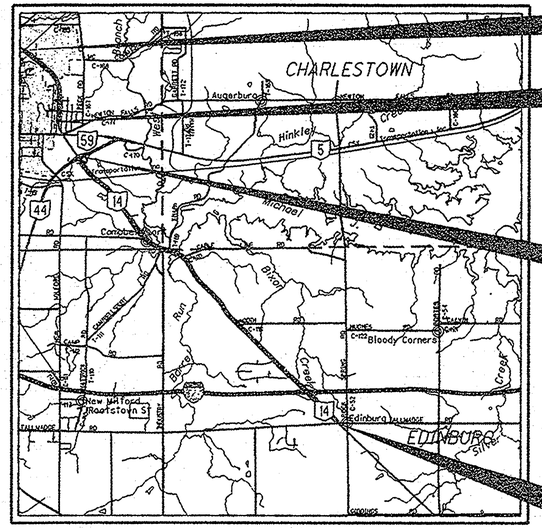


BEGIN PROJECT: S.R. 14 SLM 11.22

SUSPEND PROJECT SLM 12.40

RESUME PROJECT SLM 12.90

END PROJECT: S.R. 14 SLM 18.07

LOCATION MAP

S.R 14 - LATITUDE: 41°10'24" N LONGITUDE: 81°13'42" W

SCALE IN MILES

0 1 2 3 4

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY.

FEDERAL ROUTES

STATE ROUTES

COUNTY & TOWNSHIP ROADS.

OTHER ROADS.

DESIGN DESIGNATION

	SR 14 SLM 11.22-17.16	SR 14 SLM 17.16-18.07
CURRENT ADT (2014)	11000	11000
DESIGN YEAR ADT (2034)	14100	14100
DESIGN HOURLY VOLUME (2034)	10%	10%
DIRECTIONAL DISTRIBUTION.	60%	60%
TRUCKS (24 HOUR B&C).	12%	12%
DESIGN SPEED	60 MPH	50 MPH
LEGAL SPEED.	55 MPH	45 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
OTHER PRINCIPAL ARTERIAL/MINOR ARTERIAL RURAL/URBAN

NHS PROJECT YES

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
ODOT---DISTRICT 4
2088 S. ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:

STATE OF OHIO
LAUREN M. PHILLIS
E-75639
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Lauren M Phillis
DATE: 2-21-14

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

POR-14-11.22, PART 1

RAVENNA & EDINBURG TOWNSHIPS
PORTAGE COUNTY

FOR PART 2, SEE POR-14-14.63
FOR PART 3, SEE POR-14-14.53

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2-3
GENERAL NOTES	4-6, 6A
MAINTENANCE OF TRAFFIC	7-10
GENERAL SUMMARY	11-12
PAVEMENT CALCULATIONS	13
GUARDRAIL & RPM SUB-SUMMARY	14
PLAN INSERTS	15-16
POR-14-15.28	
SUB SUMMARY	17
PLAN AND PROFILE	18-19
CROSS SECTIONS	20-22
CULVERT DETAIL	23
POR-14-17.32	
CULVERT DETAIL	24-30
TRAFFIC CONTROL	31
STRUCTURES	32-38
RIGHT OF WAY	39-42

PROJECT DESCRIPTION

IMPROVEMENT OF 6.85 MILES OF S.R. 14 IN PORTAGE COUNTY BY PLANING THE SURFACE AND PLACING AN ASPHALT SURFACE. THIS PROJECT ALSO INCLUDES STRUCTURE MAINTENANCE AND FULL DEPTH PAVEMENT REPAIR ON S.R 14.

POR-14-11.22 (RESURFACING)

PROJECT EDA:	0.89 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOI NOT REQUIRED)

POR-14-15.28

PROJECT EDA:	0.85 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	N/A (NOI NOT REQUIRED)

POR-14-17.32

PROJECT EDA:	0.18 ACRES
ESTIMATED CONTRACTOR EDA:	0.25 ACRES
NOTICE OF INTENT EDA:	N/A (NOI NOT REQUIRED)

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 9.

APPROVED: _____
DATE: 2-25-14 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
DATE: 2-15-14 DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	7/19/13	DM-4.4	7/20/12	EXJ-4-87	7/19/02		
BP-2.2	7/18/08						
BP-4.1	7/19/13	MGS-1.1	7/19/13	MT-101.60	7/19/13		
BP-5.1	7/19/13	MGS-2.1	7/19/13	MT-105.10	7/19/13		
		MGS-3.1	7/19/13				
CB-1.1	1/16/13	MGS-3.2	1/18/13	TC-41.20	10/18/13		
CB-1.2	1/18/13	MGS-4.2	7/19/13	TC-42.20	10/18/13		
CB-2.2	1/17/14	MGS-4.3	1/18/13	TC-52.10	10/18/13		
		MGS-5.2	7/19/13	TC-52.20	1/17/14		
HW-2.1	1/18/13	MGS-5.3	7/19/13				
HW-2.2	1/18/13						
		RM-1.1	1/18/13				
DM-1.1	1/18/13	RM-3.1	7/19/13				
DM-1.4	1/18/13						
DM-4.1	7/20/12	AS-1-81	1/18/13				
DM-4.3	7/19/13	DS-1-92	7/18/03				

SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
800-2013	4/18/14	WPC	1/13/14
832	1/17/14	(FOR PART 1)	
843	4/18/03	WPC	11/26/12
846	10/18/13	(FOR PART 2)	
902	12/31/12		

FEDERAL PROJECT NO. E081(084)

PID NO. 82916

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

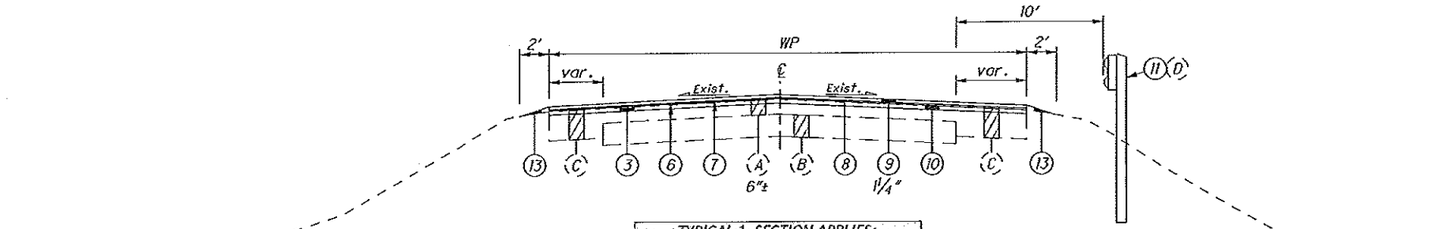
POR-14-11.22

1 / 42

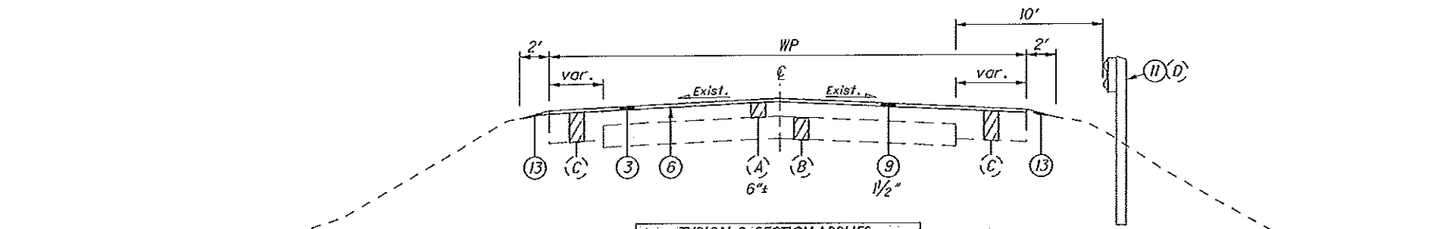
POR - 14-11.22 (PART 1, PART 2
148025 PID - 82916
Dist 4 8/7/2014

i:\Projects\POR\82916_14-1122\82916\roadway\sheets\82916GT001.dgn 12-FEB-2014 2:35PM rboughma

Contract Proposal Available @ www.contracts.dot.state.oh.us/home



TYPICAL 1 SECTION APPLIES:				
ROUTE	SLM		WP	LENGTH
	FROM	TO	(FEET)	(MILES)
S.R. 14	11.24	12.40	32.00	1.16
			TOTAL =	1.16



TYPICAL 2 SECTION APPLIES:				
ROUTE	SLM		WP	LENGTH
	FROM	TO	(FEET)	(MILES)
S.R. 14	12.90	12.94	62.00	0.04
S.R. 14	12.98	13.07	62.00	0.09
S.R. 14	13.07	13.29	48.00	0.22
S.R. 14	13.34	13.47	48.00	0.13
S.R. 14	13.47	14.89	32.00	1.42
S.R. 14	14.91	15.10	32.00	0.19
S.R. 14	15.10	15.20	37.00	0.10
S.R. 14	15.20	15.90	42.00	0.70
S.R. 14	15.90	16.00	37.00	0.10
S.R. 14	16.00	17.09	32.00	1.09
S.R. 14	17.09	17.31	46.00	0.22
S.R. 14	17.31	17.36	53.00	0.05
S.R. 14	17.36	17.42	64.00	0.06
S.R. 14	17.42	17.63	72.00	0.21
S.R. 14	17.63	18.07	32.00	0.44
			TOTAL =	5.06

PROPOSED

(1) NOT USED
(2) NOT USED
(3) 254, 1½" PAVEMENT PLANING, ASPHALT CONCRETE
(4) NOT USED
(5) NOT USED
(6) 407, TACK COAT
(7) 407, TACK COAT FOR INTERMEDIATE COURSE
(8) 422, SINGLE CHIP SEAL
(9) 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN
(10) 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(11) 606, GUARDRAIL, TYPE MGS WITH LONG POSTS
(12) NOT USED
(13) 617, COMPACTED AGGREGATE, AS PER PLAN
(14) NOT USED

EXISTING

(A) EXISTING ASPHALT PAVEMENT
(B) EXISTING 9"± CONCRETE BASE
(C) EXISTING ASPHALT SHOULDER
(D) EXISTING GUARDRAIL

TYPICAL SECTIONS - S.R. 14

POR-14-11.22

SAFETY EDGE (ASPHALT CONCRETE)

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETY SLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHENECTADY, NY 12304
1-800-724-6306
WWW.TRANSTECHSYS.COM

ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
WWW.ADVANTAEDGEPAVING.COM

CARLSON SAFETY EDGE END GATE
18425 50TH AVENUE EAST
TACOMA, WA 98446
253-875-8000

TROXLER ELECTRONIC LABORATORIES, INC.
3008 E. CORNWALLIS RD.
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
WWW.TROXLERLABS.COM

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

ITEM 209, PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN.

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER.

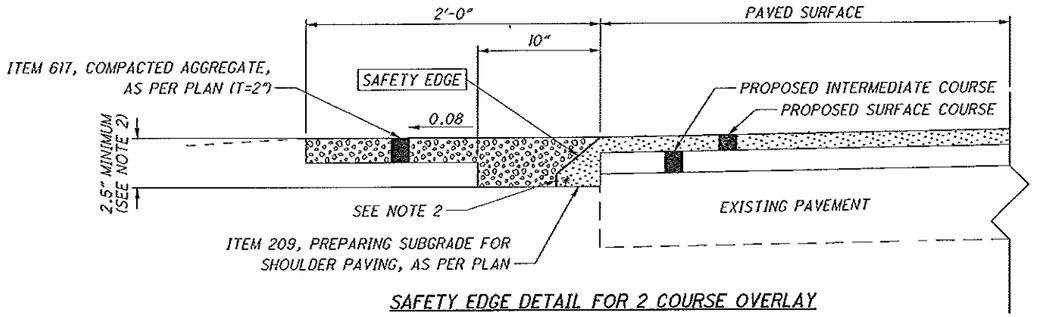
NOTES:

1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).

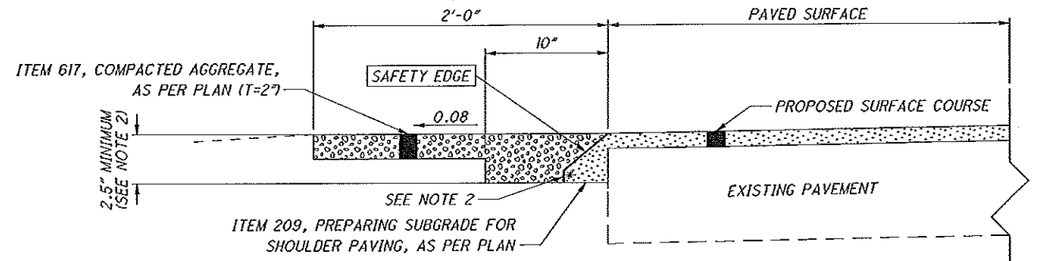
2.) CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" WHICHEVER IS GREATER, NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6". CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS GREATER THAN 6".

3.) BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.

* 40° MAX



SAFETY EDGE DETAIL FOR 2 COURSE OVERLAY



SAFETY EDGE DETAIL FOR 1 COURSE OVERLAY

ESTIMATED QUANTITIES

ROUTE	SAFETY EDGE THICKNESS (IN.)	S.L.M TO S.L.M.			SIDE	209 PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN (STATION)	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN (CU YD)
SR 14	3.25	11.22	TO	12.40	L/R	124.6	20.31
SR 14	2.5	12.90	TO	12.96	L/R	6.3	0.61
SR 14	2.5	13.00	TO	13.31	L/R	32.7	3.15
SR 14	2.5	13.36	TO	18.07	L/R	497.4	47.90
TOTALS CARRIED TO GENERAL SUMMARY						662	72

REVISED: 6/5/12

DISTRICT 4 - PLANNING & ENGINEERING

DESIGNED MAC | REVIEWED TJP

REVISION DATE 06/01/12 | CHECKED TJP

SAFETY EDGE DETAIL (RESURFACING)

SAFETY EDGE

POR-14-11.22

3
42

UTILITIES
THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.
OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

Dominion East Ohio Gas
ATTN: Mary Long
320 Springside Drive
Suite 320
Akron, OH 44333
330-664-2409
888-504-0126 Fax

AT&T
The Ohio Bell Telephone Company
ATTN: Cindy Zuchegno
50 W. Bowery St.
4th Floor
Akron, OH 44308
330-384-3561

Time Warner Cable
ATTN: Doug Lawrentz
4352 Youngstown Road SE
Warrren, OH 44484
330-369-7107 ext. 7179

Ohio Edison
ATTN: Jeff Knapp
1910 W. Market Street
Building #1
Akron, OH 44313
330-436-4051

PROFILE AND ALIGNMENT
PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PAVEMENT MARKING LANE WIDTHS
THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS (AT LEAST 3 DAYS PRIOR TO PERFORMING THE WORK CONTACT THE TRAFFIC OFFICE AT 330-786-3147 TO CONFIRM THE WIDTHS):

ROUTE	S.L.M. TO S.L.M.	LANE WIDTH
S.R. 14	11.22 TO 18.07	12'

CLEARING AND GRUBBING
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

PAVEMENT MARKING DETAILS
THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

ITEM 304 - AGGREGATE BASE, AS PER PLAN
GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

ITEM 422 SINGLE CHIP SEAL TIME RESTRICTIONS
THE CONTRACTOR IS REQUIRED TO HAVE A ONE (1) DAY WAITING PERIOD BETWEEN THE TIME THE INTERLAYER CHIP SEAL IS PLACED AND THE OVERLYING ASPHALT CONCRETE COURSE IS PLACED. AFTER THE WAITING PERIOD, THE CONTRACTOR HAS A MAXIMUM OF FOUR (4) DAYS TO COVER UP THE CHIP SEAL.

SURVEYING POSITIONAL PARAMETERS
USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

COUNTY: POR ROUTE: SR 14 SECTIONS: 15.25 & 17.32
PID#: 82916
SURVEY DATE: 12-2011

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2009

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (CORS96) (EPOCH: 2002.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99989741003
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.28083333333 U.S. SURVEY FEET.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALLBE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

BARRIER REFLECTORS
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER FOR INSTALLING/REPLACING BARRIER REFLECTORS ON ALL EXISTING BARRIER RUNS WITHIN THE PROJECT LIMITS NOT OTHERWISE ACCOUNTED FOR.

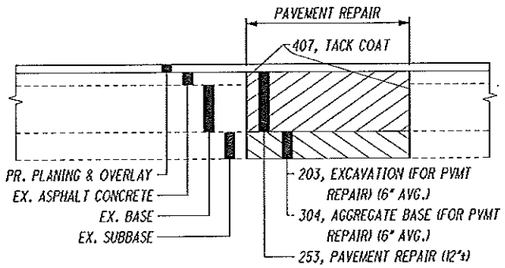
202, REMOVAL MISC.: BARRIER REFLECTOR	4 EACH
626, BARRIER REFLECTOR, TYPE B2	12 EACH

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF PAVING ALL EXISTING DRIVEWAYS THAT DO NOT HAVE A CURB CUT OR ARE NOT PAVED AS AN INTERSECTION AS SHOWN ON THE ASPHALT CONCRETE PLAN SHEET. DRIVEWAYS ARE TO BE PAVED A DISTANCE OF 10 FT. FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRIVEWAYS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. ASPHALT CONCRETE AVERAGE THICKNESSES SHALL BE 2 IN. FOR AGGREGATE DRIVEWAYS (UNIMPROVED) AND 1 IN. FOR IMPROVED DRIVEWAYS. AGGREGATE DRIVEWAYS SHALL BE GRADED PRIOR TO PAVING SUCH THAT SURFACE DRAINAGE DOES NOT ENCROACH UPON THE PAVED SHOULDER. THE MAXIMUM PAVED WIDTH SHALL NOT EXCEED THAT ALLOWED FOR THROAT AND RADIUS FOR UNCURBED DRIVEWAYS AS PER STANDARD DRIVE DESIGN MANUAL. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE DRIVEWAYS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN.

ITEM 304 - AGGREGATE BASE (FOR PAVEMENT REPAIR)
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
304, AGGREGATE BASE (FOR PAVEMENT REPAIR) 1210 CU YD

ITEM 203 - EXCAVATION (FOR PAVEMENT REPAIR)
THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION (FOR PAVEMENT REPAIR). THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
203, EXCAVATION (FOR PAVEMENT REPAIR) 1210 CU YD

ITEM 253 - PAVEMENT REPAIR
A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:
253, PAVEMENT REPAIR 7256 SQ YD



ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN
ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN
703.05 DO NOT USE ANY FINE OR COARSE AGGREGATE WITH A 'SR' OR 'SRH' DESIGNATION ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

CALCULATED NRC
CHECKED LMP

GENERAL NOTES

POR-14-11.22

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

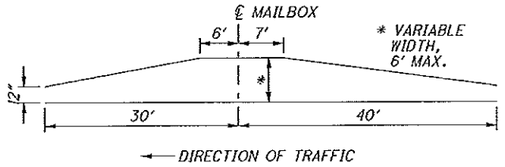
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL
WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

PAVED MAILBOX APPROACHES
ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE AS PER TYPICAL SHOWN OR AS NEAR AS PRACTICAL. AGGREGATE APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS; IMPROVED APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS. THE CONTRACTOR SHALL HAVE THE OPTION OF PAVING THE MAILBOX APPROACHES WITH EITHER THE PAVING OF THE DRIVEWAYS OR THE PAVING OF THE MAINLINE AND SHOULDERS. PAYMENT SHALL BE AS FOLLOWS:

1. SHOULD THE CONTRACTOR ELECT TO PAVE THE MAILBOX APPROACHES WITH THE DRIVEWAYS THEN ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED FOR THE CONTRACTOR TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN.

2. SHOULD THE CONTRACTOR ELECT TO PAVE THE MAILBOX APPROACHES WITH THE MAINLINE AND SHOULDERS, THEN ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT BID FOR ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN.



* WIDTH VARIES

INTERSECTIONS - SLM 11.22 TO SLM 12.40
INTERSECTIONS WILL BE RESURFACED 25 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT UNLESS SHOWN OTHERWISE ON THE ASPHALT CONCRETE CALCULATIONS SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

INTERSECTIONS - SLM 12.90 TO SLM 18.07
INTERSECTIONS WILL BE RESURFACED 2 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

DRIVEWAYS - SLM 11.22 TO SLM 12.40
THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A WIDTH OF APPROX 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

DRIVEWAYS - SLM 12.90 TO SLM 18.07
THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A WIDTH OF APPROX 2' MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

SR14/HAYES ROAD INTERSECTION POTENTIAL DISCOVERY OF HISTORICAL/ARCHAEOLOGICAL RESOURCES DURING CONSTRUCTION

IF PREVIOUSLY UNIDENTIFIED AND/OR UNANTICIPATED HISTORICAL, ARCHEOLOGICAL DEPOSITS OR OTHER CULTURAL ARTIFACTS, RELICS, REMAINS OR OBJECTS OF ANTIQUITY ARE ENCOUNTERED DURING CONSTRUCTION, THEN FOR THAT PORTION OF THE CONSTRUCTION AREA THE UNDERTAKING SHALL STOP IMMEDIATELY ACCORDING TO SECTION 203.04 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED 2013. UPON DISCOVERY, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ODOT PROJECT ENGINEER AND THE ODOT DISTRICT 4 ENVIRONMENTAL COORDINATOR. THE ASSISTANT ADMINISTRATOR OF THE ODOT OFFICE OF ENVIRONMENTAL SERVICES, CULTURAL RESOURCES SECTION, SHALL BE CONTACTED BY THE ODOT DISTRICT 4 ENVIRONMENTAL COORDINATOR AS SOON AS POSSIBLE. CONSTRUCTION IN THE AREA OF DISCOVERY WILL NOT RESUME UNTIL THE REQUIREMENTS OF 36 CFR SECTION 800.13(B)(3) HAVE BEEN SATISFIED AND THE US ARMY CORPS OF ENGINEERS IS CONSULTED. THE FEDERAL HIGHWAY ADMINISTRATION AND ODOT WILL NOTIFY AND CONSULT WITH THE US ARMY CORPS OF ENGINEERS AND THE OHIO STATE HISTORIC PRESERVATION OFFICE TO RECORD, DOCUMENT, AND EVALUATE ANY DISCOVERY AND THE PROJECT UNDERTAKING'S EFFECT ON THE DISCOVERY AND, IF THE DISCOVERED RESOURCE IS DETERMINED SIGNIFICANT, TO FORMULATE A PLAN FOR RESOLVING ANY EFFECT.

WETLANDS IMPACTS/AVOIDANCE - BRIDGE STRUCTURE NUMBER POR-14-14.27 (SFN: 6700756)

THIS PROJECT WILL IMPACT AN ESTIMATED MAXIMUM TOTAL OF 0.004 ACRE OF WETLANDS AT BRIDGE STRUCTURE NUMBER POR-14-14.27 (SFN: 6700756) AS DIRECTED BY THE PROJECT ENGINEER. WETLANDS AREAS ARE PRESENT AT THE POR-14-14.27 STRUCTURE INLET AND OUTLET. THESE AREAS WILL BE DELINIATED IN THE FIELD BY ODOT PERSONNEL PRIOR TO PROJECT CONSTRUCTION. UNDER THE DIRECTION OF THE PROJECT ENGINEER, THE CONTRACTOR MAY PLACE PERMENANT FILL IN UP TO 0.004 ACRE OF WETLANDS TO REPAIR SCOUR DAMAGE AS DIRECTED IN THE PLAN. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR IMPACT WETLANDS BEYOND THE 0.004 ACRE THRESHOLD. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PLACE ANY TEMPORARY FILLS OR STORE EQUIPMENT AND/OR MATERIALS WITHIN WETLANDS AREAS. TO PROTECT AND DELINEATE THE BOUNDARY OF THE EXISTING REMAINING WETLANDS, CONSTRUCTION FENCE (30 LINEAR FEET) AND PERIMETER FILTER FABRIC FENCE (60 LINEAR FEET) SHALL BE INSTALLED ALONG THE PROPOSED CONSTRUCTION LIMITS WITHIN THE WETLANDS AREA BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITHIN THESE LIMITS AND ADJACENT AREA, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. PAYMENT FOR THIS ITEM WILL BE MADE UNDER ITEM 832, EROSION CONTROL.

WETLANDS AVOIDANCE - CULVERT STRUCTURE NUMBER POR-14-15.28

A SMALL CATEGORY 1 WETLANDS AREA IS PRESENT WITHIN THE RIGHT-OF-WAY (STA. 810+50.00R) AT CULVERT STRUCTURE NO. POR-14-15.28. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PLACE ANY TEMPORARY OR PERMANENT FILLS OR STORE EQUIPMENT AND/OR MATERIALS WITHIN OR OTHERWISE IMPACT THE WETLANDS AREA AS SHOWN IN THE PLAN. TO PROTECT AND DELINEATE THE BOUNDARIES OF THE ABUTTING WETLANDS AREA, TEMPORARY CONSTRUCTION FENCE (30 LINEAR FEET) AND PERIMETER FILTER FABRIC FENCE (60 LINEAR FEET) SHALL BE INSTALLED ALONG THE PERIMETER OF THE CONSTRUCTION LIMITS AT CULVERT STRUCTURE NO. POR-14-15.28 WITHIN THE RIGHT-OF-WAY. THE TEMPORARY CONSTRUCTION FENCE AND PERIMETER FILTER FABRIC FENCE SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES. THE TEMPORARY CONSTRUCTION FENCE AND PERIMETER FILTER FABRIC FENCE SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT WORK AT CULVERT STRUCTURE NO. POR-14-15.28.

CALCULATED NRC
CHECKED LMP

GENERAL NOTES

POR-14-11.22

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

POR-14-11.22 (RESURFACING)

659, SEEDING AND MULCHING	4300 SQ. YD.
659, COMMERCIAL FERTILIZER	0.58 TON
659, LIME	0.89 ACRES
659, WATER	23 M. GAL.

POR-14-15.28

659, SOIL ANALYSIS TEST	1 EACH
659, TOPSOIL	456 CU. YD.
659, SEEDING AND MULCHING	4105 SQ. YD.
659, REPAIR SEEDING AND MULCHING	206 SQ. YD
659, COMMERCIAL FERTILIZER	0.55 TON
659, LIME	0.85 ACRES
659, WATER	22 M. GAL.

POR-14-17.32

659, SOIL ANALYSIS TEST	1 EACH
659, TOPSOIL	98 CU. YD.
659, SEEDING AND MULCHING	880 SQ. YD.
659, REPAIR SEEDING AND MULCHING	44 SQ. YD
659, COMMERCIAL FERTILIZER	0.12 TON
659, LIME	0.18 ACRES
659, WATER	5 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

EARTHWORK QUANTITIES

	VOLUME	
	203 EXCAVATION	203 EMBANKMENT
SUB-TOTALS FROM SHEET	CU YD	CU YD
20 (POR-14-15.28)	114	86
21 (POR-14-15.28)	376	86
22 (POR-14-15.28)	60	16
TOTALS TO GENERAL SUMMARY	550	188

RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF DRAINAGE STRUCTURES.

POR-14-15.25 (STA. 811+93.12 TO STA. 811+98.27)

202, PAVEMENT REMOVED	18 SQ. YD.
301, ASPHALT CONCRETE BASE, PG64-22 (T=1')	7 CU. YD.
304, AGGREGATE BASE, AS PER PLAN (T=6")	4 CU. YD.

POR-14-15.28 (STA. 813+17.00 TO STA. 813+29.00)

202, PAVEMENT REMOVED	42 SQ. YD.
301, ASPHALT CONCRETE BASE, PG64-22 (T=1')	15 CU. YD.
304, AGGREGATE BASE, AS PER PLAN (T=6")	8 CU. YD.

POR-14-17.32 (STA. 57+80 TO STA. 58+25 [45'])

202, PAVEMENT REMOVED	86 SQ. YDS.
202, CONCRETE MEDIAN REMOVED	5 SQ. YDS.
202, PIPE REMOVED, 24" AND UNDER	5 FT.
202, GUARDRAIL REMOVED	50 FT.
202, CATCH BASIN REMOVED	1 EACH
203, EMBANKMENT	10 CU. YDS.
252, FULL DEPTH PAVEMENT SAWING	108 FT.
301, ASPHALT CONCRETE BASE, PG64-22 (T=1')	90 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN (T=6")	45 CU. YDS.
411, STABILIZED CRUSHED AGGREGATE (T=10") (FOR AGGREGATE DRIVEWAY RESTORATION)	44 CU. YDS.
609, CONCRETE MEDIAN, AS PER PLAN	5 SQ. YDS.
611, 15" CONDUIT, TYPE B	5 FT.
611, CATCH BASIN, NO. 6	1 EACH

ITEM 609, CONCRETE MEDIAN, AS PER PLAN SHALL MEET THE EXISTING MEDIAN HEIGHT AND TAPER TO 2" IN HEIGHT AT THE NOSE.

EXISTING PAVEMENT BUILD-UP CONSISTS OF CONCRETE BASE WITH ASPHALT OVERLAY.

THE ABOVE QUANTITIES ARE BASED ON A PAVEMENT RESTORATION THAT INCLUDES THE TRENCH WIDTH PER STANDARD CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH CALCULATIONS.

ITEM 301, 12" ASPHALT CONCRETE BASE, PG64-22 SHALL BE PLACED TO MATCH THE TOP OF EXISTING ADJOINING ASPHALT CONCRETE PAVEMENT TO PROVIDE A SMOOTH TRANSITION.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL, MAILBOX SUPPORT SYSTEM, SINGLE 5 EACH

BEST MANAGEMENT PRACTICES

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

NATURAL BUFFERS ADJACENT TO STREAMS AND WETLANDS SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE. EQUIPMENT STAGING AREAS SHALL BE KEPT WELL AWAY FROM STREAMS AND WETLANDS TO THE EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBITS THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS. AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM DITCHES, STREAMS AND/OR WETLANDS. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS, FOUNDATION PIER OR HEADWALL EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS. ALL MATERIALS REMOVED FROM THE DITCHES, STREAMS AND/OR WETLANDS MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE. PLACEMENT OF REMOVED MATERIALS INTO A WETLANDS OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION.

AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

POR-14-11.22

WATERWAY PERMIT DETERMINATION (404/401) - ODOT PROJECTS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. U.S. ARMY CORPS OF ENGINEERS (USACE) SECTION 404 PRE-CONSTRUCTION NOTIFICATION (PCN) IS REQUIRED FOR PART 1 OF THE PROJECT. UPON VERIFICATION, ALL PART 1 WATERWAY PERMIT CONDITIONS SHALL BE PROVIDED TO THE CONSTRUCTION CONTRACTOR BY ODOT DISTRICT 4 PERSONNEL. THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) DETERMINED THE PART 2 PROJECT MEETS THE CRITERIA OF THE NATIONWIDE PERMIT (NWP) #3 (MAINTENANCE) AND THE PART 2 WATERWAY PERMIT CONDITIONS ARE PROVIDED IN THE PROJECT SPECIAL PROVISIONS. THE PROJECT CONTRACTOR SHALL ADHERE TO ALL WATERWAY PERMIT TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION AND MAINTAIN A COPY OF THE WATERWAY PERMIT DETERMINATIONS AT THE WORK SITES AT ALL TIMES DURING PROJECT CONSTRUCTION.

IN-STREAM WORK IS PROHIBITED AT BRIDGE STRUCTURE NUMBER POR-14-14.27 (SFN: 6700756) AND POR-14-1491 (SFN: 6700810) (PART 1) AND AT BRIDGE STRUCTURE NUMBER POR-14-14.63 (SFN: 67007772) (PART 2) FROM APRIL 15 THROUGH JUNE 30. IN-STREAM WORK HAS BEEN DEFINED AS PLACEMENT AND/OR REMOVAL OF FILL MATERIALS (TEMPORARY OR PERMANENT) BELOW ORDINARY HIGH WATER MARK OF A STREAM. EXAMPLES OF "FILL" INCLUDE (BUT ARE NOT LIMITED TO) BRIDGE PIERS, ABUTMENTS, CONCRETE, ROCK CHANNEL/SCOUR PROTECTION AND TEMPORARY COFFERDAMS AND WORK PADS. FILLS PLACED WITHIN A STREAM OUTSIDE OF THE WORK RESTRICTION DATES MAY CONTINUE TO BE WORKED DURING THE APRIL 15-JUNE 30 IN-STREAM WORK RESTRICTION PERIOD, BUT CANNOT BE EXPANDED, REMOVED, OR OTHERWISE MODIFIED (BELOW ORDINARY HIGH WATER) UNTIL OUTSIDE OF THE IN-STREAM WORK RESTRICTION PERIOD. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS BELOW THE ORDINARY HIGH WATER MARK OF ANY STREAMS, WETLANDS OR THE OTHER WATERS OF THE UNITED STATES.

USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

ALL MATERIALS UTILIZED IN OR ADJACENT TO STREAMS AND WETLANDS ON THIS PROJECT FOR PERMANENT FILL OR BANK PROTECTION SHALL CONSIST OF SUITABLE MATERIAL FREE FROM TOXIC CONTAMINANTS IN OTHER THAN TRACE QUANTITIES. BROKEN ASPHALT IS SPECIFICALLY EXCLUDED. CADMIUM, CHROMIUM, ARSENATE (CCA), CREOSOTE, AND OTHER PRESSURE TREATED LUMBER SHALL NOT BE USED IN STRUCTURES THAT ARE PLACED IN STREAMS.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN OIL SPILL KIT WITH A MINIMUM CAPACITY OF 65 GALLONS. THE SPILL KIT SHALL CONTAIN:

6 - 3 IN. X 8 FT. OIL ONLY SOCKS
4 - 18 IN. X18 IN. OIL ONLY PILLOWS
2 - 5 IN. X 10FT. BOOMS
50 - 16IN. X 20 IN. OIL ONLY PADS
10- DISPOSABLE BAGS
1- 65 GALLON DRUM WITH LID
25 POUNDS OF GRANULAR OIL ABSORBENT

THE OIL SPILL KIT SHALL BE LOCATED WITHIN 150 FEET OF ANY EQUIPMENT WORKING IN A STREAM OR WETLAND. THE OIL SPILL KIT(S) SHALL BE MAINTAINED FOR THE LIFE OF THE CONTRACT. ANY MATERIALS UTILIZED DURING THE PROJECT SHALL BE REPLACED BY THE CONTRACTOR WITHIN 48 HOURS. ALL COSTS ASSOCIATED WITH FURNISHING AND MAINTAINING THE ABOVE REFERENCED SPILL CONTAINMENT KIT(S) IS INCIDENTAL TO WORK.

THREATENED & ENDANGERED SPECIES

TREES WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE CLEARED ONLY BETWEEN SEPTEMBER 30 AND APRIL 1, WHENEVER PRACTICABLE. IF SOME TREE REMOVAL MUST BE CONDUCTED BETWEEN APRIL 1 AND SEPTEMBER 30, TREES CONTAINING SUITABLE INDIANA BAT ROOSTING HABITAT SHALL BE MARKED FOR AVOIDANCE DURING THESE MONTHS, IF AT ALL POSSIBLE. SHOULD ADDITIONAL INFORMATION ON LISTED ENDANGERED/THREATENED/POTENTIALLY THREATENED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS PROJECT THAT WERE NOT PREVIOUSLY CONSIDERED, ODOT WILL REINITIATE CONSULTATION WITH THE USFWS AND ODNR TO ASSESS WHETHER THE PROJECT DETERMINATIONS ARE STILL VALID.

CONSTRUCTION AND DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING WETLANDS AND STREAMS. ANY DEBRIS THAT DOES FALL INTO WETLANDS AND/OR STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE WITHIN 72 HOURS.

MECHANICAL EQUIPMENT OPERATION AT WETLANDS AND STREAM CHANNEL

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN SUCH A WAY AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

PAINTING AND SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA

ACCESS TO THE WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA AND THEIR ASSOCIATED RECREATIONAL FACILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ALL EXISTING ACCESS POINTS FOR THE WEST BRANCH STATE PARK/WEST BRANCH STATE PARK WILDLIFE AREA SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION. NO STAGING AND/OR STORING OF CONSTRUCTION EQUIPMENT WILL OCCUR WITHIN THE EXISTING BOUNDARIES OF THE M.J. KIRWAN RESERVOIR/WEST BRANCH STATE PARK WILDLIFE AREA.

DRINKING WATER PROTECTION

TO MINIMIZE THE POTENTIAL FOR A RELEASE TO WATER INTAKE 6766711-ODNR WEST BRANCH TOWER, ALL PROJECT-RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. SPILLS OF FUELS, OILS, CHEMICALS OR OTHER MATERIALS WHICH COULD POSE A THREAT TO SURFACE WATER OR GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE SPILL IS A REPORTABLE AMOUNT AND IN EACH CASE WHERE THERE IS AN INCIDENT OF HAZARDOUS MATERIAL FALLING OR MIGRATING INTO THE M.J. KIRWAN RESERVOIR AND/OR ANY OTHER STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES, THE CONTRACTOR SHALL, AS SOON AS POSSIBLE, NOTIFY THE ENGINEER/SUPERVISOR AND THE FOLLOWING AGENCIES:

-OHIO EPA SPILL REPORTING
24 HOUR EMERGENCY SERVICE
CALL: 1 800 282 9378
PROVIDE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:
1. TIME OBSERVED
2. LOCATION
3. MATERIAL RELEASED
4. PROBABLE SOURCE
5. VOLUME & DURATION
6. PRESENT & ANTICIPATED MOVEMENT OF CONTAMINANT
7. PERSONNEL ON SCENE
8. ACTIONS ALREADY INITIATED
9. PERSON(S) ON THE SCENE TO CONTACT

CHARLESTOWN VOLUNTEER FIRE DEPARTMENT
CALL: (330) 297-0089

EDINBURG TOWNSHIP FIRE DEPARTMENT
CALL: (330) 325-1224

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

POR-14-11.22

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MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 21 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 9.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.

5. TRUCK MOUNTED ATTENUATORS (TMA'S) SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

6. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE (1) MILE URBAN.

7. ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

8. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.

9. A QUANTITY OF 30 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

10. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

11. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: W8-1 (BUMP), W6-3 (TWO-WAY TRAFFIC), W8-H13 (NO EDGE LINES), R4-1 (DO NOT PASS), R4-2 (PASS WITH CARE), W8-11 (UNEVEN LANES). THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PHASE I- PLANED SURFACE
- 614, WORK ZONE CENTER LINE, CLASS II, 6.50 MILE
- 614, WORK ZONE LANE LINE, CLASS II, 1.50 MILE
- 614, WORK ZONE STOP LINE, CLASS I, 246 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 1112 FT
- 614, WORK ZONE MARKING SIGN, (ALL PHASES) 40 EACH

PHASE II- INTERMEDIATE COURSE
- 614, WORK ZONE CENTER LINE, CLASS II, 6.50 MILE
- 614, WORK ZONE LANE LINE, CLASS II, 1.50 MILE
- 614, WORK ZONE STOP LINE, CLASS I, 246 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 1112 FT

PHASE III- SURFACE COURSE
- 614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 6.50 MILE
- 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT 1.50 MILE
- 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 246 FT
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT 1112 FT

TO BE USED AS DIRECTED BY THE ENGINEER
- 614, WORK ZONE EDGE LINE, CLASS III, 13.52 MILE
- 614, CENTER LINE, CLASS III, 6.50 MILE

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 1. NOVEMBER 14 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF $1500 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE DISTRICT CONSTRUCTION ENGINEER.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE DISTRICT CONSTRUCTION ENGINEER A DETAILED SCHEDULE 15 DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

PARK AND RIDE LOT CLOSURE

THE CONTRACTOR SHALL PERFORM ALL WORK AT THE PARK AND RIDE FROM 8 PM TO 5 AM.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC EXCEPT FOR THE DETOURS DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	12:00N WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $3000 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL SHALL HAVE NO OTHER CONSTRUCTION RELATED DUTIES. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 632 - DETECTOR LOOP, AS PER PLAN

THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (330-786-3146) THREE WORKING DAYS PRIOR TO ANY PLANING OR TRENCHING AT THE INTERSECTION OF SR 14 AND TALLMADGE RD. LOOP DETECTORS DISTURBED BY PAVEMENT PLANING OR TRENCHING SHALL BE ABANDONED IN PLACE. THE LOOP DETECTOR WIRE WILL BE CUT INTO THE PAVEMENT AFTER THE PROPOSED SURFACE COURSE HAS BEEN PLACED. ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWERHEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS SPECIFIED BELOW. THE LOCATION OF THESE LOOPS SHALL BE SUCH THAT THE POWERHEAD IS LOCATED AT THE STOP LINE, NOT PAST IT. ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10 AND THE LOOP SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING LOOPS.

THE QUANTITIES LISTED BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE NEW LOOP DETECTOR WIRES SHALL BE RUN INTO THE EXISTING CONTROL BOX OR THE EXISTING PULLBOX. INCLUDED IN THIS ITEM IS THE POURED EPOXY TYPE CABLE SPLICE KIT (CONFORMING TO 725.15E) THAT MUST BE USED IN MAKING THESE CONNECTIONS. ALL NECESSARY MATERIAL, LABOR, SPLICE KITS AND EQUIPMENT SHALL BE INCIDENTAL TO PAYMENT OF THESE ITEMS.

632 DETECTOR LOOP, AS PER PLAN, 2 EACH

DESCRIPTION	LOCATION	SIZE
SR 14	300' FROM STOPBAR	ADD
TALLMADGE RD	58' FROM CENTERLINE	POWERHEAD (35 FEET)

CALCULATED NRC | CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

POR-14-11.22

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42

DETOUR NOTIFICATION [ODOT]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. 9. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

W20-H14-60

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 2 M. GAL

DETOUR DURATION AND COORDINATION (POR-14-15.28, & POR-14-17.32)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS NOTED HEREIN, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 9. POR-14-15.28 AND POR-14-17.32 SHALL NOT BE CLOSED CONCURRENTLY. HOWEVER, THE OFFICAL DETOUR ROUTE FOR BOTH CULVERTS IS THE SAME. THE OFFICIAL DETOUR ROUTE WILL BE POSTED ONCE AND SR 14 WILL BE CLOSED ONCE TO COMPLETE ALL CONSTRUCTION FOR POR-14-15.28 AND POR-14-17.32. EACH CLOSURE WILL HAVE ITS OWN NOTICE OF CLOSURE SIGNS AND ITS OWN BARRICADES ACCORDING TO SCD MT-101.60. WORK ON THE SECOND CULVERT WILL COMMENCE IMMEDIATELY FOLLOWING THE OPENING OF THE FIRST CULVERT. THE COMBINED DETOUR DURATIONS WILL NOT EXCEED 21 CONSECUTIVE CALENDAR DAYS FOR POR-14-15.28 AND POR-14-17.32. THIS CLOSURE MUST BE COMPLETED BY OCTOBER 24, 2014. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED PARKING LOT CLOSURE.

