SWL MAY 2014

PROJECT ID: 5714-00-70

WITH: N/A

COUNTY: VERNON

ORDER OF SHEETS

TOTAL SHEETS = 48

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

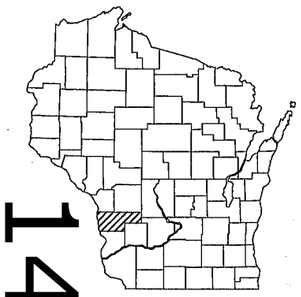
TOWN OF WEBSTER, HUSKER HOLLOW ROAD

(DRY HOLLOW CREEK BRIDGE B-62-0040)

TOWN ROAD
VERNON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5714-00-70	WISC 2014189	1

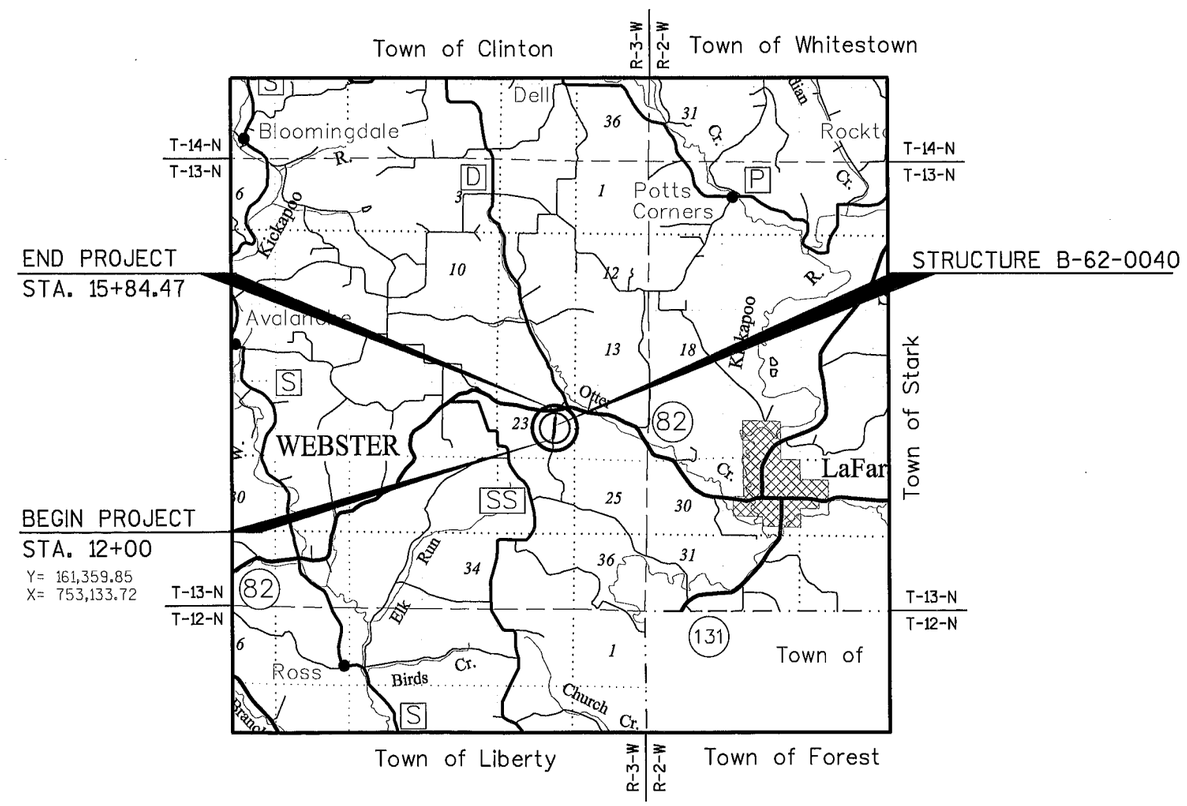
STATE PROJECT NUMBER
5714-00-70



14

DESIGN DESIGNATION

A.A.D.T.	2014	=	65
A.A.D.T.	2034	=	100
D.H.V.	2034	=	9
D.D.		=	60/40
T.		=	10% ASSUMED
DESIGN SPEED		=	40 M.P.H.
ESALS		=	N/A



LAYOUT

SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.073 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), VERNON COUNTY."

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE		UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
COMBUSTIBLE FLUIDS	CAUTION	GAS	G
		SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

ACCEPTED FOR

TOWN of WEBSTER

1-27-14 (Date) (Town Chairman)

ACCEPTED FOR

COUNTY of VERNON

1-27-2014 (Date) Phil Hewitt (Highway Commissioner)

ORIGINAL PLANS PREPARED BY

JEWELL
associates engineers, inc.
Engineers - Planners - Surveyors

WISCONSIN
ELLERY A. SCHAFFER
E-41742-6
SPRING GREEN, WI
PROFESSIONAL ENGINEER

1/22/2014 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor JEWELL ASSOCIATES ENGINEERS, INC.

Designer JEWELL ASSOCIATES ENGINEERS, INC.

Management Consultant KJOHNSON ENGINEERS, INC.

APPROVED FOR THE DEPARTMENT

DATE: 1/31/14

Kirby A. Johnson
Management Consultant Signature

E

2

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
ADT	Average Daily Traffic
AADT	Average Annual Daily Traffic
BAD	Base Aggregate Dense
BK	Back
BF	Back Face
BM	Bench Mark
C	Chord Length
C/L	Center Line
CC	Center to Center
CTH	County Trunk Highway
CY	Cubic Yard
CP	Culvert Pipe
C & G	Curb and Gutter
△	Delta
DA	Degree of Arc
DD	Directional Distribution
DHV	Design Hourly Volume
DIA	Diameter
E	East
X	East Grid Coordinate
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
FF	Face to Face
FE	Field Entrance
FG	Finished Grade
FT	Foot
GN	Grid North
CWT	Hundredweight
HYD	Hydrant
INL	Inlet
ID	Inside Diameter
INV	Invert
IP	Iron Pipe or Pin
IRS	Iron Rod Set
JCT	Junction
LHF	Left-Hand Forward
L	Length of Curve
LF	Linear Foot
MH	Manhole
MB	Mailbox
ML or M/L	Match Line
N	North
Y	North Grid Coordinate
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PRC	Point of Reverse Curvature
PT	Point of Tangency
POC	Point On Curve
POT	Point on Tangent
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
LB	Pound
PSI	Pounds Per Square Inch
PE	Private Entrance
R	Radius
RR	Railroad
R	Range
R/L	Reference Line
RP	Reference Point
RCCP	Reinforced Concrete Culvert Pipe
REQD	Required
RES	Residence or Residential
RT	Right
RHF	Right-Hand Forward
R/W	Right-of-Way
RD	Road
SAN S	Salvaged Sanitary Sewer
SEC	Section
SHLDR	Shoulder
SW	Sidewalk
S	South
SF or SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highways
STA	Station
SS	Storm Sewer
SG	Subgrade
SE	Superelevation
TEL	Telephone
TEMP	Temporary
TI	Temporary Interest
TLE	Temporary Limited Easement
T	Tangent Length
T or TN	Town
TRANS	Transition
TL or T/L	Transit Line
T	Trucks (percent of)
TYP	Typical
UG	Underground Cable
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
WM	Water Main
WV	Water Valve
W	West
WB	Westbound

GENERAL NOTES

COORDINATES AND BEARINGS ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), VERNON COUNTY.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), EROSION MAT URBAN CLASS I TYPE B, AND MULCHED AS DIRECTED BY THE ENGINEER.

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

SILT FENCE, TEMPORARY DITCH CHECKS, AND CULVERT PIPE CHECKS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO STRUCTURE REMOVAL.

MULCH/EROSION MAT URBAN CLASS I TYPE B ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER.

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

ELEVATIONS ON THE PLAN ARE REFERRED TO LIBERTY C GPS, A WISCONSIN DEPARTMENT OF TRANSPORTATION GEODETIC SURVEY CONTROL STATION DISK SET IN THE TOP OF A 1.35 FOOT DIAMETER CONCRETE POST ABOUT 3.3 FEET ABOVE THE HIGHWAY PAVEMENT. THE STATION IS LOCATED IN THE NORTHWEST QUARTER OF SECTION 14, T12N, R3W, ABOUT 0.4 MILES NORTH OF THE INTERSECTION OF S.T.H. 56 AND C.T.H. SS, 31.5 FEET SOUTH OF THE CENTERLINE OF C.T.H. SS, 128.0 FEET WEST OF THE CENTERLINE OF PRIVATE ENTRANCE S5820A, AND 3.6 FEET NORTH OF A BARBED WIRE FENCE.

3 1/2-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1 3/4-INCH UPPER LAYER AND 1 3/4-INCH LOWER LAYER. THE NOMINAL SIZE OF AGGREGATE USED FOR THE LOWER LAYER SHALL BE 12.5 MM.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE EINGINEER IN THE FIELD.

INLET & OUTLET ELEVATIONS FOR CULVERT PIPES AS SHOWN ON THE PLAN MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS.

ALL RADII DIMENSIONS ARE MEASURED TO EDGE OF ASPHALT.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

TOWN OF WEBSTER TO REMOVE W5-3 "ONE LANE BRIDGE" SIGN AND SMALL SUPPORT LOCATED 0.1 MILES SOUTH OF EXISTING BRIDGE.

CONTACTS

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DR.
SPRING GREEN, WI 53588
ATTN: FRED GRUBER, P.E., R.L.S.
PH: (608) 588-7484
FAX: (608) 588-9322
E-MAIL: fred.gruber@jewellassoc.com

DNR LIAISON:

STATE OF WISCONSIN
DNR SERVICE CENTER
3550 MORMON COULEE RD
LACROSSE, WI 54601
ATTN: KAREN KALVELAGE
PH: (608) 785-9115
E-MAIL: karen.kalvelage@wisconsin.gov

TOWN OF WEBSTER:

JOHN YOUNG, TOWN CHAIRPERSON
S3760 SALEM RIDGE ROAD
LA FARGE, WI 54639
PH: (608) 625-2142
CELL: (608) 604-1415
E-MAIL: jlyoung@mwt.net

VERNON COUNTY HIGHWAY DEPARTMENT:

PHIL HEWITT, COUNTY HIGHWAY COMMISSIONER
602 NORTH MAIN STREET
VIROQUA, WI 54665
PH: (608) 637-5452
E-MAIL: phil.hewitt@vernoncounty.org

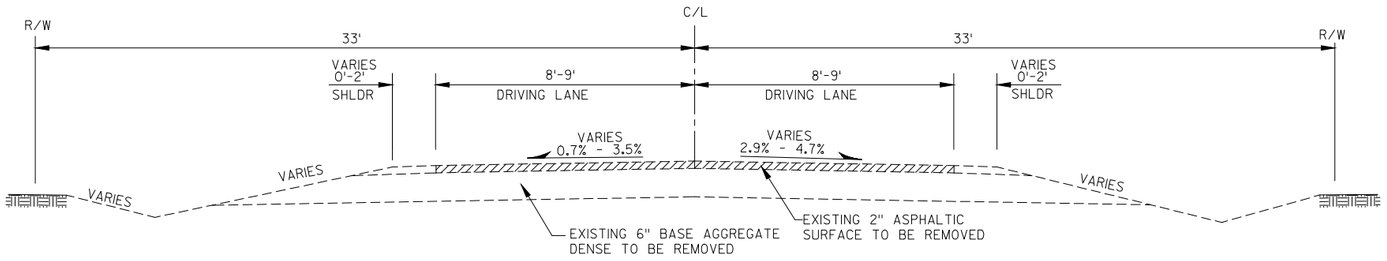
UTILITIES

ELECTRIC

VERNON ELECTRIC COOPERATIVE
ATTN: MONTE TEWALT
110 SAUGSTAD RD
WESTBY, WI 54667
OFFICE: (608) 634-3121
CELL: (608) 632-3419
EMAIL: mtewalt@vernonelectric.org

TELEPHONE

VERNON TELEPHONE COOPERATIVE
ATTN: TODD TUNKS
103 N. MAIN ST
P.O. Box 20
WESTBY, WI 54667
OFFICE: (608) 634-3136
CELL: (608) 632-0615
EMAIL: ttunks@vernontel.com

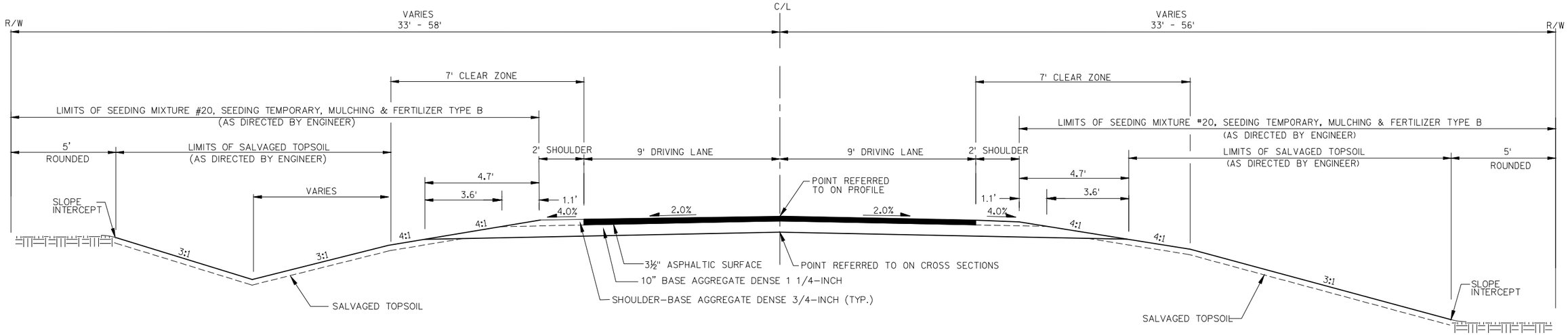


TYPICAL EXISTING SECTION

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

✳ DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

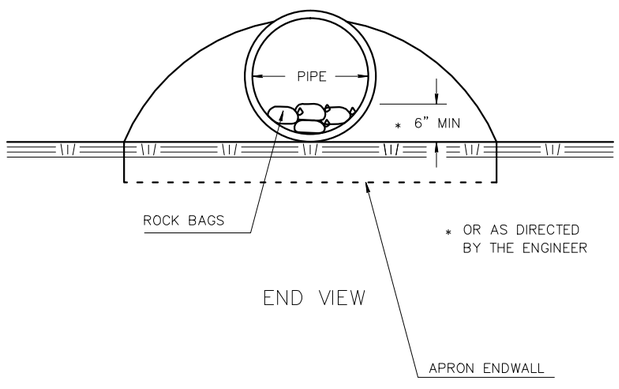
PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	TYP. EXISTING SECTION, GEN. NOTES, CONTACTS, & UTILITIES	SHEET 2	E

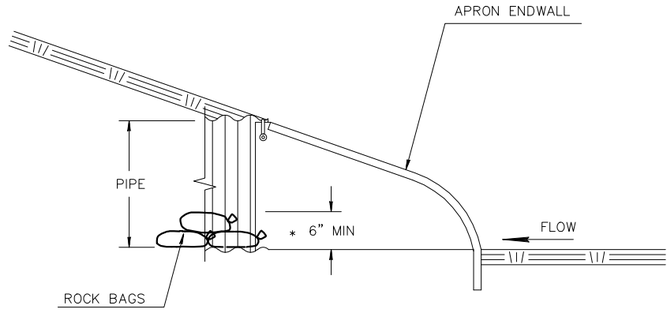


TYPICAL FINISHED SECTION

CUT

FILL



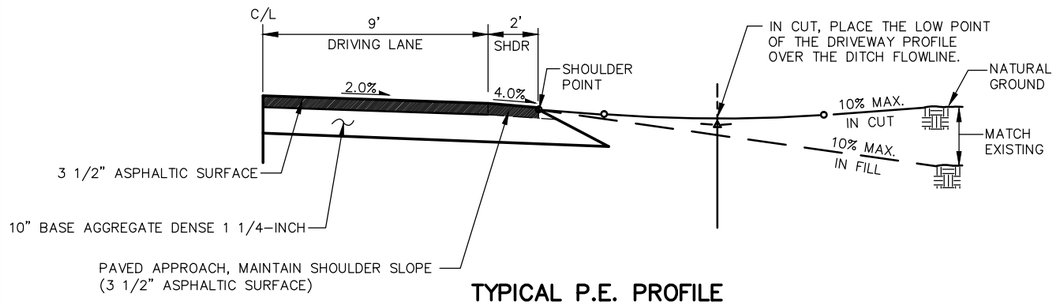


SIDE VIEW

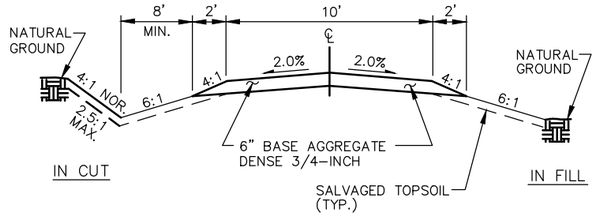
CULVERT PIPE CHECKS

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	TYPICAL FINISHED SECTION/ CONSTRUCTION DETAILS	SHEET 3	E

FILE NAME : S:\Projects\K19190 Husker Hollow Road\CADD\Typicals\K19190-Proposed Typicals.dwg PLOT DATE : 2/26/2014 1:50 PM PLOT BY : STRINE, THERESA PLOT SCALE : 1:2

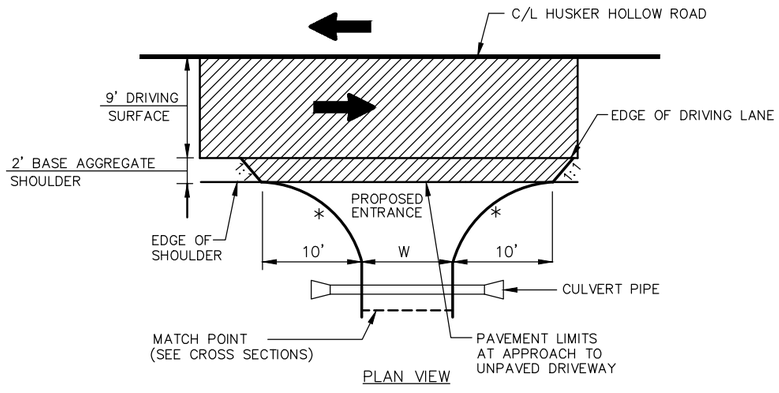


TYPICAL P.E. PROFILE



TYPICAL CROSS-SECTION FOR P.E.

P.E. – STA. 14+09, LT.



APPROACH AT P.E.

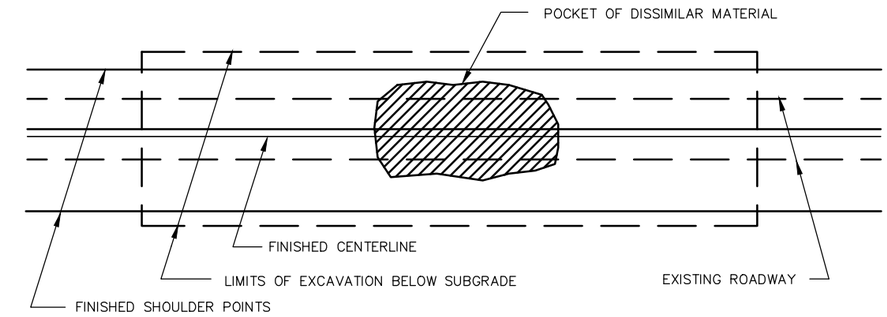
TYPICAL PRIVATE ENTERANCE (P.E.) DETAILS

LIMITS OF ASPHALTIC SURFACE

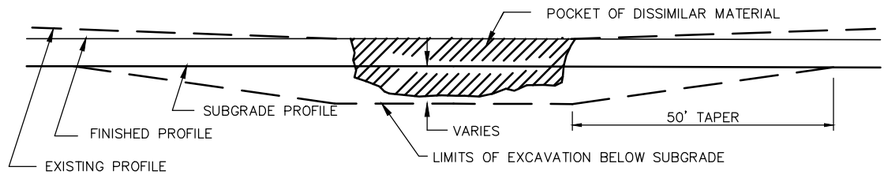
* RADIUS = 10'

	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											

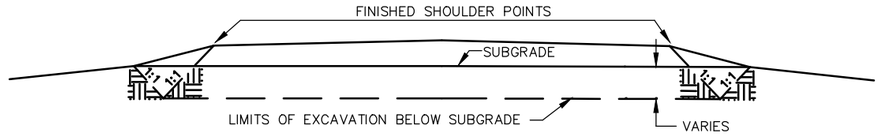
TOTAL PROJECT AREA= 0.88 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.75 ACRES



PLAN VIEW



PROFILE VIEW



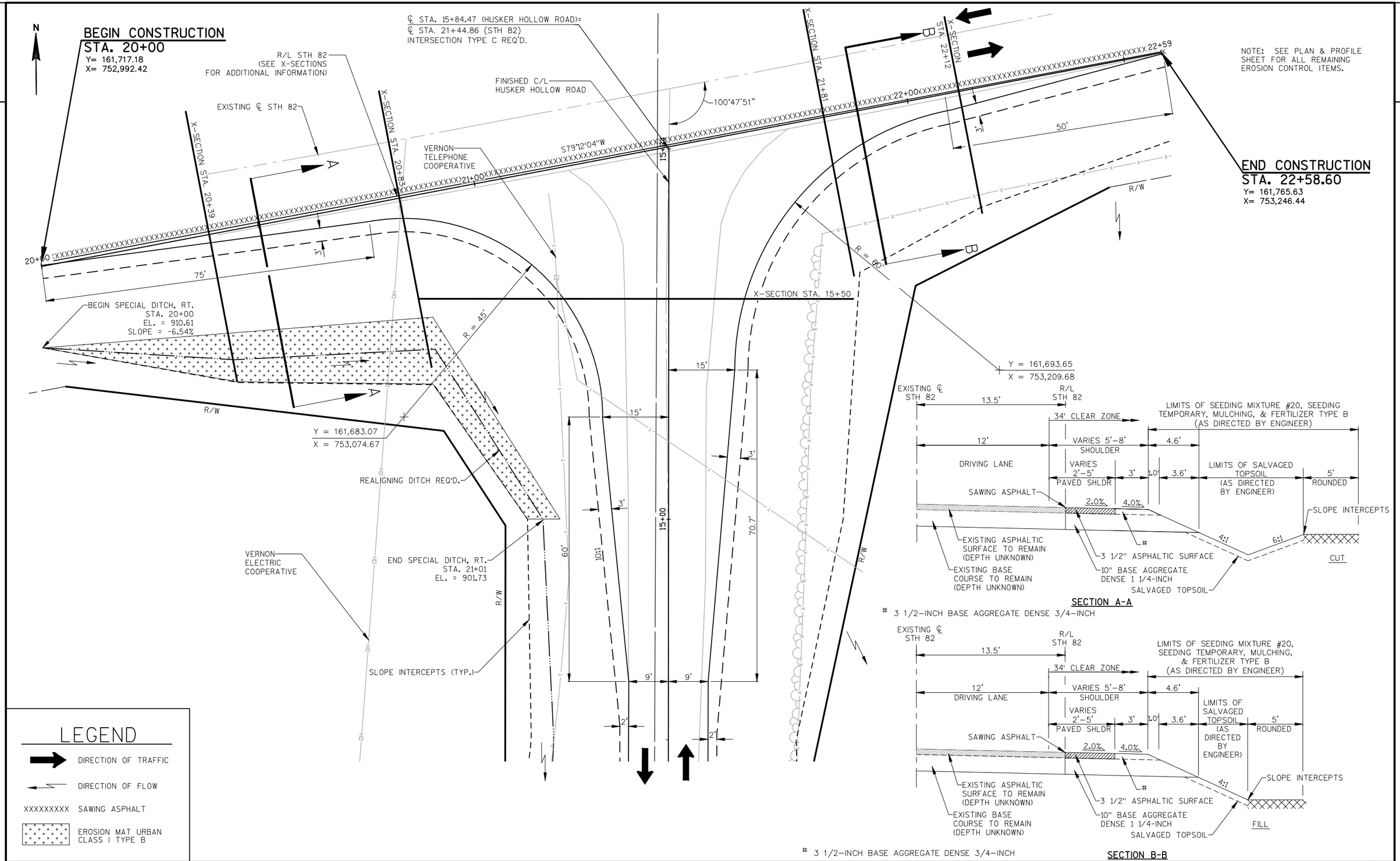
CROSS SECTION VIEW

1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

EXCAVATION BELOW SUBGRADE (E.B.S.)

FILE NAME : S:±Projects±K19190 Husker Hollow Road±CADD±Details±K19190-DT-1.dwg

2



PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW ROAD	COUNTY: VERNON	INTERSECTION DETAILS	SHEET 5	E

FILE NAME : S:±Projects±K19190 Husker Hollow Road±CADD±Details±Intersection Details1.dwg

GENERAL NOTES

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

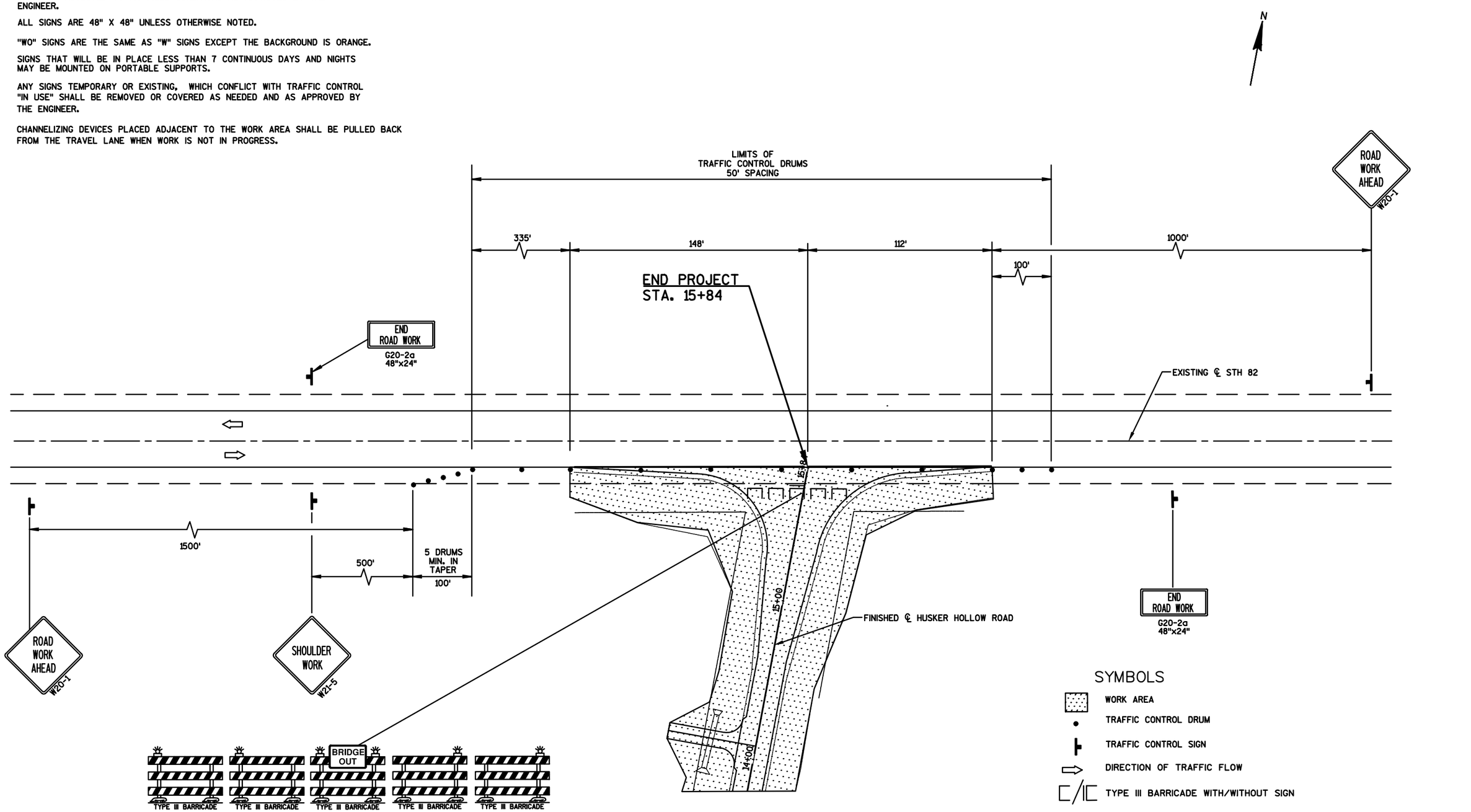
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"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 MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

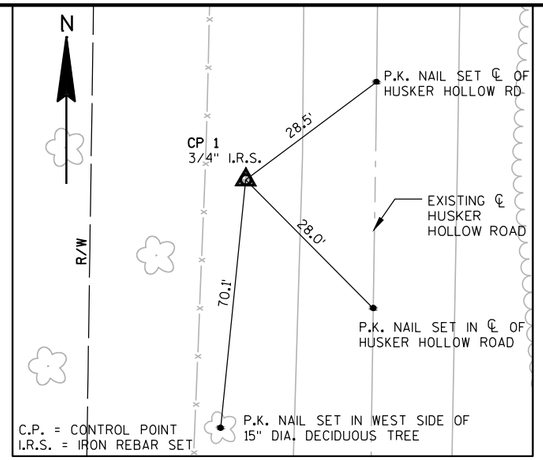
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

