

**LONGVIEW AVENUE EAST (BETWEEN SR 13 AND SR 545)**

THE FOLLOWING WORK WILL BE COMPLETED IN THIS AREA:

1. CULVERT REPLACEMENT ACROSS LONGVIEW AVENUE EAST STATION 64+70.
2. LONGVIEW AVENUE EAST WILL BE PLANED, WIDENED AND RESURFACED DURING US 30 PHASE 7.
3. PAVEMENT REPAIRS: THIS ROADWAY CONSISTS OF AN ASPHALT SURFACE WITH SEVERAL CONCRETE PAVEMENT REPAIR AREAS. THESE REPAIRS MAY BE PERFORMED PRIOR TO PHASE 7. THE THICKNESS OF THE EXISTING CONCRETE REPAIRS IS UNKNOWN. REMOVE THE EXISTING CONCRETE REPAIRS TO THE DEPTH SPECIFIED AND REPLACE WITH ASPHALT BEFORE PAVEMENT PLANING THE ENTIRE ROADWAY. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES COMPLETED IN PLACE AT THE TIME THE REPAIRS ARE COMPLETED. DO NOT PAVEMENT PLANE THE ENTIRE ROADWAY AND THEN PERFORM THESE REPAIRS DUE TO THE CONCERN THAT THESE AREAS MAY FALL APART WHEN LOCAL TRUCK DELIVERY TRAFFIC USES THE ROADWAY.

**SR 13 WB US 30 RAMPS C AND D**

PLANE AND RESURFACE RAMPS FROM SR 13 TO THE PROPOSED TIE-IN WORK AT US 30.

**STRUCTURE RIC-30-1212 L&R OVER PRIVATE ROAD**

BOTH OF THE EXISTING US 30 STRUCTURES OVER THE PRIVATE ROADWAY WILL BE REMOVED AND REPLACED WITH EMBANKMENT. THE PRIVATE ROAD SHALL NOT BE CLOSED UNTIL THE WISE AVENUE RECONSTRUCTION WORK IS COMPLETED AND OPEN TO TRAFFIC. THE CONTRACTOR SHALL INSTALL FILL TO THE MAXIMUM HEIGHT POSSIBLE UNDER BOTH OF THE EXISTING STRUCTURES PRIOR TO PLACING IN PHASE 3.

**WISE AVENUE**

THIS ROADWAY WILL BE CLOSED FOR PAVEMENT REPLACEMENT WORK. THE REPLACEMENT WORK MUST BE COMPLETED AND OPEN TO TRAFFIC BEFORE CLOSING THE PRIVATE ROAD UNDER STRUCTURE RIC-30-1212 L&R. CLOSE THE NORTHBOUND SR 13 RIGHT TURN LANE INTO WISE AVENUE USING DRUMS AND PLACE BARRICADES ACROSS WISE AVENUE. THE NORTHBOUND LANE ON SR 13 WILL REQUIRE FLAGGERS AS PER SCD MT-97.10 WHEN PERFORMING WORK IN THE VICINITY OF THE INTERSECTION WITH SR 13.

**NEW RAMPS W, X AND Y**

THESE RAMPS REPLACE AND RELOCATE THE EXISTING US 30 EB RAMPS A, B AND AB TO THE EAST. EMBANKMENT CONSTRUCTION FOR RAMPS W, X AND Y REQUIRE A SURCHARGE AND SHALL BE CONSTRUCTED IN THE FIRST YEAR. SETTLEMENT SHALL BE COMPLETED BEFORE PHASE 6 CONSTRUCTION. ALL WORK PRIOR TO PHASE 6 SHALL BE BEHIND THE EXISTING GUARDRAIL AND NOT DISTURB THE EXISTING RAMPS. SEE ITEM 203 - ROADWAY MISC.: SURCHARGE NOTE ON SHEET 36.

**US 30/SR 545 RAMPS**

US 30 EB RAMPS RR AND RL WILL BE REMOVED. US 30 WB RAMPS SL AND SR WILL BE REPLACED WITH FULL DEPTH PAVEMENT FROM SR 545 TO THE PROPOSED TIE-IN WORK AT US 30 AND THE SLIP RAMPS WILL BE REMOVED AND RECONFIGURED TO A SIMPLE INTERSECTION AT SR 545.

**SR 545 WORK**

SR 545 WILL BE REDUCED FROM A FOUR LANE TO A TWO LANE ROADWAY WITH A LEFT TURN LANE TO THE LONGVIEW AVENUE EAST INTERSECTION AND THE INTERSECTION WITH US 30 WB RAMPS SL AND SR. THE WORK INVOLVES REMOVING EXCESS PAVEMENT, DRAINAGE WORK, REMOVING THE EXISTING MEDIAN ISLAND AND REPLACING IT WITH PAVEMENT, PLANING, RESURFACING, SIGNING AND NEW PAVEMENT MARKINGS. THIS WORK SHALL BE COMPLETED BEFORE US 30 PHASE 3 AS PER THE PHASING NOTES.

**FIFTH AVENUE US 30 RAMPS**

A LIMITED PORTION OF THE RAMPS WILL BE REPLACED WITH FULL DEPTH PAVEMENT AS SHOWN IN THE PLANS. THE PAVEMENT ON THE REMAINING PORTION OF THE RAMPS FROM THE FULL DEPTH REPLACEMENT LIMITS TO FIFTH AVENUE WILL REMAIN AS IS. NOTE THAT RAMPS B AND C AND THE US 30 PAVEMENT REPLACEMENT TERMINATE AT STATION 689+50 AND SHALL NOT BE EXTENDED TO THE EAST ON THIS PROJECT.

**FIFTH AVENUE BRIDGE OVER US 30**

THE ONLY WORK TO BE PERFORMED ON THIS BRIDGE IS CONSTRUCTING VANDAL PROTECTION FENCE. THE POSTED SPEED LIMIT IS 35 MPH ON FIFTH AVENUE. WHEN CONSTRUCTING THE VANDAL PROTECTION FENCE, THE LANE ADJACENT TO THE WORK MAY BE CLOSED USING FLAGGERS AS PER MT-97.10 AND AT THE END OF THE WORK SHIFT THE CONES OR DRUMS ARE TO BE REMOVED AND ALL EXISTING LANES ON FIFTH AVENUE TO BE OPEN TO TRAFFIC. US 30 WB TRUCKS EXITING ON RAMP C AND TURNING SOUTH ONTO FIFTH AVENUE WILL REQUIRE ROOM TO MAKE THIS TURN.

**1) TRAFFIC WILL BE MAINTAINED AS FOLLOWS:**

- A. THE VANDAL FENCE ON THE EAST SIDE OF THE BRIDGE MAY BE CONSTRUCTED WHEN THE US 30 WB EXIT TO FIFTH AVENUE RAMP C IS CLOSED DURING US 30 PHASING. DO NOT CLOSE THE RAMP IN ORDER TO CONSTRUCT THE VANDAL FENCE.
- B. THE VANDAL FENCE ON THE WEST SIDE OF THE BRIDGE MAY BE CONSTRUCTED WHEN THE US 30 EB EXIT TO FIFTH AVENUE RAMP A IS CLOSED DURING US 30 PHASING. DO NOT CLOSE THE RAMP IN ORDER TO CONSTRUCT THE VANDAL FENCE.
- C. THE CONTRACTOR MAY CONSTRUCT THE VANDAL FENCE DURING THE ALLOWABLE LANE CLOSURE TIMES PERMITTED IN THE PLCS FOR US 30 BUT ONLY ONE DIRECTION OF TRAFFIC MAY HAVE A LANE CLOSURE AT A TIME.
- D. DO NOT CONSTRUCT THE VANDAL FENCE WHEN TRAFFIC IS DETOURED TO THIS LOCATION DURING THE US 30 PHASING.

**PROJECT LIGHTING AND LIGHTING CROSSOVERS**

LIGHTING WILL BE REQUIRED AT BOTH CROSSOVER LOCATIONS. PERMANENT LIGHTING IS TO BE CONSTRUCTED FOR THE ENTIRE PROJECT LIMITS AS SHOWN IN THE PLANS FOR BOTH US 30 AND RAMPS.

**ITEM 614 - WORK ZONE CROSSOVER LIGHTING SYSTEM**

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER. THE SYSTEM SHALL BE AS SHOWN ON MT-100.00. THE CONTRACTOR SHALL ARRANGE AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.04, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES WHICH ARE NOT PROTECTED BY GUARDRAIL OR PORTABLE BARRIER SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, AND SHOULD BE LOCATED AT LEAST 30 FEET (PREFERABLY 40 FEET) FROM THE EDGE OF PAVEMENT WHEN POSSIBLE. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614 - WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

ITEM 614 - WORK ZONE CROSSOVER LIGHTING SYSTEM 2 EACH

**FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL**

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SR 39 AND SR 545 PHASING 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.

PROVIDE TIMING APPROPRIATE FOR THE SIGNAL LOCATION UNDER CONSIDERATION. TYPICAL FLOW RATES ARE DISPLAYED IN 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.

**ROCK CUT EXCAVATION**

PERFORM EXCAVATION FOR ROCK CUT FROM APPROXIMATELY STA. 655+00 TO STA. 670+00 LT IN PHASE 3B OR LATER. ALL LANES OF US 30 TO REMAIN OPEN TO TRAFFIC OR AS DURING ANOTHER PHASE SETUP. SEE SHEET 50 FOR ROCK CUT NOTE ON THE RIGHT SIDE OF US 30.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**DRUM REQUIREMENTS**

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

**TRAFFIC SIGNAL CONSTRUCTION**

A NEW TRAFFIC SIGNAL WILL BE CONSTRUCTED AT RAMP H AT SR 39. THIS WORK WILL BE PERFORMED WHILE MAINTAINING TRAFFIC ON SR 39 AND BEFORE RAMPS H, HL AND HR ARE OPEN TO TRAFFIC. SEE STANDARD DRAWING MT-120.00 FOR NEW SIGNAL ACTIVATION.

**NOISE BARRIER CONSTRUCTION**

A PORTION OF THE NOISE BARRIER IS LOCATED NEAR THE US 30 EB ENTRANCE RAMP FROM TRIMBLE ROAD AND LOCATED BEHIND GUARDRAIL CLOSE TO THE PROPOSED ROADWAY. THIS WORK IS TO BE COORDINATED AND CONSTRUCTED WHEN THE ADJOINING PAVEMENT IS CONSTRUCTED FOR THE RAMP AND US 30. THE REMAINDER OF THE NOISE BARRIER IS LOCATED NEAR THE LIMITED ACCESS FENCE AND MAY BE CONSTRUCTED ANY TIME AS LONG AS IT IS COMPLETED BEFORE THE FINAL GRADING. THE CONSTRUCTION OF THE NOISE BARRIER COULD CREATE SOME EMBANKMENT MEETING C&MS 203 WHICH MAY BE USED IN THE FINAL GRADING.

**FENCE WORK**

REMOVAL AND PLACEMENT OF THE RIGHT OF WAY FENCE SHOULD BE PERFORMED DURING DAYLIGHT HOURS. NO LANE CLOSURES ARE PERMITTED FOR REMOVAL OR CONSTRUCTION OF FENCE WORK ALONG THE RIGHT OF WAY. SEE FENCE PLAN NOTES FOR OTHER REQUIREMENTS. THIS NOTE DOES NOT APPLY TO VANDAL FENCE WHICH IS MOUNTED ON BRIDGES.

**DETOUR SIGNING**

THE CONTRACTOR SHALL SET UP, MAINTAIN AND ULTIMATELY REMOVE THE DETOUR SIGNING. ALL COSTS ASSOCIATED WITH SETTING UP, MAINTAINING, AND REMOVING THE DETOUR SIGNS SHALL BE INCLUDED FOR PAYMENT UNDER LUMP SUM, ITEM 614 DETOUR SIGNING.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

RIC-30-9.26

**LANE CLOSURE/REDUCTION REQUIRED**

UNLESS OTHERWISE NOTED IN THE PLANS, 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.

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS. INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS > 12 HOURS & <2 WEEKS <12 HOURS	21 CALENDAR DAYS PRIOR TO CLOSURE 14 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS <2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE

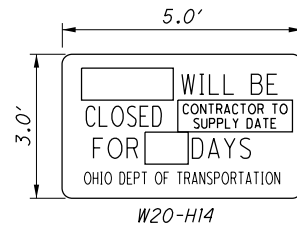
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES N/A 14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

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

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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



NOTIFICATION OF CLOSURE SIGN TIME TABLE

ITEM	DURATION CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS > 12 HOURS & <2 WEEKS <12 HOURS	14 CALENDAR DAYS PRIOR TO CLOSURE 7 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE

**ENTRANCE RAMP DECISION SIGHT DISTANCES**

SOME OF THE MT STANDARD DRAWINGS REQUIRE THE CONSTRUCTION PLANS TO NOTE THE DECISION SIGHT DISTANCE THAT IS TO BE USED ON THIS PROJECT. THE DECISION SIGHT DISTANCES ON US 30 IS AS FOLLOWS:

55 MPH SPEED LIMIT ZONE IS 1135 FEET.

60 MPH SPEED LIMIT ZONE IS 1280 FEET.

**WINTER TIME LIMITATIONS**

ALL EXISTING LANES, INCLUDING RAMPS, SHALL BE OPEN AND AVAILABLE TO TRAFFIC IN THE ORIGINAL OR PROPOSED FINAL ALIGNMENT BETWEEN OCTOBER 31 AND MARCH 1. SHOULD THE CONTRACTOR FAIL TO MEET THESE REQUIREMENTS, A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER CALENDAR DAY.