W20-H14-60

INTERIM COMPLETION DATE (PARTIAL AND FULL DEPTH REPAIRS)

ALL PARTIAL AND FULL DEPTH REPAIRS BETWEEN SLM 13.34 AND SLM 16.18 WILL BE COMPLETED BY NOVEMBER 14, 2014. THIS DATE SHALL BE CONSIDERED AN INTERIM COMPLETION DATE AND DISINCENTIVES OF $1000 WILL BE ASSESSED FOR EACH CALENDAR DAY THAT THE WORK IS NOT COMPLETED BEYOND THIS DATE.

INTERIM COMPLETION DATE (POR-14-15.28, POR-14-17.32, POR-14-1427, AND POR-14-1489)

ALL WORK FOR CULVERTS POR-14-15.28 AND POR-14-17.32, ALONG WITH ALL STRUCTURAL WORK FOR FOR POR-14-1427, AND PIER ENCASEMENT AND EROSION REPAIR FOR STRUCTURE POR-14-1489 SHALL BE COMPLETED BY OCTOBER 24, 2014. THIS DATE SHALL BE CONSIDERED AN INTERIM COMPLETION DATE AND DISINCENTIVES OF $1000 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE WORK IS NOT COMPLETED.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE CHANGEABLE MESSAGE SIGN, THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCE OF 650 FEET AND 475 FEET RESPECTIVELY.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHALL BE LOCATED. IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF. ADDITIONALLY WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE LINE PRESENTATION FORMATS WITH UP TO OF SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND. THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

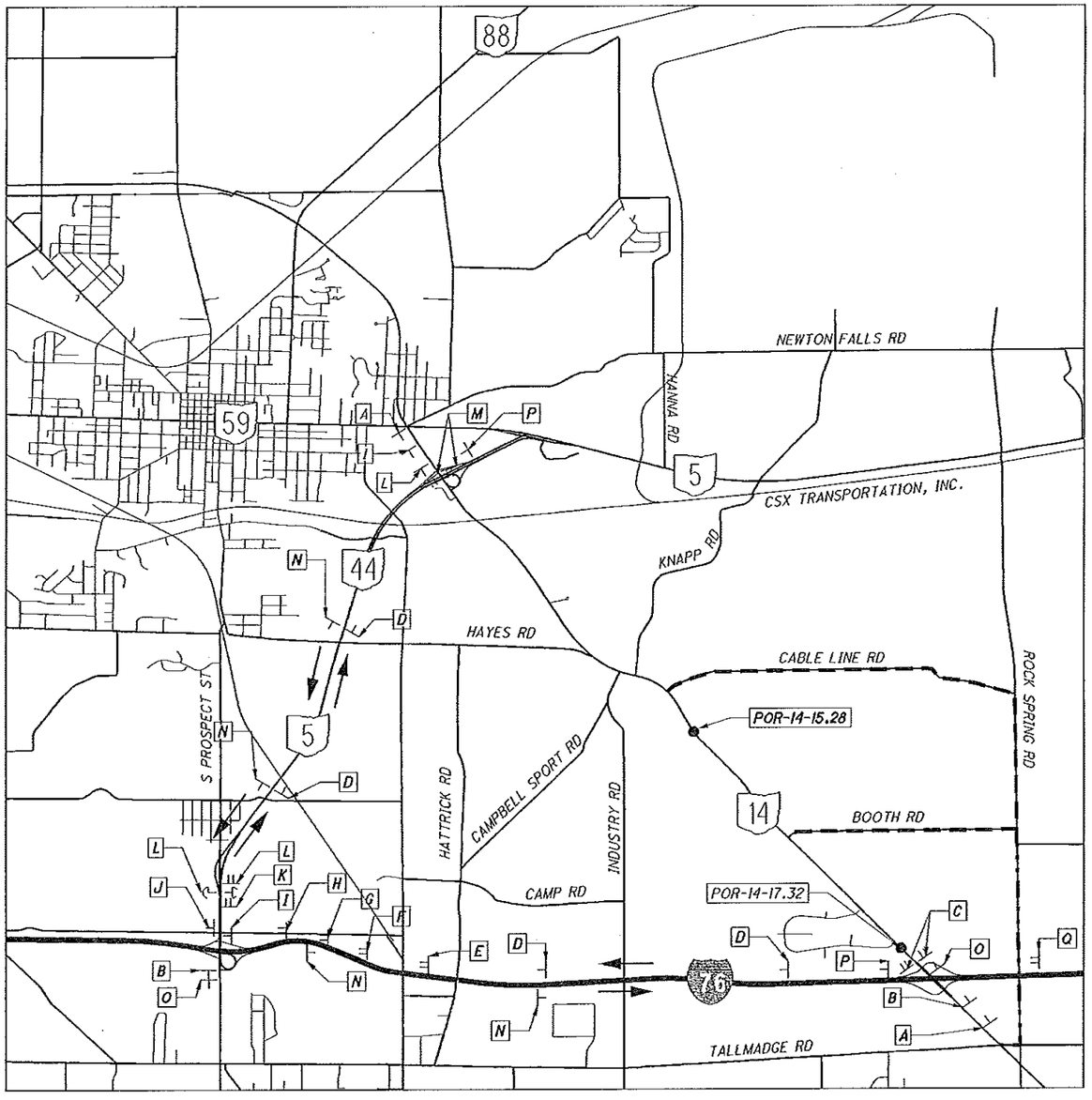
PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN, 1 SIGN MONTH

CALCULATED NRC CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

POR-14-11.22



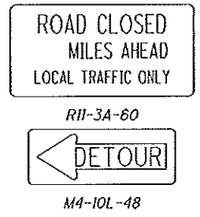
DETOUR PLAN FOR 15.25, 15.28 & 17.32

A

W20-2-36

B

C #



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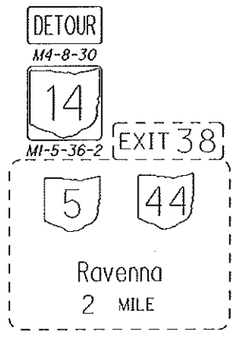

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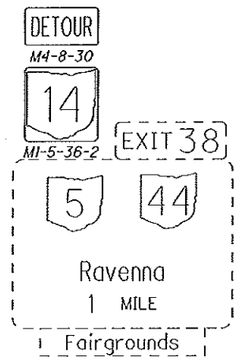

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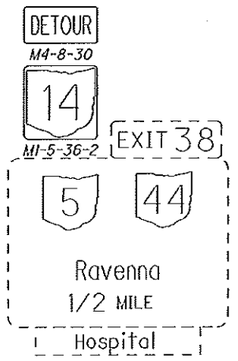

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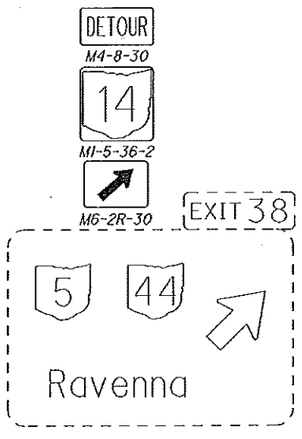

CLOSE AS PER STD. DWG. MT-101.60

OFFICIAL DETOUR ROUTE: IR76 - SR44/SR5

LOCAL ALTERNATE DETOUR 15.28: CABLE LINE RD / ROCK SPRING RD / BOOTH RD

LOCAL ALTERNATE DETOUR 17.32: BOOTH RD / ROCK SPRING RD / TALLMAGE RD

\# ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

CALCULATED NRC
CHECKED

DETOUR PLAN
15.25, 15.28, & 17.32

POR-14-11.22

I

J

K

L

M #

N

O

P

Q PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. SR 14W CLOSED
2. FOLLOW IR-76W

CALCULATED
NRC
CHECKED

DETOUR PLAN
15.25, 15.28, & 17.32

POR-14-11.22

SHEET NUMBER											PARTICIPATION		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		3	4	6	7	8	13	14	17		01/NHS/PV	02/STR/PV						
																	ROADWAY	
											LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
				146							146		202	23000	146	SQ YD	PAVEMENT REMOVED	
							2028				1826	202	202	23500	2028	SQ YD	WEARING COURSE REMOVED	
				5							5		202	30600	5	SQ YD	CONCRETE MEDIAN REMOVED	
									135		135		202	32600	135	FT	GUTTER REMOVED	
				5							5		202	35100	5	FT	PIPE REMOVED, 24" AND UNDER	
									183		183		202	35200	183	FT	PIPE REMOVED, OVER 24"	
				50				13053	450		12713	840	202	38000	13553	FT	GUARDRAIL REMOVED	
				1					1		2		202	58100	2	EACH	CATCH BASIN REMOVED	
			4								4		202	98100	4	EACH	REMOVAL MISC.: BARRIER REFLECTOR	4
			1210								1089	121	203	10000	1210	CU YD	EXCAVATION (FOR PAVEMENT REPAIR)	
				550							550		203	10000	550	CU YD	EXCAVATION	
				188							188		203	20000	188	CU YD	EMBANKMENT	
								129			121	8	209	15000	129	STATION	RESHAPING UNDER GUARDRAIL	
		662									596	66	209	72001	662	STATION	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	3
								11175	412.5		11300	287.5	606	15100	11587.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
								350				350	606	15200	350	FT	GUARDRAIL, TYPE MGS WITH HALF POST SPACING WITH LONG POSTS	
								50				50	606	15550	50	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
								16			16		606	26050	16	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
								8	1		8	1	606	26150	9	EACH	ANCHOR ASSEMBLY, MGS TYPE E	
								19	1		17	3	606	27820	20	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
								7			7		606	35050	7	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
								2			2		606	35114	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
								4			4		606	35140	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
								2			2		606	35170	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE BR-1	
								2				2	606	60002	2	EACH	IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL)	
				5							4	1	SPEC	69050100	5	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	6
																	EROSION CONTROL	
				2							2		659	00100	2	EACH	SOIL ANALYSIS TEST	
				554							554		659	00300	554	CU YD	TOPSOIL	
				9285							9285		659	10000	9285	SQ YD	SEEDING AND MULCHING	
				250							250		659	14000	250	SQ YD	REPAIR SEEDING AND MULCHING	
				1.25							1.25		659	20000	1.25	TON	COMMERCIAL FERTILIZER	
				1.92							1.92		659	31000	1.92	ACRE	LIME	
				50							50		659	35000	50	M GAL	WATER	
									355		355		670	00700	355	SQ YD	DITCH EROSION PROTECTION	
											LUMP		832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
											15220	3780	832	30000	19000	EACH	EROSION CONTROL	
																	DRAINAGE	
									2		2		602	20000	2	CU YD	CONCRETE MASONRY	
				5							5		611	05900	5	FT	15" CONDUIT, TYPE B	
									80		80		611	16900	80	FT	36" CONDUIT, TYPE D	
									80		80		611	20900	80	FT	48" CONDUIT, TYPE B	
				1							1		611	98370	1	EACH	CATCH BASIN, NO. 6	
									1		1		611	98540	1	EACH	CATCH BASIN, NO. 2-4	

CALCULATED RCB
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GENERAL SUMMARY

POR-14-11.22

11
42

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SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		3	4	6	7	8	13	14	17	31		01/NH S/PV	02/ST R/PV						
																		PAVEMENT	
				108								108		252	01500	108	FT	FULL DEPTH PAVEMENT SAWING	
			7256									6531	725	253	01000	7256	SQ YD	PAVEMENT REPAIR	
							137831					121545	16286	254	01000	137831	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
				112								112		301	46000	112	CU YD	ASPHALT CONCRETE BASE, PG64-22	
			1210									1089	121	304	20000	1210	CU YD	AGGREGATE BASE (FOR PAVEMENT REPAIR)	4
				57								57		304	20001	57	CU YD	AGGREGATE BASE, AS PER PLAN	4
							20993					18550	2443	407	10000	20993	GALLON	TACK COAT	
							2178					2178		407	14000	2178	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
				44								44		411	10000	44	CU YD	STABILIZED CRUSHED AGGREGATE	
							21778					21778		422	10000	21778	SQ YD	SINGLE CHIP SEAL	
							1059					1059		448	46050	1059	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
		72					5602					4983	691	448	46901	5674	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN	4
							117					106	11	448	48021	117	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN	4
				5								5		609	72001	5	SQ YD	CONCRETE MEDIAN, AS PER PLAN	6
							810					727	83	617	10101	810	CU YD	COMPACTED AGGREGATE, AS PER PLAN	4
																		TRAFFIC CONTROL	
								738				645	93	621	00100	738	EACH	RPM	
								666				582	84	621	54000	666	EACH	RAISED PAVEMENT MARKER REMOVED	
			12					169	6			174	13	626	00100	187	EACH	BARRIER REFLECTOR	
										13.52		12.26	1.26	646	10010	13.52	MILE	EDGE LINE, 6"	
										1.5		0.98	0.52	646	10110	1.5	MILE	LANE LINE, 6"	
										6.5		5.87	0.63	646	10200	6.5	MILE	CENTER LINE	
										1112		887	225	646	10310	1112	FT	CHANNELIZING LINE, 12"	
										246		126	120	646	10400	246	FT	STOP LINE	
										280		205	75	646	10600	280	FT	TRANSVERSE/DIAGONAL LINE	
										256		56	200	646	10800	256	SQ FT	ISLAND MARKING	
										12		9	3	646	20300	12	EACH	LANE ARROW	
																		TRAFFIC SIGNALS	
					2								2	632	26501	2	EACH	DETECTOR LOOP, AS PER PLAN	7
																		STRUCTURES	
																		FOR CULVERT ESTIMATED QUANTITIES POR-14-17.32 CFN 670140370	26
																		FOR STRUCTURE ESTIMATED QUANTITIES POR-14-1124, 1296, 1331, 1427 & 1491	35
																		MAINTENANCE OF TRAFFIC	
											LUMP	LUMP		614	12420	LUMP		DETOUR SIGNING	
					40						36	4		614	12460	40	EACH	WORK ZONE MARKING SIGN	
					30						27	3		614	13000	30	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
						1					1			614	18601	1	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	8
					3						1.96	1.04		614	20400	3	MILE	WORK ZONE LANE LINE, CLASS II	
					1.5						0.98	0.52		614	20550	1.5	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
					13						11.74	1.26		614	21400	13	MILE	WORK ZONE CENTER LINE, CLASS II	
					13						11.74	1.26		614	21550	13	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
					13.52						11	2.52		614	22350	13.52	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
					2224						1774	450		614	23000	2224	FT	WORK ZONE CHANNELIZING LINE, CLASS I	
					1112						887	225		614	23680	1112	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
					492						252	240		614	26000	492	FT	WORK ZONE STOP LINE, CLASS I	
					246						126	120		614	26610	246	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
						2					1	1		616	10000	2	M GAL	WATER	
											LUMP	LUMP		614	11000	LUMP		MAINTAINING TRAFFIC	
											8	4		619	16010	12	MONTH	FIELD OFFICE, TYPE B	
											LUMP	LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
											LUMP	LUMP		624	10000	LUMP		MOBILIZATION	

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GENERAL SUMMARY

POR-14-11.22

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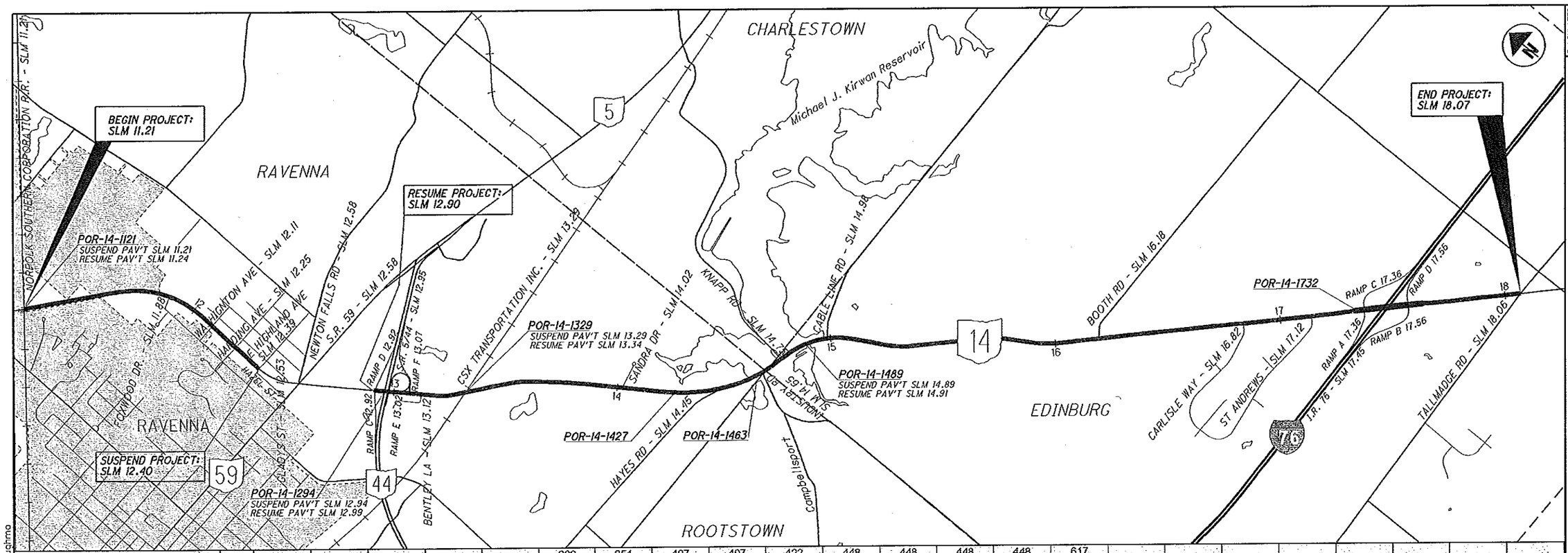

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SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	202 WEARING COURSE REMOVED	254 PAVEMENT PLANING, ASPHALT CONCRETE (T=1 1/2") (A=DxW/9)	407 TACK COAT @ 0.15 GAL/SQ YD (AX0.15)	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.1 GAL/SQ YD (AX0.1)	422 SINGLE CHIP SEAL (A=DxW/9)	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (T=1 3/4") (AXT/36)	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN (T=1 1/4") (AXT/36)	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN (T=1 1/2") (AXT/36)	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN (AXT/36) (T=2")	617 COMPACTED AGGREGATE, AS PER PLAN (T=2" AVG.) 2(2D'9)XT/36								
					FT	FT	SQ YD	SQ YD	SQ YD	SQ YD	GALLON	GALLON	SQ YD	CU YD	CU YD	CU YD	CU YD	CU YD								
11.24	TO	12.40	1	LT/RT	6124.80	32.00	21777.07			21777.07	3266.56	2177.71	21777.07	1058.61	756.15			151.23								
12.90		12.94	2	LT/RT	211.20	62.00	1454.93			1454.93	218.24					60.62		5.21								
12.99		13.00	2	LT/RT	52.80	62.00	363.73			363.73	54.56					15.16		1.30								
13.00		13.07	2	LT/RT	369.60	62.00	2546.13			2546.13	381.92					106.09		9.13								
13.07		13.29	2	LT/RT	1161.60	48.00	6195.20			6195.20	929.28					258.13		28.68								
13.34		13.47	2	LT/RT	686.40	48.00	3660.80			3660.80	549.12					152.53		16.95								
13.47		14.89	2	LT/RT	7497.60	32.00	26658.13			26658.13	3998.72					1110.76		185.13								
14.91		15.10	2	LT/RT	1003.20	32.00	3566.93			3566.93	535.04					148.62		24.77								
15.10		15.20	2	LT/RT	528.00	37.00	2170.67			2170.67	325.60					90.44		13.04								
15.20		15.90	2	LT/RT	3696.00	42.00	17248.00			17248.00	2587.20					718.67		91.26								
15.90		16.00	2	LT/RT	528	37.00	2170.67			2170.67	325.60					90.44		13.04								
16.00		17.09	2	LT/RT	5755.20	32.00	20462.93			20462.93	3069.44					852.62		142.10								
17.09		17.31	2	LT/RT	1161.60	46.00	5937.07			5937.07	890.56					247.38		28.68								
17.31		17.36	2	LT/RT	264.00	51.00	1496.00			1496.00	224.40					62.33		6.52								
17.36		17.42	2	LT/RT	316.80	64.00	2252.80			2252.80	337.92					93.87		7.82								
17.42		17.44	2	LT/RT	105.60	72.00	844.80			844.80	126.72					35.20		2.61								
17.44		17.63	2	LT/RT	1003.20	72.00	8025.60			8025.60	1203.84					334.40		24.77								
17.63		18.07	2	LT/RT	2323.20	32.00	8260.27			8260.27	1239.04					344.18		57.36								
PARK & RIDE				LT			1746.00			1746.00	261.90					72.75										
INTERSECTIONS										993.00	151.00					51.00										
DRIVES & MAIL APPROACHES											316.00						117.00									
								SUBTOTALS	2028.00	137830.73	20992.66	2177.71	21777.07	1058.61	756.15	4845.19	117.00	809.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
								TOTALS CARRIED TO GENERAL SUMMARY	2028	137831	20993	2178	21778	1059	5602		117	810	0	0	0	0	0	0	0	0

PAVEMENT CALCULATIONS

POR-14-11.22

13
42

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SLM		SIDE	202		203	209	301	448	606										622				626		COMMENTS
			CONCRETE BARRIER REMOVED	GUARDRAIL REMOVED	EXCAVATION	RESHAPING UNDER GUARDRAIL	ASPHALT CONCRETE BASE, PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN #	GUARDRAIL, TYPE MGS WITH LONG POSTS	GUARDRAIL, TYPE MGS WITH HALF POST SPACING WITH LONG POSTS	GUARDRAIL, BARRIER DESIGN, TYPE MGS	ANCHOR ASSEMBLY,			MGS BRIDGE TERMINAL ASSEMBLY,		BRIDGE TERMINAL ASSEMBLY,		IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL)	CONCRETE BARRIER,				BARRIER REFLECTOR,		
												MGS TYPE B	MGS TYPE E	MGS TYPE T	TYPE 1	TYPE 2	TYPE 4	BR-1		SINGLE SLOPE, TYPE D	END SECTION, TYPE D	END SECTION, TYPE D, REINFORCED	END ANCHOR, REINFORCED, TYPE D	TYPE A2	TYPE B2	
FROM	TO		FT	FT	CU YD	STATION	CU YD	CU YD	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	
11.24	11.31	LT		350		3.5			337.5					1				1						5	
11.24	11.31	RT		362.5		3.63			350					1				1						5	
11.31	11.68	LT		1912.5		19.13			1850				1	1										21	
11.31	11.59	RT		1475		14.75			1450					2										16	
11.60	11.65	RT		250		2.5			187.5				1	1										4	
12.92	12.94	LT		87.5		0.88			50			1				1								2	
12.92	12.94	RT		112.5		0.88			50			1			1									2	
12.99	13.01	LT		125		1			62.5			1			1									2	
12.99	13.02	RT		150		1.5			112.5			1				1								3	
13.23	13.26	LT		150		1.25			62.5				1	1	1									3	
13.23	13.27	RT		212.5		1.88			137.5				1		1									3	
13.27	13.29	LT		87.5		0.63			50					1	1									2	
13.33	13.41	LT		400		3.75			325				1		1									5	
13.33	13.42	RT		462.5		4.38			387.5				1		1									6	
14.19	14.38	LT		1000		10			925			2												11	
14.19	14.36	RT		887.5		8.88			812.5			2												10	
14.65	14.89	RT		1225		12.25			1200					2			1							14	
14.75	14.88	LT		662.5		6.63			650					1			1							8	
14.90	14.99	LT		425		4.25			400					2			1							6	
14.90	14.98	RT		387.5		3.88			350			1					1							5	
14.99	15.03	LT		162.5		1.63			100			1		2										3	
15.88	15.96	RT		412.5		4.13			337.5			2												6	
15.91	15.96	LT		237.5		2.38			162.5			2												4	
17.00	17.06	LT		312.5		3.13			237.5			2												5	
17.41	17.48	RT		362.5		3.63			300				1	1										5	
17.43	17.48	MED RT		245.17		2.45				175	25			1					1					4	
17.44	17.49	MED LT		245.17		2.45				175	25			1					1					4	
17.44	17.51	LT		350		3.5			287.5				1	1										5	
TO GENERAL SUMMARY			0	13053.0	0	129	0	0	11175.0	350	50	16	8	19	7	2	4	2	2	0	0	0	0	169	0	

LOCATION							621	621	621	621		621	REMARKS
COUNTY	ROUTE	SECTION (S.L.M.)					RPM, LOW PROFILE, YELLOW/YELLOW	RPM, LOW PROFILE WHITE/RED	RPM, LOW PROFILE, WHITE	RPM, LOW PROFILE YELLOW/RED		RAISED PAVEMENT MARKER REMOVED	
		FROM	TO				EACH	EACH	EACH	EACH		EACH	
POR	SR 14	11.22	12.40				79					71	
		12.90	18.07				342					308	
	CURVES 5°-10°	12.43	12.57				10					9	
		13.41	13.45				4					4	
		13.74	13.78				4					4	
		15.98	16.04				5	5				9	
		16.14	16.19				4					4	
	ADDITIONAL						56	181	48			257	
TOTALS CARRIED TO GENERAL SUMMARY				0	0	0	0	504	186	48	0	0	666

CALCULATED RCB
CHECKED LMP

GUARDRAIL & RPM SUB-SUMMARY S.R. 14

POR-14-11.22

14
42

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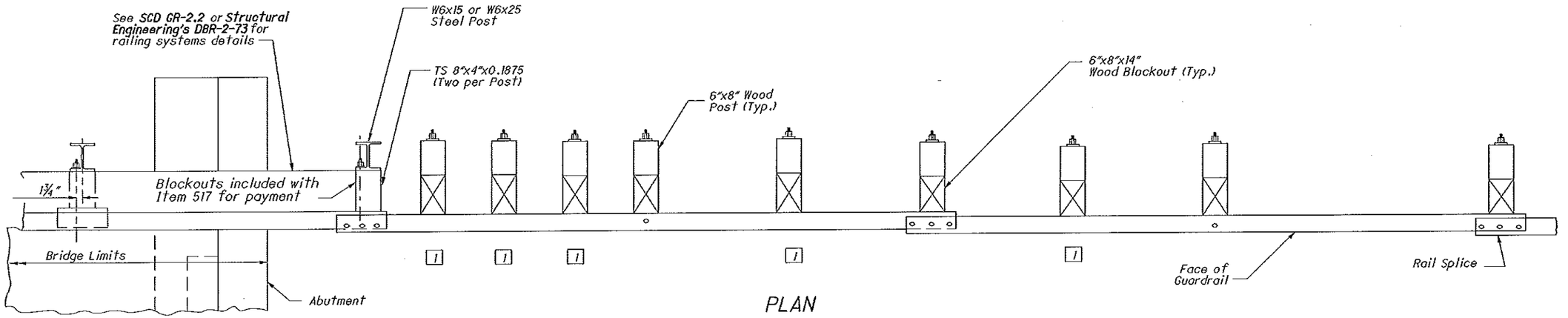
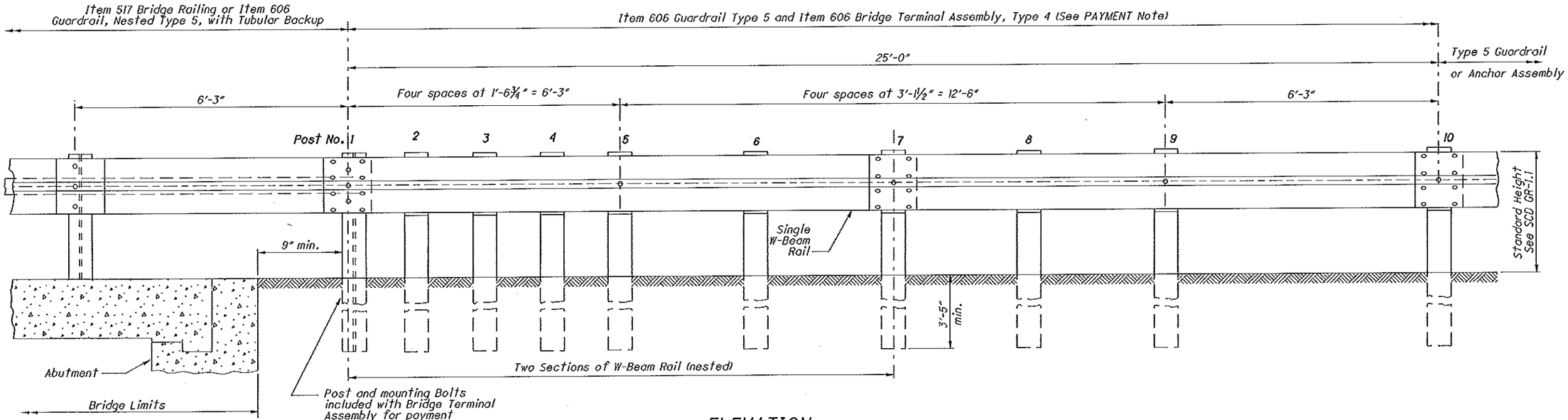


PLAN



ELEVATION

NOTES

GENERAL: For additional details, see **SCD GR-1.1.**

APPLICATION: The Type 4 Bridge Terminal Assembly shall connect Type 5 Guardrail runs to Type 5 Guardrail with Tubular Backup or to Deep Beam Bridge Guardrail (as shown on **Structural Engineering SCD DBR-2-73**).

DETAIL INFORMATION: The first post off the bridge shall be steel (W6x15 or W6x25). All holes in the off-structure end of the approach panel rail section spanning the abutment are slotted ¾"x2½". Tighten the bolts as specified for expansion joints in Item 606.05.

POSTS: Posts may be set in drilled holes or driven to grade. See **SCD GR-1.1** for additional Post embedment details. Guardrail is not attached to certian posts (see LEGEND).

WOOD POSTS - Use square sawed pressure treated wood as specified in CMS 710.14 and fabricated with square ends. Bore bolt holes and trim the tops of posts, if required after the posts are set.

STEEL POSTS - are allowed as an alternate. Use W6x9 or W6x8.5 in lieu of the 6"x8" wood post. Use same post material through-out assembly.

BLOCKOUTS: Use wood blockouts only. Steel or plastic blockouts are not permitted. Notched wood blockouts are used with steel posts.

FLARED GUARDRAIL: Start Standard Guardrail Flares as shown on **SCD GR-5.1** at or beyond Post No. 10; however, the flare may begin at Post No. 7.

PAYMENT: Item 606 - Bridge Terminal Assembly, Type 4, Each, includes the cost of extra components in excess of normal guardrail, such as additional posts and other hardware. The TS 8"x4" spacers and tubular backup rail extending to the first post off the bridge is included with **Item 517 - Railing,** or **Item 606 - Guardrail, Nested Type 5 with Tubular Backup,** for payment.

LEGEND

[1] Guardrail is not attached to posts at Posts 2, 3, 4, 6, and 8. Blockout is fastened to post with standard Post Bolt.

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED

REVISION DATE | CHECKED

PID NUMBER

PLAN INSERT SHEET

BRIDGE TERMINAL ASSEMBLY, TYPE 4

POR-14-11.22

1 / 1

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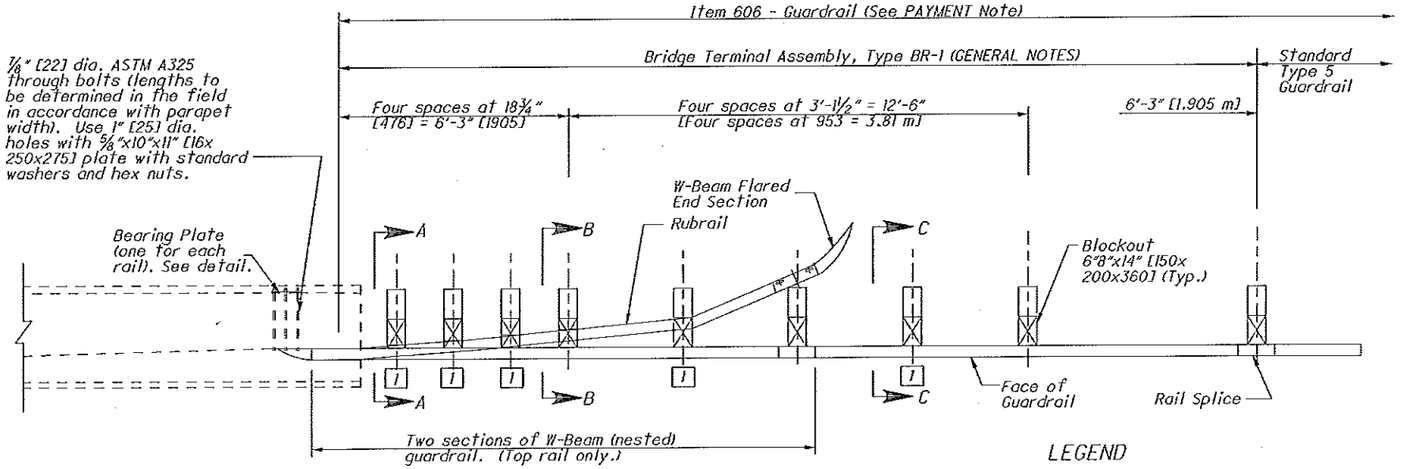
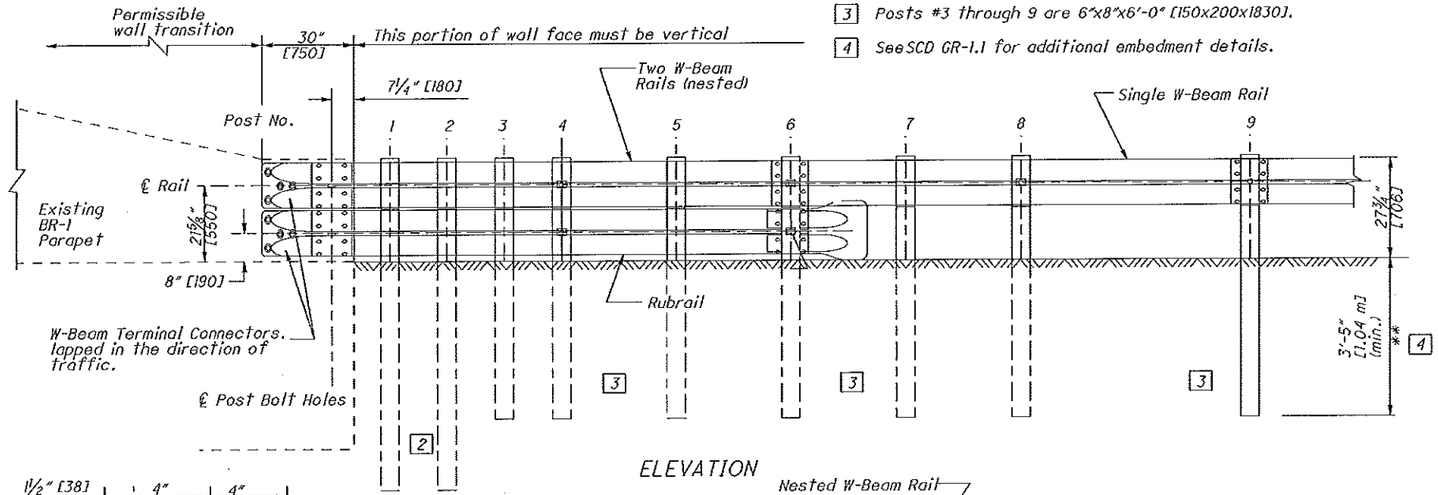
42



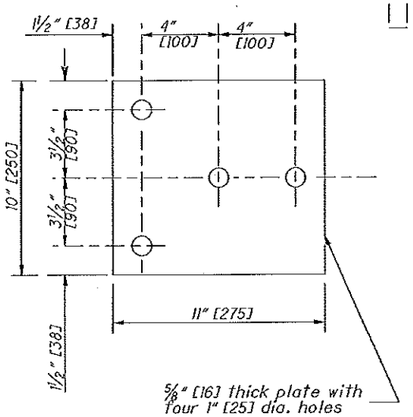
PLAN

LEGEND

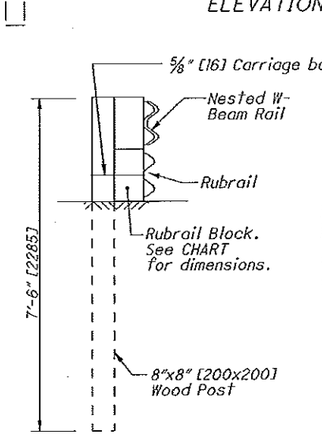
1. Guardrail not attached to Posts. Blockout fastened to Post with Standard Post Bolt.
2. Posts #1 and 2 are 8"x8"x7'-6" [150x200x2300].
3. Posts #3 through 9 are 6"x8"x6'-0" [150x200x1830].
4. See SCD GR-1.1 for additional embedment details.



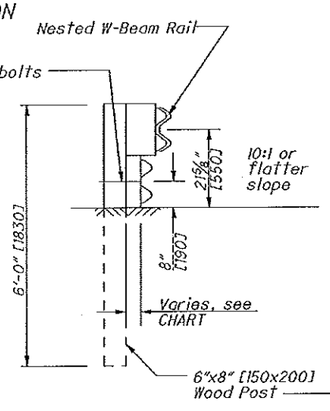
ELEVATION



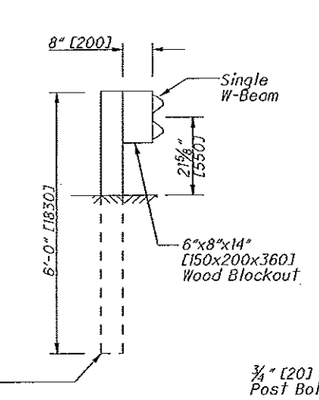
BEARING PLATE
2 required



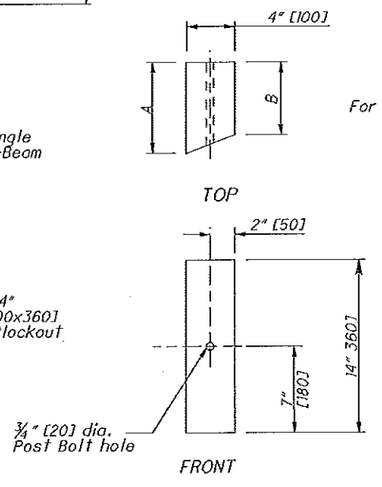
SECTION A-A



SECTION B-B



SECTION C-C



WOOD BLOCK FOR RUBRAIL

For A and B dimensions see CHART.

RUBRAIL BLOCK CHART		
POST	A	B
1	6½" [164]	6¼" [158]
2	5⅛" [131]	4⅞" [125]
3	3⅞" [99]	3⅝" [93]
4	2⅝" [67]	2⅜" [61]
5	No Block	No Block

NOTES

GENERAL: This design is intended to be used to upgrade bridge terminal assemblies utilizing 27" [786] BR-1 Bridge parapets in effect from 1979 to 1989. This assembly design is approved to NCHRP Report 350, Test Level 3.

This guardrail transition is only appropriate for connection to a vertical concrete end; it should not be connected directly to a concrete safety shape or single slope shape. If attached to a vertical concrete wall (other than a parapet), the wall must be adequately reinforced to resist the lateral and longitudinal forces transmitted through the terminal connectors. If the height of the vertical connection is 32" [813], use Bridge Terminal Assembly, Type 1 (SCD GR-3.1).

This design utilizes a lower rail (rubrail), and it cannot be used if there is a curb present.

RUBRAIL: The rubrail is a 12'-6" [3.81 m] standard 12 ga. W-Beam rail element. The last 3' [1 m] of the rubrail may be shop bent to facilitate field installation. Field drill rubrail hole at Post 6.

POST ATTACHMENTS: Posts No. 1, 2, 3, 4 and 6 require an additional 1" [25] dia. hole to attach the lower block and/or rubrail.

Do not bolt nested W-Beam or Rubrail to Posts and Blockouts on Posts No. 1, 2, 3, 5 and 7. Bolt blockouts directly to posts at those locations.

Center drill wood block for rubrails to sit squarely on Posts 1 through 4. Secure blocks to Posts No. 1, 2, & 3 with ⅝" [16] carriage bolts. See WOOD BLOCK FOR RUBRAIL Detail.

Use Wood posts only. Steel or plastic blockouts are not permitted. Use of rectangular plate washers is optional.

GUARDRAIL CONNECTION: At least one 12'-6" [3.81 m] section of Standard W-Beam Guardrail must be present before attaching any End Anchors. See SCD GR-2.1 for standard guardrail details.

PAYMENT: Item 606 - Bridge Terminal Assembly, Type BR-1, Each, includes the cost of the extra components, in excess of normal guardrail, for additional and different sizes of posts and block-outs, nested rail and rubrail, Bearing Plates, End Section and Connectors, and other hardware.

All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.

