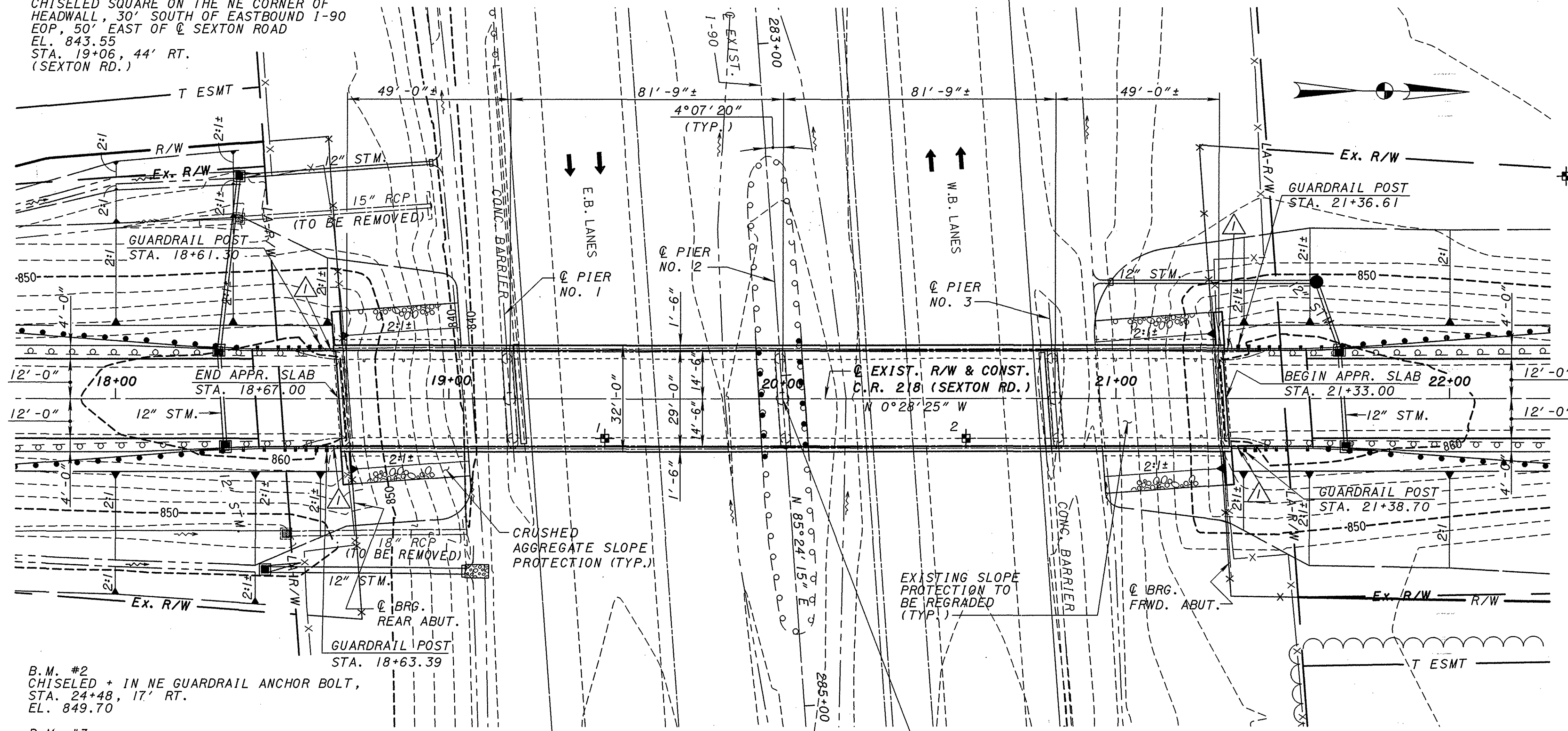
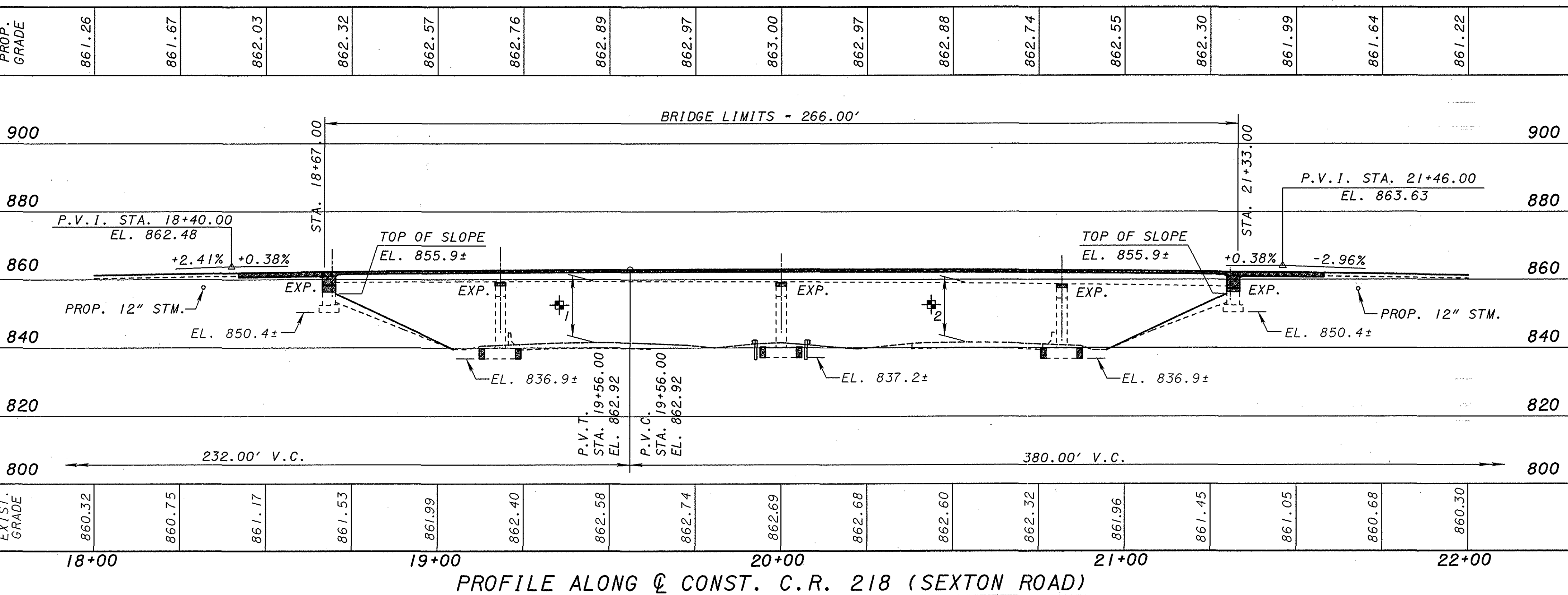


B.M. #1
CHISELED SQUARE ON THE NE CORNER OF
HEADWALL, 30' SOUTH OF EASTBOUND I-90
EOP, 50' EAST OF Q SEXTON ROAD
EL. 843.55
STA. 19+06, 44' RT.
(SEXTON RD.)



B.M. #2
CHISELED + IN NE GUARDRAIL ANCHOR BOLT,
STA. 24+48, 17' RT.
EL. 849.70

B.M. #3
CHISELED + IN SW GUARDRAIL ANCHOR BOLT,
STA. 17+15, 17' LT.
EL. 856.97



EARTHWORK LIMITS SHOWN ARE APPROXIMATE.
ACTUAL SLOPES SHALL CONFORM TO PLAN
CROSS SECTIONS.

VERTICAL CLEARANCES

1	15.00' EXIST ACTUAL	2	14.92' EXIST ACTUAL
	17.03' PROP. ACTUAL		16.97' PROP. ACTUAL
	16.50' REQ'D.		16.50' REQ'D.

LEGEND

△ BRIDGE TERMINAL ASSEMBLY, TYPE I

TRAFFIC DATA

ADT (2007)	= 1640
ADT (2027)	= 2110
ADTT (2027)	= 32

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.

SPANS: 49'-0"±, 81'-9"±, 81'-9"±, 49'-0"± Q TO Q BRGS.

ROADWAY WIDTH: 24'-0"± TOE/TOE SAFETY CURBS

ALIGNMENT: TANGENT

SKREW: 4°07'20"± R.F.

WEARING SURFACE: 3/4"± MONOLITHIC CONCRETE

LOADING: CF = 130 (1951)

CROWN: 3/16"± /FT.

APPROACH SLABS: 25'-0"±

DATE BUILT: 1959

STRUCTURE FILE NO.: 0403695

PROPOSED STRUCTURE

PROPOSED WORK: REMOVE EXIST. DECK, RAISE EXIST. BEAMS AND SUPPORT THEM ON TEMP. BENTS, MODIFY EXIST. ABUTMENTS, RETROFIT EXIST. PIERS, REPLACE EXIST. BEARINGS WITH ELASTOMERIC BEARINGS, REPLACE DECK, PAINT STEEL, AND INSTALL SLOPE PROTECTION.

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE (EXIST. BEAMS AND SUBSTRUCTURE SALVAGED).

SPANS: 49'-0"±, 81'-9"±, 81'-9"±, 49'-0"± Q TO Q BRGS.

ROADWAY WIDTH: 29'-0"± TOE/TOE PARAPETS

DESIGN LOADING: SUPERSTRUCTURE - HS25, CASE II AND THE ALTERNATE MILITARY LOADING. F.W.S. 60 PSF. SUBSTRUCTURE - HS20-44 AND THE ALTERNATE MILITARY LOADING. F.W.S. 60 PSF.

SKREW: 4°07'20" R.F.

ALIGNMENT: TANGENT

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: 25'-0" (AS-1-81)

CROWN: .0156' /FT.

STRUCTURE COORDINATES: LAT. N 41°46'16" LONG. W 80°54'00"

DESIGN AGENCY
McCOY ASSOCIATES, INC.
CONSULTING ENGINEERS
388 S. MAIN STREET, SUITE 401
AKRON, OHIO 44311

DATE
4-28-06
REVIEWED
KSI
STRUCTURE FILE NUMBER
0403695

DESIGNED
HK
CHECKED
ATC

ASHTABULA COUNTY
STA. 18+67.00
STA. 21+33.00

S I T E P L A N
BRIDGE NO. ATB-90-0537
C.R. 218 (SEXTON ROAD) OVER I-90

ATB-90-05.37
PID NO. 77345

1/15
83
126

REFERENCE DRAWINGS

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81 REVISED 7-19-02
SBR-1-99 REVISED 7-19-02
SICD-1-96 REVISED 7-19-02

DESIGN SPECIFICATIONS

REPAIRS TO THIS STRUCTURE CONFORM TO THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

HS25, CASE II, AND THE ALTERNATE MILITARY LOADING, SUPERSTRUCTURE
HS20-44, CASE II AND ALTERNATE MILITARY LOADING, SUBSTRUCTURE

DESIGN STRESSES

CONCRETE CLASS 'HP' - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996 GRADE 60, MINIMUM YIELD STRENGTH 60,000 P.S.I. (EPOXY COATED)
CONCRETE CLASS 'C' - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
STRUCTURAL STEEL - ASTM A709 GRADE 36 - YIELD STRENGTH 36,000 PSI

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL AND 2½" CONCRETE COVER.

UTILITY LINES

THE UTILITIES SHALL BORE ALL EXPENSES INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

MONOLITHIC WEARING SURFACE

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

SUBSTRUCTURE CONCRETE REMOVAL

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER 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.

ABBREVIATIONS

F.S.	- FAR SIDE	FRWD.	- FORWARD
N.S.	- NEAR SIDE	C.I.P.	- CAST-IN-PLACE
E.S.	- EACH SIDE	STR.	- STRAIGHT
MIN.	- MINIMUM	CONST.	- CONSTRUCTION
TYP.	- TYPICAL	INC.	- INCREMENT
DIA.	- DIAMETER	SER.	- SERIES
SPA.	- SPACES	P.E.J.F.	- PREFORMED EXPANSION JOINT FILLER
APPR.	- APPROACH		
EX.	- EXISTING		
SPEC.	- SPECIAL		
C.C.P.	- CORRUGATED PLASTIC PIPE		

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS WORK CONSIST OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS, RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVAL TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OF HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGES EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGE SHALL NOT EXTEND LOWER THAT THE BOTTOM LAYER OF THE DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATE INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS:
THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVAL OVER STRUCTURAL MEMBERS (PRESTRESSED BOX BEAM, I-BEAM, STEEL BEAM STEEL GIRDER. ETC.) THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR, OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

EXISTING WELDED ATTACHMENTS:
REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATE TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.

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 BID PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 17+65.00 TO 22+35.00

CUT LINE CONSTRUCTION JOINT PREPARATION

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIALS BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING BONDING GROUT.

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 FORM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

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

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISION OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

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

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

A QUANTITY OF 2000 POUNDS IS INCLUDED IN THE ESTIMATED QUANTITIES FOR REPLACEMENT OF EXISTING REINFORCING IF REQUIRED.

ITEM 512 - SEALING OF CONCRETE SURFACES

EPOXY-URETHANE FOR CAST IN PLACE CONCRETE SHALL BE THE "BUFF" COLOR MEETING FEDERAL COLOR STANDARD NO. 37722.

TEMPORARY VERTICAL CLEARANCES

A TEMPORARY MINIMUM VERTICAL CLEARANCE OF 14'-6" ABOVE THE TRAFFIC LANES AND SHOULDERS SHALL BE MAINTAINED TO ANY TEMPORARY DEVICES OR STRUCTURES INSTALLED FOR TRAFFIC PROTECTION DURING ALL DEMOLITION ACTIVITIES, OR TO ANY FALSE WORK INSTALLED DURING CONSTRUCTION OPERATIONS.

DESIGN AGENCY
McCOY ASSOCIATES, INC.
CONSULTING ENGINEERS
388 S. MAIN STREET, SUITE 401
AKRON, OHIO 44311

DATE
4-28-06
REVIEWED
K.S.J.
STRUCTURE FILE NUMBER
0403695

DRAWN
DAK
DESIGNED
HK
CHECKED
ATC

STRUCTURE GENERAL NOTES
BRIDGE NO. ATB-90-0537
C.R. 218 (SEXTON ROAD) OVER I-90

ATB-90-05.37
PID NO. 77345

2 / 15

84
126

ITEM 516 SEMI-INTERGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN

INSTALL A 3 FOOT WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 1/4" X #10 GAGE (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE, WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES, +/-, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 1 FOOT IN LENGTH, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32" THICK GENERAL PURPOSE, HEAVY-DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENTS
THICKNESS, INCHES	D751	0.094±0.01
BREAKING STRENGTH GRAB, LBS., MINIMUM (LONG. X TRAN)	D751	700X700
ADHESIVE STRIP, 1" WIDE X 2" LONG, LBS. MINIMUM	D751	9
BURST STRENGTH, psi MINIMUM	D751	1400
HEAT AGING, 70 HR, 212°F, 180° BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLINESS, 1 HR. -40°F , BEND AROUND 1/4" MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF FEET.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

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.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPER-STRUCTURE, 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 SEPARATION 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.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN (CONTINUED)

THE DEPARTMENT WILL MEASURE THIS 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.

INSPECTION OF EXISTING STRUCTURAL STEEL:

THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND BEAMS OR GIRDERS ARE FREE OF CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.10, BUT IT WILL BE DONE BEFORE DECK SLAB REINFORCEMENT IS INSTALLED. THE DEPARTMENT WILL PAY FOR THE COST ASSOCIATED WITH THIS INSPECTION WITH ITEM 511, SUPERSTRUCTURE CONCRETE. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

ITEM SPECIAL - GRAFFITI REMOVAL

ALL GRAFFITI SHALL BE REMOVED AT CONCRETE SURFACE LOCATIONS INDICATED BY THE ENGINEER. THE GRAFFITI SHALL BE REMOVED BY ABRASIVE BLASTING OR CHEMICAL REMOVERS.

THE CHEMICAL REMOVERS TO BE USED SHALL BE "SOYsolv GRAFFITI REMOVER" AS MANUFACTURED BY SOYsolv, 6154 N CR33, TIFFIN, OH 44883; "GR-GR GRAFFITI MAGIC" AS MANUFACTURED BY INTERSTATE PRODUCTS, INC., 3921 SAWYER RD., SARASOTA, FL 34233; "GRAFFITI GOLD REMOVER" AS MANUFACTURED BY GENESIS COATINGS, 2780 LA MIRADA DR., #A, VISTA, CA 92081; OR AN APPROVED ALTERNATE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE BID LUMP SUM FOR ITEM SPECIAL (GRAFFITI REMOVAL) WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 511 - CLASS HP CONCRETE, AS PER PLAN

THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX OPTIONS:
ALL SUPERSTRUCTURE, BRIDGE DECK, APPROACH SLABS AND PARAPET CONCRETE SHALL BE THIS MIX (HPS, AS PER PLAN). THE FOLLOWING PROPORTIONS WILL BE USED AS A STARTING MIX DESIGN.

CONCRETE TABLE QUANTITIES PER CUBIC YARD AGGREGATES (SSD) MIX 4, AS PER PLAN (GGBF SLAG + MICROSILICA)								
AGGREGATE TYPE	FINE AGG. (LB.)	#8 COARSE AGG. (LB)	#57 COARSE AGG. (LB)	TOTAL (LB)	CEMENT CONTENT (LB)	GGBF SLAG (LB)	MICRO SILICA (LB)	MAX WATER TO CEMENTITIOUS RATIO
GRAVEL	1370	650	790	2810	440	190	30	0.42
LIMESTONE	1370	655	800	2820	440	190	30	0.42
SLAG	1370	570	695	2635	440	190	30	0.42

BASIS OF PAYMENT:
PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

ITEM 511 - CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN, CU YD
ITEM 511 - CLASS HP CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN CU YD
ITEM 511 - CLASS HP CONCRETE, SUPERSTRUCTURE, AS PER PLAN, CU YD

ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN

THIS ITEM SHALL BE USED FOR THE PLACEMENT OF PROPOSED CRUSHED AGGREGATE SLOPE PROTECTION AS SHOWN IN THE PLANS. IT ALSO INCLUDES REGRADING OF THE EXISTING SLOPE PROTECTION. REGRADING SHALL CONSIST OF RESTORING THE EXISTING EMBANKMENT SURFACES TO THE ORIGINAL SLOPES WITH CRUSHED AGGREGATE SLOPE PROTECTION RE-PLACED ON THE RESTORED EMBANKMENT SURFACES. NEW EMBANKMENT SURFACES SHALL BE PROTECTED AS SPECIFIED IN 601.06. PROTECTION SHALL EXTEND LONGITUDINALLY FROM FACE OF ABUTMENT TO TOE OF SLOPE AND Laterally AS INDICATED IN THE PLANS. THE MINIMUM TOTAL THICKNESS OF PROPOSED PROTECTION RESTORED OR NEW SHALL BE 1 FOOT.

PAYMENT FOR THE ABOVE WORK SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD OF ITEM 601 (CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN), WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 511 - CLASS C CONCRETE, ABUTMENTS, AS PER PLAN

ITEM 511 - CLASS C CONCRETE, PIERS, AS PER PLAN

PRIOR TO PLACEMENT OF NEW CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING AND/OR OTHER APPROVED METHODS SO THAT IT IS FREE OF LOOSE OR DISINTEGRATED CONCRETE, DUST, LAITANCE, GREASE, RUST AND OTHER FOREIGN MATTER. ALL EXISTING REBARS SHALL BE CLEANED BY WIRE BRUSH OR ABRASIVELY BLASTED TO REMOVE ANY RUST. A BONDING GROUT SHALL BE USED BETWEEN OLD CONCRETE AND NEW CONCRETE. BONDING GROUT IS INCLUDED WITH ITEM 511 - CLASS C CONCRETE, ABUTMENTS, AS PER PLAN, OR ITEM 511 - CLASS C CONCRETE, PIERS, AS PER PLAN, FOR PAYMENT.

BONDING GROUT

THE BONDING GROUT TO BE USED BETWEEN OLD AND NEW CONCRETE SHALL BE "SIKA ARMATEC 110" AS MANUFACTURED BY SIKA CORPORATION, 201 POLITO AVENUE, LYNDHURST, NEW JERSEY 07071; "EUCO NO. 452 EPOXY SYSTEM" AS MANUFACTURED BY THE EUCLID CHEMICAL CO., 19218 REDWOOD ROAD, CLEVELAND, OHIO 44110; "CONGRESIVE STANDARD LIQUID" AS MANUFACTURED BY MASTER BUILDERS, INC., 23700 CHAGRIN BOULEVARD, CLEVELAND, OHIO 44122; OR AN APPROVED ALTERNATE.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS, AS PER PLAN

THE PROVISIONS OF CMS 526 SHALL APPLY EXCEPT AS NOTED BELOW.

