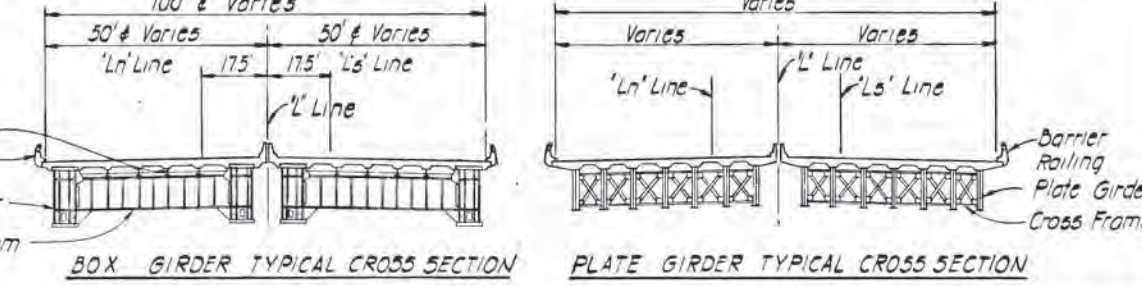


GENERAL NOTES

Bridge designed for H320-44 & military loading without allowing for future wearing surface.
 All concrete shall be class A & shall have a breaking strength of 3300 psi in 28 days ($f'_c = 1320$ psi)
 All reinforcing steel shall be deformed bars and shall be A.S.T.M. spec A-15 inter. unless noted otherwise. Bars from no. 3 to no. 11 inclusive shall conform to A.S.T.M. specification A-305 & shall be lapped 24 diameters at all splices unless noted or shown otherwise. Bars no. 14 & no. 18 shall conform to A.S.T.M. specification A-408 & all splices shall be welded. High strength grade bars shall conform to A.S.T.M. specification A-432 ($f_y = 24000$ psi). No splicing of reinforcing steel shall be permitted except as noted on the drawings.
 All structural steel shall be carbon steel unless noted otherwise. Carbon steel shall conform to A.S.T.M. specification A-36. Steel noted as A-441 shall conform to A.S.T.M. specification A-441 for plates $\frac{3}{4}$ " and under and A-441 modified for plates over $\frac{3}{4}$ " thickness. Structural steel connections shall be $\frac{7}{8}$ " high strength bolts conforming to A.S.T.M. specification A-325 unless noted otherwise.
 Spread footings are designed for the allowable bearing noted on

the drawings. Steel piles & prestress, precast concrete piles are of the capacity & size as shown on the drawings.
 Datum: All elevations refer to mean sea level 0.00.
 Spread Ftg. elevs are subject to change depending on foundation material encountered. Reinforcing steel for columns shall not be fabricated until final footing elevations have been determined in the field.
 All material & workmanship shall conform to the standard specifications for Highway Construction of the Oregon State Highway Commission.

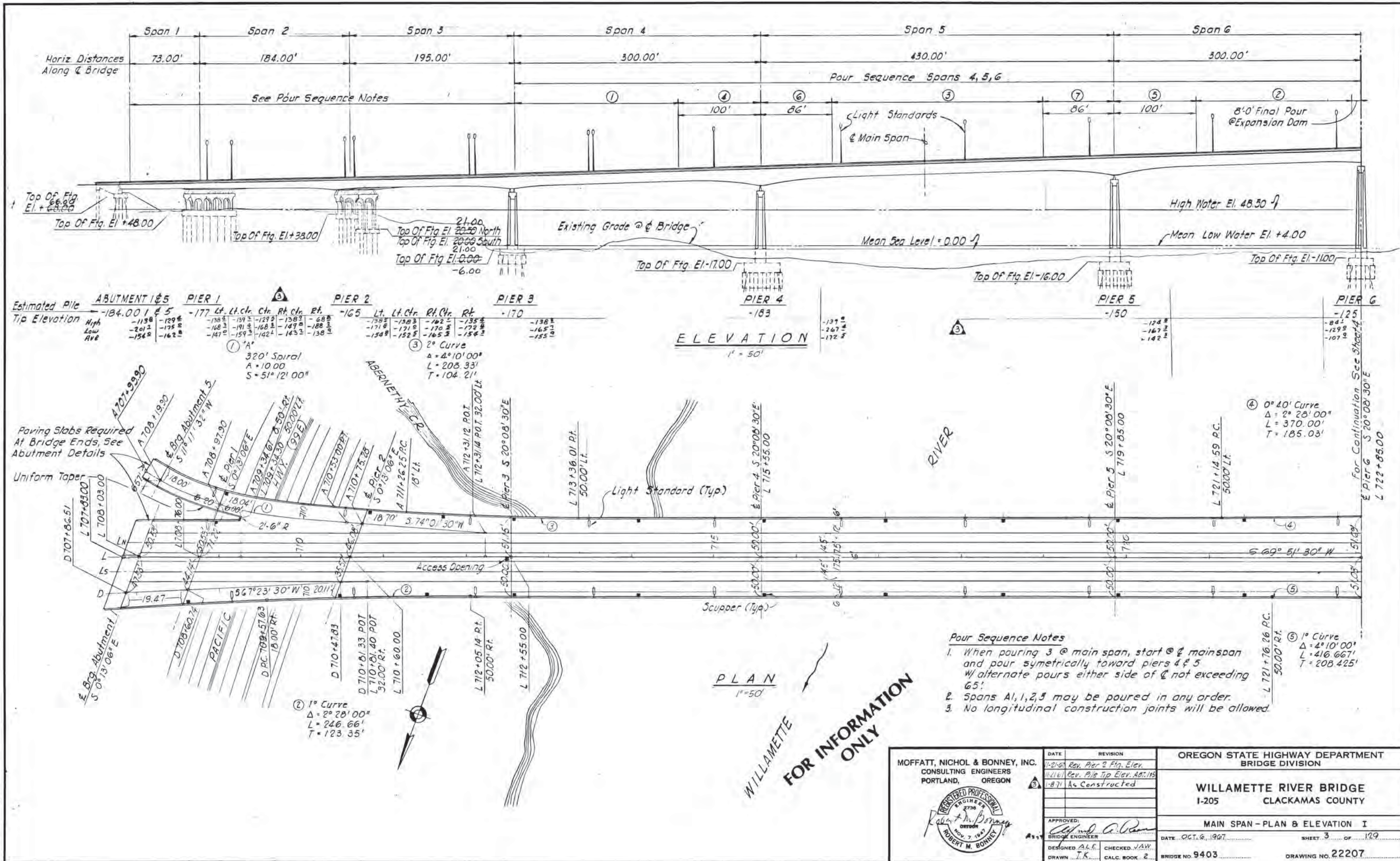


FOR INFORMATION ONLY

1-871 As Constructed

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	APPROVED: BRIDGE ENGINEER	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	DESIGNED: J.A.B. DRAWN: J.M.	CHECKED: H.R.N. CALC. BOOK:

RECEIVED FOR RECORDING
 JULY 3 1967



Estimated Pile Tip Elevation

Location	High	Low	Ave
ABUTMENT 1 & 5	-115.8	-201.2	-158.5
PIER 1	-138.5	-147.5	-143.0
PIER 2	-171.8	-152.5	-162.15
PIER 3	-138.5	-165.5	-152.0
PIER 4	-139.5	-247.5	-193.5
PIER 5	-124.8	-167.5	-146.15
PIER 6	-84.1	-129.5	-106.8

ELEVATION
1" = 50'

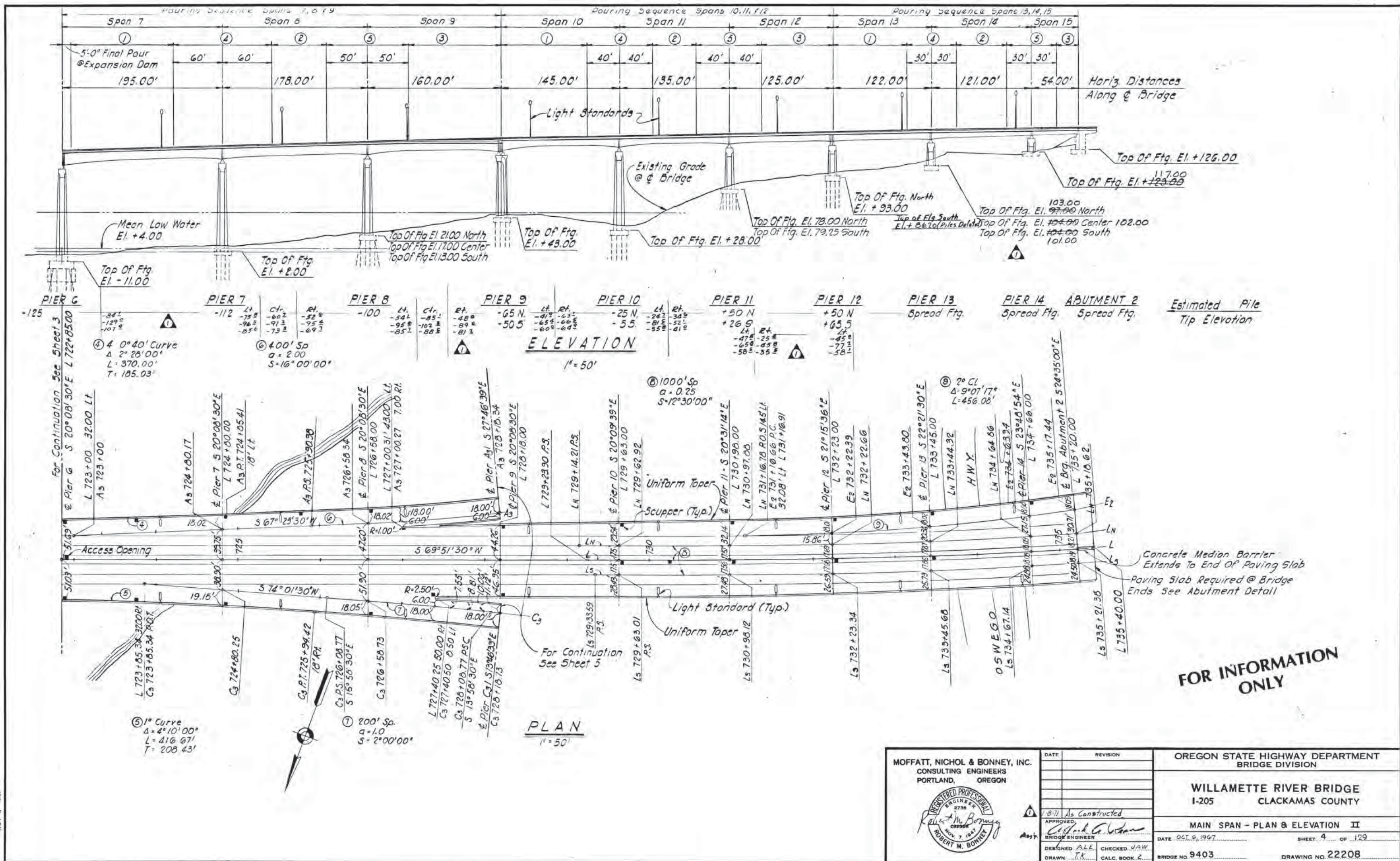
PLAN
1" = 50'

- Pour Sequence Notes**
- When pouring 3 @ main span, start @ main span and pour symmetrically toward piers 4 & 5 w/ alternate pours either side of @ not exceeding 65'.
 - Spans 1, 2, 5 may be poured in any order.
 - No longitudinal construction joints will be allowed.

WILLAMETTE
FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-2-68	Rev. Pier 2 Ftg. Elev.	
	1-11-61	Rev. Pile Tip Elev. Abt. 115	WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
	1-8-71	As Constructed	
APPROVED:	DATE	DATE	SHEET
	OCT. 6, 1967		3 OF 129
DESIGNED ALE	CHECKED JAW	BRIDGE NO. 9403	DRAWING NO. 22207
DRAWN T.K.	CALC. BOOK 2		

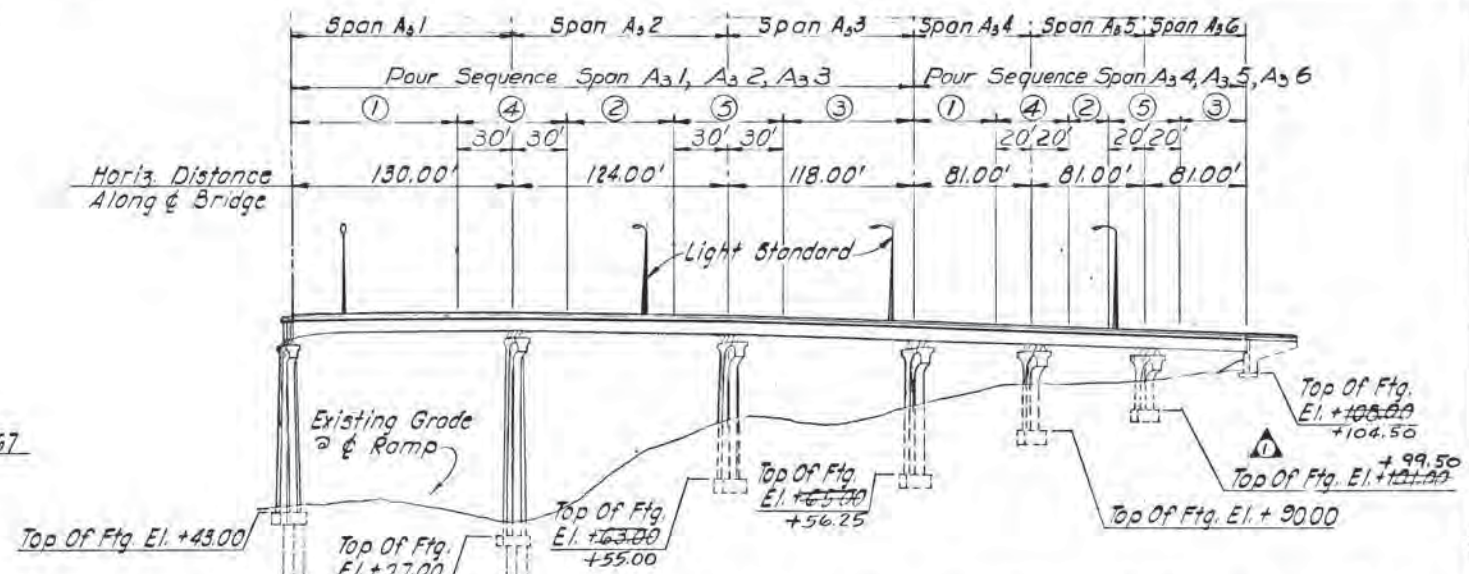
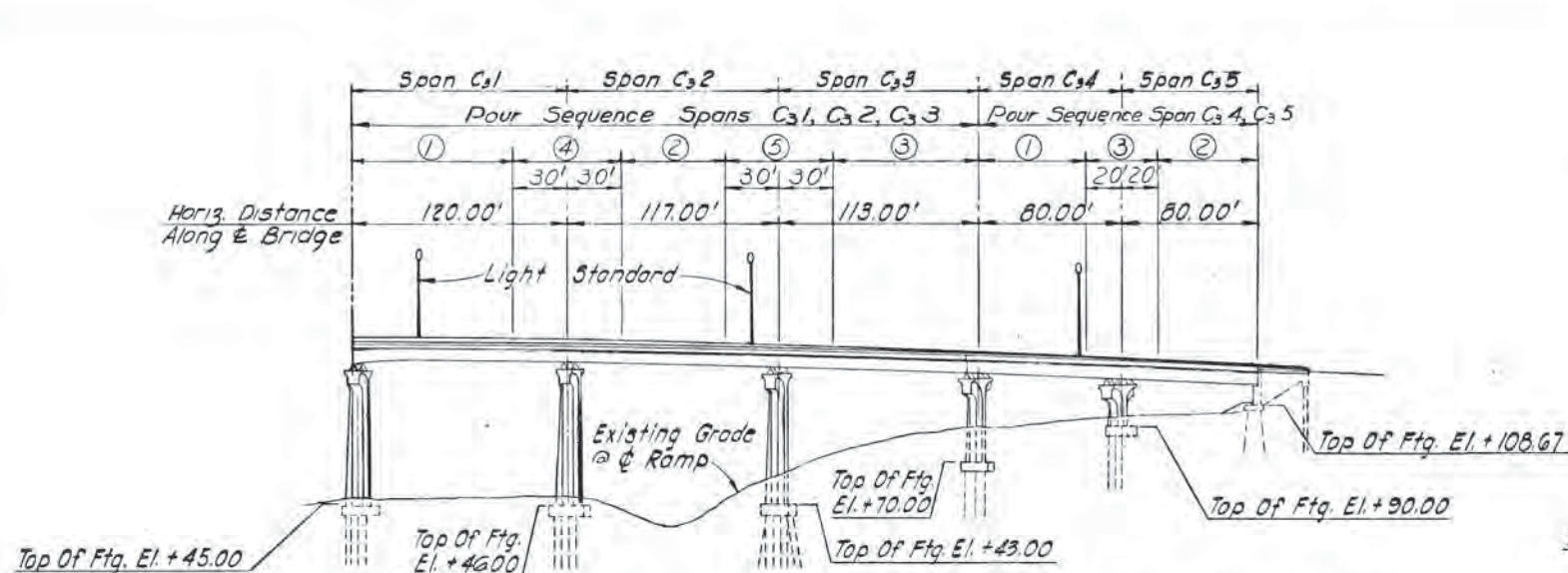
NO. 100 BROWN TUBE
A-V-1067



FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-8-71 As Constructed		
APPROVED BRIDGE ENGINEER 	DESIGNED ALE DRAWN T.K.	CHECKED J.A.W. CALC. BOOK 2	MAIN SPAN - PLAN & ELEVATION II DATE OCT. 9, 1967 BRIDGE NO. 9403
			SHEET 4 OF 129 DRAWING NO. 22208

NOV 3 1967



Estimated Pile Tip Elevation

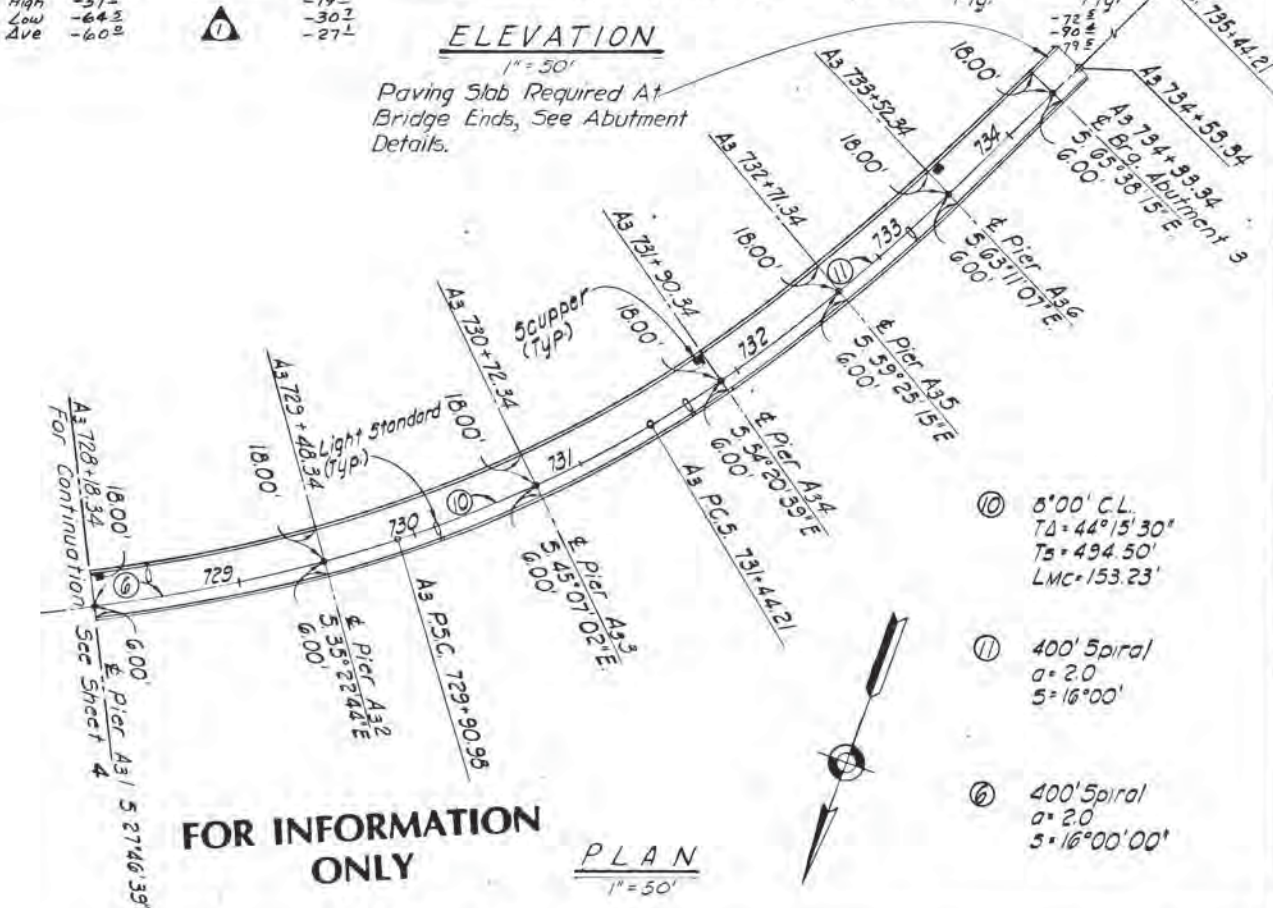
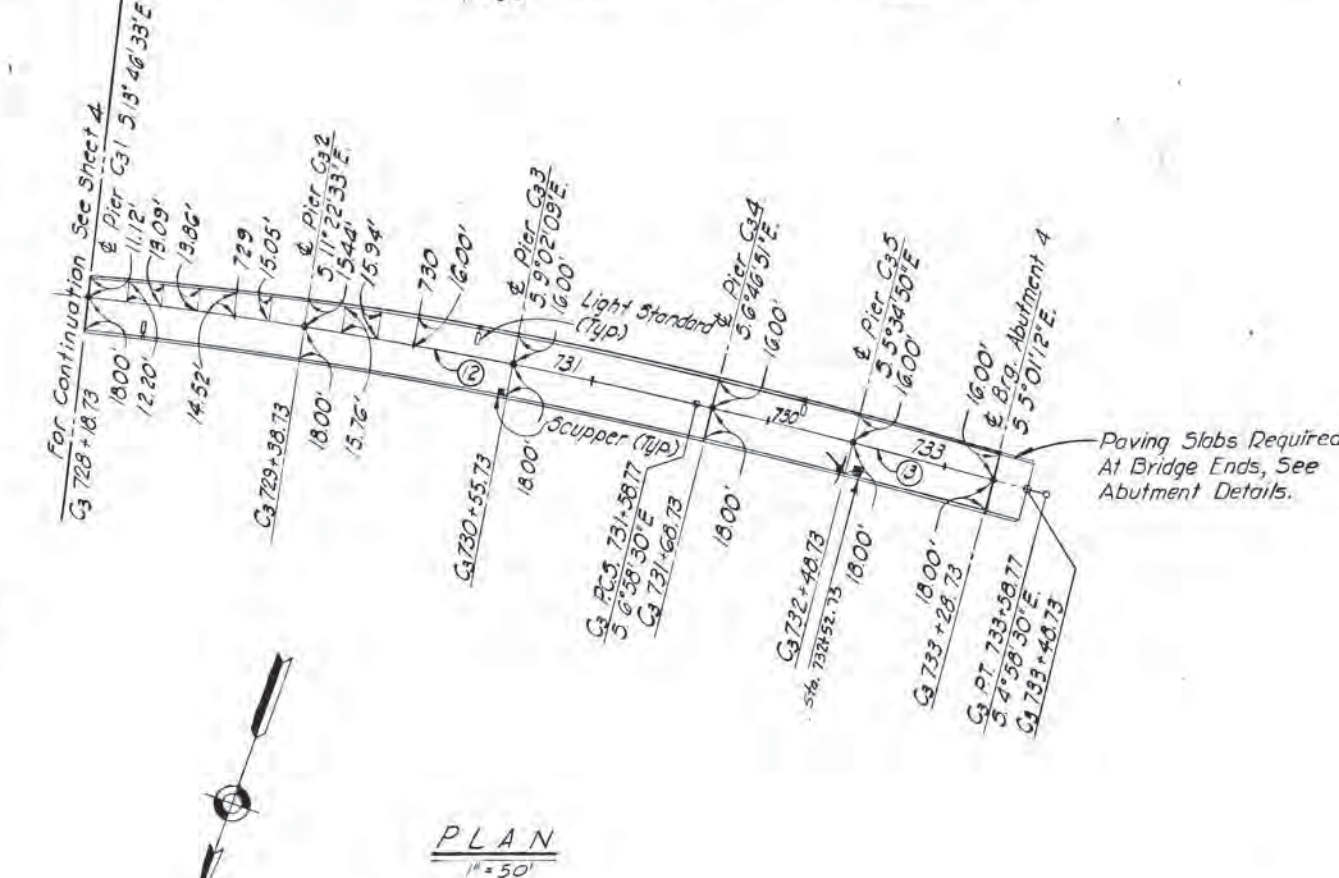
Structure	High	Low	Ave
PIER C ₃₁	-72	-67	-69.5
PIER C ₃₂	-53	-48	-50.5
PIER C ₃₃	-36	-21	-28.5
PIER C ₃₄	-10	-1	-5.5
PIER C ₃₅	+14	+7	+10.5
ABUTMENT 4	+59	+103	+81

ELEVATION 1" = 50'

Estimated Pile Tip Elevation

Structure	High	Low	Ave
PIER A ₃₁	-42	-37	-39.5
PIER A ₃₂	-10	-19	-14.5
PIER A ₃₃	-	-	-
PIER A ₃₄	-	-	-
PIER A ₃₅	-	-	-
PIER A ₃₆	-	-	-
ABUTMENT 3	-72	-67	-69.5

ELEVATION 1" = 50'

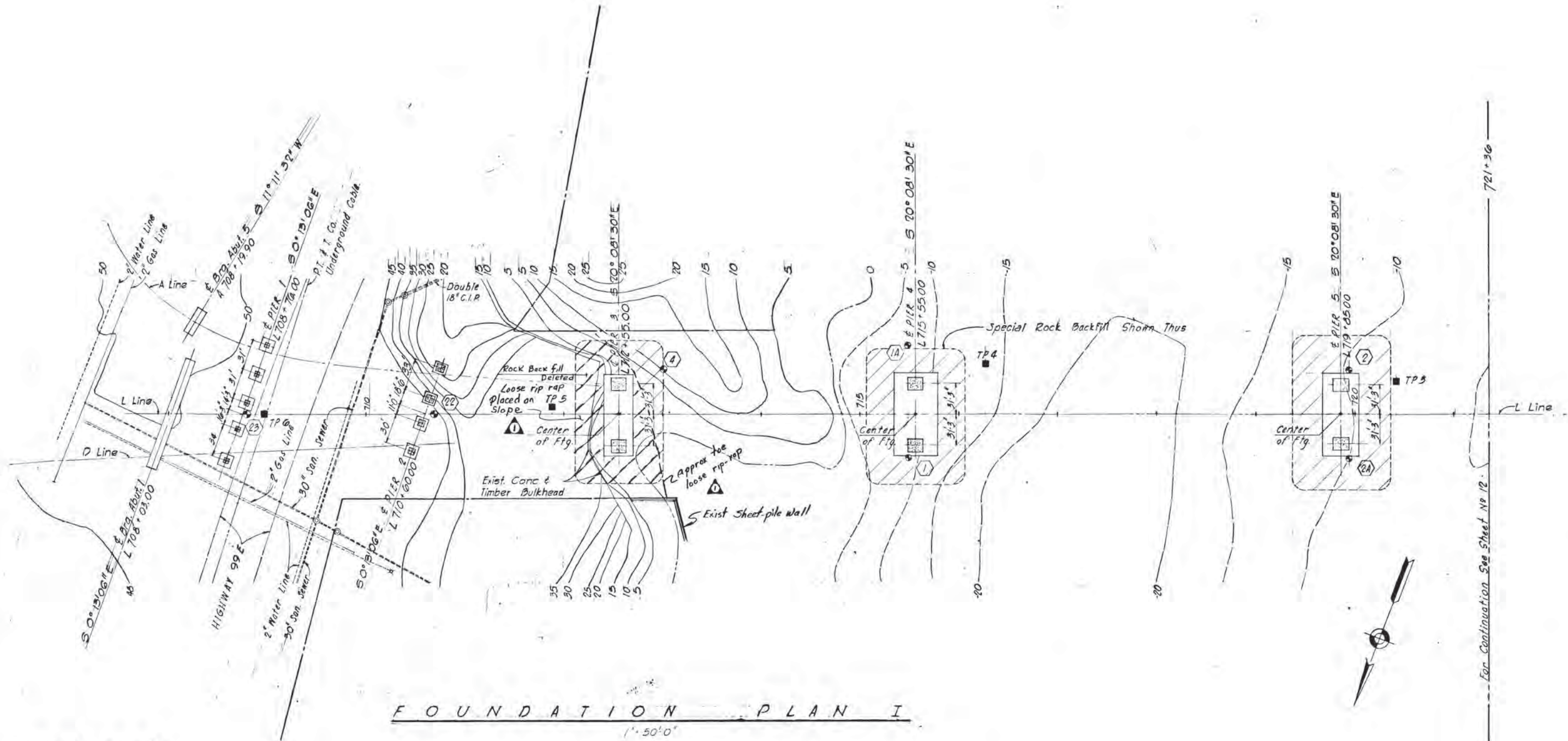


- ② 2° C.R.
T_A = 11° 00' 00"
T_B = 375.90'
LMC = 350.00'
- ③ 200' Spiral
a = 1.0
5 = 2° 00'

- ⑥ 5' 00" C.L.
T_A = 44° 15' 30"
T_B = 494.50'
LMC = 153.23'
- ⑦ 400' Spiral
a = 2.0
5 = 16° 00'
- ⑧ 400' Spiral
a = 2.0
5 = 16° 00' 00"

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY RAMPS A ₃ B C ₃ - PLAN & ELEVATION DATE OCT. 9, 1967 SHEET 5 OF 129 BRIDGE NO. 9403 DRAWING NO. 22209
	1-8-11 As Constructed APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER DESIGNED: A.L.E. CHECKED: M.A.W. DRAWN: F.V.R. CALC. BOOK 2		

