

UTILITIES

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

AVON LAKE REGIONAL WATER
201 MILLER RD.
AVON LAKE, OHIO 44102
ATTN: JACK GAYDAR
PHONE: (440) 933-6226
EMAIL: Jgaydar@avonlakewater.org

OHIO EDISON TRANSMISSION
76 SOUTH MAIN ST.
AKRON, OHIO 44308
ATTN: ALAN SCHEMPP
PHONE: (330) 384-5489

RURAL LORAIN COUNTY WATER AUTHORITY
42401 STATE ROUTE 303
LAGRANGE, OHIO 44050
ATTN: JAMES TRUESDELL
PHONE: (440) 355-5121
EMAIL: jtruesdell@rlcwa.com

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEY PARAMETERS

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

VERTICAL POSITIONING:
ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 12A

HORIZONTAL POSITIONING:
REFERENCE FRAME: NAD 83 (CONUS)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: PROJECT GROUND COORDINATES
COMBINED SCALE FACTOR: 1.00007257
ENG./METRIC CONVERSION: 1 METER = 3.28083333 FEET

PROJECT GROUND COORDINATES ARE SCALED FROM OHIO STATE PLANE NORTH ZONE (3401) GRID POINT N: 631675.936 E: 2102889.245 ELEVATION: 708.68. GRID POINT ESTABLISHED USING GPS ODOT VRS RTK NETWORK. ELEVATION OF GRID POINT HELD AS PRIMARY BENCHMARK. BASIS OF BEARINGS ESTABLISHED ON BASIS OF GRID NORTH OF THE OHIO STATE PLANE NORTH (3401) COORDINATE SYSTEM.

UNITS ARE IN U.S. SURVEY FEET

ROUNDING

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

WORK LIMITS

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

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

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

CLEARING AND GRUBBING

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

ITEM 606 GUARDRAIL REBUILT, AS PER PLAN

THIS ITEM SHALL FOLLOW THE SPECIFICATIONS IN THE CMS FOR 606 ITEMS AND SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO REMOVE AND REPLACE EXISTING GUARDRAIL IN KIND OVER PROPOSED UNDERDRAIN OUTLET LOCATIONS WHERE FULL GUARDRAIL REPLACEMENT IS NOT OTHERWISE SPECIFIED IN THE PLANS. AT EACH LOCATION, EITHER ONE OR TWO LENGTHS OF GUARDRAIL AND ASSOCIATED POSTS ARE TO BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE CONSTRUCTION OF THE PROPOSED UNDERDRAIN. A QUANTITY IS PROVIDED BELOW AND CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.

ITEM 606 GUARDRAIL REBUILT, AS PER PLAN 125 FEET

ITEM 202 PAVEMENT REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE THE EXISTING PAVEMENT WHERE INDICATED IN THE PLANS. THIS WORK SHALL INCLUDE REMOVAL OF EXISTING CONCRETE AND ASPHALT PAVEMENTS, AS WELL AS THE EXISTING BASE, SUBBASE, AND AGGREGATE BASE MATERIALS.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST 2 EACH

659, TOPSOIL 1,237 CU. YD.

659, REPAIR SEEDING AND MULCHING 557 SQ. YD.

659, INTER-SEEDING 557 SQ. YD.

659, COMMERCIAL FERTILIZER 1.5 TON

659, LIME .26 ACRES

659, WATER 62 M. GAL.

659, MOWING 2786 M. SQ.FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL WITHIN THE CONSTRUCTION LIMITS QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE THE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.

ITEM 204 - PROOF ROLLING 13 HOUR.

ITEM 607 FENCE REMOVED AND REBUILT, AS PER PLAN

THIS ITEM SHALL INCLUDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REMOVE AND REBUILD IN KIND THE EXISTING RIGHT OF WAY FENCING AS NEEDED TO ACCOMMODATE CONSTRUCTION ACTIVITIES WITHIN THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL FIELD VERIFY THE LIMITS OF FENCE REMOVAL WITHIN THE CONSTRUCTION LIMITS BASED ON THE LOCATION OF EXISTING FENCE POSTS TO BE USED AS LOGICAL TERMINI FOR THE WORK. FENCING SHALL NOT BE DISTURBED OUTSIDE THE DEFINED CONSTRUCTION LIMITS. THE ALIGNMENT OF THE REBUILT FENCE SHALL FOLLOW AS CLOSELY AS PRACTICAL TO THE EXISTING ALIGNMENT, EXCEPT WHERE DEVIATIONS ARE NECESSARY TO TIE IN TO THE PROPOSED WINGWALL END LOCATIONS. SUCH DIVERSIONS SHOULD BE ACCOMPLISHED WITHIN THE SPAN OF ONE OR TWO FENCE PANELS NEAREST THE PROPOSED WINGWALLS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ENVIRONMENTAL

1. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.
2. NO WORK ATTEMPTED BELOW WATER MARKING. ODOT WILL OBTAIN AND ADHERE TO ALL APPROPRIATE WATERWAY PERMITS PRIOR TO ANY WORK BELOW THE ORDINARY HIGH WATER MARK OF ANY WATERWAY AND ALL SPECIAL PROVISIONS FOR WATERWAY PERMITS WILL BE INCLUDED IN THE PROJECT PLANS.
3. THE CONTRACTOR MUST SUBMIT THE ONLINE OEPA DEMOLITION/RENOVATION FORM TO THE OEPA WITHIN 10 BUSINESS DAYS PRIOR TO DEMOLITION OF THE STRUCTURES.

CALCULATED
HB
CHECKED
SNP

GENERAL NOTES

LOR-90-17.85

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ITEM 614 - MAINTAINING TRAFFIC

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

PN 127 - LANE VALUE CONTRACT

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE BELOW FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE BELOW.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH TEMPORARY SAFETY FEATURES IN PLACE.

DESCRIPTION OF CRITICAL LANE TO BE MAINTAINED	RESTRICTED TIME PERIOD	TIME UNIT	DISINCENTIVE \$ PER TIME UNIT
2 LANES (EACH DIRECTION) OF LOR IR 90 FROM MM 17.33 TO MM 18.41	6 AM TO 7 PM	EACH MINUTE	\$250

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, PORTABLE BARRIER, TRAFFIC SIGNS, AND WORK ZONE PAVEMENT MARKINGS, AS SHOWN ON SHEETS 20-47.

A MINIMUM OF 2 LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND COMPLETED PAVEMENT. AN EXCEPTION WILL BE MADE TO THIS RULE DURING PRE-PHASE 1 TEMPORARY PAVEMENT CONSTRUCTION. DURING PRE-PHASE 1 A SINGLE LANE CLOSURE IN EACH DIRECTION WILL BE ALLOWED AT NIGHT (7PM-6AM). NIGHT CLOSURES MAY ALSO BE PERMITTED DURING PHASE 1 IF NEEDED.

THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (419) 281-0513, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL BARRICADES, SIGNS, SIGN SUPPORTS AND INCIDENTALS RELATED TO TRAFFIC CONTROL SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

SIGNS FURNISHED SHALL BE IN NEW OR LIKE NEW CONDITIONS. LIKE NEW SIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING ALL SIGNS AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF HIS/HER WORK AT THE LOCATIONS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER.

EXISTING TRAFFIC CONTROL DEVICES LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - MAINTAINING TRAFFIC (CONT.)

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

NO WORK SHALL BE PERFORMED AND ALL LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEAR'S	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$250 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED (PER THE LANE VALUE CONTRACT PN 127).

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.

PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS AND PROVISIONS OF THE OHIO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL ON 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.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1.5 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.

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.

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 55 M. GAL.

ITEM 614, REPLACEMENT SIGN

FLATSHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 15 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

WORK ZONE INCREASED PENALTIES SIGN (R11-H5a)

R11-H5a SIGNS SHALL BE FURNISHED, ERECTED AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE R11-H5a SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, AND COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 2 EACH

ITEM 615, ROADS FOR MAINTAINING TRAFFIC

PAYMENT FOR ITEM 615, ROADS FOR MAINTAINING TRAFFIC SHALL INCLUDE THE FOLLOWING EARTHWORK, AND ANY OTHER INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE TEMPORARY PAVEMENT IN PRE-PHASE 1.

ITEM 203, EXCAVATION 2370 CY

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SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642		
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)				
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MILE	MILE	FT		
PHASE 1 QUANTITIES																							
21 - 28	EW-1	I.R. 90 WB	903+35	951+20	LT																		
21 - 28	EW-2	I.R. 90 EB	904+35	951+20	RT																		
21 - 28	CL-1	I.R. 90 WB	903+35	951+20	LT																		
21 - 28	CL-2	I.R. 90 EB	904+35	951+20	RT																		
21 - 28	EY-1	I.R. 90 WB	903+35	951+20	LT																		
21 - 28	EY-2	I.R. 90 EB	904+35	951+20	RT																		
21 - 22		I.R. 90 WB	903+35	907+00	LT			18															
22 - 27		I.R. 90 WB	907+00	948+00	LT				34														
27 - 28		I.R. 90 WB	948+00	951+20	LT			16															
21 - 22		I.R. 90 WB	903+35	907+00	LT			18															
22 - 27		I.R. 90 WB	907+00	948+00	LT				34														
27 - 28		I.R. 90 WB	948+00	951+20	LT			16															
21 - 22		I.R. 90 WB	903+35	907+00	LT				18														
22 - 27		I.R. 90 WB	907+00	948+00	LT					34													
27 - 28		I.R. 90 WB	948+00	951+20	LT			16															
21 - 22		I.R. 90 EB	904+35	907+10	RT			14															
22 - 27		I.R. 90 EB	907+10	948+60	RT				34														
27 - 28		I.R. 90 EB	948+60	951+20	RT			13															
21 - 22		I.R. 90 EB	904+35	907+10	RT			14															
22 - 27		I.R. 90 EB	907+10	948+60	RT				34														
27 - 28		I.R. 90 EB	948+60	951+20	RT			13															
21 - 22		I.R. 90 EB	904+35	907+10	RT				14														
22 - 27		I.R. 90 EB	907+10	948+60	RT					35													
27 - 28		I.R. 90 EB	948+60	951+20	RT			13															
21 - 24	PV-1	I.R. 90 WB	904+50	927+19	LT											1264							
21 - 24	PV-2	I.R. 90 EB	904+75	926+86	RT											1225							
25 - 28	PV-3	I.R. 90 WB	929+08	950+75	LT											1205							
25 - 27	PV-4	I.R. 90 EB	928+50	950+50	RT											1221							
24	PV-5	I.R. 90 WB	924+84.23	927+47	LT											292							
25	PV-6	I.R. 90 WB	928+29	929+85	LT											173							
24	PV-7	I.R. 90 EB	925+04.23	926+71	RT											185							
24 - 25	PV-8	I.R. 90 EB	928+29	929+35	RT											118							
PHASE 2 QUANTITIES																							
30 - 38	EW-3	I.R. 90 WB	906+04	948+95	LT																		
30 - 38	EW-4	I.R. 90 EB	905+84	949+30	RT																		
30 - 38	CL-3	I.R. 90 WB	906+04	948+95	LT																		
30 - 38	CL-4	I.R. 90 EB	905+84	949+30	RT																		
30 - 38	EY-3	I.R. 90 WB	906+04	948+95	LT																		
30 - 38	EY-4	I.R. 90 EB	905+84	949+30	RT																		
SUBTOTALS CARRIED TO SHEET 15									389							5,683			6.86		18,109		

MAINTENANCE OF TRAFFIC SUBSUMMARY

LOR-90-17.85

CALCULATED
MLV
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JML

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SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642		
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)				
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MILE	MILE	FT		
PHASE 2 QUANTITIES (CONTINUED)																							
30 - 31		I.R. 90 WB	906+04	909+64	LT			18															
31 - 37		I.R. 90 WB	909+64	944+85	LT				30														
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 WB	906+04	909+64	LT			18															
31 - 37		I.R. 90 WB	909+64	944+85	LT				29														
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 WB	906+04	909+64	LT				18														
31 - 37		I.R. 90 WB	909+64	944+85	LT					29													
37 - 38		I.R. 90 WB	944+85	948+95	LT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT			18															
31 - 37		I.R. 90 EB	909+44	945+15	RT				30														
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT			18															
31 - 37		I.R. 90 EB	909+44	945+15	RT				30														
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
30 - 31		I.R. 90 EB	905+84	909+44	RT				18														
31 - 37		I.R. 90 EB	909+44	945+15	RT					30													
37 - 38		I.R. 90 EB	945+15	949+30	RT			21															
31		I.R. 90 EB	908+54		RT		1																
31 - 37	PB-1	I.R. 90 EB	908+74	945+15	RT												3650						
31		I.R. 90 EB	908+74	909+44	RT	80																	
31 - 37		I.R. 90 EB	909+44	945+15	RT								71		71								
31 - 38	PB-2	I.R. 90 WB	909+64	946+34	LT												3710						
31 - 37		I.R. 90 WB	909+64	944+85	LT								71		71								
37 - 38		I.R. 90 WB	944+85	946+34	LT	160																	
38		I.R. 90 WB	946+54		LT		1																
PHASE 3 QUANTITIES																							
40 - 46	EW-5	I.R. 90 WB	909+74	944+85.00	LT														0.67				
40 - 46	EW-6	I.R. 90 EB	909+44	945+05.00	RT														0.67				
40 - 46	CL-5	I.R. 90 WB	909+74	944+85.00	LT																3520		
40 - 46	CL-6	I.R. 90 EB	909+44	94+50.00	RT																3553		
40 - 46	EY-5	I.R. 90 WB	909+74	944+85.00	LT															0.67			
40 - 46	EY-6	I.R. 90 EB	909+44	945+05.00	RT															0.67			
SUBTOTALS CARRIED TO SHEET 15						240	2		409				142		142		7,360		2.68		7,073		

