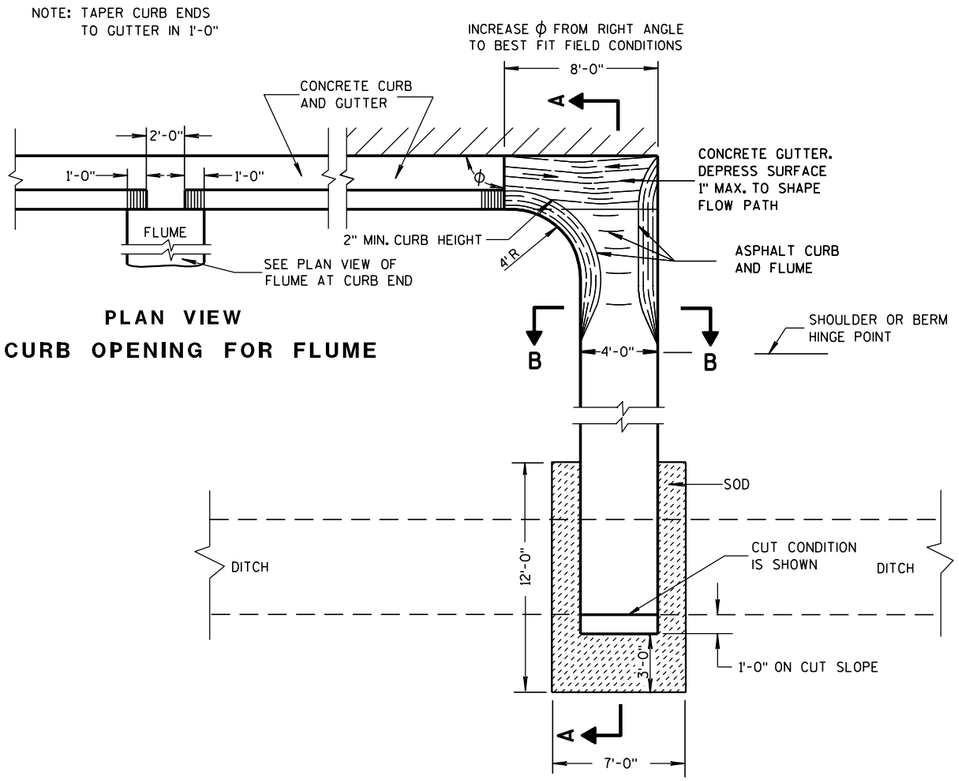
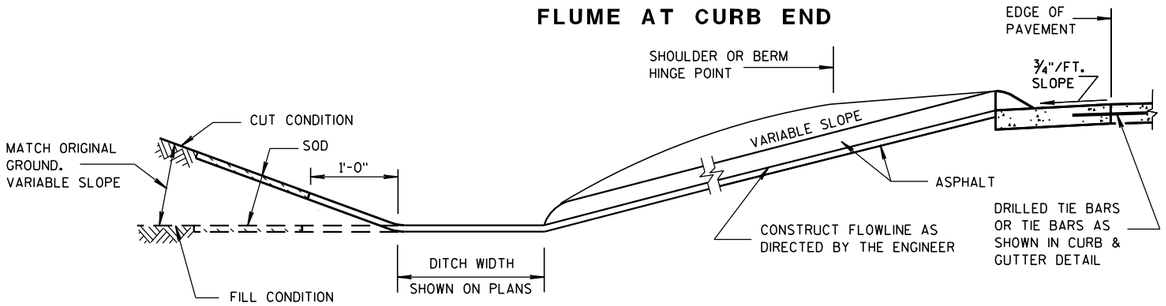
S.D.D. 8 D 1-18

ASPHALTIC FLUME

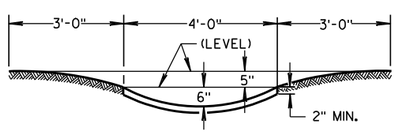


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

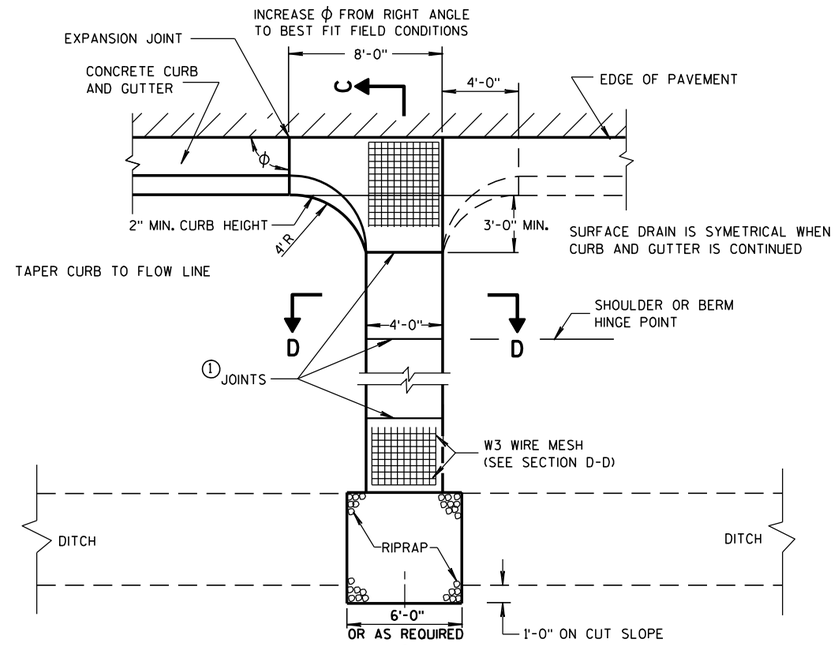
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

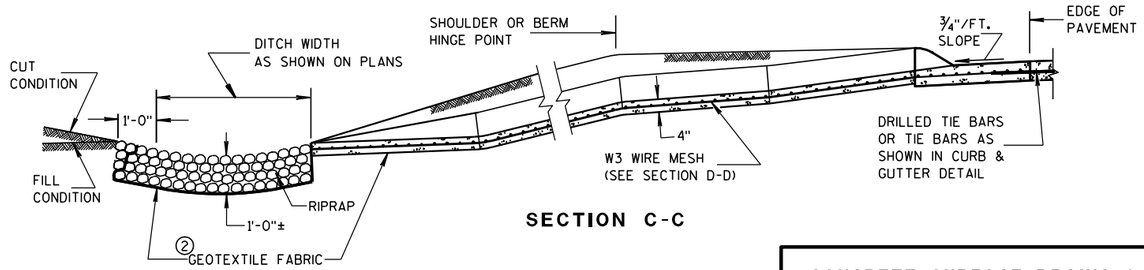
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

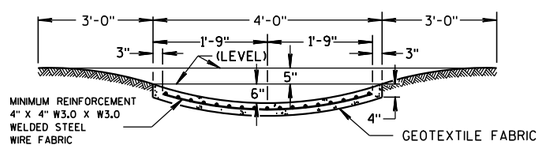
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

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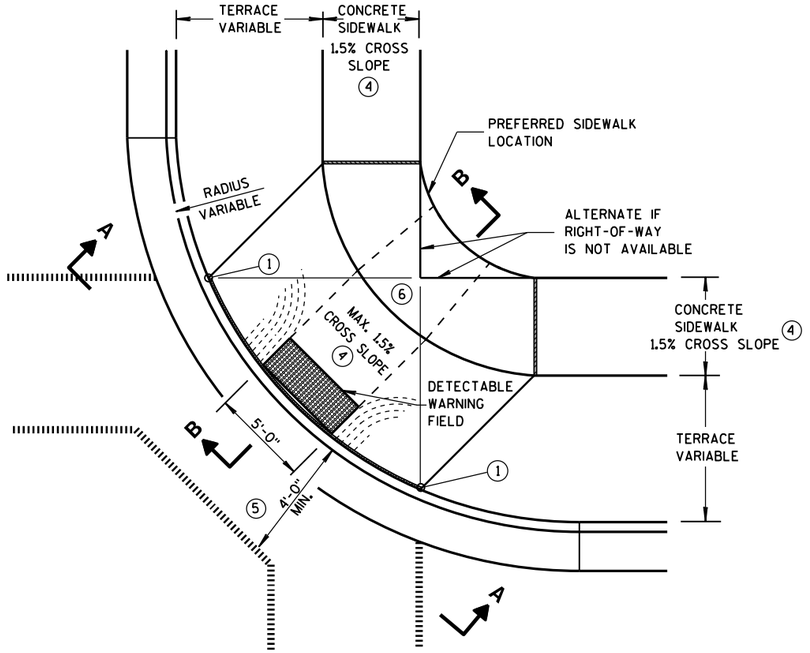
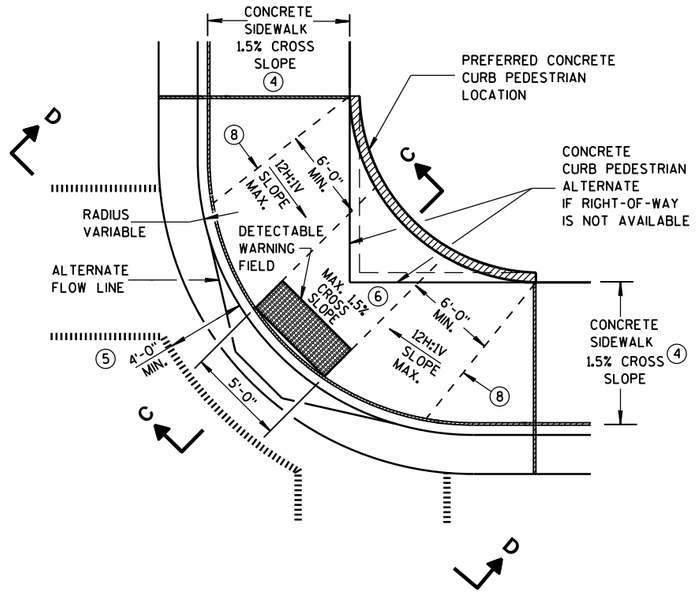
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD 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 LINEAL 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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

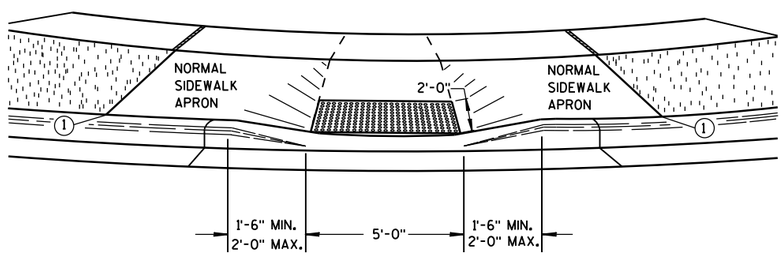
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

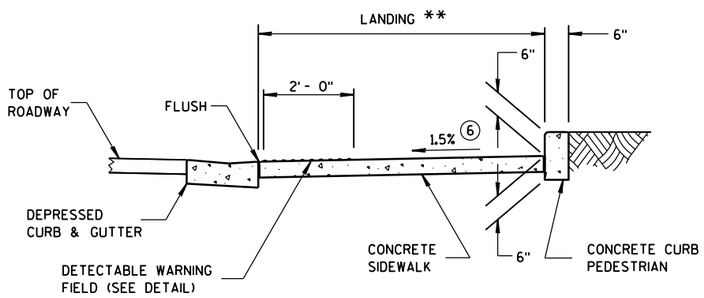
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

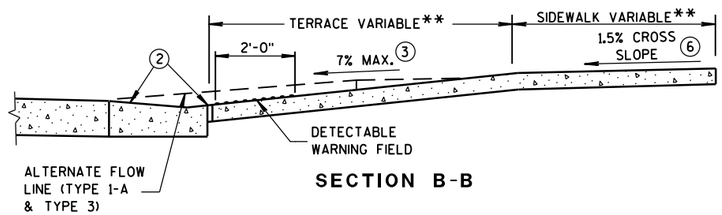
** WIDTH SHOWN ELSEWHERE IN THE PLANS



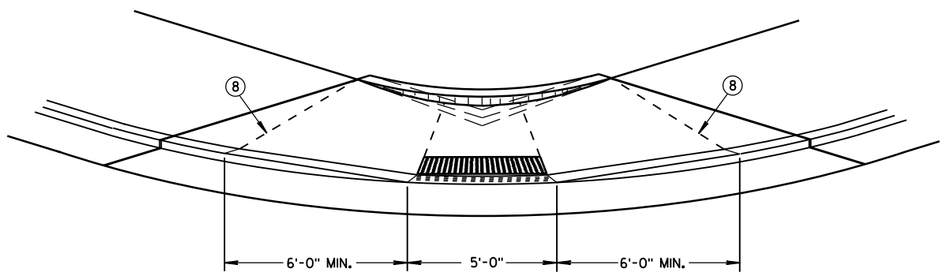
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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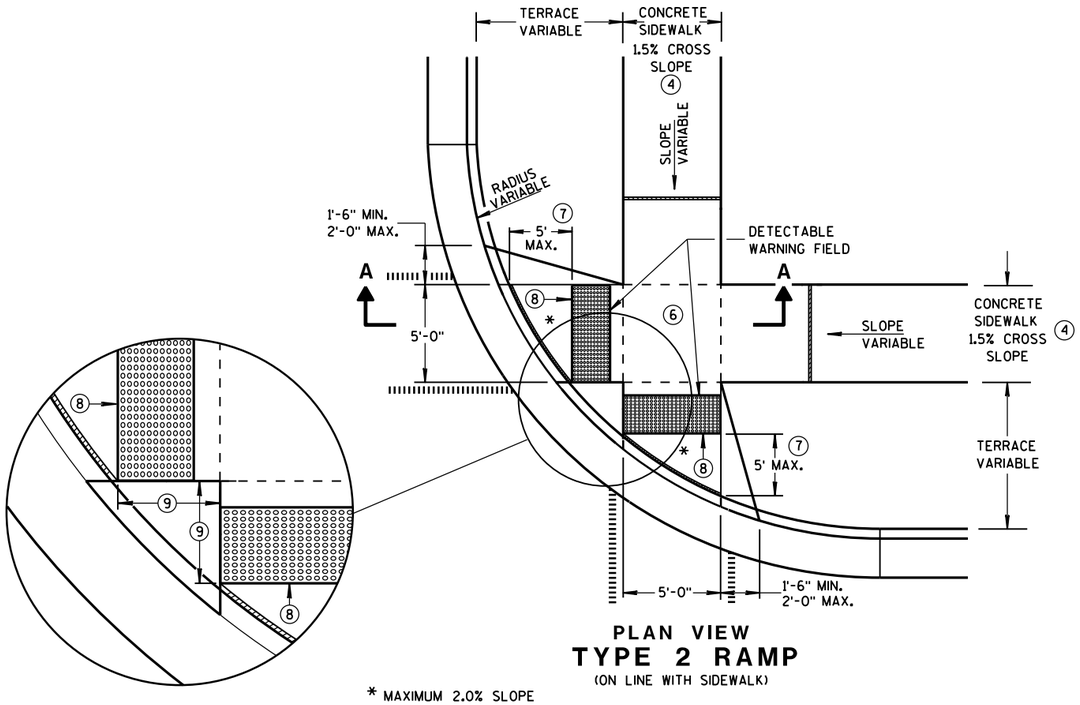
S.D.D. 8 D 5-16a

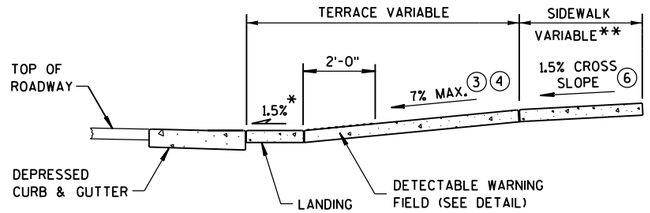


PLAN VIEW

TYPE 2 RAMP

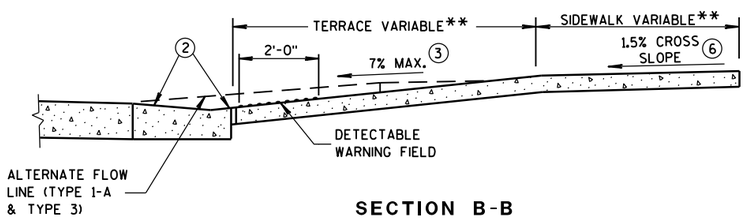
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET (MINIMUM 4 FEET X 4 FEET).

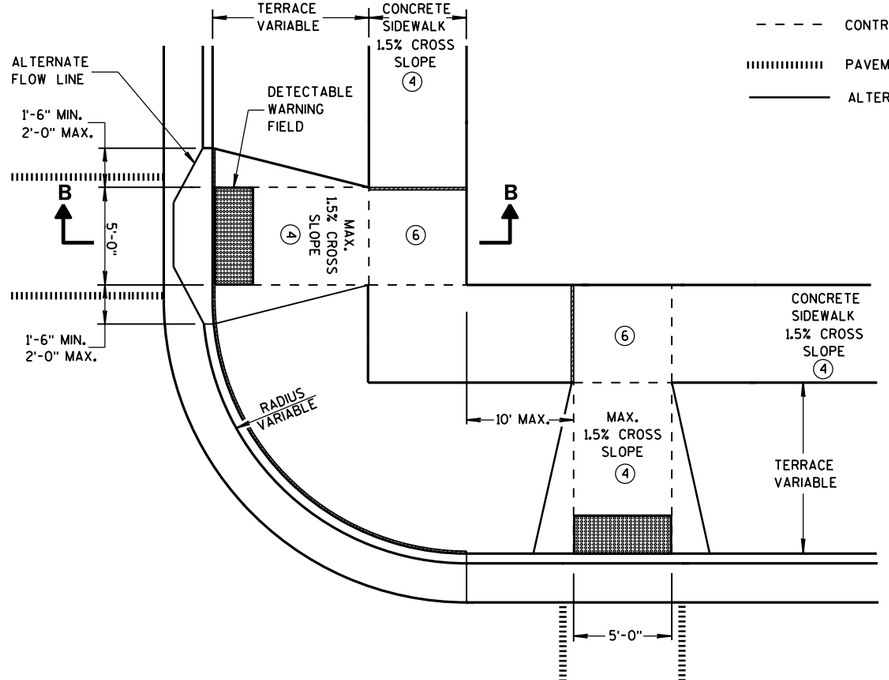
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS 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. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

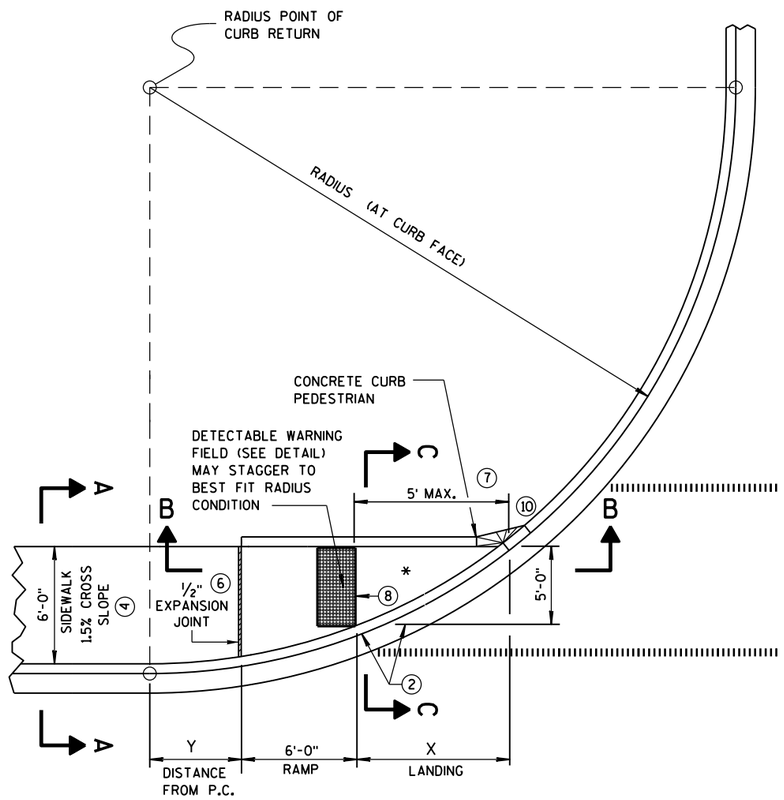
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16b

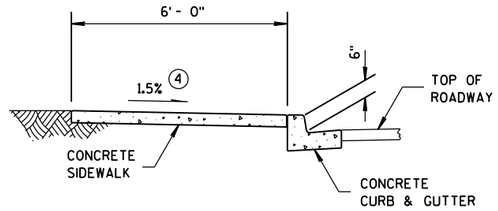


CURB RAMP TYPE 4A

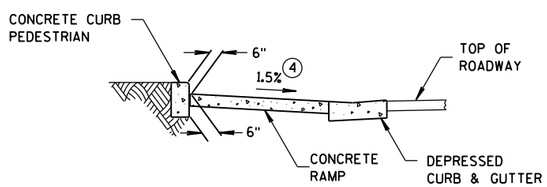
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

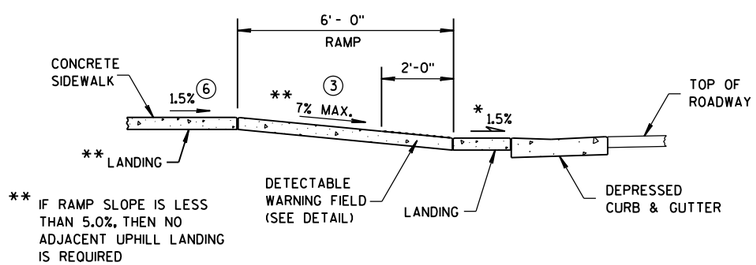
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

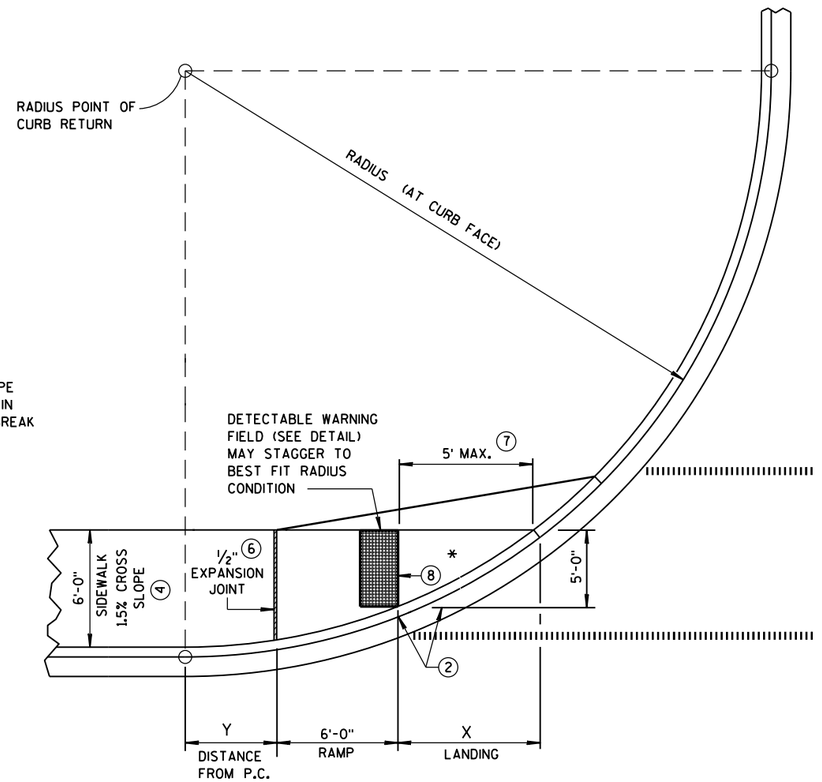


SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1

PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

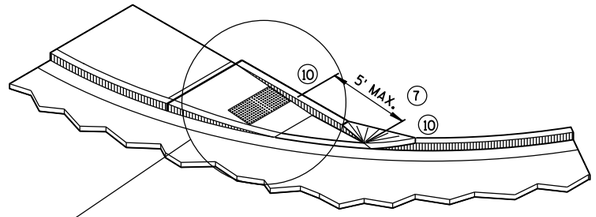
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

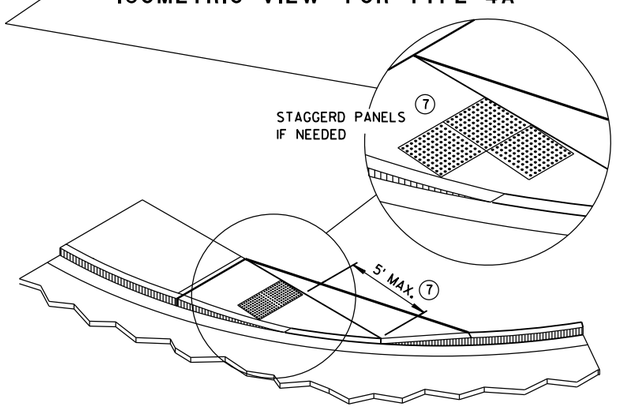
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

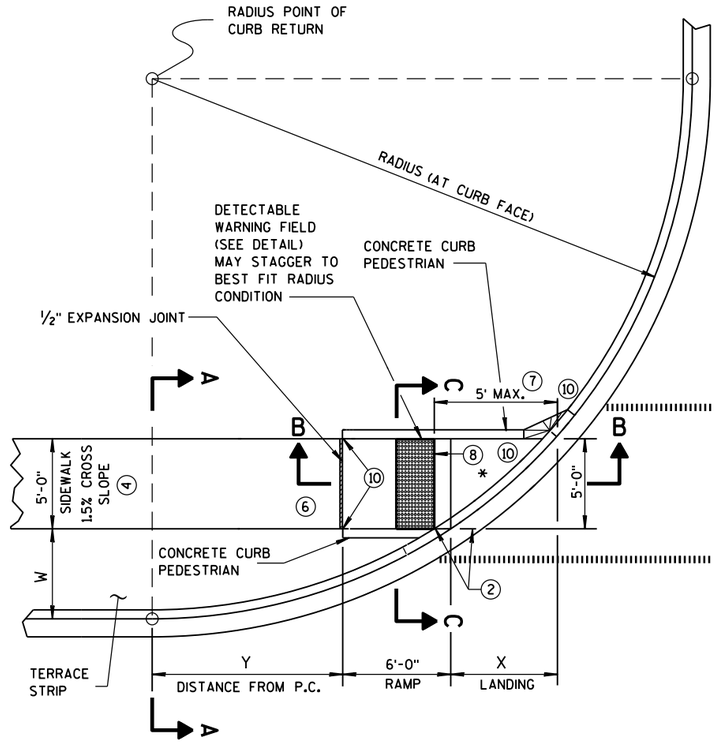
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

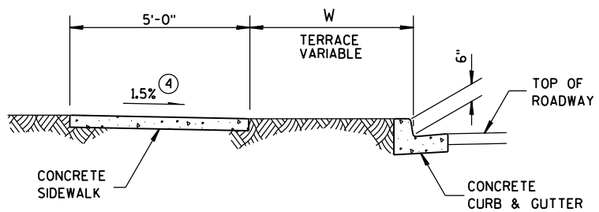
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

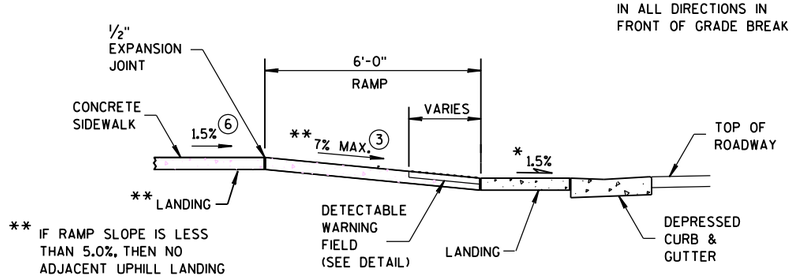
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

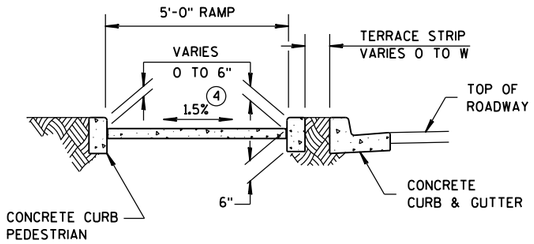
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

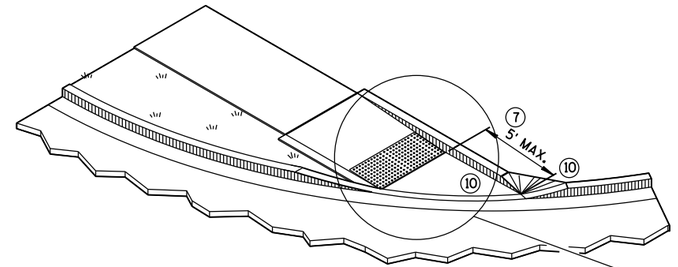
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

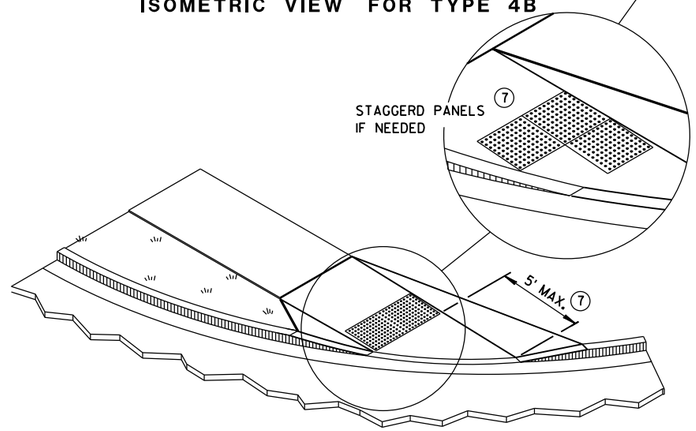
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

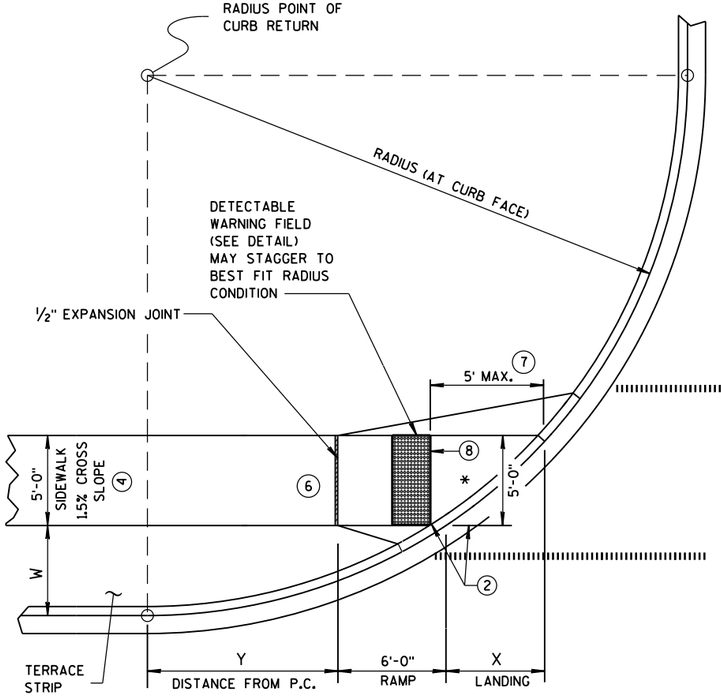
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 8 D 5-16d

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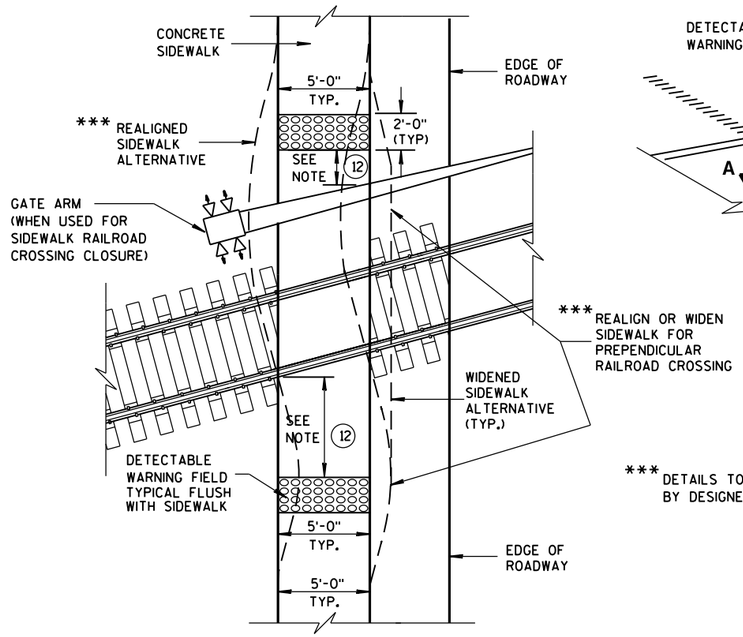
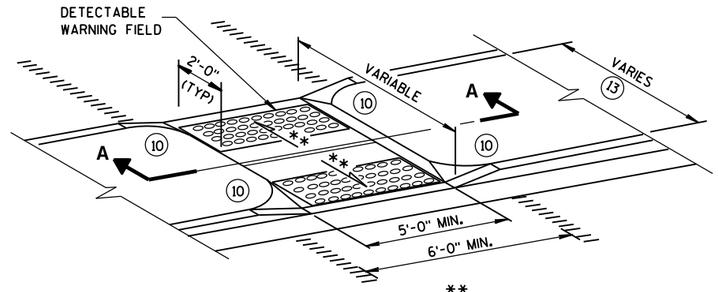
S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (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.

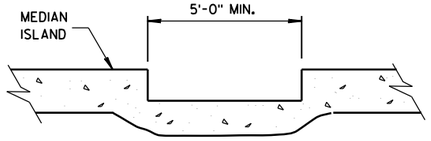
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

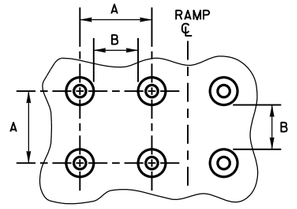
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



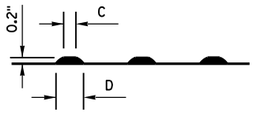
SECTION A-A

	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.

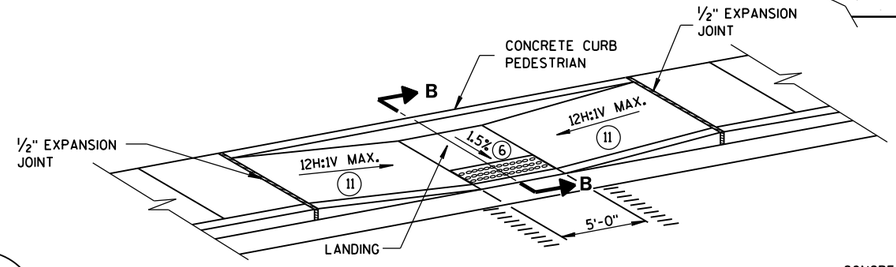


PLAN VIEW

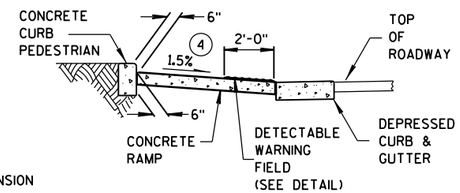


ELEVATION VIEW

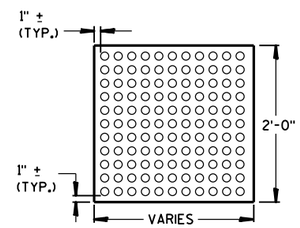
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



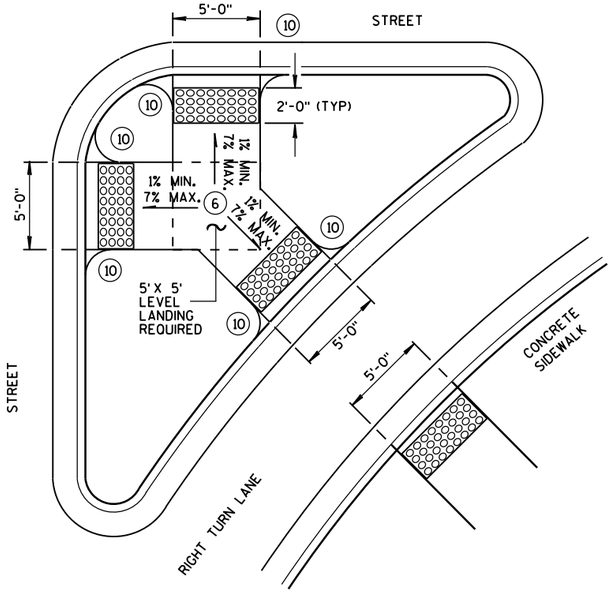
SECTION B-B



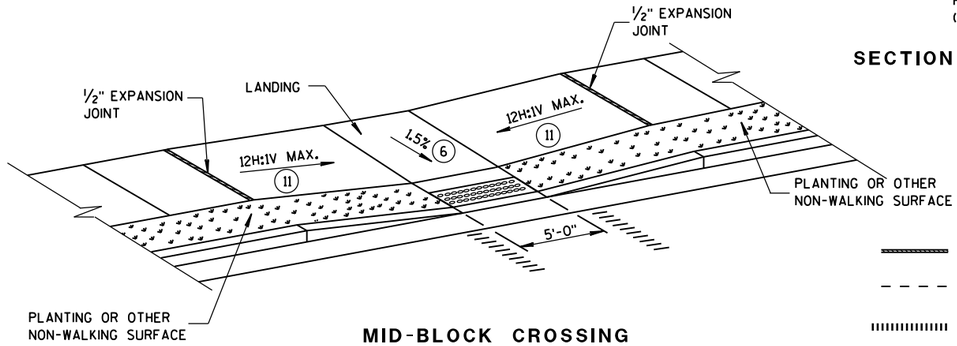
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

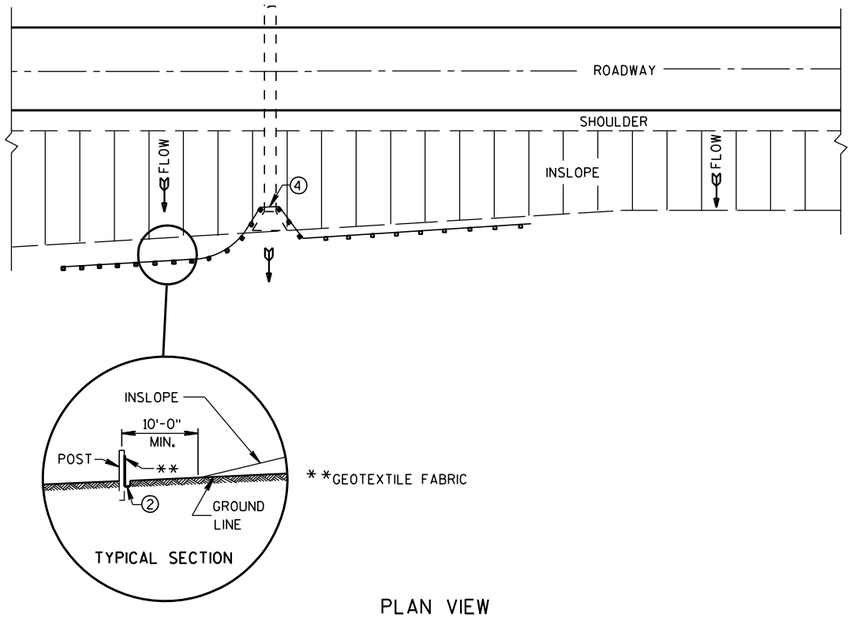
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

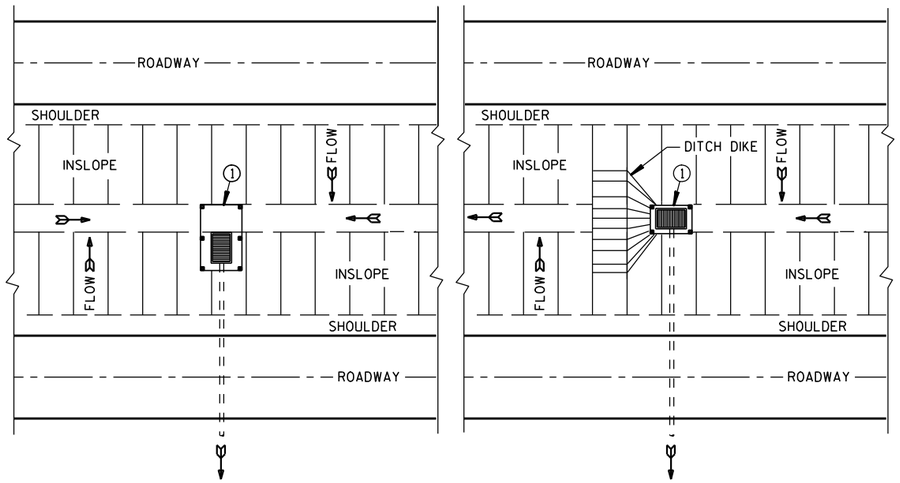
6

S.D.D. 8 D 5-16e



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



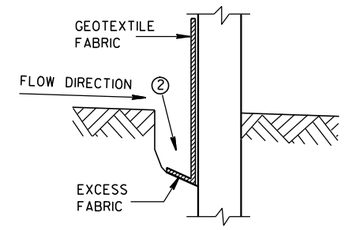
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

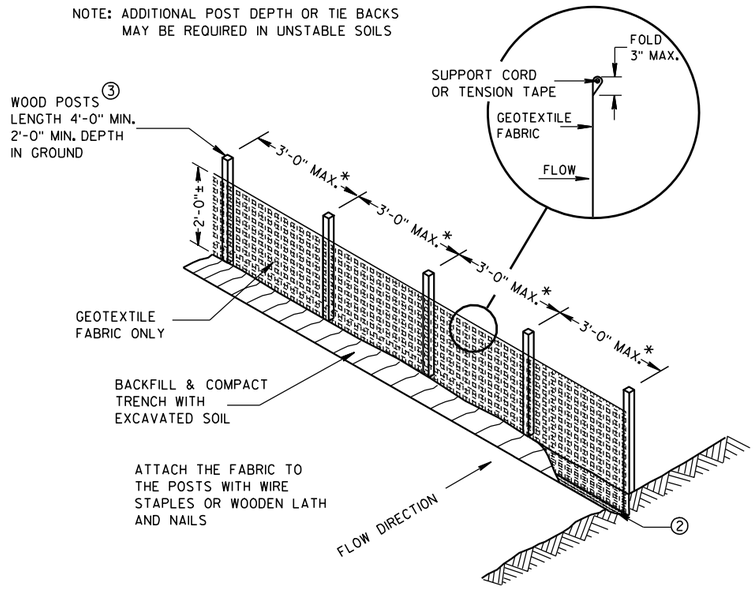
GENERAL NOTES

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

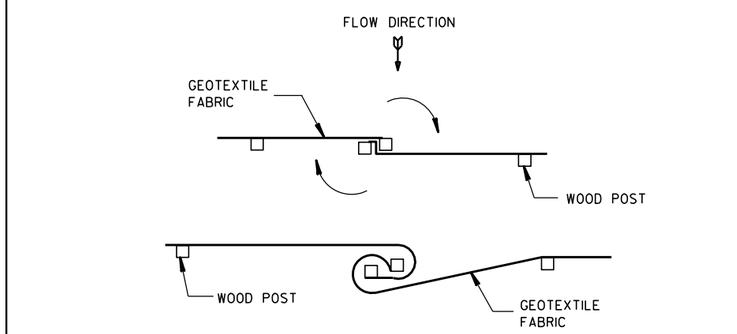
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



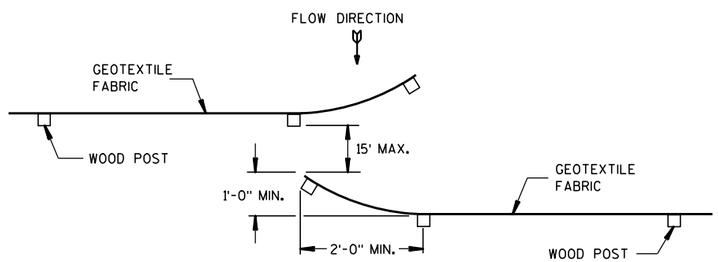
TRENCH DETAIL



SILT FENCE

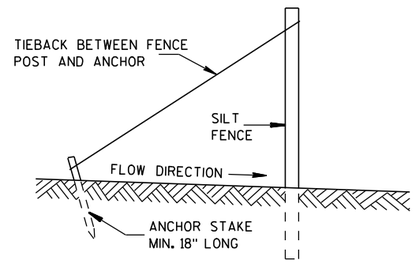


TWIST METHOD



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

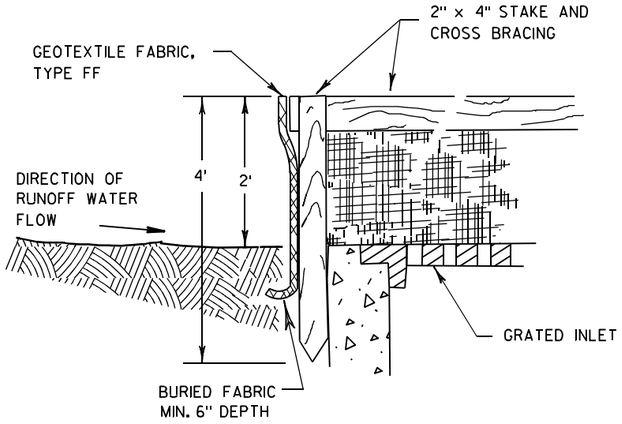
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

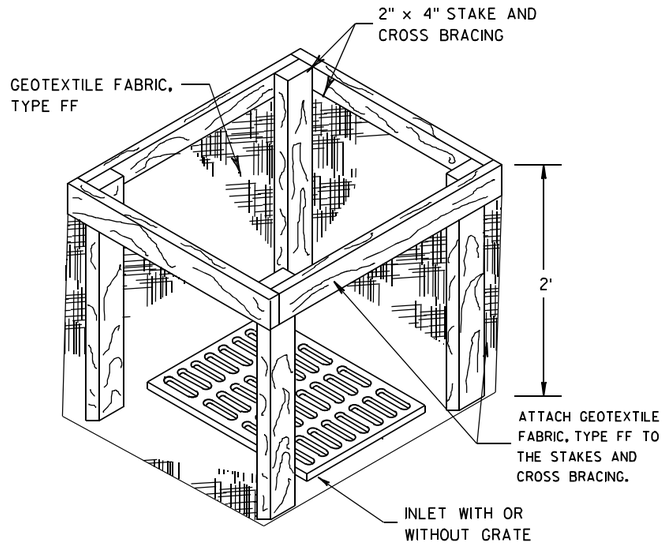
6

S.D.D. 8 E 9-6

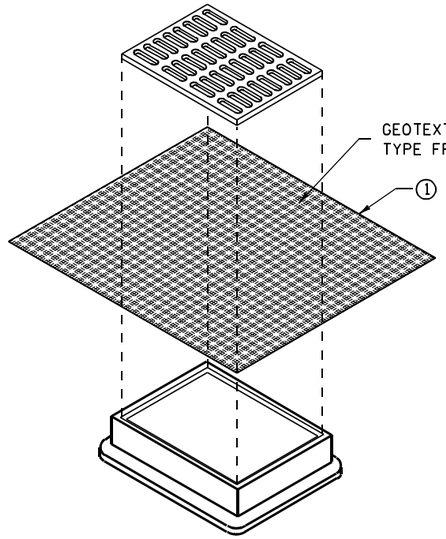
6

S.D.D. 8 E 9-6



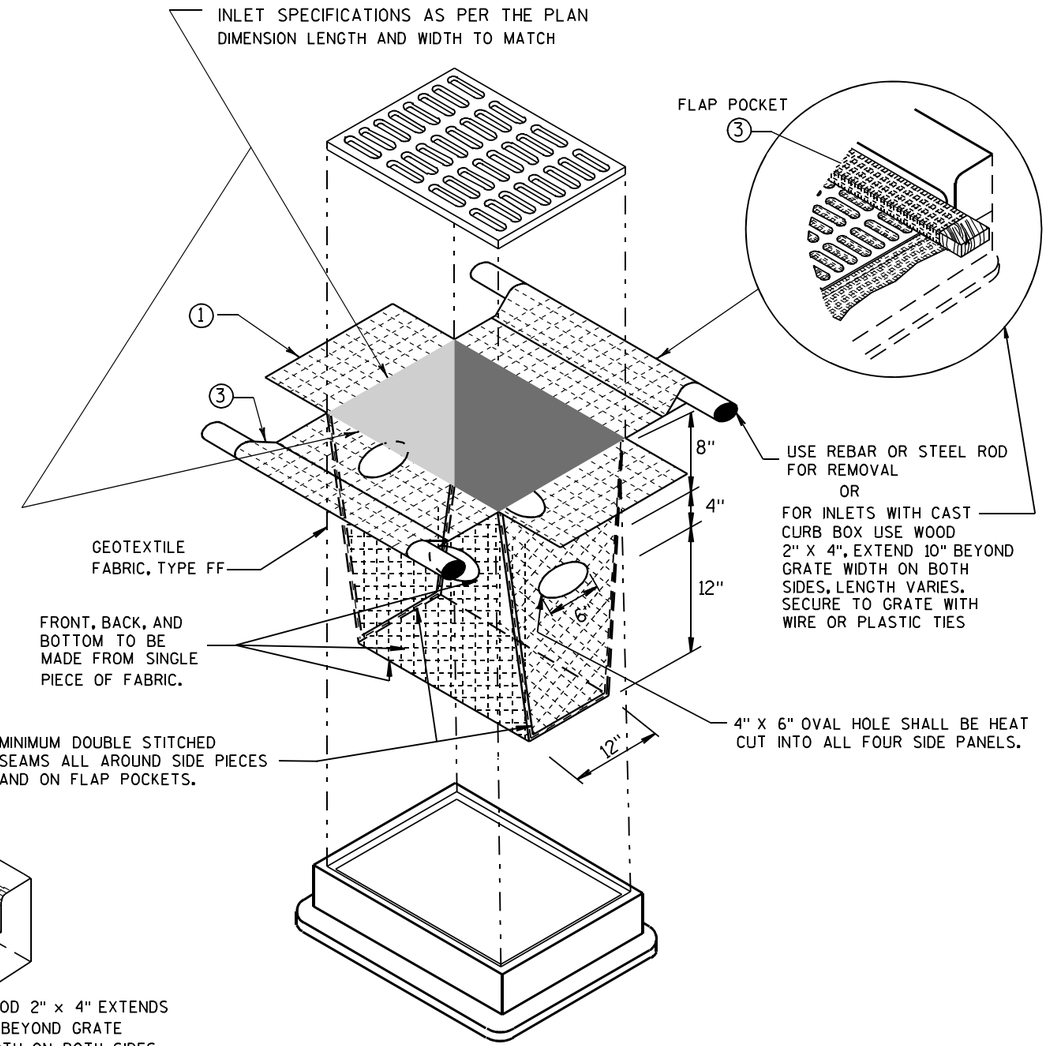


INLET PROTECTION, TYPE A



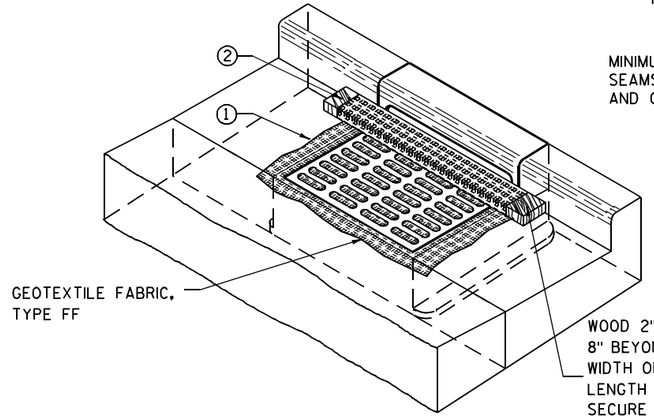
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

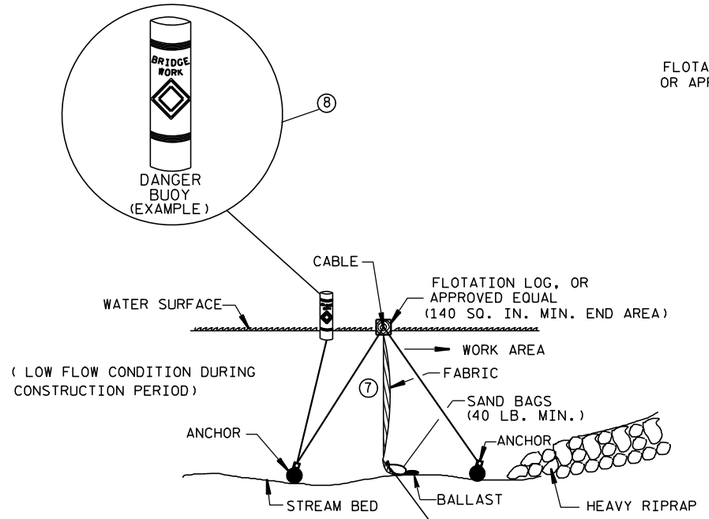
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

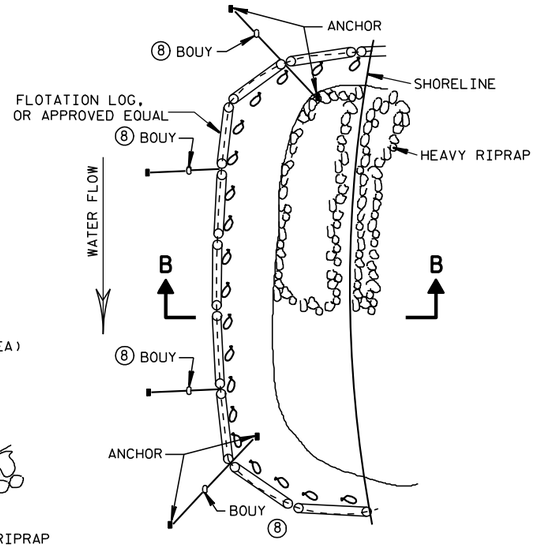
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

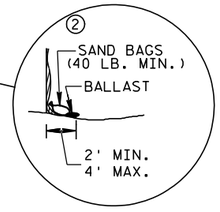
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

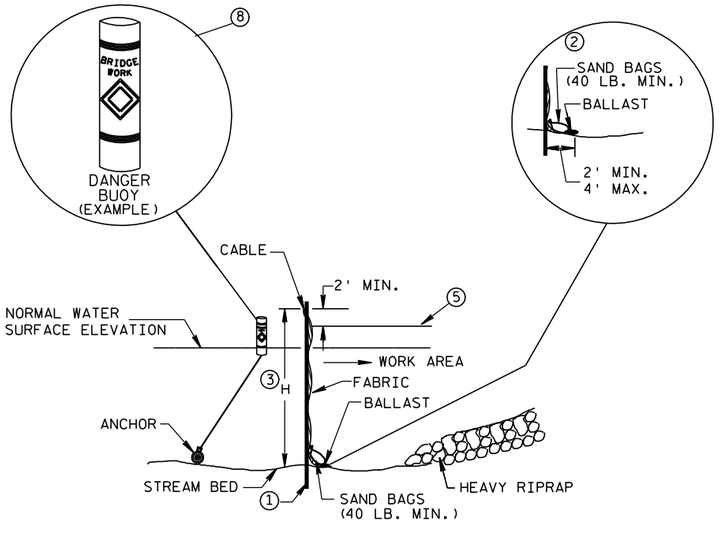


SECTION B-B

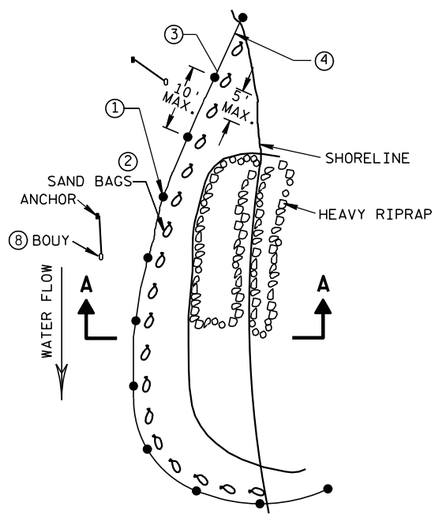




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT 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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

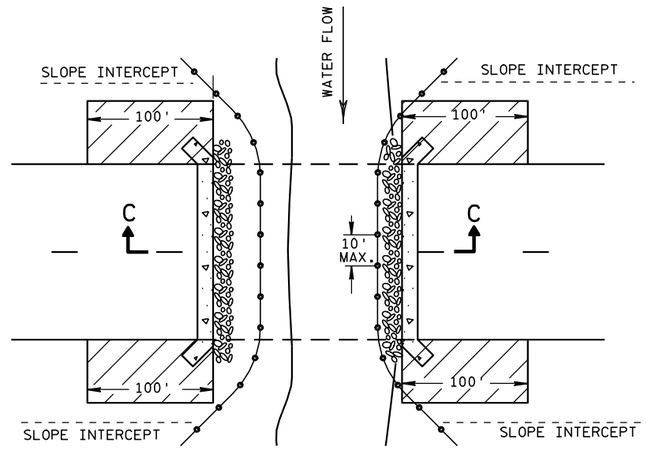
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

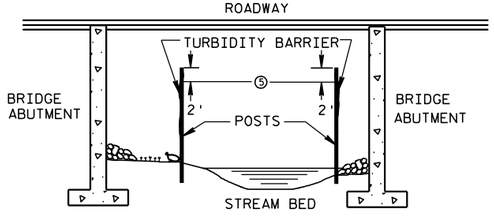
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

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 11-2

6

S.D.D. 8 E 11-2

METAL APRON ENDWALLS

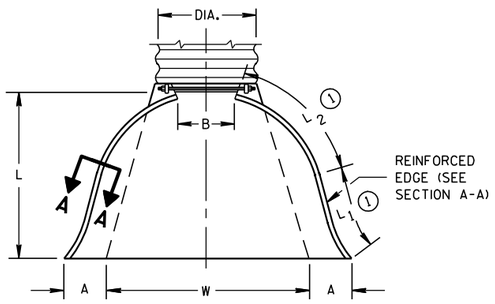
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

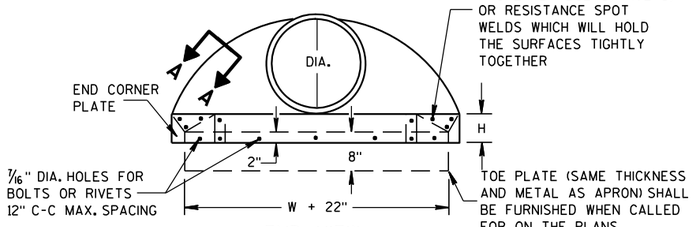
REINFORCED CONCRETE APRON ENDWALLS

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

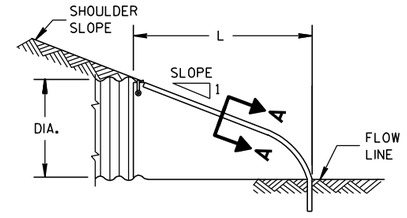
*MINIMUM
**MAXIMUM



PLAN VIEW

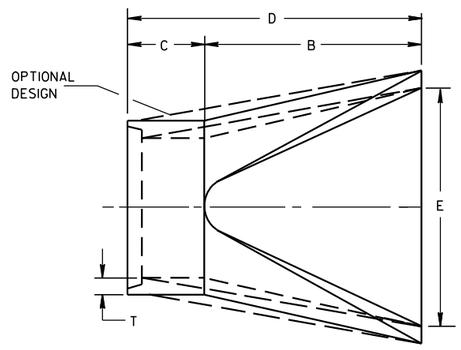


END VIEW

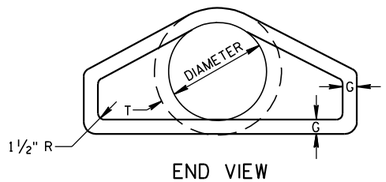


SIDE ELEVATION

METAL ENDWALLS



PLAN



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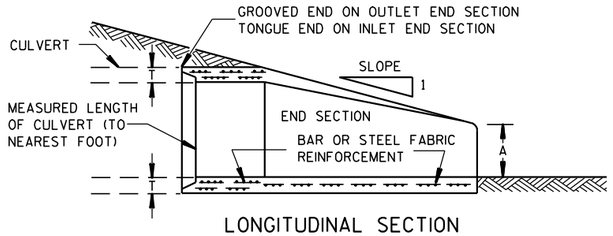
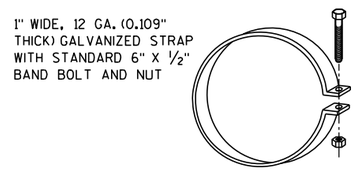


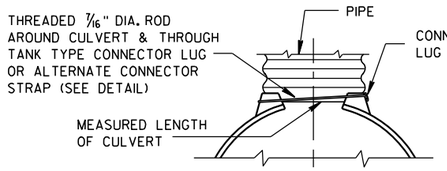
LONGITUDINAL SECTION

CONCRETE ENDWALLS

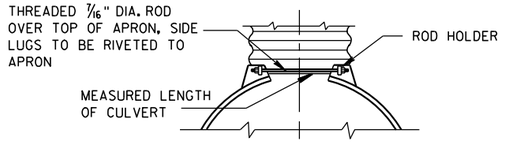


ALTERNATE FOR TYPE 1 CONNECTION

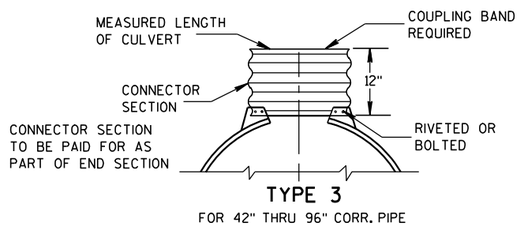
END SECTION CONNECTOR STRAP



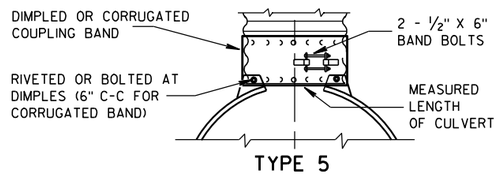
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

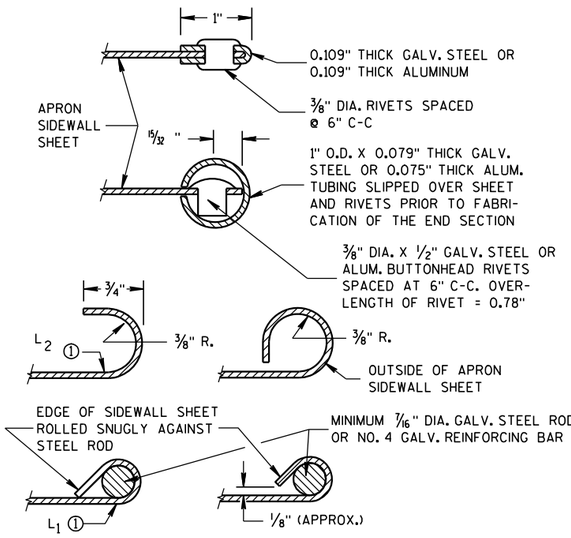
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

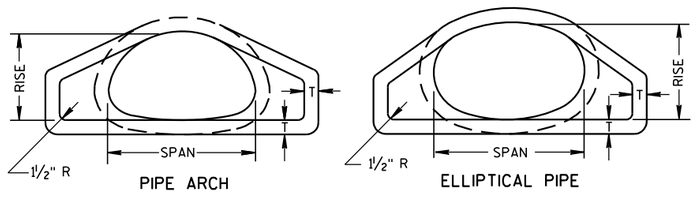
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

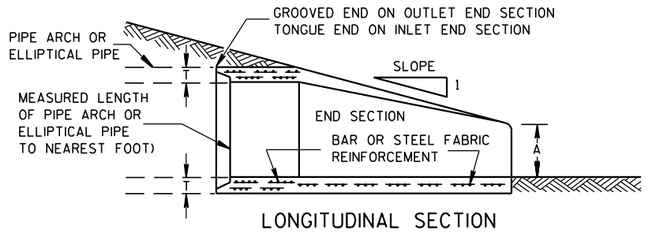
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

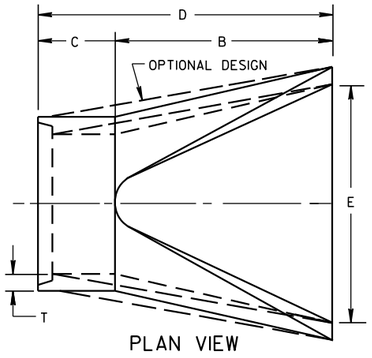
6
S.D.D. 8 F 1-11



END VIEW

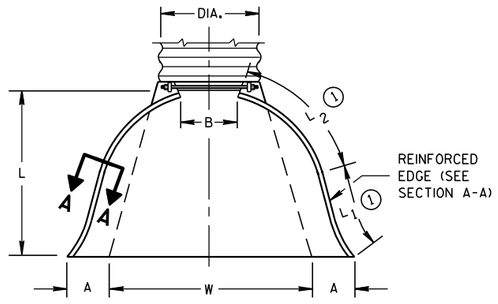


LONGITUDINAL SECTION

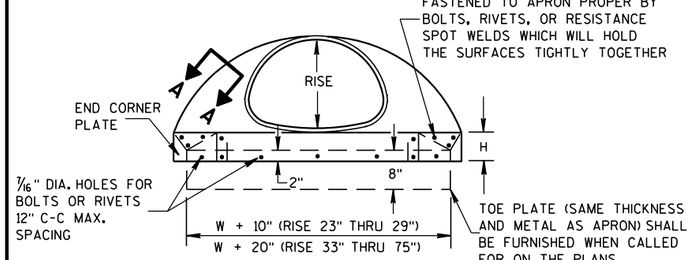


PLAN VIEW

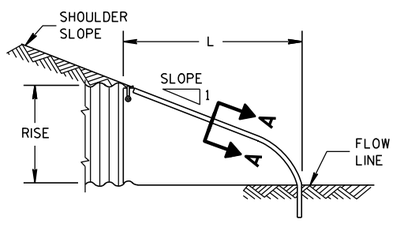
CONCRETE ENDWALLS



PLAN VIEW

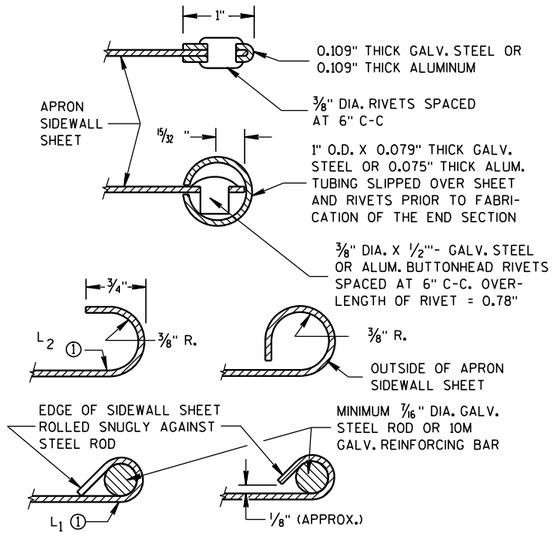


END VIEW



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

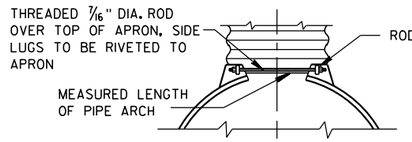
REINFORCED CONCRETE PIPE ARCH

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

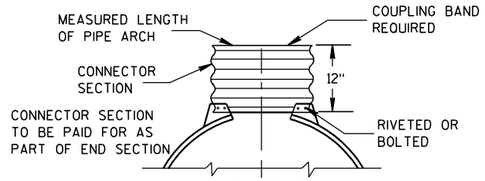
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



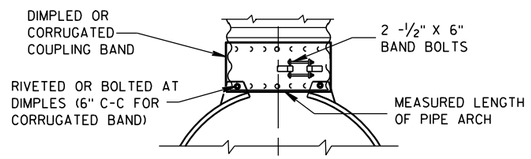
TYPE 2

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

6

S.D.D. 8 F 2-1

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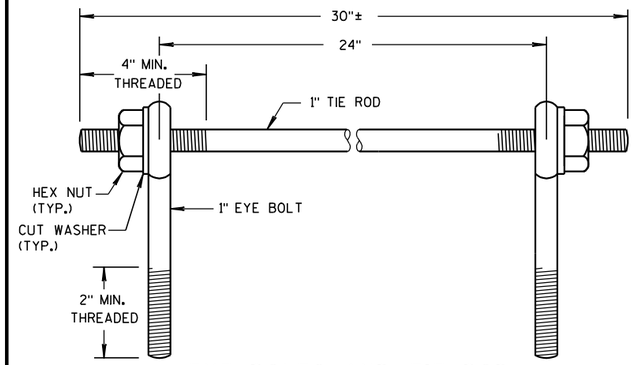
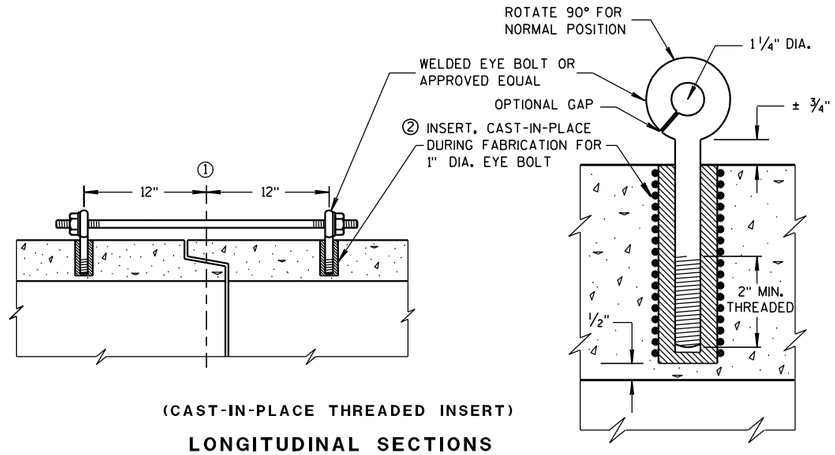
S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

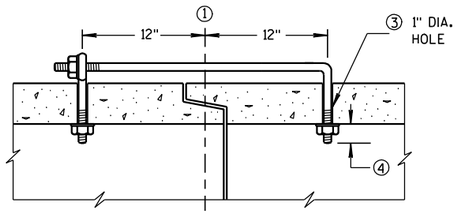
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

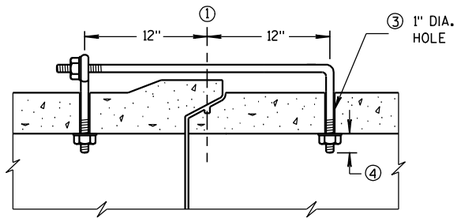
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

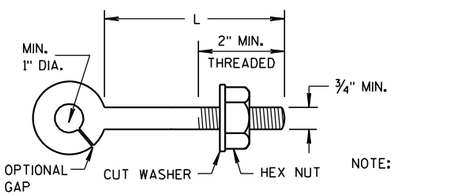


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

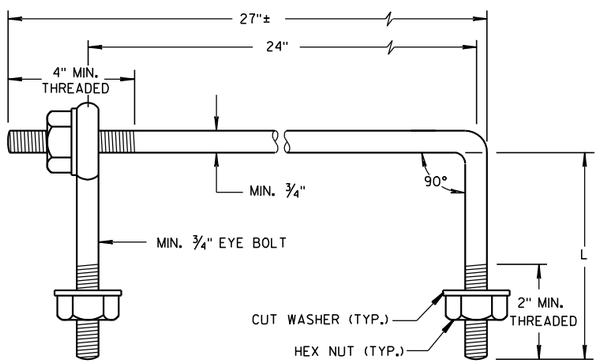
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

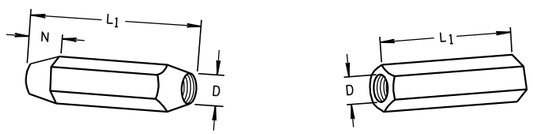
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

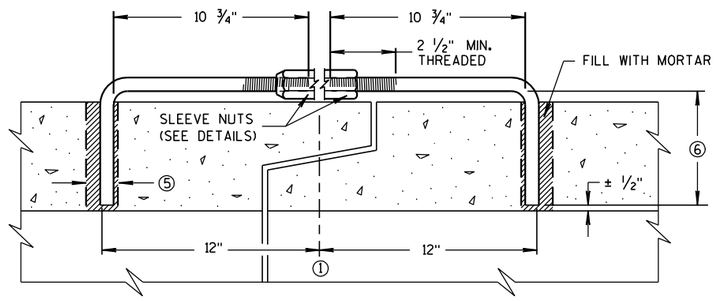
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

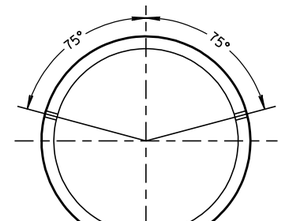
SLEEVE NUTS



LONGITUDINAL SECTION

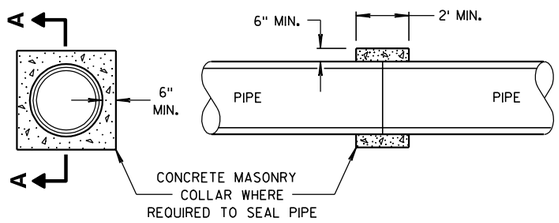
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

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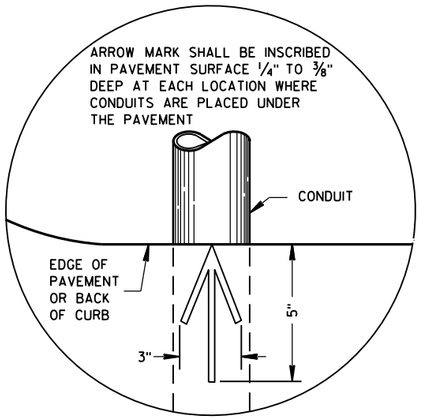
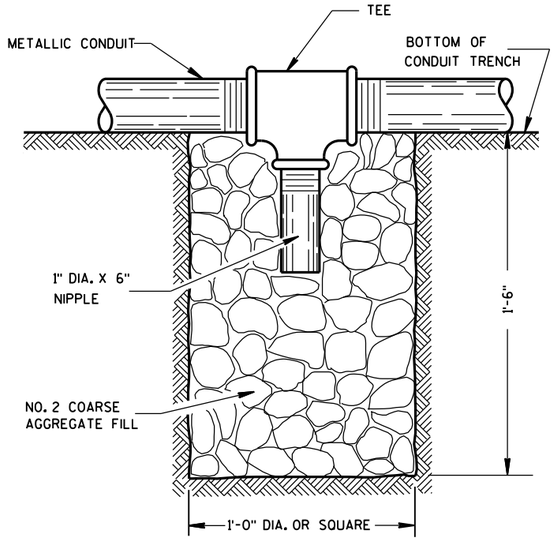
S.D.D. 8 F 4-7



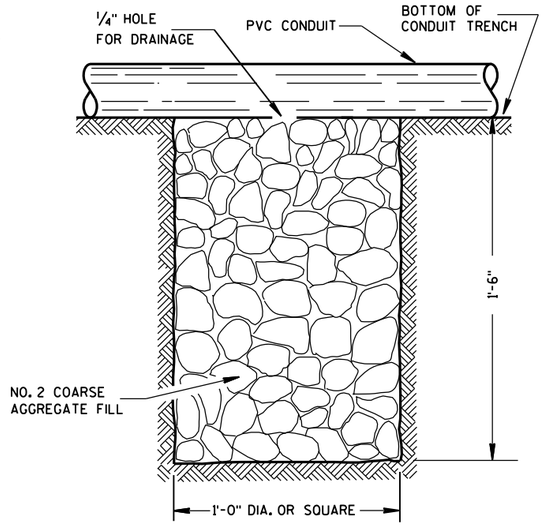
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

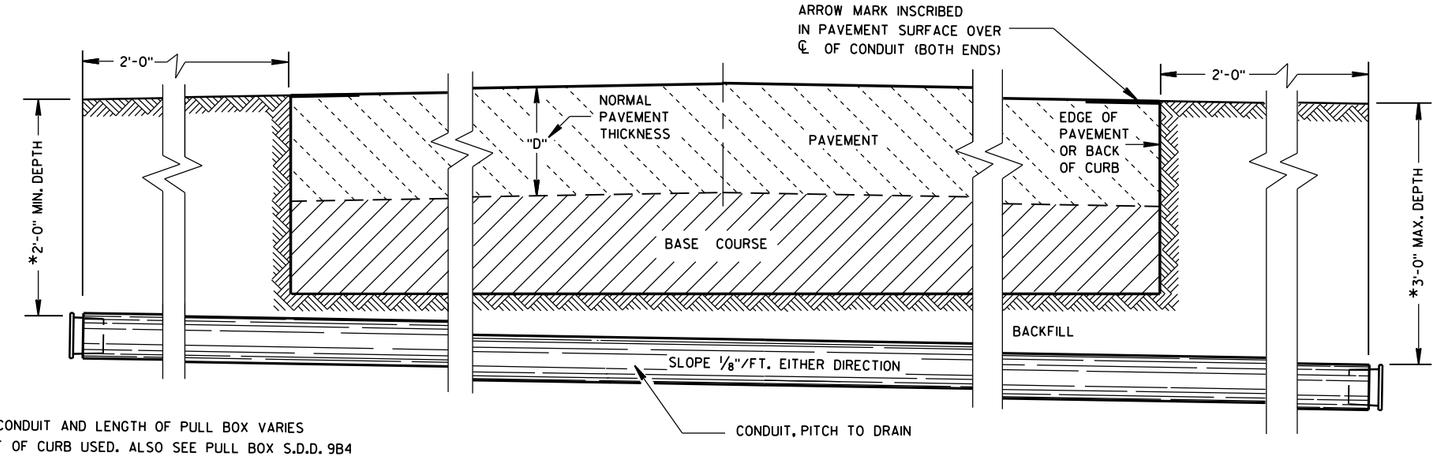
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

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.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

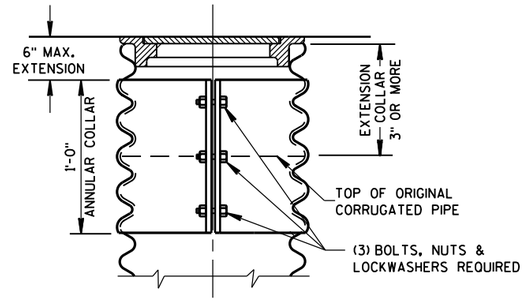
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

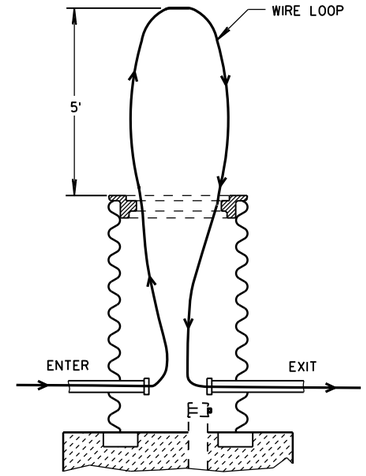
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

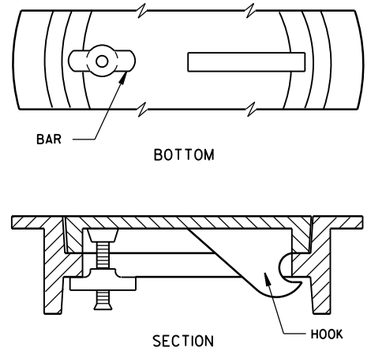
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

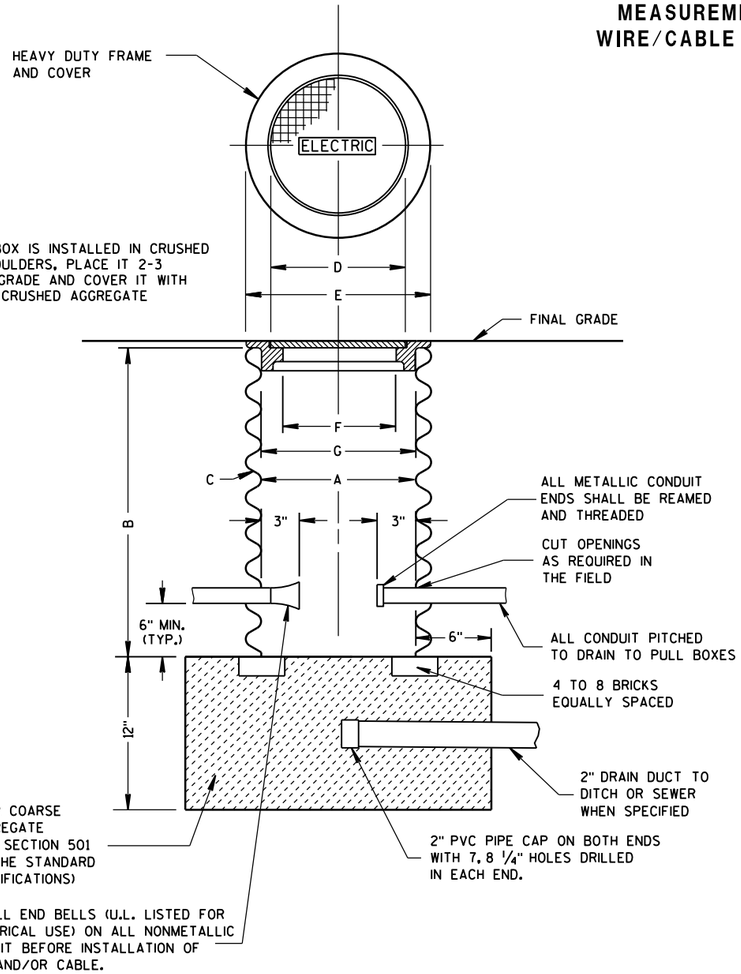


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



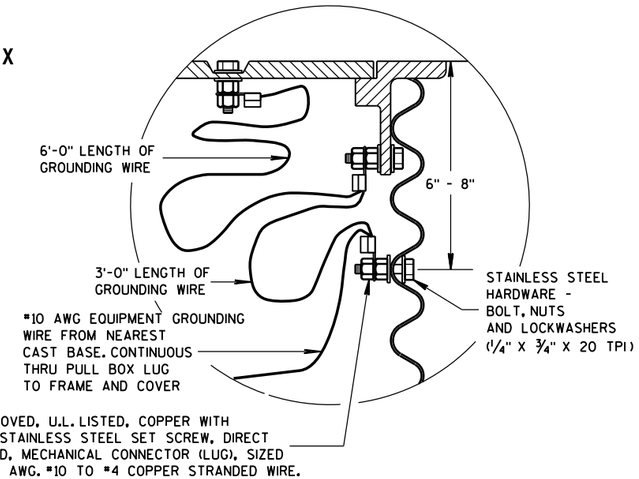
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

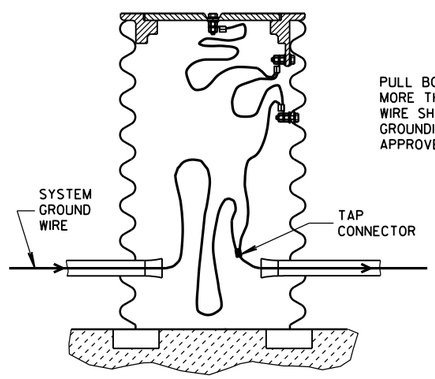


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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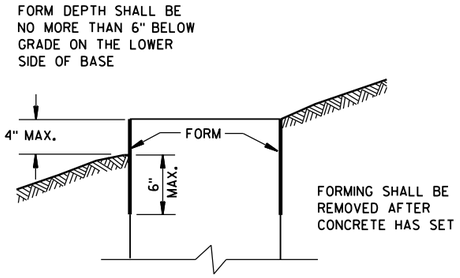


FORMING DETAIL

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 DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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).