REVISIONS FOR BIDDING PLAN
 NOV. 8, 1967



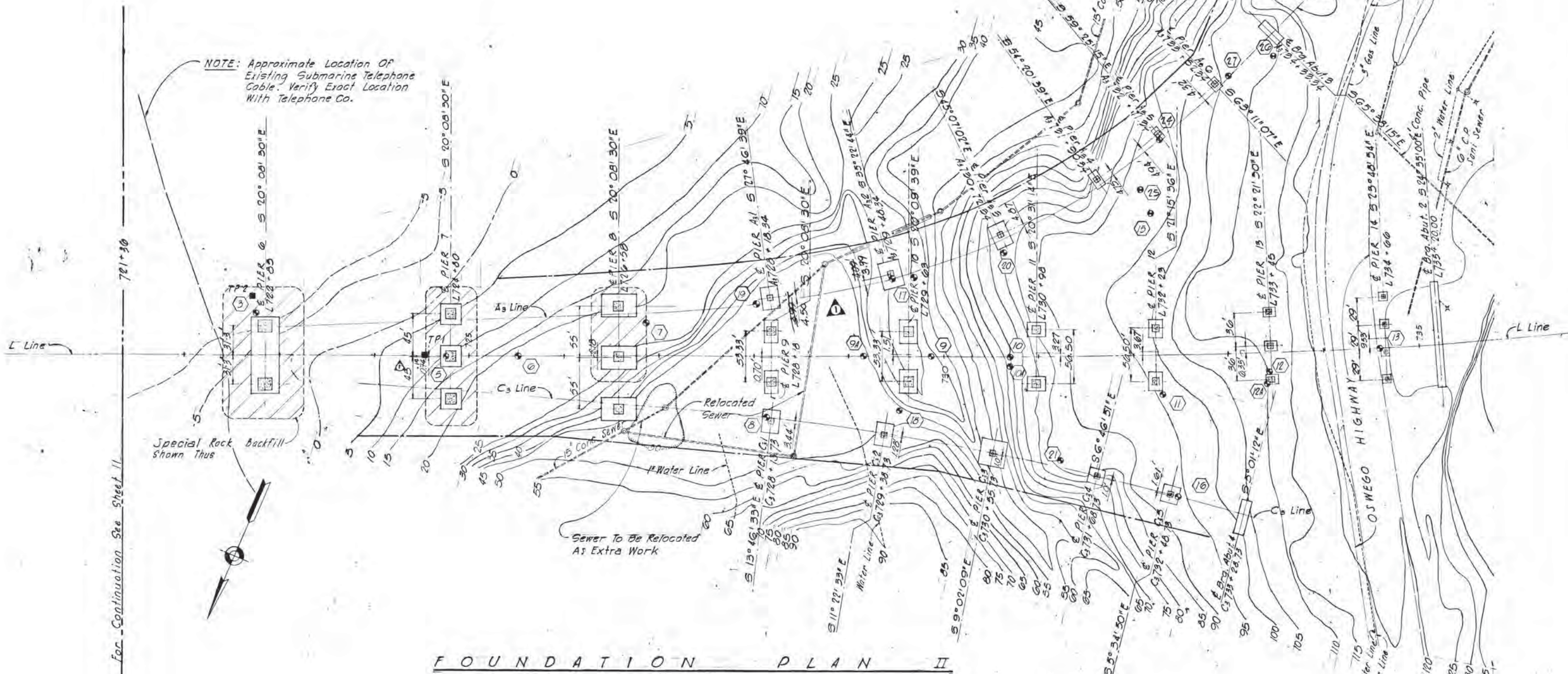
FOUNDATION PLAN I
1" = 50' 0"

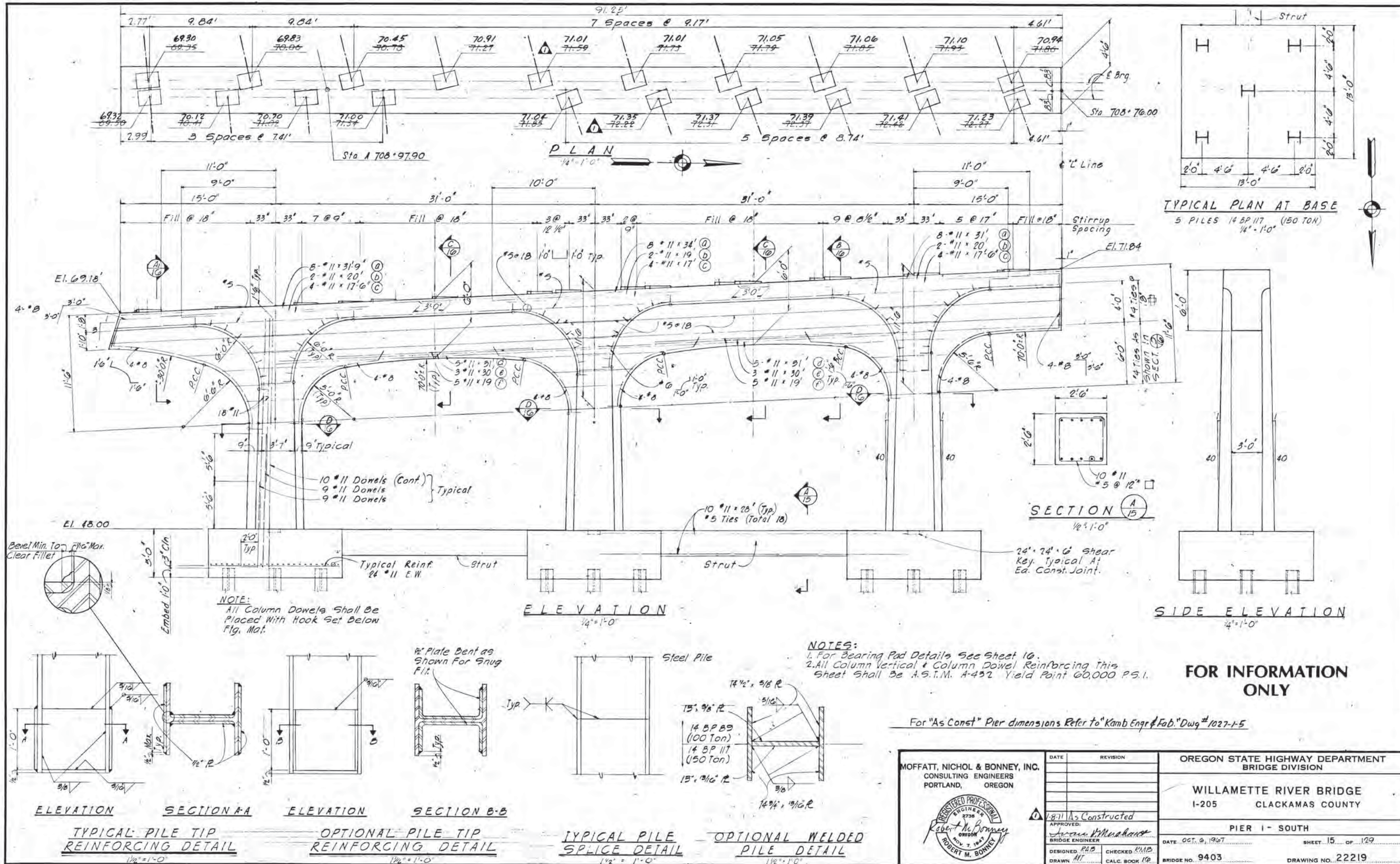
LEGEND

- (B) ⊕ BORINGS
- CONTOURS (EXISTING)
- CONTOURS (EXISTING)
- WATER LINE
- UNDERGROUND CABLE
- GAS LINE
- SEWER
- TP 2 TEST PILE NO 2
- RIGHT OF WAY

NOTE:
For Details Of Rock Backfill See Sheet 21

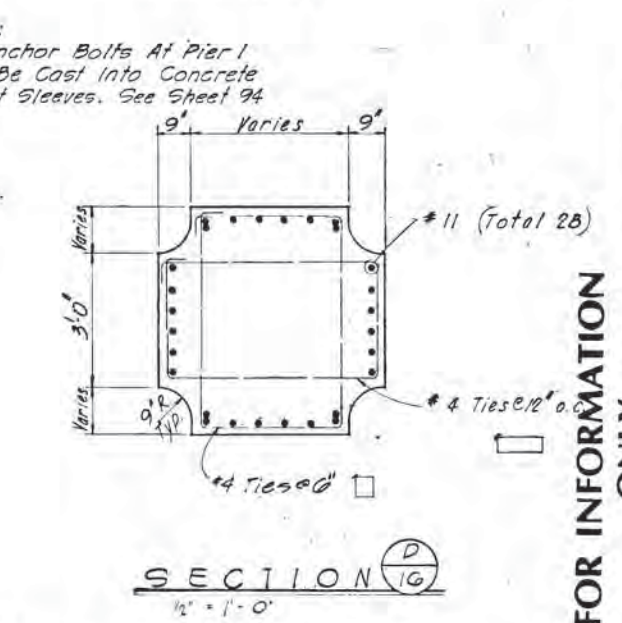
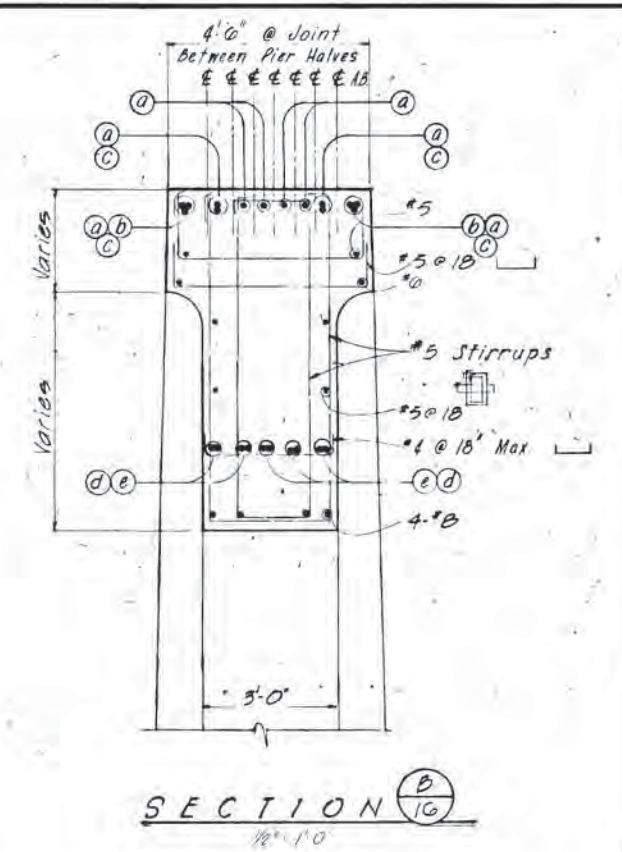
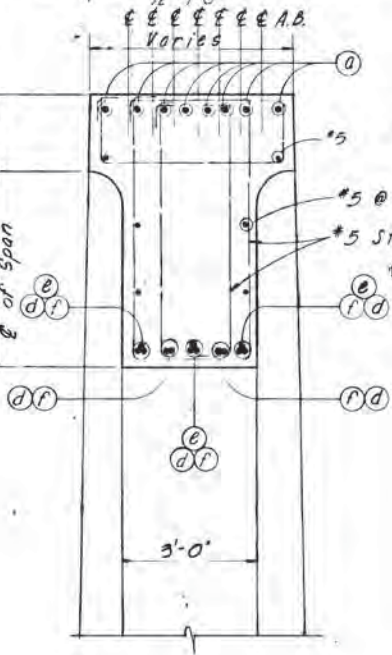
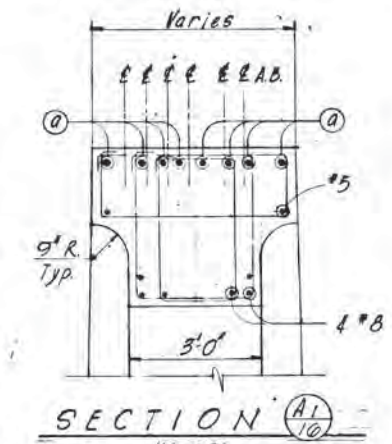
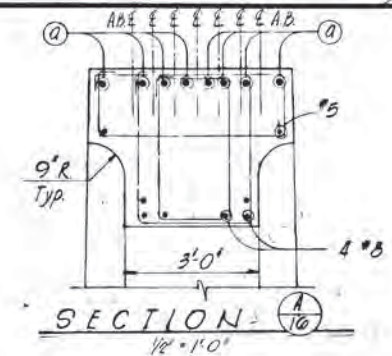
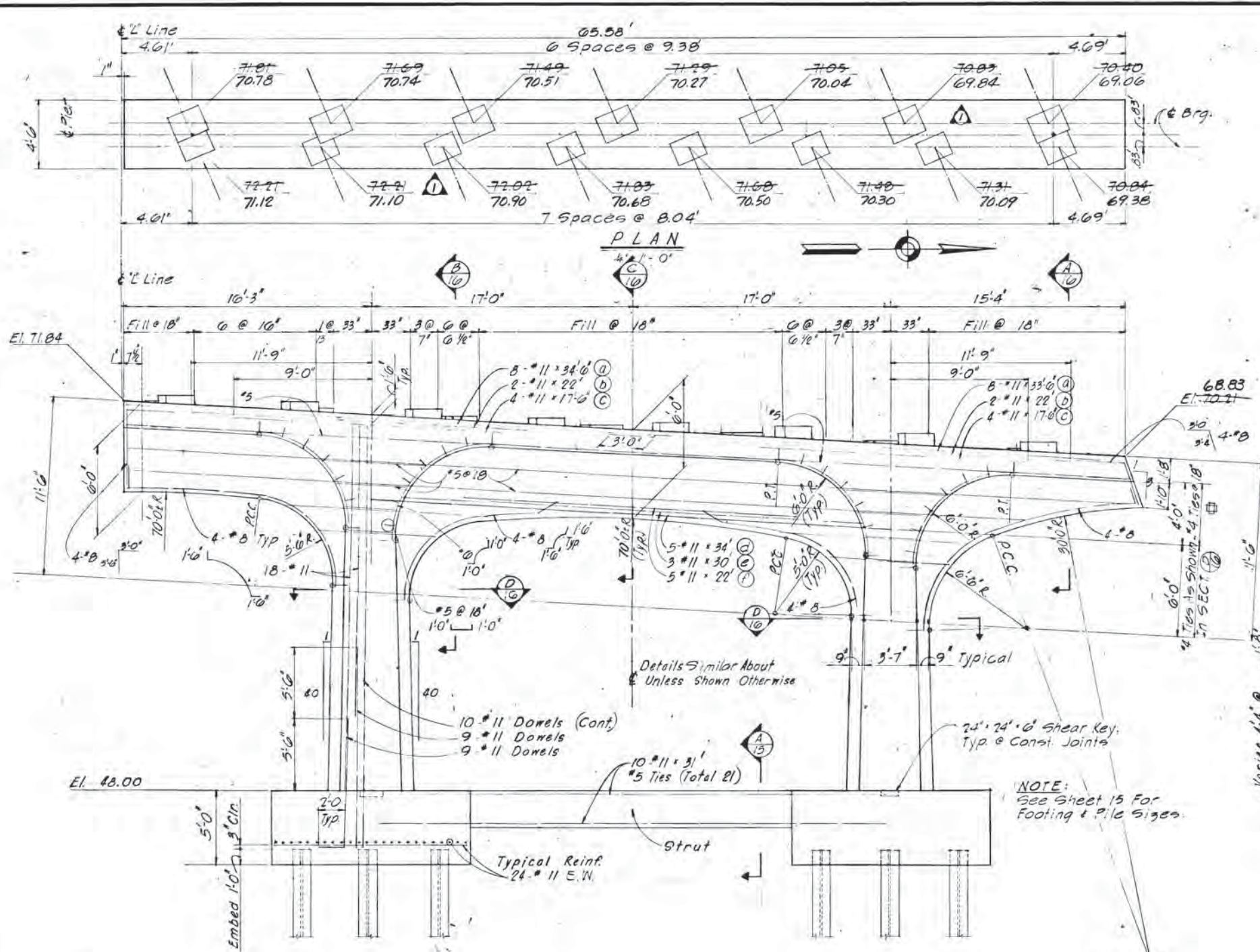
MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY FOUNDATION PLAN I
	APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER		
DESIGNED CSW DRAWN AVT	CHECKED RMB CALC. BOOK	1-871 As Constructed DATE OCT. 2, 1967 BRIDGE NO. 9403	SHEET 11 OF 129 DRAWING NO. 22215





MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	APPROVED: [Signature] BRIDGE ENGINEER	DESIGNED: P.A.P. DRAWN: M.T.	
REGISTERED PROFESSIONAL ENGINEER 2730 Robert M. Bonney OREGON NOV 7, 1947 ROBERT M. BONNEY	1-871 As Constructed		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
	DATE: OCT. 9, 1967		
BRIDGE NO. 9403			DRAWING NO. 22219

DESIGNED FOR GENERAL PLAN
 NOV 3 1967

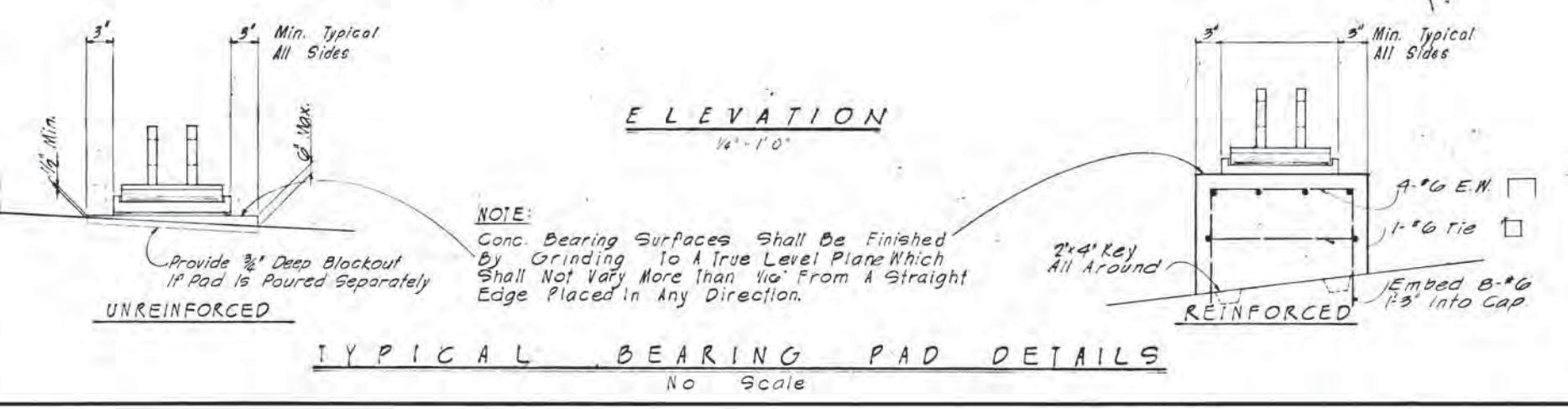


NOTE:
All Anchor Bolts At Pier 1
Shall Be Cast Into Concrete
Without Sleeves. See Sheet 94

NOTES
1. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
2. All Column Vertical & Column Dowel Reinforcing This
Sheet Shall Be A.S.T.M. A-432 Yield Point 60,000 P.S.I.

