

ITEM 614, MAINTAINING TRAFFIC DIRECTIONAL DETOURS (WESTBOUND/EASTBOUND) SHALL BE IMPLEMENTED TO COMPLETE THE WORK ON SR 562. ONLY ONE DIRECTION (WESTBOUND OR EASTBOUND) MAY BE CLOSED AT A GIVEN TIME.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD AND RAMP CLOSURES IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

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

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF	
	CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

**SR 562 WILL BE
CLOSED MM/DD/YY
FOR # DAYS
INFO: 513-933-6600**
W20-H13-60

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

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

SIGN BLANKS USED TO COVER SIGNS ARE REQUIRED TO BE ORANGE.

DURING THE DIRECTIONAL CLOSURE, ALL WORK IN THAT DIRECTION SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME INCLUDING BUT NOT LIMITED TO THE BRIDGE WORK, PAVEMENT REPAIRS, RESURFACING, FINAL MARKINGS AND PERMANENT RPMs.

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 OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

CONCRETE MEDIAN BARRIER REPLACEMENT
REMOVING, GRADING AND INSTALLING THE REPLACEMENT BARRIER IS SUBJECT TO THE APPROVAL OF THE ENGINEER. A PORTABLE BARRIER IS NEEDED ONLY ON THE SIDE OF SR-562 OPEN TO TRAFFIC.

WHERE TRAFFIC IS MAINTAINED, CLOSE THE SHOULDER PER MT-95.45. STAGE WORK FROM THE SIDE OF THE ROAD BEING DETOURED. MAINTAIN POSITIVE PROTECTION UNTIL THE MEDIAN BARRIER IS RESTORED.

THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

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

COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)
PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE: DIRECTIONAL CLOSURES OF SR-562. THE WORK WILL BE COMPLETED IN TWO PHASES. EASTBOUND SR-562 WILL BE CLOSED FROM I-75 TO I-71 PER A+B CONTRACT TABLE. DETOURS ARE PROVIDED IN THE PLANS. UPON COMPLETION OF THE WORK EASTBOUND LANES WILL BE REOPENED. WESTBOUND SR-562 WILL BE CLOSED FROM PADDOCK ROAD TO I-71 PER A+B CONTRACT TABLE. DETOURS ARE PROVIDED IN THE PLANS. UPON COMPLETION OF THE WORK WESTBOUND LANES WILL BE REOPENED.

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER, CITY OF CINCINNATI, AND CITY OF NORWOOD AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE 'EXCEPTION REQUEST APPROVAL DATED 8/12/2021 FOR PID 102886' IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

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

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET 19 OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO

OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY. ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN, 36 SIGN MONTH, ASSUMING 9 PCMS SIGNS FOR 1 MONTH (PRE-CLOSURE), 4 PCMS SIGNS FOR 3 MONTHS (WB CLOSED), AND 5 PCMS SIGNS FOR 3 MONTHS (EB CLOSED).

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS
USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE ODOT INTENDS THAT FLAGGERS BE USED.

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

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

2) DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

1) FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

2) FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

A) ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY, AND

B) AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION, AND,
C) AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)
'WITHOUT POSITIVE PROTECTION' MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS 'WITHOUT POSITIVE PROTECTION'. FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

1) THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER, OR

2) THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE, OR

3) OTHER LOCATION AS APPROVED BY THE ENGINEER. THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 320 HOURS

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

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

 Quantity corrected

DESIGN AGENCY	
	CMT CITY OF CINCINNATI 84 REARICK BOULEVARD BIRMINGHAM, OH 45006 www.cmteng.com
DESIGNER	LDW
REVIEWER	JWB 02/20/23
PROJECT ID	102886
SHEET	TOTAL
16	178

SHEET NO.	LOCATION	PHASE	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	622	642	644	644	
			LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	DETOUR SIGNING	BARRIER REFLECTOR, TYPE 1, ONE WAY	OBJECT MARKER, ONE WAY	PORTABLE CHANGEABLE MESSAGE SIGN	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	WORK ZONE EDGE LINE, CLASS I, 6", 873	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	WORK ZONE DOTTED LINE, CLASS I, 6", 873	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	WORK ZONE ARROW, CLASS I, 6", 642 PAINT	WORK ZONE ARROW, CLASS I, 642 PAINT, (WRONG WAY)	PORTABLE BARRIER, UNANCHORED	CHANNELIZING LINE, 8", TYPE 1	LANE LINE, 6"	DOTTED LINE, 6"
			SNMT	EA	LS	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
16-17	MOT NOTES	N/A	320																								
20-23	DETOUR PLAN	WB CLOSURE			LS																						
24	READING RD	WB CLOSURE									0.011																
25	NORWOOD AVE	WB CLOSURE									0.073		150												400		
26	I-71 RAMPS	WB CLOSURE												215												889	
27	ALAMO AVE	WB CLOSURE													0.061												
28-31	DETOUR PLAN	EB CLOSURE			LS																						
32	I-75 RAMPS	EB CLOSURE																								845	
33	READING RD	EB CLOSURE														0.013											
MEDIAN BARRIER REPLACEMENTS																											
N/A	SIGN AT 52+17.8 PB START STA. 51+67 TO 53+37	EB CLOSURE		1		5	5																			170	
N/A	SIGN AT 74+12.7 PB START STA. 73+62 TO 75+12	EB CLOSURE		1		4	4																			150	
N/A	SIGN AT 100+99.2 PB START STA. 100+49 TO 102+19	EB CLOSURE		1		5	5																			170	
N/A	SIGN AT 112+75.3 PB START STA. 112+00 TO 113+50	EB CLOSURE		1		4	4																			150	
N/A	SIGN AT 136+35.0 PB START STA. 135+85 TO 136+75	EB CLOSURE		1		3	3																			90	
N/A	SIGN AT 162+01.5 PB START STA. 161+40 TO 163+20	EB CLOSURE		1		5	5																			180	
N/A	SIGN AT 168+67.7 PB START STA. 168+17 TO 169+87	EB CLOSURE		1		5	5																			170	
TOTALS CARRIED TO GENERAL SUMMARY			320	7	LS	31	31	36	0.073	0.690	150	215	5.03	13.03	400	7860	7581	2060	2110	302	479	32	4	1080	400	0.04	1734

