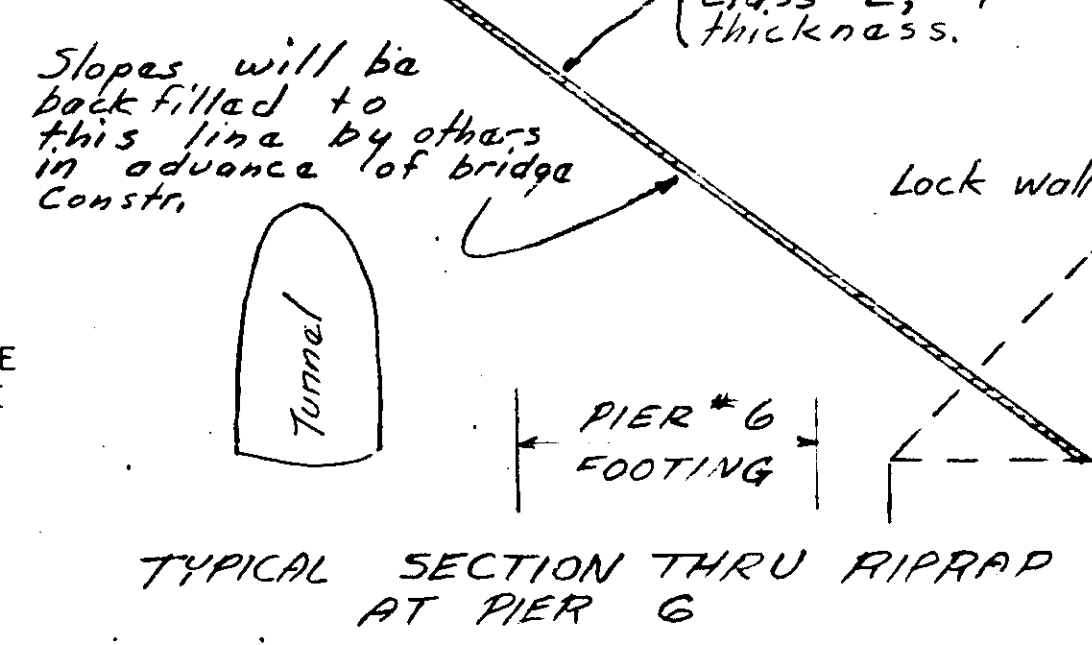


INDEX OF DRAWINGS-CONTRACT A

NO.	TITLE SHEET
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES AND QUANTITIES
3	PIER 5
4	PIER 6
5	PIER 7
6	PIER 8
7-8	BRIDGE SURVEY
9-10	BRIDGE SURVEY - CONTRACTED PROFILE
11-12	BRIDGE SURVEY - PLAN AND PROFILE

CONTRACT A CONSISTS OF CONSTRUCTING PIERS 5, 6, 7, AND 8



BENCH MARKS

B.M. #4 Elev. 820.82 (1929 Adj.)
 Top Hyd. 150' Rt. of Sta. 59+00.
 B.M. #5 Elev. 778.41 (1929 Adj.)
 Top of Concrete Post 200' Rt. of Sta. 62+00.
 B.M. #7 Elev. 743.64 (1929 Adj.)
 Spk. in P.P. 163' Lt. of Sta. 70+30.
 B.M. #8 Elev. 807.97 (1929 Adj.)
 Spk. in C.Wd. 15' Lt. of Sta. 76+10.
 All bridge elevations are based on 1929 Adj.

I hereby certify that this plan was prepared under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

A. E. Marnes
 Date Dec. 16, 1963 Reg. No. 5789

NOTES

Abutments and Piers shall be at positions shown in Elevation for steel spans measured at normal temperature of 45°F. Navigation lights not shown.

DESIGNED BY
OVERDRUP & PARCEL AND ASSOCIATES, INC.
 ENGINEERS - ARCHITECTS
 ST. LOUIS, MO.

T. H. 35W
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340
 T.H. 35W OVER STREETS,
 MISSISSIPPI RIVER & RAILROADS
 IN MINNEAPOLIS
 CONTRACT A - PIERS 5, 6, 7, & 8
 GENERAL PLAN AND ELEVATION
 SEC. 24 & 25 T29N R. 24W
 HENNEPIN COUNTY
 APPROVED - 1-16-64
A. E. Marnes CHIEF ENGINEER
A. J. Burnell DEPUTY CHIEF ENGINEER

Drawn by: H. P. Maloney, Oct. 1963
 Checked by: A. E. Marnes, Oct. 1963
 2083
 69564

GENERAL NOTES FOR PIERS

CONSTRUCTION:

THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1964 SHALL GOVERN.

DESIGN: In accordance with Division I of the A.A.S.H.O. "Standard Specifications for Highway Bridges"; 1961 Edition and 1961 Interim Specifications. H20-S16-44 live load and alternate loading designated in PPM 20-4, Section 4C. No impact on substructure units.

FOUNDATION: Piers 5, 7 and 8 shall be founded on sound rock at approximately the elevations shown on Plans. Maximum allowable foundation pressure is 10 tons per sq. ft. Pier 6 shall be founded on 48 inch caissons which are socketed a minimum of 8 feet into sound rock. Maximum allowable bearing load for vertical forces is 330 tons per caisson with increases for loading combinations as specified in A.A.S.H.O. Article 1.4.1.

REINFORCING STEEL: Reinforcement bars shall comply with Minnesota Highway Department Spec. 3301, except as noted. Dimensions to reinforcing steel on detail drawings are to centerline of bar except where the clear distance is noted from the face of concrete. Dimensions on bar bending details are out-to-out except as noted. All reinforcing bars to be lapped a minimum of 30 diameters. Bar details shall comply with A.C.I. - 315-57. BARS NO. E14511, E14512, E14513, & E14514 SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M174-60.

BEVELED EDGES: All exposed edges of concrete shall be beveled 1/2" unless otherwise shown or noted.

ANCHOR BOLT HOLES: Anchor bolt holes will be drilled by Superstructure Contractor.

BEARING PEDESTALS: All bearing pedestals shall be constructed three-sixteenth (3/16") inch higher than the finished elevations shown. After the concrete has set sufficiently to fix the larger particles of sand, the pedestals shall be dressed to a uniform level bearing at the finished elevations shown on the Plans with a corundum brick or a power grinder.

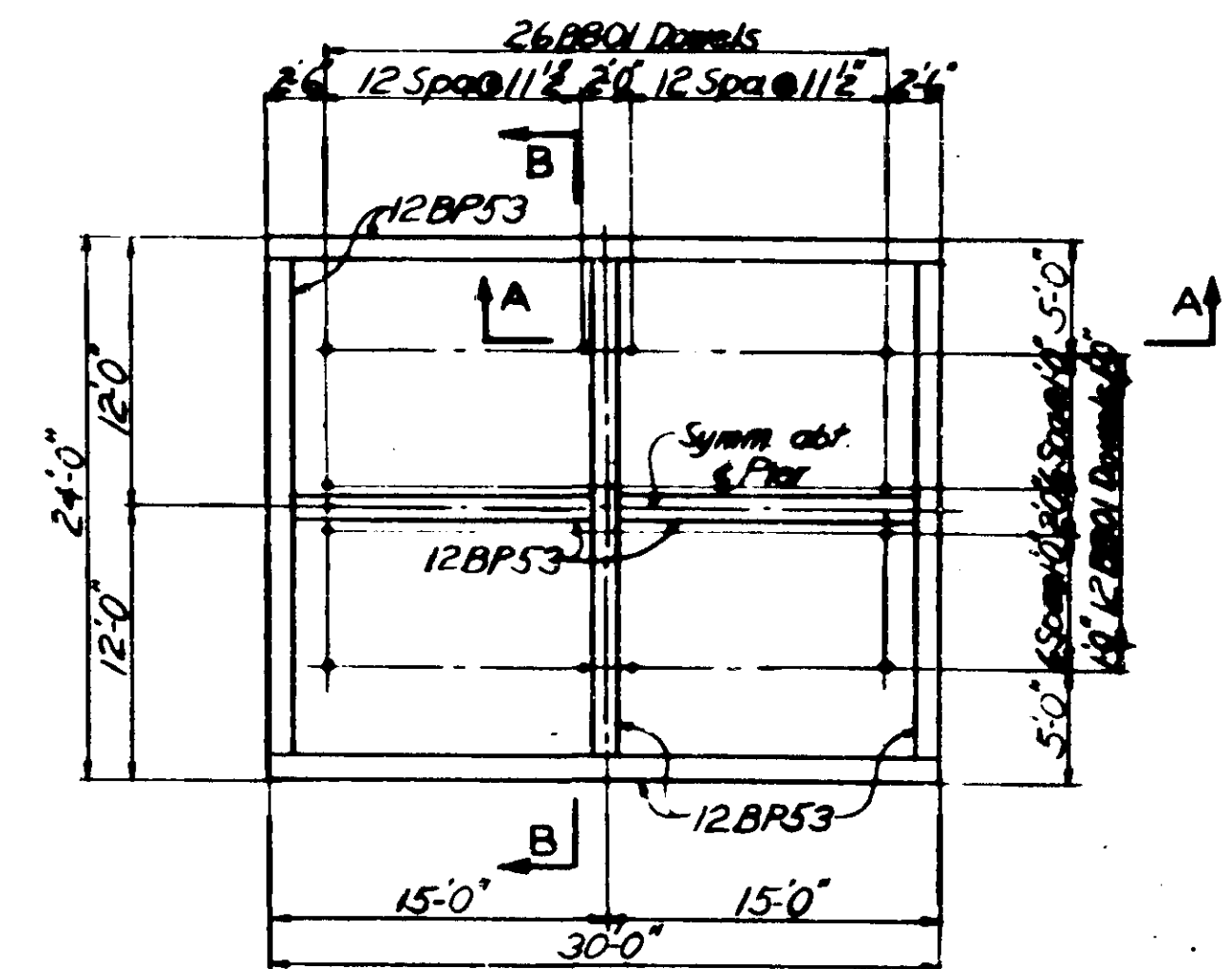
EXCAVATION: Excavation for the piers will be figured to elevations shown on the survey sheets.

CONTRACT A PIERS 5, 6, 7 AND 8

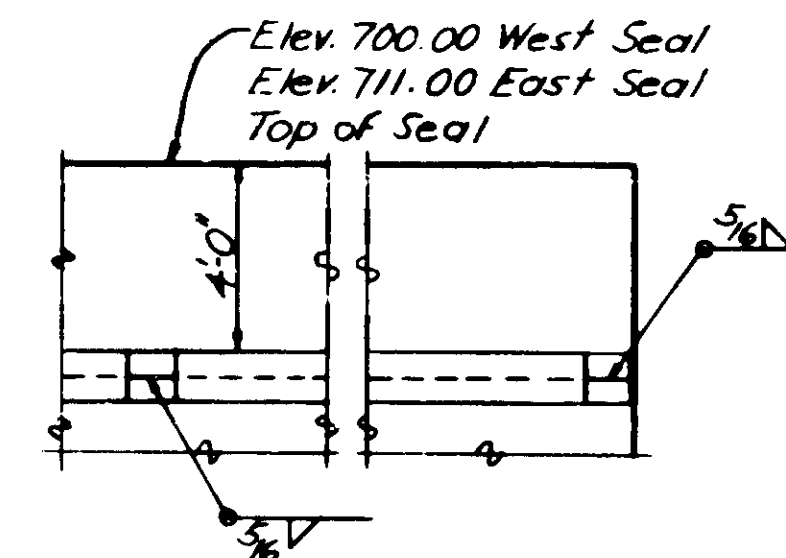
SCHEDULE OF QUANTITIES FOR 4 PIERS			
Item No.	Item	Quantity	Unit
* 401.626	Preparation of Foundation (Pier No 7)	Lump Sum	
203.516	Anchorage in Place (Seal Dowels)	152	Inches
* 452.608	Caissons	807	Lin.Ft.
2401.521	Structure Excavation (Class DE)	1098	Cu.Yd.
2401.521	Structure Excavation (Class WE)	174	Cu.Yd.
2401.521	Structure Excavation (Class DR)	112	Cu.Yd.
2401.521	Structure Excavation (Class UE)	860	Cu.Yd.
2401.501	Concrete, Mix No. 111-M	774	Cu.Yd.
2401.501	Concrete, Mix No. 1A6	540	Cu.Yd.
2401.501	Concrete, Mix No. 3A8	2175	Cu.Yd.
2401.501	Concrete, Mix No. 3V6	842	Cu.Yd.
2401.539	Reinforcement Bars Delivered	267210	Lb.
2401.540	Reinforcement Bars Placed	267210	Lb.
* 511.610	Random Riprap Class E	480	TON

* See Special Provisions

DESIGN DATA
 1961 A.A.S.H.O. Design Specifications and 1961 Interim Specifications
 H20-S16-44 Loading and alternate loading designated in PPM 20-4, Section 4C.
 Allowable Design Stresses
 $f_c = 1600$ psi $n=8$
 $f_s = 20,000$ psi intermediate grade reinforcement