For "As Const" dimensions refer to "Kamb Engr & Fab" Dwg #1027-1-N

FOR INFORMATION ONLY

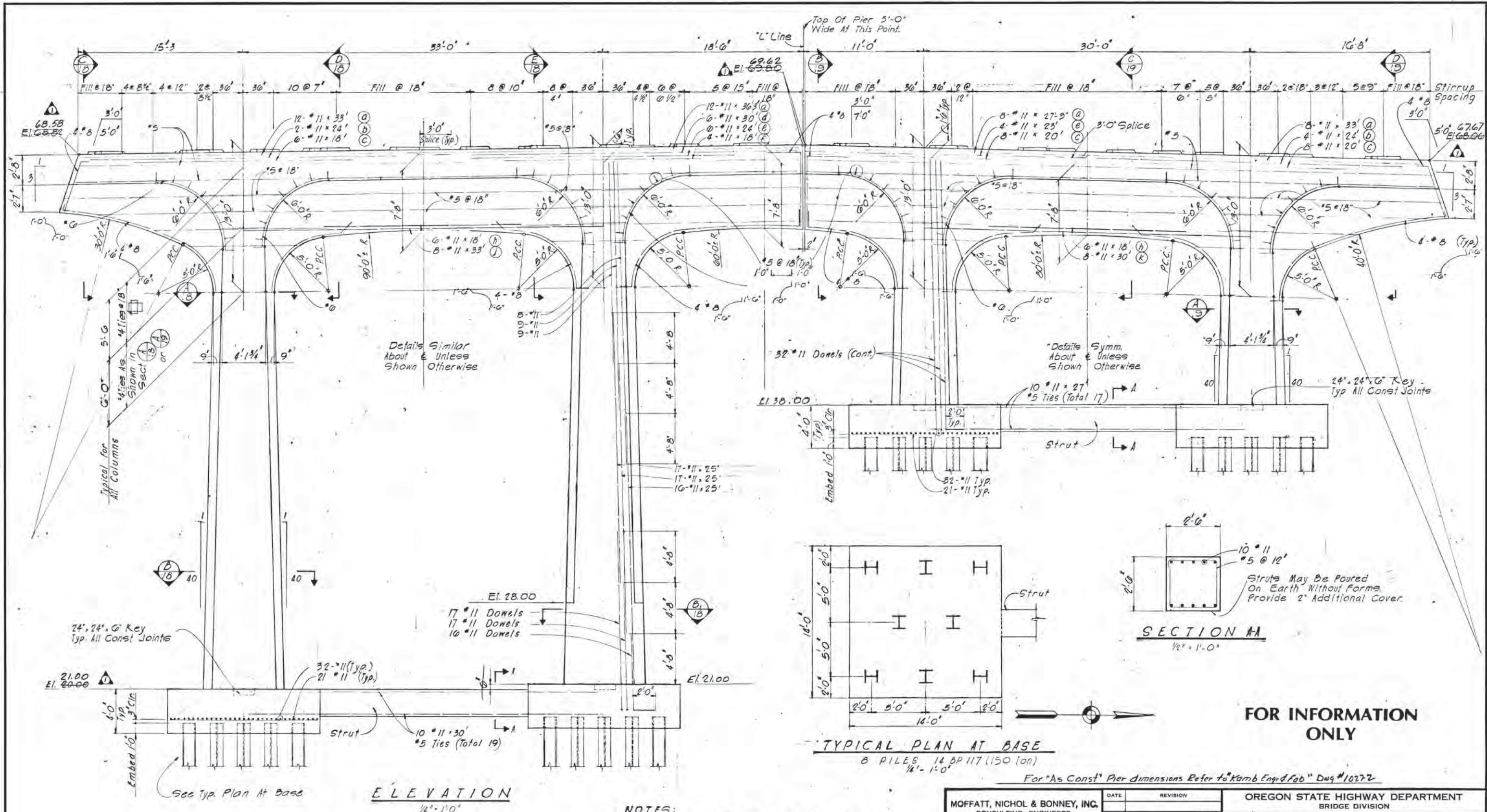


NOTE:
Conc. Bearing Surfaces Shall Be Finished
By Grinding To A True Level Plane Which
Shall Not Vary More Than 1/16" From A Straight
Edge Placed In Any Direction.

TYPICAL BEARING PAD DETAILS
No Scale

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
			WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
REGISTERED PROFESSIONAL ENGINEER Robert M. Bonney 2730 NOV. 7, 1947	APPROVED: Robert M. Bonney BRIDGE ENGINEER		PIER I - NORTH	
	DESIGNED: K.A.B.	CHECKED: R.M.B.	DATE: OCT. 9, 1967	SHEET: 16 OF 129
DRAWN: A.K.T.	CALC.: B.O.K.	BRIDGE NO.: 9403	DRAWING NO.: 22220	

NOV 3 1967



ELEVATION
1/4" = 1'-0"

TYPICAL PLAN AT BASE
1/4" = 1'-0"

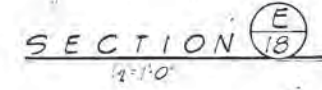
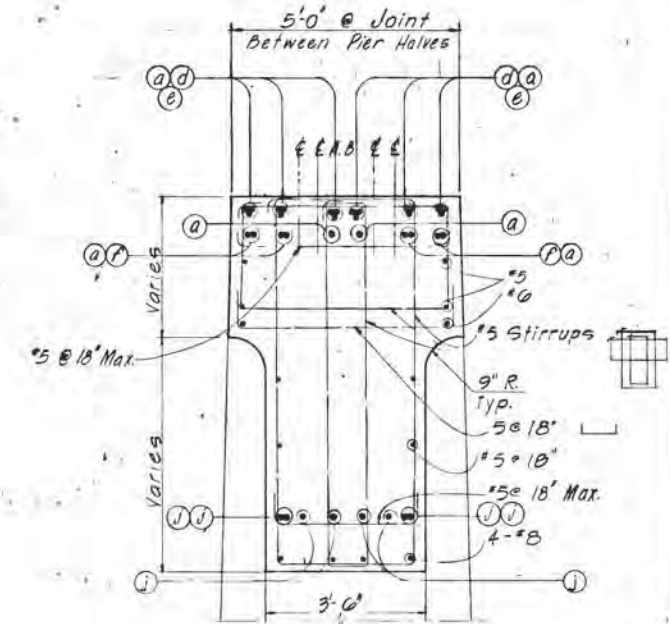
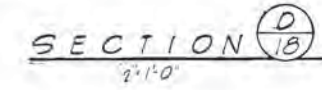
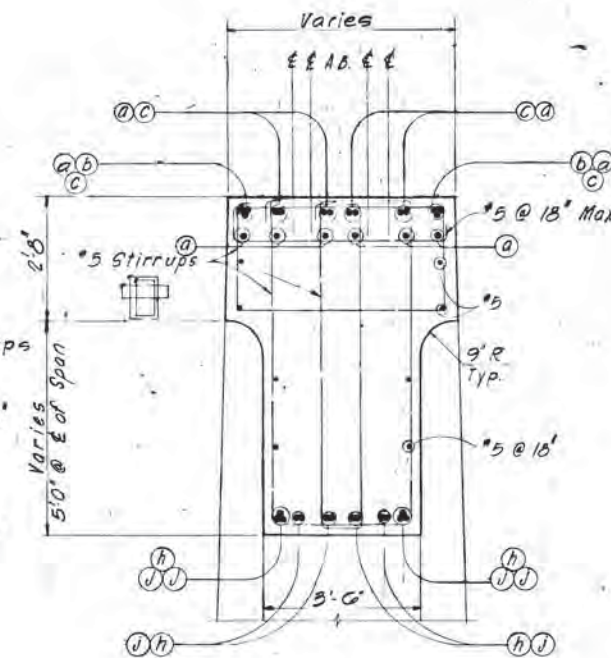
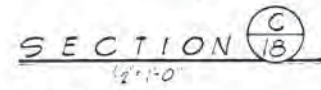
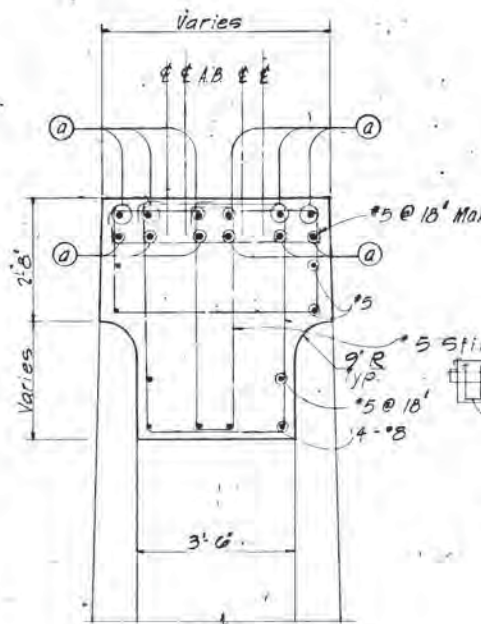
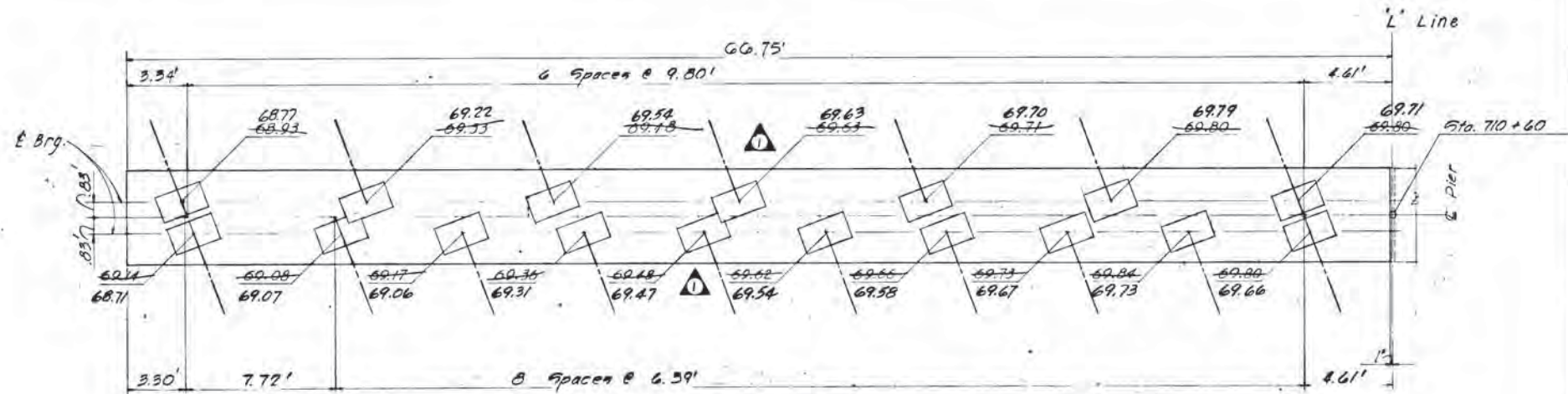
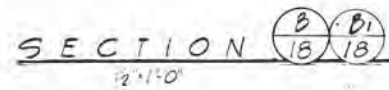
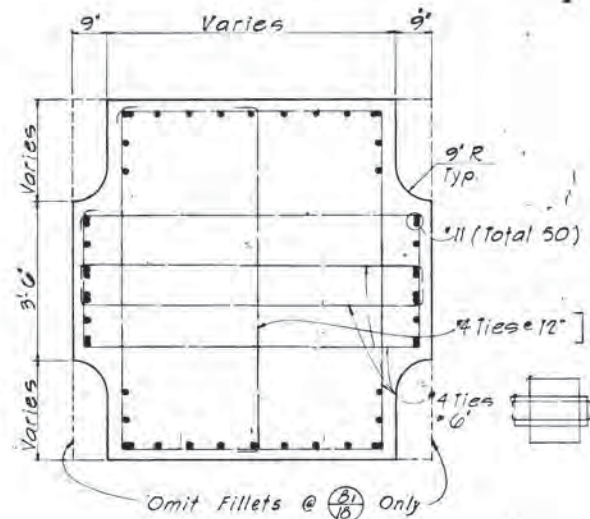
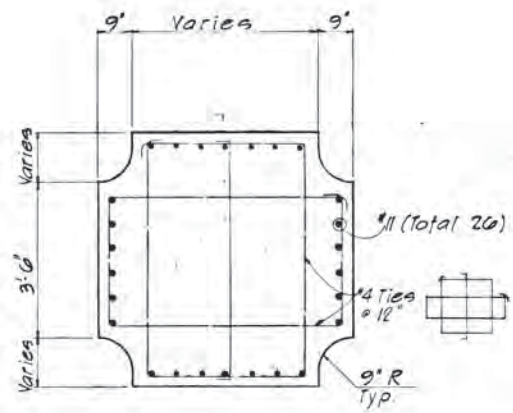
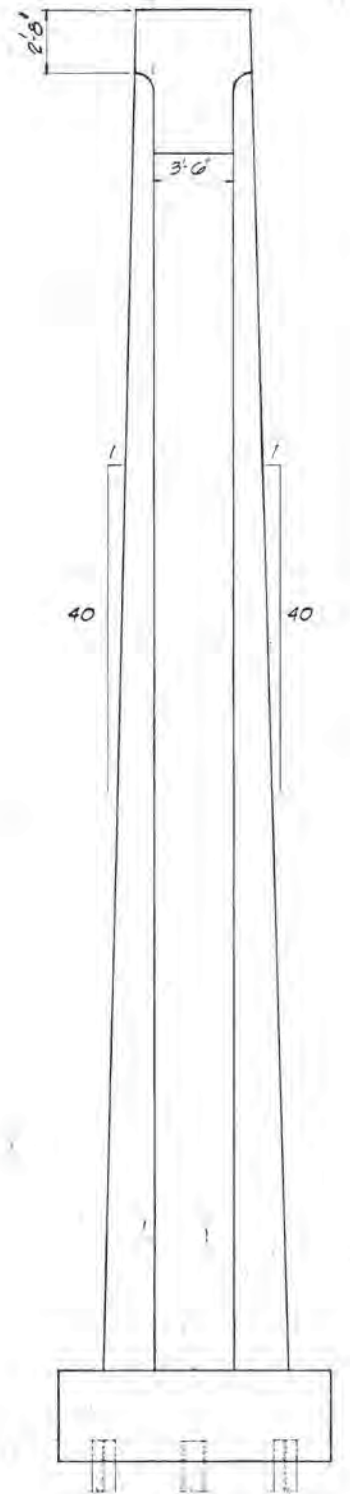
SECTION AA
1/2" = 1'-0"

NOTES:
1. For Bearing Pad Details See Sheet 16.
2. For Pile Tip Reinforcing & Pile Splicing Dtls. See Sheet 15.

FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 2
	1-8-71 As Constructed APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER DESIGNED: <i>AVD</i> DRAWN: <i>AVT</i>	CHECKED: <i>RMB</i> CALC. BOOK 17	

REVIEWED FOR RECORDS PLAN
 11/7/3 367

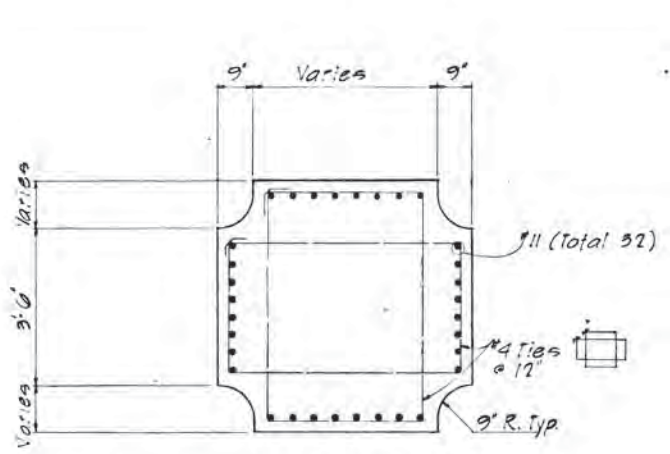


GENERAL CONCRETE NOTES

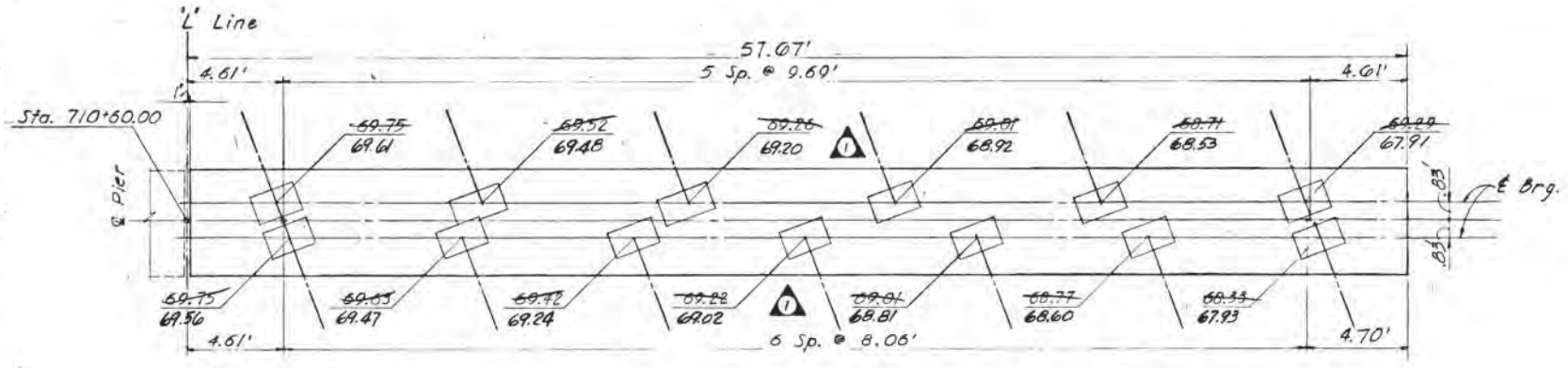
1. All Exposed Concrete Edges Shall Be Formed To Produce A Rounded Edge Having A Radius Of 1/2".
2. Minimum Concrete Cover Of Reinforcing Steel.
 - a. 3" Above Pier Tops & Sides Of Footings
 - b. 3" Concrete Poured On Ground.
 - c. 3" To Main Reinforcing (Longit. Reinf.) In Columns & Beams.
 - d. Deck Slabs, See Drawings.
 - e. 2" All Other Reinforcing.
3. Bundled Bars Indicated By Symbol \square Or Noted.
 - a. Minimum Spacing @ 1/2" o.c. In Any Direction.
 - b. Bundles Of Bars Shall Be Tied Together With #14 Wire Ties At 6'-0" o.c. Maximum.
 - c. Bundles Of Bars Shall Be Limited To 3 Bars Including Splice Or Dowel Bars.
4. All Column Dowels Shall Be Placed With Hook Set Below Footing Mat.

FOR INFORMATION ONLY

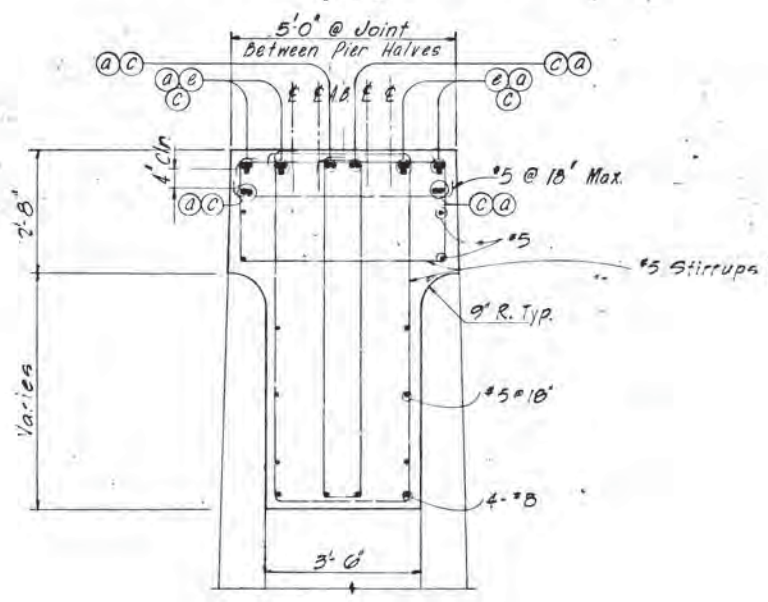
MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	APPROVED: <i>Robert M. Bonney</i>		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
	BRIDGE ENGINEER		
DESIGNED: A.V.D.	CHECKED: R.M.B.	DATE: OCT. 6, 1967	SHEET 18 OF 129
DRAWN: J.E.K.	CALC. BOOK: 17	BRIDGE NO.: 9403	DRAWING NO.: 22222



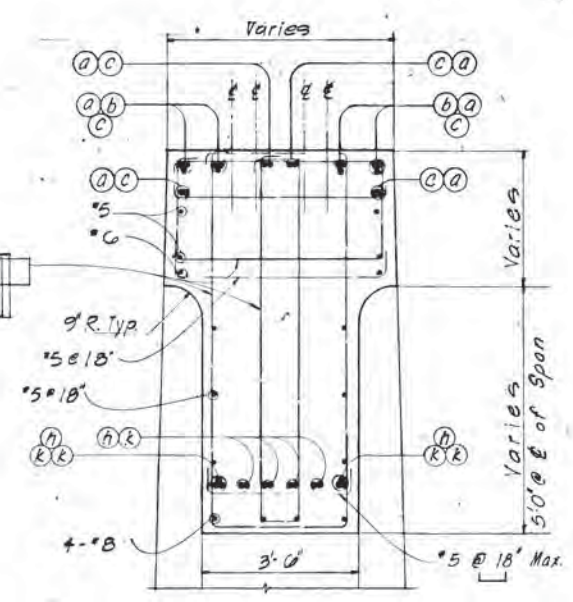
SECTION A-19
1/2" = 1'-0"



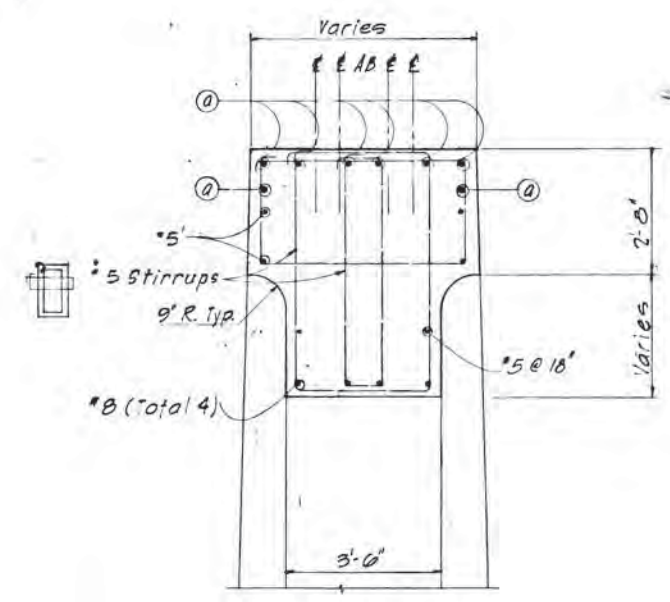
PLAN
1/4" = 1'-0"



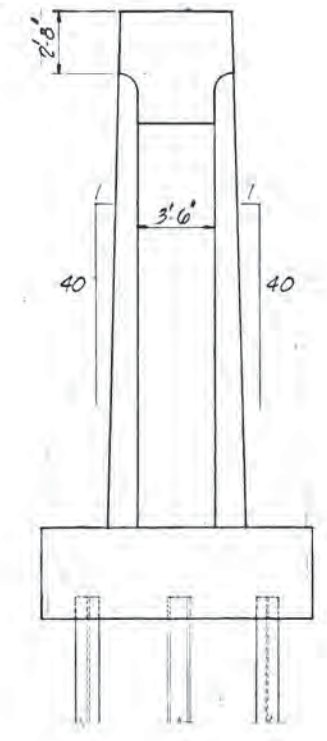
SECTION B-19
1/2" = 1'-0"



SECTION C-19
1/2" = 1'-0"



SECTION D-19
1/2" = 1'-0"

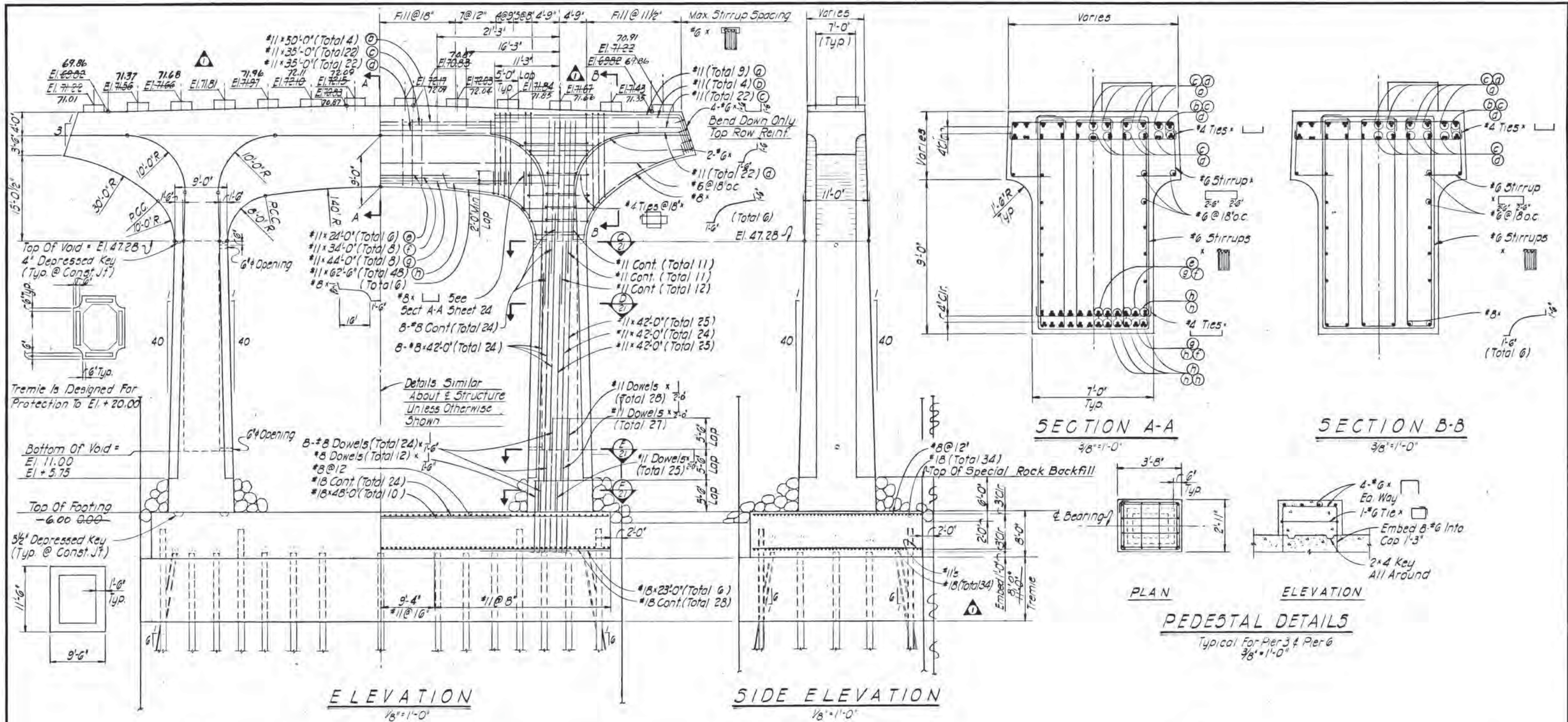


SIDE ELEVATION
1/4" = 1'-0"

FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-871 As Constructed		WILLAMETTE RIVER BRIDGE 1-205 CLACKAMAS COUNTY
	APPROVED: <i>Robert M. Bonney</i>		
DESIGNED: <i>AVD</i>	CHECKED: <i>RMB</i>	DATE: <i>OCT. 6, 1967</i>	SHEET 19 OF 129
DRAWN: <i>JEK</i>	CALC. BOOK: 17	BRIDGE NO.: 9403	DRAWING NO.: 22223

NOV 3 1967



NOTE


The depth of seal shown for Piers 3, 4, 5 & 6 may be reduced in the field as directed by the Engineer based on his evaluation of the probable river elevations during construction and dewatering of cofferdams. If any seal is so reduced in depth, it will be by raising the bottom elevation of the seal and the pay quantities for structural excavation within cofferdams and seal concrete will be adjusted accordingly. The unit prices bid for these items shall apply for payment regardless of any change in quantity caused by such change in seal depth.