OFFICE OF ROADWAY ENGINEERING

DESIGNED | REVIEWED

REVISION DATE 10-20-06

CHECKED

PLAN INSERT SHEET

BRIDGE TERMINAL ASSEMBLY, TYPE BR-1

POR-14-11.22

1 / 1

16 / 42

REF NO.	SHEET NO.	STATION TO STATION					202 GUTTER REMOVED FT	202 PIPE REMOVED, OVER 24" FT	202 GUARDRAIL REMOVED FT	202 CATCH BASIN REMOVED EACH	602 CONCRETE MASONRY CU YD	606 GUARDRAIL, TYPE MGS WITH LONG POSTS FT	606 ANCHOR ASSEMBLY, MGS TYPE E EACH	606 ANCHOR ASSEMBLY, MGS TYPE T EACH	611 36" CONDUIT, TYPE D FT	611 48" CONDUIT, TYPE B FT	611 CATCH BASIN, NO. 2-4 EACH	626 BARRIER REFLECTOR EACH	670 DITCH EROSION PROTECTION SQ YD
CB1	18	813+25.00	LT														1		
D1	18	812+45.00	LT	TO	813+25.00	LT					0.76				80				
D2	18	813+25.00	LT	TO	813+25.00	RT					1.1					80			
E1	18	810+50.00	LT	TO	812+45.00	LT													162
E2	18	811+52.00	RT	TO	813+21.00	RT													145
E3	18	813+29.00	RT	TO	813+83.00	RT													48
GR1	18-19	811+43.57	RT	TO	816+00.00	RT						412.5	1	1				6	
R1	18	810+50.00	LT	TO	811+86.24	LT	135												
R2	18	811+84.76	LT	TO	812+07.62	RT		94											
R3	18-19	811+53.82	RT	TO	815+89.30	RT			450										
R4	18	813+22.70	LT	TO	813+16.74	RT		89											
R5	18	813+22.70	LT							1									
TOTALS CARRIED TO GENERAL SUMMARY							135	183	450	1	2	412.50	1	1	80	80	1	6	355

CALCULATED MAC
CHECKED

SUBSUMMARY (POR-14-15,28)

POR-14-11.22

17
42

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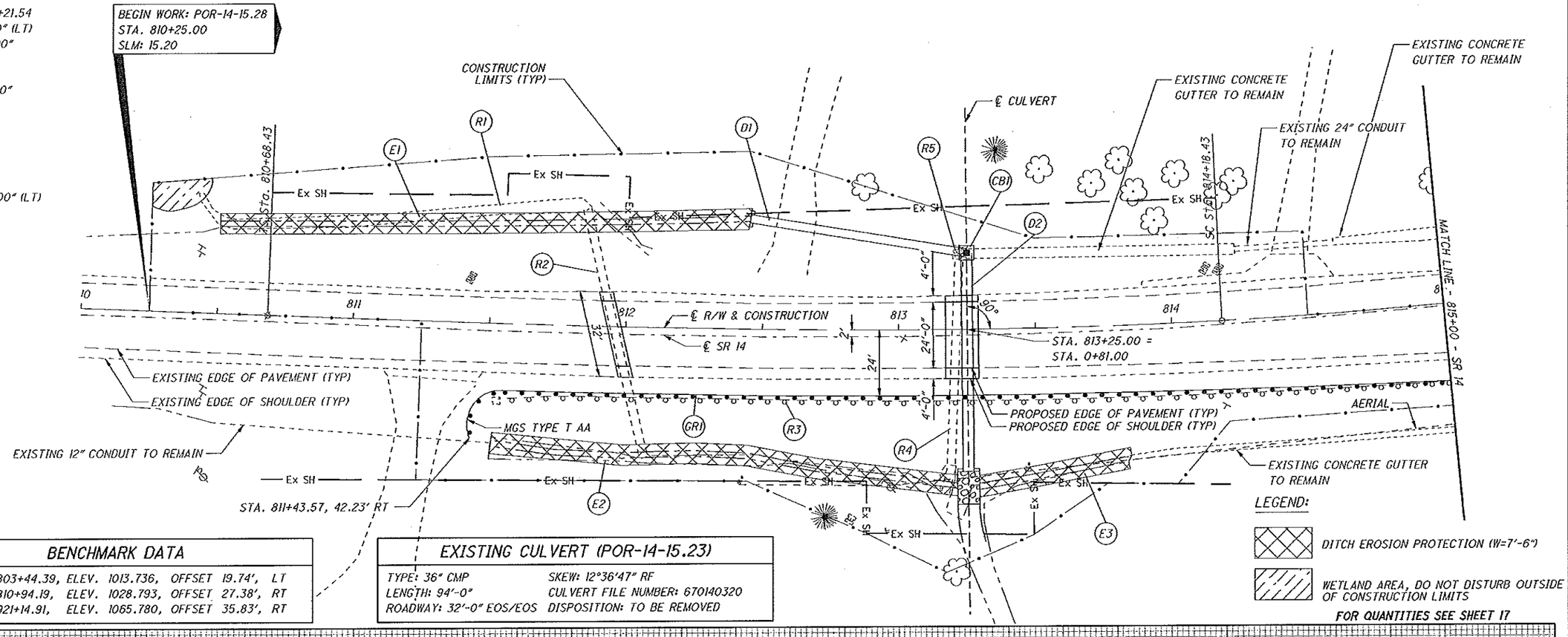
P.I. STA. 815+21.54
D = 16° 33' 00" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
Ls = 350.00'
θs = 5° 15' 00"
LT = 233.44'
ST = 116.76'
x = 349.71'
y = 10.68'
k = 174.95'
p = 2.67'
Dc = 6° 03' 00" (LT)
Lc = 201.67'
Ts = 453.11'
Es = 22.79'

BEGIN WORK: POR-14-15.28
STA. 810+25.00
SLM: 15.20



LEGEND:

DITCH EROSION PROTECTION (W=7'-6")

WETLAND AREA, DO NOT DISTURB OUTSIDE OF CONSTRUCTION LIMITS

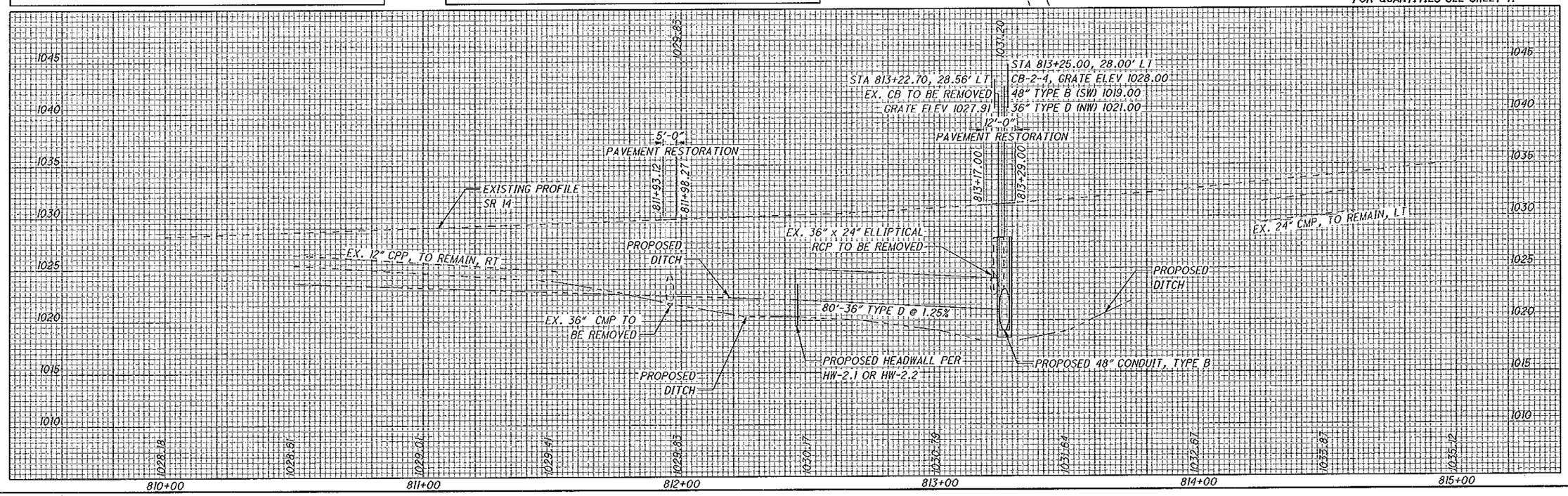
FOR QUANTITIES SEE SHEET 17

BENCHMARK DATA

BM #1 STA. 803+44.39,	ELEV. 1013.736,	OFFSET 19.74',	LT
BM #2 STA. 810+94.19,	ELEV. 1028.793,	OFFSET 27.38',	RT
BM #3 STA. 921+14.91,	ELEV. 1065.780,	OFFSET 35.83',	RT

EXISTING CULVERT (POR-14-15.23)

TYPE: 36" CMP
LENGTH: 94'-0"
ROADWAY: 32'-0" EOS/EOS
SKEW: 12°36'47" RF
CULVERT FILE NUMBER: 670140320
DISPOSITION: TO BE REMOVED



HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED MAC
CHECKED

PLAN AND PROFILE (POR-14-15.28)
STA. 810+00.00 TO STA. 815+00.00

POR-14-11.22

18
42

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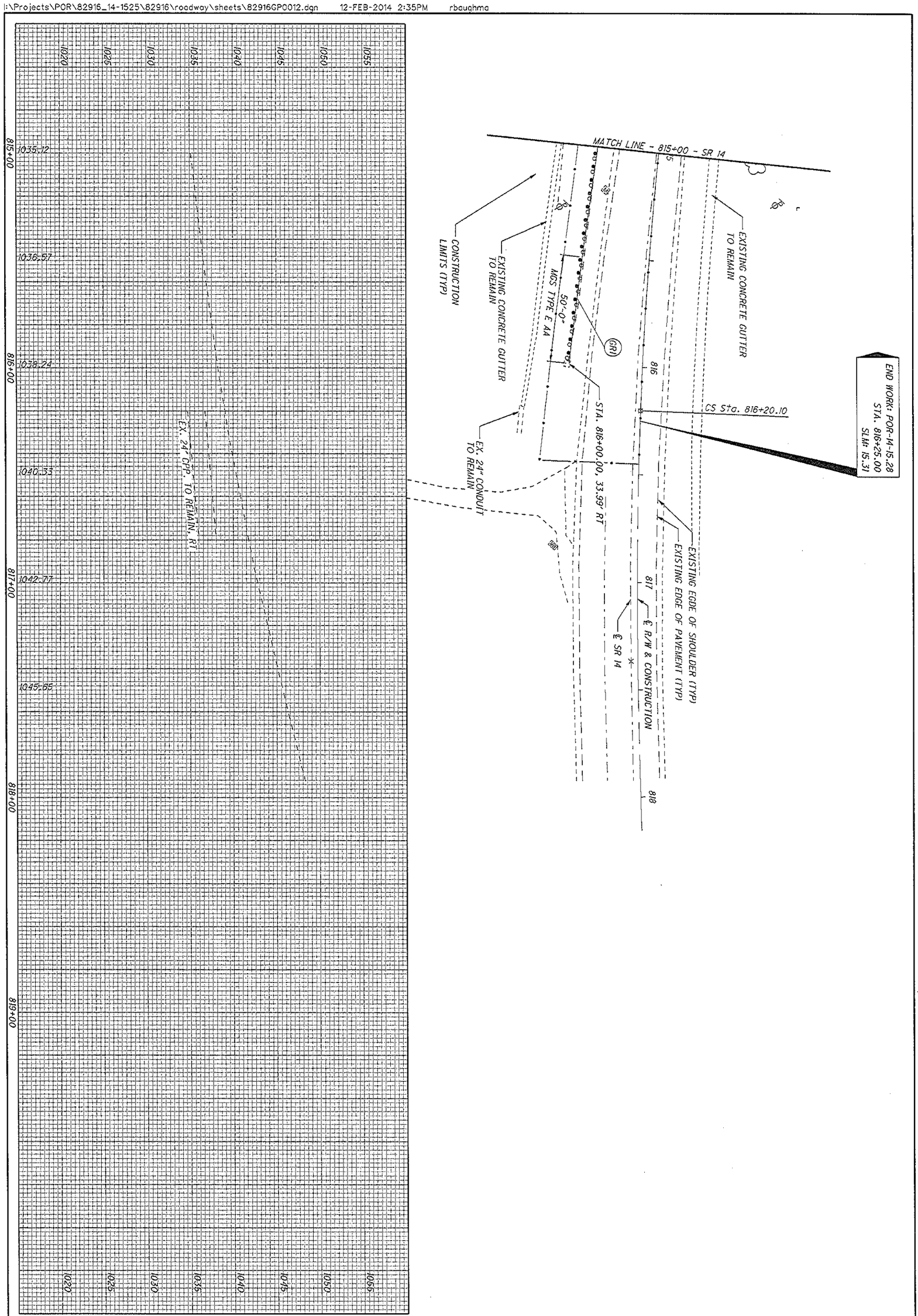

19 / 42	POR-14-11.22	PLAN AND PROFILE (POR-14-15.28) STA. 815+00.00 TO STA. 818+00.00	CALCULATED MAC CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET

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20/42

POR-14-11.22

CROSS SECTIONS (POR-14-15.28)
STA. 810+25.00 TO STA. 812+00.00

CALCULATED MAC

CHECKED LMS

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
			EX SH
28	20		
		11	24
			EX SH
22	90		
		10	34
9	18		EX SH
		169	21
157	3		
		186	7
SEE GEN. NOTES		376	86

CALCULATED MAC
CHECKED LMS

CROSS SECTIONS (POR-14-15.28)
STA. 812+45.00 TO STA. 813+29.00

POR-14-11.22

21
42

EX. CONCRETE GUTTER TO REMAIN

RESUME EARTHWORK
STA. 813+29.00

1031.28
813+29.00
1031.28

56.40' RT
℄=1018.00

SUSPEND EARTHWORK
STA. 813+17.00

36" TYPE D

1031.07
813+17.00
1031.07

55.58' RT
℄=1018.00

36" TYPE D

1030.79
813+00.00
1030.79

53.39' RT
℄=1019.00

36" TYPE D
STA. 812+45.00, 40.45' LT
ELEV = 1022.00

1030.14
812+45.00
1030.14

45.31' RT
℄=1020.35

TMP
EX SH
2:1
2.5:1
10:1

60 50 40 30 20 10 0 10 20 30 40 50 60

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SEEDING	
END WIDTH	SQ. YDS.

EX. 24" TO REMAIN

EX. CONCRETE GUTTER TO REMAIN

EX. SH

EX. CONCRETE GUTTER TO REMAIN

EX. CONCRETE GUTTER TO REMAIN

EX. SH

EX. SH

EX. CONCRETE GUTTER TO REMAIN

EX. SH

TYP

2:1

2:1

2:1

1033.28
814+25.00
1033.28

1032.67
814+00.00
1032.67

1031.64
813+50.00
1031.64

52.45' RT
℄=1019.00

1035
1030
1025
1020
1015

60 50 40 30 20 10 0 10 20 30 40 50 60

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	1
1	3		
		35	6
37	3		
		25	9
SEE GEN. NOTES		60	16

CALCULATED MAC
CHECKED LMS

CROSS SECTIONS (POR-14-15.28)
STA. 813+50.00 TO STA. 814+25.00

POR-14-11.22

22
42

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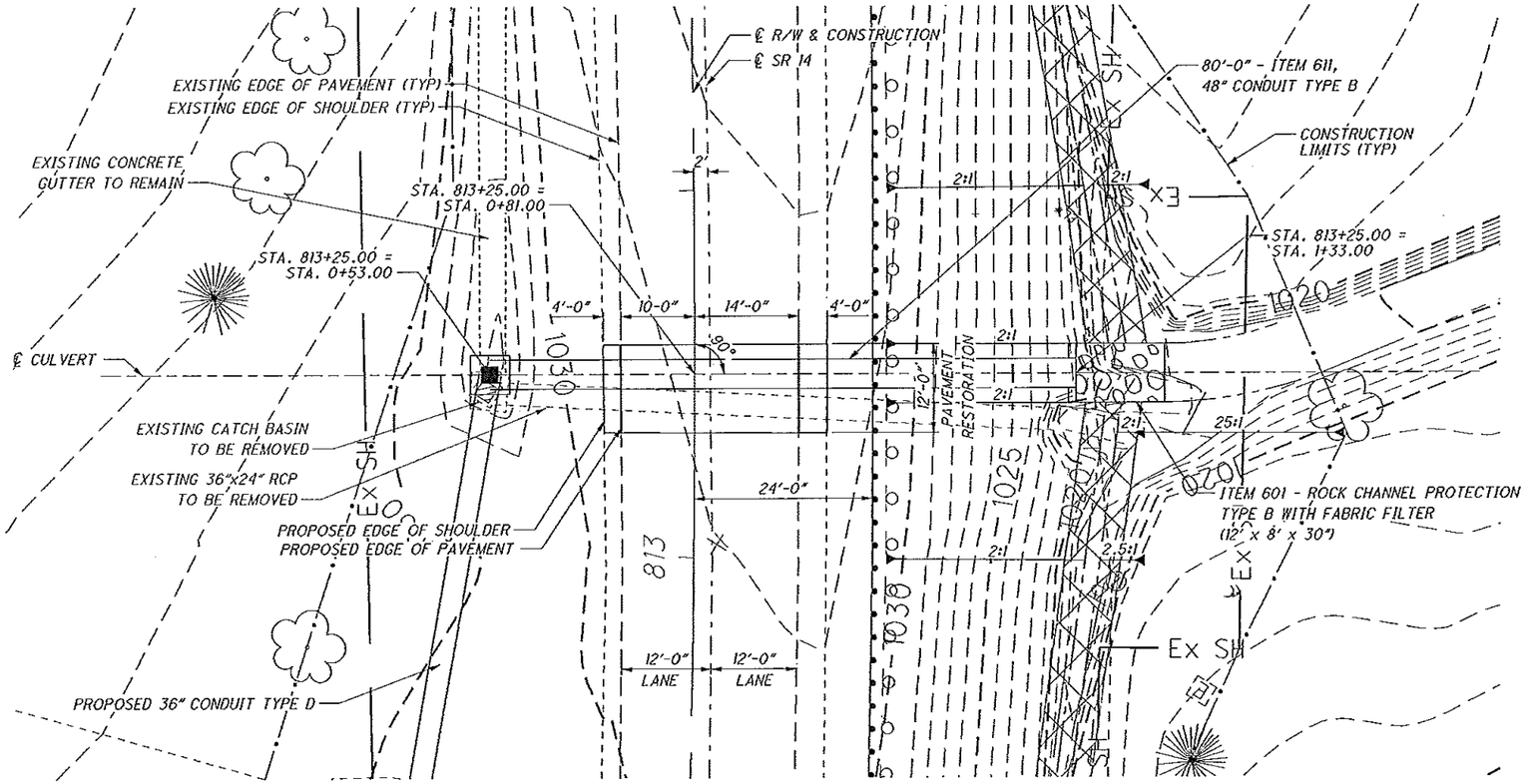
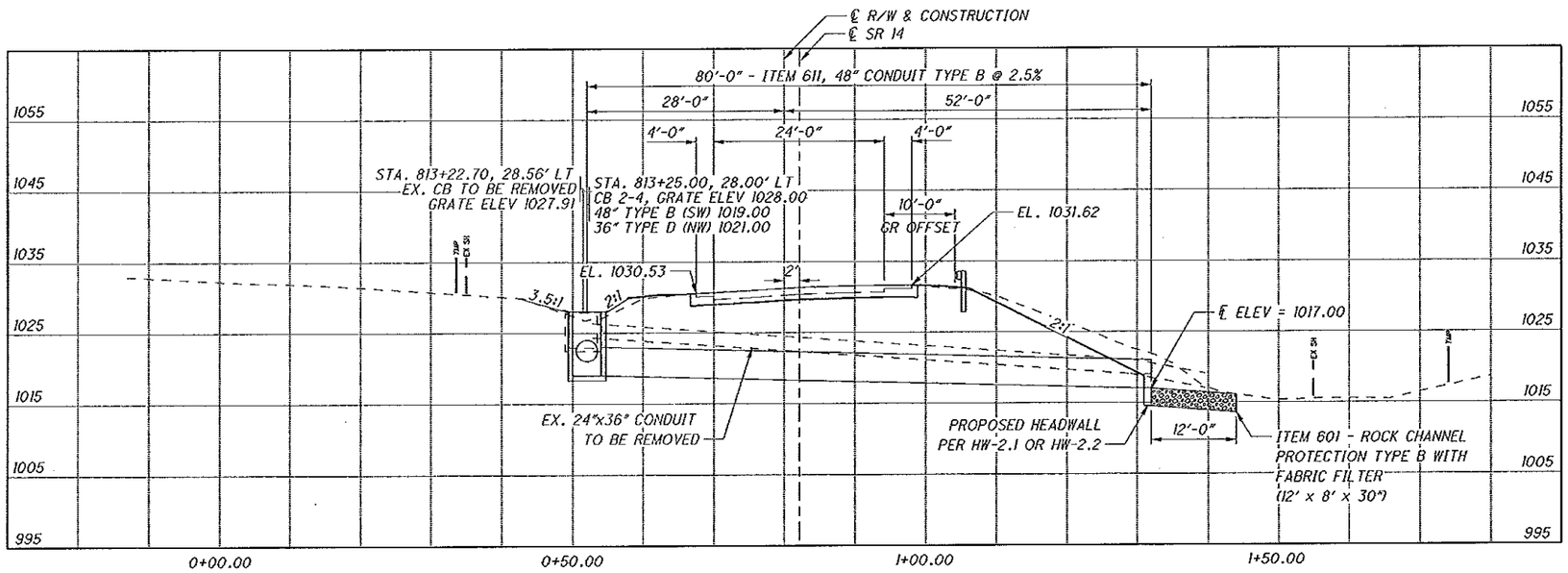


PLAN VIEW



PROFILE VIEW

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
2014 ADT = 11000 2014 ADTT = 1320
2034 ADT = 14100 2034 ADTT = 1692
DIRECTIONAL DISTRIBUTION = 60%

LEGEND

ROCK CHANNEL PROTECTION TYPE B WITH FABRIC FILTER

HYDRAULIC DATA

DRAINAGE AREA = 0.055 SQ. MILES
Q (5) = 19 CFS V (5) = 11.63 FT/S
Q (25) = 26.7 CFS V (25) = 12.83 FT/S
pH LEVEL = 7.9
ABRASIVE = NO
SERVICE LIFE = 75 YEARS

EXISTING CULVERT (POR-14-15.28)

TYPE: 36" x 24" ELLIPTICAL RCP
LENGTH: 88'-0"
ROADWAY: 32'-0" EOS/EOS
SKEW: 2°46'21" LF
ALIGNMENT: TANGENT
CULVERT FILE NUMBER: 670140330
DATE BUILT: 1958
DISPOSITION: TO BE REMOVED AND REPLACED

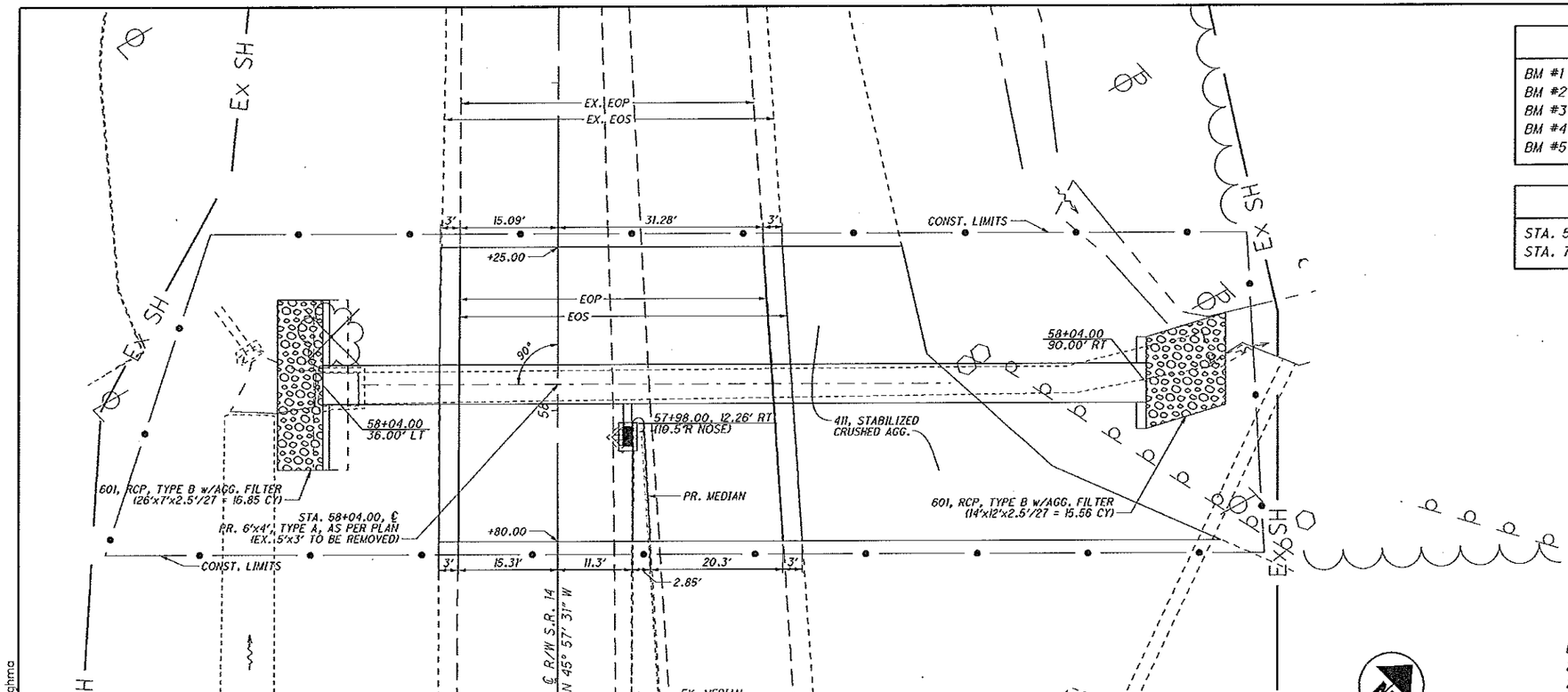
PROPOSED CULVERT

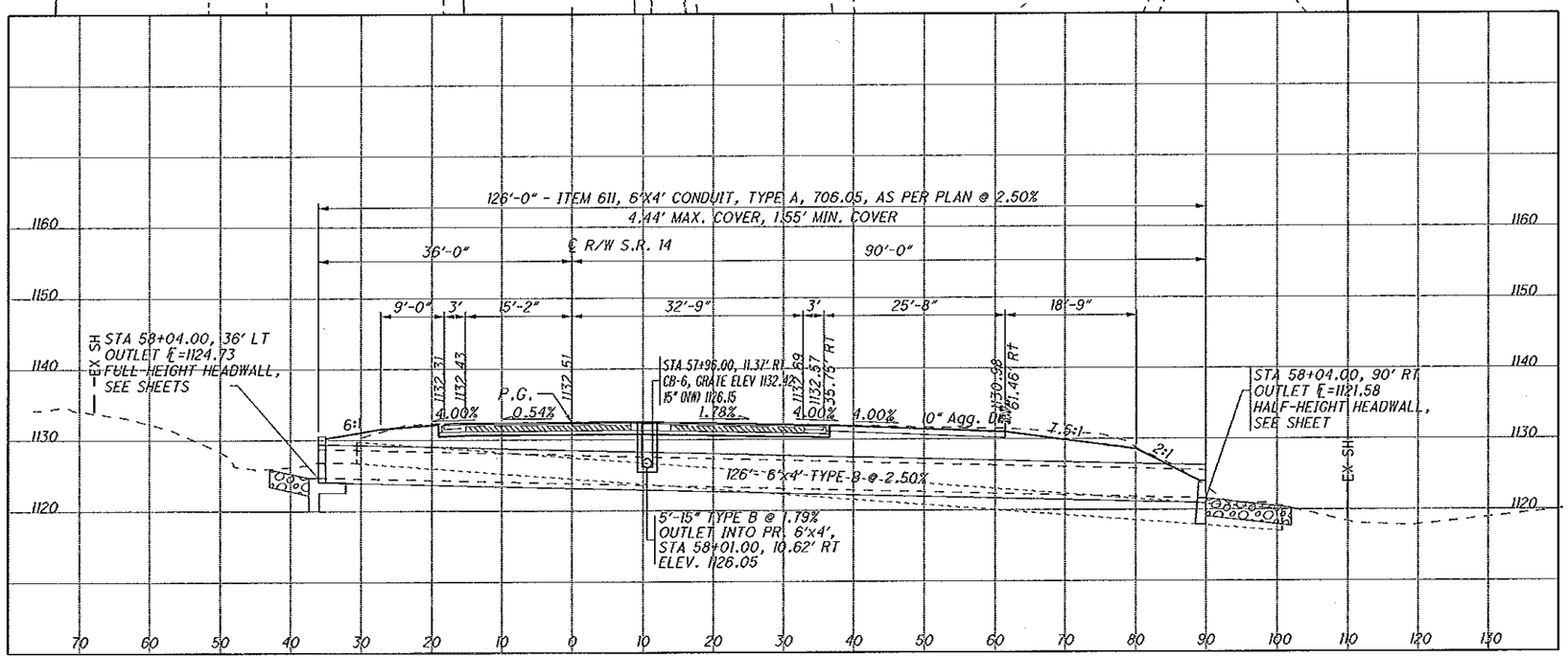
TYPE: 48" CONDUIT TYPE B @ 5.00%
LENGTH: 80'-0"
ROADWAY: 30'-4" EOS/EOS
LOADING: AS PER CMS
SKEW: 00°00'00"
HEADWALLS: HW-2.1 OR HW-2.2
ALIGNMENT: NONE
CULVERT FILE NUMBER: 670140330
COORDINATES: LATITUDE N41°07'44"
LONGITUDE W81°11'06"

HORIZONTAL SCALE IN FEET
0 5 10 20
CALCULATED MAC
CHECKED

CULVERT DETAIL (POR-14-15.28)
STA. 812+75.00 TO STA. 813+75.00

POR-14-11.22





BENCHMARK DATA

BM #1 STA. 67+54.47,	ELEV. 1127.543,	OFFSET 55.21' LT
BM #2 STA. 56+86.10,	ELEV. 1133.450,	OFFSET 57.67' RT
BM #3 STA. 46+55.847,	ELEV. 1143.705,	OFFSET 30.08' LT
BM #4 STA. 57+97.062,	ELEV. 1131.633,	OFFSET 74.31' RT
BM #5 STA. 58+06.553,	ELEV. 1130.357,	OFFSET 32.58' LT

℄ REFERENCES

STA. 50+35.670,	IPIN IN MONBOX FND & USED (M50)
STA. 77+60.912,	IPIN IN MONBOX FND & USED (M77)

DESIGN TRAFFIC:
2014 ADT = 11000 2014 ADTT = 1320
2034 ADT = 14100 2034 ADTT = 1692
DIRECTIONAL DISTRIBUTION =60%

HYDRAULIC DATA

DRAINAGE AREA = 64 ACRES (0.10 SQ. MILES)
Q (25) = 26.6 CFS V (25) = 10.24 FT/S
Q (100) = 33.1 CFS V (100) = 11.09 FT/S
HW (25) = 1127.13 FT
HW (100) = 1127.36 FT

EXISTING STRUCTURE

TYPE:	5'X3' CONC, BOX w/EXT.
ROADWAY:	54'± EOP/EOP
LOADING:	N/A
SKEW:	NONE
WEARING SURFACE:	ASPHALT CONCRETE
APPROACH SLABS:	NONE
ALIGNMENT:	TANGENT
CROWN:	0.016±
OLD CFN:	670140370

PROPOSED STRUCTURE

TYPE:	6'x4' CONDUIT, TYPE A, 706.05, AS PER PLAN
ROADWAY:	54'± EOP/EOP
LOADING:	AS PER CMS 706.05 AND ASTM C 655
SKEW:	NONE
ALIGNMENT:	TANGENT
CROWN:	0.016±
CFN:	670140370
pH LEVEL:	7.9
ABRASIVE:	NO
SERVICE LIFE:	50 YEARS
LOCATION:	N 41° 06' 27" W 81° 09' 31"

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
RCB	RCB	LMP	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		N/A	

SITE PLAN
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

POR-14-11.22
PID No. 82916

1/7
24/42

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DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 4TH EDITION, INCLUDING THE 2007 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING

SPANS > 12'
HL-93 WITH FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.
SPANS < OR = 12'
AS PER CMS 706.05 AND ASTM C1577

DESIGN DATA

INTERNAL ANGLE OF FRICTION (ϕ) = 30 DEGREES
COEFFICIENT OF FRICTION (μ) = 0.30
UNIT WEIGHT OF SOIL = 120 PCF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1 (TYPE A & B HEADWALLS ONLY)
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT (TYPE C HEADWALLS ONLY)
MAXIMUM FOUNDATION BEARING PRESSURE = 2000 P.S.F.

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI
(FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

FORESLOPE WALL ANCHOR DOWELS

ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH OF 5 ". PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 603.

POROUS BACKFILL

POROUS BACKFILL WITH FILTER FABRIC 2'-0" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE. WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

ITEM 511 WINGWALLS OR HEADWALLS FOR 611 ITEMS

FOR ITEMS 706.05, 706.051, 706.052 AND 706.053 WITH A CAST-IN-PLACE WINGWALL OR HEADWALL A PRECAST ALTERNATIVE MAY BE FURNISHED PER 611.03. THE PRECAST ALTERNATIVE WILL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

FULL COMPENSATION FOR THE PRECAST WINGWALL OR HEADWALL IS THE NUMBER OF CUBIC YARDS OF ITEM 511 OR SUPPLEMENTAL SPECIFICATION 898, AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

UNSUITABLE SOILS

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSUITABLE SOILS ENCOUNTERED IN THE AREA UNDER THE PROPOSED BOX CULVERT.

203, EXCAVATION	80 CU YD
203, GRANULAR MATERIAL, TYPE C (703.16)	80 CU YD
204, GEOTEXTILE FABRIC, TYPE D	160 SQ YD

SEALING OF FORESLOPE WALL AND WINGWALLS

ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

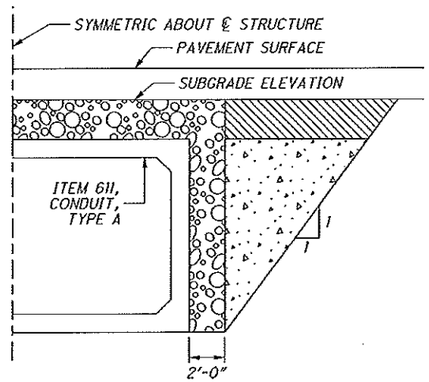
INCLUDE FACES OF CULVERT AND 2' INSIDE THE BOX ON THE TOP AND SIDES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA (INCLUDING ENDS)

CONDUIT BACKFILL REQUIREMENTS

LOW STRENGTH MORTAR BACKFILL AND EMBANKMENT (EMBANKMENT WILL BE OMITTED IF THE SUBGRADE ELEVATION IS AT THE TOP OF THE CONDUIT) WILL BE PLACED AS SHOWN (IN THE DETAIL) AND LATERALLY TO THE EDGE OF THE SHOULDER. PAYMENT FOR THIS WORK WILL BE MADE ONLY FOR MATERIAL PLACED TO THE LIMITS SHOWN. ADDITIONAL PAYMENT WILL NOT BE MADE FOR WORK PERFORMED AND MATERIAL PLACED OUTSIDE OF THESE LIMITS. THE EXCAVATION REQUIRED FOR THIS WORK WILL BE INCLUDED IN ITEM 603 FOR PAYMENT. THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE ESTIMATED QUANTITIES FOR THIS WORK:

613, LOW STRENGTH MORTAR BACKFILL 57 CU YD
203, EMBANKMENT (FOR LONG SPAN CULVERT) 32 CU YD



BACKFILL AS PER CMS 611
PAYMENT INCLUDED IN ITEM 611, CONDUIT, TYPE A

ITEM 613, LOW STRENGTH MORTAR BACKFILL

ITEM 203, EMBANKMENT

ITEM 611, 6' X 4' CONDUIT, TYPE A, 706.05, AS PER PLAN

INCLUDED WITH THIS ITEM IS THE OPENING FOR THE STORM SEWER OUTLET CONDUIT. REFER TO THE SITE PLAN SHEET FOR THE LOCATION. THE OPENING WILL BE FORMED AND CONSTRUCTED IN THE SHOP AND INCLUDE DIAGONAL #5 REINFORCING STEEL FRAMING THE OPENING ON BOTH FACES. PROVIDE A MINIMUM OF 1½" OF CLEARANCE FROM THE EDGE OF THE OPENING TO THE OUTSIDE OF THE STORM SEWER OUTLET PIPES. AFTER PLACING THE STORM SEWER OUTLET CONDUIT, GROUT ALL OPENINGS BETWEEN THE PIPE AND STRUCTURE LESS THAN 4 INCHES WITH MORTAR AND GROUT (CMS 602). ALL OPENINGS BETWEEN THE PIPE AND STRUCTURE GREATER THAN 4 INCHES WITH NONSHRINK MORTAR (CMS 705.22).

BACKFILL LIMITATION

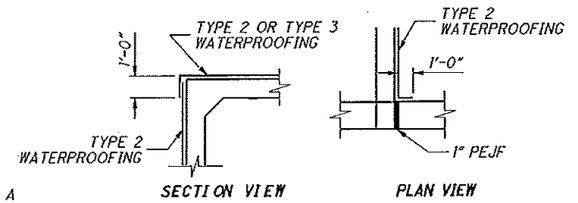
WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, DO NOT PLACE THE BACKFILL BEHIND THE WINGWALLS HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, PLACE THE REMAINDER OF THE BACKFILL.

WATERPROOFING

TYPE 2 WATERPROOFING, PER CMS 512.08 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512, TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.08 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512, TYPE 2 WATERPROOFING.

IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.08 AND 711.29 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE PAVEMENT. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512, TYPE 3 WATERPROOFING.



PREFORMED EXPANSION JOINT FILLER

PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING, BETWEEN THE SIDES OF THE BOX CULVERT, AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
30"	1		1

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
RCB	RCB	LMP	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		N/A	

STRUCTURE GENERAL NOTES
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

POR-14-11.22
PID No. 82916

2 / 7

25
42

CULVERT IDENTIFICATION SIGNS (SPANS < 10')

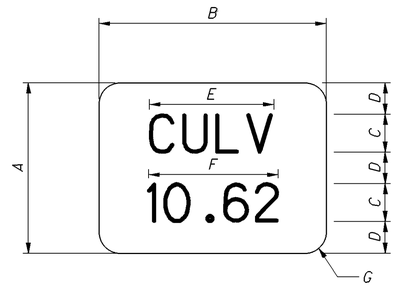
CULVERT IDENTIFICATION SIGNS SHOWN BELOW WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND AND ONLY THE SLM OF THE CULVERT.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING CULVERT(S):
(ADD LIST OF CULVERTS HERE)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 0.75 SQ FT
ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT



* OTHER FONT TYPES MAY BE USED (COLORS: BLACK ON WHITE)

ALL DIMENSIONS IN INCHES							DEFINITION OF CODE
A	B	C	D	E	F	G	F - SECTION
9	12	2	1.67	4.58	VAR	1.5	

USAGE NOTE: THIS SIGN IS USED FOR CULVERT IDENTIFICATION

ESTIMATED QUANTITIES (01/NHS/PV)

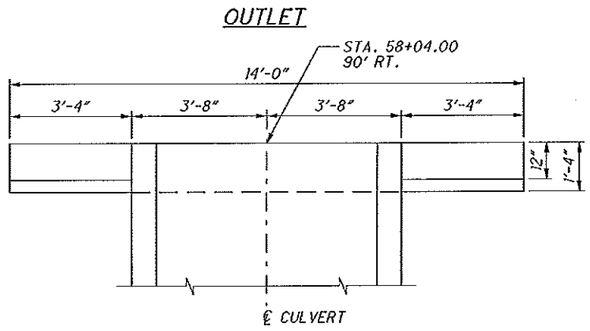
ITEM	EXT	TOTAL	UNIT	DESCRIPTION
201	11000	LUMP		CLEARING AND GRUBBING
202	11000	LUMP		STRUCTURE REMOVED
203	10000	80	CU YD	EXCAVATION
203	20000	32	CU YD	EMBANKMENT (FOR LONG SPAN CULVERT)
203	35120	80	CU YD	GRANULAR MATERIAL, TYPE C
204	50000	160	SQ YD	GEOTEXTILE FABRIC, TYPE D
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING
503	21300	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	1663	POUND	EPOXY COATED REINFORCING STEEL
511	46010	5	CU YD	CLASS QC1 CONCRETE, RETAINING WALL OR WINGWALL
511	46510	12	CU YD	CLASS QC1 CONCRETE, FOOTING
511	46610	1	CU YD	CLASS QC1 CONCRETE, HEADWALL
512	10100	39	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	33000	280	SQ YD	TYPE 2 WATERPROOFING
516	13600	13	SQ FT	1" PREFORMED EXPANSION JOINT FILLER
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC
601	32110	33	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER
602	20000	2.8	CU YD	CONCRETE MASONRY
611	94701	126	FT	6' X 4' CONDUIT, TYPE A, 706.05, AS PER PLAN
613	41200	57	CU YD	LOW STRENGTH MORTAR BACKFILL
630	02100	15	FT	GROUND MOUNTED SUPPORT, NO. 2 POST
630	80100	2	SQ FT	SIGN, FLAT SHEET, 730.20

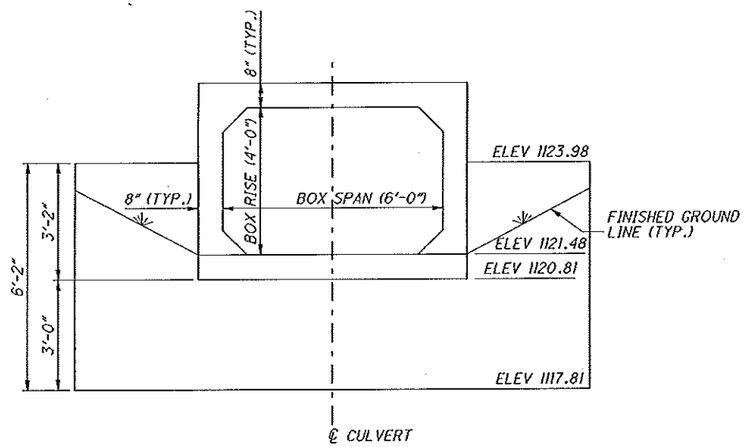
DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
RCB	RCB	LMP	
CHECKED	REVISED	STRUCTURE FILE NUMBER	
		N/A	

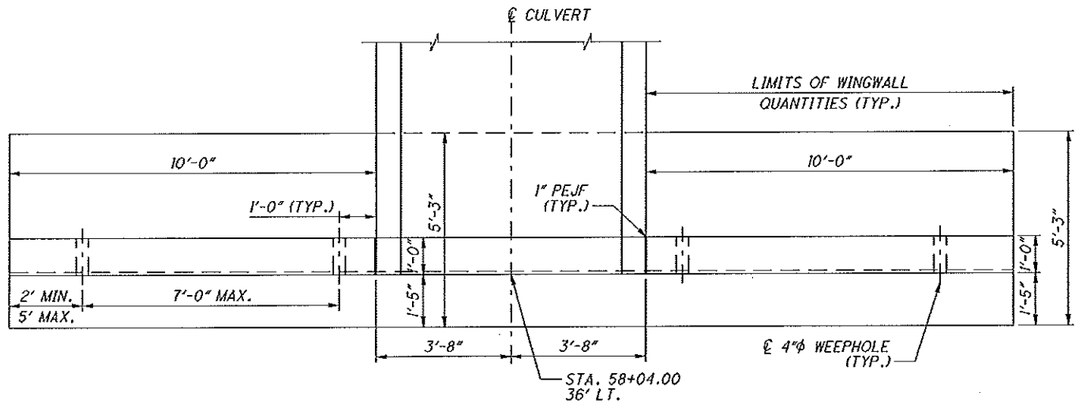
STRUCTURE ESTIMATED QUANTITIES
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