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

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

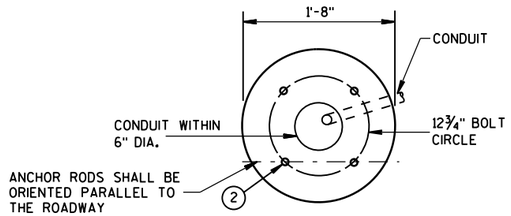
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

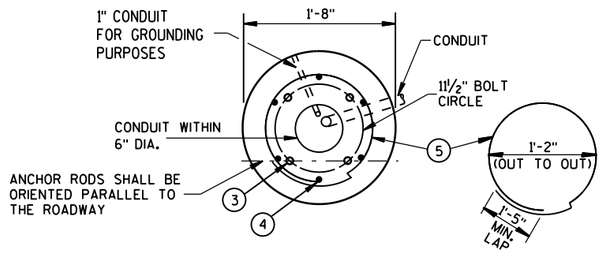
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

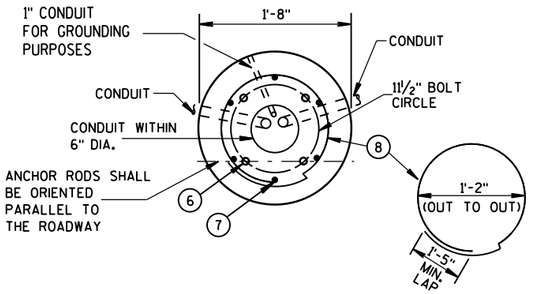
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

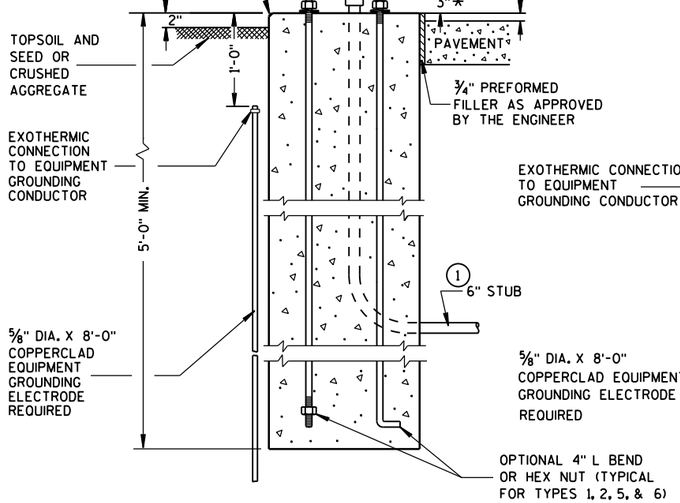






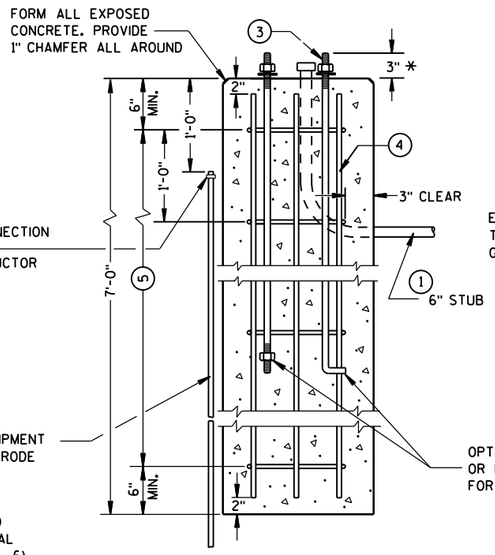
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

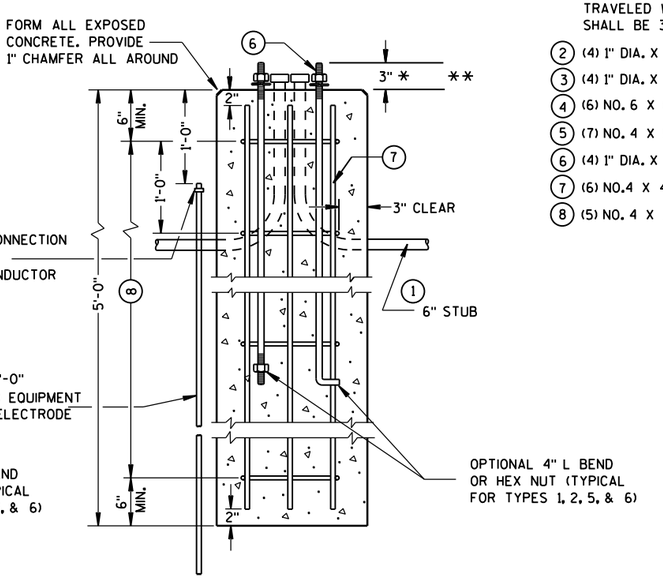


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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.

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.

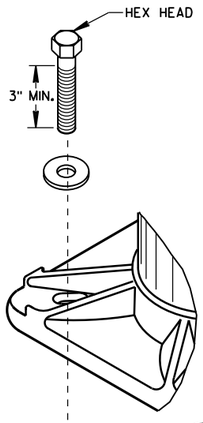
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

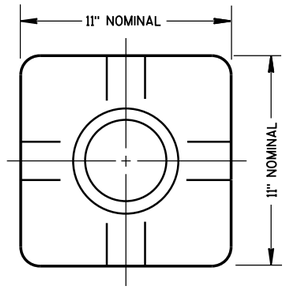
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

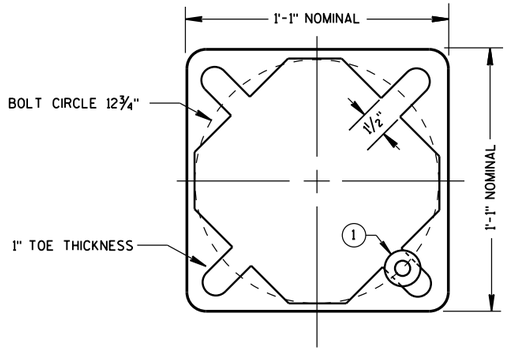
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

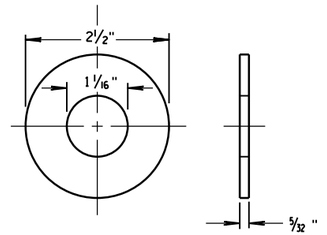




TOP VIEW
(PEDESTAL BASE)

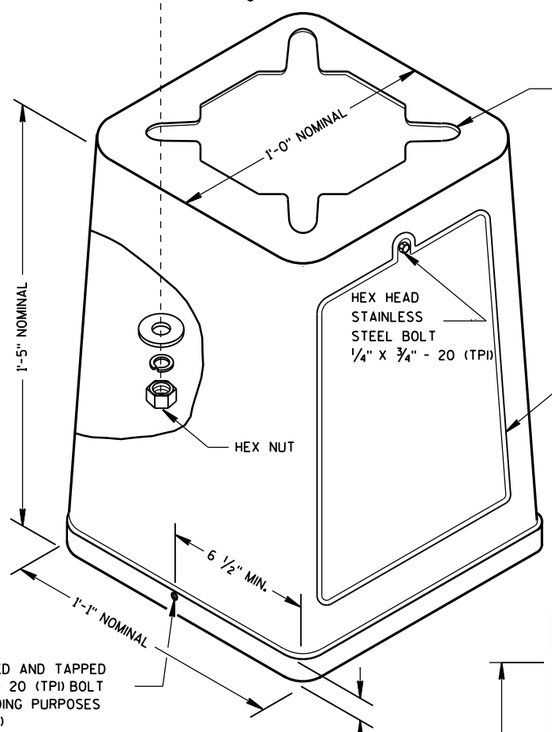


BOTTOM VIEW
(PEDESTAL BASE)

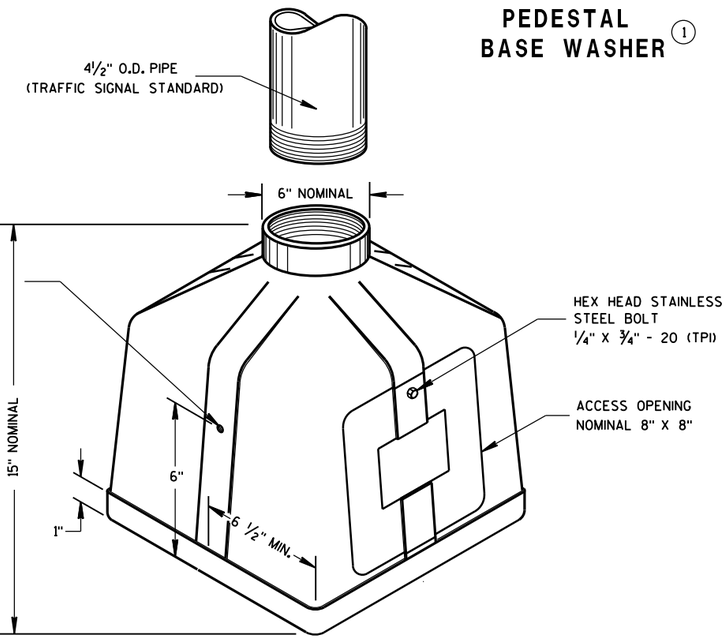


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

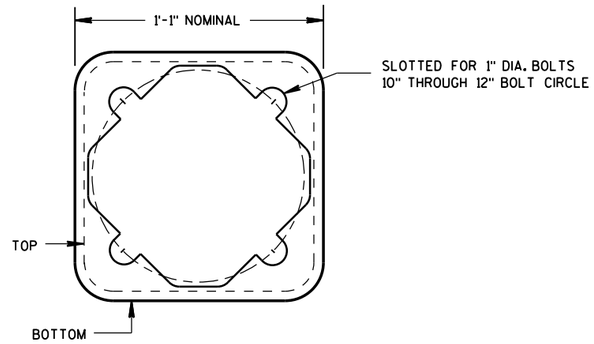
PEDESTAL BASE WASHER (1)



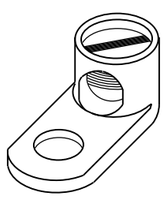
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE

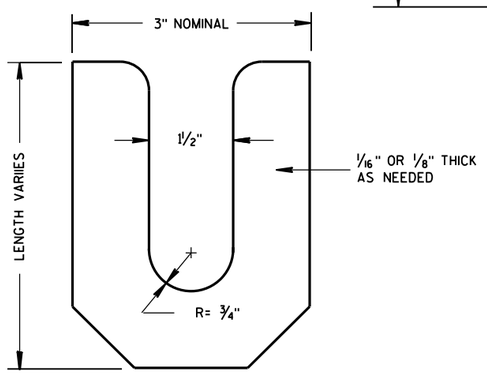


BOTTOM VIEW
(TRANSFORMER BASE)



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

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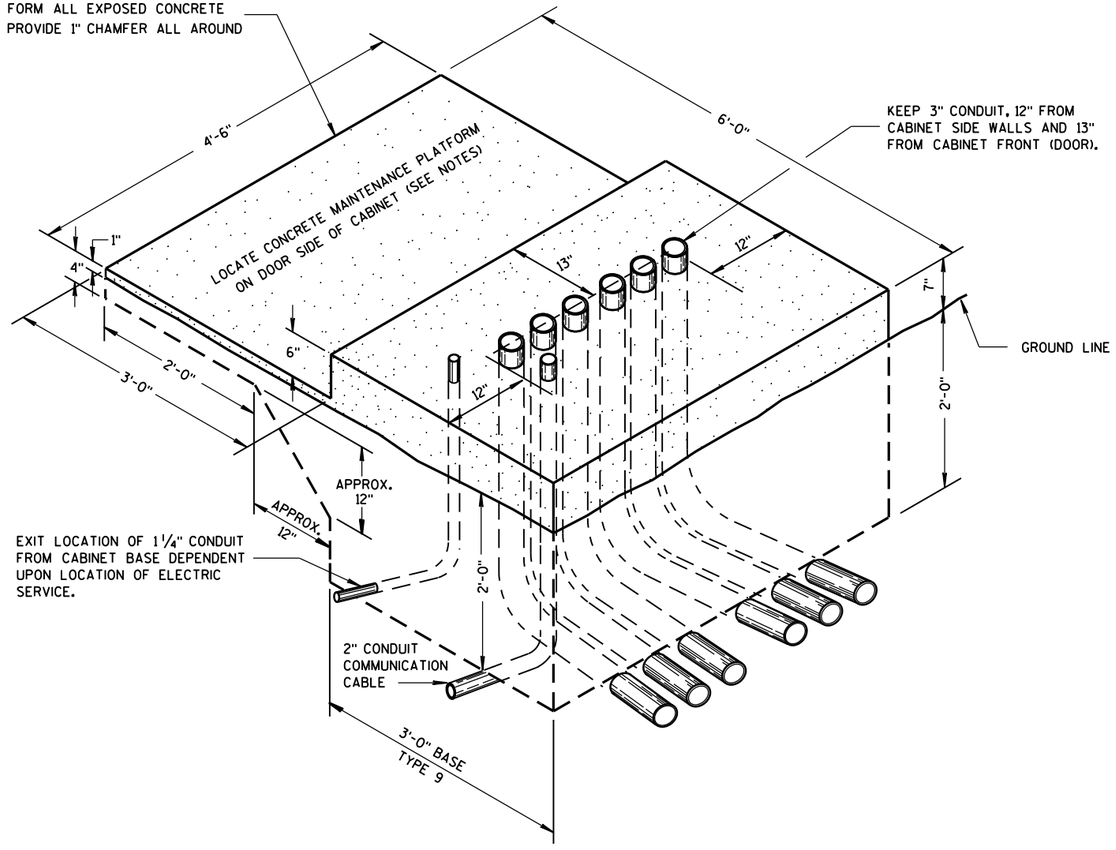
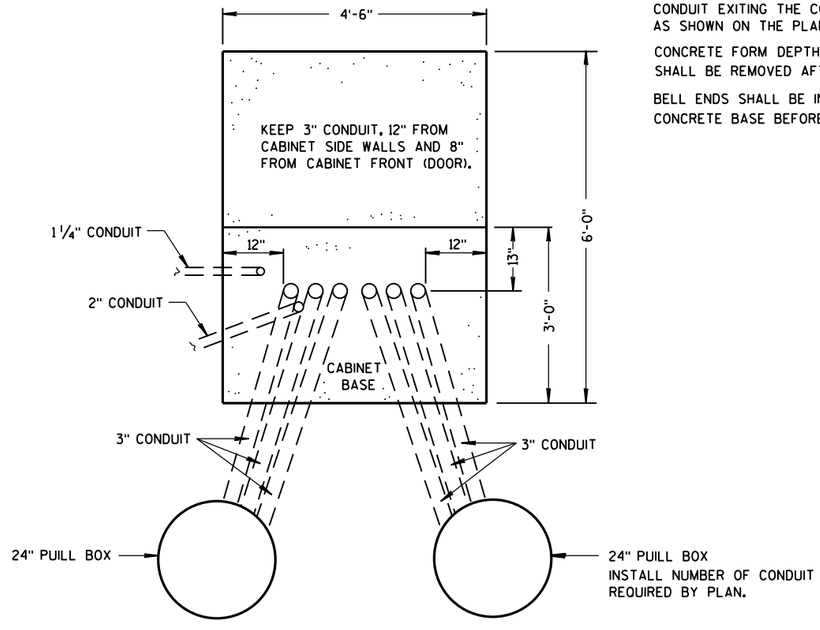


ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

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

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

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

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

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

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

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

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

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
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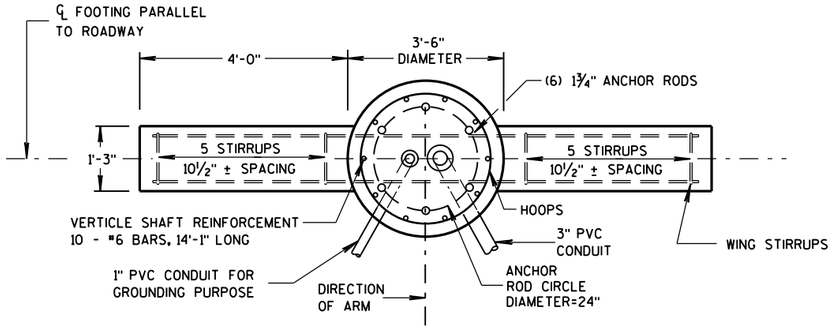
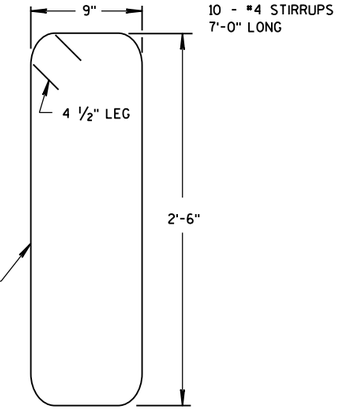
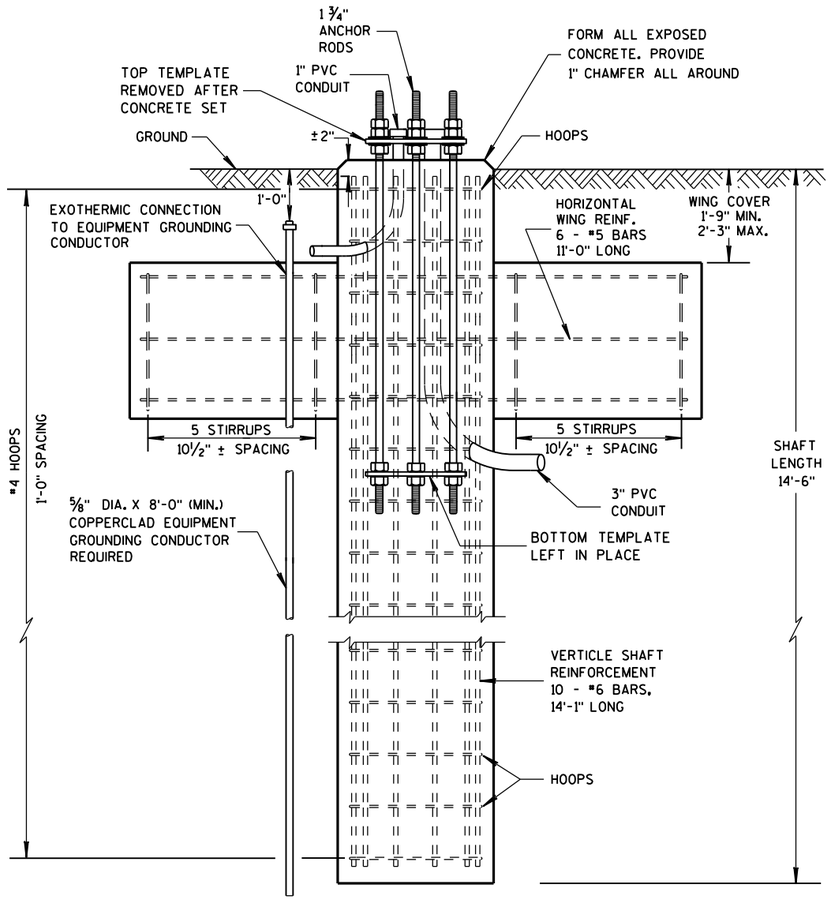


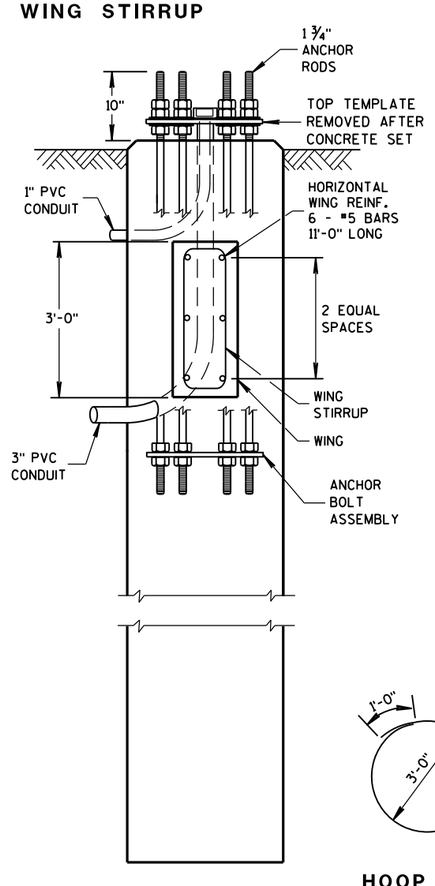
PLAN VIEW



WING STIRRUP

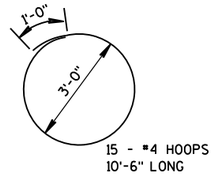


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



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, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 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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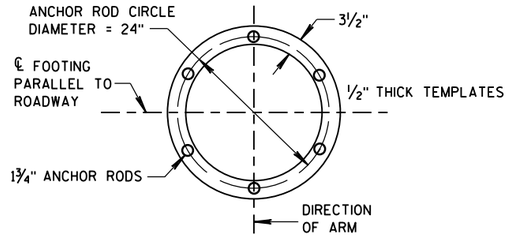
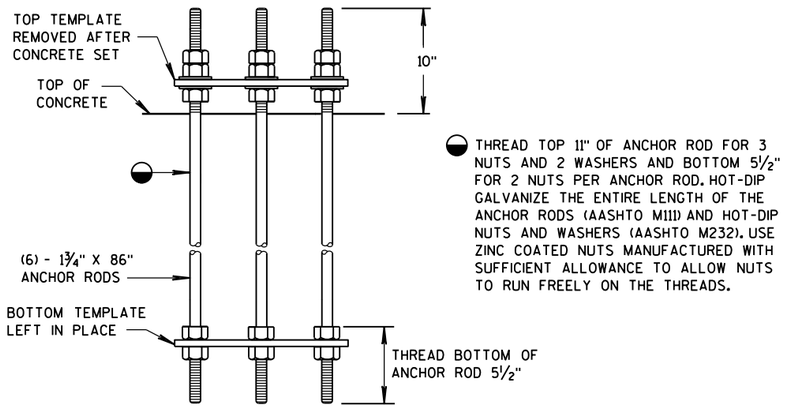
S.D.D. 9 C 12-7a

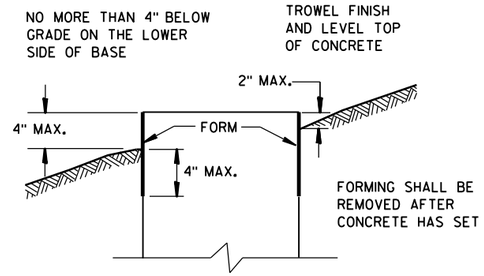


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

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CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
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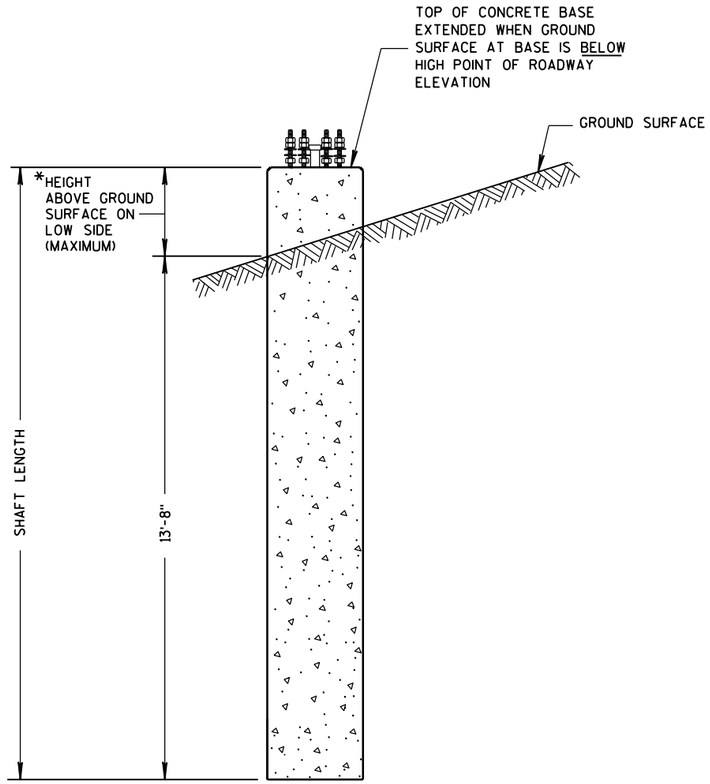
S.D.D. 9 C 12-7b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

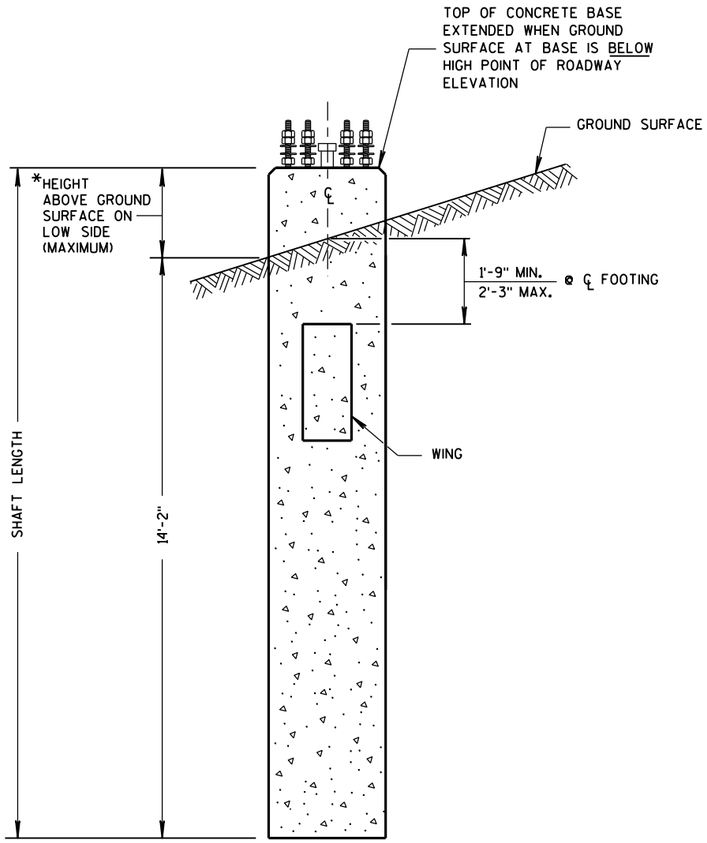
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-26-2013
DATE
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STATE ELECTRICAL
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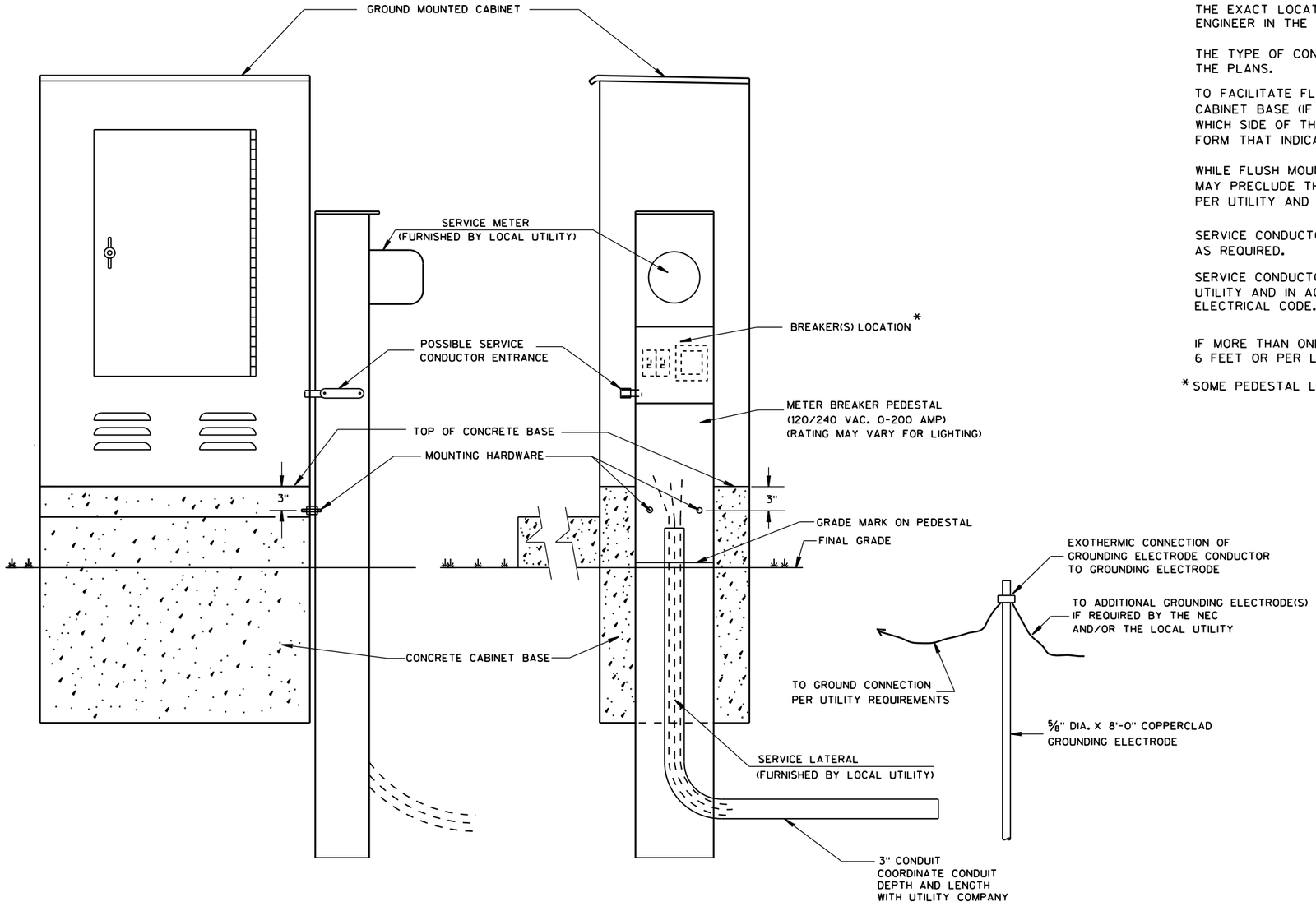
S.D.D. 9 C 13-2



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

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

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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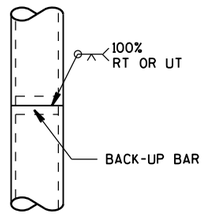
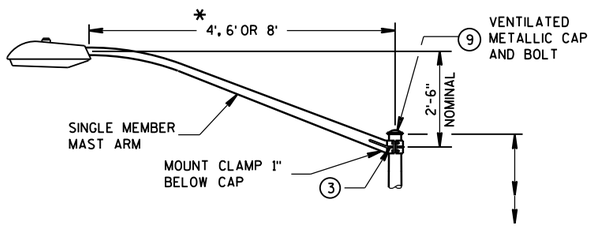
S.D.D. 9 D 1-5

FOR MANUFACTURERS USE ONLY

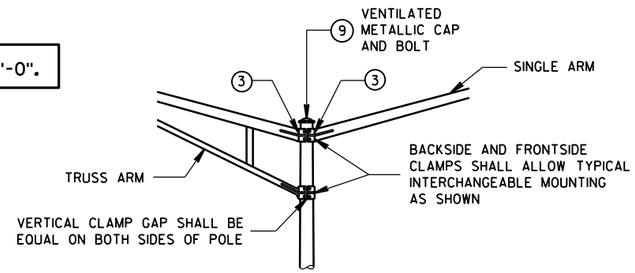
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.





POLE SPLICE DETAIL

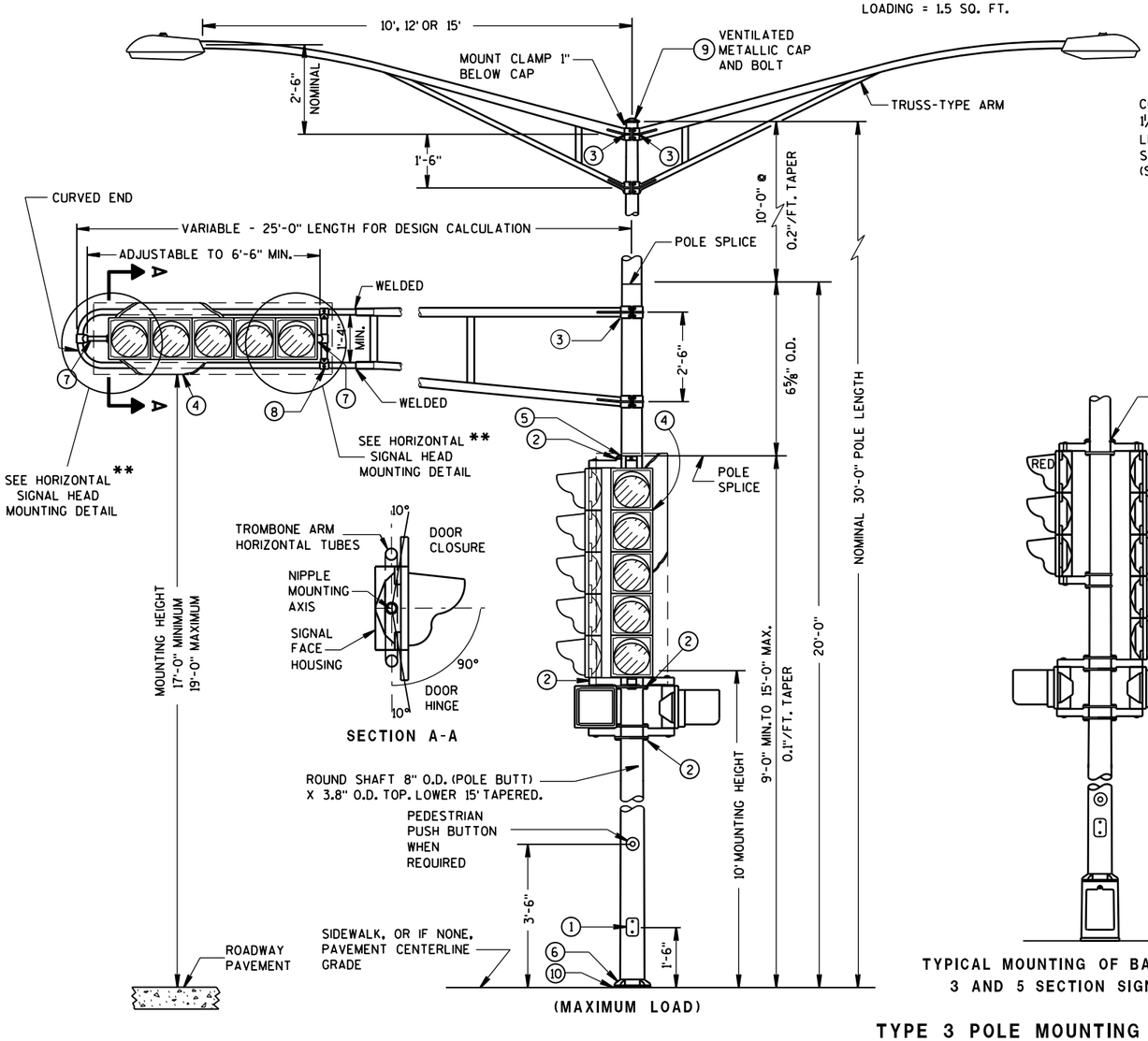
***RISE FOR 4' ARM SHALL BE 2'-0".**



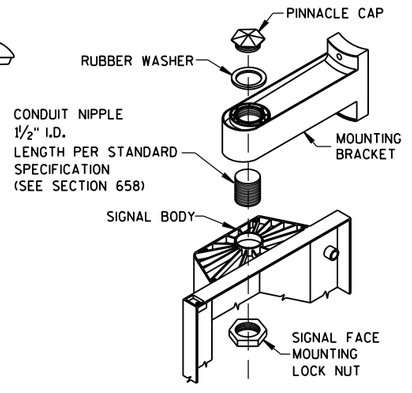
INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

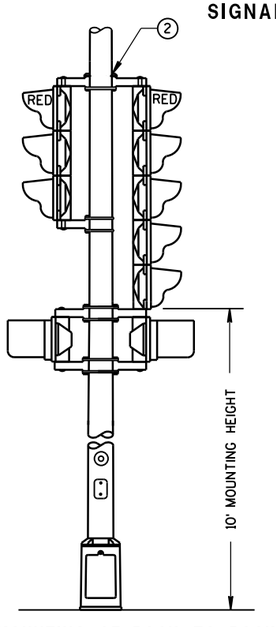
WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.



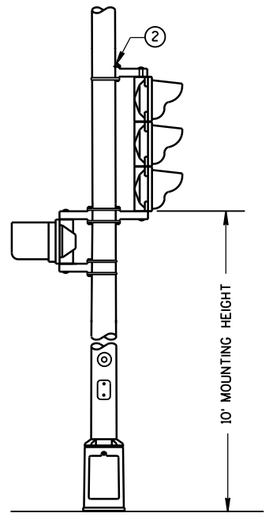
TYPE 3 POLE MOUNTING CONFIGURATION



SIGNAL FACE MOUNTING DETAIL
(BANDED)



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



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

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

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

POLES SHALL BE GALVANIZED STEEL.

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

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

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

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

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

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

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

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

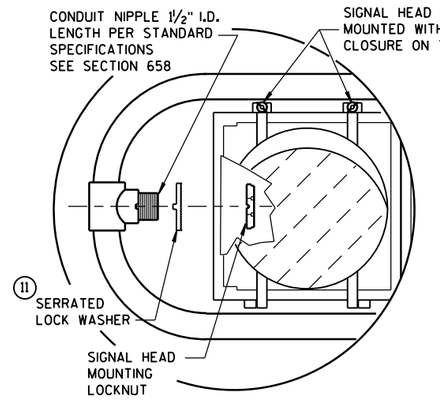
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

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

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

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

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

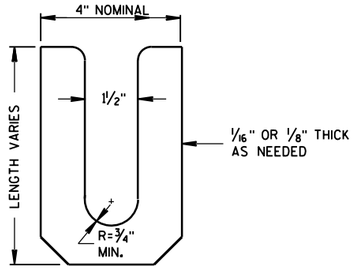


HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

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

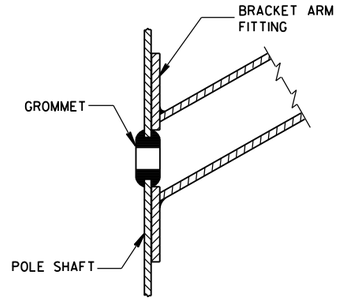
POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

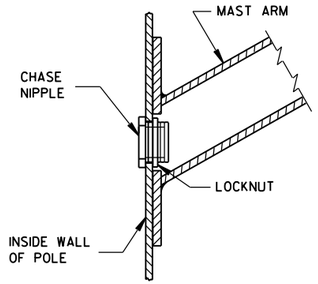


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

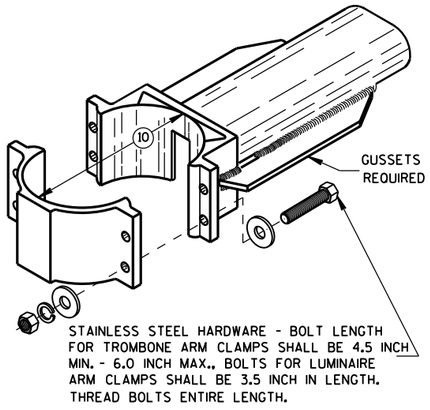
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

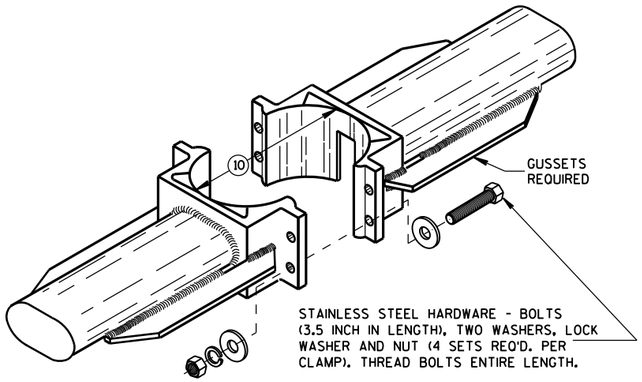
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) 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.

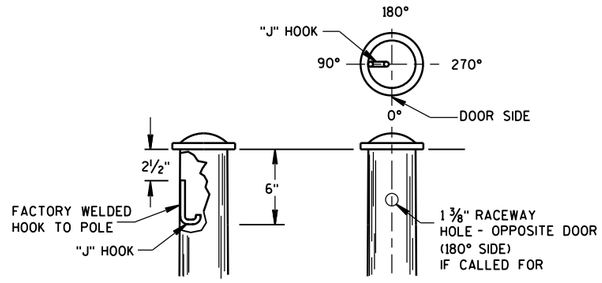
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



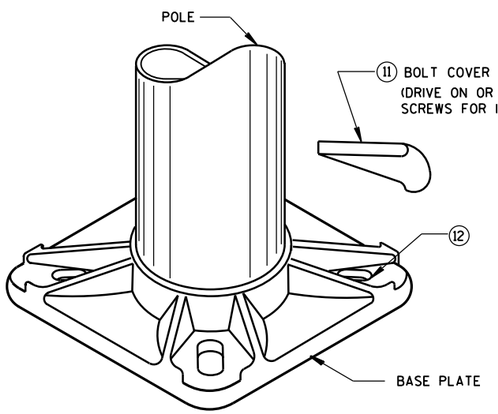
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



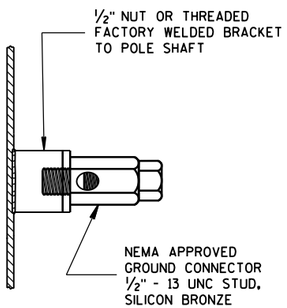
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

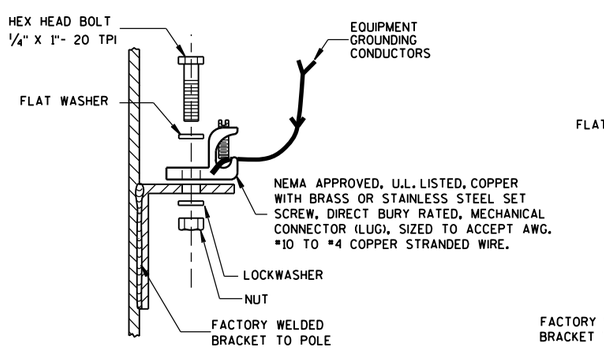


TYPICAL "J" HOOK LOCATION



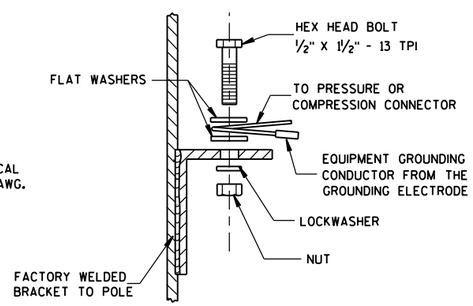
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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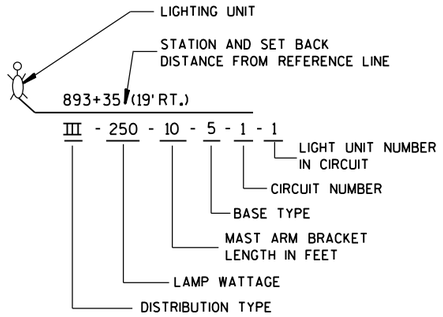
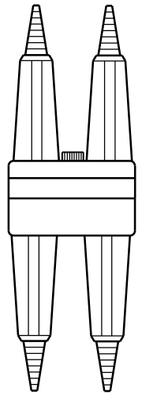
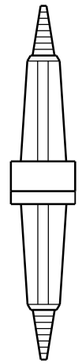
S.D.D. 9 E 1-14g



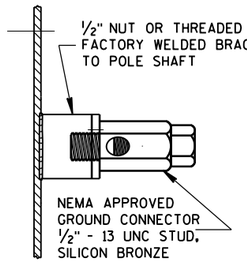
LIGHTING UNIT CODE
(TYPICAL)

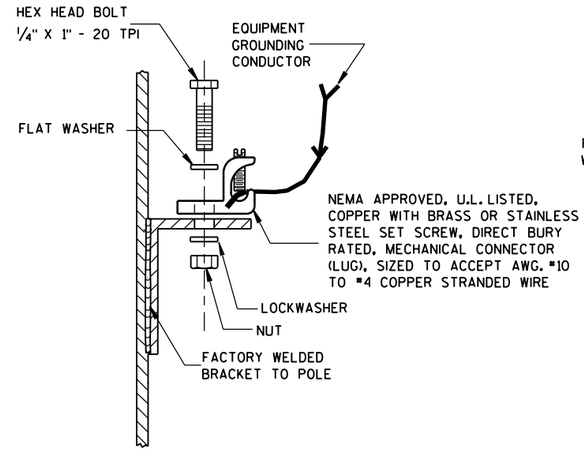


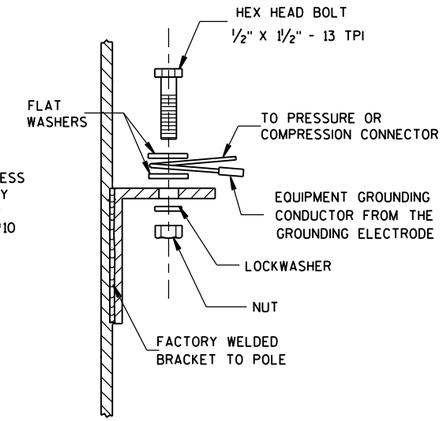
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



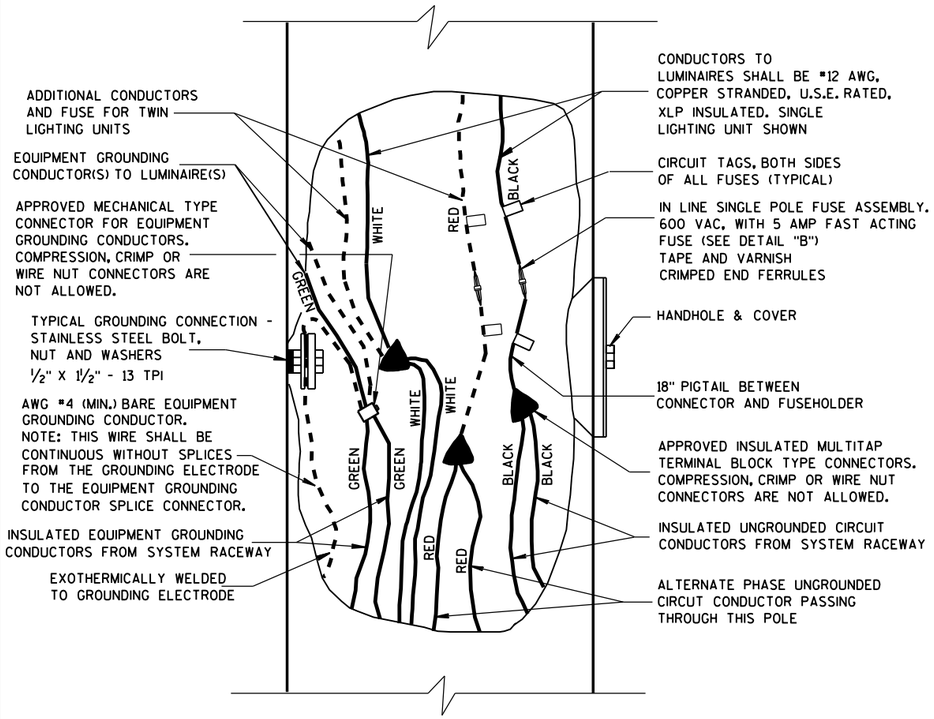
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



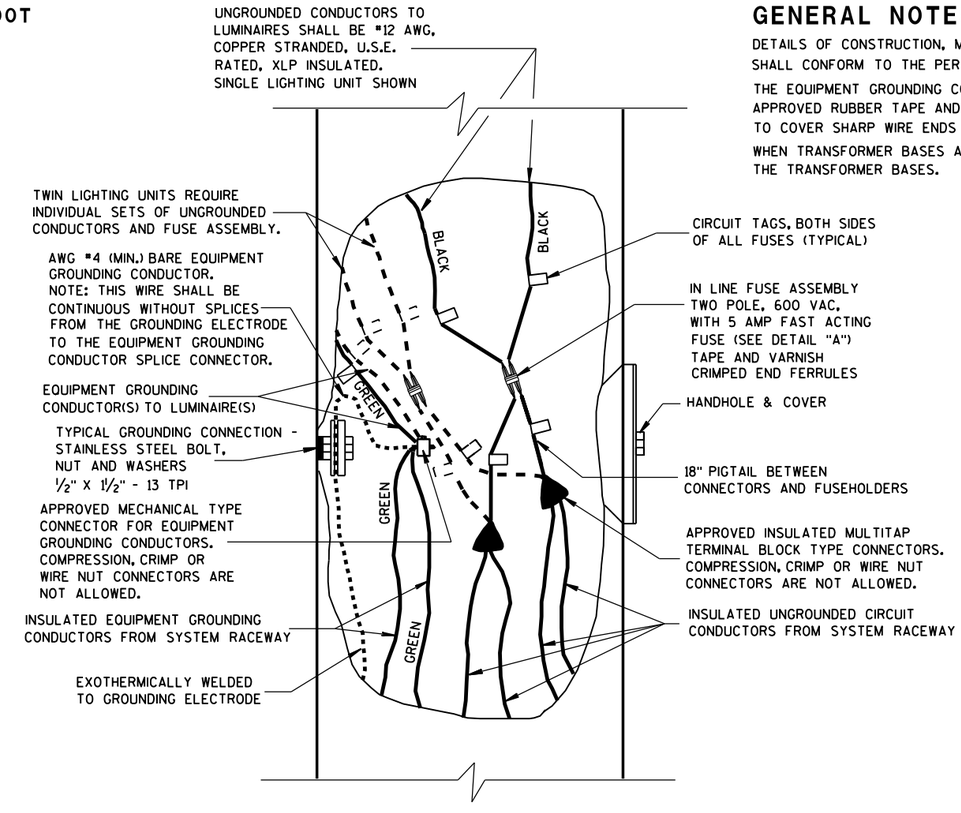




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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



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

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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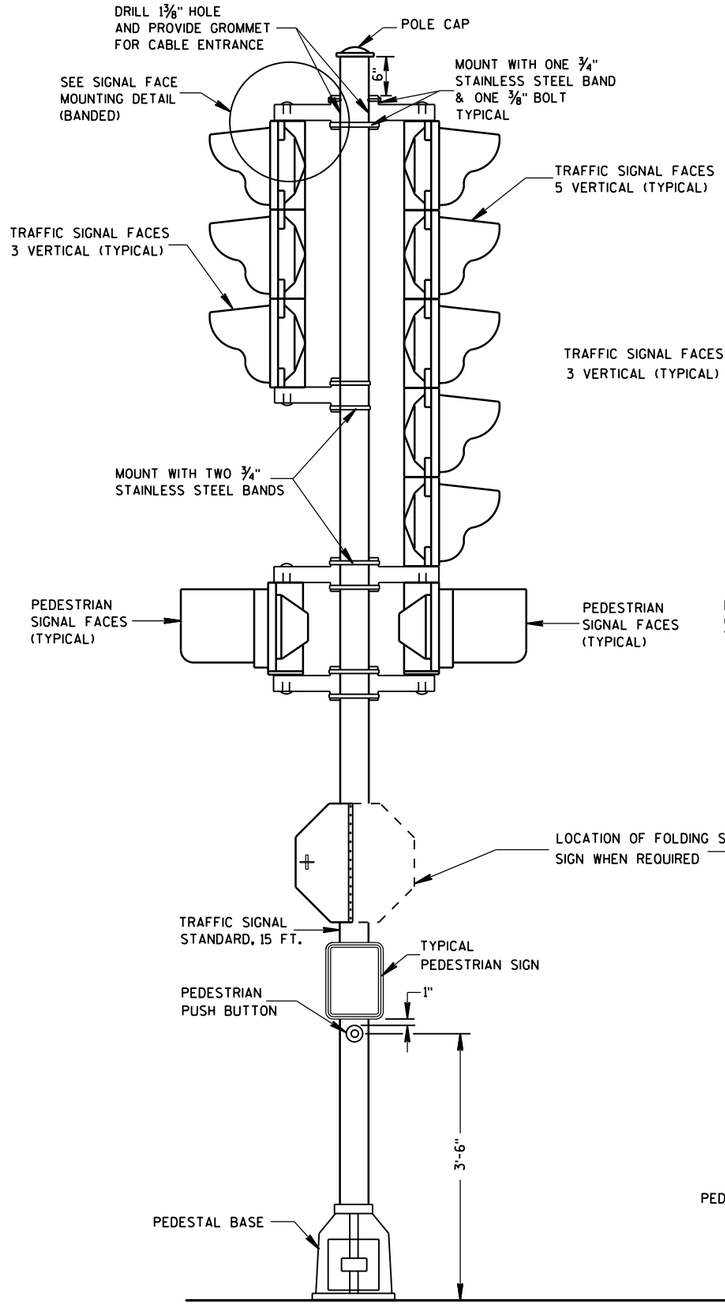
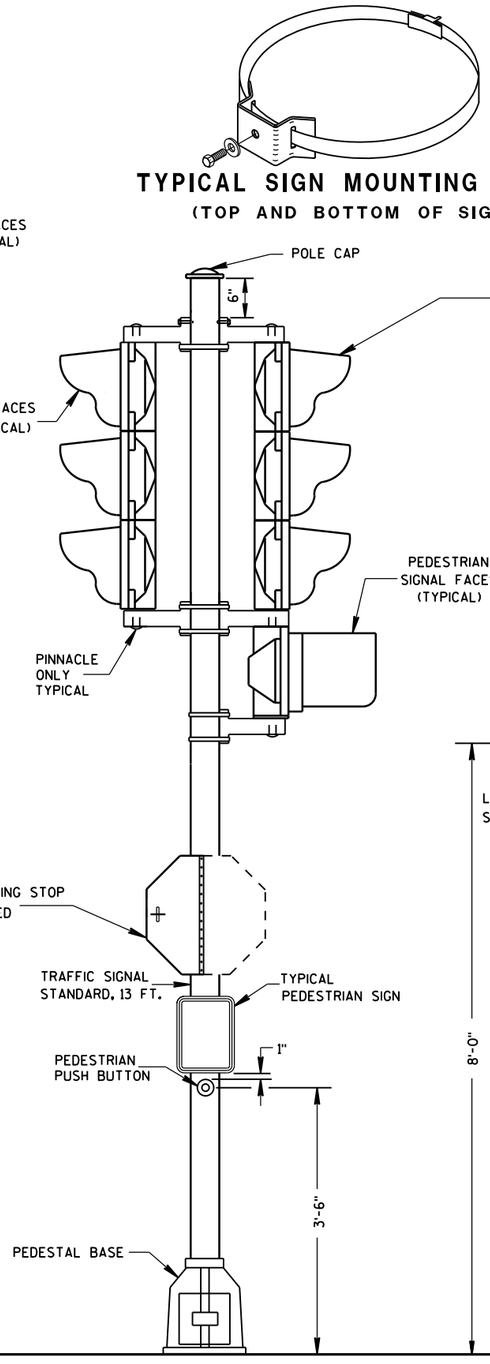
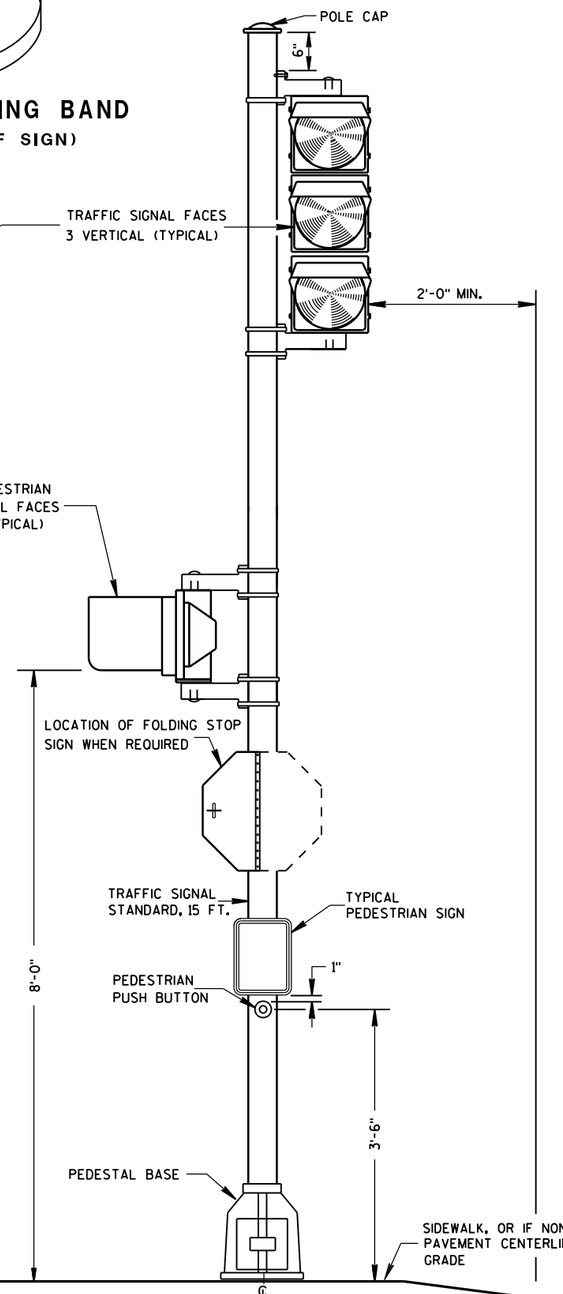


TRAFFIC SIGNAL STANDARD-15 FT.



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.

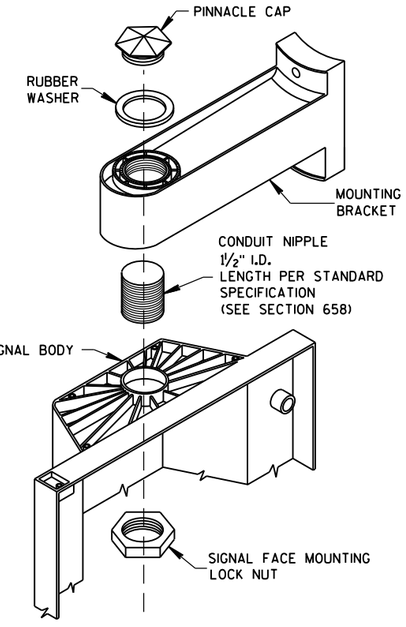
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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
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2/28/2013 — DATE
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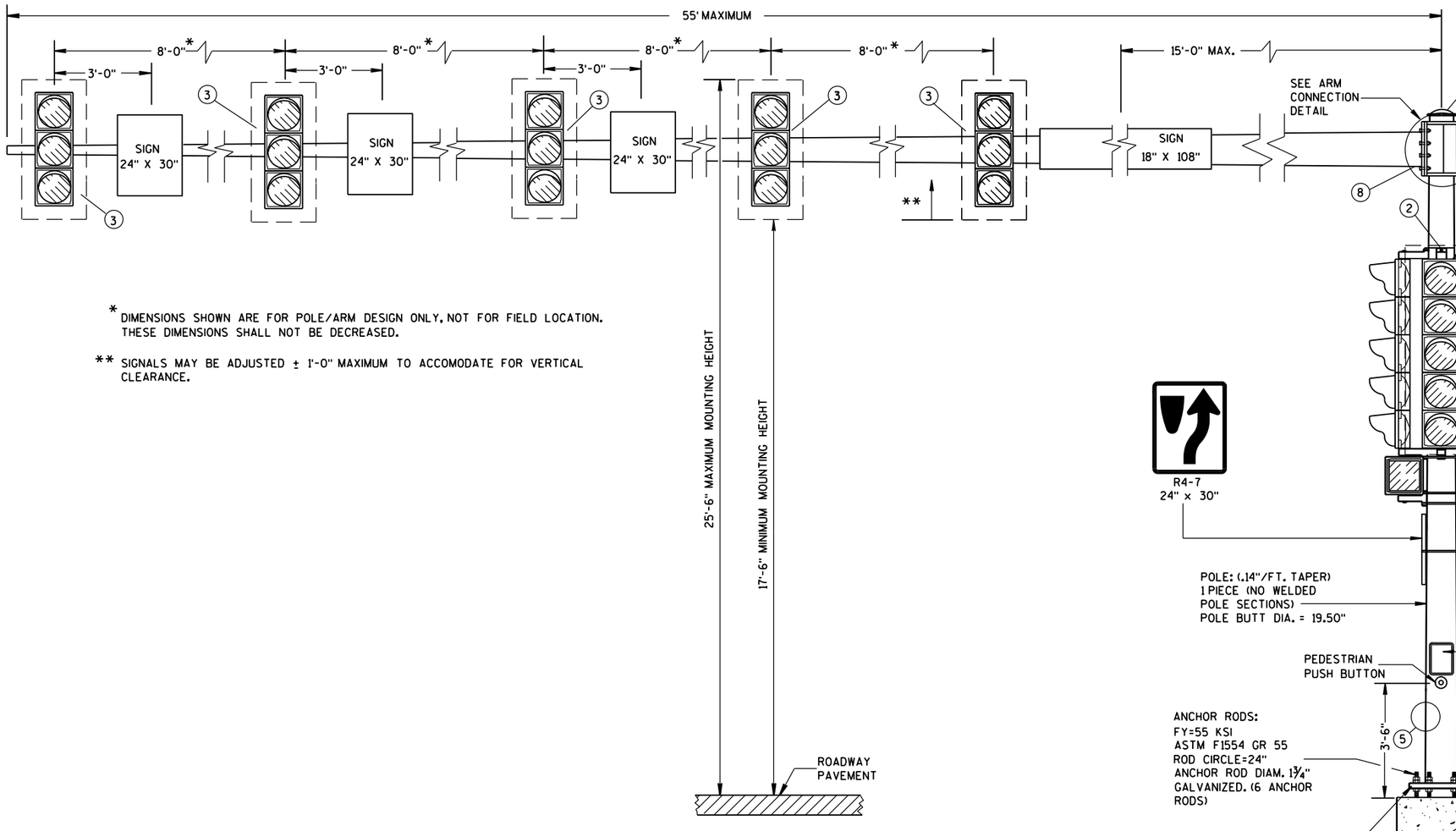
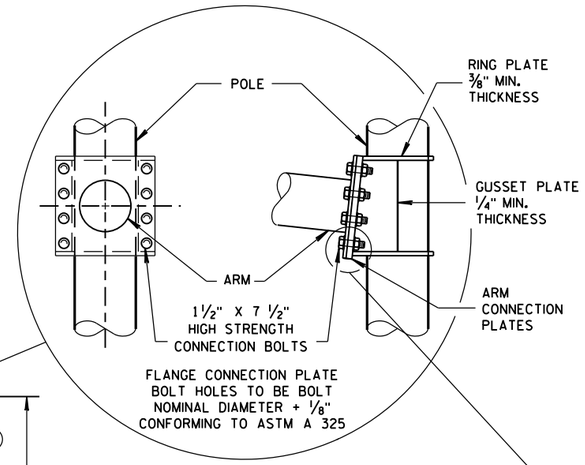
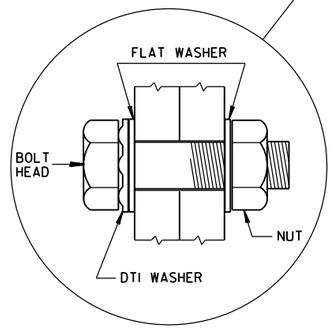


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

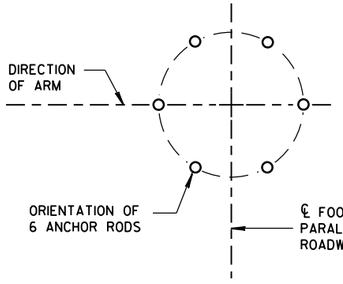
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

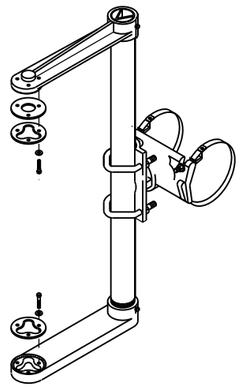
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

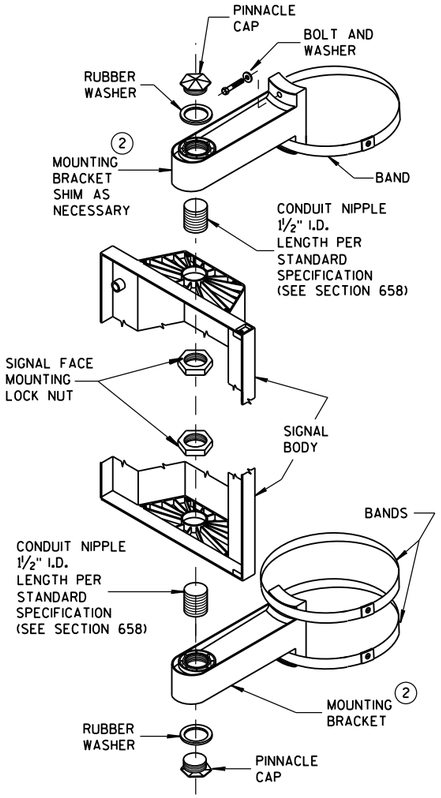
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

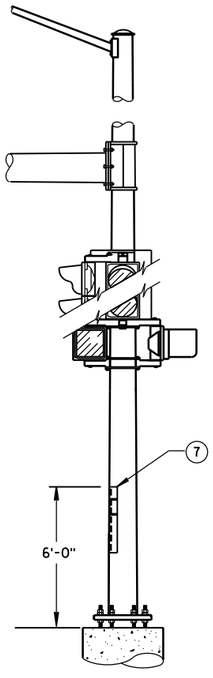


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

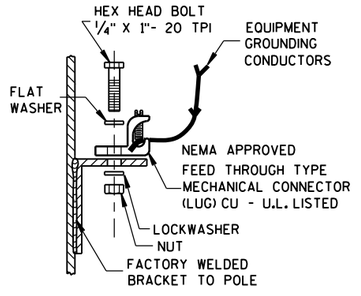
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

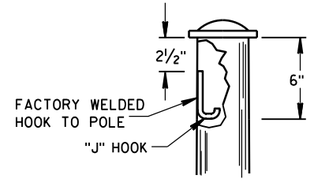


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



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

June, 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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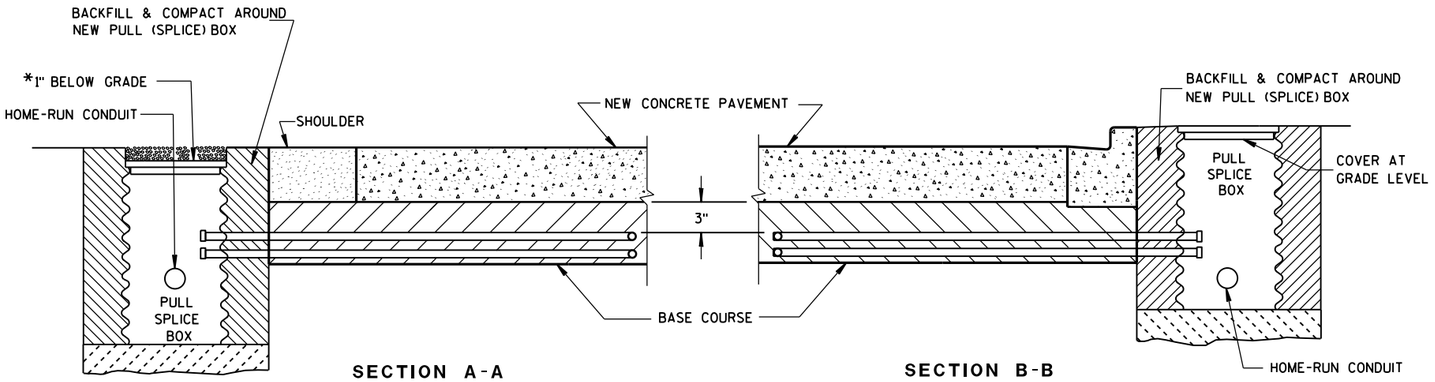


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) 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.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION 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 (SPLICE) 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.

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.