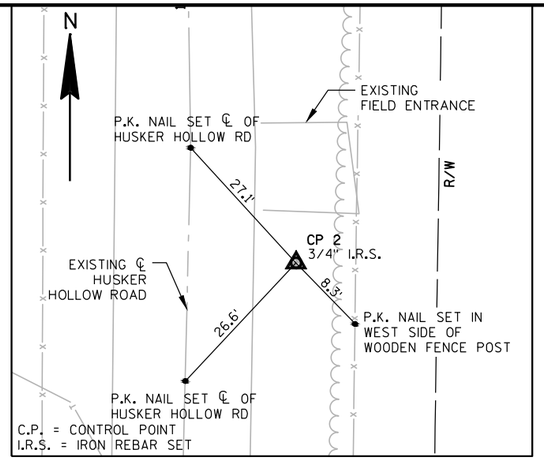


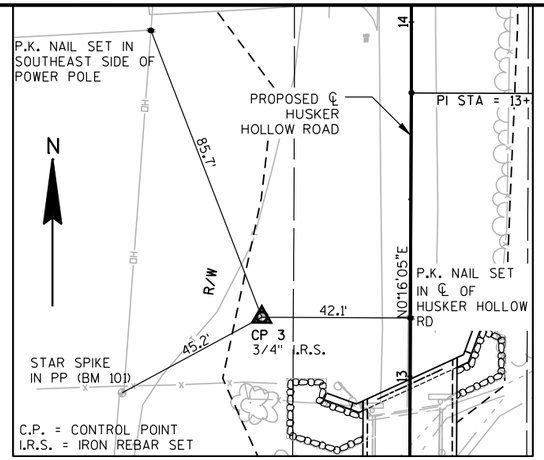
SYMBOLS

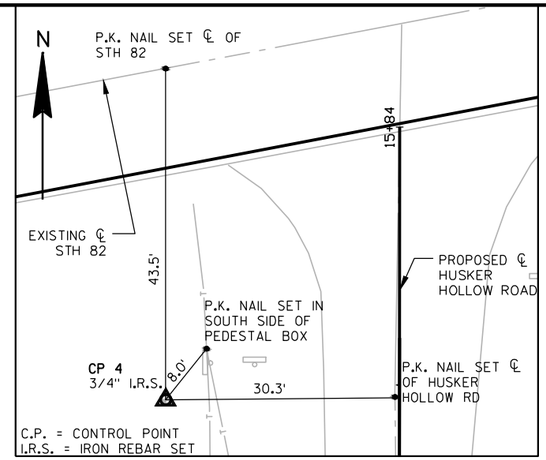
- WORK AREA
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- DIRECTION OF TRAFFIC FLOW
- TYPE III BARRICADE WITH/WITHOUT SIGN

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW ROAD	COUNTY: VERNON	TRAFFIC CONTROL	SHEET 6	E









TIES TO C.P.#1

STA. 10+41; 15.0' LT.
Y = 161,200.99
X = 753,116.35

TIES TO C.P.#2

STA. 11+67; 14.1' RT.
Y = 161,326.12
X = 753,147.75

TIES TO C.P.#3

STA. 13+17; 41.9' LT.
Y = 161,476.57
X = 753.092.33

TIES TO C.P.#4

STA. 15+48; 30.9' LT.
Y = 161,707.88
X = 753,103.82

⚠ CONTROL POINTS

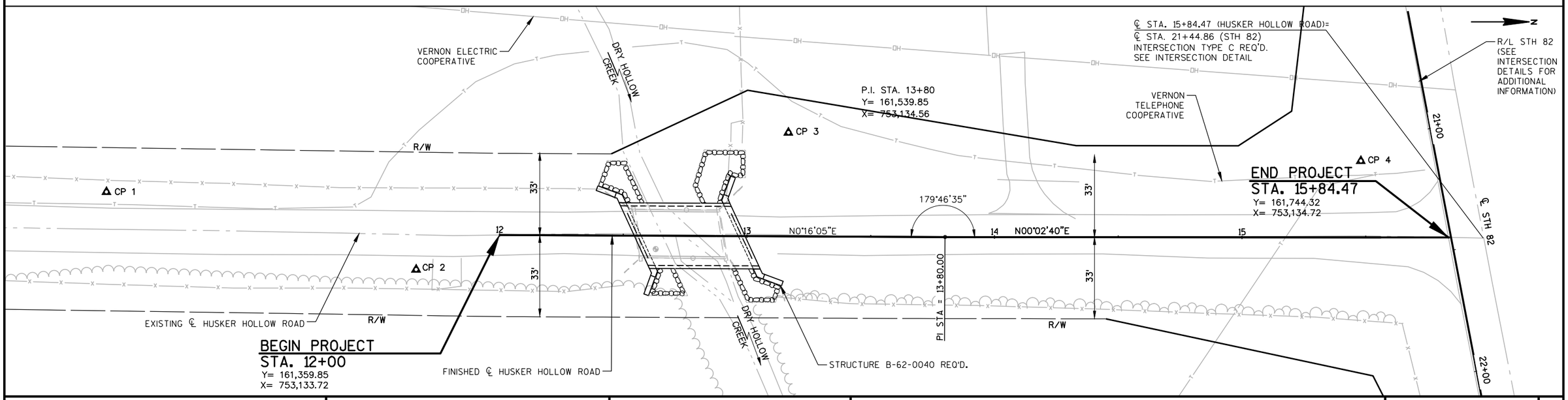
No.	STATION	DESCRIPTION	Y	X
1	10+41	3/4" REBAR SET 6'± WEST OF THE EDGE OF PAVEMENT, 15.0' LT.	161,200.99	753,116.35
2	11+67	3/4" REBAR SET 5.5'± EAST OF EDGE PAVEMENT, 14.1' RT.	161,326.12	753,147.75
3	13+17	3/4" REBAR SET 33'± WEST OF THE EDGE OF PAVEMENT, 41.9' LT.	161,476.57	753,092.33
4	15+48	3/4" REBAR SET 21'± WEST OF THE EDGE OF PAVEMENT, 30.9' LT.	161,707.88	753,103.82

HUSKER HOLLOW ROAD STATION LAYOUT

STATION	Y	X	COMMENTS
12+00	161,359.85	753,133.72	BEGIN PROJECT
12+50	161,409.85	753,133.95	–
12+54.45	161,414.30	753,133.97	END OF DECK
12+99.21	161,459.06	753,134.18	END OF DECK
13+00	161,459.85	753,134.19	–
13+50	161,509.85	753,134.42	–
14+00	161,559.85	753,134.58	
14+50	161,609.85	753,134.62	
15+00	161,659.85	753,134.65	
15+50	161,709.85	753,134.69	
15+84.47	161,744.32	753,134.72	END OF PROJECT

STH 82 STATION LAYOUT

STATION	Y	X	COMMENTS
20+00	161,717.18	752,992.42	BEGIN CONSTRUCTION
20+50	161,726.55	753,041.54	–
21+00	161,735.92	753,090.65	–
21+44.86	161,744.32	753,134.72	℄ HUSKER HOLLOW RD
21+50	161,745.28	753,139.77	–
22+00	161,754.65	753,188.88	–
22+50	161,764.02	753,238.00	–
22+58.60	161,765.63	753,246.44	END CONSTRUCTION/ R/L STH 82



PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW ROAD	COUNTY: VERNON	ALIGNMENT AND TIES DETAIL	SHEET 7	E

FILE NAME : S:\Projects\K19190 Husker Hollow Road\CADD\Details\K19190-Ties and Alignment.dwg

DATE 12MAR14 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	5714-00-70 QUANTITY
0010	201.0105	CLEARING	STA	4.000	4.000
0020	201.0205	GRUBBING	STA	4.000	4.000
0030	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. STA. 12+73	LS	1.000	1.000
0040	205.0100	EXCAVATION COMMON **P**	CY	220.000	220.000
0050	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-62-0040	LS	1.000	1.000
0060	208.0100	BORROW	CY	1,460.000	1,460.000
0070	210.0100	BACKFILL STRUCTURE	CY	310.000	310.000
0080	213.0100	FINISHING ROADWAY (PROJECT) 01. 5714-00-70	EACH	1.000	1.000
0090	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	90.000	90.000
0100	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,050.000	1,050.000
0110	455.0605	TACK COAT	GAL	30.000	30.000
0120	465.0105	ASPHALTIC SURFACE	TON	225.000	225.000
0130	502.0100	CONCRETE MASONRY BRIDGES	CY	166.000	166.000
0140	502.3200	PROTECTIVE SURFACE TREATMENT	SY	160.000	160.000
0150	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	4,560.000	4,560.000
0160	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	18,060.000	18,060.000
0170	513.4060	RAILING TUBULAR TYPE M (STRUCTURE) 01. B-62-0040	LS	1.000	1.000
0180	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12.000	12.000
0190	520.0136	CULVERT PIPE CLASS III 36-INCH	LF	34.000	34.000
0200	520.1036	APRON ENDWALLS FOR CULVERT PIPE 36-INCH	EACH	2.000	2.000
0210	524.0124	CULVERT PIPE SALVAGED 24-INCH	LF	33.000	33.000
0220	550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	70.000	70.000
0230	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	230.000	230.000
0240	606.0300	RIPRAP HEAVY	CY	110.000	110.000
0250	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	140.000	140.000
0260	619.1000	MOBILIZATION	EACH	1.000	1.000
0270	625.0500	SALVAGED TOPSOIL **P**	SY	2,000.000	2,000.000
0280	627.0200	MULCHING **P**	SY	3,750.000	3,750.000
0290	628.1504	SILT FENCE	LF	750.000	750.000
0300	628.1520	SILT FENCE MAINTENANCE	LF	1,500.000	1,500.000
0310	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0320	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
0330	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	120.000	120.000
0340	628.7504	TEMPORARY DITCH CHECKS	LF	70.000	70.000
0350	628.7555	CULVERT PIPE CHECKS	EACH	4.000	4.000
0360	629.0210	FERTILIZER TYPE B **P**	CWT	3.000	3.000
0370	630.0120	SEEDING MIXTURE NO. 20 **P**	LB	80.000	80.000
0380	630.0200	SEEDING TEMPORARY **P**	LB	40.000	40.000
0390	630.0300	SEEDING BORROW PIT **P**	LB	10.000	10.000
0400	633.5100	MARKERS ROW	EACH	12.000	12.000
0410	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000
0420	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	1.000	1.000
0430	637.2210	SIGNS TYPE II REFLECTIVE H	SF	5.180	5.180
0440	637.2230	SIGNS TYPE II REFLECTIVE F	SF	12.000	12.000
0450	638.2602	REMOVING SIGNS TYPE II	EACH	8.000	8.000
0460	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	6.000	6.000
0470	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0480	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5714-00-70	EACH	1.000	1.000

3

DATE 12MAR14 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	5714-00-70 QUANTITY
0490	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	210.000	210.000
0500	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	500.000	500.000
0510	650.5000	CONSTRUCTION STAKING BASE	LF	500.000	500.000
0520	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	1.000	1.000
0530	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-62-0040	LS	1.000	1.000
0540	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5714-00-70	LS	1.000	1.000
0550	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	500.000	500.000
0560	690.0150	SAWING ASPHALT	LF	280.000	280.000
0570	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	996.000	996.000

3

3

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

3

3

CLEARING & GRUBBING

STATION - STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
12+00 - 15+60	MAINLINE, RT.	4	4
	TOTALS =	4	4

EARTHWORK SUMMARY

CATEGORY	FROM/TO STA	LOCATION	**P** (1) 205.0100 COMMON EXCAVATION CUT (2) (CY)	**P** (1) 205.0100 COMMON EXCAVATION EBS (3) (CY)	SALVAGED/ UNUSABLE PAVEMENT MATERIAL (CY) (4)	AVAILABLE MATERIAL (CY) (5)	205.0400 MARSH EXCAVATION (CY) (6)	205.0200 ROCK EXCAVATION (CY) (7)	REDUCED MARSH IN FILL (CY) FACTOR 0.6 (8)	REDUCED EBS IN FILL (CY) FACTOR 0.8 (9)	EXPANDED MARSH BACKFILL (CY) FACTOR 1.5 (10)	EXPANDED EBS BACKFILL (CY) FACTOR 1.5 (11)	EXPANDED ROCK (CY) FACTOR 1.1 (12)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (13)	MASS ORDINATE +/- (CY) (14)	WASTE (CY)	208.0100 BORROW (CY)	COMMENT:
010	12+00 - 15+84	MAINLINE	167	-	-	167	-	-	-	-	-	-	-	1219	1524	-1357	-	1357	
	20+00 - 22+58.60	STH 82, RT.	43	-	-	43	-	-	-	-	-	-	-	113	141	-98	-	98	
	14+09	MAINLINE, LT. - P.E.	10	-	-	10	-	-	-	-	-	-	-	12	15	-5	-	5	
		TOTALS =	220			220								1344	1680	-1460		1460	

NOTES:
1.) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
2.) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3.) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL.
4.) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5.) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
6.) MARSH EXCAVATION - TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL. ITEM 205.0400
7.) ROCK EXCAVATION. ITEM NUMBER 205.0200
8.) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USABLE IN FILLS OUTISDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = 0.6
9.) REDUCED EBS IN FILL - EXCA'
10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. MARSH BACKFILL FACTOR = 1.5. ITEM NUMBER 312.0115
11.)EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. EBS BACKFILL FACTOR = 1.3. ITEM NUMBER 312.0115
12.) EXPANDED ROCK FACTOR = 1.1
13.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL - REDUCED MARSH IN FILL)*1.25
14.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

P PAY PLAN QUANTITY

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
12+00 - 15+84	MAINLINE	57	992
14+09	P.E.-MAINLINE, LT.	27	-
-	UNDISTRIBUTED	6	58
	TOTALS =	90	1050

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
12+00 - 15+84	MAINLINE	26	213
-	UNDISTRIBUTED	4	12
	TOTAL S =	30	225

CULVERT PIPE

STATION	LOCATION	520.0136 CULVERT PIPE CLASS III 36-INCH (LF)	520.1036 APRON ENDWALLS FOR CULVERT PIPE CLASS III 36-INCH (EACH)
14+09	P.E.-MAINLINE, LT	34	2
	TOTALS =	34	2

NOTE: STEEL THICKNESS = 0.079 INCHES
ALUMINUM THICKNESS = 0.105 INCHES

CULVERT PIPE SALVAGED 24-INCH

STATION	LOCATION	524.0124 (LF)
14+09	MAINLINE, LT.	33
	TOTALS=	33

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

FINISHING ITEMS

STATION - STATION	LOCATION	**P** 625.0500 SALVAGED TOPSOIL (SY)	**P** 627.0200 MULCHING (SY)	#628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	**P** 629.0210 FERTILIZER TYPE B (CWT)	**P** 630.0120 SEEDING MIXTURE NO. 20 (LB)	**P** 630.0200 SEEDING TEMPORARY (LB)	**P** 630.0300 SEEDING BORROW PIT (LB)
12+00 - 15+84	MAINLINE	1600	2310	110	1.9	65	33	-
-	BORROW PIT	-	702	-	0.5	-	-	9
-	UNDISTRIBUTED	400	738	10	0.6	15	7	1
	TOTALS =	2000	3750	120	3.0	80	40	10

STATION 15+00 - STATION 15+46, LT.

P PAY PLAN QUANTITY

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
12+00 - 12+67	MAINLINE, RT.	106	212
12+00 - 12+67	MAINLINE, LT.	86	172
12+85 - 15+84	MAINLINE, RT.	362	724
12+85 - 13+00	MAINLINE, LT.	57	114
-	UNDISTRIBUTED	139	278
	TOTALS =	750	1500

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
5714-00-70	4	3
TOTALS =	4	3

MARKERS ROW

POINT NO.	STATION	LOCATION	633.5100 (EACH)
1	15+75.37	MAINLINE, 100.00' RT.	1
2	15+53.00	MAINLINE, 56.00' RT.	1
3	14+45.00	MAINLINE, 33.00' RT.	1
4	13+80.00	MAINLINE, 33.00' RT.	1
5	12+00.00	MAINLINE, 33.00' RT.	1
6	12+00.00	MAINLINE, 33.00' LT.	1
7	12+45.00	MAINLINE, 33.00' LT.	1
8	13+00.00	MAINLINE, 59.00' LT.	1
9	14+33.00	MAINLINE, 37.00' LT.	1
10	14+98.51	MAINLINE,36.97' LT.	1
11	15+20.00	MAINLINE, 51.00 LT.	1
12	15+30.00	MAINLINE, 136.86' LT.	1
		TOTALS =	12

PERMANENT SIGNING

LOCATION	LOCATION	SIZE (INCH X INCH)	634.0612 POSTS WOOD 4X6 - INCH X 12-FT (EACH)	634.0616 POSTS WOOD 4X6 - INCH X 16-FT (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)
SW QUADRANT-STRUCTURE B-62-0040	W5-52L	12X36	1	-	-	3.00
SE QUADRANT-STRUCTURE B-62-0040	W5-52R	12X36	1	-	-	3.00
NW QUADRANT-STRUCTURE B-62-0040	W5-52R	12X36	1	-	-	3.00
NE QUADRANT-STRUCTURE B-62-0040	W5-52L	12X36	1	-	-	3.00
SE QUADRANT OF STH 82 INTERSECTION	R1-1	30X30	-	1	5.18	-
		TOTALS =	4	1	5.18	12.00

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 TEMPORARY DITCH CHECKS (EACH)
12+55	MAINLINE, LT.	12
13+05	MAINLINE, LT.	12
13+50	MAINLINE, LT.	12
14+60	MAINLINE, LT.	12
15+00	MAINLINE, LT.	12
-	UNDISTRIBUTED	10
	TOTALS =	70

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

LOCATION	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
SW QUADRANT-STRUCTURE P-62-0937	W5-52L	1	1
SW QUADRANT-STRUCTURE P-62-0937	R12-1	1	-
SE QUADRANT-STRUCTURE P-62-0937	W5-52R	1	1
NW QUADRANT-STRUCTURE P-62-0937	W5-52R	1	1
NW QUADRANT-STRUCTURE P-62-0937	R12-1	1	-
NE QUADRANT-STRUCTURE P-62-0937	W5-52L	1	1
SW QUADRANT OF STH 82 INTERSECTION	R1-1	1	1
SE QUADRANT OF STH 82 INTERSECTION	W5-3	1	1
	TOTALS =	8	6

TRAFFIC CONTROL

LOCATION	643.0100 TRAFFIC CONTROL (01.5714-00-70)	FOR INFORMATION ONLY TRAFFIC CONTROL DRUMS (DAYS)	FOR INFORMATION ONLY TRAFFIC CONTROL SIGNS (DAYS)	COMMENT
STH 82	-	60	-	-
STH 82	-	-	120	(2) W20-1, ROAD WORK AHEAD
STH 82	-	-	120	(2) G20-2a, END ROAD WORK
STH 82	-	-	60	(1) W21-5, SHOULDER WORK
-	1	-	-	PROJECT
TOTALS =	1	60	300	

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 CULVERT PIPE CHECKS (EACH)
14+28	P.E. - MAINLINE, LT.	4
	TOTALS =	4

CONSTRUCTION STAKING

STATION -STATION	LOCATION	CONSTRUCTION STAKING 650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	650.6000 PIPE CULVERTS (EACH)	*650.6500 STRUCTURE LAYOUT (B-62-0040) (LS)	650.9910 SUPPLEMENTAL CONTROL (5714-00-70) (LS)	650.9920 SLOPES STAKES (LF)
12+00 - 15+84	MAINLINE	340	340	-	-	-	340
20+00 - 22+59	STH 82, RT.	160	160	-	-	-	160
12+77	MAINLINE	-	-	-	1	-	-
14+09	P.E., LT.	-	-	1	-	-	-
-	PROJECT	-	-	-	-	1	-
	TOTALS =	500	500	1	1	1	500

*CATEGORY 020

SAWING ASPHALT

STATION	LOCATION	690.0150 SAWING ASPHALT (LF)
12+00	MAINLINE	20
15+84	MAINLINE	260
	TOTALS =	280

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW ROAD	COUNTY: VERNON	MISCELLANEOUS QUANTITIES	SHEET E

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5714-00-00	4.01	2
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

TOWN OF WEBSTER, HUSKER HOLLOW RD

(DRY HOLLOW CREEK BRIDGE B-62-0040)

TOWN ROAD — VERNON COUNTY

CONSTRUCTION PROJECT NUMBER
5714-00-70

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE	PL
ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET. AL.	RELEASE OF RIGHTS	ROR
BARN	B.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	SHED	S.
CONVEYANCE OF RIGHTS	CR	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
GARAGE	G.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
HOUSE	H.	LONG CHORD BEARING	LCB
HOUSE TRAILER	H.T.	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	○ 1040	PROPOSED R/W LINE	
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	
R/W STANDARD	△ ▲ (SET)	PROPERTY LINE	
SIGN	SIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT	⊕	SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	SECTION LINE	
PARCEL NUMBER	(8)	QUARTER LINE	
UTILITY PARCEL NUMBER	(92)	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-7	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
		ENCROACHMENT	E-D/TYPE

CONVENTIONAL UTILITY SYMBOLS

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

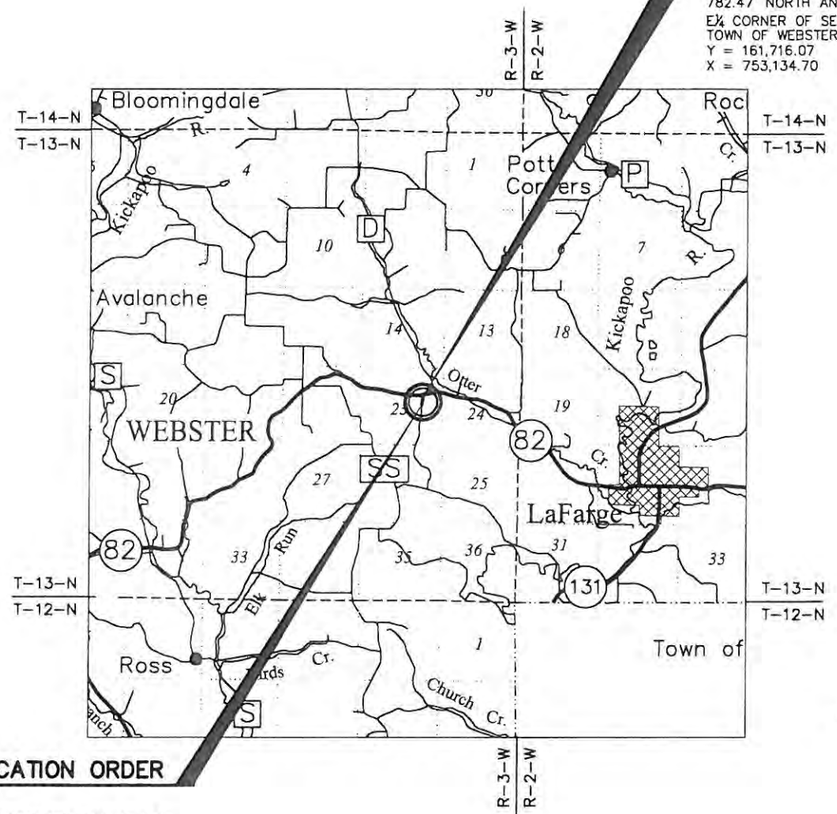
NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VERNON COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN 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.

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.

END RELOCATION ORDER
STA. 15+56.21
782.47' NORTH AND 1305.85' WEST OF THE E¼ CORNER OF SECTION 23, T.13N., R.3W., TOWN OF WEBSTER, VERNON COUNTY, WI
Y = 161,716.07
X = 753,134.70



BEGIN RELOCATION ORDER
STA. 12+00
426.26' NORTH AND 1306.83' WEST OF THE E¼ CORNER OF SECTION 23, T.13N., R.3W., TOWN OF WEBSTER, VERNON COUNTY, WI
Y = 161,359.85
X = 753,133.72

N

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.067 MI.

received 1-7-14 Vernon County Hwy. Dept.

RECEIVED
JAN 07 2014
VERNON COUNTY CLERK'S OFFICE

REVISION DATE

JEWELL
associates engineers, inc.
Engineers - Surveyors - Architects

560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
FAX : 608.588.9322

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR THE TOWN OF WEBSTER, VERNON COUNTY, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
FREDERICK G. GRUBER
S-2282
SPRING GREEN WI
LAND SURVEYOR

1/7/14

APPROVED FOR THE TOWN OF WEBSTER
DATE 1-7-14 ~Chair
NAME/TITLE

FILE NAME: S:\Projects\K19190 Husker Hollow Road\RW\K19190 rw plat.dwg
PLOT DATE = 1/6/2014 4:31 PM
PLOT BY: Bollweg, Thomas
PLOT NAME:
PLOT SCALE = 1:2
WISDOT/CADDS SHEET 50

COORDINATE TABLE – NEW R/W POINTS				
PT.#	STATION	OFFSET	Y	X
1	15+75.37	100.00 RT.	161735.14	753234.71
2	15+53.00	56.00 RT.	161712.81	753190.70
3	14+45.00	33.00 RT.	161604.83	753167.61
4	13+80.00	33.00 RT.	161539.77	753167.56
5	12+00.00	33.00 RT.	161359.71	753166.72
6	12+00.00	33.00 LT.	161360.02	753100.72
7	12+45.00	33.00 LT.	161405.02	753100.93
8	13+00.00	59.00 LT.	161460.14	753075.19
9	14+33.00	37.00 LT.	161592.89	753097.60
10	14+98.51	36.97 LT.	161658.40	753097.68
11	15+20.00	51.00 LT.	161679.90	753083.67
12	15+30.00	136.86 LT.	161689.97	752997.82

COORDINATE TABLE – TLE POINTS				
PT.#	STATION	OFFSET	Y	X
20	13+82.00	45.57 LT.	161541.89	753088.99
21	13+94.00	60.00 LT.	161553.90	753074.57
22	14+22.00	60.00 LT.	161581.90	753074.59

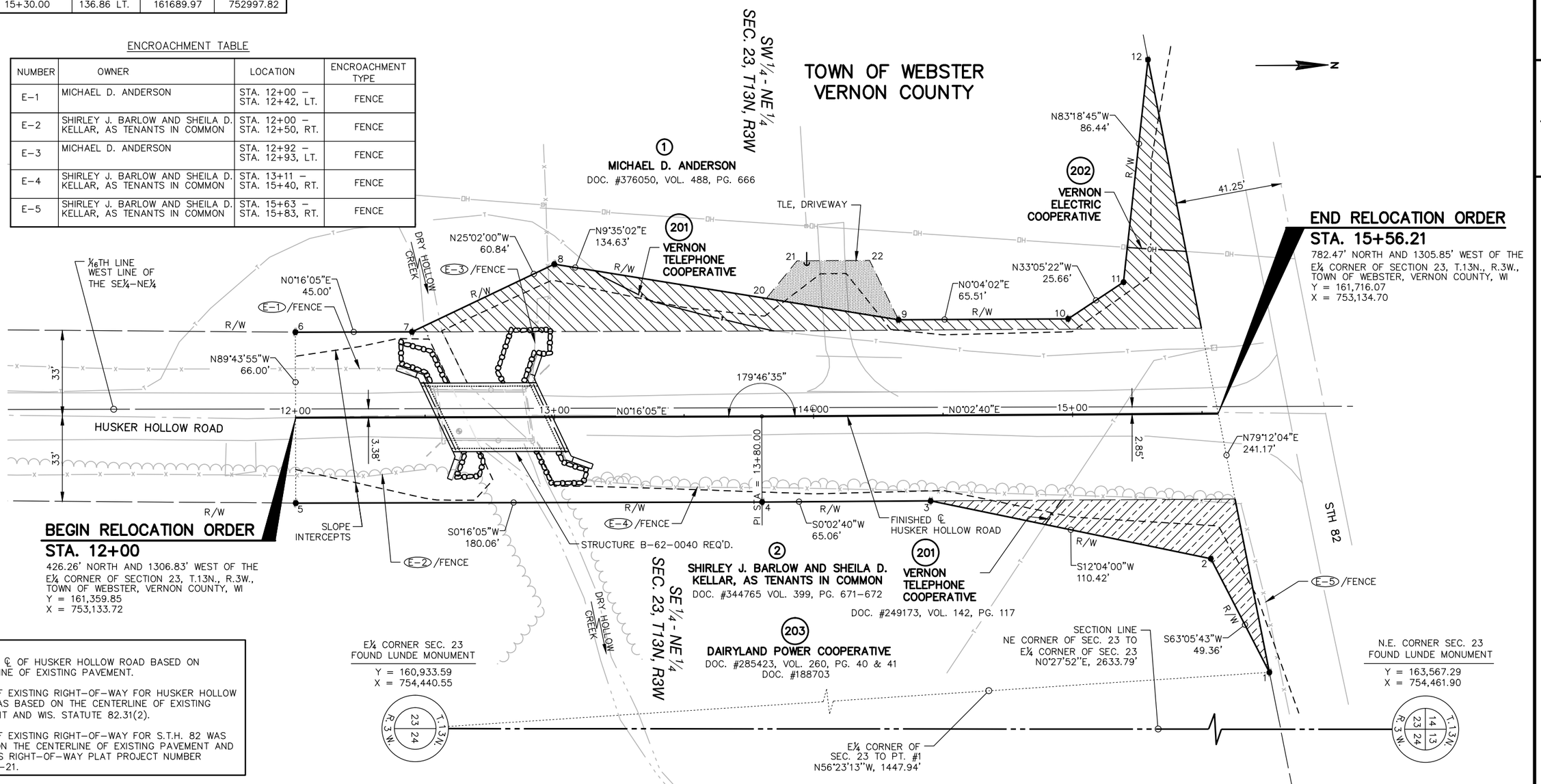
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED			TOTAL ACRES REM.	T.L.E. ACRES
				NEW	EXISTING	TOTAL		
1	MICHAEL D. ANDERSON	FEE, TLE	23.4	0.11	0.24	0.35	23.05	0.02
2	SHIRLEY J. BARLOW AND SHEILA D. KELLAR, AS TENANTS IN COMMON	FEE	27.9	0.04	0.30	0.34	27.56	–
201	VERNON TELEPHONE COOPERATIVE	RELEASE OF RIGHTS						
202	VERNON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS						
203	DAIRYLAND POWER COOPERATIVE	RELEASE OF RIGHTS						

NOTE: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM THE TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN OF WEBSTER.

