





MUS-376-5.09

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 5/8/2023 TIME: 5:30:29 PM USER: fsmyder  
 O:\District05\Muskingum\115989\401-Engineering\_FokEng\RW\Sheets\115989\_RS001.dgn

TOTAL NUMBER OF:		1 TOTAL TAKES		NET TAKE = GROSS TAKE - PRO IN TAKE		NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE		ALL AREAS IN ACRES		GRANTTEE:					
4 OWNERSHIPS		1 OWNERSHIPS W/ STRUCTURES INVOLVED		RECORD AREA - TOTAL PRO - NET TAKE		ALL AREAS IN ACRES		ALL RIGHT OF WAY ACQUIRED IN THE NAME OF		STATE OF OHIO DEPARTMENT OF TRANSPORTATION					
PARCEL NO.	OWNER	R/W SHEET NO.	OWNER'S RECORD BOOK 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 PAGE
1-8	NUMBER NOT USED														
9-WD	BOWEN FRANKLIN VANCONNEY, JR. AND LINDA LOU VANCONNEY	7	DV811 156 DV811 156 DV816 320	06-42-02-14-000 06-42-02-08-000 06-42-02-02-000 TOTAL	5.490 0.109 0.149 5.898	1.140 (C) - - 1.140	0.318 - - 0.318	0.318 (C) - - 0.318	0.000 - - 0.000	NO	0.103 0.149 0.156 0.408	4.350		TRACT III, SEE BASEMENT TABLE SHEET RW 4 TRACT I, LOT 11: NO ADDITIONAL RIGHT OF WAY REQUIRED TRACT I, LOT 12: NO ADDITIONAL RIGHT OF WAY REQUIRED NO ADDITIONAL RIGHT OF WAY REQUIRED	
10-WD	CHARLIE N. RODGERS	6, 7	2922 825	06-42-02-51-000	1.063 (C)	0.000	1.063	0.000	1.063	YES	0.000			TOTAL TAKE AUDITOR'S RECORD AREA = 1.061 AC.	
11-WD	JENNIFER N. BUNGER AND TODD A. BUNGER, SR.	6, 7	2930 664	06-42-02-56-000	3.330	0.549 (C)	0.731	0.438	0.294	NO	2.487			TAKE WELL	
12-T	PETER CHEREMAS	6	2965 883	06-42-02-58-000	35.190	1.154	0.035	0.000	0.035	NO				GRADING, ACCESS	
13	TOWNSHIP OF BLUE ROCK	6	2104 843	06-42-02-58-001	0.620	0.217	-	-	-	NO				NO ADDITIONAL RIGHT OF WAY REQUIRED	

NOTE: ALL TEMPORARY PARCELS TO BE OF 18 MONTH DURATION.  
 NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

TYPES OF TITLE LEGEND:  
 WD = WARRANTY DEED  
 T = TEMPORARY EASEMENT  
 DV = DEED VOLUME  
 (C) = CALCULATED AREA

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY: FRANKLIN D. SWIDER, JR., PS DATE: 05/03/23  
 OWNERSHIP VERIFIED BY: FRANKLIN SWIDER, JR., PS DATE: 05/03/2023  
 DATE COMPLETED 05/03/2023

\* DENOTES RIGHT OF WAY ENCROACHMENT



SUMMARY OF ADDITIONAL RIGHT OF WAY

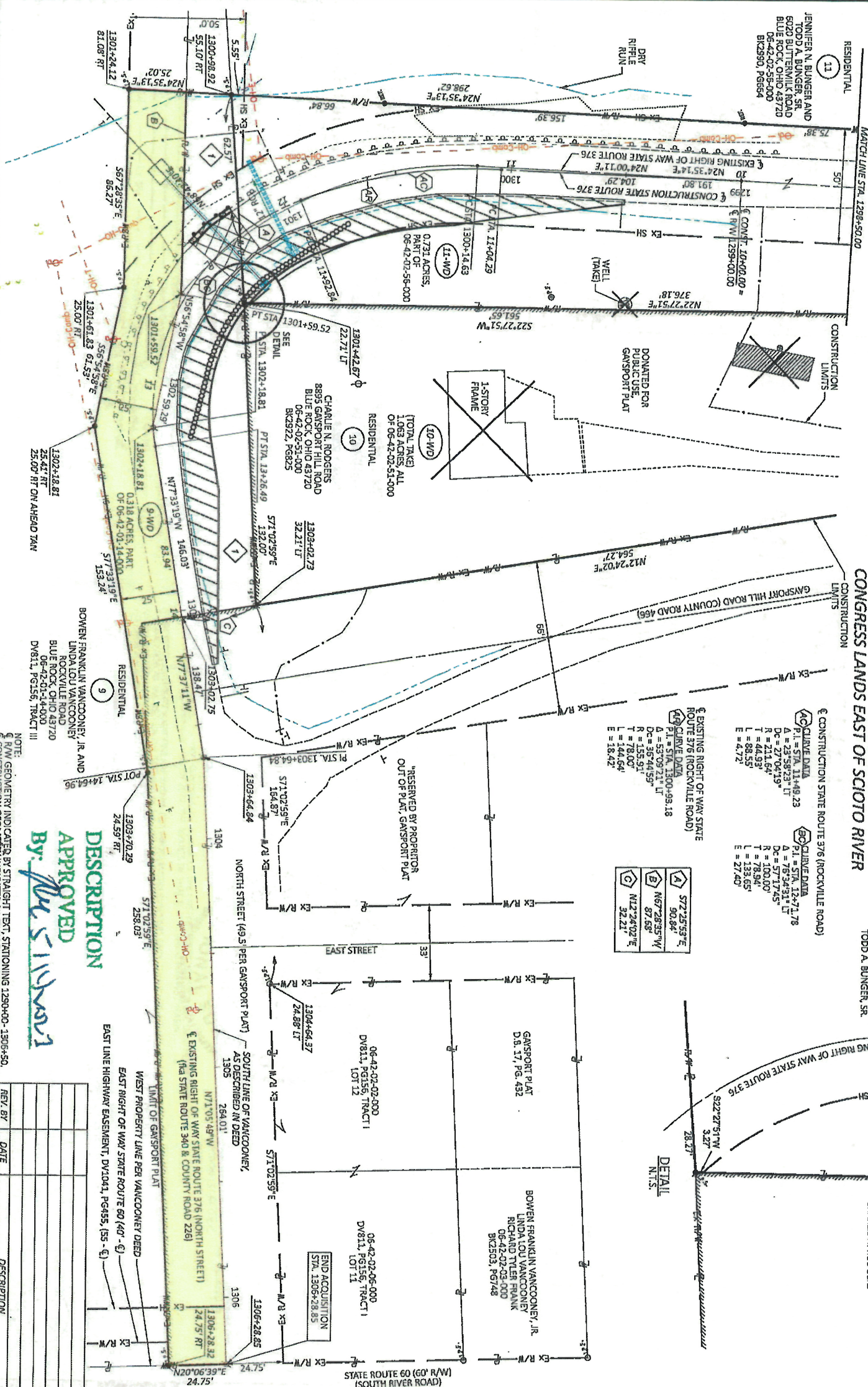




MUS-376-5.09

MODEL: 115989\_R0002 PAPER SIZE: 34x22 (in.) DATE: 5/8/2023 TIME: 5:30:43 PM USER: fanyder  
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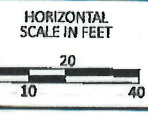
THIS AREA WITHIN EXISTING RIGHTS OF WAY NOT DESCRIBED IN RECORD DEEDS.



MUSKINGUM COUNTY  
 BLUE ROCK TOWNSHIP  
 SECTION 20, TOWNSHIP 12, RANGE 12  
 CONGRESS LANDS EAST OF SCIOTO RIVER

JENNIFER N. BUNGER AND  
 TODD A. BUNGER, SR.

CHARLIE N. RODGERS



EXISTING RIGHT OF WAY STATE ROUTE 376 (ROCKVILLE ROAD)

40	CHIRVE DATA	PI = STA. 11+49.23
	A = 23°58'23" LT	Dc = 27°04'19"
	R = 211.64'	T = 44.93'
	L = 88.55'	E = 4.72'

41	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

42	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

43	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

44	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

45	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

46	CHIRVE DATA	PI = STA. 13+71.78
	A = 75°54'31" LT	Dc = 57'17.45'
	R = 100.00'	T = 78.94'
	L = 133.65'	E = 27.40'

DETAIL  
 N.T.S.

DESCRIPTION  
 APPROVED  
 By: *[Signature]*

NOTE:  
 1. R/W GEOMETRY INDICATED BY STRAIGHT TEXT, STATIONING 1298+00-1305+50.  
 2. CONSTRUCTION GEOMETRY INDICATED BY TRAIL TEXT, STATIONING 1300-1305.

REV. BY	DATE	DESCRIPTION

DESIGN AGENCY

ASSOCIATES

DESIGNER: JPS

REGISTERED: FDS 05/03/23

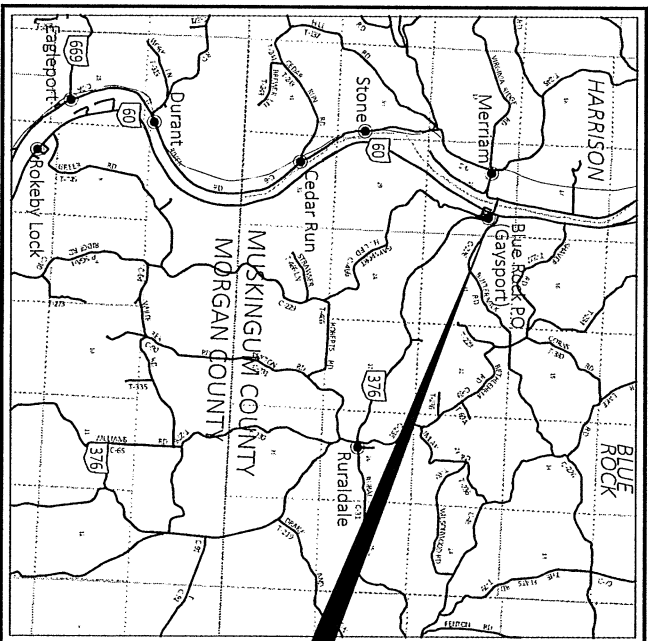
PROJECT NO: 115989

SHEET TOTAL: 7

R/W: 7

RIGHT OF WAY DETAIL SHEET  
 STA. 1298+50.00 TO STA. 1304+50.00





LATITUDE: 39°48'11" LONGITUDE: -81°53'24"



# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## MUS - 376 - 5.09

### BLUE ROCK TOWNSHIP MUSKINGUM COUNTY

**INDEX OF SHEETS:**

TITLE SHEET	1
SCHEMATIC PLAN	2
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GENERAL SUMMARY	13
PAVEMENT & PAVEMENT MARKING CALCULATIONS	14
PLAN & PROFILE	15
GRADING GROSS SECTIONS	16-25
CULVERT DETAIL SHEET	26
CULVERT INSTALL GROSS SECTIONS	27-28

**2023 SPECIFICATIONS**  
 THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON 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 12.

