

COUNTY	SECTION	CO HWY RTE. NO.	YEAR	SHEET NO.	TOTAL SHEETS	STATION TO STATION
LASALLE	*		1977		3	

* 76-09263-00-BR

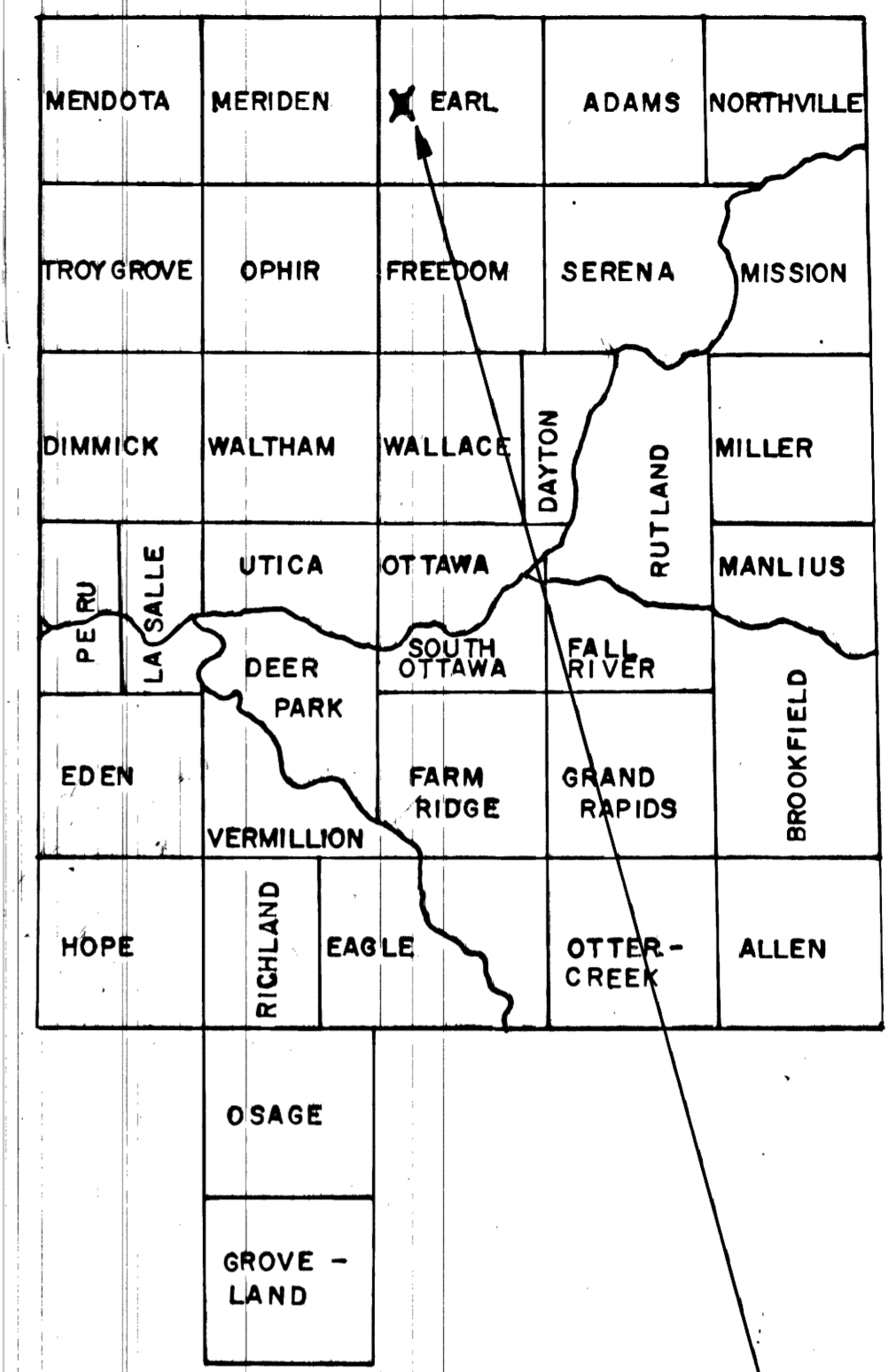
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PLAN & PROFILE
3	PLAN & ELEVATION
4	ABUTMENT & PIER DETAIL
5	PILE CAP DETAIL
6 & 7	DECK BEAM DETAIL
8	CROSS SECTION
	STD'S NO. 1686-3, 2113-1,
	2298-4, 2299-7, BLR-19,
8A	BASE SHEET

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
LASALLE COUNTY
PLANS FOR PROPOSED
ROAD IMPROVEMENT
SECTION 76-09263-00-BR EARL TWP.

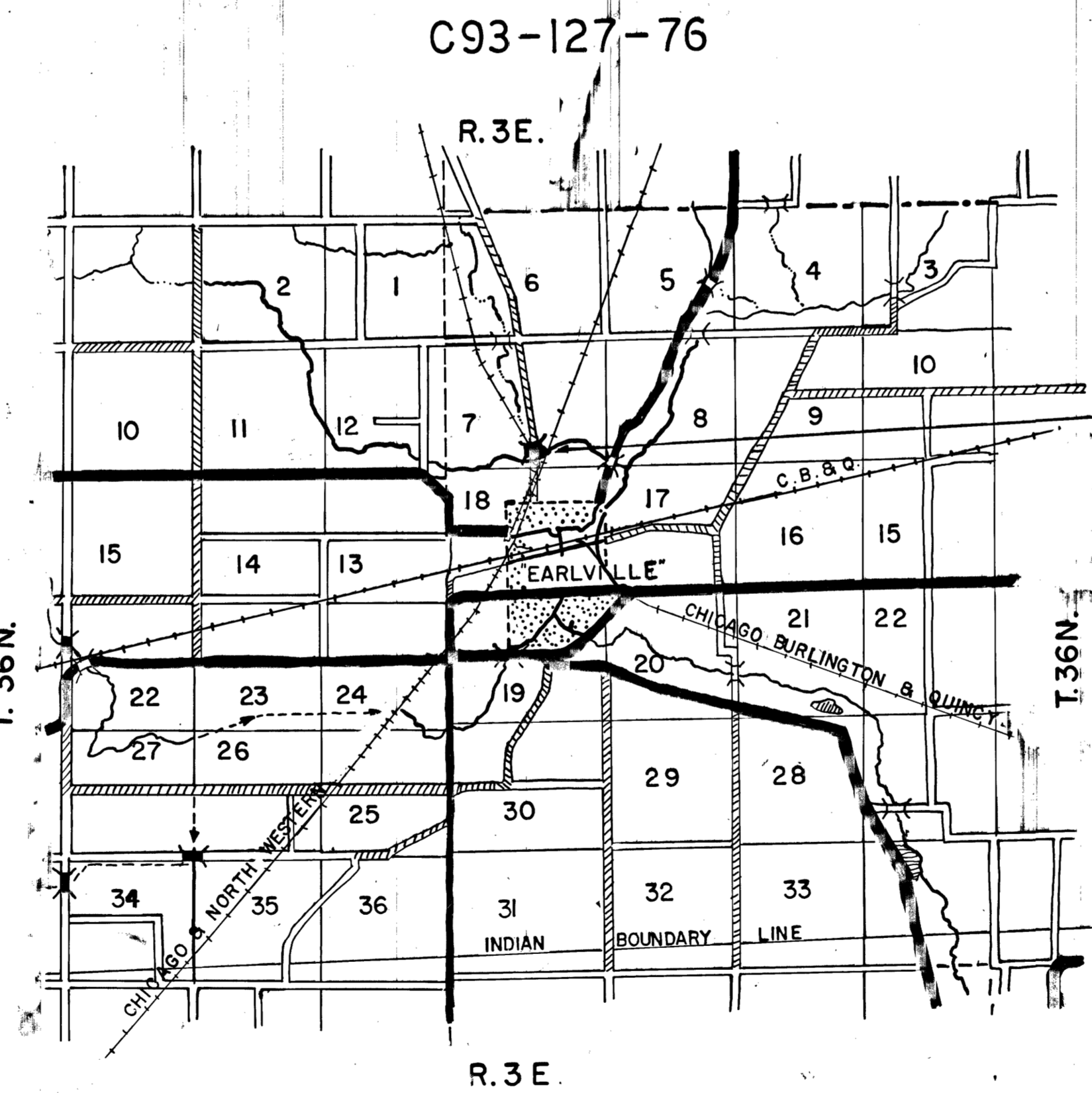
PROJECT NO. SRS-000S(60)

SCALES
PLANS 1"=100'
PROFILE HOR 1"=100'
PROFILE VERT 1"=10'
X-SECTIONS HOR 1"=100'
X-SECTIONS VERT 1"=10'
DETAILS 1"=10'



SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM	CODE NO.
316	CU. YD.	EARTH EXCAVATION	202001
549	CU. YD.	BORROW EXCAVATION	204001
754	TON	AGG. SURF. CSE., TY B	402004
1	EACH	REMOVAL OF EXISTING STRUCTURE	501001
1,939.8	SQ. FT.	PREC. PRES. CONC. DECK BEAM (17")	505004
28.2	CU. YD.	CLASS "X" CONCRETE	504003
5,171	FBM.	TREATED TIMBER	510001
2,064	LBS.	HARDWARE	510003
800	LIN. FT.	FURN. CREO. TIMBER PILES 20.1' 36.0'	513005
800	LIN. FT.	DRIVING TIMBER PILES	513022
2	EACH	TEST PILE TIMBER	513028
40	EACH	METAL PILE SHOES	513045
1	EACH	NAME PLATE	514001
200	LIN. FT.	STEEL PLATE BEAM GUARDRAIL (Mod)	X62923
132.5	LIN. FT.	STEEL RAILING TYPE-T	X50802
22	LIN. FT.	PIPE CULV. TY-1, 12" DIA.	511024
24	LIN. FT.	PIPE CULV. TY-1, 15" DIA.	511025
126	LIN. FT.	PIPE CULV. TY-1, 30" DIA.	511029
2841	LBS.	REINFORCEMENT BARS	512001



PROPOSED IMPROVEMENT

PRECAST, PRESTRESSED CONCRETE DECK BEAM BRIDGE,
CONCRETE PILE CAPS ON CREOSOTED TIMBER PILES,
CLOSED TIMBER ABUTMENTS, PILE BENT PIER, 2 SPANS
@ 31'-6 3/4", SKEWED 45° LT. FWD., STA. 2+17

THESE PLANS WERE PREPARED
UNDER MY SUPERVISION.

William John Keith
WILLIAM JOHN KEITH, I.R.P.E. 62-29664
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

APPROVED BY

Eugene E. Stevenson DATE 11-30-76
EUGENE E. STEVENSON
COUNTY SUPERINTENDENT OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED *11/21/77* 1977
R. G. B... DISTRICT ENGINEER
PASSED *3-30-77* 1977
... ENGINEER OF LOCAL ROADS AND STREETS
APPROVED *3-30-77* 1977
... DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____
DIVISION ADMINISTRATOR DATE _____

GROSS LENGTH: . FT. = . MI.

EQUATIONS:
OMISSIONS:

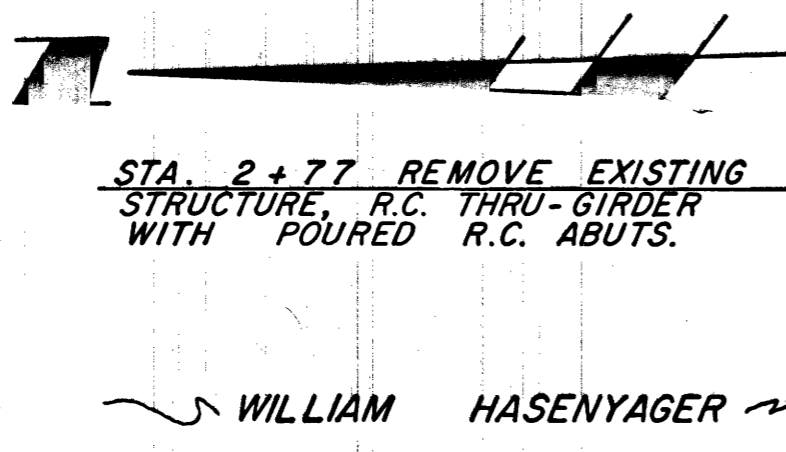
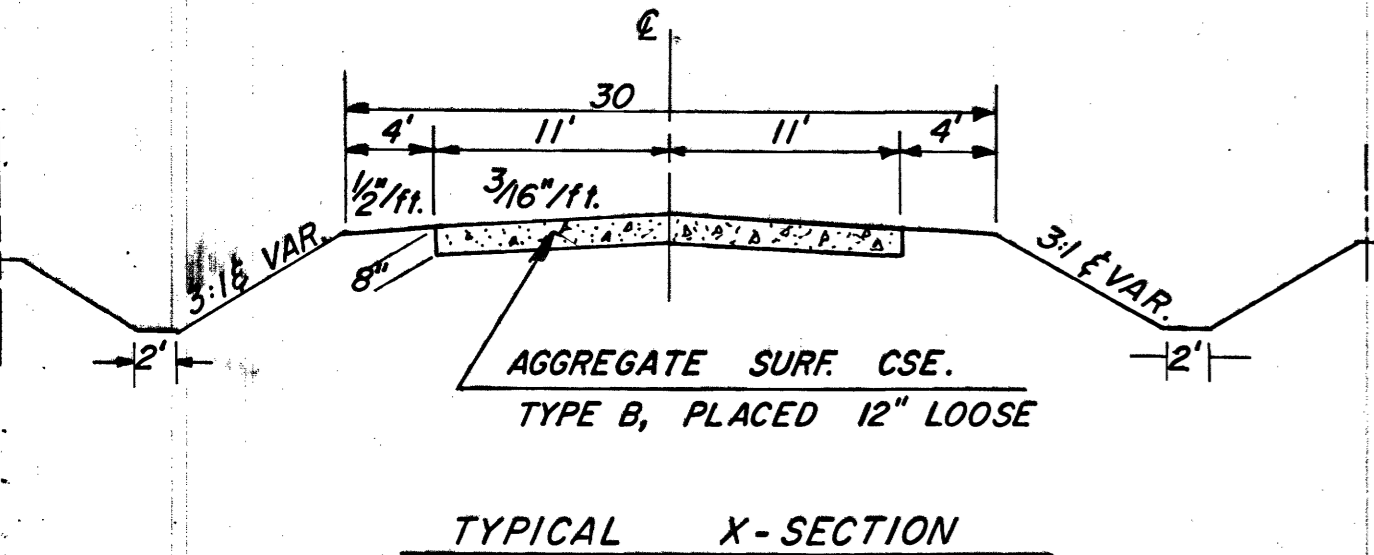
NET LENGTH: . FT. = . MI.

CONTRACT NO. 31166

REVIEWED FOR
STRUCTURAL ADEQUACY

STATE OF ILLINOIS
REGISTERED PROFESSIONAL ENGINEER
Donald N. Fleming

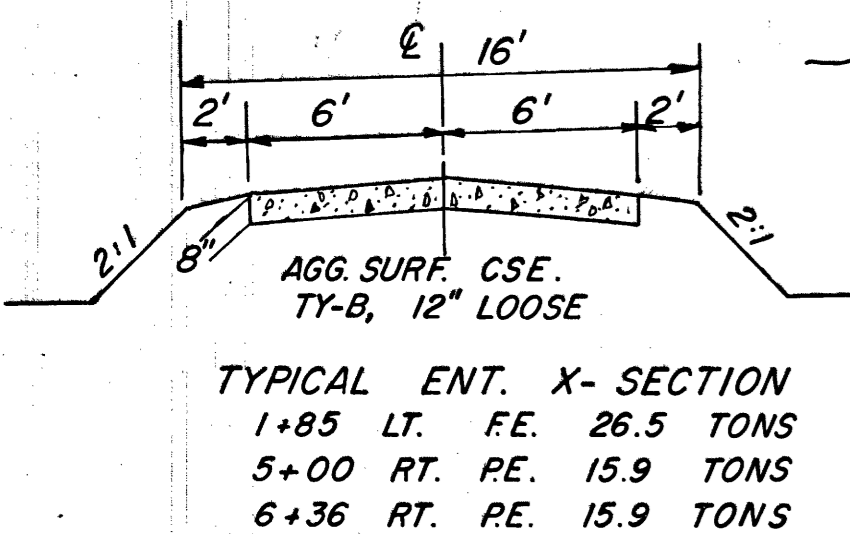
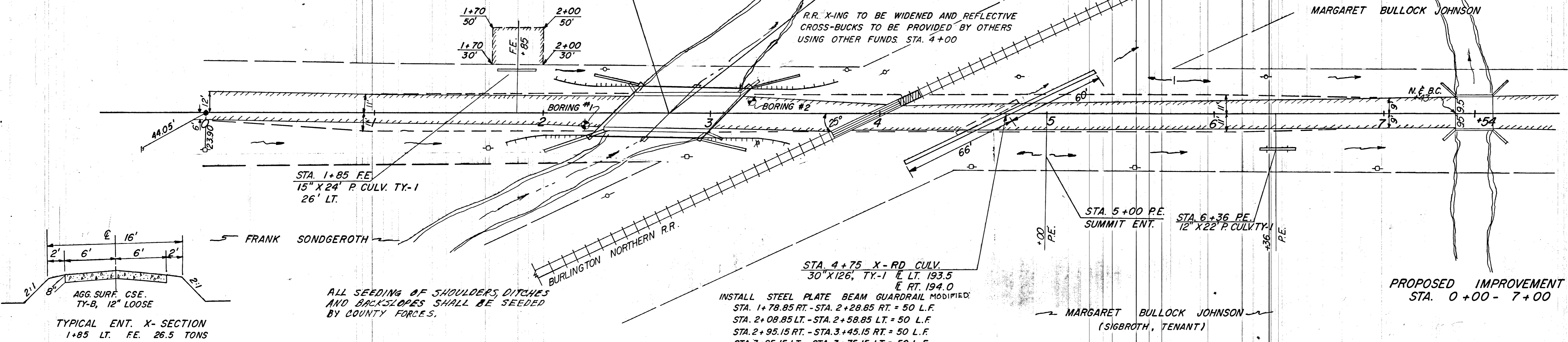
SEC. 7 T. 36 N., R. 3 E., OF THE 3RD P.M.



PROPOSED STRUCTURE STA. 2+77
 2 SPANS AT 31'-6 1/4", PRECAST, PRESTRESSED CONCRETE DECK BEAMS, CONCRETE PILE CAPS ON CREOSOTED TIMBER PILES, CLOSED TIMBER ABUTMENTS & PILE BENT PIER SKEWED 45° LT. FWD.

R.R. X-ING TO BE WIDENED AND REFLECTIVE CROSS-BUCKS TO BE PROVIDED BY OTHERS USING OTHER FUNDS STA. 4+00

MARGARET BULLOCK JOHNSON



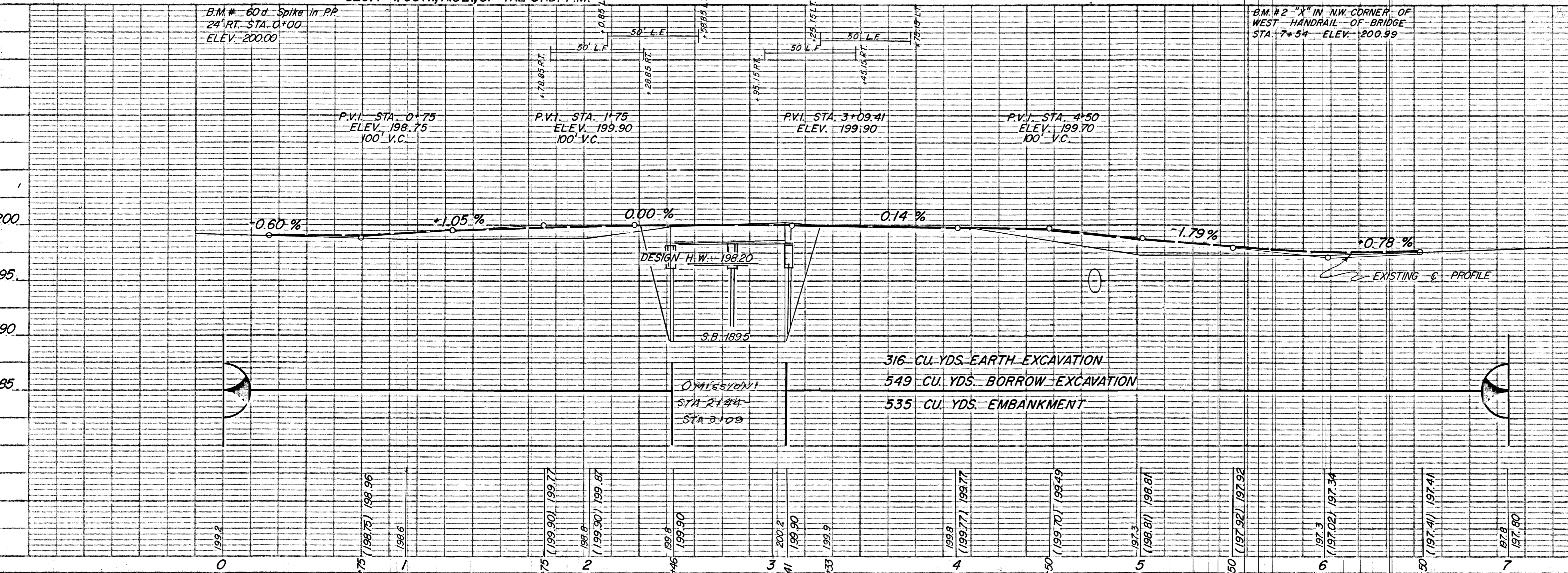
ALL SEEDING OF SHOULDERS, DITCHES AND BACKSLOPES SHALL BE SEEDER BY COUNTY FORCES.

