

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

TRU-88-7.03 PART 1

BRISTOL & MECCA TOWNSHIPS TRUMBULL COUNTY

FOR PART 2, SEE TRU-
MOSQUITO LAKE STATE PARK

PROJECT DESCRIPTION

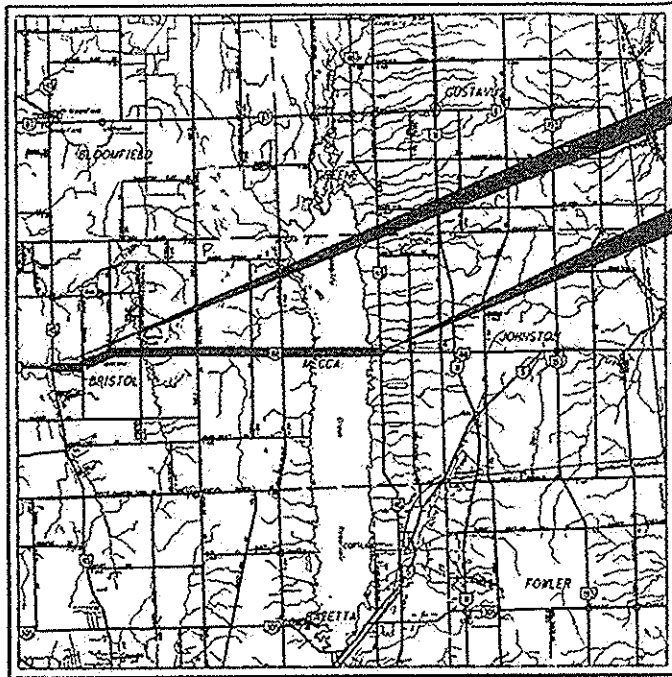
IMPROVEMENT OF 6.92 MILES OF SR-88 BY PLANING THE SURFACE AND PLACING A SINGLE CHIP SEAL INTERMEDIATE WITH AN ASPHALT CONCRETE SURFACE COURSE. SR-88 FISHING LOTS WILL ALSO RECEIVE CHIP SEAL. PROJECT ALSO INCLUDES ONE CONCRETE BRIDGE OVERLAY, ONE DECK EDGE REPLACEMENT, AND MINOR BRIDGE WORK.

PROJECT EDA: 4.61 ACRES
ESTIMATED CONTRACTOR EDA: 0.25 ACRES
NOTICE OF INTENT EDA: N/A NOI NOT REQUIRED

2013 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET 17, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.



BEGIN PROJECT:
SR 88, SLM 7.03

END PROJECT:
SR 88, SLM 13.95

LOCATION MAP

LATITUDE: N41°23'30" LONGITUDE: W80°48'40"

SCALE IN MILES



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

INDEX OF SHEETS:

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DESIGN DESIGNATION

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL MINOR ARTERIAL
NHS PROJECT ----- NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig.
1-800-362-2764

(Non-members must be called directly)
OIL & GAS PRODUCERS
UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
ODOT --- DISTRICT 4
2088 SOUTH ARLINGTON RD
AKRON, OH 44306

ENGINEERS SEAL:

SIGNED: *Thomas Powell*
DATE: 02-18-16

STANDARD CONSTRUCTION DRAWINGS:				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	7/18/14	DS-1-92	7/18/03	800-2013	1/15/16
BP-4.1	7/19/13	TST-1-99	1/17/14	821	4/20/12
BP-7.1	7/18/14			832	1/17/14
				843	4/18/03
				847	7/17/15
DM-4.3	1/15/16	MT-96.20	7/19/13		
DM-4.4	1/15/16	MT-96.26	7/19/13		
		MT-101.70	1/17/14		
MGS-1.1	7/19/13				
MGS-2.1	7/19/13	TC-65.10	1/17/14		
MGS-3.1	7/18/14	TC-65.11	7/18/14		
MGS-4.2	7/19/13	TC-71.10	1/17/14		
MGS-4.3	1/18/13				
MGS-5.2	7/19/13				
MGS-5.3	7/19/13				
RM-1.1	7/18/14				

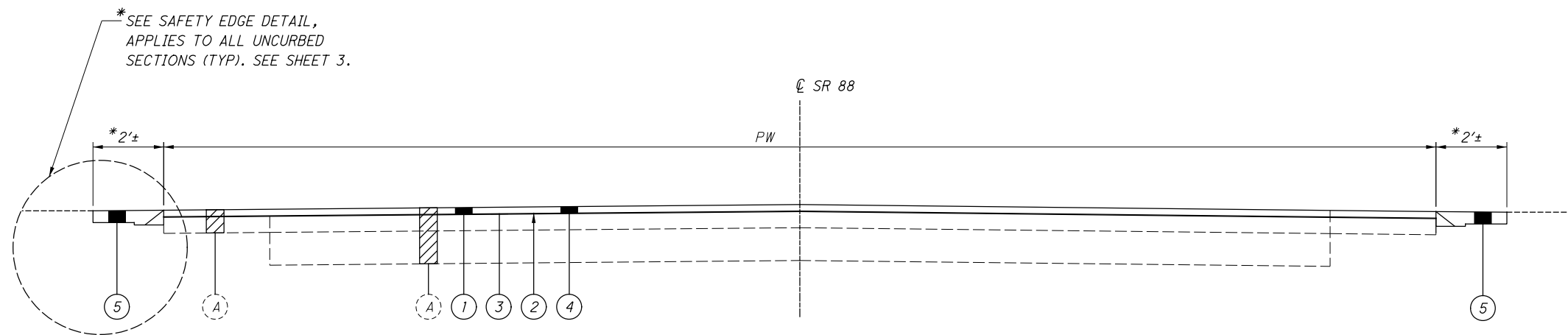
APPROVED: *Alan C. Reed*
DATE: 2-19-16 DISTRICT DEPUTY DIRECTOR

APPROVED: *James Whaley*
DATE: 3-8-16 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E130(396)
PID NO. 88914
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
TRU-88-7.03
1/32

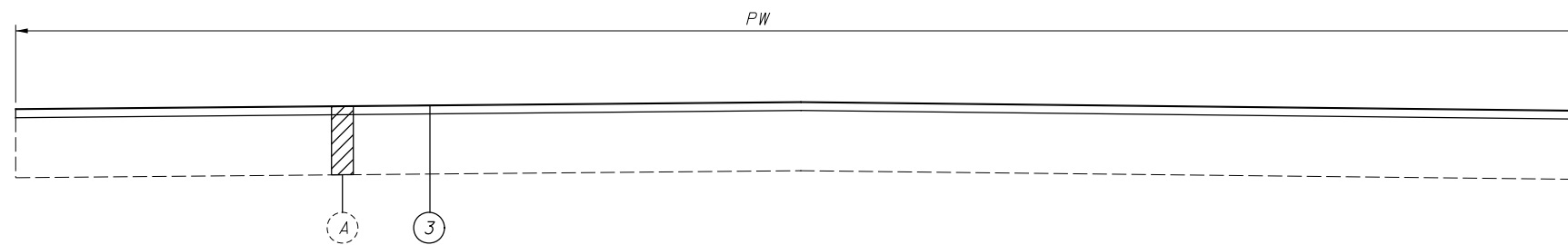
160334 PID - 88914
TRU - SR 88-7.03 (PART 1 AND PART 2)
Dist 4 5/19/2016
Contract Proposal Available @ www.ohdot.gov
Contracts.dot.state.oh.us/home

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TYPICAL SECTION 1 - SR 88

SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
7.03	7.18	35	0.15
7.18	8.99	30	1.81
9.02	13.27	30	4.25
13.32	13.95	30	0.63



TYPICAL SECTION 2 - PARKING AREA

SLM		PW (FT)	LENGTH (MILES)
FROM	TO		
13.03	13.25	30	0.22
13.39	13.61	30	0.22

LEGEND

- ① ITEM 254, PAVEMENT PLANING (T = 1/2")
- ② ITEM SPECIAL - TACK COAT, TRACKLESS TACK @ 0.10 GAL/SY
- ③ ITEM 422, SINGLE CHIP SEAL WITH POLYMER BINDER
- ④ ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M, AS PER PLAN (T = 1/2")
- ⑤ ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (T = 2")

- Ⓐ EXISTING ASPHALT CONCRETE

SAFETY EDGE (ASPHALT CONCRETE)

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

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

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

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

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

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

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

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

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

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

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

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

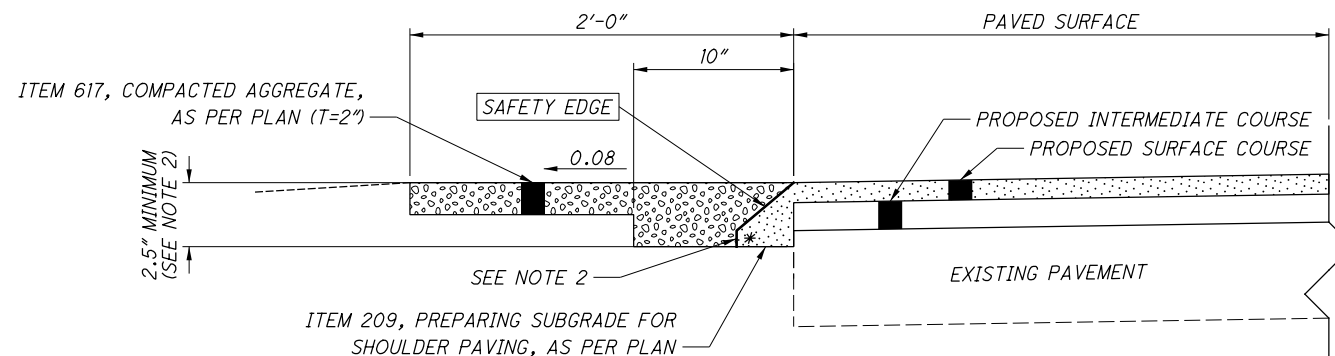
NOTES:

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

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

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

* 40° MAX



SAFETY EDGE DETAIL FOR 2 COURSE OVERLAY

ESTIMATED QUANTITIES

ROUTE	SAFETY EDGE THICKNESS (IN.)	S.L.M TO S.L.M.		SIDE	209	441
		FROM	TO		PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M
					STA	CY
88	2.5	7.03	TO 7.18	L/R	15.8	1.53
88	2.5	7.18	TO 8.99	L/R	191.1	18.41
88	2.5	9.02	TO 13.27	L/R	448.8	43.22
88	2.5	13.32	TO 13.95	L/R	66.5	6.41
TOTALS CARRIED TO GENERAL SUMMARY					723	70

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UTILITIES

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

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION 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 EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

WORK LIMITS

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

PAVEMENT MARKING 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
SR 88	7.03 TO 13.95	12'

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.

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGE LINE. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE OR WITH THE MAINLINE PAVEMENT IF THIS CAN BE ACCOMPLISHED WITHOUT CHANGING THE VELOCITY AND DIRECTION OF THE PAVER. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT. PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

DRIVEWAYS

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

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) 34 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) 34 CU YD

ITEM 304 - AGGREGATE BASE (FOR DRIVEWAYS)

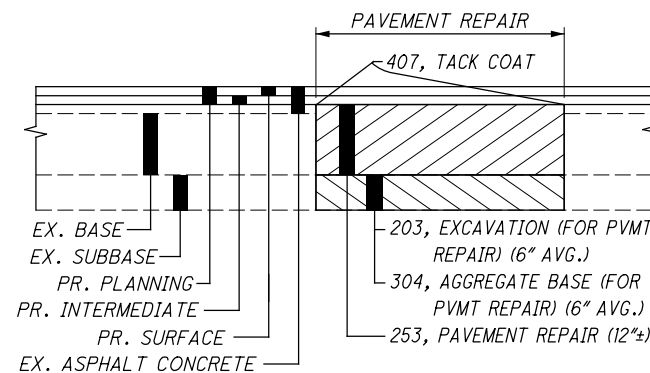
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO LEVEL DRIVEWAYS BEFORE PAVING. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE (FOR DRIVEWAYS) 22 CU YD

ITEM 253 - PAVEMENT REPAIR

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

253, PAVEMENT REPAIR, 200 SQ YD



ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

ALL PROVISIONS OF ITEM 254 IN THE CMS WILL APPLY WITH THE FOLLOWING EXCEPTION:

ALL CUBIC YARDS WILL BE DELIVERED BY THE CONTRACTOR TO: MOSQUITO LAKE STATE PARK PARKING LOT LOCATED ON THE SOUTH SIDE OF SR-88 ON THE EAST SIDE OF MOSQUITO LAKE

THE CONTRACTOR SHALL ONLY USE THE MOST EASTERN ENTRANCE INTO THE PARKING LOT. GRINDINGS SHALL NOT BE PLACE OUTSIDE OF THE SPECIFIED AREA.

*SEE SHEET 7 FOR MAP OF LOCATIONS

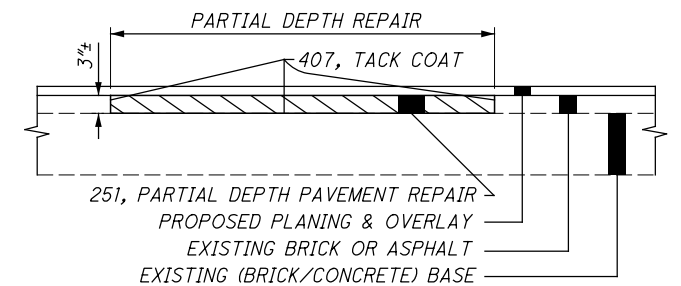
THE CONTRACTOR WILL NOTIFY PARK MANAGER, JOSIE MCKENNA, (330)637-2856 TEN DAYS PROIR TO DELIVERING THE GRINDINGS. THE CONTRACTOR WILL SUPPLY ALL LABOR AND EQUIPMENT TO STOCKPILE THE MATERIAL IN A MANNER ACCEPTABLE TO THE ENGINEER, CONTINUOUS END DUMPING WILL NOT BE PERMITTED.

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 441 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:

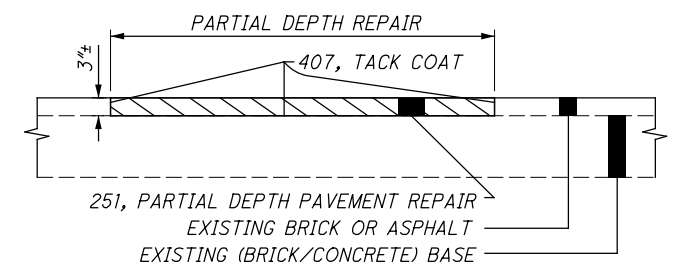
SLM 7.03 TO SLM 13.95

251, PARTIAL DEPTH PAVEMENT REPAIR, 800 SQ. YD.



PARKING AREAS ON CAUSEWAY

251, PARTIAL DEPTH PAVEMENT REPAIR, 50 SQ. YD.



ITEM 422 - SINGLE CHIP SEAL TIME RESTRICTIONS

THE CONTRACTOR IS REQUIRED TO HAVE A ONE (1) DAY WAITING PERIOD BETWEEN THE TIME THE INTERLAYER CHIP SEAL IS PLACED AND THE OVERLYING ASPHALT CONCRETE COURSE IS PLACED. AFTER THE WAITING PERIOD, THE CONTRACTOR HAS A MAXIMUM OF THREE (3) DAYS TO COVER UP THE CHIP SEAL.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M, AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

CALCULATED
HKS
CHECKED

GENERAL NOTES

TRU-88-7.03

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ITEM SPECIAL - TACK COAT, TRACKLESS TACK

ITEM SPECIAL - TACK COAT, TRACKLESS TACK FOR INTERMEDIATE COURSE

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

FURNISH MATERIALS ACCORDING TO THE DEPARTMENT'S APPROVED LIST.

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

MATERIAL: MEET ALL PROPERTIES OF THE APPROVED MANUFACTURER'S TRACKLESS TACK SPECIFICATION REQUIREMENTS ON FILE WITH THE LABORATORY AT TIME OF PLACEMENT.

ACCEPTANCE AND SAMPLING OF MATERIALS: SUPPLY CERTIFIED TEST DATA TO THE ENGINEER AND TO THE DISTRICT LABORATORY DEMONSTRATING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS ALL MATERIAL PROPERTIES SHOWN ON THE DEPARTMENT'S APPROVED LIST.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART OF TRACKLESS TACK FOR EVERY 25,000 GALLONS USED ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE PROPER PLASTIC QUART SAMPLING CONTAINER. CLEARLY MARK ON THE SAMPLE WITH THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

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

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

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

APPLY AT A RATE OF 0.04 TO 0.1 GALLONS PER SQUARE YARD. DO NOT DILUTE TRACKLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160 °F TO 180 °F. DO NOT EXCEED 180 °F. THE

ENGINEER WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

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

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

ANY FAILING TRACKLESS TACK PRODUCT WILL BE REMOVED FROM THE DEPARTMENT'S APPROVED LIST.

LINEAR GRADING

SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND WILL BE PERFORMED ONLY IN THE AREAS NECESSARY. THIS WORK WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. THE AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. THESE ITEMS OF WORK WILL BE PERFORMED AFTER THE PLACEMENT OF ITEM 617 -- COMPACTED AGGREGATE. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. EXCESS MATERIAL WILL BE WINDROWED ON THE SHOULDER. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 209, LINEAR GRADING, 402 STA.
- 659, SEEDING AND MULCHING, 22335 SQ YD
- 659, COMMERCIAL FERTILIZER, 3.01 TON
- 659, LIME, 4.61 ACRES
- 659, WATER, 121 M. GAL.

CURB RAMPS / DETECTABLE WARNINGS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, INSTALLATION OF THE CURB RAMPS / DETECTABLE WARNINGS WILL BE PERFORMED PRIOR TO MAINLINE RESURFACING.

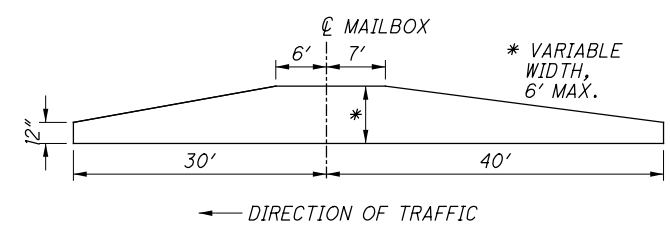
CURB RAMPS

THE FOLLOWING QUANTITIES ARE TO BE USED ON SR 88 IN FRONT OF BRISTOL HIGH SCHOOL.

PAVED MAILBOX APPROACHES

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

THE CONTRACTOR WILL PAVE THE MAILBOX APPROACHES WITH THE MAINLINE AND SHOULDERS, ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448) PG70-22M, AS PER PLAN



ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) 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

MAIN ROUTE	INTERSECTING ROUTE	QUADRANT RL=REAR LT, RR=REAR RT FL=FWD LT, FR=FWD RT (LOOKING UPSTATION)	CURB RAMP TYPE (SCD BP-7.1, SHEET 2/3)	202	608	608
				WALK REMOVED	6" CONCRETE WALK	CURB RAMP
				SF	SF	SF
SR 88	CROSSWALK (SLM 7.15)	FL		40.00	40.00	55.00
		FR		40.00		40.00
SUBTOTALS				0.00	80.00	95.00
TOTALS CARRIED TO GENERAL SUMMARY				0	80	95

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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 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), 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 COMPACTIBLE GRANULAR MATERIAL CONFORMING TO 703.16. THE COMPACTIBLE GRANULAR MATERIAL SHALL HAVE A MINIMUM THICKNESS OF 3 INCHES. THE COMPACTIBLE GRANULAR MATERIAL SHALL BE PLACED PRIOR TO, BELOW, AND FOR THE FULL EXTENT OF THE ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN.

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 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:

1. PLACE ITEM 441
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 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, (448), UNDER GUARDRAIL, AS PER PLAN.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE

THERE ARE SEVENTEEN EXISTING MONUMENT BOXES TO ADJUST TO GRADE. THE CONTRACTOR WILL BE PROVIDED A LOCATION LIST OF THE EXISTING MONUMENTATION WHICH ARE TO BE ADJUSTED TO GRADE. THE LIST MAY INCLUDE BOTH EXPOSED AND BURIED MONUMENTATION AND MAY ALSO INCLUDE SOME TIES TO AID IN RECOVERY.

623, MONUMENT BOX ADJUSTED TO GRADE, 17 EACH

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

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

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

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

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

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

ITEM 408 - PRIME COAT, AS PER PLAN

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.

COMMUNITY NOTIFICATION:

THE CONTRACTOR WILL ADVISE THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST ALSO PROVIDE NOTIFICATION TO THE ODOT PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO ANY LANE RESTRICTIONS AND ROADWAY CLOSURES. THE ODOT PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE ODOT, DISTRICT 4 OFFICE OF PUBLIC INFORMATION FOR USE TO THEN NOTIFY THE LOCAL EMERGENCY SERVICES AND COMMUNITIES A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE START OF PROJECT CONSTRUCTION. INCLUDED IN THIS NOTIFICATION WILL BE THE PROPOSED LANE RESTRICTIONS, ROADWAY CLOSURES AND DETOUR ROUTES.

STREAM/DITCH/WETLAND AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY STREAMS, DITCHES AND WETLANDS DEPICTED IN THE ECOLOGICAL RESOURCES MAPPING AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE, 2088 SOUTH ARLINGTON, AKRON, OHIO 44306. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN ANY STREAMS AND/OR WETLANDS. TO PROTECT AND DELINEATE THE BOUNDARY OF ANY STREAMS AND WETLANDS, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE, PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION.

TREE CLEARING:

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT/REMOVE ANY TREES PRIOR TO OR DURING CONSTRUCTION OF THE PROJECT.

CONSTRUCTION EQUIPMENT AND MATERIALS STAGING AREAS:

CONSTRUCTION EQUIPMENT AND MATERIAL STAGING AREAS SHALL BE KEPT AWAY FROM STREAMS AND WETLANDS TO THE MAXIMUM EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS.

CONSTRUCTION AND DEMOLITION DEBRIS:

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

STRUCTURE PAINTING/CONCRETE SEALING OPERATIONS:

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

MIGRATORY BIRD/CLIFF SWALLOW:

THE TRU-88-13.28 BRIDGE OVER MOSQUITO CREEK RESERVOIR IS KNOWN TO PROVIDE NESTING HABITAT FOR THE CLIFF SWALLOW (HIRUNDO PYRRHONOTA), A BIRD PROTECTED BY LAW UNDER THE MIGRATORY BIRD TREATY ACT. CLIFF SWALLOWS CONSTRUCT GOURD-SHAPED NESTS MADE OF MUD PELLETS WITH A SMALL ENTRANCE TUNNEL ON ONE SIDE. NESTS ARE TYPICALLY FOUND ON A VERTICAL SURFACE UNDER AN OVERHANG. TO AVOID IMPACTING THE SPECIES AT THIS LOCATION, ANY WORK THAT WOULD RESULT IN THE DISTURBANCE OR REMOVAL OF A CLIFF SWALLOW NEST MUST BE CONDUCTED AFTER AUGUST 15 OR BEFORE APRIL 30, WHEN THE BIRDS ARE NOT USING THE NESTS FOR EGG LAYING OR BROOD REARING.

MOSQUITO CREEK RESERVOIR AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN MOSQUITO CREEK RESERVOIR. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS WITHIN THE WINTER POOL LIMITS OF THE RESERVOIR.

