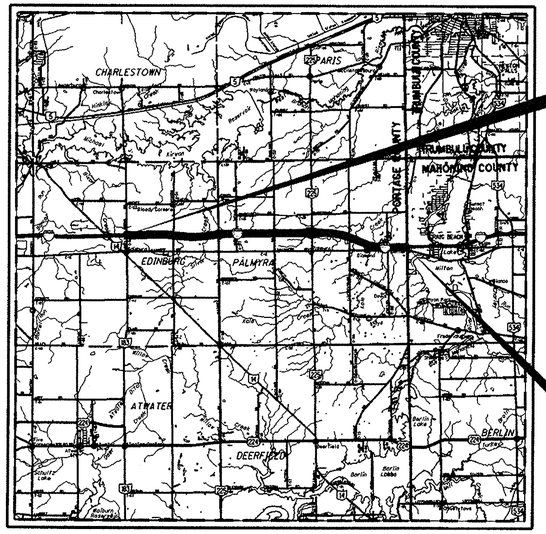


LOCATION MAP

LATITUDE: N41°06'21" LONGITUDE: W81°04'47"

SCALE IN MILES
0 2 4 6 8

N

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

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL FREEWAYS AND EXPRESSWAYS
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 PROTECTIVE
SERVICE CALL: 1-800-925-0988

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

ENGINEERS SEAL:

STATE OF OHIO
DOUGLAS A. YARD
E-58044
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: [signature]
DATE: 3/15

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

POR-76-13.55

EDINBURG & PALMYRA TOWNSHIPS
PORTAGE COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

MINOR REHABILITATION - PLANE AND RESURFACE WITH MISCELLANEOUS BRIDGE AND DRAINAGE WORK ON IR-76 FROM SLM 13.55 TO SLM 21.19 IN PORTAGE COUNTY.

PROJECT EARTH DISTURBED AREA: 3.42 ACRES
ESTIMATED CONTRACTOR EDA: 1.00 ACRES
NOTICE OF INTENT EDA: N/A (MAINTENANCE PROJECT)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2010 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 APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-2.1	7/18/08	MT-95.50	4/17/09	TC-65.10	1/21/05			800-2010	4/15/11
BP-2.2	7/18/08	MT-97.10	10/15/10	TC-65.11	1/21/05			802	10/15/10
BP-2.5	7/18/08	MT-97.12	10/15/10	TC-72.20	10/16/09			832	5/5/09
BP-3.1	10/19/07	MT-98.10	7/17/09	TC-73.10	1/19/01			843	4/18/03
BP-9.1	4/15/05	MT-98.11	7/17/09					848	4/16/10
		MT-98.20	7/17/09					902	7/16/10
CB-3.2	7/15/05	MT-98.22	7/17/09						
CB-3.3	7/15/05	MT-98.28	7/17/09						
		MT-99.20	1/16/09						
DM-1.1	1/21/11	MT-101.60	4/17/09					SPECIAL PROVISIONS	
DM-1.4	4/21/06	MT-101.90	1/16/09						
DM-4.3	4/17/09	MT-105.10	1/16/09						
DM-4.4	4/17/09								
		TC-42.20	1/21/11						
MT-35.10	4/20/01	TC-52.10	1/19/07						
MT-95.30	7/17/09	TC-52.20	1/19/07						

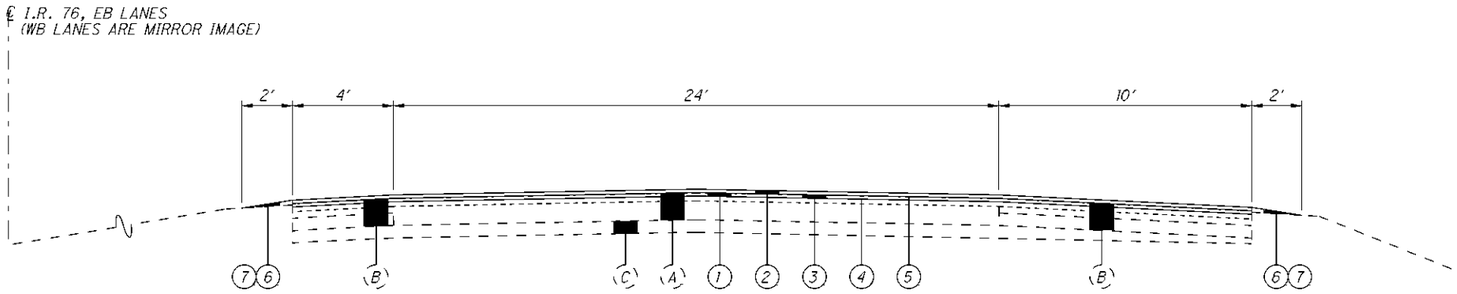
APPROVED [signature]
DATE 3/21/11 DISTRICT DEPUTY DIRECTOR

APPROVED [signature]
DATE 3-30-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION

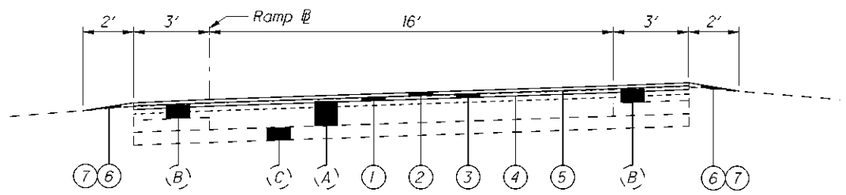
FEDERAL PROJECT NO. E(080)222
PID NO. 76332
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
POR-76-13.55
1. 29

POR-IR-76-13.55
110395 PID - 76332
Dist 4 6/16/2011

I:\Projects\POR\76332\roadway\sheets\76332GT001.dgn 18-MAR



TYPICAL HALF-SECTION - I.R. 76
SLM 13.55 TO SLM 21.19 = 7.64 mi.

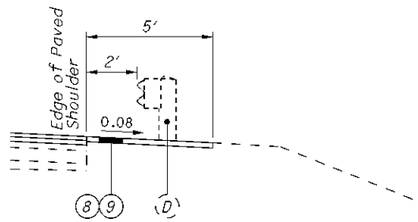


TYPICAL SECTION - RAMPS

LEGEND

1. 254, PAVEMENT PLANING, ASPHALT CONCRETE (T=1½")
2. 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (448) (T=1½")
3. 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T=1¾")
4. 407, TACK COAT
5. 407, TACK COAT FOR INTERMEDIATE COURSE
6. 617, COMPACTED AGGREGATE, AS PER PLAN
7. 408, PRIME COAT, AS PER PLAN
8. 209, LINEAR GRADING, AS PER PLAN
9. 448, 2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN

(A) EXISTING COMPOSITE PAVEMENT
(B) EXISTING ASPHALT SHOULDER
(C) EXISTING SUBBASE
(D) EXISTING GUARDRAIL



TYPICAL GUARDRAIL SECTION

TYPICAL SECTIONS

POR-76-13.55

2
29

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:

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

CenturyLink
ATTN: Rod Harris
3801 Elm Road
Warren, OH 44502
330-841-1404
330-372-6970 Fax

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

Ohio Edison
ATTN: Bill Speece
730 South Avenue
Youngstown, OH 44502
330-740-7635
330-740-7655 Fax

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

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.

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.

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
I.R. 76	13.55 TO 21.19	12'

ITEM 408 - PRIME COAT, AS PER PLAN

THE CONTRACTOR WILL APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID PRIME COAT MATERIAL ONTO THE EDGE OF THE PAVEMENT OR EDGELINE. CARE ALSO SHALL BE TAKEN TO AVOID SPRAYING LIQUID PRIME COAT MATERIAL ONTO DRIVEWAY APRONS, MAILBOX APPROACHES OR ANY PEDESTRIAN AREAS. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE 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

WETLANDS/STREAMS AVOIDANCE

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY WETLANDS, STREAMS OR OTHER WATERS OF UNITED STATES, UNLESS THE REQUIRED STATE AND/OR FEDERAL PERMITS HAVE BEEN OBTAINED IN ACCORDANCE WITH ALL APPLICABLE STATE AND/OR FEDERAL LAWS AND REGULATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS OR OTHER WATERS OF THE UNITED STATES.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES

ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED IN THE PLAN 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 COMPLETE AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING AS PER PLAN, AND PAVING UNDER THE GUARDRAIL USING 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING AS PER PLAN, SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 448

METHOD B:
1. PLACE ITEM 448
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, PG 64-22, UNDER GUARDRAIL, AS PER PLAN.

CALCULATED RCB | CHECKED DAY

GENERAL NOTES

POR-76-13.55

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR

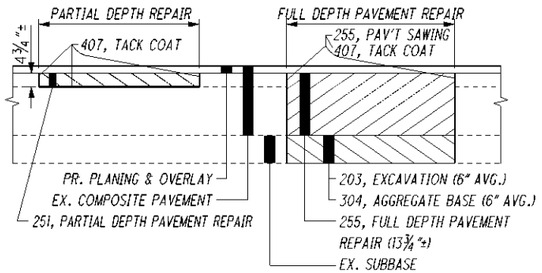
A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. 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. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR	200 SQ. YD.

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM

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"± CONCRETE, CLASS RRCM. 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:

255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM	400 SQ YD
255, FULL DEPTH PAVEMENT SAWING	1200 FT



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)	67 CU YD

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)	67 CU YD

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

THE CONTRACTOR SHALL ARRANGE FOR THE PREPARATION OF AS-BUILT NOTES, UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER (PE) OR PROFESSIONAL SURVEYOR (PS) REGISTERED IN THE STATE OF OHIO. THE PE/PS SHALL BE IDENTIFIED FOR THE APPROVAL OF THE ENGINEER, PRIOR TO BEGINNING WORK ON THE PROJECT.

AS-BUILT NOTES SHALL BE IN A TABLE FORMAT INDICATING SLM LIMITS TO THE THIRD DECIMAL PLACE AND THE LANE IN WHICH THE FULL DEPTH REPAIR IS LOCATED. THE FORMAT OF THE TABLE SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEGINNING WORK ON THE PROJECT.

AS-BUILT NOTES SHALL BE DELIVERED TO THE ENGINEER UPON COMPLETION OF THE WORK. THE ENGINEER SHALL DETERMINE THE ACCURRACY AND ACCEPABILITY OF THE AS-BUILT NOTES. ACCEPTANCE OF THESE NOTES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE BEING APPROVED UNDER CMS 109.09. THE ENGINEER WILL DELIVER THE APPROVED NOTES TO THE DISTRICT PRODUCTION ADMINISTRATOR.

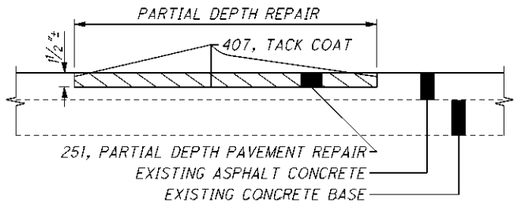
SCOPE OF WORK:
ALL FULL DEPTH REPAIRS SHALL BE SHOWN ON THE AS-BUILT NOTES.

CONTROL OF THE WORK:
AS-BUILT NOTES SHALL BE AVAILABLE FOR REVIEW BY THE ENGINEER, UPON REQUEST. PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM SPECIAL, AS-BUILT CONSTRUCTION PLANS.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (T=1½")

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 448 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR (T=1½")	5000 SQ. YD.



ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENTS SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LECENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THIS WORK SHALL BE PERFORMED AT THE FOLLOWING STRUCTURES:

POR-76-1363
POR-76-1489
POR-76-1611
POR-76-1658
POR-76-2118

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

SPECIAL - MISC.: VERTICAL CLEARANCE	5 EACH

ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 604 IN THE CMS AND SHALL INCLUDE REMOVAL, BACKFILL, GRADING AND REPAIRING OR PLACING A NEW APRON AT THE PROPER GRADE.
THE CONTRACTOR HAS THE OPTION TO REPLACE THE EXISTING CATCH BASIN WITH APRON, BY PROVIDING A NEW CATCH BASIN WITH APRON, AT THE PROPER GRADE AND FLOW LINE ELEVATIONS, THE REMOVAL AND PLACEMENT SHALL BE PAID FOR BY ITEM 604 CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN.
A CONTINGENCY QUANTITY OF CONDUIT IS PROVIDED FOR USE WHERE REQUIRED TO RECONNECT RECONSTRUCTED CATCH BASINS TO EXISTING CONDUIT.
THE FOLLOWING LOCATIONS INDICATE APPROXIMATE SLM OF MEDIAN CATCH BASIN RECONSTRUCTION SITES:

SLM 14.37	SLM 15.54	SLM 18.31	SLM 19.54
SLM 14.52	SLM 15.70	SLM 18.51	SLM 19.76
SLM 14.70	SLM 17.75	SLM 18.54	SLM 19.81
SLM 14.83	SLM 17.86	SLM 18.86	SLM 19.93
SLM 14.99	SLM 17.99	SLM 19.09	SLM 21.12
SLM 15.40	SLM 18.16	SLM 19.49	

ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604 CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

603, 15" CONDUIT, TYPE B	120 FT
604, CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	23 EACH

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL, MISCELLANEOUS METAL	1000 POUNDS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

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.

202, REMOVAL MISC.: BARRIER REFLECTOR	51 EACH
626, BARRIER REFLECTOR, TYPE A	187 EACH
626, BARRIER REFLECTOR, TYPE B	14 EACH

SEEDING AND MULCHING

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

659, TOPSOIL	1838 CU. YD.
659, SEEDING AND MULCHING	16556 SQ. YD.
659, REPAIR SEEDING AND MULCHING	828 SQ. YD.
659, COMMERCIAL FERTILIZER	2.23 TON
659, LIME	3.42 ACRES
659, WATER	89 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.

CALCULATED RCB | CHECKED DAY

GENERAL NOTES

POR-76-13.55

ITEM 632- SIGNALIZATION, MISC.; REMOVAL AND STORAGE OF RWIS SENSOR
ITEM 632- REUSE OF TRAFFIC CONTROL ITEM: INSTALLATION OF RWIS SENSOR

THE CONTRACTOR WILL CONTACT THE SENSOR MANUFACTURER'S REPRESENTATIVE, WHO WILL BE PRESENT WHILE THE SENSORS ARE BEING REMOVED AND RE-INSTALLED.