MAINTENANCE OF TRAFFIC SUBSUMMARY

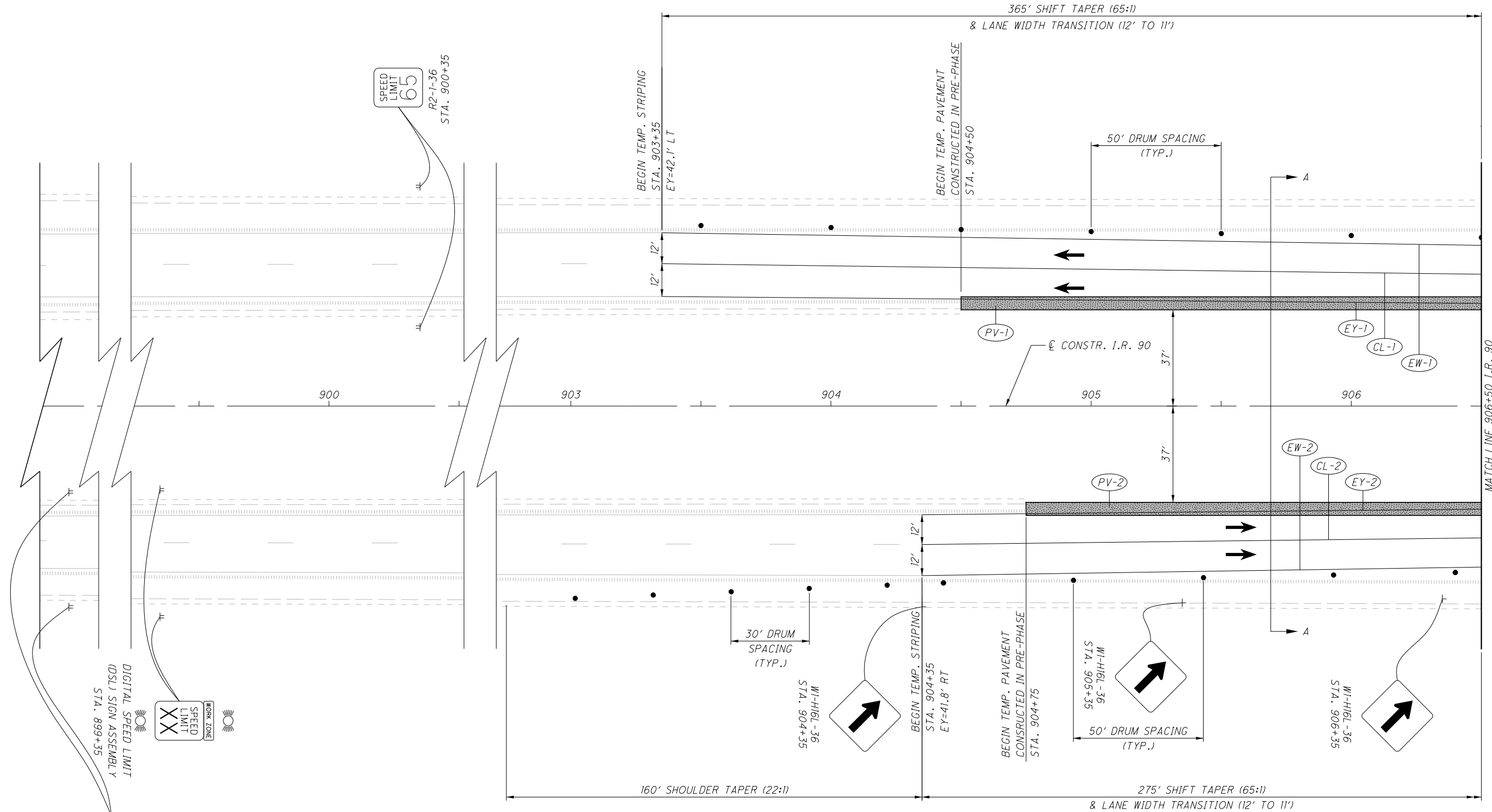
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SHEET NO.	REFERENCE NO.	ALIGNMENT	STATION		SIDE	614	614	614	614	614	614	614	614	614	614	615	622	622	642	642	642		
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL)		WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY YELLOW)	WORK ZONE RAISED PAVEMENT MARKER, APP (20' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY WHITE)	WORK ZONE RAISED PAVEMENT MARKER, APP (120' SPACING, ONE-WAY YELLOW)	BARRIER REFLECTOR, TYPE 1, (ONE WAY), WHITE	BARRIER REFLECTOR, TYPE 1, (TWO WAY), YELLOW/YELLOW	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, 32", UNANCHORED	PORTABLE BARRIER, 32", ANCHORED	EDGE LINE, 6", TYPE 1, AS PER PLAN (WHITE)	EDGE LINE, 6", TYPE 1, AS PER PLAN (YELLOW)	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN (WHITE)			
			FROM	TO		FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	FT	FT	MI	MI	FT		
PHASE 3 QUANTITIES (CONTINUED)																							
40 - 43		I.R. 90 WB	909+74	924+74	LT			75															
43 - 44		I.R. 90 WB	924+74	929+85	LT				4														
44 - 46		I.R. 90 WB	929+85	944+85	LT			75															
40 - 43		I.R. 90 WB	909+74	924+74	LT			75															
43 - 44		I.R. 90 WB	924+74	929+85	LT				4														
44 - 46		I.R. 90 WB	929+85	944+85	LT			75															
40 - 43		I.R. 90 WB	909+74	924+74	LT					75													
43 - 44		I.R. 90 WB	924+74	929+85	LT						4												
44 - 46		I.R. 90 WB	929+85	944+85	LT						75												
40 - 43		I.R. 90 EB	909+44	925+04	RT			78															
43 - 44		I.R. 90 EB	925+04	929+45	RT				4														
44 - 46		I.R. 90 EB	929+45	945+05	RT			78															
40 - 43		I.R. 90 EB	909+44	925+04	RT			78															
43 - 44		I.R. 90 EB	925+04	929+45	RT				4														
44 - 46		I.R. 90 EB	929+45	945+05	RT			78															
42		I.R. 90 EB	920+23		RT		1																
42 - 43	PB-3	I.R. 90 EB	920+43	926+48	RT												601						
43 - 44	PB-5	I.R. 90 EB	928+48	928+83	RT													230					
44	PB-7	I.R. 90 EB	928+83	929+45	RT												70						
42 - 43		I.R. 90 EB	919+84	925+04	RT	515																	
43 - 44		I.R. 90 EB	925+04	929+45	RT							9		9									
43	PB-4	I.R. 90 WB	924+74	926+98	LT												230						
43 - 44	PB-6	I.R. 90 WB	926+98	929+20	LT													230					
45		I.R. 90 WB	934+59		LT		1																
44 - 45	PB-8	I.R. 90 WB	929+20	934+39	LT																		
43 - 44		I.R. 90 WB	924+74	929+85	LT							10		10									
44 - 45		I.R. 90 WB	929+85	935+05	LT	515																	
SUBTOTALS FROM THIS SHEET						1,030	2		942			19		19			1,422	460					
SUBTOTALS FROM SHEET 13									389							5,683			6.86		18,109		
SUBTOTALS FROM SHEET 14						240	2		409			142		142				7,360		2.68		7,073	
TOTALS CARRIED TO GENERAL SUMMARY						1,270	4		1,740			19	142	19	142	5,683	1,422	7,820	9.54		25,182		

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MAINTENANCE OF TRAFFIC SUBSUMMARY	
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NOTES:

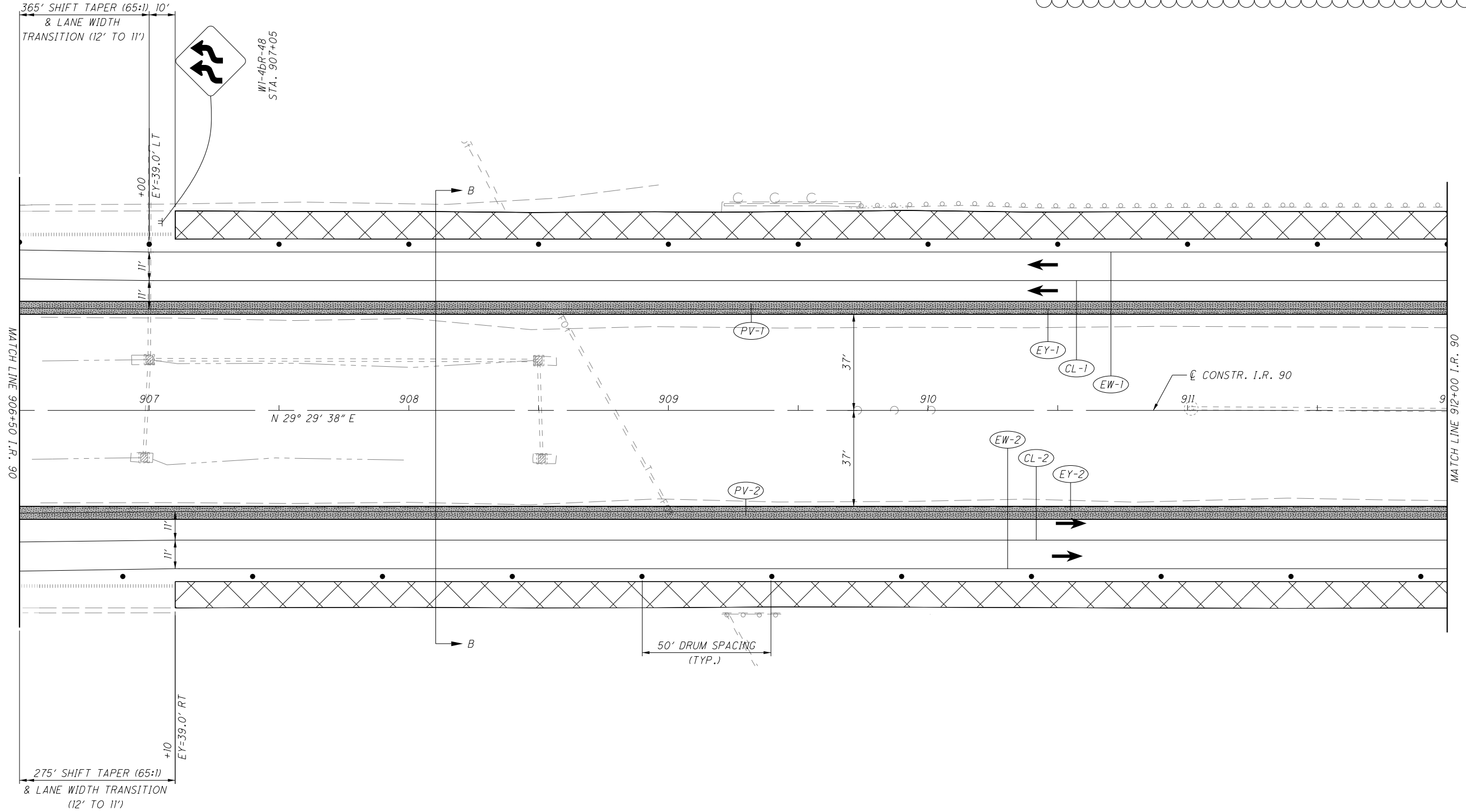
- FOR LEGEND, SEE SHEET 20
- FOR TYPICAL SECTION, SEE SHEET 17
- FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119 PRIOR TO PHASE 1 START
- TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION IS COMPLETE

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0 20 40
HORIZONTAL
SCALE IN FEET