MOSQUITO LAKE STATE PARK:

THE CONTRACTOR WILL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND MOSQUITO LAKE STATE PARK PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES;

VEHICULAR, PEDESTRIAN AND BOAT TRAFFIC AND ACCESS TO ALL PARK FACILITIES WILL BE DISRUPTED ONLY FOR THE TIME NEEDED FOR TEMPORARY OCCUPANCY OF THE PROPERTY AND/OR TEMPORARY ACCESS RESTRICTIONS AND/OR CLOSURES NEEDED TO FACILITATE CONSTRUCTION ACTIVITIES. THIS INCLUDES MAINTAINING ACCESS TO AT LEAST ONE (1) OF THE FISHING ACCESS PARKING LOTS LOCATED ADJACENT TO THE SR 88 CAUSEWAY AND MAINTAINING TWO-WAY BOAT TRAFFIC BENEATH THE SR 88 BRIDGE OVER MOSQUITO CREEK RESERVOIR AT ALL TIMES THROUGHOUT PROJECT CONSTRUCTION;

TEMPORARY CONSTRUCTION FENCING WILL BE INSTALLED ALONG PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE 4(F) PROPERTY AND THE PUBLIC;

APPROPRIATE SIGNAGE WILL BE INSTALLED BY THE CONTRACTOR TO ALERT USERS OF TEMPORARY ACCESS RESTRICTIONS AND/OR CLOSURES, IN ORDER TO DIRECT USERS TO SECONDARY ACCESS POINTS;

STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL ONLY OCCUR TO FACILITATE CONSTRUCTION ACTIVITIES, THE STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT WILL NOT TAKE PLACE OUTSIDE THE PROPOSED CONSTRUCTION LIMITS, WITHIN PROPERTY BOUNDARIES;

AT NO TIME WILL THE STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT INTERFERE WITH THE PROTECTED ACTIVITIES, FEATURES OR ATTRIBUTES OF MOSQUITO LAKE STATE PARK.

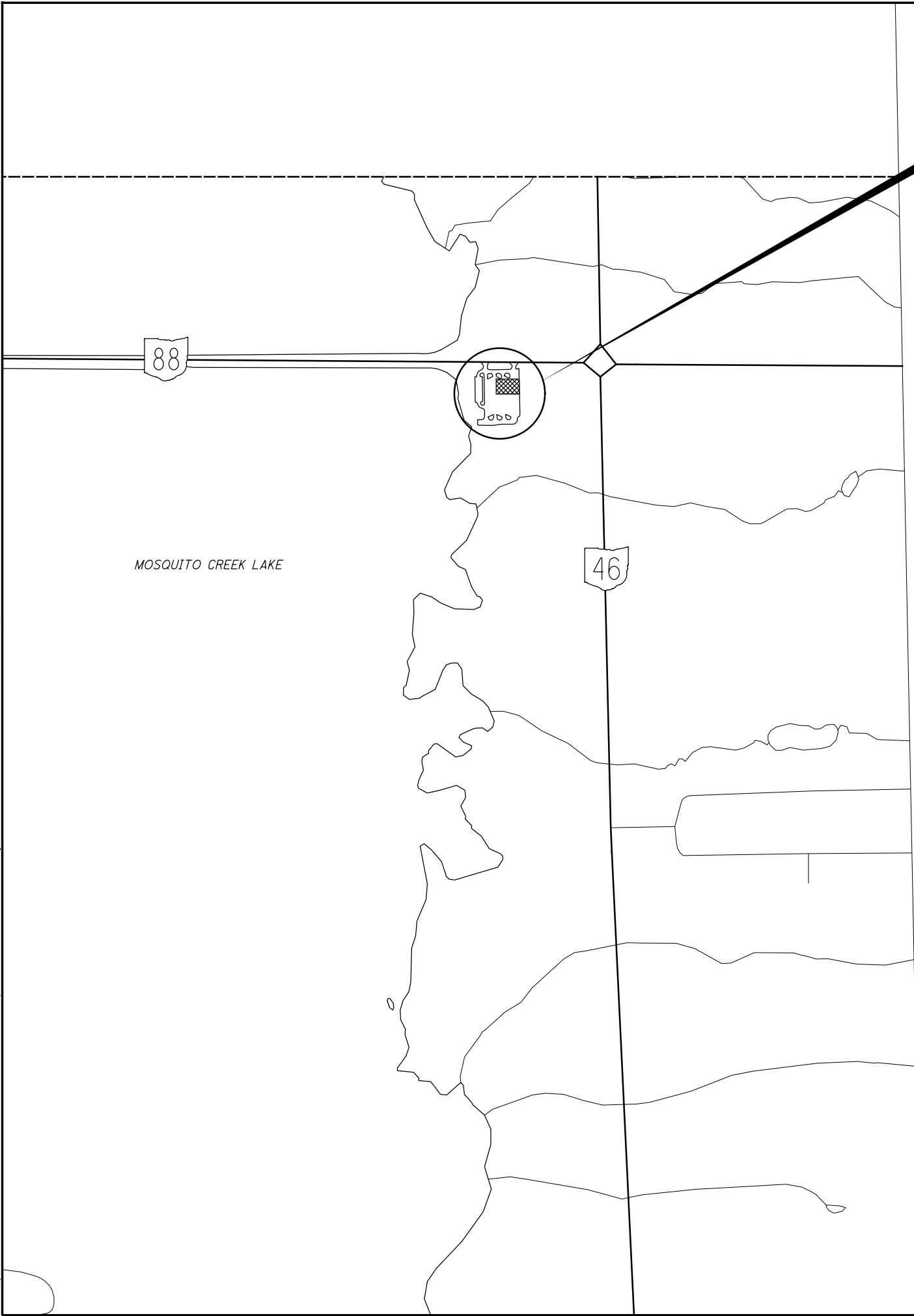
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GENERAL NOTES

TRU-88-7.03

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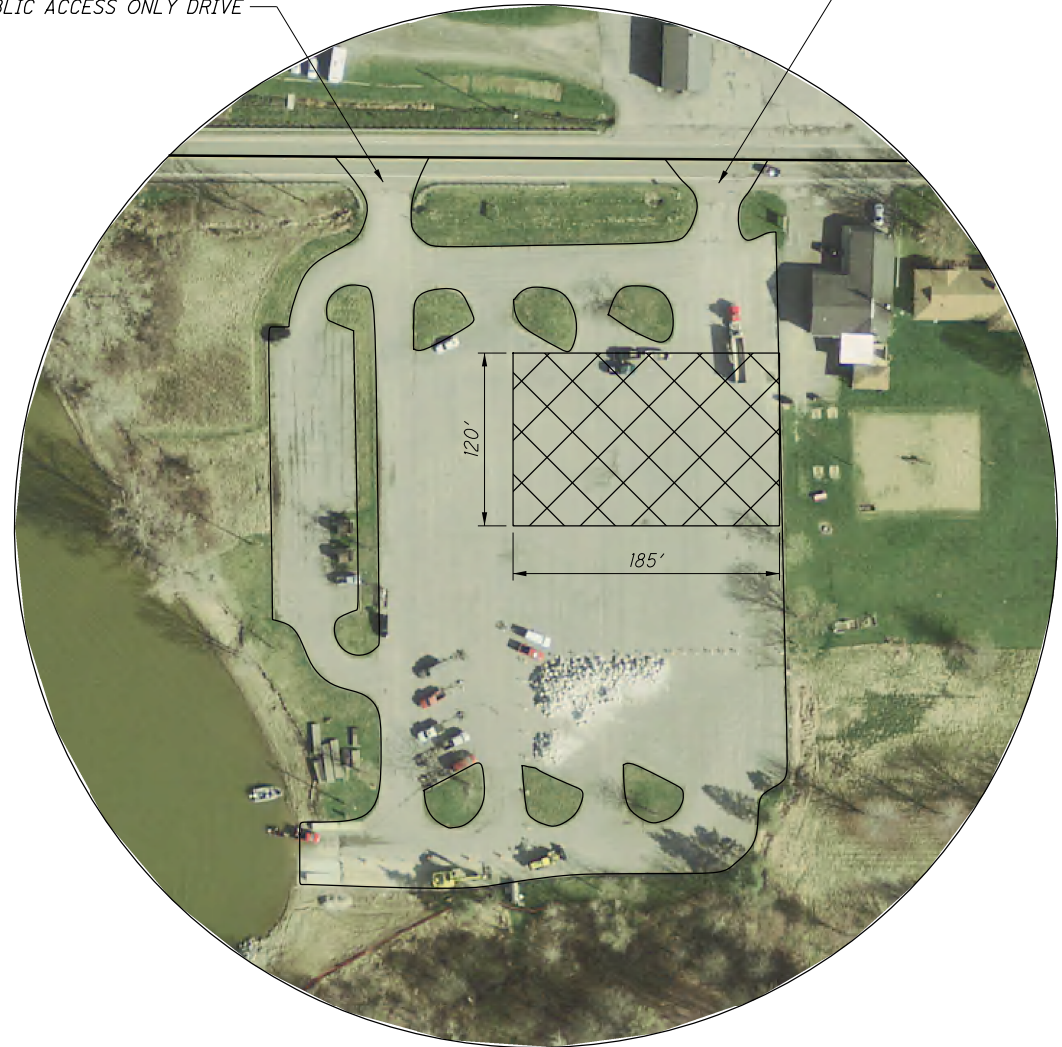


GRINDING STORAGE AREA



PUBLIC ACCESS ONLY DRIVE

CONTRACTOR DRIVEWAY



SCHEMATIC PLAN FOR GRINDING STORAGE

TRU-88-7.03

NOTES

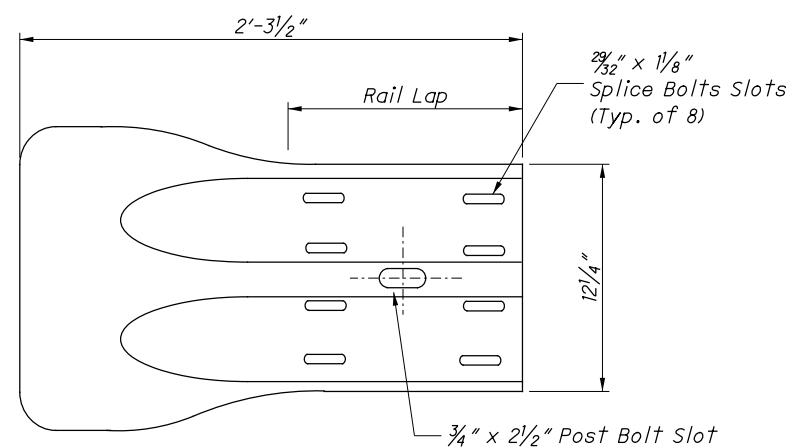
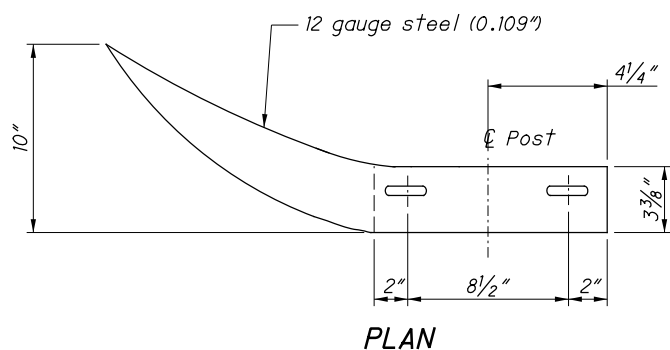
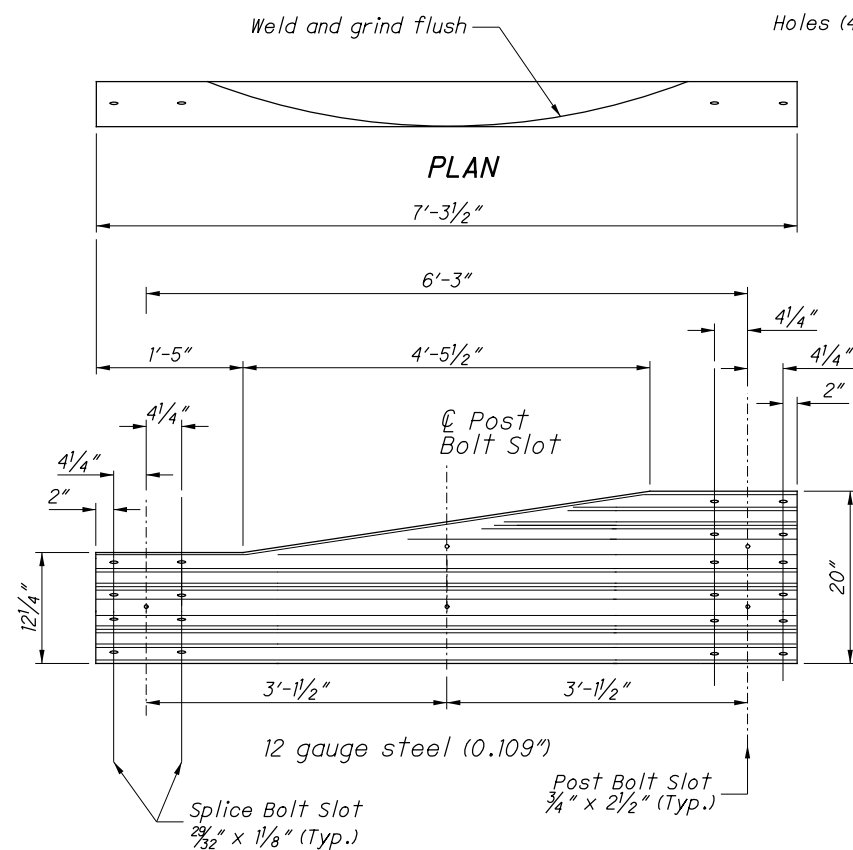
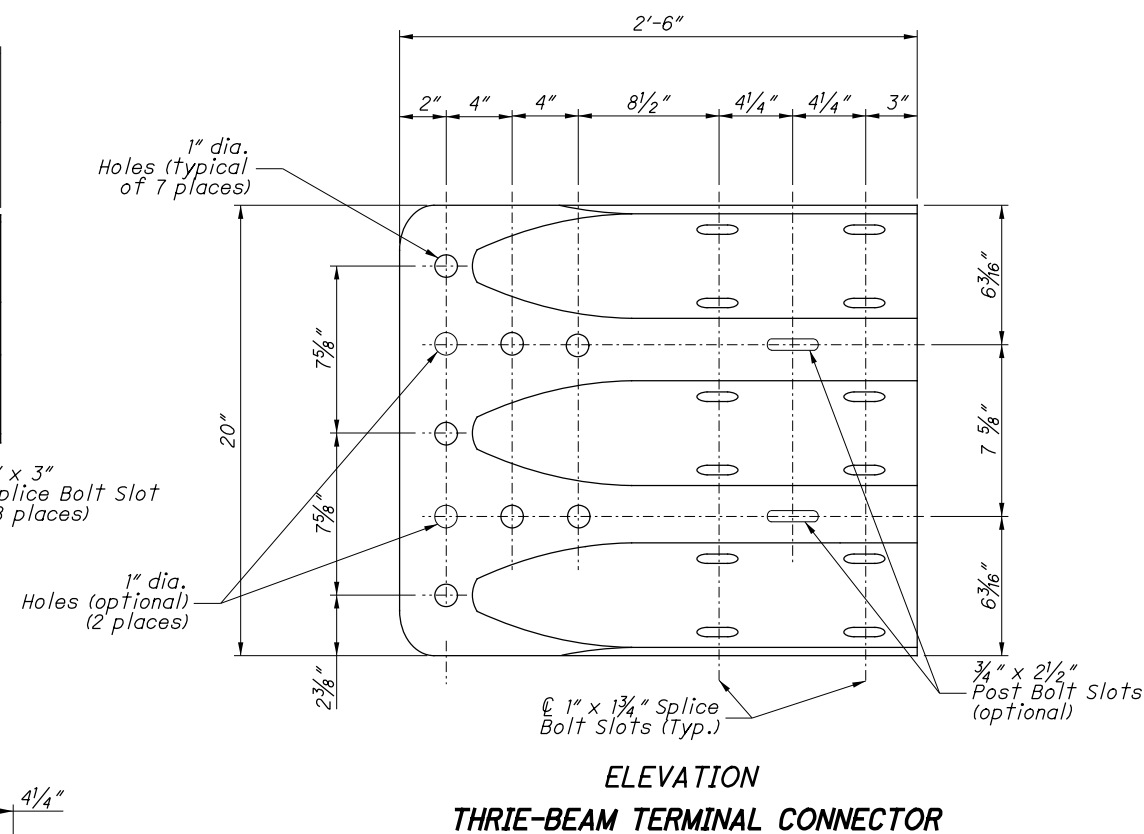
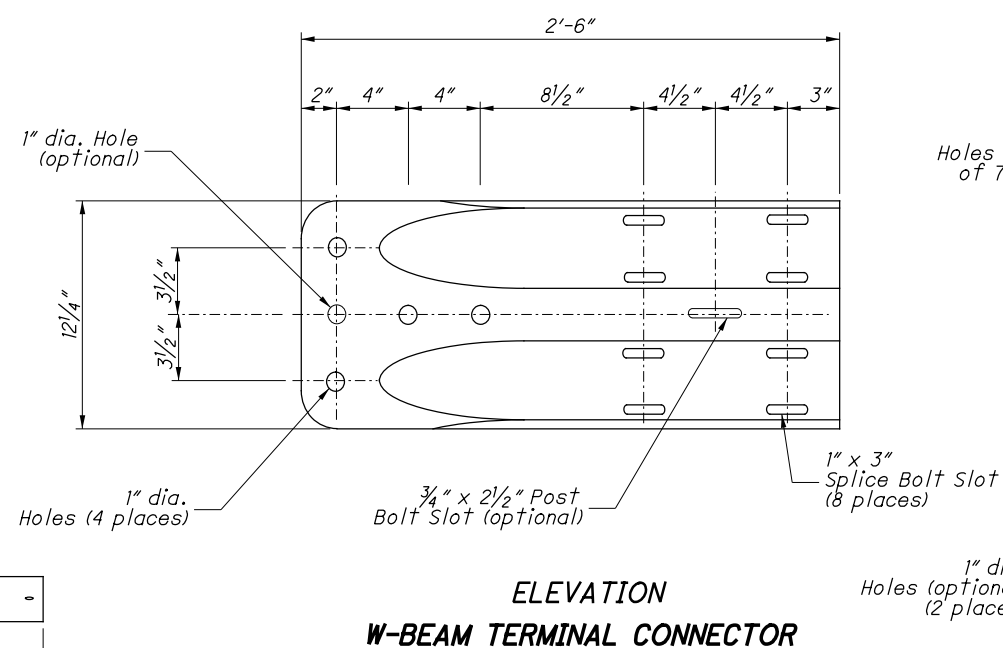
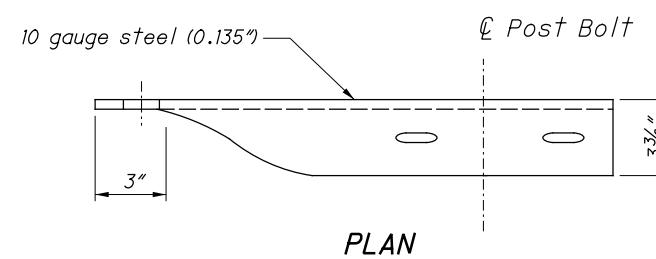
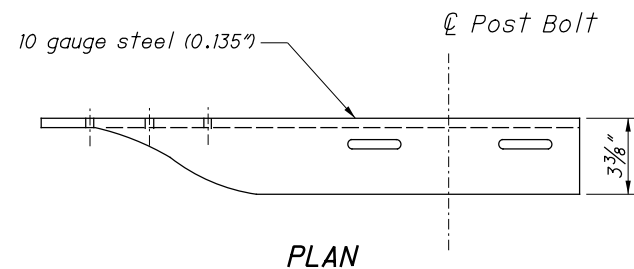
GENERAL: Components shown on this drawing are used in a variety of guardrail systems. See individual guardrail drawing for specific applications.

See CMS 606 for guardrail specifications not covered on these drawings.

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

RAIL ELEMENTS: W-Beam Rail has an effective length of 12'-6" unless otherwise specified, with $\frac{3}{4}$ " x $2\frac{1}{2}$ " post bolt slots on 6'-3" centers regardless of post spacing. Field punch or drill bolt holes or slots for irregularly spaced posts as specified in CMS 606.04.

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



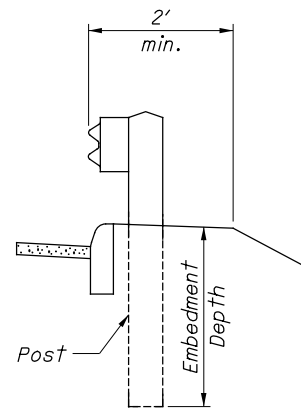
**ELEVATION
 TYPE 2 TRANSITION SECTION**
 (Asymmetric W to Thrie-Beam)

For details of Type 1 Transition Section (Symmetric), refer to AASHTO M 180, Figure 4.

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

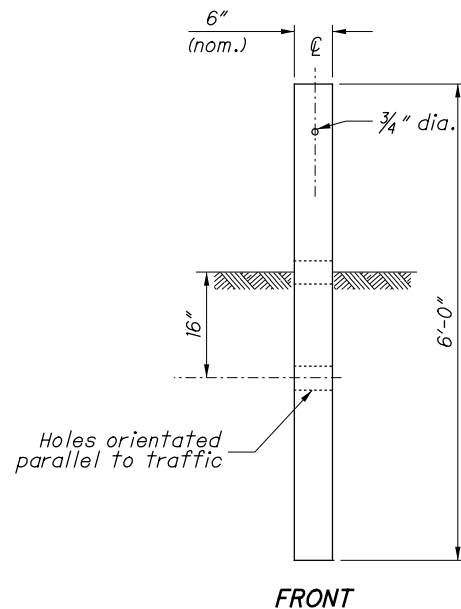
WP = Wood Post WB = Wood Blockout
 SP = Steel Post PB = Plastic Blockout

Longer Bolt may be needed for round Wood Post larger than 8" dia.

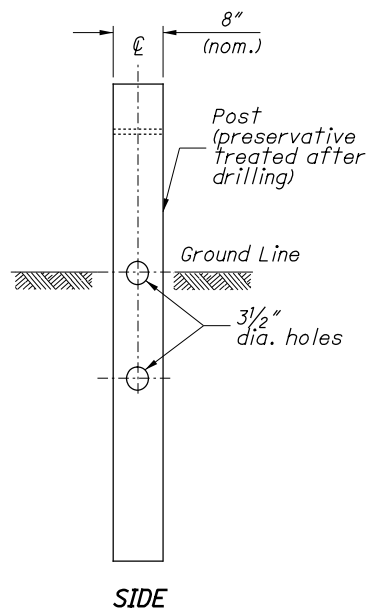


DETAIL A

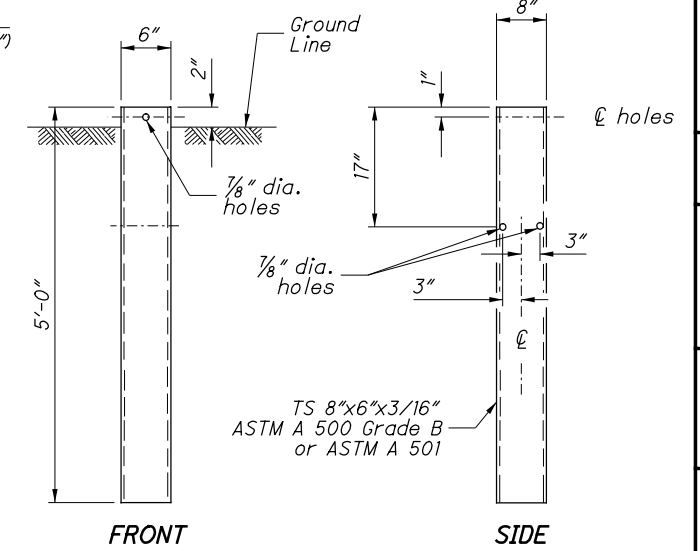
See POST EMBEDMENT DEPTH Note



TYPE 1 BREAKAWAY CRT POST



TYPE 2 BREAKAWAY CRT POST



STEEL GROUND TUBE

NOTES

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

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

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

Install posts located over a footing with a cover of less than 2'-6" with a footing anchor as detailed here. (A plate, as detailed on SECTION B-B of **SCD GR-2.2**, may be used as an alternative attachment method.) Where the cover is between 2'-6" and 3'-5", the footing anchor may be omitted and the post encased instead with 4" (min.) of concrete.

