

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK.

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

THE LOCATION OF STORM SEWER STRUCTURES REFERS TO THE CENTER OF THE STRUCTURE.

RIGHT OF WAY LINES SHOWN ARE FROM PLAT DATA AND FROM MARINETTE COUNTY GIS.

UTILITIES

KEVIN ZICKERT
CENTURYLINK - COMMUNICATION LINE
224 INDUSTRIAL DR
NORTH PRAIRIE, WI 53153
(262) 392-5200
KEVIN.ZICKERT@CENTURYLINK.COM

VINCENT ALBIN
CHARTER COMMUNICATIONS - COMMUNICATION LINE
3520 E DESTINATION DR
APPLETON, WI 54915
(920) 831-9249
VINCE.ALBIN@CHARTER.COM

WARREN HOWARD
MARINETTE WATER UTILITY - WATER
501 WATER ST
MARINETTE, WI 54143
(715) 938-0811
WHOWARD@MARINETTE.WI.US

LORI BUTRY
WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
700 N ADAMS ST
P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920) 433-1703
UTILITIESRELOCATION@WISCONSINPUBLICSERVICE.COM

LORI BUTRY
WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
700 N ADAMS ST
P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920) 433-1703
UTILITIESRELOCATION@WISCONSINPUBLICSERVICE.COM

DESIGN CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
NORTHEAST REGION
ATTN: MATTHEW TERNES
944 VANDERPERREN WAY
GREEN BAY, WI 54304
PHONE: (920) 366-3028
E-MAIL: matthew.ternes@dot.wi.gov

MSA PROFESSIONAL SERVICES
ATTN: NATHAN COOK
1702 PANKRATZ STREET
MADISON, WI 53704
PHONE: (608) 216-2058
E-MAIL: ncook@msa-ps.com

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: JIM DOPERALSKI
DNR NORTHEAST REGIONAL HQ
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920) 412-0165
E-MAIL: james.doperalski@wisconsin.gov

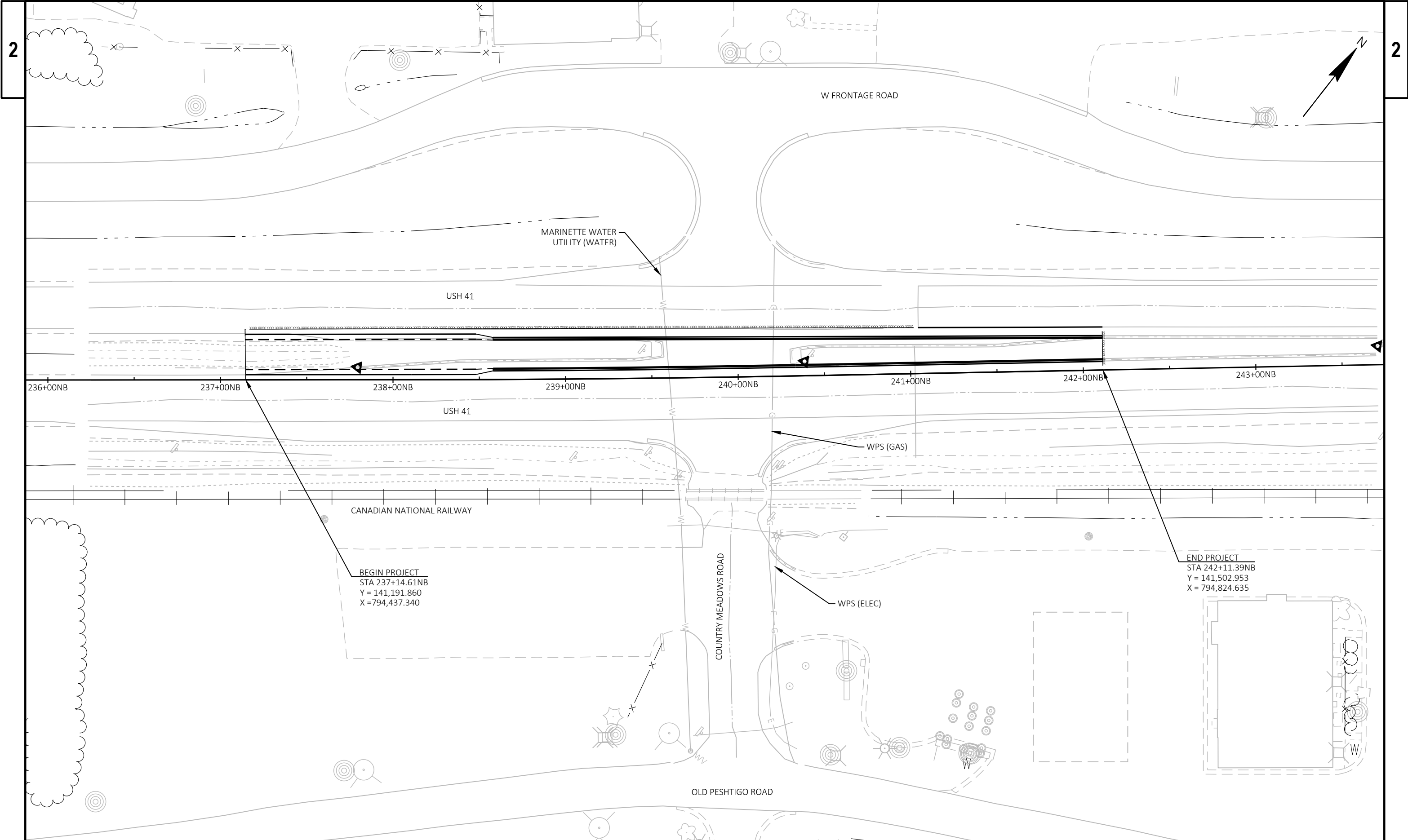


INDEX OF TYPICAL SECTIONS & DETAIL SHEETS

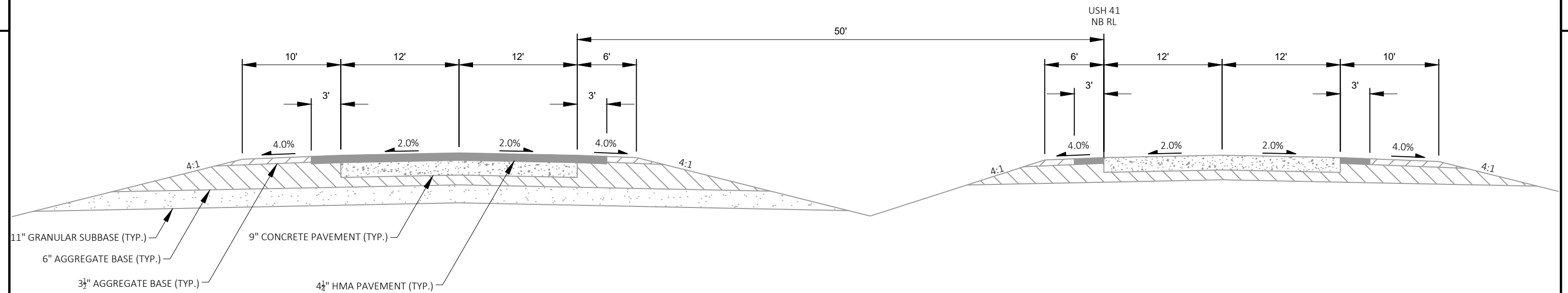
GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
STORM SEWER
PERMANENT SIGNING
PAVEMENT MARKINGS
TRAFFIC CONTROL

