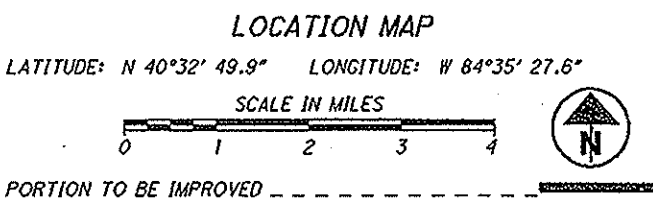
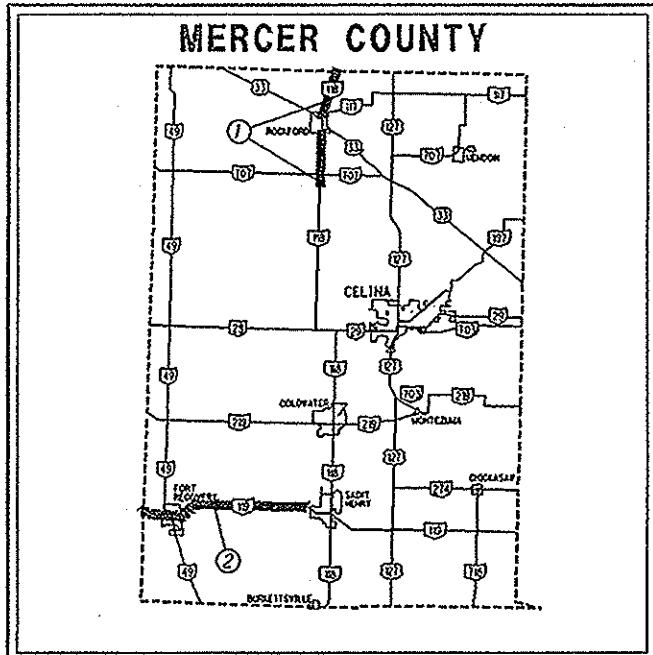


MER - SR 118/SR 119-21.99/0.00
150477 PID - 88687
Dist 7 8/13/2015
Contract Proposal Available @ www.
contracts.dot.state.oh.us/home



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MER-118 / 119-21.99 / 0.00
VILLAGE OF FORT RECOVERY
MERCER COUNTY
DUBLIN, RECOVERY, AND GRANVILLE TOWNSHIPS

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PROJECT DESCRIPTION

THE WORK PROPOSED BY THIS PROJECT CONSISTS OF PAVEMENT PLANING AND RESURFACING THE EXISTING ROADWAY WITH ASPHALT CONCRETE, AS SET FORTH IN THESE PLANS, INCLUDING INSTALLATION OF CURB RAMPS, REBUILD SLAB EDGE AND INSTALLATION OF BRIDGERAIL AT MER-119-0252.

- ① MER-118-14.43 FROM S.R. 707 (SLM 21.99) TO SOUTH CORP LIMIT OF ROCKFORD (SLM 23.77) AND FROM ROCKFORD NORTH CORP LIMIT (SLM 24.75) TO THE MER/VAN COUNTY LINE (SLM 27.09)
- ② MER-119-0.00 FROM THE IND/OH LINE (SLM 0.00) TO THE WEST CORP LIMIT OF ST. HENRY (SLM 8.54)

PROJECT EARTH DISTURBED AREA: N/A*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A*
NOTICE OF INTENT EARTH DISTURBED AREA: N/A*
*MAINTENANCE PROJECT

2013 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY ON SR 119 DURING THE SLAB EDGE REPAIR ONLY AND WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY WHILE DOING THE RESURFACING WORK AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Randy Chevalier P.E. P.S./seef
DATE 5/13/15 DISTRICT DEPUTY DIRECTOR

APPROVED Gregory Wray
DATE 5-21-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

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

PLAN PREPARED BY:
OHIO DEPT. OF TRANSPORTATION, DISTRICT 7
1001 ST. MARYS AVE
SIDNEY, OH 45365

ENGINEERS SEAL:
FOR STRUCTURES
SHEETS 29-34

STATE OF OHIO
CHRISTOPHER
WEISS
E-77417
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: Christopher Weiss
DATE: 5-13-15

ENGINEERS SEAL:
ROADWAY
SHEETS 1-28

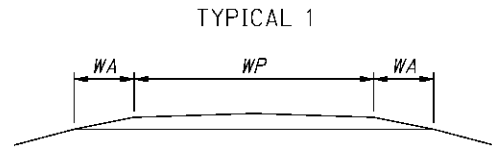
STATE OF OHIO
THOMAS
ROSSMAN
No. 54477
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: Thomas Rossman
DATE: 5-13-15

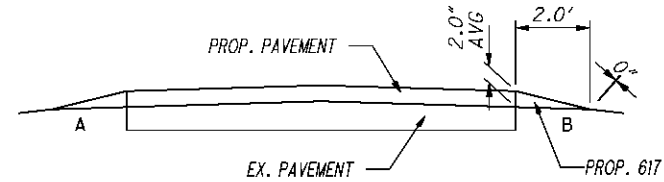
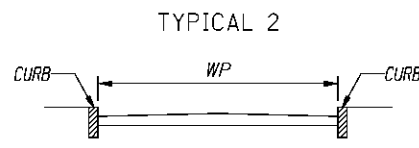
STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	7/18/14	TC-52.20	7/18/14	800	4/17/15		
BP-5.1	7/19/13	TC-61.30	7/18/14	832	1/17/14		
BP-7.1	7/18/14	TC-64.10	1/16/15	846	4/18/14		
		TC-65.10	1/17/14				
DM-4.3	7/19/13	TC-65.11	7/18/14				
DM-4.4	7/20/12	TC-71.10	1/17/14				
		TC-81.10	10/18/13				
MT-97.10	7/18/14	TC-82.10	10/18/13				
MT-97.12	7/18/14						
MT-99.20	7/19/13	DBR-2-73	7/19/02				
MT-101.60	7/19/13	DS-1-92	7/18/03				
MT-105.10	7/19/13						
		DBR-3-11	7/15/11				
TC-41.20	10/18/13						
TC-42.20	10/18/13						
TC-52.10	10/18/13						

FEDERAL PROJECT NO.	E110 (359)
PID NO.	88687
STATE JOB NUMBER	479216
RAILROAD INVOLVEMENT	NONE
MER-118 / 119-21.99 / 0.00	
134	

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ITEM 407, TACK COAT, CALCULATED AT 0.115 GALLON PER SQUARE YARD
APPLY 0.075 GALLON PER SQUARE YARD FOR INTERMEDIATE COURSE
APPLY 0.040 GALLON PER SQUARE YARD FOR SURFACE COURSE.



TYPICAL - COMPACTED AGGREGATE

* ITEM 617 - MER 119 (1.07-1.87) AN ESTIMATED QUANTITY HAS BEEN PROVIDED TO BE USE AS NEEDED AND DIRECTED WITHIN THE FORT RECOVERY CORP LIMITS.

** ALL OF THE INTERSECTIONS WITHIN THE MER-119 FORT RECOVERY VILLAGE SECTION SHALL USE ITEM 442, AND TRACKLESS TACK COAT. A QUANTITY HAS BEEN PROVIDED BELOW FOR EACH.

PAVEMENT DATA

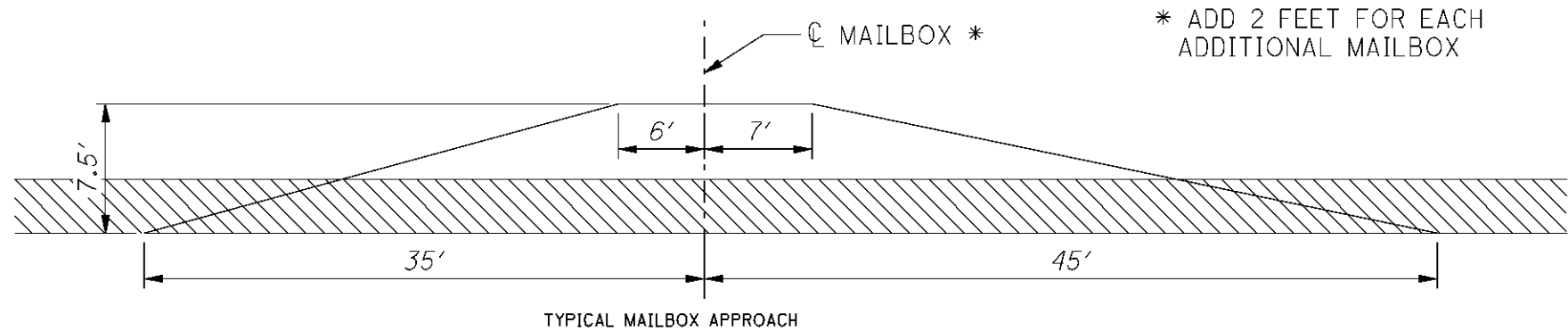
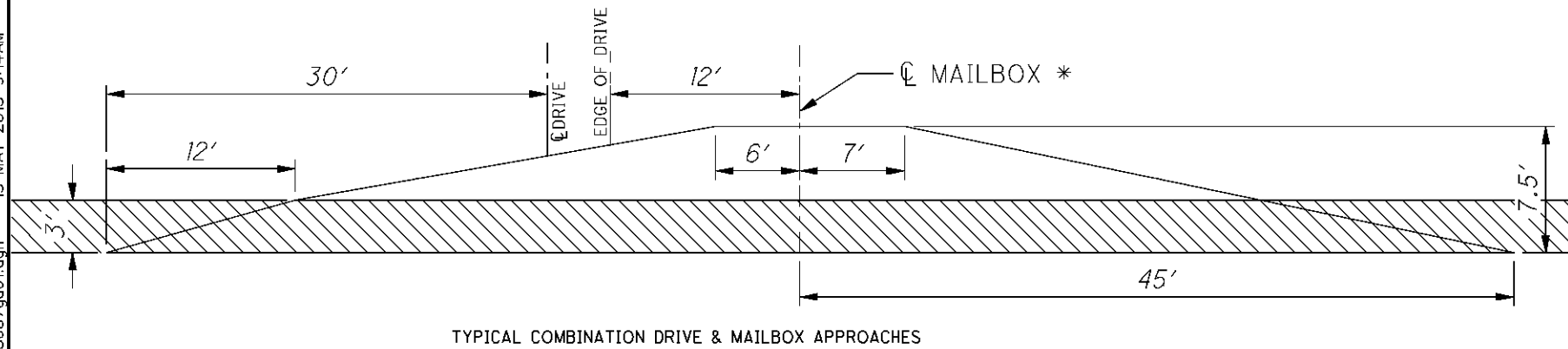
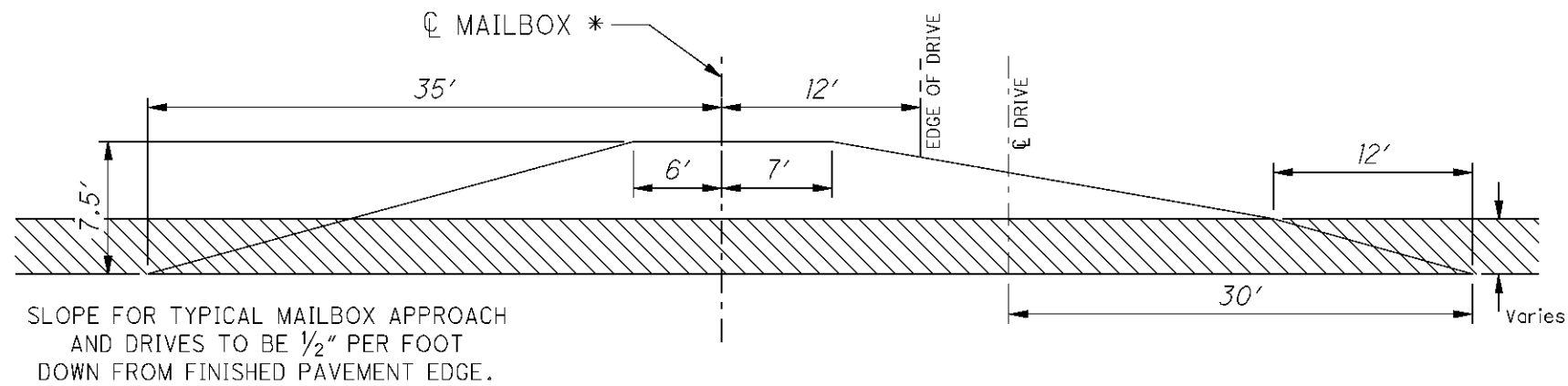
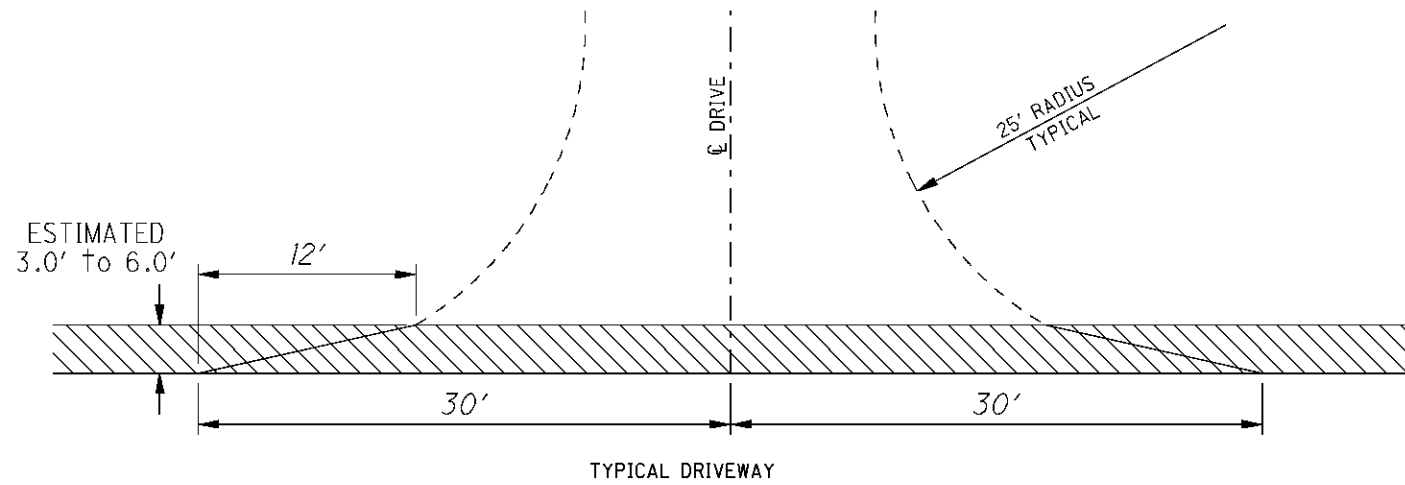
ROUTE	SLM		LENGTH		AVG. PVMT. WIDTH	PVMT AREA	TYPICAL	PROPOSED PAVEMENT								202	SPECIAL	617	
								254 PAVEMENT PLANING AVERAGE 1.75"	407 TACK COAT AT 0.115 GAL. PER SQ. YD. GAL	ASPHALT CONCRETE									
	441 INT.		441 SURF.		442														
	THICK INCH (AVG)	CU. YD.	THICK INCH (AVG)	CU. YD.	THICK INCH (AVG)	CU. YD.				WEARING COURSE REMOVED BUTT JOINT SQ. YD.	TACK COAT TRACKLESS TACK AT 0.075 GAL. PER SQ. YD. GAL	THICK INCH (AVG)	CU. YD.						
SR 118	21.99	23.74	1.75	9240	29	29773	1		3424	0.75	620	1.25	1034			322		2	228
SUSPEND PROJECT WITHIN ROCKFORD CORPORATION LIMIT																			
	24.75	27.09	2.34	12355	29	39811	1		4578	0.75	829	1.25	1382			322		2	305
INTERSECTIONS (8)						2000			230	0.75	42	1.25	69			240			
DRIVES AND MAILBOXES						1500			173	0.75	31	1.25	52			70			
TOTALS S.R.-118			4.09	21595		73084			8405		1522		2537			954			533
SR 119	0.00	0.53	0.53	2798	29	9017	1		1037	0.75	188	1.25	313			161		2	69
	0.53	0.55	0.02	86				SEE BRIDGE SHEETS MER-119-0053											
	0.55	0.81	0.26	1373	29	4423	1		509	0.75	92	1.25	153					2	34
	0.81	0.83	0.02	73				SEE BRIDGE SHEETS MER-119-0081											
	0.83	1.07	0.24	1267	29	4083	1		470	0.75	85	1.25	142			161		2	31
	1.07	1.31	0.24	1267	31	4365	2	4365						1.75	212		327		
	1.31	1.35	0.04	211	45	1056	2	1056						1.75	51		79		
	1.35	1.42	0.07	370	42	1725	2	1725						1.75	84		129		
	1.42	1.50	0.08	422	40	1877	2	1877						1.75	91		141		
	1.50	1.72	0.22	1162	38	4905	2	4905						1.75	238		368		
	1.72	1.87	0.15	792	31	2728	2	2728						1.75	132		205	2	20 *
	1.87	2.52	0.65	3432	29	11059	1		1272	0.75	230	1.25	384			161		2	85
	2.52	2.54	0.02	112				SEE BRIDGE SHEETS MER-119-0252											
	2.54	8.54	6.00	31680	29	102080	1		11739	0.75	2127	1.25	3544			161		2	782
INTERSECTIONS (18) - (RURAL AND WITHIN VILLAGE)						6800		2700	472	0.75	85	1.25	142	1.75	131 **	600	203 **		
DRIVES AND MAILBOXES						2700			311	0.75	56	1.25	94			210			
TOTALS S.R.-119			8.54	45045		156818		19356	15810		2863		4772		939	1454	1452		1021
TOTALS CARRIED TO GENERAL SUMMARY								19356	24215		4385		7309		939	2408	1452		1554

PAVEMENT DATA

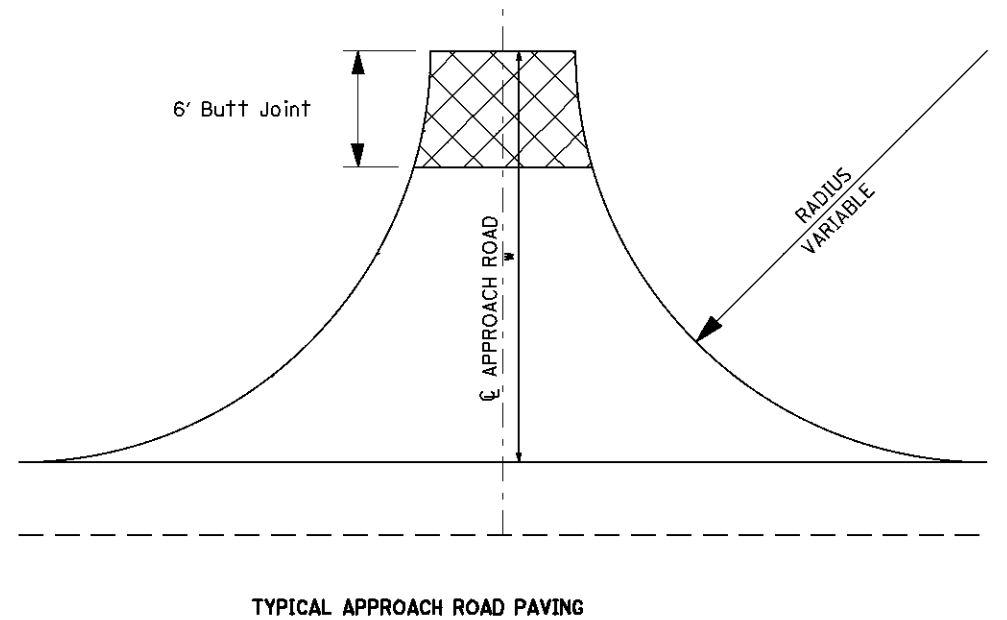
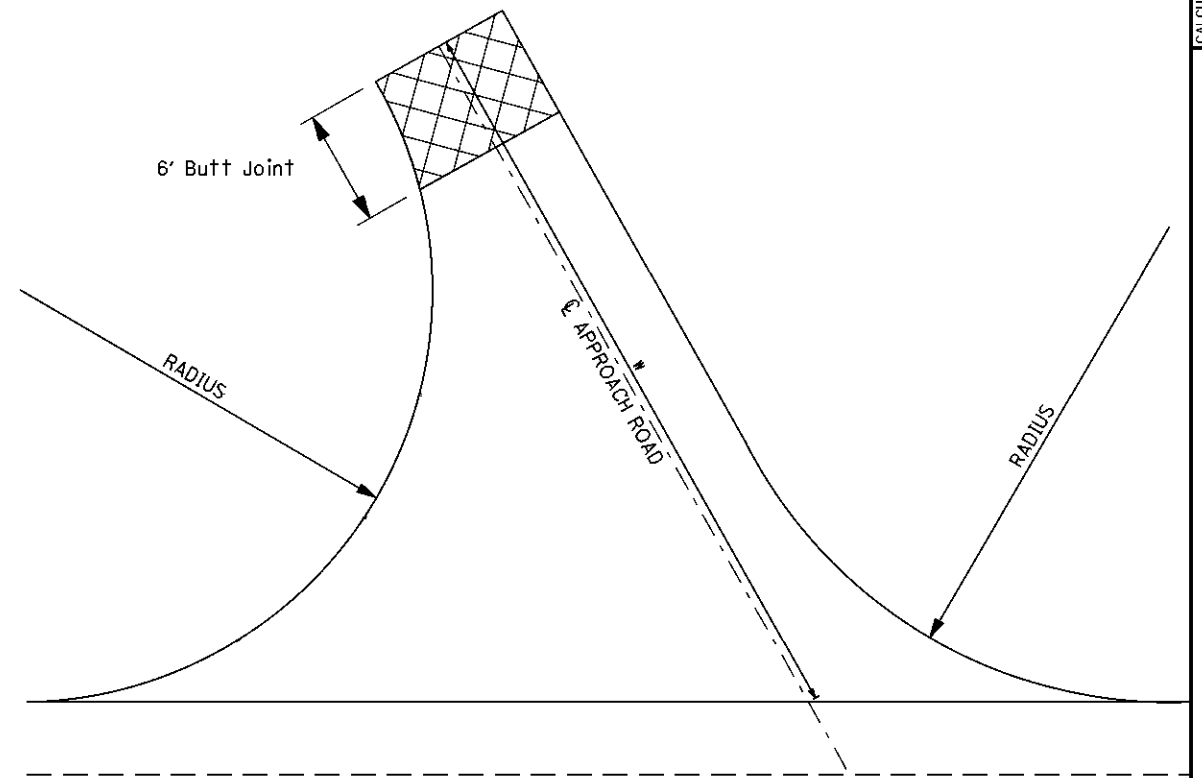
MER-118/119 - 21.99/0.00

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* ADD 2 FEET FOR EACH ADDITIONAL MAILBOX