STA. 4+75 X-RD CULV.
 30" X 126", TY-1 E LT. 193.5
 E RT. 194.0
 INSTALL STEEL PLATE BEAM GUARDRAIL MODIFIED:
 STA. 1+78.85 RT. - STA. 2+28.85 RT. = 50 L.F.
 STA. 2+08.85 LT. - STA. 2+58.85 LT. = 50 L.F.
 STA. 2+95.15 RT. - STA. 3+45.15 RT. = 50 L.F.
 STA. 3+25.15 LT. - STA. 3+75.15 LT. = 50 L.F.
 TOTAL: 200 LIN. FT.

MARGARET BULLOCK JOHNSON
 (SIGBRÖTH, TENANT)

PROPOSED IMPROVEMENT
 STA. 0+00 - 7+00

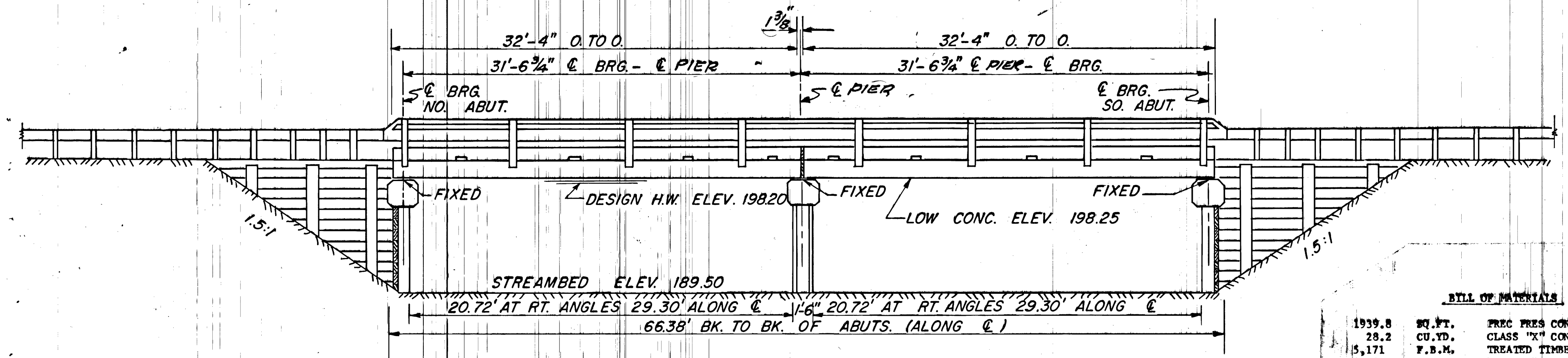
SEC. 7 T. 36 N., R. 3 E., OF THE 3RD P.M.



B.M. # 2 "X" IN N.W. CORNER OF WEST HANDRAIL OF BRIDGE STA. 7+54 ELEV. 200.99

SCALE 1"=30'

BORING # 1		BORING # 2	
DESCR.	NOIN QuWC	DESCR.	NOIN QuWC
Stiff Bl. & Br. Si. Cl. Loom Fill	1 11 17 18	Stiff Bl. & Br. Loom to Si. Cl. Loom Fill	1 6 13 16
193.5	2 9 1.2 20	194.8	2 6 1.1 17
Loose Br. Gr Sandy Loom to Si Loom	3 6 -- 16	191.3	3 5 1.0 18
188.5	4 5 -- 18	Med. Vel. Br. Si Loom	4 9 0.8 20
Very Stiff Gr Si Cl. Loom Till	5 19 37 12	188.8	5 34 44 12
183.5	6 16 2.1 11	Hard Br. & Gr. Si. Cl. Loom Till	6 27 4.2 14
Hard Gr. Si. Cl. Loom Till	7 30 6.9 15	182.3	7 31 7.7 13
8 29 6.4 17		Hard Gr. Si. Cl. Loom Till	8 33 8.9 16
9 19 4.0 18		175.8	9 31 6.6 15
175.0	10 16 -- --	Loose Br. Fine to Coarse Sand	10 6 -- --
Med. to Dense Gr. Fine to Coarse Sand	11 23 -- --	172.8	11 21 -- --
12 35 -- --		Med. Br. Fine Sand W/Coarse Gravel	12 17 -- --
168.0	13 26 -- --	160.3	13 24 -- --
Med to Dense Br. Fine Sand W/Coarse Gravel	14 24 -- --	Dense Br. Fine Sand to Coarse Gravel	14 19 -- --
15 30 -- --		15 22 -- --	
16 26 -- --		16 32 -- --	
17 31 -- --		17 35 -- --	
153.5	18 33 -- --	153.0	18 43 -- --



ELEVATION

BILL OF MATERIALS

1939.8	SQ. FT.	PREC PRES CONC DECK BEAM (17")
28.2	CU. YD.	CLASS "X" CONCRETE
5,171	F.B.M.	TREATED TIMBER
2,064	LBS.	HARDWARE
800	LIN. FT.	FURN CREO TIMBER PILES 20.1" x 38.0"
2	EACH	TEST PILE TIMBER
40	EACH	METAL PILE SHOES
2,841	LBS.	REINFORCEMENT BARS

DESIGN STRESSES

CONCRETE (BEAMS)	f'_c	= 5,000 p.s.i.
	f'_{ci}	= 4,000 p.s.i.
STEEL STRAND	f'_s	= 270,000 p.s.i.
	f'_{si}	= 189,000 p.s.i.
REINFORCEMENT BARS	f'_s	= 20,000 p.s.i.
CONCRETE (CLASS "X")	f'_c	= 3,500 p.s.i.
	f'_c	= 1,400 p.s.i.
	n	= 10
DESIGN LIVE LOAD		= HS 20-44

DESIGN SPECIFICATIONS: ASSHTO 1973
 AND ALL INTERIMS AS APPLICABLE

GENERAL NOTES

THE CONTRACTOR SHALL DRIVE TWO TEST PILES IN PERMANENT LOCATIONS, 1 ABUTMENT PILE, 1 PIER PILE, BEFORE ORDERING THE REMAINDER OF THE PILES. THE EXCAVATION FOR STRUCTURE WILL NOT BE CLASSIFIED FOR PAYMENT AND SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR THE ITEM (PRECAST, PRESTRESSED, CONCRETE DECK BEAM 17") ALL HARDWARE SHALL BE HOT-DIPPED GALVANIZING. THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JULY 1, 1976" SHALL APPLY TO THIS PROJECT.

WATERWAY INFORMATION

DRAINAGE AREA	332 SQ. FT.
EXISTING OPENING	332 SQ. FT.
REQUIRED OPENING	370 SQ. FT.
PROPOSED OPENING	360 SQ. FT.
DESIGN DISCHARGE	$Q_{20} = 1,850$ C.F.S.
CREATED HEAD	0.30 FEET
100 YR. DISCHARGE	$Q_{100} = 2,970$ C.F.S.
CREATED HEAD	0.70 FEET
100 YR. HIGHWATER ELEV.	199.40

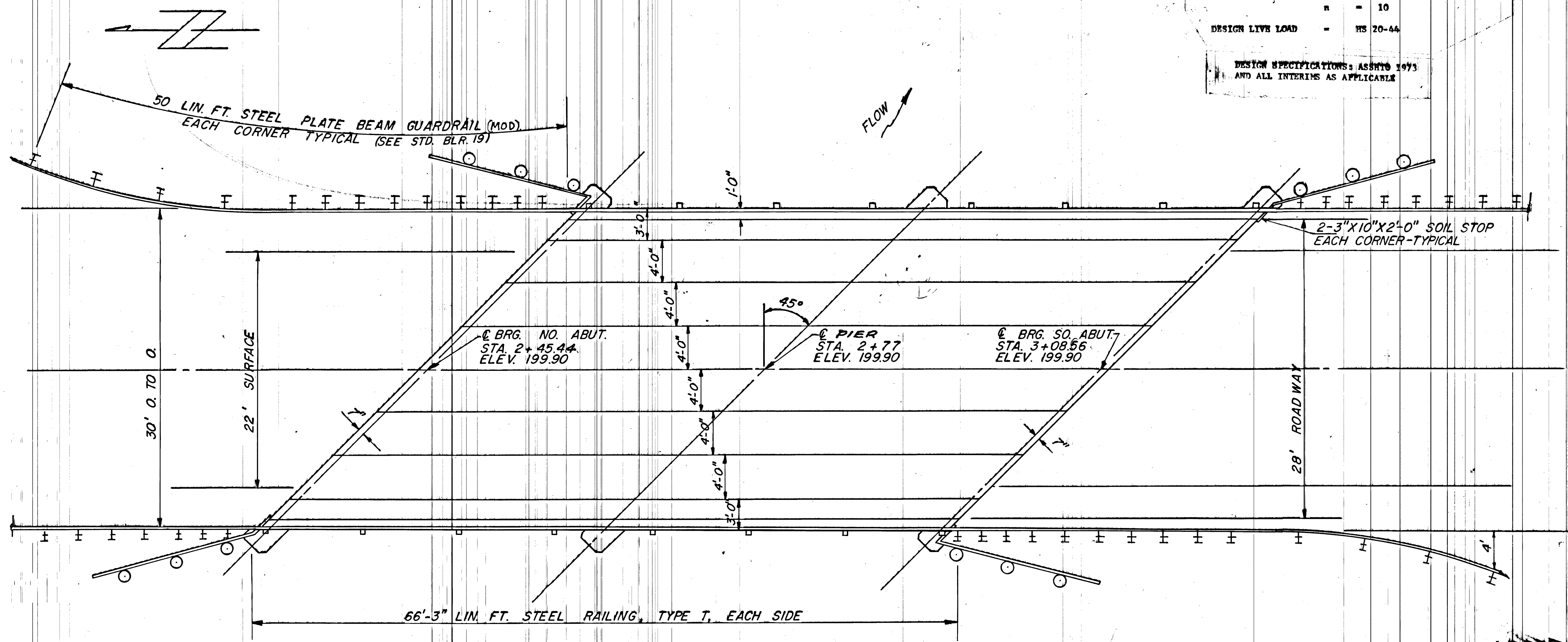
PILE DATA

TYPE	12" CREOSOTED TIMBER
NO. REQUIRED	40 + 2 TEST PILES
ESTIMATED LENGTH	21 FEET
MINIMUM CAPACITY	16 TONS/PILE - ABUT. 20 TONS/PILE - PIER 10 TONS/PILE - WING

NAME PLATE DETAIL

STA. 2+77 BUILT 1977
 LOADING HS 20-44
 PROJ. SRS-0003 (60)
 SECTION 76-09263-00-BR
 EARL ROAD DISTRICT
 LASALLE COUNTY
 BRIDGE NO. 050-34--

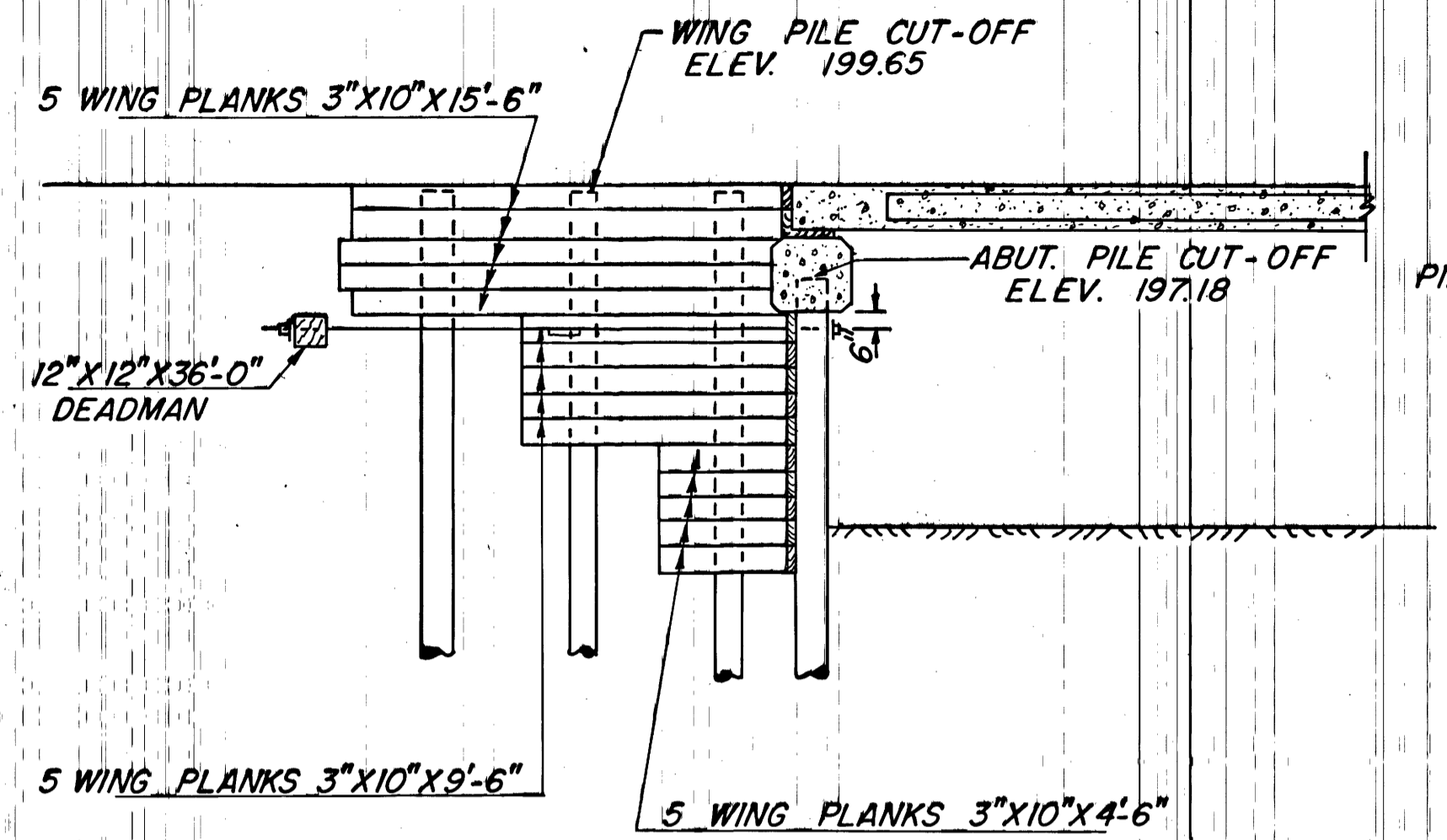
NOTE: THE COMPLETE BRIDGE NUMBER WILL BE FURNISHED TO CONTRACTOR AFTER AWARD OF CONTRACT. (SEE STD. 2113-1)



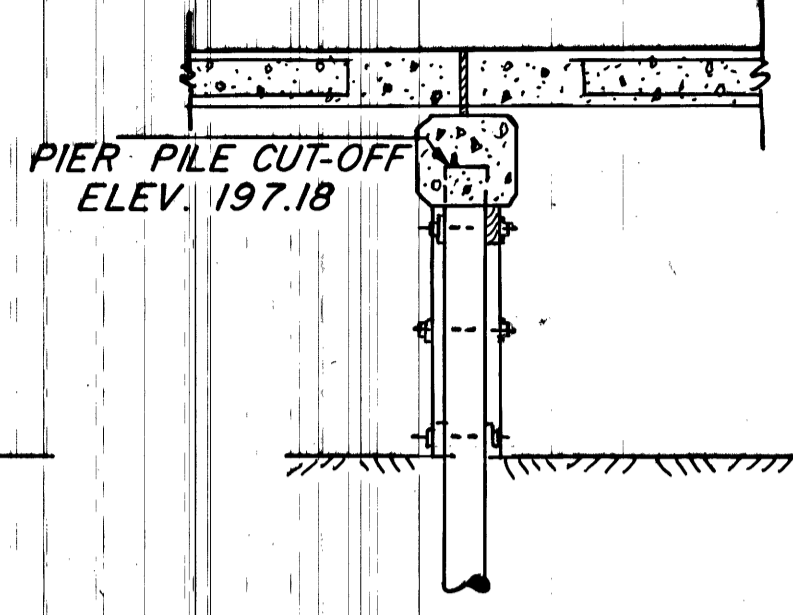
PLAN

APPROVED
 FOR STRUCTURAL AGENCY ONLY

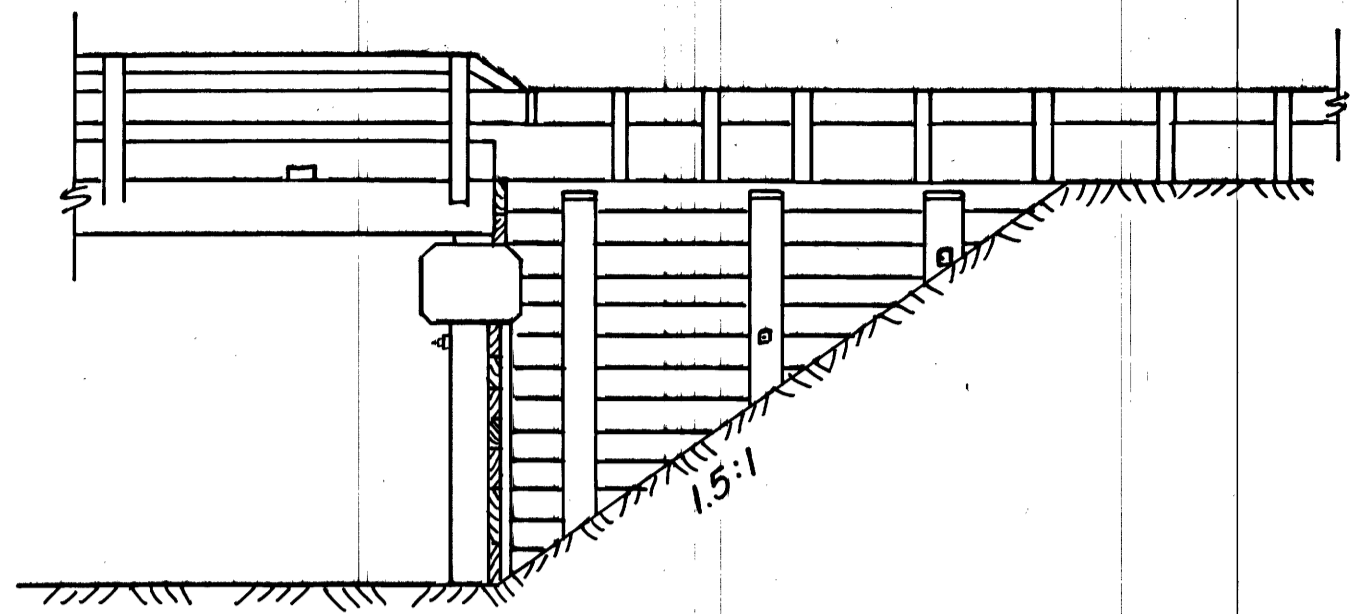
PLAN & ELEVATION
 SECTION 76-09263-00-BR
 EARL ROAD DISTRICT
 LASALLE COUNTY



