

**ITEM 614 - MAINTAINING TRAFFIC:**

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION). COPIES ARE AVAILABLE FROM:

THE OHIO DEPARTMENT OF TRANSPORTATION  
BUREAU OF TRAFFIC,  
1980 WEST BROAD STREET  
COLUMBUS, OHIO 43223

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

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..

CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY ODOT PERSONNEL. THE CONSTRUCTION INSPECTOR SHALL APPROVE ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR CONDITION AND LOCATION BEFORE THE CONTRACTOR WILL BE ALLOWED TO BEGIN WORK. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, HIS PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED.

THROUGH TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING PHASE CONSTRUCTION BY THE USE OF SIGNALIZED PART WIDTH CONSTRUCTION AS PER STANDARD DRAWING MT-96.11 AND DETAILS PROVIDED IN THESE PLANS.

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

**MAINTENANCE OF TRAFFIC - SEQUENCE OF OPERATIONS:**

PRE-PHASE 1 - PRIOR TO PHASE 1, WEARING COURSE SHALL BE REMOVED FROM DECK AND ANY HOLES PATCHED. WORK SHALL BE COMPLETED UTILIZING FLAGGERS IN ACCORDANCE WITH MT-97.11

PHASE 1 - WORK IN THIS PHASE SHALL INCLUDE REHABILITATION OF THE WESTBOUND SIDE OF STRUCTURE MAR-95-2264 AS DETAILED IN THE STRUCTURE SHEETS ACCORDINGLY. SIGNALIZED CLOSING OF 1 LANE OF A 2-LANE CLOSURES OR PART-WIDTH CONSTRUCTION ACCORDING TO MT-96.11 SHALL BE FOLLOWED. SEE SHEET P.7 FOR DETAILS.

PHASE 2 - WORK IN THIS PHASE SHALL INCLUDE REHABILITATION OF THE EASTBOUND SIDE OF STRUCTURE MAR-95-2264 AS DETAILED IN THE STRUCTURE SHEETS ACCORDINGLY. SIGNALIZED CLOSING OF 1 LANE OF A 2-LANE CLOSURES OR PART-WIDTH CONSTRUCTION ACCORDING TO MT-96.11 SHALL BE FOLLOWED. SEE SHEET P.8 FOR DETAILS.

POST-PHASE 2 - ALL SUBSEQUENT WORK SHALL BE PERFORMED UNDER MT-97.10.

**RIGHT OF WAY PERMITS:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE RIGHT OF WAY USE PERMITS TO INSTALL MAINTENANCE OF TRAFFIC SIGNING.

**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 OFFICE OF COMMUNICATIONS. 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, NUMBER OF LANES CLOSED, DETOUR ROUTES IF APPLICABLE, AND OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE			
ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>=2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE	14 CALENDAR DAYS PRIOR TO CLOSURE
	>12 HOURS & <2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	7 CALENDAR DAYS PRIOR TO CLOSURE
	<12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE	
	<2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE	
START OF CONSTRUCTION AND 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 FRAME TABLE.

**ACCESS TO PRIVATE PROPERTY:**

ACCESS TO DRIVES SHALL BE MAINTAINED VIA EXISTING PAVEMENT, TEMPORARY PAVEMENT OR ITEM 304. IN THE EVENT THAT A DRIVE CANNOT BE MAINTAINED AND A CLOSURE IS NEEDED THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER.

COMMERCIAL PROPERTY WITH MULTIPLE DRIVES MAY HAVE ONE DRIVE CLOSED WHEN WORKING IN THE AREA OF THE DRIVE. COMMERCIAL PROPERTY WITH ONLY ONE DRIVEWAY OR DRIVEWAYS WITH ONE DIRECTION TRAFFIC USE WILL BE CONSTRUCTED PART WIDTH. THE CONTRACTOR WILL COORDINATE WITH THE PROPERTY OWNER TO MINIMIZE THE IMPACT TO THE OWNER. MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. WHEN A RESIDENTIAL DRIVE IS CLOSED FOR CONSTRUCTION, MAINTAIN ALTERNATE ACCESS TO THE PROPERTY. IT MAY BE REQUIRED FOR THE CONTRACTOR TO MAINTAIN ONE PASSABLE LANE WITHIN A CLOSURE IN ORDER FOR VEHICLES TO ACCESS RESIDENCY WITH A VEHICLE.