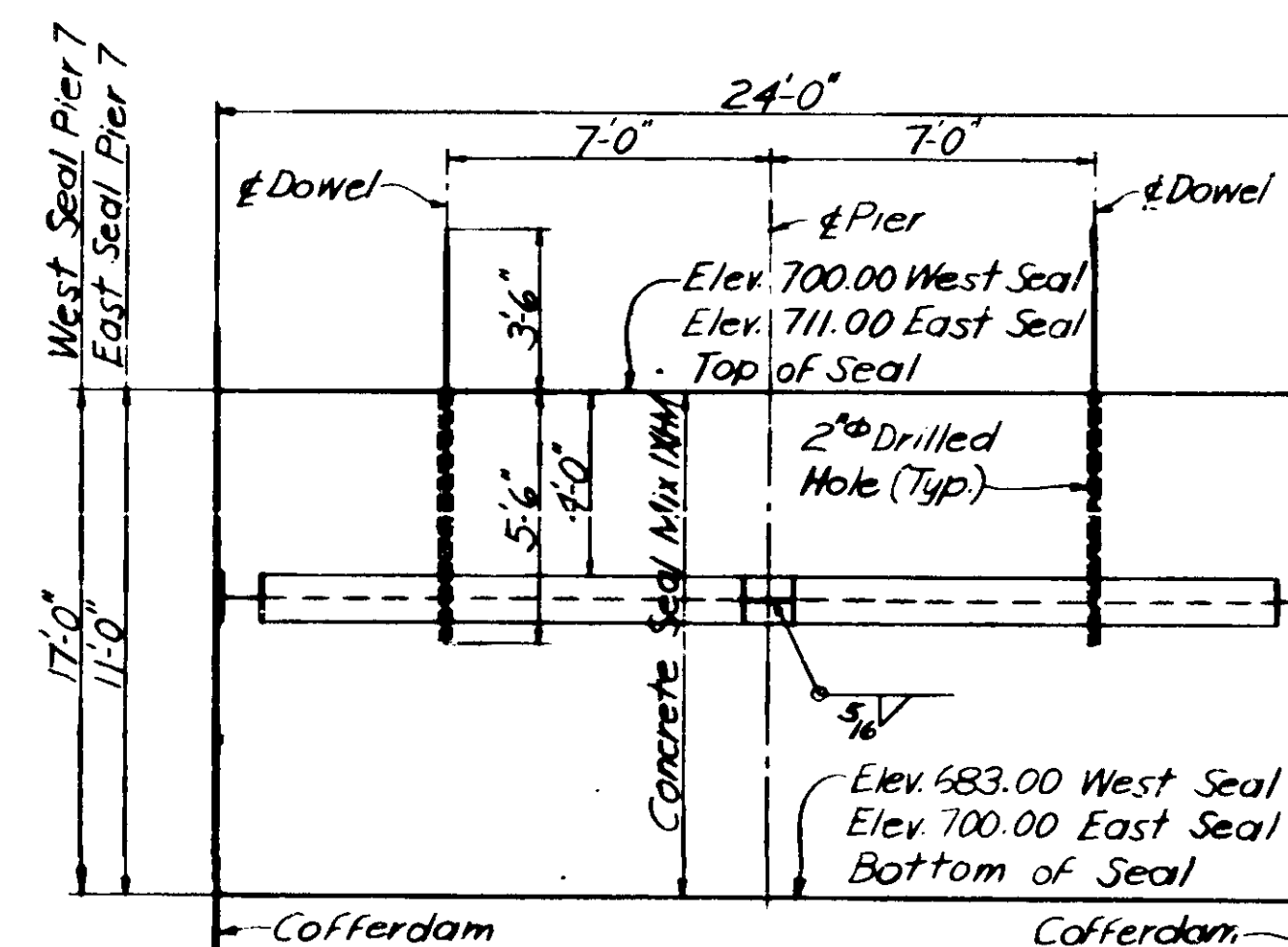


PLAN



SECTION A-A

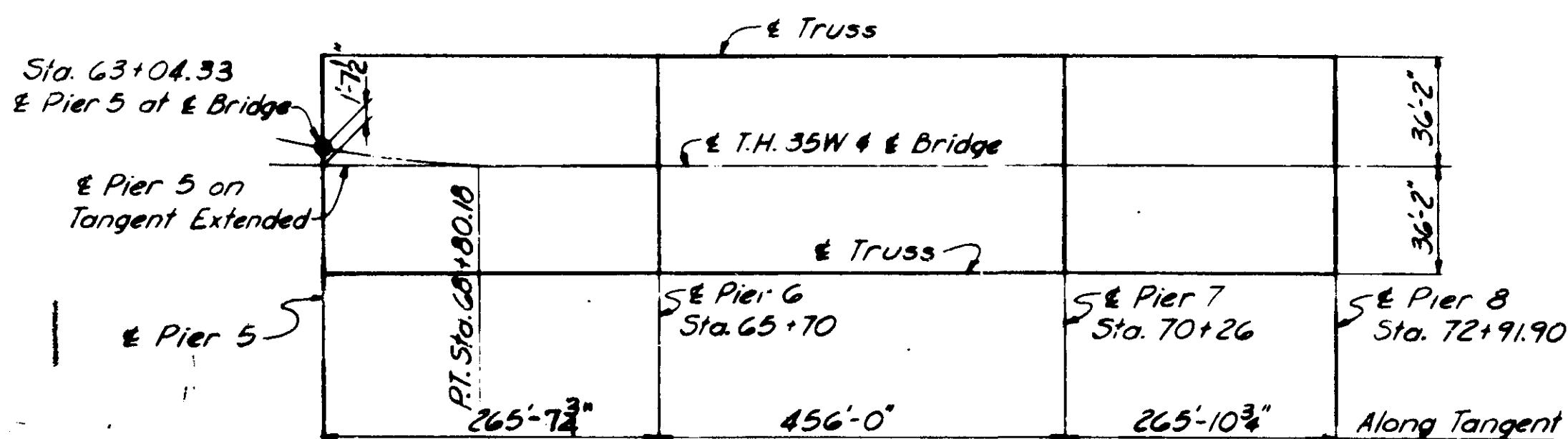
Note: Plan showing welded steel frame and dowel spacing is typical for each of the two concrete seals required for Pier 7. The welded steel frame shall be fabricated, accurately located and secured in its final position prior to the placing of the concrete seal. The contractor shall submit shop drawings showing the details of securing it in its final position. Payment for the frame to remain in place, will be included in the cost of the Preparation of Foundation. The contractor may elect to use a heavier frame. No extra payment will be made for this frame, which will remain encased in the seal.



SECTION B-B

Note: 2" Holes are not to be drilled until after tests on test cylinders show that concrete strength meets specified requirements. Setting dowels in grout shall conform to the requirements for setting anchor bolts specified under steel bridge construction. Item "Anchorage in Place" (Seal Dowels) to include furnishing and placing B801 bars as shown and noted.

PIER 7 STEEL FRAME AND DOWEL DETAILS



PIER LAYOUT

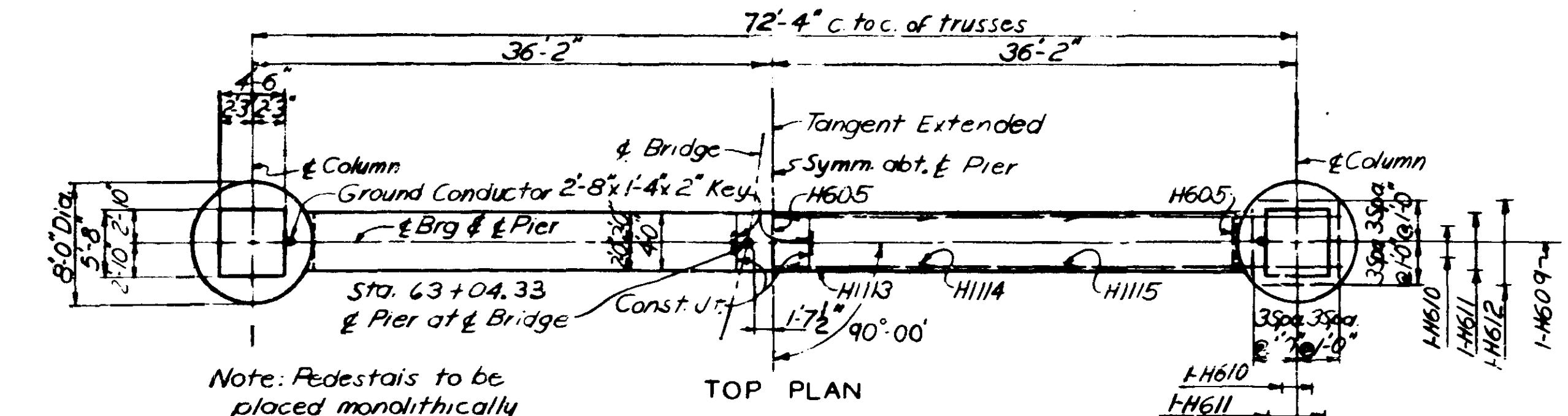
Drawn By: W. MAHLE, Oct. 1963
 Checked By: A.E. MARSH, Oct. 1963
 2083
 635644

DESIGNED BY
 OVERLAP & PENCE, INC. ARCHITECTS, INC.
 ENGINEERS - ARCHITECTS
 ST. LOUIS, MO.
 T. H. SMITH
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340

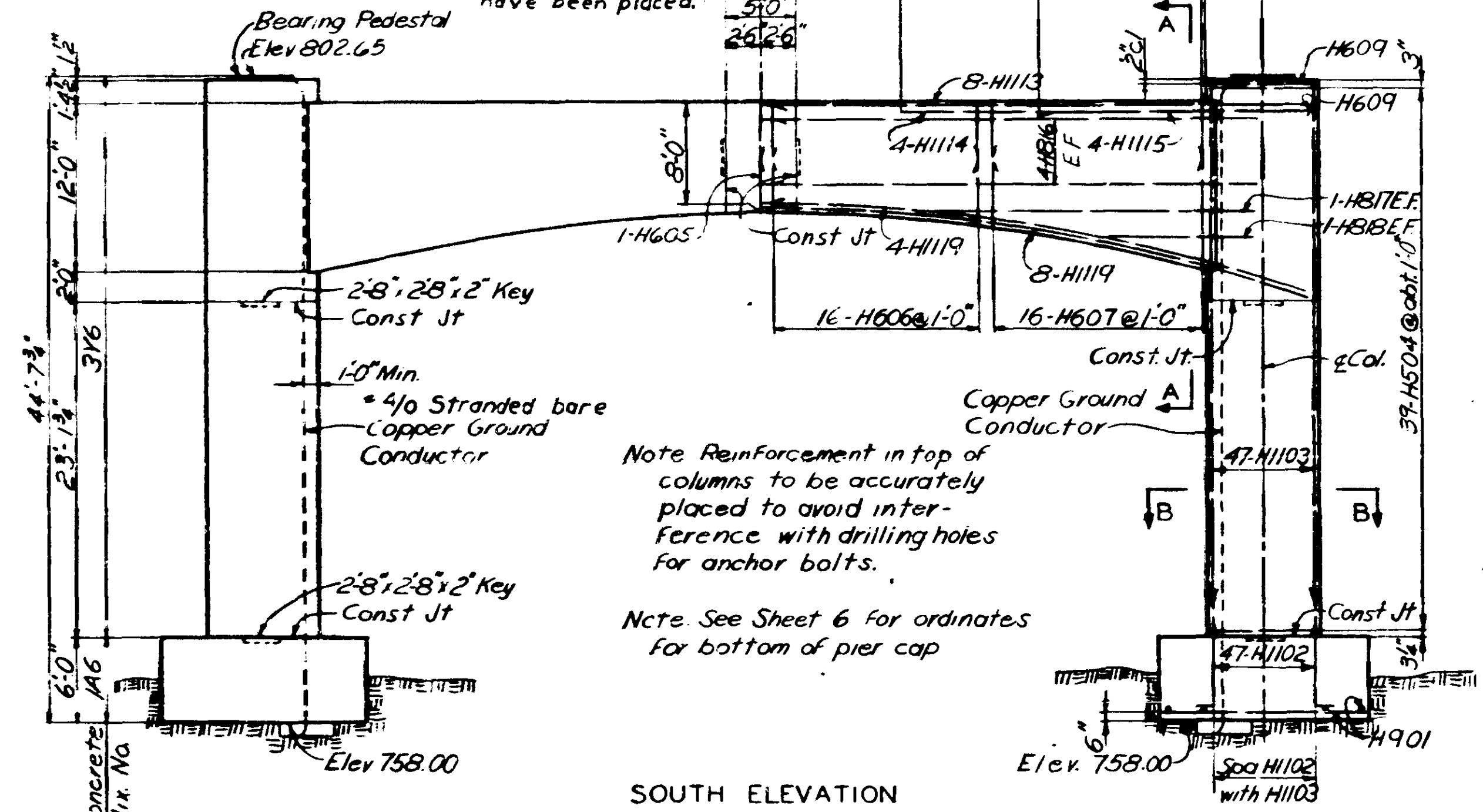
GENERAL NOTES AND QUANTITIES

APPROVED - 1-16-64



Note: Pedestals to be placed monolithically with pier cap.

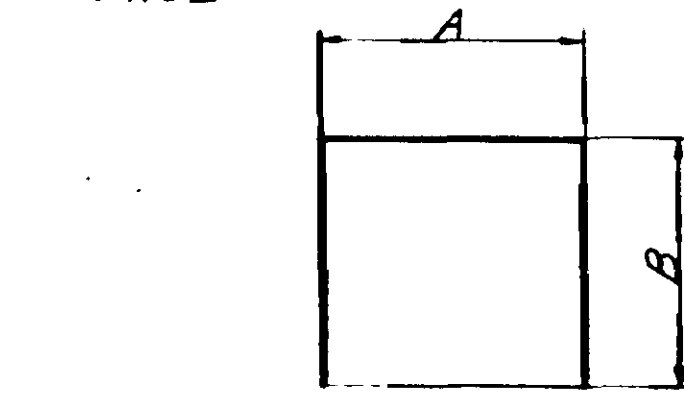
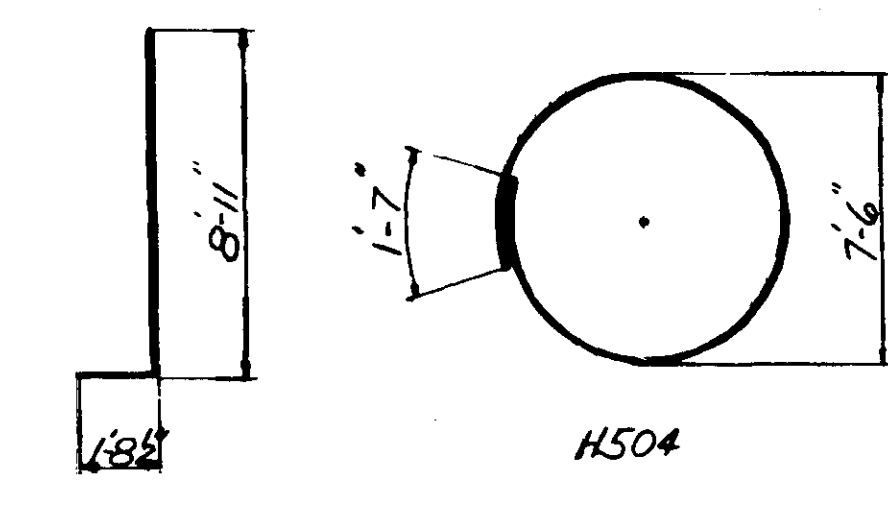
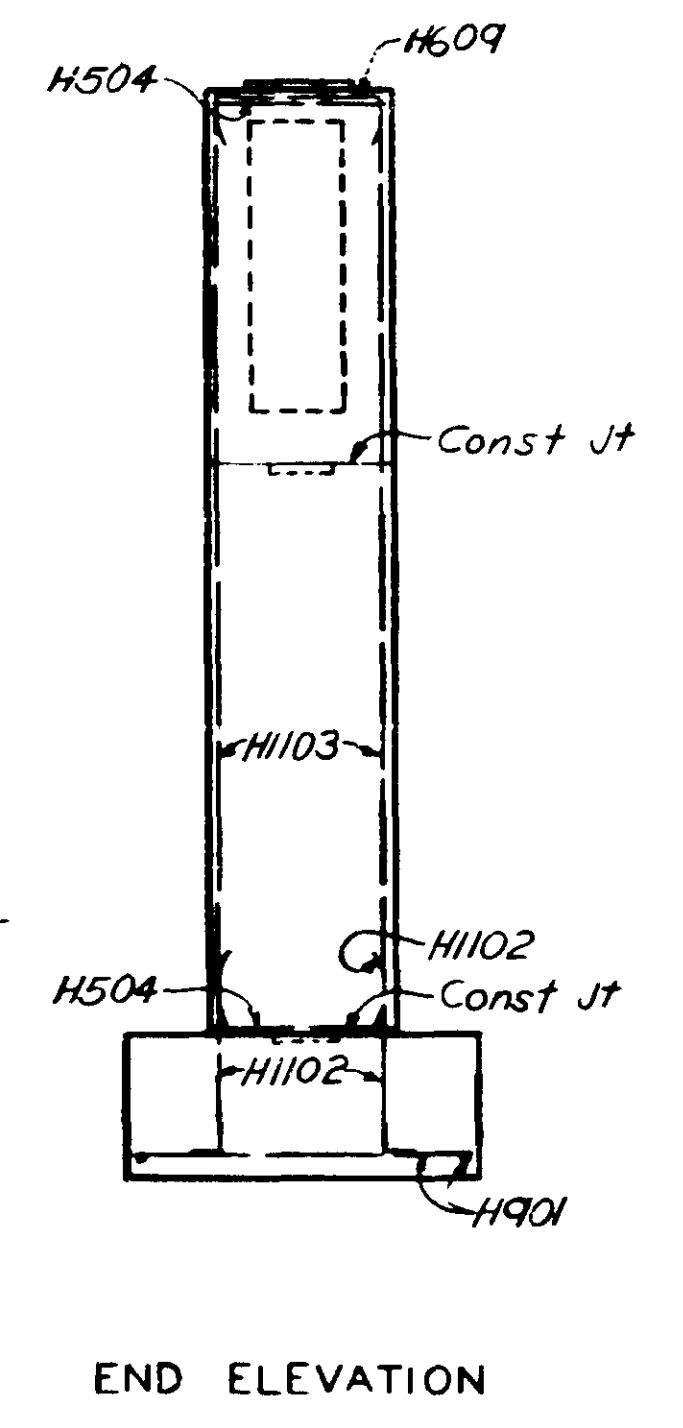
This section of cap shall not be placed for 10 days after adjacent sections have been placed.



Note: For details of copper ground conductor not shown, see Sheet 6.

Note: Reinforcement in top of columns to be accurately placed to avoid interference with drilling holes for anchor bolts.

Note: See Sheet 6 for ordinates for bottom of pier cap.



