



STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

ERI-2-12.558
PERKINS TOWNSHIP
HURON TOWNSHIP
CITY OF HURON
ERIE COUNTY

PROJECT DESCRIPTION

REHABILITATE 13.3km OF FOUR LANE DIVIDED FREEWAY, INCLUDING THREE INTERCHANGES. RECONSTRUCT AND RAISE MAINLINE AND OVERPASS BRIDGES. WIDEN AND PROVIDE LIGHTING FOR THE U.S. ROUTE 6/RYE BEACH ROAD INTERCHANGE.

1997 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS PROJECT.

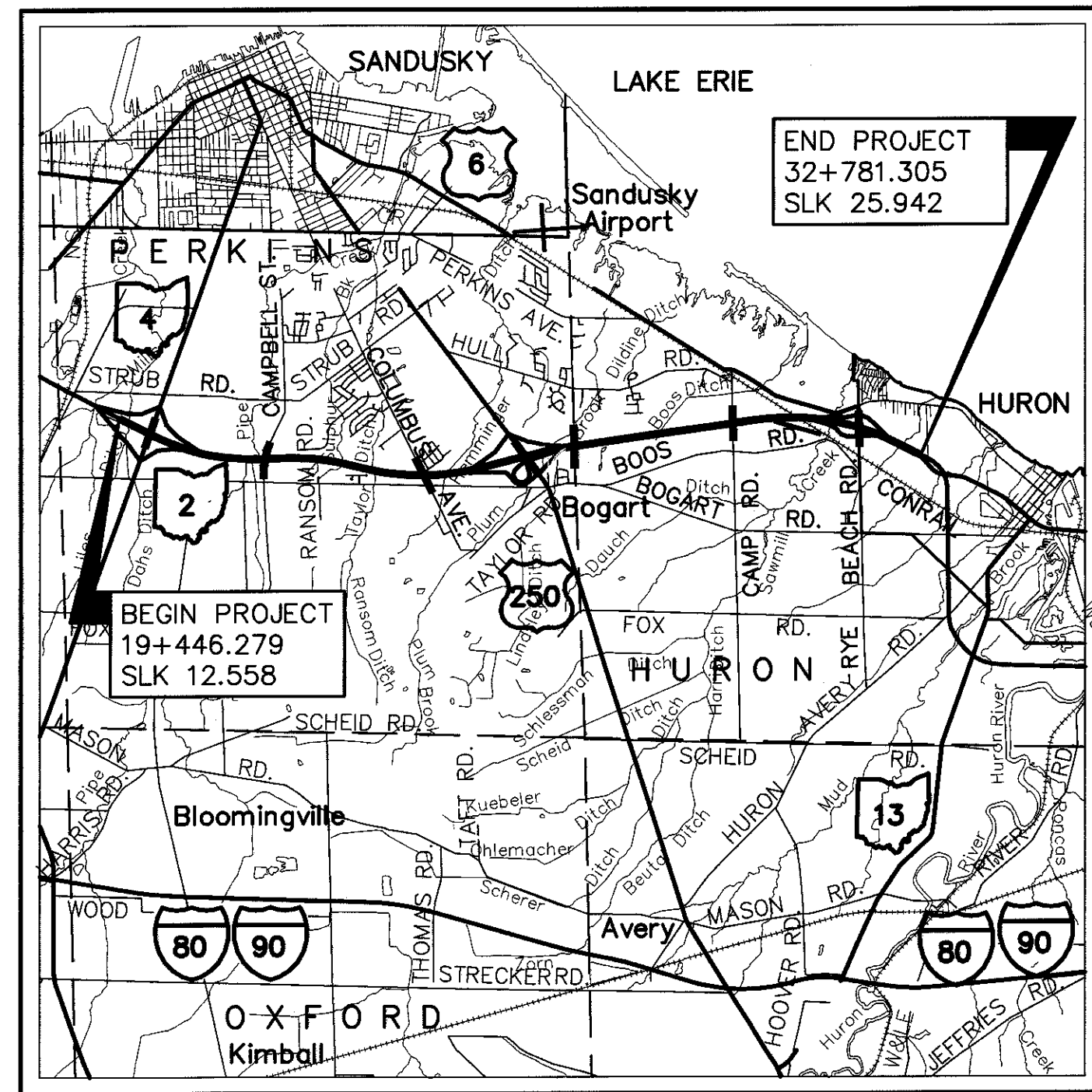
I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 19-21, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE SET FORTH ON THE PLANS AND ESTIMATES.

SPEED LIMIT

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (1) OF THE REVISED CODE OF OHIO, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.

SPECIAL PROVISIONS

WATERWAY PERMIT NWP # 3 & 14 DATED: 1-28-98



LOCATION MAP

Latitude: N41°24'00" Longitude: W82°44'00"



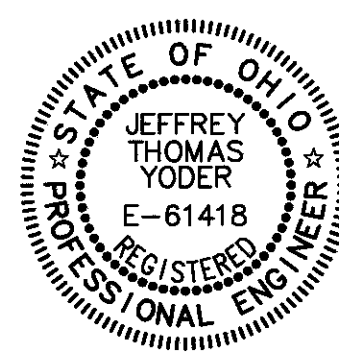
RATIO IN KILOMETERS



PORTION TO BE IMPROVED _____
STATE & FEDERAL ROUTES _____
OTHER ROADS _____

FOR DESIGN DESIGNATION & DESIGN
EXCEPTIONS - SEE SHEET 2

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY



Jeffrey T. Yoder
JEFFREY T. YODER E-61418

Plan Prepared By:



POGGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1168 NORTH MAIN STREET BOWLING GREEN, OHIO 43402

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SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-2.1M	4-8-97	GR-4.3M	10-21-97	DM-4.3	4-29-99	MT-35.10M	1-30-95	TC-12.30M	2-1-94	VPF-1-90M	3-20-95
BP-2.2M	10-21-97	GR-4.4M	11-30-94	DM-4.4	4-29-99	MT-35.11M	1-30-95	TC-21.20M	12-10-96	PCB-91M	3-20-95
BP-2.4M	10-28-94	GR-5.1M	4-21-95			MT-95.30M	4-25-94	TC-31.21M	3-31-94	AS-1-81M	10-25-94
BP-2.5M	4-8-97	GR-5.2M	11-30-94	HL-10.31M	3-31-95	MT-95.31M	4-25-94	TC-32.10M	3-31-94	BR-1M	1-6-99
BP-3.1M	10-28-94	GR-5.3M	11-30-94	HL-20.11M	3-31-95	MT-95.32M	4-25-94	TC-32.11M	3-31-94	CS-1-93M	6-30-95
BP-4.1M	10-28-94	GR-6.1M	1-3-96	HL-20.21M	8-31-94	MT-95.40M	4-25-94	TC-41.10M	3-31-94	EXJ-4-87M	2-18-97
BP-5.1M	10-28-94	GR-6.2M	1-3-96	HL-20.22M	3-31-95	MT-95.41M	4-25-94	TC-41.50M	7-1-94	IRJ-8-95M	7-6-95
BP-9.1	4-29-99	RM-1.1	4-29-99	HL-20.23M	3-31-95	MT-95.81M	4-25-94	TC-41.40M	3-31-94	BS-1-93M	12-15-94
F-2.1M	4-8-97	RM-4.3M	10-21-97	HL-30.11M	3-31-95	MT-97.10M	1-30-95	TC-42.10M	3-31-94	SICD-1-96M	2-12-97
F-3.1M	4-21-95	RM-4.4M	10-21-97	HL-30.21M	5-1-95	MT-98.13M	6-24-93	TC-42.20M	3-31-94	RB-1-55M	10-25-94
F-3.2M	4-8-97	RM-4.5M	10-21-97	HL-30.22M	3-31-95	MT-98.15M	6-24-93	TC-52.10M	7-29-94	GSD-1-96M	11-21-97
F-3.3M	4-21-95	CB-1.1M	7-12-95	HL-30.31M	5-1-95	MT-98.16M	6-24-93	TC-52.20M	7-29-94		
F-3.4M	4-8-97	CB-3.1M	7-12-95	HL-30.32M	8-14-96	MT-98.17M	4-25-94	TC-61.10M	3-31-94		
GR-1.1M	10-21-97	HW-1.1M	7-12-95	HL-40.10M	3-31-95	MT-98.18M	4-25-94	TC-65.10M	11-1-95		
GR-1.2M	1-3-96	HW-2.1M	7-12-95	HL-50.11M	3-31-95	MT-98.19M	3-1-96	TC-65.11M	11-1-95		
GR-1.3M	11-30-94	HW-2.2M	7-12-95	HL-50.21M	8-31-94	MT-99.20M	1-30-95	TC-65.12M	11-1-95		
GR-2.1M	4-14-98	DM-1.1M	10-21-97	HL-60.11M	5-1-95	MT-99.50M	3-1-96	TC-71.10M	9-1-93		
GR-3.1M	10-21-97	DM-1.2M	10-21-97	HL-60.12M	3-31-95	MT-101.60M	4-25-94	TC-72.20M	9-1-93		
GR-3.2M	10-21-97	DM-4.1M	6-30-95	HL-60.21M	3-31-95	MT-105.10M	4-25-94	TC-82.10M	11-24-93		
GR-4.2M	10-21-97	DM-4.2M	6-30-95	HL-60.31M	3-31-95	MT-105.11M	4-25-94				

SUPPLEMENTAL SPECIFICATIONS

806	9-9-97	877	4-13-99
814	6-2-98	899	10-21-98
815	5-30-96	904	5-5-98
816	4-21-97	905	4-1-98
830	10-21-98	906	5-5-98
842	1-6-99	910	7-28-98
844	1-6-99	932	10-2-96
846	9-9-97	954	9-9-97
863	9-9-97	907	10-21-98
		970	12-16-97

Approved James D. Mawhor
Date 9-1-99 District Deputy Director
of Transportation

Approved London Proctor, Jr.
Date 9-15-99 Director, Department of Transportation

FEDERAL PROJECT NO.
NH - 73 (90)

PID NO.
11376

CONSTRUCTION PROJECT NO.

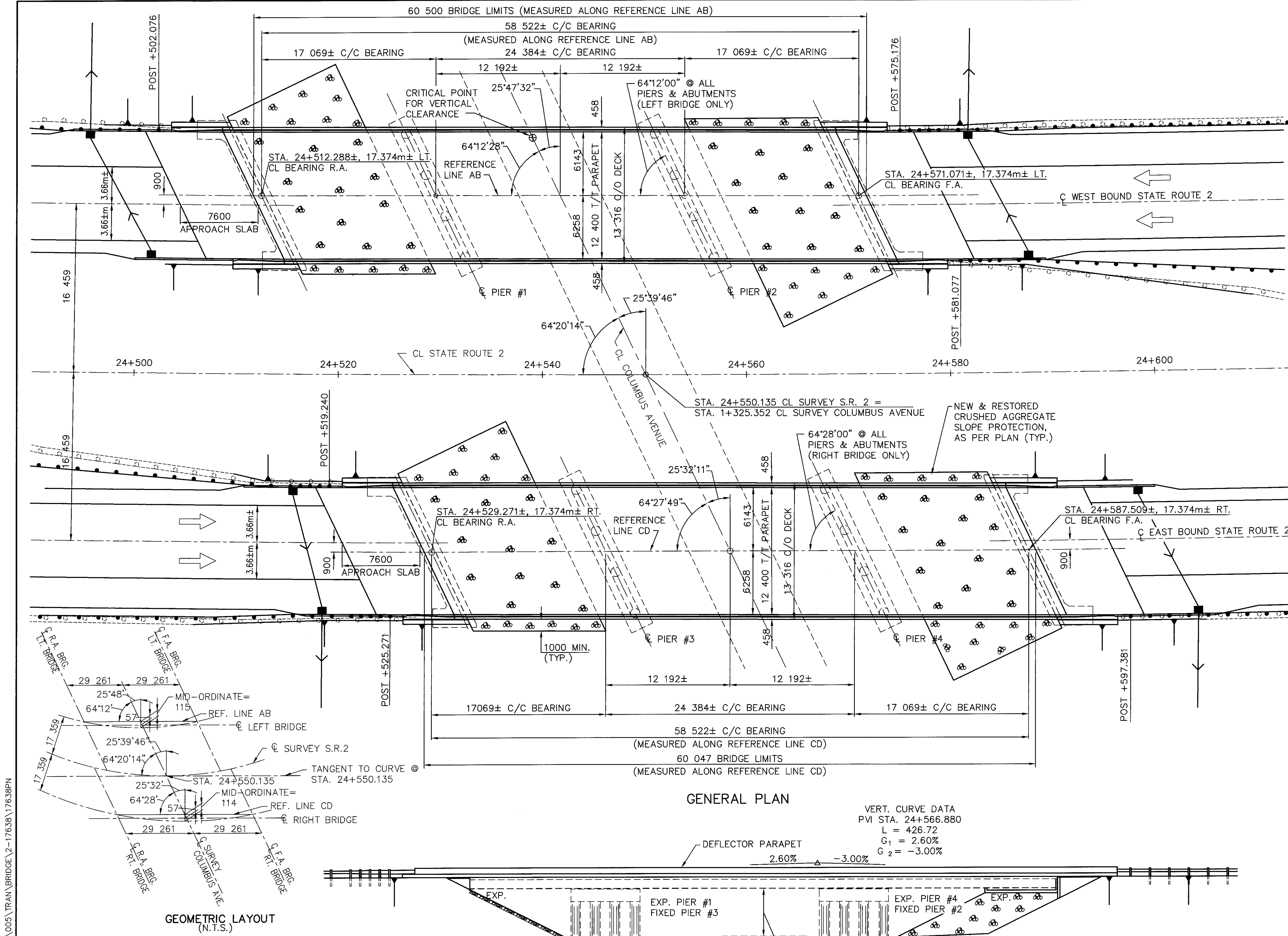
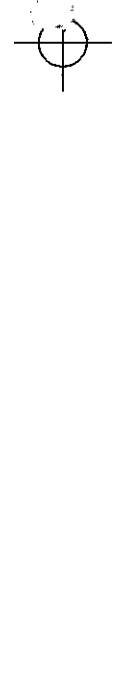
RAILROAD INVOLVEMENT
NORFOLK SOUTHERN RAILWAY

ERI-2-12.558

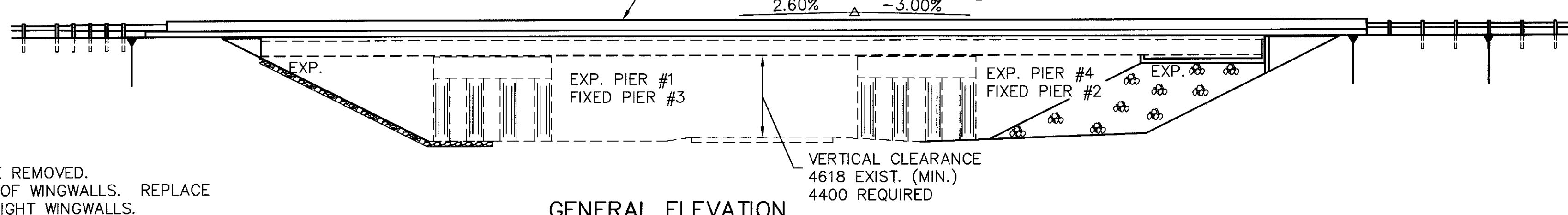
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ERI - SR 2 - 12.558
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DIST 03
PID# 11376
01-19-00

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KUB



- PROPOSED WORK:
- EXISTING CONCRETE DECK, RAILING AND SCUPPERS TO BE REMOVED.
 - REMOVE EXISTING ABUTMENT BACKWALLS AND PORTIONS OF WINGWALLS. REPLACE BACKWALL WITH SEMI-INTEGRAL CAP AND PROVIDE STRAIGHT WINGWALLS.
 - RETRO FIT SPECIFIED COVER PLATES.
 - PLACE POROUS BACKFILL WITH FILTER FABRIC AND NEW DRAINAGE PIPE BEHIND ABUTMENTS.
 - RAISE DECK PROFILE 76mm TO MATCH S.R. 2 RESURFACING DEPTH
 - REPLACE APPROACH SLABS.
 - NEW CONCRETE DECK TO BE MADE COMPOSITE WITH EXISTING STEEL BEAMS BY THE ADDITION OF STUD SHEAR CONNECTORS.
 - SEAL CONCRETE SURFACES.
 - REPAIR SLOPE PROTECTION
 - CLEAN AND REPAINT STEEL.
 - REMOVE SCUPPERS & PLACE CATCH BASINS.