**MAINTENANCE OF TRAFFIC - PHASE 1
STA. 894+35 TO STA. 906+50**

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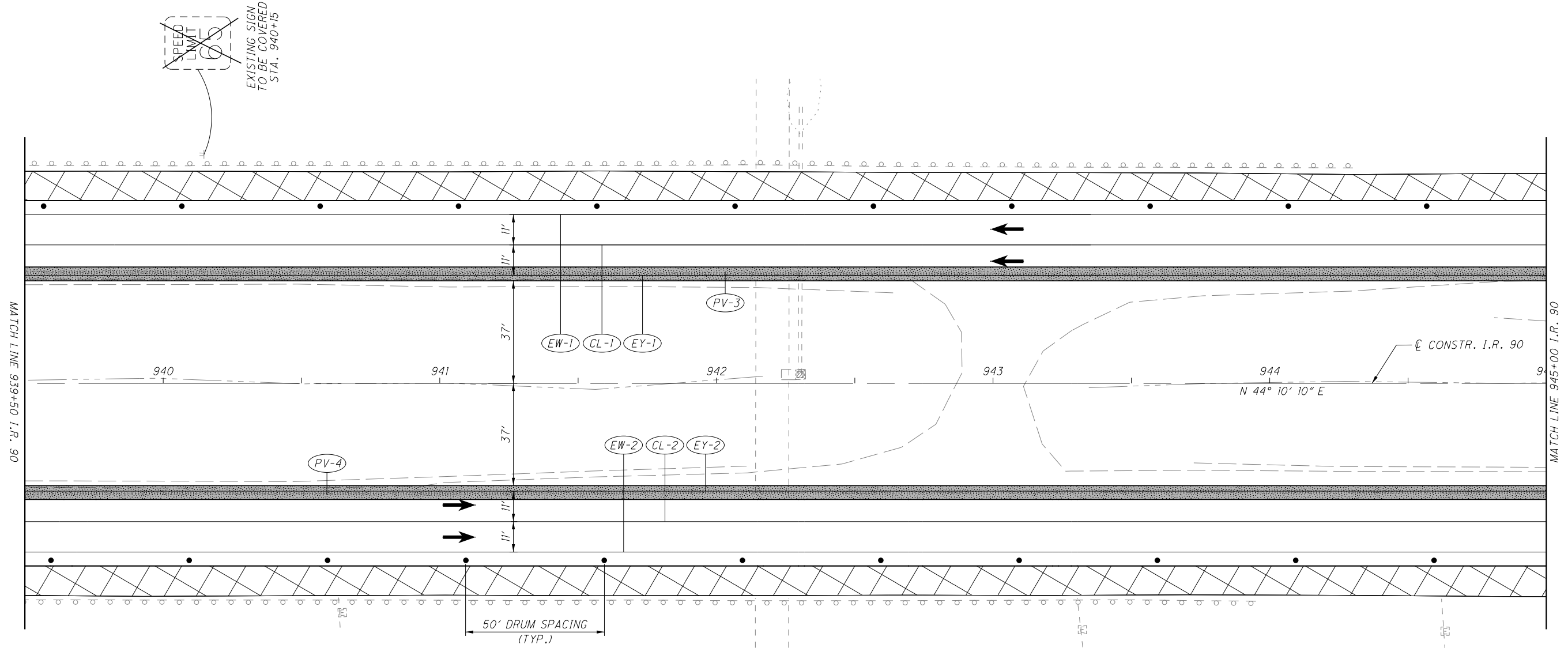
- NOTES:
1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

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0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 906+50 TO STA. 912+00

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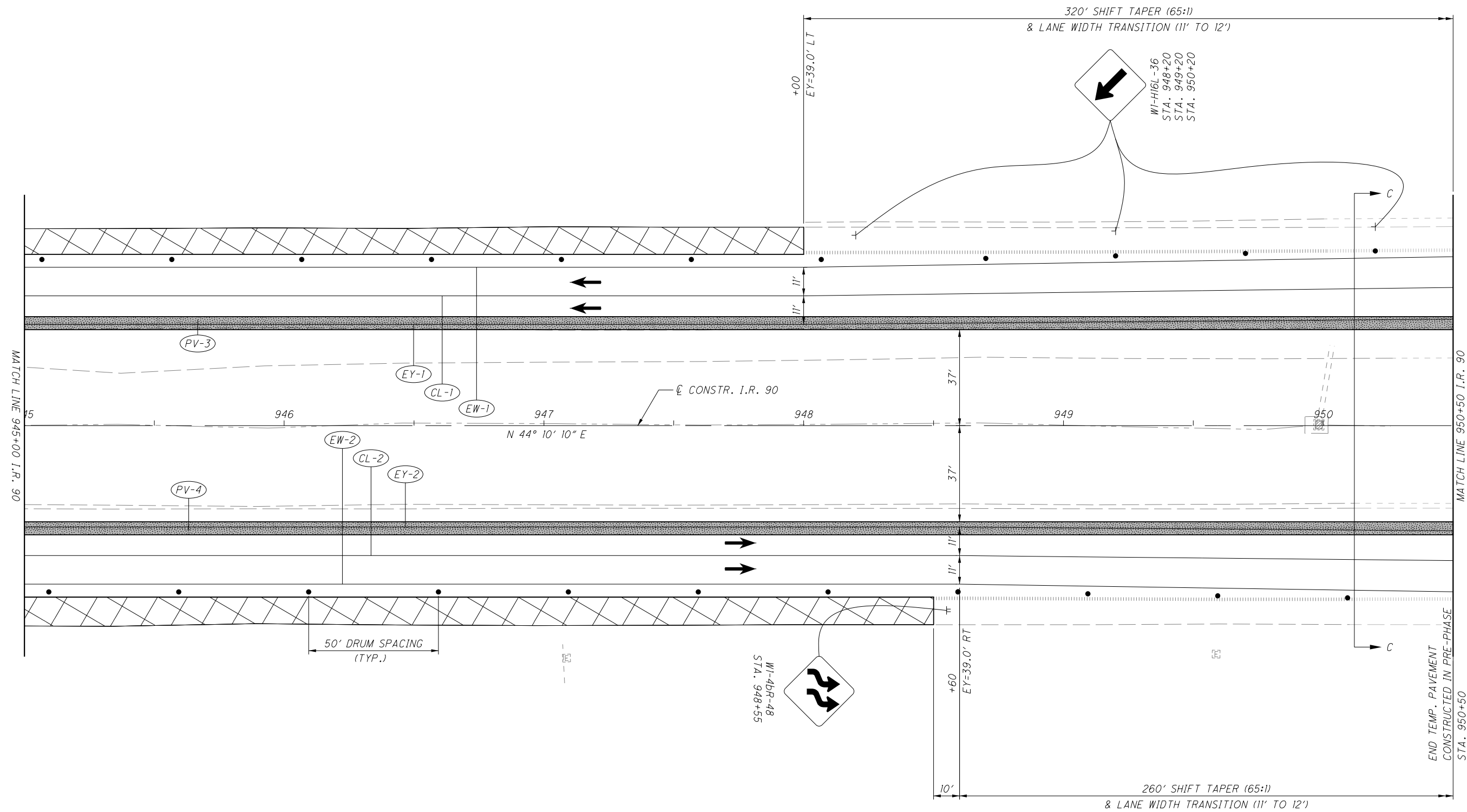
NOTES:
 1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE I START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

CALCULATED
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HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 939+50 TO STA. 945+00

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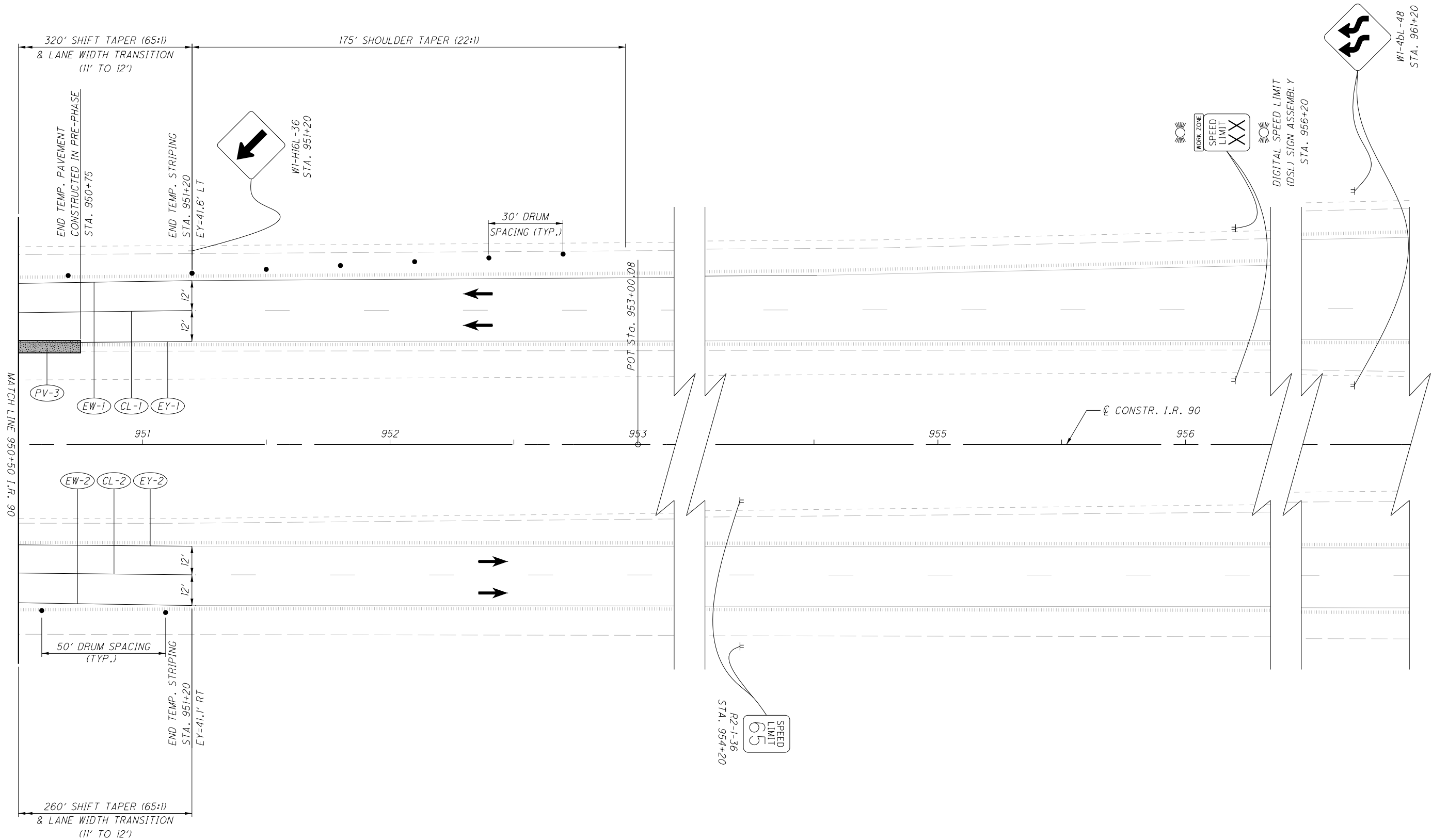
NOTES:
 1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE OF PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

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 1" = 40'
 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 945+00 TO STA. 950+50

LOR-90-17.85



NOTES:
 1. FOR LEGEND, SEE SHEET 20
 2. FOR TYPICAL SECTION, SEE SHEET 17
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 111 - 119
 4. INSIDE SHOULDER REPLACEMENT WITH TEMPORARY PAVEMENT TO BE INSTALLED PRIOR TO PHASE 1 START
 5. TEMPORARY PAVEMENT CONSTRUCTED OUTSIDE PERMANENT PAVEMENT LIMITS MAY REMAIN AFTER CONSTRUCTION

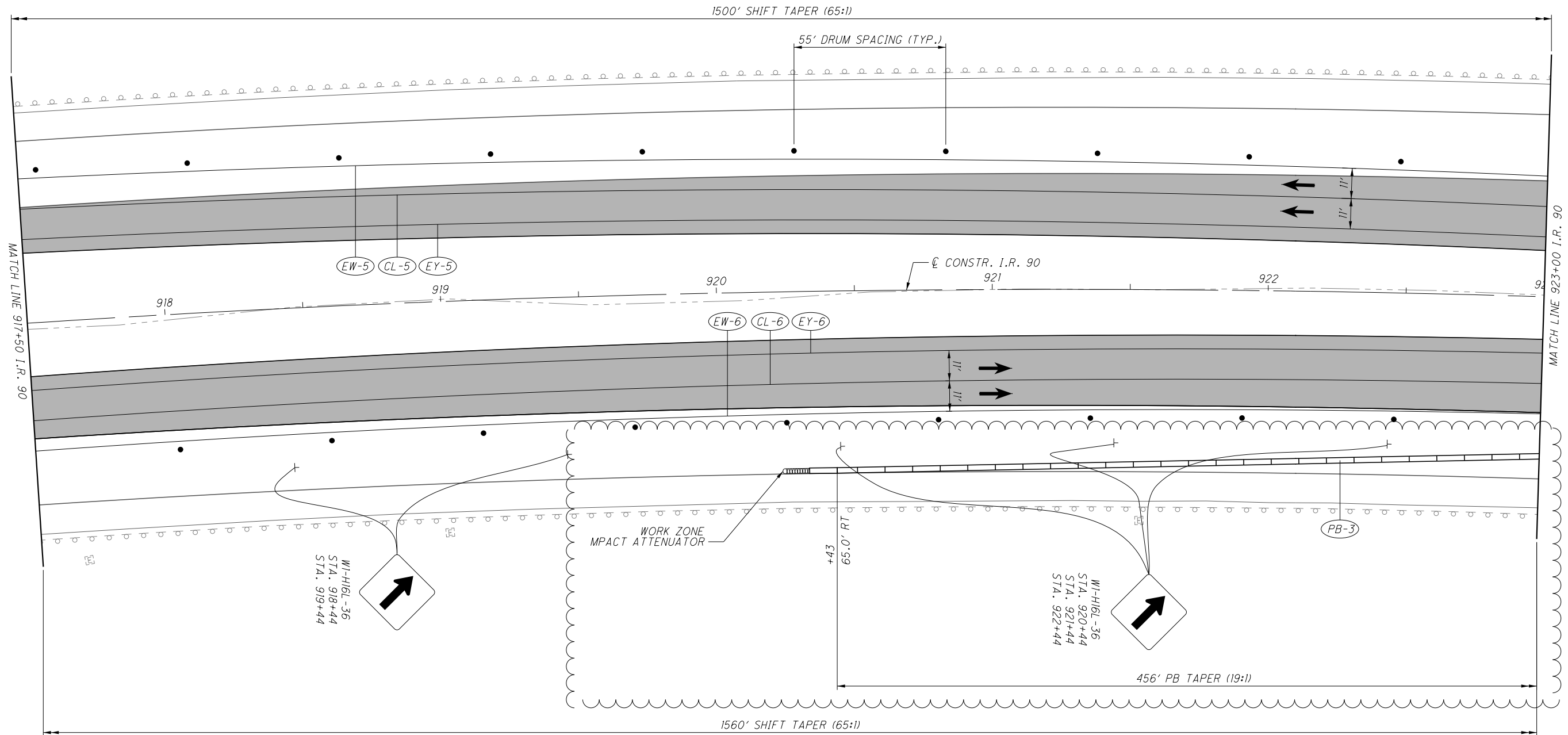
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 HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 950+50 TO STA. 961+20