Bar	A	B
H605	3'-8"	4'-10"
H606	3'-8"	4'-10" to 5'-10"
H607	3'-8"	6'-0" to 8'-10"
H609	7'-4"	1'-11"
H610	7'-1"	1'-11"
H611	6'-2"	1'-11"
H612	4'-3"	1'-11"

H605, H606, H607, H609, H610, H611, & H612

BILL OF REINFORCEMENT FOR PIER 5

Bar	No.	Size	Length	Shape	Location
H901	60	9	14'-6"	Str.	Footing
H1102	94	11	10'-8"	Bent	do
H1103	94	11	38'-4"	Str.	Column
H504	78	5	25'-2"	Bent	do
H605	66	6	13'-4"	Bent	Pier Cap
H606	32	6	Varies	Bent	do
H607	32	6	Varies	Bent	Pier Cap
H609	4	6	11'-2"	Bent	Column
H610	8	6	10'-11"	Bent	do
H611	8	6	10'-0"	Bent	do
H612	8	6	8'-1"	Bent	do
H1113	16	11	4'-0"	Str.	Pier Cap
H1114	8	11	28'-0"	Str.	do
H1115	8	11	19'-0"	Str.	do
H816	16	8	36'-6"	Str.	do
H817	4	8	23'-0"	Str.	do
H818	4	8	11'-0"	Str.	do
H1119	24	11	42'-10"	Str.	do

SUMMARY OF QUANTITIES FOR PIER 5

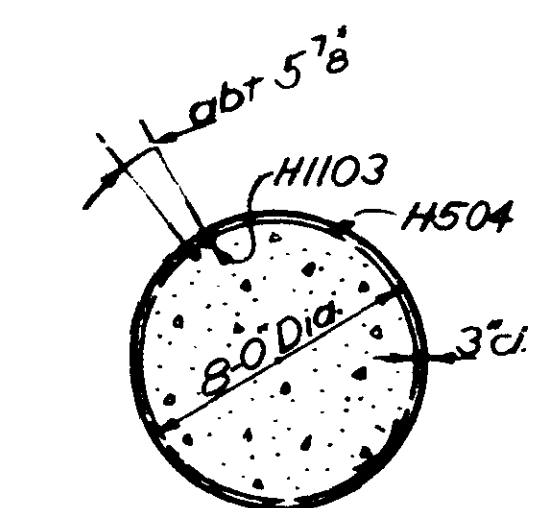
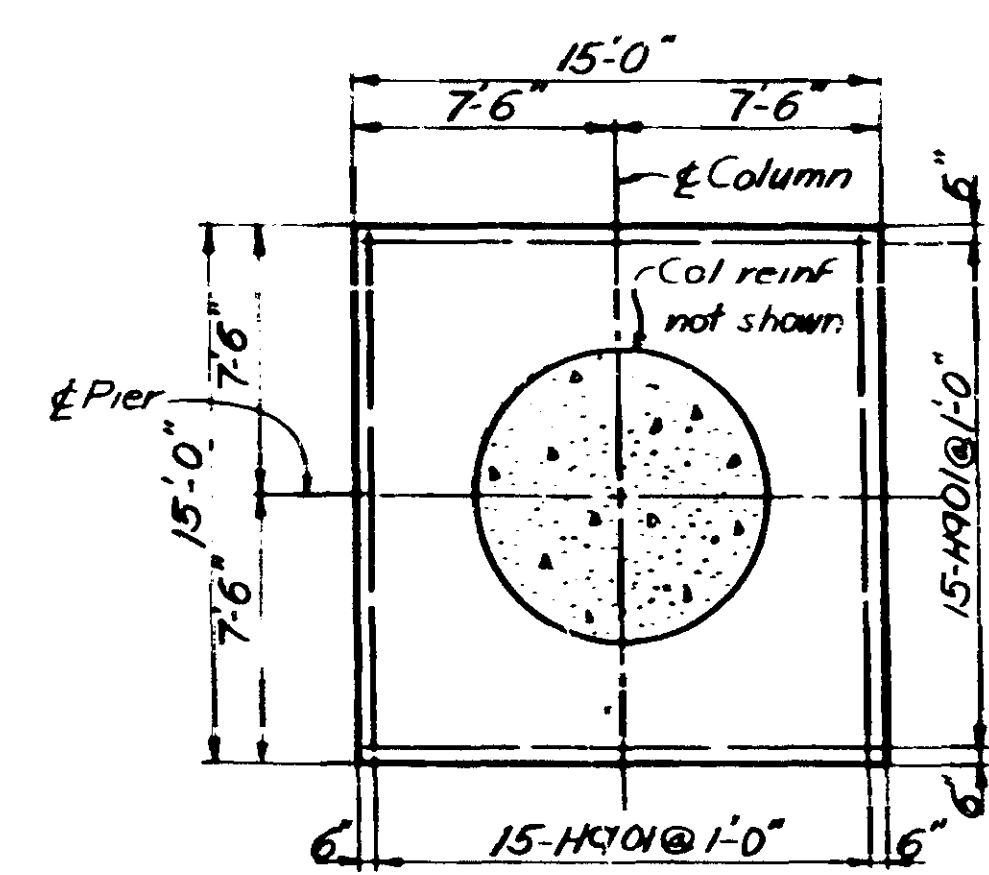
Class UE Excavation	362 Cu Yd
Class DR Excavation	48 Cu Yd
Concrete Mix No 1A6	100 Cu Yd
Concrete Mix No 3V6	234 Cu Yd
Reinforcement Bars	45660 Lbs.
*Copper Ground Conductors, Plates, and Bronze Outlets and Lug Connections	

* To be included in price bid for concrete.

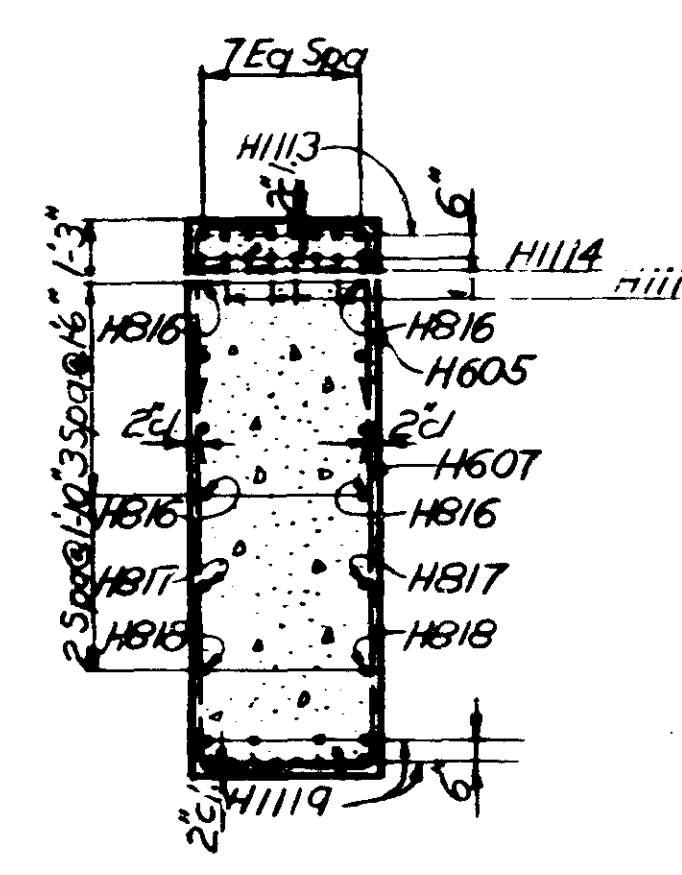
NOTES

Footings to be embedded a minimum of 1'-0" into sound rock.
Do not order reinforcement for pier columns until exact elevations of footings have been determined in the field.

MAXIMUM COMPUTED ROCK PRESSURE	
Loading Condition	Kips/Sq Ft
I Dead Load	8.7
II Dead Load + Live Load	10.6
III Dead Load + Wind @ 0°	10.3
IV Dead Load + Live Load + Wind @ 0° + Centrifugal Force	12.3



Note: Spacing of vertical bars is measured along inside face of H504.



Drawn By: W. Maki, July 1963
 Checked By: R. H. Heister, Oct 1963
 2083
 635-49

DESIGNED BY
OVERDUP & PARCEL AND ASSOCIATES, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

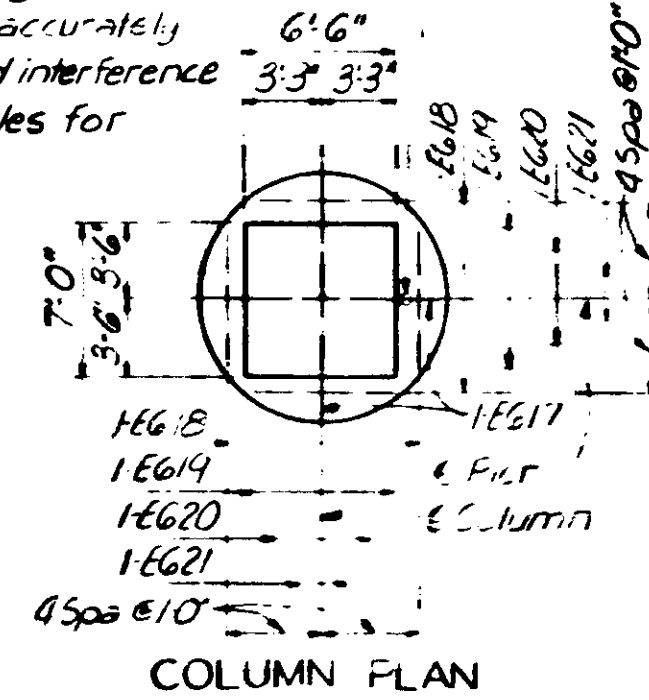
T. H. BRAW
STATE OF MISSOURI
DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340

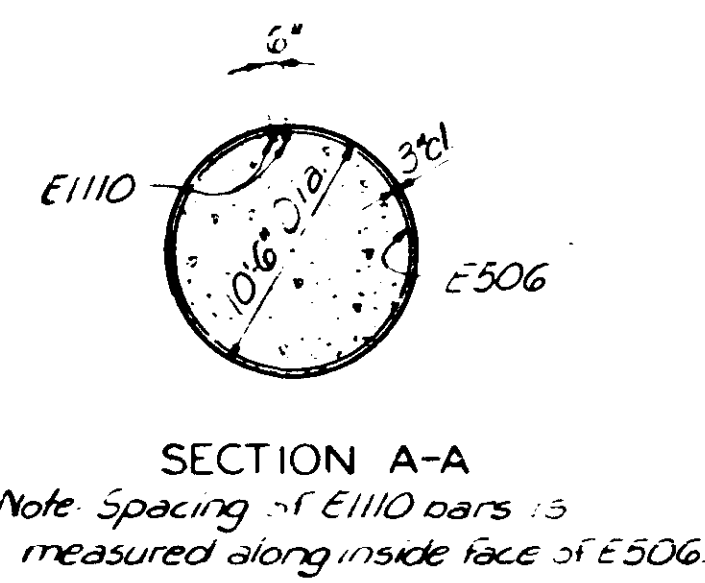
PIER 5

APPROVED - 1-16-64

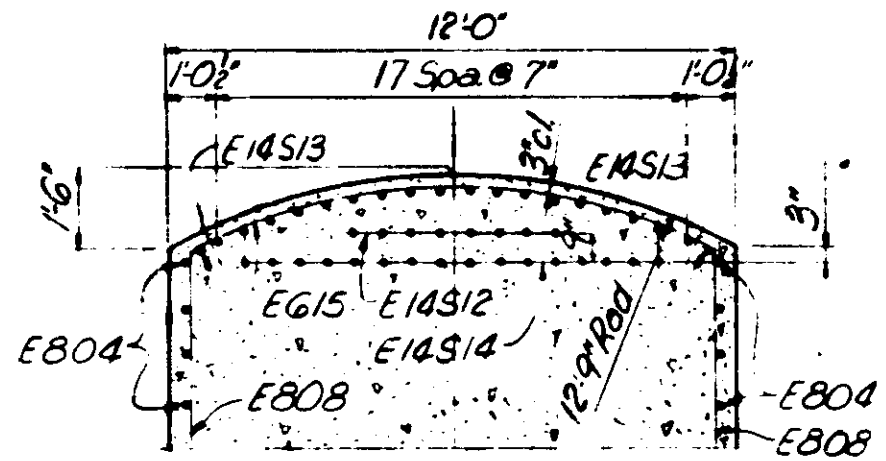
Note: Reinforcing in top of columns to be accurately placed to avoid interference with drilling holes for anchor bolts.



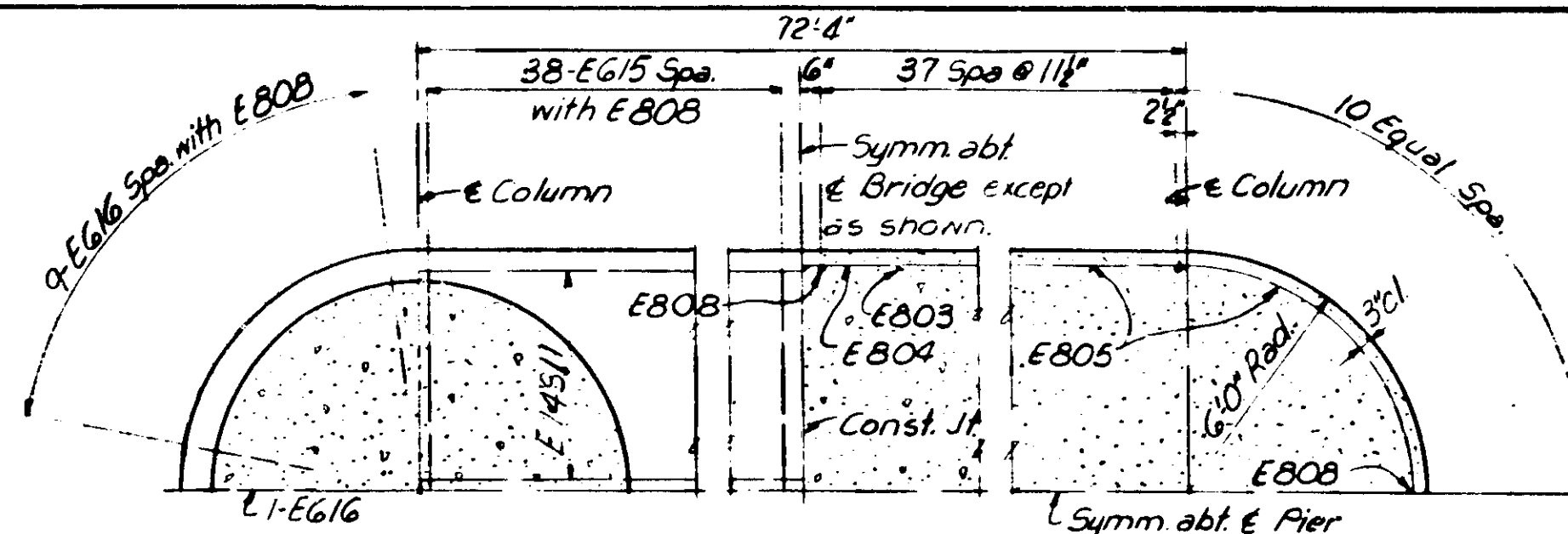
COLUMN PLAN



SECTION A-A



SECTION B-B



PART SECTION C-C
Note: Column reinforcing not shown.

BILL OF REINFORCEMENT FOR PIER 6

Bar	No	Size	Length	Shape	Location
E801	59	8	16'-0"	Str	Footing
E802	34	8	44'-9"	Str	do
E803	38	8	38'-8"	Str	Ice Breaker
E804	38	8	36'-2"	Str	do
E805	38	8	23'-1"	Bent	do
E506	50	5	32'-11"	Bent	Column
E807	190	8	6'-3"	Bent	Footing
E808	190	8	18'-6"	Str	Ice Breaker
E1109	124	11	10'-3"	Bent	do
E1110	124	11	23'-0"	Str	Column
E14511	20	145	40'-5"	Str	Ice Breaker
E14512	8	145	40'-0"	Str	do
E14513	20	145	36'-2"	Str	do
E14514	16	145	60'-0"	Str	do
E615	76	6	15'-7"	Bent	do
E616	38	6	5'-0"	Bent	do
E617	4	6	13'-9"	Bent	Column
E618	8	6	9'-0"	Bent	do
E619	8	6	11'-0"	Bent	do
E620	8	6	13'-0"	Bent	do
E621	8	6	13'-7"	Bent	do

SUMMARY OF QUANTITIES FOR PIER 6

Class DE Excavation	1098 Cu Yd
Class WE Excavation	174 Cu Yd
Caissons	801 Lin Ft
Concrete Mix No 1A6	312 Cu Yd
Concrete Mix No 3A8	711 Cu Yd
Concrete Mix No 3Y6	149 Cu Yd
Reinforcement Bars	76930 Lbs.
Copper Ground Conductors, Bronze Outlets and Lug Connections	

* Excavation above assumed pool Elev 724.64.
 ** Excavation below assumed pool Elev 724.64.
 * Volume of Caissons projecting into footing not included.
 * To be included in price bid for concrete.