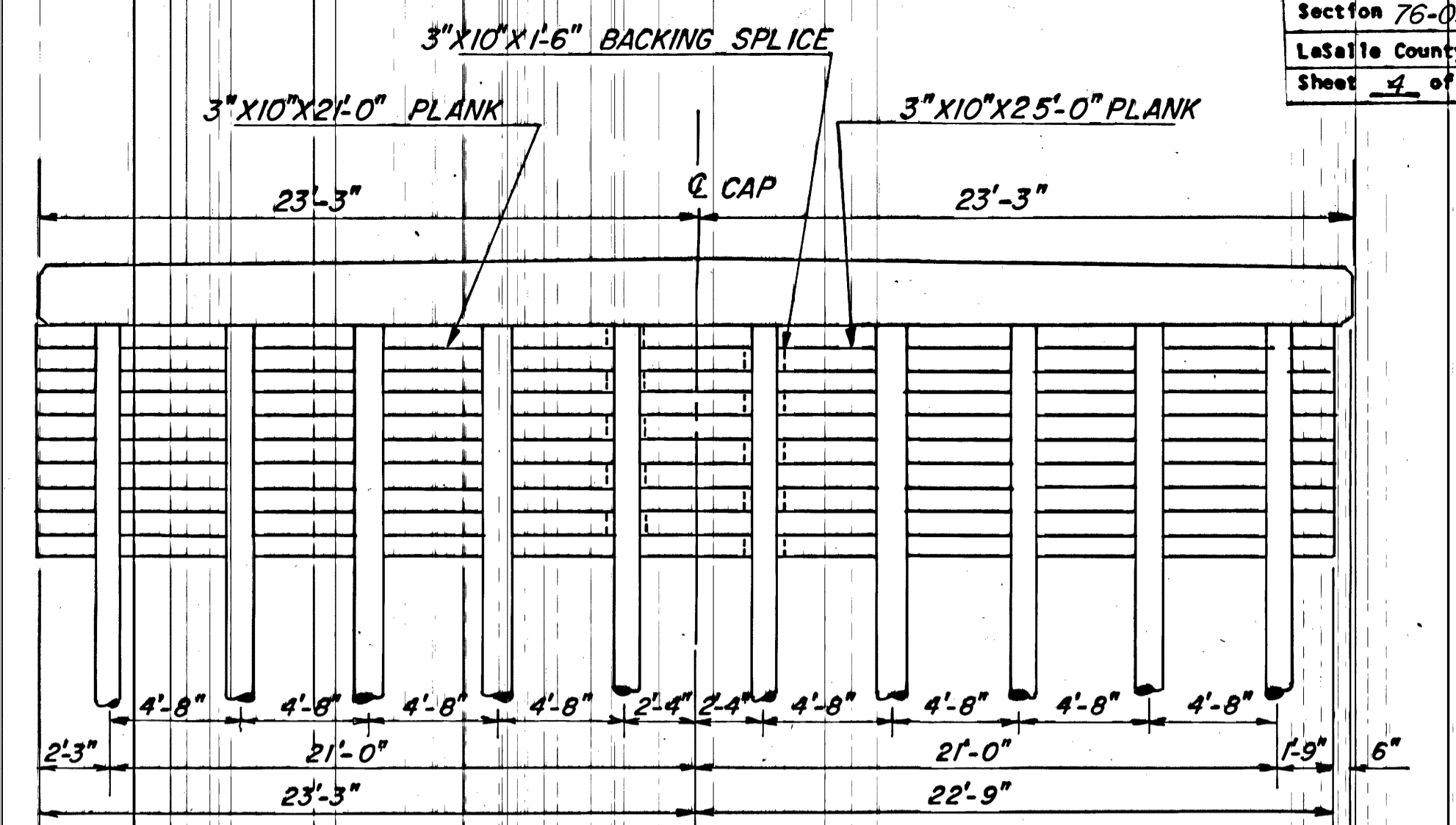
SECTION THRU ABUTMENTS



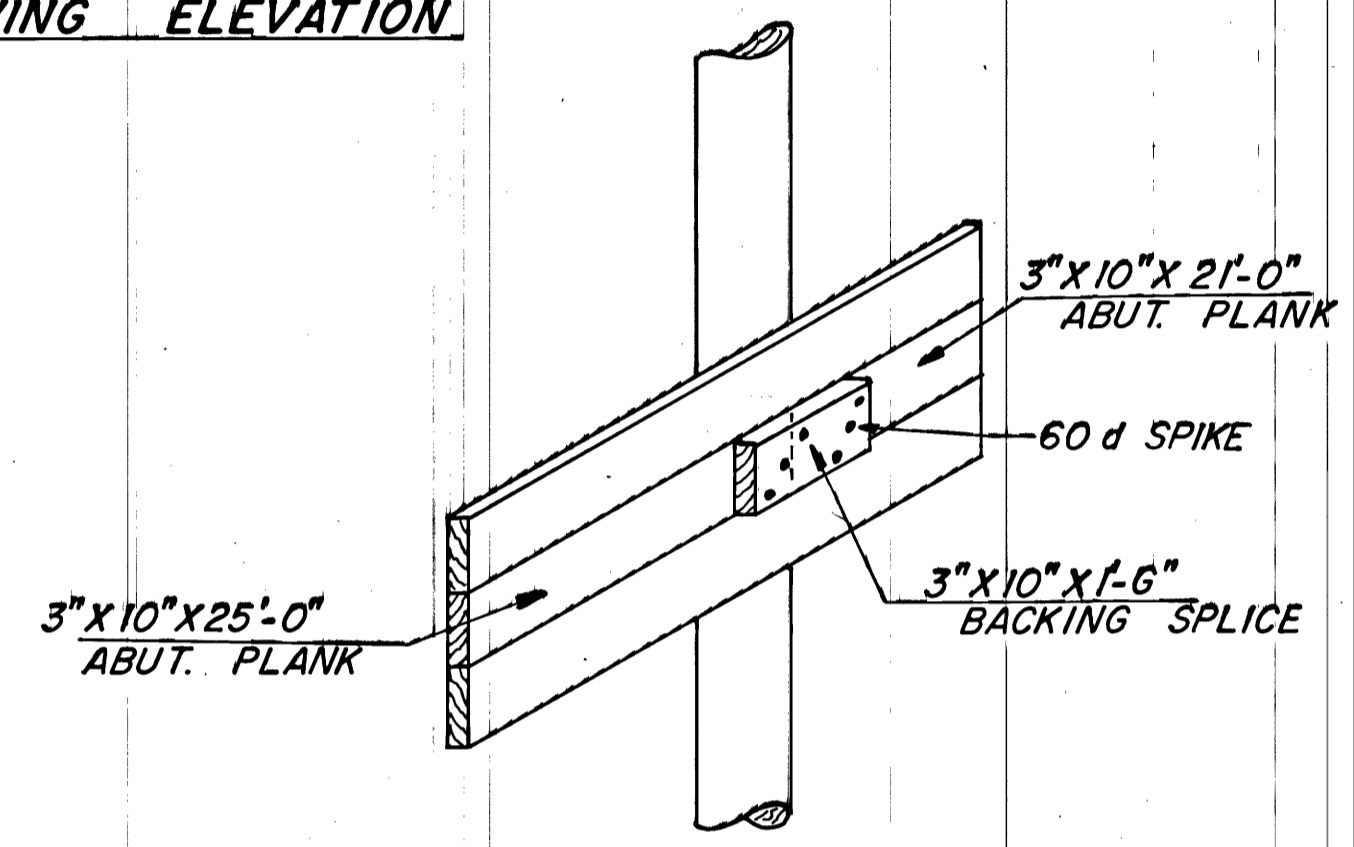
SECTION THRU PIER



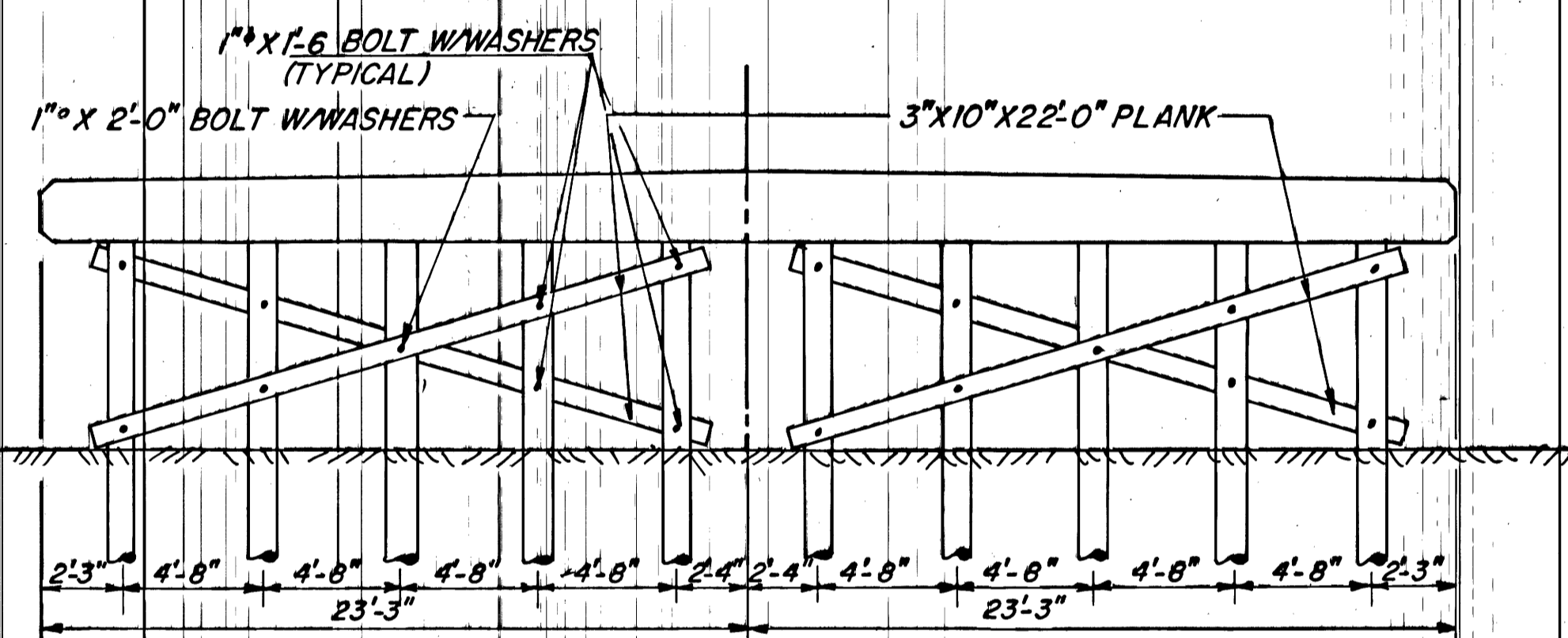
WING ELEVATION



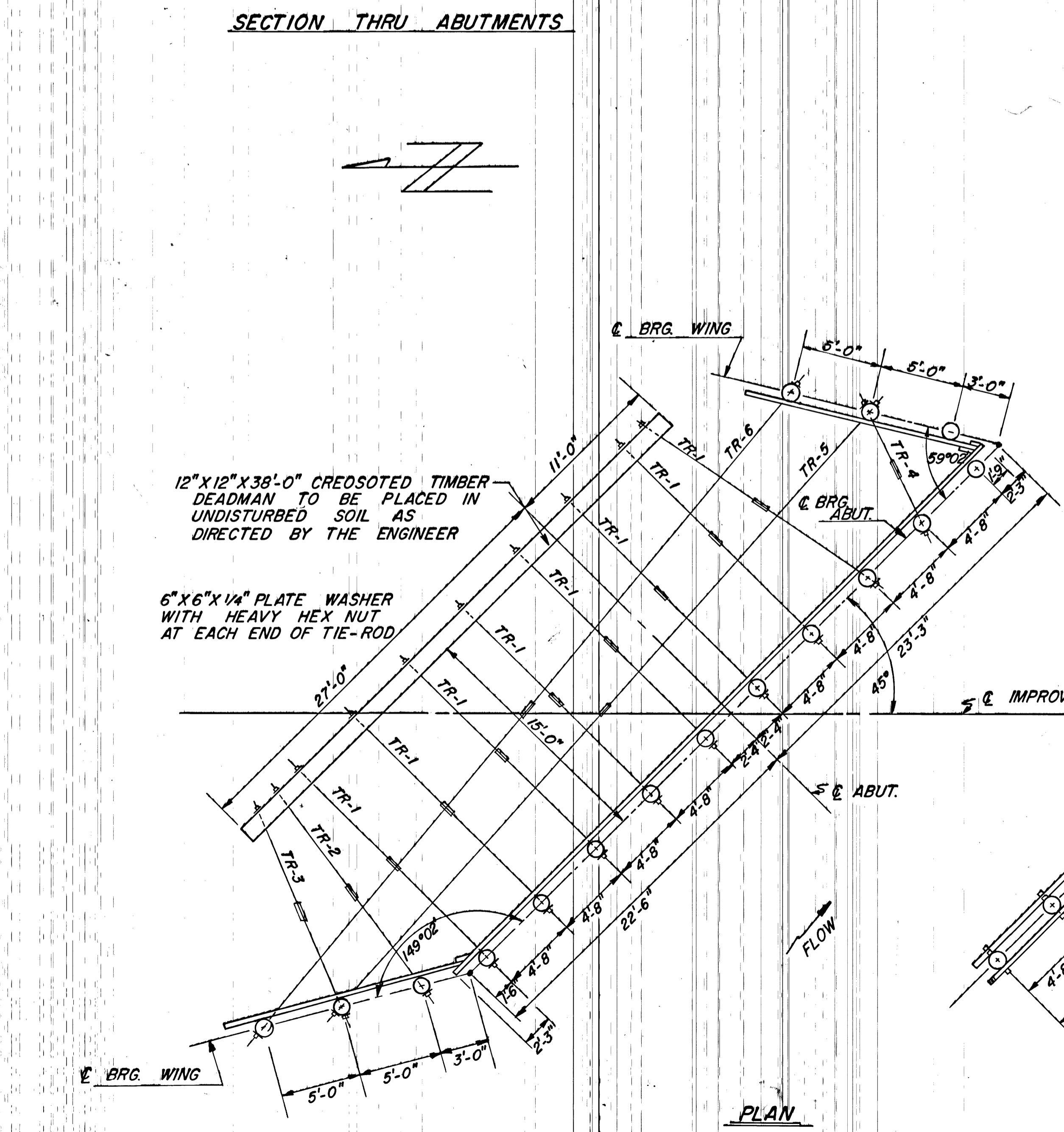
ABUTMENT ELEVATION



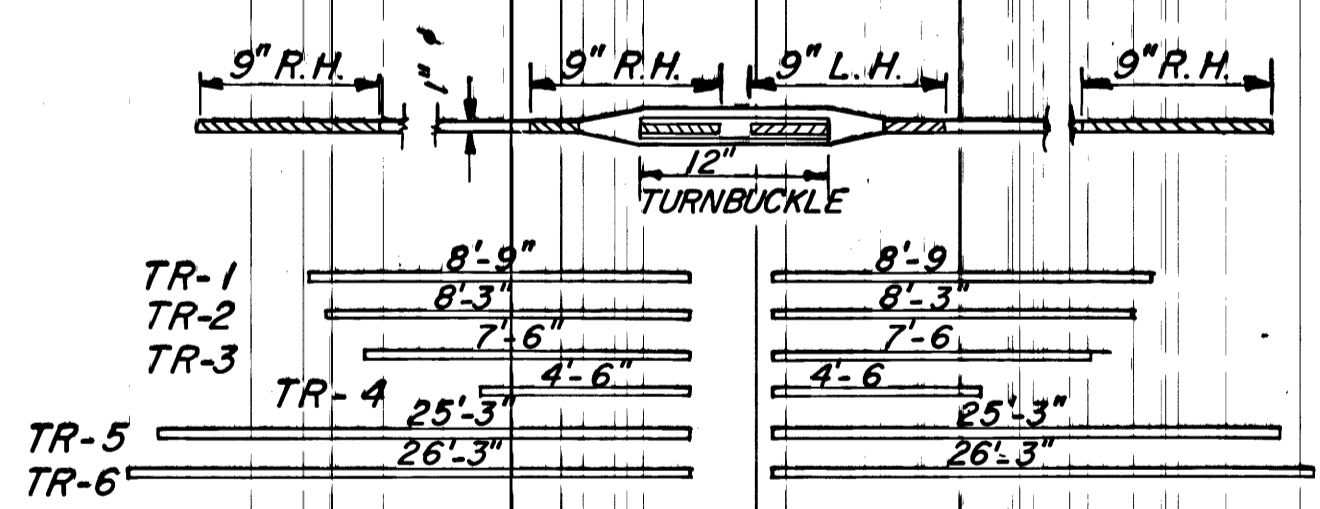
BACKING SPLICE DETAIL



PIER ELEVATION



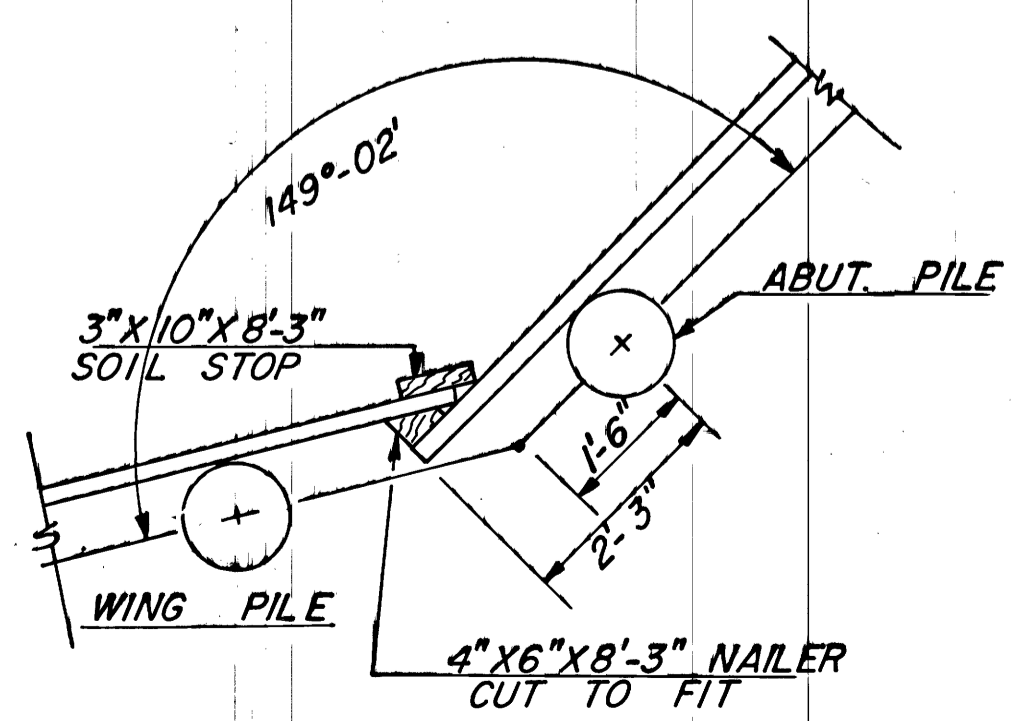
PLAN



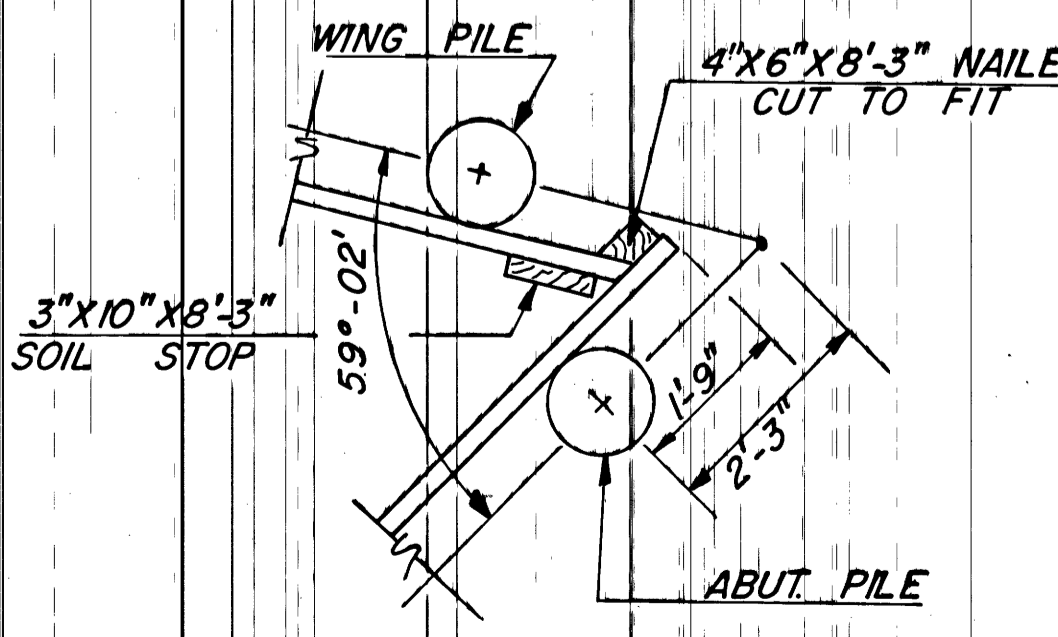
TIE ROD DETAIL

BILL OF HARDWARE			
NO.	ITEM	SIZE	LENGTH
16	TIE ROD TR-1	1"	17'-6"
2	TIE ROD TR-2	1"	15'-6"
2	TIE ROD TR-3	1"	15'-0"
2	TIE ROD TR-4	1"	9'-0"
2	TIE ROD TR-5	1"	50'-6"
2	TIE ROD TR-6	1"	52'-6"
26	TURNBUCKLE	1"	1'-0"
52	PLATEWASHER	1/4"	6" x 6"
52	HEAVY HEX NUT	1"	
16	BOLT W/2 WASHERS & NUTS	1"	1'-6"
2	BOLT W/2 WASHERS & NUTS	1"	2'-0"
1500	SPIKES	60#	
TOTAL			2064 *LBS.