**WINTER MONTH ACTIVITIES**

AFTER CONSTRUCTION HAS SHUT DOWN FOR THE WINTER TIME FROM OCTOBER 31 THRU MARCH 1, THE CONTRACTOR SHALL MAINTAIN THE PAVEMENT THROUGHOUT THE WINTER AND THE CITY OF MANSFIELD WILL ADDRESS THE SNOW AND ICE OPERATIONS. THE ENGINEER DETERMINES THE REPAIR AREA LOCATIONS, SIZE AND TYPE OF REPAIRS AND WRITES A WORK ORDER. THE WORK ORDER IS SUBMITTED TO THE CONTRACTOR VIA EMAIL TO PERFORM THE REPAIRS WITHIN 48 HOURS OF RECEIVING THE WORK ORDER. REPAIRS ARE TO BE PERFORMED DURING TIME FRAMES AS ALLOWED PER THE PLCS. THE CONTRACTOR WILL EMAIL THE ENGINEER DOCUMENTING WHEN THE WORK ORDER FOR THE REPAIR(S) WERE COMPLETED. THIS PROCESS MAY BE MODIFIED BY THE ENGINEER. PAYMENT FOR THE PAVEMENT REPAIRS WILL BE PER 109.05C FORCE ACCOUNT.

**PAVEMENT MARKINGS AFTER THE FIRST YEAR OF CONSTRUCTION**

WHEN PHASE 2 WORK HAS BEEN COMPLETED AND BY OCTOBER 31 OF THE FIRST CONSTRUCTION YEAR, PAVEMENT MARKINGS SHALL BE PLACED USING ITEM 642 TYPE 1 MATERIAL. IT IS ESTIMATED THAT THE PAVEMENT MARKINGS THAT NEED TO BE REPLACED ARE PROVIDED AND CARRIED TO THE GENERAL SUMMARY AS FOLLOWS:

ITEM 642 - EDGE LINE, 6", TYPE 1	14.42 MILES (7.21 MILE YELLOW AND 7.21 MILE WHITE)
ITEM 642 - LANE LINE, 6", TYPE 1	7.21 MILES
ITEM 642 - DOTTED LINE, 6", TYPE 1	6354 FEET
ITEM 642 - CHANNELIZING LINE, 12", TYPE 1	7626 FEET

**PAVEMENT MARKINGS AFTER THE SECOND YEAR OF CONSTRUCTION**

WHEN PHASE 5 WORK HAS BEEN COMPLETED AND BY OCTOBER 31 OF THE SECOND CONSTRUCTION YEAR, PAVEMENT MARKINGS SHALL BE PLACED PER PHASE 5A.

**US 30 PAVEMENT MARKINGS ON THE SURFACE COURSE**

AFTER PLACING THE SURFACE COURSE ON US 30 AND THE RAMPS, THE CONTRACTOR IS PROVIDED AN ESTIMATED QUANTITY OF PAVEMENT MARKINGS AS SHOWN BELOW UNTIL THE FINAL PAVEMENT MARKINGS ARE PLACED:

ITEM 642 - EDGE LINE, 6", TYPE 1	20.10 MILE
ITEM 642 - LANE LINE, 6", TYPE 1	7.84 MILE
ITEM 642 - CHANNELIZING LINE, 12", TYPE 1	13,578 FT
ITEM 642 - DOTTED LINE, 6", TYPE 1	18,728 FT
ITEM 642 - STOP LINE, TYPE 1	120 FT

IF FINAL PAVEMENT MARKINGS HAVE ALREADY BEEN PLACED THEN THE APPROPRIATE AMOUNT OF WORK MAY BE NON-PERFORMED AS DIRECTED BY THE ENGINEER.

**ASPHALT CONCRETE FOR MAINTAINING TRAFFIC**

THIS ITEM IS PROVIDED TO ADDRESS TEMPORARY WEDGES AT THE END OF RAMPS, PAVEMENT LAYER ENDS, AND APPROACH SLABS. THE TEMPORARY WEDGES ARE TO MEET THE REQUIREMENTS OF BP-3.1. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	300 CU YD
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**ITEM 614 - MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC ON SIDE ROADS.

ITEM 410 - TRAFFIC COMPACTED SURFACE, TYPE A OR B	10 CU. YD.
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	10 CU. YD.

**BUTT JOINTS**

BUTT JOINTS SHALL NOT BE LEFT OPEN TO TRAFFIC. A TEMPORARY ASPHALT WEDGE IS TO BE CONSTRUCTED USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC. CONSTRUCTION "BUMP" (W8-1-36) AND "ADVISORY SPEED" (W13-1-24) SIGNS SHALL BE ERECTED AND MAINTAINED WHEN THE BUTT JOINT IS LEFT OPEN. THESE SIGNS ARE TO BE INCLUDED IN THE LUMP SUM OF ITEM 614 - MAINTAINING TRAFFIC.

**OVERNIGHT TRENCH CLOSING (US 30 SHOULDER RECONSTRUCTION/WIDENING PHASES 1 AND 2)**

THE SHOULDER RECONSTRUCTION/WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

**DUST CONTROL**

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

ITEM 616 - WATER	2900 M. GAL.
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**ITEM 622 - PORTABLE BARRIER, 50", AS PER PLAN  
ITEM 622 - PORTABLE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN**

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY ROADWAY ENGINEERING.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18 INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE. PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622 - PORTABLE BARRIER, 50", AS PER PLAN OR ITEM 622 - PORTABLE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN.

**ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN**

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO C&MS 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER C&MS 614 OR TO C&MS 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 31 THROUGH MARCH 1.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO C&MS 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS ARE CARRIED TO THE GENERAL SUMMARY:

ITEM 254 - PAVEMENT PLANING,  
ASPHALT CONCRETE 69,480 SQ. YD.  
(ESTIMATED AT 1.5" THICK)

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER,  
AS PER PLAN 197 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

ITEM 407 - TACK COAT 5906 GALLONS

ITEM 442 - 1.5" ASPHALT CONCRETE  
SURFACE COURSE, 12.5MM, TYPE A (446) 2895 CU.YD.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK ACCEPTED.

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY REVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BULLINGS TO THE STATE OR THE CITY OF MANSFIELD FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 8 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00AM TO 7:00PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTION WHICH SHALL BE PROTECTED BY OFF-DUTY CITY OF MANSFIELD POLICE, HIRED BY THE CONTRACTOR.

1. RAMP H AT S.R. 39.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF RE-OCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

**ADVANCE WORK ZONE INFORMATION**

ADVANCE WORK ZONE INFORMATION SIGNS, AS USED IN THIS NOTE, ARE FIXED MESSAGE TYPES. THE SIGNS ARE TO BE LOCATED AT EXTREME DISTANCE FROM THE WORK AREA, AS SHOWN IN THE PLANS.

THE SIGNS SHALL BE BLACK ON ORANGE (INCLUDING A BLACK BORDER). THE LAYOUT SHALL BE IN CONFORMANCE WITH TEM CHAPTER 211.

WHEN REGULATORY INFORMATION IS PROVIDED, IT SHALL BE DISPLAYED SEPARATELY AS A STANDARD BLACK-ON-WHITE SIGN. MIXING OF BLACK-ON-WHITE REGULATORY INFORMATION ON A BLACK-ON-ORANGE INFORMATION SIGN IS PROHIBITED.

IF THE MOTORIST IS BEING DETOURED OR IF AN ALTERNATE ROUTE IS PROVIDED, THE ROUTE SHOULD BE SIGNED WITH ASSEMBLIES CONSISTING OF THE APPROPRIATE BLACK-ON-ORANGE DETOUR OR ALT MARKER WITH A STANDARD ROUTE MARKER AND ARROW PLATE. IF MORE TARGET VALUE IS DESIRED, THIS TRAIL BLAZER INFORMATION MAY BE SHOWN ON AN ORANGE PANEL (OMUTCD SECTION 2D.32).

ROUTE SIGN ASSEMBLIES SHALL BE SIZED ACCORDING TO THE TYPE OF ROAD ON WHICH THEY ARE LOCATED IN ACCORDANCE WITH THE OMUTCD.

SUPPORTS FOR SIGN INSTALLATIONS SHALL CONFORM TO ALL EXISTING STANDARDS FOR PERMANENT SIGNS. THESE SIGNS SHOULD NOT BE ATTACHED TO EXISTING SUPPORTS.

WHERE THE PLANS CALL FOR AN OVERLAY TO COVER A PORTION OF AN EXISTING SIGN, THE OVERLAY SHALL BE BLACK-ON-ORANGE. LETTER SIZES SHOULD BE THE SAME AS ON THE EXISTING SIGNS. WHEN LANE ARROWS ARE TO BE COVERED, RATHER THAN USING A BLANK OVERLAY, THE LEGEND "LANE CLOSED" SHALL BE USED. WHEN A RAMP IS BEING CLOSED, RATHER THAN USING A BLANK OVERLAY TO COVER THE ENTIRE SIGN, THE LEGEND "CLOSED" SHALL BE USED ON A DIAGONAL OVERLAY (LOWER LEFT TO UPPER RIGHT) ON THE SIGN. THE SIZE OF LETTERING ON OVERLAYS AND THE SIZE OF THE OVERLAY ARE INDICATED IN THE PLANS.

THE MINIMUM LETTER SIZE FOR "LANE CLOSED" SHALL BE 10". THE MINIMUM LETTER SIZE FOR THE DIAGONAL "CLOSED" OVERLAY SHALL BE 12".

ALL ADVANCE WORK ZONE INFORMATION SIGN INSTALLATIONS LOCATED OUTSIDE OF THE PROJECT WORK LIMITS SHALL BE PAID FOR UNDER APPROPRIATE 630 ITEMS (SIGNS, SUPPORTS, CONCRETE, BREAKAWAY CONNECTION, OVERLAYS, REMOVALS, ETC.)

CALCULATED  
BAD  
CHECKED  
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MAINTENANCE OF TRAFFIC GENERAL NOTES

RIC-30-9.26

**PHASE 1 CONTINUED**

J. THE AREA FROM SR 13 TO SR 545, AND NORTH OF LONGVIEW AVENUE EAST:

1. WISE AVENUE IS TO BE CLOSED TO TRAFFIC AND RECONSTRUCTED. TRAFFIC WILL USE THE PRIVATE ROAD ACCESS OFF OF LONGVIEW AVENUE EAST DURING THIS RECONSTRUCTION.

2. CONSTRUCT A PORTION OF THE EMBANKMENT ON RAMPS W, X, Y AND UNDER THE BRIDGES AT RIC-30-1212 LT AND RT (OVER PRIVATE ROAD). CONSTRUCT THE EMBANKMENT PER THE DETAILS ON THE BRIDGE DEMOLITION PLANS NOTES AND DETAILS. THE PRIVATE ROAD SHALL NOT TO BE CLOSED UNTIL WISE AVENUE RECONSTRUCTION IS COMPLETE AND OPEN TO TRAFFIC.

CONCURRENT PHASING: PHASE 1 WORK MAY CONTINUE AND BE CONCURRENT WITH PHASE 2 WORK AS PHASING PERMITS BUT SHALL BE COMPLETED BEFORE US 30 PHASE 3 WORK BEGINS UNLESS NOTED OTHERWISE.

K. CONSTRUCT THE EMBANKMENT AND SETTLEMENT PLATFORMS FOR RAMPS W AND X.

L. PERFORM EXCAVATION FOR ROCK CUT FROM APPROXIMATELY STA. 655+00 TO STA. 670+00 RT. ALL LANES OF US 30 TO REMAIN OPEN TO TRAFFIC OR AS DURING ANOTHER PHASE SETUP. SEE SHEET 41 FOR ROCK CUT NOTE ON THE LEFT SIDE OF US 30.

**PHASES 1 AND 2:  
CONSTRUCTION OF PAVEMENT FOR MAINTAINING TRAFFIC**

PRIOR TO PLACING TEMPORARY PAVEMENT (PAVEMENT FOR MAINTAINING TRAFFIC) IN PHASE 1 OF THE PROJECT, ENSURE THAT ADEQUATE DRAINAGE WILL BE MAINTAINED ON THE NEW TEMPORARY PAVEMENT, AND PERFORM ANY GRADING REQUIRED TO MAINTAIN THAT DRAINAGE EITHER BEFORE OR AFTER PLACING TEMPORARY PAVEMENT. THE COST FOR THIS GRADING WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 615 - ROADS FOR MAINTAINING TRAFFIC.

**PHASE 2**

GENERAL: CONSTRUCT PAVEMENT FOR MAINTAINING TRAFFIC AT BOTH MEDIAN CROSSOVERS, THREE BEAM BARRIER ON RIC-30-1212 RT AND BULLNOSE GUARDRAIL AT CENTER PIERS. PHASE 2 MAY BE COMPLETED CONCURRENTLY WITH PHASE 1 AS PHASE 1 PHASING PERMITS.