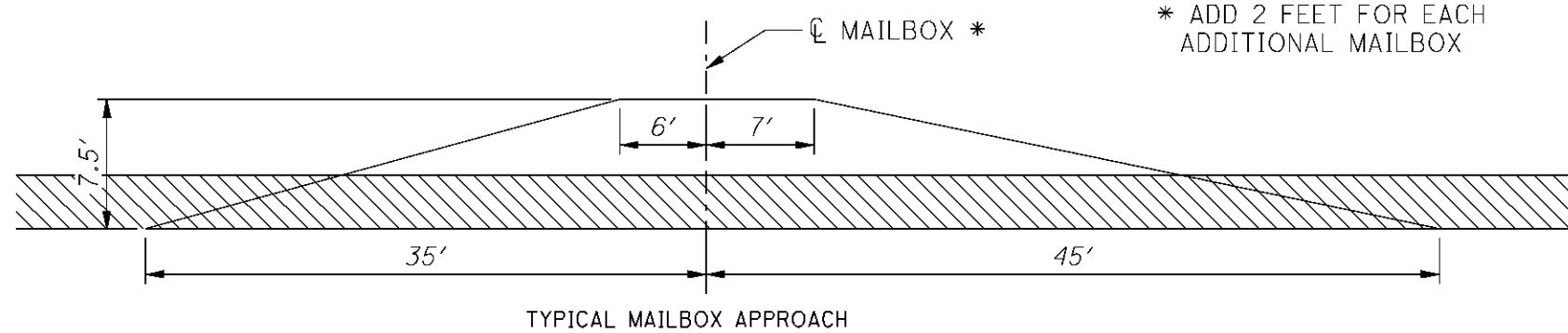
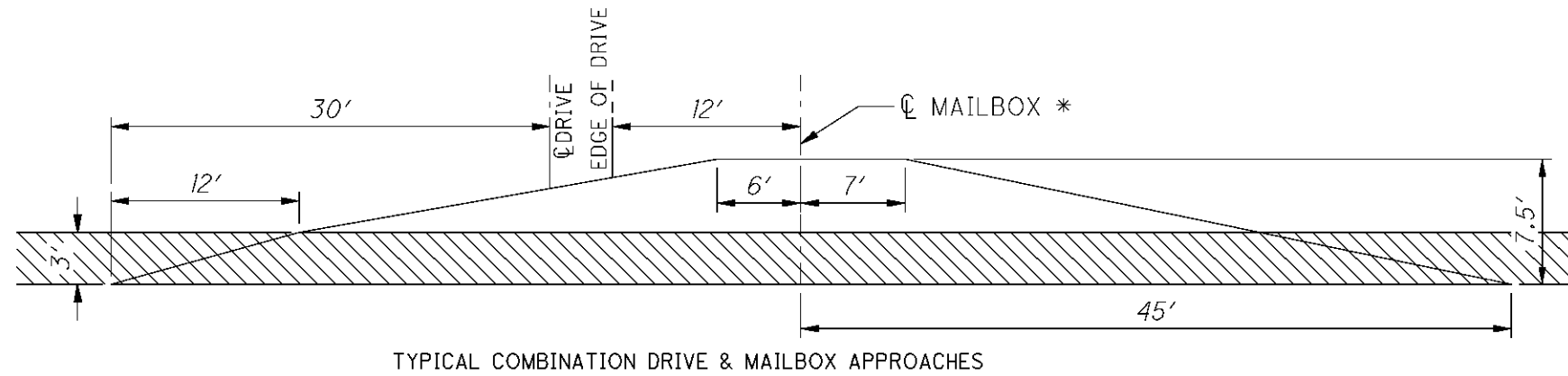
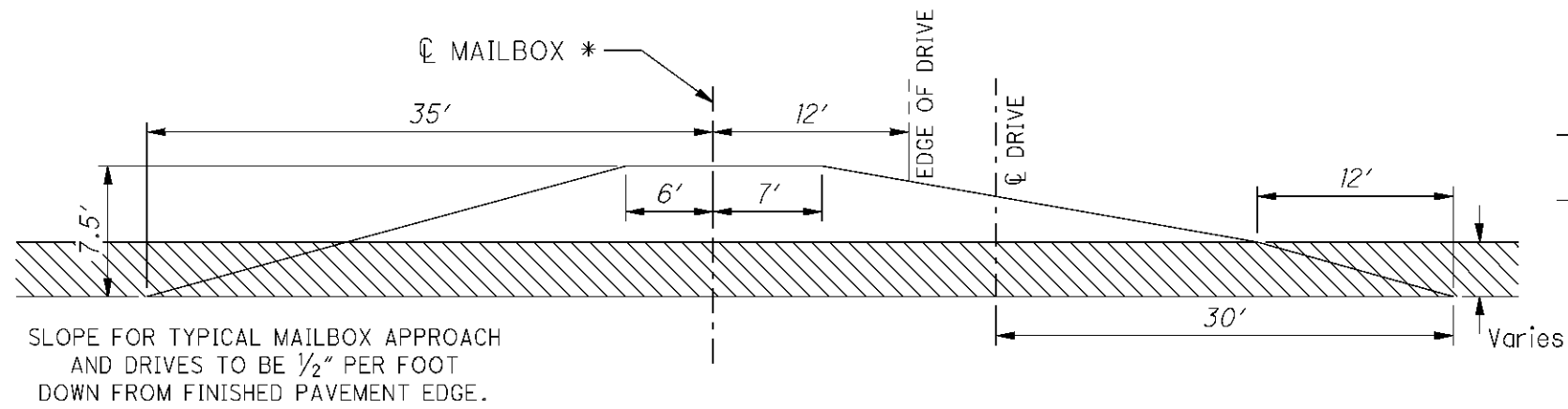
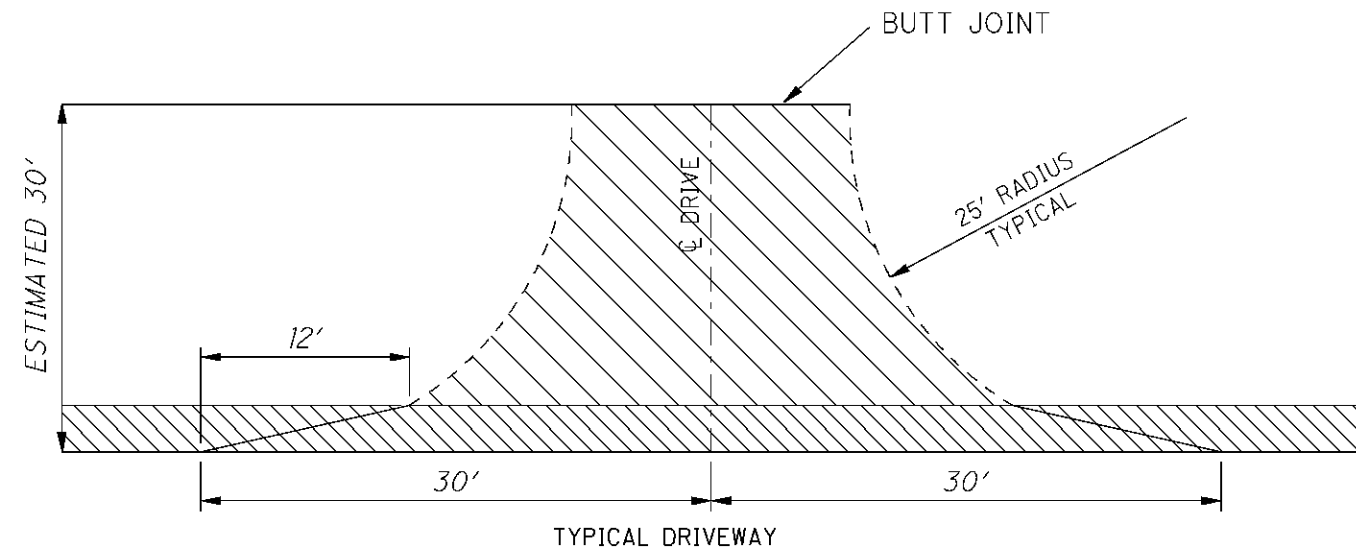
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OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN MAINTENANCE
TYPICAL APPROACHES FOR ROADS,
DRIVES, AND MAILBOXES

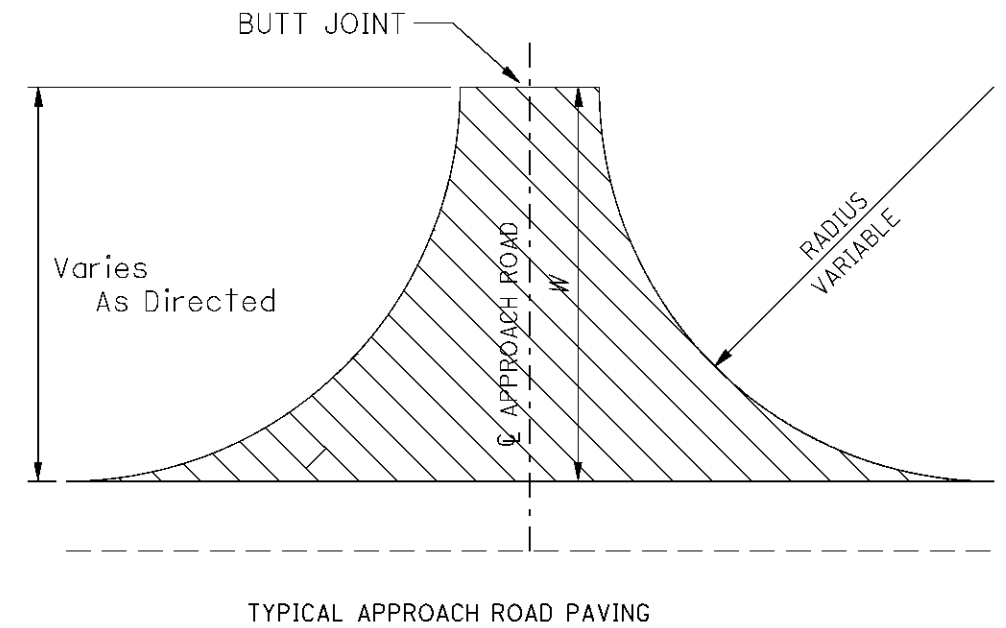
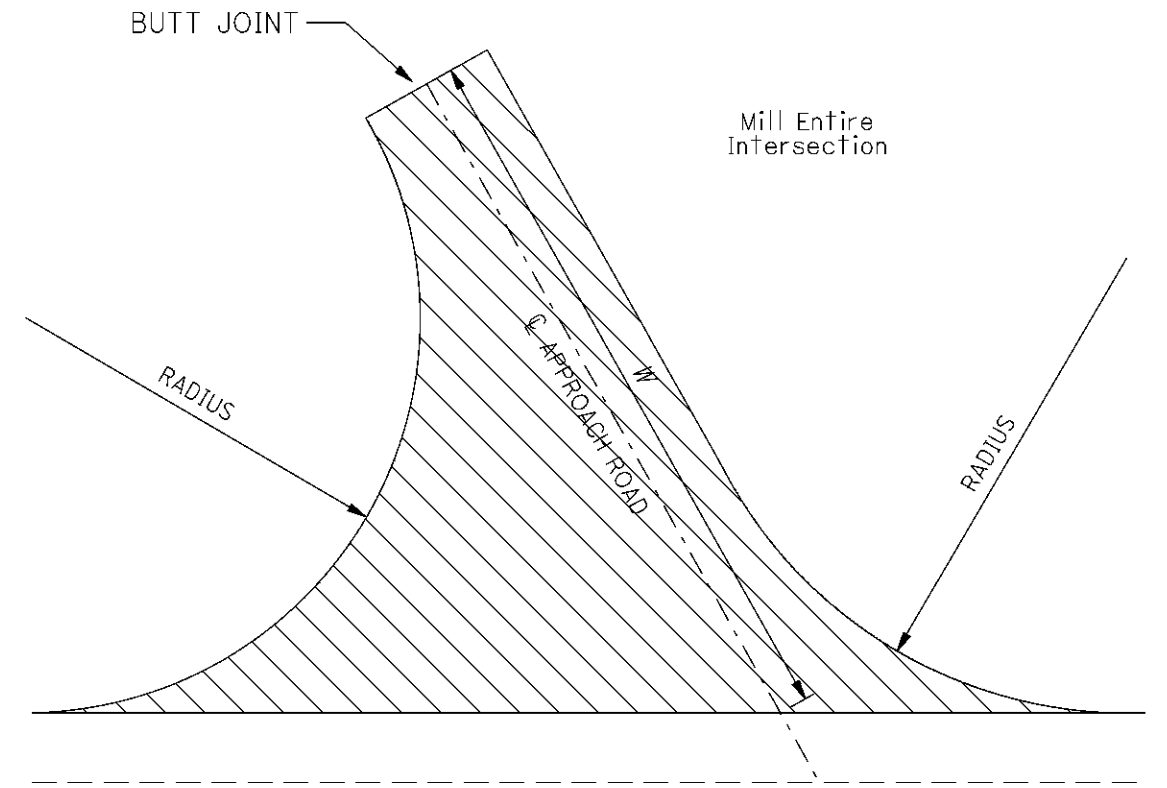
APPROACH TYPICALS

MER-118/119-
21.99/0.00

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* ADD 2 FEET FOR EACH ADDITIONAL MAILBOX



W = To Back of Radius or As Directed By the Engineer

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN MAINTENANCE
TYPICAL APPROACHES FOR ROADS,
DRIVES, AND MAILBOXES

ITEM 253, PAVEMENT REPAIR, AS PER PLAN

PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH ITEM 253 - PAVEMENT REPAIR, WITH THE FOLLOWING ADDITIONS.

THE PAVEMENT REPAIR AREAS SHALL BE ROUGHLY RECTANGULAR IN SHAPE AND SAWED OR MILLED TO A NEAT LINE. THE DEPTH OF REMOVAL, AS DIRECTED BY THE ENGINEER, SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT. THE REPLACEMENT SHALL BE ITEM 301- ASPHALT CONCRETE BASE, PG 64-22.

THE ESTIMATED PAVEMENT REPAIR AREAS SHALL BE A MINIMUM OF FOUR FEET (4') IN WIDTH AND SIX INCHES (6") IN DEPTH AND SHALL BE FINISHED TO ACCOMODATE THE PROPOSED OVERLAY.

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN = 1900 SQ. YD.
PART 1 SR 118 200 SQ YD
PART 2 SR 119 1700 SQ YD

ALIGNMENT AND PROFILE

THE WORK PROPOSED BY THIS PROJECT CONSISTS OF PAVEMENT PLANING AND RESURFACING OF THE EXISTING PAVEMENT. THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED AND THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT.

INTERMEDIATE COURSE

THIS MATERIAL SHALL BE PLACED IN A SEPARATE OPERATION WHERE AND AS DIRECTED BY THE ENGINEER.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT SEVEN CONSTRUCTION ADMINISTRATOR TWO (2) WEEKS PRIOR TO BEGINNING ANY WORK, PHONE: 937-497-6722.

ITEM 254 - PATCHING PLANED SURFACE, AS PER PLAN

254.04 SURFACE PATCHING. PAVEMENT AREAS DESIGNATED FOR PATCHING AFTER PAVEMENT PLANING OPERATION SHALL BE MILLED TWO INCHES (2") IN DEPTH, CLEAN AREAS OF LOOSE MATERIAL, APPLY TACK COAT AND AREA FILLED WITH ITEM 442, ASPHALT CONCRETE. LEVEL AND COMPACT NEW MATERIAL FLUSH TO ADJACENT PLANED SURFACE.

AN ESTIMATED QUANTITY OF 300 SQ YDS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 644 - PAVEMENT MARKINGS

THE CONTRACTOR SHALL DOCUMENT ALL EXISTING PAVEMENT MARKINGS TO BE REPLACED IN KIND, EXCEPT FOR THE INTERSECTION OF SR-119 AND E. BOUNDRY/3RD ST./ WILLIAMS ST, AS INDICATED ON SHEET 26 .

THE CONTRACTOR SHALL COORDINATE AND CORROBORATE THE LAYOUT OF ALL PAVEMENT MARKINGS WITH THE VILLAGE OF FORT RECOVERY.

ITEM 301 - ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING OF MATERIAL FROM ALL EXISTING STONE DRIVEWAYS AND MAILBOX APPROACHES TO A DEPTH OF FOUR INCHES (4") BELOW THE EXISTING PAVEMENT ELEVATION. ALL DRIVEWAY AND MAILBOX APPROACHES SHALL BE CONSTRUCTED AS PER TYPICAL SHOWN IN THE PLAN. EXCAVATED MATERIAL SHALL BE USED TO BACKUP THE NEW PAVEMENT OR REMOVED FROM THE PROJECT SITE AS DIRECTED BY THE PROJECT ENGINEER.

ESTIMATED APPROACHES:

- 5 MAILBOX APPROACHES
- 2 DRIVEWAY APPROACHES
- 6 COMBINATION DRIVE AND MAILBOX APPROACHES

A QUANTITY HAS BEEN PROVIDED IN THE TOTAL TO CORRECT THE SHOULDER/PAVEMENT DROP OFF AT THE INSIDE CURVE LOCATION ON MER 119-1.97 NEAR THE INTERSECTION AT FORT RECOVERY-MINSTER RD.

THIS LOCATION SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES (6") BELOW THE EXISTING PAVEMENT ELEVATION AND REPLACED WITH ITEM 301, ASPHALT CONCRETE BASE, PG64-22.

ENSURE TO BACK UP THE REPAIR WITH LINEAR GRADING AND THE EXCAVATED MATERIAL AS PART OF THIS PAY ITEM.

A QUANTITY OF ITEM 301 - ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED IN THOSE AREAS EXCAVATED FOR DRIVEWAY AND MAILBOX APPROACHES AND THE CURVE LOCATION SPECIFIED.

ALL WORK, MATERIALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE PLACEMENT AND INCLUDED IN THE COST OF ITEM 301 - ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN.

ITEM 301 - ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN = 72 CU YD

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (446), AS PER PLAN

THE MATERIAL USED FOR THE RESURFACING SHALL CONSIST OF ONE AND THREE FOURTH (1 3/4") INCHES OF ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (446), AS PER PLAN. THE 442.04 BINDER SHALL BE PG76-22M FOR THE SURFACE COURSE.

THE CONTRACTOR SHALL USE A MATERIAL TRANSFER VEHICLE FOR THE MAINLINE SURFACE COURSE. THIS VEHICLE SHALL BE A NON-CONTACT VEHICLE AND SHALL BE CAPABLE OF TRANSFERRING AND REMIXING THE ASPHALT CONCRETE FROM THE TRUCK TO THE PAVER. ALL COSTS ASSOCIATED WITH THIS EQUIPMENT SHALL BE INCLUDED IN ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (446), AS PER PLAN.

SAFETY EDGE NOTE FOR THIN OVERLAYS

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.

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 SAFETSLOPE 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

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

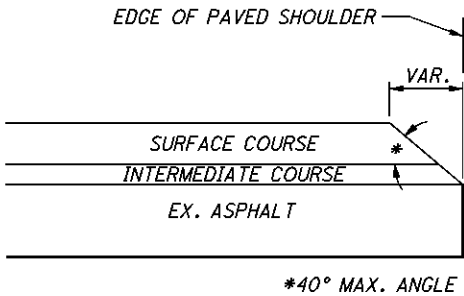
ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
WWW.ADVANTAEDGEPAVING.COM

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 (200 TO 300 MM) AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.

ALL EQUIPMENT, LABOR, AND MATERIALS TO CONSTRUCT A SAFETY EDGE AS DETAILED SHALL BE INCIDENTAL TO THE PAVING OPERATION AND ALL COSTS ASSOCIATED SHALL BE INCLUDED IN ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG 70-22M.



SAFETY EDGE DETAIL

ITEM 690 - SPECIAL, MAILBOX REMOVED AND RESET

THIS WORK SHALL CONSIST OF REMOVING AND RESETTNG EXISTING MAILBOX SUPPORTS. THE CONTRACTOR SHALL TAKE GREAT CARE IN REMOVING AND RESETTNG MAILBOX SUPPORTS TO THE CORRECT DISTANCE FROM THE EDGE OF PAVEMENT AS SHOWN ON THE APPROACH TYPICAL SHEET OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT FOR DAMAGED OR IMPROPER HANDLING ON THEIR PART AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POSTMASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO BE REMOVED AND RESET. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10.

MAILBOXES REMOVED AND RESET SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR'S OPERATION OF CONSTRUCTING THE ASPHALT CONCRETE APPROACH IN JUDGMENT OF THE ENGINEER SHALL NOT BE PAID FOR.

PAYMENT SHALL BE FOR FINAL PERMANENT INSTALLATIONS ONLY. ALL LABOR, MATERIAL AND EQUIPMENT NEEDED TO COMPLETE THEIR WORK SHALL BE INCLUDED IN ITEM 690 - SPECIAL, MAILBOX REMOVED AND RESET.

A QUANTITY OF 10 EACH OF ITEM SPECIAL, MAILBOX REMOVED AND RESET HAS BEEN CARRIED TO THE GENERAL SUMMARY.

CONTRACTOR COORDINATION

COORDINATION WILL BE NECESSARY WITH DAN JUTTE OF JUTTE EXCAVATING PH. NO. 419-733-0053, WHO HAD ERECTED THE TEMPORARY PORTABLE BARRIER ON MER-119-0252, TO ALLOW THAT CONTRACTOR TO REMOVE THE PORTABLE BARRIER PRIOR TO THE START OF THE PROPOSED BRIDGE WORK ON THIS PROJECT.

ITEM 202, GUARDRAIL REMOVED, AS PER PLAN

THE CONTRACTOR SHALL REMOVE THE EXISTING GUARDRAIL AND GUARDRAIL POSTS, INCLUDING ALL BROKEN OFF POSTS, AND ANY CONCRETE AND DISPOSE OF OFF THE PROJECT SITE. ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 202, GUARDRAIL REMOVED, AS PER PLAN.

ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN

THE CONTRACTOR SHALL REMOVE THE EXISTING TYPE A ANCHOR AND REMOVE THE CONCRETE ANCHORING PADS COMPLETELY AND DISPOSE OF OFF THE PROJECT SITE. ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN.

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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 DEPARTMENTS APPROVED LIST.

DURING CONSTRUCTION, ODOT PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART 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.

ITEM 618 - EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)

DESCRIPTION: THIS WORK CONSISTS OF GRINDING DEPRESSIONS (RUMBLE STRIPES) AND PLACING 4 INCH WIDE EDGE LINES SO AS TO BE VISIBLE FROM BOTH DIRECTIONS OF TRAVEL IN THE PAVEMENT AT THE LOCATION OF THE EDGE OF PAVEMENT.

CONSTRUCT EDGE LINE RUMBLE STRIPES ACCORDING TO STANDARD CONSTRUCTION DRAWING TC-64.10

CONSTRUCTION OF EDGE LINE RUMBLE STRIPE: FURNISH EQUIPMENT TO GRIND THE DEPRESSIONS WITH A ROTARY CUTTING HEAD THAT WILL PRODUCE THE REQUIRED DIMENSIONS AND A PATTERN OF CUTTING TIPS TO PRODUCE A SMOOTH CUT WITH APPROXIMATELY 0.06 INCHES (1.5 MM) BETWEEN PEAKS AND VALLEYS. ENSURE THAT THE CUTTING HEAD IS ON ITS OWN SUSPENSION SYSTEM, INDEPENDENT FROM THAT OF THE POWER UNIT, TO ALLOW THE HEAD TO ALIGN ITSELF WITH THE SLOPE PAVEMENT OR ANY IRREGULARITIES IN THE PAVEMENT SURFACE. EQUIP THE CUTTING TOOL WITH GUIDES OR A GUIDANCE SYSTEM, CLEARLY VISIBLE TO THE OPERATOR, TO PROVIDE FOR CONSISTENT ALIGNMENT. TAKE EFFECTIVE MEASURES TO CONTROL DUST DURING THE GRINDING OPERATION.

LOCATION AND PLACEMENT RESTRICTIONS OF EDGE LINE RUMBLE STRIPE: EDGE LINE, RUMBLE STRIPES ARE NOT TO BE USED AT LOCATIONS WHERE THE LANE WIDTH IS LESS THAN 11 FEET AND THE POSTED SPEED LIMIT IS LESS THAN 50 MPH. RUMBLE STRIPES ARE NOT TO BE USED WHERE THE SHOULDER WIDTH IS LESS THAN 2 FEET. DISCONTINUE EDGE LINE RUMBLE STRIPES AT INTERSECTIONS, RIGHT TURN LANES, DRIVEWAYS, STRUCTURES AND 650 FEET FROM URBAN AND/OR RESIDENTIAL AREAS. DISCONTINUE RUMBLE STRIPES AT THE INTERSECTION OF TWO STATE ROUTES WHERE RAISED PAVEMENT MARKERS BEGIN OR END.

LOCATE EDGE LINE RUMBLE STRIPES ON THE PAVEMENT PER THE STANDARD CONSTRUCTION DRAWING TC-64.10. METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE EDGE LINE RUMBLE STRIPES IN THE UNIT OF MILES (KILOMETERS) COMPLETED IN PLACE. THE DEPARTMENT WILL MEASURE QUANTITIES AS THE LENGTH OF COMPLETED GRINDING, INCLUDING THE GAPS, INTERSECTIONS AND OTHER SECTIONS OF PAVEMENT NOT BEING GROUND BETWEEN THE BEGINNING STRAIGHT LINE MILEAGE AND THE ENDING STRAIGHT LINE MILEAGE LISTED IN THE PLANS.

BASIS OF PAYMENT: THE DEPARTMENT WILL NOT PAY FOR REPAIRING SURFACE DAMAGE AND EXTRANEIOUS MARKS CAUSED BY THE CONTRACTOR'S OPERATIONS. THE DEPARTMENT WILL PAY FOR THE EDGE LINE PAVEMENT MARKINGS ITEM 642 TRAFFIC PAINT, SEPARATELY.

A QUANTITY OF 23.24 MILES OF ITEM 618 EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE) HAS BEEN CARRIED TO THE GENERAL SUMMARY. THE LOCATIONS ARE: MER-118 BETWEEN SLM 21.99 - 23.74 AND SLM 24.75 AND 27.09 AND MER-119 BETWEEN SLM 0.00-1.06 AND SLM 2.07-8.54.

GRINDING MATERIAL

THE GRINDING MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.

PAVEMENT MARKINGS

THE RUMBLE STRIPE SHALL BE DUST-FREE AND DRY WHEN THE PAVEMENT MARKINGS ARE APPLIED.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

AN ESTIMATED QUANTITY OF ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE HAS BEEN CARRIED TO THE GENERAL SUMMARY AND INCLUDED IN THE PLANS TO BE USED AS DIRECTED BY THE ENGINEER.

THE APPROXIMATE DEPTH OF PAVEMENT PLANING IS ONE AND THREE-QUARTERS INCHES (1.75"). ALL PLANED CUTTINGS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT.

THE APPROXIMATE WIDTH OF PAVEMENT PLANING VARIES FROM THIRTY-ONE FEET (31') TO FORTY-FIVE FEET (45').

