SUP

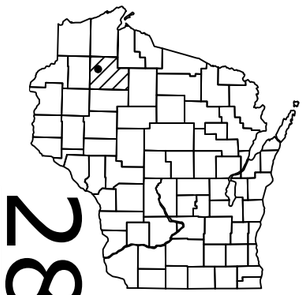
PROJECT ID: 8520-01-74

COUNTY: SAWYER

DEC 2015

ORDER OF SHEETS

TOTAL SHEETS = 70



28

N

DESIGN DESIGNATION

A.A.D.T.	2016	= 3400
A.A.D.T.	2036	= 4600
D.H.V.		= 630
D.D.		= 61/39
T.		= 19.1
DESIGN SPEED		= 60 MPH
ESALS		= 170,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HAYWARD - CLAM LAKE

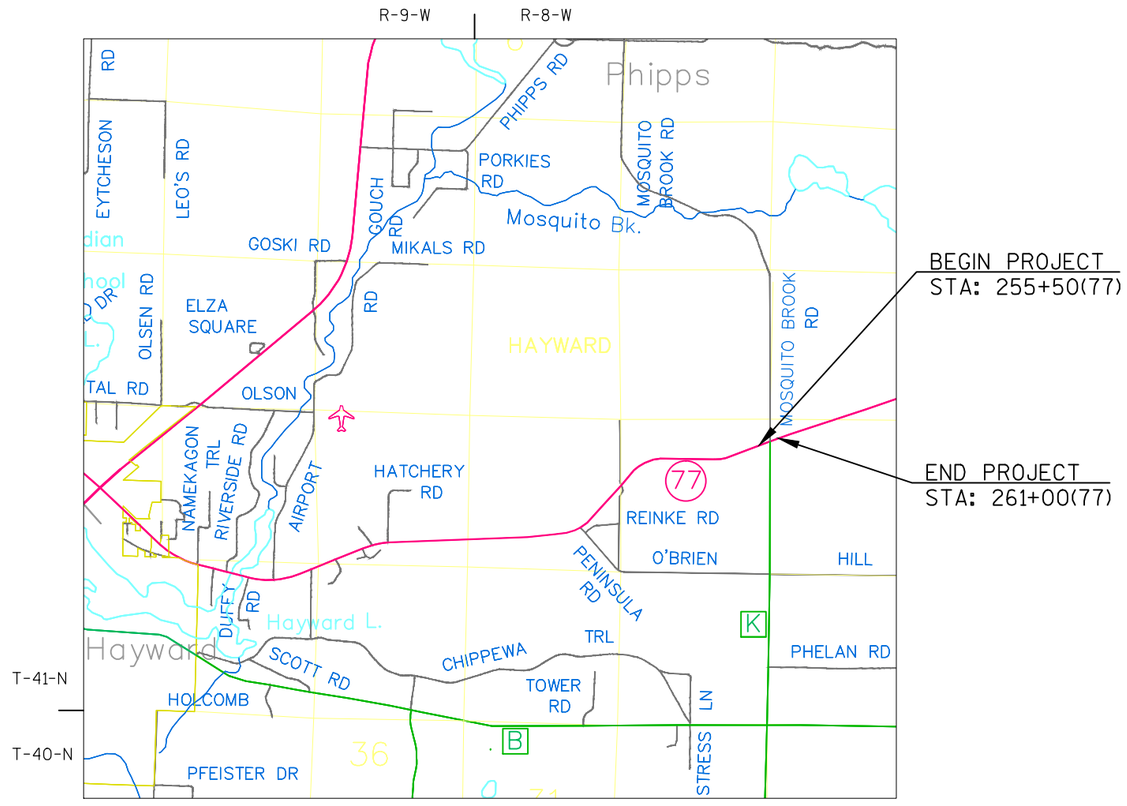
CTH K / MOSQUITO BROOK ROAD INTERSECTION

STH 77

SAWYER COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8520-01-74	WISC 2015658	1

STATE PROJECT NUMBER
8520-01-74



LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.17 MILES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SURVEYOR
Designer	TRAVIS JENSEN
Project Manager	PHILLIP KEPPERS
Regional Examiner	DAN OJIBWAY
Regional Supervisor	DAVID OSTROWSKI

APPROVED FOR THE DEPARTMENT

DATE: 7/24/2015 Philip L. Keppers (Signature)

E

FILE NAME : N:\PDS\C3D\85200104\SHEETSPLAN\85200104_TITLE.DWG PLOT DATE : 7/6/2015 4:38 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME :

WISDOT/CADDS SHEET 10

COMMON ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

DNR CONTACT
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
NORTHWEST REGION
810 WEST MAPLE STREET
SPOONER, WI 54801
ATTN: SHAWN HASELEU
(715) 635-4228

DESIGN CONTACT
WISCONSIN DEPARTMENT OF TRANSPORTATION
NORTHWEST REGION
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
ATTN: TRAVIS JENSEN
(715) 395-3025

REGION CONTACT
WISCONSIN DEPARTMENT OF TRANSPORTATION
NORTHWEST REGION
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
ATTN: PHIL KEPPERS
(715) 395-3027

COUNTY CONTACT
SAWYER COUNTY HIGHWAY DEPARTMENT
14688 W COUNTY ROAD B
HAYWARD, WI 54843
ATTN: GARY GEDART, HIGHWAY COMMISSIONER
(715) 634-2691

SURVEY CONSULTANT CONTACT
GREMMER & ASSOCIATES, INC.
120 WILSHIRE BOULEVARD NORTH
STEVENS POINT, WI 54481
(715) 341-4363

UTILITIES

	UTILITY OR MUNICIPALITY	ADDRESS	CONTACT	UTILITY TYPE
*	CENTURYLINK	425 ELLINGSON AVE, HAWKINS, WI 54530	BRIAN HUHN (715) 532-0023 BRIAN.HUHN@CENTURYLINK.COM	COMMUNICATION LINE
*	NORVADO	43750 USH 63, P.O. BOX 67, CABLE, WI 54821	GUY FOLSOM (715) 580-8123, GFOLSOM@NORVADO.COM	COMMUNICATION LINE
*	JUMP RIVER ELECTRIC	13895 COUNTY RD B HAYWARD, WI 54843	SAM HOWARD (715) 415-0539 SHOWARD@JREC.NET	ELECTRIC
*	XCEL ENERGY	2911 S PIONEER AVE, RICE LAKE, WI 54868	STACEY HAUGEN (715) 236-5721	ELECTRIC
*	MEMBER OF DIGGERS HOTLINE			

GENERAL NOTES

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

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT FOR AREAS WITHIN FINISHED SHOULDER POINT, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER. SEED MIXTURE NO. 20 SHALL BE USED THROUGHOUT THE PROJECT.

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. THE LOCATION OF EBS SHALL BE DETERMINED BY THE ENGINEER.

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

SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

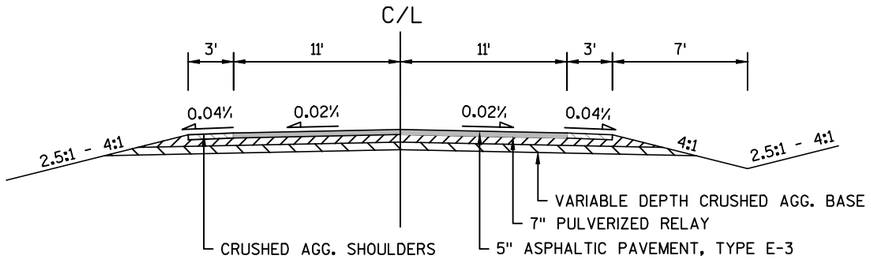
A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

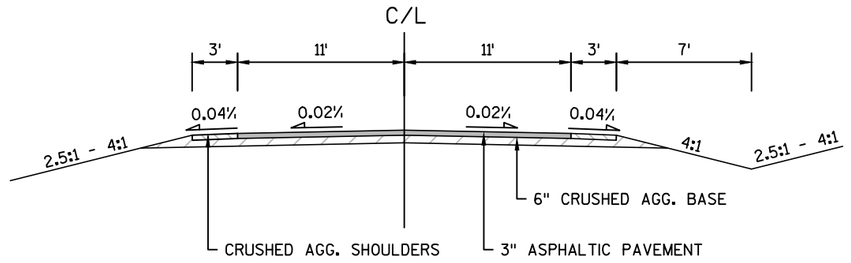
OTHER WETLANDS MAY EXIST IN LOCATIONS THAT ARE NOT SHOWN ON THE PLANS. DO NOT STAGE IN OR DISTURB WETLAND AREAS.

CONSTRUCTION PERMITS FOR DRIVEWAY CONSTRUCTION HAVE BEEN OBTAINED AND SUCH RIGHTS WILL BE EXTENDED TO THE CONTRACTOR.

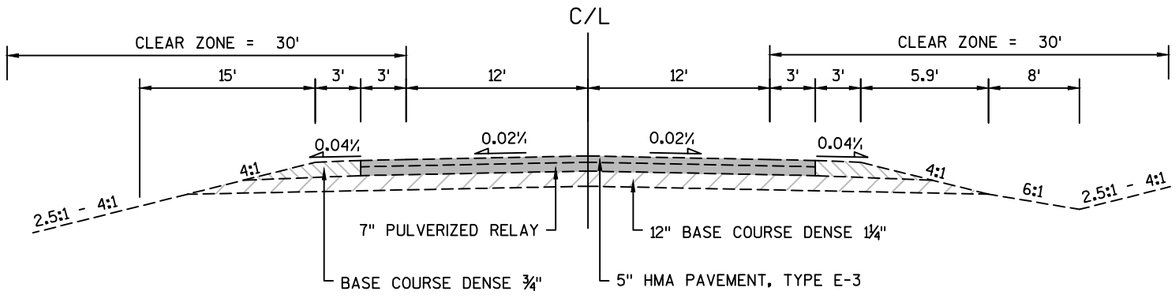
VERTICAL DATUM ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NGVD88(2012).



CTH K EXISTING TYPICAL SECTION
EXISTING STA: 2+69 - 7+99



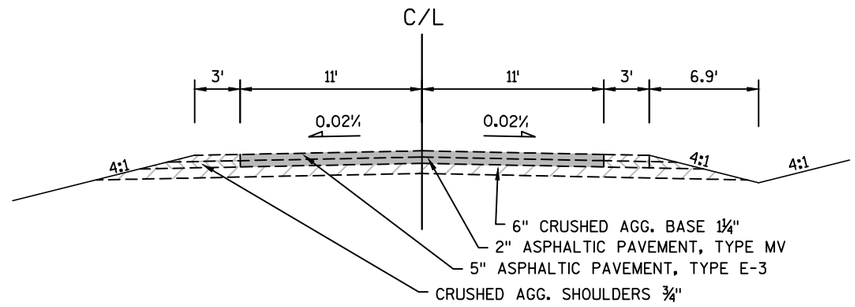
CTH K EXISTING TYPICAL SECTION
EXISTING STA: 7+99 - 9+99



HALF SECTION IN FILL

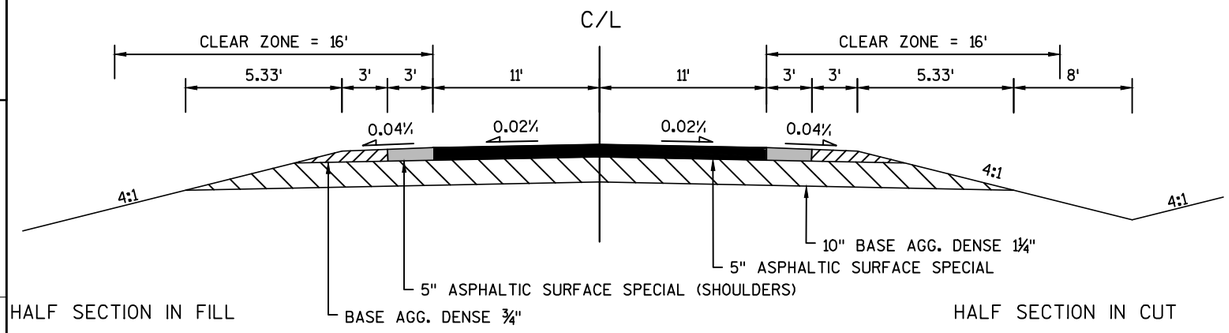
HALF SECTION IN CUT

STH 77 EXISTING TYPICAL SECTION

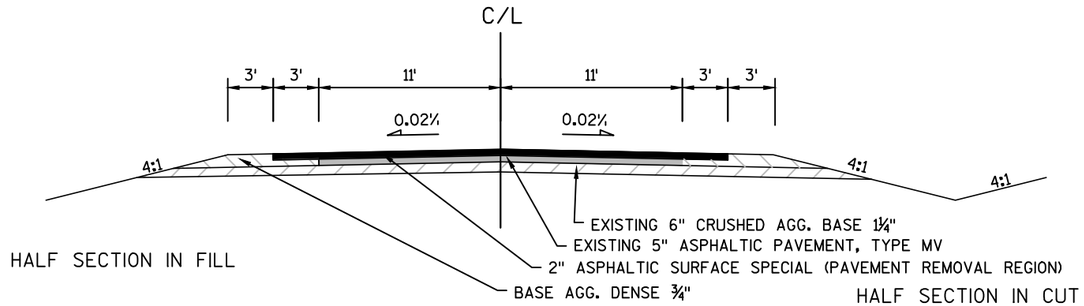


MOSQUITO BROOK ROAD EXISTING TYPICAL SECTION

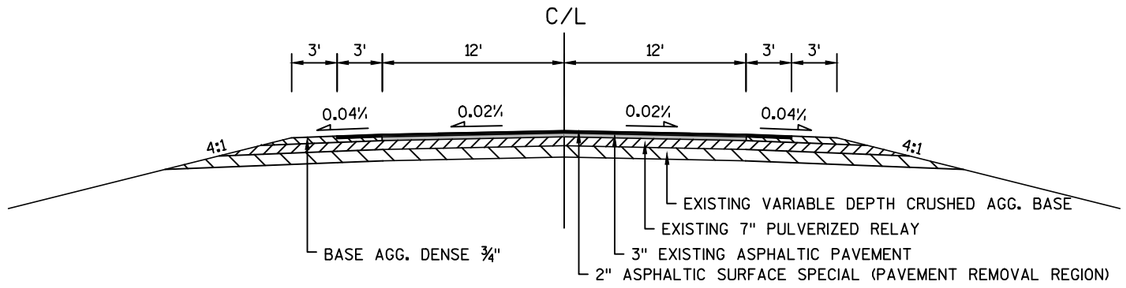
PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	TYPICAL SECTIONS	SHEET 3	E



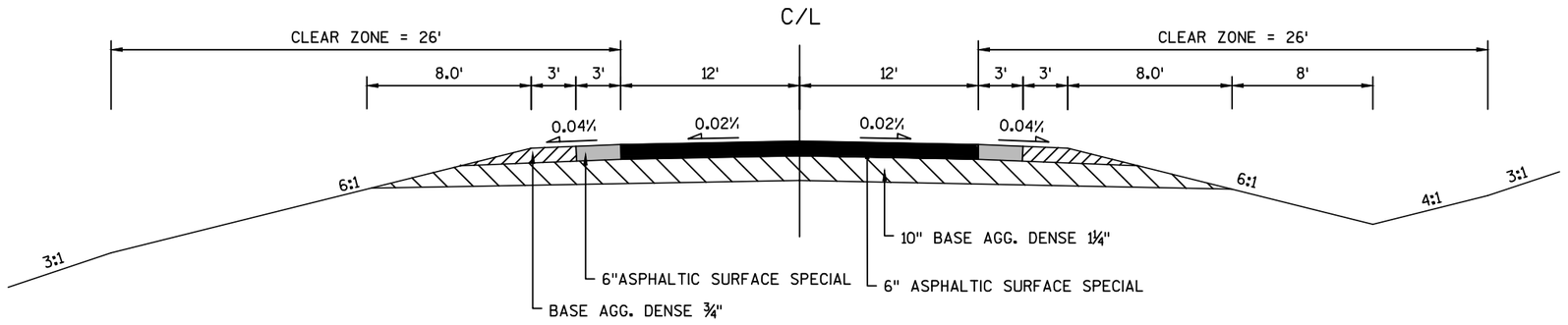
MOSQUITO BROOK ROAD TYPICAL PROPOSED SECTION
STA 10+00 - 11+43.40



MOSQUITO BROOK ROAD TYPICAL PROPOSED SECTION
STA 11+43.40 - 12+28 (PAVING TRANSITION AREA)

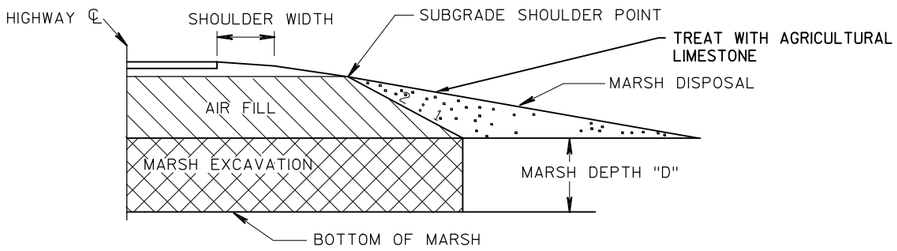


CTH K TYPICAL PROPOSED SECTION
STA: 10+59 - 11+55
(PAVING TRANSITION AREA)

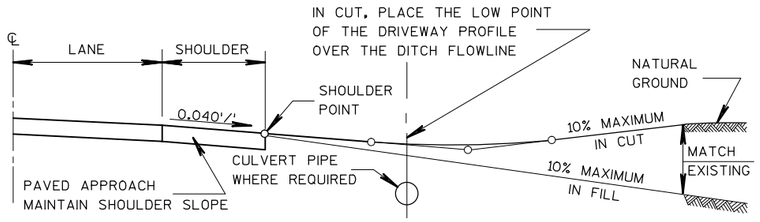


CTH K TYPICAL PROPOSED SECTION
STA: 11+55 - 17+35

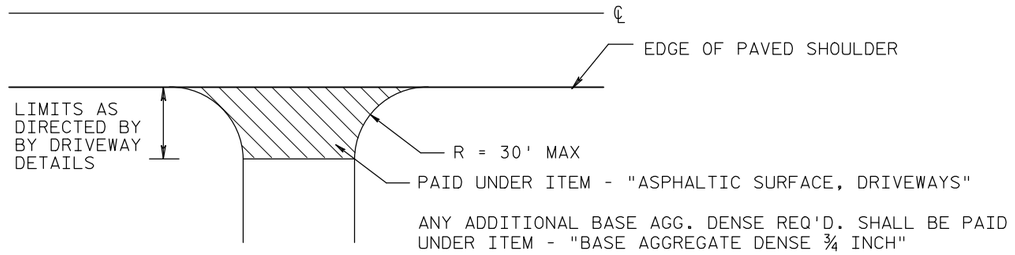
PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	TYPICAL SECTIONS	SHEET 4	E



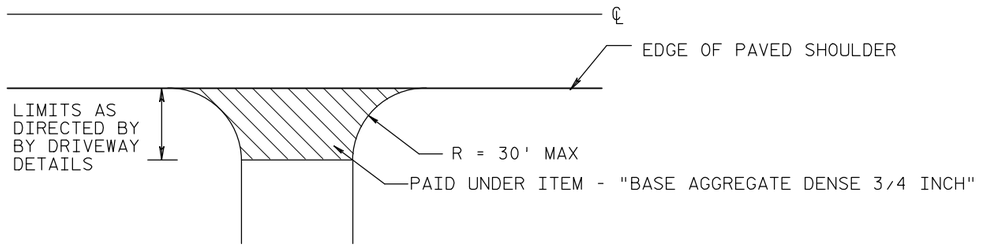
TYPICAL MARSH EXCAVATION



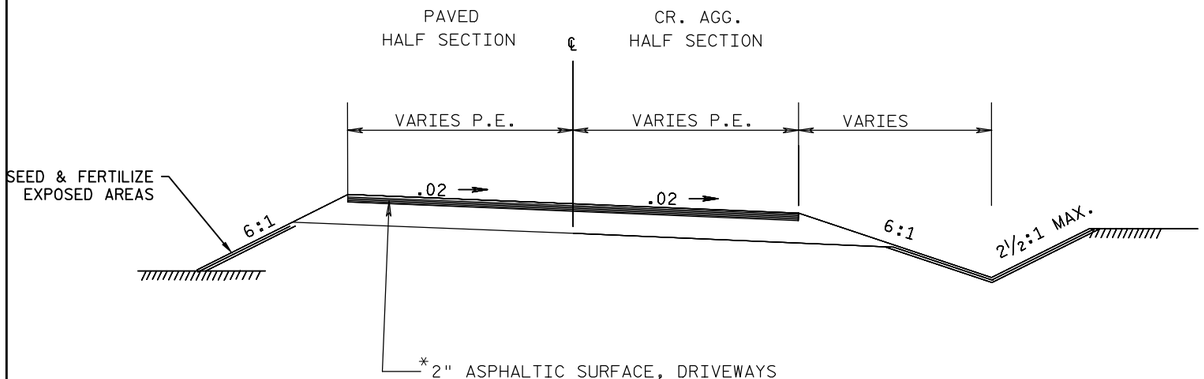
TYPICAL DRIVEWAY PROFILES



RURAL DRIVEWAY DETAIL - ASPHALT



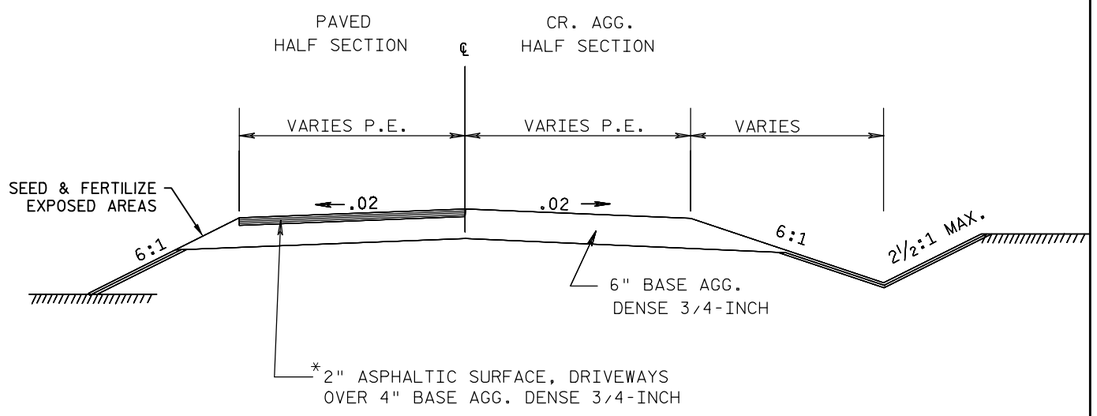
RURAL DRIVEWAY DETAIL - GRAVEL



NOTE: WHOLE DRIVEWAY WIDTH SLOPES TOWARD STH 77 AT 2.0%

*OR MATCH EXIST. ASPH. DEPTH

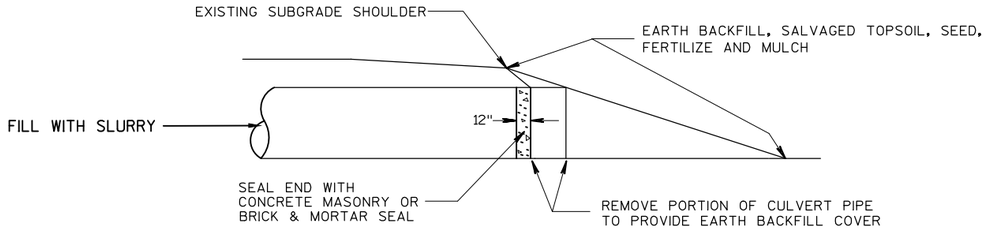
TYPICAL SECTION
FOR PRIVATE ENTRANCES
MBR STA: 11+00



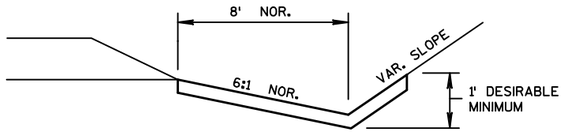
*OR MATCH EXIST. ASPH. DEPTH

TYPICAL SECTION
FOR PRIVATE ENTRANCES
CTH K STA: 14+75R
CTH K STA: 15+00L

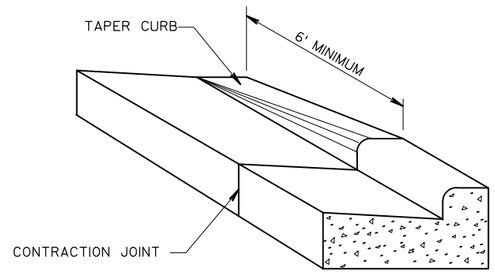
PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CONSTRUCTION DETAILS	SHEET 5	E



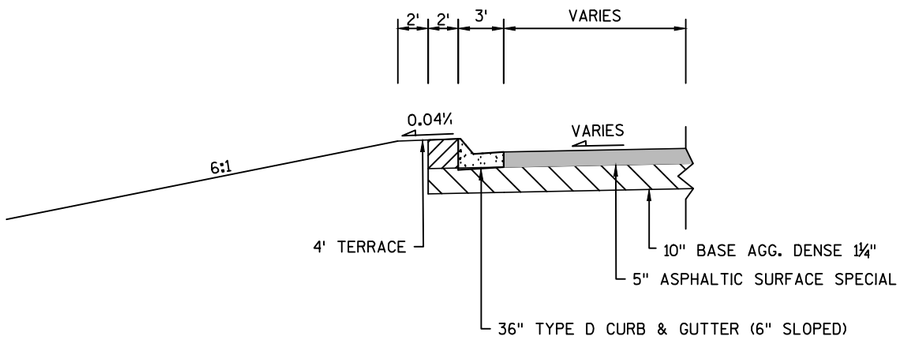
ABANDONING CULVERT PIPE SPECIAL



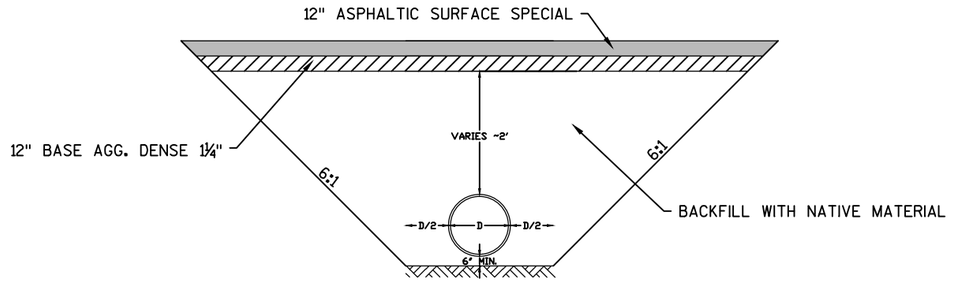
EROSION MAT DETAIL FOR DITCHES
CLASS II, TYPE C



DETAIL OF CURB & GUTTER TERMINI

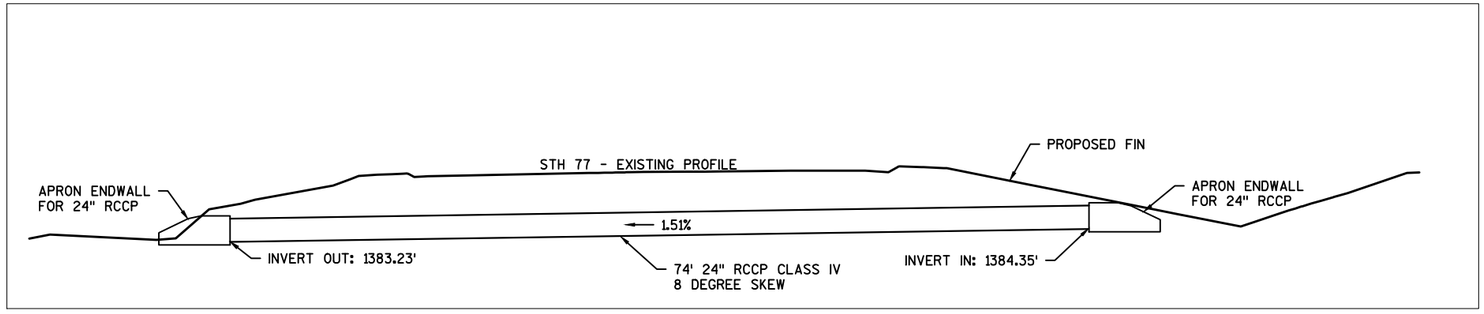


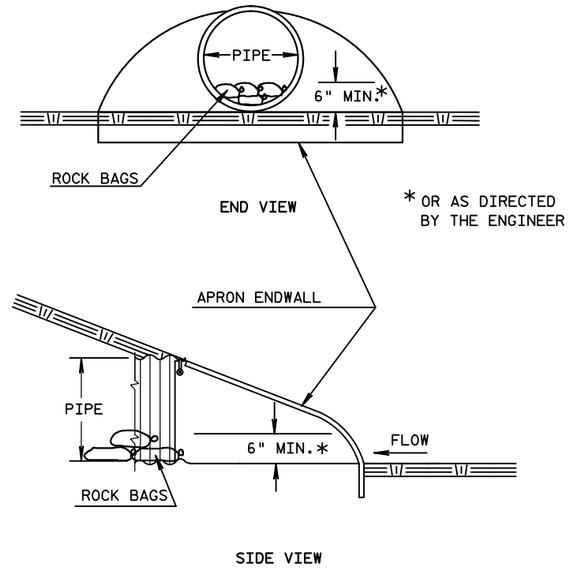
TYPICAL SECTION FOR SLOPE TREATMENT
BEHIND CURB & GUTTER



CULVERT PIPE INSTALLATION DETAIL

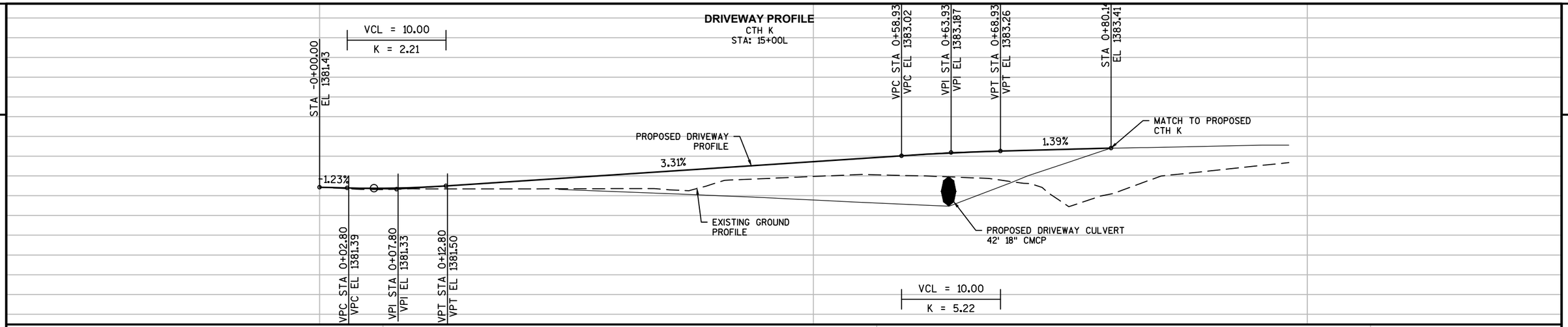
PIPE CULVERT
STA: 258+80 (STH 77)

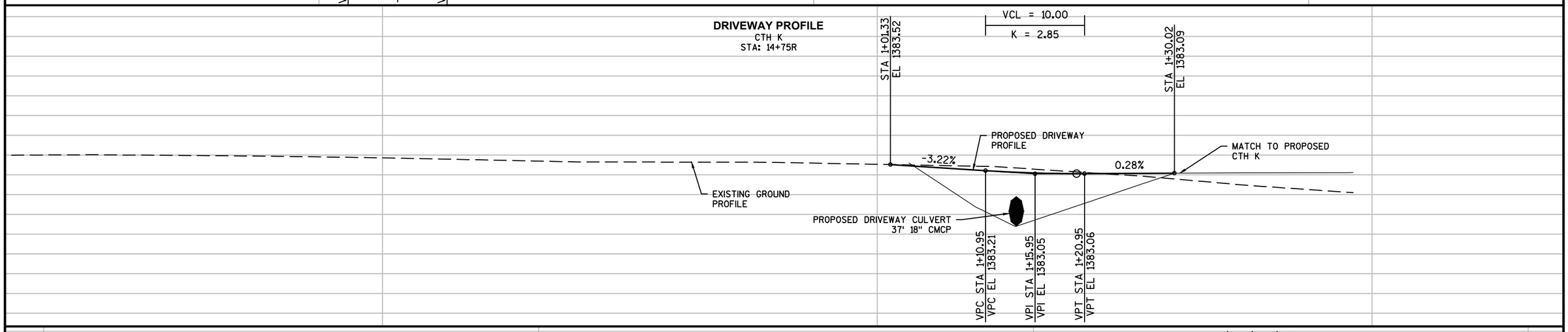


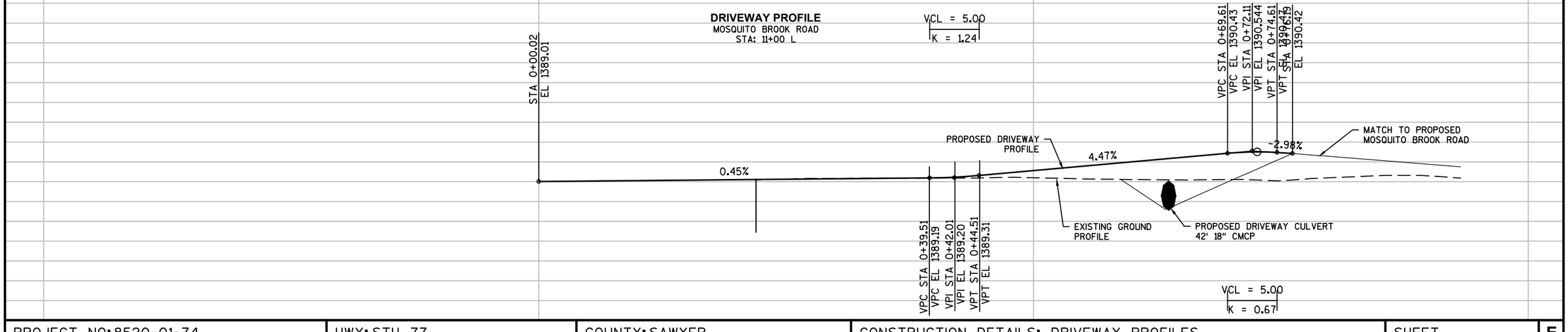


CULVERT PIPE CHECK

2







PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CONSTRUCTION DETAILS: DRIVEWAY PROFILES	SHEET 7	E

N

CONTROL POINTS & BENCHMARKS				
POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION (FT)
10	MAG NAIL AT WEST EDGE OF ASPHALT OF CTH K, 560'± SOUTH OF STH 77	440932.8230	643053.9880	1377.3700
11	MAG NAIL IN NE RADUS GORE AREA OF STH 77 / MOSQUITO BROOK ROAD INTERSECTION, 16' EAST AND 33' NORTH OF CENTERLINES	441544.4780	643072.8500	1388.7500
12	MAG NAIL AT EAST EDGE OF ASPHALT OF MOSQUITO BROOK ROAD, 520'± NORTH OF STH 77	442023.4430	643058.0720	1398.4800
13	8" TIMBER SPIKE ON SOUTH SIDE STH 77, 9' SOUTH OF EDGE OF ASPHALT AT EAST SIDE OF GRAVEL DRIVEWAY TO #13831 W, 460'± WEST OF CTH K	441310.9520	642646.6150	1387.6400
14	8" TIMBER SPIKE ON NORTH SIDE OF STH 77, AT TOP OF SLOPE, 400'± EAST OF MOSQUITO BROOK ROAD	441708.0710	643419.7180	1396.1200
15	MAG NAIL AT EAST EDGE OF ASPHALT OF CTH K, 80'± SOUTH OF DRIVEWAY TO #N10828N, 330'± SOUTH OF STH 77	441169.9970	643074.3290	1378.9500
BM A	60D SPIKE IN WHITE PINE 250'± EAST OF STH 77/CTH K INTERSECTION AND 75'± SOUTH OF STH 77 CENTERLINE	NA	NA	1392.4100
BM B	60D SPIKE IN WHITE PINE 225'± WEST OF STH 77/CTH K INTERSECTION AND 50'± NORTH OF STH 77 CENTERLINE	NA	NA	1387.9700

