GRE

AUG 2015

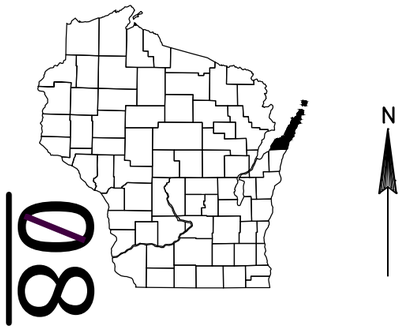
PROJECT ID: 4140-20-74

WITH: N/A

COUNTY: DOOR

ORDER OF SHEETS

TOTAL SHEETS = 34



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GREEN BAY ROAD
CITY OF STURGEON BAY

(MICHIGAN STREET - EGG HARBOR ROAD)

STH 42/57

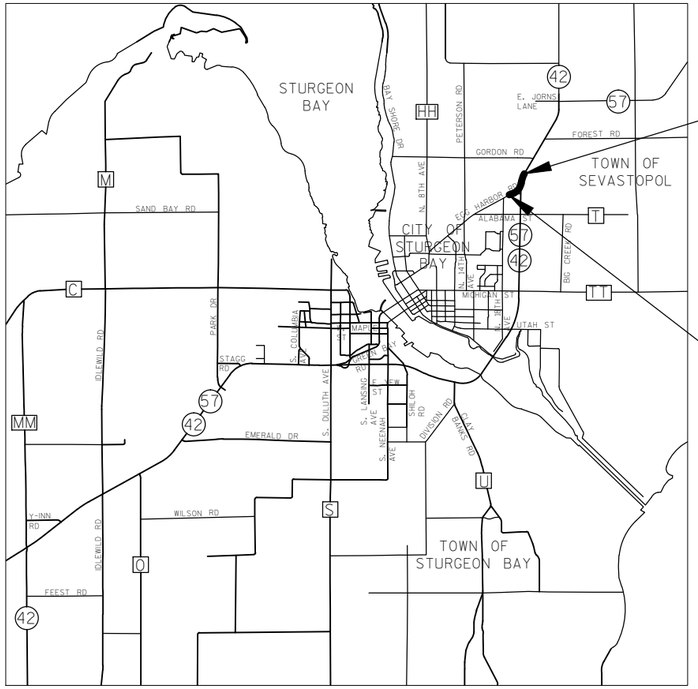
DOOR COUNTY

STATE PROJECT NUMBER

4140-20-74

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4140-20-74	WISC 2015470	1

R-25-E R-26-E



T-28-N

END PROJECT
STA. 1924+50.00

BEGIN PROJECT
STA. 1901+50.00
Y=165267.5966
X=500818.1467

T-27-N

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.435 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DOOR COUNTY, NAD1983 (1991)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

DESIGN DESIGNATION

		STH 42/57
A.A.D.T.	(2015)	= 11,500
A.A.D.T.	(2035)	= 14,000
D.H.V.	(2035)	= 1,740
D.D.		= 59/41
T.	(2035)	= 12.4%
DESIGN SPEED		= 50 MPH
ESALS		= ----------

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

ORIGINAL PLANS PREPARED BY:

exp U.S. Services Inc.
t: +1.414.607.3930 | f: +1.414.607.3931
10000 Innovation Drive
Milwaukee, WI 53226
U.S.A.
www.exp.com

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

WISCONSIN JEFFREY A. ROEMER E-23321 MILWAUKEE, WI PROFESSIONAL ENGINEER

04/29/2015 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	QUEST CIVIL ENGINEERS, LLC
Designer	EXP US SERVICES, INC.
Project Manager	JEREMY ASHAUER, PE
Regional Examiner	
Regional Supervisor	
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 06/03/2015 (Signature)

E

UTLITY CONTACT LIST

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EMAIL: jstawicki@wppienergy.org

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EMAIL: LAButry@integrysgroup.com

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EMAIL: jeremy.ashauer@dot.wi.gov

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MILWAUKEE, WI 53202
PHONE: (414) 221-0088 EXT 3132
EMAIL: jeff.roemer@exp.com

GENERAL NOTES

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURES NO LONGER NECESSARY.

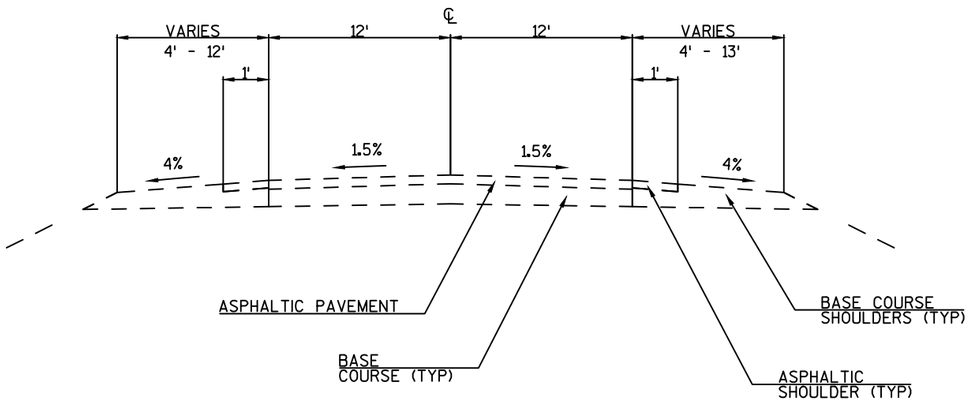
TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITION AS DIRECTED BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

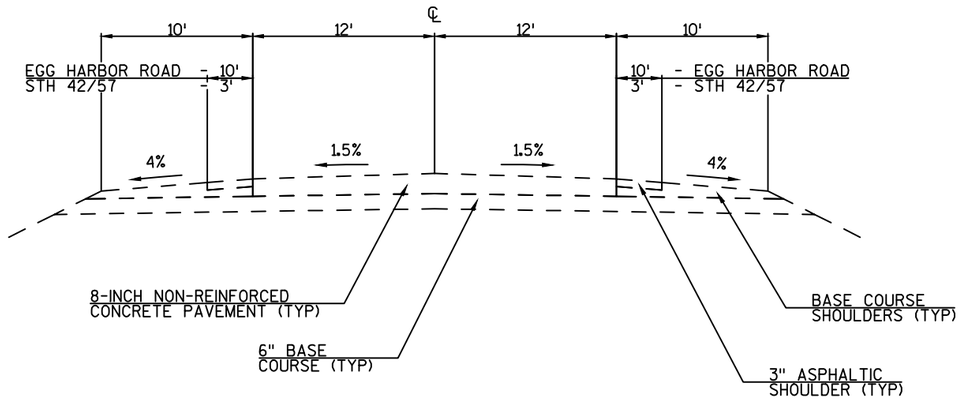
LANDSCAPE ALL TOPSOILED AREAS AS THE PLANS SHOW OR THE ENGINEER DIRECTS WITHIN FIVE CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.

ALL TYPES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

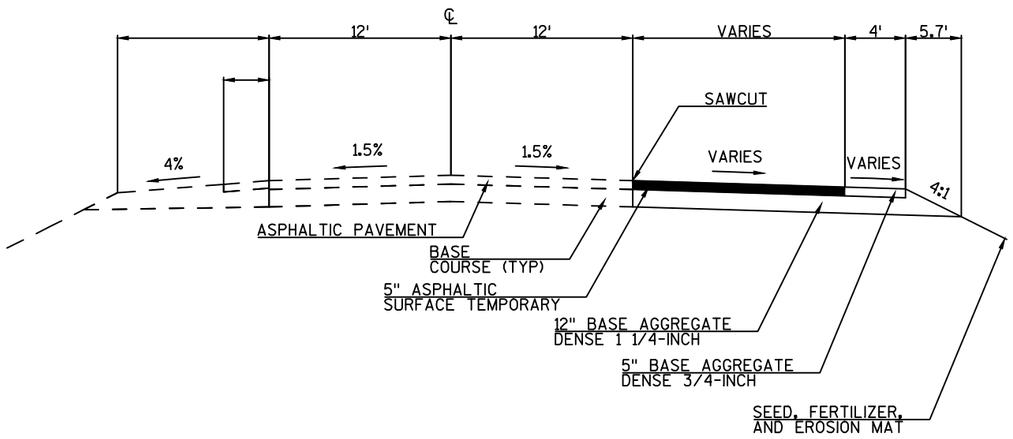
TOTAL PAVEMENT LAYER THICKNESS	LAYER	NOMINAL MINIMUM SIZE GRADATION	ASPHALTIC MATERIAL
0'-5"	ONE 5" LAYER	19.0 mm	N/A



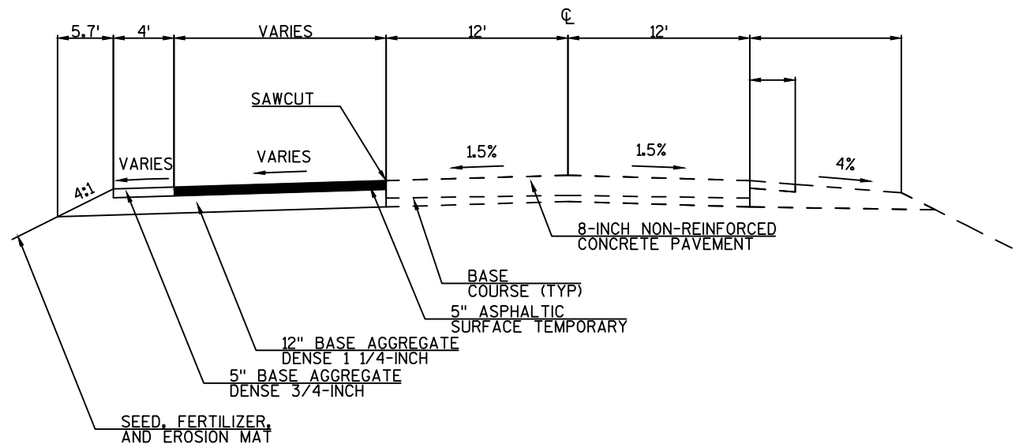
EXISTING TYPICAL SECTION - OLD HWY ROAD
STA. 1904+61 - STA. 1921+14



EXISTING TYPICAL SECTION
STA. 1901+50 - STA. 1904+61 EGG HARBOR ROAD
STA. 1923+00 - STA. 1924+50 STH 42/57

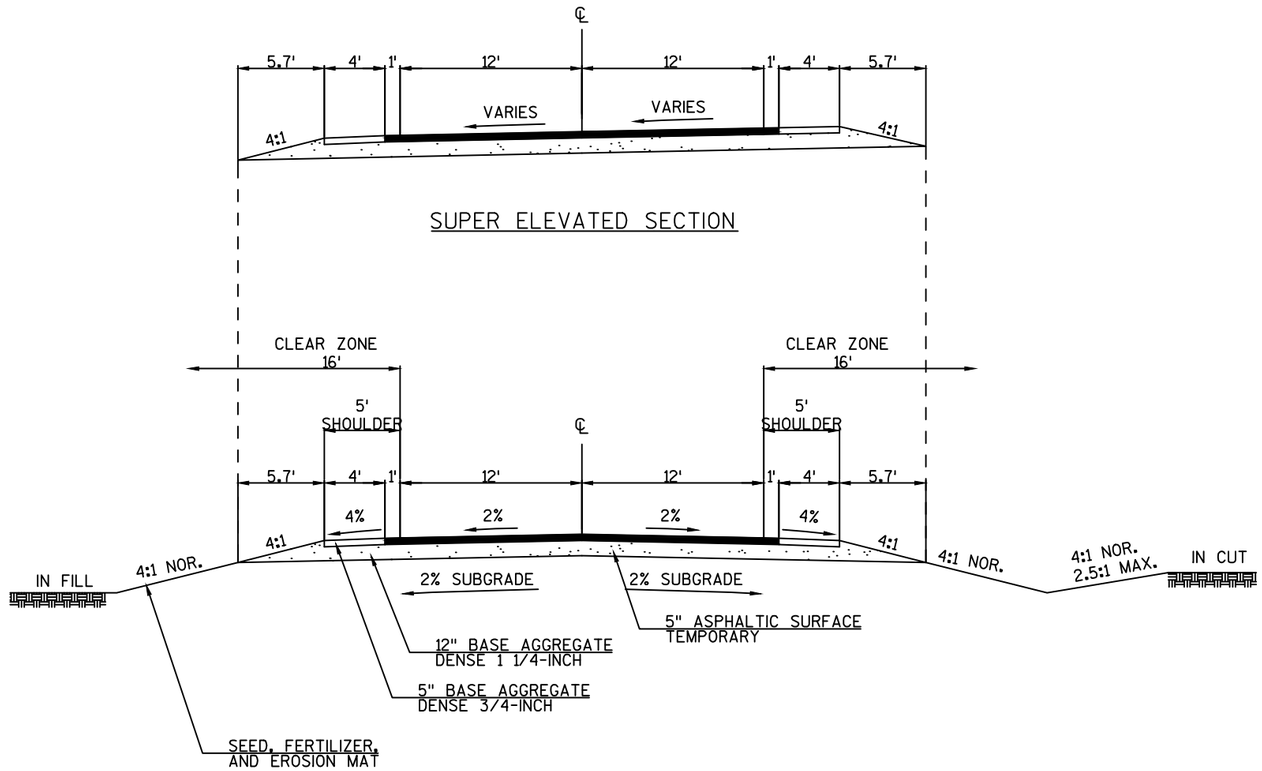


TYPICAL FINISHED SECTION - OLD HWY ROAD
STA. 1920+00 - STA. 1921+14



TYPICAL FINISHED SECTION - WIDENING
STA. 1901+50 - STA. 1904+61 EGG HARBOR ROAD
STA. 1923+00 - STA. 1924+50 STH 42/57

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	TYPICAL EXISTING AND FINISHED SECTIONS	SHEET 3 E



TYPICAL FINISHED SECTION - TEMPORARY ROADWAY

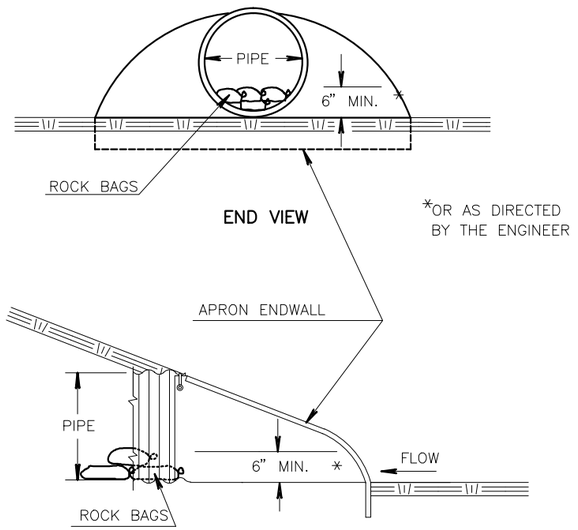
STA. 1921+14 - STA. 1923+00

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	TYPICAL FINISHED SECTIONS	SHEET 4 E