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- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

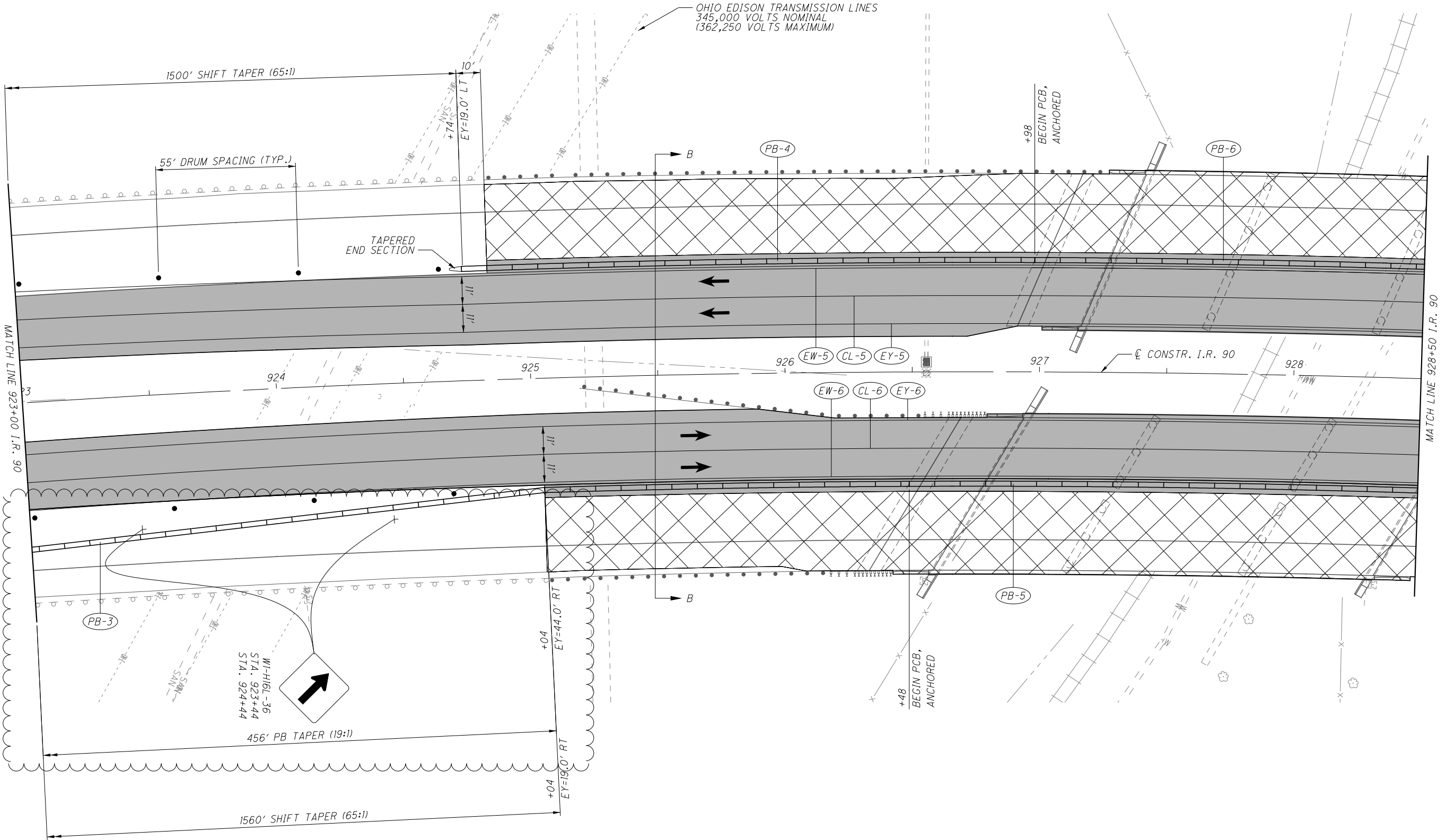
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HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 917+50 TO STA. 923+00

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MATCH LINE 923+00 I.R. 90

MATCH LINE 928+50 I.R. 90

OHIO EDISON TRANSMISSION LINES
345,000 VOLTS NOMINAL
(362,250 VOLTS MAXIMUM)

1500' SHIFT TAPER (65:1)

55' DRUM SPACING (TYP.)

TAPERED END SECTION

WI-HIBL - 36
STA. 923+44
STA. 924+44

456' PB TAPER (19:1)

1560' SHIFT TAPER (65:1)

NOTES:

1. FOR LEGEND, SEE SHEET 12
2. FOR TYPICAL SECTION, SEE SHEET 11
3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

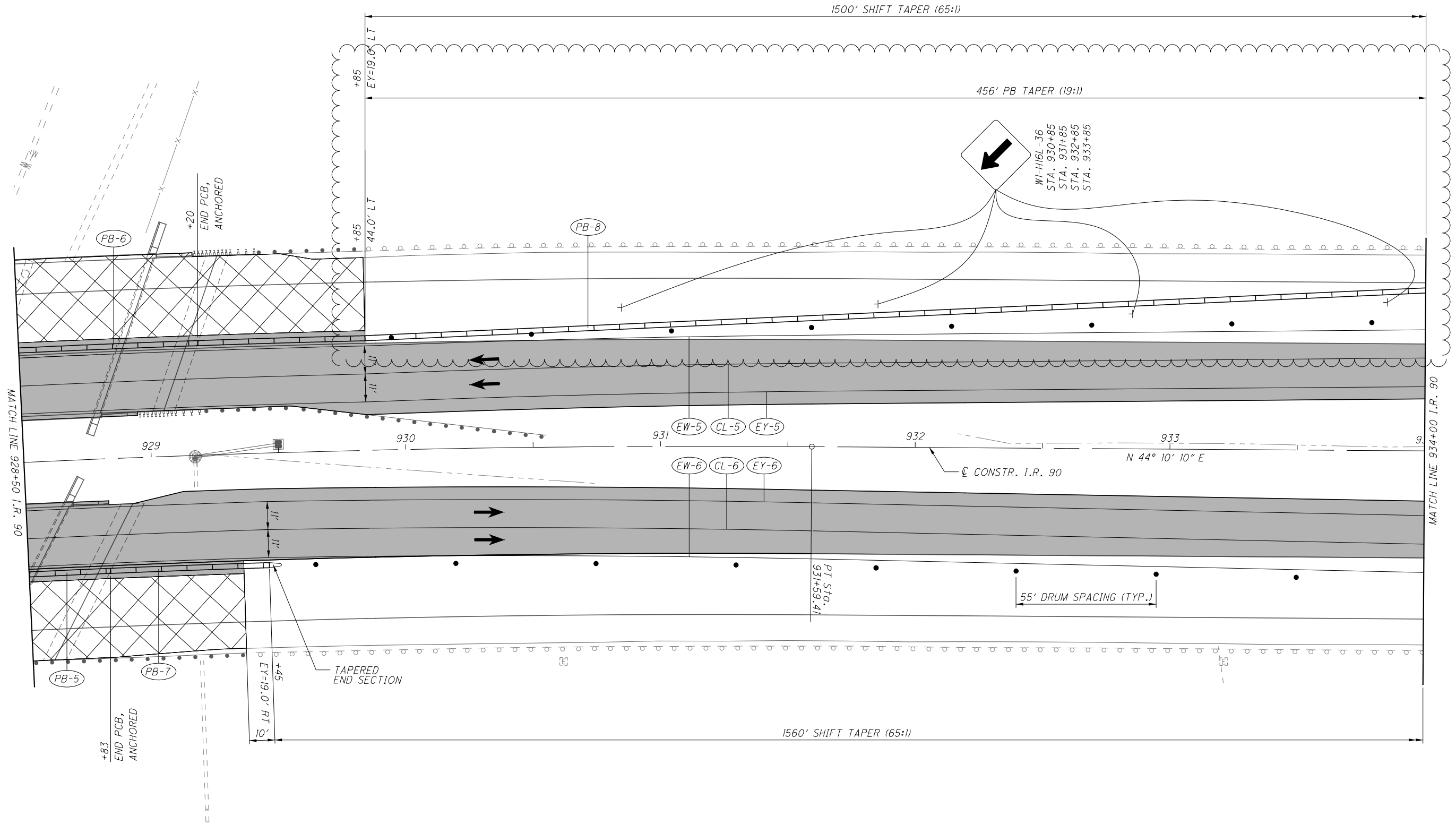
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0 20 40
10
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 923+00 TO STA. 928+50

LOR-90-17.85

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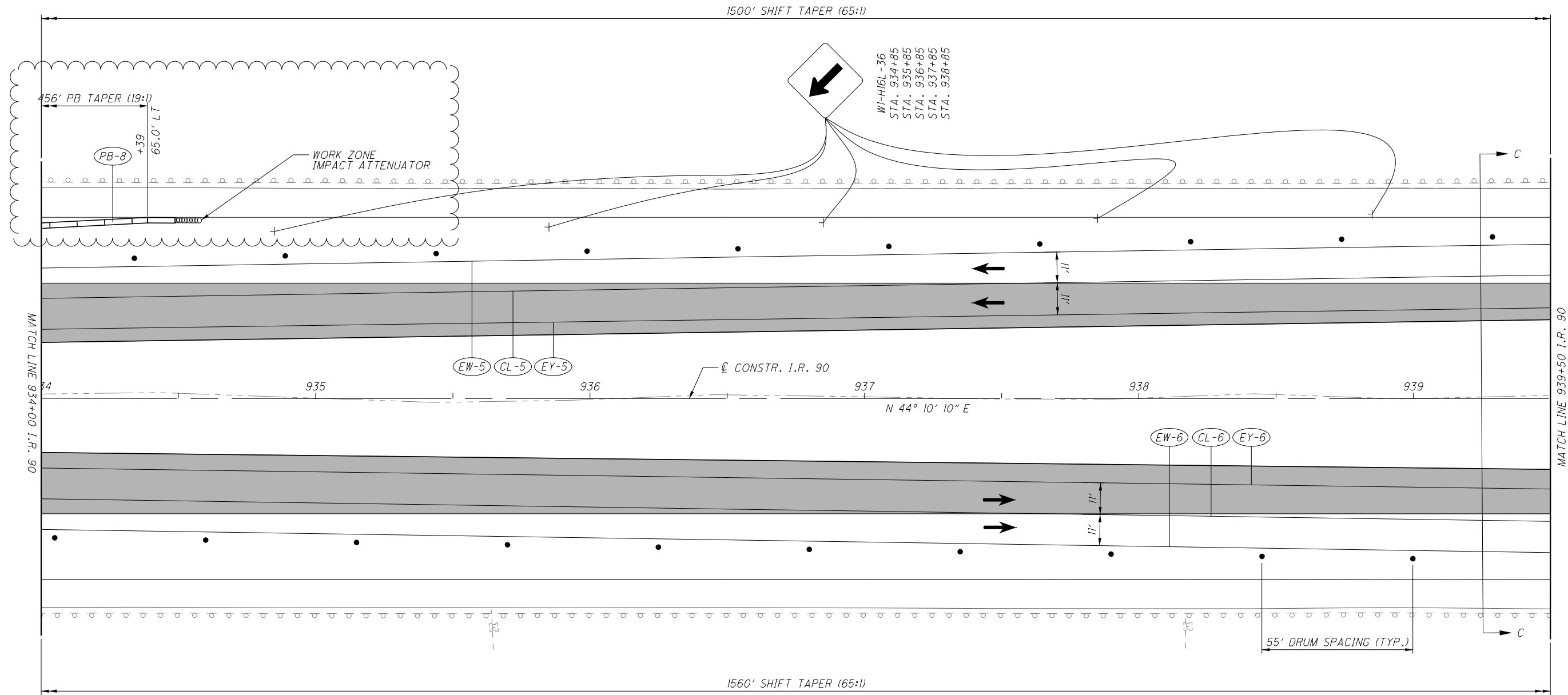
- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

CALCULATED
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0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 928+50 TO STA. 934+00

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- NOTES:
1. FOR LEGEND, SEE SHEET 12
 2. FOR TYPICAL SECTION, SEE SHEET 11
 3. FOR EXISTING SIGNS, SEE SIGNING AND PAVEMENT MARKINGS SHEETS, 42 - 50

