#### ORDER OF SHEETS

MAR 2016

Section No. 1 Title
Section No. 2 Typical Sections and Details
(Including Erosion Control)
Section No. 3 Estimate of Quantities
Section No. 4 Right—of—Way Plat

Section No. 5 Plan and Profile
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates

Section No. 7 Sign Plates
Section No. 8 Structure Plans
Section No. 9 Computer Earthwork Data

Section No. 9 Cross—Sections

TOTAL SHEETS = 80

# PROJECT LOCATION

#### DESIGN DESIGNATION

AADT (2015) = 2100 AADT (2035) = 2500 DHV (2035) = 275 D (%) = 60/40 T (% OF ADT) = 3.8% DESIGN SPEED = 45 MPH ESALS = 211,700

#### CONVENTIONAL SYMBOLS

SECTION LINE

QUARTER LINE

PROPERTY LINE

LIMITED EASEMENT

EXISTING R/W LINE

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

EXISTING CULVERT
PROPOSED CULVERT
(Box or Pipe)
COMBUSTIBLE FLUIDS

MARSH AREA

PLAN

WOODED OR SHRUB AREA
RIGHT-OF-WAY MARKERS

Zaprost Control Contro

=

DEPAR

BEGIN CONSTRUCTION

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STA 200+02

PROFILE

UTILITIES

ELECTRIC

FIBER OPTIC

OVERHEAD LINES

SANITARY SEWER

UTILITY PEDESTAL

TELEPHONE POLE

POWER POLE

STORM SEWER

TELEPHONE

WATER

GRADE LINE

ORIGINAL GROUND

CULVERT (Profile View)

Y - 148888.7009

X - 680087.0120

STATE OF WISCONSIN

# DEPARTMENT OF TRANSPORTATION

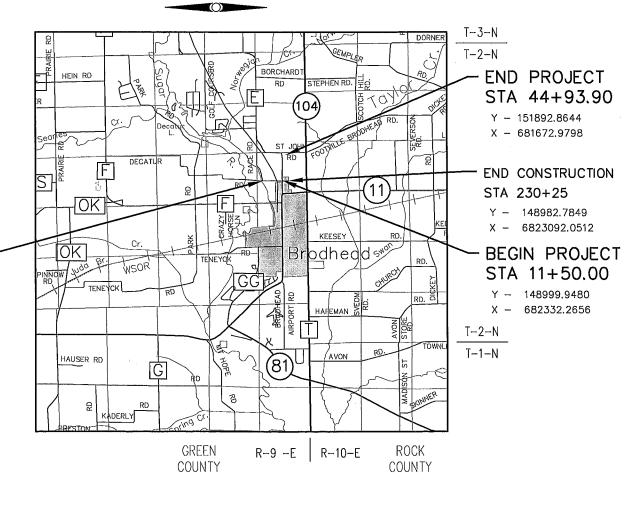
PLAN OF PROPOSED IMPROVEMENT

# **BRODHEAD - ALBANY**

(McEWEN STREET TO ST JOHN ROAD)

# CTH E GREEN COUNTY

STATE PROJECT NUMBER
5605-00-70



LAYOUT

SCALE 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.633 MI

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

STATE PROJECT	FEDERAL PROJECT							
STATE PROJECT	PROJECT	CONTRACT						
5605-00-70	WISC 2015282	1						



DEPARTMENT

APPROVED FOR TH

#### LIST OF STANDARD ABBREVIATIONS

APRON ENDWALL ALUMINUM MONUMENT ALUM MON ACCESS POINT BACK BASE LINE BM BR BRIDGE
CENTER LINE
CENTER LO CENTER
CENTRAL ANGLE OR DELTA
CHORD LENGTH
CONCRETE MONUMENT
COUNTY TRUNK HIGHWAY
CORRUGATED METAL PIPE CC/L CH CONC MON CTH CONST CONSTRUCTION CULVERT PIPE CERTIFIED SURVEY MAP DEGREE OF CURVE CSM DWY EA DRIVEWAY EACH EAST OR EAST PROJECT COORDINATE EASTERLY
EAST GRID COORDINATE
AND OTHERS **ERLY** ÊTAL EXISTING FIELD ENTERANCE GAR GARAGE GAS GRID NORTH GOV'T GOVERNMENT HOUSE INLET IRON PIPE OR PIN LENGTH (OF CURVE) LIN FT LC LCB LINEAR FOOT LONG CHORD OF CURVE LONG CHORD BEARING MH MI MANHOLE NORTH OR NORTH PROJECT COORDINATE NORTH GRID COORDINATE

OD OUTSIDE DIAMETER PLE PERMANENT LIMITED EASEMENT PERMANENT POWER POLE POINT POINT OF CURVATURE POINT OF INTERSECTION
POINT OF REVERSE CURVATURE
POINT OF TANGENCY POC POT PE PROJ POINT OF TANGENCE POINT ON CURVE POINT ON TANGENT PRIVATE ENTRANCE PROJECT RADIUS RCP REINFORCED CONRETE PIPE RADIUS POINT RAILROAD RP RR RANGE REFERENCE LINE REFERENCE POINT REMAINING REM REQUIRED REQD RESIDENCE OR RESIDENTIAL RES RIGHT RIGHT-OF-WAY ROAD R/W RD SEC SHLDR SECTION SHOULDER SD SF OR SQ FT STORM DRAINAGE SQUARE FEET SSPRC STH STORM SEWER PIPE REINFORCED CONCRETE STATE TRUNK HIGHWAY STA STATION

SUBDIVISION

TEMPORARY

TRANSIT LINE

U.S. HIGHWAY

VILLAGE VOLUME WEST

WESTERL'

WISCONSIN

TEMPORARY LIMITED EASEMENT

SUBD

TEMP

USH

VILL

WRLY

TL OR T/L

SECTION 2 SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
PAVEMENT MARKINGS
TRAFFIC CONTROL
ALIGNMENT/CONTROL

#### GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THOSE UTILITIES.

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

SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. SILT FENCE TO BE PLACED PRIOR TO CONSTRUCTION.
RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE IMMEDIATELY AFTER FINISHED

THE EXACT LOCATION OF PRIVATE AND COMMERCIAL ENTRANCES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AT REMOVAL LIMITS AS DIRECTED BY ENGINEER. ALL SAWCUTS SHALL BE A NEAT AND STRAIGHT LINE.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, HOWEVER IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EBS LOCATIONS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

BEARINGS SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (GREEN COUNTY).

WHEN THE QUANTITY OF ITEMS OF SUBBASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE FINGINFER

ALL RADIUS DIMENSIONS ON THE PLAN FOR CURB & GUTTER ARE TO FLAG LINE UNLESS OTHERWISE NOTED.

CURVE DATA IS BASED ON THE ARC DEFINITION.

CONTROL FEATURES SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

SHRINKAGE IS ESTIMATED AT 30%.

NO WETLANDS OUTSIDE OF THE SLOPE INTERCEPTS MAY BE DISTURBED.

HMA PAVEMENT SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:

		NOMINAL	
		MAX	
		SIZE	PERFORMANCE
4.5" TOTAL DEPTH	TYPE_	GRADATION	<u>GRADE</u>
2.5-INCH LOWER	F-1	19 MM	PG58-28
2-INCH UPPER	F-1	12.5 MM	PG58-28



#### **GREEN COUNTY**

GREEN COUNTY HIGHWAY DEPARTMENT ATTN: JEFF WUNSCHEL P.O. BOX 259 2813 6TH STREET MONROE, WI 53566 PHONE: 608-328-9411 jwunschel@greencountywi.org

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NUMBER

#### **DNR LIAISON**

DEPARTMENT OF NATURAL RESOURCES ATTN: LAURA BUB 3911 FISH HATCHERY ROAD FITCHBURG, W 53711 PHONE: 608-275-3485 laura.bub@wisconsin.gov

#### **DESIGN CONSULTANT**

CEDAR CORPORATION ATTN: DAVE SAUER 2820 WALTON COMMONS WEST, SUITE 142 MADISON, WI 53718 PHONE: 608-354-0037 dave.sauer@cedarcorp.com

#### **UTILITIES**

CITY OF BRODHEAD
PUBLIC WORKS
ATTN: RICH VOGEL
1500 11th STREET
BRODHEAD, W 53520
PHONE: 608-897-4384
CELL: 608-931-3512
publicworks@citvofbrodheadwi.us

BRODHEAD WATER & LIGHT WATER ATTN: PAT SULLIVAN 507 19th STREET PO BOX 227 BRODHEAD, WI 53520 PHONE: 608-558-0598 psullivan@brodheadwl.com

## WE ENERGIES

ATTN: LATROY BRUMFIELD
PROJECT MANAGER
333 W EVERIT ST
MILWAUKEE, WI 53203
PHONE: 414-221-5617
CELL: 414-975-9053
LoTroy.Brumfield@we-engeries.com

BRODHEAD WATER & LIGHT ELECTRIC ATTN: TOM NIPPLE 507 19th STREET PO BOX 227 BRODHEAD, WI 53520 PHONE: 608-558-9405 tnipple@brodheadwl.com ALLIANT ENERGY
ATTN: STEVE LARSEN
1915 STH 69S
MONROE, WI 53566
PHONE: 608-328-5339
CELL: 608-751-7654
SteveLorsen@alliantenergy.com

FRONTIER COMMUNICATIONS ATTN: ED STIEBER OPS ENGINEERING 100 COMMUNICATIONS DRIVE SUN PRAIRIE, WI 53590 PHONE: 608-837-1410 CELL: 262-325-7048 edward.o.stieber@ftr.com

PLOT SCALE :

CHARTER COMMUNICATIONS
ATTN: RANDY STEURER
CONSTRUCTION COORDINATOR
1348 PLAINFIELD AVE
JANESVILLE, WI 53545
PHONE: 608-373-7544
CELL: 608-209-3194
randy.steurer@chartercom.com]

\*\* NOT A MEMBER OF DIGGER'S HOTLINE

PROJECT NO: 5605-00-70

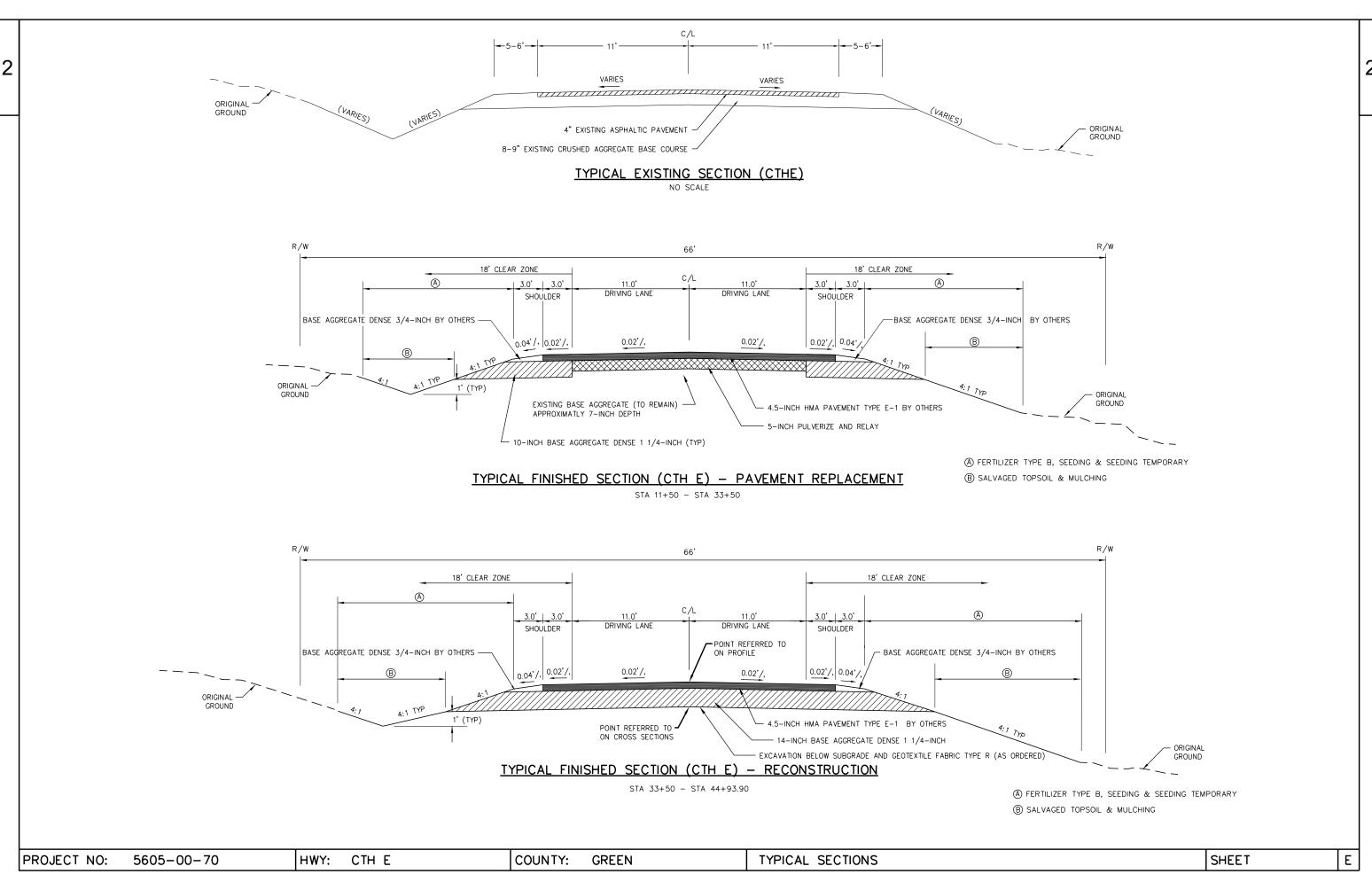
HWY: CTH E

COUNTY: GREEN

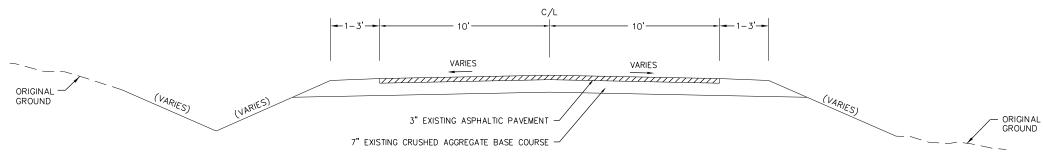
GENERAL NOTES

PLOT NAME :

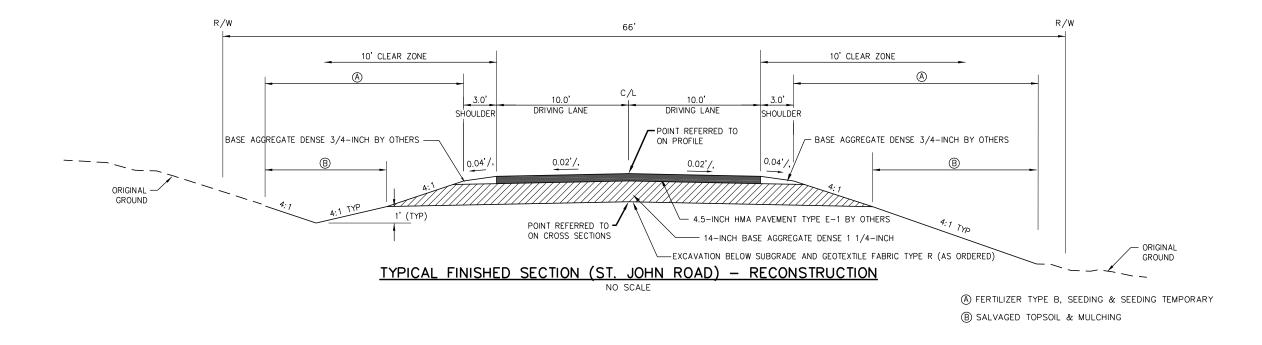
SHEET



SHEET



# TYPICAL EXISTING SECTION (ST. JOHN ROAD) NO SCALE



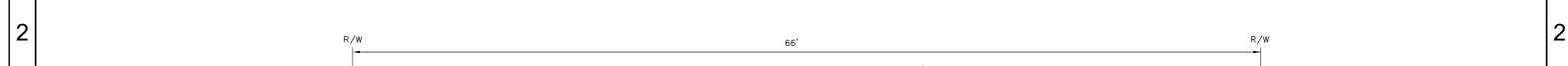
TYPICAL SECTIONS

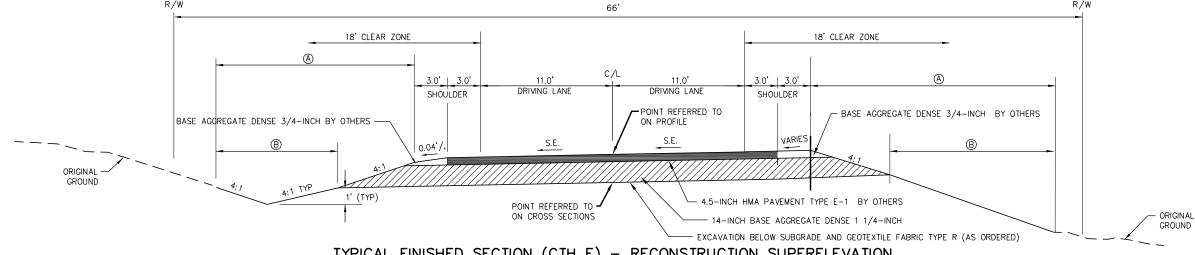
COUNTY: GREEN

HWY: CTH E

5605-00-70

PROJECT NO:





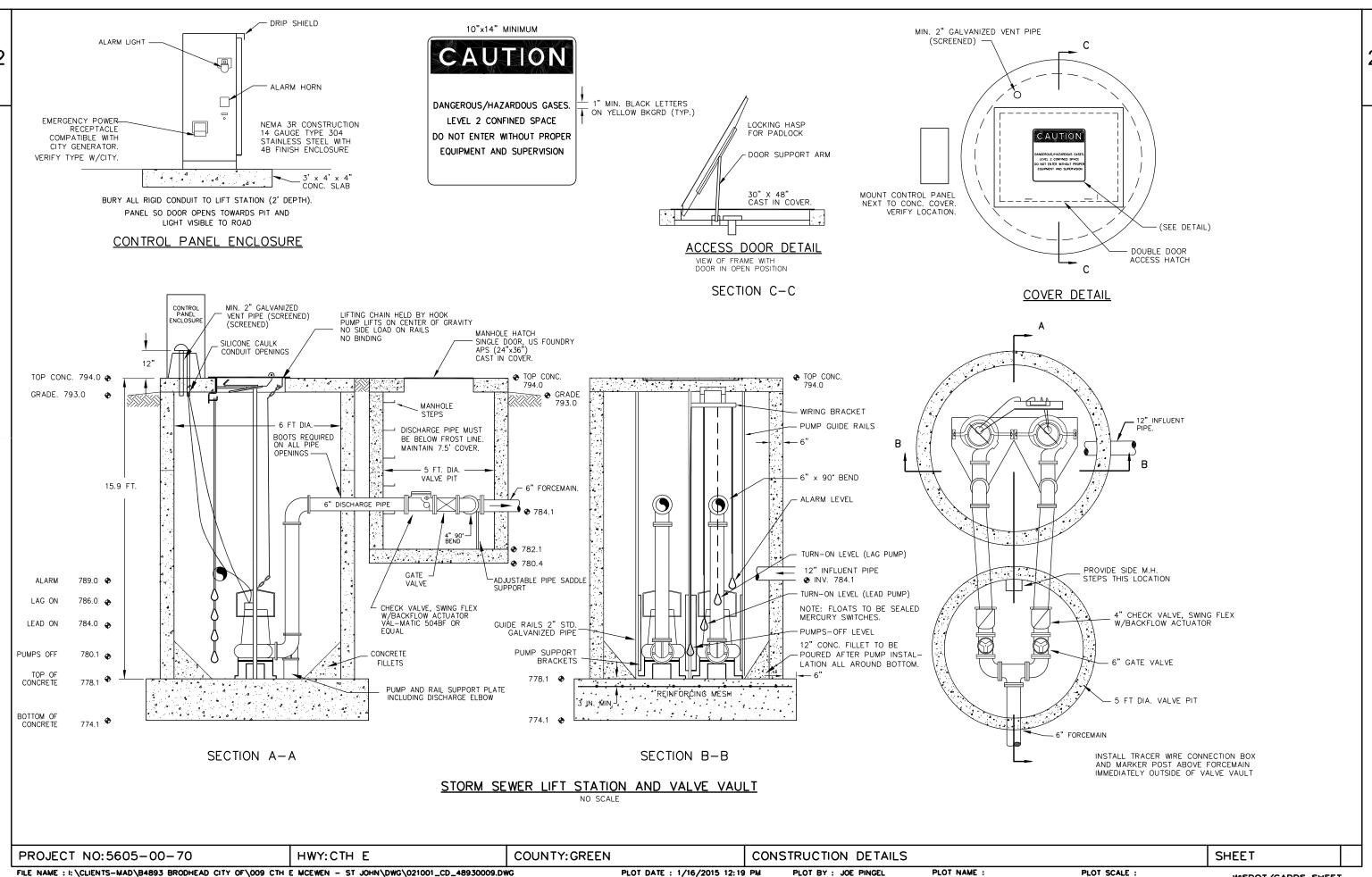
TYPICAL FINISHED SECTION (CTH E) - RECONSTRUCTION SUPERELEVATION

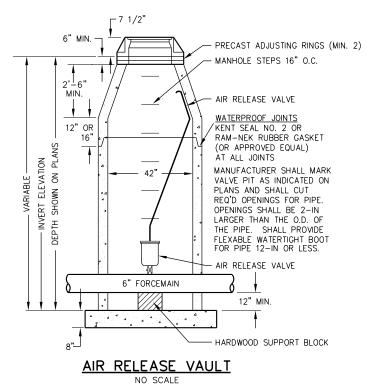
STA 33+50 - STA 44+93.90

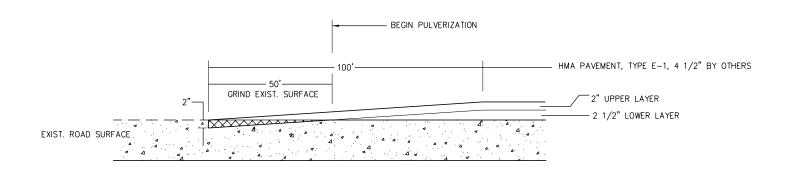
A FERTILIZER TYPE B, SEEDING & SEEDING TEMPORARY

B SALVAGED TOPSOIL & MULCHING

										PC SIDE C	OF CURVE					
CURVI					SUPER	DESIGN		TANGENT	NORMAL		REVERSE	FULL	FULL	REVERSE		NORMAL
NUMBE	R PC STA	PI STA	PT STA	RADIUS	ELEVATION	SPEED	RUNOFF*	RUNOUT*	CROWN	FLAT	CROWN	SUPER	SUPER	CROWN	FLAT	CROWN
1	36+59.54	39+62.13	42+64.71	390.00	6.0%	35	116	39	35+43.21	35+82.21	36+20.87	36+98.21	42+26.04	43+03.38	43+42.04	43+81.04

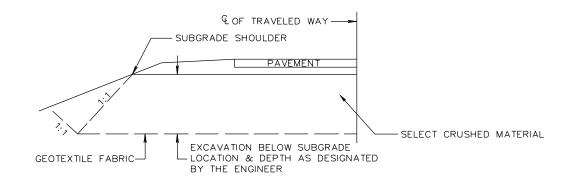


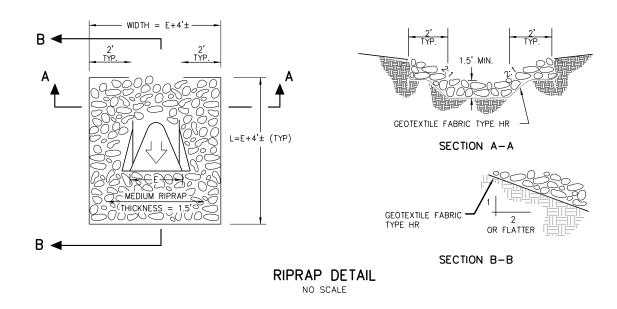




#### REMOVING ASPHALTIC SURFACE BUTT JOINTS

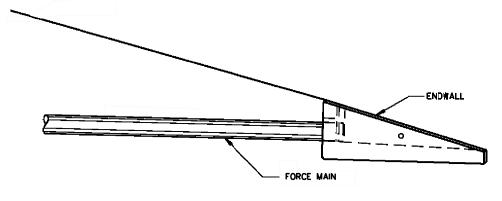
STA 11+50 - 12+00



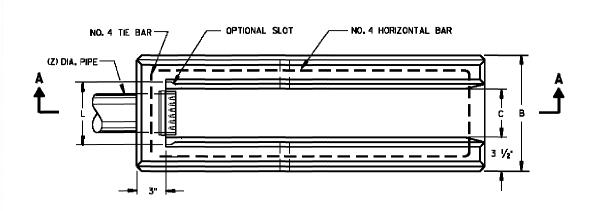


PROJECT NO:5605-00-70 HWY:CTH E COUNTY:GREEN CONSTRUCTION DETAILS SHEET

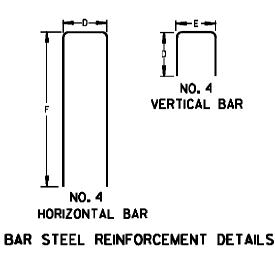
DETAIL FOR EXCAVATION BELOW SUBGRADE

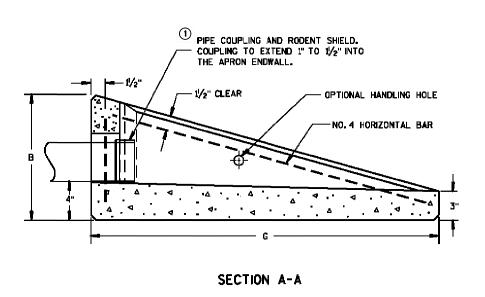


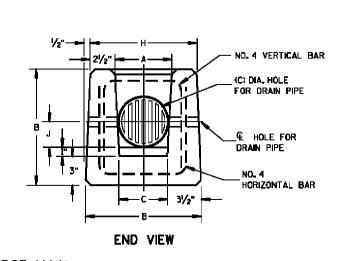
INSTALLATION DETAIL



PLAN VIEW







COUNTY: GREEN

CONCRETE APRON ENDWALL FOR FORCE MAIN

HWY: CTH E

CONSTRUCTION DETAILS PLOT BY : JOE PINGEL

**GENERAL NOTES** 

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON

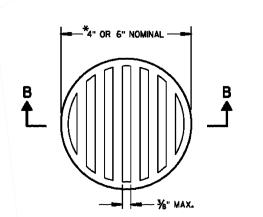
THE FORCE MAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

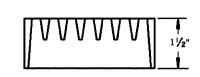
THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE, ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL, EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND SLOPE OF SIDE SLOPE.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS CONCRETE MASONRY ENDWALL