CLASS HP CONCRETE, MIX 4, AS PER PLAN, SHALL BE THE ONLY MIX DESIGN OPTION. THE PROPORTIONS FOR THE STARTING MIX DESIGN SHALL BE AS SHOWN FOR ITEM 511 - CLASS HP CONCRETE, AS PER PLAN.

ESTIMATED QUANTITIES								AS PER PLAN SHEET	
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER.	PIER	GENERAL	
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	2/15 4/15 9/15 & 10/15
202	22900	150	SQ YD	APPROACH SLAB REMOVED				150	
503	11100	LUMP		COFFERDAMS, CRIBS AND SHEETING				LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP	
509	10001	102,589	POUND	EPOXY COATED REINFORCING STEEL, AS PER PLAN	2295	95,138	5156		2/15
509	20001	2000	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				2000	2/15
510	10000	718	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	208		510		
511	43201	46	CU YD	CLASS C CONCRETE, PIER, AS PER PLAN			46		3/15
511	45701	35	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	35				3/15
511	50001	282	CU YD	CLASS HP CONCRETE, BRIDGE DECK, AS PER PLAN		282			3/15
511	50101	83	CU YD	CLASS HP CONCRETE, BRIDGE DECK (PARAPET), AS PER PLAN		83			3/15
511	51001	34	CU YD	CLASS HP CONCRETE, SUPERSTRUCTURE, AS PER PLAN	34				3/15
511	52000	LUMP		CLASS HP CONCRETE, TEST SLAB				LUMP	
512	10100	909	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	73	614	222		
513	20000	2580	EACH	WELDED STUD SHEAR CONNECTORS		2580			
514	00050	12,370	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL		12,370			
514	00056	12,370	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT		12,370			
514	00060	12,370	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT		12,370			
514	00066	12,370	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		12,370			
514	00504	18	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL		18			
514	10000	11	EACH	FINAL INSPECTION REPAIR		11			
516	14021	94	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN	94				3/15
516	44200	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (3 1/8"X10"X2'-0" WITH 2 3/4"X11"X2'-1" BEVELED LOAD PLATE)			12		
516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (3 1/8"X10"X1'-0" WITH 1 1/2"X11"X1'-1" LOAD PLATE)	8				9/15
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LUMP	3/15
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC	LUMP				
518	40000	97	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	97				
518	40010	53	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	53				
519	11101	54	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	42			12	2/15
526	25001	167	SQ YD	REINFORCED CONCRETE APPROACH SLABS (T-15"), AS PER PLAN			167		2/15
601	20001	416	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN			416		3/15
SPEC	53000200	LUMP		STRUCTURE, MISC.: GRAFFITI REMOVAL				LUMP	3/15

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

A QUANTITY OF 12 S.F. IS INCLUDED IN THE ESTIMATED QUANTITIES FOR REPAIR OF PIERS, IF REQUIRED, AT THE DESCRETION OF THE ENGINEER.

CALC. BY: ATC DATE: 7/06

CHKD BY: HK DATE: 8/06

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF BRIDGE NO. ATB-90-0537, WHICH IS SCHEDULED FOR DEMOLITION, WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. NO ASBESTOS CONTAINING MATERIALS WERE IDENTIFIED ON THE BRIDGE.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO:

APC MANAGER
AIR POLLUTION GROUP
2110 EAST AURORA ROAD
TWINSBURG, OHIO 44087
(330) 425-9171
FAX: (330) 487-0769

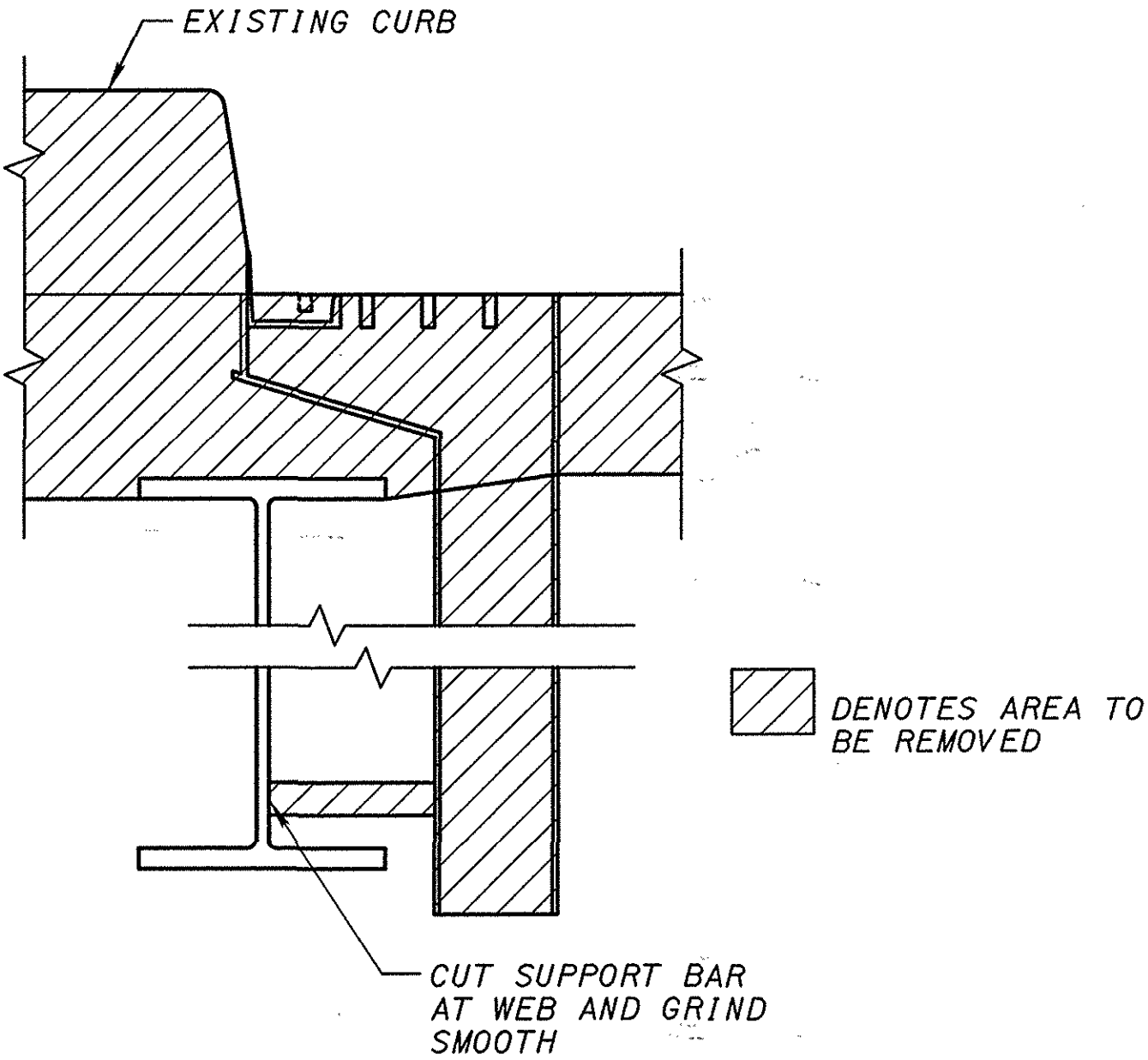
AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF DEMOLITION OF THE BRIDGE. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER. INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

1. THE CONTRACTOR'S NAME AND ADDRESS.
2. THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL.
3. A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

A COPY OF THE OEPA FORM IS AVAILABLE FOR INSPECTION AT THE:

ODOT DISTRICT 4 OFFICE
2088 SOUTH ARLINGTON RD.
AKRON, OHIO 44306

BASIS FOR PAYMENT - THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTION OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.



SCUPPER REMOVAL DETAIL

DESIGN AGENCY
McCOY ASSOCIATES, INC.
CONSULTING ENGINEERS
388 S. MAIN STREET, SUITE 401
AKRON, OHIO 44311

DATE
4-28-06
REVISED
KSI
STRUCTURE FILE NUMBER
0403695

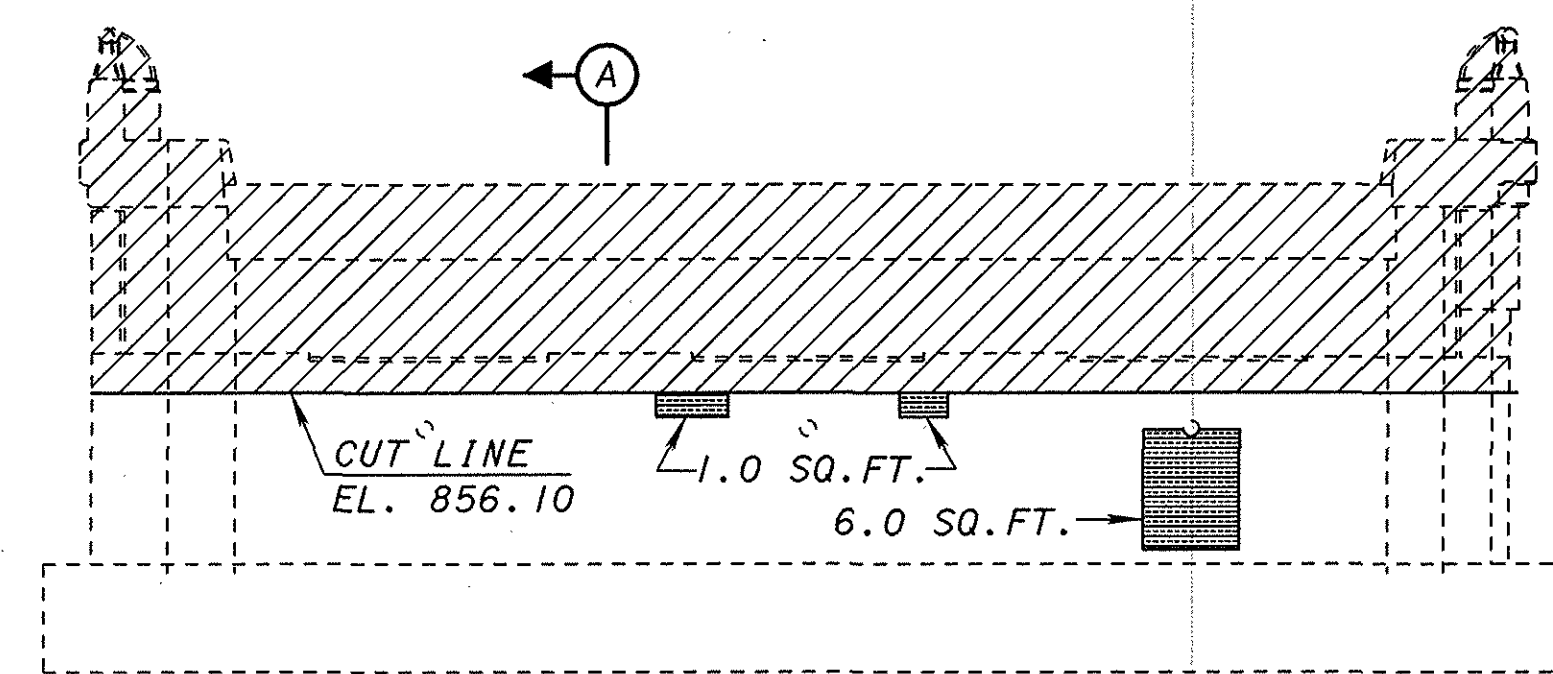
DRAWN
DAK
DESIGNED
HK
CHECKED
ATC

ESTIMATED QUANTITIES & REMOVAL DETAIL
BRIDGE NO. ATB-90-0537
C.R. 218 (SEXTON ROAD) OVER I-90

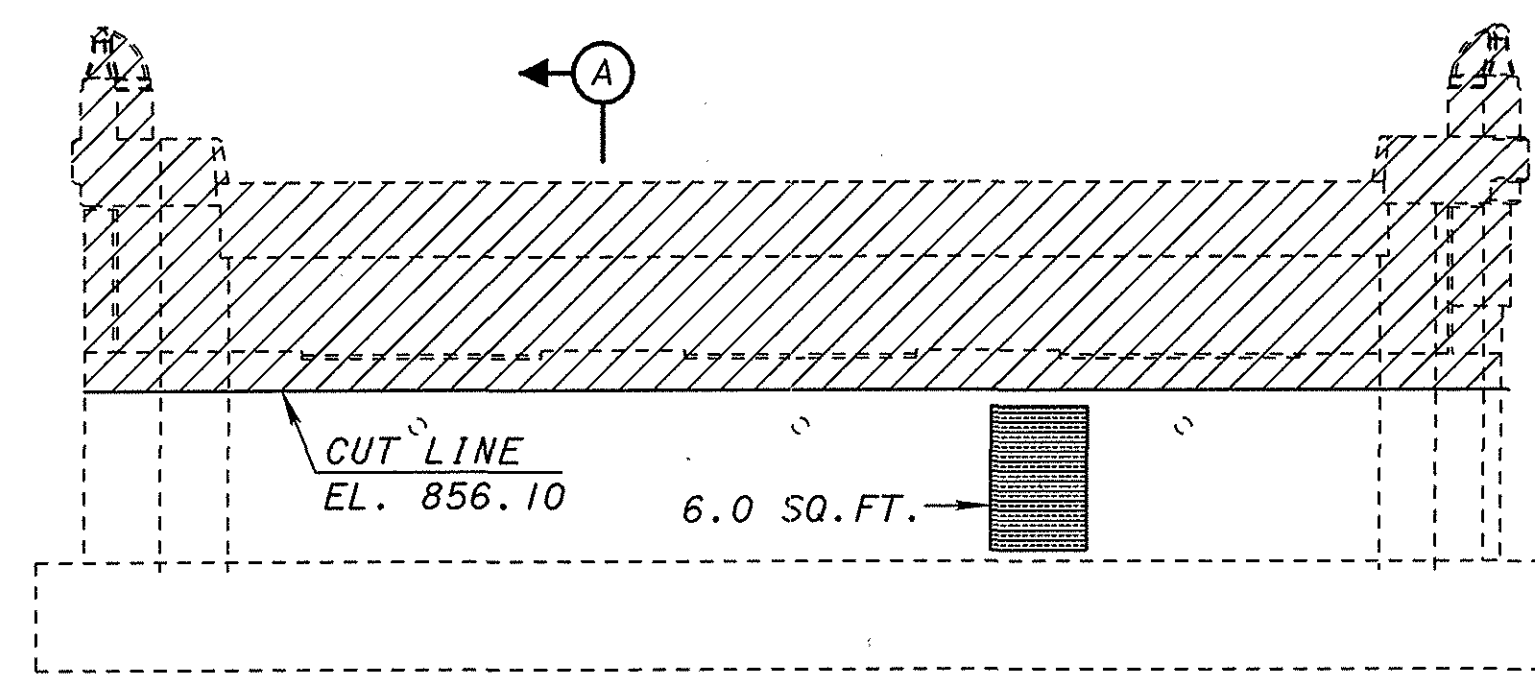
ATB-90-05.37
PID NO. 77345

4/15

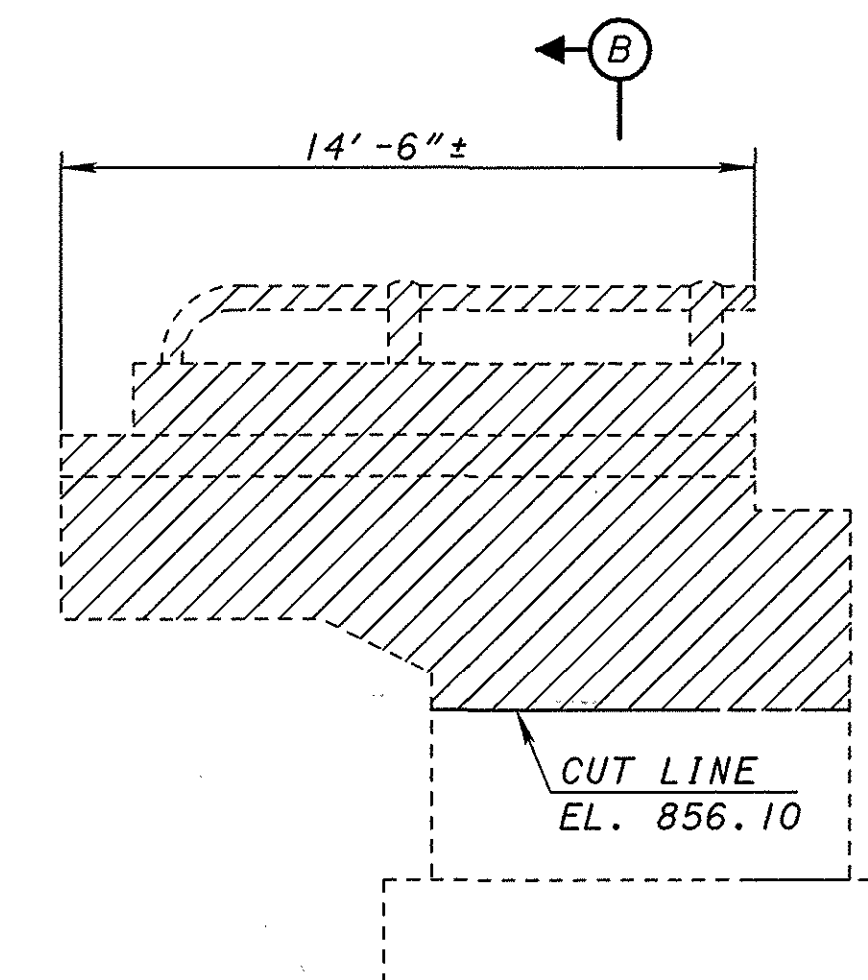
86
126



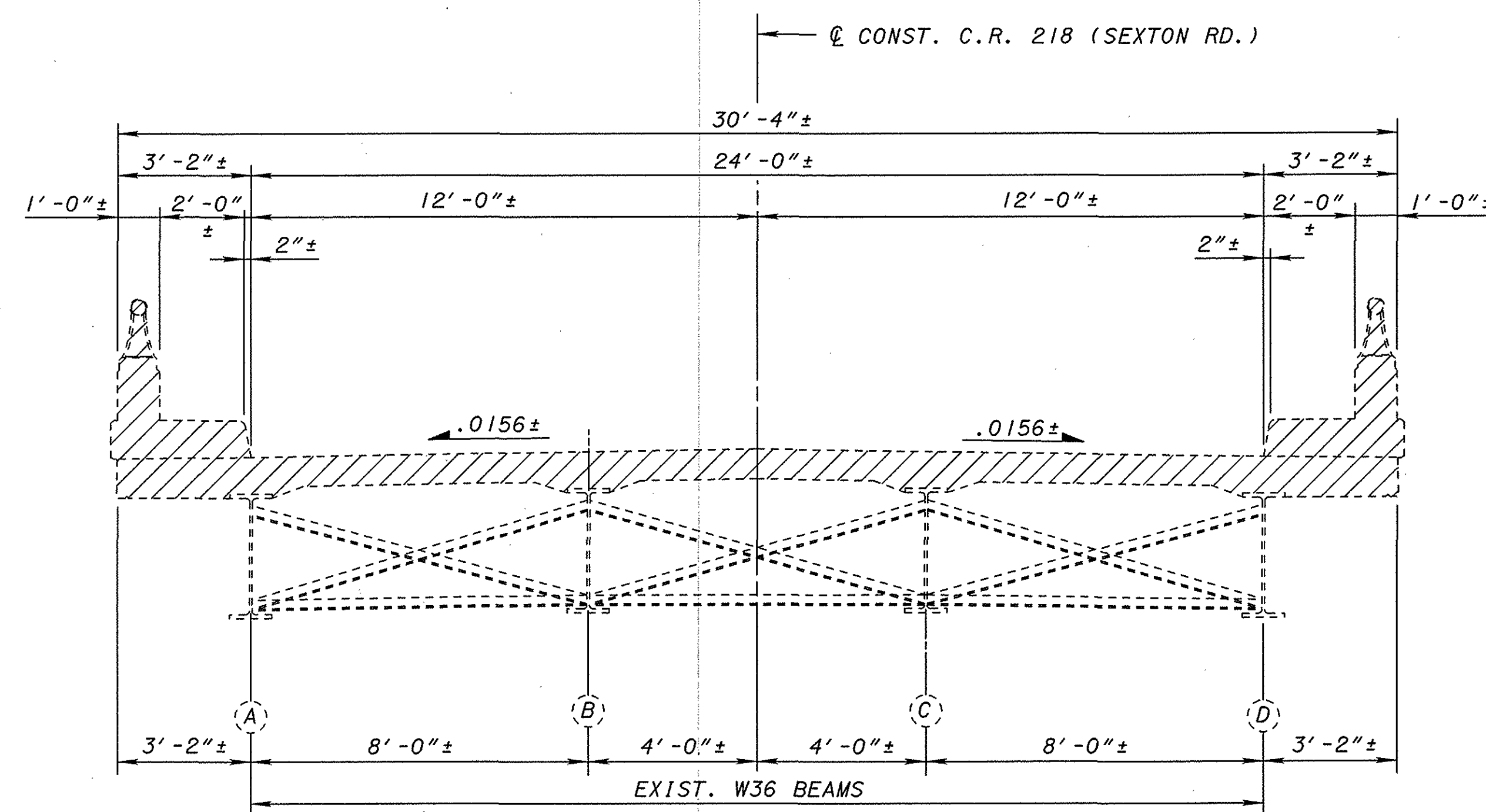
REAR ABUTMENT ELEVATION
TOTAL PATCHING = 8.0 SQ.FT.