VERT. CURVE DATA
 PVI STA. 24+566.880
 L = 426.72
 G₁ = 2.60%
 G₂ = -3.00%

BENCH MARK No. 21
 MONUMENT FOUND (P.O.C.)
 STA. 24+505.969, ELEV. 195.957

BENCH MARK No. 22
 MONUMENT FOUND (P.O.C.)
 STA. 24+810.770, ELEV. 190.769

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 1188 NORTH MAIN STREET
 BOWLING GREEN, OHIO 43402

DATE: 10-97
 C.A.B.:
 STRUCTURE FILE NUMBER: 2200848 & 2200872

DESIGNED: J.T.Y. CHECKED: M.E.M.
 DRAWN: RAN REVISED:
 REVIEWED: C.A.B. STRUCTURE FILE NUMBER: 2200848 & 2200872

NOTE:
 ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

ALL DIMENSIONS REFERENCING THE CL OF STRUCTURE ARE TO THE REFERENCE CHORD.

CURRENT YEAR ADT (1998) = 11 140*
 DESIGN YEAR ADT (2018) = 16 100*
 DESIGN YEAR ADTT (2018) = 3220*

* - ONE DIRECTION

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINF. CONC. DECK, REINF. CONC. PIER BENTS AND STUB ABUTMENTS

SPAN: 17 069±, 24 384±, 17 069± C/C BRGS

ROADWAY: 12 802± F/F OF PARAPETS LEFT AND RIGHT BRIDGES

LOAD FREQUENCY: CF-400 (57)

SKEW: 25'-48"± LEFT BRIDGE (FROM REF. CHORD)
 25'-32"± RIGHT BRIDGE (FROM REF. CHORD)

WEARING SURFACE: 25 MONOLITHIC CONCRETE

STRUCTURE FILE NUMBER: 2200848(LT.) & 2200872(RT.)

APPROACH SLABS: AS-1-54 (7620 LONG)

DATE BUILT: 1961

ALIGNMENT: 0'-28' CURVE LEFT, NO SUPERELEVATION

PROPOSED STRUCTURE

PROPOSED WORK: NEW COMPOSITE REINFORCED CONC. DECK. RAISE STRUCTURE 76mm

TYPE: EXIST. CONTINUOUS STEEL BEAM WITH NEW COMPOSITE REINF. CONC. DECK & EXIST. CONC. SUBSTRUCTURE

SPAN: 17 069±, 24 384±, 17 069± C/C BRGS

ROADWAY: 12 400 T/T PARAPETS

LOADING: MS18 (CASE I) & THE ALTERNATE MILITARY LOAD

SKEW: 25'-48"± R.F. LEFT BRIDGE (FROM REF. CHORD)
 25'-32"± R.F. RIGHT BRIDGE (FROM REF. CHORD)

WEARING SURFACE: 25 MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81M (7600 LONG)

ALIGNMENT: 0'-28' CURVE LEFT, NO SUPERELEVATION

LONGITUDE: W-82°40'30" LATITUDE: N-41°23'50"

GENERAL PLAN AND ELEVATION
 BRIDGE NO. ERI-2-17638 (1096)
 OVER COLUMBUS AVENUE

ERI-2-12-558

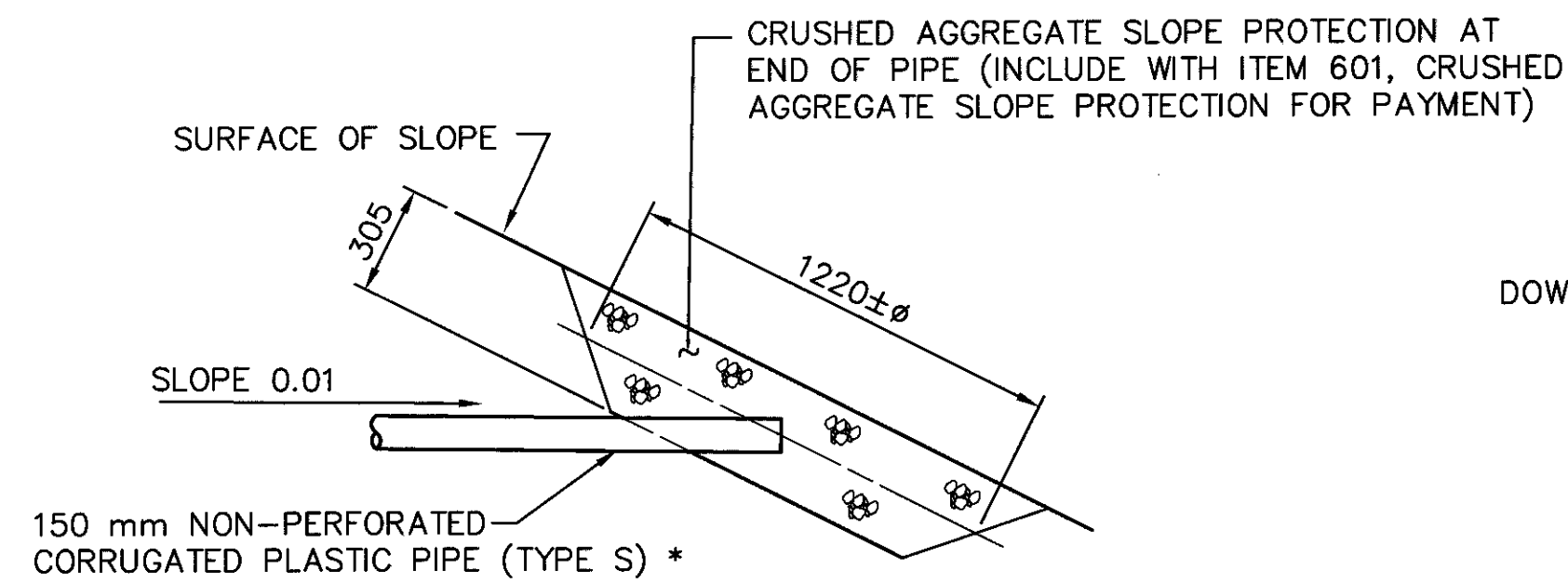
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 354
 432

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ESTIMATED QUANTITIES

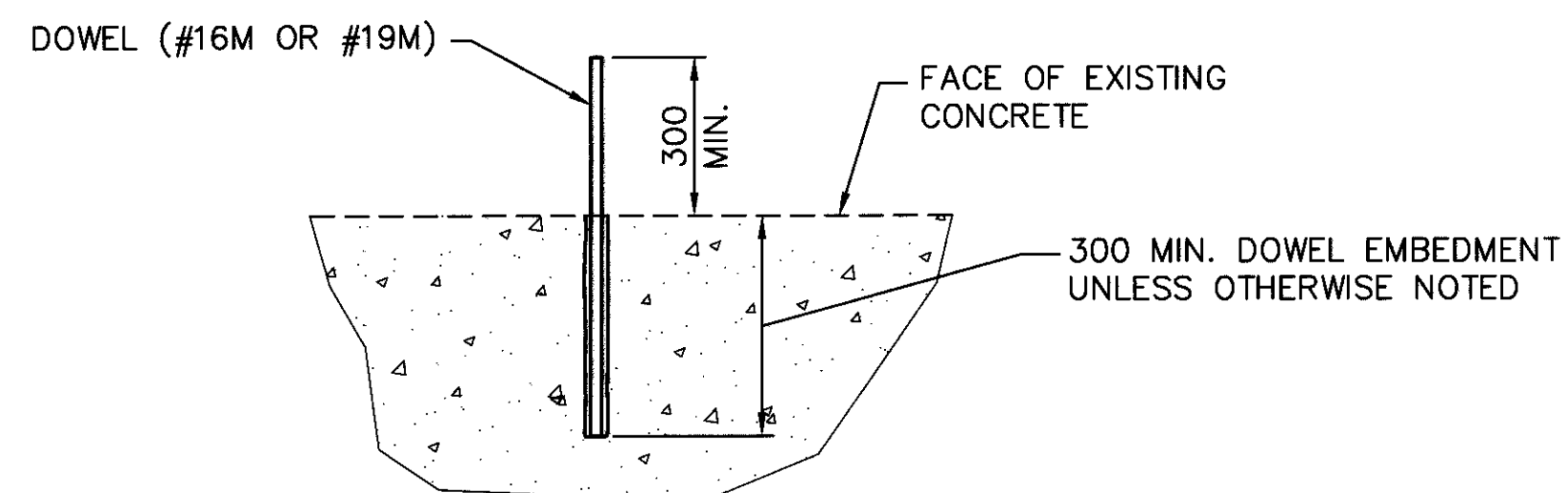
ITEM	ITEM EXT.	TOTAL LT. BRIDGE	TOTAL RT. BRIDGE	UNIT	DESCRIPTION	AS PER PLAN SHEET #	ABUTMENTS				PIERS				SUPERSTRUCTURE		GENERAL
							LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.	LT. #1	LT. #2	RT. #3	RT. #4	LEFT	RIGHT	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 6 METER SPAN, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP					LU MP	LUMP	
503	21300	LUMP	LUMP		UNCLASSIFIED EXCAVATION		LUMP	LUMP	LUMP	LUMP							
SPECIAL	51267510	580	588	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		15	15	15	15	86	86	90	90	378	378	
516	13600	2	2	SQ METER	25mm PREFORMED EXPANSION JOINT FILLER		1	1	1	1							
516	13900	12	12	SQ METER	51mm PREFORMED EXPANSION JOINT FILLER		6	6	6	6							
516	44001	12	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, 36.1mm x 230mm x 355mm PAD AND 60.3mm x 256mm x 381mm LOAD PLATE	324									12	12	
516	47000	LUMP	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE										LUMP	LUMP	
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	324	LUMP	LUMP	LUMP	LUMP							
518	40000	34	34	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE		17	17	17	17							
518	40010	14	14	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS		7	7	7	7							
519	11100	40	37	SQ METER	PATCHING CONCRETE STRUCTURE		19	21	19	18							
815	00050	1300	1300	SQ. METER	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU										1300	1300	
815	00056	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU										1300	1300	
815	00060	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU										1300	1300	
815	00066	1300	1300	SQ. METER	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU										1300	1300	
815	00504	50	50	MAN HOUR	GRINDING FINNS, TEARS, SLIVERS										50	50	
815	00508	147	147	METER	GRINDING FLANGE EDGES										147	147	
842	45701	18	18	CU METER	CLASS C CONCRETE, ABUTMENT, AS PER PLAN	325	9	9	9	9							
844	48001	230	230	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (DECK), AS PER PLAN, MIX 4	325									230	230	
844	48021	38	38	CU METER	HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET), AS PER PLAN, MIX 4	325									38	38	
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX										LUMP	LUMP	
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING										LUMP	LUMP	
863	20000	3438	3438	EACH	WELDED STUD SHEAR CONNECTOR										3438	3438	
863	90000	1588	1588	KILOGRAM	STRUCTURAL STEEL, MISC.: END BOLTED COVER PLATES										1588	1588	

NOTE:
STRUCTURES ARE DETAILED FOR STAGED CONSTRUCTION, BUT SHALL BE BUILT PER THE MAINTENANCE OF TRAFFIC PLANS. THE RIGHT STRUCTURE SHALL BE BUILT DURING PHASE 1 AND THE LEFT STRUCTURE DURING PHASE 2.



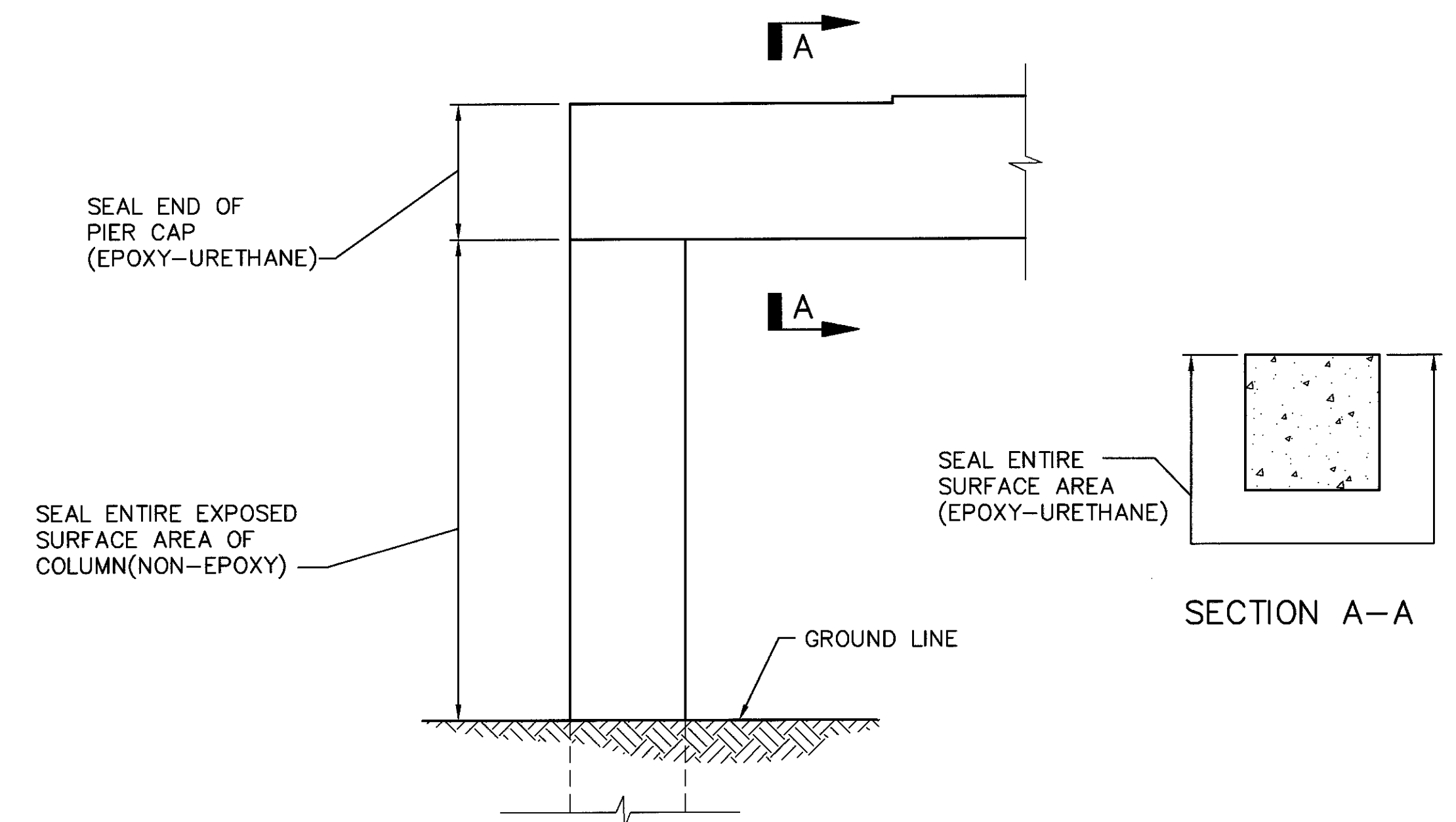
OUTLET DETAIL

* ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLETS OF THESE DRAINAGE PIPES PER DM-1.1M. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO ITEM 518 - 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.



DOWEL DETAIL

DOWEL BARS, SHALL BE DRILLED AND GROUTED INTO THE EXISTING STRUCTURE AS SHOWN AND IN ACCORDANCE WITH CMS 510, DOWEL HOLES, EXCEPT THAT GROUT SHALL BE NON-SHRINK, NON-METALIC EPOXY MORTAR, COST TO BE INCLUDED WITH THE APPROPRIATE 842 CONCRETE ITEM.