ENCROACHMENT TABLE

NUMBER	OWNER	LOCATION	ENCROACHMENT TYPE
E–1	MICHAEL D. ANDERSON	STA. 12+00 – STA. 12+42, LT.	FENCE
E–2	SHIRLEY J. BARLOW AND SHEILA D. KELLAR, AS TENANTS IN COMMON	STA. 12+00 – STA. 12+50, RT.	FENCE
E–3	MICHAEL D. ANDERSON	STA. 12+92 – STA. 12+93, LT.	FENCE
E–4	SHIRLEY J. BARLOW AND SHEILA D. KELLAR, AS TENANTS IN COMMON	STA. 13+11 – STA. 15+40, RT.	FENCE
E–5	SHIRLEY J. BARLOW AND SHEILA D. KELLAR, AS TENANTS IN COMMON	STA. 15+63 – STA. 15+83, RT.	FENCE



BEGIN RELOCATION ORDER
STA. 12+00
426.26' NORTH AND 1306.83' WEST OF THE E¼ CORNER OF SECTION 23, T.13N., R.3W., TOWN OF WEBSTER, VERNON COUNTY, WI
Y = 161,359.85
X = 753,133.72

END RELOCATION ORDER
STA. 15+56.21
782.47' NORTH AND 1305.85' WEST OF THE E¼ CORNER OF SECTION 23, T.13N., R.3W., TOWN OF WEBSTER, VERNON COUNTY, WI
Y = 161,716.07
X = 753,134.70

NOTE:
EXISTING ℄ OF HUSKER HOLLOW ROAD BASED ON CENTERLINE OF EXISTING PAVEMENT.

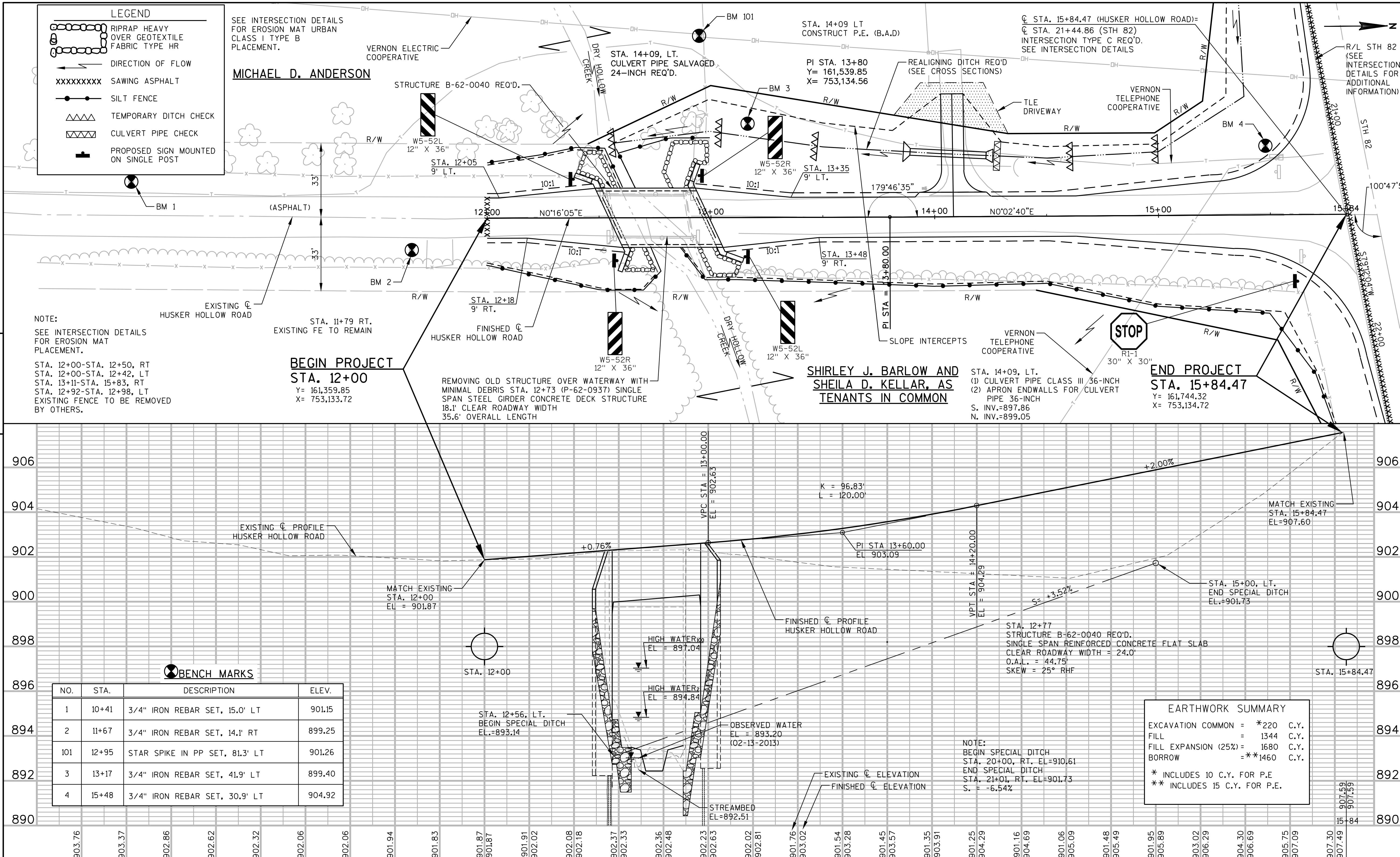
BASIS OF EXISTING RIGHT–OF–WAY FOR HUSKER HOLLOW ROAD WAS BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND WIS. STATUTE 82.31(2).

BASIS OF EXISTING RIGHT–OF–WAY FOR S.T.H. 82 WAS BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND PREVIOUS RIGHT–OF–WAY PLAT PROJECT NUMBER 5711–01–21.

REVISION DATE	DATE	SCALE, FEET	HWY: HUSKER HOLLOW ROAD	STATE R/W PROJECT NUMBER: 5714–00–00	PLAT SHEET 4.02	
	GRID FACTOR N/A	0 50	COUNTY: VERNON	CONSTRUCTION PROJECT NUMBER: 5714–00–70	PS&E SHEET 13	E

FILE NAME : S:\Projects\K19190 Husker Hollow Road\RW\K19190 rw plat.dwg PLOT DATE : 1/22/2014 4:21 PM PLOT BY : Strine, Theresa PLOT NAME : PLOT SCALE : 1:2

WISDOT/CADDS SHEET 75


LEGEND
RIPRAP HEAVY OVER GEOTEXTILE FABRIC TYPE HR
DIRECTION OF FLOW
XXXXXXXXX SAWING ASPHALT
SILT FENCE
TEMPORARY DITCH CHECK
CULVERT PIPE CHECK
PROPOSED SIGN MOUNTED ON SINGLE POST
SEE INTERSECTION DETAILS FOR EROSION MAT URBAN CLASS I TYPE B PLACEMENT.
VERNON ELECTRIC COOPERATIVE
MICHAEL D. ANDERSON
BM 101
STA. 14+09, LT. CULVERT PIPE SALVAGED 24-INCH REQ'D.
STA. 14+09 LT CONSTRUCT P.E. (B.A.D)
PI STA. 13+80 Y= 161,539.85 X= 753,134.56
REALIGNING DITCH REQ'D (SEE CROSS SECTIONS)
℄ STA. 15+84.47 (HUSKER HOLLOW ROAD)= ℄ STA. 21+44.86 (STH 82) INTERSECTION TYPE C REQ'D. SEE INTERSECTION DETAILS
R/L STH 82 (SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION)
STRUCTURE B-62-0040 REQ'D.
DRY HOLLOW CREEK
BM 3
TLE DRIVEWAY
VERNON TELEPHONE COOPERATIVE
BM 4
STH 82
W5-52L 12" X 36"
W5-52R 12" X 36"
STA. 12+05 9' LT.
STA. 13+35 9' LT.
10:1
179°46'35"
100°47'51"
BM 1
(ASPHALT)
33'
12+00
N0°16'05"E
13+00
14+00
N0°02'40"E
15+00
15+84
21+00
22+00
BM 2
STA. 12+18 9' RT.
STA. 13+48 9' RT.
PI STA = 13+80.00
R/W
NOTE:
SEE INTERSECTION DETAILS FOR EROSION MAT PLACEMENT.
STA. 12+00-STA. 12+50, RT
STA. 12+00-STA. 12+42, LT
STA. 13+11-STA. 15+83, RT
STA. 12+92-STA. 12+98, LT
EXISTING FENCE TO BE REMOVED BY OTHERS.
EXISTING ℄ HUSKER HOLLOW ROAD
STA. 11+79 RT. EXISTING FE TO REMAIN
FINISHED ℄ HUSKER HOLLOW ROAD
SLOPE INTERCEPTS
VERNON TELEPHONE COOPERATIVE
STOP
R1-1 30" X 30"
BEGIN PROJECT STA. 12+00 Y= 161,359.85 X= 753,133.72
REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 12+73 (P-62-0937) SINGLE SPAN STEEL GIRDER CONCRETE DECK STRUCTURE 18.1' CLEAR ROADWAY WIDTH 35.6' OVERALL LENGTH
W5-52L 12" X 36"
SHIRLEY J. BARLOW AND SHEILA D. KELLAR, AS TENANTS IN COMMON
STA. 14+09, LT. (1) CULVERT PIPE CLASS III 36-INCH (2) APRON ENDWALLS FOR CULVERT PIPE 36-INCH S. INV.=897.86 N. INV.=899.05
END PROJECT STA. 15+84.47 Y= 161,744.32 X= 753,134.72
5
906
904
902
900
898
896
894
892
890
VPC STA = 13+00.00 EL = 902.63
K = 96.83' L = 120.00'
+2.00%
+0.76%
MATCH EXISTING STA. 15+84.47 EL=907.60
EXISTING ℄ PROFILE HUSKER HOLLOW ROAD
PI STA 13+60.00 EL 903.09
VPT STA = 14+20.00 EL = 904.29
STA. 15+00, LT. END SPECIAL DITCH EL.=901.73
S= +3.52%
MATCH EXISTING STA. 12+00 EL = 901.87
FINISHED ℄ PROFILE HUSKER HOLLOW ROAD
STA. 12+77 STRUCTURE B-62-0040 REQ'D. SINGLE SPAN REINFORCED CONCRETE FLAT SLAB CLEAR ROADWAY WIDTH = 24.0' O.A.L. = 44.75' SKEW = 25° RHF
HIGH WATER100 EL = 897.04
HIGH WATER2 EL = 894.84
STA. 12+00
STA. 15+84.47
STA. 12+56, LT. BEGIN SPECIAL DITCH EL.=893.14
OBSERVED WATER EL = 893.20 (02-13-2013)
NOTE: BEGIN SPECIAL DITCH STA. 20+00, RT. EL=910.61 END SPECIAL DITCH STA. 21+01, RT. EL=901.73 S. = -6.54%
EXISTING ℄ ELEVATION
FINISHED ℄ ELEVATION
STREAMBED EL=892.51
907.59 907.59
15+84
903.76 | 903.37 | 902.86 | 902.62 | 902.32 | 902.06 | 902.06 | 901.94 | 901.83 | 901.87 901.87 | 901.91 902.02 | 902.08 902.18 | 902.37 902.33 | 902.36 902.48 | 902.23 902.63 | 902.02 902.81 | 901.76 903.02 | 901.54 903.28 | 901.45 903.57 | 901.35 903.91 | 901.25 904.29 | 901.16 904.69 | 901.06 905.09 | 901.48 905.49 | 901.95 905.89 | 903.02 906.29 | 904.30 906.69 | 905.75 907.09 | 907.30 907.49
10+20 | 10+40 | 10+60 | 10+80 | 11+00 | 11+20 | 11+40 | 11+60 | 11+80 | 12+00 | 12+20 | 12+40 | 12+60 | 12+80 | 13+00 | 13+20 | 13+40 | 13+60 | 13+80 | 14+00 | 14+20 | 14+40 | 14+60 | 14+80 | 15+00 | 15+20 | 15+40 | 15+60 | 15+80

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	10+41	3/4" IRON REBAR SET, 15.0' LT	901.15
2	11+67	3/4" IRON REBAR SET, 14.1' RT	899.25
101	12+95	STAR SPIKE IN PP SET, 81.3' LT	901.26
3	13+17	3/4" IRON REBAR SET, 41.9' LT	899.40
4	15+48	3/4" IRON REBAR SET, 30.9' LT	904.92

EARTHWORK SUMMARY

EXCAVATION COMMON =	*220	C.Y.
FILL =	1344	C.Y.
FILL EXPANSION (25%) =	1680	C.Y.
BORROW =	**1460	C.Y.

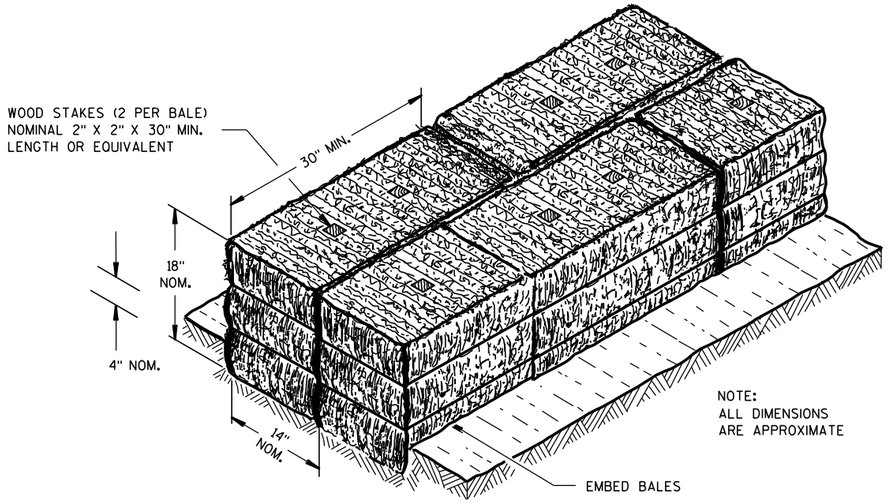
* INCLUDES 10 C.Y. FOR P.E.
** INCLUDES 15 C.Y. FOR P.E.

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	PLAN & PROFILE: HUSKER HOLLOW ROAD	SHEET	E

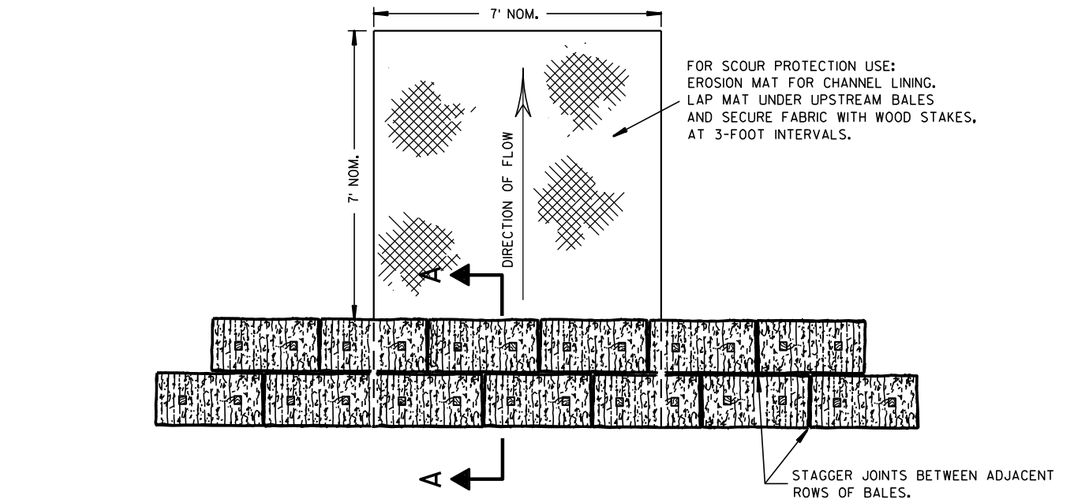
FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_P&P.DWG
LAYOUT : P&P - (1)
PLOT DATE : 2/26/2014
PLOT TIME : 1:58:50 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 6" = 1'-0"

Standard Detail Drawing List

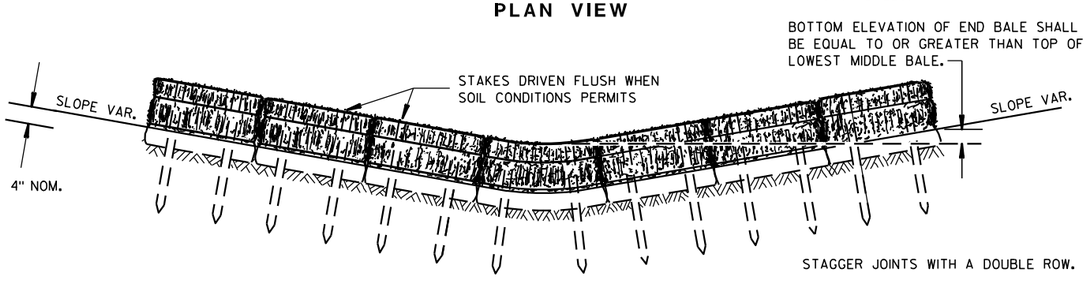
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
15A01-11	MARKER POST FOR RIGHT-OF-WAY
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



SECTION A-A



PLAN VIEW



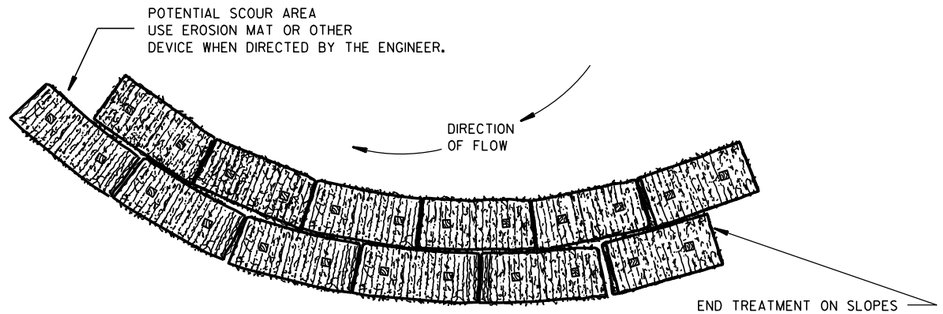
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

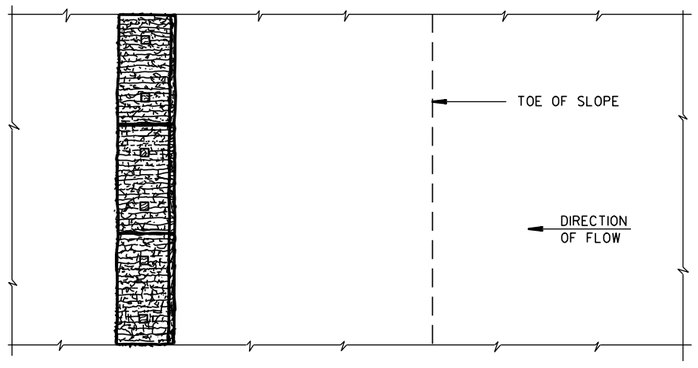
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

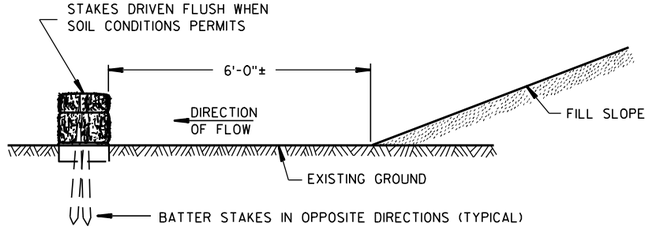


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

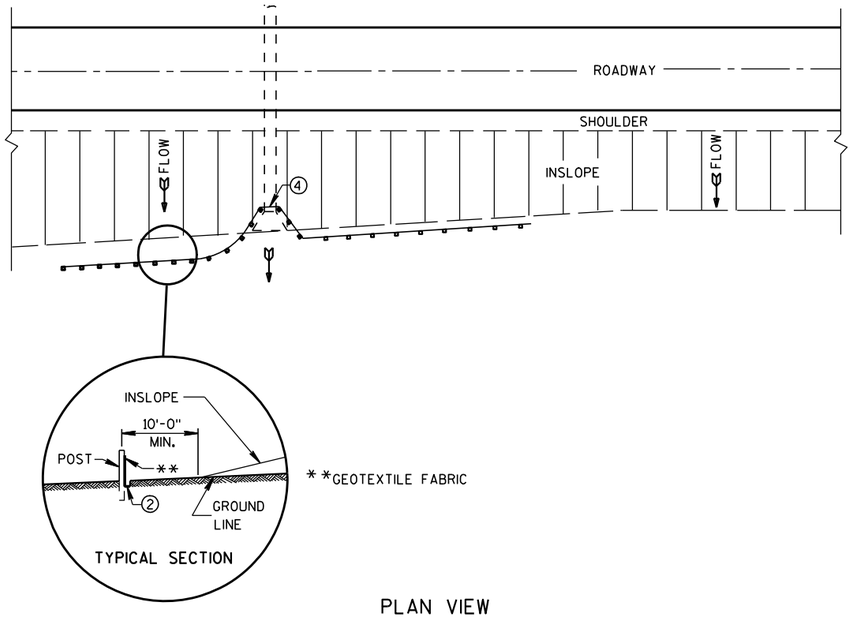
FHWA

6

S.D.D. 8 E 8-3

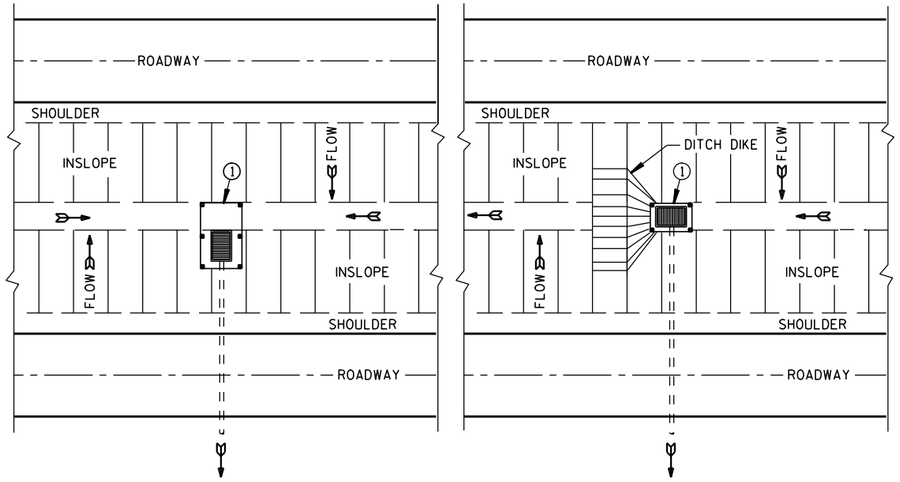
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



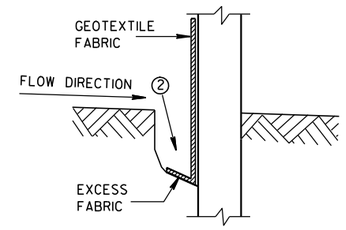
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

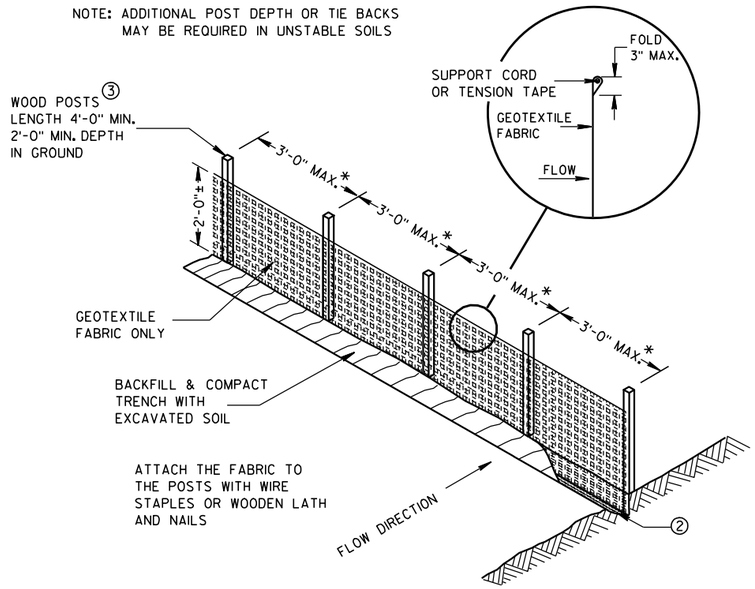
GENERAL NOTES

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

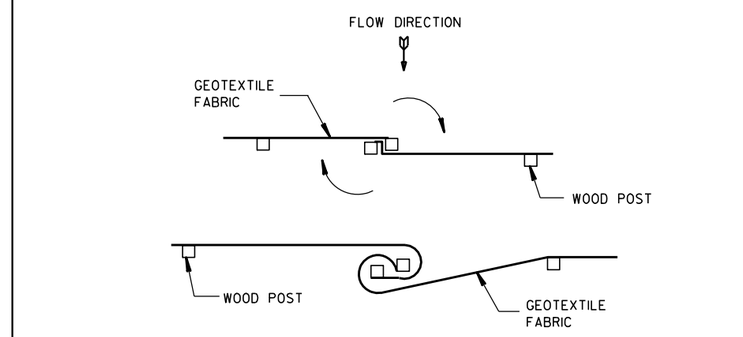
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



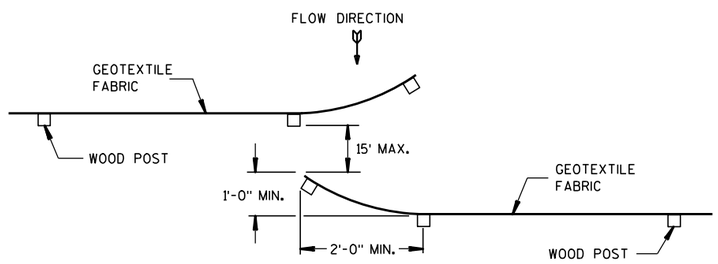
TRENCH DETAIL



SILT FENCE

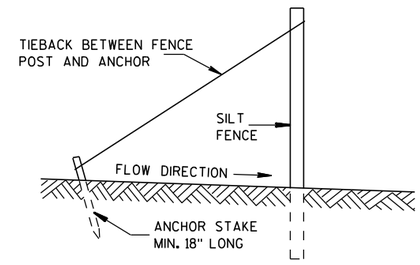


TWIST METHOD



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

METAL APRON ENDWALLS

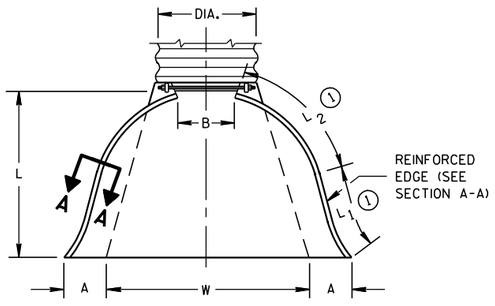
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