WORK TO BE PERFORMED AS FOLLOWS:

A. CROSSOVER CONSTRUCTION: PAVEMENT FOR MAINTAINING TRAFFIC IS REQUIRED FOR THE RECONSTRUCTION AND WIDENING OF THE MEDIAN SHOULDER IN THE US 30 EB DIRECTION FOR THE US 30 WB TRAFFIC TO USE IN PHASE 3. THE CROSSOVERS AND MEDIAN SHOULDERS ARE CONSTRUCTED AS FOLLOWS:

1. US 30 EB: CONSTRUCT THE PAVEMENT FOR MAINTAINING TRAFFIC AT BOTH CROSSOVERS AND THE MEDIAN SHOULDERS IN THE US 30 EB DIRECTION. SHIFT BOTH LANES OF THE US 30 EB TRAFFIC ONTO THE EXISTING OUTSIDE LANE AND TEMPORARY PAVEMENT PER SCD MT-102.10. CONSTRUCTION OF THE PAVEMENT FOR MAINTAINING TRAFFIC IN THE MEDIAN SHOULDER AREAS LOCATED ELSEWHERE SHALL BE CONSTRUCTED DURING ALLOWABLE LANE CLOSURES PER THE PLCS USING DRUMS PER SCD MT-95.30.

2. US 30 WB: SHIFT BOTH LANES OF THE US 30 WB TRAFFIC ONTO THE EXISTING OUTSIDE LANE AND RECENTLY CONSTRUCTED TEMPORARY PAVEMENT PER SCD MT-102.10 IN THE US 30 WB DIRECTION AT THE PROPOSED CROSSOVERS. IN THE US 30 WB DIRECTION THE PAVEMENT FOR MAINTAINING TRAFFIC WILL BE CONSTRUCTED IN THE MEDIAN AREAS FOR THE CROSSOVERS.

B. BULLNOSE GUARDRAIL CONSTRUCTION: CLOSE THE MEDIAN LANE FOR US 30 WB AND EB USING DRUMS PER SCD MT-95.30, REMOVE THE EXISTING GUARDRAIL AND REGRADE AND CONSTRUCT THE BULLNOSE GUARDRAIL PER SCD GR-6.3 AT HOME ROAD AND SR 309 AND AT THE MEDIAN PIERS. PLACE DRUMS ON THE MEDIAN SHOULDER WHEN THE MEDIAN LANE IS REOPENED TO TRAFFIC. THIS WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PLCS.

C. DETOURS: INSTALL THE DETOUR SIGNING AND CLOSE THE US 30 EB ENTRANCE RAMP RL FROM SR 545. SEE DETOUR PLAN 2C MAP.

D. THREE BEAM BARRIER CONSTRUCTION: CLOSE THE US 30 EB MEDIAN LANE DURING ALLOWABLE TIMES PER THE PLCS PER SCD MT-95.30. CONSTRUCT THE THREE BEAM BARRIER ON US 30 EB OVER THE PRIVATE DRIVE (RIC-30-1212 RT). THE BARRIER MUST BE COMPLETED BEFORE OPENING TO TRAFFIC. THIS WORK MAY BE PERFORMED DURING THE SETUP OF PHASE 3 CONTRA-FLOW ON THE US 30 EB DIRECTION IN PHASE 3. AFTER THE PORTABLE BARRIER IS INSTALLED ON THE US 30 EB SIDE AND BEFORE ALLOWING THE SINGLE US 30 WB LANE OF TRAFFIC ON THE US 30 EB SIDE. THIS BARRIER MUST BE COMPLETE AND IN PLACE PRIOR TO OPENING TO CONTRA-FLOW TRAFFIC IN PHASE 3.

E. REMOVAL OF SR 39 SB TO US 30 EB RAMP: PERMANENTLY CLOSE THE SB SR 39 TO US 30 EB RAMP. REMOVE A PORTION OF THE RAMP PAVEMENT. TRAFFIC TO BE DIRECTED TO TURN LEFT ONTO RECONSTRUCTED RAMP 1.

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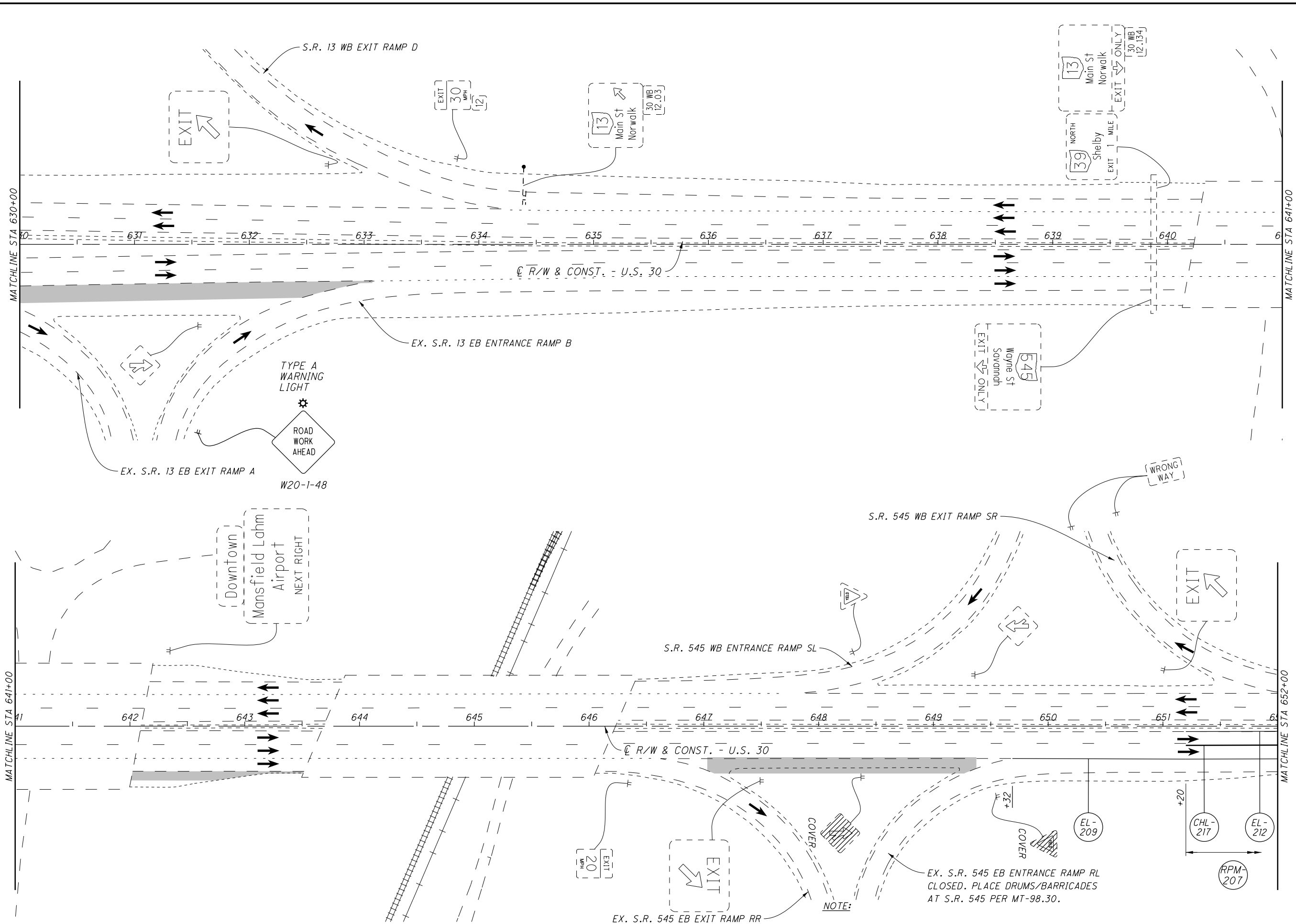
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SEQUENCE OF CONSTRUCTION NOTES

RIC-30-9.26

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1669

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HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC-PHASE 2**  
**STA 630+00 TO STA 652+00**

**RIC-30-9.26**

145  
1669

NOTE: PLACE CLOSED SIGN ORIENTED LOWER LEFT TO UPPER RIGHT ON ADVANCE SIGNS ON S.R. 13 AND LONGVIEW AVE E TO THIS RAMP.

EX. S.R. 545 EB ENTRANCE RAMP RL  
CLOSED. PLACE DRUMS/BARRICADES AT S.R. 545 PER MT-98.30.

EXIT 20 MPH

EXIT ONLY 645  
Woyne St  
Savannah

EXIT ONLY 30 WB [12.154]  
Main St  
Norwalk

EXIT 30 MPH [12]  
Main St  
Norwalk

EXIT

ROAD WORK AHEAD  
W20-1-48

WRONG WAY

EXIT

CHL-217

RPM-207

EL-209

+20

+32

COVER

EX. S.R. 545 EB EXIT RAMP RR

EX. S.R. 13 EB EXIT RAMP A

EX. S.R. 13 EB ENTRANCE RAMP B

S.R. 545 WB EXIT RAMP SR

S.R. 545 WB ENTRANCE RAMP SL

R/W & CONST. - U.S. 30

TYPE A WARNING LIGHT

ROAD WORK AHEAD

Downtown  
Mansfield Lohm  
Airport  
NEXT RIGHT

MATCHLINE STA 630+00

MATCHLINE STA 641+00

MATCHLINE STA 641+00

MATCHLINE STA 652+00

631

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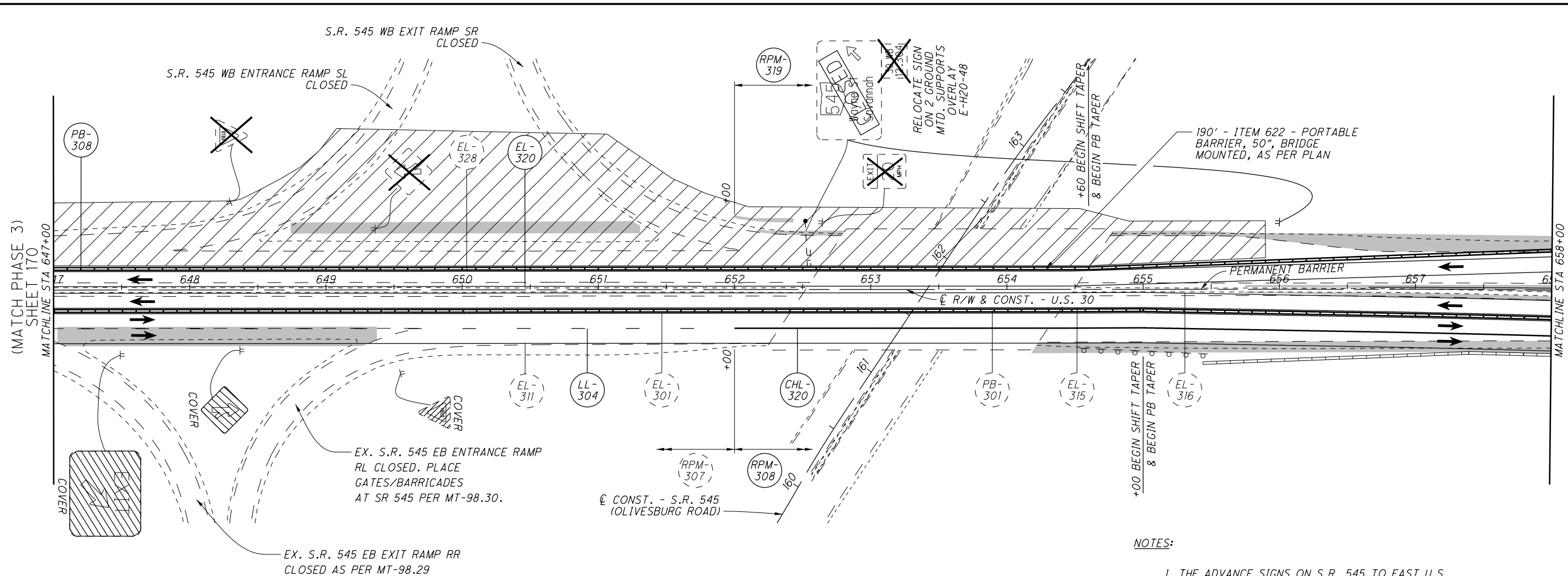
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651

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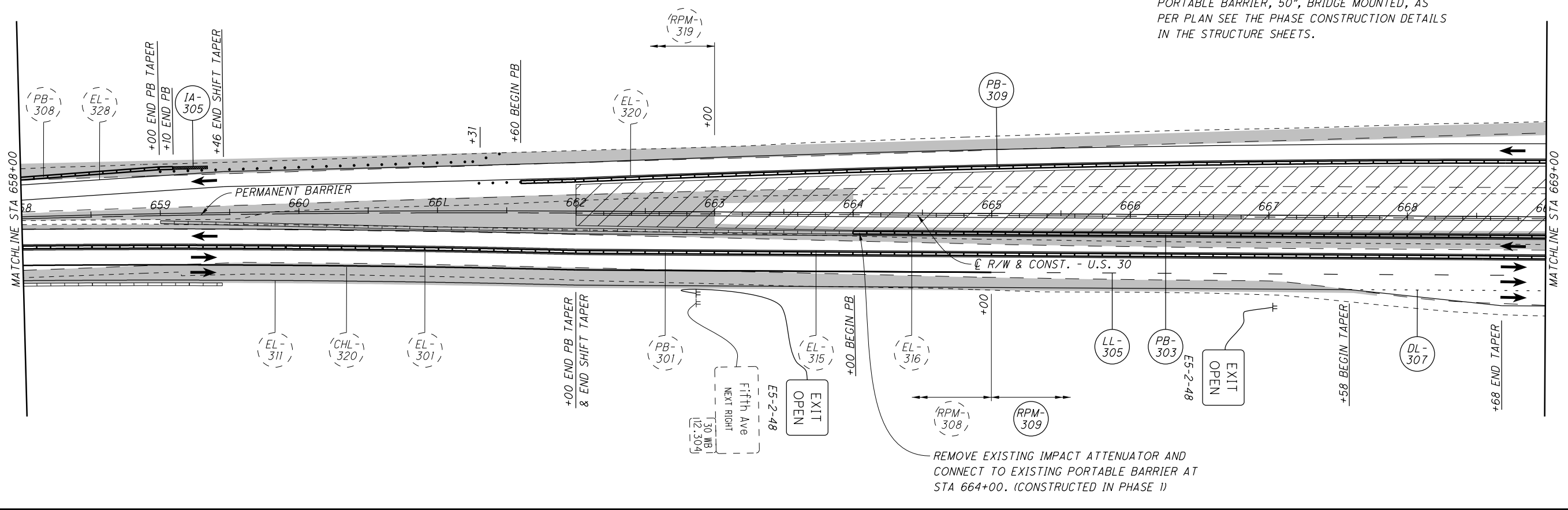
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**NOTES:**

1. THE ADVANCE SIGNS ON S.R. 545 TO EAST U.S. 30 ARE TO HAVE AN OVERLAY "CLOSED" PLACED DIAGONALLY LOWER LEFT TO UPPER RIGHT.
2. FOR THE NUMBER OF ANCHORS FOR ITEM 622 - PORTABLE BARRIER, 50", BRIDGE MOUNTED, AS PER PLAN SEE THE PHASE CONSTRUCTION DETAILS IN THE STRUCTURE SHEETS.