UNLESS CALLED OUT IN THE PLANS THE CONTRACTOR WILL COORDINATED ANY CLOSURES WITH PROPERTY OWNERS AND BE RESPONSIBLE FOR ANY AND ALL PROPERTY USE AGREEMENTS FOR ALTERNATIVE ACCESS.

SUCCESSFULLY NOTIFY THE OCCUPANTS/OWNERS OF COMMERCIAL OR RESIDENTIAL DRIVES TO BE CLOSED AND COORDINATE THE CLOSURE AT LEAST 48 HOURS BEFORE THE CLOSURE BEGINS (SIMPLY LEAVING A WRITTEN NOTICE OR PHONE MESSAGE IS NOT SUFFICIENT). COORDINATE ALTERNATE ACCESS TO RESIDENTIAL PROPERTIES WITH THE OWNER/OCCUPANT.

**ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)**

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

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

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

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

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

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

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLTION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70.

**DROPOFFS IN WORK ZONE**

THE DROPOFF ADJACENT TO THE TRAVELED LANE SHALL MEET THE CRITERIA OUTLINED IN STANDARD DRAWING MT-101.90. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR MATERIALS, LABOR OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS OF MT-101.90.

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO 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 TOT HE 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.

**USE OF WEIGHTED CHANNELIZERS**

THE WEIGHTED CHANNELIZER MAY BE USED IN ACCORDANCE WITH THIS SECTION. THE WEIGHTED CHANNELIZER SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE WITCH EXTENDS ABOVE THE 42 INCHES MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATIONS FOR EITHER DAY OR NIGHT. UPON COMPLETION OF THE WORK, THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN MORE THAN TWELVE HOURS, SHALL BE REQUIRED THE USE OF DRUMS OR BARRICADES.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA AND AT A MAXIMUM SPACING OF 40 FEET. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS.