13
STH 77
PLANTER
MOUND
MOUND
BM B
WALL
PLANTER
FENCE
PLANTER
PE
PLANTER
PE
PE
10
CTH K
15
11
MOSQUITO BROOK ROAD
12
BOG
BOG
PE
STANDING WATER
BM A
14
STH 77

5 5

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CONSTRUCTION DETAILS: CONTROL POINTS & BENCHMARKS	SHEET 8	E

FILE NAME : N:\PDS\C3D\85200104\SHEETSPLAN\85200104_CONTROL-BM.DWG
LAYOUT NAME - CONTROL-BENCHMARKS
PLOT DATE : 7/6/2015 4:43 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:100_XREF

2

SILT FENCE
SLOPE INTERCEPT
WETLAND
EROSION BALES
SEED (MIXTURE 20), FERTILIZE (TYPE B), & MULCH
INSTALL 18" CMCP (27') & 2 AEW
CULVERT PIPE CHECK
EROSION MAT CLASS II, TYPE C
DITCH CHECK
EXISTING ROW
STH 77
RWGP
MOSQUITO BROOK ROAD
ASPHALTIC PAVEMENT
11+00
12+00
13+00
14+00
15+00
16+00
17+00
CTH K
ABANDON EXISTING 24" CMCP
CULVERT PIPE DITCH CHECK
INSTALL 24" RCCP (74') & 2 AEW
INSTALL 18" CMCP (18') & 2 AEW
SILT FENCE
WETLAND
EROSION MAT CLASS II, TYPE C
CULVERT PIPE CHECK
DITCH CHECK
SLOPE INTERCEPT
SEED (MIXTURE 20), FERTILIZE (TYPE B), & MULCH
EROSION BALES
STH 77

2

EROSION MAT CLASS II, TYPE C
INSTALL 18" CMCP (21') & 2 AEW
CULVERT PIPE CHECK
SLOPE INTERCEPT
EXISTING ROW
SEED (MIXTURE 20), FERTILIZE (TYPE B), & MULCH
STH 77
RWGP
MOSQUITO BROOK ROAD
ASPHALTIC PAVEMENT
11+00
12+00
16+00
17+00
CTH K
ABANDON & FILL EXISTING 24" CMCP
EROSION MAT CLASS II, TYPE C
SLOPE INTERCEPT
SEED (MIXTURE 20), FERTILIZE (TYPE B), & MULCH
INSTALL 24" RCCP (74') & 2 AEW
CULVERT PIPE CHECK
EXISTING ROW
STH 77

LEGEND

- SEED & MULCH
- EROSION MAT - CLASS II, TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	EROSION CONTROL	SHEET 9	E

FILE NAME : N:\PDS\C3D\85200104\SHEETSPLAN\85200104_EC.DWG
LAYOUT NAME - PLAN DBL 1 IN 50 FT

PLOT DATE : 7/6/2015 4:52 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1" = 50'_XREF

WISDOT/CADDS SHEET 44

2

LEGEND

EXISTING SIGN (TO BE REMOVED)

PROPOSED SIGN

Ⓐ PAVEMENT MARKING EPOXY 4-INCH, YELLOW

Ⓑ PAVEMENT MARKING EPOXY 4-INCH, YELLOW SKIP, 12 ½' SEG., 37 ½' GAP

Ⓒ PAVEMENT MARKING EPOXY 4-INCH, WHITE

Ⓓ PAVEMENT MARKING EPOXY 4-INCH, WHITE SKIP, 3' SEG., 9' GAP

Ⓔ PAVEMENT MARKING EPOXY 18-INCH, WHITE, STOP BAR

N

W14-3
48"X36"
NO PASSING ZONE

R2-1
24"X30"
SPEED LIMIT 55

MOVE SIGN

I55-56
30"X36"

M1-5A
24"X24"
COUNTY K

EXISTING TO REMAIN
CASING 2 MILES
PROP REPAIR

J4-1
24"X36"
WEST 77

EXISTING TO REMAIN

R1-1
36"X36"
STOP

MOVE AND INSTALL
EXISTING SIGN & POST

MOSQUITO BROOK RD

MOSQUITO BROOK ROAD

J12-1
24"X45"
COUNTY K

R2-1
24"X30"
SPEED LIMIT 45

J12-1
24"X45"
COUNTY K

R1-1
36"X36"
STOP

J12-1
24"X45"
77

J4-1
24"X36"
EAST 77

I55-56
30"X36"

MOVE SIGN

W3-1
36"X36"

PLACE SIGN 750' IN ADVANCE OF STOP SIGN

W1-4R
30"X30"

PLACE SIGN 200' IN ADVANCE OF STOP AHEAD SIGN

CTH K

STH 77

MOUND

WALL

PLANTER FENCE

FENCE

BOG

PE

12" CMCP

10" CMCP

24" CPCM

STANDING WATER

255 256 257 258 259 260 261 262

11 12 13 14 15 16 17

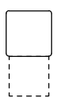
PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	SIGNING & MARKING	SHEET 10	E

FILE NAME : N:\PDS\C3D\85200104\SHEETSPLAN\85200104_SIGNING-MARKING.DWG
LAYOUT NAME - SIGNING & MARKING

PLOT DATE : 7/6/2015 4:58 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1"=75'

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING

BILL OF MATERIALS

SIGN	SIGN CODE	SIGN SIZE	NO. REQUIRED 1	2	3	SIGN	SIGN CODE	SIGN SIZE	NO. REQUIRED 1	2	3	SIGN	SIGN CODE	SIGN SIZE	NO. REQUIRED 1	2	3	SIGN	SIGN CODE	SIGN SIZE	NO. REQUIRED 1	2	3
	W3-1	36" X 36"	2	NA	NA		J4-1	24" x 36"	1	NA	NA												
	W14-3	48" X 36"	1	NA	NA																		
	R2-1	24" x 30"	1	NA	NA																		
	R2-1	24" X 30"	1	NA	NA																		
	M1-5A	24" x 24"	1	NA	NA																		
	J12-1	24" x 45"	3	NA	NA																		
	W1-4R	30" x 30"	1	NA	NA																		

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	SIGNING BILL OF MATERIALS	SHEET 11	E

2

N

LEGEND

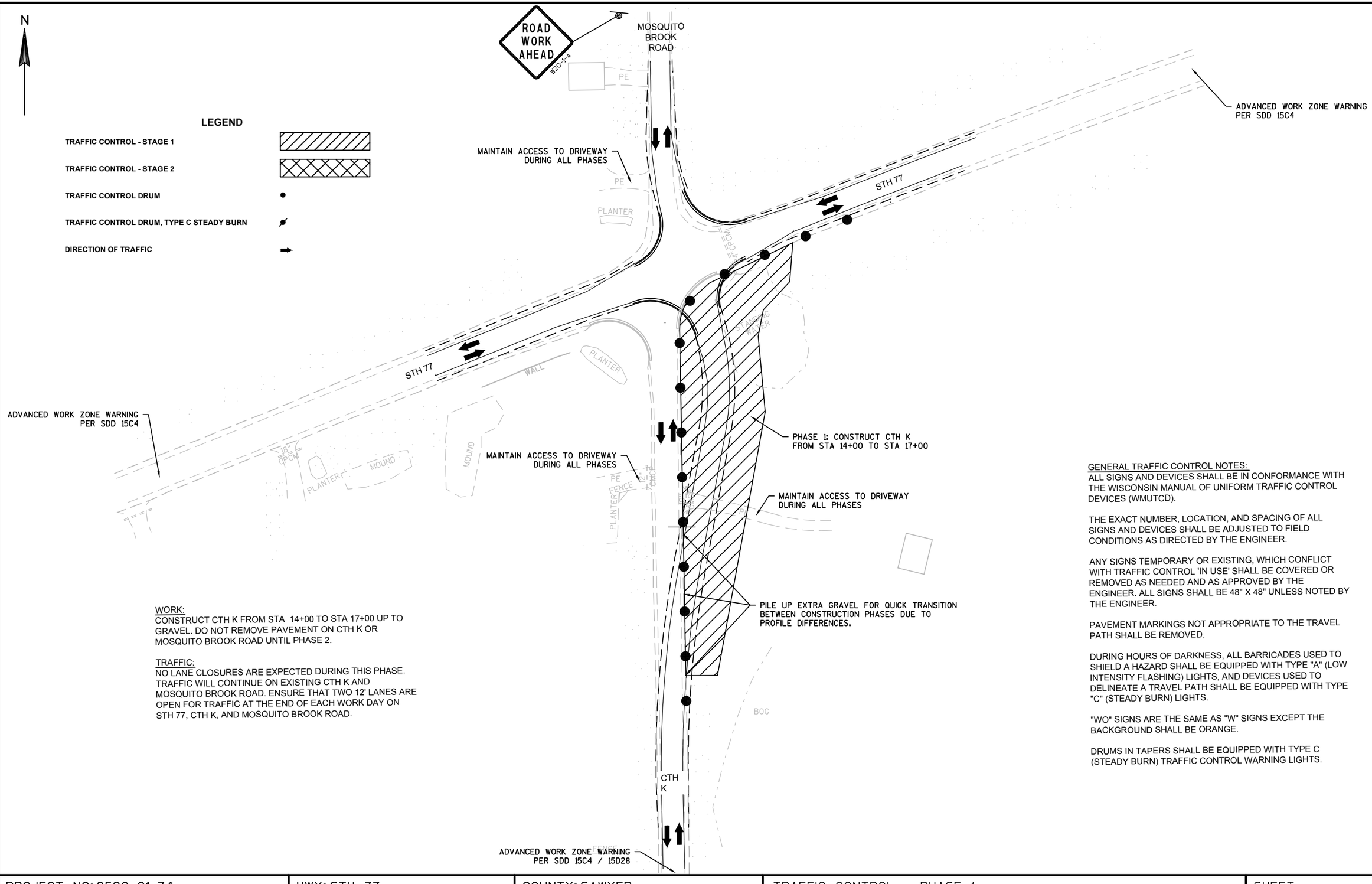
TRAFFIC CONTROL - STAGE 1

TRAFFIC CONTROL - STAGE 2

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM, TYPE C STEADY BURN

DIRECTION OF TRAFFIC



WORK:
CONSTRUCT CTH K FROM STA 14+00 TO STA 17+00 UP TO GRAVEL. DO NOT REMOVE PAVEMENT ON CTH K OR MOSQUITO BROOK ROAD UNTIL PHASE 2.

TRAFFIC:
NO LANE CLOSURES ARE EXPECTED DURING THIS PHASE. TRAFFIC WILL CONTINUE ON EXISTING CTH K AND MOSQUITO BROOK ROAD. ENSURE THAT TWO 12' LANES ARE OPEN FOR TRAFFIC AT THE END OF EACH WORK DAY ON STH 77, CTH K, AND MOSQUITO BROOK ROAD.

GENERAL TRAFFIC CONTROL NOTES:
ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL 'IN USE' SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. ALL SIGNS SHALL BE 48" X 48" UNLESS NOTED BY THE ENGINEER.

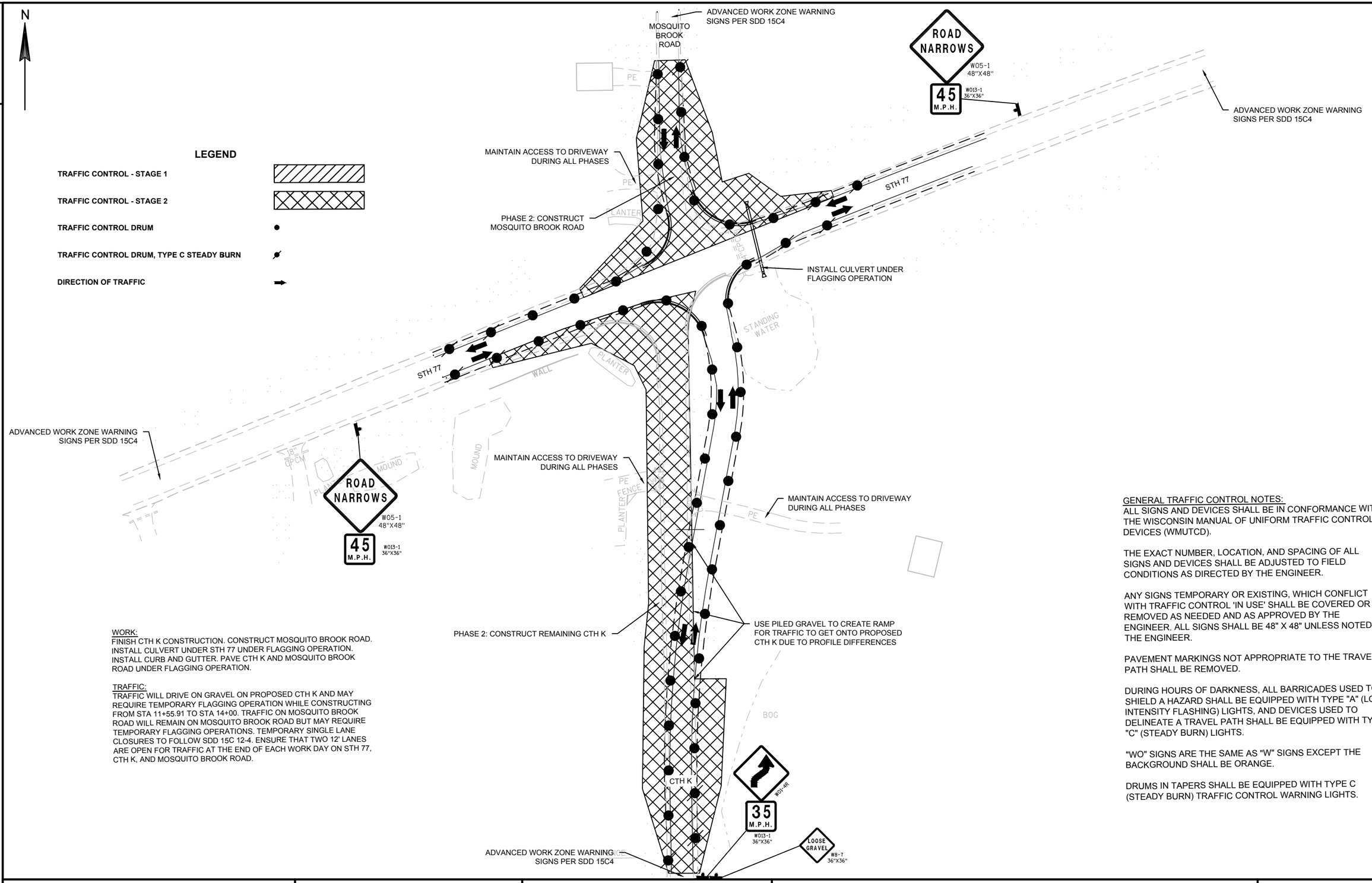
PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS, AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

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

DRUMS IN TAPERS SHALL BE EQUIPPED WITH TYPE C (STEADY BURN) TRAFFIC CONTROL WARNING LIGHTS.

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	TRAFFIC CONTROL - PHASE 1	SHEET 12	E



WORK:
FINISH CTH K CONSTRUCTION. CONSTRUCT MOSQUITO BROOK ROAD. INSTALL CULVERT UNDER STH 77 UNDER FLAGGING OPERATION. INSTALL CURB AND GUTTER. PAVE CTH K AND MOSQUITO BROOK ROAD UNDER FLAGGING OPERATION.

TRAFFIC:
TRAFFIC WILL DRIVE ON GRAVEL ON PROPOSED CTH K AND MAY REQUIRE TEMPORARY FLAGGING OPERATION WHILE CONSTRUCTING FROM STA 11+55.91 TO STA 14+00. TRAFFIC ON MOSQUITO BROOK ROAD WILL REMAIN ON MOSQUITO BROOK ROAD BUT MAY REQUIRE TEMPORARY FLAGGING OPERATIONS. TEMPORARY SINGLE LANE CLOSURES TO FOLLOW SDD 15C 12-4. ENSURE THAT TWO 12' LANES ARE OPEN FOR TRAFFIC AT THE END OF EACH WORK DAY ON STH 77, CTH K, AND MOSQUITO BROOK ROAD.

GENERAL TRAFFIC CONTROL NOTES:
ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL 'IN USE' SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. ALL SIGNS SHALL BE 48" X 48" UNLESS NOTED BY THE ENGINEER.

PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS, AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

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

DRUMS IN TAPERS SHALL BE EQUIPPED WITH TYPE C (STEADY BURN) TRAFFIC CONTROL WARNING LIGHTS.

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	TRAFFIC CONTROL - PHASE 2	SHEET 13	E

DATE 05OCT15 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	8520-01-74 QUANTITY
0010	201.0105	Clearing	STA	7.000	7.000
0020	201.0205	Grubbing	STA	7.000	7.000
0030	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0040	204.0110	Removing Asphaltic Surface	SY	270.000	270.000
0050	204.0150	Removing Curb & Gutter	LF	178.000	178.000
0060	205.0100	Excavation Common	CY	2,106.000	2,106.000
0070	205.0400	Excavation Marsh	CY	224.000	224.000
0080	208.0100	Borrow	CY	557.000	557.000
0090	208.1100	Select Borrow	CY	336.000	336.000
0100	213.0100	Finishing Roadway (project) 01. 8520-01-74	EACH	1.000	1.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	275.000	275.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,958.000	1,958.000
0130	455.0605	Tack Coat	GAL	172.000	172.000
0140	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	30.000	30.000
0150	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	121.000	121.000
0160	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	6.000	6.000
0170	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	74.000	74.000
0180	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0190	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	327.000	327.000
0200	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8520-01-74	EACH	1.000	1.000
0210	619.1000	Mobilization	EACH	1.000	1.000
0220	624.0100	Water	MGAL	29.000	29.000
0230	625.0500	Salvaged Topsoil	SY	5,812.000	5,812.000
0240	627.0200	Mulching	SY	5,812.000	5,812.000
0250	628.1104	Erosion Bales	EACH	79.000	79.000
0260	628.1504	Silt Fence	LF	711.000	711.000
0270	628.1520	Silt Fence Maintenance	LF	711.000	711.000
0280	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0290	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0300	628.2027	Erosion Mat Class II Type C	SY	648.000	648.000
0310	628.7504	Temporary Ditch Checks	LF	36.000	36.000
0320	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0330	629.0210	Fertilizer Type B	CWT	4.000	4.000
0340	629.1100	Agricultural Limestone Treatment	TON	1.000	1.000
0350	630.0120	Seeding Mixture No. 20	LB	157.000	157.000
0360	633.5200	Markers Culvert End	EACH	2.000	2.000
0370	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	14.000	14.000
0380	637.2210	Signs Type II Reflective H	SF	57.000	57.000
0390	637.2230	Signs Type II Reflective F	SF	21.000	21.000
0400	638.2102	Moving Signs Type II	EACH	3.000	3.000
0410	638.2602	Removing Signs Type II	EACH	9.000	9.000
0420	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0430	642.5001	Field Office Type B	EACH	1.000	1.000
0440	643.0100	Traffic Control (project) 01. 8520-01-74	EACH	1.000	1.000
0450	643.0300	Traffic Control Drums	DAY	3,094.000	3,094.000
0460	643.0715	Traffic Control Warning Lights Type C	DAY	625.000	625.000
0470	643.0900	Traffic Control Signs	DAY	892.000	892.000
0480	646.0106	Pavement Marking Epoxy 4-Inch	LF	3,368.000	3,368.000

3

DATE 05OCT15 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	8520-01-74 QUANTITY
0490	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	24.000	24.000
0500	648.0100	Locating No-Passing Zones	MI	1.000	1.000
0510	650.4500	Construction Staking Subgrade	LF	711.000	711.000
0520	650.5000	Construction Staking Base	LF	711.000	711.000
0530	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	327.000	327.000
0540	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0550	650.9910	Construction Staking Supplemental Control (project) 01. 8520-01-74	LS	1.000	1.000
0560	690.0150	Sawing Asphalt	LF	675.000	675.000
0570	SPV.0035	Special 01. ABANDONING CULVERT PIPE SPECIAL	CY	7.000	7.000
0580	SPV.0090	Special 01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	327.000	327.000
0590	SPV.0195	Special 01. ASPHALTIC SURFACE SPECIAL	TON	1,028.000	1,028.000

3

CLEARING & GRUBBING

STATION	TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA
10+75	-	16+60	CTH K - R	6.00	6.00
11+10	-	12+00	MBR - L	1.00	1.00
			TOTAL 0010	7	7

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH
14+75	CTH K - RIGHT (DRIVEWAY CULVERT)	1
15+00	CTH K - LEFT (DRIVEWAY CULVERT)	1
	TOTAL 0010	2

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 SY
11+00	MBR - L (NW QUAD-DRIVEWAY)	100
15+00	CTH K - L (SW QUAD-DRIVEWAY)	170
	TOTAL 0010	270

3

REMOVING CURB & GUTTER

STATION	LOCATION	204.0150 LF
258+00	CTH K - L (SW QUAD)	96
258+60	CTH K - R (SE QUAD)	82
	TOTAL 0010	178

EARTHWORK SUMMARY TABLE

ROADWAY	(1) UNCLASSIFIED EXCAVATION CY	(2) USEABLE MATERIAL CY	(3) EXPANDED FILL CY	(4) 208.0100 BORROW CY	(5) SUITABLE WASTE CY	205.0400 EXCAVATION MARSH CY	(6) EXCAVATION BELOW SUBGRADE CY	(7) 208.1100 SELECT BORROW CY
CTH K	1784	1062	1619	557	0	224	11	336
MOSQUITO BROOK ROAD	298	312	142	0	170	0	14	0
PROJECT TOTALS:	2081	1374	1761	557	170	224	25	336

(1) UNCLASSIFIED EXCAVATION FROM C3D SURFACES (INCLUDES EXISTING PAVEMENT IF WITHIN CUT LIMIT)
(2) USEABLE MATERIAL = USEABLE COMMON EXCAVATION + EBS
(3) EXPANDED FILL = REQUIRED FILL MATERIAL = FILL + EBS FILL (VOLUMES ARE EXPANDED)
(4) BORROW EXCAVATION = EXPANDED FILL - USEABLE MATERIAL
(5) SUITABLE WASTE IS SURPLUS MATERIAL SUITABLE FOR USE AS FILL THAT IS BEYOND THE VOLUME NEEDED FOR THE PROJECT.
(6) EXCAVATION BELOW SUBGRADE IS NOT USED TO BALANCE EARTHWORK. QUANTITY IS INCLUDED AND PAID FOR IN THE ITEM OF COMMON EXCAVATION. IT IS USED FOR PREPARING ROADWAY FOUNDATION (REMOVING PAVEMENT WITHIN 2' OF FG THAT IS NOT REMOVED UNDER UNCLASSIFIED.
(7) SELECT BORROW = MARSH EXCAVATION * MARSH EXPANSION FACTOR; MARSH EXPANSION FACTOR = 1.50

FINISHING ROADWAY (8520-01-74)

LOCATION	213.0100 EACH
8520-01-74	1
TOTAL 0010	1

BASE AGGREGATE DENSE 3/4-INCH

STATION	TO	STATION	LOCATION	305.0110 TON	REMARKS
10+59	-	17+46	CTH K	168	
10+00	-	12+28	MOSQUITO BROOK ROAD	32	
11+00			MBR - L (NW QUAD)	16	DRIVEWAY GRAVEL
15+00			CTH K - L (SW QUAD)	38	DRIVEWAY GRAVEL
14+75			CTH K - R (SE QUAD)	21	DRIVEWAY GRAVEL
			TOTAL 0010	275	

BASE AGGREGATE DENSE 1 1/4-INCH

STATION	TO	STATION	LOCATION	305.0120 TON
10+59	-	17+46	CTH K	1553
10+00	-	12+28	MOSQUITO BROOK ROAD	405
			TOTAL 0010	1958

3

TACK COAT

STATION	TO	STATION	LOCATION	455.0605 GAL
10+59	-	17+46	CTH K	126
10+00	-	12+28	MBR	46
			TOTAL 0010	172

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

STATION	TO	STATION	LOCATION	465.0120 TON
15+00			MBR - L (NW QUAD)	11
11+00			CTH K - L (SW SQUAD)	19
			TOTAL 0010	30

CULVERT PIPE CORRUGATED STEEL 18-INCH

STATION	LOCATION	521.0118 LF
14+70	CTH K - R (Driveway Culvert)	37
14+90	CTH K - L (Driveway Culvert)	42
11+00	MBR - L (Driveway Culvert)	42
	TOTAL 0010	121

3

APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH

STATION	LOCATION	521.1018 EACH
14+70	CTH K - R	2
14+90	CTH K - L	2
11+00	MBR - L	2
	TOTAL 0010	6

CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH

STATION	LOCATION	522.0324 LF
258+89	STH 77	74
	TOTAL 0010	74

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH

STATION	LOCATION	522.1024 EACH
258+89	STH 77	2
	TOTAL 0010	2

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

STATION	LOCATION	601.0557 LF
	MBR - L (NW QUAD)	74
	MBR - R (NE QUAD)	91
	CTH K - L (SW QUAD)	92
	CTH K - R (SE QUAD)	70
	TOTAL 0010	327

MAINTENANCE AND REPAIR OF HAUL ROADS (8520-01-74)

STATION	PROJECT	618.0100 EACH
	8520-01-74	1
	TOTAL 0010	1

WATER

PROJECT	624.0100 MGAL
8520-01-74	29
TOTAL 0010	29

SALVAGED TOPSOIL

STATION	TO	STATION	LOCATION	625.0500 SY
10+59	-	17+46	CTH K - L	2180
10+59	-	17+46	CTH K - R	1449
10+00	-	12+28	MBR - L	258
10+00	-	12+28	MBR - R	506
			TOTAL 0010	4393

MULCHING

STATION	TO	STATION	LOCATION	627.0200 SY
10+00	-	12+28	MBR - L	378
10+00	-	12+28	MBR - R	682
10+59	-	17+46	CTH K - L	2659
10+59	-	17+46	CTH K - R	2094
			TOTAL 0010	5812

3

EROSION BALES

STATION	LOCATION	628.1104 EACH
14+00	CTH K - L	35
13+00	CTH K - R	44
	TOTAL 0010	79

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 LF
10+50	-	13+50	CTH K - R	323
15+90	-	17+00	CTH K - R	182
12+50	-	14+10	CTH K - L	206
			TOTAL 0010	711

SILT FENCE MAINTENANCE

STATION	TO	STATION	LOCATION	628.1520 LF
10+50	-	13+25	CTH K - R	323
15+90	-	17+00	CTH K - R	182
12+50	-	14+10	CTH K - L	206
			TOTAL 0010	711

3

MOBILIZATIONS EROSION CONTROL

PROJECT	628.1905 EACH
8520-01-74	2
TOTAL 0010	2

MOBILIZATIONS EMERGENCY EROSION CONTROL

PROJECT	628.1910 EACH
8520-01-74	1
TOTAL 0010	1

EROSION MAT CLASS II TYPE C

STATION	TO	STATION	LOCATION	628.2027 SY
10+50	-	12+00	MBR - L	111
10+50	-	12+00	MBR - R	145
14+15	-	16+75	CTH K - L	189
13+75	-	16+15	CTH K - R	204
			TOTAL 0010	648

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF
14+00	CTH K - R	12
15+20	CTH K - R	12
15+25	CTH K - L	12
	TOTAL 0010	36

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
258+89	STH 77 - L	1
15+00	CTH K - R	1
15+20	CTH K - L	1
11+25	MBR - L	1
	TOTAL 0010	4

SITE RESTORATION SUMMARY

STATION	TO	STATION	LOCATION	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 20 630.0120 LB
10+00	-	12+28	MBR - L	0.24	10
10+00	-	12+28	MBR -R	0.43	18
10+59	-	17+46	CTH K - L	1.67	72
10+59	-	17+46	CTH K - R	1.32	57
			TOTAL 0010	4	157

AGRICULTURAL LIMESTONE TREATMENT

STATION	TO	STATION	LOCATION	629.1100 TON
16+00	-	17+30	CTH K - R	1
			TOTAL 0010	1

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
258+89	STH 77 (NEW CULVERT)	2
	TOTAL 0010	2

3

SIGNING SUMMARY

STATION	LOCATION	CODE	MESSAGE	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.223 SF	POSTS WOOD 4X6-INCH X 16-FT 634.0616 EACH	MOVING SIGNS TYPE II 638.2102 EACH
7+50	CTH K - R	W1-4R	CURVE AHEAD		6.25	1.00	
9+50	CTH K - R	W3-1	STOP AHEAD		9.00	1.00	
11+00	CTH K - L	W14-3	NO PASSING ZONE		6.00	1.00	
11+50	CTH K - L	R2-1	SPEED LIMIT 55	5.00		1.00	
14+00	CTH K - L	I55-56	ADOPT A HIGHWAY			1.00	1.00
15+25	CTH K - L	M1-5A	COUNTY K	4.00		1.00	
17+00	CTH K - R	R1-1	STOP	7.46		1.00	
17+00	CTH K - R	J12-1	77, DIRECTIONAL	7.50		1.00	
257+65	STH 77 - R	J12-1	COUNTY K, DIRECTIONAL	7.50		1.00	
259+50	STH 77 - R	I55-56	ADOPT A HIGHWAY			1.00	1.00
259+50	STH 77 - R	J4-1	EAST, 77	6.00		1.00	
259+00	STH 77 - L	J12-1	COUNTY K, DIRECTIONAL	7.50		1.00	
10+50	MBR - L	R1-1	STOP	7.46		1.00	
10+50	MBR - R	--	MOSQUITO BROOK ROAD				1.00
12+00	MBR - R	R2-1	SPEED LIMIT 45	5.00		1.00	
			TOTAL 0010	57	21	14	3

TRAFFIC CONTROL (8520-01-74)

PROJECT	643.0100 EACH
8520-01-74	1
TOTAL 0010	1

TRAFFIC CONTROL DRUMS

LOCATION	STAGE	643.0300 DAY
CTH K	1	462
STH 77	1	84
MBR	1	0
CTH K	2	988
STH 77	2	1066
MBR	2	494
TOTAL 0010		3094

SIGN REMOVAL SUMMARY

STATION	LOCATION	MESSAGE	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH
11+50	CTH K - L	SPEED LIMIT 55	1	1
13+75	CTH K - L	ADOPT A HIGHWAY		1
15+25	CTH K - L	COUNTY K	1	1
16+75	CTH K - R	STOP	1	1
16+75	CTH K - R	COUNTY K, DIRECTIONAL	1	1
257+25	STH 77 - R	COUNTY K, DIRECTIONAL	1	1
259+00	STH 77 - R	ADOPT A HIGHWAY		1
259+00	STH 77 - R	77, EAST	1	1
258+75	STH 77 - L	COUNTY K, DIRECTIONAL	1	1
10+50	MBR - L	STOP	1	1
12+15	MBR - R	SPEED LIMIT 45	1	1
		TOTAL 0010	9	11

TRAFFIC CONTROL WARNING LIGHTS TYPE C

LOCATION	STAGE	643.0715 DAY
CTH K	1	105
STH 77	1	0
MBR	1	0
CTH K	2	130
STH 77	2	260
MBR	2	130
TOTAL 0010		625

TRAFFIC CONTROL SIGNS

LOCATION	STAGE	643.0900 DAY	NOTES
CTH K	1	105	SDD 15C4/15D28
STH 77	1	168	SDD15C4
MBR	1	21	ROAD WORK AHEAD
CTH K	2	182	35 MPH ADVISORY, CURVE AHEAD, LOOSE GRAVEL, SDD15C4/15D28
STH 77	2	312	ROAD NARROWS(2), 45MPH(2), SDD 15C4/15D28
MBR	2	104	SDD 15C4
TOTAL 0010		892	

PAVEMENT MARKING SUMMARY

LOCATION	PAVEMENT MARKING EPOXY 4-INCH 646.0106 LF	PAVEMENT MARKING STOPLINE EPOXY 18-INCH 647.0566 LF	LOCATING NO-PASSING ZONES 648.01 MI
CTH K		24	1
WHITE	1354		
YELLOW	1245		
STH 77			
WHITE	594		
YELLOW	175		
TOTAL 0010	3368	24	1

STAKING SUMMARY

STATION	TO	STATION	LOCATION	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCITON STAKING BASE 650.5000 LF
11+55	-	17+35	CTH K	580	580
10+12	-	11+43	MBR	131	131
			TOTAL 0010	711	711

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

LOCATION	650.5500 LF
MBR - L (NW QUAD)	74
MBR - R (NE QUAD)	91
CTH K - L (SW QUAD)	92
CTH K - R (SE QUAD)	70
TOTAL 0010	327

CONSTRUCTION STAKING PIPE CULVERTS

STATION	LOCATION	650.6000 EACH
14+75	CTH K - R	1
15+00	CTH K - L	1
11+00	MBR - L	1
259+00	STH 77	1
		4

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8520-01-74)

PROJECT	650.9910 LS
8520-01-74	1
TOTAL 0010	1

SAWING ASPHALT

STATION	TO	STATION	LOCATION	690.0150 LF
257+08	-	259+52	77 / MBR	244
256+67	-	259+50	77 / CTH K	283
258+95			STH 77 (CULVERT)	30
259+00			STH 77 (CULVERT)	30
10+59			CTH K	30
15+00			CTH K - L (DRIVEWAY)	21
12+29			MBR	22
11+00			MBR - L (DRIVEWAY)	15
			TOTAL 0010	675

ABANDONING CULVERT PIPE SPECIAL

STATION	LOCATION	SPV.0035.01 CY
258+89	STH 77	7
	TOTAL 0010	7

CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT

LOCATION	SPV.0090.01 LF
MBR - L (NW QUAD)	74
MBR - R (NE QUAD)	91
CTH K - L (SW QUAD)	92
CTH K - R (SE QUAD)	70
TOTAL 0010	327

ASPHALTIC SURFACE SPECIAL

STATION	TO	STATION	LOCATION	SPV.0195.01 TON
10+59	-	17+46	CTH K	772
10+00	-	12+28	MOSQUITO BROOK ROAD	256
			TOTAL 0010	1028

TRANSPORTATION PROJECT PLAT NO: 8520-01-24 - 4.01

PART OF LOT 1 OF CSM 702, AND PART OF LOT 4 OF CSM 2552, BEING PART OF THE NE1/4-NE1/4 OF SECTION 20, AND PART OF THE NW1/4-NW1/4 OF SECTION 21, T41N, R8W, ALL IN THE TOWN OF HAYWARD, SAWYER COUNTY, WISCONSIN

RELOCATION ORDER - STH 77 (HAYWARD - CLAM LAKE), SAWYER COUNTY

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

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

394197
PAULA CHISSER
REGISTER OF DEEDS SAWYER COUNTY, WI
02/02/2015 08:00AM
REC FEE: 25.00

PAGES 1

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8520-01-24- 4.01
AMENDMENT NO:

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES TEMP
1	EUGENE A. & KAREN K. MAGIERA	FEE	0.06	0.14	0.20	0.00
2	THOMAS C. & TONI L. LLOYD	FEE, TLE	0.03	0.23	0.26	0.05
3	SHARON M. THIEDEMANN	FEE	0.05	0.11	0.16	0.00
4	DEBORAH S. LASAVAGE	FEE	0.39	0.30	0.69	0.00

UTILITY INTERESTS REQUIRED:

900	CHEQUAMEGON TELEPHONE COOPERATIVE D/B/A NORVADO	RELEASE OF RIGHTS
901	JUMP RIVER ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

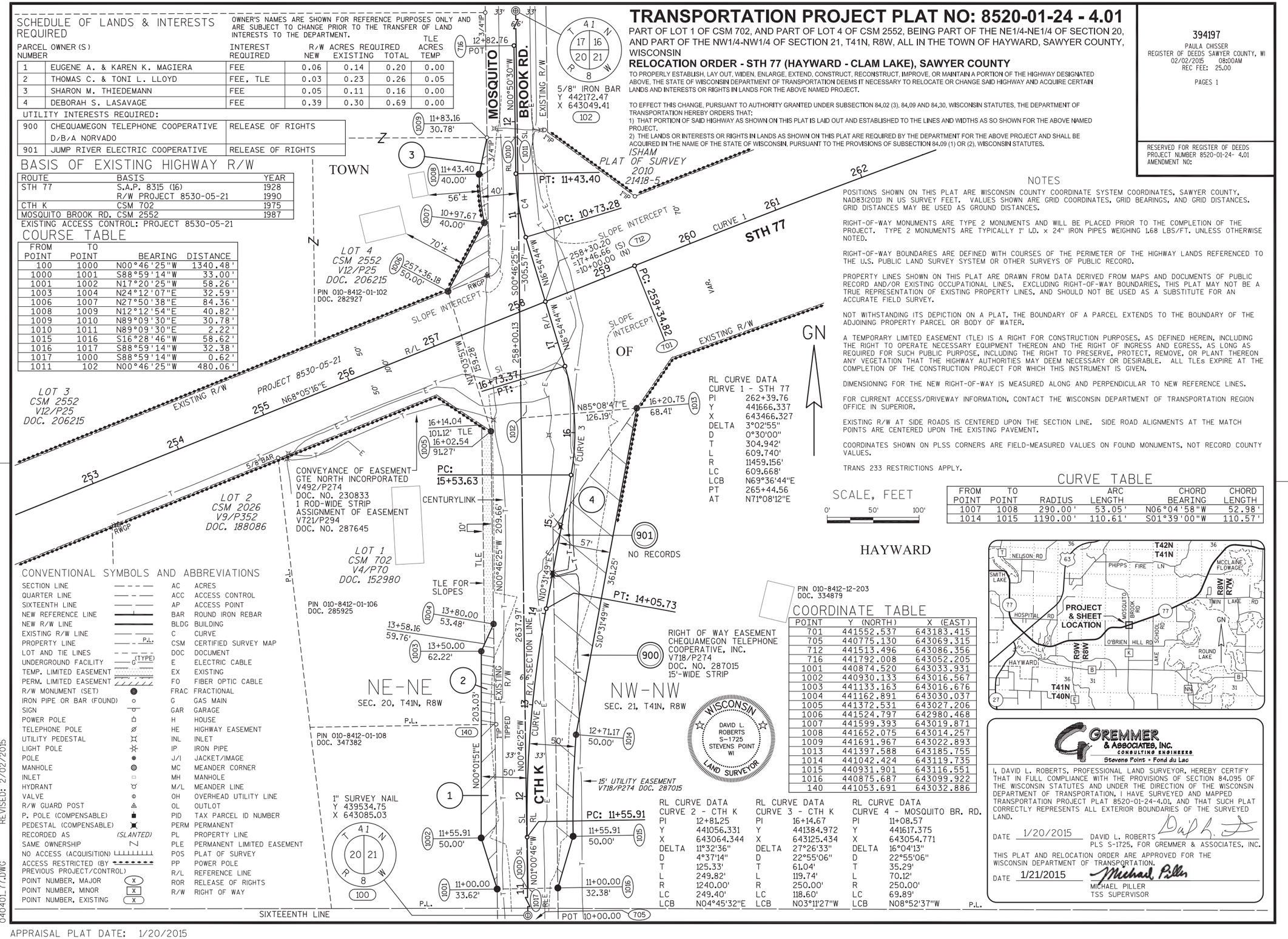
BASIS OF EXISTING HIGHWAY R/W

ROUTE	BASIS	YEAR
STH 77	S.A.P. 8315 (16)	1928
	R/W PROJECT 8530-05-21	1990
CTH K	CSM 702	1975
MOSQUITO BROOK RD.	CSM 2552	1987

EXISTING ACCESS CONTROL: PROJECT 8530-05-21

COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
100	1000	N00°46'25"W	1340.48'
1000	1001	S88°59'14"W	33.00'
1001	1002	N17°20'25"W	58.26'
1003	1004	N24°12'07"E	32.59'
1006	1007	N27°50'38"E	84.36'
1008	1009	N12°12'54"E	40.82'
1009	1010	N89°09'30"E	30.78'
1010	1011	N89°09'30"E	2.22'
1015	1016	S16°28'46"W	58.62'
1016	1017	S88°59'14"W	32.38'
1017	1000	S88°59'14"W	0.62'
1011	102	N00°46'25"W	480.06'



NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM COORDINATES, SAWYER COUNTY, NAD83(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 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT. TYPE 2 MONUMENTS ARE TYPICALLY 1" I.D. x 24" IRON PIPES WEIGHING 1.68 LBS/FT. UNLESS OTHERWISE NOTED.