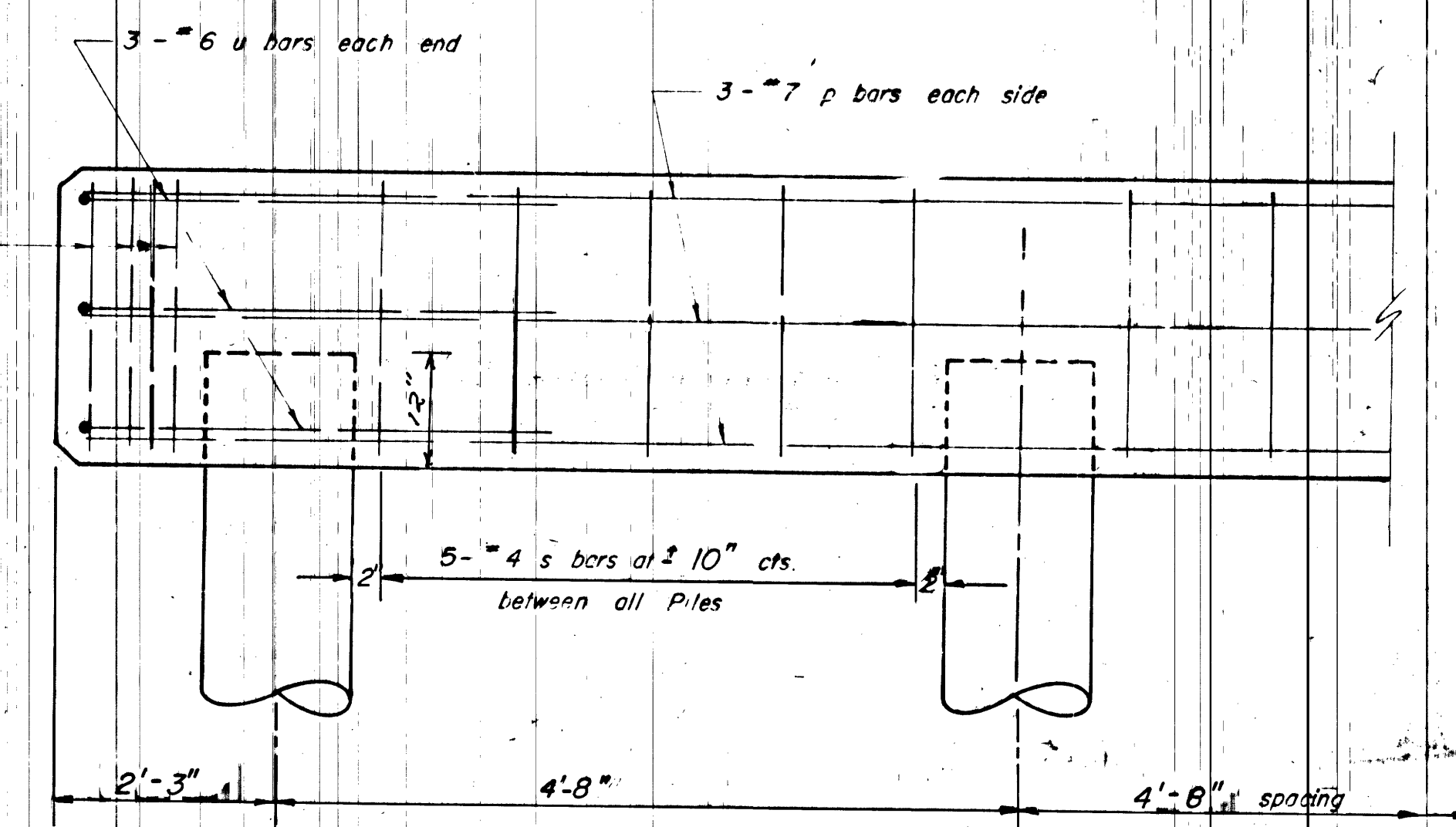
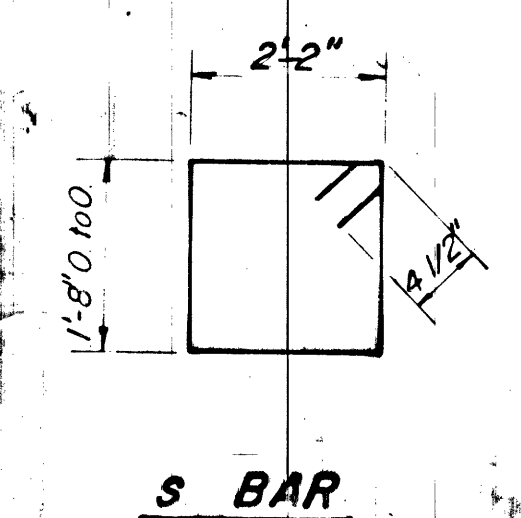
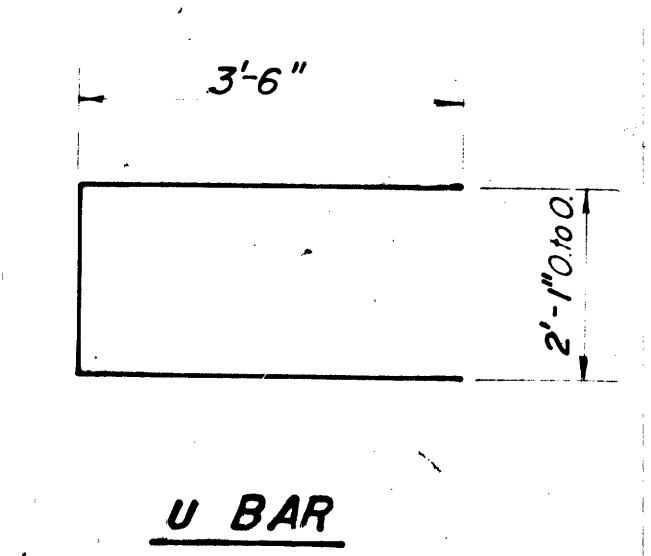
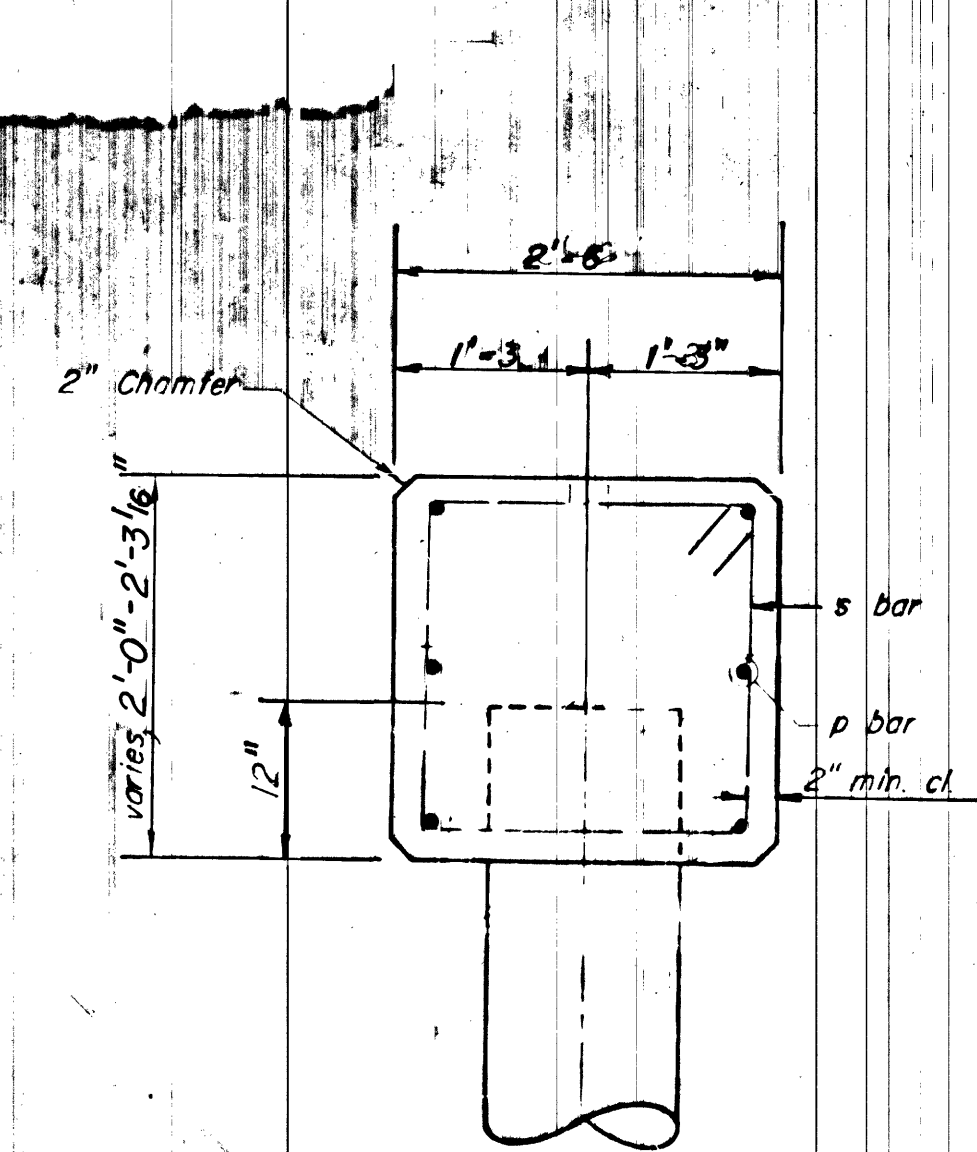
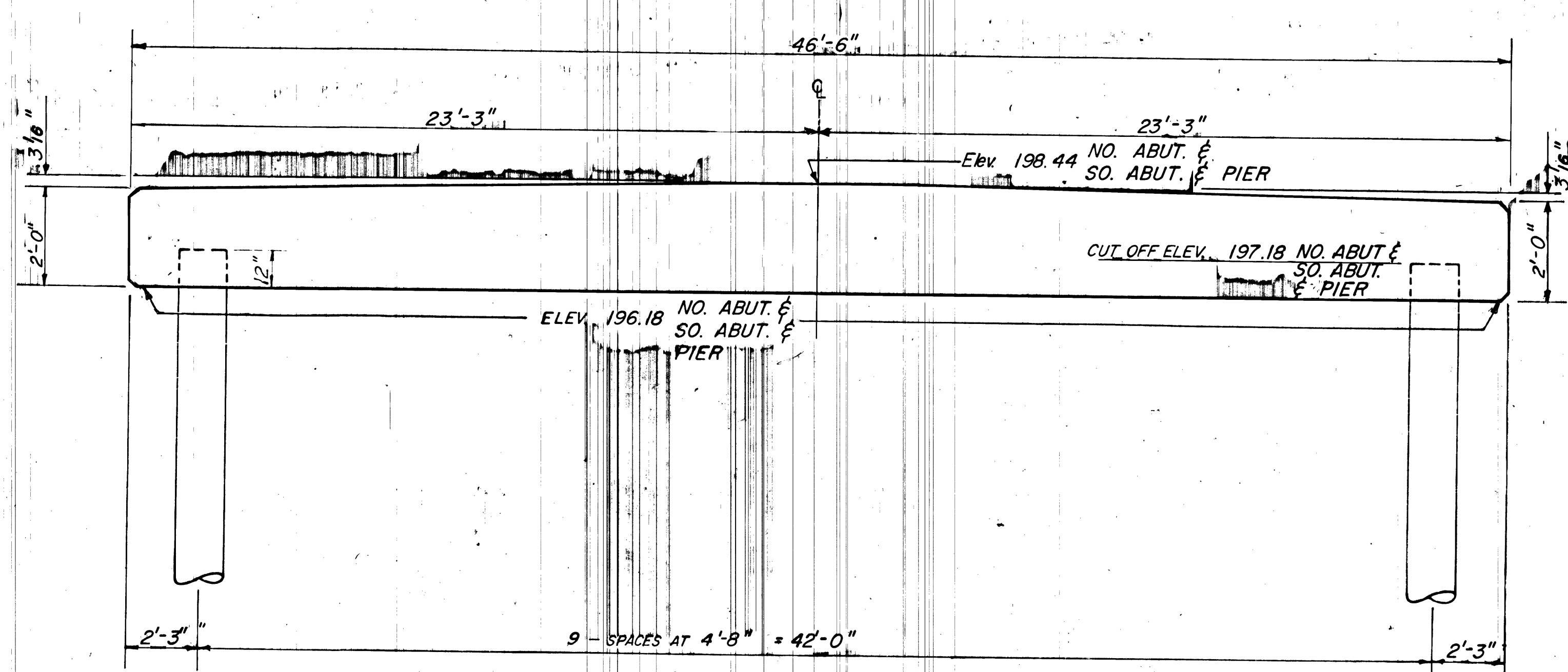
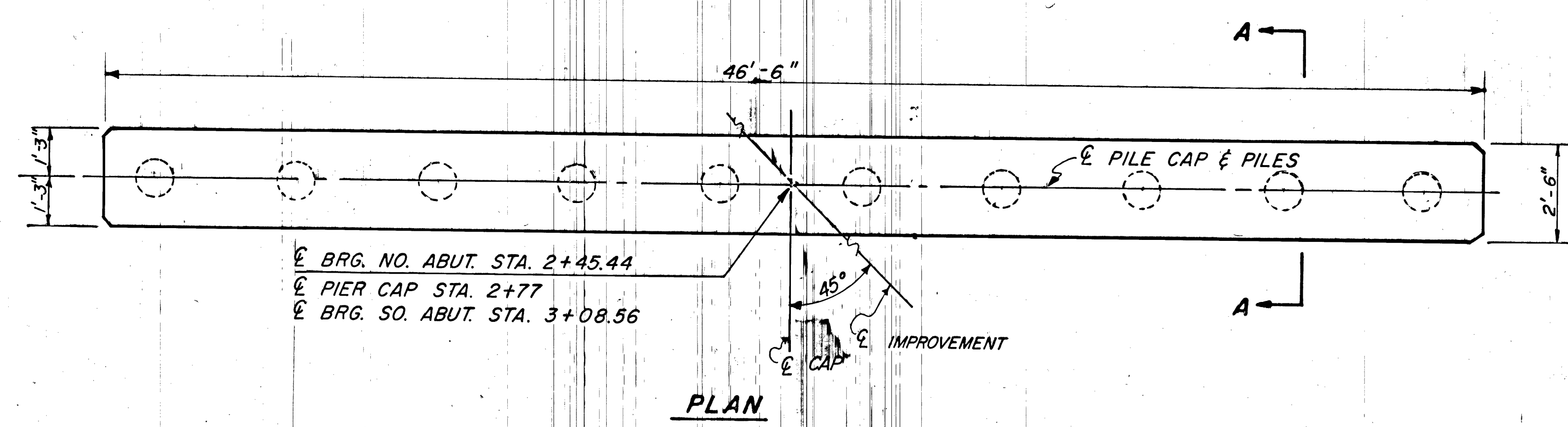
*Includes 3/2% for galvanizing



CORNER DETAILS



BILL OF TREATED TIMBER			
NO.	ITEM	SIZE	LENGTH
20	ABUTMENT PLANK	3" x 10"	21'-0"
20	ABUTMENT PLANK	3" x 10"	25'-0"
20	WING PLANK	3" x 10"	4'-6"
20	WING PLANK	3" x 10"	9'-6"
20	WING PLANK	3" x 10"	15'-6"
4	NAILER	4" x 6"	6'-3"
4	SOIL STOP	3" x 10"	6'-3"
8	SOIL STOP	3" x 10"	2'-0"
20	BACKING SPLICE	3" x 10"	1'-6"
2	DEADMAN	12" x 12"	38'-0"
4	CROSSBRACE	3" x 10"	22'-0"
TOTAL			5,171 F.B.M.



BILL OF MATERIAL *

Bar	No.	Size	Length	Shape
p	6	#7	46'-3"	
s	53	#4	8'-5"	
u	6	#6	9'-1"	
Reinforcement bars			Lbs.	947
Class "X" Concrete			Cu. Yd.	9.4

* QUANTITY IS FOR ONE CAP ONLY (3 REQUIRED.)

GENERAL NOTES

All Reinforcement bars shall be lapped a minimum of 24 bar diameters.

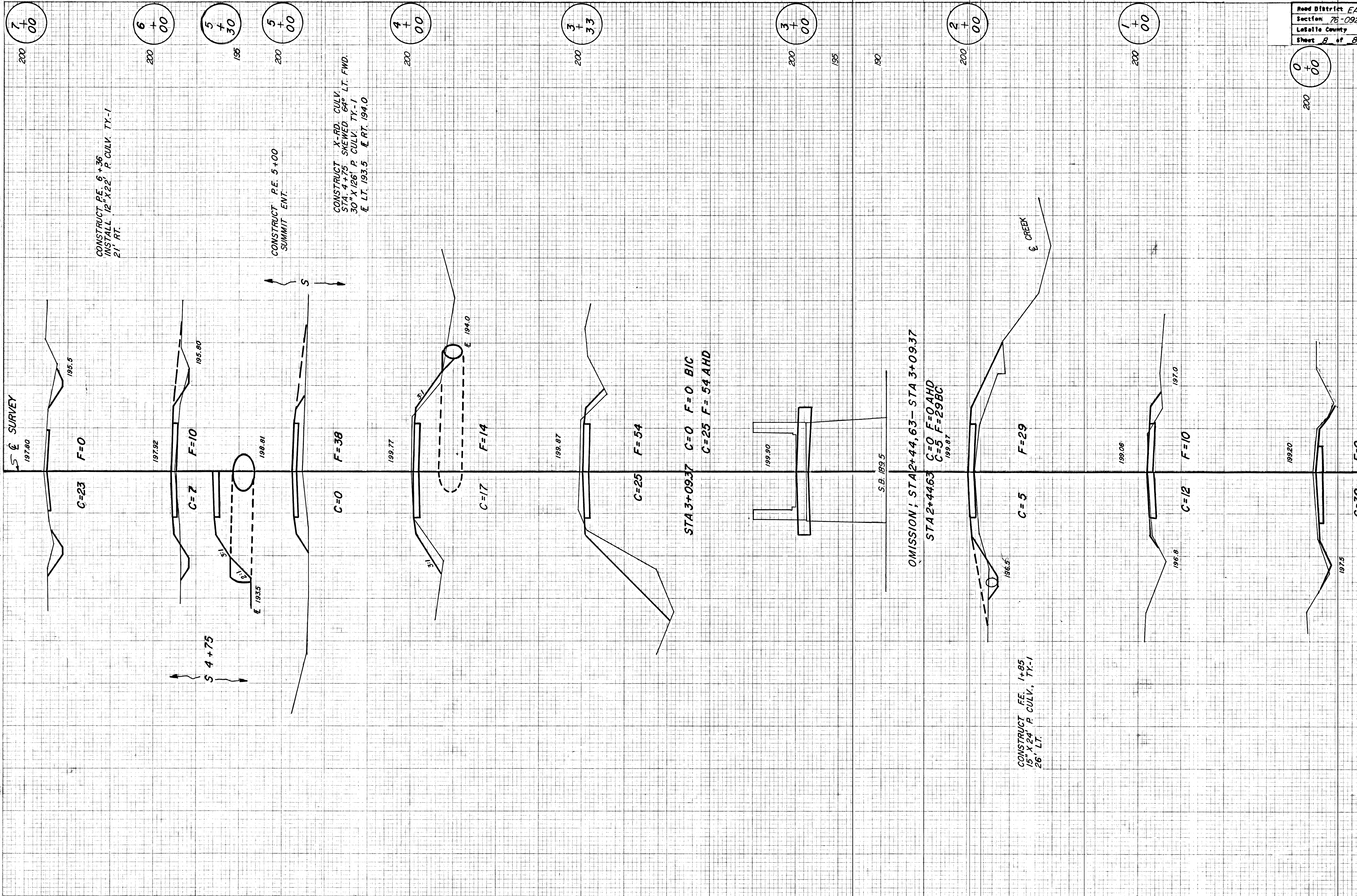
A poured in place Pile Cap shall be constructed in accordance with Section 504 of the Standard Specifications.

PILE CAP DETAIL
 SECTION 76-09263-00-BR
 EARL RD. DIST.
 LASALLE COUNTY

FINAL SURVEY SURVEYED, PLOTTED, NOTE BOOK, APERS, AREAS CHECKED, DATE

ORIGINAL SURVEY SURVEYED, PLOTTED, NOTE BOOK, APERS, AREAS CHECKED, DATE

Road District EARL
 Section 76-09263-00-8R
 LaSalle County
 Sheet 8 of 8



CONSTRUCT P.E. 6+36
 INSTALL 12' X 22' P. CULV. TY-1
 21' RT.

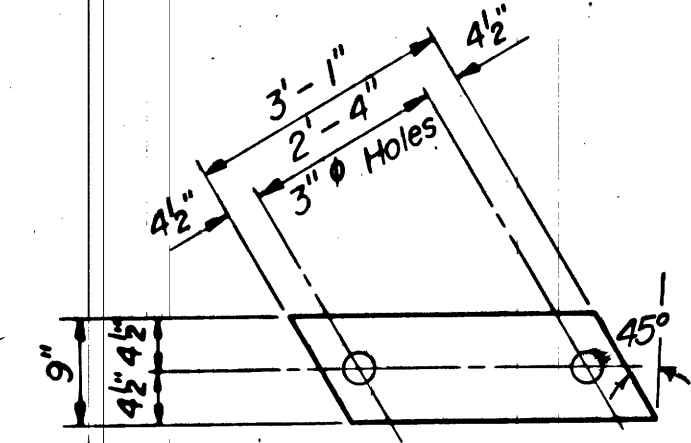
CONSTRUCT P.E. 5+00
 SUMMIT ENT.

CONSTRUCT X-RD. CULV.
 STA. 4+75 SKEWED 64° LT. FWD.
 30' X 126' P. CULV. TY-1
 E. LT. 193.5 E. RT. 194.0

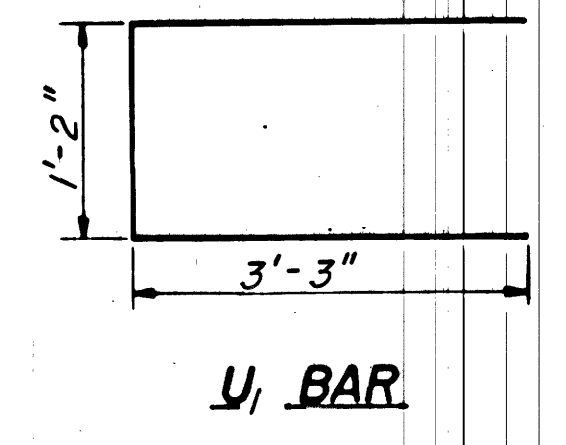
STA 3+09.37 C=0 F=0 BIC
 C=25 F=54 AHD

OMISSION; STA 2+44.63- STA 3+09.37
 STA 2+44.63 C=0 F=0 AHD
 C=5 F=29 BC
 199.87

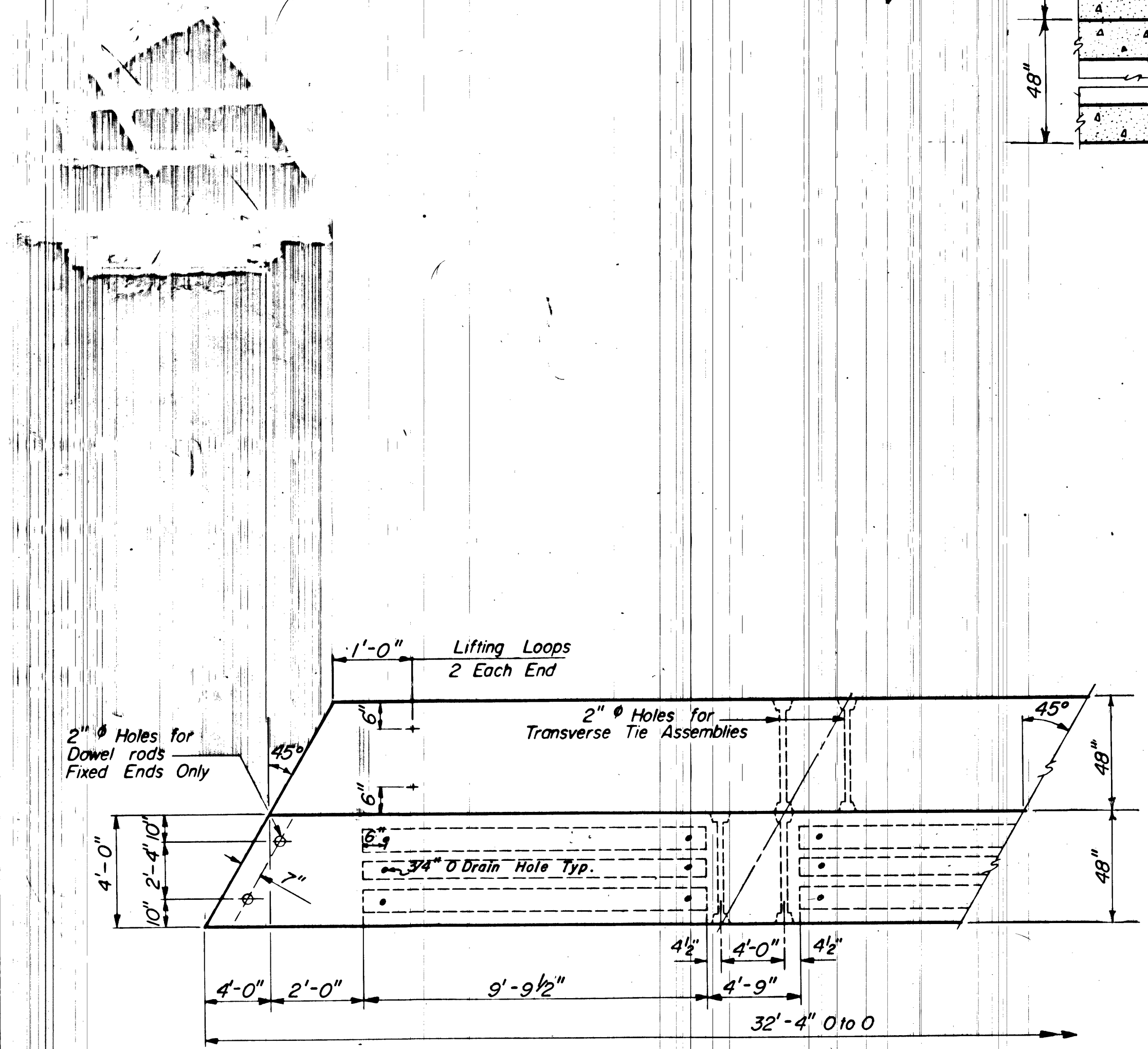
CONSTRUCT F.E. 1+85
 15' X 24' P. CULV., TY-1
 26' LT.