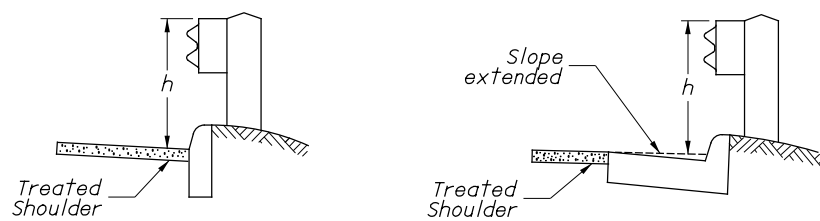
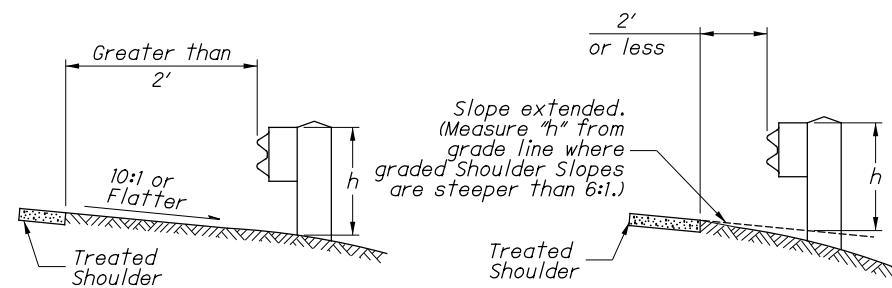
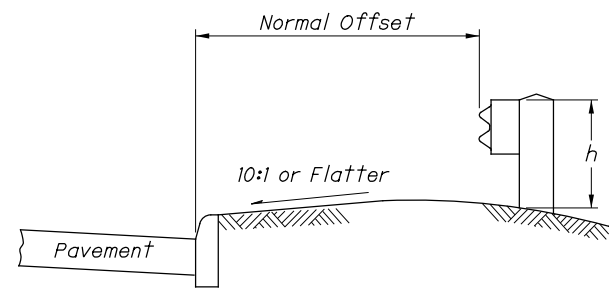
Do not drive posts located over a culvert with less than 4'-3" of cover; instead set in drilled or dug holes. Where the available post embedment depth is less than 3'-5", encase the post with a minimum of 4" concrete.

All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the type specified in the plans.

ANCHORS: Holes and grouting shall comply with CMS 510. Use either cement or non-shrink, nonmetallic grout.

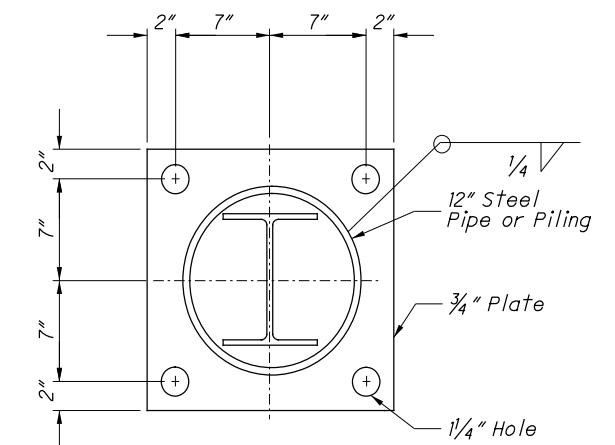
Expansion shield anchors as specified in CMS 712.01 may be substituted except where concrete deterioration has occurred, as determined by the Engineer. Where self-drilling anchors are used, drill the holes with the expansion shield (not by a drill bit) and install the shield flush with the concrete surface.

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

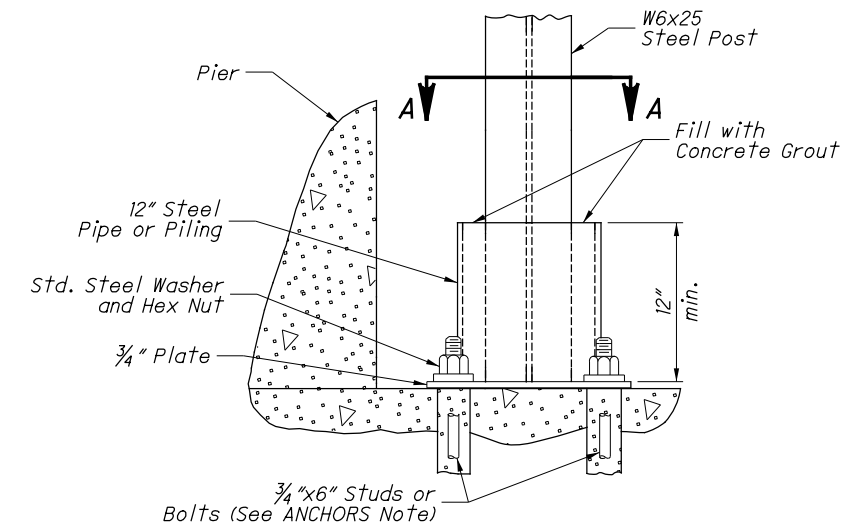


h = Standard Height (See GUARDRAIL HEIGHT Note)

MEASURING GUARDRAIL HEIGHT

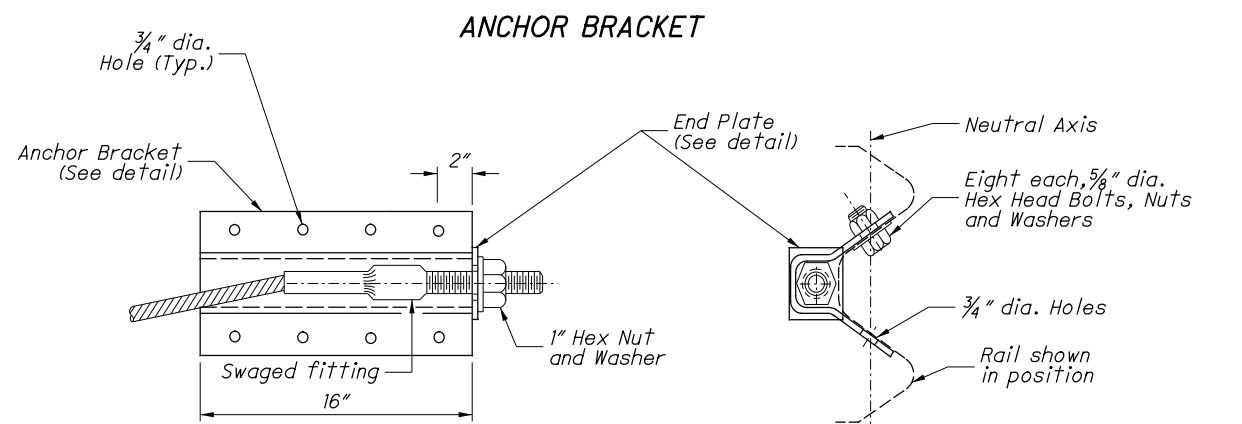
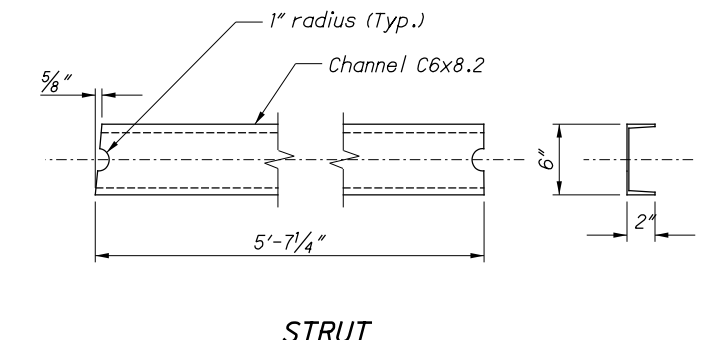
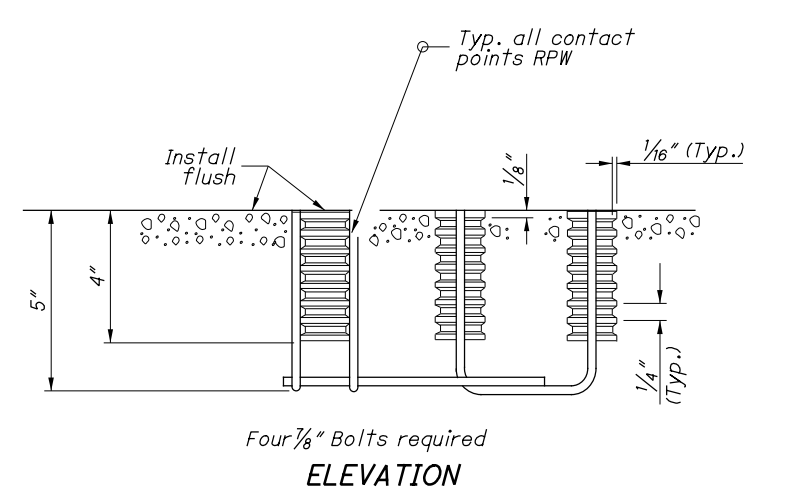
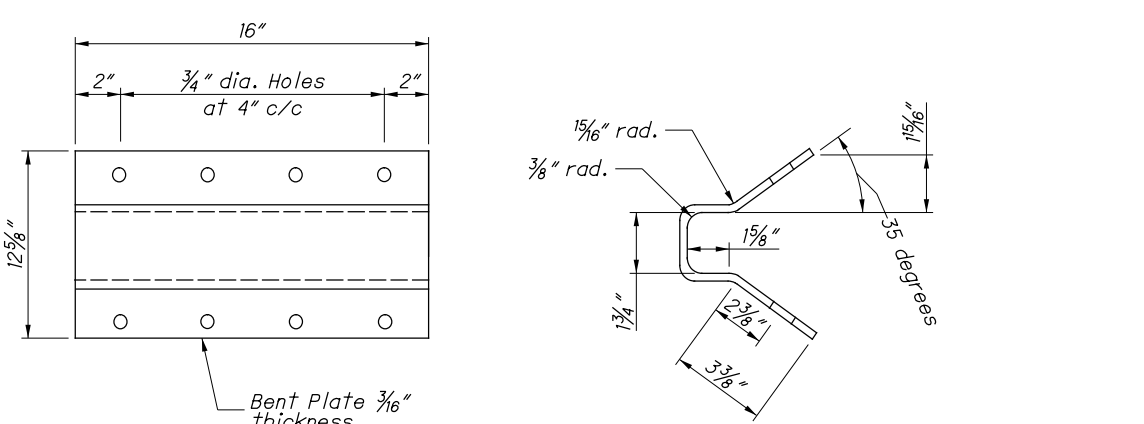
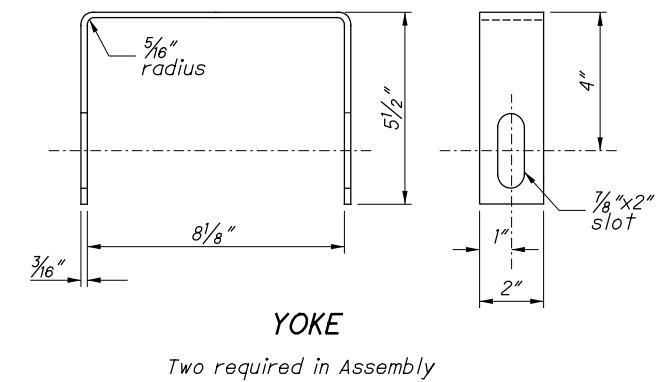
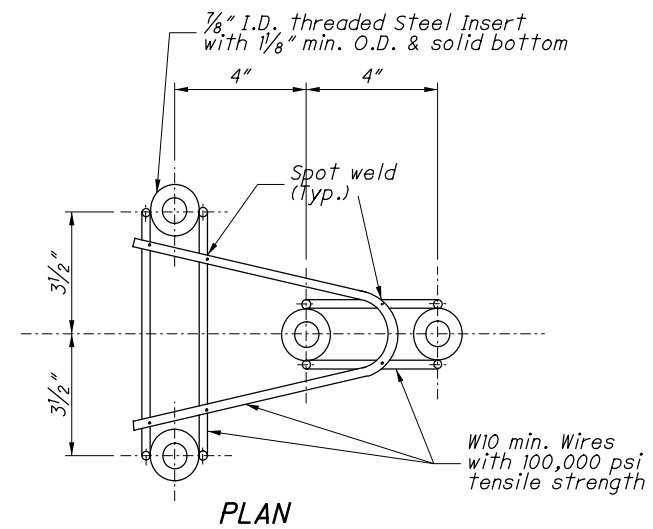
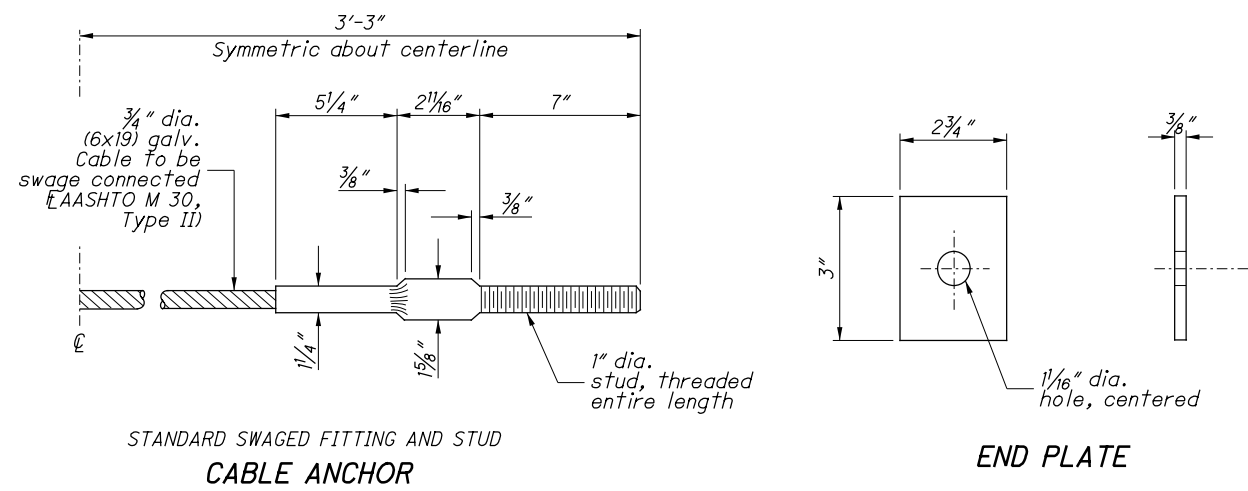


SECTION A-A



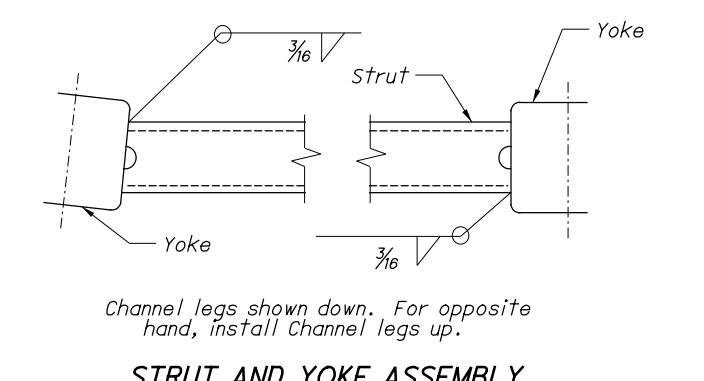
ELEVATION FOOTING ANCHOR

See SPECIAL POST MOUNTINGS Note.

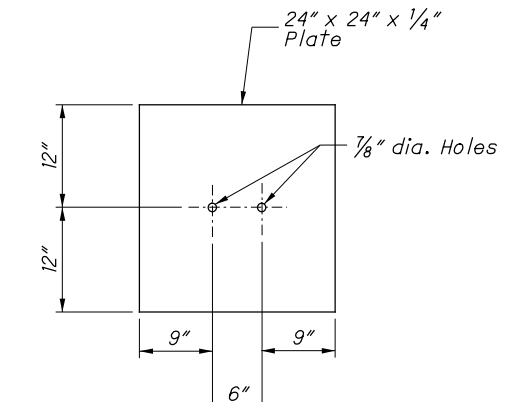
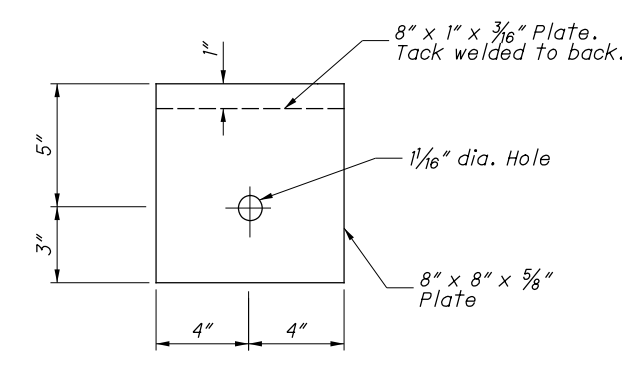
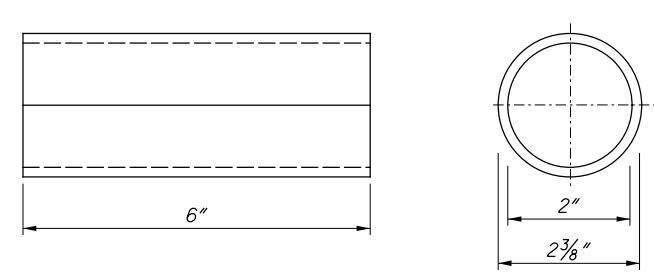


CONCRETE INSERT ANCHOR ASSEMBLY (W-BEAM ONLY)

See ANCHORS and PROTECTIVE COATINGS Notes on Sheet 2



ANCHOR BRACKET ASSEMBLY DETAILS



NOTES

RAIL: Use W-Beam rail meeting AASHTO M 180 Type II Class A, as specified in CMS 606.

POSTS: Posts may be constructed of wood or steel. Wood posts may be round or 6"x8" square-sawed.

Use round wood posts on runs of single-sided rail. The round posts shall be 8"±1 in diameter at the top and not more than 3" larger at the butt with a uniform taper.

Fabricated wood posts with square ends. Posts shall be pressure-treated as per CMS 710.14. Bore bolt holes and, if required, trim the tops of posts after the posts are set.

Steel posts are to be W6x9 or W6x8.5 galvanized steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.

All posts are 6'-0" long unless specified otherwise in the Contract Document. Posts may be set in drilled holes or may be driven to grade.

WELDED BEAM POSTS: Welded beam guardrail posts may be used for Item 606, Guardrail, provided the web and flange sizes are as shown here. Welding of the web to the flanges must comply with ASTM A 769, Class 1, using Grade 36 steel [250 MPa yield point] with the following exceptions:

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

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

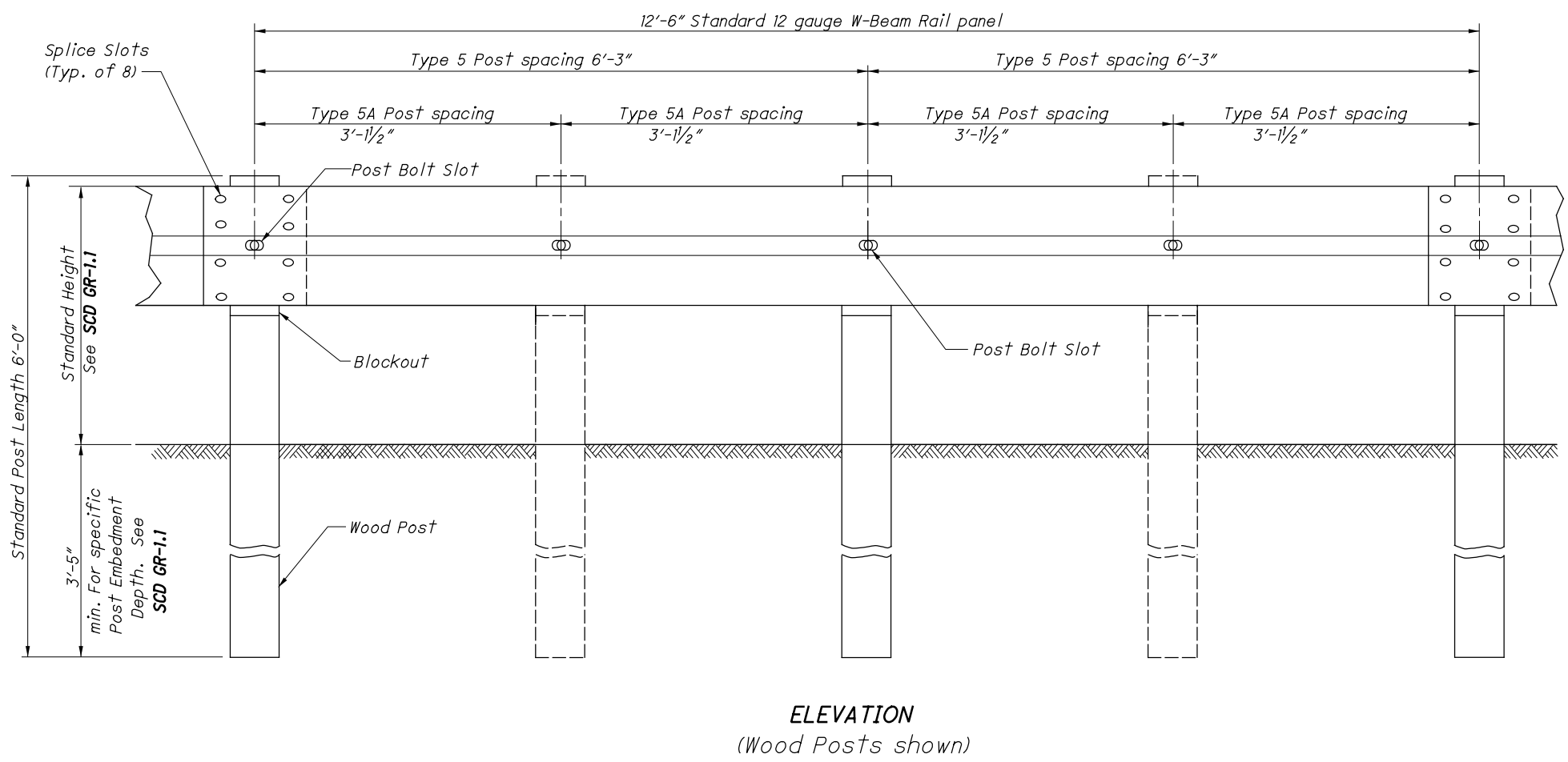
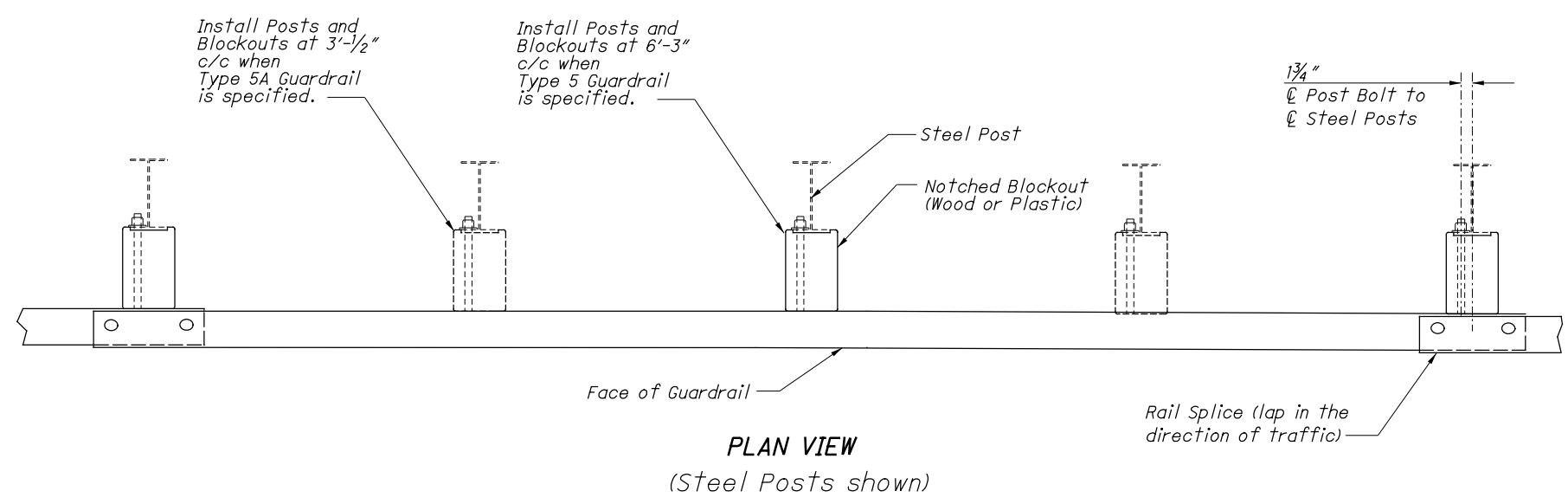
BLOCKOUTS: Blockout dimensions are dependent on post used. Wood Blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the **Office of Roadway Engineering**.