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.

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

NOT WITHSTANDING ITS DEPICTION ON A PLAT, THE BOUNDARY OF A PARCEL EXTENDS TO THE BOUNDARY OF THE ADJOINING PROPERTY PARCEL OR BODY OF WATER.

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

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE IN SUPERIOR.

EXISTING R/W AT SIDE ROADS IS CENTERED UPON THE SECTION LINE. SIDE ROAD ALIGNMENTS AT THE MATCH POINTS ARE CENTERED UPON THE EXISTING PAVEMENT.

COORDINATES SHOWN ON PLSS CORNERS ARE FIELD-MEASURED VALUES ON FOUND MONUMENTS, NOT RECORD COUNTY VALUES.

TRANS 233 RESTRICTIONS APPLY.

SCALE, FEET
0' 50' 100'

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
1007	1008	290.00'	53.05'	N06°04'58"W	52.98'
1014	1015	1190.00'	110.61'	S01°39'00"W	110.57'

COORDINATE TABLE

POINT	Y (NORTH)	X (EAST)
701	441552.537	643183.415
705	440775.130	643069.315
712	441513.496	643086.356
716	441792.008	643052.205
1001	440874.520	643033.931
1002	440930.133	643016.567
1003	441133.163	643016.676
1004	441162.891	643030.037
1005	441372.531	643027.206
1006	441524.797	642980.468
1007	441599.393	643019.871
1008	441652.075	643014.257
1009	441691.967	643022.893
1013	441397.588	643185.755
1014	441042.424	643119.735
1015	440931.901	643116.551
1016	440875.687	643099.922
140	441053.691	643032.886

CONVENTIONAL SYMBOLS AND ABBREVIATIONS

SECTION LINE		AC	ACRES
QUARTER LINE		ACC	ACCESS CONTROL
SIXTEENTH LINE		AP	ACCESS POINT
NEW REFERENCE LINE		BAR	ROUND IRON REBAR
NEW R/W LINE		BLDG	BUILDING
EXISTING R/W LINE		C	CURVE
PROPERTY LINE	P.L.	CSM	CERTIFIED SURVEY MAP
LOT AND TIE LINES		DOC	DOCUMENT
UNDERGROUND FACILITY	G (TYPE)	E	ELECTRIC CABLE
TEMP. LIMITED EASEMENT		EX	EXISTING
PERM. LIMITED EASEMENT		FO	FIBER OPTIC CABLE
R/W MONUMENT (SET)		FRAC	FRACTIONAL
IRON PIPE OR BAR (FOUND)		G	GAS MAIN
SIGN		GAR	GARAGE
POWER POLE		H	HOUSE
TELEPHONE POLE		HE	HIGHWAY EASEMENT
UTILITY PEDESTAL		INL	INLET
LIGHT POLE		IP	IRON PIPE
POLE		J/I	JACKET/IMAGE
MANHOLE		MC	MEANDER CORNER
INLET		MH	MANHOLE
HYDRANT		M/L	MEANDER LINE
VALVE		OH	OVERHEAD UTILITY LINE
R/W GUARD POST		OL	OUTLOT
P. POLE (COMPENSABLE)		PID	TAX PARCEL ID NUMBER
PEDESTAL (COMPENSABLE)		PERM	PERMANENT
RECORDED AS	(SLANTED)	PL	PROPERTY LINE
SAME OWNERSHIP		PLE	PERMANENT LIMITED EASEMENT
NO ACCESS (ACQUISITION)		POS	PLAT OF SURVEY
ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)		PP	POWER POLE
POINT NUMBER, MAJOR	X	R/L	REFERENCE LINE
POINT NUMBER, MINOR	X	ROR	RELEASE OF RIGHTS
POINT NUMBER, EXISTING	X	R/W	RIGHT OF WAY

HAYWARD

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac

I, DAVID L. ROBERTS, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8520-01-24-4.01, AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 1/20/2015 DAVID L. ROBERTS
PLS S-1725. FOR GREMMER & ASSOCIATES, INC.

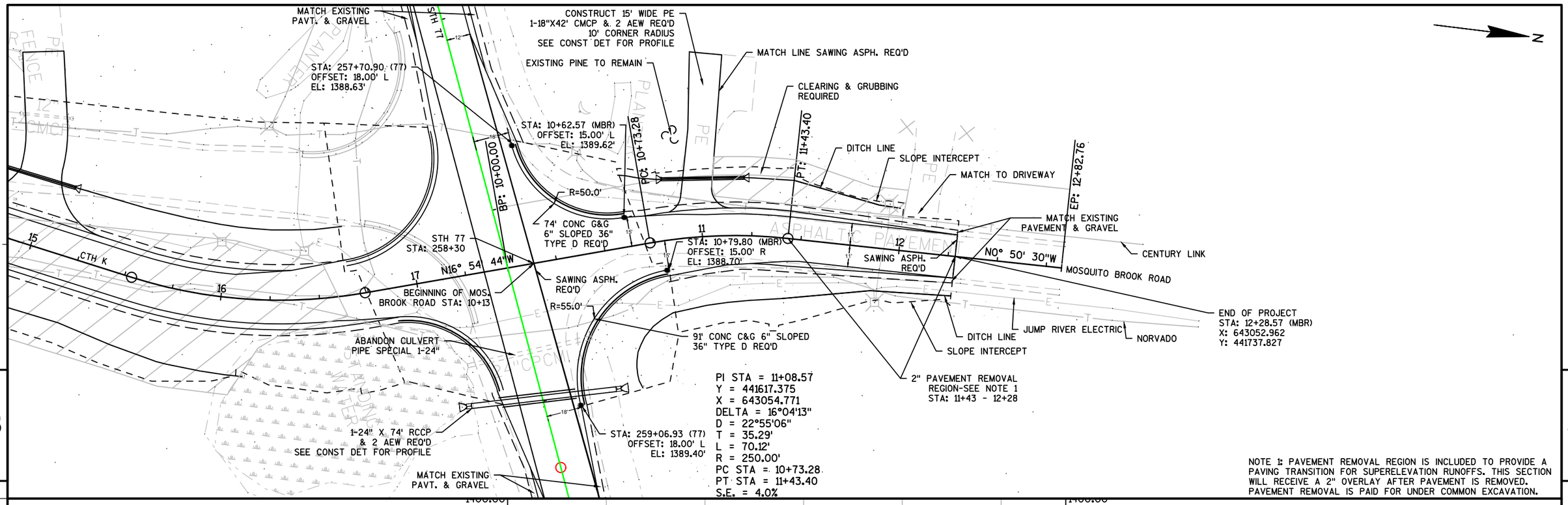
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 1/21/2015 MICHAEL PILLER
TSS SUPERVISOR

WISCONSIN DAVID L. ROBERTS S-1725 STEVENS POINT WI LAND SURVEYOR

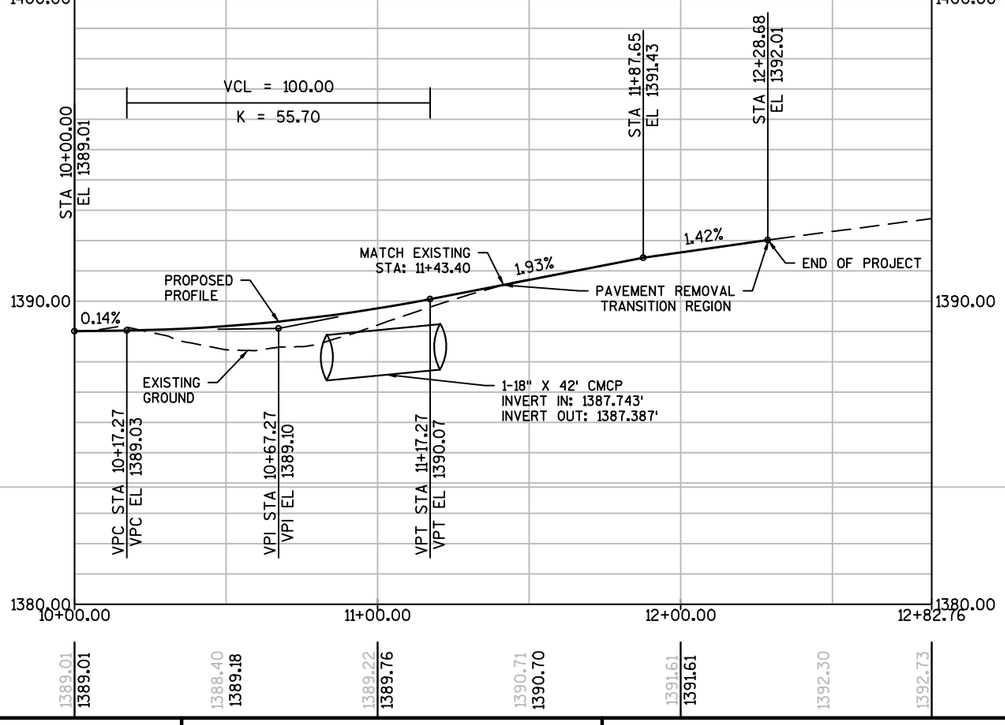
040401_77.DWG REVISED: 2/02/2015

APPRAISAL PLAT DATE: 1/20/2015



NOTE 1: PAVEMENT REMOVAL REGION IS INCLUDED TO PROVIDE A PAVING TRANSITION FOR SUPERELEVATION RUNOFFS. THIS SECTION WILL RECEIVE A 2" OVERLAY AFTER PAVEMENT IS REMOVED. PAVEMENT REMOVAL IS PAID FOR UNDER COMMON EXCAVATION.

MOS. BROOK ROAD SUPERELEVATION TABLE		
STATION	LEFT LANE	RIGHT LANE
10+18.00	-0.35%	+0.35%
10+24.53	0.00%	0.00%
10+56.00	+2.00%	-2.00%
11+00.00	+4.00% (FS)	-4.00% (FS)
11+19.07	+4.00% (FS)	-4.00% (FS)
11+55.57	+2.00%	-2.00%
11+92.07	0.00%	-2.00%
12+28.57	-2.00%	-2.00%



PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	PLAN AND PROFILE: MOSQUITO BROOK ROAD	SHEET 22	E

N

WETLAND

CONSTRUCT 21' WIDE PE
1-18"X42' CPCS & 2 AEW REQ'D
30' CORNER RADIUS
SEE CONST DET FOR PROFILE

MATCH EXISTING
SAWING ASPHALT REQ'D

PI STA = 16+14.67
Y = 441384.972
X = 643125.434
DELTA = 27°26'33"
D = 22°55'06"
T = 61.04'
L = 119.74'
R = 250.00'
PC STA = 15+53.63
PT STA = 16+73.37
S.E. = 4.0%

NORVADO

XCEL ENERGY

CENTURY LINK

MATCH EXISTING
PAVT. & GRAVEL

STH 77

STA: 258+53.46 (77)
OFFSET: 18.00' R
EL: 1388.32'

REMOVING
C&G REQ'D

92' CONC C&G 6"
SLOPED 36" TYPE D REQ'D

SAWING ASPHALT
REQ'D

FENCE

SAWING
ASPHALT
REQ'D

MATCH EXISTING
PAVEMENT & GRAVEL

SLOPE INTERCEPT

PC: 11+55.91

PT: 14+05.73

REMOVE 1-18"
CMCP

REMOVE SMALL
PIPE CULVERT

DITCH LINE

PC: 15+53.63

PT: 16+73.37

R=55.0'

STA: 16+66.27 (CTH K)
OFFSET: 15.00' L
EL: 1387.10'

REMOVING
C&G REQ'D

MOSQUITO
BROOK
ROAD

STH 77
STA: 258+30

END CTH K
STA: 17+35

ASPHALTIC PAVEMENT

CTH K

N1° 00' 46"W

N10° 31' 49"E

N16° 54' 44"W

R=50.0'

ABANDON CULVERT
PIPE SPECIAL
1-24" CMCP

BEGINNING OF PROJECT
CTH K - STA:10+59.34
X: 643068.256
Y: 440835.019

SLOPE INTERCEPT

2" PAVEMENT REMOVAL
REGION-SEE NOTE 1
STA: 10+59 - 11+55

NORVADO

DITCH LINE

PI STA = 12+81.25
Y = 441056.331
X = 643064.344
DELTA = 11°32'36"
D = 4°37'14"
T = 125.33'
L = 249.82'
R = 1240.00'
PC STA = 11+55.91
PT STA = 14+05.73
S.E. = 3.5%

CONSTRUCT 13' WIDE PE
1-18"X37' CPCS & 2 AEW REQ'D
10' CORNER RADIUS
SEE CONST DET FOR PROFILE

MATCH
EXISTING

STA: 16+87.89 (CTH K)
OFFSET: 15.00' R
EL:1388.00'

70' CONC C&G 6"
SLOPED 36" TYPE D REQ'D

SAWING
ASPHALT
REQ'D

STA: 258+89.31 (77)
OFFSET: 18.00' R
EL: 1388.89

PC: 259+34

1-24" X 74' RCCP
2 AEW REQ'D
SEE CONST DET FOR PROFILE

NOTE 1:PAVEMENT REMOVAL REGION IS INCLUDED TO PROVIDE A PAVING TRANSITION FOR SUPERELEVATION RUNOFFS. THIS SECTION WILL RECEIVE A 2" OVERLAY AFTER PAVEMENT IS REMOVED. PAVEMENT REMOVAL IS PAID FOR UNDER COMMON EXCAVATION.

WETLAND

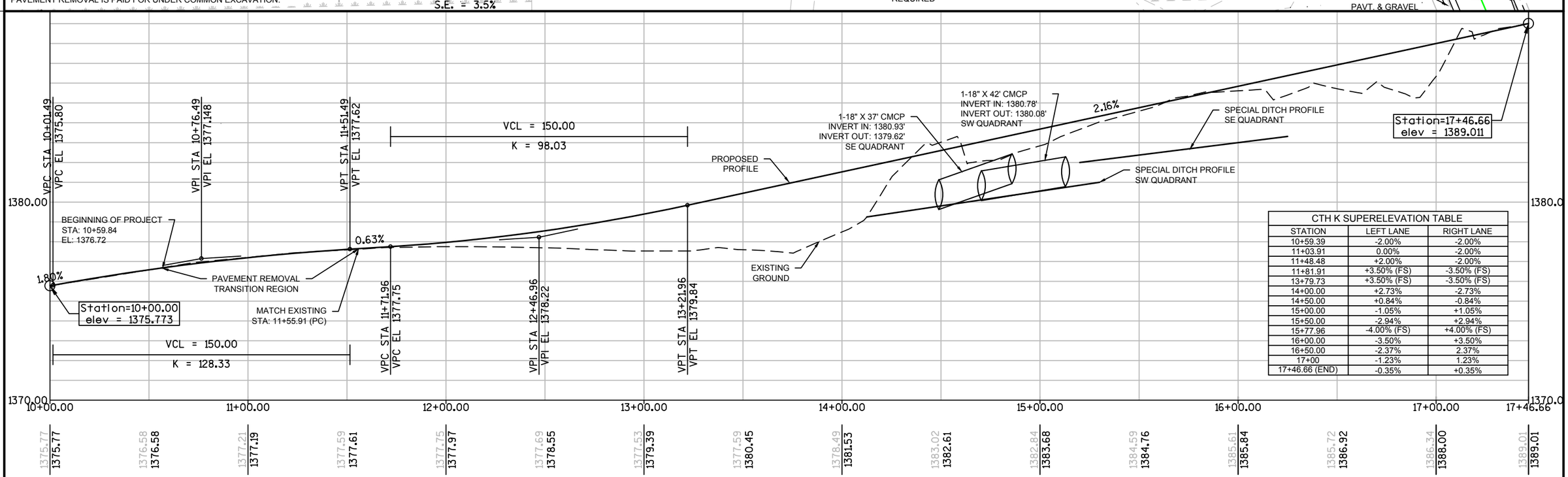
CLEARING & GRUBBING
REQUIRED

WETLAND

MATCH EXISTING
PAVT. & GRAVEL

5

5



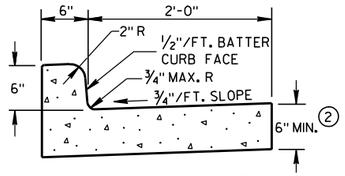
CTH K SUPERELEVATION TABLE

STATION	LEFT LANE	RIGHT LANE
10+59.39	-2.00%	-2.00%
11+03.91	0.00%	-2.00%
11+48.48	+2.00%	-2.00%
11+81.91	+3.50% (FS)	-3.50% (FS)
13+79.73	+3.50% (FS)	-3.50% (FS)
14+00.00	+2.73%	-2.73%
14+50.00	+0.84%	-0.84%
15+00.00	-1.05%	+1.05%
15+50.00	-2.94%	+2.94%
15+77.96	-4.00% (FS)	+4.00% (FS)
16+00.00	-3.50%	+3.50%
16+50.00	-2.37%	2.37%
17+00	-1.23%	1.23%
17+46.66 (END)	-0.35%	+0.35%

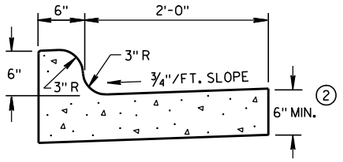
PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	PLAN AND PROFILE: CTH K	SHEET 23	E

Standard Detail Drawing List

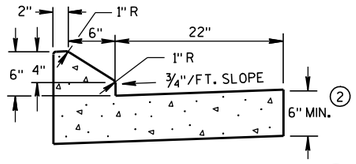
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



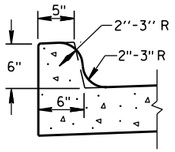
TYPES A & D (1)



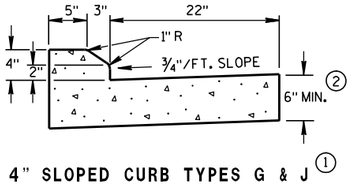
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

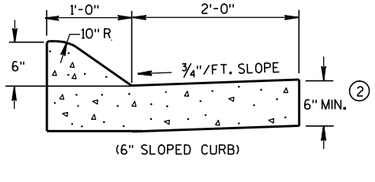


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

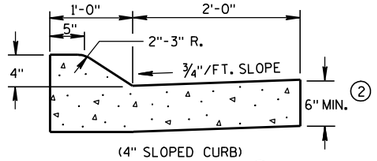


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

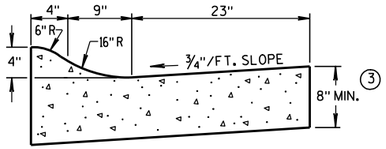


(6" SLOPED CURB)



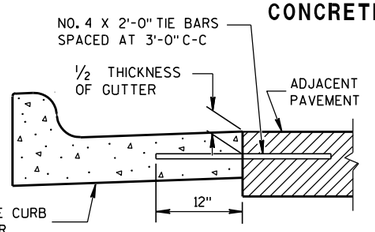
(4" SLOPED CURB)

TYPES A & D (1)

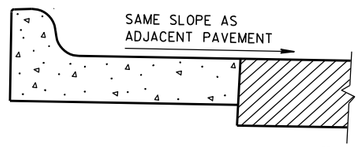


4" SLOPED CURB TYPES R & T (1) (4)

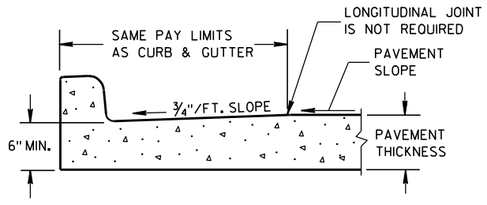
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

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

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

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

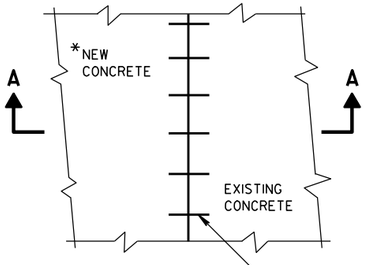
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

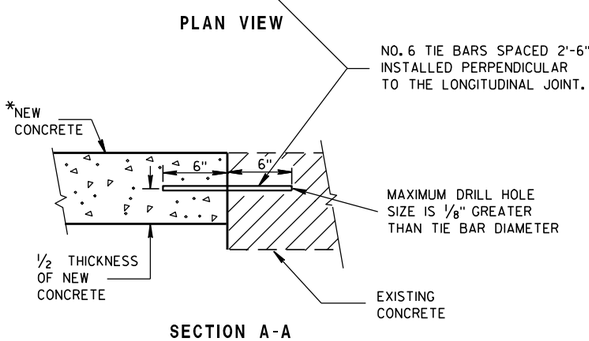
(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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



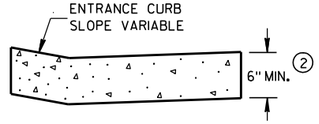
PLAN VIEW

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

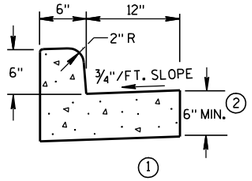


SECTION A-A

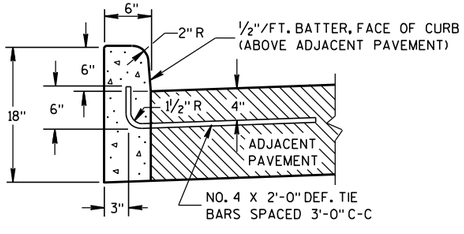
TIE BARS DRILLED INTO EXISTING PAVEMENT



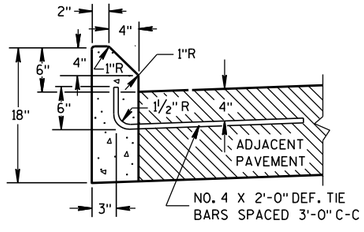
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



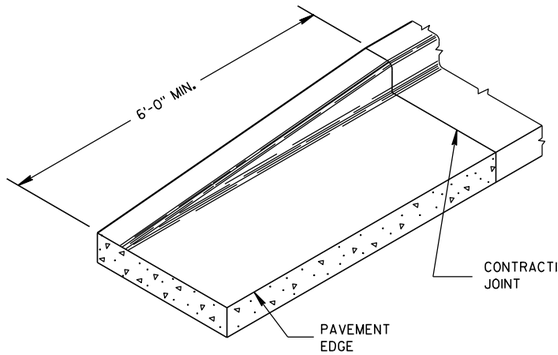
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

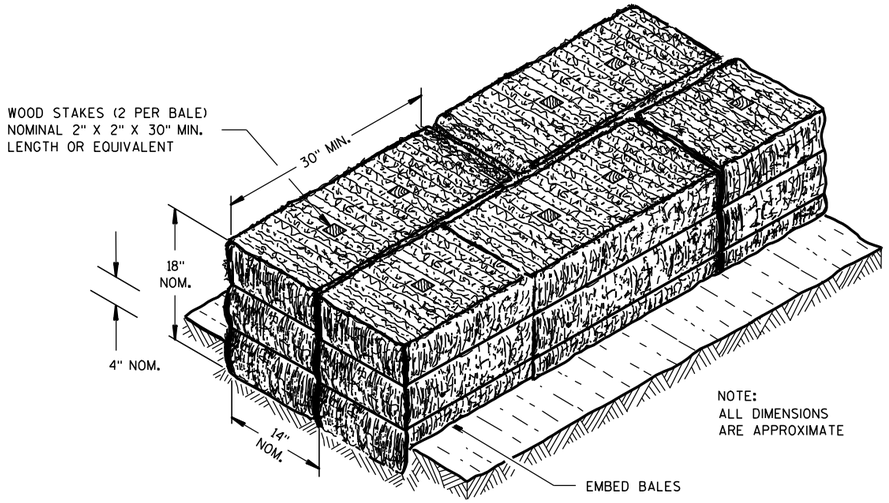
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

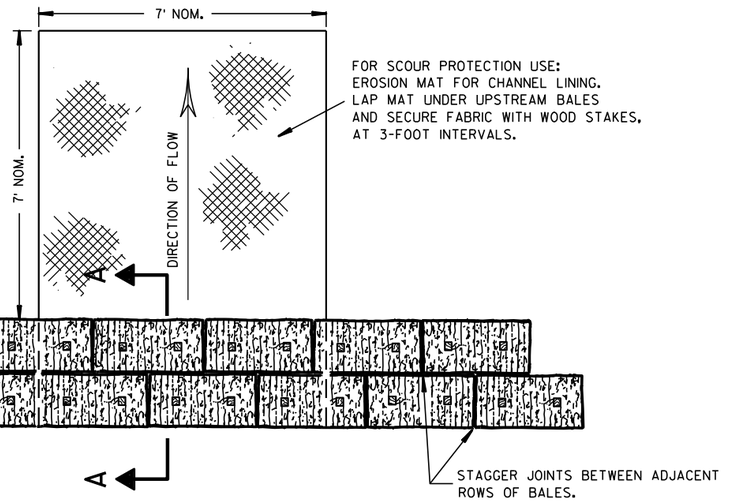
APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

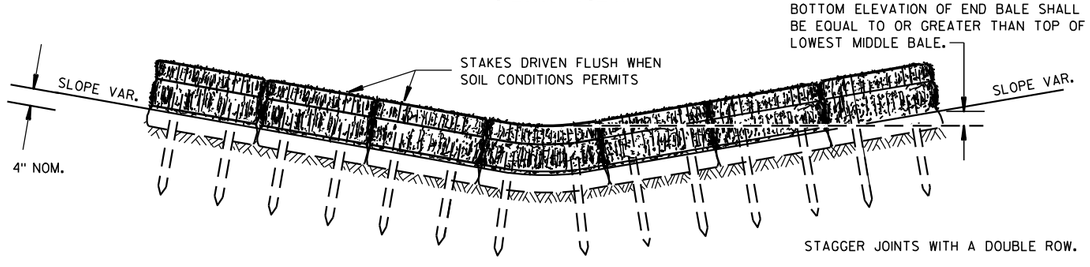
S.D.D. 8 D 1-17



SECTION A-A



PLAN VIEW



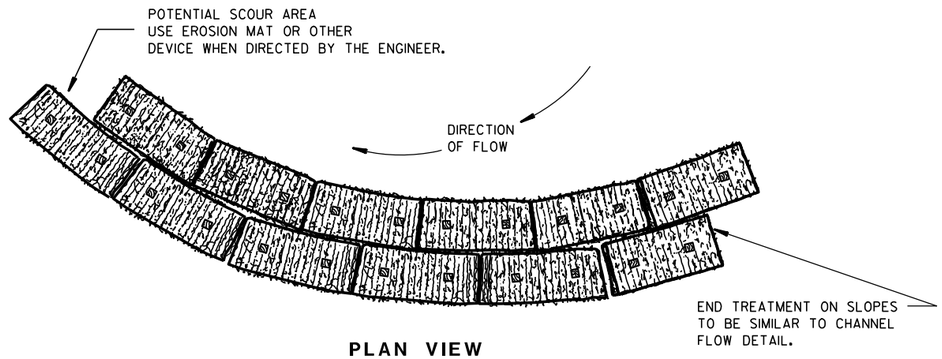
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

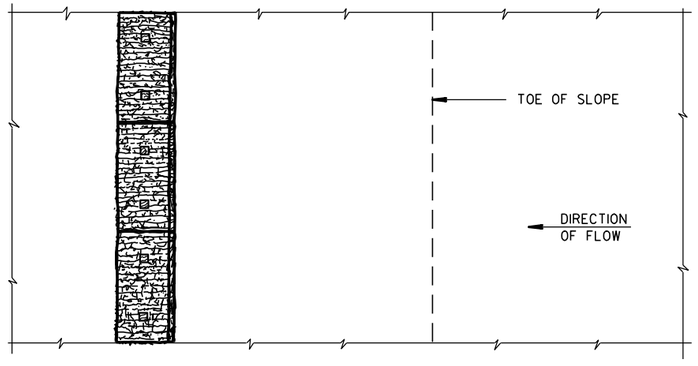
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

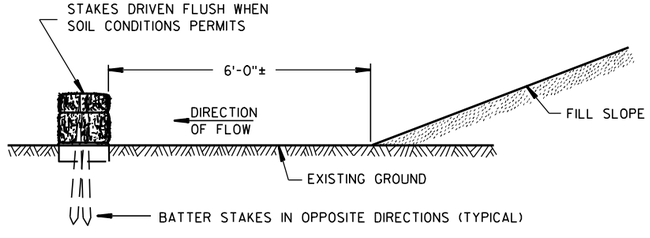


PLAN VIEW

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

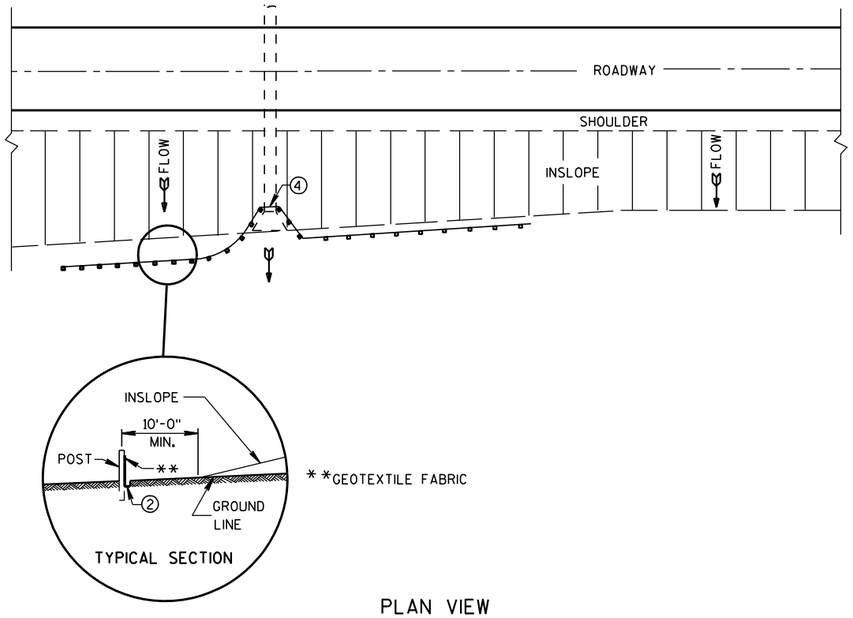
APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

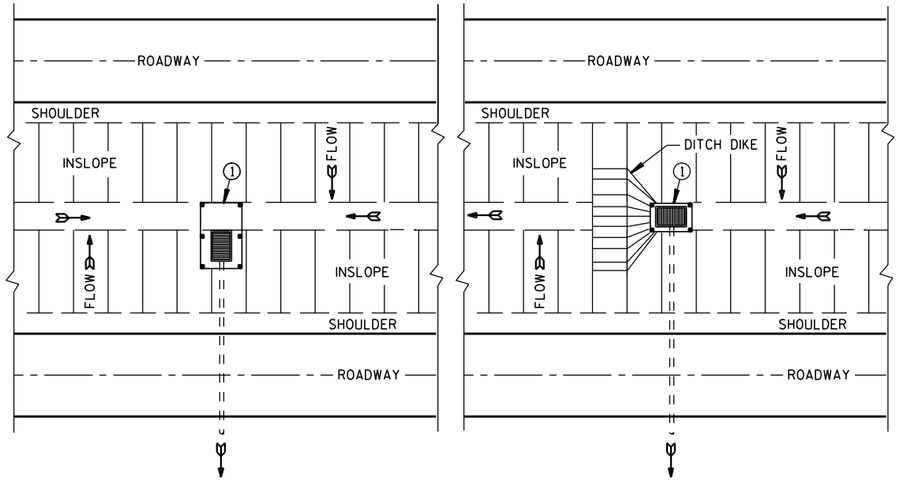
6

S.D.D. 8 E 8-3



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.