*Jason L. Sturgeon*  
 Jason L. Sturgeon, P.E.  
 District 05 Deputy Director

*Jack Marchbanks*  
 Jack Marchbanks, PhD  
 Director, Department of Transportation

**FEDERAL PROJECT NUMBER**  
N.A.

**RAILROAD INVOLVEMENT**  
N.A.

**PROJECT DESCRIPTION**  
 REMEDIATION OF ROCK CUT SLOPE THAT IMPROVES SLOPE STABILITY

**EARTH DISTURBED AREAS**  
 PROJECT EARTH DISTURBED AREA: 0.58 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.10 ACRES  
 NOTICE OF INTENT EARTH DISTURBED AREA: 0.68 ACRES

**DESIGN DESIGNATION**  
 CURRENT ADT (2023) ----- 410  
 DESIGN YEAR ADT (2043) ----- 610  
 DESIGN HOURLY VOLUME (2043) ----- 72  
 DIRECTIONAL DISTRIBUTION ----- 55%  
 TRUCKS (24 HOUR B&C) ----- 3%  
 DESIGN SPEED ----- 55  
 LEGAL SPEED ----- 55  
 DESIGN FUNCTIONAL CLASSIFICATION:  
 RURAL - MAJOR COLLECTOR  
 NHS PROJECT ----- NO

**DESIGN EXCEPTIONS**  
 NONE

**ADA DESIGN WAIVERS**  
 NONE REQUIRED

**UNDERGROUND UTILITIES**  
 Contact Two Working Days  
 Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764  
 (Non members must be called directly)

PLAN PREPARED BY:  
 OHIO DEPARTMENT  
 OF TRANSPORTATION  
 DISTRICT 5

STANDARD CONSTRUCTION DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BR-3.1	1/23/22	800-3019	SEE R&O 304L
BR-5.1	7/15/22	832	7/15/22
GR-3A	7/16/21	902	7/19/19
DM-1.1	7/17/20		
DM-4.4	1/15/16		
MT-97.10	4/19/19		
MT-101.60	1/17/20		
MT-105.10	1/17/20		
TC-41.20	10/18/13		
TC-65.10	1/17/14		
TC-65.11	7/15/22		



MUS-376-5.09

MODEL: CLX\_RW\_5378 - Plan 1 [Sheet] PAPER SIZE: 34x22 (in.) DATE: 6/6/2023 TIME: 7:54:56 AM USER: gmotsche  
 pw:\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115989\400-Engineering\Roadway\Sheets\115989\_G8001.dgn

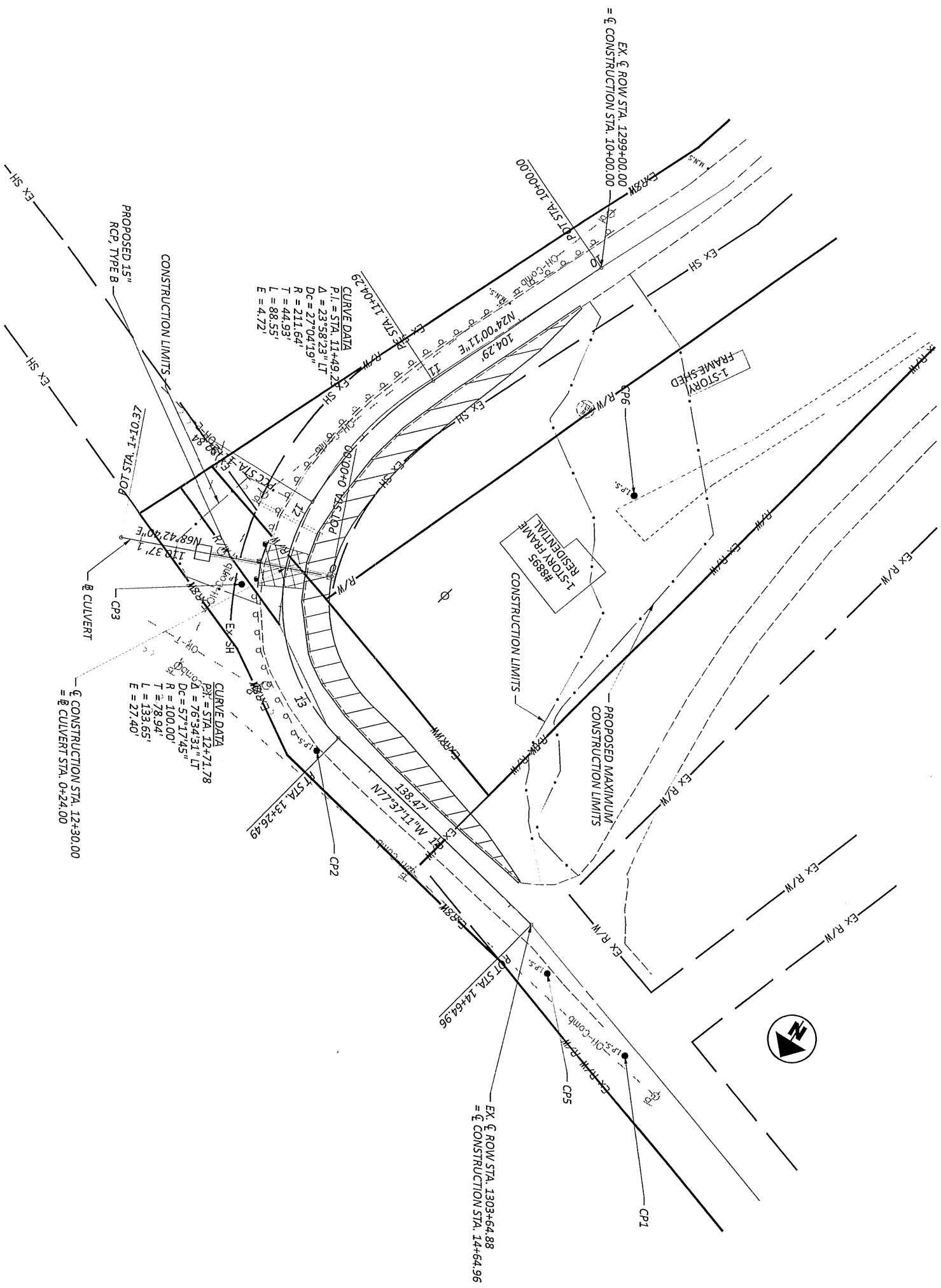
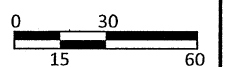


TABLE OF CONTROL POINTS

POINT ID	NORTHING	EASTING	ELEVATION	CODE
CP1	657384.8401	2139594.5736	679.06	IPINS
CP2	657333.9435	2139812.8115	680.77	IPINS
CP3	657280.8029	2139891.4978	679.09	IPINS
CP5	657369.5708	2139650.7590	678.01	IPINS
CP6	657135.3337	2139745.0906	-	IPINS

SCHMATIC PLAN  
 MUS-376-5.09

HORIZONTAL SCALE IN FEET



DESIGN AGENCY

DESIGNER

REVIEWER

PROJECT ID

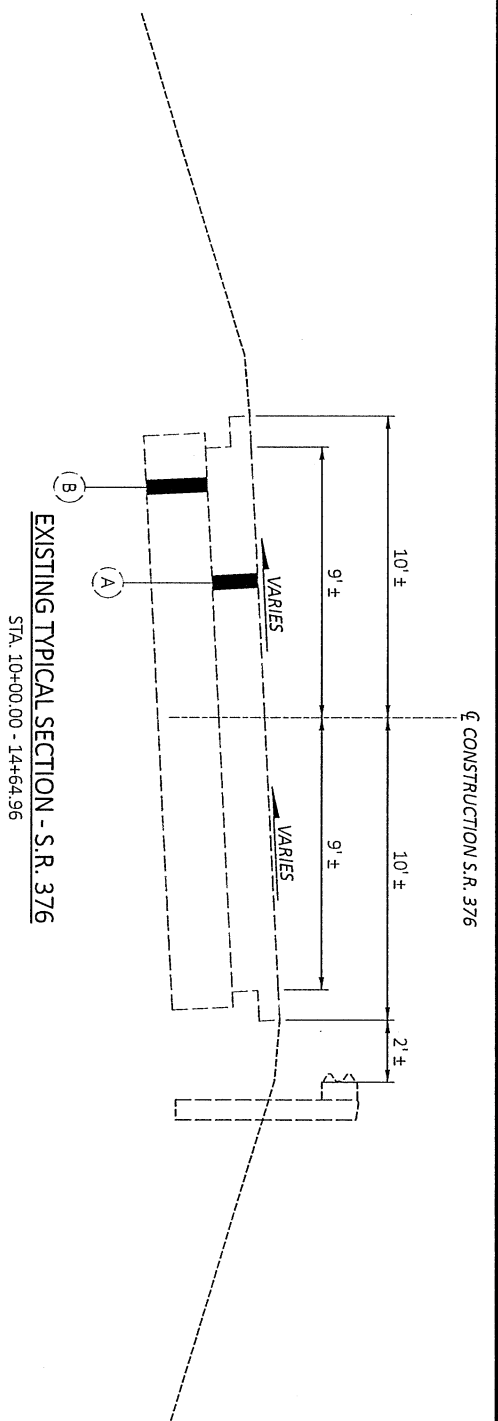
SHEET TOTAL

P. 2

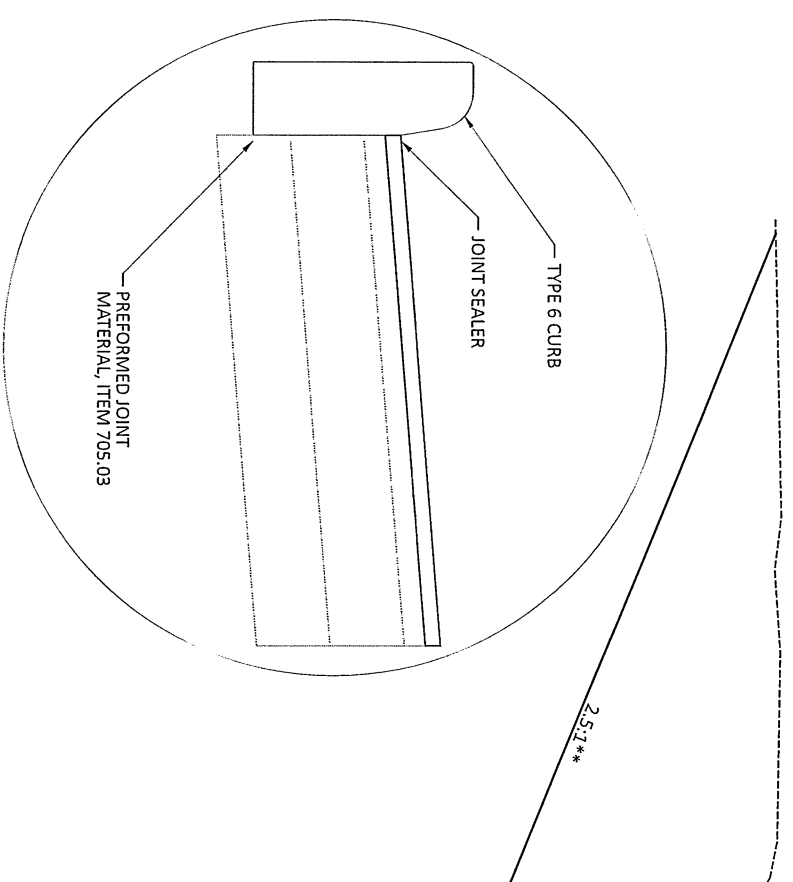
28



- LEGEND**
- (A) EX. ASPHALT CONCRETE (UNKNOWN DEPTH)
  - (B) EX. AGGREGATE BASE (UNKNOWN DEPTH)