POR-14-11.22
PID No. 82916



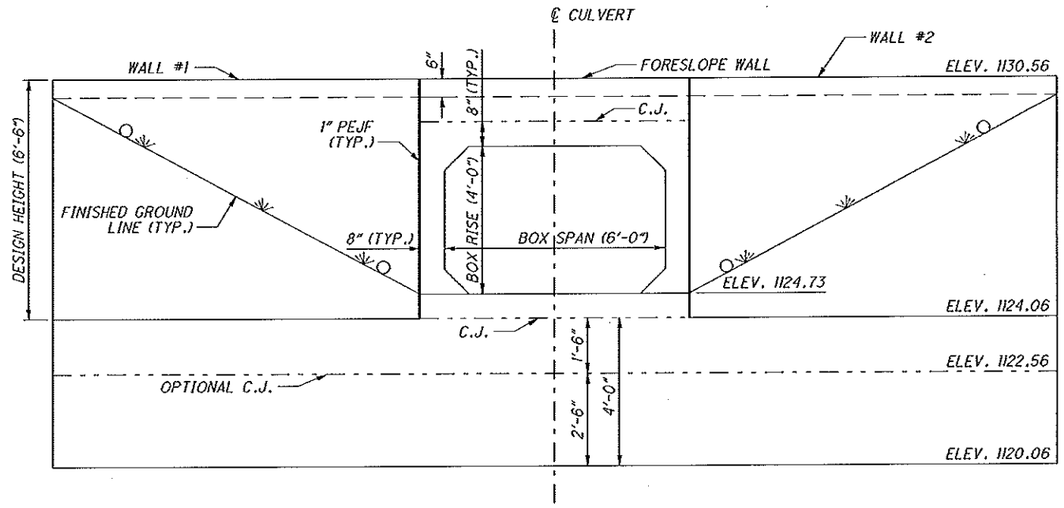


OUTLET ELEVATION



INLET

CULVERT & WINGWALL/HEADWALL LAYOUT



INLET ELEVATION

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

DESIGN AGENCY: ODOT --- DISTRICT 4 PLANNING & ENGINEERING

DESIGNED RCB | DRAWN RCB | REVIEWED LMP | DATE | STRUCTURE FILE NUMBER N/A

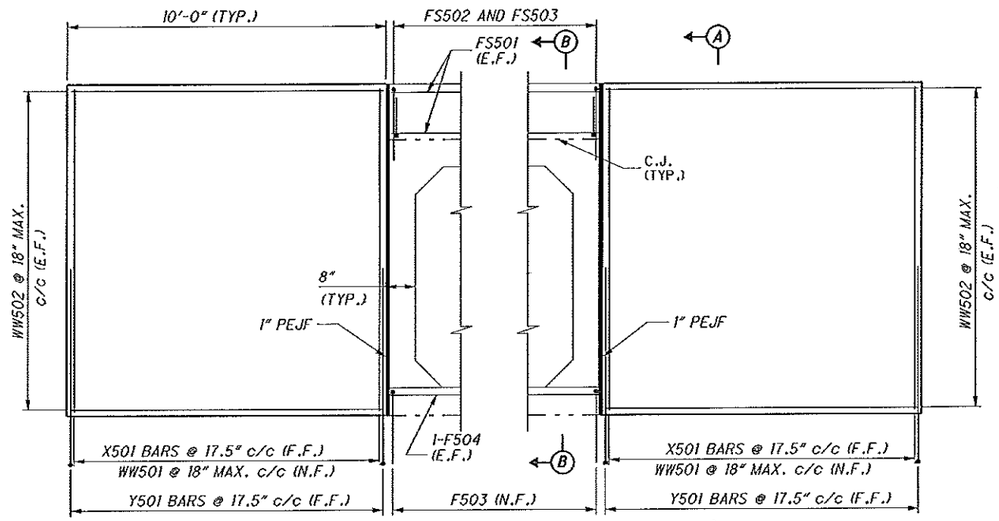
CHECKED | REVISED

STRUCTURAL DETAILS
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

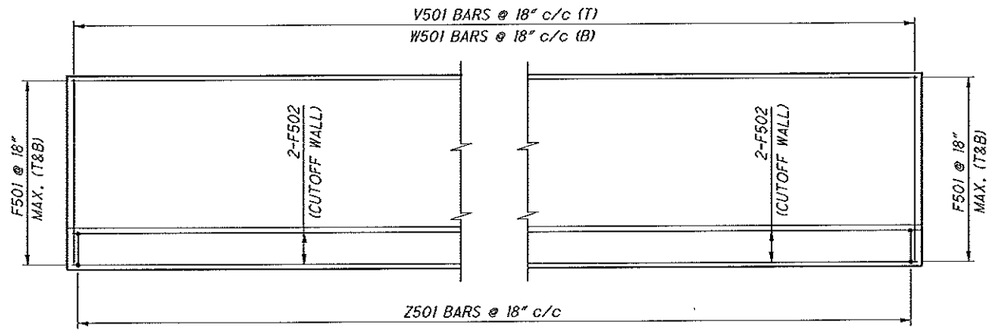
POR-14-11.22
PID No. 82916

4 / 7

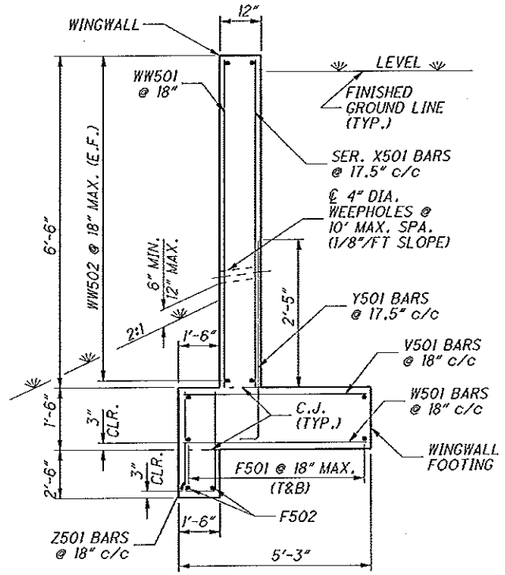
27
42



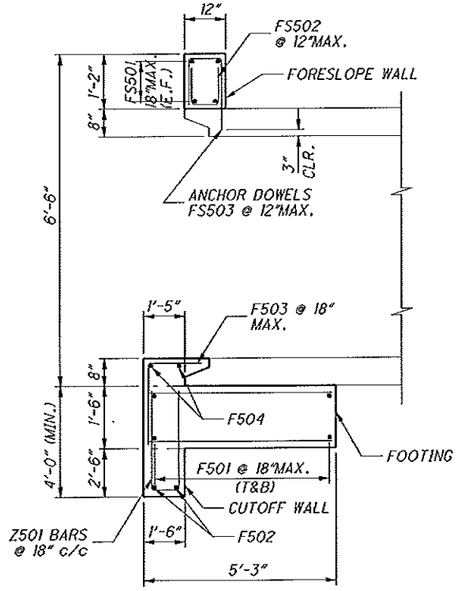
WINGWALL ELEVATION
(FOOTING NOT SHOWN)



FOOTING PLAN
TYPE C HEADWALL



SECTION A-A
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION B-B
(CULVERT INLET BEVEL SHOWN)

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET 1/7.
2. FOR PRECAST BOX CULVERT DETAILS, SEE SHEET 4/7.
3. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO.5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
4. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

LEGEND:

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

DESIGN AGENCY: ODOT --- DISTRICT 4, PLANNING & ENGINEERING
DESIGNED: RCB | DRAWN: RCB | CHECKED: | REVIEWED: LMP | DATE: | REVISED:
STRUCTURE FILE NUMBER: N/A

STRUCTURAL DETAILS
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

POR-14-11.22
PID No. 82916

5 / 7

28 / 42

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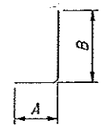
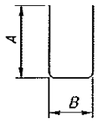
TYPE C HEADWALL REINFORCING SCHEDULE

BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS A	B	C
WINGWALLS							
X501	16	6'-4''	106	STR.			
Y501	16	4'-0''	68	1	0'-6''	3'-8''	
WW501	16	6'-4''	106	STR.			
WW502	24	9'-8''	242	STR.			
FOOTING & CUTOFF WALL							
V501	19	4'-11''	98	STR.			
W501	19	4'-11''	98	STR.			
Z501	19	8'-2''	162	5	3'-7''	1'-2''	
F501	20	14'-9''	308	STR.			
F502	4	14'-9''	62	STR.			
F503	6	3'-3''	21	1	1'-6''	1'-10''	
F504	2	7'-0''	15	STR.			
FORESLOPE WALL							
FS501	4	7'-0''	30	STR.			
FS502	8	2'-1''	18	5	0'-10''	0'-8''	
FS503	8	2'-8''	23	7	0'-10''	0'-8''	1'-5''
		TOTAL	1,357				

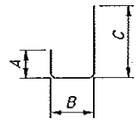
REBAR QUANTITIES SHOWN ARE FOR ONE HEADWALL



TYPE-1



TYPE-5



TYPE-7

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
RCB	RCB	LMP	
CHECKED	REVISED	STRUCTURE FILE NUMBER N/A	

REINFORCING STEEL LIST
POR-14-1732
SR 14 OVER BRANCH OF BIXON CREEK

POR-14-11.22
PID No. 82916

6/7

29/42

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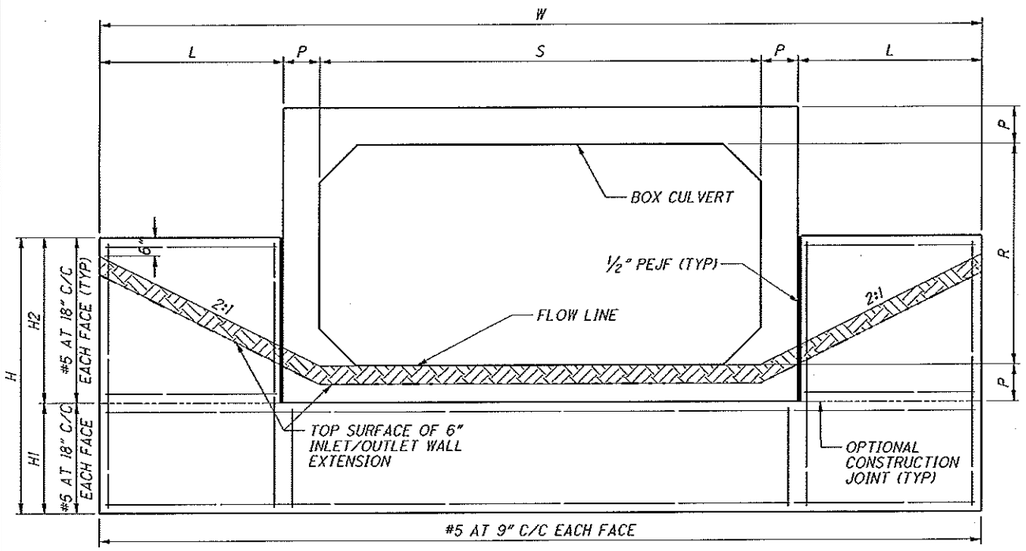
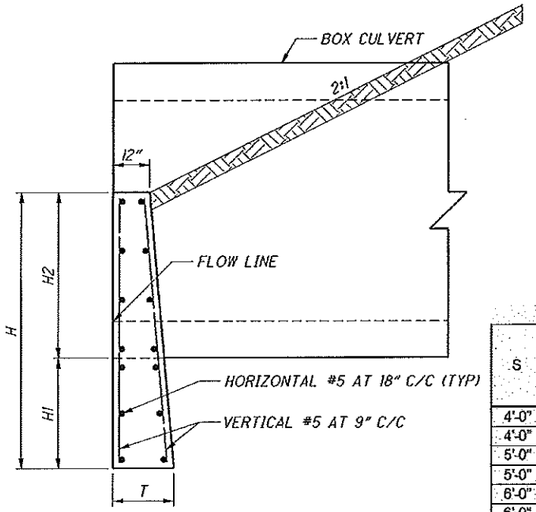
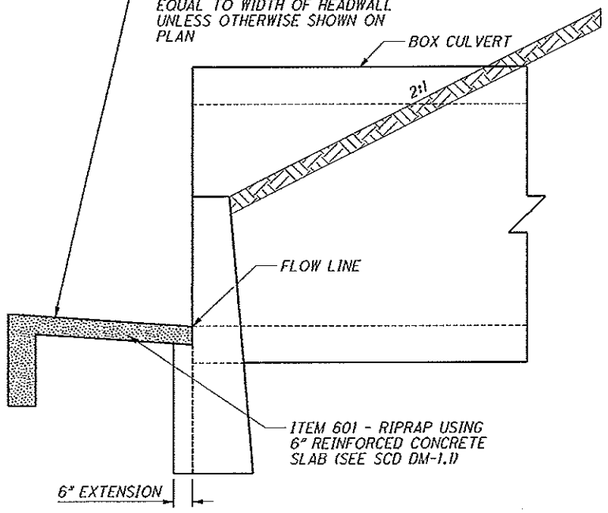
REVISED 08/12/2009 - CONSTRUCTION JOINT & REBAR ADDED
REVISED 06/17/2010 - PAYMENT FOR PEJF ADDED
REVISED 12/26/2012 - ADDED QTY FOR RIPRAP LEDGE TO TABLE
REVISED 02/08/2013 - 2013 CMS CHANGES



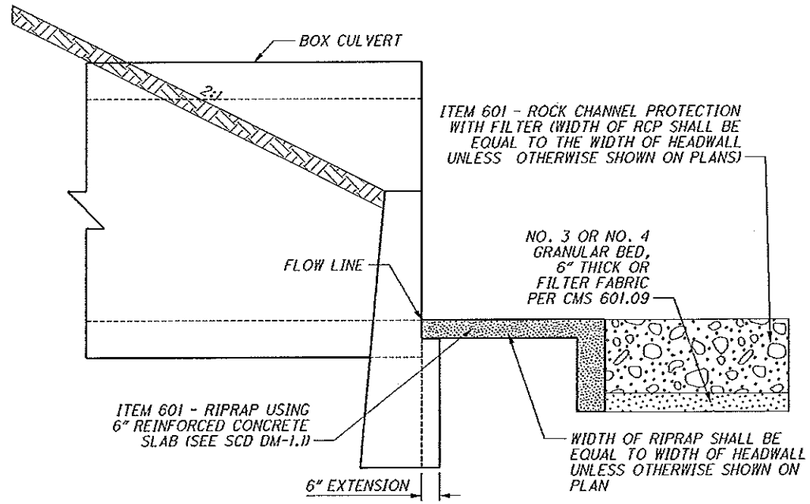
PROFILE



ELEVATION



INLET CHANNEL PROTECTION DETAIL



OUTLET CHANNEL PROTECTION DETAIL

CAST IN PLACE HEADWALL FOR BOX CULVERT

S	R	P	H	H1	H2	L	W	T	STEEL (LBS)	CONC W/O RIPRAP (CU YD)	CONC W/ RIPRAP (CU YD)
4'-0"	2'-0"	8"	5'-2"	3'-0"	2'-2"	1'-4"	8'-0"	1'-0"	166	1.11	1.60
4'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	12'-0"	1'-4"	277	2.52	3.35
5'-0"	3'-0"	8"	5'-8"	3'-0"	2'-8"	2'-4"	11'-0"	1'-0"	231	1.69	2.40
5'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	13'-0"	1'-4"	289	2.66	3.55
6'-0"	2'-0"	8"	5'-2"	3'-0"	2'-2"	1'-4"	10'-0"	1'-0"	195	1.33	1.94
6'-0"	3'-0"	8"	5'-8"	3'-0"	2'-8"	2'-4"	12'-0"	1'-0"	249	1.80	2.57
6'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	14'-0"	1'-4"	306	2.80	3.75
6'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	16'-0"	1'-4"	411	3.53	4.67
6'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	18'-0"	1'-8"	484	5.02	6.38
7'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	17'-0"	1'-4"	423	3.67	4.86
7'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	19'-0"	1'-8"	496	5.19	6.80
8'-0"	4'-0"	8"	6'-2"	3'-0"	3'-2"	3'-4"	16'-0"	1'-4"	330	3.08	4.14
8'-0"	5'-0"	8"	6'-8"	3'-0"	3'-8"	4'-4"	18'-0"	1'-4"	435	3.81	5.06
8'-0"	6'-0"	8"	7'-2"	3'-0"	4'-2"	5'-4"	20'-0"	1'-8"	507	5.36	6.83
8'-0"	7'-0"	8"	7'-8"	3'-0"	4'-8"	6'-4"	22'-0"	1'-8"	584	6.39	8.09
10'-0"	4'-0"	10"	6'-4"	3'-0"	3'-4"	3'-2"	18'-0"	1'-4"	366	3.36	4.59
10'-0"	5'-0"	10"	6'-10"	3'-0"	3'-10"	4'-2"	20'-0"	1'-4"	472	4.10	5.53
10'-0"	6'-0"	10"	7'-4"	3'-0"	4'-4"	5'-2"	22'-0"	1'-8"	545	5.73	7.38
10'-0"	7'-0"	10"	7'-10"	3'-0"	4'-10"	6'-2"	24'-0"	1'-8"	622	6.77	8.65
10'-0"	8'-0"	10"	8'-4"	3'-0"	5'-4"	7'-2"	26'-0"	2'-0"	765	9.00	11.14
10'-0"	9'-0"	10"	8'-10"	3'-0"	5'-10"	8'-2"	28'-0"	2'-0"	857	10.39	12.80
10'-0"	10'-0"	10"	9'-4"	3'-0"	6'-4"	9'-2"	30'-0"	2'-4"	953	13.31	16.01
12'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	20'-0"	1'-4"	408	3.64	5.05
12'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	22'-0"	1'-8"	475	5.14	6.75
12'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	24'-0"	1'-8"	577	6.09	7.93
12'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	26'-0"	2'-0"	678	8.16	10.23
12'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	28'-0"	2'-0"	765	9.45	11.79
12'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	30'-0"	2'-4"	891	12.18	14.79
12'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	32'-0"	2'-4"	1024	13.86	16.77
14'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	22'-0"	1'-4"	432	3.92	5.46
14'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	24'-0"	1'-8"	499	5.48	7.22
14'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	26'-0"	1'-8"	601	6.43	8.40
14'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	28'-0"	2'-0"	702	8.56	10.76
14'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	30'-0"	2'-0"	788	9.86	12.32
14'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	32'-0"	2'-4"	915	12.65	15.39
14'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	34'-0"	2'-4"	1048	14.33	17.37
14'-0"	12'-0"	1'-0"	10'-6"	3'-0"	7'-6"	11'-0"	38'-0"	2'-8"	1304	20.01	23.69
16'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	24'-0"	1'-4"	461	4.20	5.87
16'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	26'-0"	1'-8"	528	5.82	7.69
16'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	28'-0"	1'-8"	630	6.78	8.87
16'-0"	7'-0"	1'-0"	8'-0"	3'-0"	5'-0"	6'-0"	30'-0"	2'-0"	731	8.96	11.30
16'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	32'-0"	2'-0"	818	10.26	12.86
16'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	36'-0"	2'-4"	1077	14.81	17.97
16'-0"	12'-0"	1'-0"	10'-6"	3'-0"	7'-6"	11'-0"	40'-0"	2'-8"	1333	20.55	24.36
18'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	26'-0"	1'-4"	490	4.48	6.28
18'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	28'-0"	1'-8"	557	6.16	8.16
18'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	30'-0"	1'-8"	659	7.12	9.34
18'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	34'-0"	2'-0"	847	10.67	13.39
18'-0"	9'-0"	1'-0"	9'-0"	3'-0"	6'-0"	8'-0"	36'-0"	2'-4"	973	13.59	16.59
18'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	38'-0"	2'-4"	1106	15.28	18.57
20'-0"	4'-0"	1'-0"	6'-6"	3'-0"	3'-6"	3'-0"	28'-0"	1'-4"	514	4.76	6.69
20'-0"	5'-0"	1'-0"	7'-0"	3'-0"	4'-0"	4'-0"	30'-0"	1'-8"	581	6.50	8.62
20'-0"	6'-0"	1'-0"	7'-6"	3'-0"	4'-6"	5'-0"	32'-0"	1'-8"	683	7.46	9.81
20'-0"	8'-0"	1'-0"	8'-6"	3'-0"	5'-6"	7'-0"	36'-0"	2'-0"	870	11.07	13.93
20'-0"	10'-0"	1'-0"	9'-6"	3'-0"	6'-6"	9'-0"	40'-0"	2'-4"	1130	15.75	19.18

NOTES:

GENERAL: PROVIDE A RIPRAP REINFORCED CONCRETE SLAB ACCORDING TO SCD DM-1.1 IF THE PIPE IS DEPRESSED OR IS SPECIFIED IN THE PLAN. PAYMENT WILL BE MADE PER SQUARE YARD OF ITEM 601 - RIPRAP USING 6" REINFORCED CONCRETE SLAB AND SHALL INCLUDE THE COST OF THE CUTOFF WALL.

THIS DRAWING IS FOR CAST IN PLACE HALF-HEIGHT CONCRETE HEADWALLS. PRECAST HEADWALLS WILL NOT BE PERMITTED.

CONCRETE: CONCRETE FOR HEADWALLS SHALL BE CLASS QC 1

REINFORCING STEEL: BARS SHALL BE #5 AND EPOXY COATED

CONCRETE QUANTITIES ARE SHOWN FOR HEADWALLS WITH AND WITHOUT THE 6" EXTENSION UNDER THE CHANNEL PROTECTION.

PAYMENT: ITEM 602 CONCRETE MASONRY INCLUDES REINFORCING AND PREFORMED EXPANSION JOINT FILLER

DESIGN AGENCY: ODOT --- DISTRICT 4 PLANNING AND ENGINEERING

DESIGNED TJP | DRAWN | REVISED TJP

CHECKED LMP

PLAN INSERT SHEET

BOX CULVERT HALF-HEIGHT HEADWALL STANDARD DETAILS

POR-14-11.22

PID No. 82916

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GENERAL SPEC: 640
MATERIAL TYPE: 648

CALCULATED TJD
CHECKED

PAVEMENT MARKING SUB-SUMMARY

CENTER LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
POR	14	11.22	NORFOLK SOUTHERN RXR	12.40	SUSPEND PROJECT	1.18	2.42	
POR	14	12.90	RESUME PROJECT	18.07	JCT. TALLMADGE RD.	5.32	7.98	
TOTAL						6.50	10.40	

LANE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
POR	14	12.90	RESUME PROJECT	13.10	WEST END SR 5 OVERPASS	0.20			
POR	14	13.10	WESTBOUND ONLY	13.16	WESTBOUND ONLY	0.06			
POR	14	15.38	BEGIN 3 LANES	15.90	END 3 LANES	0.52			
POR	14	17.34	BEGIN 4 LANES	17.70	END 4 LANES	0.72			
TOTAL						1.50			

EDGE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
POR	14	11.22	NORFOLK SOUTHERN RXR	12.40	SUSPEND PROJECT	2.36	2.36					
POR	14	12.90	RESUME PROJECT/BEGIN ISLAND	12.98	END ISLAND	0.16	0.16		0.16	0.16		
POR	14	12.98	END ISLAND	17.30	BEGIN DIVIDED HIGHWAY	8.64	8.64					
POR	14	17.30	BEGIN DIVIDED HIGHWAY	17.63	END DIVIDED HIGHWAY	0.66	0.66		0.66	0.66		
POR	14	17.63	END DIVIDED HIGHWAY	18.07	JCT. TALLMADGE RD. (CR 18)	0.88	0.88					
TOTAL						12.70	12.70		0.82	0.82		

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE	STOP LINE	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	CROSS WALK LINES	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	SYMBOL MARKINGS RxR	SYMBOL MARKINGS SCHOOL 72"	SYMBOL MARKINGS SCHOOL 96"	ISLAND MARKING	DOTTED LINES	COMMENTS
			FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	FT	
POR	SR 14 @ SR 5WB RAMPS	13.006		62													100		FIRST 25' OF RAISED CONC. ISLAND
POR	SR 14 @ SR 5EB RAMPS	13.170	322	14	55												100		FIRST 25' OF RAISED CONC. ISLAND
POR	SR 14 @ BENTLEY LN.	13.211	215		75						3								
POR	SR 14 @ ST. ANDREWS WAY	17.109	125							3							56		
POR	SR 14 @ I-76 WB RAMPS	17.354	225	50		75				3									
POR	SR 14 @ I-76 EB RAMPS	17.551	225	50		75				3									
POR	SR 14 @ TALLMADGE RD.	18.051		70															
TOTAL			1112	246	130	150				9	3						256		

POR-14-11.22

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

DM-4.1 DATED/REVISED 07/20/12

DS-1-92 DATED/REVISED 07/18/03

EXJ-4-87 DATED/REVISED 07/19/02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4/18/03

846 DATED 10/18/13

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUC- TURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASURE- MENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXIST- ING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAM- INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE- PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK

POR-14-1121 (OVER ERIE RAILROAD)
- -PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK AND APPROACH SLABS
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH SRS CONCRETE TREATMENT
- -CLEAN EXISTING STRUCTURE STEEL, BEAMS SEATS AND PIER CAPS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE
- -CLEARING AND GRUBBING 15' AROUND THE STRUCTURE
- -NEW STRUCTURE IDENTIFICATIONS SIGNS

POR-14-1294 (OVER SR 5 AND SR 44)
- -PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK
- -PLACE NEW ASPHALT CONCRETE OVERLAY WITH TYPE 3 MEMBRANE WATERPROOFING OVER EXISTING CONCRETE WEARING SURFACE
- -REMOVE EXISTING FALSEWORK AND REPLACE WITH NEW FALSEWORK
- -REPAIR CURB AT THE MEDIAN OF STRUCTURE
- -CLEAN EXISTING STRUCTURAL STEEL, BEAM SEATS AND PIER CAPS
- -PATCH ALL UNSOUND AREAS OF SUBSTRUCTURE
- -SEAL ALL UNSEALED CONCRETE SURFACES OF THE PIER CAPS AT THE FORWARD AND REAR ABUTMENTS
- -REMOVE ALL SPALLED AREAS OF THE BOTTOM OF DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND THE STRUCTURE
- -NEW STRUCTURE IDENTIFICATION SIGNS

POR-14-1329 (OVER CSX RAILROAD)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH SRS CONCRETE TREATMENT
- -CLEAN EXISTING STRUCTURE STEEL, BEAMS SEATS AND PIER CAPS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE STRUCTURE WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND THE STRUCTURE FOR SEALING OPERATIONS
- -NEW STRUCTURE IDENTIFICATION SIGNS

POR-14-1427 (OVER WORKMAN RUN)
- -PROVIDE QUANTITY TO PAVE EXISTING INVERT WITH CONCRETE
- -REPAIR SCOUR THAT HAS OCCURED AT THE INLET AND OUTLET
- -CLEARING AND GRUBBING 15' AROUND THE INLET AND OUTLET
- -NEW STRUCTURE IDENTIFICATION SIGNS

POR-14-1489 (OVER BARREL RUN)
- -PATCH ALL UNSOUND AREAS OF THE CONCRETE DECK THAT ARE EXPOSED AFTER EXISTING ASPHALT CONCRETE WEARING SURFACE IS REMOVED
- -REPLACE WITH TYPE 3 WATERPROOFING AND ASPHALT CONCRETE OVERLAY
- -REMOVE AND REPLACE EXISTING DRIP STRIPS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE
- -REMOVE ALL SPALLED AREAS OF BOTTOM OF DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- -ENCASE EXISTING REINFORCED 14" CAST-IN-PLACE PIER PILES WITH RETROFITTED ENCASEMENT FOR CORROSION PROTECTION. EXTEND PROTECTION 3' BELOW FLOW LINE
- -REPAIR SLOPE PROTECTION AT BOTTOM OF FORWARD ABUTMENT
- -PROVIDE BORROW MATERIAL FOR EROSION AT FORWARD RIGHT AND FORWARD LEFT
- -CLEARING AND GRUBBING 15' AROUND THE STRUCTURE
- -NEW STRUCTURE IDENTIFICATION SIGNS

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

EROSION REPAIR

THIS WORK WILL CONSIST OF REPAIRING THE EROSION ALONG THE FORWARD ABUTMENT AT BOTH LEFT AND RIGHT CORNERS OF STRUCTURE POR-14-1489. EROSION AT THE BOTTOM OF FORWARD ABUTMENT FOOTER OF STRUCTURE POR-14-1489 WILL ALSO BE REPAIRED. ROCK CHANNEL PROTECTION WILL BE PLACED AT THE INLET AND OUTLET OF POR-14-1427. REPAIR WORK WILL BE PAID FOR BY THE FOLLOWING ITEMS.

POR-14-1427
ITEM 601, ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER 45 CU YD

POR-14-1489
ITEM 203, BORROW 10 CU YD
ITEM 601, DUMPED ROCK FILL, TYPE B 25 CU YD

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN: PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURES POR-14-1294 AND POR-14-1489 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR SPECIAL STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS

POR-14-1294:
ITEM SPEC, STRUCTURE MISC.: CONCRETE SPALL REMOVAL 50 SQ YD

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) 50 SQ YD

POR-14-1489:
ITEM SPEC, STRUCTUTRE MISC.: CONCRETE SPALL REMOVAL 50 SQ YD

ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) 50 SQ YD

SPECIAL - STRUCTURE MISC.: STRUCTURE CLEANING

THIS WORK WILL CONSIST OF CLEANING THE BEAMS/GIRDERS AND BEARINGS OF STRUCTURE(S) POR-14-1121, POR-14-1294 AND POR-14-1329. AS PER CM-S 514.14. ALSO, ALL DIRT AND DEBRIS FROM THE ABUTMENTS,BEAM SEATS, AND PIER CAPS WILL BE REMOVED AND WASHED WITH POTABLE WATER. THIS WORK WILL BE COMPLETED PRIORTO THE REPAIR PAINTING OPERATIONS.

STRUCTURE CLEANING WILL BE PAID FOR AT THE LUMP SUM BID FOR SPECIAL, STRUCTURE MISC.: STRUCTURE CLEANING. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

CORRECTING BRIDGE IDENTIFICATION SIGN NUMBERS:

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE POR-14-1121 (SFN:6700667) THE EXISTING SIGN SHOWS 11.24. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1121.

STRUCTURE POR-14-1294 (SFN:6700691) THE EXISTING SIGN SHOWS 13.00. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1294.

STRUCTURE POR-14-1329 (SFN:6700748) THE EXISTING SIGN SHOWS 13.39. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1329.

STRUCTURE POR-14-1427 (SFN:6700756) THE EXISTING SIGN SHOWS 14.36. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1427.

STRUCTURE IDENTIFICATION SIGNS

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
POR-14-1121 (2 APPROACHES), POR-14-1294 (2 APPROACHES), POR-14-1329 (2 APPROACHES), POR-14-1427 (2 APPROACHES),

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
NRC	NRC	LMP	12-13-13
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AAG			

STRUCTURE GENERAL NOTES
POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, POR-14-1489

POR-14-11.22
PID No. 82916

1 / 7

32
42

ITEM SPECIAL - TACK COAT, TRACKLESS TACK

ITEM SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION.

ALTERNATE PRODUCTS TO BE USED MUST BE ON FILE WITH THE NEW PRODUCT ENGINEER AT THE TIME OF THE ADVERTISEMENT DATE OF THE PROJECT PLANS. PLEASE CONTACT BRAD YOUNG, ODOT NEW PRODUCT ENGINEER, 614-351-2882.

THIS WORK IS CONSIDERED AN EXPERIMENTAL CONSTRUCTION FEATURE FOR EVALUATION OF PRODUCTS THAT ARE ON FILE WITH THE NEW PRODUCT ENGINEER.

MEET ALL REQUIREMENTS OF ODOT 407 TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

A MANUFACTURER'S REPRESENTATIVE MUST BE AT THE PROJECT SITE DURING THE FIRST TWO DAYS OF APPLICATION OF TRACKLESS TACK.

MATERIAL: IF USING BLACKLIDGE TRACKLESS TACK THE MATERIAL WILL CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	AASHTO T59	15	100
STORAGE STABILITY, 24 HRS, %	AASHTO T59	--	1
STORAGE STABILITY, 5 DAYS, %	AASHTO T59	--	5
RESIDUE BY DISTILLATION, %	AASHTO T59	50	--
OIL DISTILLATE, %	AASHTO T59	--	1
SIEVE TEST, %	AASHTO T59	--	0.30
TEST ON RESIDUE			
PENETRATION, @ 25°C,	AASHTO T49	--	20
SOFTENING POINT RANGE DEG C	AASHTO T53	65	--
SOLUBILITY, %	AASHTO T44	97.5	--
ORIGINAL BINDER DSR@82°C G*/SIN δ,10 RAD/SEC	AASHTO T315	1.00	--

FOR TRACKLESS TACK OTHER THAN BLACKLIDGE TRACKLESS TACK, THE MATERIAL WILL CONFORM TO THE PHYSICAL PROPERTIES SUPPLIED BY THE NEW PRODUCT ENGINEER FOR THE TESTS LISTED BELOW:

PARAMETER	TEST METHOD
SAYBOLT FUROL VISCOSITY, SFS @ 25°C	AASHTO T59
STORAGE STABILITY, 24 HRS, %	AASHTO T59
STORAGE STABILITY, 5 DAYS, %	AASHTO T59
RESIDUE BY DISTILLATION, %	AASHTO T59
OIL DISTILLATE, %	AASHTO T59
SIEVE TEST, %	AASHTO T59
TEST ON RESIDUE	
PENETRATION, @ 25°C,	AASHTO T49
SOFTENING POINT RANGE DEG C	AASHTO T53
SOLUBILITY, %	AASHTO T44
ORIGINAL BINDER DSR@82°C G*/SIN δ,10 RAD/SEC	AASHTO T315

NOTE: TRACKLESS TACK SHOULD NOT CONTAIN FILLER SUCH AS CLAY, ETC.

ACCEPTANCE AND SAMPLING OF MATERIALS: FOR ALL TRACKLESS TACK SUPPLY CERTIFIED TEST DATA FROM AN INDEPENDENT LABORATORY TO THE ENGINEER AND TO THE DISTRICT LABORATORY SHOWING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS THE PROPERTIES SUPPLIED BY THE NEW PRODUCT ENGINEER.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF 2 QUARTS OF TRACKLESS TACK SAMPLED FROM THE DISTRIBUTOR ON THE FIRST DAY OF APPLICATION. CLEARLY MARK ON THE SAMPLES THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

ADDITIONAL SAMPLING OF BLACKLIDGE TRACKLESS TACK WILL FOLLOW THE REQUIREMENTS OF ITEM 407. FOR ALTERNATE TRACKLESS TACK MATERIAL, 2 QUARTS OF MATERIAL WILL BE SAMPLED EACH DAY THE MATERIAL IS USED.

EQUIPMENT: SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL: UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS.

APPLY AT A RATE OF 0.04 TO 0.1 GALLONS PER SQUARE YARD. DO NOT DILUTE TRACLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160°F TO 180° F. DO NOT EXCEED 180°F. THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

PERFORMANCE OF TRACKLESS TACK: FOR ANY TRACKLESS TACK USED SUPPLY DATA FOR SHEAR AND TENSILE BOND STRENGTH ACCORDING TO METHODS DESCRIBED IN VIRGINIA TRANSPORTATION RESEARCH COUNCIL REPORT VTRC 09-R21. RANDOMLY TAKE 6-4 INCH DIAMETER CORES FROM THE PROJECT AND PERFORM 3 SHEAR AND 3 TENSILE BOND STRENGTH TESTS. BE SURE CORES TAKEN INCLUDE BOTH AN ASPHALT LAYER ABOVE AND ASPHALT LAYER BELOW THE TRACKLESS TACK LAYER.

DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO THE DET AND NEW PRODUCT ENGINEER, BRAD YOUNG 614-351-2882.

IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY BLACKLIDGE TRACKLESS TACK FOR THE REMAINDER OF THE PROJECT AT NO COST TO THE DEPARTMENT.

ANY FAILING EXPERIMENTAL TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE NEW PRODUCT ENGINEER'S LIST.

IN THE EVENT THE PRODUCT FAILS TO PERFORM TO THE SATISFACTION OF THE DEPARTMENT, THE MANUFACTURER MAY PERFORM THE FOLLOWING ITEMS IN ORDER TO BE CONSIDERED FOR FUTURE EXPERIMENTAL CONSTRUCTION FEATURE PROJECTS:

1. SUBMIT IN WRITING TO THE DEPARTMENT THE REASON(S) WHY PRODUCT FAILED TO PERFORM AND DETAIL CHANGES THAT WILL BE MADE TO ELIMINATE THE CAUSE(S) OF FAILURE, AND
2. PROPOSE CHANGES TO THE PRODUCT'S SPECIFICATIONS, AND
3. SUBMIT SAMPLES OF THE REDEVELOPED PRODUCT TO THE LABORATORY FOR TESTING TO THE NEW SPECIFICATIONS, AND
4. DEMONSTRATE TO THE DEPARTMENT SUCCESSFUL USE OF THE MATERIAL ON AT LEAST ONE NON-ODOT PROJECT.

WHEN THE ABOVE ITEMS ARE COMPLETED TO THE DEPARTMENT'S SATISFACTION, THE REDEVELOPED AND FIELD TESTED PRODUCT MAY BE PUT BACK ON FILE WITH THE NEW PRODUCT ENGINEER AND EVALUATED ON FUTURE ODOT PROJECTS USING THE EXPERIMENTAL CONSTRUCTION FEATURE PROCESS.

DESIGN AGENCY: ODOT --- DISTRICT 4 PLANNING AND ENGINEERING

DESIGNED NRC | DRAWN NRC | REVIEWED LMP | DATE 12-13-13 | STRUCTURE FILE NUMBER

CHECKED AAG | REVISED

STRUCURAL GENERAL NOTES

POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427

POR-14-11.22

PID No. 82916

2 / 7

33 / 42

ITEM 611 - FIELD PAVING OF EXISTING PIPE

FIELD PAVE THE EXISTING (TWIN 12' CMP). THE CONTRACTOR WILL PAVE THE BOTTOM OF THE EXISTING PIPE.

AREAS TO BE PAVED WILL BE CLEANED TO REMOVE ALL DEBRIS AND SEDIMENT AND WILL BE PAID FOR UNDER ITEM SPECIAL - PIPE CLEANOUT.

THE CONTRACTOR WILL BE REQUIRED TO USE ITEM 503 - COFFERDAMS AND EXCAVATION BRACING (CRIBS, AND SHEETING) TO DEWATER THE EXISTING PIPE PRIOR TO THE PREPARATION AND FIELD PAVING. AFTER THE PIPE HAS BEEN CLEANED OF ALL DEBRIS AND SEDIMENT, NO WATER WILL BE ALLOWED TO CONTAMINATE THE PIPE. IF ANY CONTAMINATION OCCURS, THE CONTRACTOR WILL RESEAL THE AREA AND RECLEAN THE PIPE AT NO ADDITIONAL COST.

ALL EROSION UNDER THE PIPE AND IN THE VOIDS WHERE THE PIPE IS RUSTED THROUGH WILL BE FILLED WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL.

ANY TREES LOCATED WITHIN 15' OF THE HEADWALLS THAT MAY POTENTIALLY DAMAGE THE CULVERT IN THE FUTURE OR ENCROACH UPON THE STREAM BEAD OR FIELD PAVING OPERATIONS WILL BE REMOVED. REMOVAL WILL BE DETERMINED BY THE PROJECT ENGINEER AND REMOVED UNDER ITEM 201 - CLEARING AND GRUBBING.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

SPECIAL, PIPE CLEANOUT 178 FT.

ITEM 530 - STRUCTURE MISC.: FALSEWORK

REMOVE EXISTING FALSEWORK TO PERFORM THE CONCRETE SPALL REMOVAL WORK. NEW FALSEWORK WILL BE INSTALLED TO MEET ALL REQUIREMENTS OF CMS 508. NEW FALSEWORK WILL BE LEFT-IN-PLACE. FALSEWORK WILL BE FROM EDGE OF SHOULDER TO EDGE OF SHOULDER OF BOTH THE EASTBOUND AND WESTBOUND PAVEMENTS. NEW FALSEWORK WILL BE INSTALLED PRIOR TO MEDIAN CURB REPAIR WORK ON STRUCTURE POR-14-1294.

SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: CURB REPAIR

THIS ITEM WILL BE USED TO REPAIR THE DETERIORATED FACE OF THE MEDIAN CURB ON THE BRIDGE DECK AND/OR APPROACH SLABS ON STRUCTURE POR-14-1294. THIS WORK WILL BE PERFORMED IN ACCORDANCE WITH ITEM 519 - PATCHING CONCRETE STRUCTURES AND AS MODIFIED HEREIN.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: CURB REPAIR AND WILL BE PAID FOR PER FOOT.

ITEM SPECIAL - PILE ENCASEMENT

ENCASE ALL STEEL H-PILES FOR THE CAPPED PILE PIERS IN CONCRETE CONFORMING TO C&MS 511 (F'C=4.0 KSI). PROVIDE A CONCRETE SLUMP BETWEEN 6 TO 8 INCHES WITH THE USE OF A SUPERPLASTICIZER. PLACE THE CONCRETE WITHIN A FORM THAT CONSISTS OF POLYETHYLENE PIPE (707.33), OR PVC PIPE (707.42). THE ENCASEMENT SHALL EXTEND FROM 3 FEET BELOW THE FINISHED GROUND SURFACE UP TO THE CONCRETE PIER CAP. POSITION PIPE SO THAT AT LEAST 3 INCHES OF CONCRETE COVER IS PROVIDED AROUND THE EXTERIOR OF THE PILE.

IN LIEU OF ENCASING THE PILE IN CONCRETE, GALVANIZE THE PILES ACCORDING TO 711.02. THE GALVANIZING SHALL BE CONTINUOUS FROM A MINIMUM OF 3 FEET BELOW THE FINISH GROUND SURFACE UP TO THE CONCRETE PIER CAP. THE GALVANIZED COATING THICKNESS SHALL BE A MINIMUM OF 4 MILS. REPAIR ALL GOUGES, SCRAPES, SCRATCHES OR OTHER SURFACE IMPERFECTIONS CAUSED BY THE HANDLING OR THE DRIVING OF THE PILE TO THE SATISFACTION OF THE ENGINEER.