STANDARD ABBREVIATIONS

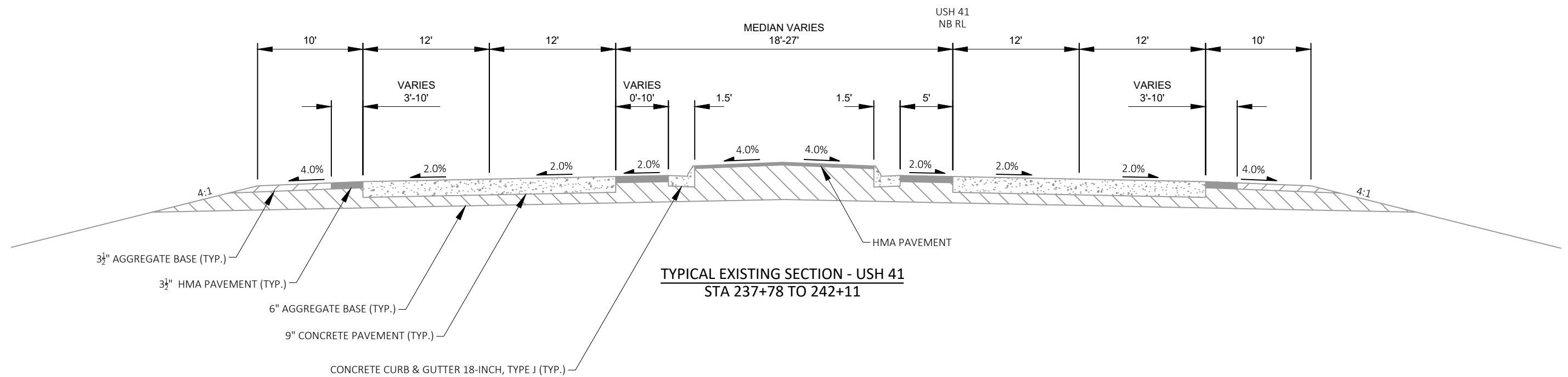
AC	ACRES	MON	MONUMENT
AEW	APRON ENDWALL	N	NORTH
AGG	AGGREGATE	NB	NORTHBOUND
AH	AHEAD	N.C.	NORMAL CROWN
ALUM.	ALUMINUM	NO	NUMBER
A.P.	ACCESS POINT	PB	PULLBOX
ASPH	ASPHALT	PC	POINT OF CURVATURE
AVE	AVENUE	PI	POINT OF INTERSECTION
BAD	BASE AGGREGATE DENSE	PL	PROPERTY LINE
BK	BACK	PLE	PERMANENT LIMITED EASEMENT
BLK	BLOCK	POB	POINT OF BEGINNING
BOC	BACK OF CURB	PT	POINT OF TANGENCY
BOW	BACK OF SIDEWALK	R	RADIUS
BM	BENCHMARK	R	RANGE
CABC	CRUSHED AGGREGATE BASE COURSE	RCP	REINFORCED CONCRETE PIPE
CL or €	CENTERLINE	RD	ROAD
Δ	CENTRAL ANGLE or DELTA	REQ'D	REQUIRED
CMCP	CORRUGATED METAL CULVERT PIPE	RL or R/L	REFERENCE LINE
CONC	CONCRETE	RP	RADIUS POINT
CP	CONTROL POINT	RT	RIGHT
CPCS	CULVERT PIPE CORRUGATED STEEL	R/W	RIGHT OF WAY
CSM	CERTIFIED SURVEY MAP	S	SOUTH
CTH	COUNTY TRUNK HIGHWAY	SAN	SANITARY SEWER
D	DEGREE OF CURVATURE	SB	SOUTHBOUND
DES	DESIRABLE	S.E.	SUPERELEVATION
E	EAST	SEC	SECTION
EB	EASTBOUND	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
EOP	EDGE OF PAVEMENT	SQ	SQUARE
ET AL	AND OTHERS	ST	STREET
EW	ENDWALL	STA	STATION
EXIST	EXISTING	STD	STANDARD
FT	FOOT	STH	STATE TRUNK HIGHWAY
FT2	SQUARE FEET	STM	STORM SEWER STRUCTURE
GN	GRID NORTH	STR	TANGENT
GV	GAS VALVE	T	TANGENT
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE	TAN	TANGENT
HYD	HYDRANT	TEMP	TEMPORARY
IN	INCH	TLE	TEMPORARY LIMITED EASEMENT
INL	INLET	T or TN	TOWN
INV	INVERT	TYP.	TYPICAL
IP	IRON PIPE	WM	WATERMIN
L	LENGTH	WV	WATER VALVE
L	LENGTH OF CURVE	W	WEST
LC	LONG CHORD	WB	WESTBOUND
LCP	LONG CHORD BEARING	X	EAST GRID COORDINATE
LF	LINEAR FEET	Y	NORTH GRID COORDINATE
LT	LEFT		
MH	MANHOLE		



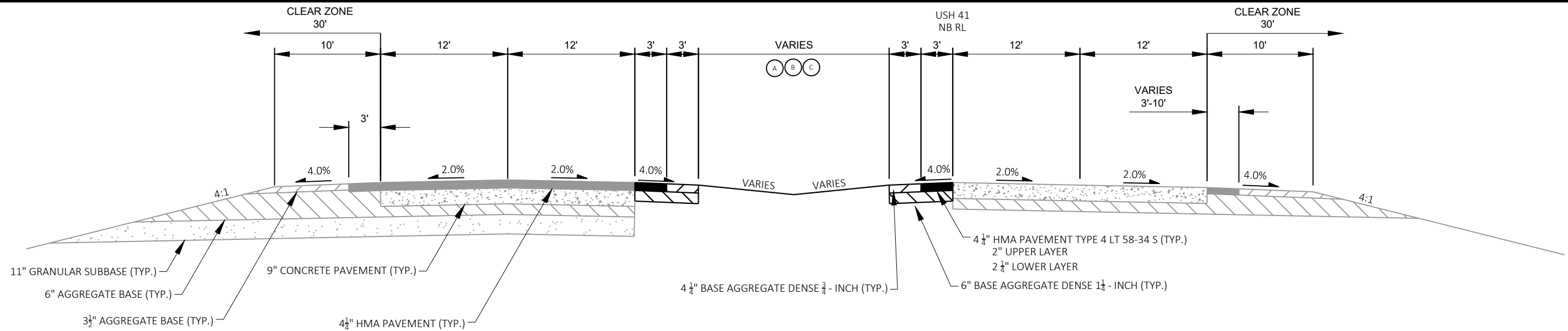
PROJECT NO: 1150-72-71	HWY: USH 41	COUNTY: MARINETTE	PROJECT OVERVIEW	SHEET 3 E
------------------------	-------------	-------------------	------------------	-----------