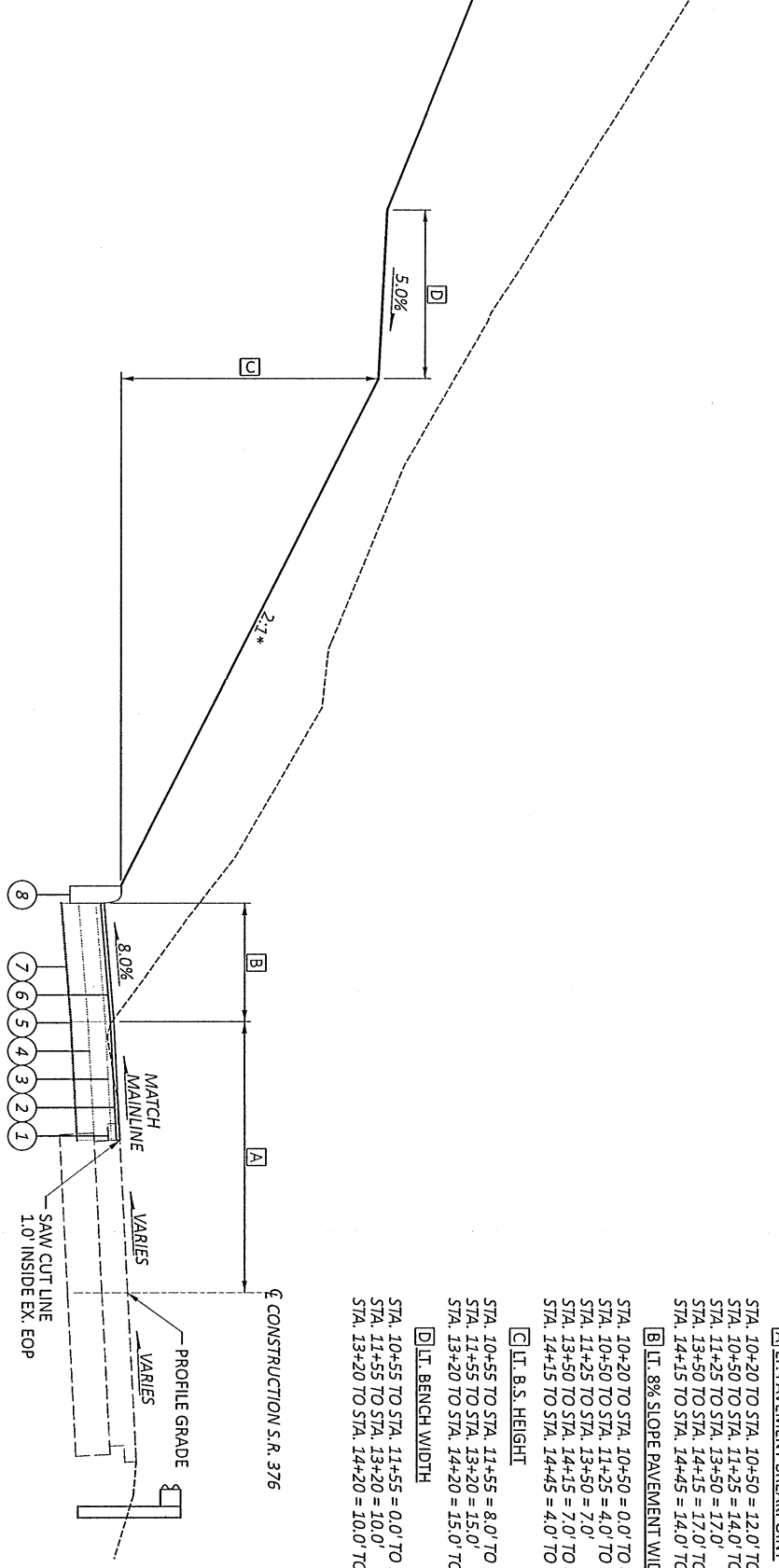
EXISTING TYPICAL SECTION - S.R. 376  
 STA. 10+00.00 - 14+64.96



EDGE OF PAVEMENT DETAIL (TYP)

- LEGEND**
- 1 ITEM 202 PAVEMENT REMOVED
  - 2 ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M (1.25")
  - 3 ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (1.75")
  - 4 ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (449) (6")
  - 5 ITEM 304 AGGREGATE BASE (6")
  - 6 ITEM 407 NON-TRACKING TACK COAT
  - 7 ITEM 204 SUBGRADE COMPACTION
  - 8 ITEM 609 CURB, TYPE 6

PROPOSED SHOULDER WIDENING & GRADING TYPICAL SECTION - S.R. 376  
 STA. 10+20.00 - 14+45.00 (SHOULDER WIDENING)  
 STA. 10+55.00 - 14+15.00 (GRADING)



**WIDTHS & HEIGHTS**

- A** LT. PAVEMENT BREAKPOINT
- STA. 10+20 TO STA. 10+50 = 12.0' TO 14.0'
  - STA. 10+50 TO STA. 11+25 = 14.0' TO 17.0'
  - STA. 11+25 TO STA. 13+50 = 17.0'
  - STA. 13+50 TO STA. 14+15 = 17.0' TO 14.0'
  - STA. 14+15 TO STA. 14+45 = 14.0' TO 12.0'
- B** LT. 8% SLOPE PAVEMENT WIDTH
- STA. 10+20 TO STA. 10+50 = 0.0' TO 4.0'
  - STA. 10+50 TO STA. 11+25 = 4.0' TO 7.0'
  - STA. 11+25 TO STA. 13+50 = 7.0'
  - STA. 13+50 TO STA. 14+15 = 7.0' TO 4.0'
  - STA. 14+15 TO STA. 14+45 = 4.0' TO 0.0'
- C** LT. B.S. HEIGHT
- STA. 10+55 TO STA. 11+55 = 8.0' TO 15.0'
  - STA. 11+55 TO STA. 13+20 = 15.0'
  - STA. 13+20 TO STA. 14+20 = 15.0' TO 8.0'
- D** LT. BENCH WIDTH
- STA. 10+55 TO STA. 11+55 = 0.0' TO 10.0'
  - STA. 11+55 TO STA. 13+20 = 10.0'
  - STA. 13+20 TO STA. 14+20 = 10.0' TO 0.0'

**SLOPES**

- \* LT. BACK SLOPE**
- STA. 10+55 TO STA. 11+55 = 1.5:1 TO 2:1
  - STA. 11+55 TO STA. 13+20 = 2:1
  - STA. 13+20 TO STA. 14+20 = 2:1 TO 1.4:1
- \* LT. TIE SLOPE**
- STA. 10+55 TO STA. 10+75 = 1.5:1
  - STA. 10+75 TO STA. 11+05 = 1.5:1 TO 2:1
  - STA. 11+05 TO STA. 13+70 = 2:1
  - STA. 13+70 TO STA. 14+20 = 2:1 TO 1.4:1

EXISTING/PROPOSED TYPICAL GRADING SECTION - S.R. 376

DESIGN AGENCY

DESIGNER  
GPM

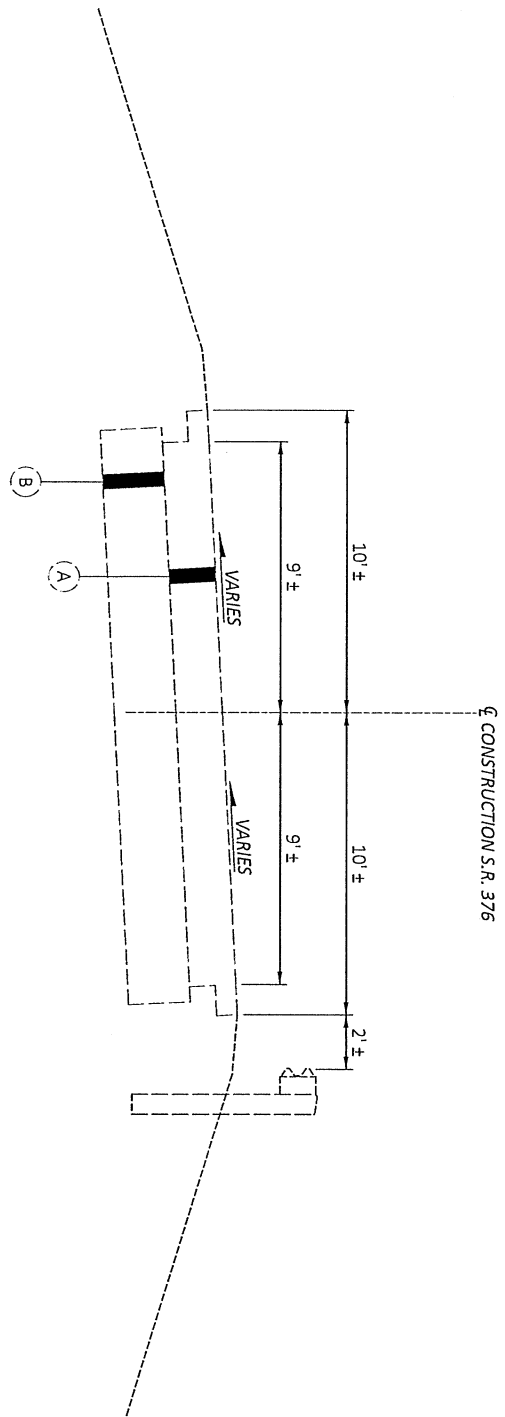
REVIEWER  
XXX

PROJECT ID  
115989

SHEET TOTAL  
P. 3 28



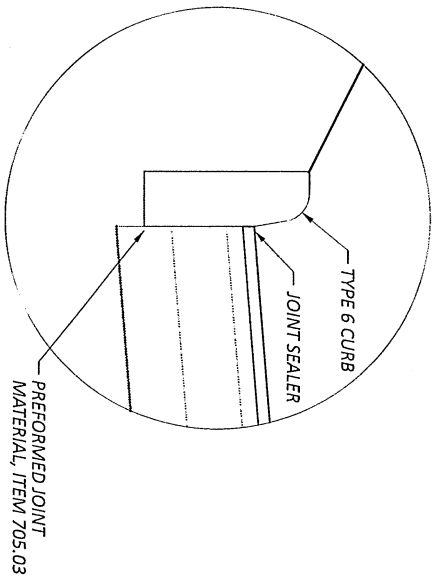
- LEGEND**
- (A) EX. ASPHALT CONCRETE (UNKNOWN DEPTH)
  - (B) EX. AGGREGATE BASE (UNKNOWN DEPTH)



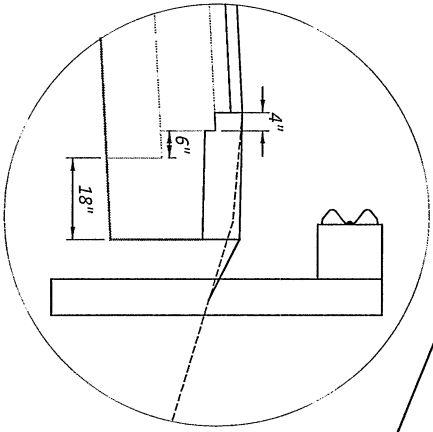
EXISTING TYPICAL SECTION FOR CULVERT INSTALLATION - S.R. 376