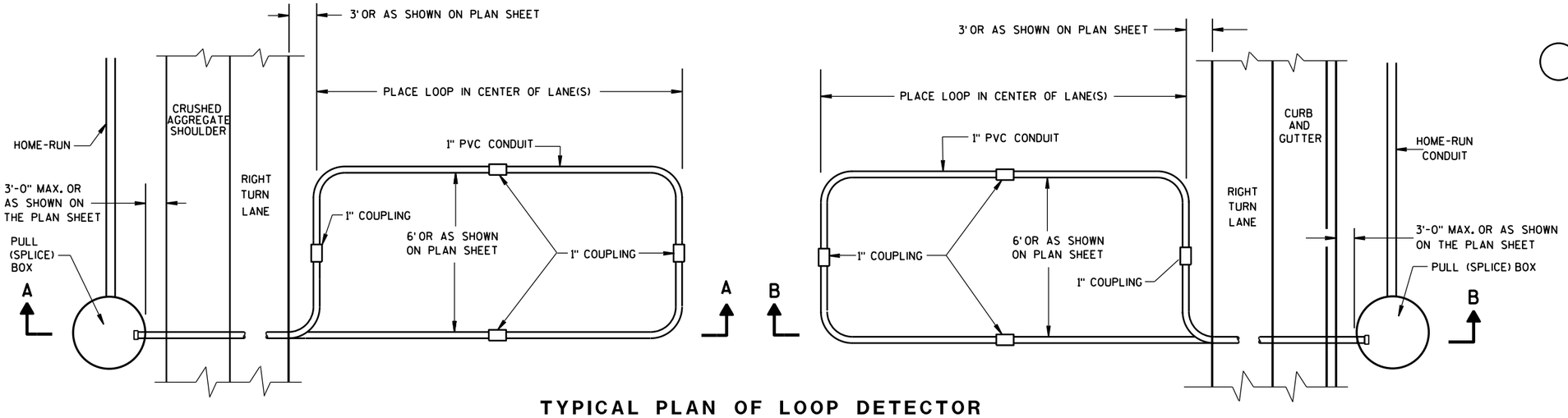
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

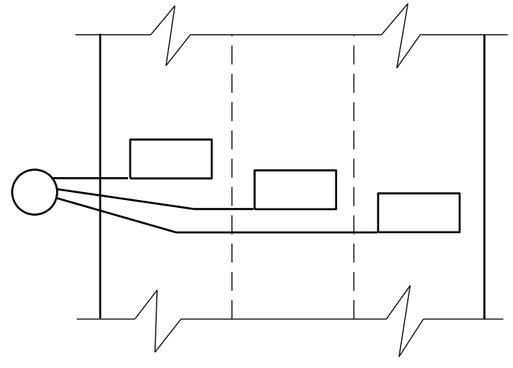
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

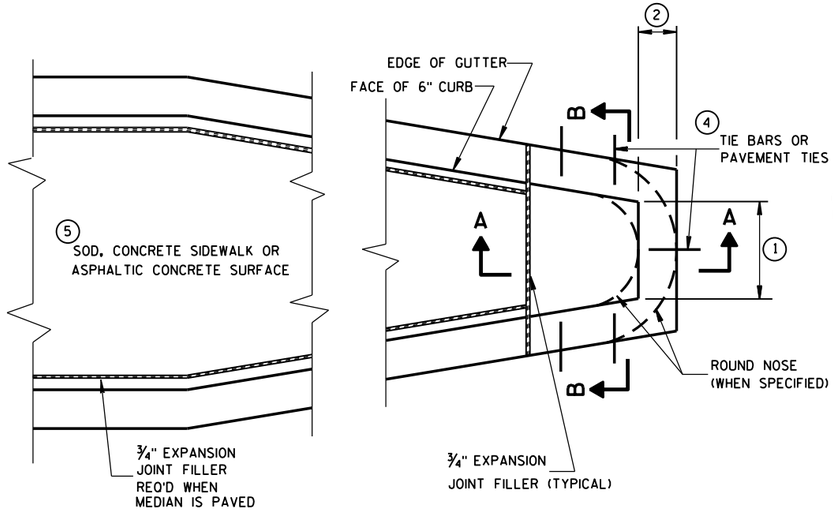


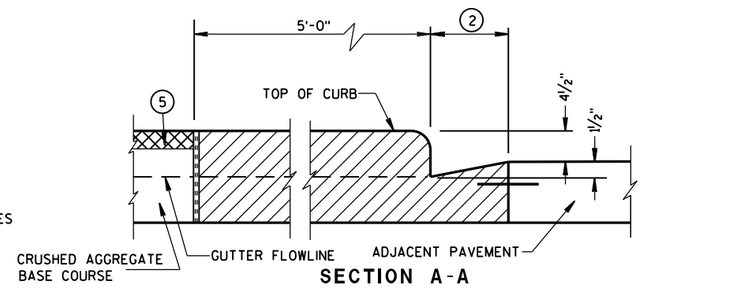
TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX

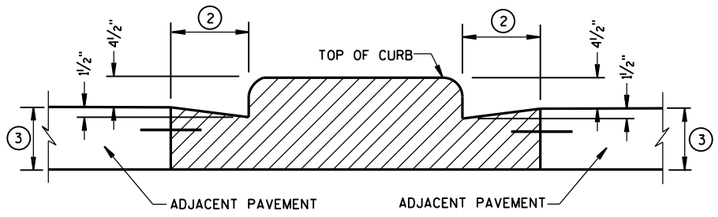


MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA







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.

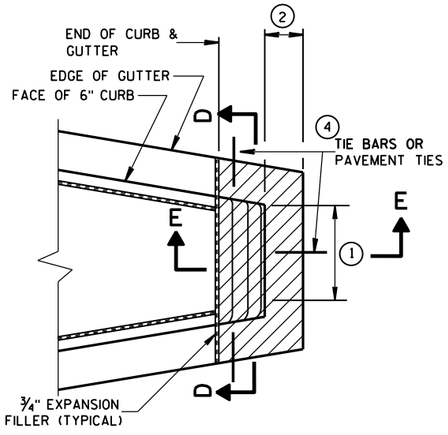
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

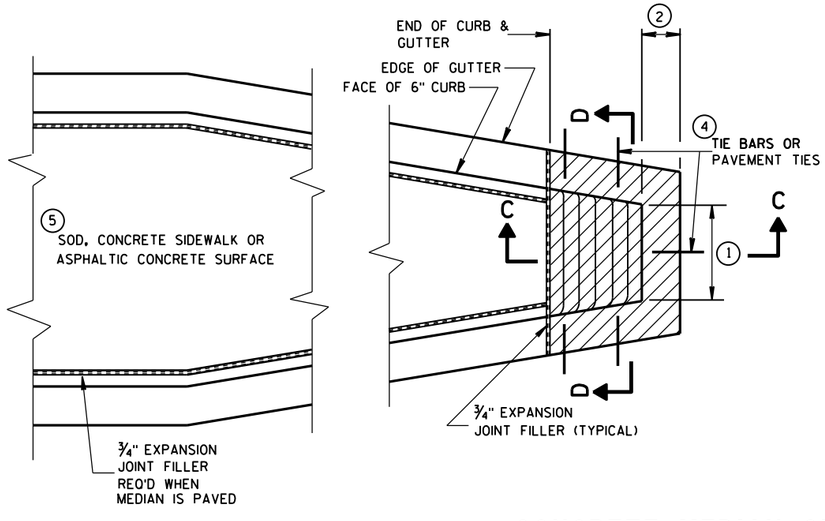
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

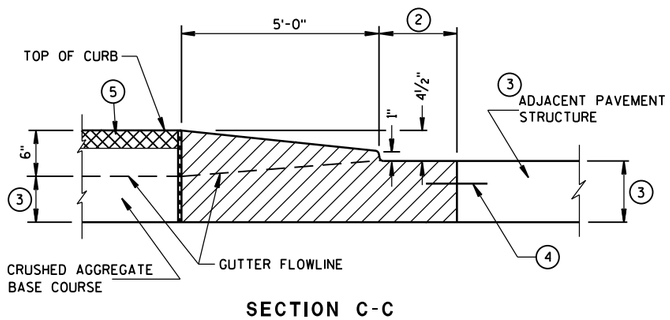
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

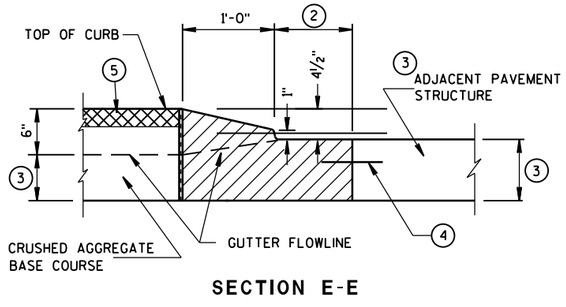
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



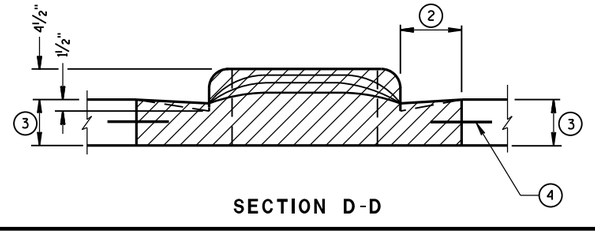






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



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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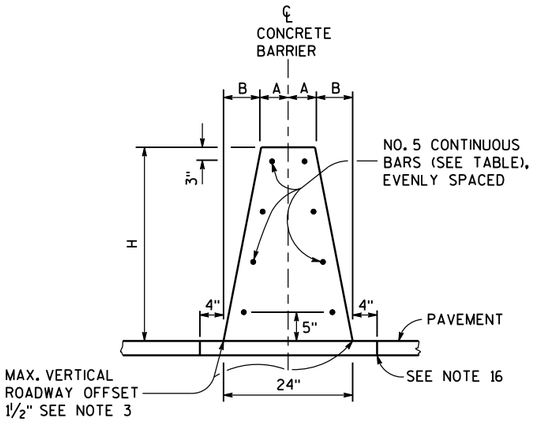
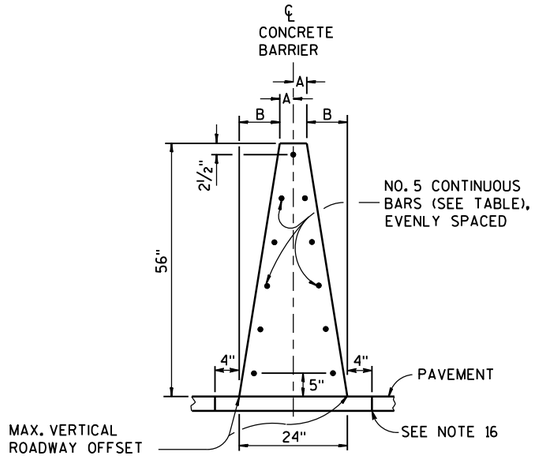
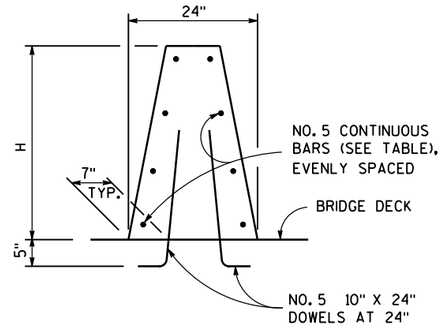
S.D.D. 11 B 2-2



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



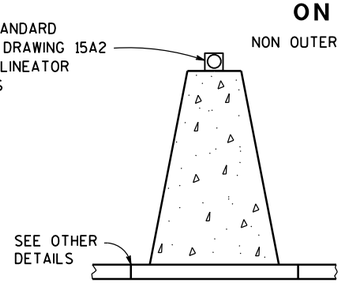
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



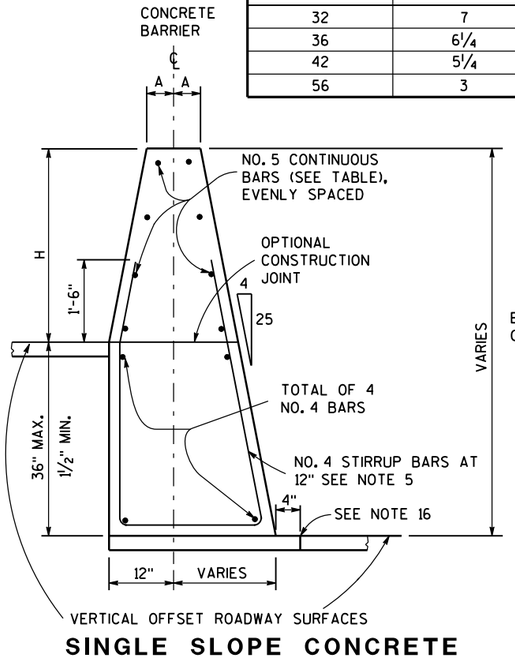
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

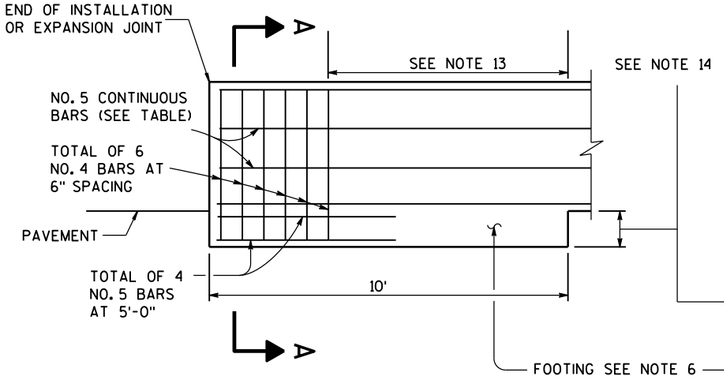
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



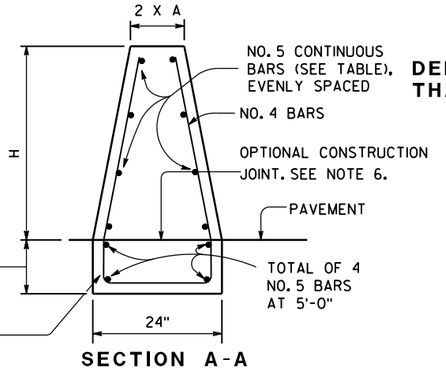
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT



SECTION A-A

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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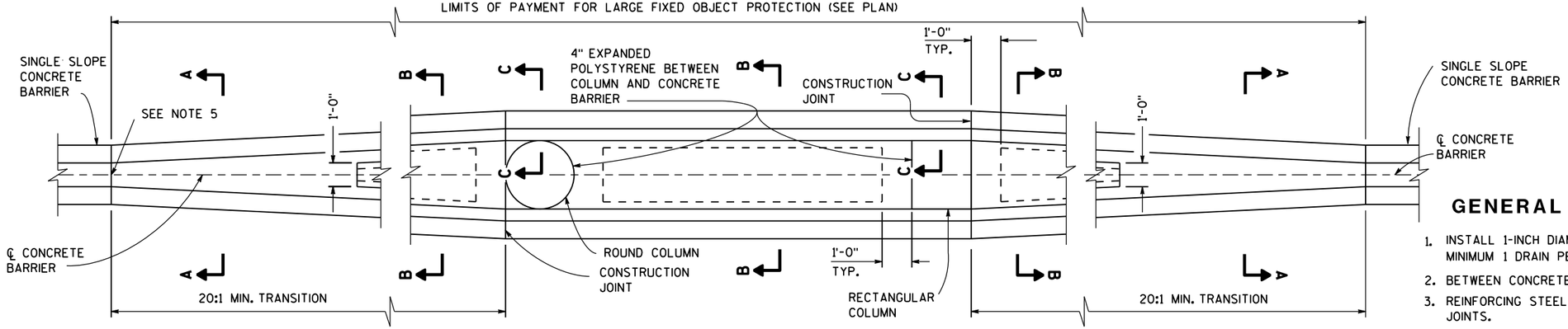
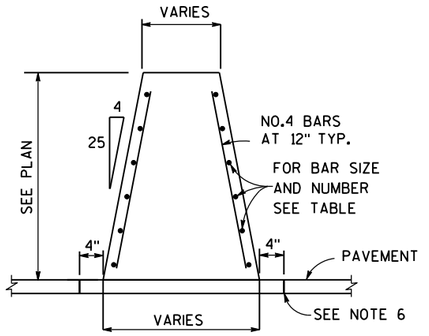
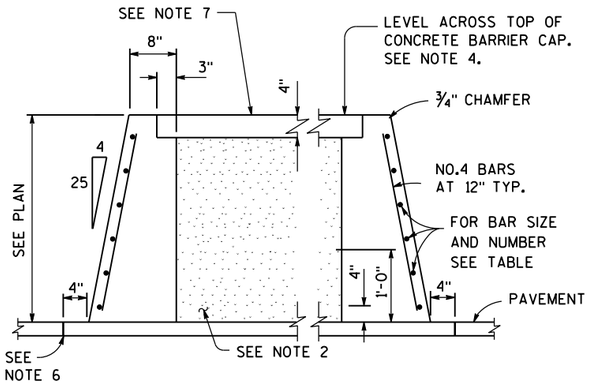
S.D.D. 14 B 32-3a



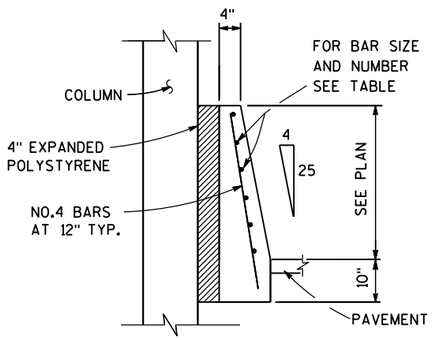
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



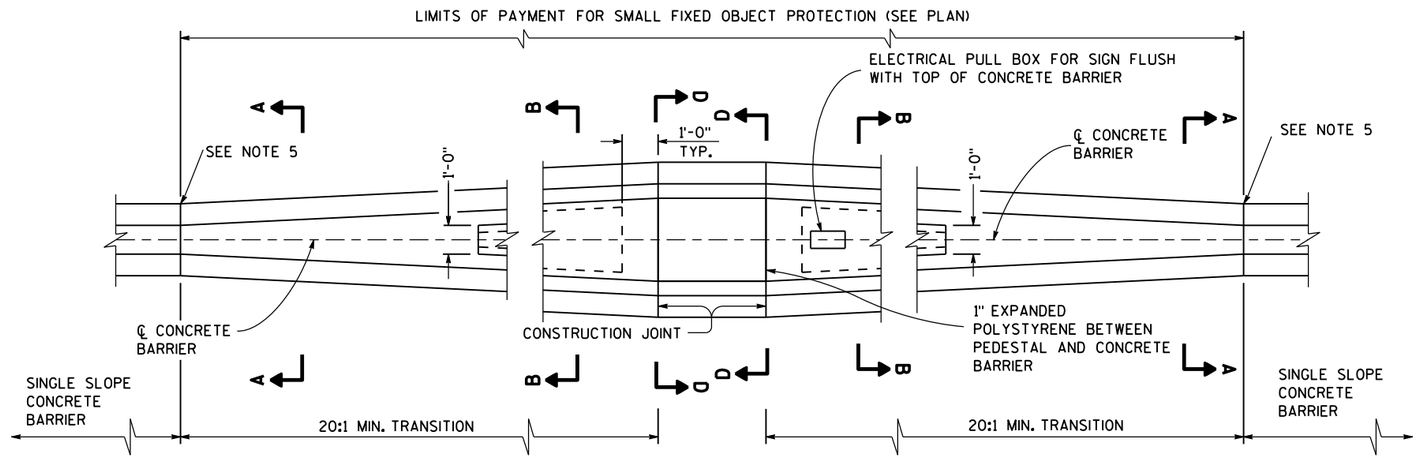
SECTION A-A



SECTION B-B



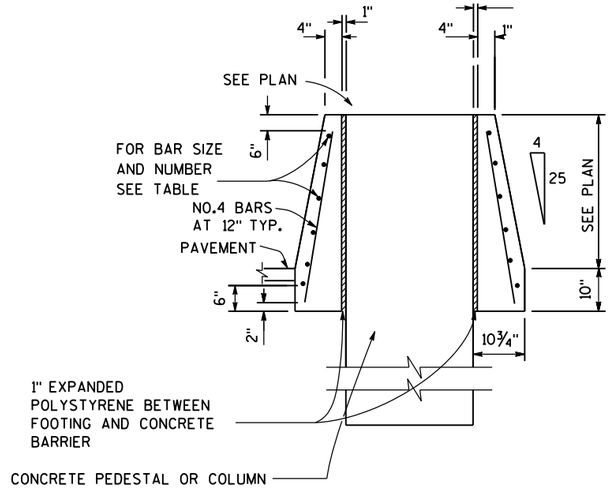
SECTION C-C



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

GENERAL NOTES

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



SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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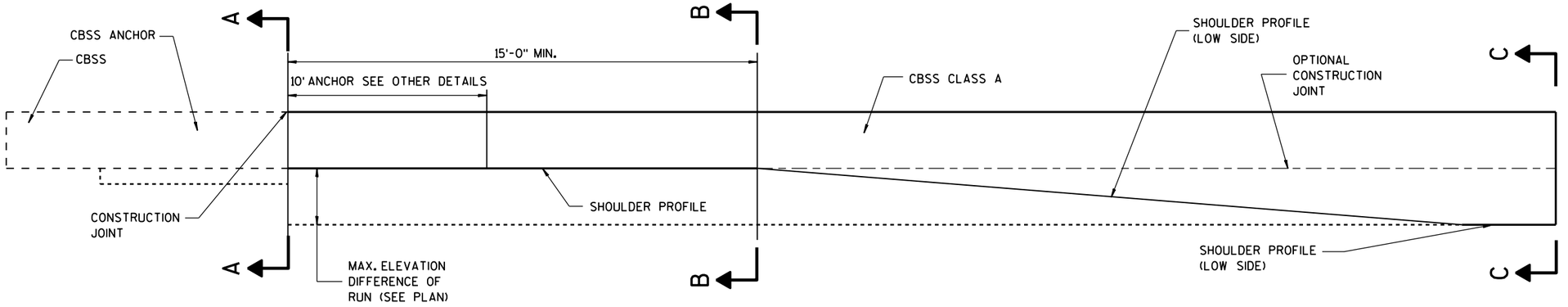
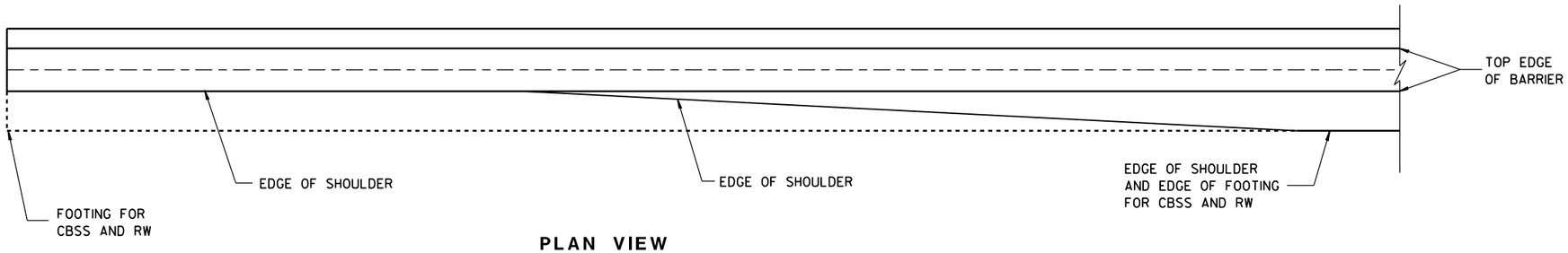
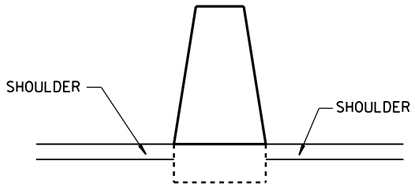
S.D.D. 14 B 32-3b



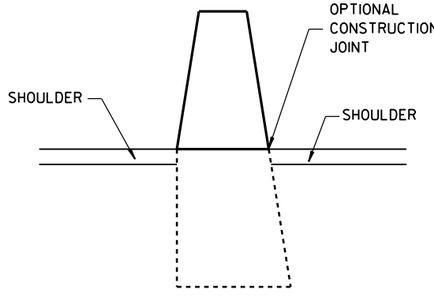
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



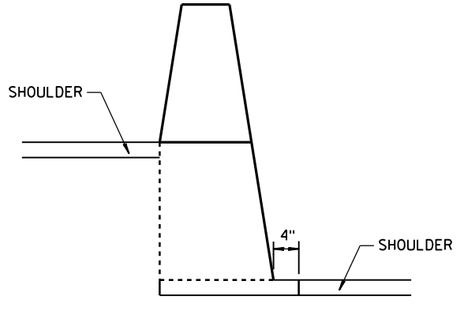
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



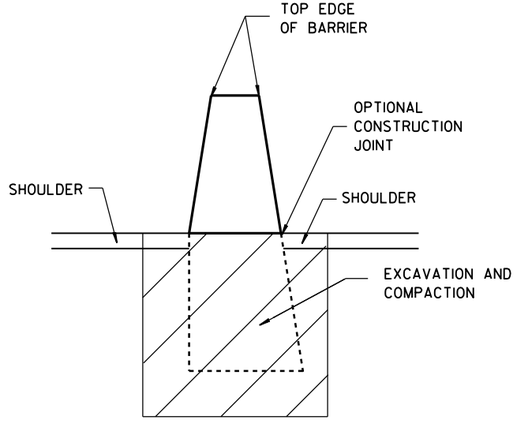
SECTION A-A



SECTION B-B



SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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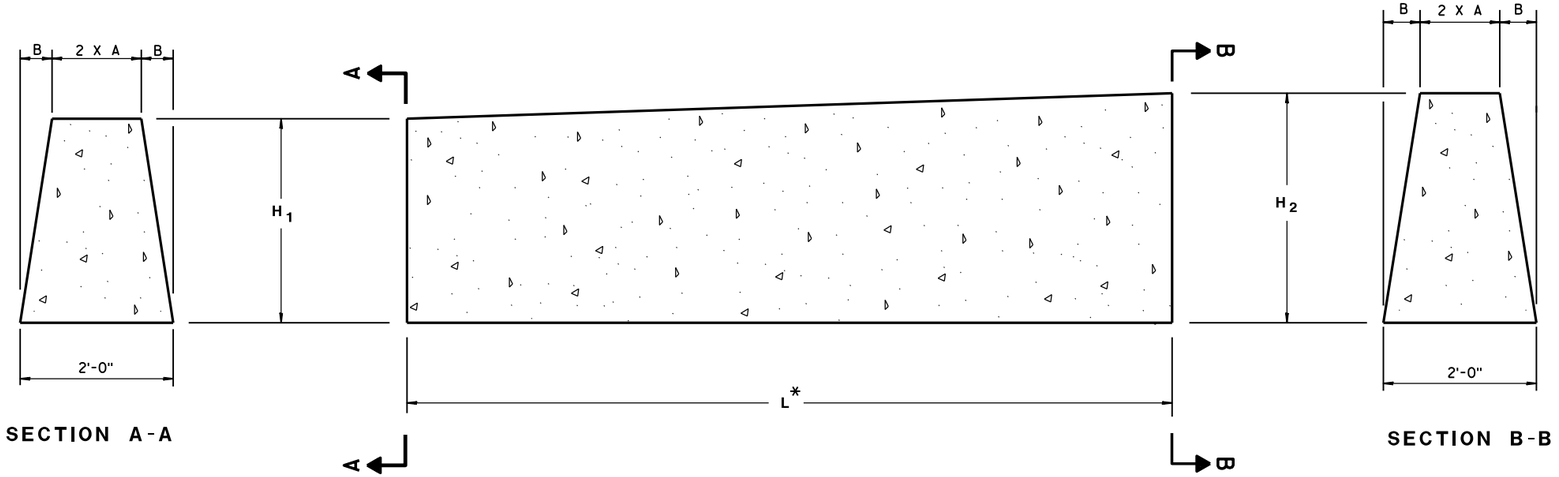
S.D.D. 14 B 32-3c



SECTION A-A

SECTION B-B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

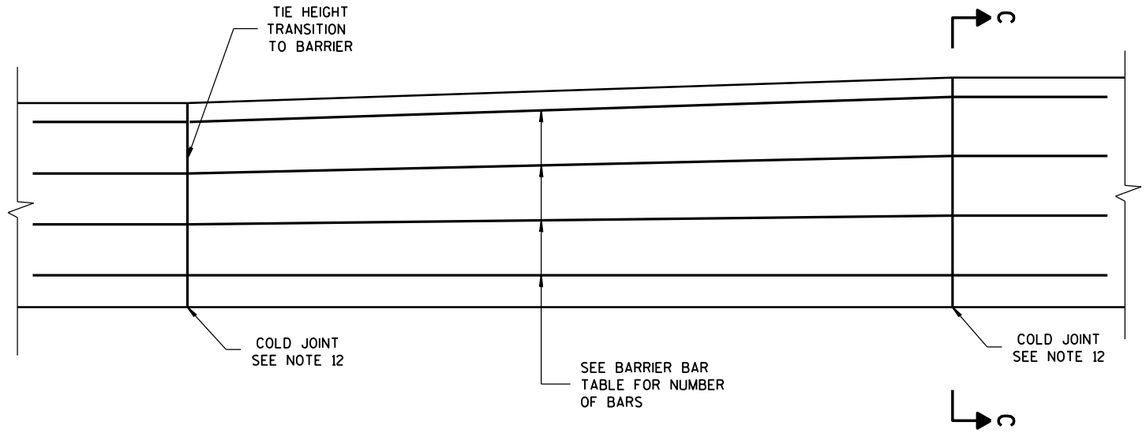
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

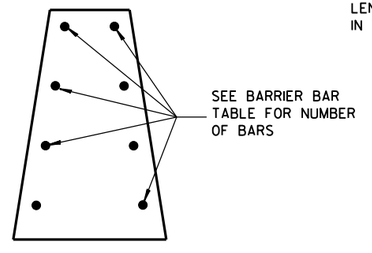
BARRIER BARS

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

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



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2014 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 32-3d

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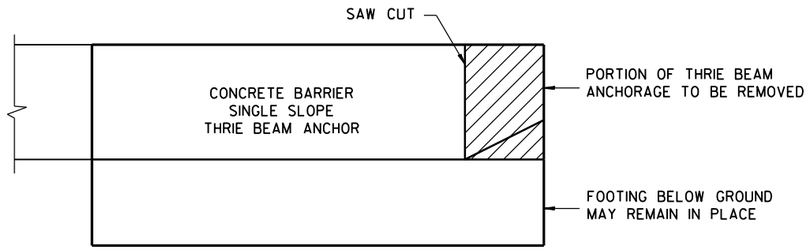
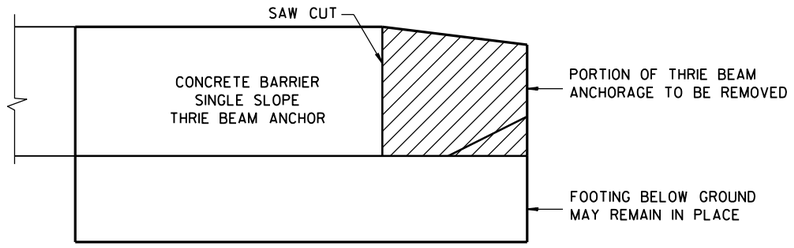
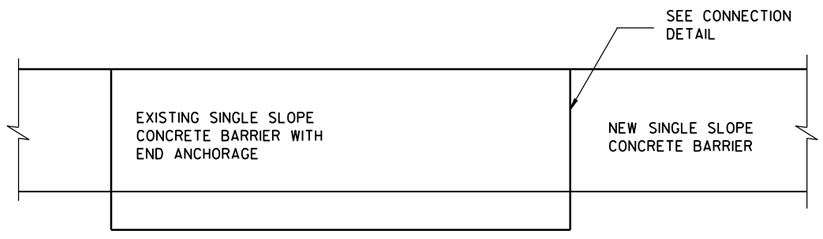
S.D.D. 14 B 32-3d



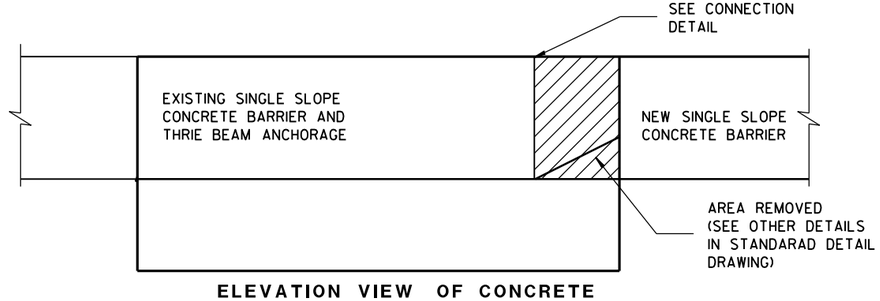
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



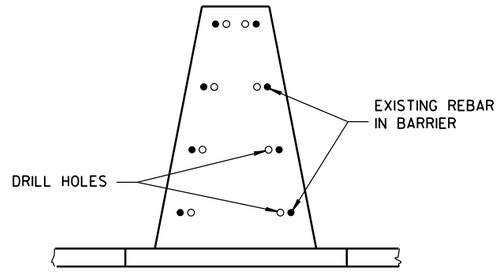
REMOVAL AREA OF CONCRETE THRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE



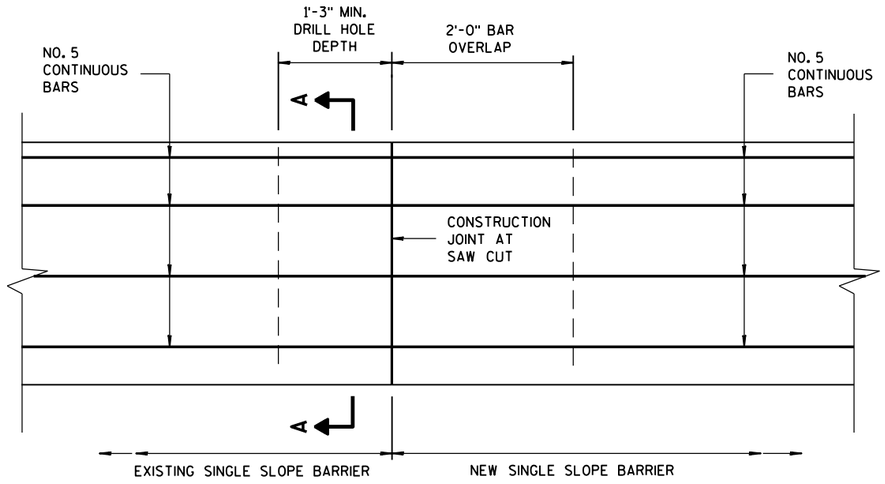
ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL



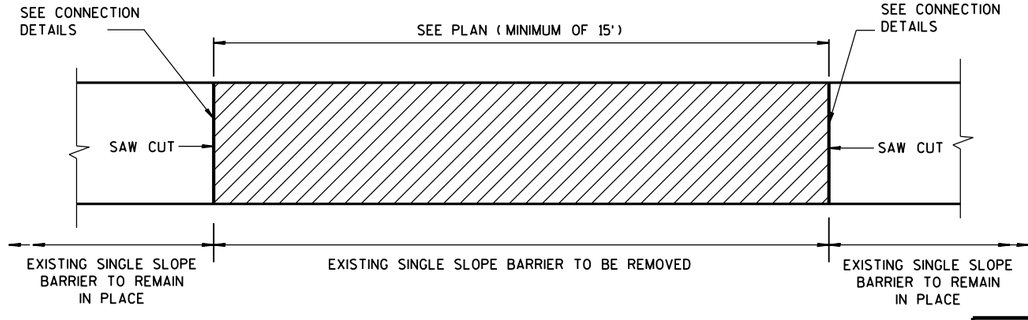
SECTION A-A

GENERAL NOTES

1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'-3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE.
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.



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



ELEVATION FILE
BARRIER REMOVAL AND REPLACEMENT

CONCRETE BARRIER
SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

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S.D.D. 14 B 32-3e

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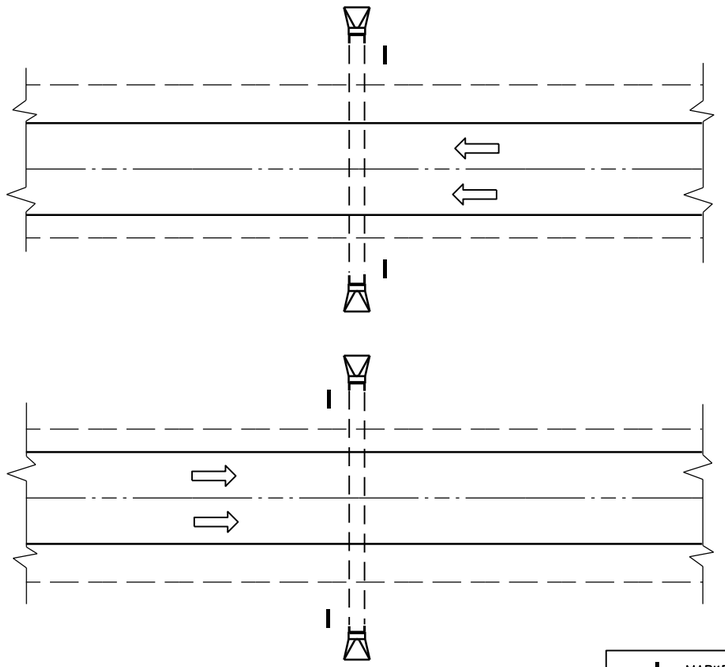
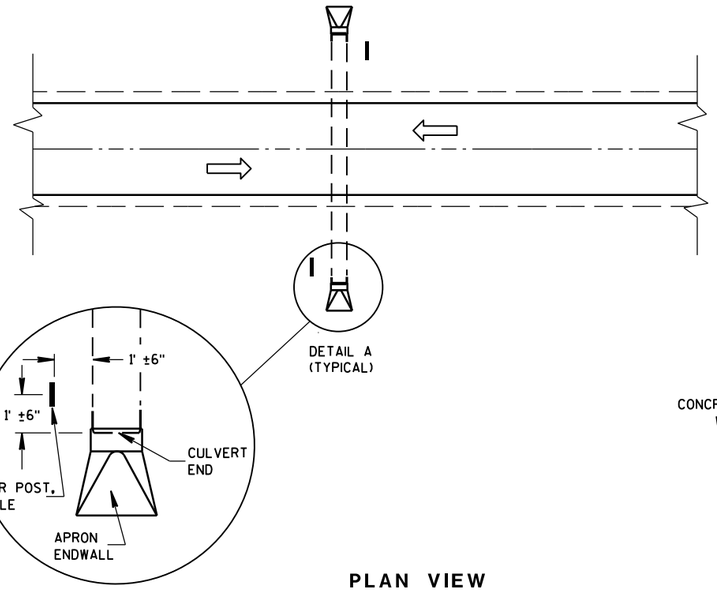
S.D.D. 14 B 32-3e



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

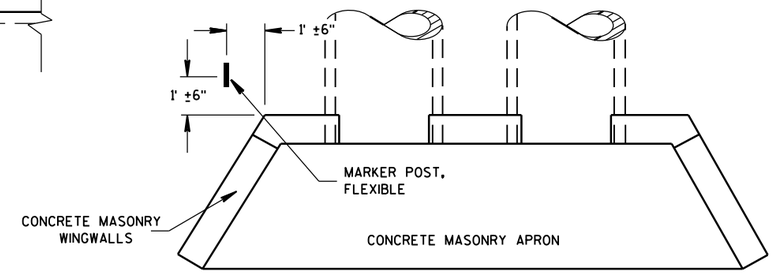
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

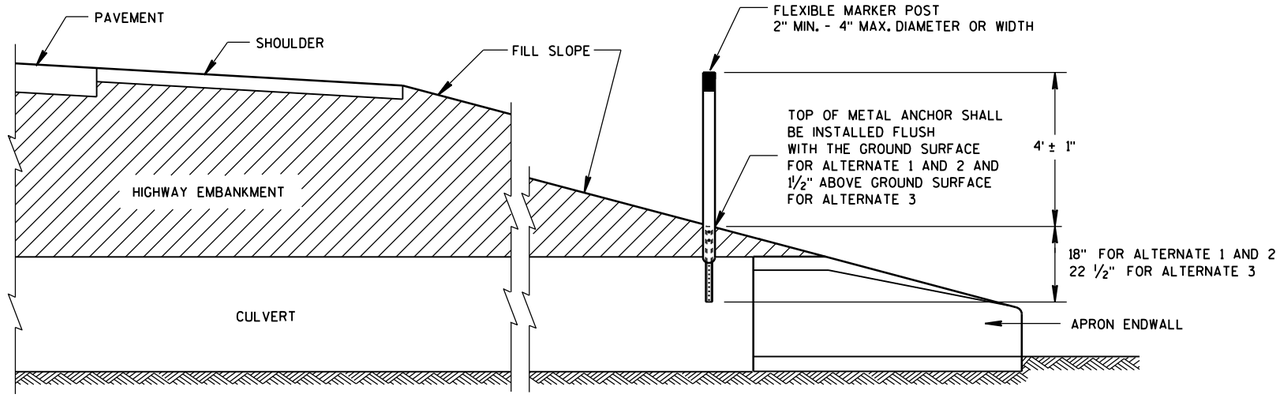
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 A 3-2a

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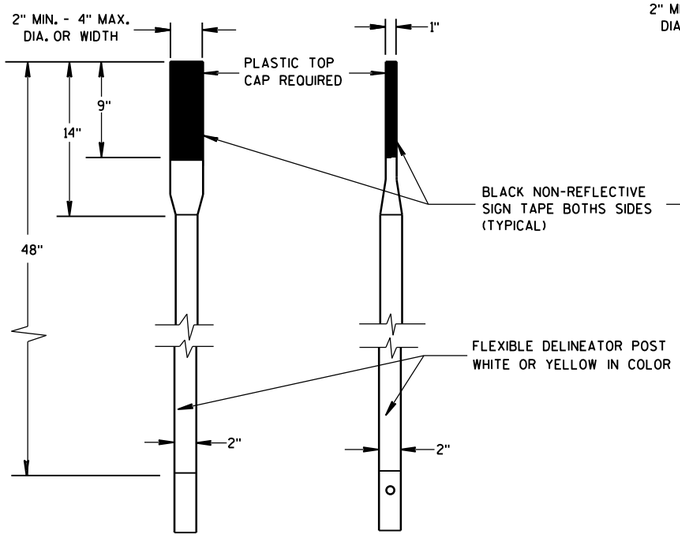
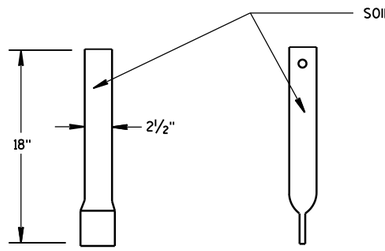
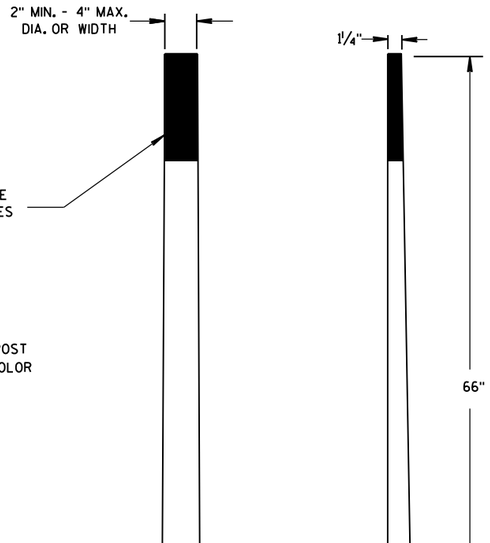
S.D.D. 15 A 3-2a





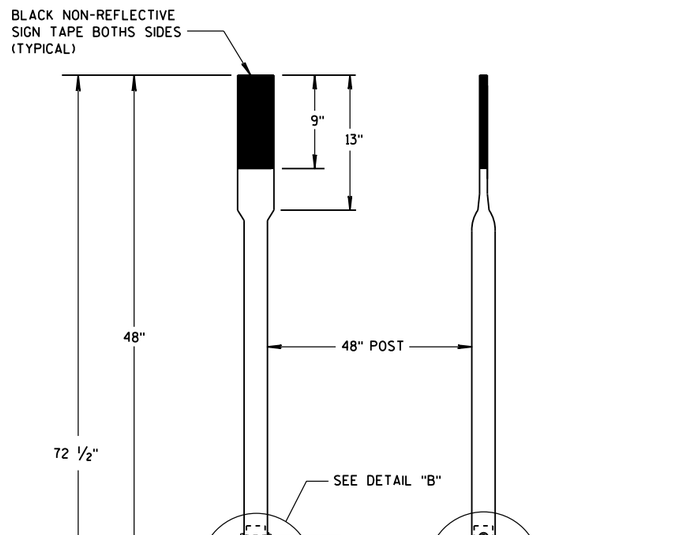
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

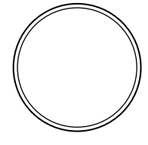
ALTERNATE 2



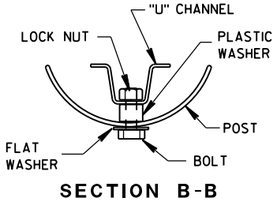
FRONT VIEW SIDE VIEW

ALTERNATE 3

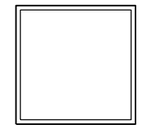
FLEXIBLE MARKER POSTS



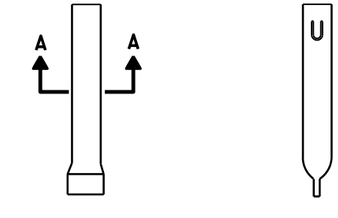
SECTION A-A



SECTION B-B

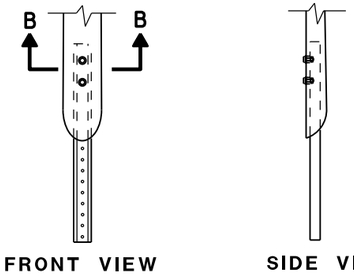


SECTION C-C



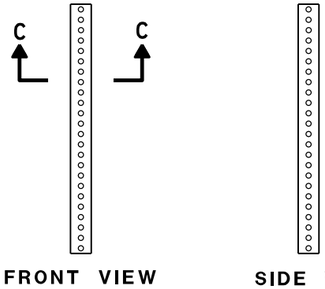
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

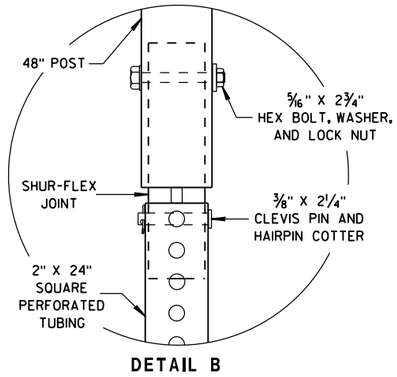
ALTERNATE 2



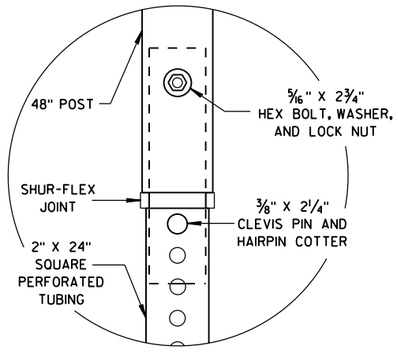
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

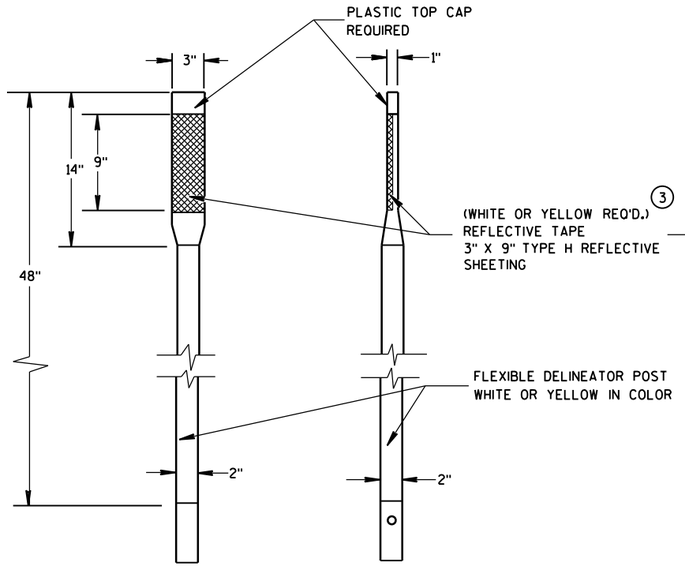
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

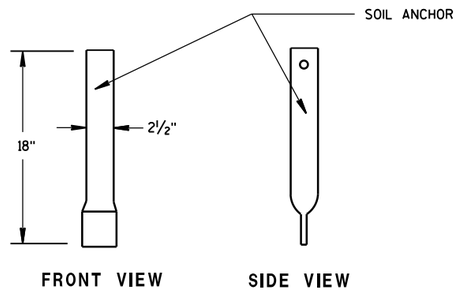
6

S.D.D. 15 A 3-2b

6

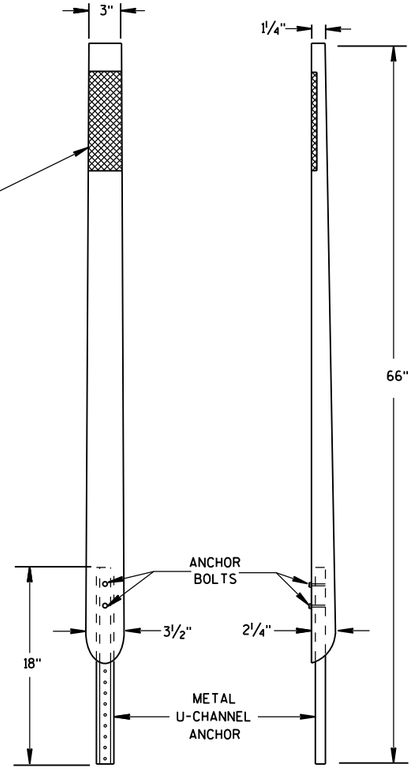
S.D.D. 15 A 3-2b





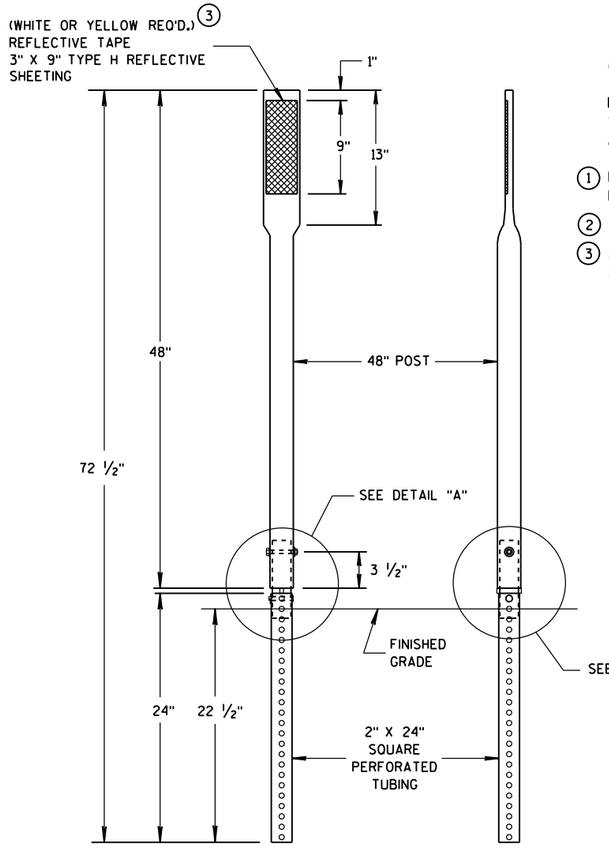
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE DELINEATOR POSTS

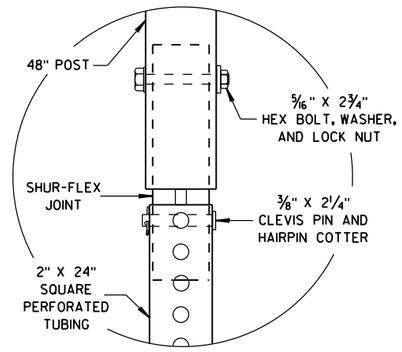
GENERAL NOTES

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

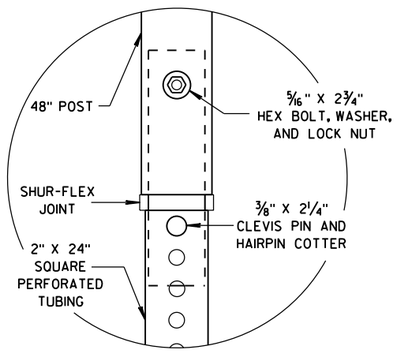
(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) EITHER ALTERNATE NO. 1, NO. 2 OR NO. 3 MAY BE FURNISHED.

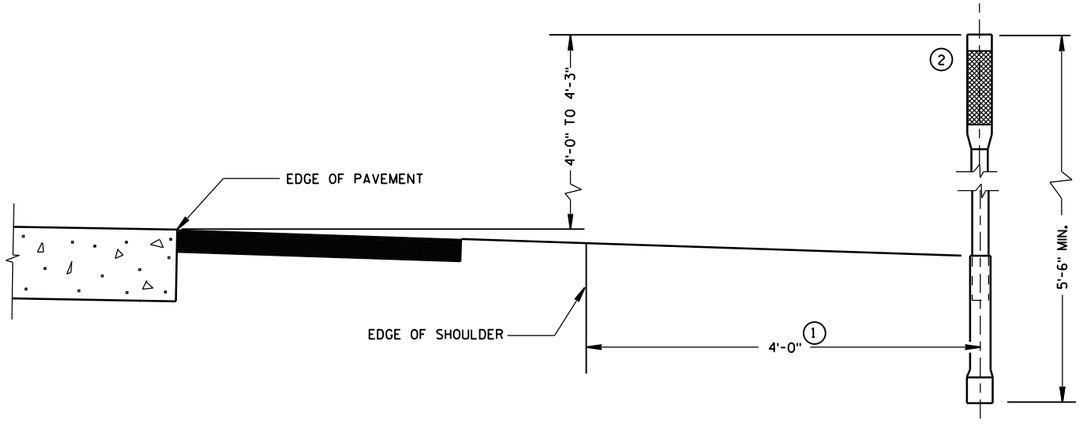
(3) AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

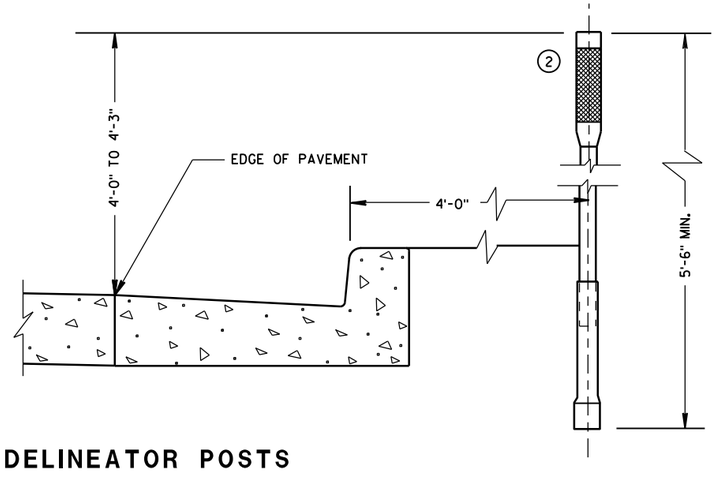


DETAIL A



DETAIL B





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

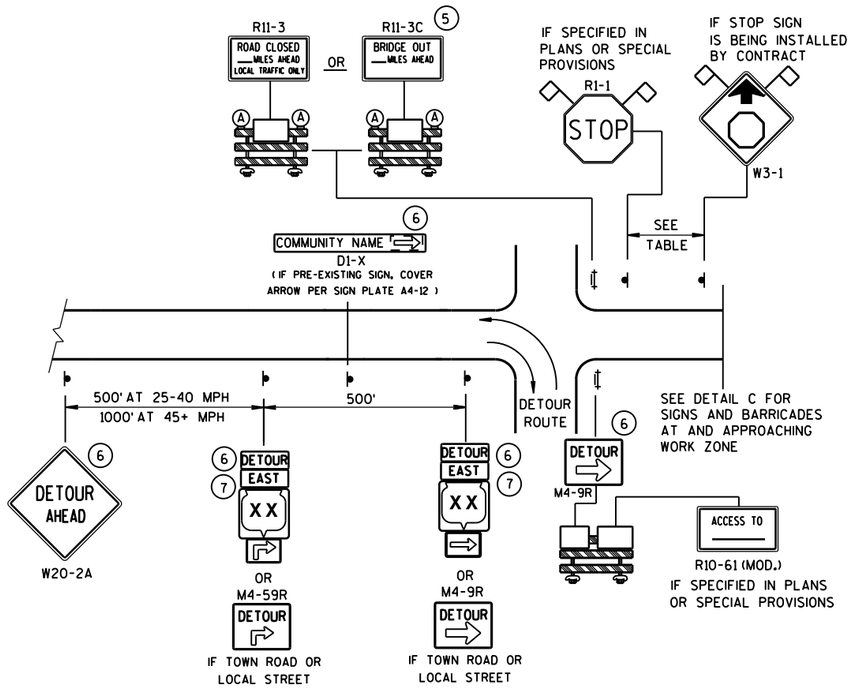
APPROVED
9-26-2012 DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 4-2

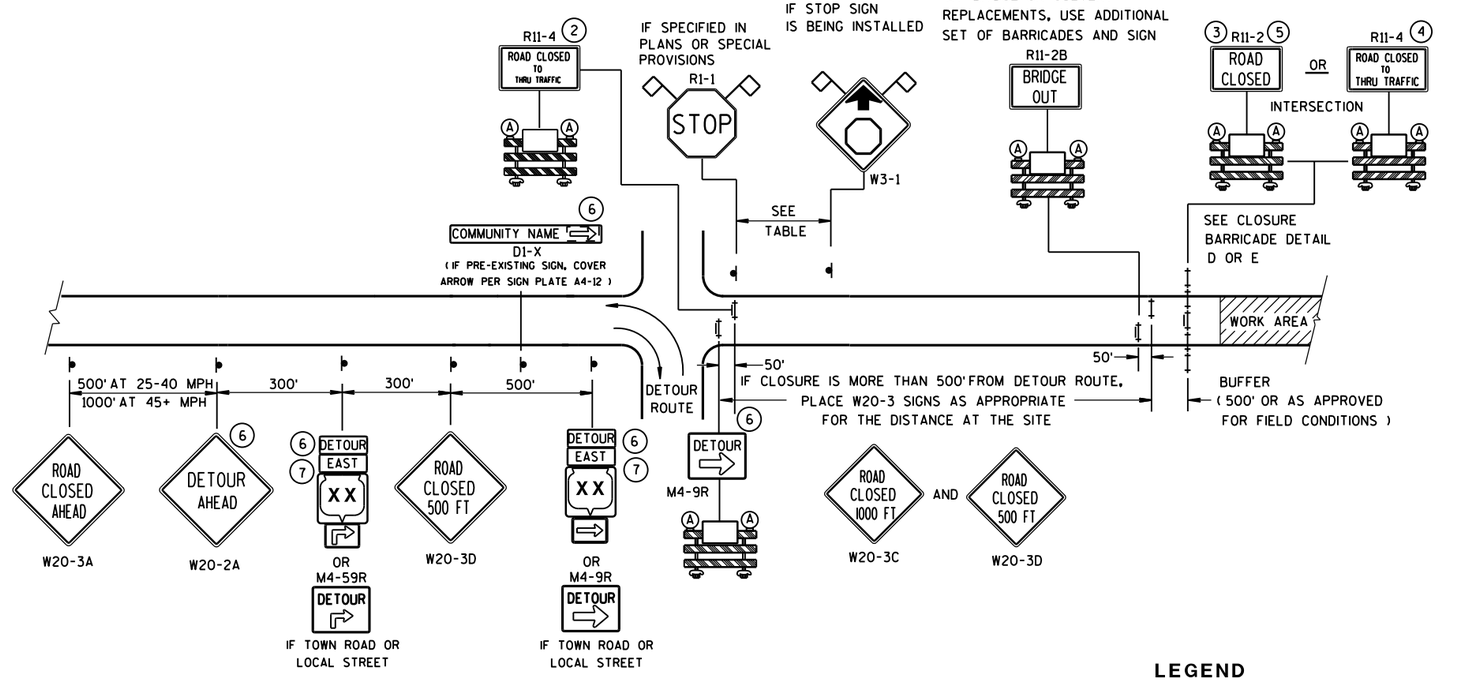
6

S.D.D. 15 A 4-2



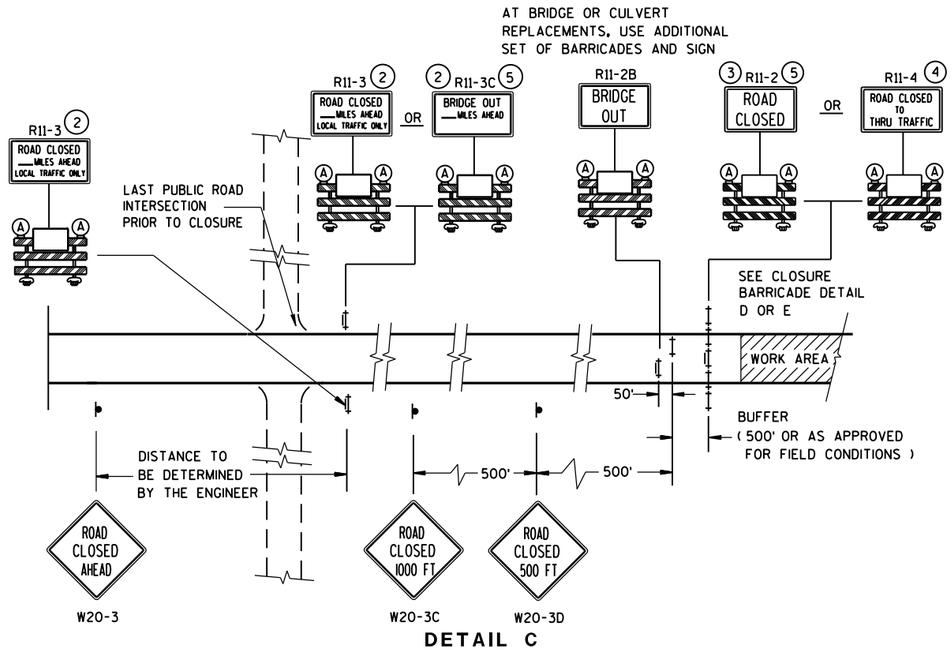
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

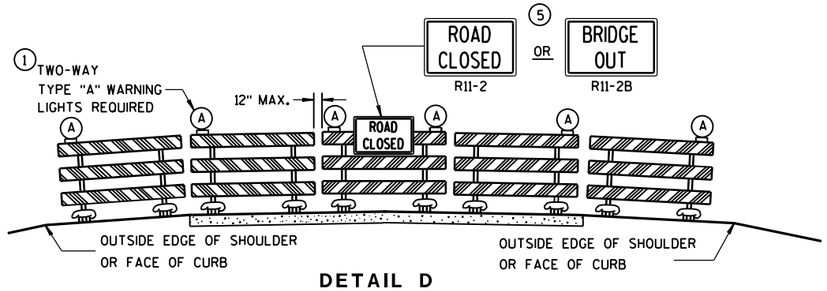
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

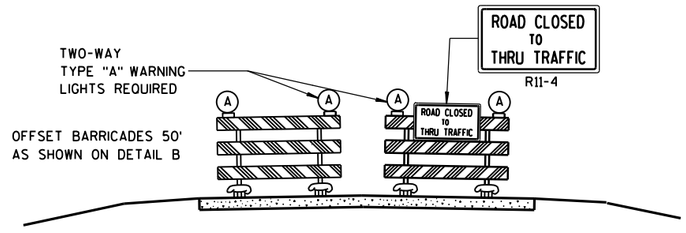
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

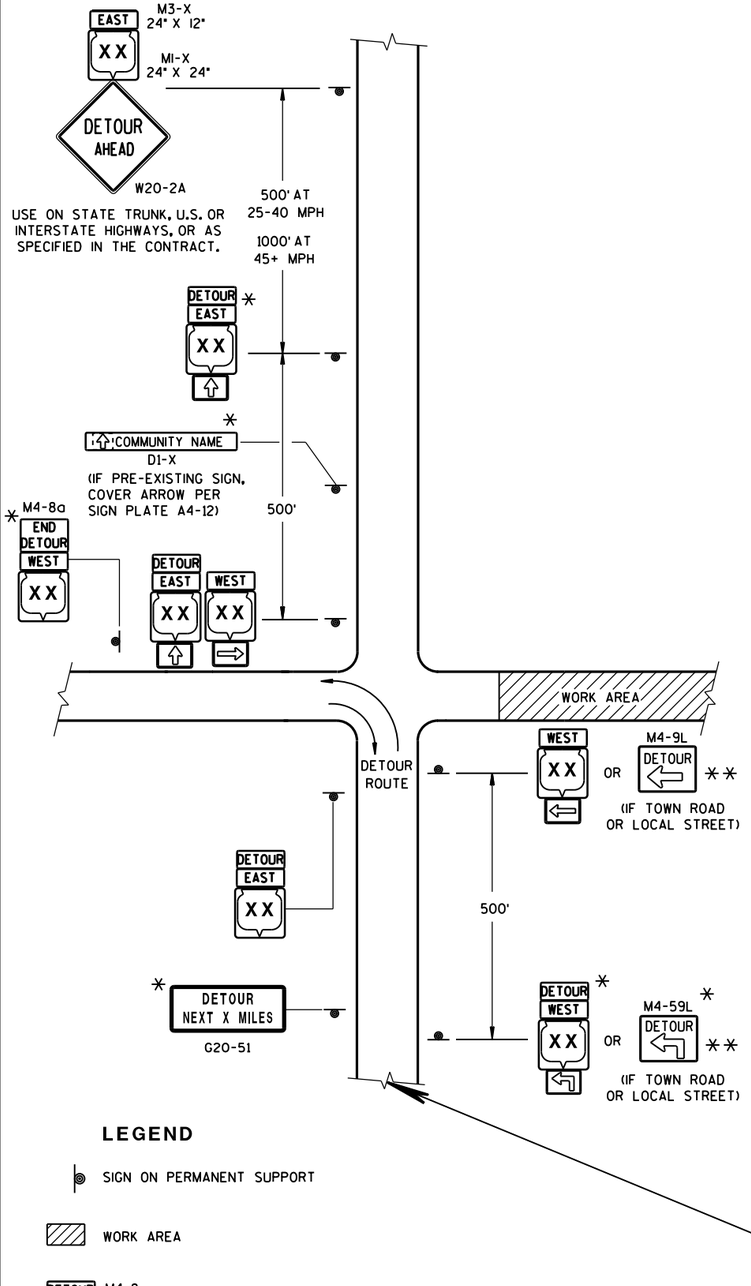
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FHWA

6

S.D.D. 15 C 2-6b



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

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.

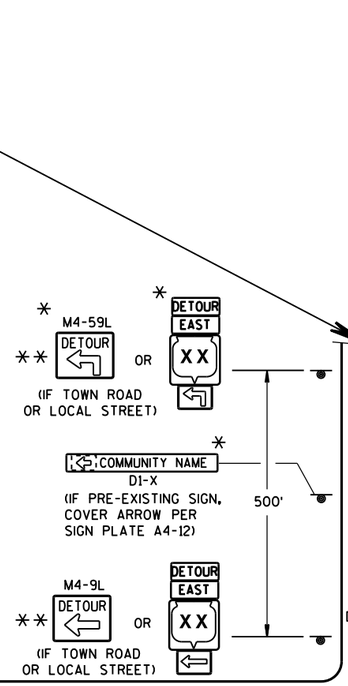
SIGN SIZES SHALL BE AS FOLLOWS:

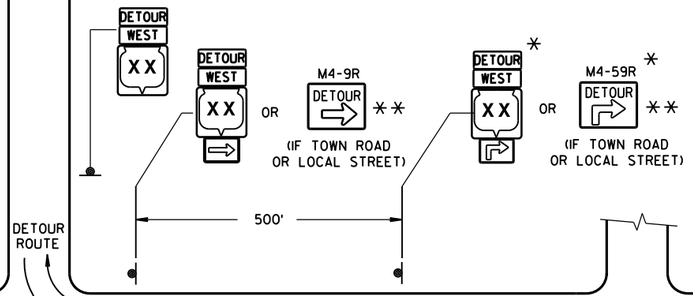
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

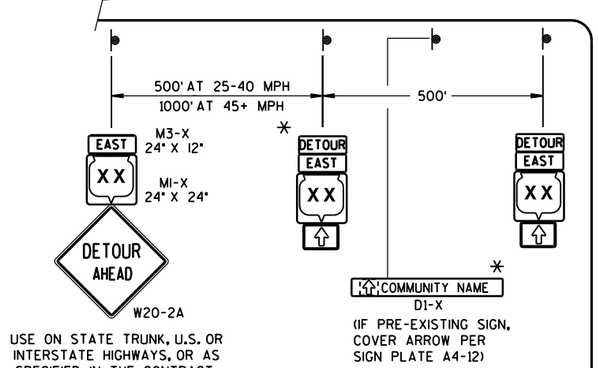
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

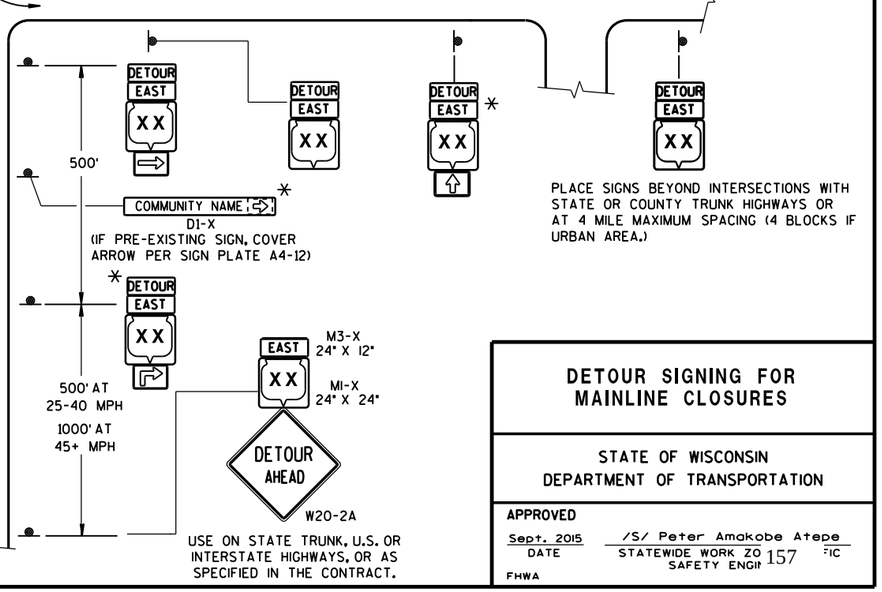
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT









LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

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

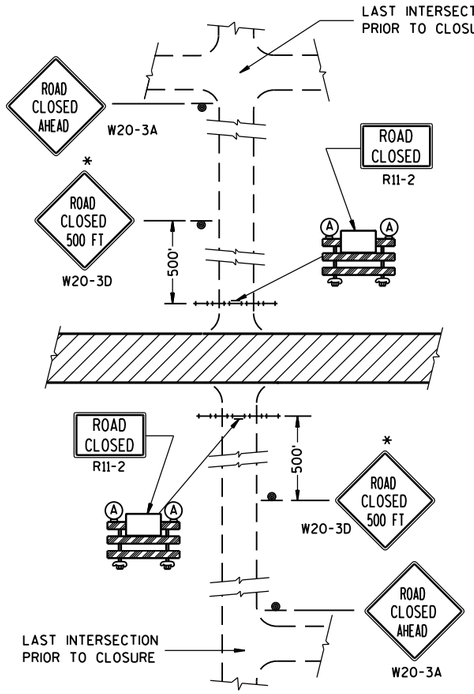
FHWA

6

S.D.D. 15 C 2-6c

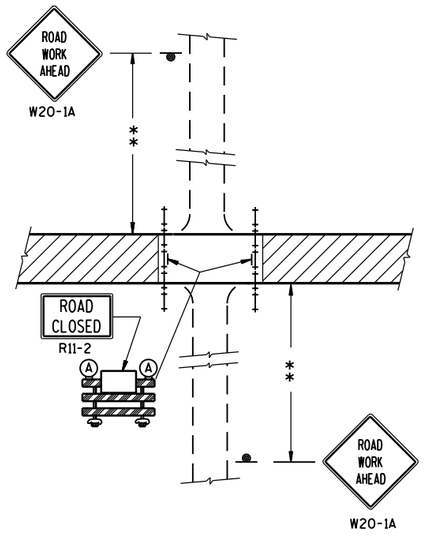
6

S.D.D. 15 C 2-6c



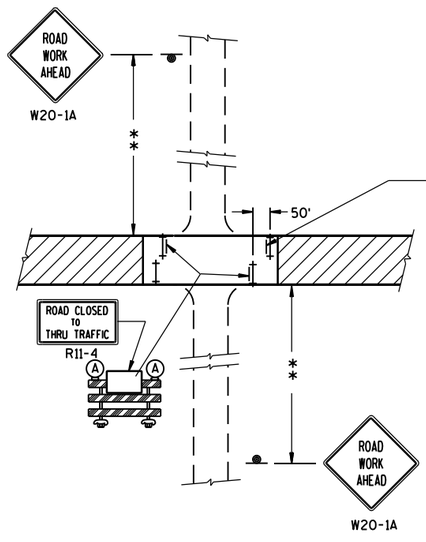
DETAIL 1

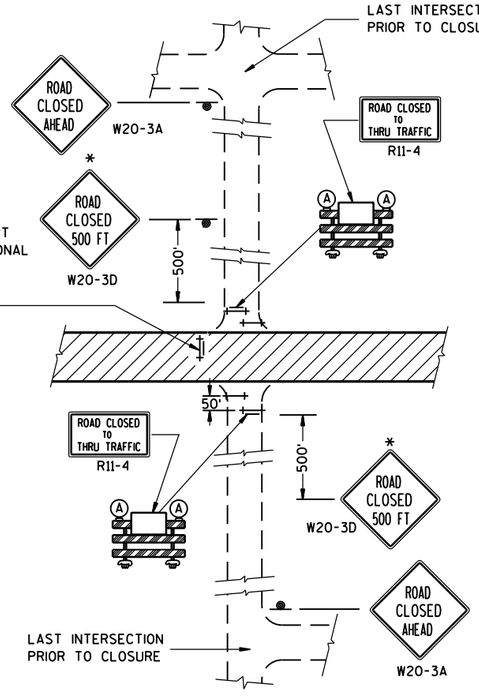
(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT 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 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 RE-ESTABLISHED.