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

DELINEATION: For barrier reflectors, see CMS 626.

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

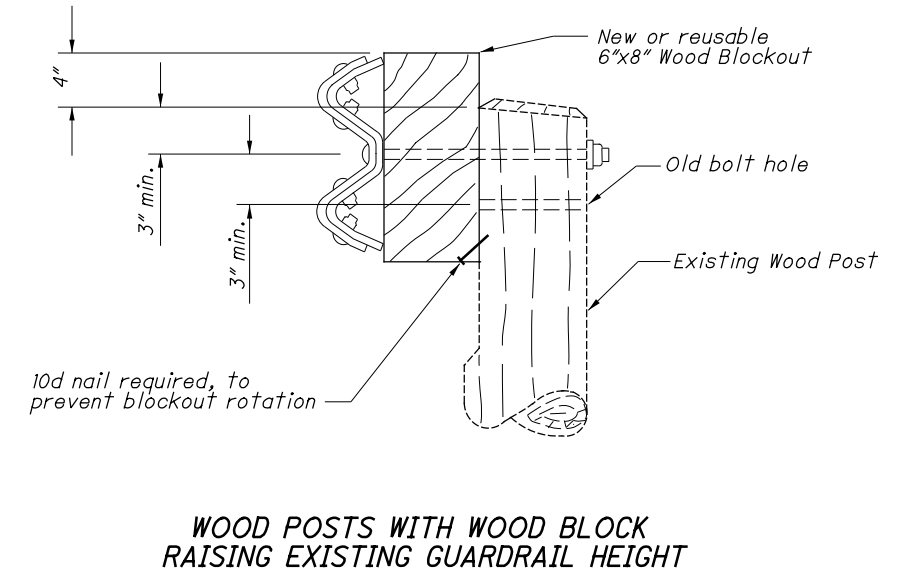
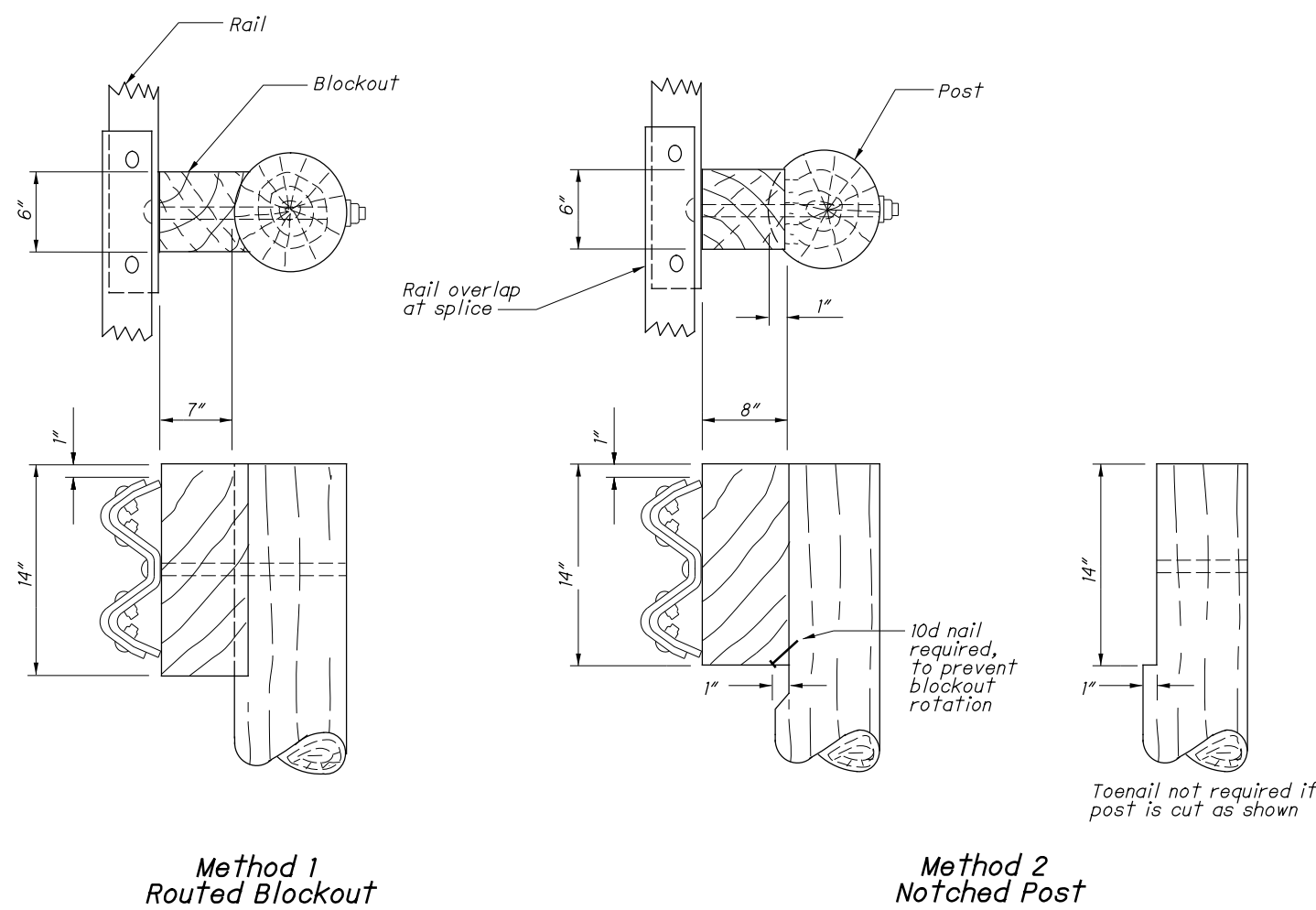
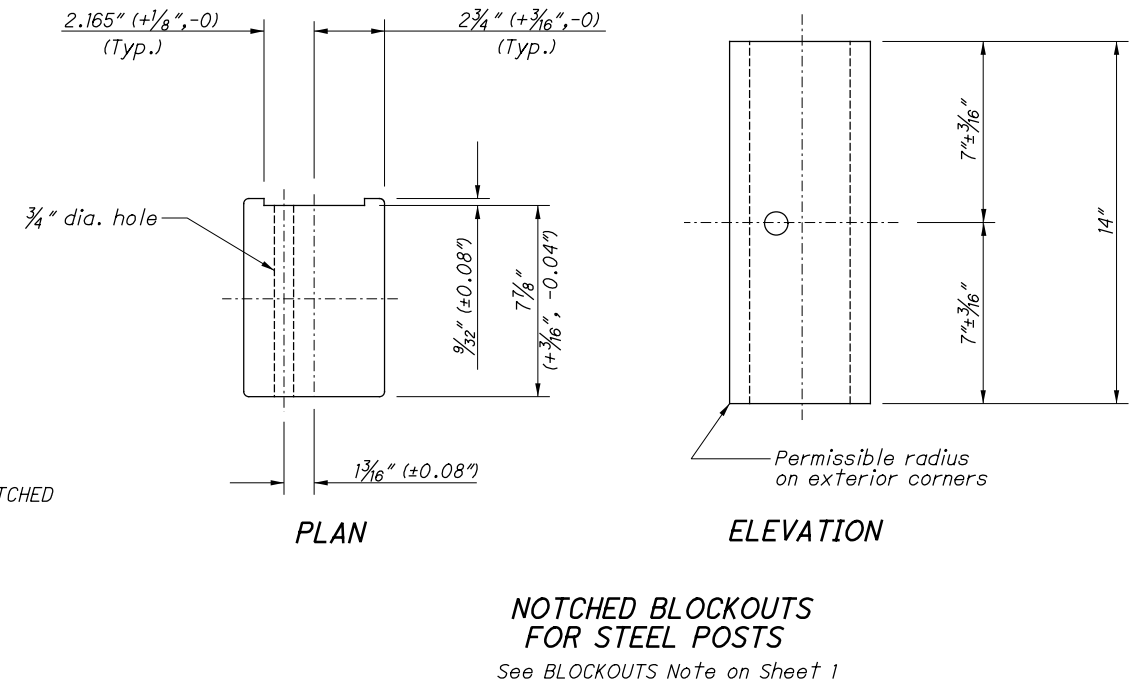
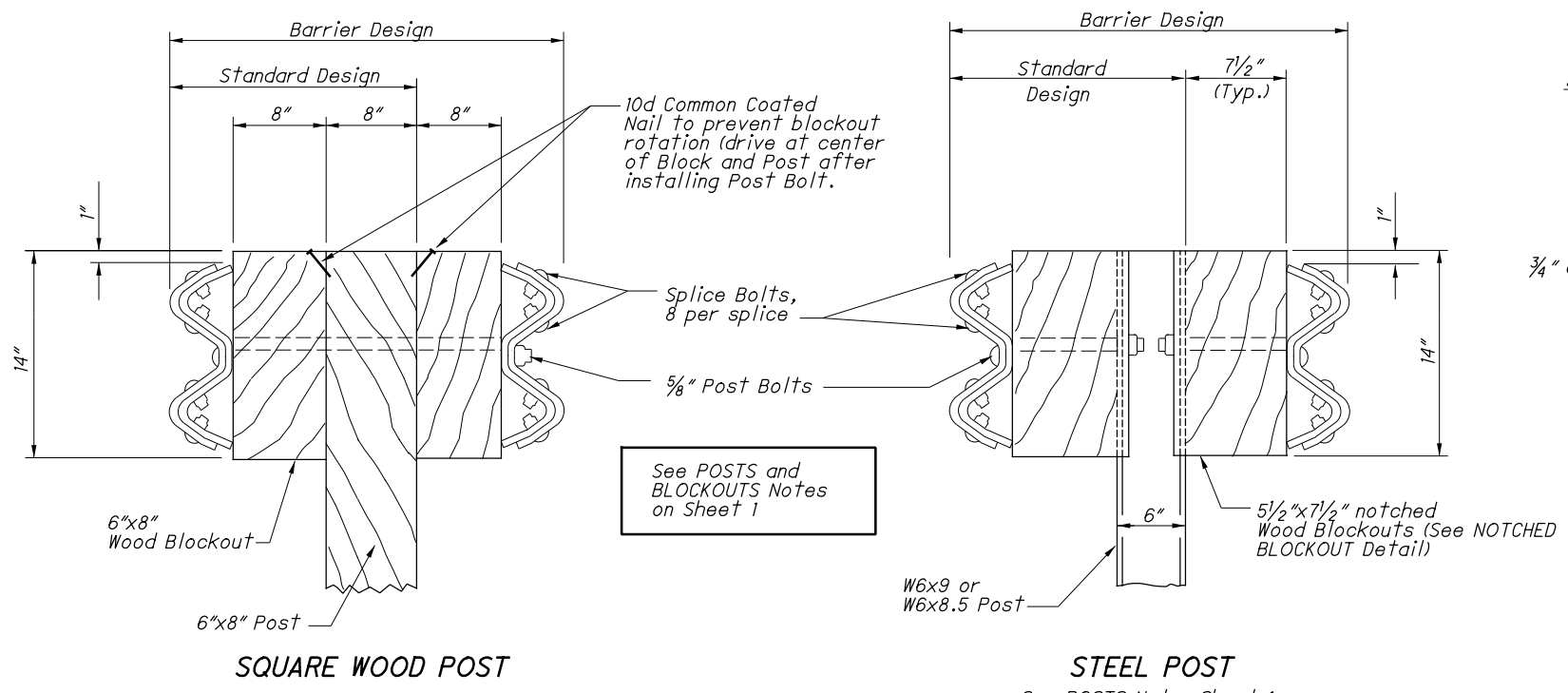
STEEL BEAM POSTS (English)				
Size	Beam depth	Flange width	Flange thickness	Web thickness
Rolled W6x8.5	5.8"	3.94"	0.193"	0.170"
Rolled W6x9	5.9"	3.94"	0.215"	0.170"
Welded 6x8.5	6.0"	3.94"	0.193"	0.170"
Welded 6x9	6.0"	3.94"	0.215"	0.170"



ELEVATION
(Wood Posts shown)

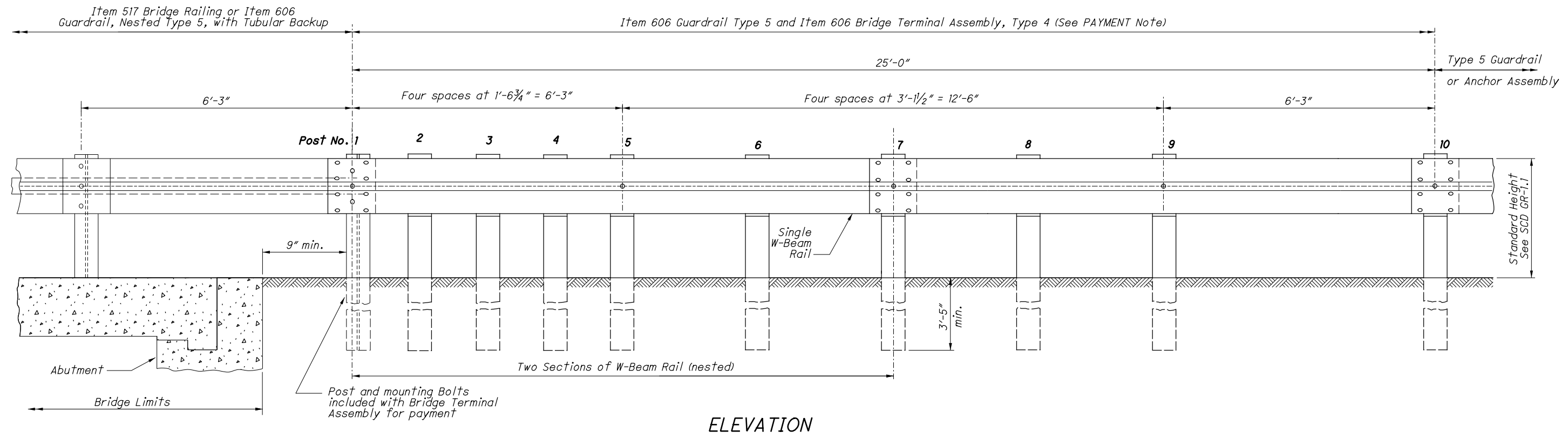
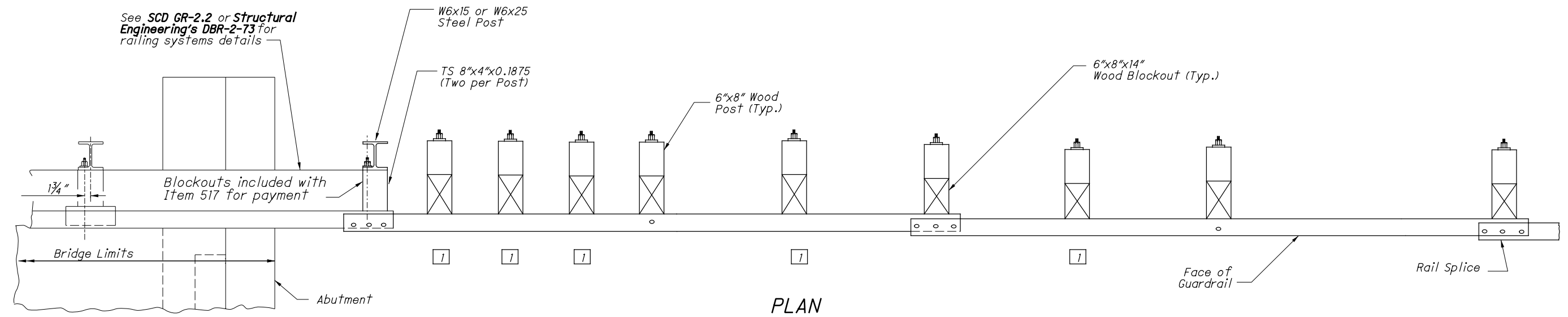
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Alternate methods of placing the Blockouts on round Posts may be submitted for consideration and approved by the Engineer.

ROUND WOOD POSTS
Single Sided runs only (Standard Design)



NOTES

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

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

DETAIL INFORMATION: The first post off the bridge shall be steel (W6x15 or W6x25). All holes in the off-structure end of the approach panel rail section spanning the abutment are slotted 3/4"x2 1/2". Tighten the bolts as specified for expansion joints in Item 606.05.

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

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

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

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

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

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

LEGEND

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

MAINTENANCE OF TRAFFIC

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

- 1. A MINIMUM OF ONE TEN FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AND COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
- 2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
- 3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
- 4. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.
- 5. 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.
- 6. ONLY DURING OFF-PEAK PERIODS (i.e ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
- 7. 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.
- 8. A QUANTITY OF 20 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
- 9. 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.

10. 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], W8-15 [GROOVED PAVEMENT]. THESE QUANTITIES SHALL BE AS PER 614.04.

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

- PHASE 1- PLANED SURFACE
 - 614, WORK ZONE CENTER LINE, CLASS I, 6.92 MILE
 - 614, WORK ZONE STOP LINE, CLASS I, 51 FT
 - 614, WORK ZONE MARKING SIGN,(ALL PHASES) 48 EACH
 - PHASE 2- INTERMEDIATE COURSE
 - 614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 6.92 MILE
 - 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 51 FT
 - PHASE 3- SURFACE COURSE
 - 614, WORK ZONE CENTERLINE, CLASS III, 642 PAINT 6.92 MILE
 - 614, WORK ZONE STOP LINE, CLASS III, 642 PAINT 51 FT
- TO BE USED AS DIRECTED BY THE ENGINEER
- 614, WORK ZONE EDGE LINE, CLASS III, 642 PAINT 13.84 MILE

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.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$1500 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT TRU-CULVERTS-FY2016 (PID 97488) MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECTS. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECIEVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

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.

DETOUR NOTIFICATION [ODOT/ TRUMBULL COUNTY ENGINEERS / MOSQUITO LAKE STATE PARK]

THE CONTRACTOR SHALL ADVISE THE ODOT DISTRICT OFFICE (330-786-3148), TRUMBULL COUNTY ENGINEERS (330-675-2640), AND MOSQUITO LAKE STATE PARK (330- 637-2856) 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 (NOTICE OF CLOSURE SIGN)

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



W20-H14-60

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR) (TRU-88-1328 OVER MOSQUITO CREEK RESERVOIR)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 3 CONSECUTIVE CALENDAR DAYS (6AM TUESDAY TO 6AM FRIDAY), WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 17. STRUCTURES TRU-88-1328 AND TRU-88-0900 SHALL NOT BE CLOSED CONCURRENTLY.

A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$1500 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

BRIDGE PAINTING EQUIPMENT STAGING AREA

THE CONTRACTOR MAY USE ONE OF THE FISHING ACCESS PARKING LOTS FOR MOSQUITO LAKE STATE PARK AS A STAGING AREA FOR TRU-88-1328 PAINTING EQUIPMENT. THE STAGING AREA LOT MAY REMAIN CLOSED TO THE PUBLIC DURING CONSTRUCTION OF THE WORK. THE OTHER LOT PARKING LOT SHALL REMAIN OPEN TO TRAFFIC AND FREE FROM ALL CONSTRUCTION EQUIPMENT.

INTERIM START DATE

TRU-88 SHALL NOT BE CLOSED PRIOR TO JULY 11, 2016 TO COMPLETE THE CONCRETE OVERLAY ON STRUCTURE TRU-88-1328.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

TRU-88-7.03

**ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)
(MOSQUITO LAKE STATE PARK)**

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



W20-H14-60

ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON PARKING LOT CLOSURE)

THE FISHING ACCESS PARKING LOTS FOR MOSQUITO LAKE STATE PARK SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES EXCEPT FOR A PERIOD NOT TO EXCEED 1 CALENDAR DAY FOR EACH PARKING LOT DURING CHIP SEALING OPERATIONS. ONE FISHING ACCESS PARKING LOT MAY BE CLOSED FOR A PERIOD NOT TO EXCEED 3 CONSECUTIVE WEEKS TO USE THE LOT AS STAGING AREA FOR STRUCTURE TRU-88-1328 BRIDGE PAINTING.

THE PARKING LOTS SHALL NOT BE CLOSED SIMULTANEOUSLY. ALL WORK SHALL BE COMPLETED PRIOR TO OPENING THE PARKING LOT TO TRAFFIC. THE PARKING LOTS SHALL BE CHIP SEALED AFTER ALL BRIDGE PAINTING EQUIPMENT IS REMOVED.

A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$1500 FOR EACH CALENDAR DAY THE PARKING LOTS REMAIN CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

BOAT TRAFFIC UNDER STRUCTURE TRU-88-1332

BOAT TRAFFIC UNDER STRUCTURE TRU-88-1332 SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE A RIGID DECKING ACCESS PLATFORM AND ALL FALSEWORK SHALL NOT EXTEND FARTHER THAN 2FT BELOW THE BOTTOM FLANGE OF THE BEAMS. THE CONTRACTOR SHALL COORDINATE ALL BOAT TRAFFIC WITH THE ARMY CORP OF ENGINEERS (DIANE KOLODZIEJSKI 330-637-1961).

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN BELOW AND TRAFFIC SCDS MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE SIGNAL WILL BE USED TO MAINTAIN TRAFFIC DURING THE DECK EDGE REPLACEMENT OF STRUCTURE TRU-88-0900. THE SIGNAL SHALL BE MAINTAINED FOR 28 CONSECUTIVE DAYS PER SIDE OF THE BRIDGE TO RECONSTRUCT THE DECK EDGES.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

APPROACH	TIMING PLAN (SECONDS)
EASTBOUND GREEN	9
EASTBOUND YELLOW	3
EASTBOUND ALL RED (INTERNAL)	11
DRIVEWAY (EAST OF TRU-88-0904) GREEN	9
DRIVEWAY (EAST OF TRU-88-0904) YELLOW	3
DRIVEWAY (EAST OF TRU-88-0904) RED	2
WESTBOUND GREEN	9
WESTBOUND YELLOW	3
WESTBOUND ALL RED (INTERNAL)	11

CALCULATED CLEARANCE TIMES IN ACCORDANCE WITH TABLE 697-2 IN THE ODOT TRAFFIC ENGINEERING MANUAL (TEM)

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS WEB PAGE FOR ROADWAY STANDARDS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

614, BARRIER REFLECTORS, 4 EACH
614, OBJECT MARKER, TWO WAY, 4 EACH

ITEM SPECIAL WORK ZONE TRAFFIC SIGNAL

THIS PROJECT REQUIRES THE CONSTRUCTION OF A WORK ZONE TRAFFIC SIGNAL. DETAILS FOR THE CONSTRUCTION OF THE WORK TRAFFIC SIGNAL INCLUDING THE TIMINGS ARE SHOWN IN THE PLANS. THE CONTRACTOR SHALL ENSURE THAT THE WORK ZONE TRAFFIC SIGNAL SUPPORTS ARE NOT IN CONFLICT WITH EXISTING OR RELOCATED UTILITY LINES. ALL COSTS ASSOCIATED WITH THE WORK ZONE TRAFFIC SIGNALS INCLUDING INSTALLATION AND OPERATION SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR MAINTAINING TRAFFIC.