RUNOFF COEFFICIENT TABLE

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

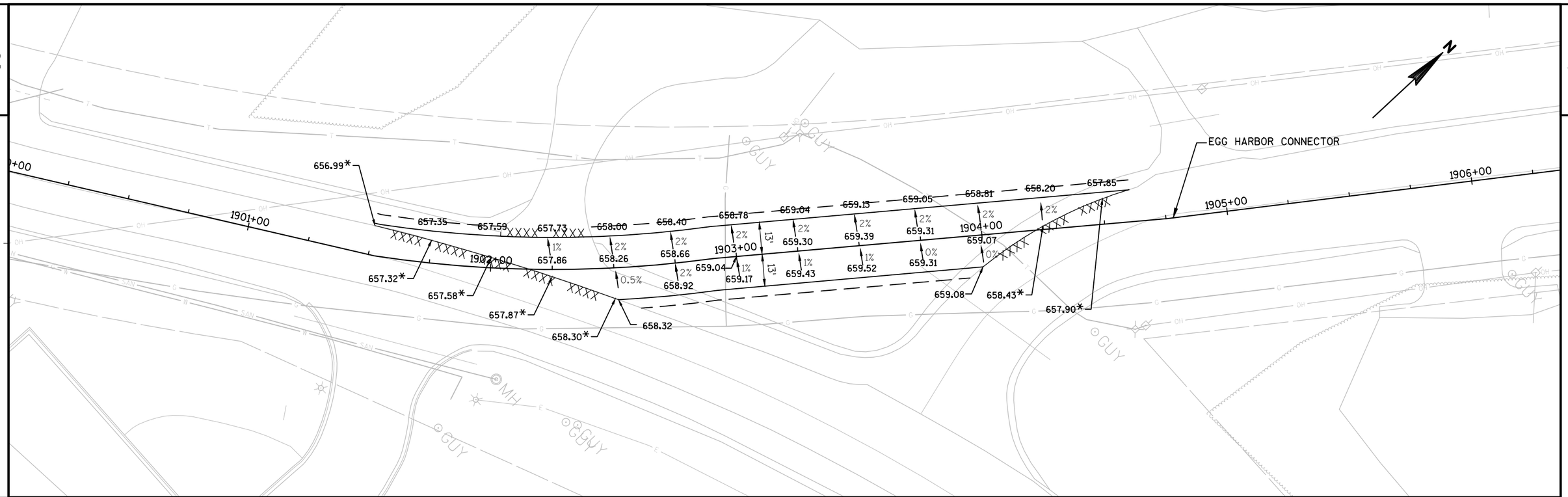
TOTAL PROJECT AREA = 2.295 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.789 ACRES

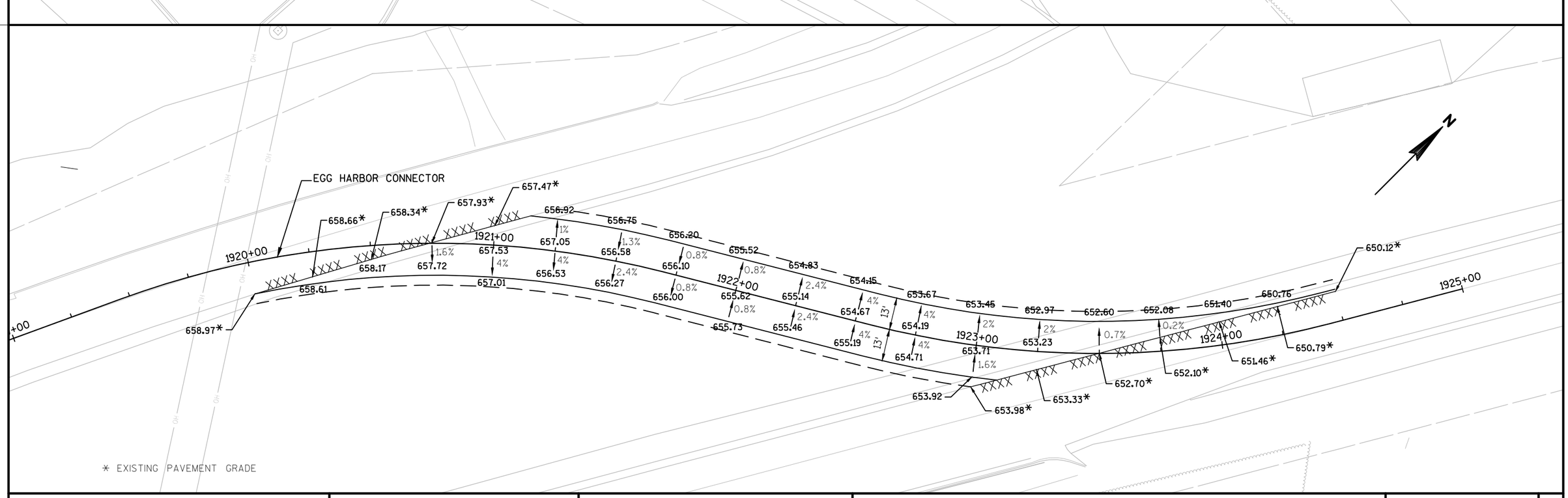


CULVERT PIPE DITCH CHECK

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	PLAN: CONSTRUCTION DETAIL	SHEET 5	E

2





* EXISTING PAVEMENT GRADE

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	PAVING GRADES	SHEET 6	E

GENERAL NOTES FOR TRAFFIC CONTROL

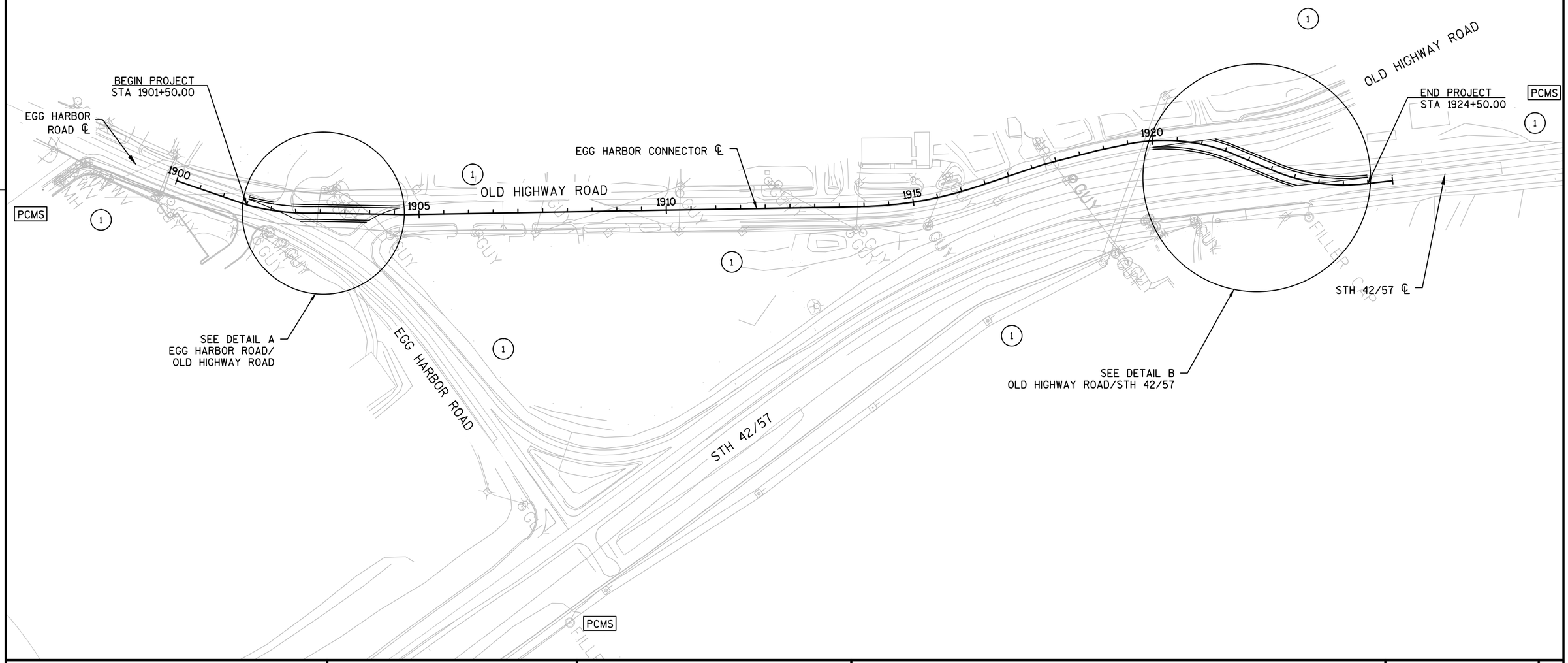
1. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
2. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS AS DIRECTED BY THE ENGINEER.
3. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
4. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
5. FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.
6. ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED. EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.
7. CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSUREDRUMS FOR A MINIMUM OF 500' IN FRONT OF DRUMS.
8. ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE CURB WHEN THE WORK IS NOT IN PROGRESS AND THE ROADWAY IS RESTORED TO A SAFE OPERATING CONDITION.
9. MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES.

LEGEND

(1) FOR PLACEMENT OF TRAFFIC CONTROL DEVICES ALONG SHOULDER, SEE SDD "TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

FOR PLACEMENT OF TRAFFIC CONTROL BARRICADES PERMANENT TYPE III, SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL D.

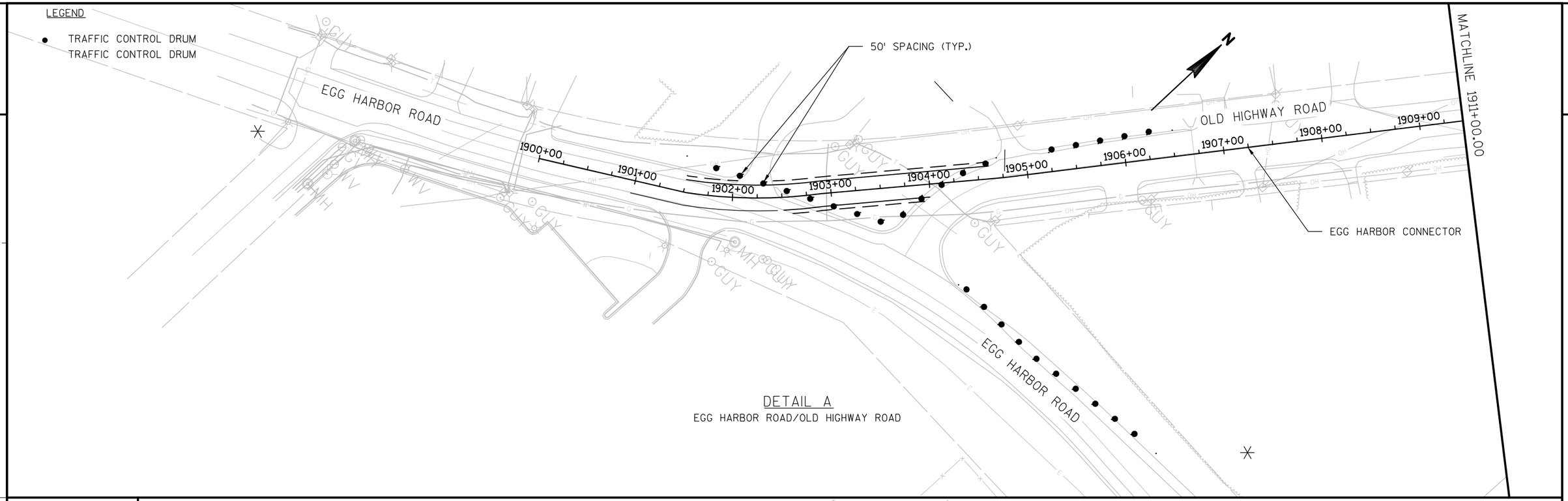
PCMS PORTABLE CHANGEABLE MESSAGE SIGN



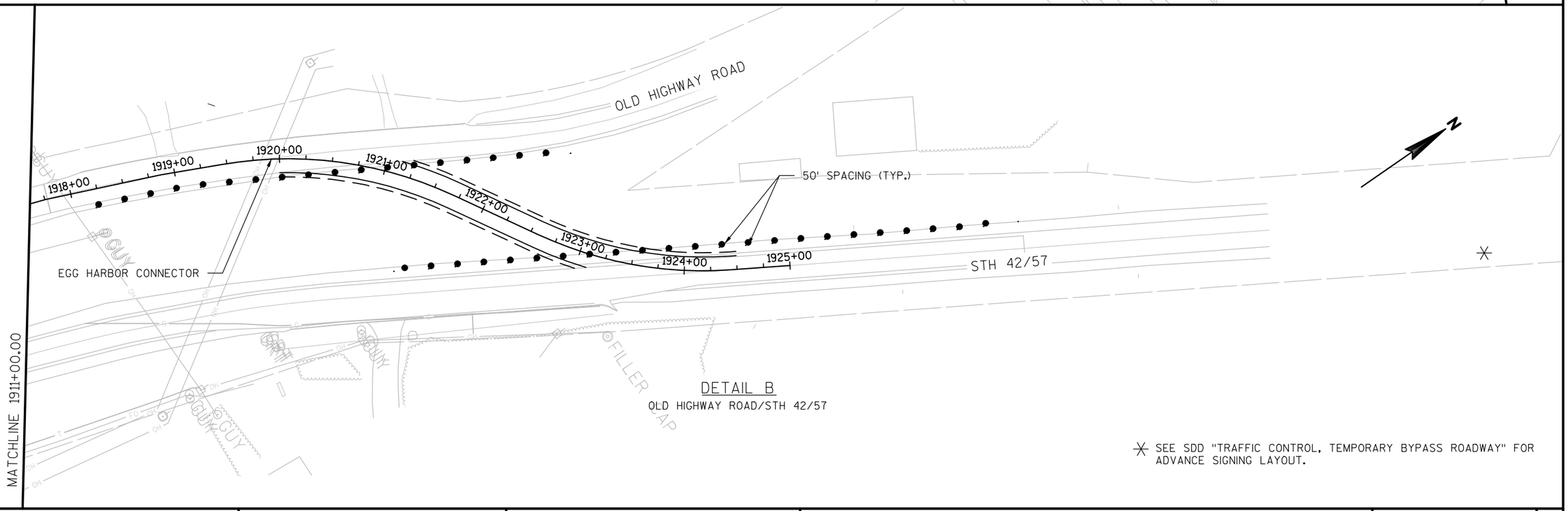
PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	TRAFFIC CONTROL - OVERVIEW	SHEET 7	E

LEGEND

● TRAFFIC CONTROL DRUM
TRAFFIC CONTROL DRUM



DETAIL A
EGG HARBOR ROAD/OLD HIGHWAY ROAD



DETAIL B
OLD HIGHWAY ROAD/STH 42/57

✳ SEE SDD "TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY" FOR ADVANCE SIGNING LAYOUT.