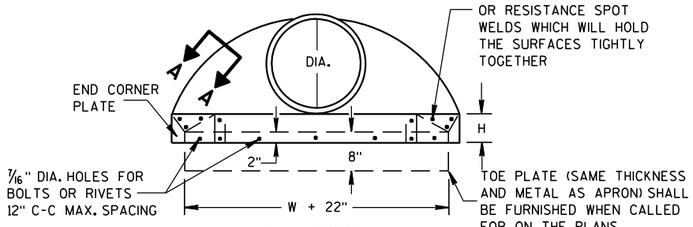
REINFORCED CONCRETE APRON ENDWALLS

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

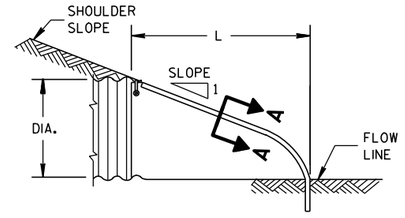
*MINIMUM
**MAXIMUM



PLAN VIEW

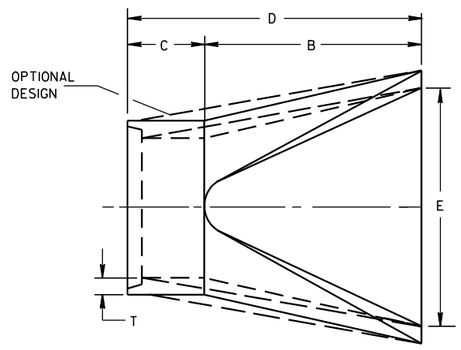


END VIEW

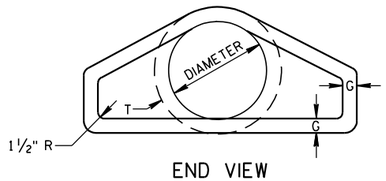


SIDE ELEVATION

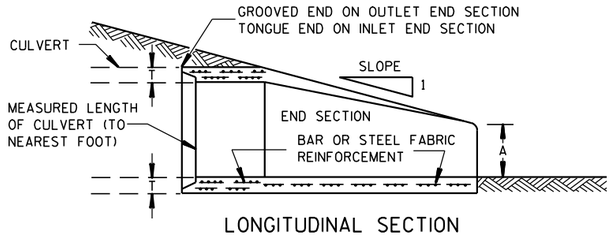
METAL ENDWALLS



PLAN

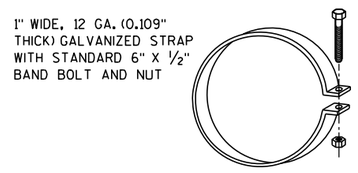


END VIEW



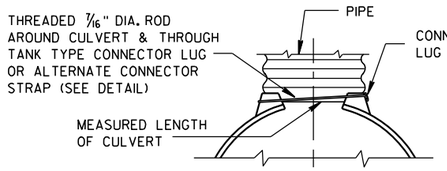
LONGITUDINAL SECTION

CONCRETE ENDWALLS

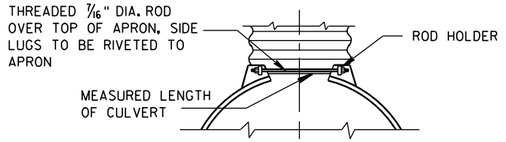


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

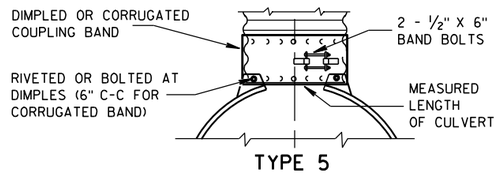


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

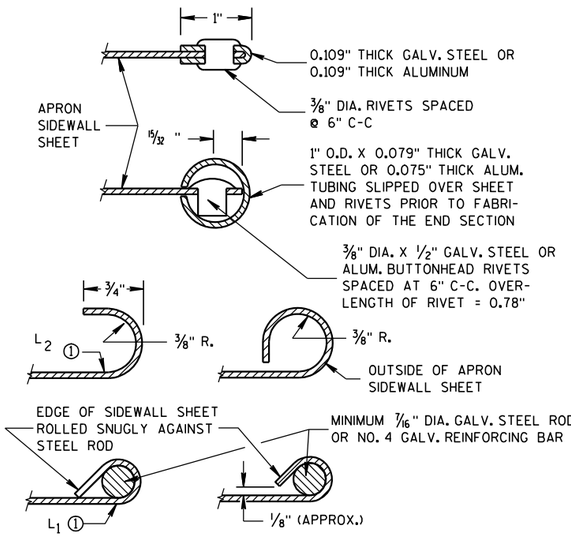
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

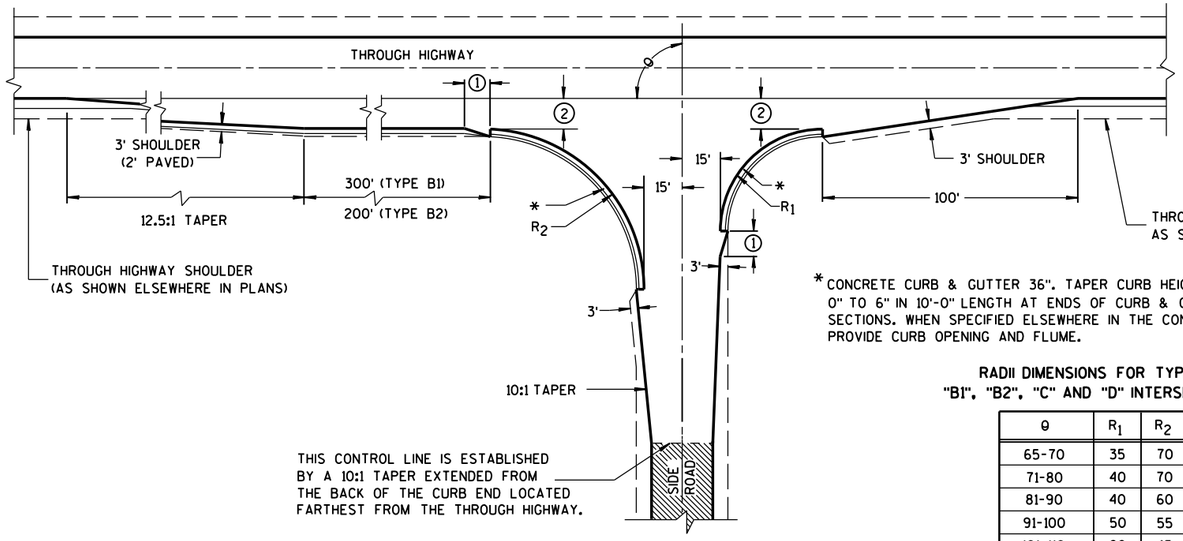
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOP NEER
FHWA

S.D.D. 8 F 1-11

S.D.D. 8 F 1-11

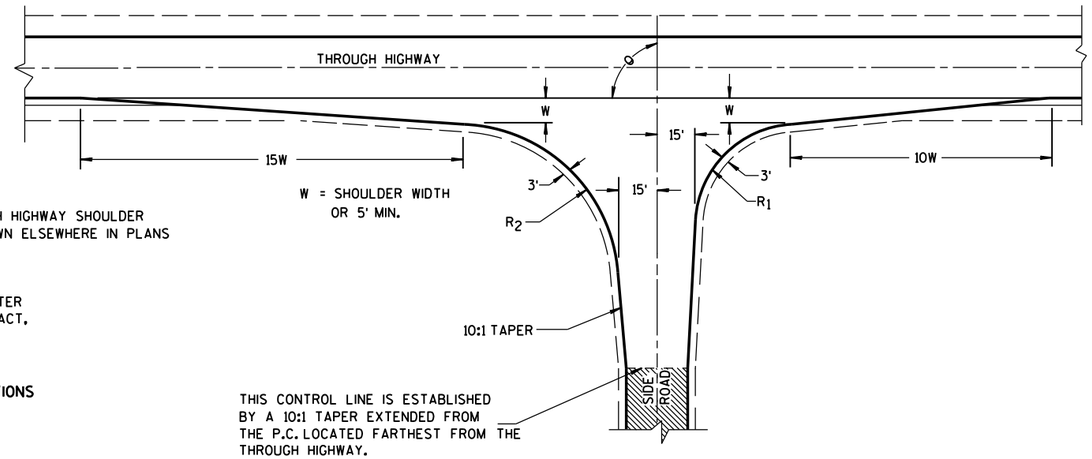


TYPE "B1" AND "B2"

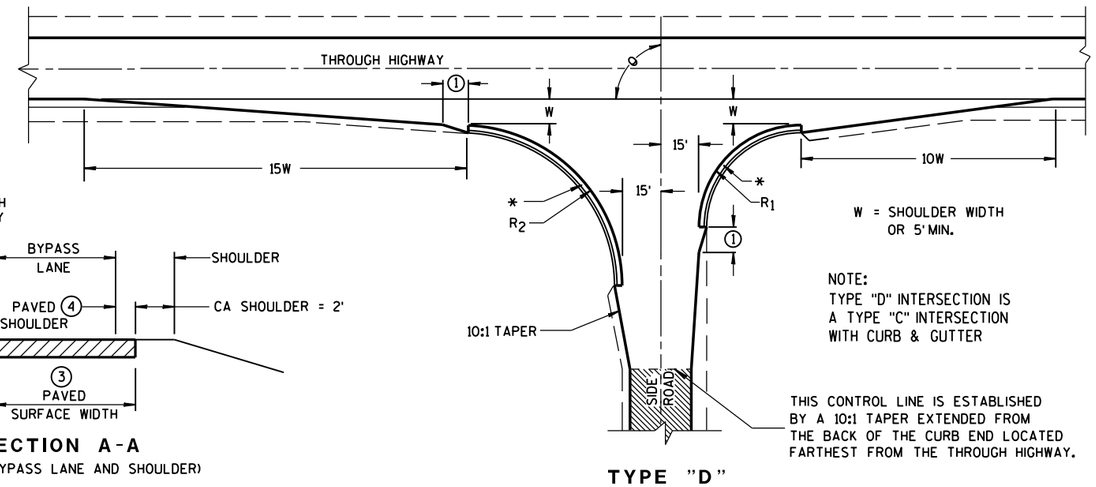
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

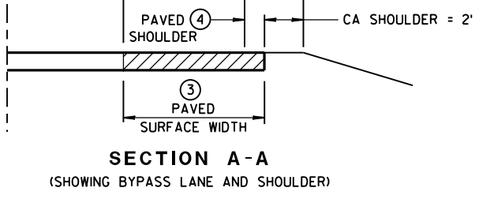
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

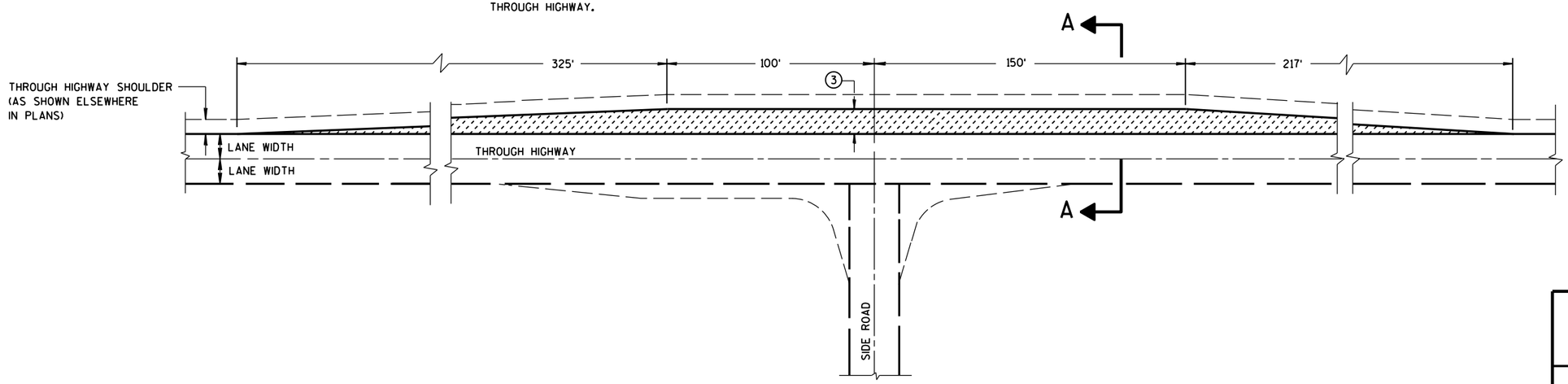
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

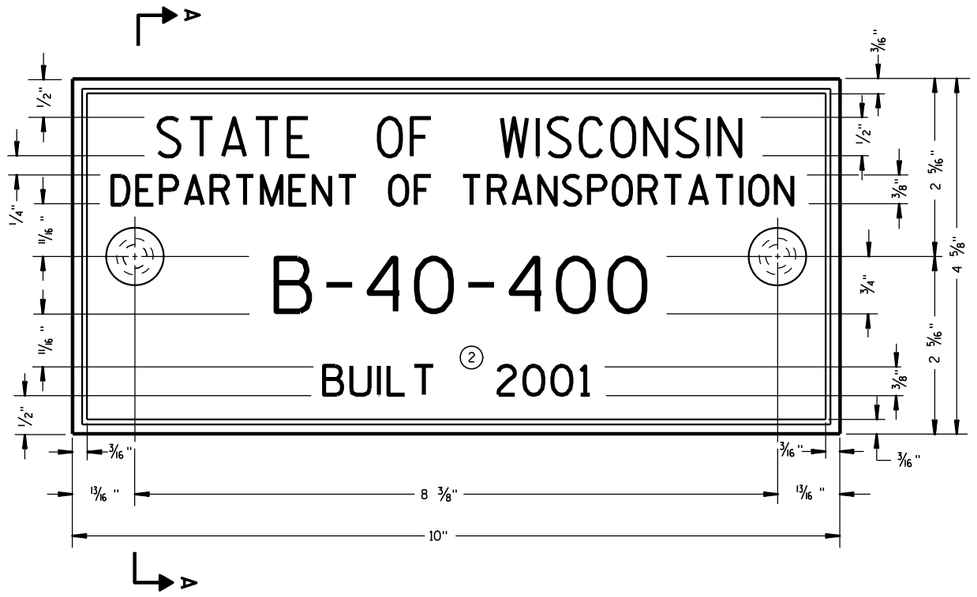


TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 A 1-13a



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

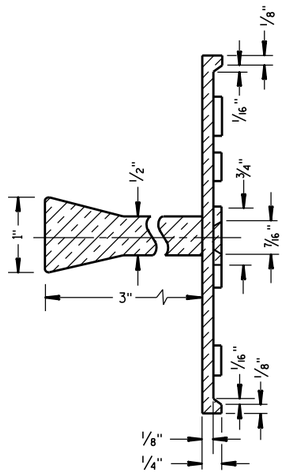
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

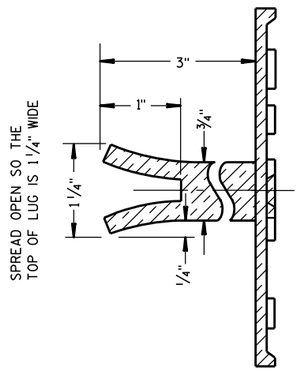
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

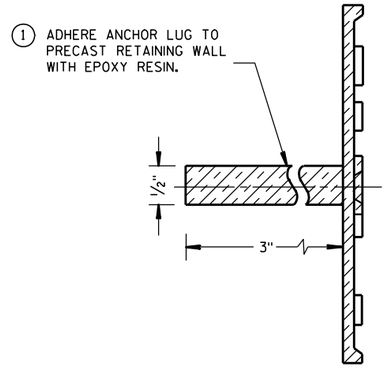
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

/S/ Scot Beck
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

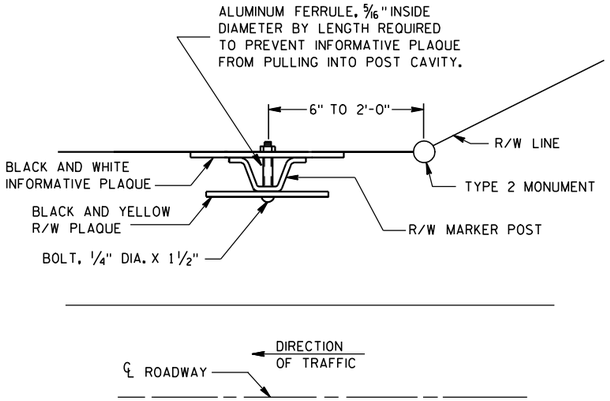
FHWA

6

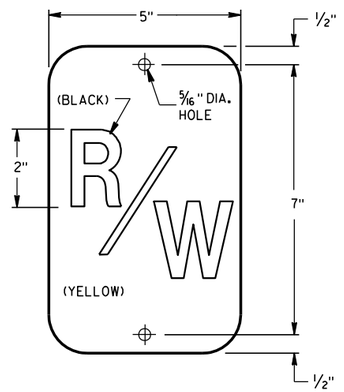
S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

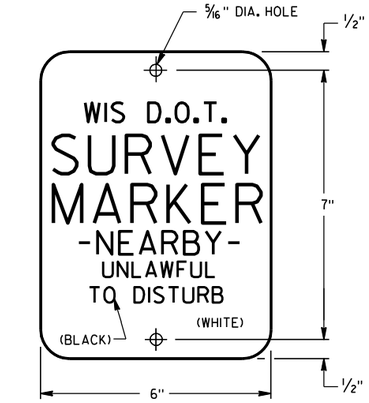


PLAN VIEW



R/W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

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

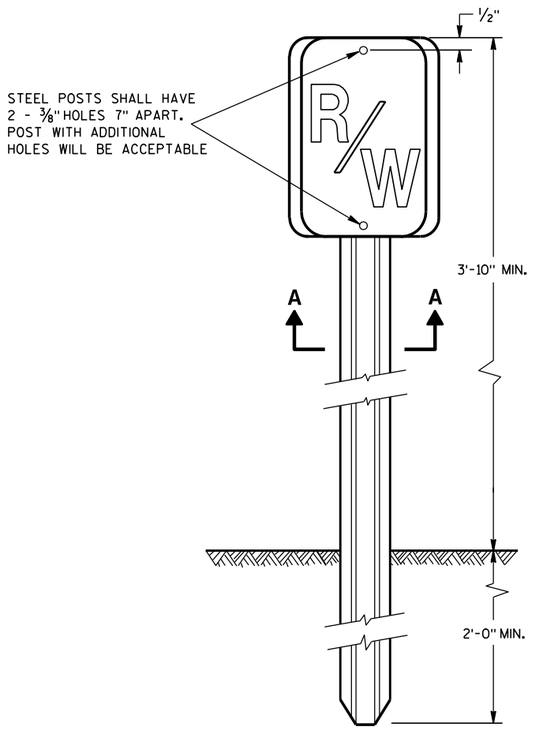
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

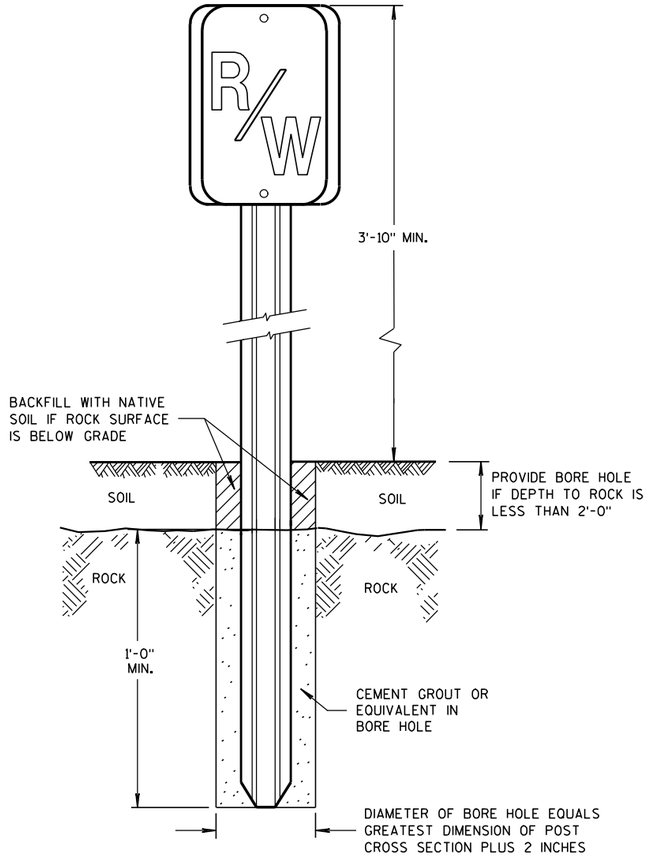
STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

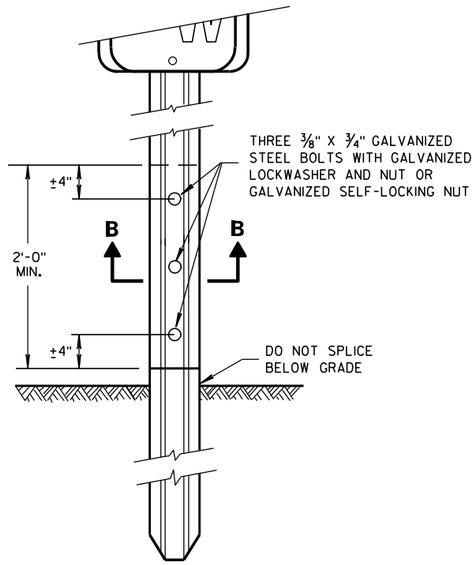
FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



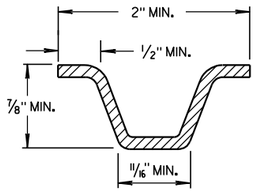
FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)

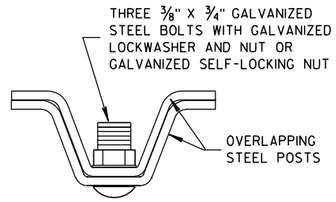


FRONT VIEW
SPLICE DETAIL



MIN. WEIGHT 1.12 LB./FT.

SECTION A-A



SECTION B-B

MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

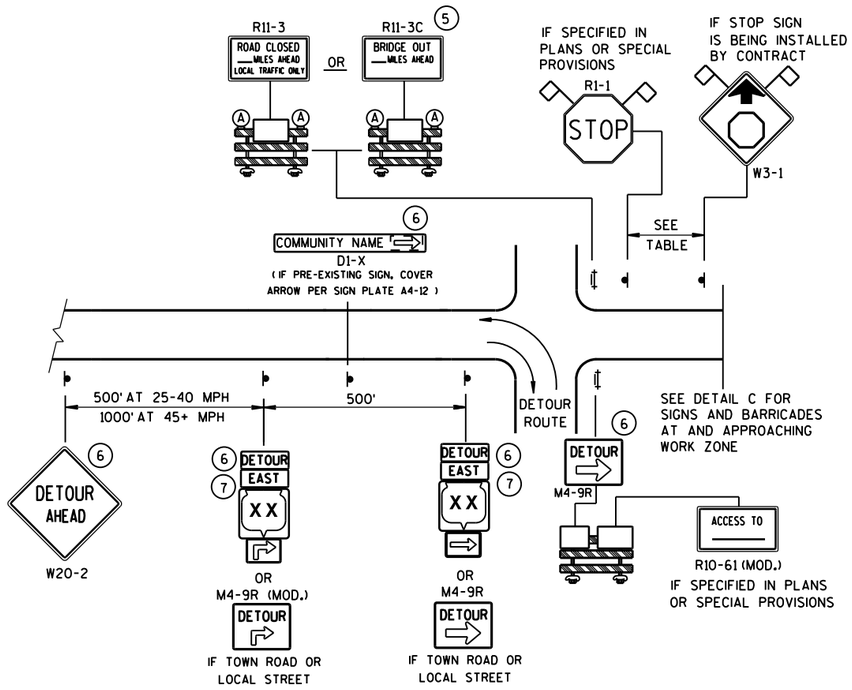
APPROVED
4/27/09 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

6

S.D.D. 15 A 1-11

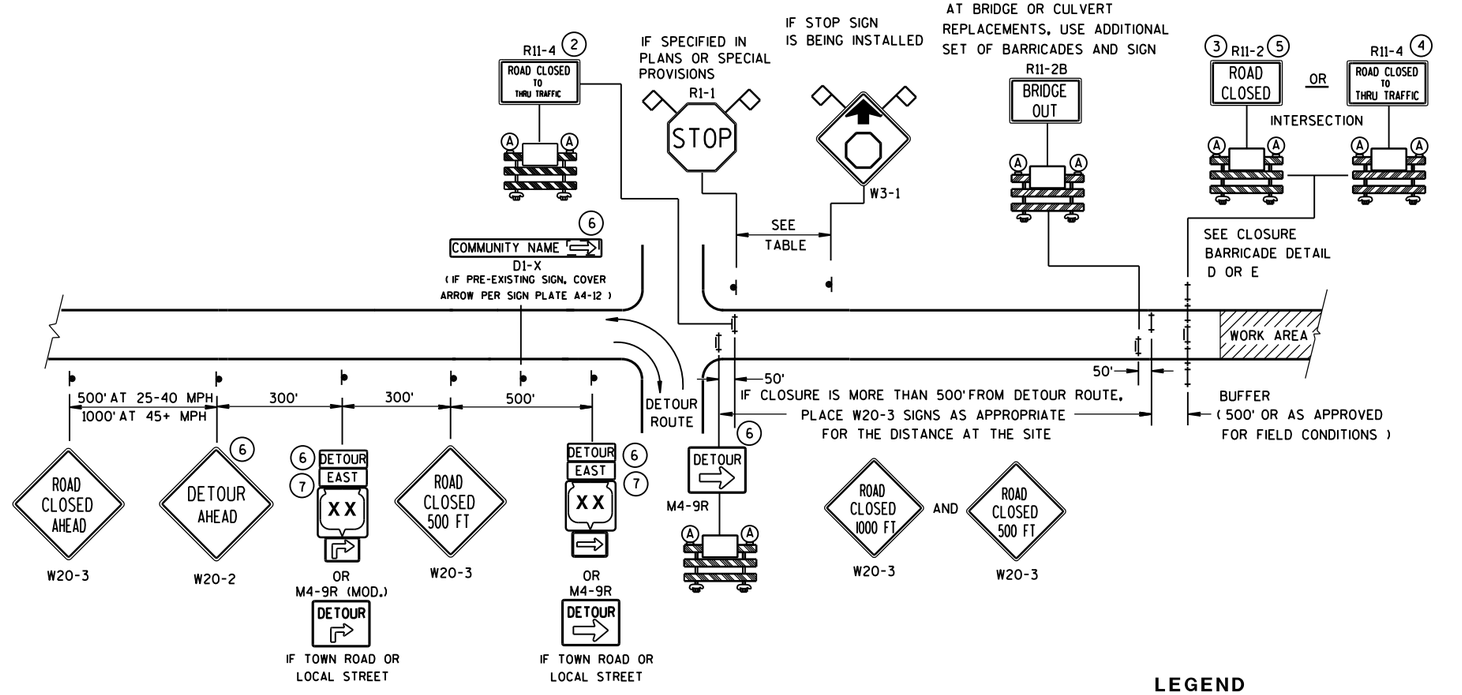
6

S.D.D. 15 A 1-11



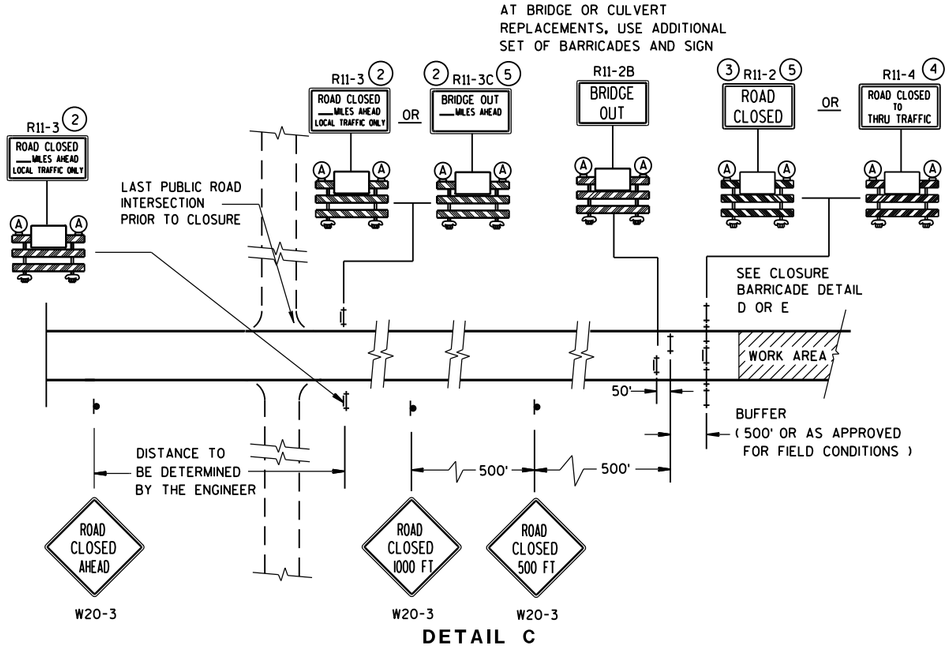
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

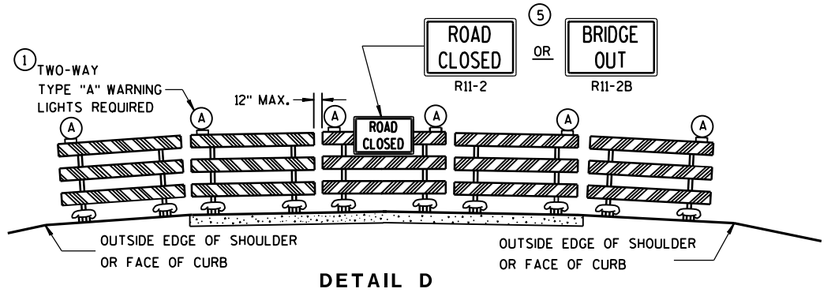
FHWA

6

S.D.D. 15 C 2-5a

6

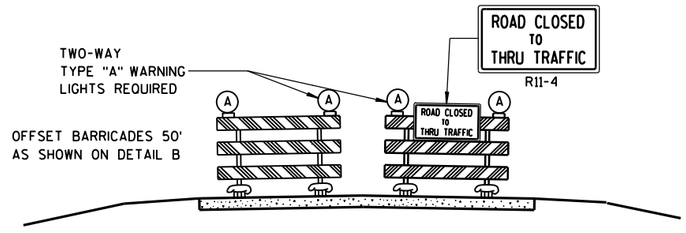
S.D.D. 15 C 2-5a



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.