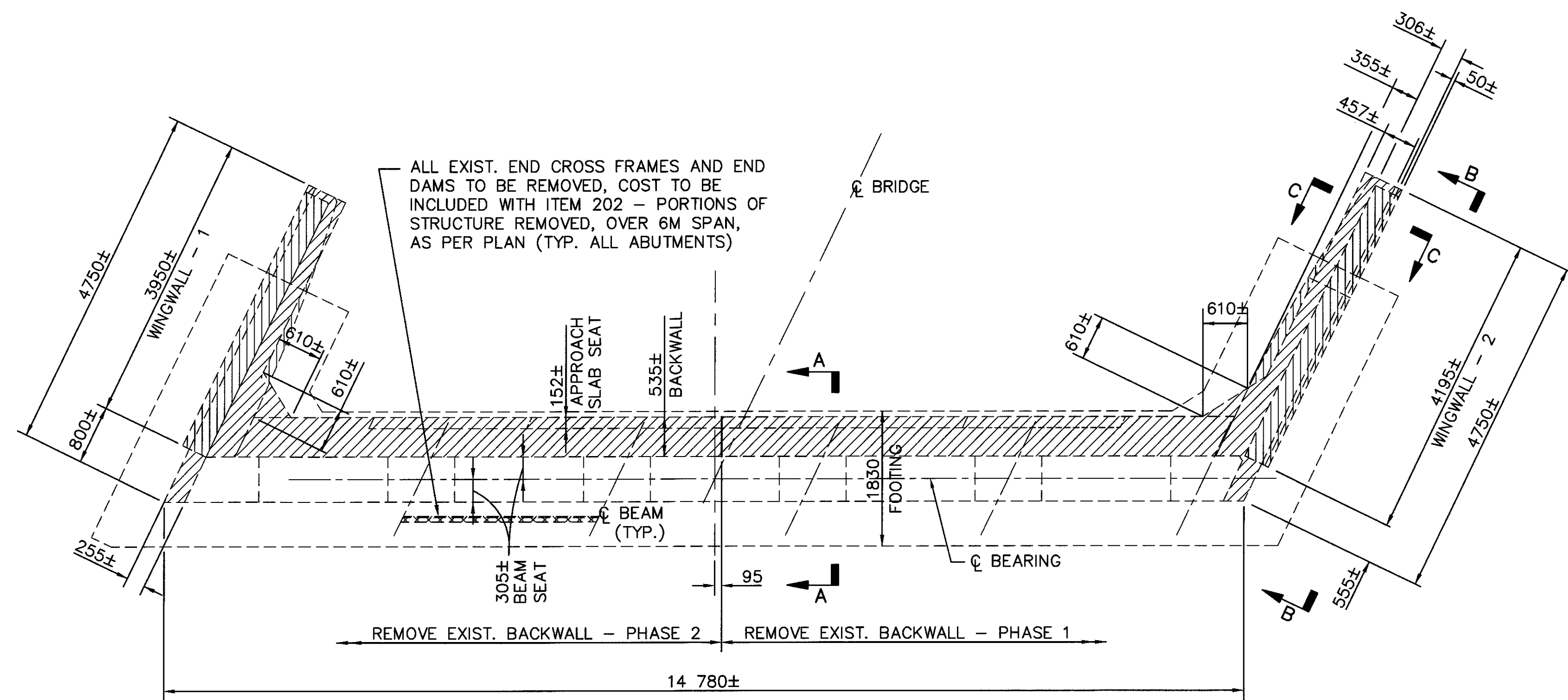


LIMITS OF SEALING OF PIERS

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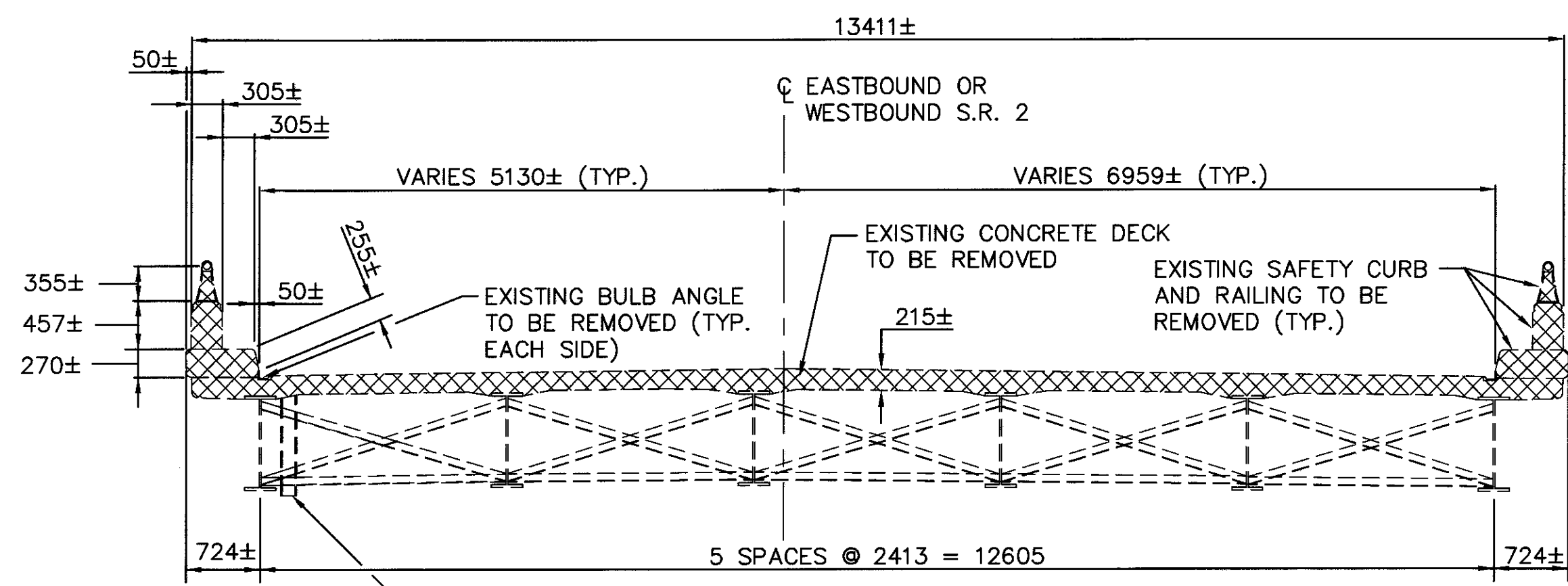
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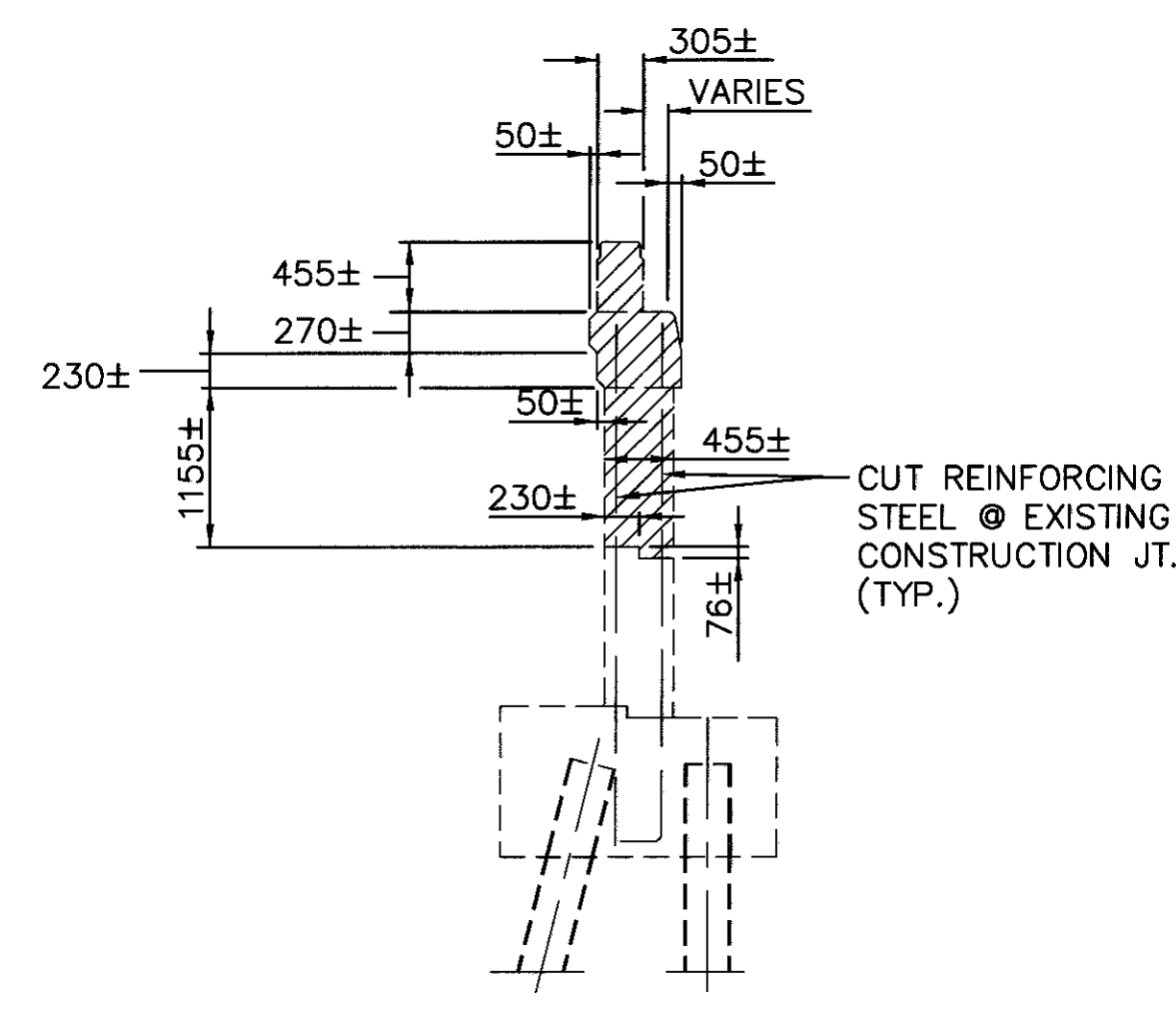
LIMITS OF ABUTMENT REMOVAL
(TYP. EACH ABUTMENT) (LEFT REAR & RIGHT FORWARD SHOWN OTHER ABUTMENTS SIMILAR)

- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUBSTRUCTURE)
- INDICATES AREA TO BE REMOVED UNDER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 6M SPAN, AS PER PLAN (SUPERSTRUCTURE)

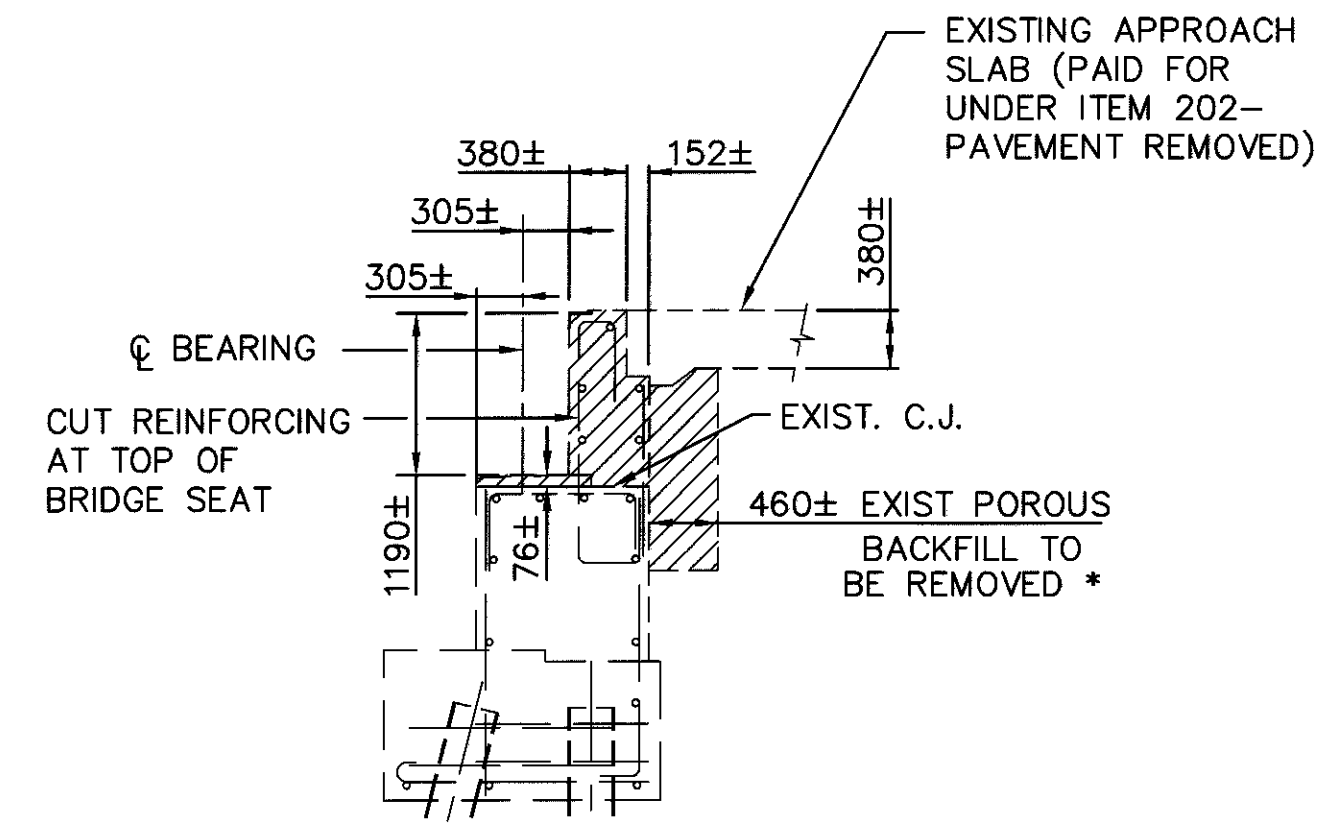
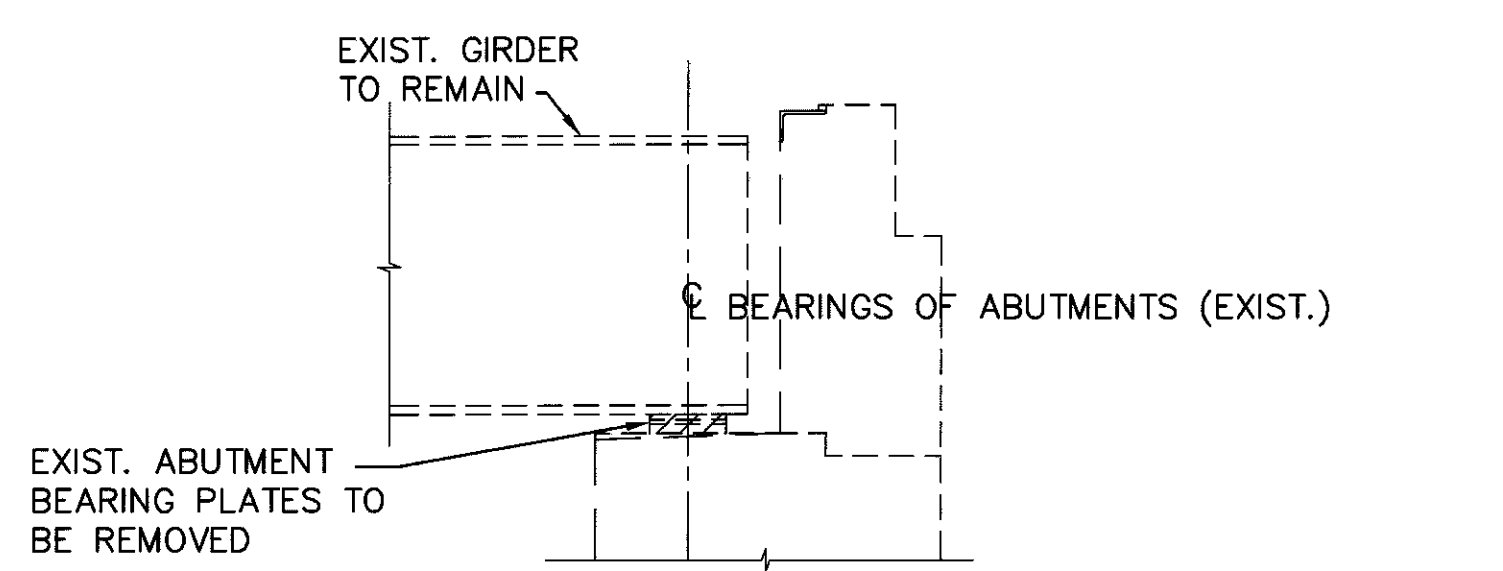