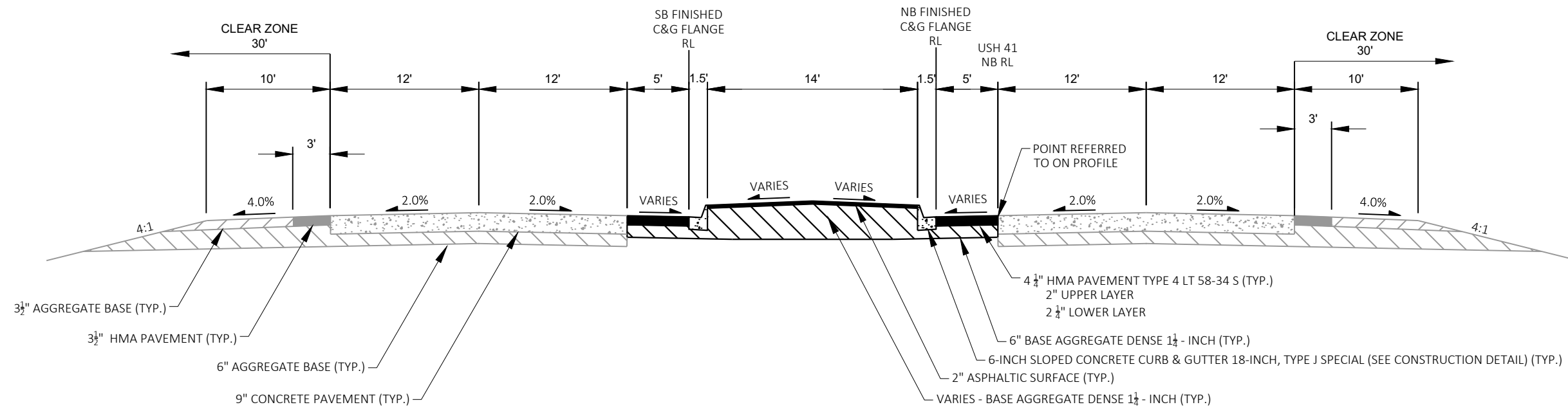
TYPICAL EXISTING SECTION - USH 41
STA 237+14 TO 237+78

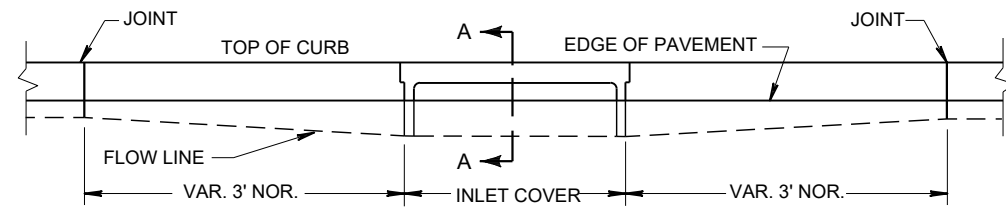


TYPICAL EXISTING SECTION - USH 41
STA 237+78 TO 242+11

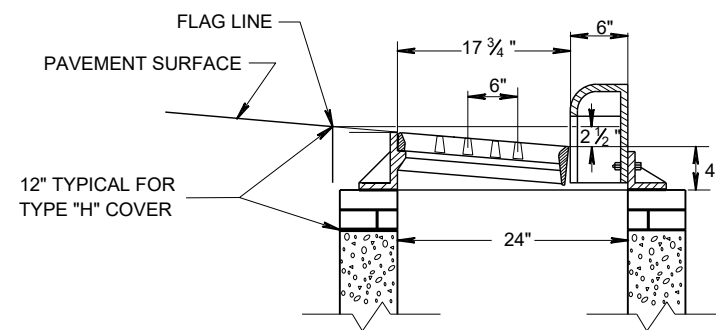
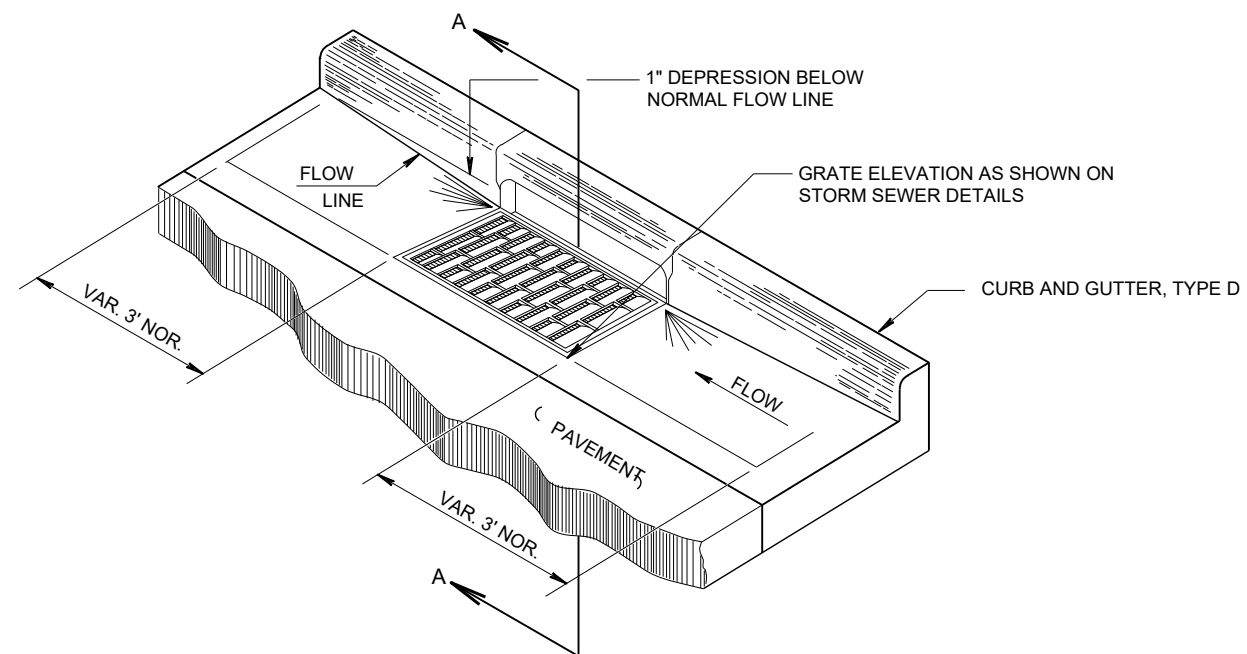
**LEGEND**