STA. 12+20.00 - 12+40.00

PAVEMENT ELEVATION TABLE					
STA.	SAW CUT (LT.)	℄	EDP (RT.)	EOS (RT.)	
12+20	679.03	680.03	680.63	680.58	
12+30	679.04	679.92	680.63	680.58	
12+40	679.10	679.98	680.66	680.61	



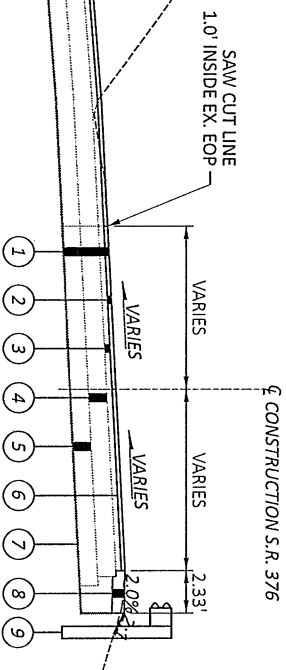
EDGE OF PAVEMENT DETAIL LT. (TYP)



EDGE OF PAVEMENT DETAIL RT. (TYP)

**LEGEND**

- 1 ITEM 202 PAVEMENT REMOVED
- 2 ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M (1.25")
- 3 ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (1.75")
- 4 ITEM 301 ASPHALT CONCRETE BASE, PG64-22, (449) (6")
- 5 ITEM 304 AGGREGATE BASE (6")
- 6 ITEM 407 NON-TRACKING TACK COAT
- 7 ITEM 204 SUBGRADE COMPACTION
- 8 ITEM 617 COMPACTED AGGREGATE, 8"
- 9 ITEM 606 GUARDRAIL, TYPE 5, USING 9 FOOT POSTS



PROPOSED TYPICAL SECTION FOR CULVERT INSTALLATION - S.R. 376

STA. 12+20.00 - 12+40.00



DESIGN AGENCY

DESIGNER

GPM

REVIEWER

PROJECT ID  
115989

SHEET TOTAL  
P.4 28

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

**UNDERGROUND UTILITIES**

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.

**UTILITIES**

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

AT&T Ohio 160 North Sixth Street Zanesville, Ohio 43701 Attn: Barret Tomaszovich 740-454-3552 BT2178@att.com	Natural Gas and Oil Cooperative 120 O'Neil Drive Hebron, Ohio 43025 Attn: Will Poling 740-641-8751 wpoling@theenergycoop.com
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Guernsey-Muskungum Electric Cooperative, Inc. 17 South Liberty Street New Concord, Ohio 43762 Attn: Blake West 740-826-7970 bwest@guernsey.com	Spectrum Cable TV 737 Howard St. Zanesville, Ohio 43701 Attn: Zack Allen 614-255-2819 Zackery.Allen1@charter.com
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**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**

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

**EXISTING STRUCTURE VERIFICATION**

DETAILS AND DIMENSIONS SHOWN ON THE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE DESIGN PLANS OF THE EXISTING PIPE'S ORIGINAL INSTALLATION. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO GRMS 102.05 AND 105.02.

**BORROW AND WASTE AREAS**

THE CONTRACTOR SHALL COMPLY WITH CMS SECTION 107.10 FOR ALL BORROW AND WASTE AREAS ASSOCIATED WITH THE PROJECT.

**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, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

**EARTHWORK**

ITEM 203. EXCAVATION (10203 CY)  
10201 CY (SHEET 25) + 2 CY (SHEET 28) = 10203 CY

**SEEDING AND MULCHING**

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

ITEM 659. SEEDING AND MULCHING, CLASS 2 (3210 SY)  
3122 SY (SHEET 25) + 88 SY (SHEET 28) = 3210 SY

ITEM 659. COMMERCIAL FERTILIZER (0.4 TON)  
1 TON PER 7,410 SY OF PERMANENT SEEDED AREA

ITEM 659. LIME ACRES (0.7 ACRE)  
3210 / 4840 = 0.7 ACRE

ITEM 659. WATER (17 M. GAL)  
3210 X 0.0054 M. GAL / SY = 17 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

**ITEM 612. COMPACTED AGGREGATE, AS PER PLAN**

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 716.02) IN LIEU OF LIMESTONE.

**REVIEW OF DRAINAGE FACILITIES**

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**ENDANGERED BAT HABITAT REMOVAL**

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DIVING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**ITEM 407. NON-TRACKING TACK COAT**

THE RATE OF APPLICATION OF THE ITEM 407, NON-TRACKING TACK COAT SHALL BE PER CMS TABLE 407.06-1 AND SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.06 GAL/SY FOR TACK COAT UNDER THE SURFACE COURSE AND 0.06 GAL/SY UNDER THE INTERMEDIATE COURSE. (FOR ESTIMATING PURPOSES ONLY).

**ITEM 690. SPECIAL - MISC.: ROADWAY PRESERVATION**

PRESERVE THE EXISTING PAVEMENT AND GUARDRAIL. VIDEO DOCUMENT THE ROADWAY AND GUARDRAIL CONDITIONS PRIOR TO STARTING THE EXCAVATION OF SLOPE AND REMOVAL OF WASTE MATERIALS. SUBMIT PROTECTION PLAN FOR THE PROJECT ENGINEER'S FILES.

REPAIR ANY DAMAGE TO THE ROADWAY AND GUARDRAIL DURING CONSTRUCTION AT NO ADDITIONAL COSTS TO THE STATE. UNLESS ITEMIZED SEPARATELY, INCLUDE ALL LABOR, MATERIALS, AND TOOLS NECESSARY FOR PROTECTION OF EXISTING ROADWAY PAVEMENT.

ITEM 690 SPECIAL, ROADWAY PRESERVATION, LUMP  
3210 X 0.0054 M. GAL / SY = 17 M. GAL

**ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT**

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 INCH DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

**ITEM 623. CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. AFTER ALL INFORMATION HAS BEEN COLLECTED, AN EMAIL CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO:

Cody.Gierhart@dot.ohio.gov (DS GIS COORDINATOR) AND  
Steven.Miller@dot.ohio.gov (DS CONSTRUCTION AREA ENGINEER)

**ITEM 408. PRIME COAT, AS PER PLAN**

THE CONTRACTOR SHALL APPLY ONE COAT OF M-C-70 (AS PER CMS 702) AT A RATE OF 0.40 GAL/SY TO THE COMPLETED AGGREGATE SHOULDER. TO REDUCE AGGREGATE LOSS, THE PRIME COAT SHALL BE APPLIED WITHIN SEVEN (7) DAYS AFTER PLACEMENT OF THE AGGREGATE SHOULDER OR LIQUIDATED DAMAGES PER CMS 108.07 WILL BE ASSESSED. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

**ITEM 623. CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN (CONTINUED)**

THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING:

NAME OF SURVEYOR  
DATE(S) OF COLLECTION  
HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO SPCS NORTH OR SOUTH)  
VERTICAL DATUM (I.E. NAVD 88, GEOID12A)  
METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.)  
THE ASCII FILE SHALL BE IN TABLE FORM AS FOLLOWS:

PT. NO./NORTHING/EASTING/ELEVATION/FEATURE CODE/DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR SHALL PROVIDE FOR THIS PROJECT:  
-CULVERT INVERT AT INLET AND OUTLET

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE ODOT SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COSTS ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK DESCRIBED ABOVE:

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING,  
AS PER PLAN (15)

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET \_\_\_ OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL	
POSITIONING METHOD:	LOCAL RT NETWORK AND STATIC GPS OBSERVATIONS
MONUMENT TYPE:	TYPE B ODOT DS
VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	128
HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD83 (2011)
ELLIPSOID:	GRS 1980
MAP PROJECTION:	LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM:	OHIO NORTH
COMBINED SCALE FACTOR:	0.99995376
ORIGIN OF COORDINATE SYSTEM:	600,000M, Y=0M

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH

UNITS ARE IN U.S. SURVEY FEET.  
CMS 623.