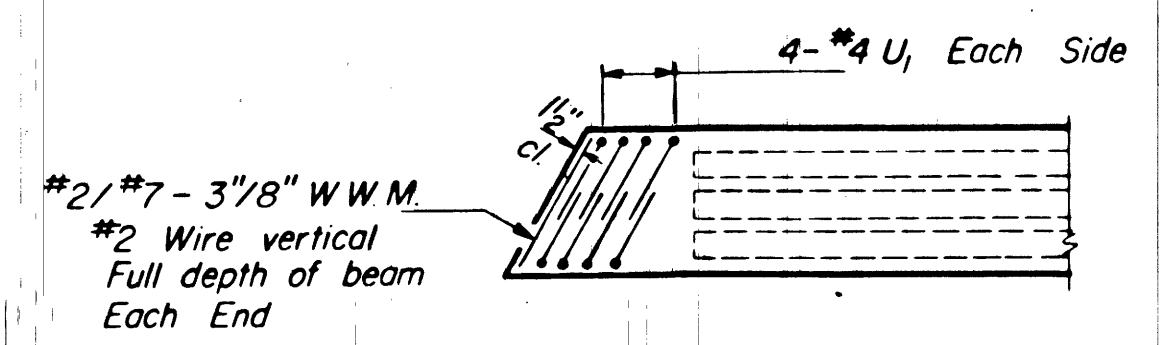
1/2" FABRIC BEARING PAD
 (24 REQ'D)



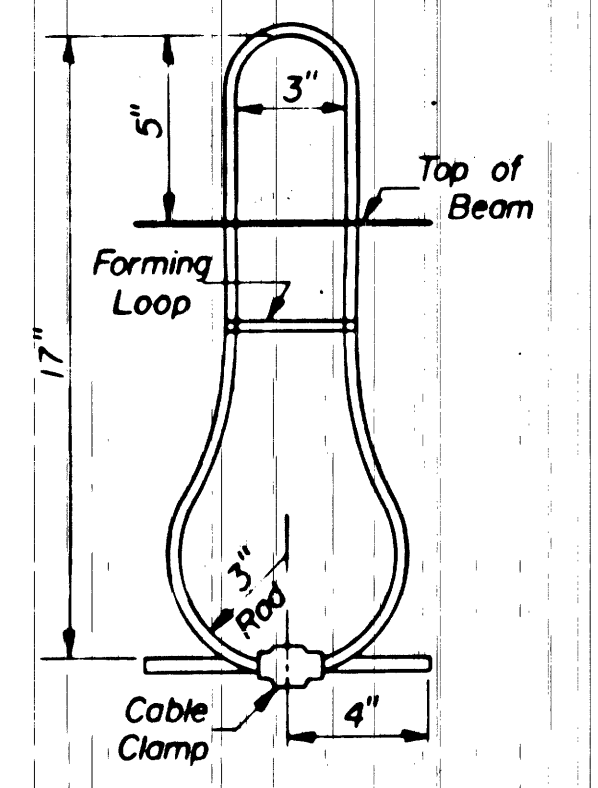
U BAR



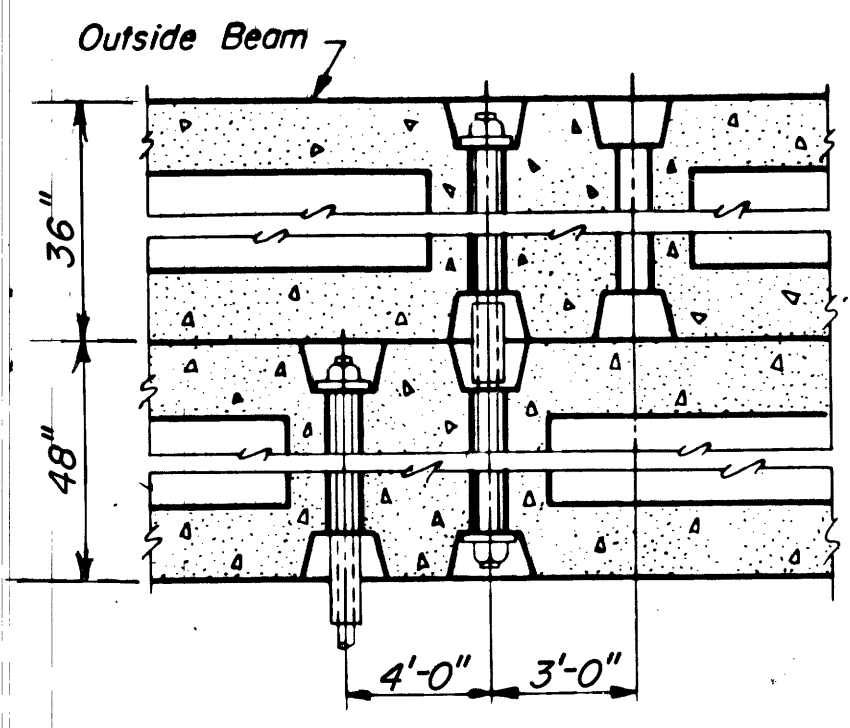
PLAN



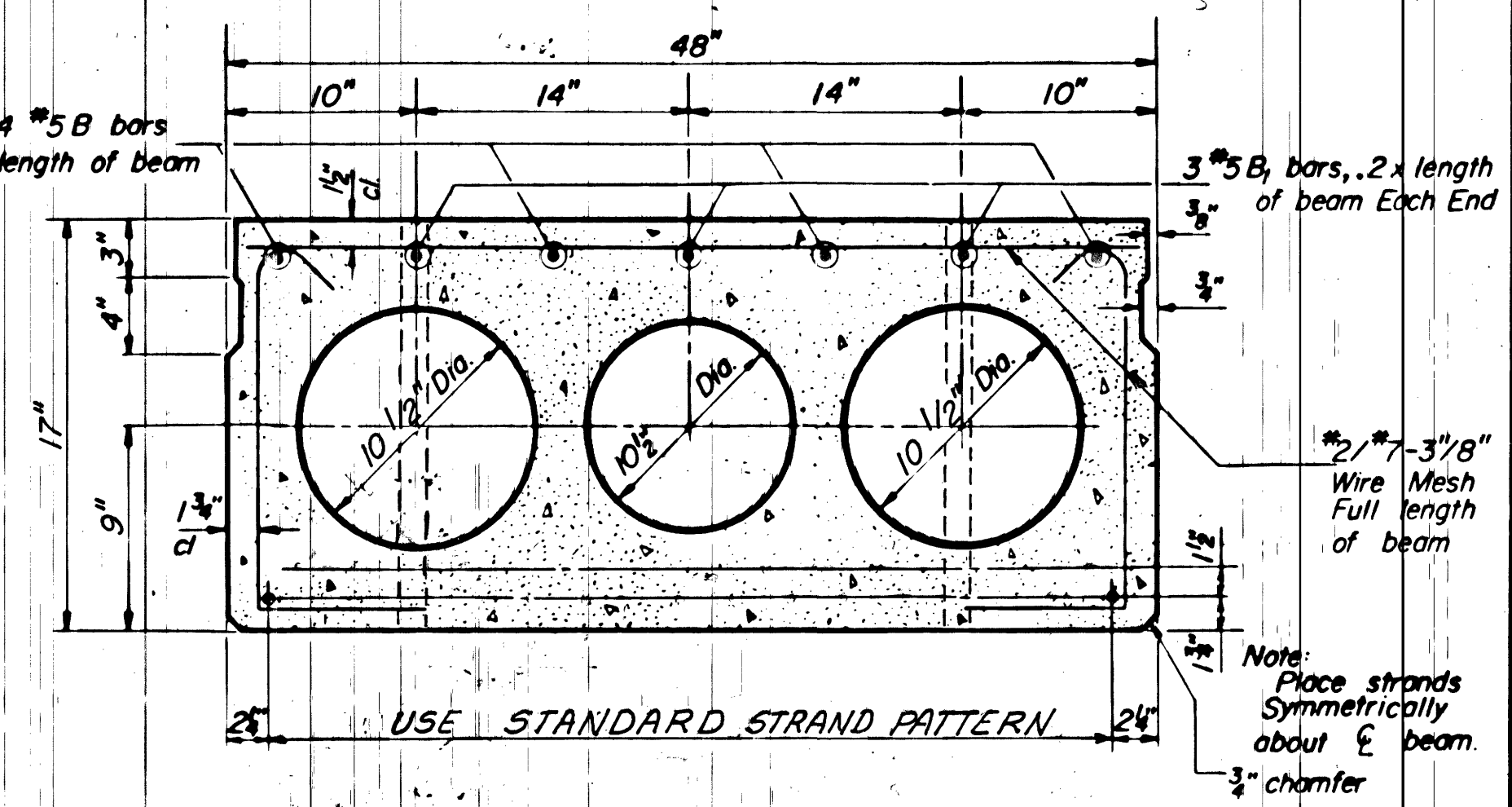
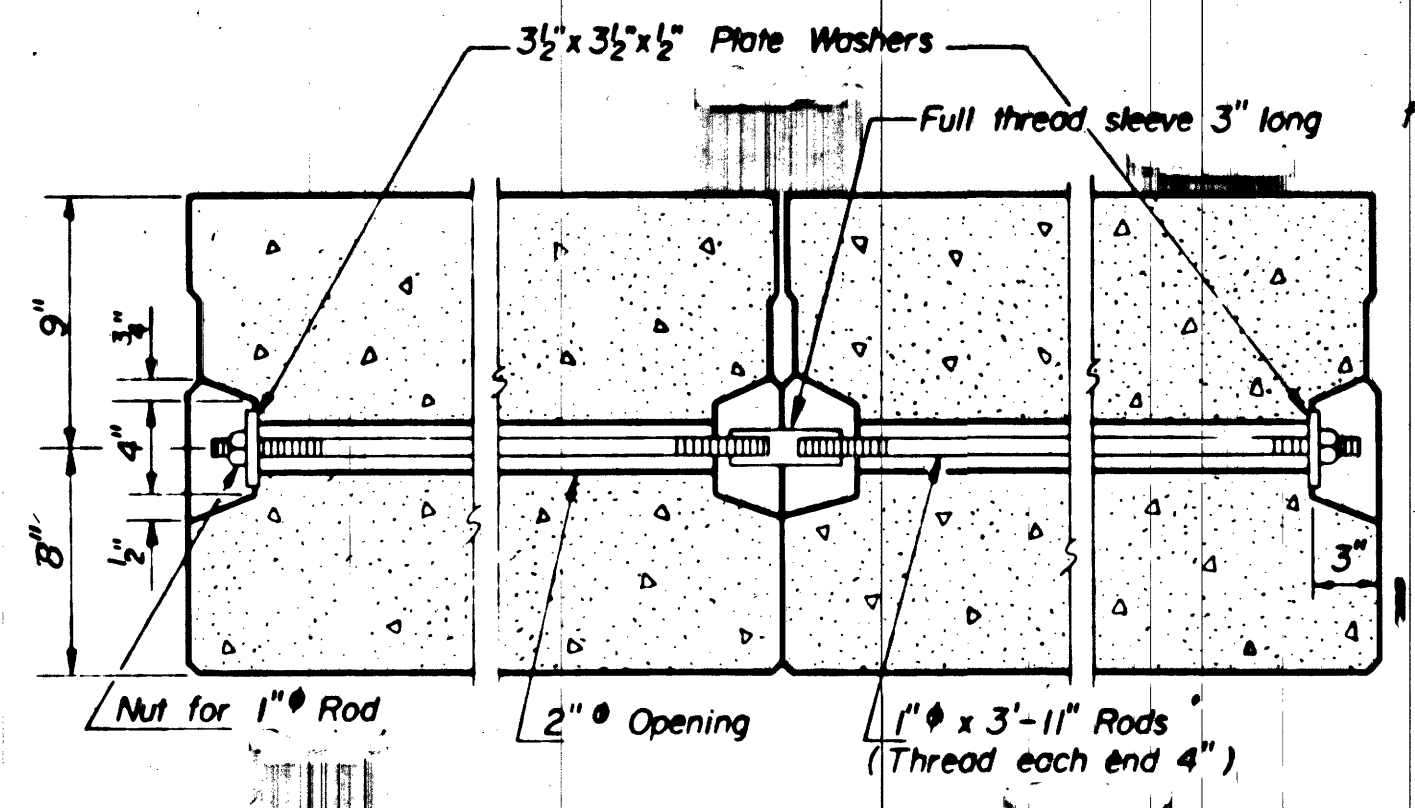
END PLAN



LIFTING LOOP DETAIL

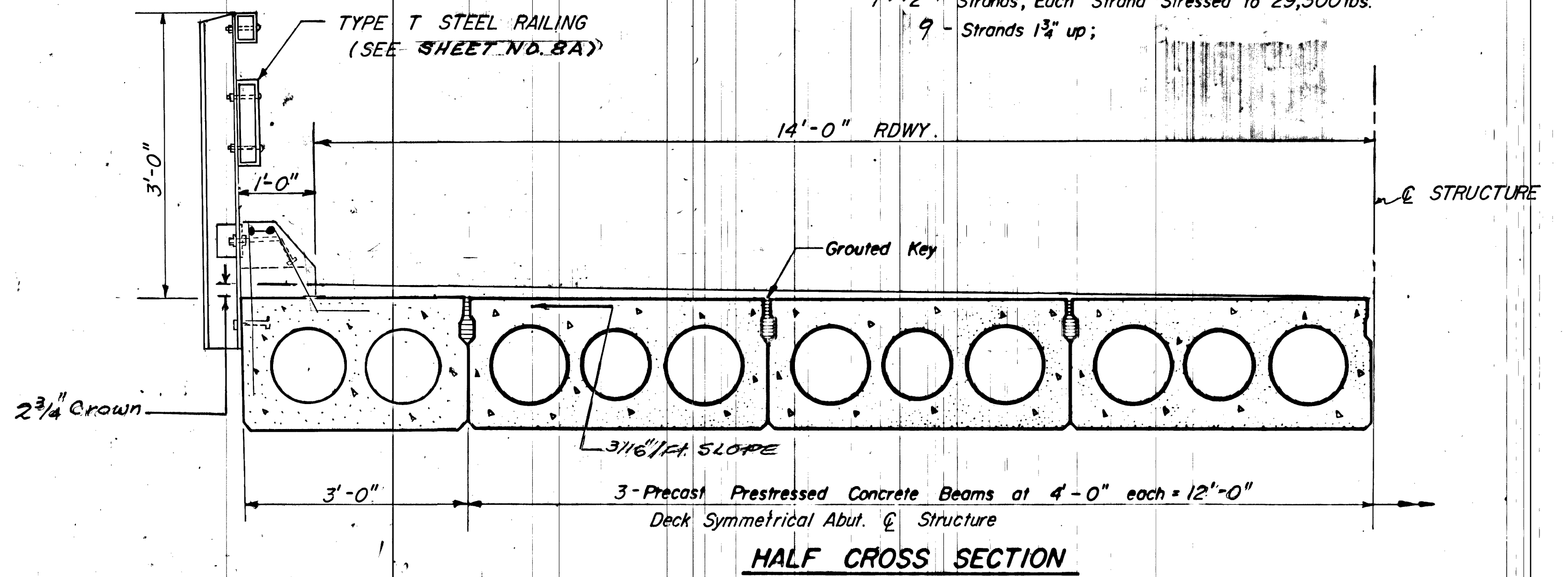


TYPICAL TRANSVERSE TIE ASSEMBLY
 No. REQUIRED: See Sheet 7 of 8



TYPICAL SECTION

9 - 1/2" Strands, Each Strand Stressed to 29,300 lbs.
 9 - Strands 1 3/4" up;



HALF CROSS SECTION

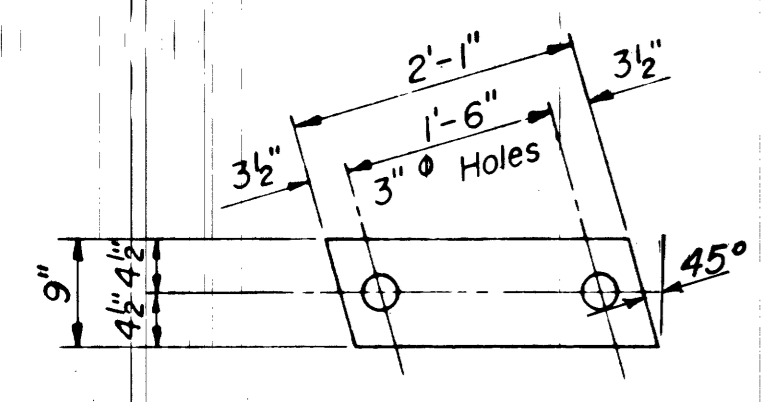
GENERAL NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.155 sq. in. Lifting loops shall be 5/8" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place conform to Article 710.00. Steel for dowel rods, transverse tie rods, and armor angles shall conform to Article 710.06 of the Standard Specifications, July 1, 1976. After fabrication, the transverse tie assemblies (the rods, nuts, washers, and sleeves) shall be hot-dipped galvanized in accordance with A.A.S.H.T.O. M-232. Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams (17' x 48'").