- CONCRETE CURB & GUTTER
- HMA PAVEMENT
- BASE AGGREGATE DENSE 3/4-INCH
- BASE AGGREGATE DENSE 1 1/4-INCH
- SEED MIXTURE #20 WITH TEMPORARY SEEDING & FERTILIZER TYPE B.
- 6" TOPSOIL
- EROSION MAT CLASS I TYPE B

**TYPICAL FINISHED SECTION - USH 41
STA 237+14 TO 238+58****TYPICAL FINISHED SECTION - USH 41
STA 238+58 TO 242+11**

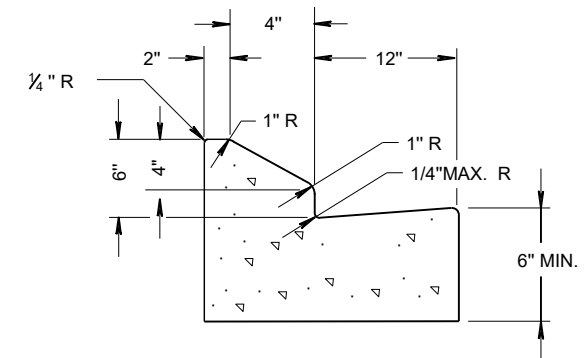


ELEVATION

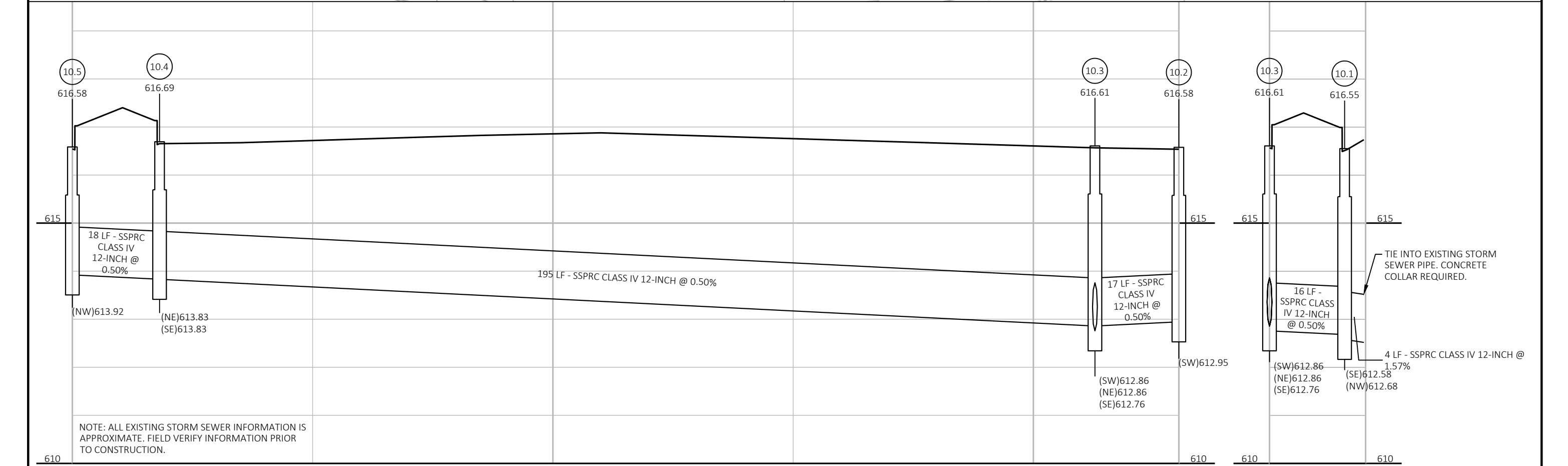
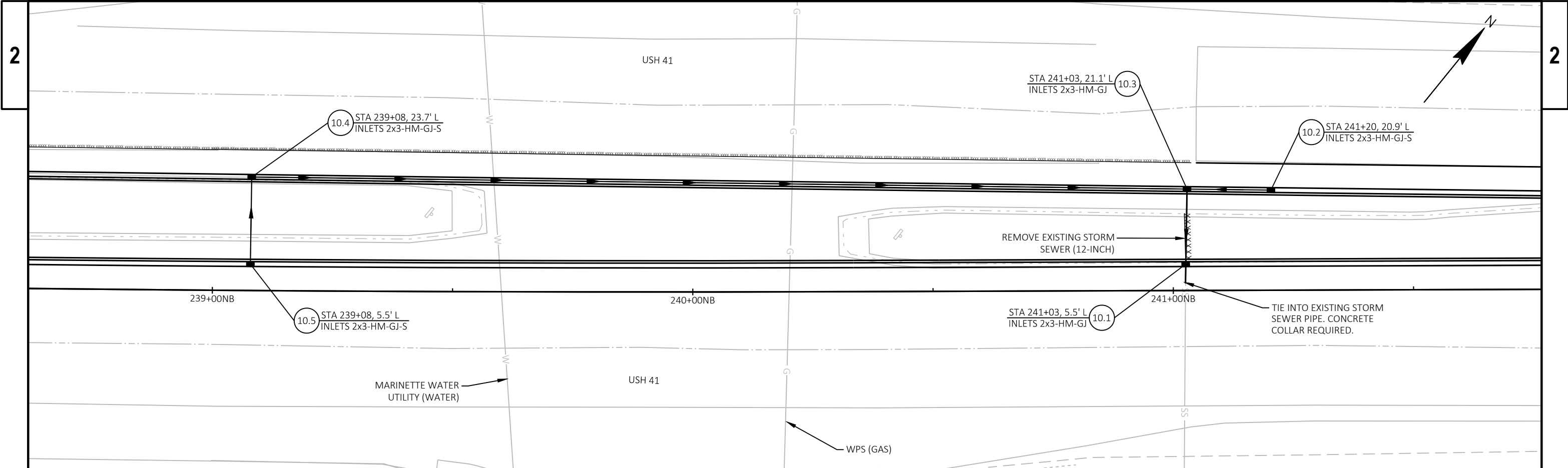