THE CONTRACTOR SHALL BEGIN PLACEMENT OF ITEM 441 - ASPHALT CONCRETE SURFACE COURSE WITHIN FORTY-EIGHT (48) HOURS AFTER ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE IS COMPLETED ON A DAILY OPERATION.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE = 16656

THERE ARE NINE (9) INTERSECTIONS INCLUDED WITHIN THE LIMITS AND QUANTITY OF THE PAVEMENT PLANING.

THERE ARE APPROXIMATELY TWENTY THREE (23) CASTINGS WITHIN THE PLANING AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL LABOR AND EQUIPMENT NECESSARY TO MAINTAIN TRAFFIC AROUND THE CASTINGS AND SHALL INCLUDE THE COST IN THE UNIT PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MANHOLES = 13 EACH WATER VALVES = 10 EACH

ANY CASTINGS THAT REQUIRE ADJUSTING DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. ANY NEW CASTINGS REQUIRED SHALL BE FURNISHED TO THE CONTRACTOR BY THE VILLAGE OF FORT RECOVERY

AFTER COMPLETION OF ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, ANY UTILITY CASTINGS THAT REQUIRE ADJUSTMENT SHALL BE COMPLETED AS PER ITEM 611 AND ITEM 638. ADJUSTING DEVICES ON MANHOLE COVERS ARE PROHIBITED.

THE PREVIOUS PROJECT PERFORMED IN 2003 ON SR-119 WITHIN FORT RECOVERY SHOWS A PAVEMENT REINFORCING MESH (GLASORID) PLACED BETWEEN THE INTERMEDIATE AND SURFACE COURSES AT A 1.5" DEPTH. THE PREVIOUS PLANS INDICATE IT WAS PLACED APPROXIMATELY BETWEEN SLM 1.08 - 1.29 AND SLM 1.57 - 1.68. HOWEVER, THE CONTRACTOR MAY ENCOUNTER THIS MATERIAL THROUGHOUT THE PAVEMENT PLANING SECTIONS PERFORMED WITHIN FORT RECOVERY ON SR-119

BLEND TO EXISTING - CURB RAMPS

THE INTENT OF THIS PROJECT IS TO INSTALL ADA COMPLIANT CURB RAMPS AT THE INTERSECTIONS AS SHOWN IN THESE PLANS WITH MINOR UTILITY INVOLVEMENT. THE CONTRACTOR SHALL BLEND TO EXISTING CURB INLETS/MANHOLES OR UTILITY POLES WITHIN RIGHT-OF-WAY CONSTRAINTS WHERE APPLICABLE UNLESS RELOCATION PER THE UTILITY IS NEEDED. ALL CURB RAMP STANDARDS PER BP-7.1 SHALL APPLY UNLESS OTHERWISE NOTED IN THE PLANS.

ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN
ITEM 609 - CURB, TYPE 6, AS PER PLAN

THE PROPOSED PAVEMENT WORK NEEDED TO MATCH EXISTING PAVEMENT/PROPOSED RESURFACING (REMOVED AS PART OF ITEM 202, CURB REMOVED, AS PER PLAN) SHALL BE INCLUDED IN THE PROPOSED CURB ITEM.

ITEM 202, CURB REMOVED, AS PER PLAN

THE INTENT OF THIS WORK IS TO REMOVE ANY EXISTING CURB AND/OR ASPHALT PAVEMENT NECESSARY TO INSTALL PROPOSED CURB RAMPS. ALL COSTS ASSOCIATED WITH PAVEMENT REMOVAL SHALL BE INCLUDED IN THE CURB REMOVAL ITEM.

ITEM 608, CURB RAMP TYPE A1, AS PER PLAN
ITEM 608, CURB RAMP TYPE A2, AS PER PLAN
ITEM 608, CURB RAMP TYPE B1, AS PER PLAN
ITEM 608, CURB RAMP TYPE B2, APP
ITEM 608, CURB RAMP TYPE C2, AS PER PLAN

ALL CURB RAMPS SHALL BE CONSTRUCTED AS DETAILED IN THESE PLANS. FOR DETAILS NOT SHOWN IN THESE PLANS OR OTHER CURB RAMP NOTES, THE CONTRACTOR SHALL REFER TO STD. DWG. BP-7.1.

ITEM 202, WALK REMOVED, AS PER PLAN

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SAW CUT ALL EXISTING WALK AREAS TO BE REMOVED, AND CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING AREAS TO REMAIN IN PLACE. SOME WALKS CONSIST OF BOTH CONCRETE, AND ASPHALT CONCRETE, AND THE REMOVAL SHALL BE PAID FOR UNDER ITEM 202, WALK REMOVED, AS PER PLAN. ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK SHALL BE PAID FOR UNDER THE UNIT PRICE BID PER SQUARE FOOT, FOR ITEM 202, WALK REMOVED, AS PER PLAN.

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ITEM 614 - MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITH THE EXCEPTION FOR DOING THE DECK EDGE REPAIR AND GUARDRAIL/BRIDGE RAIL WORK AT STRUCTURE MER-119-0252, IN WHICH CASE, TRAFFIC SHALL BE DETOURED FOR 21 DAYS AS SHOWN ON SHEET 9. THE LENGTH OF RESTRICTED TRAFFIC ZONES DURING ASPHALT RESURFACING SHALL BE KEPT TO A MINIMUM CONSISTENT WITH THE SPECIFICATION REQUIREMENTS FOR PROTECTION OF COMPLETED COURSES.

THE DECK EDGE WORK ON MER-119-0252 SHALL BE DONE PRIOR TO THE PROPOSED ASPHALT RESURFACING AND JOINT WORK. THE INTENT IS TO DO THE DECK EDGE WORK WHILE RESURFACING ON EITHER SR 117 OR SR 118.

THE CONTRACTOR SHALL BE REQUIRED TO FURNISH AND ERECT "GROOVED PAVEMENT" SIGNS FOR ANY PLANED SURFACE OF THE ROADWAY REMAINING OPENED AT THE CONCLUSION OF A WORK DAY.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

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 CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD 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.

SR 119 WILL BE
CLOSED
FOR 21 DAYS
INFO: 1-888-200-9919

W20-H13-60

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT BRIDGE MER-119-0252 OVER THE WABASH RIVER THAT IS APPROXIMATELY 0.8 MILE WEST OF ST. PETER RD. DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

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

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

DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE THE DETOUR SIGNING AS SHOWN ON SHEETS 9 AND 10. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT FOR ITEM 614 DETOUR SIGNING.

INTERIM COMPLETION DATE

THE BRIDGE WORK SPECIFIED TO BE PERFORMED IN THE PLANS ON STRUCTURE MER-119-0252 SHALL BE COMPLETED IN ITS ENTIRETY BEFORE OCTOBER 15, 2015. THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS SPECIFIED IN 108.07 OF THE CM&S FOR ANY WORK PERFORMED AFTER THIS DATE.

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

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

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

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

IN ADDITON TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) 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 IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTIONC 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 LEO,s DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

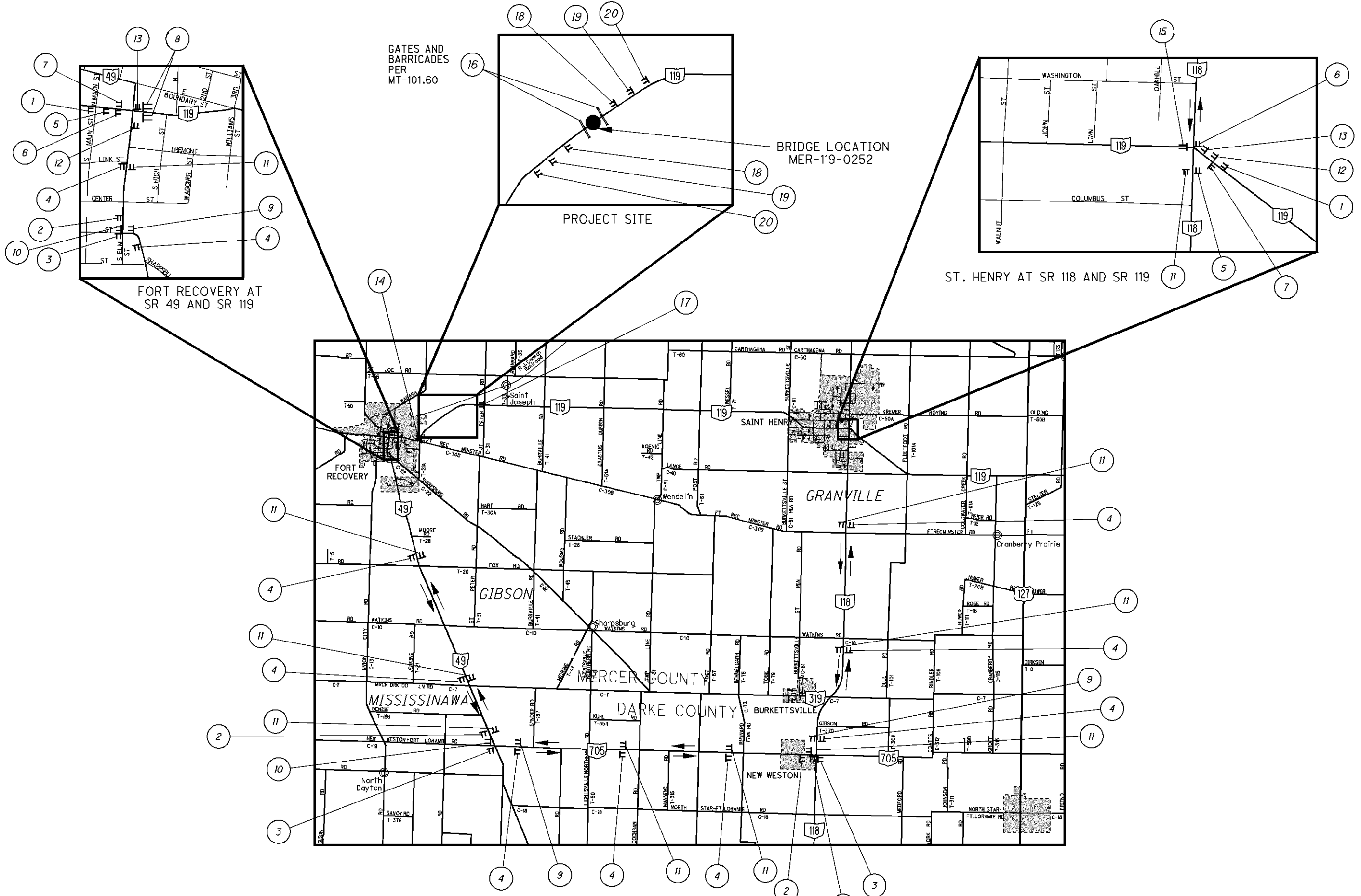
THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECIEVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE 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 40 HOURS

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

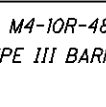
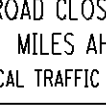
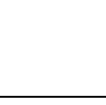
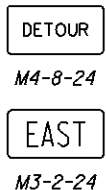
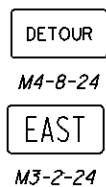
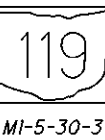
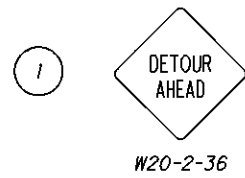
ANY ADDITIONAL COST (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UINT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.



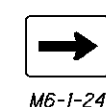
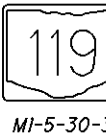
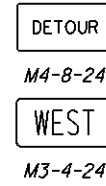
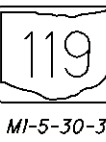
DETOUR MAP
NO SCALE

FOR SIGN NUMBERINGS, SEE SHEET 10

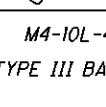
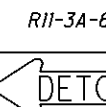
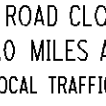
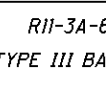
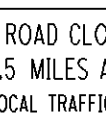
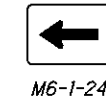
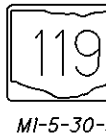
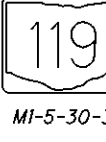
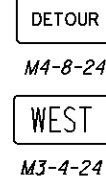
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ROAD CLOSED
1.0 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
ON TYPE III BARRICADE



NO SCALE



ROAD CLOSED
0.5 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
ON TYPE III BARRICADE

ROAD CLOSED
7.0 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
ON TYPE III BARRICADE

ROAD CLOSED
0.8 MILES AHEAD
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ON TYPE III BARRICADE

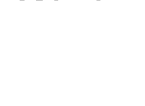
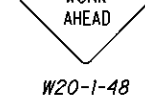
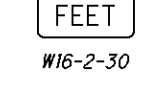
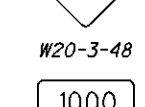
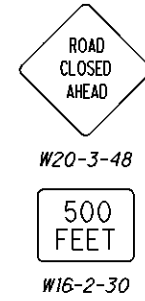


16

ROAD CLOSED
0.8 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
ON TYPE III BARRICADE

17

ROAD CLOSED
0.8 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3A-60
ON TYPE III BARRICADE



FOR ROADWAY DETOUR, SEE SHEET 9
SEE MT-101.60 FOR SIGNS #18-20 SPACING.

MAINTENANCE OF TRAFFIC
DETOUR PLAN

MER-118 / 119 -
21.99 / 0.00

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN IN THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE STRUCTURE AND PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO THE CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS, WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD. PLANS OF THE EXISTING STRUCTURES MAY BE EXAMINED AT THE DISTRICT SEVEN OFFICE IN SIDNEY, OHIO OR THE OFFICE OF STRUCTURAL ENGINEERING IN COLUMBUS, OHIO.

PROPOSED WORK - MER-119-(0053),(0081), (0252)

FOR MER-119-0252, PERFORM DECK EDGE REPAIR AND OTHER ASSOCIATED RAIL WORK AS DETAILED IN THESE PLANS.

PERFORM WEARING COURSE REMOVED 150' BACK FROM BRIDGE JOINT FOR A SMOOTH TRANSITION ACROSS BRIDGE. (SEE BELOW)

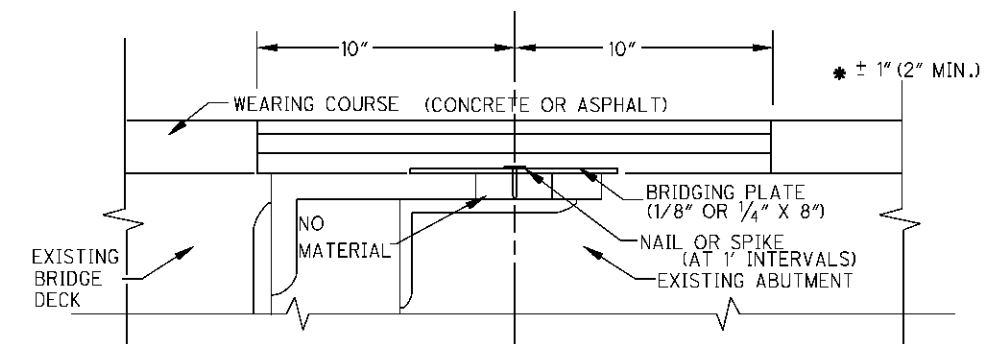
MILL OFF 1.25" OF EXISTING ASPHALT CONCRETE WEARING COURSE ACROSS STRUCTURES, AND REPLACE WITH 1.25" OF PROPOSED ASPHALT CONCRETE SURFACE COURSE ONLY.

- * FOR MER-119-0252, THE WEARING COURSE REMOVED (1.25" ASPHALT) QUANTITY ON THE BRIDGE DATA QUANTITY SHEET EXCLUDES THE WEARING COURSE REMOVED (5" ASPHALT) BEING REMOVED FOR THE DECK EDGE REPAIR AS A SEPARATE QUANTITY FOR THIS HAS BEEN INCLUDED ON THE ROADWAY GENERAL PLAN SHEET.

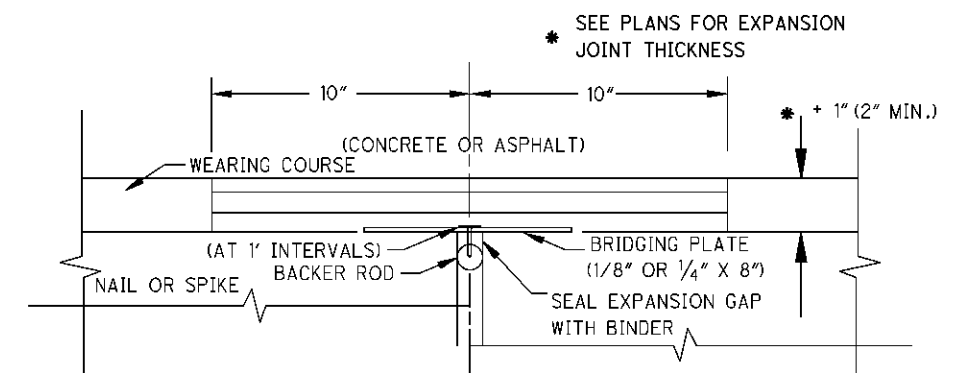
APPLY POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.

ITEM 846 - POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

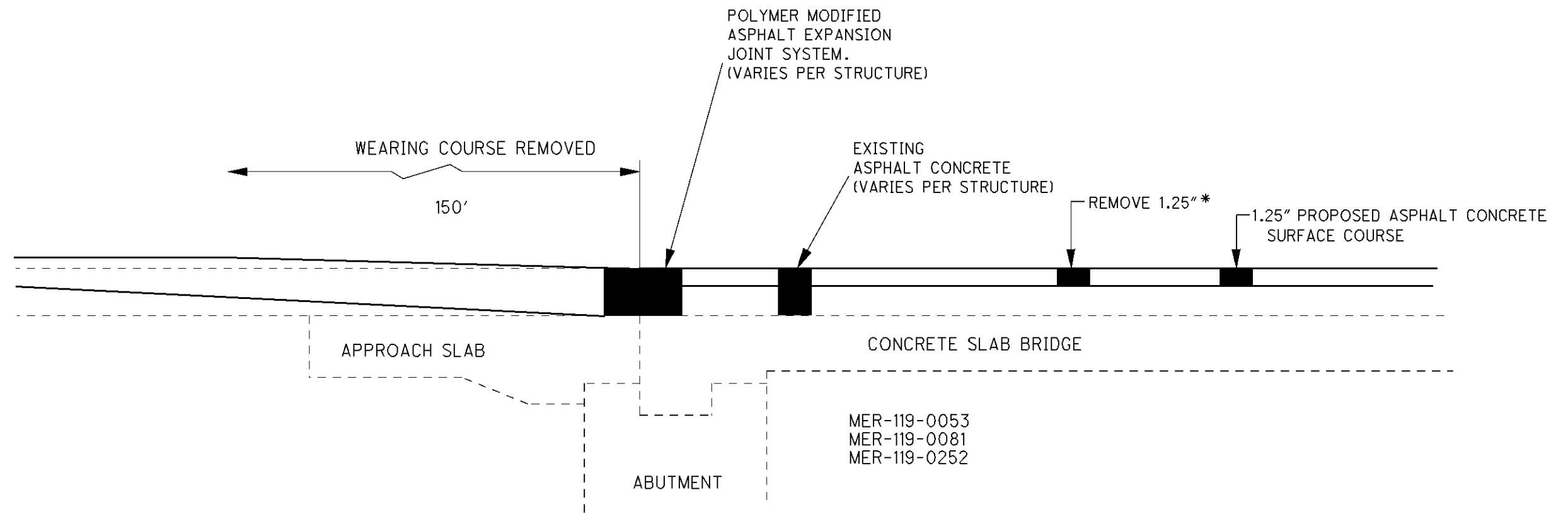
SEE SUPPLEMENTAL SPEC 846. ALL ASPHALT DIMENSIONS ARE MEASURED AT THE EDGE OF THE STRUCTURE. THE ACTUAL DEPTH OF THE JOINT WILL BE THICKER AT THE CENTER OF THE ROADWAY. REMOVAL OF THE EXISTING JOINT SEALER SHALL BE INCLUDED IN THIS ITEM.



TYPICAL STEEL BEAM EXPANSION JOINT



TYPICAL PRESTRESSED BOX BEAM OR CONCRETE SLAB JOINT



CALCULATED
CHECKED

BRIDGE DATA

MER-118/119-
21.99/0.00

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34

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	MER-119 0053	MER-119 0081	MER-119 0252 *				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION
	1330	1275	1386				202	23501	3991	SQ YD	WEARING COURSE REMOVED
	27	23	34				407	10000	84	GAL	TACK COAT (APPLY @ 0.075 GAL/SY RATE)
	13	11	16				441	50100	40	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 70-22M
	1.6	1.2	1.9				846	00120	4.7	CU YD	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

QUANTITIES CARRIED TO GENERAL SUMMARY

* FOR MER-119-0252, WEARING COURSE REMOVED ON THE BRIDGE WAS CALCULATED USING A 31' BRIDGE WIDTH SINCE THE ADDITIONAL 5' WIDTH IS INCLUDED IN THE QUANTITIES SEPARATELY ON THE ROADWAY GENERAL PLAN SHEET FOR THE DECK EDGE REPAIR. THE FINAL ASPHALT CONCRETE SURFACE COURSE AND TACK COAT USED THE FULL BRIDGE WIDTH FOR ITS QUANTITY.

BRIDGE No.	LENGTH (BRIDGE LIMITS)	WIDTH FT.	BRIDGE DECK AREA	STRUCTURE FILE NUMBER	APPROACH SLAB AREA	COMMENTS (WEARING COURSE)
	FT.		SQ. YD.		SQ YD	
MER-119-0053	86'	38'	363	5401895		4" +/- EXISTING ASPHALT CONCRETE
MER-119-0081	73'	38'	308	5401925		3" +/- EXISTING ASPHALT CONCRETE
MER-119-0252	112'	36'	448	5401984		5" +/- EXISTING ASPHALT CONCRETE