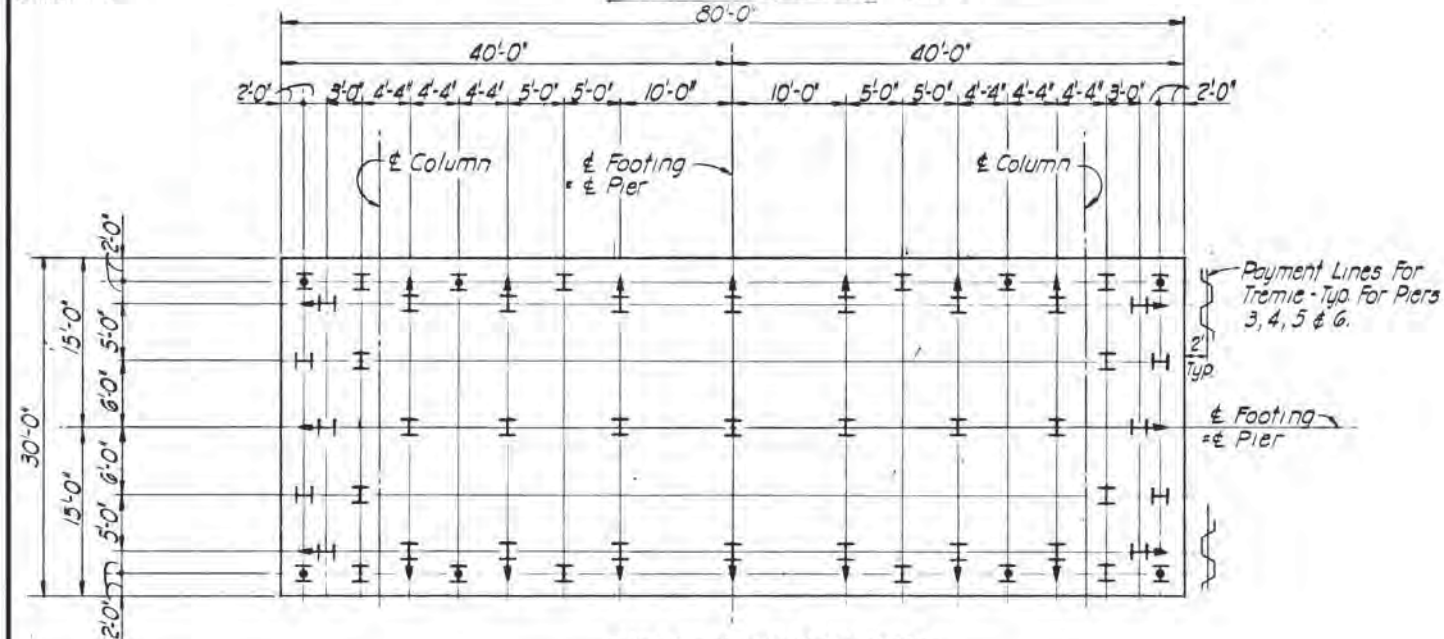
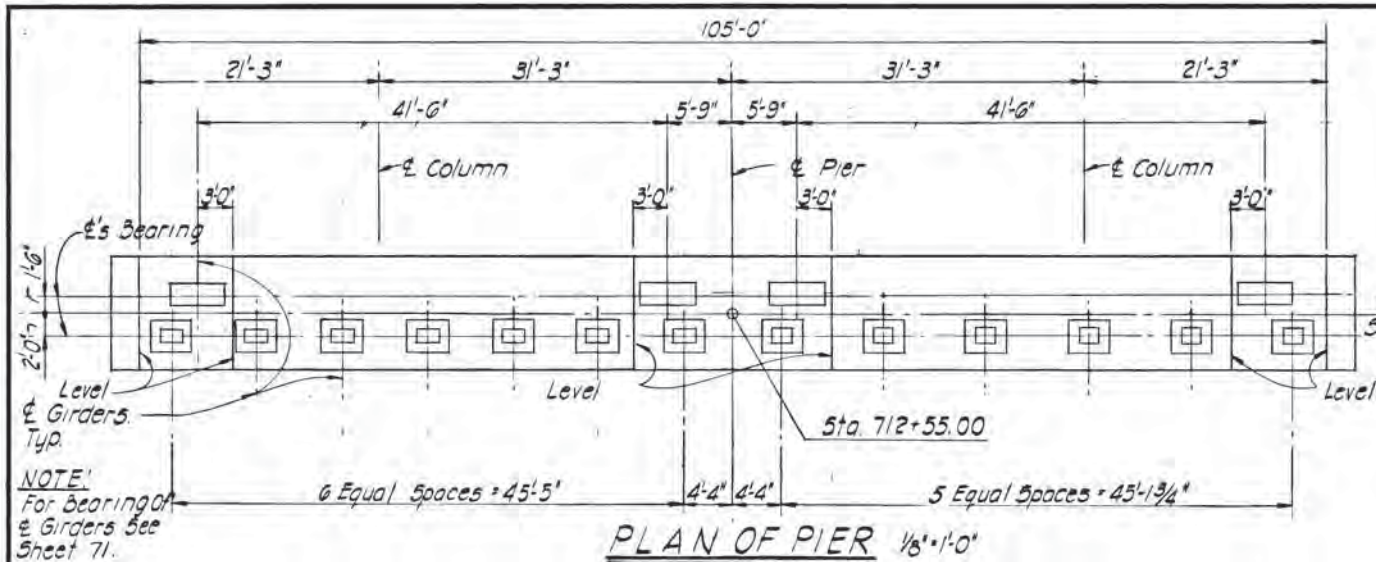
NOTE:

All column vertical & column dowel reinforcing this sheet shall be A.S.T.M. A-432 Yield point 60,000 psi

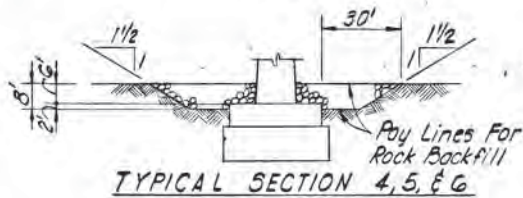
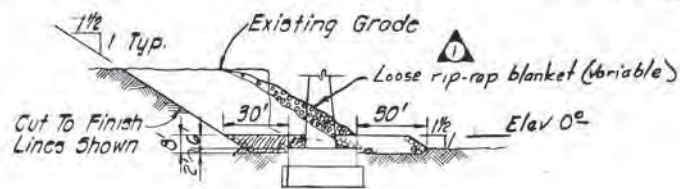
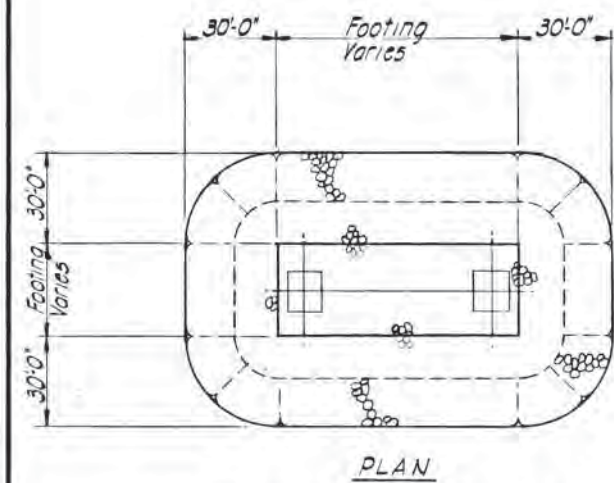
FOR INFORMATION ONLY

For "As Const" Pier dimension Refer to "Kamb Eng & Fab" DWG 1027-3

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE 1-205 CLACKAMAS COUNTY PIER 3
	APPROVED: Robert M. Bonney BRIDGE ENGINEER	1-8-71 As Constructed	
DESIGNED: A.L.L. DRAWN: G.V.R.	CHECKED: H.R.N. CALC. BOOK 3	BRIDGE NO. 9403 DRAWING NO. 22224	

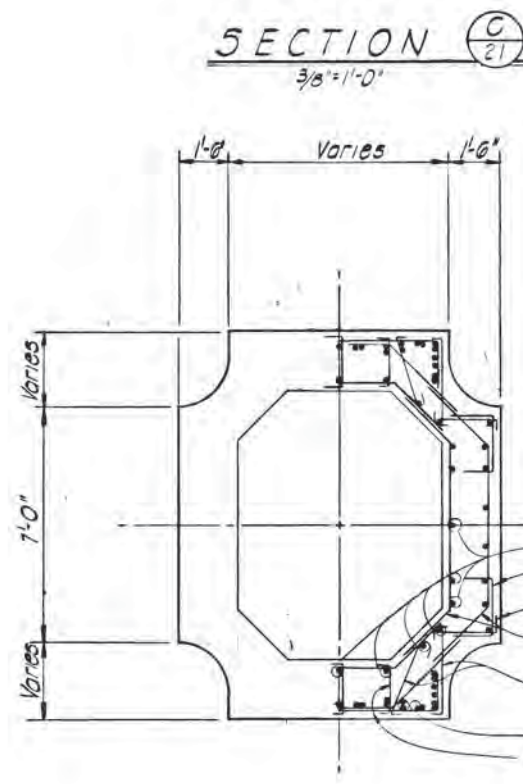
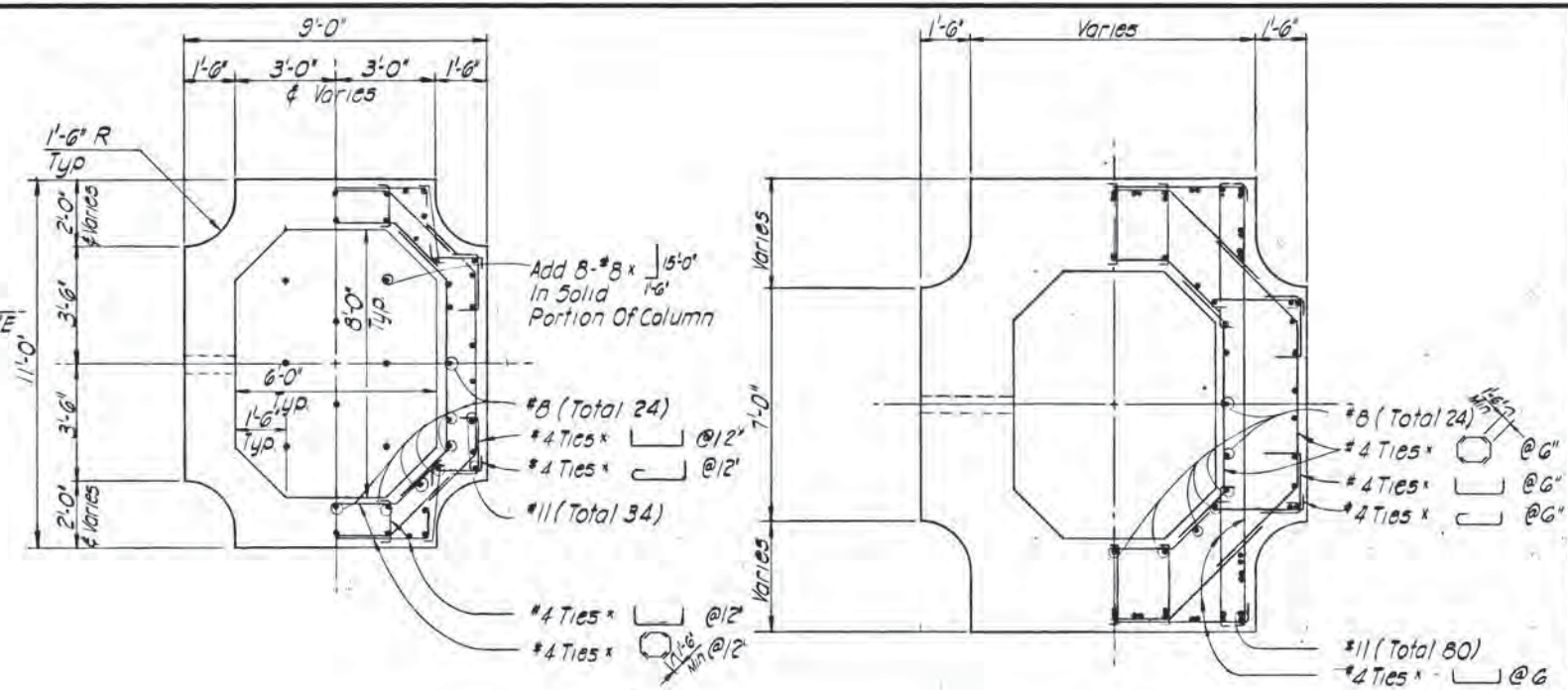


Total 51 - 150 Ton Piles - 143P117

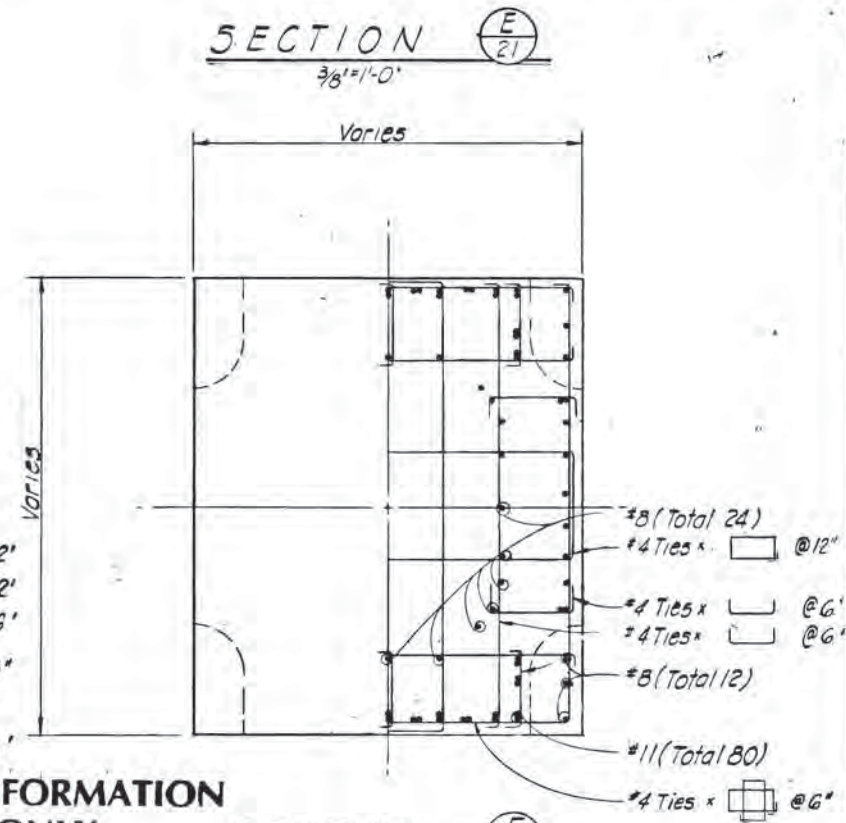


NOTES:

- I Piles noted thus shall extend thru seal & 5'-0" into footing.
- I Piles noted thus shall be battered at 1:6 in direction of arrow & shall extend thru seal & 1'-0" into footing.
- I Piles noted thus shall extend 1'-0" into footing.