TRANSVERSE SECTION OF DECK
(LOOKING IN THE DIRECTION OF TRAFFIC)

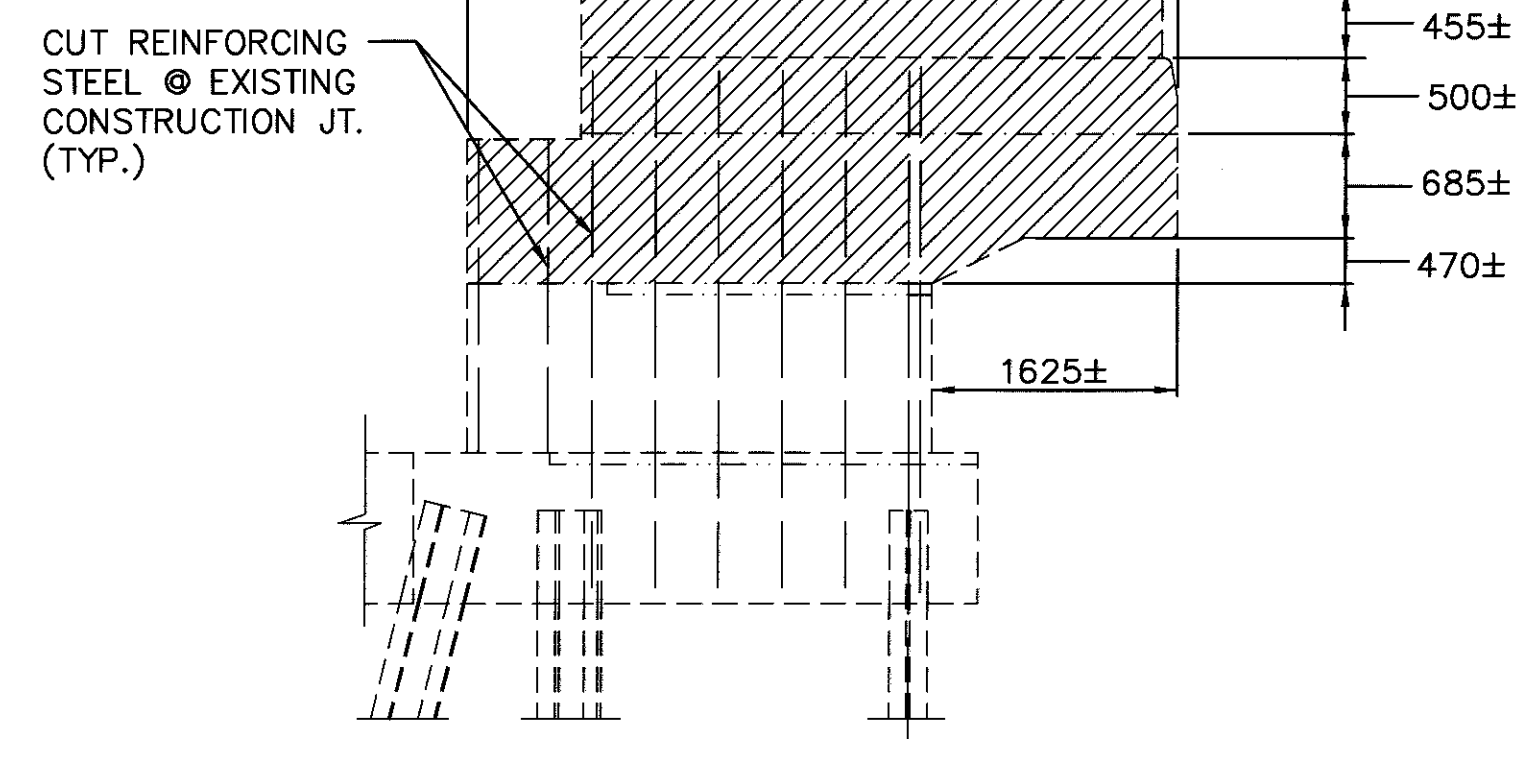
SEE SHEET **[10/11]** FOR STAGE CONSTRUCTION REMOVAL LIMITS



SECTION C-C



SECTION A-A



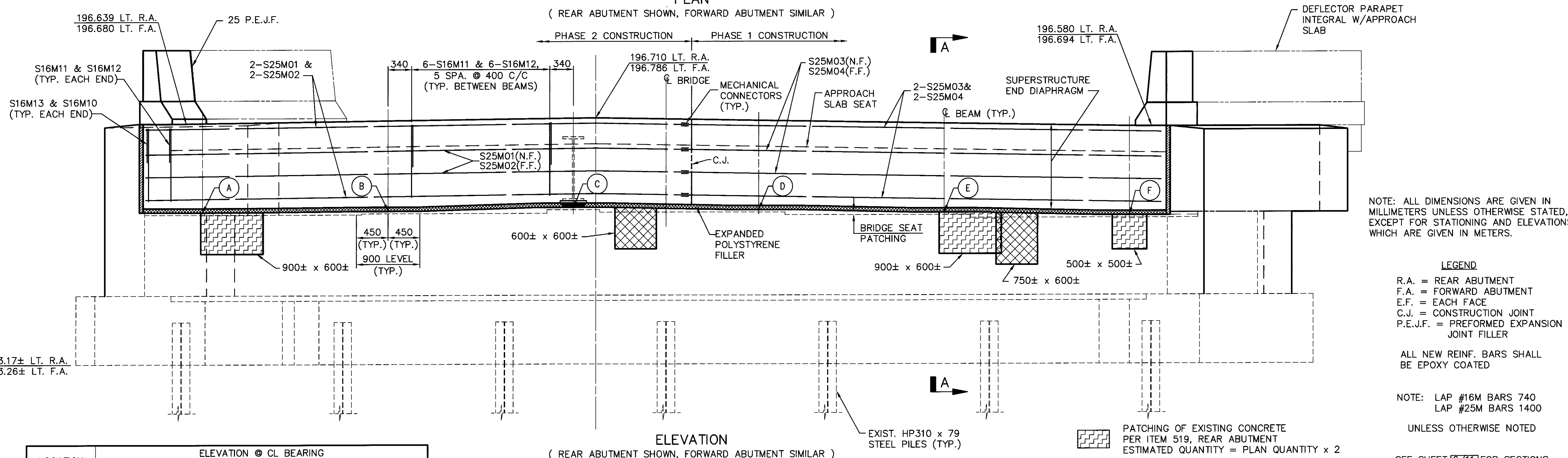
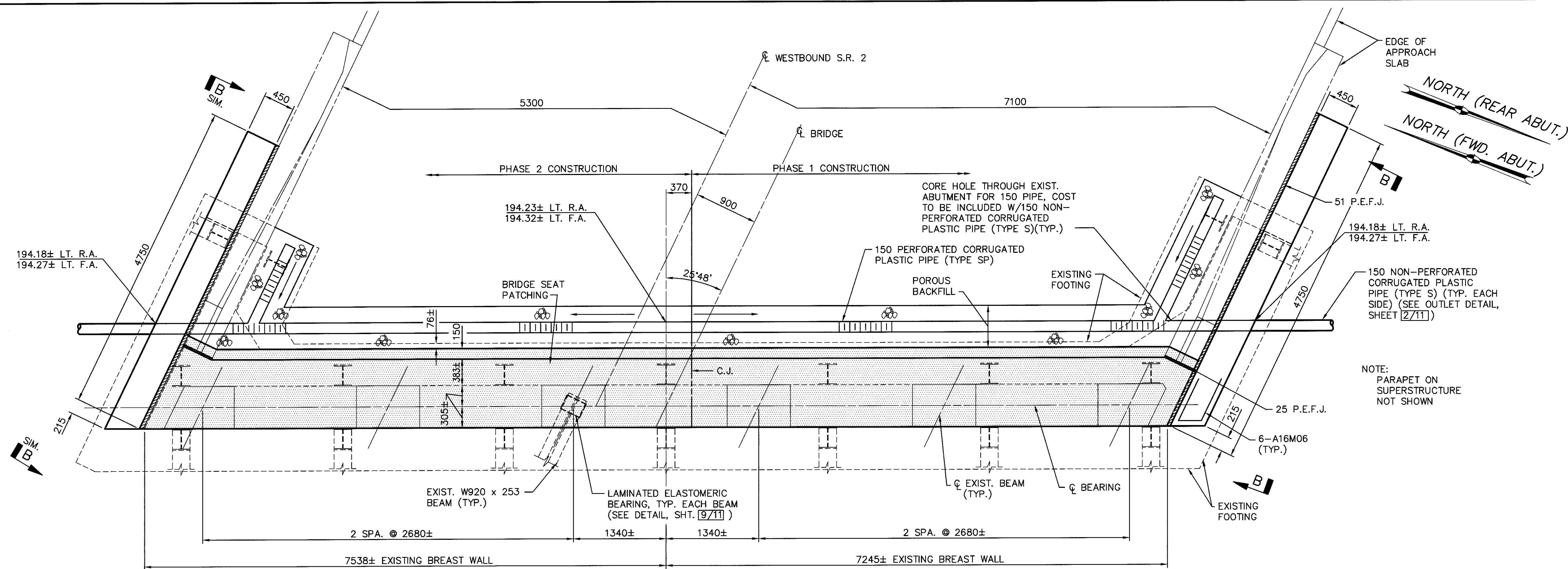
VIEW B-B

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
ARCHITECTS + ENGINEERS + PLANNERS
1188 NORTH MAIN STREET
BURLING GREEN, OHIO 44142

DESIGNED	J.T.Y.	CHECKED	M.E.M.
DRAWN	RAN	REMOVED	
REVIEWED	G.A.B.	STRUCTURE FILE NUMBER	2200848 & 2200872
DATE	10-97		

BRIDGE DEMOLITION PLAN
BRIDGE NO. ERI-2-17638 (1096)
OVER COLUMBUS AVENUE

ERI-2-12.558

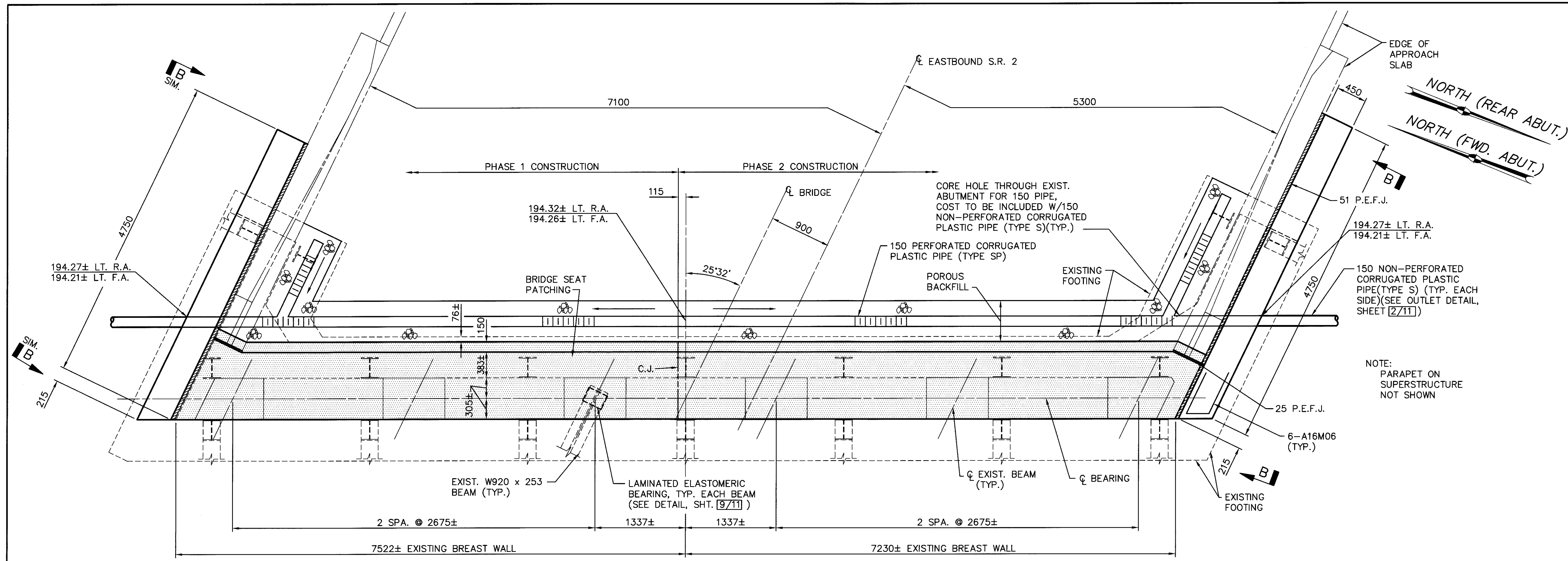


LOCATION	ELEVATION @ CL BEARING					
	A	B	C	D	E	F
REAR ABUT.	195.332	195.366	195.390	195.369	195.332	195.281
FWD. ABUT.	195.360	195.399	195.439	195.460	195.424	195.375

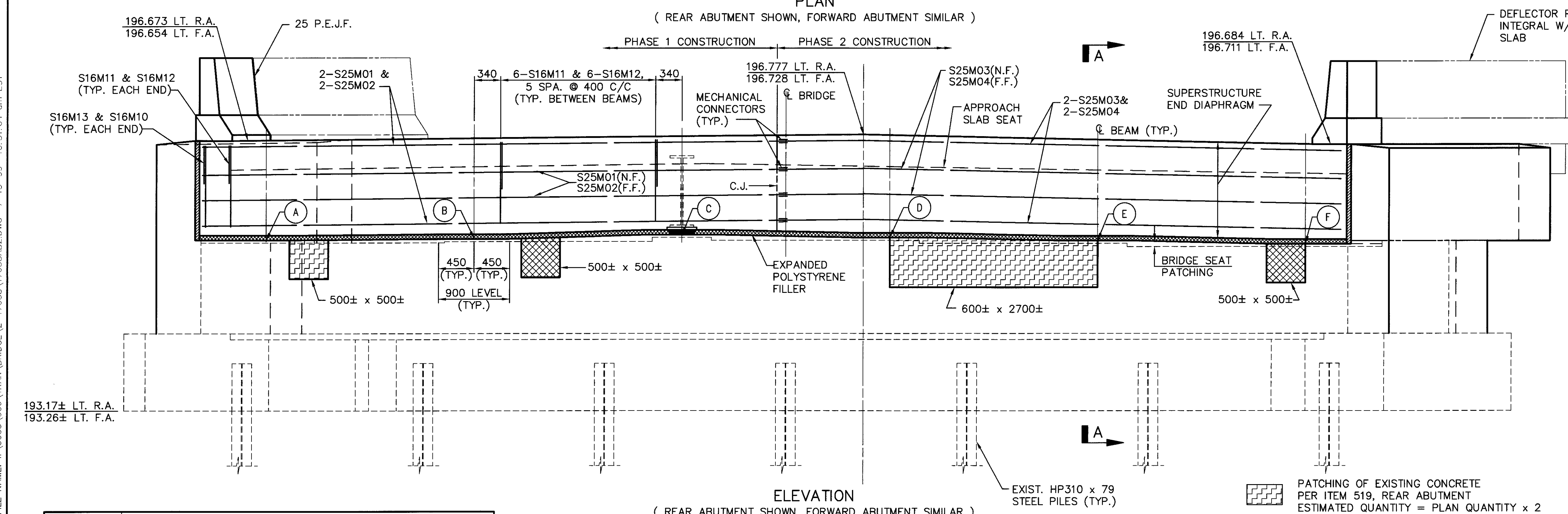
NOTE:
 BOTTOM OF EXISTING BEAM ELEVATIONS TO REMAIN THE SAME

- PATCHING OF EXISTING CONCRETE PER ITEM 519, REAR ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING CONCRETE PER ITEM 519, FORWARD ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING BRIDGE SEAT PER ITEM 519