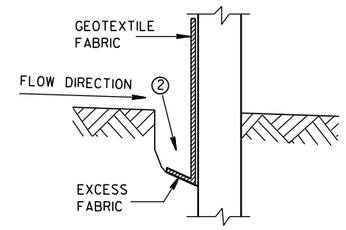
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

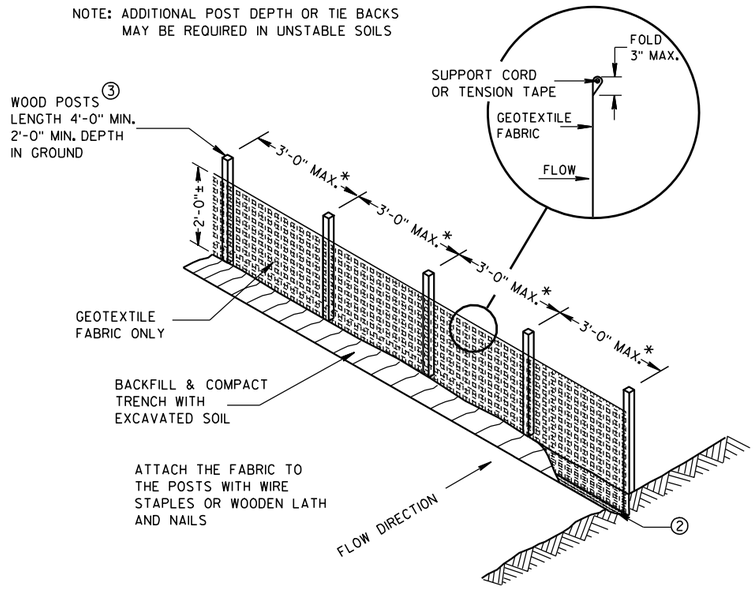
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

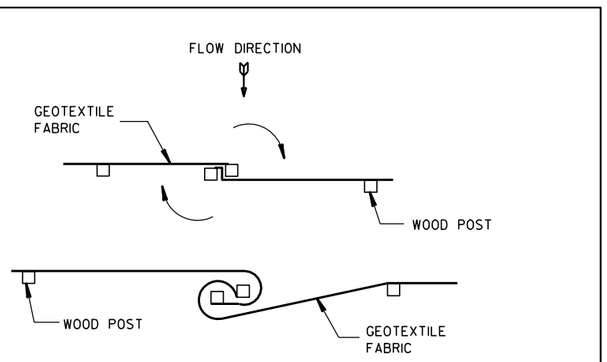
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



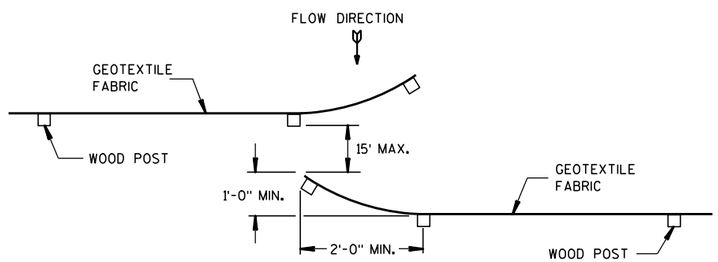
TRENCH DETAIL



SILT FENCE

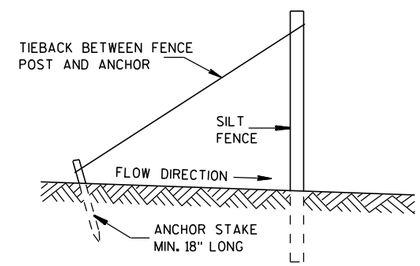


TWIST METHOD



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

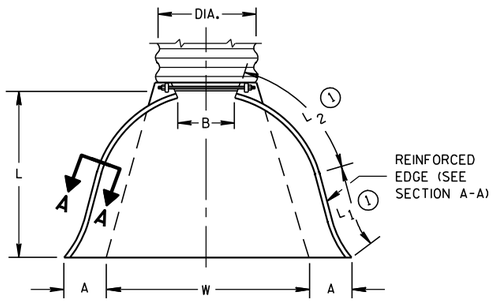
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

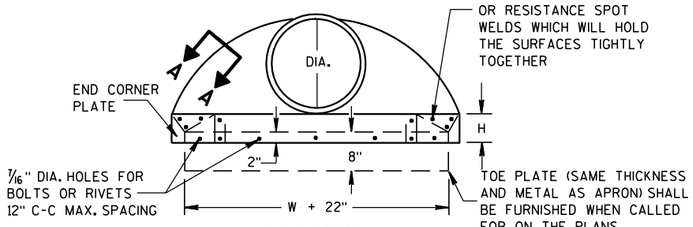
REINFORCED CONCRETE APRON ENDWALLS

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

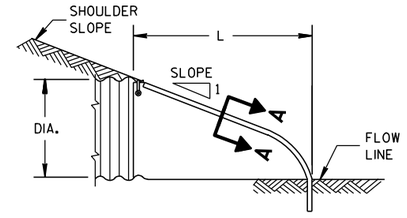
*MINIMUM
**MAXIMUM



PLAN VIEW

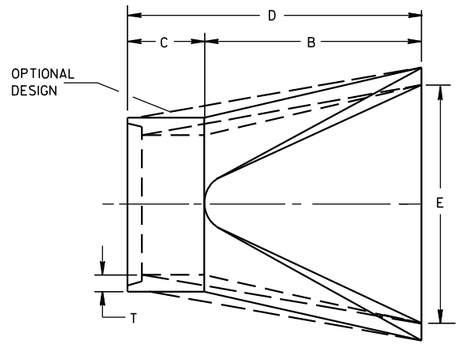


END VIEW

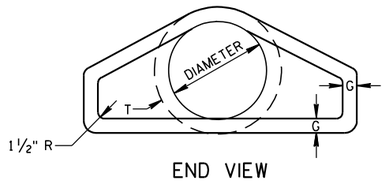


SIDE ELEVATION

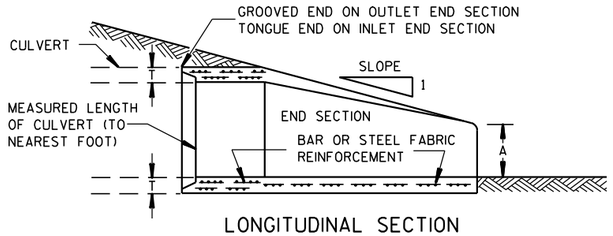
METAL ENDWALLS



PLAN

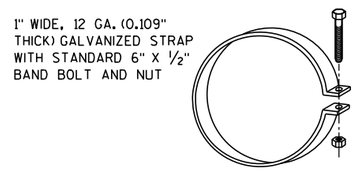


END VIEW



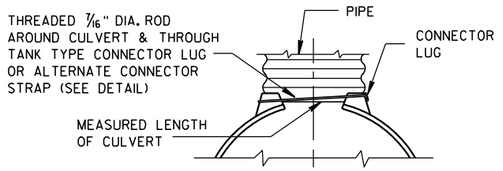
LONGITUDINAL SECTION

CONCRETE ENDWALLS

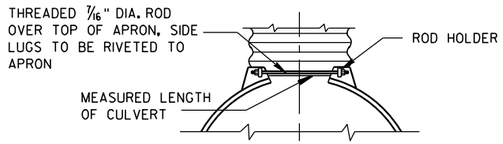


ALTERNATE FOR TYPE 1 CONNECTION

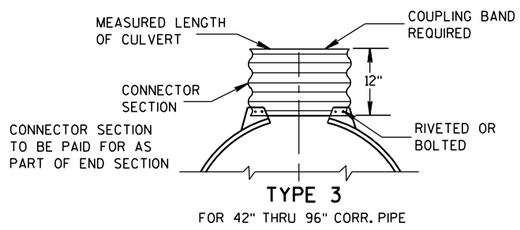
END SECTION CONNECTOR STRAP



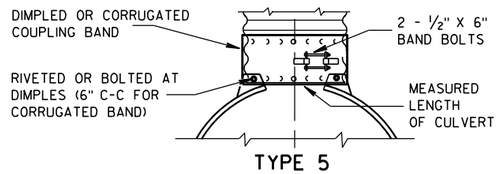
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

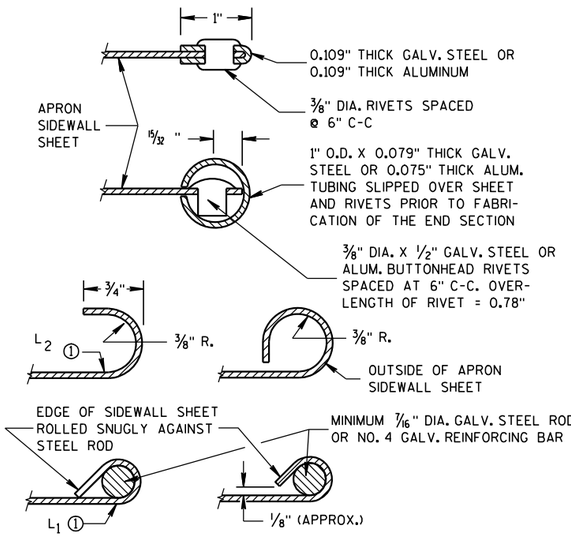
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

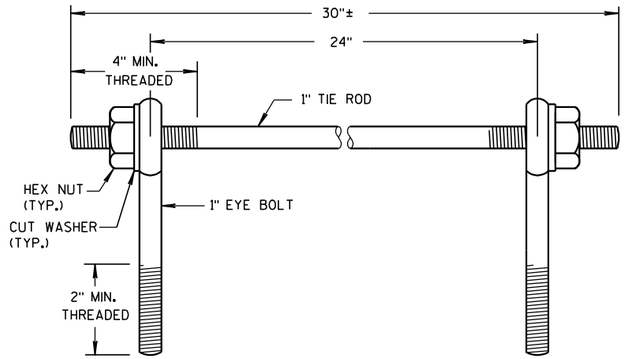
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

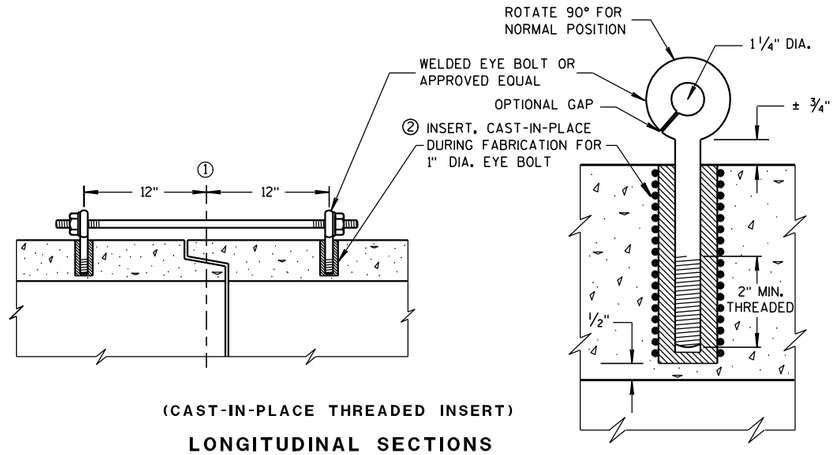
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

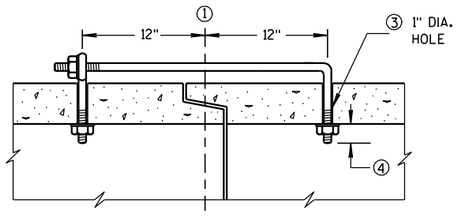
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

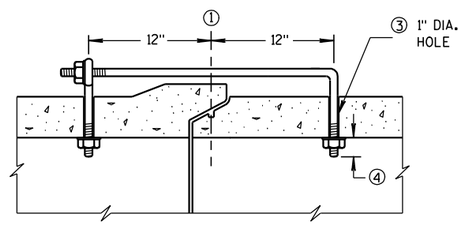
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

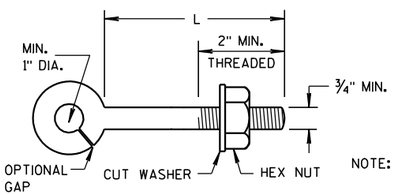


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

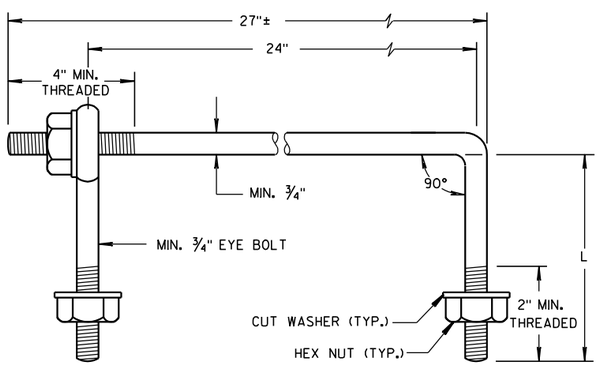
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

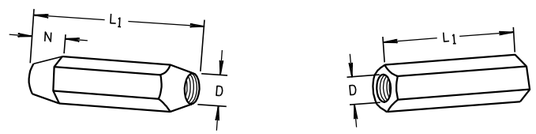
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

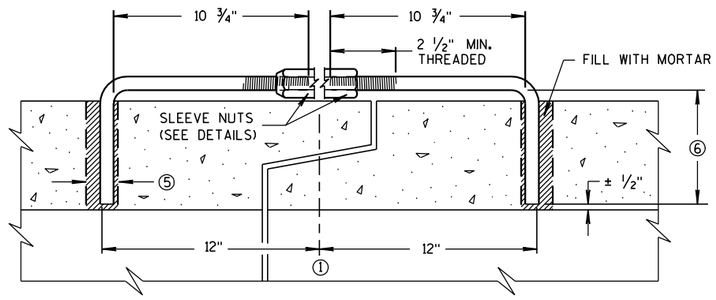
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

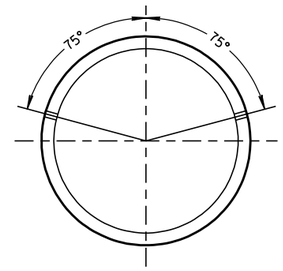
SLEEVE NUTS



LONGITUDINAL SECTION

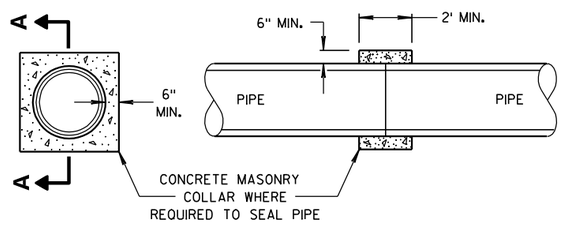
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 F 4-7

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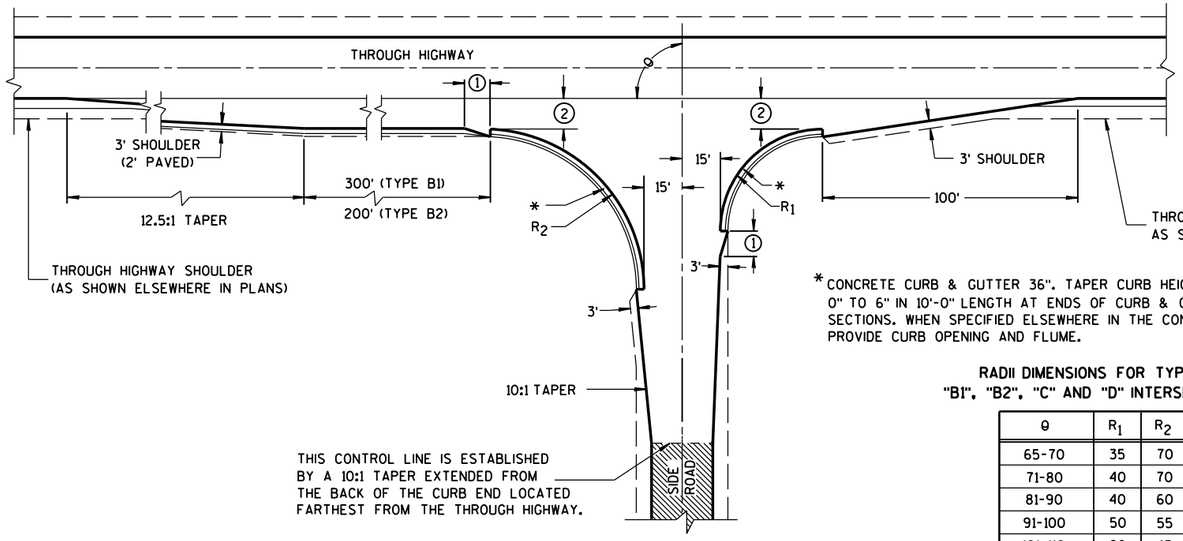
S.D.D. 8 F 4-7

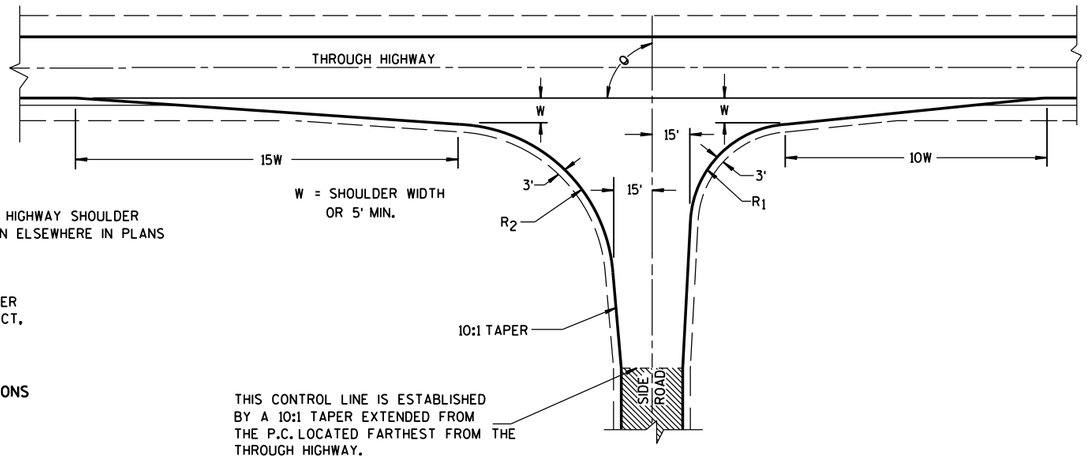


TYPE "B1" AND "B2"

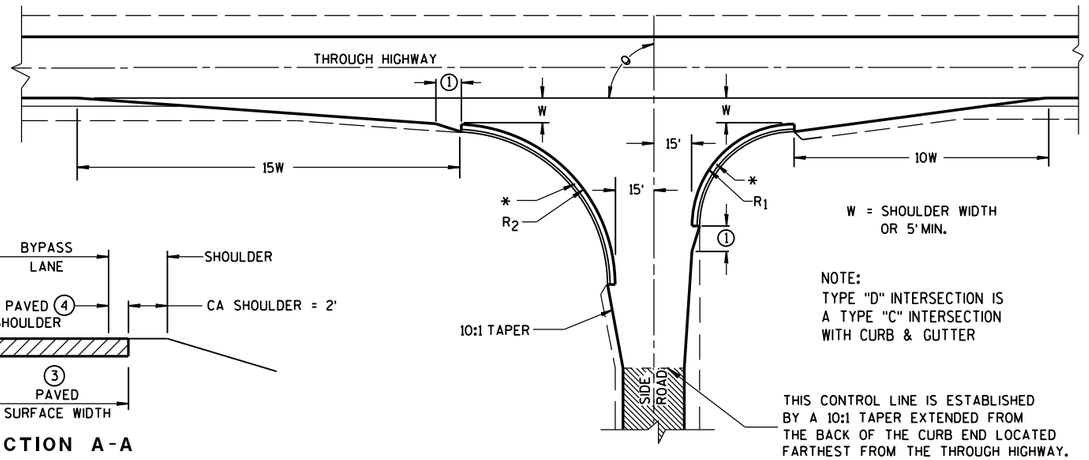
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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.

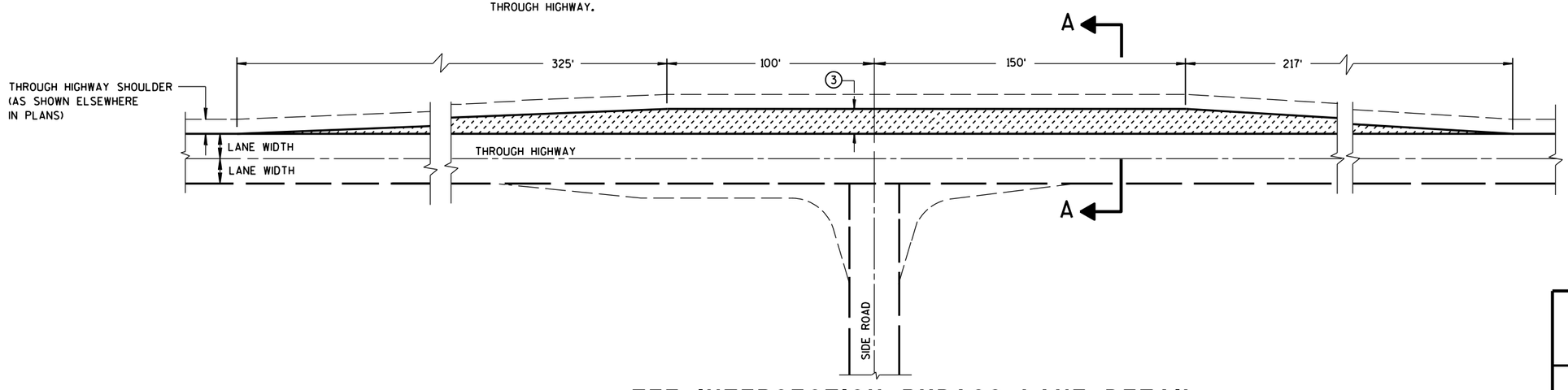
(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**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 TRANSPO

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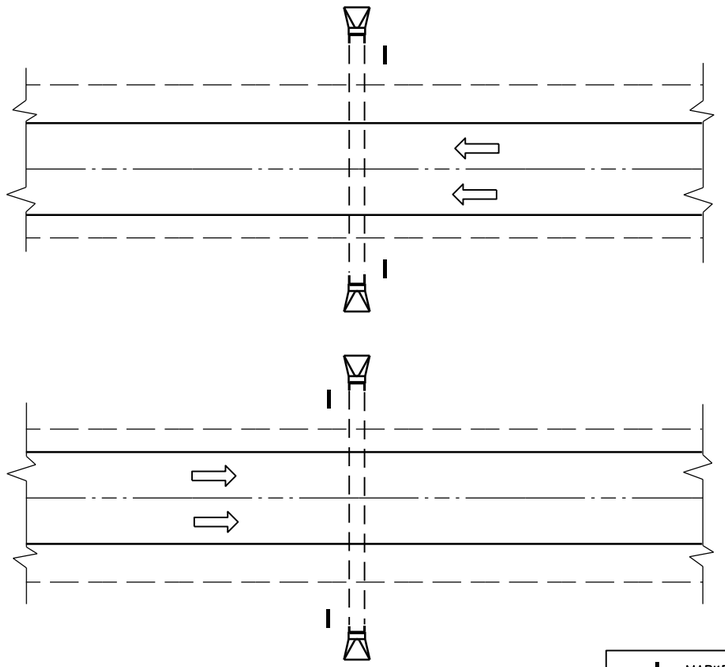
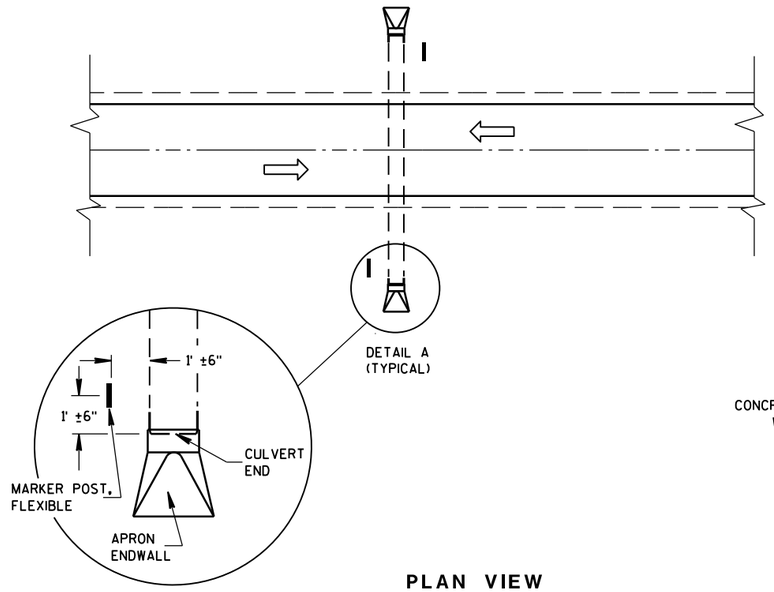
S.D.D. 9 A 1-13a



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

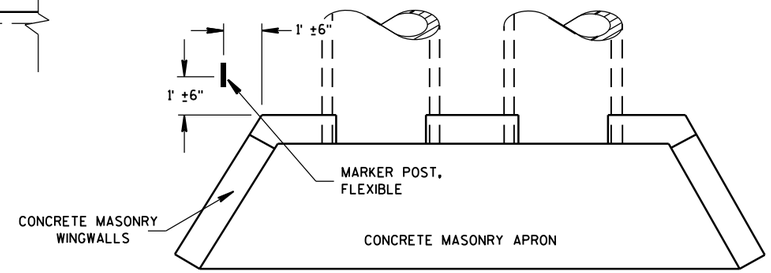
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

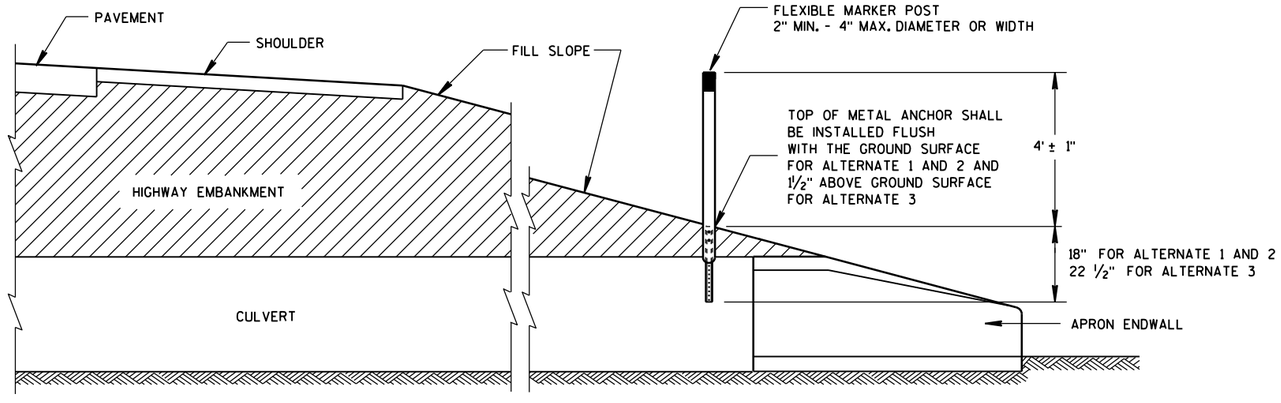
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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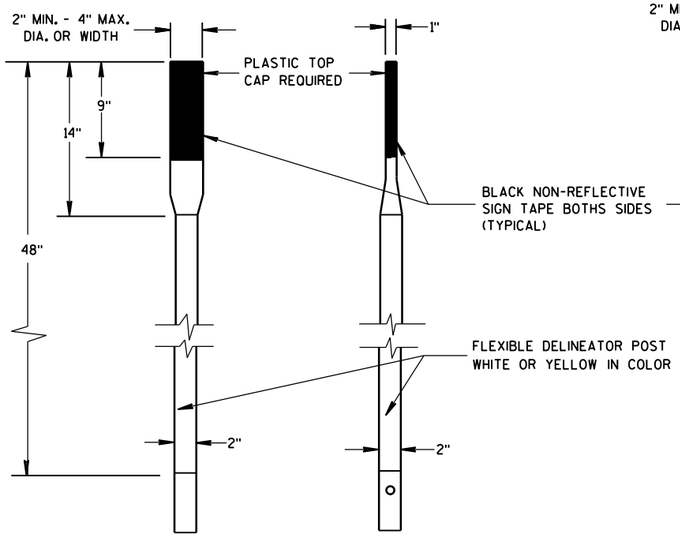
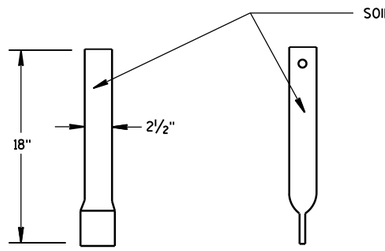
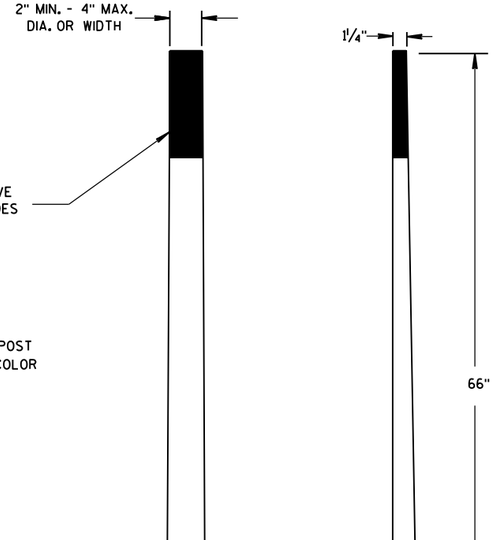
S.D.D. 15 A 3-2a





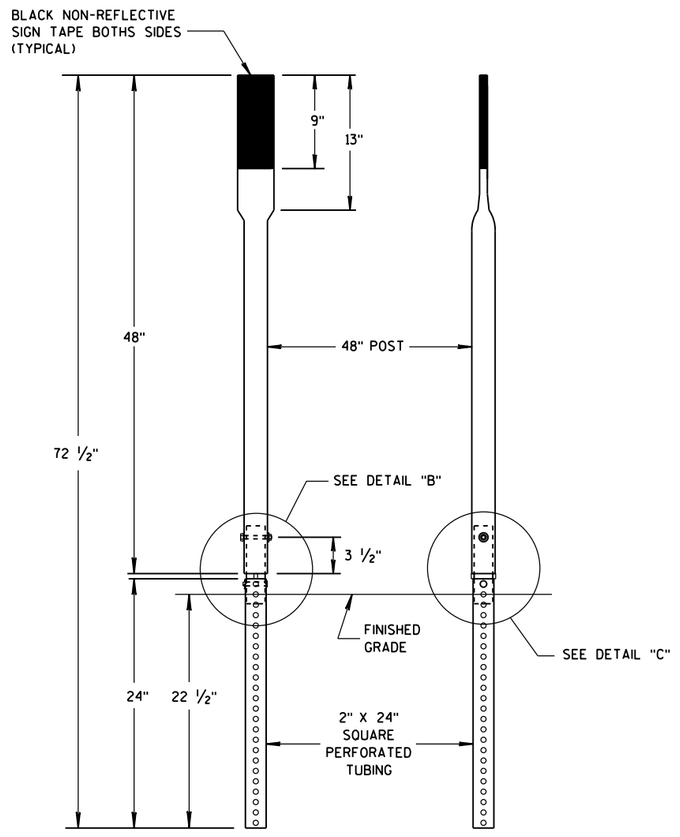
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

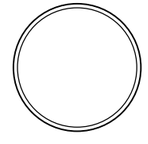
ALTERNATE 2



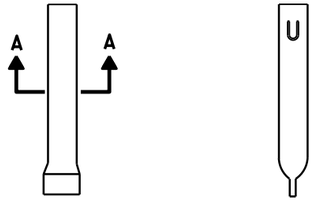
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

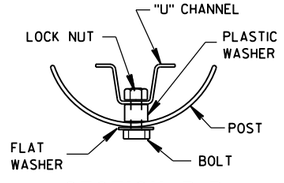


SECTION A-A

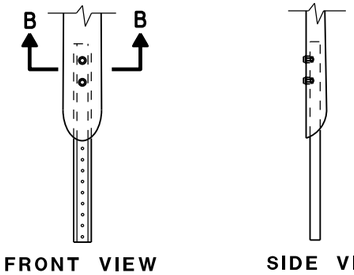


FRONT VIEW SIDE VIEW

ALTERNATE 1

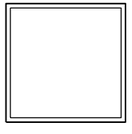


SECTION B-B

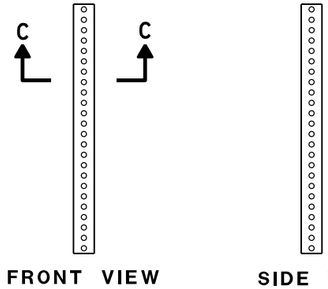


FRONT VIEW SIDE VIEW

ALTERNATE 2



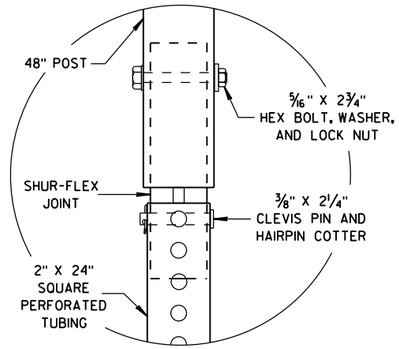
SECTION C-C



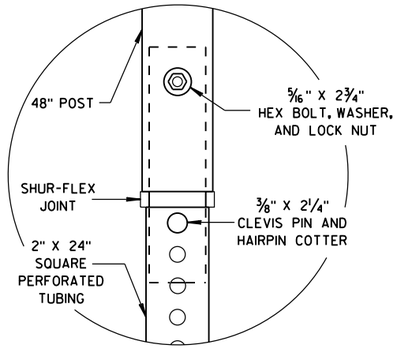
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