GENERAL NOTES



DESIGN AGENCY  
GPM  
REVIEWER

PROJECT ID  
115989  
SHEET TOTAL  
P.5 28



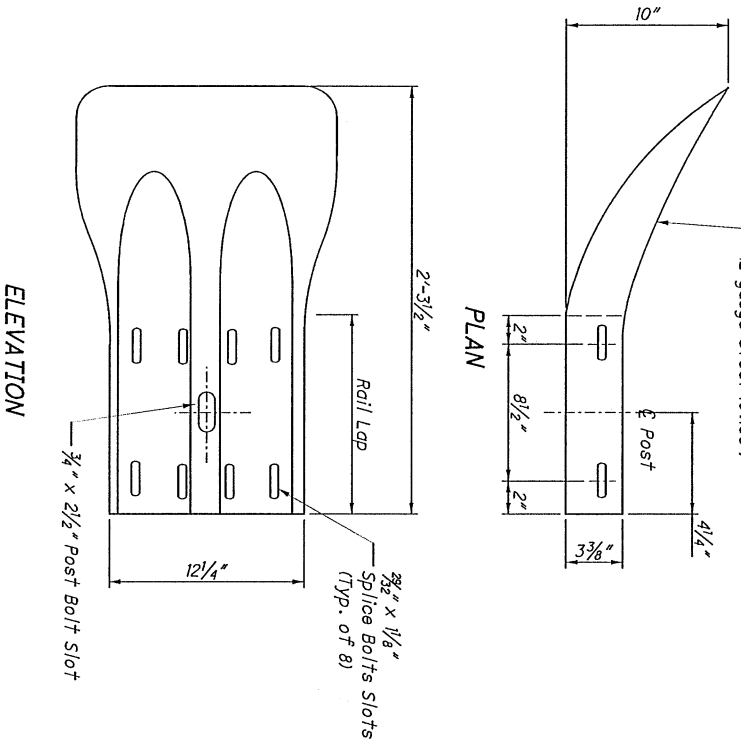
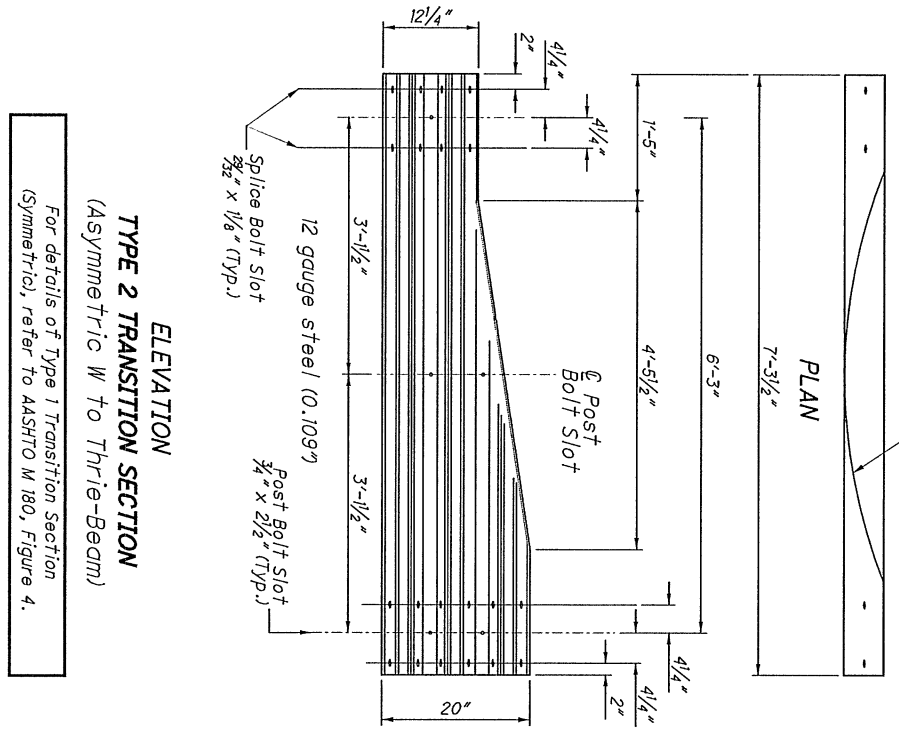
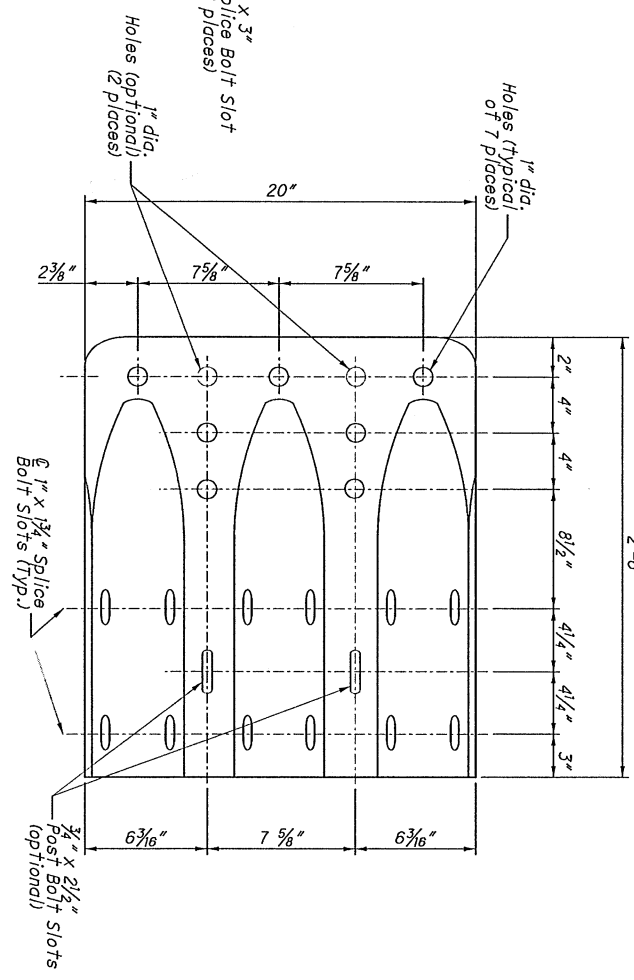
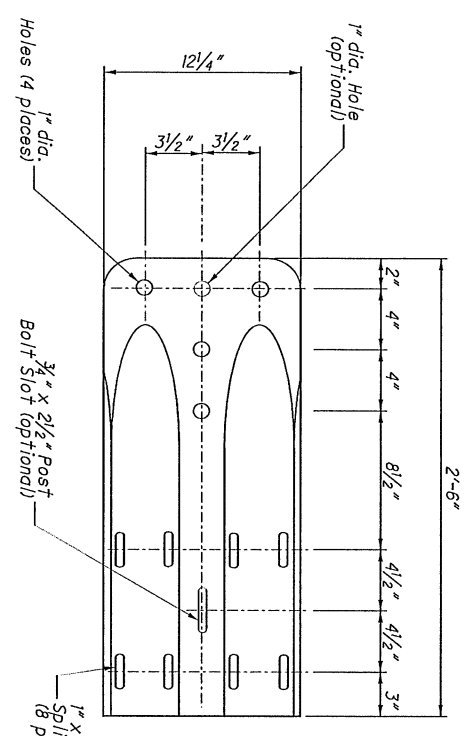
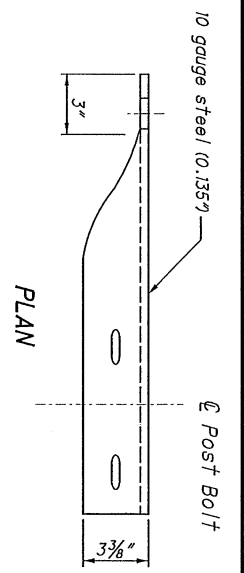
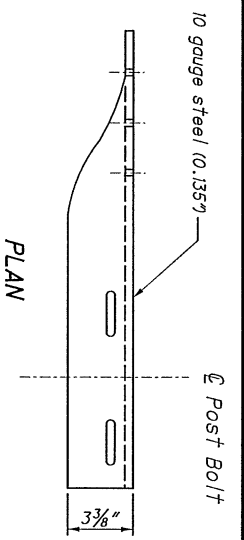
**NOTES**

**GENERAL:** Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications. See CMS 606 for guardrail specifications not covered on these drawings.

Refer to AASHTO M 180 for dimensional details of W-Beam and Three-Beam rail elements, related buffer and end sections, beam splices, post and splice bolts, nuts, and Type 1 W-Beam to Three-Beam Transition sections.

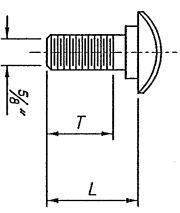
**RAIL ELEMENTS:** W-Beam Rail has an effective length of 12'-0" unless otherwise specified, with 7/8" x 2 1/2" post bolt slots on 6'-3" centers, regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

**RAIL SPLICES:** Lap splices between two rail elements or between a rail and terminal connector in the direction of traffic. Lap the buffer or tapered end sections in the direction of traffic.



GUARDRAIL BOLT (For Post and Splice Bolts)		
L	T min.	Bolt Use
1 8"	4"	Type 5: WP/WB, PB (Standard Rail)
26"	4"	Type 5: SP/WB, PB (Barrier Rail)
10"	1 1/8"	Splice Bolt
1 1/4"	1 1/8"	Splice Bolt

WP = Wood Post  
 SP = Steel Post  
 WB = Wood Blockout  
 PB = Plastic Blockout  
 Longer Bolt may be needed for round Wood Post larger than 8" dia.



**TYPE 2 TRANSITION SECTION**  
 (Asymmetric W to Three-Beam)  
 For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.

**W-BEAM FLARED END SECTION**

**W-BEAM TERMINAL CONNECTOR**

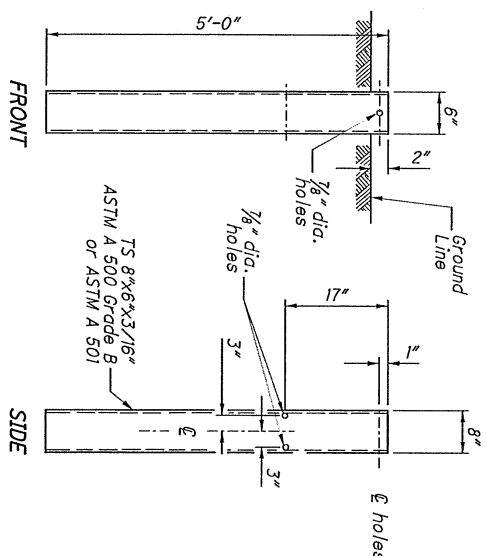
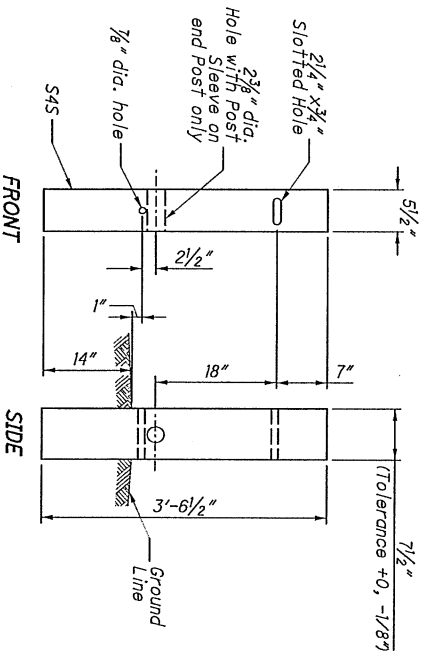
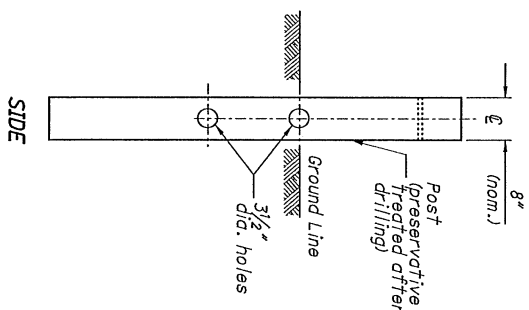
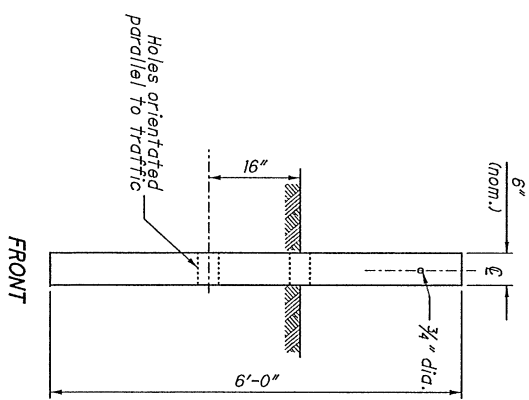
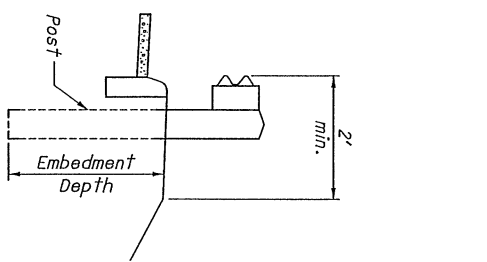
**THREE-BEAM TERMINAL CONNECTOR**

PLAN INSERT SHEET  
**GUARDRAIL DETAILS**  
 (Rail Components)

DESIGNED 1/18/2013 XXX	OFFICE OF ROADWAY ENGINEERING
CHECKED XXX	

**PIS GR-1.1**

1 / 3



NOTES

**GUARDRAIL HEIGHT:** For initial installation, construct the guardrail within  $\pm 1"$  of the standard height  $h$ , or  $29"$  to the top of W-beam rail. (See MEASURING GUARDRAIL HEIGHT Detail.) When subsequent projects, such as resurfacing, affect the height of existing guardrail, the finished height is to be within  $\pm 2.5"$  of the standard height.