CALCULATED
CHECKED

BRIDGE DATA

MER-118 / 119 -
21.99 / 0.00

12
34

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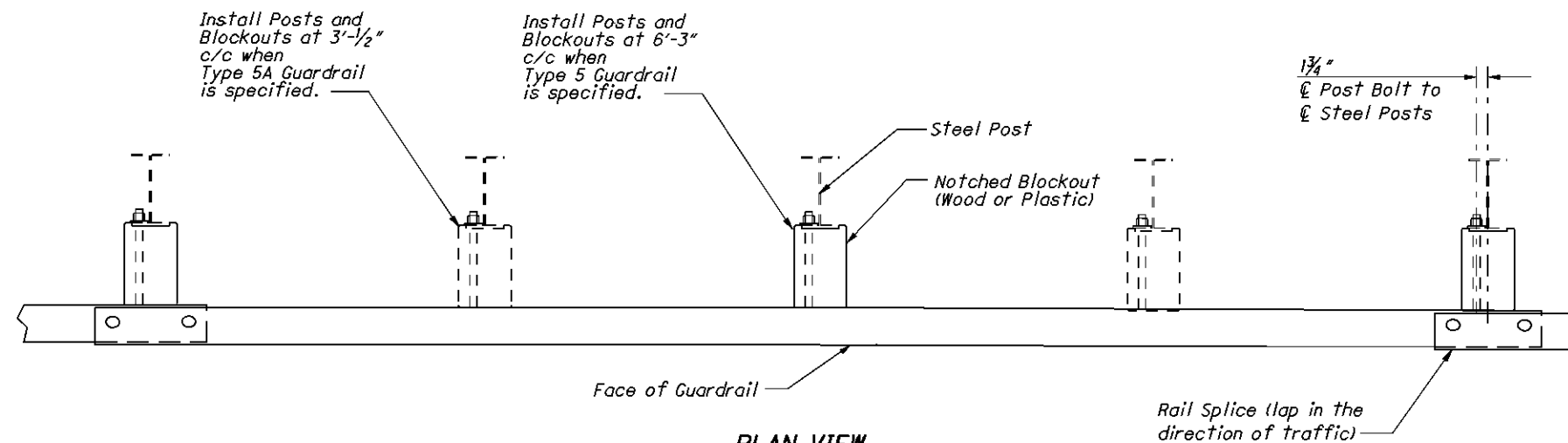
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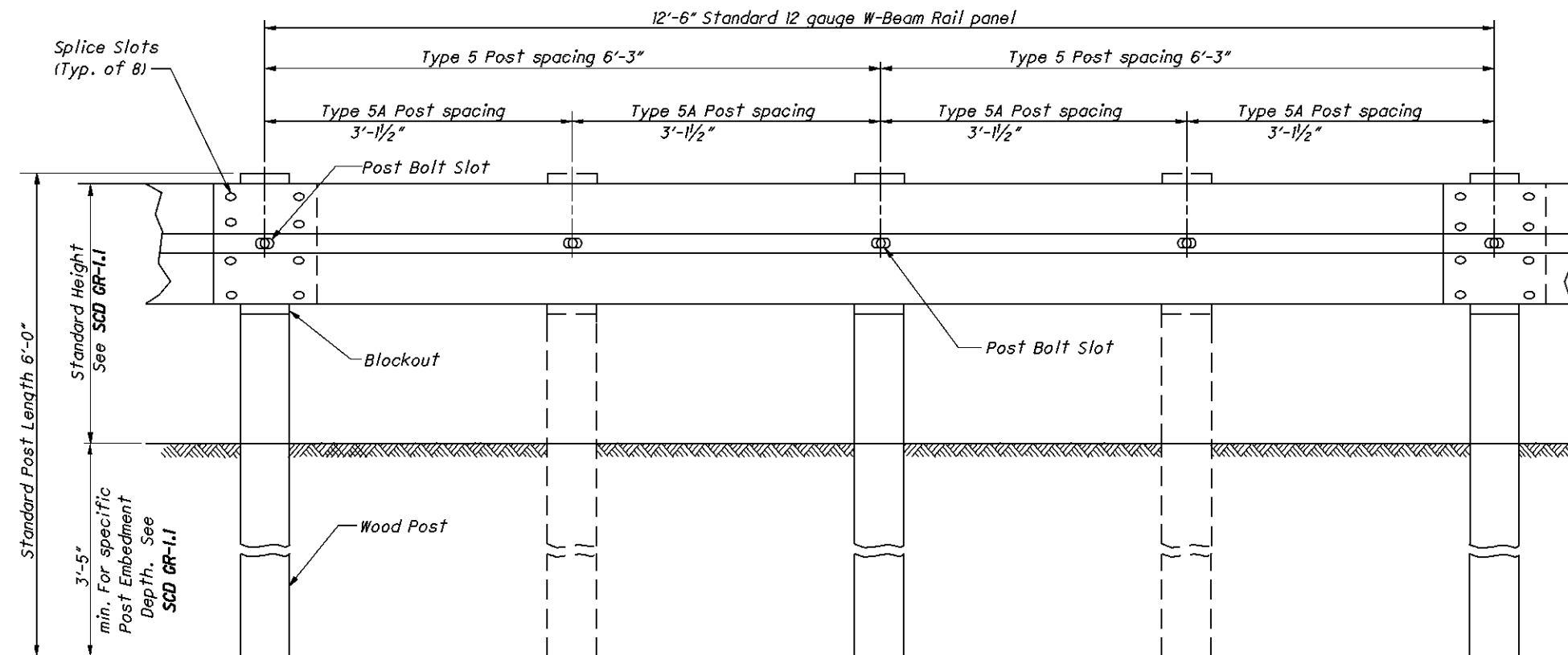
RAISED PAVEMENT MARKERS													CALCULATED	REB	CHECKED
LOCATION				DETAIL	RPM	PRISMATIC RETRO-REFLECTOR TYPES					RPM REMOVED	REMARKS			
P A R T	ROUTE	SLM SECTION				ONE-WAY		TWO-WAY							
		FROM	TO			WHITE	YELLOW	WHITE/ WHITE	WHITE/ RED	YELLOW/ YELLOW					
1	SR 118														
		21.99	22.13	8	10					10		SR 707			
		22.13	23.78	GAP	106					106					
		24.75	25.15	8	25					25		SR 117			
		25.15	27.09	GAP	128					128					
	TOTALS SR 118				269					269		PAVEMENT MARKING NOTES: LANE WIDTH = SR 118 - 12' SR 119 - 11.5' SOLID LINE EQUIVALENT = SR 118 - 1.72 MILES SR 119 - 7.13 MILES			
2	SR 119	0.00	0.79	GAP	52					52					
		2.22	8.53	GAP	417					417					
	TOTALS SR 119				469					469					
		SUB-TOTALS			738					738		THE EDGE LINE SHALL BE CONTINUED AROUND ALL RADII TO MATCH THE EDGE LINE OF THE INTERSECTING ROUTE. IF THE INTERSECTING ROUTE HAS A CENTERLINE, THE CENTERLINE SHALL BE RE-STRIPED OVER THE AREA OF THE RESURFACING.			
TOTALS TO GENERAL SUMMARY					738					743					
1	Multilane Divided				5	Multilane Divided / Expressway			10	4 Lane Divided to 2 Lane Transition		15	Horizontal Curve		
1	Typical Spacing				6	Stop Approach			11	4 Lane Undivided to 2 Lane Transition		16	Horizontal Curve Alt.		
2	Tapered Acceleration Lane				7	1 Lane Approach w/Left Turn Lane			12	Two Lane Narrow Bridge		17	Stop Approach Alt.		
3	Deceleration Lane				8	Thru Approach			13	Two Way Left Turn Lane		GAP	Centerline at 80 feet Typical		
4	Parallel Acceleration Lane				9	2 Lane Approach w/Left Turn Lane			14	One Lane Bridge					
													13		
													34		

RAISED PAVEMENT MARKERS

MER-118/119-21.99/0.00



PLAN VIEW
(Steel Posts shown)



ELEVATION
(Wood Posts shown)

NOTES

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

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

Use round wood posts on runs of single-sided rail. The round posts shall be 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**.

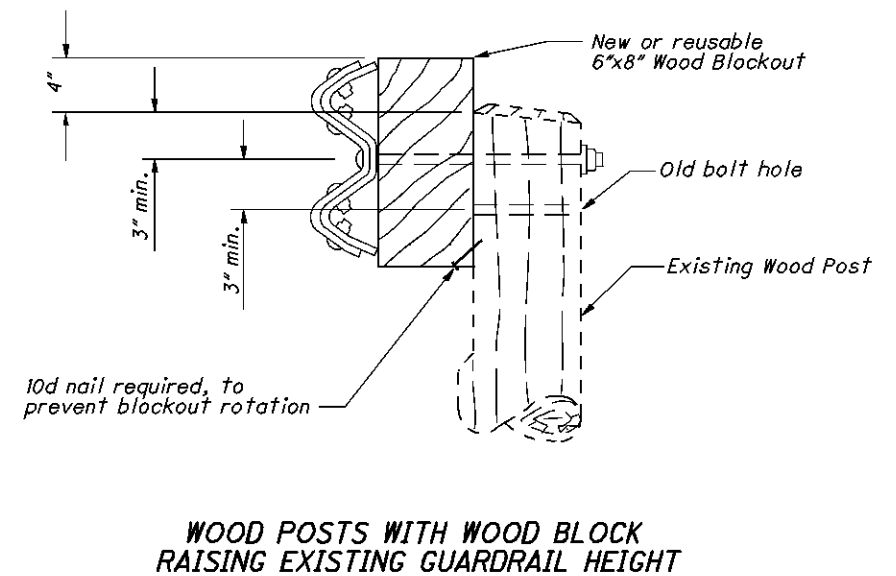
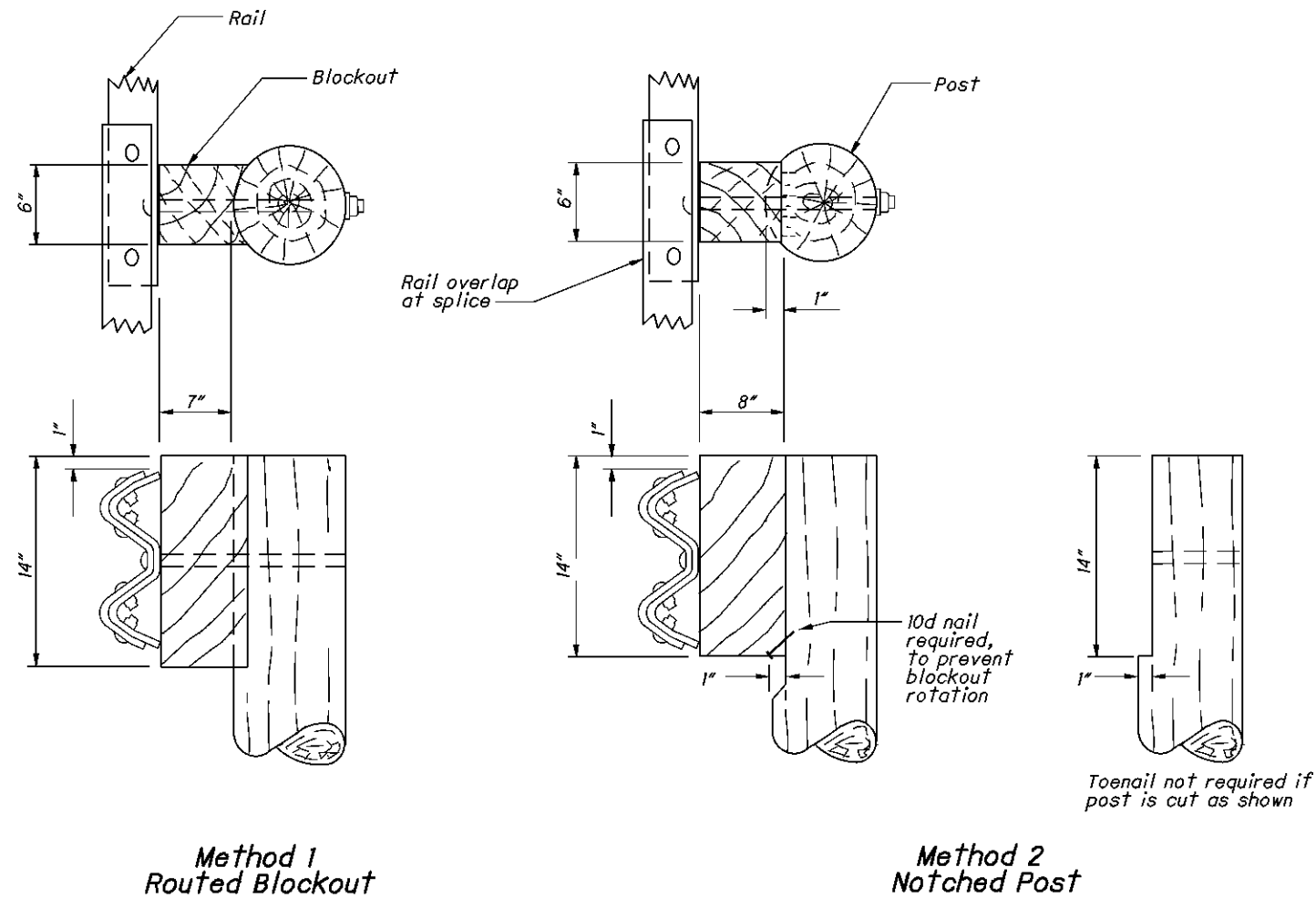
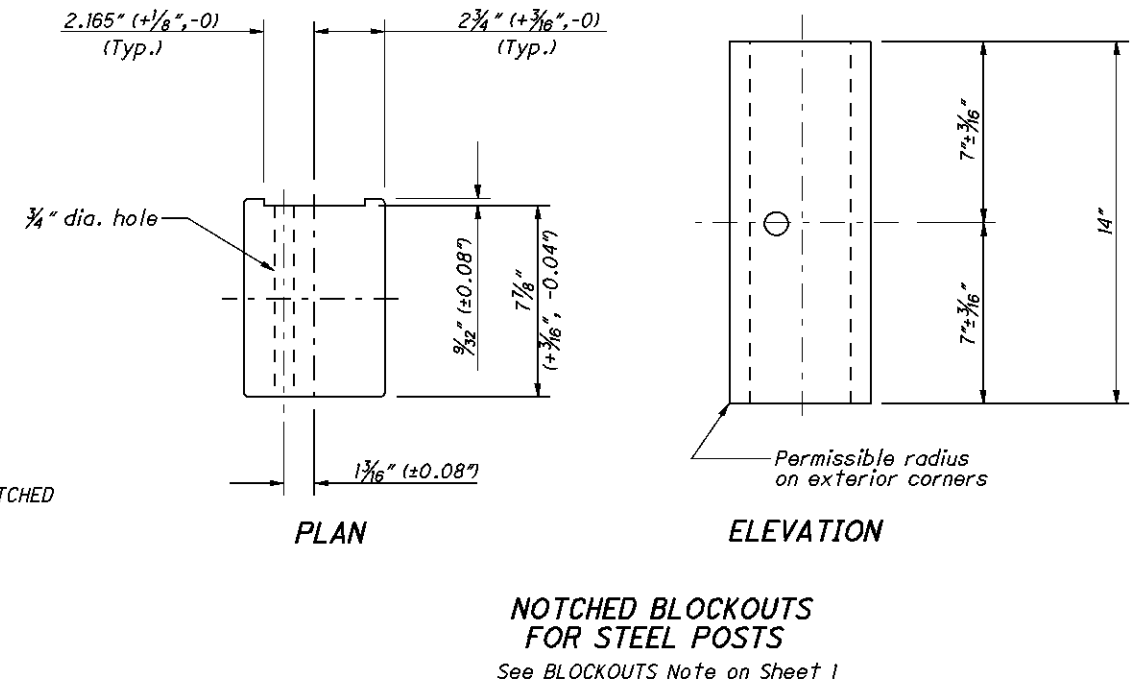
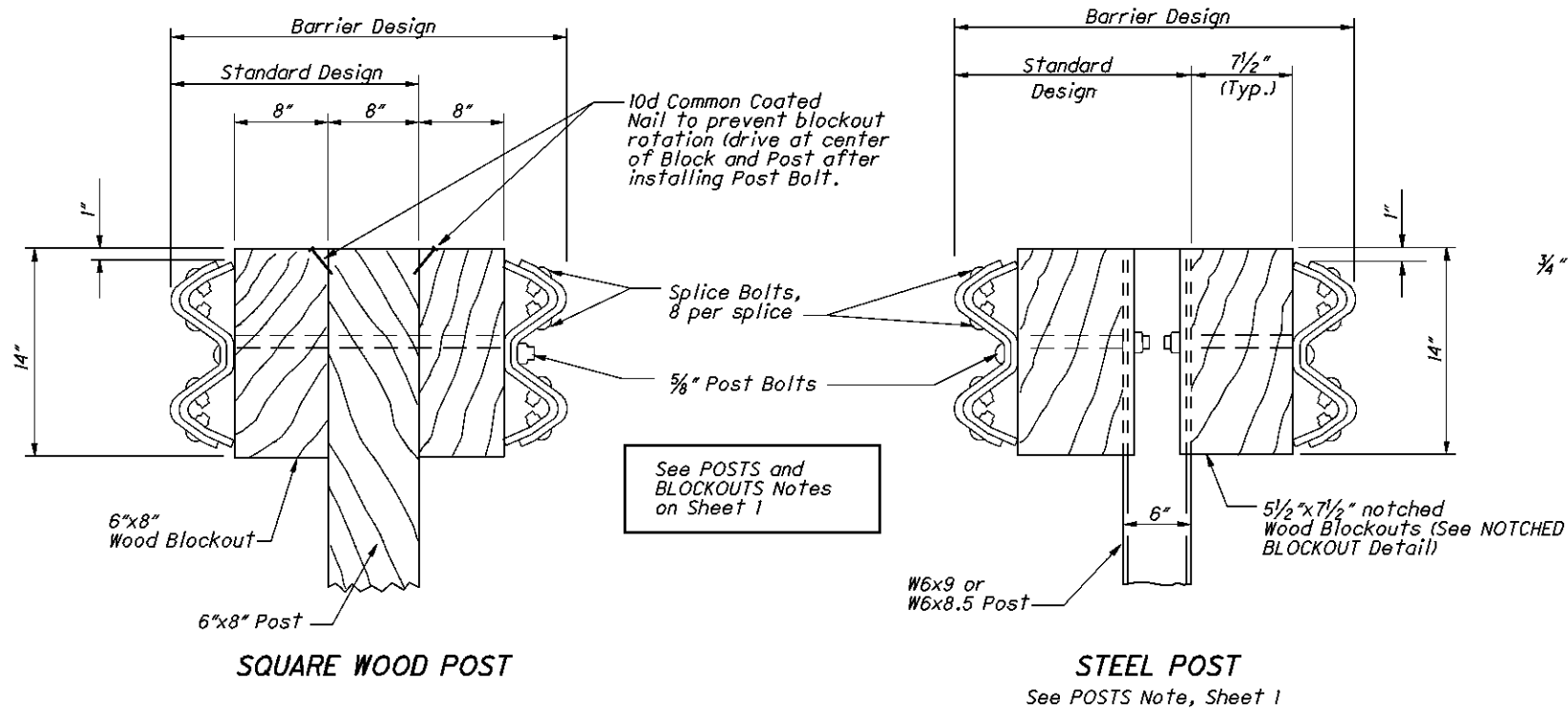
WASHERS: Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts.

DELINEATION: For barrier reflectors, see CMS 626.

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

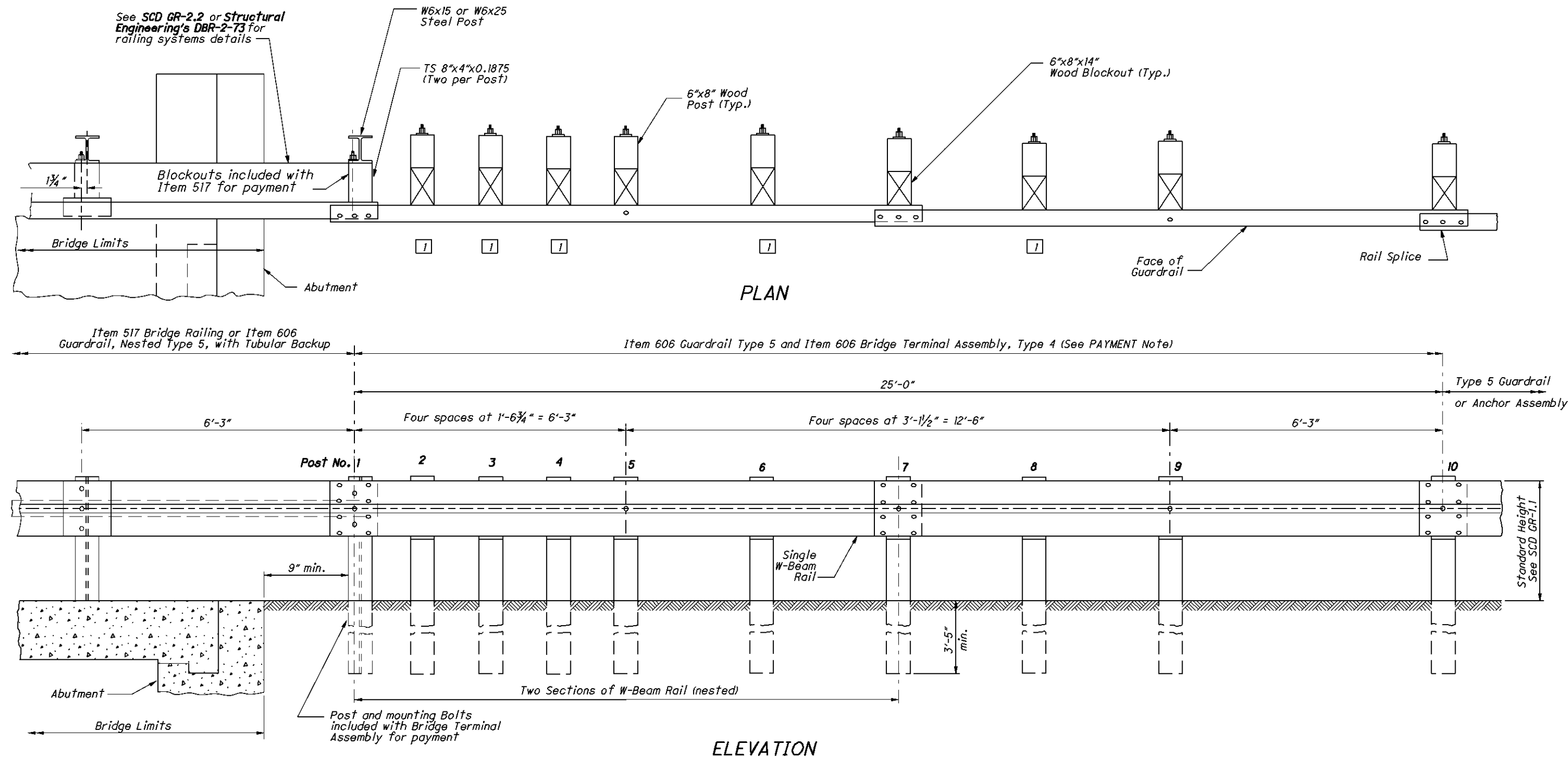
STEEL BEAM POSTS (English)

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"



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.

NOTES

APPLICATION: Use Type T Anchor Assemblies on the trailing end of guardrail runs, located outside of the clear zone of opposing traffic. The assembly is 12'-6" long, none of which can be considered the Length of Need for the guardrail run.

For termination requirements at driveways, see DRIVEWAY OPENING Detail on Sheet 2. For side road approaches and Terminals at Structures, see Location & Design Manual, Volume 1, Figure 603-3.

ANCHORING OPTIONS: Contractor may choose either the foundation tube (shown on this Sheet) or the concrete footing option (Sheet 2) to construct this anchor assembly.

If the foundation tube option is chosen, the contractor will take proper care to insure that the Soil Plate fasteners are not broken during the driving process.

Concrete footings may be cast-in-place or precast. Compact fill after placing precast unit.

MATERIALS: See SCD GR-1.1 for parts used on this anchor, including the CRT Breakaway Posts, Steel Ground Tube, Post Sleeve, Cable Anchor and Bracket Assembly.

Bearing Plate and Soil Plate is ASTM A709 Grade 36. Steel Ground Tube shall be ASTM A500, Grade B, and meet CMS 707.10. All angles, channels and plates shall meet CMS 711.01. All structural steel shall be galvanized as specified in CMS 711.02. All bolt washers indicated are standard galvanized steel of the appropriate size.

Concrete shall be class C.