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



NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



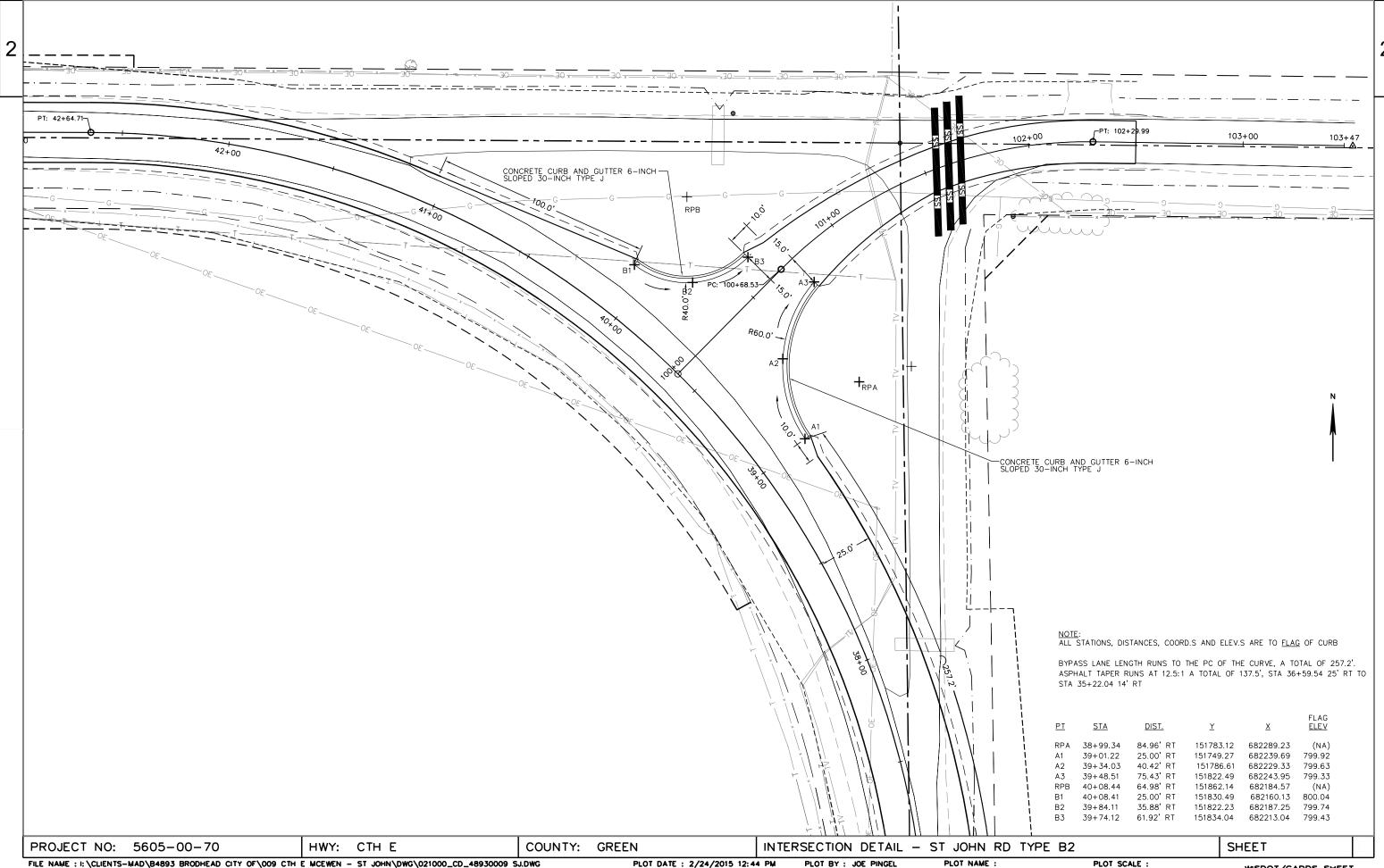
SECTION B-B

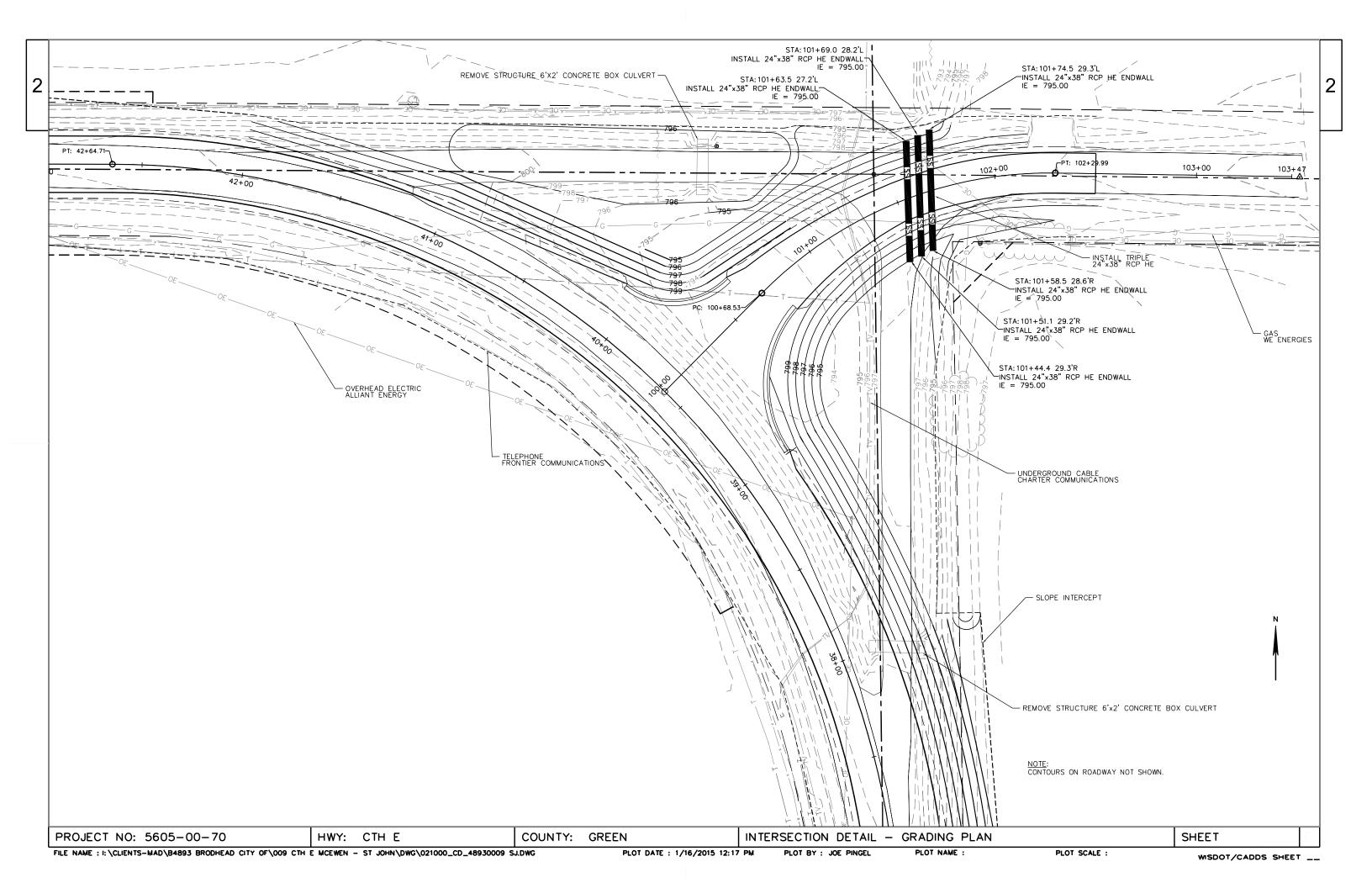
SHEET

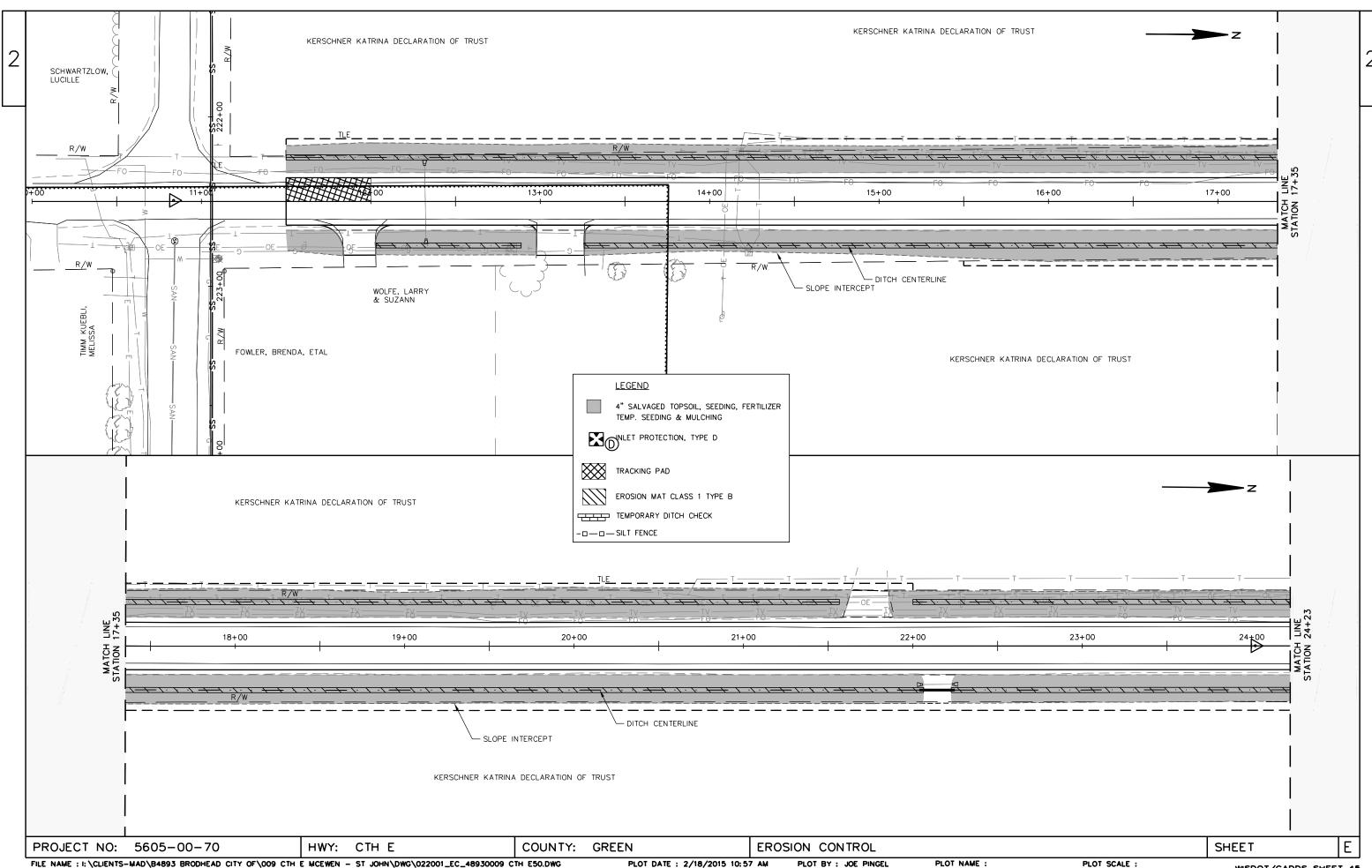
1 RODENT SHIELD

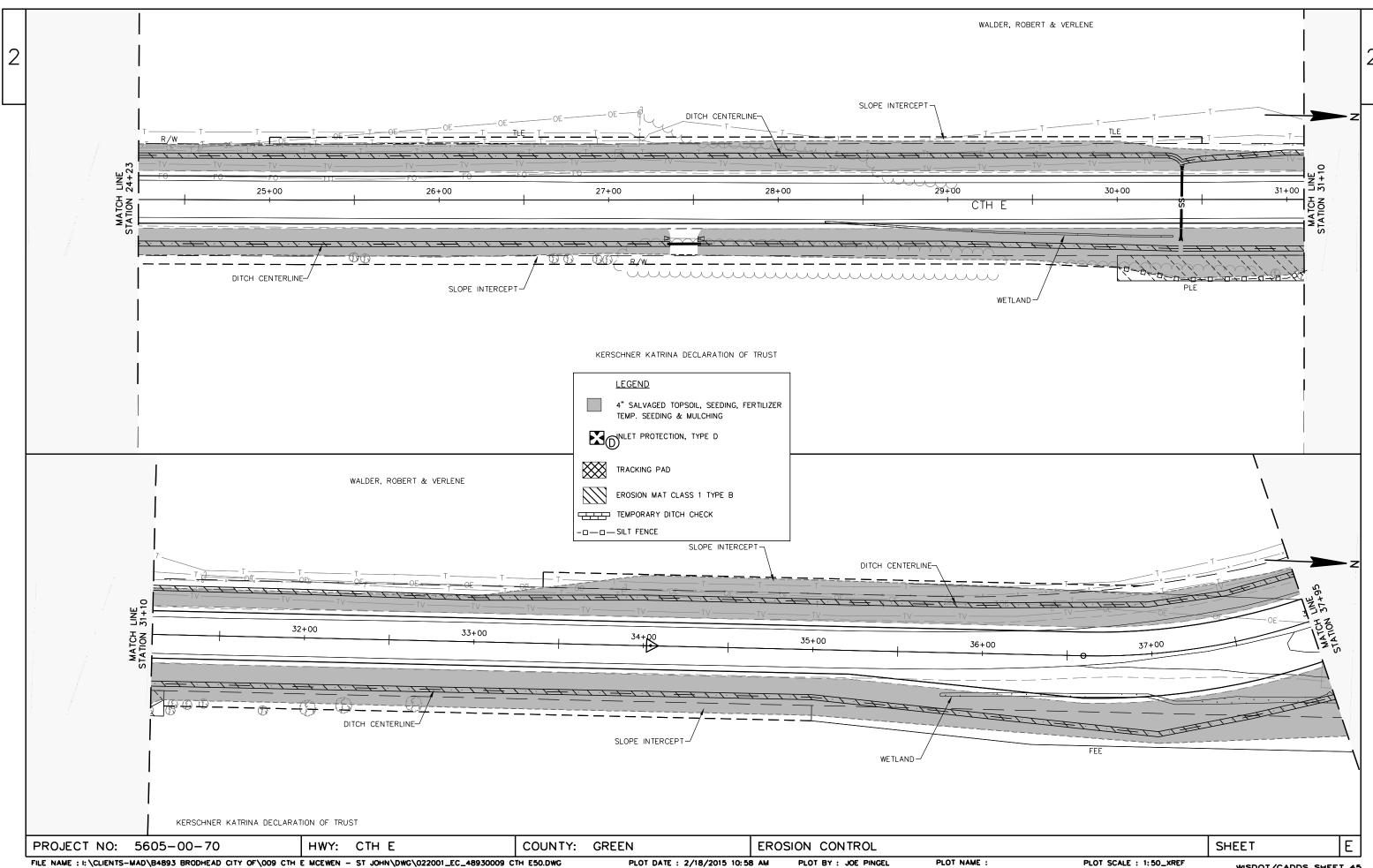
\*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