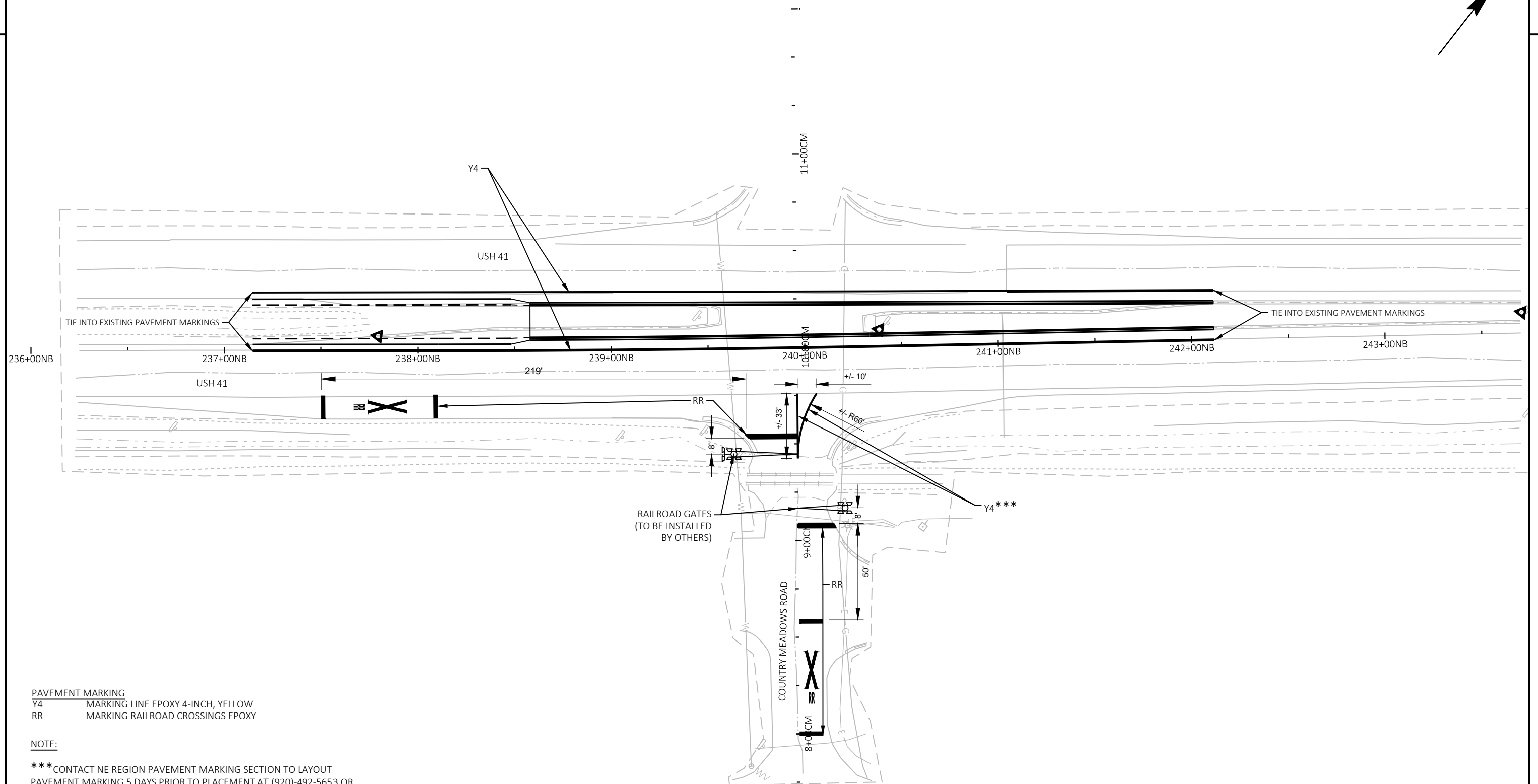
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS
(TYPE 3-H INLET SHOWN)