SENSOR MANUFACTURER'S REPRESENTATIVE
M.H. CORBIN, INC.
9042 HERITAGE DRIVE
PLAIN CITY, OH 43064
PHONE: 614-873-5216

THE EXISTING SENSORS SHALL BE REMOVED PRIOR TO THE PLANING OF THE PAVEMENT. THE FOUR [4] SENSORS ARE LOCATED ON IR 76, [ONE SENSOR IN EACH LANE], AT THE FOLLOWING APPROXIMATE SLM:
IR 76 EB SLM 20.13 [2 SENSORS, LOCATED IN THE PAVEMENT WEST OF STRUCTURE No. POR-76-20.14 R]
IR 76 WB SLM 20.14 [2 SENSORS, LOCATED IN THE DECK OF STRUCTURE No. POR-76-20.14 L]

THE REMOVAL AND STORAGE OF THE SENSORS WILL BE PAID FOR UNDER ITEM 632 - SIGNALIZATION, MISC.; REMOVAL AND STORAGE OF RWIS SENSOR, EACH. THE RE-INSTALLATION OF THE FOUR SENSORS WILL OCCUR AFTER THE COMPLETION OF THE PROJECT AND WILL BE PAID FOR UNDER ITEM 632 - REUSE OF TRAFFIC CONTROL ITEM: INSTALLATION OF RWIS SENSOR EACH.

THE ABOVE SLM'S ARE NOT EXACT LOCATIONS FOR THE RE-INSTALLATION, BUT SHOULD BE ADJUSTED TO AVOID PLACING THE SENSORS DIRECTLY BENEATH HIGH POWER ELECTRICAL LINES, TO PROVIDE FOR INSTALLATION IN SOUND PAVEMENT, AND TO MAINTAIN LINE OF SIGHT COMMUNICATION FROM THE SENSOR TO THE EQUIPMENT ENCLOSURE CABINET LOCATED ON THE WEST SIDE OF STRUCTURE No. POR-76-20.14 L & R IN THE MEDIAN.

THE CANISTERS WILL BE INSTALLED USING THE PROPER CANISTER INSTALLATION TOOLS PER THE MANUFACUTUERS INSTRUCTIONS (SHEETS 6-7).

THE SENSORS SHALL BE RE-INSTALLED IN ACCORDANCE WITH THE MANUFACUTUERS INSTRUCTIONS USING EPOXY AS RECOMMENED BY THE SENSOR MANUFACTURER. THE PAVEMENT TEMPERATURE SHALL NOT BE LESS THEN FORTY [40] DEGREES FAHRENHEIT DURING SEALING AND THE CONTRACTOR SHALL ENSURE THAT THE COMPLETE CURING OF THE SEALANT TAKES PLACE PRIOR TO OPENING THE LANE TO TRAFFIC.

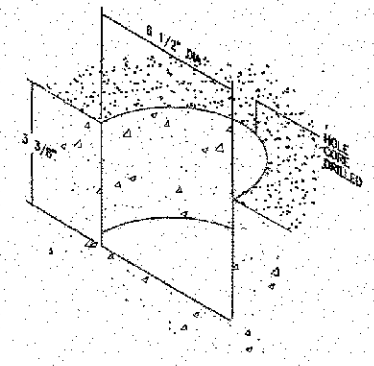
THE ODOT DISTRICT 4 HIGHWAY MANAGEMENT [PAUL ENSINGER, 330-786-3135] SHALL BE NOTIFIED WHEN THE SENSORS ARE REMOVED FROM THE PAVEMENT AND WHEN THE RE-INSTALLATION IS COMPLETE. THE DISTRICT WILL MONITOR THE SENSORS PERFORMANCE FOR A MINIMUM OF FIVE WORKING DAYS TO VERIFY PROPER OPERATION. IF THE SENSORS DO NOT PERFORM PROPERLY WITHIN THIS TEST PERIOD, THE CONTRACTOR SHALL VERIFY THAT THE INSTALLATION IS CORRECT. IF A SENSOR FAILS AFTER IT IS REMOVED FROM THE PAVEMENT, THE CONTRACTOR SHALL REPLACE THE FAILED SENSOR UNIT WITH A NEW GROUNDHOG WIRELESS PAVEMENT/TRAFFIC SENSOR, MODEL G10-ETP.

A CONTINGENCY QUANTITY OF 1 EACH ITEM SPECIAL - MISC.: ROAD WEATHER INFORMATION SYSTEM [RWIS] SENSOR IS INCLUDED IN THE GENERAL SUMMARY TO BE USED IF A SENSOR FAILS PRIOR TO REMOVAL. THE NEW SENSOR SHALL BE A GROUNDHOG WIRELESS PAVEMENT/TRAFFIC SENSOR, MODEL G10-ETP.

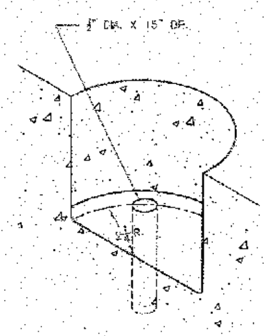
CALCULATED RCB CHECKED DAY

MISCELLANEOUS NOTES (RWIS SENSOR)

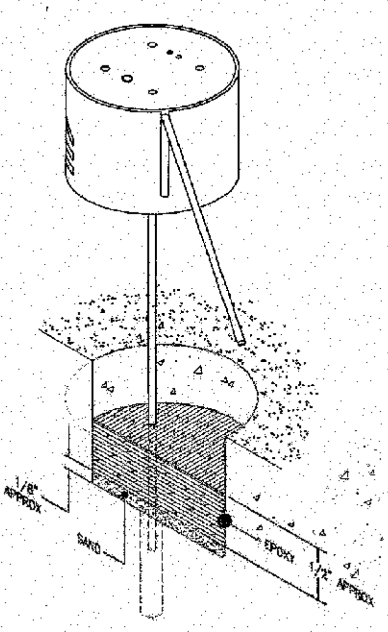
POR-76-13.55



STEP 1. DRILL 8 1/2" DIA HOLE TO A DEPTH OF 3 3/8".



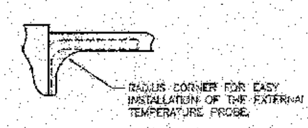
STEP 2. POINT ARROW ON LID OF CANISTER IN DIRECTION OF TRAFFIC AND MARK WHERE THE PROBE HITS THE GROUND THEN DRILL 1/2" DIA HOLE TO A DEPTH OF 15" ON RADIUS SHOWN.



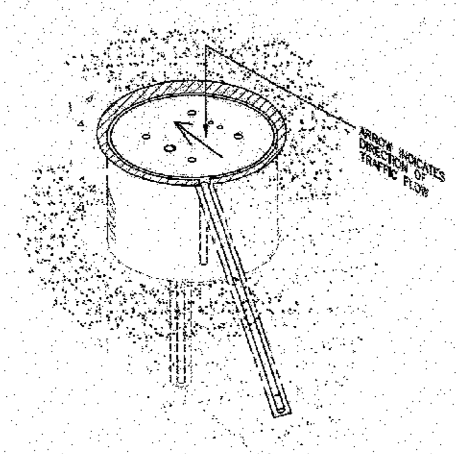
STEP 5. TAKE RUBBER ELECTRIC TAPE AND WRAP TWICE AROUND PROBE AT LOCATIONS SHOWN IN STEP 8 DWG. DOC222558-3 (2OF4). DO NOT USE BACKAROD.

STEP 6. HOLDING TCP500 ETP ASSEMBLY PLACE BOTTOM EXTERNAL TEMPERATURE PROBE INTO 1/2" HOLE. PLACE SAND IN BOTTOM OF HOLE TO LEVEL THE CANISTER. PLACE ENOUGH SAND IN THE BOTTOM OF THE HOLE SO THAT THE TOP OF THE CANISTER IS AT LEAST 1/16" (NO MORE THAN 1/8") BELOW THE ROAD SURFACE. (SEE FIG. 2)

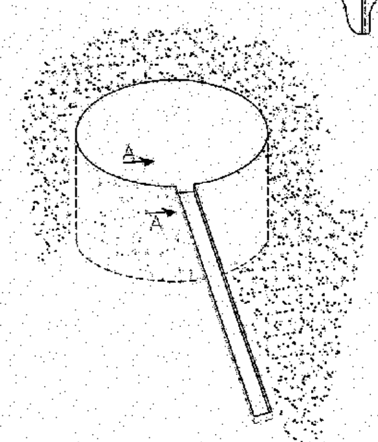
STEP 7. FILL BOTTOM OF HOLE WITH APPROXIMATELY 1/2" OF LORD EPOXY ENCAPSULATING COMPOUND 975-1154 A/B. MIX AT ROOM TEMPERATURE (70° +/- 5 DEGREES F) ACCORDING TO "ENCAPSULATING EPOXY 20 OZ. MIXING INSTRUCTIONS". SEE DRAWING DOC222558-3 (4 OF 4). IT TAKES APPROXIMATELY 2 TUBES TO DO ONE G10ETP.



VIEW A–A

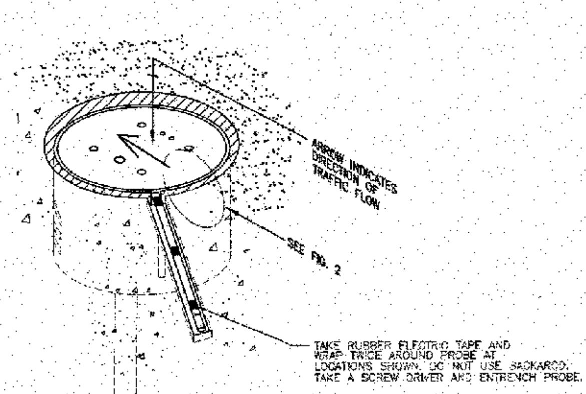


STEP 3. PLACE CANISTER IN HOLE. LABEL ON CANISTER OR ARROW ON LID SHOULD BE POINTING IN DIRECTION OF TRAFFIC FLOW. PLACE PROBE ON GROUND AND MARK OUTLINE FOR GROOVE.

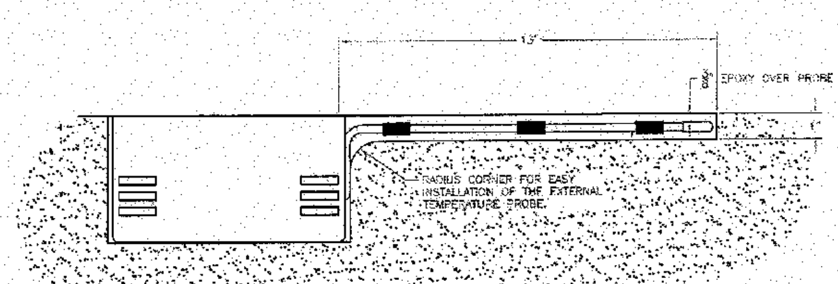


STEP 4. REMOVE CANISTER FROM HOLE AND CUT OUT GROOVE FOR PROBE. (1/4" WIDE X 1" DP X 13" LG) CLEAN OUT HOLE AND GROOVE OF ALL DEBRIS. CLEAN AND DRY AREA AROUND HOLE USING SHOP-VAC OR EQ.

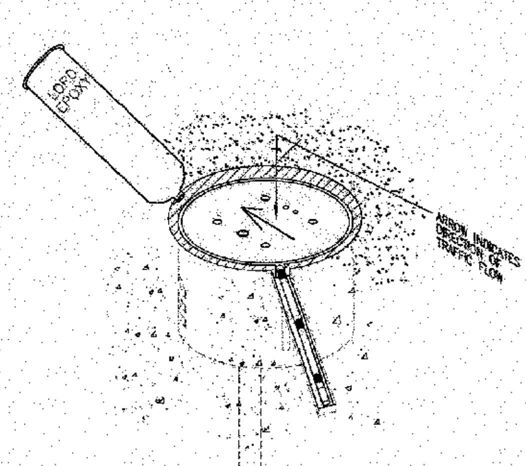
			DRAWN BY: AGL	VAISALA	TCP500 VAISALA PERMANENT TRAFFIC ANALYZER	DRAWING TITLE: TCP500 ETP ROAD SENSOR INSTALLATION	CONTRACT NO. –
			DESIGNER: –				DRAWING NO. DOC222558 (1OF4) SHEET 3 of 5
REV	DESCRIPTION	DATE / APP'D.	CHECKED BY: –				DATE 10/28/2010
			APP'D BY: –				REVISION A
			SCALE: NTS				



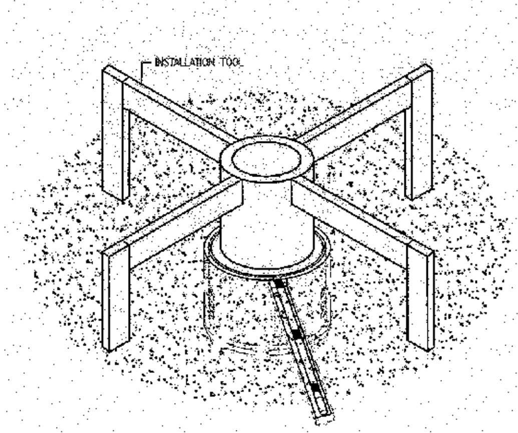
STEP 8. PLACE THE TCP500 ETP CANISTER (FIG. 1) IN THE EPOXY FILLED HOLE AND PROBE IN THE SLOT WITH ARROW POINTED IN DIRECTION OF TRAFFIC FLOW AND AT DEPTH SHOWN (FIG. 2).



VIEW B–B



STEP 9. USING THE CANISTER INSTALLATION TOOL AS SHOWN IN STEP 10. TAKE THE LORD EPOXY ENCAPSULATING COMPOUND 975-1154 A/B ALREADY MIXED AT ROOM TEMPERATURE (70° +/- 5 DEGREES F) ACCORDING TO "ENCAPSULATING EPOXY 20 OZ MIXING INSTRUCTIONS". SEE DRAWING DOC222558-3 (4 OF 4). FILL AROUND THE THE CANISTER AND OVER THE PROBE, MAKING SURE THAT THE EPOXY FLOWS COMPLETELY AROUND THE CANISTER AND PROBE SO THAT THERE ARE NO AIR GAPS. THIS IS PARTICULARLY NECESSARY FOR THE AREA WHERE THE PROBE ENTERS THE CANISTER. NO PART OF THE PROBE OR ELECRICAL TAPE SHOWN BE EXPOSED. SEE VIEW B-B.



STEP 10. USE CANISTER INSTALLATION TOOL TO APPLY PRESSURE AS NEEDED TO POSITION THE CANISTER AT DEPTH SHOWN (FIG. 2). IF NECESSARY, ADD ADDITIONAL EPOXY SO THAT THE PERIMETER AROUND CANISTER HAS NO SINK MARKS.

NOTE: DO NOT ATTEMPT TO REMOVE LID UNTIL EPOXY HAS HARDENED.