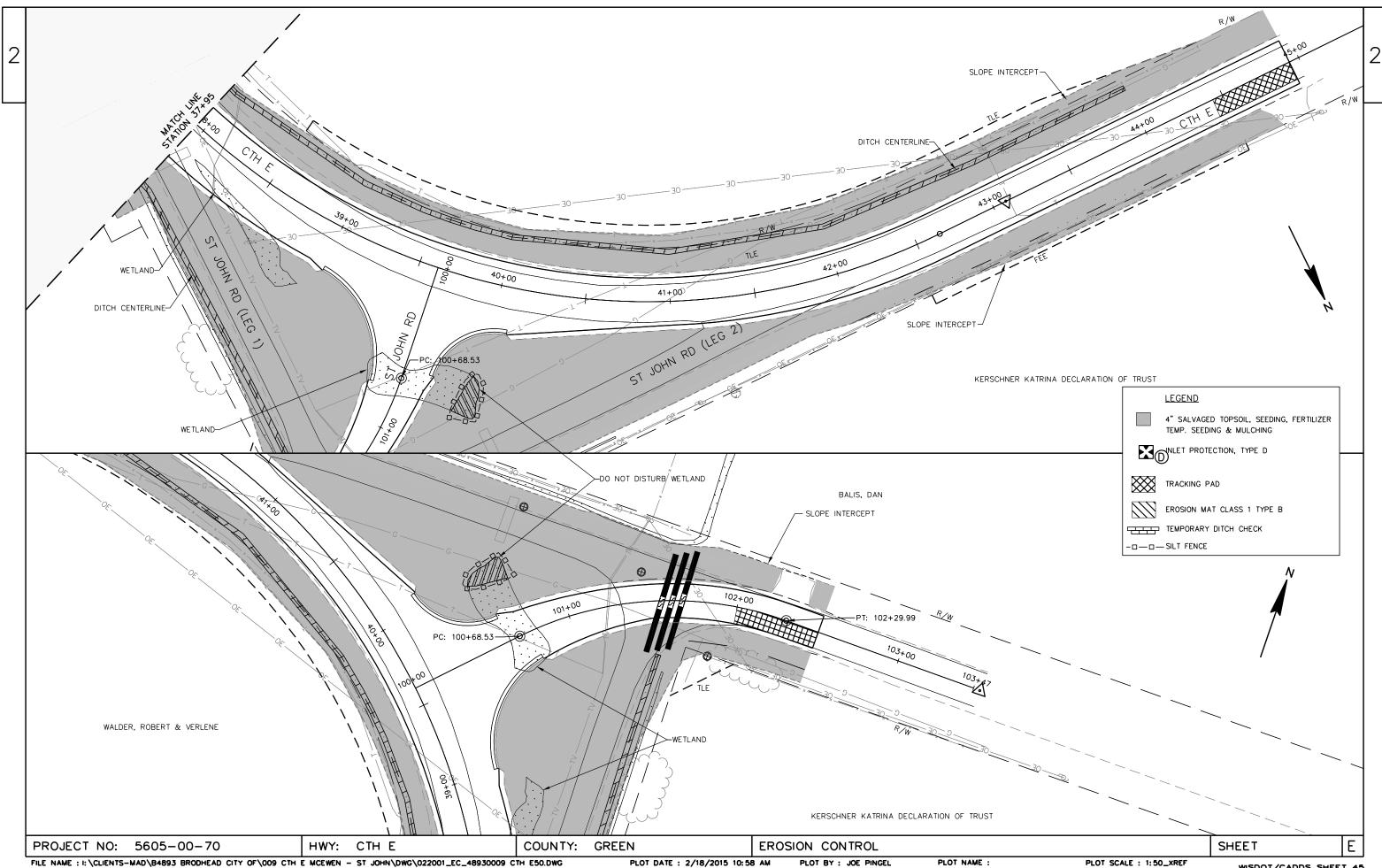
PROJECT NO: 5605-00-70

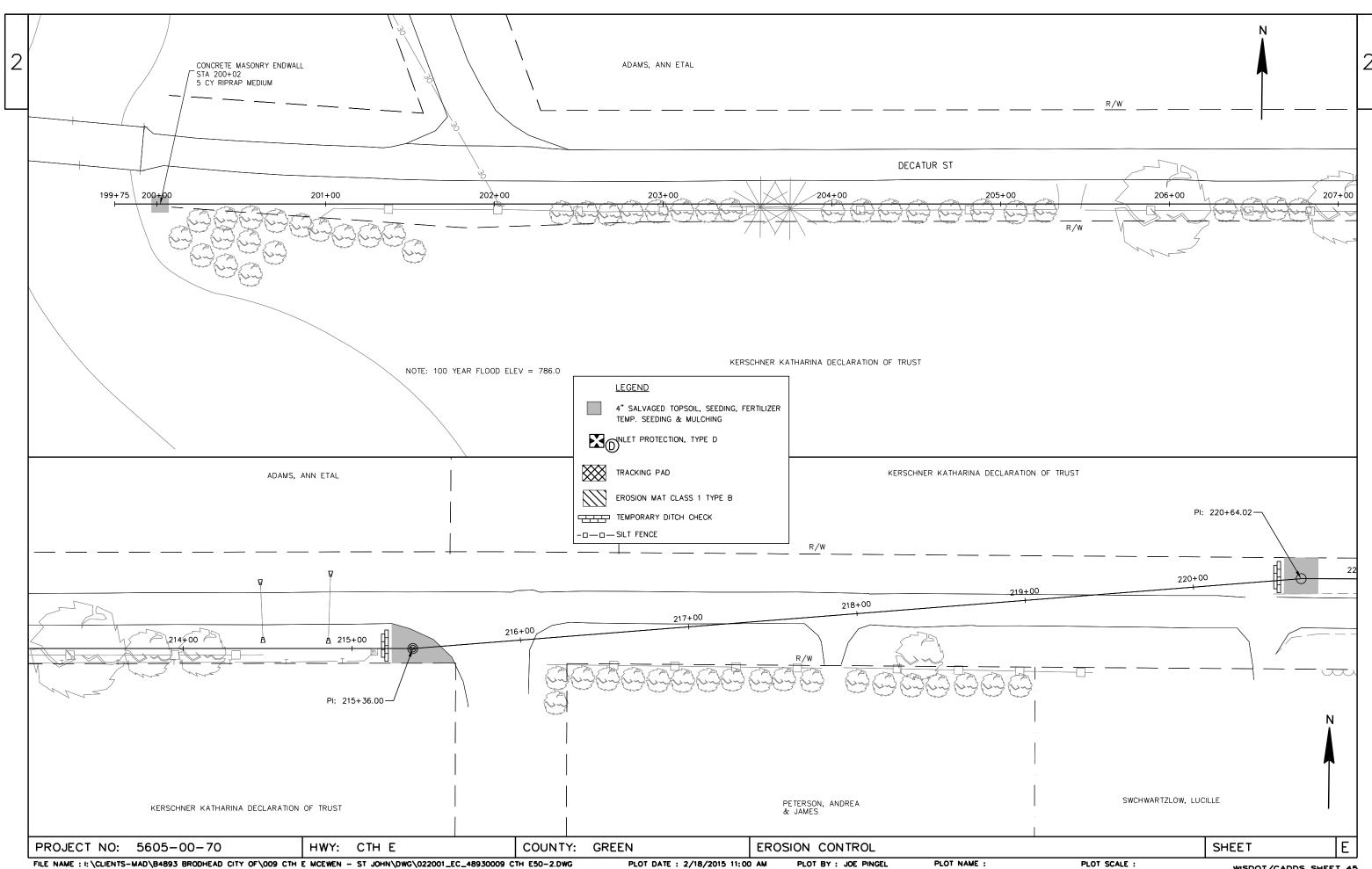


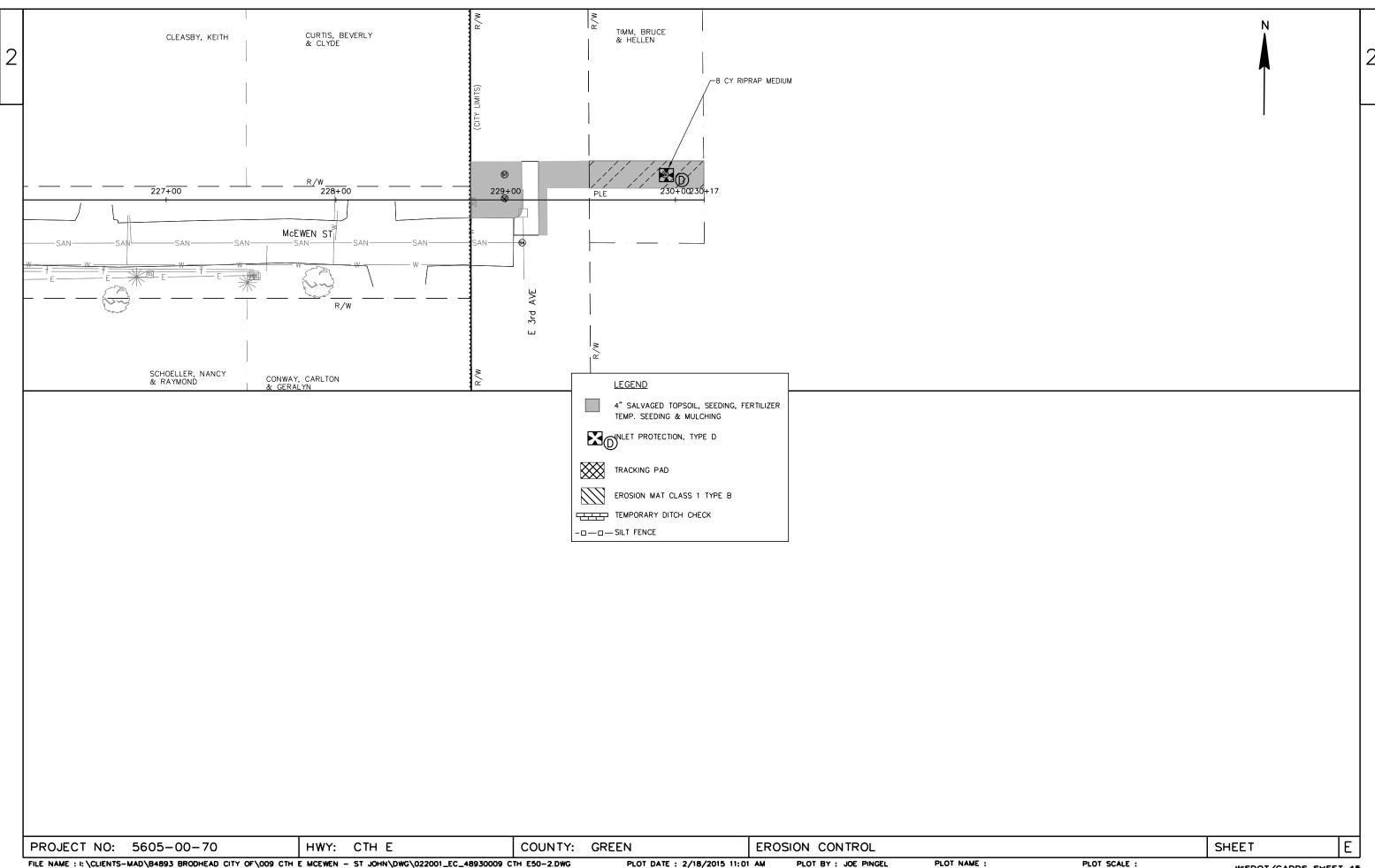


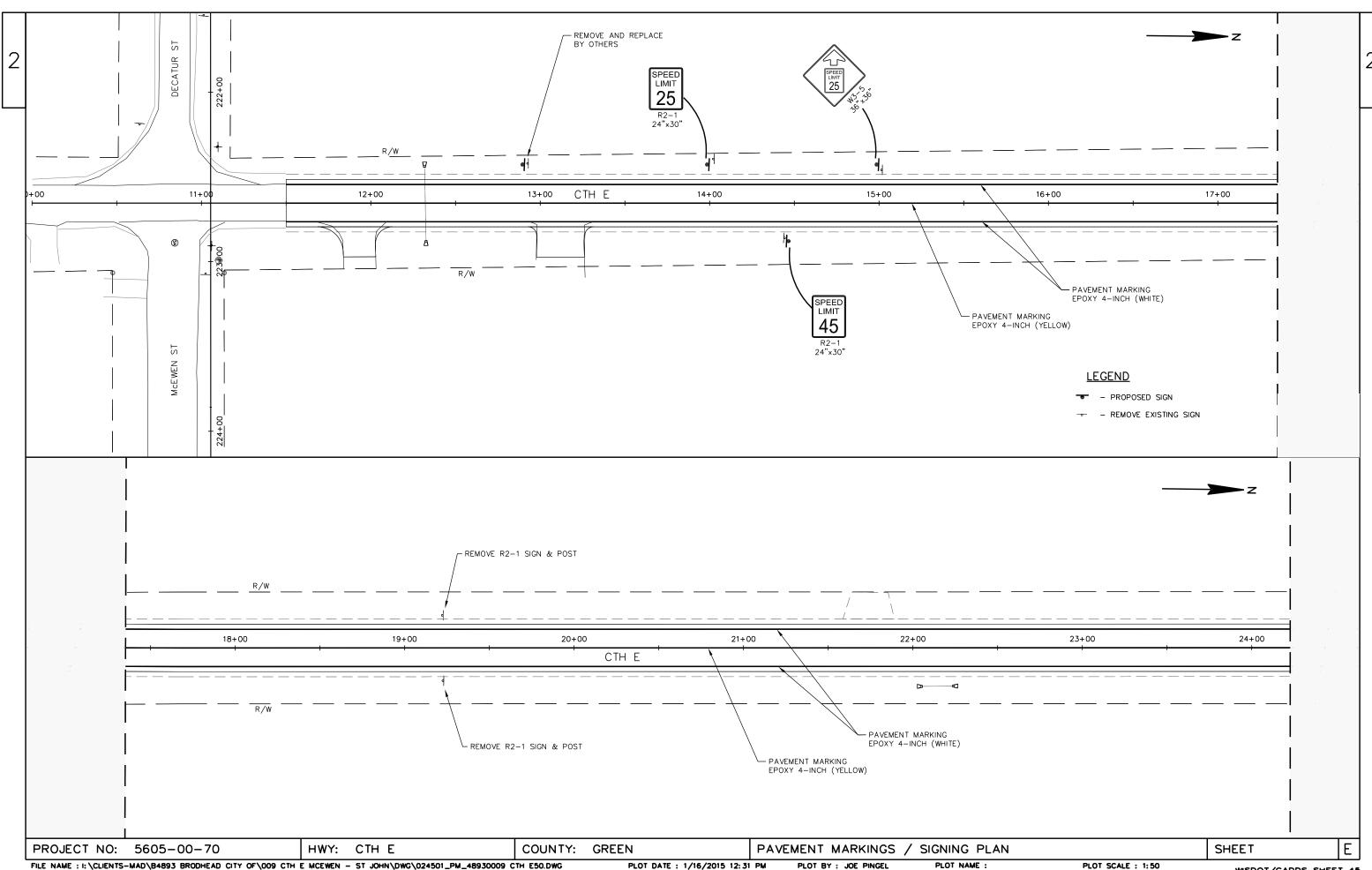


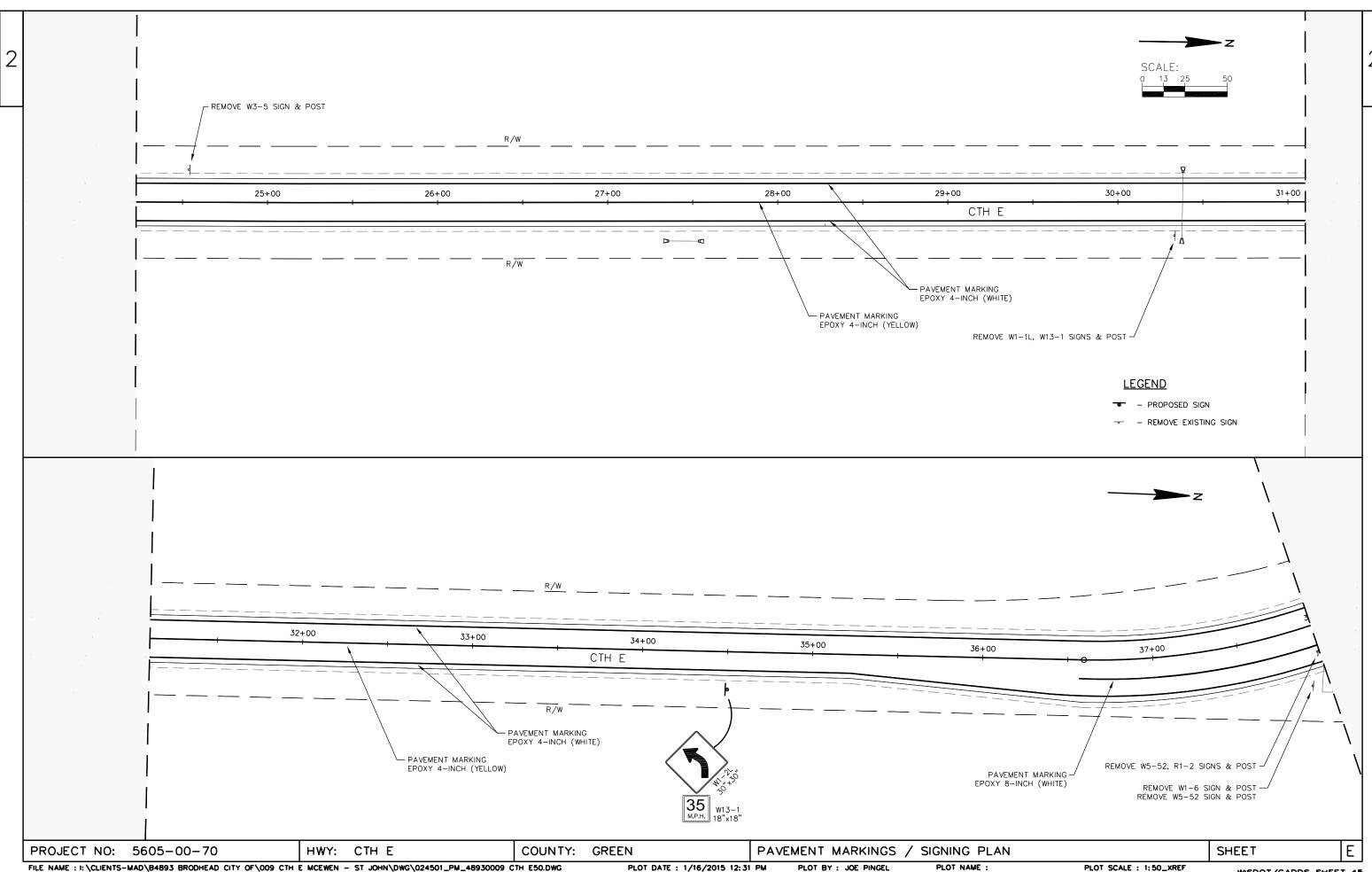


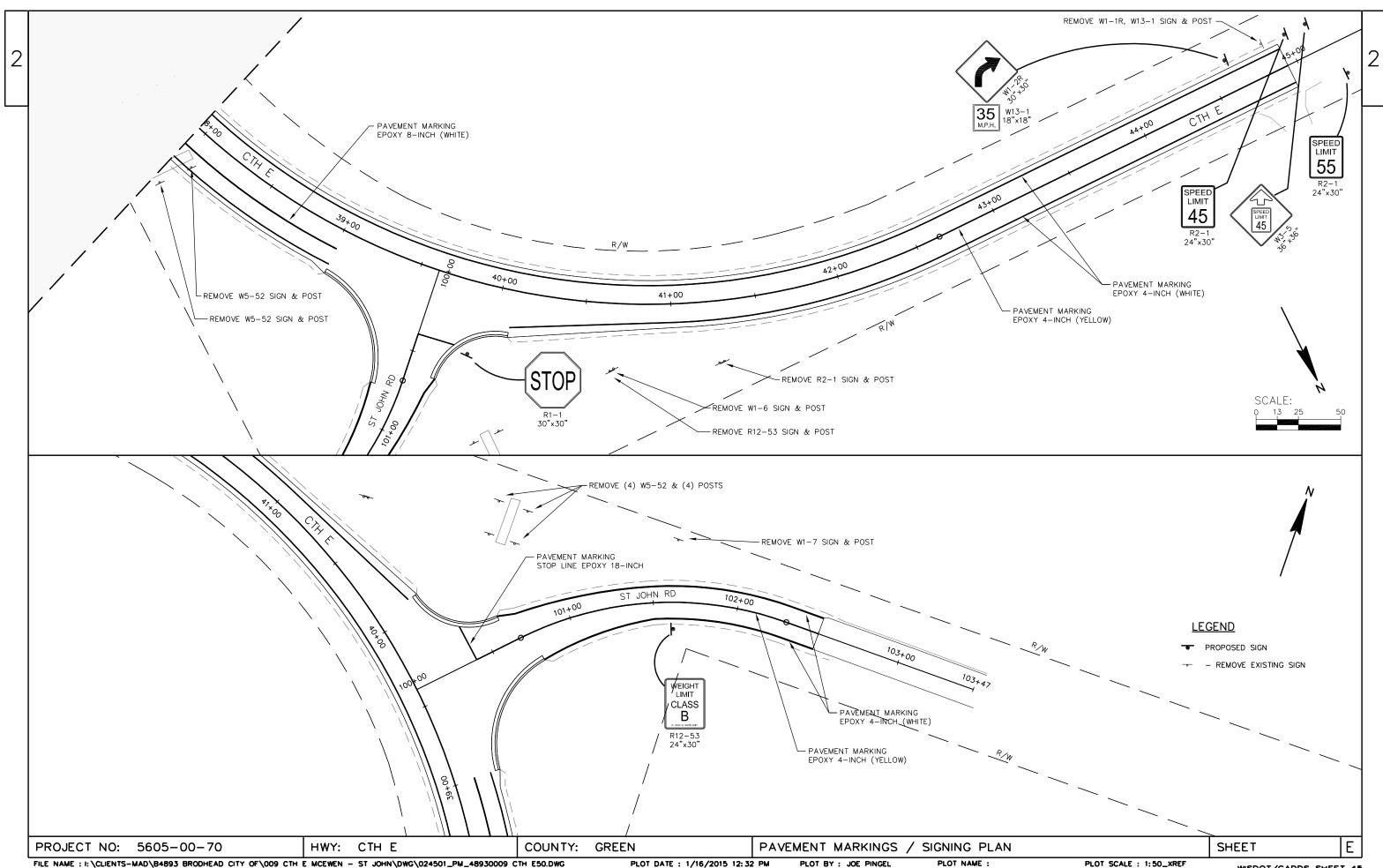


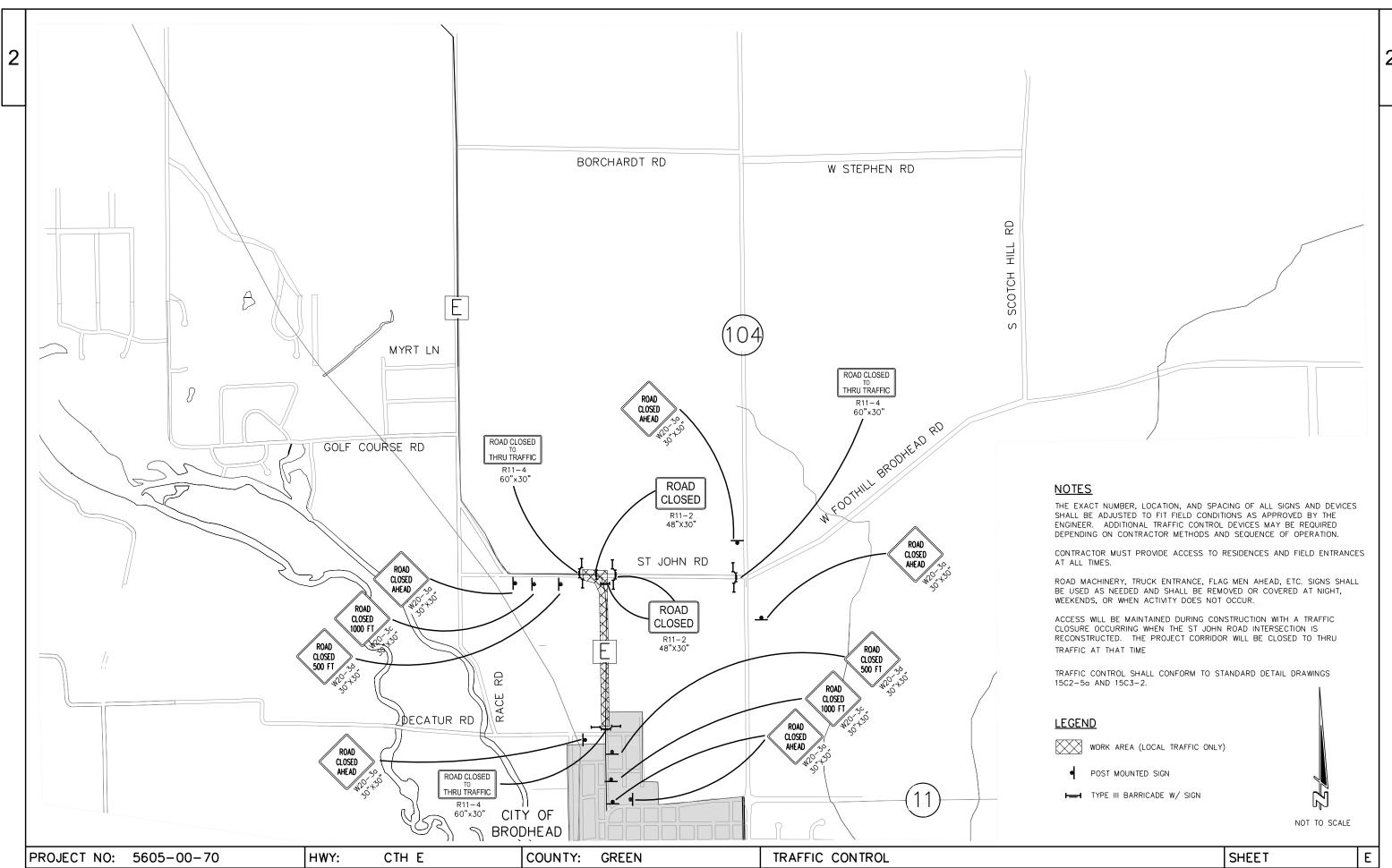


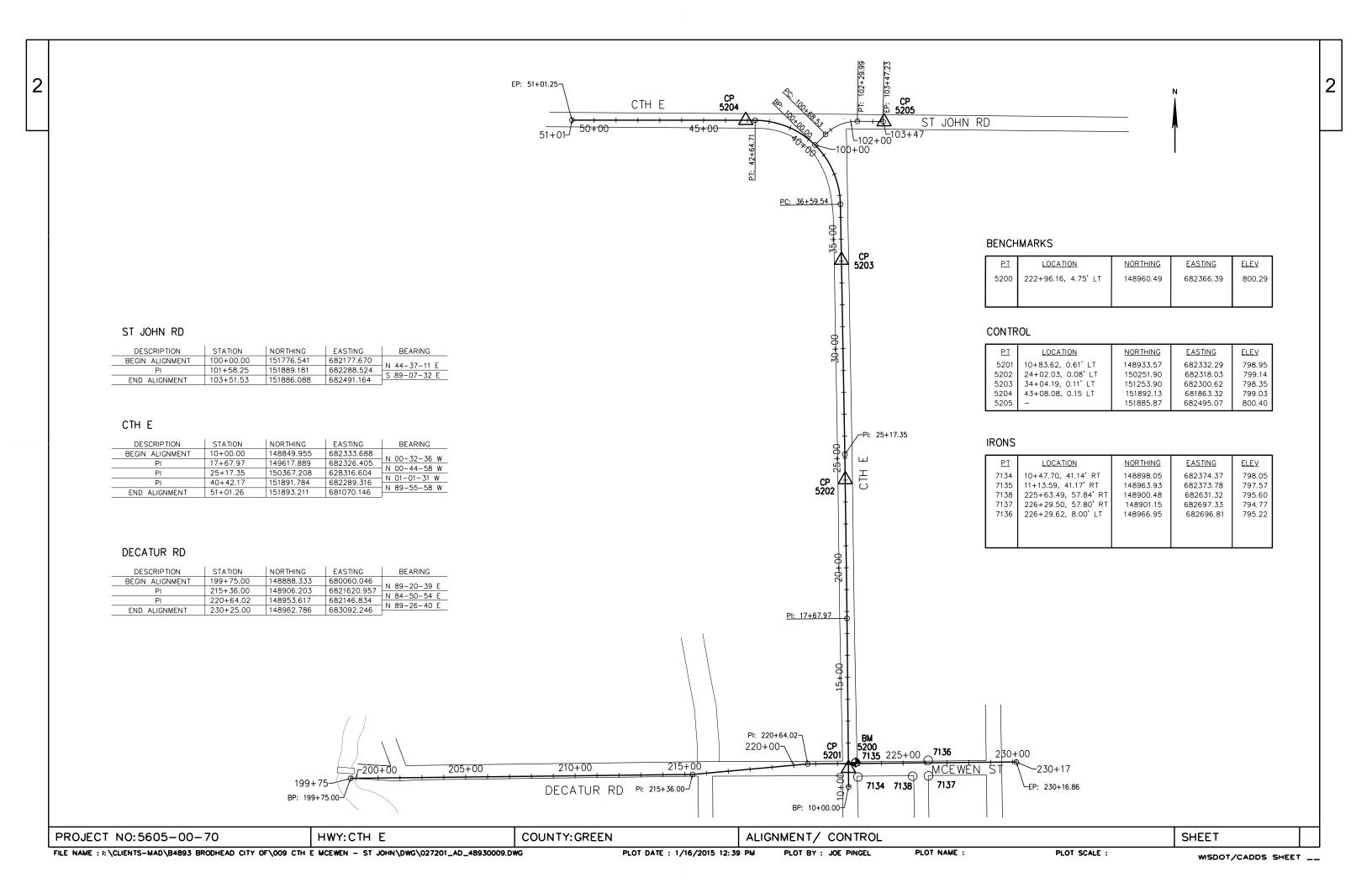












DATE 23	BDEC15	E S	TIMATE	E O F Q U A N	TITIES	
LINE	LTEM	LTEM DECODEDTION		TOT * !	5605-00-70	
NUMBER	ITEM	I TEM DESCRIPTION	UNIT	TOTAL	QUANTI TY	
0010	201. 0105	CI eari ng	STA	3. 000	3. 000	
0020	201. 0205	Grubbi ng	STA	3.000	3. 000	
0030	203. 0100	Removing Small Pipe Culverts	EACH	3.000	3.000	
0040	203. 0200	Removing Old Structure (station) 01.	LS	1. 000	1. 000	
0050	203. 0200	37+97 RT Removing Old Structure (station) 02. 100+87 LT	LS	1. 000	1. 000	
0060	204. 0115	Removing Asphaltic Surface Butt Joints	SY	125. 000	125. 000	
0070	205. 0100	Excavation Common	CY	9, 279. 000	9, 279. 000	
0800	208. 0100	Borrow	CY	676. 000	676. 000	
0090	213. 0100	Finishing Roadway (project) 01.	EACH	1. 000	1. 000	
0100	205 0120	5605-00-70	TON	4 400 000	4 402 000	
0100	305. 0120	Base Aggregate Dense 1 1/4-Inch	TON	4, 682. 000	4, 682. 000	
0110	312. 0110	Select Crushed Material	TON	2, 500. 000	2, 500. 000	
0110	325. 0100	Pul veri ze and Rel ay	SY	5, 256. 000	5, 256. 000	
0130	504. 0900	Concrete Masonry Endwalls	CY	1. 000	1. 000	
0140	521. 0118	Cul vert Pi pe Corrugated Steel 18-Inch	LF	41. 000	41. 000	
0150	521. 1018	Apron Endwalls for Culvert Pipe Steel	EACH	4. 000	4. 000	
		18-I nch				
0160	522. 0118	Culvert Pipe Reinforced Concrete Class	LF	44. 000	44. 000	
0470	E00 1015	III 18-Inch	E40/:			
0170	522. 1018	Apron Endwalls for Culvert Pipe	EACH	2. 000	2. 000	
0400	500 0404	Reinforced Concrete 18-Inch	. =	444.000	444.000	
0180	523. 0424	Culvert Pipe Reinforced Concrete	LF	144. 000	144. 000	
		Horizontal Elliptical Class HE-IV				
0100	E22 0E24	24x38-Inch	EACH	4 000	6. 000	
0190	523. 0524	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal	EACH	6. 000	0.000	
		Elliptical 24x38-Inch				
0200	601. 0415	Concrete Curb & Gutter 6-Inch Sloped	LF	132. 000	132. 000	
0200	001.0413	30-Inch Type J		132. 000	132. 000	
		ou men type o				
0210	606. 0200	Riprap Medium	CY	5. 000	5. 000	
0220	608. 0312	Storm Sewer Pipe Reinforced Concrete	LF	90.000	90.000	
		Class III 12-Inch				
0230	611. 0642	Inlet Covers Type MS	EACH	1. 000	1. 000	
0240	611. 3901	Inlets Median 1 Grate	EACH	1. 000	1. 000	
0250	612. 0406	Pipe Underdrain Wrapped 6-Inch	LF	150. 000	150. 000	
0240	/10 1000	Mobilization		1 000	1 000	
0260	619. 1000	Mobilization  Dust Control Surface Treatment	EACH	1. 000 12, 660. 000	1.000	
0270 0280	623. 0200 624. 0100	Dust Control Surface Treatment	SY MGAL	12, 660. 000 94. 000	12, 660. 000 94. 000	
0280	624. 0100 625. 0500	Water Salvaged Tonsoil	MGAL SY	94. 000 16, 257. 000	94. 000 16, 257. 000	
0300	625. 0300	Sal vaged Topsoil Mul chi ng	SY	16, 257. 000	16, 257. 000	
5500	527.0200	mai on ng	51	10, 237. 000	10, 237. 000	
0310	628. 1504	Silt Fence	LF	200. 000	200. 000	
0320	628. 1520	Silt Fence Maintenance	LF	200. 000	200. 000	
0330	628. 1905	Mobilizations Erosion Control	EACH	2. 000	2. 000	
0340	628. 1910	Mobilizations Emergency Erosion Control	EACH	4. 000	4. 000	
0350	628. 2004	Erosion Mat Class I Type B	SY	2, 700. 000	2, 700. 000	
0360	628. 7020	Inlet Protection Type D	EACH	1.000	1. 000	
0370	628. 7504	Temporary Ditch Checks	LF	580. 000	580. 000	
0380	628. 7560	Tracking Pads	EACH	6. 000	6. 000	
0390	629. 0210	Fertilizer Type B	CWT	10. 500	10. 500	
0400	630. 0120	Seeding Mixture No. 20	LB	435. 900	435. 900	
0410	630. 0200	Seeding Temporary	LB	430.000	430. 000	
0410	634. 0614	Posts Wood 4x6-Inch X 14-FT	EACH	10. 000	10. 000	
0420	637. 2210	Signs Type II Reflective H	SF	65. 180	65. 180	
0440	638. 2602	Removing Signs Type II	EACH	24. 000	24. 000	
•		· · · · · · · · · · · · · · · · · · ·		555	555	

DATE 23	BDEC15	E S T	IMAT	E OF QUAN	
LI NE NUMBER	ITEM	ITEM DESCRIPTION	UNI T	TOTAL	5605-00-70 QUANTI TY
0450	638. 3000	Removing Small Sign Supports	EACH	21. 000	21. 000
0460	642. 5001	Field Office Type B	EACH	1. 000	1. 000
0470	643. 0100	Traffic Control (project) 01. 5605-00-70	EACH	1. 000	1. 000
0480	643.0420	Traffic Control Barricades Type III	DAY	1, 950. 000	1, 950. 000
0490	643.0705	Traffic Control Warning Lights Type A	DAY	3, 900. 000	3, 900. 000
0500	643. 0900	Traffic Control Signs	DAY	2, 210. 000	2, 210. 000
0510	645. 0120	Geotextile Fabric Type HR	SY	25. 000	25. 000
0520	645. 0130	Geotextile Fabric Type R	SY	2, 790. 000	2, 790. 000
0530	646. 0106	Pavement Marking Epoxy 4-Inch	LF	10, 008. 000	10, 008. 000
0540	646. 0126	Pavement Marking Epoxy 8-Inch	LF	241. 000	241. 000
0550	647. 0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	30. 000	30. 000
0560	650. 4000	Construction Staking Storm Sewer	EACH	2. 000	2. 000
0570	650. 4500	Construction Staking Subgrade	LF	3, 494. 000	3, 494. 000
0580	650. 5000	Construction Staking Base	LF	3, 494. 000	3, 494. 000
0590	650. 5500	Construction Staking Curb Gutter and Curb & Gutter	LF	132. 000	132. 000
0600	650. 6000	Construction Staking Pipe Culverts	EACH	3. 000	3. 000
0610	650. 9910	Construction Staking Supplemental Control (project) 01. 5605-00-70	LS	1. 000	1. 000
0620	650. 9920	Construction Staking Slope Stakes	LF	3, 494. 000	3, 494. 000
0630	690. 0150	Sawing Asphal t	LF	113. 000	113. 000
0640	ASP. 1TOA	On-the-Job Training Apprentice at \$5.	HRS	300. 000	300. 000
0650	ASP. 1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	175. 000	175. 000
0660	SPV. 0060	Special 01. Utility Line Opening (ULO)	EACH	6. 000	6. 000
0670	SPV. 0090	Special 01. Directional Drilled 6-inch Storm Forcemain	LF	2, 897. 000	2, 897. 000
0680	SPV. 0105	Special 01. Storm Sewer Lift Station And Valve Vault	LS	1. 000	1. 000
0690	SPV. 0105	Special O2. Air Releast Vault	LS	1.000	1. 000
0700	SPV. 0105	Special 03. Construction Staking Lift Station Air Release Vault and SS Forcemain	LS	1. 000	1. 000

	CLEARING	& GRUBBI	NG			EARTHW	ORK SUMMARY							
		C	201.0105 LEARING	201.0205 GRUBBING		205.0100 EXCAVATION	EXPANDED		208.0100			PULVERIZ	ZE AND RELAY	,
ATION - STATI	ON LOC	ATION	STA.	STA.		COMMON	FILL	WASTE	BORROW					325.0100
27+00 - 29+00		ГНЕ	2	2	LOCATION	CY	CY	CY	CY		STA	TION - STATION	LOCATION	SY
30+00 - 31+00	Cl	THE	1	1	CTHE	6953	1987	4966	-			12+00 - 33+50	CTH E	5256
	-	TOTAL	3	3	ST JOHN RD	1140	845	294	676				TOTAL	5256
					EBS (UNDISTRIBUTED)	1186			-					
					TOTAL	9279	2832	5260	676					
					NOTES:	1) 25% EXPANSI	ON FACTOR APPL	ED TO FILL						
						2) WASTE = EXC	AVATION COMMO	N - EXPANDED F	ILL					
DE	401/1110 0144	LL BIDE OI	U VEDTO			3) BORROW TO	BE USED ONLY IF	EXCESS MATER	IAL FROM PROJE	CT IS UNSUITABLE				
KE	MOVING SMA		ILVERIS											
		203.0100												
STATION	LOCATION	EACH	DESCRI	PTION										
	CTH E, RT	1	12" Cu			UTILITY LIN	E OPENING (ULO)							
	CTH E, RT	1	12" Cu					SPV.0060.01			BASE A	GREGATE DENS	SE .	
30+38	CTHE	1	12" Cu	lv ert	STATIO	N - STATION	LOCATION	EACH				305.0	120	312.0110
	TOTAL	3			UND	STRIBUTED	MCEWEN	2				BASE AGGREC	GATE DENSE	SELECT CRUS
					UND	STRIBUTED	CTHE	4				1 1/4 -		MATERIAL
						TOTAL		6		STATION - STATION	LOCATION	ТО	N	TON
										11+50 - 44+94	UNDISTRIBUTED	-		2500
	REMOVIN	G OLD STR	UCTURE							33+50 - 43+94	CTHE	403		
		203.020	0							100+22 - 102+50	ST JOHN RD	620		
STATION	LOCATION	EACH		SCRIPTION						229+04 - 229+20	DECATUR	32		
37+97	CTH E, RT	1		Concrete Box	REMOVING	ASPHALTIC SUR	FACE BUTT JOINT	S			TOTAL	468	32	2500
	ST JOHH, LT	· 1		Concrete Box										
							04.0105							
	TOTAL	_ 2			STATION - STATION LO	OCATION	SY COMMI	ENTS						
					11+50 - 12+00	CTHE	125							
					TOTAL		125							

UNLESS OTHERWISE NOTED.

ALL ITEMS ARE CATEGORY 0010

PROJECT NO: 5605-00-70 HWY: CTH E	COUNTY: GREEN	MISCELLANEOUS QUANTITIES	SHEET	<u>E</u>
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								STO	ORM SEWER PI	PE & STRUCTURES							
	ALL ITEMS ARE CATEGORY 0010				521.	.0118		523	0424	523.0524							
	UNLESS OTHERWISE NOTED.			608.0312	2 CULVE	RT PIPE	522.0118	CULVE	RT PIPE	APRON ENDWALL FOR	521.1018	5	522.2018	611.3901	611.0639		
F		J		REINFORC	ED CORRE	EGATED CL	JLVERT PIPE	REINFORCE	D CONCRETE	REINFORCED CONCRETE	APRON ENDWA	LL APRON	ENDWALL FOR	INLET	INLET		
				CONCRE	TE STEEL	18-INCH REINFO	RCED CONCRETE	HORIZONTA	L ELLIPTICAL	HORIZONTAL ELLIPTICAL	FOR CULVERT P	PIPE CULVERT P	PIPE REINFORCED	MEDIAN	COVER		
1				CLASS III 12-	INCH (0.064	THICK) CLA	ASS III 18-INCH	CLASS IV 24-	INCHx 38-INCH	CLASS IV 24-INCHx 38-INCH	STEEL 18-INCH	H CONCE	RETE 18-INCH	GRATE 1	TYPE MS	UPSTREAM	
		STATION - STATION	LOCATION	LF	L	_F	LF	L	.F	LF	EACH		EACH	EACH	EACH	INVERT ELEV.	
3		22+04 - 22+25	26' RT		2	21				-	2			-		796.72	
		27+34 - 27+55	26' RT		2	20					2					796.59	
4		30+38	20' LT - 24' RT	-			44						2	-		795.30	
		101+52 - 101+72	33' RT - 32' LT					4	18	2						795.00	
		101+52 - 101+72	33' RT - 32' LT	- <u>-</u>				4	18	2				-		795.00	
		101+52 - 101+72	33' RT - 32' LT	- <u>-</u>				4	18	2				-		795.00	
		228+99.4 - 229+94	15' LT	90		-								-		785.50	
		229+94	15' LT											1	1		
			TOTAL	90	4	41	44	1	44	6	4		2	1	1		
								RESTOR	ATION ITEMS								
			625.0500		629.021	630.0120	630.0200		628.1520	628.7504	628.2004		606.02	628.1905		628.1910	
			SALVAGED	627.0200	FERTILIZER	SEEDING MIXTURE		628.1504	SILT FENCI		EROSION MAT	628.7560		OBILIZATIONS	MOBILIZ	ATION EMERGENCY	
			TOPSOIL	MULCHING	TYPE B	NO. 20	TEMPORARY	SILT FENCE	MAINTENAN	CE DITCH CHECKS (	CLASS I TYPE B	TRACKING PADS	MEDIUM ERC	SION CONTROL	_ ERC	OSION CONTROL	
	STATION - STA	TION LOCATION	SY	SY	CWT	LB	LB	LF	LF	LF	SY	EACH	CY	EACH		EACH	
	11+50 - 43+9	94 CTH E	11915	11915	7.50	321.0	321				2200					-	
	30+00 - 31+1	18 CTH E						120	120								
	100+52 - 100+	+90 ST JOHN RD		-				80	80								
	100+33 - 102-	+50 ST JOHN RD	3670	3670	2.30	99.0	99				-			-			
	228+95 - 230+	+25 McEWEN	350	350	0.20	10.0	10				-						
	200+02	DECATUR	11	11		0.3							5				
	215+19	DECATUR	63	63		1.1				20							
	220+50	DECATUR	48	48		0.9				20							
	UNDISTRIBUT	TED DECATUR	200	200	0.50	3.6				40		3		1		2	
	UNDISTRIBUT	TED CTHE								500	500	3		1		2	
		TOTAL	16257	16257	10.50	435.9	430	200	200	580	2700	6	5	2		4	
		CONCRETE CURB & 0	GUTTER 6-INCH	SLOPED 30-INC	CH TYPE J								DUST C	ONTROL			
					601.0415									623.02	200	624.0100	
		STATION - STAT	ION L	OCATION	LF									SURFACE TRI	EATMENT	WATER	
	•	100+20 - 100+7	······································	RT - 18' RT	78						S	TATION - STATION	LOCATION	SY		MGAL	
		100+22 - 100+5		' LT - 18' LT	54							11+50 - 43+94	CTH E	12660	0	94	
	•			TOTAL	132								TOTAL	12660	0	94	
卜	PROJECT NO: 5605-00-70		HWY	: CTHE		CC	OUNTY: GREE	 :N		MISCELI	LANEOUS QU	ANTITIES			SHEET	<del>-</del>	E

# 3

#### REMOVING SIGNS & SIGN SUPPORTS

			638.2602 REMOVING SIGNS	638.3000 REMOVING SMALL				SIGNS					
			TYPE II	SIGN SUPPORTS				637.2210	634.0614				
STATION	LOCATION	SIGN CODE	EACH	EACH				SIGNS TYPE II	POSTS WOOD				
	_							REFLECTIVE H	4X6 INCH X 14-FT				
14+02	LT	R2-1	1	1	STATION	LOCATION	SIGN CODE	SF	EACH	COMMENT			
14+44	RT	R2-1	1	1	14+02	LT	R2-1	5.00	1	25 MPH			
15+02	LT	W3-5	1	1					•				
19+22	LT	R2-1	1	1	14+44	RT	R2-1	5.00	1	45 MPH			
19+23	RT	R2-1	1	1	15+02	LT	W3-5	9.00	1	25 MPH			
24+54	LT	W3-5	1	1	34+50	RT	W1-2L	6.25	1	<del></del>			
30+35	RT	W1-1, W13-1	2	1	34+50	RT	W13-1	2.25		35 MPH			
37+86	RT	W1-6, W5-52	2	2	44+60	LT	W1-2R	6.25	1				
37+94	RT	R1-2, W5-52	2	1	44+60	LT	W13-1	2.25		35 MPH	SAW	ING ASPHALT	
38+00	RT	W5-52	1	1	50+00	RT	R2-1	5.00	1	55 MPH			690.0150
	RT	W5-52	1	1	50+00	LT	R2-1	5.00	1	45 MPH	STATION - STATION	LOCATION	LF
38+07			1	1	51+00	LT	W3-5	9.00	1	45 MPH	STATION - STATION	_ LOCATION	
39+65	RT	W1-7	1	1	100+22	LT	R1-1	5.18	1	<del></del>	11+50	CTH E	22
40+03	RT	W5-52	1	1	101+50	RT	R12-53	5.00	1	<del></del>	11+93	DRIVEWAY, RT	19
40+12	RT	W5-52	1	1	101+30	111	1(12-00	3.00	· ·		13+14	DRIVEWAY, RT	28
40+14	RT	W5-52	1	1			TOTAL	65.18	10		43+94	CTHE	22
40+24	RT	W5-52	1	1							102+50	ST JOHN RD	22
40+66	RT	R12-53	1	1									
40+67	RT	W1-6	1	1							TOTAL		113
41+25	RT	R2-1	1	1									
50+00	LT	W1-1, W13-1	2	1									
		TOTAL	. 24	21	_								

#### TRAFFIC CONTROL

	GEOTEXTIL	E FABRIC					643.0705		
		645.0130	645.0140			TRAFFIC CONTROL	TRAFFIC CONTROL	643.0900	643.0100
		GEOTEXTILE	GEOTEXTILE			BARRICADES	WARNING LIGHTS	TRAFFIC CONTROL	TRAFFIC CONTROL
		FABRIC TYPE R	FABRIC TYPE HR			TYPE III	TYPE A	SIGNS	5605-00-70
STATION	LOCATION	SY	SY	_	LOCATION	DAY	DAY	DAY	EACH
200+02	CL	-	3		5605-00-70	1950	3900	2210	1
229+94	RT	-	22						
EBS (UNDISTRIBUTED)	CTH E	2790		:	TOTAL	1950	3900	2210	1
TOTAL		2790	25						

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: 5605-00-70 HWY: CTH E COUNTY: GREEN MISCELLANEOUS QUANTITIES SHEET **E** 

## 3

CONSTRUCTION STAKING

					650.5500	650.6000	SPV.0105.03	650.9910	
		650.4000	650.4500	650.5000	CURB GUTTER AND	PIPE	CONSTRUCTION STAKING LIFT STATION, AIR	SUPPLEMENTAL	650.9920
		STORM SEWER	SUBGRADE	BASE	CURB & GUTTER	CULVERTS	RELEASE VAULT AND STORM SEWER FORCE MAIN	CONTROL	SLOPE STAKES
STATION - STATION	LOCATION	EACH	LF	LF	LF	EACH	LS	LS	LF
11+50 - 43+94	CTHE		3244	3244		3	-	1	3244
100+00 - 102+50	ST JOHN RD		250	250	132				250
2002+02 - 230+09	DECATUR / McEWEN	2					1		
TOTAL		2	3494	3494	132	3	1	1	3494

SUBTOTAL

TOTAL

6488 3520

10008

30

241

#### STORM SEWER FORCEMAIN

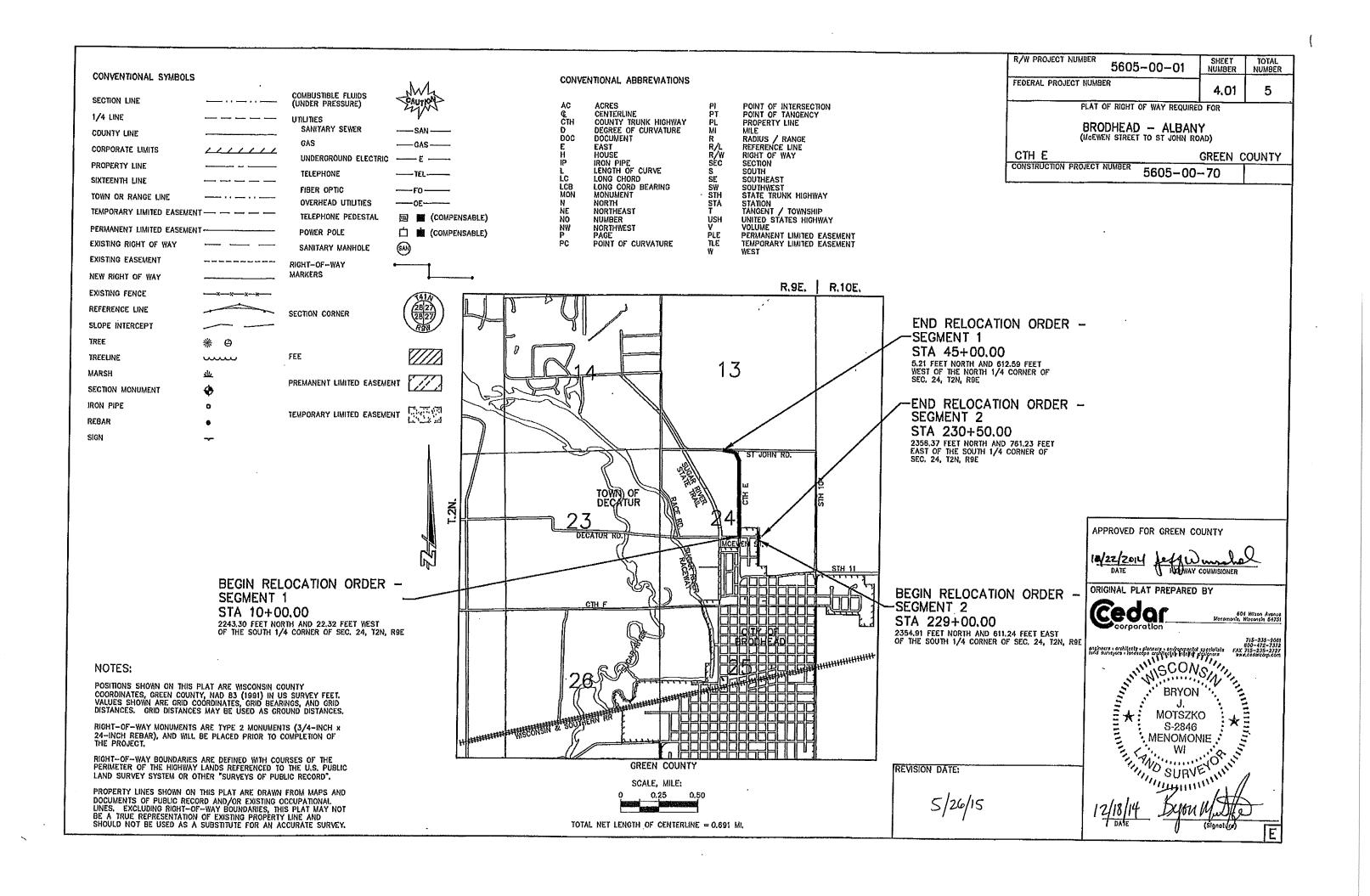
			PAVE	MENT MARKING					SPV.0105.01		504.0900		612.0400
		0.44	0.400	040.0500	040.0400				STORM SEWER	SPV.0105.02	CONCRETE	SPV.0090.01	PIPE UNDERDRAIN
		646	5.0106	646.0566	646.0126				LIFT STATION	AIR RELEASE	MASONRY	DIRECTIONAL DRILLED	WRAPPED
		EPOX	Y 4-INCH	STOP LINE	EPOXY				AND VALVE VAULT	VAULT	ENDWALL	6-INCH STORM FORCEMAIN	6-INCH
		WHITE	YELLOW	EPOXY 18-INCH	8-INCH		STATION - STATION	LOCATION	LS	LS	CY	LF	LF
STATION - STATION	LOCATION	LF	LF	LF	LF	COMMENTS	PROJECT	DECATUR / McEWEN	1	1			
11+50 - 27+00	CL		388		-	NORTH/SOUTH PASSING	200+02	DECATUR / McEWEN			1		
27+00 - 36+50	CL		1188			NORTH NO PASSING/SOUTH PASSING	200+02 - 229+00	DECATUR / McEWEN				2897	
36+50 - 43+94	CL		1488			NO PASSING	228+95	LT					15
36+60 - 39+01	RT				241		228+95 -230+10	LT				-	110
11+50 - 43+94	RT	3244				EDGE LINE	229+00	LT					25
11+50 - 43+94	LT	3244				EDGE LINE	TOTAL		1	1	1	2897	150
100+22 - 102+50	CL		456			NO PASSING	TOTAL		•	,	'	2001	100
100+22	LT			30									