7 Quantity corrected

MAINTENANCE OF TRAFFIC SUBSUMMARY

DESIGN AGENCY

 CMT
 CONSULTING & ENGINEERING
 84 REMICK BOULEVARD
 BIRMINGHAM, AL 35202-2100
 WWW.CMTENG.COM

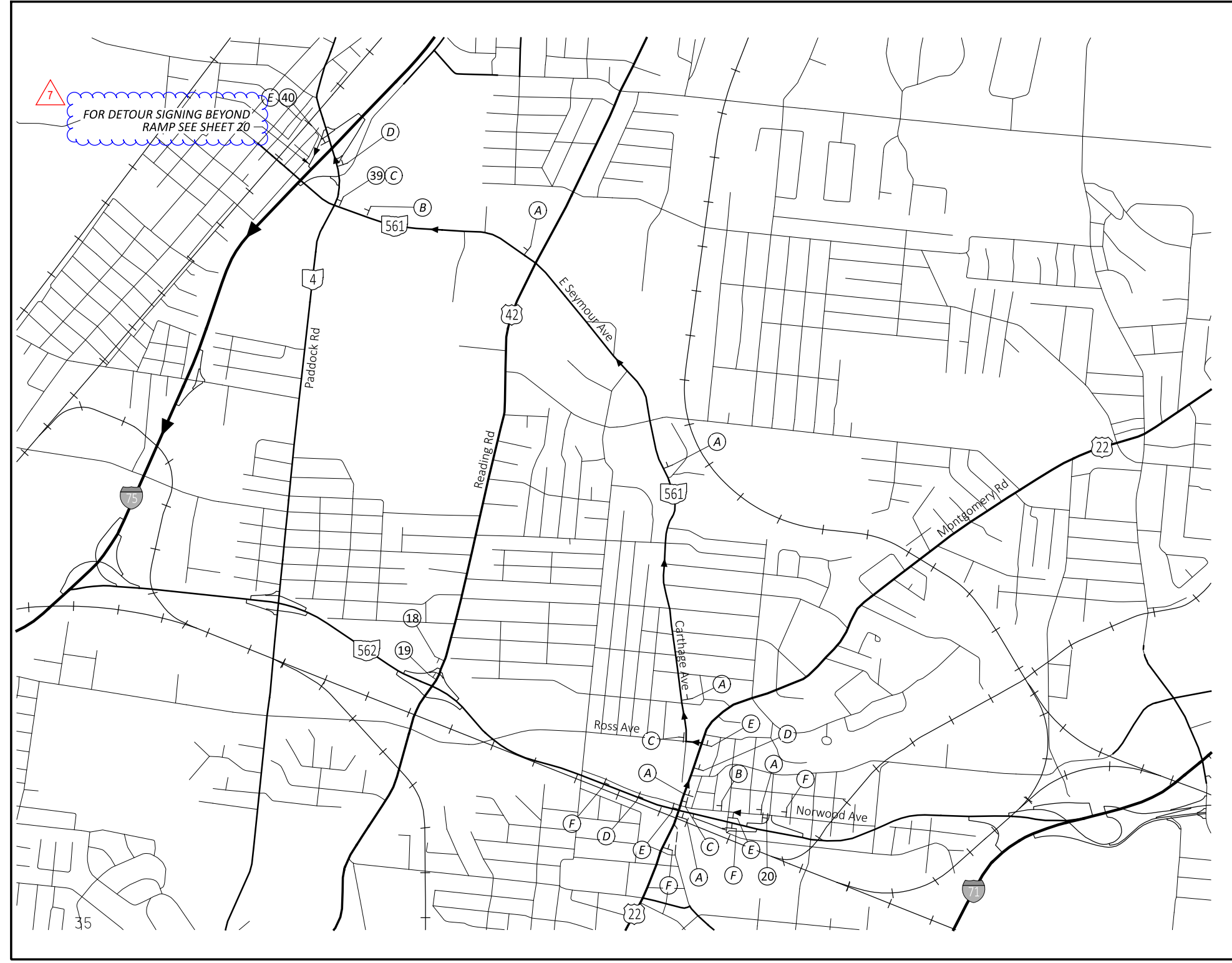
DESIGNER
 AEE

REVIEWER
 JWB 02/20/23

PROJECT ID
 102886

SHEET TOTAL
 18 178

 A	 B	 C
 D	 E	 F



DETOUR PLAN - NORWOOD AVE
 WESTBOUND CLOSURE

DESIGN AGENCY
CMT
 CONSTRUCTION MANAGEMENT TECHNOLOGIES, INC.
 84 REMICK BOULEVARD
 BIRMINGHAM, AL 35202-2108
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DESIGNER
LDW