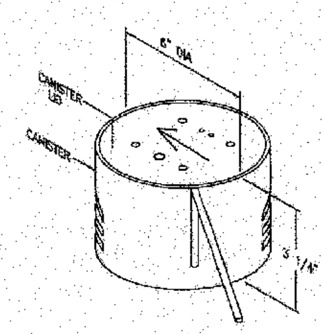


FIG. 1
GROUNDHOG TCP500 ETP

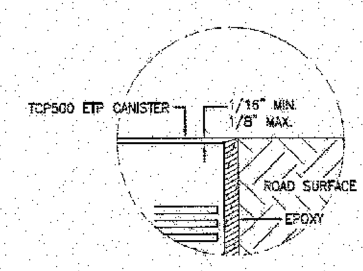
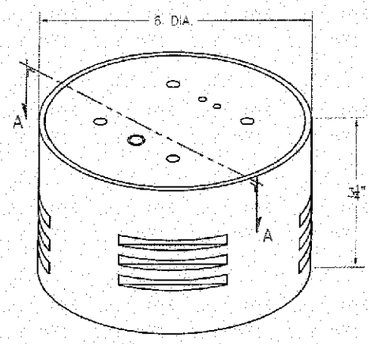
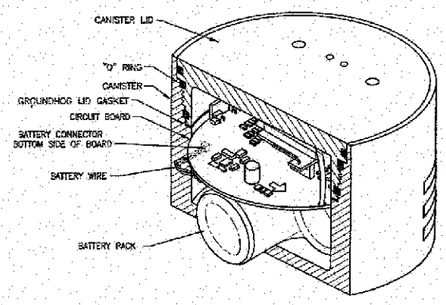


FIG. 2
GROUNDHOG TCP500 ETP

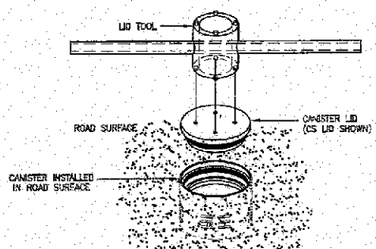
			DRAWN BY: AGL	VAISALA	TCP500 VAISALA PERMANENT TRAFFIC ANALYZER	DRAWING TITLE: TCP500 ETP ROAD SENSOR INSTALLATION	CONTRACT NO. –
			DESIGNER: –				DRAWING NO. DOC222558 (2OF4) SHEET 3 of 5
REV	DESCRIPTION	DATE / APP'D.	CHECKED BY: –				DATE 10/28/2010
			APP'D BY: –				REVISION A
			SCALE: NTS				



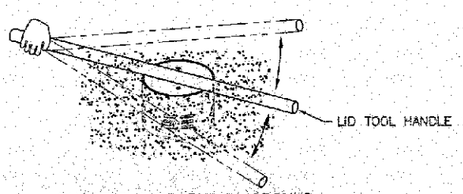
TCP500 GROUND HOG
SHOWN WITH WX LID



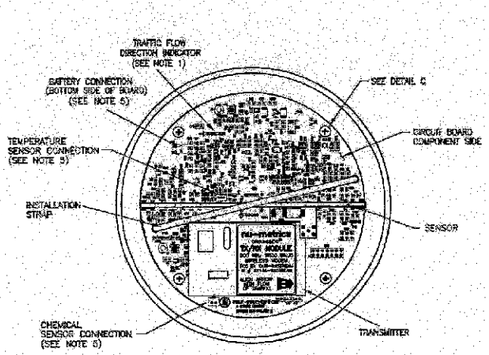
SECTION A–A



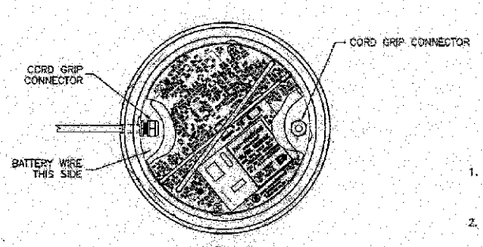
LID AND CANISTER ASSEMBLY



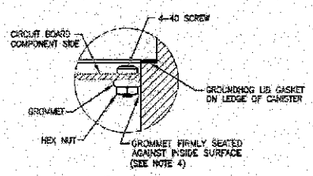
CANISTER ASSEMBLY IN GROUND
DETAIL D



VIEW OF CIRCUIT BOARD INSIDE CANISTER
(LID REMOVED)



VIEW B
SHOWN WITH EXTERNAL
TEMPERATURE PROBES



DETAIL C
2X SCALE

NOTES:

1. PRIOR TO INSTALLATION, LOCATE THE "TRAFFIC FLOW DIRECTION INDICATOR" THAT IS PRINTED ON THE CIRCUIT BOARD, AND ALIGN THE INDICATOR WITH THE ACTUAL DIRECTION OF TRAFFIC FLOW.
2. REMOVE THE LID FROM THE INSTALLED CANISTER AND REMOVE ANY DIRT OR DEBRIS FROM CANISTER AND LID THREADS.
3. BEFORE INSTALLING CIRCUIT BOARD AND BATTERY PACK CONNECT THE BATTERY TO THE BOARD AND EXTERNAL TEMPERATURE PROBES (IF APPLICABLE).
4. USING THE INSTALLATION STRAP, PLACE THE CIRCUIT BOARD AND BATTERY PACK ASSEMBLY INTO THE CANISTER WITH THE "TRAFFIC FLOW DIRECTION INDICATOR" POINTED IN THE APPROPRIATE DIRECTION.
5. IF INSTALLING BOARD WITH EXTERNAL TEMPERATURE PROBES, MAKE SURE UNIT GOES INTO CANISTER AS SHOWN IN VIEW B.
6. PRESS THE CIRCUIT BOARD FIRMLY INTO THE CANISTER TO SECURE RUBBER GROMMETS AGAINST INSIDE SURFACE OF CANISTER (DETAIL C).
7. PLACE GROUNDHOG LID GASKET ON LEDGE OF CANISTER AS SHOWN IN DETAIL C AND SECTION A–A.
8. CONNECT TOP SENSORS WIRES (FROM LID IF APPLICABLE) TO APPROPRIATE CONNECTORS ON CIRCUIT BOARD.
9. PLACE LID IN CANISTER AND HAND TIGHTEN.
10. SECURE LID BY TURNING WITH LID TOOL UNTIL LID SEATS FIRMLY WITH CANISTER.
11. AFTER INSTALLATING THE G10, TAKE THE LID TOOL HANDLE FROM THE TOOL LID. WAVE IT OVER G10 UNIT SEVERAL TIMES AS SHOWN IN DETAIL D. THEN VERIFY IF THE UNIT IS COUNTING AT THE SITE.

REV	DESCRIPTION	DATE	APP'D

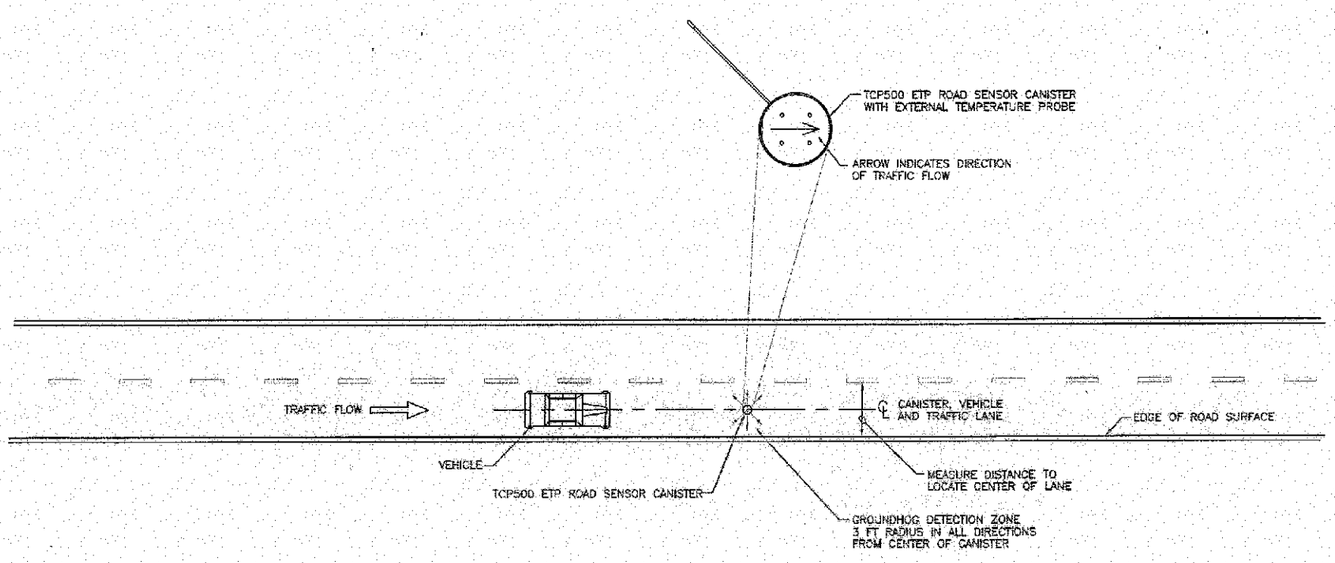
DRAWN BY: AGL
DESIGNED: --
CHECKED BY: --
APP'D BY: --
SCALE: NTS

VAISALA

TCP500
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
TYPICAL
TCP500 ROAD SENSOR
PCB AND CANISTER LID
INSTALLATION

CONTRACT NO. --
DRAWING NO. D0C222556
SHEET 4 OF 5
DATE 10/26/2010
REVISION A



NOTE:

1. DO NOT PLACE CANISTER DIRECTLY UNDER HIGH POWER LINES.
2. DO NOT PLACE CANISTER NEAR UNDERGROUND CABLES OR POWER RUNS.

REV	DESCRIPTION	DATE	APP'D

DRAWN BY: AGL
DESIGNED: --
CHECKED BY: --
APP'D BY: --
SCALE: NTS

VAISALA

TCP500
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
TCP500 ETP ROAD SENSOR
CANISTER PLACEMENT

CONTRACT NO. --
DRAWING NO. D0C222556
SHEET 5 OF 5
DATE 10/28/2010
REVISION A

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 TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING PAVEMENT (COMPLETED PAVEMENT AND TEMPORARY PAVEMENT) DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2211, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. 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.

4. 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.

5. 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.

6. 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.

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

8. 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.

9. 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.

10. 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.

11. 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.

12. THE INTERMEDIATE COURSE MUST BE PLACED NO LATER THEN 14 CALENDAR DAYS AFTER THE PAVEMENT PLANING IS COMPLETE.

13. 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 LANE LINE, CLASS II, 15.44 MILE
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 5229 FT
- 614, WORK ZONE MARKING SIGN (ALL PHASES), 60 EACH

PHASE II - INTERMEDIATE COURSE
- 614, WORK ZONE LANE LINE, CLASS II, 15.44 MILE
- 614, WORK ZONE CHANNELIZING LINE, CLASS I, 5229 FT

PHASE III - SURFACE COURSE
- 614, WORK ZONE LANE LINE, CLASS III, 642 PAINT, 15.44 MILE
- 614, WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 5229 FT

TO BE USED AS DIRECTED BY THE ENGINEER
- 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 15.71 MILE

LANE CLOSURES

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
http://plcm.dot.state.oh.us

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

COOPERATION BETWEEN CONTRACTORS

WORK ON PROJECT POR-76-(17.59)(19.61) (CONSTRUCTION PROJECT 10-3019) COULD BE CONCURRENT WITH THIS PROJECT (POR-76-13.55). THE CONTRACTOR SHALL SCHEDULE WORK SO AS TO CAUSE MINIMUM DELAY OR CONFLICT WITH THE OTHER PROJECT. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS A MUTUALLY ACCEPTABLE WORK SCHEDULE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK, AREA, OR COOPERATION WILL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION WILL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

THE WORK ON PROJECT POR-76-13.55 IS SUBORDINATE TO THE WORK ON PROJECT POR-76-(17.59)(19.61).

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/ SUPERVISOR HAS BEEN GRANTED.

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 MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

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 $1300 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.

PAVING LIMITATIONS

RESURFACING WORK ON IR 76 INCLUDING PAVEMENT REPAIR FROM THE BEGINNING OF THE PROJECT TO THE END MUST BE COMPLETED BY OCTOBER 15, 2011 AS SHOWN ON THE TYPICAL SECTIONS.

DISINCENTIVES SHALL BE ASSESSED IN THE AMOUNT OF $3000 FOR EACH CALENDAR DAY THIS ROADWAY WORK REMAINS UNCOMPLETED BEYOND THE SPECIFIED DATE.

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 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 $1300 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

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.

BRIDGE PAINTING EQUIPMENT ON SHOULDERS

IF BRIDGE PAINTING EQUIPMENT IS TO REMAIN ON THE SHOULDERS WHEN THE CONTRACTOR IS NOT WORKING, IT SHALL BE PLACED BEHIND PORTABLE CONCRETE BARRIER (PCB) AND A WORK ZONE IMPACT ATTENUATOR (WZIA) SHALL PROTECT THE LEADING BLUNT END OF THE PCB (SEE OMUTCD, FIGURE 6H-5 "SHOULDER CLOSURE ON FREEWAY" (TYPICAL APPLICATION 5)). IF THE CONTRACTOR CHOOSES TO PROTECT PAINTING EQUIPMENT WITH PCB AND A WZIA, THE COST SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

CALCULATED LMB | CHECKED DAY

MAINTENANCE OF TRAFFIC

POR-76-13.55

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, 2 PORTABLE CHANGEABLE MESSAGE SIGNS [PCMS], ON SITE, FOR THE DURATION OF TIME SPECIFIED IN THIS NOTE, EACH SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT http://www.dot.state.oh.us/divisions/constructionmgt/materials/pages/portable-changeable.aspx
THE CLASS A UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 650 FEET.

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 SHOULD BE LOCATED BEHIND GUARDRAIL WHEREVER POSSIBLE. 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, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY 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 TWO DIFFERENT MEMORIES [PROM AND RAM] AND CAPABILITY TO STORE UP TO 99 MESSAGES IN EACH MEMORY. MESSAGE MEMORY OR PREPROGRAMMED 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. IN ORDER TO CONVEY A MAXIMUM OF INFORMATION AT A SINGLE GLANCE, ONLY THREE LINE PRESENTATION FORMATS WITH A MAXIMUM OF SIX MESSAGE PHASES WILL BE PERMITTED. NORMALLY, ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. 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 THE PHASES. 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 BID FOR EACH DAY OF ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND 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, 120 DAY

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

CALCULATED LMB CHECKED DAY

MAINTENANCE OF TRAFFIC

POR-76-13.55

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.