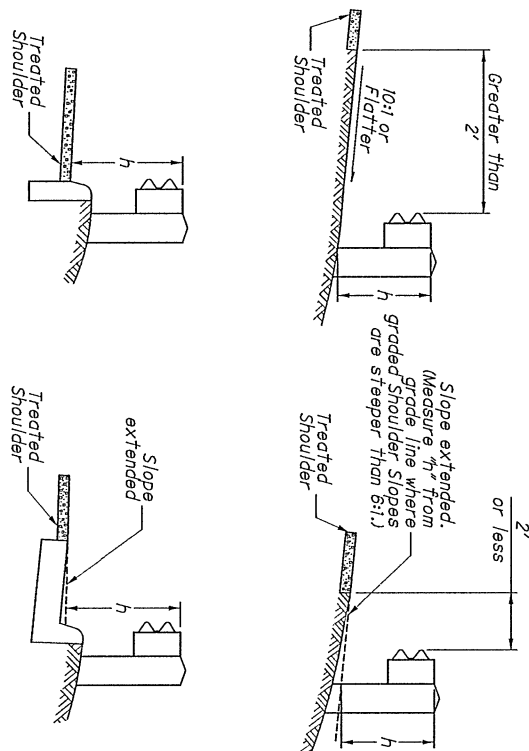
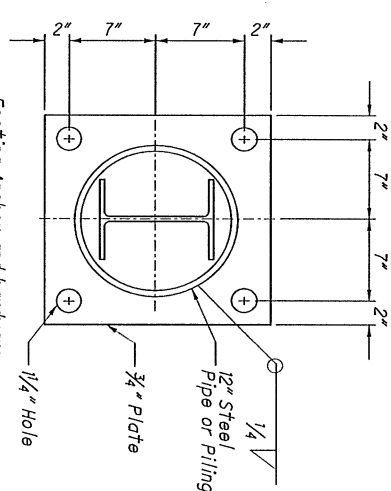
**POST EMBEDMENT DEPTH:** Standard embedment is 3'-5" min. Where less than 2' of graded shoulder width (10:1 or flatter) exists, measured from the face of the guardrail (see DETAIL A), use longer posts so that a minimum of 5'-5" embedment depth is provided. Payment for the longer posts will be made at the unit price bid for ITEM 606 - GUARDRAIL POST, 9", Each.

**SPECIAL POST MOUNTINGS:** Install posts located over a drainage inlet or structure as shown in the FOOTING ANCHOR Detail, or anchor per the details shown on SCD GR-2.2.

Install posts located over a footing with a cover of less than 2'-6" with a footing anchor as detailed here. (A plate, as detailed on SECTION B-B of SCD GR-2.2, may be used as an alternative attachment method.) Where the cover is between 2'-6" and 3'-5", the footing anchor may be omitted and the post encased instead with 4" (min.) of concrete. Do not drive posts located over a culvert with less than 4'-3" of cover; install set in drilled or dug holes. Where the available post embedment depth is less than 3'-5", encase the post with a minimum of 4" concrete.

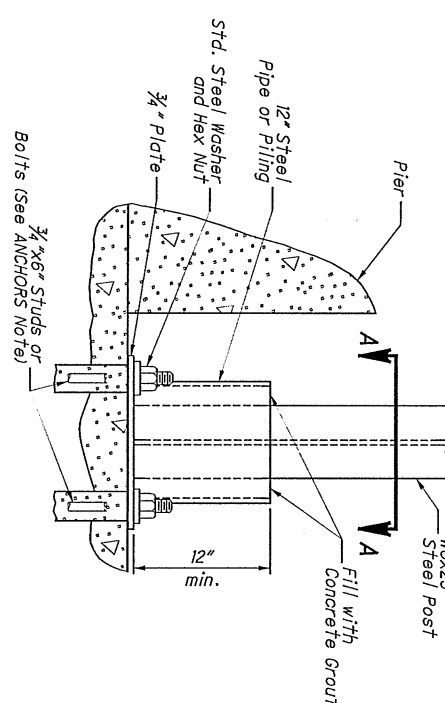
All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the Type specified in the plans. **ANCHORS:** Holes and grouting shall comply with CMS 510. Use either Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

**PROTECTIVE COATING:** In lieu of the complying with CMS 710.09, coat expansion shields, anchors and concrete insert anchor assemblies embedded in concrete in accordance with ASTM A 153 or be of stainless steel. Any bolts screwed into these devices shall meet CMS 710.06. (See sheet 3 for Concrete Insert Anchor Assembly Detail.)



$h$  = Standard Height (See GUARDRAIL HEIGHT Note)  
**MEASURING GUARDRAIL HEIGHT**

**ELEVATION FOOTING ANCHOR**



See SPECIAL POST MOUNTINGS Note.

PLAN INSERT SHEET  
**GUARDRAIL DETAILS**  
 (Rail Components)

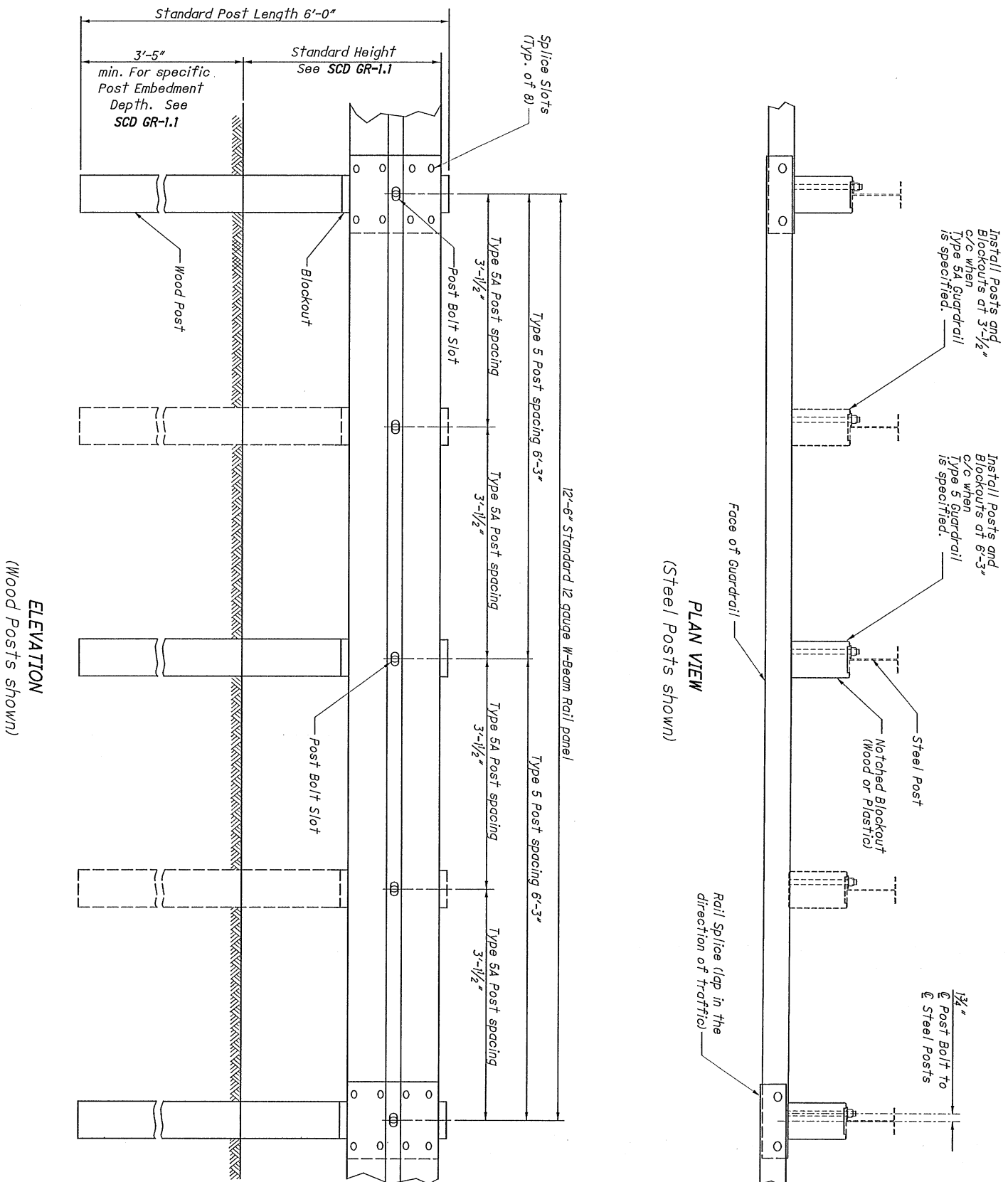
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1/18/2013	XXX	
CHECKED	REVIEWED	
CHECKED	XXX	

PIS GR-1.1

2	3
0	0







**NOTES**

- RAIL:** Use W-beam rail meeting AASHTO M 180 Type II Class A, as specified in CMS 606.
- POSTS:** Posts may be constructed of wood or steel. Wood posts may be round or 6"x8" square-sawn. Use round wood posts on runs of single-sided rail. The round posts shall be 6x4 in diameter at the top and not more than 3" larger at the butt with a uniform taper.
- Fabricated wood posts with square ends. Posts shall be pressure-treated as per CMS 710.14. Bore bolt holes and, if required, trim the tops of posts after the posts are set.
- Steel posts are to be 6x9 or 6x8.5 galvanized steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.
- All posts are 6'-0" long unless specified otherwise in the Contract Document. Posts may be set in drilled holes or may be driven to grade.

**WELDED BEAM POSTS:** Welded beam guardrail posts may be used for Item 606, Guardrail, provided the web and flange sizes are as shown here. Welding of the web to the flanges must comply with ASTM A 159, Class 1, using Grade 56 steel (250 MPa yield point) with the following exceptions:

- Sec. 7.2 Test reports of tensile properties for each lot shall accompany each shipment.
- Sec. 12 Beams that have imperfections repaired by welding shall not be accepted for use in Item 606.
- Sec. 13 Random samples shall be tested by the Department from materials delivered to the project site, or other locations designated by the Laboratory.

**ALTERNATE POSTS:** Engineered guardrail posts having met NCHRP 350 criteria, and listed on the **Office of Materials Management's** Approved List are permitted as an equal alternative when installed according to the Manufacturer's instructions and within the limitations shown on the Approved List.

**BLOCKOUTS:** Blockout dimensions are dependent on post used. Wood blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the **Office of Roadway Engineering**.