REVIEWER
JWB 02/20/23

PROJECT ID
102886

SHEET	TOTAL
23	178

Sheet cross reference corrected

FOR EXISTING SIGN LEGEND SEE SHEETS 21 - 22

7

SHEET NUM.									PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
18	141								01/NHS/05	02/NHS/14	03/NHS/14	04/SAF/21	05/SAF/21/NORW						
	12										12			625	29000	12	FT	TRENCH	
	129										129			625	29002	129	FT	TRENCH, 24" DEEP	
	14										14			625	29940	14	EACH	BARRIER JUNCTION BOX	
	2										2			625	30711	2	EACH	PULL BOX, 725.08, 32", AS PER PLAN	140
	11										11			625	35011	11	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	140
	3										3			625	39520	3	EACH	PULL BOX CLEANED	
	LS										LS			625	98200	LS		LIGHTING, MISC.:(RESTORE EXISTING LIGHTING CIRCUIT)	140
	LS										LS			SPECIAL	69098400	LS		MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIAL	140
	1,409										1,409			809	24500	1,409	FT	CONDUIT, 4", MULTICELL, HDPE WITH 4 - 1" INNERDUCTS	
	12,332										12,332			848	10201	12,332	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (2 3/4" THICK)	140
	12,332										12,332			848	20000	12,332	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
	14										14			848	30200	14	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
	245										245			848	50000	245	SY	HAND CHIPPING	
	LS										LS			848	50100	LS		TEST SLAB	
	2										2			848	50200	2	CY	FULL-DEPTH REPAIR	
	12,228										12,228			848	50320	12,228	SY	EXISTING CONCRETE OVERLAY REMOVED	
MAINTENANCE OF TRAFFIC																			
	320								320					614	11110	320	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	7								7					614	12380	7	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	LS								LS					614	12420	LS		DETOUR SIGNING	
	31								31					614	13310	31	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
	31								31					614	13350	31	EACH	OBJECT MARKER, ONE WAY	
	36								36					614	18600	36	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
	0.07								0.07					614	22210	0.07	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
	0.69								0.69					614	22326	0.69	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 873	
	150								150					614	24402	150	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	
	215								215					614	24122	215	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 873	
	5.03								5.03					614	20110	5.03	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	
	13.03								13.03					614	22110	13.03	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
	400								400					614	23200	400	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
	7,860								7,860					614	23210	7,860	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	
	7,581								7,581					614	24202	7,581	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT	
	2,060								2,060					614	24208	2,060	FT	WORK ZONE DOTTED LINE, CLASS I, 12", 642 PAINT	
	2,110								2,110					614	25200	2,110	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	
	302								302					614	26200	302	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
	479								479					614	27050	479	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	
	32								32					614	30200	32	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT, 6'	
	4								4					614	30200	4	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT, (WRONG WAY)	
	1,080								1,080					622	41100	1,080	FT	PORTABLE BARRIER, UNANCHORED	
	400								400					642	00400	400	FT	CHANNELIZING LINE, 8", TYPE 1	
	0.04								0.04					644	00204	0.04	MILE	LANE LINE, 6"	
	1,734								1,734					644	01510	1,734	FT	DOTTED LINE, 6"	
INCIDENTALS																			
									LS					614	11000	LS		MAINTAINING TRAFFIC	
									24					619	16020	24	MNTH	FIELD OFFICE, TYPE C	
									LS					623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
									LS					624	10000	LS		MOBILIZATION	
									LS					SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	15
ADDENDUM 1																			
STRUCTURE OVER 20 FOOT SPAN (SFN 3113841)																			
SEE BRIDGE ESTIMATED QUANTITIES SHEET 5 / 15																			