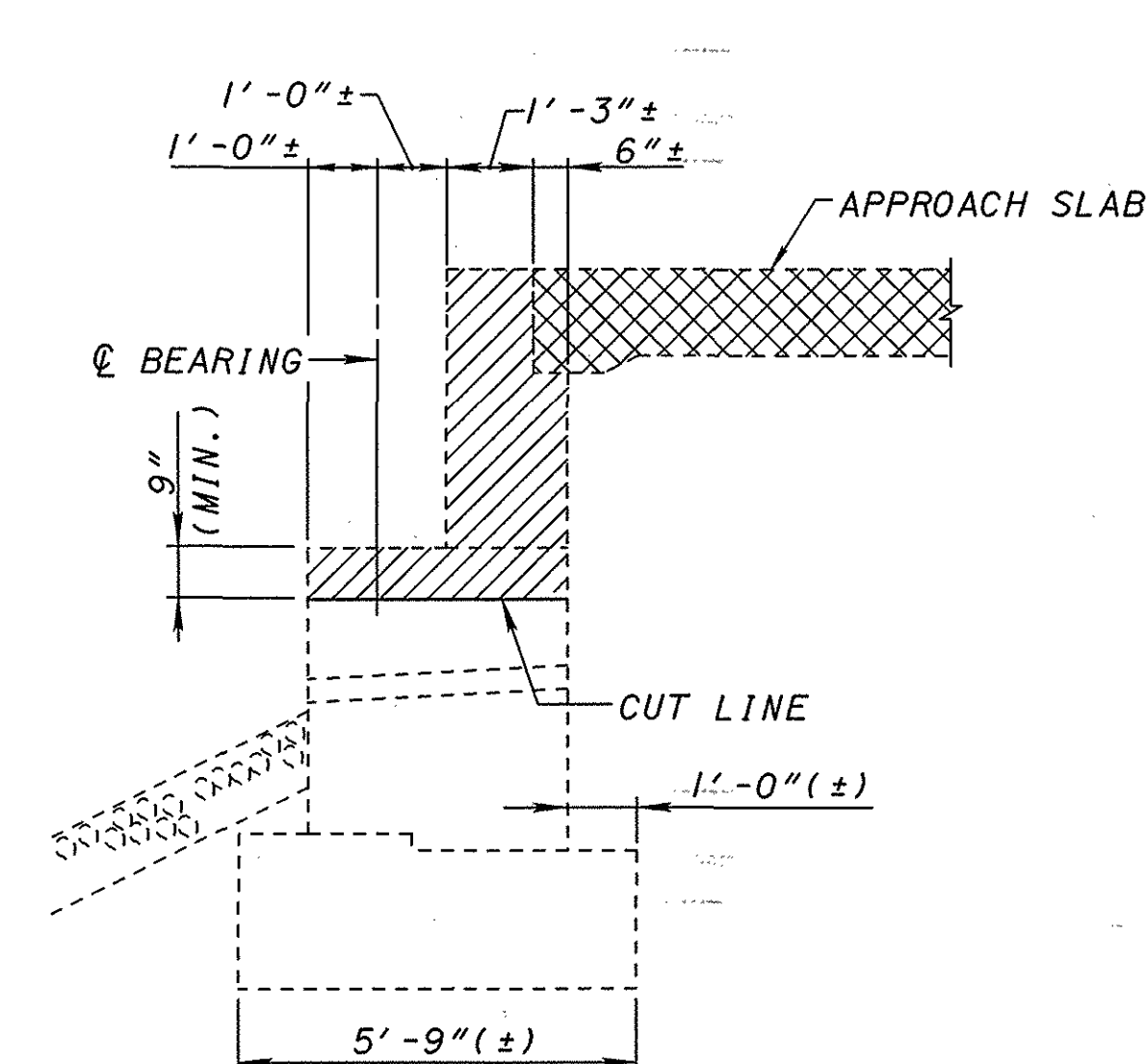
FORWARD ABUTMENT ELEVATION
TOTAL PATCHING = 6.0 SQ.FT.



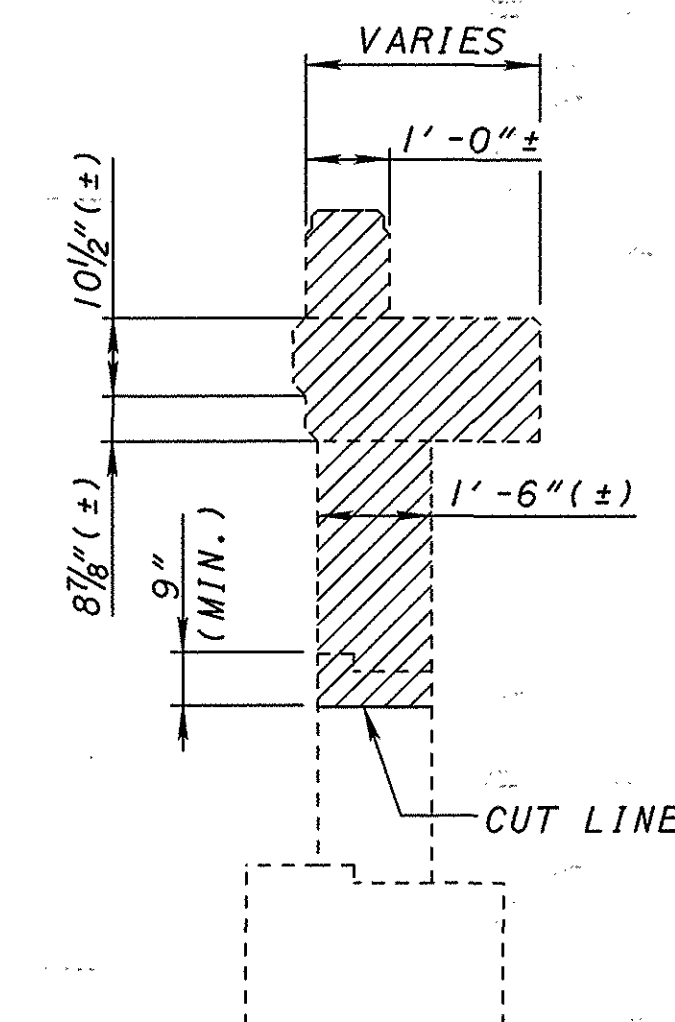
WINGWALL ELEVATION



TRANSVERSE SECTION



SECTION A-A



SECTION B-B
RAILING NOT SHOWN

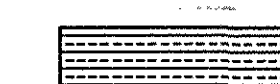
LEGEND



INDICATES REMOVAL LIMITS, ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.



INDICATES LIMITS OF APPROACH SLAB REMOVAL

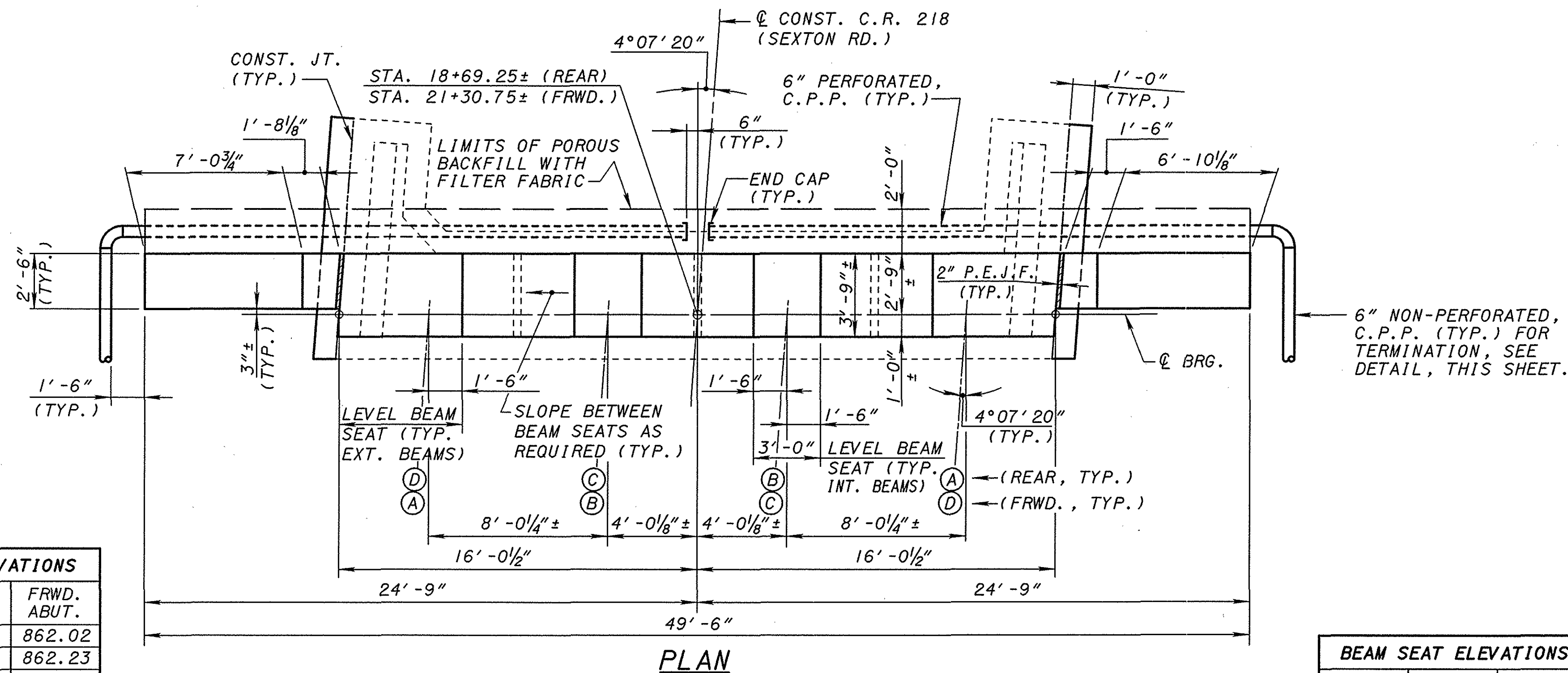
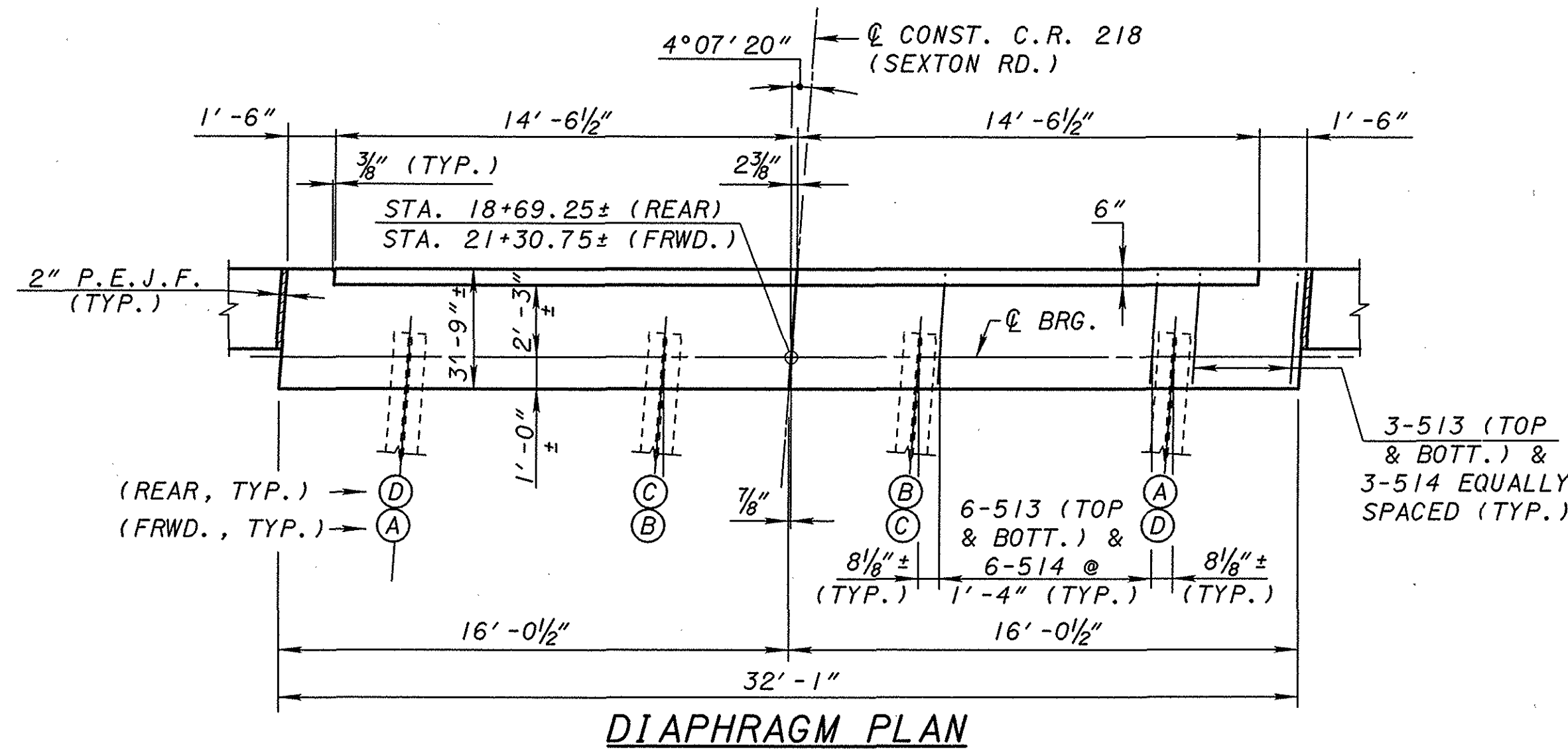
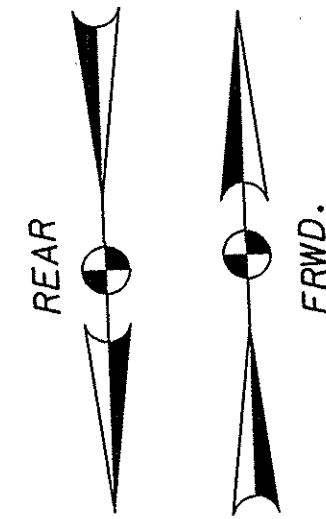


INDICATES AREA OF PATCHING. REPAIRS SHALL BE PAID FOR UNDER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. THE AREAS SHOWN ARE APPROXIMATE. FINAL DETERMINATION OF THE AREA TO BE REPAIRED WILL BE MADE BY THE ENGINEER AT TIME OF CONSTRUCTION.

PATCHING SUMMARY	
LOCATION	SQ. FT.
REAR	8.0
FORWARD	6.0
TOTAL (SEE NOTE 1)	42.0

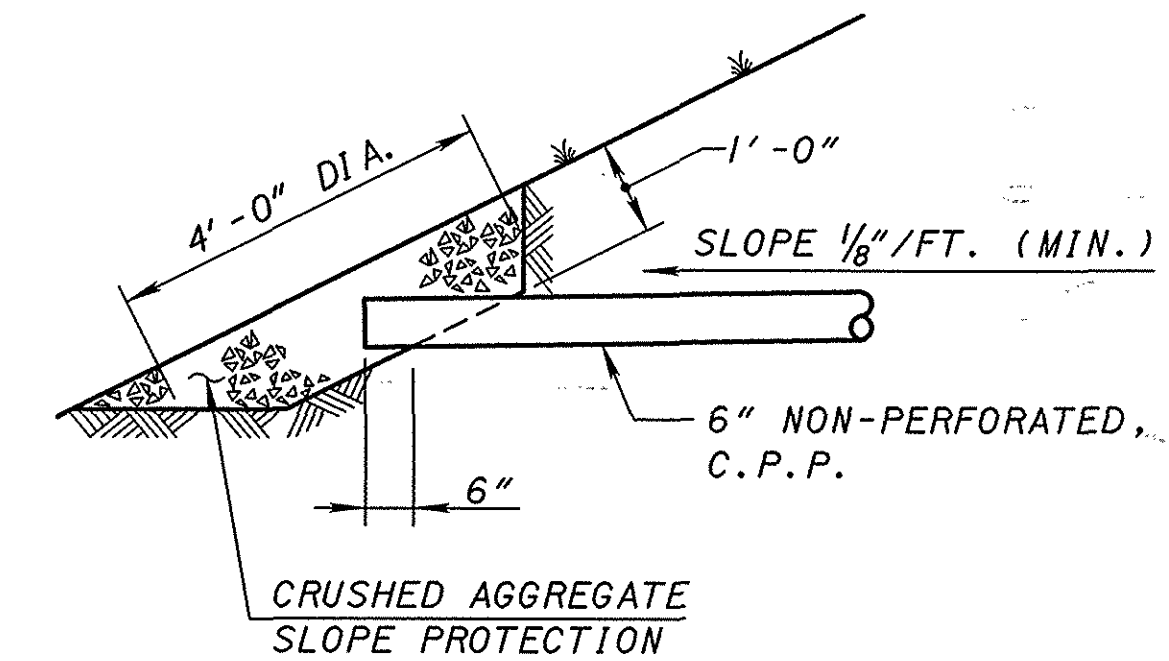
NOTE

- PATCHING TOTALS HAVE BEEN INCREASED 200%.
- FOR ABBREVIATIONS, SEE SHEET 2/15.



EL.	REAR ABUT.	FRWD. ABUT.
AA	862.04	862.02
BB	862.26	862.23
CC	862.02	861.99
DD	856.78	856.67
EE	856.76	856.69

BEAM	REAR ABUT.	FRWD. ABUT.
A	856.76	856.67
B	856.93	856.86
C	856.93	856.82
D	856.78	856.69



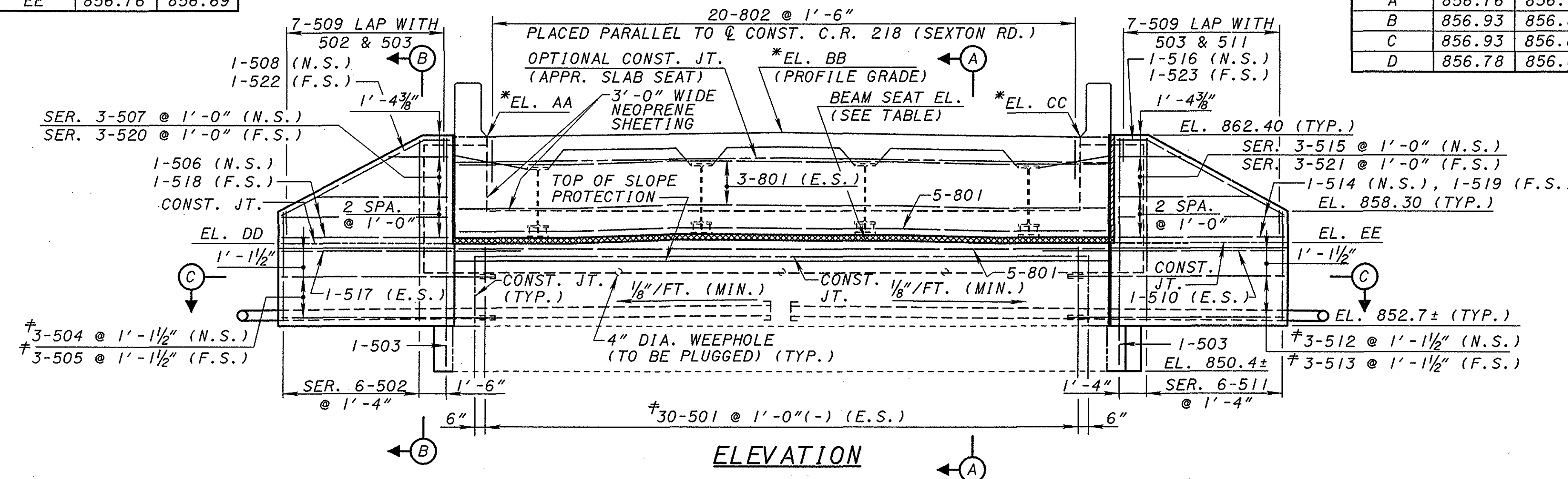
TERMINATION OF 6" PIPE AT THE FRONT SLOPE

LEGEND

- * ELEVATION AT $\odot$ BEARING.
- † DENOTES DOWEL BAR GROUTED INTO EXIST. STRUCTURE.
- ▨ LIMITS OF P.E.J.F.
- ▩ LIMITS OF EXPANDED POLYSTYRENE FILLER OR REMOVABLE FORMS.