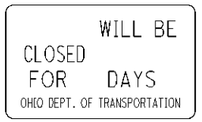
ITEM 614, MAINTAINING TRAFFIC (POR-76-16.58 & POR-76-21.18)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED ONE WEEKEND PER STRUCTURE [7PM FRIDAY TO 6AM MONDAY] WHEN THROUGHT TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS 12-13. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2500 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

STRUCTURE POR-76-1658 AND POR-76-2118 WILL NOT BE CLOSED AT THE SAME TIME.

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 ANY-WHERE 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

CALCULATED LMB | CHECKED DAY

MAINTENANCE OF TRAFFIC

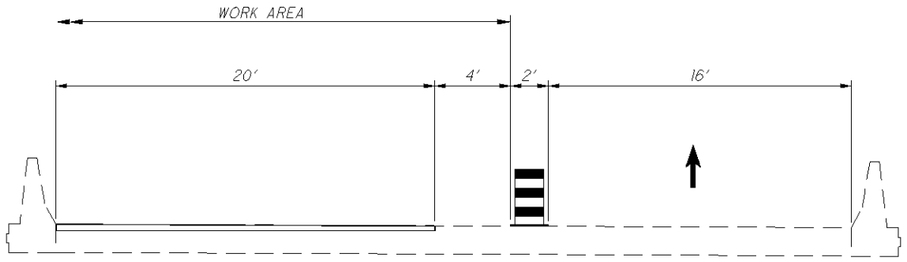
POR-76-13.55

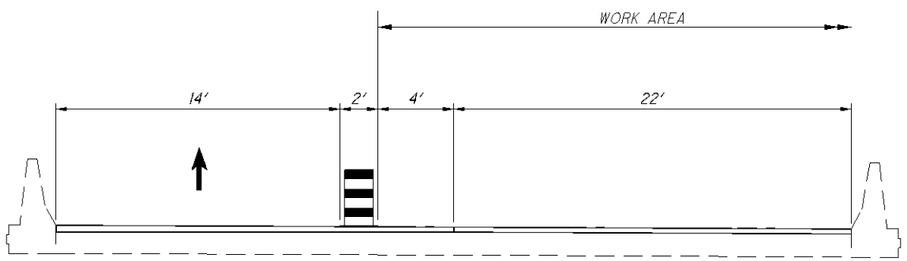
PHASE CONSTRUCTION DETAILS

1 LANE OF TRAFFIC MAINTAINED

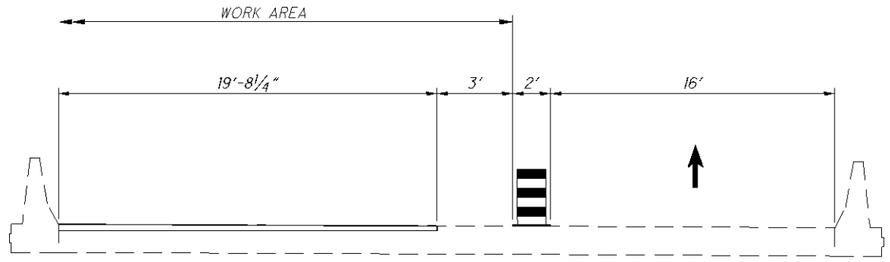
STRUCTURE 1579L & 1579R

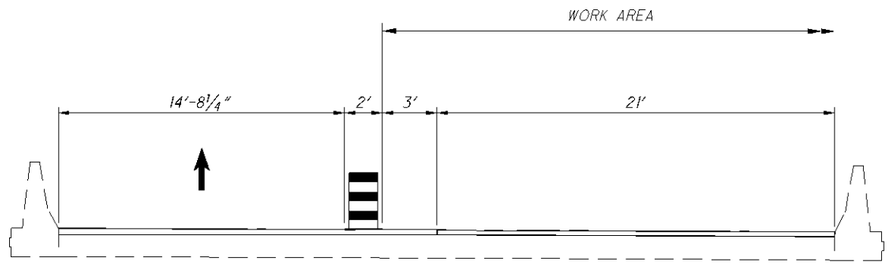
STRUCTURE 1856L & 1856R SIMILAR





STRUCTURE 2058L & 2058R

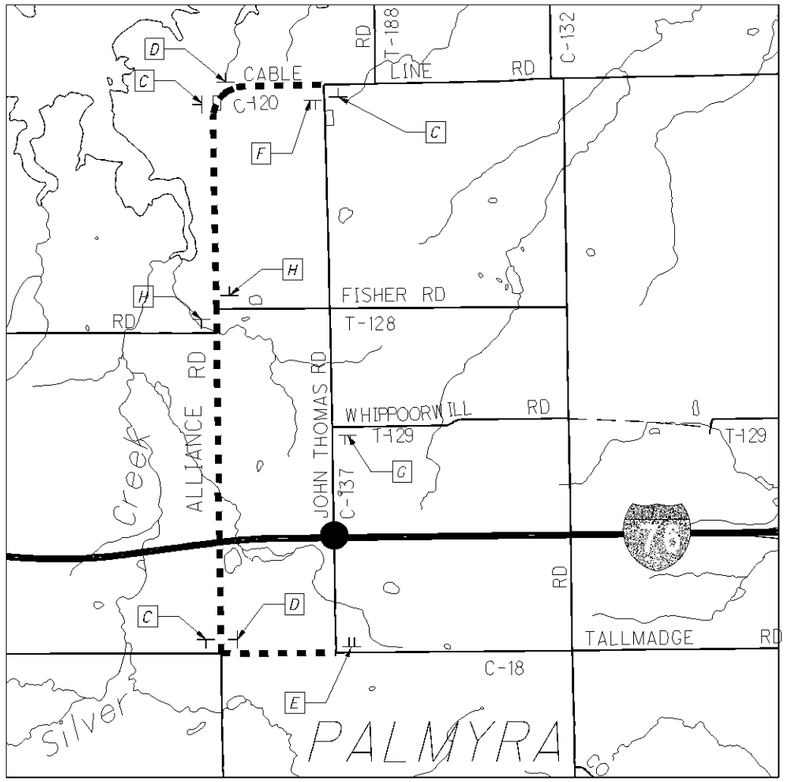




PHASE CONSTRUCTION DETAIL

POR-76-13.55

11
29



DETOUR PLAN FOR POR-76-1658 (JOHN THOMAS RD)

● CLOSED POR-76-1658, USE MT-101.60

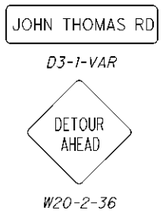
▬ ▬ LOCAL DETOUR ROUTE: CR 18 / ALLIANCE RD / CABLE LINE RD

NOTE: REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, TYPICAL APPLICATION 20, FOR SIGN SPACING.

A

W20-3-36

B



D3-1-VAR

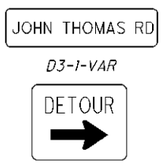
W20-2-36

C

D3-1-VAR

M4-9L-30

D



D3-1-VAR

M4-9R-30

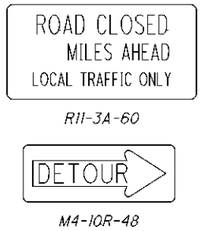
E #

R11-3A-60

M4-10L-48

ON TYPE III BARRICADE

F #

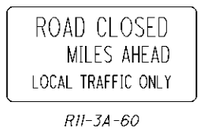


R11-3A-60

M4-10R-48

ON TYPE III BARRICADE

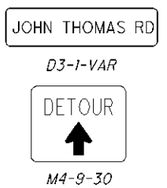
G #



R11-3A-60

ON TYPE III BARRICADE

H



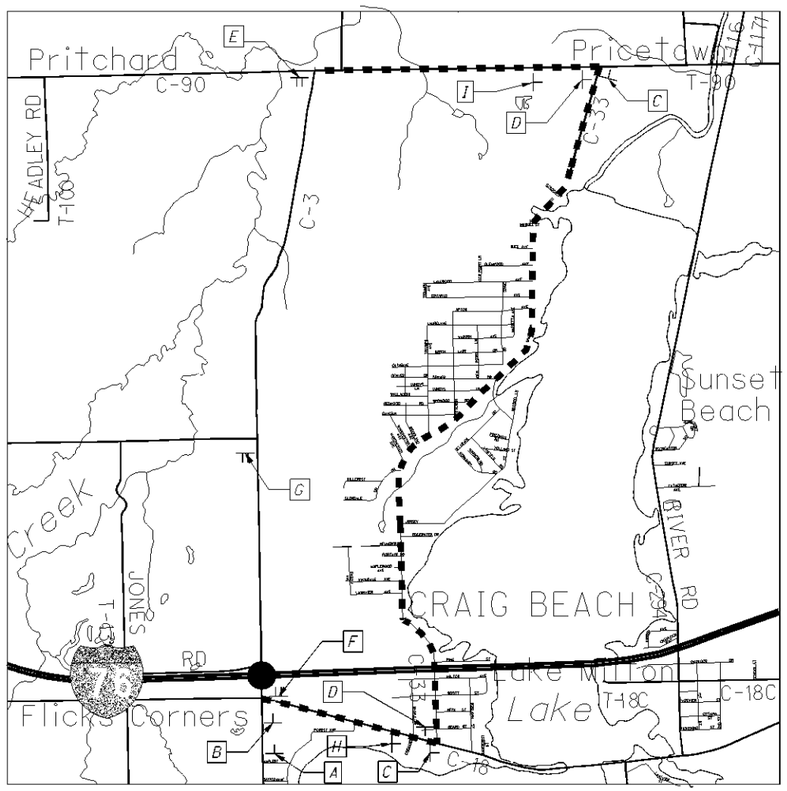
D3-1-VAR

M4-9-30

CALCULATED | CHECKED

DETOUR PLAN
POR-76-1658 (JOHN THOMAS RD)

POR-76-13.55



DETOUR PLAN FOR POR-76-2118 (COUNTY LINE RD)

CLOSED POR-76-2118, USE MT-101.60

LOCAL DETOUR ROUTE: CR 18 / GRANDVIEW RD / W MAHONING-TRUMBULL COUNTY LINE RD

NOTE: REFER TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, TYPICAL APPLICATION 20, FOR SIGN SPACING.

A

ROAD CLOSED AHEAD

W20-3-36

B

COUNTY LINE RD

D3-1-VAR

DETOUR AHEAD

W20-2-36

C

COUNTY LINE RD

D3-1-VAR

DETOUR

M4-9L-30

D

COUNTY LINE RD

D3-1-VAR

DETOUR

M4-9R-30

H

COUNTY LINE RD

D3-1-VAR

DETOUR

M4-9-30

E #

ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY

R11-3A-60

DETOUR

M4-10L-48

ON TYPE III BARRICADE

F #

ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY

R11-3A-60

DETOUR

M4-10R-48

ON TYPE III BARRICADE

G #

ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY

R11-3A-60

ON TYPE III BARRICADE

I

COUNTY LINE RD

D3-1-VAR

DETOUR

M4-9-30

CALCULATED | CHECKED

DETOUR PLAN
POR-76-2118 (COUNTY LINE RD)

POR-76-13.55

13
29

I:\Projects\POR\76332\roadway\sheets\76332MD001.dgn 18-MAR-2011 9:27AM rbaughma

SHEET NUMBER														ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	5			16	18	19													
																		ROADWAY	
														201	11000	LUMP		CLEARING AND GRUBBING	
				6455										202	23500	6455	SQ YD	WEARING COURSE REMOVED	
51														202	98100	51	EACH	REMOVAL MISC.: BARRIER REFLECTOR	4
67														203	10000	67	CU YD	EXCAVATION	
				149										209	60201	149	STATION	LINEAR GRADING, AS PER PLAN	3
																		EROSION CONTROL	
1838														659	00300	1838	CU YD	TOPSOIL	
16556														659	10000	16556	SQ YD	SEEDING AND MULCHING	
828														659	14000	828	SQ YD	REPAIR SEEDING AND MULCHING	
2.23														659	20000	2.23	TON	COMMERCIAL FERTILIZER	
3.42														659	31000	3.42	ACRE	LIME	
89														659	35000	89	M GAL	WATER	
														832	30000	5000	EACH	EROSION CONTROL	
																		DRAINAGE	
120														603	05900	120	FT	15" CONDUIT, TYPE B	
23														604	09501	23	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	4
1000														SPEC	60450000	1000	POUND	MISCELLANEOUS METAL	4
																		PAVEMENT	
200														251	01000	200	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR	
5000														251	01000	5000	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR (T=1 1/2")	
				337707										254	01000	337707	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (T=1 1/2")	
				17734										254	01000	17734	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (T=1 1/2" TO 3 1/4")	
400														255	10500	400	SQ YD	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM	
1200														255	20000	1200	FT	FULL DEPTH PAVEMENT SAWING	
67														304	20000	67	CU YD	AGGREGATE BASE	
				56476										407	10000	56476	GALLON	TACK COAT	
				14734										407	14000	14734	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
				15096										408	10001	15096	GALLON	PRIME COAT, AS PER PLAN	3
				15688										442	20050	15688	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (448)	
				17525										442	20250	17525	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448)	
				460										448	46061	460	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN	3
				2097										617	10101	2097	CU YD	COMPACTED AGGREGATE, AS PER PLAN	3
				30										618	40600	30	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	
														SPEC	69091000	LUMP		AS-BUILT CONSTRUCTION PLANS	4
																		TRAFFIC CONTROL	
					672									621	10010	672	EACH	RPM, LOW PROFILE, WHITE	
					88									621	10020	88	EACH	RPM, LOW PROFILE WHITE/RED	
					88									621	10030	88	EACH	RPM, LOW PROFILE YELLOW/RED	
					764									621	54000	764	EACH	RAISED PAVEMENT MARKER REMOVED	
	201													626	00100	201	EACH	BARRIER REFLECTOR	
		4												632	90104	4	EACH	REUSE OF TRAFFIC CONTROL ITEM: INSTALLATION OF RWIS SENSOR	5
		4												632	90400	4	EACH	SIGNALIZATION, MISC.: REMOVAL AND STORAGE OF RWIS SENSOR	5
						31.38								646	10000	31.38	MILE	EDGE LINE	
						15.44								646	10100	15.44	MILE	LANE LINE	
						5229								646	10300	5229	FT	CHANNELIZING LINE	
						181								646	10600	181	FT	TRANSVERSE/DIAGONAL LINE	
						8								646	10900	8	EACH	HANDICAP SYMBOL MARKING	
						1127								646	20200	1127	FT	PARKING LOT STALL MARKING	
		1												SPEC	69098000	1	EACH	MISC.: ROAD WEATHER INFORMATION SYSTEM [RWIS], SENSOR IS INCLUDED	5
	5													SPEC	69098000	5	EACH	MISC.: VERTICAL CLEARANCE	4
																		STRUCTURES (20' AND OVER)	23