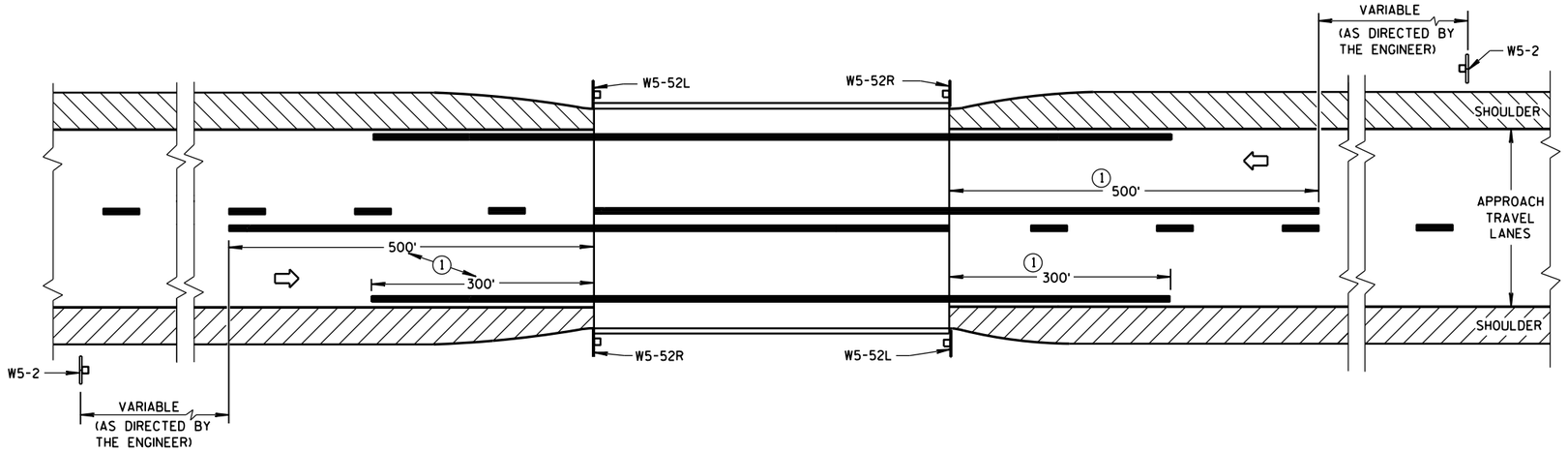
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

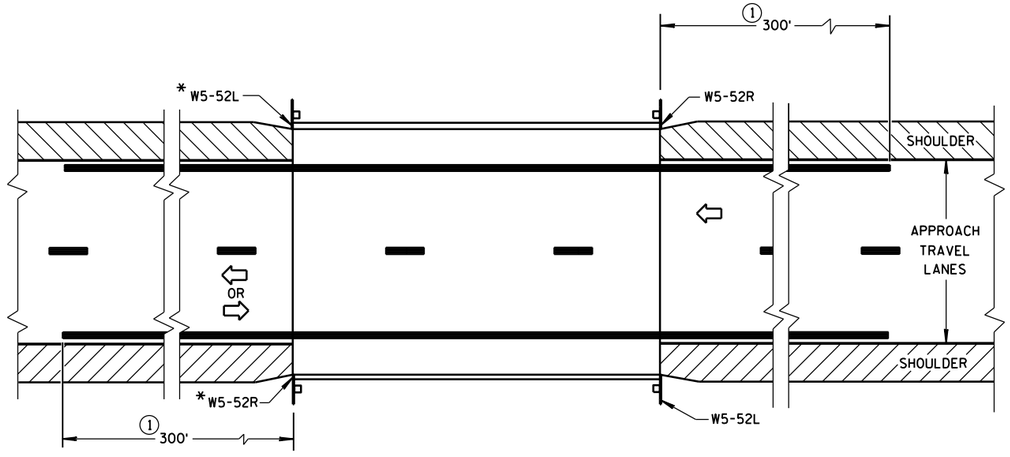
S.D.D. 15 C 2-5b



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.

GENERAL NOTES

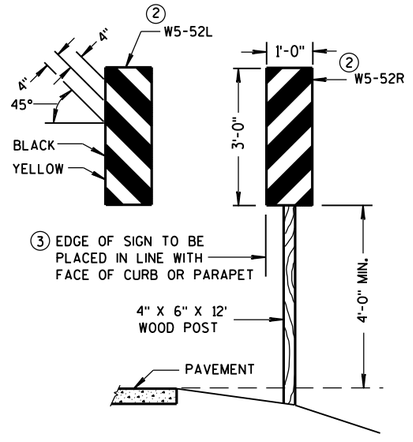
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

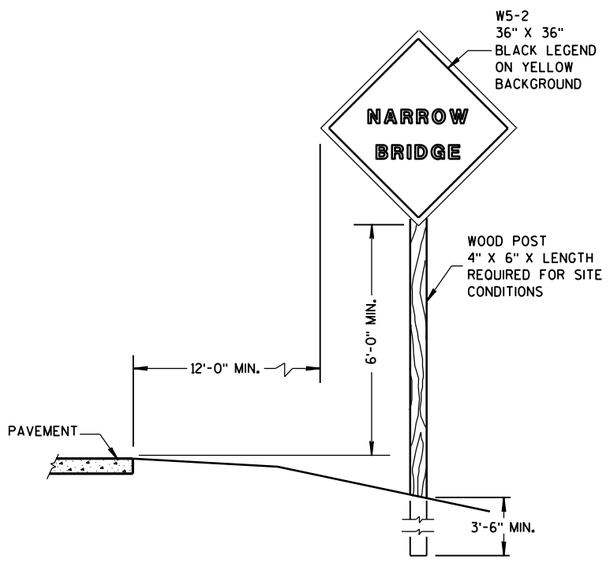
(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/4/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 6-6

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

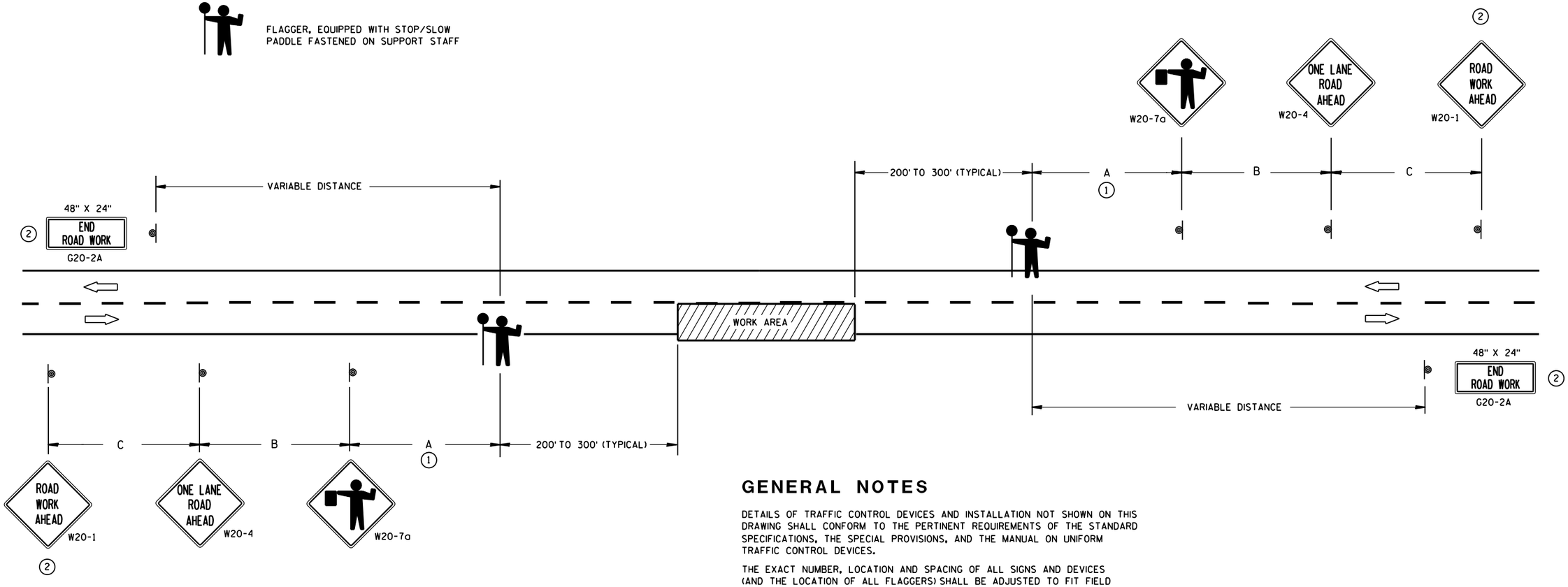
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

BE PREPARED TO STOP
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

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" 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 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

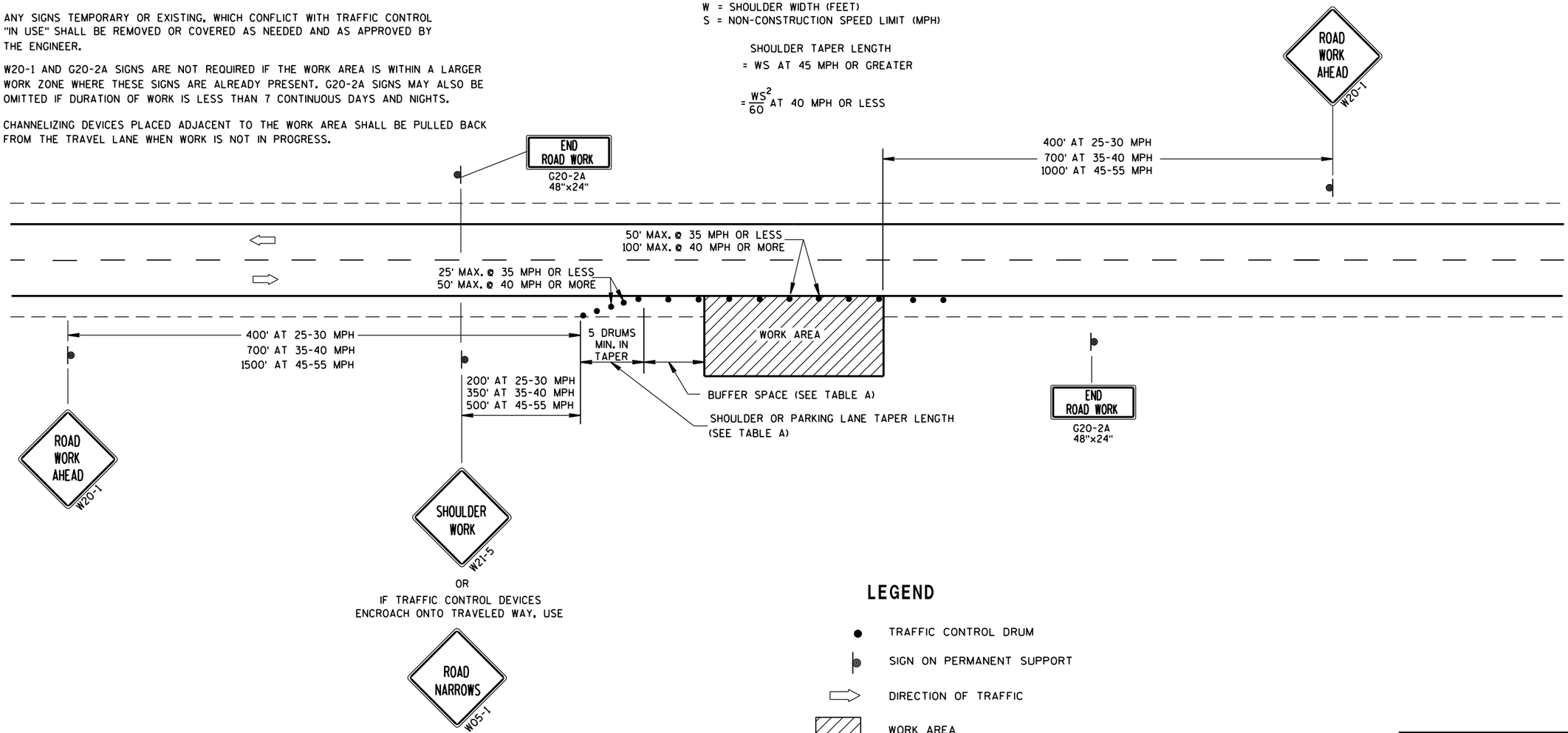
TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

$= \frac{WS^2}{60}$ AT 40 MPH OR LESS



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

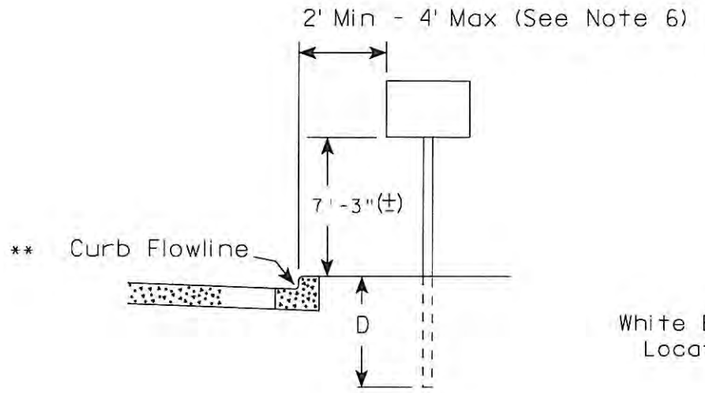
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

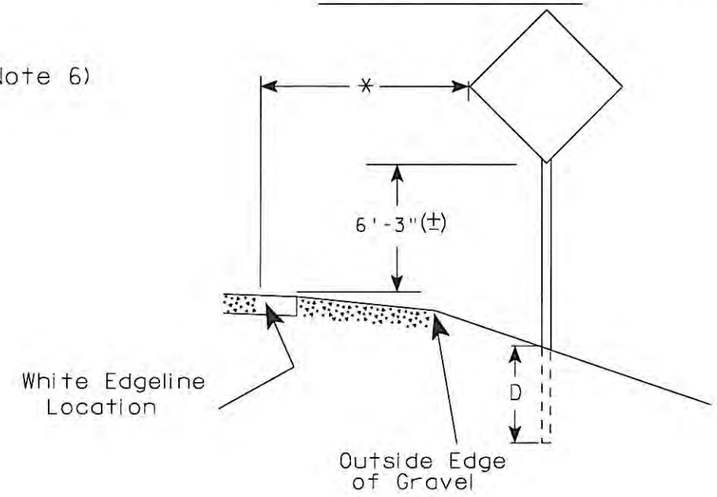
6

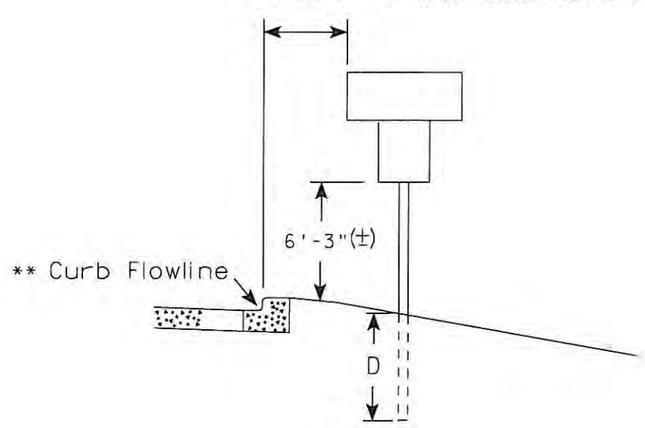
S.D.D. 15 D 28-2

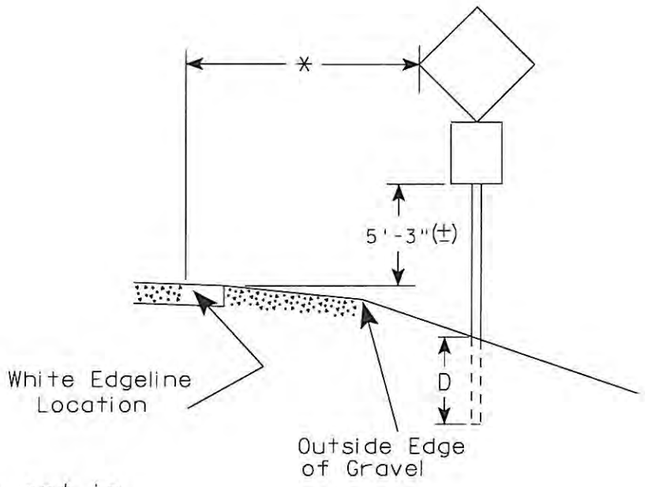
URBAN AREA



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.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

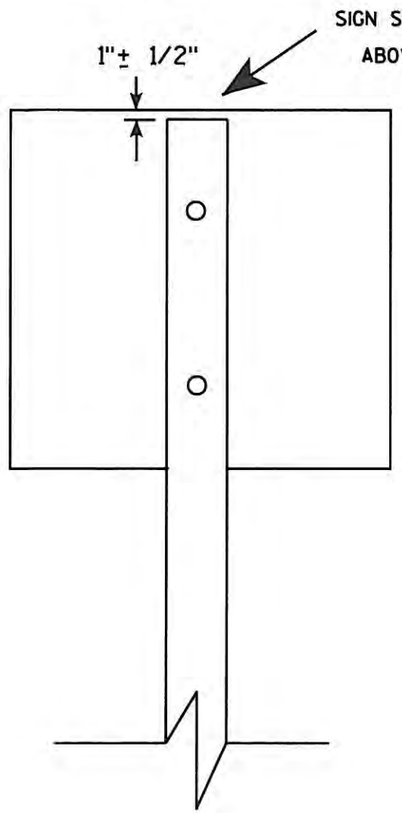
APPROVED Matthew R Rauch
for State Traffic Engineer

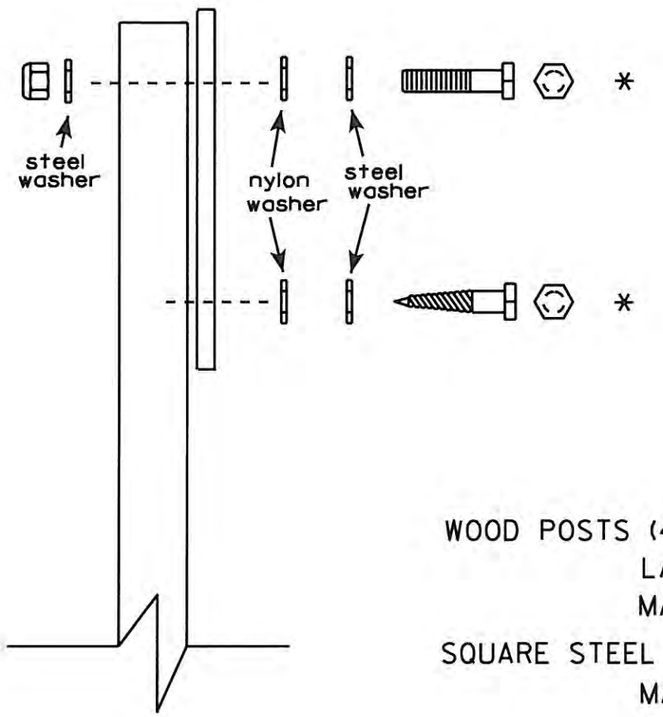
DATE 9/30/13 PLATE NO. A4-3.18

7

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27 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

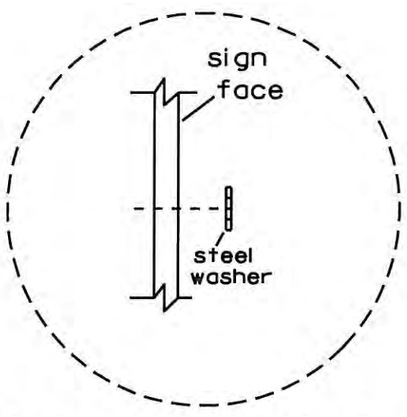
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

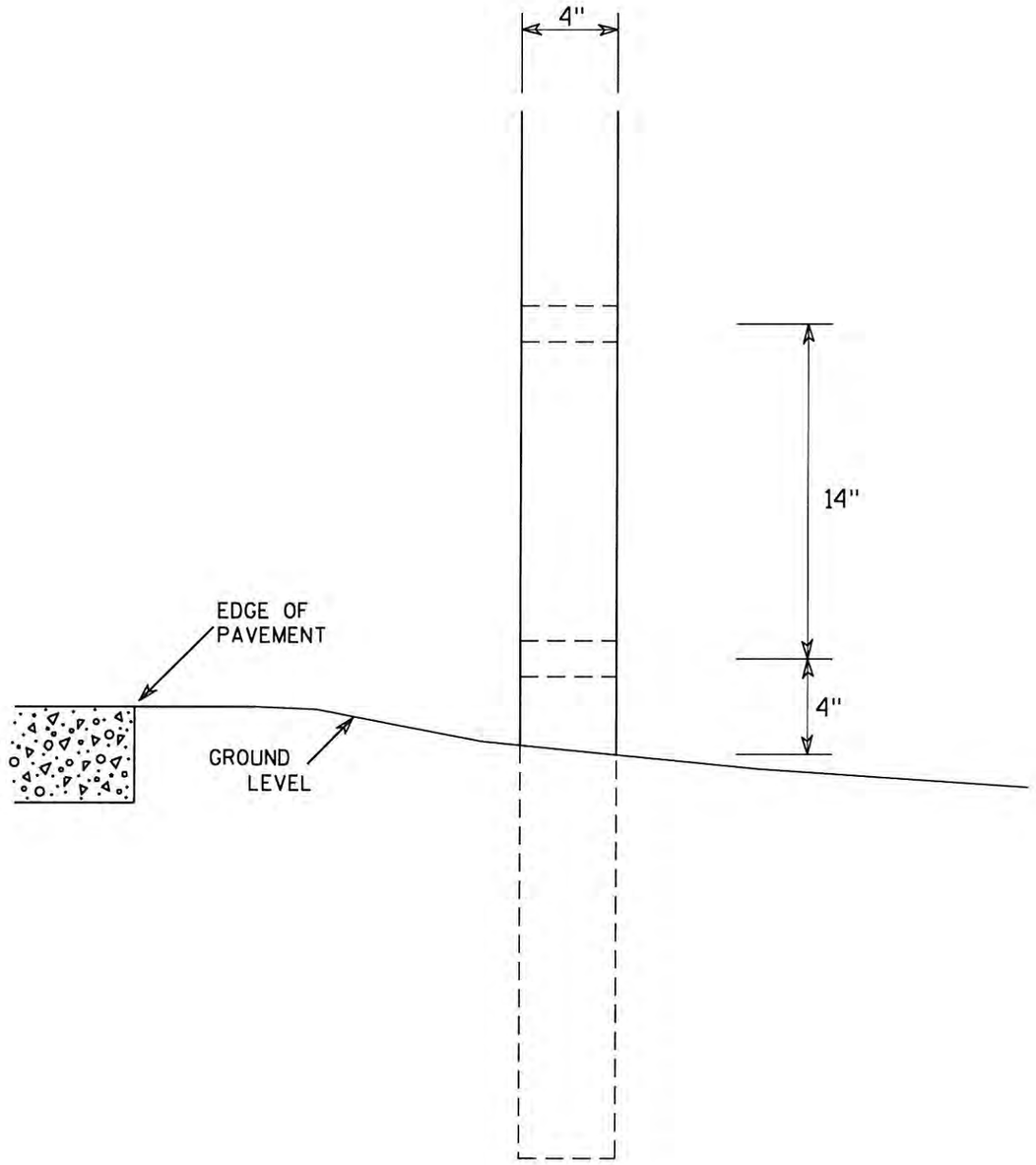
WISCONSIN DEPT OF TRANSPORTATION

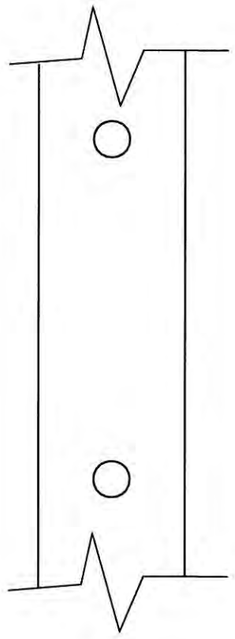
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

PROJECT NO:

SHEET NO: 28 E





SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

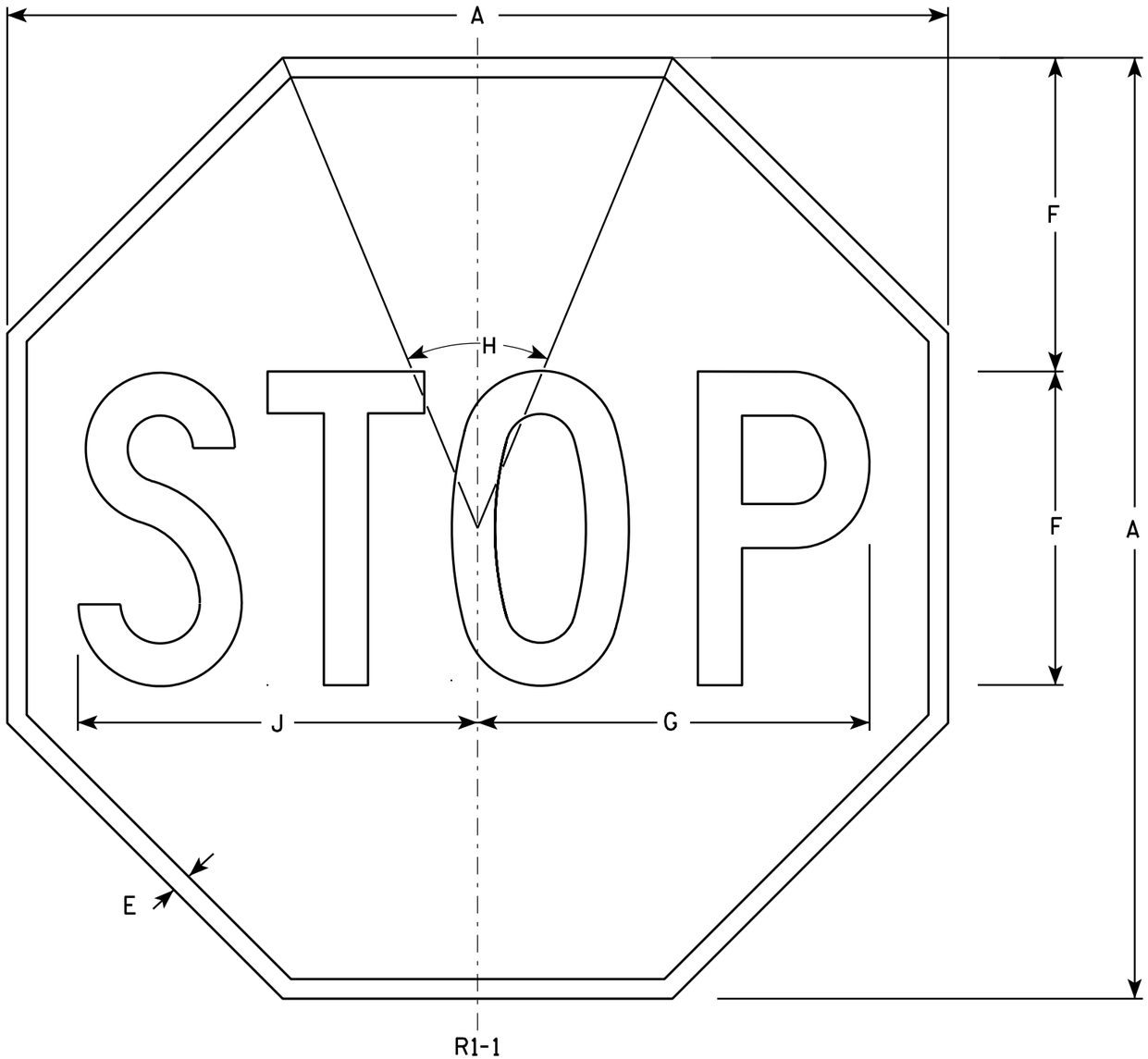
4 X 6 WOOD POST MODIFICATIONS

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: 29	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