NOTES

1. PREFIX "A" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE ABUTMENTS. PREFIX "S" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE DIAPHRAGMS.
2. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET 7/15.
3. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE BOTTOM OF THE APPROACH SLAB, TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.
4. ABUTMENT DIAPHRAGM CONCRETE, STEEL SUPERSTRUCTURE: PLACE THE CONCRETE ENCASING THE STRUCTURAL STEEL MEMBERS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE.
5. FOR LIMITS OF SEALING OF CONCRETE SURFACES, SEE SHEET 7/15.
6. FOR ELASTOMERIC BEARINGS, SEE SHEET 9/15.
7. FOR DETAILS NOT SHOWN, SEE STD. DWG. SICD-1-96, SHEETS 1 THRU 7.
8. MINIMUM LAP LENGTH UNLESS OTHERWISE NOTED:
NO. 5 BAR = 2'-5"
9. FOR ABBREVIATIONS, SEE SHEET 2/15.
10. FOR BONDING GROUT NOTE, SEE SHEET 3/15.





‡ DENOTES DOWEL BAR GROUTED INTO
EXIST. STRUCTURE.

1. PREFIX "A" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE ABUTMENTS.
2. FOR LOCATION OF SECTIONS A-A, B-B AND C-C, SEE SHEET 6/15.
3. TYPE A WATERPROOFING SHALL BE INCLUDED WITH ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=15"), FOR PAYMENT.
4. MINIMUM LAP LENGTH UNLESS OTHERWISE NOTED:
NO. 5 BAR = 2'-5"
5. FOR ABBREVIATIONS, SEE SHEET 2/15.
6. WEEP HOLES ARE TO BE FILLED WITH CLASS C CONCRETE. FILLING OF WEEP HOLES SHALL BE INCIDENTAL AND INCLUDED WITH ITEM 511 - CLASS C CONCRETE, ABUTMENTS, AS PER PLAN, FOR PAYMENT.
7. FOR CLEANING EXISTING CONCRETE PRIOR TO PLACEMENT OF PROPOSED CONCRETE AND FOR "BONDING GROUT" NOTE, SEE SHEET 3/15.



Elevation view of a pier showing dimensions and reinforcement details:

- Pier Width:** Total width is $3'-0'' \pm$. The distance from the centerline (C.PIER) to each side face is $1'-6'' \pm$.
- Pier Height:** Total height is $9' - 0'' \pm$. The height of the lower section is $1'-0''$ (TYP.).
- Reinforcement:**
 - Top Reinforcement:** Labeled "506 (TYP.)".
 - Bottom Reinforcement:** Labeled " $\# 505$ ".
 - Vertical Spacing:** Indicated as $47\frac{1}{8}'' (\pm)$ (TYP.).
 - Joint:** A construction joint ("CONST. JOINT") is shown at the base of the upper section.

SECTION A-A



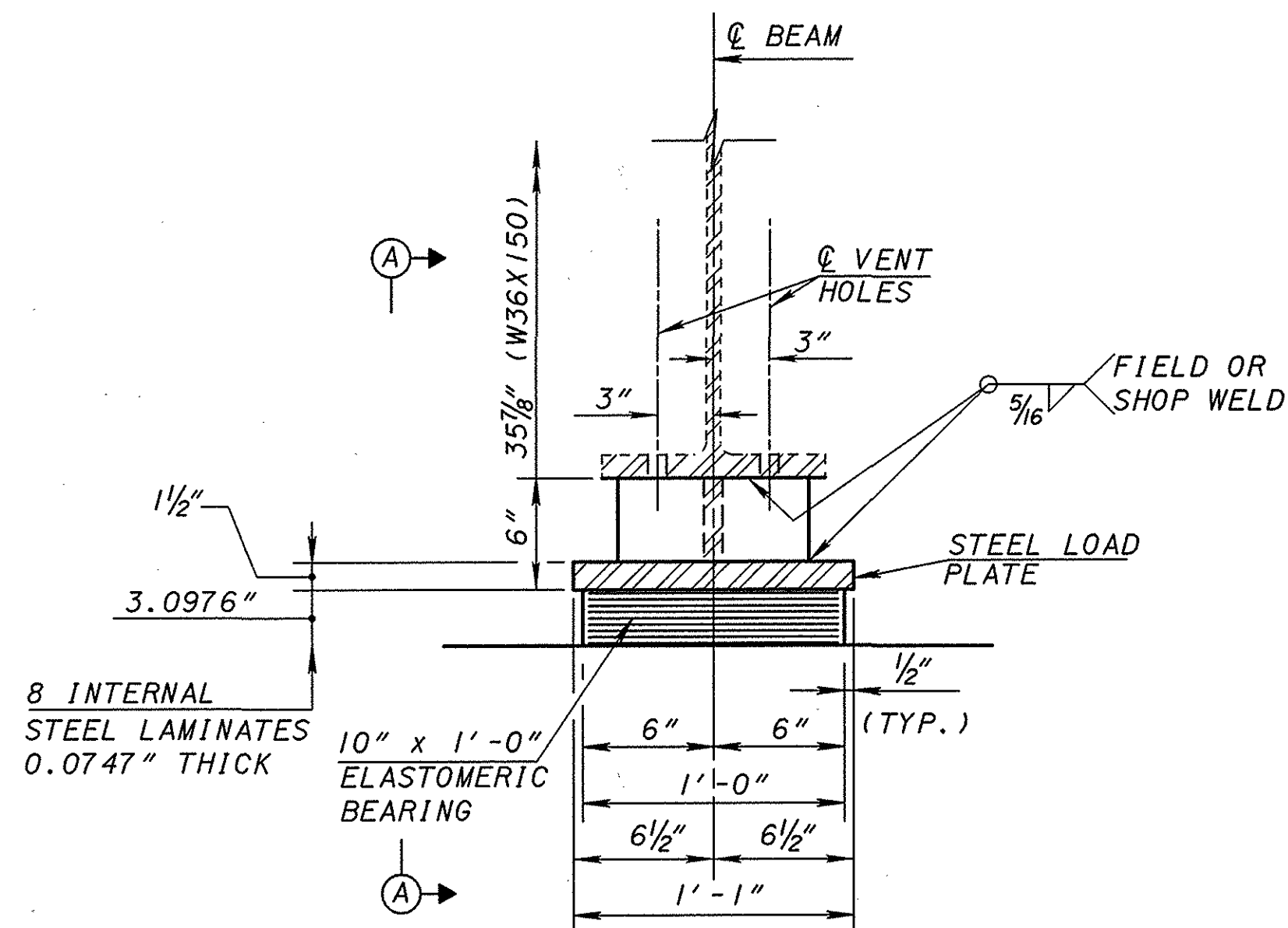
SECTION C-C

1. PREFIX "P" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE PIERS.
2. MINIMUM LAP LENGTH:
NO. 5 BAR = 2' - 5"
3. FOR ABBREVIATIONS, SEE SHEET 2/15.
4. FOR CLEANING EXISTING CONCRETE PRIOR TO PLACEMENT OF PROPOSED CONCRETE, AND FOR "BONDING GROUT" NOTE, SEE SHEET 3/15.
5. THE CONTRACTOR IS TO MAKE EVERY EFFORT NOT TO DAMAGE EXISTING LONGITUDINAL CAP REINFORCING. THE CONTRACTOR IS TO LOCATE DOWELS AS SHOWN IN THE PLANS.

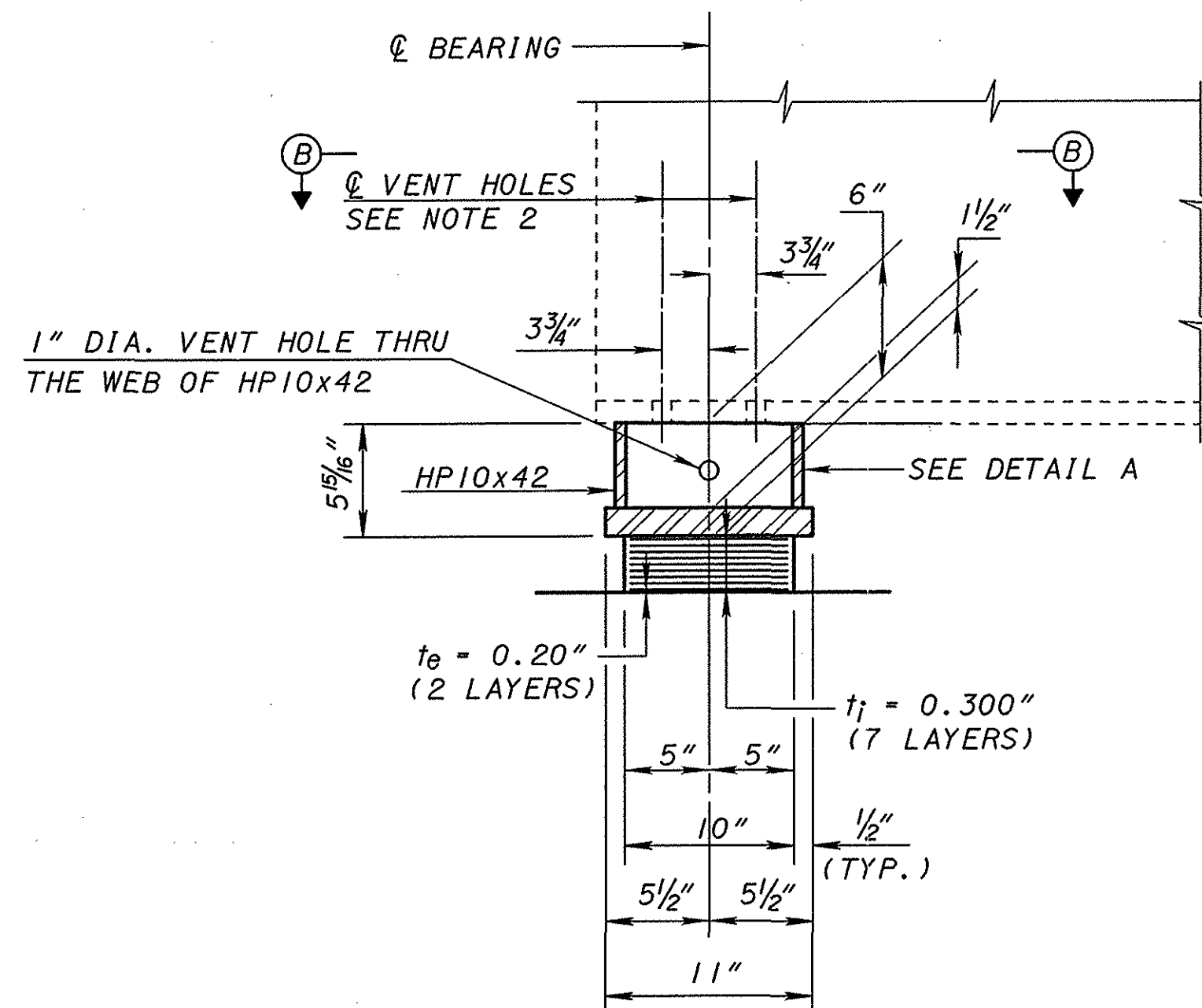


LEGEND

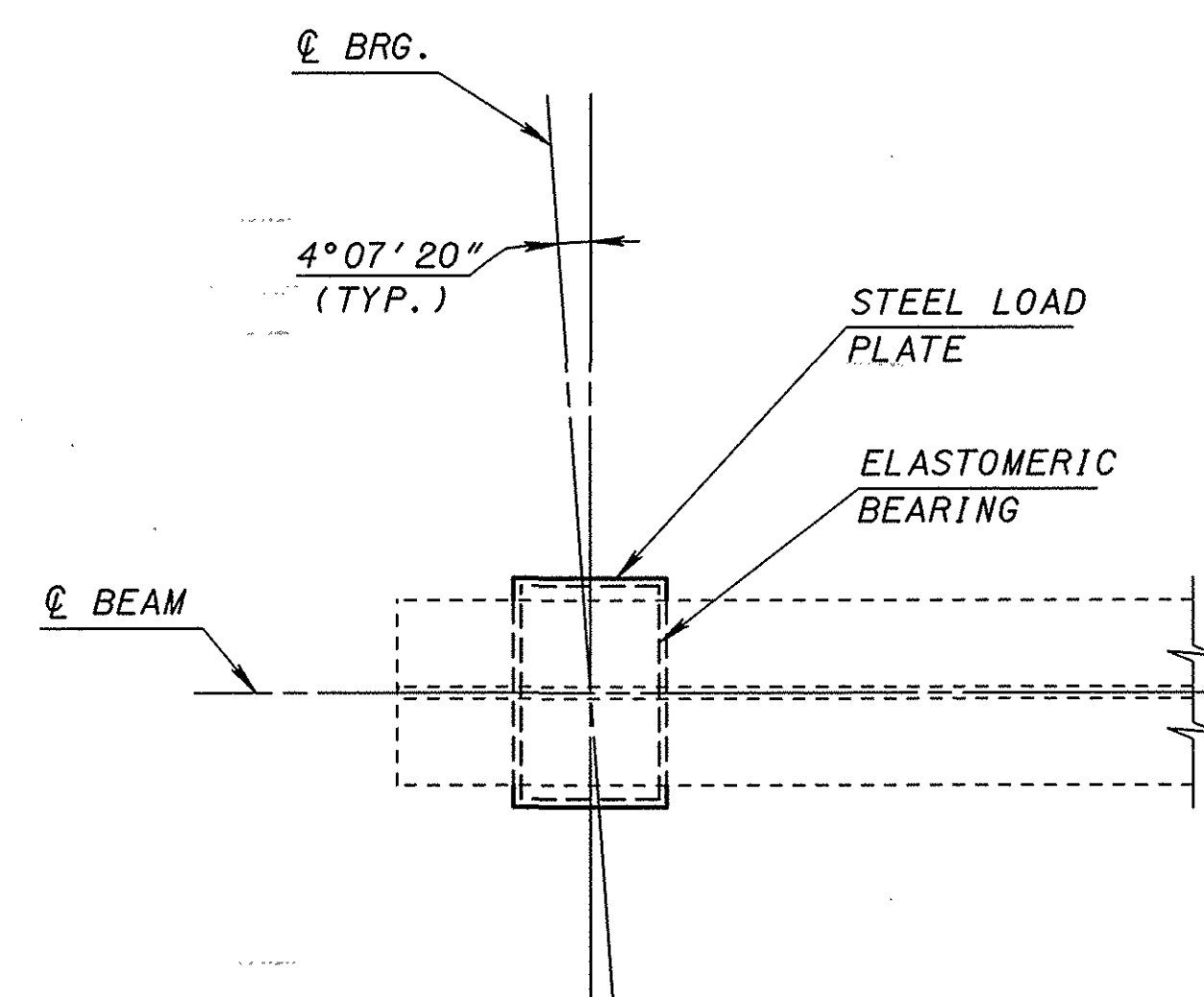
- ▲ LIMITS OF ITEM 512 - SEALING OF
CONCRETE SURFACES (EPOXY-URETHANE)
- † DENOTES DOWEL BAR GROUTED INTO
EXIST. STRUCTURE.