FILE NAME: I:\5033\006\TRAN\BRIDGE\2-17638\17638AB1.DWG 7-13-99 10:26:01 am EST
 PLOTTED: KJB



NOTE:
 PARAPET ON SUPERSTRUCTURE NOT SHOWN



NOTE: ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED, EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

LEGEND
 R.A. = REAR ABUTMENT
 F.A. = FORWARD ABUTMENT
 E.F. = EACH FACE
 C.J. = CONSTRUCTION JOINT
 P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

ALL NEW REINF. BARS SHALL BE EPOXY COATED

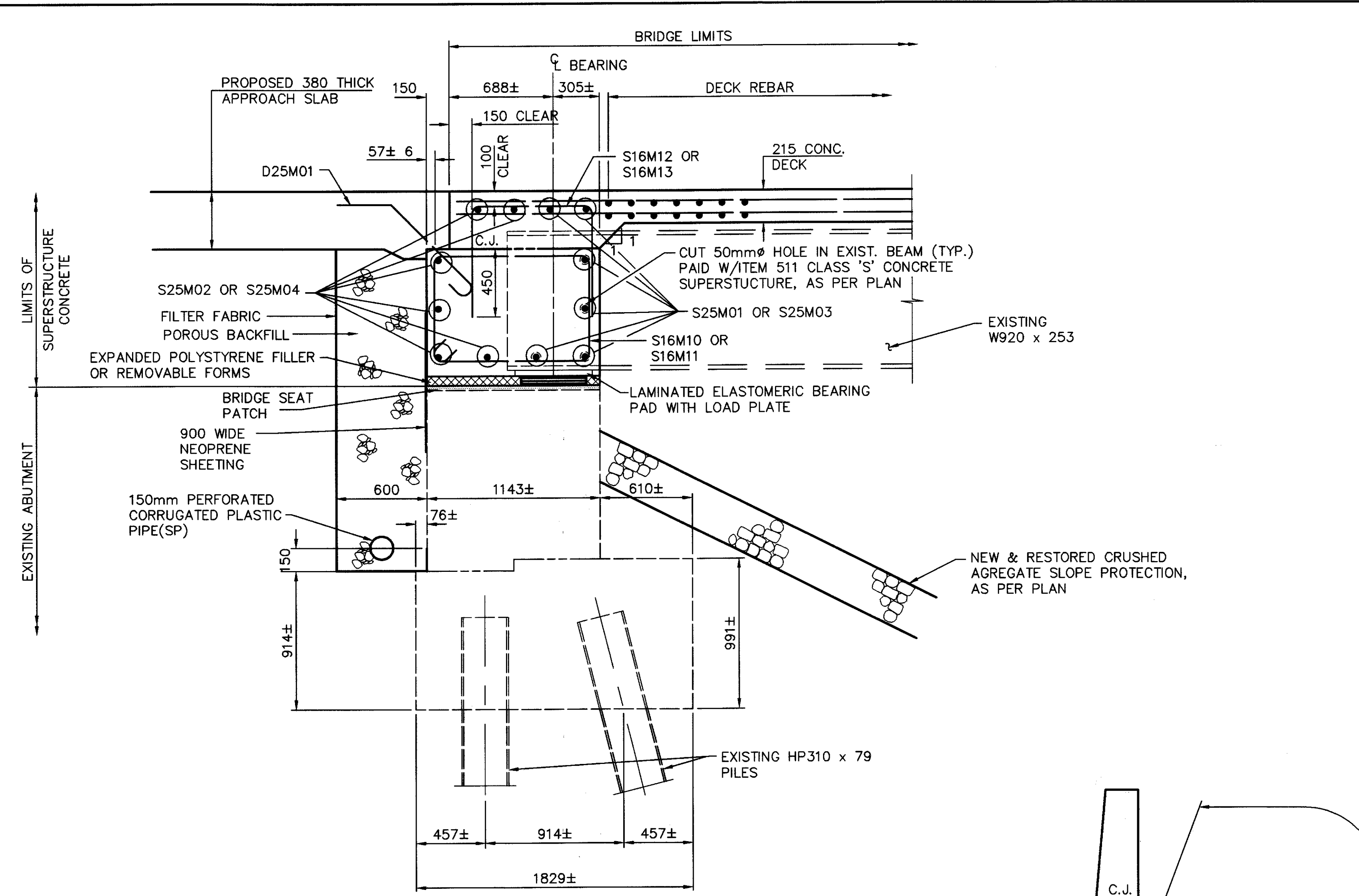
NOTE: LAP #16M BARS 740
 LAP #25M BARS 1400
 UNLESS OTHERWISE NOTED
 SEE SHEET [6/11] FOR SECTIONS

- PATCHING OF EXISTING CONCRETE PER ITEM 519, REAR ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING CONCRETE PER ITEM 519, FORWARD ABUTMENT ESTIMATED QUANTITY = PLAN QUANTITY x 2
- PATCHING OF EXISTING BRIDGE SEAT PER ITEM 519

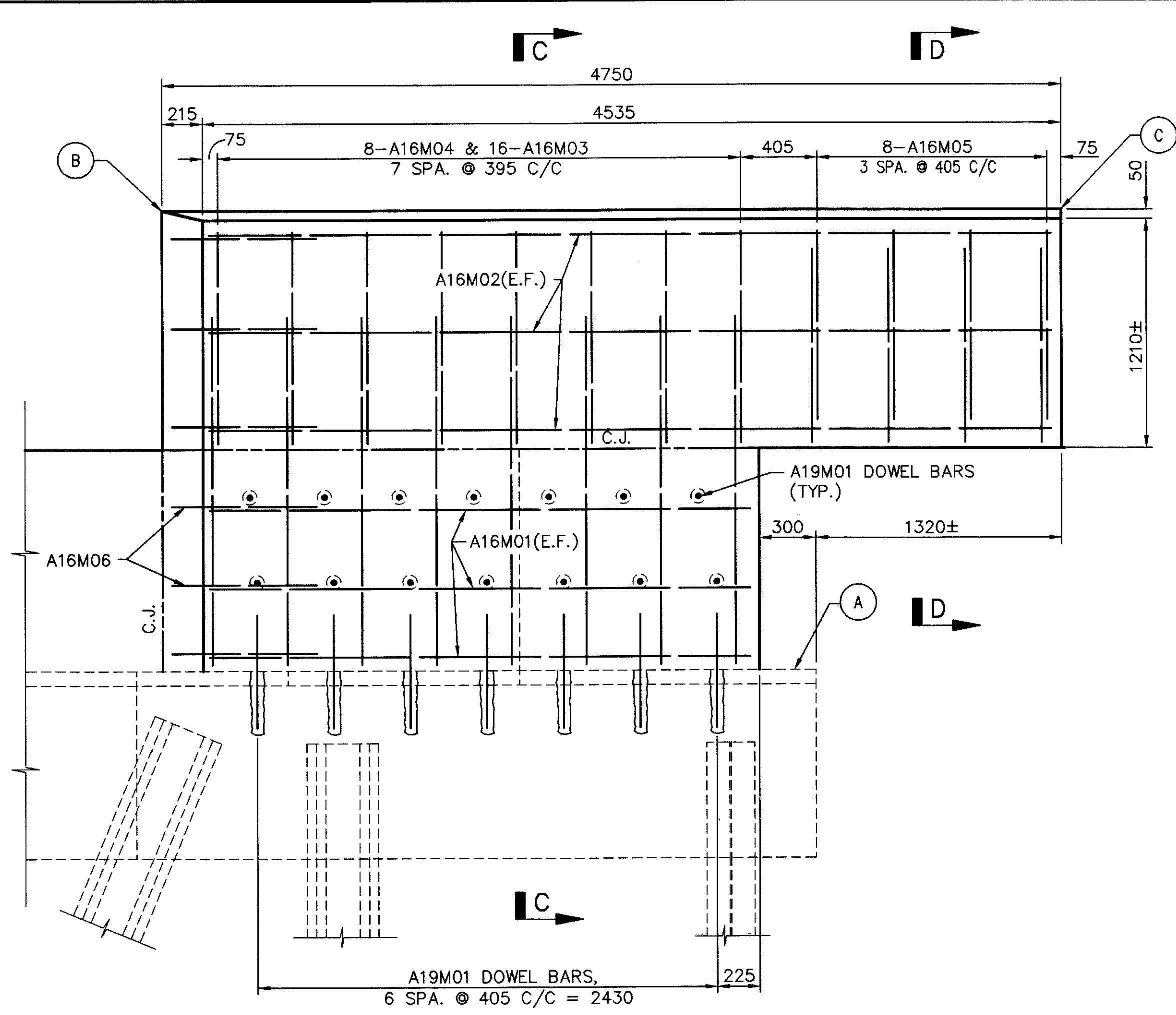
LOCATION	ELEVATION @ CL BEARING					
	A	B	C	D	E	F
REAR ABUT.	195.366	195.403	195.427	195.448	195.406	195.363
FWD. ABUT.	195.332	195.375	195.403	195.375	195.332	195.287

NOTE:
 BOTTOM OF EXISTING BEAM ELEVATIONS TO REMAIN THE SAME

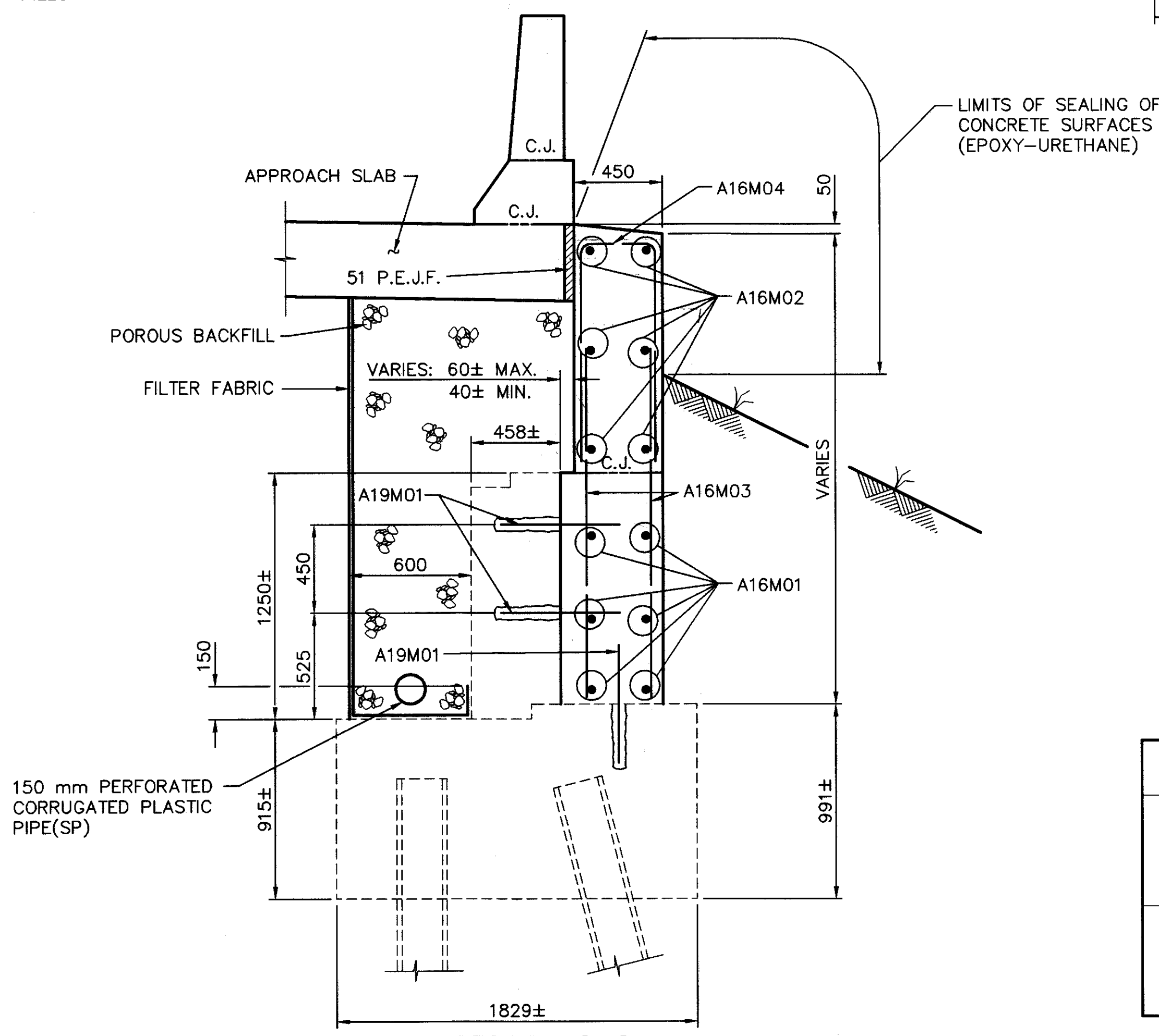
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 PLOTTED: K:JB



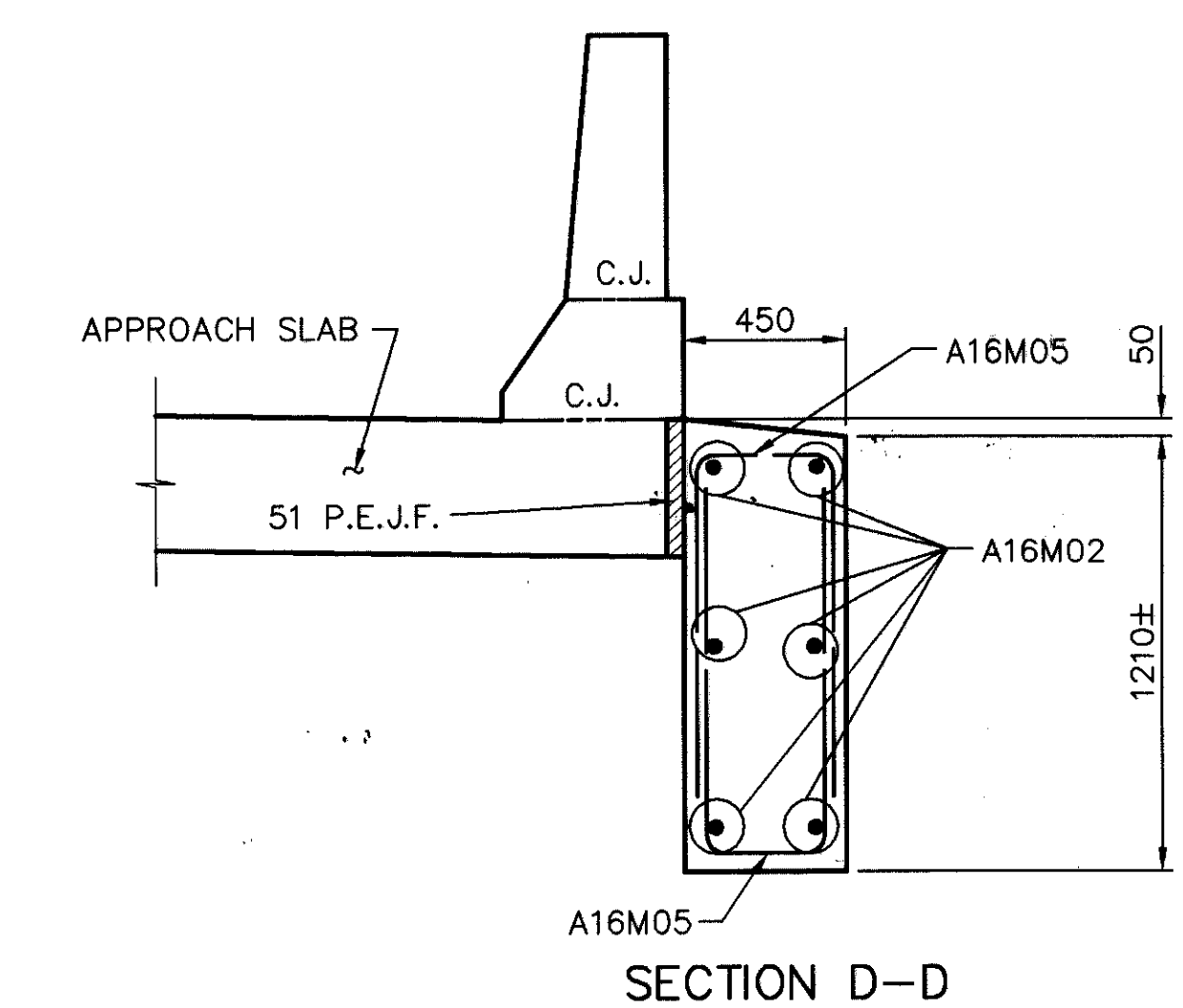
SECTION A-A



VIEW B-B



SECTION C-C



SECTION D-D

NOTES

POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN 600 THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 305 BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE ENDS OF THE WINGWALLS, GEOTEXTILE FABRIC SHALL CONFORM WITH 712.09, TYPE A. THE BOTTOM OF THE POROUS BACKFILL SHALL BE SLOPED (8%) Laterally TO DRAIN. GEOTEXTILE FABRIC IS INCLUDED WITH POROUS BACKFILL FOR PAYMENT.

DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN SEMI-INTEGRAL TYPE ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.

ALL DIMENSIONS ARE GIVEN IN MILLIMETERS UNLESS OTHERWISE STATED. EXCEPT FOR STATIONING AND ELEVATIONS WHICH ARE GIVEN IN METERS.

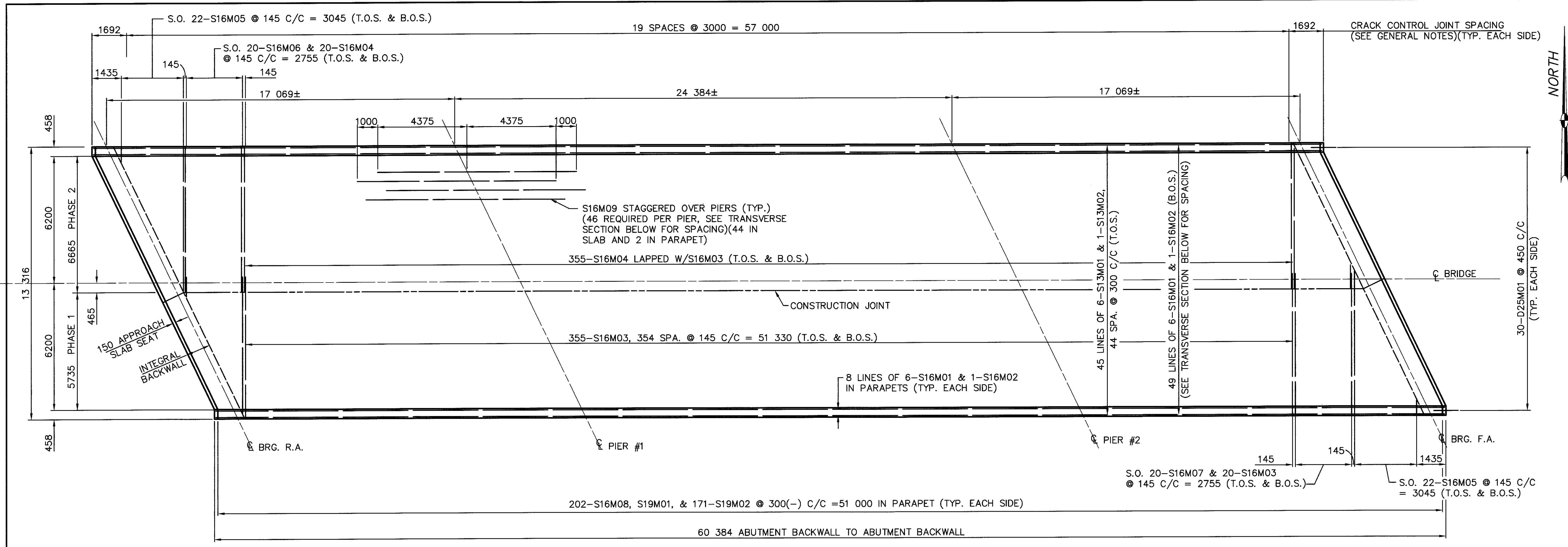
SEE SHT. [5/11] & [6/11] FOR SECTION & VIEW CUTS

PARAPET DETAILS: SEE SHEET 328

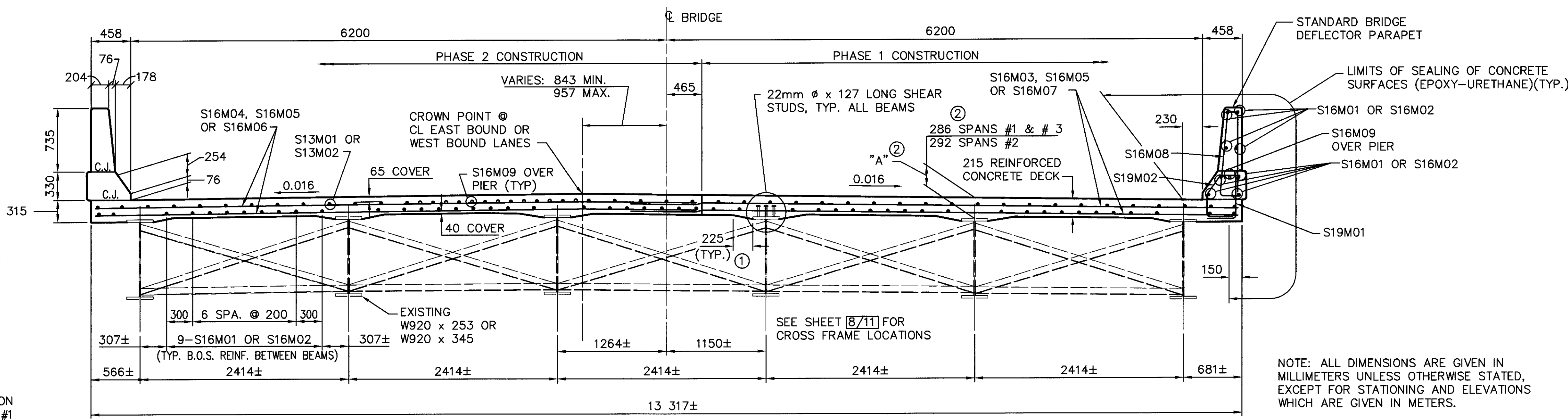
LOCATION		ELEVATION		
		A	B	C
LT. BRIDGE	LT. REAR WING	194.16±	196.580	196.568
	RT. REAR WING	194.16±	196.639	196.624
	LT. FWD. WING	194.25±	196.680	196.653
	RT. FWD. WING	194.25±	196.694	196.670
RT. BRIDGE	LT. REAR WING	194.19±	196.684	196.663
	RT. REAR WING	194.19±	196.673	196.646
	LT. FWD. WING	194.25±	196.654	196.636
	RT. FWD. WING	194.25±	196.711	196.699

FILE NAME: I:\5033\005\TRAN\BRIDGE\2-17638\17638AS

DATE	10-97
REVIEWED	G.A.B.
DESIGNED	J.T.Y.
DRAWN	RAM
CHECKED	M.E.M.
STRUCTURE FILE NUMBER	2200848 & 2200872
REVISED	



DECK SLAB REINFORCING PLAN
 (RIGHT BRIDGE SHOWN, LEFT BRIDGE SIMILAR)



TRANSVERSE SECTION
 LOOKING IN DIRECTION OF TRAFFIC

- NOTES**
1. A HAUNCH WIDTH OF 225 mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH MAY VARY BETWEEN 150 mm AND 300 mm.
 2. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 71 mm FOR SPANS #1 & #3 & 77 mm FOR SPAN #2. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. CONTRACTOR TO VERIFY BEAM PROFILES WITH PROFILE GRADE TO VERIFY DECK SLAB DEPTH (DIMENSION "A"), SEE SHEET [8/11] FOR DIMENSION "A".

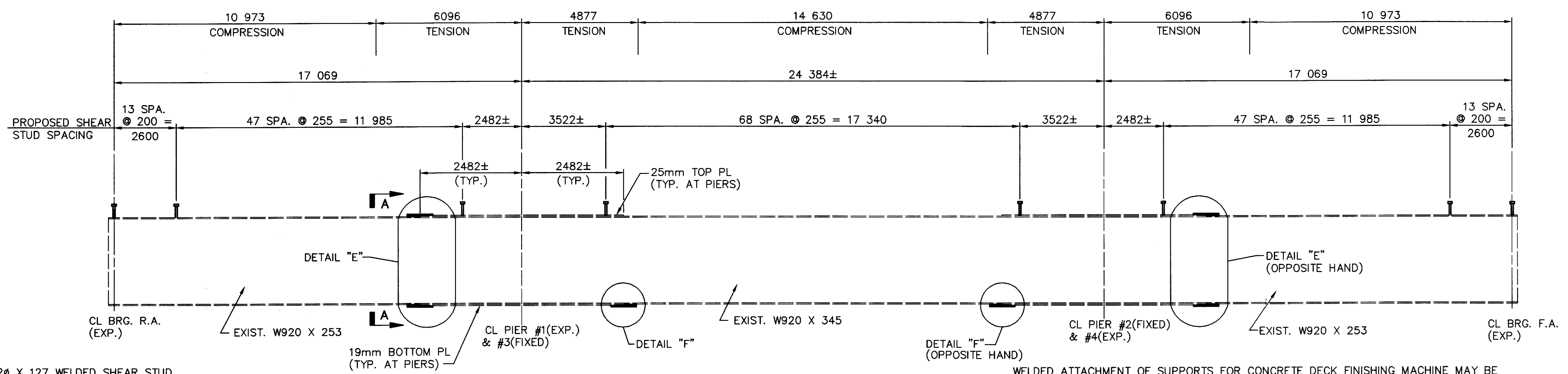
REFERENCES
 FOR SHEAR STUD DETAILS SEE [8/11]

LEGEND
 T.O.S. = TOP OF STEEL
 B.O.S. = BOTTOM OF STEEL
 S.O. = SERIES OF

NOTE: LAP #13M BARS 590
 LAP #16M BARS 740
 LAP #19M BARS 880

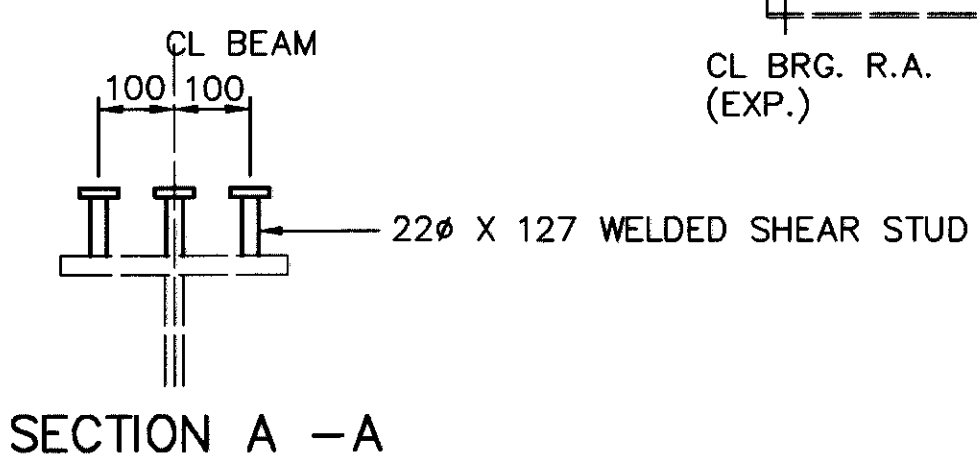
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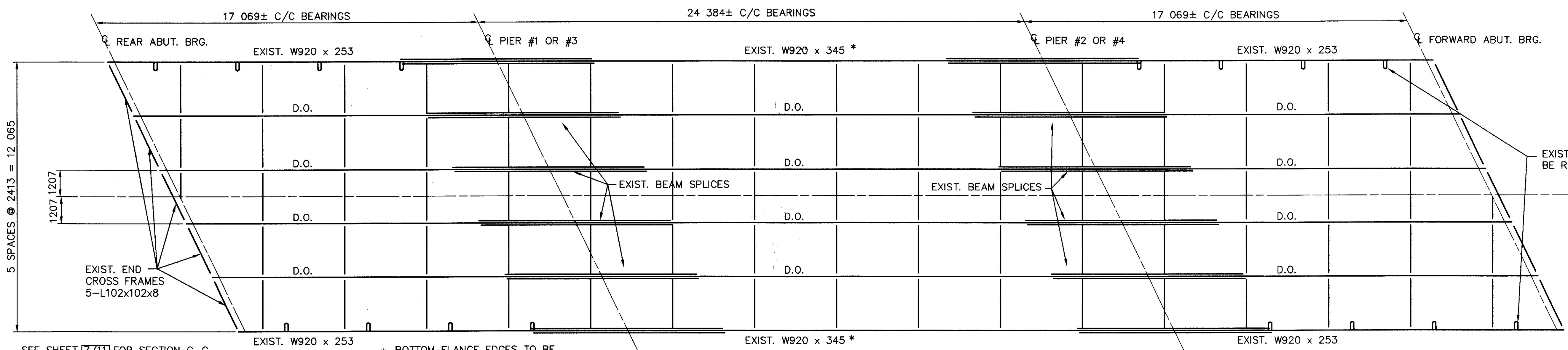


TYPICAL EXISTING BEAM ELEVATION
 (12 BEAM TOTALS)

WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FACIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.



SECTION A - A



STEEL FRAMING PLAN
 (TYP. FOR BOTH SUPERSTRUCTURES)