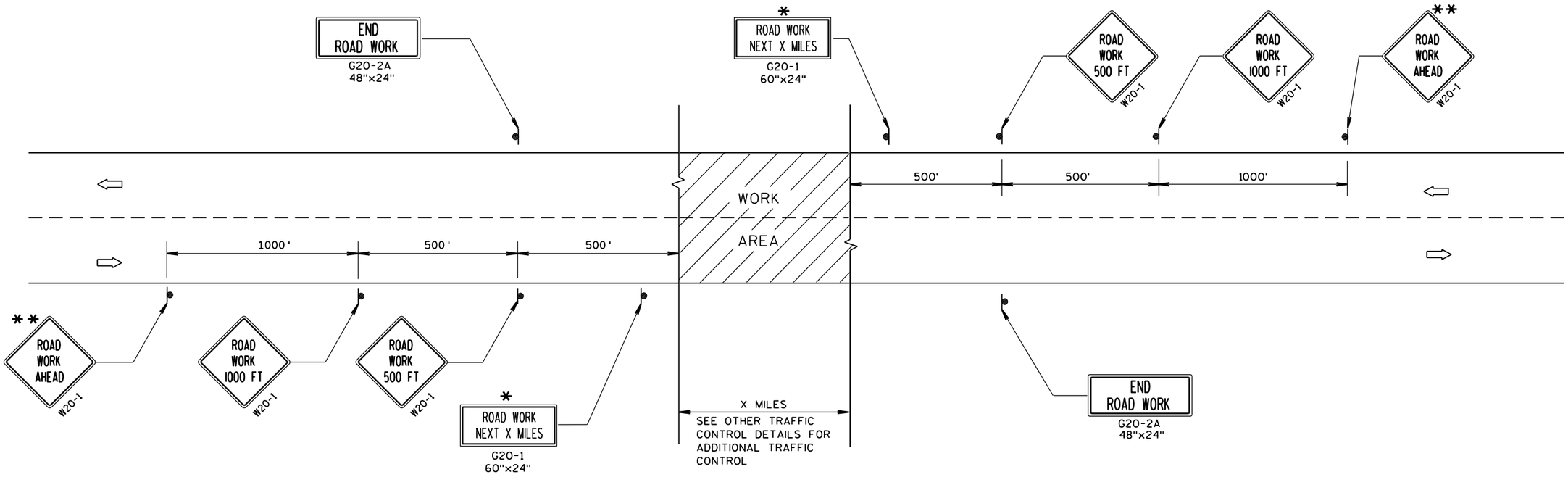
6

S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

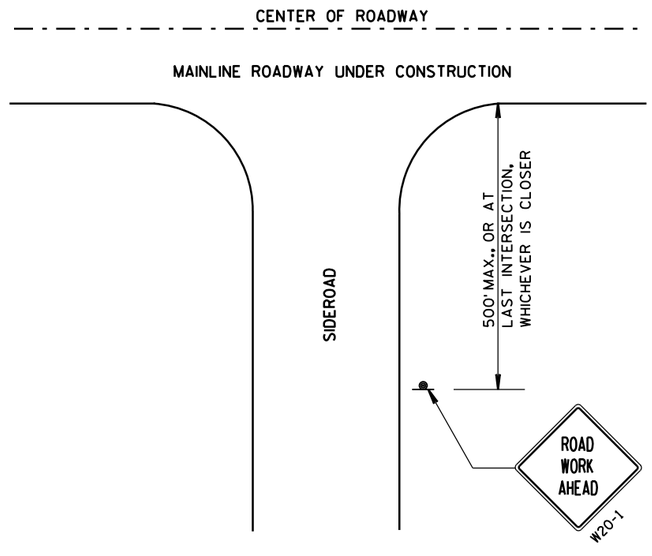
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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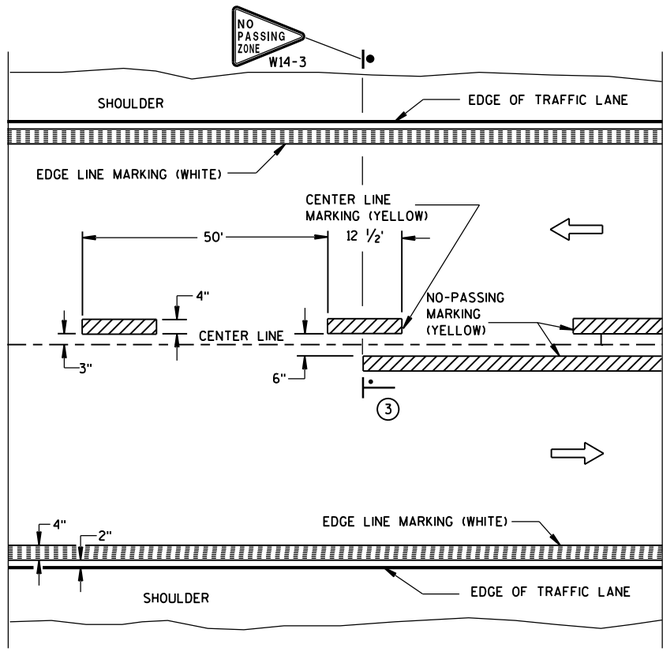
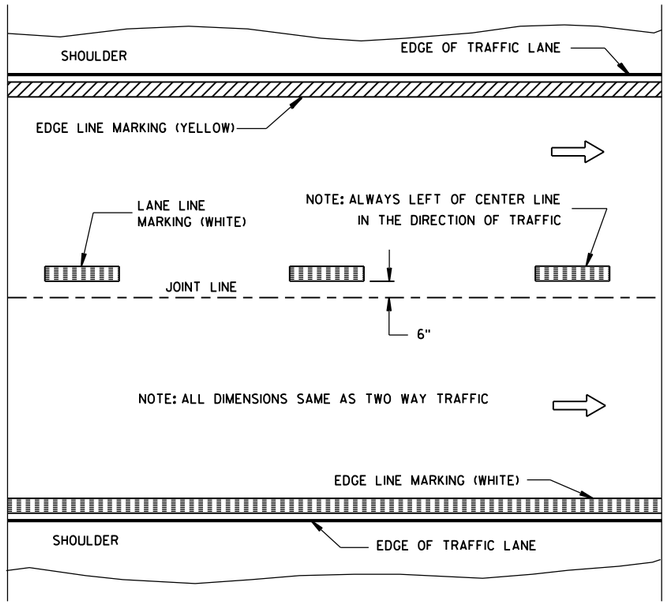
S.D.D. 15 C 4-2

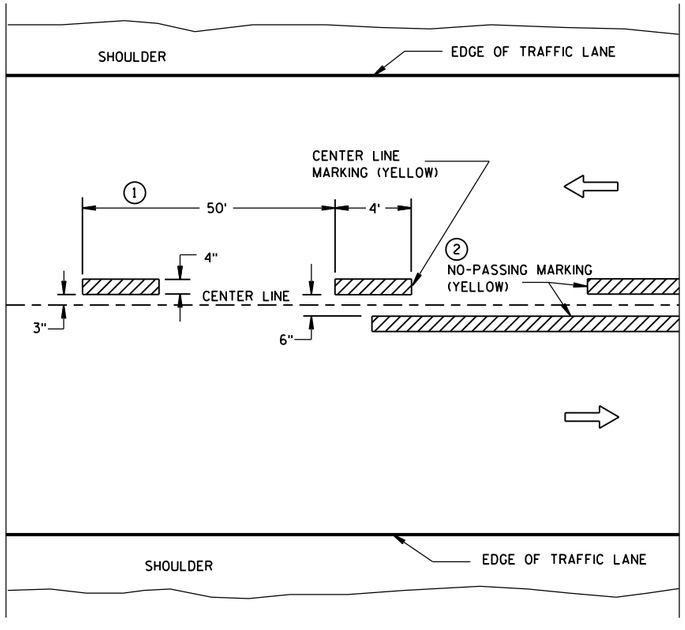


TWO WAY TRAFFIC

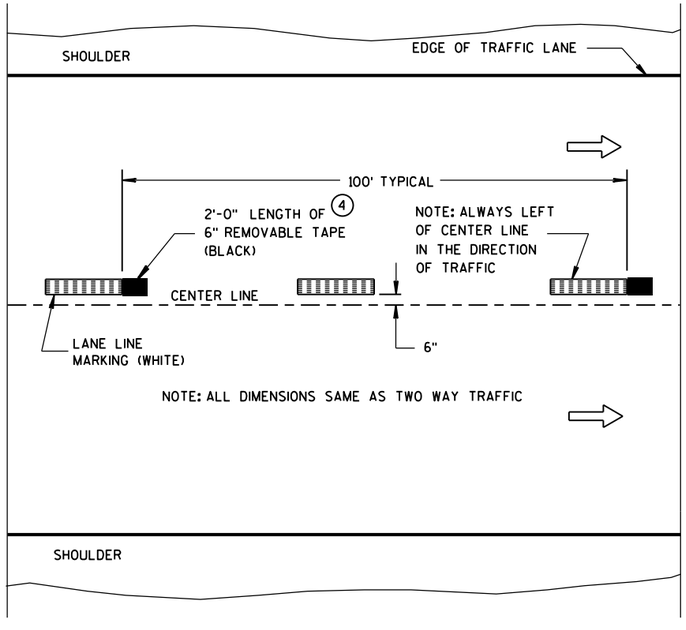


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

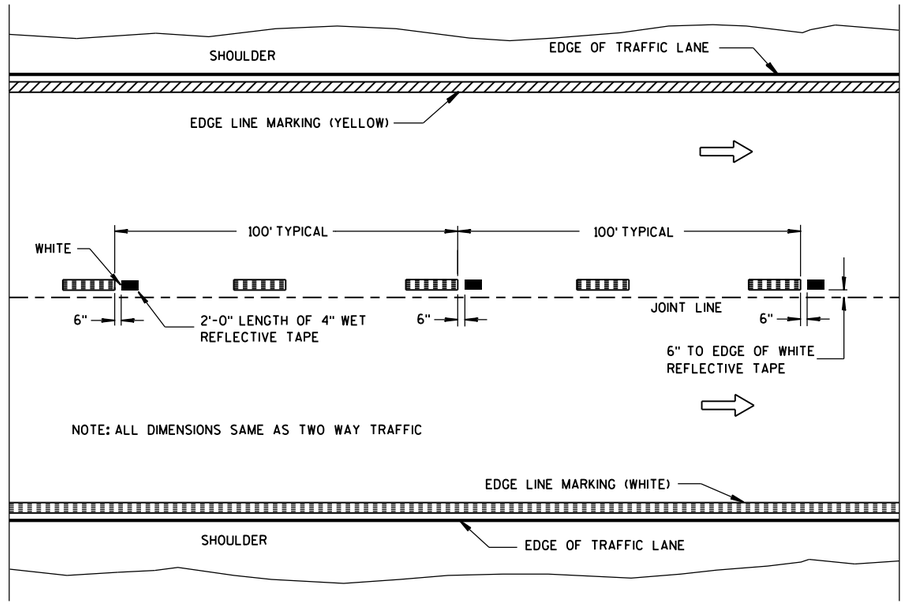
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

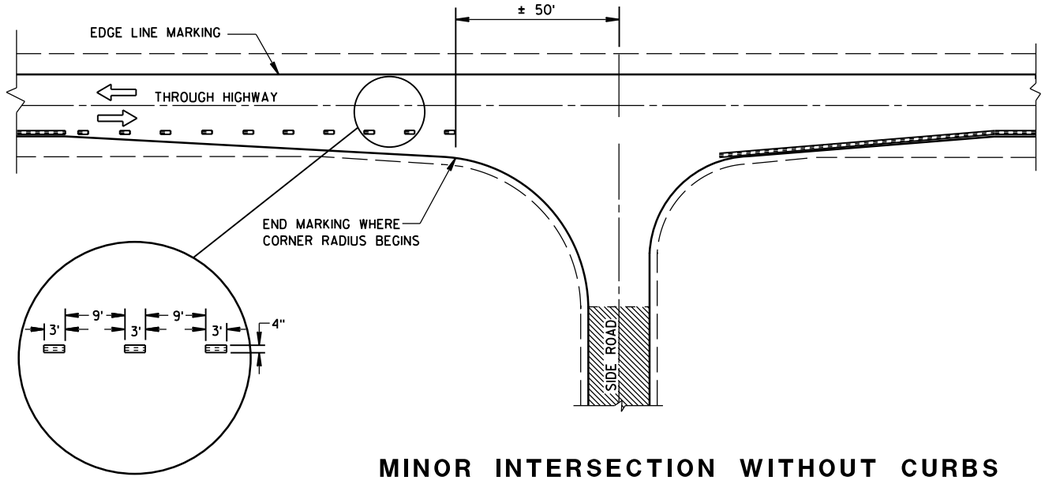
PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

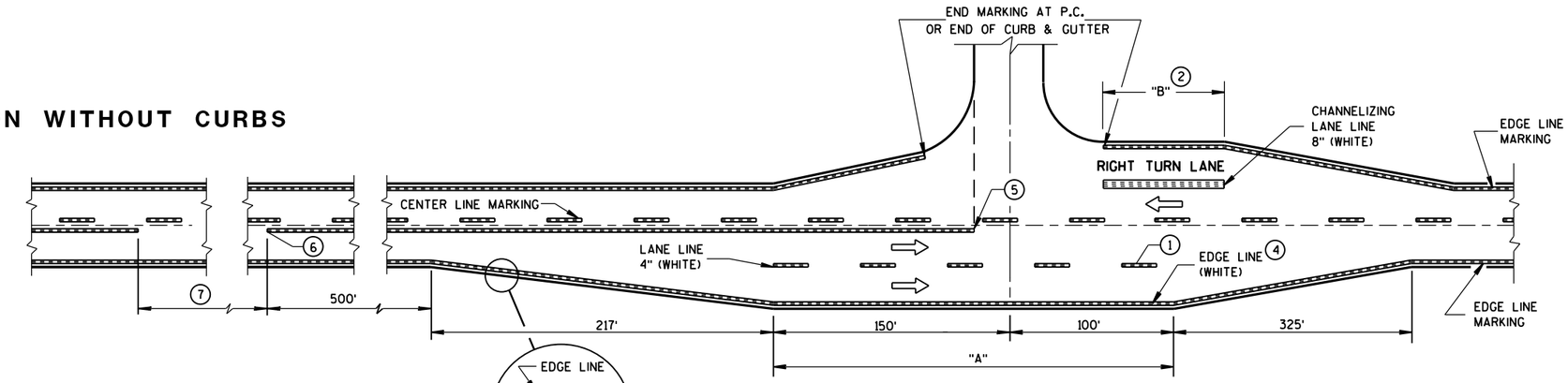
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

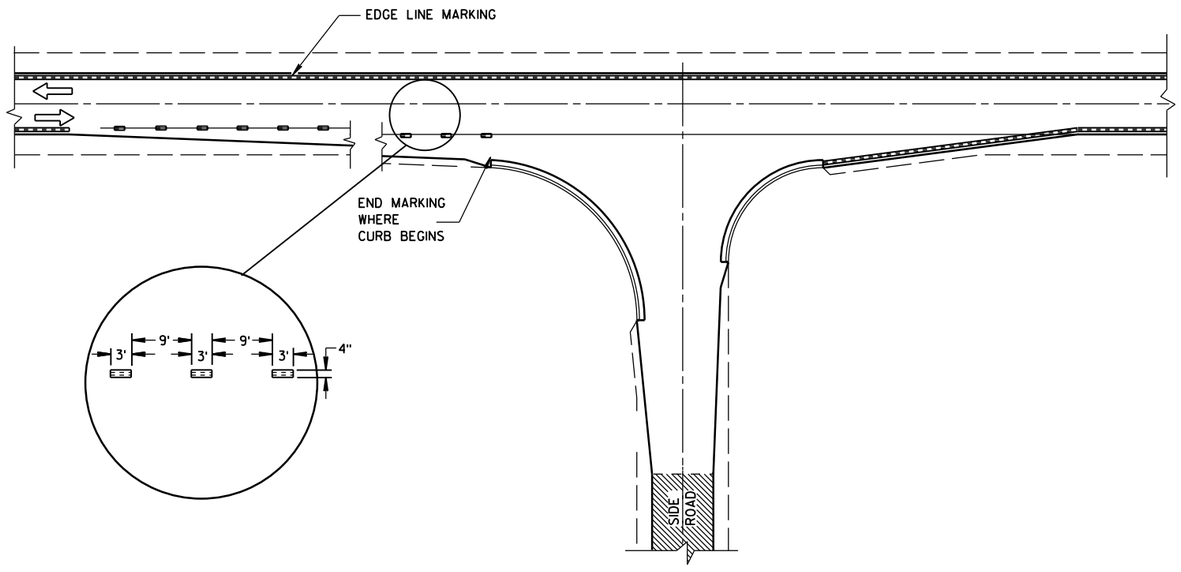
(7)

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



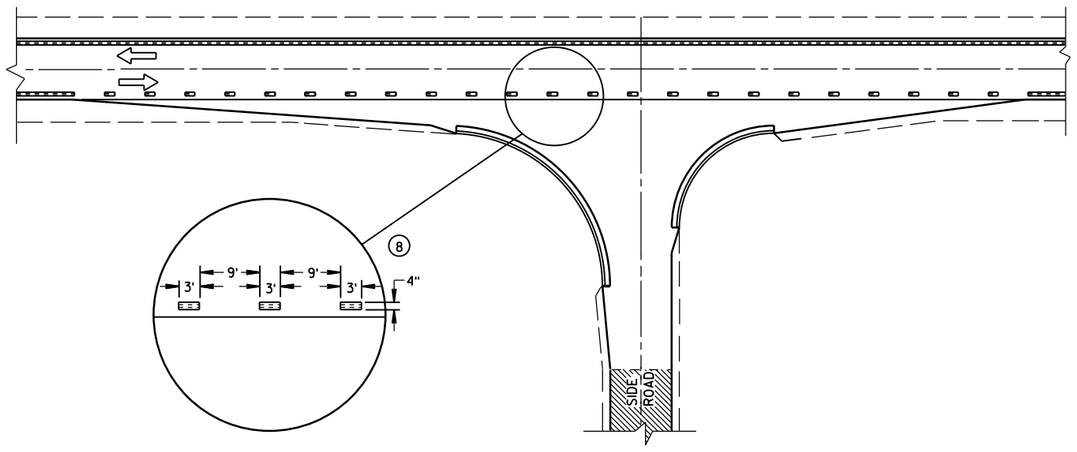
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 35

6

S.D.D. 15 C 8-16b

6

S.D.D. 15 C 8-16b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

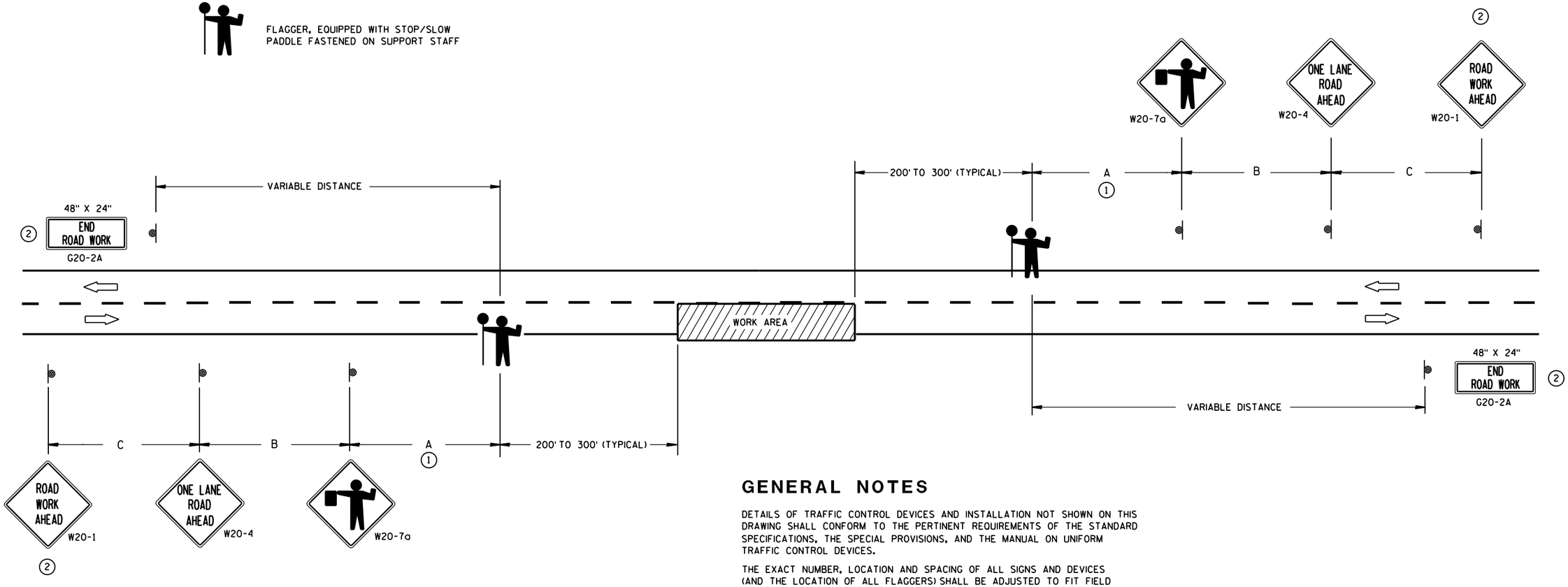
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

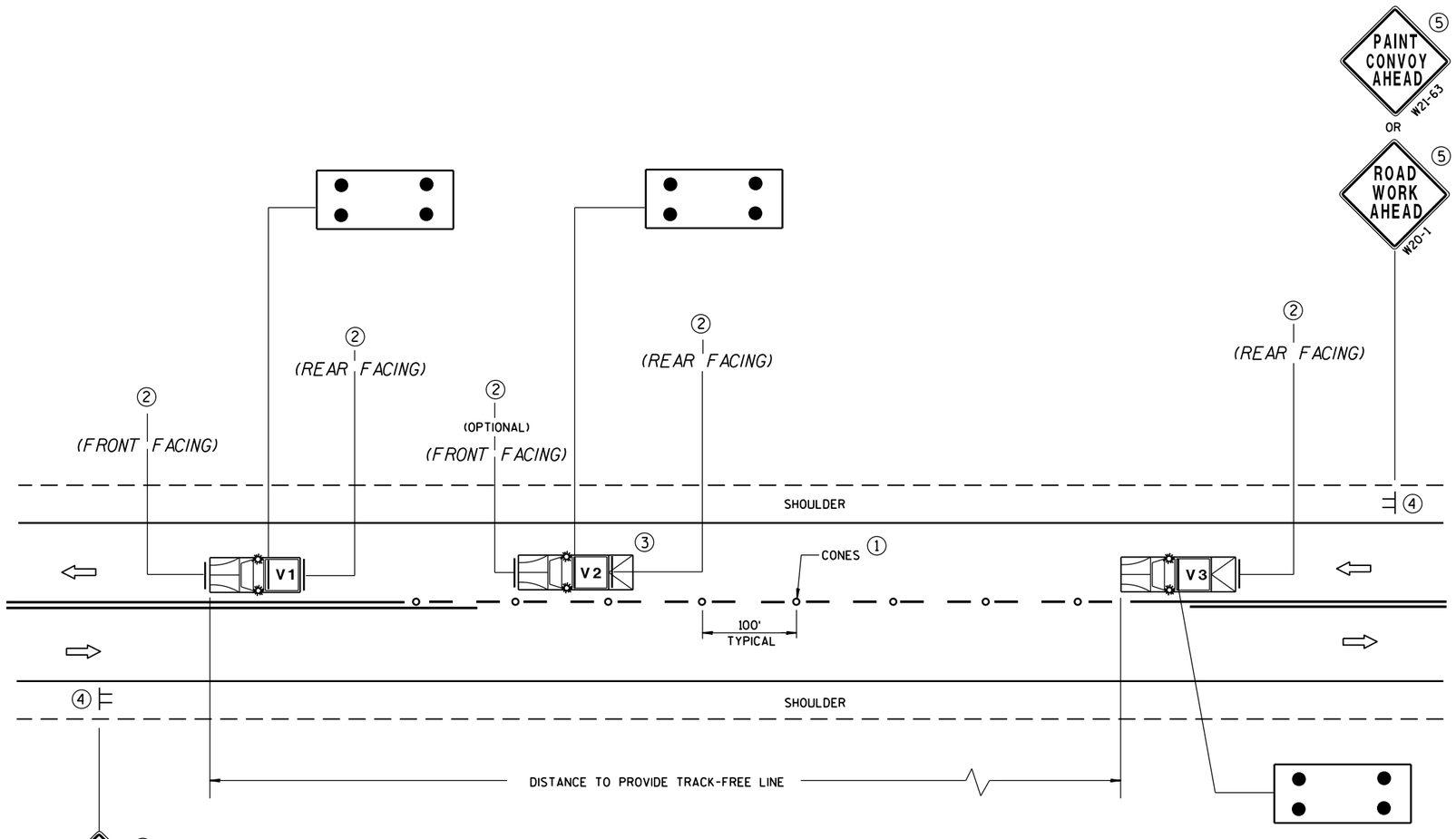
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

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

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

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

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

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

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

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

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

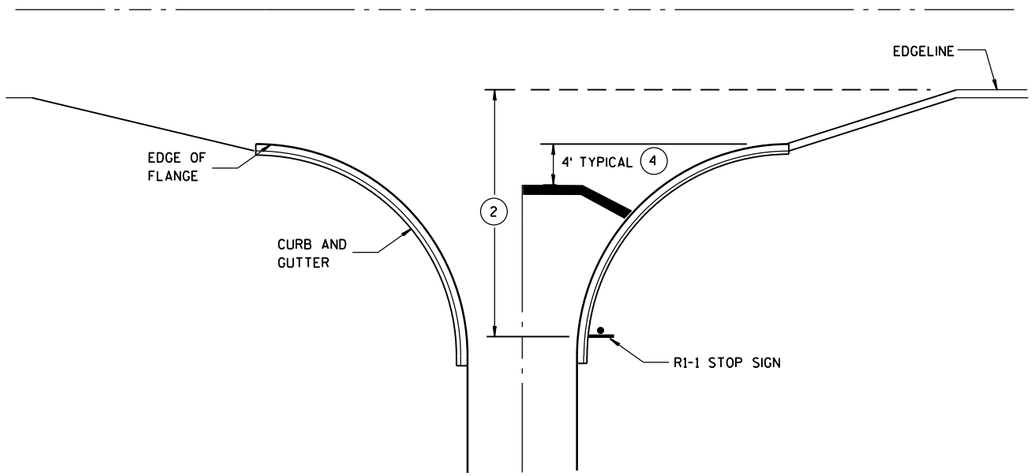
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/3/2013 DATE FHWA	/S/ Travis Feltes STATE TRAFFIC E

6

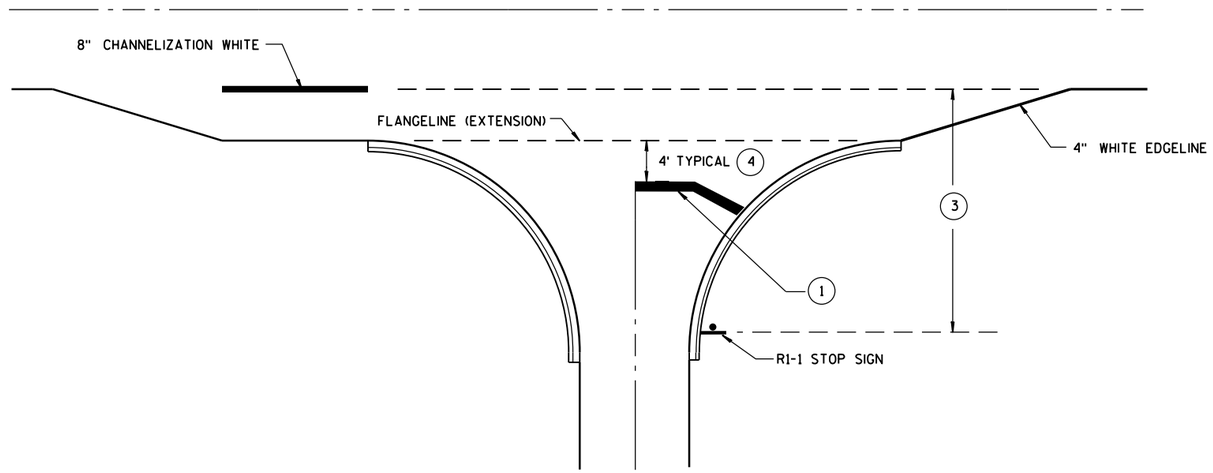
S.D.D. 15 C 19-2a

6

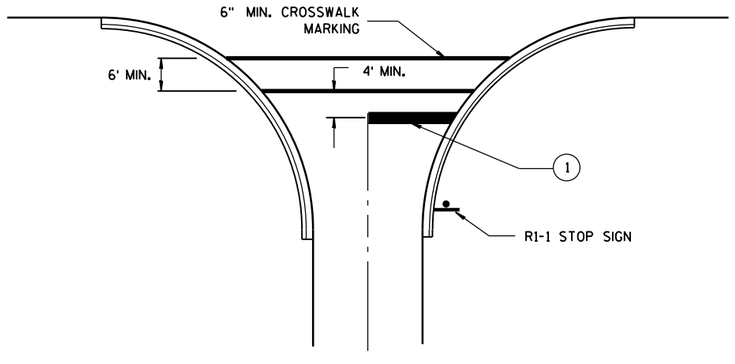
S.D.D. 15 C 19-2a



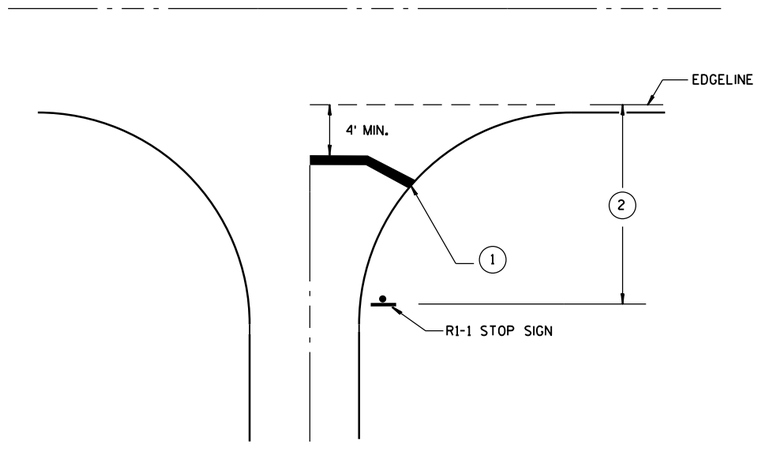
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1
S.D.D. 15 C 33-1

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.

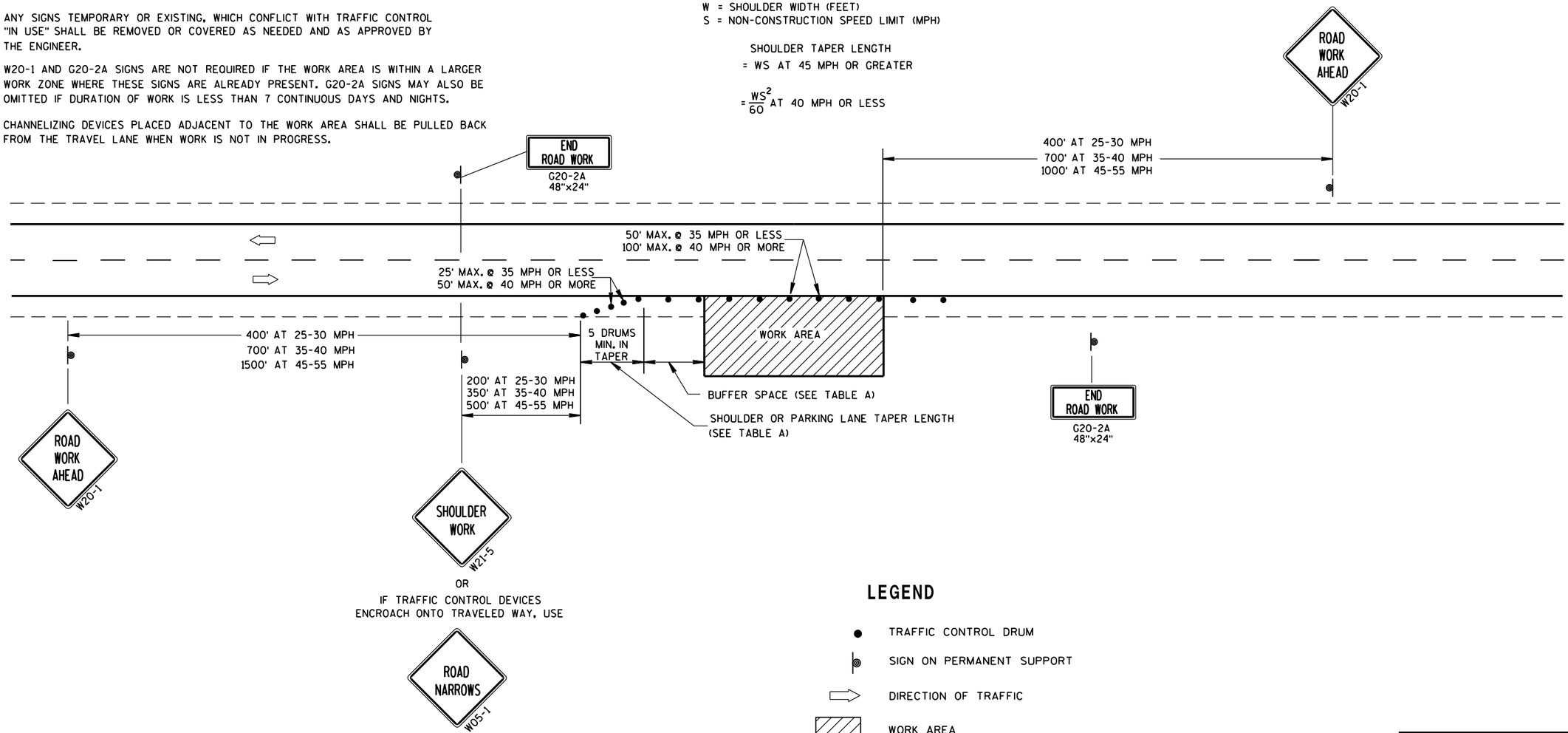
TABLE A

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

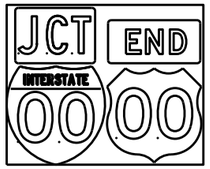
FHWA

6

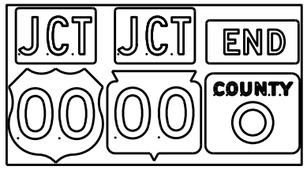
S.D.D. 15 D 28-2

TYPICAL ASSEMBLIES

J1-1

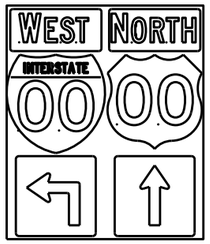


J1-2

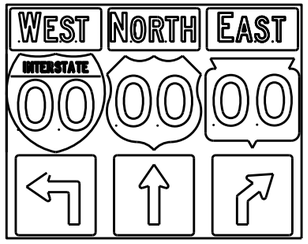


J1-3

J2-1



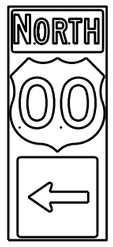
J2-2



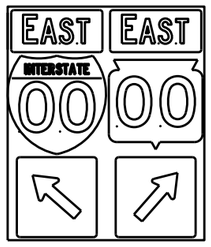
J2-3

JV

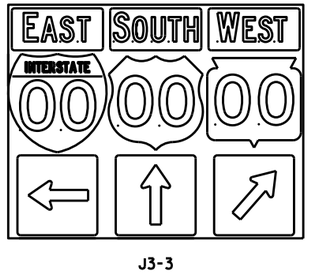
(Typical Vertical J-Assembly
See Note 10 and 11)



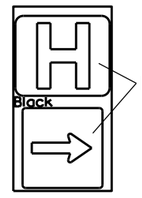
J3-1



J3-2

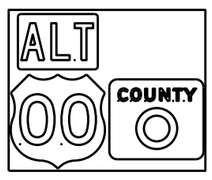


J3-3

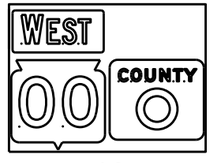


JH-1

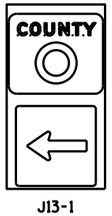
J4-1



J4-2



J4-2



J13-1

J12-1

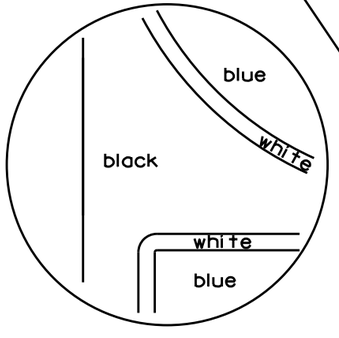
J32-1

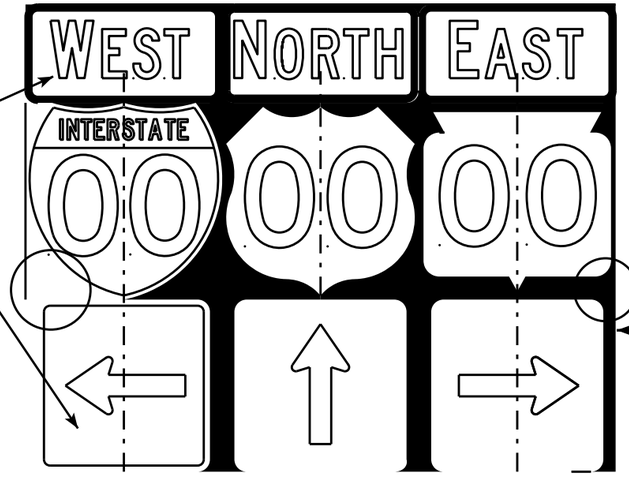
J33-1

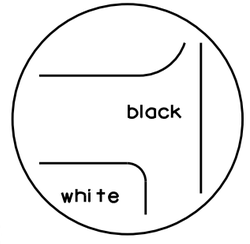
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