MAXIMUM COMPUTED CAISSON LOADS

Loading Condition	# of Caissons
I Dead Load	567
II Dead Load + Live Load (8 Lanes)	661
III D.L. + Live Load (8 Lanes) + Wind + Uplift	729
IV Dead Load + Wind + Uplift	736

□ DOES NOT INCLUDE CAISSON QUANTITIES.
 △ DOES NOT INCLUDE 1A6 CONCRETE IN CAISSONS.

DESIGNED BY
 OVERBURY & PACE, INC. ASSOCIATES, INC.
 ENGINEERS - ARCHITECTS
 ST. LOUIS, MO.

T. H. JEN
 STATE OF MISSOURI
 DEPARTMENT OF HIGHWAYS

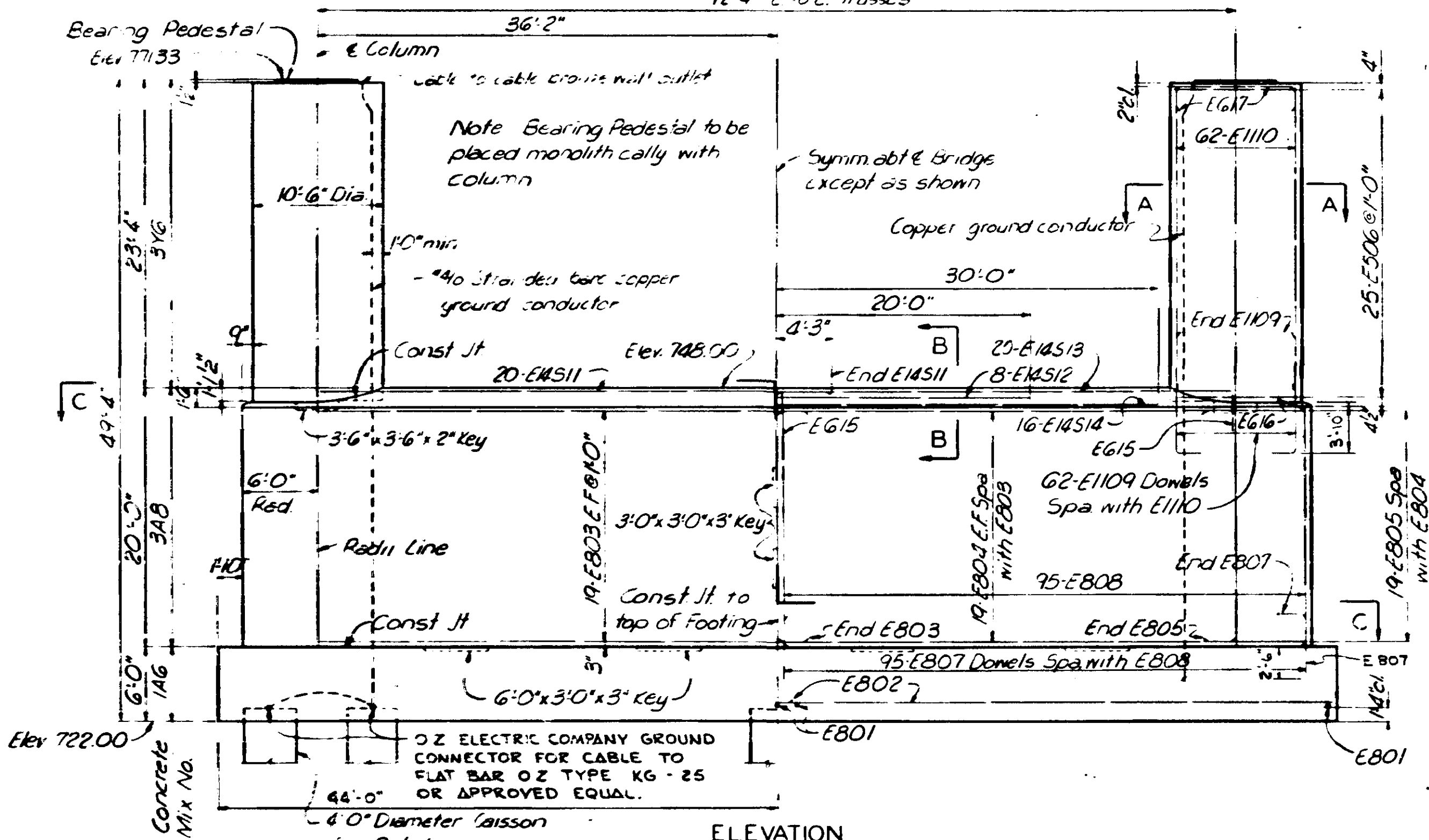
BRIDGE NO. 9340

PIER 6

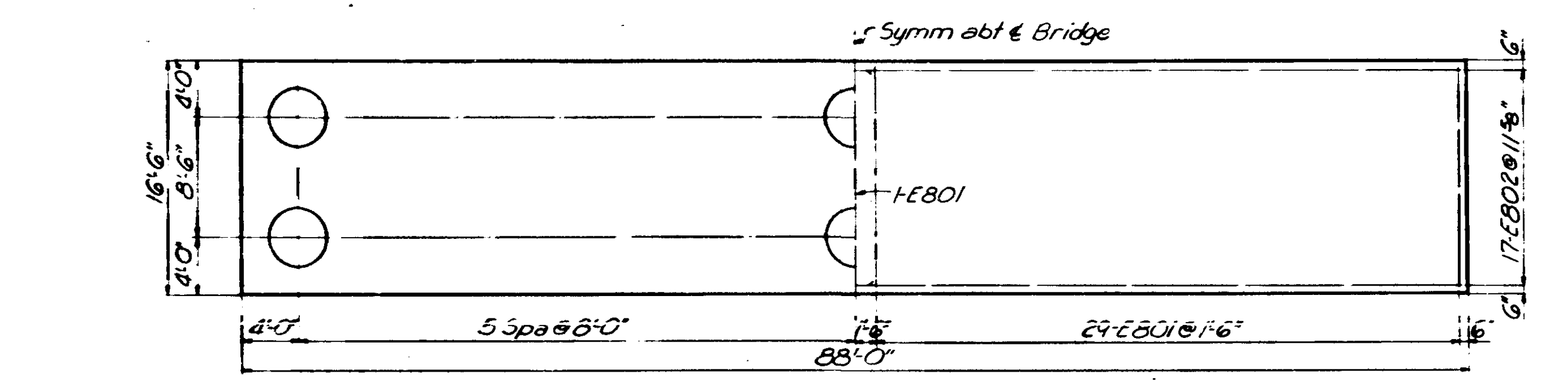
APPROVED - 1-16-64

PIER 6

APPROVED - 1-16-64



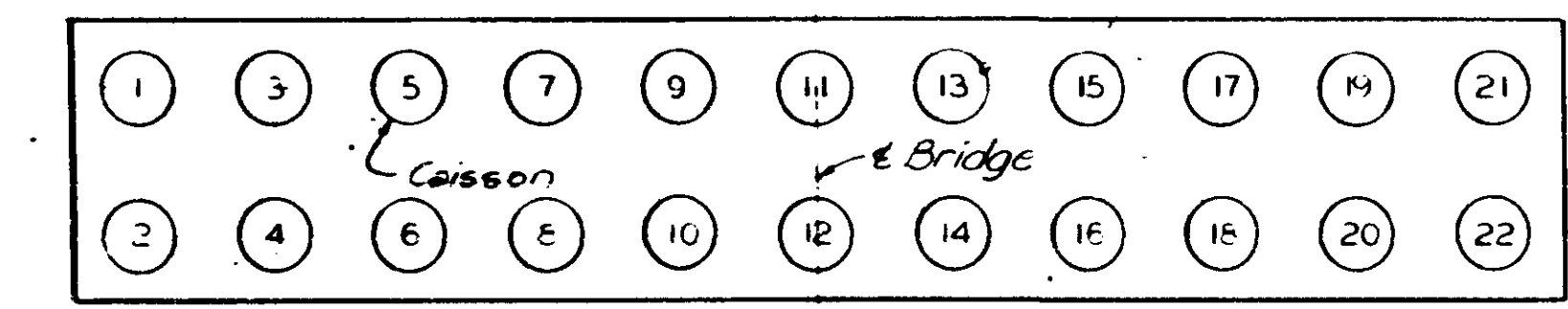
ELEVATION



FOOTING PLAN

NOTE: ESTIMATED LENGTHS FOR CAISSONS ARE FOR INFORMATIONAL PURPOSES ONLY EXACT LENGTHS ARE TO BE DETERMINED IN FIELD.

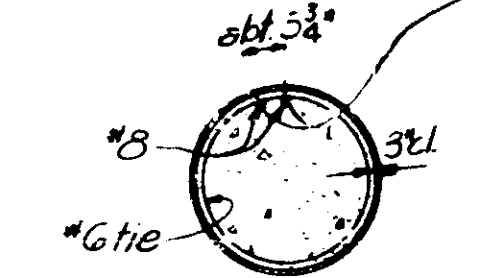
Approx Bedrock Elev	6817	6926	6913	6920	6927	6934	6950	6966	6982	6998	7014
Est. Caisson Length	43'-0"	42'-0"	42'-0"	41'-0"	40'-0"	39'-0"	38'-0"	37'-0"	36'-0"	34'-0"	32'-0"



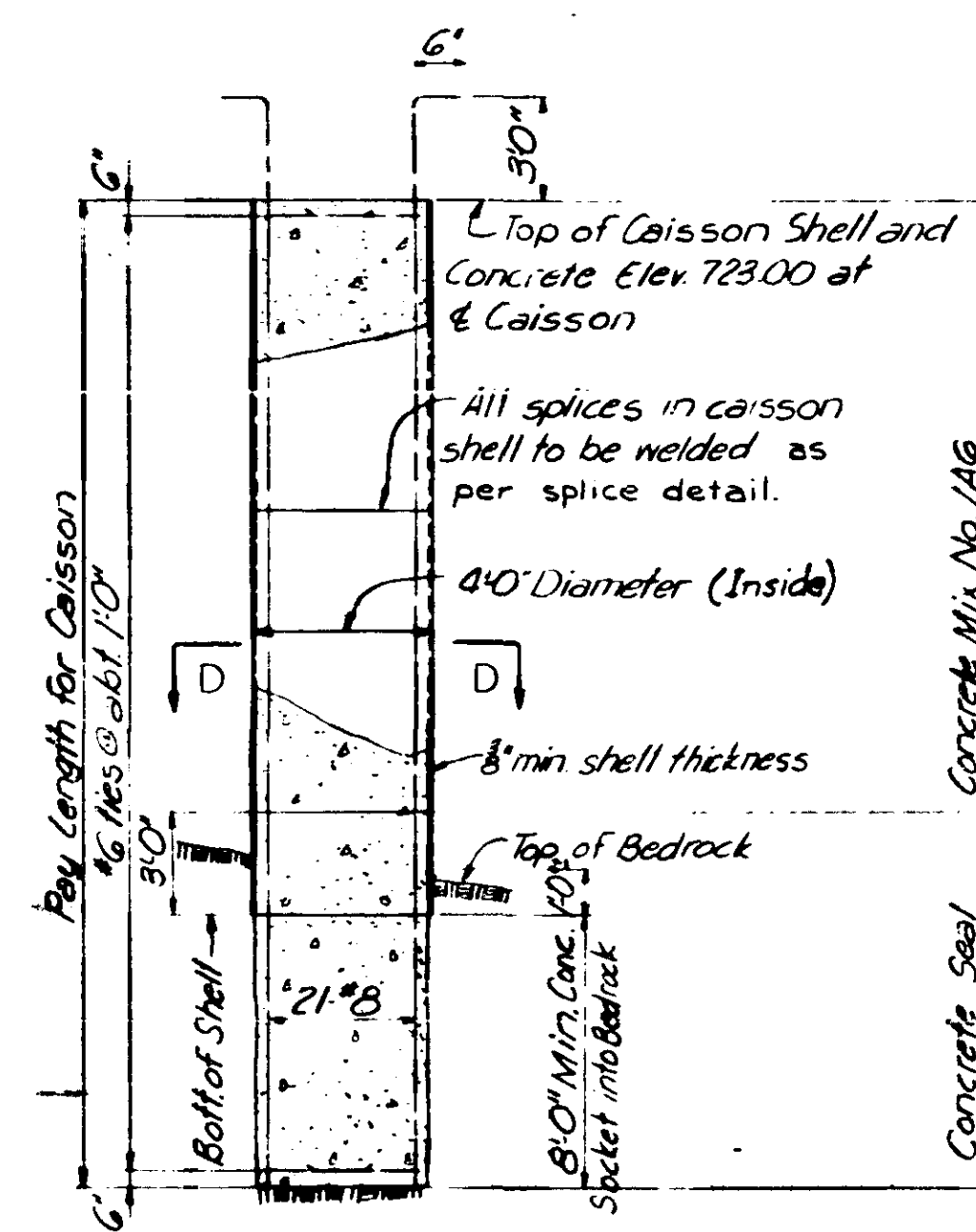
Est. Caisson Length	39'-0"	38'-0"	38'-0"	37'-0"	36'-0"	36'-0"	34'-0"	33'-0"	32'-0"	31'-0"	29'-0"
Approx. Bedrock Elev	6916	6952	6958	6964	6970	6976	6989	7002	7015	7028	7041

ESTIMATED CAISSON LENGTHS
 Note: Bedrock is top of sandstone as designated on the Bridge Survey Plan and Profile Sheet with subsurface information.

SPICES ARE PERMITTED IN REINFORCEMENT WITH 30 DIAMETERS LAP.

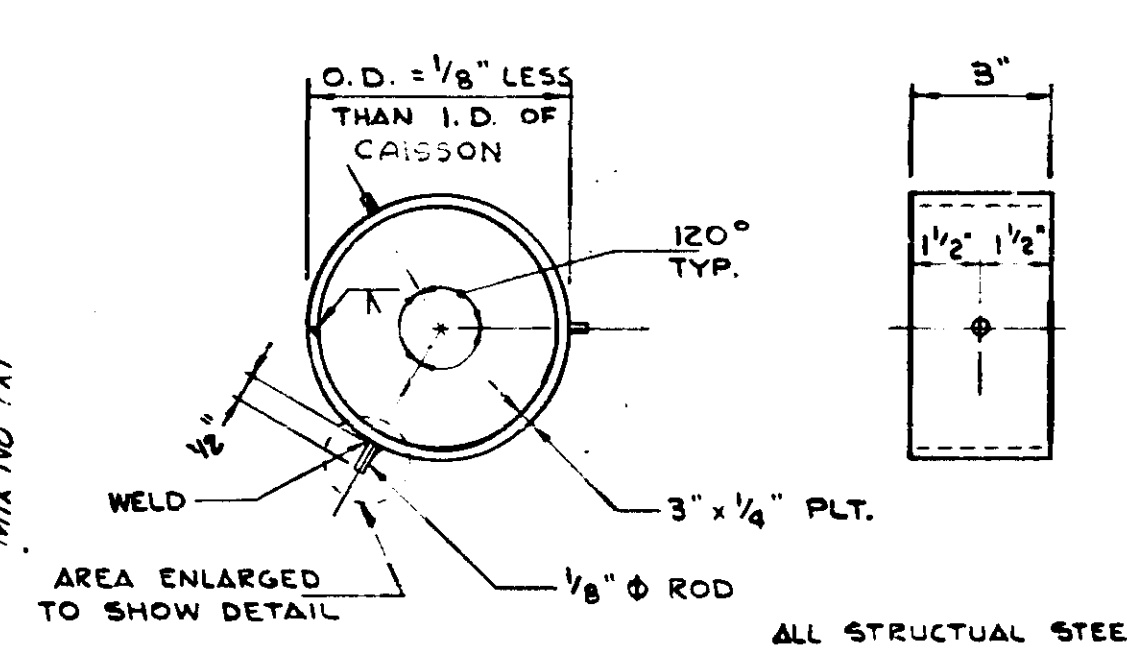
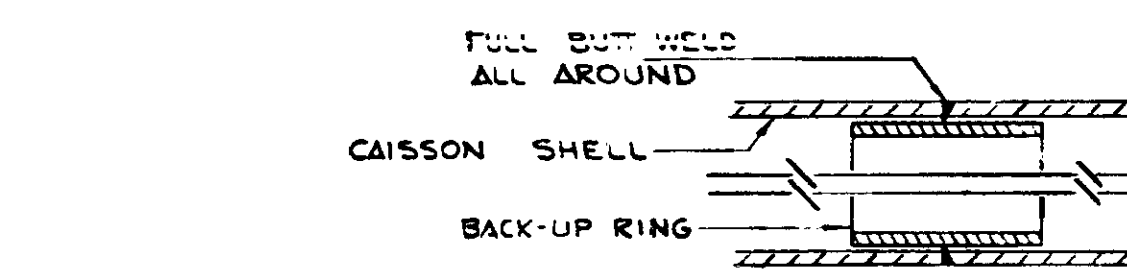


SECTION D-D



DETAIL OF CAISSON
 Note: Caisson shells shall be left in place.