#### INLET PROTECTION TYPE D

		628.7020
STATION	LOCATION	EA
229+94	15' LT	1
TOTAL		1

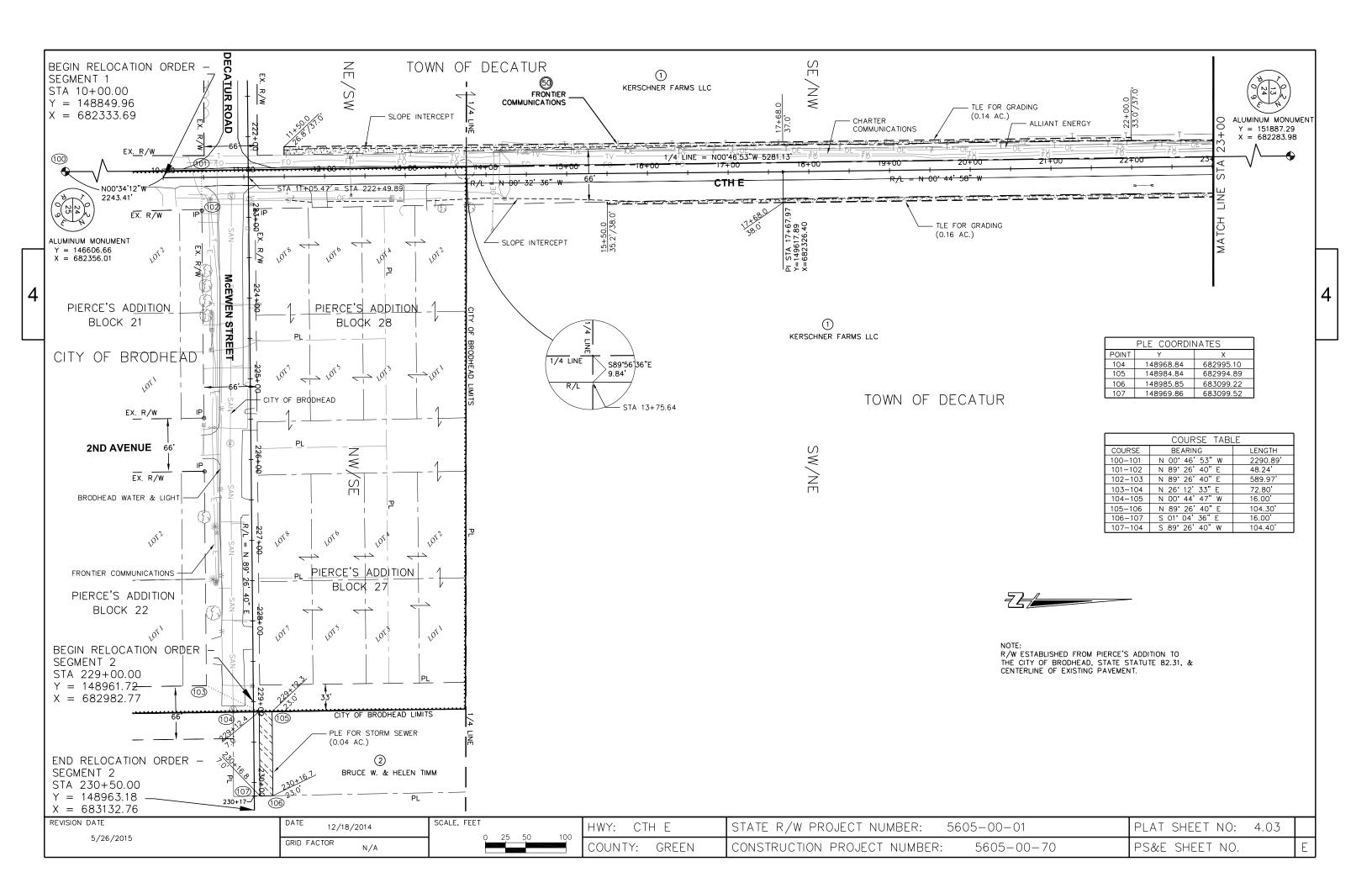
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

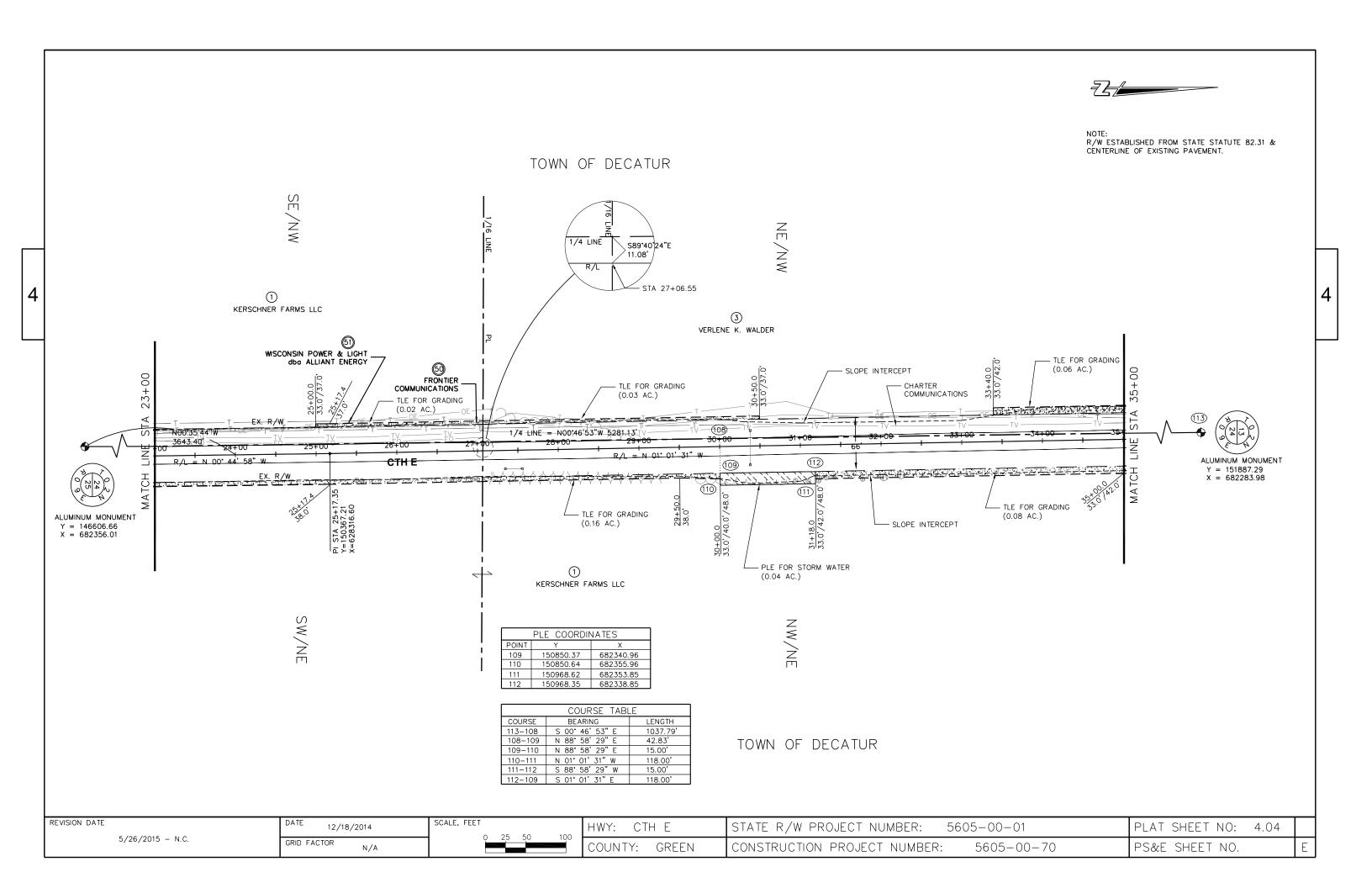
PROJECT NO: 5605-00-70 HWY: CTH	COUNTY: GREEN	MISCELLANEOUS QUANTITIES	SHEET	E	ı
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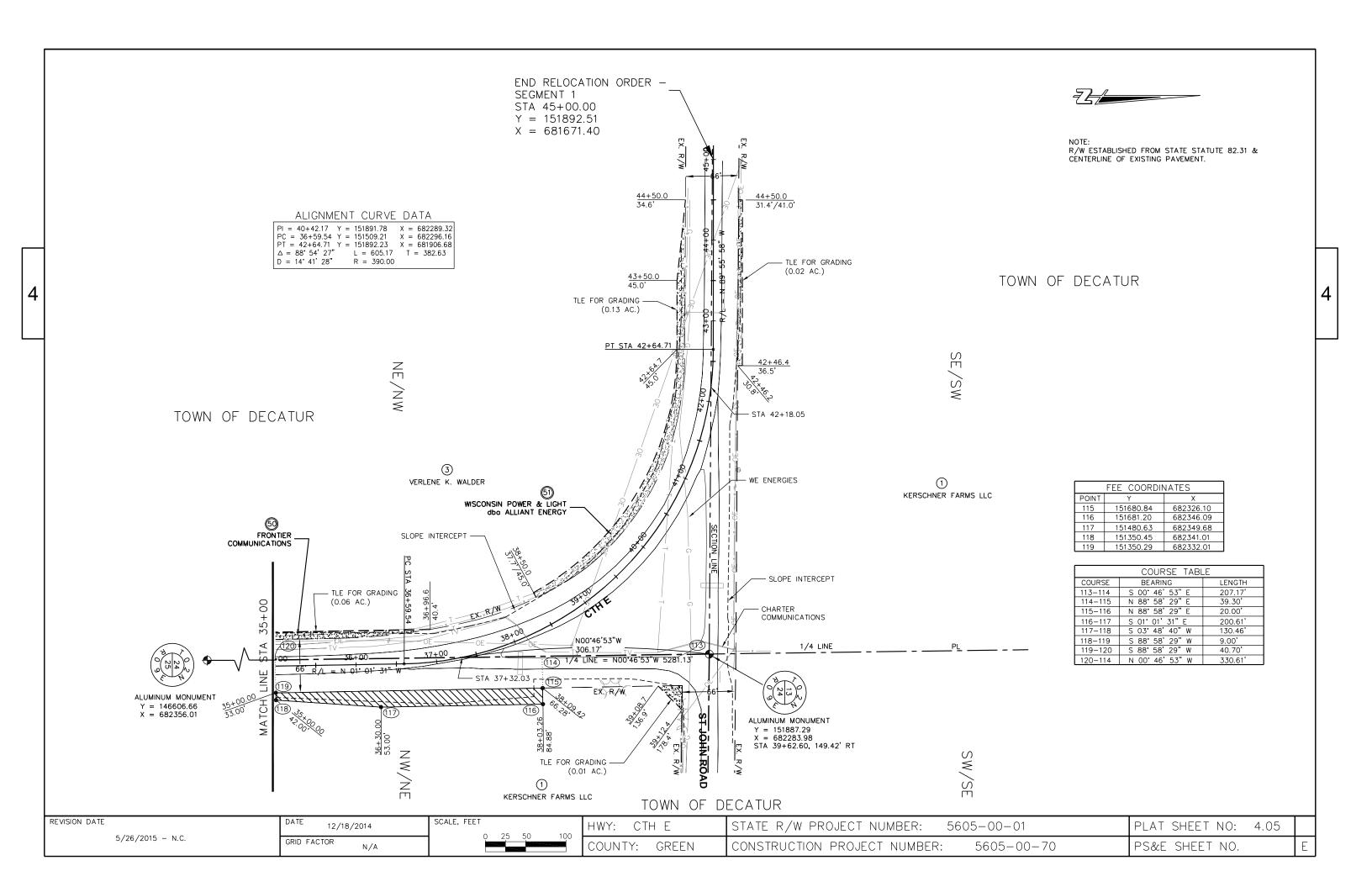


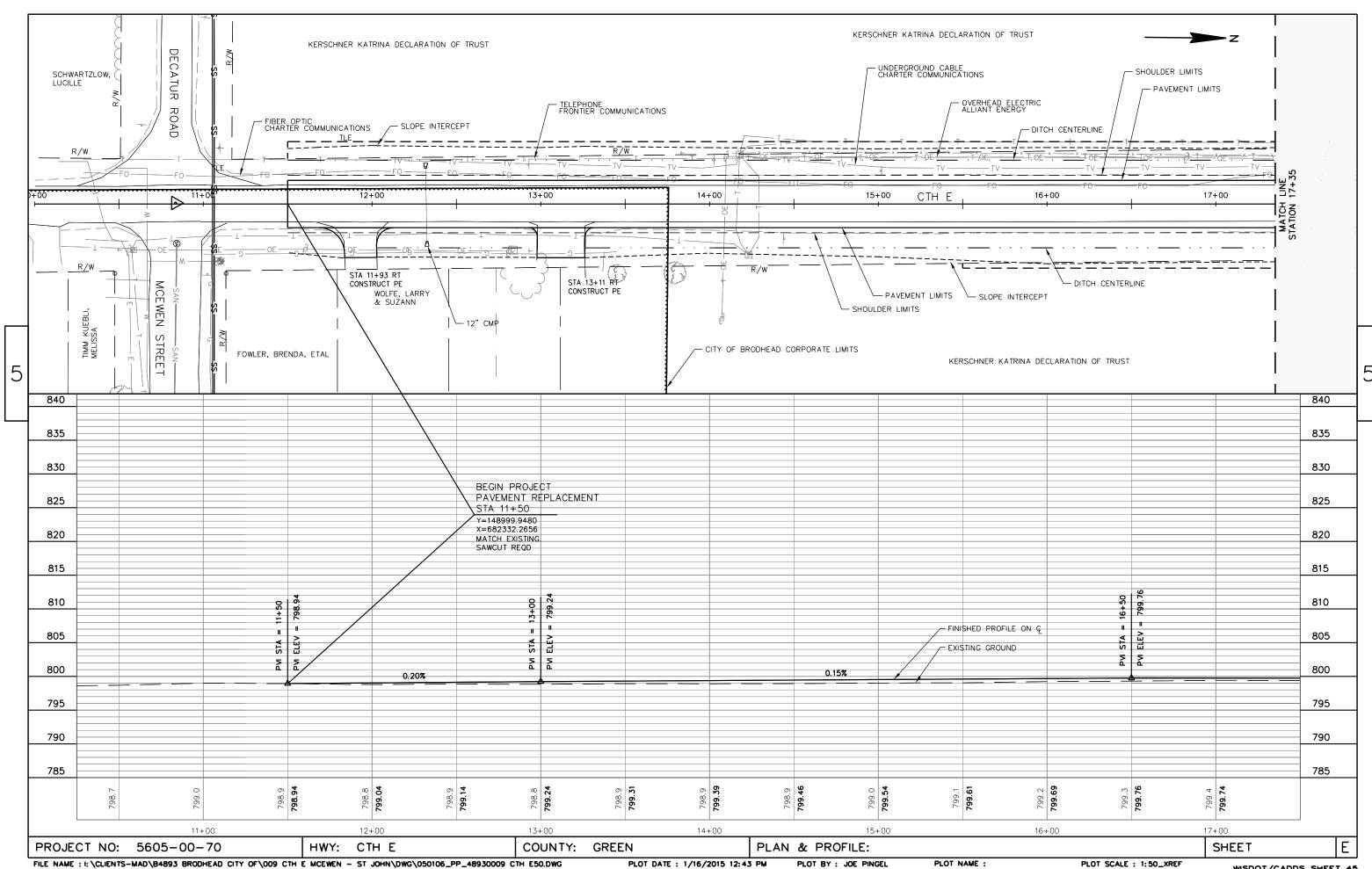
	SHEET NUMBER OWNER		R/W AREA REQUIRED		TLE	PLE		
PARCEL NUMBER		OWNER	INTEREST REQUIRED	NEW	EXIST.	TOTAL	AREA (ACRES)	AREA (ACRES)
1	4.03, .04 & .05	KERSCHNER FARMS LLC	FEE / PLE / TLE	0.14	0.30	0.44	0.43	0.04
2	4.03	BRUCE W. & HELEN TIMM	PLE	_	_	-	-	0.04
3	4.04 & 4.05	VERLENE K. WALDER	TLE	-	_	-	0.22	-
50	4.03, .04 & .05	FRONTIER COMMUNICATIONS	TEMPORARY RELEASE OF RIGHTS					
51	4.04 & .05	WISCONSIN POWER AND LIGHT dba ALLIANT ENERGY	TEMPORARY RELEASE OF RIGHTS					

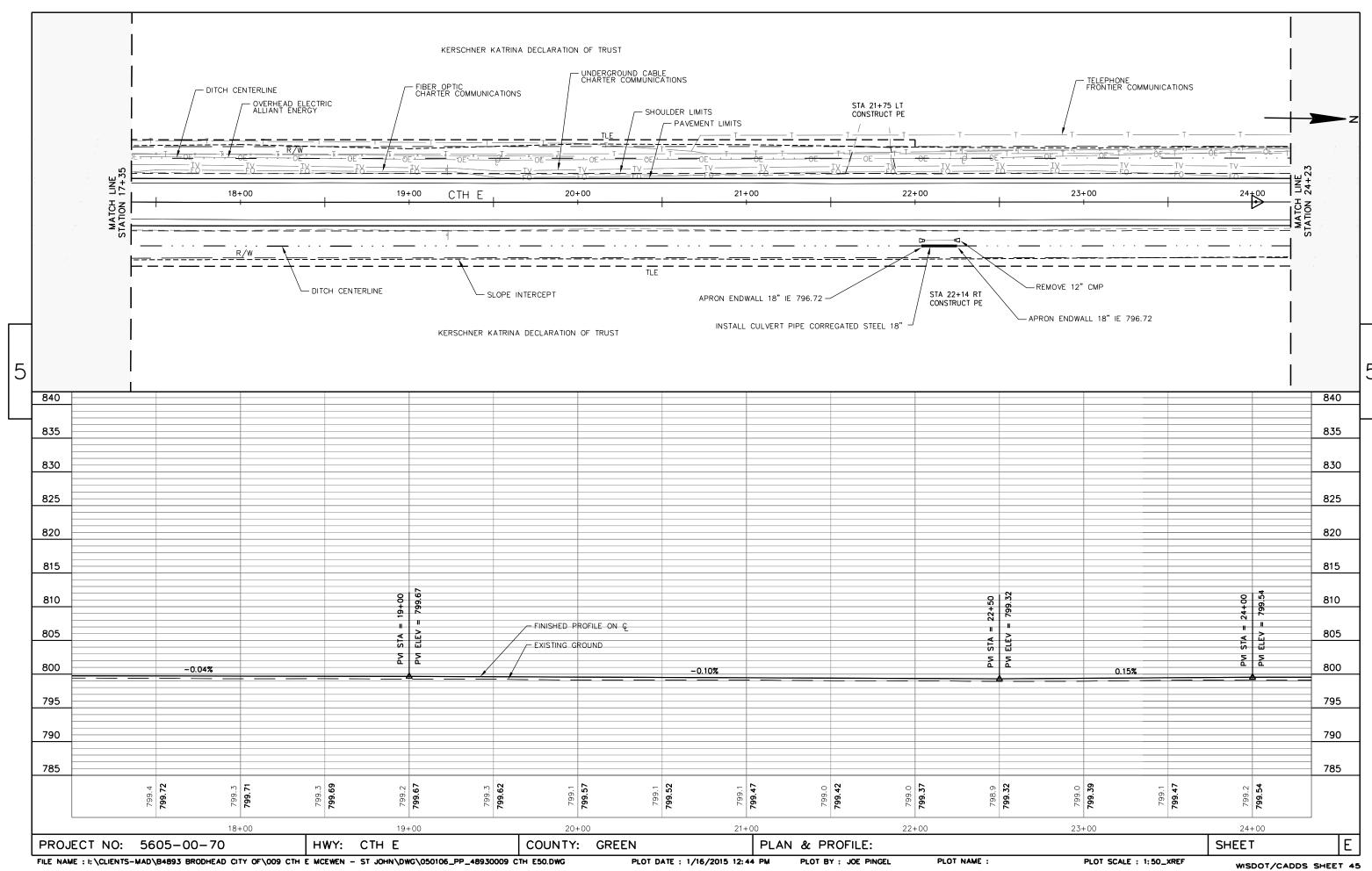
PEVISION DATE 12/18/2014 SCALE, FEET NOT TO SCALE NOT TO SCALE NOT TO SCALE COUNTY: GREEN CONSTRUCTION PROJECT NUMBER: 5605-00-70 PS&E SHEET NO. 4.02 COUNTY: GREEN CONSTRUCTION PROJECT NUMBER: 5605-00-70 PS&E SHEET NO. E