CALCULATED
MLV

CHECKED
JML

0 20 40
HORIZONTAL
SCALE IN FEET

MAINTENANCE OF TRAFFIC - PHASE 3
STA. 934+00 TO STA. 939+50

LOR-90-17.85

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SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	11	52	54	56	57	104	109	110									
ROADWAY																		
LS												201	1000	LS		CLEARING AND GRUBBING		
				11,982								202	23001	11,982	SY	PAVEMENT REMOVED, AS PER PLAN	7	
			12									202	35100	12	FT	PIPE REMOVED, 24" AND UNDER		
			1,225									202	38000	1,225	FT	GUARDRAIL REMOVED		
			2									202	58100	2	EACH	CATCH BASIN REMOVED		
2,370							6,342					203	10000	8,712	CY	EXCAVATION		
							4,363					203	20000	4,363	CY	EMBANKMENT		
				26,163								204	10000	26,163	SY	SUBGRADE COMPACTION		
13												204	45000	13	HOUR	PROOF ROLLING		
			764									606	15060	764	FT	GUARDRAIL, TYPE MGS		
125												606	16001	125	FT	GUARDRAIL REBUILT, AS PER PLAN	7	
			4									606	35000	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1		
			207									607	35001	207	FT	FENCE REMOVED AND REBUILT, AS PER PLAN	7	
EROSION CONTROL																		
					69							601	20000	69	SY	CRUSHED AGGREGATE SLOPE PROTECTION		
					27							601	21050	27	SY	TIED CONCRETE BLOCK MAT, TYPE 1		
2												659	00100	2	EACH	SOIL ANALYSIS TEST		
1,237					493							659	00300	1,730	CY	TOPSOIL		
							11,146					659	10000	11,146	SY	SEEDING AND MULCHING		
												659	14000	557	SY	REPAIR SEEDING AND MULCHING		
557												659	15000	557	SY	INTER-SEEDING		
1.5												659	20000	1.5	TON	COMMERCIAL FERTILIZER		
0.26												659	31000	0.26	ACRE	LIME		
62												659	35000	62	MGAL	WATER		
2,786												659	40000	2,786	MSF	MOWING		
					4,439							670	00500	4,439	SY	SLOPE EROSION PROTECTION		
						LS						832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN		
						LS						832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS		
						LS						832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE		
						74,000						832	30000	74,000	EACH	EROSION CONTROL		
DRAINAGE																		
					14,229							605	11100	14,229	FT	6" SHALLOW PIPE UNDERDRAINS		
					1,868							605	13300	1,868	FT	6" UNCLASSIFIED PIPE UNDERDRAINS		
					13,476							605	14000	13,476	FT	6" BASE PIPE UNDERDRAINS		
					537							611	00510	537	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS		
					33							611	04600	33	FT	12" CONDUIT, TYPE C		
						8						611	06100	8	FT	15" CONDUIT, TYPE C		
					2							611	98410	2	EACH	CATCH BASIN, NO. 8		
					1							611	99574	1	EACH	MANHOLE, NO. 3		
					17							611	99710	17	EACH	PRECAST REINFORCED CONCRETE OUTLET		
PAVEMENT																		
		3,488		13,665								252	01500	13,665	FT	FULL DEPTH PAVEMENT SAWING		
				17,439								253	01000	3,488	SY	PAVEMENT REPAIR		
		3,488										254	01000	17,439	SY	PAVEMENT PLANING, ASPHALT CONCRETE		
				7,147								254	01600	3,488	SY	PATCHING PLANED SURFACE		
												302	46000	7,147	CY	ASPHALT CONCRETE BASE, PG64-22		
				4,361								304	20000	4,361	CY	AGGREGATE BASE		
				6,464								407	20000	6,464	GAL	NON-TRACKING TACK COAT		
				1,683								442	10000	1,683	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)		
				1,963								442	10100	1,963	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		
				490								617	10100	490	CY	COMPACTED AGGREGATE		
				14,410								618	40100	14,410	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		
ELECTRICAL																		
			2									625	31510	2	EACH	PULL BOX REMOVED		
TRAFFIC CONTROL																		
									59			621	00100	59	EACH	RPM		
									50			621	54000	50	EACH	RAISED PAVEMENT MARKER REMOVED		
								54				630	02100	54	FT	GROUND MOUNTED SUPPORT, NO. 2 POST		
								63				630	03100	63	FT	GROUND MOUNTED SUPPORT, NO. 3 POST		
								36				630	06500	36	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9		

GENERAL SUMMARY

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SHEET NUM.										PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
		109	110	130												TRAFFIC CONTROL (CONT.)	
		2										630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
		44										630	80100	44	SF	SIGN, FLAT SHEET	
		33										630	80200	33	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
		2										630	84500	2	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
		6										630	84900	6	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
		1										630	85400	1	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
		8										630	86002	8	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
		2										630	86102	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
			2.77									644	00104	2.77	MILE	EDGE LINE, 6"	
			1.28									644	00204	1.28	MILE	LANE LINE, 6"	
			0.13									646	10010	0.13	MILE	EDGE LINE, 6"	
			0.06									646	10110	0.06	MILE	LANE LINE, 6"	
				LS								202	11203	LS		STRUCTURE OVER 20 FOOT SPAN (LOR-90-1785 L, 4704895)	
				134								202	22900	134	SY	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	126
				773								202	23500	773	SY	APPROACH SLAB REMOVED	
				LS								503	11100	LS		WEARING COURSE REMOVED	
				LS								503	21300	LS		COFFERDAMS AND EXCAVATION BRACING (TEMPORARY SHORING)	
												504	11101	812	SF	UNCLASSIFIED EXCAVATION	
				812								504	11101	877	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 1)	127
				877								504	11101	877	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 2)	127
				LS								505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
				1,500								507	00200	1,500	FT	STEEL PILES HP12X53, FURNISHED	
				1,350								507	00250	1,350	FT	STEEL PILES HP12X53, DRIVEN	
												509	10000	138,107	LB	EPOXY COATED REINFORCING STEEL	
				138,107								511	34447	349	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	127
				349								511	34450	58	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
				58								511	41012	90	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
				90								511	43512	114	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
				114													
				773								512	10100	773	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				4								512	33000	4	SY	TYPE 2 WATERPROOFING	
				240,810								513	10281	240,810	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN	127
				8,334								513	20000	8,334	EACH	WELDED STUD SHEAR CONNECTORS	
				2								513	95030	2	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY BEAM END RETROFIT	127
												516	13200	137	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
				137								516	13600	124	SF	1" PREFORMED EXPANSION JOINT FILLER	
				124								516	13900	58	SF	2" PREFORMED EXPANSION JOINT FILLER	
				58								516	14014	165	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
				165								516	44100	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)	
				16												(15" x 14" x 2.499" PAD WITH 17" x 15" x 2.000" LOAD PLATE)	
												516	44201	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN	178
																(13" x 12" x 3.398" PAD WITH 17" x 13" x 1.500" TOP LOAD PLATE, 14" x 13" x 1.500" BOTTOM LOAD PLATE AND HP SECTION)	
												518	21200	121	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
				121								518	40000	167	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
				167								518	40011	63	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	144
				63								524	94704	40	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	
				40								524	94802	176	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	
				176													
												524	94803	59	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN	127
				59								526	25010	343	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	
				343								526	90010	130	FT	TYPE A INSTALLATION	
				130								601	12001	1,105	SY	RIPRAP, WITH GROUT, AS PER PLAN	127
				1,105								SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	126
				LS													
												846	00110	54	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
				54													

GENERAL SUMMARY

LOR-90-17.85

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SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						130									STRUCTURE OVER 20 FOOT SPAN (LOR-90-1785 R, 4704925)	
						LS					202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	126
						134					202	22900	134	SY	APPROACH SLAB REMOVED	
						821					202	23500	821	SY	WEARING COURSE REMOVED	
						LS					503	11100	LS		COFFERDAMS AND EXCAVATION BRACING (TEMPORARY SHORING)	
						LS					503	21300	LS		UNCLASSIFIED EXCAVATION	
						847					504	11101	847	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 3)	127
						918					504	11101	918	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 4)	127
						LS					505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
						1,600					507	00200	1,600	FT	STEEL PILES HPI2X53, FURNISHED	
						1,440					507	00250	1,440	FT	STEEL PILES HPI2X53, DRIVEN	
						142,171					509	10000	142,171	LB	EPOXY COATED REINFORCING STEEL	
						369					511	34447	369	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN	127
						61					511	34450	61	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
						104					511	41012	104	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
						120					511	43512	120	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
						904					512	10100	904	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
						4					512	33000	4	SY	TYPE 2 WATERPROOFING	
						263,230					513	10281	263,230	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN	127
						8,004					513	20000	8,004	EACH	WELDED STUD SHEAR CONNECTORS	
						2					513	95030	2	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY BEAM END RETROFIT	127
						111					516	13200	111	SF	1/2" PREFORMED EXPANSION JOINT FILLER	
						70					516	13600	70	SF	1" PREFORMED EXPANSION JOINT FILLER	
						62					516	13900	62	SF	2" PREFORMED EXPANSION JOINT FILLER	
						193					516	14014	193	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
						16					516	44100	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15" x 14" x 2.499" PAD WITH 17" x 15" x 2.000" LOAD PLATE)	
						16					516	44201	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (13" x 12" x 3.848" PAD WITH 17" x 13" x 1.500" TOP LOAD PLATE, 14" x 13" x 1.500" BOTTOM LOAD PLATE AND HP SECTION)	178
						129					518	21200	129	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
						173					518	40000	173	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
						70					518	40011	70	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	144
						120					524	94704	120	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	
						150					524	94802	150	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	
						75					524	94803	75	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN	127
						343					526	25010	343	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	
						139					526	90010	139	FT	TYPE A INSTALLATION	
						1,215					601	12001	1,215	SY	RIPRAP, WITH GROUT, AS PER PLAN	127
						LS					SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	126
						58					846	00110	58	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	

GENERAL SUMMARY

LOR-90-17.85

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SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	11	15												
				1,270							614	11630	1,270	FT	MAINTENANCE OF TRAFFIC INCREASED BARRIER DELINEATION	
				2							614	12380	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
2											614	12484	2	EACH	WORK ZONE INCREASED PENALTIES SIGN	
15											614	12500	15	EACH	REPLACEMENT SIGN	
50											614	12600	50	EACH	REPLACEMENT DRUM	
				1,740							614	12801	1,740	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	10
				19							614	13310	19	EACH	BARRIER REFLECTOR, TYPE 1, (ONE WAY)	
				142							614	13310	142	EACH	BARRIER REFLECTOR, TYPE 1, (TWO WAY)	
				19							614	13350	19	EACH	OBJECT MARKER, ONE WAY	
				142							614	13360	142	EACH	OBJECT MARKER, TWO WAY	
	18										614	18801	18	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	9
				5,683							615	20000	5,683	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
55											616	10000	55	MGAL	WATER	
				1,550							622	41100	1,550	FT	PORTABLE BARRIER, UNANCHORED	
				7,820							622	41110	7,820	FT	PORTABLE BARRIER, ANCHORED	
				9.54							642	00105	9.54	MILE	EDGE LINE, 6", TYPE 1, AS PER PLAN	11
				25,182							642	00401	25,182	FT	CHANNELIZING LINE, 8", TYPE 1, AS PER PLAN	11
			36								808	18700	36	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
											100	00300	LS	INCIDENTALS PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE		
											614	11000	LS	LIABILITY INSURANCE		
											614	11110	1,000	HR	MAINTAINING TRAFFIC	
		1,000									619	16020	15	MNTH	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
											623	10000	LS	FIELD OFFICE, TYPE C		
											623	10000	LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING		
											624	10000	LS	MOBILIZATION		

GENERAL SUMMARY

LOR-90-17.85

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SHEET NO.	REFERENCE NO.	LOCATION	STATION		SIDE	202				202				607					
			FROM	TO		GUARDRAIL REMOVED FT	GUARDRAIL TYPE MGS FT	BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	PULL BOX REMOVED EACH	CATCH BASIN REMOVED EACH	PIPE REMOVED, 24" AND UNDER FT	FENCE REMOVED AND REBUILT, AS PER PLAN FT							
63-65	R-1	IR-90	923+96.54	926+90.65	RT	295													
63-65	R-2	IR-90	924+84.23	927+46.86	LT	266													
63-65	G-1	IR-90	924+84.23	927+28.75	LT		248												
65	R-3	IR-90	925+04.23	926+67.76	RT	161													
65	G-2	IR-90	925+04.23	926+41.99	RT														
65	G-3	IR-90	925+19.06	926+79.39	RT														
65	R-4	IR-90	936+54.30		RT				1										
65	R-5	IR-90	928+27.38	929+35.00	RT	106													
65	R-6	IR-90	928+33.21		RT				1										
65	G-4	IR-90	928+46.04	929+35.00	RT		88												
65-67	R-7	IR-90	928+81.47	931+85.81	LT	307													
65	R-8	IR-90	928+96.18	929+85.00	LT	90													
65-67	G-5	IR-90	928+95.29	930+55.19	LT		137	1											
65	G-6	IR-90	929+18.79	929+85.00	LT		43	1											
65	R-9	IR-90	926+55.53	926+55.57	LT					1	8								
65	R-10	IR-90	929+17.26	929+17.27	RT					1	4								
65	F-1	IR-90	926+24.72	926+57.35	RT											60			
65	F-2	IR-90	927+30.24	927+51.31	LT											48			
65	F-3	IR-90	928+21.25	928+21.48	RT											57			
65	F-4	IR-90	929+02.13	929+16.39	LT											42			
TOTALS CARRIED TO GENERAL SUMMARY						1225	764	4	2	2	12		207						