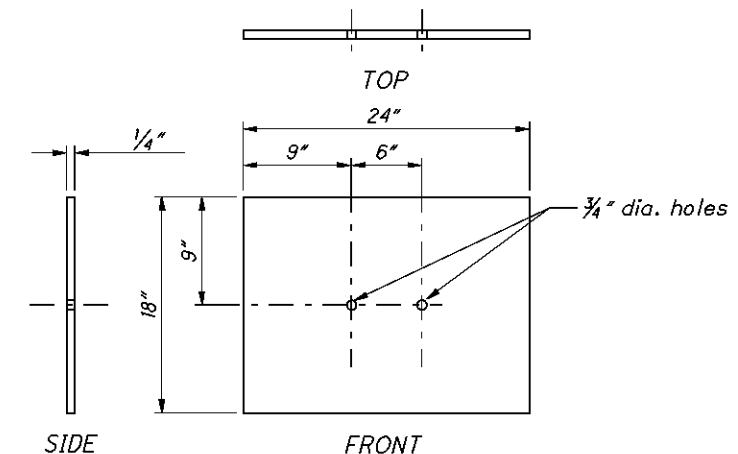
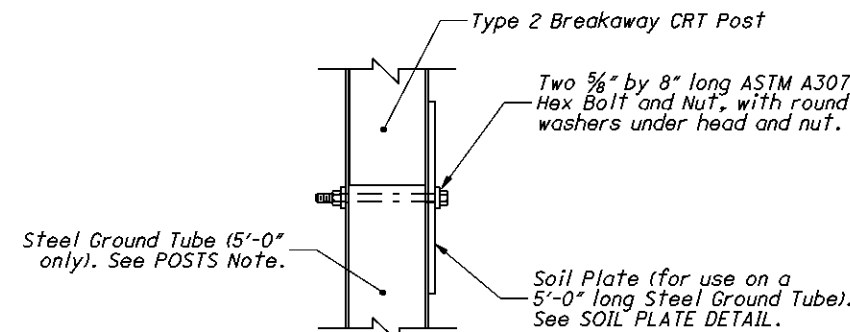
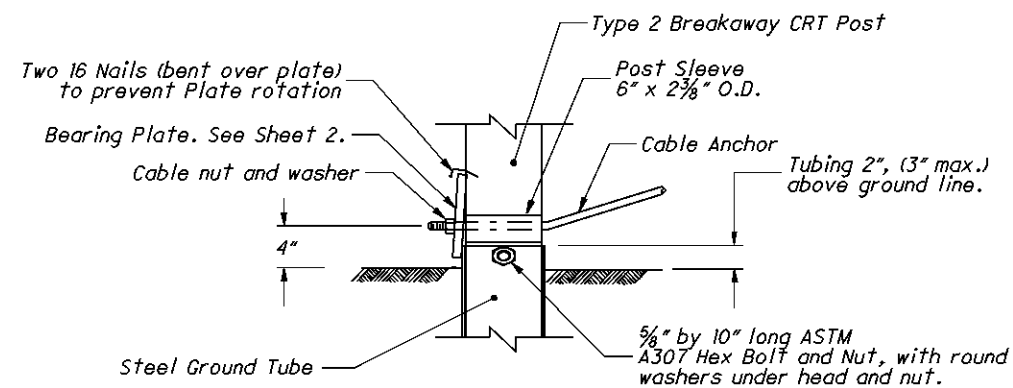
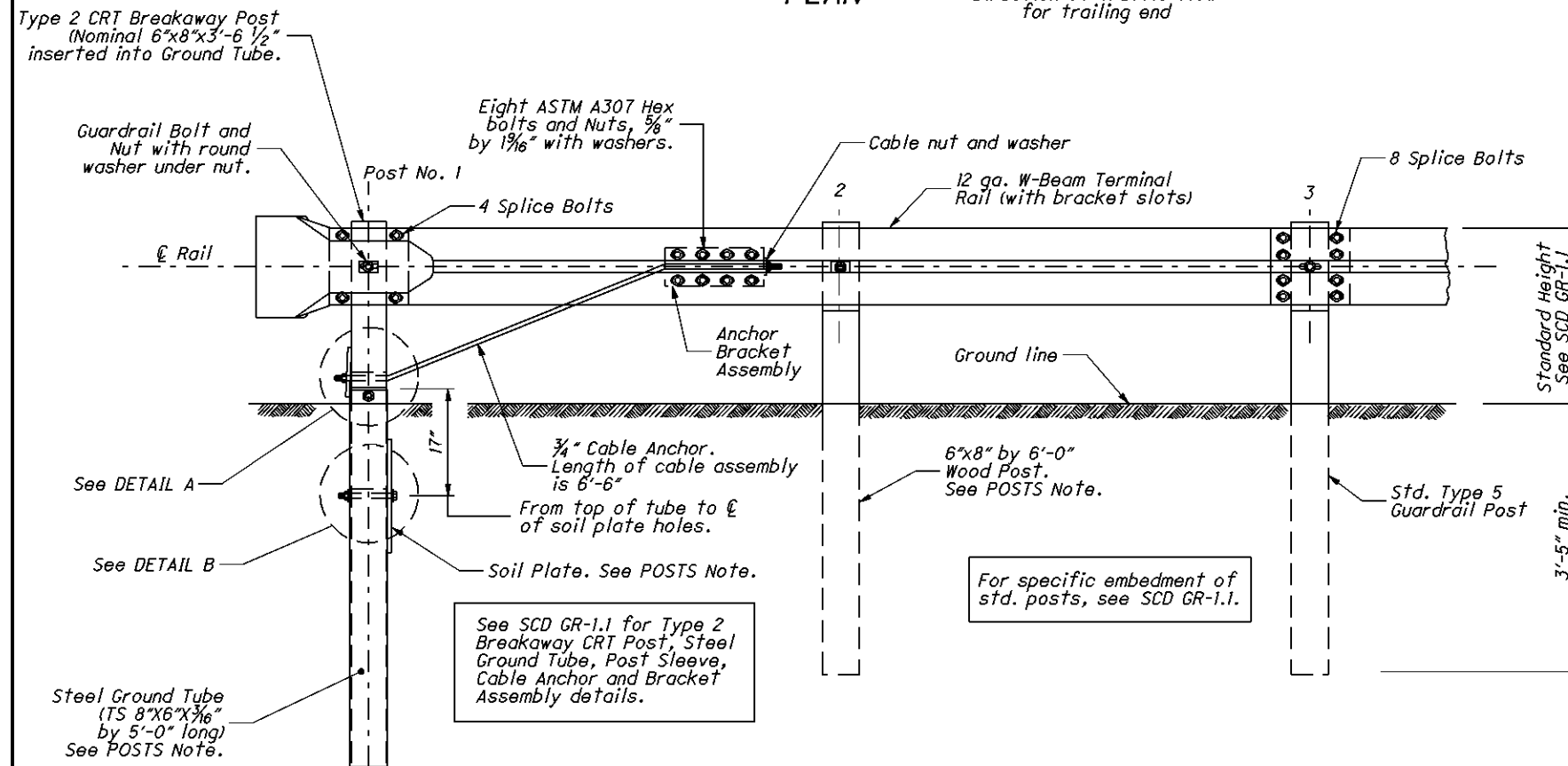
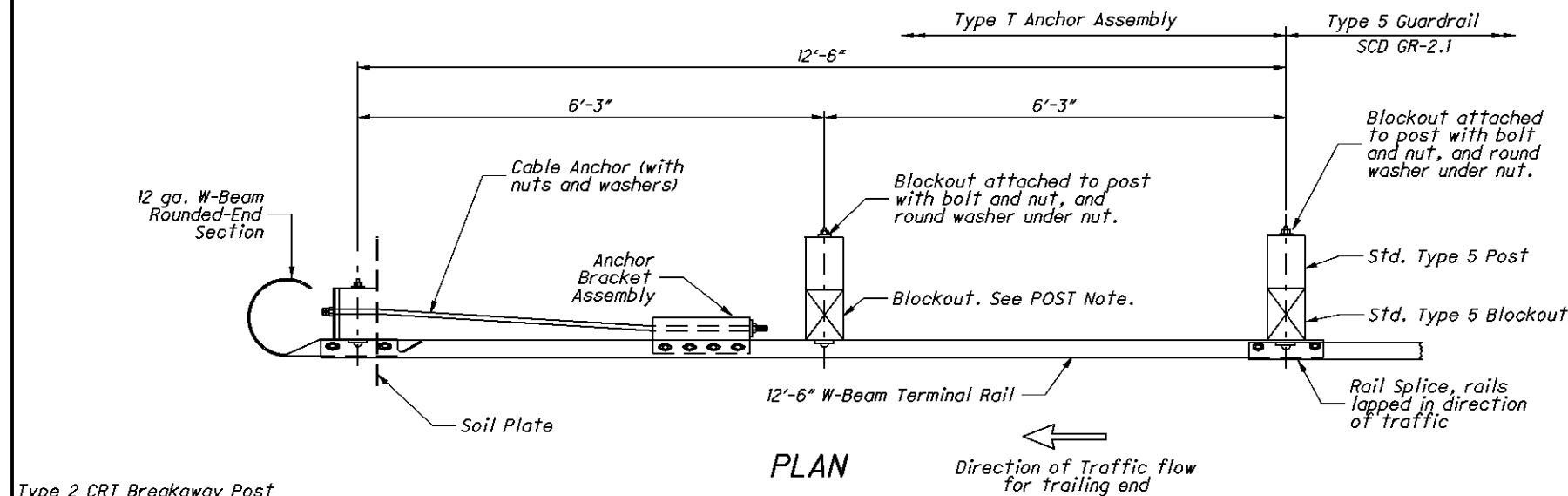
Components on this anchor that are not detailed on SCD GR-1.1 include: 1) 12'-6" W-Beam Terminal Rail (standard part RWM14a), and 2) W-Beam Rounded End Section (RWE03a). For complete details and specifications, see part descriptions in the AASHTO/AGC/ARTBA Standardized Hardware Guide.

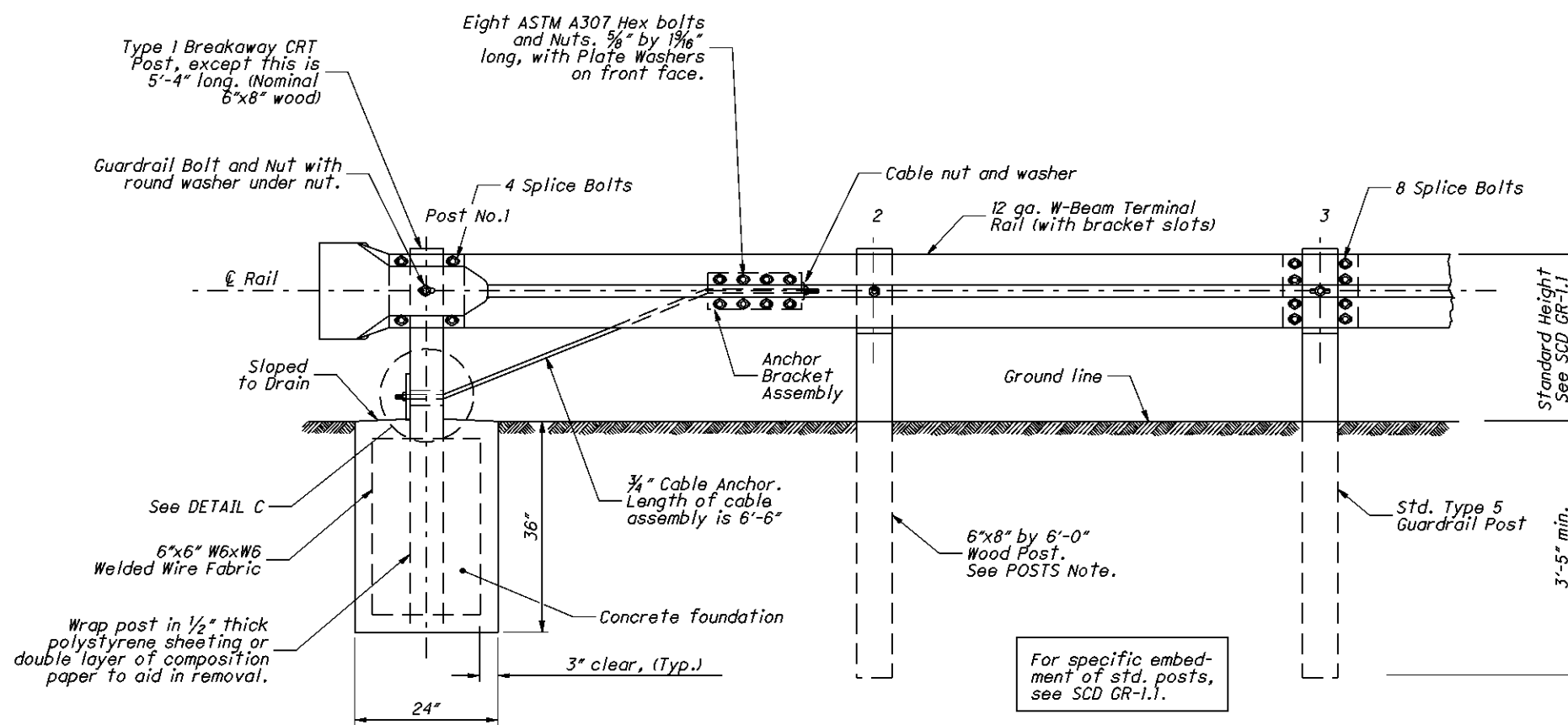
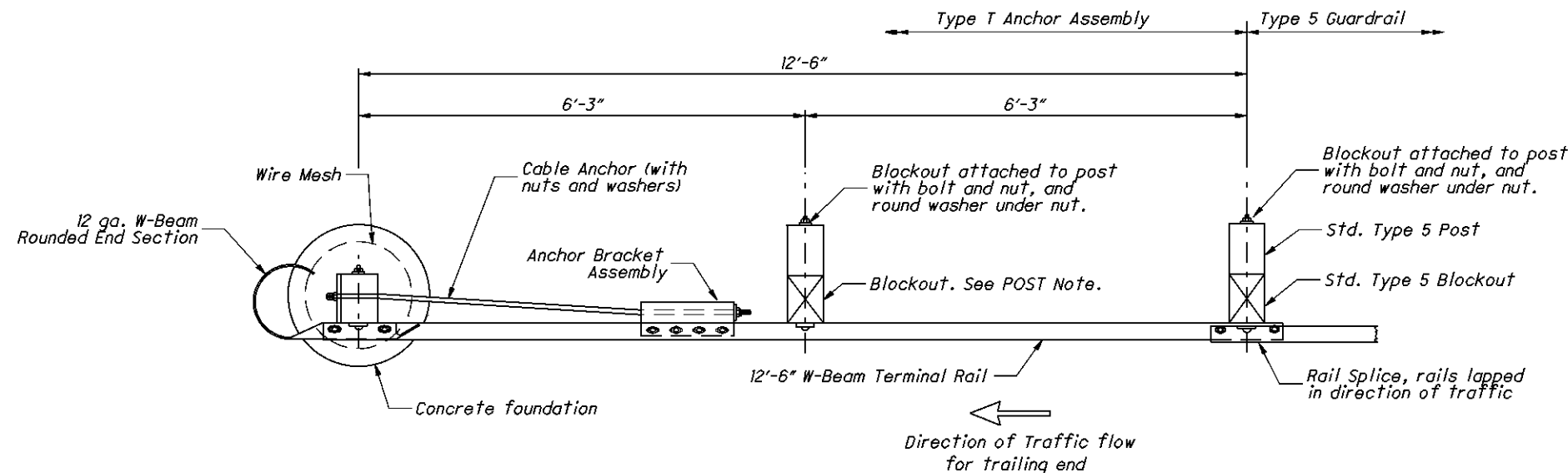
POSTS: Post No. 1 may be an 8'-0" long Steel Ground Tube without a Soil Plate in lieu of the 5'-0" tube with Soil Plate.

Post No. 2 can be W6x9 (or W6x8.5) with notched wood blockouts or a standard Type 5 post and blockout. Recycled plastic blockouts are permitted.

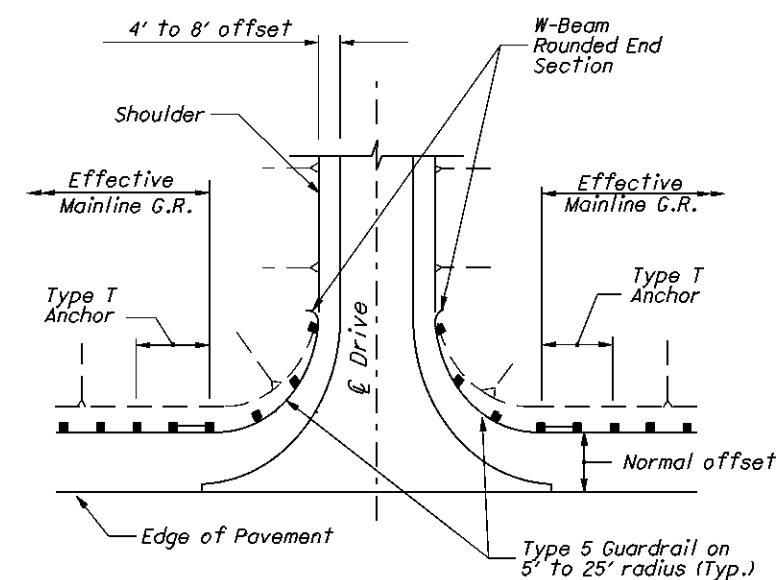
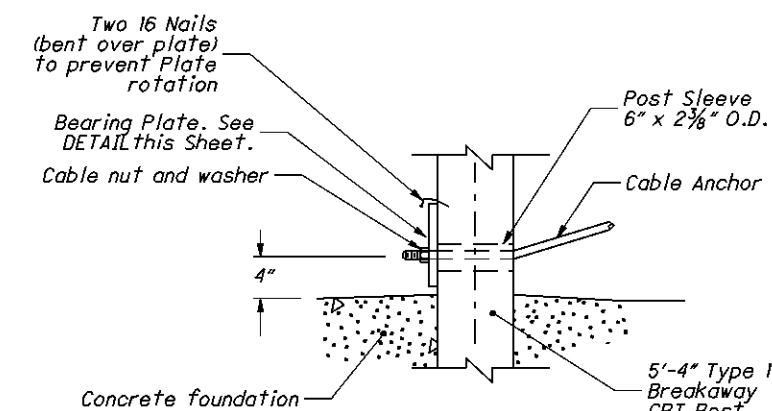
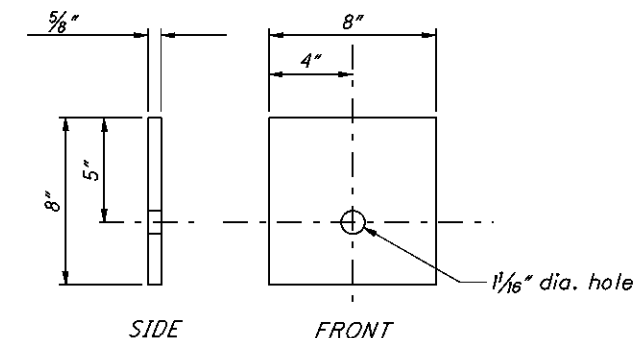
PAYMENT: All labor and materials, including the W-Beam Rounded End Section and the W-Beam Terminal Rail for the 12'-6" anchor assembly shall be included in the unit price bid for

Item 606 - Anchor Assembly, Type T, Each.





See SCD GR-1.1 for Type 1 Breakaway CRT Post, Steel Ground Tube, Post Sleeve, Cable Anchor and Bracket Assembly details.

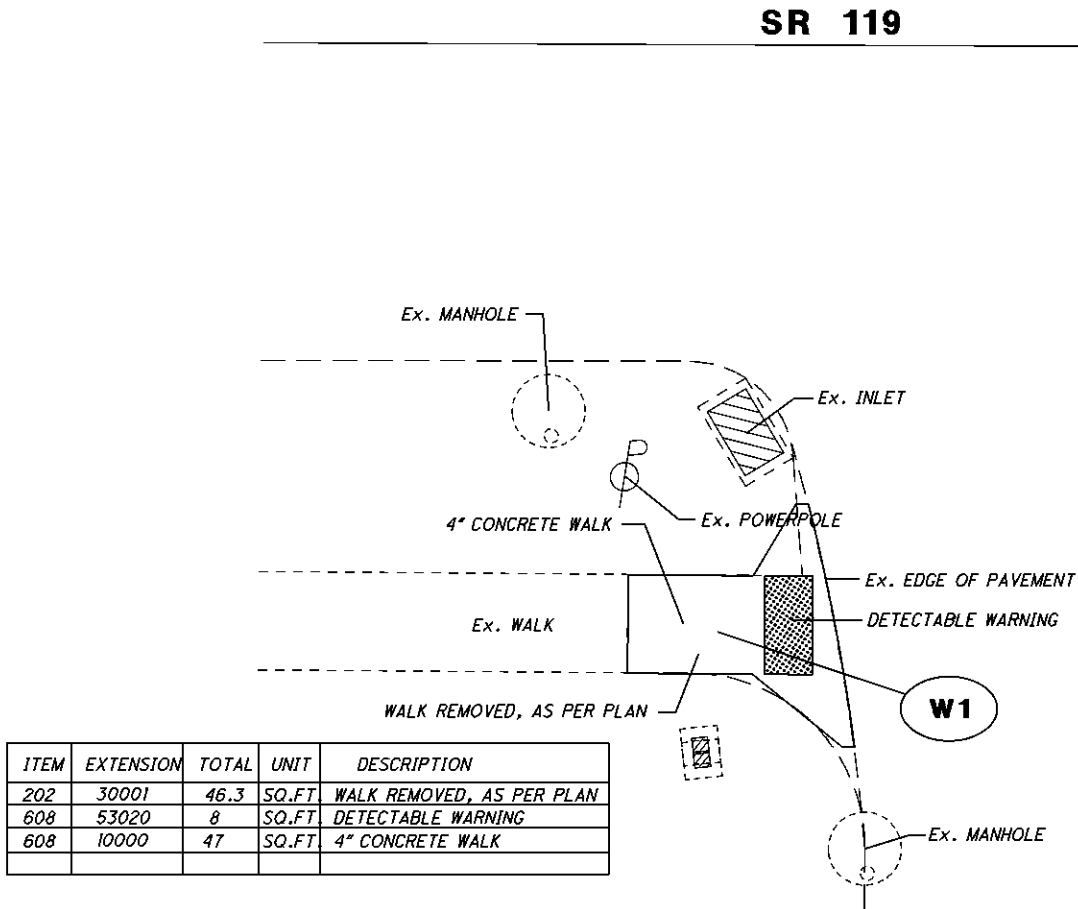


SHEET NUMBER											PARTICIPATION			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	CHECKED
2	3	6		7	8	12	13		28	32	01/STR/P V	02/STR/B R	03/STR/B R								
																		ROADWAY			
2408									62		2408	62		202	23500	2470	SY	WEARING COURSE REMOVED			
	1096.7										1096.7			202	30001	1096.7	SF	WALK REMOVED, AS PER PLAN	7		
	211										211			202	32001	211	FT	CURB REMOVED, AS PER PLAN	7		
									200		150	50		202	38001	200	FT	GUARDRAIL REMOVED, AS PER PLAN	6		
									1		1			202	42001	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	6		
									118.75		75	43.75		606	13000	118.75	FT	GUARDRAIL, TYPE 5			
									1		1			606	26100	1	EACH	ANCHOR ASSEMBLY, TYPE E			
									1			1		606	26500	1	EACH	ANCHOR ASSEMBLY, TYPE T			
									2		1	1		606	35140	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4			
	258.4										258.4			608	10000	258.4	SF	4" CONCRETE WALK			
	54										54			608	13000	54	SF	6" CONCRETE WALK			
	30										30			608	52011	30	SF	CURB RAMP, TYPE A1, AS PER PLAN	7		
	652										652			608	52021	652	SF	CURB RAMP, TYPE A2, AS PER PLAN	7		
	92										92			608	52031	92	SF	CURB RAMP, TYPE B1, AS PER PLAN	7		
	454										454			608	52041	454	SF	CURB RAMP, TYPE B2, APP	7		
	70										70			608	52061	70	SF	CURB RAMP, TYPE C2, AS PER PLAN	7		
	64										64			608	53020	64	SF	DETECTABLE WARNING			
		10									10			SPECIAL	69050350	10	EACH	MAILBOX REMOVED AND RESET	6		
																		DRAINAGE			
				13							13			611	99654	13	EACH	MANHOLE ADJUSTED TO GRADE			
																		PAVEMENT			
		1900									1900			253	01001	1900	SY	PAVEMENT REPAIR, AS PER PLAN	6		
19356											19356			254	01000	19356	SY	PAVEMENT PLANING, ASPHALT CONCRETE			
		300									300			254	01601	300	SY	PATCHING PLANED SURFACE, AS PER PLAN	6		
		72									72			301	46001	72	CY	ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN	6		
24215									10		24215	10		407	10000	24225	GAL	TACK COAT			
1452											1452			SPECIAL	40720500	1452	GAL	TACK COAT, TRACKLESS TACK	7		
									7		7309	7		441	50100	7316	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M			
4385											4385			441	50200	4385	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)			
939											939			442	10001	939	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN	6		
	33										33			609	12000	33	FT	COMBINATION CURB AND GUTTER, TYPE 2			
	5										5			609	26000	5	FT	CURB, TYPE 6			
1554				23.24							1554			617	10100	1554	CY	COMPACTED AGGREGATE			
											23.24			618	41000	23.24	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)			
																		WATER WORK			
				10							10			638	10800	10	EACH	VALVE BOX ADJUSTED TO GRADE			
																		TRAFFIC CONTROL			
							738				738			621	00100	738	EACH	RPM			
							743				743			621	54000	743	EACH	RAISED PAVEMENT MARKER REMOVED			
									7		3	4		626	00100	7	EACH	BARRIER REFLECTOR			
	26.5										26.5			630	03100	26.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST			
	1										1			630	08600	1	EACH	SIGN POST REFLECTOR			
	11										11			630	80100	11	SF	SIGN, FLAT SHEET			
	1										1			630	84900	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL			
	2										2			630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION			
	1										1			630	86002	1	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL			

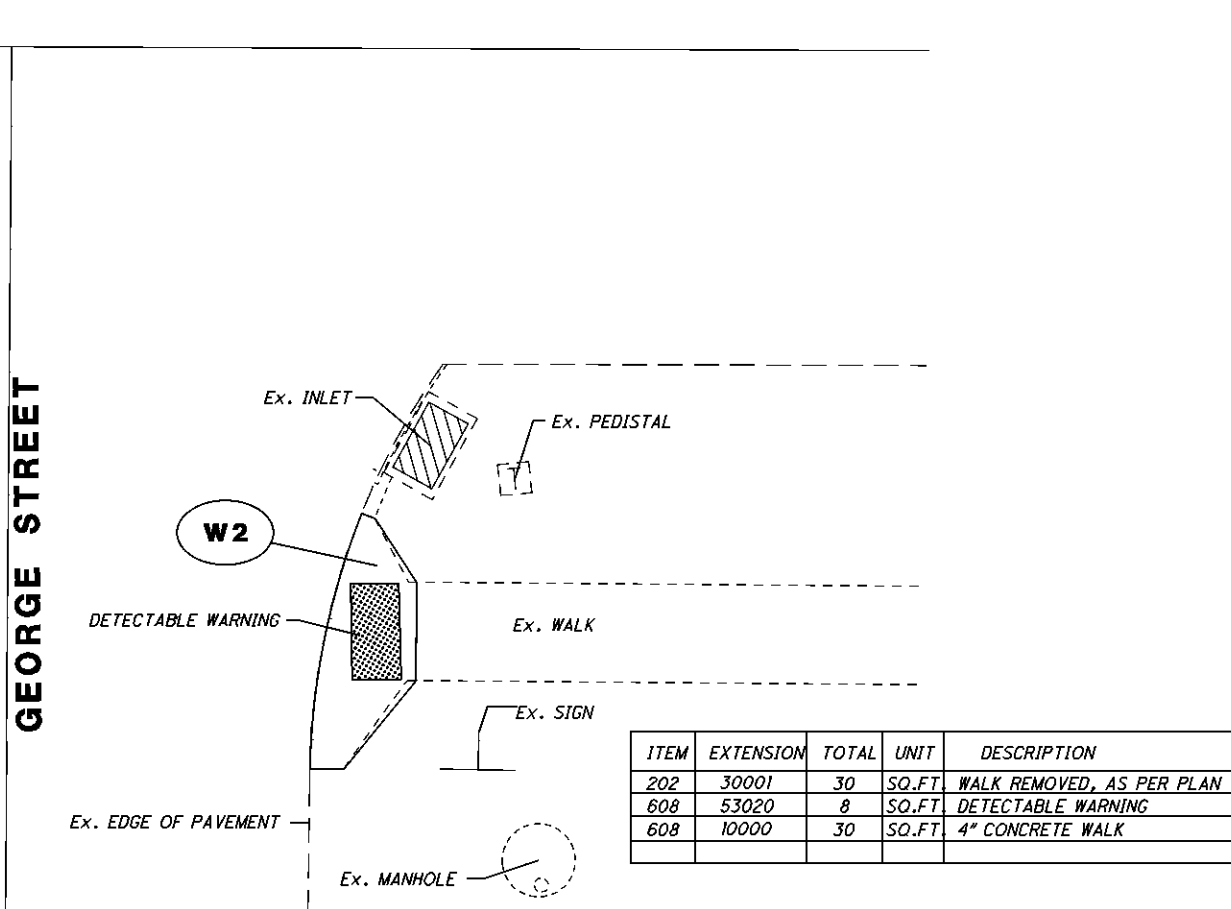
GENERAL SUMMARY (1 OF 2)

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FOR AS PER PLAN NOTES SEE SHEET 7.