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 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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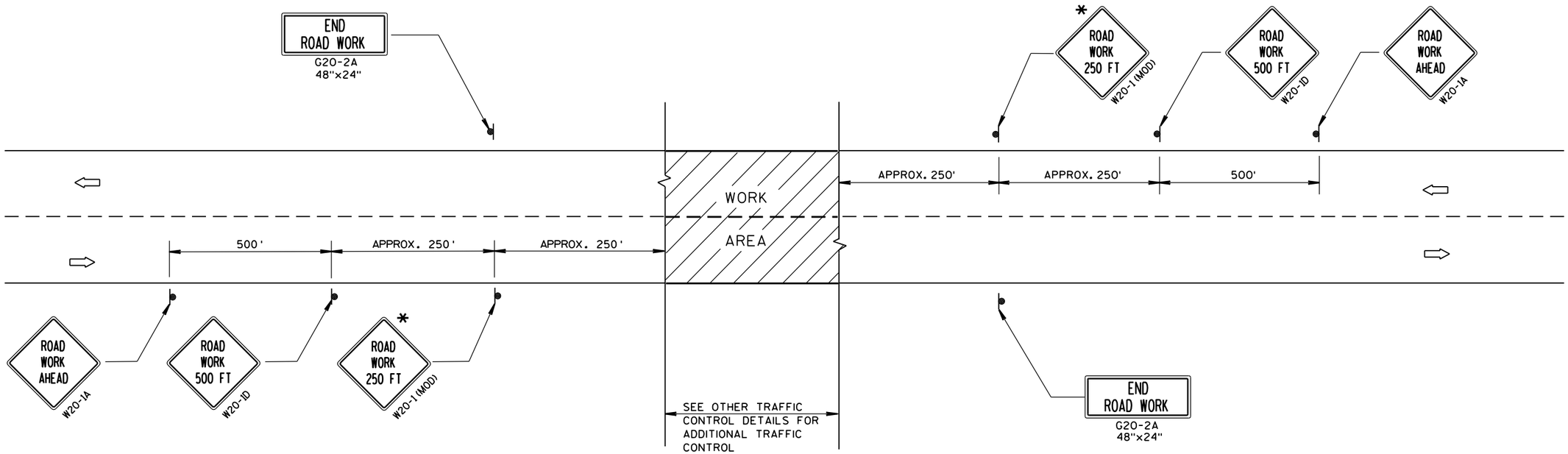
S.D.D. 15 C 3-3



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

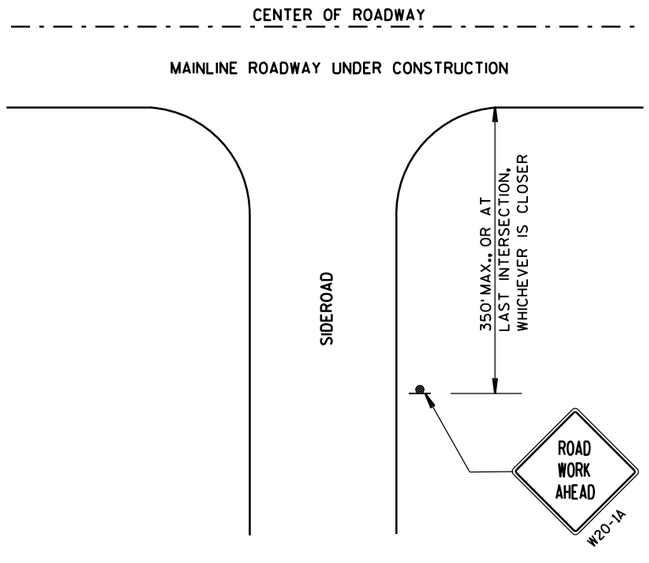
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN — IC
FHWA

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S.D.D. 15 C 5-3

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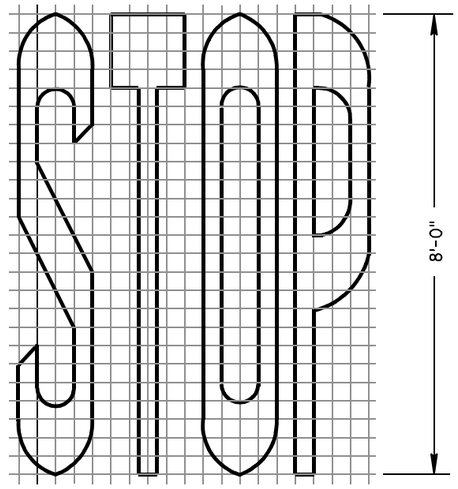
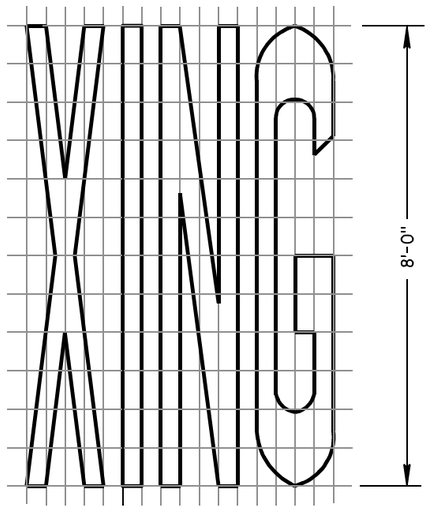
S.D.D. 15 C 5-3

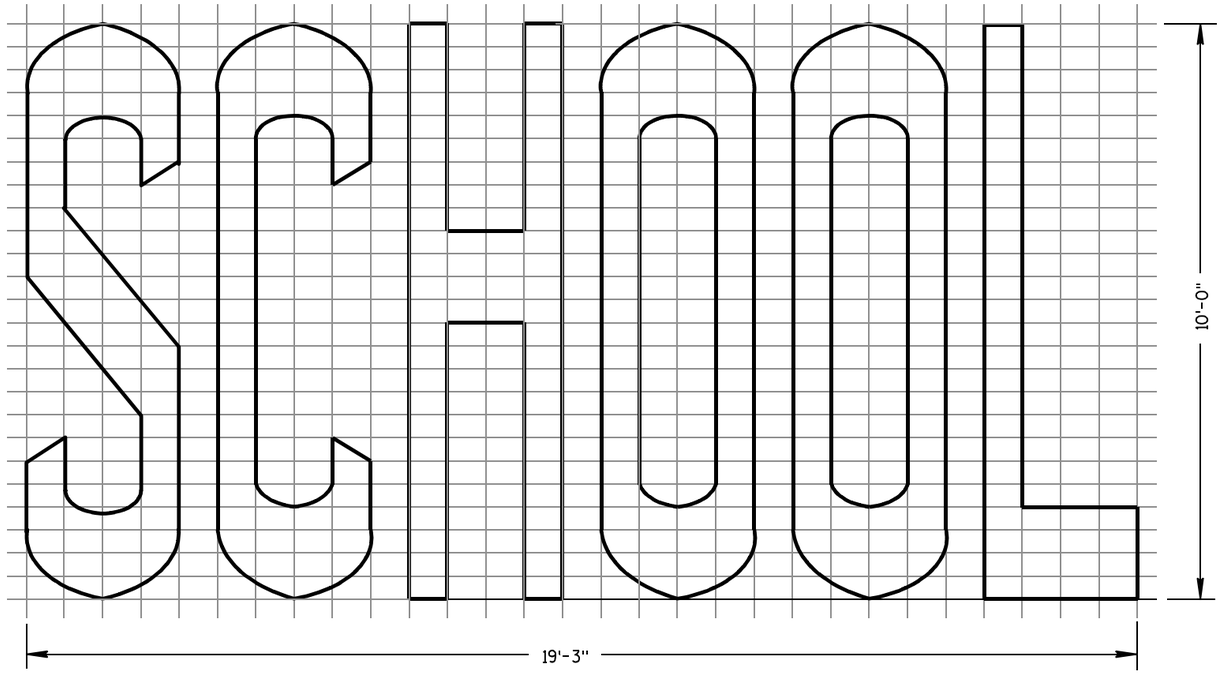
GENERAL NOTES

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.

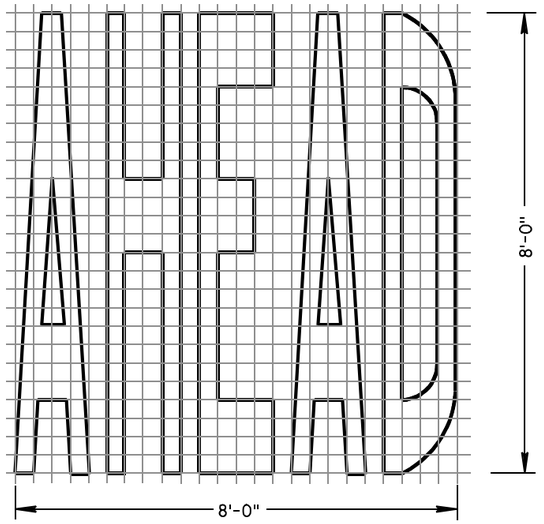
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

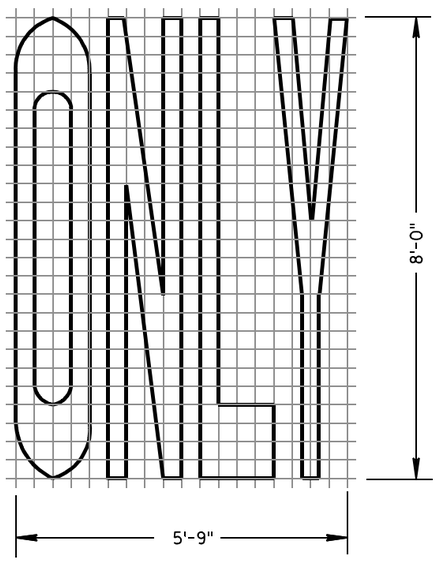


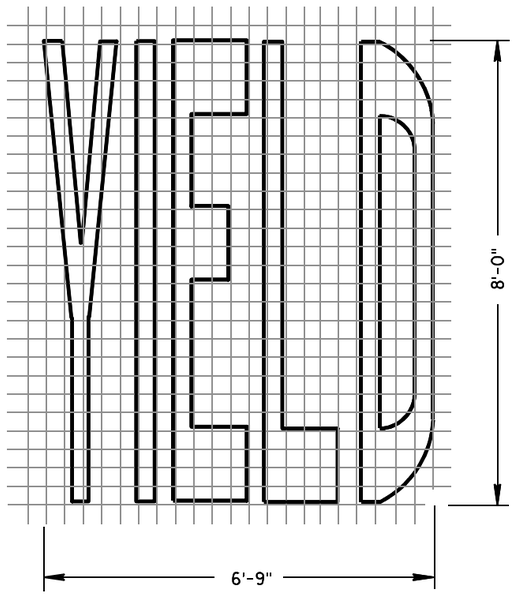


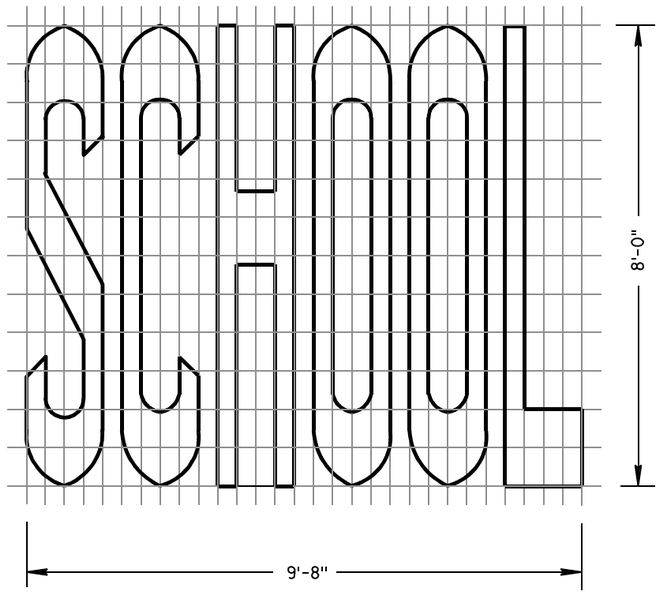


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12b

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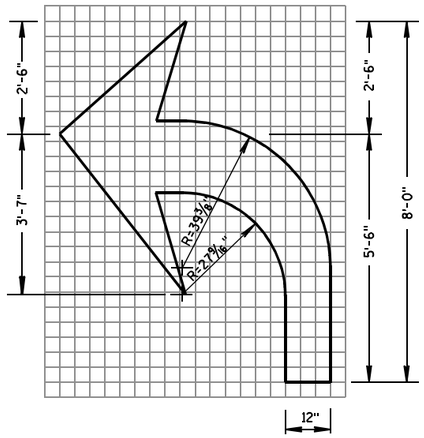
S.D.D. 15 C 7-12b

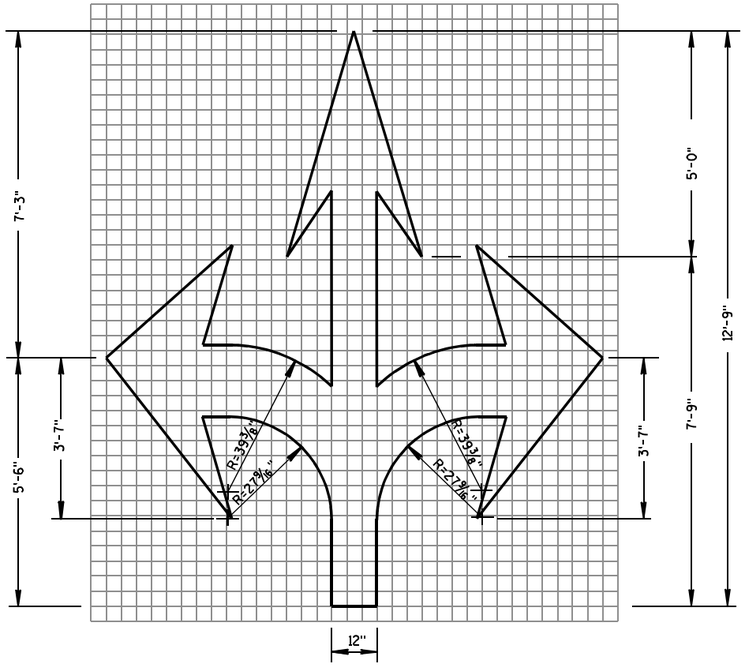
GENERAL NOTES

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.

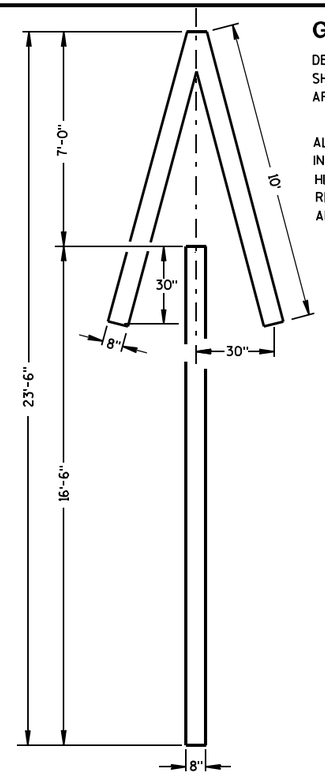
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 2



TYPE 6



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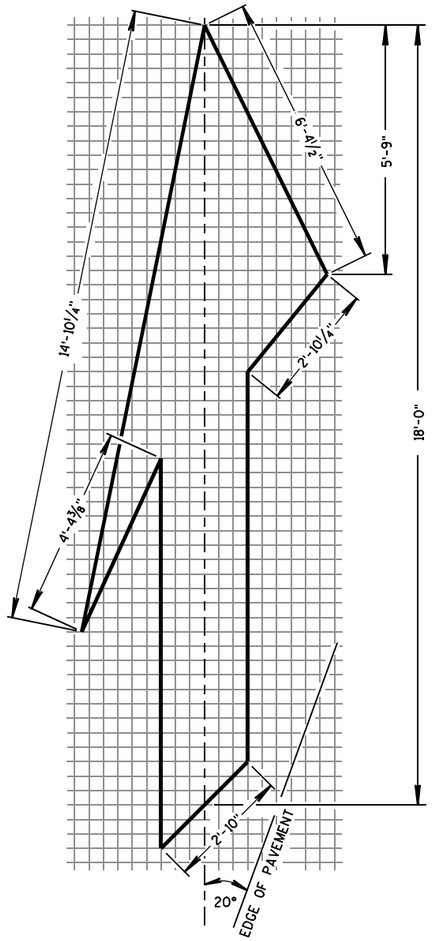
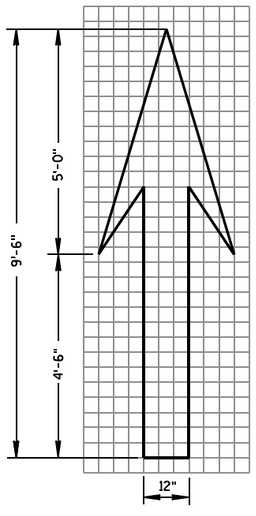
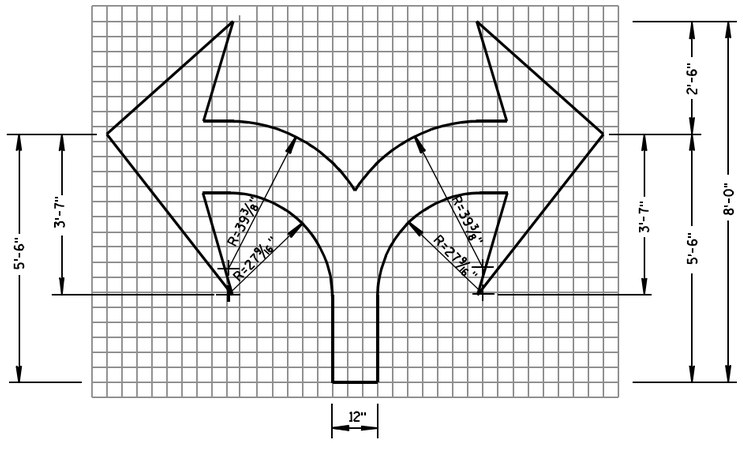


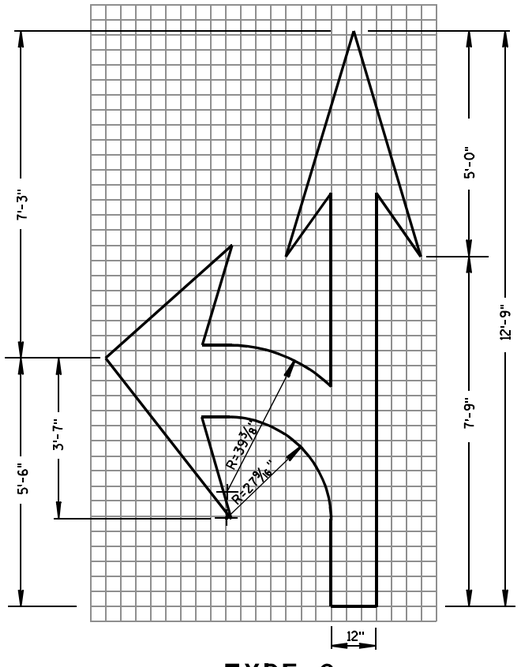
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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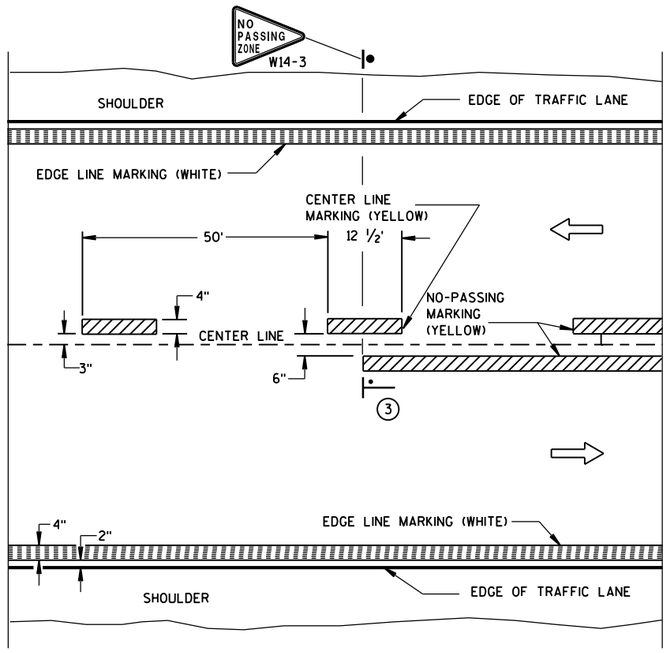
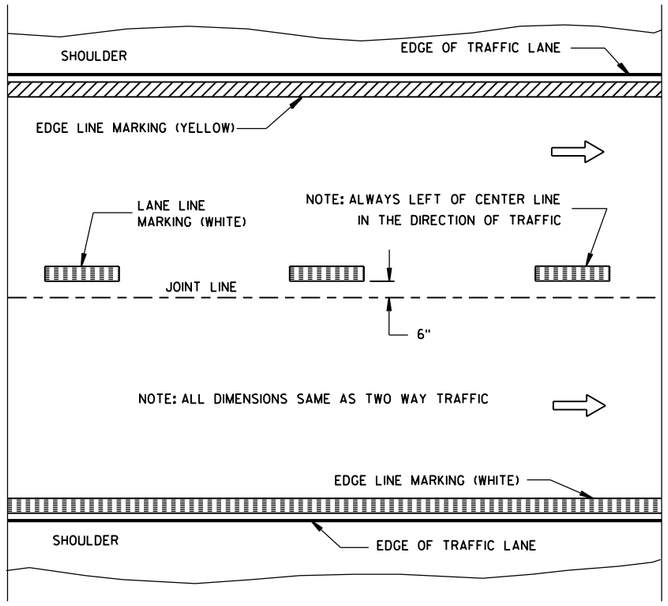
S.D.D. 15 C 7-12c

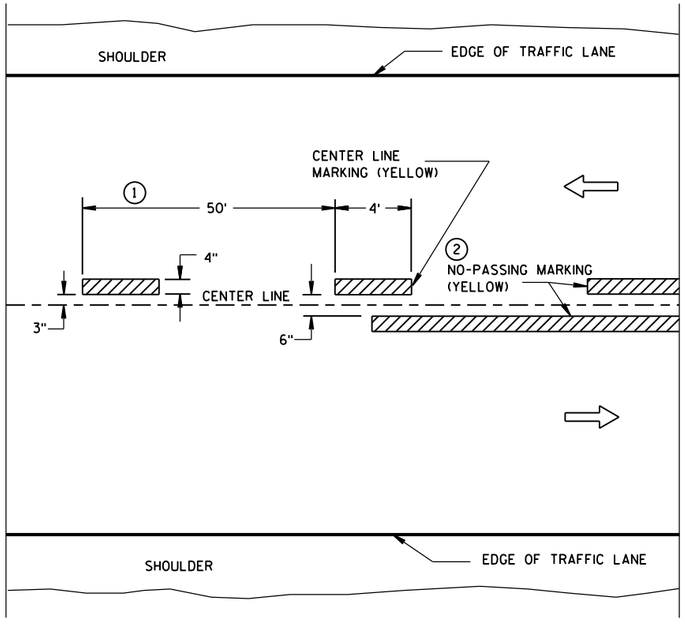


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



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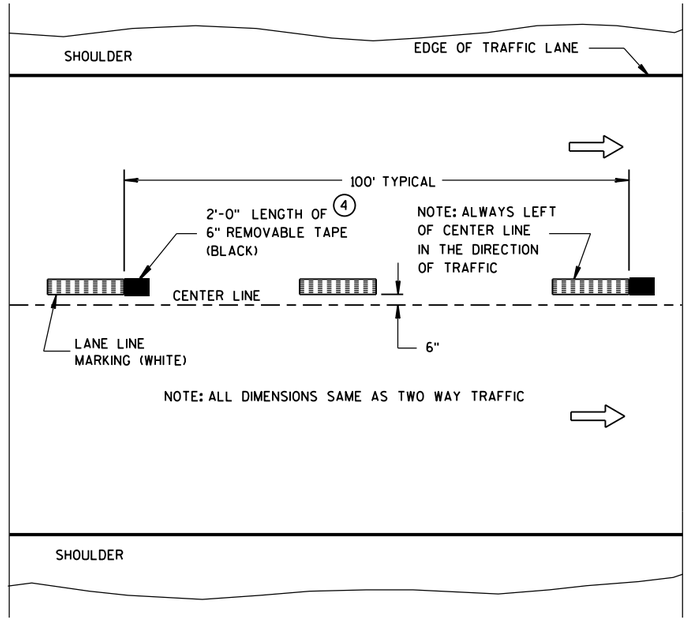


ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

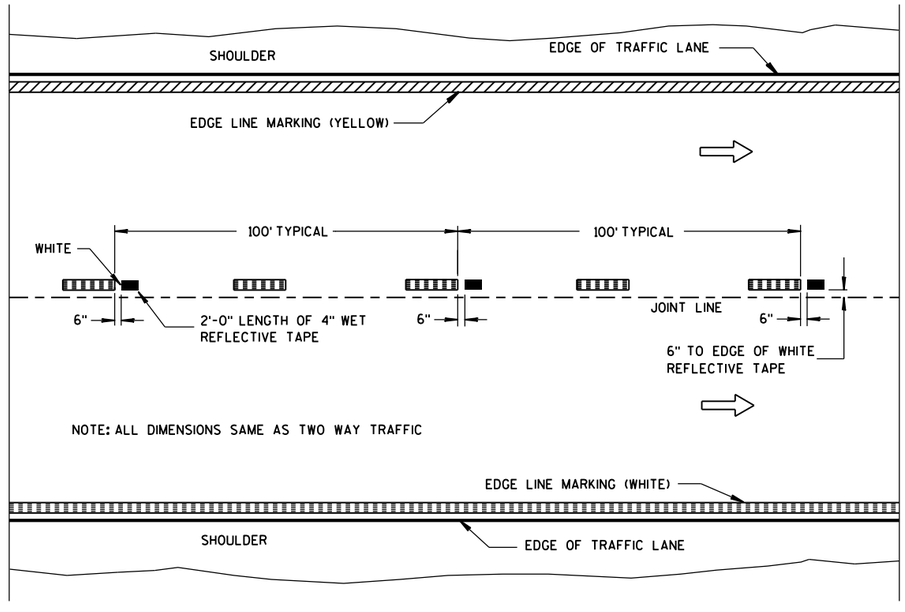
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

FHWA

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S.D.D. 15 C 8-16a

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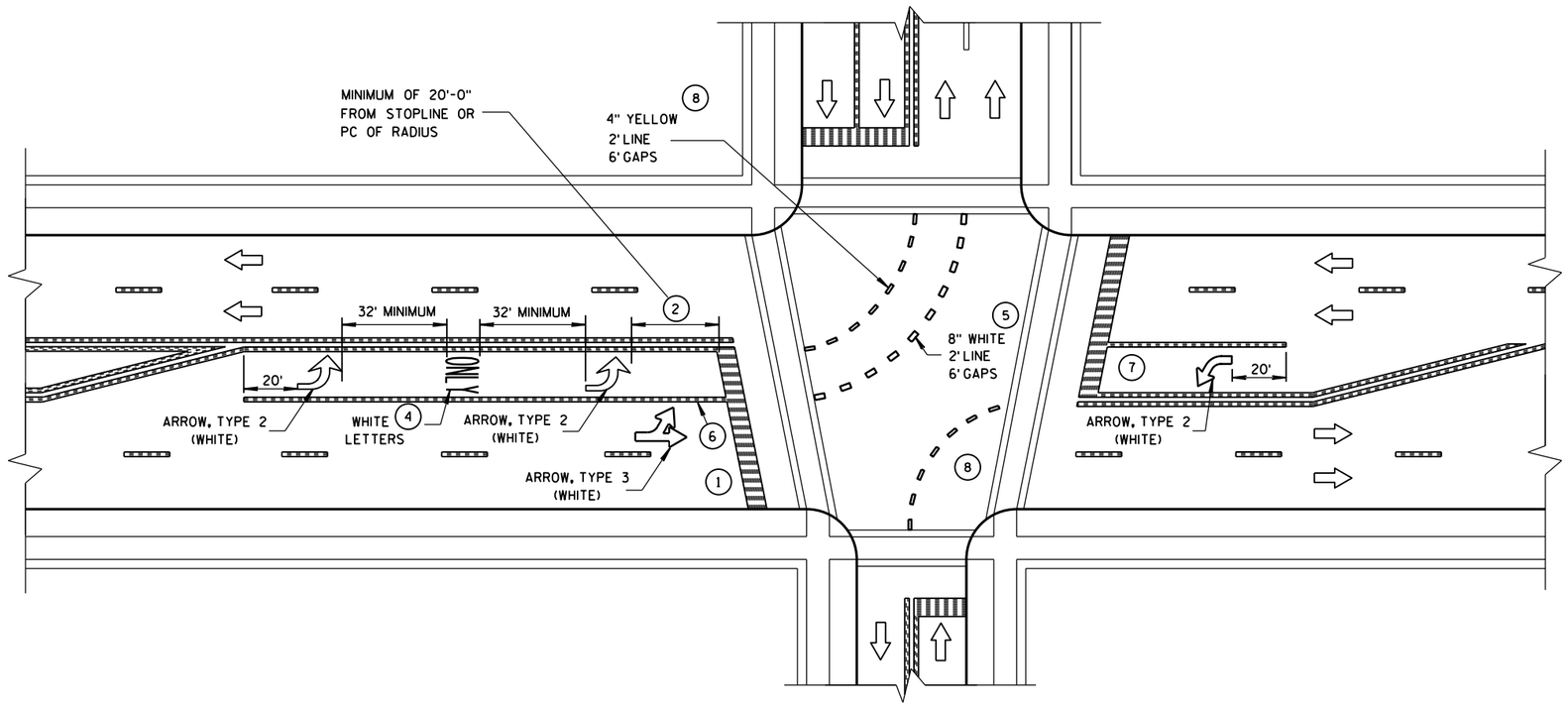
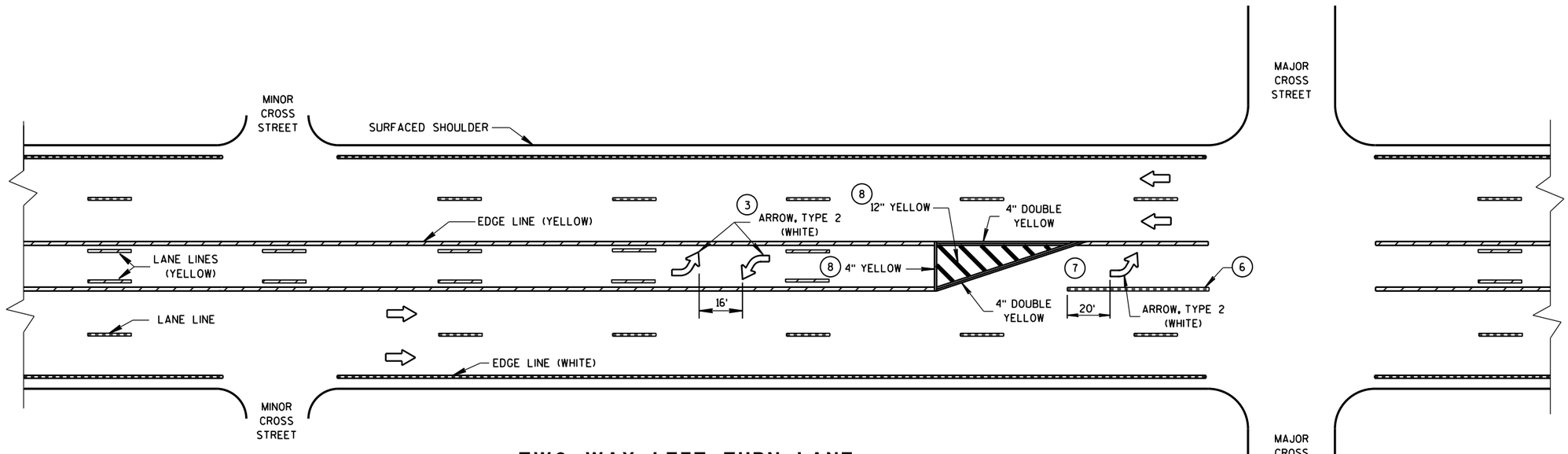


GENERAL NOTES

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

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 8-16e

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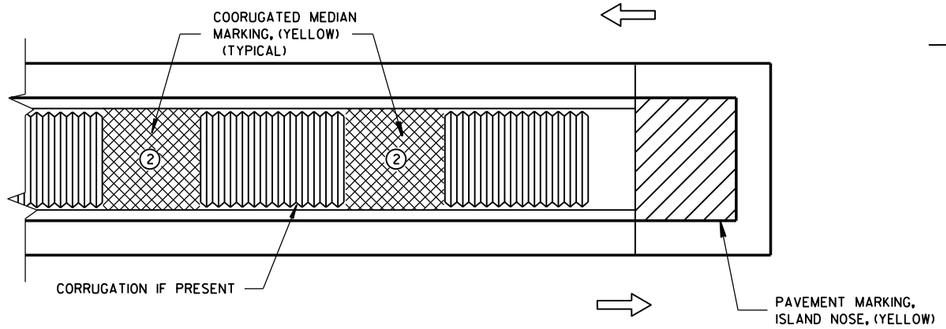
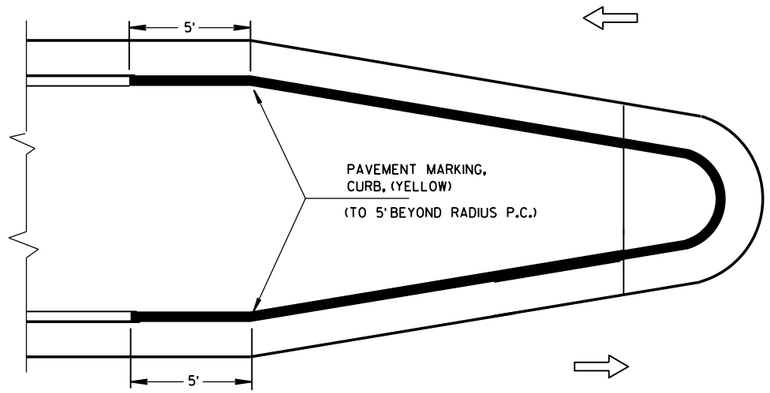
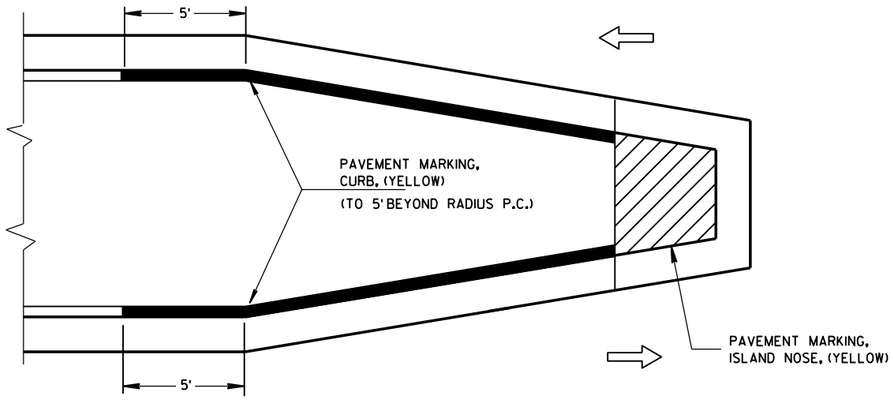
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

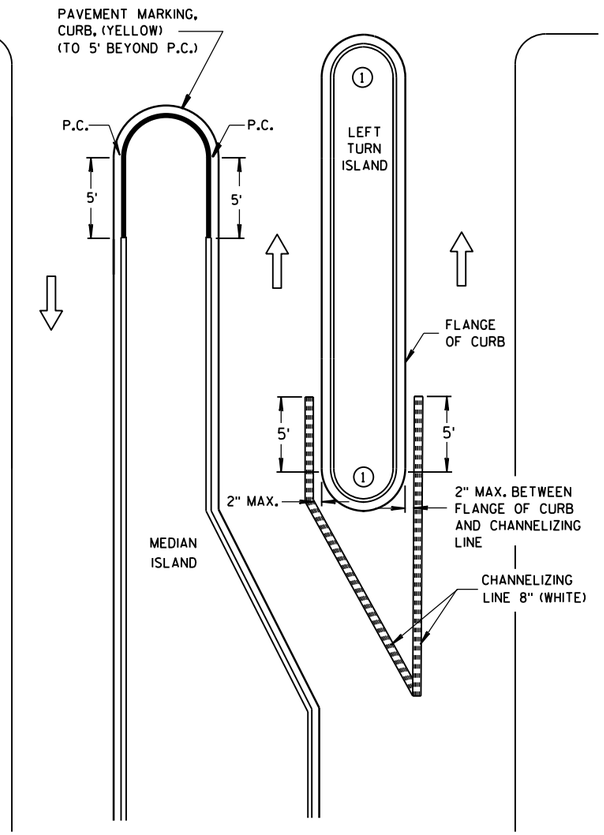


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

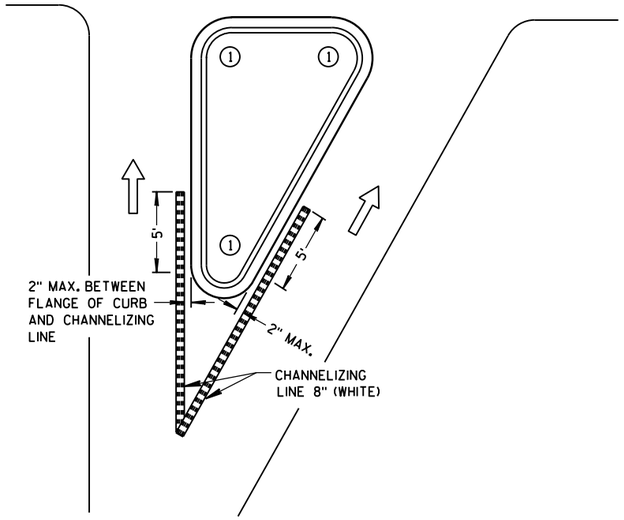


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. 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 AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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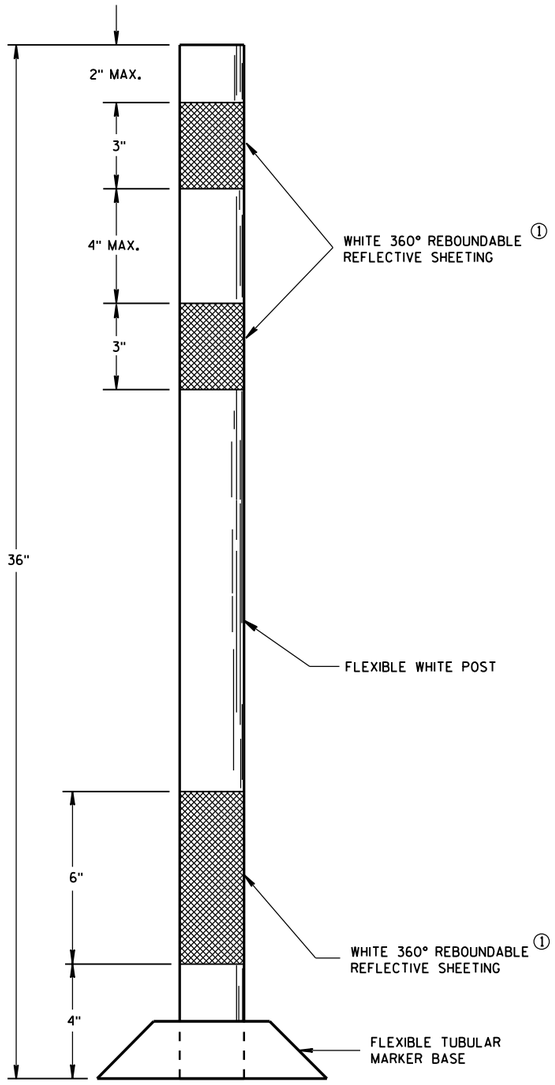
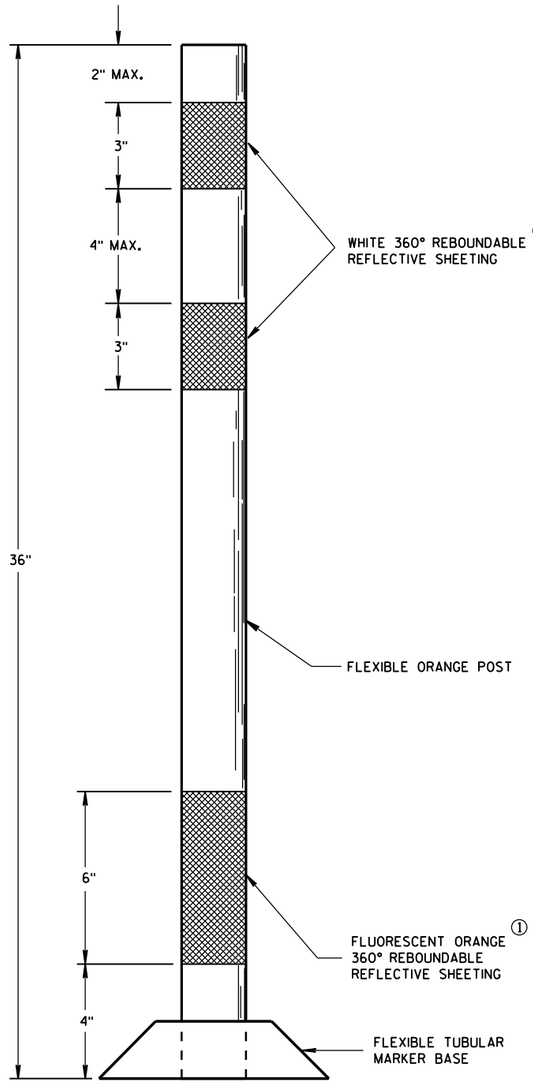
S.D.D. 15 C 8-16f



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

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FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

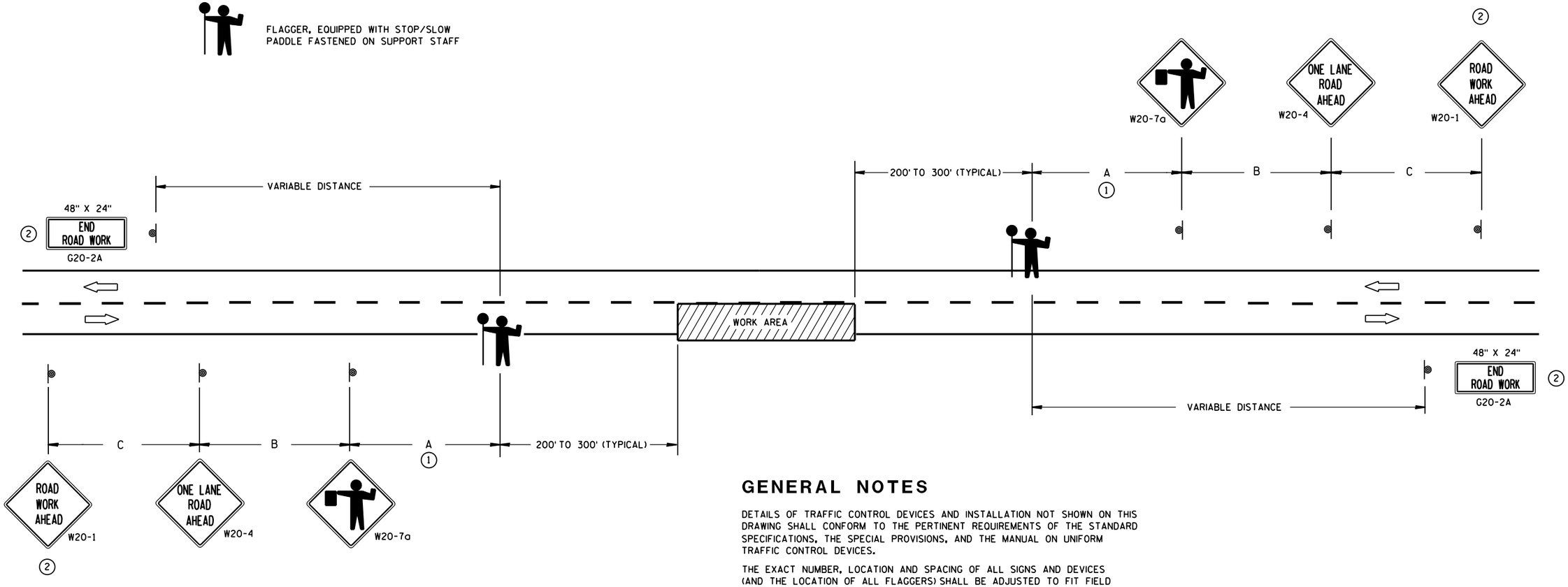
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 12-4

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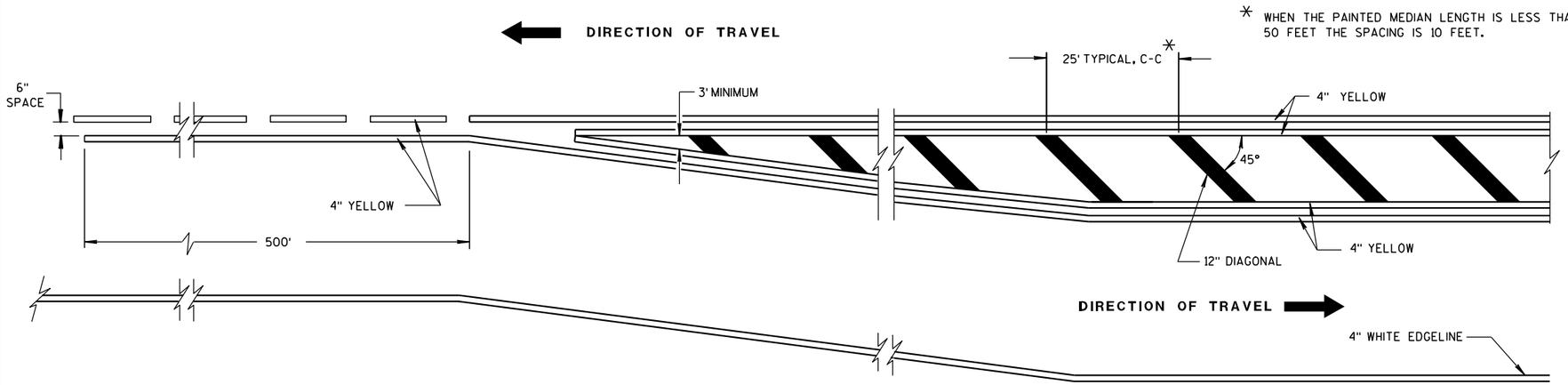
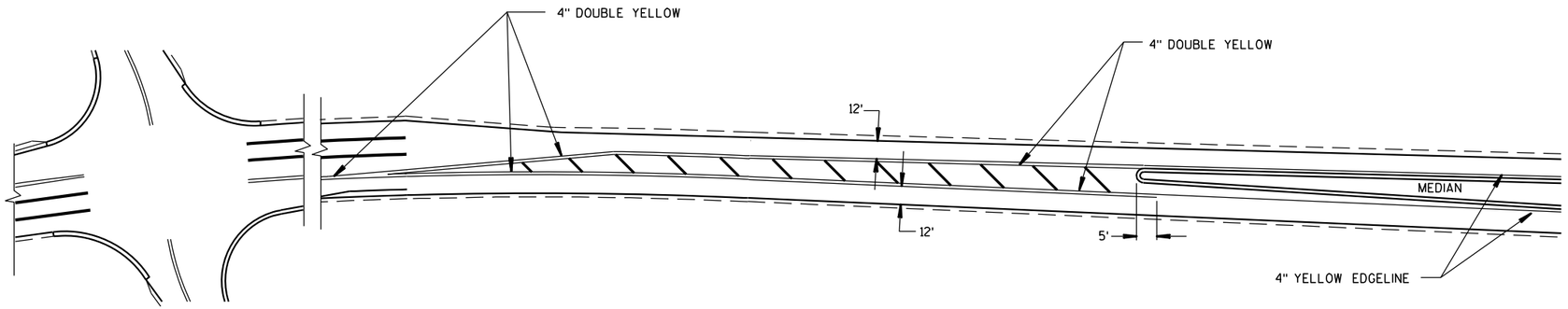
S.D.D. 15 C 12-4



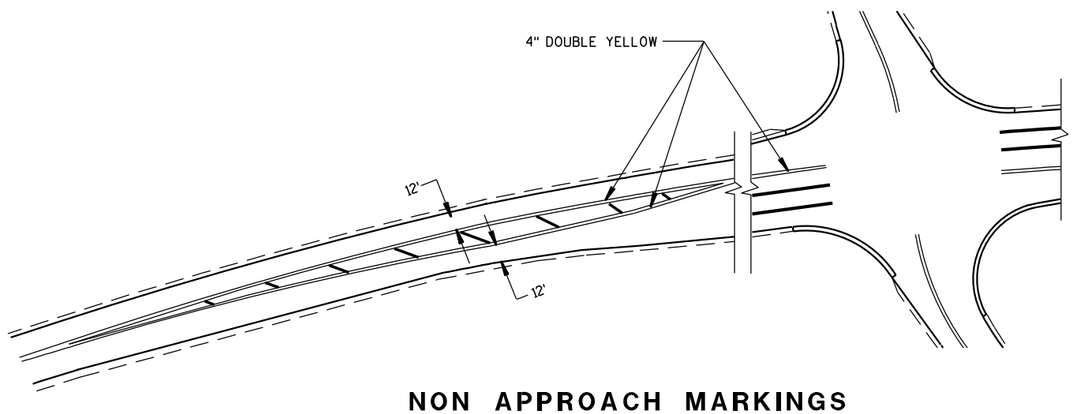
MEDIAN ISLAND DETAIL

GENERAL NOTE

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



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

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

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S.D.D. 15 C 18-3

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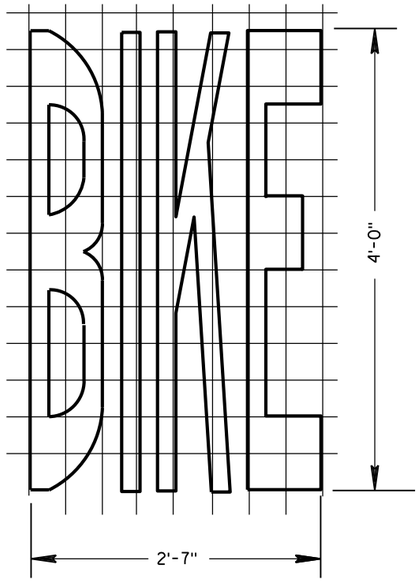
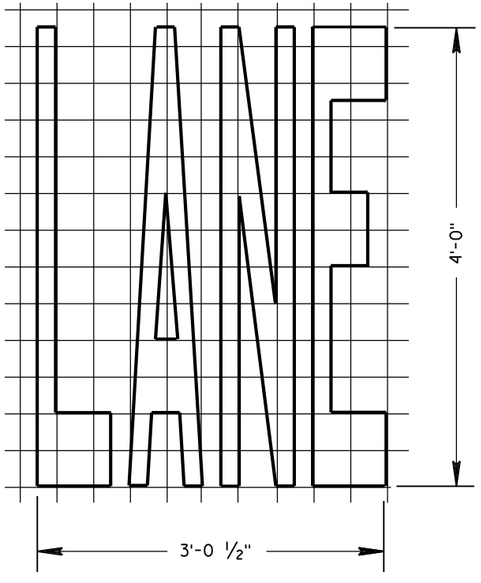
S.D.D. 15 C 18-3

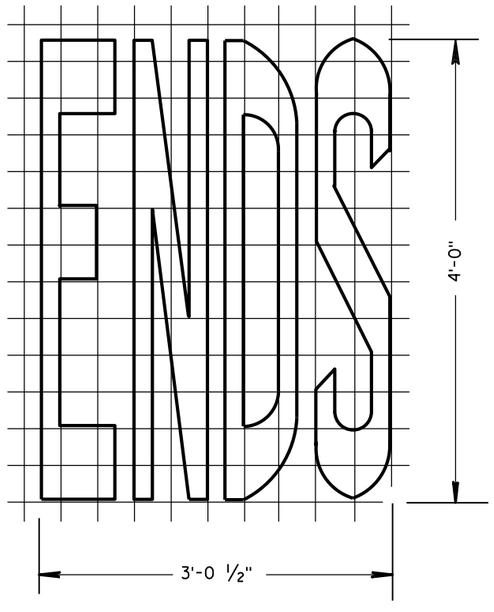
GENERAL NOTES

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.

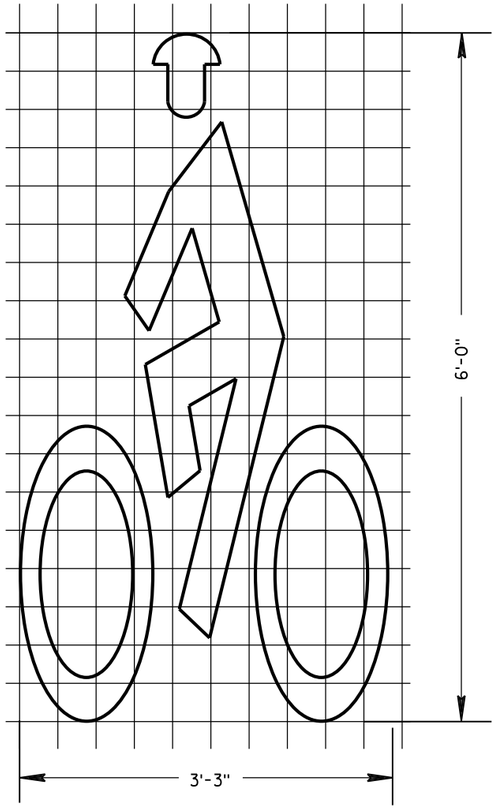
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



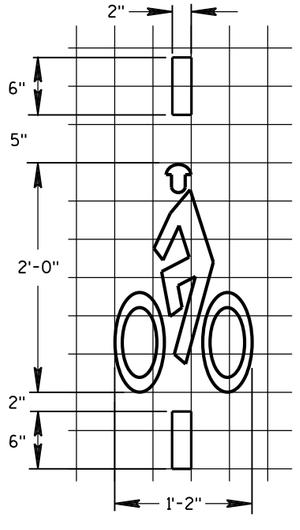




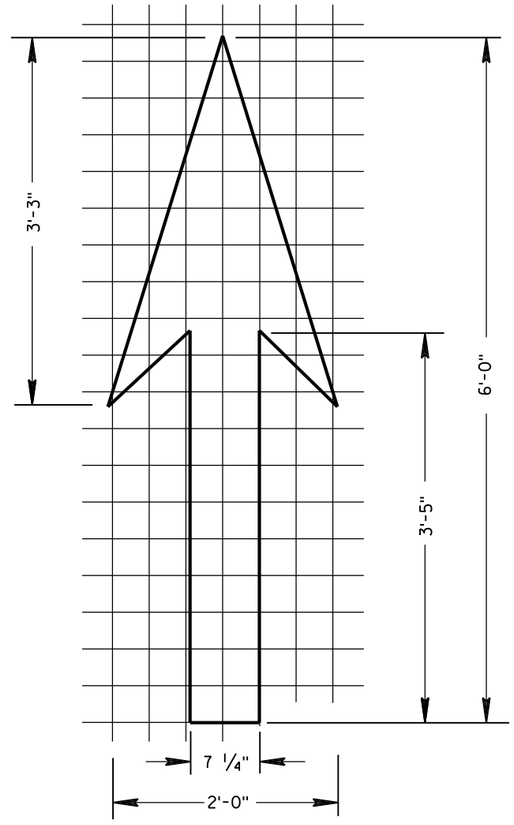
BIKE LANE WORDS



BIKE LANE SYMBOL

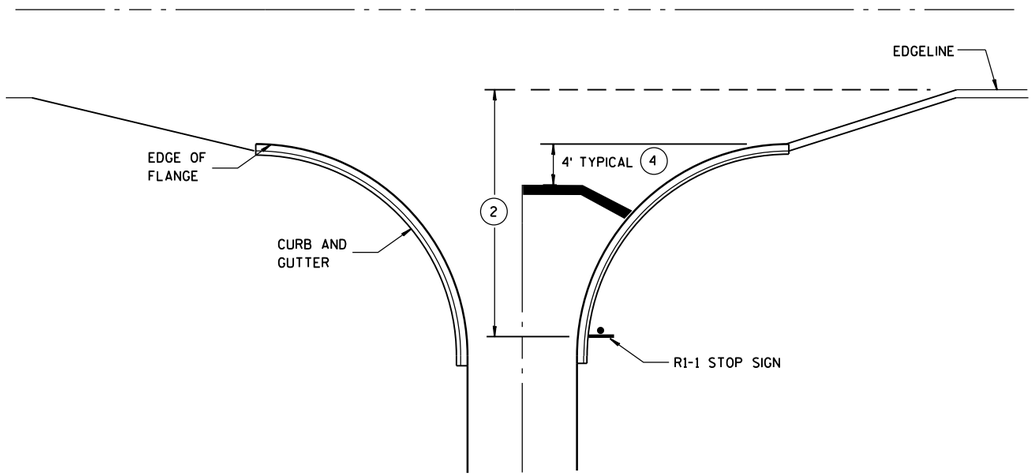


BICYCLE DETECTOR PAVEMENT MARKING

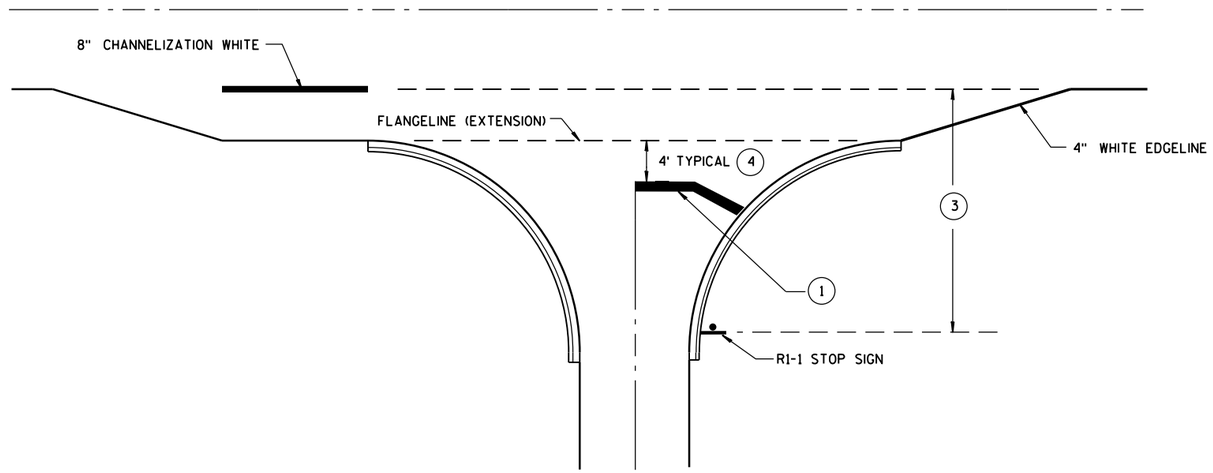


BIKE LANE ARROW

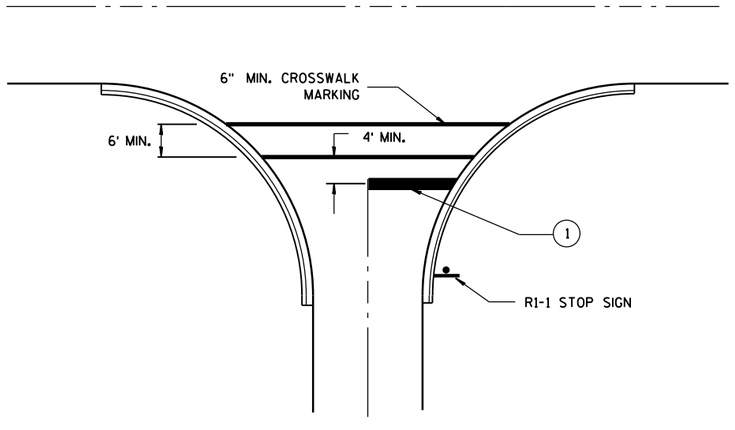
PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-30-2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	



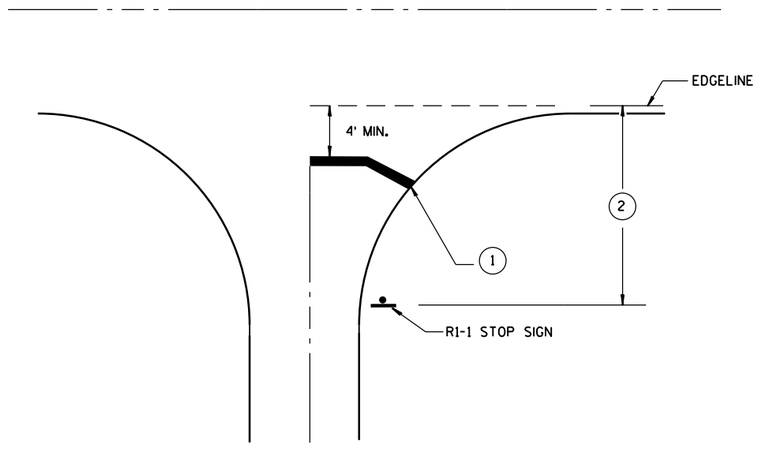
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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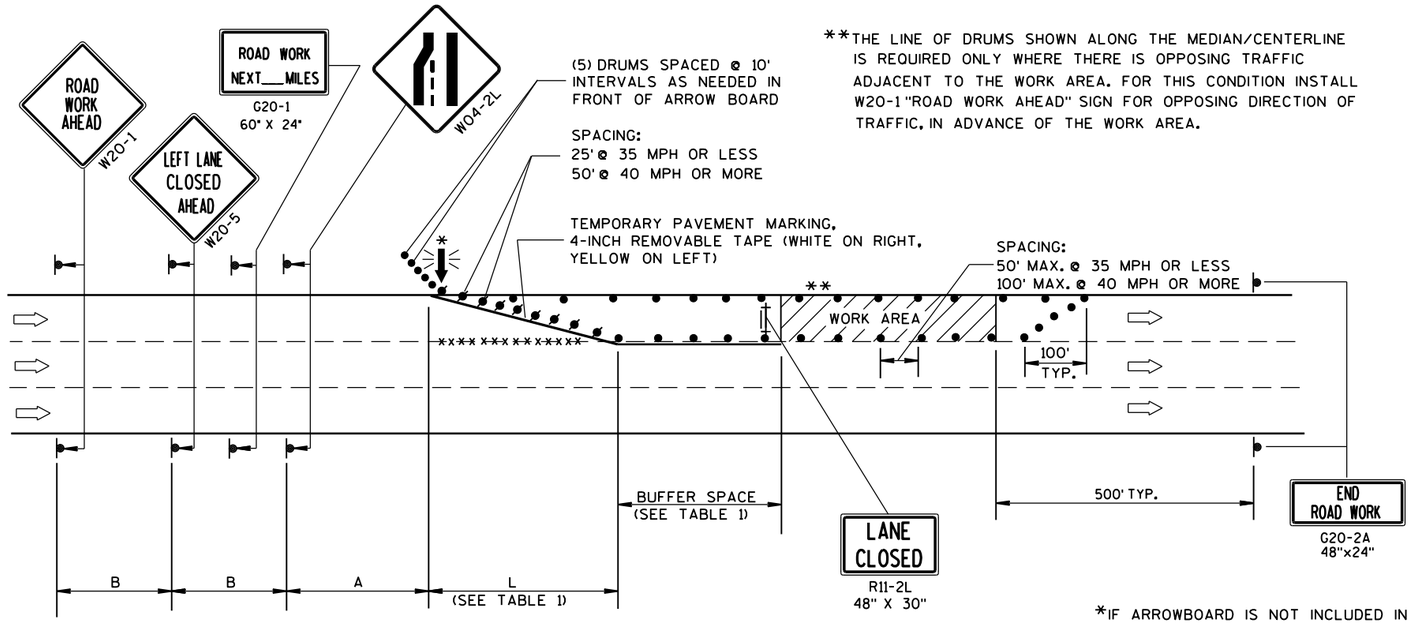

**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

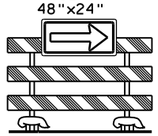

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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.

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

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

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

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

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

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

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.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, 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.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

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

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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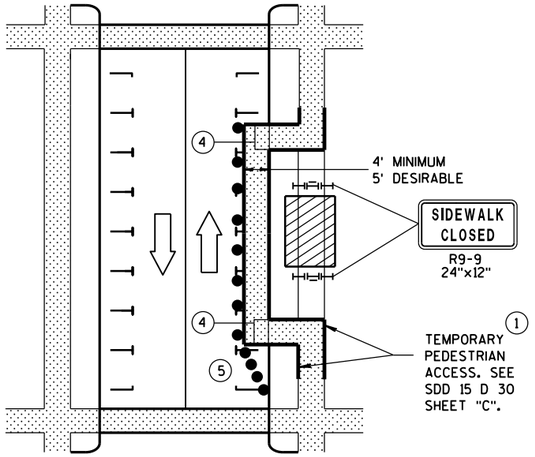
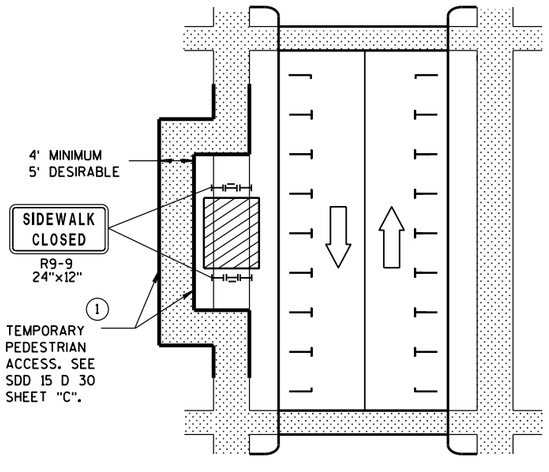
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

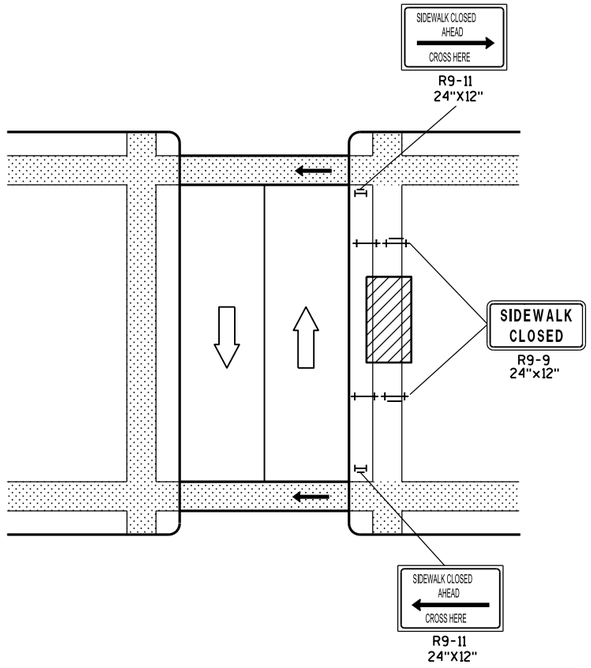


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

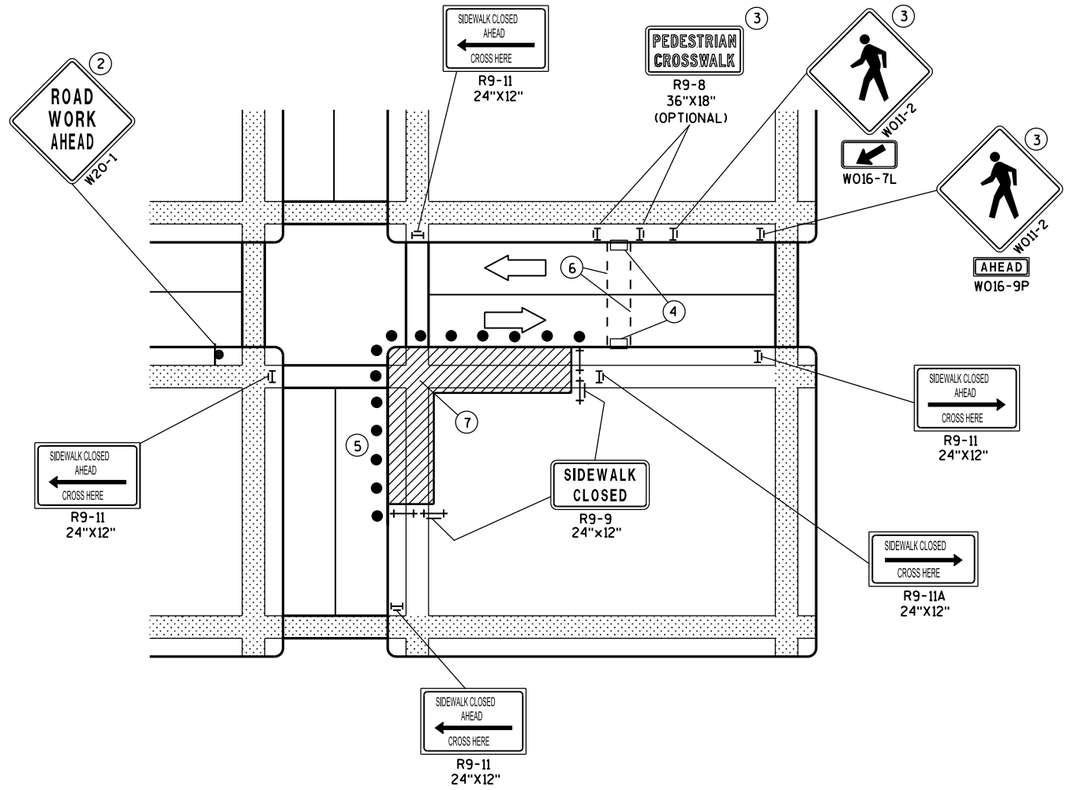
NOTE: LAYOUT SAME AS ABOVE.