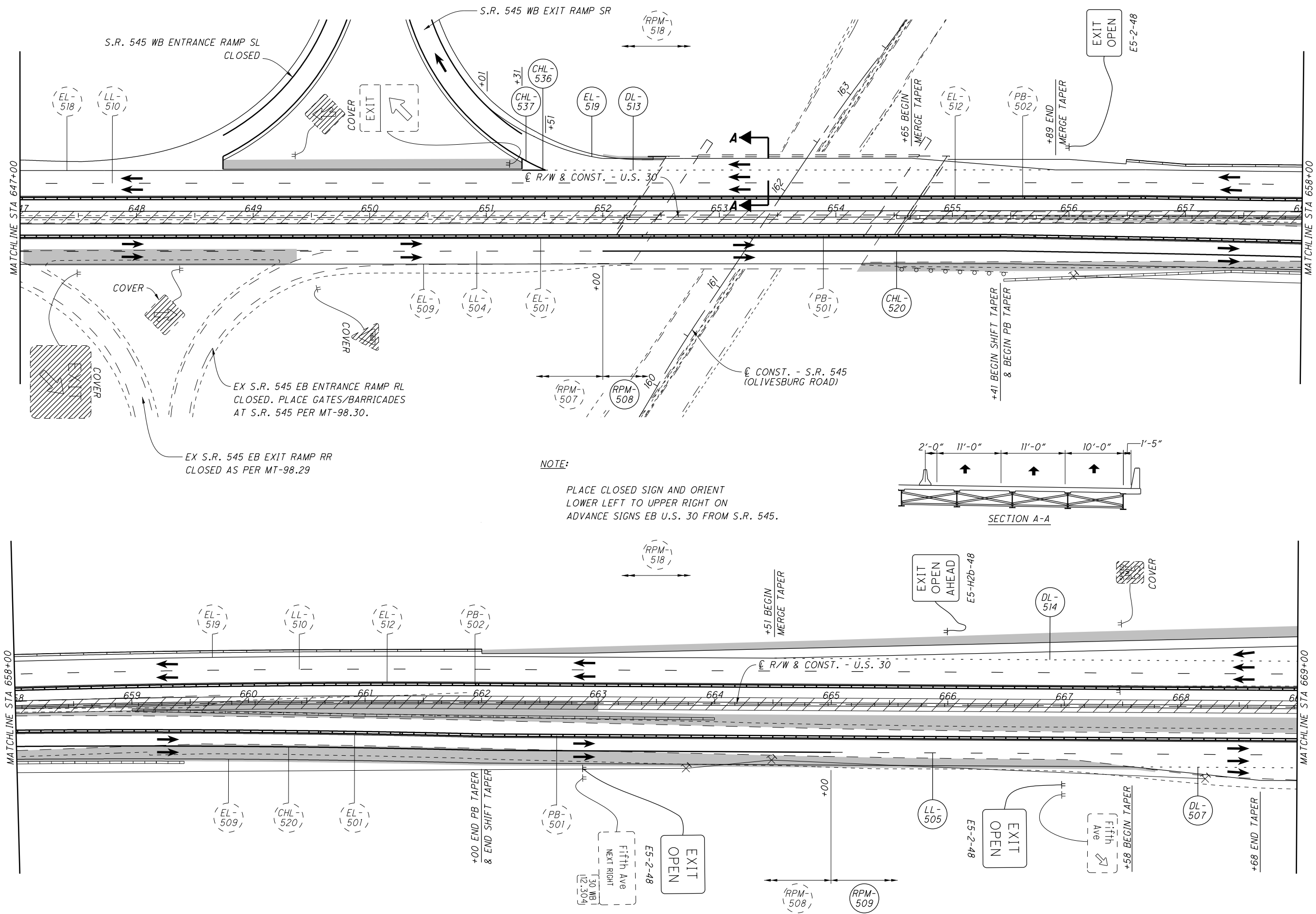


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**MAINTENANCE OF TRAFFIC-PHASE 3A**  
**STA 647+00 TO STA 669+00**

**RIC-30-9.26**

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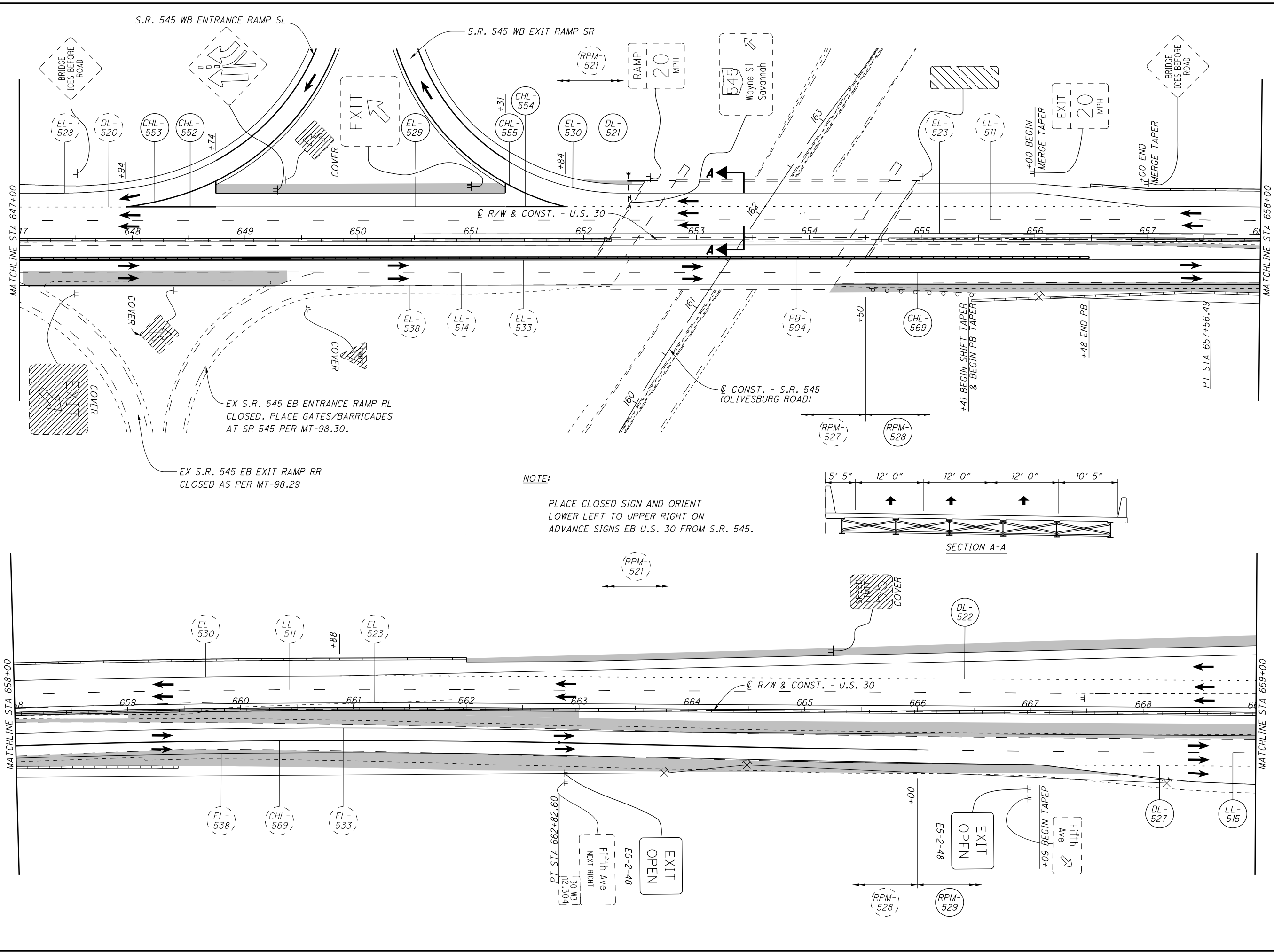
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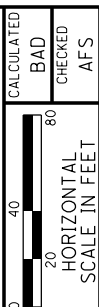
**MAINTENANCE OF TRAFFIC-PHASE 5**  
**STA 647+00 TO STA 669+00**

**RIC-30-9.26**

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**NOTE:**  
 PLACE CLOSED SIGN AND ORIENT LOWER LEFT TO UPPER RIGHT ON ADVANCE SIGNS EB U.S. 30 FROM S.R. 545.



**MAINTENANCE OF TRAFFIC-PHASE 5A**  
**STA 647+00 TO STA 669+00**





**PROPOSED WORK:**

THE PROPOSED WORK CONSISTS OF BUILDING CAST-IN-PLACE REINFORCED CONCRETE RETAINING WALLS IN THE FOLLOWING LOCATIONS:

RIC-30-9.26 WALL 7B, CAST-IN-PLACE RETAINING WALL, BEGINNING: STA. 645+89.29, OFFSET 66.67' RT. END: STA. 647+00.00, OFFSET 66.67' RT. TO BE SUPPORTED ON 12" CAST-IN-PLACE FRICTION PIPE PILES

REFERENCE SHALL BE MADE TO SUPPLEMENTAL SPECIFICATION:

NONE

REFERENCE SHALL BE MADE TO SUPPLEMENT:

NONE

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

**DESIGN PARAMETERS:**

ANGLE OF FRICTION = 30°  
UNIT WEIGHT OF SOIL = 125 PCF

**DESIGN DATA:**

CONCRETE CLASS QC1 WITH QC/QA - COMPRESSIVE STRENGTH 4000 PSI

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

**ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN**

ALL EXCAVATION REQUIRED TO CONSTRUCT THE PROPOSED EMBANKMENT BETWEEN THE VERTICAL LIMITS OF THE UNCLASSIFIED EXCAVATION FOR THE RETAINING WALL SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN FOR PAYMENT. UNCLASSIFIED EXCAVATION WILL BE MEASURED PER CMS 503.09.

BACKFILL BETWEEN THE VERTICAL LIMITS OF THE UNCLASSIFIED EXCAVATION FROM THE BOTTOM OF FOOTING ELEVATION SHALL BE INCLUDED WITH ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN, FOR PAYMENT.

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)**

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE CONCRETE FACING OF THE RETAINING WALL INCLUDING THE TOP, BACKSIDE OF WALL DOWN TO THE GUTTER OR TOE OF BARRIER, AND THE FRONT VERTICAL SIDE OF THE CONCRETE FROM TOP TO BOTTOM. THE FINISH COAT COLOR FOR THE RETAINING WALL SHALL BE LIGHT NEUTRAL MEETING FEDERAL COLOR STANDARD NO. 595B-17778.