GENERAL SUMMARY

DESIGN AGENCY

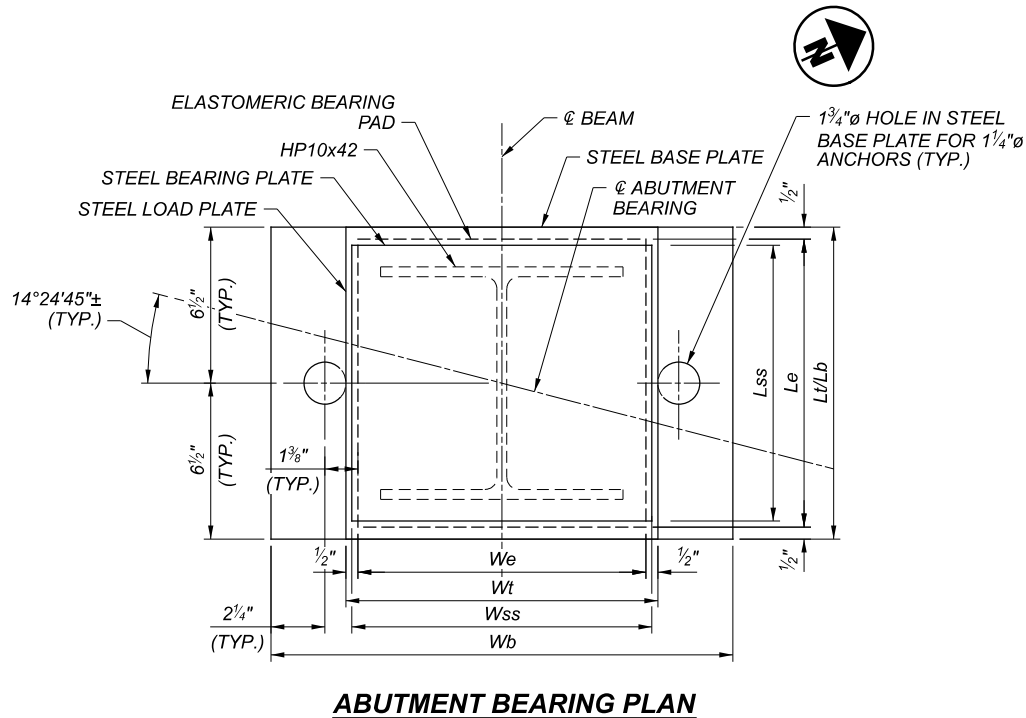
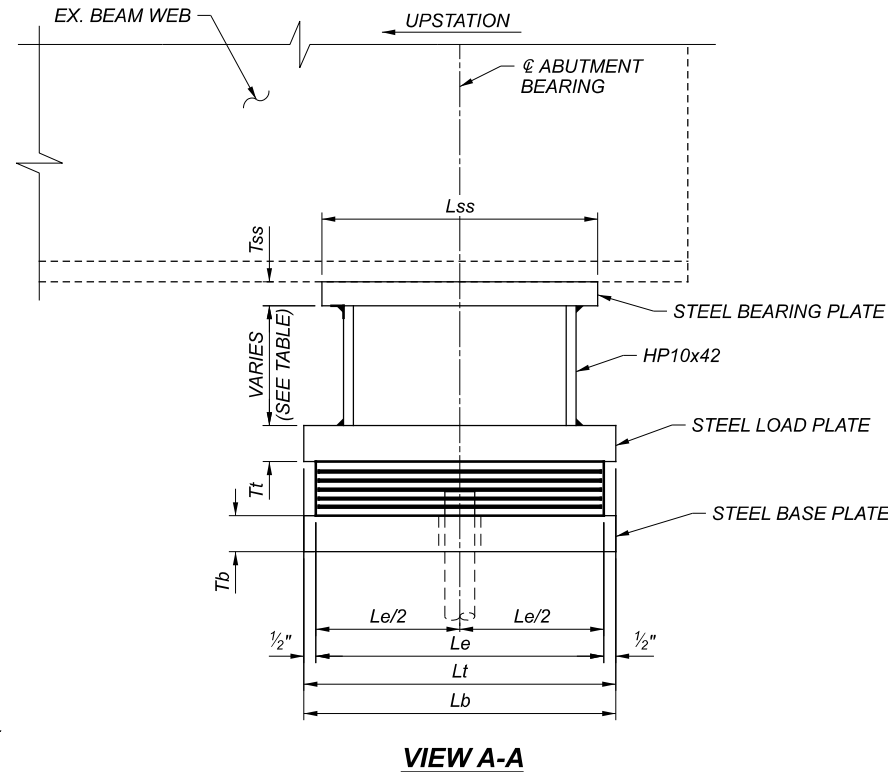
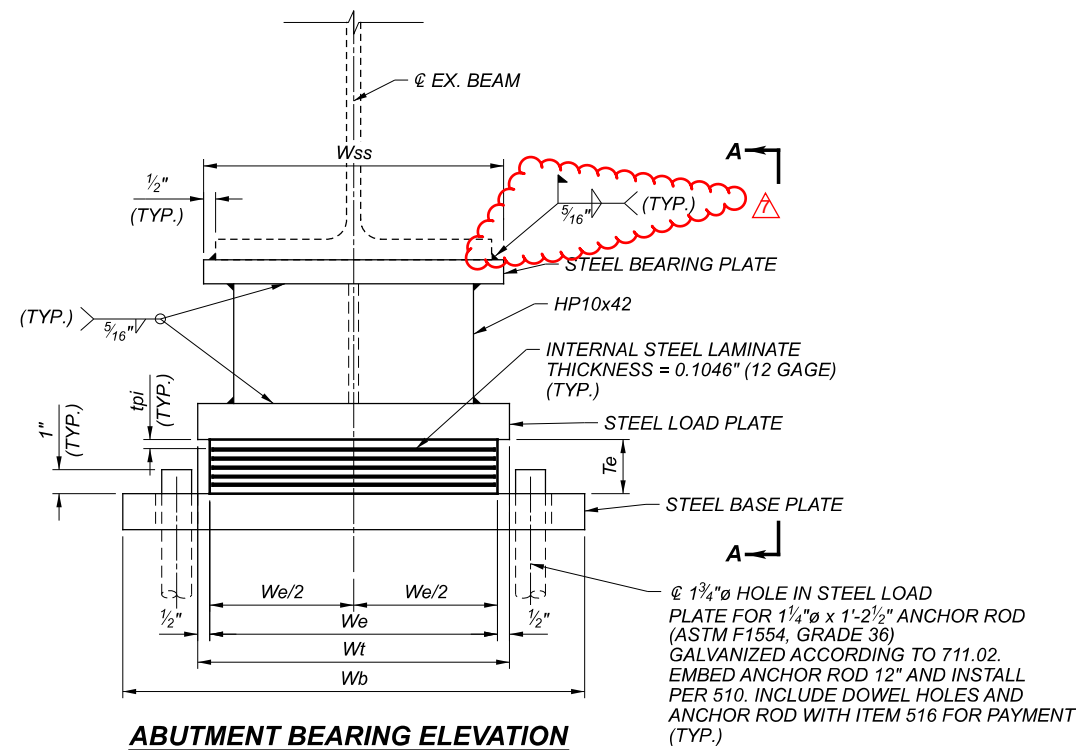
 CMT
 CIVIL & ENVIRONMENTAL
 DESIGN & CONSTRUCTION
 84 REARICK BOULEVARD
 BRISTOL, CT 06033
 WWW.CMTENR.COM

DESIGNER
NCB

REVIEWER
JWL 02/20/23

PROJECT ID
102886

SHEET TOTAL
38 178



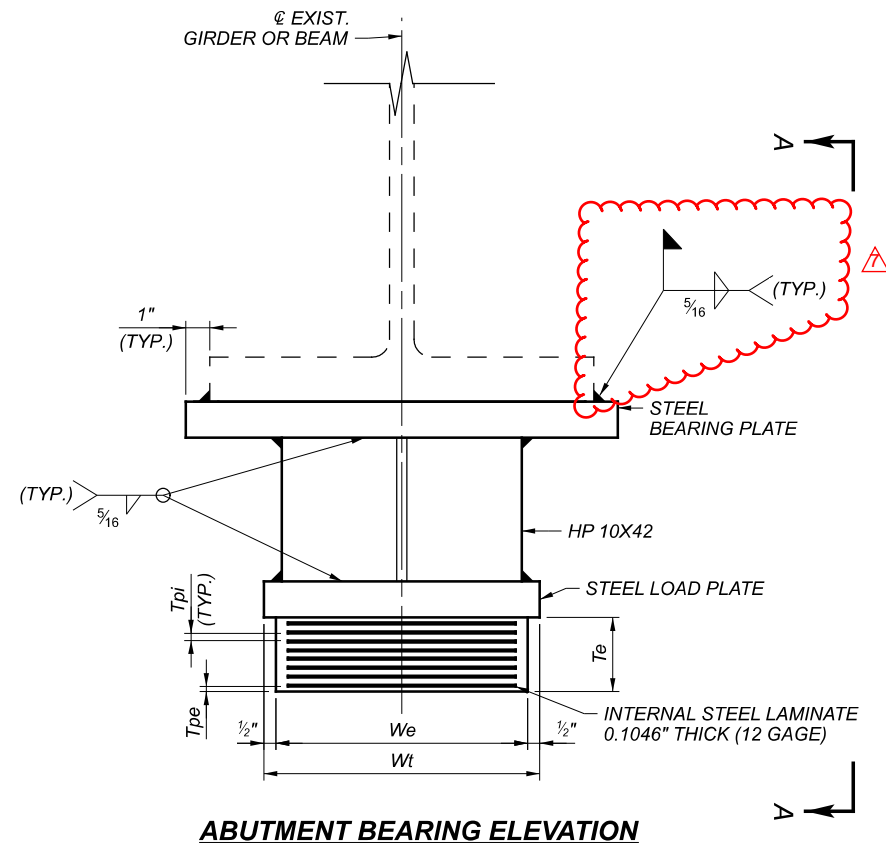
APPROXIMATE HP SECTION DIMENSIONS (INCH) - SEE NOTE 6		
MIN. HEIGHT	MAX. HEIGHT	AVG. HEIGHT
3 7/16	5 11/16	4 9/16