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 NIGHTTIME 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 BETWEEN 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 W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 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
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- 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)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 D 30-2a

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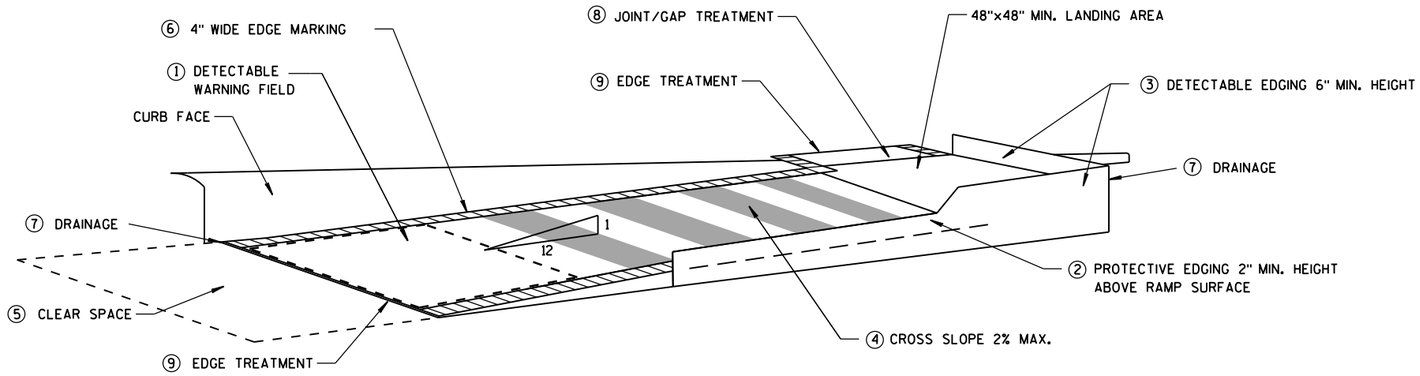


TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

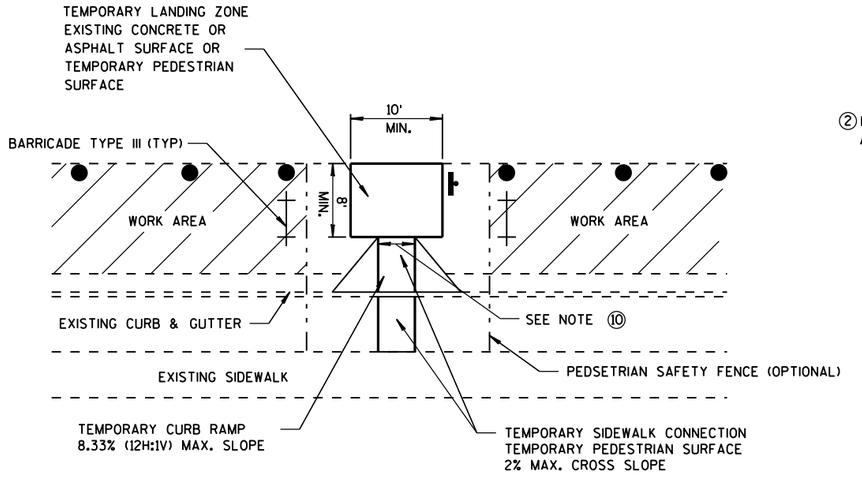
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

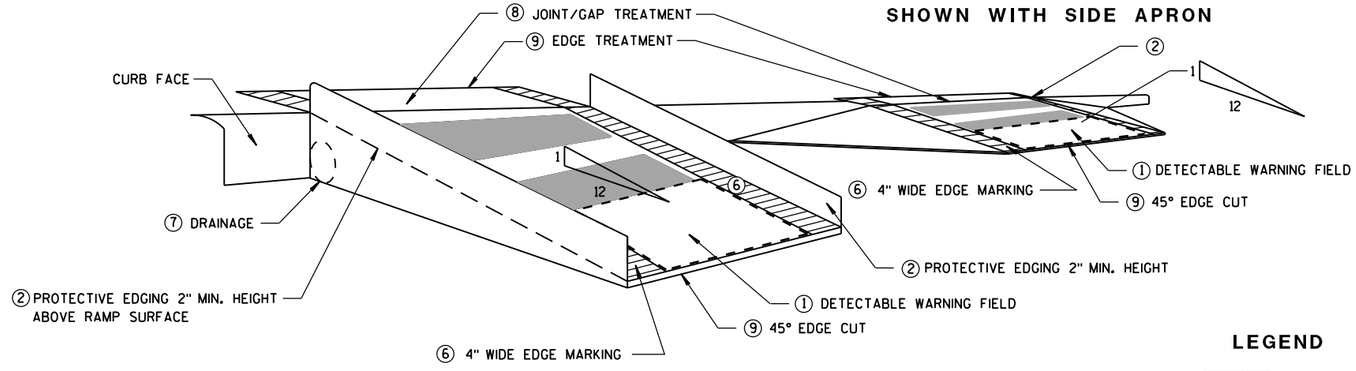
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

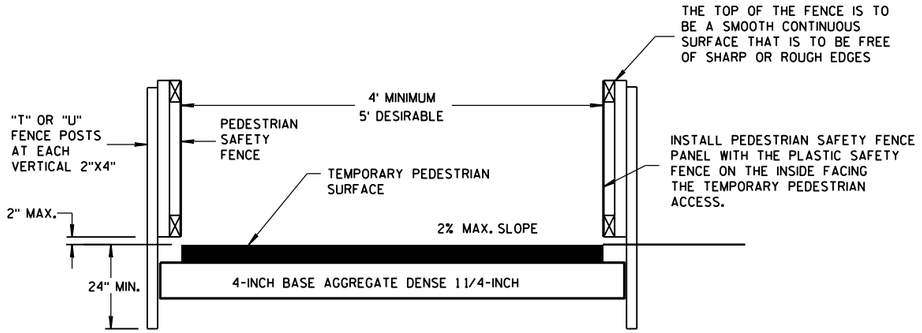
FHWA

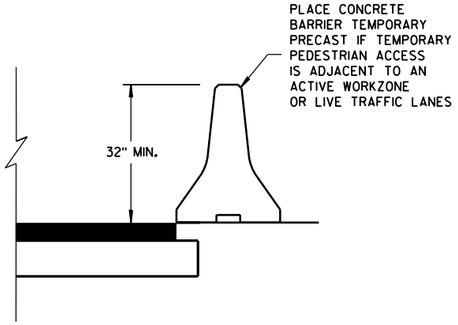
6

S.D.D. 15 D 30-2b

6

S.D.D. 15 D 30-2b

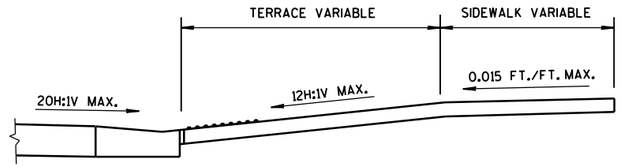




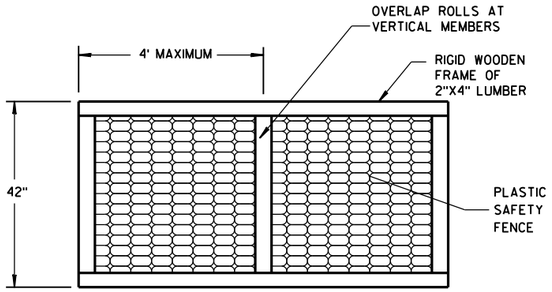
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

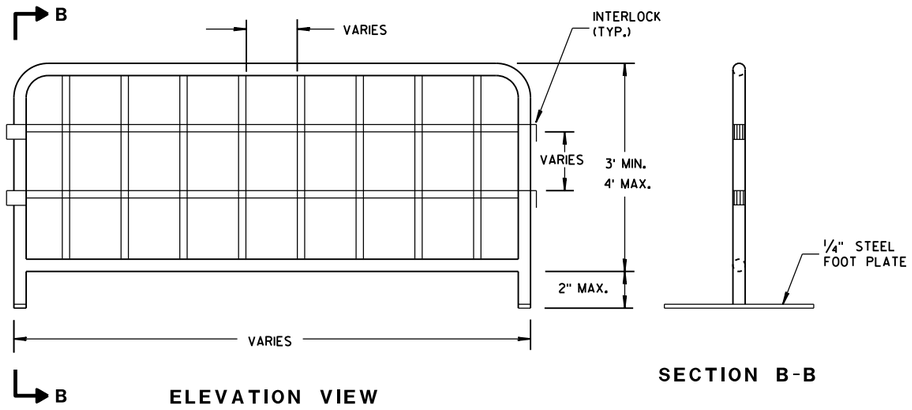
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



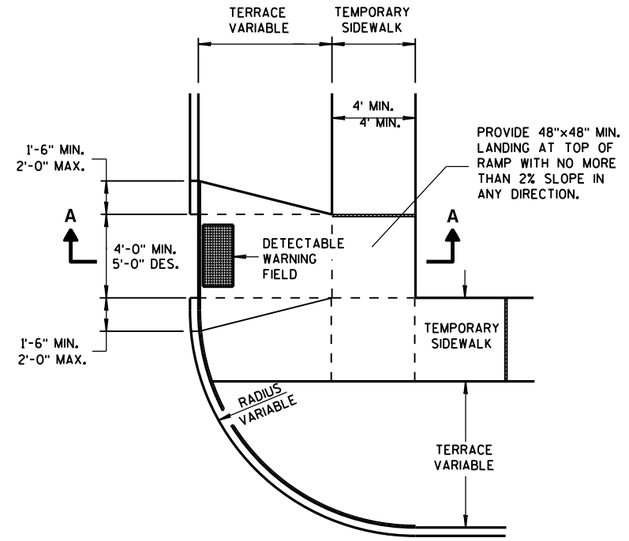
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

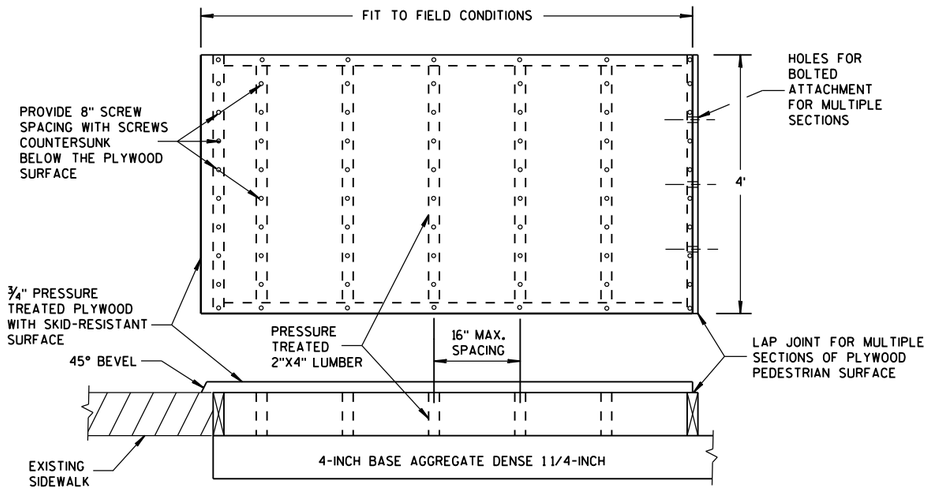
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



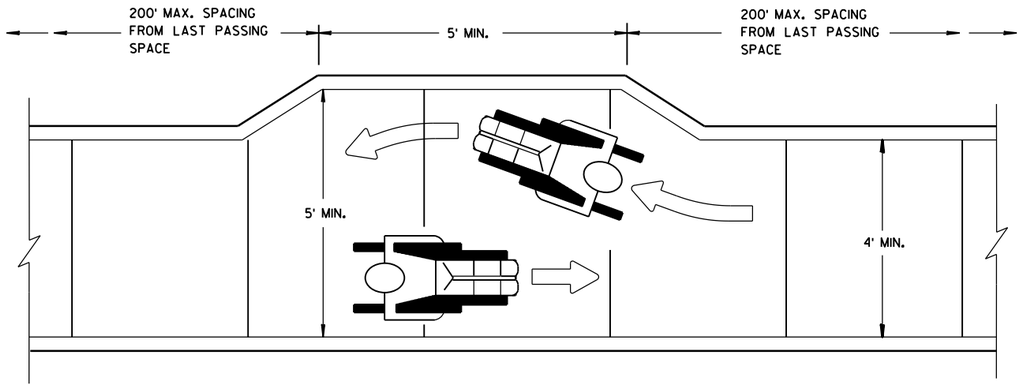
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

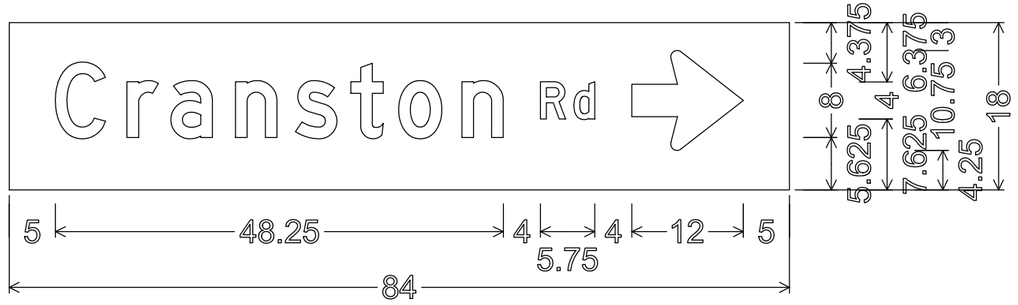
APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

6

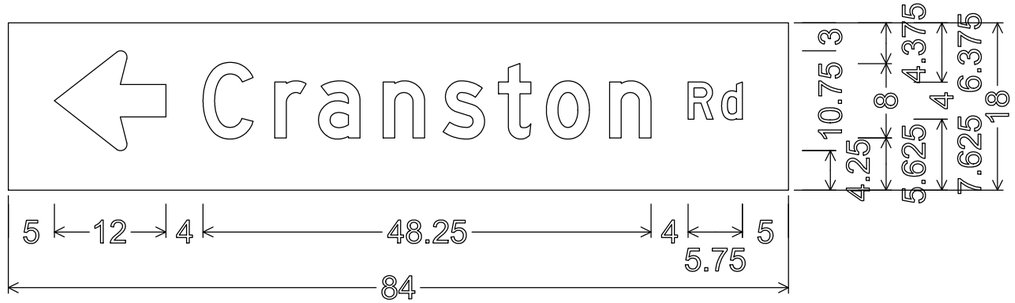
S.D.D. 15 D 30-2c

6

S.D.D. 15 D 30-2c



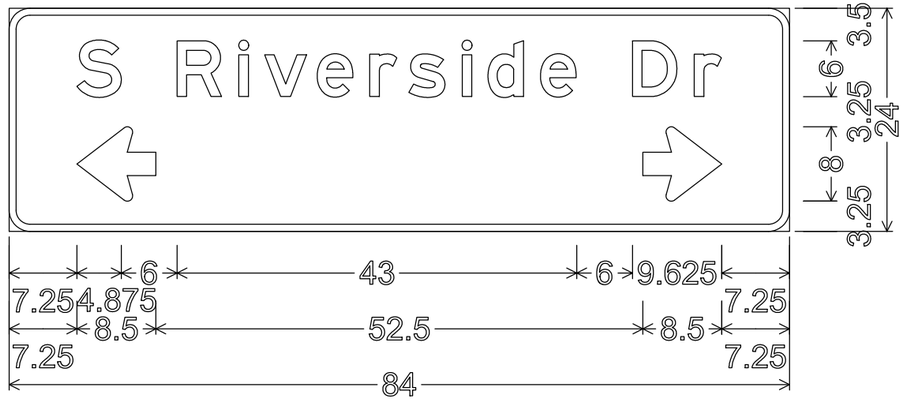
M1-94H; No border
"Cranston" D; "Rd" D;



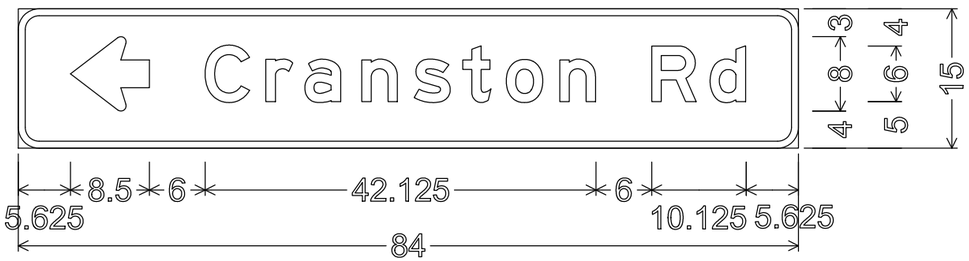
M1-94H; No border,
"Cranston" D; "Rd" D;

NOTES

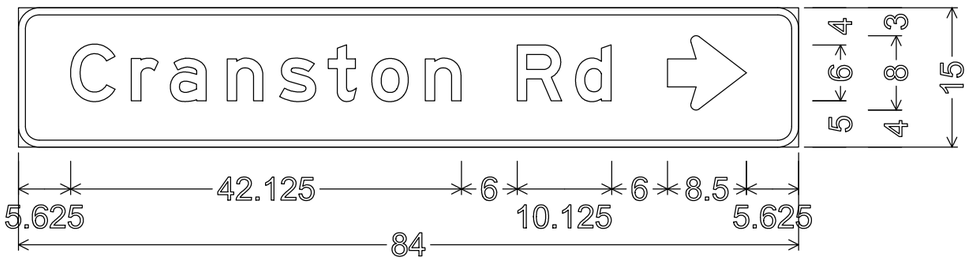
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-61;
2.250" Radius, 0.750" Border



D1-1;
2.250" Radius, 0.750" Border

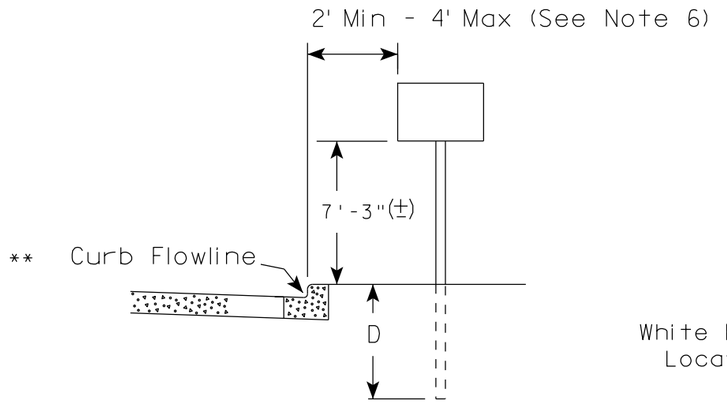


D1-1;
2.250" Radius, 0.750" Border

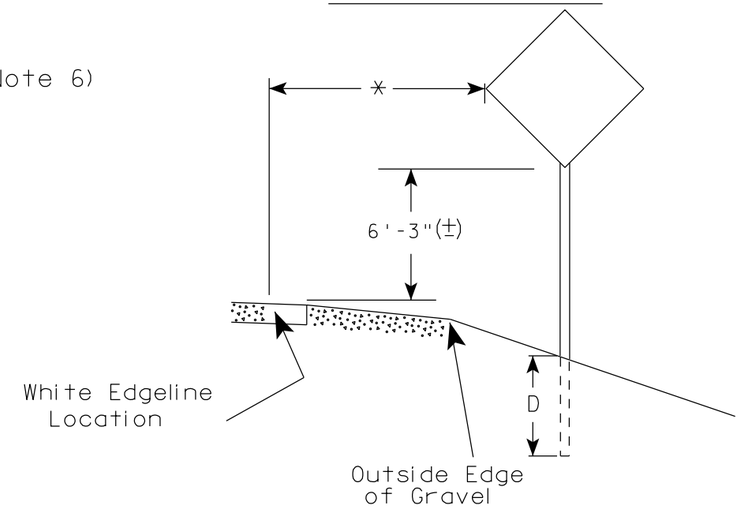
7

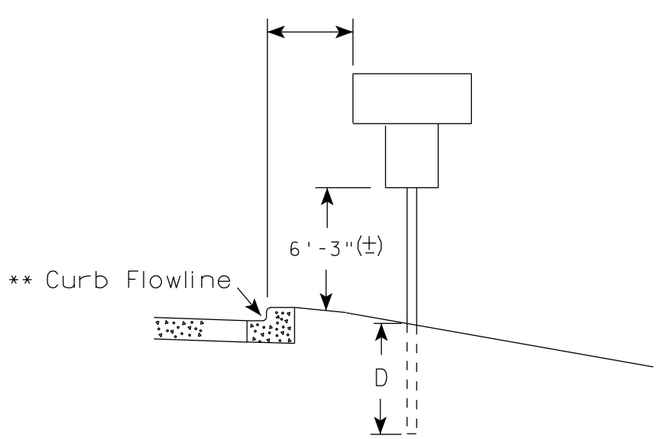
7

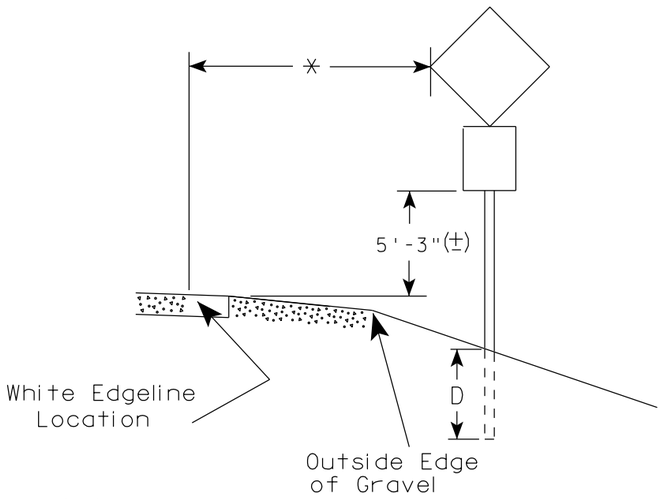
URBAN AREA



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

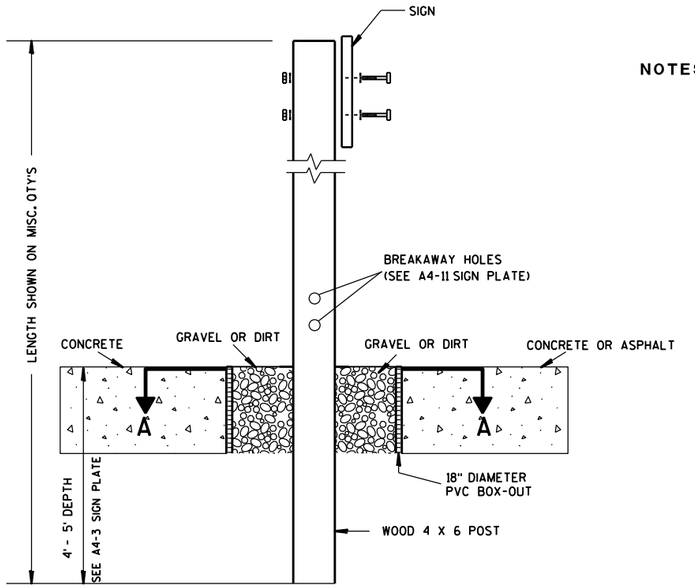
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

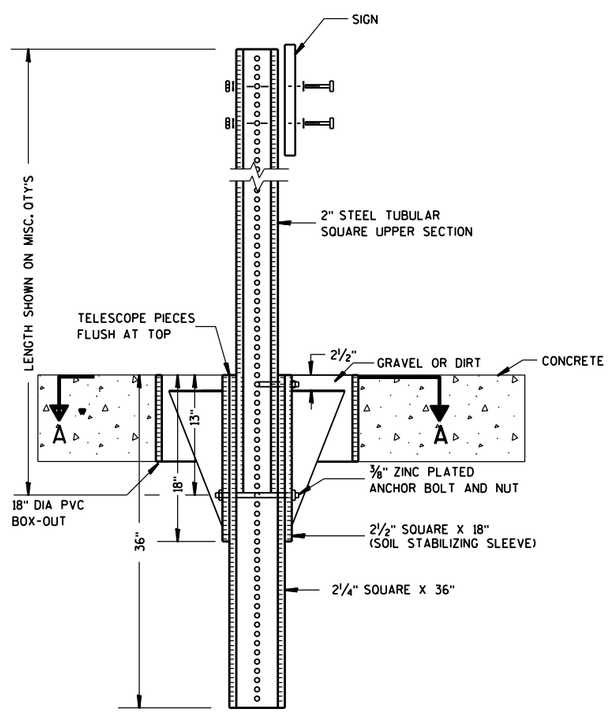
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

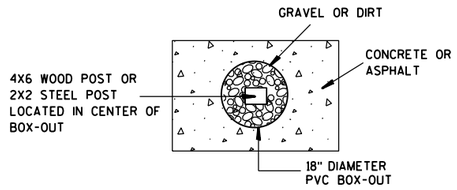
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

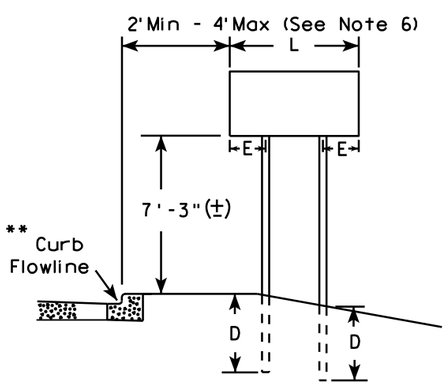
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

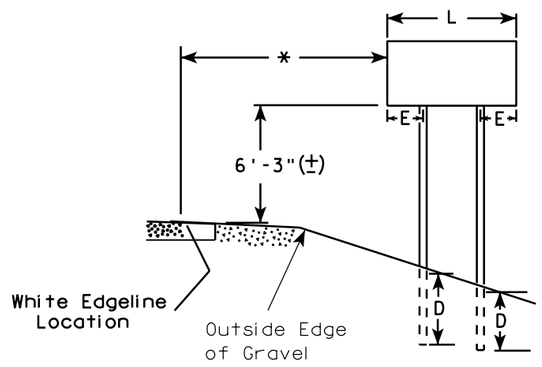
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

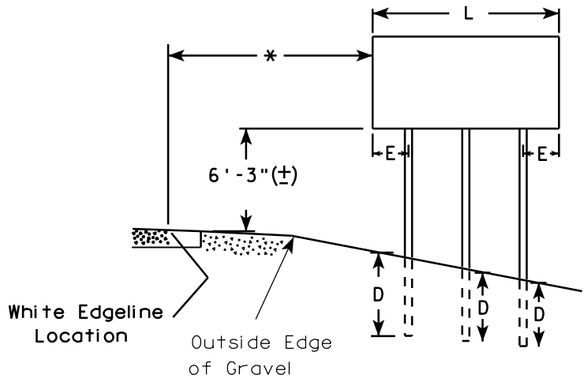
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

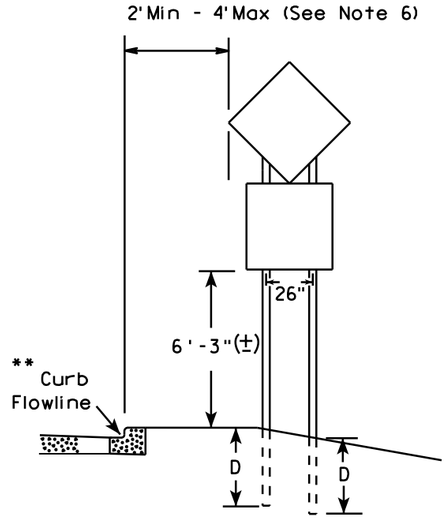
URBAN AREA



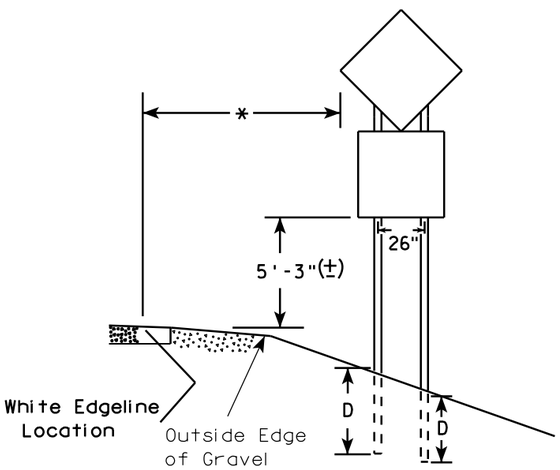
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

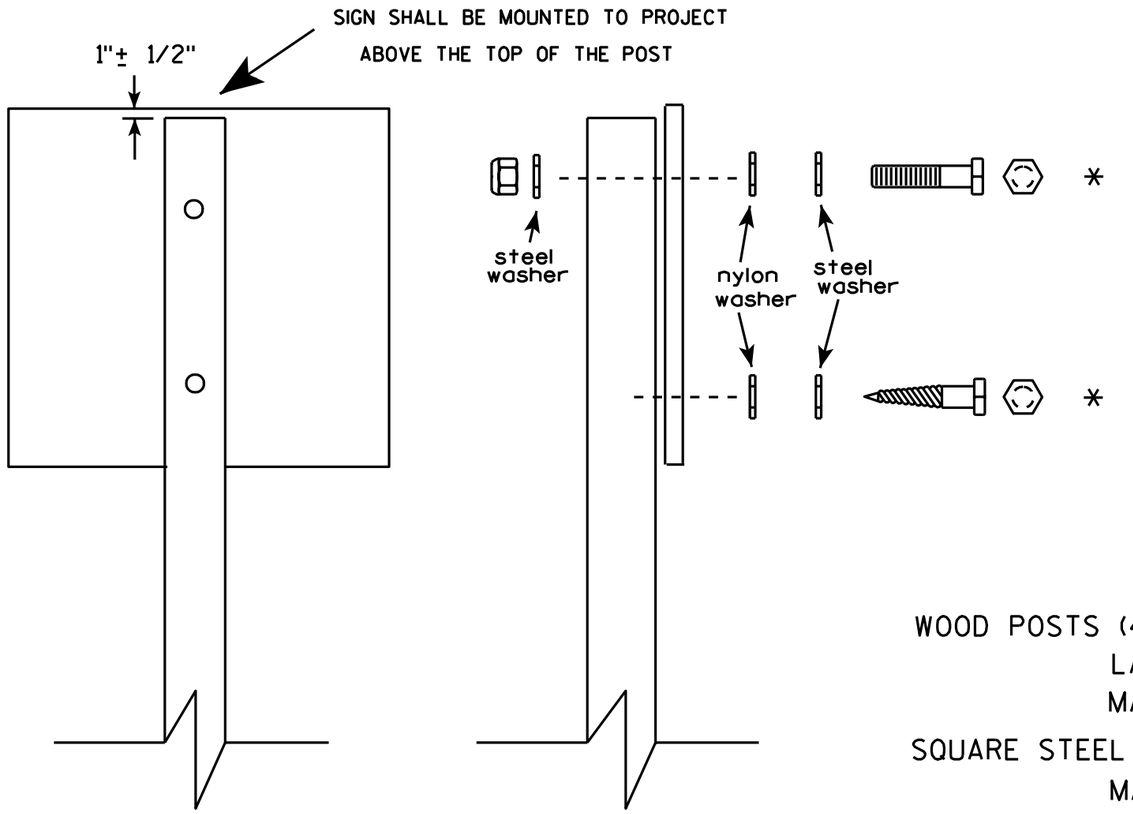
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
177

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

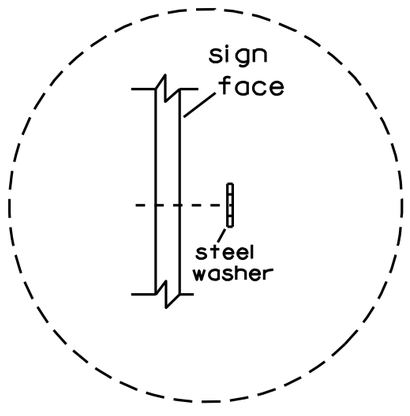
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

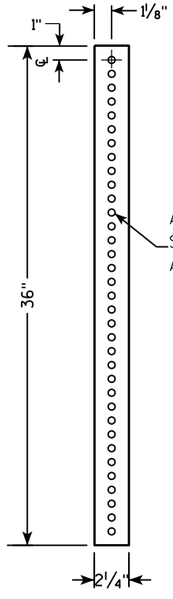
7

PROJECT NO:

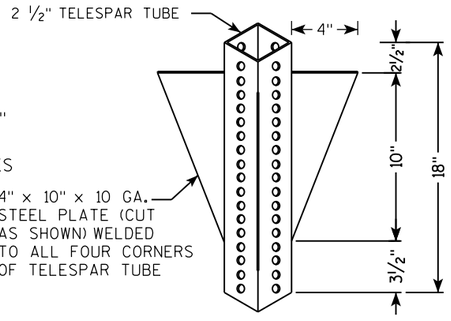
SHEET NO: 178 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

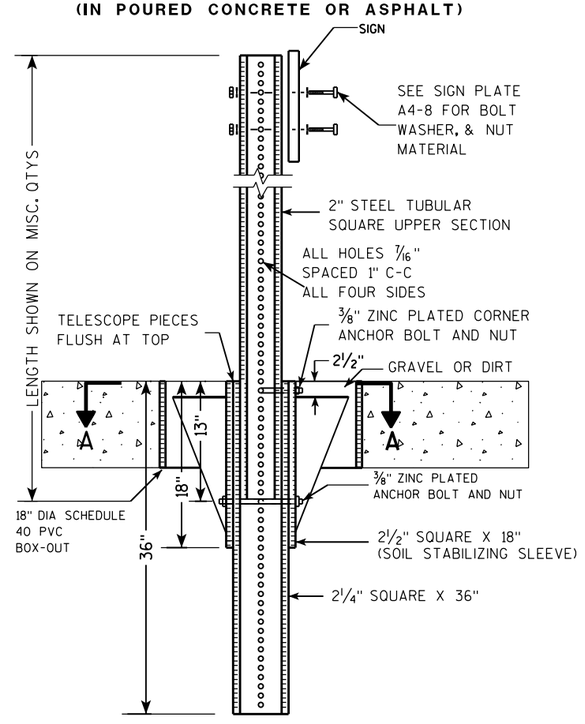
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



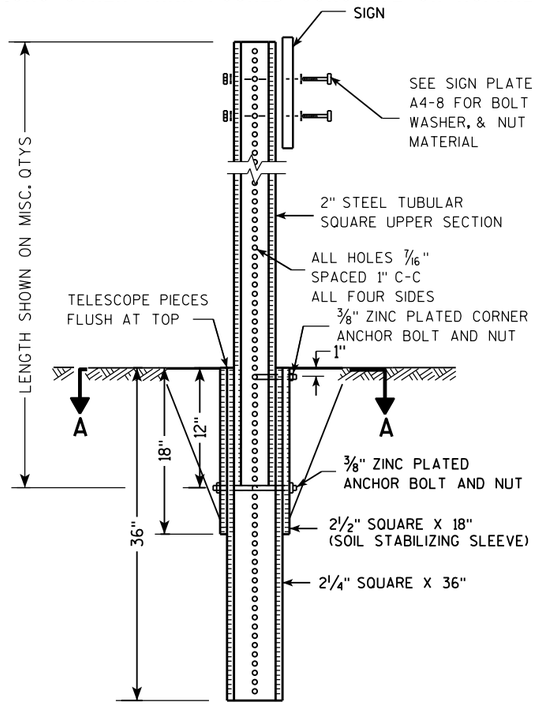
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

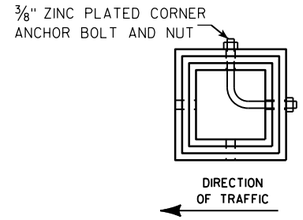


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

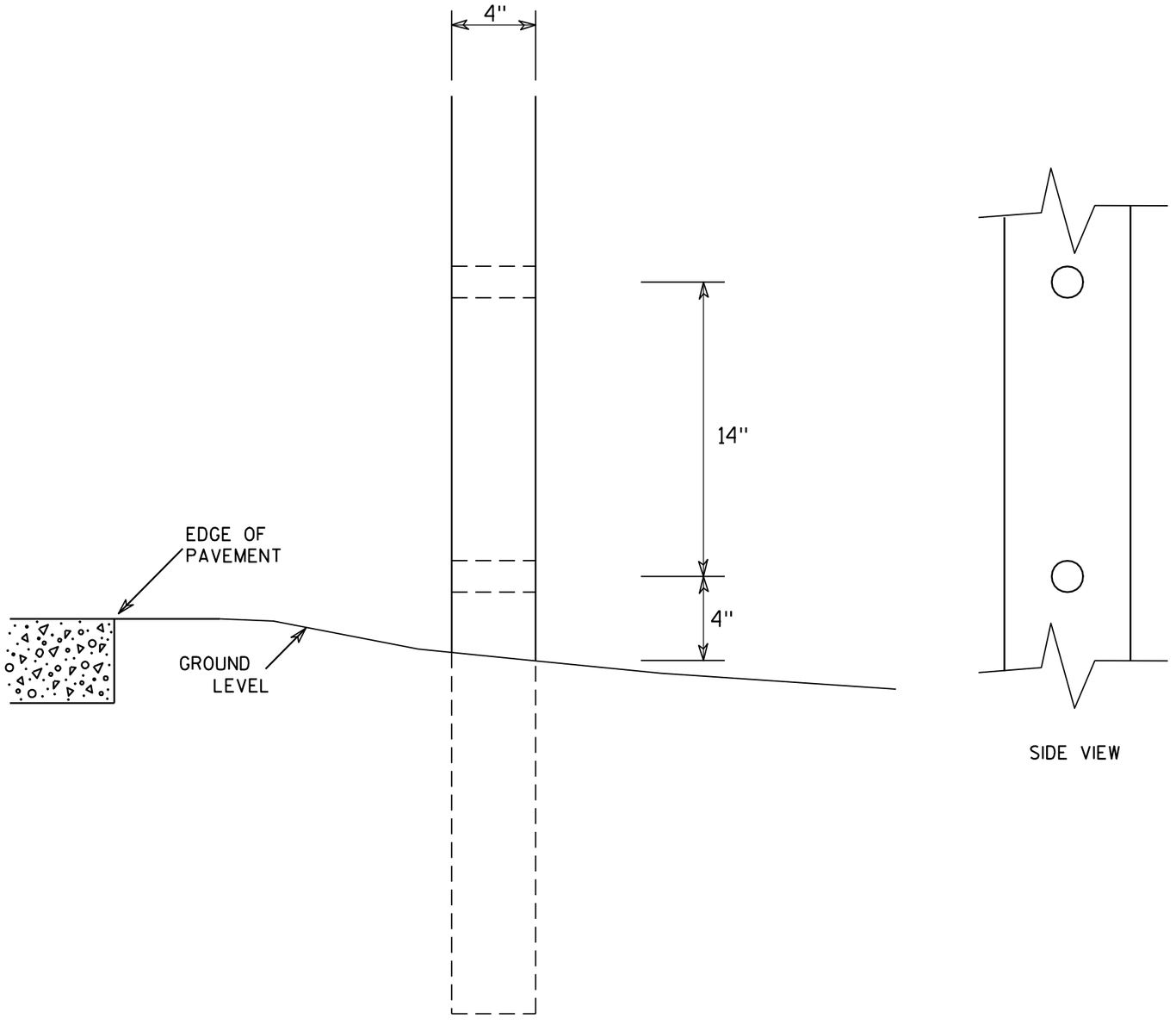
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

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4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

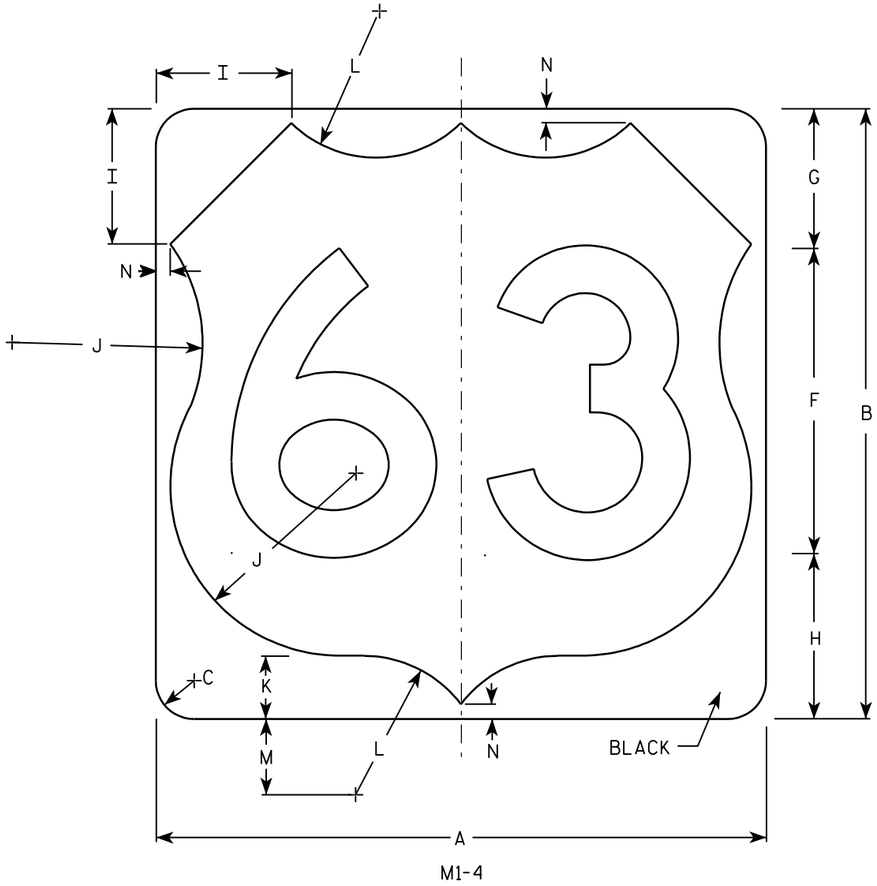
APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

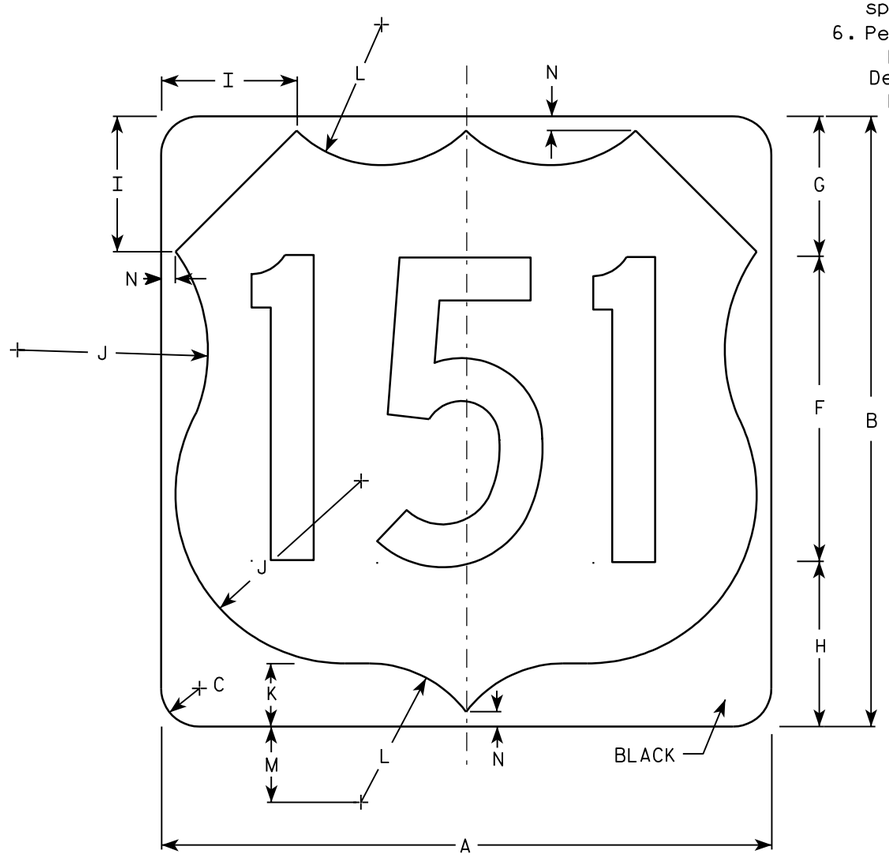
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 180	E

NOTES

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



M1-4



M1-4

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

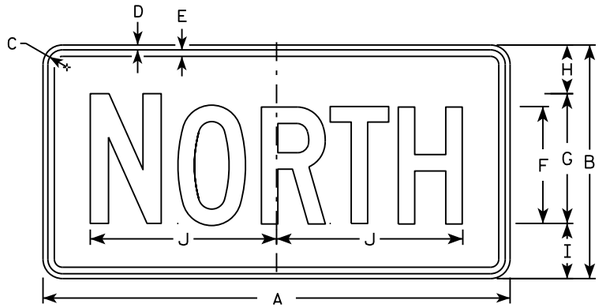
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

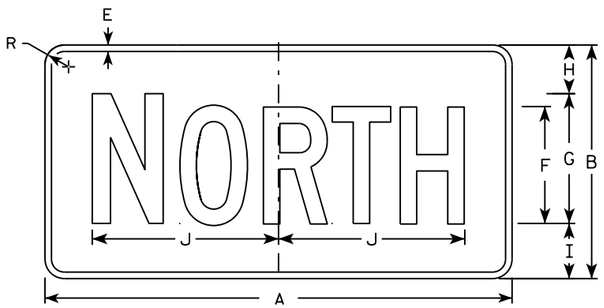
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 181	E



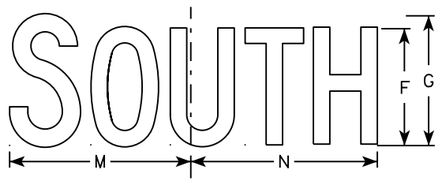
M3-1
MM3-1
MP3-1



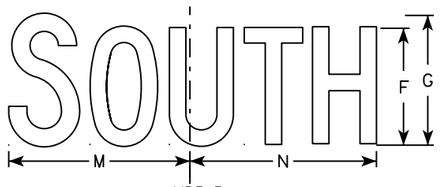
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

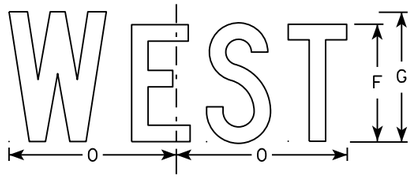
MB3-2
MK3-2
MN3-2



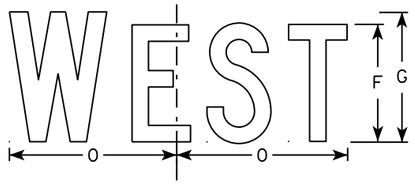
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

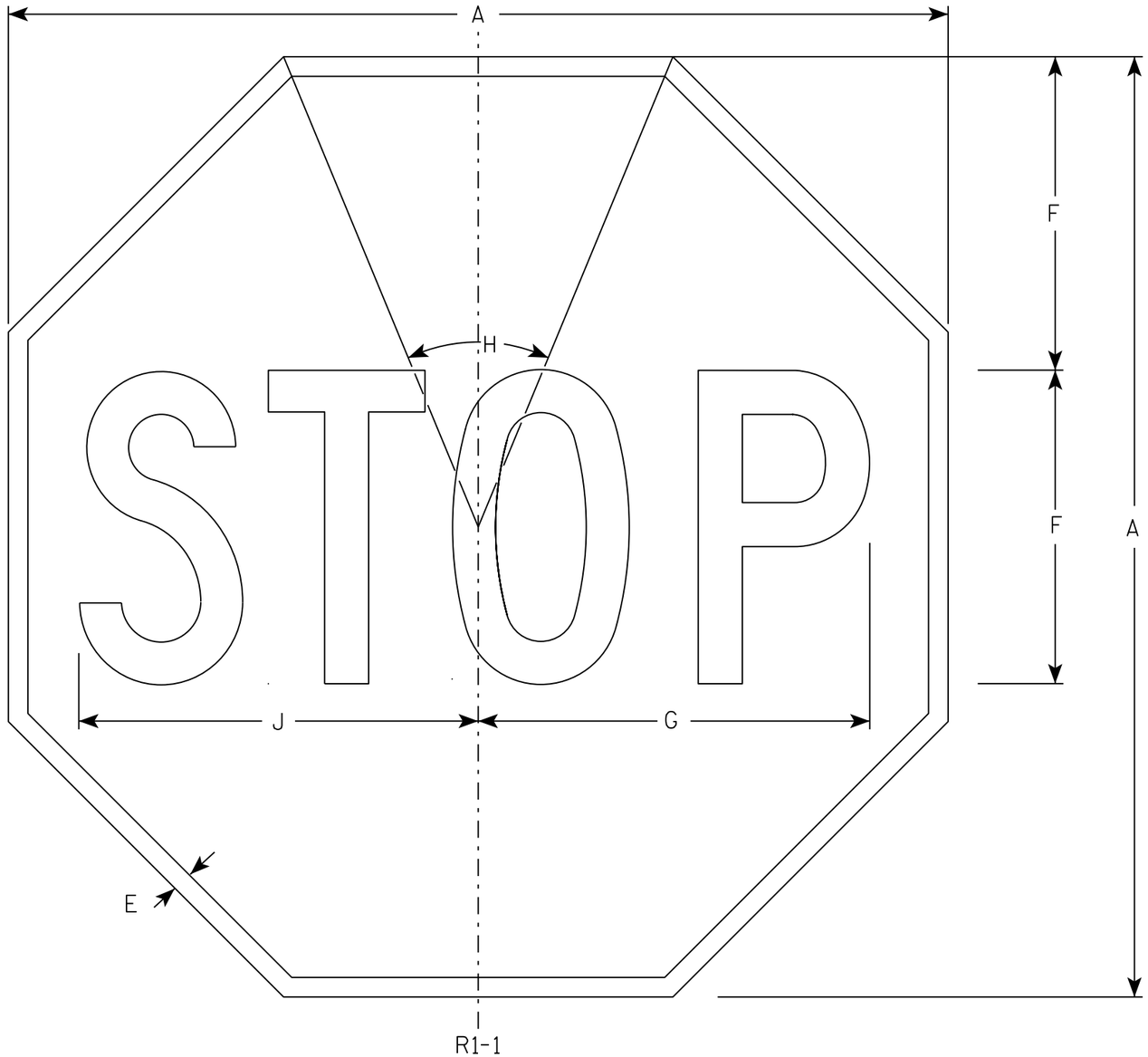
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-1

NOTES

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

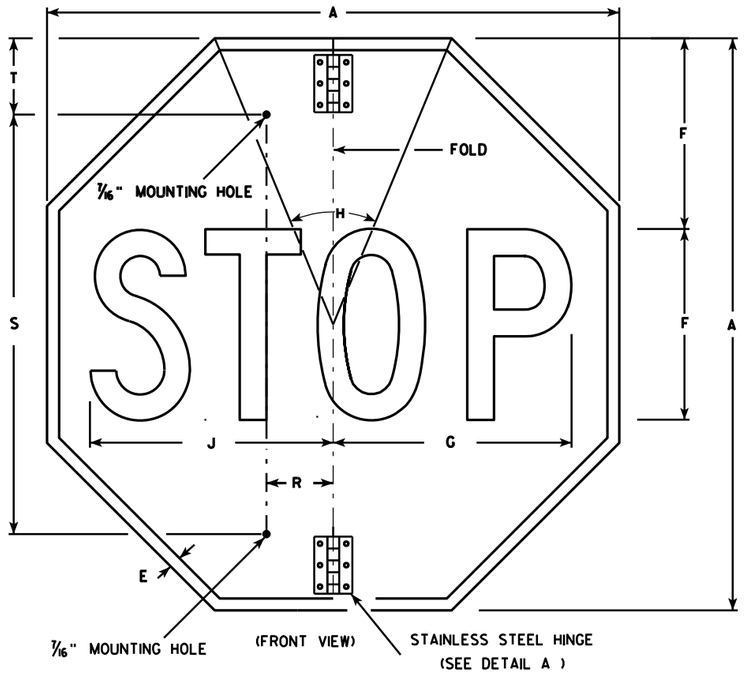
WISCONSIN DEPT OF TRANSPORTATION

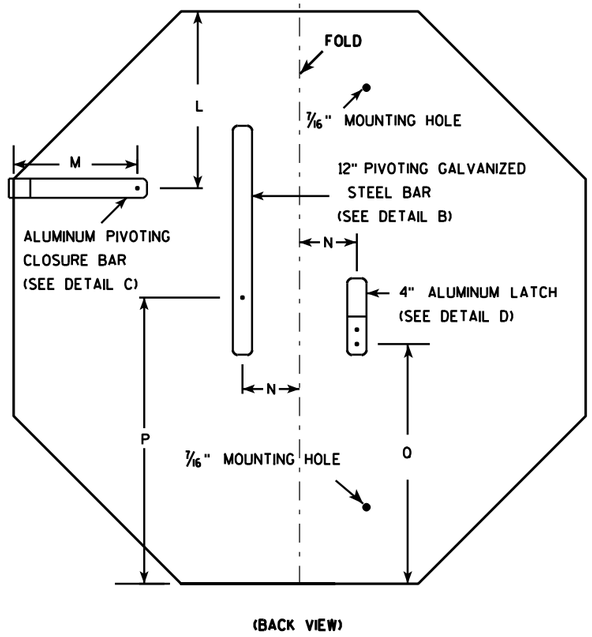
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

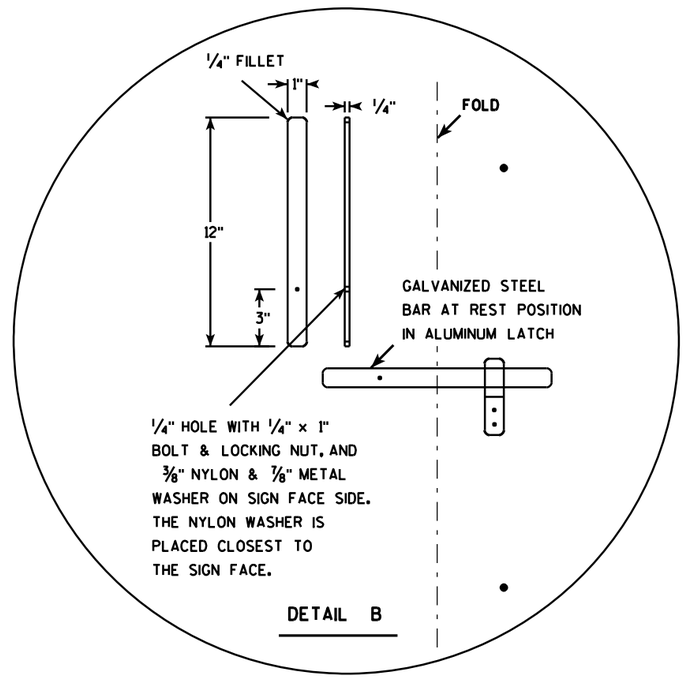
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000

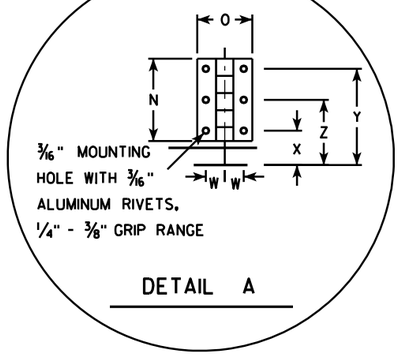


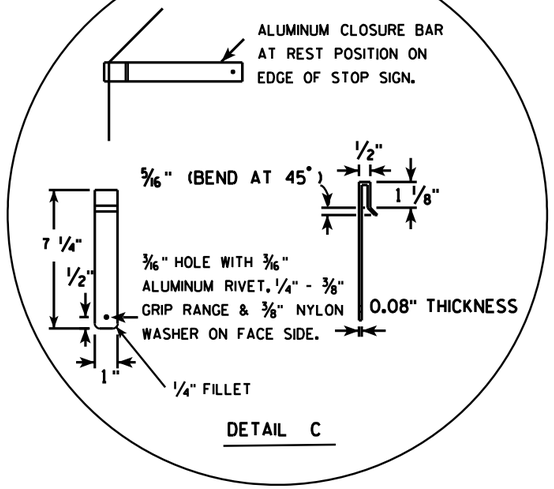


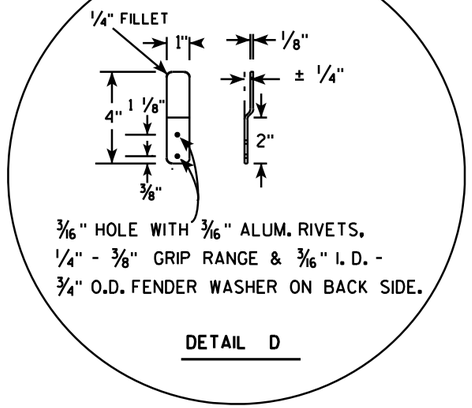
NOTES

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
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

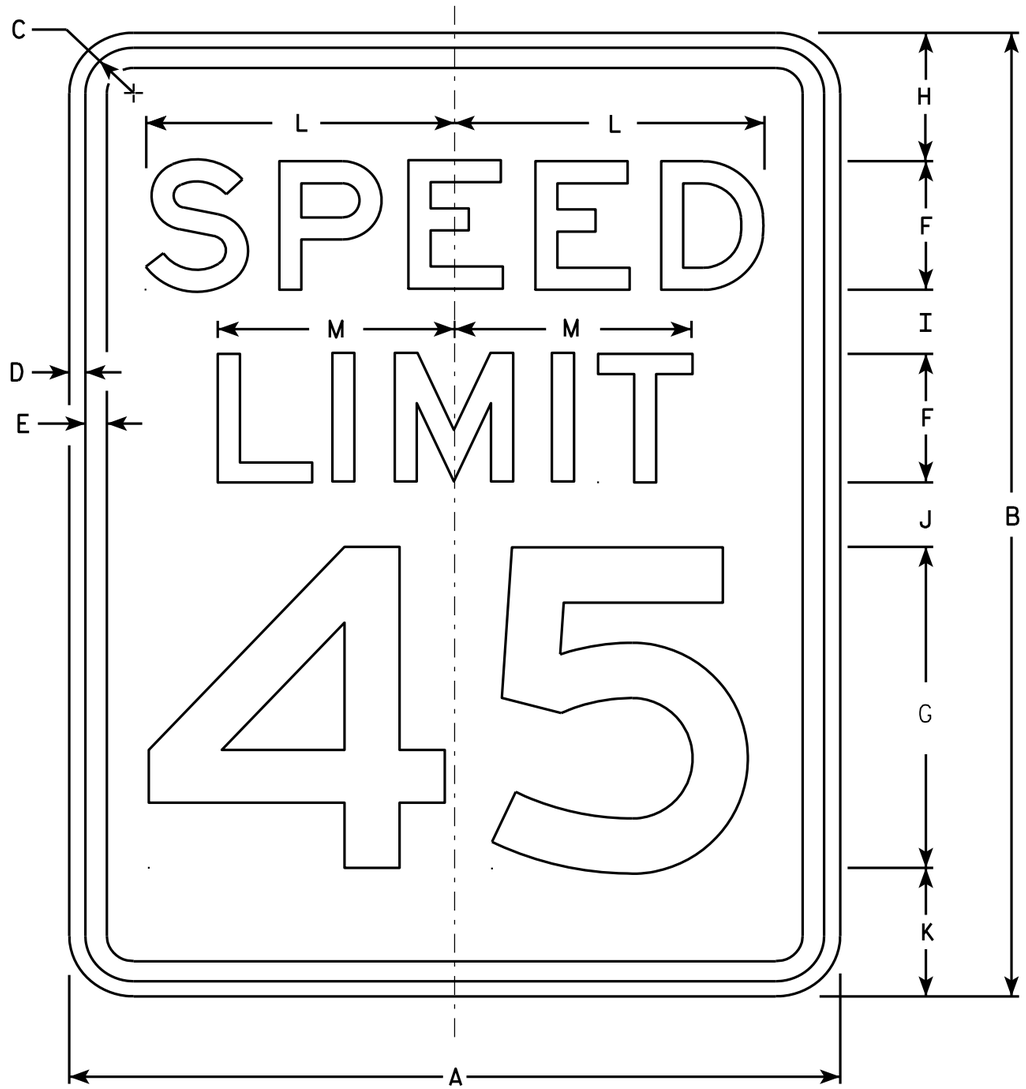
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | 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

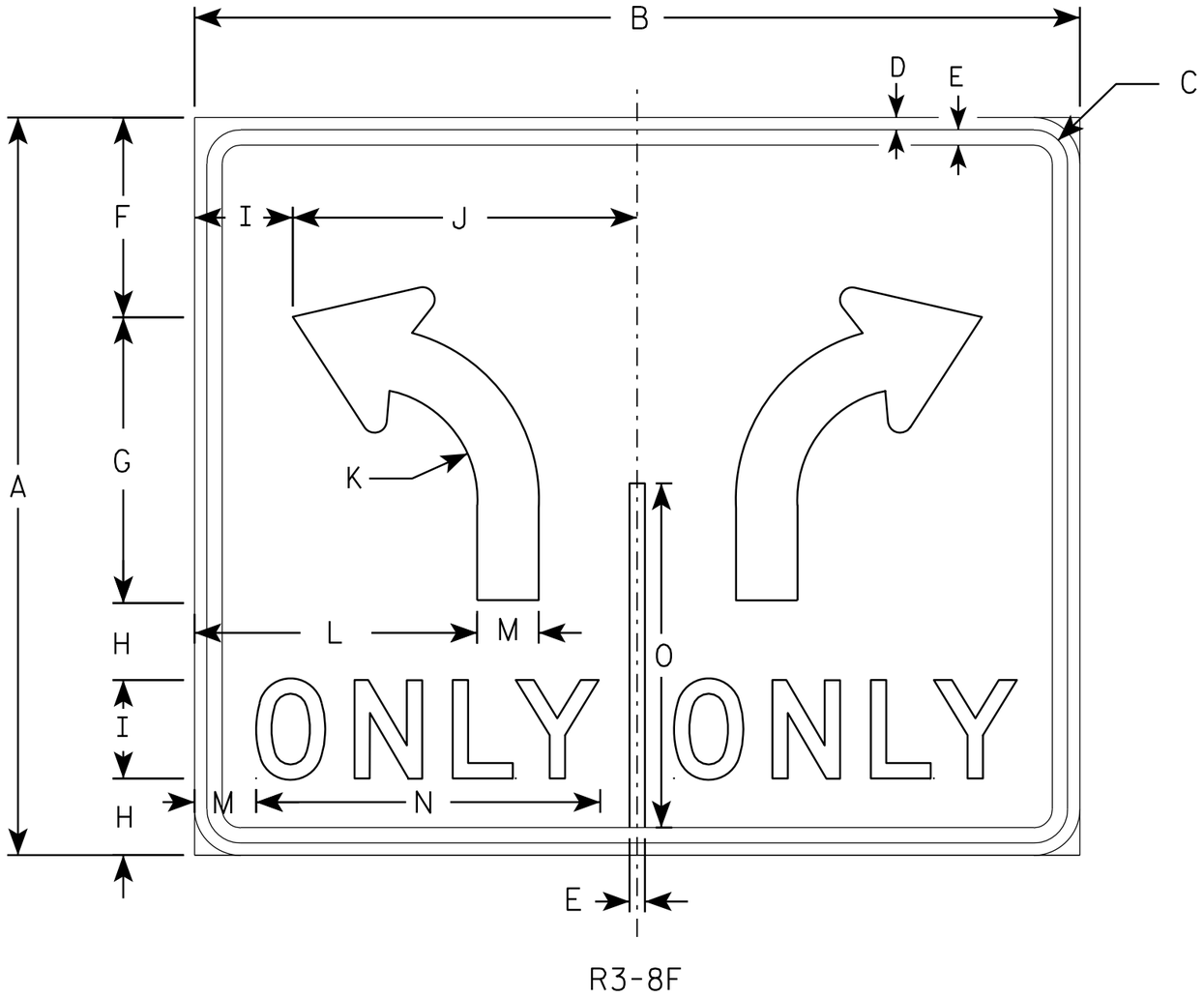
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 185 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

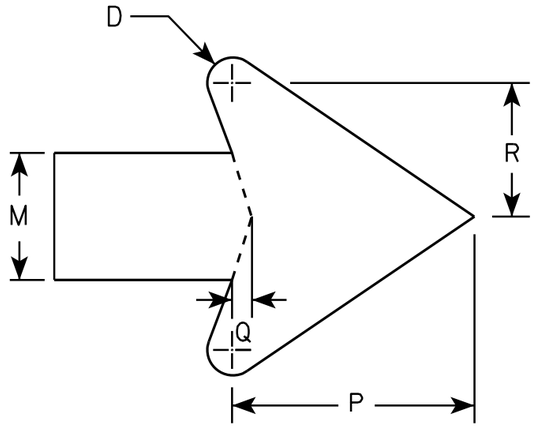
WISDOT/CADDS SHEET 42



R3-8F

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8									7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8									7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4									18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4									18.0

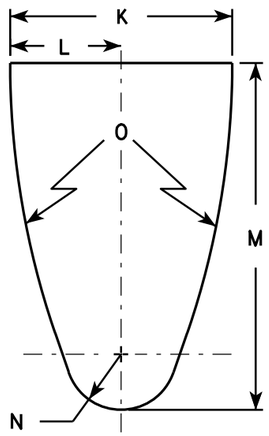
STANDARD SIGN
R3-8F

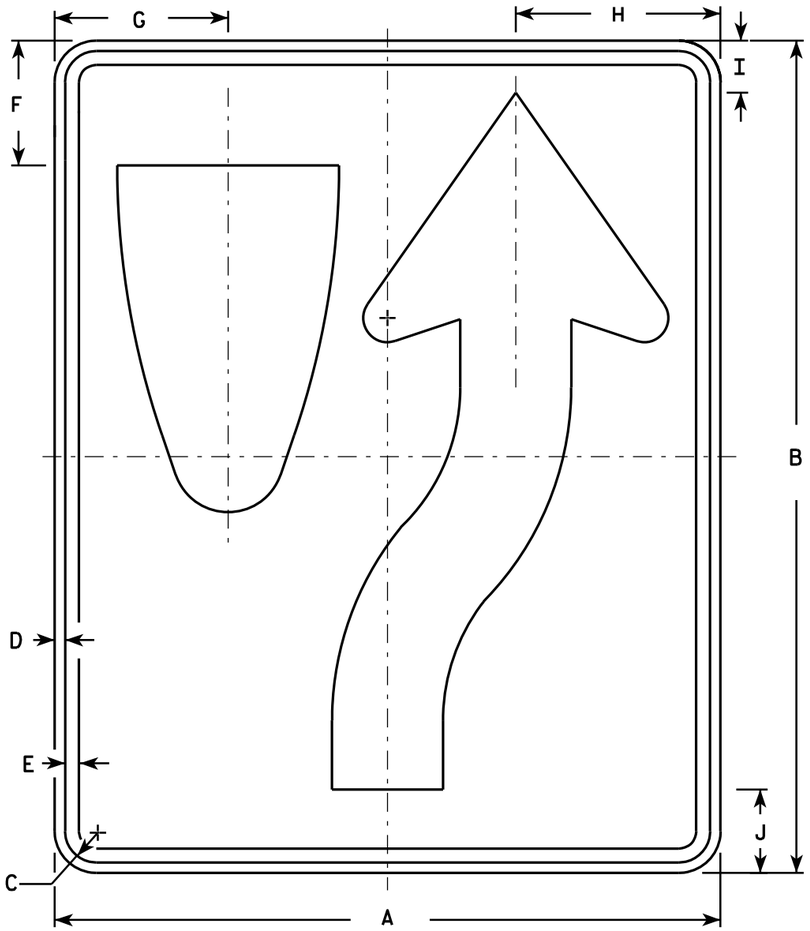
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8F.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 186 | E

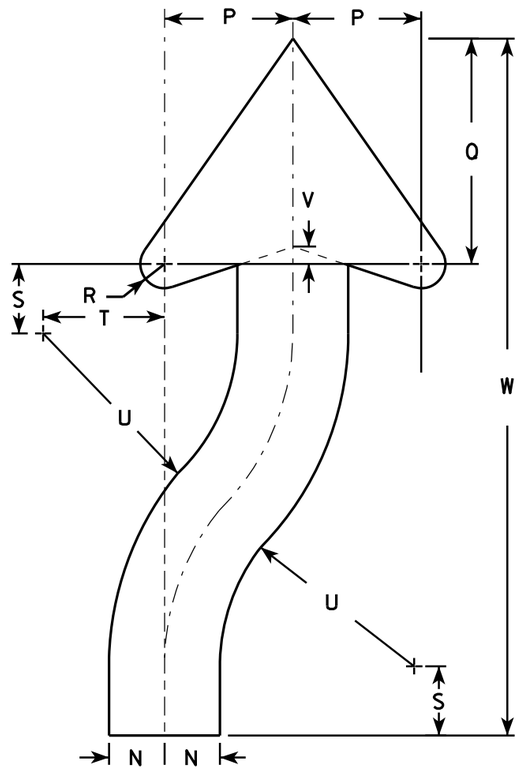




R4-7

NOTES

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



ARROW DETAIL

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

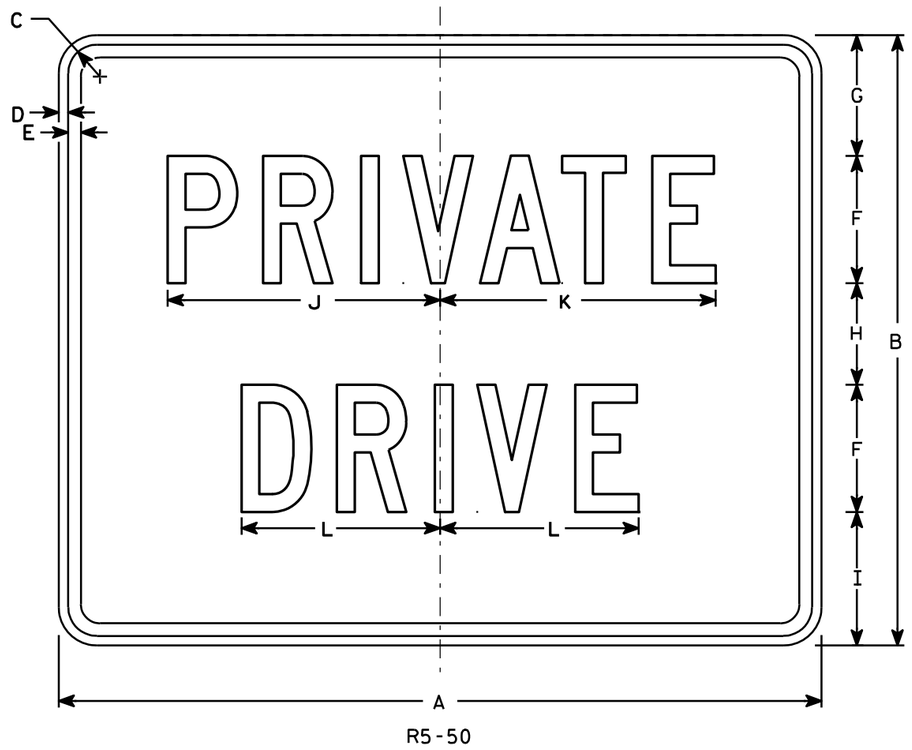
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	E



R5-50

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.

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	24	1 1/8	3/8	1/2	5	4 3/4	4	5 1/4	10 3/4	10 7/8	7 3/4															5.00
2M	30	24	1 1/8	3/8	1/2	5	4 3/4	4	5 1/4	10 3/4	10 7/8	7 3/4															5.00
3																											
4																											
5																											

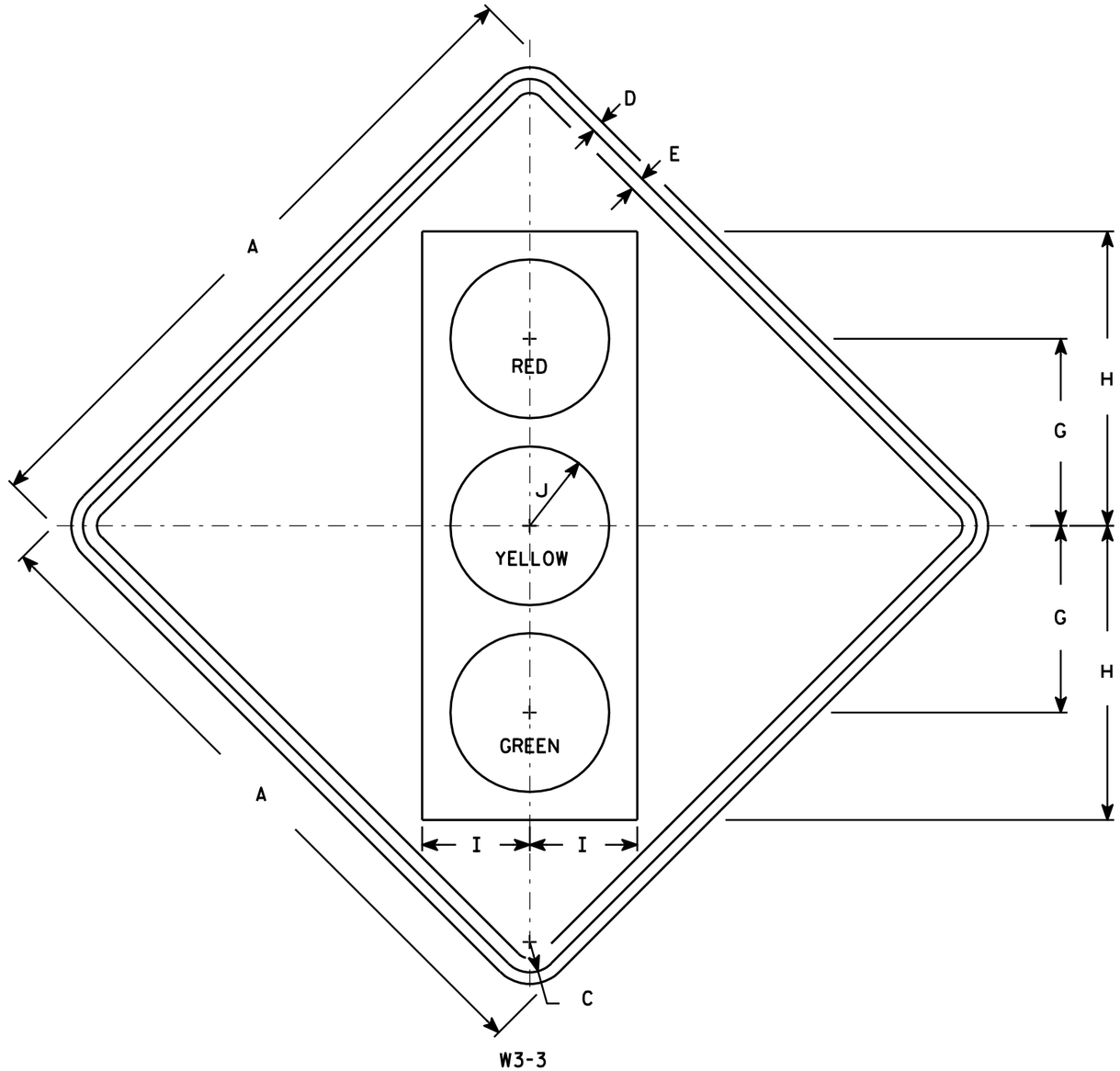
STANDARD SIGN
R5-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - 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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

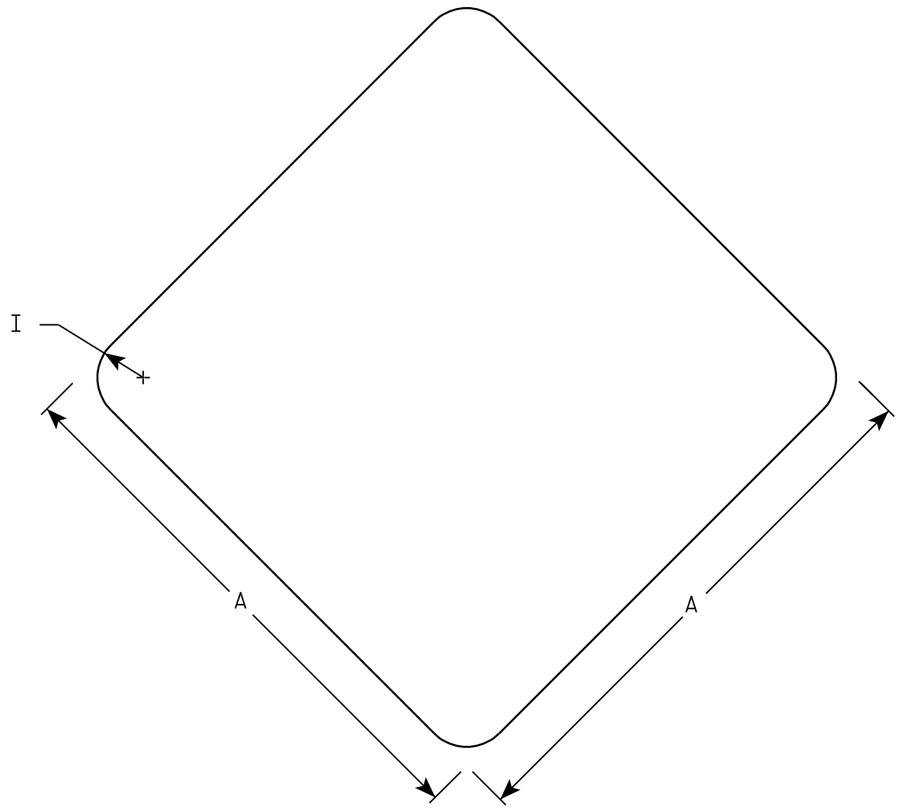
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 189 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



W5-54

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
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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

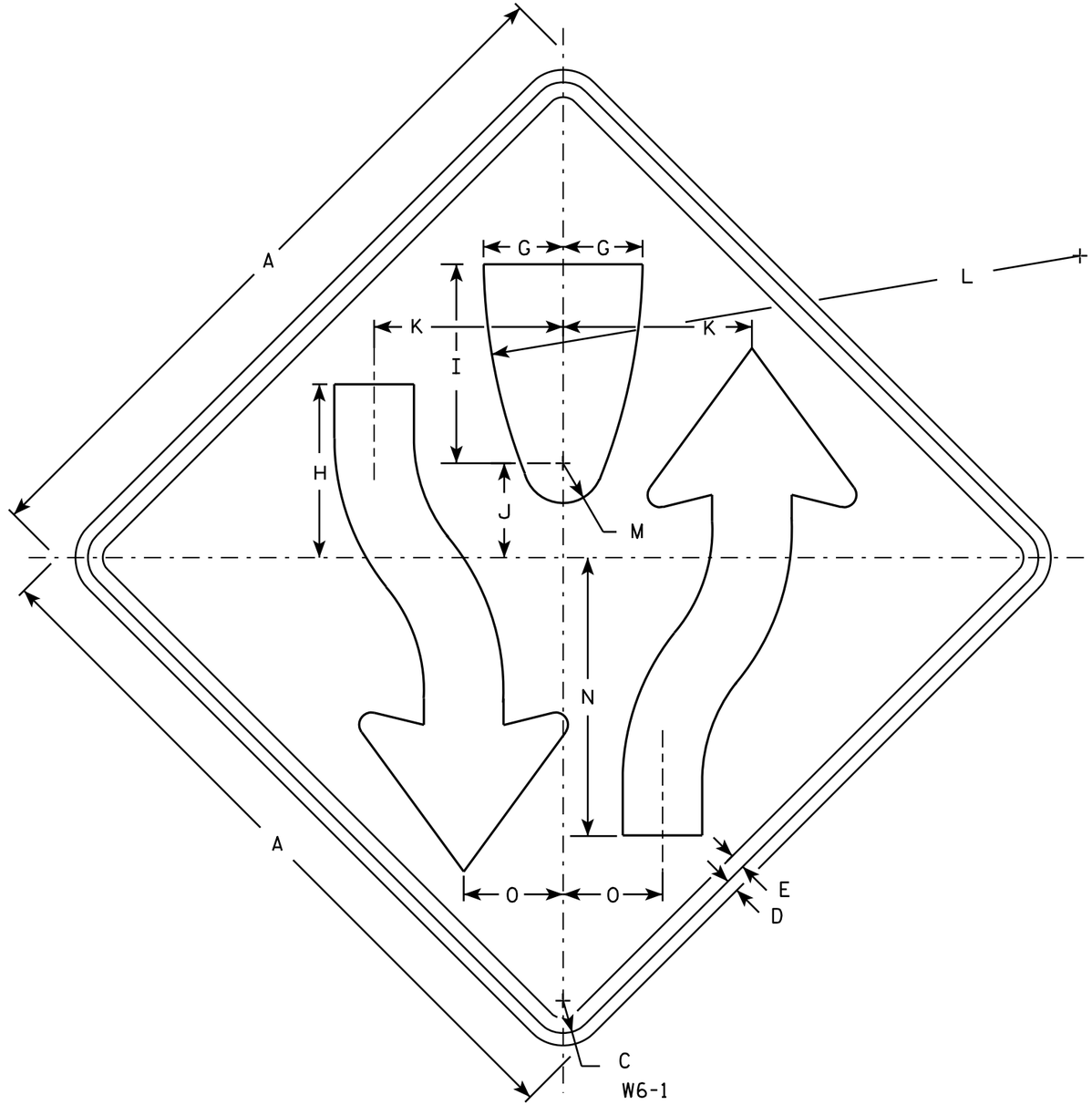
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

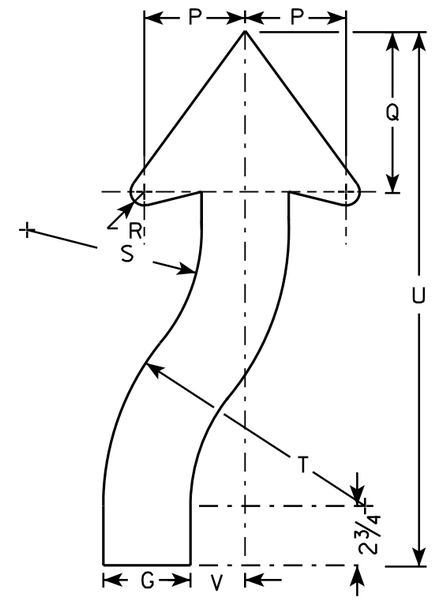
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

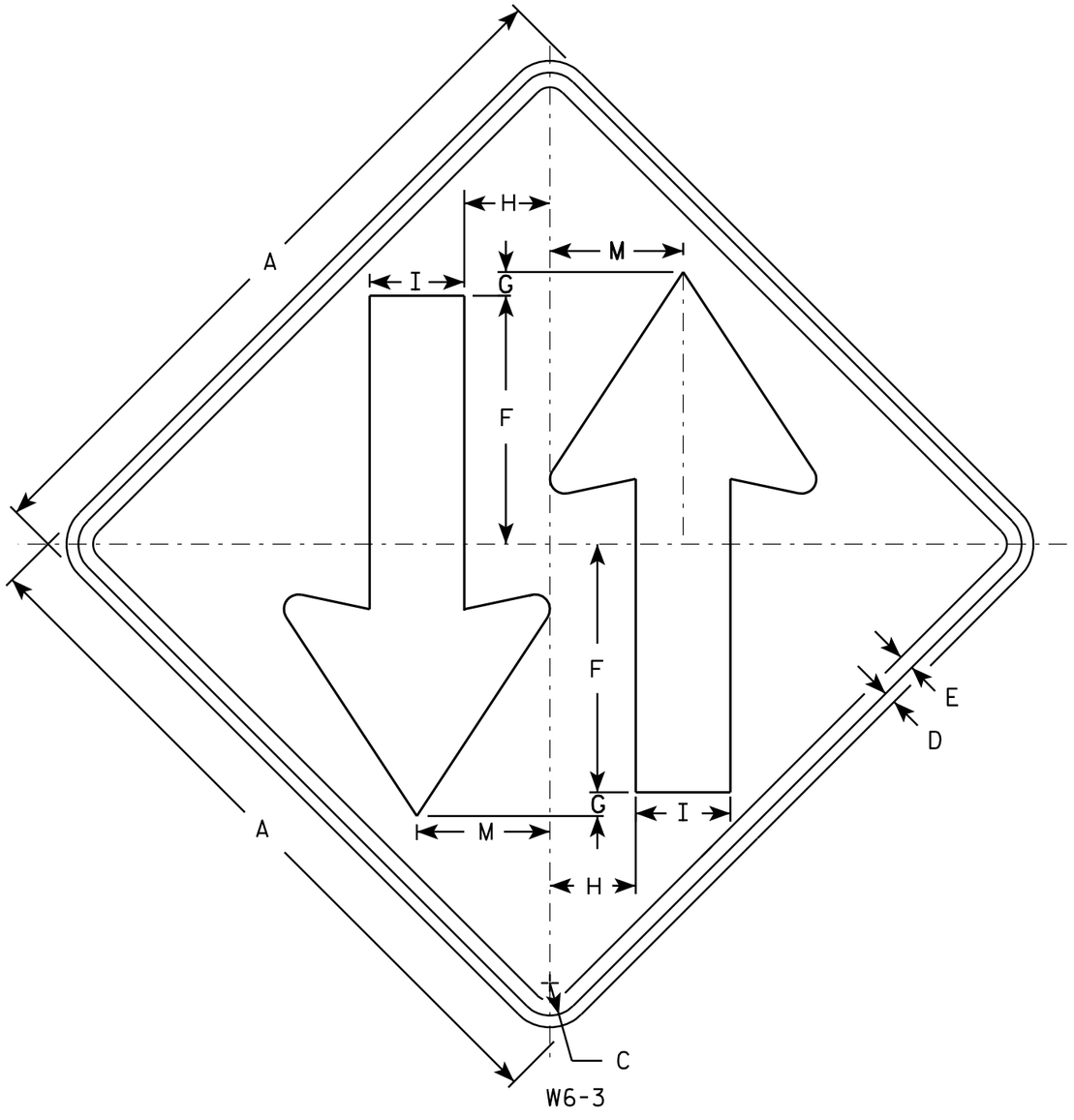
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 | E

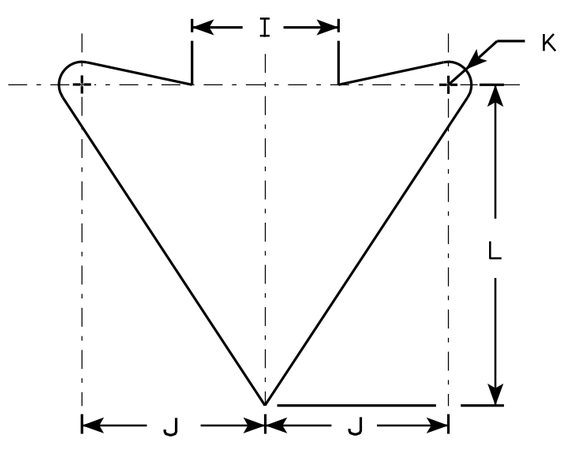
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



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.