CALCULATED RCB CHECKED DAY

GENERAL SUMMARY

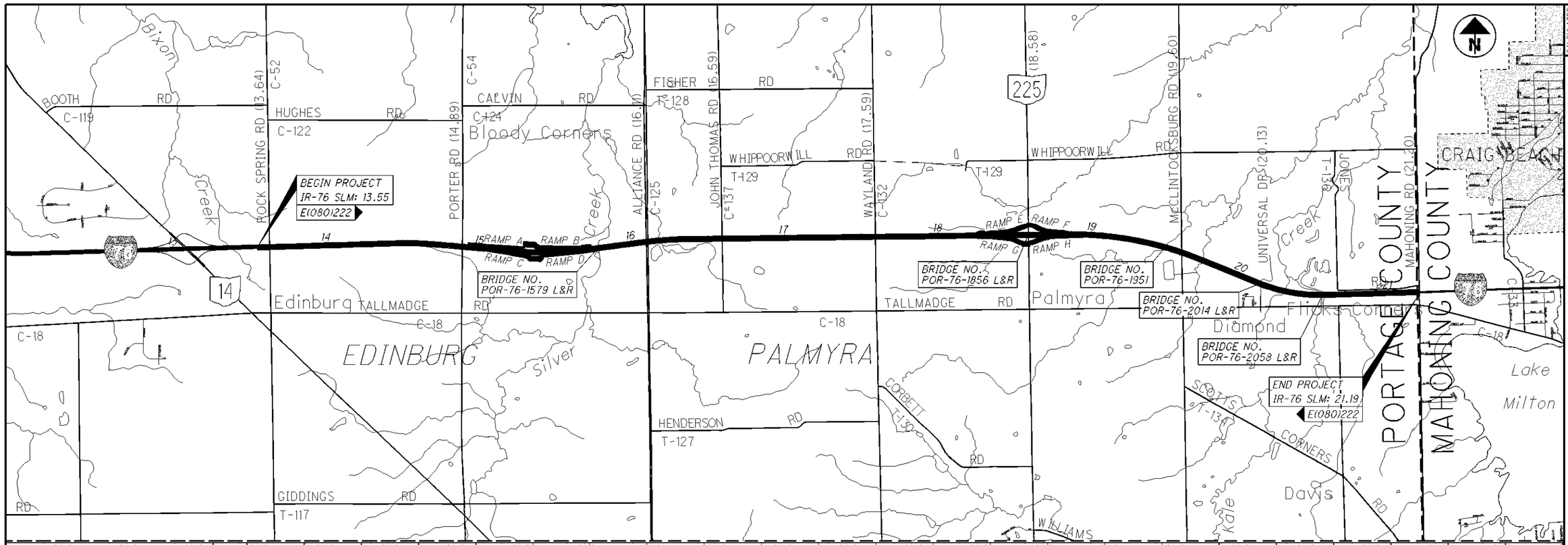
POR-76-13.55

SHEET NUMBER														ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			8	9															
																		MAINTENANCE OF TRAFFIC	
				100										614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
														614	12420	LUMP		DETOUR SIGNING	
			60											614	12460	60	EACH	WORK ZONE MARKING SIGN	
			20											614	13000	20	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
				120										614	18401	120	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
			30.88											614	20400	30.88	MILE	WORK ZONE LANE LINE, CLASS II	
			15.44											614	20550	15.44	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
			15.71											614	22350	15.71	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
			10458											614	23000	10458	FT	WORK ZONE CHANNELIZING LINE, CLASS I	
			5229											614	23680	5229	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
														614	11000	LUMP		MAINTAINING TRAFFIC	
														619	16020	12	MONTH	FIELD OFFICE, TYPE C	
														623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
														624	10000	LUMP		MOBILIZATION	

CALCULATED RCB CHECKED DAY

GENERAL SUMMARY

POR-76-13.55



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-Overhead Structures)	254 PAVEMENT PLANING, ASPHALT CONCRETE (@ Overhead Structures) (T=1 1/2" to 3 1/4")	407 TACK COAT (0.15xA)	407 TACK COAT FOR INTERMEDIATE COURSE (0.04xA)	408 PRIME COAT, AS PER PLAN (0.4x #sides x2xD)/9	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (448) (1.5xA)/36	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (1.75xA)/36	617 COMPACTED AGGREGATE, AS PER PLAN (#sides x2x2xD)/(12x27)	618 RUMBLE STRIPS, (ASPHALT CONCRETE) (#sides XD)/5280	209 LINEAR GRADING, AS PER PLAN	448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN (T=2")						
BRIDGE No. POR-76-1579 L/R, BP-3.1 FEATHER BRIDGE Nos. POR-76-1856 L/R, POR-76-1951, POR-76-2014 L/R, POR-76-2058 L/R AND BEGIN/END PAVEMENT, BP-3.1 BUTT JOINT					FT	FT	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD	GALLON	GALLON	GALLON	CU YD	CU YD	CU YD	MILE	STATION	CU YD						
13.55	TO	15.79		LT/RT	11827.20	76.00	99874.13		447.56	94807.47	5066.67	14981.12	3994.97	4205.23	4161.42	4854.99	584.06	8.96	14.88	45.91						
15.83		18.56		LT/RT	14434.44	76.00	121890.83		447.56	114290.83	7600.00	18283.62	4875.63	5132.25	5078.78	5925.25	712.81	10.94	43.63	134.65						
18.59		20.14		LT/RT	6173.90	76.00	69024.04		895.11	66490.71	2533.33	10353.61	2760.96	2906.28	2876.00	3355.34	403.65	6.19	39.50	121.91						
20.19		20.58		LT/RT	2077.26	76.00	17541.31		895.11	17541.31		2631.20	701.65	738.58	730.89	852.70	102.58	1.57	44.81	138.30						
20.60		21.19		LT/RT	3091.30	76.00	26104.31		895.11	23570.98	2533.33	3915.65	1044.17	1099.13	1087.68	1268.96	152.66	2.34	6.19	19.09						
REST AREA RAMP "A"					342.01	22.00		836.02	129.56	836.02		125.40		121.60	34.83		16.89									
RAMP "A" ACCEL								2554.52		2554.52		383.18	102.18		106.44	124.18										
REST AREA RAMP "B"					1082.89	22.00		2647.06	129.56	2647.06		397.06		385.03	110.29		53.48									
RAMP "B" DECEL								1065.10		1065.10		159.76	42.60		44.38	51.78										
REST AREA RAMP "C"					663.35	22.00		1621.53	129.56	1621.53		243.23		235.86	67.56		32.76									
RAMP "C" DECEL								1253.60		1253.60		188.04	50.14		52.23	60.94										
REST AREA RAMP "D"					327.22	22.00		799.87	129.56	799.87		119.98		116.35	33.33		16.16									
RAMP "D" ACCEL								2405.09		2405.09		360.76	96.20		100.21	116.91										
REST AREA LEFT								3935.78		3935.78		590.37	157.43		163.99											
REST AREA RIGHT								3886.56		3886.56		582.98	155.46		161.94											
SR 225 RAMP "E" & ACCEL					962.02	22.00		5161.32	588.89	5161.32		774.20	206.45	342.05	215.06	250.90	47.51									
SR 225 RAMP "F" & DECEL					877.11	22.00		3544.00	530.00	3544.00		531.60	141.76	311.86	147.67	172.26	43.31									
SR 225 RAMP "G" & DECEL					1249.53	22.00		4325.58	559.44	4325.58		648.84	173.02	444.28	180.23	210.27	61.71									
SR 225 RAMP "H" & ACCEL					1073.02	22.00		5765.64	677.22	5765.64		864.85	230.63	381.52	240.24	280.27	52.99									
CROSSOVERS								2268.00				340.20			94.50											
ADJUST FOR PAVING UNDER G-RAIL					14900.00	5.00								-1324.44			-183.95									
								SUBTOTALS	6454.22	356502.95	17733.33	56475.64	14733.27	15095.56	15687.68	17524.77	2096.61	30.00	149.00	459.86	0.00	0.00	0.00	0.00	0.00	0.00
								TOTALS CARRIED TO GENERAL SUMMARY	6455	356503	17734	56476	14734	15096	15688	17525	2097	30	149	460	0	0	0	0	0	0

CALCULATED RCB
CHECKED DAY

ASPHALT CONCRETE SHEET
SLM 13.55 TO SLM 21.19, IR-76

POR-76-13.55

16
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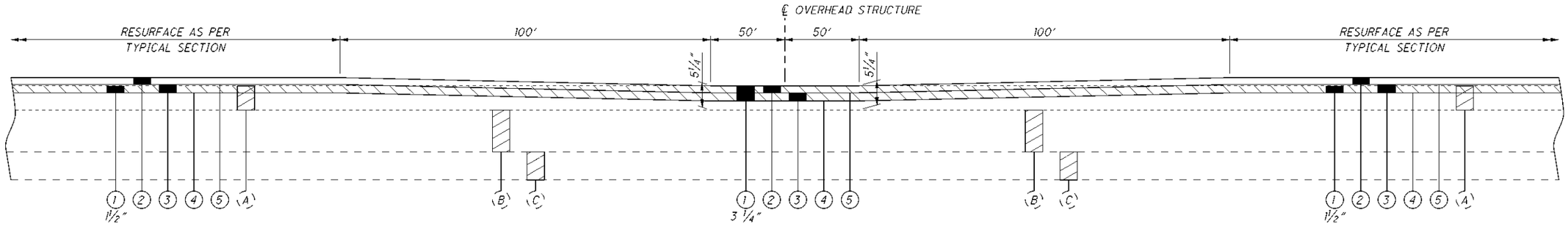

PAVEMENT TRANSITION AT OVERHEAD STRUCTURES

DETAIL APPLIES AT STRUCTURES:

POR-76-1363
POR-76-1489
POR-76-1611
POR-76-1658
POR-76-1759
POR-76-1961
POR-76-2118

LEGEND

(1) 254, PAVEMENT PLANING, ASPHALT CONCRETE
(2) 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (448) (T=1½")
(3) 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T=1¾")
(4) 407, TACK COAT
(5) 407, TACK COAT FOR INTERMEDIATE COURSE

(A) EXISTING ASPHALT CONCRETE (MIN. 5¼" AT OVERHEAD BRIDGES)
(B) EXISTING ±9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(C) EXISTING ±6" SUBBASE

254, PAVEMENT PLANING, ASPHALT CONCRETE

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PAVEMENT TRANSITION DETAILS

POR-76-13.55

LOCATION								621	621	621	621		621	
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	REMARKS
		FROM	TO					EACH	EACH	EACH	EACH		EACH	
PORTAGE	I.R. 76 EB	13.55	21.19							336				
	I.R. 76 WB	13.55	21.19							336				
	RAMP A										10			
	RAMP A ACCEL								8					
	RAMP B										14			
	RAMP B DECEL								15					
	RAMP C										6			
	RAMP C DECEL								6					
	RAMP D										9			
	RAMP D ACCEL								17				764	
	RAMP E										12			
	RAMP E ACCEL								5					
	RAMP F										11			
	RAMP F DECEL								15					
	RAMP G										14			
	RAMP G DECEL								17					
	RAMP H										12			
	RAMP H ACCEL								5					
TOTALS CARRIED TO GENERAL SUMMARY				0	0	0	0	0	88	672	88	0	764	

CALCULATED RCB
CHECKED DAY

RPM SUBSUMMARY

POR-76-13.55

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29

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GENERAL SPEC: 640
MATERIAL TYPE: 646

CALCULATED | CHECKED

CENTER LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
TOTAL								

LANE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE		COMMENTS
							DASHED	SOLID	
POR	76	13.55	0.09 MILE WEST ROCK SPRING RD.	21.19	MAHONING COUNTY LINE	15.44			INCLUDEDS RAMPS
TOTAL						15.44			

EDGE LINE

CTY	ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS
						TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP	
POR	76	13.55	0.09 MILE WEST ROCK SPRING RD.	21.19	MAHONING COUNTY LINE	15.71	15.28	0.43	15.67	15.28	0.39	
TOTAL						15.71	15.28	0.43	15.67	15.28	0.39	

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	PARKING STALL	COMMENTS
					WHITE	YELLOW		72"	96"	TURN LEFT	TURN RIGHT	THRU	COMB.	H. C.	SCHOOL 72"	SCHOOL 96"			
			FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	FT	
POR	I-76 EB OFF TO REST AREA	15.201	1572		106									4				529	
POR	I-76 EB ON FROM REST AREA	15.593	1560																
POR	I-76 WB OFF TO REST AREA	15.729	1681		75									4				598	
POR	I-76 WB ON FROM REST AREA	15.087	416																
TOTAL			5229		181									8				1127	

PAVEMENT MARKING SUBSUMMARY

POR-76-13.55

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

GSD-1-96 REVISED 07-19-02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 04-18-03

848 DATED 04-16-10

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH, 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 STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. 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 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 EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

PROPOSED WORK - POR-76-1363 (UNDER ROCK SPRING ROAD)

- SEAL EXISTING WEARING SURFACE WITH SRS CONCRETE TREATMENT
- REFURBISH AND/OR RESET EXISTING ABUTMENT BEARINGS
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1489 (UNDER PORTER ROAD)

- SEAL EXISTING WEARING SURFACE WITH SRS CONCRETE TREATMENT
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1579L (OVER SILVER CREEK)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE OVERLAY WEARING SURFACE
- PAVE OVER THE EXISTING REPAIRED CONCRETE WEARING SURFACE WITH A NEW WATERPROOFING AND ASPHALT CONCRETE OVERLAY
- INSTALL NEW POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1579R (OVER SILVER CREEK)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE OVERLAY WEARING SURFACE
- PAVE OVER THE EXISTING REPAIRED CONCRETE WEARING SURFACE WITH A NEW WATERPROOFING AND ASPHALT CONCRETE OVERLAY
- INSTALL NEW POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1611 (UNDER ALLIANCE ROAD)

- SEAL EXISTING WEARING SURFACE WITH SRS CONCRETE TREATMENT
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1658 (UNDER JOHN THOMAS ROAD)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REPAIR ALL DETERIORATED CURBS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REFURBISH AND/OR RESET THE EXISTING ABUTMENT BEARINGS
- PAINT STRUCTURAL STEEL
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1856L (OVER POR SR 225)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING POLYMER EXPANSION JOINT AND REPLACE WITH NEW POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1856R (OVER POR SR 225)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING POLYMER EXPANSION JOINT AND REPLACE WITH NEW POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-1951 (OVER KALE CREEK)