THE DEPARTMENT WILL MEASURE PILE ENCASEMENT BY THE NUMBER OF FEET. THE DEPARTMENT WILL DETERMINE THE SUM AS THE LENGTH MEASURED ALONG THE AXIS OF EACH PILE FROM THE BOTTOM OF THE ENCASEMENT TO THE BOTTOM OF THE PIER CAP. THE DEPARTMENT WILL NOT PAY FOR GALVANIZING PROVIDED BEYOND THE PROJECT REQUIREMENTS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM - SPECIAL, PILE ENCASEMENT.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED	DRAWN	REVIEWED	DATE
NRC	NRC	LMP	12-13-13
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AAG			

STRUCURAL GENERAL NOTES
POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, POR-14-1489

POR-14-11.22
PID No. 82916

3 / 7

34
42

CALC:	NRC	DATE: 10/8/2013
CHECKED:	LMP	DATE: 12/13/2012

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.								ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
POR-14-1121 SFN 6700667 03/NHS/BR	POR-14-1294 SFN 6700691 03/NHS/BR	POR-14-1329 SFN 6700748 03/NHS/BR	POR-14-1427 SFN 6700756 03/NHS/BR	POR-14-1489 SFN 6700810 03/NHS/BR								
LUMP	LUMP	LUMP	LUMP	LUMP				201	11000		CLEARING AND GRUBBING	
				LUMP				202	11201		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	1/7
	1640			618				202	23500	SQ YD	WEARING COURSE REMOVED	
			178					SPEC	20270100	FT	PIPE CLEANOUT	3/7
				10				203	40000	CU YD	BORROW	
	128			26				SPEC	40720500	GALLON	TACK COAT, TRACKLESS TACK	
	476			93				SPEC	40720510	GALLON	TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE	
	202			27				448	46050	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
	133			27				448	46905	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN	
			LUMP					503	11100		COFFERDAMS AND EXCAVATION BRACING	
				320				SPEC	50771200	FT	PILE ENCASEMENT	3/7
	100	293		50				512	10100	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
1032		1767						512	10400	SQ YD	TREATING OF CONCRETE BRIDGE DECK WITH SRS	
	1521			495				512	33010	SQ YD	TYPE 3 WATERPROOFING	
	50	293						512	74000	SQ YD	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
				246				SPEC	51822300	FT	STEEL DRIP STRIP	
150	200			200				519	11101	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	1/7
	235							SPEC	51911720	FT	PATCHING CONCRETE STRUCTURE, MISC.: CURB REPAIR	3/7
21	20			9				SPEC	51912304	SQ YD	PATCHING CONCRETE BRIDGE DECK - TYPE C	
LUMP	LUMP	LUMP						SPEC	53000200		STRUCTURE, MISC.: STRUCTURE CLEANING	
	LUMP							SPEC	53000200		STRUCTURE, MISC.: FALSEWORK	3/7
	50			50				SPEC	53000800	SQ YD	STRUCTURE, MISC.: CONCRETE SPALL REMOVAL	1/7
				25				601	26000	CU YD	DUMPED ROCK FILL, TYPE B	
			45					601	32010	CU YD	ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER	
			178					611	96550	FT	FIELD PAVING OF EXISTING PIPE: (TWIN 12 FT. CMP)	3/7
			1					613	41200	CU YD	LOW STRENGTH MORTAR BACKFILL	
15	15	15	15					630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	2	2					630	80100	SQ FT	SIGN, FLAT SHEET, 730.20	
2	2	2	2					630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2					630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
75	100			100				843	50000	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
	124							846	00100	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT	

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ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

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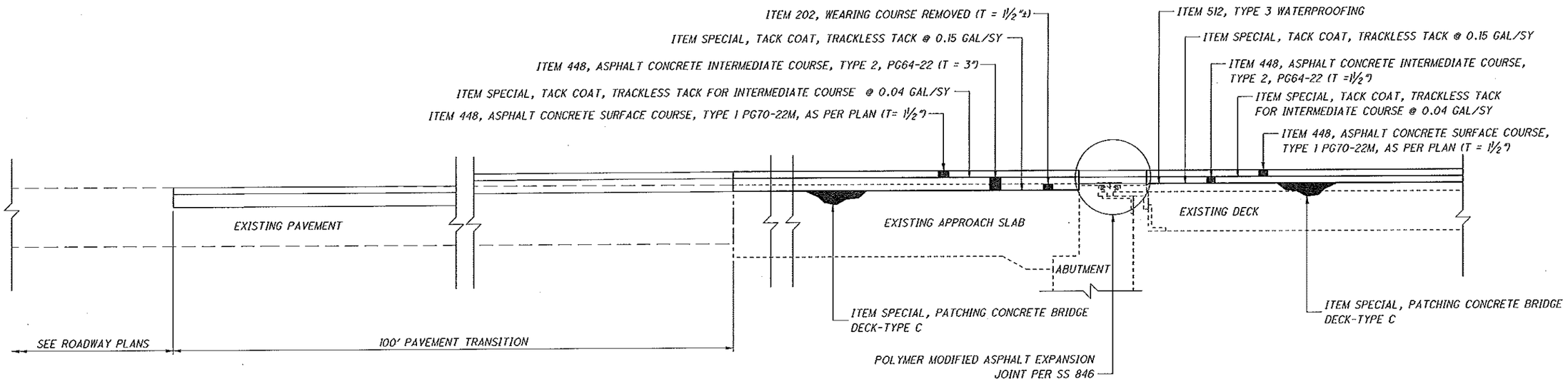
STRUCTURE ESTIMATED QUANTITIES
POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, POR-14-1489

POR-14-11.22
PID No. 82916



POR-14-1294

APPROACH SHOWN,
TRAILING SIMILAR

BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS												
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	SPEC TACK COAT, TRACKLESS TACK @ 0.15 GAL/SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (T=1 1/2")	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN (T=1 1/2")	512 TYPE 3 WATERPROOFING	SPEC PATCHING CONCRETE BRIDGE DECK - TYPE C	846 POLYMER MODIFIED ASPHALT EXPANSION JOINT			LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	202 WEARING COURSE REMOVED (T=1 1/2")	SPEC TACK COAT, TRACKLESS TACK @ 0.15 GAL/SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN	SPEC PATCHING CONCRETE BRIDGE DECK - TYPE C			
	FT	FT	SQ YD	GALLON	GALLON	CU YD	CU YD	SQ YD	SQ YD	FT			FT	FT	SQ YD		SQ YD	GALLON	GALLON	CU YD	CU YD	SQ YD			
POR-14-1294	232.00	59.00	1520.89	228.13	60.84	63.37	63.37	1520.89	15.21	124.00			25.00	59.00	163.89	FWD	163.89	24.58	6.56	13.66	6.83	1.64			
													25.00	59.00	163.89	REAR	163.89	24.58	6.56	13.66	6.83	1.64			

BRIDGE NUMBER	PAVEMENT FEATHER																							
	LENGTH OF FEATHER	FEATHER WIDTH	FEATHER AREA	APPROACH (FORWARD / REAR)	202 WEARING COURSE REMOVED (VAR T = 4 1/2" TO 1 1/2")	SPEC TACK COAT, TRACKLESS TACK @ 0.15 GAL/SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (T=3")	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN (T=1 1/2")															
	FT	FT	SQ YD		SQ YD	GALLON	GALLON	CU YD	CU YD															
POR-14-1294	100.00	59.00	655.56	FWD	655.56	98.33	26.22	54.63	27.31															
	100.00	59.00	655.56	REAR	655.56	98.33	26.22	54.63	27.31															

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DESIGNED NRC | DRAWN NRC | REVIEWED LMP | DATE 12-13-13

CHECKED AAG | REVISED | STRUCTURE FILE NUMBER

STRUCTURE DETAILS

POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, POR-14-1489

POR-14-11.22

PID No. 82916

5 / 7

36 / 42

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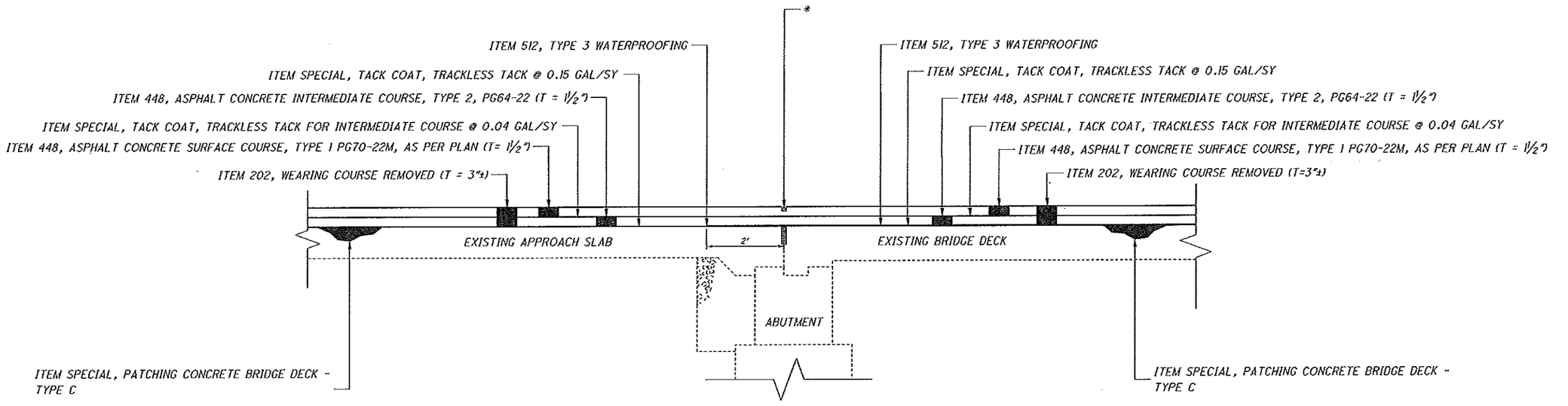

POR-14-1489

APPROACH SHOWN, TRAILING SIMILAR

* PREFORMED ELASTOMERIC COMPRESSION JOINT, SEAL, 705.11 (1¼" WIDE FOR A ½" WIDE GROOVE) PLACED IN ½" X 2¼" GROOVE

BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	202 WEARING COURSE REMOVED	SPEC TACK COAT, TRACKLESS TACK @ 0.15 GAL/SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (T=1 1/2")	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN (T=1 1/2")	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS	512 TYPE 3 WATERPROOFING	SPEC PATCHING CONCRETE BRIDGE DECK - TYPE C	SPEC STEEL DRIP STRIP	LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	202 WEARING COURSE REMOVED	SPEC TACK COAT, TRACKLESS TACK @ 0.15 GAL/SY	SPEC TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 (T=1 1/2")	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M, AS PER PLAN (T=1 1/2")	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS	512 TYPE 3 WATERPROOFING	SPEC PATCHING CONCRETE BRIDGE DECK - TYPE C	
	FT	FT	SQ YD	SQ YD	GALLON	GALLON	CU YD	CU YD	SQ YD	SQ YD	SQ YD	FT	FT	FT	SQ YD		SQ YD	GALLON	GALLON	CU YD	CU YD	SQ YD	SQ YD	SQ YD	
POR-14-1121	161.00	44.00	787.11						787.11		15.74		25.00	44.00	122.22	FWD						122.22		2.44	
													25.00	44.00	122.22	REAR						122.22		2.44	
POR-14-1329	258.00	50.00	1433.33						1433.33				30.00	50.00	166.67	FWD						166.67			
													30.00	50.00	166.67	REAR						166.67			
POR-14-1489	99.00	44.00	484.00	484.00	72.60	19.36	20.17	20.17		484.00	4.84	246.00	25.00	24.00	66.67	FWD	66.67	10.00	2.67	2.78	2.78		5.33	1.33	
													25.00	24.00	66.67	REAR	66.67	10.00	2.67	2.78	2.78		5.33	1.33	

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ODOT --- DISTRICT 4
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STRUCTURE DETAILS

POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, POR-14-1489

POR-14-11.22

PID No. 82916

6/7

37/42

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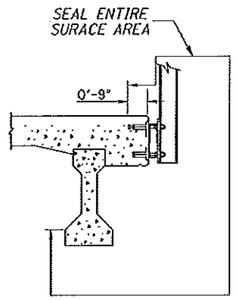
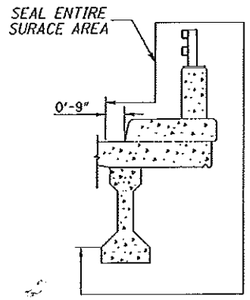
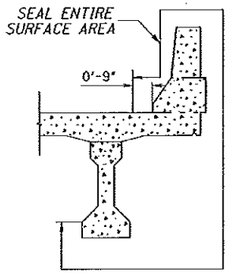


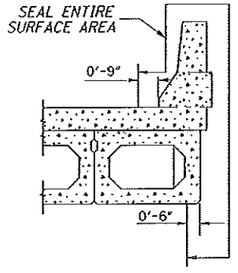
DETAIL A
CONCRETE DECKS WITH OVER THE SIDE DRAINAGE



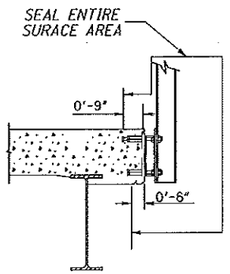
DETAIL B
CONCRETE DECKS WITH CURBS, SIDEWALKS AND PARAPET



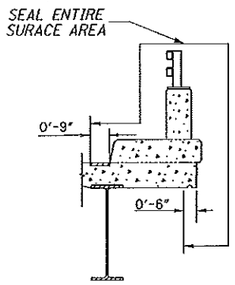
DETAIL C
CONCRETE DECK WITH DEFLECTOR PARAPET



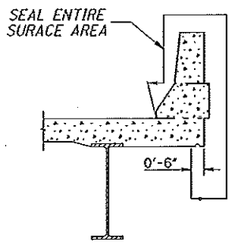
DETAIL D
PRESTRESSED BOX BEAM DECK WITH DEFLECTOR PARAPET



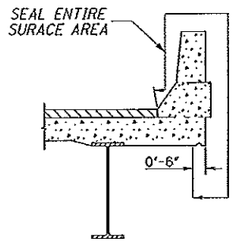
DETAIL E
CONCRETE DECKS WITH OVER THE SIDE DRAINAGE



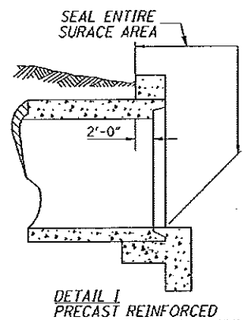
DETAIL F
CONCRETE DECKS WITH CURBS, SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH DEFLECTOR PARAPET



DETAIL H
ASPHALT DECK WITH DEFLECTOR PARAPET



DETAIL I
PRECAST REINFORCED CONCRETE BOX CULVERT

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
POR-14-1294	CONTINUOUS STEEL BEAM	SEAL SPALL REMOVAL AREAS OF BOTTOM OF DECK FLOOR SEAL BACK OF PIER CAPS			50		50	100
POR-14-1329	CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ONLY FRONT AND TOP OF PARAPET SEAL SPALL REMOVAL AREAS OF BOTTOM OF DECK FLOOR				293		293
POR-14-1489	CONTINUOUS CONCRETE SLAB	SEAL SPALL REMOVAL AREAS OF BOTTOM OF DECK FLOOR					50	50

NOTES:
- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE
- DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES

SEALING OF BEAM SEATS

SEALING OF BEAM SEATS: IF THE BEAMS SEATS ARE SEALED WITH AN EPOXY OR NON-EPOXY SEALER PRIOR TO SETTING THE BEARINGS, DO NOT APPLY SEALER TO THE CONCRETE SURFACES UNDER THE PROPOSED BEARING LOCATIONS. IF THESE LOCATIONS ARE SEALED, REMOVE THE SEALER TO THE SATISFACTION OF THE ENGINEER PRIOR TO SETTING THE BEARINGS. THE DEPARTMENT WILL NOT PAY FOR THIS REMOVAL.

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING

DESIGNED NRC | DRAWN NRC | REVIEWED LMP | DATE 12-13-13
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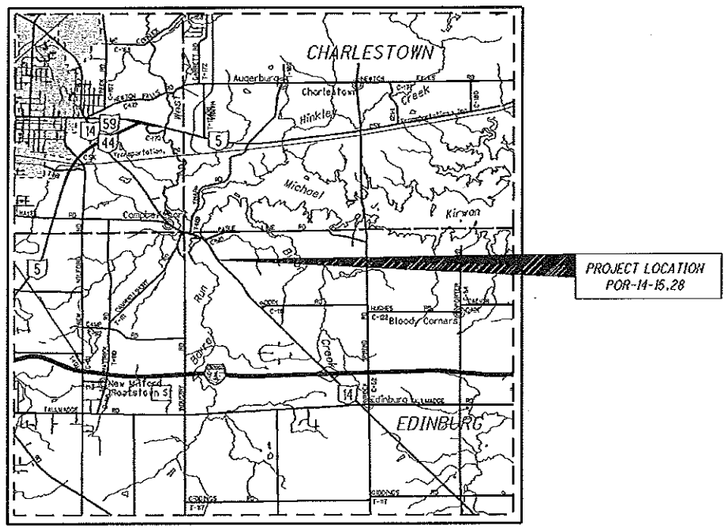
CONCRETE SEALING DETAILS
POR-14-1121, POR-14-1294, POR-14-1329, POR-14-1427, & POR-14-1489

POR-14-11.22
PID No. 82916

7 / 7

38
42

RIGHT OF WAY LEGEND SHEET POR-14-11.22



LOCATION MAP

S.R. 14 - LATITUDE: 41°10'24" LONGITUDE: 81°13'42"

SCALE IN MILES
0 1 2 3 4

N

POR-14-15.28 PART 1
PART OF LOT 1
N.W. QTR. EDINBURG TOWNSHIP

INDEX OF SHEETS:

LEGEND SHEET	1
PROPERTY MAP POR-14-15.28	2
SUMMARY SHEET	3
DETAIL SHEET POR-14-15.28	4

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE REALIGNMENT OF HAYES ROAD AND THE REMOVAL AND REPLACEMENT OF THE CULVERT LOCATED AT S.L.M. 15.28.

PROJECT CONTROL

STATE PLANE GRID: NAD83, (CORS96)
PROJECT ADJUSTMENT FACTOR = 0.99989741003

UTILITY OWNERS

TYPE	NAME & ADDRESS
TELEPHONE	AT&T THE OHIO BELL TELPHONE CO. ATTN: CINDY ZUCHEGNO 50 W. BOWERY STREET AKRON, OHIO 44308 330-384-3561
POWER	OHIO EDISON ATTN: JEFF KNAPP 1910 W. MARKET STREET BUILDING #1 AKRON, OHIO 44313
GAS	DOMINION EAST OHIO GAS ATTN: MARY J. LONG 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 330-664-2409 FAX 888-504-0126
CABLE	TIME WARNER CABLE ATTN: DOUG LAWRENTZ 4352 YOUNGSTOWN ROAD SE WARREN, OHIO 44484 330-369-7107 EXT. 7179

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
BS = BILL OF SALE
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
SL = SLOPE EASEMENT
S = SEWER EASEMENT
CH = CHANNEL EASEMENT

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Edge of Shoulder (Ex)
Edge of Shoulder (Pr)
Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex)
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

PLANS PREPARED BY:

FIRM NAME : ODOT DISTRICT 4

PLANS PREPARED BY: TIM WARD

FIELD REVIEW BY:

DATE COMPLETED:

OWNERSHIP VERIFIED BY:

DATE COMPLETED:

DATE COMPLETED:

NOTES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

I, Tim Ward, P. S. have calculated the Gross Take, present roadway occupied (PRO),Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire these parcels as shown herein.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted.

The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Tim Ward, Professional Land Surveyor 8045 Date:

SURVEYORS SEAL

SIGNED:
DATE:

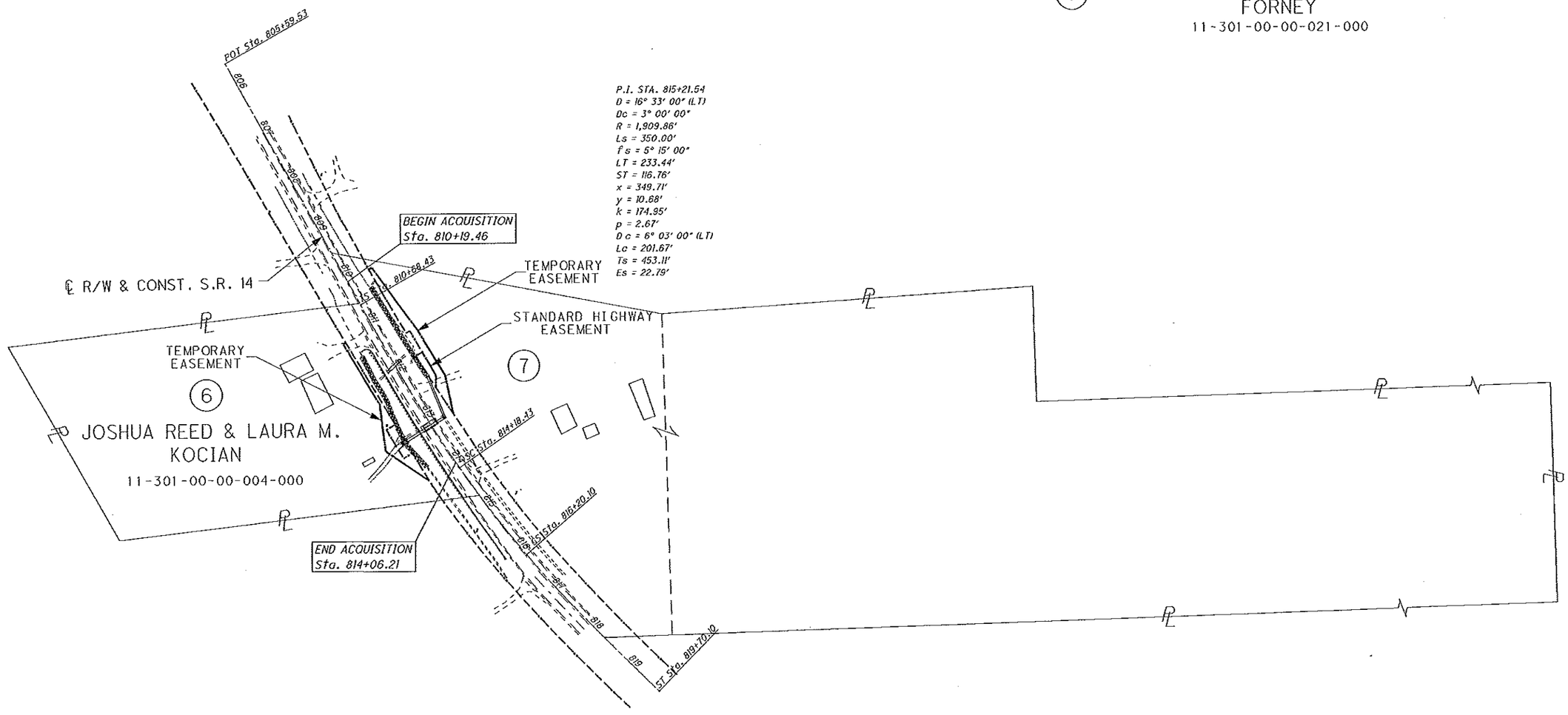
FEDERAL PROJECT NO. E081(084)
PID NO. 82916
CALCULATED TWW CHECKED BWH
RIGHT OF WAY LEGEND SHEET
POR-14-11.22
1/4
39/42

H:\2006\06831\SURVEY\MS8\82007RL001.DGN

POR-14-15.28 PART 1
PART OF LOT #1
N.W. QTR.
EDINBURG TOWNSHIP

PROPERTY OWNERS

(7) WILLIAM EARL & KAREN SUE FORNEY
11-301-00-00-021-000



REV. BY	DATE	DESCRIPTION
DATE COMPLETED		

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 82916

R/W DESIGNER TWW
R/W REVIEWER BWH

PROPERTY MAP

POR-14-11.22

2 / 4

40 / 42

TOTAL NUMBER OF :

2 OWNERSHIPS — TOTAL TAKES

3 PARCELS — OWNERSHIPS W/ STRUCTURES INVOLVED

RECORD AREA - TOTAL PRO - NET TAKE = NET RESIDUE

(c) = CALCULATED AREA

ALL AREAS IN ACRES

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
6-T	JOSHUA REED & LAURA M. KOCIAN	6	FILE NO.	201022225	11-301-00-00-004-000	5.63	0.24	0.069	0.000	0.069				STATE	TO GRADE AND SEED		
7-SH	WILLIAM EARL & KAREN SUE FORNEY	6	VOL. 1122	219	11-301-00-00-021-000	5.59	0.61	0.018	0.000	0.018		4.962					
7-T								0.095	0.000	0.095				STATE	TO GRADE AND SEED		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

LEGEND:
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT

* DENOTES RIGHT OF WAY ENCROACHMENT

REV. BY	DATE	DESCRIPTION
TWW	9-12-13	REV. TAKE AREA FOR PCL 1-WD
TWW	7-19-13	REV PCL 2WD TO 2WDR, SHOW WIRE FNC AS 'TAKE'
		ON PCL 3, SHOW PART OF SEPTIC AS 'TAKE' PCL 4,
		REV OWNER RECORD FOR PCL T-SH

FIELD REVIEW BY — DATE:

OWNERSHIP VERIFIED BY — DATE:

DATE COMPLETED

FEDERAL PROJECT NO.

PID NO. 82916

STATE JOB NO. 440257

R/W DESIGNER TWW

R/W REVIEWER BWH

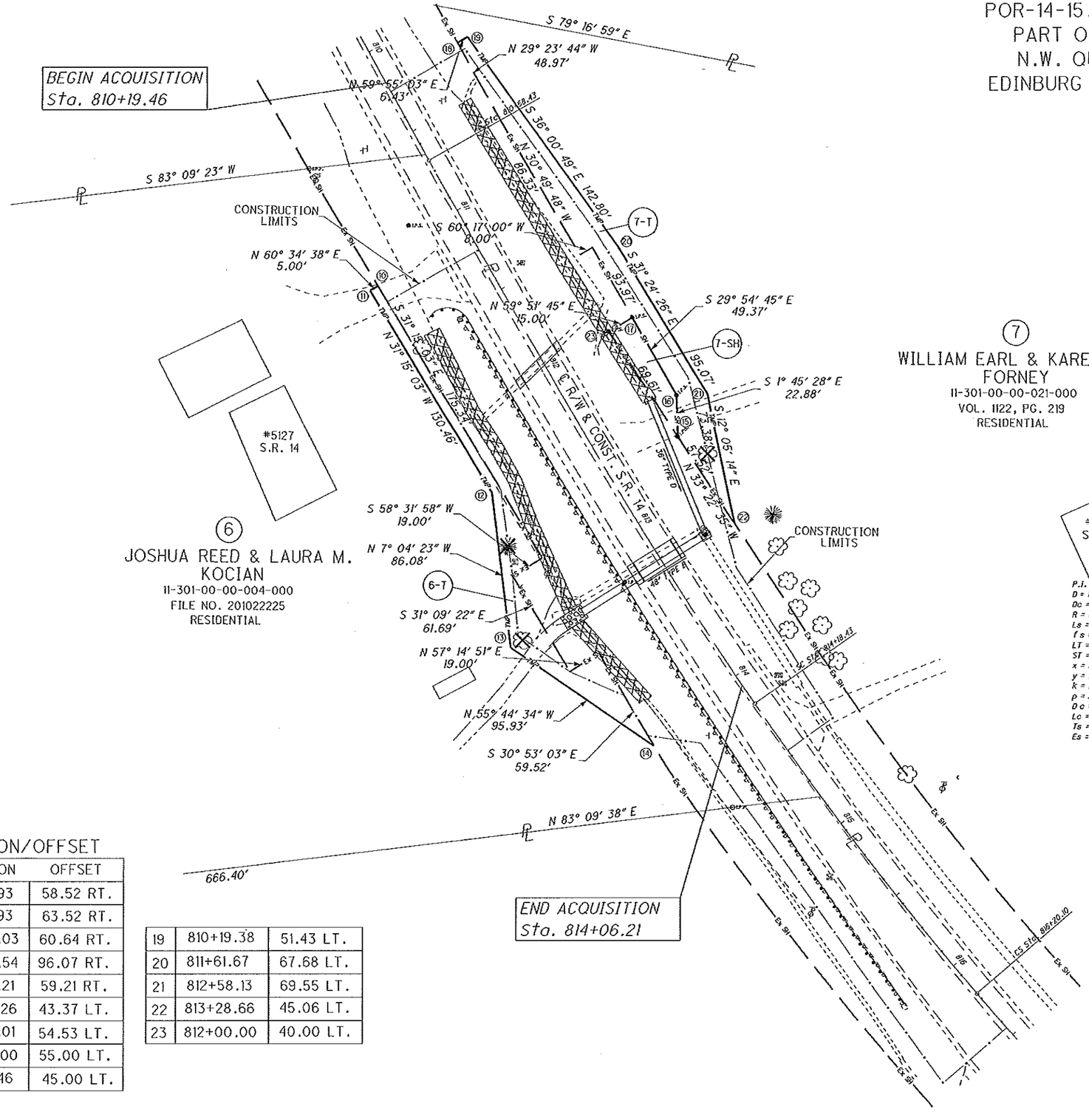
SUMMARY OF ADDITIONAL RIGHT OF WAY

POR-14-11.22

3 / 4

41 / 42

POR-14-15.28 PART 1
PART OF LOT 1
N.W. QUARTER
EDINBURG TOWNSHIP



⑥
JOSHUA REED & LAURA M. KOCIAN
11-301-00-00-004-000
FILE NO. 201022225
RESIDENTIAL

⑦
WILLIAM EARL & KAREN SUE FORNEY
11-301-00-00-021-000
VOL. 1122, PG. 219
RESIDENTIAL

STATION/OFFSET

	STATION	OFFSET
10	811+14.93	58.52 RT.
11	811+14.93	63.52 RT.
12	812+44.03	60.64 RT.
13	813+20.54	96.07 RT.
14	814+06.21	59.21 RT.
15	812+70.26	43.37 LT.
16	812+50.01	54.53 LT.
17	812+00.00	55.00 LT.
18	810+19.46	45.00 LT.

19	810+19.38	51.43 LT.
20	811+61.67	67.68 LT.
21	812+58.13	69.55 LT.
22	813+28.66	45.06 LT.
23	812+00.00	40.00 LT.

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- 5/8" x 30" IRON PIN SET W/ ID CAP
- IRON PIPE FOUND
- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

* DENOTES RIGHT OF WAY ENCROACHMENT

REV. BY	DATE	DESCRIPTION
TWW	7-19-13	SHOW TREE PCL 6, REV OWNER REC PCL 7

DATE COMPLETED

HORIZONTAL SCALE IN FEET
0 15 30 60

PID NO. 82916

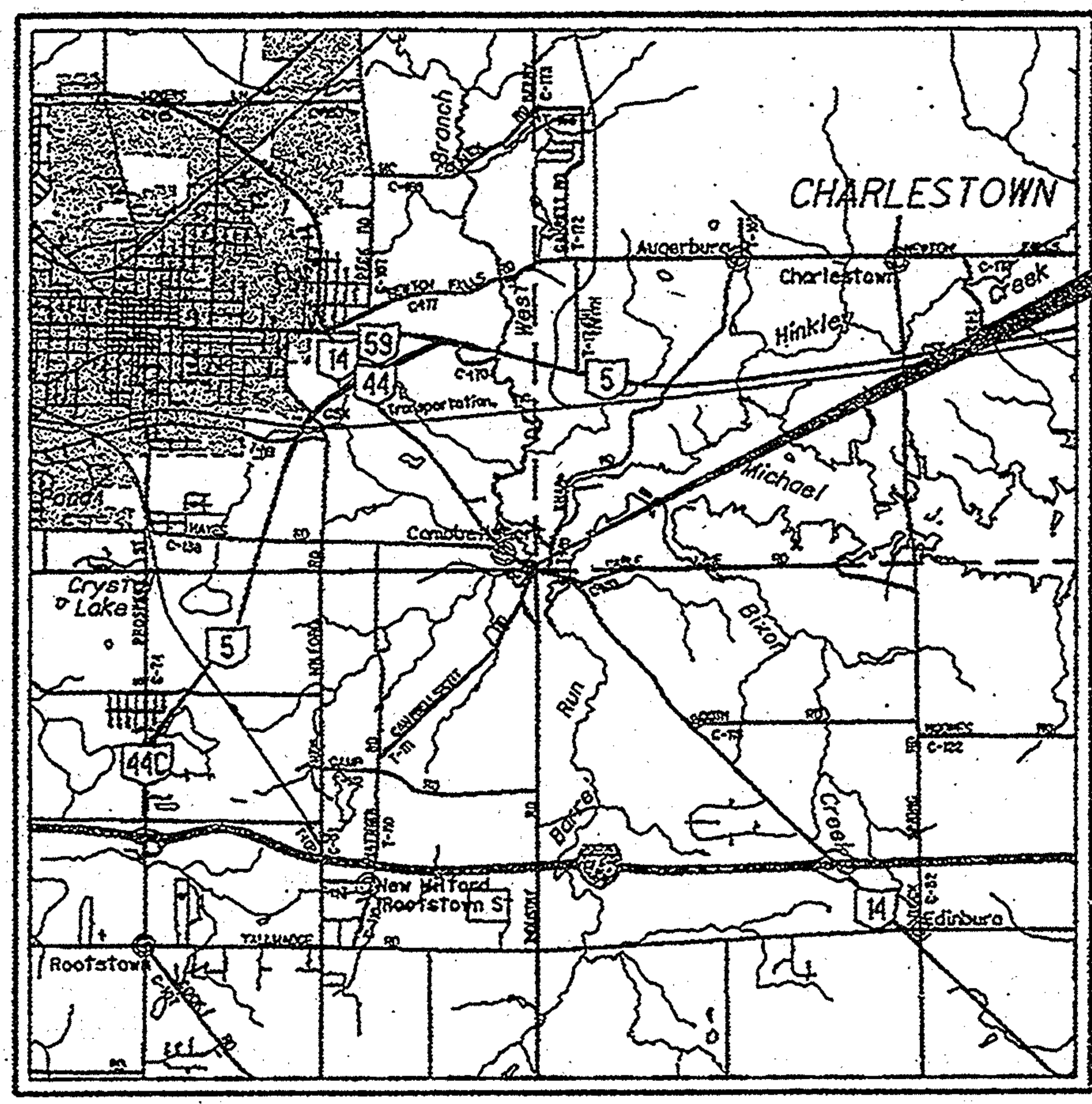
R/W DESIGNER TWW
R/W REVIEWER BWH

RIGHT OF WAY PLAN
STA 810+25.00 TO STA 815+00.00

POR-14-11.22

4 / 4

42 / 42



PROJECT LOCATION
SLM: 14.63

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

POR-14-14.63, PART 2
RAVENNA TOWNSHIP
PORTAGE COUNTY
FOR PART 1, SEE POR-14-11.22
FOR PART 3, SEE POR-14-14.53

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2-3
MAINTENANCE OF TRAFFIC	4-6
GENERAL SUMMARY	7
PLAN SHEETS	8
CULVERT DETAIL	9

LOCATION MAP

LATITUDE: N41°08'04" LONGITUDE: W81°11'39"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2013)	10900
DESIGN YEAR ADT (2033)	14000
DESIGN HOURLY VOLUME (2033)	10%
DIRECTIONAL DISTRIBUTION	60%
TRUCKS (24 HOUR B&C)	12%
DESIGN SPEED	60 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL URBAN	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
ODOT - DISTRICT 4 PLANNING & ENGINEERING
2088 SOUTH ARLINGTON RD.
AKRON, OHIO 44306

ENGINEERS SEAL:
STATE OF OHIO
LAUREN M. PHILLIS
E-75639
REGISTERED PROFESSIONAL ENGINEER
SIGNED: [signature]
DATE: 2-21-14

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
SEE PART 1	SEE PART 1	SEE PART 1

PROJECT DESCRIPTION

CULVERT REPLACEMENT OVER MILK CREEK WITH MINOR GUARDRAIL WORK.

PROJECT EARTH DISTURBED AREA:	0.28 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 5-6.

APPROVED [signature]
DATE 2-24-14 DISTRICT DEPUTY DIRECTOR

APPROVED [signature]
DATE 4-15-14 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E081(084)
PID NO. 82916
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
POR-14-14.63

I:\Projects\POR\93382_14-1463\93382\roadway\sheets\93382GT001.dgn 12-FEB-2014 2:54PM rbaughma

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

UTILITIES
THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.
OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

Dominion East Ohio Gas
ATTN: Mary Long
320 Springside Drive
Suite 320
Akron, OH 44333
330-664-2409
888-504-0126 Fax

AT&T
The Ohio Bell Telephone Company
ATTN: Cindy Zuchegno
50 W. Bowery St.
4th Floor
Akron, OH 44308
330-384-3561

Time Warner Cable
ATTN: Doug Lawrentz
4352 Youngstown Road SE
Warrren, OH 44484
330-369-7107 ext. 7179

Ohio Edison
ATTN: Jeff Knopp
1910 W. Market Street
Building #1
Akron, OH 44313
330-436-4051

SURVEYING PARAMETERS
USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2009

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (CORS96) (EPOCH: 2002.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99989741003
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.28083333333 U.S. SURVEY

WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL
WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27.75 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA
ACCESS TO THE WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA AND THEIR ASSOCIATED RECREATIONAL FACILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ALL EXISTING ACCESS POINTS FOR THE WEST BRANCH STATE PARK/WEST BRANCH STATE PARK WILDLIFE AREA SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION. NO STAGING AND/OR STORING OF CONSTRUCTION EQUIPMENT WILL OCCUR WITHIN THE EXISTING BOUNDARIES OF THE M.J. KIRWAN RESERVOIR/WEST BRANCH STATE PARK WILDLIFE AREA.

WATERWAY PERMIT DETERMINATION (404/401) - ODOT PROJECTS
ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (E.G., STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) DETERMINED THE PROJECT MEETS THE CRITERIA OF THE NATIONWIDE PERMIT (NWP) #3 (MAINTENANCE) UNDER THE FEBRUARY 21, 2012, FEDERAL REGISTER FINAL NOTICE OF REISSUANCE OF NATIONWIDE PERMITS (77 FEDERAL REGISTER 10184) FOLLOWING USACE VERIFICATION OF THE PRE-CONSTRUCTION NOTIFICATION (PCN) PREPARED FOR THE PROJECT. THE PROJECT CONTRACTOR SHALL MAINTAIN A COPY OF THE USACE SECTION 404 NATIONWIDE PERMIT #3 (2012-00604-MAH) AT THE WORK SITE AT ALL TIMES DURING CONSTRUCTION AT STRUCTURE NO. POR-14-1463 (SFN: 6700780) AND ADHERE TO ALL WATERWAY PERMIT TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION.

PAINTING & SEALING OPERATIONS
THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT, OR OTHER MATERIALS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

BEST MANAGEMENT PRACTICES
WORK WITHIN THE MICHAEL J. KIRWAN RESERVOIR SHALL BE PERFORMED DURING THE WINTER RESERVOIR DRAW DOWN PERIOD. CONTACT THE US ARMY CORPS OF ENGINEERS FOR SPECIFIC TIME AND DRAW DOWN ELEVATION INFORMATION. WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. THEY SHALL ALSO COMPLY WITH ODOT'S HANDBOOK FOR SEDIMENT AND EROSION CONTROL.

ALL MATERIALS REMOVED FROM THE RESERVOIR SHALL BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. AREAS DISTURBED BY EQUIPMENT ACTIVITIES SHALL BE STABILIZED TO PREVENT EROSION OF SEDIMENTS INTO THE WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL UTILIZE AN APPROVED DISPOSAL SITE FOR THE DISPOSAL OF ALL WASTE FILL MATERIAL. THE APPROVED DISPOSAL SITE SHALL NOT INCLUDE ANY WETLANDS, STREAM BANKS OR RIVERBANKS OR ANY 100-YEAR FLOOD PLAINS.

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK IN THE RESERVOIR SHALL BE OPERATED IN SUCH A MANNER AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING THE RESERVOIR. ANY DEBRIS THAT DOES FALL INTO THE RESERVOIR SHALL BE REMOVED AS SOON AS POSSIBLE.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND MATERIAL BELOW THE ORDINARY HIGH WATER MARK OF M.J. KIRWAN RESERVOIR. EQUIPMENT AND MATERIAL STAGING AREAS SHALL BE KEPT AWAY FROM M.J. KIRWAN RESERVOIR TO EXTENT PRACTICABLE AND ALL AREAS DISTURBED BY THE PROJECT SHALL BE STABILIZED TO DECREASE THE POTENTIAL FOR EROSION. ANY DISTURBED AREAS ALONG THE STATE ROUTE 14 CAUSEWAY SHALL BE RESTORED TO A CONDITION AS GOOD AS OR BETTER THAN EXISTING PRIOR TO CONSTRUCTION ACTIVITIES.

SPILL INCIDENT REPORTING
TO MINIMIZE THE POTENTIAL FOR A RELEASE TO WATER INTAKE 6766711 ODNR WEST BRANCH TOWER, ALL PROJECT-RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. SPILLS OF FUELS, OILS, CHEMICALS OR OTHER MATERIALS WHICH COULD POSE A THREAT TO SURFACE WATER OR GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHOULD CONTACT THE OHIO EPA SPILL REPORTING 24-HOUR EMERGENCY SERVICE AT (800) 282-9378, THE US ARMY CORPS OF ENGINEERS AT (330) 358-2622, THE CHARLESTOWN VOLUNTEER FIRE DEPARTMENT AT (330) 297-0089 AND THE EDINBURG TOWNSHIP FIRE DEPARTMENT AT (330) 325-1224 FOR CLEANUP OF THE SPILL.
OHIO EPA SPILL REPORTING
24 HOUR EMERGENCY SERVICE
CALL: 1-800-282-9378 OR NEDO (330) 963-1200

PROVIDE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:
1. TIME OBSERVED
2. LOCATION
3. MATERIAL RELEASED
4. PROBABLE SOURCE
5. VOLUME & DURATION
6. PRESENT & ANTICIPATED MOVEMENT OF CONTAMINANT
7. PERSONNEL ON SCENE
8. ACTIONS ALREADY INITIATED
9. PERSON(S) ON THE SCENE TO CONTACT
US ARMY CORPS OF ENGINEERS
DOUG KRIDER
MJ KIRWAN DAM & RESERVOIR RESOURCE MANAGER
8657 KESTREL WAY, WAYLAND, OH 44285-0058
330-358-2622
DOUGLAS.A.KRIDER@USACE.ARMY.MIL

SPILL CONTAINMENT
PROVIDE AND MAINTAIN AN OIL SPILL KIT WITH A MINIMUM CAPACITY OF 65 GALLONS. THE SPILL KIT SHALL CONTAIN:
- 6 - 3 IN. X 8 FT. OIL ONLY SOCKS
- 4 - 18 IN. X 18 IN. OIL ONLY PILLOWS
- 2 - 5 IN. X 10 FT. BOOMS
- 50 - 16 IN. X 20 IN. OIL ONLY PADS
- 10- DISPOSABLE BAGS
- 1- 65 GALLON DRUM WITH LID
- 25 POUNDS OF GRANULAR OIL ABSORBENT

THE OIL SPILL KIT SHALL BE LOCATED WITHIN 150 FEET OF ANY EQUIPMENT WORKING IN A STREAM OR WETLAND. THE OIL SPILL KIT SHALL BE MAINTAINED FOR THE LIFE OF THE CONTRACT. ANY MATERIALS UTILIZED DURING THE PROJECT WILL BE REPLACED WITHIN 48 HOURS.

ALL COSTS ASSOCIATED WITH FURNISHING AND MAINTAINING THE ABOVE REFERENCED SPILL CONTAINMENT KIT IS INCIDENTAL TO WORK.

ENDANGERED SPECIES HABITAT
PRIOR TO STRUCTURE REMOVAL, THE UNDERSIDE OF THE POR-14-1463 CMP STRUCTURE SHALL BE CAREFULLY EXAMINED BY THE CONTRACTOR FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 1 TO SEPTEMBER 30. IF ANY BATS ARE FOUND ROOSTING IN THE STRUCTURE, THE USFWS, ECOLOGICAL SERVICES DIVISION (614-416-8993), ODOT OFFICE OF ENVIRONMENTAL SERVICES (614-466-7880) AND ODOT DISTRICT 4 ENVIRONMENTAL SECTION (330-786-4930) SHALL BE CONTACTED TO PROVIDE THIS INFORMATION. SHOULD, DURING THE TERM OF THIS ACTION, ADDITIONAL INFORMATION ON LISTED OR PROPOSED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS ACTION THAT WERE NOT PREVIOUSLY CONSIDERED, CONSULTATION WITH THE USFWS SHALL BE REINITIATED TO ASSESS WHETHER THE DETERMINATIONS ARE STILL VALID.