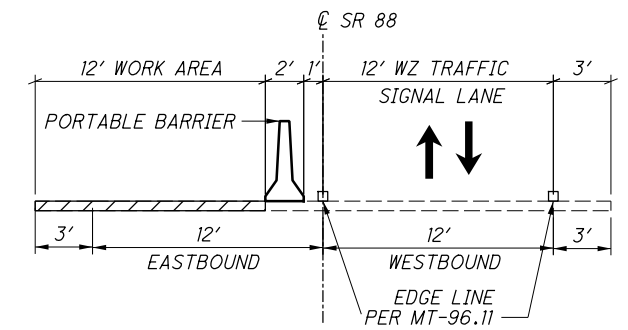
STRUCTURE TRU-88-0900 WORK ZONE

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO USE AT THE WORK ZONE FOR STRUCTURE TRU-88-0900 DECK EDGE REPLACEMENTS.

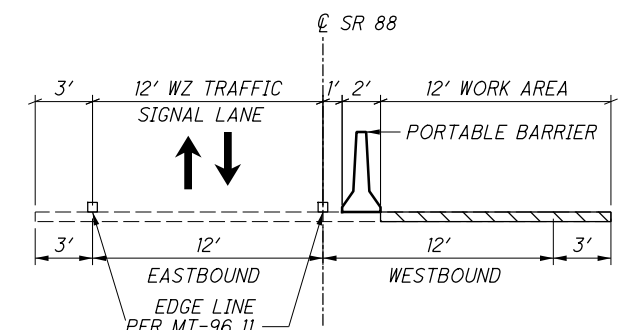
614, WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL), 4 EACH
622, PORTABLE BARRIER, 50", 390 FT
614, WORK ZONE CENTERLINE, CLASS I, 0.19 MILE
614, WORK ZONE EDGE LINE, CLASS I, 0.08 MILE
614, WORK ZONE STOP LINE, CLASS I, 24 FT

PORTABLE BARRIER (PB)

THE PORTABLE BARRIER SHALL BE PLACED ACCORDING TO THE DETAIL SHOWN BELOW UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.



TYPICAL SECTION - PHASE A



TYPICAL SECTION - PHASE B

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MAINTENANCE OF TRAFFIC GENERAL NOTES

TRU-88-7.03

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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 OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMTCD, 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:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

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.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

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 CONTRACTOR. 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 16 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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE (OFFICE OF MATERIALS MANAGEMENT WEB PAGE). THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. The PCMS shall be delineated in accordance with C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN _ HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. 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. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 2 SIGN MONTH

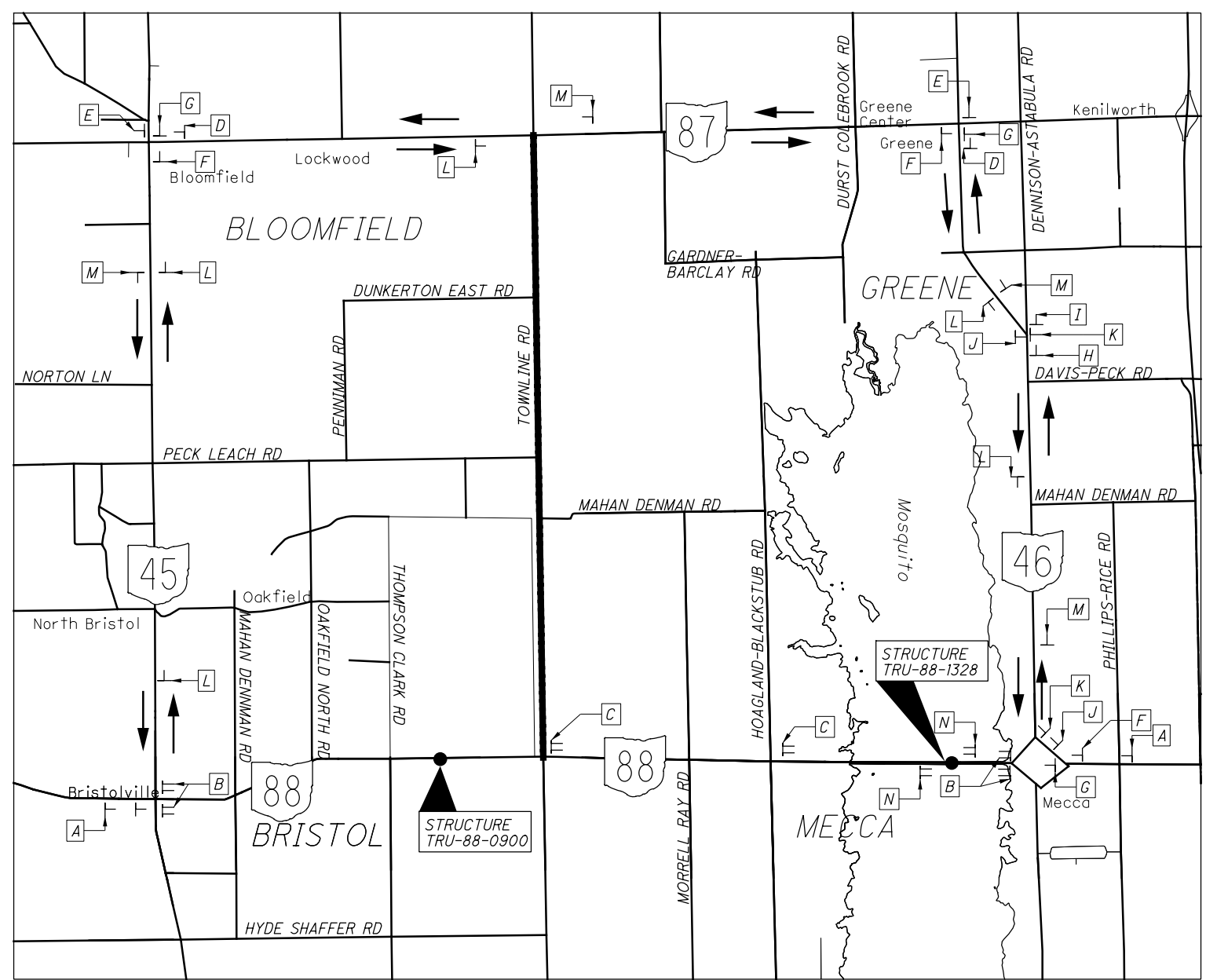
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MAINTENANCE OF TRAFFIC GENERAL NOTES

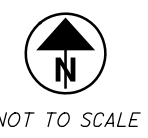
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DETOUR PLAN FOR STRUCTURES TRU-88-1328

- CLOSE AS PER STD. DWG. MT-101.60
- ← OFFICIAL DETOUR ROUTE: SR 45 / SR 87 / SR 46
- LOCAL ALTERNATE DETOUR ROUTE FOR TRU-88-1328: TOWNLINE RD / SR 87 / SR 46



NOT TO SCALE

NOTE:

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

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

<p>A</p> <p>B #</p> <p>C #</p> <p>D</p> <p>E</p> <p>F</p>	<p>G</p> <p>H</p> <p>I</p> <p>J</p> <p>K</p>	<p>L</p> <p>M</p> <p>N</p> <p>PORTABLE CHANGABLE SIGN MESSAGES:</p> <ol style="list-style-type: none"> 1) SR 88 CLOSED (DATE) 2) LOT REMAIN OPEN <p>*PLACE SIGNS 10 DAYS IN ADVANCED TO CLOSURE IN PARKING LOTS TO THE EAST AND WEST OF STRUCTURE TRU-88-1328.</p>
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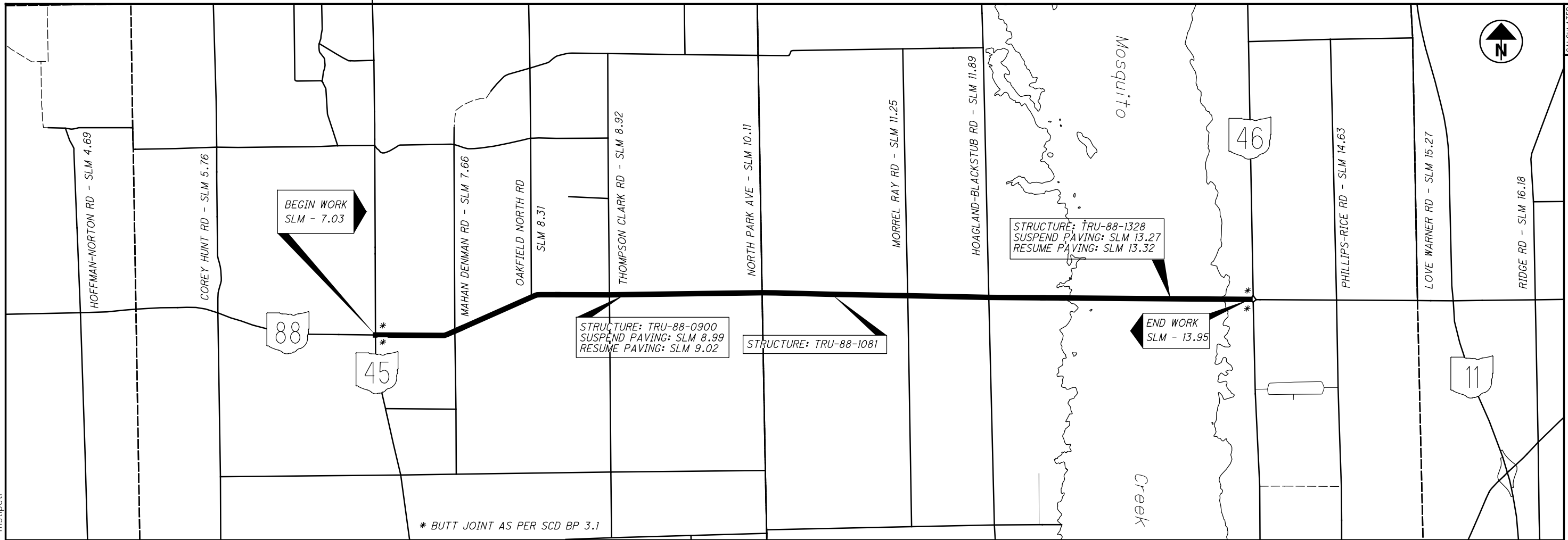
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SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	6	14	15	16	20	21	22	23	01/STR/P V	EXT	TOTAL					
ROADWAY																		
							1,436				1,436	202	23500	1,436	SY	WEARING COURSE REMOVED		
		80									80	202	30000	80	SF	WALK REMOVED		
									15,038		15,038	202	38000	15,038	FT	GUARDRAIL REMOVED		
	34										34	203	10000	34	CY	EXCAVATION		
		402									402	209	60200	402	STA	LINEAR GRADING		
723											723	209	72001	723	STA	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	3	
									2,719		2,719	606	15050	2,719	FT	GUARDRAIL, TYPE MGS		
									11,500		11,500	606	15100	11,500	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS		
									7		7	606	26150	7	EACH	ANCHOR ASSEMBLY, MGS TYPE E		
									14		14	606	26550	14	EACH	ANCHOR ASSEMBLY, MGS TYPE T		
									2		2	606	35050	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		
									8		8	606	35140	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4		
	40										40	608	13000	40	SF	6" CONCRETE WALK		
	95										95	608	52000	95	SF	CURB RAMP		
			17								17	623	39500	17	EACH	MONUMENT BOX ADJUSTED TO GRADE		
EROSION CONTROL																		
		22,335									22,335	659	10000	22,335	SY	SEEDING AND MULCHING		
		3.01									3.01	659	20000	3.01	TON	COMMERCIAL FERTILIZER		
		4.61									4.61	659	31000	4.61	ACRE	LIME		
		121									121	659	35000	121	MGAL	WATER		
											1,000	832	30000	1,000	EACH	EROSION CONTROL		
PAVEMENT																		
	850										850	251	01000	850	SY	PARTIAL DEPTH PAVEMENT REPAIR		
	200										200	253	01000	200	SY	PAVEMENT REPAIR		
							120,824				120,824	254	01001	120,824	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	4	
	56										56	304	20000	56	CY	AGGREGATE BASE		
							12,224				12,224	SPECIAL	40720500	12,224	GAL	TACK COAT, TRACKLESS TACK	5	
							6,421				6,421	408	10001	6,421	GAL	PRIME COAT, AS PER PLAN	6	
							120,824	7,744			128,568	422	10000	128,568	SY	SINGLE CHIP SEALWITH POLYMER BINDER		
70							5,343				5,343	441	50101	5,343	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	4	
							892				892	617	10101	892	CY	COMPACTED AGGREGATE, AS PER PLAN	5	
TRAFFIC CONTROL																		
									545		545	621	00100	545	EACH	RPM		
									490		490	621	54000	490	EACH	RAISED PAVEMENT MARKER REMOVED		
									166		166	626	00100	166	EACH	BARRIER REFLECTOR		
										13.84	13.84	644	00100	13.84	MILE	EDGE LINE, 4"		
										6.92	6.92	644	00300	6.92	MILE	CENTER LINE		
										51	51	644	00500	51	FT	STOP LINE		
										140	140	644	00600	140	FT	CROSSWALK LINE		
										75	75	644	00700	75	FT	TRANSVERSE/DIAGONAL LINE		
										2	2	644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"		
STRUCTURE REPAIRS																		
																	FOR TRU-88-0900 ESTIMATED QUANTITIES	26
																	FOR TRU-88-1081 ESTIMATED QUANTITIES	26
																	FOR TRU-88-1328 ESTIMATED QUANTITIES	26

GENERAL SUMMARY

TRU - 88 - 7.03

CALCULATED
HKS
CHECKED



* BUTT JOINT AS PER SCD BP 3.1

SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SQ YD	CADD GENERATED AREA SQ YD	202		254		SPEC		422		441		617		408			
							WEARING COURSE REMOVED SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 1 1/2") SY	TACK COAT, TRACKLESS TACK AT 0.10 GAL/SY GAL	SINGLE CHIP SEALWITH POLYMER BINDER SY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M, (T = 1 1/2") CY	COMPACTED AGGREGATE, AS PER PLAN(T = 2") CY	PRIME COAT, AS PER PLAN GAL									
SR 88																						
7.03	TO	7.18	1	L/R	792.00	35.00	3080.0			15.56	3080.0	308.00	3080.0	128.33	19.56	140.80						
7.18	TO	8.99	1	L/R	9556.80	30.00	31856.0				31856	3186	31856.0	1327.33	235.97	1698.99						
9.02	TO	13.27	1	L/R	22440.00	30.00	74800.00				74800	7480.00	74800.0	3116.67	554.07	3989.33						
13.32	TO	13.95	1	L/R	3326.40	30.00	11088.00			13.33	11088	1109	11088.0	462.00	82.13	591.36						
INTERSECTIONS																						
7.03	TO	13.95			10.00	VARIES		1406.67		1406.67		140.67		58.61								
MAILBOX APPROACHES																						
7.03	TO	13.95					3791.00							157.96								
DRIVEWAYS																						
7.03	TO	13.95			2.00	VARIES								22.00								
SUBTOTALS							0.00	1435.56	120824.0	12223.07	120824.0	5272.90	891.73	6420.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS CARRIED TO GENERAL SUMMARY							0	1436	120824	12224	120824	5273	892	6421	0	0	0	0	0	0	0	0

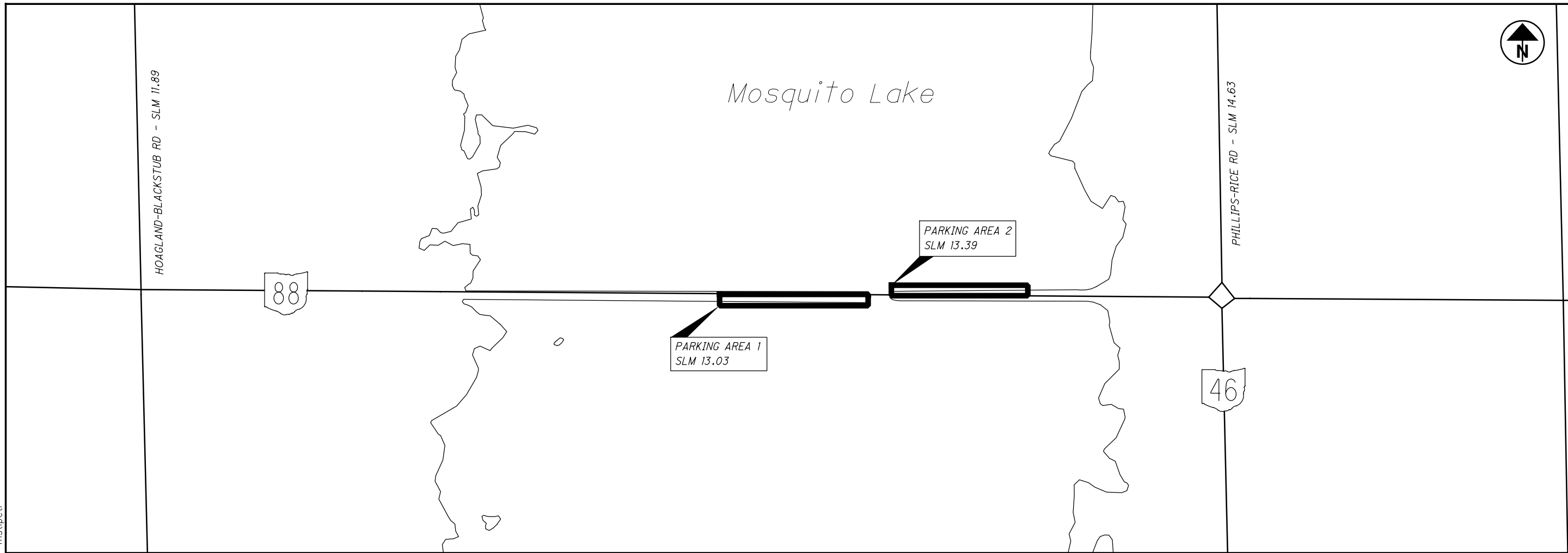
PAVEMENT CALCULATIONS

TRU-88-7.03

CALCULATED	HKS
CHECKED	CHECKED

20
32

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CALCULATED
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PAVEMENT CALCULATIONS

SLM RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA															
			FT	FT	SQ YD	SQ YD	422	SINGLE CHIP SEALWITH POLYMER BINDER													
								SY													
PARKING AREA 1																					
13.03	TO	13.25	1161.60	30.00	3872.00			3872.00													
PARKING AREA 2																					
13.39	TO	13.61	1161.60	30.00	3872.00			3872.00													
SUBTOTALS			0.00	0.00	7744.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS CARRIED TO GENERAL SUMMARY			0	0	7744	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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REF NO.	SIDE	SLM		202	606	606	606	606	606	606	606	626	REMARKS		
				GUARDRAIL REMOVED FT	GUARDRAIL, TYPE MGS FT	GUARDRAIL, TYPE MGS WITH LONG POSTS FT	ANCHOR ASSEMBLY, MGS TYPE E EACH	ANCHOR ASSEMBLY, MGS TYPE T EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4 EACH	BARRIER REFLECTOR EACH				
	L	8.97	TO 9.00	175	125		1					2			
	L	9.02	TO 9.03	50	37.5			1				1			
	R	8.97	TO 9.00	175	100		1			1		2			
	R	9.02	TO 9.05	175	100		1			1		2			
	L	10.82	TO 10.83	25							1	1			
	L	10.84	TO 10.85	81.25	43.75			1			1	1			
	R	10.80	TO 10.83	162.5	125			1			1	2			
	R	10.84	TO 10.85	75	37.5			1			1	1			
	L	12.44	TO 13.30	4562.5		4487.5	1				1	47			
	L	13.34	TO 13.38	200		162.5		1			1	3			
	L	13.39	TO 13.60	1125	1075			2				13			
	L	13.61	TO 13.84	1200		1137.5	1	1				13			
	R	12.44	TO 13.03	3131.25		3075	1	1				33	REPLACING HALF PANEL WITH WHOLE PANEL		
	R	13.04	TO 13.25	1125	1075			2				13	REDUCING BY 2 PANELS		
	R	13.26	TO 13.30	206.25		168.75		1			1	3			
	R	13.34	TO 13.81	2456.25		2418.75		1			1	26	REDUCING BY 2 PANELS		
	R	13.82	TO 13.83	112.5		50	1	1				3			
TOTALS CARRIED TO GENERAL SUMMARY				15038	0	2719	11500	7	14	0	2	8	0	166	0

COUNTY	ROUTE	SECTION (S.L.M.)		621	621	621	621	621	REMARKS					
		FROM	TO	RPM, LOW PROFILE; YELLOW/YELLOW	RPM, LOW PROFILE WHITE/RED	RPM, LOW PROFILE; WHITE	RPM, LOW PROFILE YELLOW/RED	RAISED PAVEMENT MARKER REMOVED						
TRU	SR 88			EACH	EACH	EACH	EACH	EACH						
		7.03	7.18	11		16		25						
		7.18	7.46	18				16						
		7.46	7.68	36				32						
		7.68	8.26	38				34						
		8.26	8.48	36				32						
		8.48	13.74	347				312						
		13.74	13.95	27		16		39						
SUBTOTALS				0	0	0	0	513	0	32	0	0	490	
TOTALS CARRIED TO GENERAL SUMMARY				0	0	0	0	513	0	32	0	0	490	

CALCULATED HKS CHECKED
GUARDRAIL & RPM SUB-SUMMARY
S.R. 88
TRU-88-7.03
 22
 32

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EDGE LINE											GENERAL SPEC: 640	CALCULATED
											MATERIAL TYPE: 644	HKS
CTY	ROUTE	FROM		TO		WHITE EDGE LINE			YELLOW EDGE LINE			COMMENTS
		TRUE LOG		TRUE LOG		TOTAL	HIGHWAY	RAMP	TOTAL	HIGHWAY	RAMP	
TRU	88	7.03	S.R. 45	13.95	S.R. 46	13.84	13.84					
TOTAL						13.84	13.84		0			

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

CENTER LINE										
CTY	ROUTE	FROM		TO		TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS		
		TRUE LOG		TRUE LOG						
TRU	88	7.03	S.R. 45	13.84	S.R. 46	6.92				
TOTAL						6.92				

AUXILIARY																				
CTY	ROUTE LOCATION	TRUE LOG	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES		ISLAND MARKING	SYMBOL MARKINGS			LANE ARROWS					WORD ON PVMT ONLY		DOTTED LINES	COMMENTS
						WHITE	YELLOW		R x R	SCHOOL		TURN LEFT	TURN RIGHT	THRU	COMB.	MERGE	72"	96"		
										FT	FT									
TRU	S.R. 88 AT S.R. 45	7.03		35																
TRU	S.R. 88 AT BRISTOLVILLE - SCHOOL	7.15			70						2									
TRU	S.R. 88 AT BICYCLE CROSSING	8.13			70	75														
TRU	S.R. 88 AT MECCA CIRCLE	13.99		16																
TOTAL				51	140	75				2										

CALCULATED HKS CHECKED
 PAVEMENT MARKING SUBSUMMARY
 TRU-88-7.03
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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

TST-1-99 DATED/REVISED 1-17-14

DS-1-92 DATED/REVISED 7-18-03

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

843 DATED 4/18/03

847 DATED 7/17/15

DESIGN SPECIFICATIONS

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

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING 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 SECTON 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VARIFIED IN THE FIELD.