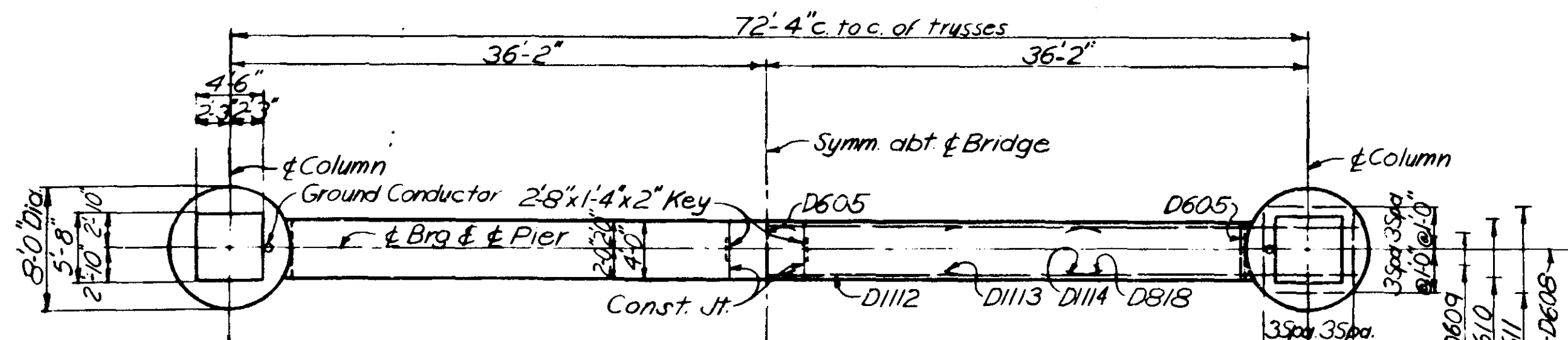
Note: Caisson concrete to be placed after ground connector has been attached to steel caisson shell.



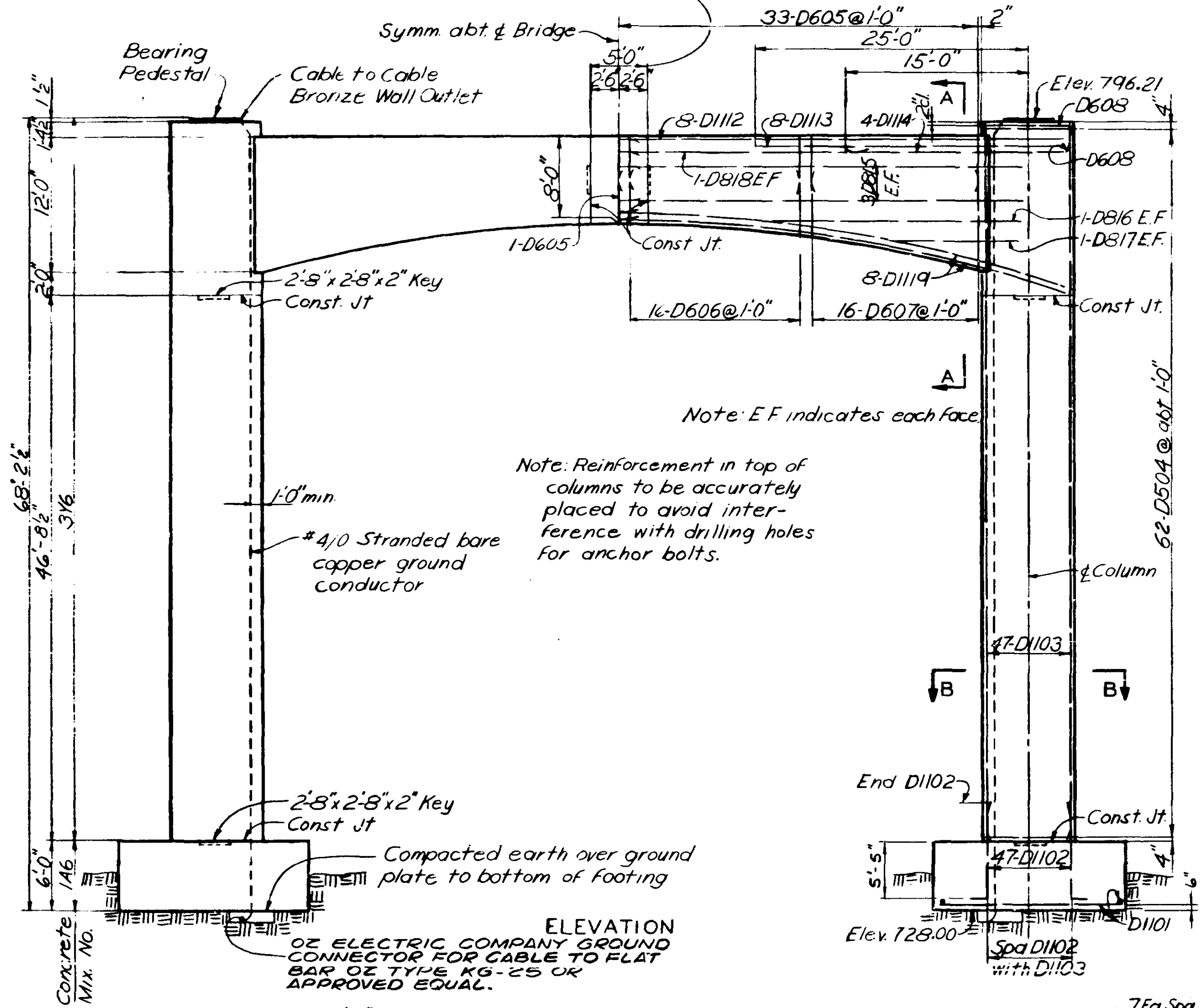
SPICE FOR CAISSONS

ALL STRUCTURAL STEEL AS PER M.H.D. 8305.
 ALL WELDING AS PER M.H.D. 2471.33.

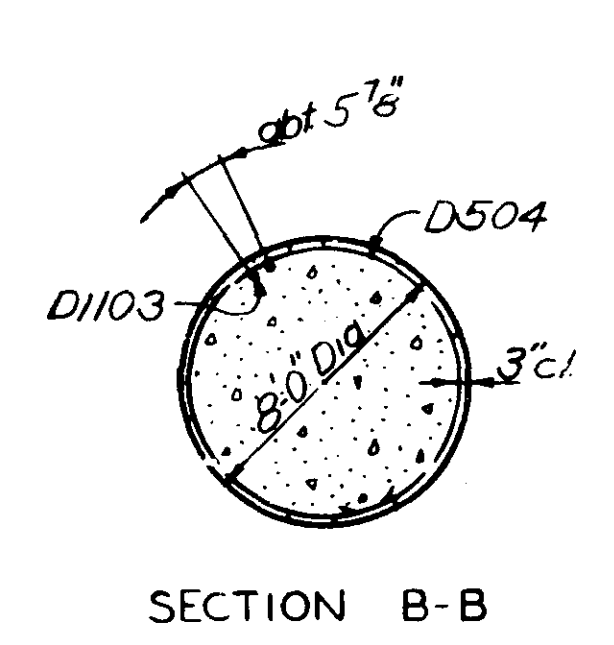
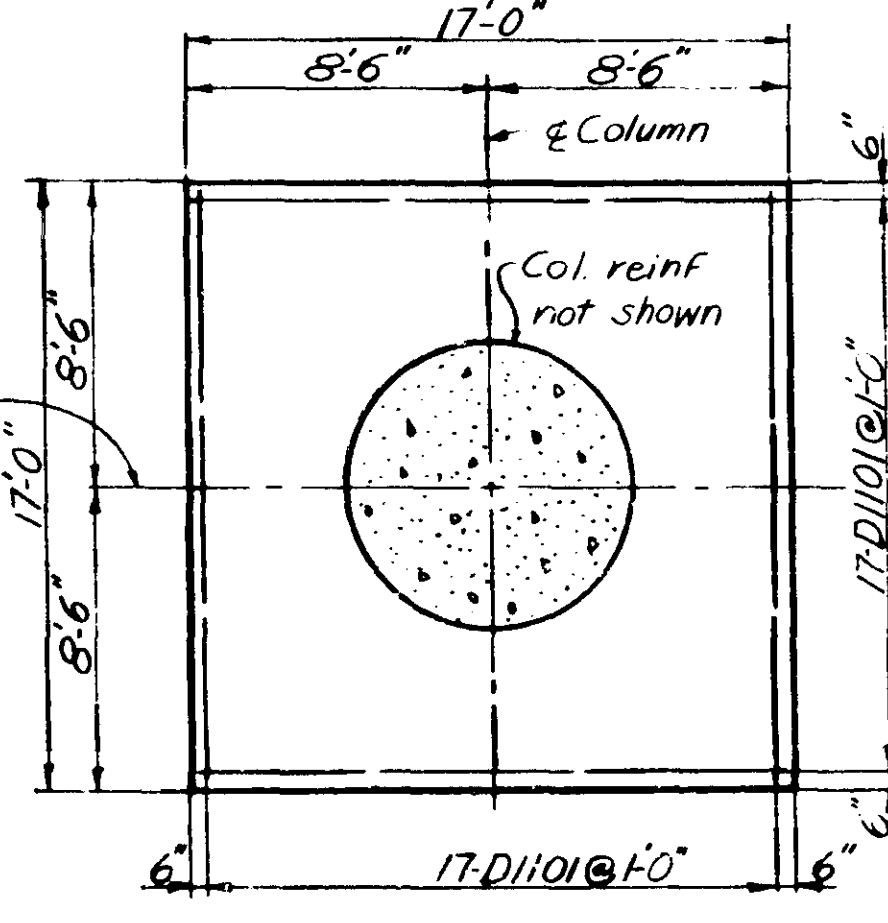
Drawn By: H.P. Maloney, Oct. 1, 1963
 Checked By: R.H. Habenstein, Oct. 1, 1963
 2083
 635620



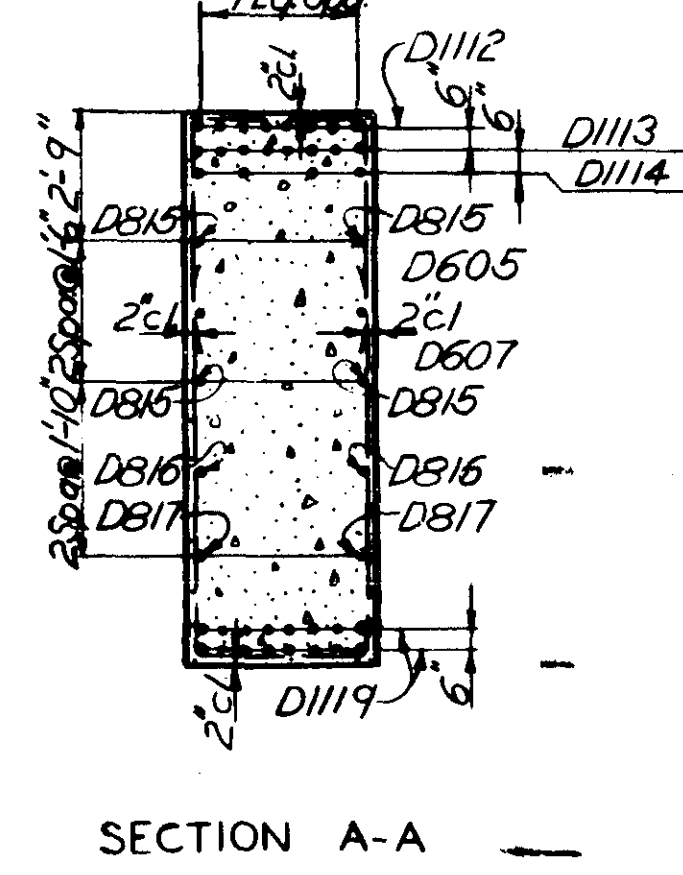
Note: Pedestals to be placed monolithically with pier cap.
THIS PORTION OF CAP SHALL NOT BE PLACED FOR 10 DAYS AFTER ADJACENT SECTIONS HAVE BEEN PLACED.



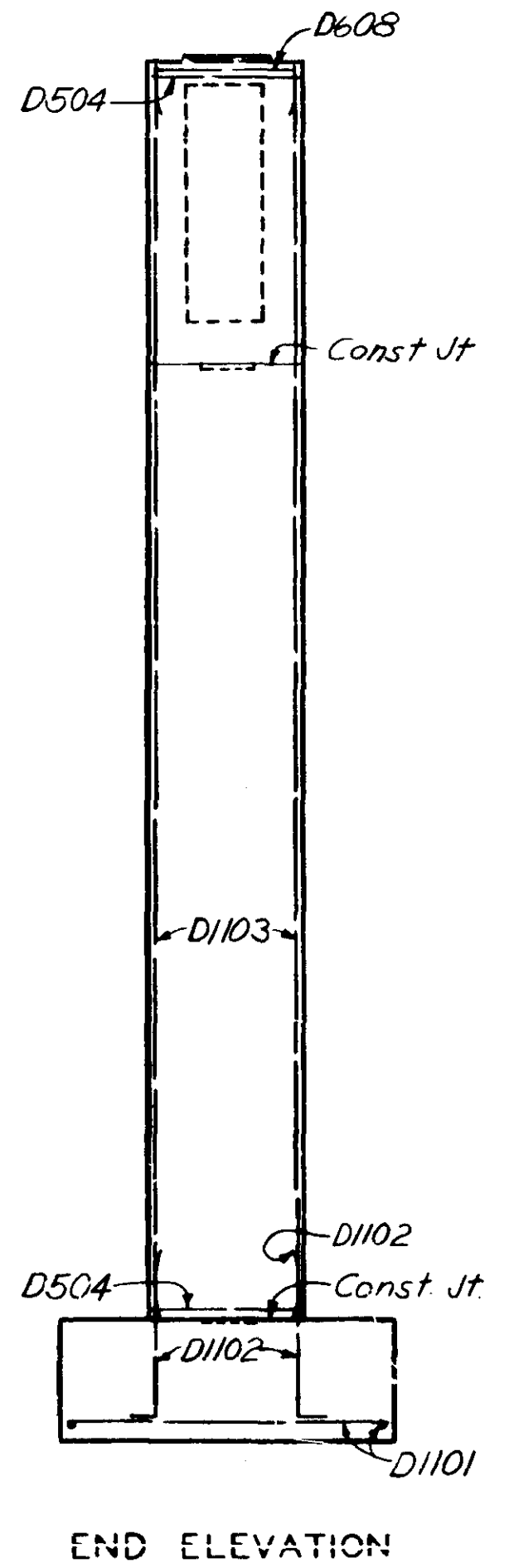
Note: Reinforcement in top of columns to be accurately placed to avoid interference with drilling holes for anchor bolts.