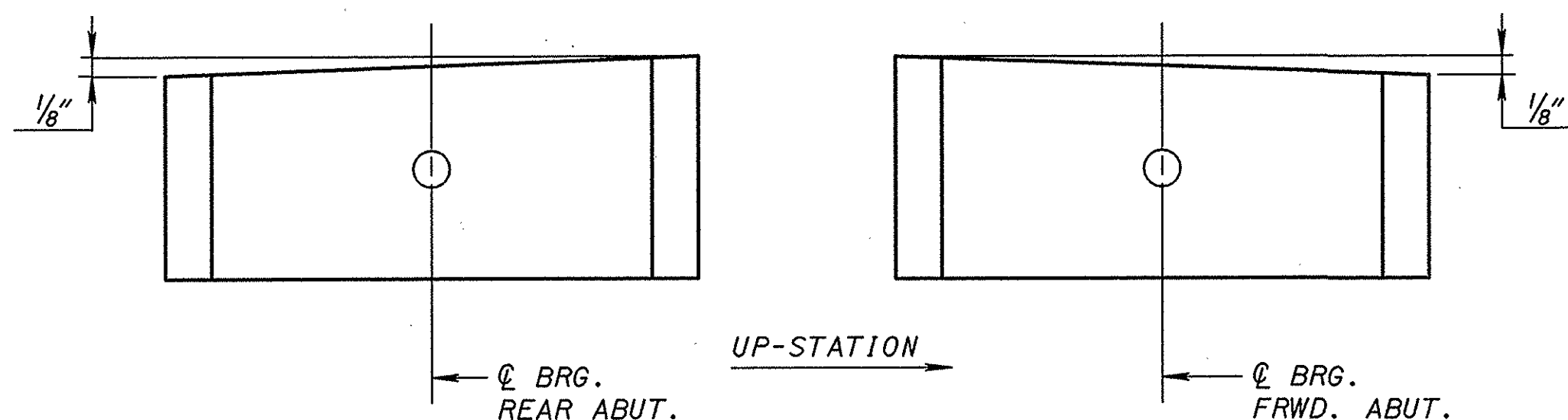
ABUTMENT BEARINGS



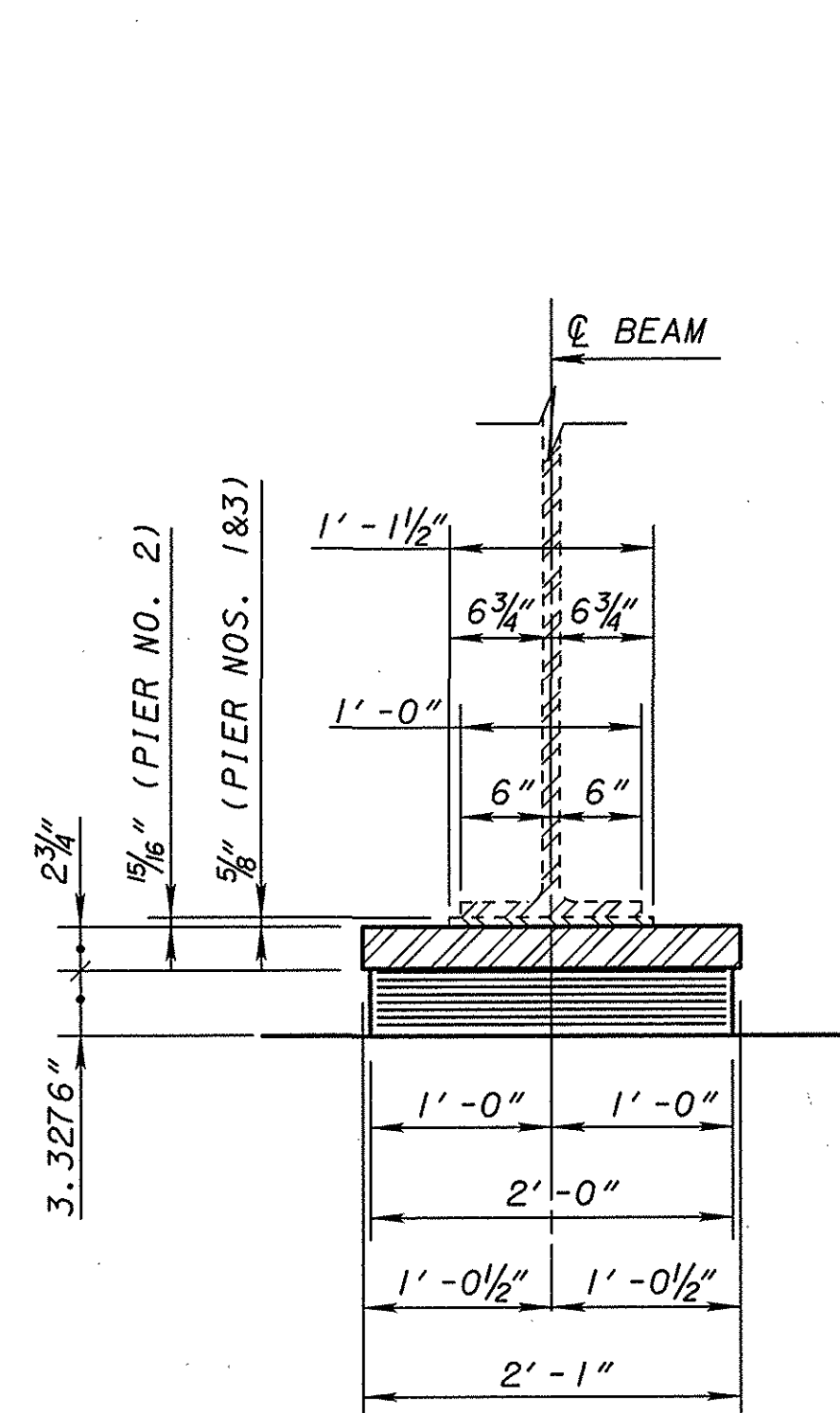
SECTION A-A



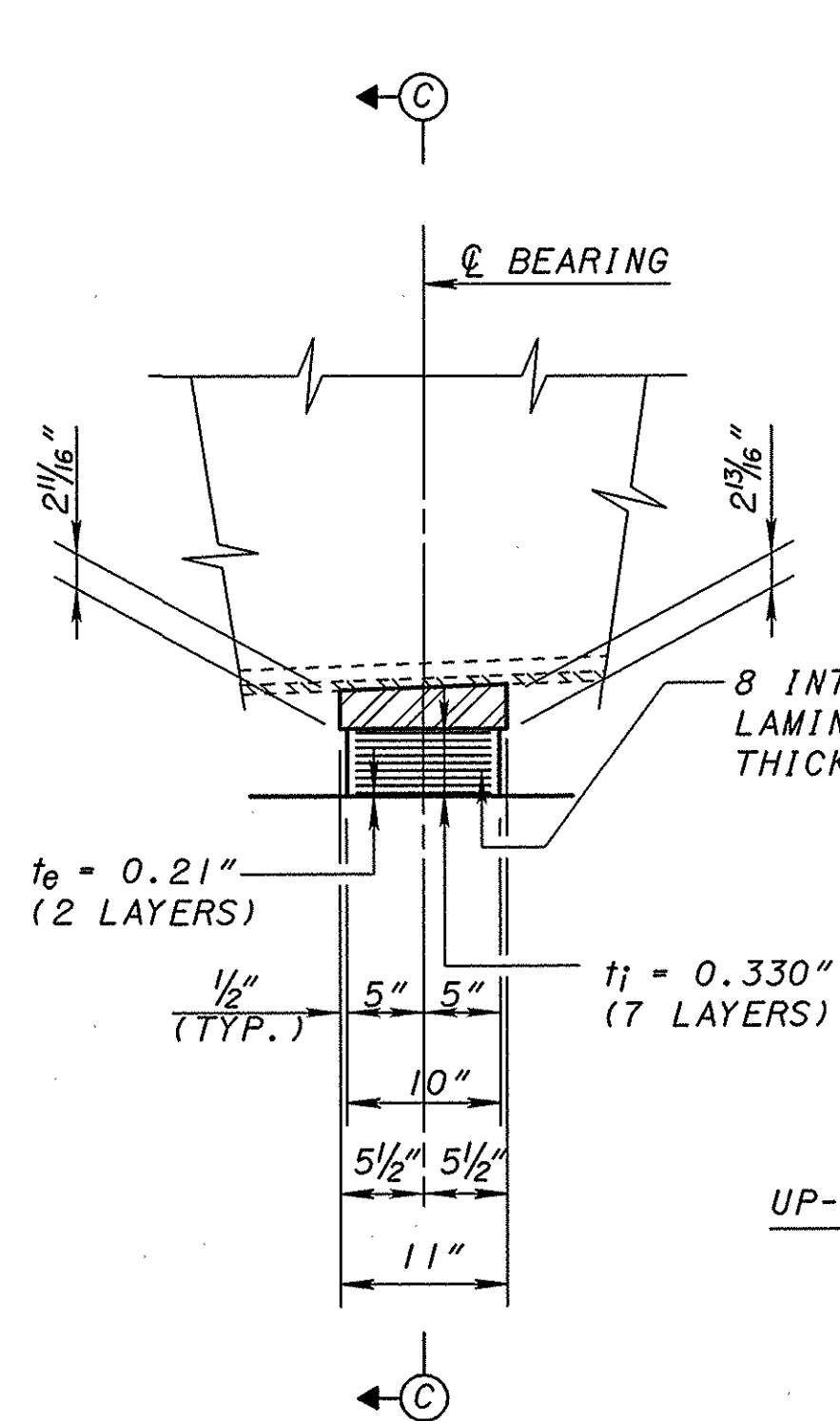
SECTION B-B



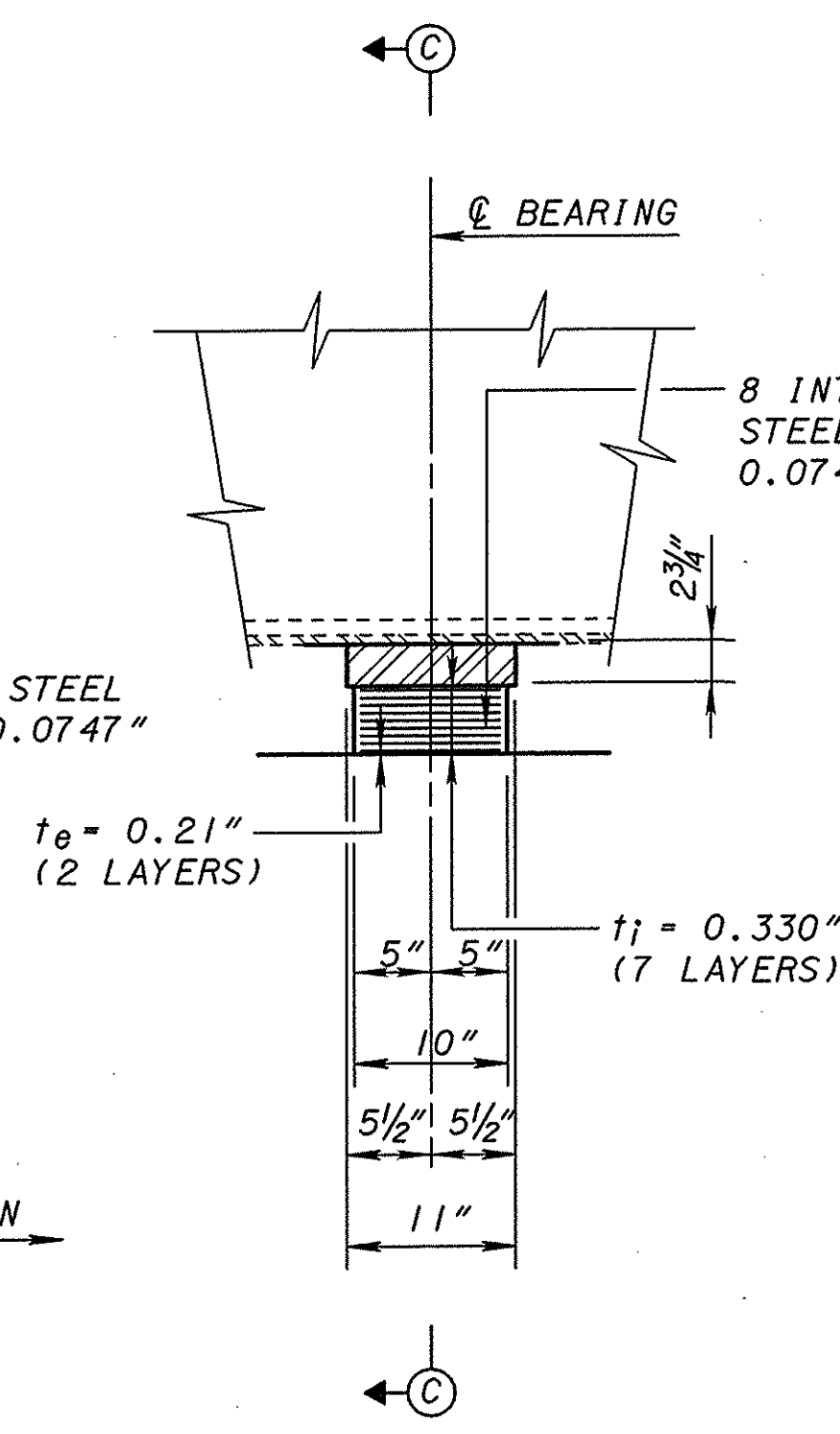
DETAIL A



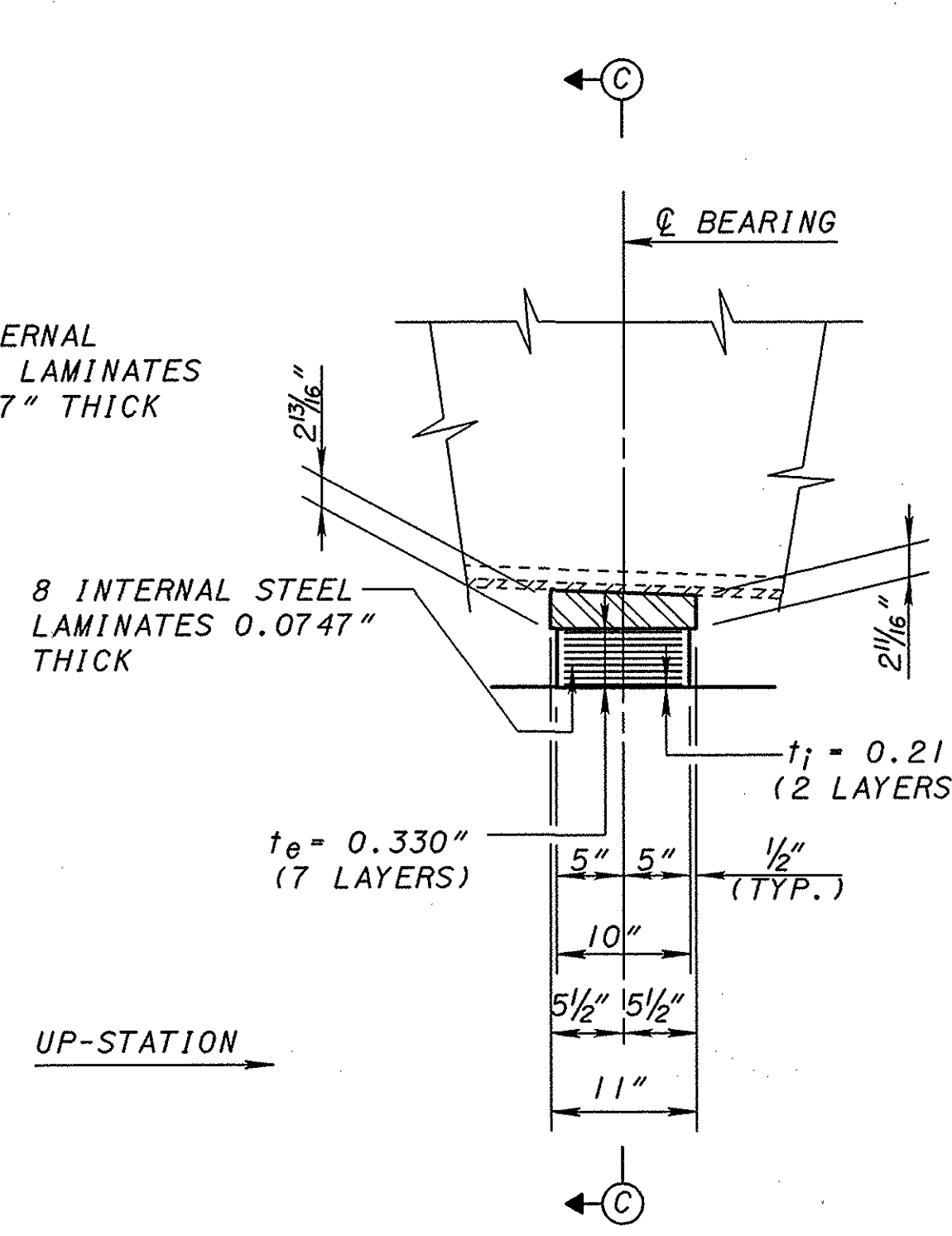
SECTION C-C



PIER 1 ELEVATION



PIER 2 ELEVATION



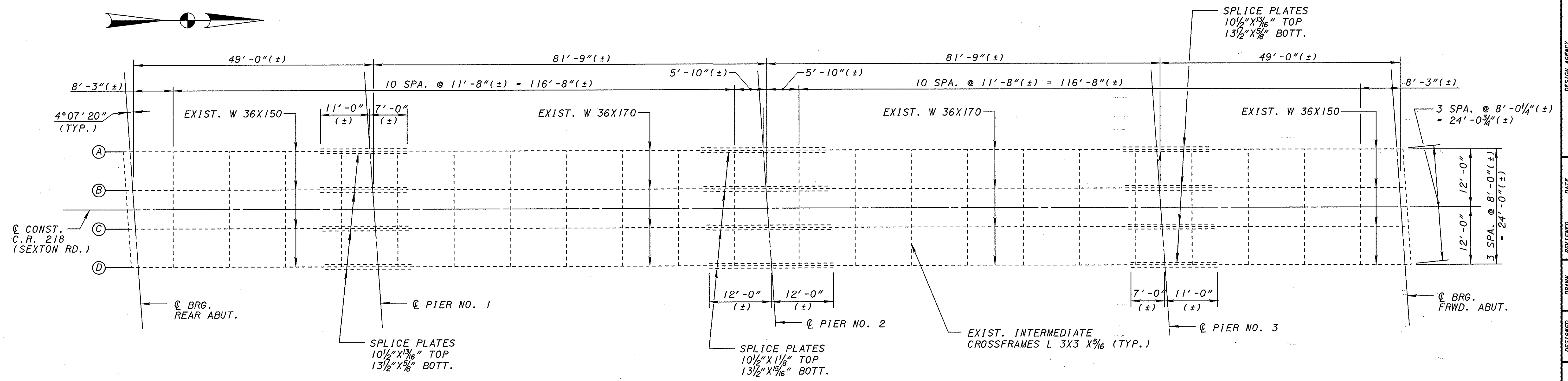
PIER 3 ELEVATION

PIER BEARINGS

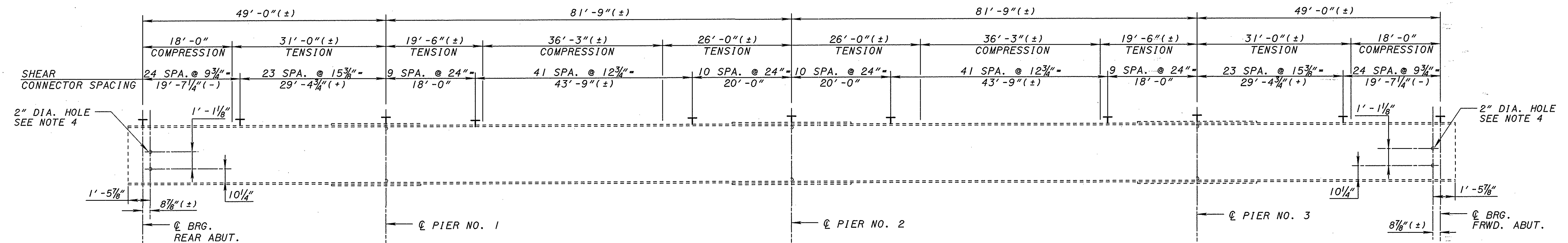
LOCATION	BEARING REACTIONS LOADS (KIPS)		
	DEAD LOAD	LIVE LOAD	TOTAL LOAD
ABUTMENTS	43.7	56.5	100.2
PIER NOS. 1&3	129.8	70.5	200.3
PIER NO. 2	158.2	77.5	235.7

NOTES

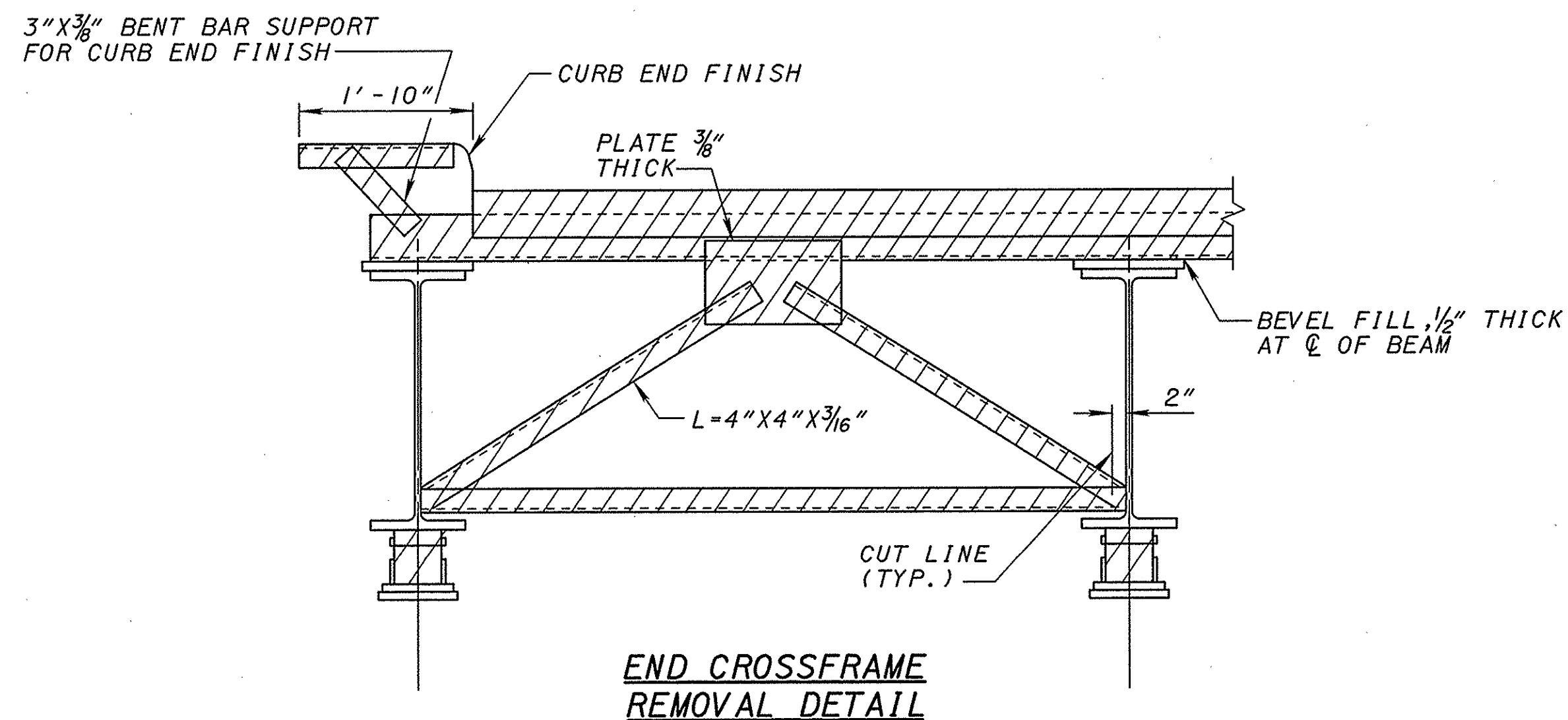
1. WELDING: CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
2. BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING, STEEL PLATES AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMER BEARINGS. THE HP10X42 SHALL ALSO BE INCLUDED IN ABUTMENT BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN AT ABUTMENTS AND ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) AT PIERS.
3. LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
4. ELASTOMER BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.66 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
5. ALL STRUCTURAL STEEL SHALL BE ASTM A709, GRADE 36.
6. FOR ABBREVIATIONS, SEE SHEET 2/15.
7. VENT HOLES SHALL BE FIELD DRILLED. FLAME CUTTING IS NOT PERMITTED. PAYMENT FOR FIELD DRILLING SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.