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	TRAFFIC CONTROL - DETAILS	SHEET 8	E

FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\025002_TC.DWG PLOT DATE : 4/29/2015 4:38 PM PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

2

EGG HARBOR ROAD

1900+00 1901+00 1902+00 1903+00 1904+00 1905+00 1906+00 1907+00 1908+00 1909+00

ROAD CLOSED
R11-2
48" X 30"

OLD HIGHWAY ROAD

MATCHLINE 1911+00.00

EGG HARBOR CONNECTOR

PLACE FLEXIBLE TUBULAR MARKER POSTS & BASES 10' OFF TRAVEL LANE AT 10'-C-C

ROAD CLOSED
R11-2
48" X 30"

PLACE FLEXIBLE TUBULAR MARKER POSTS & BASES 10' OFF TRAVEL LANE AT 10'-C-C

EGG HARBOR ROAD/OLD HIGHWAY ROAD

EGG HARBOR ROAD

2

PLACE FLEXIBLE TUBULAR MARKER POSTS & BASES 10' OFF TRAVEL LANE AT 10'-C-C

OLD HIGHWAY ROAD

1918+00 1919+00 1920+00 1921+00 1922+00 1923+00 1924+00 1925+00

ROAD CLOSED
R11-2
48" X 30"

STH 42/57

EGG HARBOR CONNECTOR

ROAD CLOSED
R11-2
48" X 30"

MATCHLINE 1911+00.00

PLACE FLEXIBLE TUBULAR MARKER POSTS & BASES 10' OFF TRAVEL LANE AT 10'-C-C

OLD HIGHWAY ROAD/STH 42/57

LEGEND

BARRICADES PERMANENT TYPE III

FLEXIBLE TUBULAR MARKER POST & BASE

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	TRAFFIC CONTROL - PERMANENT	SHEET	E

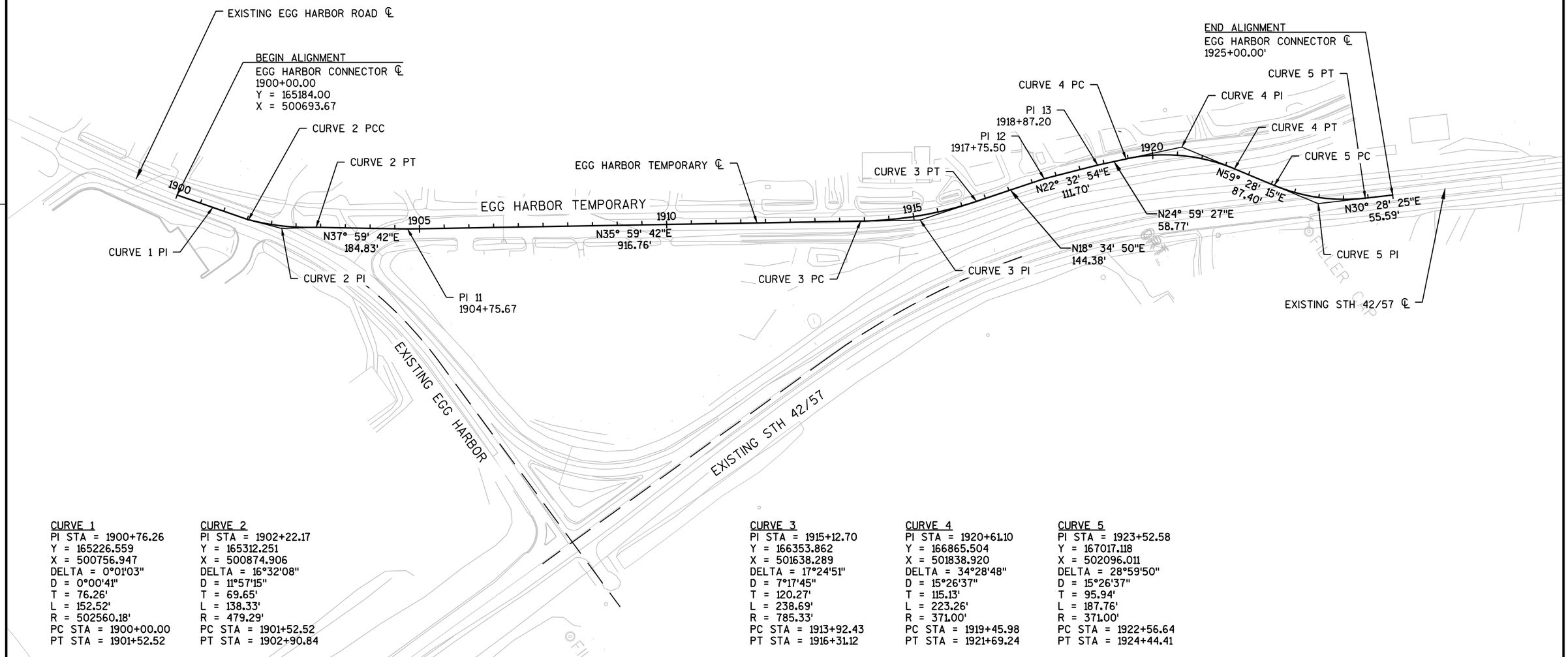
FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\025003_TC.DWG PLOT DATE : 4/30/2015 8:43 AM PLOT BY : JASEN GROVES PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 42

PI 11
STA. = 1904+75.67
Y = 165514.83
X = 501028.8113
DELTA = 2°00'00.00"

PI 12
PI STA. = 1917+75.50
Y = 166604.72
X = 501722.6189
DELTA = 3°58'03.58"

PI 13
PI STA. = 1918+87.20
Y = 166707.88
X = 501765.4512
DELTA = 2°26'32.51"



CURVE 1
PI STA = 1900+76.26
Y = 165226.559
X = 500756.947
DELTA = 0°01'03"
D = 0°00'41"
T = 76.26'
L = 152.52'
R = 502560.18'
PC STA = 1900+00.00
PT STA = 1901+52.52

CURVE 2
PI STA = 1902+22.17
Y = 165312.251
X = 500874.906
DELTA = 16°32'08"
D = 11°57'15"
T = 69.65'
L = 138.33'
R = 479.29'
PC STA = 1901+52.52
PT STA = 1902+90.84

CURVE 3
PI STA = 1915+12.70
Y = 166353.862
X = 501638.289
DELTA = 17°24'51"
D = 7°17'45"
T = 120.27'
L = 238.69'
R = 785.33'
PC STA = 1913+92.43
PT STA = 1916+31.12

CURVE 4
PI STA = 1920+61.10
Y = 166865.504
X = 501838.920
DELTA = 34°28'48"
D = 15°26'37"
T = 115.13'
L = 223.26'
R = 371.00'
PC STA = 1919+45.98
PT STA = 1921+69.24

CURVE 5
PI STA = 1923+52.58
Y = 167017.118
X = 502096.011
DELTA = 28°59'50"
D = 15°26'37"
T = 95.94'
L = 187.76'
R = 371.00'
PC STA = 1922+56.64
PT STA = 1924+44.41

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	ALIGNMENT DETAILS - EGG HARBOR CONNECTOR	SHEET 10	E

DATE 04JUN15 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	4140-20-74 QUANTITY
0010	205.0100	Excavation Common	CY	594.000	594.000
0020	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 4140-20-74	LS	1.000	1.000
0030	213.0100	Finishing Roadway (project) 01. 4140-20-74	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	150.000	150.000
0050	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,120.000	1,120.000
0060	305.0500	Shaping Shoulders	STA	14.000	14.000
0070	465.0125	Asphaltic Surface Temporary	TON	415.000	415.000
0080	521.0115	Culvert Pipe Corrugated Steel 15-Inch	LF	58.000	58.000
0090	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	284.000	284.000
0100	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	1.000	1.000
0110	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	4.000	4.000
0120	619.1000	Mobilization	EACH	1.000	1.000
0130	624.0100	Water	MGAL	18.000	18.000
0140	625.0100	Topsoil	SY	1,750.000	1,750.000
0150	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0160	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0170	628.2002	Erosion Mat Class I Type A	SY	1,750.000	1,750.000
0180	628.7504	Temporary Ditch Checks	LF	135.000	135.000
0190	628.7555	Culvert Pipe Checks	EACH	40.000	40.000
0200	629.0210	Fertilizer Type B	CWT	1.000	1.000
0210	630.0130	Seeding Mixture No. 30	LB	35.000	35.000
0220	630.0200	Seeding Temporary	LB	55.000	55.000
0230	643.0100	Traffic Control (project) 01. 4140-20-74	EACH	1.000	1.000
0240	643.0300	Traffic Control Drums	DAY	1,400.000	1,400.000
0250	643.0453	Traffic Control Barricades Permanent Type III	EACH	16.000	16.000
0260	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	25.000	25.000
0270	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	25.000	25.000
0280	643.0900	Traffic Control Signs	DAY	405.000	405.000
0290	643.1050	Traffic Control Signs PCMS	DAY	30.000	30.000
0300	650.4500	Construction Staking Subgrade	LF	761.000	761.000
0310	650.5000	Construction Staking Base	LF	761.000	761.000
0320	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0330	650.9910	Construction Staking Supplemental Control (project) 01. 4140-20-74	LS	1.000	1.000
0340	690.0150	Sawing Asphalt	LF	440.000	440.000
0350	ASP.1T0A	On-the-Job Training Apprentice at $5. 00/HR	HRS	150.000	150.000
0360	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

3

Division	From/To Station	Location	Common Excavation (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow
			Cut (2)	EBS Excavation (3)				Factor 1.33			(item #208.0100)
1	1901+50 - 1904+50	EGG HARBOR CONN	244	0	0	244	339	451	-207		
2	1920+00 - 1924+50	EGG HARBOR CONN	350	0	0	350	107	142	208		
Division 1 Subtotal			594	0	0	594	446	593	1		
Grand Total			594	0	0	594	446	593	1	1	0
		Total Common Exc	594								

3

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
~~3) EBS Excavation to be backfilled with Select Borrow material.~~
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
~~6) Marsh Excavation - to be backfilled with Select Borrow Material.~~
7) Rock Excavation item number 205.0200
~~8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6~~
~~9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8~~
~~10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.11~~
~~11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.11~~
12) Expanded Rock - Factor = 1.1
13) Expanded Fill. Factor = 1.33
Depending on selections:

~~Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor~~
~~Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor~~
~~Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor~~
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

HMA PAVEMENT & RELATED ITEMS

ROADWAY	STATION		STATION	LT/RT	211.0400 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT)	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	465.0125 ASPHALTIC SURFACE TEMPORARY TON	624.0100 WATER MGAL	690.0150 SAWING ASPHALT LF
EGG HARBOR CONNECTOR	1901+50	-	1904+61	LT/RT	--	65	475	6	177	8	170
EGG HARBOR CONNECTOR	1920+00	-	1924+50	LT/RT	--	85	645	8	238	10	270
PROJECT 4140-20-74					1	--	--	--	--	--	--
PROJECT 4140-20-74 TOTALS (0010)					1	150	1,120	14	415	18	440

CULVERT PIPES AND ENDWALLS

STATION	INLET ELEV. FT	OUTLET ELEV. FT	SLOPE	521.0115 CULVERT PIPE CORRUGATED STEEL 15-INCH LF	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.1015 APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	THICKNESS (INCHES) STEEL	THICKNESS (INCHES) ALUMINUM
1903+63	654.86	653.38	2.57%	58	--	1	--	0.064	0.060
1921+40	654.20	652.52	1.24%	--	135	--	2	0.064	0.075
1922+68	652.40	648.89	2.36%	--	149	--	2	0.064	0.075
PROJECT 4140-20-74 TOTALS (0010)				58	284	1	4		

NOTES:
1. STATIONS ARE TO THE CENTER OF PIPE
2. PIPE LENGTHS ARE MEASURED FROM ENDWALL TO ENDWALL

MOBILIZATION AND FIELD OFFICE

PROJECT	619.1000 MOBILIZATION EACH	642.5201 FIELD OFFICE TYPE C EACH
4140-20-74	1	1

CONSTRUCTION STAKING ITEMS

ROADWAY	STATION	-	STATION	LT/RT	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS
EGG HARBOR TEMPORARY	1901+50	-	1904+61	LT	311	311	1	--
EGG HARBOR TEMPORARY	1920+00	-	1924+50	RT	450	450	2	--
PROJECT 4140-20-74					--	--	--	1
PROJECT 4140-20-74 TOTALS (0010)					761	761	3	1