**PILE DESIGN LOADS (ULTIMATE BEARING VALUE)**

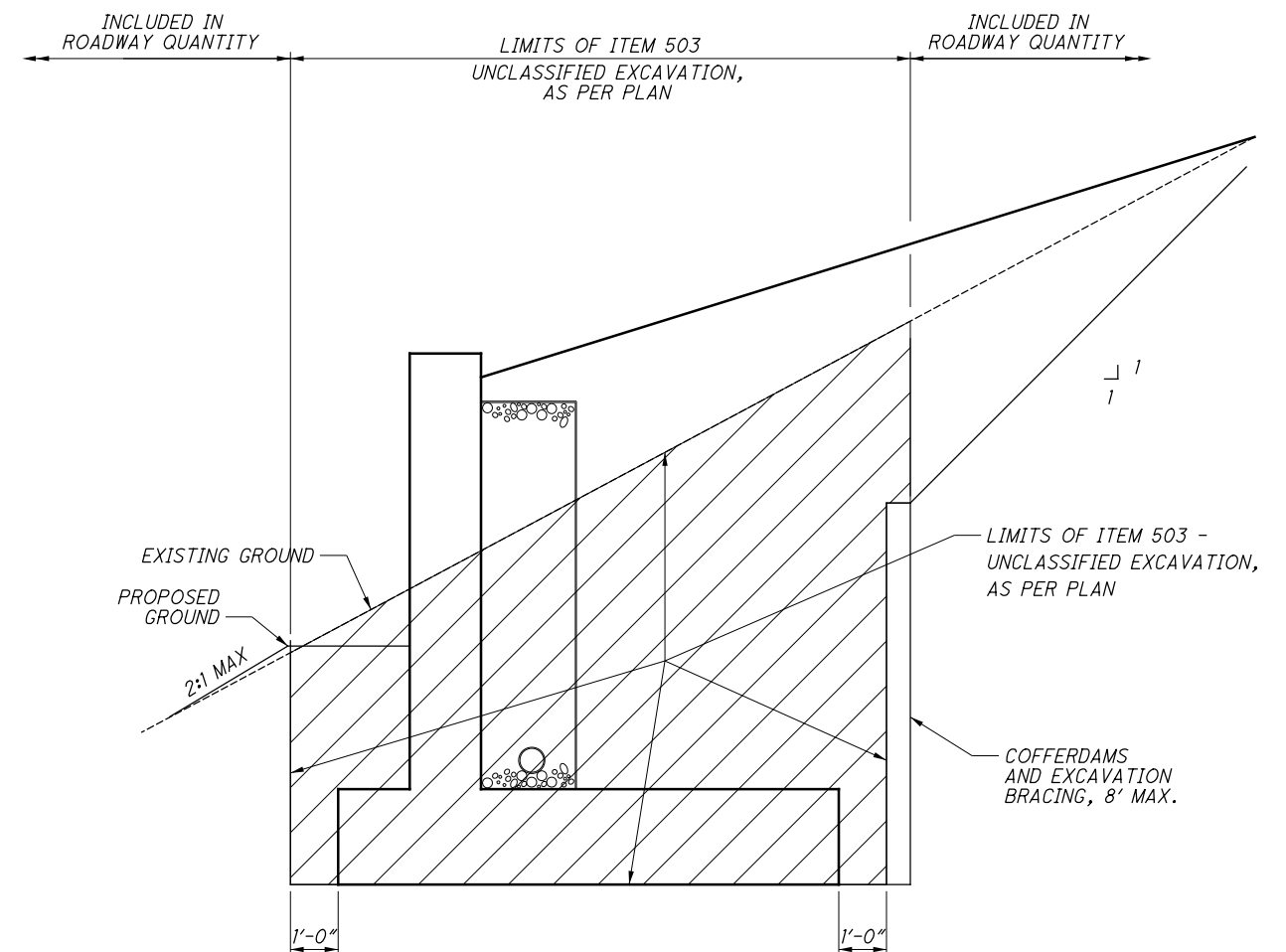
THE ULTIMATE BEARING VALUE IS 214 KIPS PER PILE FOR THE WALL 7B PILES.

WALL 7B PILES:  
53 - 12" CIP PILES, 75 FEET LONG, ORDER LENGTH  
1 DYNAMIC LOAD TESTING ITEMS

**ABBREVIATIONS:**

- CJ - CONSTRUCTION JOINT
- C/C - CENTER TO CENTER
- CLR - CLEAR
- CONST - CONSTRUCTION
- EF - EACH FACE
- ELEV - ELEVATION
- EX - EXISTING
- FF - FAR FACE
- I.R. 75 - INTERSTATE ROUTE 75
- INC - INCREMENT
- LT - LEFT
- MAX - MAXIMUM
- MIN - MINIMUM
- NB - NORTH BOUND
- N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
- NF - NEAR FACE
- P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- PROP - PROPOSED
- RT - RIGHT
- SER - SERIES
- SPA - SPACING
- STA - STATION
- ST - STRAIGHT
- TYP - TYPICAL

ESTIMATED QUANTITIES					CALCULATED BY: MMS	DATE: 9/10/2019
					CHECKED BY: NCK	DATE: 9/10/2019
ITEM	ITEM EXT.	PARTICIPATION O2/NHS/PV	UNIT	DESCRIPTION	AS PER PLAN REFERENCE SHEET	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING		
503	21101	413	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN		2/7
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION		
507	00500	3,710	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		
507	00550	3,975	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		
509	10000	21,696	LB	EPOXY COATED REINFORCING STEEL		
511	46012	84	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING		
511	46510	155	CY	CLASS QC1 CONCRETE, FOOTING		
512	10100	141	SY	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)		
512	33000	16	SY	TYPE 2 WATERPROOFING		
516	13600	45	SF	1" PREFORMED EXPANSION JOINT FILLER		
518	21200	85	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC		
518	40000	122	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		
518	40010	28	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		
523	20000	1	EACH	DYNAMIC LOAD TESTING		



**UNCLASSIFIED EXCAVATION, AS PER PLAN, PAYMENT LIMITS**

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SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
					1014	1020	1023	1026	1028	1032A	1033	02/NHS/PV						
					1,110							1,110	621	00100	1,110	EACH	RPM	
											932	932	621	54000	932	EACH	RAISED PAVEMENT MARKER REMOVED	
									19	11		30	625	32000	30	EACH	GROUND ROD	
								455		18		473	630	02100	473	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								1,632		2,441		4,073	630	03100	4,073	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
										77		77	630	04100	77	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
										110		110	630	06400	110	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
									287	298		585	630	06500	585	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
									43.7			43.7	630	07500	43.7	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
									210.8	175		385.8	630	07600	385.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
									150.1			150.1	630	08000	150.1	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W12X30	
								3				3	630	08004	3	FT	ONE WAY SUPPORT, NO. 3 POST	
								15				15	630	08520	15	FT	STREET NAME SIGN SUPPORT, NO. 3 POST	
								56		31		87	630	08600	87	EACH	SIGN POST REFLECTOR	
									33	34		67	630	09000	67	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
									1			1	630	20400	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 4	
										1		1	630	20401	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 4, AS PER PLAN	1134
									2	2		4	630	20600	4	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 6	
									4	1		5	630	20800	5	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	
									7	2		9	630	21000	9	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	
									2			2	630	21200	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 12	
									2	5		7	630	35500	7	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6	
										3		3	630	75000	3	EACH	SIGN ATTACHMENT ASSEMBLY	
								7		13		20	630	79500	20	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
								1,025.5	72.5	1,502		2,600	630	80100	2,600	SF	SIGN, FLAT SHEET	
									1,218.5	661		1,879.5	630	80200	1,879.5	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
									3,552.5	2,761		6,313.5	630	80224	6,313.5	SF	SIGN, OVERHEAD EXTRUSHEET	
								1				1	630	80500	1	EACH	SIGN, DOUBLE FACED, STREET NAME	
								4				4	630	81010	4	EACH	RAMP REFERENCE MARKER	
									1	4		5	630	84010	5	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
									33	34		67	630	84500	67	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
									19	11		30	630	84510	30	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
					139	170		6				315	630	84900	315	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						4	10					14	630	85100	14	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					20	18						38	630	85400	38	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
						1		1				2	630	85600	2	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
					135	146		24				305	630	86002	305	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					28	28		2				58	630	86102	58	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
					16	8						24	630	86292	24	EACH	REMOVAL OF GROUND MOUNTED WOODEN BOX BEAM SUPPORT AND DISPOSAL	
						1						1	630	86310	1	EACH	REMOVAL OF STRUCTURE MOUNTED SIGN AND DISPOSAL	
					24	20						44	630	87400	44	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
					11							11	630	87500	11	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
					3	5						8	630	89706	8	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-12.30	
					7	6						13	630	89802	13	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-7.65	
					39	30						69	631	94250	69	EACH	REMOVAL OF LUMINAIRE	
					10	14						24	631	94350	24	EACH	REMOVAL OF DISCONNECT SWITCH	
					23	19						42	631	94406	42	EACH	REMOVAL OF SIGNS WIRED	
					39	30						69	631	94450	69	EACH	REMOVAL OF BALLAST	
					10	14						24	631	97700	24	EACH	SIGN LIGHTING MISC.: REMOVE SIGN SERVICE	1076

TRAFFIC CONTROL GENERAL SUMMARY

RIC-30-9-26

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REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630			
						GROUND ROD	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	ONE WAY SUPPORT, NO. 3 POST	SIGN POST REFLECTOR	BREAKAWAY STRUCTURAL BEAM CONNECTION	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 6	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 4, AS PER PLAN	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN ATTACHMENT ASSEMBLY	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	SIGN, OVERHEAD EXTRUSHEET	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	RIGID OVERHEAD SIGN SUPPORT FOUNDATION		
US 30 (CONT.)						EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
S-186	1095	655+99	LT	W13-2-48	48"x60"																										
S-187	1095	657+00	LT	W8-13-48	48"x48"																										
S-188	1095	658+86	RT	M3-2-36 M1-4-36-2	36"x18" 36"x36"																										
S-189	1095	662+00	RT	D10-H6 E1-H5P	18"x12" 96"x30"																										
S-190	1095	662+60	LT	E1-H5P E1-H5P	156"x144" 156"x132" 108"x30" 120"x30"																										
S-191	1095	664+37	RT	I-H2B-36	36"x24"																										
S-192	1096	665+24	LT	R2-1-48	48"x60"																										
S-193	1096	666+50	RT	R2-1-48	48"x60"																										
S-194	1096	671+90	RT	D10-H6 E1-H5P E1-H5P	168"x132" 156"x102" 18"x12" 96"x30" 108"x30"																										
S-195	1096	672+20	LT		138"x68"																										
S-196	1096	674+40	RT	E5-H1A-108	96"x60"																										
US 30 RAMP A																															
S-197	1096	175+90	RT	W1-IR-36 W13-1P-30	36"x36" 30"x30"																										
S-198	1097	179+30	LT	W1-6R-60	60"x30"																										
S-199	1097	179+90	LT&RT	R5-1A-42 (4)	42"x30"																										
S-200	1097	180+28	RT	R5-1-48	48"x48"																										
US 30 RAMP B																															
S-201	1097	369+90	LT	W1-6R-60	60"x30"																										
US 30 (CONT.)																															
S-202	1097	678+73	LT	W4-1R-48	48"x48"																										
S-203	1097	680+22	RT	I-H2C-36	36"x24"																										
S-204	1097	681+24	RT	W4-1R-48	48"x48"																										
S-205	1097	686+81	LT	W1-1R-36 W13-1P-30 D10-H8-12	36"x36" 30"x30" 12"x12"																										
S-206	1097	686+22	LT	E5-H1A-108	108"x60"																										
S-207	1097	686+90	RT	D12-H15a-48 D10-H8-12	48"x30" 12"x12"																										
S-208	1097	691+00	LT	E1-H5P E1-H5P	156"x132" 126"x66" 120"x30" 120"x30"																										
S-209	1097	682+50	LT	R2-1-48	48"x60"																										
S-209A	1097	396+22 RAMP	LT&RT																												
S-209B	1097	370+40 RAMP	LT&RT	R5-1A-42 (4)	42"x30"																										
S-210	1097	680+21	LT	EX.	EX.																										
US 30 RAMP CE																															
S-211	1098	11+18	RT	R1-2-24	24"x24"																										
S-212	1098	11+18	LT	R1-2-24	24"x24"																										
S-213	1099	12+38	RT	R5-H10D-36	36"x36"																										
US 30 RAMP CD																															
S-214	1098	10+62	LT	R5-1-48 R3-H8BD-30 R6-1L-54 R6-1R-54	48"x48" 30"x30" 54"x18" 54"x18"																										
TOTALS CARRIED TO SHEET 1032A						4		552	46	26	52	42		8	8	1					3	2		327	151	1003	2	8	5		