6-INCH SLOPED CONCRETE CURB & GUTTER,
18-INCH, TYPE J





PROJECT NO: 1150-72-71

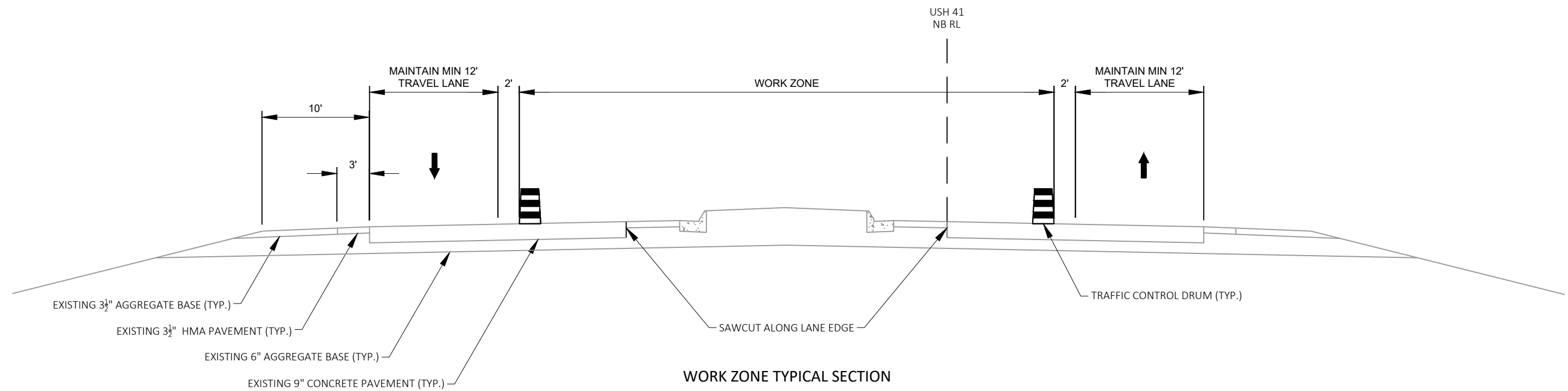
HWY: USH 41

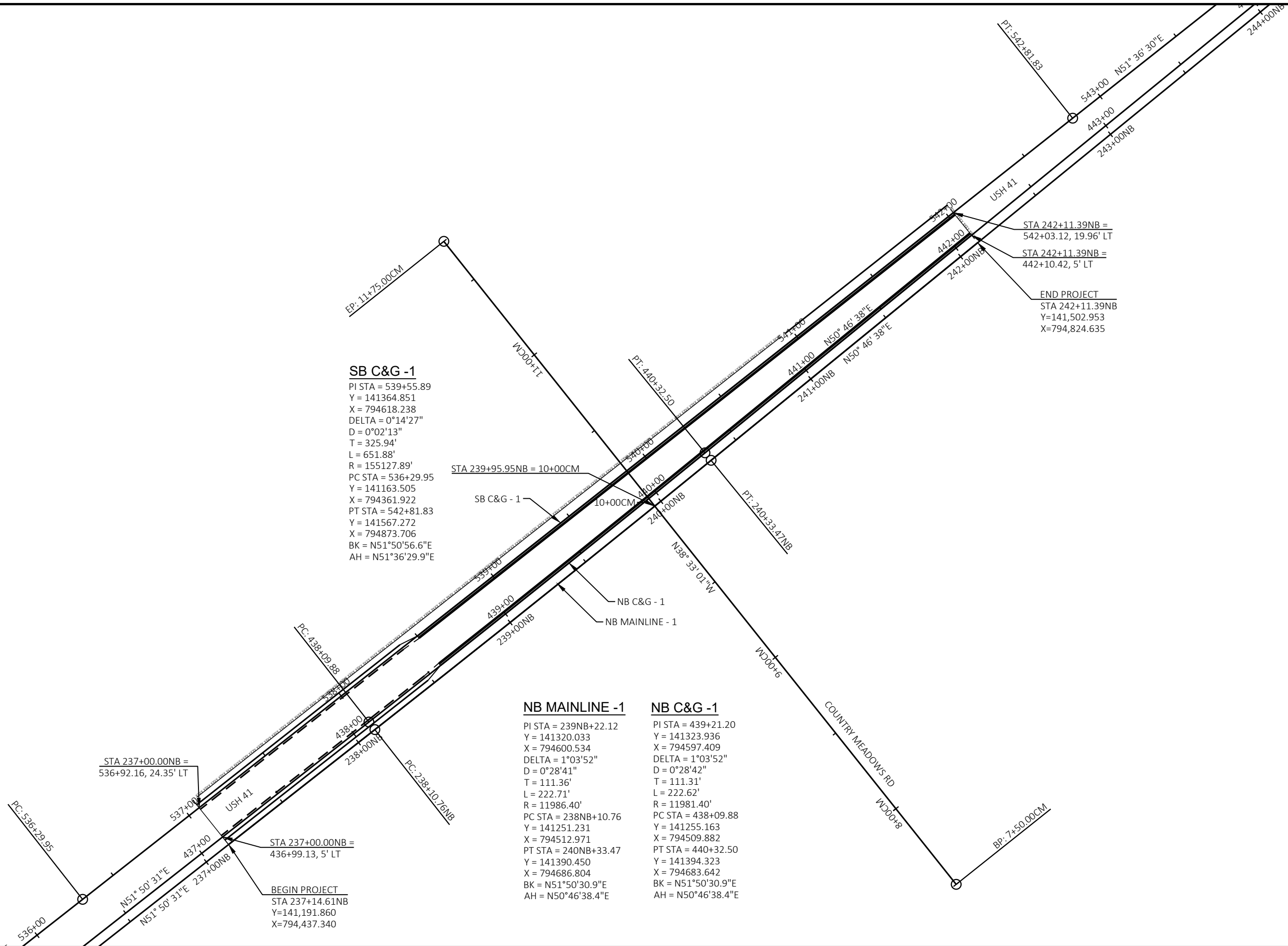
COUNTY: MARINETTE

PAVEMENT MARKING

SHEET

8 E





Estimate Of Quantities

1150-72-71

Line	Item	Item Description	Unit	Total	Qty
0002	204.0150	Removing Curb & Gutter	LF	710.000	710.000
0004	204.0220	Removing Inlets	EACH	2.000	2.000
0006	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	15.000	15.000
0008	205.0100	Excavation Common	CY	485.000	485.000
0010	213.0100	Finishing Roadway (project) 01. 1150-72-71	EACH	1.000	1.000
0012	305.0110	Base Aggregate Dense 3/4-Inch	TON	30.000	30.000
0014	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	480.000	480.000
0016	455.0605	Tack Coat	GAL	25.000	25.000
0018	460.2000	Incentive Density HMA Pavement	DOL	90.000	90.000
0020	460.5244	HMA Pavement 4 LT 58-34 S	TON	128.000	128.000
0022	465.0105	Asphaltic Surface	TON	64.000	64.000
0024	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	246.000	246.000
0026	611.0630	Inlet Covers Type HM-GJ	EACH	2.000	2.000
0028	611.0633	Inlet Covers Type HM-GJ-S	EACH	3.000	3.000
0030	611.3230	Inlets 2x3-FT	EACH	5.000	5.000
0032	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1150-72-71	EACH	1.000	1.000
0034	619.1000	Mobilization	EACH	1.000	1.000
0036	624.0100	Water	MGAL	8.000	8.000
0038	625.0100	Topsoil	SY	300.000	300.000
0040	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0042	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0044	628.2004	Erosion Mat Class I Type B	SY	300.000	300.000
0046	628.7015	Inlet Protection Type C	EACH	5.000	5.000
0048	629.0210	Fertilizer Type B	CWT	1.000	1.000
0050	630.0120	Seeding Mixture No. 20	LB	10.000	10.000
0052	630.0200	Seeding Temporary	LB	5.000	5.000
0054	630.0500	Seed Water	MGAL	9.000	9.000
0056	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0058	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000
0060	637.2210	Signs Type II Reflective H	SF	36.360	36.360
0062	637.2230	Signs Type II Reflective F	SF	25.070	25.070
0064	638.2602	Removing Signs Type II	EACH	8.000	8.000
0066	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0068	642.5001	Field Office Type B	EACH	1.000	1.000
0070	643.0300	Traffic Control Drums	DAY	2,360.000	2,360.000
0072	643.0420	Traffic Control Barricades Type III	DAY	160.000	160.000
0074	643.0705	Traffic Control Warning Lights Type A	DAY	320.000	320.000
0076	643.0715	Traffic Control Warning Lights Type C	DAY	880.000	880.000

Estimate Of Quantities

1150-72-71

Line	Item	Item Description	Unit	Total	Qty
0078	643.0800	Traffic Control Arrow Boards	DAY	80.000	80.000
0080	643.0900	Traffic Control Signs	DAY	960.000	960.000
0082	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0084	643.5000	Traffic Control	EACH	1.000	1.000
0086	646.1020	Marking Line Epoxy 4-Inch	LF	1,061.000	1,061.000
0088	646.5320	Marking Railroad Crossings Epoxy	EACH	2.000	2.000
0090	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	3,240.000	3,240.000
0092	650.4000	Construction Staking Storm Sewer	EACH	4.000	4.000
0094	650.4500	Construction Staking Subgrade	LF	496.000	496.000
0096	650.5000	Construction Staking Base	LF	496.000	496.000
0098	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	706.000	706.000
0100	650.9910	Construction Staking Supplemental Control (project) 01. 1150-72-71	LS	1.000	1.000
0102	650.9920	Construction Staking Slope Stakes	LF	143.000	143.000
0104	690.0150	Sawing Asphalt	LF	418.000	418.000
0106	690.0250	Sawing Concrete	LF	3.000	3.000
0108	SPV.0090	Special 01. Concrete Curb & Gutter 6-Inch Sloped 18-Inch, Type J	LF	706.000	706.000