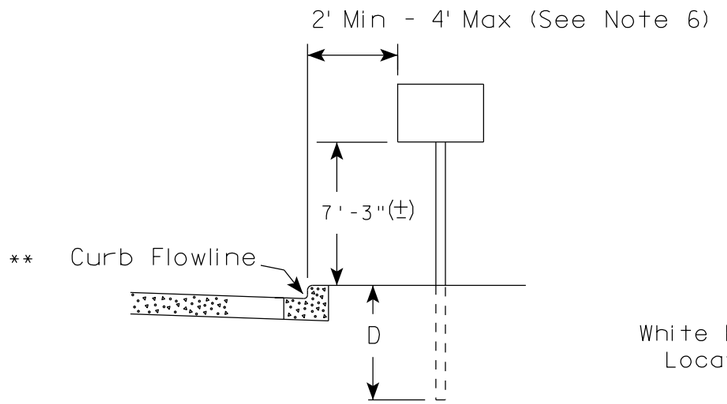
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

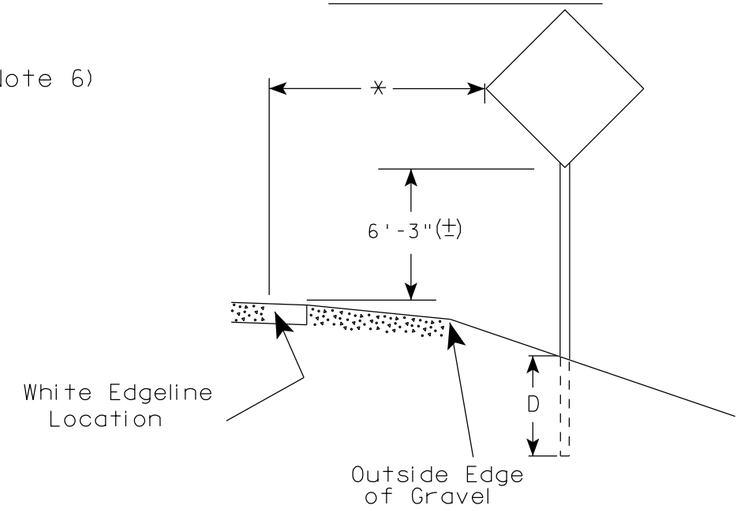
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

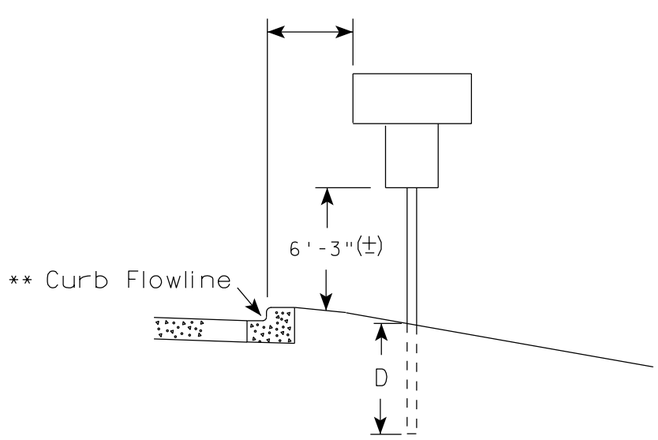
WISDOT/CADDS SHEET 42

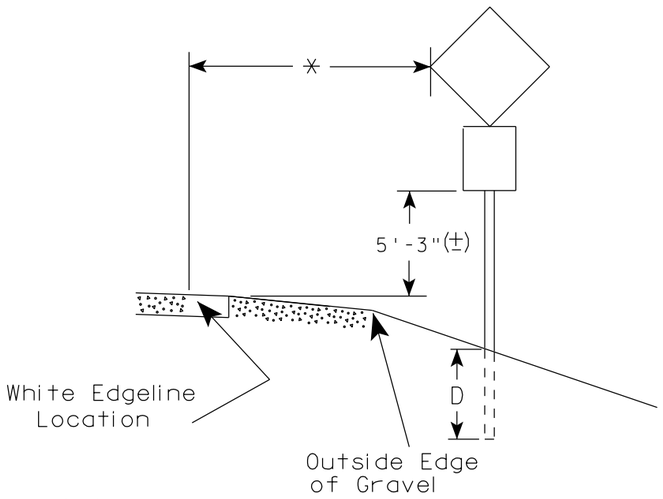
URBAN AREA



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

POST EMBEDMENT DEPTH

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

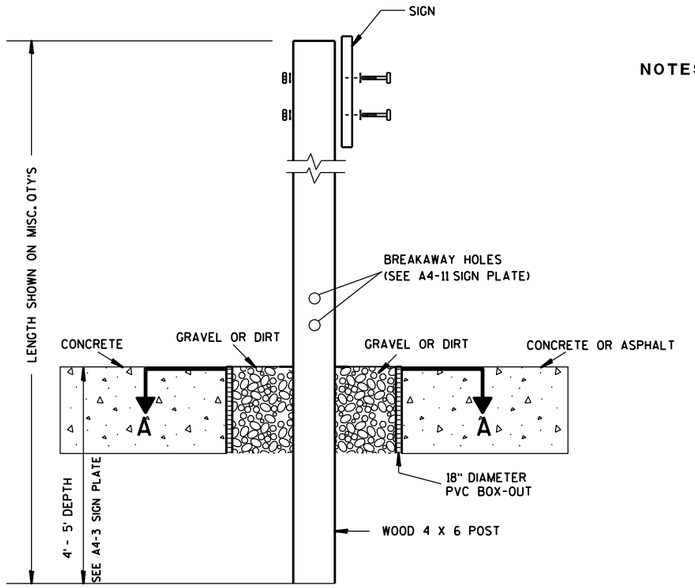
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

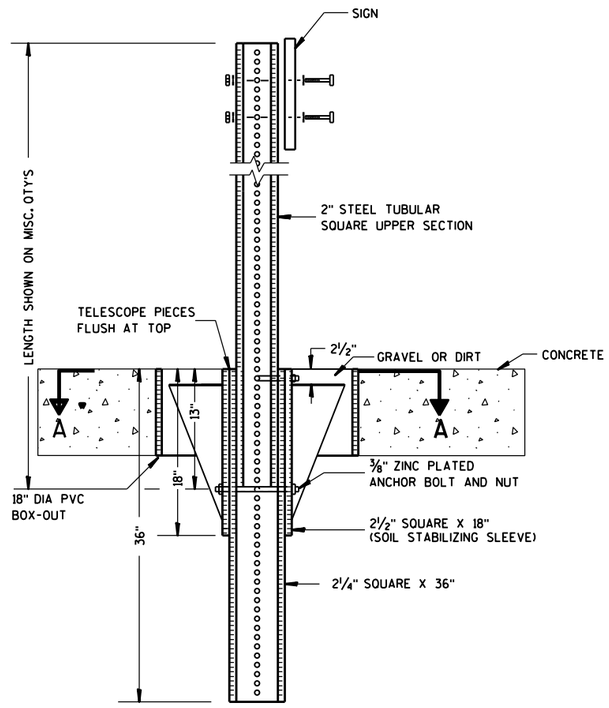
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

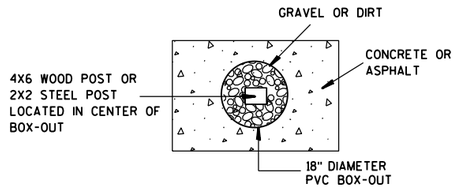
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

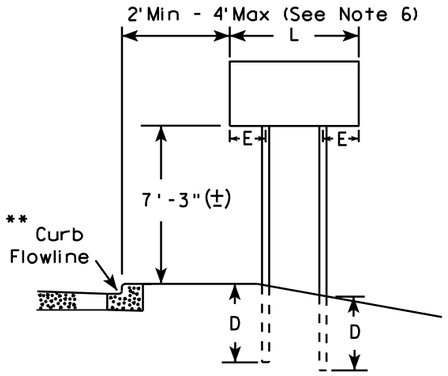
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

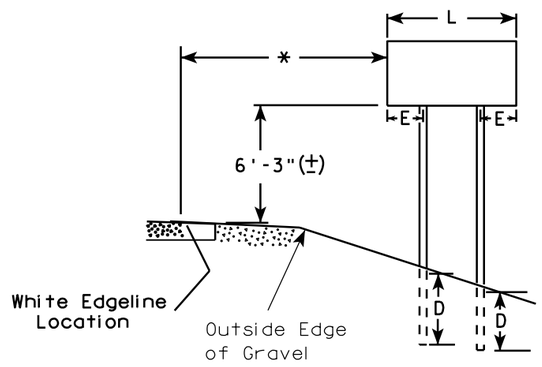
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

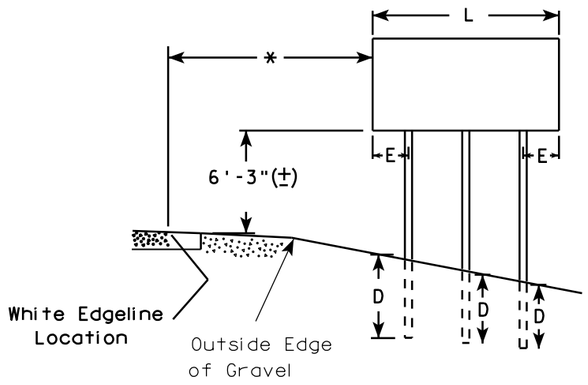
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

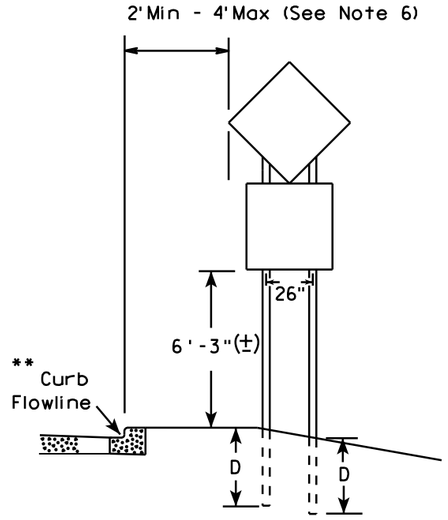
URBAN AREA



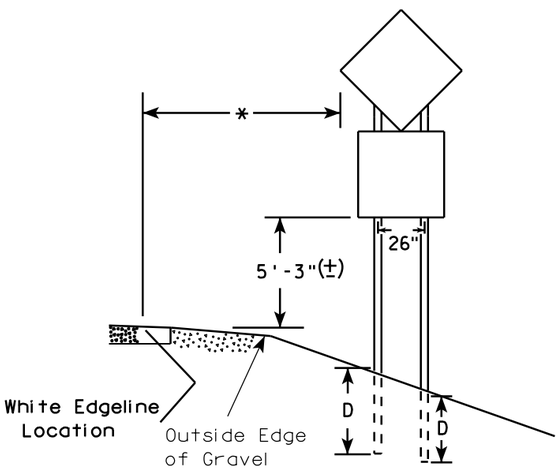
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

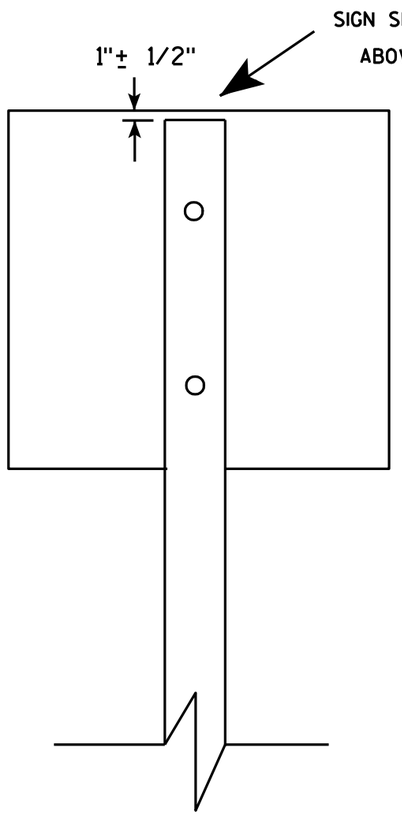
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

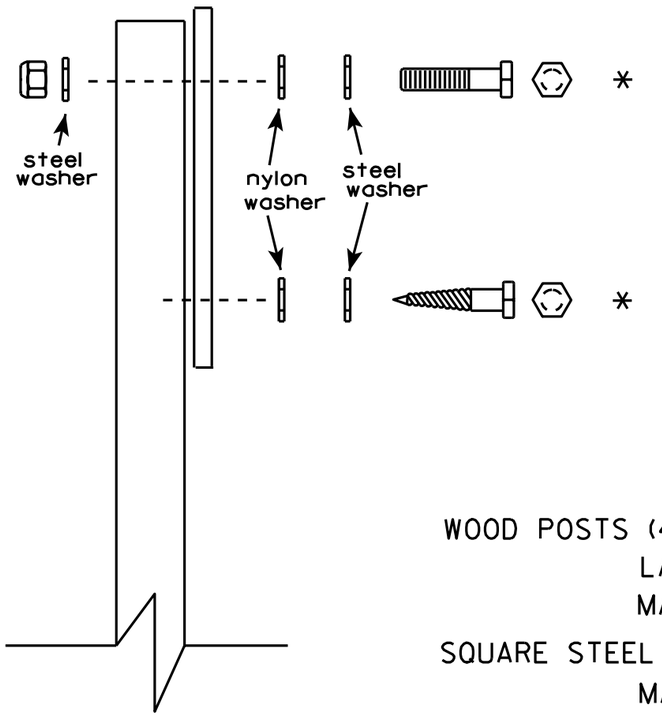
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
43

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E





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

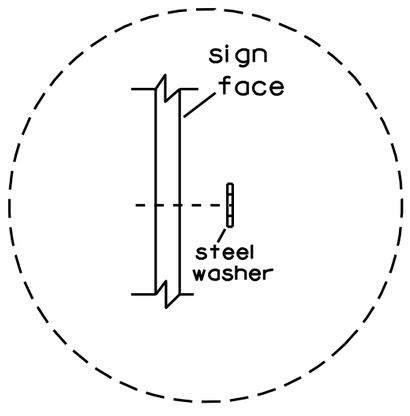
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

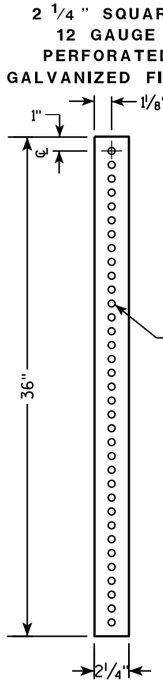
7

PROJECT NO:

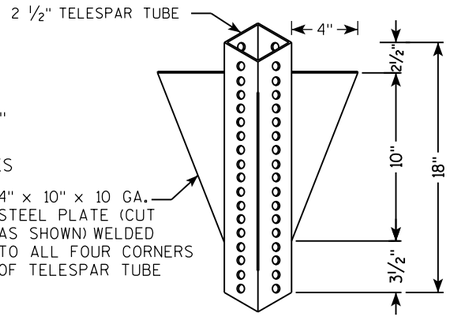
SHEET NO: 44 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

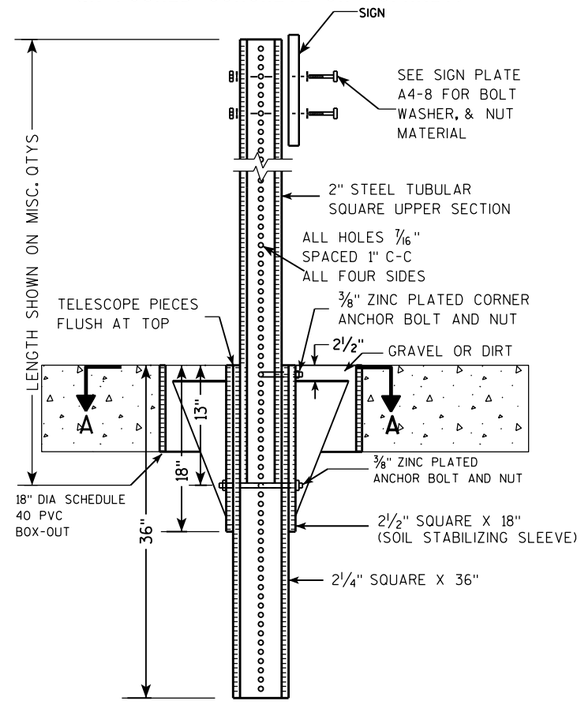
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



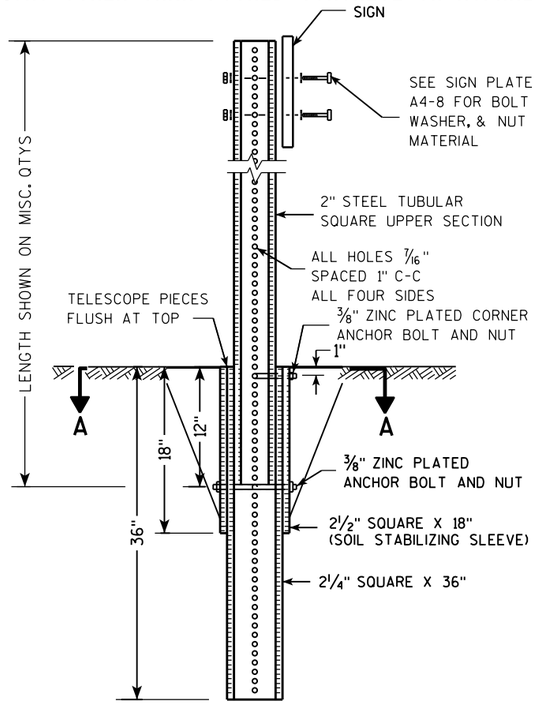
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

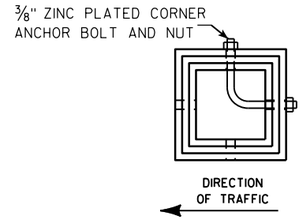


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

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

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

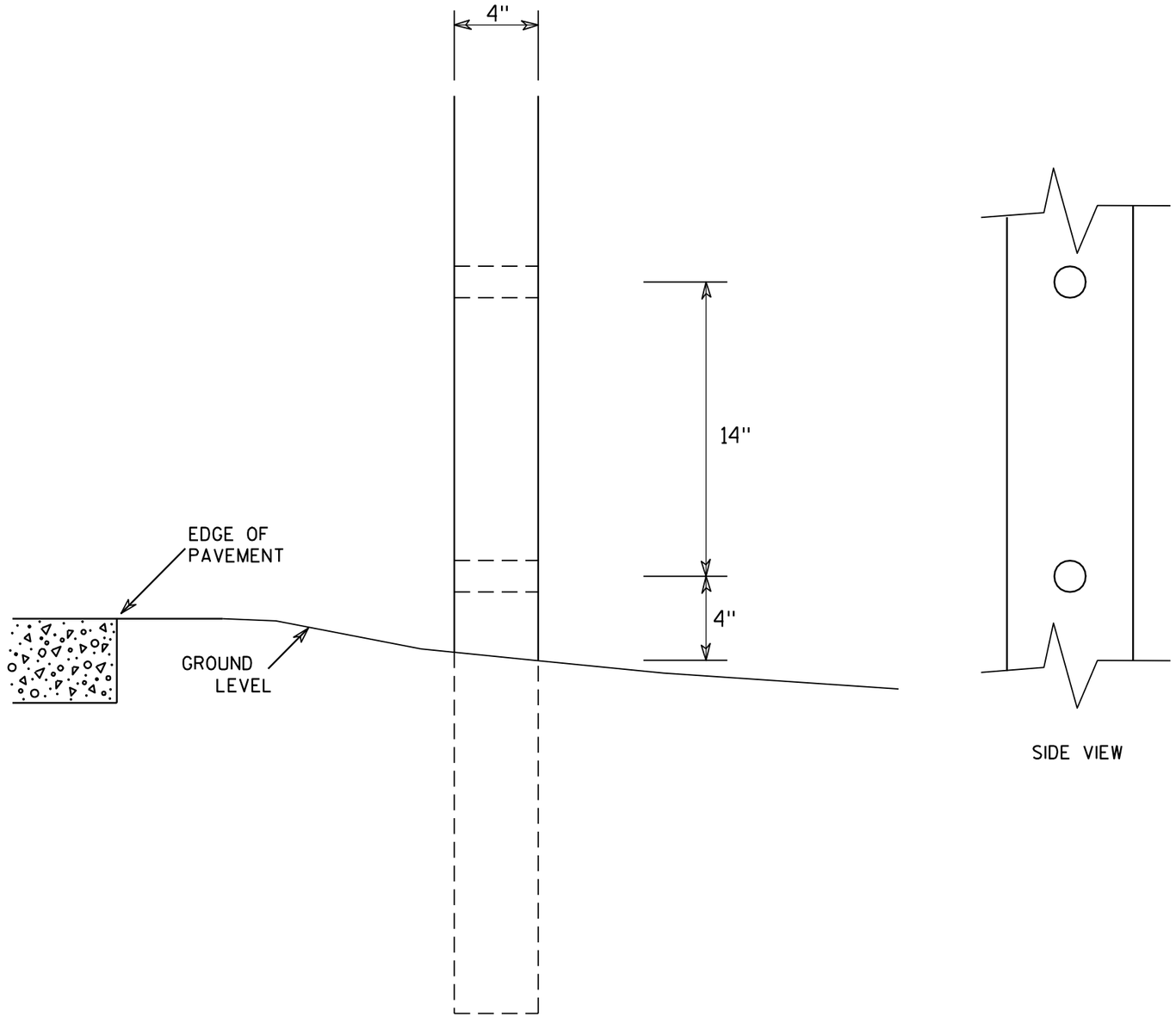
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 45 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

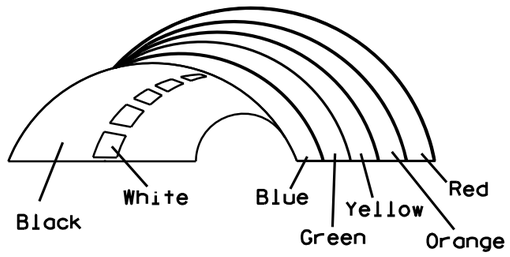
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 46	E

NOTES

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

Background Colors of Symbol*



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

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

STANDARD SIGN
I55-56

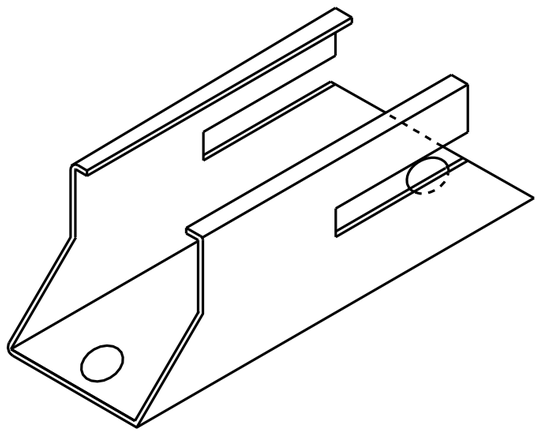
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 47

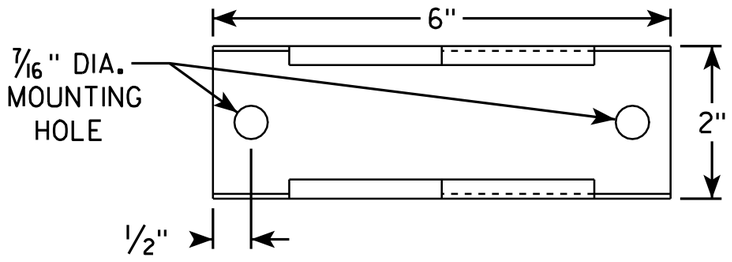
ISOMETRIC VIEW



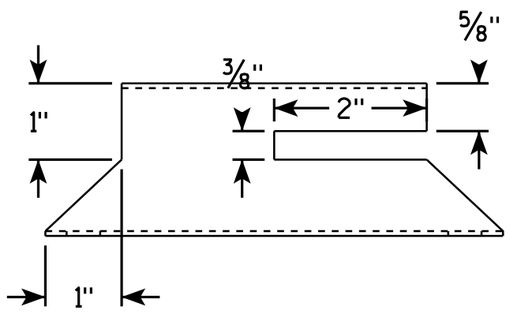
NOTES

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

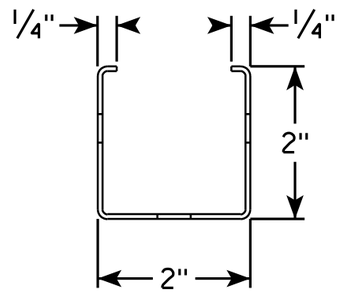
TOP VIEW



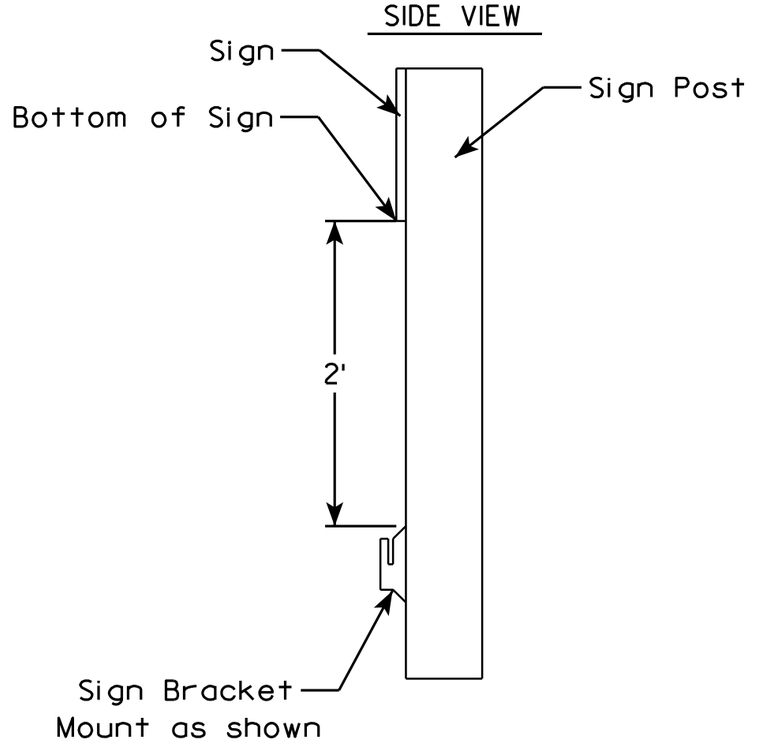
SIDE VIEW



END VIEW



SIDE VIEW



7

7

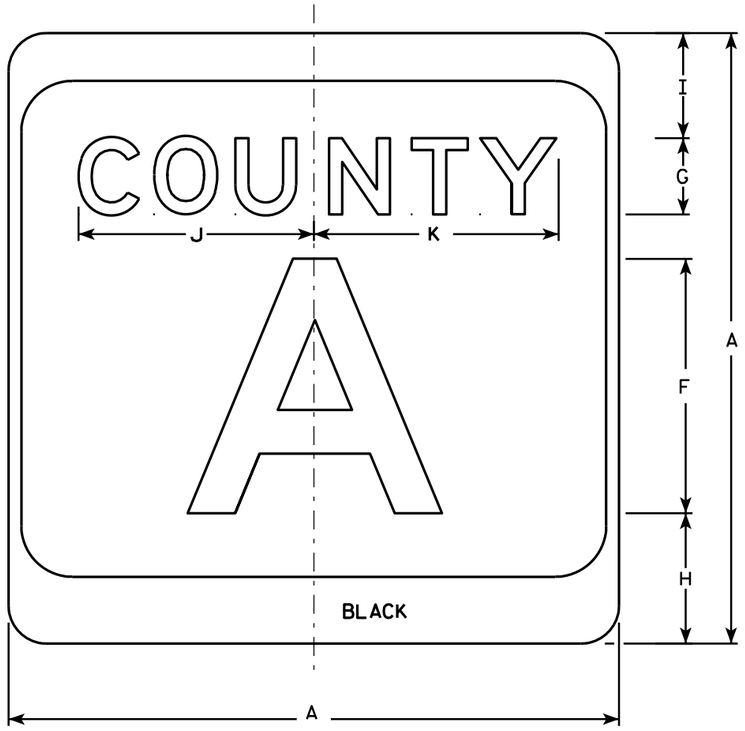
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

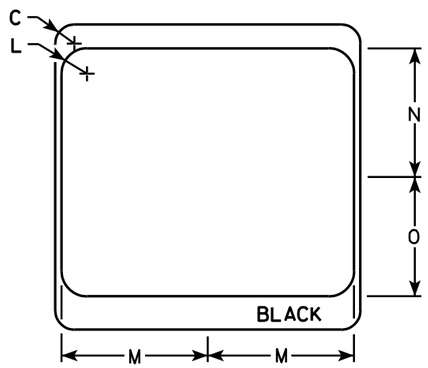
APPROVED Matthew R Rauch
for State Traffic Engineer

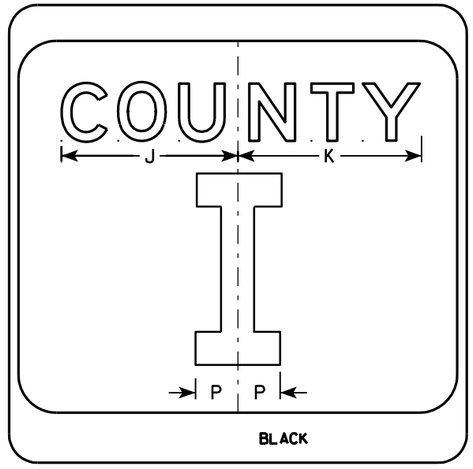
DATE 2/5/10 PLATE NO. I55-56B.1

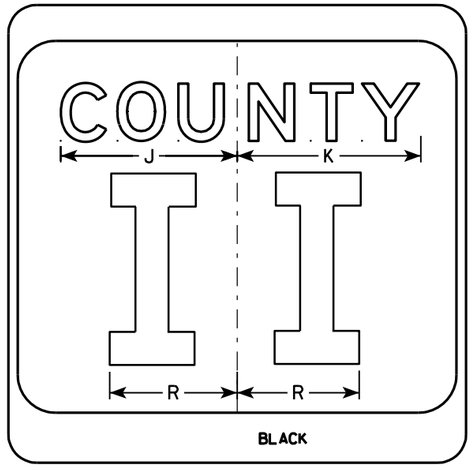
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

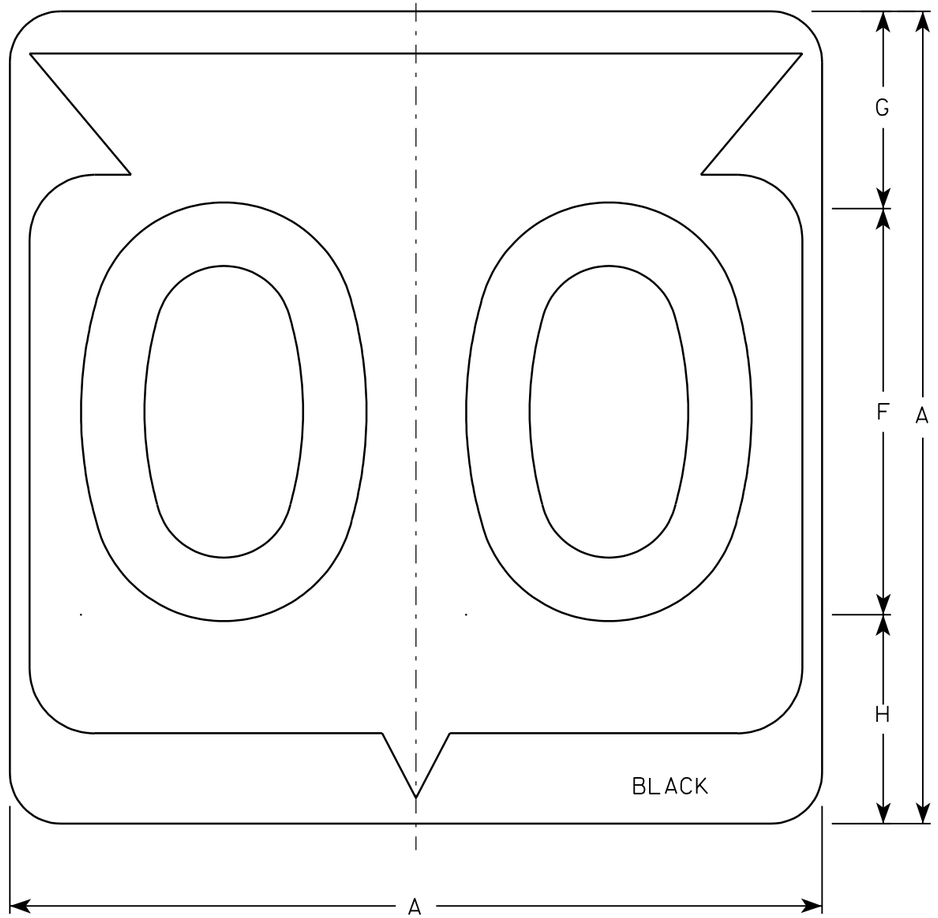
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

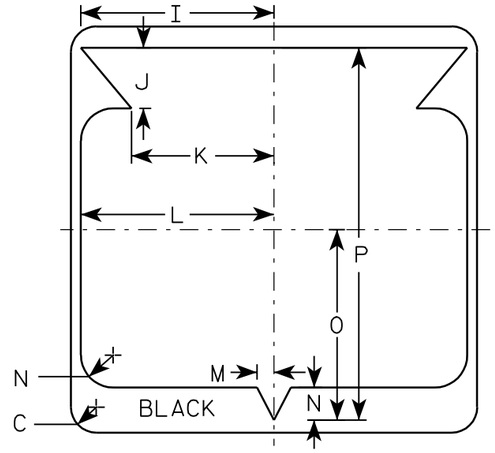
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 49 | E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

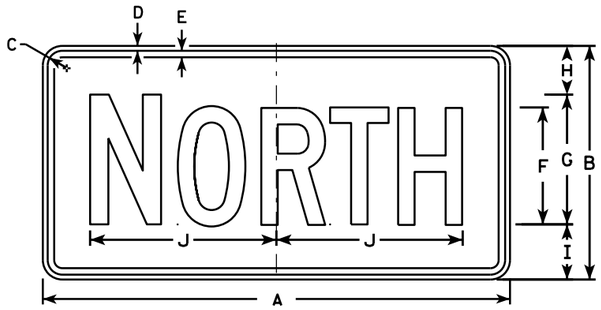
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

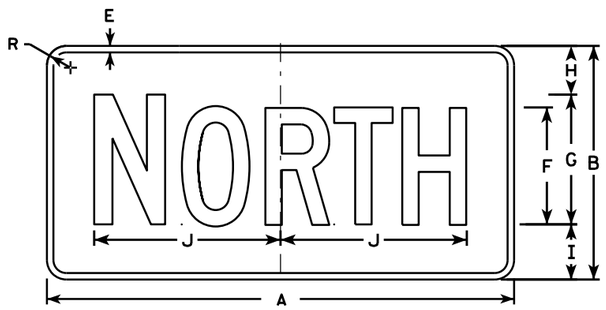
APPROVED *Chester J Spang* for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 50	E



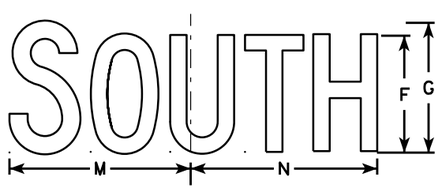
M3-1
MK3-1
MM3-1
MN3-1



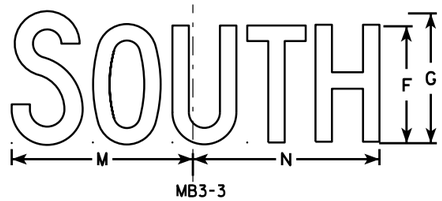
MB3-1

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

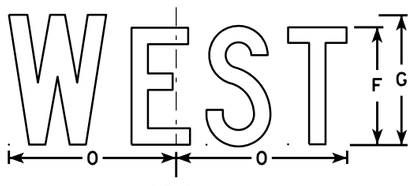
MB3-2



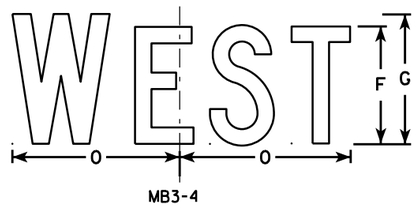
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