SIGNING SUBSUMMARY - FLAT SHEET AND MAJOR SIGNS

RIC-30-9.26

CALCULATED  
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CHECKED  
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REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630						
						GROUND ROD	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, 54X7.7	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	ONE WAY SUPPORT, NO. 3 POST	SIGN POST REFLECTOR	BREAKAWAY STRUCTURAL BEAM CONNECTION	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 6	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 4, AS PER PLAN	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN ATTACHMENT ASSEMBLY	SIGN, FLAT SHEET	SIGN, GROUND MOUNTED EXTRUSHEET	SIGN, OVERHEAD EXTRUSHEET	CONCRETE BARRIER MEDIUM OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	RIGID OVERHEAD SIGN SUPPORT FOUNDATION			
SR 545 (OLIVESBURG ROAD) (CONT.)																																
S-265	1109	160+00	LT	I-H2A-48	48"x24"			26																								
S-266	1109	160+20	RT	R2-1-30	30"x36"			14																								
S-267	1109	162+20	RT	R3-H8BA-30	30"x36"			14																								
S-268	1110	164+47	RT	R3-H8BA-30	30"x36"			14																								
S-269	1110	165+65	RT		120"x108"	1										1								90.0		1						
S-269A	1110	165+05	RT	MI-5-30-3	30"x24"			7		42						2																
				M6-4-30	30"x21"																											
				D1-HI-96	96"x36"																							24.0				
				D1-HIA-96	96"x24"																								16.0			
S-270	1110	167+79	RT	WI-7-48	48"x24"			10																		8.0						
				M3-1-24	24"x12"					14																		2.0				
S-271	1110	357+40	RT	MI-5-30-3	30"x24"																					5.0						
				R5-1-36	36"x36"			31																				9.0				
				R1-1-48	48"x48"									2															16.0			
S-271A	1110	357+25	CL	R6-IL-54	54"x18"																						6.8					
				R4-7-24	24"x30"			15																					5.0			
				M3-4-24	24"x12"			15																					2.0			
S-271B	1110	165+74	LT	MI-4-24-2	24"x24"																						4.0					
				M6-2AL-21	21"x15"																								2.2			
				W2-2L-36	36"x36"			26																					9.0			
S-272	1111	169+79	RT	W16-H8P-48	48"x8"																						2.7					
				M4-5-24	24"x24"																								4.0			
				MI-1-24-2	24"x12"			7																					2.0			
S-273	1111	170+50	LT	M2-H4-108	108"x36"																						2.0					
				MI-1-24-2	24"x12"					7			26																27.0			
				R2-1-30	30"x36"			14																					7.5			
S-275	1111	174+00	LT	D1-H16-72	72"x48"																						24.0					
				D1-HI-72	72"x12"						31																		6.0			
S-276	1112	176+27	RT	D1-HI-72-2L	72"x24"																						12.0					
				D1-HI-72	72"x12"																								6.0			
				I-H2C-24	24"x18"																								3.0			
SHEET SUBTOTAL						1		207	31	58	42				2	6	1										159	91	180		6	1
TOTALS FROM SHEET 1029						5	8	828			102	46			8	8					1	2	2	11	3		480	192	1434	2	8	5
TOTALS FROM SHEET 1030						4		552	46	26	52	42			8	8	1							3	2		327	151	1003	2	8	5
TOTALS FROM SHEET 1031						1		494			36	45			12	4				1							295	88	144		4	
TOTALS FROM SHEET 1032							10	360		26	66	42			1	8											241	139		8		
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY						11	18	2441	77	110	298	175	0	0	31	34	2	1	1	2	5	13	3			1502	661	2761	4	34	11	

CALCULATED JAS CHECKED BBB  
**SIGNING SUBSUMMARY - FLAT SHEET AND MAJOR SIGNS**  
**RIC-30-9.26**  
 1032A  
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SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	02/NHS/ PV	EXT	TOTAL				
36	42	44	34	38	38	38	28	22	12			332	625	00450	332	EACH	CONNECTION, FUSED PULL APART	
9	6	3	6	3	6	9	6	3	6			57	625	00470	57	EACH	CONNECTION, UNFUSED BOLTED	
9	12	12	15	6	3	15	30	51	21			174	625	00480	174	EACH	CONNECTION, UNFUSED PERMANENT	
	8	1				1						10	625	10490	10	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT12B40	
4	4	2	8	3		1	7	8	2			39	625	10490	39	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT15B40	
	2					3	3	3	4			15	625	10490	15	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT18B40	
			7									7	625	10490	7	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT20B40	
10	7	19	2	16	11	6	4					75	625	10494	75	EACH	LIGHT POLE, LOW MAST, DESIGN ALM40	
4												4	625	10494	4	EACH	LIGHT POLE, LOW MAST, DESIGN ATLM40	
				4			4					8	625	10614	8	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
8	14	3	15	3		5	10	11	6			75	625	14100	75	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
10	7	19	2	15	11	6	3					73	625	14300	73	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP	
6,507	3,537	10,605	2,049	9,078	11,274	3,387	4,722	2,064	2,646			55,869	625	23200	55,869	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
2,340	3,096	2,766	2,820	2,415	2,520	2,811	2,157	1,842	1,026			23,793	625	23400	23,793	FT	NO. 10 AWG POLE AND BRACKET CABLE	
1,510	2,034	317	1,896	470	187	2,363	1,344	2,700	1,246			14,067	625	24320	14,067	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
227	84	176	242	167	51	144	292	608	285			2,276	625	25500	2,276	FT	CONDUIT, 3", 725.04	
										1,734	199	1,933	625	25910	1,933	FT	CONDUIT CLEANED AND CABLES REMOVED	
4	14	3	15	3		13	10	11	6			79	625	26253	79	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, 130W, TYPE III, 480V	
14	7	19	2	16	11	6	4					79	625	26273	79	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, 209W, TYPE V, 480V	
					8							8	625	26273	8	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, 319W, TYPE V, 480V	
									8			8	625	27503	8	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN, 39W, TYPE III, 480V	
1,632	1,869	453	1,988	592	228	2,357	1,521	3,143	1,466			15,249	625	29000	15,249	FT	TRENCH	
				2	2		3					7	625	29910	7	EACH	TRANSITION JUNCTION BOX	
2	1	1	2	1	2	2	2	1	2			16	625	29930	16	EACH	MEDIAN JUNCTION BOX	
3			3	2	1	1	2	5	1			18	625	30700	18	EACH	PULL BOX, 725.08, 18"	
	2	2	2			1	4	6	3			20	625	30706	20	EACH	PULL BOX, 725.08, 24"	
										3		3	625	31510	3	EACH	PULL BOX REMOVED	
18	21	22	17	18	11	11	13	11	6			148	625	32000	148	EACH	GROUND ROD	
				1	1		2					4	625	33000	4	EACH	STRUCTURE GROUNDING SYSTEM	
1				1	1	1		2				6	625	34001	6	EACH	POWER SERVICE, AS PER PLAN	
1,632	1,869	453	1,988	592	228	2,357	1,521	3,143	1,466			15,249	625	36000	15,249	FT	PLASTIC CAUTION TAPE	
									4			4	625	37100	4	EACH	SERVICE TO UNDERPASS LIGHTING	
										2	2	4	625	39520	4	EACH	PULL BOX CLEANED	
												LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	
										8	13	21	625	75400	21	EACH	LIGHT POLE REMOVED	
										8	13	21	625	75500	21	EACH	LIGHT POLE FOUNDATION REMOVED	
										44	47	91	625	75506	91	EACH	LUMINAIRE REMOVED	
										1		1	625	75510	1	EACH	POWER SERVICE REMOVED	
										20	13	33	625	75801	33	EACH	DISCONNECT CIRCUIT, AS PER PLAN	
1				1	1	1		2				6	625	76000	6	EACH	ARC FLASH CALCULATIONS AND LABEL, FOR EACH POWER SERVICE	
												4	625	98000	4	EACH	LIGHTING, MISC.: SERVICE TO UNDERPASS LIGHTING, REMOVED	

LIGHTING GENERAL SUMMARY

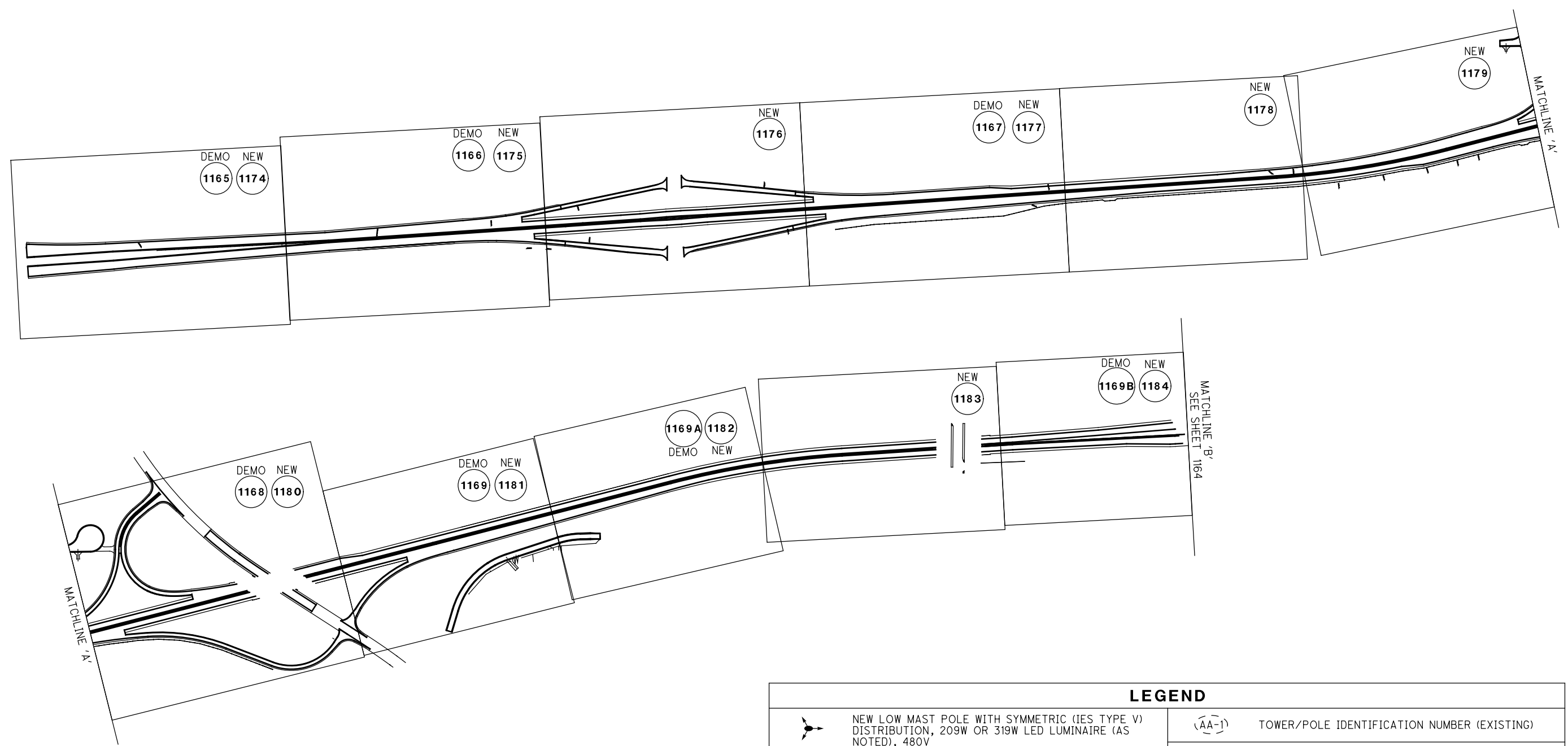
RIC-30-9.26

1150  
1669

CALCULATED  
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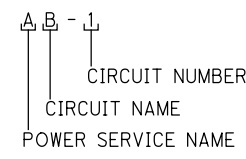
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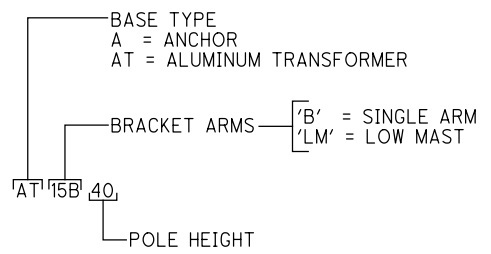
**LIGHTING SCHEMATIC PLAN**  
U.S. 30