NOTES:

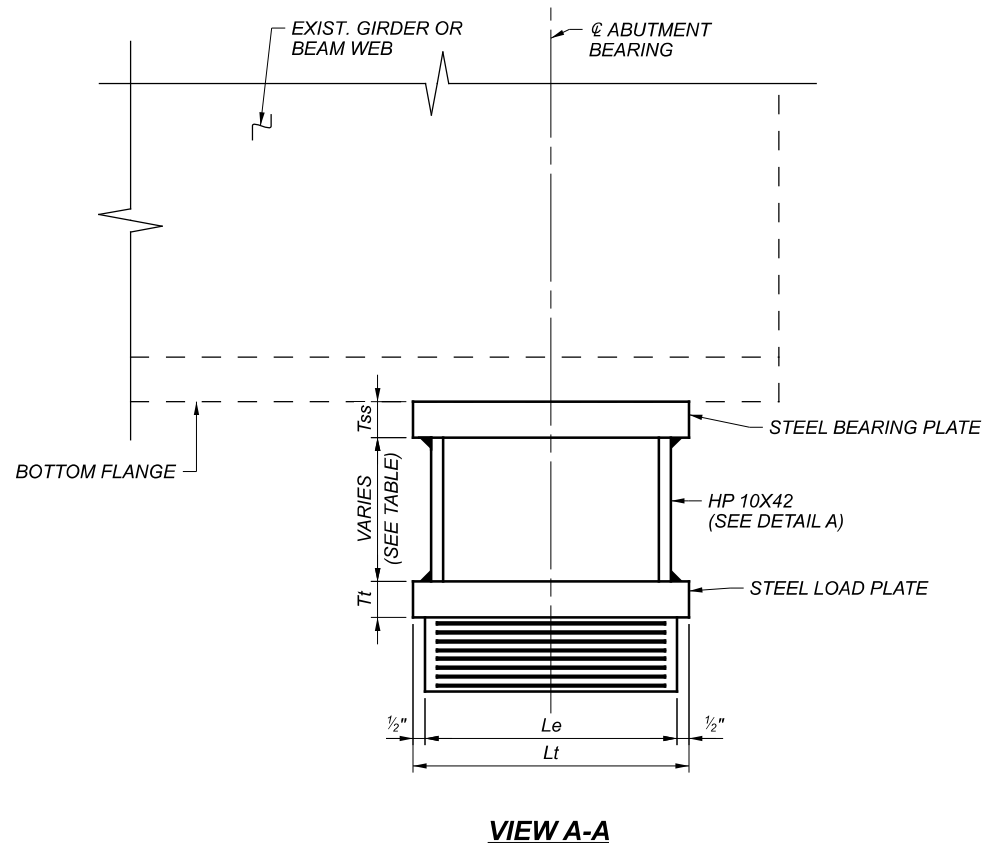
- ELASTOMERIC BEARINGS: THE ABUTMENT BEARINGS SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- STEEL LOAD PLATES AND HP SHAPES SHALL BE ASTM A709 GRADE 50 STEEL AND PRIME PAINTED IN ACCORDANCE WITH ITEM 513. THE LOAD PLATE SHALL BE VULCANIZED TO THE LAMINATED ELASTOMERIC BEARING PAD DURING THE MOLDING PROCESS. CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 DEGREES AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER BEARING IS INSTALLED.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
- LOADS SHOWN ARE SERVICE LOADS WITH NO LOAD FACTORS OR IMPACT FACTORS.
- THE CONTRACTOR IS REQUIRED TO FIELD MEASURE THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS AT CENTERLINE OF BEARING. THE CONTRACTOR IS TO SUBMIT THE FIELD MEASURED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE DESIGN ENGINEER PRIOR TO THE JACKING OPERATIONS AND THE ORDERING OF MATERIALS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL HP SECTION HEIGHT BY SUBTRACTING THE EXISTING BOTTOM OF BEAM ELEVATION FROM THE EXISTING BEAM SEAT ELEVATION AND PROPOSED ELASTOMER BEARING HEIGHT AND LOAD PLATES AT EACH BEARING LOCATION. THIS HP SECTION HEIGHT IS A CONTRACTOR CALCULATED DIMENSION AND ANY SHIMS NEEDED AS A RESULT OF THE CONTRACTOR'S ERROR WILL BE AT THE CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE DISTRICT 8 BRIDGE DESIGN ENGINEER. USE AN HP SECTION HEIGHT OF 4 9/16 INCHES (REAR ABUTMENT) FOR BIDDING PURPOSES.

FINAL HP SECTION HEIGHT = (CONTRACTOR'S BOTTOM OF BEAM ELEV.) - (EXISTING BEAM SEAT ELEV.) - (ELASTOMER BEARING HEIGHT) - (LOAD PLATES)
- FOR FORWARD ABUTMENT ELASTOMERIC BEARING DETAILS, SEE SHEET 24 / 26.