POR-14-14.63

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALLBE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

AN ESTIMATED QUANTITY OF 17 CU. YD. HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM 209 - RESHAPING UNDER GUARDRAIL
SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE INTO THE DITCH AND SHALL BE PERFORMED ONLY IN THE AREAS NECESSARY. RESHAPING SHALL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 SLOPE TO THE DITCH BREAK POINT. EXCESS MATERIAL SHALL BE WINDROWED ON THE SHOULDER. THE RESHAPED AREAS SHALL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING AS PER 659 IS PERFORMED. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE BERMS AND NOT ALLOWED TO ENTER THE DITCH LINE AND SHALL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

THE METHOD OF MEASUREMENT OF ITEM 209 RESHAPING UNDER GUARDRAIL SHALL BE STATIONS, WITH ONE STATION EQUAL TO 100 LINEAR FEET. THE DISTANCE SHALL BE MEASURED ALONG EACH EDGE OF PAVEMENT. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 209 RESHAPING UNDER GUARDRAIL. IN AREAS WHERE GRADING IS NOT REQUIRED BEYOND THE 617 LIMIT, RESHAPING UNDER GUARDRAIL WILL BE NON-PERFORMED AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

209, RESHAPING UNDER GUARDRAIL	14 STA

SEEDING AND MULCHING
THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL	153 CU. YD.
659, SEEDING AND MULCHING	1375 SQ. YD.
659, REPAIR SEEDING AND MULCHING	69 SQ. YD
659, COMMERCIAL FERTILIZER	0.19 TON
659, LIME	0.28 ACRES
659, WATER	7 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS
THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

202, PAVEMENT REMOVED	86 SQ. YDS.
203, EMBANKMENT	183 CU. YDS.
252, FULL DEPTH PAVEMENT SAWING	64 FT.
301, ASPHALT CONCRETE BASE, PG64-22 (T=12")	29 CU. YDS.
304, AGGREGATE BASE, AS PER PLAN (T=6")	15 CU. YDS.

THE ABOVE PAVEMENT QUANTITIES ARE BASED ON A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH. SEE STANDARD CONSTRUCTION DRAWING DM-1.4 FOR TRENCH WIDTH FORMULA AND CALCULATION.

EXISTING PAVEMENT BUILD-UP CONSISTS OF CONCRETE BASE WITH ASPHALT OVERLAY.

ITEM 301, 12" ASPHALT CONCRETE BASE, PG64-22 SHALL BE PLACED TO MATCH THE TOP OF EXISTING ADJOINING ASPHALT CONCRETE PAVEMENT TO PROVIDE A SMOOTH TRANSITION.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 304 - AGGREGATE BASE, AS PER PLAN
GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

ITEM SPECIAL - MAILBOX SUPPORT
THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

SPECIAL, MAILBOX SUPPORT SYSTEM, SINGLE	1 EACH

STRUCTURE IDENTIFICATION SIGNS
STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
POR-14-1463 (2 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 1 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

POR-14-14.63

3
9

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

2. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.

3. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

4. A QUANTITY OF 20 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

5. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 1 M. GAL

DETOUR NOTIFICATION [ODOT]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 7 CONSECUTIVE CALENDAR DAYS BETWEEN 3/01/2015 AND 5/01/2015, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 5. POR-14-14.63 (PART 2) AND POR-14-14.53 (PART 3) SHALL NOT BE CLOSED CONCURRENTLY. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL SHALL HAVE NO OTHER CONSTRUCTION RELATED DUTIES. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. 5. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

W20-H14-60

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE CHANGEABLE MESSAGE SIGN, THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCE OF 650 FEET AND 475 FEET RESPECTIVELY.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. THE PCMS SHALL BE LOCATED. IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF. ADDITIONALLY WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE LINE PRESENTATION FORMATS WITH UP TO OF SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND. THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

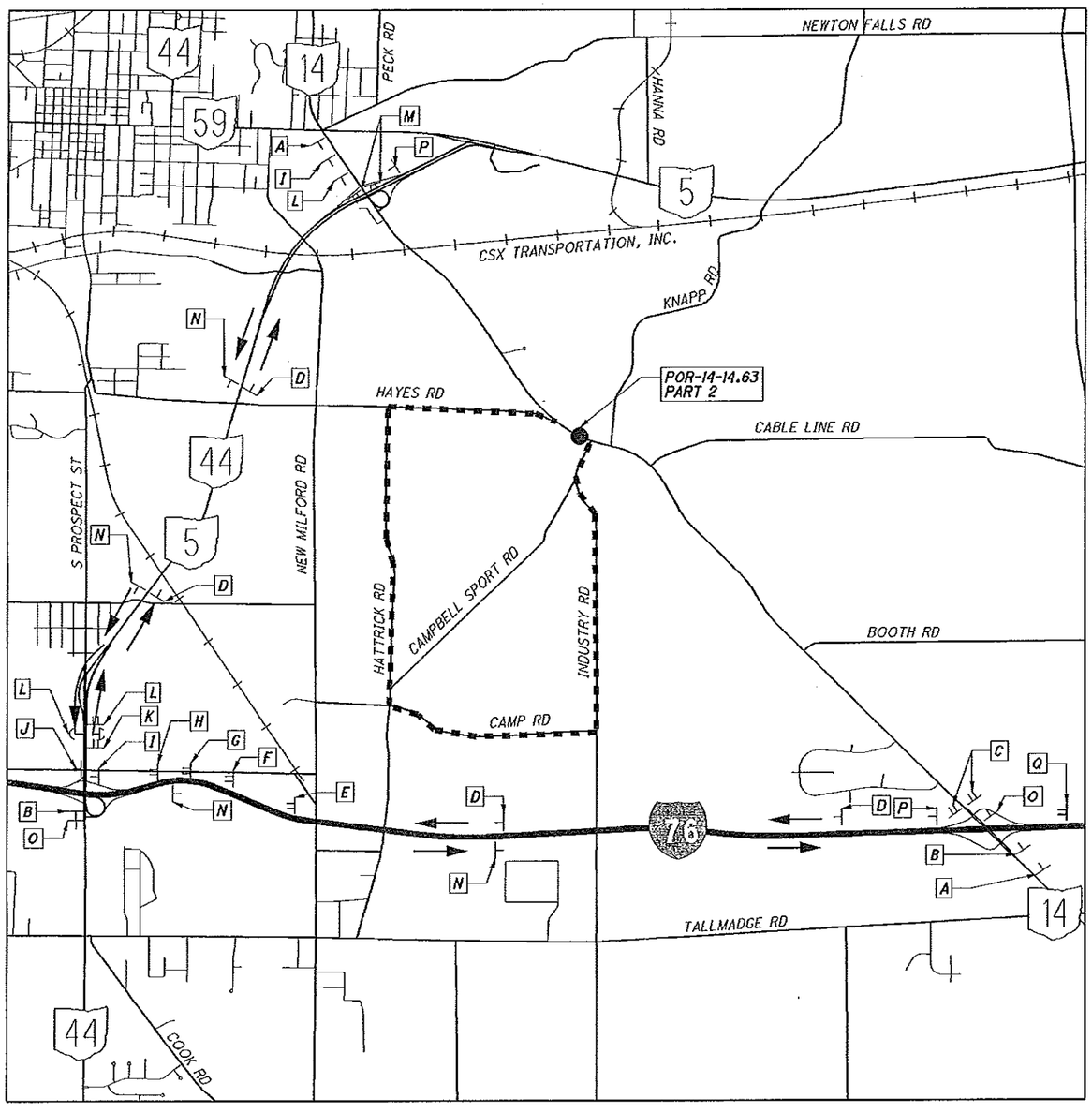
PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

614 PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN, 1 SIGN MONTH

CALCULATED CNC CHECKED MJH

MAINTENANCE OF TRAFFIC GENERAL NOTES

POR-14-14.63



DETOUR PLAN FOR POR-14-14.63 (PART 2)

NOT TO SCALE

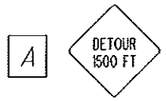
CLOSE AS PER STD. DWG. MT-101.60

OFFICIAL DETOUR ROUTE: IR76 - SR44/SR5

LOCAL ALTERNATE DETOUR ROUTE:
INDUSTRY RD - CAMP RD - HATTRICK RD - HAYES RD

\# ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

A


W20-2-36

B

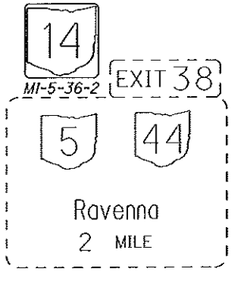

M4-8-24
M1-5-24-2
M5-1L-21

C # ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY
R11-3A-60


M4-10L-48

D


M4-8-30
M3-4-36
M1-5-36-2

E


M4-8-30
M1-5-36-2

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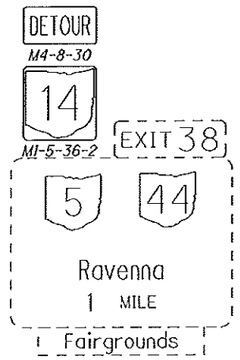

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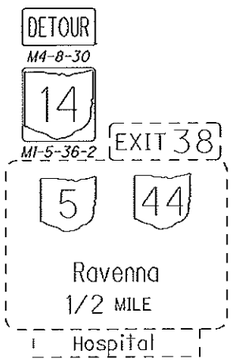

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M1-5-36-2

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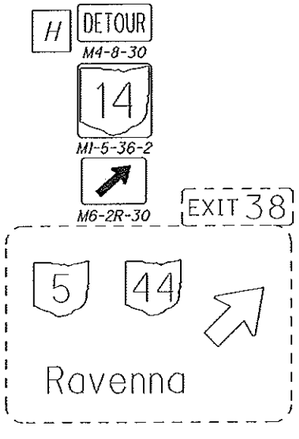

M4-8-30
M1-5-36-2
M6-2R-30

CALCULATED CNC
CHECKED MJH

MAINTENANCE OF TRAFFIC DETOUR PLAN

POR-14-14.63

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I

J

K

L

M #

N

O

P

Q

PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES:

1. SR 14W CLOSED

2. FOLLOW IR-76W

MAINTENANCE OF TRAFFIC DETOUR PLAN

CALCULATED CNC
CHECKED MJH

POR-14-14.63

6
9

SHEET NUMBER											PARTICIPATION		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							2	3	4	8		04/NH S/BR						
																	ROADWAY	
							LUMP					LUMP	201	11000	LUMP		CLEARING AND GRUBBING	
								86				86	202	23000	86	SQ YD	PAVEMENT REMOVED	
										1262.5		1262.5	202	38000	1262.5	FT	GUARDRAIL REMOVED	
								183				183	203	20000	183	CU YD	EMBANKMENT	
								14				14	209	15000	14	STATION	RESHAPING UNDER GUARDRAIL	
										1150		1150	606	15100	1150	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
										2		2	606	26050	2	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
										3		3	606	27820	3	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
								1				1	SPEC	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	3
																	EROSION CONTROL	
								153				153	659	00300	153	CU YD	TOPSOIL	
								1375				1375	659	10000	1375	SQ YD	SEEDING AND MULCHING	
								69				69	659	14000	69	SQ YD	REPAIR SEEDING AND MULCHING	
								0.19				0.19	659	20000	0.19	TON	COMMERCIAL FERTILIZER	
								0.28				0.28	659	31000	0.28	ACRE	LIME	
								7				7	659	35000	7	M GAL	WATER	
												2000	832	30000	2000	EACH	EROSION CONTROL	
																	PAVEMENT	
								64				64	252	01500	64	FT	FULL DEPTH PAVEMENT SAWING	
								29				29	301	46000	29	CU YD	ASPHALT CONCRETE BASE, PG64-22	
								15				15	304	20001	15	CU YD	AGGREGATE BASE, AS PER PLAN	3
								17				17	617	10101	17	CU YD	COMPACTED AGGREGATE, AS PER PLAN	3
																	TRAFFIC CONTROL	
										15		15	626	00100	15	EACH	BARRIER REFLECTOR	
																	STRUCTURES	
																	FOR STRUCTURE ESTIMATED QUANTITIES	9
																	MAINTENANCE OF TRAFFIC	
									LUMP			LUMP	614	12420	LUMP		DETOUR SIGNING	
									20			20	614	13000	20	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
									1			1	614	18601	1	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
									1			1	616	10000	1	M GAL	WATER	
												LUMP	614	11000	LUMP		MAINTAINING TRAFFIC	
												12	619	16010	12	MONTH	FIELD OFFICE, TYPE B	
												LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LUMP	624	10000	LUMP		MOBILIZATION	

CALCULATED RCB
CHECKED LMP

GENERAL SUMMARY

POR-14-14.63

7
9

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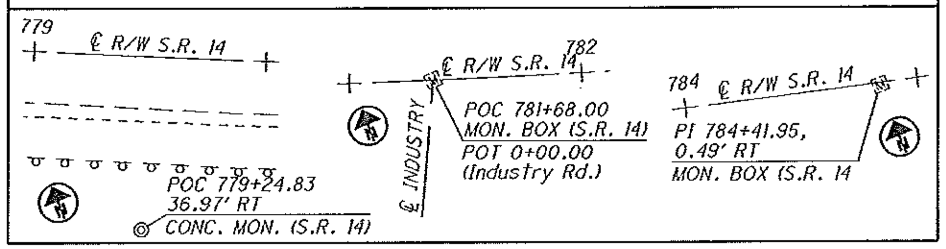
℄ REFERENCES

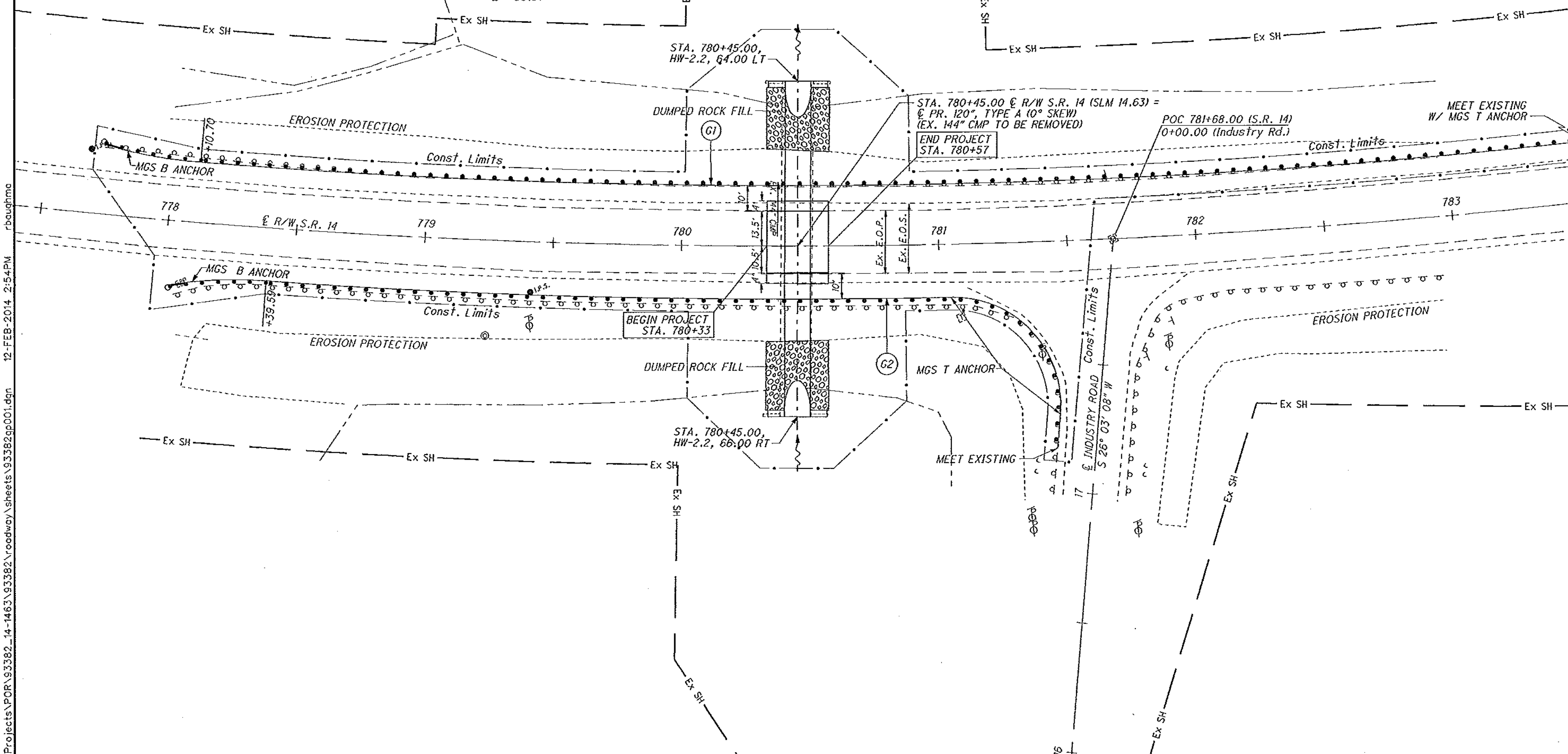


BENCHMARK DATA

BM #1 STA. 780+52.28, ELEV. 998.71, OFFSET -20.35,
PT#T200 IPIN #5 REBAR w/ODOT CAP
BM #2 STA. 781+83.01, ELEV. 999.38, OFFSET 37.19,
PT#T250 IPIN #5 REBAR w/ODOT CAP
BM #3 STA. 793+66.49, ELEV. 999.01, OFFSET -19.52,
PT#T300 IPIN #5 REBAR w/ODOT CAP
BM #4 STA. 770+52.28, ELEV. 1000.34, OFFSET -48.82,
PT#SV314 CHISLED SQUARE NE CORNER CATCH BASIN

REF NO.	STATION TO STATION					202 GUARDRAIL REMOVED	606 GUARDRAIL, TYPE MGS WITH LONG POSTS	606 ANCHOR ASSEMBLY, MGS TYPE B	606 ANCHOR ASSEMBLY, MGS TYPE T	626 BARRIER REFLECTOR, TYPE A2
						FT	FT	EACH	EACH	EACH
G1	777+73.09	LT	TO	786+48±	LT	875.00	825.00	1	1	10
G2	778+02.69	RT		781+45±	RT	387.50	325.00	1	2	5
TOTALS CARRIED TO GENERAL SUMMARY						1262.5	1150	2	3	15

P.I. STA. 779+28.78
D = 18° 23' 16" (LT)
Dc = 2° 01' 02"
R = 2,840.53'
T = 459.75'
L = 911.60'
E = 36.97'



PLAN SHEET - SR 14, 14.63
STA. 777+50 TO STA. 783+50

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED RCB CHECKED LMP

POR-14-14.63

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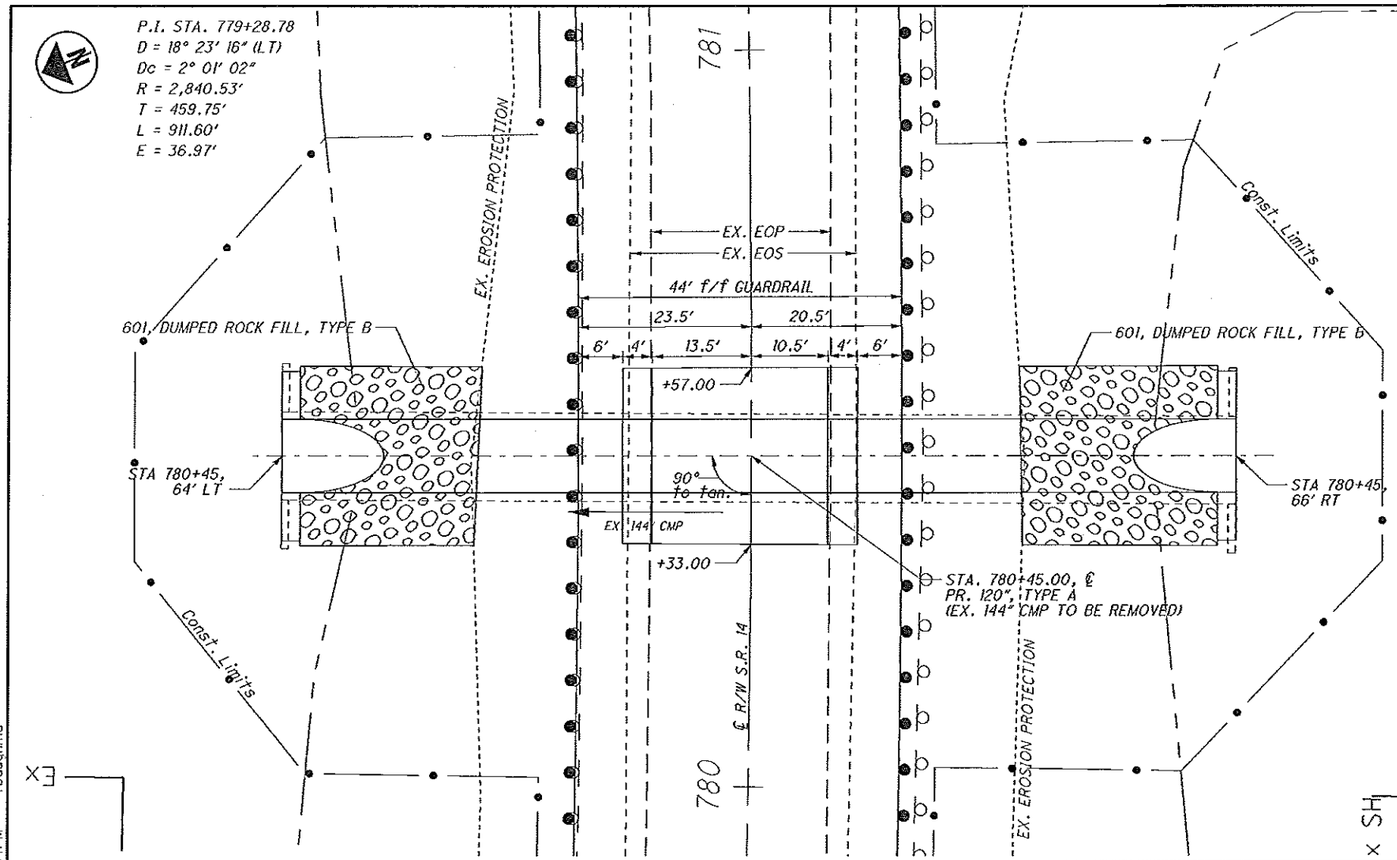

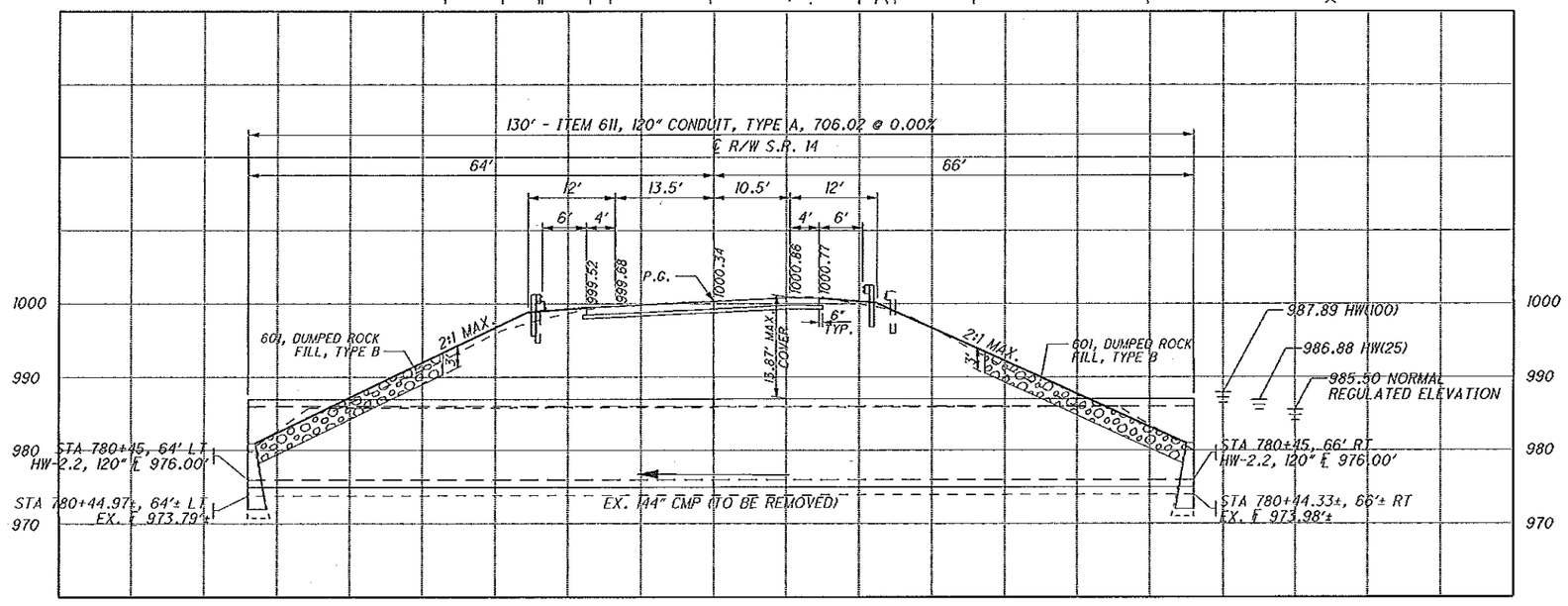

PROFILE ALONG ℄ CULVERT

ESTIMATED QUANTITIES (04/NHS/BR)

ITEM	EXT	TOTAL	UNIT	DESCRIPTION
202	11000	LUMP		STRUCTURE REMOVED
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING
601	26000	118	CU YD	DUMPED ROCK FILL, TYPE B
602	20000	17.9	CU YD	CONCRETE MASONRY
611	34000	130	FT	120" CONDUIT, TYPE A, 706.02
630	02100	15	FT	GROUND MOUNTED SUPPORT, NO. 2 POST
630	80100	2	SQ FT	SIGN, FLAT SHEET, 730.20
630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL

FOR BENCHMARK INFORMATION SEE ROADWAY PLAN SHEET (9)

DESIGN TRAFFIC:
2013 ADT = 10900 2013 ADTT = 1308
2033 ADT = 14000 2033 ADTT = 1680
DIRECTIONAL DISTRIBUTION = 60%

HYDRAULIC DATA

DRAINAGE AREA = 3.42 SQ. MILES
Q (25) = 565 CFS V (25) = 7.33 FT/S
Q (100) = 745 CFS V (100) = 9.67 FT/S
HW (25) = 986.88 FT
HW (100) = 987.89 FT

EXISTING STRUCTURE

TYPE:	144" CMP
ROADWAY:	31'± EOP/EOP
LOADING:	H/20
SKEW:	NONE
WEARING SURFACE:	ASPHALT CONCRETE
APPROACH SLABS:	NONE
ALIGNMENT:	CURVED
SUPERELEVATION:	0.049±
OLD SFN:	6700780

PROPOSED STRUCTURE

TYPE:	120" CONDUIT, TYPE A, 706.02
ROADWAY:	32'-0" EOP/EOP
LOADING:	AS PER CMS 706.02 AND ASTM C 655
SKEW:	NONE
ALIGNMENT:	CURVED
SUPERELEVATION:	0.049±
SFN:	6700772
pH LEVEL:	7.9
ABRASIVE:	NO
SERVICE LIFE:	50 YEARS
LOCATION:	N 41° 08' 04" W 81° 11' 39"

DESIGN AGENCY: ODOT --- DISTRICT 4 PLANNING AND ENGINEERING
DATE: 4-24-12
REVIEWED: LMP
STRUCTURE FILE NUMBER: 6700772
DRAWN: RCB
REVISED:
DESIGNED: RCB
CHECKED: TJP
PORTAGE COUNTY
STA. 780+33.00
STA. 780+57.00

SITE PLAN
POR-14-1463
OVER MILK CREEK

POR-14-14.63
PID No. 82916

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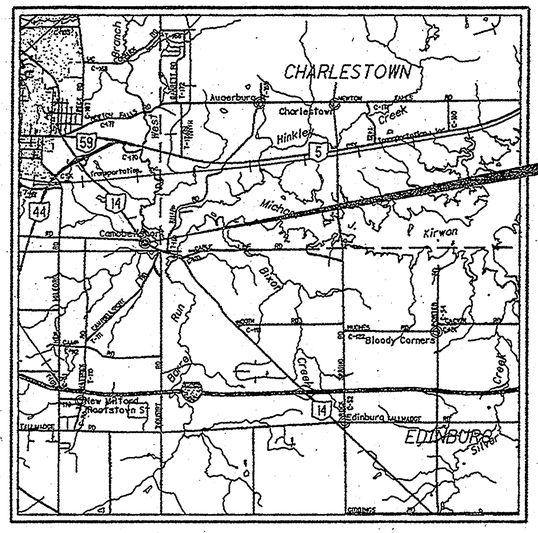


LOCATION MAP

S.R 14 - LATITUDE: 41°08'09" N LONGITUDE: 81°11'49" W

SCALE IN MILES
0 1 2 3 4

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	HAYES RD.
CURRENT ADT (2014)	730
DESIGN YEAR ADT (2034)	730
TRUCKS (24 HOUR B&C)	50
DESIGN SPEED	45 MPH
LEGAL SPEED	45 MPH
DESIGN FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL URBAN	
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
ODOT---DISTRICT 4
2088 S. ARLINGTON ROAD
AKRON, OHIO 44306

ENGINEERS SEAL:

STATE OF OHIO
LAUREN M. PHILLIS
E-75639
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: Lauren M Phillis
DATE: 2-21-14

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

POR-14-14.53, PART 3
HAYES ROAD RELOCATION
RAVENNA TOWNSHIP
PORTAGE COUNTY
FOR PART 1, SEE POR-14-11.22
FOR PART 2, SEE POR-14-14.63

PROJECT DESCRIPTION

HAYES ROAD RELOCATION AT S.R. 14 IN PORTAGE COUNTY.

POR-14-14.53 (HAYES RD.)

PROJECT EDA:	1.74 ACRES
ESTIMATED CONTRACTOR EDA:	0.00 ACRES
NOTICE OF INTENT EDA:	4.9 ACRES

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2-3
GENERAL NOTES	4-6
MAINTENANCE OF TRAFFIC	7-8
GENERAL SUMMARY	9-10
PROJECT SITE PLAN	11
SUB SUMMARIES	12-13
PLAN AND PROFILE	14
CROSS SECTIONS	15-17
CUL-DE-SAC PLAN AND PROFILE	18
CUL-DE-SAC CROSS SECTIONS	19-21
PAVEMENT DETAIL	22
DRIVE DETAILS	23
TRAFFIC CONTROL	24
RIGHT OF WAY	25-28

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

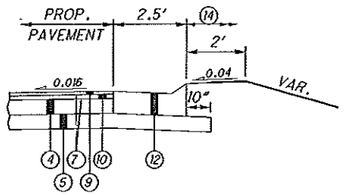
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 8.

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
SEE PART 1	SEE PART 1	SEE PART 1

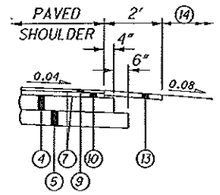
APPROVED: _____
DATE: 2-24-14 DISTRICT DEPUTY DIRECTOR

APPROVED: _____
DATE: 2-15-14 DIRECTOR, DEPARTMENT OF TRANSPORTATION

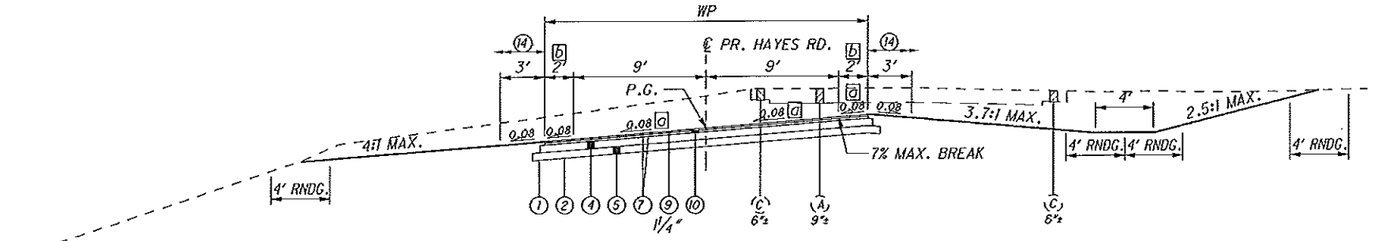
FEDERAL PROJECT NO. E081(084)
PID NO. 82916
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
POR-14-14.53
1/28



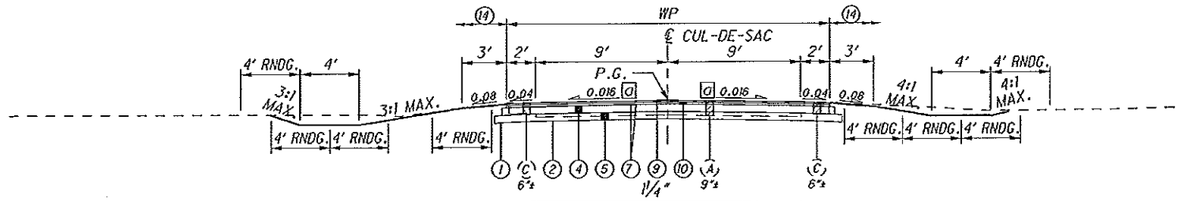
CURBED EDGE COURSE DETAIL



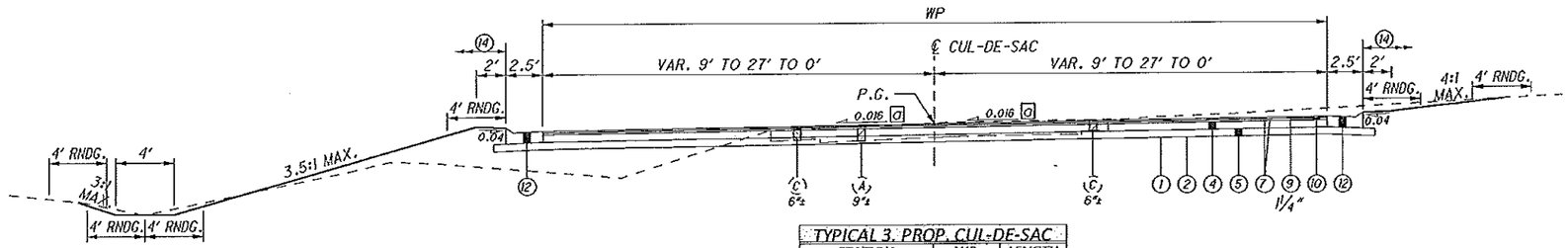
UNCURBED EDGE COURSE DETAIL



TYPICAL 1. PROP. HAYES RD.			
STATION		WP	LENGTH
FROM	TO	(FEET)	(MILES)
45+15.00	49+88.65	22.00	0.09
		TOTAL =	0.09



TYPICAL 2. PROP. CUL-DE-SAC			
STATION		WP	LENGTH
FROM	TO	(FEET)	(MILES)
0+12.00	2+94.31	22.00	0.05
		TOTAL =	0.05



TYPICAL 3. PROP. CUL-DE-SAC			
STATION		WP	LENGTH
FROM	TO	(FEET)	(MILES)
2+94.31	3+67.00	VAR.	0.01
		TOTAL =	0.01

PROPOSED

(1) 204, SUBGRADE COMPACTION
(2) 204, PROOF ROLLING
(3) NOT USED
(4) 301, 6" ASPHALT CONCRETE BASE, PG64-22
(5) 304, 6" AGGREGATE BASE, AS PER PLAN
(6) NOT USED
(7) 407, TACK COAT FOR INTERMEDIATE COURSE
(8) NOT USED
(9) 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN
(10) 448, 1¾" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
(11) NOT USED
(12) 609, COMBINATION CURB AND GUTTER, TYPE 3
(13) 617, COMPACTED AGGREGATE, AS PER PLAN
(14) 659, SEEDING AND MULCHING

EXISTING

(A) EXISTING ASPHALT PAVEMENT
(B) EXISTING ASPHALT SHOULDER

NOTES:

[a] NORMAL SHOWN, FOR VARIANCES SEE CROSS SECTIONS AND PAVEMENT DETAIL

[b] LEFT: 4' STA. 49+02.34 TO S.R. 14
RIGHT: 4' STA. 49+60.63 TO S.R. 14

SEE PAVEMENT DETAIL AND CROSS SECTIONS FOR ADDITIONAL INFORMATION, SUPERELEVATION, TRANSITION LOCATIONS AND GRADING SLOPES.

TYPICAL SECTIONS - HAYES RD.

POR-14-14.53

SAFETY EDGE (ASPHALT CONCRETE)

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETY SLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHENECTADY, NY 12304
1-800-724-6306
WWW.TRANSTECHSYS.COM

ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
WWW.ADVANTAEDGEPAVING.COM

CARLSON SAFETY EDGE END GATE
18425 50TH AVENUE EAST
TACOMA, WA 98446
253-875-8000

TROXLER ELECTRONIC LABORATORIES, INC.
3008 E. CORNWALLIS RD.
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
WWW.TROXLERLABS.COM

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER

ITEM 451, REINFORCED CONCRETE PAVEMENT, AS PER PLAN
ITEM 452, NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN

THE SAFETY EDGE SHALL BE INCIDENTIAL TO THE 451 OR 452 CONCRETE PAVEMENT PAY ITEM. ALL ADDITIONAL MATERIAL, LABOR, EQUIPEMENT, AND INCIDENTIALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED.

NOTES:

1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).

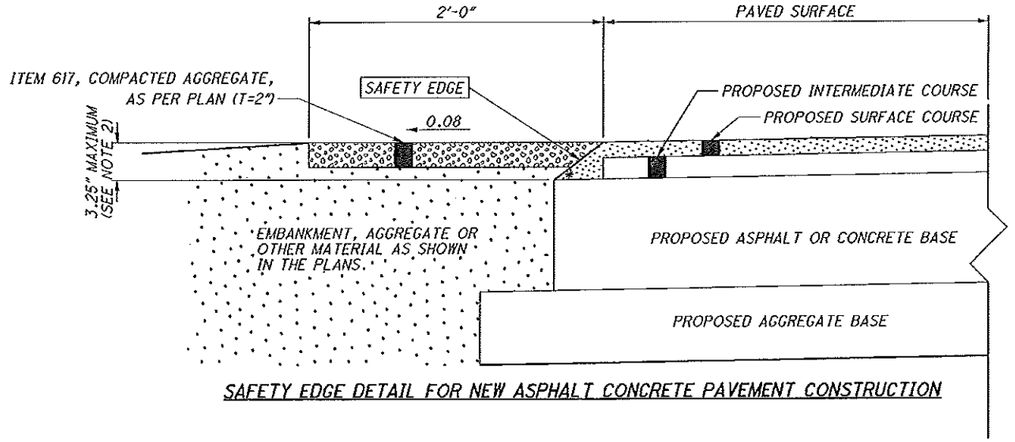
2.) FOR NEW ASPHALT CONCRETE PAVEMENT, CONSTRUCT THE SAFETY EDGE THE FULL THICKNESS OF THE SURFACE AND INTERMEDIATE COURSES, NOT TO EXCEED 3.25".

3.) FOR NEW CONCRETE PAVEMENT, CONSTRUCT THE SAFETY EDGE 4" THICK. CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE.

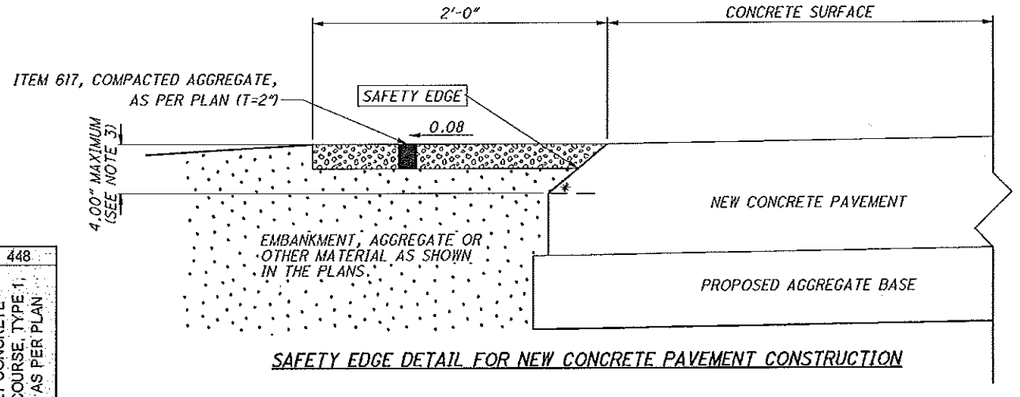
* 40° MAX

ESTIMATED QUANTITIES (FOR ASPHALT CONCRETE PAVEMENT)

ROUTE	SAFETY EDGE THICKNESS (IN.)	STATION TO STATION			SIDE	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN (CU YD)
HAYES	3	45+15.00	TO	49+88.65	L/R	1.30
CULDESAC	3	0+09.77	TO	2+94.31	L/R	0.78
TOTALS CARRIED TO GENERAL SUMMARY						3



SAFETY EDGE DETAIL FOR NEW ASPHALT CONCRETE PAVEMENT CONSTRUCTION



SAFETY EDGE DETAIL FOR NEW CONCRETE PAVEMENT CONSTRUCTION

REVISED: 6/25/12

DISTRICT 4 - PLANNING & ENGINEERING
DESIGNED MAC REVIEWED TJP
REVISION DATE 06/25/12 CHECKED TJP

SAFETY EDGE DETAIL (NEW CONSTRUCTION)

POR-14-14.53

3 / 28

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UTILITIES
THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.
OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-3145 KEN GREENE

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

Dominion East Ohio Gas
ATTN: Mary Long
320 Springside Drive
Suite 320
Akron, OH 44333
330-664-2409
888-504-0126 Fax

AT&T
The Ohio Bell Telephone Company
ATTN: Cindy Zuchegno
50 W. Bowery St.
4th Floor
Akron, OH 44308
330-384-3561

Time Warner Cable
ATTN: Doug Lawrentz
4352 Youngstown Road SE
Worrren, OH 44484
330-369-7107 ext. 7179

Ohio Edison
ATTN: Jeff Knapp
1910 W. Market Street
Building #1
Akron, OH 44313
330-436-4051

WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING
ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

PAVEMENT MARKING DETAILS
THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

ITEM 304 - AGGREGATE BASE, AS PER PLAN
GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

SURVEYING POSITIONAL PARAMETERS
USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

COUNTY: POR ROUTE: SR 14 SECTION: 14.53
PID#: 82916
SURVEY DATE: 12-2011

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 2009

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (CORS96) (EPOCH: 2002.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99989741003
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.28083333333 U.S. SURVEY FEET.

ITEM 623 - MONUMENT ASSEMBLY, AS PER PLAN
ADJUSTABLE MONUMENT ASSEMBLIES AS SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1 WILL BE PLACED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION.

THE CONTRACTOR WILL BE PROVIDED A LOCATION LIST OF EXISTING MONUMENTATION WHICH IS TO BE REPLACED WITH NEW ADJUSTABLE MONUMENT BOX ASSEMBLIES AT THE PRE-CONSTRUCTION MEETING. THIS LIST MAY INCLUDE BOTH EXPOSED AND BURIED MONUMENTATION AND MAY ALSO INCLUDE SOME TIES TO AID IN RECOVERY.