FRAMING PLAN



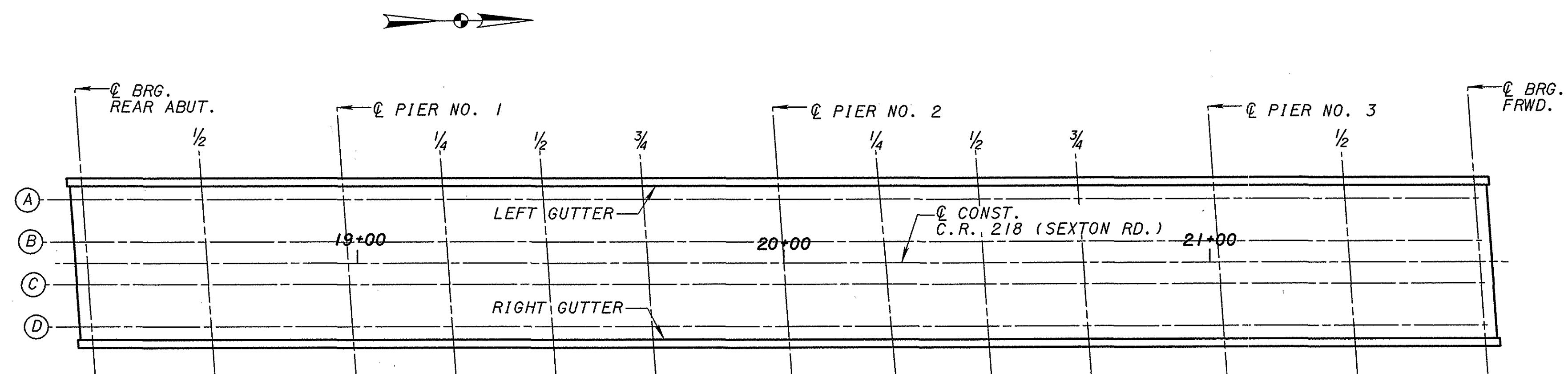
BEAM ELEVATION



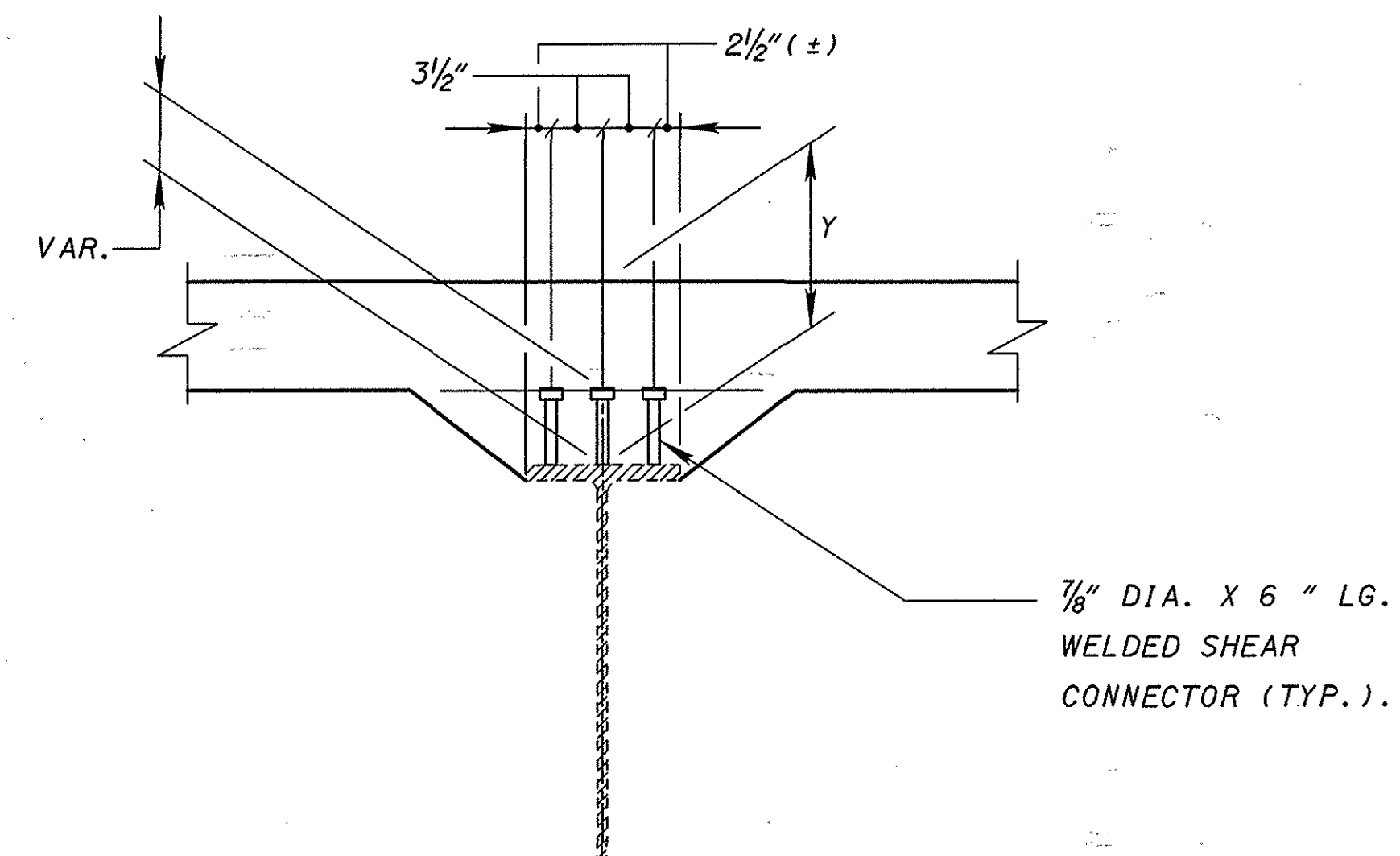
END CROSSFRAME
REMOVAL DETAIL

NOTES

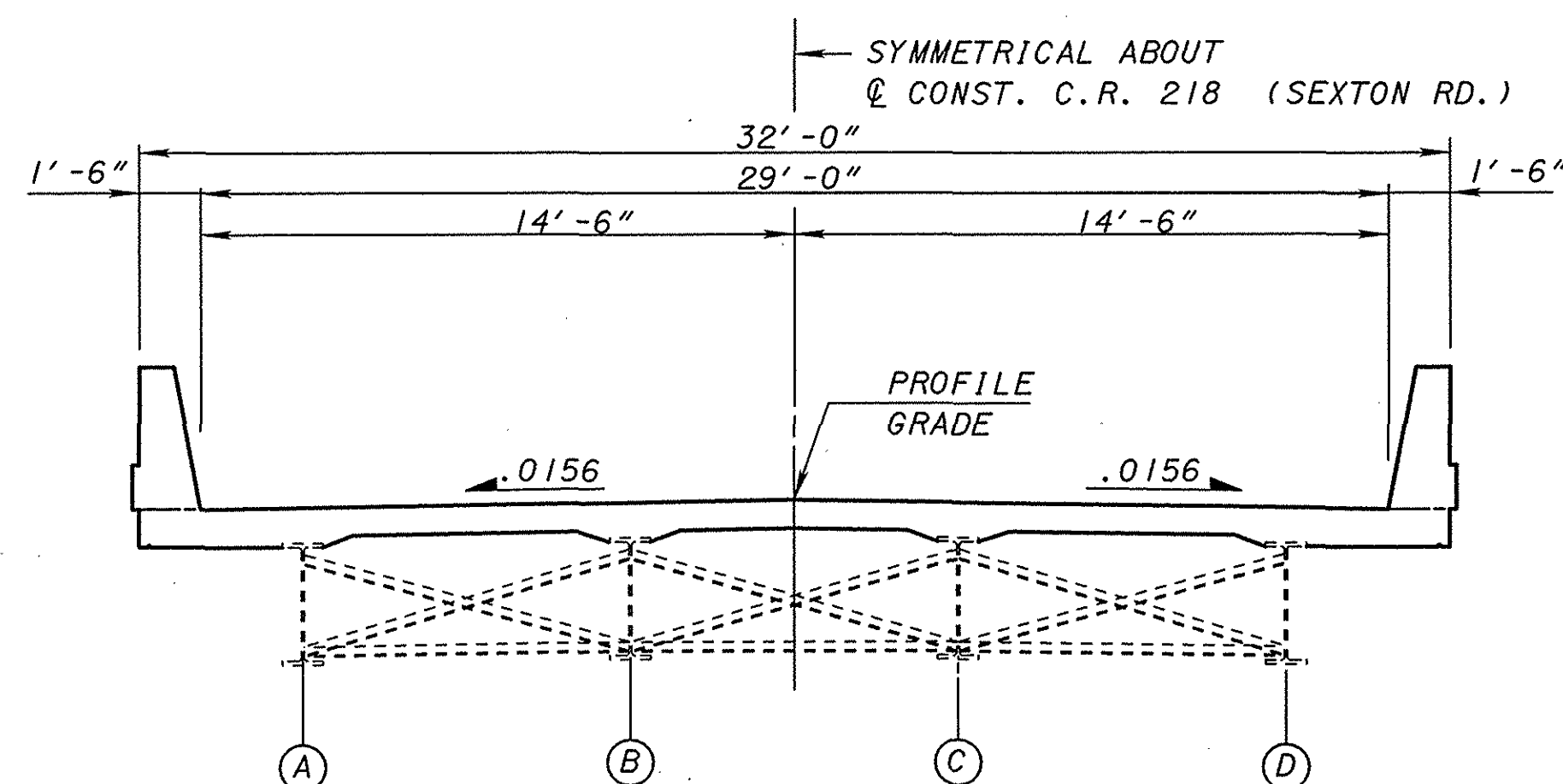
1. FOR BEARING DETAILS SEE SHEET 9/15.
2. FOR SHEAR STUD CONNECTOR DETAIL SEE SHEET 11/15.
3. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION 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.
4. 2" WEEP HOLES SHALL BE FIELD DRILLED. FLAME CUTTING IS NOT PERMITTED. PAYMENT FOR FIELD DRILLING SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.



SLAB PLAN



SHEAR CONNECTOR DETAIL
(TYP.)

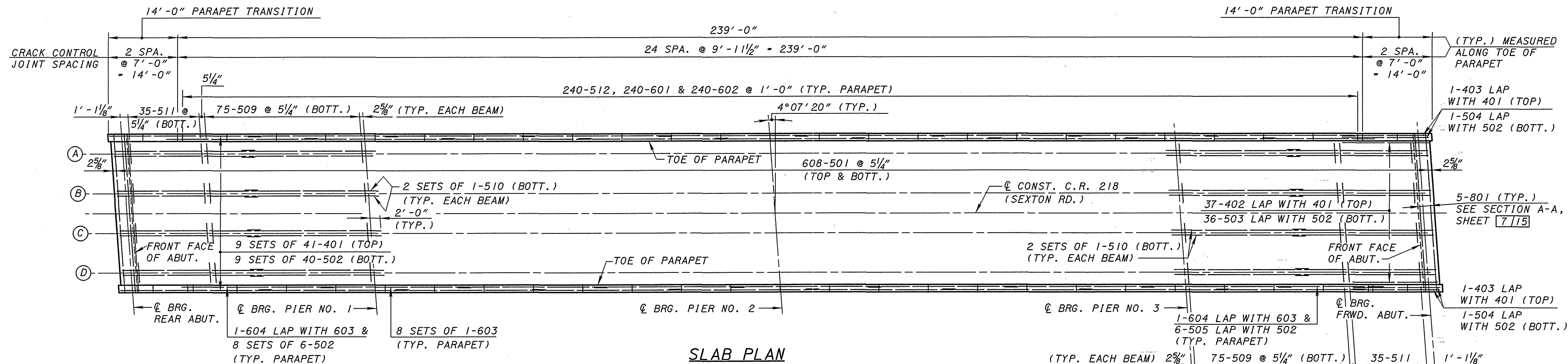


TRANSVERSE SECTION

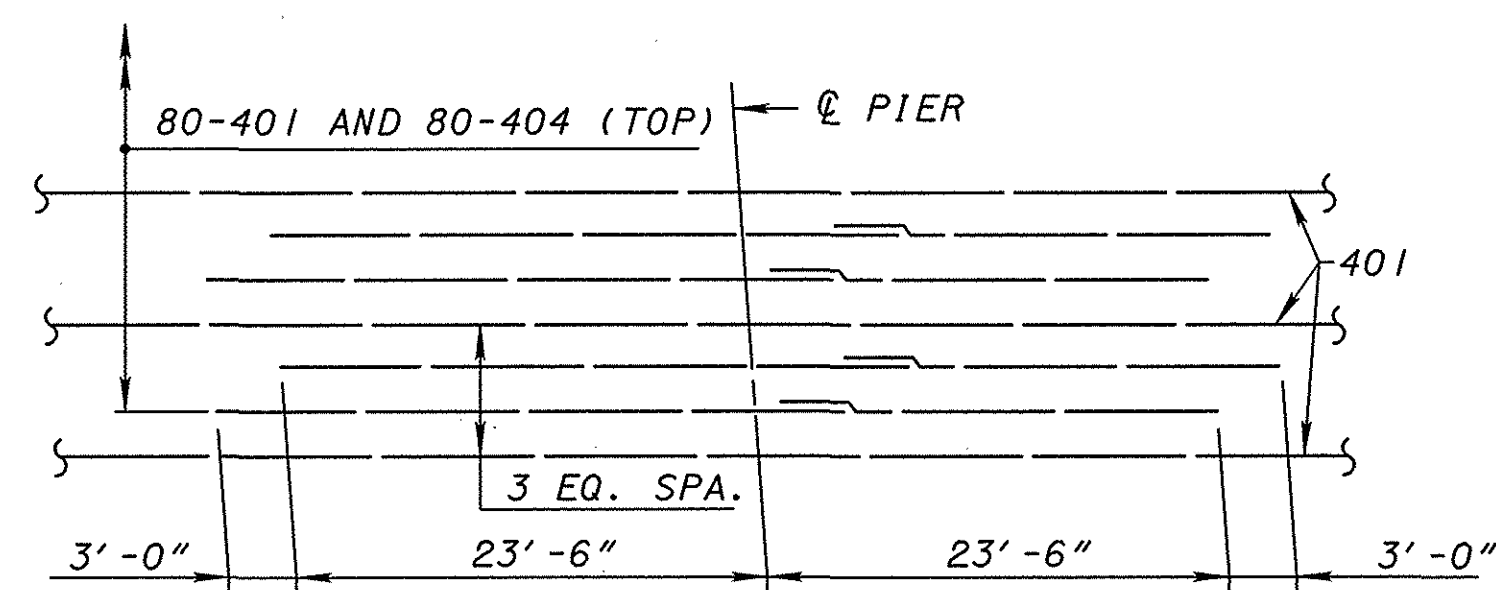
DEPTH OF SLAB OVER BEAM (Y)									
LOCATION	REAR ABUT.	SPAN 1 1/2 PT.	PIER NO. 1	SPAN 2 1/2 PT.	PIER NO. 2	SPAN 3 1/2 PT.	PIER NO. 3	SPAN 4 1/2 PT.	FRWD. ABUT.
A	1'-6 3/4"	1'-4 1/4"	1'-1 1/4"	1 1/4"	1 1/2"	1 1/8"	1'-1 1/2"	1'-4 3/4"	1'-7 3/4"
B	1'-6 3/8"	1'-4 3/8"	1'-1 3/4"	1'-0 3/8"	1 3/4"	1'-0"	1'-1 5/8"	1'-4 3/4"	1'-7"
C	1'-6 1/2"	1'-4 3/8"	1'-1 3/4"	1'-0"	1 3/4"	1 3/4"	1'-1 5/8"	1'-4 7/8"	1'-7 3/8"
D	1'-6 3/4"	1'-4 1/8"	1'-1 1/2"	1 5/8"	1 1/2"	1 1/2"	1'-1 1/2"	1'-5"	1'-7 1/4"

DECK SCREED ELEVATIONS													
LOCATION	STATION C.BRG. REAR ABUT. ELEVATION	STATION 1/2 PT. ELEVATION	STATION C.PIER 1 ELEVATION	STATION 1/4 PT. ELEVATION	STATION 1/2 PT. ELEVATION	STATION 3/4 PT. ELEVATION	STATION C.PIER 2 ELEVATION	STATION 1/4 PT. ELEVATION	STATION 1/2 PT. ELEVATION	STATION 3/4 PT. ELEVATION	STATION C.PIER 3 ELEVATION	STATION 1/2 PT. ELEVATION	STATION C.BRG. FORWARD ABUT. ELEVATION
LEFT GUTTER	18+68.21 862.02	18+92.71 862.28	19+17.21 862.48	19+37.64 862.66	19+58.08 862.79	19+78.52 862.80	19+98.96 862.77	20+19.39 862.80	20+39.83 862.79	20+60.27 862.65	20+80.71 862.47	21+05.21 862.27	21+29.71 862.02
C BEAM A	18+68.39 862.06	18+92.89 862.32	19+17.39 862.52	19+37.82 862.70	19+58.26 862.83	19+78.7 862.84	19+99.14 862.81	20+19.57 862.84	20+40.01 862.82	20+60.45 862.69	20+80.89 862.51	21+05.39 862.31	21+29.89 862.05
C BEAM B	18+68.96 862.2	18+93.46 862.45	19+17.96 862.65	19+38.40 862.81	19+58.84 862.92	19+79.27 862.95	19+99.71 862.94	20+20.15 862.95	20+40.59 862.91	20+61.02 862.80	20+81.46 862.64	21+05.96 862.43	21+30.46 862.18
C EX. R/W & CONST. C.R. 218 SEXTON RD.	18+69.25 862.26	18+93.75 862.51	19+18.25 862.71	19+38.69 862.87	19+59.13 862.98	19+79.56 863.01	20+00.00 863.00	20+20.44 863.01	20+40.88 862.97	20+61.31 862.86	20+81.75 862.70	21+06.25 862.49	21+30.75 862.23
C BEAM C	18+69.54 862.21	18+94.04 862.46	19+18.54 862.66	19+38.98 862.81	19+59.41 862.92	19+79.85 862.95	20+00.29 862.94	20+20.73 862.91	20+41.16 862.91	20+61.6 862.80	20+82.04 862.63	21+06.54 862.43	21+31.04 862.17
C BEAM D	18+70.11 862.08	18+94.61 862.33	19+19.11 862.53	19+39.55 862.71	19+59.99 862.83	19+80.43 862.85	20+00.68 862.81	20+21.30 862.84	20+41.74 862.82	20+62.18 862.68	20+82.61 862.50	21+07.11 862.29	21+31.61 862.03
RIGHT GUTTER	18+70.29 862.04	18+94.79 862.29	19+19.29 862.49	19+39.73 862.67	19+60.17 862.79	19+80.61 862.81	20+01.04 862.77	20+21.48 862.80	20+41.92 862.78	20+62.36 862.64	20+82.79 862.46	21+07.29 862.25	21+31.79 861.99

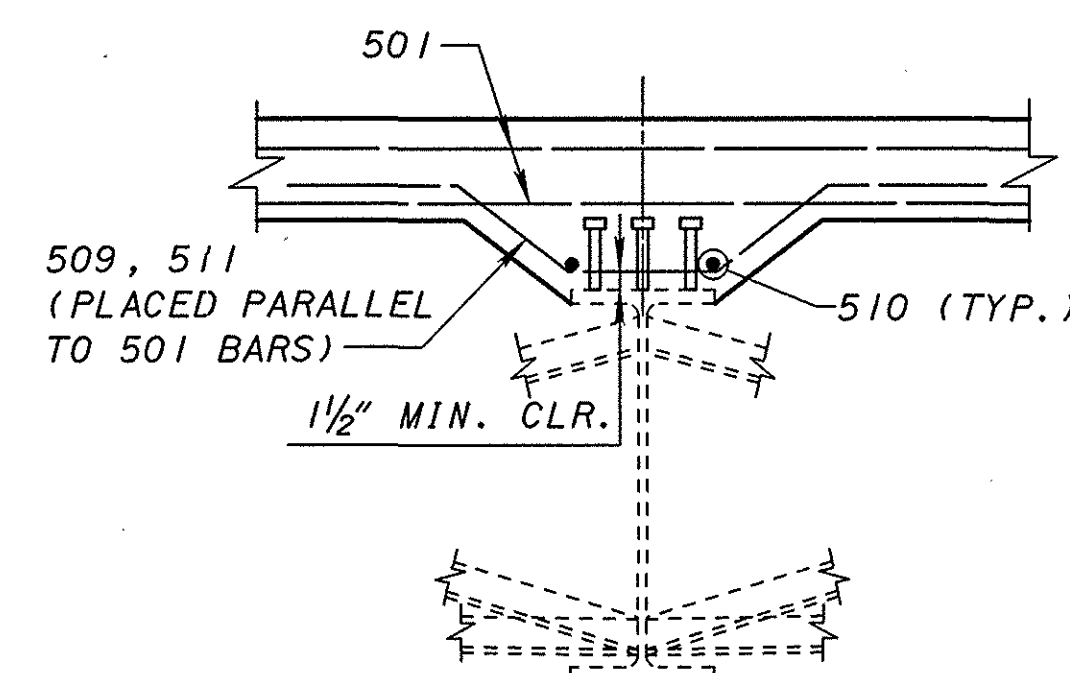
NOTE: SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT.
ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.