CALCULATED HB	CHECKED SNP	ROADWAY SUBSUMMARY	LOR-90-17.85	52
				196

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LOCATION	STATION TO STATION	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A=LxW	COMPUTER GENERATED AREA	202	204	252	254	302	302	304	407	442	442	617	618	
							PAVEMENT REMOVED, AS PER PLAN	SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING	PAVEMENT PLANING, ASPHALT CONCRETE	5" ASPHALT CONCRETE BASE, PG64-22	5 1/2" ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	NON-TRACKING TACK COAT, 0.08 GAL/70	1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	COMPACTED AGGREGATE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
							SY	SY	FT	SY	CY	CY	CY	GAL	CY	CY	CY	FT	
IR-90 WB	907+10.00	LT							10.85										
IR-90 EB	907+10.00	RT						10.08											
IR-90 WB	907+10.00	LT		924+84.23				1774.23											
IR-90 EB	907+10.00	RT		925+04.23				1794.23											
IR-90 WB	907+10.00	LT	1999.92	927+09.92														2000	
IR-90 WB	907+10.00	LT	1774.23	924+84.23	10.8	19161.68		2129.08											
IR-90 WB	907+10.00	LT		909+74.31			2785.74							49.52	12.90	15.04			
IR-90 WB	907+10.00	LT		924+84.23			19590.43				302.35								
IR-90 WB	907+10.00	LT		924+84.23			20482.88					347.68							
IR-90 WB	907+10.00	LT		924+84.23			21375.37				2375.04								
IR-90 EB	907+10.00	RT	1927.33	926+37.33															
IR-90 EB	907+10.00	RT	620.23	913+30.23	12.5	7752.87		861.43										1927	
IR-90 EB	907+10.00	RT		990+44.23			2339.12							41.58	10.83	12.63			
IR-90 EB	907+10.00	RT		925+04.23			18973.08				292.82								
IR-90 EB	907+10.00	RT		925+04.23			19864.73					337.19							
IR-90 EB	907+10.00	RT		925+04.23			20756.35						384.38						
IR-90 WB	907+10.00	LT	2006.57	927+16.57													68.11		
IR-90 EB	907+10.00	RT	1922.48	926+32.48													65.26		
IR-90 EB	909+44.23	LT	1711.94	926+56.17														1712	
IR-90 EB	909+44.23	LT&RT		926+69.06			92598.83							1646.20	428.70	500.03			
IR-90 EB	909+44.23	LT		925+04.23			30885.83				476.67								
IR-90 EB	909+44.23	LT		925+04.23			31664.80					537.48							
IR-90 EB	909+44.23	LT		925+04.23			32443.80				3604.87		600.81						
IR-90 EB	909+44.23	LT&RT	1560.00	925+04.23	24	37440.00													
IR-90 EB	909+44.23	RT		925+04.23						4160.00									
IR-90 EB	909+44.23	RT		925+04.23					4.83										
IR-90 EB	909+44.23	RT		926+69.06					1560.00										
IR-90 EB	909+44.23	RT	1724.83	926+69.06													58.55		
IR-90 WB	909+74.31	RT	1722.61	926+96.92														1723	
IR-90 WB	909+74.31	LT		926+96.92															
IR-90 WB	909+74.31	LT		924+84.23															
IR-90 WB	909+74.31	RT	306.72	912+81.03	10	3067.20		340.80											
IR-90 WB	909+74.31	LT&RT		927+16.57			91135.51							1620.19	421.92	492.13			
IR-90 WB	909+74.31	RT		924+84.23			25184.76												
IR-90 WB	909+74.31	RT		924+84.23			25941.18					440.33							
IR-90 WB	909+74.31	RT		924+84.23			26697.57				2966.40		494.40						
IR-90 WB	909+74.31	LT&RT	1509.92	924+84.23	24	36238.08					4026.45								
IR-90 WB	909+74.31	LT	1716.95	926+91.26													58.28		
IR-90 EB	913+30.23	RT	1174	925+04.23				1369.67											
IR-90 WB	924+84.23	LT&RT	227.09	927+11.32	40	9083.60		1009.29											
IR-90 WB	924+84.23	LT&RT		927+16.57			13971.54					215.63							
IR-90 WB	924+84.23	LT&RT		927+16.57			14193.06					240.91							
IR-90 WB	924+84.23	LT&RT		927+16.57			14414.56				1601.62		266.94						
IR-90 WB	924+84.23	LT		924+84.23															
IR-90 EB	925+04.23	LT&RT	148.55	926+52.78	40	5942.00		660.22											
IR-90 EB	925+04.23	LT&RT		926+69.06								0.00							
IR-90 EB	925+04.23	LT&RT		926+69.06			9179.44					155.81							
IR-90 EB	925+04.23	LT&RT		926+69.06			9324.84				1036.09		172.68						
IR-90 EB	925+04.23	RT		926+69.06															
IR-90 EB	926+33.98	LT&RT		926+87.26			522.45				39.55								
IR-90 EB	926+46.72	RT	23.53	926+70.25	8.75	205.89		22.88											
IR-90 EB	926+60.16	LT	27.16	926+87.26	3.15	101.85		11.32											
IR-90 WB	926+99.61	LT&RT		927+43.98			509.95												
IR-90 WB	927+07.10	RT	23.33	927+30.43	5.3	123.65		13.74											
IR-90 WB	927+16.36	LT	27.62	927+43.98	8.8	243.06		27.01											
TOTALS THIS SHEET							6560.13	13890.28	6748.96	8186.45	1676.15	2059.40	2315.05	3357.50	874.35	1019.84	250.20	7361.8	

PAVEMENT SUBSUMMARY

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LOCATION	STATION TO STATION		SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A	COMPUTER GENERATED AREA A = L x W	202 PAVEMENT REMOVED, AS PER PLAN	204 SUBGRADE COMPACTION	252 FULL DEPTH PAVEMENT SAWING	254 PAVEMENT PLANING, ASPHALT CONCRETE	302 5" ASPHALT CONCRETE BASE, PG64-22	302 5 1/2" ASPHALT CONCRETE BASE, PG64-22	304 6" AGGREGATE BASE	407 NON-TRACKING TACK COAT, 0.08 GAL/YD	442 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	442 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	617 COMPACTED AGGREGATE	618 RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	CALCULATED HB	CHECKED	SNP
	FT	FT																				
IR-90 EB	928+30.69	928+80.74	LT&RT	50.05			516.19	57.35														
IR-90 EB	928+35.20	928+59.91	RT	24.71	8.6	212.51		23.61														
IR-90 EB	928+48.73	928+72.19	LT	23.46	4	93.84		10.43														
IR-90 EB	928+58.60	945+04.84	LT&RT				87144.32								1549.23	403.45	470.58					
IR-90 EB	928+58.60	929+35.00	LT&RT				3663.06					56.53										
IR-90 EB	928+58.60	929+35.00	LT&RT				3722.26						63.18									
IR-90 EB	928+58.60	929+35.00	LT&RT				3770.16		418.91					69.82								
IR-90 EB	928+58.60	948+50.00	RT	1991.40																		
IR-90 EB	928+65.99	929+35.00	LT&RT	69.01	40	2760.40		306.71														
IR-90 EB	928+66.90	948+50.00	RT	1983.10																		
IR-90 EB	928+84.09	945+04.84	LT	1620.75																		
IR-90 WB	928+84.33	929+10.58	RT	26.23	4.5	118.05		13.11														
IR-90 WB	928+85.89	929+27.34	LT&RT				486.45	54.05														
IR-90 EB	928+92.02	945+04.84	RT	1612.82																		
IR-90 WB	928+95.12	929+18.92	LT	23.8	4.5	107.10		11.90														
IR-90 WB	929+05.65	929+85.00	LT&RT				4145.08					63.97										
IR-90 WB	929+05.65	929+85.00	LT&RT				4211.28						71.48									
IR-90 WB	929+05.65	929+85.00	LT&RT				4260.34		473.37					78.90								
IR-90 WB	929+05.65	944+85.00	LT&RT				80687.21								1434.44	373.55	435.71					
IR-90 WB	929+05.65	944+85.00	LT	1579.35																		
IR-90 WB	929+14.51	944+85.00	RT	1570.49																		
IR-90 WB	929+15.13	929+85.00	LT&RT	69.87	40	2794.8		310.53														
IR-90 WB	929+26.16	948+00.00	LT	1873.84																		
IR-90 WB	929+28.38	948+04.00	LT	1875.62																		
IR-90 EB	929+35.00	948+30.00	RT	1915	16	19150		2127.78														
IR-90 EB	929+35.00	948+50.00	RT				20796.69					320.96										
IR-90 EB	929+35.00	948+50.00	RT				21752.69						369.23									
IR-90 EB	929+35.00	948+50.00	RT				22708.68		2523.19						420.53							
IR-90 EB	925+35.00	945+04.84	LT				29966.51					462.48										
IR-90 EB	925+35.00	945+04.84	LT				30751.21						521.97									
IR-90 EB	925+35.00	945+04.84	LT				31535.93		3503.99						584.00							
IR-90 EB	925+35.00	945+04.84	LT&RT	1969.84	24	47276.16					5252.91											
IR-90 EB	929+35.00		RT							39.80												
IR-90 EB	929+35.00	945+04.84	RT							1569.84												
IR-90 EB	929+35.00	948+50.00	RT							1915.00												
IR-90 WB	929+85.00	944+80.84	LT	1495.34	10	14958.4		1662.04														
IR-90 WB	929+85.00	944+85.00	RT				25317.76					390.74										
IR-90 WB	929+85.00	944+85.00	RT				26070.39						442.52									
IR-90 WB	929+85.00	944+85.00	RT				26821.45		2980.16						496.69							
IR-90 WB	929+85.00	948+00.00	LT				19540.96					301.58										
IR-90 WB	929+85.00	948+00.00	LT				20449.63						347.11									
IR-90 WB	929+85.00	948+00.00	LT				21358.29		2373.14						395.52							
IR-90 WB	929+85.00	944+85.00	LT&RT	1500.00	24	36000					4000.00											
IR-90 WB	929+85.00	948+00.00	LT				3204.4															
IR-90 WB	929+85.00		LT							39.87												
IR-90 WB	929+85.00	944+85.00	LT							1500.00												
IR-90 WB	929+85.00	948+00.00	LT							1815.00												
IR-90 WB	944+85.00		LT							5.15												
IR-90 EB	945+04.84	948+50.00	RT				3707.44								65.91	17.16	20.02					
IR-90 EB	945+04.84		RT							10.01												
IR-90 EB	940+46.72	945+04.84	LT	458.12	12	5497.44		610.83														
IR-90 WB	941+57.31	944+85.00	LT	327.69	8	2621.52		291.28														
IR-90 WB	948+00.00		LT							10.42												
IR-90 EB	948+50.00		RT							10.60												
TOTALS THIS SHEET								5422.28	12272.76	6915.69	9252.91	1596.27	1815.50	2045.46	3106.55	809.00	943.61	239.62	7048			
TOTALS FROM SHEET 53								6560.13	13890.28	6748.96	8186.45	1676.15	2059.40	2315.05	3357.50	874.35	1019.84	250.20	7362			
TOTALS CARRIED TO GENERAL SUMMARY								11982	26163	13665	17439	7147	4361	6464	1683	1963	490	14410				