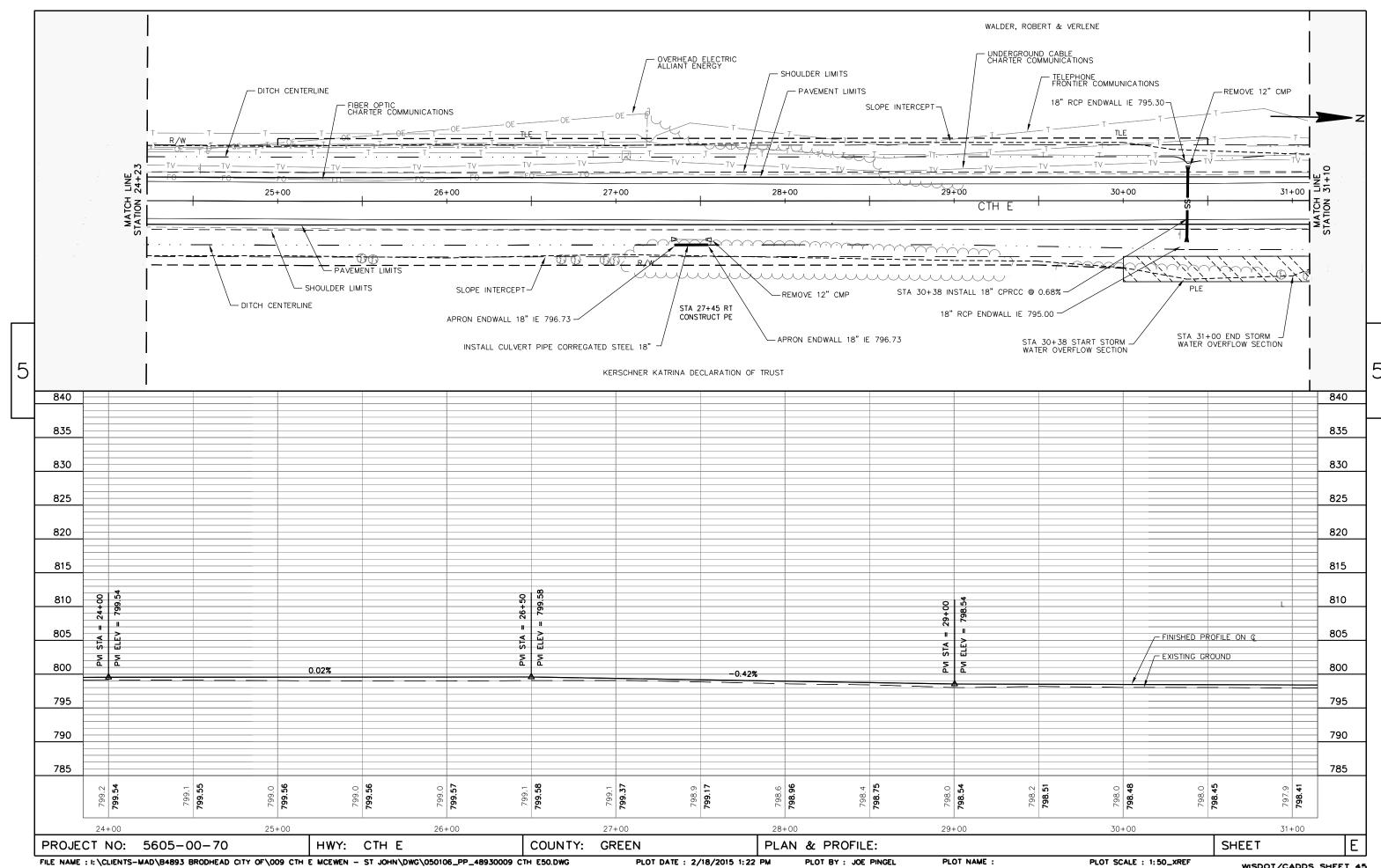


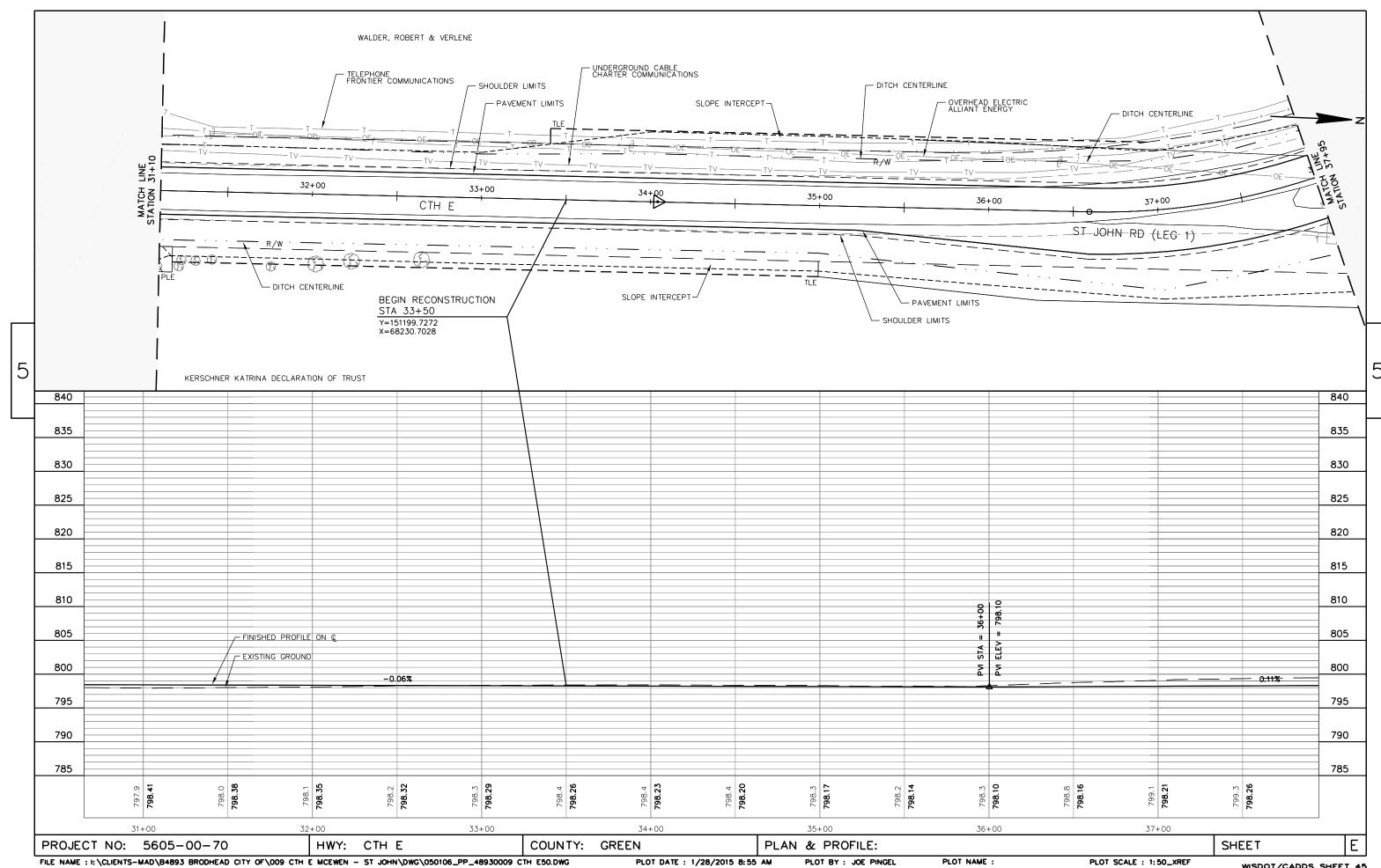


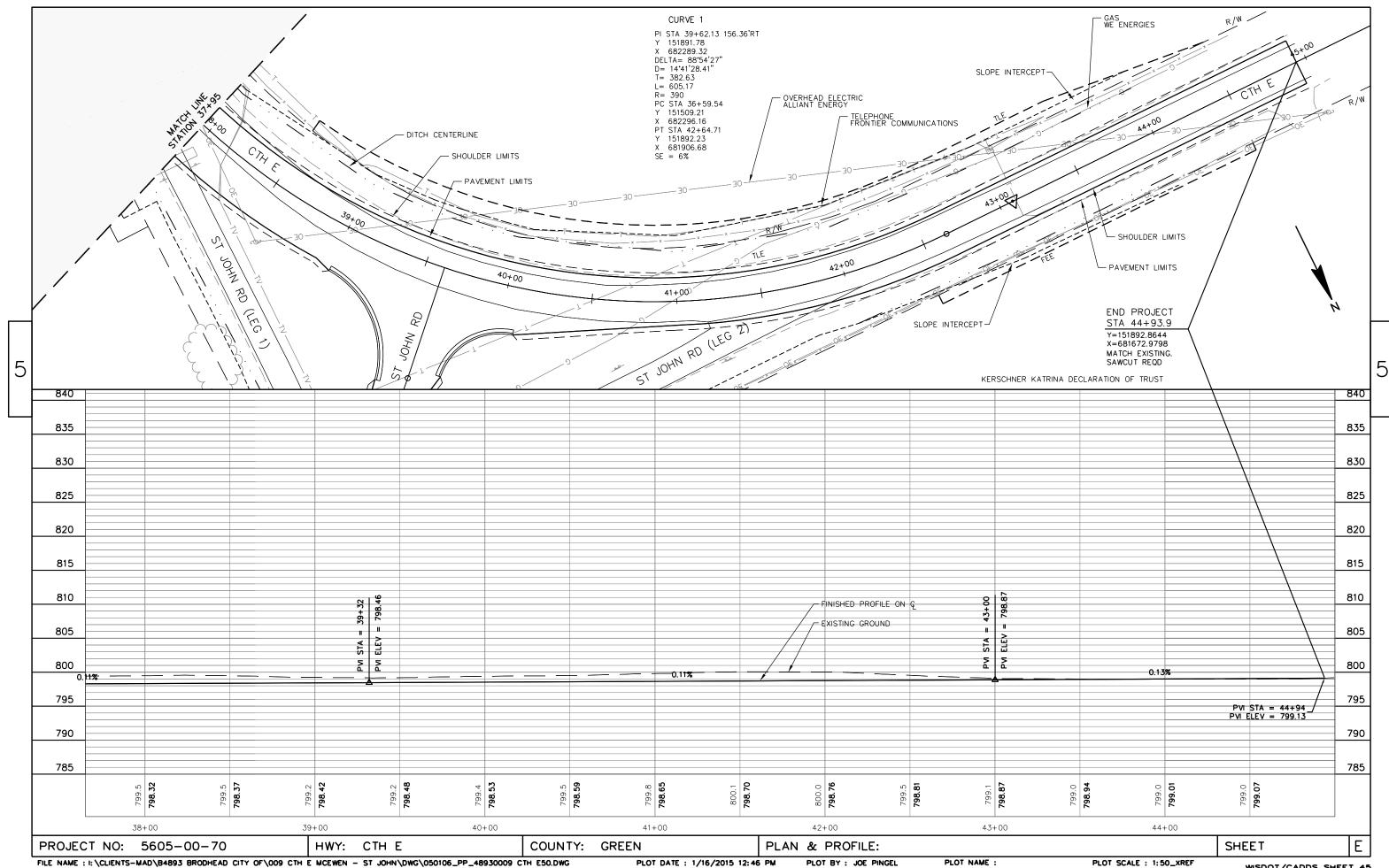


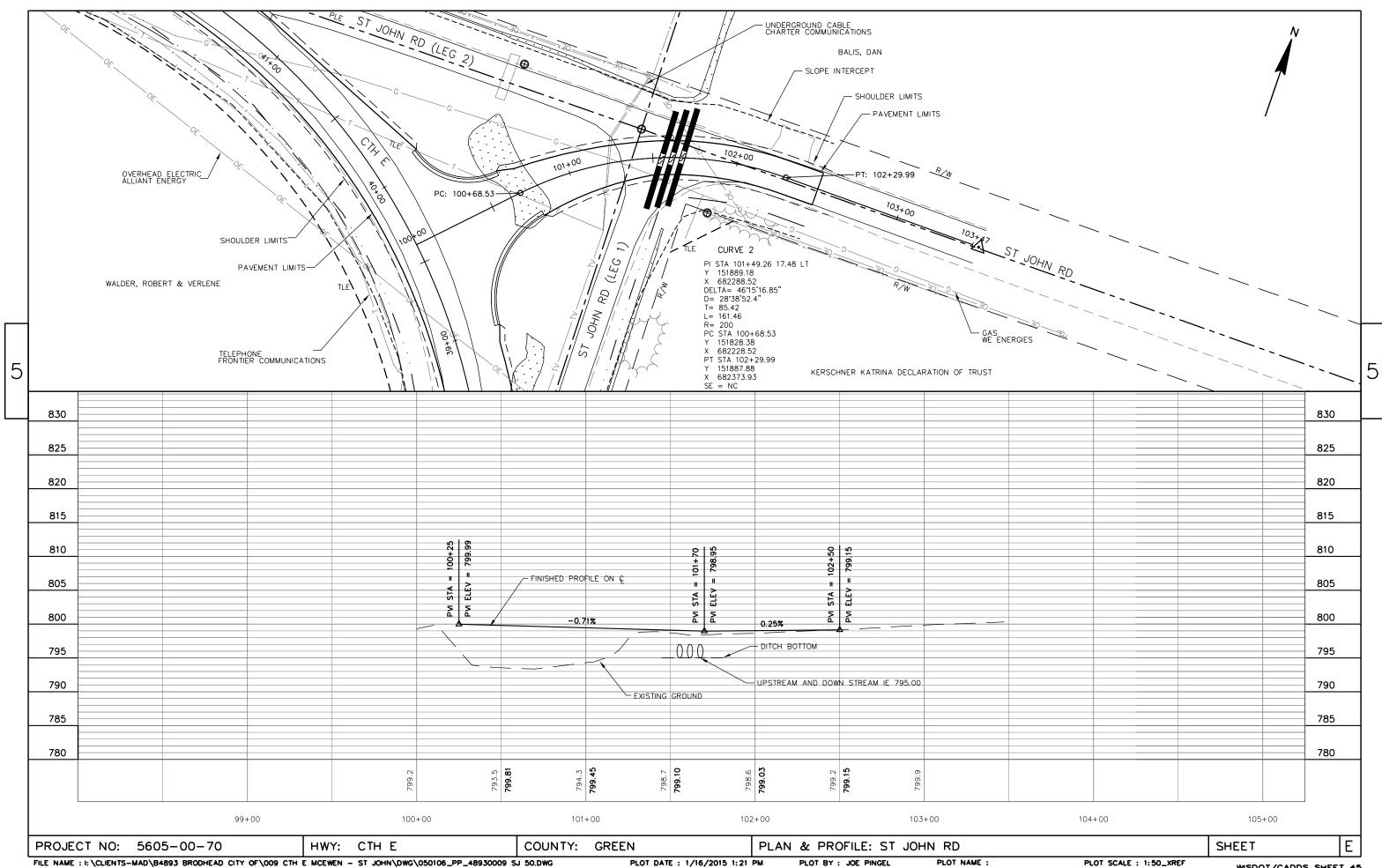


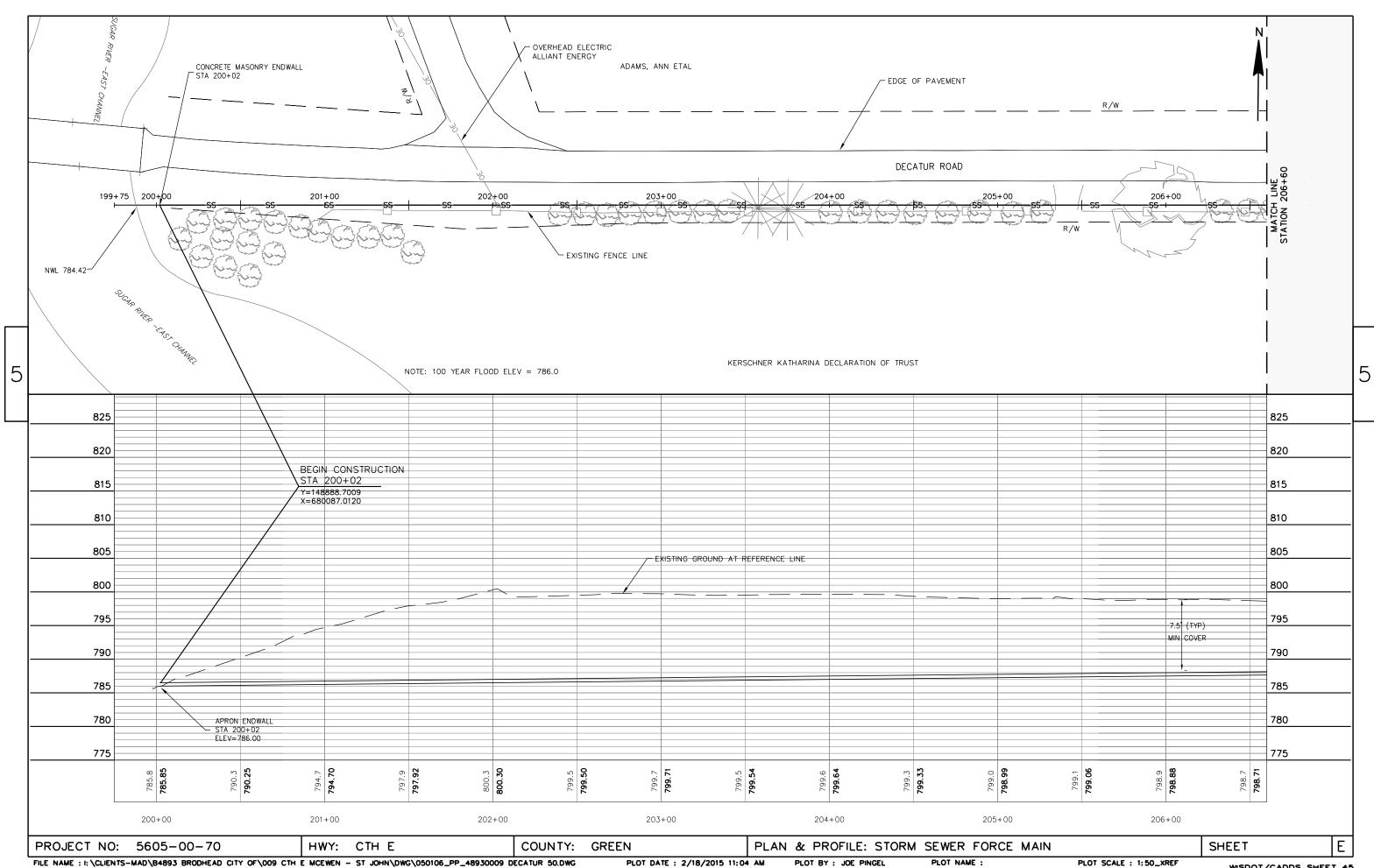


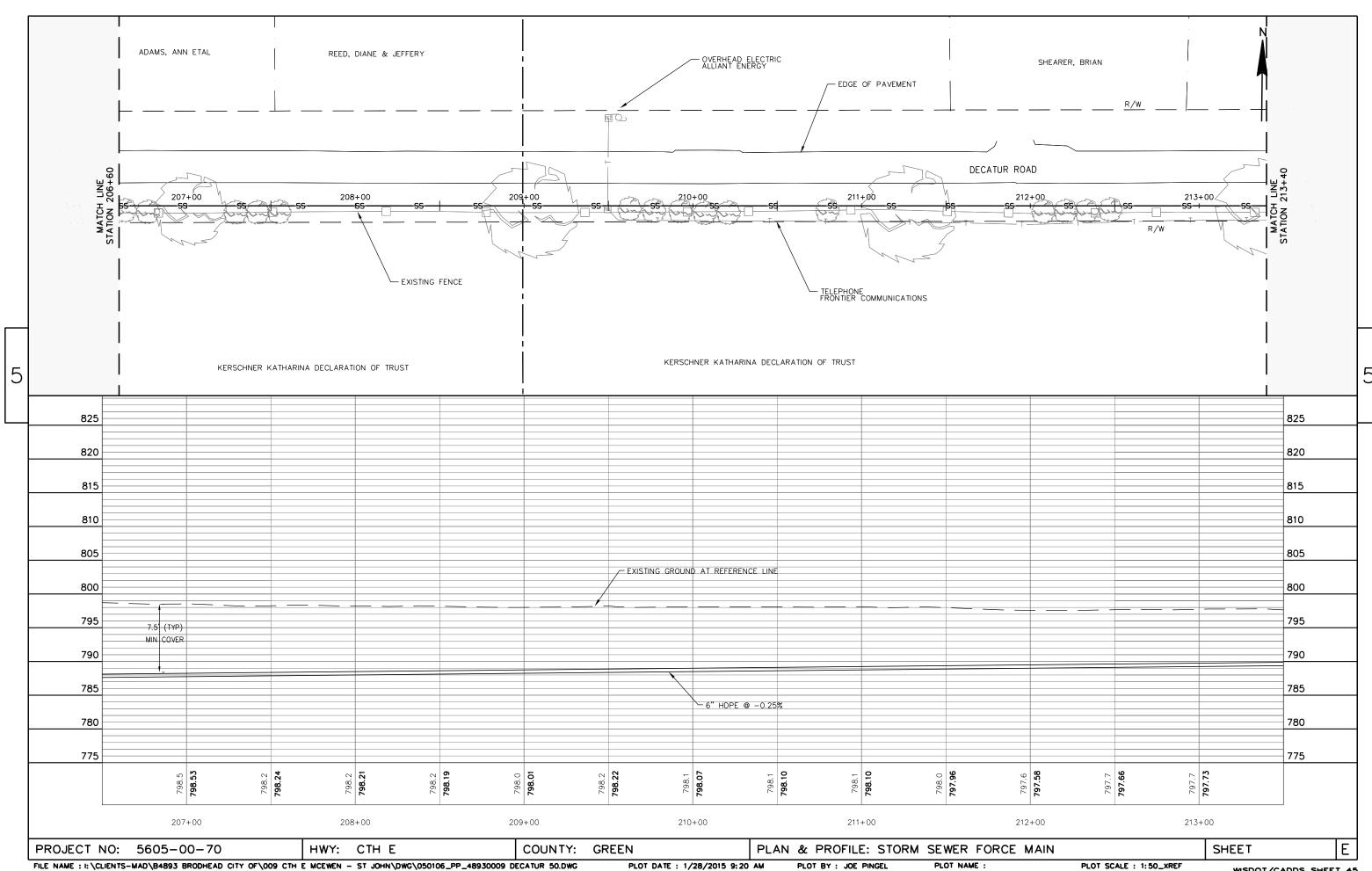


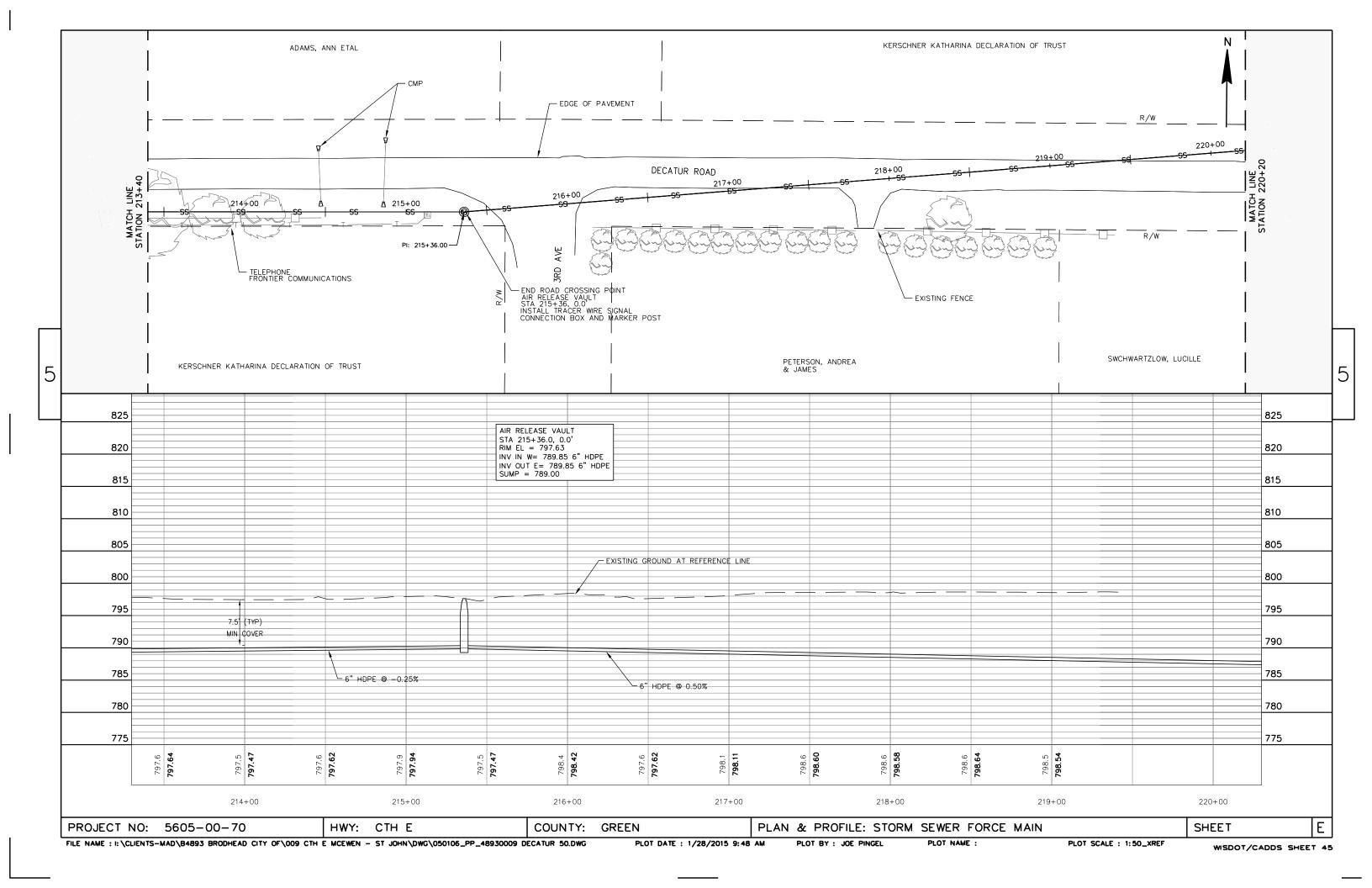


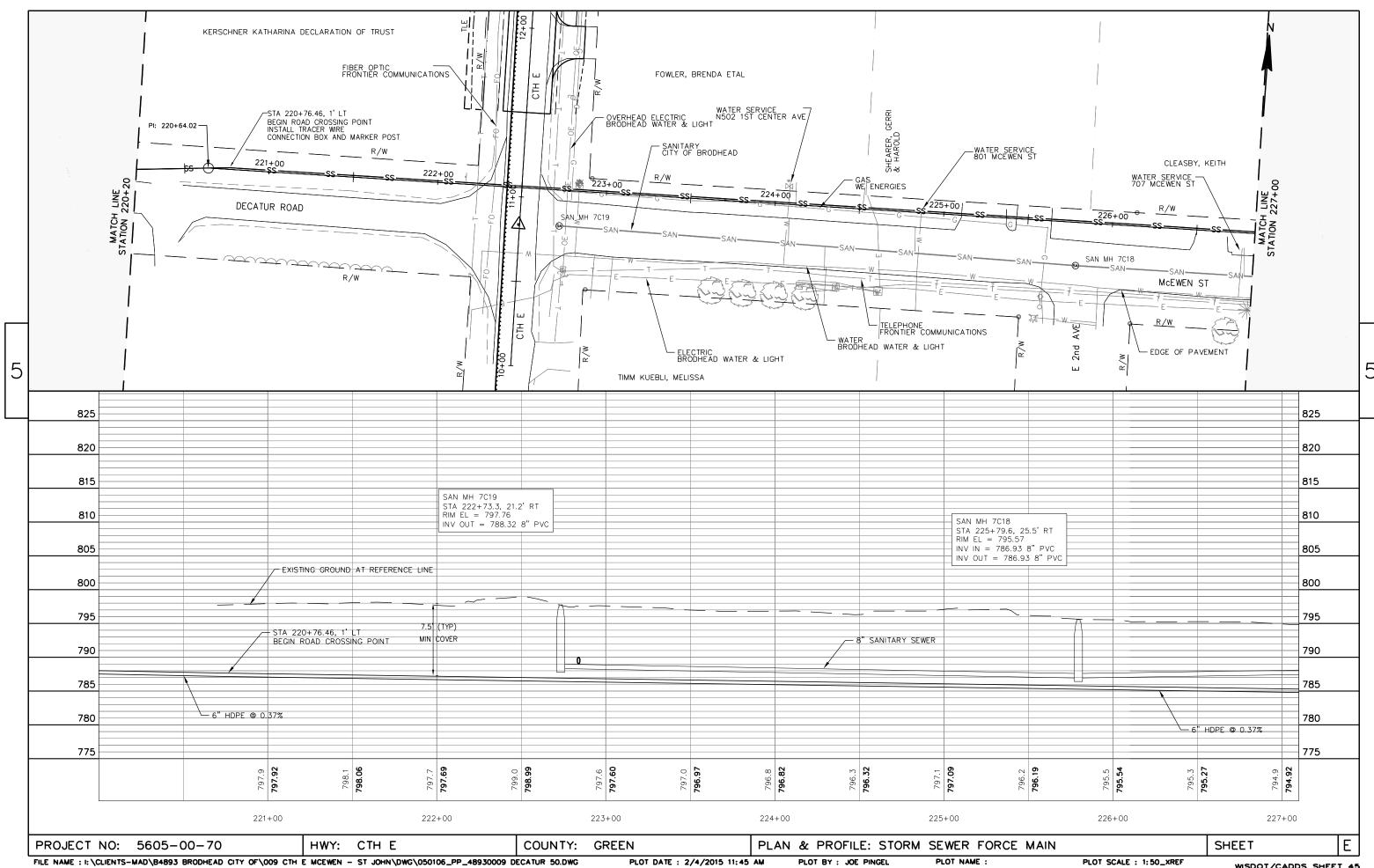


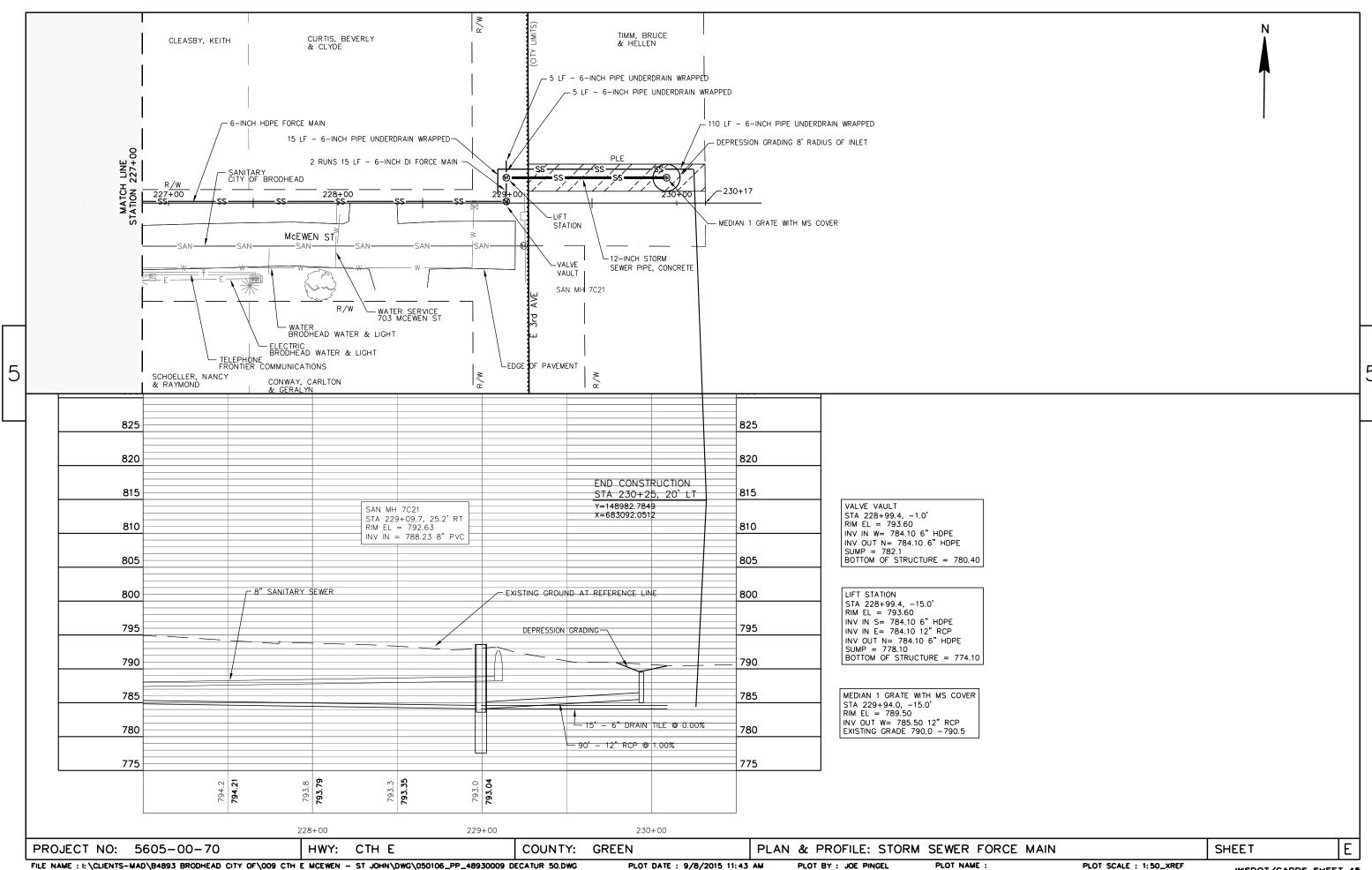






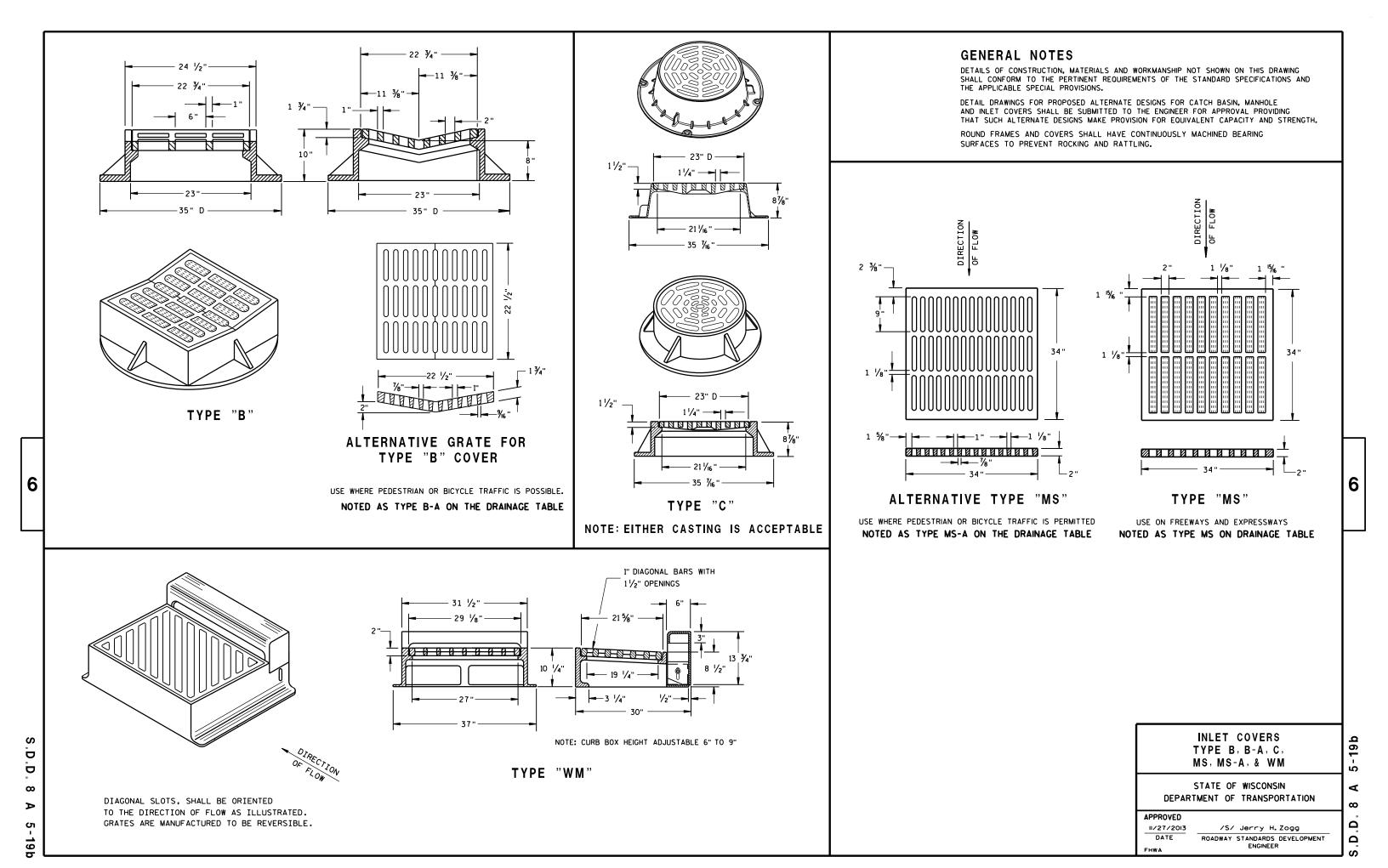


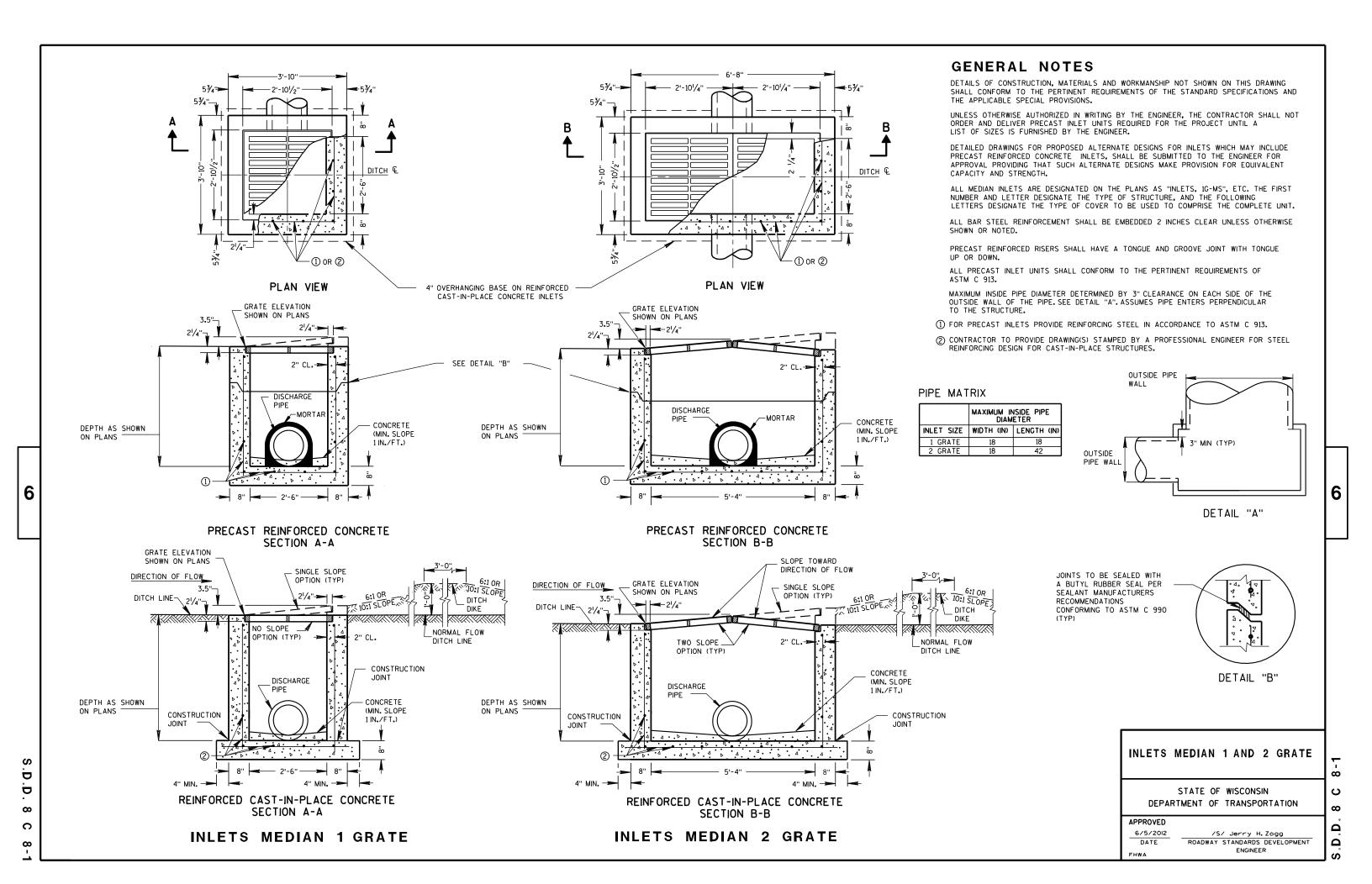


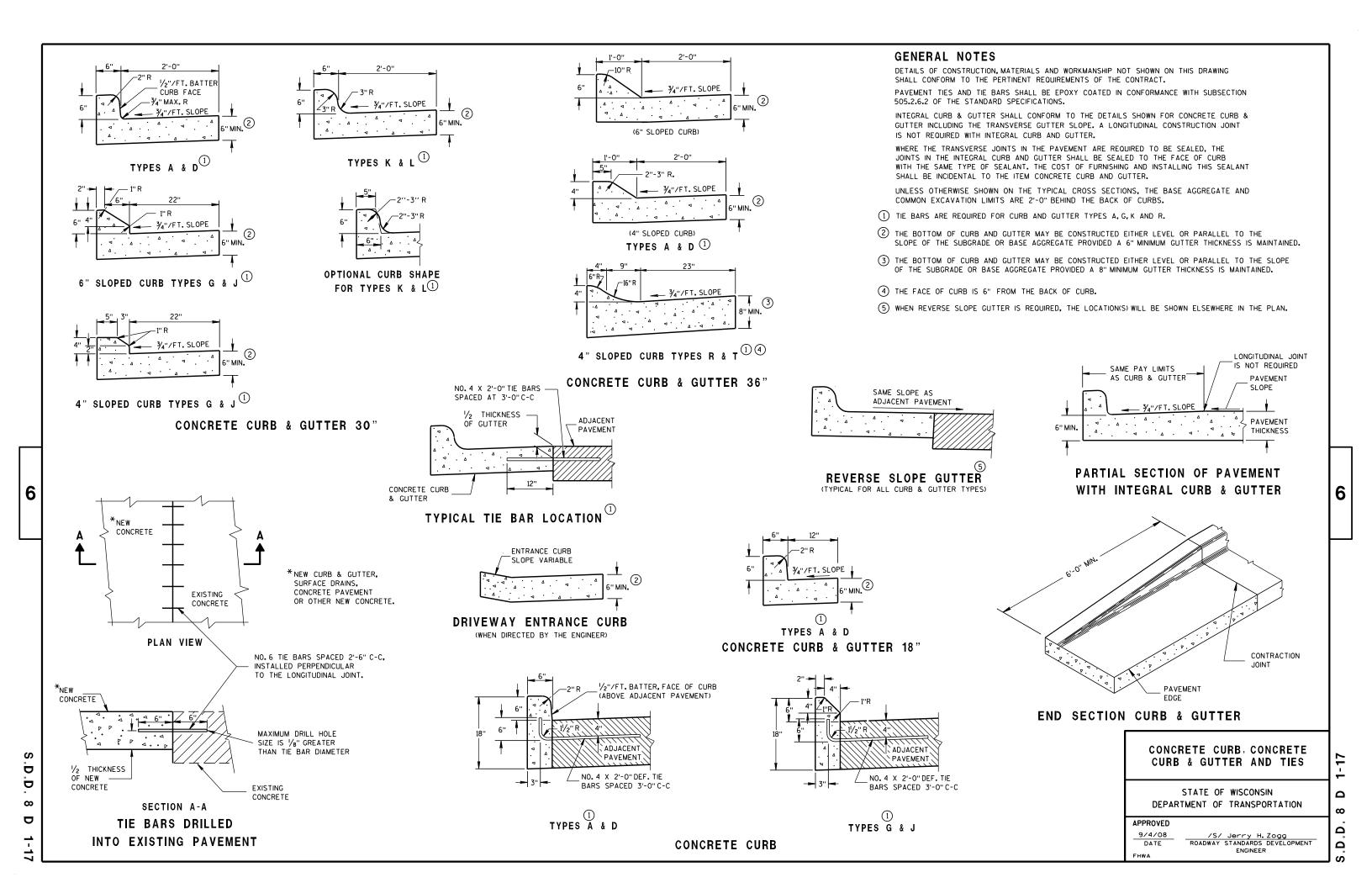


## Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRI CADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING







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.