SLAB PLAN

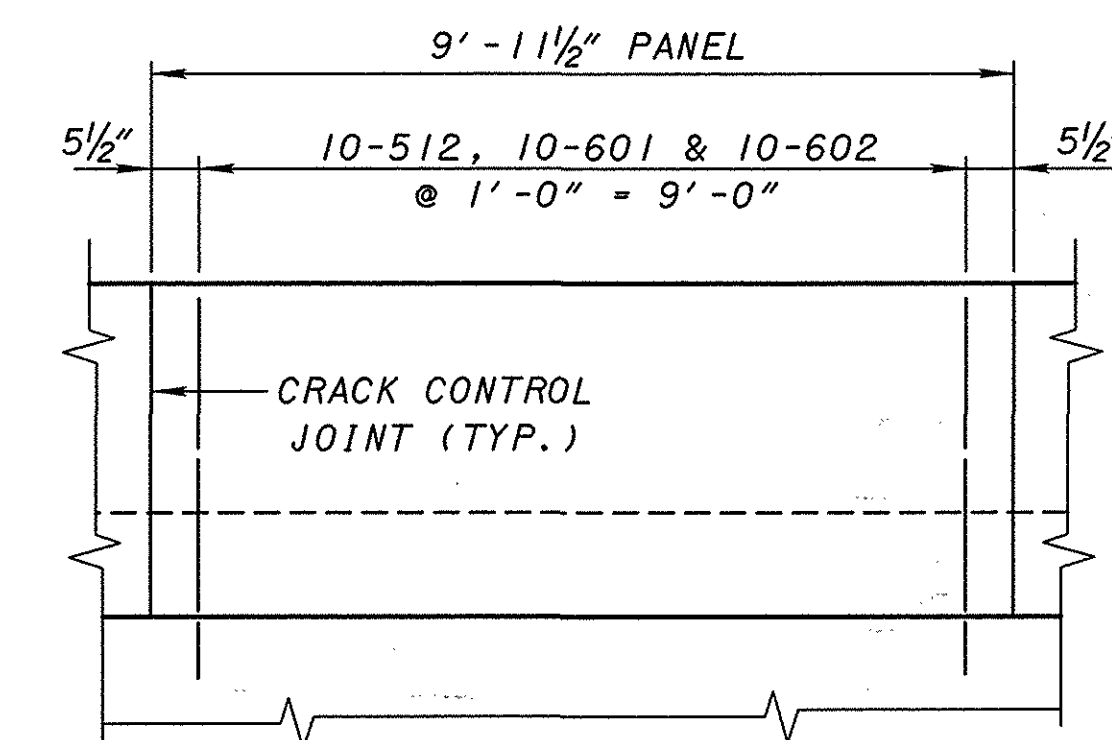


ADDITIONAL REINFORCEMENT OVER PIERS



DEEP HAUNCH DETAIL
SPAN NOS. 1 & 4

INTERIOR BEAM SHOWN, EXTERIOR BEAM SIMILAR.
FOR ADDITIONAL LONGITUDINAL REINFORCEMENT,
SEE TRANSVERSE SECTION

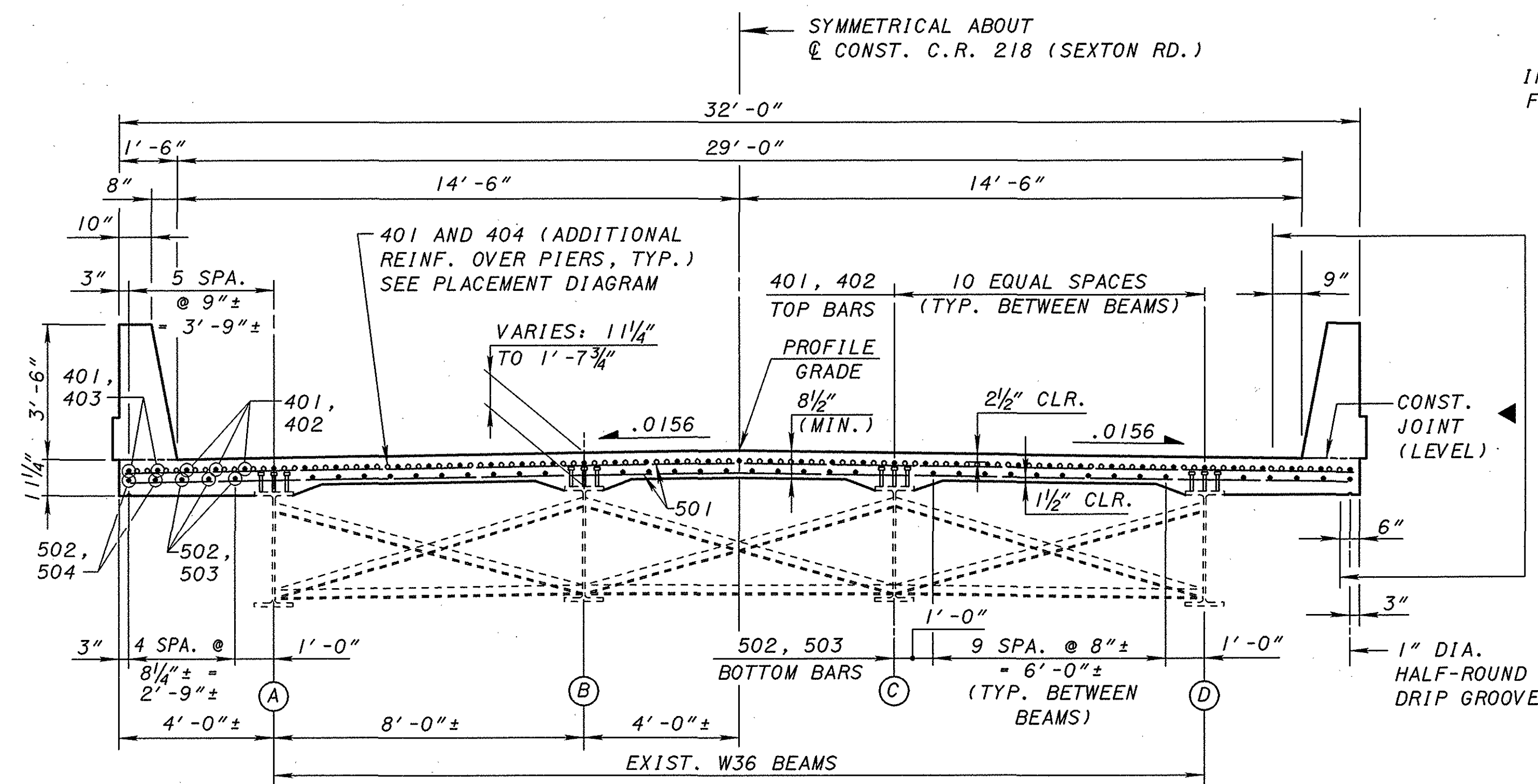


PARAPET ELEVATION

NOTES

- PREFIX "S" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE DECK SLAB AND PARAPET.
- FOR ADDITIONAL PARAPET DETAILS, SEE STD. DWG. SBR-1-99 AND SHEET 13115.
- FOR SCREED ELEVATIONS, SEE SHEET 11115.
- 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 THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.

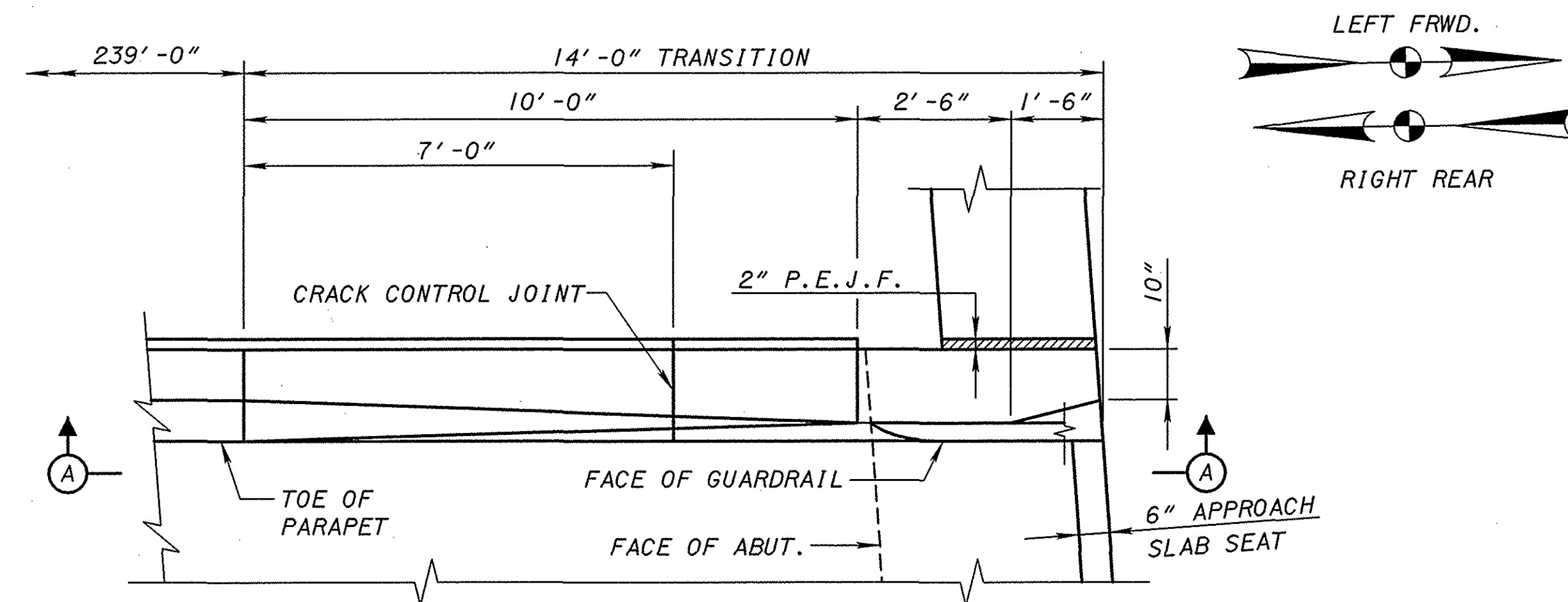
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
- MINIMUM LAP LENGTH UNLESS OTHERWISE NOTED:
NO. 4 BAR = 1'-11"
NO. 5 BAR = 2'-5"
NO. 6 BAR = 2'-11"
- FOR ABBREVIATIONS, SEE SHEET 2115.



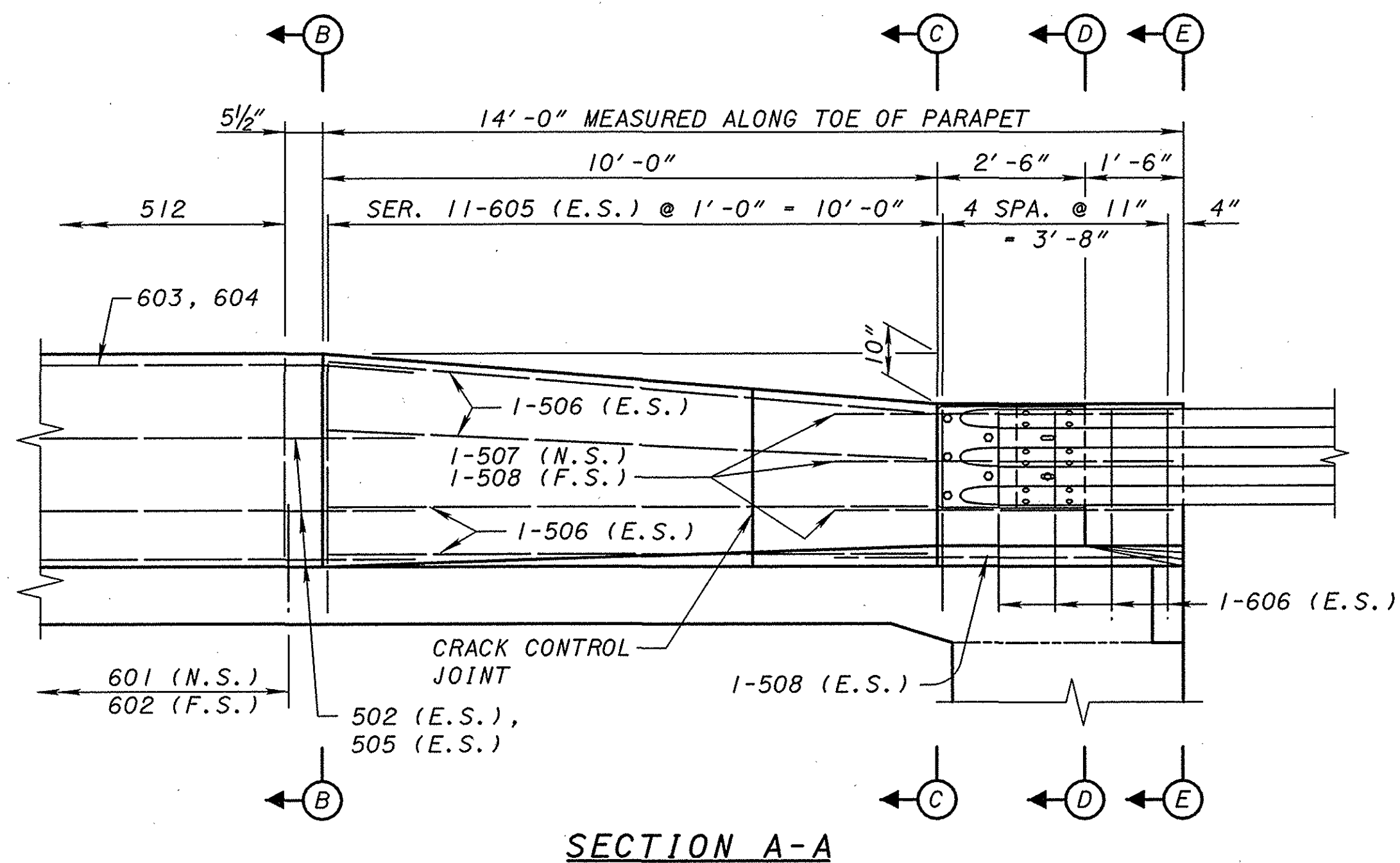
TRANSVERSE SECTION

LEGEND

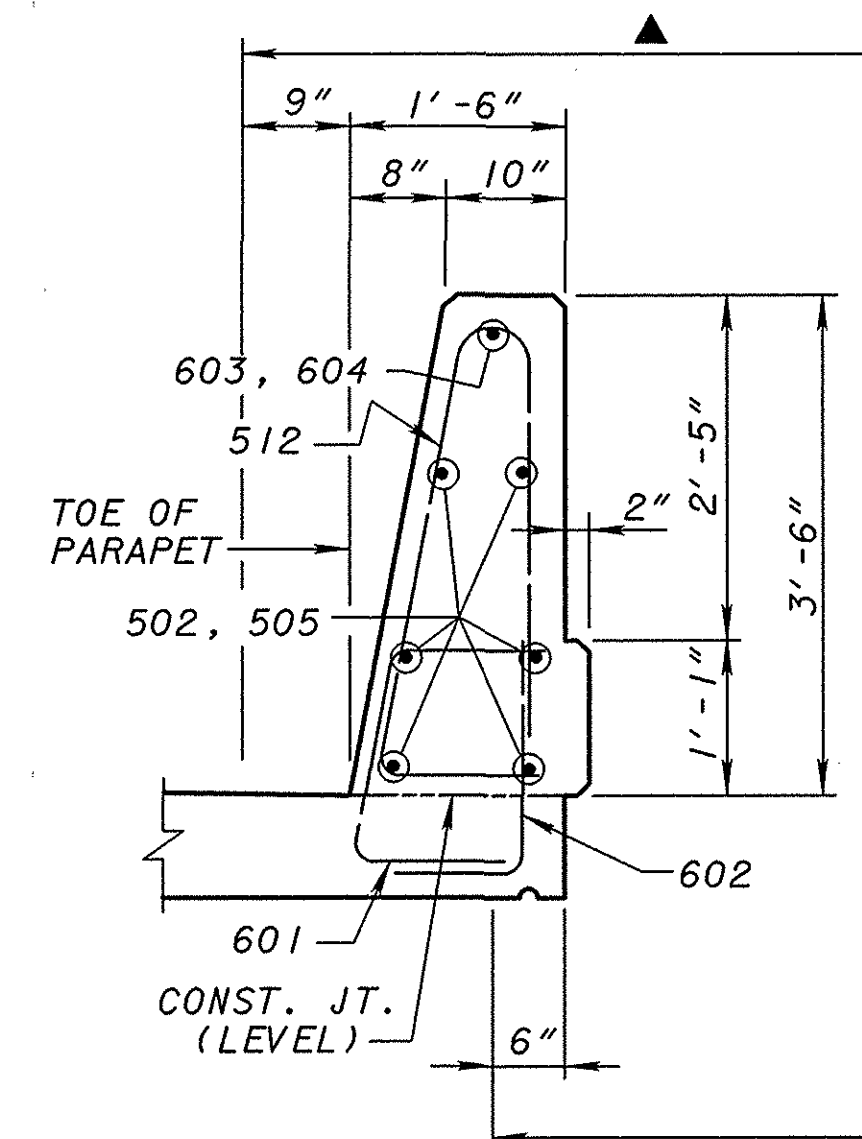
- ▲ INDICATES LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).



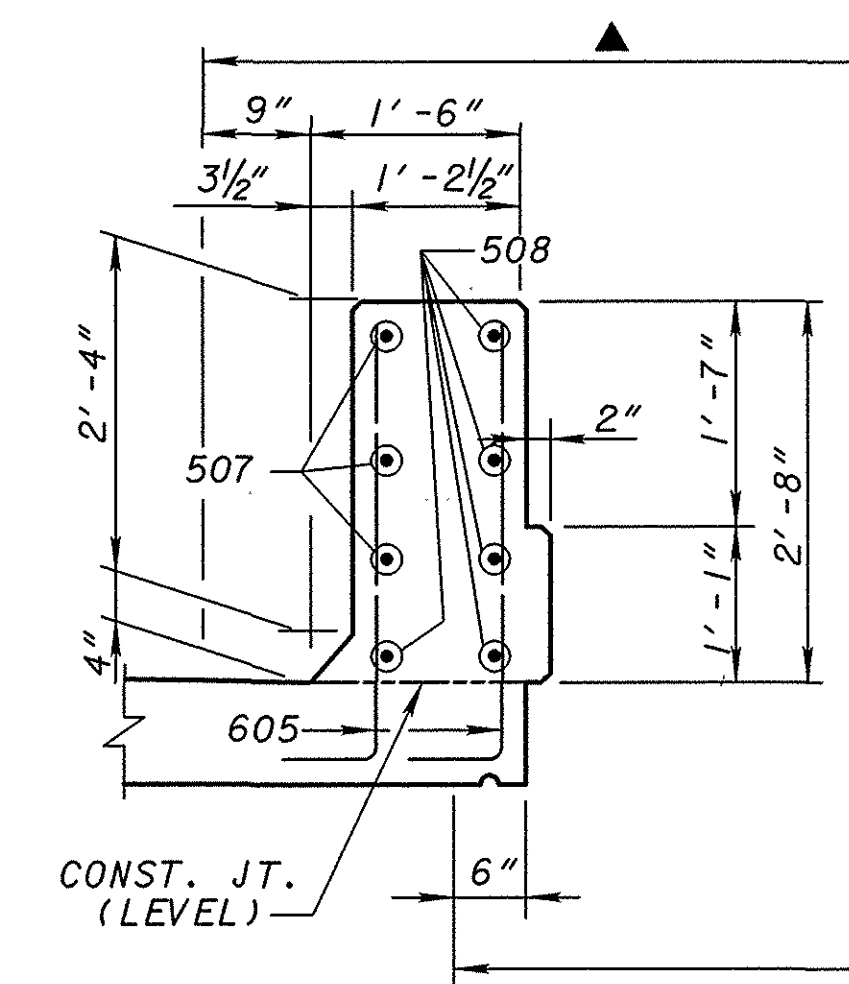
PARAPET TRANSITION PLAN
RIGHT REAR & LEFT FRWD. PARAPET TRANSITION SHOWN,
LEFT REAR & RIGHT FRWD. PARAPET TRANSITION OPPOSITE HAND AND SIMILAR