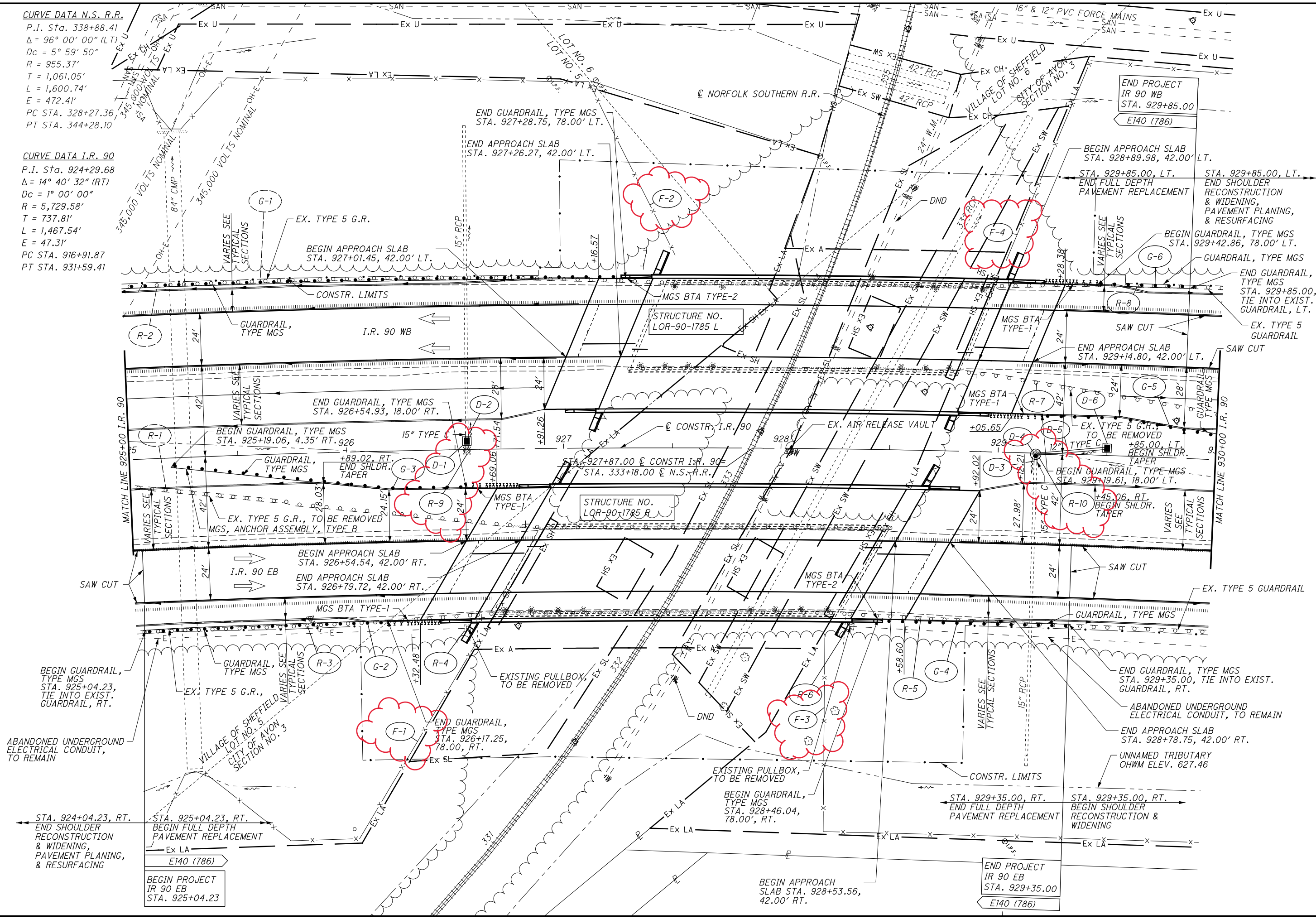
PAVEMENT SUBSUMMARY

LOR-90-17.85

pnpaterson 12/4/2020 2:43:34 PM 90942GP004.dgn

CURVE DATA N.S. R.R.
 P.I. Sta. 338+88.41
 $\Delta = 96^\circ 00' 00''$ (LT)
 $Dc = 5^\circ 59' 50''$
 $R = 955.37'$
 $T = 1,061.05'$
 $L = 1,600.74'$
 $E = 472.41'$
 PC STA. 328+27.36
 PT STA. 344+28.10

CURVE DATA I.R. 90
 P.I. Sta. 924+29.68
 $\Delta = 14^\circ 40' 32''$ (RT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $T = 737.81'$
 $L = 1,467.54'$
 $E = 47.31'$
 PC STA. 916+91.87
 PT STA. 931+59.41



CALCULATED HB CHECKED SNP

PLAN - I.R. 90
STA. 925+00 TO STA. 930+00

LOR-90-17.85

65
196

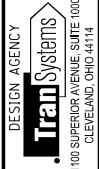
MADE BY: GJZ
CHECKED BY: RSB

DATE: 12/11/2019
DATE: 12/12/2019

ESTIMATED QUANTITIES

STRUCTURE FILE NUMBER: 4704895 (L) / 4704925 (R)

ITEM	EXTENSION	LOR-90-1785L	LOR-90-1785R	UNIT	DESCRIPTION	LOR-90-1785L (WESTBOUND)				LOR-90-1785R (EASTBOUND)				REFERENCE SHEET NUMBER			
		(WESTBOUND)	(EASTBOUND)			ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL	ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL				
		TOTAL	TOTAL														
202	11203	LS	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN									LS			126 / 196
202	22900	134	134	SY	APPROACH SLAB REMOVED									134			
202	23500	773	821	SY	WEARING COURSE REMOVED									773			
503	11100	LS	LS		COFFERDAMS AND EXCAVATION BRACING (TEMPORARY SHORING)									LS			
503	21300	LS	LS		UNCLASSIFIED EXCAVATION									LS			
504	11101	812		SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 1)									812			127 / 196
504	11101	877		SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 2)									877			127 / 196
504	11101		847	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 3)										847		127 / 196
504	11101		918	SF	STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN (TEMPORARY WALL 4)										918		127 / 196
505	11100	LS	LS		PILE DRIVING EQUIPMENT MOBILIZATION									LS			
507	00200	1500	1600	FT	STEEL PILES HP12x53, FURNISHED	1500							1600				
507	00250	1350	1440	FT	STEEL PILES HP12x53, DRIVEN	1350							1440				
509	10000	138107	142171	LB	EPOXY COATED REINFORCING STEEL	14561	25543	96619	1384	15152	24457	101178	1384				
511	34447	349	369	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			349					369				127 / 196
511	34450	58	61	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			58					61				
511	41012	90	104	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		90				104						
511	43512	114	120	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	114				120							
512	10100	773	904	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	118	304	351		122	368	369	45				
512	33000	4	4	SY	TYPE 2 WATERPROOFING	4				4							
513	10281	240810	263230	LB	STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN			240810				263230					127 / 196
513	20000	8334	8004	EACH	WELDED STUD SHEAR CONNECTORS			8334				8004					
513	95030	2	2	EACH	STRUCTURAL STEEL, MISC.: TEMPORARY BEAM END RETROFIT			2				2					129 / 196
516	13200	137	111	SF	1/2" PREFORMED EXPANSION JOINT FILLER	137				111							
516	13600	124	70	SF	1" PREFORMED EXPANSION JOINT FILLER			124		37		17	16				
516	13900	58	62	SF	2" PREFORMED EXPANSION JOINT FILLER	58				62							
516	14014	165	193	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	165				193							
516	44100	16	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)		16				16						
516	44201	16		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN	16											178 / 196
516	44201		16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN					16							178 / 196
518	21200	121	129	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	121				129							
518	40000	167	173	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	167				173							
518	40011	63	70	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	63				70							144 / 196
524	94704	40	120	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK		40				120						
524	94802	176	150	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK		176				150						
524	94803	59	75	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN		59				75						127 / 196
526	25010	343	343	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")					343			343				
526	90010	130	139	FT	TYPE A INSTALLATION					130			139				
601	12001	1105	1215	SY	RIPRAP, WITH GROUT, AS PER PLAN					1105			1215				127 / 196
SPECIAL	69091000	LS	LS		AS-BUILT CONSTRUCTION PLANS					LS			LS				126 / 196
846	00110	54	58	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM					54			58				



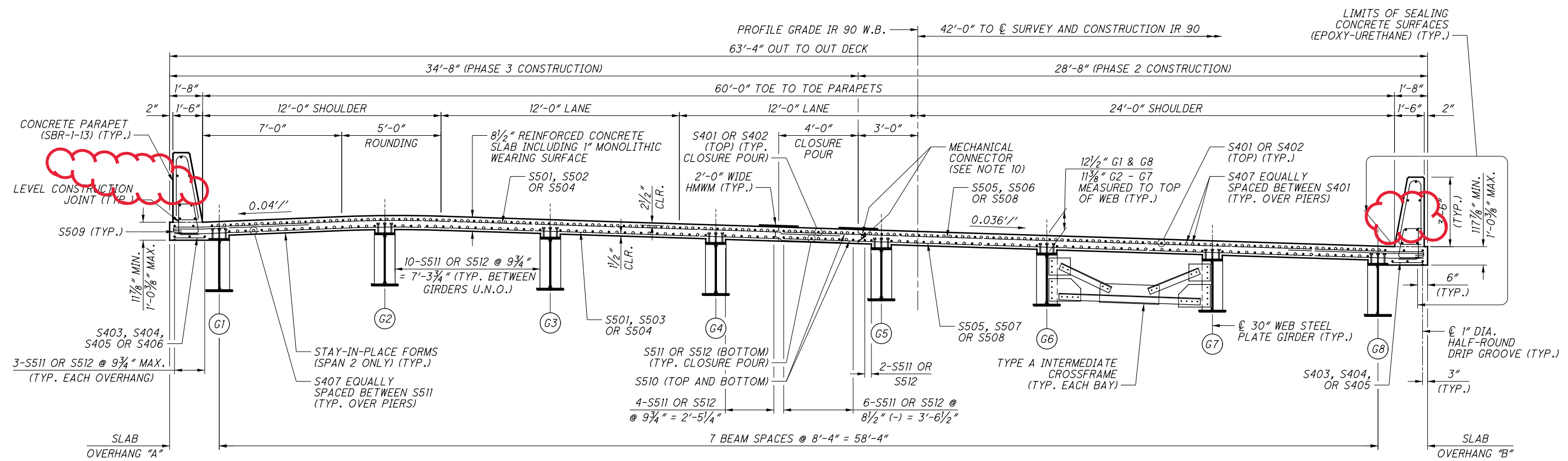
DESIGN AGENCY
DATE: 5/16/19
REVIEWED: NFF
STRUCTURE FILE NUMBER: 4704895/4704925

DRAWN: GJZ
CHECKED: ZTW

ESTIMATED QUANTITIES
BRIDGE NO. LOR-90-1785 L/R
IR 90 OVER NORFOLK SOUTHERN RAILROAD

LOR-90-17.85
PID No. 90942

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LEFT BRIDGE TRANSVERSE SECTION

SLAB OVERHANG "A" - SPAN 1 (SEE NOTE 9)							
LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G1	927+41.94	927+51.41	927+60.88	927+65.62	927+70.36	927+79.83	927+89.30
SLAB OVERHANG A	2'-5 3/4"	2'-7"	2'-8"	2'-8 3/8"	2'-8 7/8"	2'-9 1/2"	2'-10"

SLAB OVERHANG "A" - SPAN 2 (SEE NOTE 9)							
LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G1	927+89.30	928+02.48	928+15.65	928+22.24	928+28.82	928+42.00	928+55.17
SLAB OVERHANG A	2'-10"	2'-10 3/8"	2'-10 1/4"	2'-10 1/8"	2'-9 7/8"	2'-9 1/8"	2'-8"

SLAB OVERHANG "A" - SPAN 3 (SEE NOTE 9)							
LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G1	928+55.17	928+64.64	928+74.11	928+78.85	928+83.58	928+93.06	929+02.53
SLAB OVERHANG A	2'-8"	2'-7"	2'-5 3/4"	2'-5"	2'-4 3/8"	2'-2 3/4"	2'-0 7/8"

SLAB OVERHANG "B" - SPAN 1 (SEE NOTE 9)							
LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G8	927+17.78	927+27.35	927+36.92	927+41.70	927+46.48	927+56.05	927+65.62
SLAB OVERHANG B	2'-10 1/4"	2'-8 1/2"	2'-7"	2'-6 1/4"	2'-5 5/8"	2'-4 1/2"	2'-3 1/2"

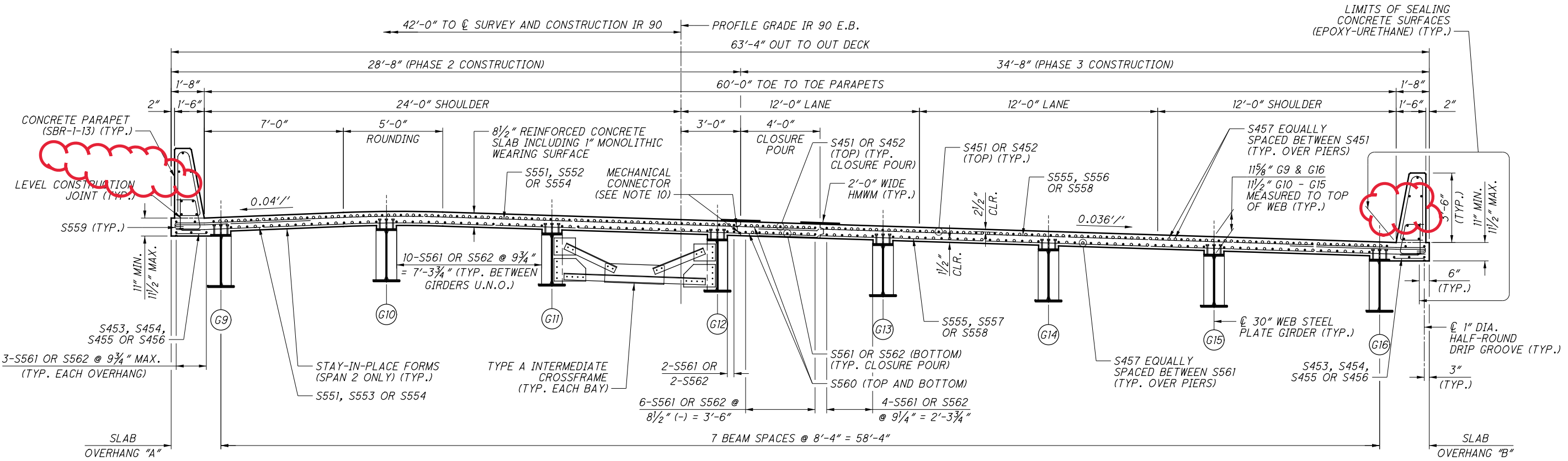
SLAB OVERHANG "B" - SPAN 2 (SEE NOTE 9)							
LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G8	927+65.62	927+78.93	927+92.23	927+98.89	928+05.54	928+18.85	928+32.15
SLAB OVERHANG B	2'-3 1/2"	2'-2 1/2"	2'-1 1/8"	2'-1 3/4"	2'-1 5/8"	2'-1 3/4"	2'-2 1/4"

SLAB OVERHANG "B" - SPAN 3 (SEE NOTE 9)							
LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G8	928+32.15	928+41.72	928+51.29	928+56.08	928+60.86	928+70.43	928+80.00
SLAB OVERHANG B	2'-2 1/4"	2'-2 7/8"	2'-3 5/8"	2'-4"	2'-4 5/8"	2'-5 3/4"	2'-7 1/8"

NOTES:

- FOR PHASE 2 AND PHASE 3 LEFT BRIDGE REMOVAL AND PHASE 2 AND PHASE 3 LEFT BRIDGE CONSTRUCTION, SEE SHEETS [11/67] AND [12/67].
- FOR RIGHT BRIDGE TRANSVERSE SECTION, SEE SHEET [48/67].
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 INCHES FOR GIRDER G1 AND G8, AND 2 7/8 INCHES FOR GIRDERS G2 THRU G7, AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ALL COSTS ASSOCIATED WITH THE ADDITIONAL DECK SLAB CONCRETE IN THE FULLY FILLED STAY-IN-PLACE FORM RIBS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN.
- THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.
- FOR LEFT BRIDGE ROUNDING DETAIL, SEE SHEET [39/67].
- FOR LEFT BRIDGE SLAB PLAN, SEE SHEET [49/67].
- FIELD BEND S501, S502, S503 AND S504 BARS AS REQUIRED.
- FOR RAILING ELEVATION AND DETAILS, SEE SHEET [52/67].
- SLAB OVERHANG DIMENSIONS ARE MEASURED NORMAL TO G1 AND G8.
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.