EROSION CONTROL ITEMS

ROADWAY	STATION	- STATION	LT/RT	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
EGG HARBOR TEMPORARY	1901+50	- 1904+51	LT	24	6
EGG HARBOR TEMPORARY	1920+00	- 1924+50	LT/RT	96	24
UNDISTRIBUTED				15	10
PROJECT 4140-20-74 TOTALS (0010)				135	40

RESTORATION ITEMS

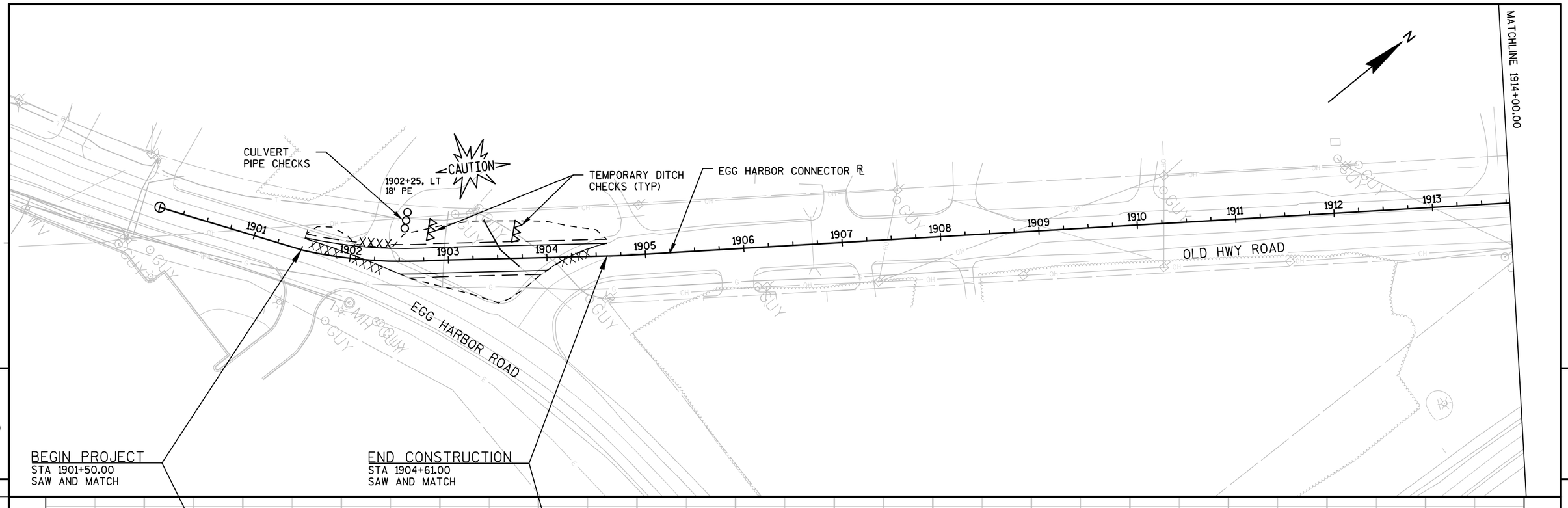
ROADWAY	STATION	-	STATION	LT/RT	625.0100 TOPSOIL SY	628.2002 EROSION MAT CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB
EGG HARBOR CONNECTOR	1901+50	--	1904+61	LT	390	390	0.2	7	10
EGG HARBOR CONNECTOR	1921+25	--	1924+50	RT	460	460	0.3	8	12
EGG HARBOR CONNECTOR	1920+00	--	1923+00	RT	740	740	0.5	13	20
UNDISTRIBUTED					160	160	0	7	13
PROJECT 4140-20-74 TOTALS (0010)					1,750	1,750	1.0	35	55

EROSION CONTROL MOBILIZATION

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
4140-20-74	2	2

TRAFFIC CONTROL ITEMS

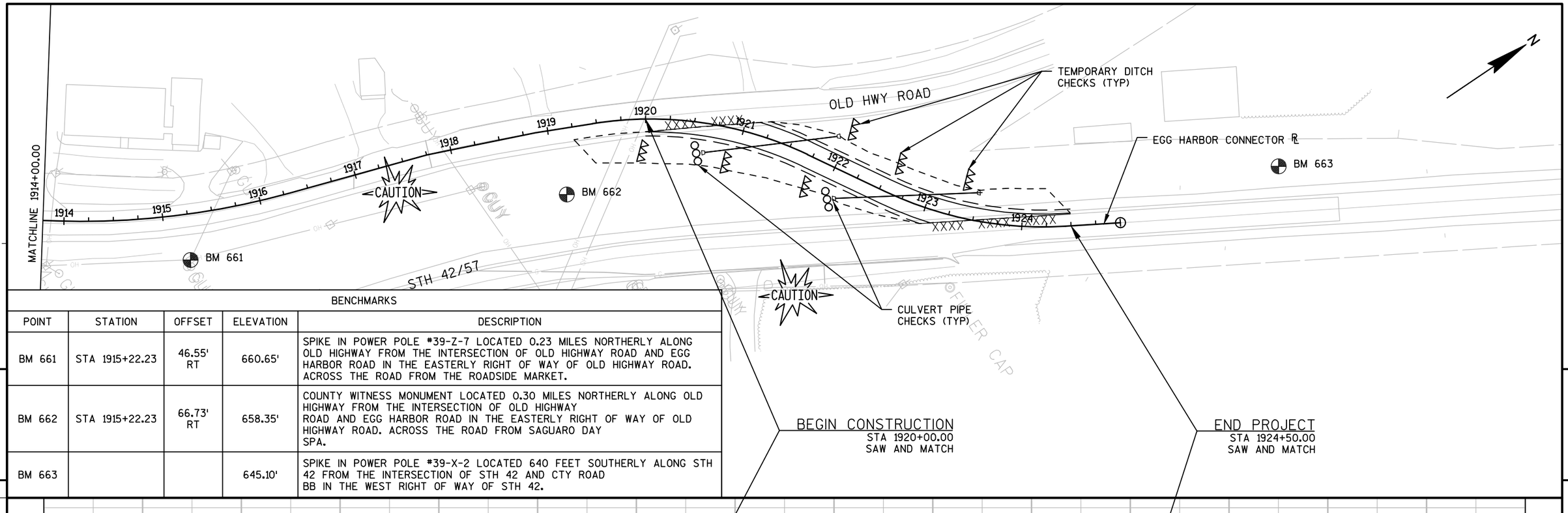
ROADWAY	643.0100 TRAFFIC CONTROL (PROJECT) EACH	643.0100 ESTIMATED DURATION TIME DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 DAY	643.0453 BARRICADES PERMANENT TYPE III EACH	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 BASES EACH	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 DAY	643.1050 PCMS ESTIMATED DURATION TIME DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 DAY
EGG HARBOR CONNECTOR	1	17	65	1,105	16	25	25	19	323	7	3	21
UNDISTRIBUTED	--	--	--	280	--	--	--	--	82	--	--	9
PROJECT 4140-20-74 TOTALS (0010)	1	--	65	1,400	16	25	25	19	405		2	30



PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	PLAN AND PROFILE: EGG HARBOR CONNECTOR	SHEET 15	E

FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\050101_PP.DWG PLOT DATE : 4/8/2015 11:25 AM PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44



BENCHMARKS				
POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
BM 661	STA 1915+22.23	46.55' RT	660.65'	SPIKE IN POWER POLE *39-Z-7 LOCATED 0.23 MILES NORTHERLY ALONG OLD HIGHWAY FROM THE INTERSECTION OF OLD HIGHWAY ROAD AND EGG HARBOR ROAD IN THE EASTERLY RIGHT OF WAY OF OLD HIGHWAY ROAD. ACROSS THE ROAD FROM THE ROADSIDE MARKET.
BM 662	STA 1915+22.23	66.73' RT	658.35'	COUNTY WITNESS MONUMENT LOCATED 0.30 MILES NORTHERLY ALONG OLD HIGHWAY FROM THE INTERSECTION OF OLD HIGHWAY ROAD AND EGG HARBOR ROAD IN THE EASTERLY RIGHT OF WAY OF OLD HIGHWAY ROAD. ACROSS THE ROAD FROM SAGUARO DAY SPA.
BM 663			645.10'	SPIKE IN POWER POLE *39-X-2 LOCATED 640 FEET SOUTHERLY ALONG STH 42 FROM THE INTERSECTION OF STH 42 AND CTY ROAD BB IN THE WEST RIGHT OF WAY OF STH 42.

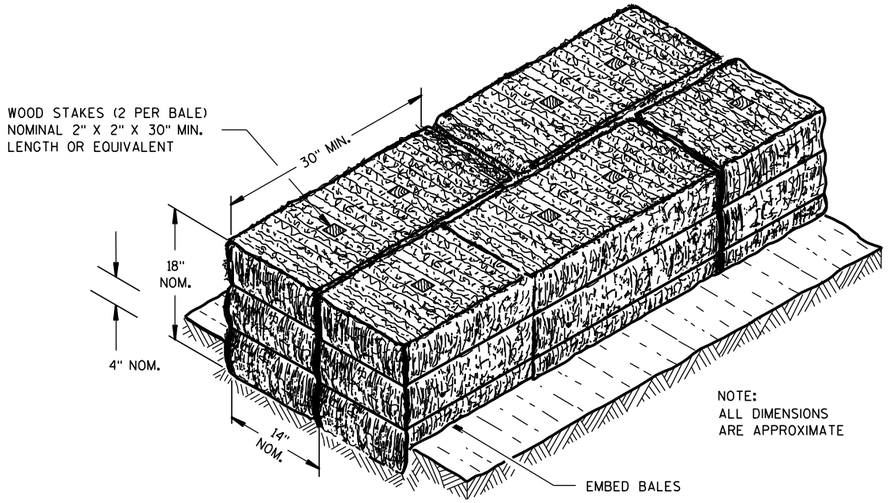
PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	PLAN AND PROFILE: EGG HARBOR CONNECTOR	SHEET 16	E

Standard Detail Drawing List

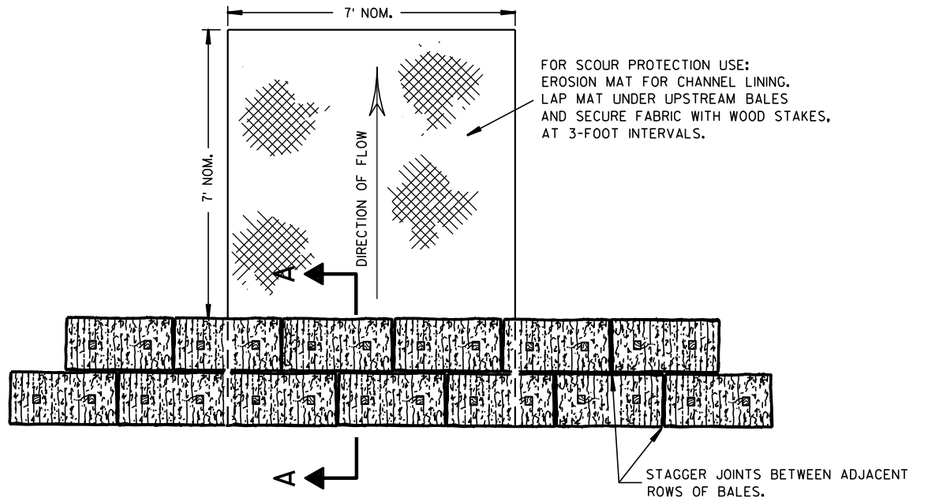
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D31-02	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

6

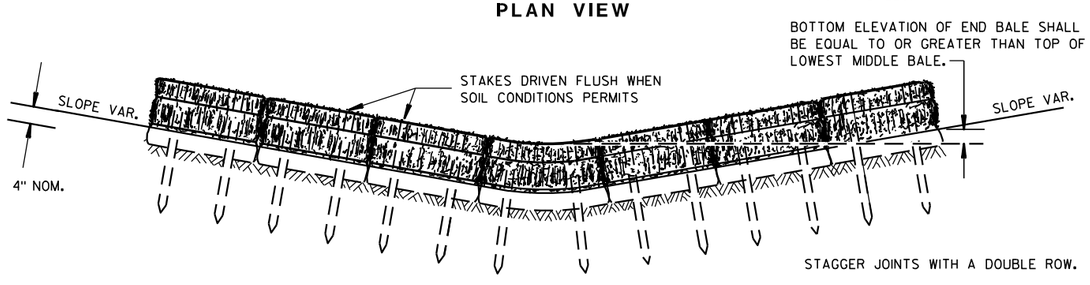
6



SECTION A-A



PLAN VIEW



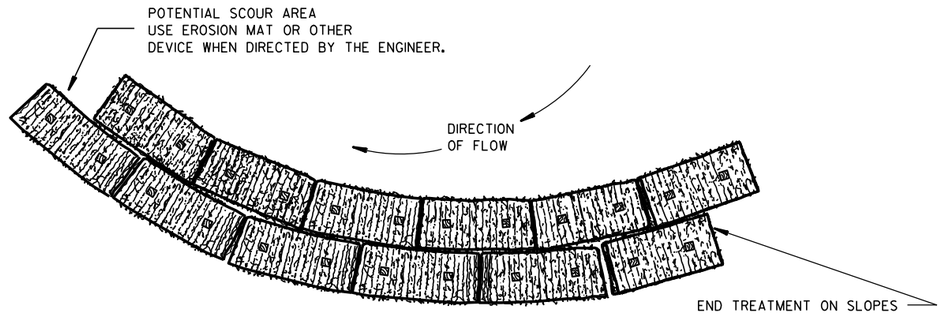
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