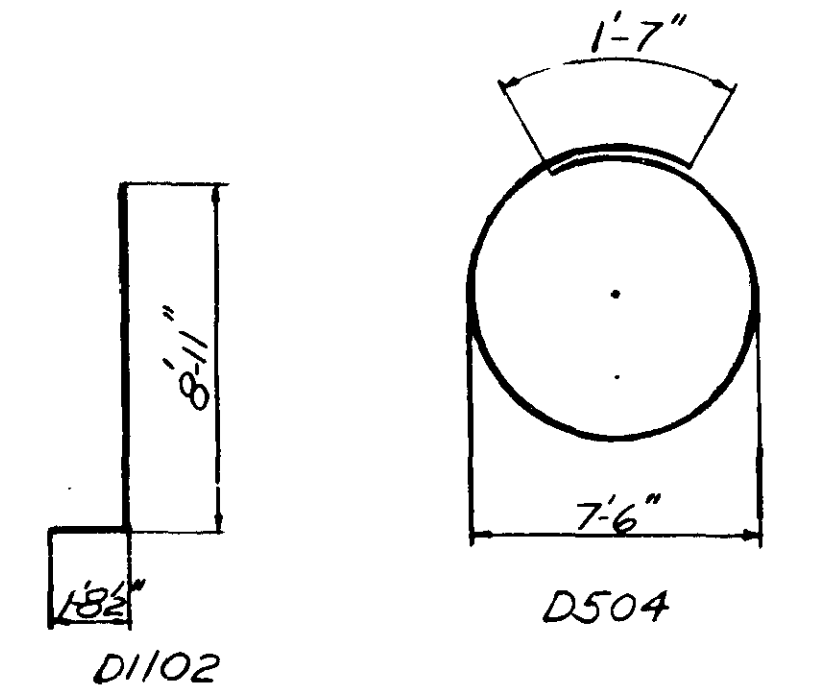
Note: Spacing of vertical bars is measured along inside face of D504.



SECTION A-A



END ELEVATION



Bar	A	B
D605	3'-8"	4'-10"
D606	3'-8"	4'-10" to 5'-10"
D607	3'-8"	6'-0" to 8'-10"
D608	7'-4"	1'-11"
D609	7'-1"	1'-11"
D610	6'-2"	1'-11"
D611	4'-3"	1'-11"

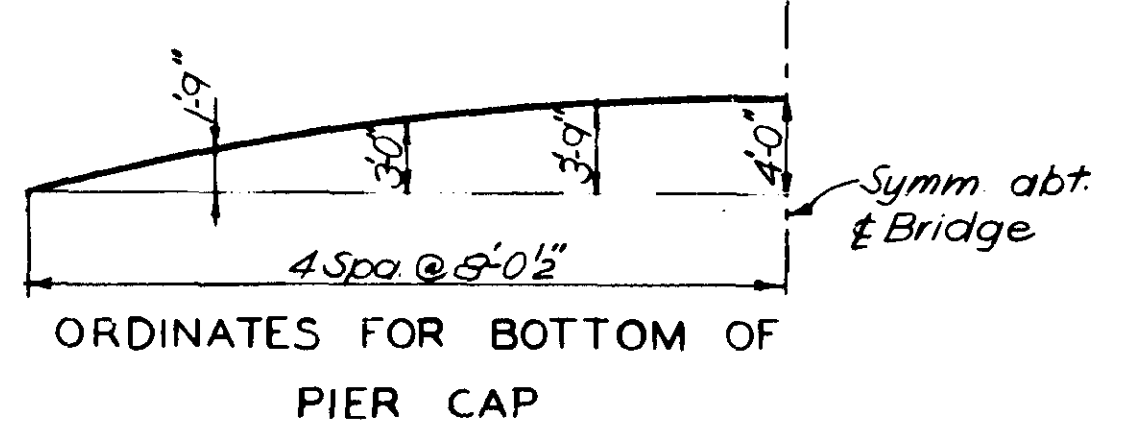
D605, D606, D607, D608, D609, D610, & D611

MAXIMUM COMPUTED ROCK PRESSURE	
Loading Condition	Max/Ft ²
I Dead Load	9.3
II Dead Load + Live Load	11.1
III Dead Load + Wind @ 0°	10.7
IV Dead Load + Live Load + Wind @ 0°	11.7

BILL OF REINFORCEMENT FOR PIER 8					
Bar	No	Size	Length	Shape	Location
D1101	68	11	16'-6"	Str.	Footing
D1102	94	11	10'-8"	Bent	do
D1103	94	11	61'-11"	Str.	Column
D504	124	5	25'-2"	Bent	do
D608	66	6	13'-4"	Bent	Pier Cap
D606	32	6	Varies	Bent	do
2 Series of 16 Bars (13'-4" to 15'-4")					
D607	32	6	Varies	Bent	Pier Cap
2 Series of 16 Bars (15'-8" to 21'-4")					
D608	4	6	11'-2"	Bent	Column
D609	8	6	10'-11"	Bent	do
D610	8	6	10'-0"	Bent	do
D611	8	6	8'-1"	Bent	do
D112	16	11	41'-0"	Str.	Pier Cap
D113	16	11	28'-0"	Str.	do
D114	8	11	18'-0"	Str.	do
D815	12	8	36'-6"	Str.	do
D816	4	8	23'-0"	Str.	do
D817	4	8	11'-0"	Str.	do
D818	4	8	25'-0"	Str.	do
D1119	32	11	42'-10"	Str.	do

SUMMARY OF QUANTITIES FOR PIER 8	
Class U E Excavation	498 Cu. Yds.
Class DR Excavation	64 Cu. Yds.
Concrete Mix No. 1A6	128 Cu. Yds.
Concrete Mix No. 3Y6	321 Cu. Yds.
Reinforcement Bars	64500 Lbs.
*Copper Ground Conductors, Plates, and Bronze Outlets and Lug Connections	
*To be included in price bid for concrete.	

NOTES
Footings to be embedded a minimum of 1'-0" into sound rock.
Do not order reinforcement for pier columns until exact elevations of footings have been determined in the field.



DESIGNED BY
SVERDRUP & PARCEL AND ASSOCIATES, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

T. H. 38W
STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340

PIER 8

APPROVED - 1-12-64

Drawn By: M. Maki, July, 1963
Checked By: R. Hebenstreit, Oct 1963
2053
68468

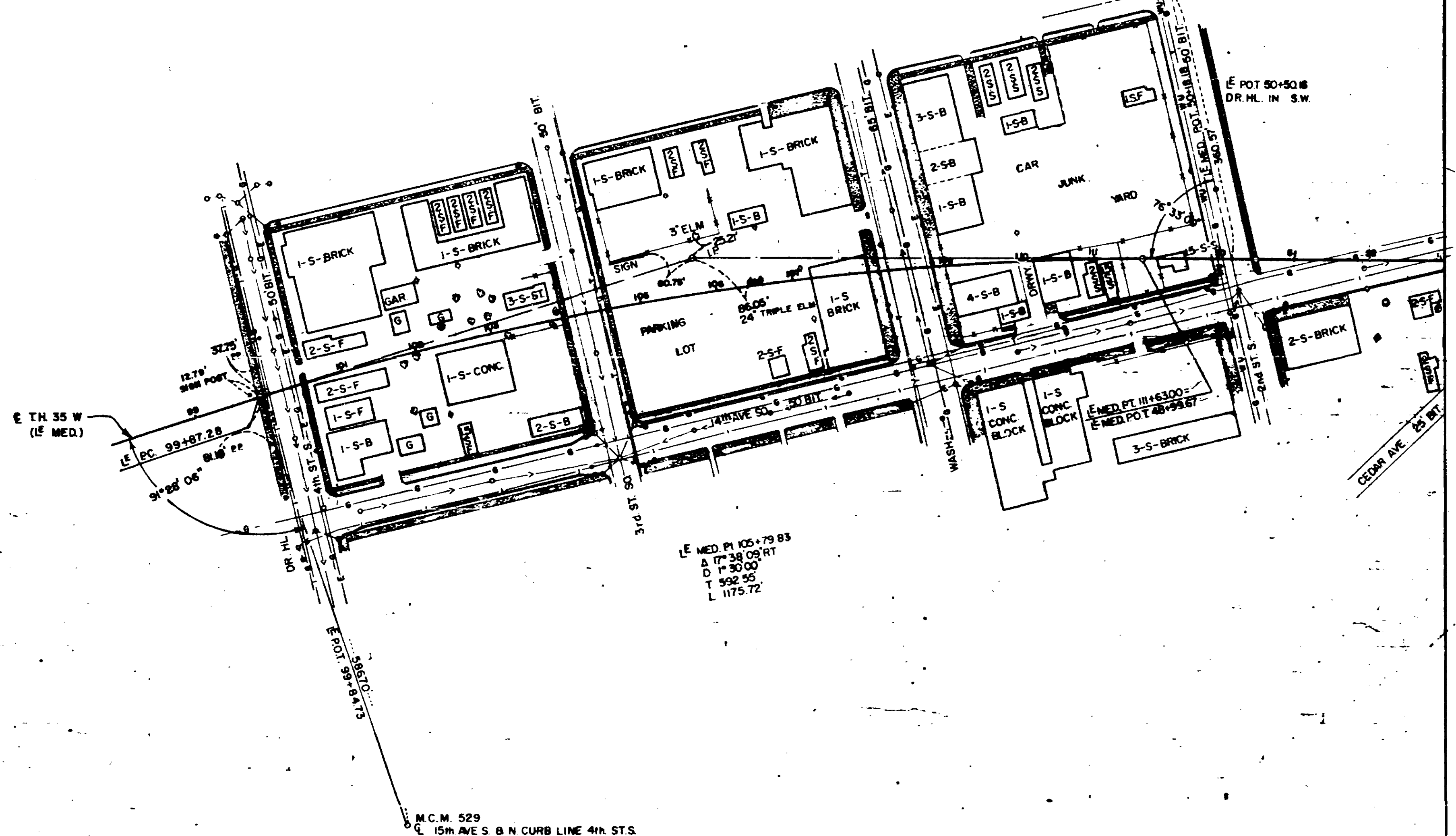
CONTRACTED PROFILE

SCALE HOR 1" = 100' VER 1" = 10'

ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV

PLAT

SCALE 1" = 100'



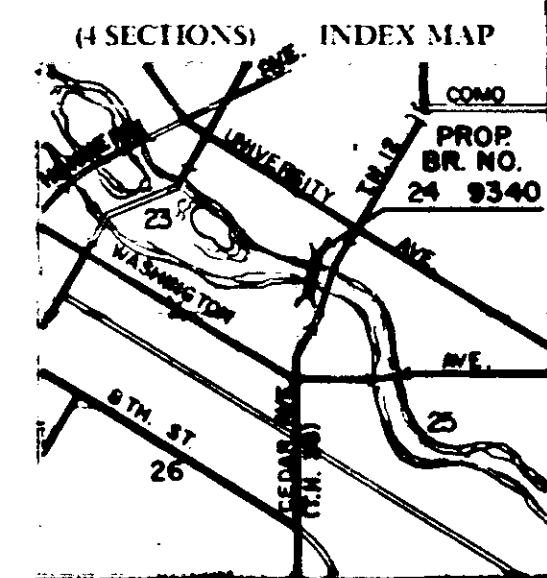
CENTER LINE OF LAYOUT

ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV
ELEV

3 M. ELEV

PLAT

SCALE 1" = 100'



FOLLOW SEPARATE "INSTRUCTIONS FOR PREPARATION OF BRIDGE SURVEYS" WHEN MAKING BRIDGE SURVEYS.

DATA

- Preliminary recommendations of Engineer in charge of Bridge Survey:
 - Net span length and type of bridge
 - Width of roadway on bridge
 - Number and width of sidewalks, if any
 - Locate center of bridge at station
 - If a skew bridge is recommended, the angle of skew should be
 - Is piling required?
- Special features: Waterfalls, dams, exceptional floods, ice, driftwood, sliding banks, logging, etc.
- Changes: In height or length from that of old bridge, and reasons why

DATA (Contd.)

- Other bridges in vicinity:
 - Over same stream (particularly structures which carry high water without overflow of roadway); give location, length, height above water, net cross-sectional area at high water stage and estimated age
 - Over or under same highway or railroad; give location, length, horizontal and vertical clearances and estimated age
 - Reasons why these bridges are, or are not, fair indications of what length the proposed bridge should be
- If structure is over a drainage ditch, is ditch gradient liable to be altered?
- Navigation clearances required, if any
- Information and evidence in regard to high water stages was obtained as follows
- Must contractor provide for traffic during construction of proposed bridge? If so, by what means?

HIGH AND LOW WATER ELEVATIONS

Data obtained from _____ reflects highest water elevation in the area of this construction to be _____ and the lowest water elevation to be _____. The above figures are for informational purposes only. The state neither warrants nor represents that these figures for high water and low water are in any way indicative of the high water or low water to be expected or encountered during this construction.

SHIPPING POINT

Proposed Bridge is _____ miles _____ of _____ which is the nearest Railroad shipping point.
*(Give name of town, station or siding)

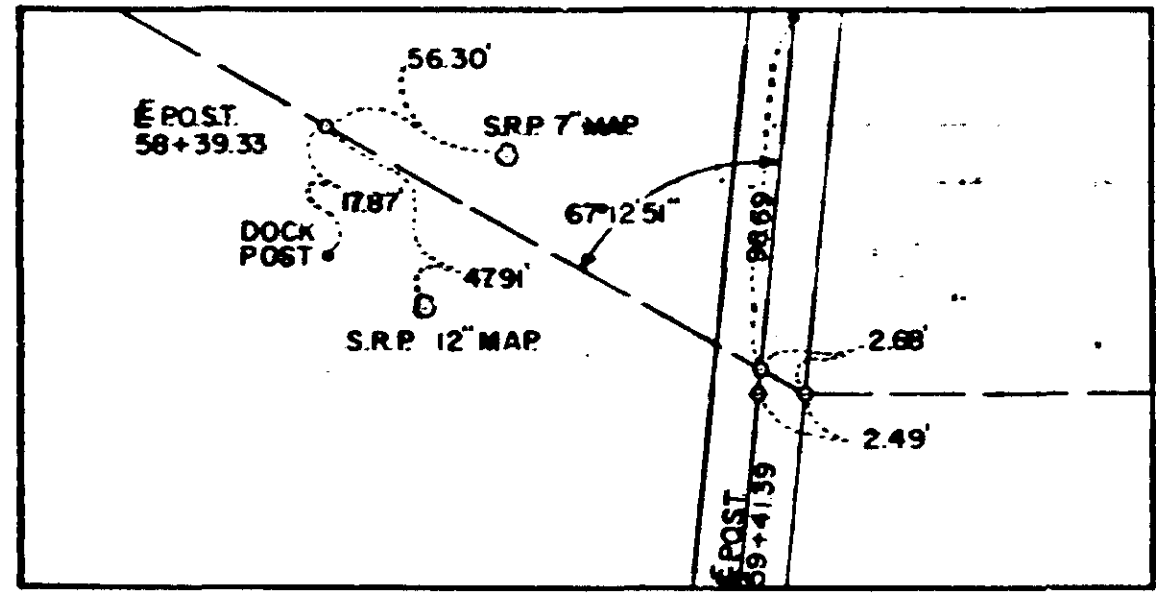
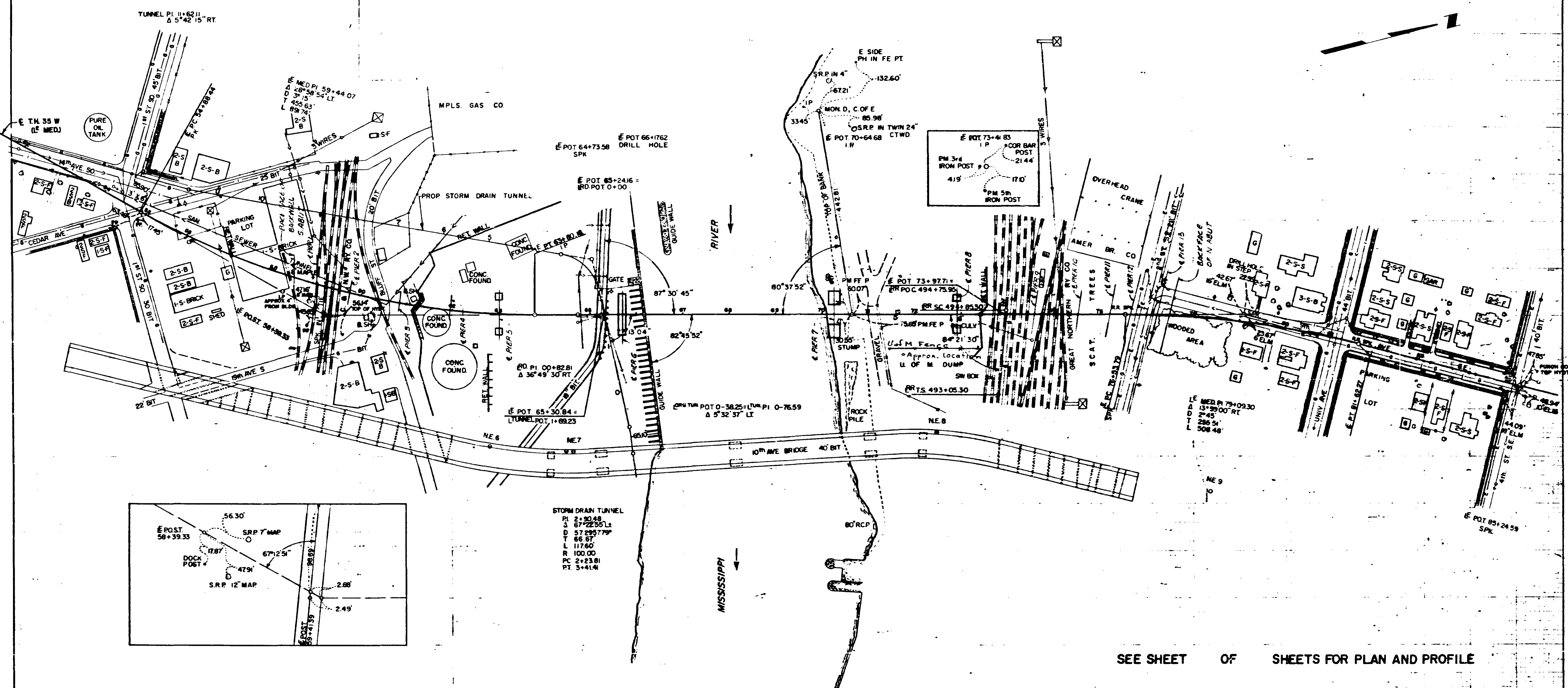
Date _____ Project or County Engineer _____
Date _____ District Engineer _____