- REPAIR JOINTS AND CRACKS ON THE INSIDE OF STRUCTURE
- REPAIR EROSION AT THE FORWARD LEFT END OF THE STRUCTURE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE AT THE INLET AND OUTLET ENDS
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-2014L (OVER UNIVERSAL RD & CONRAIL)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE ON THE DECK AND APPROACH SLABS EXISTING GRADE ON THE DECK AND APPROACH SLABS
- SEAL EXISTING WEARING SURFACE WITH SRS CONCRETE TREATMENT
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- REPAIR EROSION IN THE FORWARD AND REAR EMBANKMENT ON THE LEFT SIDE OF THE STRUCTURE
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-2014R (OVER UNIVERSAL RD & CONRAIL)

- PATCH ALL UNSOUND AREAS OF THE EXISTING CONCRETE WEARING SURFACE ON THE DECK AND APPROACH SLABS
- SEAL EXISTING WEARING SURFACE WITH SRS CONCRETE TREATMENT
- CLEAN AND REPAIR EXISTING STEEL PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE AND PARAPETS
- REPAIR EROSION IN THE FORWARD AND REAR EMBANKMENT ON THE RIGHT SIDE OF THE STRUCTURE AND IN THE MEDIAN
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-2058L (OVER KALE CREEK)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- REPAIR DRAINAGE SCUPPERS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-2058R (OVER KALE CREEK)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REMOVE EXISTING POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
- REPAIR DRAINAGE SCUPPERS
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

PROPOSED WORK - POR-76-2118 (UNDER MAHONING ROAD CR-7)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH MICRO-SILICA CONCRETE OVERLAY ON THE DECK AND THE APPROACH SLABS
- PAINT STRUCTURAL STEEL
- REFURBISH AND/OR RESET THE EXISTING ABUTMENT BEARINGS
- TRIM THE EXISTING BEAM ENDS AT BOTH SIDES OF THE STRUCTURE
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE, AND PARAPETS
- REMOVE SPALLED AREAS OF THE BOTTOM DECK FLOOR AND SEAL WITH EPOXY-URETHANE
- REPAIR THE FORWARD AGGREGATE SLOPE PROTECTION WHERE THE FOOTER IS EXPOSED
- SEAL ALL EXPOSED CONCRETE SURFACES OF: PARAPETS, ABUTMENTS, BACK WALLS, WING WALLS, AND PIERS WITH EPOXY-URETHANE
- CLEARING AND GRUBBING WITHIN 15 FEET OF THE STRUCTURE
- PROVIDE NEW STRUCTURE IDENTIFICATION SIGNS

DESIGN AGENCY
ODOT --- DISTRICT 4
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
AAM	AAM	TJP	03-18-11
CHECKED	REVISED		STRUCTURE FILE NUMBER
TJP			

STRUCTURE GENERAL NOTES

BRIDGE NO: POR-76-1363, POR-76-1489, POR-76-1579L&R, POR-76-1611, POR-76-1658, POR-76-1856L&R, POR-76-2058L & R, & POR-76-2118
POR-76-1856L&R, POR-76-1951, POR-76-2014L&R, POR-76-2058L & R, & POR-76-2118

POR-76-13.55
PID No. 76332

ITEM 201, 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.

ITEM 514 - FIELD PAINTING, MISC.; REPAIR PAINTING

PAINTED AREAS THAT ARE DAMAGED OR RUSTED WILL BE DESIGNATED BY THE PROJECT ENGINEER. THE CMS 514.22 PROCESS WILL BE USED TO REPAIR THESE AREAS.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ALL NECESSARY EQUIPMENT TO INSPECT THIS WORK.

THE MAJORITY OF THE AREAS TO BE REPAIR PAINTED ARE: BOTTOM OF FLANGES OVER THE ROADWAY AND BOTTOM OF FLANGES OVER OF PIERS

AREAS TO BE REPAIR PAINTED ARE NOT LIMITED TO THESE AREAS. THE AREAS DESIGNATED BY THE PROJECT ENGINEER WILL BE PAINTED.

SPECIAL - STRUCTURE MISC.: STRUCTURE CLEANING

THIS WORK WILL CONSIST OF CLEANING THE BEAMS/GIRDERS AND BEARINGS OF STRUCTURES POR-76-1363, POR-76-1489, POR-76-1579L, POR-76-1579R, POR-76-1611, POR-76-2014L, AND POR-76-2014R AS PER CMS 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 PRIOR TO 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.

ITEM 514 - PAINTING OF STRUCTURAL STEEL

THE COLOR FOR THE FINISHED COAT OF STRUCTURE(S) POR-76-1658 AND POR-76-2118 WILL CONFORM TO FEDERAL COLOR NUMBER 15526 - BLUE.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPER-STRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER.
ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 516 - REFURBISHING BEARING DEVICES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES F, LUBRICATING SLIDING SURFACES, AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, 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 DECK FLOOR OF STRUCTURE(S) POR-76-1658, POR-76-1856L, POR-76-1856R, POR-2058L, POR-76-2058R, AND POR-76-2118 WITHOUT SOUNDING.

AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED SEAL WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

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

SPECIAL - PATCHING CONCRETE STRUCTURE, MISC.: CURB REPAIR

THIS ITEM WILL BE USED TO REPAIR THE DETERIORATED FACE OF THE CURB ON THE BRIDGE DECK AND/OR APPROACH SLABS. 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 601, DUMPED ROCK FILL, TYPE B

THIS ITEM WILL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR EROSION AT THE FORWARD LEFT END UNDER STRUCTURE POR-76-1951.

EROSION REPAIR WILL BE PAID FOR IN CUBIC YARDS AT THE UNIT BID PRICE UNDER ITEM 601, DUMPED ROCK FILL, TYPE B. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

ITEM 601, DUMPED ROCK FILL, TYPE C

THIS ITEM WILL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR EROSION AT SPECIFIED LOCATIONS UNDER THE FOLLOWING STRUCTURES:

POR-76-2014L	BEHIND THE FORWARD AND REAR LEFT END OF THE EMBANKMENT
POR-76-2014R	BEHIND THE FORWARD AND REAR RIGHT END OF THE EMBANKMENT AND IN THE MEDIAN
POR-76-2118	NEAR THE FORWARD FOOTER

EROSION REPAIR WILL BE PAID FOR IN CUBIC YARDS AT THE UNIT BID PRICE UNDER ITEM 601, DUMPED ROCK FILL, TYPE C. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

DESIGN AGENCY
ODOT --- DISTRICT 4
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
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STRUCTURE GENERAL NOTES

BRIDGE NO.: POR-76-1363, POR-76-1489, POR-76-1579L & R, POR-76-1611, POR-76-1856L&R, POR-76-1951, POR-76-2014L&R, POR-76-2058L & R, & POR-76-2118

POR-76-13.55
PID No. 76332

ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN
ITEM 848 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
ITEM 848 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO DEMOLITION" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF HYDRODEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 848.12) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE
QUANTITIES PER CUBIC YARD
AGGREGATES (SSD)

AGG. TYPE	FINE AGG. (LB)	#8 COARSE AGG. (LB) *	AGG. TOTAL (LB) *	CEMENT CONTENT (LB)	MICRO SILICA (LB)	WATER TO CEMENTITIOUS RATIO	AIR CONTENT +/-2%	FIBER (1 1/4" POLYPROPYLENE) (LB) **
GRAVEL	1410	1430	2840	600	50	0.4	8	1
LIME-STONE	1410	1450	2860	600	50	0.4	8	1
SLAG	1300	1350	2650	600	50	0.4	8	1

* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127

** FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE IN A FIBRILLATED-NETWORK FORM AND SHALL BE 1 1/4" IN LENGTH

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 848.21) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 848.23) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 848.29) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE 1 OR 1D, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 848.29) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PST (4.2 Mpa).

(SEE 848.30) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 848.31) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

OBJECT MARKERS AND STRUCTURE IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES:
POR-76-1579L (1 APPROACHES)
POR-76-1579R (1 APPROACHES)
POR-76-1856L (1 APPROACHES)
POR-76-1856R (1 APPROACHES)
POR-76-2014L (1 APPROACHES)
POR-76-2014R (1 APPROACHES)
POR-76-2058L (1 APPROACHES)
POR-76-2058R (1 APPROACHES)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:
- ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT
- ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT
- ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, 3 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 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-76-1363 (2 APPROACHES BELOW ON SR76)
POR-76-1489 (2 APPROACHES BELOW ON SR76)
POR-76-1611 (2 APPROACHES BELOW ON SR76)
POR-76-1658 (2 APPROACHES BELOW ON SR76)
POR-76-1951 (2 APPROACHES)
POR-76-2118 (2 APPROACHES BELOW ON SR76)

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

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-76-1363 (SFN:6702732) THE EXISTING SIGN SHOWS 13.62. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1363.

STRUCTURE POR-76-1489 (SFN:6702767) THE EXISTING SIGN SHOWS 14.88. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1489.

STRUCTURE POR-76-1579L (SFN:6702791) THE EXISTING SIGN SHOWS 15.78 L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1579 L.

STRUCTURE POR-76-1579R (SFN:6702821) THE EXISTING SIGN SHOWS 15.78. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1579 R.

STRUCTURE POR-76-1611 (SFN:6702864) THE EXISTING SIGN SHOWS 16.10. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1611.

STRUCTURE POR-76-1856L (SFN:6702945) THE EXISTING SIGN SHOWS 18.57. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1856 L.

STRUCTURE POR-76-1856R (SFN:6703003) THE EXISTING SIGN SHOWS 18.57. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1856 R.

STRUCTURE POR-76-1951 (SFN:6703038) THE EXISTING SIGN SHOWS 19.49. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1951.

STRUCTURE POR-76-2014L (SFN:6703097) THE EXISTING SIGN SHOWS 20.13 L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 2014 L.

STRUCTURE POR-76-2014R (SFN:6703127) THE EXISTING SIGN SHOWS 20.13. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 2014 R.

STRUCTURE POR-76-2058L (SFN:6703151) THE EXISTING SIGN SHOWS 20.57 L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 2058 L.

STRUCTURE POR-76-2058R (SFN:6703186) THE EXISTING SIGN SHOWS 20.57. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 2058 R.

STRUCTURE POR-76-2118 (SFN:6703216) THE EXISTING SIGN SHOWS 21.19. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 2118.

DESIGN AGENCY: ODOT --- DISTRICT 4 PRODUCTION
DESIGNED AAM | DRAWN AAM | REVIEWED TJP | DATE 03-18-11
CHECKED TJP | REVISED | STRUCTURE FILE NUMBER

STRUCTURE GENERAL NOTES
BRIDGE NO: POR-76-1363, POR-76-1489, POR-76-1579L&R, POR-76-1611, POR-76-1658, POR-76-1856L&R, POR-76-1951, POR-76-2014L&R, POR-76-2058L & R, & POR-76-2118

POR-76-13.55
PID No. 76332

3 / 10

22 / 29

CALC:	AAM	DATE:	3/18/2011
CHECKED:	TJP	DATE:	3/18/2011

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.														ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
POR-76-1363 SFN 6702732	POR-76-1489 SFN 6702767	POR-76-1579L SFN 6702791	POR-76-1579R SFN 6702821	POR-76-1611 SFN 6702864	POR-76-1658 SFN 6702880	POR-76-1856L SFN 6702945	POR-76-1856R SFN 6703003	POR-76-1951 SFN 6703038	POR-76-2014L SFN 6703097	POR-76-2014R SFN 6703127	POR-76-2058L SFN 6703151	POR-76-2058R SFN 6703186	POR-76-2118 SFN 6703216					
LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	LUMP	201	11000		CLEARING AND GRUBBING	
						LUMP	LUMP				LUMP	LUMP		202	11201		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	2 / 10
		35	35											407	10000	GALLON	TACK COAT	
		36	36											407	14000	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
		38	38											442	20050	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (448)	
		44	44											442	20250	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448)	
720	744	663	665	726	965	665	676		864	878	383	383	1055	512	10100	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
803	799			782					1094	1094				512	10400	SQ YD	TREATING OF CONCRETE BRIDGE DECK WITH SRS	
		678	678											512	33010	SQ YD	TYPE 3 WATERPROOFING	
													8	513	21000	EACH	TRIMMING OF BEAM END	8 / 10
					LUMP								LUMP	514	00100		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
					LUMP								LUMP	514	00200		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
					LUMP								LUMP	514	00300		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
					LUMP								LUMP	514	00400		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
					18								15	514	00504	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
					7								6	514	10000	EACH	FINAL INSPECTION REPAIR	
100	100	100	100	100					100	100				514	27700	SQ FT	FIELD PAINTING, MISC.: REPAIR PAINTING	2 / 10
		88	88			82	82							SPEC	51631300	FT	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	10 / 10
10					10								8	516	45305	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	2 / 10
LUMP					LUMP								LUMP	516	47001		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	2 / 10
											11	11		518	12901	EACH	SCUPPER, LENGTHENING, AS PER PLAN	8 / 10
		29	35						40	40				SPEC	51910000	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	
150	150	150	150	150	150	150	150	400	150	150	150	150	150	519	11101	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	2 / 10
					228									SPEC	51911720	FT	PATCHING CONCRETE STRUCTURE, MISC.: CURB REPAIR	2 / 10
					LUMP	LUMP	LUMP				LUMP	LUMP	LUMP	SPEC	53000200		STRUCTURE, MISC.: CONCRETE SPALL REMOVAL	2 / 10
LUMP	LUMP	LUMP	LUMP	LUMP					LUMP	LUMP				SPEC	53000200		STRUCTURE, MISC.: STRUCTURE CLEANING	2 / 10
								10						601	26000	CU YD	DUMPED ROCK FILL, TYPE B	
									20	40			20	601	27000	CU YD	DUMPED ROCK FILL, TYPE C	
15	15	21	21	15	15	21	21	15	21	21	21	21	15	630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
2	2	1	1	2	2	1	1	2	1	1	1	1	2	630	80100	SQ FT	SIGN, FLAT SHEET, 730.20	
		6	6			6	6		6	6	6	6		630	80100	SQ FT	SIGN, FLAT SHEET	
2	2	3	3	1	2	3	3	1	3	3	3	3		630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2	2	2	2	1	2	2	2	1	2	2	2	2		630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
100	100	100	100	100	100	100	100		100	100	150	150	100	843	50000	SQ FT	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
					696								740	848	10000	SQ YD	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (T=3")	
						762	762				586	586		848	10001	SQ YD	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T=2¾")	3 / 10
					696								740	848	20000	SQ YD	SURFACE PREPARATION USING HYDRODEMOLITION	
						762	762				586	586		848	20001	SQ YD	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN	3 / 10
					18								19	848	30000	CU YD	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
						18	18				14	14		848	30001	CU YD	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	3 / 10
					21	23	23				18	18	23	848	50000	SQ YD	HAND CHIPPING	
					LUMP	LUMP	LUMP				LUMP	LUMP	LUMP	848	50100		TEST SLAB	
					1								1	848	50200	CU YD	FULL-DEPTH REPAIR	
						1	1				1	1		848	50201	CU YD	FULL DEPTH REPAIR, AS PER PLAN	3 / 10
					134								134	848	50300	SQ YD	WEARING COURSE REMOVED, ASPHALT	
					563								607	848	50320	SQ YD	EXISTING CONCRETE OVERLAY REMOVED (T=2¾")	
						536	536				360	360		848	50321	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN	3 / 10
					17	17	17				11	11	19	848	50340	SQ YD	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	