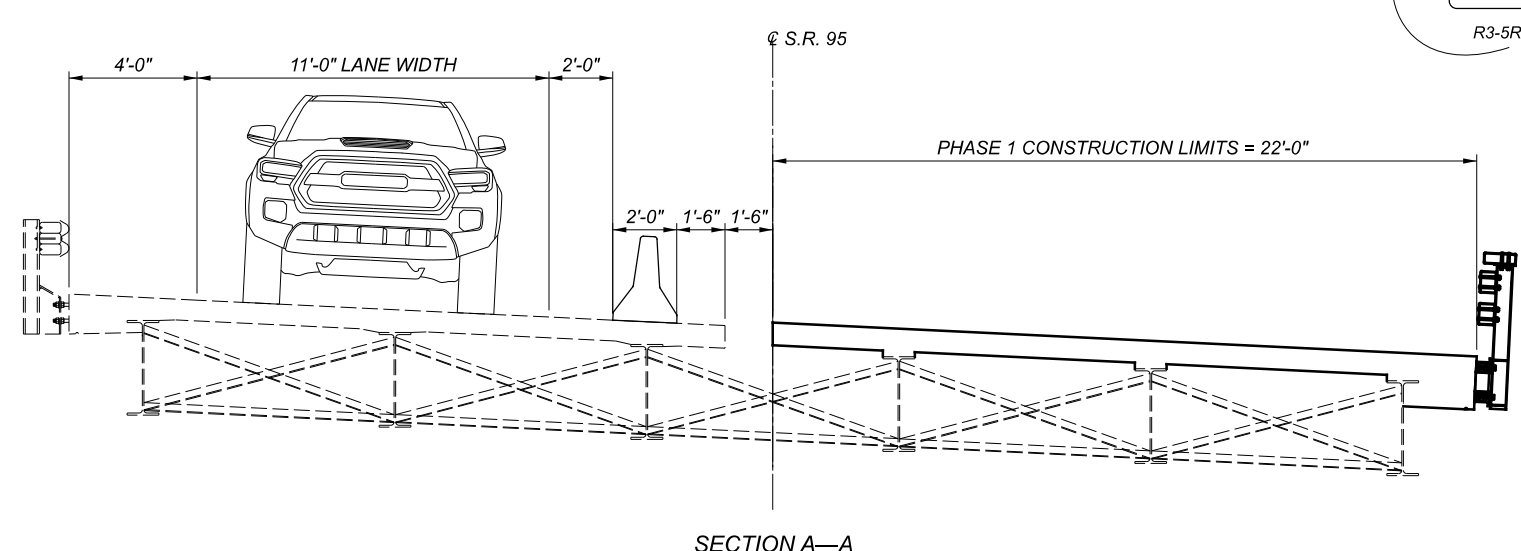
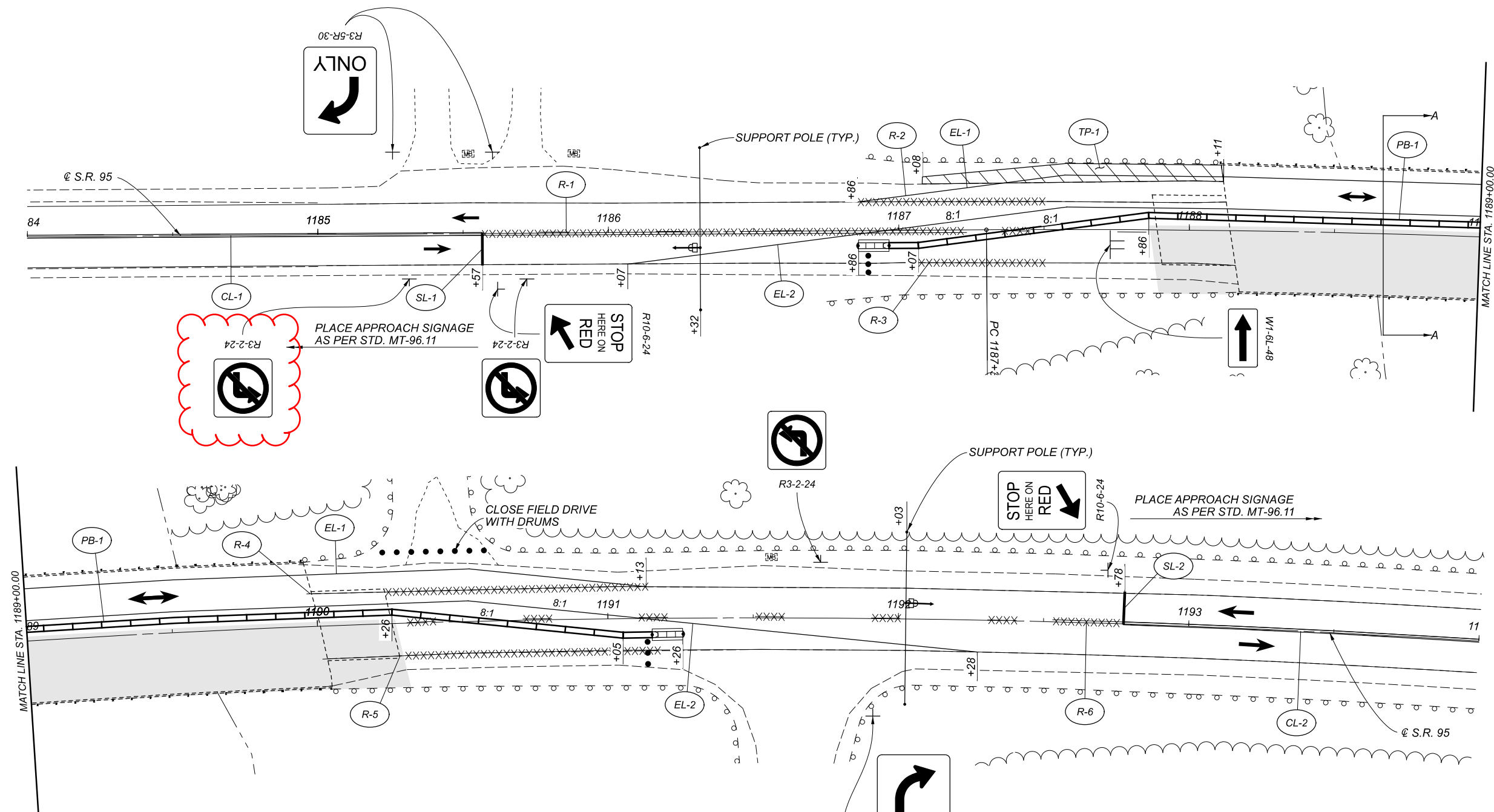
STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLAST SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE IN ADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLAST SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