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QCI- COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

PROPOSED WORK

- TRU-88-0900 (OVER DEACON CREEK)
- REMOVE AND REPLACE EXISTING DECK EDGES ON BOTH SIDES OF THE STRUCTURE
- PLACE NEW RAILING
- PLACE NEW DRIP STRIP
- PATCH ALL UNSOUND AREAS OF THE EXPOSED EXISTING CONCRETE WEARING SURFACE
- SEAL THE WEARING SURFACE WITH GRAVITY FED RESIN CONCRETE TREATMENT
- PATCH ALL UNSOUND AREAS OF THE CONCRETE SUBSTRUCTURE
- REMOVE SPALLED AREAS ON THE BOTTOM OF THE DECK FLOOR AND SEAL WITH EPOXY URETHANE
- SEAL ALL EXPOSED CONCRETE SURFACES OF DECK EDGES AND SUBSTRUCTURE PATCHED AREAS
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

TRU-88-1081 (OVER BRANCH OF MOSQUITO CREEK)

- SEE ROADWAY PLANS FOR PAVING OPERATIONS
- SEAL ALL EXPOSED CONCRETE SURFACES OF DECK EDGES AND WINGWALLS
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

TRU-88-1328 (OVER MOSQUITO CREEK RESERVOIR)

- REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON DECK AND APPROACH SLABS
- REMOVE EXISTING DRIP STRIP AND REPLACE WITH NEW DRIP STRIP, REMOVAL WILL BE PAID FOR UNDER ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
- PAINT STRUCTURAL STEEL WITH OZEU PAINT SYSTEM
- PATCH ALL UNSOUND AREAS OF CONCRETE SUBSTRUCTURE
- SEAL ALL EXPOSED CONCRETE SURFACES OF DECK EDGES WINGWALLS, ABUTMENTS, AND PIER CAPS
- CLEARING AND GRUBBING 15' FROM STRUCTURE TO REMOVE ALL VEGETATION
- NEW STRUCTURE IDENTIFICATION SIGNS

CLEARING AND GRUBBING

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

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

ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM DECK FLOOR OF STRUCTURE(S) TRU-88-0900 WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED, REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

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

SPEC, STRUCTURE MISC.: CONCRETE SPALL REMOVAL, 15 SQ YD 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), 15 SQ YD

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.

ITEM 514 - PAINTING OF STRUCTURAL STEEL

THE COLOR FOR THE FINISHED COAT OF STRUCTURES TRU-88-1328 WILL CONFORM TO FEDERAL COLOR NUMBER 15526 (BLUE).

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 TRU-88-0900 (SFN:7805853) THE EXISTING SIGN SHOWS 0904. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 0900.

STRUCTURE TRU-88-1081 (SFN:7805896) THE EXISTING SIGN SHOWS 0904. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1081.

STRUCTURE TRU-88-1328 (SFN:7805918) THE EXISTING SIGN SHOWS 1333. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1328.

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:

- TRU-88-0900
- TRU-88-1081
- TRU-88-1328

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

DESIGNED	CNC	CNC	DRAWN	CNC	REVIEWED	LMP	DATE	2-1-16	DESIGN AGENCY	ODOT--- DISTRICT 4
	CHECKED	NRC	REVISED		STRUCTURE FILE NUMBER			PLANNING & ENGINEERING		
STRUCTURE GENERAL NOTES										
BRIDGE NO.: TRU-88-0900, TRU-88-1081, TRU-88-1328										
TRU-88-7.03										
PID No. 88914										
1 / 9										
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ITEM 847 - MICRO-SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN
ITEM 847 - MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
ITEM 847 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 847 - WEARING COURSE REMOVED, ASPHALT, AS PER PLAN
ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE SCARIFICATION AND CHIPPING WITH THE FOLLOWING REVISIONS:

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

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 847.11) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

CONCRETE TABLE
 QUANTITIES PER CUBIC YARD
 AGGREGATES (SSD)

AGGREGATE TYPE	FINE AGGR. (LB)	#8 COARSE AGGR. (LB)	AGGR. 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
LIMESTONE	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 1/4" 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 847.18) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 847.19) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 847.25) 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 511.14 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 847.25) 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 847.26) 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 847.27) 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.

CUT LINE CONSTRUCTION JOINT PREPARATION

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

DESIGN AGENCY ODOT--- DISTRICT 4 PLANNING & ENGINEERING	
REVIEWED LMP	DATE 2-1-16
DRAWN CNC	STRUCTURE FILE NUMBER
DESIGNED CNC	CHECKED NRC
STRUCTURE GENERAL NOTES BRIDGE NO.: TRU-88-0900, TRU-88-1081, TRU-88-1328	
TRU-88-7.03 PID No. 88914	
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25 32	

ESTIMATED QUANTITIES

BRIDGE NO. / STRUCTURE FILE NO.							ITEM	EXTENSION	UNIT	DESCRIPTION	SEE SHEET
TRU-88-0900 7805853 02/STR/BR	TRU-88-1081 7805896 02/STR/BR	TRU-88-1328 7805918 02/STR/BR									
LS	LS	LS					201	11000		CLEARING AND GRUBBING	
LS		LS					202	11201		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	1 / 9
146							202	38500	FT	BRIDGE RAILING REMOVED	
6446							509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	1 / 9
100							509	20001	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	1 / 9
48							510	10000	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
34							511	21520	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
3							511	45510	CY	CLASS QC1 CONCRETE, ABUTMENT	
80	50	346					512	10100	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
376							512	73500	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
	50	184					512	74000	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
		LS					514	00100		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
		LS					514	00200		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
		LS					514	00300		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
		LS					514	00400		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
		18					514	00504	MNHR	GRINDING FINIS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
		7					514	10000	EACH	FINAL INSPECTION REPAIR	
9							516	13200	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
140.8							517	70000	FT	RAILING (TWIN STEEL TUBE)	
136		427					SPEC	51822300	FT	STEEL DRIP STRIP	
12							SPEC	51910000	SY	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO- SILICA MODIFIED CONCRETE	
150		150					519	11101	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	1 / 9
15							SPEC	53000800	SY	STRUCTURE, MISC.: CONCRETE SPALL REMOVAL	
2	2	2					630	80100	SF	SIGN, FLAT SHEET, 730.20	
12	12	12					630	80100	SF	SIGN, FLAT SHEET	
42	42	42					630	02100	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
6	6	6					630	84900	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
4	4	4					630	86002	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
150		150					843	50000	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
		990					847	10001	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T= 2 1/4")	2 / 9
		24					847	20001	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	2 / 9
		LUMP					847	30000		TEST SLAB	
		1					847	30201	CY	FULL DEPTH REPAIR, AS PER PLAN	2 / 9
		990					847	30401	SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN(T = 2 1/4")	2 / 9
		30					847	50000	SY	HAND CHIPPING	

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

DESIGNED: CNC
 CHECKED: NRC

REVIEWED: LMP
 DATE: 2-1-16
 STRUCTURE FILE NUMBER

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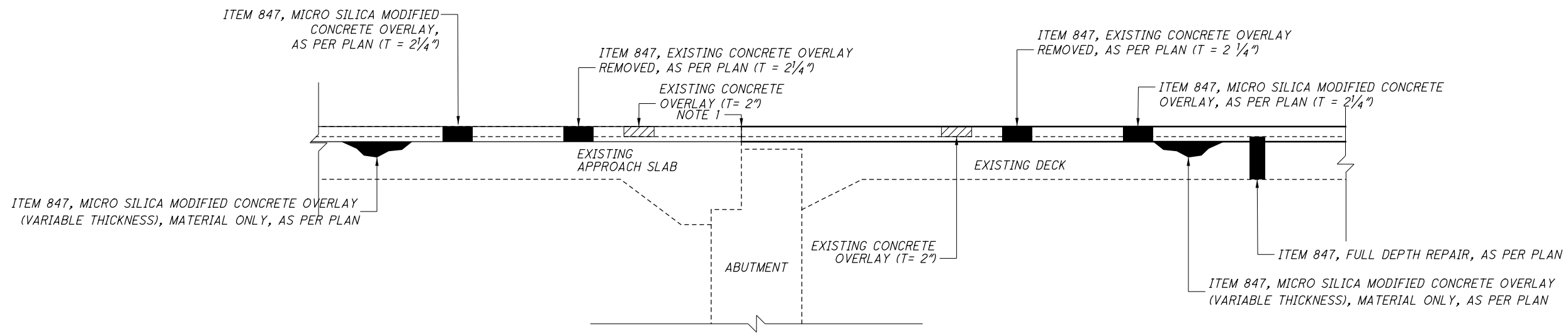
STRUCTURE GENERAL NOTES
 BRIDGE NO.: TRU-88-0900, TRU-88-1081, TRU-88-1328

TRU-88-7.03
 PID No. 88914

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TRU-88-1328
 APPROACH SHOWN,
 TRAILING SIMILAR

NOTE 1: PERFORMED ELASTOMERIC JOINT SEAL, 705.11
 (1/4" WIDE FOR A 1/2" WIDE GROOVE) PLACED IN
 1/2" X 2 1/4" GROOVE, WHICH SHALL BE INCIDENTAL
 TO THE CONCRETE OVERLAY

BRIDGE NUMBER	BRIDGE DECK												APPROACH SLABS												
	LENGTH (BRIDGE LIMITS) FT	BRIDGE WIDTH FT	DECK AREA SQ YD	512	SPECIAL	SPECIAL	847	847	847	847	847	847	LENGTH (APPROACH SLABS) FT	APPROACH SLAB WIDTH FT	APPROACH SLAB AREA SQ YD	APPROACH (FORWARD / REAR)	512	SPECIAL	847	847	847	847			
				TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN SY	STEEL DRIP STRIP FT	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T= 2 1/4") SY	MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T= 2 1/4") SY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN CY	HAND CHIPPING SY	TEST SLAB	FULL DEPTH REPAIR, AS PER PLAN CY					TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN SY	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE SY	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T= 2 1/4") SY	MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T= 2 1/4") SY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN CY	HAND CHIPPING SY			
TRU-88-0900	66.50	40.00	295.56	295.56	136.00	8.87							15.00	24.00	40.00		40.00	1.20							
													15.00	24.00	40.00		40.00	1.20							
TRU-88-1328	212.00	34.00	800.89		427.00		800.89	800.89	20.02	24.03	LS	1.00	25.00	34.00	94.44	FWD			94.44	94.44	1.18	2.83			
													25.00	34.00	94.44	REAR			94.44	94.44	1.18	2.83			

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

DATE: 2-1-16
 STRUCTURE FILE NUMBER: LMP

DESIGNED: CNC
 CHECKED: NRC

DRAWN: CNC
 REVISED:

REVIEWED: LMP

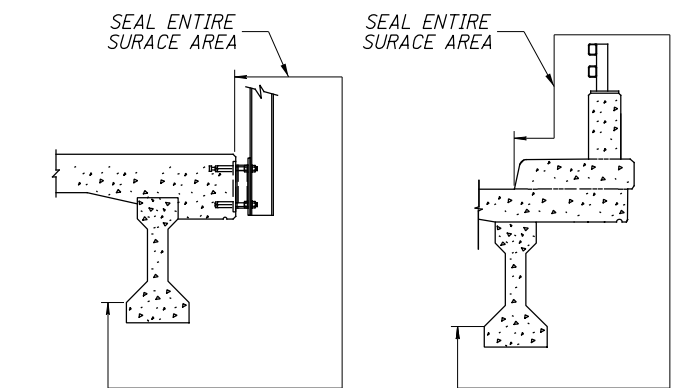
BRIDGE NO.: TRU-88-0900, TRU-88-1081, TRU-88-1328

STRUCTURE DETAILS

TRU-88-7.03
 PID No. 88914

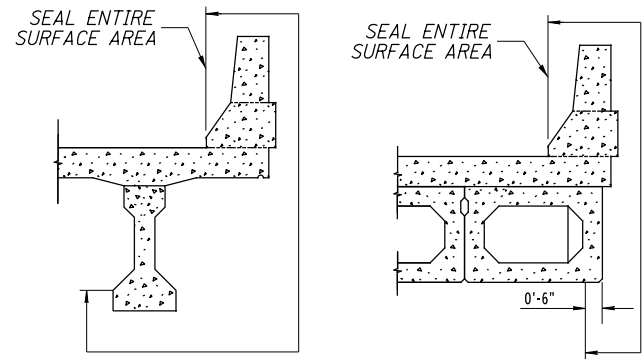
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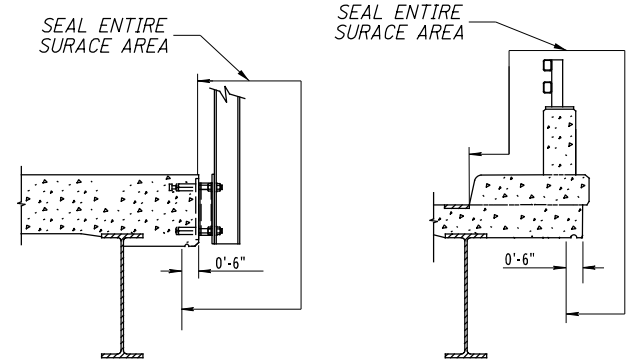
DETAIL A
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE

DETAIL B
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



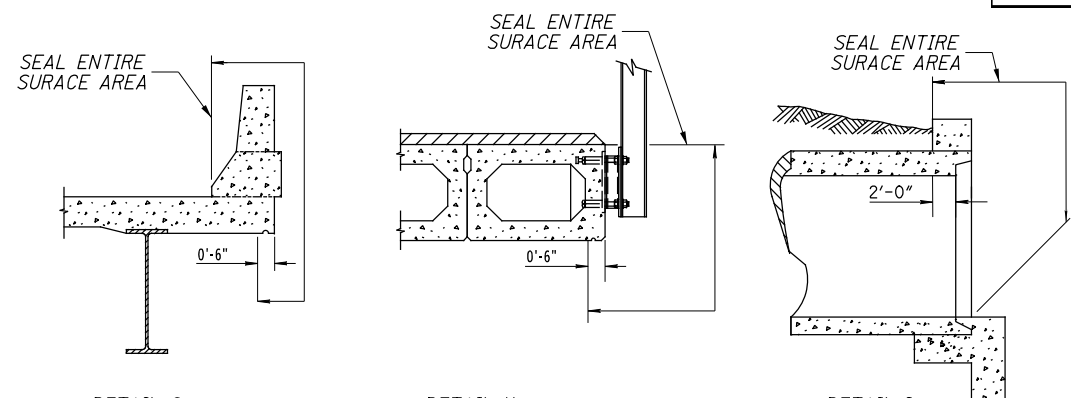
DETAIL C
CONCRETE DECK WITH
DEFLECTOR PARAPET

DETAIL D
PRESTRESSED BOX BEAM DECK
WITH DEFLECTOR PARAPET



DETAIL E
CONCRETE DECKS WITH
OVER THE SIDE DRAINAGE

DETAIL F
CONCRETE DECKS WITH CURBS,
SIDEWALKS AND PARAPET



DETAIL G
CONCRETE DECK WITH
DEFLECTOR PARAPET

DETAIL H
PRESTRESSED BOX BEAM DECK
WITH OVER THE SIDE DRAINAGE

DETAIL I
PRECAST REINFORCED
CONCRETE BOX CULVERT

BRIDGE NUMBER	STRUCTURE TYPE	PROPOSED SEALING	FEDERAL COLOR NUMBER	ESTIMATED QUANTITIES				
				ABUT (SQ YD)	PIER (SQ YD)	SUPER (SQ YD)	GENERAL (SQ YD)	TOTAL (SQ YD)
TRU-88-0900	CONCRETE SLAB CONTINUOUS	SEAL ALL PATCHED AREAS OF SUBSTRUCTURE PATCHES, SEAL SPALLED AREAS OF BOTTOM OF DECK FLOOR, SEAL ALL EXPOSED CONCRETE OF THE DECK EDGE PER DETAIL H	PER CMS			30	50	80
TRU-88-1081	CONCRETE BOX CULVERT	SEAL ALL EXPOSED CONCRETE OF THE CONCRETE BOX, AND WINGWALLS PER DETAIL I SEAL 2 FT INSIDE BOX	PER CMS			50		50
TRU-88-1328	3 SPAN CONTINUOUS STEEL BEAM	SEAL PARAPETS PER DETAIL E SEAL ALL EXPOSED CONCRETE AT ABUTMENTS, WINGWALLS, AND PIER CAPS	PER CMS	42	162	142		346

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

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

DATE: 2-1-16
 STRUCTURE FILE NUMBER

DESIGNED: CNC
 CHECKED: NRC

DRAWN: CNC
 REVISED:

REVIEWED: LMP

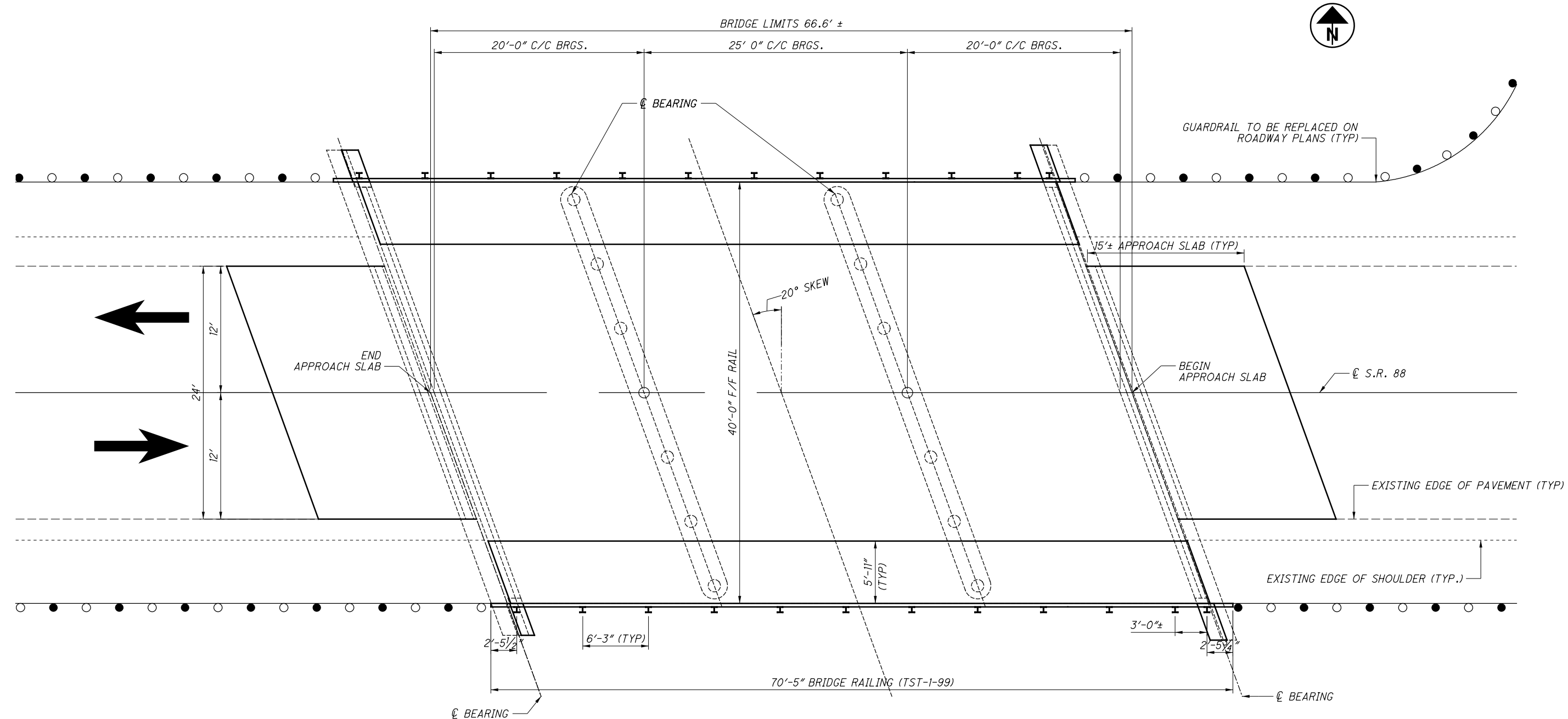
CONCRETE SEALING DETAILS
 BRIDGE NO.: TRU-88-0900, TRU-88-1081, TRU-88-1328

TRU-88-7.03
 PID No. 88914

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




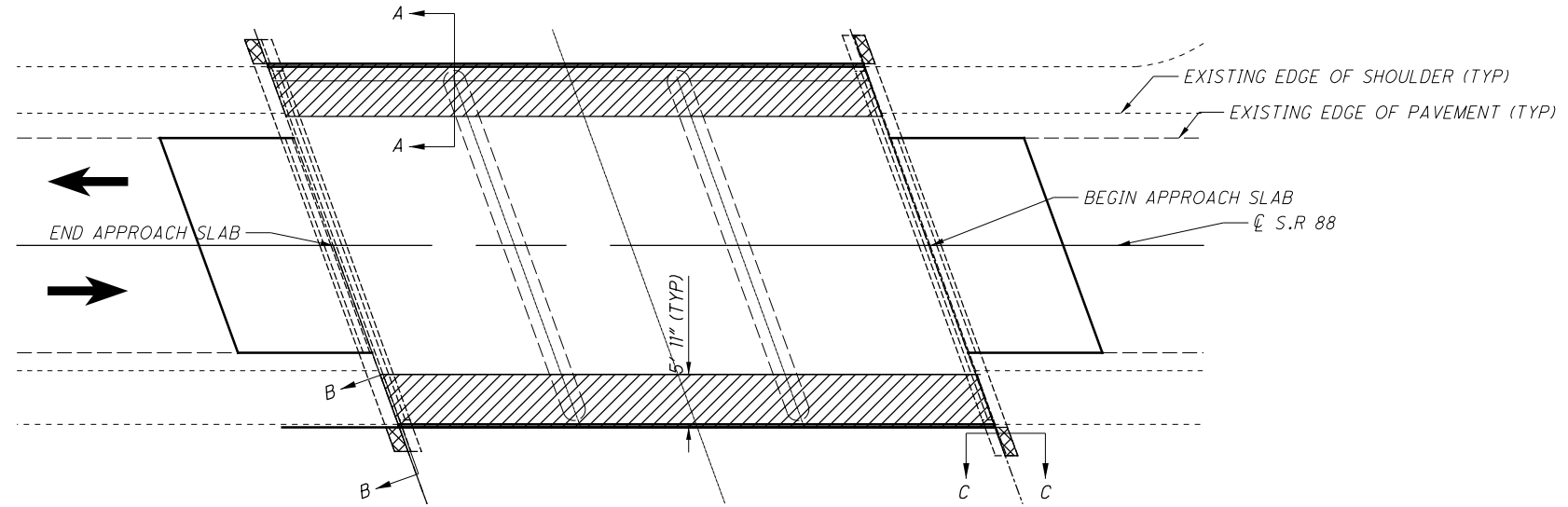
TRU-88-0900

TYPE: CONTINUOUS REINFORCED CONCRETE
 SLAB ON CAPPED PILE SUBSTRUCTURE
 SPANS : 20'-25'-20' C/C BRGS.
 ROADWAY: 40'-0" F/F GUARDRAIL
 LOAD FREQUENCY: CF = 130(51)
 SKEW: 20° R.F.
 WEARING SURFACE: BITUMINOUS
 APPROACH SLABS: AS-1-54 (15' LONG)
 ALIGNMENT: TANGENT
 STRUCTURAL FILE NUMBER: 7805853