STATE OF MINNESOTA DEPARTMENT OF HIGHWAYS BRIDGE SURVEY

PROPOSED BRIDGE LOCATED _____ MILES _____ OF _____ (TOWN OR CITY) _____ ON _____ TH. 35 W (T.H. S.A.R. OR C.A.R. NUMBER) SEC. 24 TWP. 29N R. 24W TOWNSHIP _____ COUNTY HENNEPIN SURVEY MADE DURING MONTH OF FEB. 1962 SURVEY MADE BY _____ A.W. EDWARDS
BRIDGE NO. 9340

PLAT

SCALE 1" = 100'



STORM DRAIN TUNNEL
 PI 2+90.48
 Δ 67°22'55" LT
 D 57.295779'
 T 68.61'
 L 117.60'
 R 100.00'
 PC 2+23.01
 PT 3+41.41

SEE SHEET OF SHEETS FOR PLAN AND PROFILE

FOLLOW SEPARATE "INSTRUCTIONS FOR PREPARATION OF BRIDGE SURVEYS" WHEN MAKING BRIDGE SURVEYS.

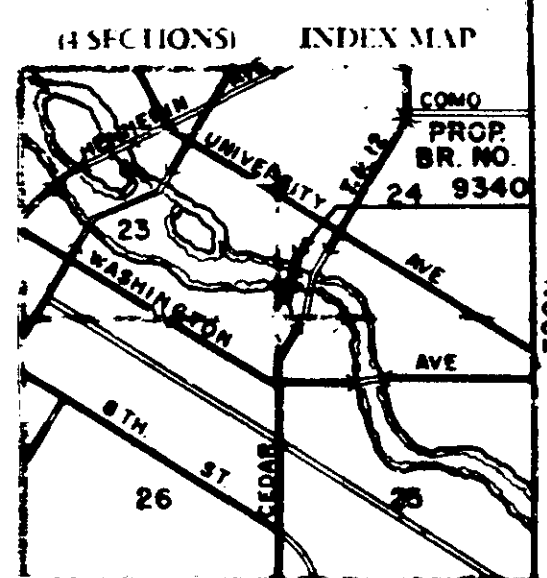
DATA

1. Preliminary recommendations of Engineer in charge of Bridge Survey:

- Net span length and type of bridge
- Width of roadway on bridge
- Number and width of sidewalks, if any
- Locate center of bridge at station
- If a skew bridge is recommended, the angle of skew should be
- Is piling required?

2. Special features: Waterfalls, dams, exceptional floods, ice, driftwood, sliding banks, logging, etc.

Changes: In height or length from that of old bridge, and reasons why.



DATA (Contd.)

- Other bridges in vicinity.
 - Over same stream (particularly structures which carry high water without overflow of roadway); give location, length, height above water, net cross-sectional area at high water stage and estimated age
 - Over or under same highway or railroad; give location, length, horizontal and vertical clearances and estimated age
 - Reasons why these bridges are, or are not, fair indications of what length the proposed bridge should be.
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SHIPPING POINT

Proposed Bridge is _____ miles _____ of _____ which is the nearest Railroad shipping point.

*(Give name of town, station or siding: _____)

Date _____ Project or County Engineer _____
 Date _____ District Engineer _____

STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
BRIDGE SURVEY
 FOR

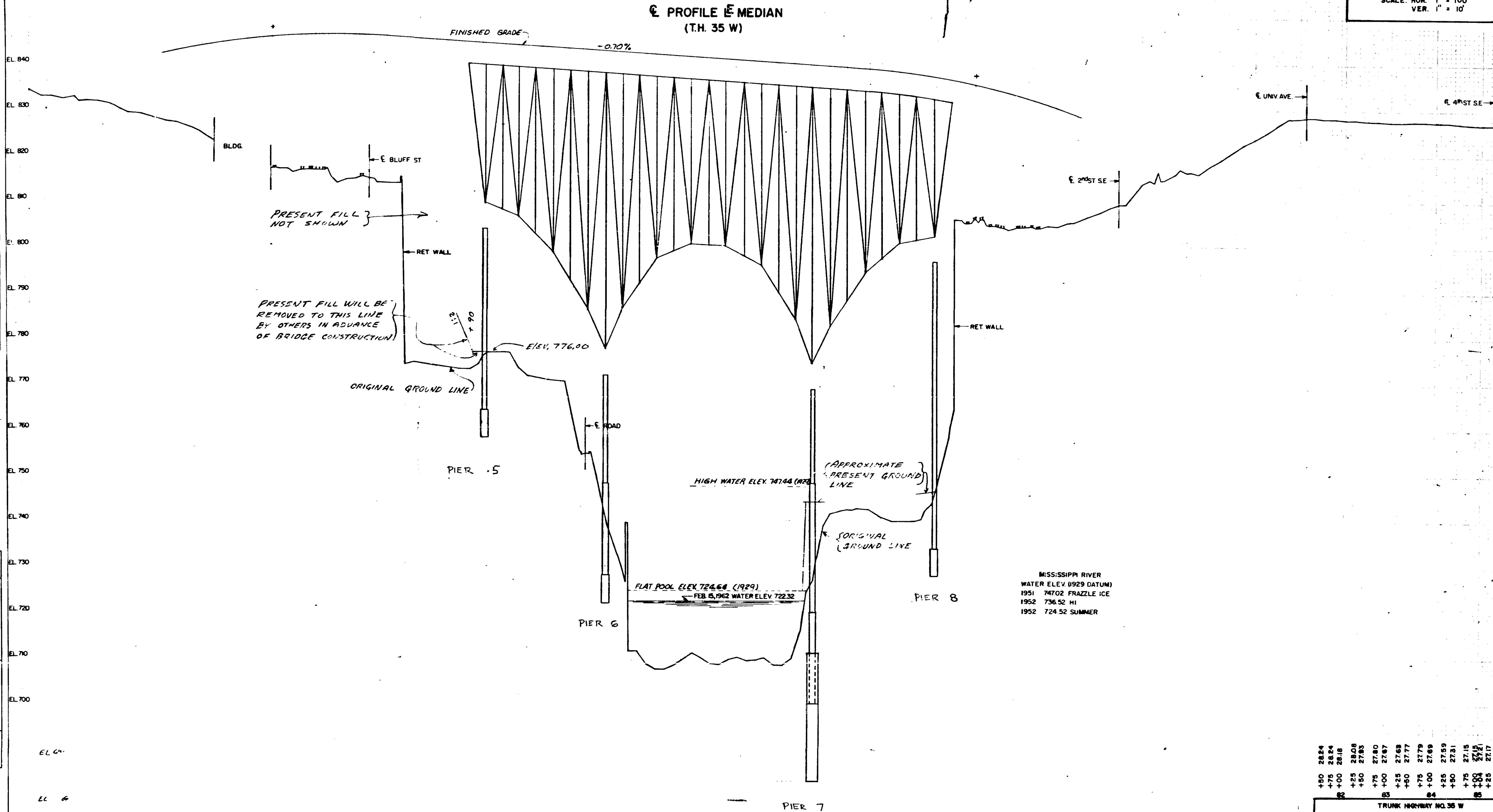
PROPOSED BRIDGE LOCATED _____ MILES _____ OF _____ (TOWN OR CITY) _____ ON T.H. 35 W (T.H. S.A.R. OF C.A.R. NUMBER)

SEC. 24 TWP. 29N R. 24W
 TOWNSHIP _____ COUNTY HENNEPIN
 SURVEY MADE DURING MONTH OF FEB 19 62
 SURVEY MADE BY A.W. EDWARDS

BRIDGE NO. 9340

FED. ROAD DIST. No.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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CONTRACTED PROFILE
 SCALE: HOR. 1" = 100'
 VER. 1" = 10'



PLOTTED
 SURVEY
 NOTE BOOK
 NO.

PLOTTED
 SURVEY
 NOTE BOOK
 NO.

+50	2824
+75	2824
+100	2818
+25	2828
+50	2783
+75	2780
+100	2787
+25	2769
+50	2777
+75	2779
+100	2769
+25	2759
+50	2781
+75	2715
+100	2727
+25	2717