DESIGN AGENCY
ODOT --- DISTRICT 4
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DESIGNED	DRAWN	REVIEWED	DATE
AAM	AAM	TJP	03-18-11
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TJP			

STRUCTURE ESTIMATED QUANTITIES

BRIDGE NO: POR-76-1363, POR-76-1489, POR-76-1579L&R, POR-76-1611, POR-76-1658, POR-76-1856L&R, POR-76-1856L&R, POR-76-1951, POR-76-2014L&R, POR-76-2058L & R, & POR-76-2118

POR-76-13.55
PID No. 76332

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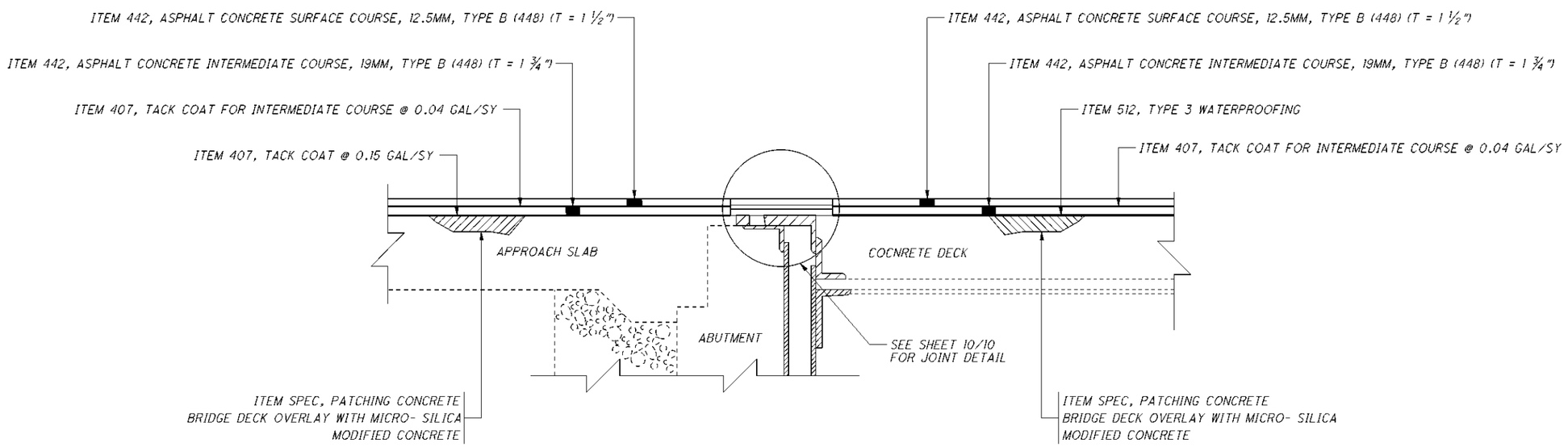

POR-76-1579L & R

APPROACH PAVEMENT SHOWN
TRAILING PAVEMENT SIMILAR

BRIDGE NUMBER	BRIDGE DECK											APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T=1 ¾")	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (448) (T=1 ½")	512 TYPE 3 WATERPROOFING	SPEC POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	SPEC PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS			LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	407 TACK COAT @ 0.15 GAL/SY	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.04 GAL/SY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE B (448) (T=1 ¾")	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (448) (T=1 ½")	SPEC PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS			
	FT	FT	SQ YD	GALLON	CU YD	CU YD	SQ YD	FT	SQ YD	SQ YD			FT	FT	SQ YD		GALLON	GALLON	CU YD	CU YD	SQ YD	SQ YD			
POR-76-1579L	141.16	42.00	658.75	26.35	32.02	27.45	658.75	87.69	21.00				25.00	42.00	116.67	FWD	17.50	4.67	5.67	4.86	4.00				
													25.00	42.00	116.67	REAR	17.50	4.67	5.67	4.86	4.00				
POR-76-1579R	141.16	42.00	658.75	26.35	32.02	27.45	658.75	87.69	25.00				25.00	42.00	116.67	FWD	17.50	4.67	5.67	4.86	5.00				
													25.00	42.00	116.67	REAR	17.50	4.67	5.67	4.86	5.00				
POR-76-1363	210.84	30.00	702.80							702.80			15.00	30.00	50.00	FWD						50.00			
													15.00	30.00	50.00	REAR						50.00			
POR-76-1489	210.67	27.56	645.10							645.10			25.00	27.56	76.55	FWD						76.55			
													25.00	27.56	76.55	REAR						76.55			
POR-76-1611	211.34	28.00	657.50							657.50			20.00	28.00	62.22	FWD						62.22			
													20.00	28.00	62.22	REAR						62.22			
POR-76-2014L	195.94	40.00	870.84						32.04	870.84			25.00	40.00	111.11	FWD					3.70	111.11			
													25.00	40.00	111.11	REAR					3.70	111.11			
POR-76-2014R	195.94	40.00	870.84						32.04	870.84			25.00	40.00	111.11	FWD					3.70	111.11			
													25.00	40.00	111.11	REAR					3.70	111.11			

DESIGN AGENCY
ODOT --- DISTRICT 4
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
AAM	AAM	TJP	03-18-11
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TJP			

SUPERSTRUCTURE DETAILS

BRIDGE NO.: POR-76-1579L & R, POR-76-1363, POR-76-1489, POR-76-1611, & POR-76-2014L & R

POR-76-13.55
PID No. 76332

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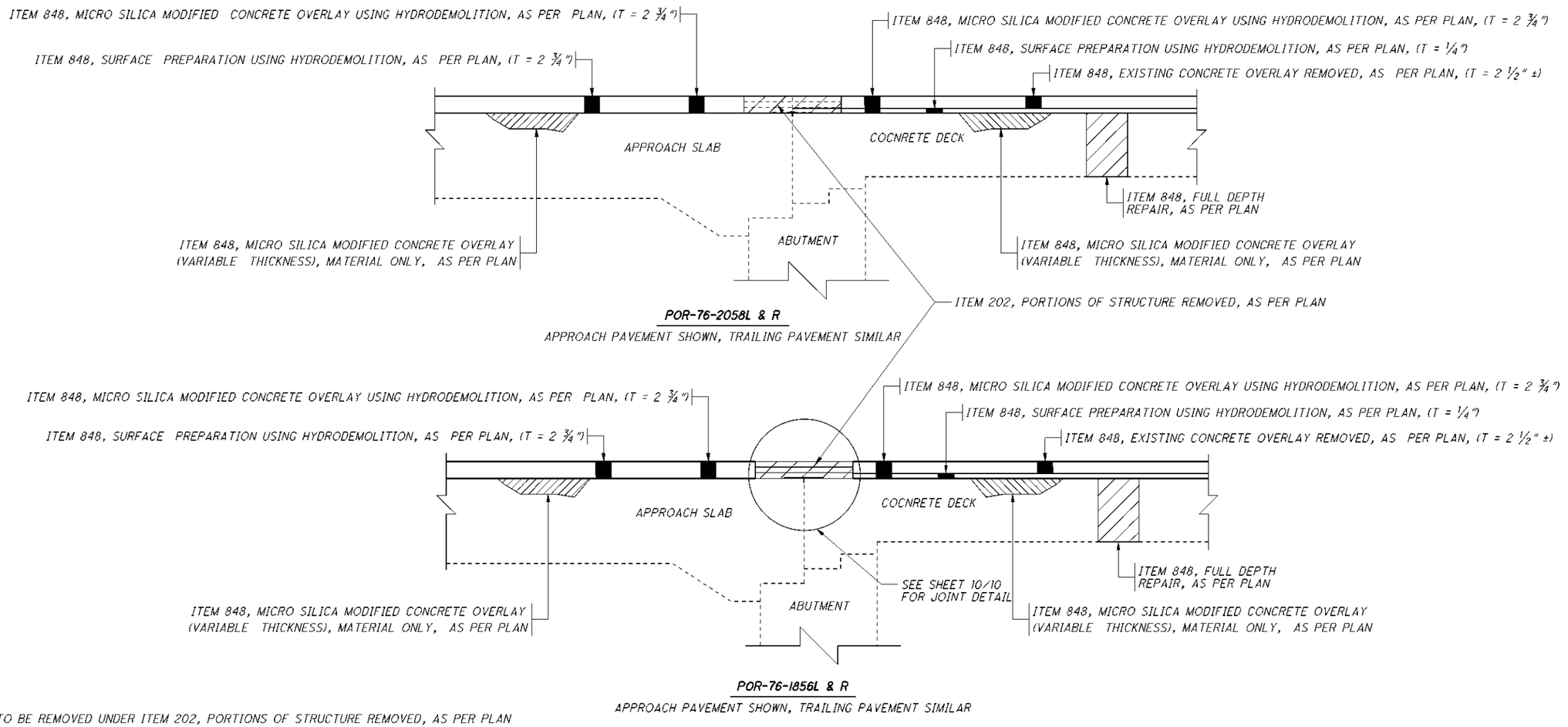

BRIDGE NUMBER	BRIDGE DECK													APPROACH SLABS									
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	202 PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	SPEC POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 2 ¾")	848 SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = ¼")	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING	848 TEST SLAB	848 FULL DEPTH REPAIR, AS PER PLAN	848 EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T = 2 ½" ±)	848 REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 2 ¾")	848 SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 2 ¾")	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING				
	FT	FT	SQ YD	LUMP	FT	SQ YD	SQ YD	CU YD	SQ YD	LUMP	CU YD	SQ YD	SQ YD	FT	FT	SQ YD		SQ YD	SQ YD	CU YD	SQ YD				
POR-76-1856L	118.50	40.69	535.72	LUMP	81.38	535.72	535.72	12.28	16.07	LUMP	1.00	535.72	16.07	25.00	40.69	113.02	FWD	113.02	113.02	2.59	3.39				
														25.00	40.69	113.02	REAR	113.02	113.02	2.59	3.39				
POR-76-1856R	118.50	40.69	535.72	LUMP	81.38	535.72	535.72	12.28	16.07	LUMP	1.00	535.72	16.07	25.00	40.69	113.02	FWD	113.02	113.02	2.59	3.39				
														25.00	40.69	113.02	REAR	113.02	113.02	2.59	3.39				
POR-76-2058L	79.50	40.69	359.41	LUMP		359.41	359.41	8.24	10.78	LUMP	1.00	359.41	10.78	25.00	40.69	113.02	FWD	113.02	113.02	2.59	3.39				
														25.00	40.69	113.02	REAR	113.02	113.02	2.59	3.39				
POR-76-2058R	79.50	40.69	359.41	LUMP		359.41	359.41	8.24	10.78	LUMP	1.00	359.41	10.78	25.00	40.69	113.02	FWD	113.02	113.02	2.59	3.39				
														25.00	40.69	113.02	REAR	113.02	113.02	2.59	3.39				

DESIGN AGENCY
ODOT --- DISTRICT 4
PRODUCTION

DESIGNED	DRAWN	REVIEWED	DATE
AAM	AAM	TJP	03-18-11
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TJP			

SUPERSTRUCTURE DETAILS

BRIDGE NO.: POR-76-1856L & R, & POR-76-2058L & R
SFN NO.: 6702945, 6703003, 6703151, 6703186, & 6703216

POR-76-13.55
PID No. 76332

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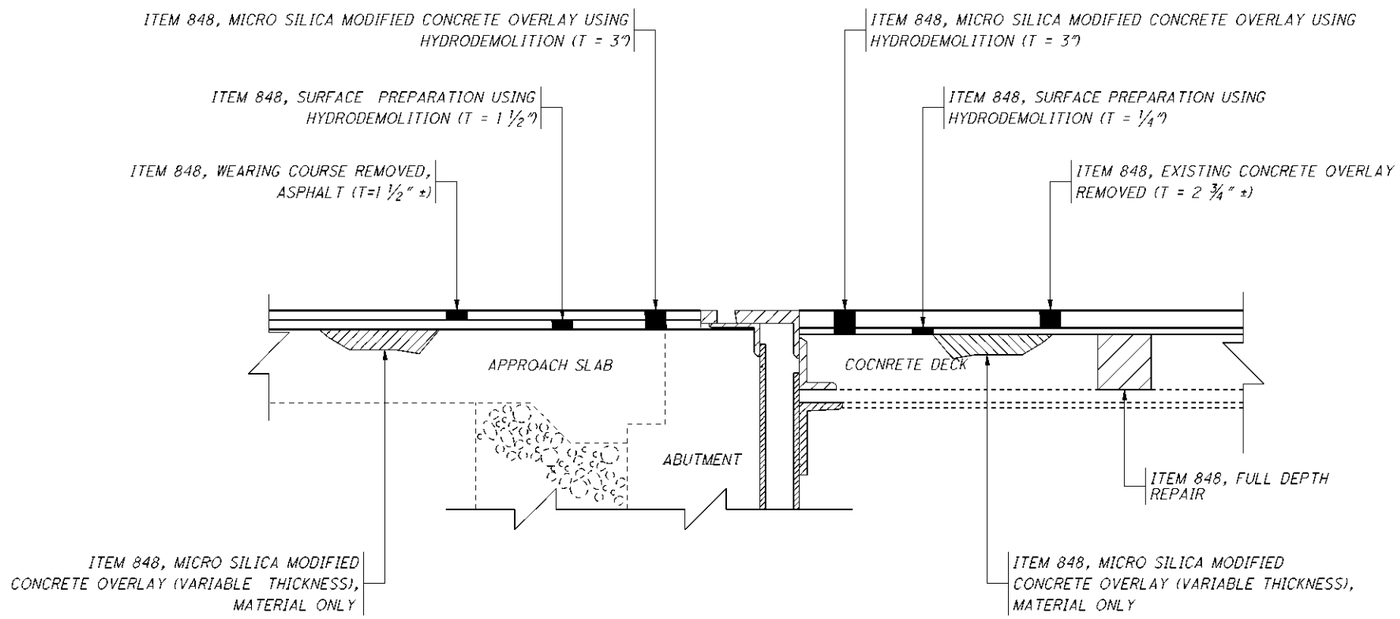