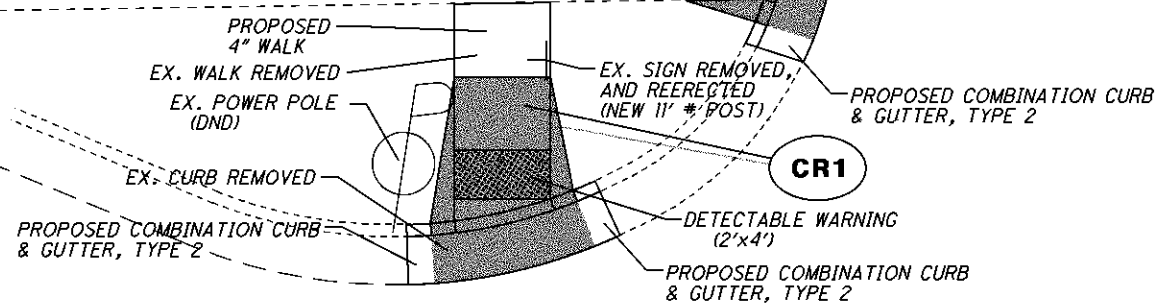


QUANTITIES CARRIED TO SHEET 3.

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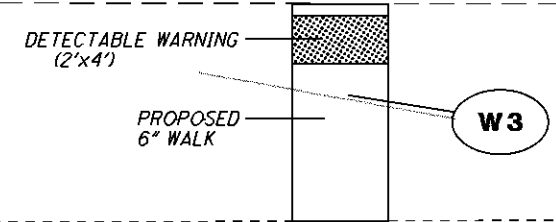
TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

= AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



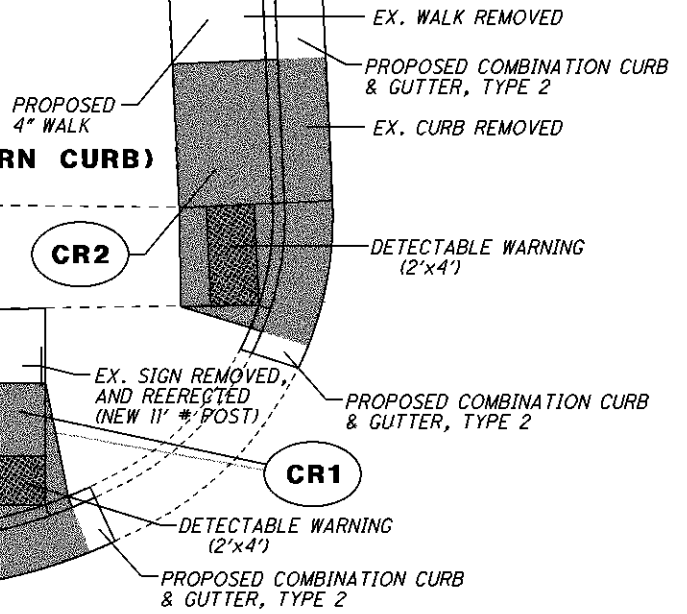
ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		CR1	CR2			
202	30001		54.3	54.3	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	9	17.2	26.2	FOOT	CURB REMOVED, AS PER PLAN
608	10000	12.3	15.6	27.9	SQ.FT.	4" CONCRETE WALK
608	52021	44		44	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
608	52061		69.6	69.6	SQ.FT.	CURB RAMP, TYPE C2, AS PER PLAN
609	12000	2	5	7	FOOT	COMBINATION CURB & GUTTER, TYPE 2
630	03100	11		11	FOOT	GRD. MOUNTED SUPPORT, No3 POST
630	85100	2		2	EACH	REMOVAL OF GRD. MOUNTED SIGN AND REERECTION

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
608	13000	36.2	SQ.FT.	6" CONCRETE WALK
608	53020	8	SQ.FT.	DETECTABLE WARNING



TYPE C2, AS PER PLAN
(COMBINED WITH RETURNED CURB)

= AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



FORT SITE STREET

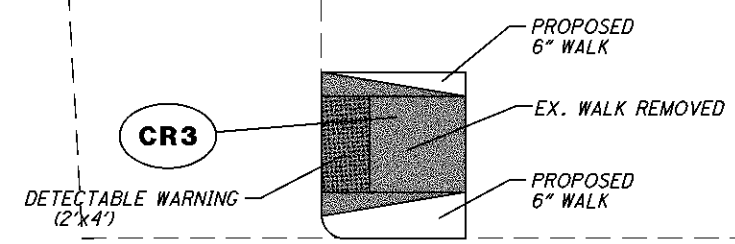
SR 119

PAVED ALLEY

FOR AS PER PLAN NOTES SEE SHEET 7.
QUANTITIES CARRIED TO SHEET 3.

TYPE A1, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

= AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	41.7	SQ.FT.	WALK REMOVED, AS PER PLAN
608	13000	17.5	SQ.FT.	6" CONCRETE WALK
608	52021	30	SQ.FT.	CURB RAMP, TYPE A1, AS PER PLAN

2

8

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4

2

0

HORIZONTAL
SCALE IN FEET

CALCULATED

REB

CHECKED

CURB RAMPS

SR 119 AND FORT SITE STREET

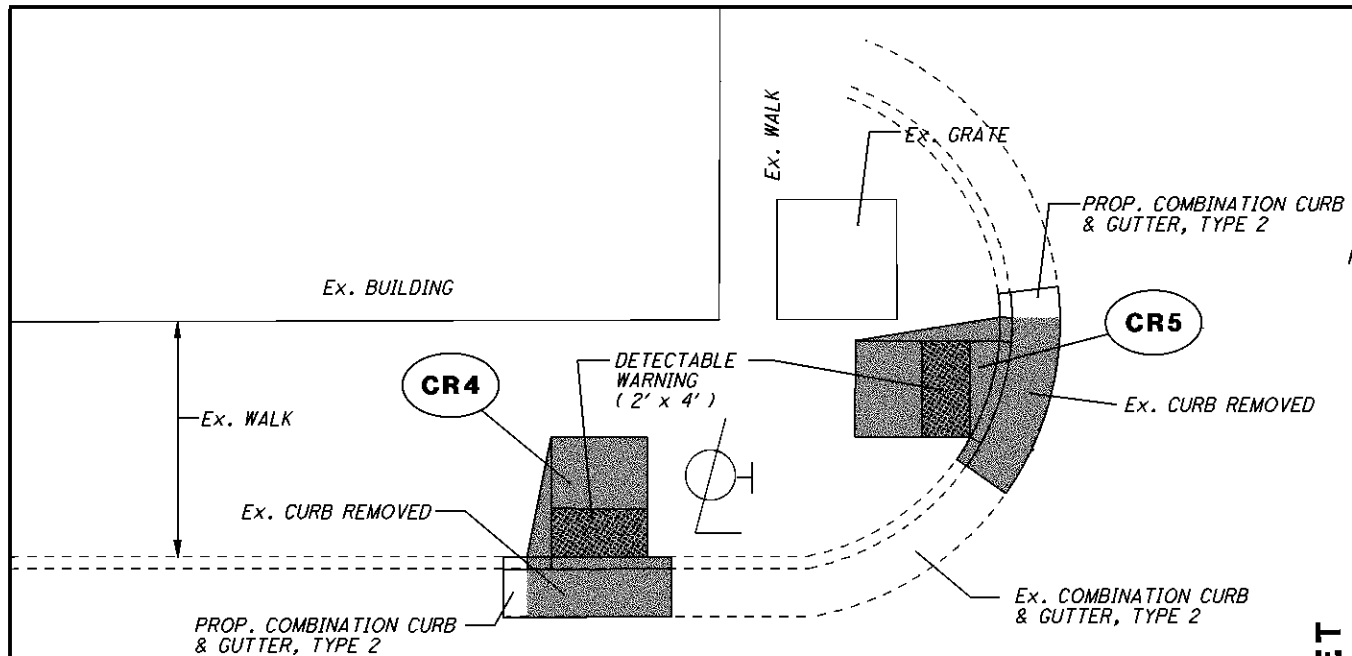
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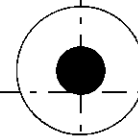


**TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)**

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		CR4	CR5			
202	30001	22.5	25.3	47.8	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	7	8	15	FOOT	CURB REMOVED, AS PER PLAN
608	52021	37.5	42.8	80.3	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	1	1	2	FOOT	COMBINATION CURB & GUTTER, TYPE 2

WAYNE STREET



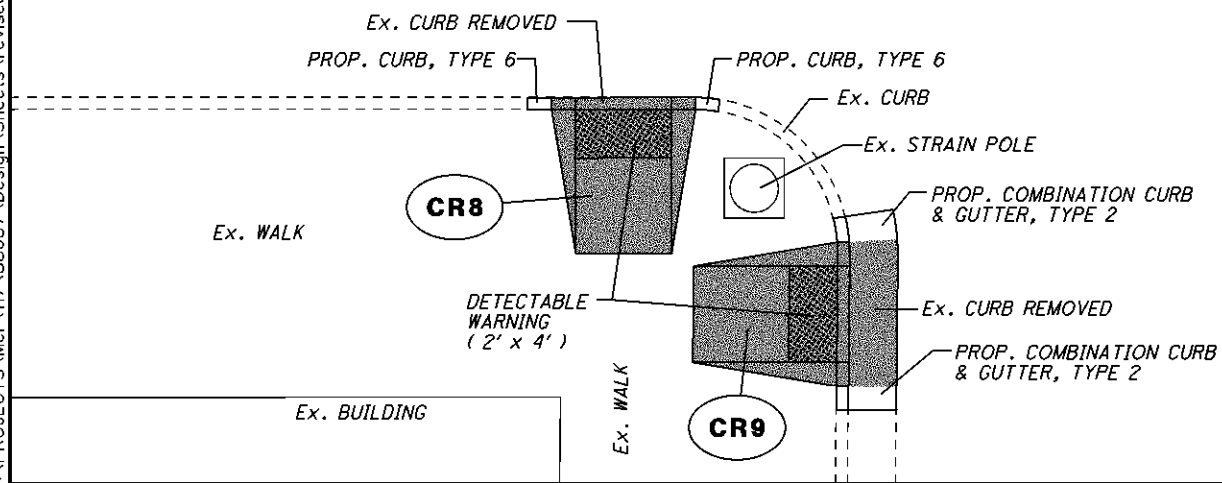
SR 119

**FOR AS PER PLAN NOTES SEE SHEET 7.
QUANTITIES CARRIED TO SHEET 3.**

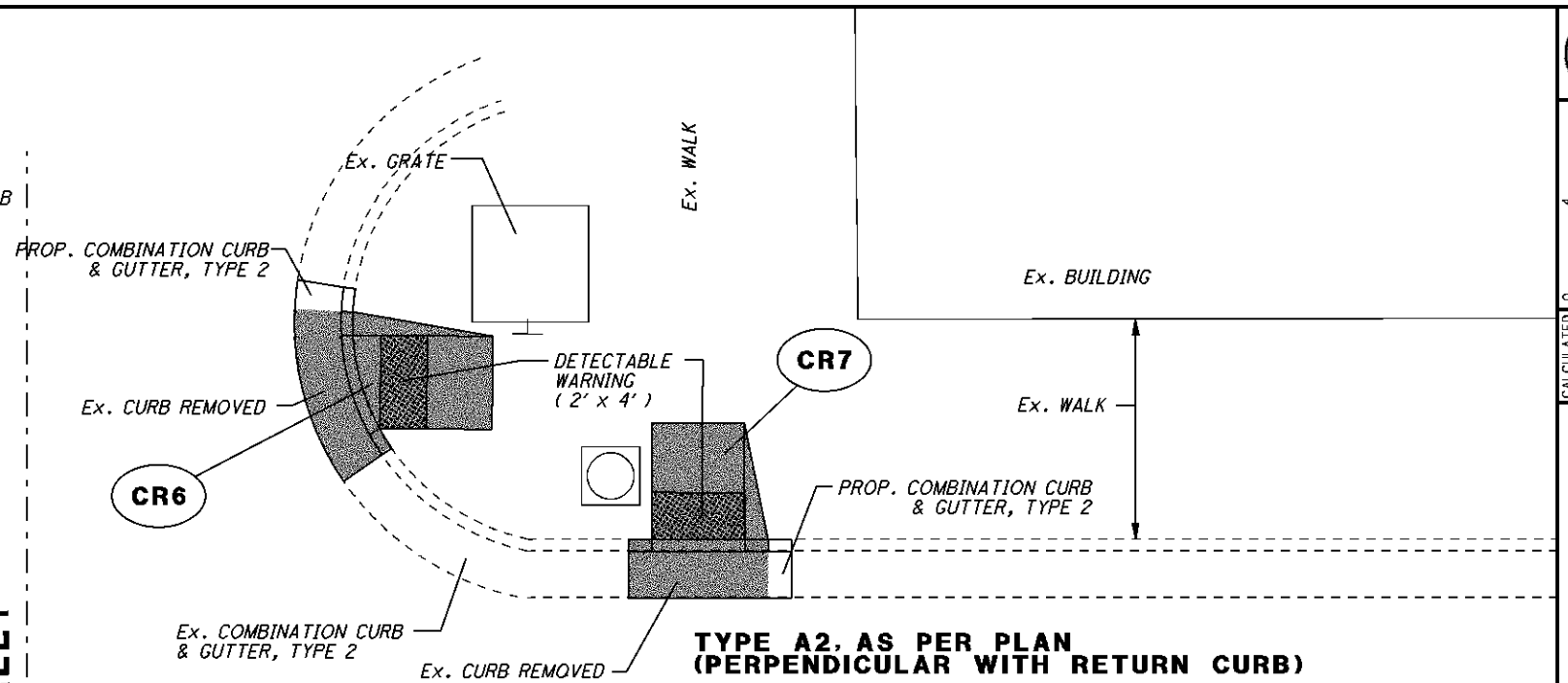
ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		CR8	CR9			
202	30001	30	30	60	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	8	8.5	16.5	FOOT	CURB REMOVED, AS PER PLAN
608	52021	33	45.2	78.2	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	2		2	FOOT	COMBINATION CURB & GUTTER, TYPE 2
609	26000		2	2	FOOT	CURB, TYPE 6

**TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)**

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



S. WAYNE STREET

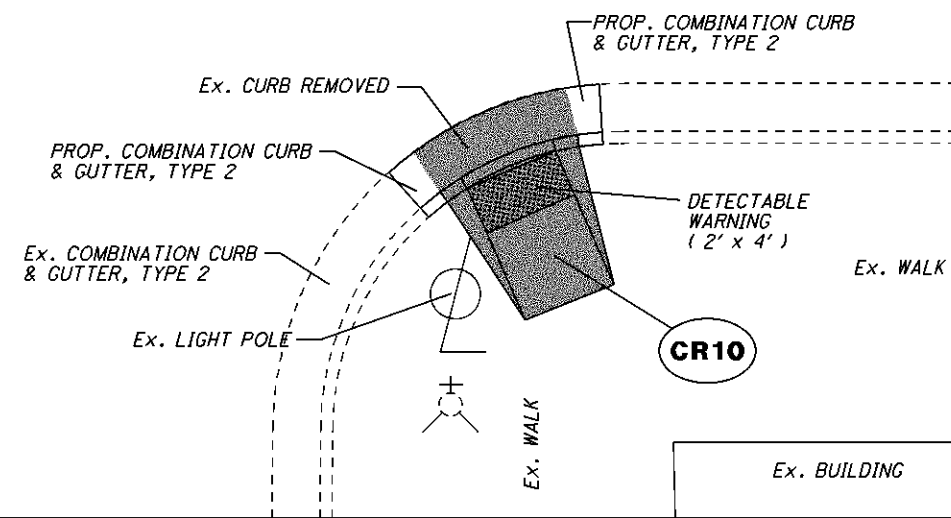


**TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)**

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		CR6	CR7			
202	30001	25.3	22.5	47.8	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	9	7	16	FOOT	CURB REMOVED, AS PER PLAN
608	52021	42.9	37.5	80.4	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	1	1	2	FOOT	COMBINATION CURB & GUTTER, TYPE 2

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	30.5	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	10	FOOT	CURB REMOVED, AS PER PLAN
608	52021	46.8	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	2	FOOT	COMBINATION CURB & GUTTER, TYPE 2



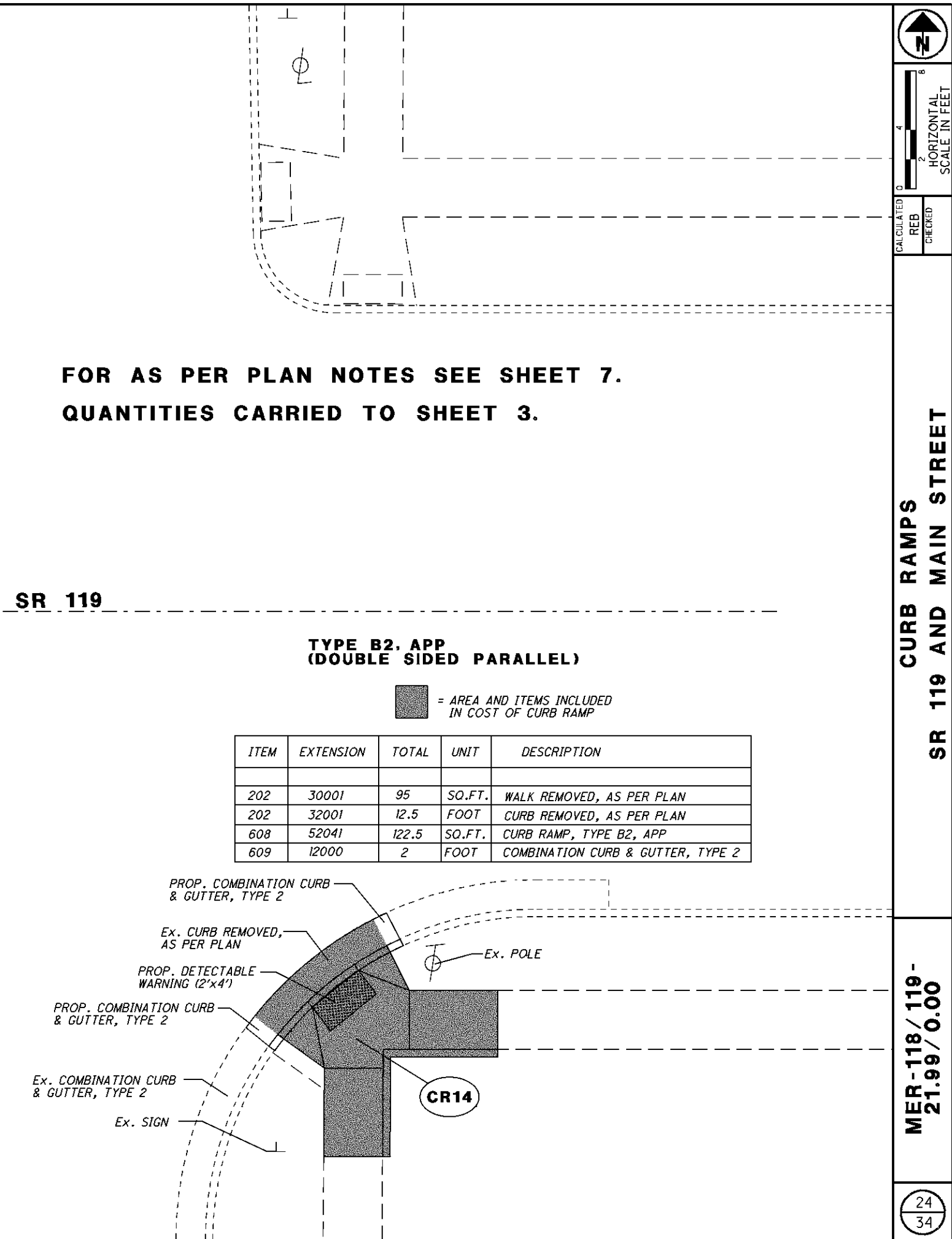
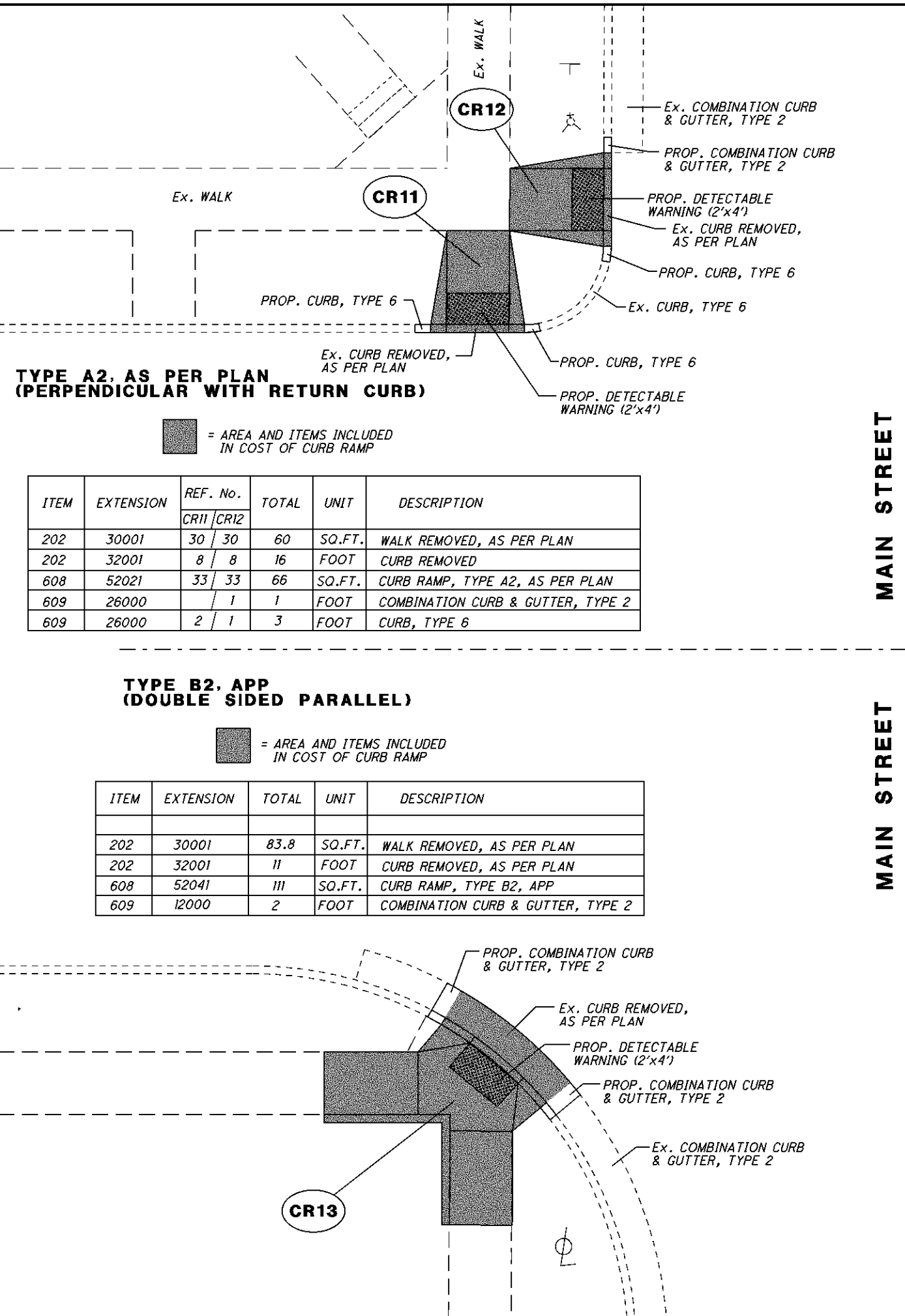
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**CURB RAMPS
SR 119 AND WAYNE STREET**

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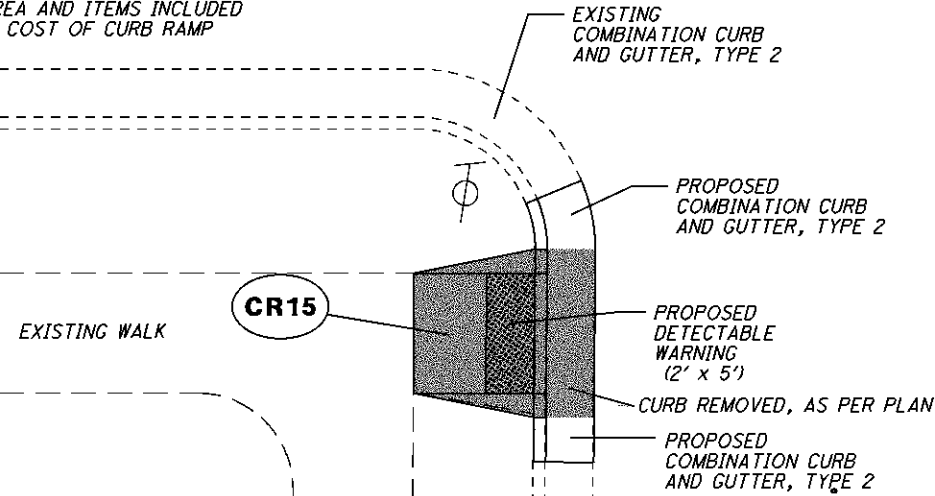


SR 119

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	30	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	12	FOOT	CURB REMOVED, AS PER PLAN
608	52011	47.6	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	5	FOOT	COMBINATION CURB & GUTTER, TYPE 2

TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

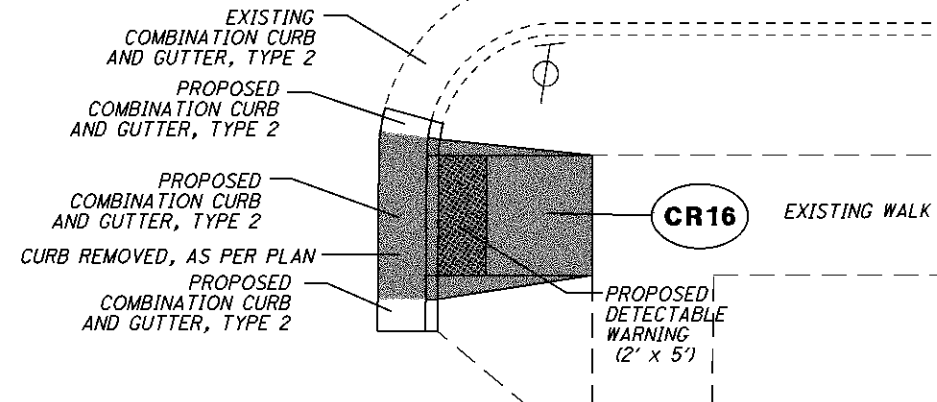


HIGH STREET

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	37.3	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	10	FOOT	CURB REMOVED, AS PER PLAN
608	52011	54.5	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	2.5	FOOT	COMBINATION CURB & GUTTER, TYPE 2

TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



FOR AS PER PLAN NOTES SEE SHEET 7.
QUANTITIES CARRIED TO SHEET 3.