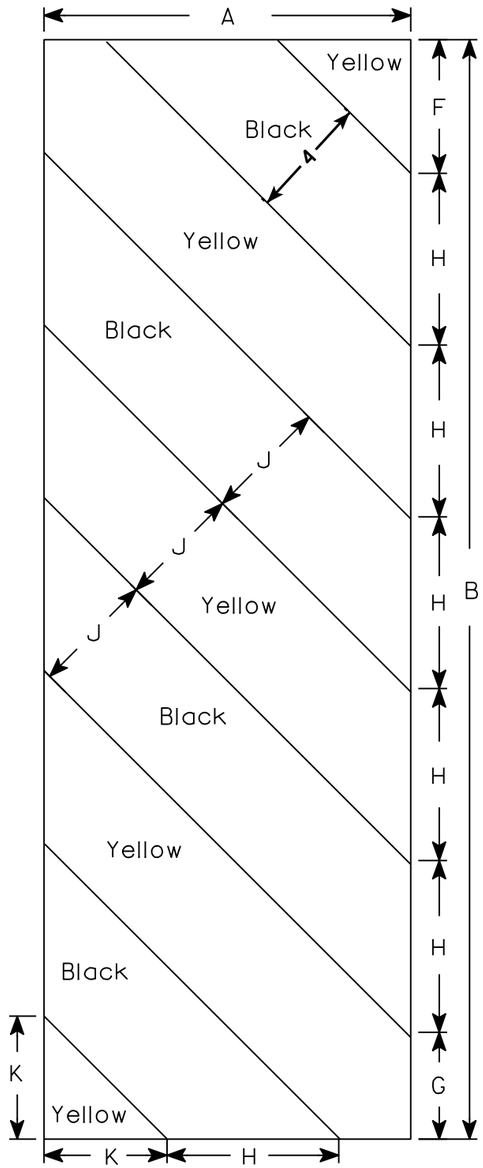
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 30	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11.DGN PLOT DATE : 02-DEC-2010 15:09 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

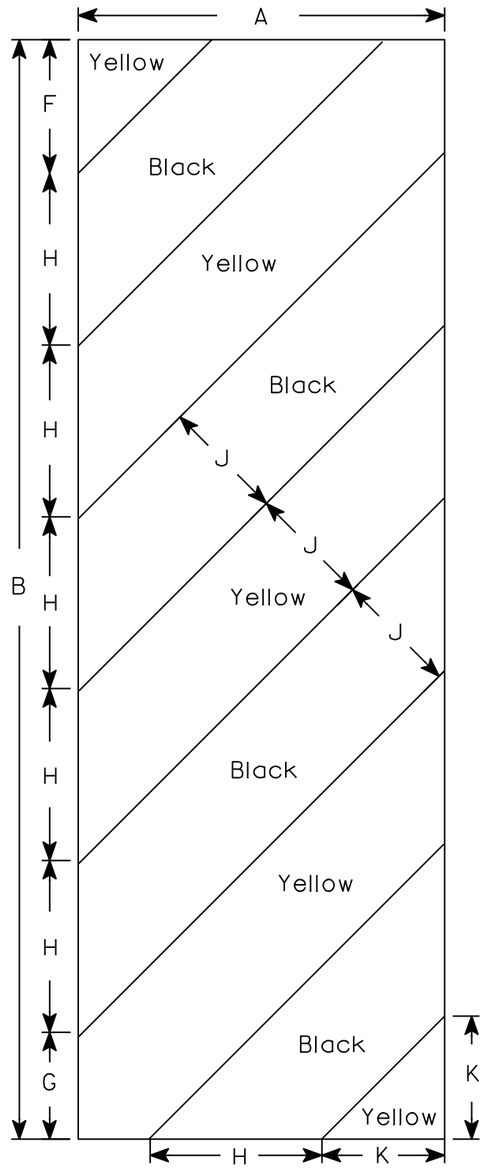
WISDOT/CADDS SHEET 42

7

7



W5-52L



W5-52R

NOTES

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

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

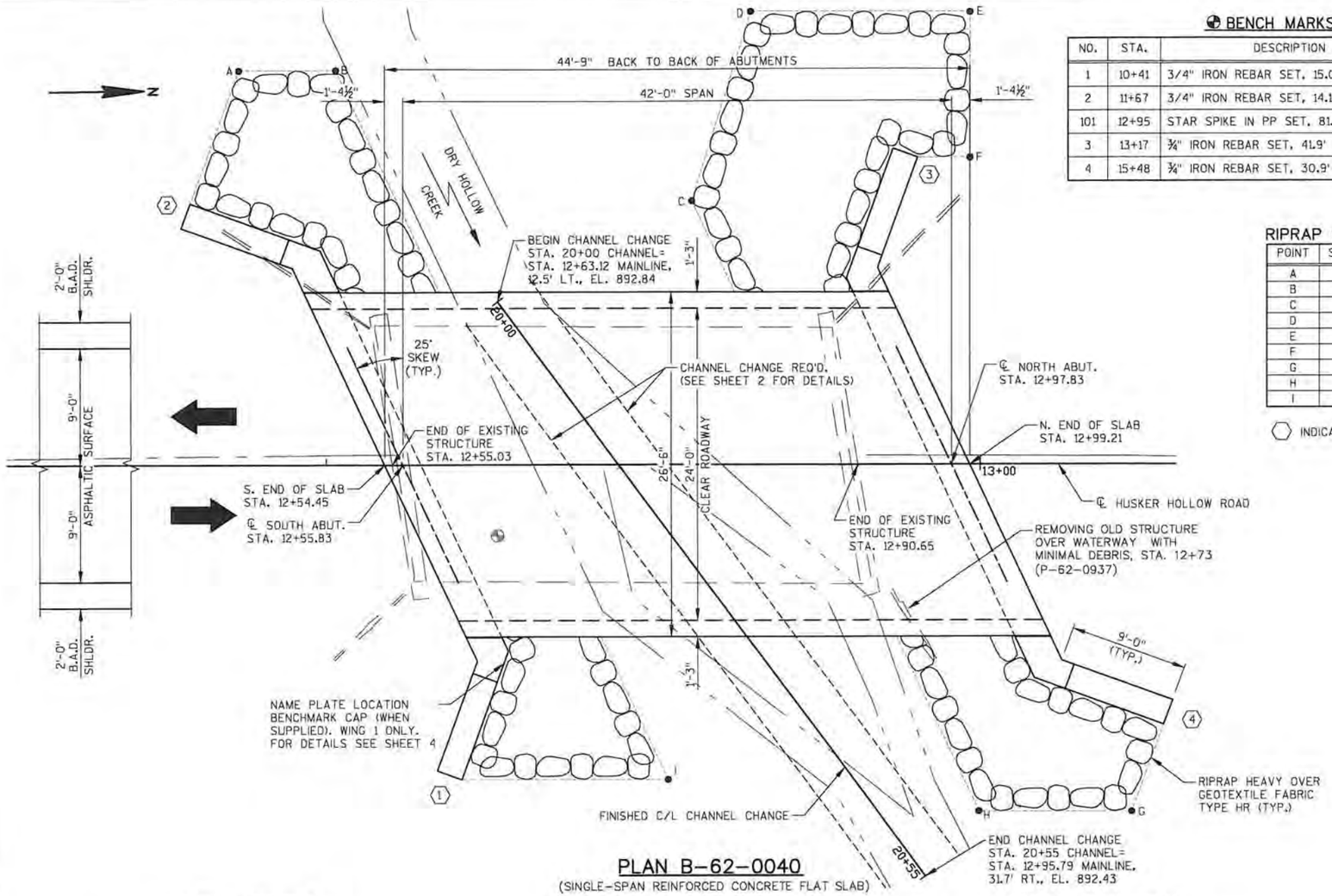
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 31	E

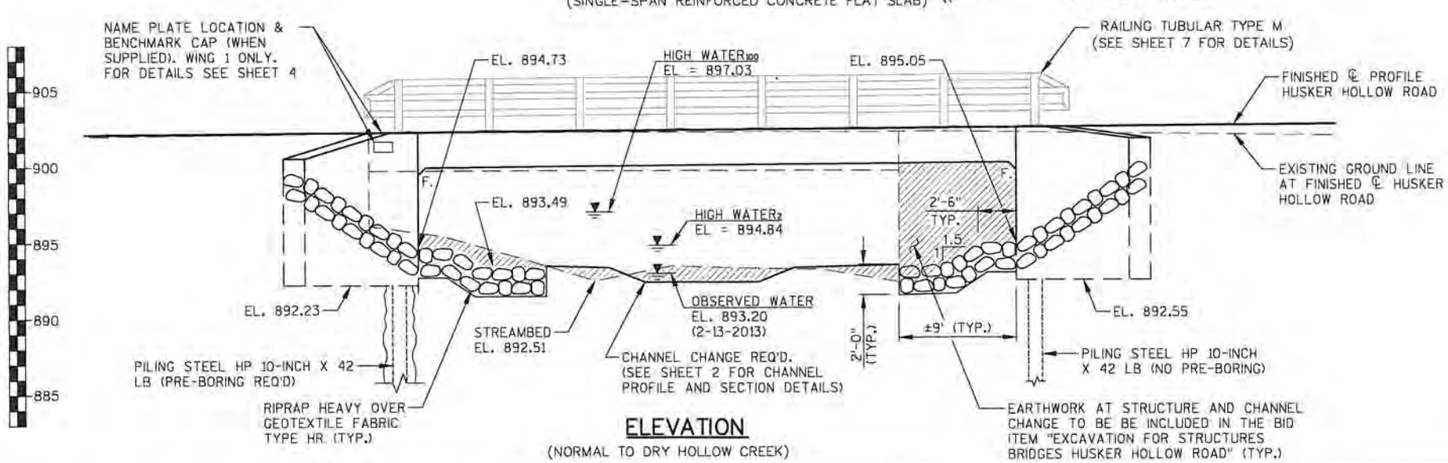
STATE PROJECT NUMBER

5714-00-70



PLAN B-62-0040

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)



ELEVATION

(NORMAL TO DRY HOLLOW CREEK)

⊕ BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	10+41	3/4" IRON REBAR SET, 15.0' LT.	901.15
2	11+67	3/4" IRON REBAR SET, 14.1' RT.	899.25
101	12+95	STAR SPIKE IN PP SET, 81.3' LT.	901.26
3	13+17	3/4" IRON REBAR SET, 41.9' LT.	899.25
4	15+48	3/4" IRON REBAR SET, 30.9' LT.	904.92

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	12+43	30' LT.
B	12+56	30' LT.
C	12+78	20' LT.
D	12+83	35' LT.
E	12+99	35' LT.
F	12+99	24' LT.
G	12+88	27' RT.
H	13+00	27' RT.
I	12+76	24' RT.

⬡ INDICATES WING NUMBER

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.10
OPERATING RATING FACTOR — RF=1.43
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 15.5 FT PILE LENGTHS AT SOUTH ABUTMENT AND ESTIMATE 17 FT PILE LENGTHS AT NORTH ABUTMENT. PRE-BORING REQ'D. AT SOUTH ABUTMENT ONLY.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

A.D.T. (2014) — 65
A.D.T. (2034) — 100
DESIGN SPEED — 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 1.4 SQ. MI.
Q_{100} TOTAL — 690 C.F.S.
THROUGH STRUCTURE — 690 C.F.S.
OVERTOPPING ROADWAY — N/A
VELOCITY - THROUGH STRUCTURE — 4.9 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 140 SQ. FT.
HIGH WATER$_{100}$ ELEVATION — 897.03
SCOUR CRITICAL CODE — 5

EROSION CONTROL
Q_2 — 90 C.F.S.
HIGH WATER$_2$ ELEVATION — 894.84

LIST OF DRAWINGS

WISCONSIN PROFESSIONAL ENGINEER
PATRICK T. BOLAND
E-36303
SPRING GREEN
WIS.
Patrick Boland 2-13-14

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Surveyors - Architects
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE: (608) 588-7484
FAX: (608) 588-9322

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 02/18/14
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-62-0040

HUSKER HOLLOW ROAD OVER DRY HOLLOW CREEK

COUNTY: VERNON — TOWN/~~CITY/VILLAGE~~: WEBSTER

DESIGN SPEC: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	RBH	DESIGN CK'D.	PTB	DRAWN BY	RBH	PLANS CK'D.	PTB

GENERAL PLAN

SHEET 1 OF 7

32

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-01-GENERAL PLAN.DWG
LAYOUT : GENERAL PLAN
PLOT DATE : 2/13/2014
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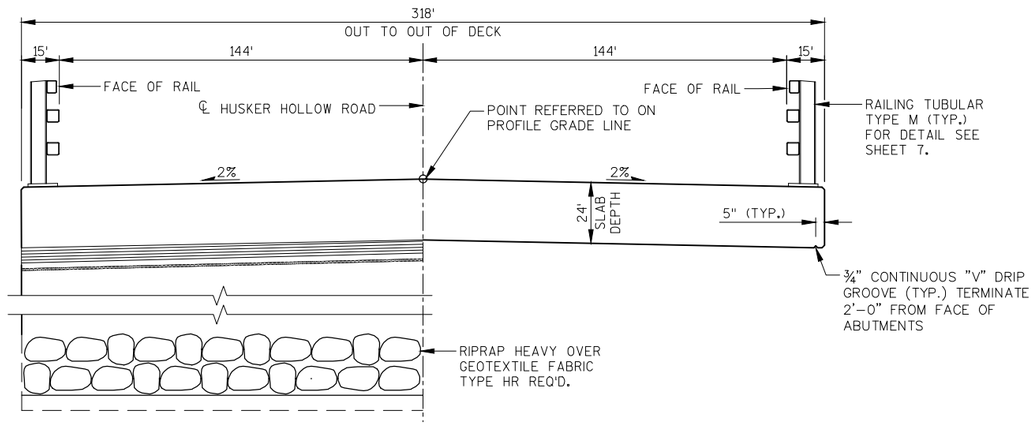
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 0.999887

STATE PROJECT NUMBER

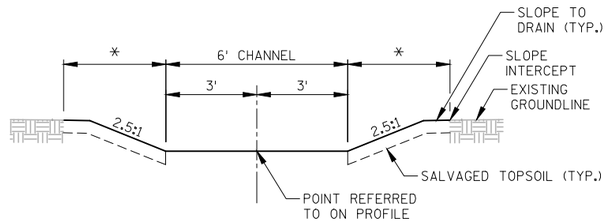
5714-00-70



AT ABUTMENT IN SPAN

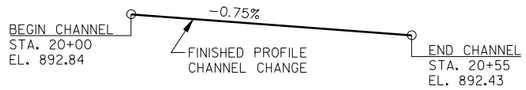
PROPOSED CROSS-SECTION THROUGH ROADWAY

(LOOKING NORTH)



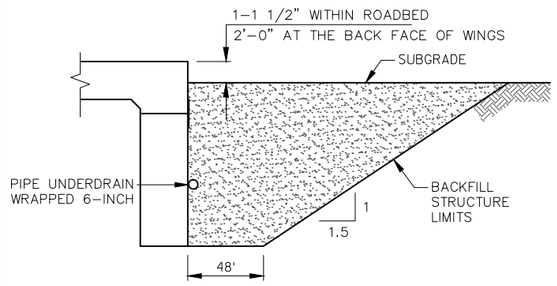
* LIMITS OF SEEDING MIXTURE NO. 20, SEEDING TEMPORARY, FERTILIZER TYPE B AND MULCH (INCLUDED IN ROADWAY QUANTITIES)

TYPICAL CHANNEL CHANGE SECTION



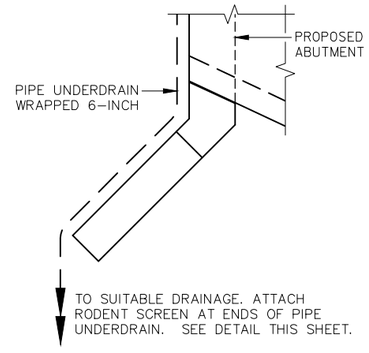
CHANNEL CHANGE - PROFILE GRADE LINE

CHANNEL CHANGE DETAILS

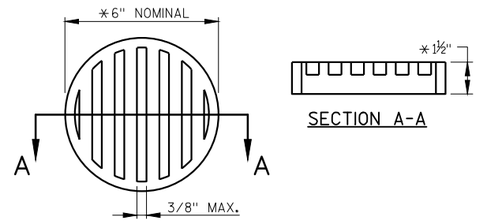


BACKFILL STRUCTURE DETAIL

(TYPICAL AT BOTH ABUTMENTS)



PIPE UNDERDRAIN DETAIL



SECTION A-A

RODENT SCREEN

NOTES:

*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	SUPER	N. ABUT.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 12+73	LS	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-62-0040	LS	--	--	--	1
210.0100	BACKFILL STRUCTURE	CY	155	--	155	310
502.0100	CONCRETE MASONRY BRIDGES	CY	36.8	92.4	36.8	166
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	160	--	160
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	2,280	--	2280	4,560
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1,475	15,110	1475	18,060
513.4060	RAILING TUBULAR TYPE M B-62-0040	LS	--	--	--	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	--	6	12
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	70	--	--	70
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	110	--	120	230
606.0300	RIPRAP HEAVY	CY	45	--	65	110
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70	--	70	140
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	90	--	120	210
	NON-BID ITEMS					
	FILLER	SIZE	--	--	--	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE FABRIC TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE. SEE THIS SHEET FOR DETAIL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).

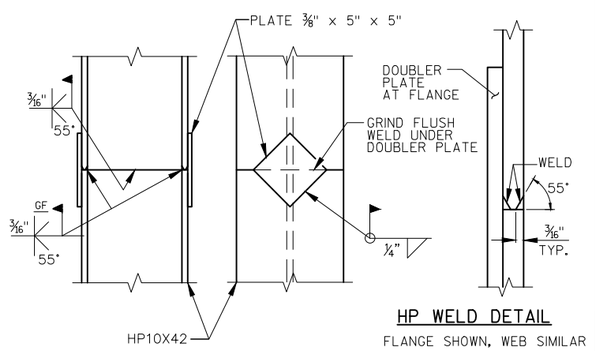
THE EXISTING STRUCTURE (P-62-0937) IS A SINGLE SPAN STEEL GIRDER, CONCRETE DECK STRUCTURE SUPPORTED ON TIMBER PILING WITH TIMBER BACKING. THE STRUCTURE IS 19.7' WIDE BY 35.6' LONG AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

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

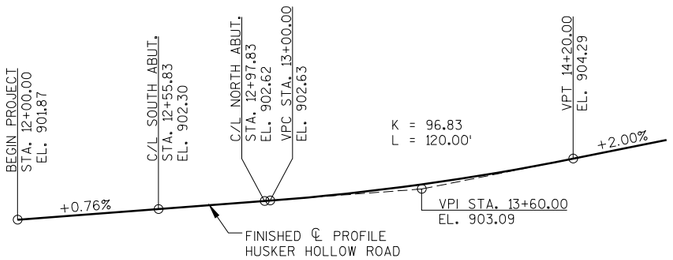


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A709 GRADE 50. GRINDING MAY BE USED IN LIEU OF BACKGOUGING.



HUSKER HOLLOW ROAD - PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

DRAWN BY RBH | PLANS CK'D. PTB

CROSS SECTION AND QUANTITIES

SHEET 2 OF 7

8

8

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-02-CROSS SECTION AND QUANTITIES.DWG
LAYOUT : CROSS SECTION AND QUANTITIES
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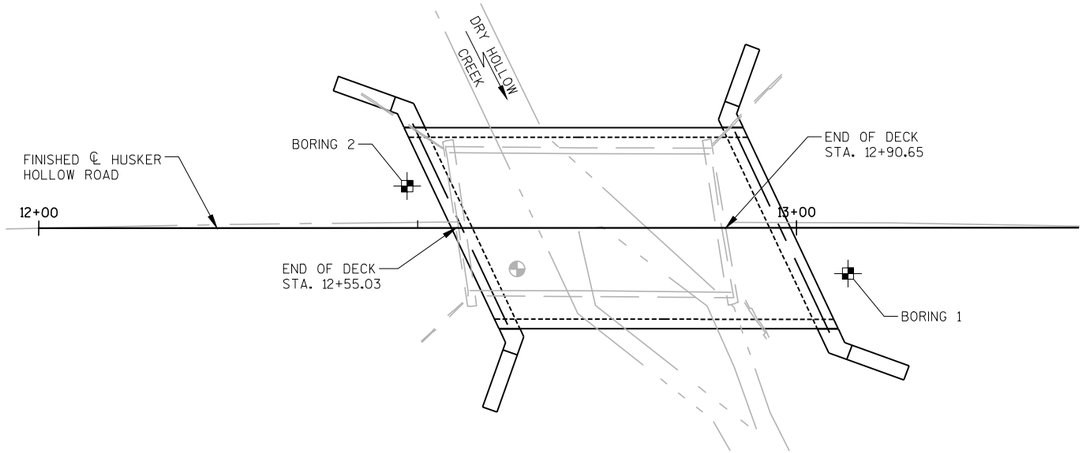
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

NORTH



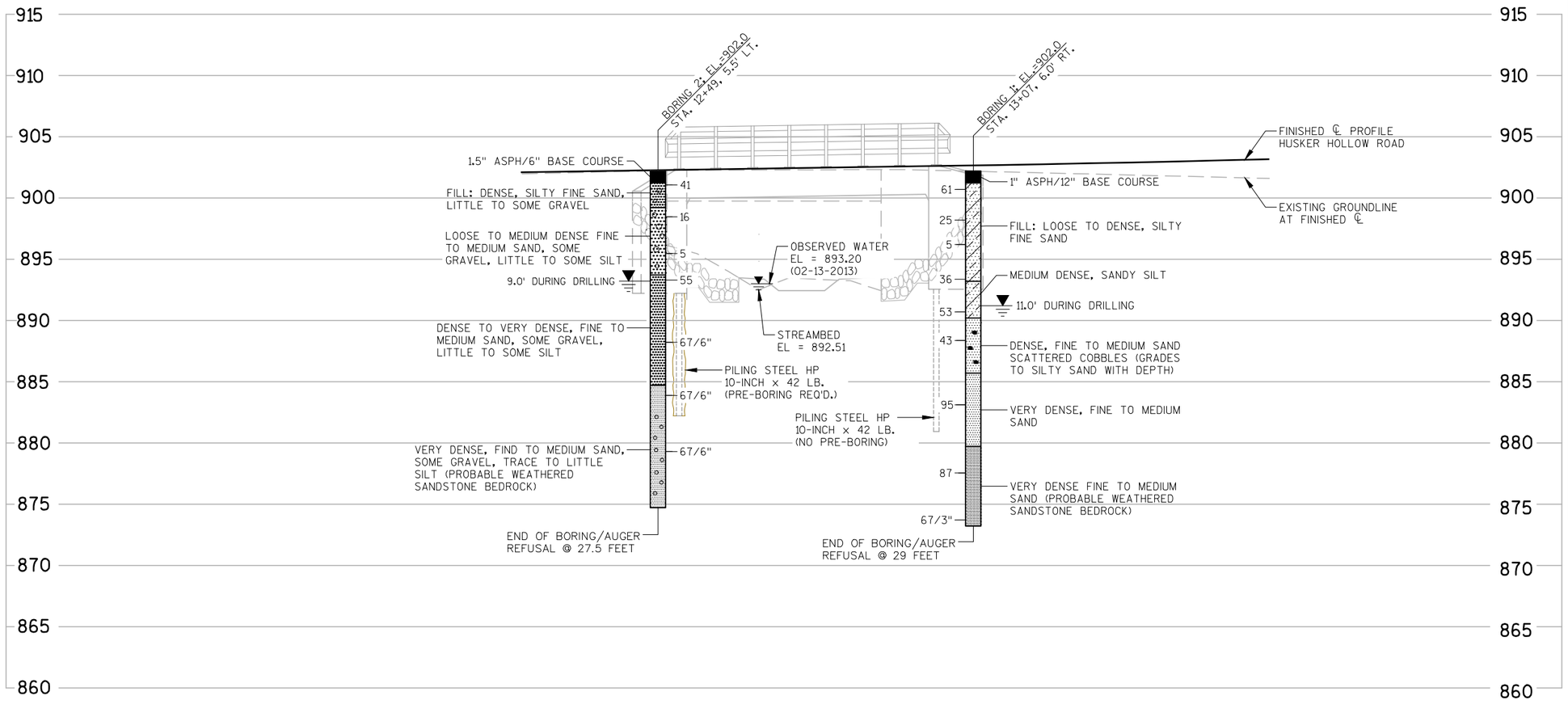
PLAN B-62-0040

SOIL BORINGS

BY: CGC, INC.
2921 PERRY STREET
MADISON, WI 53713

ON: 4/11/2013

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 15.5 FT PILE LENGTH AT SOUTH ABUTMENT AND ESTIMATE 17 FT PILE LENGTH AT NORTH ABUTMENT. PRE-BORING REQ'D. AT SOUTH ABUTMENT ONLY.



STATE PROJECT NUMBER

5714-00-70

ABBREVIATIONS

F-Fine M-Medium C-Course
Ws-Weathered So-Sound

MATERIAL SYMBOLS

Asphalt, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF PROBING

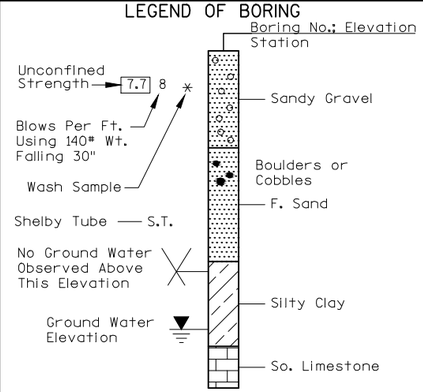
PROBING No.; Elevation
Station

95/6 = 96 Blows for 6" Penetration. Probing Taken with a 350# Weight Falling 18" on a 2" O.D. Point.

7 Average Blows Per Foot

Refusal 95/6

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

DRAWN BY RBH | PLANS CK'D. PTB

SUBSURFACE EXPLORATION

SHEET 3 OF 7

34

8

8

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-03-SUBSURFACE EXPLORATION.DWG
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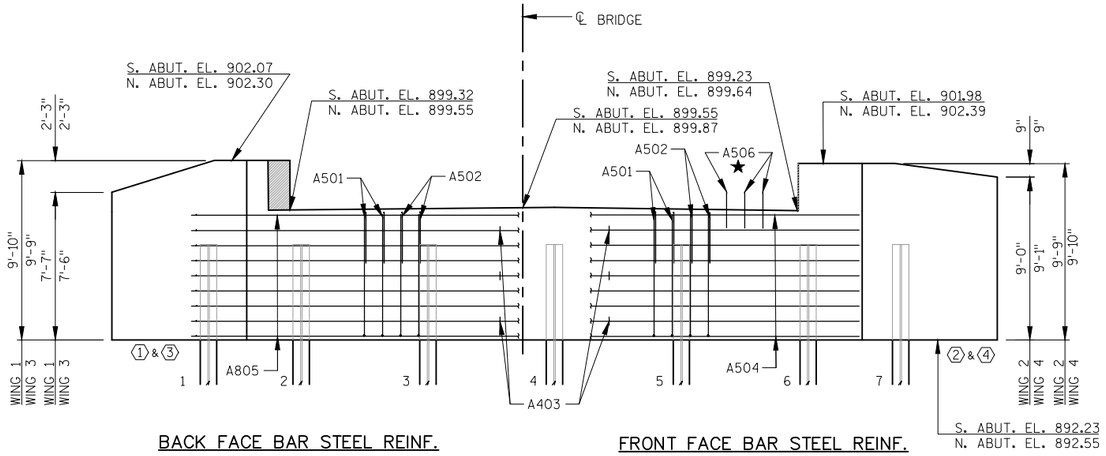
PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

5714-00-70

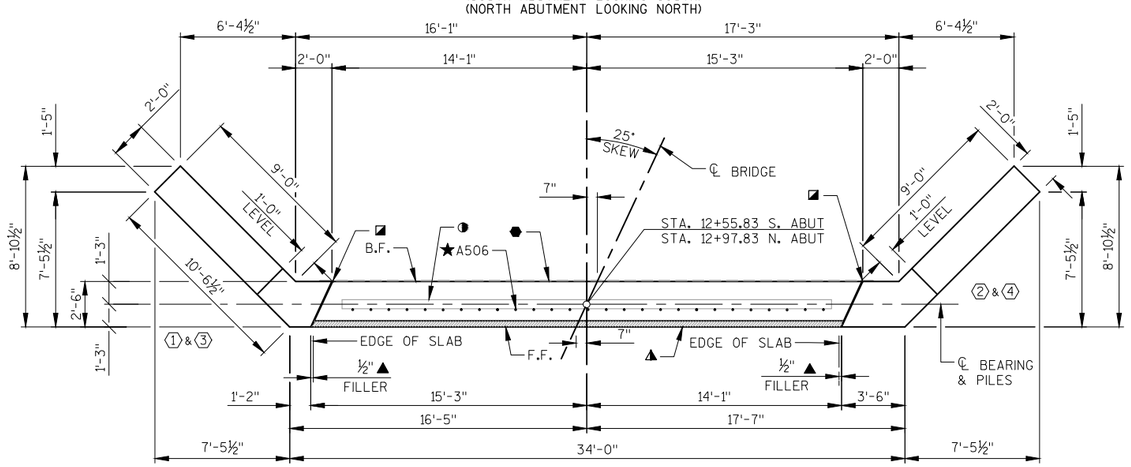


BACK FACE BAR STEEL REINF.