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



MB3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

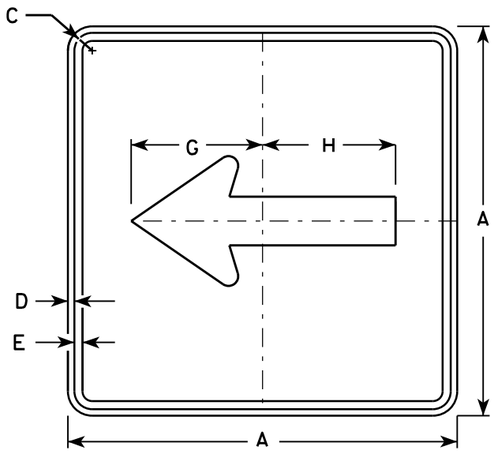
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

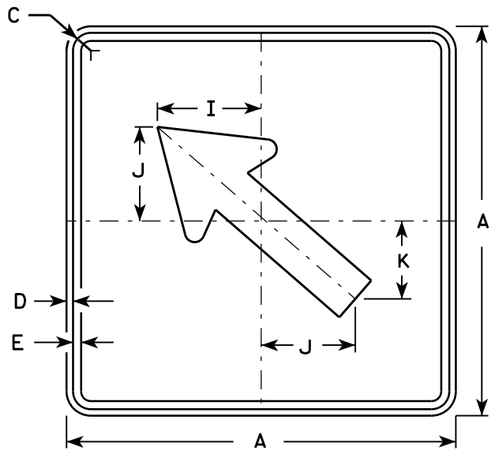
DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

7



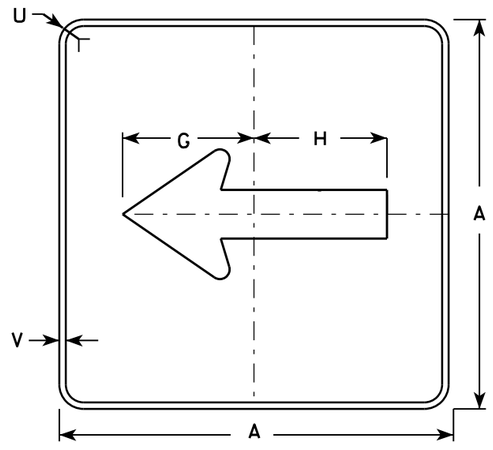
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



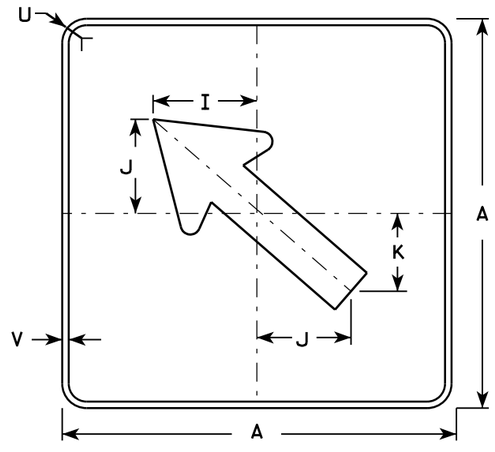
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

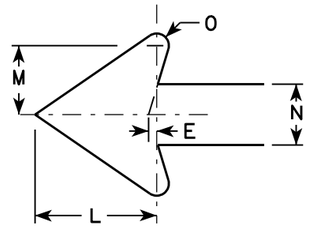
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

STANDARD SIGN M6-1 & M6-2 SERIES

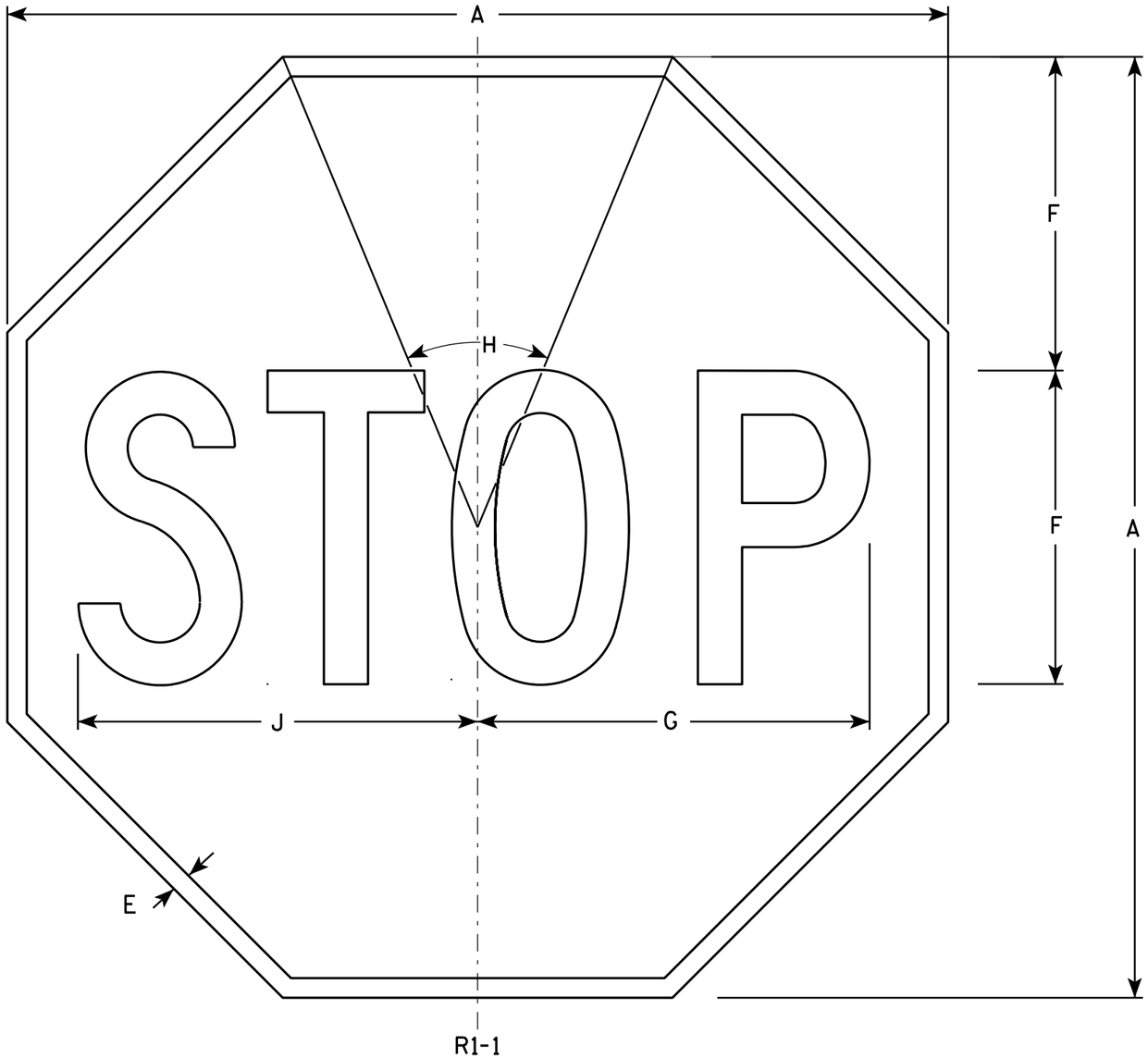
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 52 M6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

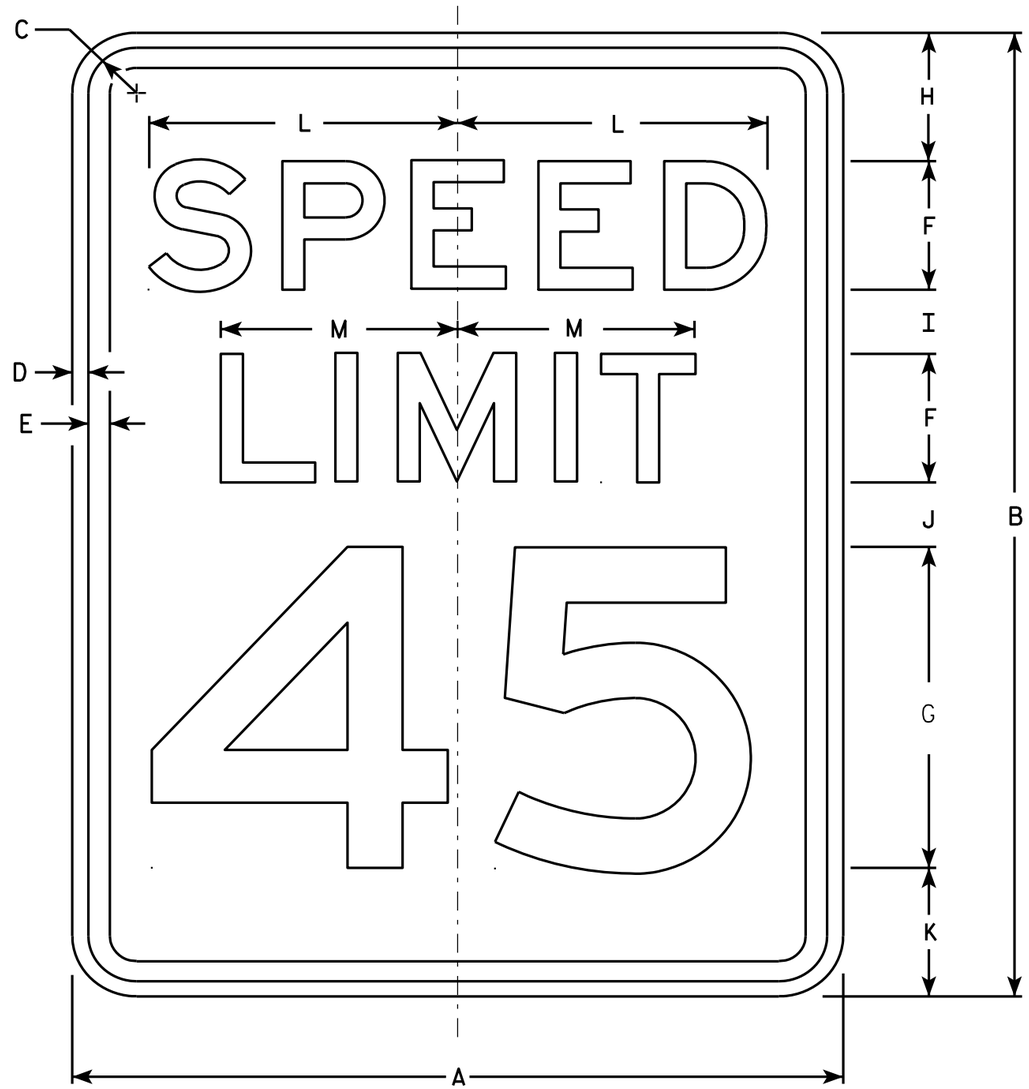
STANDARD SIGN
R1-1

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: 53	E



R2-1

NOTES

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

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

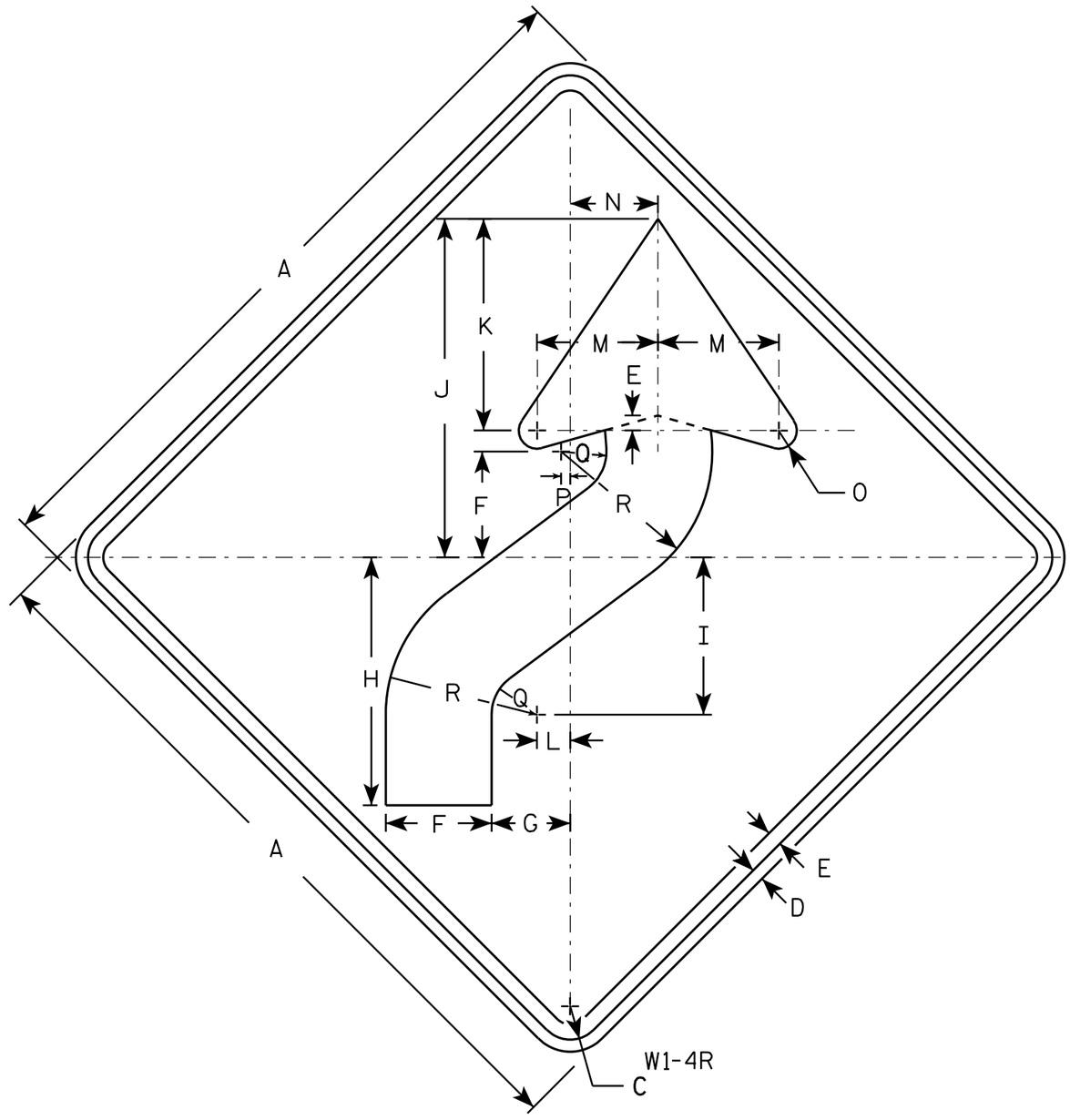
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 54	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

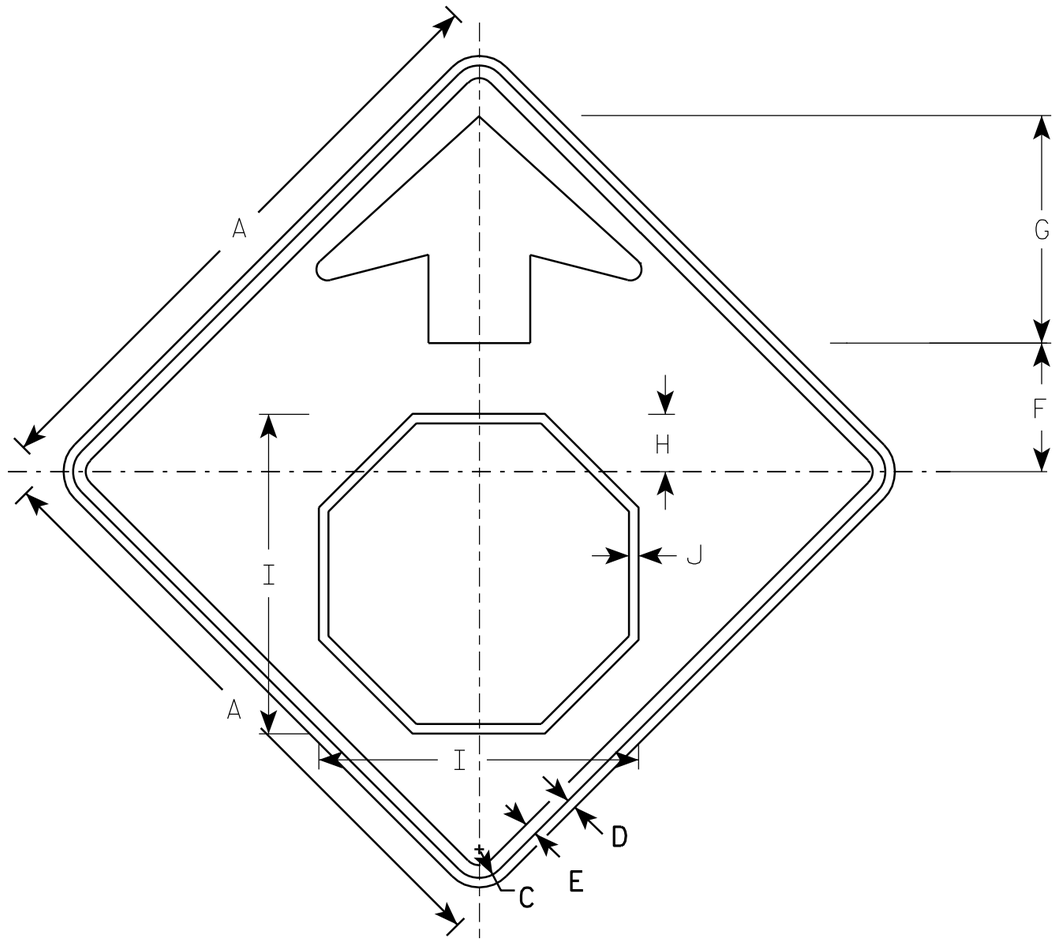
STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

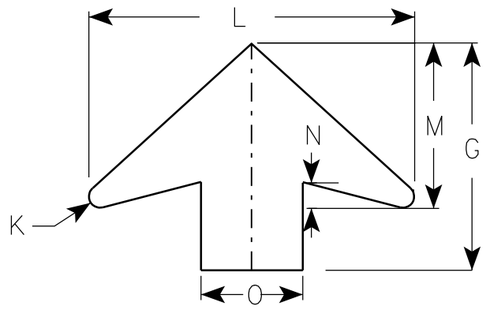
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 55 | E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

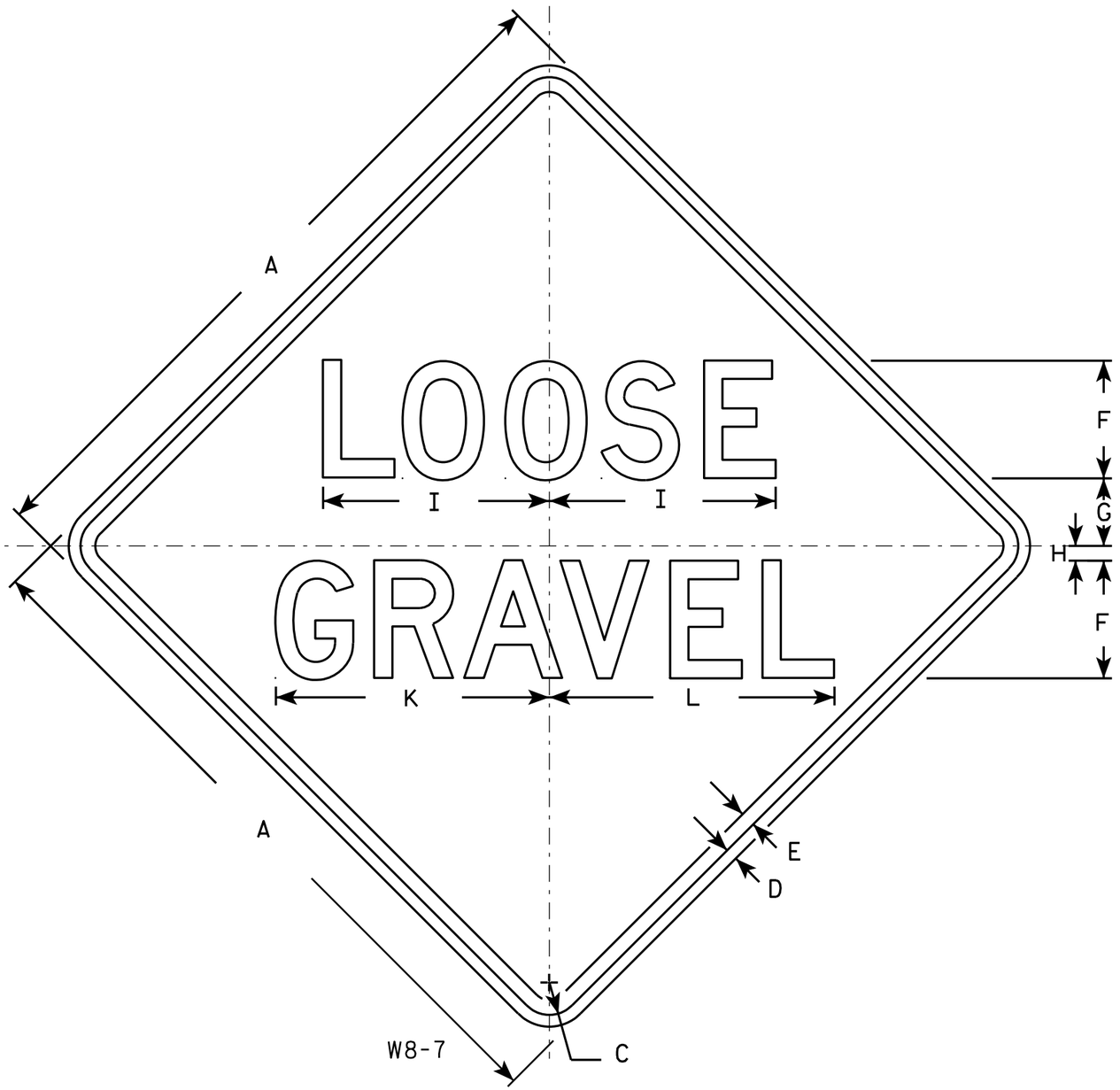
SHEET NO: 56 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 3/4	1/2	7 3/4		9 1/4	9 3/4															4.0
2S	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2M	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
3	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
4	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
5	48		2 1/4	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

STANDARD SIGN
W8-7

WISCONSIN DEPT OF TRANSPORTATION

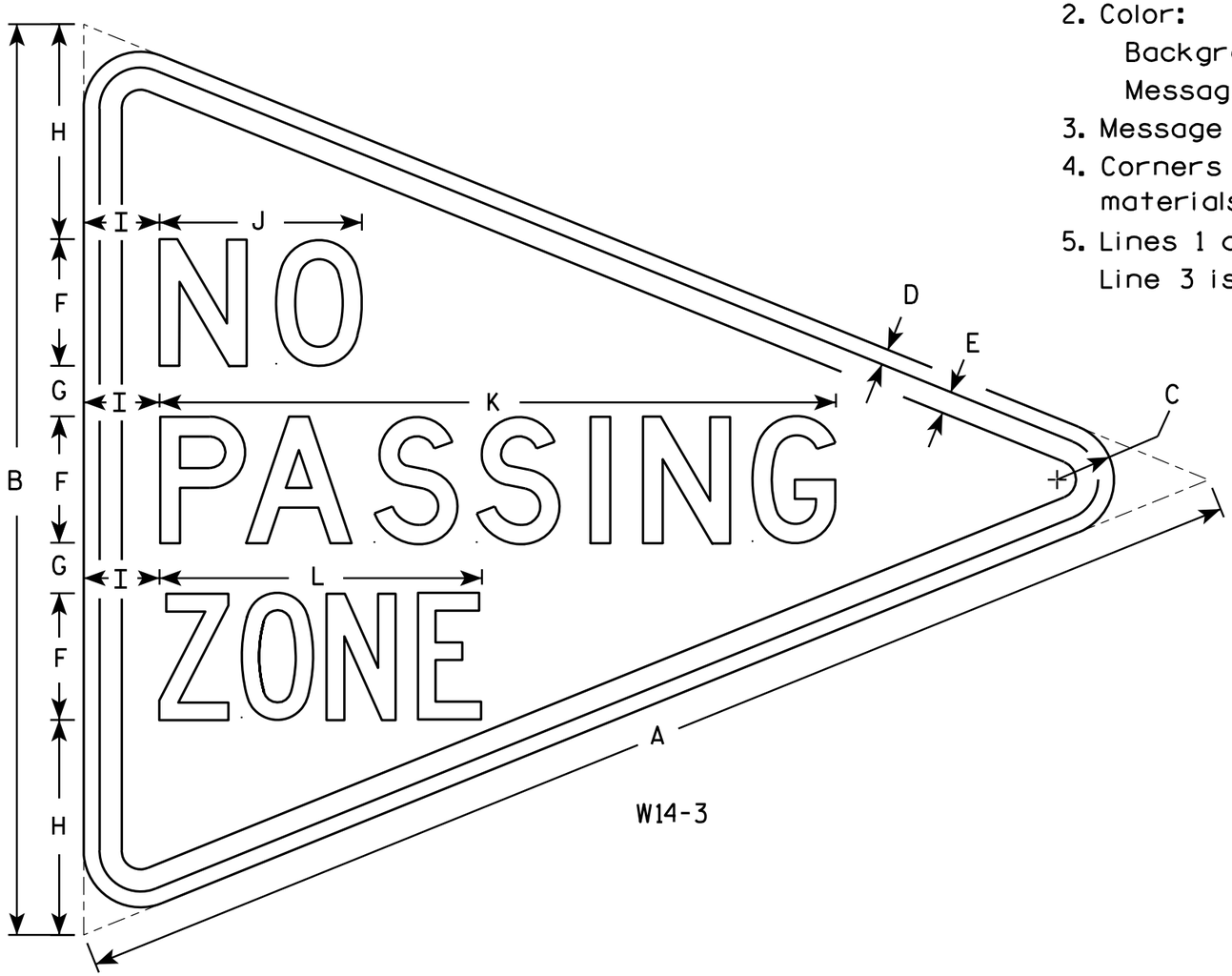
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. W8-7.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 57	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

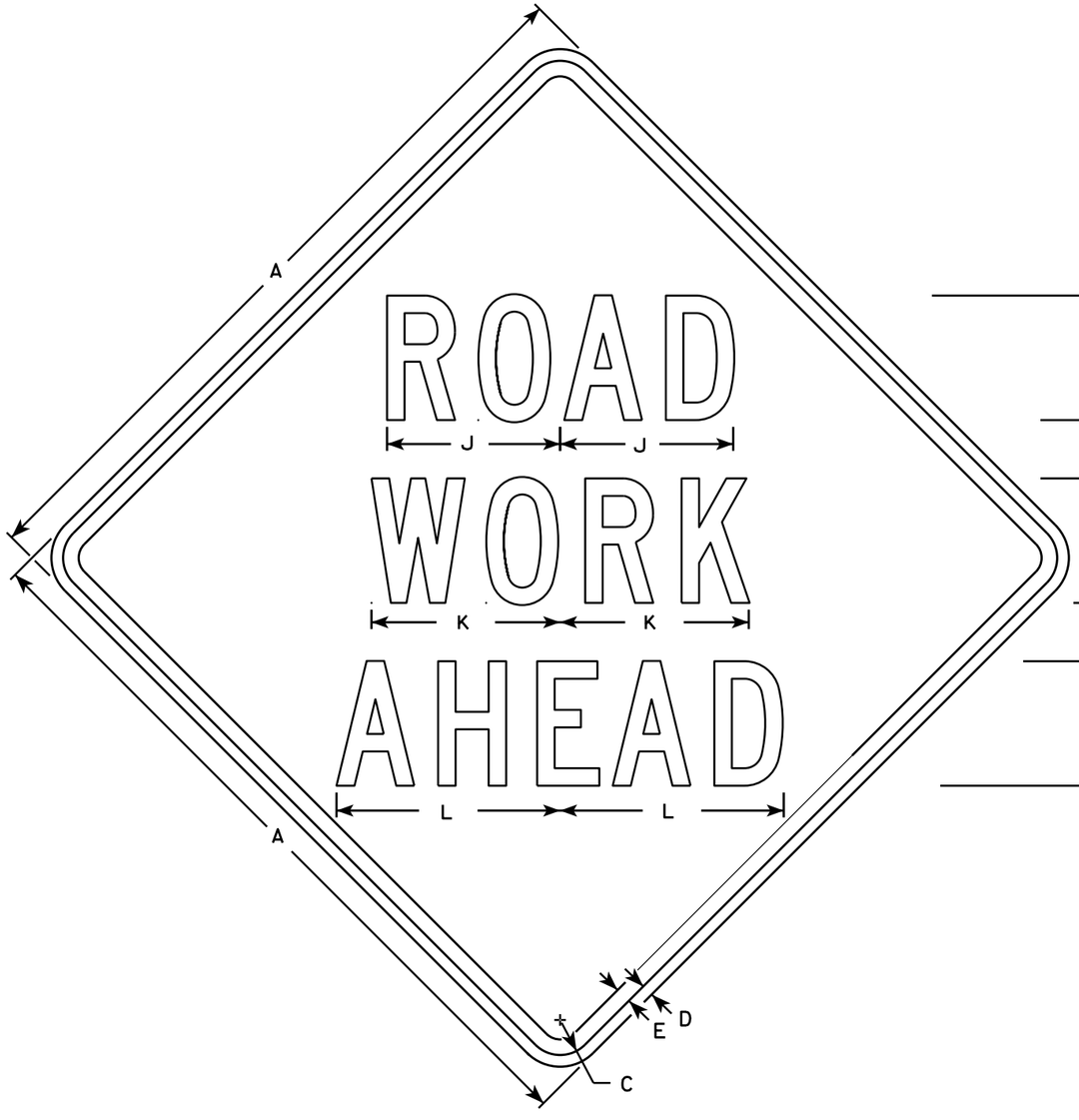
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

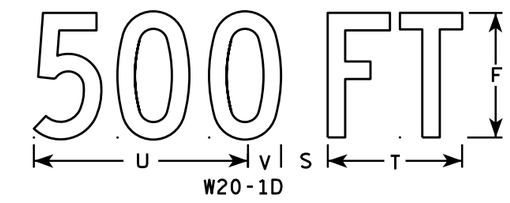
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

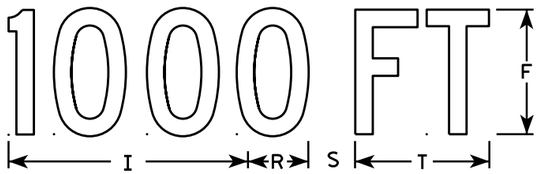
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	E



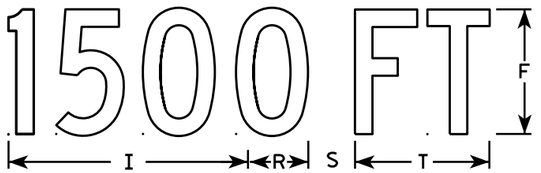
W20-1A



W20-1D



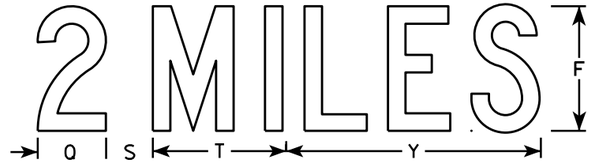
W20-1C



W20-1B

W20-1G

W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

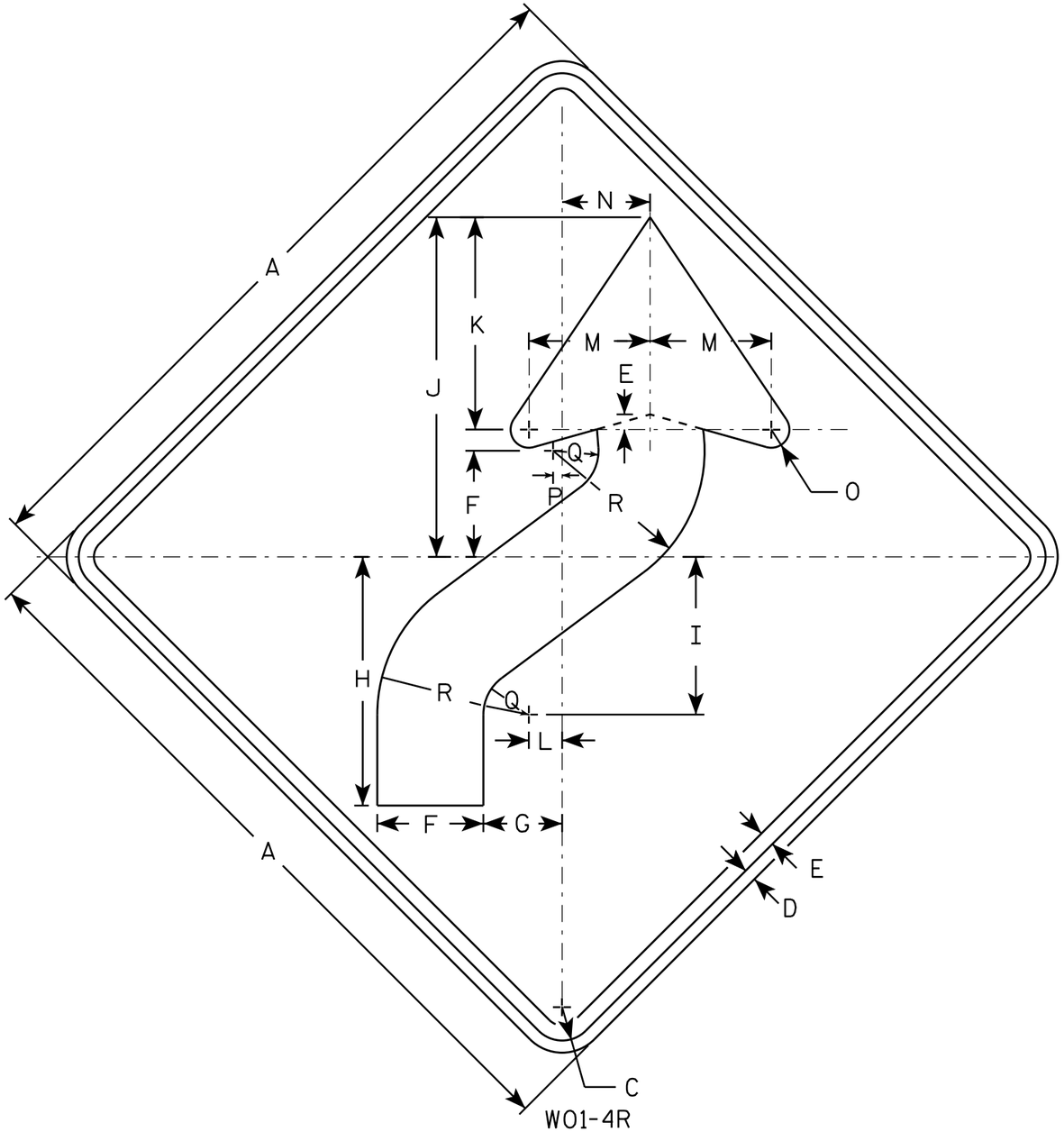
State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W201.dgn PLOT DATE : 27-MAY-2015 15:58 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