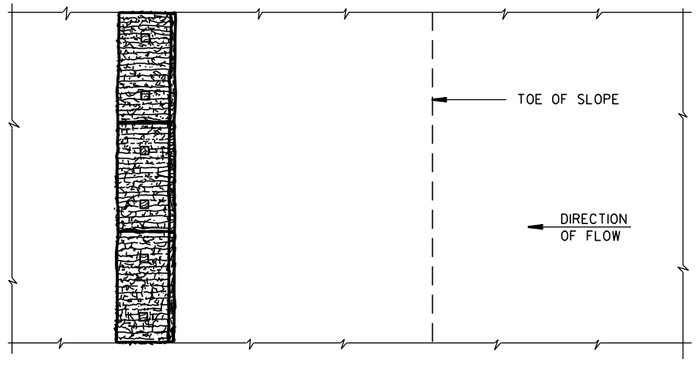
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

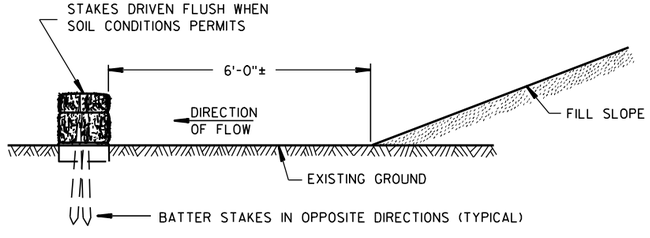


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 8-3

6

S.D.D. 8 E 8-3

METAL APRON ENDWALLS

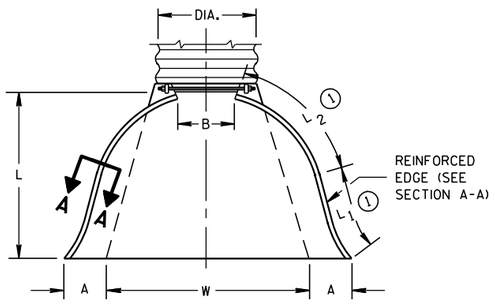
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 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

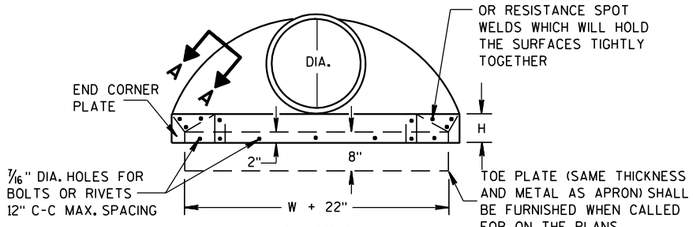
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
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

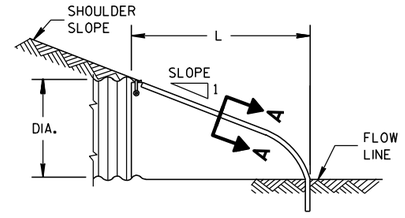
* MINIMUM
** MAXIMUM



PLAN VIEW

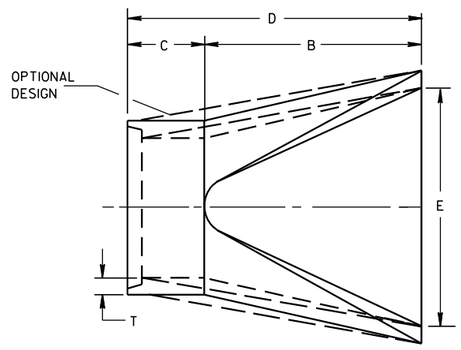


END VIEW

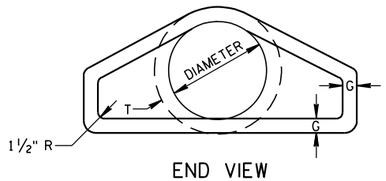


SIDE ELEVATION

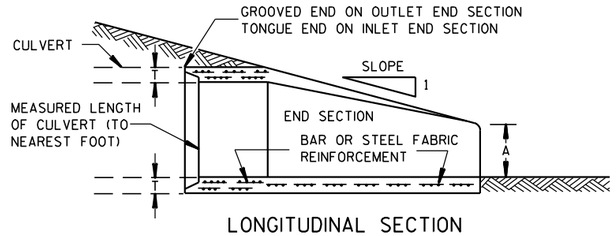
METAL ENDWALLS



PLAN

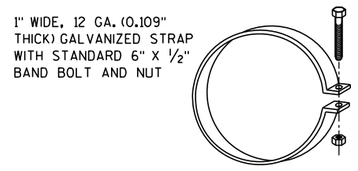


END VIEW



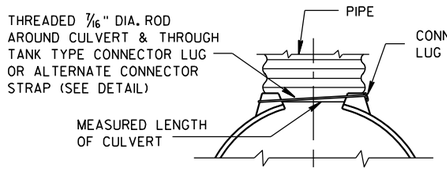
LONGITUDINAL SECTION

CONCRETE ENDWALLS

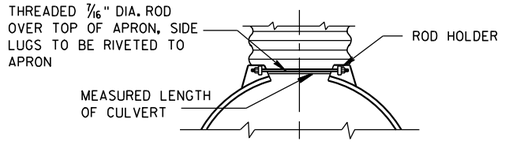


ALTERNATE FOR TYPE 1 CONNECTION

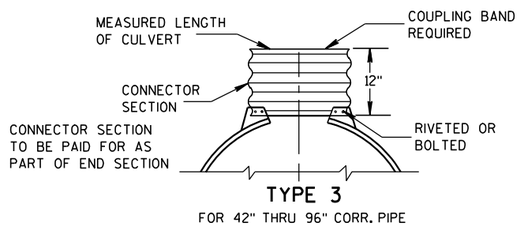
END SECTION CONNECTOR STRAP



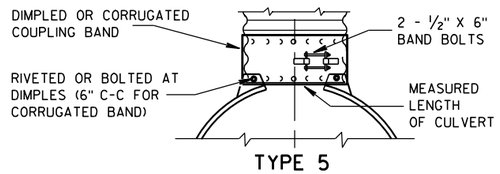
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

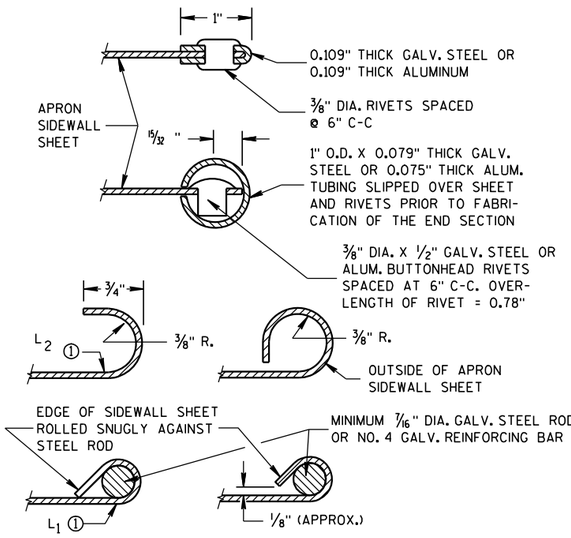
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

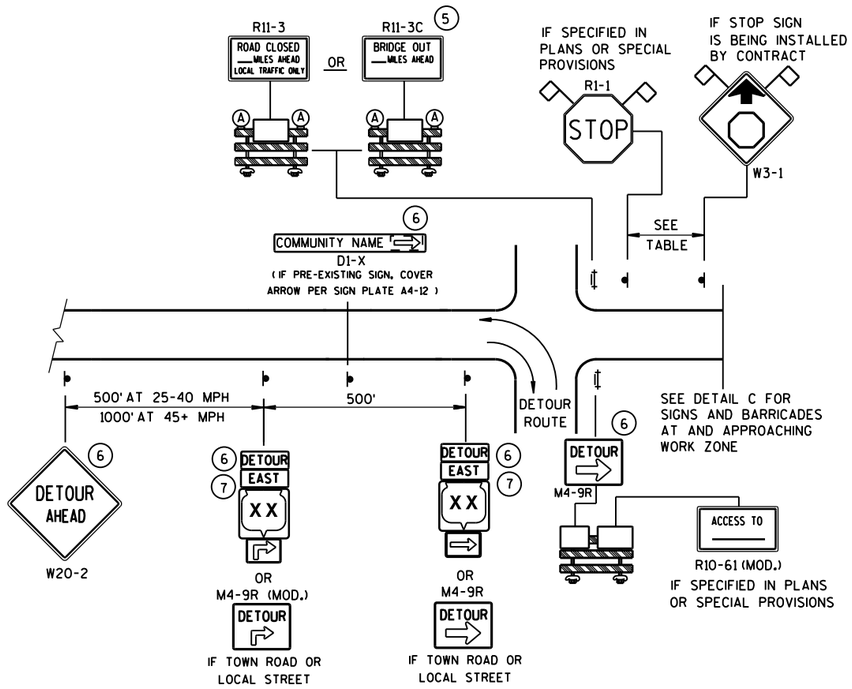
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

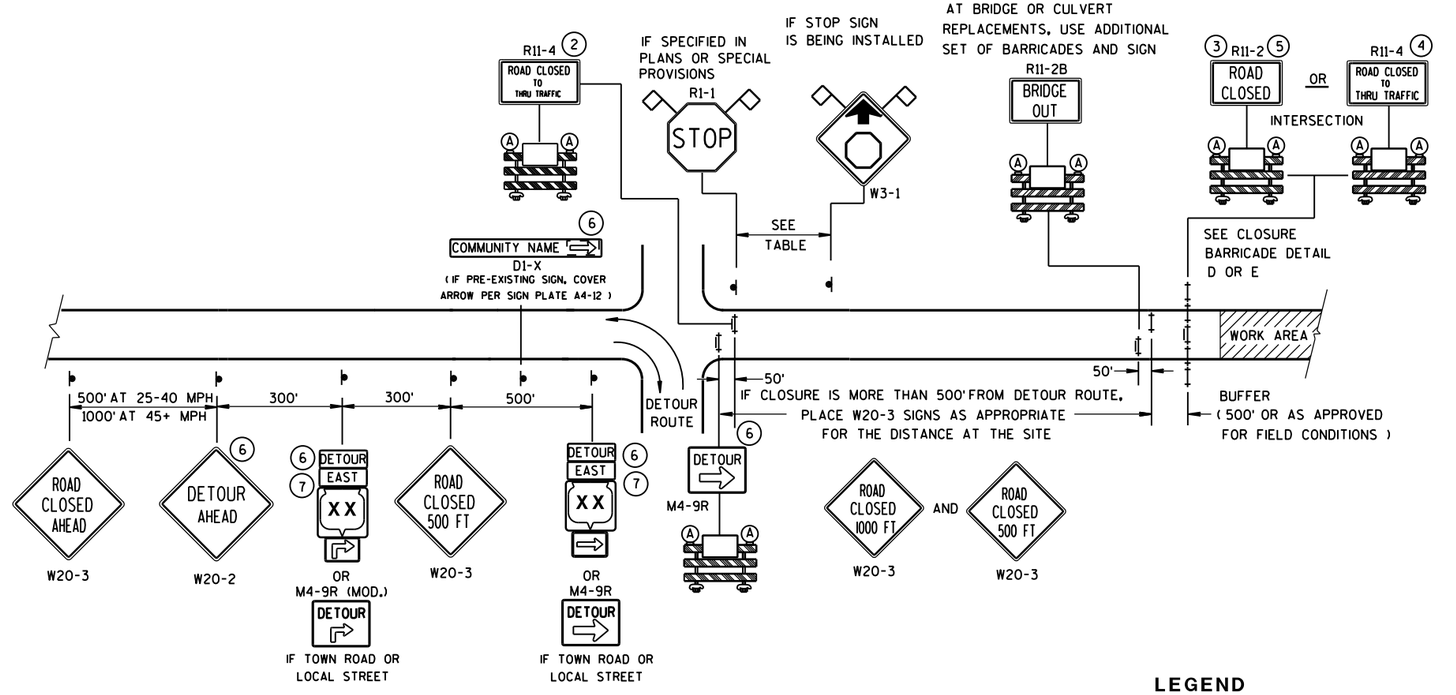
APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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



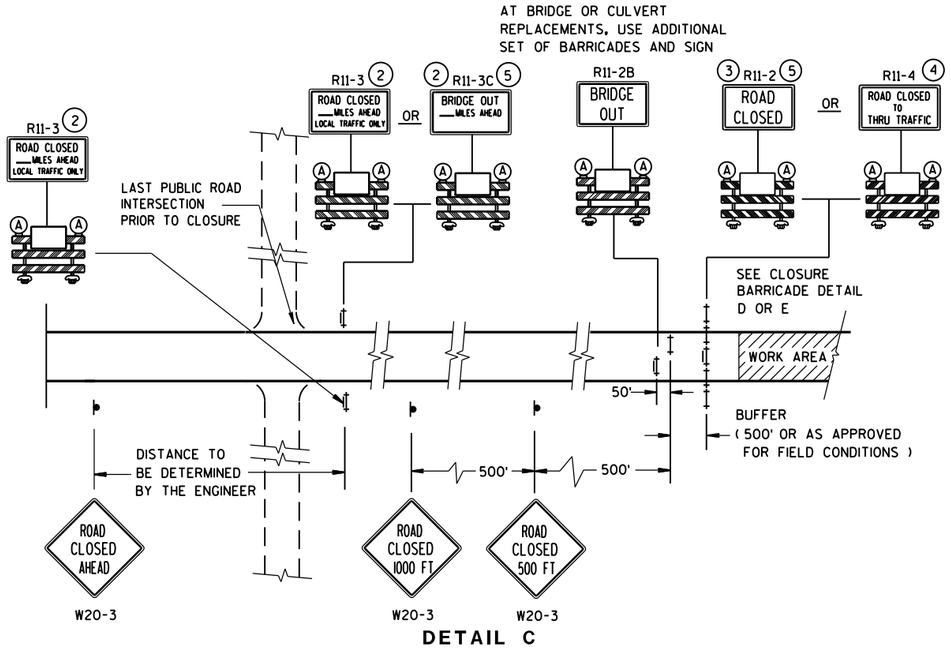
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