**ITEM 614 - MAINTAINENCE OF TRAFFIC: PAYMENT**

NO ADDITIONAL COMPENSATION SHALL BE MADE BEYOND THE QUANTITIES LISTED ABOVE. ANY OTHER WORK SHALL BE PAID UNDER THE LUMP SUM PAY ITEM FOR ITEM 614 - MAINTAINING TRAFFIC.

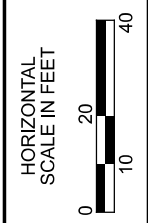
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**LEGEND**

	DIRECTION OF TRAFFIC		WORK ZONE CENTER LINE, CLASS III
	PORTABLE BARRIER		WORK ZONE EDGE LINE, CLASS III
	IMPACT ATTENUATOR		PORTABLE CONCRETE BARRIER, 32"
	WORK AREA		REMOVAL OF PAVEMENT MARKING
	DRUMS		WORK ZONE STOP LINE, CLASS I
	TEMPORARY PAVEMENT		ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
	OM2-2V		

FOR QUANTITIES, SEE SHEET 6

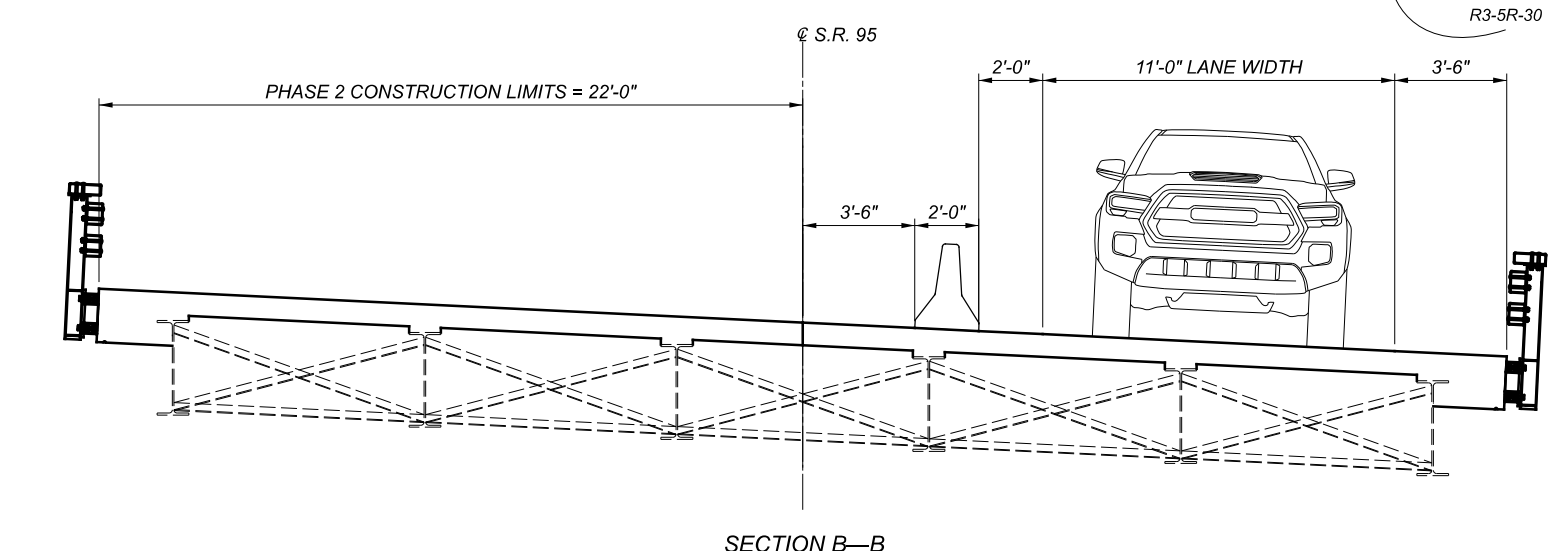
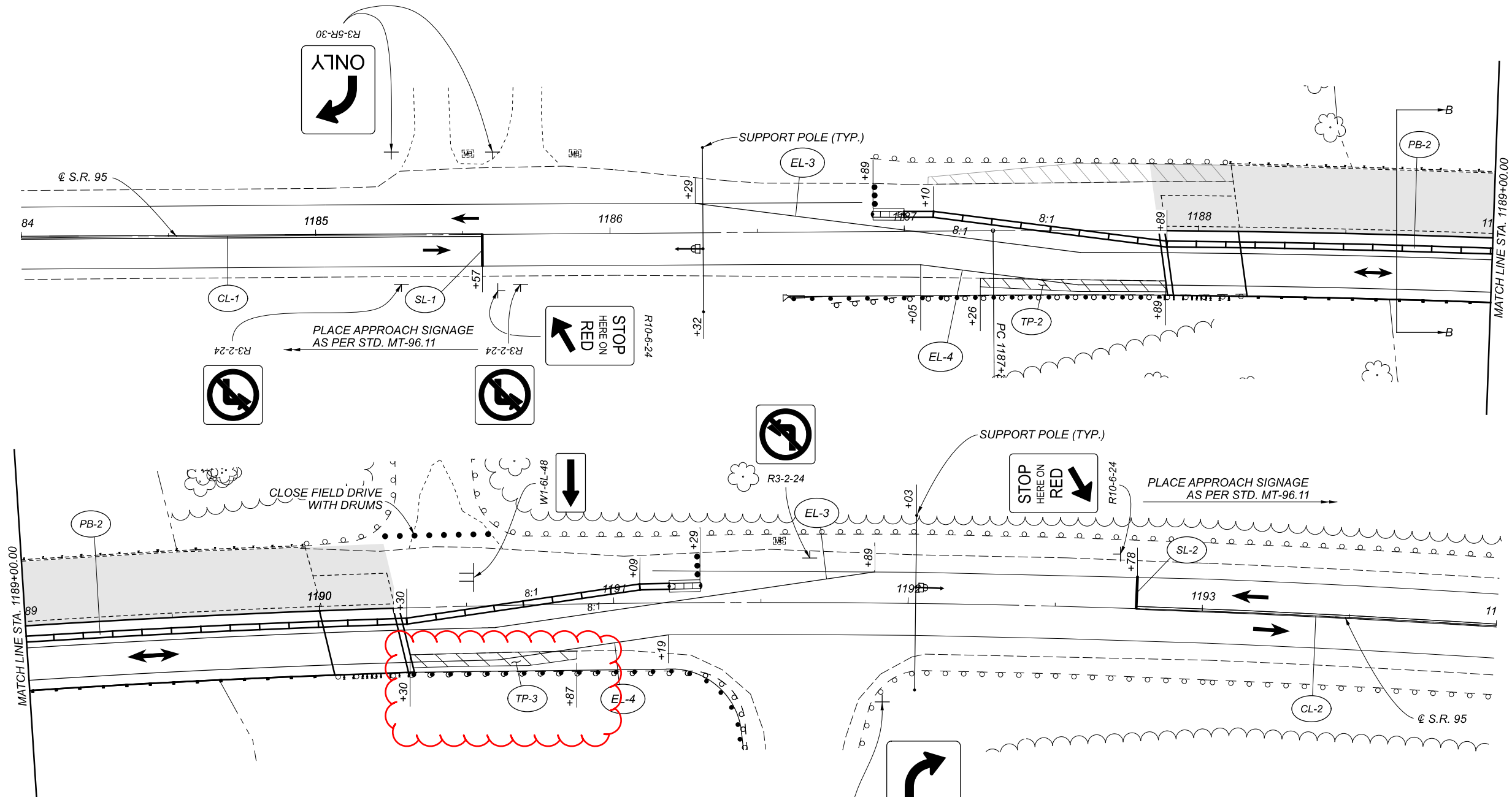