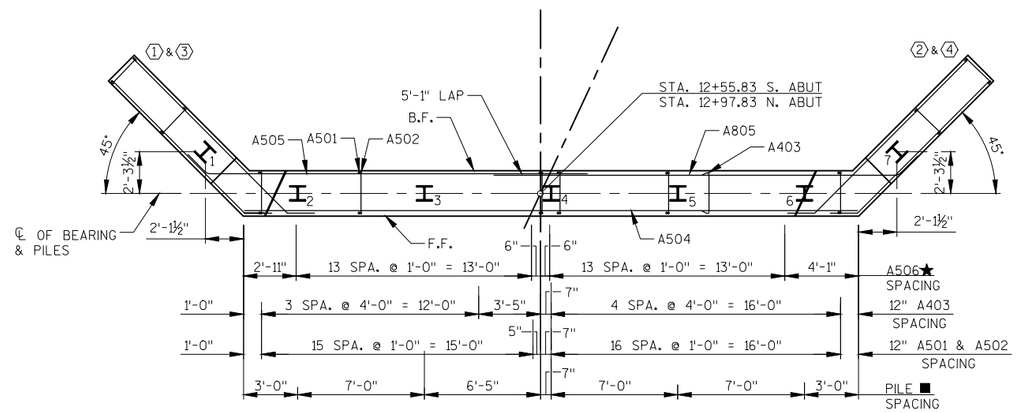
FRONT FACE BAR STEEL REINF.

ELEVATION

(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)



PLAN



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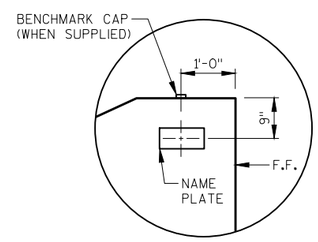
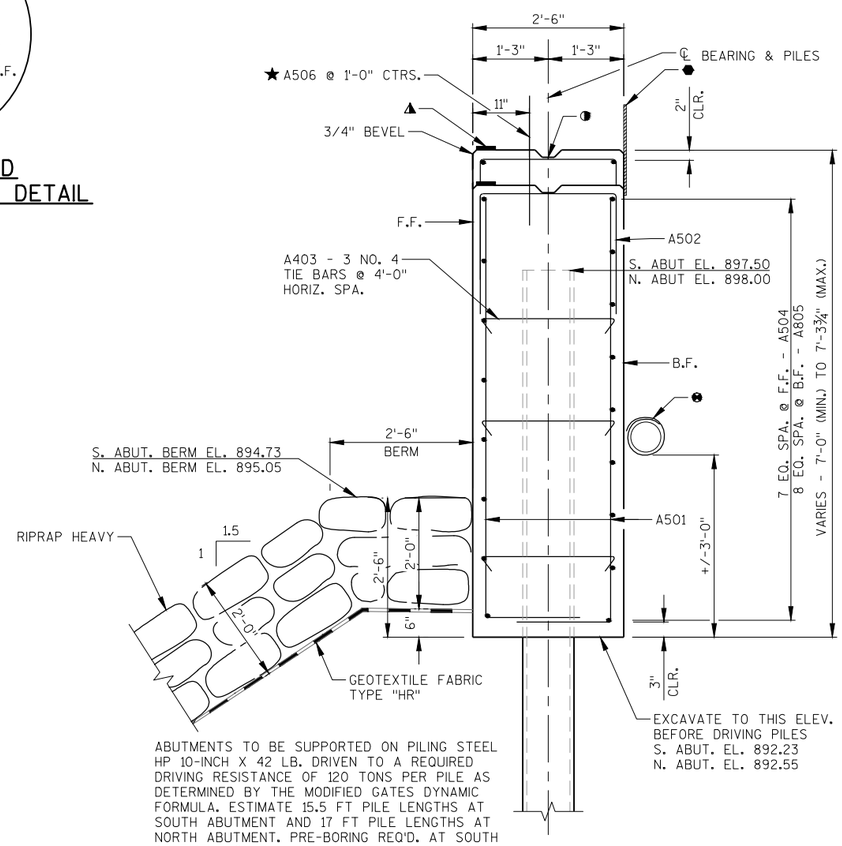


NAME PLATE AND BENCHMARK CAP DETAIL



ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 15.5 FT PILE LENGTHS AT SOUTH ABUTMENT AND 17 FT PILE LENGTHS AT NORTH ABUTMENT. PRE-BORING REQ'D. AT SOUTH ABUTMENT ONLY.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6
- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING (HORIZONTAL)
- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- ◮ 4"x¾" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ■ PILE SPACING MEASURED AT BASE OF SHAFT.
- ◓ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

Drawn By RBH | Plans Checked PTB

ABUTMENTS

SHEET 4 OF 7

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-04-ABUTMENT.DWG
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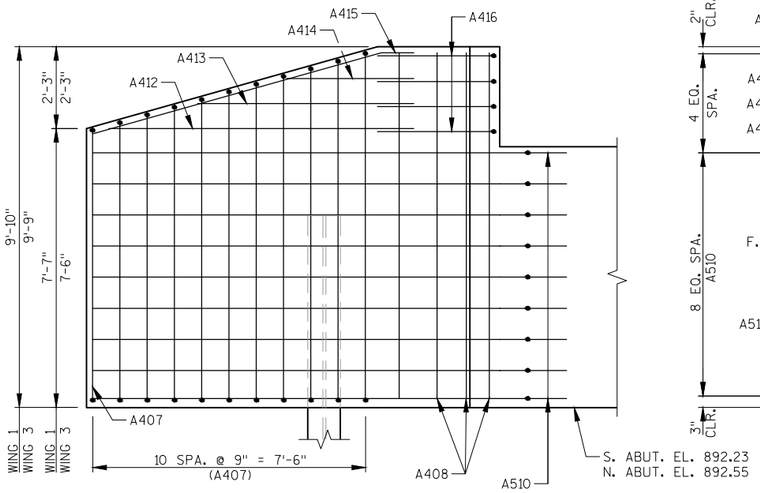
PLOT DATE : 2/7/2014
PLOT TIME : 11:09:28 AM

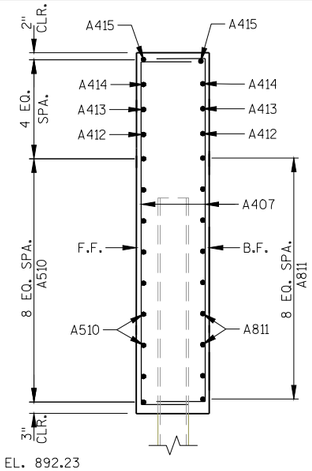
PLOT BY : BOLAND, PATRICK

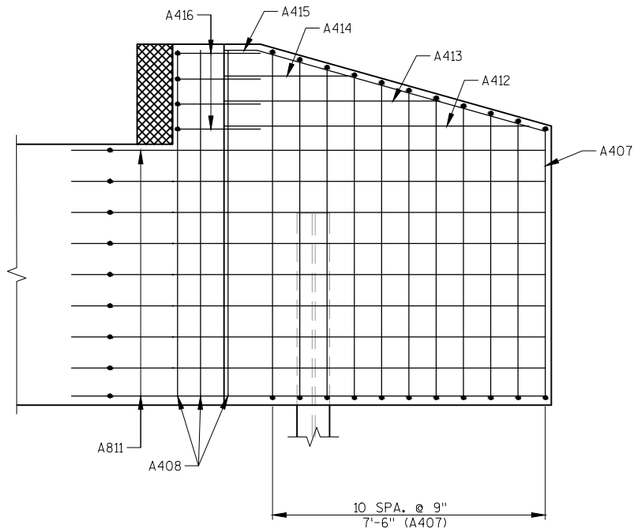
PLOT SCALE : 0.995431

STATE PROJECT NUMBER

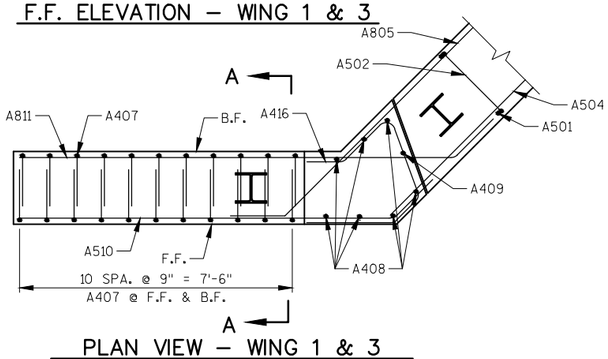
5714-00-70







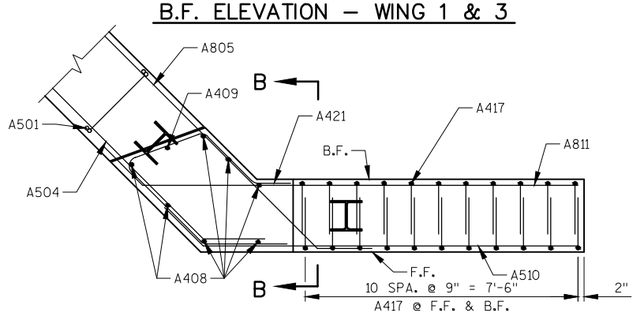
F.F. ELEVATION – WING 1 & 3



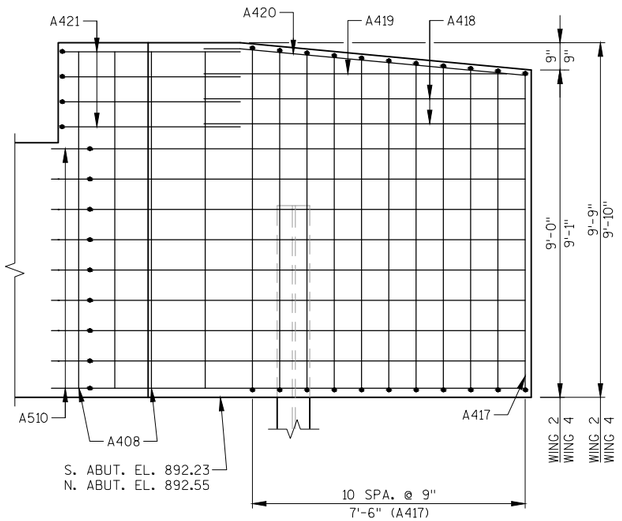
PLAN VIEW – WING 1 & 3

SECTION A–A

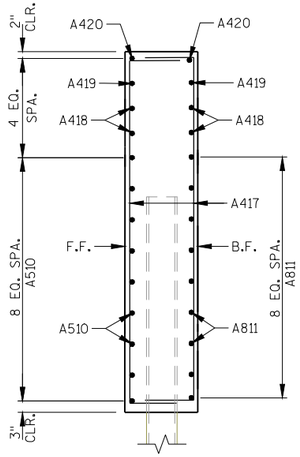
B.F. ELEVATION – WING 1 & 3



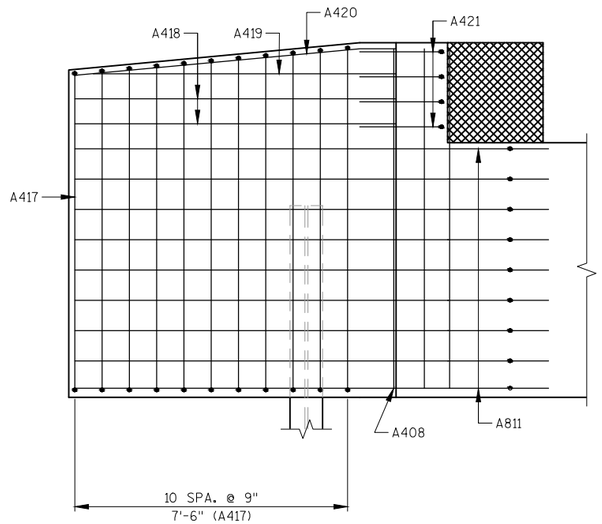
PLAN VEIW – WING 2 & 4



F.F. ELEVATION – WING 2 & 4



SECTION B–B



B.F. ELEVATION – WING 2 & 4

BILL OF BARS
APRONS

2,950 LB (COATED)
4,560 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	132	8-1	X			BODY - VERT. - F.F. & B.F.
A502	66	7-7	X			BODY - TOP
A403	54	2-10	X			TIE BARS
A504	16	33-10				BODY - HORIZ. - F.F.
A805	36	23-6	X			BODY - HORIZ. - B.F.
A506	56	2-0		X		BODY - VERT. - DOWELS
A407	44	10-8	X	X	*	WINGS 1 & 3 - VERT. - F.F. & B.F.
A408	28	9-4		X		WINGS - VERT.
A409	4	3-8		X		WINGS - VERT. - TOP
A510	36	11-9	X	X		WINGS HORIZ. - F.F.
A811	36	13-5	X	X		WINGS HORIZ. - B.F.
A412	4	8-4		X		WINGS 1 & 3 HORIZ. - F.F. & B.F.
A413	4	5-10		X		WINGS 1 & 3 HORIZ. - F.F. & B.F.
A414	4	3-6		X		WINGS 1 & 3 HORIZ. - F.F. & B.F.
A415	4	9-0	X	X		WINGS 1 & 3 HORIZ. - TOP
A416	8	8-3	X	X		WINGS 1 & 3 HORIZ. - TOP
A417	44	11-5	X	X	*	WINGS 2 & 4 HORIZ. - TOP
A418	8	8-10		X		WINGS 2 & 4 HORIZ. - TOP
A419	4	8-4		X		WINGS 2 & 4 HORIZ. - TOP
A420	4	8-10	X	X		WINGS 2 & 4 HORIZ. - TOP
A421	8	10-7	X	X		WINGS 2 & 4 HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

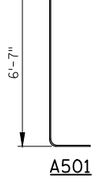
*LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.

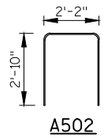
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A407	4 SERIES OF 11	9-7 TO 11-9
A414	4 SERIES OF 11	11-1 TO 11-9

BUNDLE AND TAG EACH SERIES SEPARATELY.



A501



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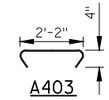

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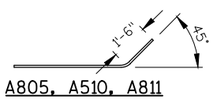
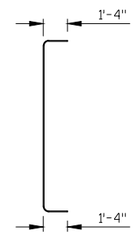
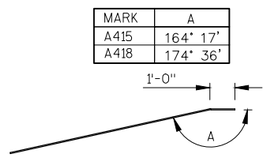


A805, A510, A811

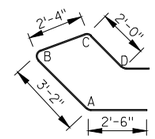


A407 & A417

MARK	A
A415	164° 17'
A418	174° 36'



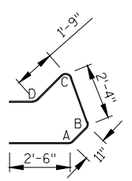
A415 & A420



A	135°
B	65°
C	115°
D	135°

A421

A	135°
B	115°
C	65°
D	135°



A416

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

Drawn By: RBH | Plans Checked: PTB

ABUTMENT DETAILS

SHEET 5 OF 7

8

8

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-05-ABUT-DETAILS.DWG
LAYOUT : ABUTMENT DETAILS

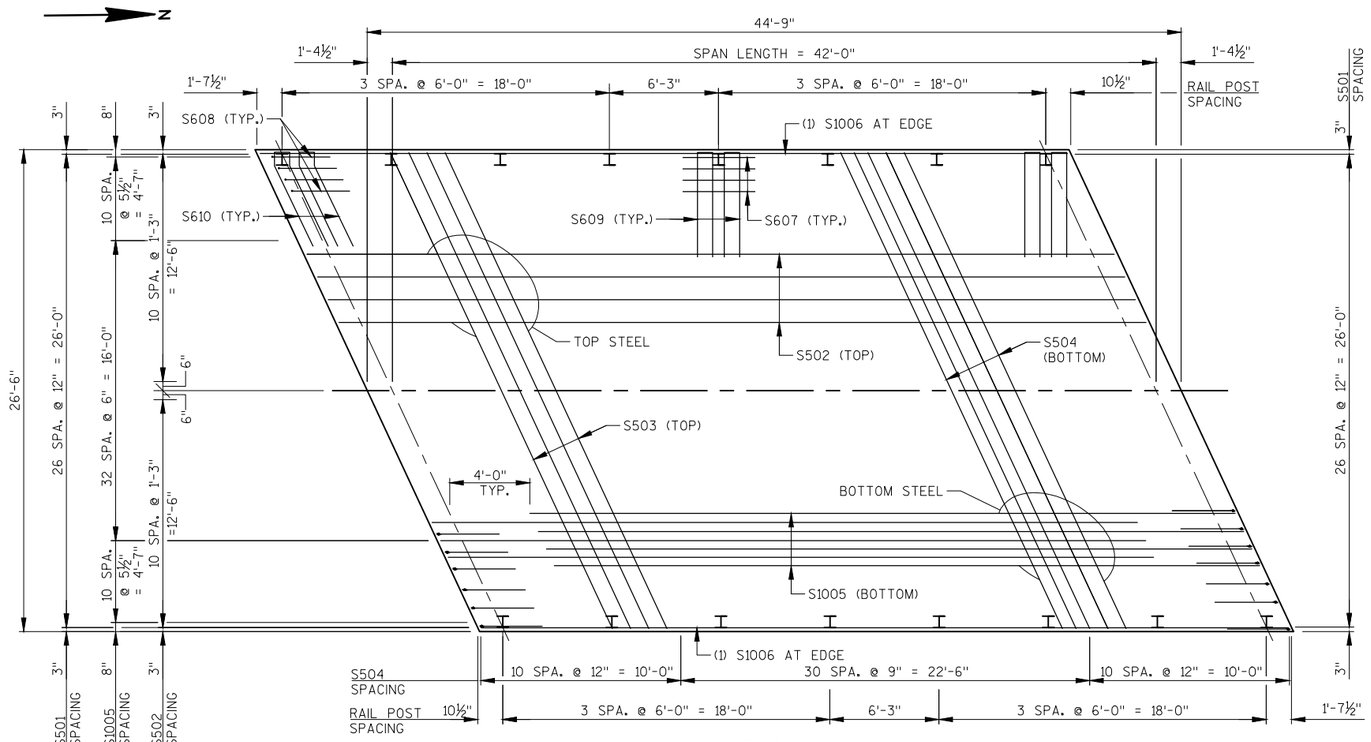
PLOT DATE : 2/7/2014
PLOT TIME : 9:43:07 AM

PLOT BY : BOLAND, PATRICK

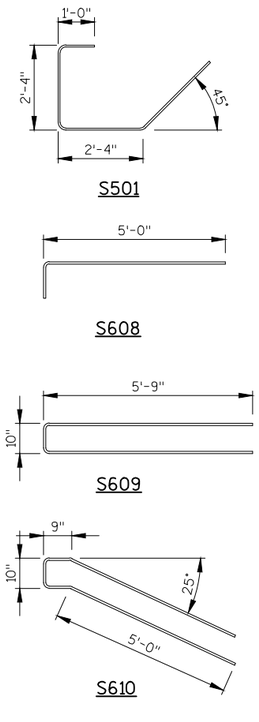
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

5714-00-70



PLAN



BILL OF BARS SUPERSTRUCTURE

15,110 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
S501	54	8-0	X	X		AT END OF DECK
S502	22	44-4		X		SLAB, TOP, LONGIT.
S503	52	28-10		X		SLAB, TOP, TRANSVERSE
S504	53	28-10		X		SLAB, BOTTOM, TRANSVERSE
S1005	53	39-3		X		SLAB, BOTTOM, LONGIT.
S1006	2	44-5		X		SLAB, BOTTOM, LONGIT.
S607	48	6-0		X		AT INTERIOR RAIL POSTS
S608	16	6-0	X	X		AT END RAIL POSTS
S609	28	12-0	X	X		AT INTERIOR RAIL POSTS
S610	4	12-0	X	X		AT END RAIL POSTS

NOTES: DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

THE FIRST DIGIT OF 3 DIGIT AND FIRST 2 DIGITS OF A 4 DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SOME BARS HAVE BEEN OMITTED FOR CLARITY.

NOTES

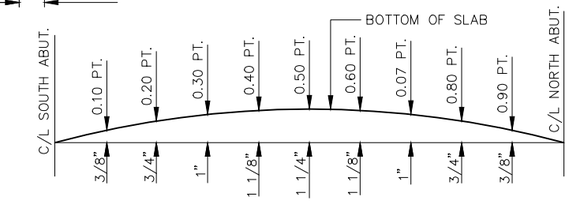
ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0 CENTERS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0 CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

TOP OF DECK ELEVATIONS

	C/L ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L ABUT.
LEFT EDGE	901.98	902.01	902.04	902.07	902.11	902.14	902.17	902.20	902.23	902.27	902.30
C/L	902.30	902.33	902.36	902.39	902.42	902.46	902.49	902.52	902.55	902.58	902.63
RIGHT EDGE	902.07	902.10	902.14	902.17	902.20	902.23	902.26	902.30	902.33	902.36	902.39

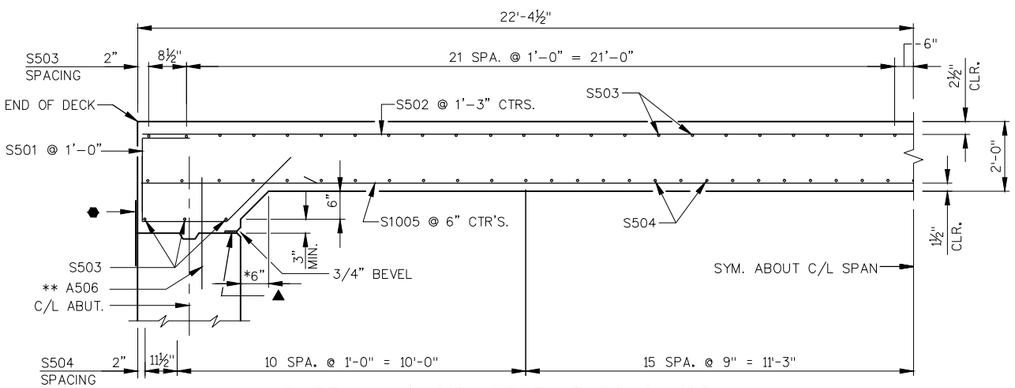


CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION & FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

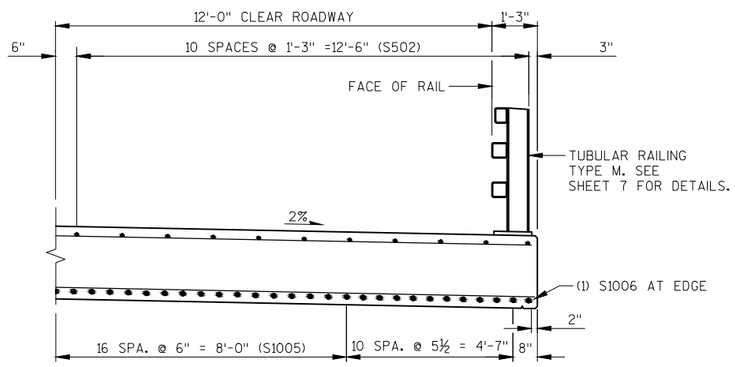
LEGEND

- ⬢ 4"×¾" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING (HORIZONTAL)
- ∗ DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS
- ∗∗ SEE SHEET 4 FOR PLACEMENT OF A506 BARS



PARTIAL LONGIT. SECT. THROUGH RDWY.

NOT TO SCALE



CROSS SECT. THROUGH RDWY.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

Drawn By RBH | Plans Checked PTB

SUPERSTRUCTURE

SHEET 6 OF 7

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8

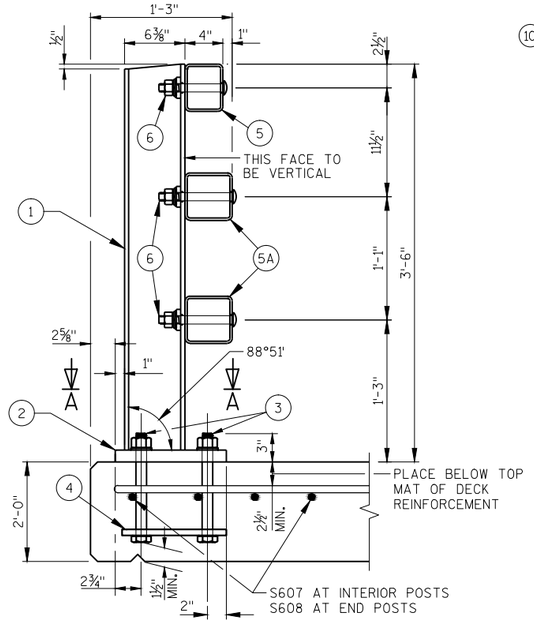
8

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-06-SUPERSTRUCTURE.DWG
LAYOUT : SUPERSTRUCTURE

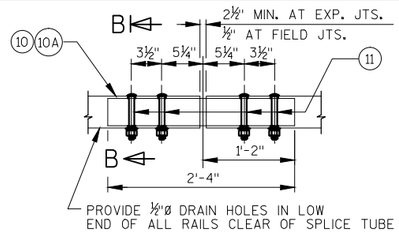
PLOT DATE : 2/7/2014
PLOT TIME : 9:43:13 AM

PLOT BY : BOLAND, PATRICK

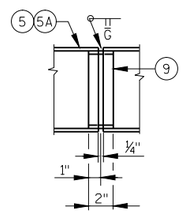
PLOT SCALE : 1" = 1'



SECTION THROUGH RAILING ON DECK

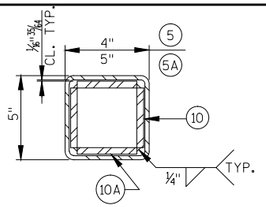


FIELD ERECTION JOINT DETAIL

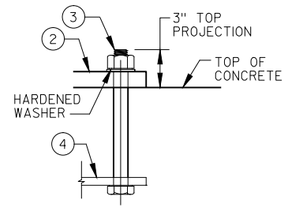


SHOP RAIL SPLICE DETAIL

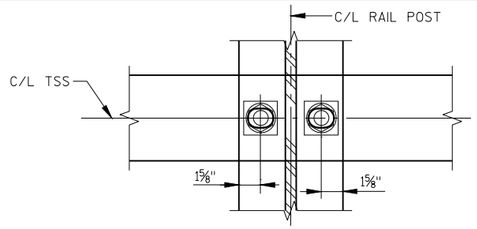
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



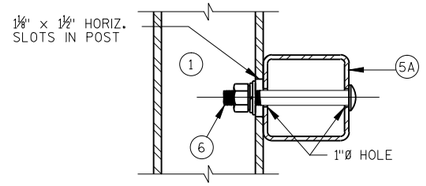
SECTION B-B



ANCHOR BOLTS



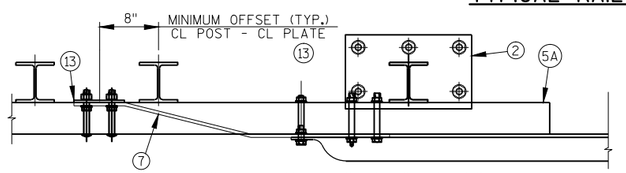
SECTION THRU POST WEB



SECTION THRU RAIL

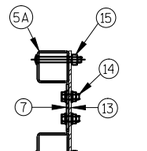
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

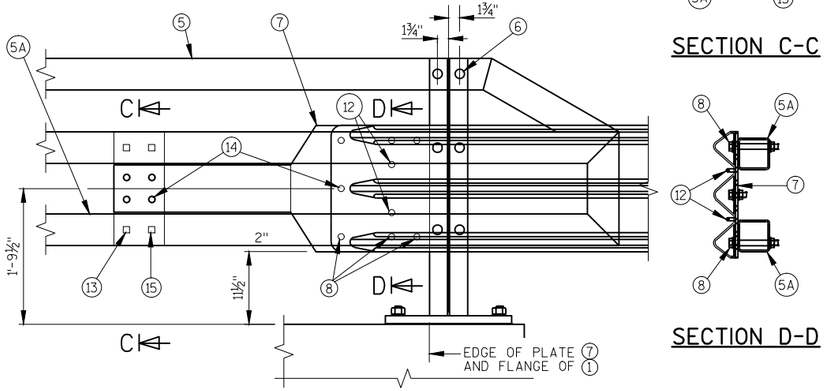


TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)



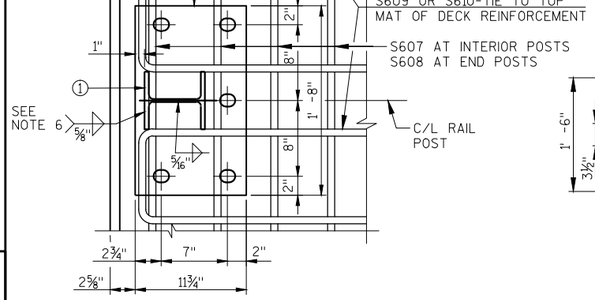
SECTION C-C



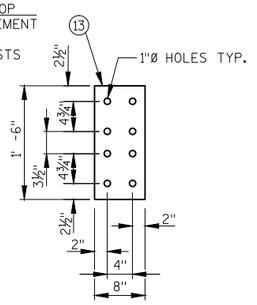
DETAIL AT END POST

(THRIE BEAM RAIL ATTACHMENT)

SECTION D-D

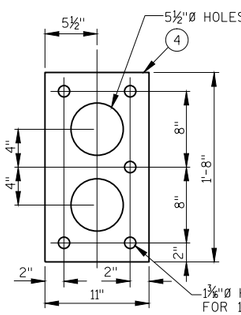


SECTION A-A



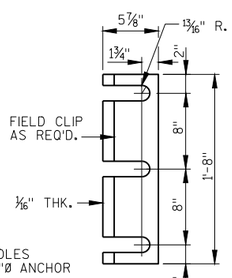
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

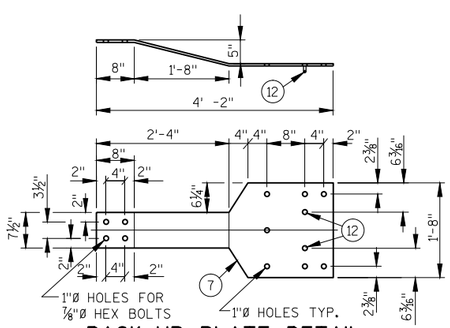


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

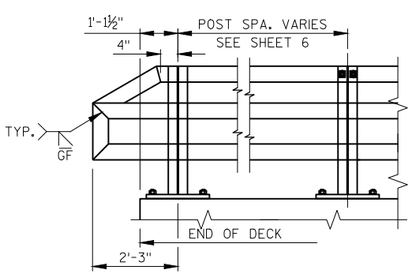


POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

STATE PROJECT NUMBER

5714-00-70

LEGEND

① W6x25 WITH 1⅛" x 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

② PLATE 1¼"x11¾"x1'-8" WITH 1⅝"x1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

③ ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS.