**WASHERS:** Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts.

**DELINEATION:** For barrier reflectors, see CMS 626.

**MISCELLANEOUS:** For other guardrail details, see SCD GR-1.1.

STEEL BEAM POSTS (English)				
Size	Beam depth	Flange width	Flange thickness	Web thickness
Rolled 6x8.5	5.8"	3.94"	0.193"	0.170"
Rolled 6x9	5.9"	3.94"	0.215"	0.170"
Welded 6x8.5	6.0"	3.94"	0.193"	0.170"
Welded 6x9	6.0"	3.94"	0.215"	0.170"

PLAN INSERT SHEET  
**GUARDRAIL TYPE 5 & 5A**

REVISION DATE	DESIGNED	OFFICE OF ROADWAY ENGINEERING
1/18/2013	XXX	
CHECKED	XXX	

**PIS GR-2.1**

1/2	0
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**TYPE 5 GUARDRAIL - (1 OF 2)**

DESIGN AGENCY:

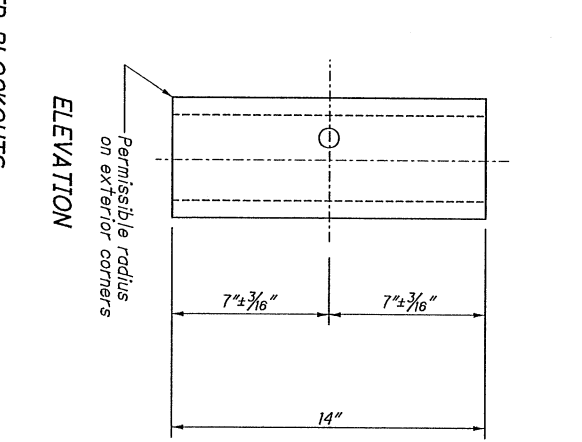
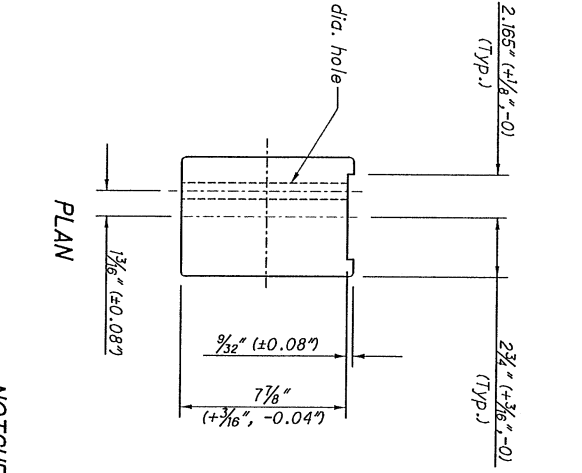
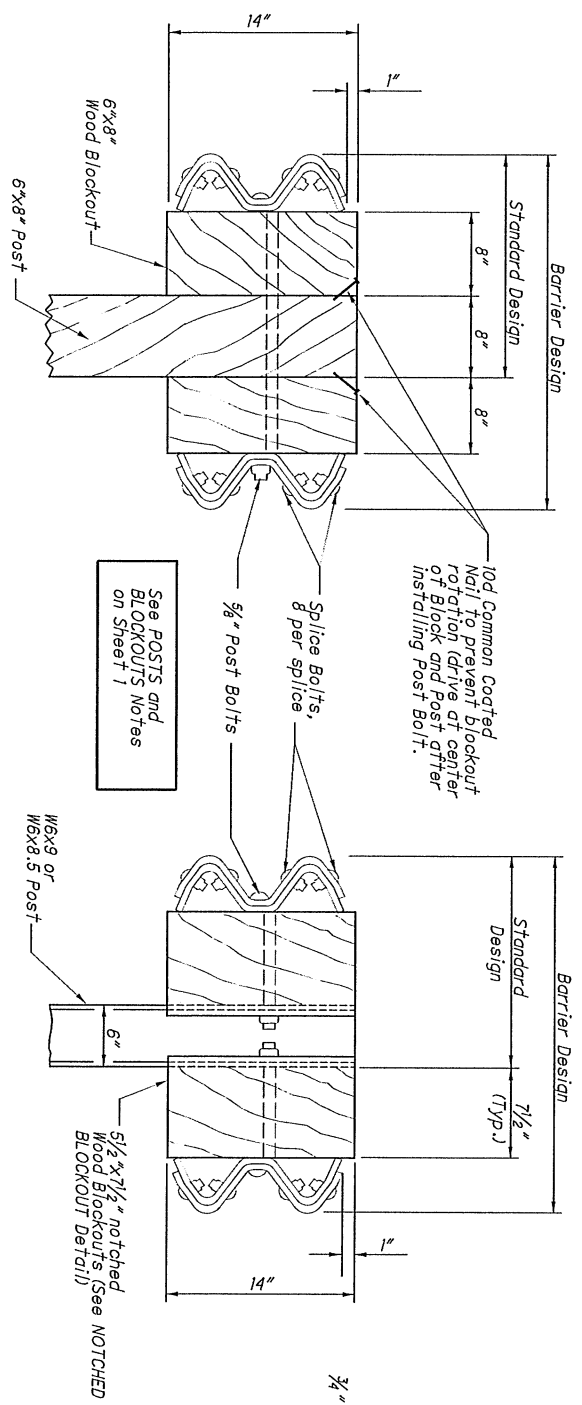
DESIGNER: GPM

REVIEWER: GPM

PROJECT ID: 115989

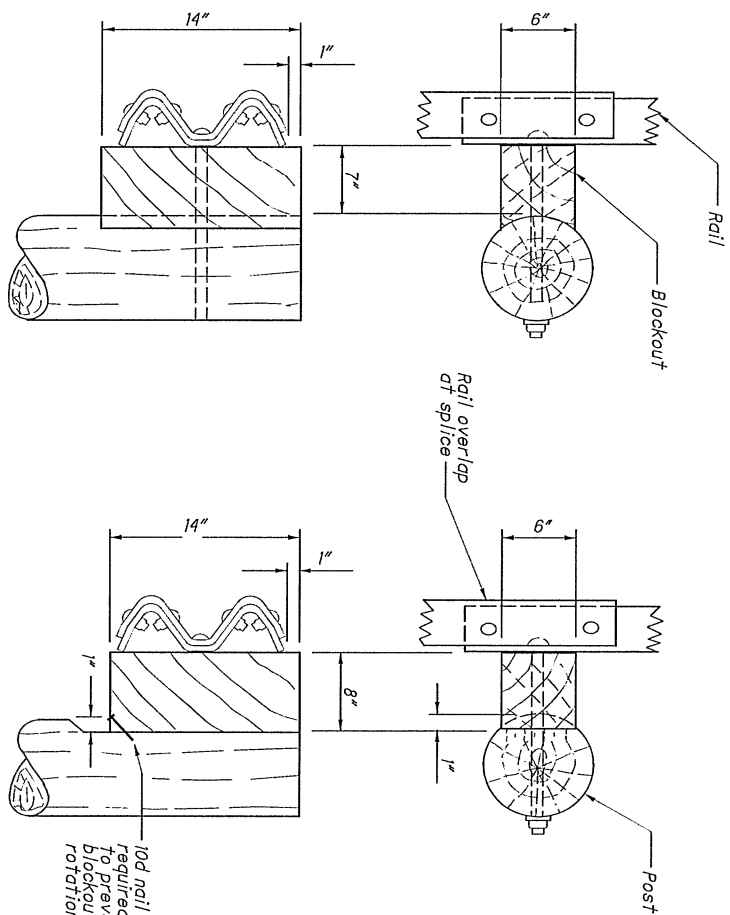
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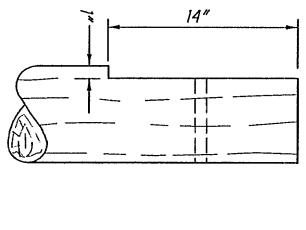


STEEL POST  
See POSTS Note, Sheet 1

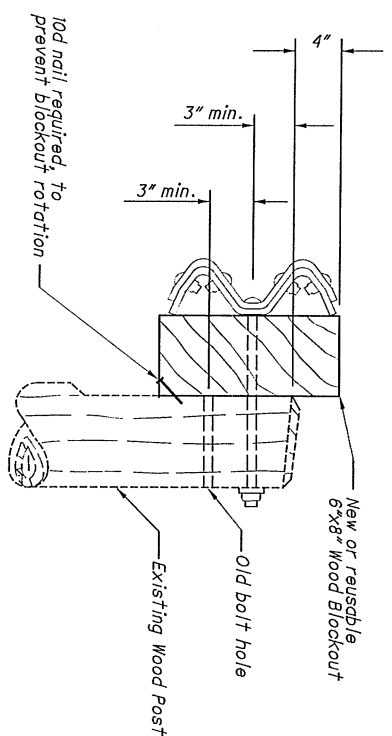
NOTCHED BLOCKOUTS FOR STEEL POSTS  
See BLOCKOUTS Note on Sheet 1



Method 1  
Routed Blockout



Method 2  
Notched Post



WOOD POSTS WITH WOOD BLOCK RAISING EXISTING GUARDRAIL HEIGHT

Alternative methods of placing the Blockouts on round Posts may be submitted for consideration and approved by the Engineer.  
 ROUND WOOD POSTS  
 Single Sided runs only (Standard Design)

0	2 / 2	PIS GR-2.1	PLAN INSERT SHEET		REVISION DATE	DESIGNED	OFFICE OF ROADWAY ENGINEERING
			GUARDRAIL TYPE 5 & 5A		1/18/2013	XXX	
					CHECKED	REVIEWED	
					CHECKED	XXX	

DESIGN AGENCY:

DESIGNER: GPM  
 REVIEWER:   
 PROJECT ID: 115989  
 SHEET TOTAL: P.10 / 28

**CONSTRUCTION NOTIFICATION**

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND/OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO)  
 BY FAX: (614) 887-4510 OR  
 BY EMAIL: D05.PIO@DOT.OHIO.GOV  
 DISTRICT PERMIT SECTION  
 BY FAX: (614) 887-4525 OR  
 BY EMAIL: BRIAN.BOSCH@DOT.OHIO.GOV  
 CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION  
 BY FAX: (614) 728-4099 OR  
 BY EMAIL: HAULING.PERMITS@DOT.OHIO.GOV

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS VIA MEDIA SOURCES.

**ITEM 614, MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AS PER THE DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS LATEST REVISION. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, AS PER 614.03.

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

THIS PROJECT WILL BE CONSIDERED OPEN TO TRAFFIC ONCE ALL EXCAVATION, AGGREGATE SHOULDER, GRADED DITCH, INSTALLATION OF PROPOSED CULVERT, AND PAVEMENT TO INTERMEDIATE COURSE HAS BEEN COMPLETED.

THE PLANS INDICATE THE MINIMUM SIGNAGE WHICH MUST BE INSTALLED AND/OR MAINTAINED DURING CONSTRUCTION.

EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

THE ENGINEER SHALL RECORD INSTALLATION AND REMOVAL OF PROPOSED SIGNS, COVERED OR REMOVED, AND UNCOVERED OR REERECTED SIGNS IN THE PROJECT DIARY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

**ITEM 614, MAINTAINING TRAFFIC (15)**

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVEABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

**NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE**

Item	Duration of Closure	Sign Displayed to Public
Ramp	>= 2 weeks	14 calendar days prior to closure
& Road	> 12 hours & < 2 weeks	7 calendar days prior to closure
Closures	< 12 hours	2 business days prior to closure
Lane	>= 2 weeks	14 calendar days prior to closure
Closures & Restrictions	< 2 weeks	5 business days prior to closure
Start of Construction & Traffic Pattern Changes	N/A	14 calendar days prior to implementation

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

**ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLAT SHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

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 OR NEAR 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.

**NOTICE OF CLOSURE SIGN TIME TABLE**

Item	Duration of Closure	Sign Displayed to Public
Ramp	>= 2 weeks	14 calendar days prior to closure
& Road	> 12 hours & < 2 weeks	7 calendar days prior to closure
Closures	< 12 hours	2 business days prior to closure

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MINIM-D FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

**ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)**

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES.

**ITEM 614, MAINTAINING TRAFFIC (ROAD CLOSED SIGN)**

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC.

**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 MGAL)**

**CRITICAL WORK**

IF THE CRITICAL WORK IS NOT COMPLETED WITHIN THE CALENDAR DAYS DESIGNATED THE CONTRACTOR WILL BE SUBJECT TO A DISCONTINUITY OF \$1000.00 PER DAY. ALL OTHER WORK IS TO BE COMPLETED BY THE PROPOSAL COMPLETION DATE.