**MAINTENANCE OF TRAFFIC  
 PHASE 1 CONSTRUCTION**

DESIGN AGENCY



DESIGNER	JMB
REVIEWER	JPH 08/01/22
PROJECT ID	103961
SHEET	TOTAL
P.7	31



**LEGEND**

	DIRECTION OF TRAFFIC		WORK ZONE CENTER LINE, CLASS III
	PORTABLE BARRIER		WORK ZONE EDGE LINE, CLASS III
	IMPACT ATTENUATOR		PORTABLE CONCRETE BARRIER, 32"
	WORK AREA		WORK ZONE STOP LINE, CLASS I
	DRUMS		ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN
	TEMPORARY PAVEMENT		
	OM2-2V		

FOR QUANTITIES, SEE SHEET 6



MAINTENANCE OF TRAFFIC  
 PHASE 2 CONSTRUCTION

DESIGN AGENCY



DESIGNER  
 JMB

REVIEWER  
 JPH 08/01/22

PROJECT ID  
 103961

SHEET TOTAL  
 P.8 31





**ITEM 642 EDGE LINE, 6", TYPE 1**  
 STA. 1185+00 TO STA 1192+28 = 728 FT  
 STA. 1185+00 TO STA 1191+89 = 689 FT  
 (728 FT + 689 FT) / 5280 = 0.3 MILE

TOTAL = 0.3 MILE CARRIED TO GENERAL SUMMARY

**ITEM 642 CENTER LINE, TYPE 1**  
 STA. 1180+57 TO STA. 1197+78 = 1,721 FT  
 (1,721 FT / 5280) = 0.33 MILE

TOTAL = 0.33 MILE CARRIED TO GENERAL SUMMARY

**ITEM 621 RPM**  
 STA. 1185+00.00 TO STA 1187+86.44 = 286.44 FT  
 STA. 1190+27.00 TO STA 1191+03.59 = 76.59 FT  
 (286.44 FT + 76.59 FT) / 80' SPA. = 5 EACH

TOTAL = 5 EACH CARRIED TO GENERAL SUMMARY

**ITEM 621 RAISED PAVEMENT MARKER REMOVED**  
 STA. 1185+00.00 TO STA 1187+86.44 = 286.44 FT  
 STA. 1190+27.00 TO STA 1191+03.59 = 76.59 FT  
 (286.44 FT + 76.59 FT) / 80' SPA. = 5 EACH

TOTAL = 5 EACH CARRIED TO GENERAL SUMMARY

**ROADWAY**

SHEET	REF. NO.	STATION		SIDE	202	202	601	606	606	606	606	626
		FROM	TO		GUARDRAIL REMOVED, AS PER PLAN FT	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN EACH	TIED BLOCK MAT WITH TYPE 1 UNDERLAYMENT, 48"x48" SY	GUARDRAIL, TYPE MGS FT	ANCHOR ASSEMBLY, MGS TYPE E, APP EACH	ANCHOR ASSEMBLY, MGS TYPE T EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE TST-2 EACH	BARRIER REFLECTOR TYPE 2, BIDIRECTIONAL EA
P.11	DR-1	1188+12.43		LT			2					
P.11	DR-2	1188+12.43		RT			2					
P.12	DR-3	1190+01.00		LT			2					
P.12	DR-4	1190+01.00		RT			2					
P.11	GR-1	1186+80.46	1188+09.64	LT	100	1		50	1		1	3
P.11	GR-2	1186+64.56	1188+16.01	RT	112.5	1		75	1		1	3
P.12	GR-3	1189+96.46	1190+26.85	LT	68.75			37.5		1	1	2
P.12	GR-4	1190+04.30	1191+46.42	RT	175			131.25		1	1	3
TOTALS CARRIED TO GENERAL SUMMARY					456.25	2	8	293.75	2	2	4	11