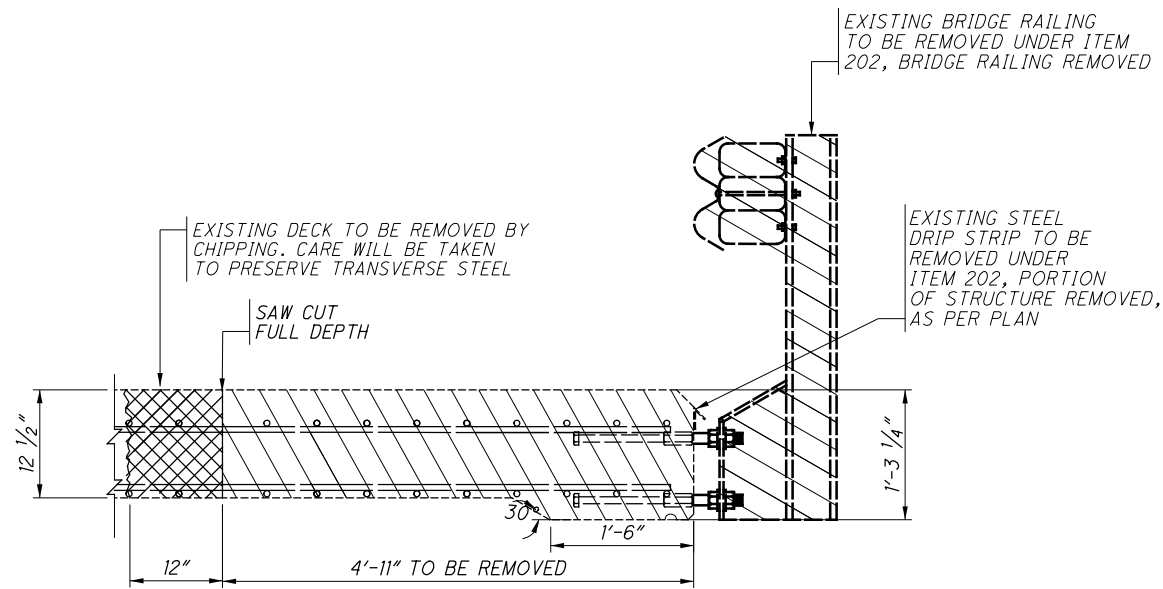
DESIGNED		CNC	CNC	DRAWN	LMP	REVIEWED	DATE	DESIGN AGENCY
CHECKED		NRC	REVISED	CNC	LMP	LMP	2-1-16	ODOT --- DISTRICT 4
STRUCTURE SITE PLAN		BRIDGE NO.: TRU-88-0900		STRUCTURE FILE NUMBER		785853		PLANNING & ENGINEERING
TRU-88-7.03		PID No. 88914		OVER DEACON CREEK		6/9		
						29		
						32		

NOTES:

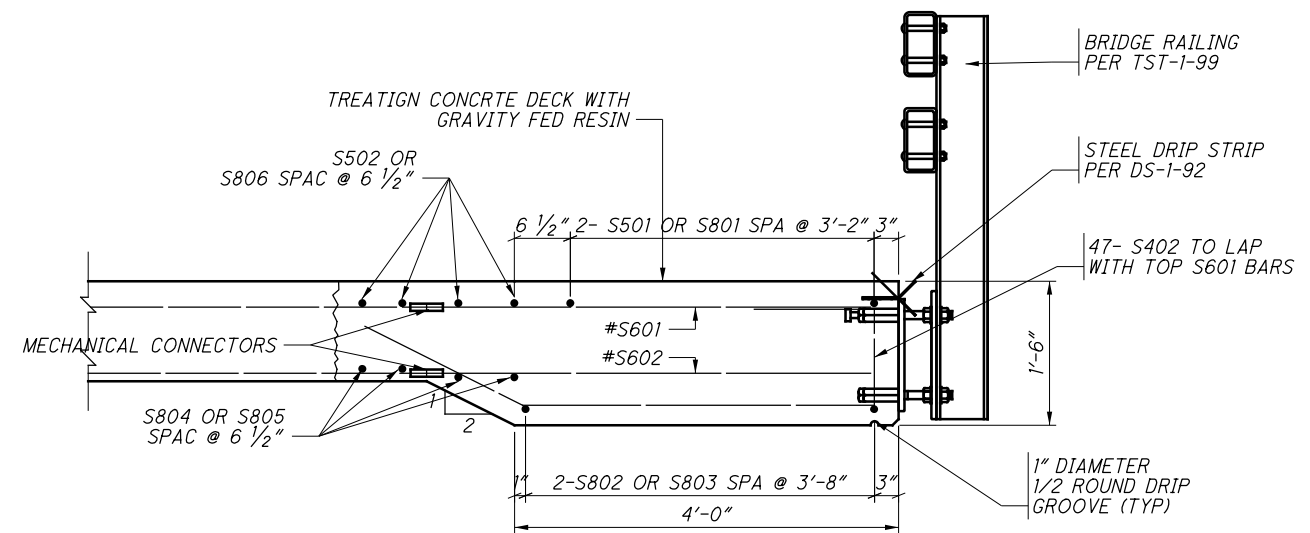
-  DECK AREA TO BE REMOVED UNDER ITEM 202, PORTION OF STRUCTURE REMOVED, AS PER PLAN
-  ABUTMENT AREA TO BE REMOVED UNDER ITEM 202, PORTION OF STRUCTURE REMOVED, AS PER PLAN
-  EXISTING BRIDGE RAILING TO BE REMOVED UNDER ITEM 202, BRIDGE RAILING REMOVED
- # MECHANICAL CONNECTORS REQUIRED



PLAN



**SECTION A-A
EXISTING PARTIAL DECK EDGE**



**SECTION A-A
PROPOSED PARTIAL DECK EDGE**

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DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

REVIEWED
LMP
DATE
2-1-16
STRUCTURE FILE NUMBER
788653

DRAWN
CNC
CHECKED
NRC


STRUCTURE SITE PLAN
BRIDGE NO.: TRU-88-0900
OVER DEACON CREEK

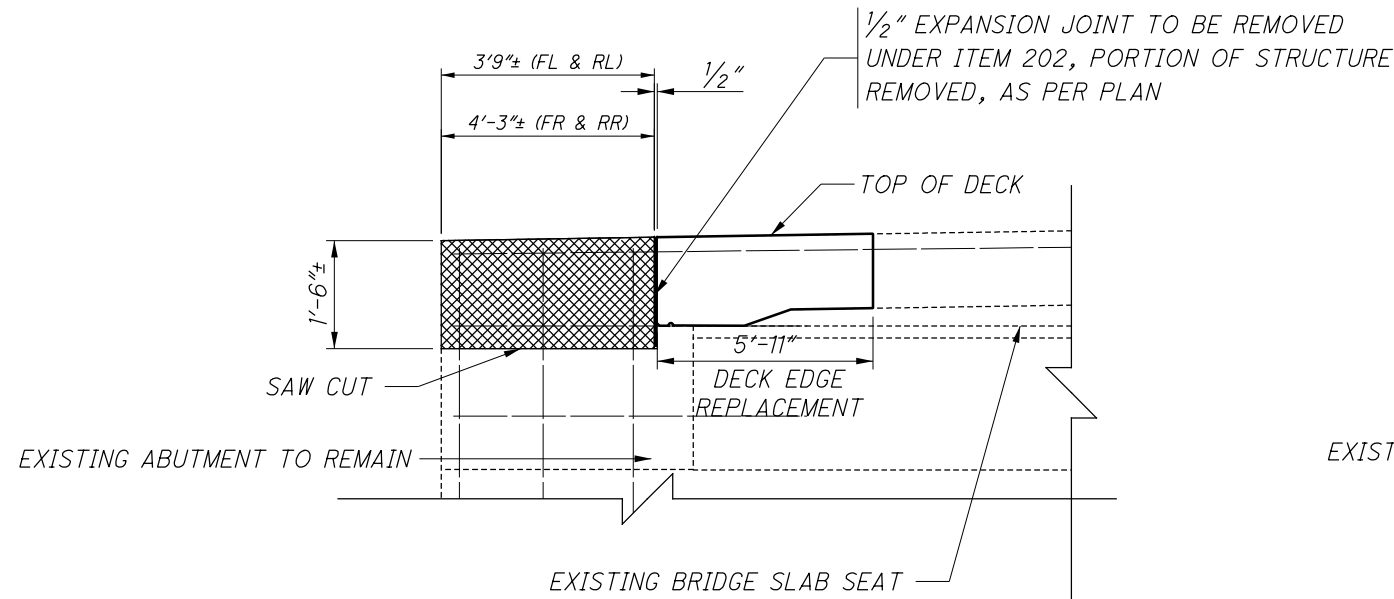
TRU-88-7.03
PID No. 88914

7 / 9

30
32

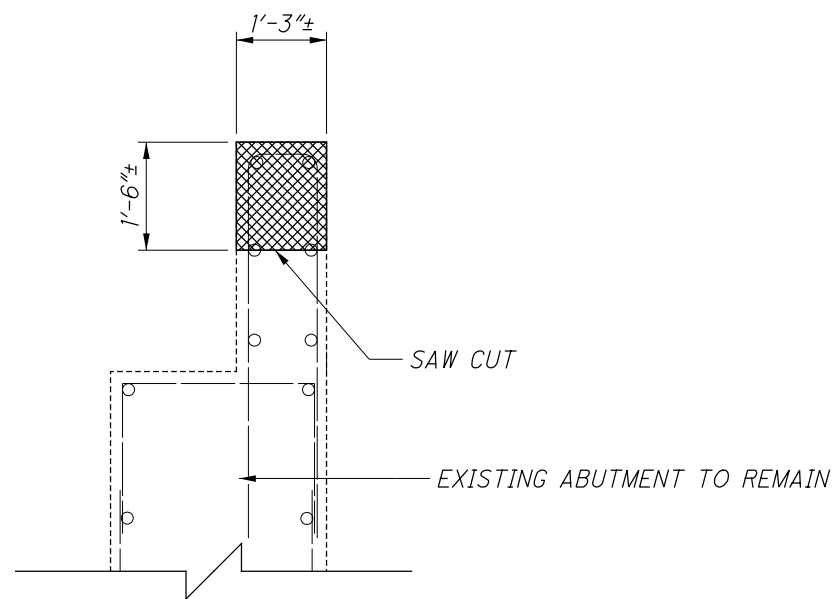
NOTES:

-  ABUTMENT TO BE REMOVED UNDER ITEM 202, PORTION OF STRUCTURE REMOVED, AS PER PLAN
- * DOWEL HOLE WITH NONSHRINK, NONMETALLIC GROUT (MINIMUM 8" DEEP)



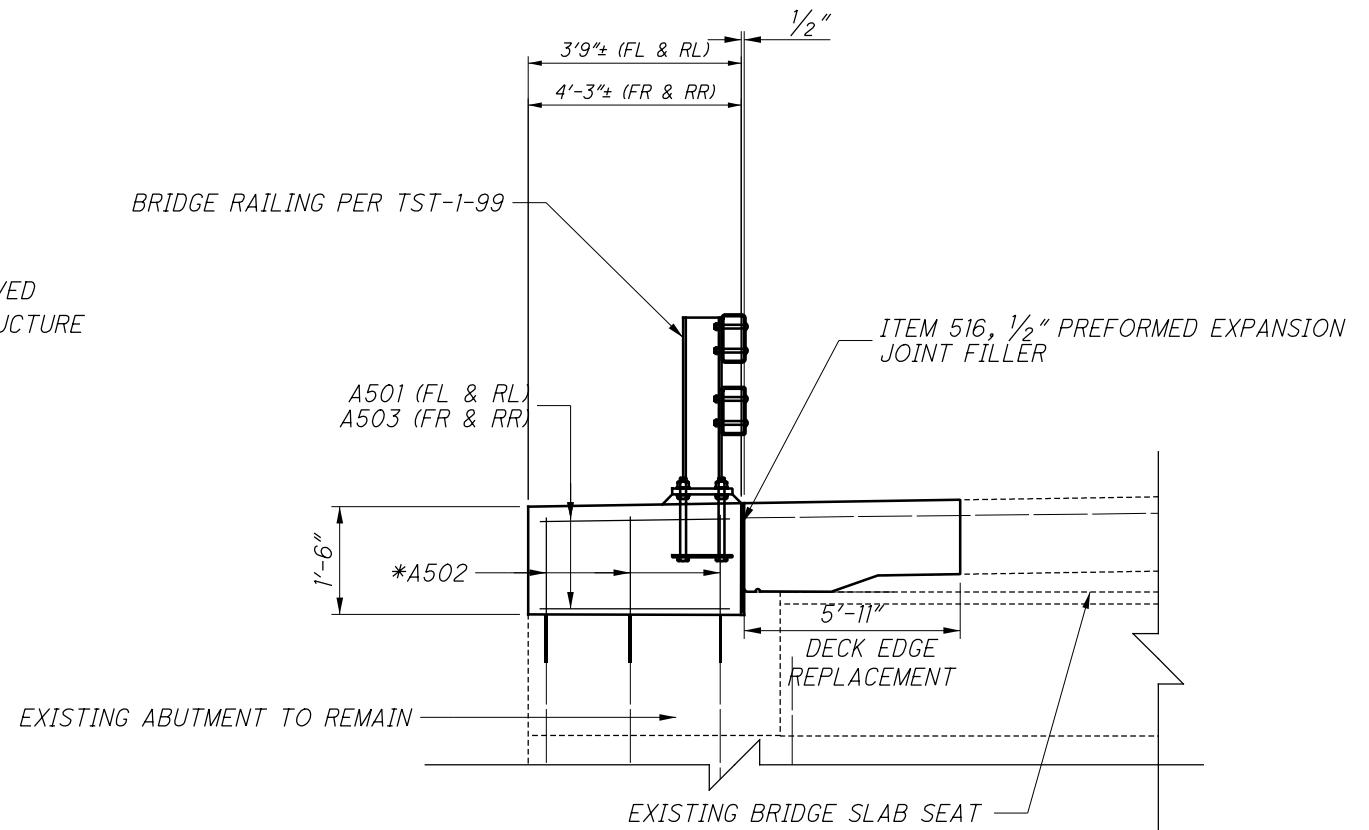
SECTION B-B

EXISTING ABUTMENT
ELEVATION VIEW



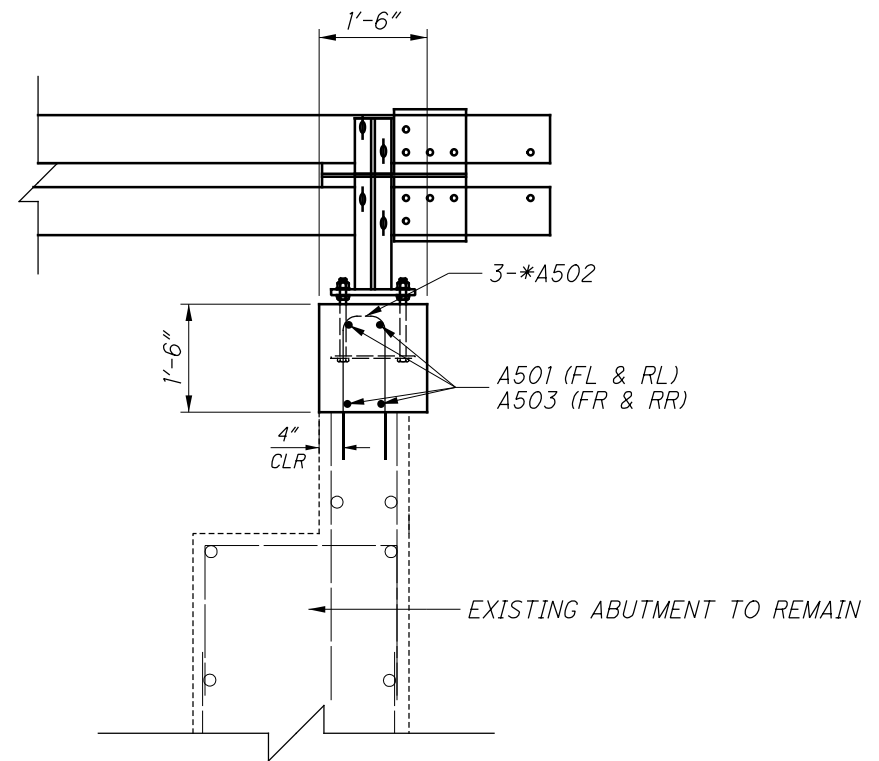
SECTION C-C

EXISTING ABUTMENT
SIDE ELEVATION VIEW



SECTION B-B

PROPOSED ABUTMENT
ELEVATION VIEW

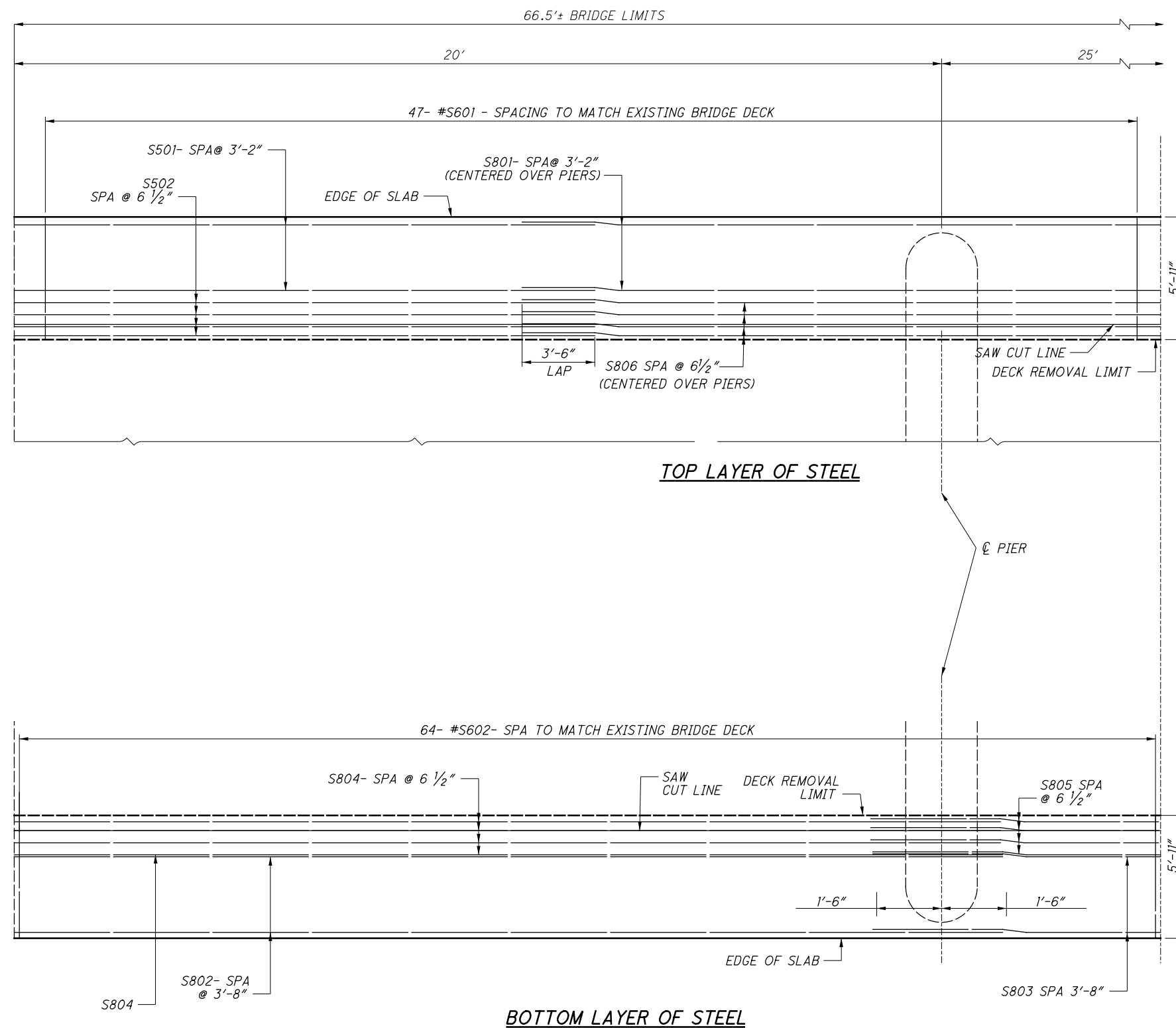


SECTION C-C

PROPOSED ABUTMENT
SIDE ELEVATION VIEW

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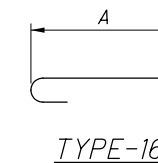
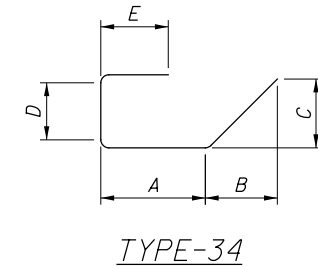
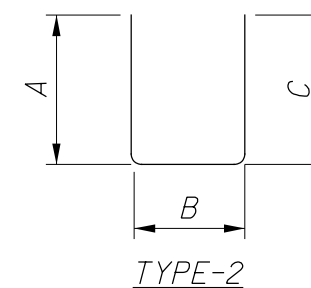
NOTES:

1. REINFORCING STEEL IS TYPICAL FOR BOTH SIDES OF THE DECK
2. ALL REINFORCING CLEARANCES ARE A MINIMUM OF 2"
3. # - MECHANICAL CONNECTORS ARE REQUIRED
4. * - DOWEL HOLE WITH NONSHRINK, NONMETALLIC GROUT (MINIMUM 8" DEEP)

MARK	NUMBER				LENGTH	WEIGHT (LBS)	TYPE	DIMENSIONS						
	REAR ABUT	FWD ABUT	SUPER	TOTAL				A	B	C	D	E		
S402			94	94	9'-1"	571	2	3'-8"	1'-8"	10"	1'-8"	1'-3"		
S501			8	8	9'-9"	82	STR							
S502			16	16	28'-6"	476	STR							
#S601			94	94	5'-6"	777	STR							
#S602			128	128	5'-6"	1058	STR							
S801			8	8	28'-6"	609	STR							
S802			8	8	22'-11"	490	16	22.00						
S803			4	4	28'-0"	300	STR							
S804			16	16	22'-11"	979	16	22.00						
S805			8	8	28'-0"	599	STR							
S806			16	16	9'-9"	417	STR							
SUPERSTRUCTURE SUB-TOTAL						6358								
A501	2	2		4	3'-3"	14	STR							
*A502	6	6		12	4'-7"	58	2	2'-0"	7"	2'-0"				
A503	2	2		4	3'-9"	16	STR							
ABUTMENTS SJB-TOTAL						88								
GRAND TOTAL (BOTH SIDES)						6446								

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED



DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING & ENGINEERING

DATE
2-1-16
REVIEWED
LMP
STRUCTURE FILE NUMBER
785853

DRAWN
CNC
REVISOR

DESIGNED
CNC
CHECKED
NRC

STRUCTURE SITE PLAN
BRIDGE NO.: TRU-88-0900
OVER DEACON CREEK

TRU-88-7.03
PID No. 88914

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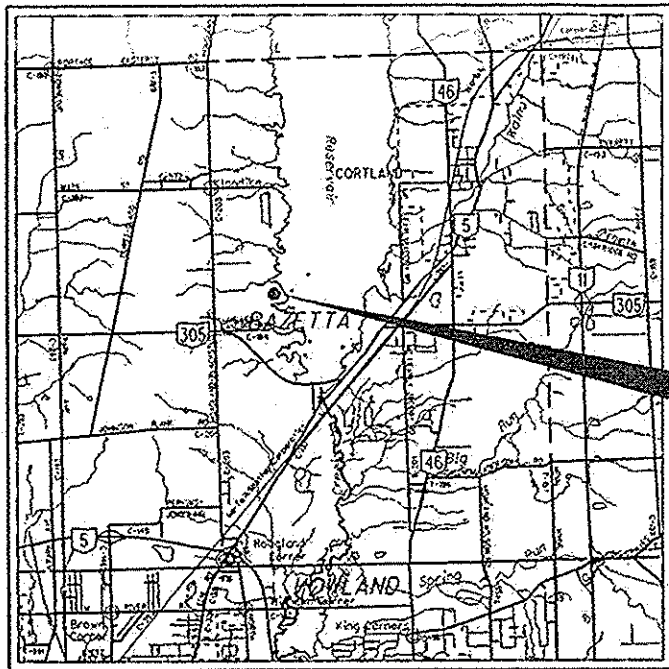
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

**TRU-MOSQUITO LAKE
STATE PARK
PART 2**

**BAZETTA TOWNSHIP
TRUMBULL COUNTY**

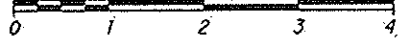
FOR PART 1, SEE TRU-88-7.03



LOCATION MAP

LATITUDE: N41°18'49" LONGITUDE: W80°46'6"

SCALE IN MILES



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

INDEX OF SHEETS:

TITLE SHEET	1
TYPICAL SECTIONS	2
GENERAL AND MAINTENANCE OF TRAFFIC NOTES	3
GENERAL SUMMARY	4
CAMPING PAD SUBSUMMARY	5
SCHEMATIC PLAN	6

PROJECT DESCRIPTION

IMPROVEMENT TO ALL (107) CAMPING PADS IN CAMPING AREA NO. 2 OF MOSQUITO LAKE STATE PARK IN TRUMBULL COUNTY. ALL CAMPING PADS WILL RECEIVE AN ASPHALT OVERLAY.