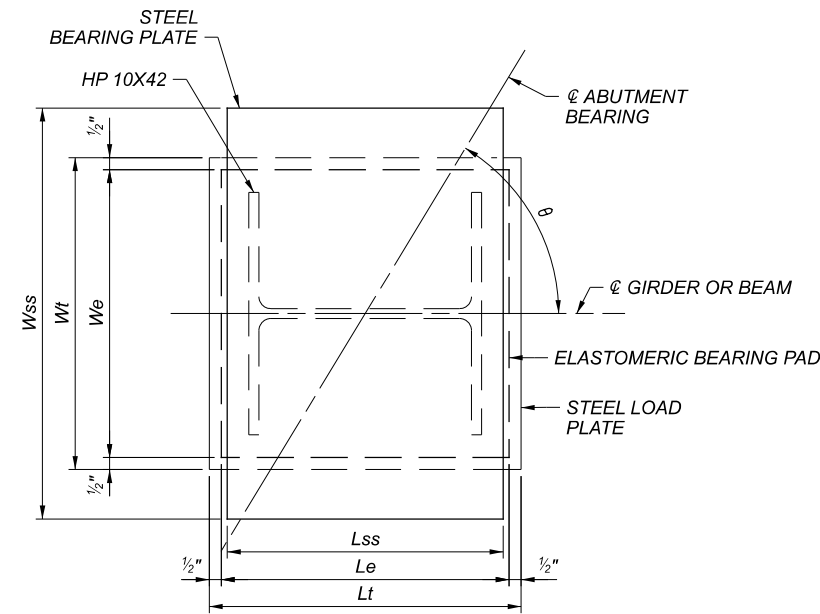
BEARING DETAIL TABLE																				
LOCATION	TYPE	SERVICE REACTIONS			ELASTOMERIC BEARING PAD							BASE PLATE			LOAD PLATE			BEARING PLATE		
		DL (KIPS)	LL (KIPS)	TOTAL (KIPS)	NO.	Le (IN.)	We (IN.)	Tpe (IN.)	Tpi (IN.)	No. of Tpi	Te (IN.)	Tb (IN.)	Lb (IN.)	Wb (IN.)	Tt (IN.)	Lt (IN.)	Wt (IN.)	Tss (IN.)	Lss (IN.)	Wss (IN.)
REAR ABUTMENT	EXP.	27.4	77.4	104.8	10	12	12	N/A	0.438	6	3.151	1.5	13	19.25	1.5	13	13	1	11.5	12.5



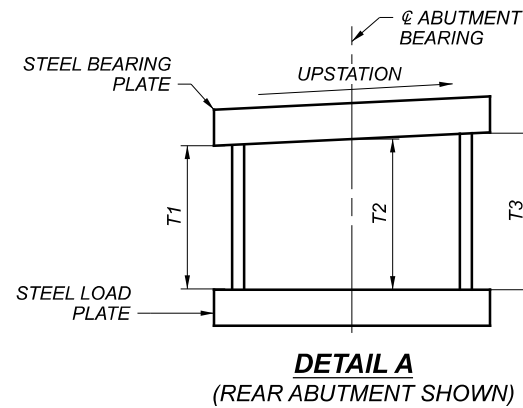
ABUTMENT BEARING ELEVATION



VIEW A-A



ABUTMENT BEARING PLAN
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR)



DETAIL A
(REAR ABUTMENT SHOWN)

APPROXIMATE HP SECTION DIMENSIONS (INCH) - SEE NOTE 6			
	MIN. HEIGHT T2	MAX. HEIGHT T2	AVG. HEIGHT T2
REAR ABUT	5 3/4	6 7/16	6 1/8
FWD ABUT	4 3/4	6 3/8	5 9/16

NOTE: AT REAR ABUTMENT, SUBTRACT 1/8" FOR T1 AND ADD 1/8" FOR T3.
 AT FORWARD ABUTMENT ADD 3/16" FOR T1 AND SUBTRACT 3/16" FOR T3.

BEARING SKEW (REAR ABUTMENT)		
LOCATION	θ (DMS)	θ (DEG)
GIRDER 1	55° 42' 10"	55.7028
GIRDER 2	56° 56' 29"	56.9414
GIRDER 3	56° 56' 29"	56.9414
GIRDER 4	56° 56' 29"	56.9414
GIRDER 5	56° 56' 29"	56.9414
GIRDER 6	57° 01' 22"	57.0228
GIRDER 7	57° 01' 22"	57.0228
GIRDER 8	57° 01' 22"	57.0228
GIRDER 9	57° 01' 22"	57.0228
GIRDER 9A	56° 43' 03"	56.7175
GIRDER 10	56° 24' 52"	56.4144