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

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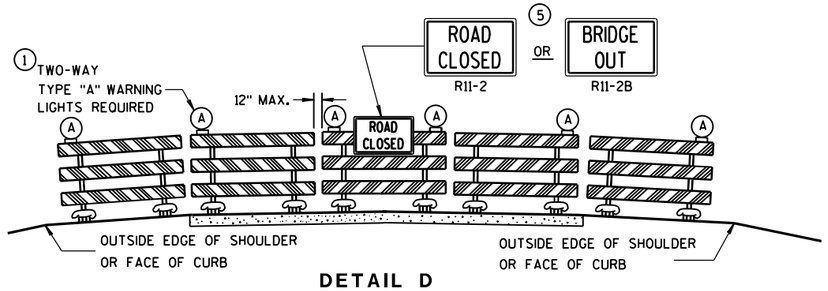
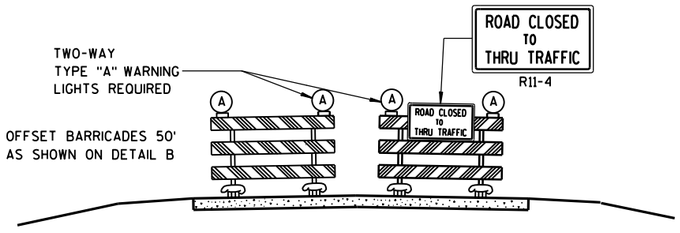
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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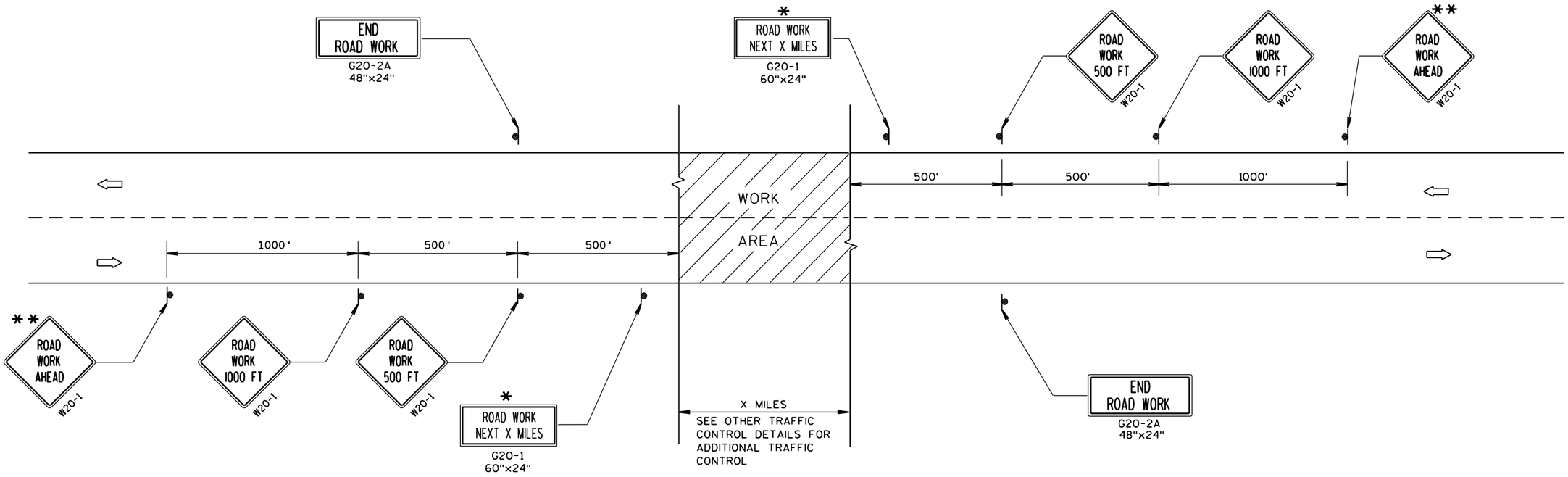
S.D.D. 15 C 2-5b



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.

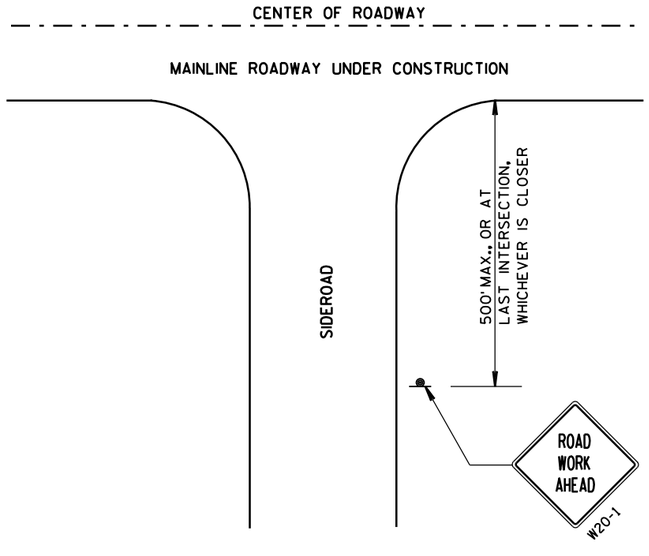
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SIGN

FHWA

6

S.D.D. 15 C 4-2

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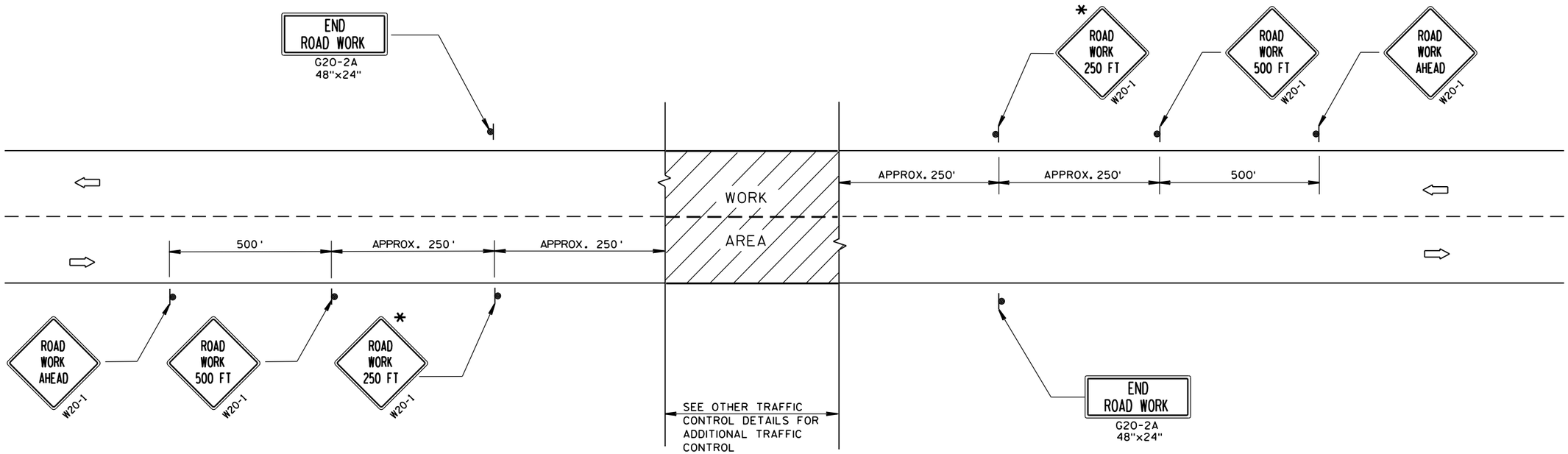
S.D.D. 15 C 4-2

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

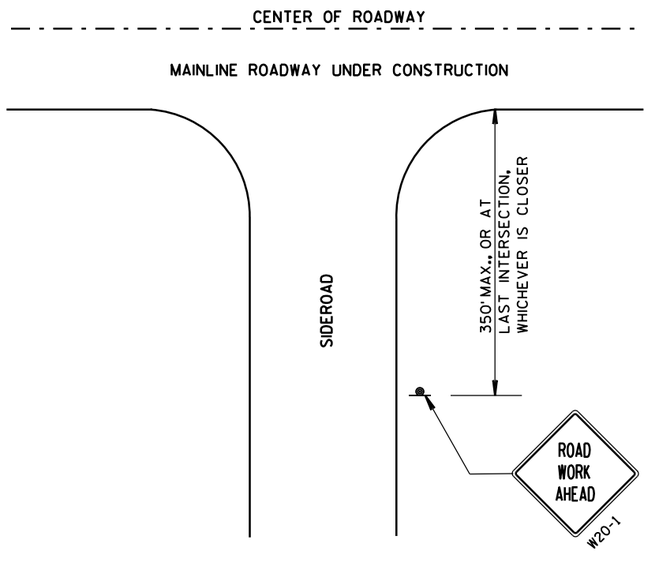
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

6

S.D.D. 15 C 5-2

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

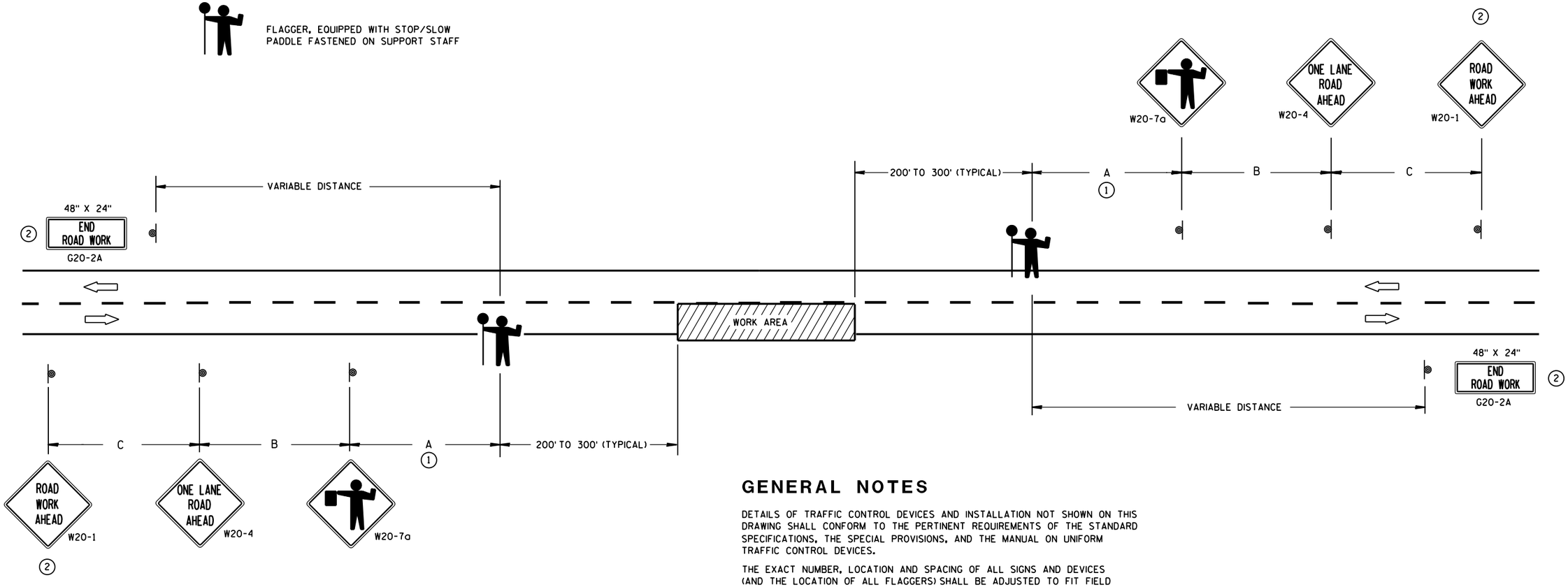
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 15 C 12-4

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S.D.D. 15 C 12-4

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.

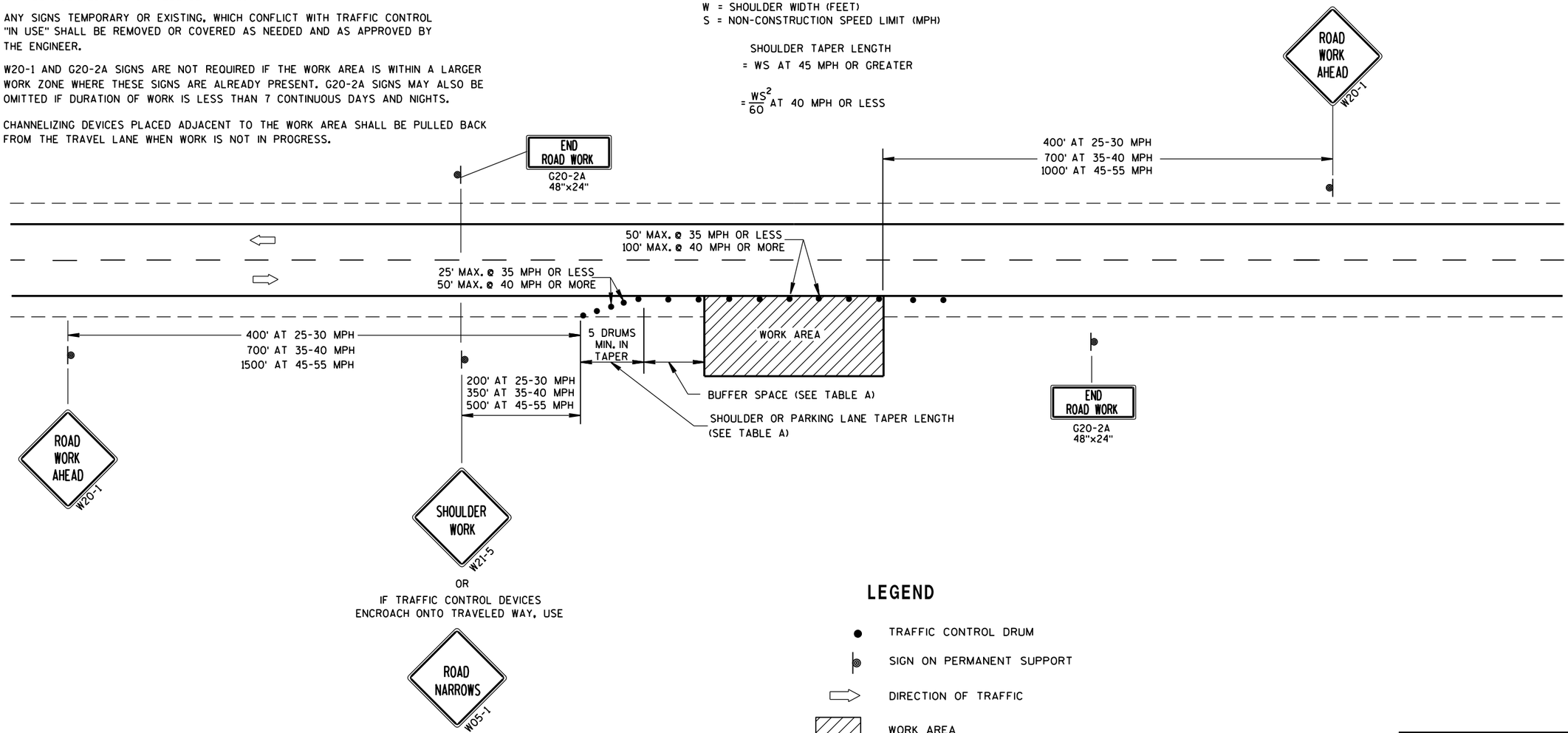
TABLE A

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

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S.D.D. 15 D 28-2

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S.D.D. 15 D 28-2

S	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A 48"x24"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

NO PASSING ZONE
W14-3 48"x36"

1000' 500' 400' 500' 200' 50' 50' 25' TYP.