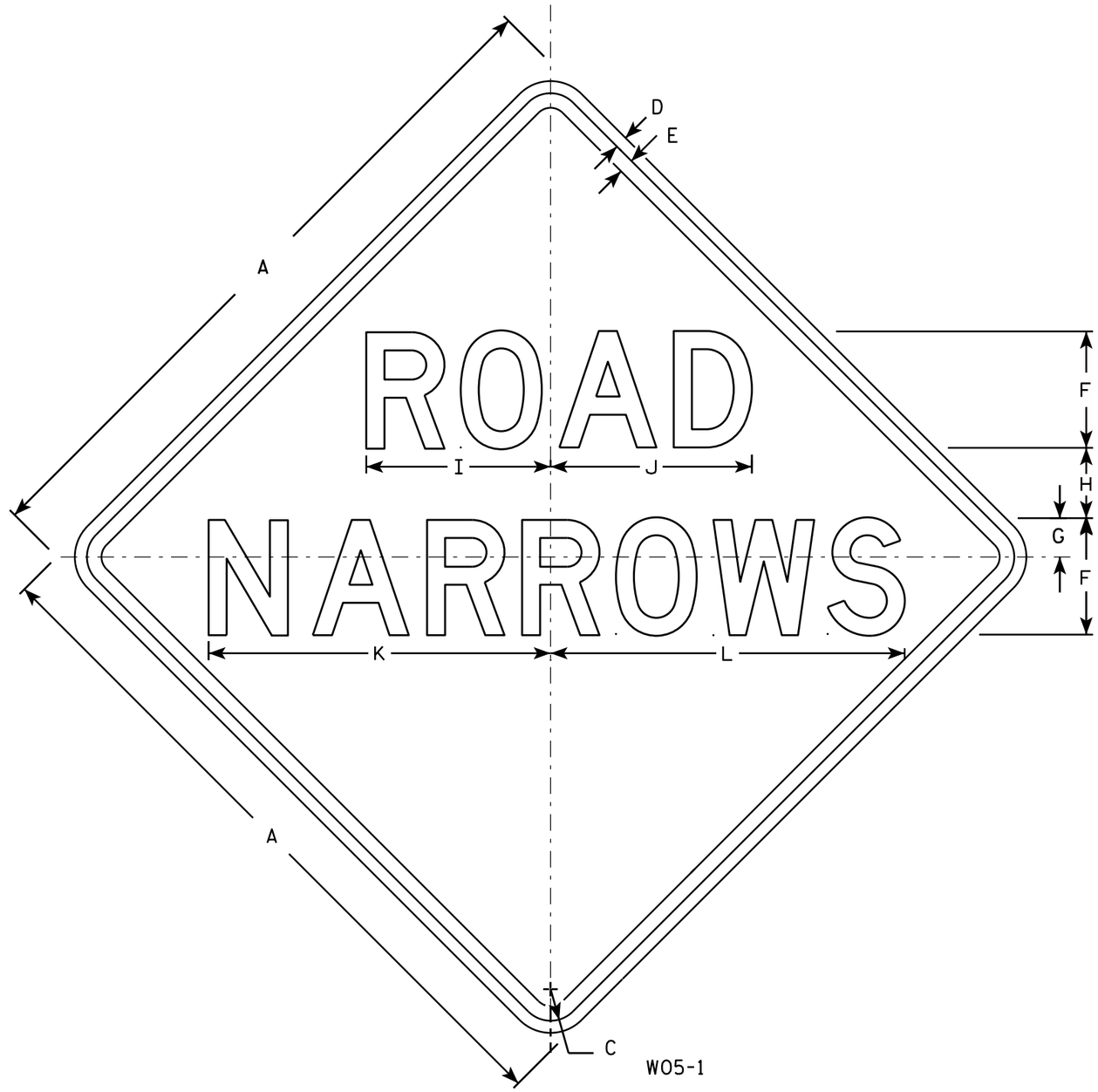
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W05-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2S	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
2M	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
3	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0

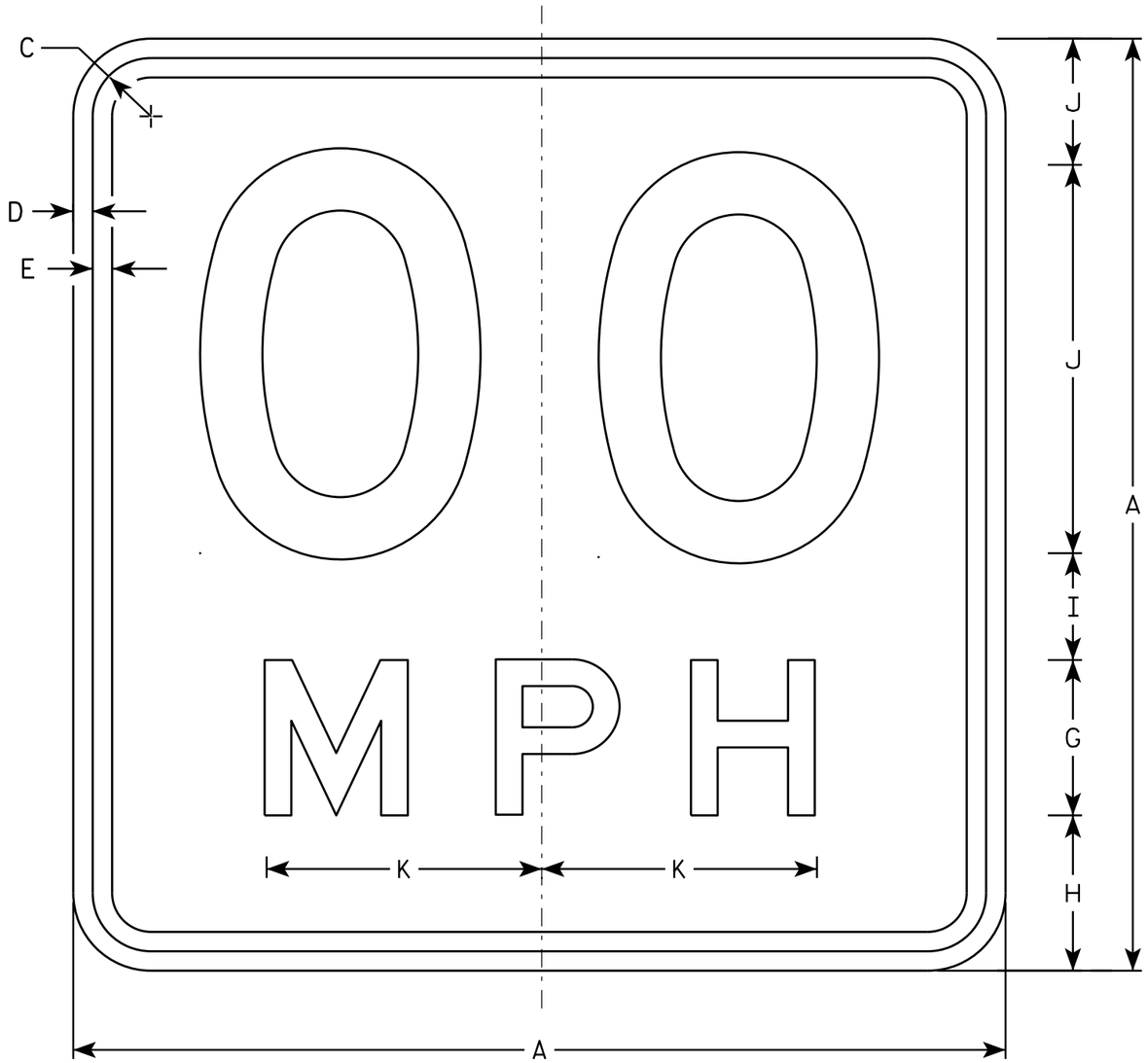
STANDARD SIGN
W05-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W05-1.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 62 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

EARTHWORK DATA - CTH K

STATION	AREA				VOLUME								
	UNCLASS. SF	(1) EBS SF	MARSH SF	FILL SF	UNCLASS. CUT CY	EBS CUT CY	EXPANDED EBS FILL CY	MARSH CUT CY	(2) EXPANDED MARSH FILL CY	EXPANDED FILL CY	MASS HAUL CY	(3) USEABLE UNCLASSIFIED MATERIAL CY	(4) TOTAL USEABLE MATERIAL CY
10+50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11+00	4.94	0.00	0.00	3.19	4.57	0.00	0.00	0.00	0.00	3.69	0.88	4.16	4.16
11+50	1.98	0.00	0.00	26.73	6.41	0.00	0.00	0.00	0.00	34.63	-27.34	5.99	5.99
12+00	28.13	0.00	0.00	48.24	27.88	0.00	0.00	0.00	0.00	86.77	-86.23	27.88	27.88
12+50	8.92	3.54	0.00	63.69	34.31	3.28	4.10	0.00	0.00	129.55	-182.29	34.31	37.58
13+00	0.00	2.27	0.00	114.62	8.26	5.38	6.72	0.00	0.00	206.38	-381.76	8.26	13.64
13+50	0.00	0.00	0.00	119.07	0.00	2.10	2.63	0.00	0.00	270.47	-652.76	0.00	2.10
14+00	43.61	0.00	0.00	55.71	40.38	0.00	0.00	0.00	0.00	202.29	-814.67	40.38	40.38
14+50	136.09	0.00	0.00	23.01	166.39	0.00	0.00	0.00	0.00	91.11	-739.39	141.31	141.31
15+00	97.59	0.00	0.00	10.87	216.37	0.00	0.00	0.00	0.00	39.21	-562.23	144.24	144.24
15+50	177.13	0.00	0.00	2.39	254.37	0.00	0.00	0.00	0.00	15.35	-323.21	139.97	139.97
16+00	177.37	0.00	0.00	1.27	328.24	0.00	0.00	0.00	0.00	4.24	0.79	160.35	160.35
16+50	150.08	0.00	95.17	95.17	303.19	0.00	0.00	88.12	132.18	111.62	148.31	95.50	148.37
17+00	84.30	0.00	30.70	128.90	217.02	0.00	0.00	116.55	174.82	259.34	47.71	64.22	134.15
17+34	195.5	0.00	0.00	62.67	176.17	0.00	0.00	19.33	28.99	150.77	63.45	50.02	61.62
TOTAL	1105.64	5.81	125.87	755.53	1783.56	10.76	13.45	224.00	335.99	1605.43		916.59	1061.75

FILL QUANTITIES ARE EXPANDED, NATIVE & EBS FILL EXPANSION FACTOR = 1.25

MARSH EXPANSION FACTOR = 1.50, MARSH TO BE FILLED WITH SELECT BORROW

(1) EBS IS FOR PREPARING ROADWAY FOUNDATION (REMOVING PAVEMENT WITHIN 2' OF FG THAT ISN'T REMOVED UNDER UNCLASSIFIED)

(2) EXPANDED MARSH FILL IS AMOUNT OF SELECT GRANULAR REQUIRED TO FILL THE VOID LEFT IN THE MARSH AFTER EXCAVATION

(3) USEABLE UNCLASSIFIED MATERAL REPRESENTS UNCLASSIFIED MATERIAL AVAILABLE FOR USE IN CONSTRUCTION OF THE ROADBED.

(4) TOTAL USEABLE MATERIAL = USEABLE CLASSIFIED MATERIAL+(MARSH CUT*0.60)+EBS CUT

EARTHWORK DATA - MOSQUITO BROOK ROAD

STATION	AREA				VOLUME								
	UNCLASS. SF	(1) EBS SF	MARSH SF	FILL SF	UNCLASS. CY	EBS CUT CY	EBS FILL CY	MARSH CUT CY	MARSH FILL CY	FILL CY	MASS HAUL	(2) USEABLE UNCLASSIFIED MATERIAL (CY)	(3) TOTAL USEABLE MATERIAL (CY)
10+35	46.37	1.02	0.00	68.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+50	15.52	5.89	0.00	46.74	17.19	1.92	2.40	0.00	0.00	40.02	-22.83	17.19	19.11
11+00	86.82	3.76	0.00	1.08	94.76	8.94	11.17	0.00	0.00	55.35	16.58	94.76	103.69
11+50	46.08	0.00	0.00	10.59	123.06	3.48	4.35	0.00	0.00	13.51	126.13	123.06	126.54
12+00	9.37	0.00	0.00	1.03	51.34	0.00	0.00	0.00	0.00	13.45	164.02	51.34	51.34
12+35	7.90	0.00	0.00	0.78	11.19	0.00	0.00	0.00	0.00	1.47	173.75	11.19	11.19
TOTAL	212.06	10.67	0.00	128.75	297.54	14.34	17.92	0.00	0.00	123.79		297.54	311.88

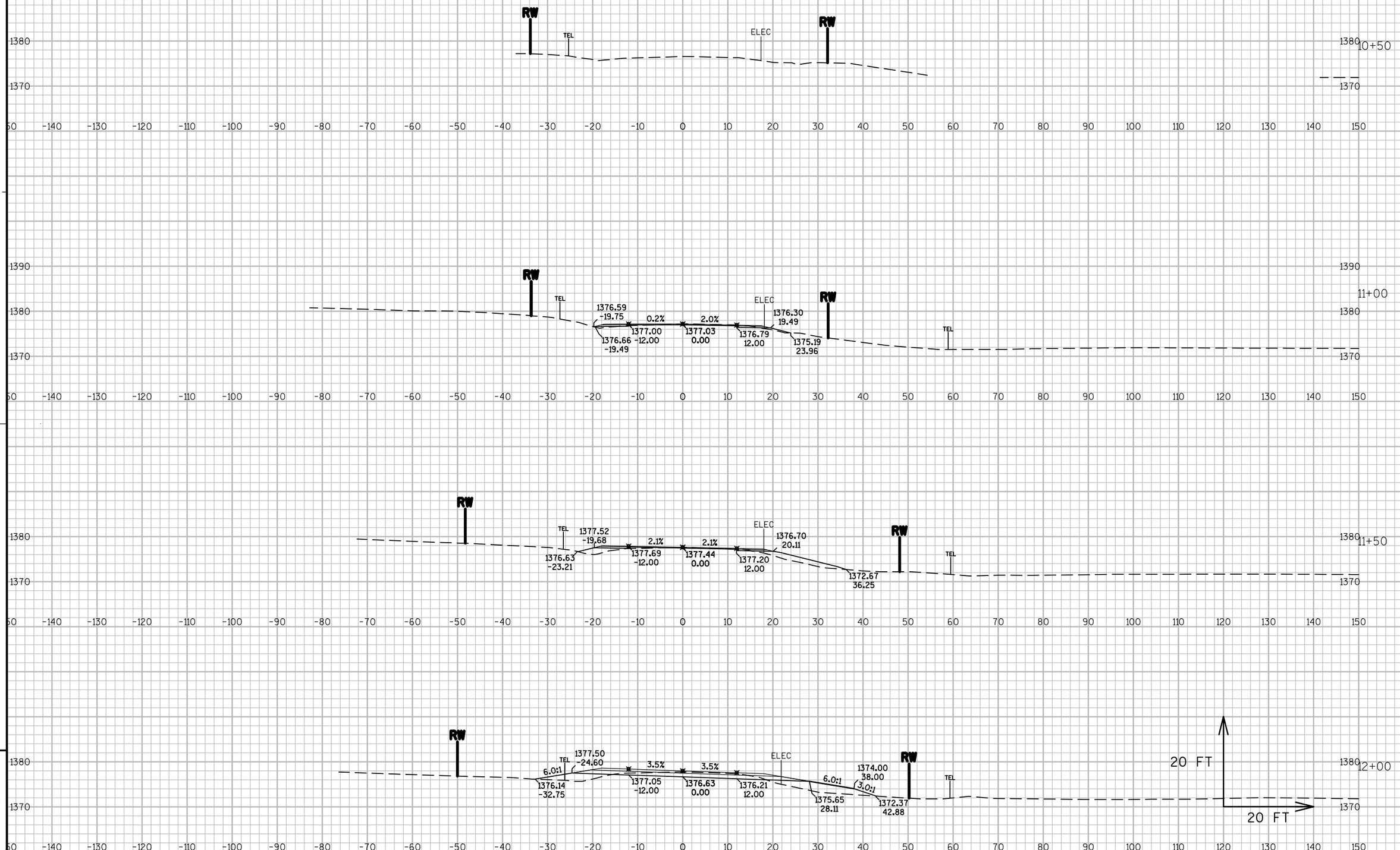
FILL QUANTITIES ARE EXPANDED, NATIVE & EBS FILL EXPANSION FACTOR = 1.25

MARSH EXPANSION FACTOR = 1.50, MARSH TO BE FILLED WITH SELECT BORROW

(1) EBS IS FOR PREPARING ROADWAY FOUNDATION (REMOVING PAVEMENT WITHIN 2' OF FG THAT ISN'T REMOVED UNDER UNCLASSIFIED)

(2) USEABLE UNCLASSIFIED MATERAL REPRESENTS UNCLASSIFIED MATERIAL AVAILABLE FOR USE IN CONSTRUCTION OF THE ROADBED.

(3) TOTAL USEABLE MATERIAL = USEABLE CLASSIFIED MATERIAL+(MARSH CUT*0.60)+EBS CUT

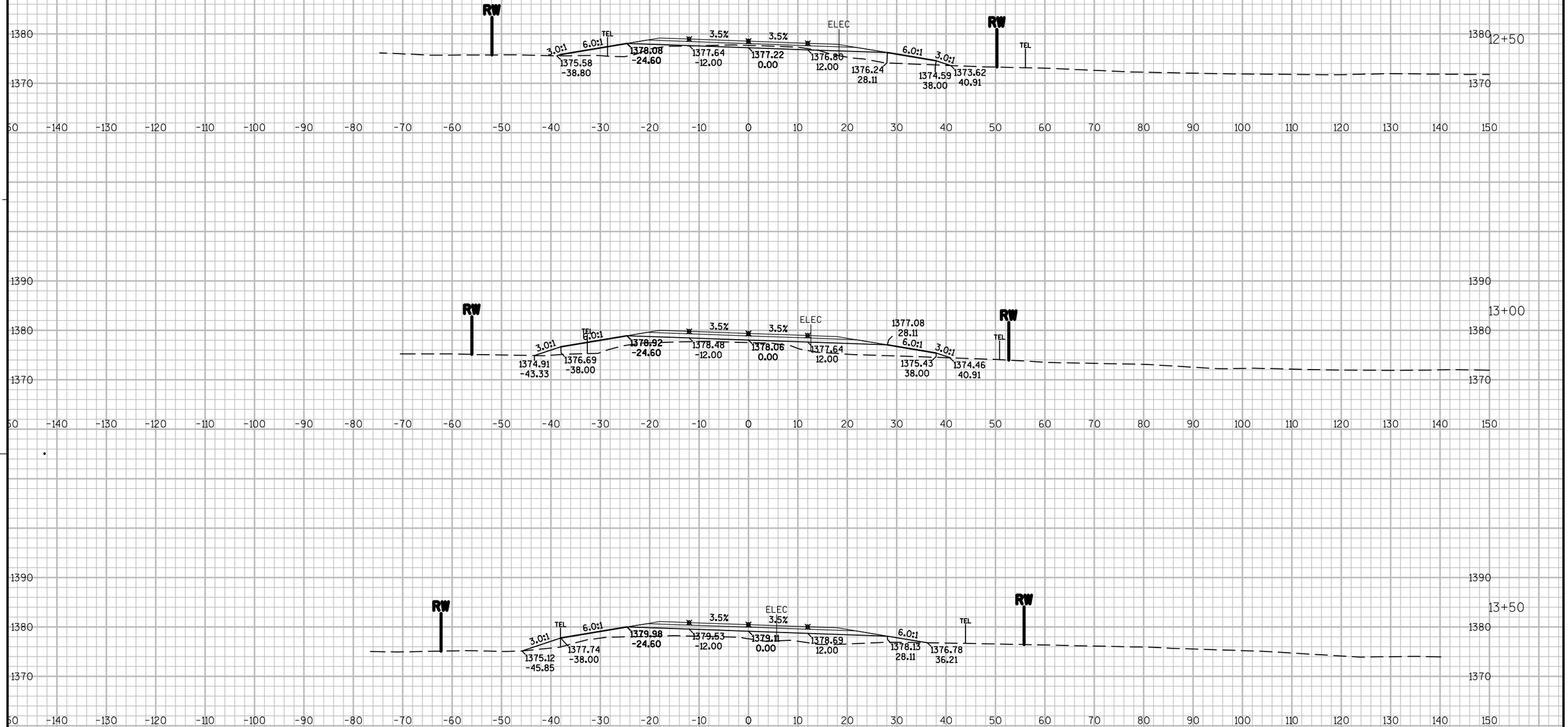


PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: CTH K	SHEET 64	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - CTHK - (1)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:20_XREF

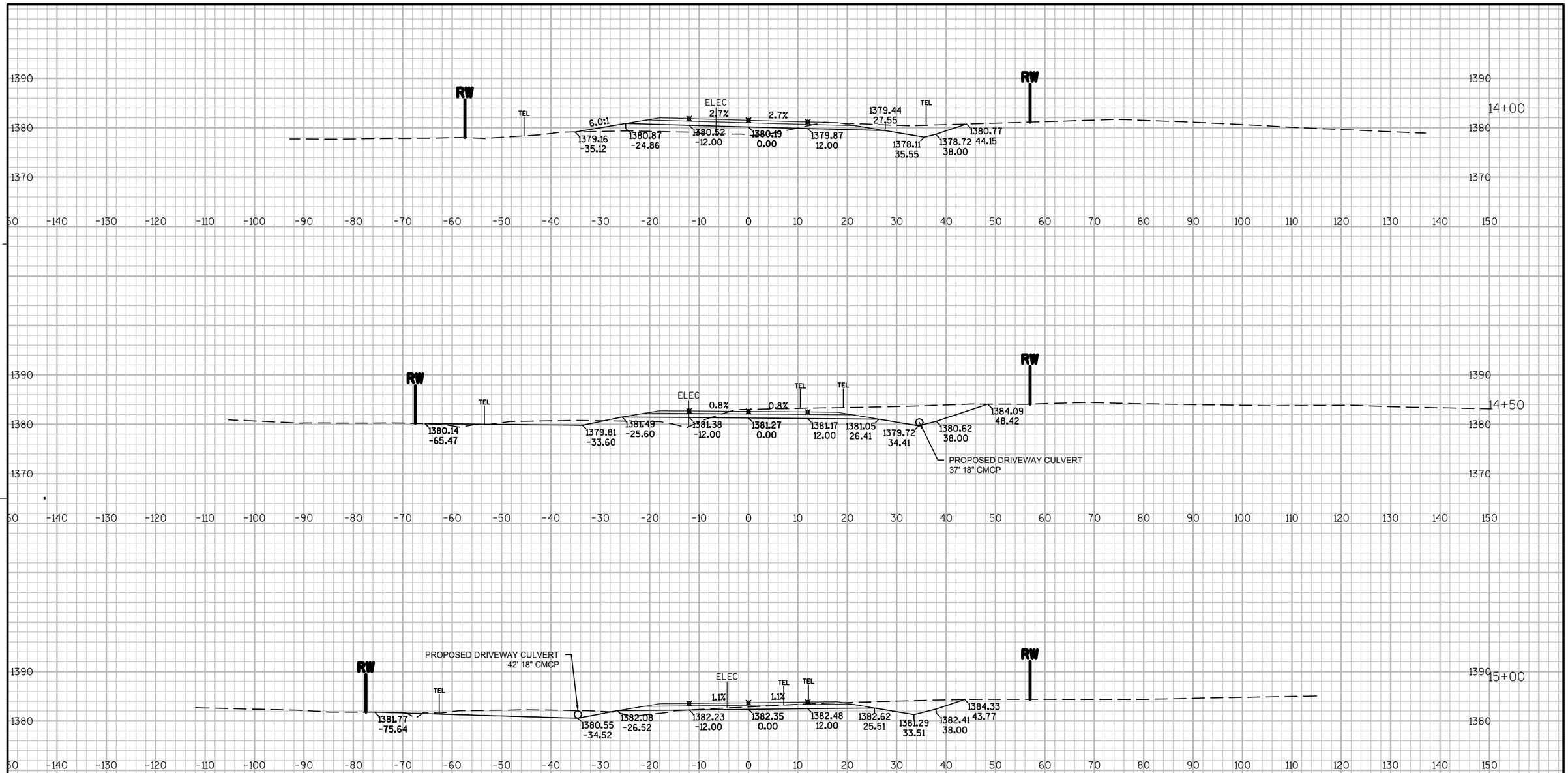
WISDOT/CADDS SHEET 49



PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: CTH K	SHEET 65	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - CTHK - (2)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:20_XREF



9

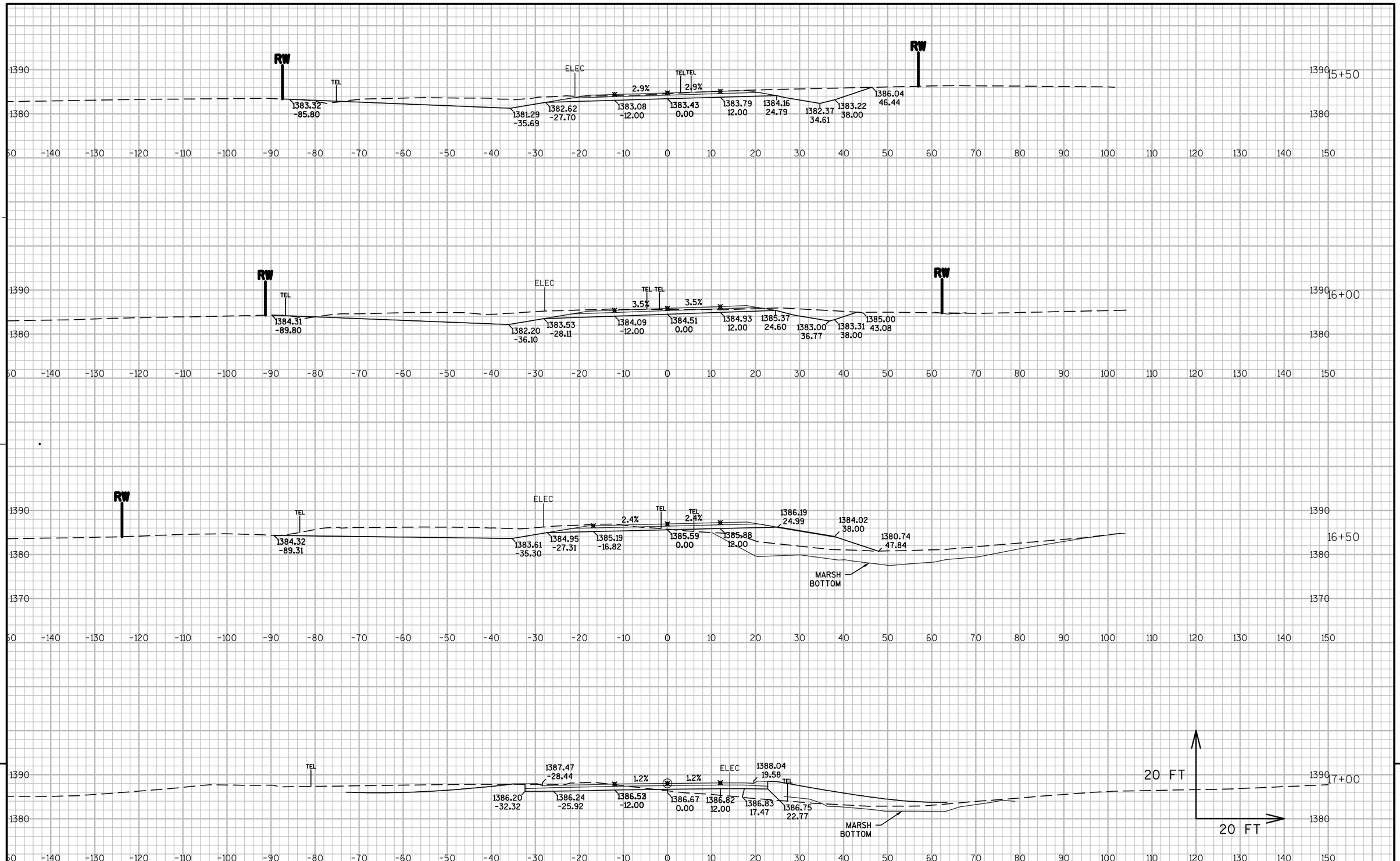
9

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: CTH K	SHEET 66	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - CTHK - (3)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

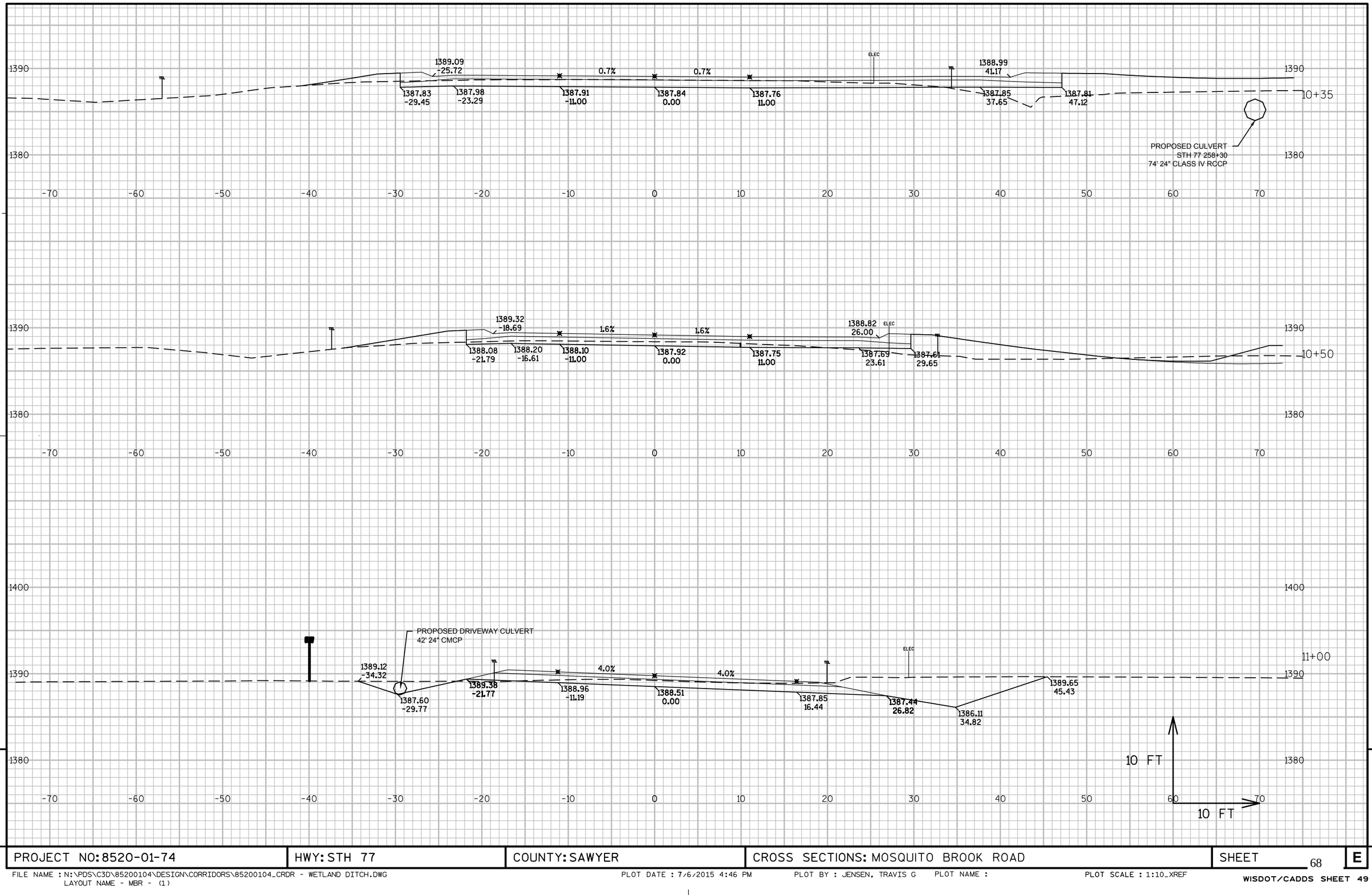


PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: CTH K	SHEET 67	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - CTHK - (4)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

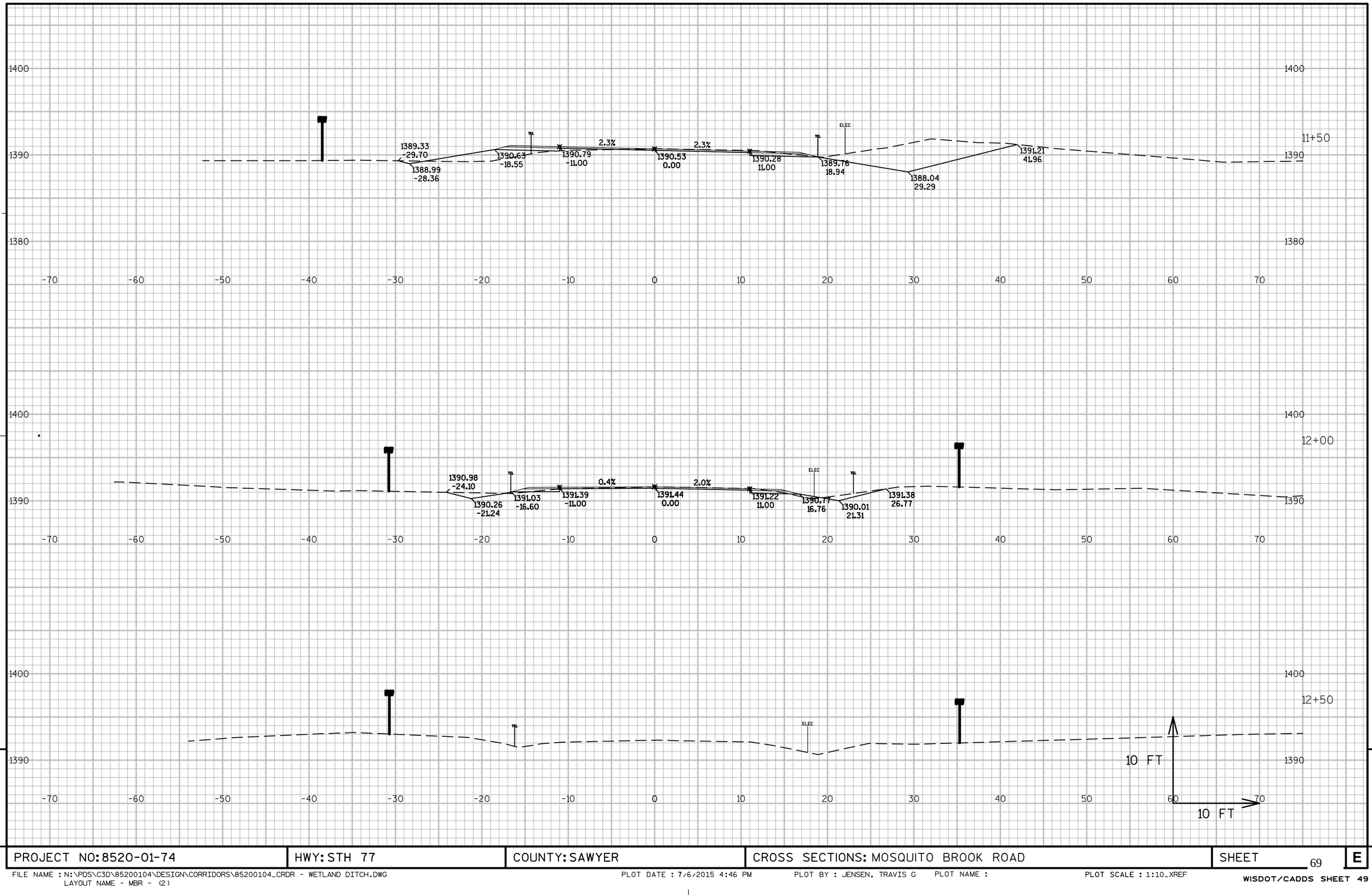


PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: MOSQUITO BROOK ROAD	SHEET 68	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - MBR - (1)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 8520-01-74	HWY: STH 77	COUNTY: SAWYER	CROSS SECTIONS: MOSQUITO BROOK ROAD	SHEET 69	E

FILE NAME : N:\PDS\C3D\85200104\DESIGN\CORRIDORS\85200104_CRDR - WETLAND DITCH.DWG
LAYOUT NAME - MBR - (2)

PLOT DATE : 7/6/2015 4:46 PM PLOT BY : JENSEN, TRAVIS G PLOT NAME : PLOT SCALE : 1:10_XREF

Wisconsin Department of Transportation

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through innovation and exceptional service.

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