④ ⅝"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1³⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 3

⑤ TSS 5x4x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TSS 5x5x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ³⁄₁₆"x1⅝"x1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).

⑦ ½" THK. BACK-UP PLATE WITH 2 -⅞"x1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.

⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

⑨ SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

⑩ ⅜"x3⅝"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜"x2⅝"x2'-4" PLATE USED IN NO. 5, ⅜"x3⅝"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1⅝"x1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 1⅝"x2¾" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.

⑫ ⅞" DIA. BY 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

⑬ ⅜"x8"x1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

⑭ ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

⑮ 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-62-0040" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0040

DRAWN BY RBH | PLANS CK'D. PTB

TUBULAR RAILING TYPE M

SHEET 7 OF 7

8

8

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\STRUCTURE\CAD FILES\FINALS\K19190-07-TUBULAR RAILING TYPE M.DWG
LAYOUT : TUBULAR RAILING TYPE M

PLOT DATE : 2/7/2014
PLOT TIME : 9:43:17 AM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

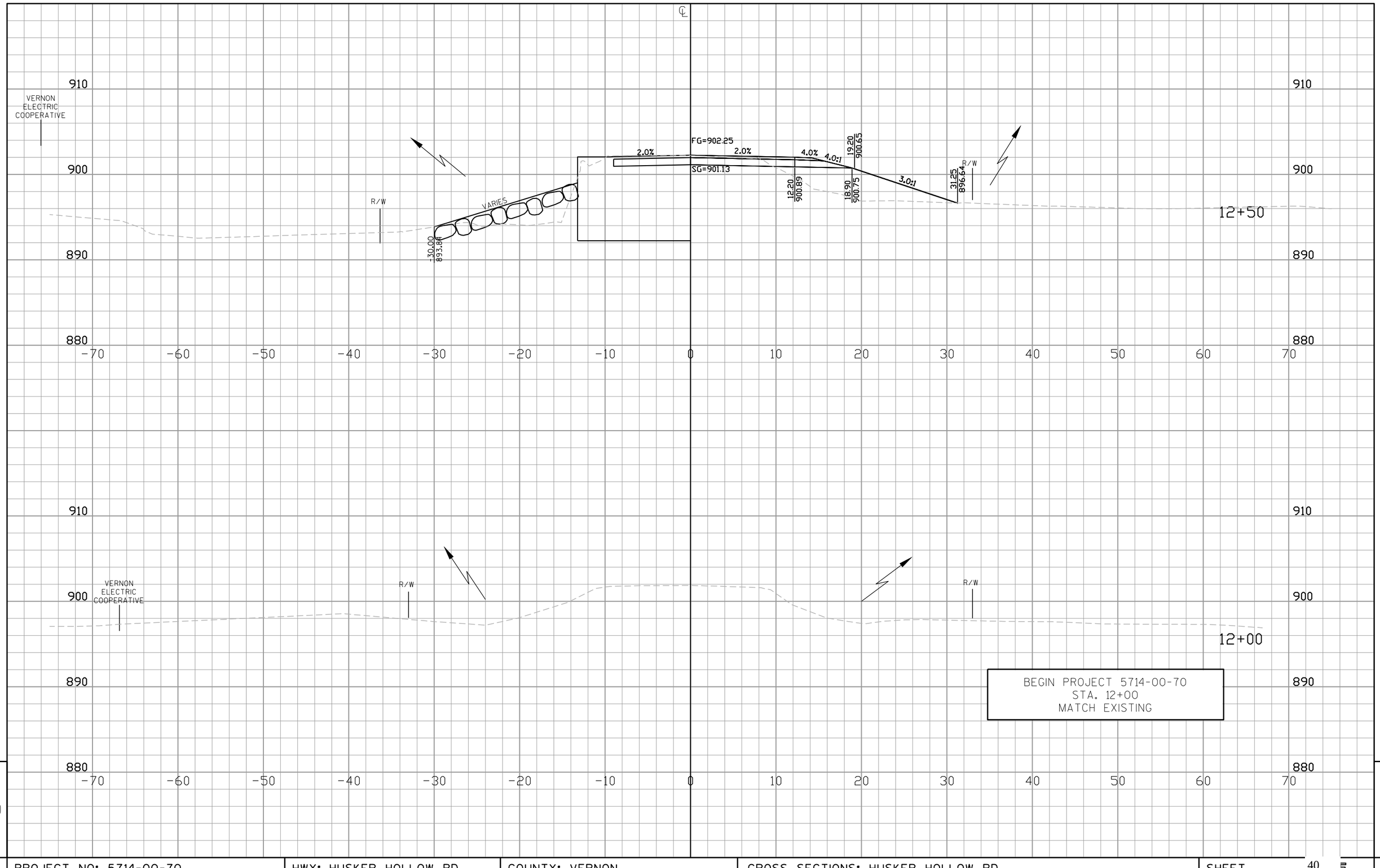
EARTHWORK-MAINLINE

STATION	AREA (SF) CUT	SALVAGED/ UNUSABLE PAV'T MATERIAL	FILL	MARSH EX	EBS	INCREMENTAL VOL (CY) CUT NOTE 1	SALVAGED/ UNUSABLE PAV'T MATERIAL NOTE 2	FILL NOTE 3	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%)	SELECT CRUSHED MATERIAL (1.5)	EBS	CUMMULATIVE VOLUME (CY) CUT 1.00 NOTE 1	FILL	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%) NOTE 5	SELECT CRUSHED MATERIAL (1.5)	EBS	MASS ORDINATE NOTE 6
12+00	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12+50	8	0	86	0	0	36	0	79	0	0	99	0	0	36	79	0	0	99	0	0	-63
12+54	10	0	95	0	0	1	0	13	0	0	17	0	0	37	92	0	0	116	0	0	-79
12+54	0	0	0	0	0	0	0	0	0	0	0	0	0	37	92	0	0	116	0	0	-79
12+99	0	0	0	0	0	0	0	0	0	0	0	0	0	37	92	0	0	116	0	0	-79
12+99	53	0	71	0	0	0	0	0	0	0	0	0	0	37	92	0	0	116	0	0	-79
13+00	53	0	71	0	0	2	0	3	0	0	3	0	0	39	95	0	0	119	0	0	-80
13+50	19	0	55	0	0	68	0	117	0	0	146	0	0	107	212	0	0	265	0	0	-158
14+00	15	0	79	0	0	32	0	124	0	0	155	0	0	139	336	0	0	420	0	0	-281
14+50	6	0	118	0	0	19	0	182	0	0	228	0	0	158	518	0	0	648	0	0	-490
15+00	2	0	167	0	0	7	0	264	0	0	330	0	0	165	782	0	0	978	0	0	-813
15+50	0	0	129	0	0	2	0	274	0	0	343	0	0	167	1056	0	0	1321	0	0	-1154
15+84	0	0	129	0	0	0	0	163	0	0	203	0	0	167	1219	0	0	1524	0	0	-1357
					COLUMN SUBTOTALS	167	0	1219	0	0	1524	0	0								

EARTHWORK-STH 82

STATION	AREA (SF) CUT	SALVAGED/ UNUSABLE PAV'T MATERIAL	FILL	MARSH EX	EBS	INCREMENTAL VOL (CY) CUT NOTE 1	SALVAGED/ UNUSABLE PAV'T MATERIAL NOTE 2	FILL NOTE 3	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%)	SELECT CRUSHED MATERIAL (1.5)	EBS	CUMMULATIVE VOLUME (CY) CUT 1.00 NOTE 1	FILL	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%) NOTE 5	SELECT CRUSHED MATERIAL (1.5)	EBS	MASS ORDINATE NOTE 6
20+00	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20+39	8	0	4	0	0	9	0	3	0	0	3	0	0	9	3	0	0	3	0	0	6
20+83	16	0	49	0	0	20	0	43	0	0	54	0	0	29	46	0	0	57	0	0	-28
20+83	0	0	0	0	0	0	0	0	0	0	0	0	0	29	46	0	0	57	0	0	-28
21+81	0	0	0	0	0	0	0	0	0	0	0	0	0	29	46	0	0	57	0	0	-28
21+81	5	0	47	0	0	0	0	0	0	0	0	0	0	29	46	0	0	57	0	0	-28
22+12	5	0	28	0	0	5	0	43	0	0	54	0	0	34	89	0	0	111	0	0	-77
22+59	5	0	0	0	0	9	0	24	0	0	30	0	0	43	113	0	0	141	0	0	-98
					COLUMN SUBTOTALS	43	0	113	0	0	141	0	0								
					MAINLINE TOTALS	167	0	1219	0	0	1524	0	0	167	1219	0	0	1524	0	0	-1357
					STH 82 TOTALS	43	0	113	0	0	141	0	0	210	1332	0	0	1665	0	0	-1455
					(P.E.), STA. 14+09. LT.	10	0	12	0	0	15	0	0	220	1344	0	0	1680	0	0	-1460
					COLUMN TOTALS =	220	0	1344	0	0	1680	0	0								

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - REDUCED MARSH IN FILL	REDUCED MARSH THAT CAN BE USED IN FILL
5 - FILL (25%)	FILL 25%: (FILL -REDUCED MARSH IN FILL)*1.25
6 - MASS ORDINATE	(CUT - FILL (25%))



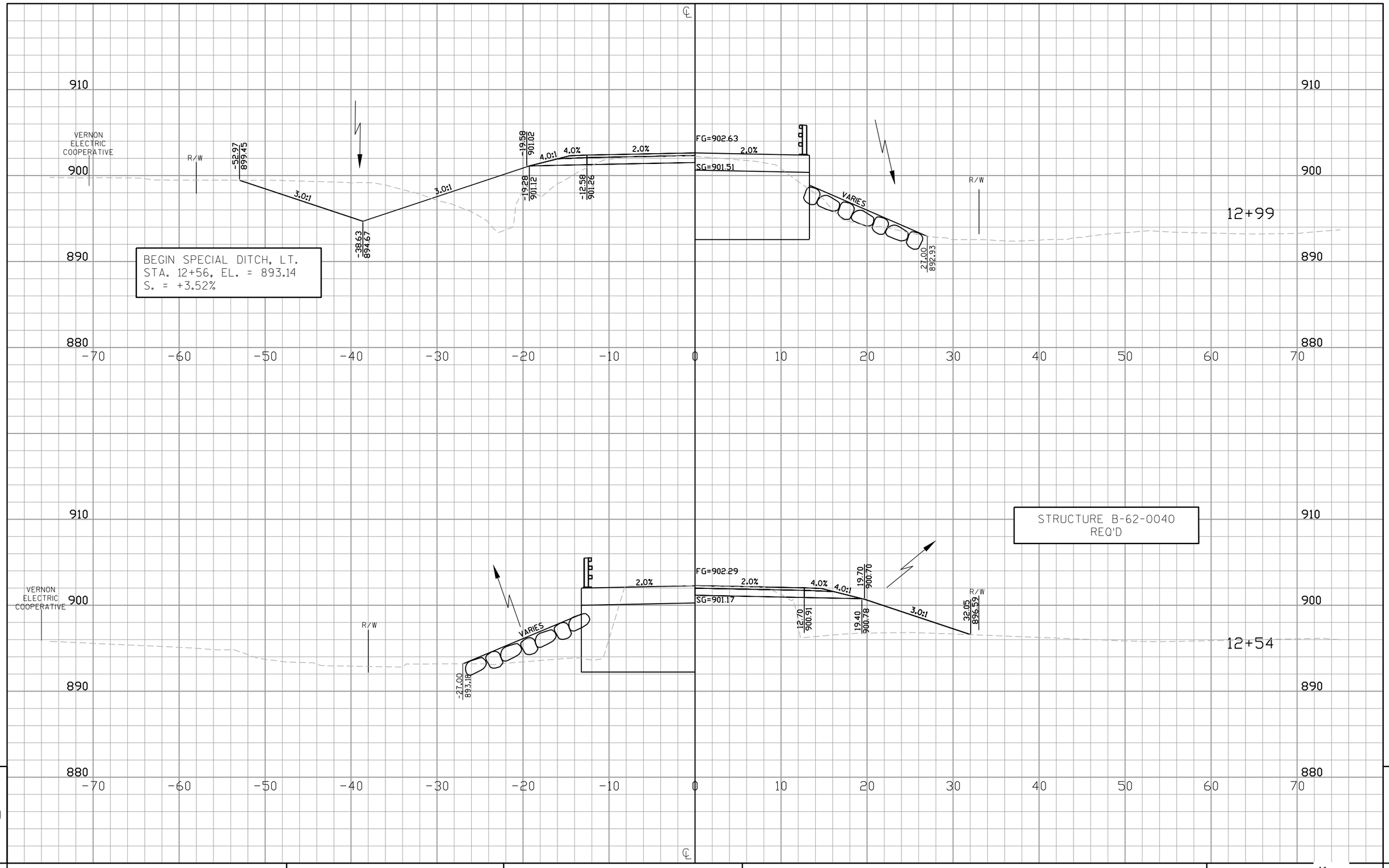
PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 40

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL

PLOT DATE : 12/4/2013
PLOT TIME : 2:42:23 PM

PLOT BY : STRINE, THERESA

PLOT SCALE : 0.006376



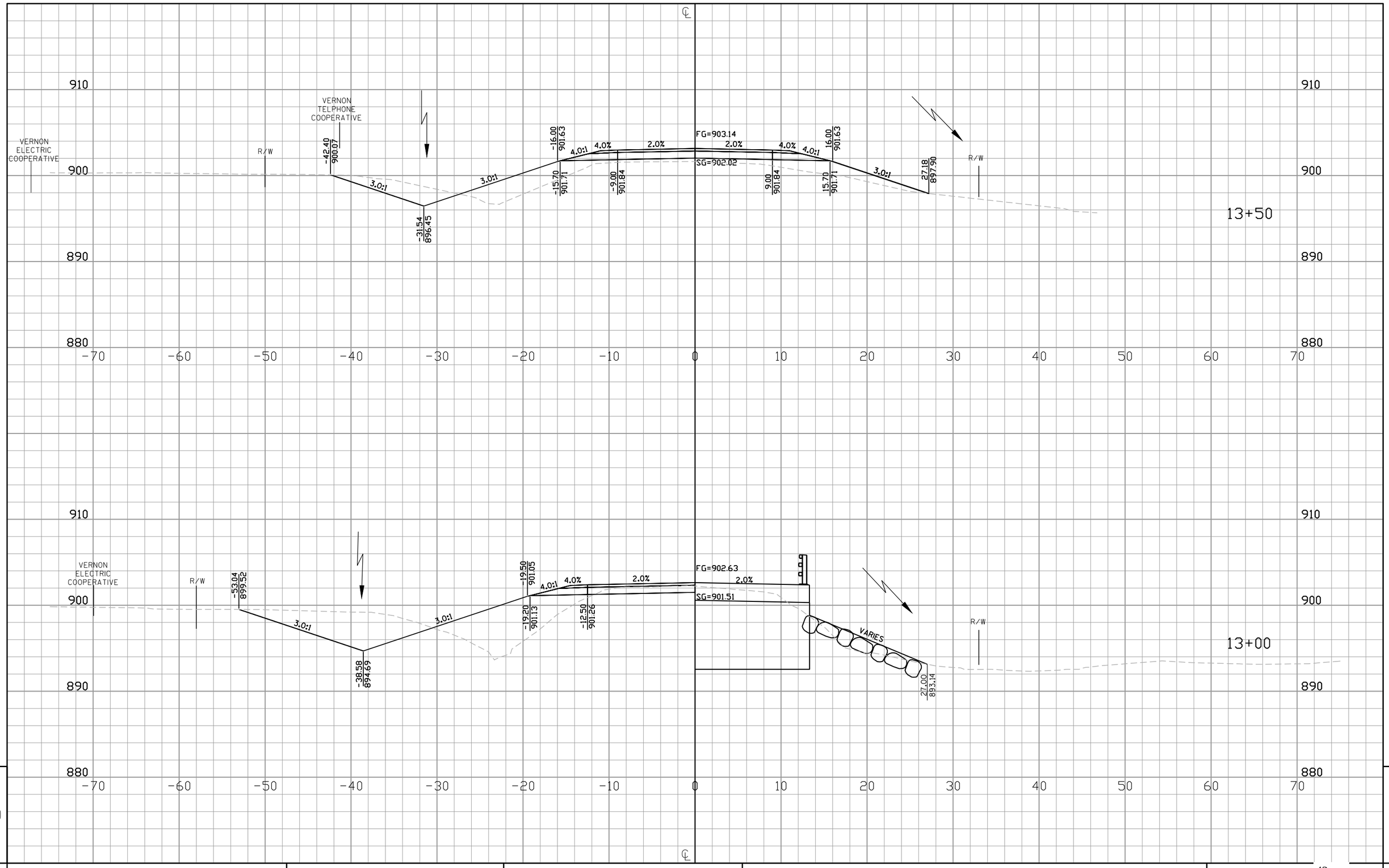
PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 41

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL

PLOT DATE : 12/4/2013
PLOT TIME : 2:46:34 PM

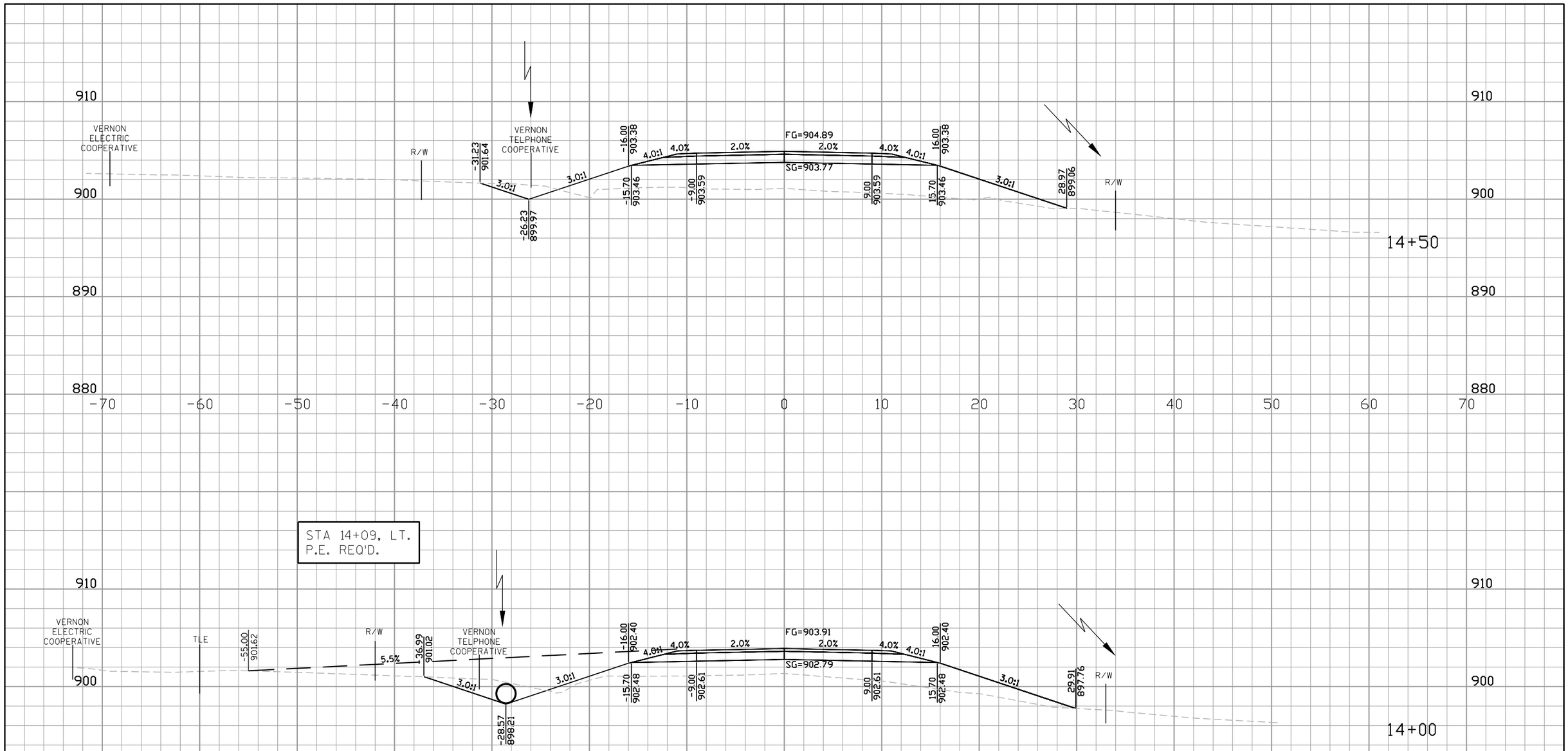
PLOT BY : STRINE, THERESA

PLOT SCALE : 0.006376



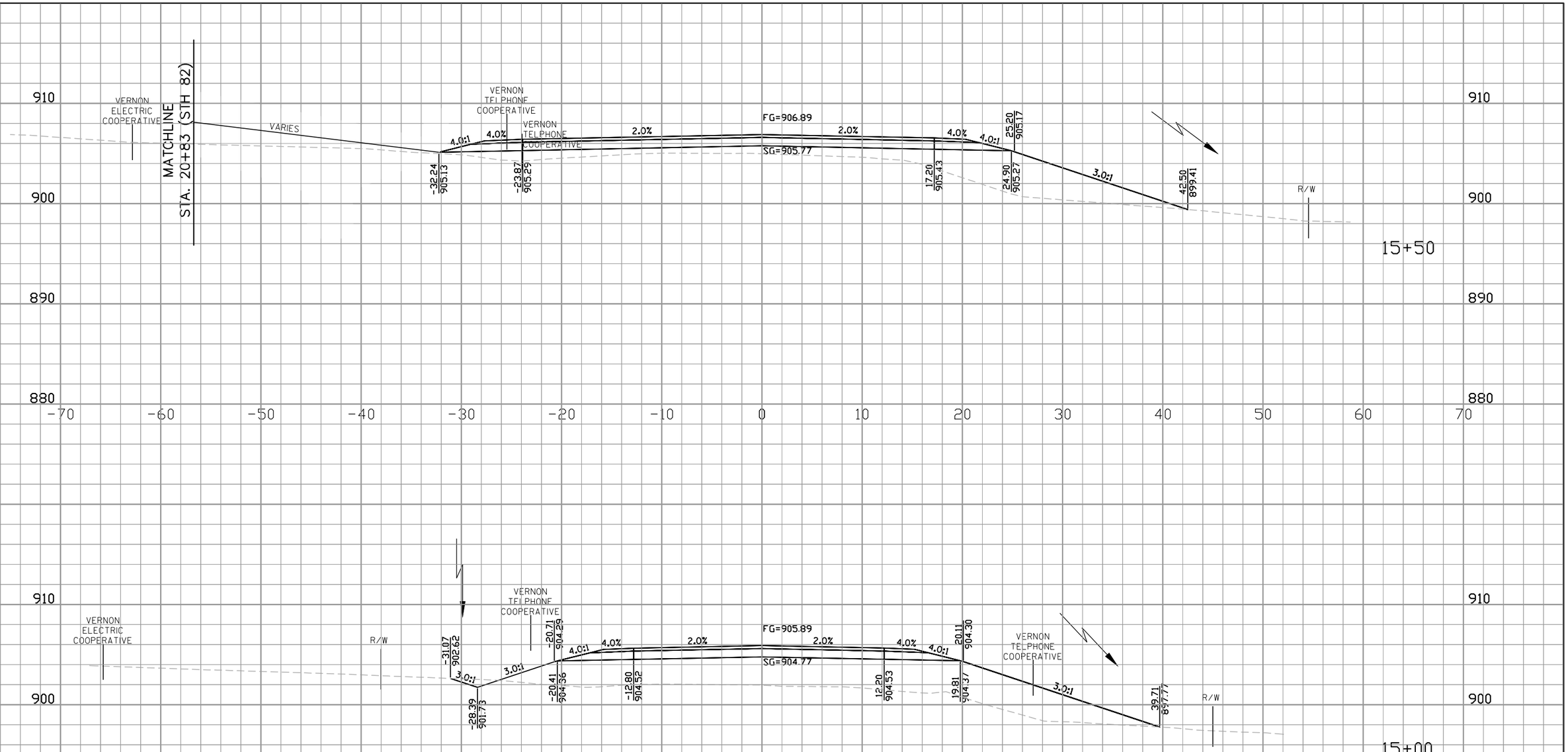
PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 42

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL
PLOT DATE : 12/4/2013
PLOT TIME : 2:52:27 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 0.006376



PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 43

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL
PLOT DATE : 12/4/2013
PLOT TIME : 2:54:03 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 0.006376



PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 44

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL
PLOT DATE : 12/13/2013
PLOT TIME : 10:04:52 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 0.006376

END PROJECT 5714-00-70
STA. 15+84
MATCH EXISTING

VERNON ELECTRIC COOPERATIVE

VERNON TELPHONE COOPERATIVE

15+83

920
910
900
890
880

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: HUSKER HOLLOW RD	SHEET 45

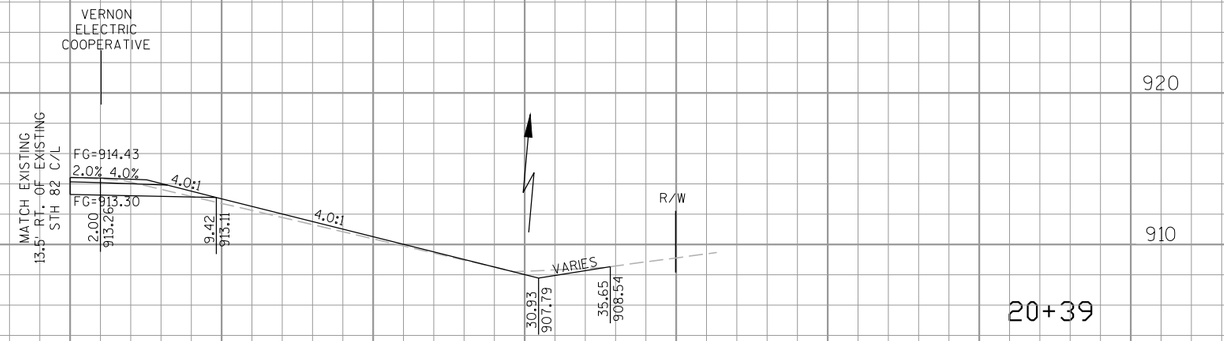
FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_DESIGN2.DWG
LAYOUT : MODEL

PLOT DATE : 10/17/2013
PLOT TIME : 4:01:13 PM

PLOT BY : SCHAFFER, ELLERY

PLOT SCALE : 0.006376

END SPECIAL DITCH, RT.
STA. 21+01, EL. = 901.73



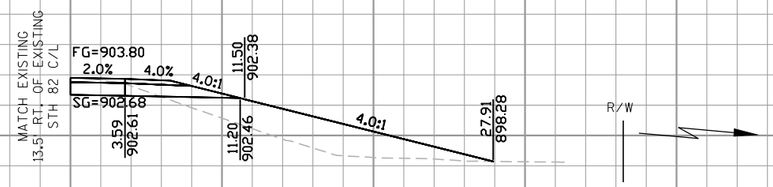
BEGIN CONSTRUCTION
STA. 20+00
MATCH EXISTING

BEGIN SPECIAL DITCH, RT.
STA. 20+00, EL. = 910.61
S. = -6.54%

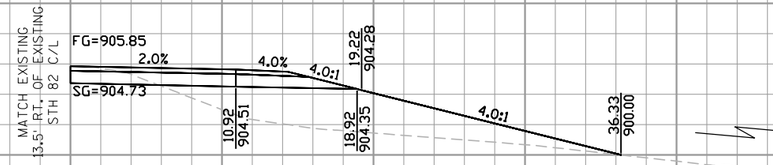
PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 46

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_FOR EARTHWORK QUANTITY.DWG
LAYOUT : MODEL
PLOT DATE : 1/23/2014
PLOT TIME : 8:03:47 AM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1 IN:10 FT

END CONSTRUCTION
STA. 22+58.60
MATCH EXISTING



22+12



21+81

910 900 890 880

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

PROJECT NO: 5714-00-70	HWY: HUSKER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: STH 82	SHEET 47

FILE NAME : S:\PROJECTS\K19190 HUSKER HOLLOW ROAD\DESIGN\K19190_FOR EARTHWORK QUANTITY.DWG
LAYOUT : MODEL

PLOT DATE : 12/12/2013
PLOT TIME : 11:02:23 AM

PLOT BY : SCHAFFER, ELLERY

PLOT SCALE : 1 IN:10 FT

Wisconsin Department of Transportation

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through innovation and exceptional service.

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