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.



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 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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### TYPICAL APPLICATION OF SILT FENCE

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## 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.

- $\bigcirc$  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 11/8" X 11/8" 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 TIE BACK

(WHEN REQUIRED BY THE ENGINEER)



SILT FENCE

S.D.D. 8 E 9-6





INLET PROTECTION, TYPE A

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

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

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

- 1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- (2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- (3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



### INLET PROTECTION, TYPE C (WITH CURB BOX)

### **INSTALLATION NOTES**

### TYPE B & C

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

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

#### TYPE D

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

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

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

#### INLET PROTECTION TYPE A, B, C, AND D

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

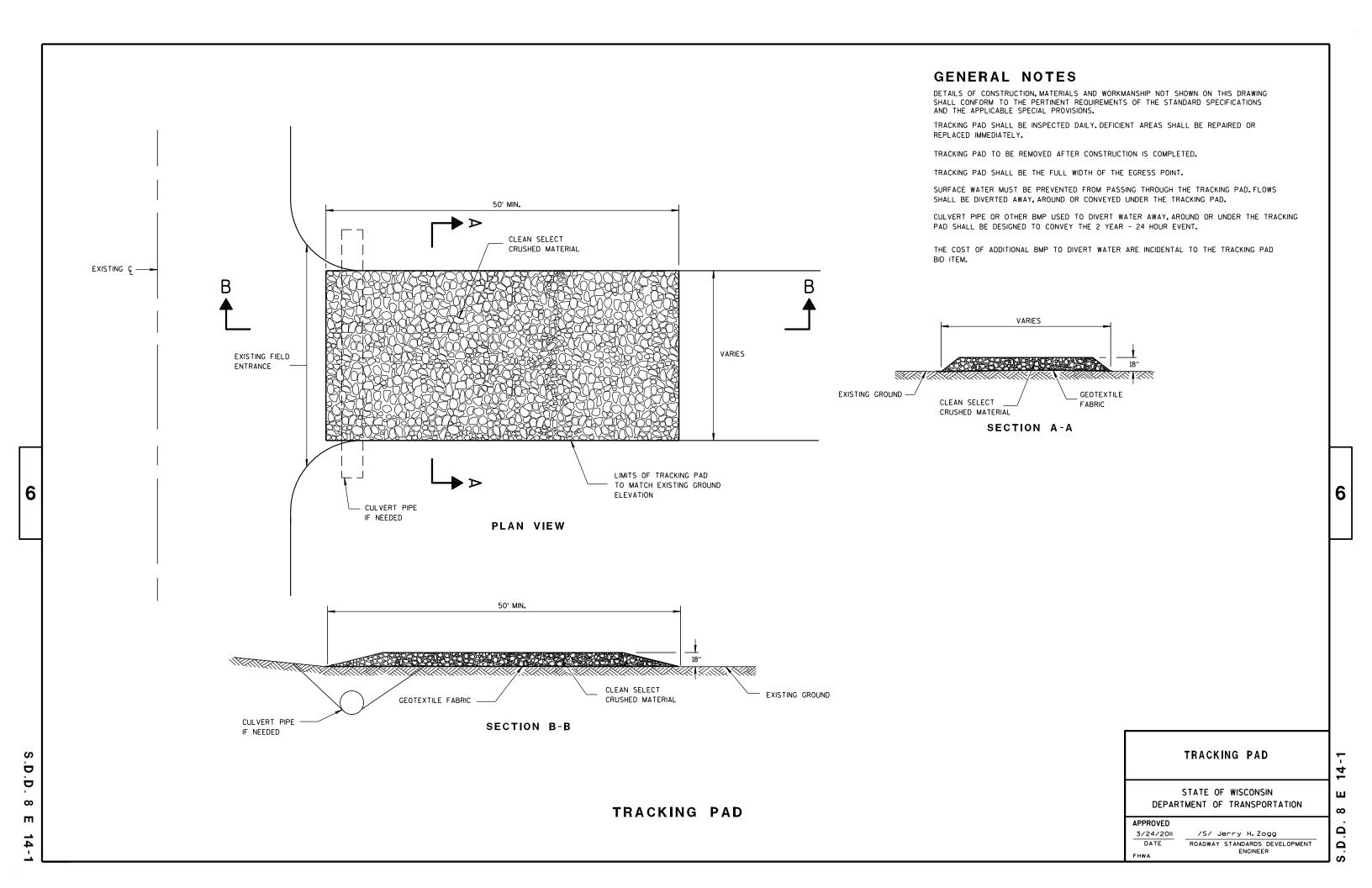
10/16/02

/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER 6

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			ı	METAL	APR	ON EN	NDWAL	.LS			
PIPE	MIN. 1	THICK.			APPROX.						
DIA.	(Inches)		A	В	Н	L	Γį	L <sub>2</sub>	W	SLOPE	BODY
(IN.)	STEEL	ALUM.	(±1")	(MAX.)	(±1")	(±1 ½")	①	0	(±2")	320.2	
12	.064	.060	6	6	6	21	12	171/2	24	2½+o 1	1Pc.
15	.064	.060	7	8	6	26	14	213/4	30	2½to 1	1Pc.
18	.064	.060	8	10	6	31	15	281/4	36	21/2+o 1	1Pc.
21	.064	.060	9	12	6	36	18	295/8	42	21/2+o 1	1Pc.
24	.064	.075	10	13	6	41	18	371/4	48	21/2+o 1	1Pc.
30	.079	.075	12	16	8	51	18	521/4	60	21/2+0 1	1Pc.
36	.079	<b>.</b> 105	14	19	9	60	24	59¾	72	21/2+o 1	2 Pc.
42	.109	.105	16	22	11	69	24	75%	84	21/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 <sup>1</sup> / <sub>4</sub> +o 1	3 Pc.
54	.109	.105	18	30	12	84	30	851/2	102	2 <sup>1</sup> / <sub>4</sub> †o 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	11/2+0 1	3 Pc.
84	.109×	.105×	18	45	12	87	_	_	138	11/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	_	_	144	11/2+0 1	3 Pc.
96	.109×	.105×	18	35	12	87	_	_	150	1/2+0 1	3 Pc.

	RE	INFORC	ED C	ONCRET	E APRO	N E	NDWAL	.LS
PIPE		APPROX.						
DIA.	T	A	В	С	D	Ε	G	SLOPE
12	2	4	24	48 1/8	721/8	24	2	3 to 1
15	21/4	6	27	46	73	30	21/4	3 to 1
18	21/2	9	27	46	73	36	21/2	3 to 1
21	23/4	9	36	371/2	731/2	42	23/4	3 to 1
24	3	91/2	431/2	30	731/2	48	3	3 to 1
27	31/4	101/2	491/2	24	731/2	54	31/4	3 to 1
30	$3\frac{1}{2}$	12	54	193/4	731/2	60	31/2	3 to 1
36	4	15	63	34¾	97¾	72	4	3 to 1
42	$4\frac{1}{2}$	21	63	35	98	78	41/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	51/2		65	**************************************	8 <sup>1</sup> / <sub>4</sub> - 100	90	51/2	2% to 1
60	6	* * * 30-35	60	39	99	96	5	2 to 1
66	61/2	<del>* * *</del>   24-30	<del>*</del> <del>* *</del>   72-78	* * * 21-27	99	102	51/2	2 to 1
72	7	* ** 24-36	78	21	99	108	6	2 to 1
78	71/2	* ** 24-36	78	21	99	114	61/2	2 to 1
84	8	36	901/2	21	1111/2	120	61/2	1½+o 1
90	81/2	41	871/2	24	1111/2	132	61/2	11/2+0 1

THREADED %6" DIA. ROD CONNECTOR AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL) MEASURED LENGTH OF CULVERT TYPE 1 FOR 12" THRU 24" CORR. PIPE







NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL.

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

DIMPLED BAND MAY BE USED WITH HELICALLY

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.

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT ALTERNATE FOR TYPE 1 CONNECTION END SECTION CONNECTOR STRAP

### \* EXCEPT CENTER PANEL SEE GENERAL NOTES





SHOULDER

SLOPE



SIDE ELEVATION METAL ENDWALLS



\*\*MAXIMUM





CONCRETE ENDWALLS

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

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.

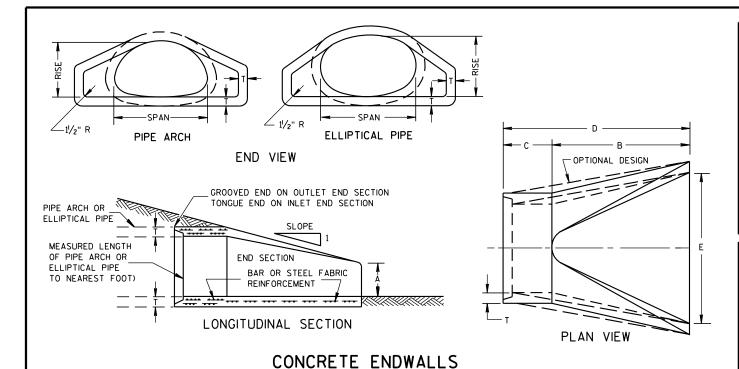
(1) FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



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

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Checkson   SPAN   RISE   STEEL   ALUM.   (±1")   (MAX.)   (±1")   (±1½")   (±1½")   (±2")   SLOPE		2- 2/3" X 1/2" CORRUGATIONS												
DIA.   (Inches)   A   B   H   L   L1   L2   W   (±2")   SLOPE   BOD'	EQUIV.	(loci	hasi	MIN. 1	HICK.			DIMENS	SIONS (II	nches)			APPROX	
15				(Inches)		A	В		L					BODY
18     21     15     .064     .060     7     10     6     23     14     19¾8     36     2½to 1     1 Pc       21     24     18     .064     .060     8     12     6     28     18     21¾4     42     2½to 1     1 Pc       24     28     20     .064     .060     9     14     6     32     18     27½     48     2½to 1     1 Pc       30     35     24     .079     .075     10     16     6     39     18     37½     60     2½to 1     1 Pc       36     42     29     .079     .075     12     18     8     46     24     45¾     75     2½to 1     1 Pc       42     49     33     .109     .105     13     21     9     53     24     54¾     85     2½to 1     3 Pc       48     57     38     .109     .105     18     26     12     63     24     68     90     2½to 1     3 Pc       54     64     43     .109     .105     18     30     12     70     24     72¾     102     2½to 1     3 Pc       60     71     47 </th <th>(Inches)</th> <th>SPAN</th> <th>RISE</th> <th>STEEL</th> <th>ALUM.</th> <th>(±]")</th> <th>(MAX.)</th> <th>(±]")</th> <th>(±1 ½")</th> <th>①</th> <th>0</th> <th>(±2")</th> <th>3E0. E</th> <th></th>	(Inches)	SPAN	RISE	STEEL	ALUM.	(±]")	(MAX.)	(±]")	(±1 ½")	①	0	(±2")	3E0. E	
21	15	17	13	.064	.060	7	9	6	19	14	16	30	2½+o 1	1Pc.
24 28 20 .064 .060 9 14 6 32 18 27½ 48 2½ to 1 1 Pc  30 35 24 .079 .075 10 16 6 39 18 375% 60 2½ to 1 1 Pc  36 42 29 .079 .075 12 18 8 46 24 45¾ 75 2½ to 1 1 Pc  42 49 33 .109 .105 13 21 9 53 24 54¾ 85 2½ to 1 2 Pc  48 57 38 .109 .105 18 26 12 63 24 68 90 2½ to 1 3 Pc  54 64 43 .109 .105 18 30 12 70 24 72¾ 102 2¼ to 1 3 Pc  66 77 52 .109* .105* 18 36 12 77 — 126 2 to 1 3 Pc  66 77 52 .109* .105* 18 36 12 77 — 126 2 to 1 3 Pc	18	21	15	.064	.060	7	10	6	23	14	193/8	36	21/2+o 1	1Pc.
30 35 24 .079 .075 10 16 6 39 18 375/8 60 21/2 to 1 1 Pc 36 42 29 .079 .075 12 18 8 46 24 453/8 75 21/2 to 1 1 Pc 42 49 33 .109 .105 13 21 9 53 24 543/4 85 21/2 to 1 2 Pc 48 57 38 .109 .105 18 26 12 63 24 68 90 21/2 to 1 3 Pc 54 64 43 .109 .105 18 30 12 70 24 723/4 102 21/4 to 1 3 Pc 60 71 47 .109* .105* 18 33 12 77 30 821/4 114 21/4 to 1 3 Pc 66 77 52 .109* .105* 18 36 12 77 — 126 2 to 1 3 Pc	21	24	18	.064	.060	8	12	6	28	18	213/4	42	21/2+o 1	1Pc.
36	24	28	20	.064	.060	9	14	6	32	18	271/2	48	21/2+o 1	1 Pc.
42     49     33     .109     .105     13     21     9     53     24     54¾     85     2½to 1     2 Pr       48     57     38     .109     .105     18     26     12     63     24     68     90     2½to 1     3 Pr       54     64     43     .109     .105     18     30     12     70     24     72¾     102     2¼to 1     3 Pr       60     71     47     .109*     .105*     18     33     12     77     30     82¼     114     2¼to 1     3 Pr       66     77     52     .109*     .105*     18     36     12     77     —     126     2 to 1     3 Pr	30	35	24	.079	.075	10	16	6	39	18	375/8	60	21/2+o 1	1 Pc.
48 57 38 .109 .105 18 26 12 63 24 68 90 2½t 1 3 Pr 54 64 43 .109 .105 18 30 12 70 24 72¾ 102 2½t 1 3 Pr 60 71 47 .109* .105* 18 33 12 77 30 82¼ 114 2¼t 1 3 Pr 66 77 52 .109* .105* 18 36 12 77 — 126 2 to 1 3 Pr	36	42	29	.079	.075	12	18	8	46	24	45%	75	21/2+o 1	1Pc.
54     64     43     .109     .105     18     30     12     70     24     72¾     102     2½/4 to 1     3 Po       60     71     47     .109*     .105*     18     33     12     77     30     82¼     114     2¼ to 1     3 Po       66     77     52     .109*     .105*     18     36     12     77     —     126     2 to 1     3 Po	42	49	33	.109	.105	13	21	9	53	24	54¾	85	21/2 to 1	2 Pc.
60 71 47 .109* .105* 18 33 12 77 30 82'/4 114 2'/4+0 1 3 PG 66 77 52 .109* .105* 18 36 12 77 — 126 2 +0 1 3 PG	48	57	38	.109	.105	18	26	12	63	24	68	90	2½+o 1	3 Pc.
66 77 52 .109* .105* 18 36 12 77 — — 126 2 to 1 3 Pd	54	64	43	.109	.105	18	30	12	70	24	723/4	102	2 <sup>1</sup> / <sub>4</sub> +o 1	3 Pc.
	60	71	47	.109*	.105*	18	33	12	77	30	821/4	114	21/4+0 1	3 Pc.
70 07 57 1004 1054 10 70 10 77	66	77	52	<b>.</b> 109*	.105 <del>*</del>	18	36	12	77	_	-	126	2 to 1	3 Pc.
12   83   57   .109*  .105*  18   39   12   77   —   —   138   2 †0 1 3 Pa	72	83	57	.109*	.105*	18	39	12	77	_	_	138	2 to 1	3 Pc.

	3" X 1" CORRUGATIONS												
EQUIV. (Inches)			MIN. 1		A	В	DIMENS H	SIONS (I	nches) L1	L <sub>2</sub>	w	APPROX.	BODY
(Inches)	SPAN	RISE	STEEL	ALUM.	(±1")	(MAX.)		(±1 ½")		0	(±2")	SLOPE	
48	53	41	.109	.105	18	26	12	63	24	723/4	90	2½+o 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	821/4	102	2 to 1	2 Pc.
60	66	51	.109*	<b>.</b> 105*	18	33	12	77	_	_	114	11/2+0 1	3 Pc.
66	73	55	.109 <del>*</del>	<b>.</b> 105*	18	36	12	77	_	_	126	1½+o 1	3 Pc.
72	81	59	.109*	<b>.</b> 105*	18	39	12	77	_	_	138	2 to 1	3 Pc.
78	87	63	.109*	.105 <del>*</del>	22	38	12	77	_	_	148	11/2+0 1	3 Pc.
84	95	67	.109*	<b>.</b> 105*	22	34	12	77	_	_	162	11/2+0 1	3 Pc.
90	103	71	.109*	<b>.</b> 105*	22	38	12	77	_	_	174	1½+o 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	_	_	174	11/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

THREADED 7/6" DIA. ROD OVER TOP OF APRON, SIDE

LUGS TO BE RIVETED TO

MEASURED LENGTH OF PIPE ARCH

MEASURED LENGTH

OF PIPE ARCH

SECTION

CONNECTOR SECTION

TO BE PAID FOR AS

PART OF END SECTION

CONNECTOR

\* EXCEPT CENTER PANEL SEE GENERAL NOTES

ROD HOLDER

COUPLING BAND

RIVETED OR

BOLTED

REQUIRED

		REINF	ORCE	CON	CRET	E PIP	E ARC	СН			
EQUIV.	DIMENSIONS (Inches)										
DIA. (Inches)	** SPAN	** RISE	T	A	В	С	D	E	SLOPE		
24	29	18	3	81/2	39	33	72	48	3 to 1		
30	36	22	31/2	91/2	50	46	96	60	3 to 1		
36	44	27	4	111/8	60	36	96	72	3 to 1		
42	51	31	41/2	1513/16	60	36	96	78	3 to 1		
48	58	36	5	21	60	36	96	84	3 to 1		
54	65	40	51/2	251/2	60	36	96	90	3 to 1		
60	73	45	6	31	60	36	96	96	3 to 1		
72	88	54	7	31	60	39	99	120	2 to 1		
84	102	62	8	281/2	83	19	102	144	2 to 1		

	REINFORCED CONCRETE ELLIPTICAL PIPE									
EQUIV. DIMENSIONS (Inches)									APPROX.	
DIA. (Inches)	** SPAN	** RISE	T	A	В	С	D	Ε	SLOPE	
24	30	19	31/4	81/2	39	33	72	48	3 to 1	
30	38	24	3¾	91/2	54	18	72	60	3 to 1	
36	45	29	41/2	111/8	60	24	84	72	21/2+o 1	
42	53	34	5	15¾	60	36	96	78	21/2+o 1	
48	60	38	51/2	21	60	36	96	84	2½+o 1	
54	68	43	6	251/2	60	36	96	90	2½+o 1	
60	76	48	61/2	30	60	36	96	96	21/2 to 1	

\*\*NOMINAL SIZE

GENERAL NOTES

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

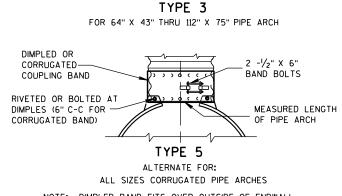
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA, GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL.

phonelly.	TUBING SLIPPED ( AND RIVETS PRIO CATION OF THE E
L <sub>2</sub> ① 3%" R.	3%" DIA. X 1/2" OR ALUM. BUT SPACED AT 6 LENGTH OF RI  3%" R. OUTSIDE SIDEWALL
EDGE OF SIDEWALL SHEET ROLLED SNUGLY AGAINST STEEL ROD	MINIMUM %6" STEEL ROD O GALV. REINFOR

### APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

REINFORCED EDGE (SEE SECTION A-A)
PLAN VIEW  END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER  PLATE  W + 10" (RISE 23" THRU 29") W + 20" (RISE 33" THRU 75")  END VIEW  END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER  TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS
SHOULDER SLOPE SLOPE FLOW LINE

SIDE ELEVATION

METAL ENDWALLS

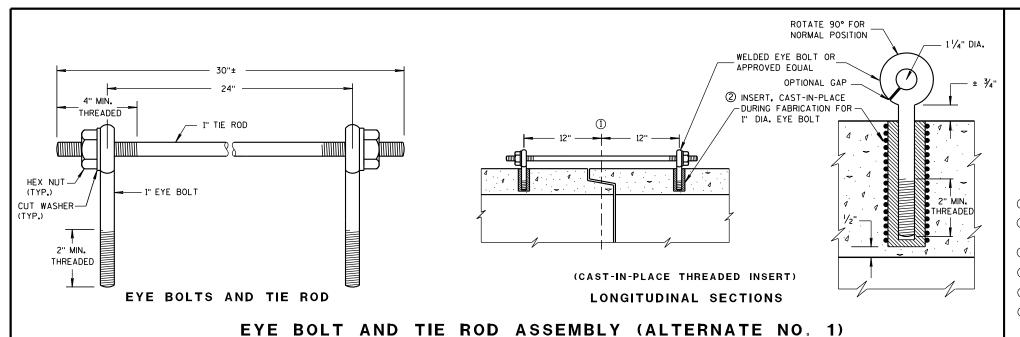
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0.109" THICK GALV. STEEL OR 0.109" THICK ALUMINUM 3/8" DIA. RIVETS SPACED APRON SIDEWALL AT 6" C-C SHEET 1" O.D. X O.079" THICK GALV. STEEL OR 0.075" THICK ALUM. OVER SHEET OR TO FABRI-END SECTION "- GALV. STEEL TTONHEAD RIVETS 6" C-C. OVER-RIVET = 0.78" OF APRON L SHEET DIA. GALV. OR 10M ORCING BAR

└─ ¹/8" (APPROX.)

CONNECTION DETAILS



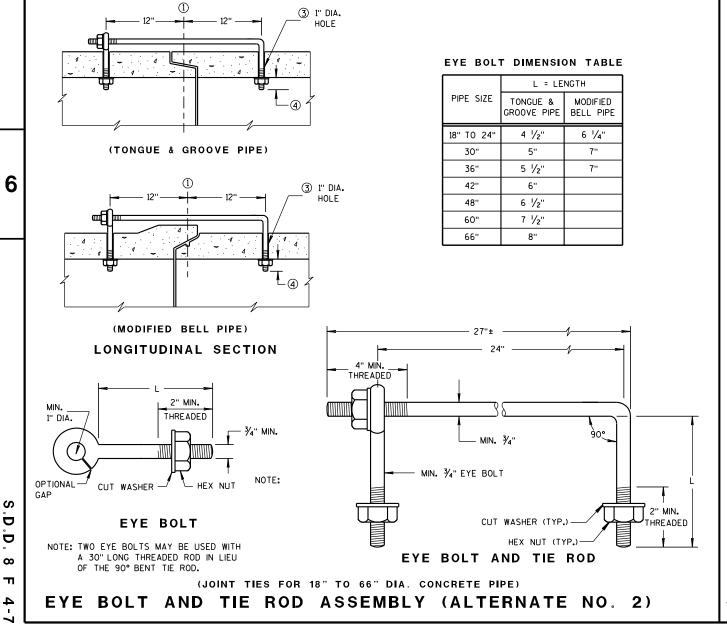
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

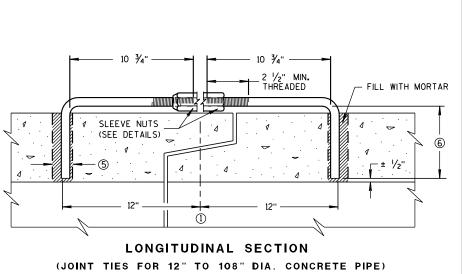
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

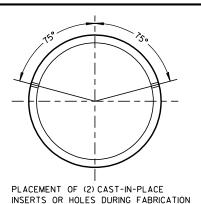
- (1) & OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE
- ${\mathfrak S}$  HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM  ${\mathfrak L}$  OF TONGUE AND GROOVE.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- (5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN  $rac{1}{2}$  INCH OF THE INNER SURFACE OF THE PIPE.



## ADJUSTABLE TIE ROD TABLE 5/8 5 12-60 3/4 5 1/2 3/4 90-108 DIMENSIONS SHOWN ARE IN INCHES **TAPERED** PLAIN RIGHT AND LEFT THREADS **SLEEVE NUTS** 2 1/2" MIN. THREADED

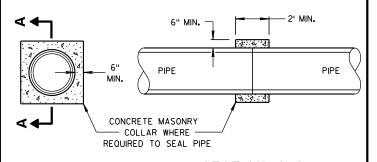


ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



FOR PIPE SECTIONS REQUIRING TIE RODS

#### TRANSVERSE SECTION



SECTION A-A

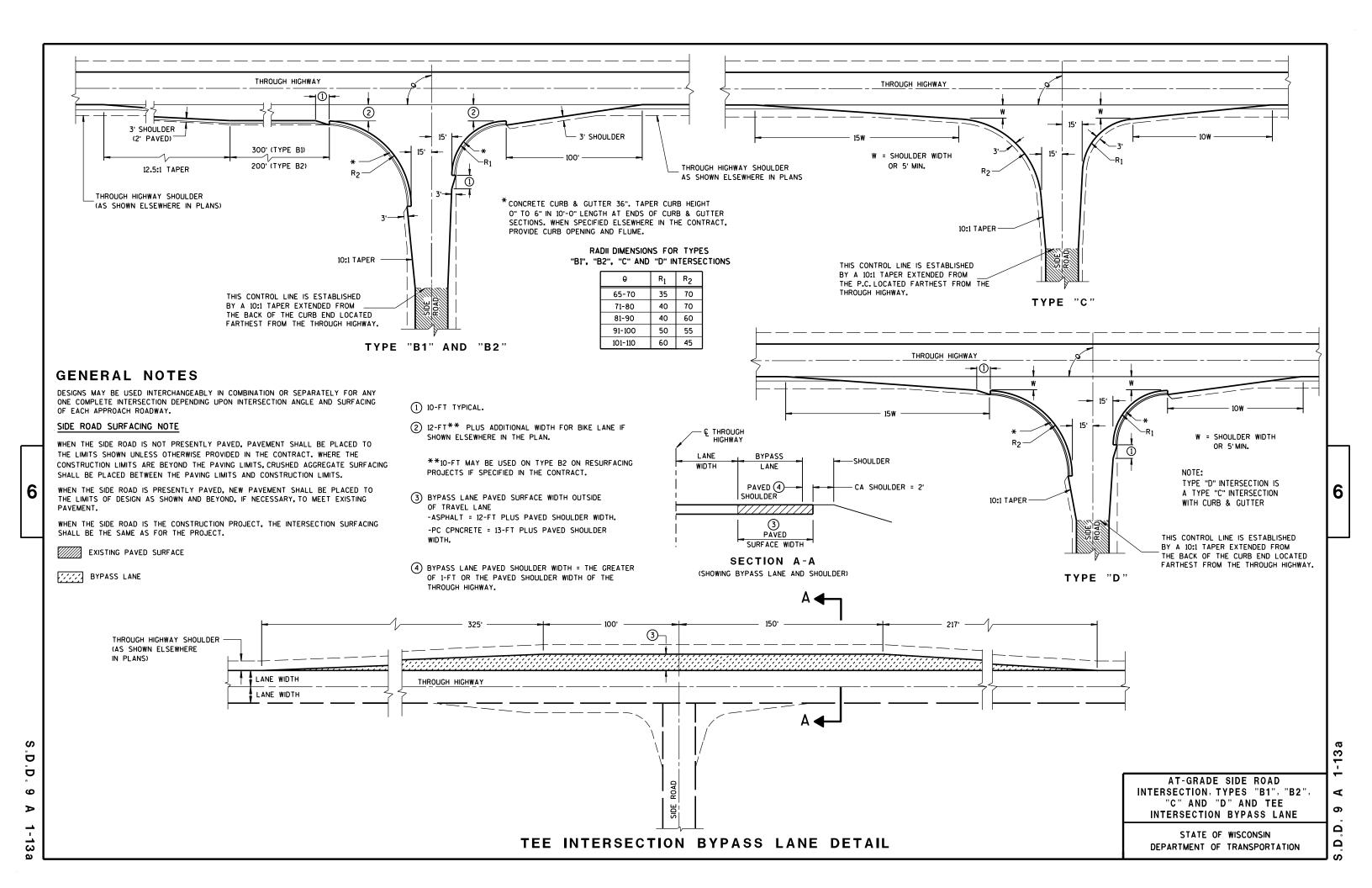
### CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

 $\infty$ Ω





### BRIDGE ROAD 1)TWO-WAY **CLOSED** TYPE "A" WARNING LIGHTS REQUIRED OUTSIDE EDGE OF SHOULDER OUTSIDE EDGE OF SHOULDER OR FACE OF CURB OR FACE OF CURB **DETAIL D**

### ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



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

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.) MO5-1 AND MO6-1 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
- THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 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.
- "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

/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN

2

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
RI1-2 SHALL BE 48" X 30".
RI1-4 AND RI1-3 SHALL BE 60" X 30".