CRITICAL WORK TABLE: MUS-146-29.42

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISCONTINUITY (\$ PER DAY)
EXCAVATION, INSTALLATION OF CULVERT & PAVEMENT TO INTERMEDIATE COURSE	SIXTY (60) CALENDAR DAYS	\$1000 PER DAY

THE FINAL COMPLETION DATE FOR THE PROJECT WILL BE AS LISTED IN THE PROPOSAL.

THE FINAL SURFACE COURSE AND THE STRIPING CAN BE PERFORMED AS A FLAGGING OPERATION.

**DESIGNATED LOCAL DETOUR ROUTE**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL DETOUR ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE". THIS DETOUR ROUTE IS SHOWN ON SHEET 6. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RIDGES, BUMPS, DUST, AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE:

**ITEM 441, ASPHALT CONCRETE, MISC.: SPOT TREATMENT (20 CY)**

**ITEM 407, NON-TRACKING TACK COAT (24 GAL)**

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A 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 DISTANCES OF 800 FEET AND 650 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. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH G&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS, 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 CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS WHEN NOT IN USE. THE PCMS SHALL BE TURNED OFF, ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT 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 ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT RECONSTRUCTION CONFERENCE. 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 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, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

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.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (8 SMM7)**

(ASSUMING 4 SIGNS FOR 2 MONTHS.)

**MAINTENANCE OF TRAFFIC NOTES**



DESIGN AGENCY

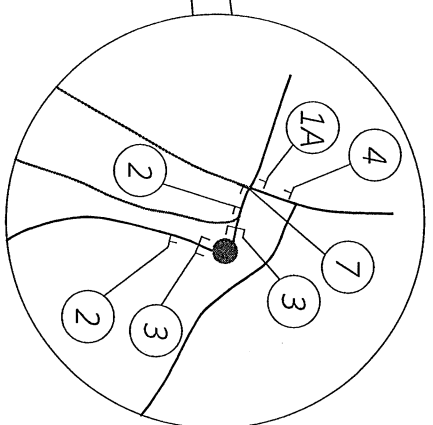
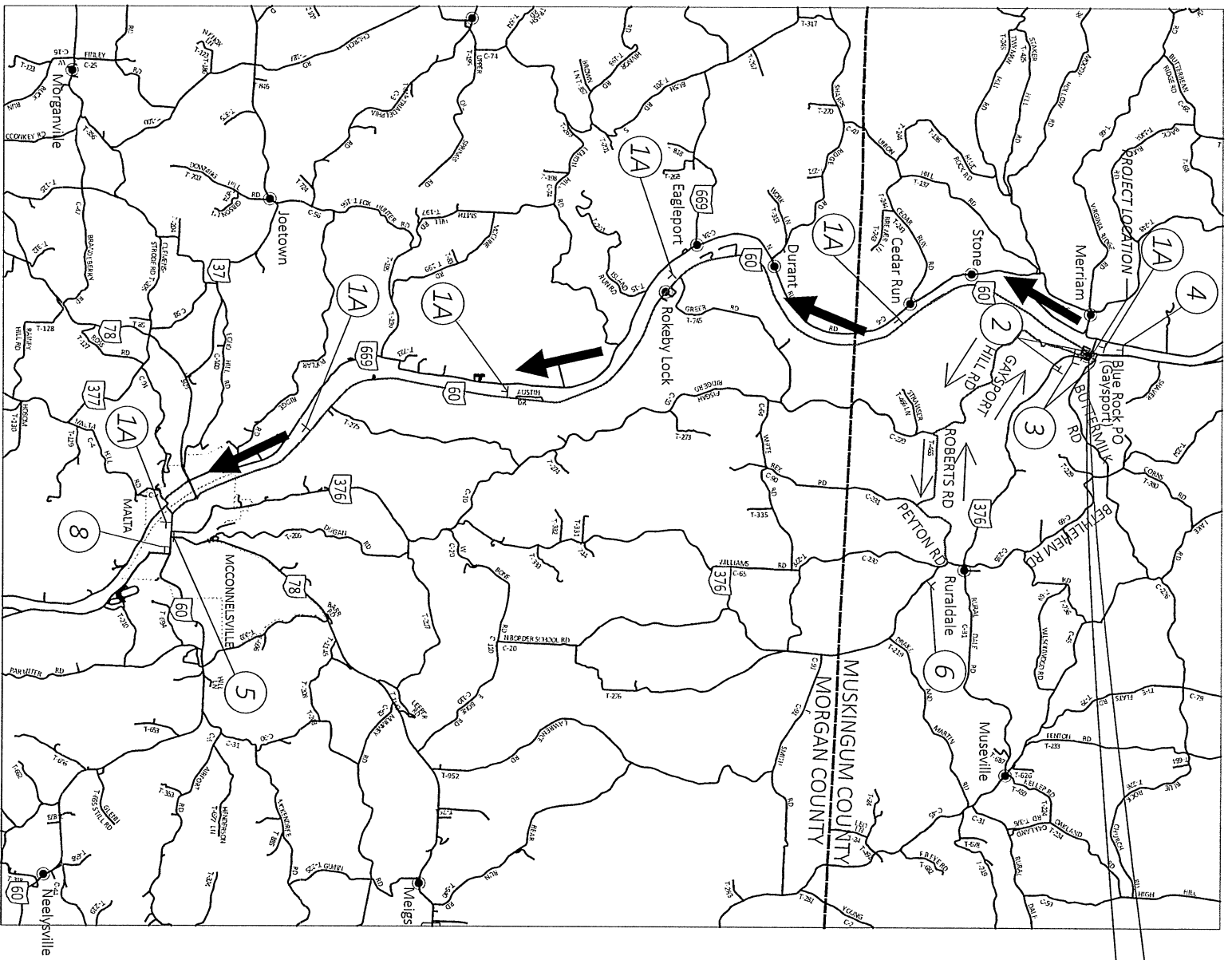
DESIGNER  
GPM

REVIEWER

PROJECT ID  
115989

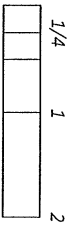
SHEET TOTAL  
P. 11 | 28



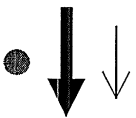


**STATE DETOUR ROUTE**  
 NB S.R. 376: NO DETOUR  
 (LOCAL TRAFFIC ONLY)  
 SB S.R. 376: S.R. 60

**LOCAL DETOUR ROUTE**  
 EB: GAYSPORT HILL RD TO  
 ROBERTS RD TO PEYTON RD  
 WB: PEYTON RD TO GAYSPORT  
 HILL RD TO ROBERTS RD



SCALES IN MILES



**LEGEND**  
 LOCAL DETOUR ROUTE  
 STATE DETOUR ROUTE  
 PROJECT LOCATION

- 1 **DETOUR**  
 M4-8-24  

 W20-2-36  
 DETOUR AHEAD
- 2 **ROAD WILL BE CLOSED MM/DD FOR XX DAYS**  
 INFO: XXX-XX-XXXX  
 W20-H13-60
- 3 **ROAD CLOSED**  
 R11-2-48  
 (ON TYPE III BARRICADES)
- 4 **DETOUR**  
 M1-5-24-3  

 M6-3-21  
 DETOUR AHEAD
- 5 **ROAD CLOSED**  
 14.6 MILES AHEAD  
 LOCAL TRAFFIC ONLY  
 M1-5-24-3  
 R11-3a-60  
 (ON TYPE III BARRICADES)
- 6 **ROAD CLOSED**  
 3.6 MILES AHEAD  
 LOCAL TRAFFIC ONLY  
 M1-5-24-3  
 R11-3a-60  
 (ON TYPE III BARRICADES)
- 7 **ROAD CLOSED**  
 0.1 MILES AHEAD  
 LOCAL TRAFFIC ONLY  
 M1-5-24-3  
 R11-3a-60  
 (ON TYPE III BARRICADES)  
 DETOUR
- 8 **END DETOUR**  
 M4-8A-24
- A **SOUTH**  
 M3-2-24

MOT DETOUR MAP



DESIGN AGENCY	
DESIGNER	GPM
REVIEWER	
PROJECT ID	115989
SHEET TOTAL	P.12 28

MUS-376-5.09

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 6/6/2023 TIME: 7:56:53 AM USER: gmolsche  
 pw:\ohiodot-pw-benley.com\ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115989\400-Engineering\Roadway\Sheets\115989\_GG001.dgn

SHEET NUM.	PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
<b>ROADWAY</b>							
LS		201	11000	LS		CLEARING AND GRUBBING	
		202	23000	92	SY	PAVEMENT REMOVED	14
		202	38000	25	FT	GUARDRAIL REMOVED	14
		202	56000	LS		BUILDING DEMOLISHED - ONE STORY HOUSE & SHED	14
		SPECIAL	20266000	1	EACH	DRILLED WATER WELL ABANDONED	14
		SPECIAL	20270000	38	FT	FILL AND PLUG EXISTING CONDUIT - 12"	14
10,203		203	10000	10,203	CY	EXCAVATION	26
		204	10000	558	SY	SUBGRADE COMPACTION	5
		606	13030	25	FT	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	14
		617	10101	1	CY	COMPACTED AGGREGATE, AS PER PLAN	14
<b>EROSION CONTROL</b>							
		601	21050	7	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAMENT	26
		609	26000	383	FT	CURB, TYPE 6	14
3,210		659	00510	3,210	SY	SEEDING AND MULCHING, CLASS 2	5
0.4		659	20000	0.4	TON	COMMERCIAL FERTILIZER	5
0.7		659	31000	0.7	ACRE	LIME	5
17		659	35000	17	MGAL	WATER	5
		832	30000	1,000	EACH	EROSION CONTROL	5
<b>DRAINAGE</b>							
		611	05900	62	FT	15" CONDUIT, TYPE B-706.02	26
		611	98180	1	EACH	CATCH BASIN, NO. 3A	26
<b>PAVEMENT</b>							
		301	56000	92	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	14
		304	20000	92	CY	AGGREGATE BASE	14
24		407	20000	90	GAL	NON-TRACKING TACK COAT	14
		408	10001	22	GAL	PRIME COAT, AS PER PLAN	14
		441	50000	19	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	14
		441	50300	27	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	14
<b>TRAFFIC CONTROL</b>							
		621	00100	2	EACH	RPM	14
		621	54000	2	EACH	RAISED PAVEMENT MARKER REMOVED	14
		642	00104	0.08	MILE	EDGE LINE, 6", TYPE 1	14
		642	00300	0.01	MILE	CENTER LINE, TYPE 1	14
<b>MAINTENANCE OF TRAFFIC</b>							
		441	90000	20	CY	ASPHALT CONCRETE, MISC.: SPOT TREATMENT	11
20		614	12420	LS		DETOUR SIGNING	11
		614	18601	8	SMWT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	11
		616	10000	1	MGAL	WATER	11
<b>INCIDENTALS</b>							
		614	11000	LS		MAINTAINING TRAFFIC	5
LS		623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	5
		624	10000	LS		MOBILIZATION	5

GENERAL SUMMARY



DESIGN AGENCY  
 DESIGNER  
 GPM  
 REVIEWER

PROJECT ID  
 115989

SHEET TOTAL  
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