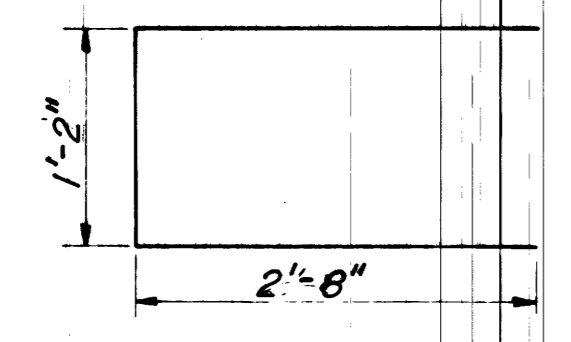
BILL OF MATERIAL (one beam)

Bar	No	Size	Length	Shape
B	4	#5	32'-0"	—
B ₁	6	#5	6'-6"	—
U ₁	16	#4	7'-8"	□
Precast Prestressed Concrete Bridge Deck (12 beams)			Sq Ft	1552
Weight of each beam				19,075 LBS

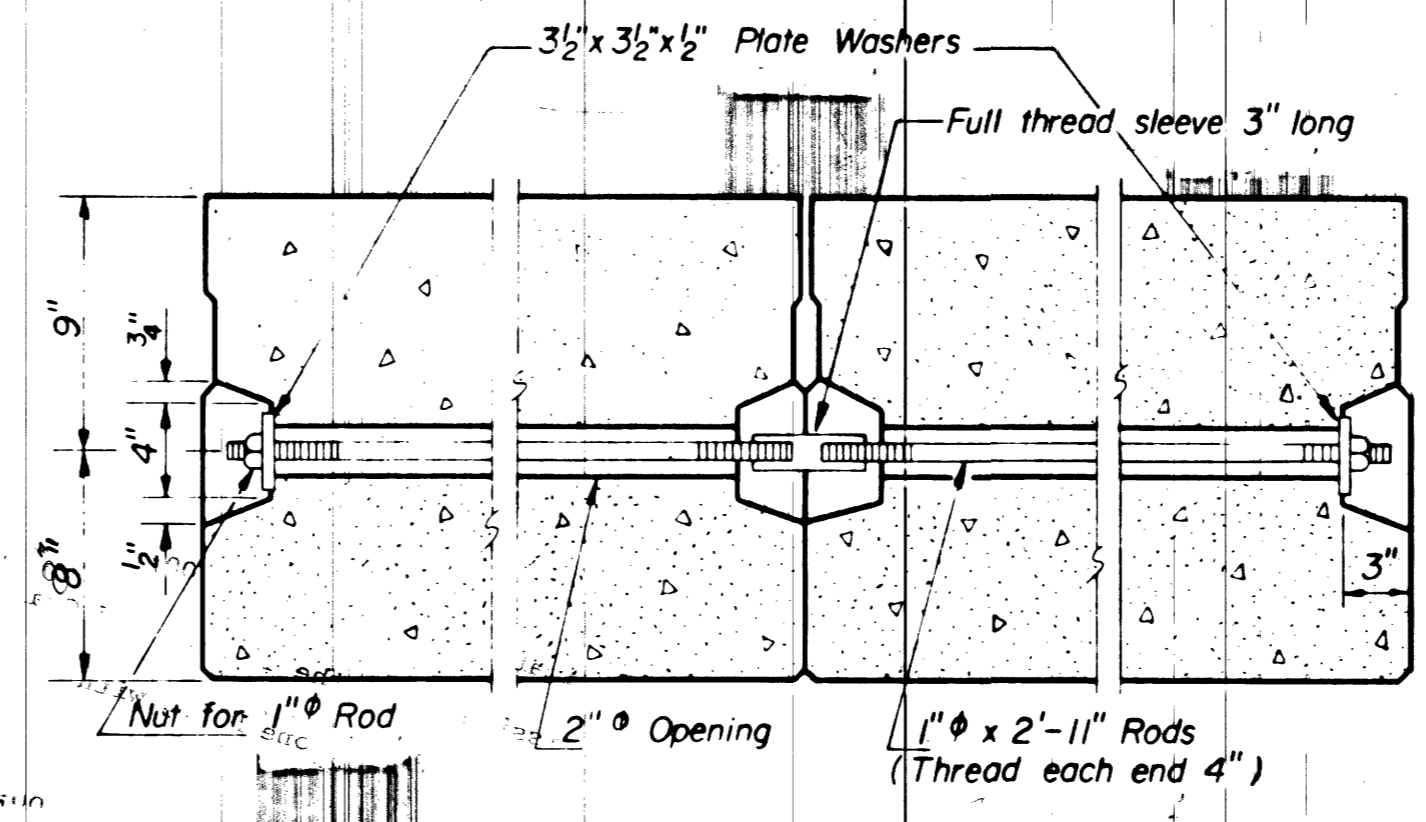
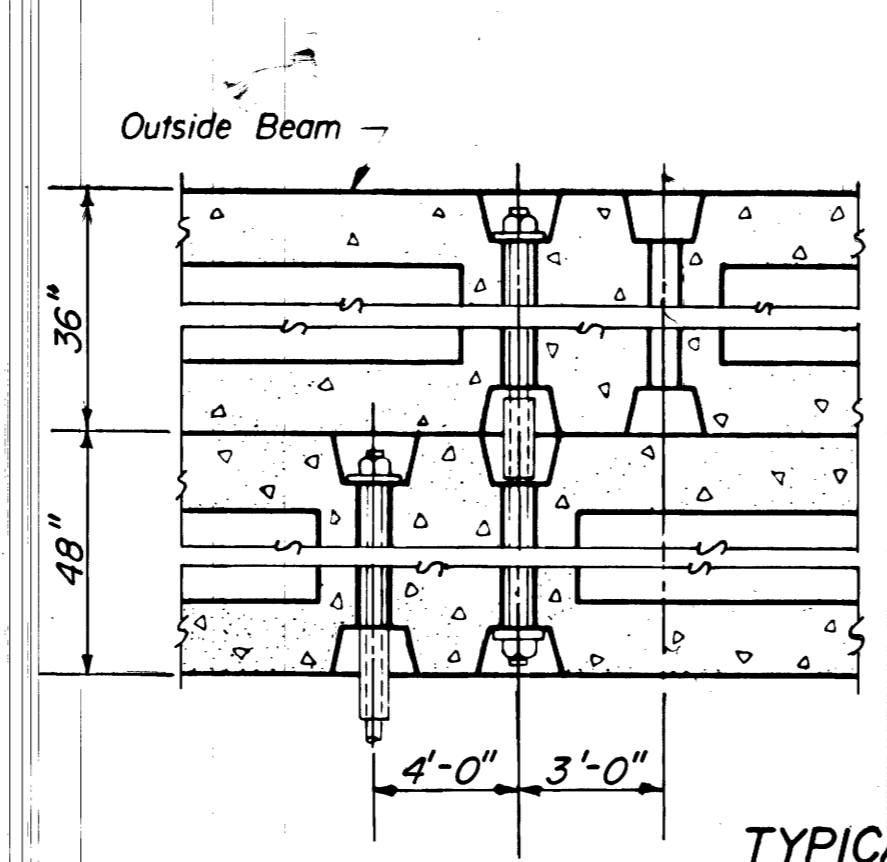
DECK BEAM DETAIL (17' x 48')
 SECTION 76-09263-00-BR
 EARL RD. DIST.
 LASALLE COUNTY



1/2" FABRIC BEARING PAD
 (3 REQ'D)



U1 BAR

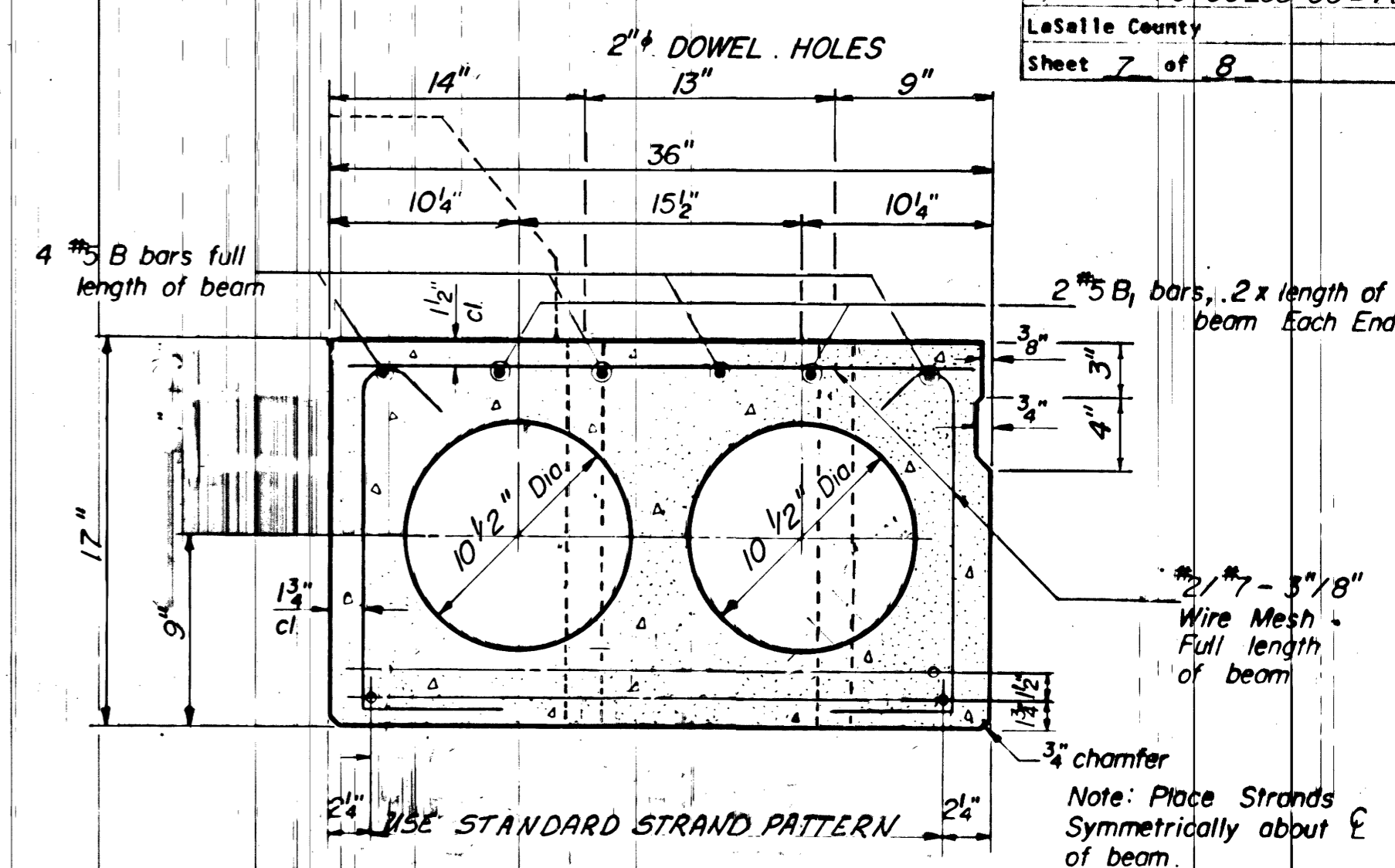


TYPICAL TRANSVERSE TIE ASSEMBLY

NO. REQUIRED: 4-1" O X 2'-11" Rods
 24-1" O X 3'-11" Rods
 14-3" Long Sleeves
 28-Nuts & Plate Washers

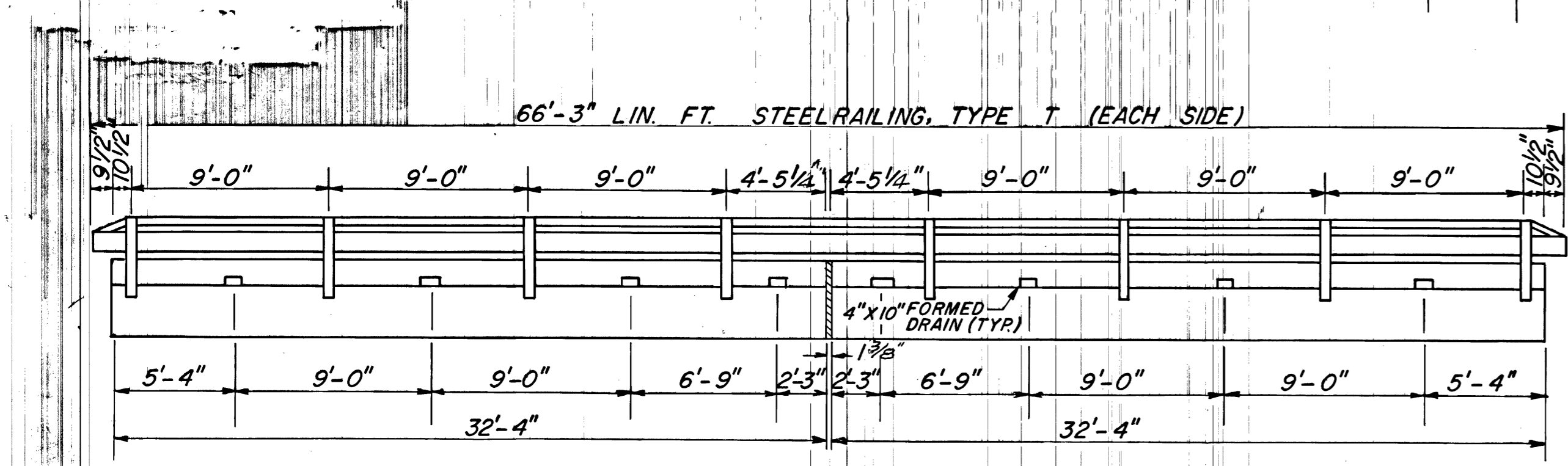
DESIGN STRESSES

Concrete (beams) $f_c' = 5,000$ p.s.i.
 $f_{ci} = 4,000$ p.s.i.
 Steel Strand $f_s = 270,000$ p.s.i.
 $f_{si} = 189,000$ p.s.i.
 Reinforcement bars $f_s = 20,000$ p.s.i.
 Concrete (Class "X") $f_c' = 3,500$ p.s.i., $f_{ci} = 1,400$ p.s.i., $n = 10$
 DESIGN LIVE LOAD = HS 20-44

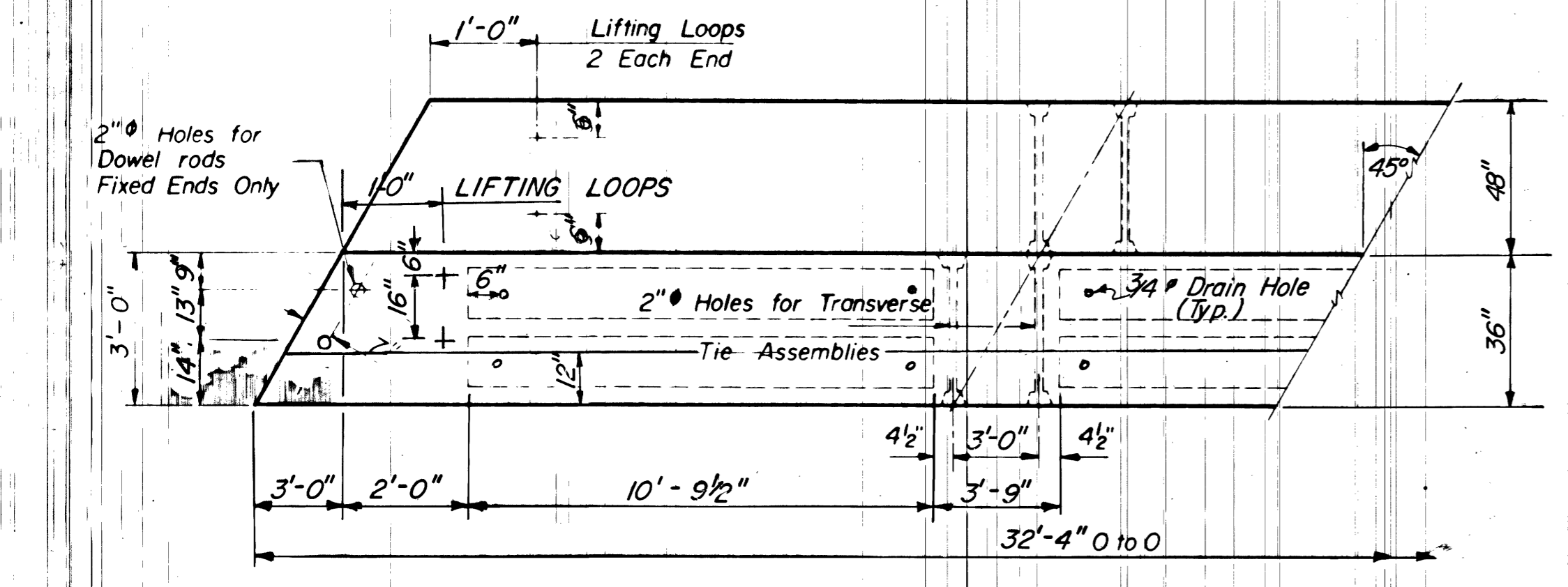


TYPICAL SECTION

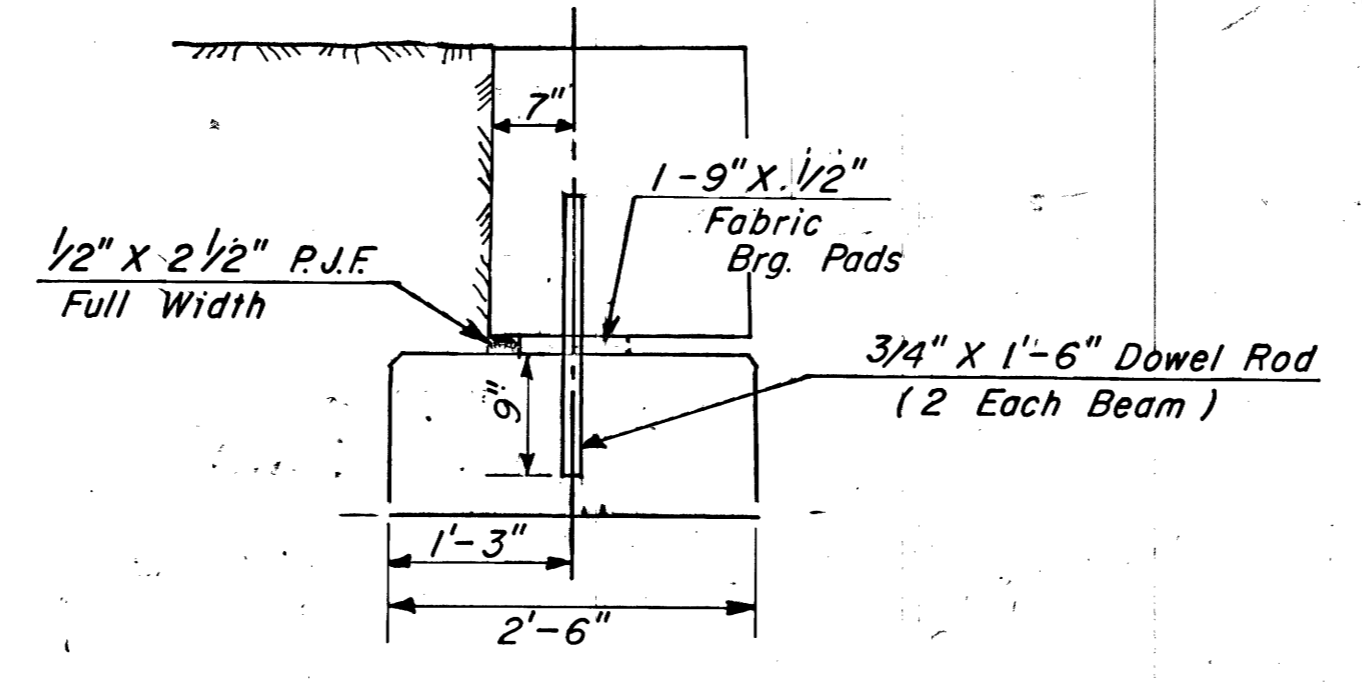
8-1/2 Strands Each Strand Stressed to 29,300 lbs.
 8-1 Strands 1 3/4 up;



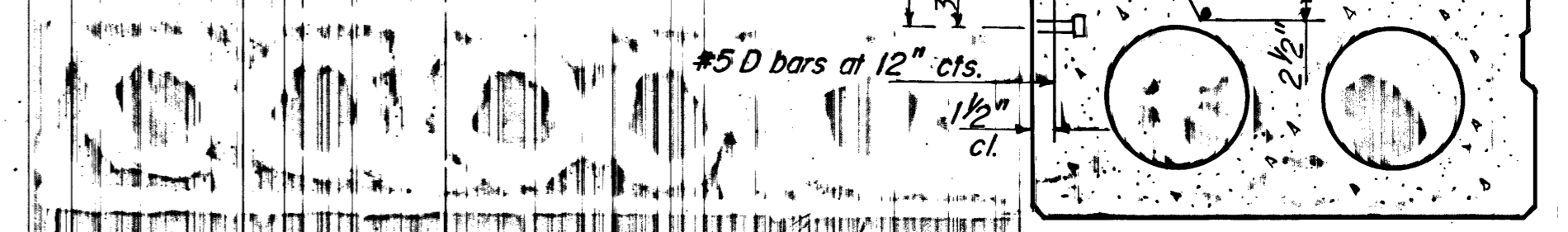
RAIL, POST, & DECK DRAIN SPACING DETAIL



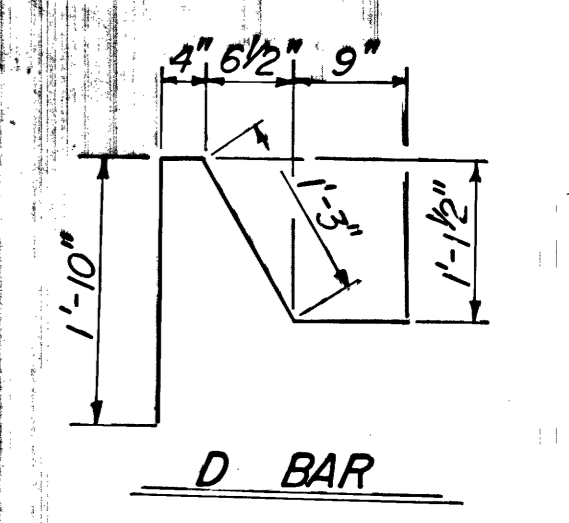
PLAN



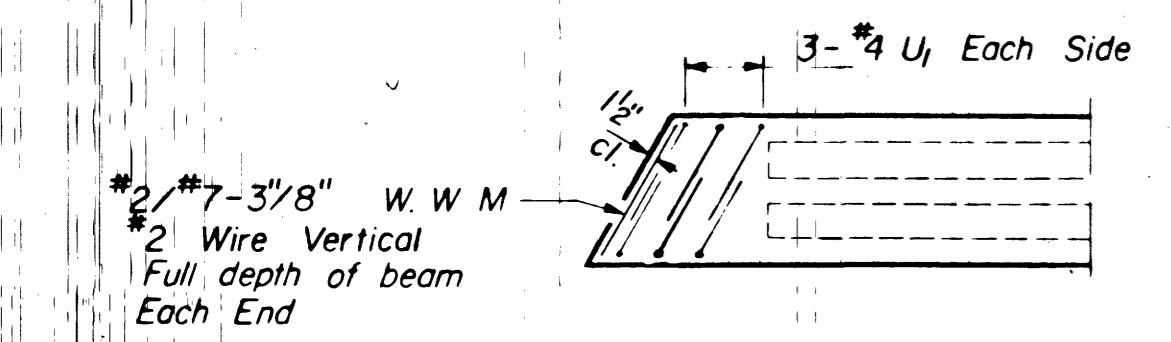
FIXED ABUT.
 (RT. < TO & BRG.)