\*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

\*\*500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

#### **LEGEND**

SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE

TYPE III BARRICADE WITH
ATTACHED SIGN

(A) TYPE "A" WARNING LIGHT (FLASHING)

//// w

WORK AREA

### BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

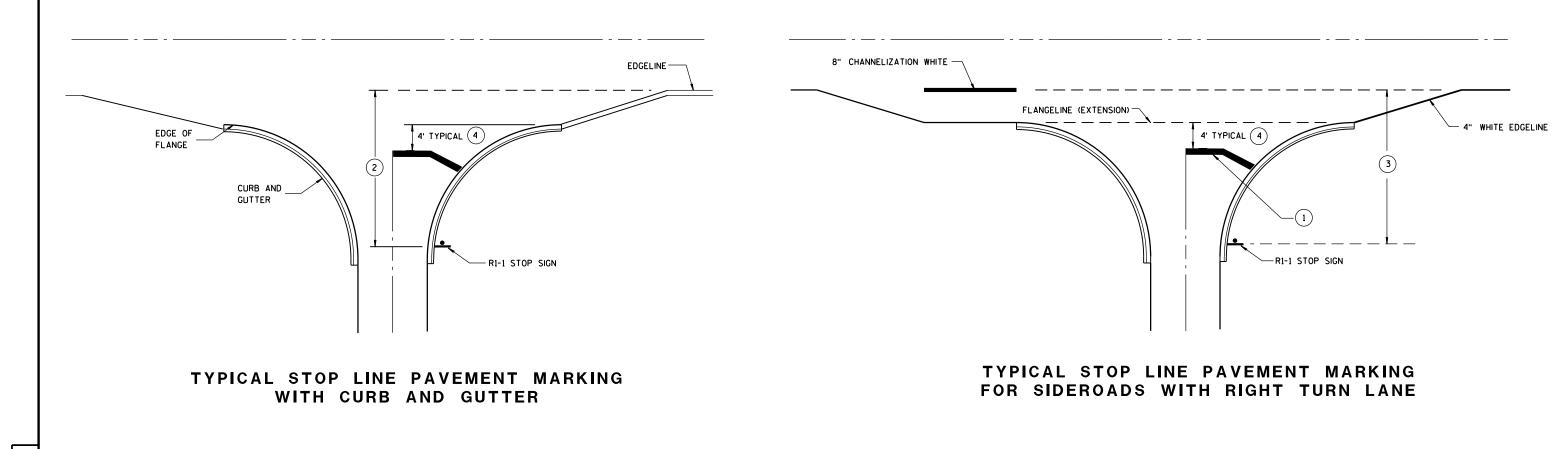
APPROVED

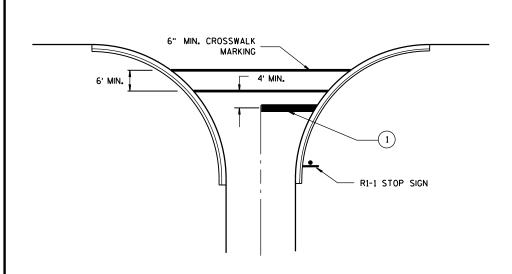
8/2013 /S/ Travis Feltes

DATE STATE TRAFFIC ENGINEER OF DESIGN

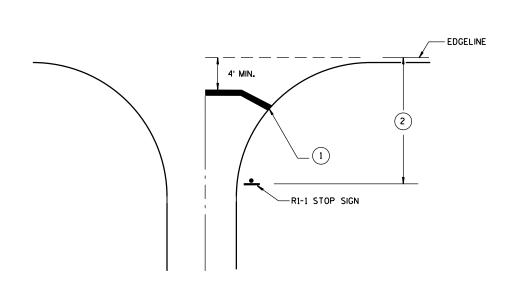
S.D.D. 15 C 3-2







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.
- 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	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER
FHWA	

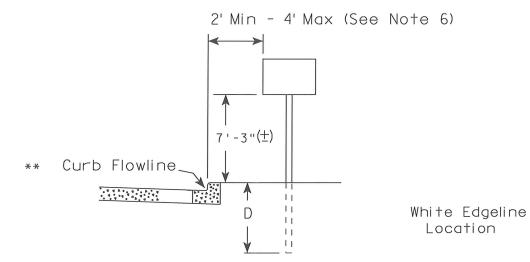
.D.D. 15 C 33-1

6

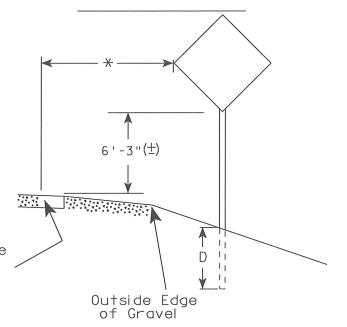
3.D.D. 15

33

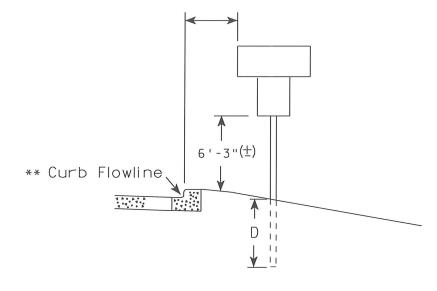
### urban area



RURAL AREA (See Note 2)



2' Min - 4' Max (See Note 6)



White Edgeline
Location

Outside Edge
of Gravel

- \*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
  - \* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

### GENERAL NOTES

- 1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 2. If signs are mounted on barrier wall, see A4-10 sign plate.
- 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- 4. Minimum mounting height for J assemblies (A4-5) is 7'-3" ( $\pm$ ) or 6'-3" ( $\pm$ ) per urban or rural detail respectively.
- 5. Minimum mounting height for signs mounted on traffic signal poles is  $5' 3'' \left( \frac{+}{2} \right)$ .
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. The  $(\pm)$  tolerance for mounting height is 3 inches.
- 8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (+) or as directed by the Engineer.
- 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

### POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rawl

DATE 9/30/13

3 PLATE NO. \_\_A4-3.18

PROJECT NO: 5605-00-70

HWY: CTHE

COUNTY: GREEN

SIGN PLATES

PLOT NAME :

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr\_stdplate\A43.DGN

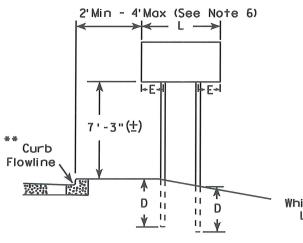
PLOT DATE: 30-SEP-2013 13:25

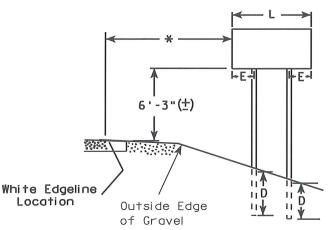
PLOT BY: mscj9h

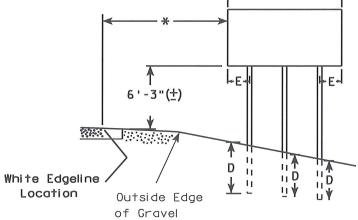
PLOT SCALE: 99.237937:1.000000

- 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) 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 or less than 20 S.F. in area.

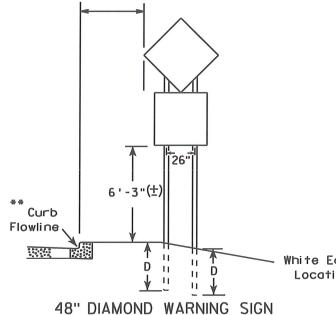
## URBAN AREA RURAL AREA (See Note 3)

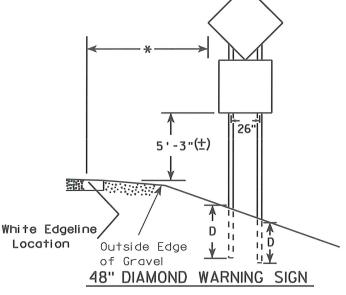






2'Min - 4'Max (See Note 6)





	SIGN SHAPE OTHER THAN (TWO POSTS REQUIRE)	
	L	Е
***	Greater than 48" Less than 60"	12"
	60" to 120"	L/5

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

HWY: CTHE

SIGN SHAPE OTHER THAN (FOUR POSTS REQUIRE	
L	E
168" and greater	12"

PLOT DATE: 30-APR-2014 13:10

### POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE 4/29/14

PLATE NO. 44-4.13 SHEET NO:

PROJECT NO: 5605-00-70

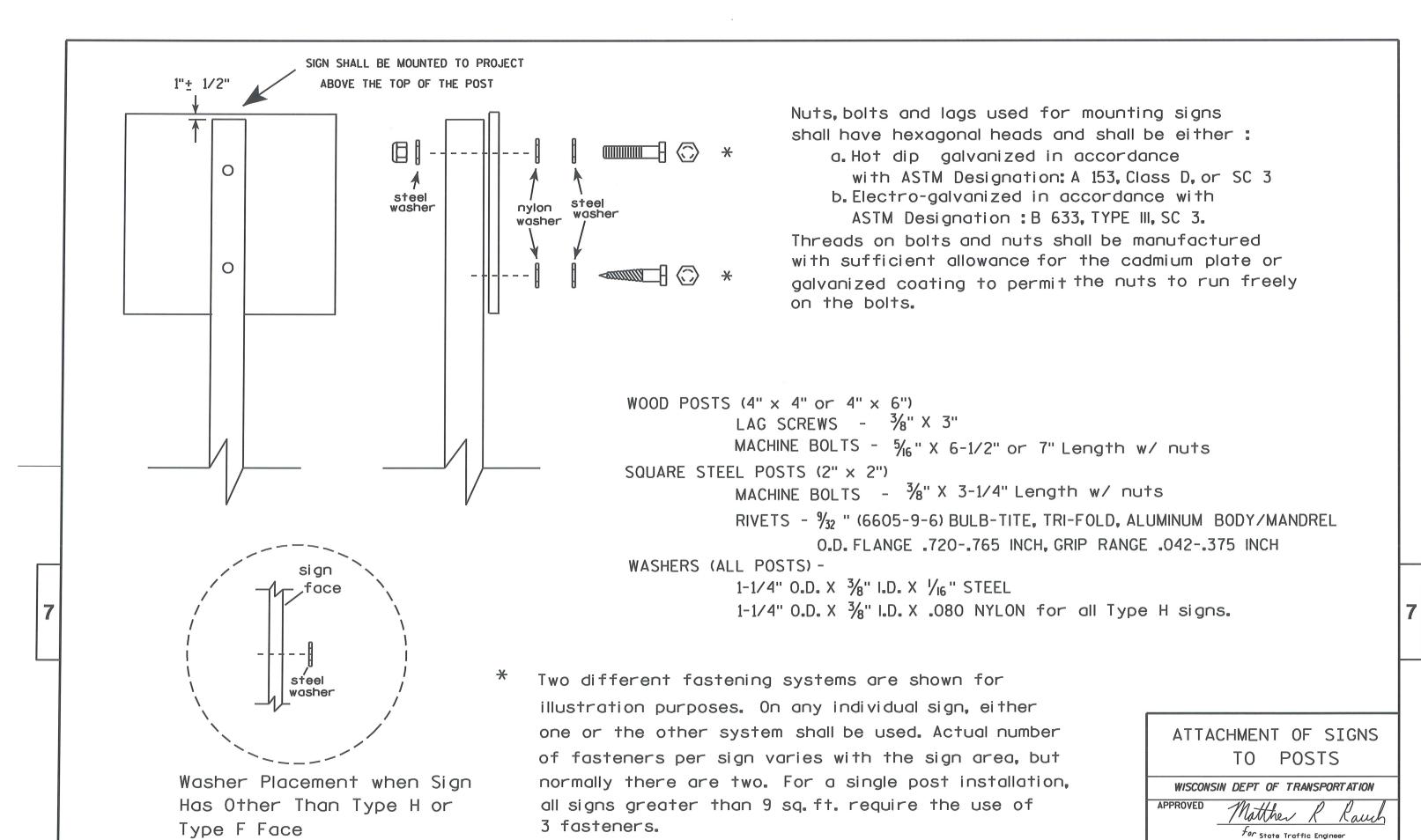
COUNTY: GREEN

SIGN PLATES

PLOT BY: mscsja

PLOT NAME :

PLOT SCALE: 107.021305:1.000000



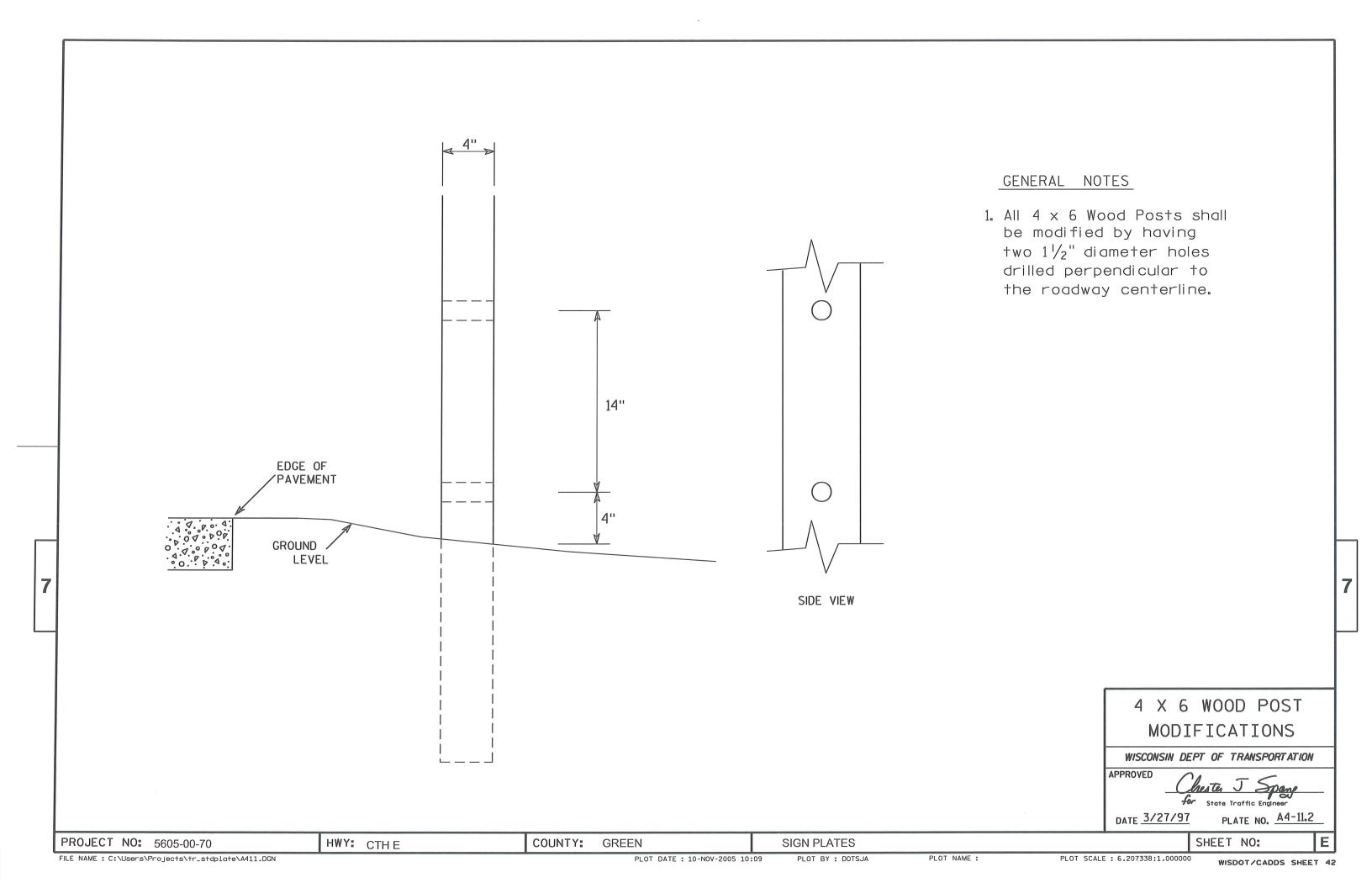
PROJECT NO: 5605-00-70 HWY: CTHE COUNTY: GREEN SIGN PLATES

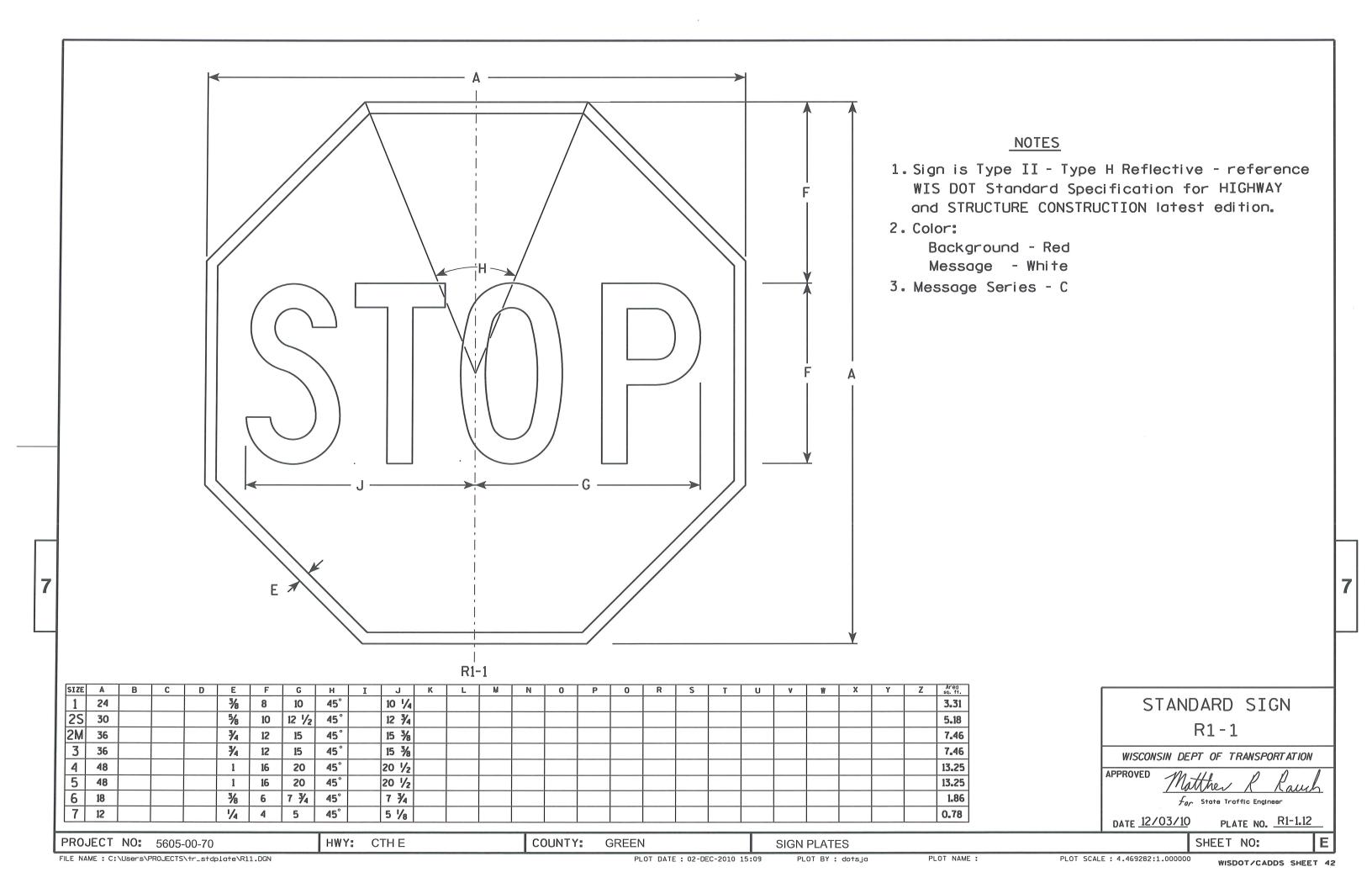
FILE NAME: C:\Users\PROJECTS\tr\_stdplate\A48.DGN

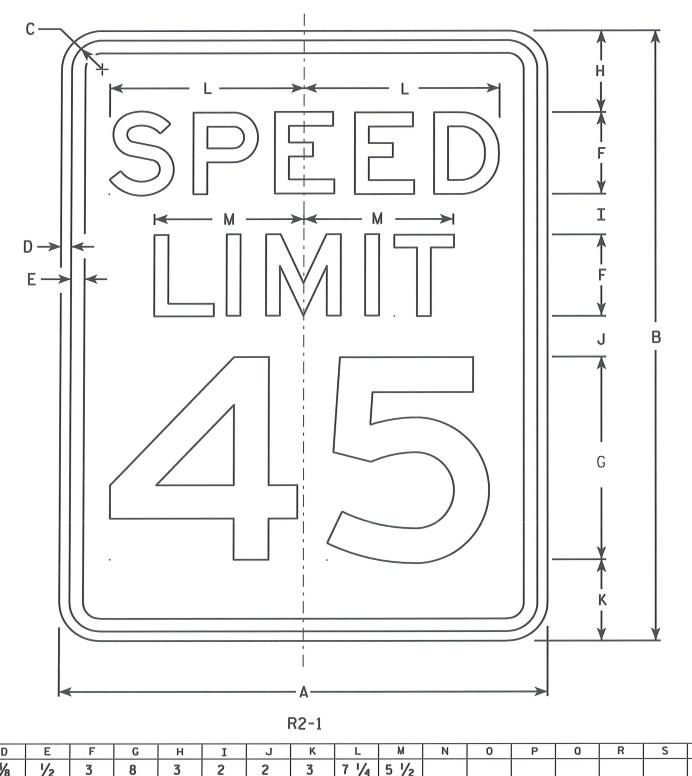
PLOT DATE: 23-MAR-2010 10:15 PLOT BY: d1+jph

PLATE NO. A4-8.7

DATE 3/23/10







- 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 Α 18 24 1 1/8 3/8 1/2 2 2 7 1/4 5 1/2 3.0 25 2 1/4 3 3/8 3 3/8 9 5/8 7 3/8 1 1/8 3/8 5.0 24 30 1/2 4 2M 2 1/2 2 1/2 7.5 30 1 3/8 5/8 36 1/2 12 12 9 1/4 3 1 3/8 12.0 5/8 36 48 1/2 5 14 3/8 11 6 14 6 1 3/8 12.0 36 48 1/2 5/8 14 14 3/8 11 4 1/2 6 3/4 6 3/4 19 1/4 14 5/8 60 2 1/4 3/4 20 20.0 48 6

COUNTY: GREEN

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED /

For State Traffic Engineer

5/26/10 PLATE No. R2-1.13

DATE 5/26/10

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr\_stdplate\R21.DGN

HWY: CTHE

PROJECT NO: 5605-00-70

PLOT DATE: 28-MAY-2010 08:32

PLOT BY: ditjph

SIGN PLATES

PLOT NAME :

PLOT SCALE: 4.717577:1.000000

- 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 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. Lines 1, 2 & 4 are Series E. Line 3 is Series D. Line 5 is Series C.
- 6. Line 5 of the sign shall vary with the name of the maintaining authority.

c ~		<b>Y</b>
D D	BY ORDER OF FOND DU LAC COUNTY	H ★F♥ I ★F♥ H ★G ♥ J ★──────────────────────────────────
	R12-53	

Α В C D E G Н I J K L N 0 Р 0 R S 30 1 1/8 3/8 24 1/2 3 2 1/2 2 1/4 2 1 1/2 <del>3</del>/<sub>4</sub> 9 <del>5</del>/<sub>8</sub> 6 <del>5</del>/<sub>8</sub> 6 <del>3</del>/<sub>4</sub> 8 3/4 8 5/8 4 6 5.0 2M 30 1 1/8 3/8 24 1/2 3/<sub>4</sub> 9 5/<sub>8</sub> 6 5/<sub>8</sub> 6 3/<sub>4</sub> 2 1/2 2 1/4 1 1/2 8 3/4 | 8 5/8 5.0 3 4

COUNTY: GREEN

STANDARD SIGN R12-53

WISCONSIN DEPT OF TRANSPORTATION

Matther DATE 4/1/11 PLATE NO. R12-53.3

SHEET NO:

HWY: CTH E

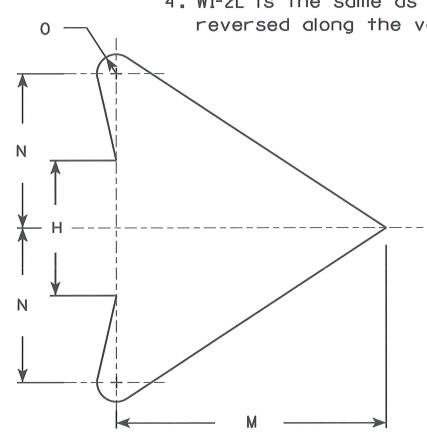
PROJECT NO: 5605-00-70

SIGN PLATES

- 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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



ARROW D	EΤ	AIL
---------	----	-----

								W	1-2R														11011	DLIA			
SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	Ü	٧	W	Х	Y	Z	Areg sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
25	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 %	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 ¾	2 1/8	3 1/2	10 1/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 ¾	2 1/8	3 1/2	10 1/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 ¾	2 1/8	3 1/2	10 1/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

COUNTY: GREEN

STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

Matther R Rauch
For State Traffic Engineer

DATE <u>5/15/12</u>

PLATE NO. W1-2.10

PROJECT NO: 5605-00-70

FILE NAME: C:\CAEFiles\Projects\tr\_stdplate\W12.DGN

**←** H →

HWY: CTHE

PLOT DATE: 15-MAY-2012 14:03

PLOT BY: mscsja

SIGN PLATES

PLOT NAME

PLOT SCALE : 6.202372:1.000000

HWY: CTH E

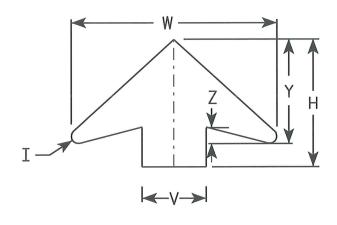
### NOTES

- 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 C for numbers Series E for wording
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

\*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	Α	В	С	D	Ε	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Areo sq. ft.
1																											
25	36		1 1/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 %	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 %	3/8	13	2	16.0

COUNTY: GREEN

STANDARD SIGN W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

ROVED Matthew R Lauch.
For State Traffic Engineer

DATE 5/29/12

PLATE NO. <u>W3-5.5</u>

SHEET NO:

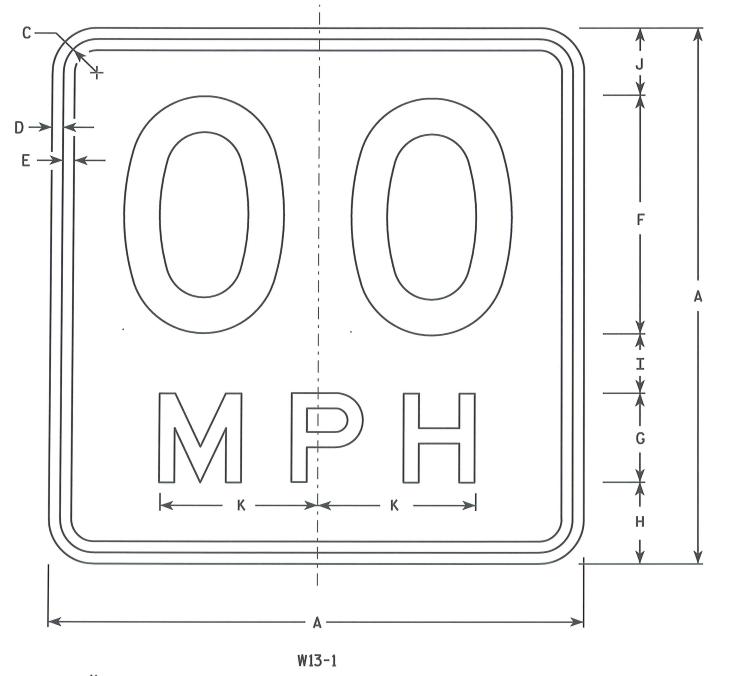
FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W35.DGN

PROJECT NO: 5605-00-70

PLOT DATE: 29-MAY-2012 10:52

PLOT BY: mscsja

SIGN PLATES



- 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

PLOT NAME :

- 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

 $\star$  For 30"  $\times$  30" Warning Signs, use 18"  $\times$  18" W13-1 signs. For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

HWY: CTHE

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	W	Х	Υ	Z	Areg
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
<b>*</b> 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
<b>*</b> 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 %																4.00
4	36		1 %	5/8	3/4	16	6	5 1/2	4	4 1/2	10 %																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 %																9.00

COUNTY: GREEN

STANDARD SIGN W13 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matther

For State Traffic Engineer

DATE 5/31/12

PLATE NO. W13-1-16 SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr\_stdplate\W131.DGN