3

REMOVING CURB & GUTTER

204.0150 REMOVING CURB & GUTTER LF					
CATEGORY	STATION	TO	STATION	LOCATION	
0010	237+78	-	239+50	SOUTH MEDIAN	351
0010	240+37	-	242+11	NORTH MEDIAN	357
TOTAL 0010					710

REMOVING STORM SEWER

204.0220 204.0245.01 REMOVING STORM SEWER (12- INCH) (01) LF						
CATEGORY	STATION	TO	STATION	LOCATION	REMOVING INLETS EACH	
0010	241+02	-	241+02	NORTH MEDIAN	2	15
TOTAL 0010					2	15

STORM SEWER PIPES

608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF								
CATEGORY	FROM	-	TO		INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	
0010	10.5	-	10.4	18	613.92	613.83	0.5%	
0010	10.4	-	10.3	195	613.83	612.86	0.5%	
0010	10.2	-	10.3	17	612.95	612.86	0.5%	
0010	10.3	-	10.1	16	612.76	612.68	0.5%	
0010	10.1	-	EXISTING PIPE	4	612.58	612.52	1.5%	
TOTAL 0010				246				

BASE AGGREGATE ITEMS

305.0110 305.0120 624.0100 BASE AGGREGATE BASE AGGREGATE WATER DENSE 3/4-INCH DENSE 1 1/4-INCH MGAL TON TON									
CATEGORY	STATION	TO	STATION	LOCATION					
0010	237+15	-	242+11	NB & SB USH 41	30	480	8		
TOTAL 0010					30	480	8		

ASPHALTIC ITEMS

455.0605 460.5244 465.0105 TACK COAT HMA PAVEMENT 4 ASPHALTIC GAL LT 58-34 S SURFACE TON TON									
CATEGORY	STATION	TO	STATION	LOCATION					
0010	237+15	-	242+11	NB & SB USH 41	25	128			
0010	238+58	-	242+11	MEDIAN	-		64		
TOTAL 0010					25	128	64		

3

3

3

STORM SEWER STRUCTURE

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	611.0630	611.0633	611.3230	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
					INLET COVERS TYPE HM-GJ EACH	INLET COVERS TYPE HM-GJ-S EACH	INLETS 2X3-FT EACH			
0010	10.2	241+20	20.9' LT	SB USH 41	-	1	1	616.58	612.95	2.63
0010	10.3	241+03	21.1' LT	SB USH 41	1	-	1	616.61	612.76	2.85
0010	10.4	239+08	23.7' LT	SB USH 41	-	1	1	616.69	613.83	1.86
0010	10.5	239+08	5.5' LT	NB USH 41	-	1	1	616.58	613.92	1.66
0010	10.1	241+03	5.5' LT	NB USH 41	1	-	1	616.55	612.58	2.97
TOTAL 0010					2	3	5			

CONCRETE ITEMS

REMAKRS
* STATIONS AND OFFSETS ARE TO CENTER OF STRUCUTRE
** THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
*** DEPTH = RIM ELEV. - INVERT ELEV. - CASTING HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

SPV.0090.01
CONCRETE CURB
& GUTTER 6-
SLOPED 18-INCH,
TYPE J
LF

CATEGORY	STATION	TO	STATION	LOCATION	
0010	238+58	-	242+11	NB & SB USH 41	706
TOTAL 0010					706

EROSION CONTROL ITEMS

LANDSCAPING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	629.0210	630.0120	630.0200	630.0500
					TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
0010	237+15	-	238+58	MEDIAN	280	1.0	8	4	9
0010				UNDISTRIBUTED	20	-	2	1	-
TOTAL 0010					300	1	10	5	9

INLET PROTECTION ITEMS

CATEGORY	STRUCTURE	LOCATION	628.7015
			INLET PROTECTION TYPE C EACH
0010	10.1	241+03, 5.5' LT	1
0010	10.2	241+20, 20.9' LT	1
0010	10.3	241+03, 21.1' LT	1
0010	10.4	239+08, 23.7' LT	1
0010	10.5	239+08, 5.5' LT	1
TOTAL 0010			5

TRAFFIC CONTROL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	643.1050	649.0150
					TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	TRAFFIC CONTROL ARROW BOARDS DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS PCMS DAY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF
0010	223+00	-	250+00	NB & SB USH 41	2,360	160	320	880	80	960	14	3,240
TOTAL 0010					2,360	160	320	880	80	960	14	3,240

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	USH 41	W10-2	---	---	---	---	---	1	1	
2	"	W10-2	36" X 36"	---	9.00	1	---	---	---	
3	"	R4-7	---	---	---	---	---	1	1	
4	"	R6-2R	24" X 30"	5.00	---	1	---	---	---	
5	"	R6-2R	24" X 30"	5.00	---	1	---	---	---	
6	"	R4-7	---	---	---	---	---	1	1	
7	"	W10-2	---	---	---	---	---	1	1	
8	COUNTRY MEADOWS	R6-1R	36" X 12"	3.00	---	---	---	---	---	MOUNT ABOVE SIGN 9
9	"	R1-1	30" X 30"	5.18	---	---	1	1	1	
10	"	R6-3	---	---	---	---	---	---	---	
11	"	R6-2R	---	---	---	---	---	1	1	
12	"	R6-2L	---	---	---	---	---	---	---	
13	"	W10-1	36" X 36"	---	7.07	1	---	---	---	
13A	"	W10-3	36" X 36"	---	9.00	1	---	---	---	
13B	"	R8-8	24" X 30"	5.00	---	1	---	---	---	
13C	"	R8-8	24" X 30"	5.00	---	1	---	---	---	
14	W. FRONTAGE RD	R6-1R	36" X 12"	3.00	---	---	---	---	---	MOUNT ABOVE SIGN 15
15	"	R1-1	30" X 30"	5.18	---	---	1	1	1	
16	"	R6-3	---	---	---	---	---	---	---	
17	"	R6-2R	---	---	---	---	---	1	1	
18	"	R6-2L	---	---	---	---	---	---	---	
TOTALS				36.36	25.07	7	2	8	8	

PERMANENT PAVEMENT MARKING ITEM

					646.1020	646.5320
					MARKING LINE EPOXY 4-INCH LF	MARKING RAILROAD CROSSINGS EPOXY EACH
CATEGORY	STATION	TO	STATION	LOCATION		
0010	237+15	-	242+11	NB & SB USH 41	992	-
0010	8+00	-	9+61	COUNTRY MEADOWS	69	2
				TOTAL 0010	1,061	2