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	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

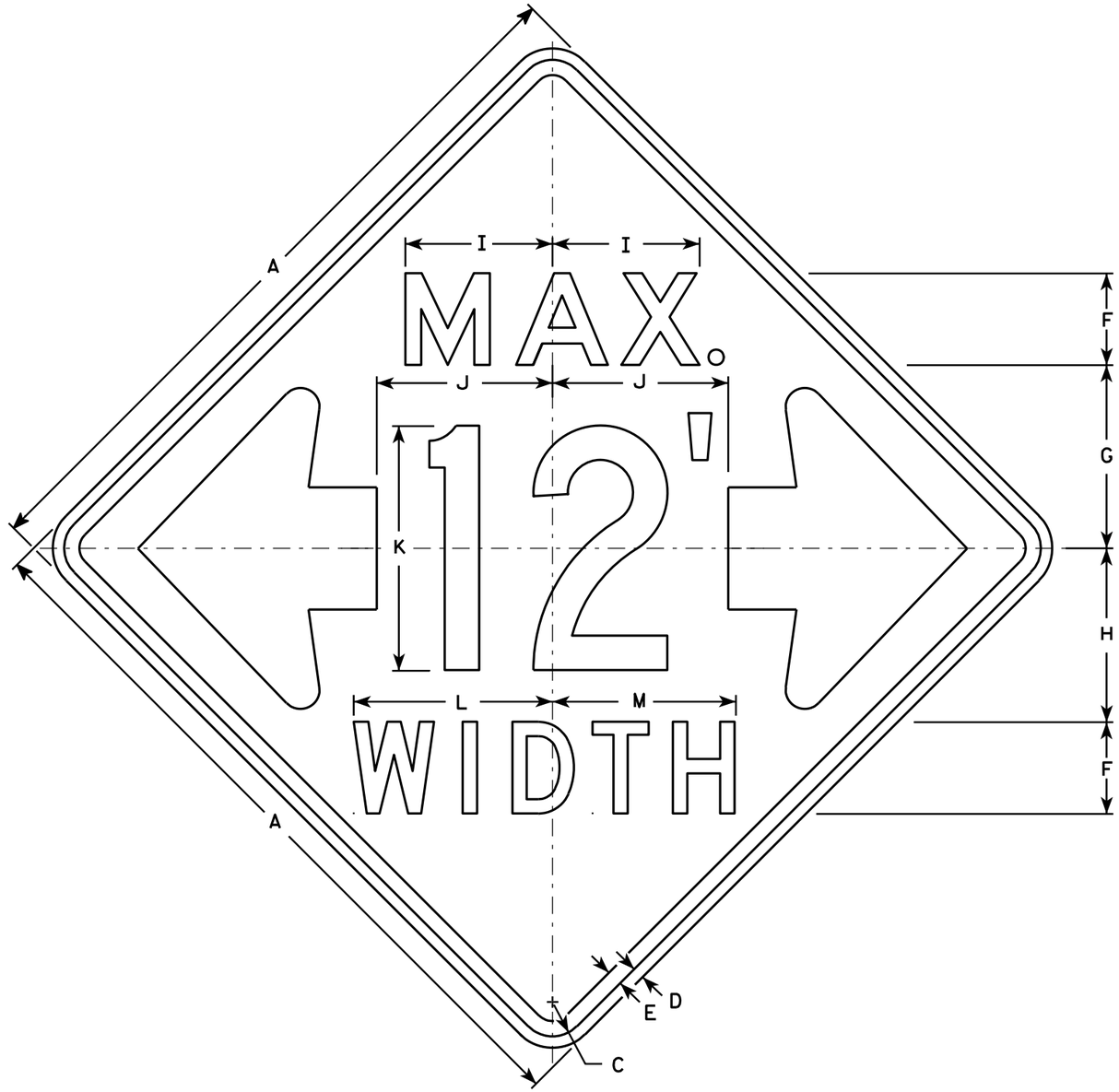
STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

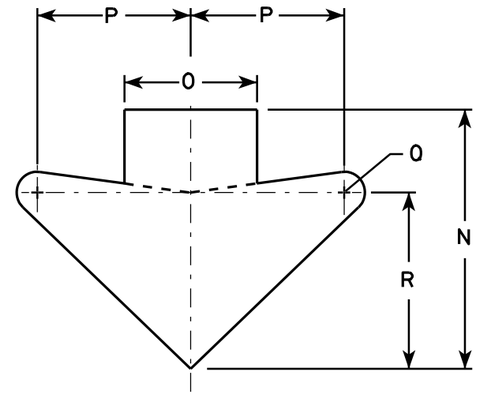
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 192 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

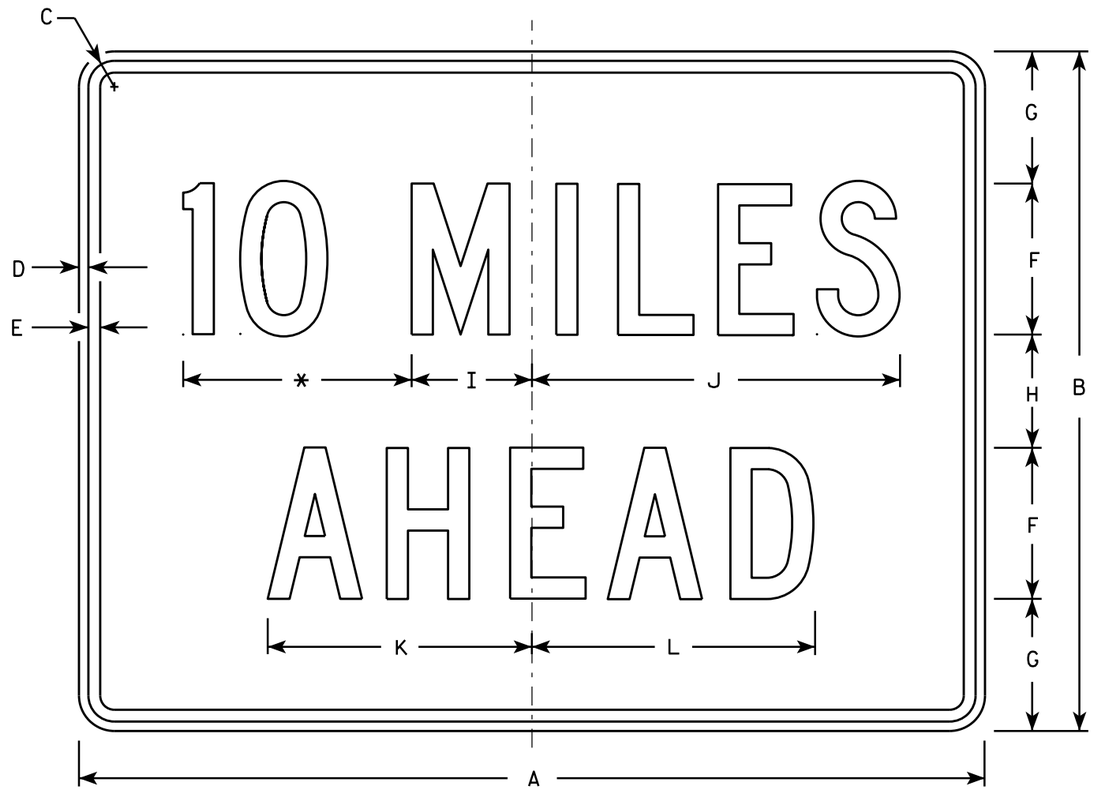
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

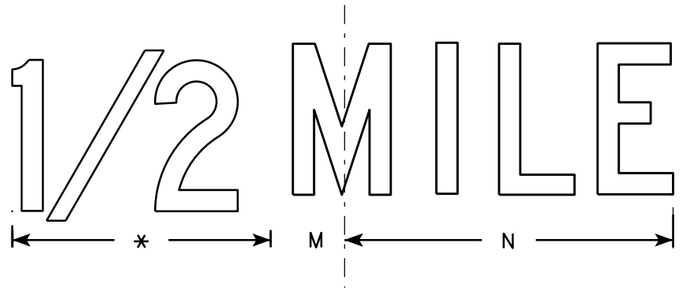
WISDOT/CADDS SHEET 42

7

7



W057-52



NOTES

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

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W057-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN PLOT DATE : 28-FEB-2014 11:42 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.026599:1.000000 WISDOT/CADDS SHEET 42

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 4
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	
90+50.00		4	0	0	0	0	0	0	0	0	0	0
91+00.00	50	13	0	0	0	16	0	0	0	16	0	16
91+50.00	50	10	0	0	0	22	0	0	0	38	0	37
92+00.00	50	16	0	0	0	24	0	0	0	62	0	62
92+50.00	50	13	0	0	0	27	0	0	0	88	0	88
92+93.00	43	28	0	0	0	33	0	0	0	121	0	121
93+00.00	7	28	0	0	0	7	0	0	0	129	0	128
93+15.00	15	11	0	6	0	11	0	2	0	139	2	137
93+38.00	23	9	0	12	0	8	0	7	0	148	12	136
93+50.00	12	10	0	7	0	4	0	4	0	152	17	135
94+00.00	50	9	0	11	0	17	0	17	0	169	38	131
94+37.00	37	11	0	3	0	13	0	10	0	182	50	132
94+50.00	13	17	0	0	0	7	0	1	0	189	51	138
94+57.00	7	17	0	0	0	4	0	0	0	194	51	143
95+00.00	43	11	0	1	0	22	0	1	0	216	52	164
95+20.00	20	10	0	3	0	8	0	1	0	224	53	170
95+50.00	30	17	0	0	0	15	0	2	0	239	56	183
95+65.00	15	13	0	0	0	8	0	0	0	247	56	191
95+91.00	26	12	0	0	0	12	0	0	0	258	56	203
96+00.00	9	14	0	0	0	4	0	0	0	263	56	207
96+33.88	34	0	0	0	0	9	0	0	0	271	56	215
108+13.25		0	0	0	0	0	0	0	0	271	56	215
108+50.00	37	6	0	0	0	4	0	0	0	275	56	219
108+68.00	18	8	0	0	0	5	0	0	0	280	56	224
109+00.00	32	12	0	0	0	12	0	0	0	292	56	236
109+50.00	50	11	0	0	0	21	0	0	0	313	56	257
109+85.00	35	10	0	0	0	13	0	0	0	326	56	270
110+00.00	15	10	0	1	0	6	0	0	0	332	56	275
110+32.00	32	17	0	0	0	16	0	0	0	347	57	291
110+50.00	18	10	0	0	0	9	0	0	0	356	57	300
110+67.00	17	9	0	0	0	6	0	0	0	362	57	306
111+00.00	33	8	0	0	0	10	0	0	0	372	57	316
111+50.00	50	10	0	0	0	16	0	0	0	389	57	332
111+90.00	40	22	0	0	0	23	0	0	0	412	57	356
112+00.00	10	23	0	0	0	8	0	0	0	421	57	364
112+50.00	50	8	0	2	0	29	0	2	0	450	59	391
113+00.00	50	8	0	0	0	15	0	2	0	465	61	404
113+50.00	50	11	0	0	0	18	0	0	0	483	62	421
113+53.85	4	0	0	0	0	1	0	0	0	484	62	422
				COLUMN TOTALS		484	0	49	0			

NOTES:

1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL: THIS DOES NOT SHOW UP IN THE CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
4) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

9

9

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090101_ew.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 49

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
91+35.00		0	0	0	0	0	0	0	0	0	0	0
91+50.00	15	0	0	0	0	0	0	0	0	0	0	0
92+00.00	50	0	0	0	0	0	0	0	0	0	0	0
92+50.00	50	0	0	0	0	0	0	0	0	0	0	0
92+93.00	43	8	0	3	0	7	0	4	0	7	5	1
93+00.00	7	10	0	12	0	2	0	3	0	9	9	0
93+15.00	15	24	0	0	0	9	0	3	0	18	14	5
93+38.00	23	31	0	0	0	23	0	0	0	41	14	28
93+50.00	12	14	0	6	0	10	0	1	0	51	15	36
94+00.00	50	28	5	26	0	39	5	29	0	91	52	34
94+37.00	37	52	5	0	0	55	7	18	0	146	74	60
94+50.00	13	29	5	12	0	19	3	3	0	165	77	73
94+57.00	7	28	5	19	0	7	1	4	0	172	82	74
95+00.00	43	24	5	19	0	42	8	30	0	214	120	69
95+20.00	20	55	5	0	0	29	4	7	0	243	129	86
95+50.00	30	22	5	14	0	43	6	8	0	286	139	112
95+65.00	15	23	5	11	0	12	3	7	0	298	148	113
95+91.00	26	48	5	0	0	34	5	5	0	332	155	135
96+00.00	9	34	5	3	0	14	2	1	0	346	156	146
96+36.00	36	20	5	6	0	36	7	6	0	382	163	168
96+50.00	14	25	5	5	0	12	3	3	0	393	167	173
97+00.00	50	31	9	16	0	52	13	20	0	446	191	187
97+22.00	22	50	9	0	0	33	7	7	0	479	200	205
97+34.00	12	32	9	20	0	18	4	4	0	497	205	214
97+50.00	16	23	9	31	0	16	5	15	0	514	224	206
97+86.00	36	31	9	2	0	36	12	22	0	550	251	203
97+89.00	3	31	9	1	0	3	1	0	0	553	251	205
98+00.00	11	21	9	23	0	10	4	5	0	563	258	206
98+50.00	50	12	9	9	0	30	17	30	0	593	294	182
99+00.00	50	4	17	70	0	14	24	73	0	607	386	80
99+36.00	36	1	17	7	0	3	23	52	0	610	450	-4
99+50.00	14	1	21	6	0	1	10	3	0	611	454	-18
100+00.00	50	7	30	1	0	7	47	7	0	618	463	-66
100+15.00	15	5	30	1	0	3	17	1	0	621	463	-80
100+50.00	35	3	20	3	0	6	33	3	0	627	467	-110
101+00.00	50	7	9	55	0	10	27	54	0	637	534	-194
101+50.00	50	12	0	34	0	18	8	83	0	655	637	-288
101+90.00	40	14	0	42	0	19	0	57	0	674	708	-339
102+00.00	10	14	0	40	0	5	0	15	0	679	727	-353
102+50.00	50	13	0	32	0	25	0	66	0	704	809	-411
103+00.00	50	30	0	0	0	40	0	30	0	744	846	-408
103+50.00	50	17	0	33	0	44	0	30	0	788	884	-402
103+79.00	29	17	0	31	0	19	0	34	0	806	927	-427
104+00.00	21	17	0	32	0	14	0	25	0	820	958	-444
104+50.00	50	20	0	40	0	34	0	66	0	854	1041	-493
104+59.00	9	20	0	37	0	7	0	13	0	861	1057	-502
105+00.00	41	39	0	17	0	45	0	41	0	906	1109	-509
105+50.00	50	90	0	0	0	119	0	16	0	1025	1128	-409
106+00.00	50	41	0	20	0	121	0	18	0	1146	1151	-311
106+18.00	18	42	0	44	0	27	0	21	0	1173	1178	-311

CON'T ON NEXT SHEET

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
106+50.00	32	48	0	11	0	53	0	32	0	1226	1218	-298
106+91.00	41	51	0	9	0	75	0	15	0	1301	1237	-242
107+00.00	9	51	0	7	0	17	0	3	0	1318	1240	-228
107+37.00	37	90	0	0	0	97	0	5	0	1414	1245	-137
107+50.00	13	60	0	5	0	36	0	1	0	1451	1247	-102
108+00.00	50	43	0	10	0	96	0	13	0	1547	1264	-23
108+50.00	50	43	0	15	0	80	0	23	0	1627	1293	29
108+68.00	18	72	0	0	0	39	0	5	0	1666	1299	61
109+00.00	32	43	0	27	0	68	0	16	0	1734	1319	109
109+50.00	50	7	8	23	0	46	7	46	0	1780	1377	91
109+85.00	35	51	8	0	0	37	10	15	0	1818	1396	100
110+00.00	15	29	8	26	0	22	4	7	0	1840	1405	108
110+32.00	32	28	8	27	0	33	9	32	0	1873	1444	93
110+50.00	18	30	8	25	0	19	5	17	0	1893	1466	86
110+67.00	17	45	8	0	0	24	5	8	0	1916	1476	96
111+00.00	33	30	8	7	0	46	9	4	0	1962	1481	127
111+50.00	50	11	0	3	0	37	7	9	0	1999	1492	146
111+90.00	40	8	0	6	0	14	0	6	0	2013	1500	151
112+00.00	10	8	0	5	0	3	0	2	0	2016	1503	152
112+50.00	50	9	0	3	0	16	0	8	0	2031	1512	158
113+00.00	50	2	0	0	0	10	0	3	0	2041	1516	164
113+50.00	50	0	0	0	0	2	0	0	0	2043	1516	166
				COLUMN TOTALS		2,043	361	1,213	0			

NOTES:

1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL: THIS DOES NOT SHOW UP IN THE CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
4) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090103_ew.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 49

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
91+35.00		0	0	0	0	0	0	0	0	0	0	0
91+50.00	15	1	0	0	0	0	0	0	0	0	0	0
92+00.00	50	0	0	0	0	1	0	0	0	2	0	2
92+50.00	50	1	0	0	0	1	0	0	0	3	0	3
92+93.00	43	0	0	0	0	1	0	0	0	3	0	3
93+00.00	7	0	0	0	0	0	0	0	0	3	0	3
93+15.00	15	0	0	0	0	0	0	0	0	3	0	3
93+38.00	23	17	0	0	0	7	0	0	0	11	0	11
93+50.00	12	16	0	0	0	8	0	0	0	18	0	18
94+00.00	50	19	0	0	0	33	0	0	0	51	0	51
94+37.00	37	19	0	0	0	26	0	0	0	77	0	77
94+50.00	13	14	0	0	0	8	0	0	0	85	0	85
94+57.00	7	15	0	0	0	4	0	0	0	88	0	88
95+00.00	43	16	0	2	0	24	0	2	0	113	2	111
95+20.00	20	15	0	5	0	12	0	2	0	124	5	119
95+50.00	30	12	0	2	0	15	0	4	0	139	10	130
95+65.00	15	23	0	0	0	10	0	1	0	149	10	139
95+91.00	26	8	0	6	0	15	0	3	0	164	14	150
96+00.00	9	8	0	2	0	3	0	1	0	167	16	151
96+36.00	36	21	0	0	0	19	0	2	0	186	18	169
96+50.00	14	12	0	2	0	9	0	0	0	195	18	177
97+00.00	50	25	0	0	0	35	0	2	0	230	20	209
97+22.00	22	22	0	0	0	19	0	0	0	249	20	228
97+34.00	12	16	0	0	0	8	0	0	0	257	20	237
97+50.00	16	11	0	1	0	8	0	0	0	265	21	244
97+86.00	36	12	0	7	0	16	0	6	0	281	28	253
97+89.00	3	11	0	10	0	1	0	1	0	282	29	253
98+00.00	11	7	0	8	0	4	0	4	0	286	34	252
98+50.00	50	2	0	45	0	8	0	49	0	294	95	199
99+00.00	50	2	0	51	0	4	0	90	0	297	207	90
99+36.00	36	6	0	42	0	5	0	62	0	303	285	18
99+50.00	14	2	0	19	0	2	0	16	0	305	305	0
100+00.00	50	12	0	7	0	13	0	24	0	317	336	-18
100+15.00	15	20	0	7	0	9	0	4	0	326	341	-14
100+50.00	35	17	0	8	0	24	0	9	0	350	352	-2
101+00.00	50	68	0	7	0	79	0	13	0	429	369	61
101+50.00	50	38	0	3	0	99	0	9	0	528	379	149
101+90.00	40	14	0	0	0	39	0	2	0	567	382	185
102+00.00	10	14	0	0	0	5	0	0	0	572	382	190
102+50.00	50	20	0	0	0	32	0	0	0	604	382	222
103+00.00	50	17	0	1	0	34	0	1	0	638	383	254
103+50.00	50	24	0	6	0	38	0	6	0	675	391	284
103+79.00	29	11	0	5	0	19	0	6	0	694	399	295
104+00.00	21	13	0	12	0	9	0	7	0	703	407	296
104+50.00	50	18	0	1	0	28	0	12	0	731	422	310
104+59.00	9	17	0	0	0	6	0	0	0	737	422	315
105+00.00	41	49	0	14	0	50	0	11	0	788	435	353
105+50.00	50	62	0	9	0	103	0	21	0	890	461	429
106+00.00	50	84	0	0	0	136	0	8	0	1026	472	554
106+18.00	18	63	0	26	0	49	0	9	0	1075	482	592

CON'T ON NEXT SHEET

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090104_ew.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 49

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
106+50.00	32	68	0	0	0	78	0	16	0	1152	502	651
106+91.00	41	77	0	1	0	110	0	1	0	1262	503	760
107+00.00	9	76	0	2	0	25	0	0	0	1288	503	785
107+37.00	37	69	0	0	0	100	0	1	0	1387	505	883
107+50.00	13	67	0	0	0	33	0	0	0	1420	505	916
108+00.00	50	60	0	0	0	118	0	0	0	1538	505	1034
108+50.00	50	57	0	0	0	108	0	0	0	1646	505	1141
108+68.00	18	51	0	5	0	36	0	2	0	1682	507	1175
109+00.00	32	54	0	0	0	62	0	3	0	1744	510	1234
109+50.00	50	14	0	0	0	63	0	0	0	1807	511	1296
109+85.00	35	15	0	1	0	19	0	1	0	1826	511	1314
110+00.00	15	16	0	1	0	9	0	0	0	1834	512	1323
110+32.00	32	17	0	0	0	20	0	0	0	1854	512	1342
110+50.00	18	16	0	0	0	11	0	0	0	1865	512	1353
110+67.00	17	18	0	0	0	11	0	0	0	1876	512	1364
111+00.00	33	18	0	0	0	22	0	0	0	1898	512	1386
111+50.00	50	8	0	0	0	24	0	0	0	1923	512	1410
111+90.00	40	0	0	0	0	6	0	0	0	1929	512	1416
112+00.00	10	0	0	0	0	0	0	0	0	1929	512	1416
112+50.00	50	5	0	0	0	5	0	0	0	1933	512	1421
113+00.00	50	2	0	0	0	7	0	0	0	1940	512	1427
113+50.00	50	0	0	0	0	2	0	0	0	1942	512	1429
				COLUMN TOTALS		1,942	0	410	0			

NOTES:

1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL: THIS DOES NOT SHOW UP IN THE CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
4) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 4
		CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	
100+46.22 CR		0	0	0	0	0	0	0	0	0	0	0
100+50.00 CR	4	56	37	24	0	4	3	2	0	4	2	-1
100+75.00 CR	25	56	37	24	0	52	34	22	0	56	30	-11
101+00.00 CR	25	56	37	24	0	52	34	22	0	108	58	-21
101+25.00 CR	25	57	39	21	0	52	35	21	0	160	84	-30
101+50.00 CR	25	56	39	16	0	52	36	17	0	212	105	-35
101+75.00 CR	25	53	39	4	0	50	36	9	0	262	117	-32
101+93.00 CR	18	51	37	2	0	35	25	2	0	297	119	-26
				COLUMN TOTALS		297	203	95	0			

NOTES:

1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL: THIS DOES NOT SHOW UP IN THE CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
4) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

9

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STATION	DISTANCE	CUT XS Area	FILL XS Area	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
				CUT	UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
10+46.31D		95	11	48	0	5	0	0	0	0	0	0	0	0
10+75.00D	29	109	0	54	0	0	0	54	0	3	0	54	4	51
11+00.00D	25	100	0	50	0	0	0	48	0	0	0	102	4	99
11+25.00D	25	77	0	39	0	0	0	41	0	0	0	143	4	140
11+50.00D	25	62	1	31	0	1	0	32	0	0	0	176	4	172
11+75.00D	25	55	1	28	0	0	0	27	0	0	0	203	4	198
12+00.00D	25	51	0	26	0	0	0	25	0	0	0	227	5	223
12+25.00D	25	48	0	24	0	0	0	23	0	0	0	251	5	246
12+50.00D	25	55	0	27	0	0	0	24	0	0	0	274	5	269
12+75.00D	25	55	0	28	0	0	0	25	0	0	0	300	5	295
13+00.00D	25	55	0	28	0	0	0	26	0	0	0	326	5	320
13+25.00D	25	46	0	23	0	0	0	23	0	0	0	349	5	344
13+50.00D	25	47	0	24	0	0	0	22	0	0	0	370	5	365
13+75.00D	25	40	0	20	0	0	0	20	0	0	0	391	5	385
14+00.00D	25	52	0	26	0	0	0	21	0	0	0	412	5	406
14+25.00D	25	43	0	22	0	0	0	22	0	0	0	434	5	428
14+50.00D	25	31	0	16	0	0	0	17	0	0	0	451	5	446
14+73.19D	23	31	0	16	0	0	0	13	0	0	0	465	5	459
						COLUMN TOTALS		465	0	4	0			

NOTES:

1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL: THIS DOES NOT SHOW UP IN THE CROSS SECTIONS
3) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
4) MASS ORDINATE: MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

9

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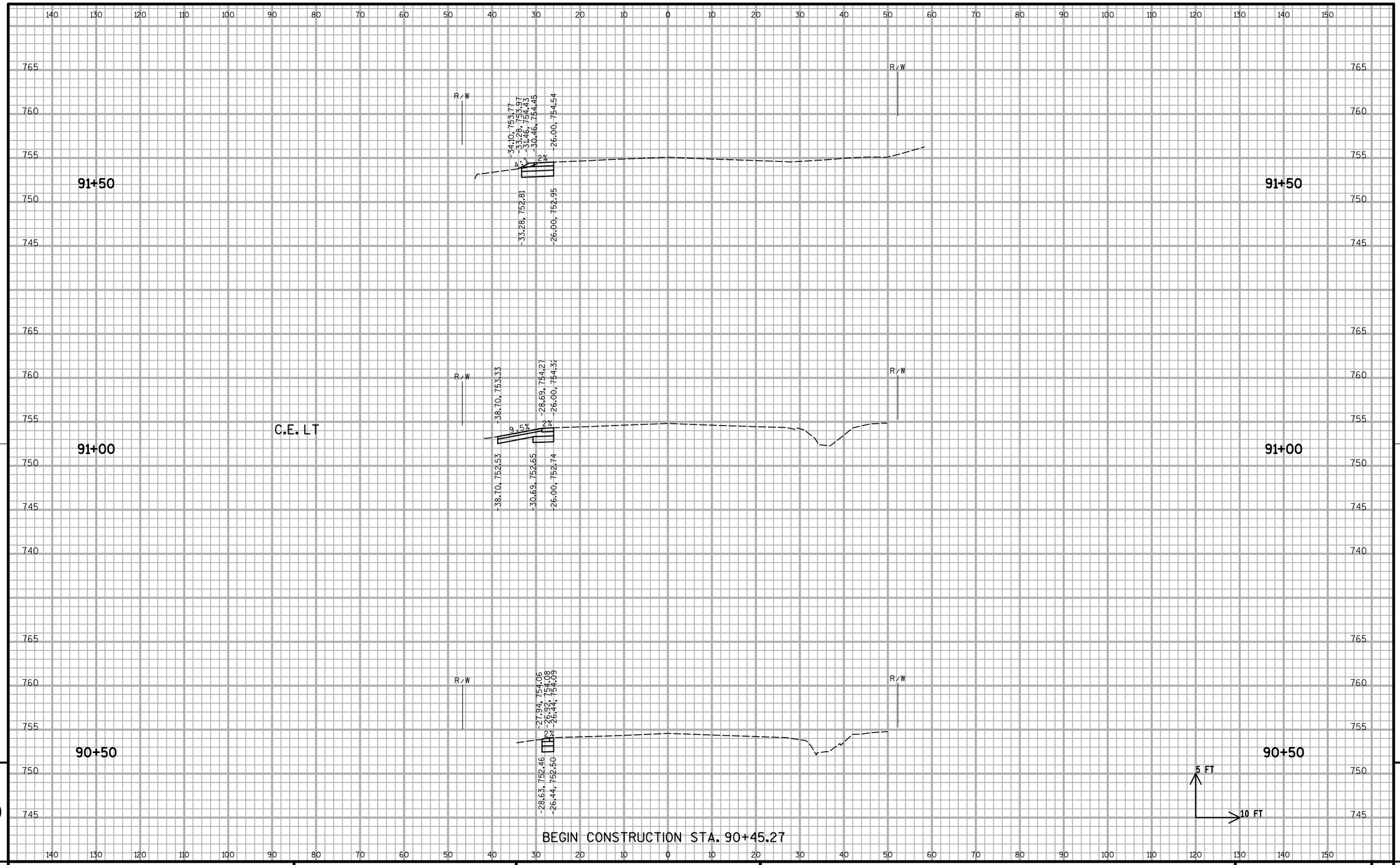
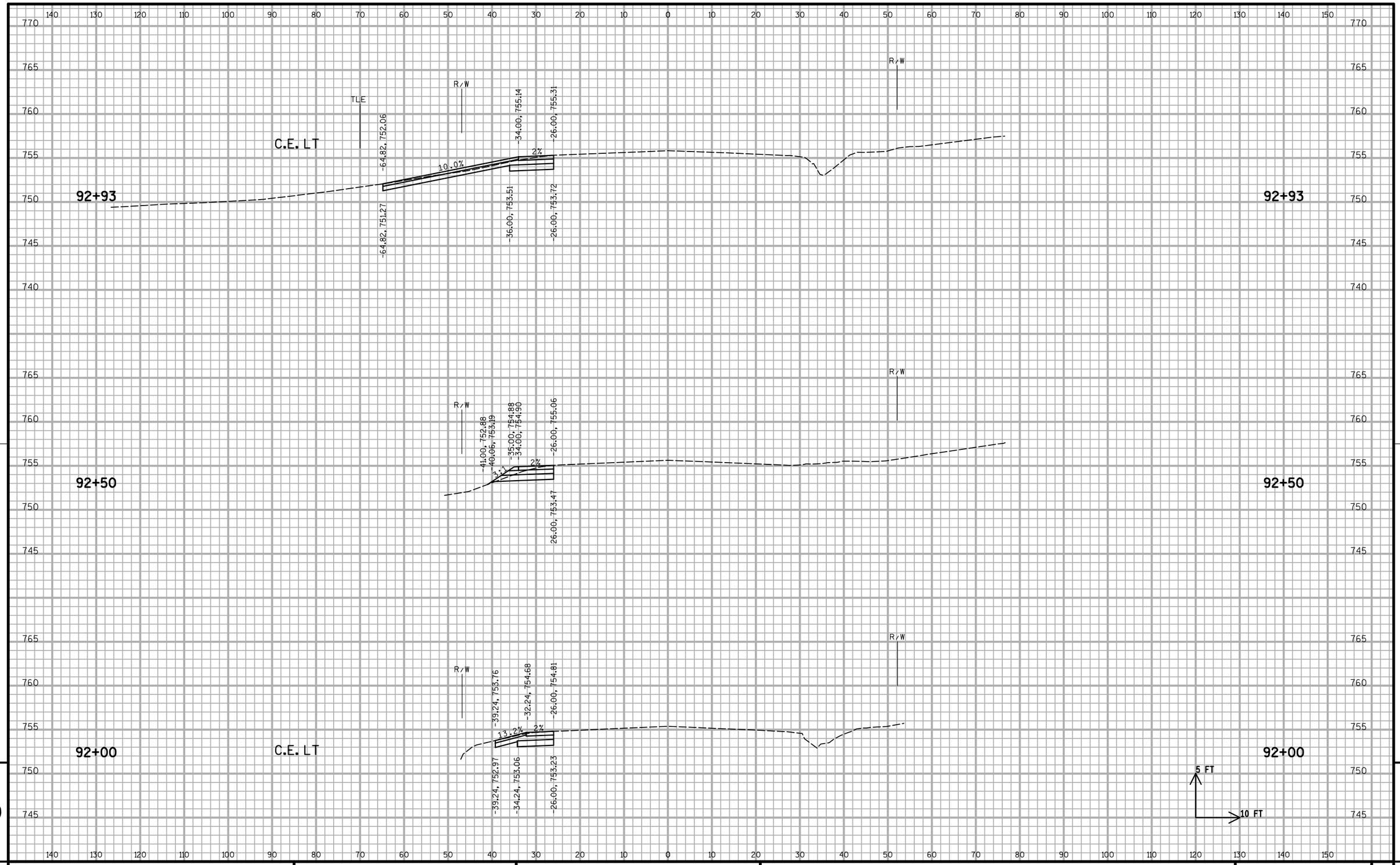


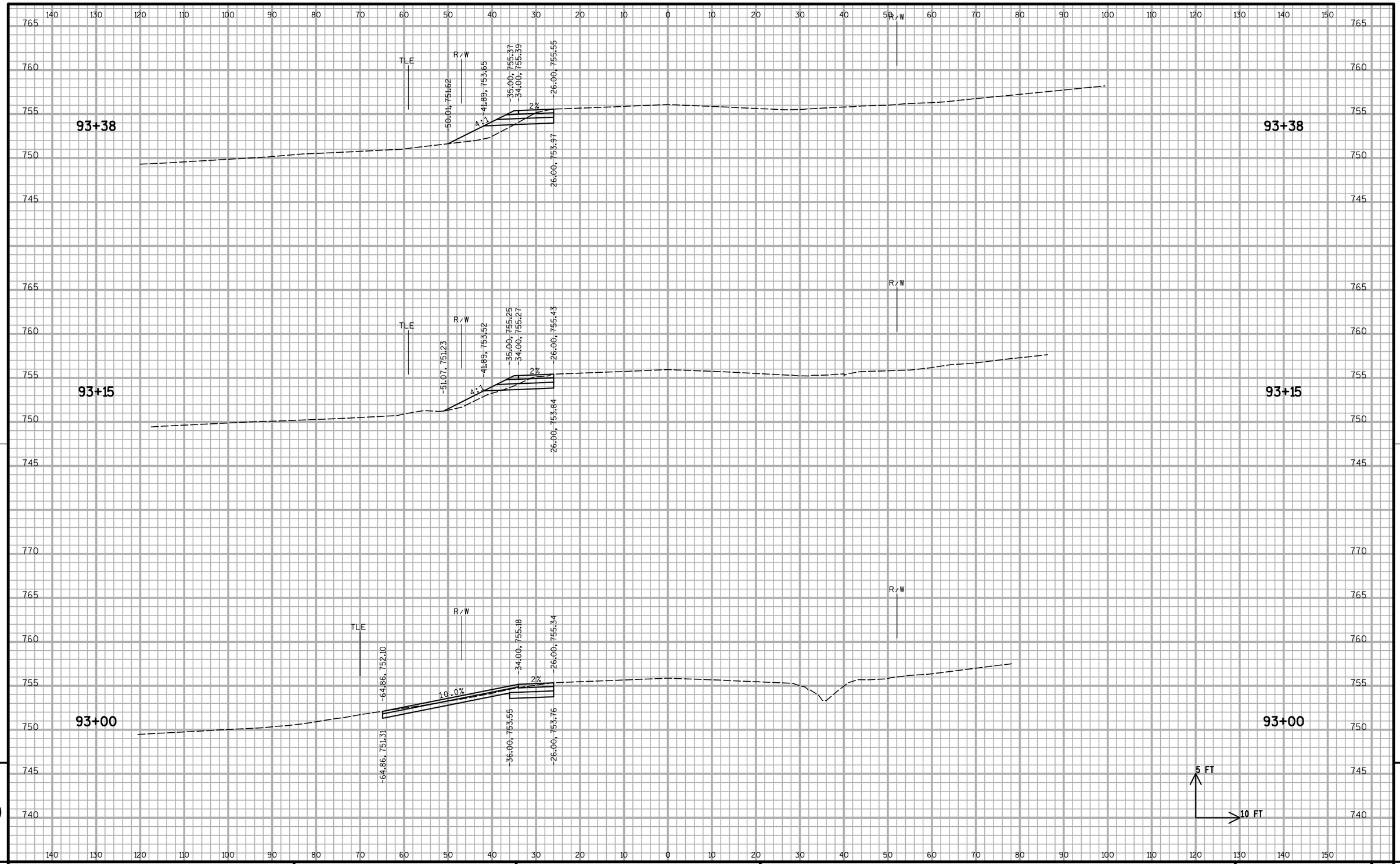
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



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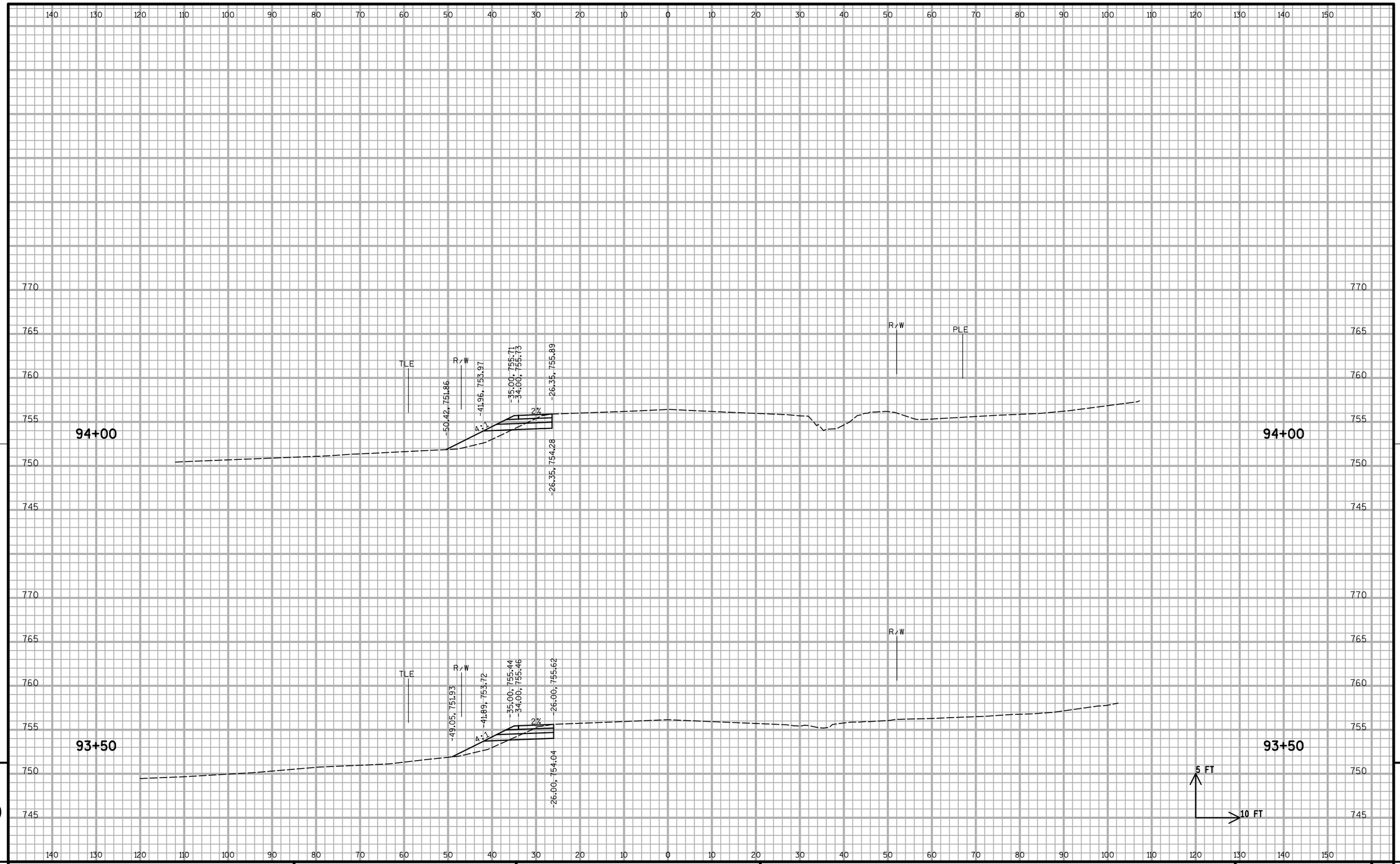
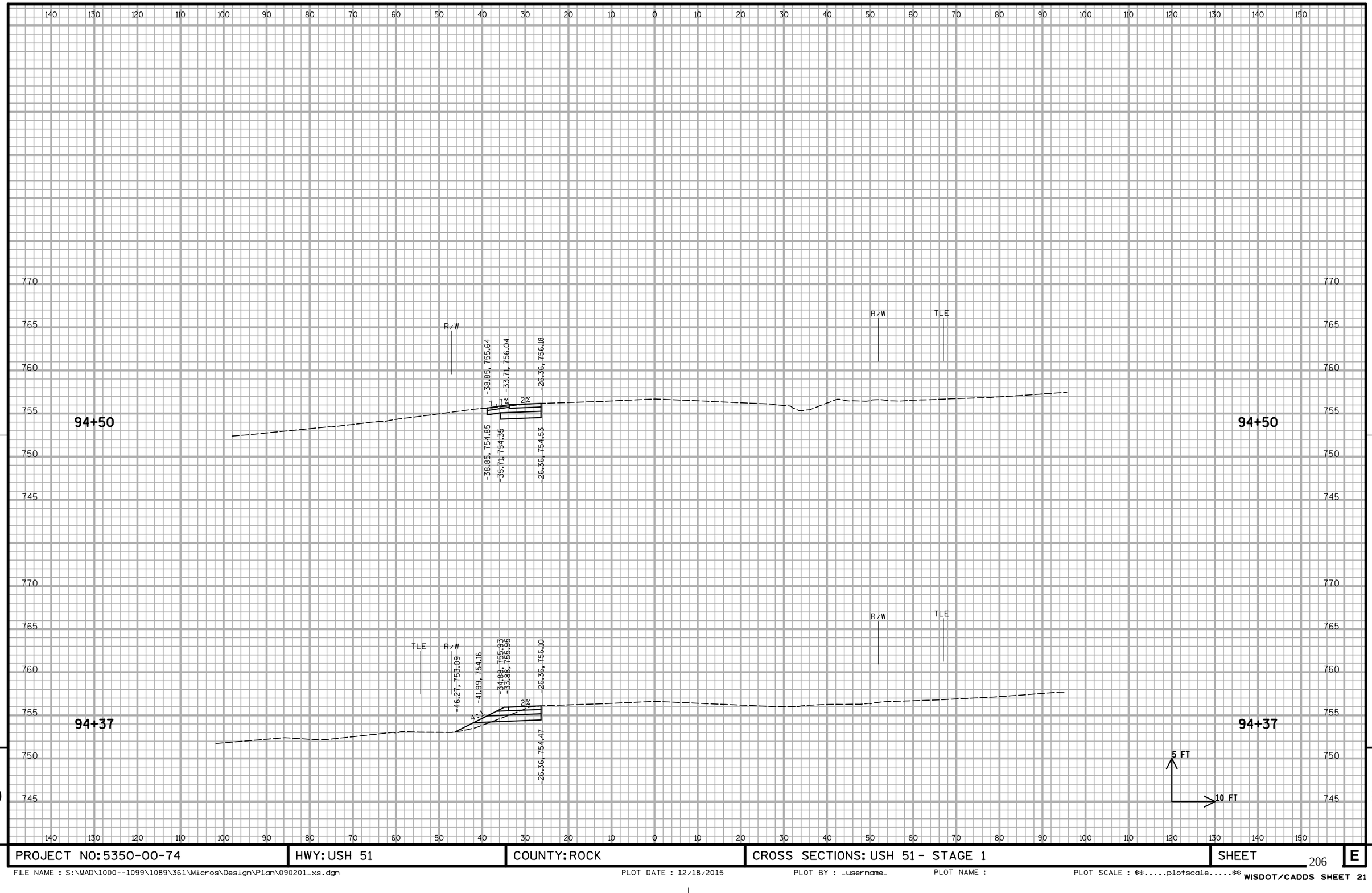
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 204	E



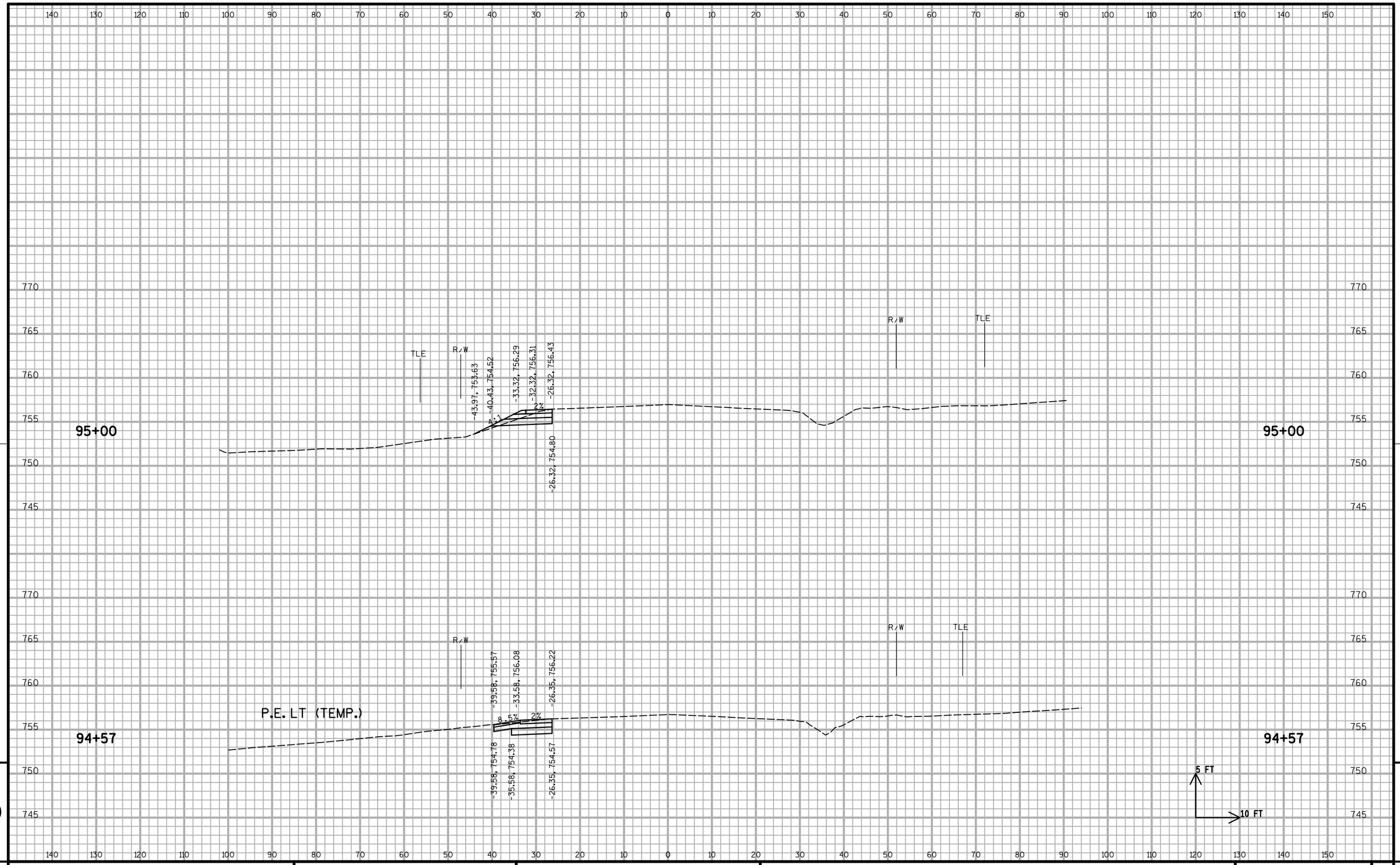
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



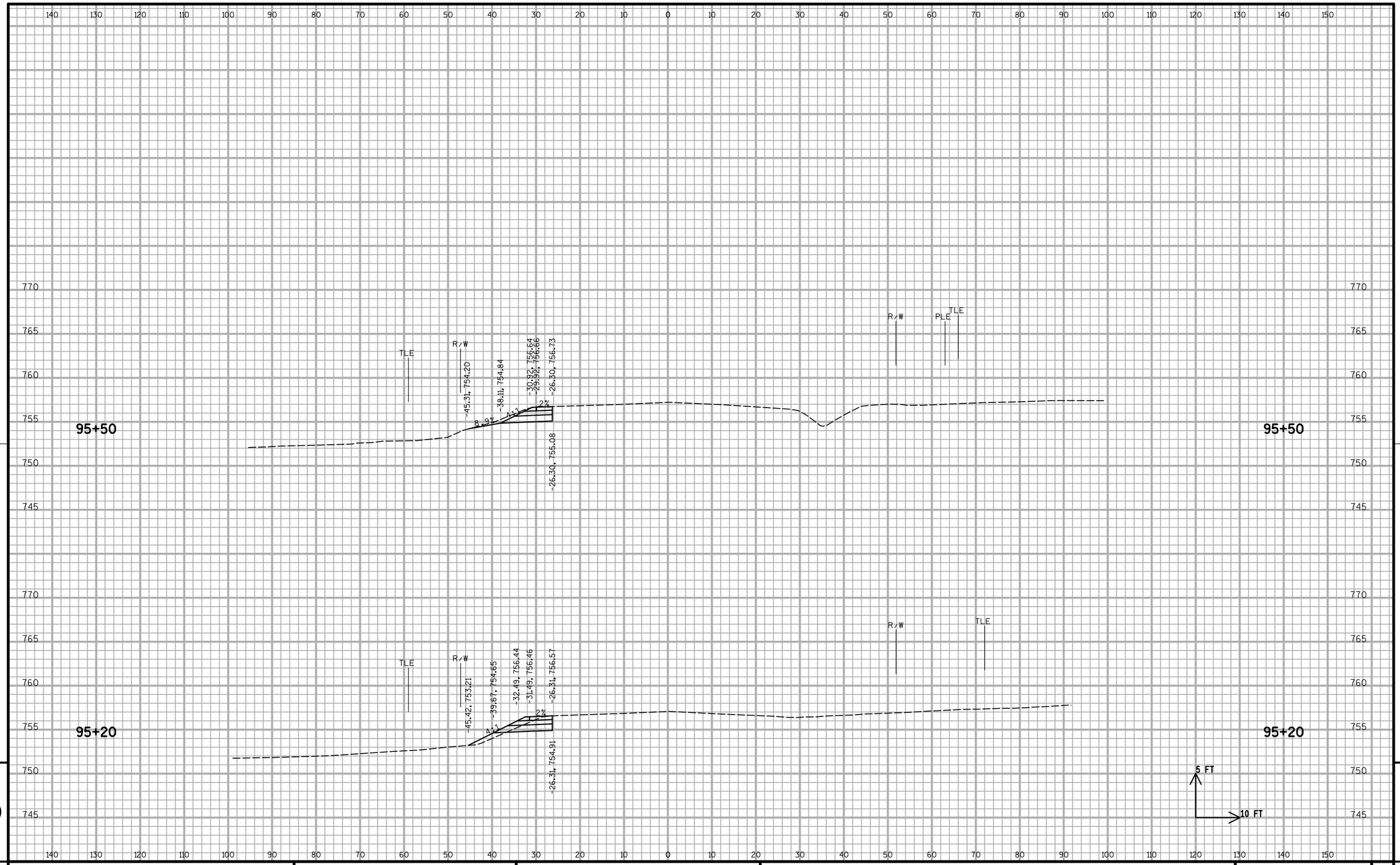
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



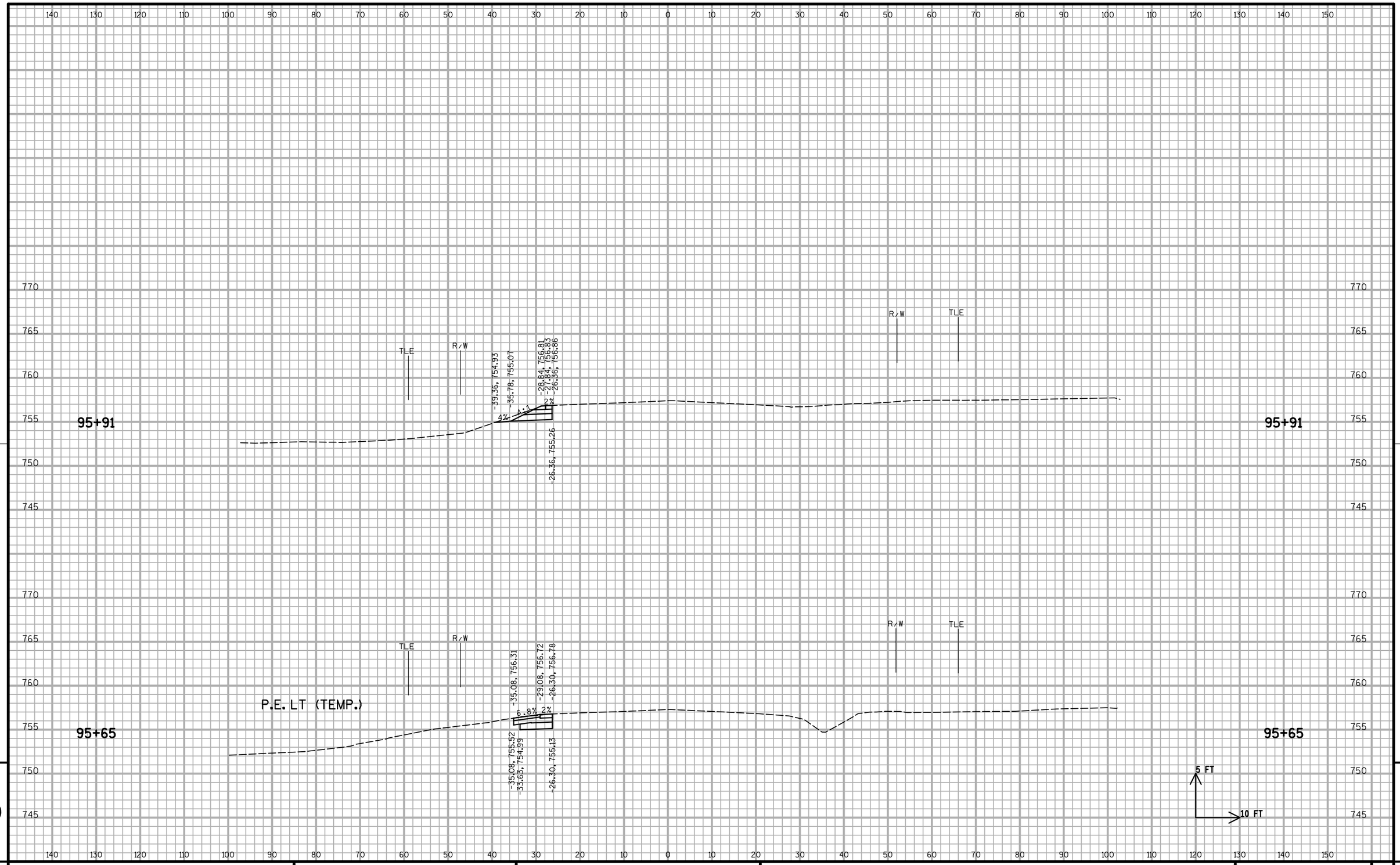
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



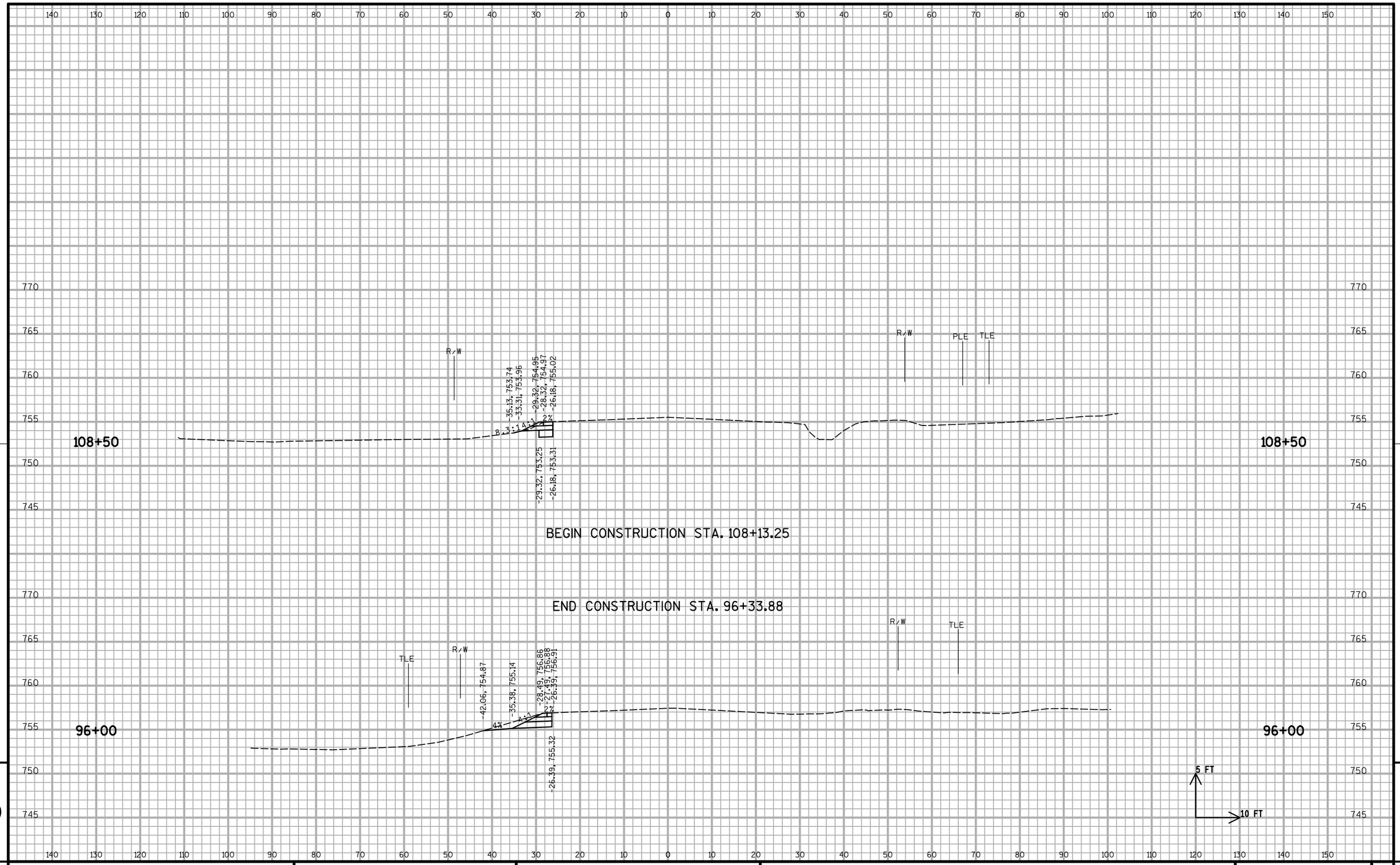
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



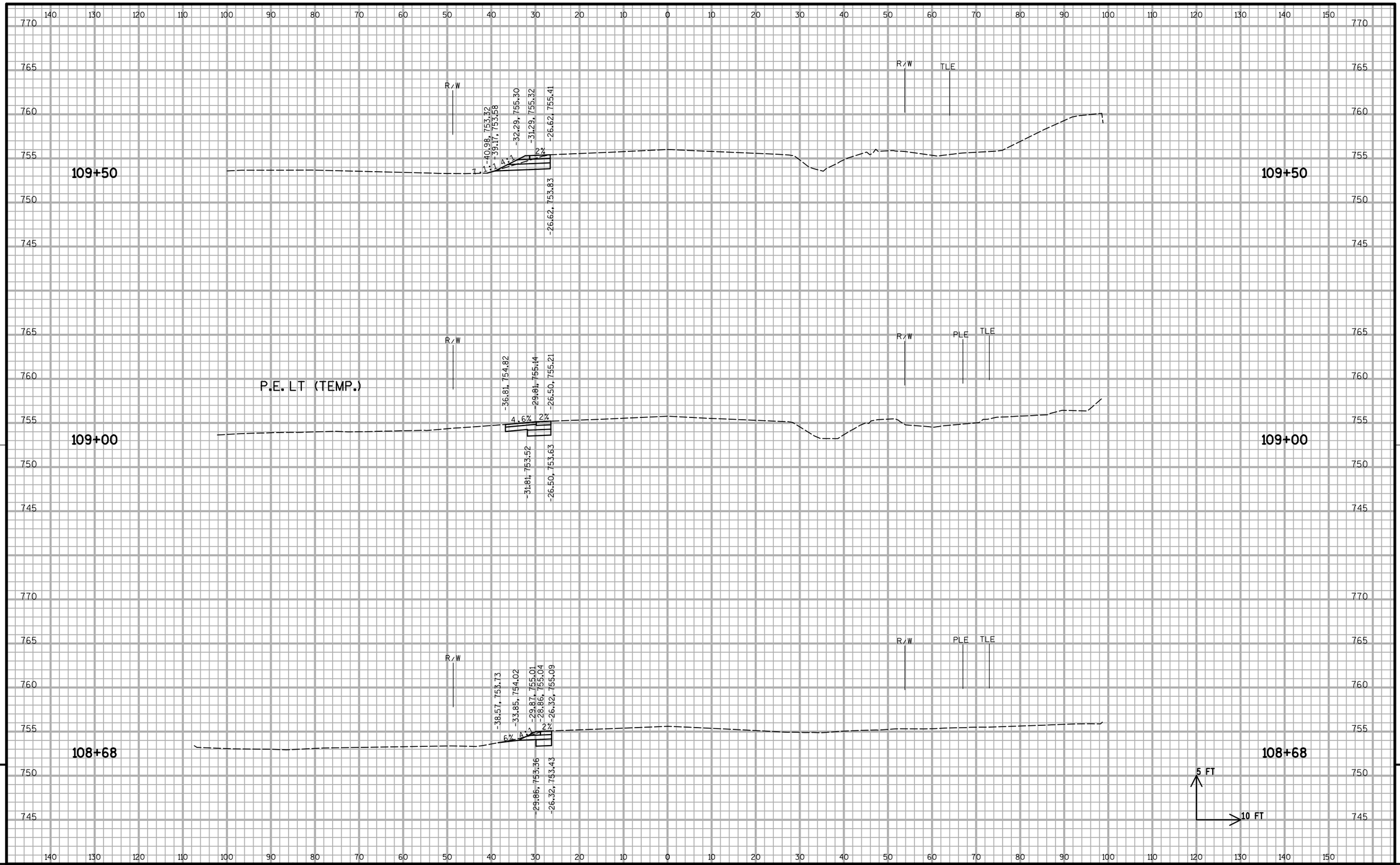
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 210	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



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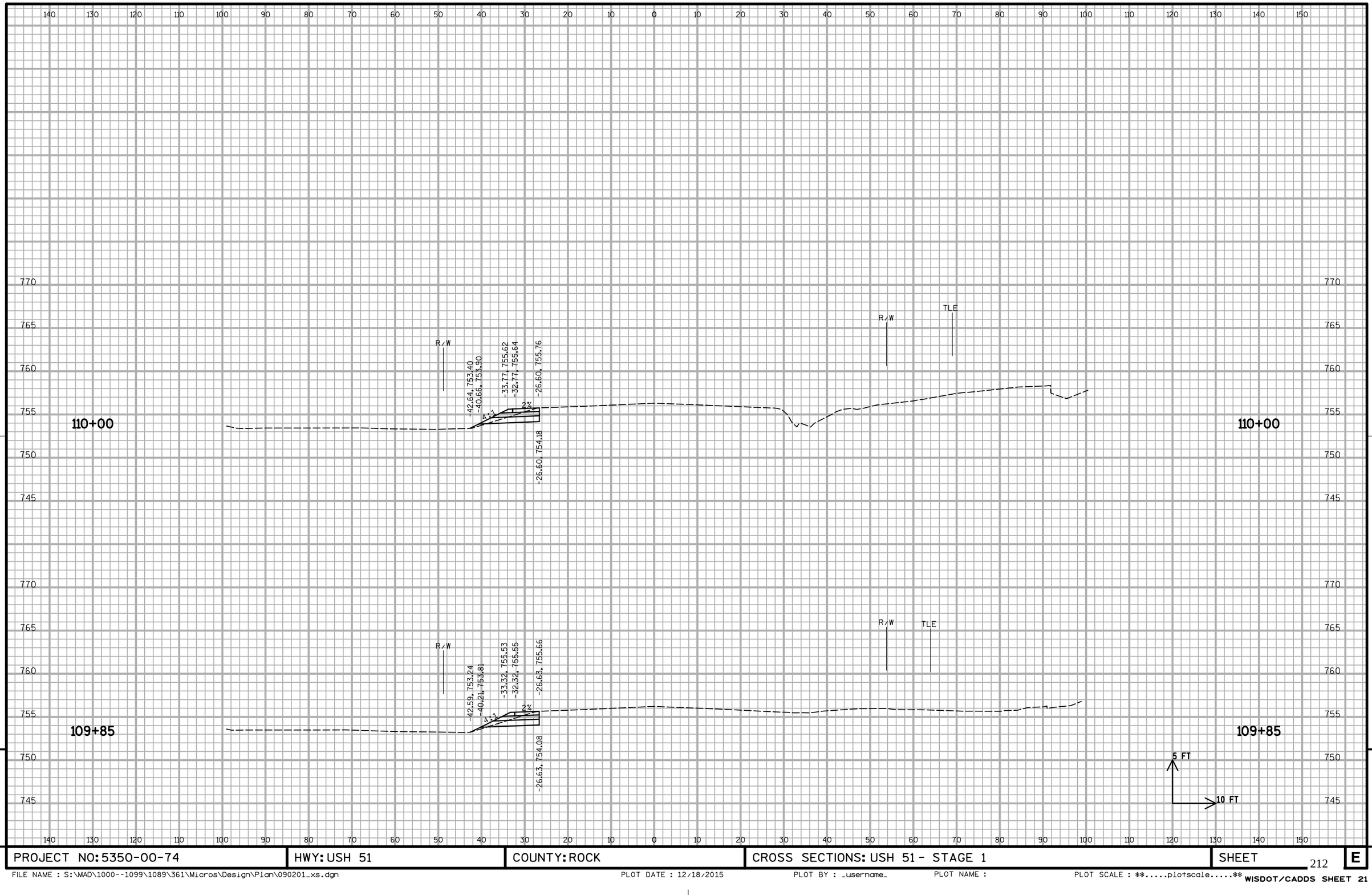
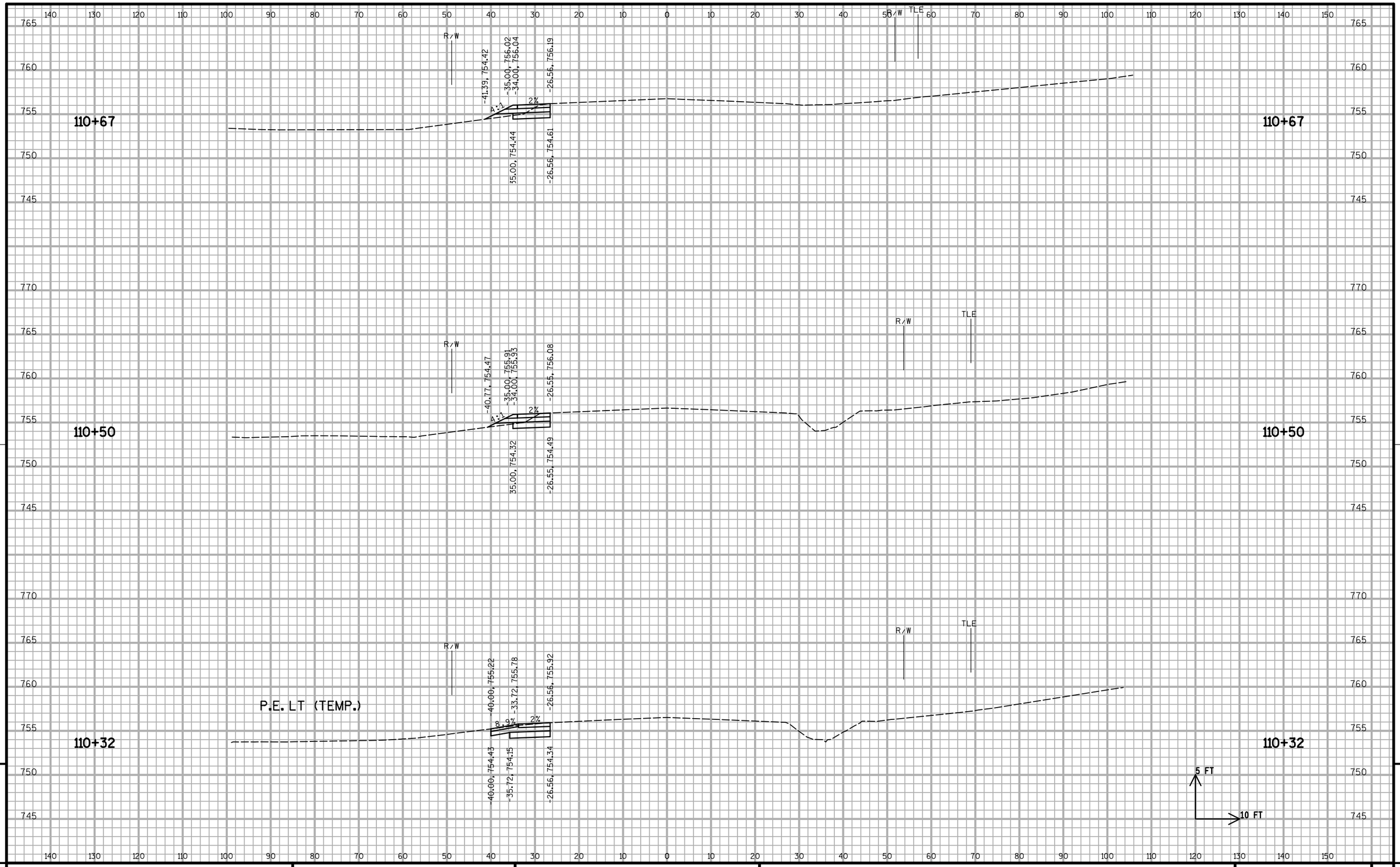
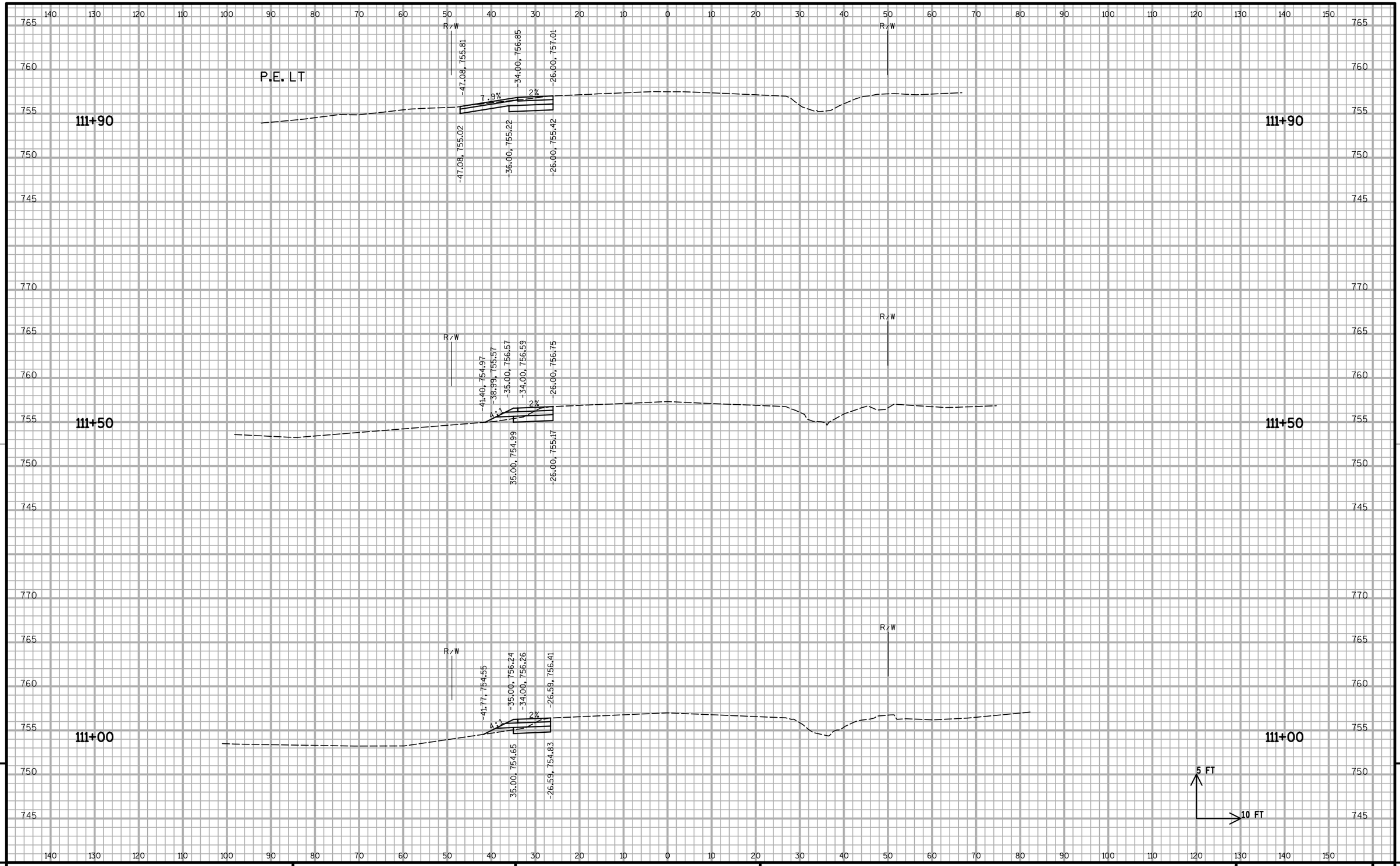
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 211	E



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 212	E

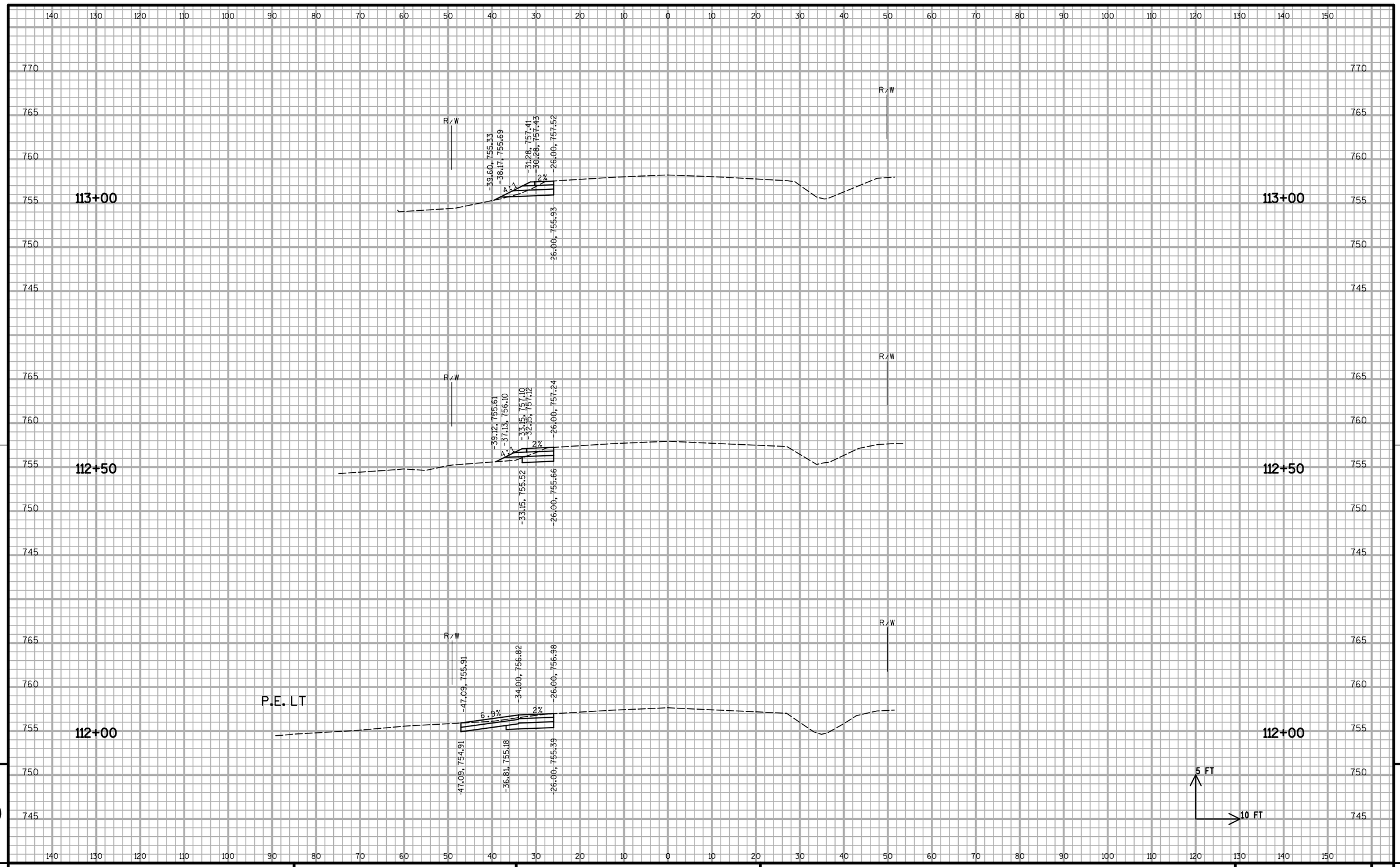
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21


110+67
R/W
TLE
-41.39, 754.42
-35.00, 756.02
-34.00, 756.04
-26.56, 756.19
4:1
2%
35.00, 754.44
-26.56, 754.61
110+50
-40.77, 754.47
-35.00, 755.91
-34.00, 755.93
-26.55, 756.08
35.00, 754.32
-26.55, 754.49
110+32
P.E. LT (TEMP.)
-40.00, 755.22
-33.72, 755.78
-26.56, 755.92
8%
-40.00, 754.43
-35.72, 754.15
-26.56, 754.34
5 FT
10 FT



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 214	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



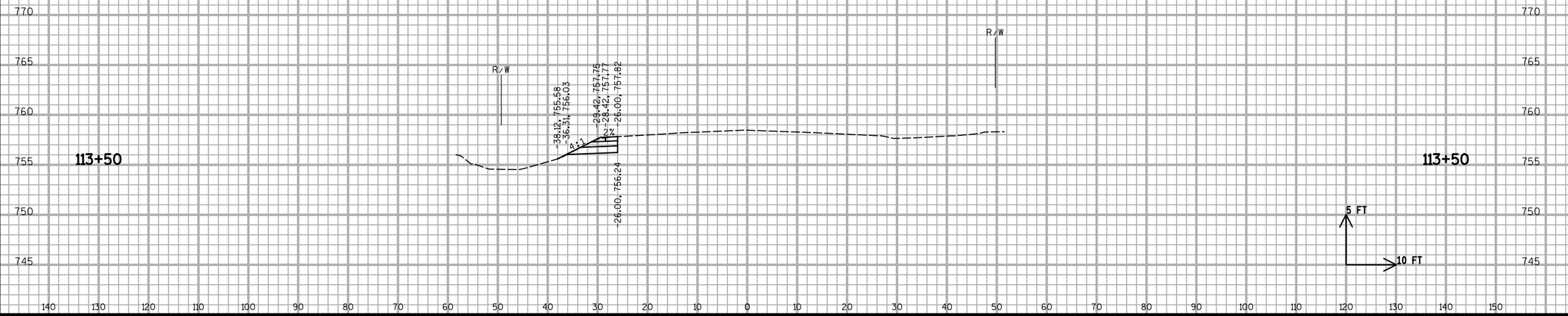
9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 215	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090201_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

END CONSTRUCTION STA. 113+54.90



9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51 - STAGE 1	SHEET 216	E

NOTE: EXISTING GROUND REFLECTS WORK COMPLETED DURING STAGE 1.