PROJECT EARTH DISTURBED AREA: 1.96 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EDA: NOI NOT REQUIRED

2013 SPECIFICATIONS

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

I HEREBY 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.


DESIGN DESIGNATION

NHS PROJECT ----- NO

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

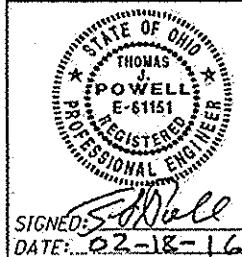


OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
(Non-members must be called directly)

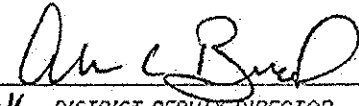
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE:
1-800-925-0988


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


ENGINEERS SEAL:



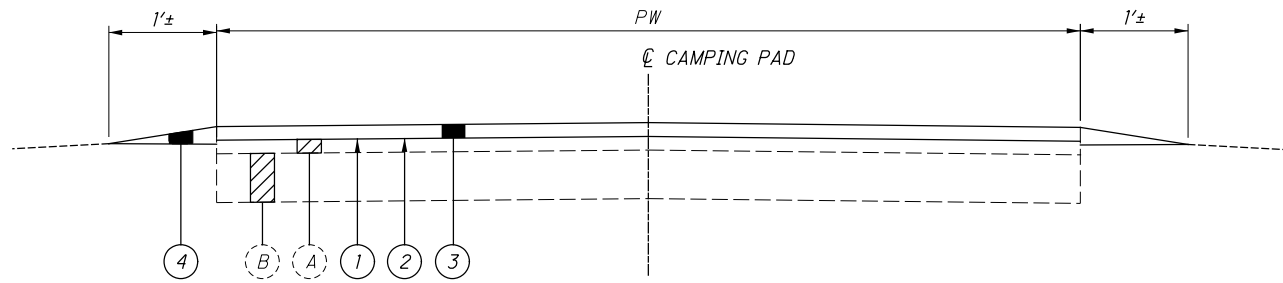
STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
SEE PART 1				SEE PART 1	SEE PART 1

APPROVED 
DATE: 2-19-16 DISTRICT DEPUTY DIRECTOR

APPROVED 
DATE: 2-9-16 DIRECTOR, DEPARTMENT OF TRANSPORTATION

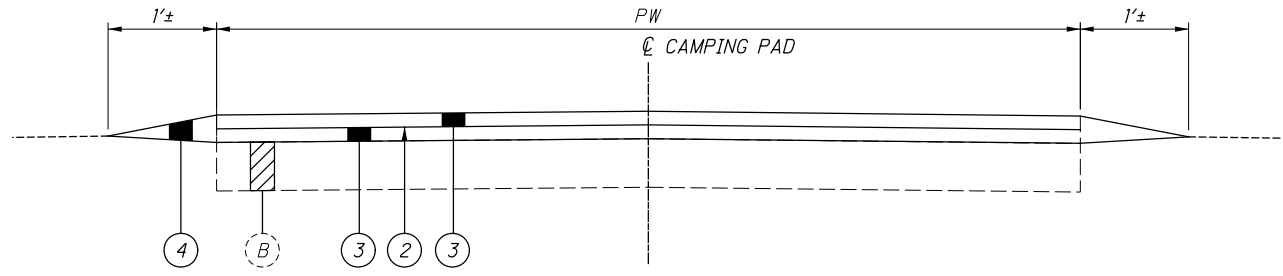
FEDERAL PROJECT NO. E130(396)
 PID NO. 88914
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT NONE
 TRU-MOSQUITO LAKE STATE PARK


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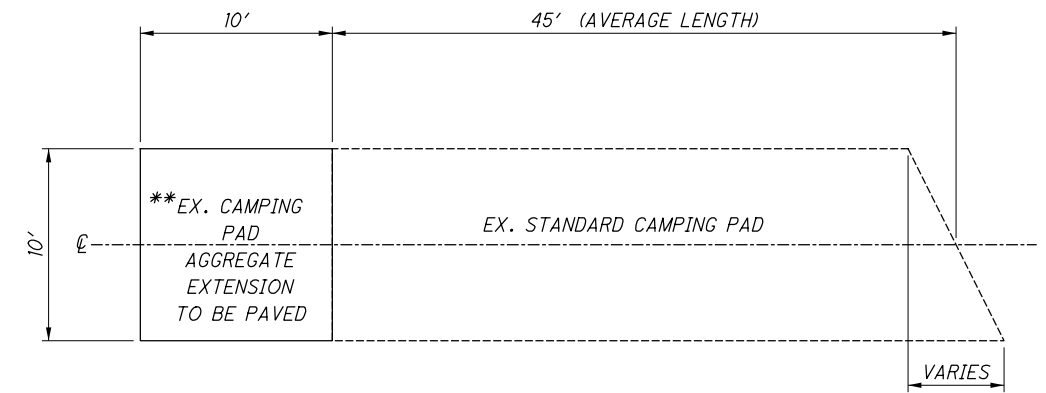
TYPICAL (1)
STANDARD CAMPING PAD

PW (FT)	LENGTH (FT)
10	45



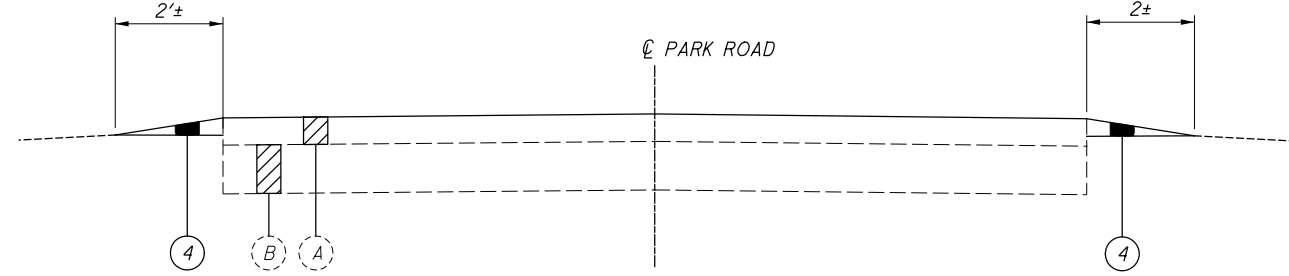
TYPICAL (2)
CAMPING PAD EXTENSION

PW (FT)	LENGTH (FT)
10	10



PLAN VIEW
CAMPING PAD

** EXISTING CAMPING PAD AGGREGATE EXTENSION ONLY ON CERTAIN CAMPING PADS. SEE SUBSUMMARY SHEET 5/5 FOR DETAILS.



TYPICAL (3)
PARK ROADS

PARK ROAD D
PARK ROAD E
PARK ROAD F
PARK ROAD G

LEGEND

- ① ITEM 202 - REMOVAL MISC.: MOSS REMOVAL
- ② ITEM 407 - TACK COAT @ 0.04 GAL/SY
- ③ ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M, AS PER PLAN (T = 1/2")
- ④ ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

- Ⓐ EXISTING ASPHALT CONCRETE
- Ⓑ EXISTING AGGREGATE BASE

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 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION 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 EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

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.

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.

ITEM 202 - REMOVAL MISC.: MOSS REMOVAL

THIS ITEM SHALL CONSIST OF REMOVING MOSS FROM CAMPING PADS PRIOR TO PLACEMENT OF ASPHALT OVERLY. ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED UNDER ITEM 202, REMOVAL MISC.: MOSS REMOVAL.

LINEAR GRADING

THIS WORK IS TO BE PERFORMED AROUND CAMP PADS AND ALONG CAMP ROADS. WETLANDS SHALL BE AVOIDED WHILE COMPLETING THIS WORK.

SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE WILL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND WILL BE PERFORMED ONLY IN THE AREAS NECESSARY. THIS WORK WILL NOT BE PERFORMED ON THE ENTIRE PROJECT. THE AREAS FOR THE WORK WILL BE MARKED BY THE PROJECT ENGINEER. THESE ITEMS OF WORK WILL BE PERFORMED AFTER THE PLACEMENT OF ITEM 617 -- COMPACTED AGGREGATE. UNDER NO CIRCUMSTANCES WILL THIS WORK BE PERFORMED CONCURRENTLY WITH ANY OTHER OPERATION.

GRADING WILL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 POSITIVE SLOPE. EXCESS MATERIAL WILL BE WINDROWED ON THE SHOULDER. THE GRADED AREAS WILL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING IS PERFORMED. ALL EXCESS MATERIAL WILL BE REMOVED FROM THE BERMS AND WILL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR.

SEEDING AND MUCHING, FERTILIZER AND LIME WILL BE PERFORMED WITHIN A PERIOD NOT TO EXCEED 10 DAYS AFTER THE LINEAR GRADING.

THE QUANTITY OF ITEM 209 IS NOT PERMITTED TO BE INCREASED. REDUCTIONS IN QUANTITIES ARE PERMITTED AS DETERMINED BY THE PROJECT ENGINEER.

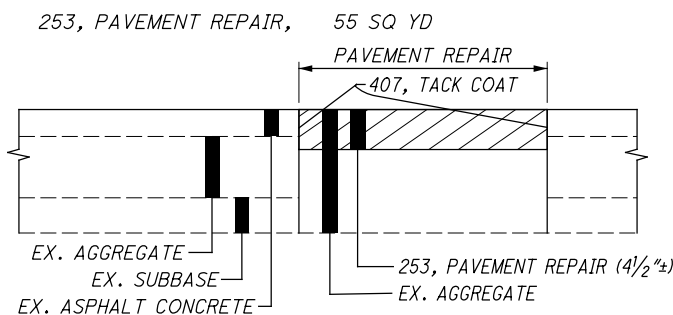
ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK WILL BE INCLUDED IN THE UNIT PRICE FOR THE PERTINENT BID ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- 209, LINEAR GRADING, 170 STA.
- 659, SEEDING AND MULCHING, 9445 SQ YD
- 659, COMMERCIAL FERTILIZER, 1.28 TON
- 659, LIME, 1.96 ACRES
- 659, WATER, 51 M. GAL.

ITEM 253 - PAVEMENT REPAIR

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR CULVERT REPLACEMENT AREAS. THIS ITEM SHALL CONSIST OF REMOVING 4 1/2" AGGREGATE SURFACE AND PLACING 3" 301, ASPHALT CONCRETE BASE, PG64-22 AND 1 1/2" 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG70-22M, AS PER PLAN. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

253, PAVEMENT REPAIR, 55 SQ YD



ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) 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

PARK ROAD SUBSUMMARY:

PARK ROAD	TYPICAL SECTION	LENGTH (L)	617	
			COMPACTED AGGREGATE, AS PER PLAN	
		FEET	CY	
ROAD D	3	2006.40	49.54	
ROAD E	3	844.80	20.86	
ROAD F	3	897.60	22.16	
ROAD G	3	1742.40	43.02	
SUBTOTALS			135.59	
TOTALS TO GENERAL SUMMARY			136	

PARKING BLOCK REMOVED AND RESET

THIS ITEM SHALL CONSIST OF ALL LABOR, MATERIAL, TOOLS, AND EQUIPMENT TO REMOVE AND RESET CONCRETE PARKING BLOCKS. ALL EXISTING PARKING BLOCKS SHALL BE REMOVED TO PERMIT ASPHALT PLACEMENT. ONCE THE MATERIAL IS IN PLACE, THE CONTRACTOR SHALL RESET THE PARKING BLOCKS. THE CONTRACTOR MAY REUSE THE EXISTING ANCHOR PINS; HOWEVER, IF THE CONTRACTOR ELECTS TO CUT THE EXISTING PINS OR DRIVE THEM INTO GRADE, THEY SHALL BE REPLACED USING NO. 6 REINFORCING BARS AT 30 INCHES IN LENGTH. PAYMENT FOR THE REPLACEMENT PINS SHALL BE INCLUDED IN THIS ITEM. INSTALLATION OF ALL THE ABOVE MUST BE APPROVED AS DIRECTED BY THE ENGINEER. ANY PARKING BLOCKS BROKEN BY THE CONTRACTOR'S NEGLIGENCE OR CARELESSNESS SHALL BE REPLACED IN ACCORDANCE WITH STANDARD DRAWING SHEET RM-6.1 AT THE CONTRACTOR'S EXPENSE. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - PARKING BLOCK REMOVED AND RESET, 107 EACH

MAINTENANCE OF TRAFFIC

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

1. THE CONTRACTOR SHALL INFORM JOSIE MCKENNA, MOSQUITO LAKE STATE PARK, (330)637-2856, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

MOSQUITO LAKE STATE PARK

NO WORK WITHIN MOSQUITO LAKE STATE PARK SHALL BEGIN PRIOR TO AUGUST 1, 2016. THE WORK SHALL BE COMPLETED DURING THE FOLLOWING HOURS:

MONDAY THROUGH THURSDAY: 8AM TO 6PM
 FRIDAY: 8AM TO NOON

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M, AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

STREAM/DITCH/WETLAND AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN ANY STREAMS, DITCHES AND WETLANDS DEPICTED IN THE ECOLOGICAL RESOURCES MAPPING AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE, 2088 SOUTH ARLINGTON, AKRON, OHIO 44306. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN ANY STREAMS AND/OR WETLANDS. TO PROTECT AND DELINEATE THE BOUNDARY OF ANY STREAMS AND WETLANDS, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE, PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION.

TREE CLEARING:

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT/REMOVE ANY TREES PRIOR TO OR DURING CONSTRUCTION OF THE PROJECT.

CONSTRUCTION EQUIPMENT AND MATERIALS STAGING AREAS:

CONSTRUCTION EQUIPMENT AND MATERIAL STAGING AREAS SHALL BE KEPT AWAY FROM STREAMS AND WETLANDS TO THE MAXIMUM EXTENT PRACTICABLE. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS.

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CALCULATED
MMC
CHECKED

GENERAL AND MAINTENANCE OF TRAFFIC NOTES

TRU-MOSQUITO LAKE STATE PARK

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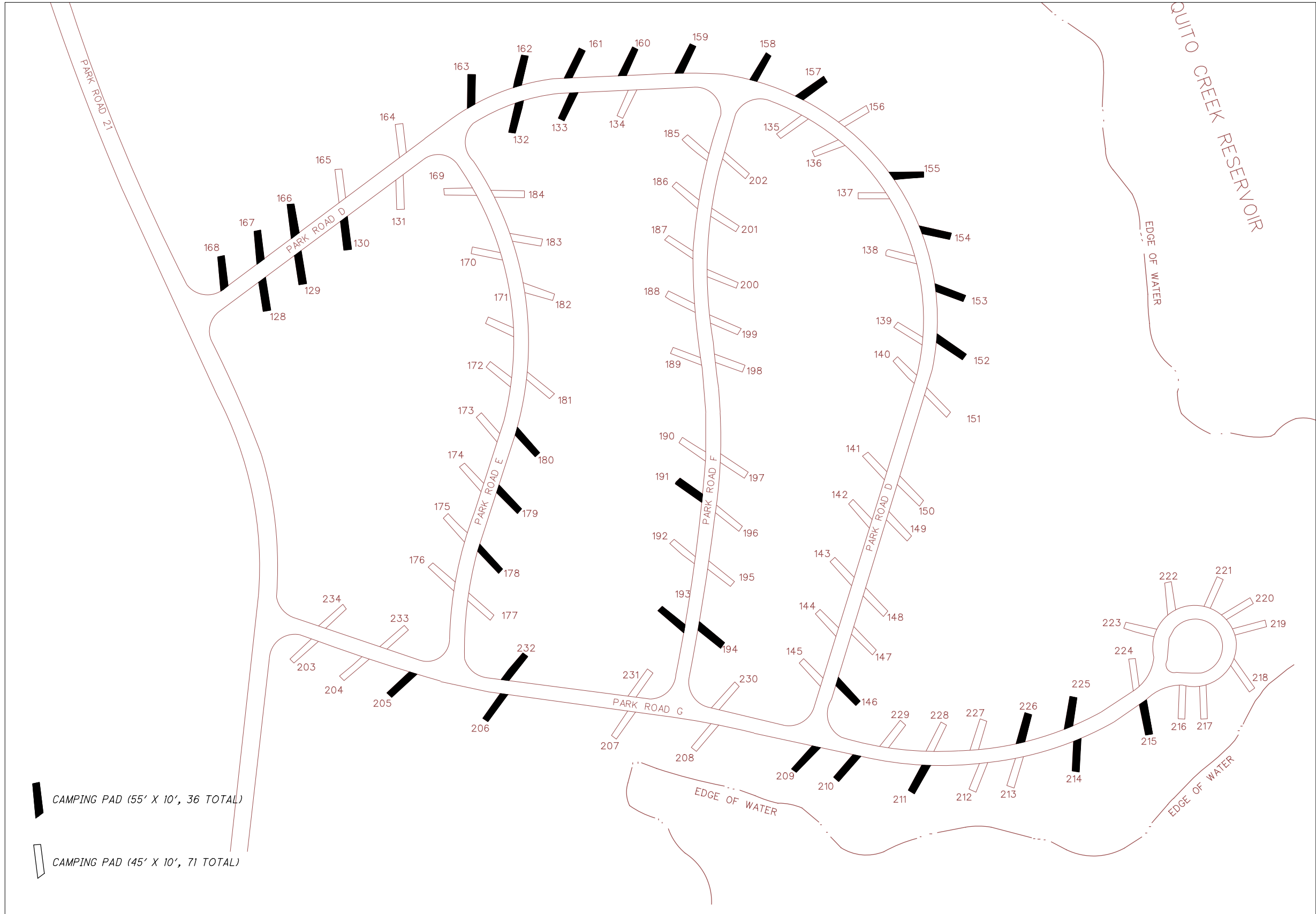
SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	5									03/NFP/P W/DNR		EXT	TOTAL			
ROADWAY																
	107									107	SPECIAL	20253010	107	EACH	PARKING BLOCK REMOVED AND RESET	3
		5,350								5,350	202	98300	5,350	SY	REMOVAL MISC.: MOSS REMOVAL	3
	170									170	209	60200	170	STA	LINEAR GRADING	
EROSION CONTROL																
	9,445									9,445	659	10000	9,445	SY	SEEDING AND MULCHING	
	1.28									1.28	659	20000	1.28	TON	COMMERCIAL FERTILIZER	
	1.96									1.96	659	31000	1.96	ACRE	LIME	
	51									51	659	35000	51	MGAL	WATER	
										1,000	832	30000	1,000	EACH	EROSION CONTROL	
PAVEMENT																
	55									55	253	01000	55	SY	PAVEMENT REPAIR	
		230								230	407	10000	230	GAL	TACK COAT	
		257								257	441	50101	257	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	3
	136	71								207	617	10101	207	CY	COMPACTED AGGREGATE, AS PER PLAN	3
INCIDENTALS																
										LS	614	11000	LS		MAINTAINING TRAFFIC	
										3	619	16010	3	MNTH	FIELD OFFICE, TYPE B	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	


GENERAL SUMMARY	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CALCULATED MMC CHECKED </div>
TRU - MOSQUITO LAKE STATE PARK	
4 6	


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CAMPING PAD NUMBERS	TYPICAL SECTION	NUMBER OF CAMP PADS	CAMP PAD LENGTH (L)	CAMP PAD AVERAGE WIDTH (W)	CAMP PAD SURFACE AREA (A) A=LxW/9	TOTAL AREA OF CAMPING PADS	202	407	441	441	617												
							REMOVAL MISC.: MOSS REMOVAL	TACK COAT @ 0.04 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M (T = 1 1/2")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M (T = 1 1/2")	COMPACTED AGGREGATE, AS PER PLAN	SY	GAL	CY	CY	CY							
128	TO	130	1 & 2	3	55.00	10.00	61.11	183.33		150.00	7.33	7.64	1.39	2.22									
131			1	1	45.00	10.00	50.00	50.00		50.00	2.00	2.08		0.62									
132	TO	133	1 & 2	2	55.00	10.00	61.11	122.22		100.00	4.89	5.09	0.93	1.48									
134	TO	145	1	12	45.00	10.00	50.00	600.00		600.00	24.00	25.00		7.41									
146			1 & 2	1	55.00	10.00	61.11	61.11		50.00	2.44	2.55	0.46	0.74									
147	TO	151	1	5	45.00	10.00	50.00	250.00		250.00	10.00	10.42		3.09									
152	TO	155	1 & 2	4	55.00	10.00	61.11	244.44		200.00	9.78	10.19	1.85	2.96									
156			1	1	45.00	10.00	50.00	50.00		50.00	2.00	2.08		0.62									
157	TO	163	1 & 2	7	55.00	10.00	61.11	427.78		350.00	17.11	17.82	3.24	5.19									
164	TO	165	1	2	45.00	10.00	50.00	100.00		100.00	4.00	4.17		1.23									
166	TO	168	1 & 2	3	55.00	10.00	61.11	183.33		150.00	7.33	7.64	1.39	2.22									
169	TO	177	1	9	45.00	10.00	50.00	450.00		450.00	18.00	18.75		5.56									
178	TO	180	1 & 2	3	55.00	10.00	61.11	183.33		150.00	7.33	7.64	1.39	2.22									
181	TO	190	1	10	45.00	10.00	50.00	500.00		500.00	20.00	20.83		6.17									
191			1 & 2	1	55.00	10.00	61.11	61.11		50.00	2.44	2.55	0.46	0.74									
192			1	1	45.00	10.00	50.00	50.00		50.00	2.00	2.08		0.62									
193	TO	194	1 & 2	2	55.00	10.00	61.11	122.22		100.00	4.89	5.09	0.93	1.48									
195	TO	204	1	10	45.00	10.00	50.00	500.00		500.00	20.00	20.83		6.17									
205	TO	206	1 & 2	2	55.00	10.00	61.11	122.22		100.00	4.89	5.09	0.93	1.48									
207	TO	208	1	2	45.00	10.00	50.00	100.00		100.00	4.00	4.17		1.23									
209	TO	211	1 & 2	3	55.00	10.00	61.11	183.33		150.00	7.33	7.64	1.39	2.22									
212	TO	213	1	2	45.00	10.00	50.00	100.00		100.00	4.00	4.17		1.23									
214	TO	215	1 & 2	2	55.00	10.00	61.11	122.22		100.00	4.89	5.09	0.93	1.48									
216	TO	224	1	9	45.00	10.00	50.00	450.00		450.00	18.00	18.75		5.56									
225	TO	226	1 & 2	2	55.00	10.00	61.11	122.22		100.00	4.89	5.09	0.93	1.48									
227	TO	231	1	5	45.00	10.00	50.00	250.00		250.00	10.00	10.42		3.09									
232			1 & 2	1	55.00	10.00	61.11	61.11		50.00	2.44	2.55	0.46	0.74									
233	TO	234	1	2	45.00	10.00	50.00	100.00		100.00	4.00	4.17		1.23									
SUBTOTALS							0.00	5350.00	0.00	230.00	239.58	16.67	70.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTALS CARRIED TO GENERAL SUMMARY							0	5350	0	230	240	17	71	0	0	0	0	0	0	0	0	0	0

CALCULATED	MMC	CHECKED
CAMPING PAD SUBSUMMARY		
TRU-MOSQUITO LAKE STATE PARK		
5	6	



 CAMPING PAD (55' X 10', 36 TOTAL)

 CAMPING PAD (45' X 10', 71 TOTAL)



SCHEMATIC PLAN

TRU-88-7.03