**RIC-30-9.26**  
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**POWER SERVICE INFORMATION**



**LIGHT POLE INFORMATION**

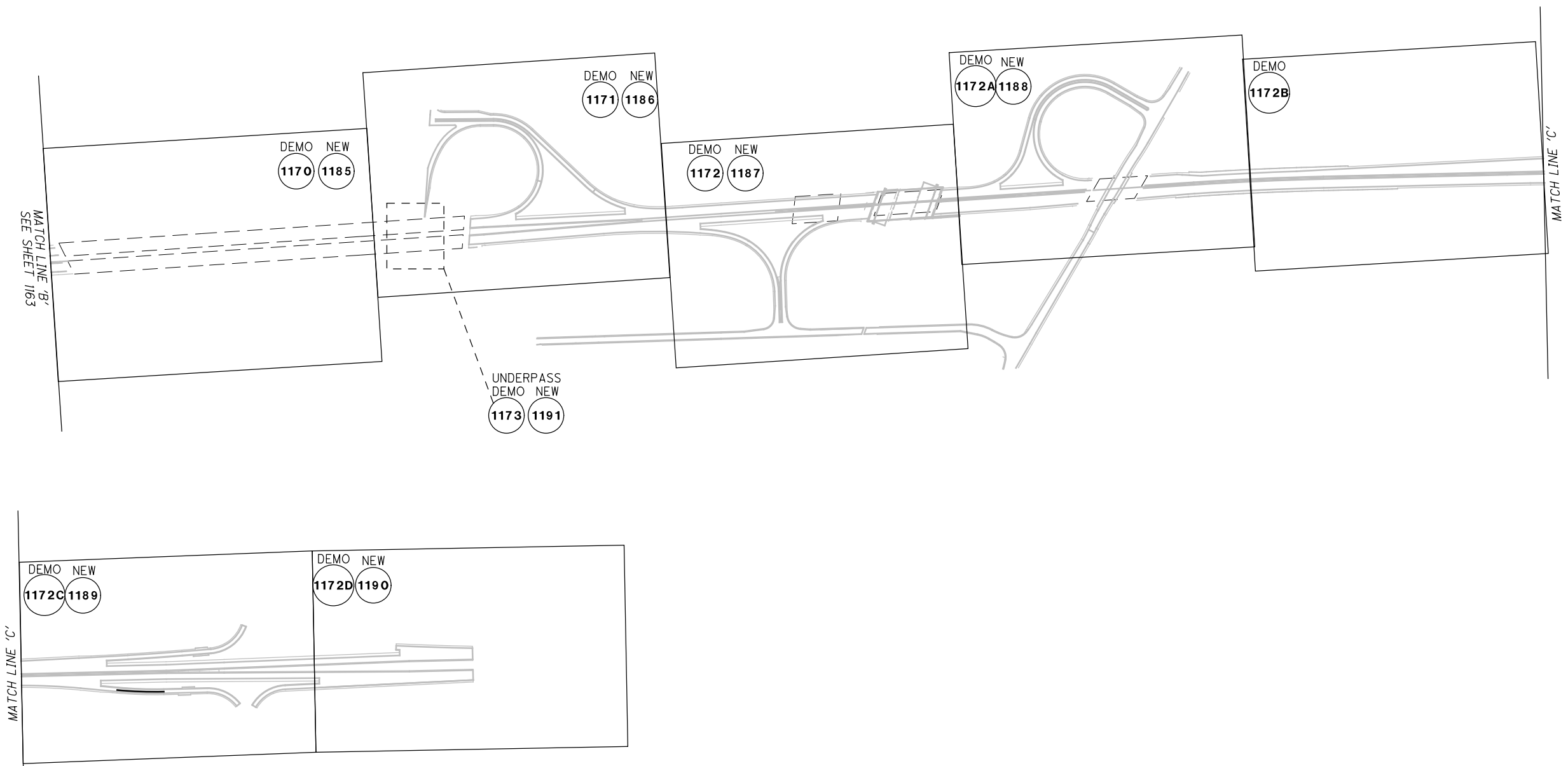


**LEGEND**

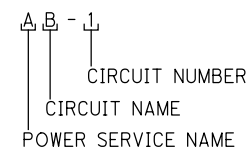
	NEW LOW MAST POLE WITH SYMMETRIC (IES TYPE V) DISTRIBUTION, 209W OR 319W LED LUMINAIRE (AS NOTED), 480V		(AA-1) TOWER/POLE IDENTIFICATION NUMBER (EXISTING)
	NEW CONVENTIONAL LIGHT POLE, DAVIT STYLE, IES TYPE III DISTRIBUTION, WITH 130W LED LUMINAIRE, 480V. (GROUND MOUNTED)		(R-1) REMOVAL REFERENCE NUMBER
	NEW UNDERPASS LUMINAIRE, IES TYPE III OR IV DISTRIBUTION, 39W LED, 480V.		EXISTING LOW MAST LIGHT POLE WITH LUMINAIRE
	NEW LIGHTING PULL BOX OR JUCTION BOX WITH IDENTIFICATION NUMBER (PB=PULL BOX, MJB=MEDIAN JUNCTION BOX, TJB=TRANSITION JUNCTION BOX)		EXISTING GROUND MOUNTED CONVENTIONAL LIGHT POLE WITH LUMINAIRE
	NEW LIGHTING POWER SERVICE, SERVICE REQUIREMENTS AS NOTED ON PLAN		EXISTING UNDERPASS LUMINAIRE
	NEW LIGHTING CIRCUIT (3-WIRE, 240/480V), TWO PHASE CONDUCTORS AND ONE GROUND CONDUCTOR (HASHES), CIRCUIT NAME AND CONDUCTOR SIZE		EXISTING LIGHT POLE
	PROPOSED LIGHTING CONDUIT, 3", 725.04, (UNLESS NOTED OTHERWISE) WITH (3) No. 4 CONDUCTORS (TWO PHASE CONDUCTORS, ONE GROUND CONDUCTOR, 3-WIRE, 240/480V). IF IN MEDIAN BARRIER, UTILIZE 4" CONDUIT INTRINSIC TO BARRIER FOR LIGHTING CONDUCTORS.		EXISTING LIGHTING POWER SERVICE, SERVICE REQUIREMENTS AS NOTED ON PLAN
	3" CONDUIT, JACKED OR DRILLED UNDER PAVEMENT		EXISTING LIGHTING PULL BOX OR JUCTION BOX WITH IDENTIFICATION NUMBER (PB=PULL BOX, MJB=MEDIAN JUNCTION BOX, TJB=TRANSITION JUNCTION BOX)
	TOWER/POLE IDENTIFICATION NUMBER (NEW)		EXISTING LIGHTING CONDUIT
			EXISTING LIGHTING CIRCUIT



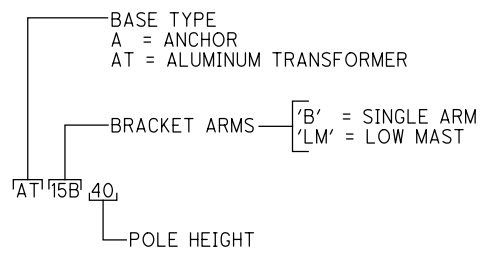
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**POWER SERVICE INFORMATION**



**LIGHT POLE INFORMATION**



**LEGEND**

	NEW LOW MAST POLE WITH SYMMETRIC (IES TYPE V) DISTRIBUTION, 209W OR 319W LED LUMINAIRE (AS NOTED), 480V		(AA-1) TOWER/POLE IDENTIFICATION NUMBER (EXISTING)
	NEW CONVENTIONAL LIGHT POLE, DAVIT STYLE, IES TYPE III DISTRIBUTION, WITH 130W LED LUMINAIRE, 480V. (GROUND MOUNTED)		(R-1) REMOVAL REFERENCE NUMBER
	NEW UNDERPASS LUMINAIRE, IES TYPE III OR IV DISTRIBUTION, 39W LED, 480V.		EXISTING LOW MAST LIGHT POLE WITH LUMINAIRE
	NEW LIGHTING PULL BOX OR JUNCTION BOX WITH IDENTIFICATION NUMBER (PB=PULL BOX, MJB=MEDIAN JUNCTION BOX, TJB=TRANSITION JUNCTION BOX)		EXISTING GROUND MOUNTED CONVENTIONAL LIGHT POLE WITH LUMINAIRE
	NEW LIGHTING POWER SERVICE, SERVICE REQUIREMENTS AS NOTED ON PLAN		EXISTING UNDERPASS LUMINAIRE
	NEW LIGHTING CIRCUIT (3-WIRE, 240/480V), TWO PHASE CONDUCTORS AND ONE GROUND CONDUCTOR (HASHES), CIRCUIT NAME AND CONDUCTOR SIZE		EXISTING LIGHT POLE
	PROPOSED LIGHTING CONDUIT, 3", 725.04, (UNLESS NOTED OTHERWISE) WITH (3) No. 4 CONDUCTORS (TWO PHASE CONDUCTORS, ONE GROUND CONDUCTOR, 3-WIRE, 240/480V). IF IN MEDIAN BARRIER, UTILIZE 4" CONDUIT INTRINSIC TO BARRIER FOR LIGHTING CONDUCTORS.		EXISTING LIGHTING POWER SERVICE, SERVICE REQUIREMENTS AS NOTED ON PLAN
	3" CONDUIT, JACKED OR DRILLED UNDER PAVEMENT		EXISTING LIGHTING PULL BOX OR JUNCTION BOX WITH IDENTIFICATION NUMBER (PB=PULL BOX, MJB=MEDIAN JUNCTION BOX, TJB=TRANSITION JUNCTION BOX)
	(AA-1) TOWER/POLE IDENTIFICATION NUMBER (NEW)		EXISTING LIGHTING CONDUIT
			EXISTING LIGHTING CIRCUIT



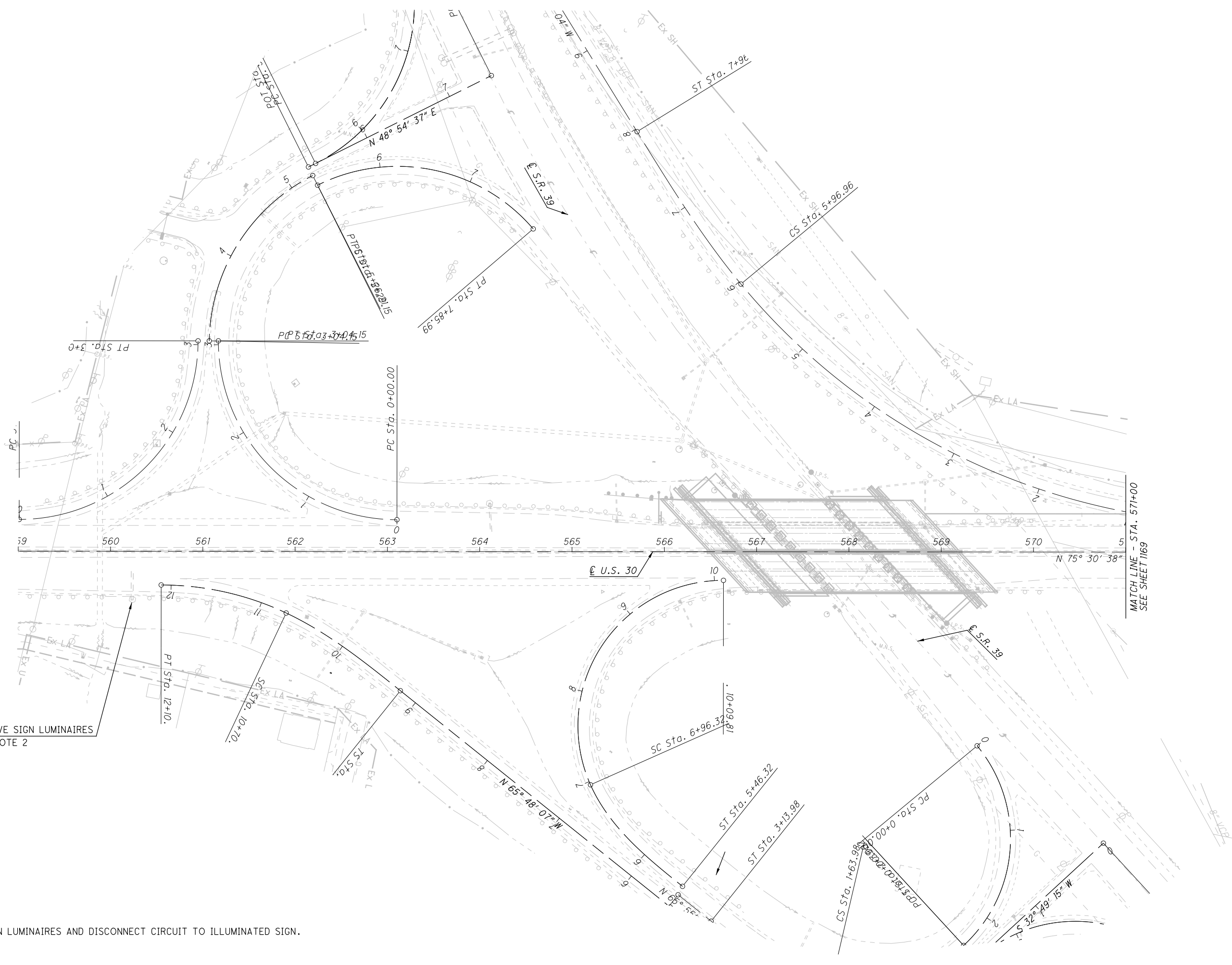
**LIGHTING SCHEMATIC PLAN**  
U.S. 30

**RIC-30-9.26**

1164  
1669

(R-57) REMOVE SIGN LUMINAIRES  
SEE NOTE 2

- NOTES:
1. REMOVE SIGN LUMINAIRES AND DISCONNECT CIRCUIT TO ILLUMINATED SIGN.