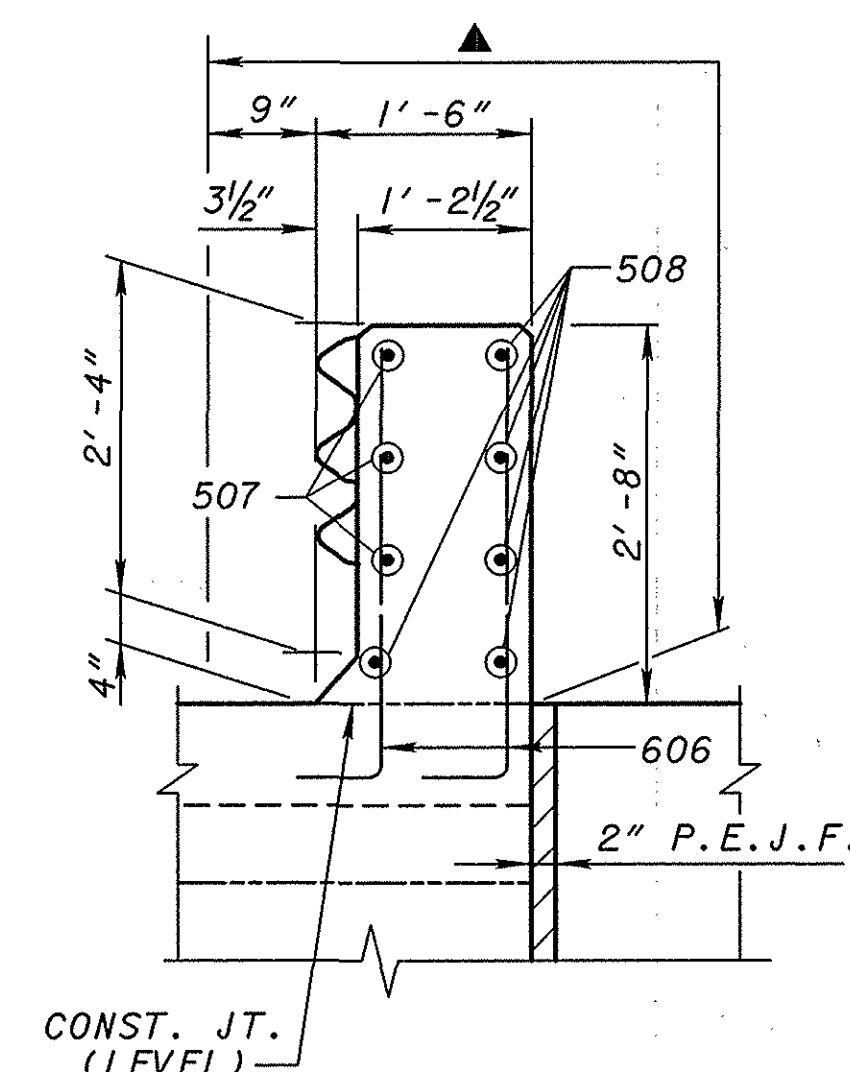
SECTION A-A



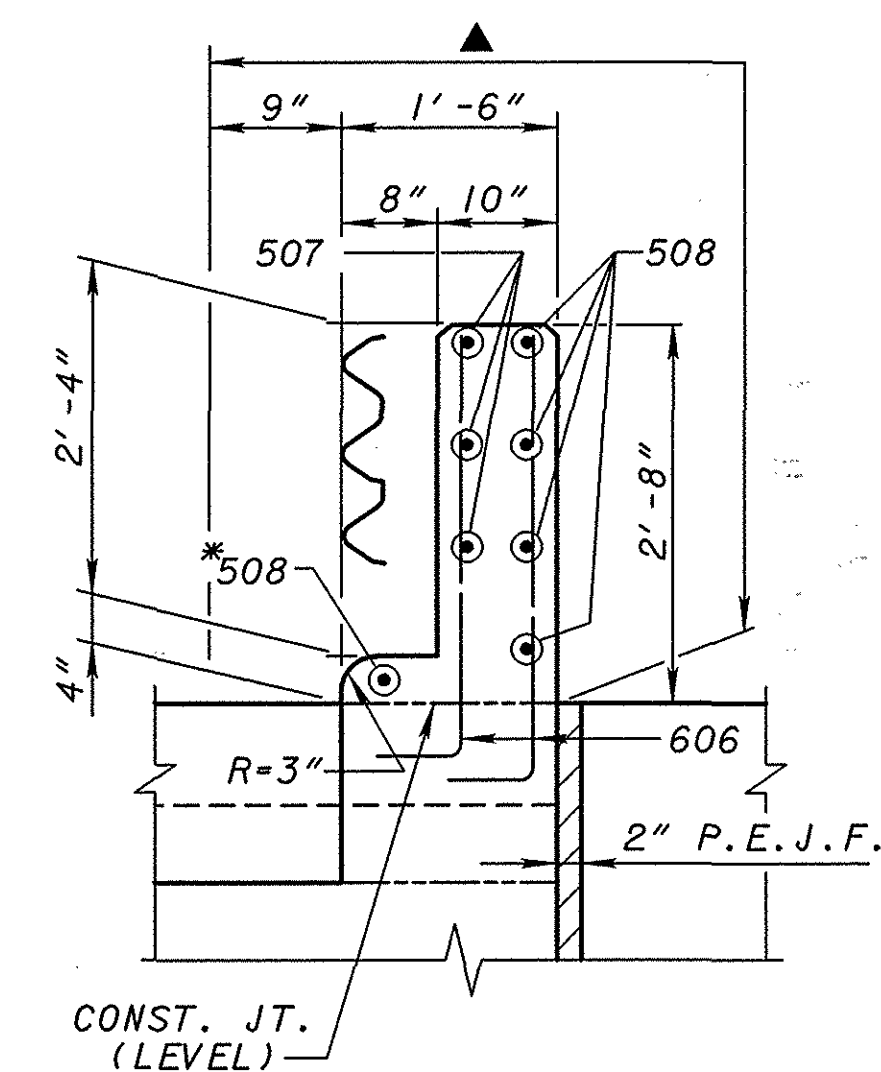
SECTION B-B



SECTION C-C



SECTION D-D



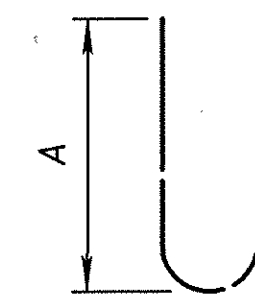
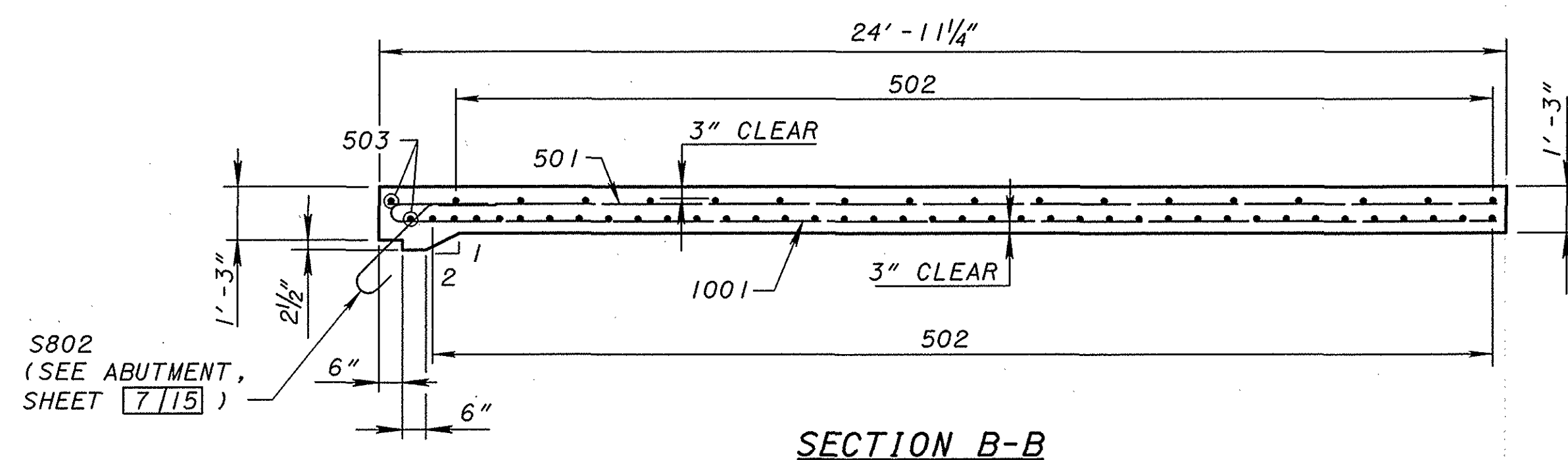
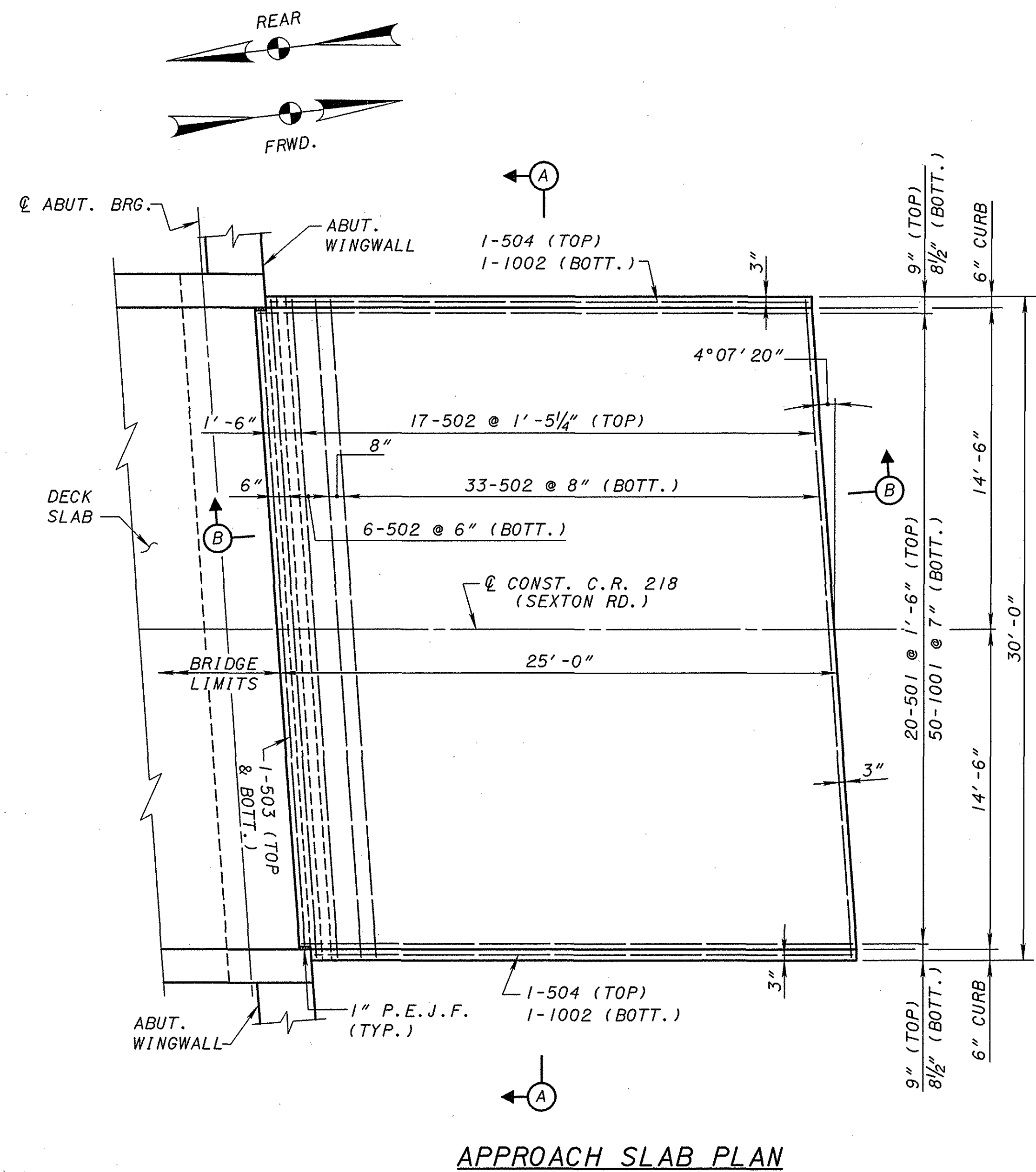
SECTION E-E
* FIELD BEND IF NECESSARY.

LEGEND

▲ INDICATES LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

NOTES

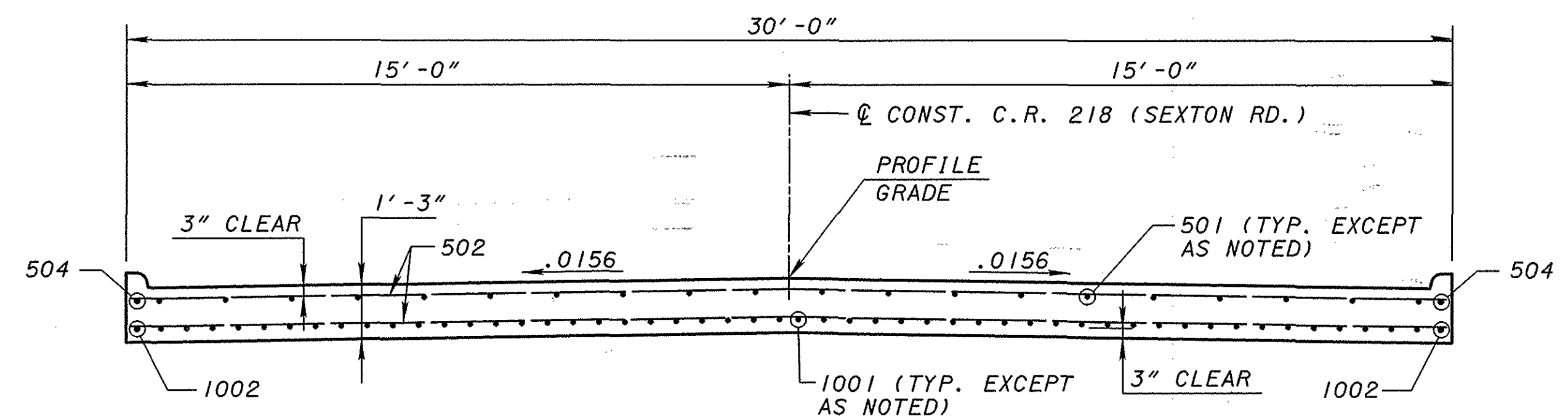
1. PREFIX "S" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE DECK SLAB AND PARAPET.
2. FOR SLAB PLAN AND TRANSVERSE SECTION, SEE SHEET 12/15.
3. MINIMUM LAP LENGTH UNLESS OTHERWISE NOTED:
NO. 5 BAR = 2'-5"
NO. 6 BAR = 2'-11"
4. FOR ADDITIONAL DETAILS, SEE STD. DWG. SBR-1-99.
5. FOR ABBREVIATIONS, SEE SHEET 2/15.



TYPE-16

BENDING DIAGRAM

REINFORCING STEEL LIST										
MARK	NUMBER			LENGTH	WEIGHT (LBS.)	TYPE	D I M E N S I O N S			
	REAR	FORWARD	TOTAL				A	B	C	INC.
AS501	20	20	40	24' -6"	1022	STR.				
AS502	56	56	112	29' -7"	3456	STR.				
AS503	2	2	4	28' -7"	119	STR.				
AS504	2	2	4	24' -0"	100	STR.				
AS1001	50	50	100	25' -11"	11,152	16	24' -6"			
AS1002	2	2	4	24' -0"	413	STR.				
				TOTAL -	16,262					

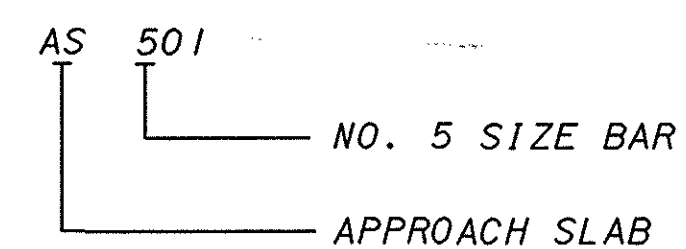


SECTION A-A

NOTES

1. PREFIX "AS" SHALL BE ADDED TO ALL REINFORCING BAR MARKS SHOWN FOR THE APPROACH SLABS.
2. BAR DIMENSIONS ARE OUT TO OUT UNLESS NOTED OTHERWISE.
3. ALL REINFORCING STEEL TO BE EPOXY COATED.
4. BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK. THE LETTERS INDICATE LOCATION. THE FIRST DIGIT OF THE THREE DIGIT MARK AND THE FIRST TWO DIGITS OF THE FOUR DIGIT MARK INDICATE BAR SIZE NUMBER.

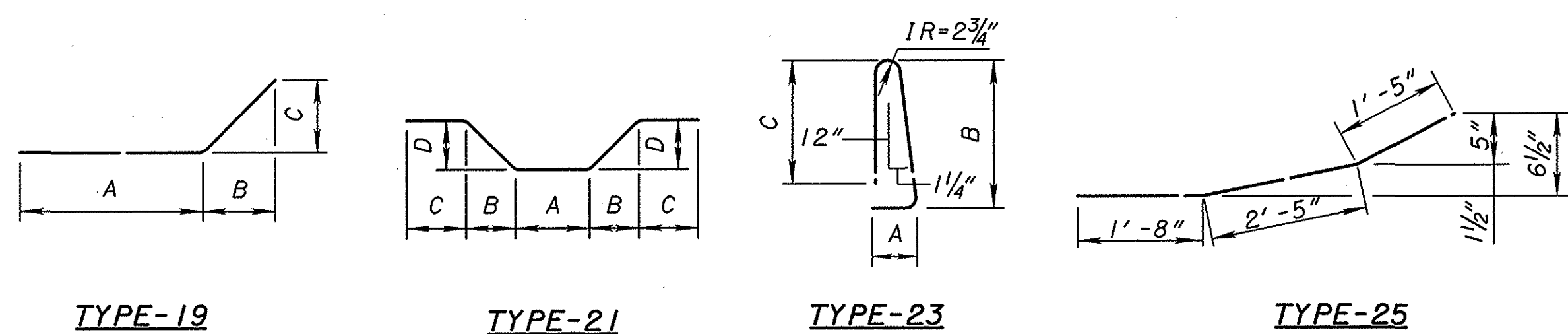
EXAMPLE:



5. FOR ADDITIONAL DETAILS, SEE STD. DWG. AS-1-81.
6. FOR ABBREVIATIONS, SEE SHEET 2/15.

[illegible]

TYPE-1 TYPE-2 TYPE-16 TYPE-17 TYPE-18



REINFORCING STEEL LIST											
MARK	NUMBER				LENGTH	WEIGHT (LBS.)	TYPE	D I M E N S I O N S			
	PIER 1	PIER 2	PIER 3	TOTAL				A	B	C	INC.
					PIERS						
P501	54	58	54	166	2'-11"	505	16	2'-4"			
P502	28	30	28	86	2'-4"	209	STR.				
P503	4		4	8	11'-8"	97	STR.				
P504		4		4	12'-5"	52	STR.				
P505	48	48	48	144	3'-9"	563	I	1'-6"	2'-5"		
P506	5	5	5	15	24'-0"	375	STR.				
P507	2	2	2	6	9'-0"	56	24	2'-8"	2'-5"		
P508	6		6	12	12'-10"	161	17	11'-8"			
P509		6		6	13'-7"	85	17	12'-5"			
P601	18	18	18	54	3'-2"	257	I	1'-0"	2'-4"		
P801	20	20	20	60	3'-9"	601	16	2'-10"			
P802	4		4	8	34'-6"	737	17	32'-8"			
P803	4		4	8	32'-8"	698	STR.				
P804		4		4	36'-6"	390	17	34'-8"			
P805		4		4	34'-8"	370	STR.				
					TOTAL = 5,156						

REINFORCING STEEL LIST									
MARK	NUMBER	LENGTH	WEIGHT	TYPE	D I M E N S I O N S				INCRM
	TOTAL		(LBS.)		A	B	C	D	
* SUPERSTRUCTURE									
S401	609	30' - 0"	12,204	STR.					
S402	37	12' - 11"	319	STR.					
S403	4	13' - 11"	37	STR.					
S404	240	21' - 11"	3514	STR.					
S501	1216	31' - 9"	40,268	STR.					
S502	456	30' - 0"	14,268	STR.					
S503	36	17' - 5"	654	STR.					
S504	4	18' - 5"	77	STR.					
S505	12	23' - 3"	291	STR.					
S506	32	10' - 0"	334	STR.					
S507	12	5' - 6"	69	25					
S508	20	5' - 6"	115	STR.					
S509	600	7' - 8"	4798	21	11 1/2"	8 1/2"	2' - 5"	7 "	
S510	32	27' - 9"	926	STR.					
S511	280	8' - 0"	2336	21	11 1/2"	8 1/2"	2' - 5"	10 1/2"	
S512	480	7' - 5"	3713	23	1' - 1"	3' - 2"	3' - 0"		
S513	96	9' - 6"	951	2	3' - 2"	3' - 5"	3' - 2"		
S514	48	7' - 2"	359	2	2' - 5"	2' - 7"	2' - 5"		
S601	480	3' - 5"	2463	35	1' - 7"	1' - 1"	1' - 1"		
S602	480	2' - 6"	1802	1	1' - 1"	1' - 7"			
S603	16	30' - 0"	721	STR.					
S604	4	14' - 8"	88	19	12' - 8"	2' - 0"	2"		
S605S	8 SER. OF 11	3' - 10" TO 4' - 8"	562	1	1' - 0"	3' - 0" TO 3' - 10"		1"	
S606	32	3' - 10"	184	1	1' - 0"	3' - 0"			
S801	42	31' - 9"	3560	STR.					
S802	40	4' - 11"	525	18	2' - 7"	1' - 0"	1' - 0"		
		TOTAL = 95,138							

1. BAR DIMENSIONS ARE OUT TO OUT UNLESS NOTED OTHERWISE.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.
3. I.R. DENOTES INSIDE RADIUS.
4. BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK. THE FIRST ALPHABETICAL LETTER INDICATES LOCATION. THE FIRST DIGIT OF THE THREE DIGIT MARK AND THE FIRST TWO DIGITS OF THE FOUR DIGIT MARK INDICATE BAR SIZE NUMBER.

A

50I

NO. 5 SIZE BAR

ABUTMENT

S

50IS

SERIES BAR

NO. 5 SIZE BAR

SUPERSTRUCTURE OR DIAPHRAGM

5. FOR ABBREVIATIONS, SEE SHEET 2/15.