**PAVEMENT**

SHEET	ROUTE	STATION		TYPICAL SECTION	DESIGN		202	204	254	301	304	407	441
		FROM	TO		LENGTH OF PAVEMENT WORK FT	WIDTH OF PAVEMENT WORK FT (AVG)	PAVEMENT REMOVED, AS PER PLAN (17") SY	SUBGRADE COMPACTION SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE DEPTH SY	ASPHALT CONCRETE BASE, PG64-22, (449) CY	AGGREGATE BASE, AS PER PLAN CY	NON-TRACKING TACK COAT GAL	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 CY
P.11	SR-95	1185+00	1187+76.44	1	276.44	32.94			2.15" AVG	8"	6"	142	85
P.11	SR-95	1187+76.44	1187+86.44	2	10	32	37	37		8.5	7	6	3
P.11	SR-95	1187+86.44	1188+13.44	3	27	44		135			23		
P.12	SR-95	1190+00.00	1190+27.00	3	27	44		135			23		
P.12	SR-95	1190+27.00	1190+37.00	2	10	34	40	40		9.0	7	7	4
P.12	SR-95	1190+37.00	1191+03.59	1	66.59	33.19			246			35	21
TOTALS CARRIED TO GENERAL SUMMARY							77	347	1258	18	59	190	112



**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	DATED/REVISED	07-17-15
AS-2-15	DATED/REVISED	01-18-19
SICD-1-21	DATED/REVISED	01-21-22
SICD-2-14	DATED/REVISED	01-15-21
TST-2-21	DATED/REVISED	07-16-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):  
NONE

**DESIGN SPECIFICATIONS**

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

**DESIGN LOADING**

DESIGN LOADING: HL-93  
DESIGN EXCEPTION HAS BEEN APPROVED 03/29/22 FOR:  
DESIGN LOADING STRUCTURAL CAPACITY  
LRFR INV RATING HL93 = 0.868

FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

**DESIGN DATA**

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

**DECK PROTECTION METHOD**

GALVANIZED COATED REINFORCING STEEL  
2.5" CONCRETE COVER

**MONOLITHIC WEARING SURFACE**

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

**DECK PLACEMENT DESIGN ASSUMPTIONS**

DECK PLACEMENT DESIGN ASSUMPTIONS: THE FOLLOWING ASSUMPTIONS OF THE CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE FALSEWORK SUPPORT SYSTEM WITH THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.20 KIPS, A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65".

**EXISTING STRUCTURE VERIFICATION**

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**DECK POURING LIMITATIONS**

POURING OF APPROACH SLABS CONCURRENTLY WITH THE DECK IS PROHIBITED. THE CONTRACTOR SHALL CONSTRUCT THE DECK AND APPROACH SLABS USING TWO SEPARATE POURS. FOLLOWING THE APPROACH SLAB POURS THE CONTRACTOR SHALL SAW AND SEAL THE BRIDGE JOINT AS PER ITEM 516-2" DEEP JOINT SEALER, AS PER PLAN.

**ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION:**

PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE.

**CUT LINE CONSTRUCTION JOINT PREPARATION**

REMOVE CONCRETE TO A ROUGH SURFACE AND INSTALL DOWEL BARS. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

**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 BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH HEIGHT OF 2" 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.

THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, 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 511.23.

**WELDED ATTACHMENTS**

WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN**

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF THE ENTIRE EXISTING SUPERSTRUCTURE. THIS WORK SHALL INCLUDE THE REMOVAL OF ALL EXISTING CONCRETE DECK, RAILING, NETTING, BEAMS, END CROSSFRAMES, EXPANSION JOINTS, ABUTMENT AND PIER BEARING ASSEMBLIES, ELECTRICAL CONDUITS, AND ALL OTHER INDIVIDUAL COMPONENTS OF THE ENTIRE EXISTING SUPERSTRUCTURE. THIS WORK ALSO CONSISTS OF THE PARTIAL REMOVAL OF THE SUBSTRUCTURE AS DETAILED IN THE PLAN.