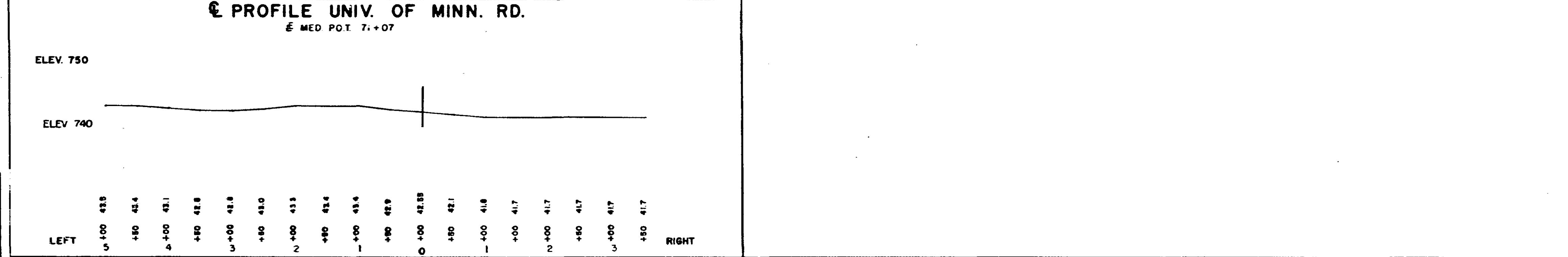
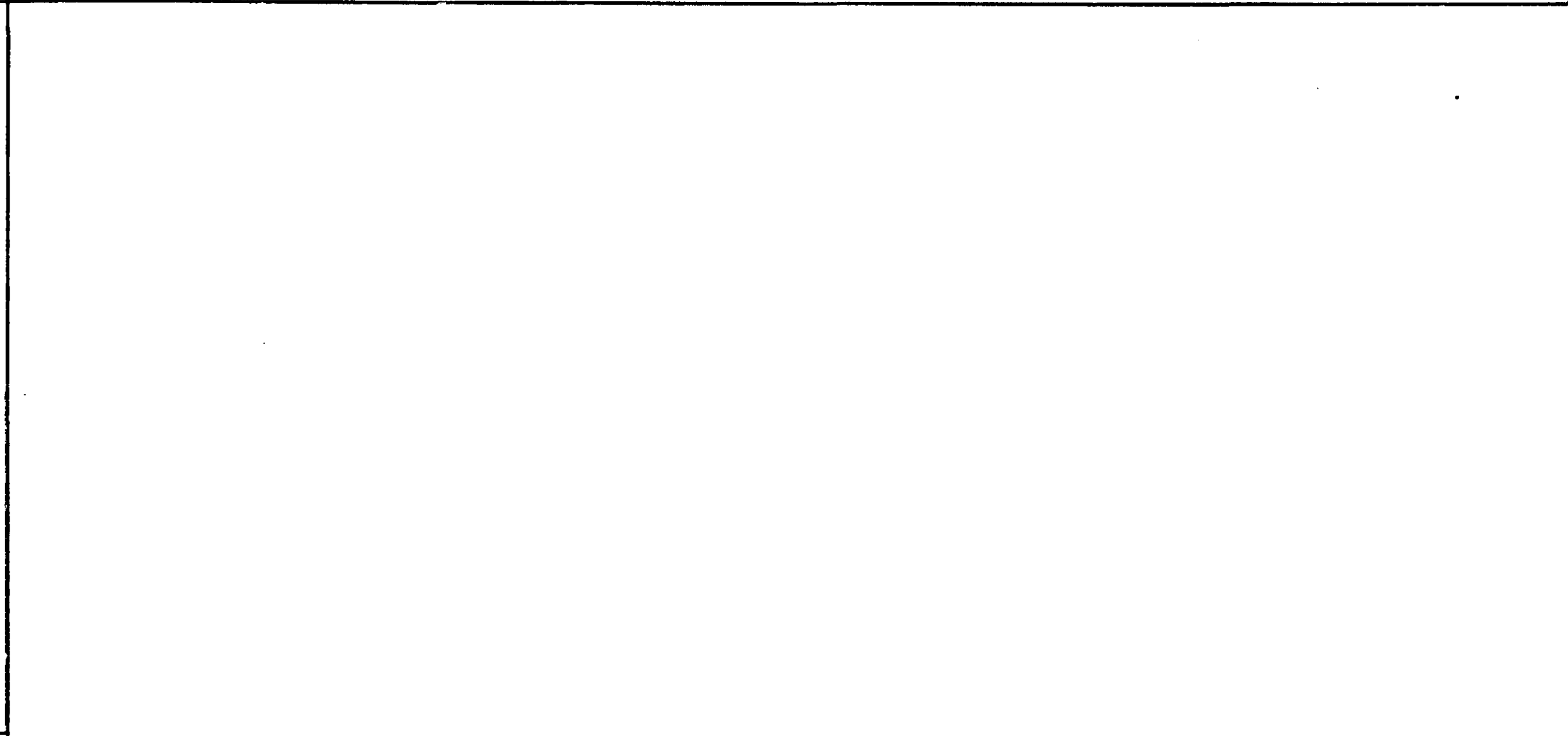
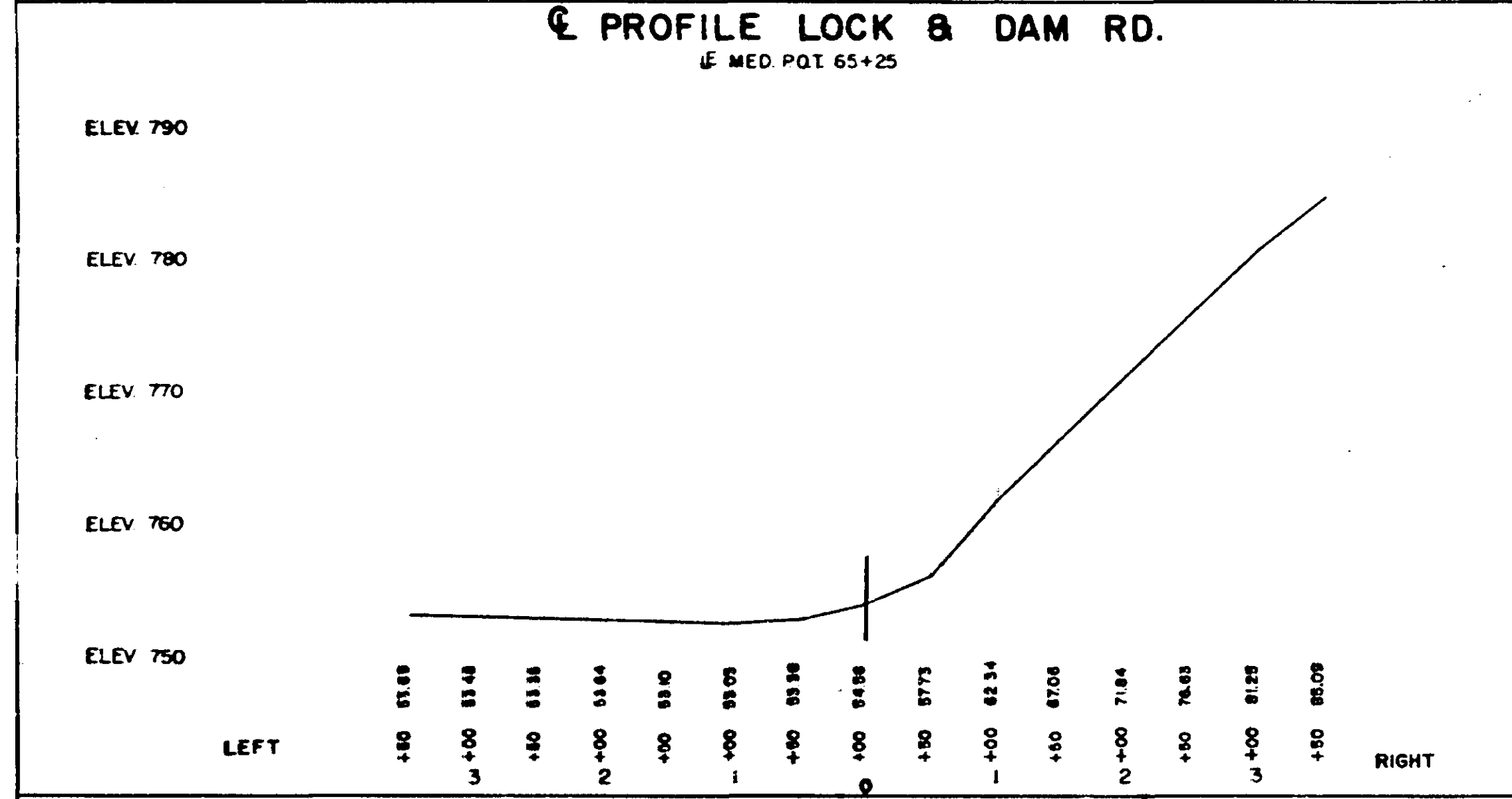
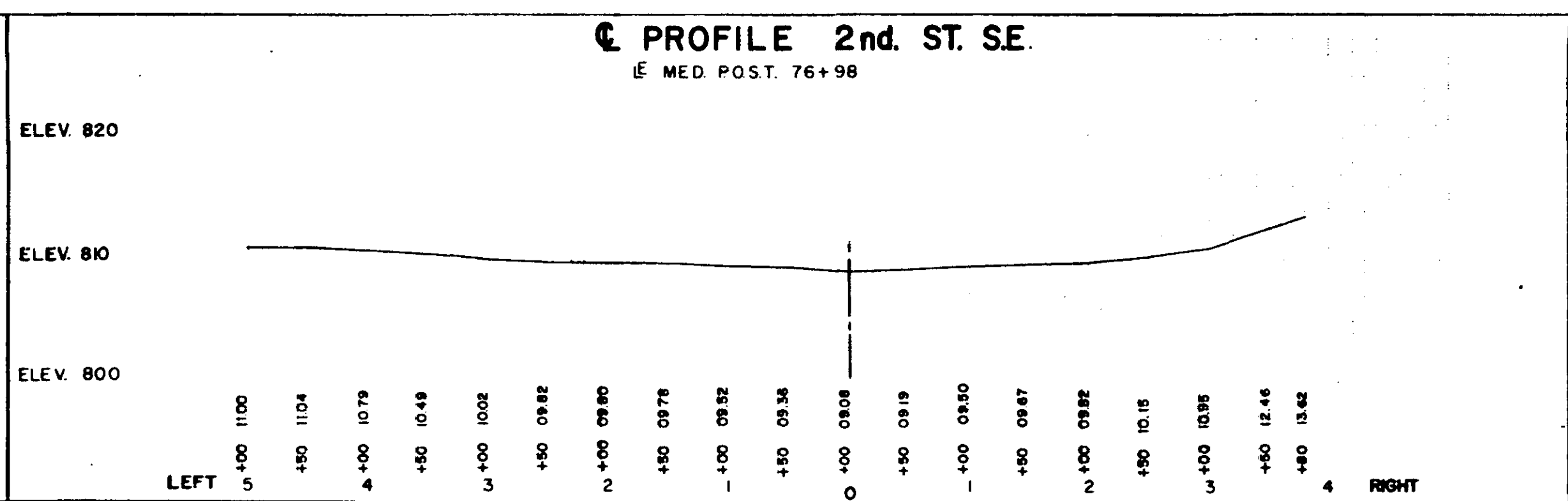
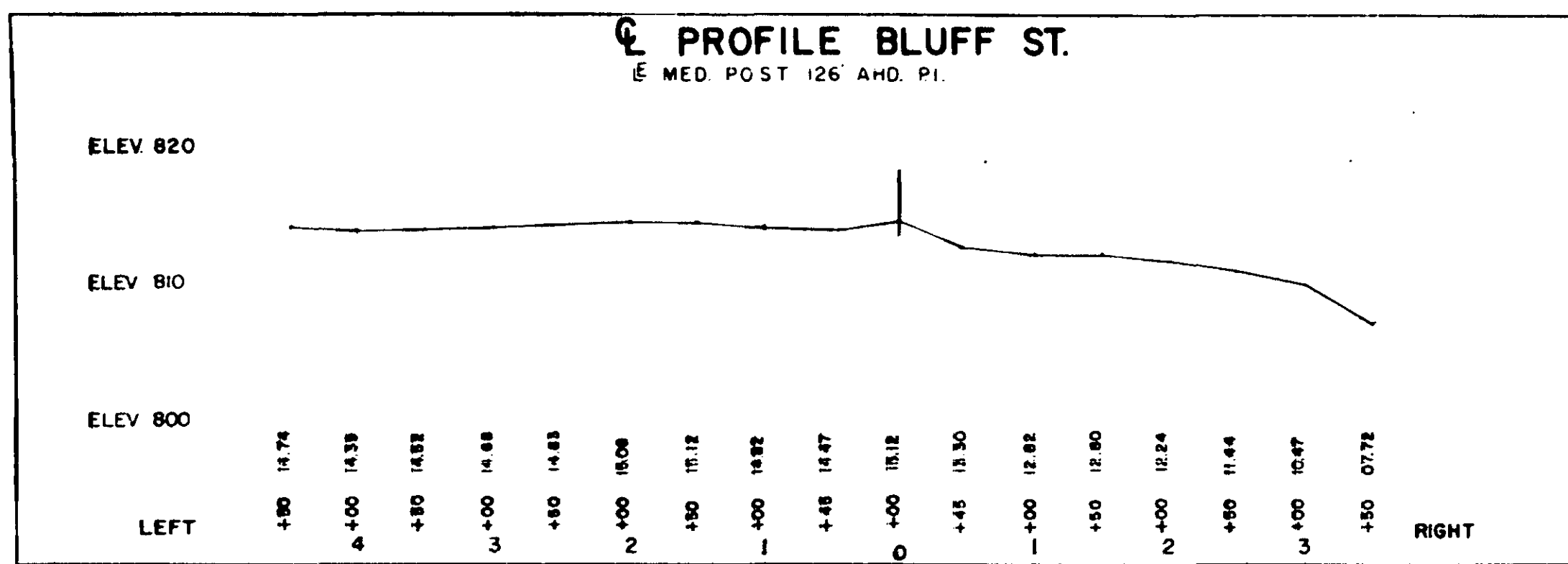
TRUNK HIGHWAY NO. 35 W
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340

BRIDGE SURVEY
CONTRACTED PROFILE

SEE SHEET NO. FOR ADDITIONAL INFORMATION

CONTRACTED PROFILE
 SCALE: HOR. 1" = 100'
 VER. 1" = 10'



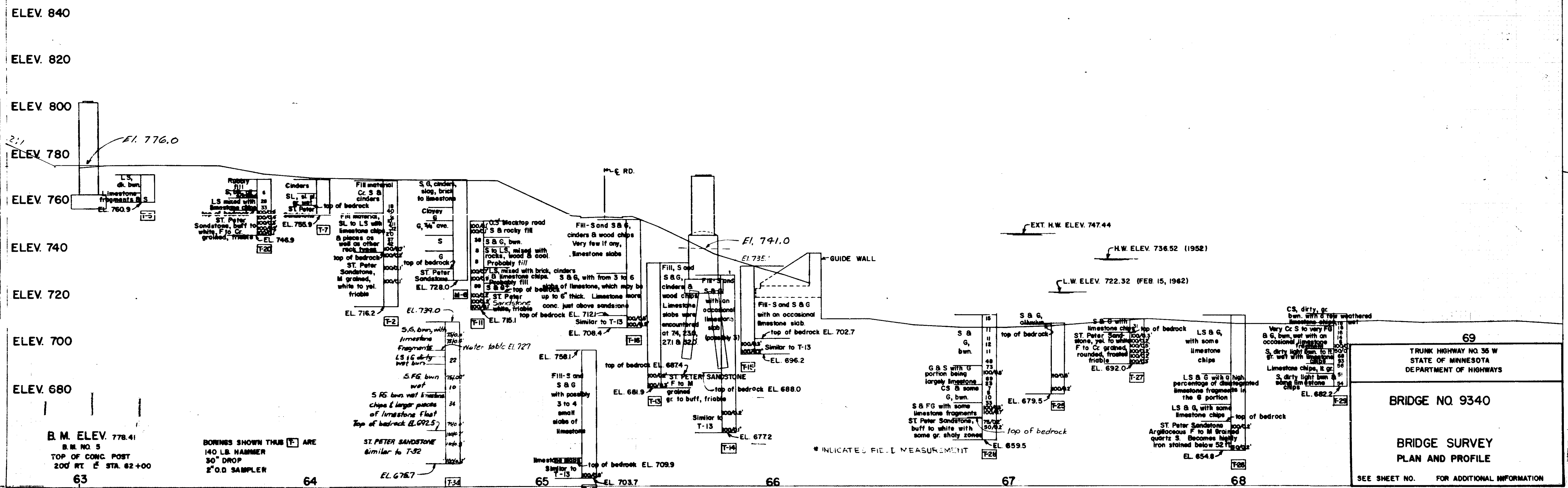
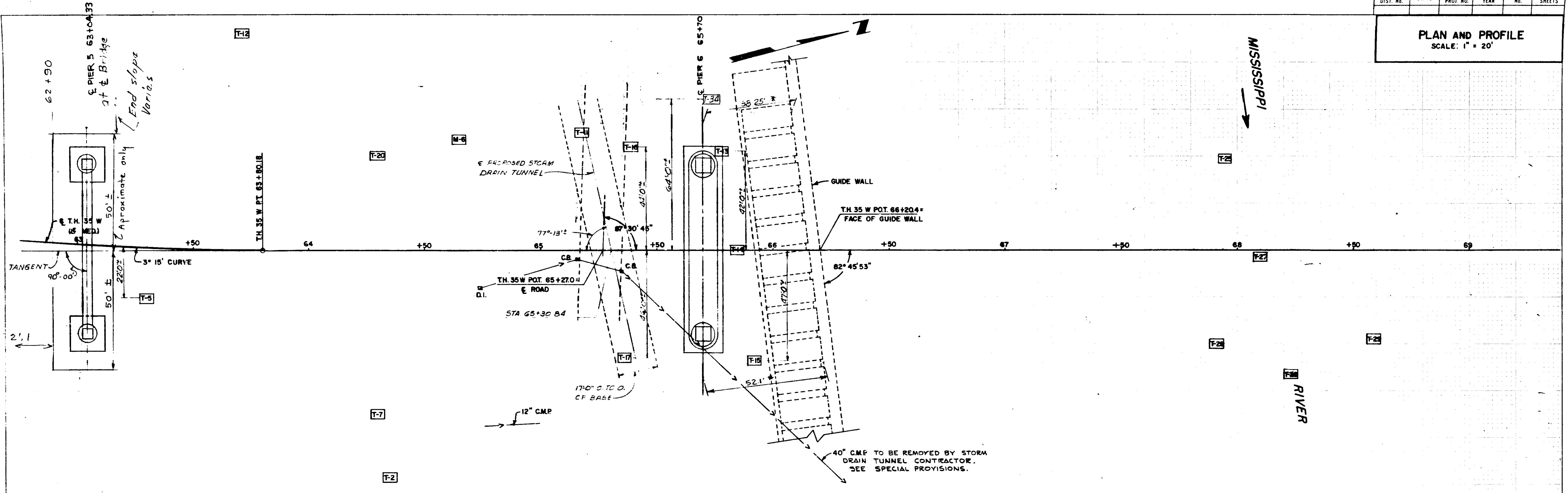
TRUNK HIGHWAY NO 35 W
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS

BRIDGE NO. 9340

BRIDGE SURVEY
 CONTRACTED PROFILE

SEE SHEET NO. FOR ADDITIONAL INFORMATION

PLAN AND PROFILE
SCALE: 1" = 20'



ROCKY FILL
S.G. cinders, slog, brick to limestone
Clayey S
G, 3/4" ave.
S
G
ST. Peter Sandstone, M grained, white to yellow friable
S.G. bwn, with limestone fragments
LS in dirty wet
S FG bwn wet
S FG bwn wet limestone chips & larger pieces of limestone float
Top of bedrock EL. 692.5
ST. PETER SANDSTONE similar to T-32
EL. 676.7

Fill material
Cr. S & cinders
top of bedrock EL. 728.0
Fill material, SL to LS with limestone chips & pieces or used as other rock base
top of bedrock EL. 716.2
S.G. bwn, with limestone fragments
LS in dirty wet
S FG bwn wet
S FG bwn wet limestone chips & larger pieces of limestone float
Top of bedrock EL. 692.5
ST. PETER SANDSTONE similar to T-32
EL. 676.7

CS Mecktop road
S & rocky fill
S & G, bwn.
S to LS, mixed with rocks, wood & coal
Probably fill
LS, mixed with brick, cinders & limestone chips
S & G, with from 3 to 6 up to 6" thick. Limestone conc. just above sandstone
top of bedrock EL. 712.1
Similar to T-13
EL. 708.4

Fill - Sand S & G, cinders & wood chips
Very few if any, limestone slabs
Fill - Sand S & G with an occasional limestone slab
top of bedrock EL. 702.7
Similar to T-13
EL. 696.2

ST. PETER SANDSTONE
top of bedrock EL. 688.0
Similar to T-13
EL. 677.2

ST. Peter Sandstone
F to G grained, rounded, friable
G, bwn.
S & FG with some limestone fragments
ST. Peter Sandstone, buff to white with some gr. shaly zones
top of bedrock EL. 679.5
EL. 659.5

ST. Peter Sandstone
Argillaceous F to M grained quartz S. Becomes highly iron stained below 52 ft.
EL. 654.8

CS, dirty, gr. bwn. with a few limestone chips
Very Cr. S to very FG S & G, bwn, wet with an occasional limestone fragment
S, dirty light tan to buff, wet with limestone chips
Limestone chips, it gr. S, dirty light tan to buff, wet with limestone chips
EL. 682.2

LS & G, with some limestone chips
top of bedrock
ST. Peter Sandstone
Argillaceous F to M grained quartz S. Becomes highly iron stained below 52 ft.
EL. 654.8

EXT. H.W. ELEV. 747.44
H.W. ELEV. 736.52 (1952)
L.W. ELEV. 722.32 (FEB 15, 1962)

INDICATED FIELD MEASUREMENT