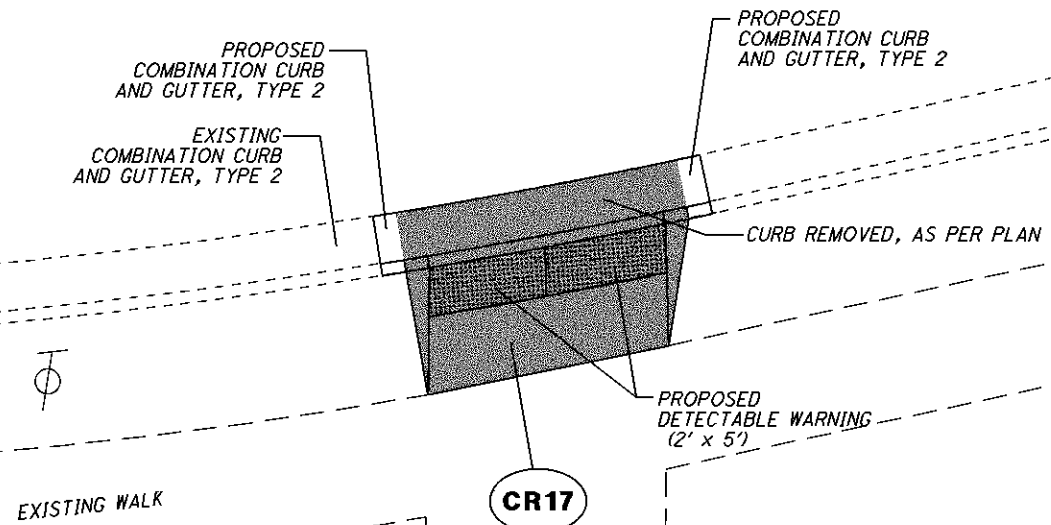
SR 119

1ST ST

TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	57	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	14	FOOT	CURB REMOVED, AS PER PLAN
608	52011	86.5	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	2	FOOT	COMBINATION CURB & GUTTER, TYPE 2



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HORIZONTAL
SCALE IN FEET

CALCULATED
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CHECKED

CURB RAMPS
SR 119 AND HIGH STREET / SR 119 AND 1st STREET

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ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	21.5	SQ.FT.	WALK REMOVED, AS PER PLAN
608	10000	21.5	SQ.FT.	4" CONCRETE WALK
608	53020	8	SQ.FT.	DETECTABLE WARNING

ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		W5	W6			
202	30001	28	22.5	50.5	SQ.FT.	WALK REMOVED, AS PER PLAN
608	10000	28		28	SQ.FT.	4" CONCRETE WALK
608	53020	8	8	16	SQ.FT.	DETECTABLE WARNING
630	03100		15.5	15.5	FT.	GRD. MTED. SUPT., No.3 POST
630	08600		1	1	EACH	SIGN POST REFLECTOR
630	80100		11	11	SQ.FT.	SIGN, FLAT SHEET
630	84900		1	1	EACH	REML. GRD. MTED. SIGN AND DISP.
630	86002		1	1	EACH	REML. GRD. MTED. POST SUPT., AND DISP.

8' CROSSWALK @ ALIGNMENT:
W4 TO W5 - (Standard)
W6 TO W8 - (Ladder)
W7 TO CR18 - (Standard)

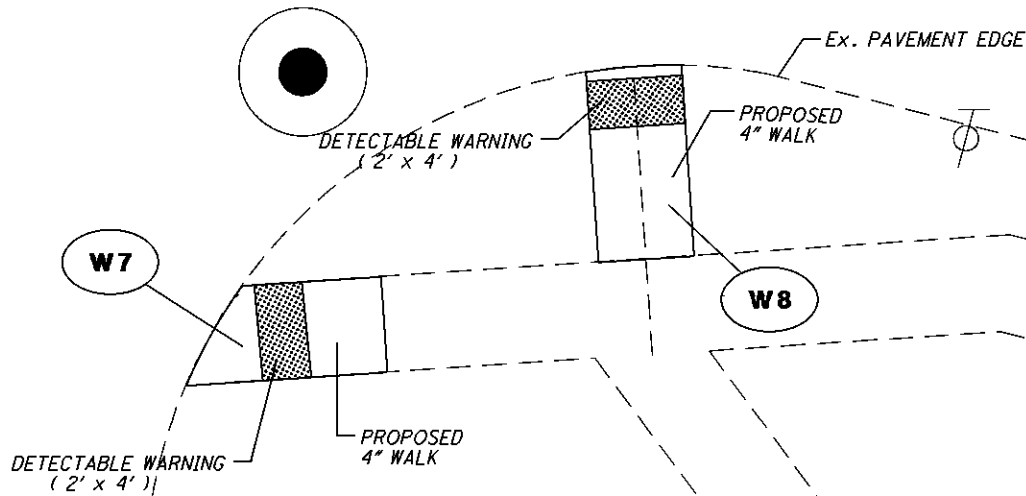
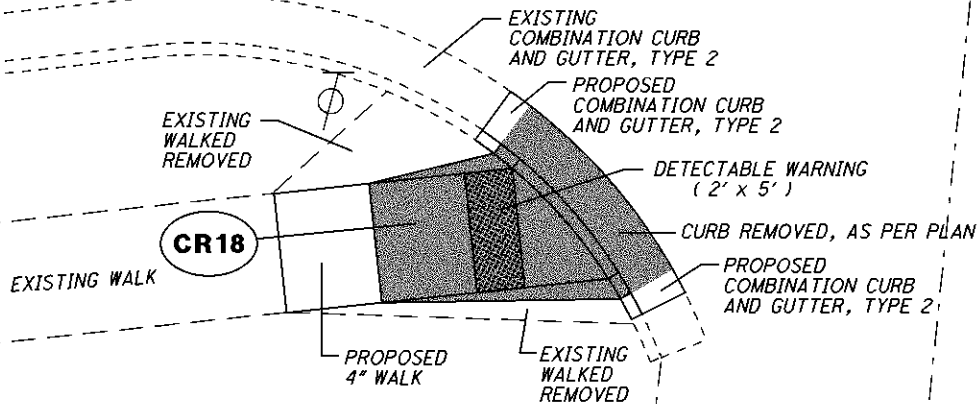
FOR AS PER PLAN NOTES SEE SHEET 7.
QUANTITIES CARRIED TO SHEET 3.

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	92.8	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	10	FOOT	CURB REMOVED, AS PER PLAN
608	10000	20	SQ.FT.	4" CONCRETE WALK
608	52021	67.5	SQ.FT.	CURB RAMP, TYPE A2, AS PER PLAN
609	12000	2	FOOT	COMBINATION CURB & GUTTER, TYPE 2

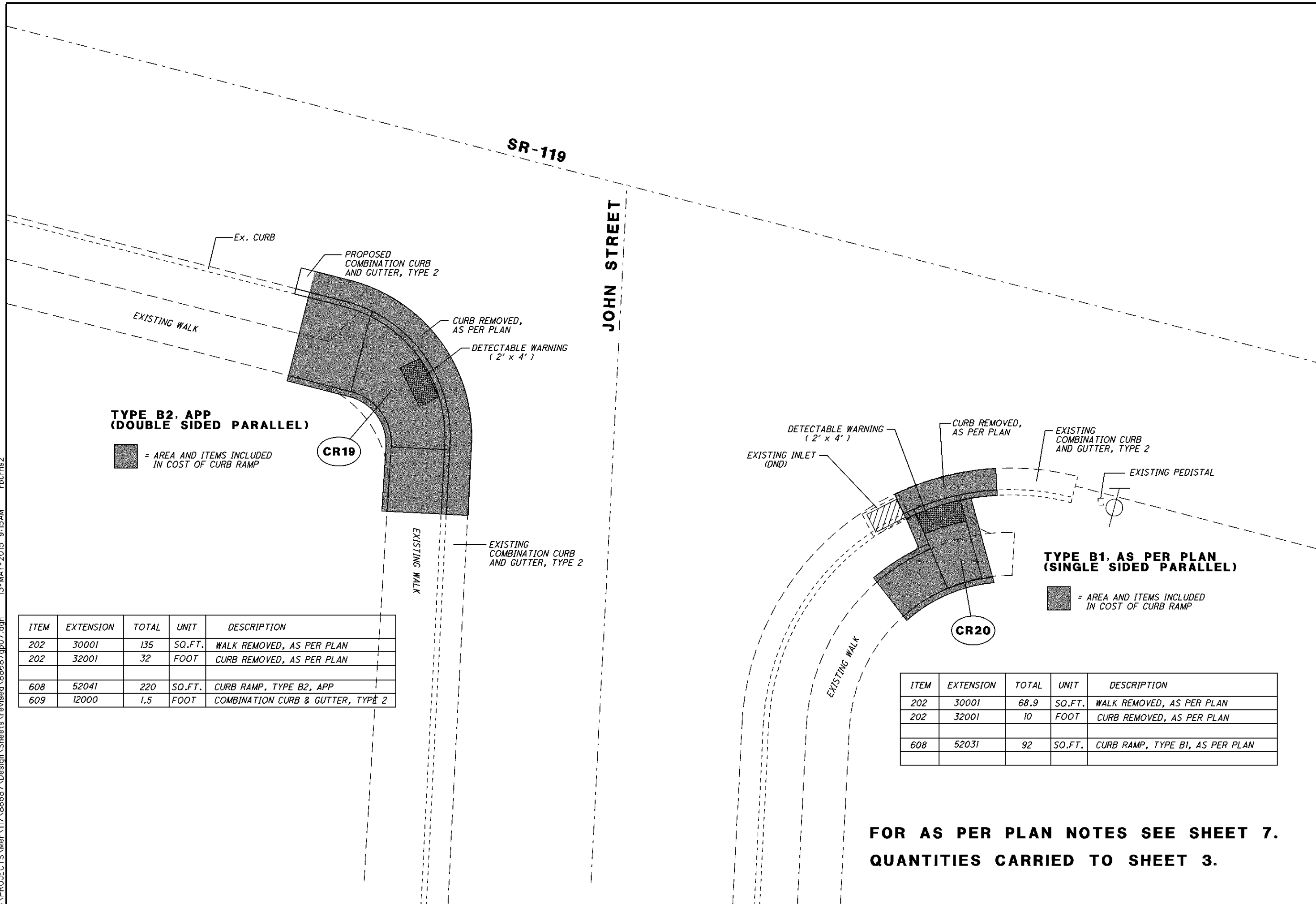
ITEM	EXTENSION	REF. No.		TOTAL	UNIT	DESCRIPTION
		W7	W8			
202	30001	29		29	SQ.FT.	WALK REMOVED, AS PER PLAN
608	10000	29	32.5	61.5	SQ.FT.	4" CONCRETE WALK
608	53020	8	8	16	SQ.FT.	DETECTABLE WARNING

TYPE A2, AS PER PLAN
(PERPENDICULAR WITH RETURN CURB)

 = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP



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**TYPE B2, APP
(DOUBLE SIDED PARALLEL)**

■ = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

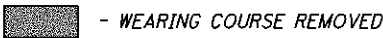
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	135	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	32	FOOT	CURB REMOVED, AS PER PLAN
608	52041	220	SQ.FT.	CURB RAMP, TYPE B2, APP
609	12000	1.5	FOOT	COMBINATION CURB & GUTTER, TYPE 2

**TYPE B1, AS PER PLAN
(SINGLE SIDED PARALLEL)**

■ = AREA AND ITEMS INCLUDED
IN COST OF CURB RAMP

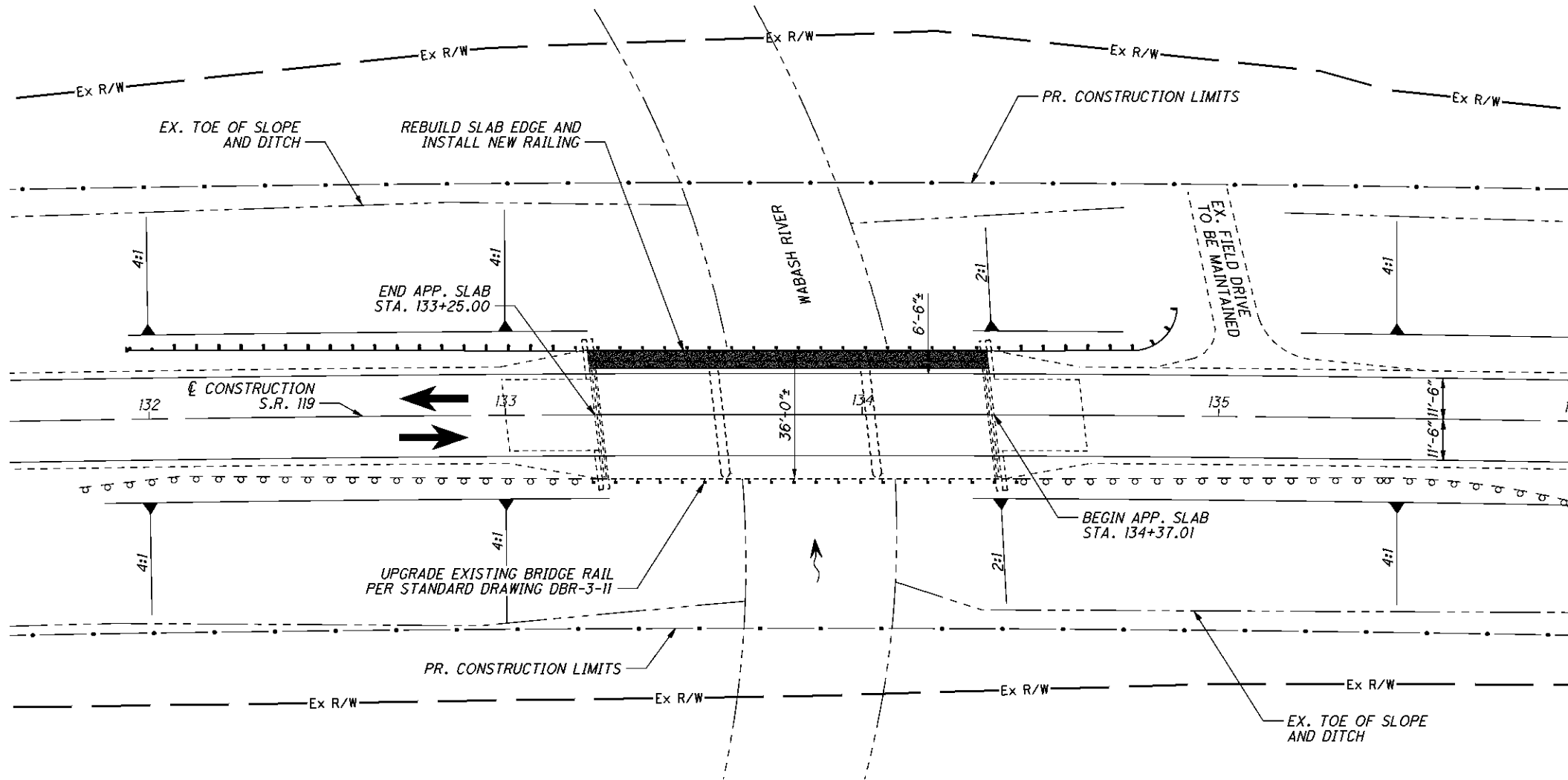
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
202	30001	68.9	SQ.FT.	WALK REMOVED, AS PER PLAN
202	32001	10	FOOT	CURB REMOVED, AS PER PLAN
608	52031	92	SQ.FT.	CURB RAMP, TYPE B1, AS PER PLAN

**FOR AS PER PLAN NOTES SEE SHEET 7.
QUANTITIES CARRIED TO SHEET 3.**

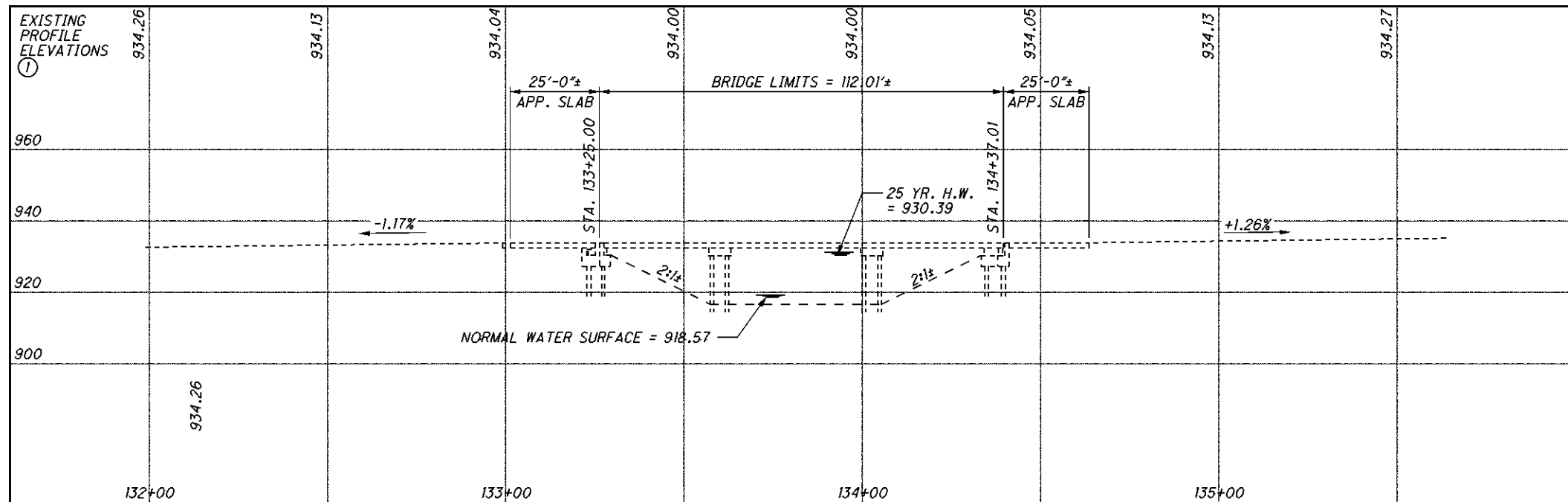


REF. NO.	SHEET NO.	STATION TO STATION	202	202	202		407			441			606	606	606	606		626						
			GUARDRAIL REMOVED, AS PER PLAN	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	WEARING COURSE REMOVED		TACK COAT			ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M				GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 4		BARRIER REFLECTOR, A2					
		FROM	TO	FT	EACH	SQ YD		GAL			CU YD			FT	EACH	EACH	EACH		EACH					
		131+68.85	133+19.5	150.00	1																			
		134+38.75	134+86.68	50.00																				
		131+94.50	133+19.5										75	1		1								
		134+38.75	134+88.75										43.75		1	1								
		131+94.50	134+88.75															7						
		133+23.00	134+33.80		62		10			7														
TOTALS CARRIED TO GENERAL SUMMARY			200	1	62		10			7			118.75	1	1	2		7						

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PLAN VIEW



PROFILE ALONG $\pm$ CONSTRUCTION S.R. 119

NOTES

1. DIMENSIONS AND DATA TAKEN FROM EXISTING PLANS ARE CONSIDERED TO BE $\pm$ AND ARE FOR REFERENCE ONLY. PROFILE ELEVATIONS DO NOT ACCOUNT FOR THE EXISTING ASPHALT WEARING SURFACE.
2. NO INSTREAM WORK IS PERMITTED UNDER THIS PROJECT. NO TEMPORARY FILL MAY PLACED BELOW ORDINARY HIGH WATER MARK DURING CONSTRUCTION OF THIS PROJECT. NO EQUIPMENT MAY BE PLACED BELOW THE ORDINARY HIGH WATER MARK. IF DEBRIS ENTERS THE WATERWAY DURING CONSTRUCTION, THE DEBRIS MUST BE REMOVED PROMPTLY, UTILIZING EQUIPMENT STAGE ABOVE THE ORDINARY HIGH WATER MARK.

DESIGN TRAFFIC:

2015 ADT = 2700 2015 ADTT = 432
2035 ADT = 3300 2035 ADTT = 528
DIRECTIONAL DISTRIBUTION = 0.62

LEGEND

- REBUILD SLAB EDGE
- REPLACE ASPHALT WEARING SURFACE & WATERPROOFING

HYDRAULIC DATA

DRAINAGE AREA = 70.8 SQ. MILES
STRUCTURE CLEARS THE 10-15 YEAR
DESIGN HW BY 2.2 FEET.

EXISTING STRUCTURE

TYPE: CONTINUOUS REINFORCED CONCRETE SLAB
WITH CAPPED PILE SUBSTRUCTURE

SPANS: 34'-0", 42'-6", 34'-0"

ROADWAY: 36'-0" F/F GUARDRAILS

LOADING: CF - 130(57)

SKEW: 6°35' R.F.

APPROACH SLABS: AS-1-54 (25' LONG)

ALIGNMENT: 0°-28' CURVE RIGHT

CROWN: 3/16" / FT

STRUCTURAL FILE NUMBER: 5401984

WEARING COURSE: 5.0" (1998)

DATE BUILT: 1963

DISPOSITION: TO BE REPAIRED

PROPOSED WORK

1. REBUILD LEFT SLAB EDGE USING ANODES
2. INSTALL NEW LEFT BRIDGE RAIL
3. SEAL LEFT SLAB EDGE
4. UPGRADE EXISTING RIGHT BRIDGE RAIL

DESIGN AGENCY
ODOT DISTRICT 7
PLANNING & ENGINEERING

DATE
3/30/15
REVIEWED
MRB
STRUCTURE FILE NUMBER
5401984

DRAWN
CWW
DESIGNED
CWW
CHECKED
DHG

MERCER COUNTY
STA. 133+25.00
STA. 134+37.01

GENERAL PLAN
BRIDGE: MER-119-0252
S.R. 119 OVER WABASH RIVER

MER-119-119-
21.99 / 0.00
PID No. 88687

1 / 6

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STANDARD DRAWINGS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

DBR-2-73 DATED/REVISED 7-19-02

DBR-3-11 DATED/REVISED 7-15-11

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

DESIGN SPECIFICATIONS

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 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA

CONCRETE QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

DECK PROTECTION METHOD

STEEL DRIP STRIP

EMBEDDED GALVANIC ANODES (EGA)

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, 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.