STAKING

					650.4000	650.4500	650.5000	650.5500	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 1150-72-71) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
					CONSTRUCTION STAKING STORM SEWER EACH	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF		
CATEGORY	STATION	TO	STATION	LOCATION						
0010	237+15	-	242+11	NB & SB USH 41	4	496	496	706	1	143
				TOTAL 0010	4	496	496	706	1	143

SAWING ITEMS

					690.0150	690.0250
					SAWING ASPHALT LF	SAWING CONCRETE LF
CATEGORY	STATION	TO	STATION	LOCATION		
0010	237+15	-	242+11	USH 41	418	-
0010	-	-	242+11	NORTH MEDIAN C&G	-	3
				TOTAL 0010	418	3

3

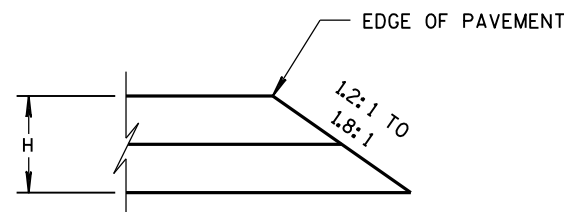
DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE
			CUT (2)				FACTOR 1.25		
DIVISION 1	237+14.43/242+11.39	LT							
USH 41 MEDIAN			485	119	366	2	3	364	364
DIVISION 1 SUBTOTAL			485	119	366	2	3	364	364
GRAND TOTAL			485	119	366	2	3	364	364
TOTAL COMMON EXC			485						

3

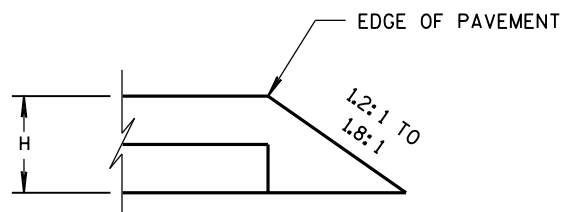
NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR =1.25
DEPENDING ON SELECTIONS: **EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR**
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Standard Detail Drawing List

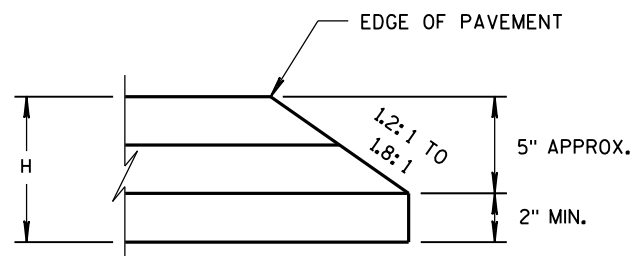
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
14B29-01	SAFETY EDGE
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D46-01	TRAFFIC CONTROL, ONE - WAY SIGNING



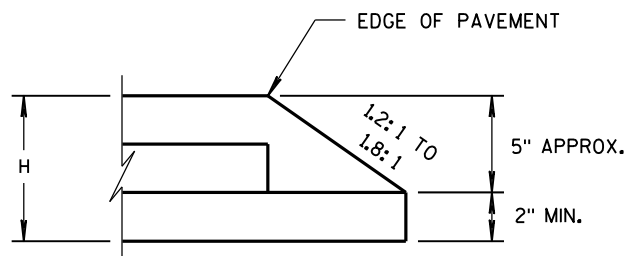
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

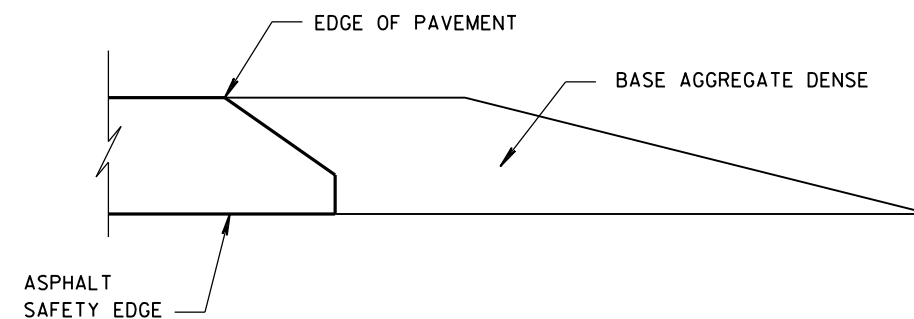


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



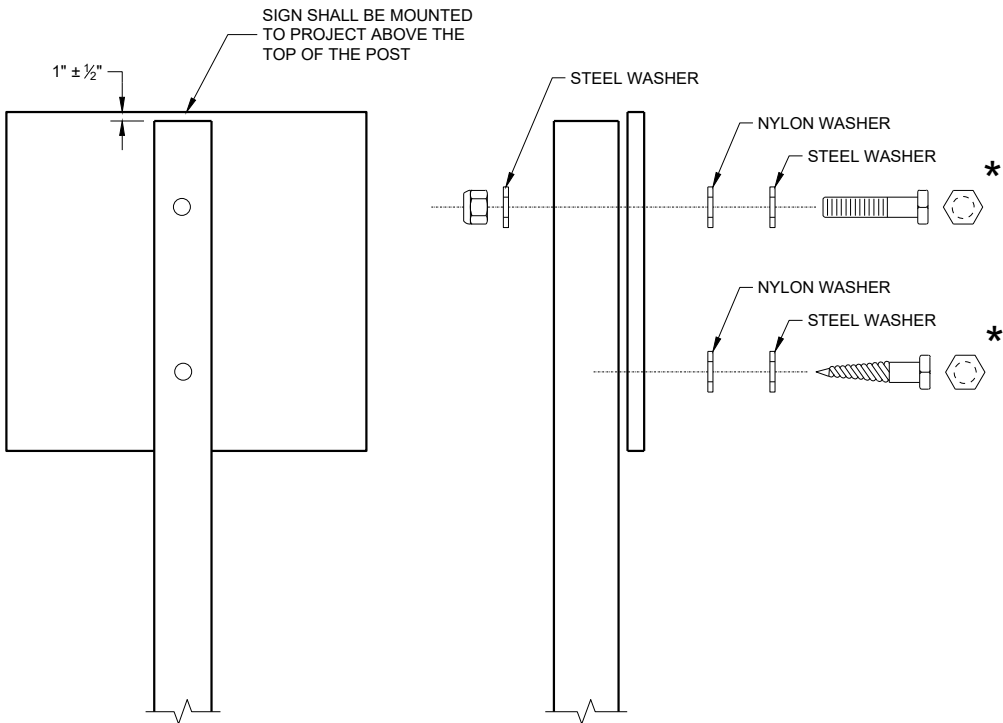
FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/2012
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

ATTACHMENT OF SIGNS
TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

Notes