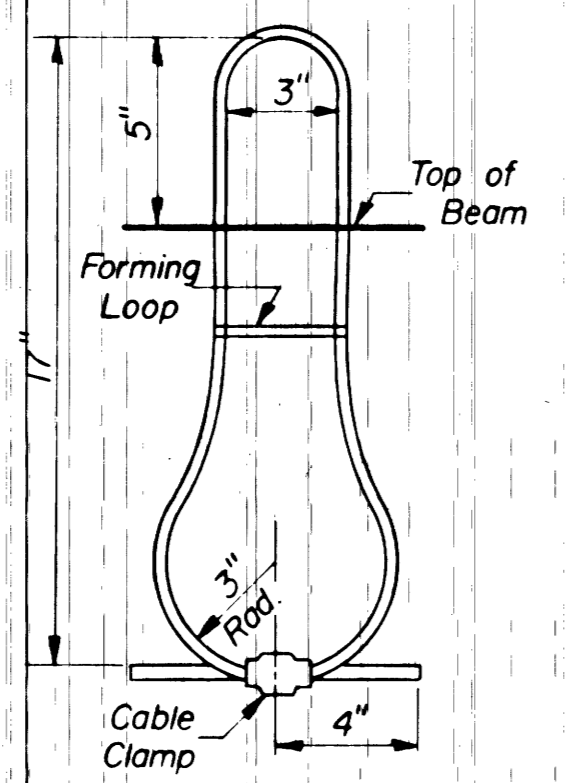
SECTION THRU CURB



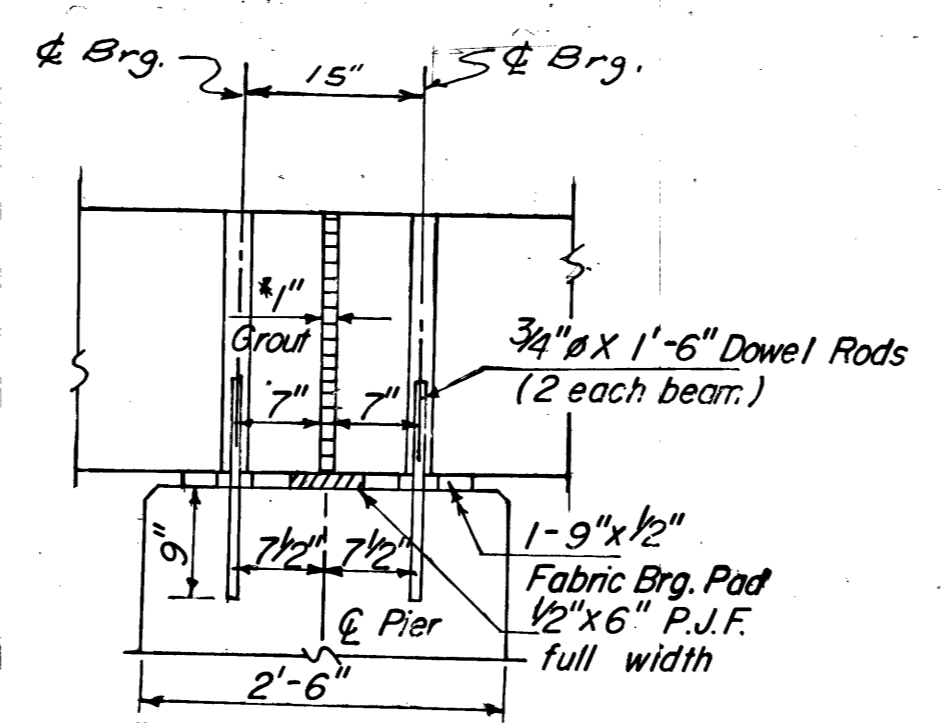
D BAR



END PLAN



LIFTING LOOP DETAIL



FIXED PIER
 (RT. & TO & BRG.)

GENERAL NOTES

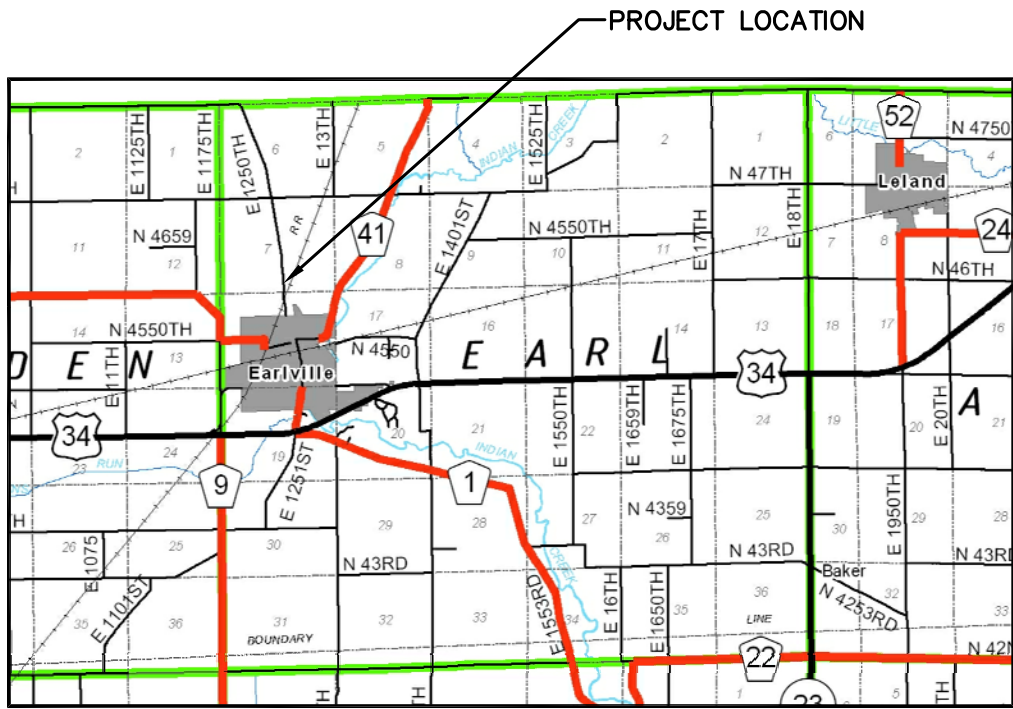
Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.155 sq. in. Lifting loops shall be 5/8" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set in Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place. Steel for dowel rods, transverse tie-rods, and armor angles shall conform to Article 710.06 of the Standard Specifications, dated July 1, 1976. After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with AASHTO M-232. Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck, Beam (17)". The longitudinal shear key shall be omitted from the rail side (outside) of the 36" width beams. When the curb is poured at the plant, the beams shall be released from the bed before pouring curb.

BILL OF MATERIAL (one beam)

Bar	No	Size	Length	Shape
B	4	#5	32'-0"	—
B1	4	#5	6'-6"	—
U1	12	#4	6'-6"	—
b	2	#4	32'-0"	—
D	32	#5	4'-2"	—
			Precast Prestressed Concrete Bridge Deck (four beams)	Sq Ft 388
			Weight of curb beam	15,198 LBS
			Weight of curb each beam	8,460 LBS

DECK BEAM DETAIL (17" x 36")
 SECTION - 76-09263-00-BR
 EARL RD. DIST.
 LASALLE COUNTY

PLANS FOR PROPOSED
TOWNSHIP IMPROVEMENT
LA SALLE COUNTY
EARL ROAD DISTRICT
E. 1250TH ROAD
STRUCTURE NO. 050-3451



INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 BRIDGE DETAILS
- 4-5 TIMBER PILE REPAIR DETAILS – OPTION A
- 6 ABUTMENT REPAIR DETAIL – OPTION B
- 7 ABUTMENT PILE SLEEVE DETAIL – OPTION C
- 8 PIER PILE SLEEVE DETAIL
- 9 STEEL SLEEVE REINFORCEMENT DETAIL



CALL JULIE
48 Hours Before You Dig.
 1-800-892-0123

PILE REPAIR
 STRUCTURE 050-3451
 EARL ROAD DISTRICT
 E. 1250TH ROAD

COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	2 of 9

GENERAL NOTES

EACH PILE DESIGNATED FOR REPAIR SHALL BE MARKED WITH A RED X. IT IS ESTIMATED THAT THE DETERIORATED PORTION OF THE TIMBER PILE IS APPROXIMATELY 11 FT AT THE NORTH ABUTMENT AND 24 FT AT THE SOUTH ABUTMENT AND 37 FT AT THE PIER. APPROXIMATELY 1/2 CY OF EXCAVATION IS REQUIRED FOR EACH PILE LOCATION.

THE REPAIR TYPE SHALL BE DETERMINED IN THE FIELD BASED ON THE EXTENT OF DETERIORATION AND SHALL BE ONE OF THE FOLLOWING:

ABUTMENT REPAIR:

ABUTMENT OR PIER PILE REPAIR ENCASEMENT A, B OR C MAY BE USED FOR ALL REPAIR CONDITIONS, EXCEPT AS NOTED BELOW.

ABUTMENT OR PIER PILE SLEEVE DETAILS OPTION C MAY BE USED ONLY IF AN 18" LAP OF SOLID PILE IS AVAILABLE.

PIER REPAIR:

PIER ENCASEMENT B, PIER PILE SLEEVE DETAIL, OR A MODIFIED VERSION OF OPTION A WITH ENCASEMENT & STIRRUPS CENTERED ABOUT THE PILE MAY BE USED.

THE CONTRACTOR SHALL:

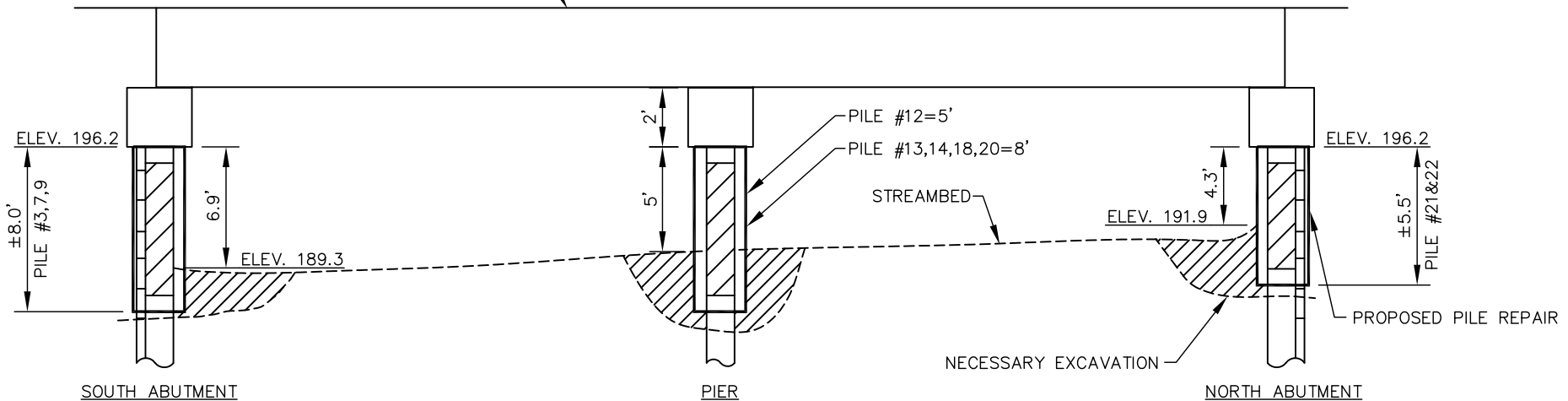
1. EXCAVATE AROUND THE PILING TO DETERMINE THE EXTENT OF THE PILE DETERIORATION.
2. REMOVE THE DETERIORATED PORTION OF THE PILING AS REQUIRED TO EXPOSE SOLID PILING TO REMAIN IN PLACE. ADJACENT PILE SHALL NOT BE REPAIRED SIMULTANEOUSLY.
3. THE CONTRACTOR SHALL KEEP ALL LOADS OFF THE STRUCTURE UNTIL THE CONCRETE REPAIR HAS ACHIEVED AT LEAST 3000 PSI.
4. FORMS SHALL BE REMOVED FOR ENCASEMENT OPTIONS A & B, STEEL SLEEVES SHALL BE LEFT IN PLACE FOR OPTION C.
5. NO TEMPORARY BRACING WORK IS REQUIRED FOR THE TIMBERPLANK IF PROPER SEQUENCES ARE FOLLOWED, HOWEVER RETAINED EARTH AT ABUTMENTS SHALL BE IN A NON-SATURATED CONDITION AND IF TIMBER PLANK BACKING MOVEMENT OCCURS, BRACING SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER AND PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
6. THE CONTRACTOR SHALL RESHAPE ALL DISTURBED AREAS.
7. SEEDING WILL BE DONE BY OTHERS.

SUMMARY OF QUANTITIES		
ITEM	UNIT	TOTAL
TIMBER PILE REPAIR	FOOT	72
EARTH EXCAVATION, SPECIAL	CU YD	5
STONE DUMPED RIP RAP, CL A3	TON	10
CROSS BRACE REPAIR	FOOT	30
DEBRIS REMOVAL	LUMP SUM	1

COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	3 of 9

EARL TOWNSHIP

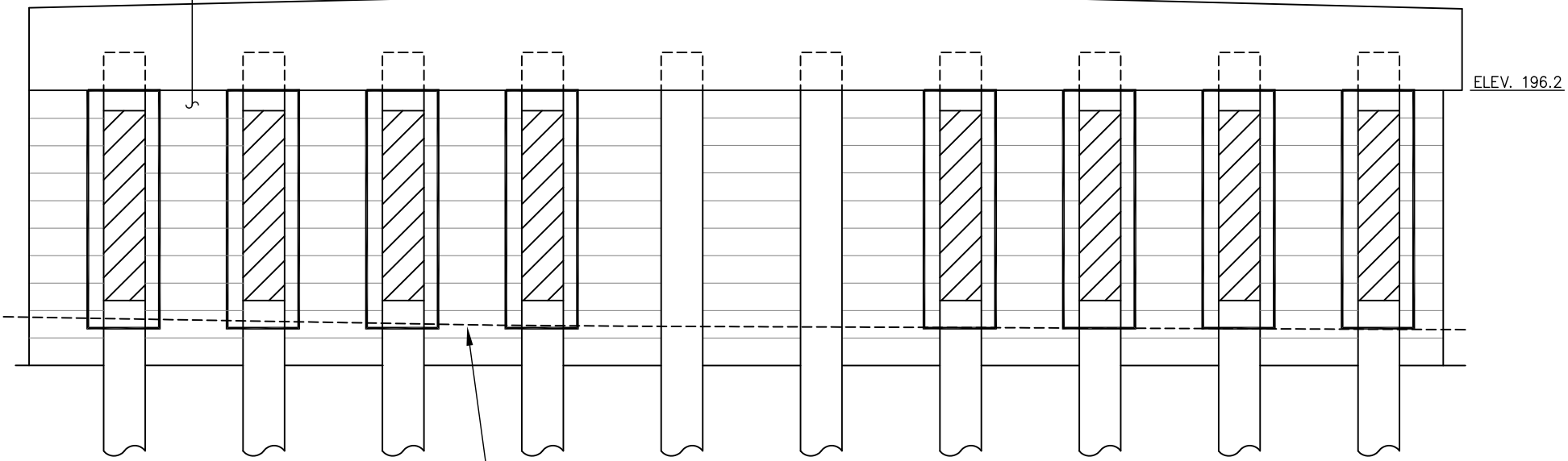
PPCD BEAM BRIDGE 2 SPANS @ 31'-6" = 64.50' T.L.



ELEVATION

CONTRACTOR SHALL REPLACE DECAYED TIMBER PLANKS IN NORTH ABUTMENT BACK WALL WITH IN-KIND TREATED PLANKS PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

CONTRACTOR SHALL REPAIR 3S, 7S, 13P, 18P, & 22N FIRST AND CONCRETE SHALL BE CURED PRIOR TO COMMENCING WORK ON PILES 9S, 12P, 14P, 16P, 20P, & 21N OR AS APPROVED BY THE ENGINEER.



- SOUTH ABUT. PILE NO. (10S) (9S) (8S) (7S)
- PIER PILE NO. (6S) (5S)
- NORTH ABUT. PILE NO. (4S) (3S) (2S) (1S)
- (20P) (19P) (18P) (17P) (16P) (15P) (14P) (13P) (12P) (11P)
- (30N) (29N) (28N) (27N) (26N) (25N) (24N) (23N) (22N) (21N)

EXISTING PILE (2S)
 PILE TO BE REPAIRED (20P)

WATER DEPTH VARIES

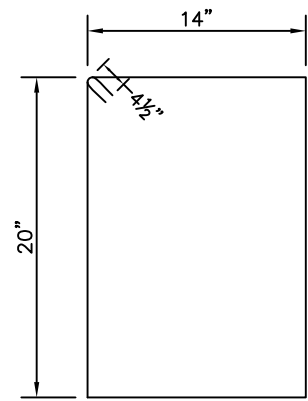
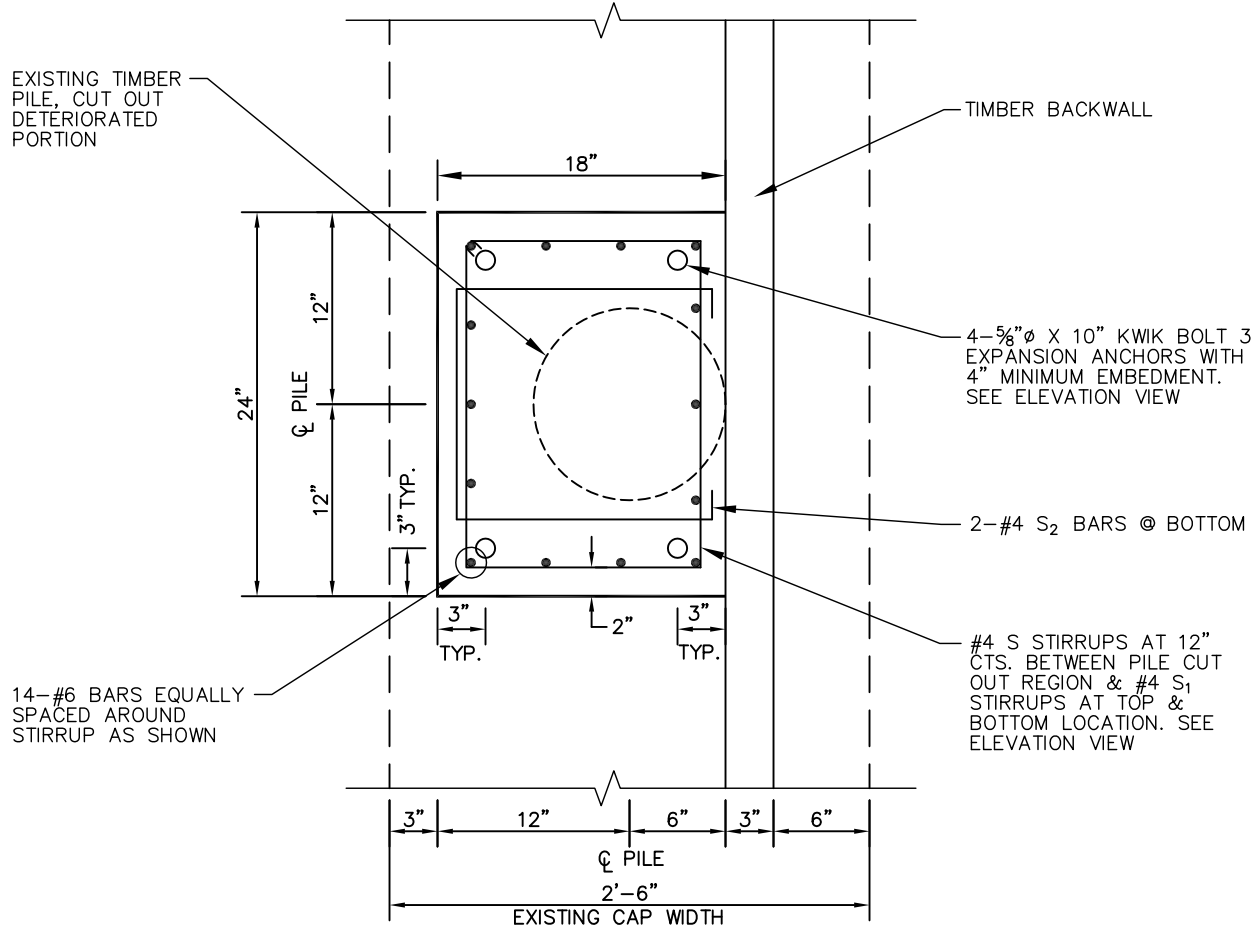
FRONT VIEW

HATCHED AREA INDICATES THE ESTIMATED REMOVAL OF DETERIORATED TIMBER PILE. THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