W01-6 48"x24" ✳✳✳

R11-2 48"x30" ROAD CLOSED

TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE

BRIDGE OUT
R11-2B 48"x30"

W01-6 48"x24"

TYPE III BARRICADE

W01-3L OR W01-4L
W013-1 XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1

ROAD WORK AHEAD
W20-1

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

W01-6 48"x24" ✳✳✳

400' 50' 50' 25' TYP.

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

25' TYP.

W01-6 48"x24"

TYPE III BARRICADE

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W5-52L 12"x36"

W5-52R 12"x36"

25' TYP.

W01-6 48"x24" ✳✳✳

200' 500' 500' 1000'

ROAD WORK AHEAD
W20-1

ROAD WORK 1000 FT
W20-1

W01-4R OR W01-3R
W013-1 XX M.P.H.
24"x24"

W01-6 48"x24"

W01-6 48"x24" ✳✳✳

W5-52R 12"x36"

W5-52L 12"x36"

25' TYP.

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

25' TYP.

W01-6 48"x24"

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

W01-4R OR W01-3R
W013-1 XX M.P.H.
24"x24"

W01-4L OR W01-3L
W013-1 XX M.P.H.
24"x24"

NO PASSING ZONE
W14-3 48"x36"

END ROAD WORK
G20-2A 48"x24"

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.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY-BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO-WAY YELLOW)
- XXX REMOVE PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- WORK AREA

TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

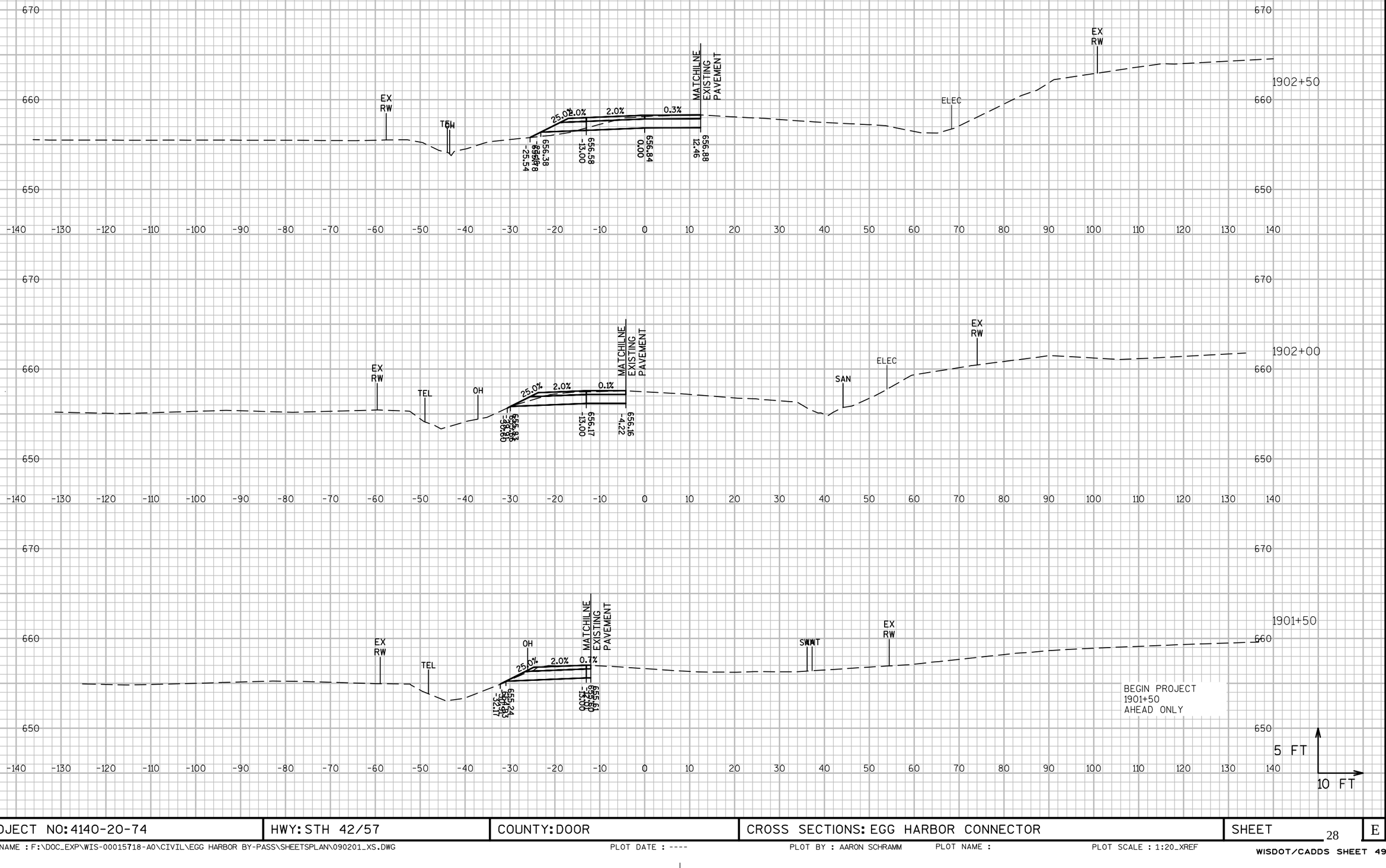
6

S.D.D. 15 D 31-2

Real Station STATION	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
1901+50.00	AHEAD	24.0	0	0.0	0	0	0	0	0	0
1902+00.00	50.00	27.1	0	0.0	47	0	0	47	0	47
1902+50.00	50.00	48.6	0	2.9	70	0	3	117	4	114
1903+00.00	50.00	9.6	0	38.2	54	0	38	171	51	120
1903+50.00	50.00	18.2	0	117.0	26	0	144	197	231	-34
1904+00.00	50.00	9.8	0	24.7	26	0	131	223	395	-172
1904+50.00	50.00	13.2	0	0.0	21	0	23	244	424	-180
1905+00.00	BACK									
			Column totals		244	0	339			
1919+50.00	AHEAD	19.4	0	0.0	0	0	0	0	0	0
1920+00.00	50.00	21.9	0	0.0	38	0	0	38	0	38
1920+50.00	50.00	24.5	0	0.5	43	0	0	81	0	81
1921+00.00	50.00	12.4	0	6.1	34	0	6	115	8	108
1921+50.00	50.00	25.8	0	17.1	35	0	21	150	34	117
1922+00.00	50.00	20.9	0	0.4	43	0	16	193	54	140
1922+50.00	50.00	18.3	0	21.0	36	0	20	229	79	151
1923+00.00	50.00	24.6	0	10.3	40	0	29	269	115	155
1923+50.00	50.00	21.2	0	3.0	42	0	12	311	130	182
1924+00.00	50.00	21.3	0	0.3	39	0	3	350	134	218
1924+50.00	BACK									
			Column totals		350	0	107			

Notes:

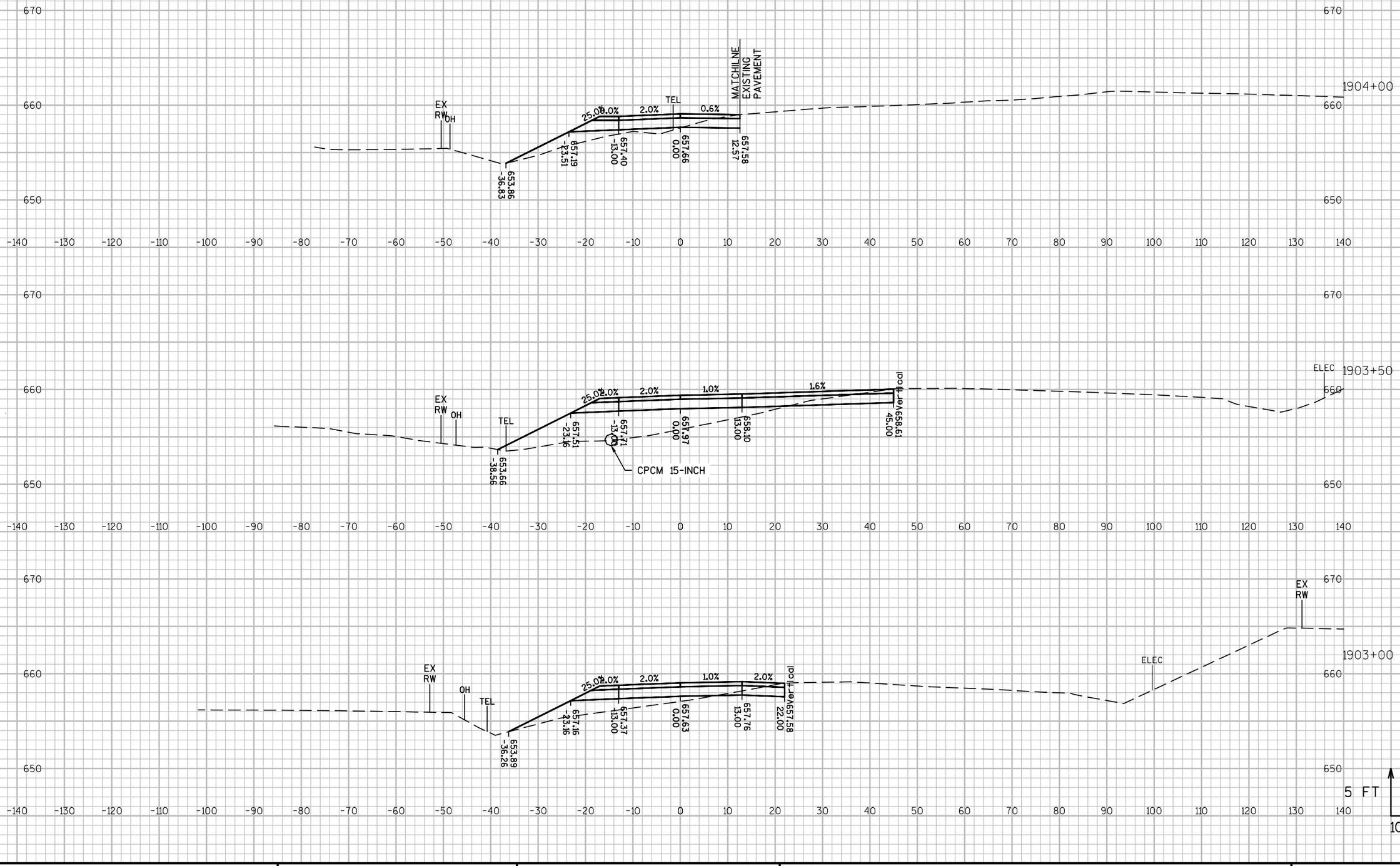
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement M	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
~~4 - Expanded Marsh Backfill~~	~~Will be backfilled with Granular Backfill (or Cut, or Borrow)~~
~~5 - Expanded EBS~~	~~Will be backfilled with Granular Backfill (or Cut, or Borrow)~~
~~6 - Reduced Marsh in Fill~~	~~Reduced Marsh Excavation that can be used in Fill~~
~~7 - Reduced EBS in Fill~~	~~Reduced EBS Excavation that can be used in Fill~~
~~8 - Mass Ordinate~~	~~If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill - Reduced Marsh in Fill) - (Reduced EBS in Fill) - Expanded Rock) * Fill Factor)~~]
~~8 - Mass Ordinate~~	~~If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill - (Reduced Marsh in Fill) - (Reduced EBS in Fill) - (Expanded Rock)) * Fill Factor))~~]
~~8 - Mass Ordinate~~	~~If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))~~]
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))]