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RIGHT BRIDGE TRANSVERSE SECTION

SLAB OVERHANG "A" - SPAN 1 (SEE NOTE 9)

LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G9	926+94.78	927+04.91	927+15.05	927+20.11	927+25.18	927+35.31	927+45.45
SLAB OVERHANG A	2'-5 7/8"	2'-7 1/4"	2'-8 1/2"	2'-9"	2'-9 3/8"	2'-10 1/4"	2'-10 3/4"

SLAB OVERHANG "A" - SPAN 2 (SEE NOTE 9)

LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G9	927+45.45	927+59.34	927+73.24	927+80.19	927+87.14	928+01.03	928+14.93
SLAB OVERHANG A	2'-10 3/4"	2'-11 1/8"	2'-11 1/8"	2'-11"	2'-10 3/4"	2'-10"	2'-8 3/4"

SLAB OVERHANG "A" - SPAN 3 (SEE NOTE 9)

LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G9	928+14.93	928+25.06	928+35.20	928+40.26	928+45.33	928+55.46	928+65.60
SLAB OVERHANG A	2'-8 3/4"	2'-7 5/8"	2'-6 3/8"	2'-5 5/8"	2'-4 3/4"	2'-3"	2'-1"

SLAB OVERHANG "B" - SPAN 1 (SEE NOTE 9)

LOCATION	CL BEARING REAR ABUTMENT	0.2	0.4	0.5	0.6	0.8	CL PIER 1
STATION AT CL G16	926+59.91	926+70.14	926+80.38	926+85.50	926+90.61	927+00.85	927+11.09
SLAB OVERHANG B	3'-0 1/2"	2'-10 3/8"	2'-8 1/2"	2'-7 5/8"	2'-6 3/4"	2'-5 1/4"	2'-4"

SLAB OVERHANG "B" - SPAN 2 (SEE NOTE 9)

LOCATION	CL PIER 1	0.2	0.4	0.5	0.6	0.8	CL PIER 2
STATION AT CL G16	927+11.09	927+25.13	927+39.17	927+46.19	927+53.21	927+67.25	927+81.29
SLAB OVERHANG B	2'-4"	2'-2 1/2"	2'-1 1/2"	2'-1 1/4"	2'-1"	2'-0 3/4"	2'-1"

SLAB OVERHANG "B" - SPAN 3 (SEE NOTE 9)

LOCATION	CL PIER 2	0.2	0.4	0.5	0.6	0.8	CL BEARING FORWARD ABUTMENT
STATION AT CL G16	927+81.29	927+91.53	928+01.77	928+06.88	928+12.00	928+22.24	928+32.48
SLAB OVERHANG B	2'-1"	2'-1 3/8"	2'-2"	2'-2 1/2"	2'-2 7/8"	2'-4"	2'-5 1/4"

NOTES:

- FOR PHASE 2 AND PHASE 3 RIGHT BRIDGE REMOVAL AND PHASE 2 AND PHASE 3 RIGHT BRIDGE CONSTRUCTION, SEE SHEETS [13/67] AND [14/67].
- FOR LEFT BRIDGE TRANSVERSE SECTION, SEE SHEET [47/67].
- DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 3/8" INCHES FOR GIRDER G9 AND G16, AND 3" INCHES FOR GIRDERS G10 THRU G15, AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. ALL COSTS ASSOCIATED WITH THE ADDITIONAL DECK SLAB CONCRETE IN THE FULLY FILLED STAY-IN-PLACE FORM RIBS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED FOR PAYMENT WITH ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN.
- THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.
- FOR RIGHT BRIDGE ROUNDING DETAIL, SEE SHEET [40/67].
- FOR RIGHT BRIDGE SLAB PLAN, SEE SHEET [50/67].
- FIELD BEND S551, S552, S553 AND S554 BARS AS REQUIRED.
- FOR RAILING ELEVATION AND DETAILS, SEE SHEET [52/67].
- SLAB OVERHANG DIMENSIONS ARE MEASURED NORMAL TO G9 AND G16.
- MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS JOINED.

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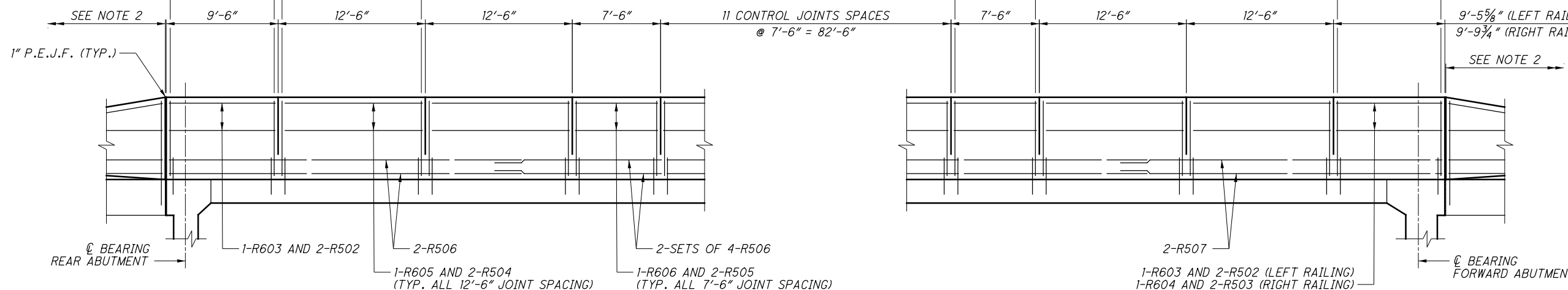
DESIGN AGENCY: **TranSystems**
 1100 SUPERIOR AVENUE, SUITE 1000
 CLEVELAND, OHIO 44114
 DATE: 5/16/19
 REVIEWED: NFF
 STRUCTURE FILE NUMBER: 4704895/4704925
 DRAWN: ZTW
 CHECKED: RSB
 DESIGNED: ZTW
 REVISIONS:
RIGHT BRIDGE TRANSVERSE SECTION
 BRIDGE NO. LOR-90-1785 L/R
 IR 90 OVER NORFOLK SOUTHERN RAILROAD
LOR-90-17.85
PID No. 90942
 48/67
 169
 196

10-R501, 10-R601 AND 10-R602
@ 1'-0" = 9'-0"

13-R501, 13-R601 AND 13-R602
@ 1'-0" = 12'-0"
(TYP. ALL 12'-6" JOINT SPACING)

8-R501, 8-R601 AND 8-R602
@ 1'-0" = 7'-0"
(TYP. ALL 7'-6" JOINT SPACING)

10-R501, 10-R601 AND 10-R602
@ 1'-0" = 9'-0" (LEFT RAILING)
11-R501, 11-R601 AND 11-R602
@ 11" (+) = 9'-3" (RIGHT RAILING)



LEFT BRIDGE RAILING ELEVATION

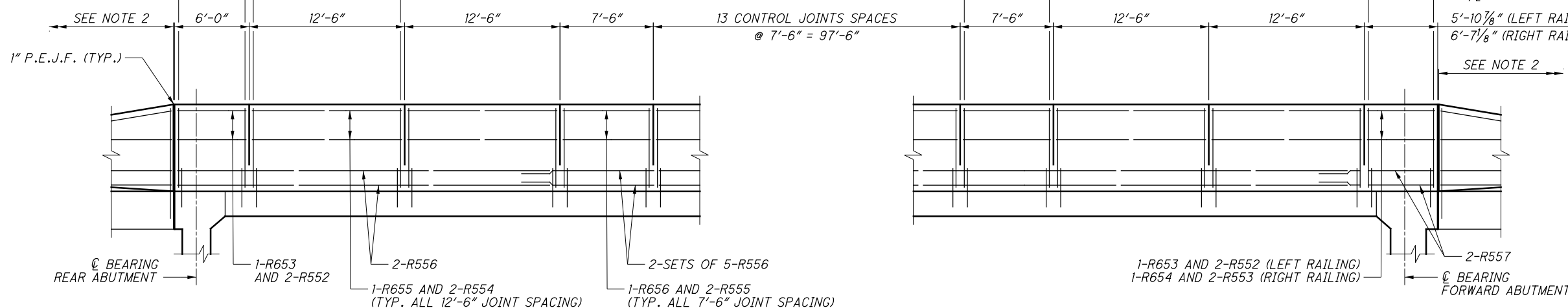
(LEFT RAILING SHOWN, RIGHT RAILING SAME EXCEPT AS NOTED)

7-R551, 7-R651 AND 7-R652
@ 11" = 5'-6"

13-R551, 13-R651 AND 13-R652
@ 1'-0" = 12'-0"
(TYP. ALL 12'-6" JOINT SPACING)

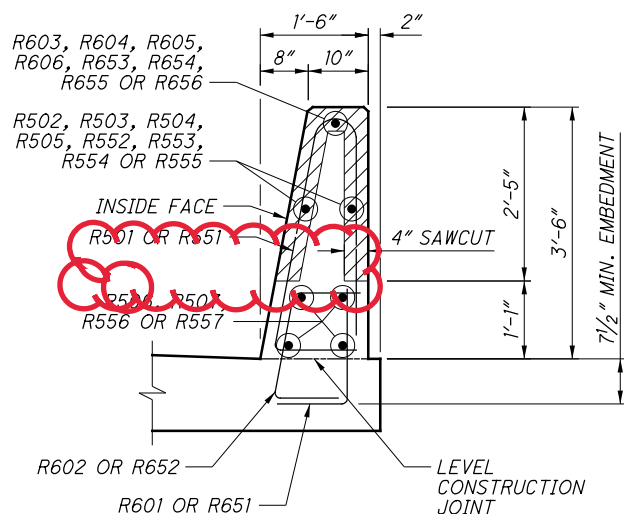
8-R551, 8-R651 AND 8-R652
@ 1'-0" = 7'-0"
(TYP. ALL 7'-6" JOINT SPACING)

7-R551, 7-R651 AND 7-R652
@ 11" (-) = 5'-5" (LEFT RAILING)
8-R551, 8-R651 AND 8-R652
@ 10 1/2" (-) = 6'-1" (RIGHT RAILING)



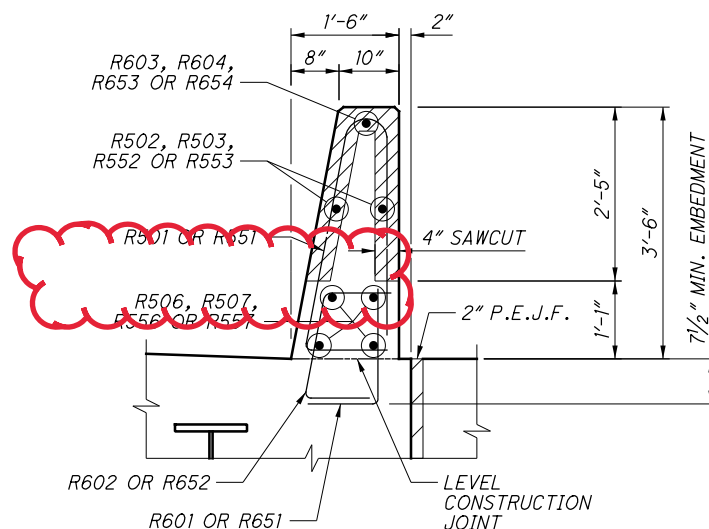
RIGHT BRIDGE RAILING ELEVATION

(LEFT RAILING SHOWN, RIGHT RAILING SAME EXCEPT AS NOTED)



TYPICAL BRIDGE RAILING SECTION

(DECK REINFORCEMENT NOT SHOWN)



TYPICAL DIAPHRAGM RAILING SECTION

(DIAPHRAGM REINFORCEMENT NOT SHOWN)

LAP LENGTH TABLE	
BAR	REQUIRED LAP LENGTH
NO. 5 HORIZONTAL	2'-3" MIN.

NOTES:

- HORIZONTAL DIMENSIONS ARE GIVEN ALONG RAILING INSIDE FACE.
- FOR RAILING DETAILS ON APPROACH SLAB, SEE SHEET 60/67.
- FOR ADDITIONAL RAILING DETAILS NOT SHOWN, SEE ODOT STANDARD DRAWING SBR-1-13.

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