STAGE 3

R/W

R/W

-40.97, 752.88

-32.45, 754.51

-30.00, 754.97

-29.00, 754.99

6:1

2.0%

-29.00, 754.57

92+50

92+50

R/W

R/W

92+00

92+00

STAGE 3

R/W

-34.15, 753.76

-30.00, 754.46

-29.00, 754.48

6:1

2.0%

-29.00, 754.06

91+50

91+50

5 FT

10 FT

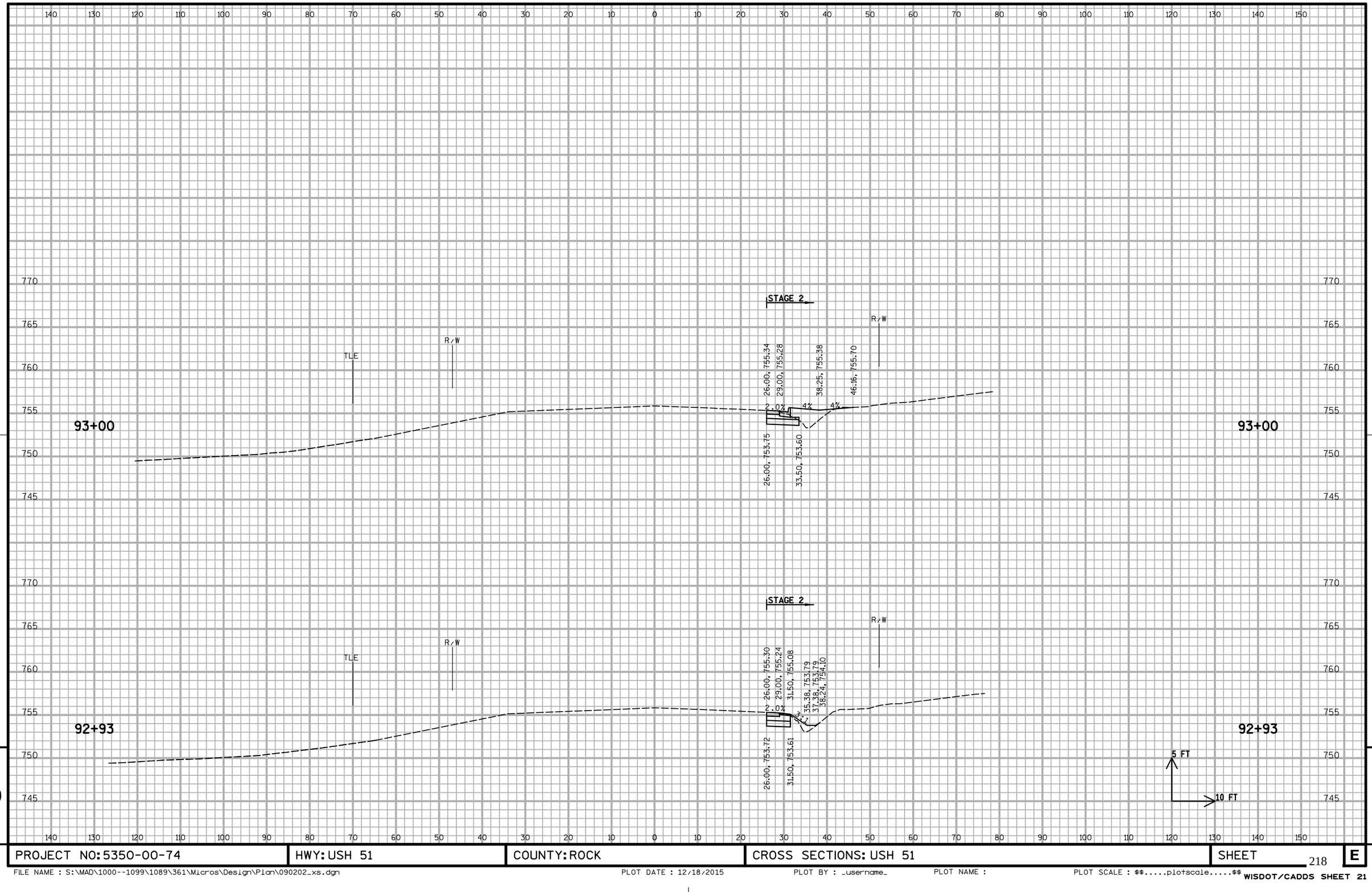
BEGIN PROJECT 91+35

9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

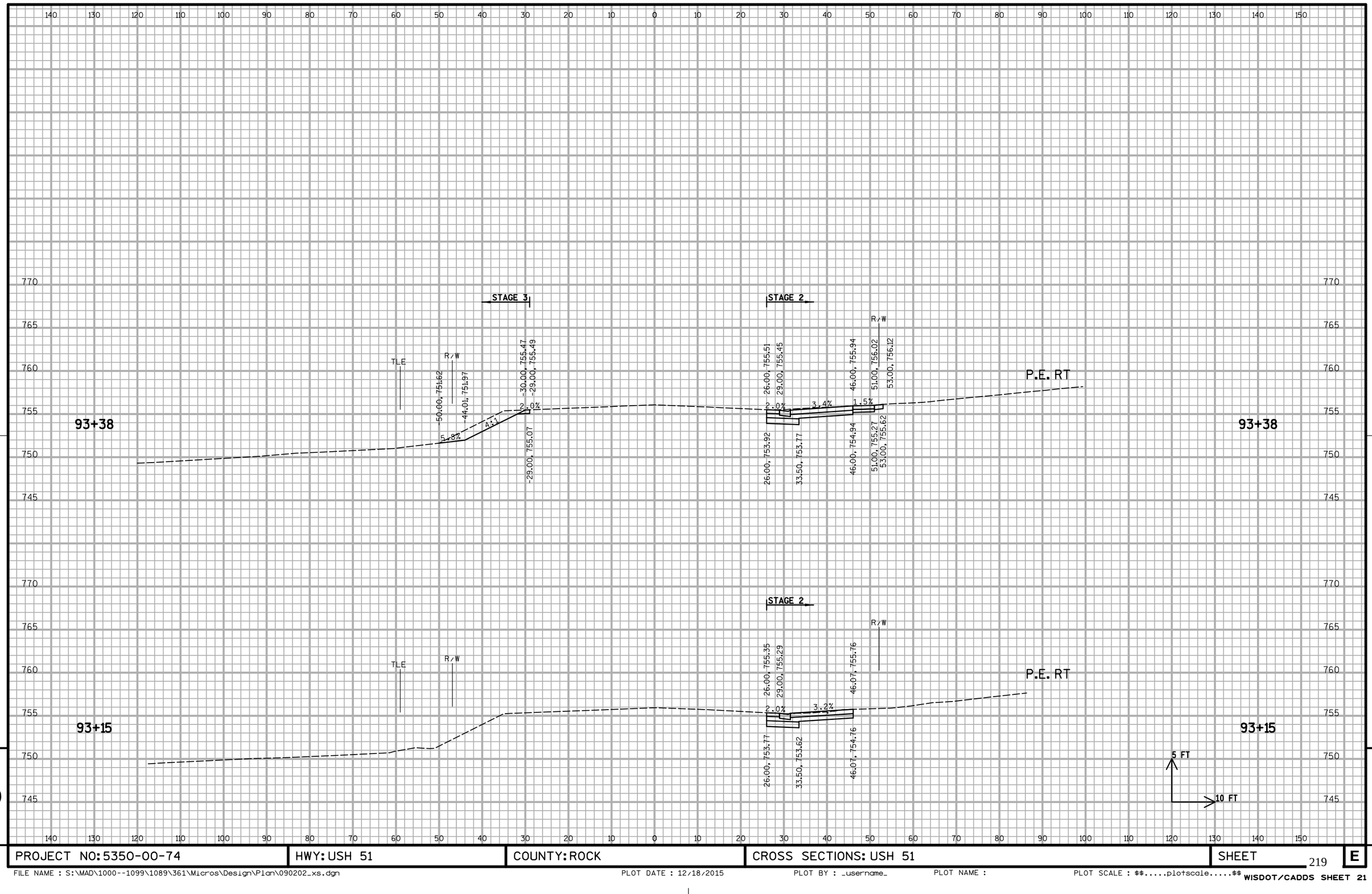


9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

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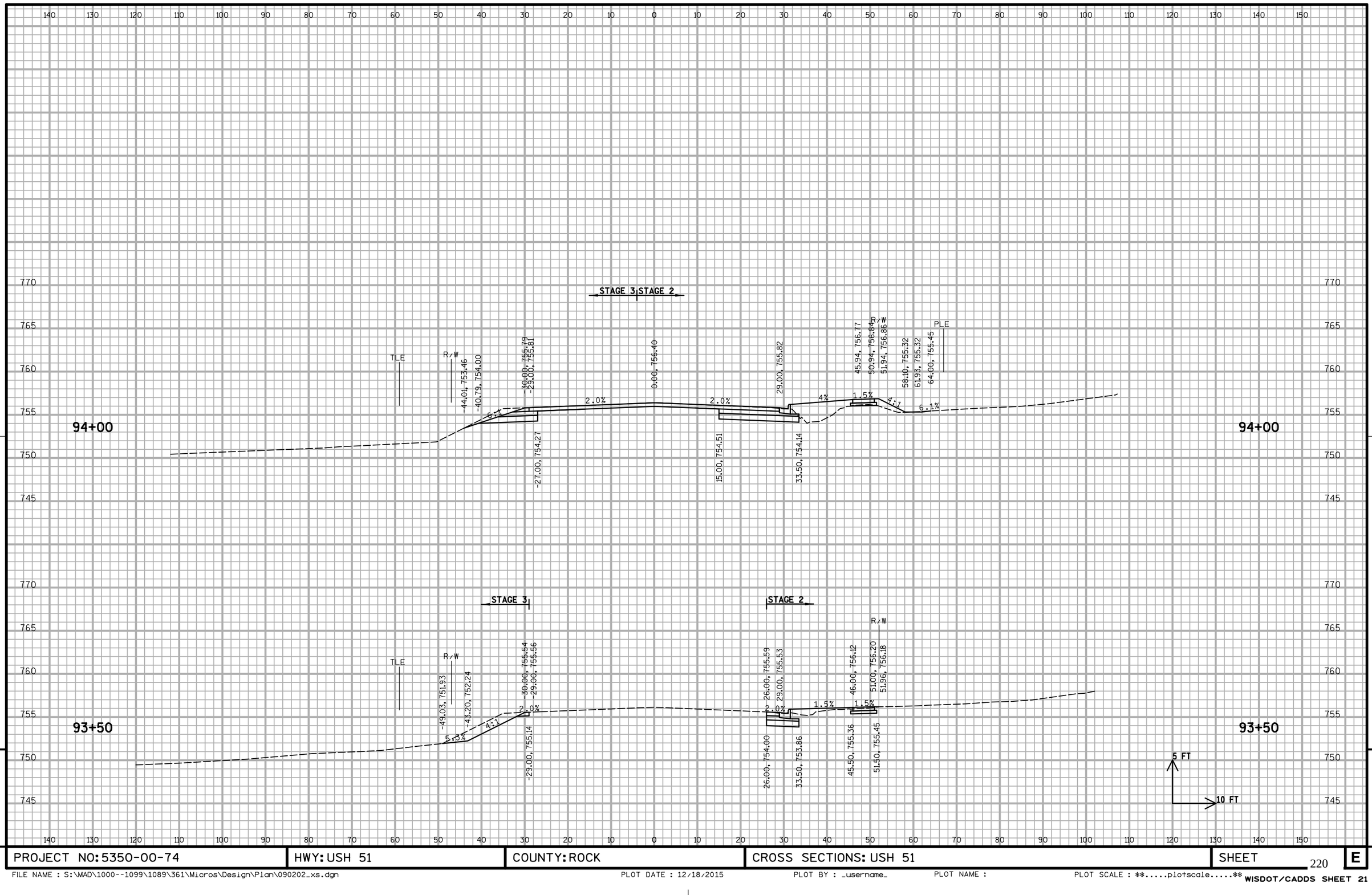
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 219	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

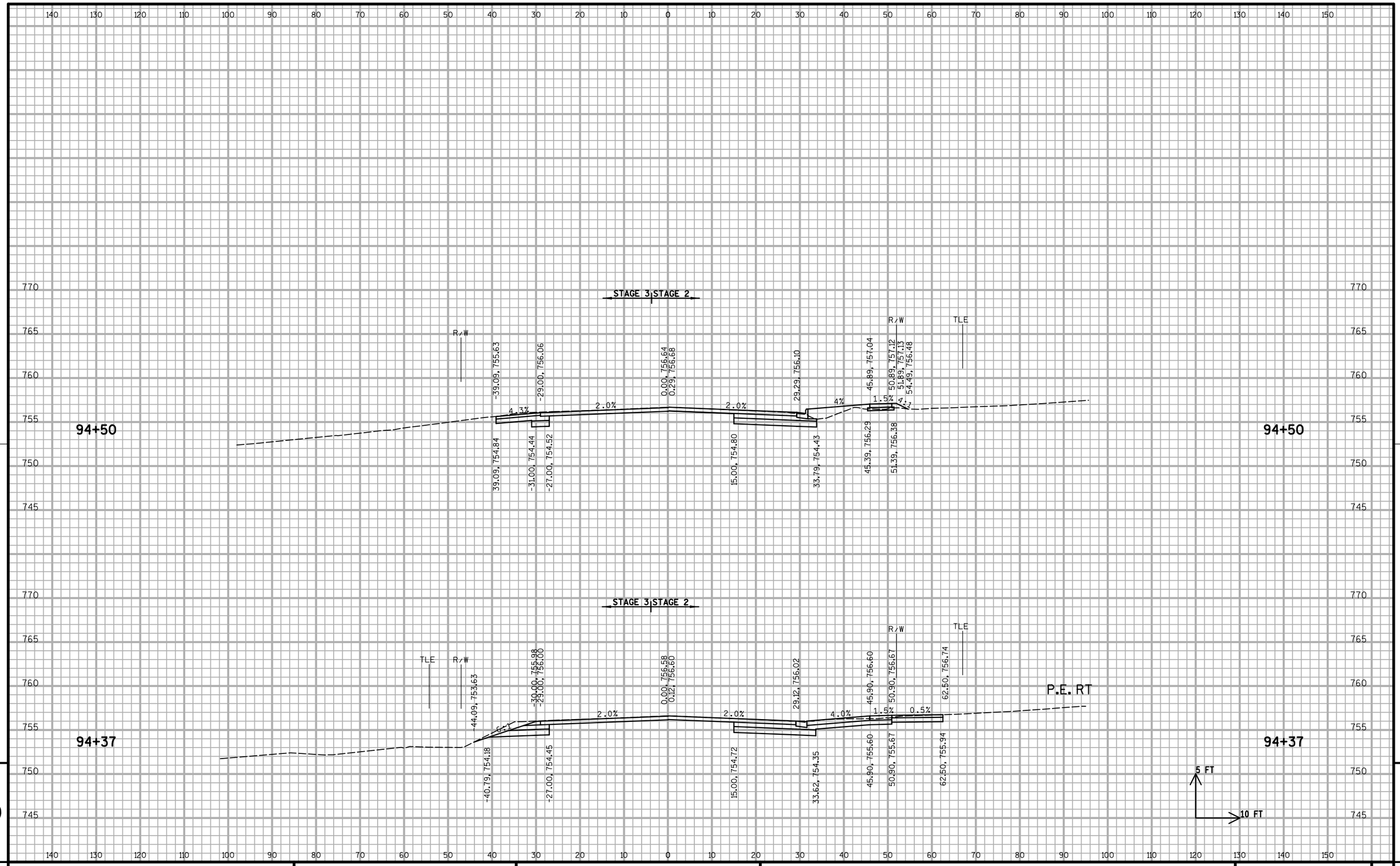


9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 220	E

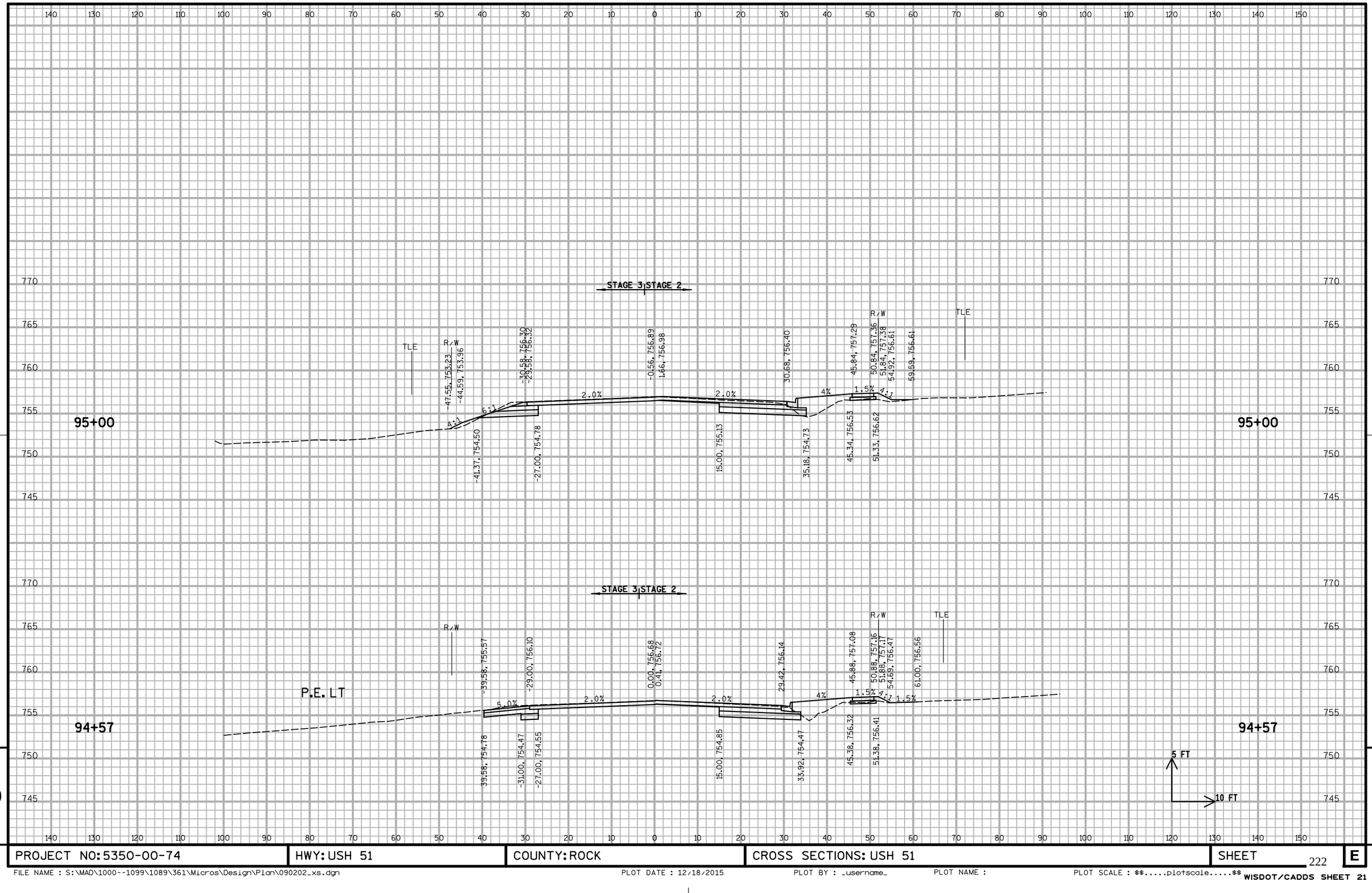
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

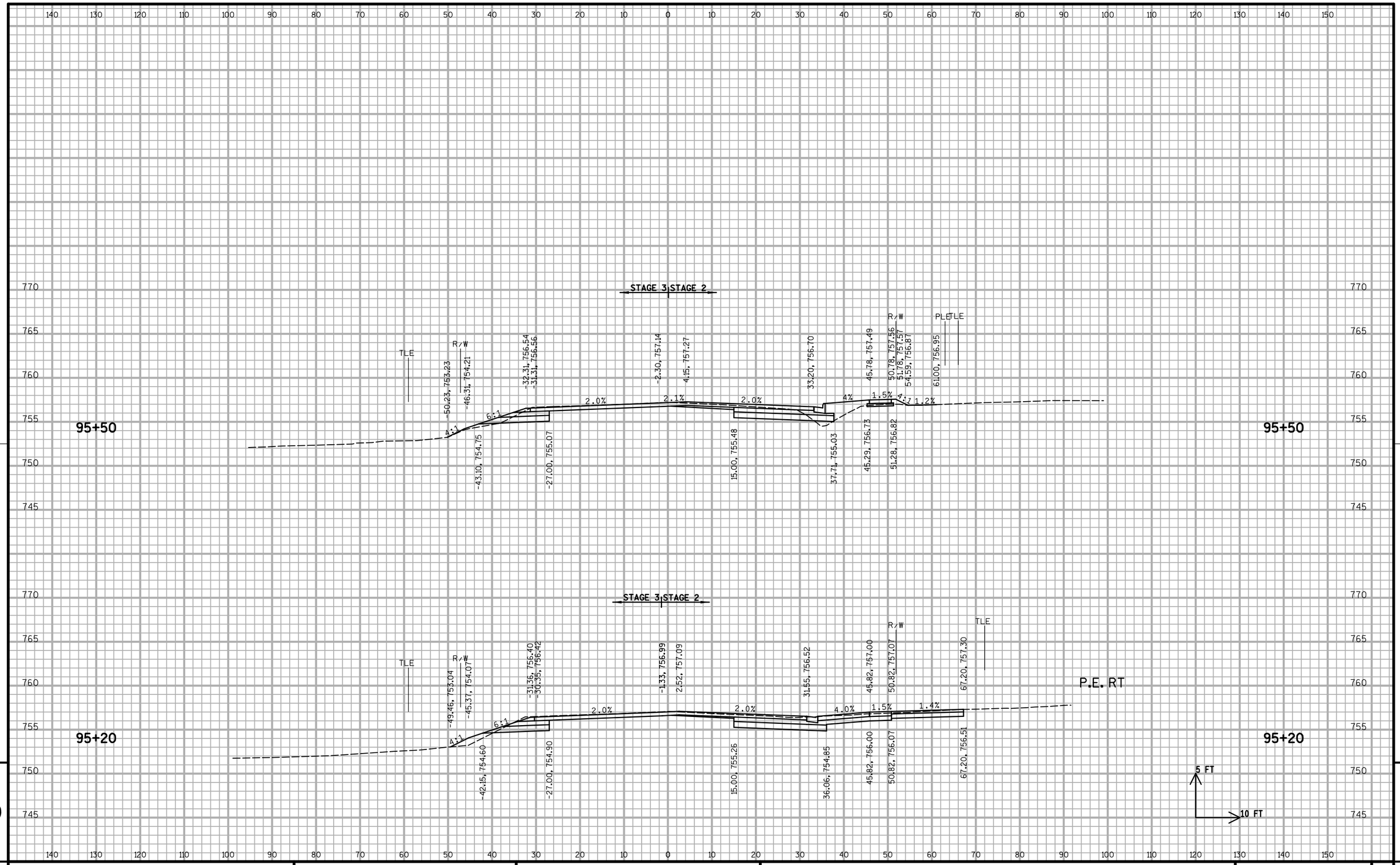
9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 221	E



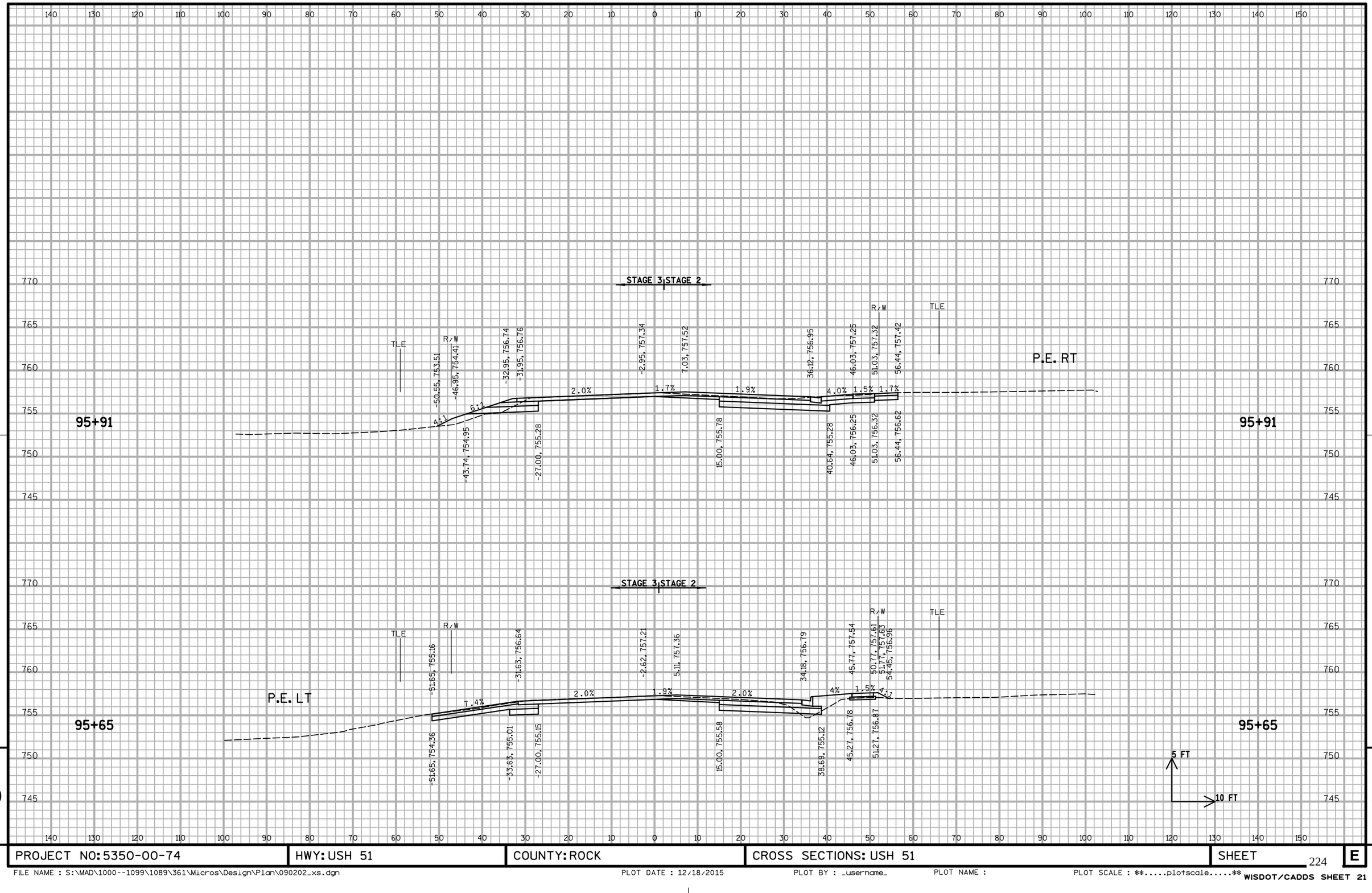
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



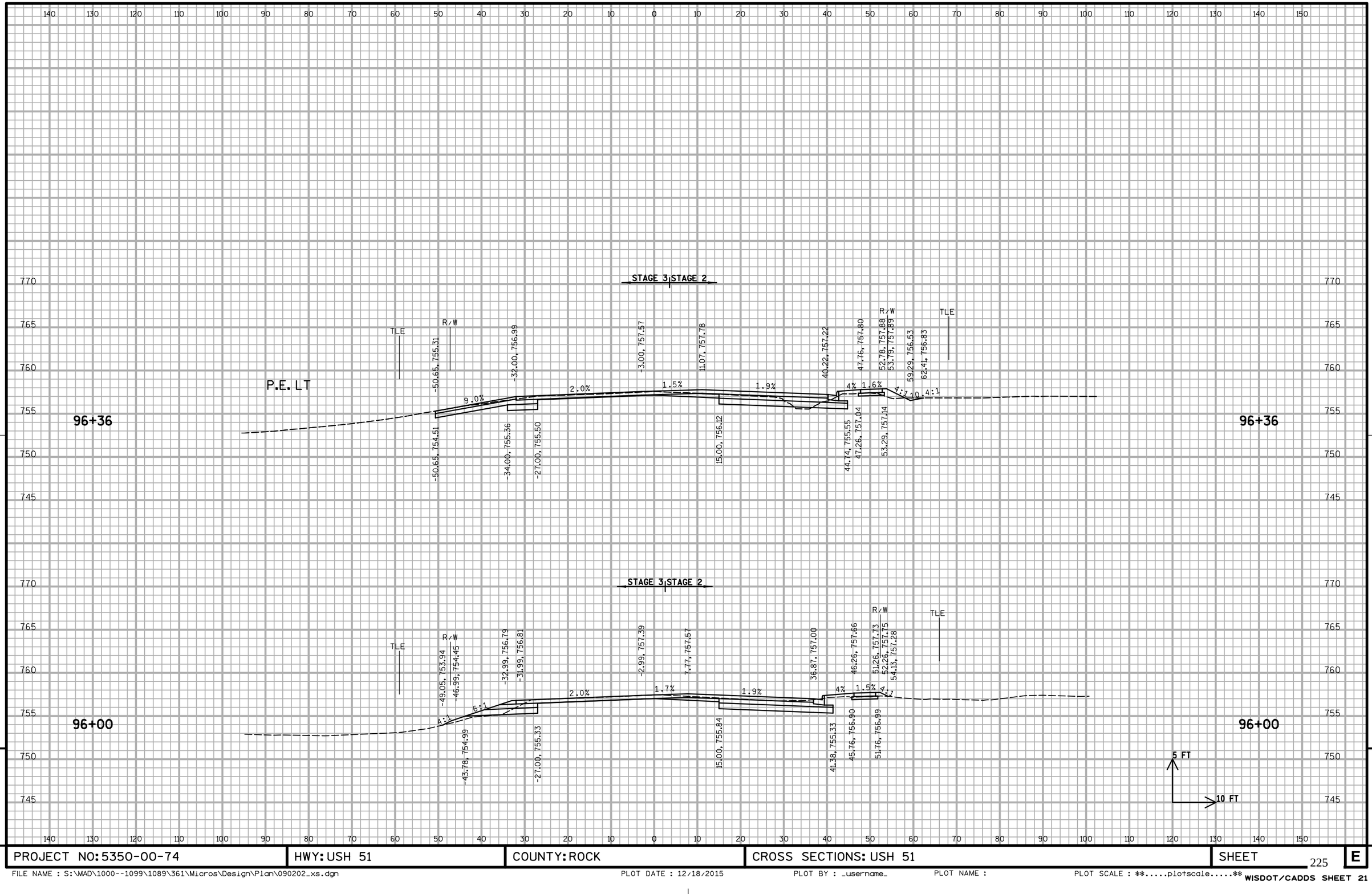
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 223	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 224	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



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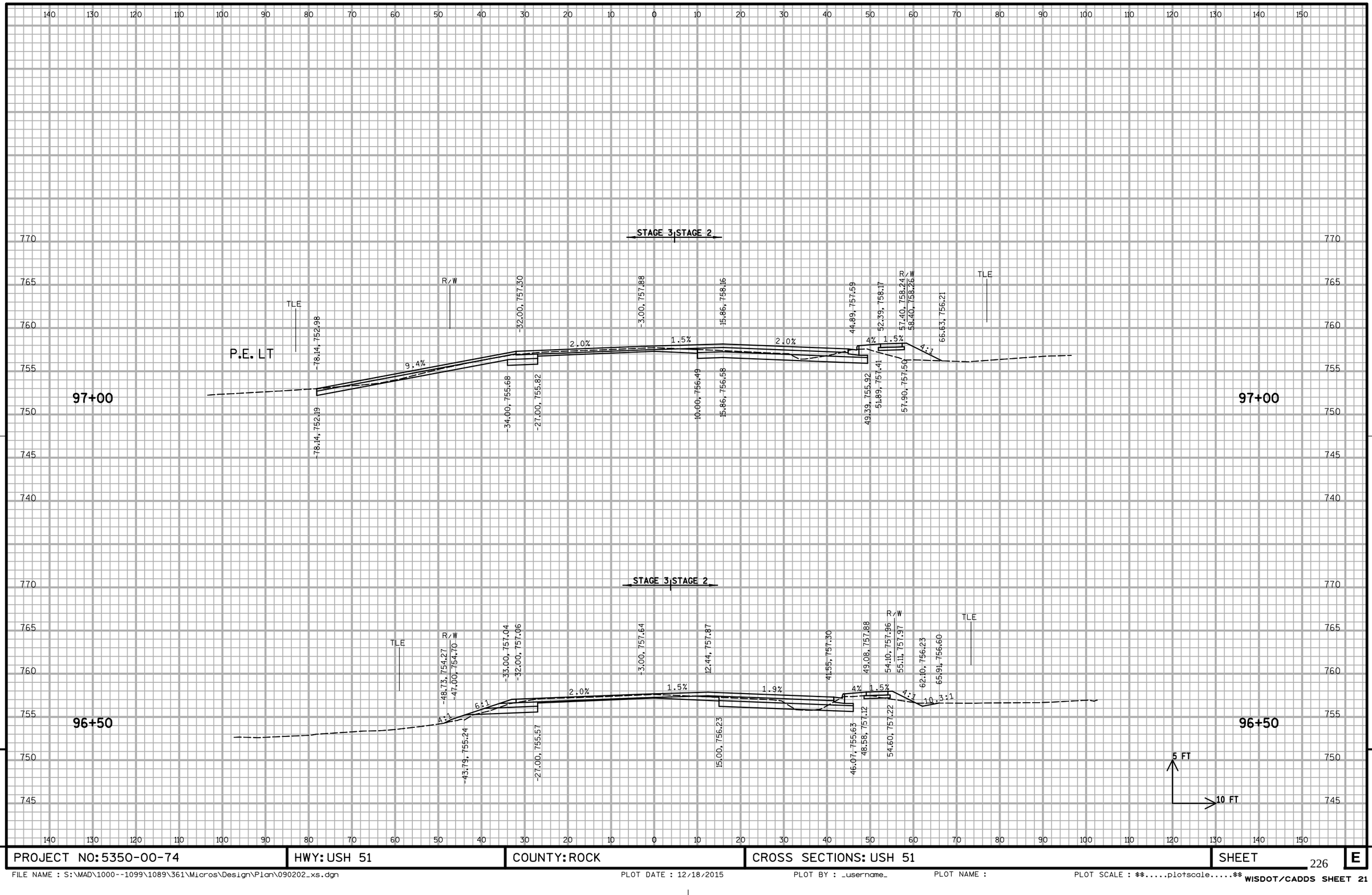
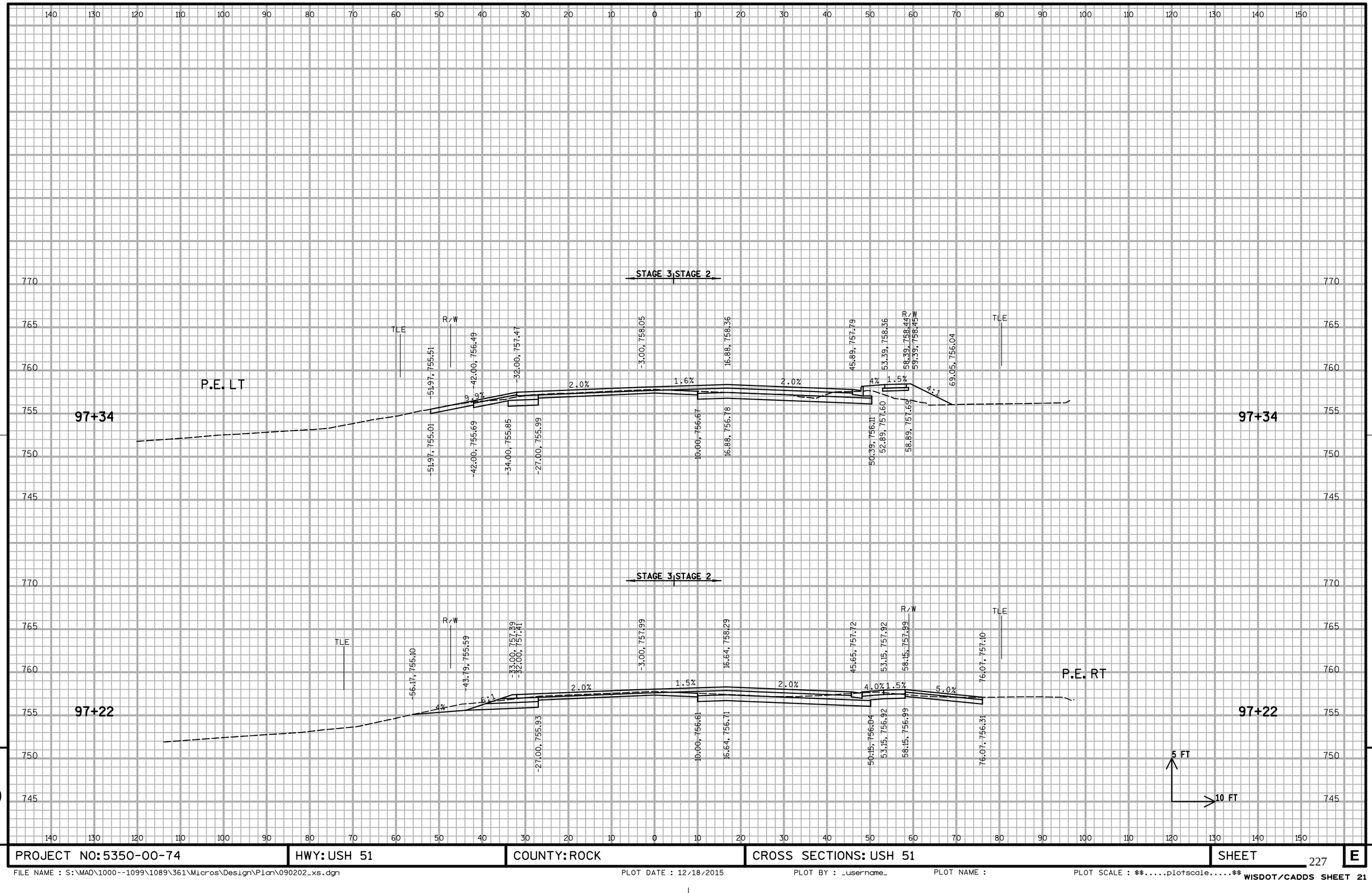
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 225	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 226	E



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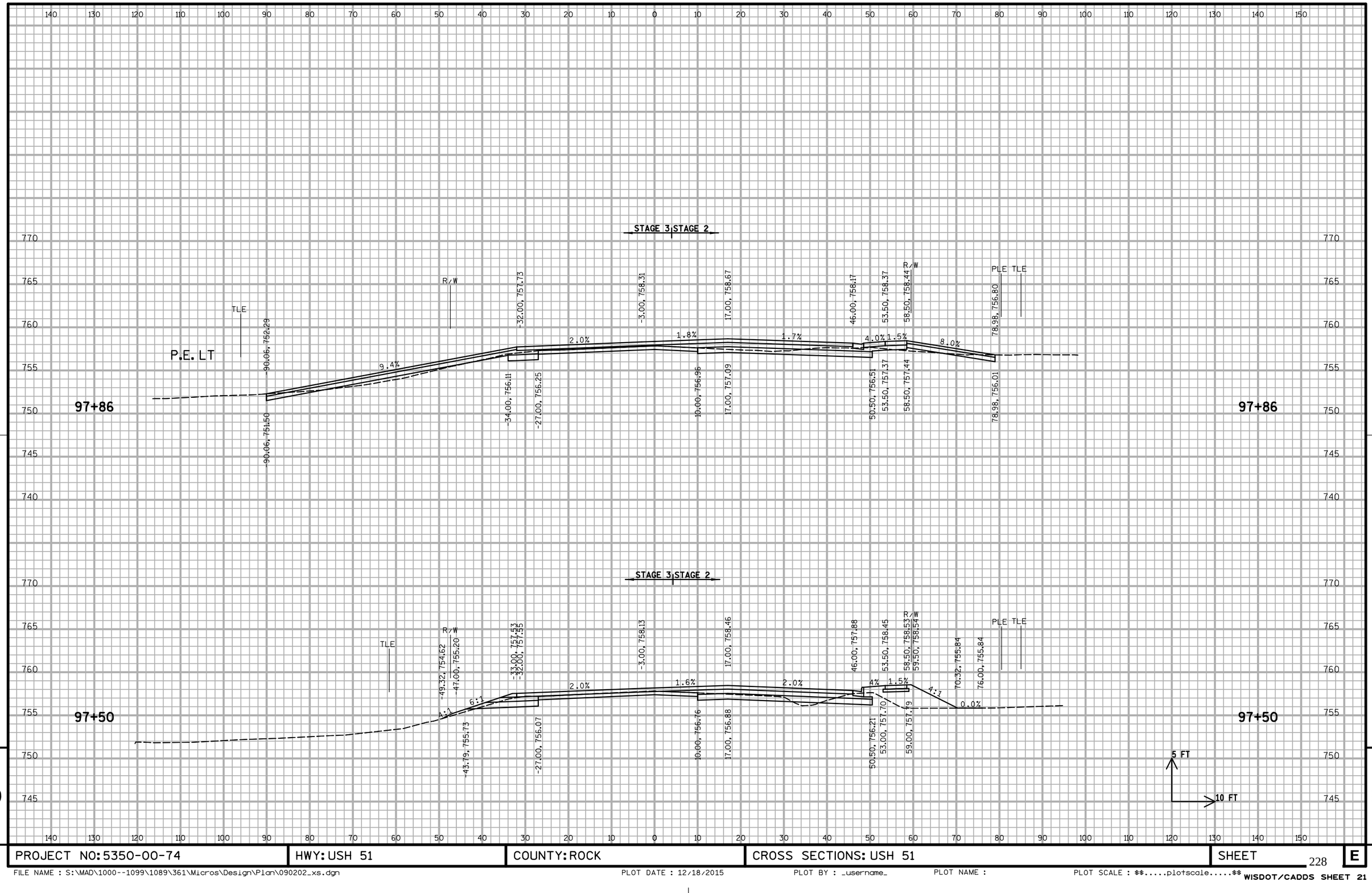
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

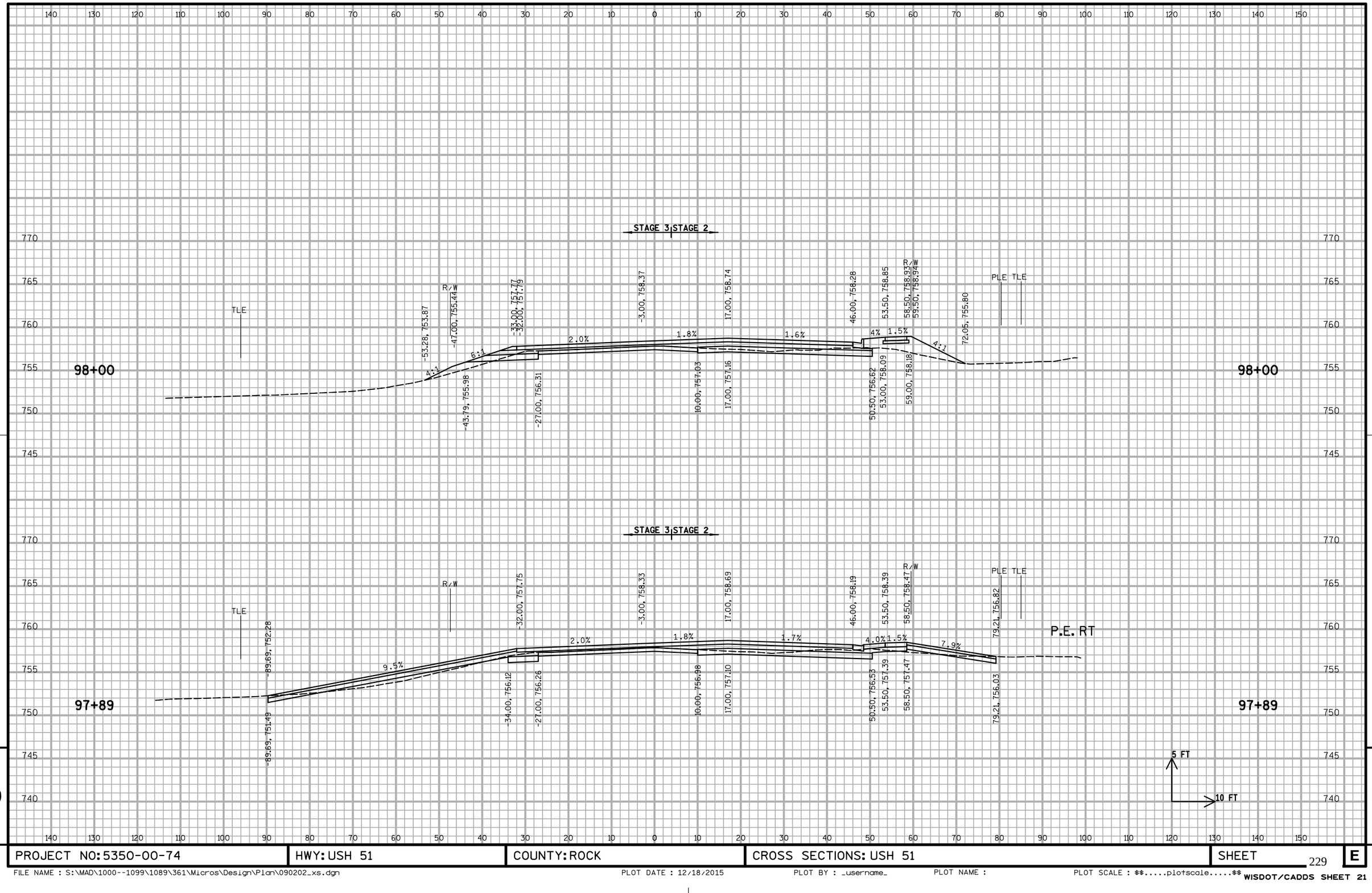
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

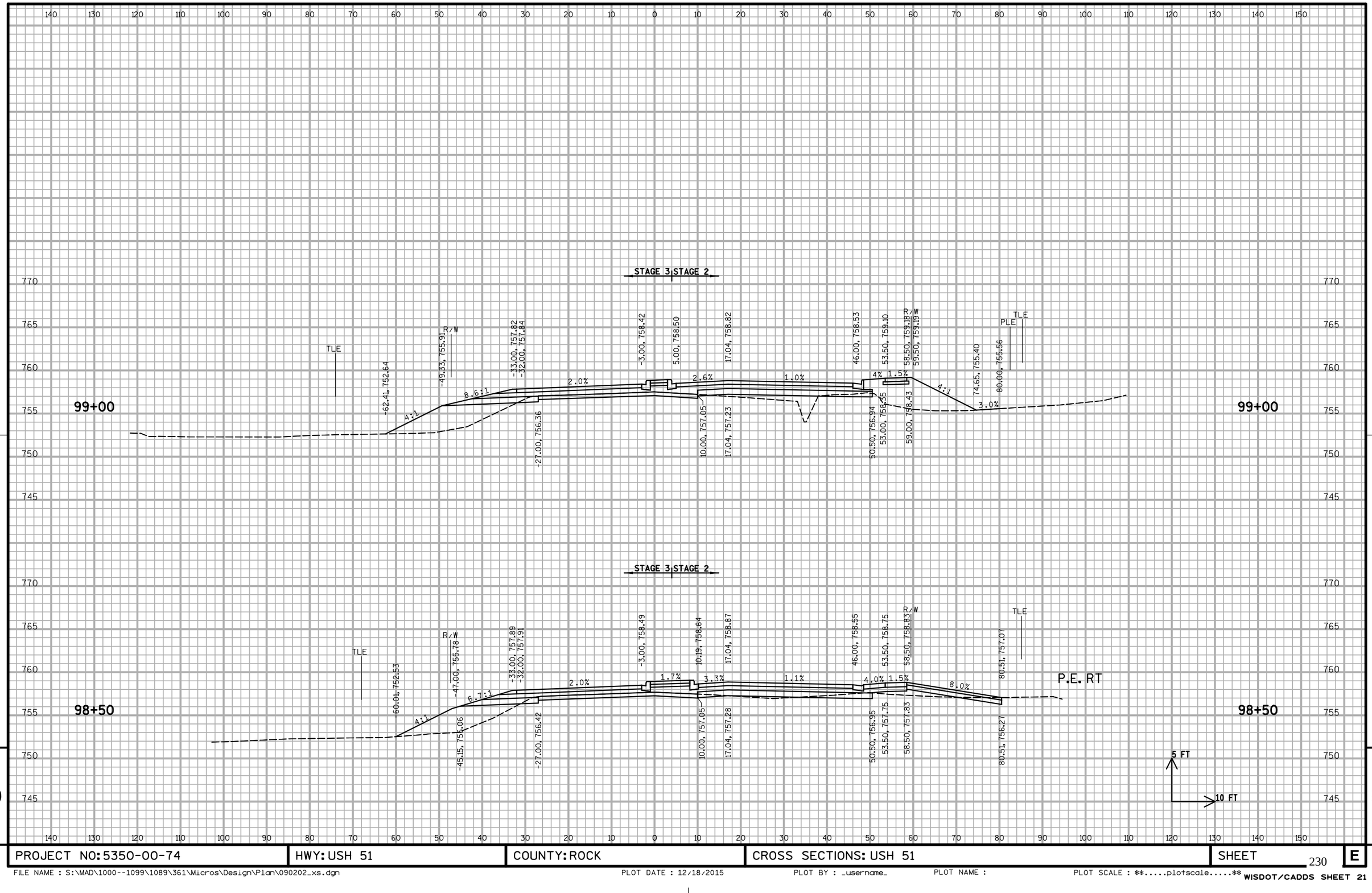
9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 228	E



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 229	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

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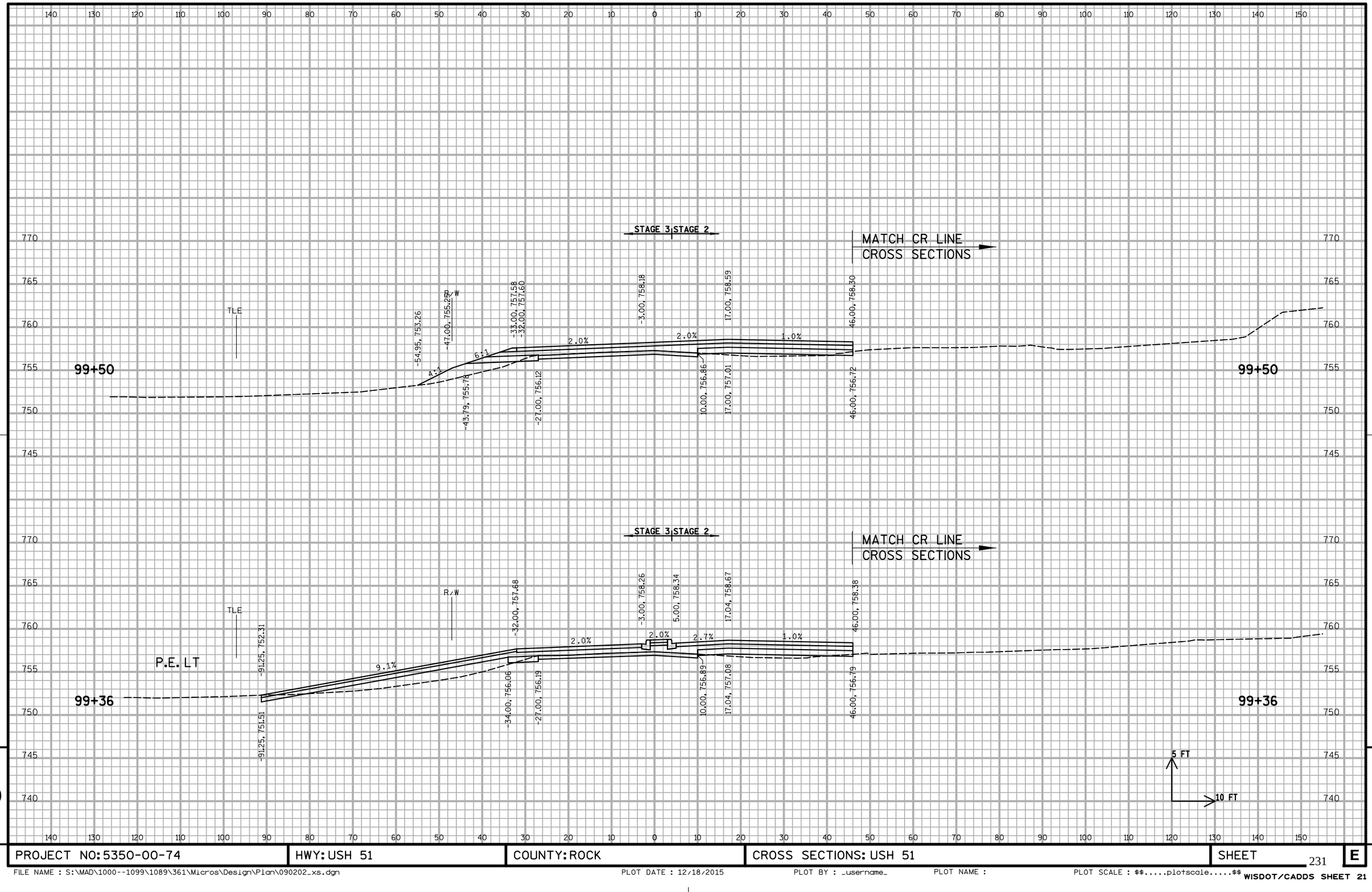
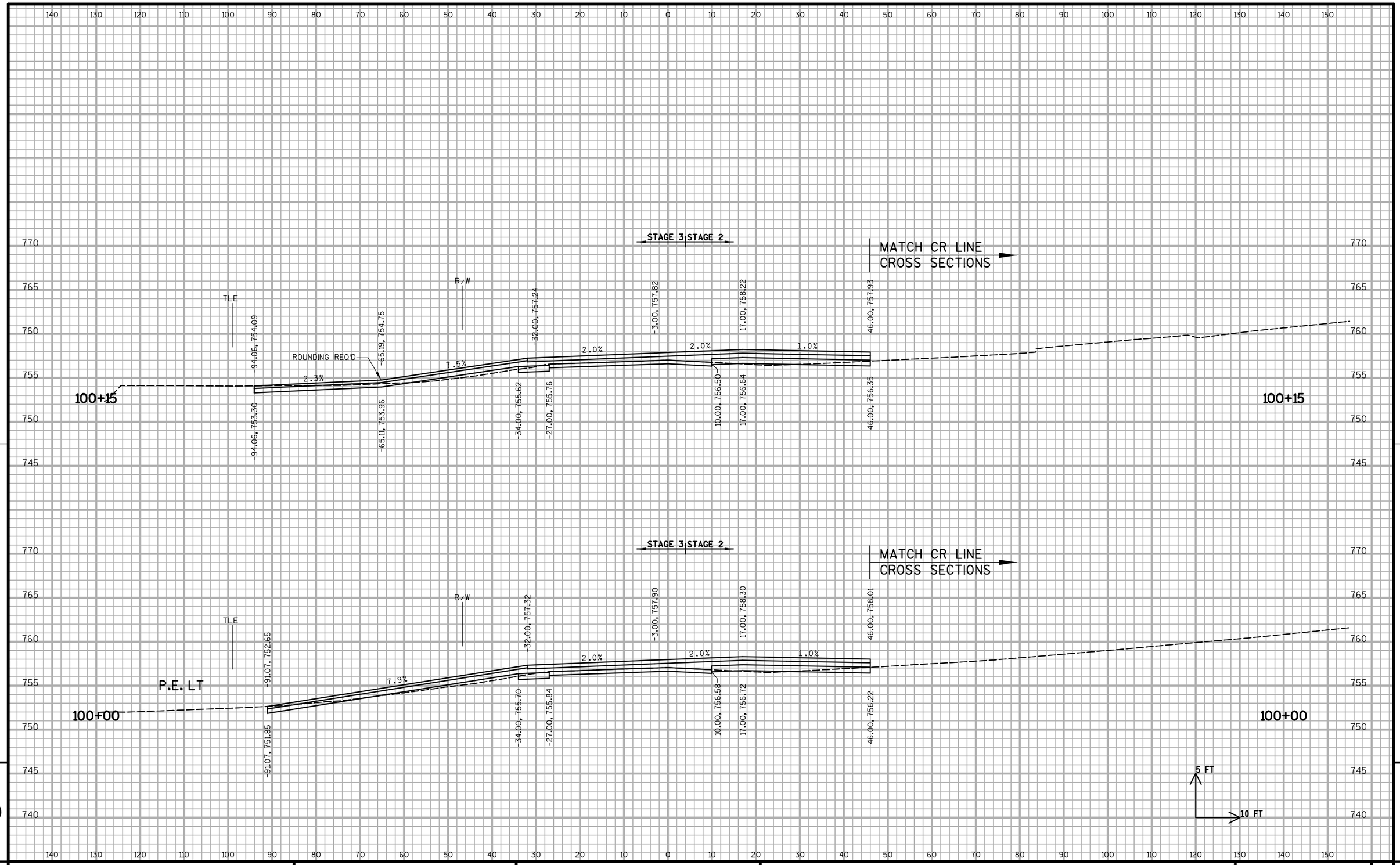
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 230	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 231	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

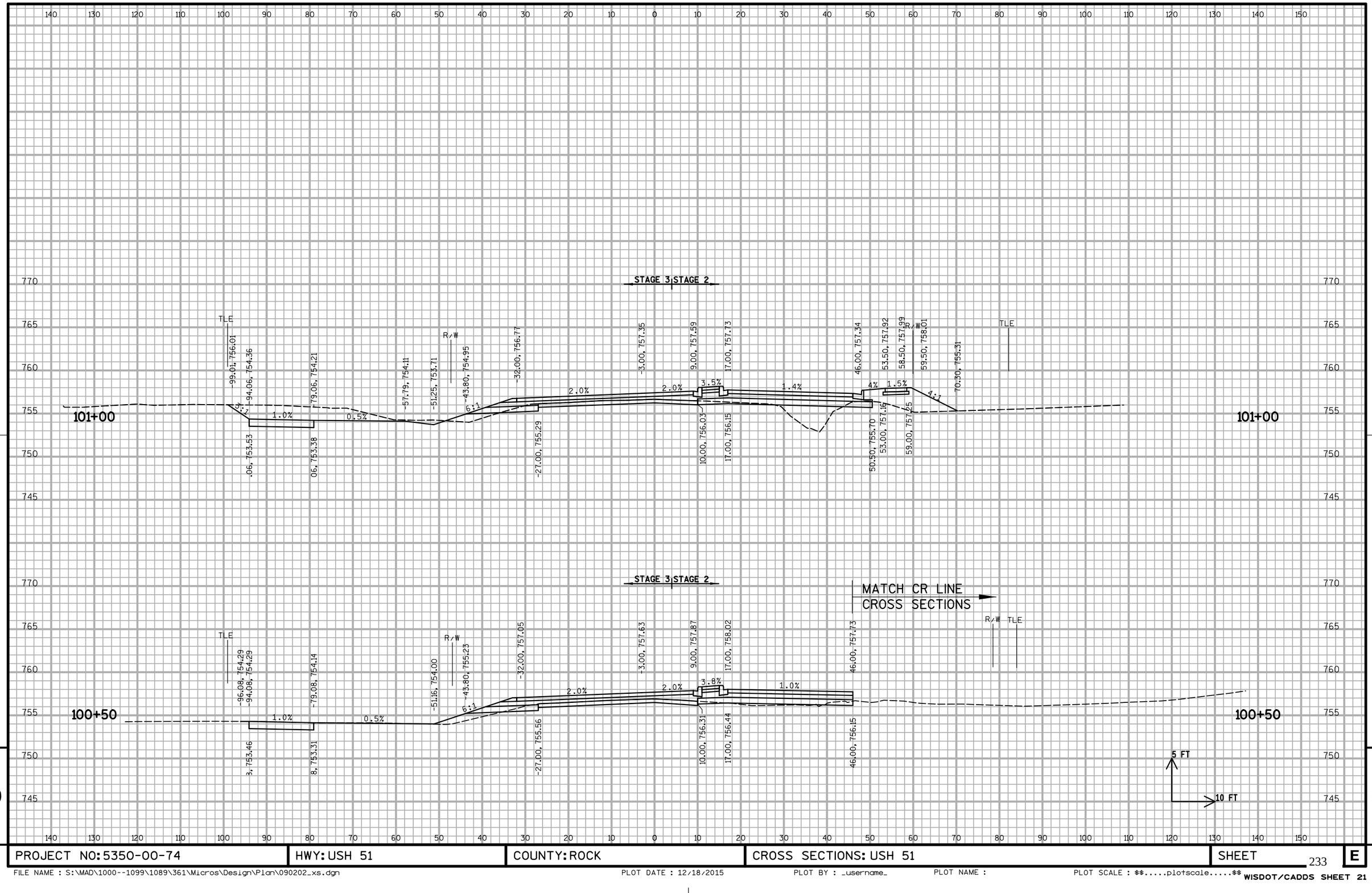


9

9

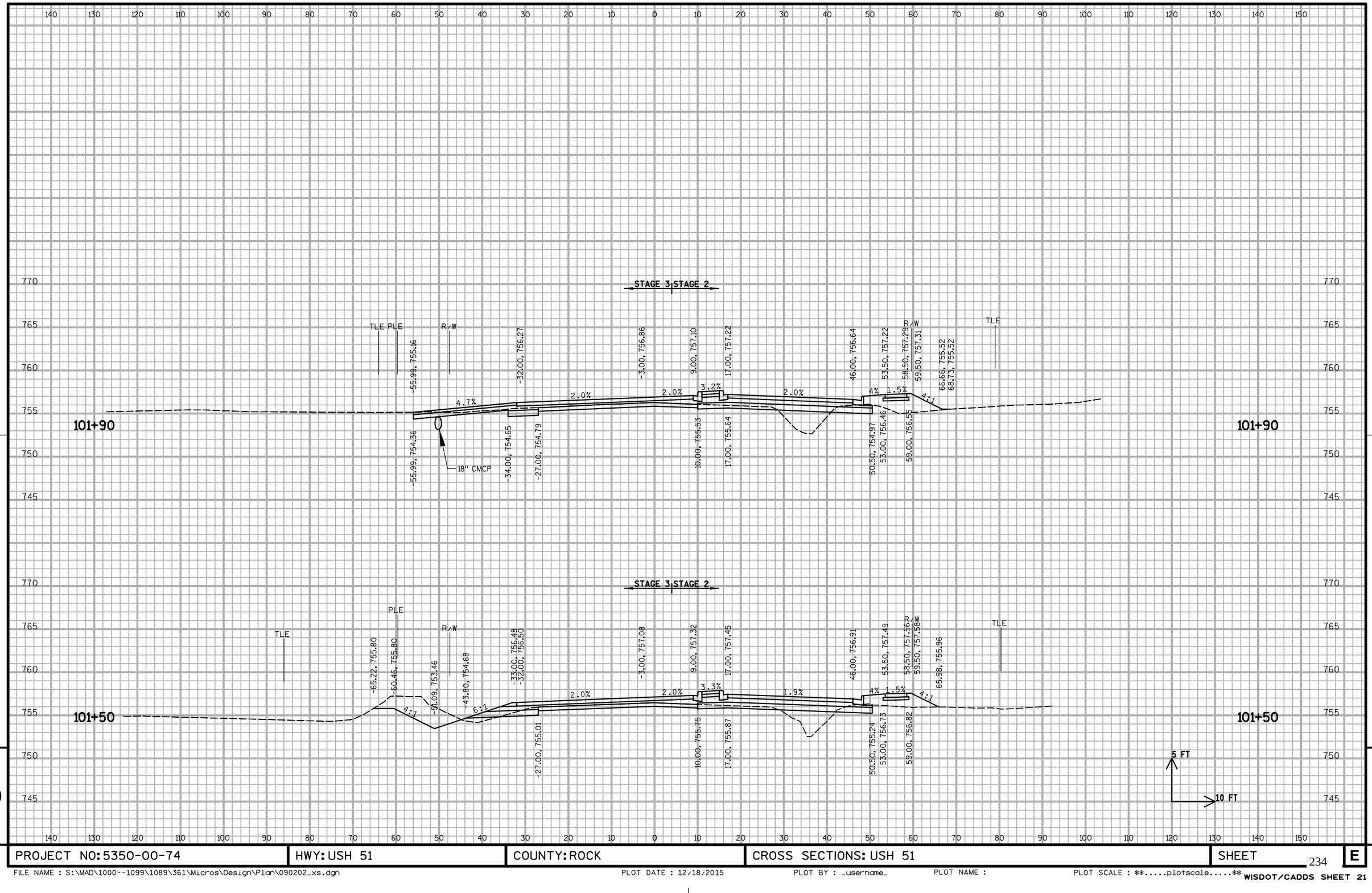
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 233	E

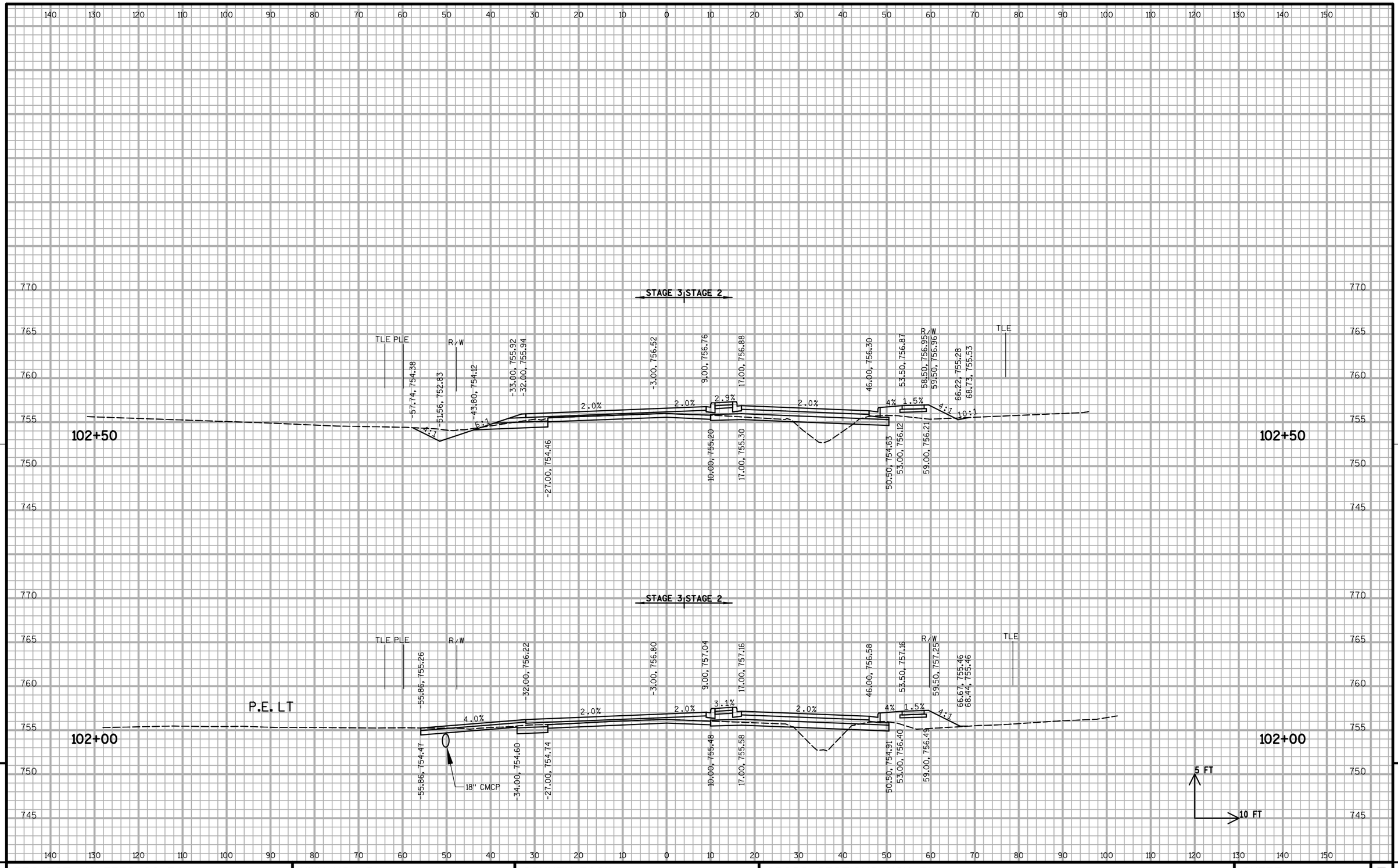
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

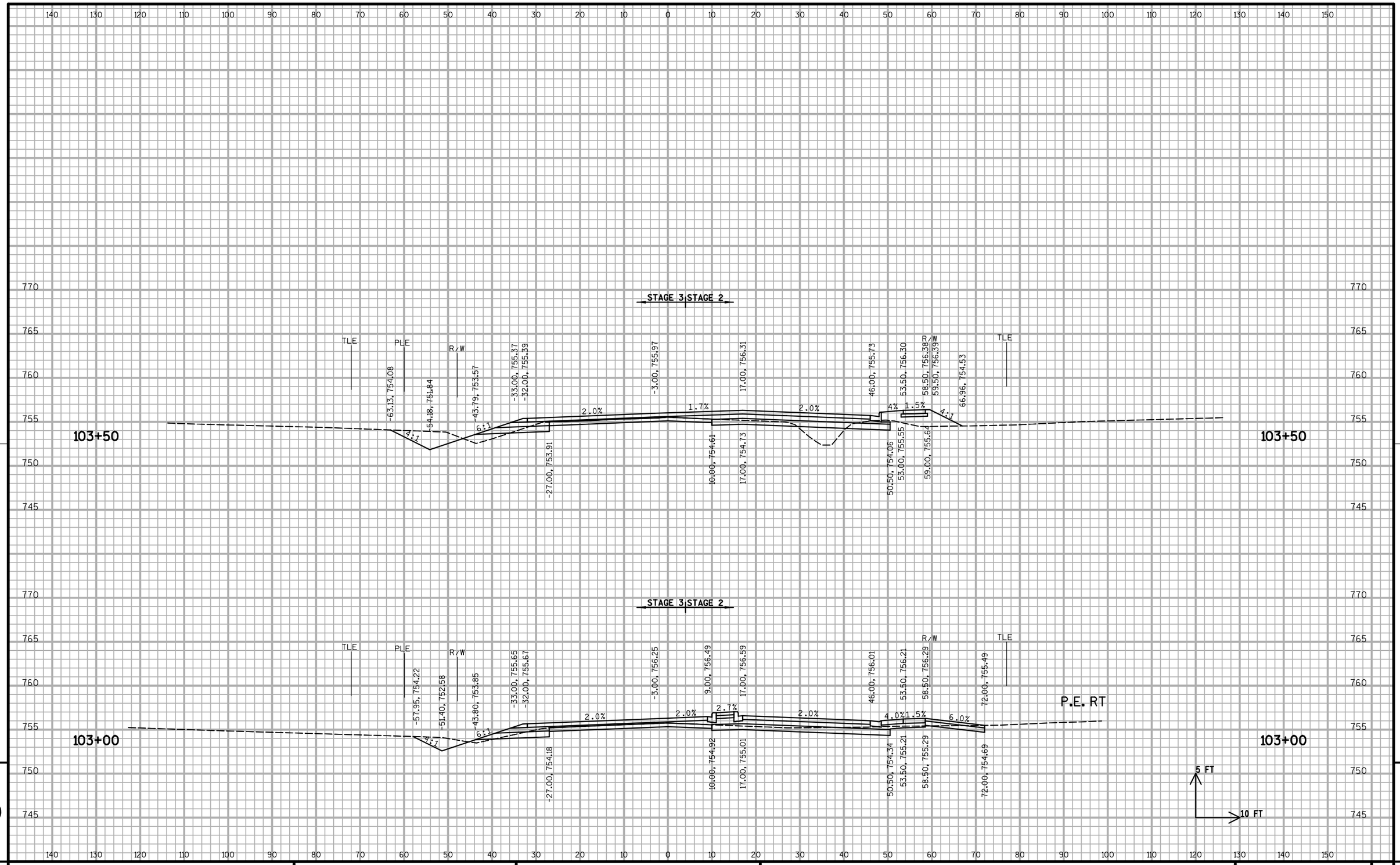
9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 234	E