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.

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

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 511 CONCRETE, MISC.: EMBEDDED GALVANIC ANODE (EGA)

PART I GENERAL

1.01 SUMMARY

A. THIS SECTION INCLUDES FURNISHING ALL LABOR, TOOLS, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO PROPERLY INSTALL EMBEDDED GALVANIC ANODES.

1.02 REFERENCES

- A. ACI/ICRI 1999 CONCRETE REPAIR MANUAL
- B. ACI GUIDELINE NO. 222 - CORROSION OF METALS IN CONCRETE
- C. ICRI GUIDELINE NO. 03730 GUIDE FOR SURFACE PREPARATION FOR THE REPAIR OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION
- D. ASTM A82-97A SPECIFICATION FOR PLAIN STEEL WIRE FOR CONCRETE REINFORCEMENT
- E. ASTM B418-95A STANDARD SPECIFICATION FOR CAST AND WROUGHT GALVANIC ZINC ANODES

PART 2 MATERIALS

2.01 MATERIAL DETAILS

- A. EMBEDDED GALVANIC ANODES SHALL BE PUCK-SHAPED APPROXIMATELY 2 1/2 INCHES IN DIAMETER BY 1 INCH HIGH, PREMANUFACTURED, AND CONTAINING MORE THAN 100g OF ZINC METAL IN COMPLIANCE WITH ASTM B418-95A TYPE 1 CAST AROUND A PAIR OF STEEL TIE WIRES IN COMPLIANCE WITH BRIGHT ANNEALED ASTM A82-97A AND ENCASED IN A HIGHLY ALKALINE CEMENTITIOUS SHELL WITH A PH OF 14 OR GREATER. THE CEMENTITIOUS SHELL SHALL CONTAIN NO CHLORIDES OR OTHER CORROSIVE CONSTITUENTS AS PER ACI GUIDELINE NO. 222. ANODES SHALL BE SUPPLIED WITH INTEGRAL TIE WIRES FOR TYING TO THE REINFORCING STEEL. EMBEDDED GALVANIC ANODES SHALL BE GALVASHIELD XP+ (204)489-6300, OR APPROVED EQUAL.

APPLICATIONS FOR EQUALS INCLUDE:

1. A HIGHLY ALKALINE CEMENTITIOUS SHELL WITH A PH OF 14 OR GREATER.
2. PROVIDE A MINIMUM OF 10 YEARS SERVICE LIFE (IN SIMILAR ENVIRONMENT).
3. CONTAIN NO CORROSIVE CONSTITUENTS DETRIMENTAL TO REINFORCING STEEL, E.G. CHLORIDE, ETC.
4. PROVEN TRACK RECORD WITH BRIDGE WORK SHOWING A MINIMUM OF THREE YEARS SATISFACTORY FIELD PERFORMANCE.
5. A MINIMUM OF THREE PROJECTS OF SIMILAR SIZE AND APPLICATION.
6. ANODES SHALL BE SUPPLIED WITH INTEGRAL TIE WIRES FOR TYING TO THE REINFORCING STEEL.
7. PRODUCT EVALUATION BY AN INDEPENDENT LABORATORY.

B. REPAIR MORTARS, CONCRETE AND BONDING AGENTS SHALL BE PORTLAND CEMENT-BASED MATERIALS WITH SUITABLE ELECTRICAL CONDUCTIVITY. REPAIR MATERIAL SHALL HAVE A RESISTIVITY BELOW 15,000 OHM - CM. NON-CONDUCTIVE REPAIR MATERIALS SUCH AS EPOXY, URETHANE, OR MAGNESIUM PHOSPHATE SHALL NOT BE PERMITTED.

C. DELIVER, STORE, AND HANDLE ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PART 3 EXECUTION

3.01 CONCRETE REMOVAL

- A. REMOVE LOOSE OR DELAMINATED CONCRETE.
- B. UNDERCUT ALL EXPOSED REINFORCING BY REMOVING CONCRETE FROM THE FULL CIRCUMFERENCE OF THE STEEL. THE MINIMUM CLEARANCE BETWEEN THE CONCRETE SUBSTRATE AND REINFORCING STEEL SHALL BE 3/4 INCH (19 MM) OR 1/4 INCH (6 MM) LARGER THAN THE TOP SIZE AGGREGATE IN THE REPAIR MATERIAL, WHICHEVER IS GREATER.
- C. CONCRETE REMOVAL SHALL CONTINUE ALONG THE REINFORCING STEEL UNTIL THERE ARE NO VISIBLE SIGNS OF CORROSION.

3.02 CLEANING AND REPAIR OF REINFORCING STEEL

- A. CLEAN EXPOSED REINFORCING STEEL OF RUST, MORTAR, ETC. USING WATER OR AIR, UNDER PRESSURE, TO PROVIDE SUFFICIENT ELECTRICAL CONNECTION AND MECHANICAL BOND.
- B. IF SIGNIFICANT REDUCTION IN THE CROSS SECTION OF THE REINFORCING STEEL HAS OCCURRED, REPLACE OR INSTALL SUPPLEMENTAL REINFORCEMENT AS DIRECTED BY THE ENGINEER.
- C. SECURE LOOSE REINFORCING STEEL BY TYING TIGHTLY TO OTHER BARS WITH STEEL TIE WIRE.

3.03 GALVANIC ANODE INSTALLATION

- A. GALVANIC ANODES SHALL BE INSTALLED ALONG THE PERIMETER OF THE REPAIR WITH RECOMMENDED SPACING AS SPECIFIED ON THE DRAWINGS. THE ACTUAL SPACING OF THE ANODES WILL VARY WITH THE PATCH SIZE. IN NO CASE SHALL THE DISTANCE BETWEEN THE ANODES EXCEED INCHES.
- B. PROVIDE SUFFICIENT CLEARANCE (3/4 INCH MINIMUM) BETWEEN ANODES AND SUBSTRATE TO ALLOW REPAIR MATERIAL TO ENCASE ANODES.
- C. SECURE THE GALVANIC ANODES AS CLOSE AS POSSIBLE TO THE PATCH EDGE (WITHIN 6 INCHES) USING THE ANODE TIE WIRES. THE TIE WIRES SHALL BE WRAPPED AROUND THE CLEANED REINFORCING STEEL AND TWISTED TIGHT TO ALLOW LITTLE OR NO FREE MOVEMENT.

1. IF THE ANODE IS TO BE TIED ONTO A SINGLE BAR, OR IF LESS THAN 1 INCH OF CONCRETE COVER IS EXPECTED, PLACE ANODE BENEATH THE BAR AND SECURE TO CLEAN REINFORCING STEEL.
2. IF SUFFICIENT CONCRETE COVER EXISTS (AT LEAST 1 INCH), THE ANODE MAY BE PLACED AT THE INTERSECTION BETWEEN TWO BARS AND SECURED TO EACH CLEAN BAR.

D. ELECTRICAL CONTINUITY

1. CONFIRM ELECTRICAL CONNECTION BETWEEN ANODE TIE WIRE AND REINFORCING STEEL BY MEASURING DC RESISTANCE (OHM) WITH A MULTIMETER.
2. CONFIRM ELECTRICAL CONTINUITY OF THE EXPOSED REINFORCING STEEL WITHIN THE REPAIR AREA. IF NECESSARY, ELECTRICAL CONTINUITY SHALL BE ESTABLISHED WITH STEEL TIE WIRE.
3. ELECTRICAL CONTINUITY IS ACCEPTABLE IF THE DC RESISTANCE MEASURED WITH MULTI-METER IS LESS THAN 1 OHMS.

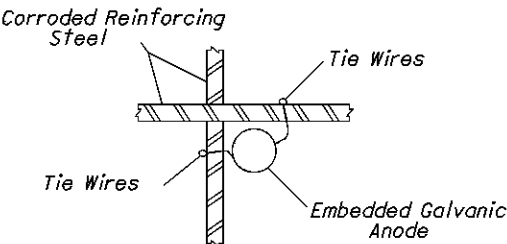
3.04 CONCRETE REPLACEMENT

- A. COMPLETE THE REPAIR FOLLOWING NORMAL CONCRETE REPAIR PROCEDURES, TAKING CARE NOT TO CREATE ANY AIR VOIDS AROUND THE EMBEDDED GALVANIC ANODE.

EACH EMBEDDED GALVANIC ANODE PROVIDED AND INSTALLED WITH ALL INCIDENTALS INCLUDED SHALL BE PAID FOR AT THE PRICE BID FOR:

ITEM	DESCRIPTION	UNIT
511E81300	CONCRETE MISCELLANEOUS: EMBEDDED GALVANIC ANODE (EGA)	EACH

TYPICAL EMBEDDED GALVANIC ANODE TO REINFORCING STEEL ATTACHMENT DETAIL



GENERAL NOTES (1 OF 2)
BRIDGE NO.: MER-119-0252
S.R. 119 OVER WABASH RIVER

MER-118 / 119-
21.99 / 0.00
PID No. 88687

2 / 6

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34

DESIGN AGENCY
ODOT DISTRICT 7
PLANNING & ENGINEERING

DATE
3/30/15
REVIEWED
MRB
STRUCTURE FILE NUMBER
5401984

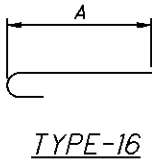
DRAWN
CWW
DESIGNED
CWW
CHECKED
DHG



31 34	3 / 6	MER-117 / 118 / 119 - 4.12 / 14.43 / 0.00 PID No. 88687	GENERAL NOTES (2 OF 2) BRIDGE NO.: MER-119-0252 S.R. 119 OVER WABASH RIVER	DESIGNED CWW CHECKED	DRAWN CWW REVISED	REVIEWED	DATE	DESIGN AGENCY ODOT DISTRICT 7 PLANNING & ENGINEERING

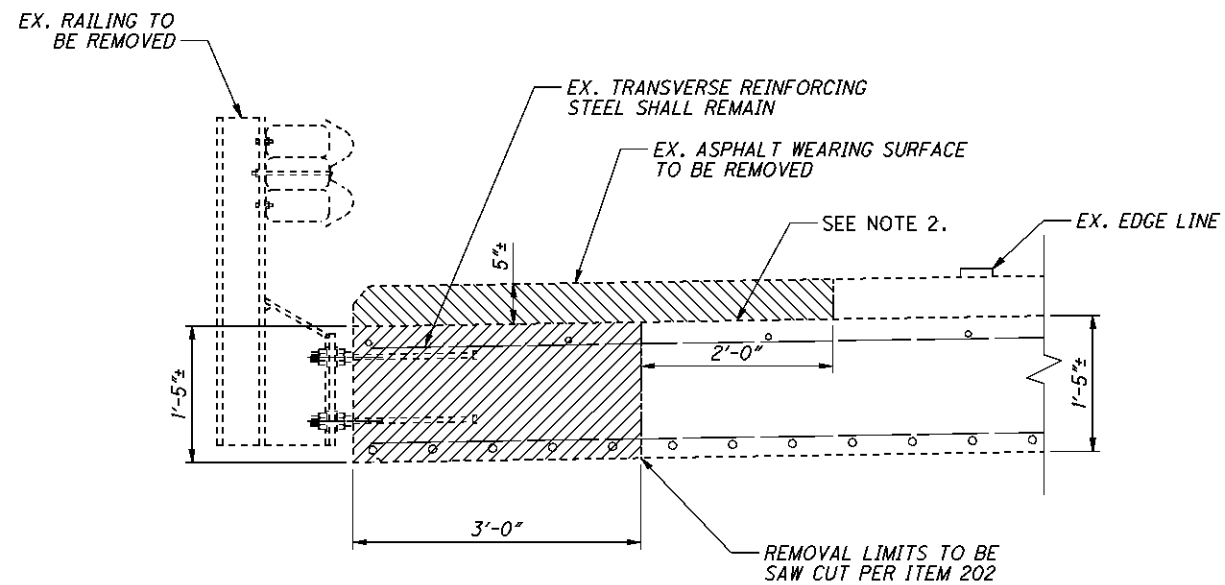
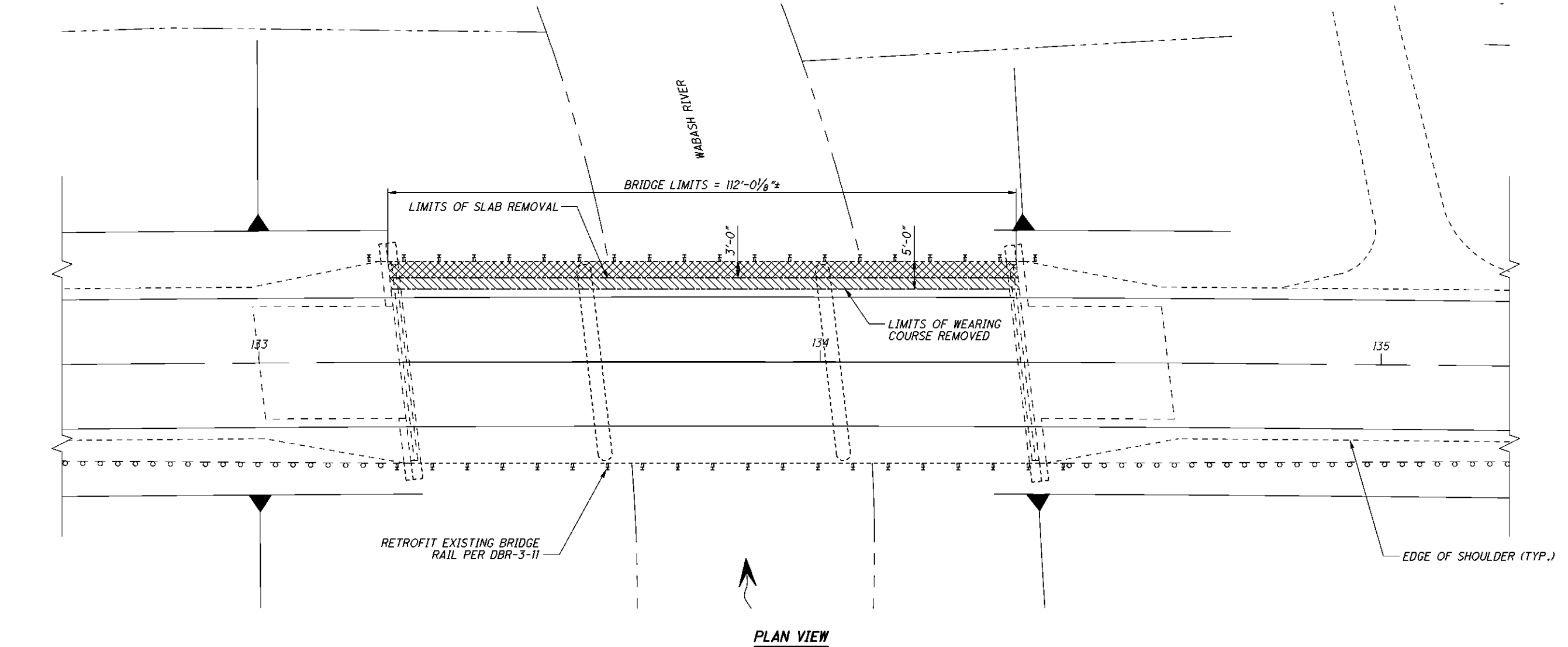
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ESTIMATED QUANTITIES										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION			ABUT.	PIERS	SUPER.	GEN. SHEET #
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN						LS 2 / 6
509	10000	3720	POUND	EPOXY COATED REINFORCING STEEL					3720	
509	20001	75	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					75	2 / 6
511	34444	18	CU YD	CLASS QC2 CONCRETE, BRIDGE DECK					18	
511	81300	100	EACH	CONCRETE, MISC.: EMBEDDED GALVANIC ANODE (EGA)					100	2 / 6
512	10100	24	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)					24	
512	33010	63	SQ YD	TYPE 3 WATERPROOFING					63	
517	72300	118.75	FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS)					118.75	
517	75600	237.5	FT	DEEP BEAM BRIDGE RETROFIT RAILING					237.5	
SPECIAL	51822300	139	FT	STEEL DRIP STRIP					139	



MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL				A	B	C	D	E	R INC
S601	4	27'-6"	165	STR						
S602	2	24'-0"	72	STR						
S1001	9	47'-3"	1830	STR						
S1002	2	33'-10"	291	16	32'-5"					
S1003	2	29'-6"	254	16	28'-1"					
S1004	6	31'-1"	803	STR						
S1005	2	15'-6"	133	STR						
S1006	4	10'-7"	182	STR						
S1007	1	30'-2"	130	STR						
S1008	1	22'-7"	97	STR						
SUB-TOTAL			3720							

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NOTES & LEGEND

1. DIMENSIONS TAKEN FROM EXISTING PLANS ARE CONSIDERED TO BE ± AND ARE FOR REFERENCE ONLY.
2. CARE SHOULD BE TAKEN NOT TO DAMAGE THE EXISTING WATERPROOFING SO THAT IT MAY BE LAPPED WITH THE PROPOSED WATERPROOFING.



- LIMITS OF WEARING COURSE REMOVED



- LIMITS OF CONCRETE REMOVAL PER ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

DESIGN AGENCY
ODOT DISTRICT 7
PLANNING & ENGINEERING

DATE
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STRUCTURE FILE NUMBER
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CWW

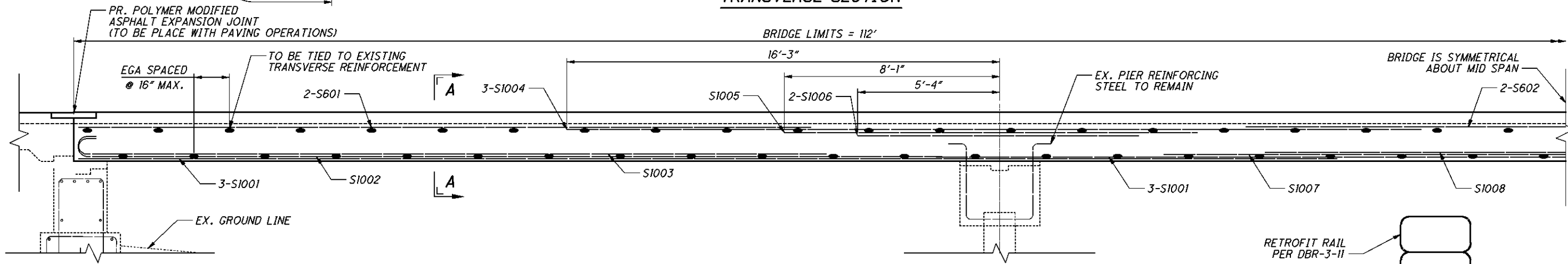
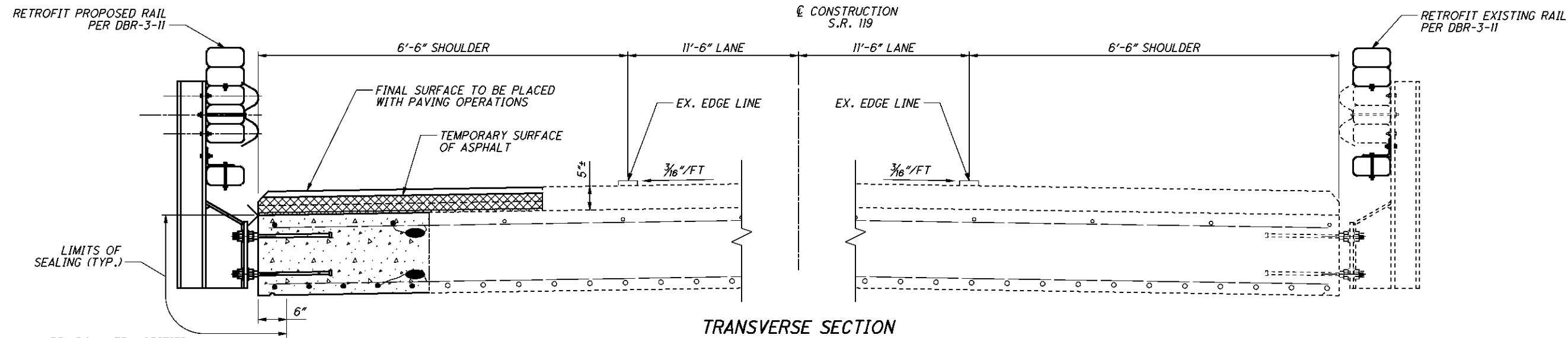
REMOVAL DETAILS
BRIDGE NO.: MER-119-0252
S.R. 119 OVER WABASH RIVER

MER-119/119-
21.99/0.00
PID No. 88687

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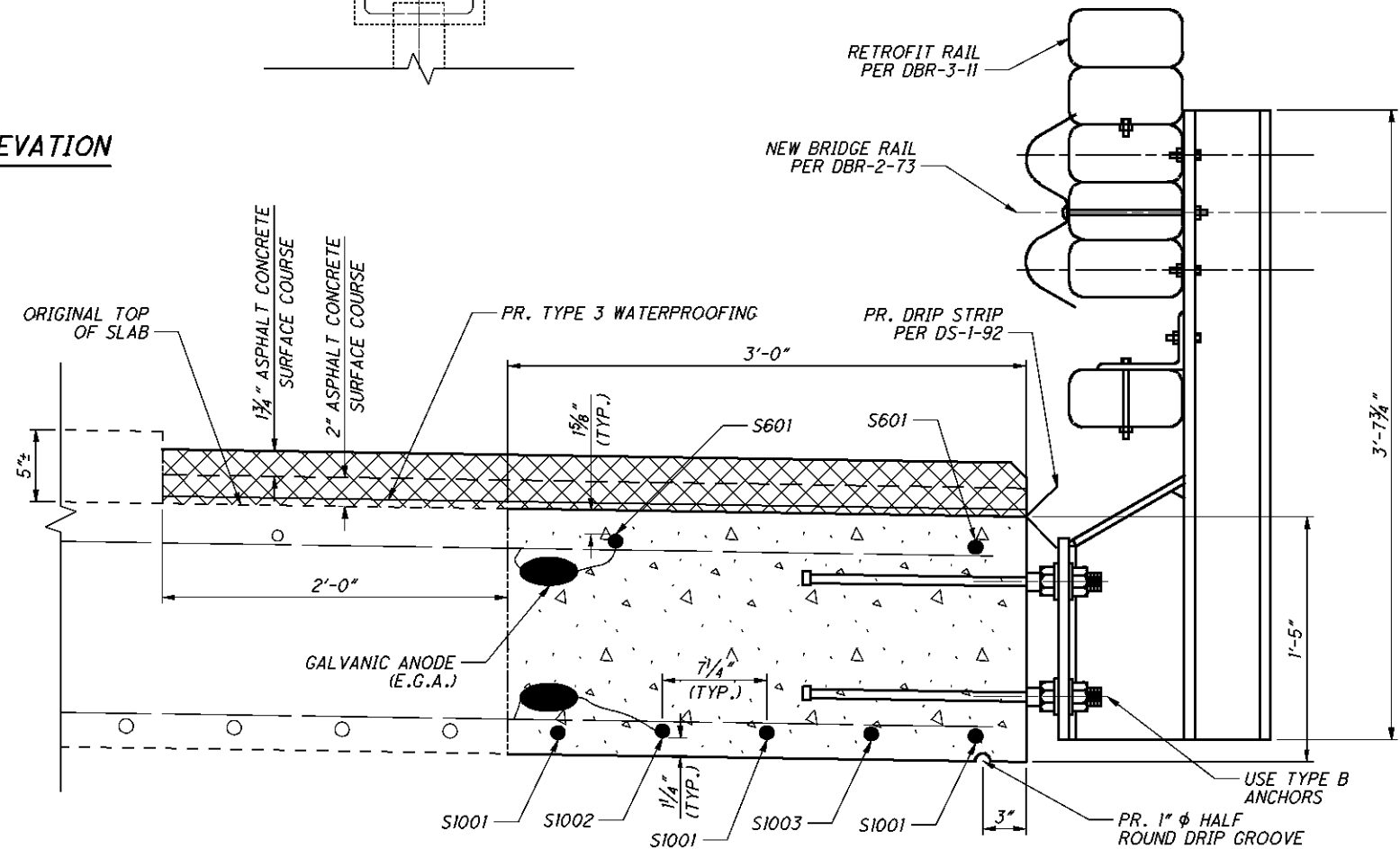
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NOTES & LEGEND

1. DO NOT DISTURB TRANSVERSE REINFORCING STEEL.

- LIMITS OF QC2 CONCRETE
- LIMITS OF PR. ASPHALT WEARING SURFACE
- EMBEDDED GALVANIC ANODES



DESIGN AGENCY	DATE	REVIEWED	DRAWN	DESIGNED	SUPERSTRUCTURE DETAILS	
ODOT DISTRICT 7	3/30/15	MRB	CWW	CWW	BRIDGE: 119-0252	
PLANNING & ENGINEERING	STRUCTURE FILE NUMBER	5401984	REVISED	DHG	S.R. 119 OVER WABASH RIVER	
					MER-118/119-	
					21.99 / 0.00	
					PID No. 88687	
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					34	34