9 9

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 28	E

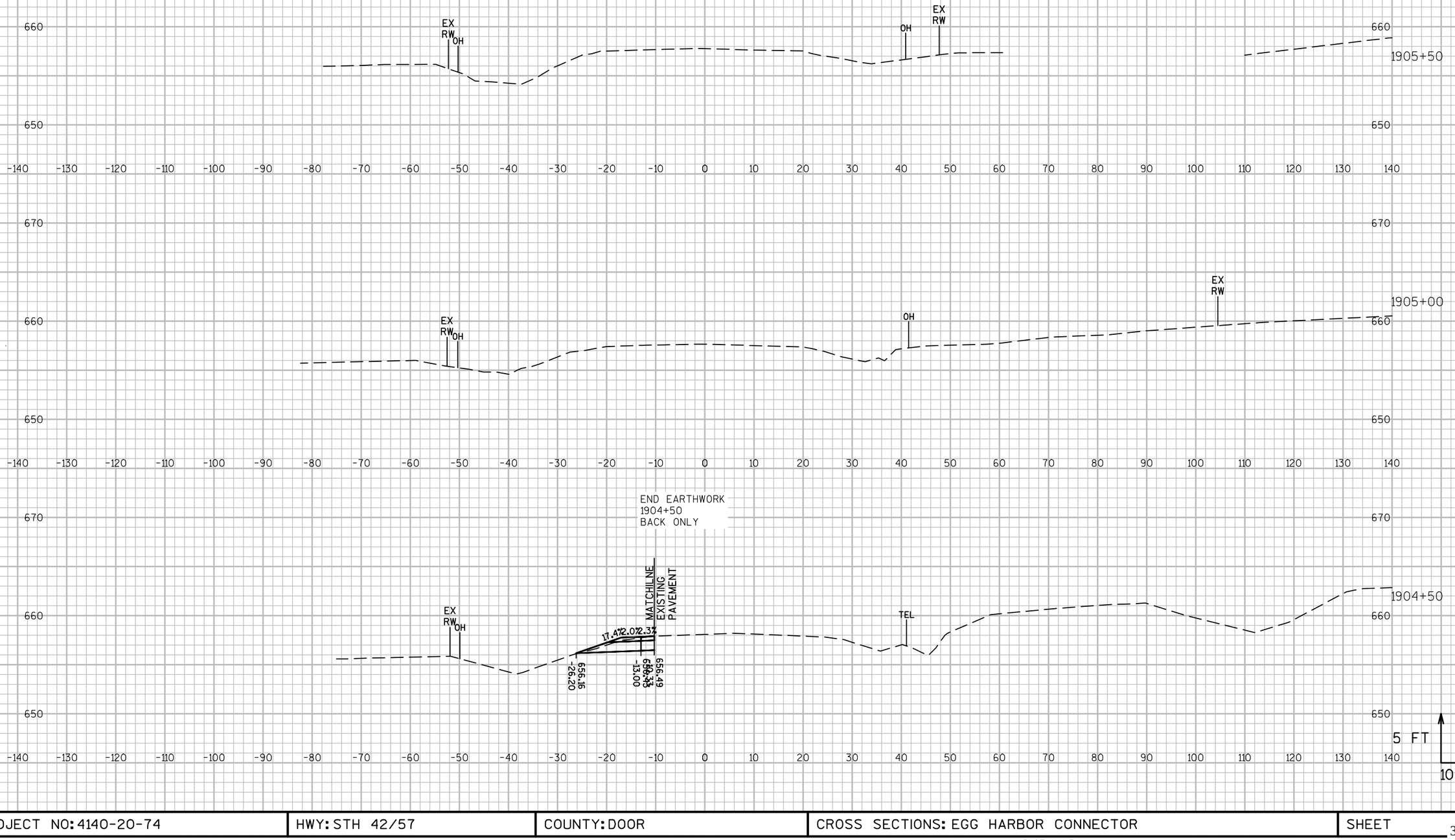
FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 29	E

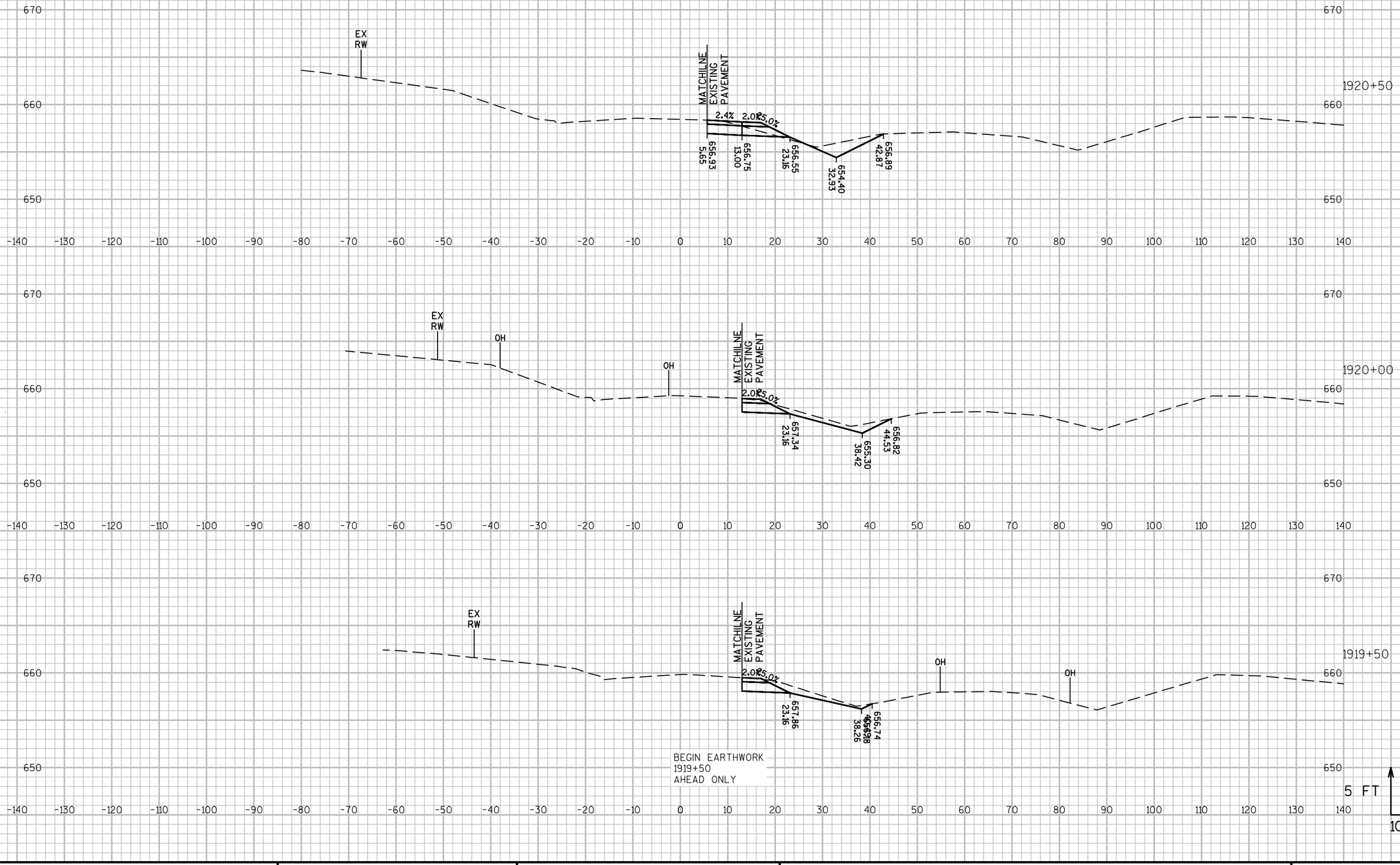
FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 30	E

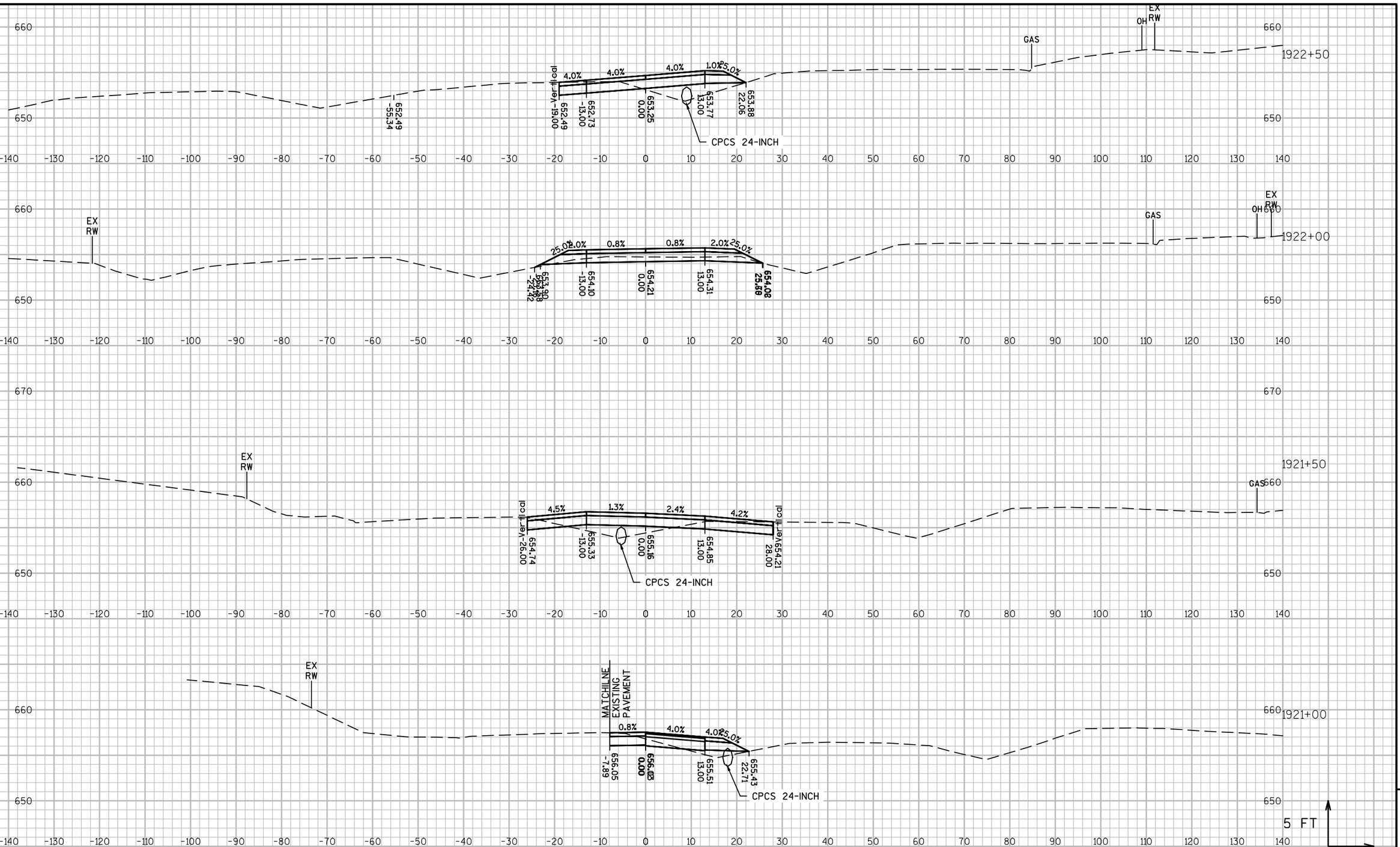
FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 31	E

FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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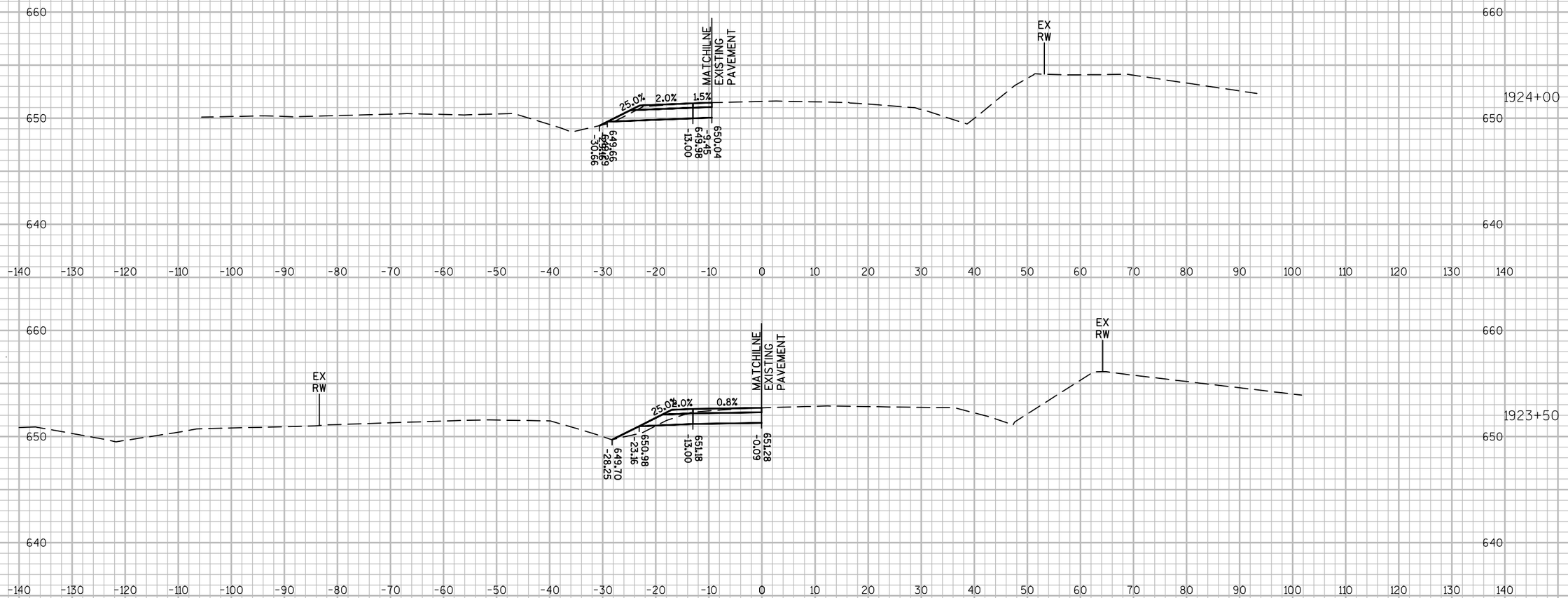
9

PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 32	E

FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1:20_XREF

END PROJECT
1924+00
BACK ONLY



PROJECT NO: 4140-20-74	HWY: STH 42/57	COUNTY: DOOR	CROSS SECTIONS: EGG HARBOR CONNECTOR	SHEET 33	E

FILE NAME : F:\DOC_EXP\WIS-00015718-A0\CIVIL\EGG HARBOR BY-PASS\SHEETSPLAN\090201_XS.DWG PLOT DATE : ---- PLOT BY : AARON SCHRAMM PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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Place Sheet Numbers