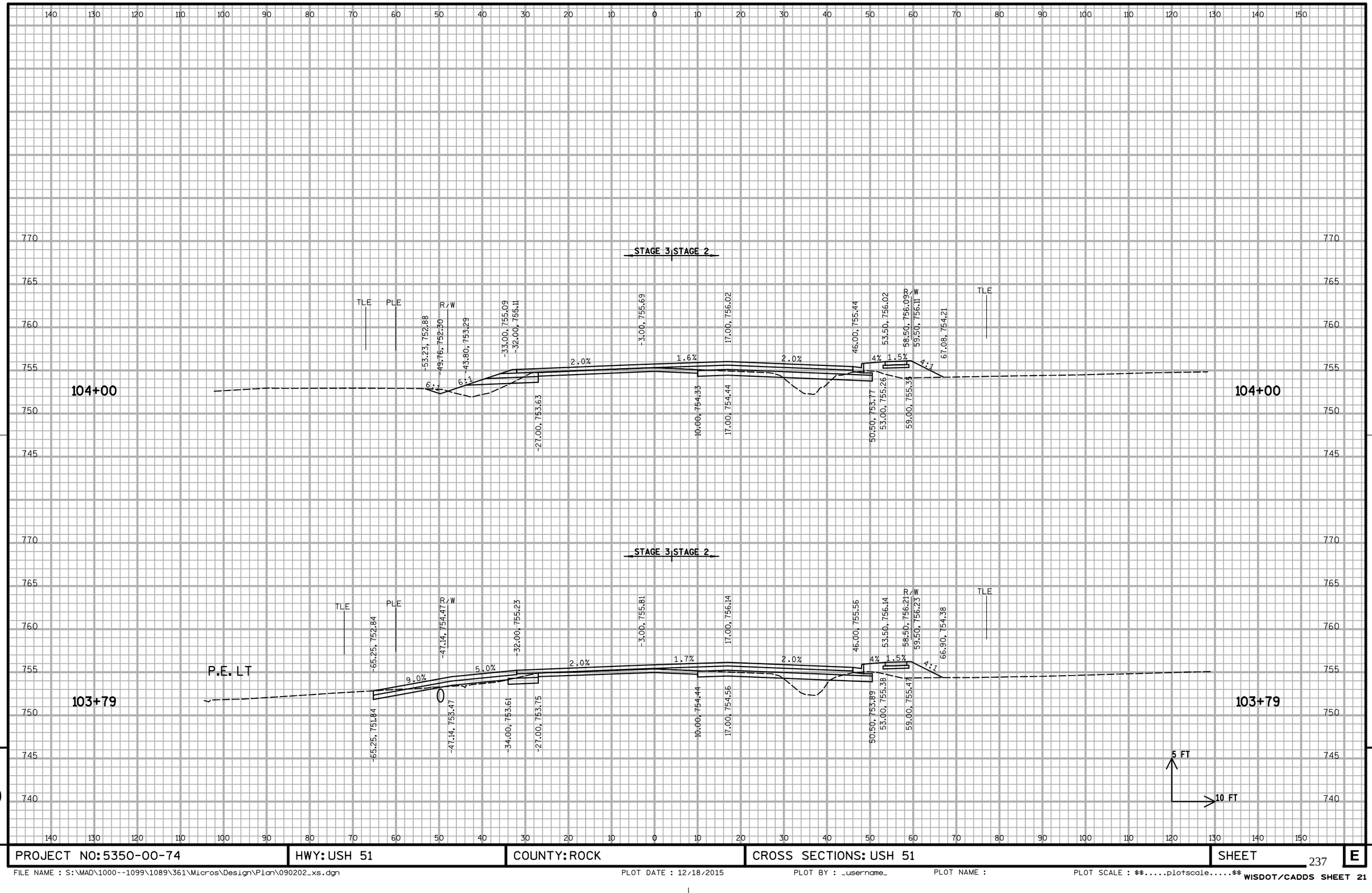
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 235	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



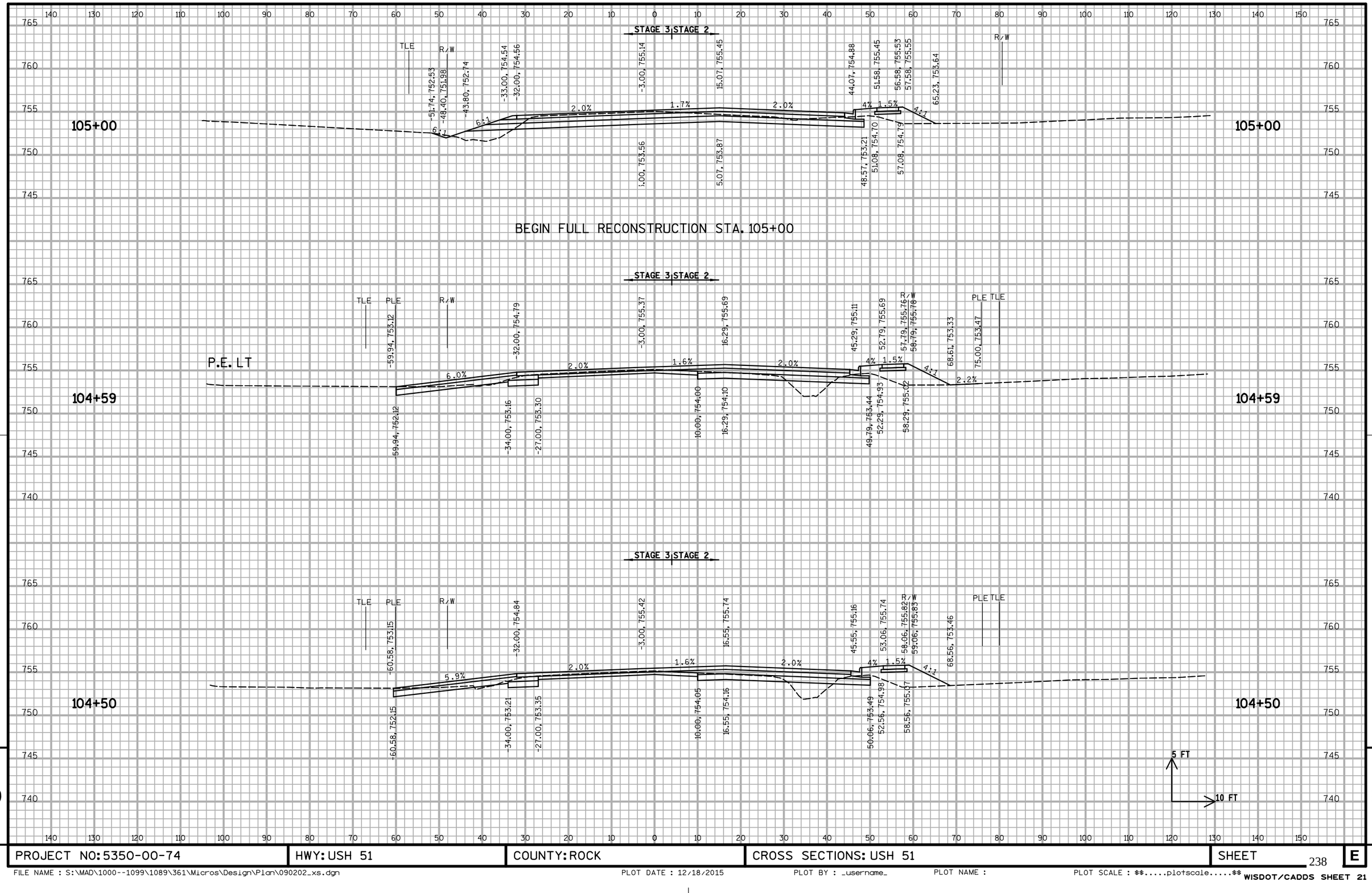
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 238	E

STAGE 3 | STAGE 2

MATCH D LINE
CROSS SECTIONS

106+18

R/W -43.77, 751.61 -40.56, 752.15 -29.76, 753.95 -28.76, 753.97 0.24, 754.54 11.56, 754.79 40.58, 754.21 49.92, 754.86 R/W 54.92, 754.94 55.92, 754.95 66.96, 753.11 70.72, 752.40 73.78, 752.78 PLE

6:1 2.0% 2.1% 2.0% 4% 1.5% 6:1 8:1

0.24, 752.96 11.56, 753.20 45.08, 752.54 49.42, 754.10 55.42, 754.19

* PRECAST CONCRETE BOX CULVERT, 3FT X 6FT

MANHOLE STRUCTURE 220 *

INLET STRUCTURE 220A *

(3) STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH *

106+18

* SEE STORM SEWER SHEETS FOR ADDITIONAL INFORMATION

STAGE 3 | STAGE 2

MATCH D LINE
CROSS SECTIONS

PLE R/W -59.23, 751.89 -39.55, 753.29 -29.29, 754.03 -0.29, 754.60 12.10, 754.88 41.11, 754.31 R/W 50.10, 754.94 55.10, 755.02 56.10, 755.03 60.15, 754.02 TLE

P.E. LT

106+00

7.1% 2.0% 2.3% 2.0% 4% 1.5% 4:1

-59.23, 751.10 -39.55, 752.52 -31.29, 752.40 -0.29, 753.02 12.10, 753.30 45.61, 752.64 49.60, 754.19 55.60, 754.28

18" CMCP

106+00

STAGE 3 | STAGE 2

MATCH PLAN
DETAIL POINTS

TLE PLE R/W -57.71, 752.14 -52.46, 750.83 -42.56, 752.47 -31.76, 754.27 -30.76, 754.29 -1.76, 754.87 13.58, 755.17 68.99, 754.07

4:1 6:1 2.0% 2.0% 2.0%

-1.76, 753.28 13.58, 753.58 68.99, 752.49

105+50

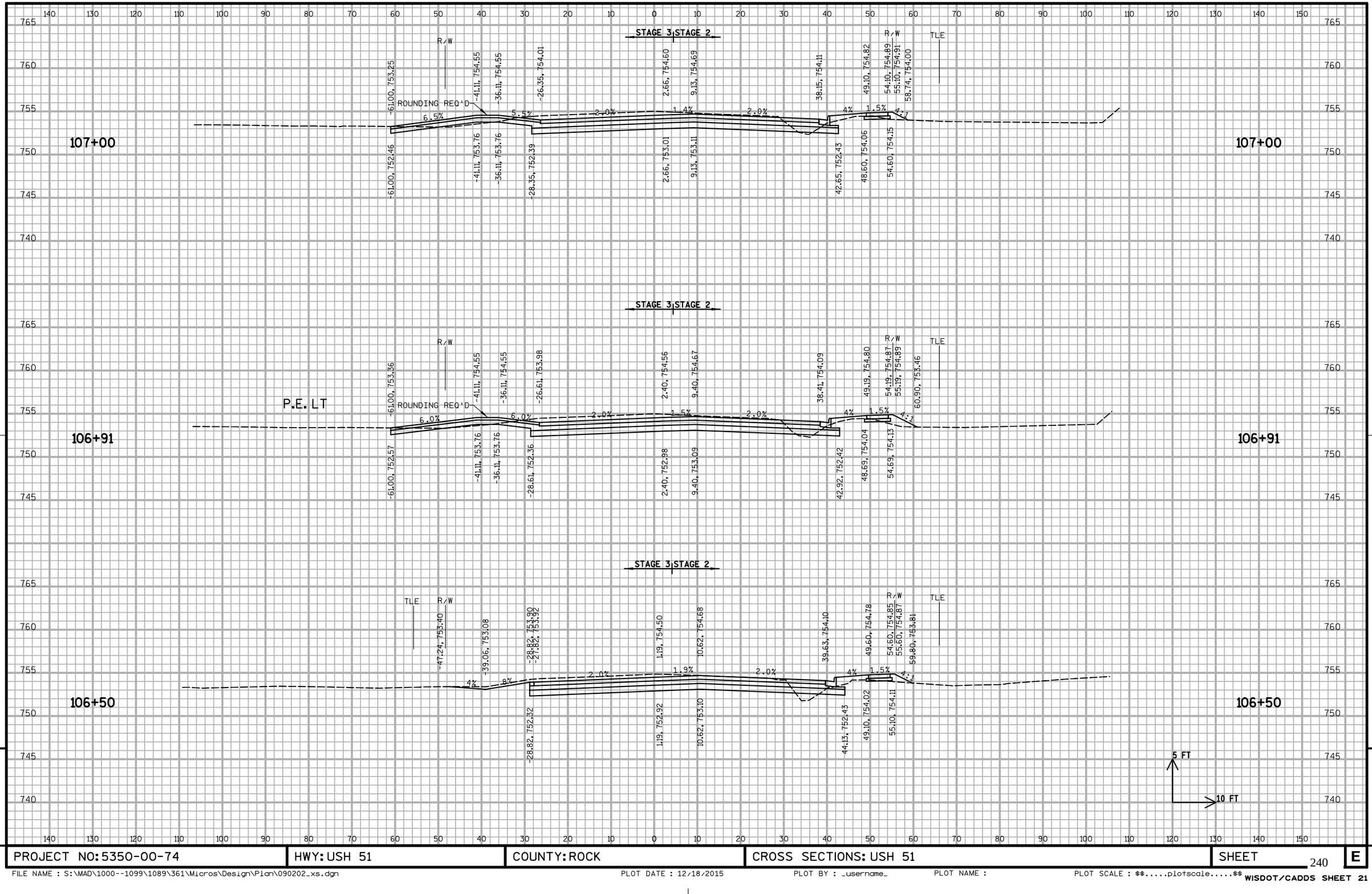
5 FT 10 FT

105+50

9 9

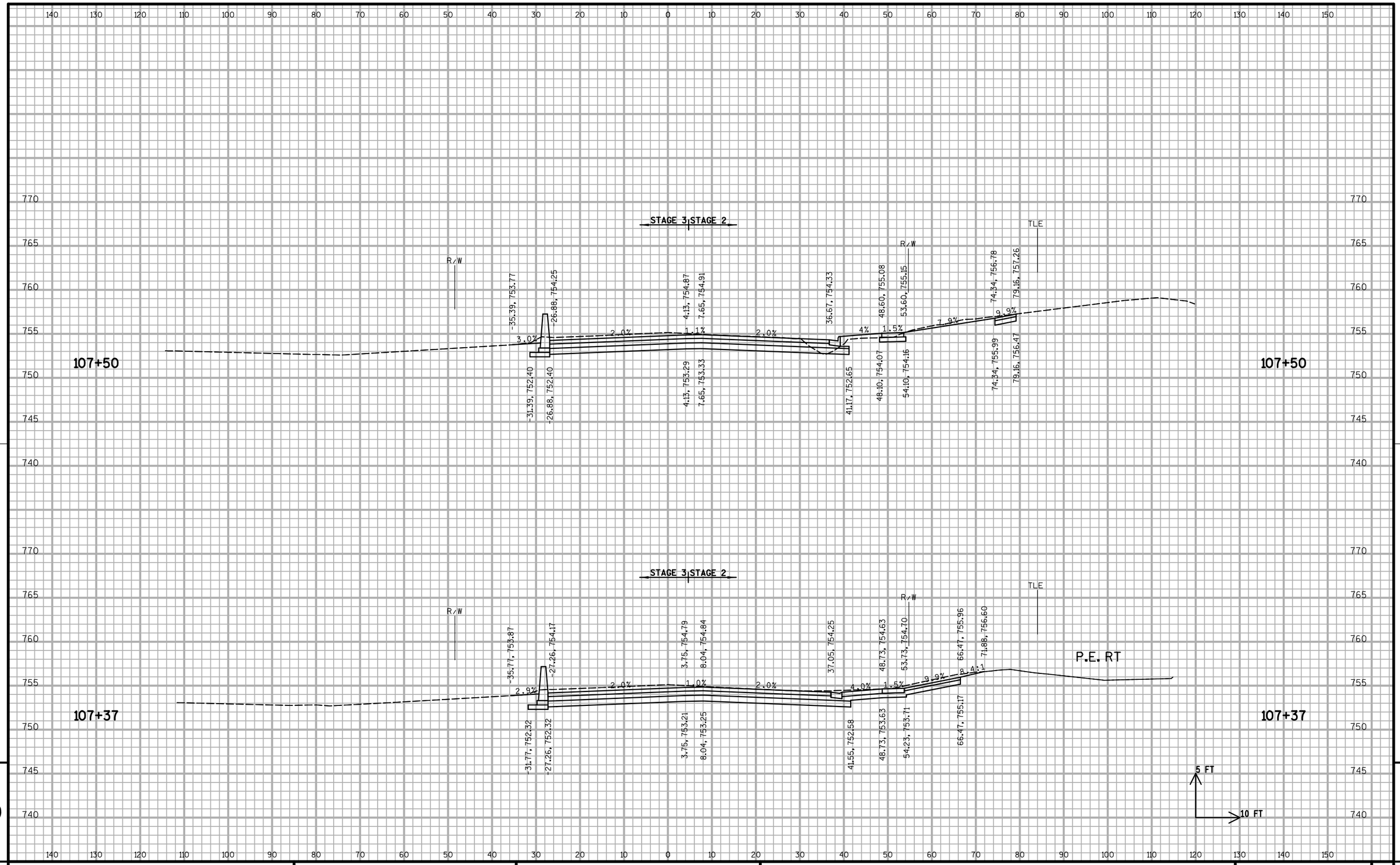
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 239	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 1/20/2016 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 240	E

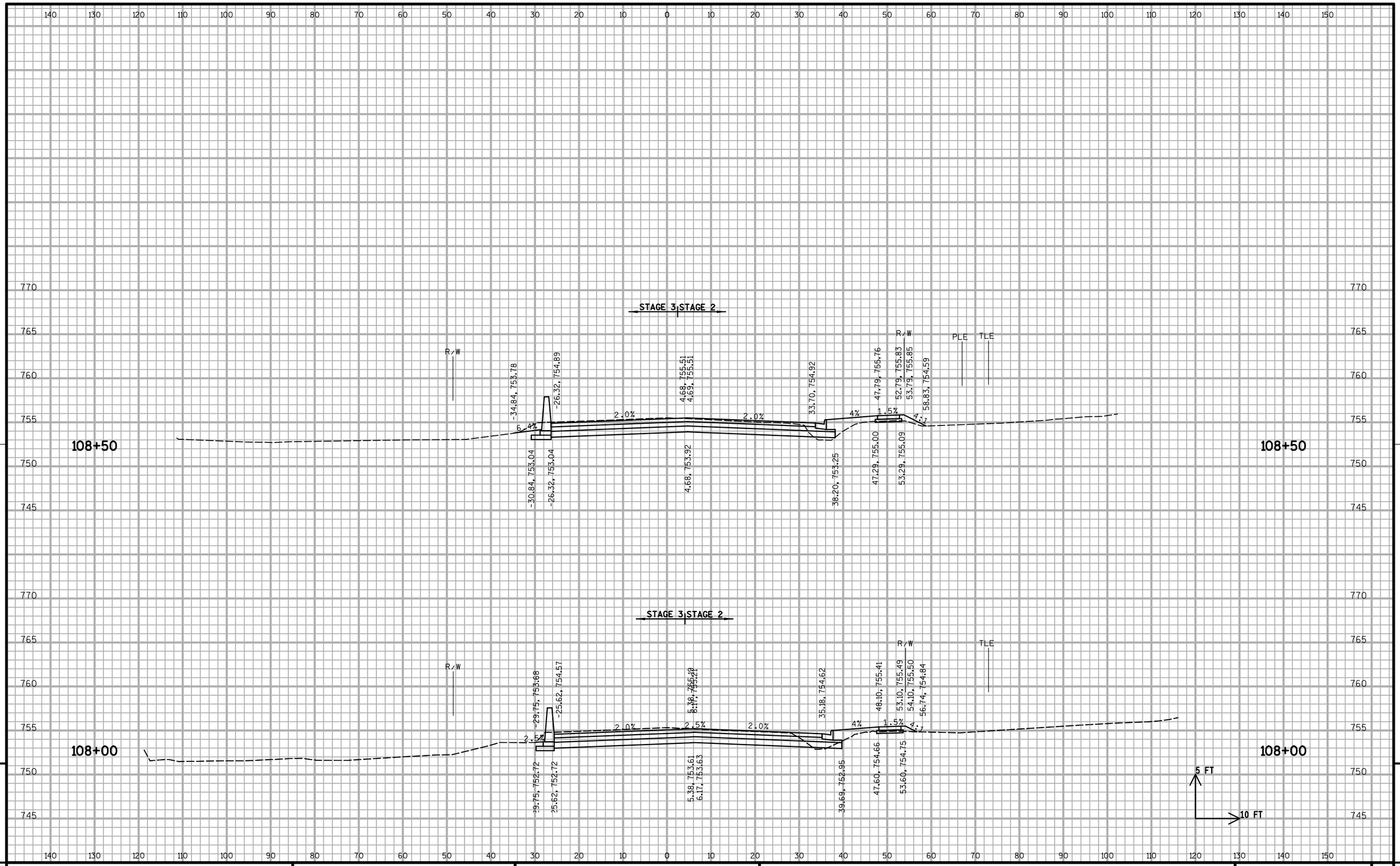
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

9

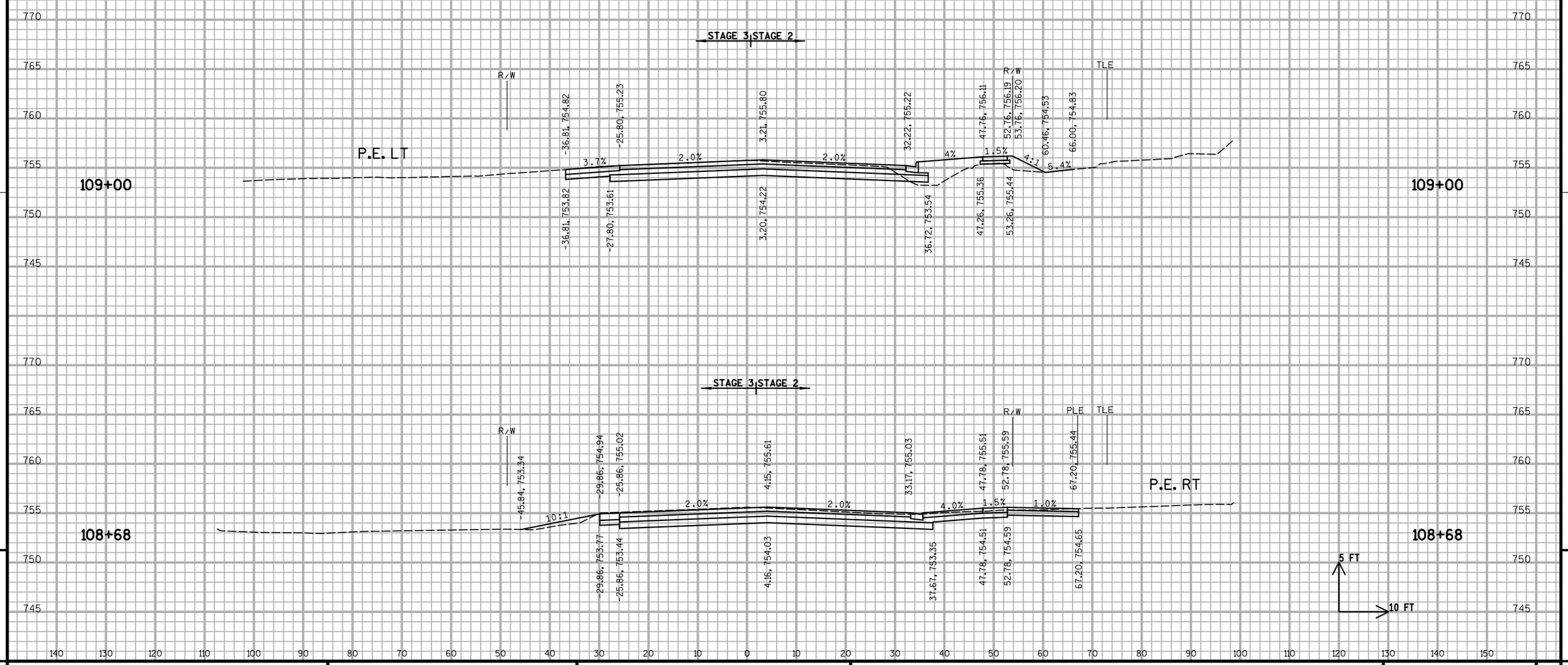
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 241	E



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

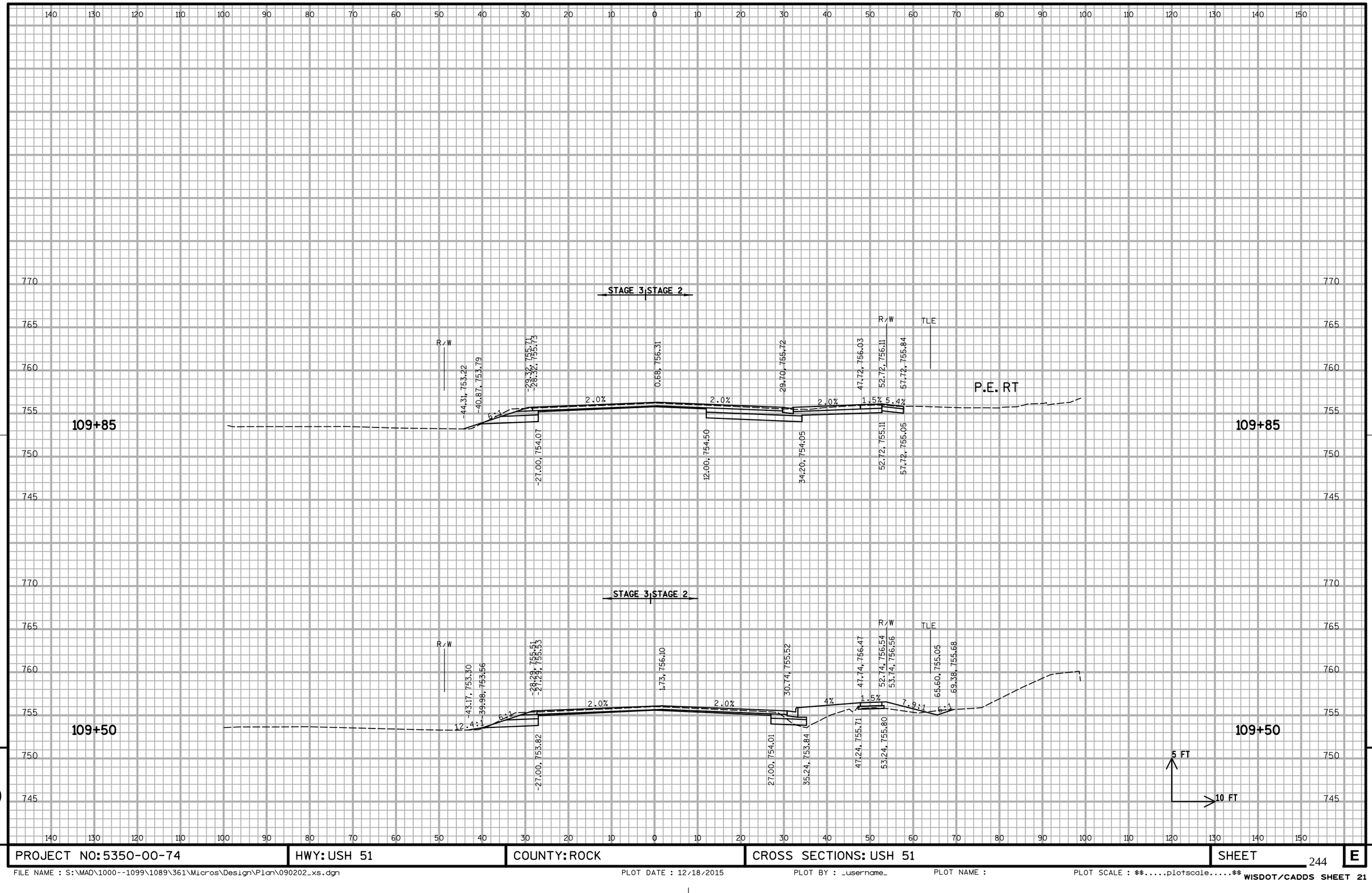
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

END FULL RECONSTRUCTION STA. 109+00



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

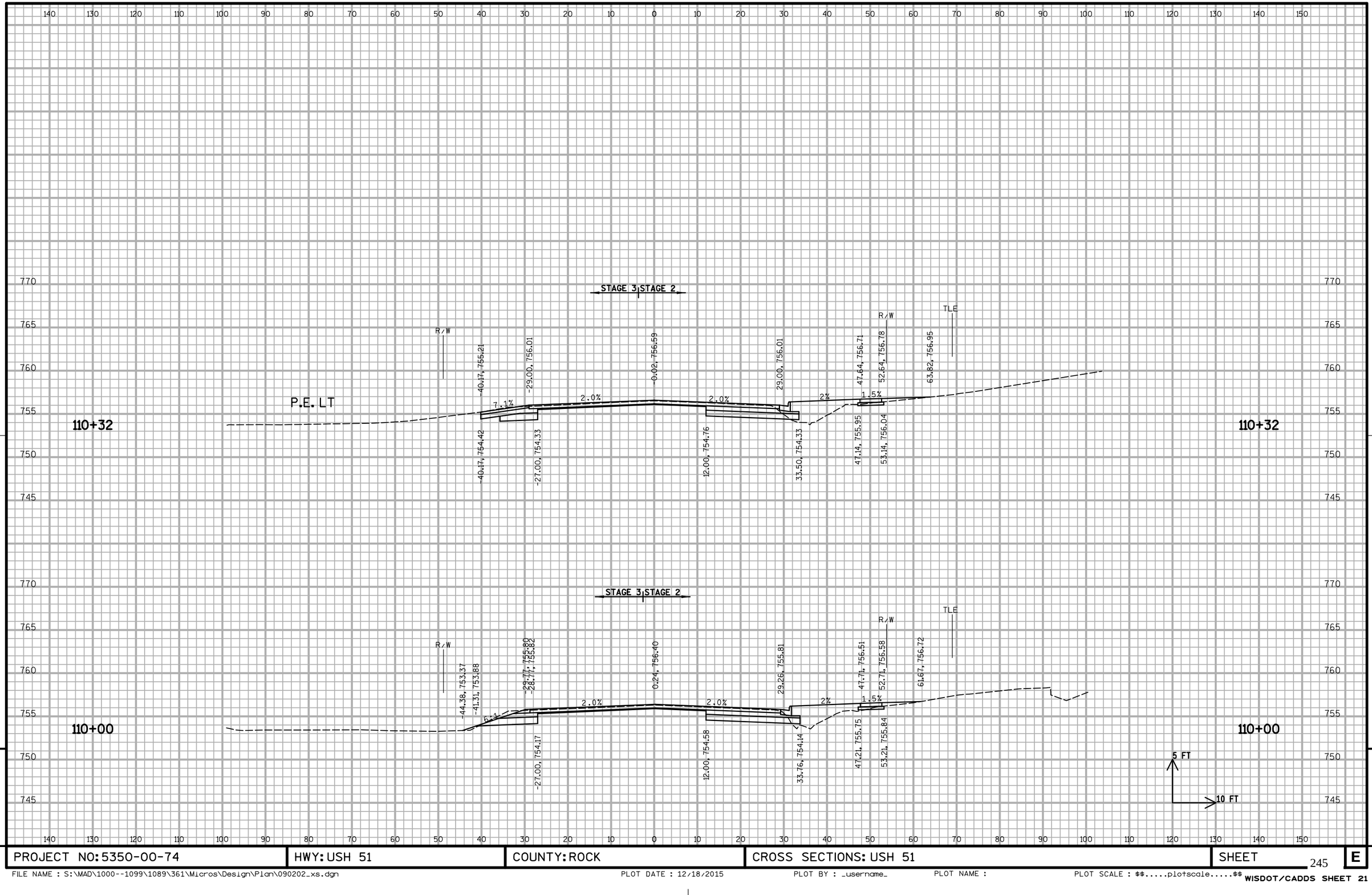


9

9

PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 244	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



9

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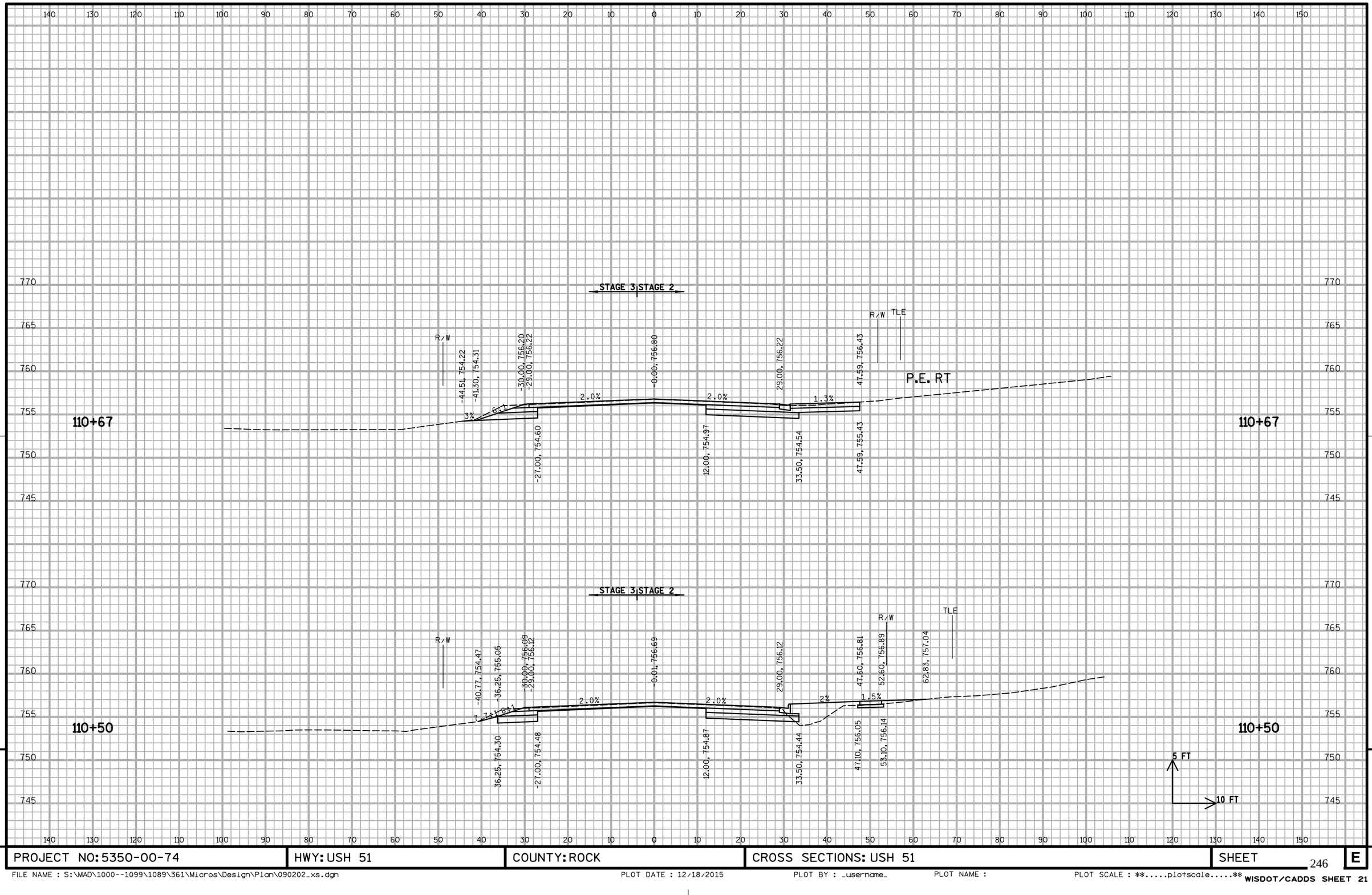
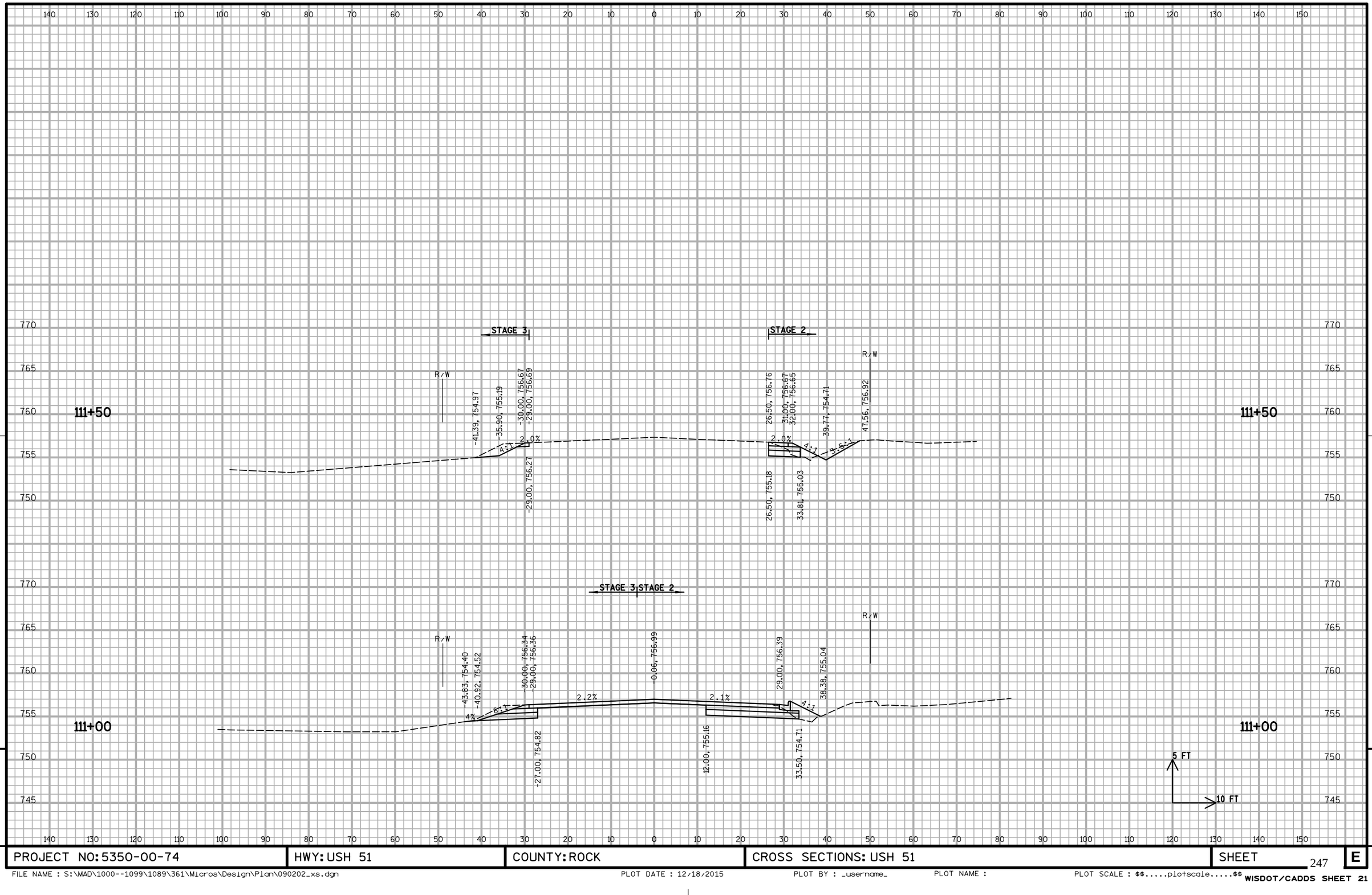
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 245	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 246	E



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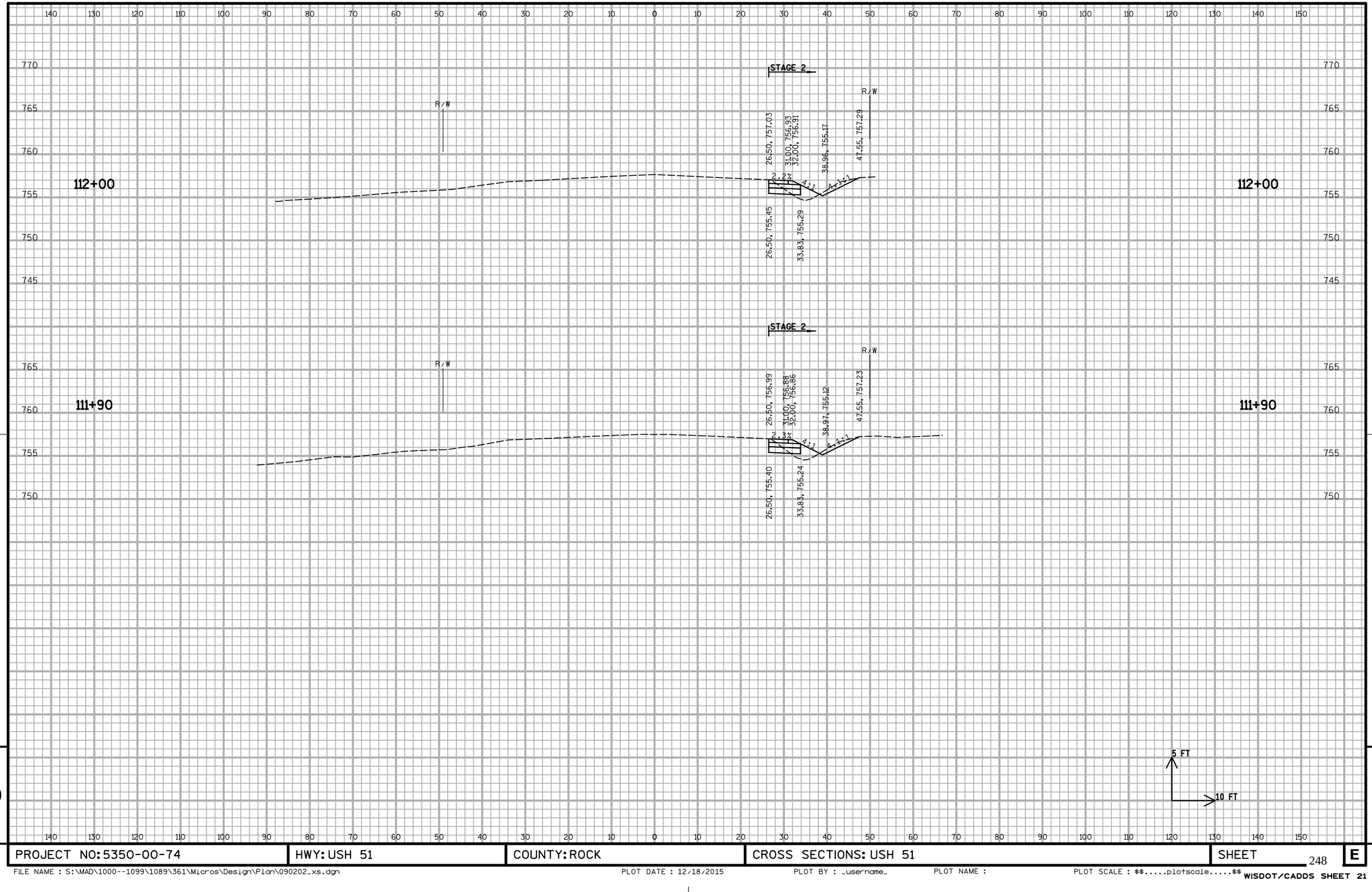
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 247	E

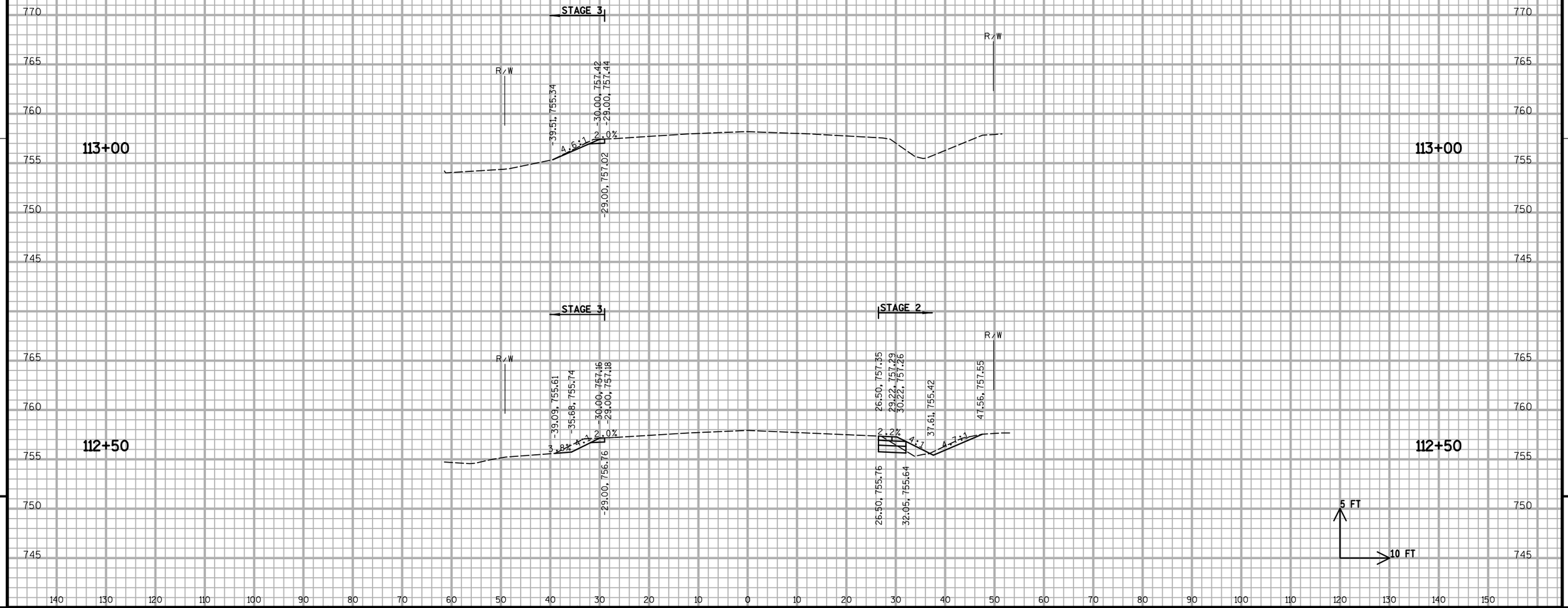
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 248	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

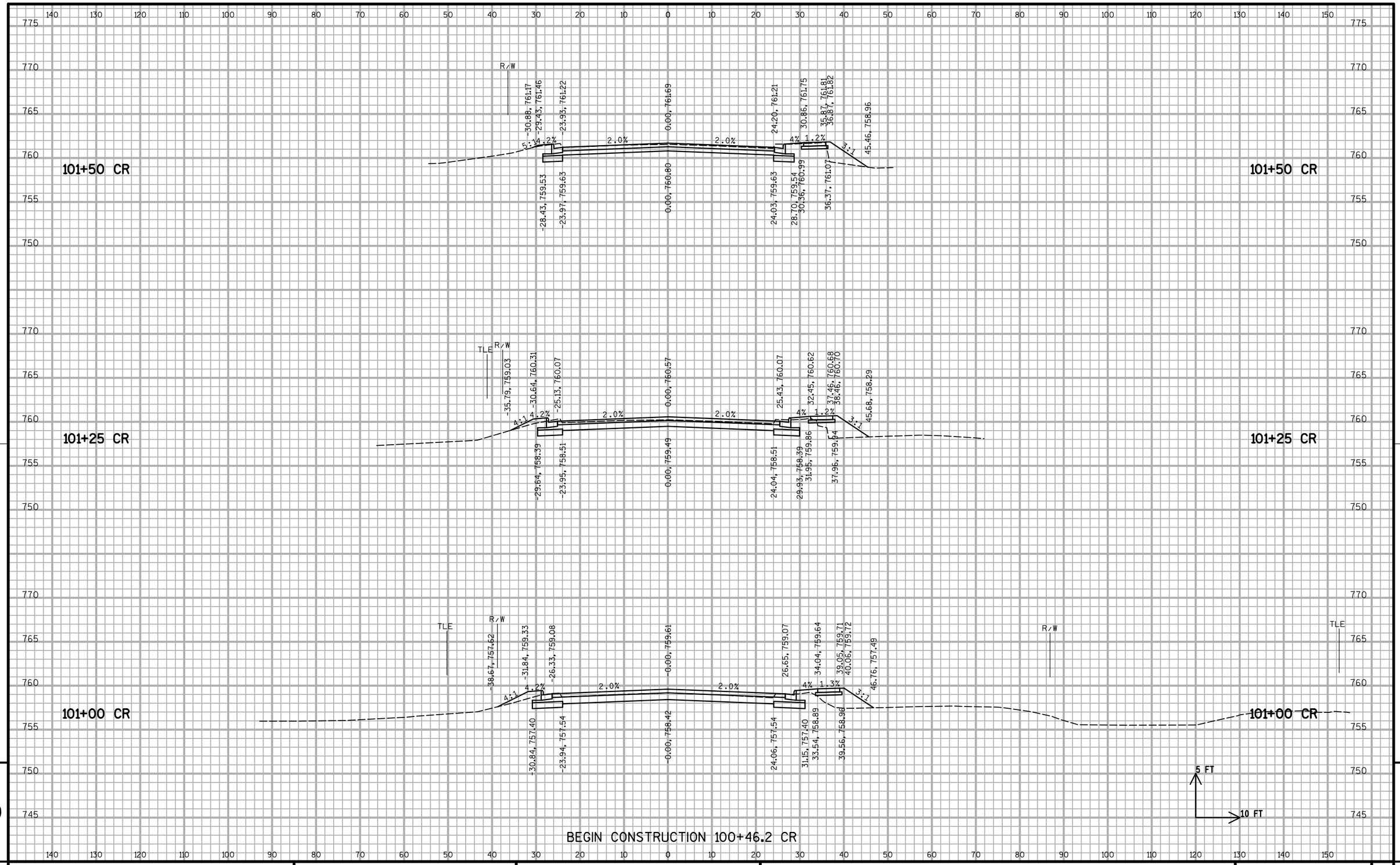
END PROJECT 113+56



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: USH 51	SHEET 249	E

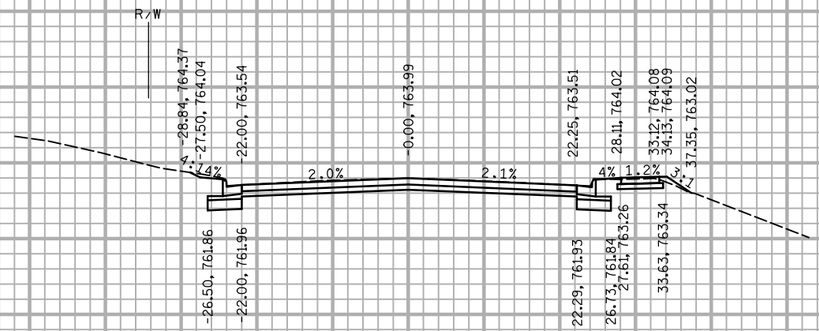
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090202_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21



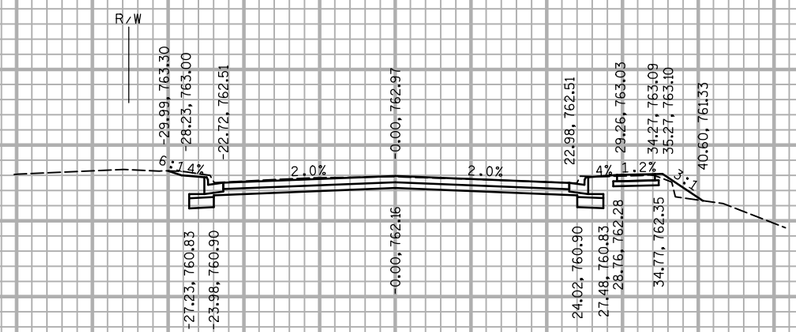
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: CRANSTON ROAD	SHEET 250	E

END CONSTRUCTION 101+93.0 CR



101+93 CR

101+93 CR



101+75 CR

101+75 CR

5 FT

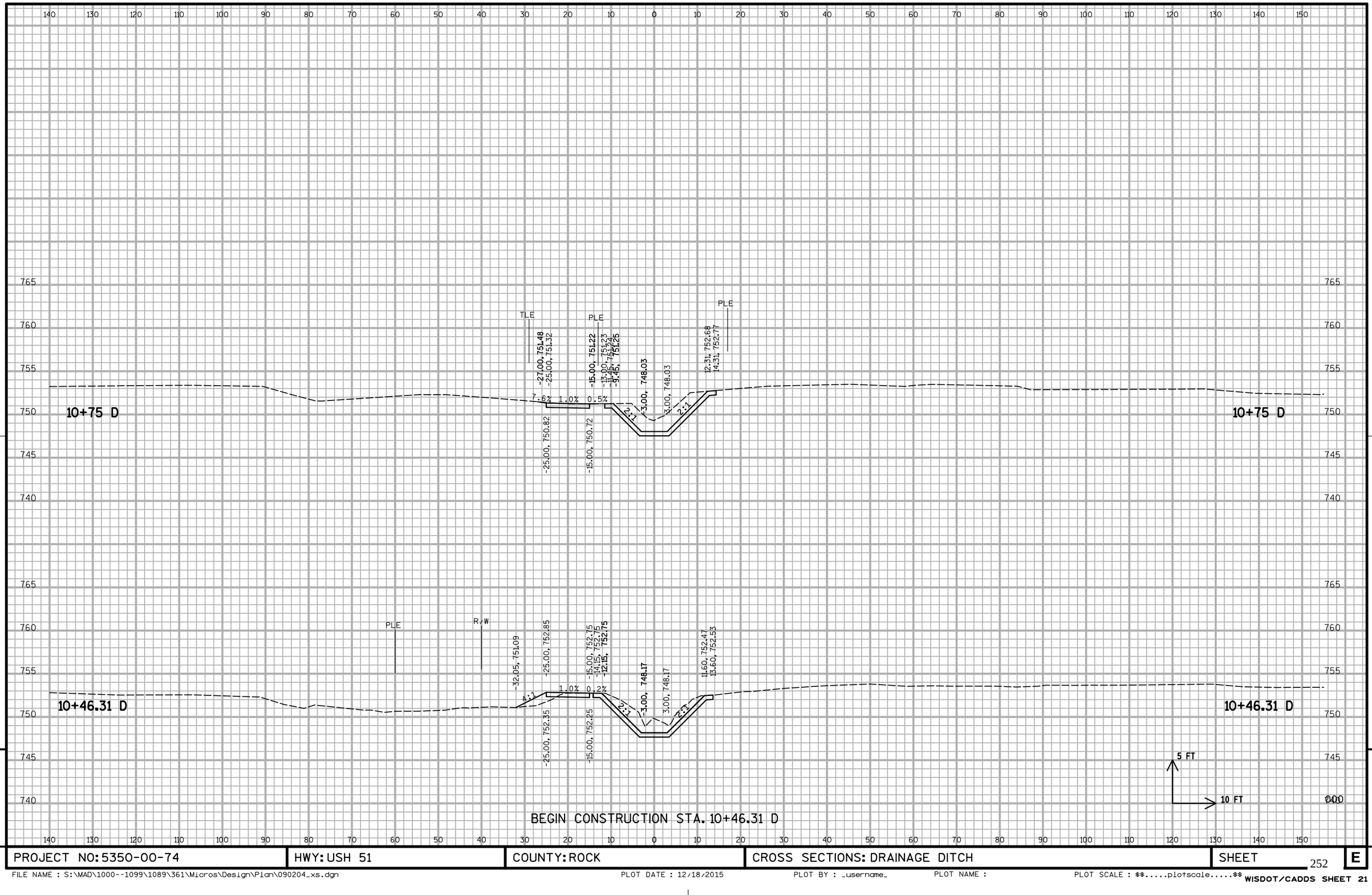
10 FT

9

9

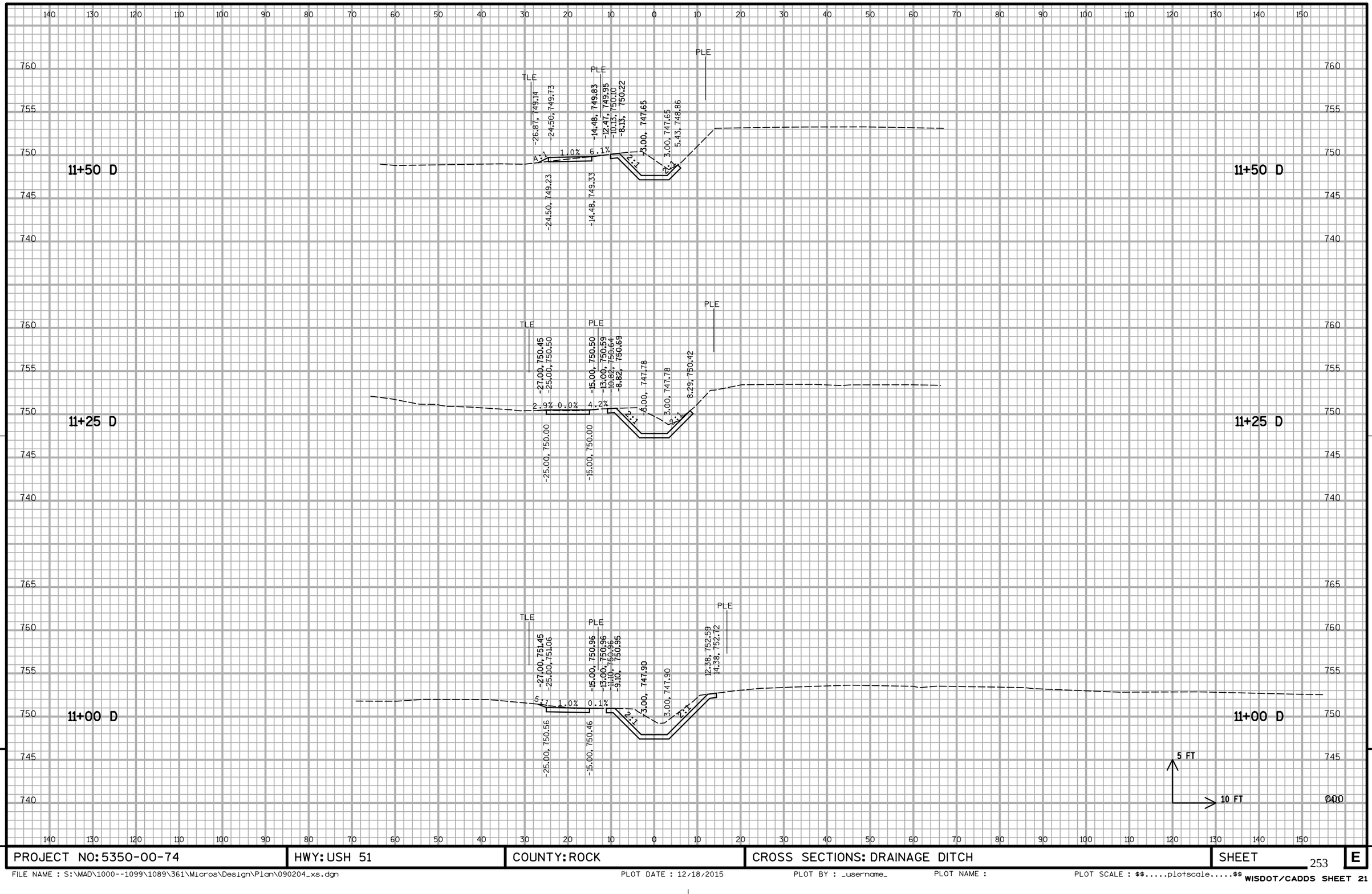
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: CRANSTON ROAD	SHEET 251	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090203_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 252	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



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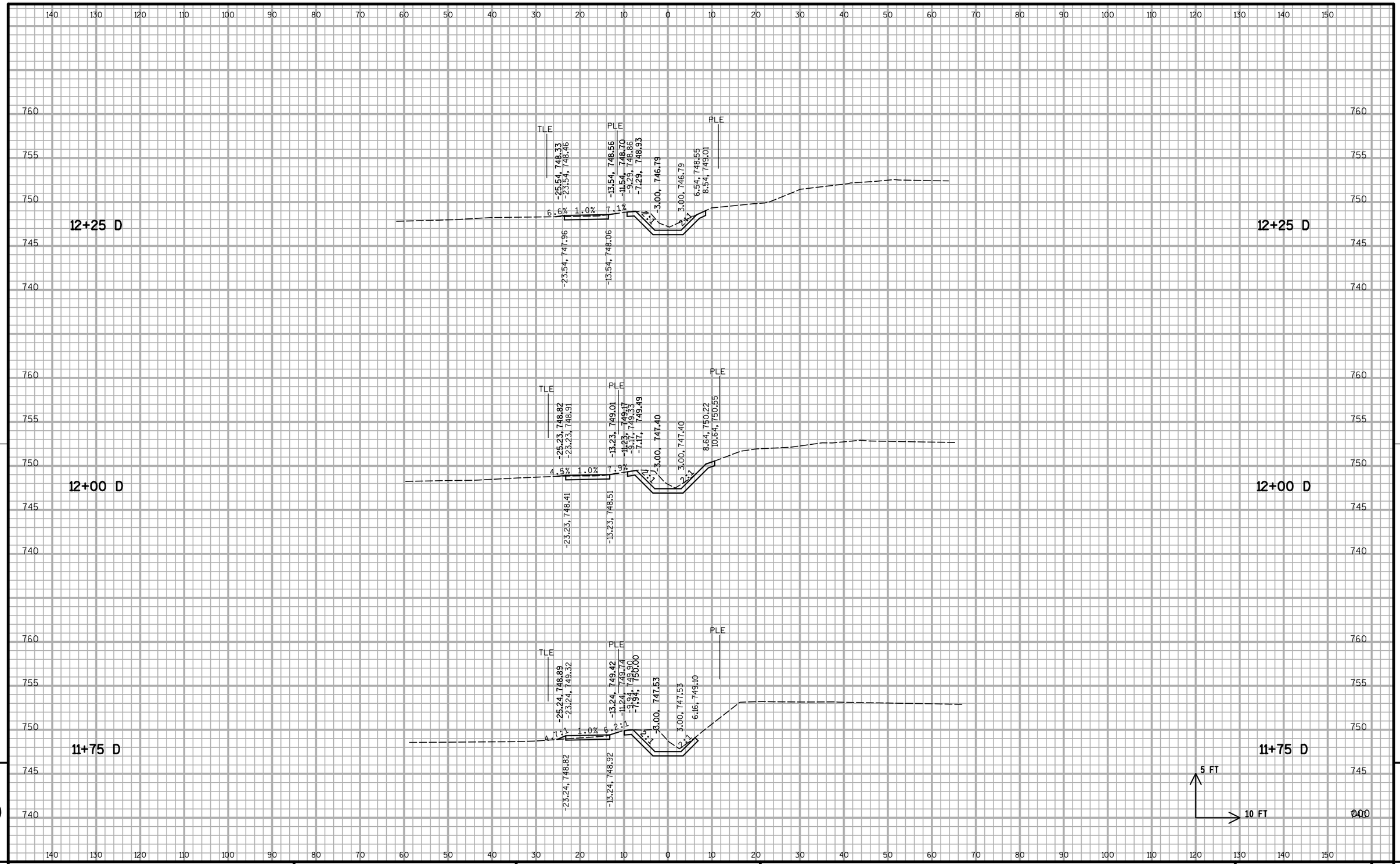
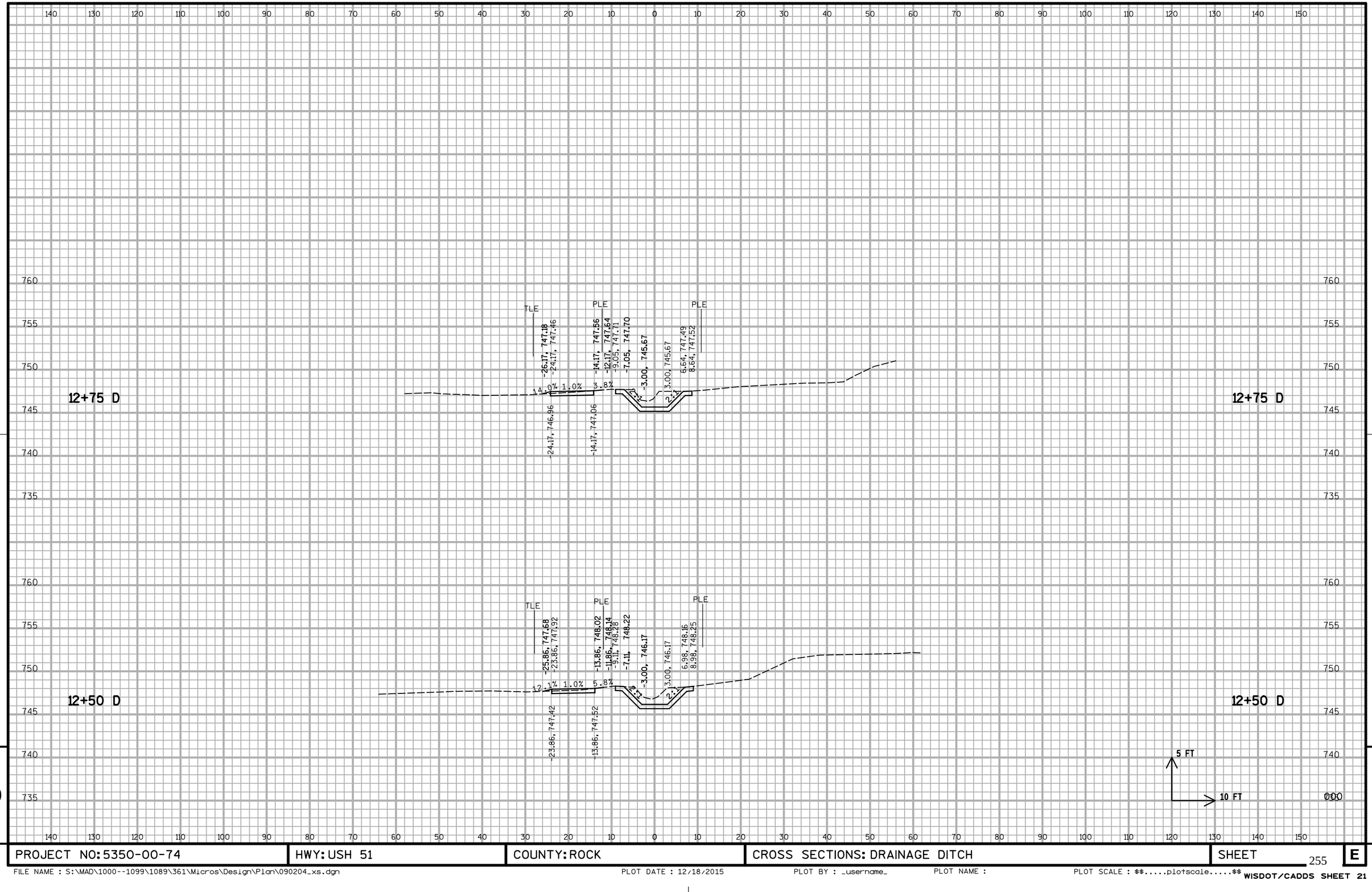
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 253	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



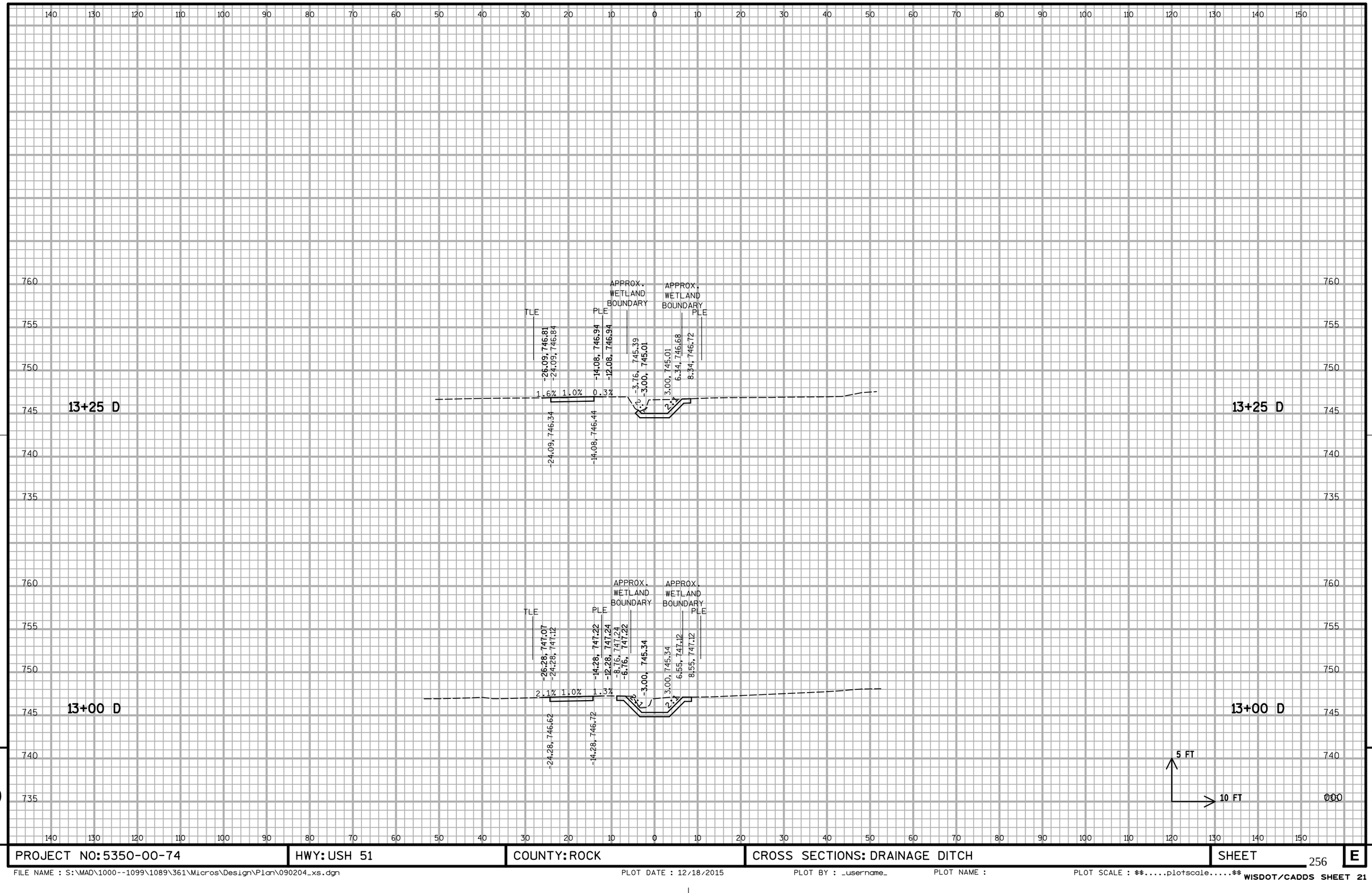
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 254	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 255	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



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PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 256	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21

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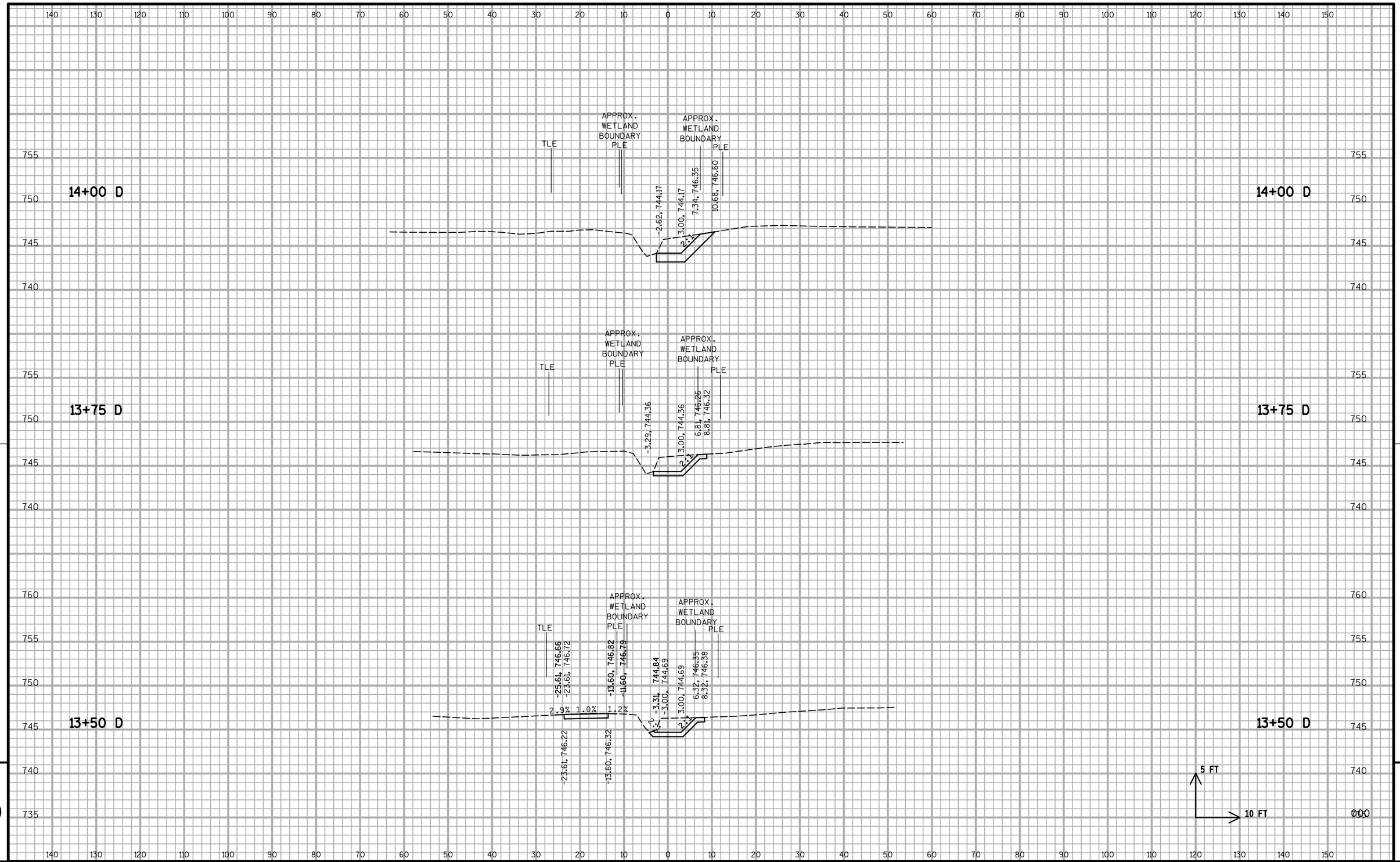
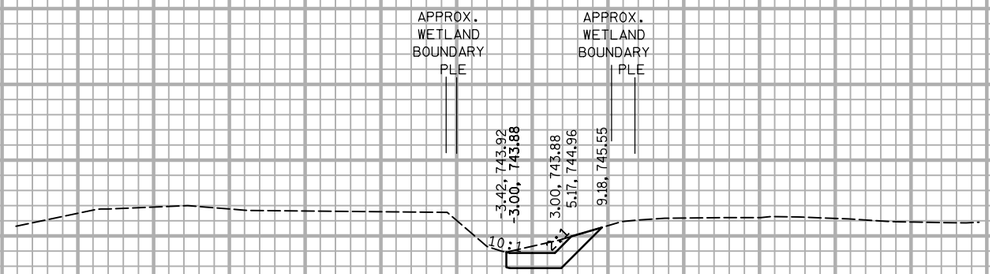


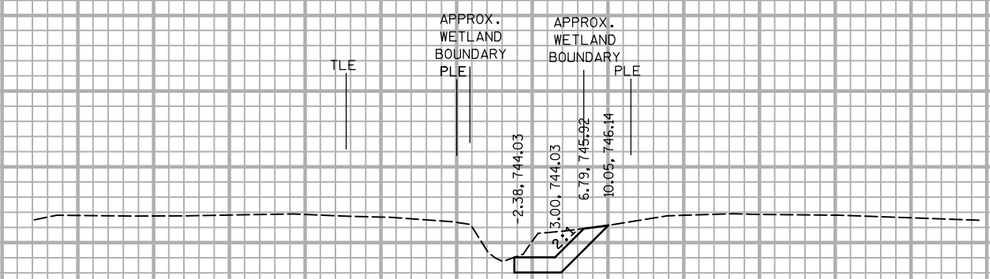
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 257	E

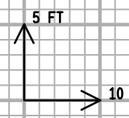
FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

END CONSTRUCTION STA. 14+73.19 D







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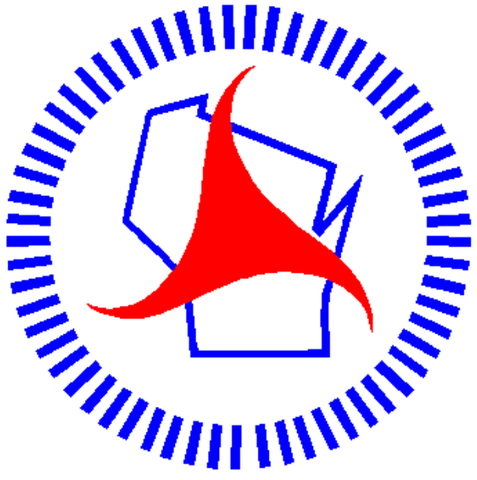
PROJECT NO: 5350-00-74	HWY: USH 51	COUNTY: ROCK	CROSS SECTIONS: DRAINAGE DITCH	SHEET 258	E

FILE NAME : S:\MAD\1000--1099\1089\361\Micros\Design\Plan\090204_xs.dgn PLOT DATE : 12/18/2015 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

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