ALL SUBSTRUCTURE CONCRETE REMOVED AS DETAILED IN THE PLANS SHALL BE REMOVED BY MEANS OF CUTTING AND OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

DURING THE BEARING REMOVAL PROCESS, DRILL OUT ALL EXISTING ANCHOR BARS, FILL THE HOLES WITH NONSHRINK NONMETALLIC GROUT AS PER C&MS 510, AND ENSURE THAT BEARING SEAT AREAS HAVE A PURE AND LEVEL SURFACE TO REST ON. THE CONTRACTOR SHALL FOLLOW C&MS 516.07 TO ACCOMPLISH THIS SEAT PREPARATION WORK FOR NEW BEARINGS.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC AS PER CMS 501.05.B.2

REMOVAL METHODS: REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS WHILE STILL IN USE DURING THE REMOVAL PROCEDURES.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

**ITEM 202 - WEARING COURSE REMOVED, AS PER PLAN**

THIS ITEM INCLUDES REMOVING THE EXISTING ASPHALT LAYER ON THE BRIDGE DECK AND APPROACH SLABS. INCLUDING APPROACH PAVEMENT ON THE EAST AND WEST ENDS OF THE BRIDGE. THE MILLING SHALL MEET THE REQUIREMENTS OF 254.05.

**ITEM 513 - STRUCTURAL STEEL, MISC.: 2" DIA. FIELD DRILLED HOLES**

THIS ITEM SHALL CONSIST OF FIELD LOCATIONS AND FIELD DRILLING OF 2" DIAMETER HOLES FOR #8 REINFORCING STEEL AS PER STD. DWG. SICD-1-21 INTO THE BEAM ENDS. THE CONTRACTOR SHALL CLEARLY MARK THE LOCATIONS AND HAVE THE ENGINEER'S APPROVAL PRIOR TO DRILLING. FLAME CUTTING OF THE HOLES WILL NOT BE PERMITTED.

MEASUREMENT: THE DEPARTMENT WILL PAY FOR EACH 2" DIA. HOLE DRILLED.

ALL MATERIALS, LABOR, INCIDENTALS TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 513 - STRUCTURAL STEEL, MISC.: 2" DIA. FIELD DRILLED HOLES.

**ITEM 514 - FIELD PAINTING, MISC.: COATING OF BEAM ENDS**

PRIOR TO ENCASING THE BEAM ENDS, PREPARE THE ENDS PER SSPC SP10 OR SSPC SP11 TO BARE METAL ACHIEVING A 1.5 TO 3.5 MIL PROFILE. PAINT THE BEAM ENDS WITH ORGANIC ZINC PRIME COAT PER C&MS 514. PROVIDE THE PRIME COAT THICKNESS AS PER C&MS 514.20. EXTEND THE LIMITS OF THE BEAM PREPARATION AND PAINTING 1-FT BEYOND THE LIMITS OF THE END DIAPHRAGM CONCRETE.

AFTER THE DIAPHRAGM CONCRETE IS SET, SEAL THE INTERFACE BETWEEN THE BEAM AND CONCRETE WITH CAULK.

THE DEPARTMENT WILL PAY FOR ALL ABOVE LABOR AND AT THE CONTRACT BID PRICE FOR ITEM 514 - FIELD PAINTING, MISC.: COATING OF BEAM ENDS

**ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN**

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS. THIS WORK SHALL BE DONE DURING PHASE 1 PRIOR TO PLACEMENT OF DECK.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

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

THE DEPARTMENTS WILL MEASURE THE WORK ON A LUMP SUM BASIS.

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

**ITEM 519 - PATCHING CONCRETE STRUCTURE**

THIS ITEM SHALL INCLUDE PATCHING OF HOLES IN DECK SURFACE TO THE ENGINEER'S SATISFACTION AFTER ASPHALT WEARING COURSE REMOVED AND BEFORE SHIFTING TRAFFIC TO PHASE 1.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 519 - PATCHING CONCRETE STRUCTURE 50 SY

**ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (1-15'), AS PER PLAN**

THIS ITEM SHALL CONSIST OF GALVANIZED STEEL REINFORCEMENT CONFORMING TO ASTM A767 OR ASTM A1094 IN PLACE OF EPOXY COATED REINFORCING STEEL. ALL PROVISIONS OF ITEM 526 SHALL APPLY.

STRUCTURE NOTES  
BRIDGE NO. MAR-95-2264  
S.R. 95 OVER OLENTANGY RIVER

SFN 5102707  
DESIGN AGENCY



DESIGNER	CHECKER
JMB	JDM
REVIEWER	
JPH 08/01/22	
PROJECT ID	
103961	
SUBSET	TOTAL
2	19
SHEET	
TOTAL	
P.14	31