PAYMENT FOR THE REMOVAL OF ANY EXISTING MONUMENT ASSEMBLIES SHALL ALSO BE INCLUDED IN THIS ITEM.

QUANTITY THAT WILL BE CARRIED TO THE GENERAL SUMMARY:
623, MONUMENT ASSEMBLY, AS PER PLAN 5 EACH

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALLBE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2"	100
3/4"	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF PAVING ALL EXISTING DRIVEWAYS THAT DO NOT HAVE A CURB CUT OR ARE NOT PAVED AS AN INTERSECTION AS SHOWN ON THE ASPHALT CONCRETE PLAN SHEET. DRIVEWAYS ARE TO BE PAVED A DISTANCE OF 10 FT. FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRIVEWAYS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. ASPHALT CONCRETE AVERAGE THICKNESSES SHALL BE 2 IN. FOR AGGREGATE DRIVEWAYS (UNIMPROVED) AND 1 IN. FOR IMPROVED DRIVEWAYS. AGGREGATE DRIVEWAYS SHALL BE GRADED PRIOR TO PAVING SUCH THAT SURFACE DRAINAGE DOES NOT ENCROACH UPON THE PAVED SHOULDER. THE MAXIMUM PAVED WIDTH SHALL NOT EXCEED THAT ALLOWED FOR THROAT AND RADIUS FOR UNCURBED DRIVEWAYS AS PER STANDARD DRIVE DESIGN MANUAL. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE DRIVEWAYS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN.

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN
ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN
703.05 DO NOT USE ANY FINE OR COARSE AGGREGATE WITH A 'SR' OR 'SRH' DESIGNATION ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

POR-14-14.53

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

POR-14-14.53 (HAYES RD)

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	720 CU. YD.
659, SEEDING AND MULCHING	6490 SQ. YD.
659, REPAIR SEEDING AND MULCHING	325 SQ. YD
659, COMMERCIAL FERTILIZER	0.88 TON
659, LIME	1.34 ACRES
659, WATER	35 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

EARTHWORK QUANTITIES

SUB-TOTALS FROM SHEET	VOLUME 203 EXCAVATION CU YD	VOLUME 203 EMBANKMENT CU YD
15 (PR. HAYES RD.)	503	14
16 (PR. HAYES RD.)	1869	100
17 (PR. HAYES RD.)	386	77
19 (CUL-DE-SAC)	1106	1
20 (CUL-DE-SAC)	404	151
21 (CUL-DE-SAC)	143	116
TOTALS TO GENERAL SUMMARY	4411	459

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, SINGLE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL, MAILBOX SUPPORT SYSTEM, SINGLE 3 EACH

CALCULATED RCB
CHECKED LMP

GENERAL NOTES

POR-14-14.53

BEST MANAGEMENT PRACTICES

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

NATURAL BUFFERS ADJACENT TO STREAMS AND WETLANDS SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE. EQUIPMENT STAGING AREAS SHALL BE KEPT WELL AWAY FROM STREAMS AND WETLANDS TO THE EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBITS THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS. AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM DITCHES, STREAMS AND/OR WETLANDS. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS, FOUNDATION PIER OR HEADWALL EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS. ALL MATERIALS REMOVED FROM THE DITCHES, STREAMS AND/OR WETLANDS MUST BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E., SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE. PLACEMENT OF REMOVED MATERIALS INTO A WETLANDS OR ON THE BANKS OF A STREAM EVEN TEMPORARILY IS CONSIDERED A FILL AND REQUIRES A PERMIT ACTION.

AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

DRINKING WATER PROTECTION

TO MINIMIZE THE POTENTIAL FOR A RELEASE TO WATER INTAKE 6766711-ODNR WEST BRANCH TOWER, ALL PROJECT-RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. SPILLS OF FUELS, OILS, CHEMICALS OR OTHER MATERIALS WHICH COULD POSE A THREAT TO SURFACE WATER OR GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE SPILL IS A REPORTABLE AMOUNT AND IN EACH CASE WHERE THERE IS AN INCIDENT OF HAZARDOUS MATERIAL FALLING OR MIGRATING INTO M.J. KIRWAN RESERVOIR AND/OR ANY OF ITS TRIBUTARIES, THE CONTRACTOR SHALL, AS SOON AS POSSIBLE, NOTIFY THE ENGINEER/SUPERVISOR AND THE FOLLOWING AGENCIES:

-OHIO EPA SPILL REPORTING
24 HOUR EMERGENCY SERVICE
CALL: 1 800 282 9378
PROVIDE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:
1. TIME OBSERVED
2. LOCATION
3. MATERIAL RELEASED
4. PROBABLE SOURCE
5. VOLUME & DURATION
6. PRESENT & ANTICIPATED MOVEMENT OF CONTAMINANT
7. PERSONNEL ON SCENE
8. ACTIONS ALREADY INITIATED
9. PERSON(S) ON THE SCENE TO CONTACT

CHARLESTOWN VOLUNTEER FIRE DEPARTMENT
CALL: (330) 297-0089

EDINBURG TOWNSHIP FIRE DEPARTMENT
CALL: (330) 325-1224

THREATENED & ENDANGERED SPECIES

TREES WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE CLEARED ONLY BETWEEN SEPTEMBER 30 AND APRIL 1, WHENEVER PRACTICABLE. IF SOME TREE REMOVAL MUST BE CONDUCTED BETWEEN APRIL 1 AND SEPTEMBER 30, TREES CONTAINING SUITABLE INDIANA BAT ROOSTING HABITAT SHALL BE MARKED FOR AVOIDANCE DURING THESE MONTHS, IF AT ALL POSSIBLE. SHOULD ADDITIONAL INFORMATION ON LISTED ENDANGERED/THREATENED/POTENTIALLY THREATENED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS PROJECT THAT WERE NOT PREVIOUSLY CONSIDERED, ODOT WILL REINITIATE CONSULTATION WITH THE USFWS AND ODNR TO ASSESS WHETHER THE PROJECT DETERMINATIONS ARE STILL VALID.

WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA

ACCESS TO THE WEST BRANCH STATE PARK AND WEST BRANCH STATE PARK WILDLIFE AREA AND THEIR ASSOCIATED RECREATIONAL FACILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ALL EXISTING ACCESS POINTS FOR THE WEST BRANCH STATE PARK/WEST BRANCH STATE PARK WILDLIFE AREA SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION. NO STAGING AND/OR STORING OF CONSTRUCTION EQUIPMENT WILL OCCUR WITHIN THE EXISTING BOUNDARIES OF THE M.J. KIRWAN RESERVOIR/WEST BRANCH STATE PARK WILDLIFE AREA.

CALCULATED CNC | CHECKED LMP

GENERAL NOTES

POR-14-14.53

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

2. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWINGS.

3. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

4. A QUANTITY OF 20 CU. YDS. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

5. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 21 M. GAL

DETOUR NOTIFICATION [ODOT/PORTAGE COUNTY]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148) AND PORTAGE COUNTY ENGINEER (330-296-2303) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL SHALL HAVE NO OTHER CONSTRUCTION RELATED DUTIES. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

W20-H14-60

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

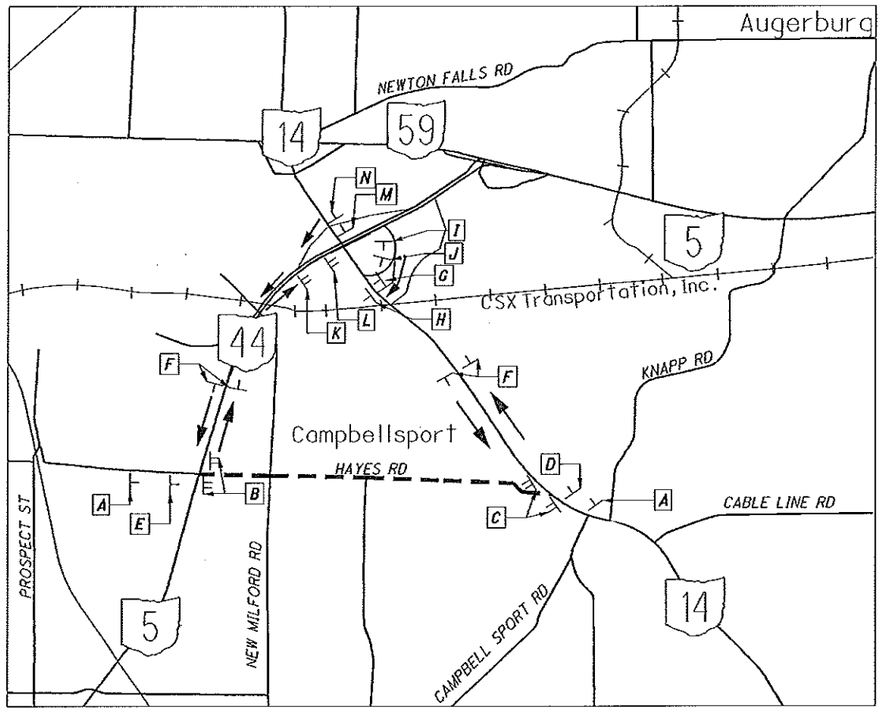
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS BETWEEN 3/01/2015 AND 06/01/2015, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8. POR-14-14.63 (PART 2 AND POR-14-14.53 (PART 3) SHALL NOT BE CLOSED CONCURRENTLY. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2000 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

CALCULATED CNC
CHECKED LAB

MAINTENANCE OF TRAFFIC GENERAL NOTES

POR-14-14.53

7
28



N

DETOUR PLAN FOR HAYES RD

CLOSE AS PER STD. DWG. MT-101.60

OFFICIAL DETOUR ROUTE: NEW MILFORD RD / SR 5 & SR 44 / SR 14

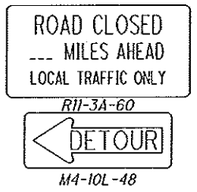
\# ON TYPE III BARRICADE WITH TYPE B FLASHERS MOUNTED PER SCD MT-101.60

REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 6H-8 (TYPICAL APPLICATION 8), FOR SIGN SPACING.

A

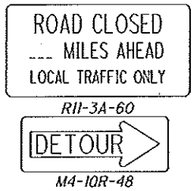
W20-2-36

B #



R11-3A-60
M4-10L-48

C #



R11-3A-60
M4-10R-48

D

D3-1-VAR
M4-H9T-48

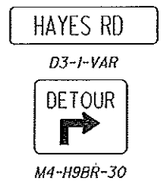
E

D3-1-VAR
M4-H9BL-30

F

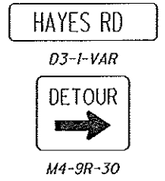
M4-8-24
D3-1-VAR

G



D3-1-VAR
M4-H9BR-30

H



D3-1-VAR
M4-9R-30

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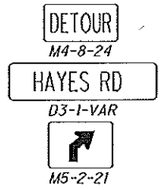

M4-8-24
D3-1-VAR
M5-2-21

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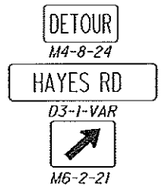

M4-8-24
D3-1-VAR
M6-2-21

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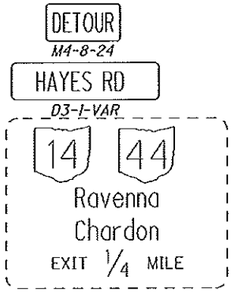

M4-8-24
D3-1-VAR

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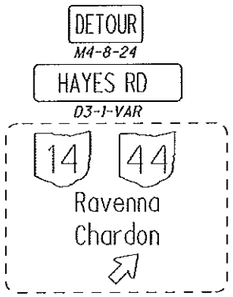
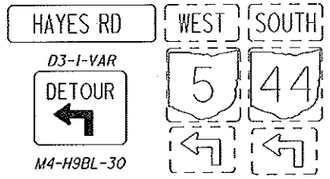


M4-8-24
D3-1-VAR

M



D3-1-VAR
M4-H9BL-30

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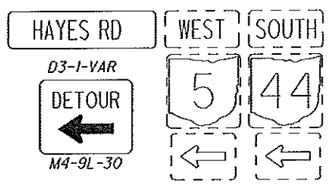

D3-1-VAR
M4-9L-30

CALCULATED CNC
CHECKED

MAINTENANCE OF TRAFFIC DETOUR PLAN (HAYES RD)

POR-14-14.53

SHEET NUMBER											PARTICIPATION		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			3	5				12	13			05/NH S/PV						
																	ROADWAY	
												LUMP	201	11000	LUMP		CLEARING AND GRUBBING	
									440			440	202	35100	440	FT	PIPE REMOVED, 24" AND UNDER	
									2			2	202	58100	2	EACH	CATCH BASIN REMOVED	
				4411								4411	203	10000	4411	CU YD	EXCAVATION	
				459								459	203	20000	459	CU YD	EMBANKMENT	
								3286				3286	204	10000	3286	SQ YD	SUBGRADE COMPACTION	
								3				3	204	45000	3	HOUR	PROOF ROLLING	
				3								3	SPEC	69050100	3	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	5
																	EROSION CONTROL	
									3			3	601	11000	3	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
									4			4	601	32204	4	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	
				2								2	659	00100	2	EACH	SOIL ANALYSIS TEST	
				720								720	659	00300	720	CU YD	TOPSOIL	
				6490								6490	659	10000	6490	SQ YD	SEEDING AND MULCHING	
				325								325	659	14000	325	SQ YD	REPAIR SEEDING AND MULCHING	
				0.88								0.88	659	20000	0.88	TON	COMMERCIAL FERTILIZER	
				1.34								1.34	659	31000	1.34	ACRE	LIME	
				35								35	659	35000	35	M GAL	WATER	
									682			682	670	00700	682	SQ YD	DITCH EROSION PROTECTION	
												LUMP	832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
												26000	832	30000	26000	EACH	EROSION CONTROL	
																	DRAINAGE	
									1.7			1.7	602	20000	1.7	CU YD	CONCRETE MASONRY	
									96			96	611	04400	96	FT	12" CONDUIT, TYPE B	
									107			107	611	04600	107	FT	12" CONDUIT, TYPE C	
									95			95	611	05900	95	FT	15" CONDUIT, TYPE B	
									68			68	611	06100	68	FT	15" CONDUIT, TYPE C	
									97			97	611	08700	97	FT	21" CONDUIT, TYPE A	
									1			1	611	98180	1	EACH	CATCH BASIN, NO. 3A	
									3			3	611	98470	3	EACH	CATCH BASIN, NO. 2-2B	
																	PAVEMENT	
								422				422	301	46000	422	CU YD	ASPHALT CONCRETE BASE, PG64-22	
								42				42	301	48000	42	CU YD	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS)	
								456				456	304	20001	456	CU YD	AGGREGATE BASE, AS PER PLAN	4
								13				13	407	10000	13	GALLON	TACK COAT	
								201				201	407	14000	201	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
								24				24	411	10000	24	CU YD	STABILIZED CRUSHED AGGREGATE	
								121				121	448	46050	121	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22	
			3					86				89	448	46901	89	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN	4
								10				10	448	48021	10	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), AS PER PLAN	4
									186			186	609	18000	186	FT	COMBINATION CURB AND GUTTER, TYPE 3	
								21				21	617	10101	21	CU YD	COMPACTED AGGREGATE, AS PER PLAN	4

CALCULATED RCB
CHECKED LMP

GENERAL SUMMARY

POR-14-14.53

9
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SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								7		24			05/NH S/PV						
										0.31			0.31	646	10000	0.31	MILE	EDGE LINE, 4"	
										0.3			0.3	646	10200	0.3	MILE	CENTER LINE	
										40			40	646	10400	40	FT	STOP LINE	
																		MAINTENANCE OF TRAFFIC	
								LUMP					LUMP	614	12420	LUMP		DETOUR SIGNING	
								20					20	614	13000	20	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
								21					21	616	10000	21	M GAL	WATER	
													LUMP	614	11000	LUMP		MAINTAINING TRAFFIC	
													12	619	16010	12	MONTH	FIELD OFFICE, TYPE B	
													LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LUMP	624	10000	LUMP		MOBILIZATION	

CALCULATED RCB
CHECKED LMP

GENERAL SUMMARY

POR-14-14.53

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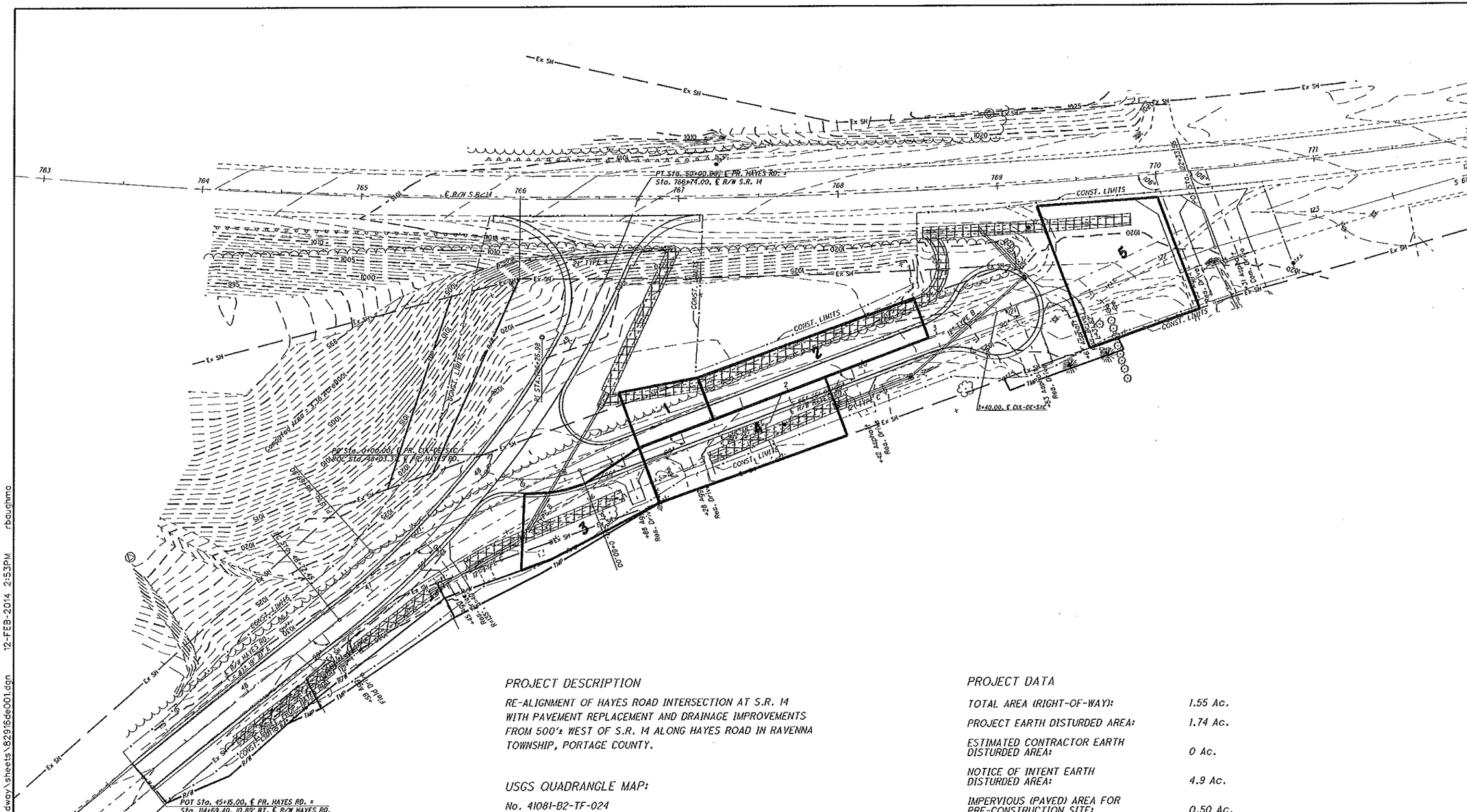

PROJECT DESCRIPTION

RE-ALIGNMENT OF HAYES ROAD INTERSECTION AT S.R. 14 WITH PAVEMENT REPLACEMENT AND DRAINAGE IMPROVEMENTS FROM 500'± WEST OF S.R. 14 ALONG HAYES ROAD IN RAVENNA TOWNSHIP, PORTAGE COUNTY.

USGS QUADRANGLE MAP:

No. 41081-B2-TF-024
RAVENNA, OHIO

LATITUDE: N41°08'10"
LONGITUDE: W81°11'51"

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY):	1.55 Ac.
PROJECT EARTH DISTURDED AREA:	1.74 Ac.
ESTIMATED CONTRACTOR EARTH DISTURDED AREA:	0 Ac.
NOTICE OF INTENT EARTH DISTURDED AREA:	4.9 Ac.
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE:	0.50 Ac.
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE:	0.58 Ac.
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE:	0.6
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE:	0.6
SOIL AND WATER CONSERVATION MAPS:	39
IMMEDIATE RECEIVING WATER:	UNNAMED TRIBUTARY MICHAEL J KIRWAN RESERVOIR
SUBSEQUENT RECEIVING WATER:	MICHAEL J KIRWAN RESERVOIR

CALCULATED RCB
CHECKED LMP

HORIZONTAL SCALE IN FEET
0 15 30 60

PAVEMENT DETAIL
PROPOSED HAYES RD. & CUL-DE-SAC

POR-14-14.53

11
28

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STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA (A)	204 SUBGRADE COMPACTION A	204 PROOF ROLLING A/2000	301 ASPHALT CONCRETE BASE, PG64-22, 6" Ax6/36	304 AGGREGATE BASE, AS PER PLAN, 6" Ax6/36	407 TACK COAT FOR INTERMEDIATE COURSE Ax0.04	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22, 1 3/4" Ax1.75/36	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22, AS PER PLAN, 1 1/4" Ax1.25/36	617 COMPACTED AGGREGATE, AS PER PLAN (Dx2x2)/9x2/36										
					FT	FT	SQ YD	SQ YD	SQ YD	HOUR	CU YD	CU YD	GALLON	CU YD	CU YD	CU YD										
45+15.00	TO	49+02.34	1	LT/RT	387.34	22.00	946.83						37.87	46.03	32.88	9.56										
301						22.67	975.52				162.59		39.02													
304						23.67	1018.56					169.76														
204						25.00	1075.94		1075.94	0.54															
49+02.34	TO	49+88.65	1	LT/RT	86.31			437.54					17.50	21.27	15.19	2.13										
301								445.18			74.20		17.81													
304								456.58				76.10														
204								471.63	471.63	0.24																
0+12.00	TO	0+85.66	2	LT/RT	73.66			275.18					11.01	13.38	9.55	1.82										
301								280.83			46.80		11.23													
304								289.24				48.21														
204								300.33	300.33	0.15																
0+85.66	TO	2+94.31	2	LT/RT	208.65	22.00	510.03						20.40	24.79	17.71	5.15										
301						22.67	525.49				87.58		21.02													
304						23.67	548.67					91.45														
204						25.00	579.58		579.58	0.29																
2+94.31	TO	3+67.00	3	LT/RT	72.69			303.38					12.14	14.75	10.53	1.79										
301								303.38			50.56		12.14													
304								418.21				69.70														
204								433.26	433.26	0.22																
							SUBTOTALS		2860.75	1.43	421.73	455.21	200.13	120.21	85.87	20.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
							TOTALS CARRIED TO GENERAL SUMMARY		2861	2	422	456	201	121	86	21	0	0	0	0	0	0	0	0	0	0

STATION RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA (A)	204 SUBGRADE COMPACTION A	204 PROOF ROLLING A/2000	301 ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS), 3 1/2" Ax3.5/36	301 ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS), 5" Ax5/36	407 TACK COAT 0.04gal/sy	411 STABILIZED CRUSHED AGGREGATE, 6" Ax6/36	448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS), 1 1/4" Ax1.25/36										
			FT	FT	SQ YD	SQ YD	SQ YD	HOUR	CU YD	CU YD	GALLON	CU YD	CU YD										
DRIVE @ 46+59 PR. HAYES RD.		RT	8.00			15.11	15.11	0.01	1.47		0.60		0.52										
			5.00	9.00	5.00		5.00	0.00				1.11											
DRIVE @ 47+45 PR. HAYES RD.		RT	8.00			15.89	15.89	0.01	1.54		0.64		0.55										
			21.00	10.00		23.34	23.34	0.01				5.19											
DRIVE @ 0+88 CUL-DE-SAC		RT	8.00			21.68	21.68	0.01	2.11		0.87		0.75										
			13.00	9.00	13.00		13.00	0.01				2.89	0.45										
DRIVE @ 1+28 CUL-DE-SAC		RT	8.00			26.04	26.04	0.01	2.53		1.04		0.90										
			5.00	14.00	7.78		7.78	0.00				1.73											
DRIVE @ 2+42 CUL-DE-SAC		RT	8.00			22.49	22.49	0.01	2.19		0.90		0.78										
			5.00	10.00	5.56		5.56	0.00	0.54		0.22												
DRIVE @ 3+53 CUL-DE-SAC		RT	10.86			26.53	26.53	0.01	2.58		1.06		0.92										
			5.84	18.00	11.68		11.68	0.01	1.14		0.47												
DRIVE @ 3+67 CUL-DE-SAC		RT	3.70			7.00	7.00	0.00	0.68		0.28		0.24										
			25.90	10.00		28.78	28.78	0.01	2.80		1.15												
DRIVE @ 769+99 SR 14		RT	14.56			28.77	28.77	0.01	2.80		1.15		1.00										
			37.65	13.00	54.38		54.38	0.03	5.29			12.09											
DRIVE @ 770+31 SR 14		RT	14.56			38.09	38.09	0.02		5.29	1.52		1.32										
			32.81	20.00	72.91		72.91	0.04		10.13	2.92		2.53										
						SUBTOTALS	424.03	0.21	25.66	15.42	12.82	23.00	9.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
						TOTALS CARRIED TO GENERAL SUMMARY	425	1	26	16	13	24	10	0	0	0	0	0	0	0	0	0	0	0

CALCULATED RCB
CHECKED LMS

SUBSUMMARY - HAYES RD. RELOCATION

POR-14-14.53

12
28

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REF NO.	SHEET NO.	STATION TO STATION					202 PIPE REMOVED, 24" AND UNDER	202 CATCH BASIN REMOVED	601 RIPRAP USING 6" REINFORCED CONCRETE SLAB	601 ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	602 CONCRETE MASONRY	609 COMBINATION CURB AND GUTTER, TYPE 3	611 12" CONDUIT, TYPE B	611 12" CONDUIT, TYPE C	611 15" CONDUIT, TYPE B	611 15" CONDUIT, TYPE C	611 21" CONDUIT, TYPE A	611 CATCH BASIN, NO. 3A	611 CATCH BASIN, NO. 2-2B	670 DITCH EROSION PROTECTION								
							FT	EACH	SQ YD	CU YD	CU YD	FT	FT	FT	FT	FT	FT	EACH	EACH	SQ YD								
R1	14	46+53.15	RT	TO	46+68.51	RT	16																					
R2	14	47+28.69	RT		48+00.25	RT	80																					
R3	18	0+36.91	RT		2+27.16	RT	198	1																				
R4	18	2+27.16	RT		3+72.93	RT	146	1																				
C1	18	2+94.31	LT/RT		3+67.00	LT/RT						186																
D1	14	46+50.00	RT		46+70.00	RT								20														
D2	14	47+25.00	RT		47+86.92	RT					0.27					68												
D3	14	47+86.92	RT		48+75.60	RT				1.4	0.27				95				1									
D4	14	49+30.74	LT		49+77.44	RT			2.3	2	0.91						97											
D5	18	2+25.00	RT		2+75.00	RT								50					1									
D6	18	2+75.00	RT		3+65.00	LT							96						1									
D7	18	3+65.00	LT		3+50.00	LT				0.6	0.21			37				1										
E1	14	45+75.00	RT		46+50.00	RT														63								
E2	14	46+70.00	RT		47+25.00	RT														48								
E3	14,18	47+52.00	RT		0+80.00	RT														90								
E4	14	48+85.00	RT		49+80.00	RT														82								
E5	18	0+87.00	LT		3+25.00	LT														210								
E6	18	1+39.00	RT		2+33.00	RT														79								
E7	18	3+12.00	LT		4+41.00	LT														110								
TOTALS CARRIED TO GENERAL SUMMARY							440	2	3	4	1.7	186	96	107	95	68	97	1	3	682	0	0	0	0	0	0	0	

CALCULATED RCB
CHECKED LMP

ESTIMATED QUANTITIES - HAYES RD. RELOCATION

POR-14-14.53

13
28

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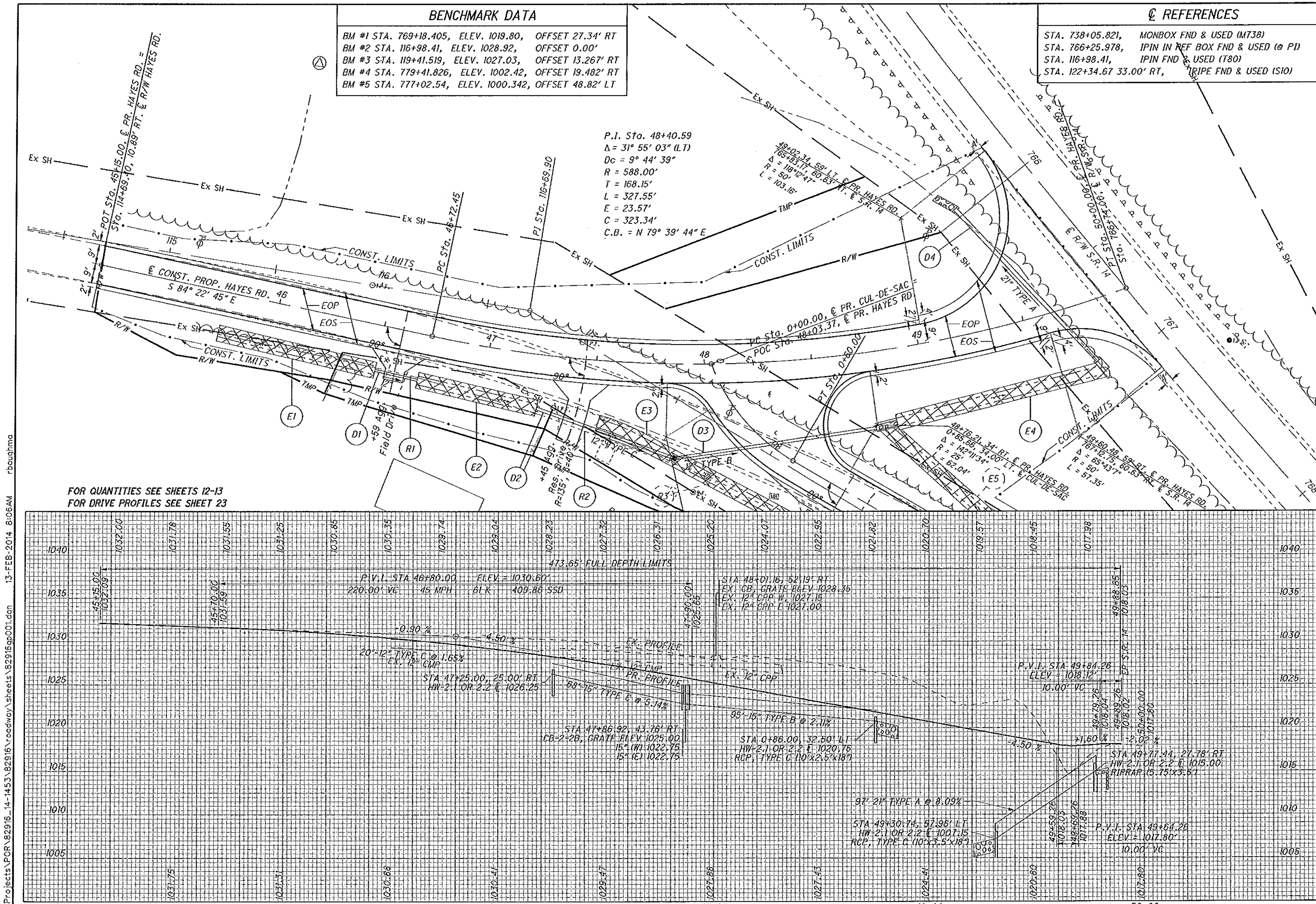
BENCHMARK DATA

BM #1 STA. 769+18.405,	ELEV. 1019.80,	OFFSET 27.34' RT
BM #2 STA. 116+98.41,	ELEV. 1028.92,	OFFSET 0.00'
BM #3 STA. 119+41.519,	ELEV. 1027.03,	OFFSET 13.267' RT
BM #4 STA. 779+41.826,	ELEV. 1002.42,	OFFSET 19.482' RT
BM #5 STA. 777+02.54,	ELEV. 1000.342,	OFFSET 48.82' LT

℄ REFERENCES

STA. 738+05.821,	MONBOX FND & USED (M738)
STA. 766+25.978,	IPIN IN REF BOX FND & USED (@ PI)
STA. 116+98.41,	IPIN FND & USED (T80)
STA. 122+34.67 33.00' RT,	IPIPE FND & USED (S10)



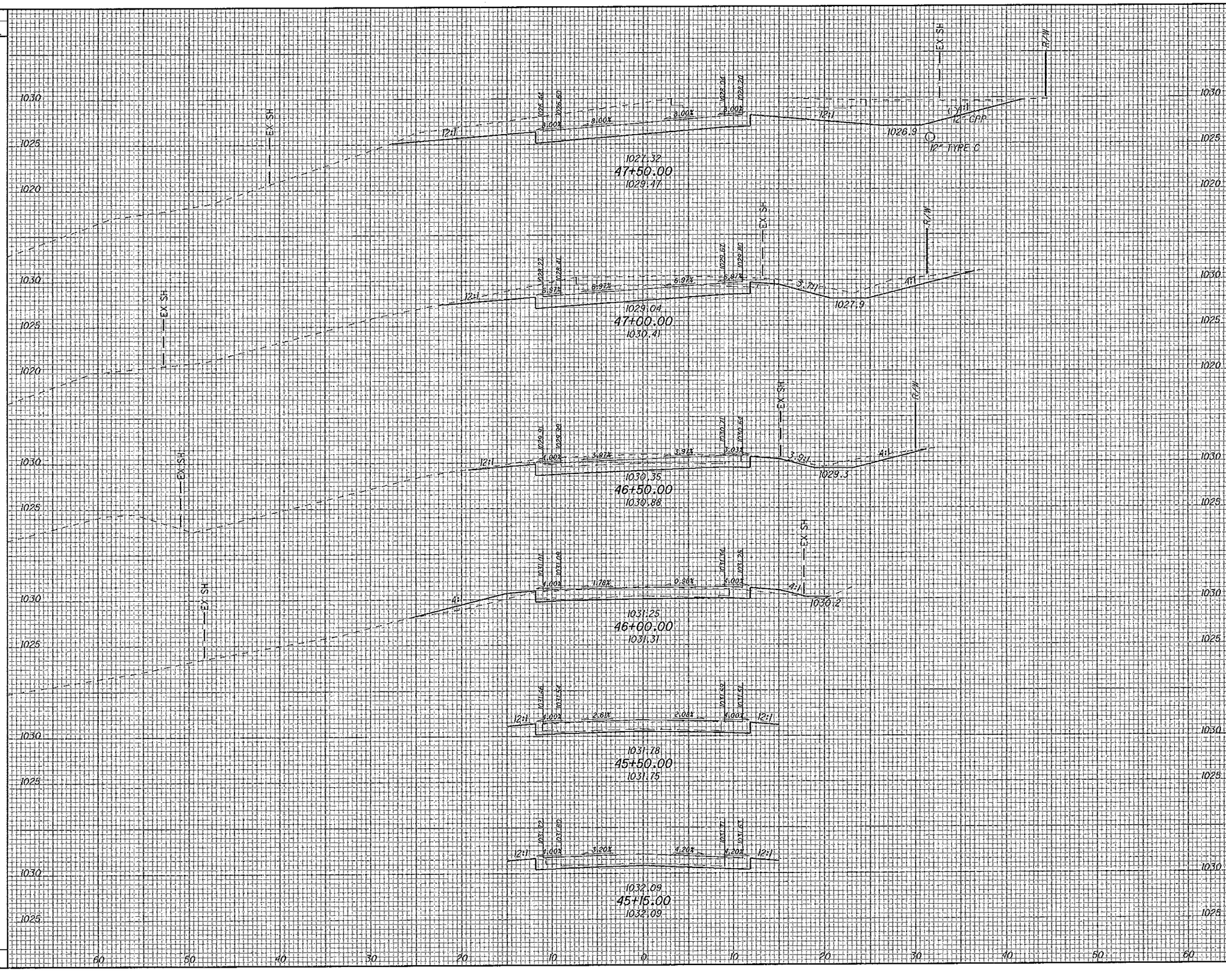
HORIZONTAL SCALE IN FEET

CALCULATED RCB
CHECKED LMP

PLAN AND PROFILE
PROPOSED HAYES RD. INTERSECTION AT S.R. 14

POR-14-14.53

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
155	0		
		223	0
85	0		
		123	0
47	0		
		69	7
27	8		
		51	7
28	0		
		37	0
30	0		
SEE GEN. NOTES		503	14

CALCULATED RCB
CHECKED LMP

CROSS SECTIONS PR. HAYES RD.
STA. 45+15.00 TO STA. 47+50.00

POR-14-14.53

15
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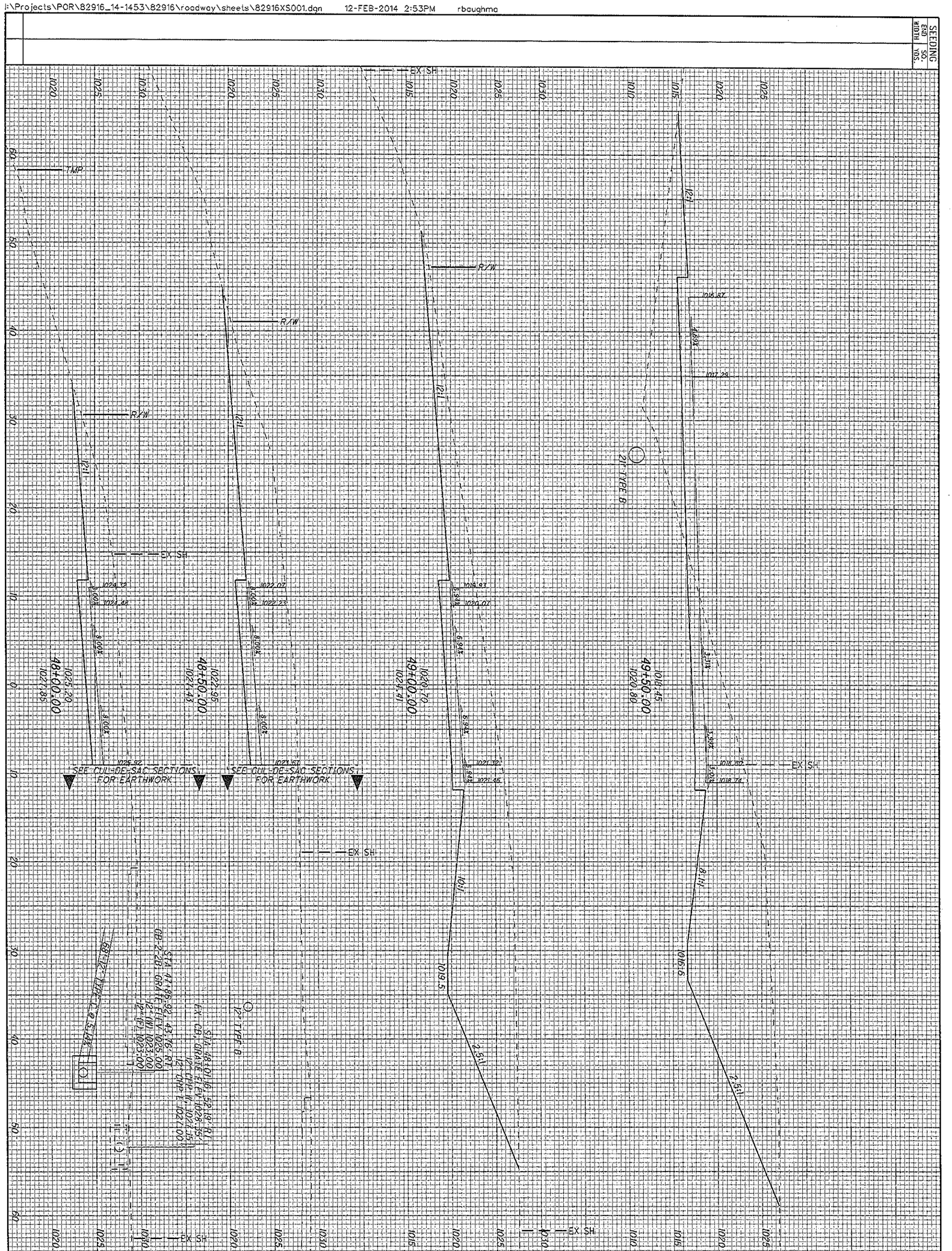

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
SEE GEN. NOTES	128	0	262	0
1,869	21T	0	313	0
100	405	0	570	0
	378	108	724	100