PROJECT NO: 5605-00-70

PLOT DATE: 31-MAY-2012 10:57

SIGN PLATES PLOT BY: mscsja

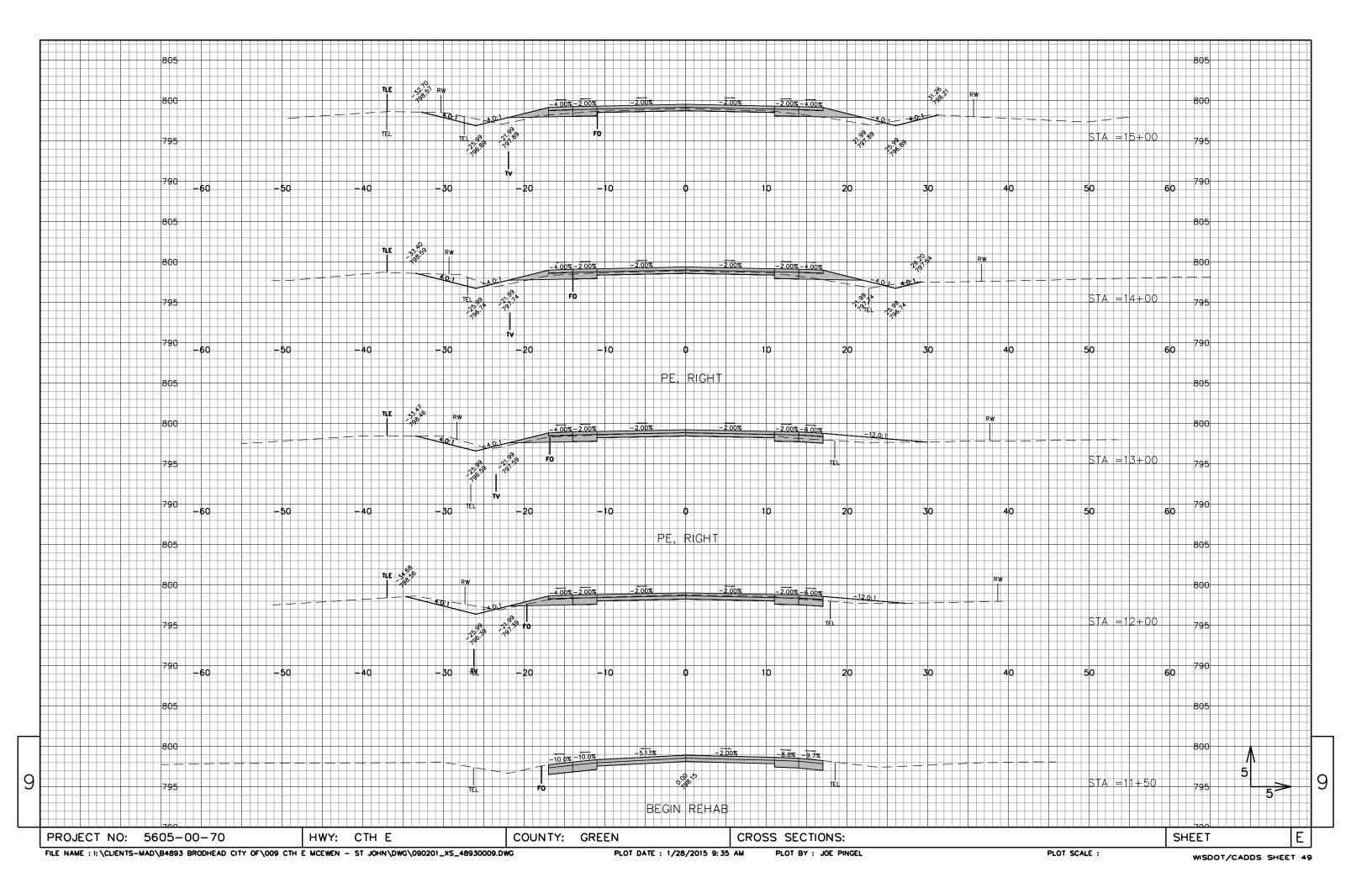
PLOT SCALE: 3.225232:1.000000

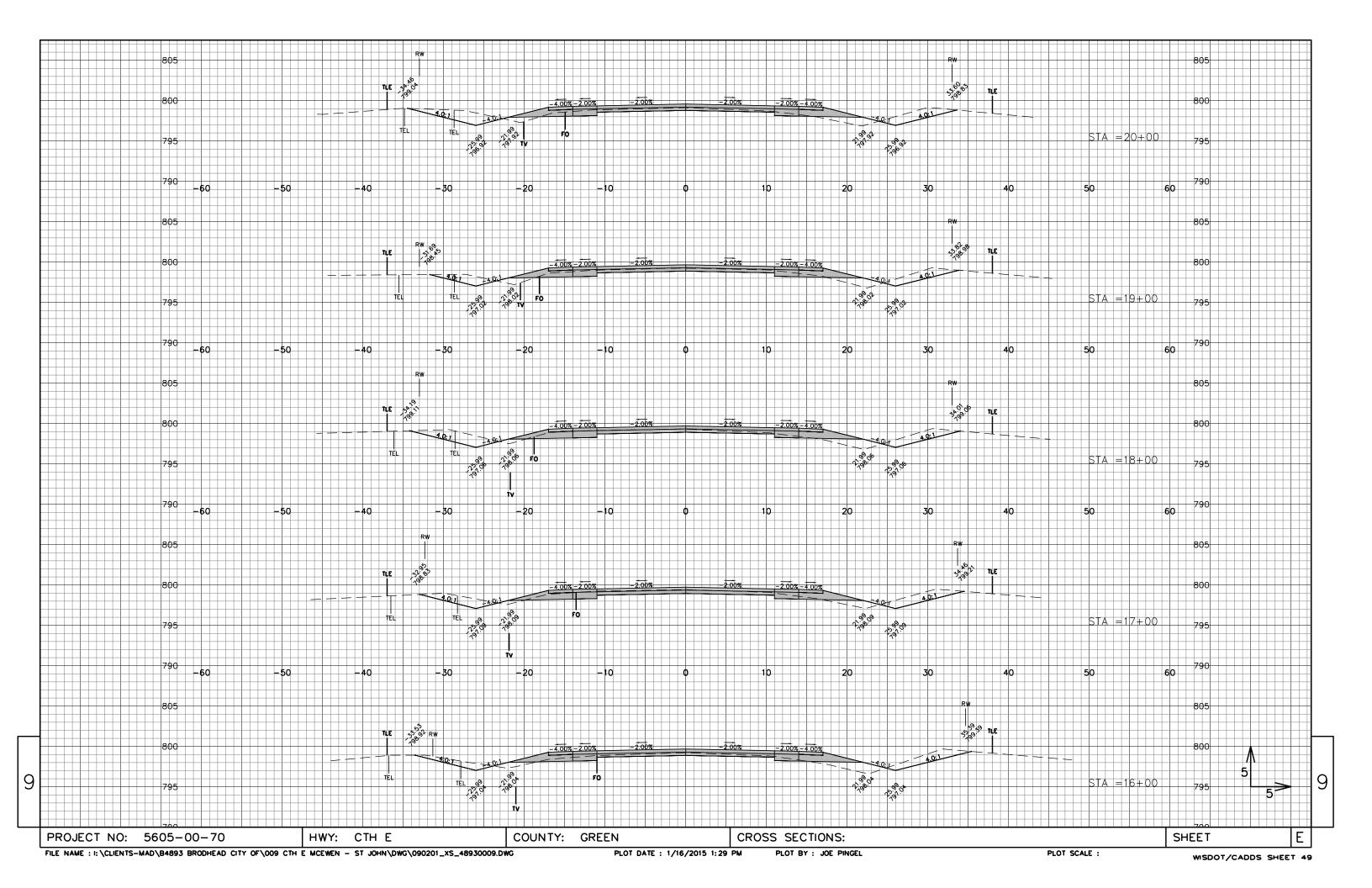
Division	From/To Station	Location	Common Excavation (1)	(item # 205.0100) EBS Excavation	Salvaged/ Unusable Pavement Material	Available Material (3)	Unexpanded Fill	Expanded Fill (4)	Mass Ordinate +/- (5)	Waste	Borrow (6)
			Cut	(2)				Factor			
								1.25			(item #208.0100)
	111+50 to 44+93.9 UNDISTRIBUTED	CTH E Mainline	6953	1186		6953 0	1590	1987	4966	4966	
Division 1 Subtotal			6953	1186	0	l 6953	l 1590	l 1987	4966	4966	
	2100+50 - 102+50	St John Rd	1140	0		1140	676	845	294	294	676
Division 2 Subtotal			1140	0	0	1140	676	845	294	294	676
Grand Total			8093	1186	0	8093	2266	2833	5261	5261	676
			Total Common Exc	9279							

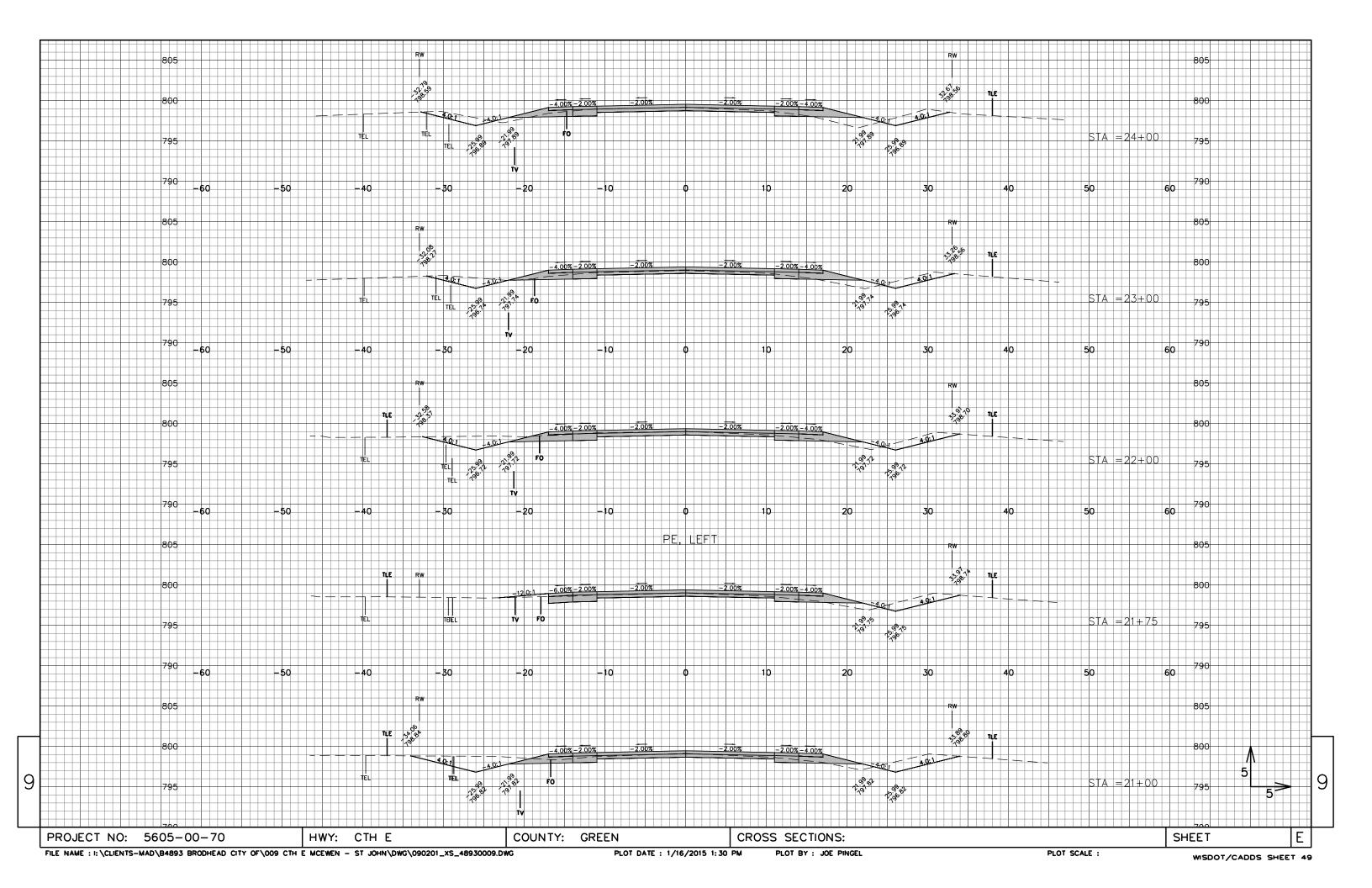
- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) EBS Excavation to be backfilled with Select Crushed Material.
- 3) Available Material = Cut Salvaged/Unusuable Pavement Material
- 4) Expanded Fill. Factor = 1.25
- 5) The Mass Ordinate + or Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
- 6) Borrow material to be used only in the event excess material from project is deamed unsuitable.

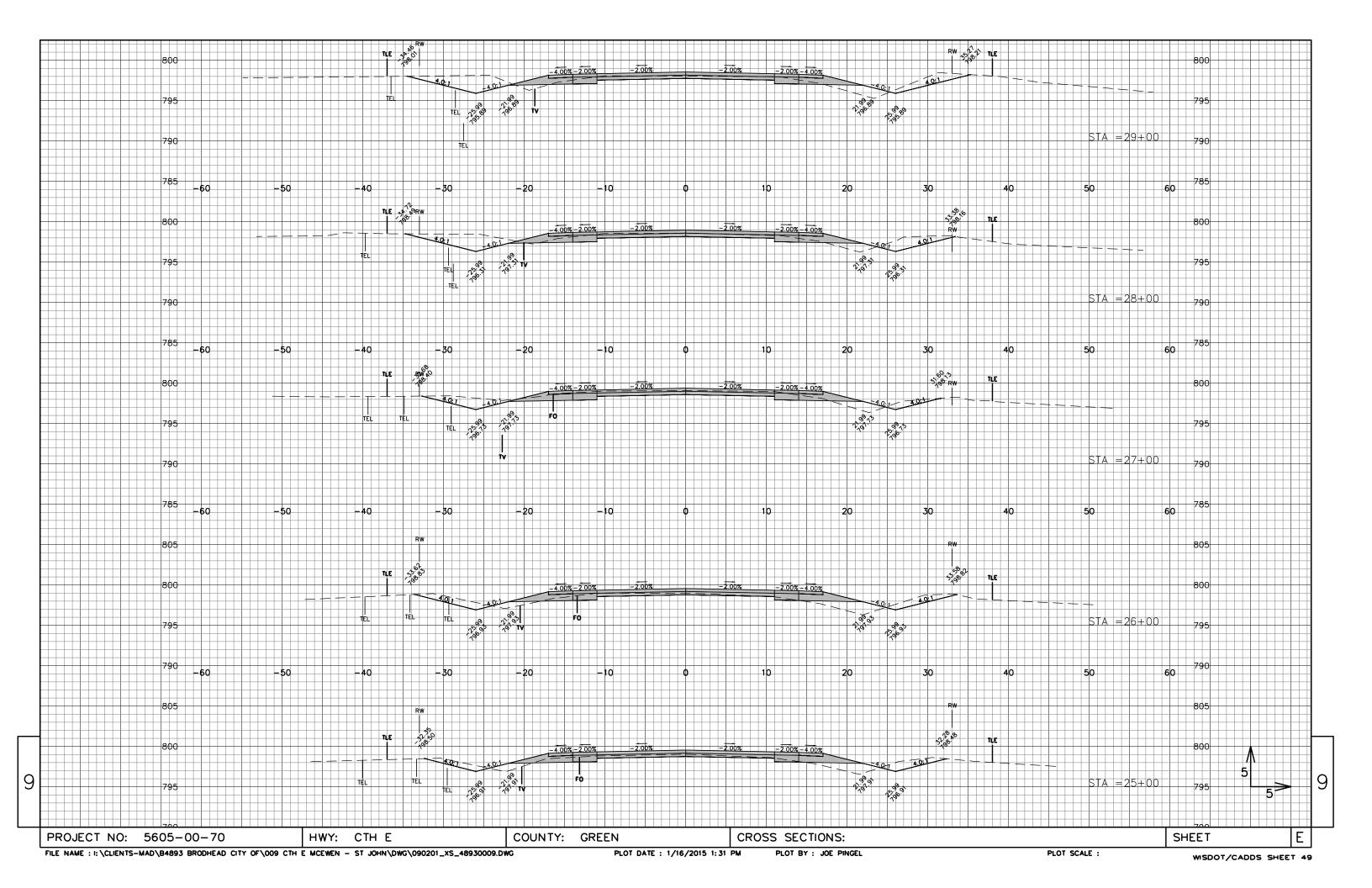
9

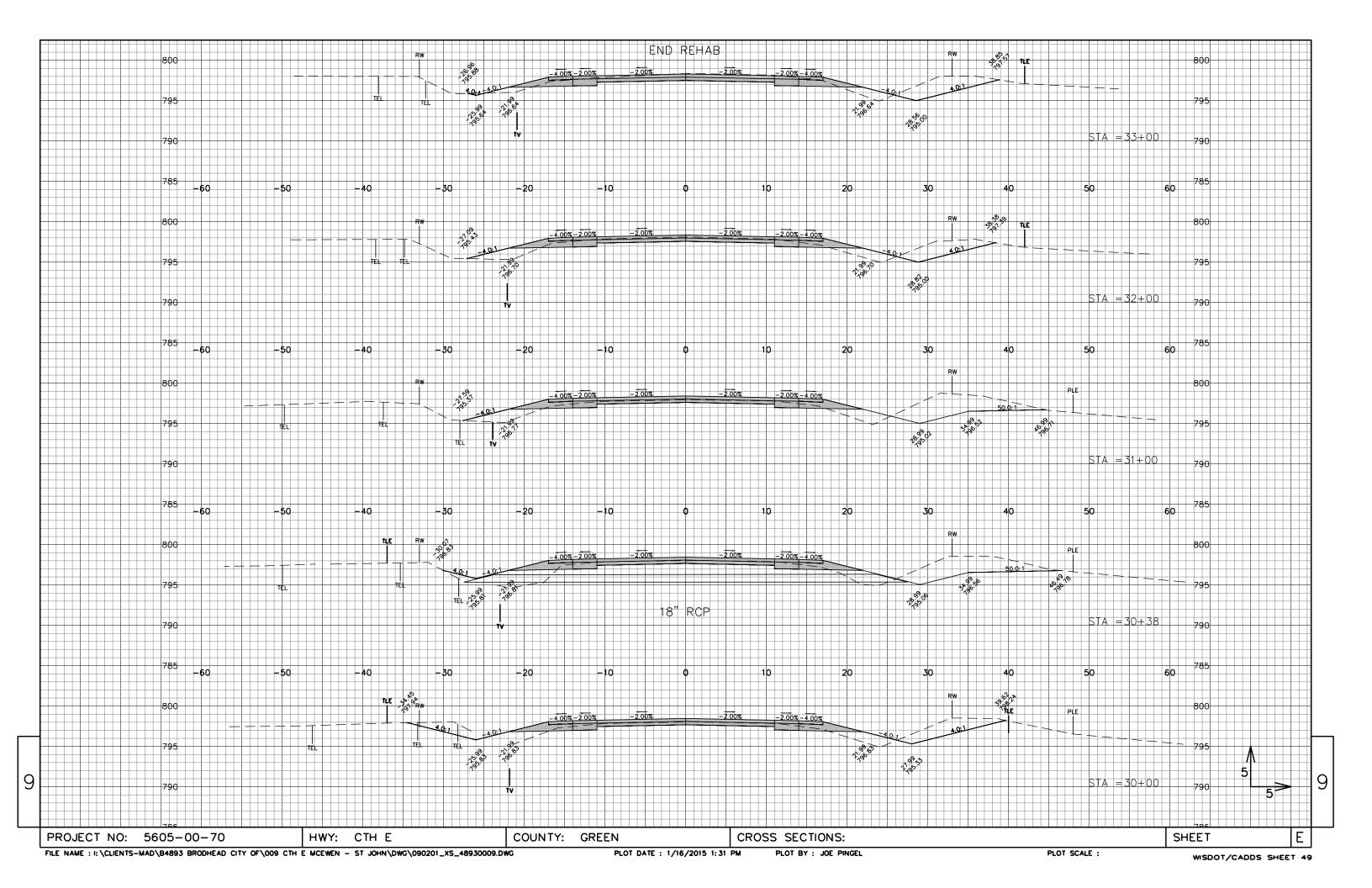
PROJECT NO: 5605-00-70 HWY: CTH E COUNTY: GREEN EARTHWORK SHEET **E** 

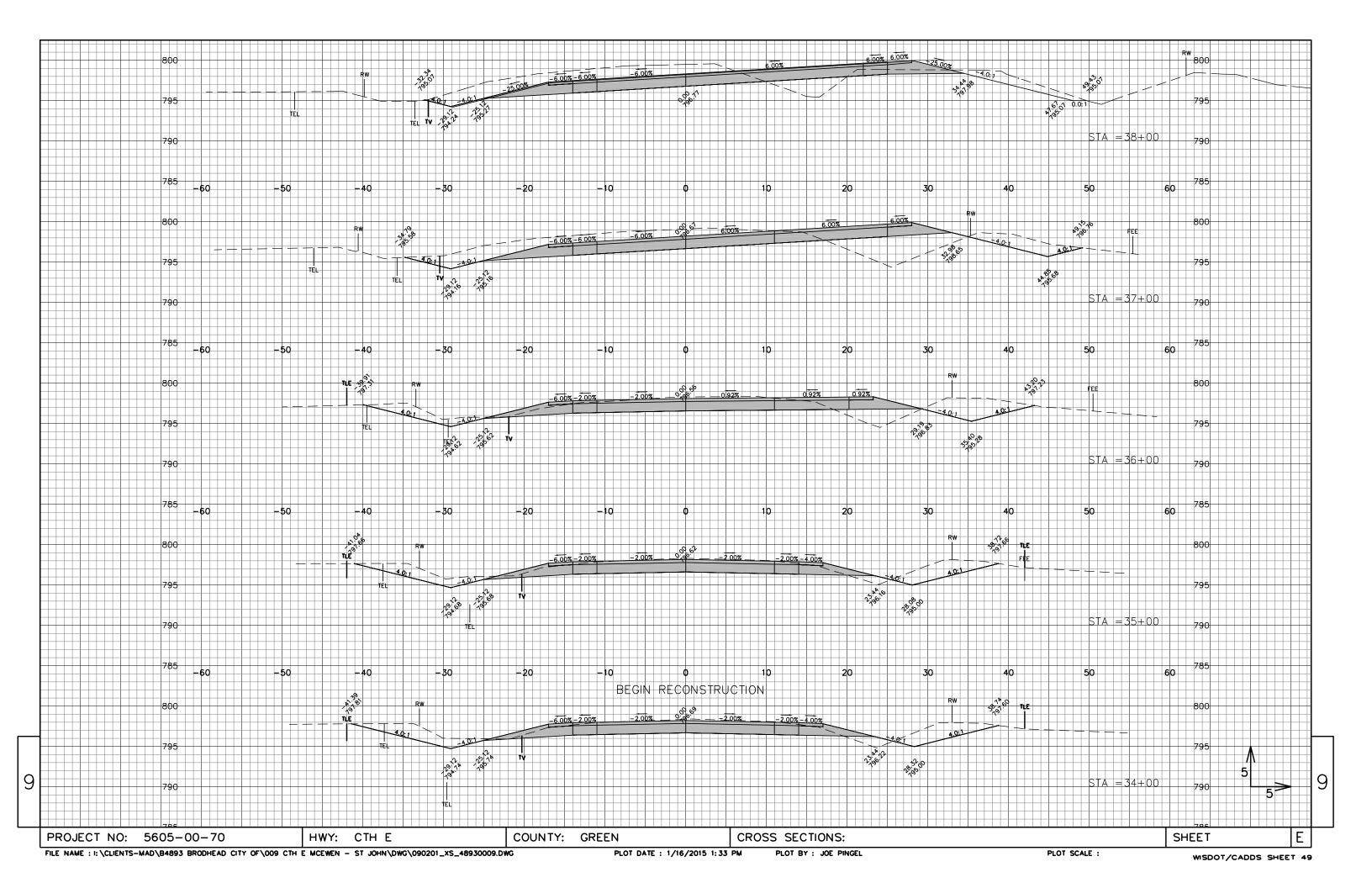


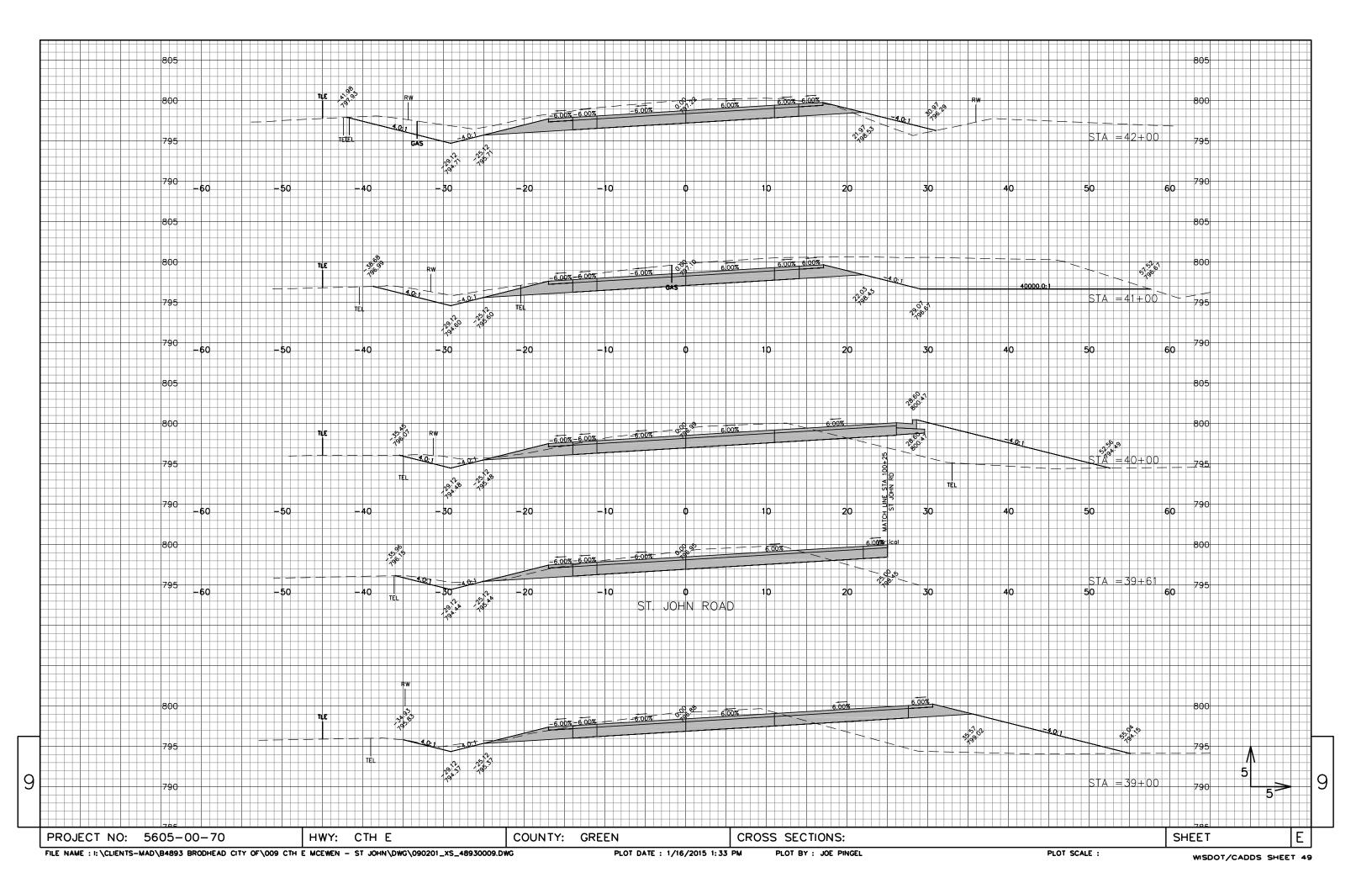


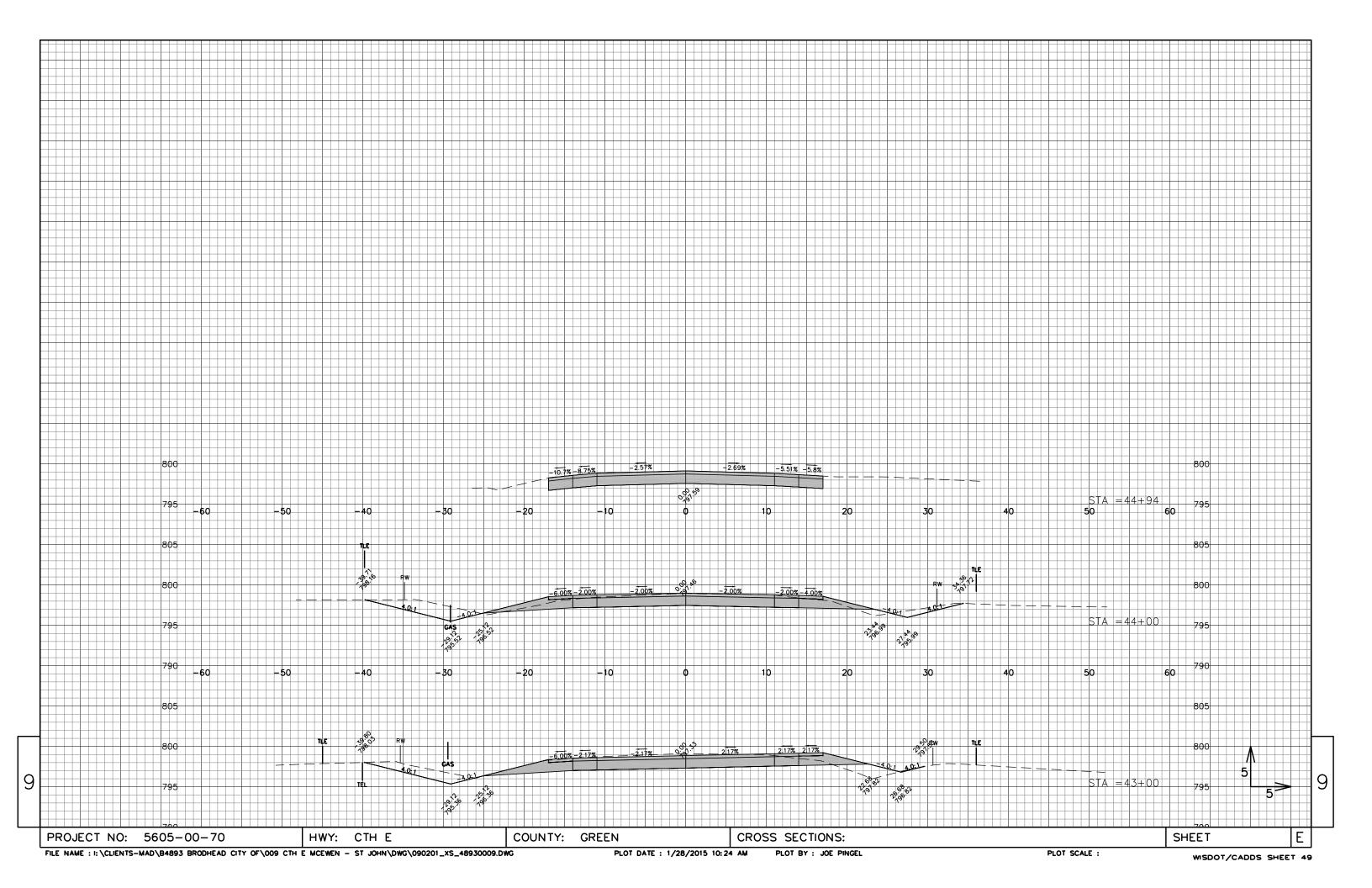


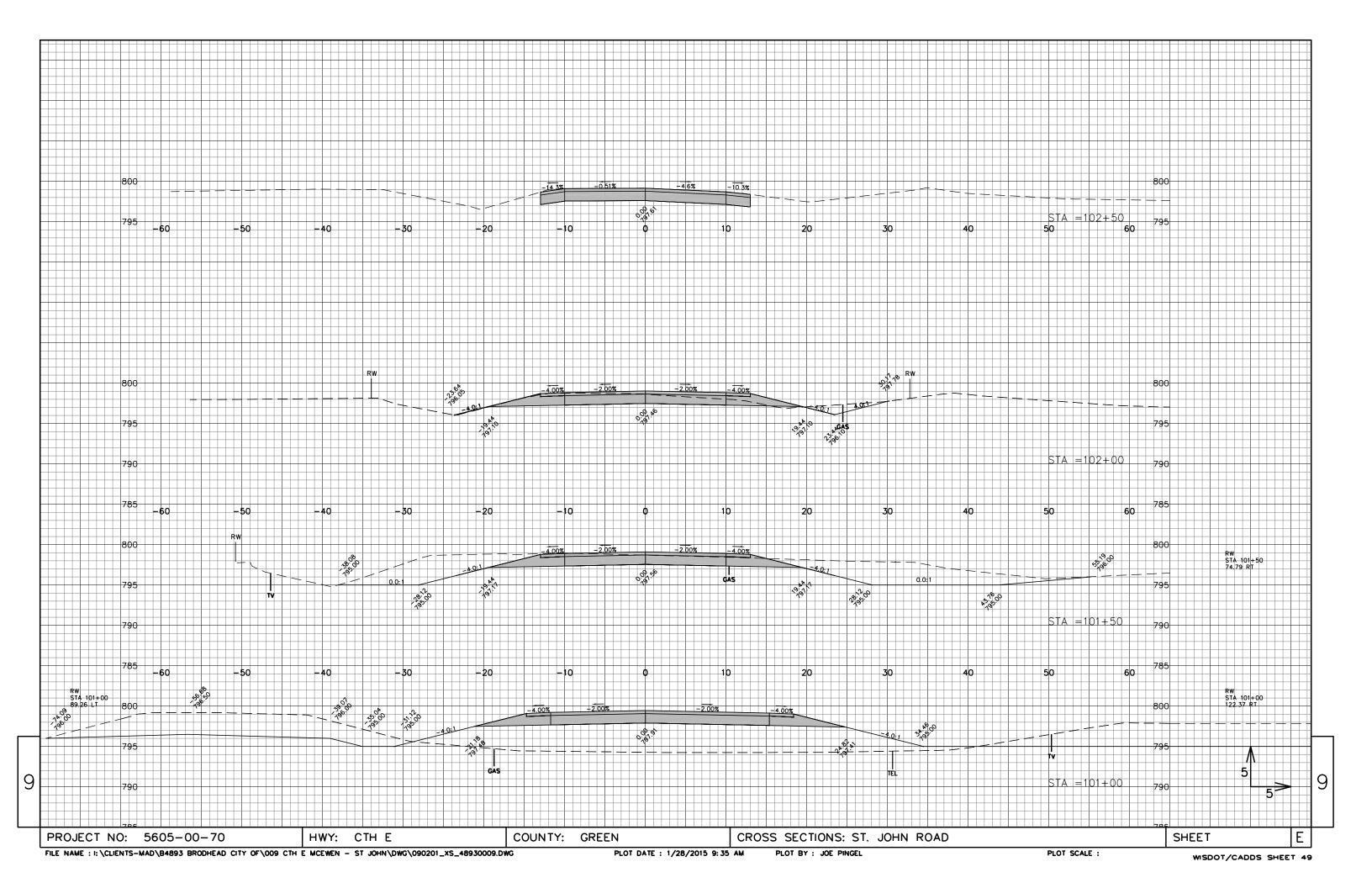














# Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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