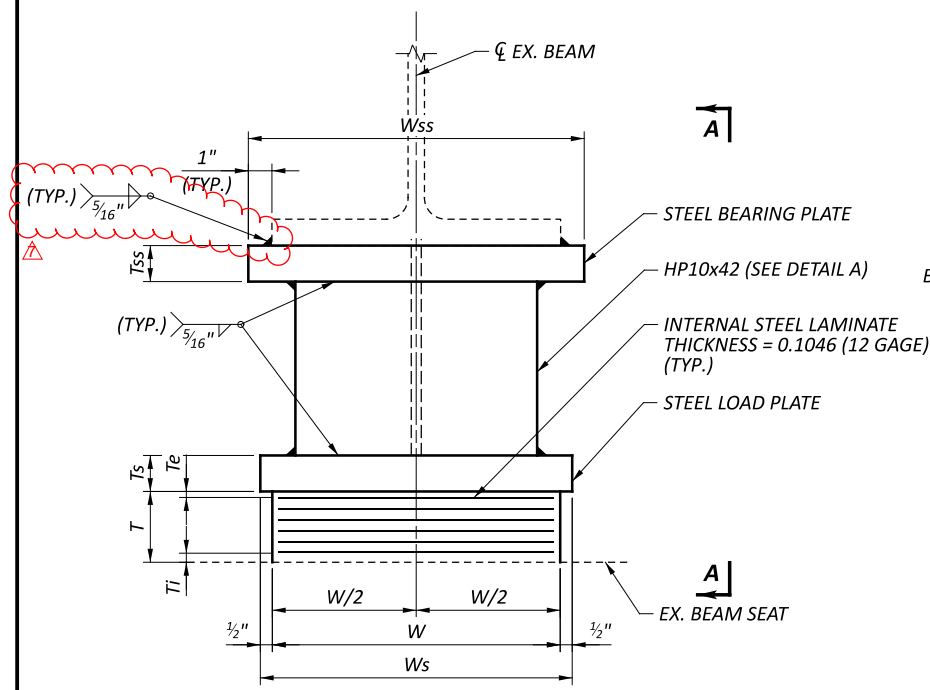
BEARING SKEW (FORWARD ABUTMENT)		
LOCATION	θ (DMS)	θ (DEG)
BEAM 1	91° 05' 53"	91.0981
BEAM 2	91° 05' 53"	91.0981
BEAM 3	91° 05' 53"	91.0981
BEAM 4	91° 05' 53"	91.0981
BEAM 5	91° 05' 53"	91.0981
BEAM 6	90° 41' 42"	90.6950
BEAM 7	90° 41' 42"	90.6950
BEAM 8	90° 41' 42"	90.6950
BEAM 9	90° 41' 42"	90.6950
BEAM 10	90° 41' 42"	90.6950

NOTES:

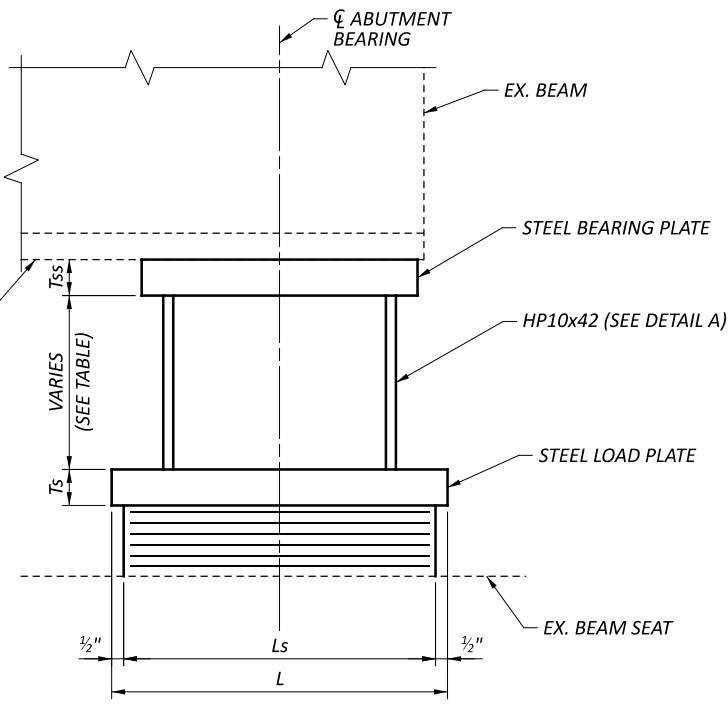
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- STEEL LOAD PLATES AND HP SHAPES SHALL BE ASTM A709 GRADE 50 STEEL AND PRIME PAINTED IN ACCORDANCE WITH ITEM 513. THE LOAD PLATE SHALL BE VULCANIZED TO THE LAMINATED ELASTOMERIC BEARING PAD DURING THE MOLDING PROCESS. CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300 DEGREES AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER BEARING IS INSTALLED.
- TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE.
- LOADS SHOWN ARE SERVICE LOADS WITH NO LOAD FACTORS OR IMPACT FACTORS.
- THE CONTRACTOR IS REQUIRED TO FIELD MEASURE THE EXISTING BOTTOM OF BEAM AND BEAM SEAT ELEVATIONS AT CENTERLINE OF BEARING. THE CONTRACTOR IS TO SUBMIT THE FIELD MEASURED ELEVATIONS TO SCOTT KRAMER, DISTRICT 8 BRIDGE DESIGN ENGINEER PRIOR TO THE JACKING OPERATIONS AND THE ORDERING OF MATERIALS. APPROVAL OF THE ELEVATIONS IS NOT REQUIRED. THE CONTRACTOR IS TO DETERMINE THE FINAL HP SECTION HEIGHT BY SUBTRACTING THE EXISTING BOTTOM OF BEAM ELEVATION FROM THE EXISTING BEAM SEAT ELEVATION AND PROPOSED ELASTOMER BEARING HEIGHT AND LOAD PLATES AT EACH BEARING LOCATION. THIS HP SECTION HEIGHT IS A CONTRACTOR CALCULATED DIMENSION AND ANY SHIMS NEEDED AS A RESULT OF THE CONTRACTOR'S ERROR WILL BE AT THE CONTRACTOR'S EXPENSE AND WILL NEED TO BE APPROVED BY THE DISTRICT 8 BRIDGE DESIGN ENGINEER. USE A HP SECTION HEIGHT OF 6 1/8" (REAR ABUTMENT) AND 5 9/16" INCH (FORWARD ABUTMENT) FOR BIDDING PURPOSES.