POR-76-1658, & POR-76-2118

APPROACH PAVEMENT SHOWN
TRAILING PAVEMENT SIMILAR

BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS											
	LENGTH (BRIDGE LIMITS)	BRIDGE WIDTH	DECK AREA	848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (T = 3")	848 SURFACE PREPARATION USING HYDRODEMOLITION (T = ¼" ±)	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	848 HAND CHIPPING	848 TEST SLAB	848 FULL-DEPTH REPAIR	848 EXISTING CONCRETE OVERLAY REMOVED (T = 2 ¾" ±)	848 REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY		LENGTH (APPROACH SLABS)	APPROACH SLAB WIDTH	APPROACH SLAB AREA	APPROACH (FORWARD / REAR)	848 MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (T = 3" ±)	848 SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN (T = 1 ½" ±)	848 MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING	848 WEARING COURSE REMOVED, ASPHALT (T = 1 ½" ±)				
	FT	FT	SQ YD	SQ YD	SQ YD	CU YD	SQ YD	LUMP	CU YD	SQ YD	SQ YD		FT	FT	SQ YD		SQ YD	SQ YD	CU YD	SQ YD	SQ YD				
POR-76-1658	210.84	24.00	562.24	562.24	562.24	14.06	16.87	LUMP	1.00	562.24	16.87		25.00	24.00	66.67	FWD	66.67	66.67	1.67	2.00	66.67				
													25.00	24.00	66.67	REAR	66.67	66.67	1.67	2.00	66.67				
POR-76-2118	227.50	24.00	606.67	606.67	606.67	15.17	18.20	LUMP	1.00	606.67	18.20		25.00	24.00	66.67	FWD	66.67	66.67	1.67	2.00	66.67				
													25.00	24.00	66.67	REAR	66.67	66.67	1.67	2.00	66.67				

DESIGN AGENCY
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AAM	AAM	TJP	03-18-11
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TJP			

SUPERSTRUCTURE DETAILS

BRIDGE NO.: POR-76-1658, & POR-76-2118
SFN NO.: 6702880, & 6703216

POR-76-13.55
PID No. 76332

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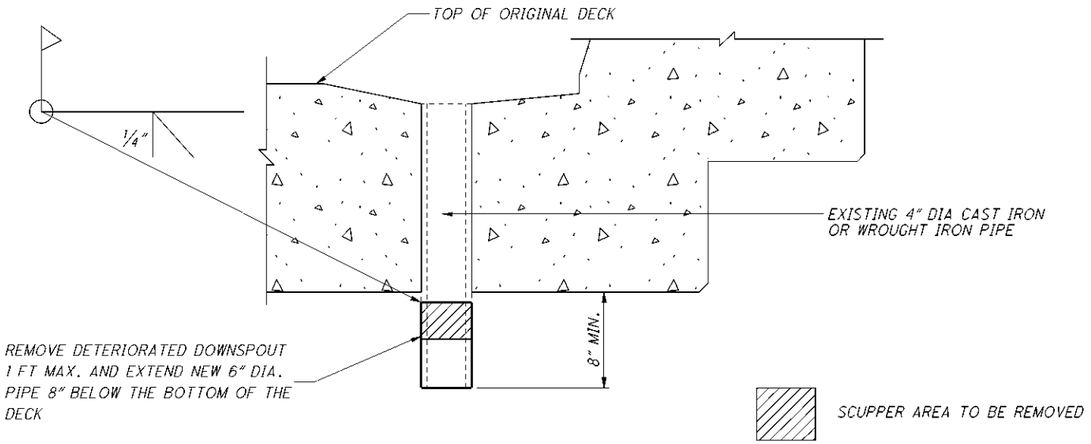
SCUPPER LENGTHENING DETIAL
(POR-76-2058L & R)



NOTES:

1. THE PIPE EXTENSIONS WILL BE WELDED IN PLACE AFTER THE EXISTING SURFACE HAS BEEN ABRASIVE BLASTED TO A SA-1.

2. ADDITIONAL LENGTH OF SCUPPER PIPE TO BE REPLACED IS TO BE DETERMINED BY THE PROJECT ENGINEER.

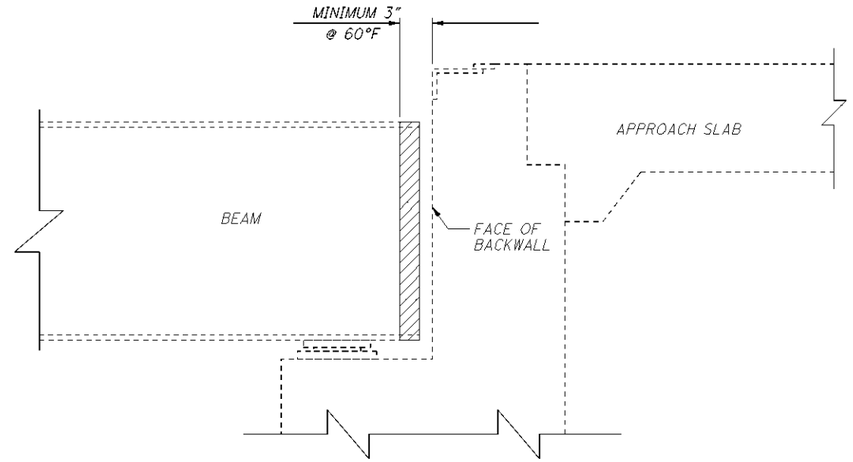
3. SUFFICIENT DECK CONCRETE SHALL BE REMOVED TO ALLOW WELDING.

4. IF ADDITIONAL INFORMATION IS REQUIRED, EXPIRED STD. DWG. SD-1-63 IS AVAILABLE UPON REQUEST.

5. ALL WORK LISTED AND SHOWN ABOVE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 518, SCUPPER, LENGTHENING, AS PER PLAN. THIS PRICE WILL INCLUDE THE COST OF LABOR, MATERIALS, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

6. THE CONCRETE SHALL BE PATCHED AND PAID FOR UNDER ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR AS SPECIFIED IN THE SUPPLEMENTAL SPECIFICATION.

TRIMMING OF BEAM END DETAIL
POR-76-2118



NOTES

1. THE ENDS OF THE EXISTING BEAMS AT THE FORWARD AND REAR ABUTMENTS OF STRUCTURE POR-76-2118 WILL BE TRIMMED ON A VERTICAL LINE AS REQUIRED TO OBTAIN A 3" MINIMUM CLEARANCE AT 60 °F BETWEEN THE END OF THE BEAM AND THE FACE OF THE BACKWALL.

2. ALL TRIMMING OF BEAM ENDS, AND REFURBISHING OF BEARINGS MUST BE COMPLETE AND IN PLACE BEFORE COMMENCING WITH PAINT OPERATIONS.

3. ALL WORK SHOWING ABOVE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 513, TRIMMING OF BEAM END. THIS PRICE WILL INCLUDE THE COST OF LABOR, MATERIALS, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE WORK.

DESIGN AGENCY: ODOT --- DISTRICT 4 PRODUCTION

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
TJP		6703188, 6703216	

SCUPPER LENGTHENING AND TRIMMING OF BEAM ENDS DETAIL

BRIDGE NO.: POR-76-2058L & R, & POR-76-2118
OVER KALE CREEK, & UNDER MAHONING ROAD CR-7

POR-76-13.55
PID No. 76332

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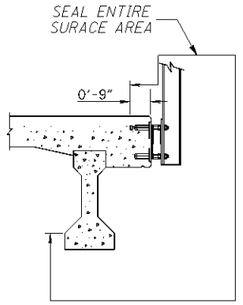
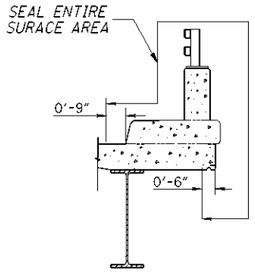
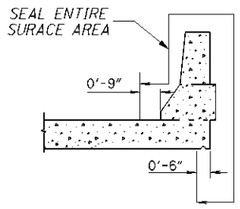


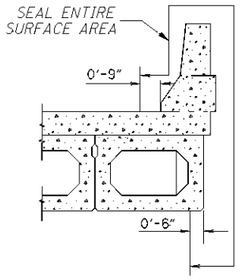
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



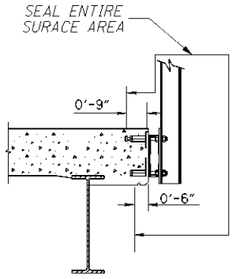
DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



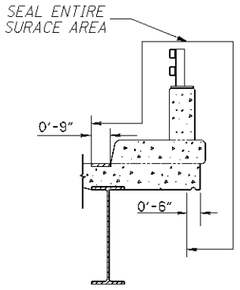
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET



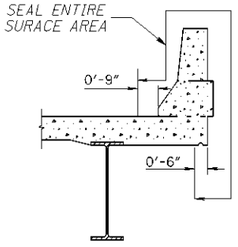
DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



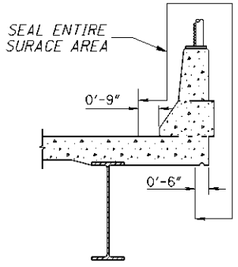
DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE



DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH
DEFLECTOR PARAPET



DETAIL K
CONCRETE DECK WITH
DEFLECTOR PARAPET

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-76-1363	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	108	204	408		720
POR-76-1489	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	112	233	399		744
POR-76-1579L	3 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	111	253	299		663
POR-76-1579R	3 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	111	255	299		665
POR-76-1611	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL K SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	105	207	414		726
POR-76-1658	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL B SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	108	233	474	150	965
POR-76-1856L	3 SPAN CONTINUOUS SLAB DECK	SEAL PARAPETS PER DETAIL C SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	57	173	285	150	665
POR-76-1856R	3 SPAN CONTINUOUS SLAB DECK	SEAL PARAPETS PER DETAIL C SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	57	186	285	150	678
POR-76-2014L	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	117	407	340		864
POR-76-2014R	4 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	131	407	340		878
POR-76-2058L	3 SPAN CONTINUOUS SLAB DECK	SEAL PARAPETS PER DETAIL C SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	30	71	182	100	383
POR-76-2058R	3 SPAN CONTINUOUS SLAB DECK	SEAL PARAPETS PER DETAIL C SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	30	71	182	100	383
POR-76-2118	3 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL B SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS	PER CMS	150	240	515	200	1105

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
PRODUCTION

DESIGNED AAM | DRAWN AAM | REVIEWED TJP | DATE 03-18-11 | CHECKED TJP | REVISED | STRUCTURE FILE NUMBER

CONCRETE SEALING DETAILS

BRIDGE NO: POR-76-1363, POR-76-1489, POR-76-1579L&R, POR-76-1611, POR-76-1658, POR-76-1856L & R, POR-76-2014L & R, POR-76-2058L & R, & POR-76-2118

POR-76-13.55
PID No. 76332

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GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	ADDRESS	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL 1/8" OR 1/4" THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM, 8" WIDE.

BINDER:

TYPE:	POLYMER MODIFIED ASPHALT
SOFTENING POINT:	180 DEGREES F. MIN.
FLOW:	3 mm. MAX. AT 140 DEGREES F.
PENETRATION:	9 mm. MAX. AT 77 DEGREES F. 1 mm. MIN AT 0 DEGREES F. ASTM D 3407
DUCTILITY:	40 cm. MIN. ASTM D 113
RESILIENCE:	60% MIN. AT 77 DEGREES F.
TENSILE ADHESION:	700% MIN.
SPECIFIC GRAVITY:	1.10 * 0.05
POURING TEMP:	350 - 390 DEGREES F.

AGGREGATE:

TYPE:	CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT
GRADATION:	THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF 1/8 " OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN 1/8 " AND 1 1/8 " BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF 1/32 " THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN 3/4 OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN 1/2 INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

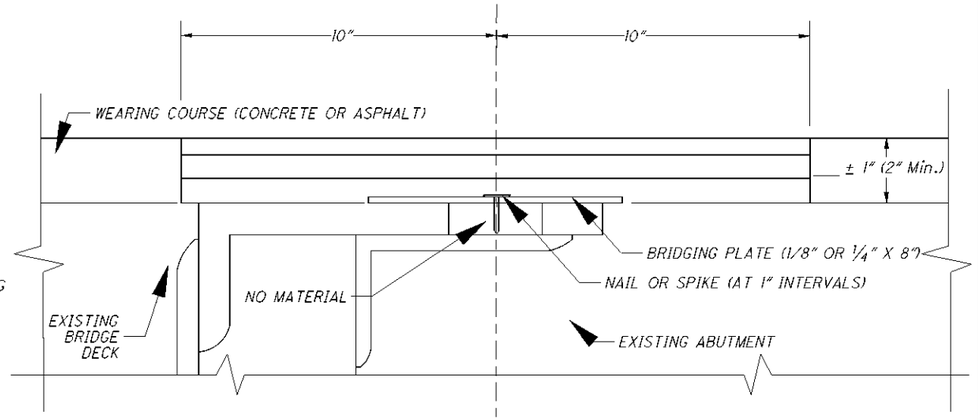
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

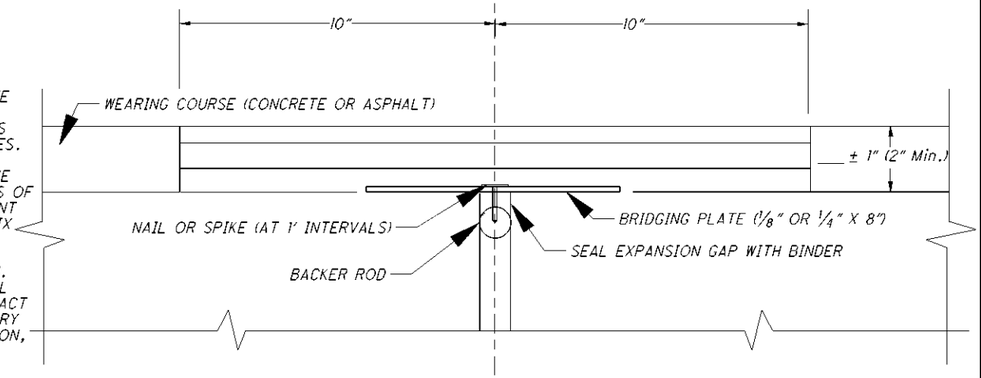
CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, FEET, POLYMER MODIFIED ASPHALT EXPANSION JONT SYSTEM.



TYPICAL STEEL BEAM EXPANSION JOINT



TYPICAL PRESTRESSED BOX BEAM OR CONCRETE SLAB JOINT

OFFICE OF STRUCTURAL ENGINEERING

DESIGNED AAM | CHECKED TJP | REVIEWED TJP

PLAN INSERT SHEET

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

BRIDGE NO.: POR-76-1570L & R, & POR-76-1856L & R

POR-76-13.55

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