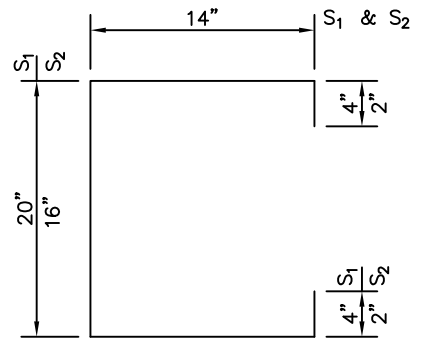
REPAIR DETAIL

COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	4 of 9

EARL TOWNSHIP



BAR S

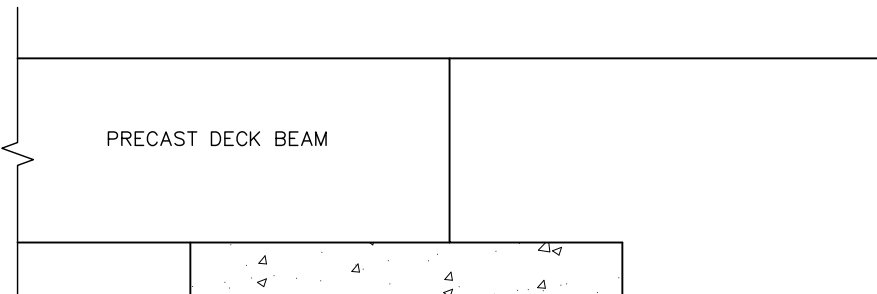


BAR S₁ OR S₂

OPTION A
TIMBER PILE REPAIR PLAN VIEW AT ABUTMENT

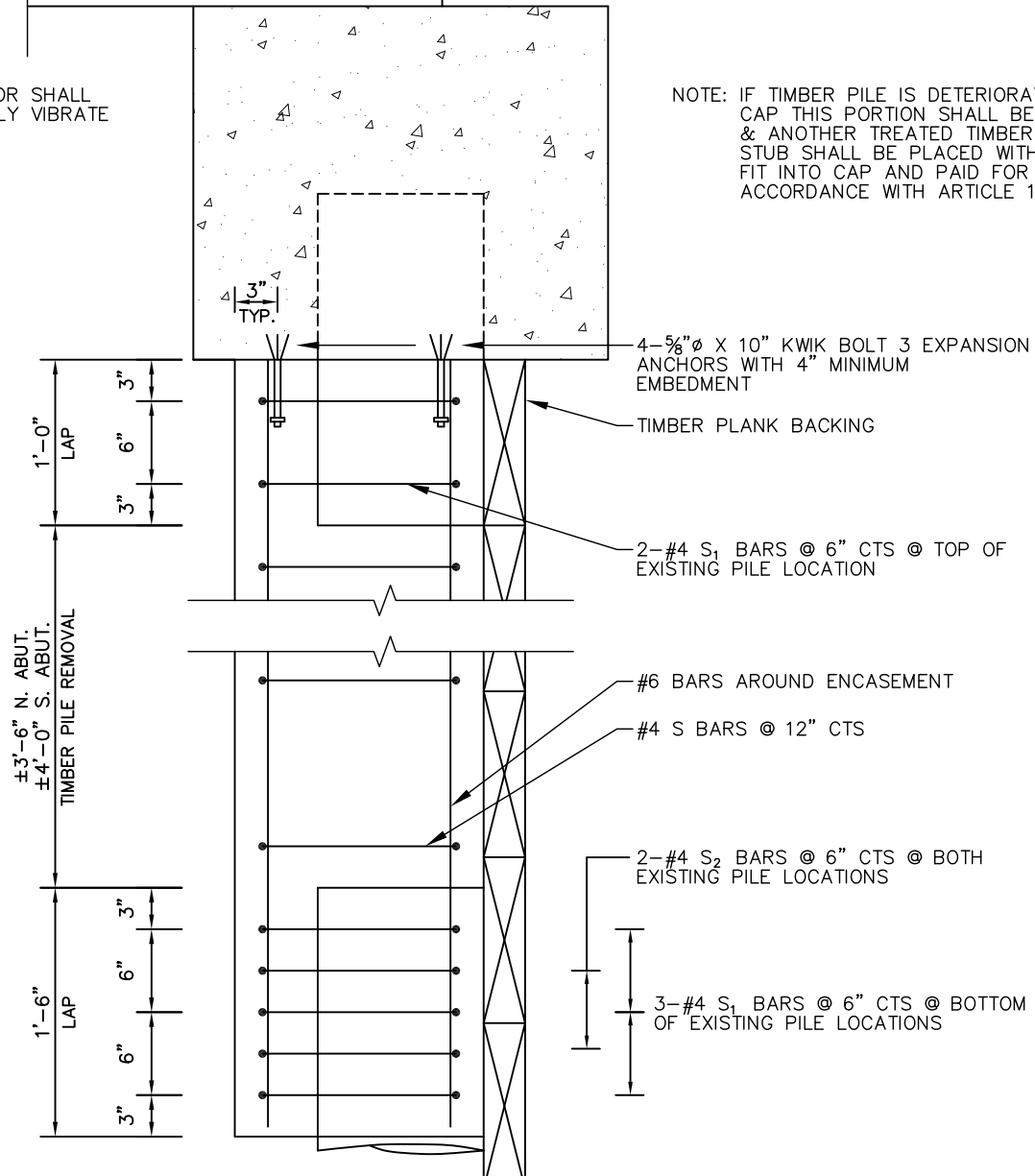
COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	5 of 9

EARL TOWNSHIP



NOTE: CONTRACTOR SHALL THOROUGHLY VIBRATE CONCRETE

NOTE: IF TIMBER PILE IS DETERIORATED INTO CAP THIS PORTION SHALL BE REMOVED & ANOTHER TREATED TIMBER PILE STUB SHALL BE PLACED WITH TIGHT FIT INTO CAP AND PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.



4- $\frac{5}{8}$ " ϕ X 10" KWIK BOLT 3 EXPANSION ANCHORS WITH 4" MINIMUM EMBEDMENT

TIMBER PLANK BACKING

2-#4 S₁ BARS @ 6" CTS @ TOP OF EXISTING PILE LOCATION

#6 BARS AROUND ENCASEMENT

#4 S BARS @ 12" CTS

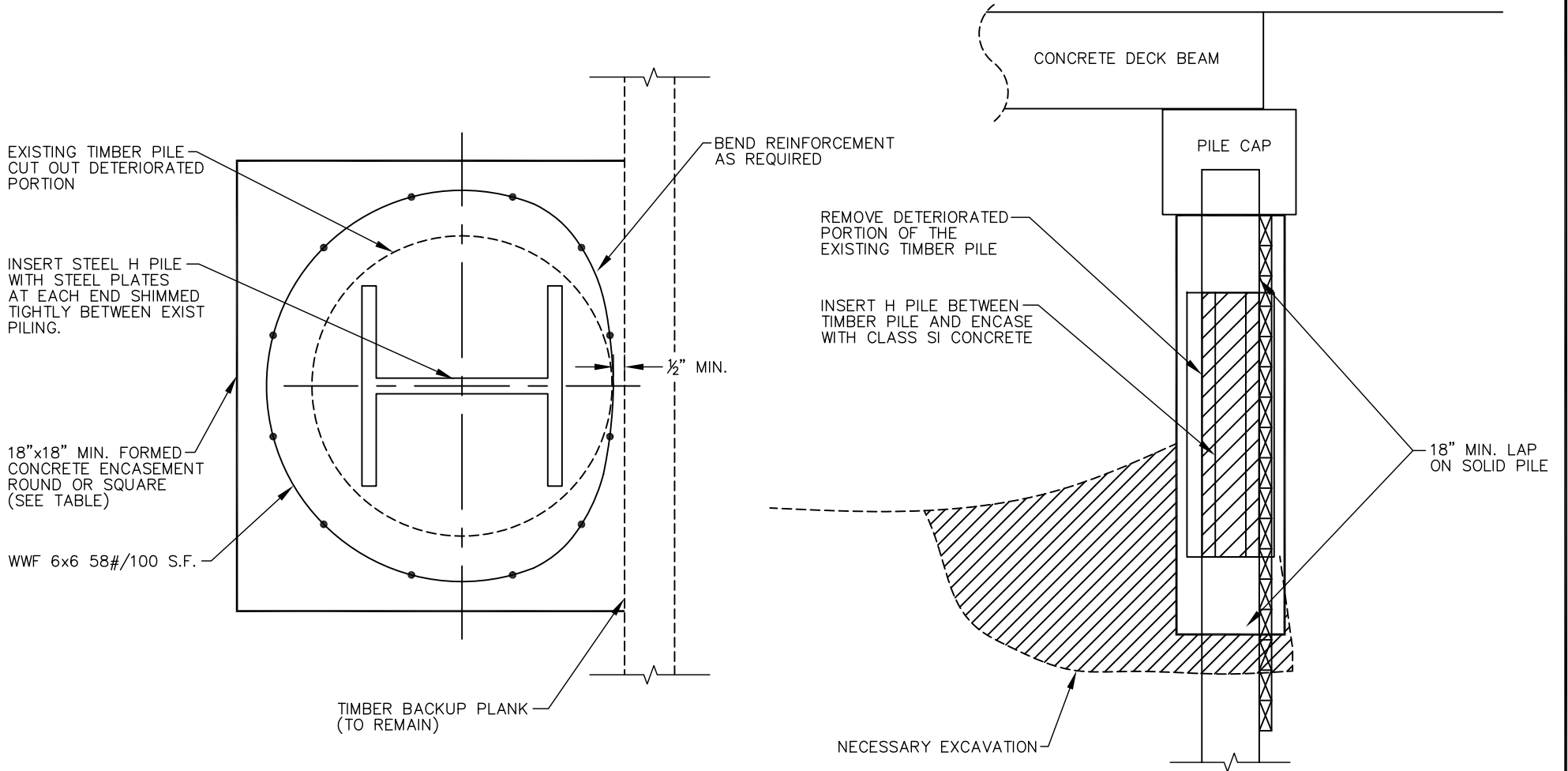
2-#4 S₂ BARS @ 6" CTS @ BOTH EXISTING PILE LOCATIONS

3-#4 S₁ BARS @ 6" CTS @ BOTTOM OF EXISTING PILE LOCATIONS

OPTION A
ELEVATION VIEW-PILE

COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	6 of 9

EARL TOWNSHIP



PILE #3,7,9
SOUTH ABUTMENT

PILE #21,22
NORTH ABUTMENT

ENCASEMENT TABLE	
HP 8x36	USE 18" ENCASEMENT
HP 10x42	USE 24" ENCASEMENT
HP 12x53	USE 24" ENCASEMENT

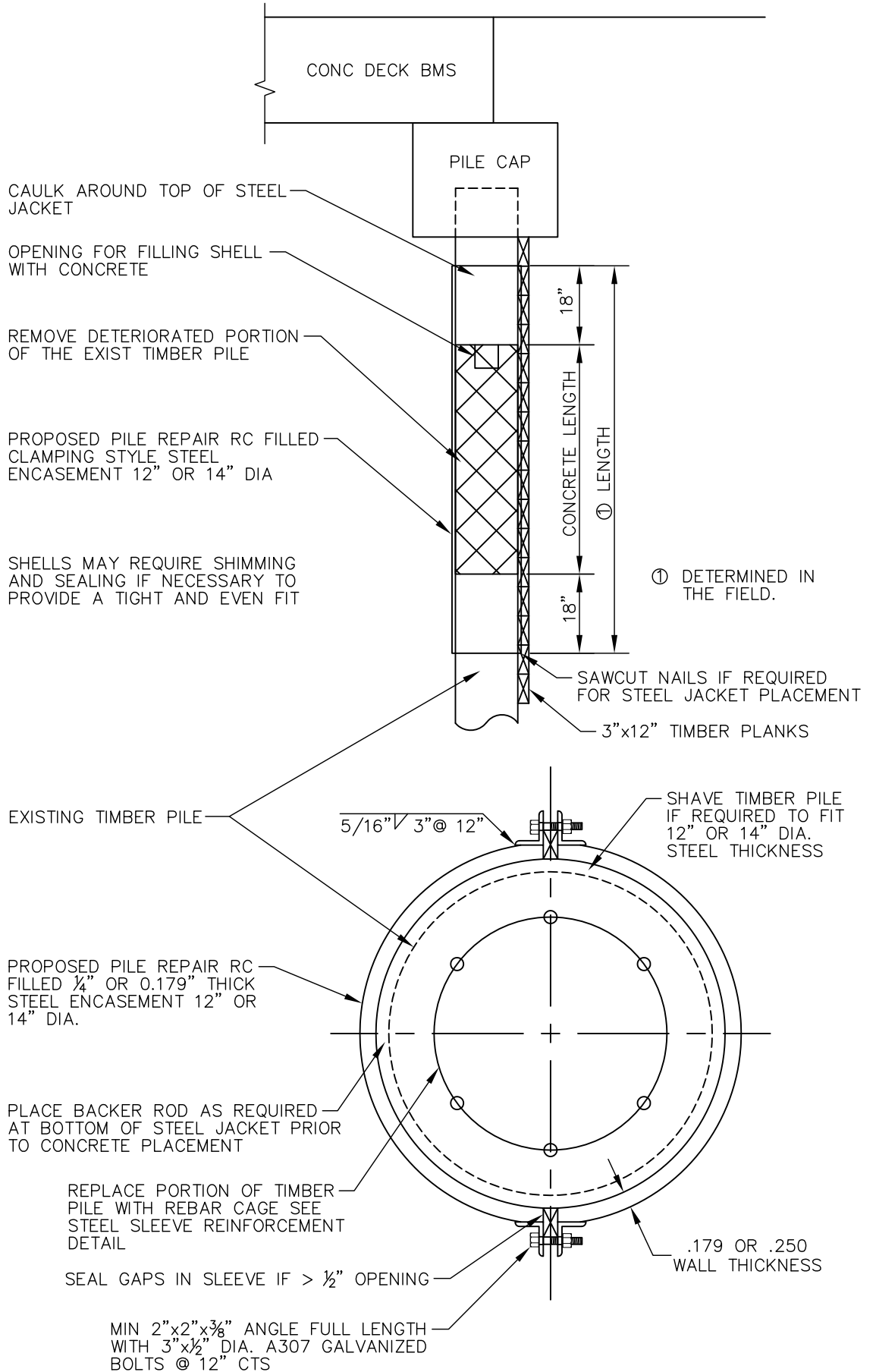
OPTION B
ABUTMENT REPAIR DETAIL

ABUTMENT PILE SLEEVE DETAIL

OPTION C

COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	7 of 9

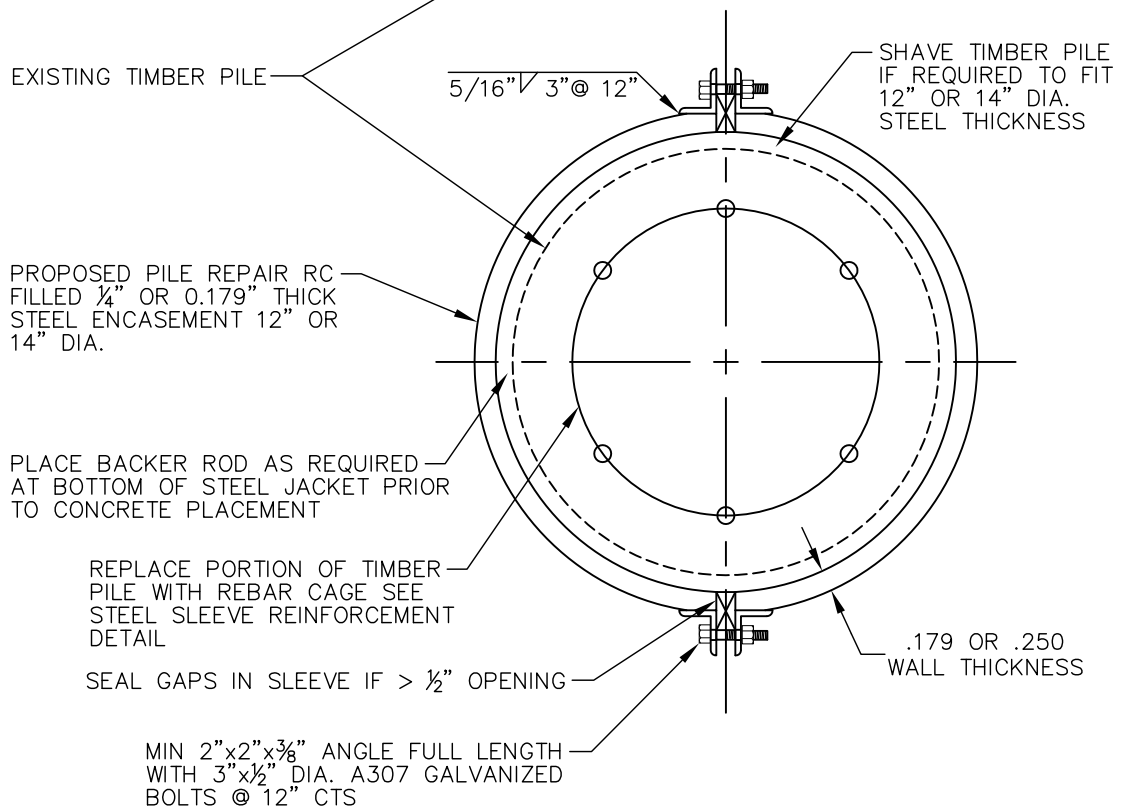
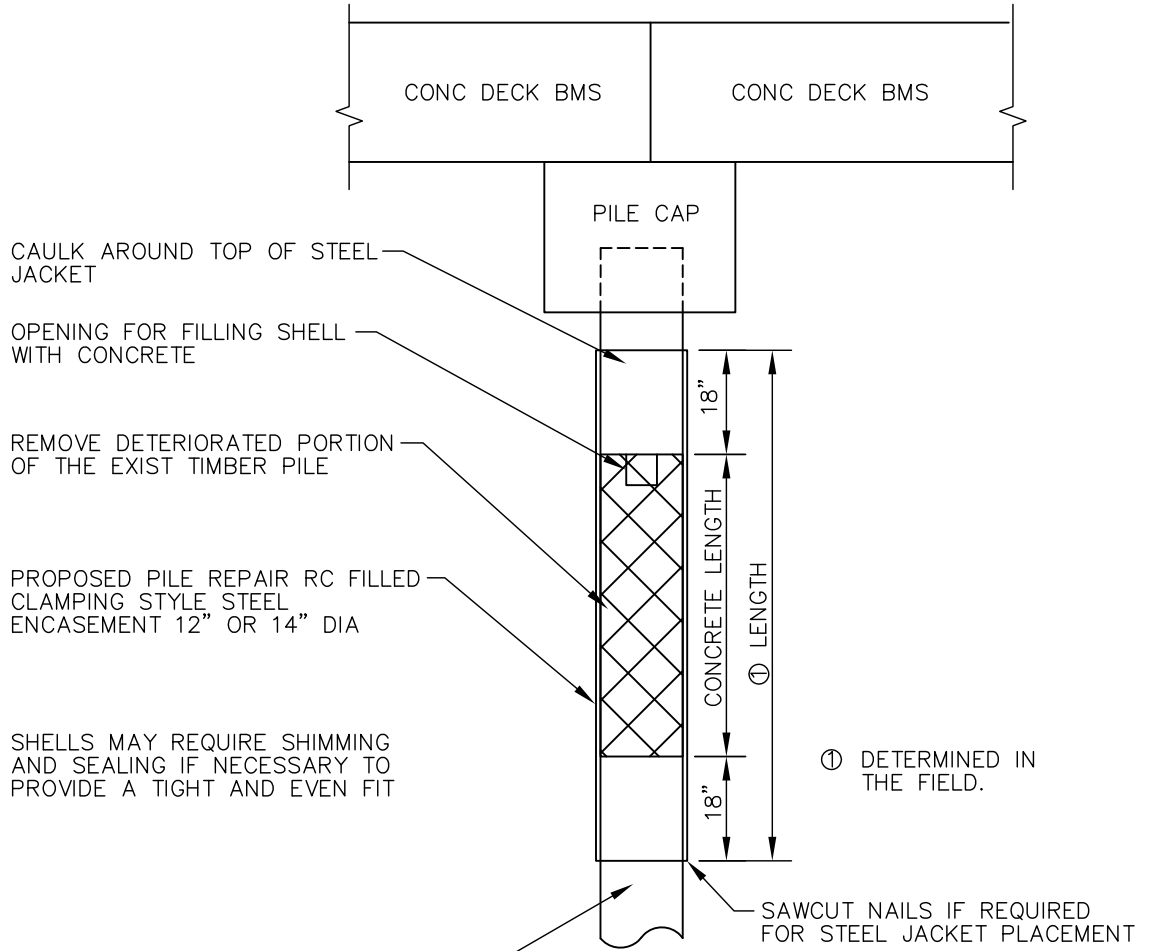
EARL TOWNSHIP



PIER PILE SLEEVE DETAIL

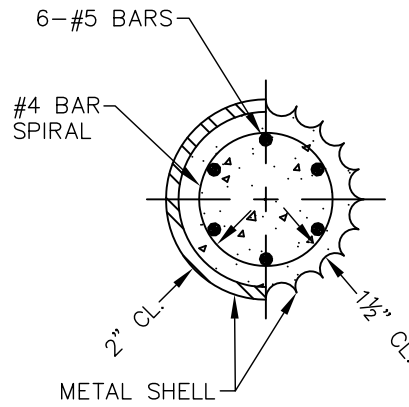
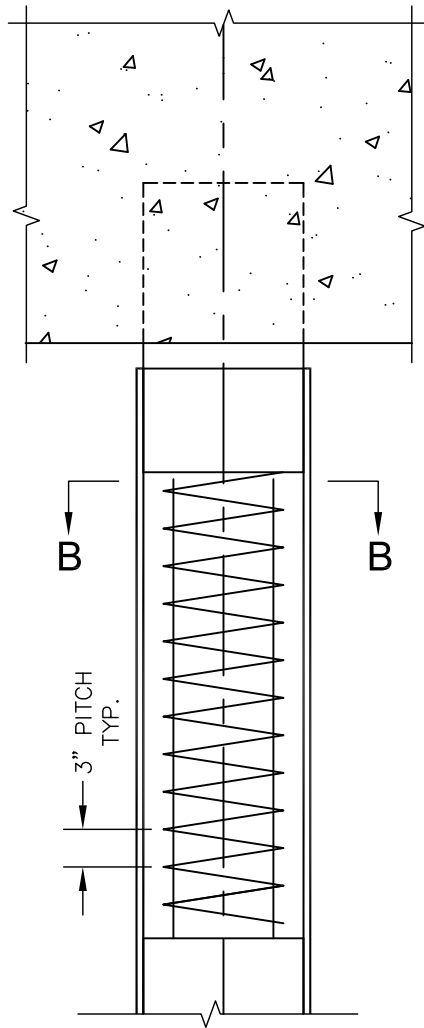
COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	8 of 9

EARL TOWNSHIP



COUNTY	SECTION	HWY.NO.	SHEET NO.
LASALLE	PILE REPAIR 050-3451	E. 1250TH	9 of 9

EARL TOWNSHIP



SECTION B-B

STEEL SLEEVE REINFORCEMENT DETAIL

GENERAL NOTES & SPECIFICATIONS

CLASS SI CONCRETE (3500 PSI) SHALL BE USED.

REINFORCEMENT BARS SHALL BE INCIDENTAL TO THE COST OF EACH PILE REPAIR AND SHALL CONFORM TO AASHTO ASTM A706 GRADE 60.

THE DETERIORATED TIMBER SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

THE STEEL PILE ENCASEMENTS SHALL FIT SNUG OVER THE TIMBER PILE AND SHALL REMAIN IN PLACE.

THE TIMBER BRACING AND JACKING SHALL BE APPROVED BY THE ENGINEER AND CONSIDERED INCIDENTAL TO THE PILE ENCASEMENTS.

IF REQUIRED CONCRETE MAY BE TREMIED UNDER WATER.

COUNTY	SECTION	HWY.NO.	SHEET NO.
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EARL TOWNSHIP