FINAL HP SECTION HEIGHT = (CONTRACTOR'S BOTTOM OF BEAM ELEV.) - (EXISTING BEAM SEAT ELEV.) - (ELASTOMER BEARING HEIGHT) - (LOAD PLATES)

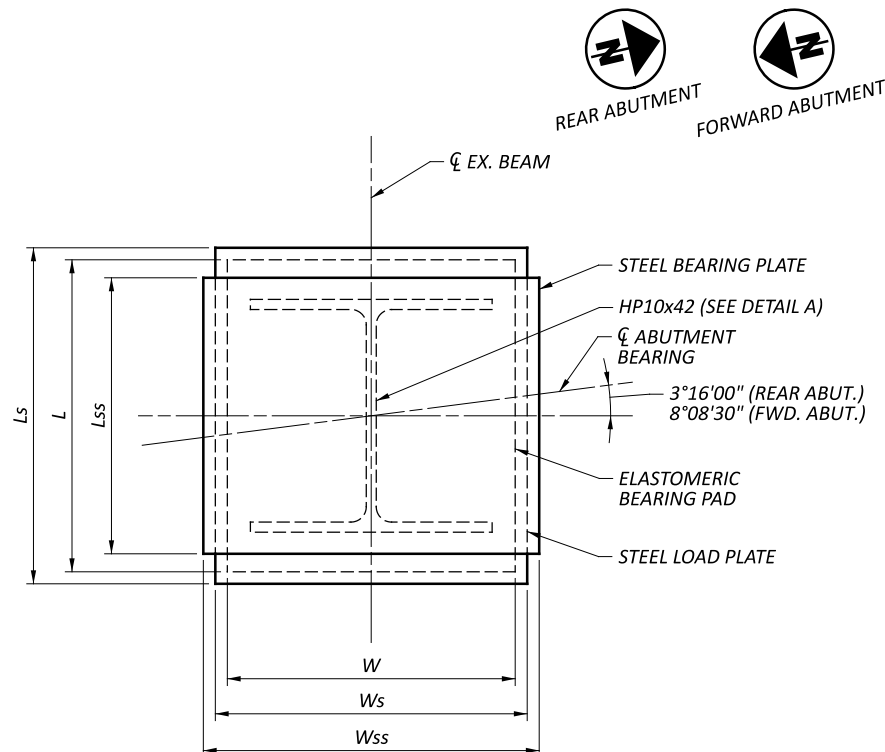
BEARING DETAIL TABLE																	
LOCATION	TYPE	SERVICE REACTIONS			ELASTOMERIC BEARING PAD							LOAD PLATE			BEARING PLATE		
		DL (KIPS)	LL (KIPS)	TOTAL (KIPS)	NO.	Le (IN.)	We (IN.)	Tpe (IN.)	Tpi (IN.)	No. of Tpi	Te (IN.)	Tt (IN.)	Lt (IN.)	Wt (IN.)	Tss (IN.)	Lss (IN.)	Wss (IN.)
REAR ABUTMENT	EXP.	56.1	92.5	148.6	11	11	14	0.25	0.375	7	3.607	1.5	12	15	1.5	11.5	18
FORWARD ABUTMENT	EXP.	46.1	82.9	129.0	10	12.5	14	0.25	0.375	8	4.087	1.0	13.5	15	1.0	11.5	14.125



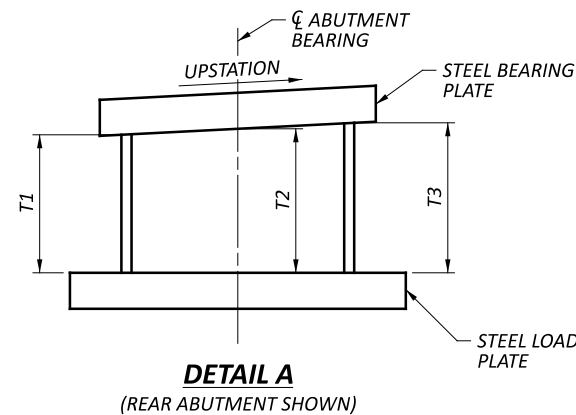
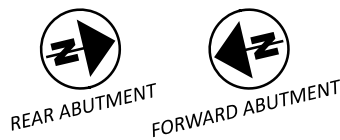
ABUTMENT BEARING ELEVATION



VIEW A-A



ABUTMENT BEARING PLAN



**DETAIL A
(REAR ABUTMENT SHOWN)**

APPROXIMATE HP SECTION DIMENSIONS (INCH) - SEE NOTE 6						
	REAR ABUTMENT			FORWARD ABUTMENT		
	MIN. HEIGHT T2	MAX. HEIGHT T2	AVG. HEIGHT T2	MIN. HEIGHT T2	MAX. HEIGHT T2	AVG. HEIGHT T2
EXT. BEAMS (1 & 12)	5 5/8"	5 1/16"	5 1/16"	5 5/8"	5 5/8"	5 5/8"
INT. BEAMS (2 - 11)	8 5/8"	9 5/16"	9"	8 1/4"	9 5/16"	8 13/16"
	T1 = T2 - 1/4" T3 = T2 + 1/4"			T1 = T2 + 1/8" T3 = T2 - 1/8"		

NOTES:

- ELASTOMERIC BEARINGS: THE ABUTMENT BEARINGS SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE ASSHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
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FINAL HP SECTION HEIGHT =
 (CONTRACTOR'S BOTTOM OF STEEL ELEVATION)
 - (PROPOSED BEAM SEAT ELEVATION)
 - (BEARING HEIGHT INCLUDING ELASTOMER, LOAD PL. AND TOP PL.)

LOCATION	TYPE	SERVICE REACTIONS			BEARING								LOAD PLATE			BEARING PLATE		
		RDL (KIPS)	RLL (KIPS)	RTOTAL (KIPS)	No.	L (IN)	W (IN)	Te (IN)	Ti (IN)	N	T (IN)	H (IN)	Ts (IN)	Ls (IN)	Ws (IN)	Tss (IN)	Lss (IN)	Wss (IN)
REAR ABUTMENT (BMS. 1 & 12)	EXP.	33.6	119.8	153.3	2	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	18.5
REAR ABUTMENT (BMS. 2-11)	EXP.	33.6	119.8	153.3	10	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	14
FORWARD ABUTMENT (BMS. 1 & 12)	EXP.	33.6	119.8	153.3	2	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	18.5
FORWARD ABUTMENT (BMS. 2-11)	EXP.	33.6	119.8	153.3	10	13	12	0.25	0.375	6	3.128	VARIES	1.5	14	13	1.5	11.5	14