SCREED ELEVATIONS

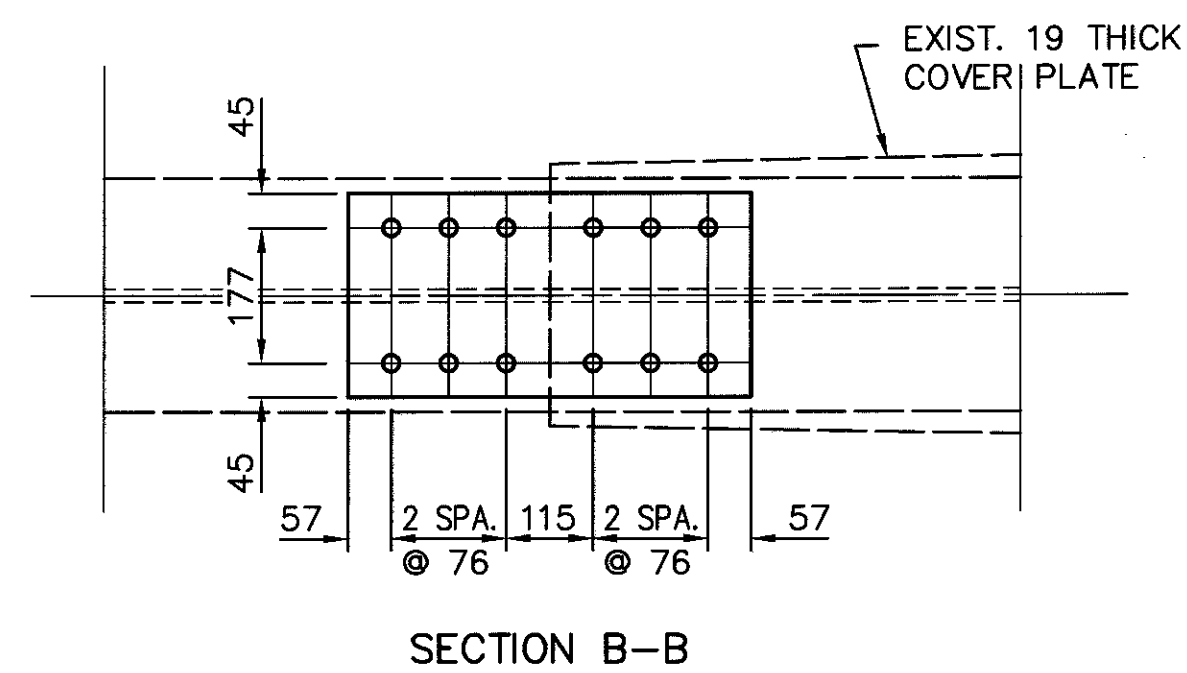
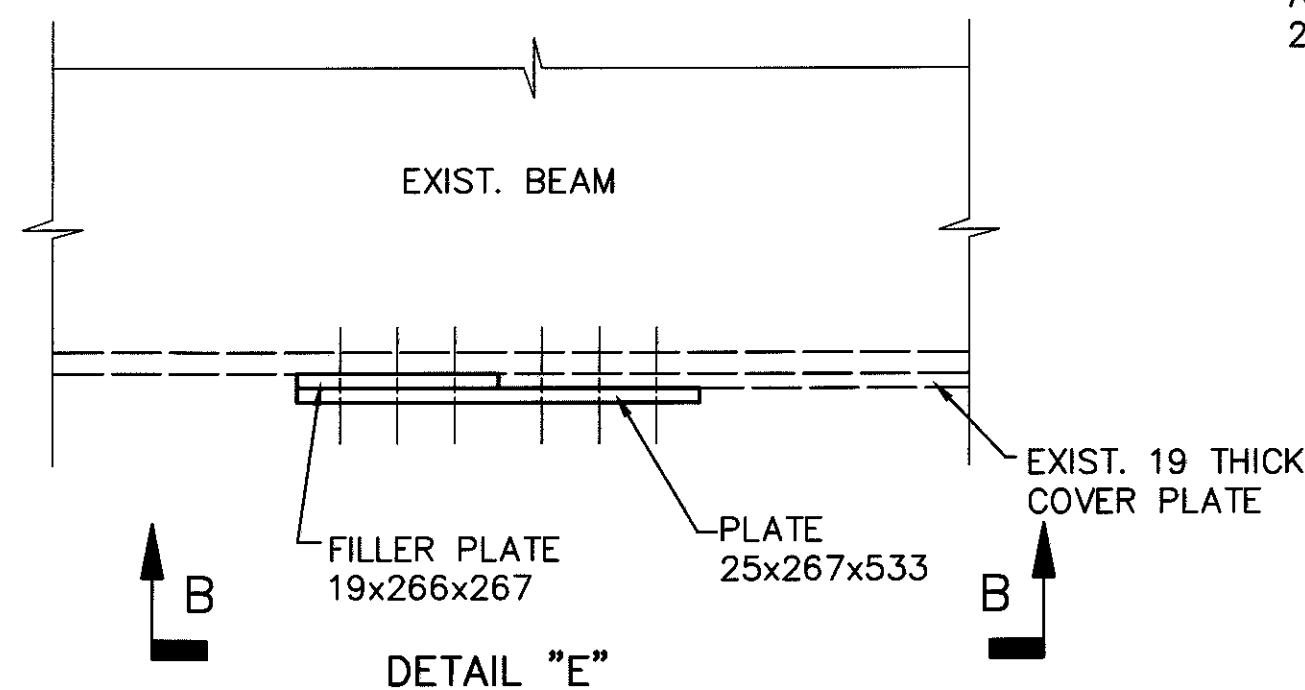
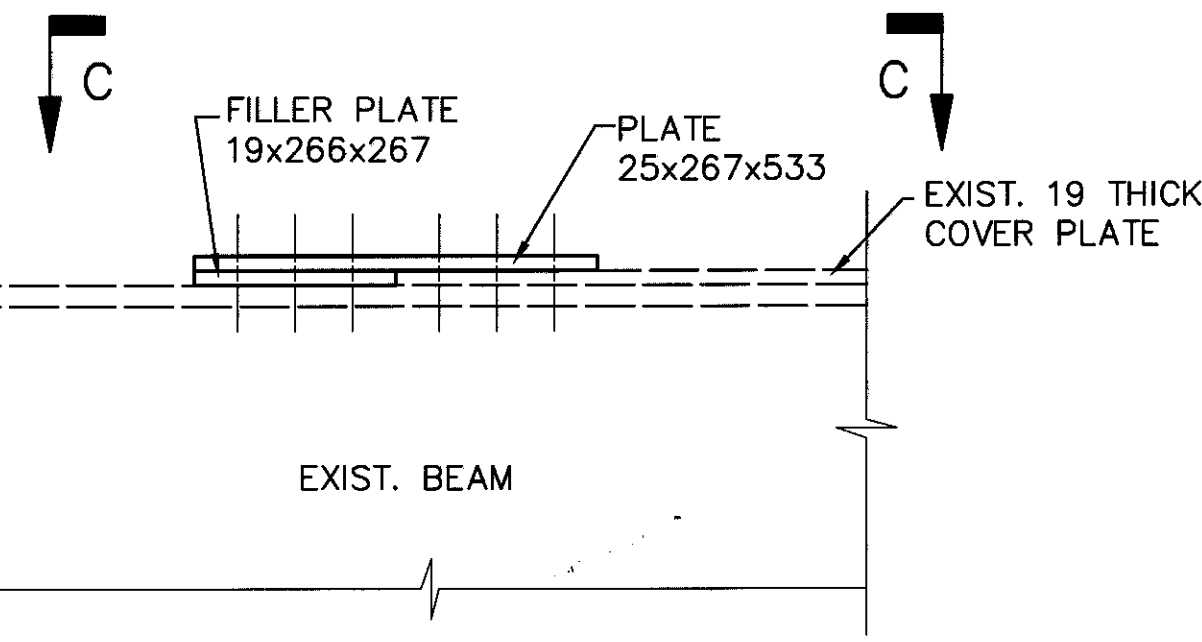
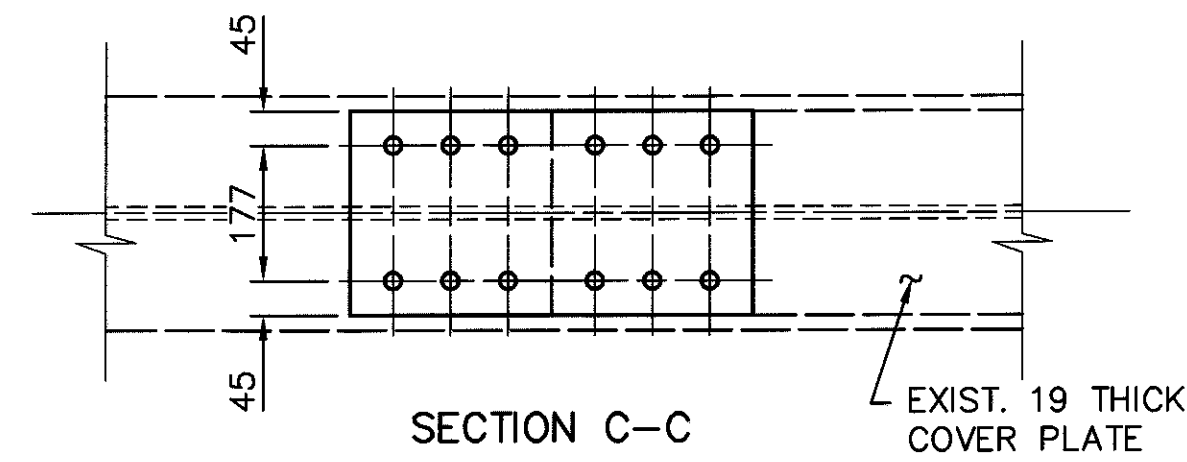
DIMENSION "A"

	R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/2 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	BEAM #1	0.279	0.275	0.269	0.274	0.300	0.299
	BEAM #2	0.275	0.280	0.275	0.303	0.280	0.296
	BEAM #3	0.279	0.283	0.278	0.298	0.275	0.292
	BEAM #4	0.294	0.290	0.279	0.292	0.277	0.297
	BEAM #5	0.285	0.289	0.284	0.297	0.274	0.291
	BEAM #6	0.286	0.288	0.275	0.303	0.281	0.298
RIGHT BRIDGE	BEAM #1	0.300	0.303	0.275	0.305	0.283	0.301
	BEAM #2	0.301	0.305	0.288	0.297	0.277	0.291
	BEAM #3	0.300	0.305	0.287	0.298	0.285	0.298
	BEAM #4	0.295	0.302	0.283	0.308	0.284	0.290
	BEAM #5	0.285	0.295	0.282	0.295	0.281	0.289
	BEAM #6	0.285	0.291	0.277	0.295	0.282	0.289

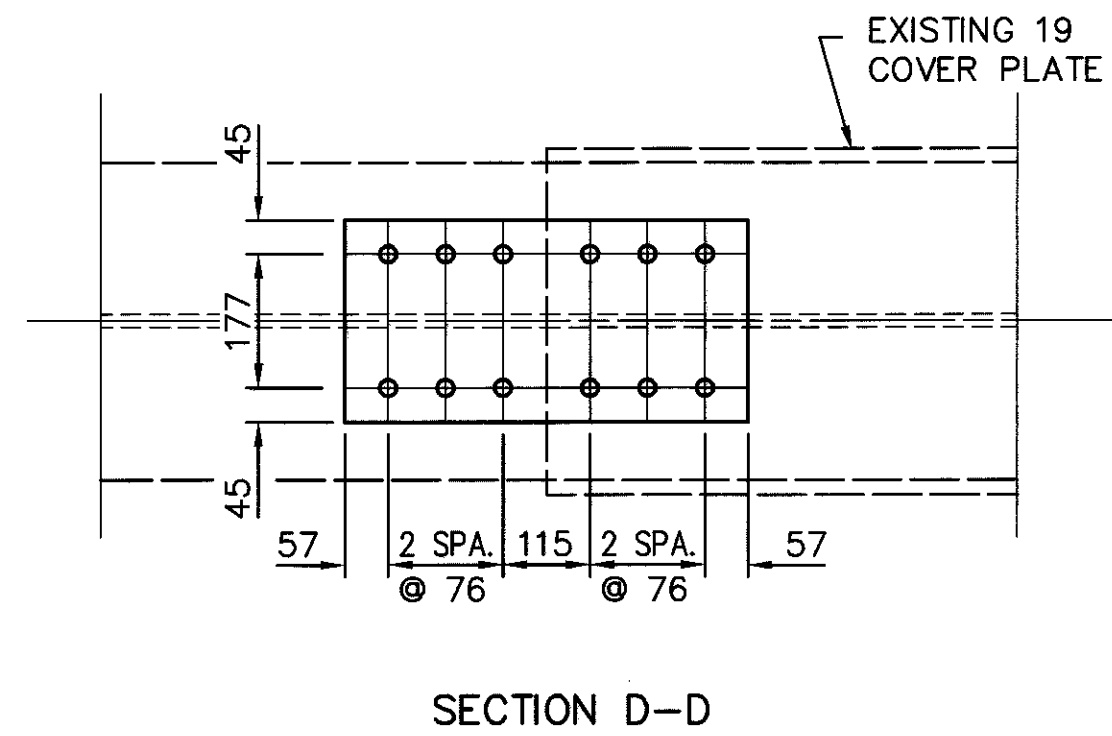
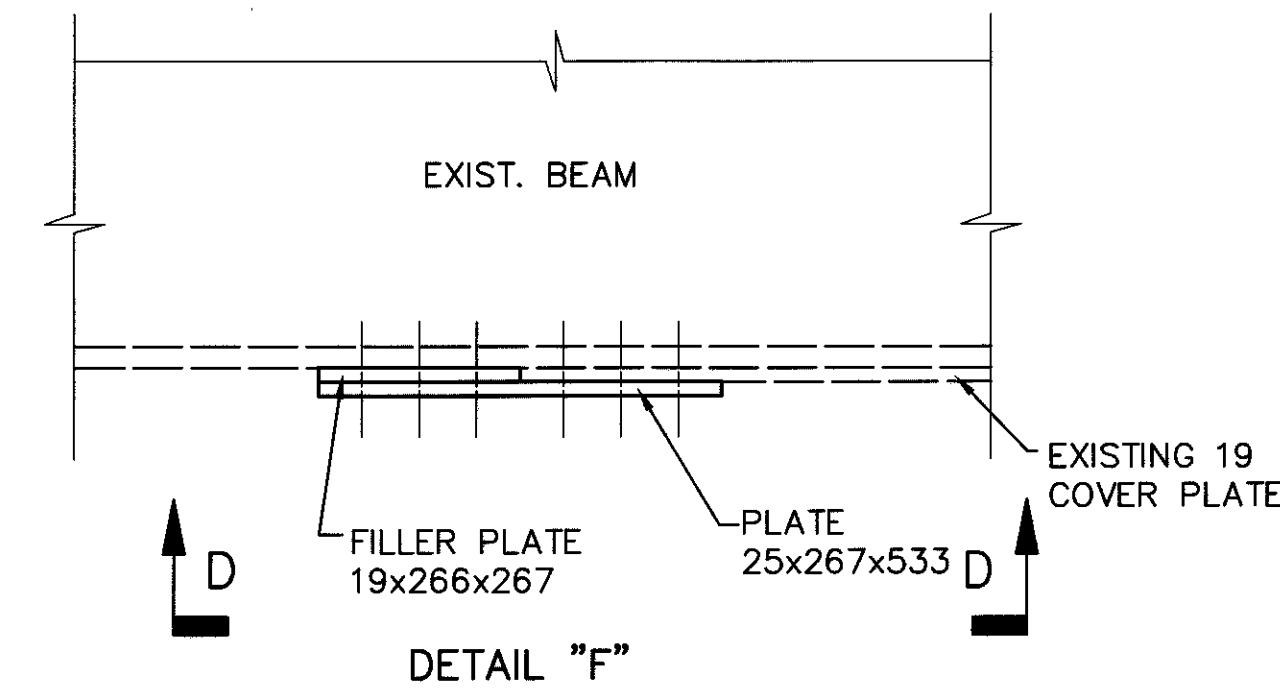
CONTRACTOR TO VERIFY DIMENSION "A"

	R. ABUT.	1/2 PT.	CL PIER #1 OR #3	1/3 PT.	2/3 PT.	CL PIER #2 OR #4	1/2 PT.	F. ABUT
LEFT BRIDGE	TOE OF LEFT PARAPET	196.580	196.627	196.656	196.692	196.706	196.698	196.680
	BEAM #1	196.583	196.630	196.658	196.695	196.709	196.701	196.683
	BEAM #2	196.628	196.674	196.701	196.736	196.749	196.739	196.719
	BEAM #3	196.672	196.717	196.743	196.777	196.788	196.777	196.755
	PROFILE GRADE	196.712	196.755	196.780	196.813	196.823	196.811	196.808
	BEAM #4	196.708	196.751	196.775	196.808	196.819	196.806	196.781
	BEAM #5	196.675	196.717	196.740	196.772	196.781	196.767	196.739
BEAM #6	196.642	196.683	196.704	196.735	196.743	196.728	196.697	
TOE OF RIGHT PARAPET	196.639	196.680	196.702	196.732	196.740	196.725	196.719	
RIGHT BRIDGE	TOE OF LEFT PARAPET	196.684	196.713	196.722	196.740	196.736	196.709	196.654
	BEAM #1	196.687	196.716	196.725	196.743	196.739	196.712	196.657
	BEAM #2	196.730	196.757	196.765	196.782	196.776	196.748	196.690
	BEAM #3	196.772	196.798	196.804	196.820	196.814	196.784	196.724
	PROFILE GRADE	196.777	196.803	196.809	196.825	196.818	196.789	196.728
	BEAM #4	196.746	196.771	196.776	196.791	196.783	196.752	196.689
	BEAM #5	196.711	196.734	196.738	196.751	196.742	196.710	196.645
BEAM #6	196.675	196.697	196.700	196.712	196.701	196.668	196.644	
TOE OF RIGHT PARAPET	196.673	196.695	196.697	196.709	196.699	196.666	196.641	