16
28

POR-14-14.53

CROSS SECTIONS PR. HAYES RD.
STA. 48+00.00 TO STA. 49+50.00

CALCULATED RCB
CHECKED LMP

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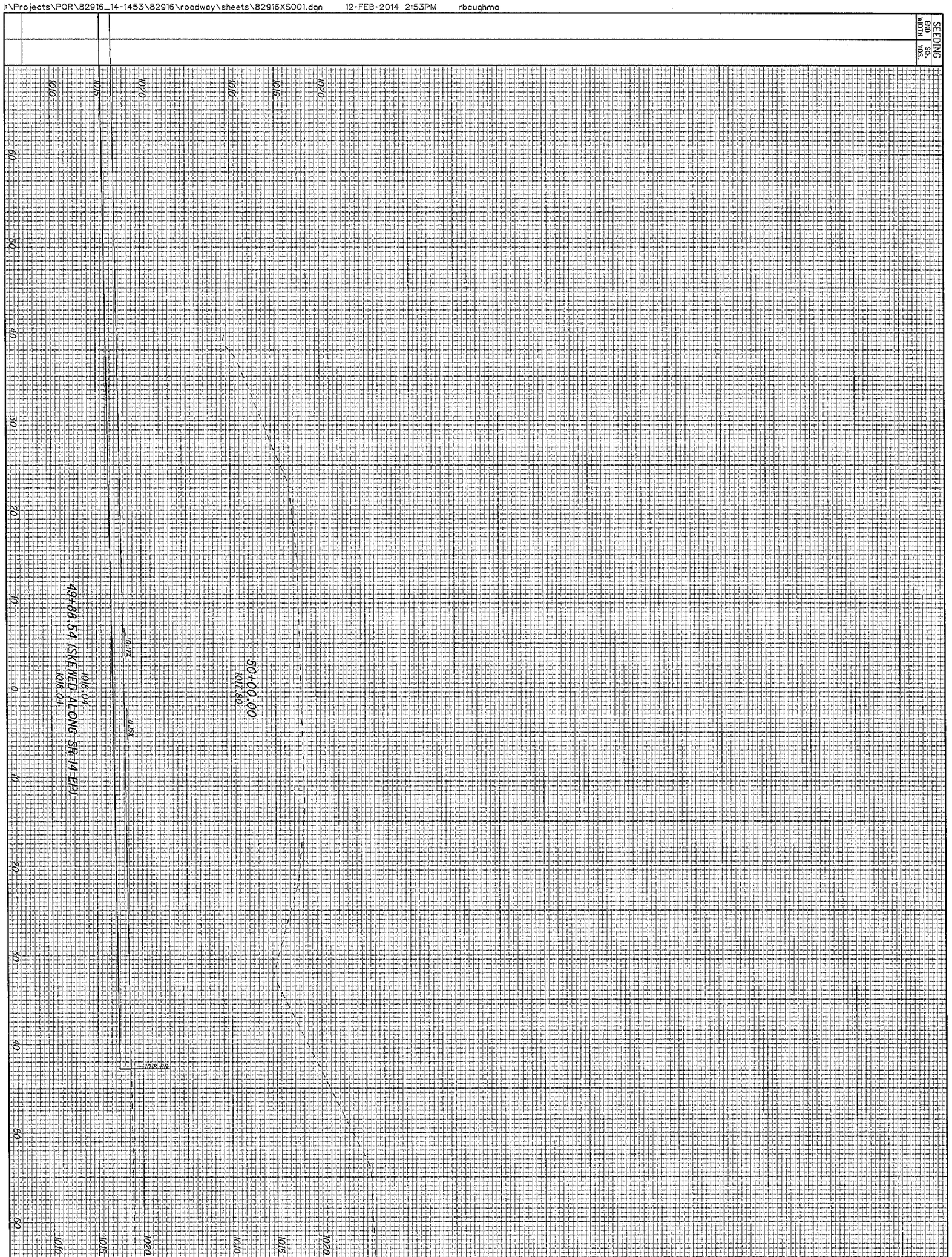

SEE GEN. NOTES	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	163	0	386	77

17
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POR-14-14.53

CROSS SECTIONS PR. HAYES RD.
STA. 49+88.54 TO STA. 50+00.00

CALCULATED RCB
CHECKED LMP

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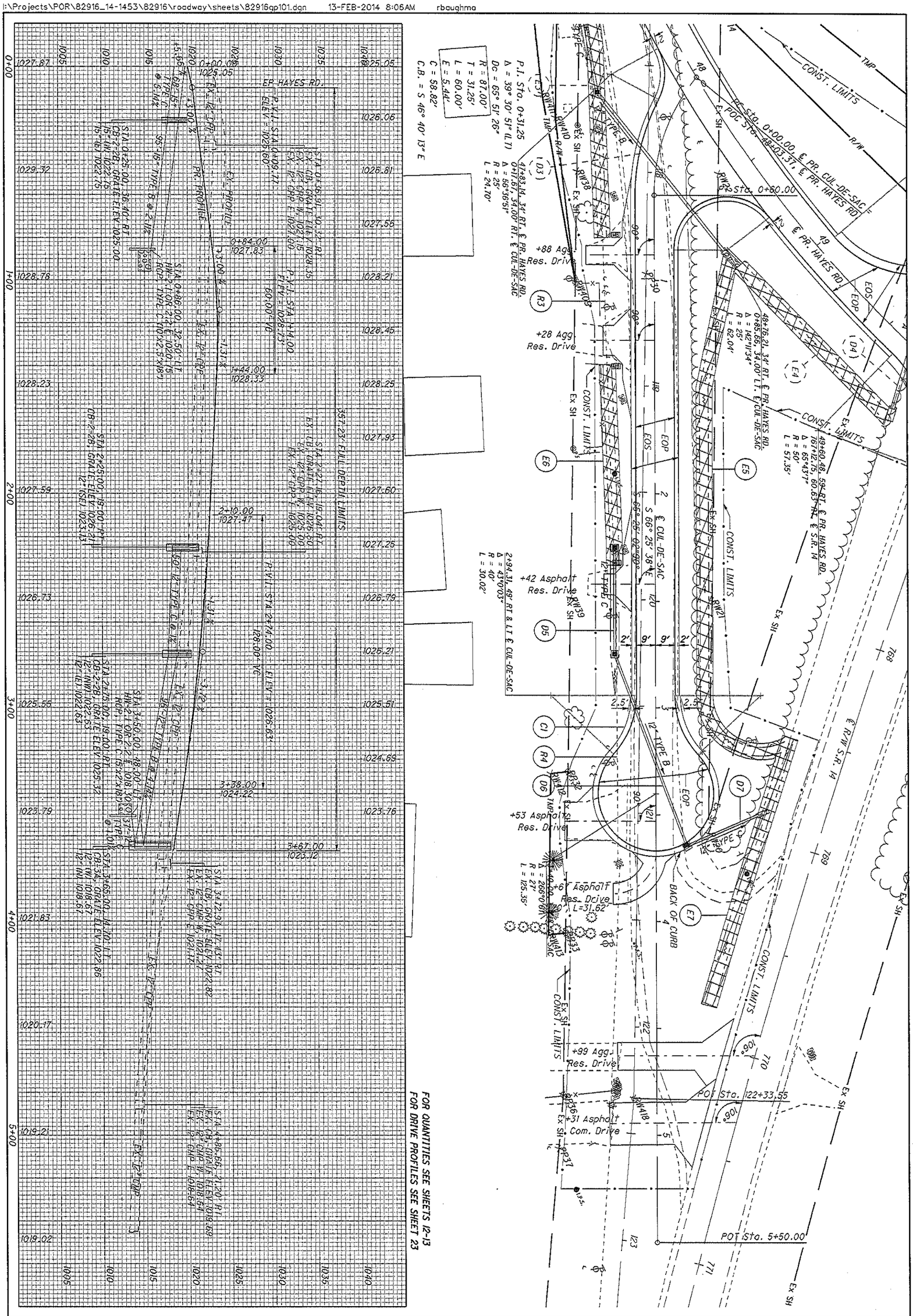
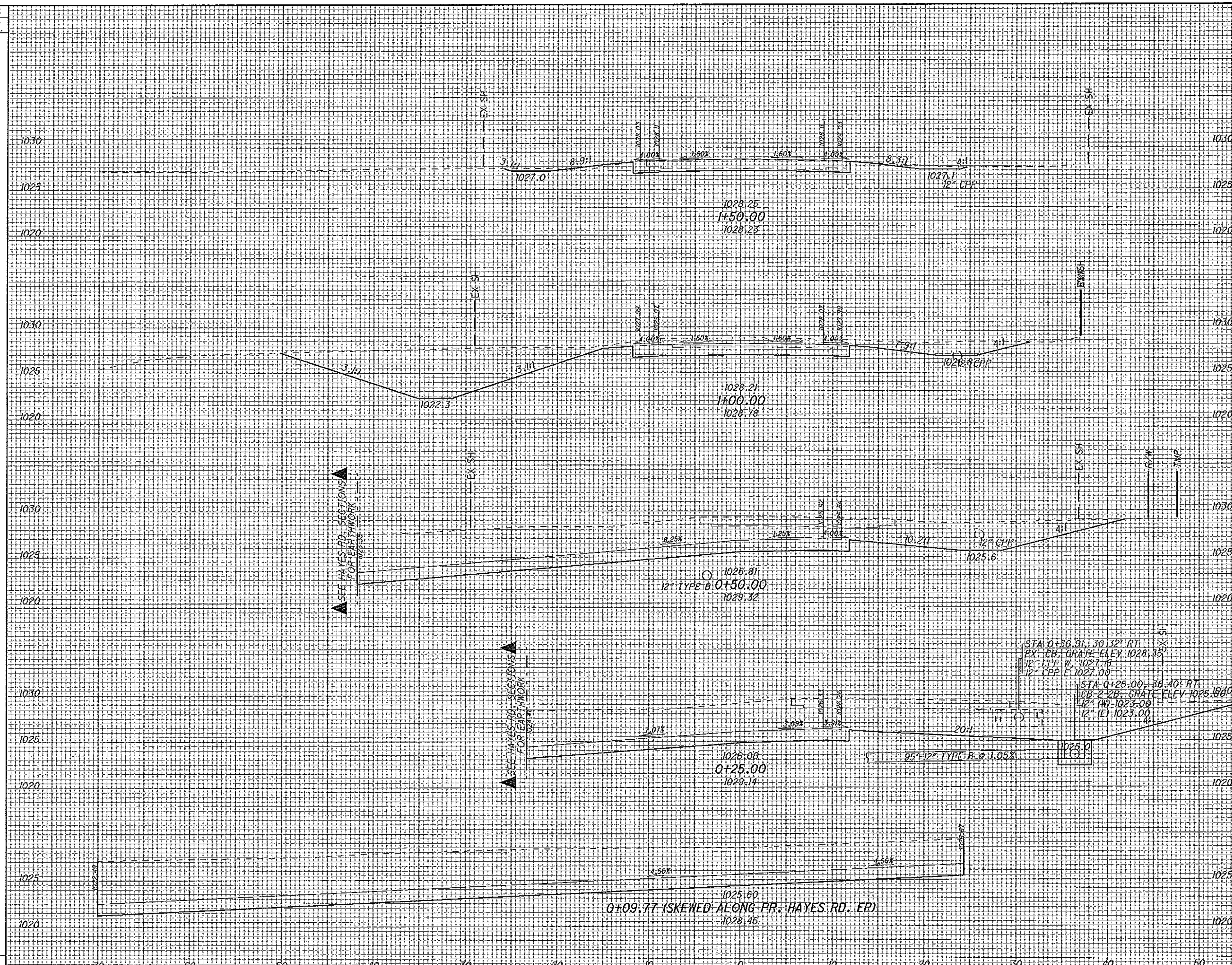


18 / 28	POR-14-14.53	PLAN AND PROFILE PROPOSED CUL-DE-SAC	CALCULATED RCB CHECKED LMP	0 20 10 40 HORIZONTAL SCALE IN FEET

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
34	2		
		188	1
170	0		
		432	0
297	0		
		274	0
294	0		
		212	0
457	0		
SEE GEN. NOTES		1,106	1

CALCULATED RCB
CHECKED LMP

CROSS SECTIONS CUL-DE-SAC
STA. 0+09.77 TO STA. 1+50.00

POR-14-14.53

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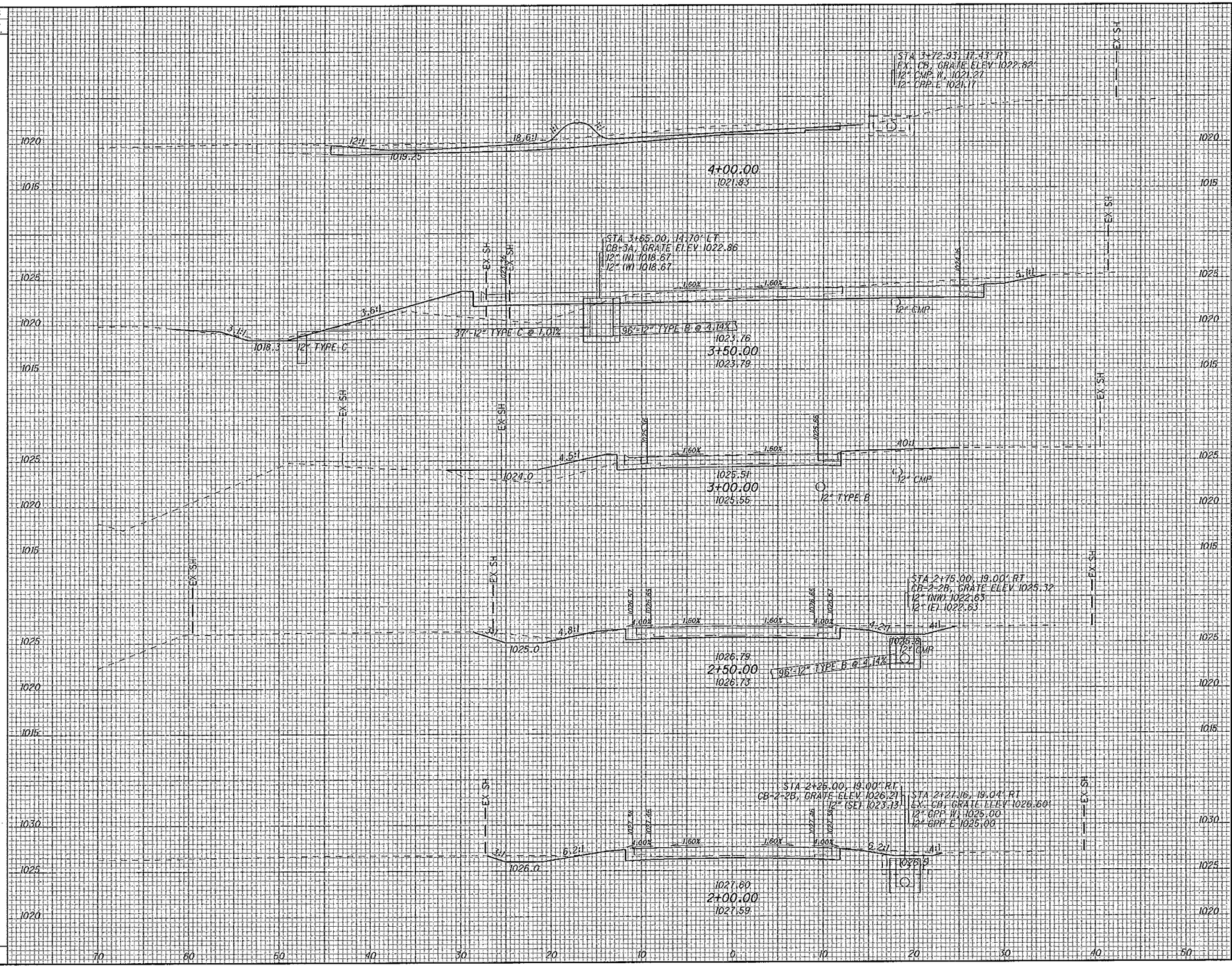
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
56	37	109	69
62	37	86	56
32	24	69	23
43	1	74	1
38	0	66	2
SEE GEN. NOTES		404	151

CALCULATED RCB
CHECKED LMP

CROSS SECTIONS CUL-DE-SAC STA. 2+00.00 TO STA. 4+00.00

POR-14-14.53

20
28

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SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL
-0	0
12	13
37	31
SEE GEN. NOTES	

VOLUME	
CUT	FILL
11	12
46	41
86	63
143	116

CALCULATED RCB
CHECKED LMP

CROSS SECTIONS CUL-DE-SAC
STA. 4+50.00 TO STA. 5+50.00

POR-14-14.53

21
28

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764 765 766 767 768 769

℄ EX. R/W S.R. 14
P.I. STA. 766+25.98
Δ = 22° 51' 39" (LT)
Dc = 1° 20' 15"
R = 4,283.63'
T = 868.09'
L = 1,709.14'
E = 86.68'

℄ R/W S.R. 14

PT Sta. 50+00.00, ℄ PR. HAYES RD. =
Sta. 766+74.00, ℄ R/W S.R. 14

49+02.34, 59' LT. ℄ PR. HAYES RD.
765+83.17, 60.63' RT. ℄ S.R. 14
Δ = 118°12'47"
R = 50'
L = 103.16'

49+60.48, 59' RT. ℄ PR. HAYES RD.
767+12.75, 60.63' RT. ℄ S.R. 14
Δ = 65°43'7"
R = 50'
L = 57.35'

℄ PR. HAYES RD.
P.I. Sta. 48+40.59
Δ = 31° 55' 03" (LT)
Dc = 9° 44' 39"
R = 588.00'
T = 168.15'
L = 327.55'
E = 23.57'
C = 323.34'
C.B. = N 79° 39' 44" E

48+76.21, 34' RT. ℄ PR. HAYES RD.
0+85.66, 34.00' LT. ℄ CUL-DE-SAC
Δ = 142°11'34"
R = 25'
L = 62.04'

PC Sta. 0+00.00, ℄ PR. CUL-DE-SAC =
POC Sta. 48+03.37, ℄ PR. HAYES RD.

℄ CUL-DE-SAC
S 66° 25' 38" E

℄ R/W HAYES RD.

2+94.31, 49' RT & LT ℄ CUL-DE-SAC
Δ = 43°0'03"
R = 40'
L = 30.02'

3+40.00, ℄ CUL-DE-SAC
Δ = 266°0'6"
R = 27'
L = 125.35'

PC Sta. 46+72.415

PT Sta. 0+60.00

47+83.14, 34' RT. ℄ PR. HAYES RD.
0+17.67, 34.00' RT. ℄ CUL-DE-SAC
Δ = 56°36'51"
R = 25'
L = 24.70'

℄ PR. CUL-DE-SAC
P.I. Sta. 0+31.25
Δ = 39° 30' 51" (LT)
Dc = 65° 51' 26"
R = 87.00'
T = 31.25'
L = 60.00'
E = 5.44'
C = 58.82'
C.B. = S 46° 40' 13" E

℄ R/W HAYES RD.
S 87° 19' 10" E

℄ CONST. PROP. HAYES RD.
S 84° 22' 45" E

POT Sta. 45+15.00, ℄ PR. HAYES RD. =
Sta. 114+69.40, 10.89' RT. ℄ R/W HAYES RD.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RCB
CHECKED LMP

PAVEMENT DETAIL
PROPOSED HAYES RD. & CUL-DE-SAC

POR-14-14.53

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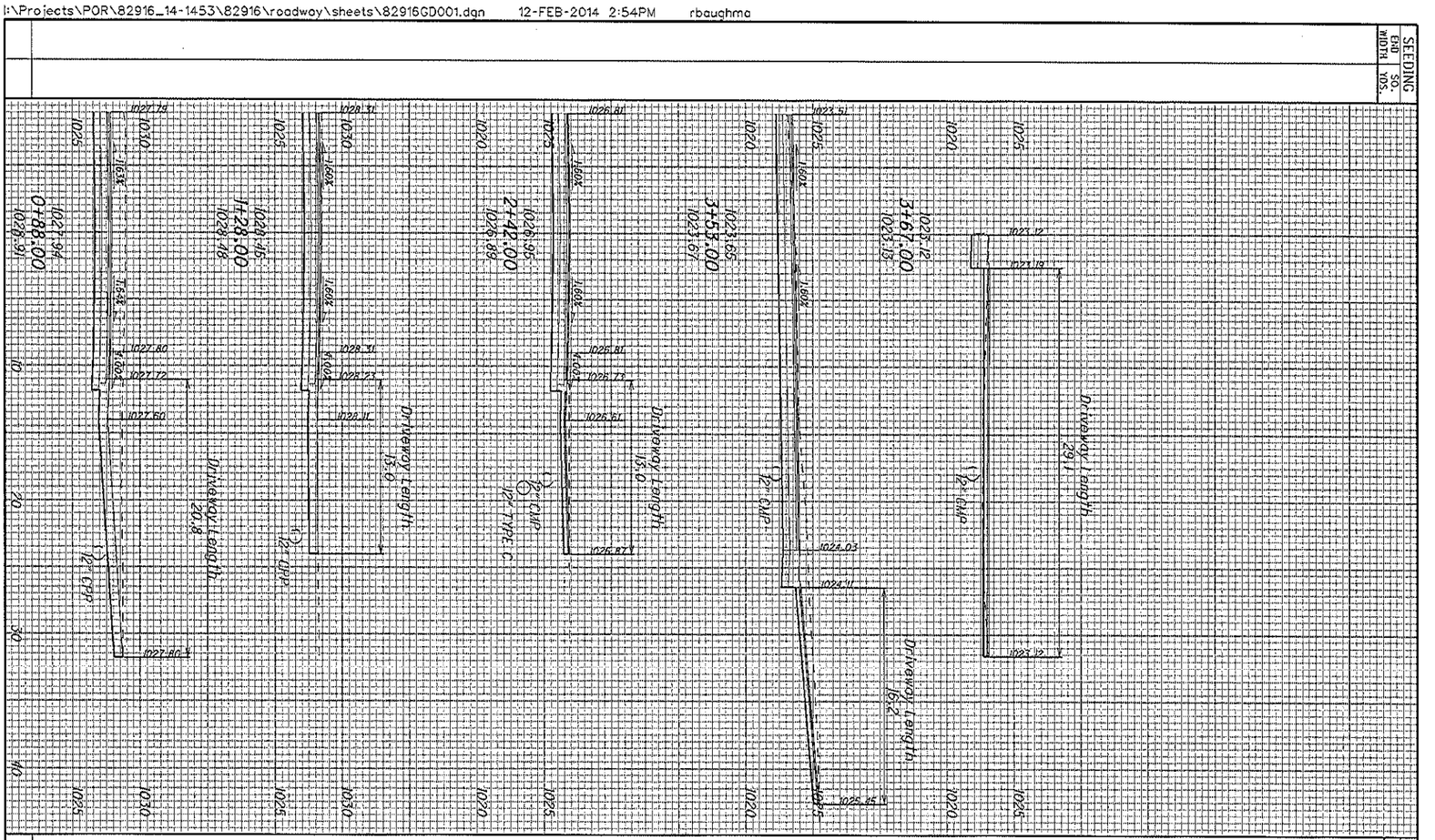

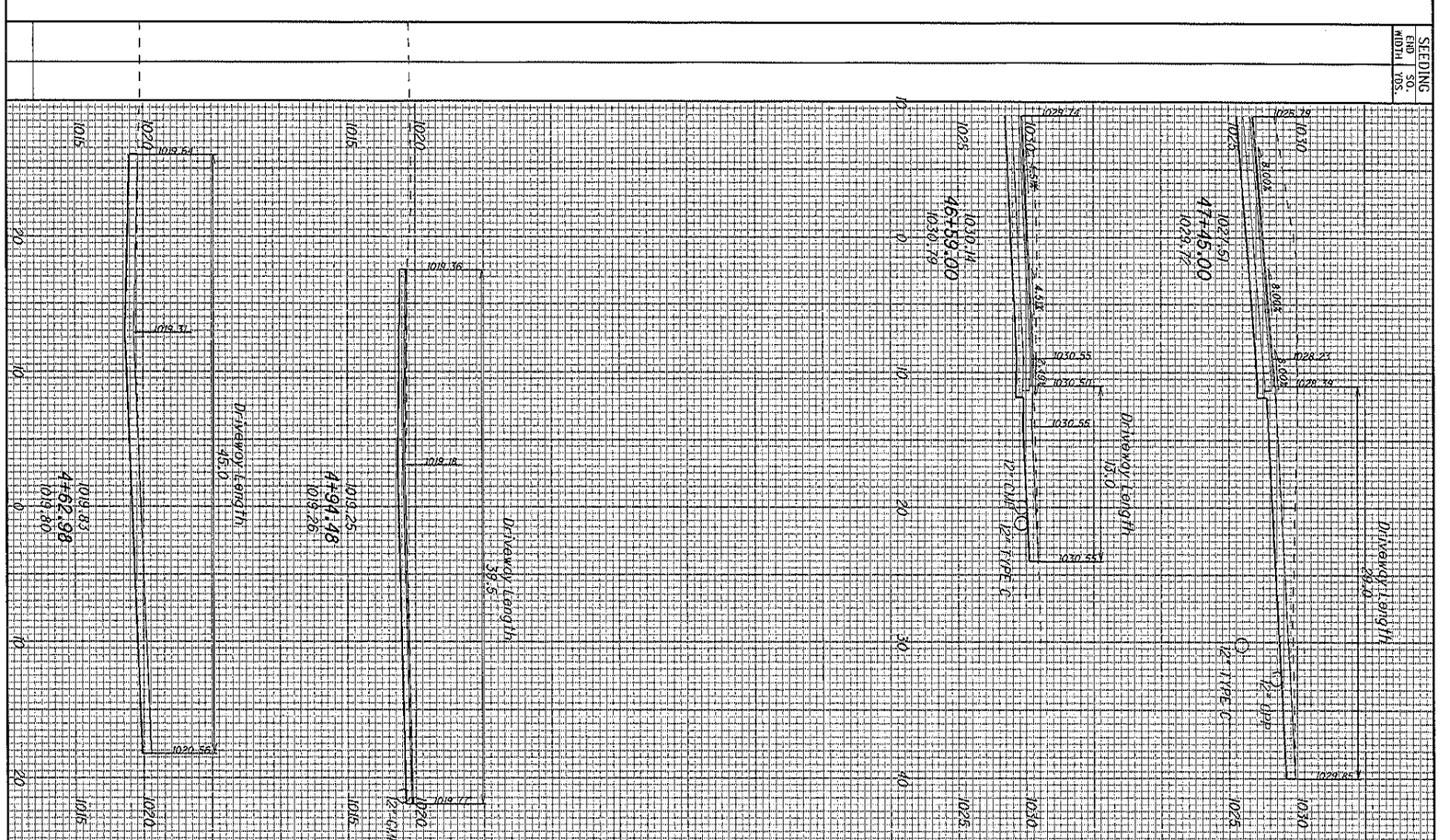

23 / 28	POR-14-14.53	DRIVE PROFILES - PROPOSED HAYES RD. & CUL-DE-SAC STA. 0+88.00 TO STA. 47+45.00	CALCULATED RCB CHECKED LMP

GENERAL SPEC: 640
MATERIAL TYPE: 646

CALCULATED T.JD
CHECKED

PAVEMENT MARKING SUB-SUMMARY

CENTER LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
POR	HAYES		PROPOSED HAYES RD.		PROPOSED HAYES RD.	0.26	0.13	
POR	HAYES		PROPOSED CUL-DE-SAC		PROPOSED CUL-DE-SAC	0.04	0.02	
TOTAL						0.30	0.15	

LANE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE		COMMENTS
							DASHED	SOLID	
TOTAL									

EDGE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS
						TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP	
POR	HAYES		PROPOSED HAYES RD.		PROPOSED HAYES RD.	0.26	0.26					
POR	HAYES		PROPOSED CUL-DE-SAC		PROPOSED CUL-DE-SAC	0.05	0.05					
TOTAL						0.31	0.31					

AUXILIARY

CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE	STOP LINE	TRANSVERSE DIAGONAL LINES		CROSS WALK LINES	WORD ON PVMT ONLY		LANE ARROWS				SYMBOL MARKINGS			ISLAND MARKING	DOTTED LINES	COMMENTS
					WHITE	YELLOW		72"	96"	TURN LEFT	TURN RIGHT	THRU	COMB.	RxR	SCHOOL 72"	SCHOOL 96"			
			FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ.FT	FT	
POR	PROPOSED HAYES RD.			20															
POR	PROPOSED CUL-DE-SAC			20															
TOTAL				40															

POR-14-14.53

24
28

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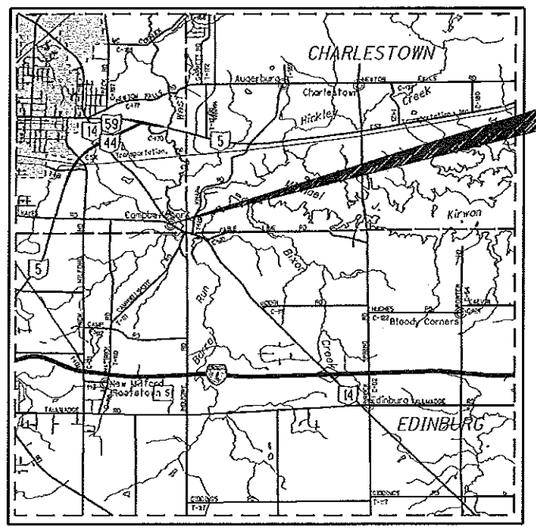
RIGHT OF WAY LEGEND SHEET POR-14-14.53



LOCATION MAP

S.R. 14 - LATITUDE: 41°10'24" LONGITUDE: 81°13'42"

SCALE IN MILES
0 1 2 3 4

N

POR-14-14.53 PART 3
PART OF ORIGINAL LOT 35
SOUTH DIVISION
RAVENNA TOWNSHIP

INDEX OF SHEETS:

LEGEND SHEET	1
PROPERTY MAP POR-14-14.53	2
SUMMARY SHEET	3
DETAIL SHEET POR-14-14.53	4

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE REALIGNMENT OF HAYES ROAD AND THE REMOVAL AND REPLACEMENT OF THE CULVERT LOCATED AT S.L.M. 15.28.

PROJECT CONTROL

STATE PLANE GRID: NAD83, (CORS96)
PROJECT ADJUSTMENT FACTOR = 0.99989741003

UTILITY OWNERS

TYPE	NAME & ADDRESS
TELEPHONE	AT&T THE OHIO BELL TELPHONE CO. ATTN: CINDY ZUCHEGNO 50 W. BOWERY STREET AKRON, OHIO 44308 330-384-3561
POWER	OHIO EDISON ATTN: JEFF KNAPP 1910 W. MARKET STREET BUILDING #1 AKRON, OHIO 44313
GAS	DOMINION EAST OHIO GAS ATTN: MARY J. LONG 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 330-664-2409 FAX 888-504-0126
CABLE	TIME WARNER CABLE ATTN: DOUG LAWRENTZ 4352 YOUNGSTOWN ROAD SE WARREN, OHIO 44484 330-369-7107 EXT. 7179

STRUCTURE KEY

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
BS = BILL OF SALE
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
SL = SLOPE EASEMENT
S = SEWER EASEMENT
CH = CHANNEL EASEMENT

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Edge of Shoulder (Ex)
Edge of Shoulder (Pr)

Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex)
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

PLANS PREPARED BY:

FIRM NAME : ODOT DISTRICT 4

PLANS PREPARED BY: TIM WARD

FIELD REVIEW BY:

DATE COMPLETED:

OWNERSHIP VERIFIED BY:

DATE COMPLETED:

DATE COMPLETED:

NOTES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

I, Tim Ward, P. S. have calculated the Gross Take, present roadway occupied (PRO),Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire these parcels as shown herein.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted.

The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Tim Ward, Professional Land Surveyor 8045 Date:

SURVEYORS SEAL

SIGNED:
DATE:

FEDERAL PROJECT NO. E081(084)
PID NO. 82916
CALCULATED TWW CHECKED BWH
RIGHT OF WAY LEGEND SHEET
POR-14-14.53
1/4
25/28

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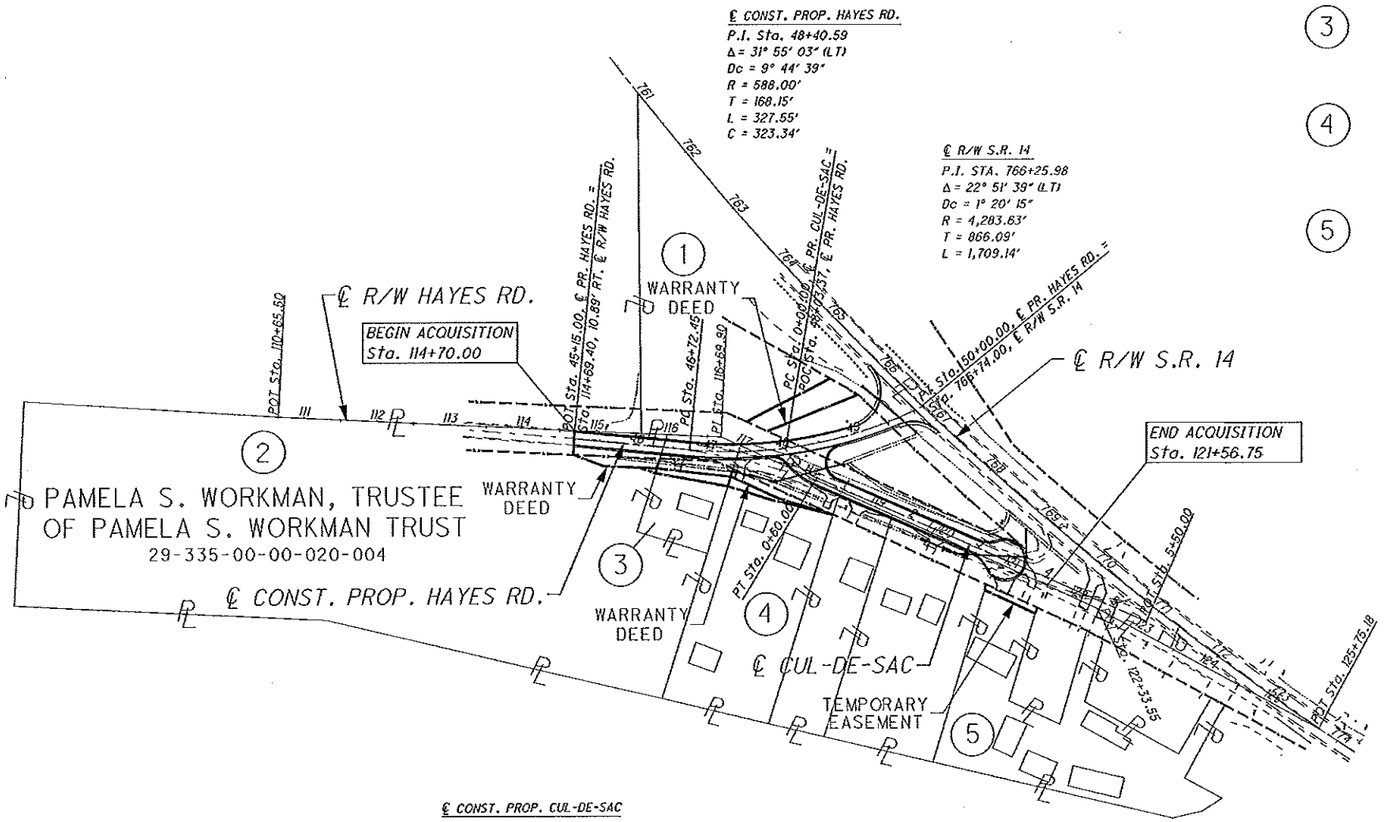
POR-14-14.53 PART 3
ORIGINAL LOT 35
SOUTH DIVISION
RAVENNA TOWNSHIP

PROPERTY OWNERS

1. U.S.A.
   11-211-00-00-001-000
3. ANNEVAR NAMKROW LIMITED
   29-335-00-00-020-001
4. CLIFFORD & JENNY LONG
   29-335-00-00-018-001
5. JOLLY TIME MOBILE HOME PARK, LLC
   29-335-00-00-016-000



℄ CONST. PROP. CUL-DE-SAC
P.I. Sta. 0+31.25
Δ = 39° 30' 51" (LT)
Dc = 65° 51' 26"
R = 87.00'
T = 31.25'
L = 60.00'
C = 58.82'

REV. BY	DATE	DESCRIPTION
TWW	9-12-13	REV. PROPERTY LINES FOR PCLS 1,3, & 4
DATE COMPLETED		

HORIZONTAL SCALE IN FEET
0 30 120 200
PID NO. 82916
R/W DESIGNER TWW
R/W REVIEWER BWH
PROPERTY MAP
POR-14-14.53
2 / 4
26 / 28

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TOTAL NUMBER OF :

5 OWNERSHIPS — TOTAL TAKES

9 PARCELS — OWNERSHIPS W/ STRUCTURES INVOLVED

RECORD AREA - TOTAL PRO - NET TAKE = NET RESIDUE

(c) = CALCULATED AREA

ALL AREAS IN ACRES

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION
UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1-WD	U.S.A.	5	VOL. 758	369	11-211-00-00-001-000	3.300	2.030 (c)	1.476	1.063	0.413			0.857	STATE			
1-T								0.088	0.000	0.088					TO GRADE AND SEED		
2-WDR	PAMELA S. WORKMAN, TRUSTEE OF PAMELA S. WORKMAN TRUST	5	FILE NO.	200114632	29-335-00-00-020-004	6.146	0.61	0.121	0.092	0.029			5.507		OIL AND GAS LEASE: FILE NO. 201101423		
2-T								0.002	0.000	0.002					TO GRADE AND SEED		
3-WD	ANNEVAR NAMKROW LIMITED	5	FILE NO.	200501420	29-335-00-00-020-001	0.344	0.078	0.115	0.078	0.037			0.229		WIRE FENCE TAKE 20 L.F. TOTAL		
3-T								0.024	0.000	0.024					TO GRADE AND SEED		
4-WD	CLIFFORD & JENNY LONG	5	FILE NO.	200610602	29-335-00-00-018-001	1.17	0.110	0.140	0.110	0.030			1.030		TAKE CLORINATOR & INSPECTION WELL-SEPTIC SYSTEM		
4-T								0.019	0.000	0.019					TO GRADE AND SEED		
5-T	JOLLY TIME MOBILE HOME PARK, LLC	5	FILE NO.	201303612	29-335-00-00-016-000	1.22	0.000	0.014	0.000	0.014				STATE	TO GRADE AND SEED		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

LEGEND:
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT

* DENOTES RIGHT OF WAY ENCROACHMENT

REV. BY	DATE	DESCRIPTION
TWW	9-12-13	REV. TAKE AREA FOR PCL 1-WD
TWW	7-19-13	REV PCL 2WD TO 2WDR, SHOW WIRE FNC AS 'TAKE'
		ON PCL 3, SHOW PART OF SEPTIC AS 'TAKE' PCL 4,
		REV OWNER RECORD FOR PCL 7-SH

FIELD REVIEW BY — DATE:

OWNERSHIP VERIFIED BY — DATE:

DATE COMPLETED

FEDERAL PROJECT NO.

PID NO. 82916

STATE JOB NO. 440257

R/W DESIGNER TWW

R/W REVIEWER BWH

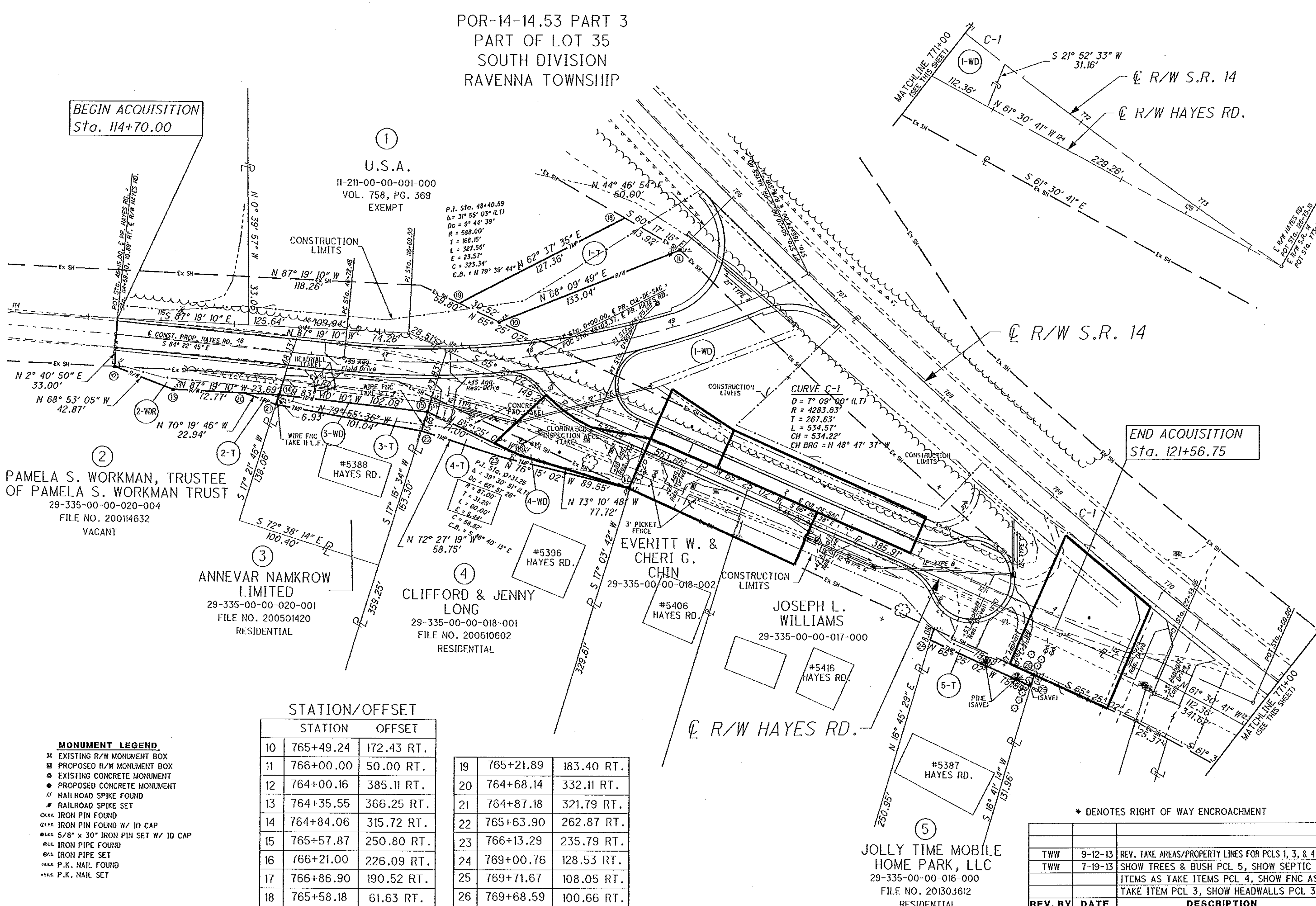
SUMMARY OF ADDITIONAL RIGHT OF WAY

POR-14-14.53

3 / 4

(27 / 28)

POR-14-14.53 PART 3
PART OF LOT 35
SOUTH DIVISION
RAVENNA TOWNSHIP



STATION/OFFSET

	STATION	OFFSET
10	765+49.24	172.43 RT.
11	766+00.00	50.00 RT.
12	764+00.16	385.11 RT.
13	764+35.55	366.25 RT.
14	764+84.06	315.72 RT.
15	765+57.87	250.80 RT.
16	766+21.00	226.09 RT.
17	766+86.90	190.52 RT.
18	765+58.18	61.63 RT.

19	765+21.89	183.40 RT.
20	764+68.14	332.11 RT.
21	764+87.18	321.79 RT.
22	765+63.90	262.87 RT.
23	766+13.29	235.79 RT.
24	769+00.76	128.53 RT.
25	769+71.67	108.05 RT.
26	769+68.59	100.66 RT.

MONUMENT LEGEND
- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- IRON PIN FOUND
- IRON PIN FOUND W/ ID CAP
- 5/8" x 30" IRON PIN SET W/ ID CAP
- IRON PIPE FOUND
- IRON PIPE SET
- P.K. NAIL FOUND
- P.K. NAIL SET

* DENOTES RIGHT OF WAY ENCROACHMENT

REV. BY	DATE	DESCRIPTION
TWW	9-12-13	REV. TAKE AREAS/PROPERTY LINES FOR PCLS 1, 3, & 4
TWW	7-19-13	SHOW TREES & BUSH PCL 5, SHOW SEPTIC ITEMS AS TAKE ITEMS PCL 4, SHOW FNC AS TAKE ITEM PCL 3, SHOW HEADWALLS PCL 3
DATE COMPLETED		

R/W DESIGNER TWW
R/W REVIEWER BWH

PID NO. 82916

RIGHT OF WAY PLAN
STA 765+00.00 TO STA 773+00.00

POR-14-14.53

4/4