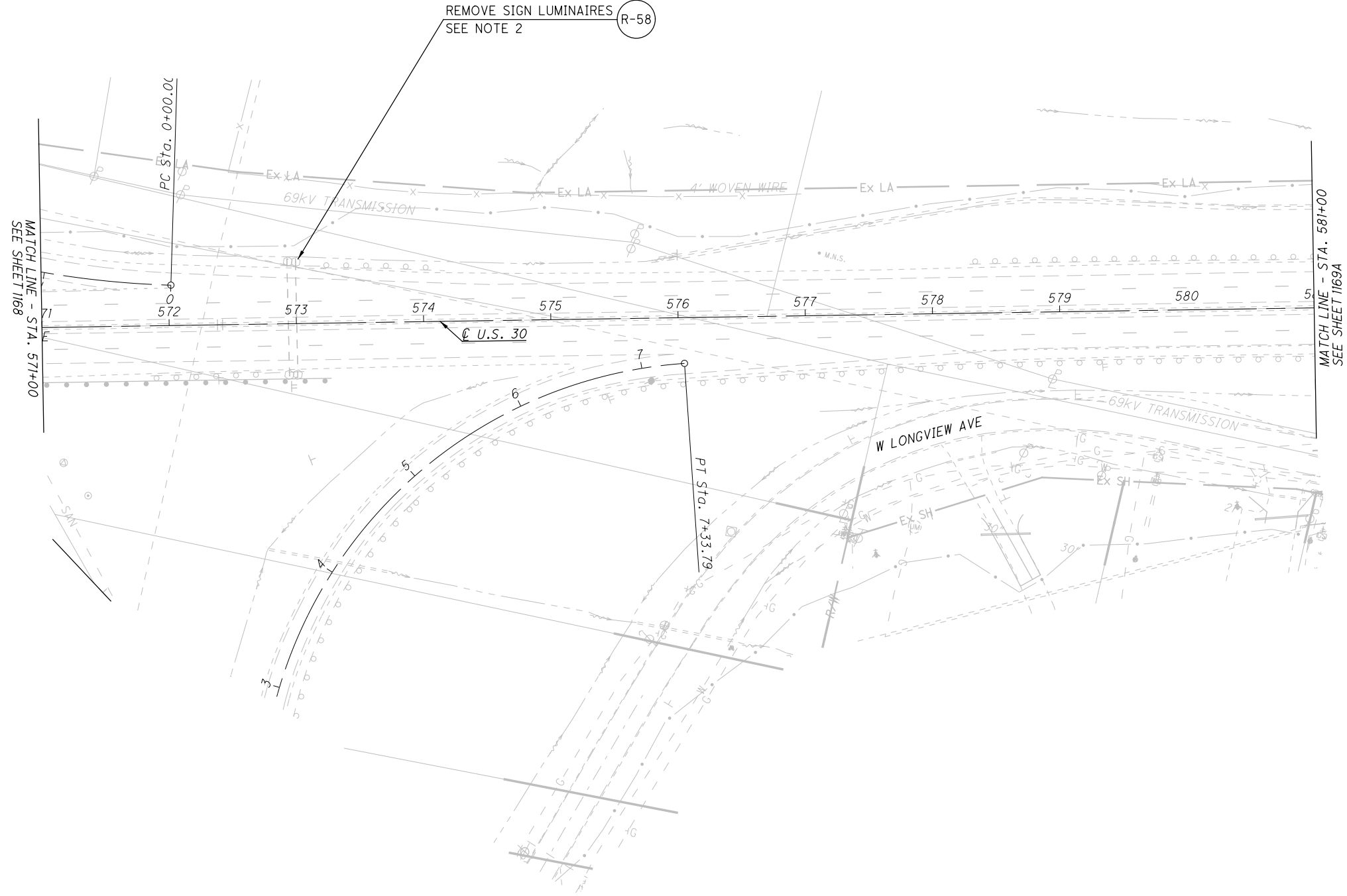
CALCULATED  
TRL  
CHECKED  
JCS

0 50 100  
25  
HORIZONTAL  
SCALE IN FEET

**LIGHTING DEMOLITION PLAN - U.S. 30**  
**STA. 559+00 TO STA. 571+00**

**RIC-30-9.26**

1168  
1669



NOTES:  
 1. REMOVE SIGN LUMINAIRES AND DISCONNECT CIRCUIT TO ILLUMINATED SIGN.

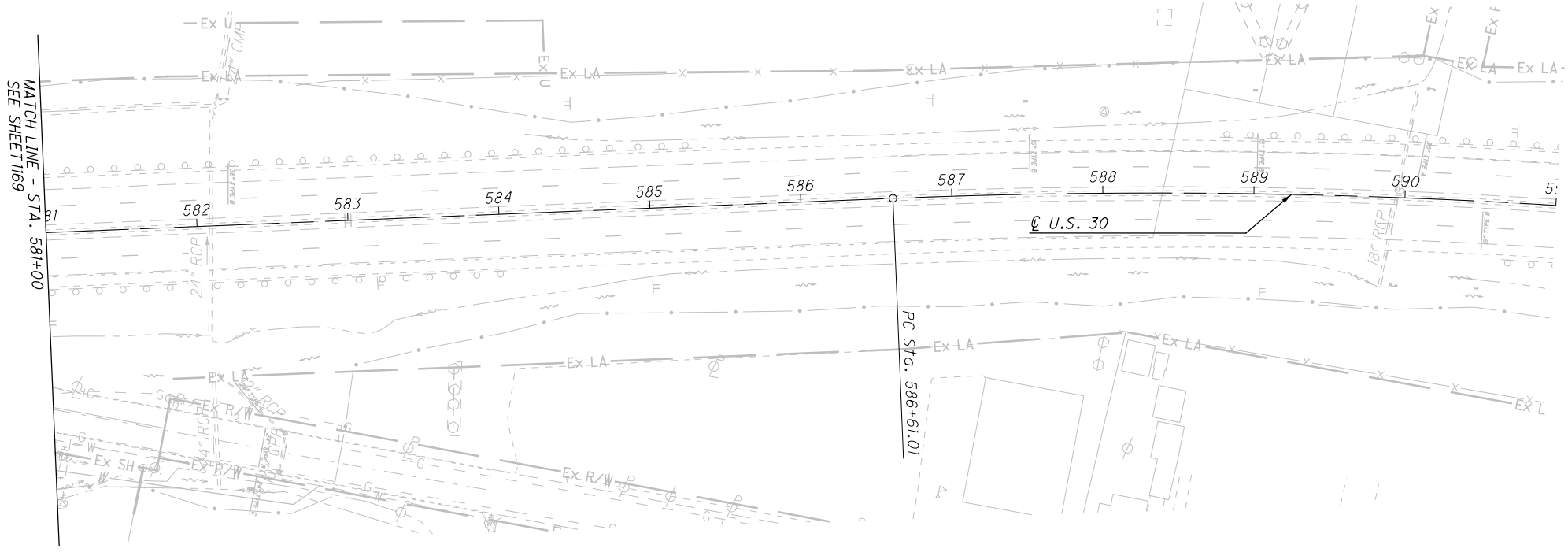
CALCULATED	TRL	CHECKED	JCS

0 50 100  
 25  
 HORIZONTAL  
 SCALE IN FEET

**LIGHTING DEMOLITION PLAN - U.S. 30**  
**STA. 571+00 TO STA. 581+00**

**RIC-30-9.26**

1169  
 1669



M:\15074\93455\Design\Structures\RICO30\_1135C\Sheets\030\_1135CSQ001.dgn 3/19/2020 2:28:12 PM toc230

CALC:	RLE	DATE:	5/28/2019
CHECKED:	TAC	DATE:	6/1/2019

**ESTIMATED QUANTITIES**

ITEM	EXTENSION	TOTAL 01/NHS/BR	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	3/56
202	22900	258	SY	APPROACH SLAB REMOVED				258	
202	23500	258	SY	WEARING COURSE REMOVED				258	
503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LS	3/56
503	21100	384	CY	UNCLASSIFIED EXCAVATION	384				
504	11100	3840	SF	STEEL SHEET PILING LEFT IN PLACE, Sx = 34.8 IN <sup>3</sup> /FT				3840	
505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				LS	
507	00100	2530	FT	STEEL PILES HPI0X42, FURNISHED	2530				
507	00150	2300	FT	STEEL PILES HPI0X42, DRIVEN	2300				
509	10001	199496	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	21843	30975	146678		23/56
510	10000	40	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	24	16			
511	21523	645	CY	CLASS OC2 CONCRETE WITH OC/OA, SUPERSTRUCTURE, AS PER PLAN			645		5/56 & 33/56
511	33500	4	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE			4		
511	41012	153	CY	CLASS OC1 CONCRETE WITH OC/OA, PIER ABOVE FOOTINGS		153			
511	44112	85	CY	CLASS OC1 CONCRETE WITH OC/OA, ABUTMENT NOT INCLUDING FOOTING	85				
511	46512	148	CY	CLASS OC1 CONCRETE WITH OC/OA, FOOTING	148				
512	10100	1155	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	48	397	654	56	
512	10300	233	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			204	29	
512	33000	16	SY	TYPE 2 WATERPROOFING	16				
513	10260	371800	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			371800		
513	20000	8676	EACH	WELDED STUD SHEAR CONNECTORS			8676		
514	00800	371800	LB	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			371800		
514	00851	371800	LB	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			371800		3/56
514	10000	19	EACH	FINAL INSPECTION REPAIR			19		
516	10010	176	FT	ARMORLESS PREFORMED JOINT SEAL				176	
516	13600	26	SF	1" PREFORMED EXPANSION JOINT FILLER			26		
516	13900	285	SF	2" PREFORMED EXPANSION JOINT FILLER			60	225	
516	14020	261	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	261				
516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2 13/16"x1'-2"x1'-5" W/ 1 x1'-3"x1'-6" BEVELED LOAD PLATE		24			28/56
516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2 1/2"x11"x1'-0" W/ 1 5/8"x1'-0"x1'-1" BEVELED LOAD PLATE	24				28/56
518	21200	97	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	97				
518	40001	220	FT	6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN	220				15/56 & 19/56
518	40010	22	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	22				
524	95434	84	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK WITH OC/OA		84			
524	95442	278	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK WITH OC/OA		278			
526	15001	390	SY	REINFORCED CONCRETE APPROACH SLABS (T=13"), AS PER PLAN				390	43/56 THRU 47/56
526	90030	176	FT	TYPE C INSTALLATION				176	
601	21000	932	SY	CONCRETE SLOPE PROTECTION				932	
607	39900	289	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC			289		

**ESTIMATED QUANTITIES**

BRIDGE NO. RIC-30-1135  
OVER BOWMAN STREET

**RIC-30-9-26**  
PID No. 93455

4/56

1273  
1669

DESIGNED: HK  
CHECKED: BDH

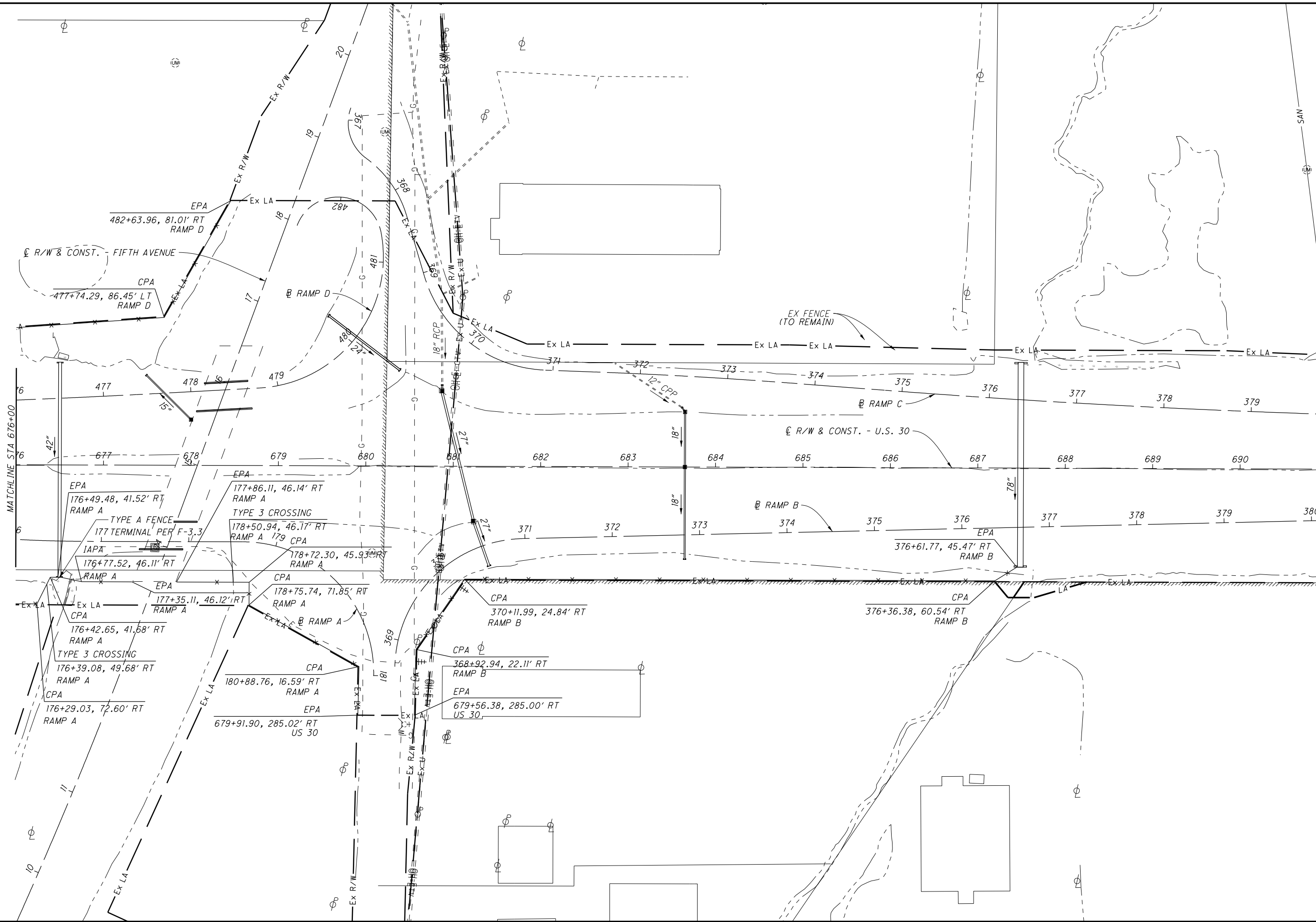
DRAWN: TAC  
REVISED: XXX

REVIEWED: SDS  
STRUCTURE FILE NUMBER: 700143

DATE: 9-24-19

DESIGN AGENCY: **ENGINEERING ASSOCIATES, INC.**  
935 EAGLE PASS - WOOSTER, OHIO 44691  
TELEPHONE: (330) 345-6556  
FAX: (330) 345-9077

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CALCULATED JGL  
 CHECKED BAD

0 50 100  
 HORIZONTAL SCALE IN FEET

↑  
 N

FENCING PLAN  
 STA 676+00 TO STA 690+00