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

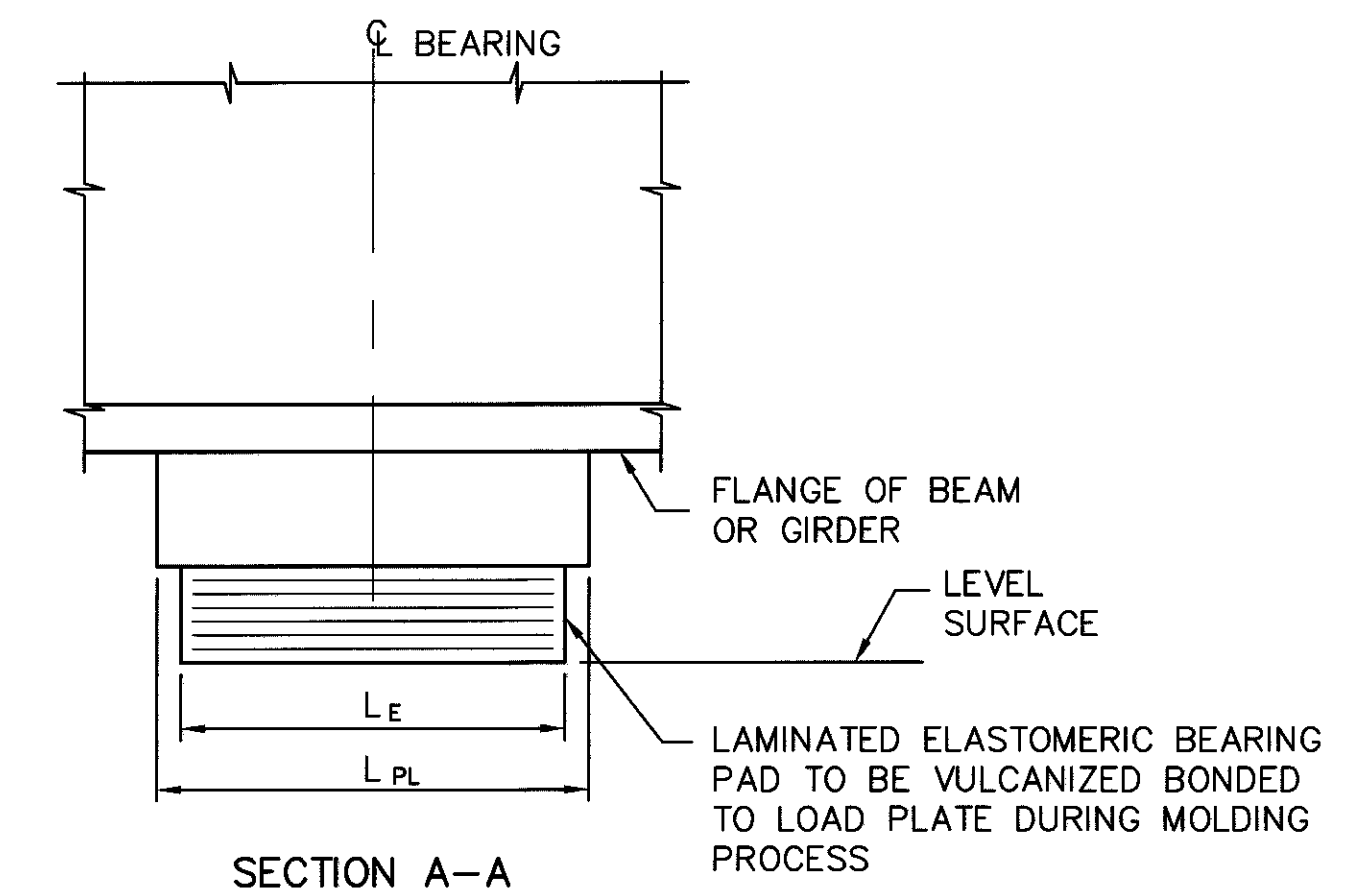
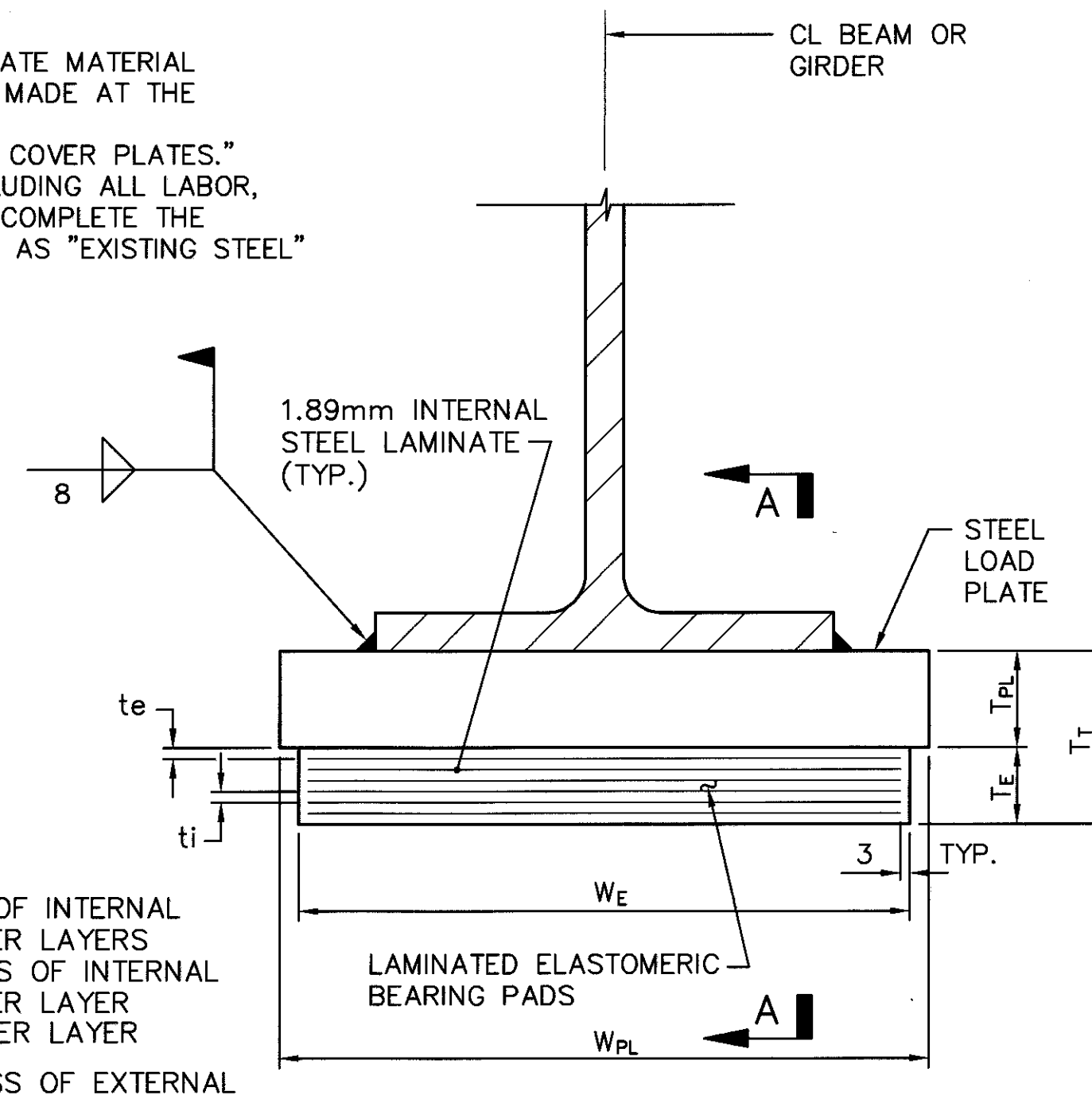


NOTE:
ALL BOLTS SHALL BE
22Ø, A325 BOLTS



SEE SHEET [B/11] FOR
DETAIL LOCATIONS

END BOLTED COVER PLATES - COVER PLATE MATERIAL SHALL BE A36 STEEL. PAYMENT WILL BE MADE AT THE UNIT PRICE PER KILOGRAM ITEM 863, "STRUCTURAL STEEL, MISC.: END BOLTED COVER PLATES." THIS SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS & INCIDENTALS REQUIRED TO COMPLETE THE WORK. THIS ITEM SHALL BE CONSIDERED AS "EXISTING STEEL" WHEN PAINTING THE STRUCTURE.



BEARING DETAILS

N=NUMBER OF INTERNAL ELASTOMER LAYERS
ti=THICKNESS OF INTERNAL ELASTOMER LAYER
te=THICKNESS OF EXTERNAL

LOAD PLATES THE STEEL LOAD PLATE SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL AND BE SIMILARLY CLEANED AND COATED. SURFACE PREPARATION AND PRIMING SHALL BE DONE IN THE SHOP AND BE INCLUDED IN THE PRICE BID FOR THE BEARINGS. FIELD COATS SHALL BE INCLUDED IN THE PRICE BID FOR PAINTING MAIN STRUCTURAL STEEL.

THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 150° C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

ELASTOMERIC BEARINGS, AS PER PLAN SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.

BRIDGE NO. ERI-2-19312		ELASTOMER								STEEL LAMINATES		LOAD PLATE			LOADS (KN)		
LOCATION	TYPE	T _T	DUROMETER	L _E	W _E	T _E	t _i	t _e	N	No.	t	L _{PL}	W _{PL}	T _{PL}	DL	LL	TOTAL
RA & FA	EXP.	99	50	230	355	61.2	6.5	4.5	6	7	1.89	256	381	38	293	185	478

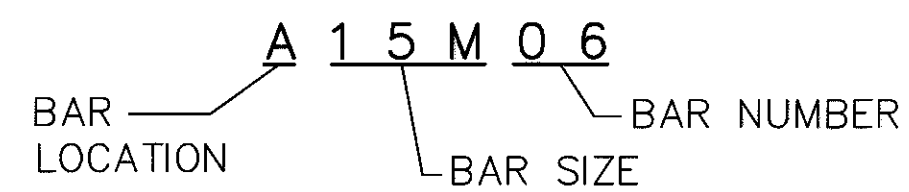
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PLOTTED:
KJB

REINFORCING SCHEDULE

MARK	TOTAL	SUPER		ABUTMENTS				PIERS	LENGTH	TYPE	A	B	C	D	E	INCR
		LEFT	RIGHT	LT. R.A.	RT. R.A.	LT. F.A.	RT. F.A.									
A16M01	48			12	12	12	12		2710	S	2710					
A16M02	48			12	12	12	12		4435	S	4435					
A16M03	128			32	32	32	32		1770	S	1770					
A16M04	64			16	16	16	16		2570	1	1150	350	1150			
A16M05	64			16	16	16	16		2120	1	925	350	925			
A16M06	48			12	12	12	12		2368	4	1030	350	167	1030		
A19M01	168			42	42	42	42		600	S	600					
D25M01	120			30	30	30	30		1559	12	858	305				
S13M01	540	270	270						9144	S	9144					
S13M02	90	45	45						8630	S	8630					
S16M01	780	390	390						9144	S	9144					
S16M02	130	65	65						9540	S	9540					
S16M03	1500	750	750						6885	S	6885					
S16M04	1500	750	750						7070	S	7070					
S16M05	SER. OF	SER. OF	SER. OF						TO		TO					300
	22	22	22						6990	S	6990					
	4	2	2						955	S	955					
S16M06	SER. OF	SER. OF	SER. OF						TO		TO					300
	20	20	20						6655	S	6655					
	4	2	2						1145	S	1145					
S16M07	SER. OF	SER. OF	SER. OF						TO		TO					300
	20	20	20						6845	S	6845					
S16M08	808	404	404						2130	9	205	990	915			
S16M09	184	92	92						9750	S	9750					
S16M10	8	4	4						3880	14	720	1140				
S16M11	128	64	64						3660	14	720	1030				
S16M12	128	64	64						2170	1	730	790	730			
S16M13	8	4	4						2240	1	730	860	730			
S19M01	808	404	404						630	5	400	280				
S19M02	808	404	404						779	8	125	230	216	152	230	
S25M01	24	12	12						7375	S	7375					
S25M02	24	12	12						7055	S	7055					
S25M03	24	12	12						7135	S	7135					
S25M04	24	12	12						7455	S	7455					

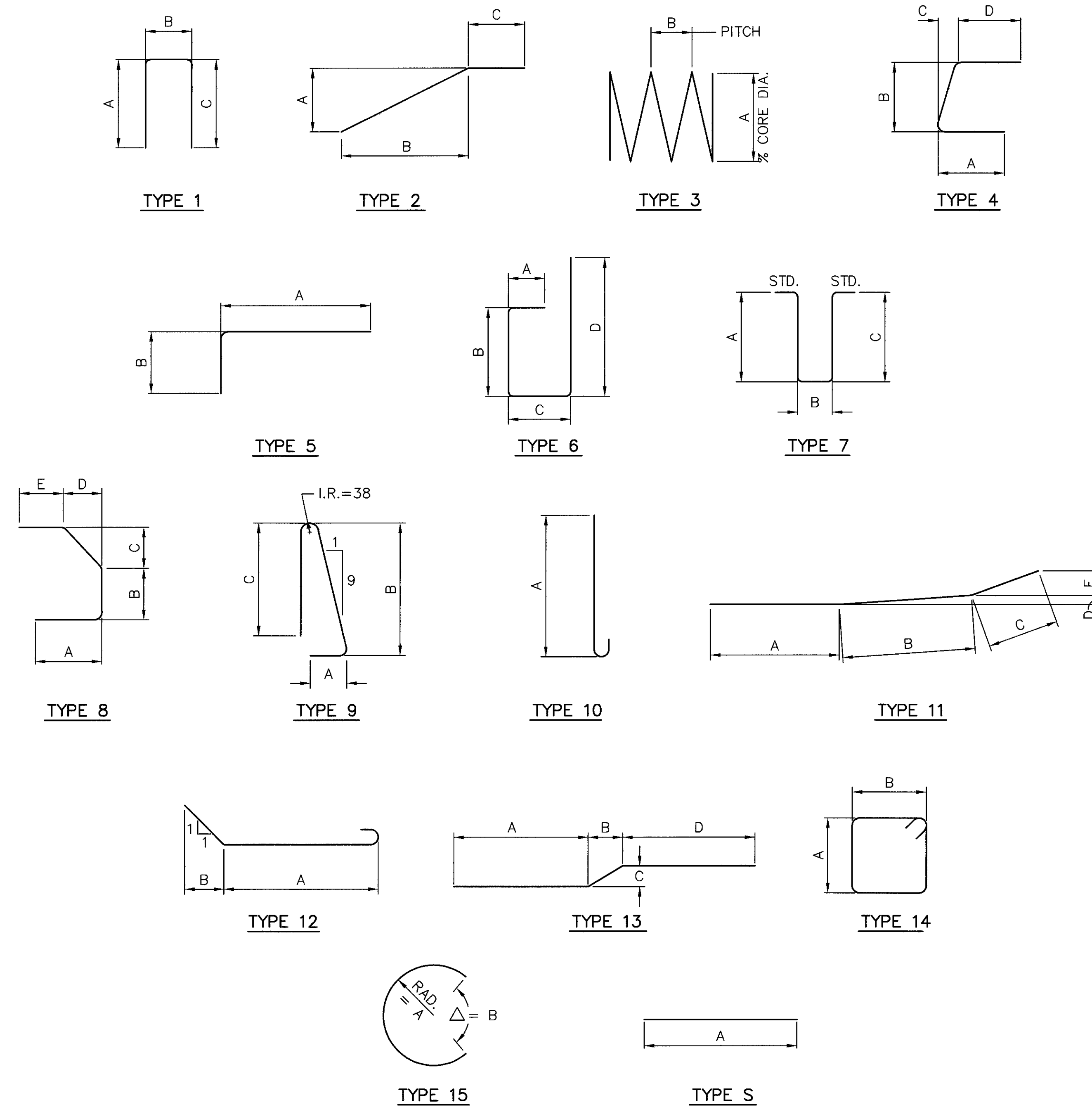
BAR LEGEND



- A - ABUTMENT
- DS - DRILLED SHAFT
- P - PIER
- S - SUPERSTRUCTURE
- D - APPROACH SLAB
- SP - SPIRAL BAR

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.



PLOTTED: OCTOBER 16, 1997
 FILE NAME: I:\5033\005\TRAN\BRIDGE\2-19312\19312SR

DESIGN AGENCY
POGEMEYER DESIGN GROUP, INC.
 ARCHITECTS + ENGINEERS + PLANNERS
 BOSTON, MA 02110

DATE
 10-97

REVIEWED
 G.A.B.

STRUCTURE FILE NUMBER
 2200902 & 2200937

DRAWN
 R.A.N.

REVISIONS

DESIGNED
 J.T.Y.

CHECKED
 M.E.M.

REINFORCING SCHEDULE
 BRIDGE NO. 17638 (1096)
 OVER COLUMBUS AVENUE

ERI-2-12.558

11 / 11

364
 432