SECTION D 21 3/8"=1'-0"



SECTION F 21 3/8"=1'-0"

FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



DATE	REVISION
1-8-71	As Constructed
APPROVED:	
BRIDGE ENGINEER	
DESIGNED: ALC	CHECKED: HRN
DRAWN: EYR	CALC. BOOK: 3

OREGON STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION

WILLAMETTE RIVER BRIDGE
1-205 CLACKAMAS COUNTY

PIER 3 - DETAILS

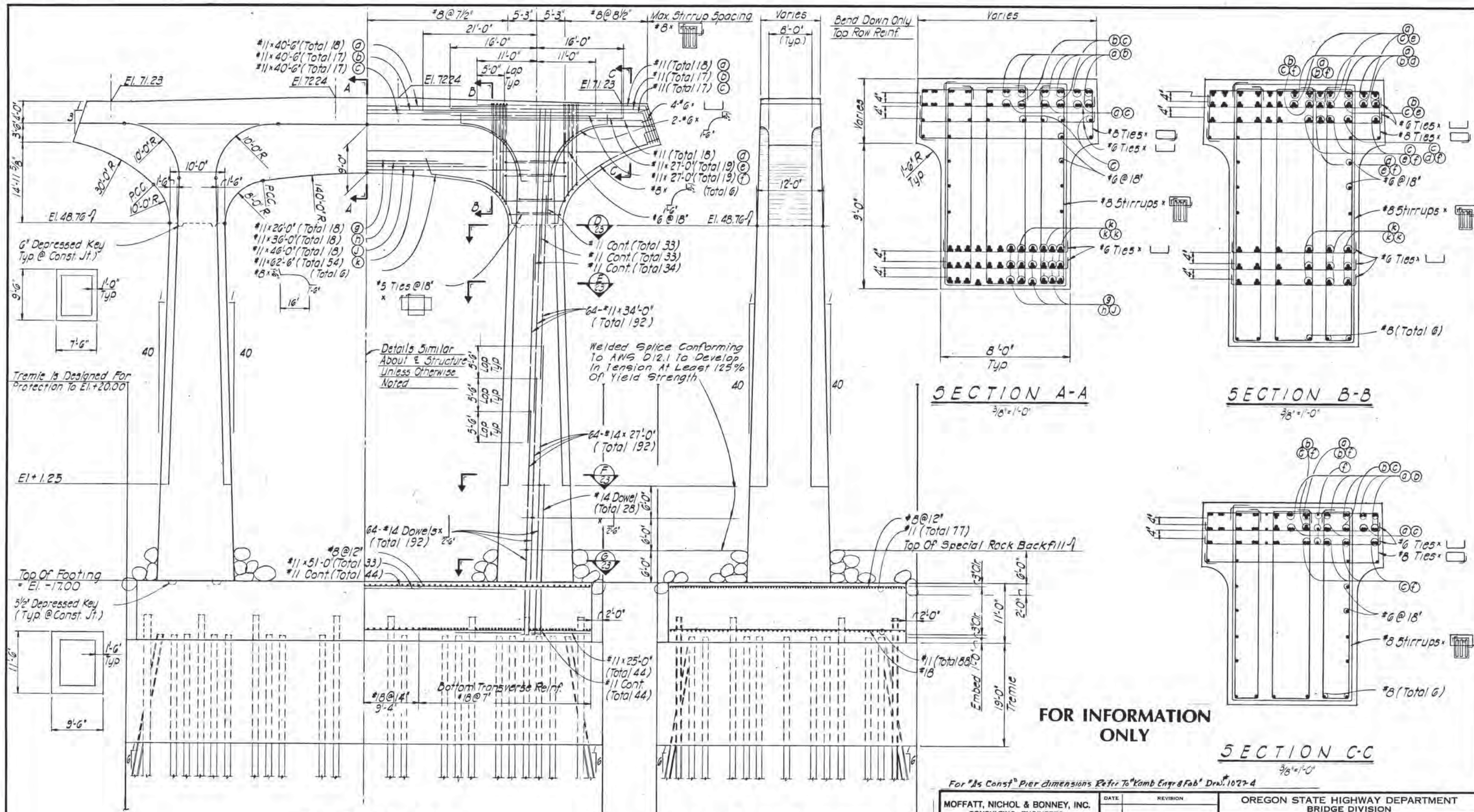
DATE OCT. 2, 1967

SHEET 21 OF 129

BRIDGE NO. 9403


DRAWING NO. 22225

No Scale

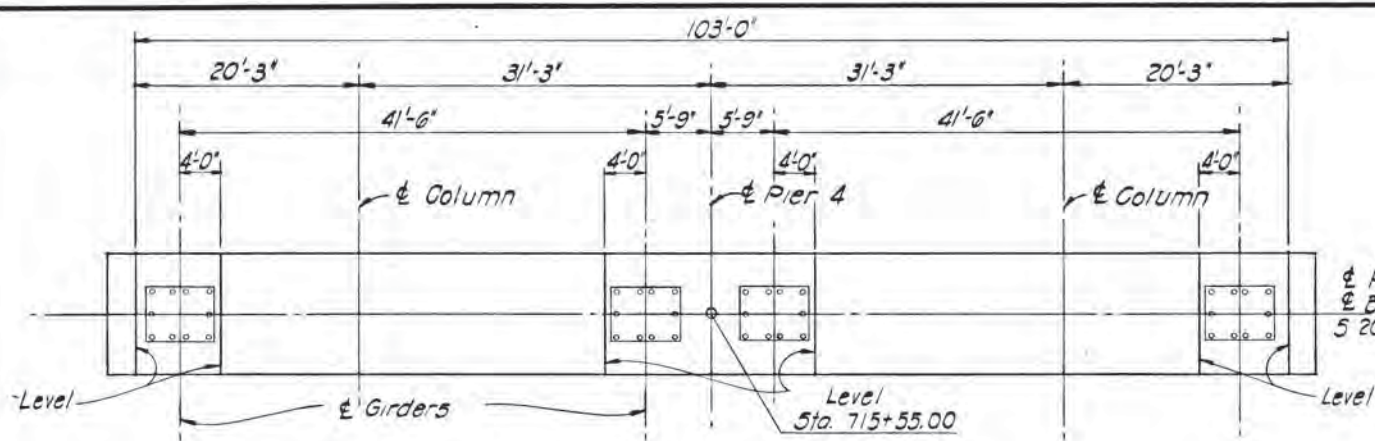


NOTE:
 All column vertical & column dowel reinforcing this sheet shall be A.S.T.M. A-432 yield point 60,000 p.s.i.

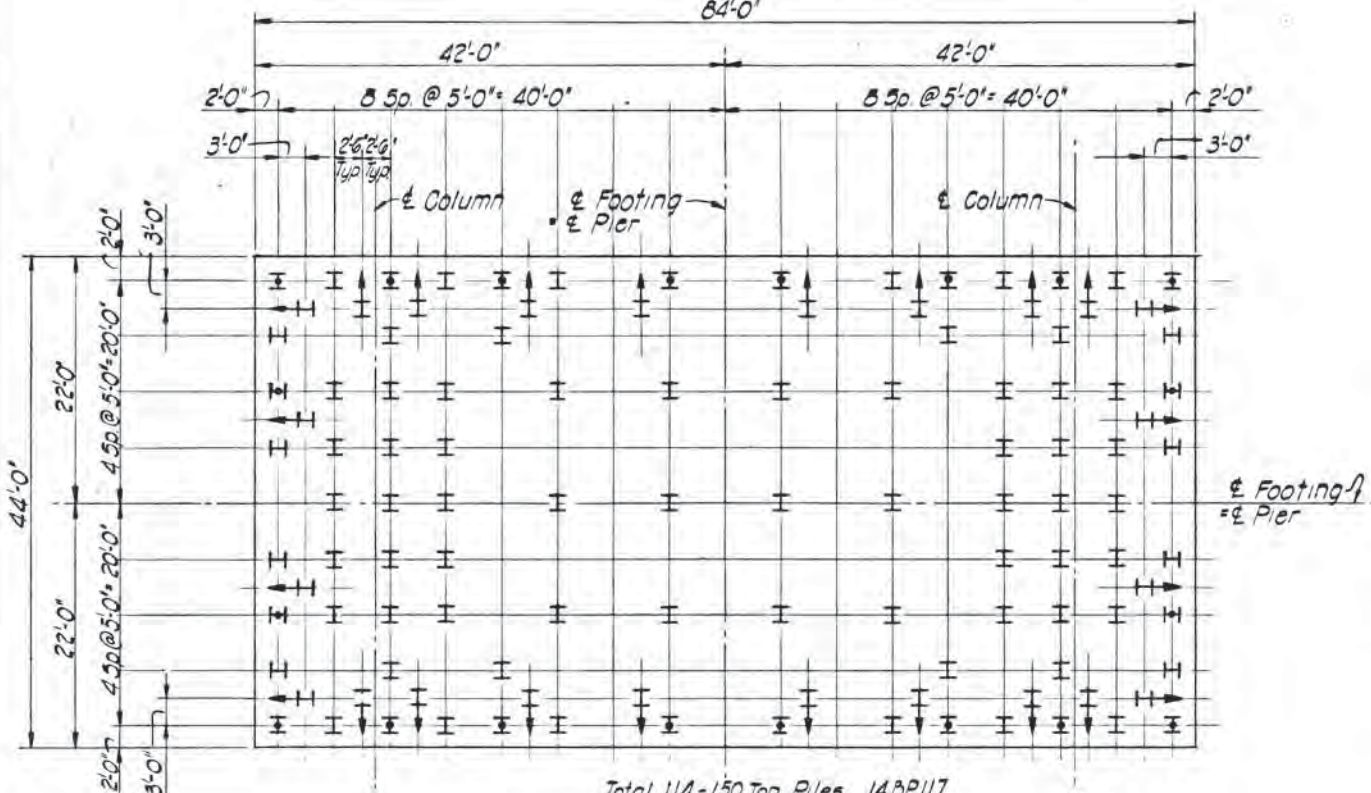
For "As Const" Pier dimensions Refer To "Kamb Engr & Fab" Draw. 1022-4

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 4
	1-8-71 As Constructed APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER	DATE OCT. 6, 1967 BRIDGE NO. 9403	

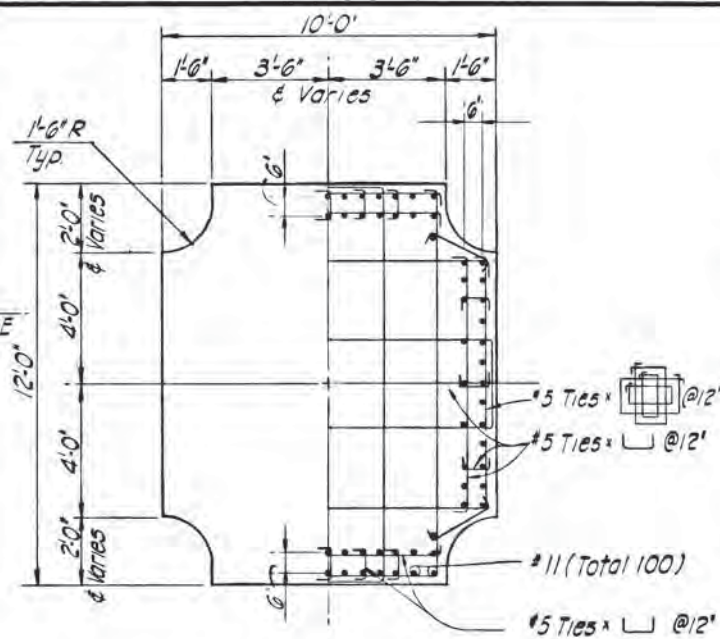
REVISIONS TO PROJECT PLAN
 NOV 3 1967



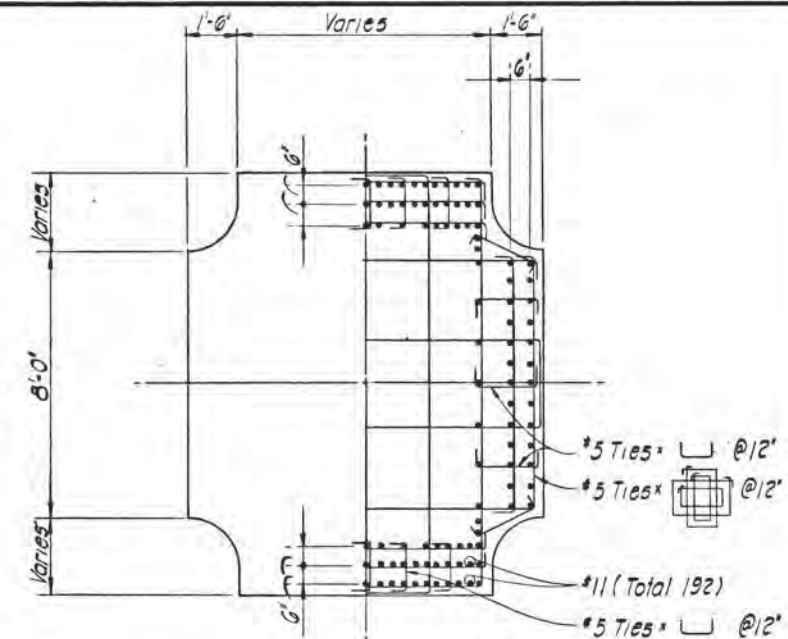
PLAN OF PIER



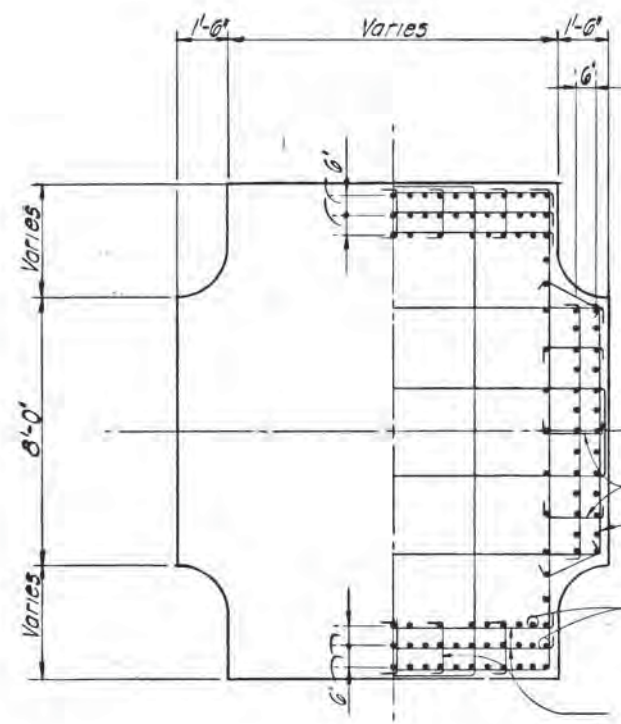
FOOTING PLAN



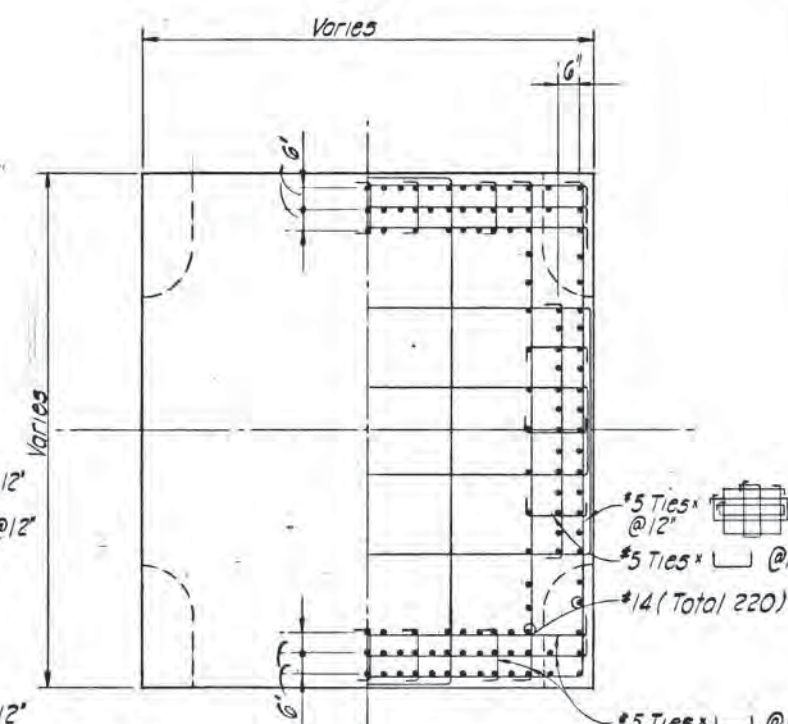
SECTION D



SECTION E



SECTION F



SECTION G

FOR INFORMATION ONLY

NOTE:

- ⊞ Piles noted thus shall extend thru seal & 3'-0" into footing
- ⊞ Piles noted thus shall be battered at 1:6 in direction of arrow & shall extend thru seal & 1'-0" into footing
- ⊞ Piles noted thus shall extend 1'-0" into footing.

MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



DATE	REVISION
1-8-71	As Constructed
APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER	
DESIGNED: A.L.E.	CHECKED: H.R.N.
DRAWN: C.K.R.	CALC. BOOK: #

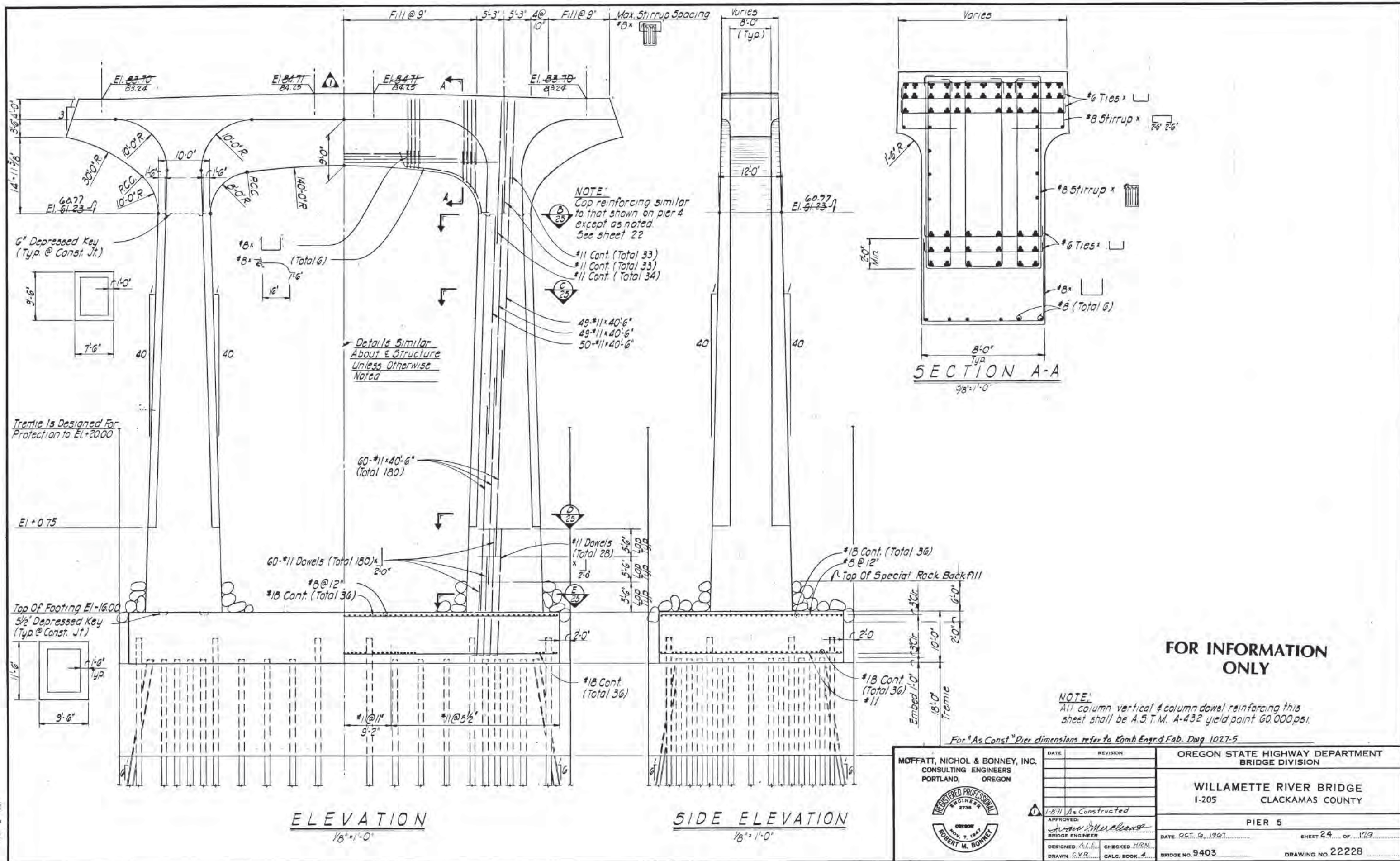
OREGON STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION

WILLAMETTE RIVER BRIDGE
#1-205
CLACKAMAS COUNTY


PIER 4 - DETAILS

DATE: OCT. 6, 1967	SHEET 23 OF 129
BRIDGE NO. 9403	DRAWING NO. 22227

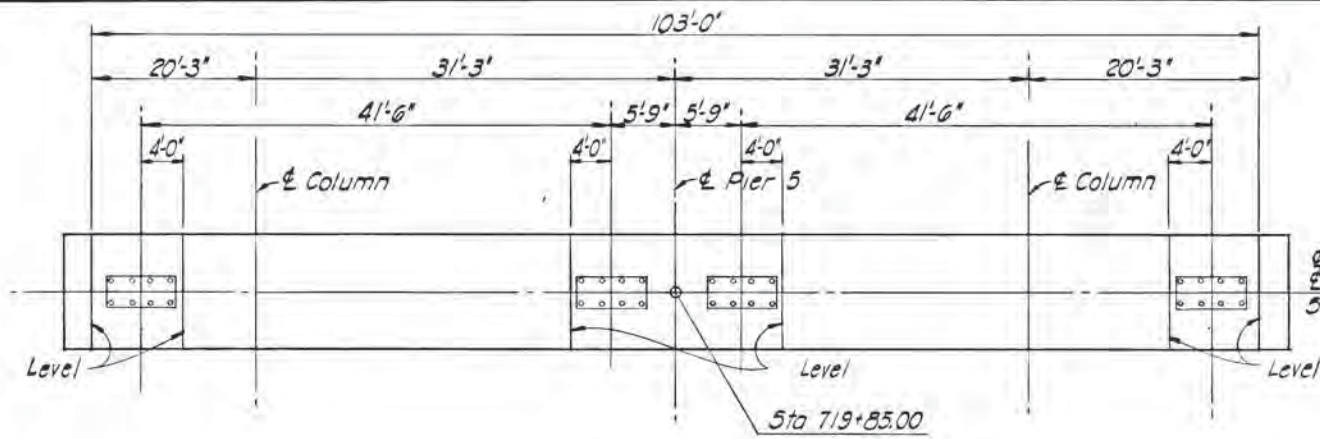
REVISIONS
NOV 8 1967



FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON		OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
DATE: 1-8-71 REVISION: As Constructed APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER DESIGNED: A.E.E. DRAWN: C.V.R.		PIER 5 DATE: OCT. 6, 1967 SHEET 24 OF 129 BRIDGE NO. 9403 DRAWING NO. 22228	

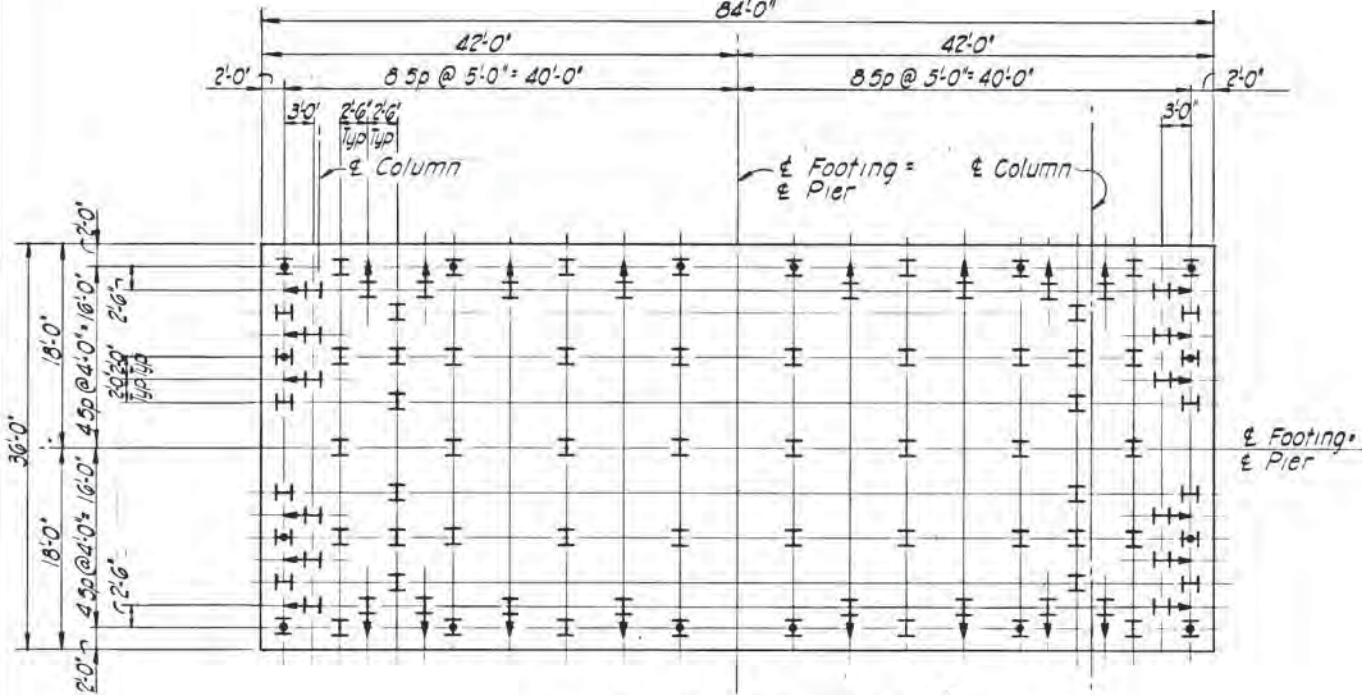
REPRODUCED FOR ARCHIVE PURPOSES
NOV 3 1967



PIER PLAN

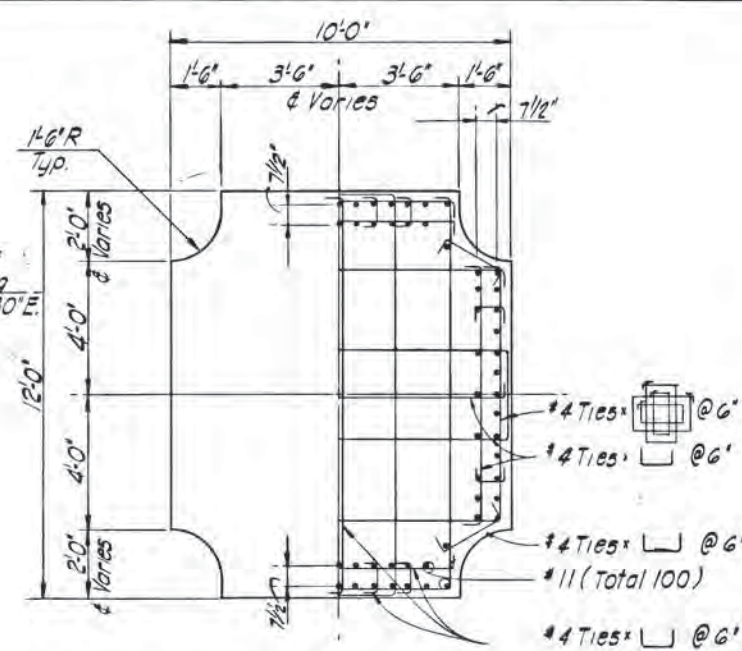
1/8" = 1'-0"

84'-0"



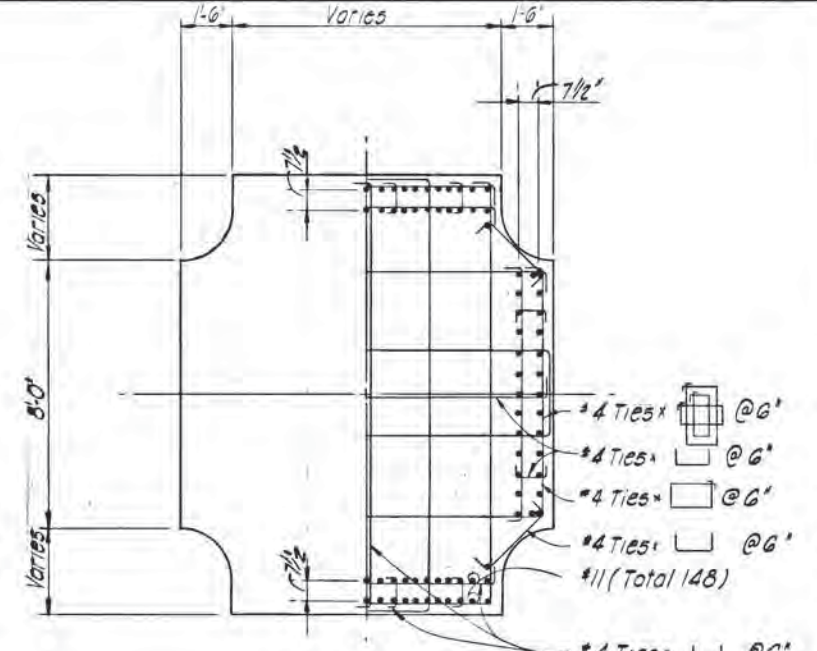
Total 96 - 150 Ton Piles - 14BP117
FOOTING PLAN

1/8" = 1'-0"



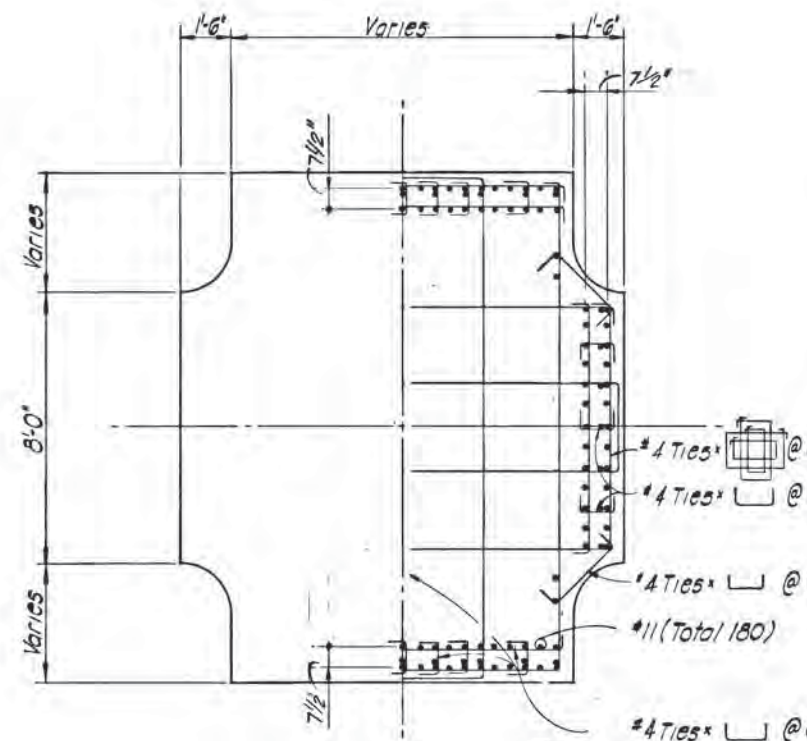
SECTION B

3/8" = 1'-0"



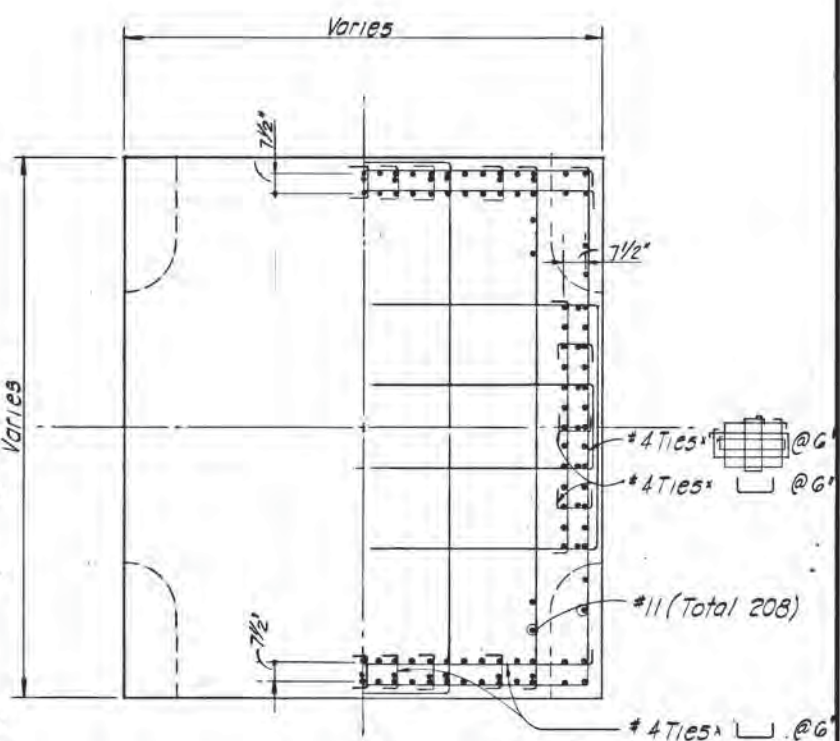
SECTION C

3/8" = 1'-0"



SECTION D

3/8" = 1'-0"



SECTION E

3/8" = 1'-0"

FOR INFORMATION ONLY

NOTE:

- ⊥ Piles noted thus shall extend thru seal & 5'-0" into footing
- ⊥ Piles noted thus shall be battered at 1:6 in direction of arrow & shall extend thru seal & 1'-0" into footing.
- ⊥ Piles noted thus shall extend 1'-0" into footing.

MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



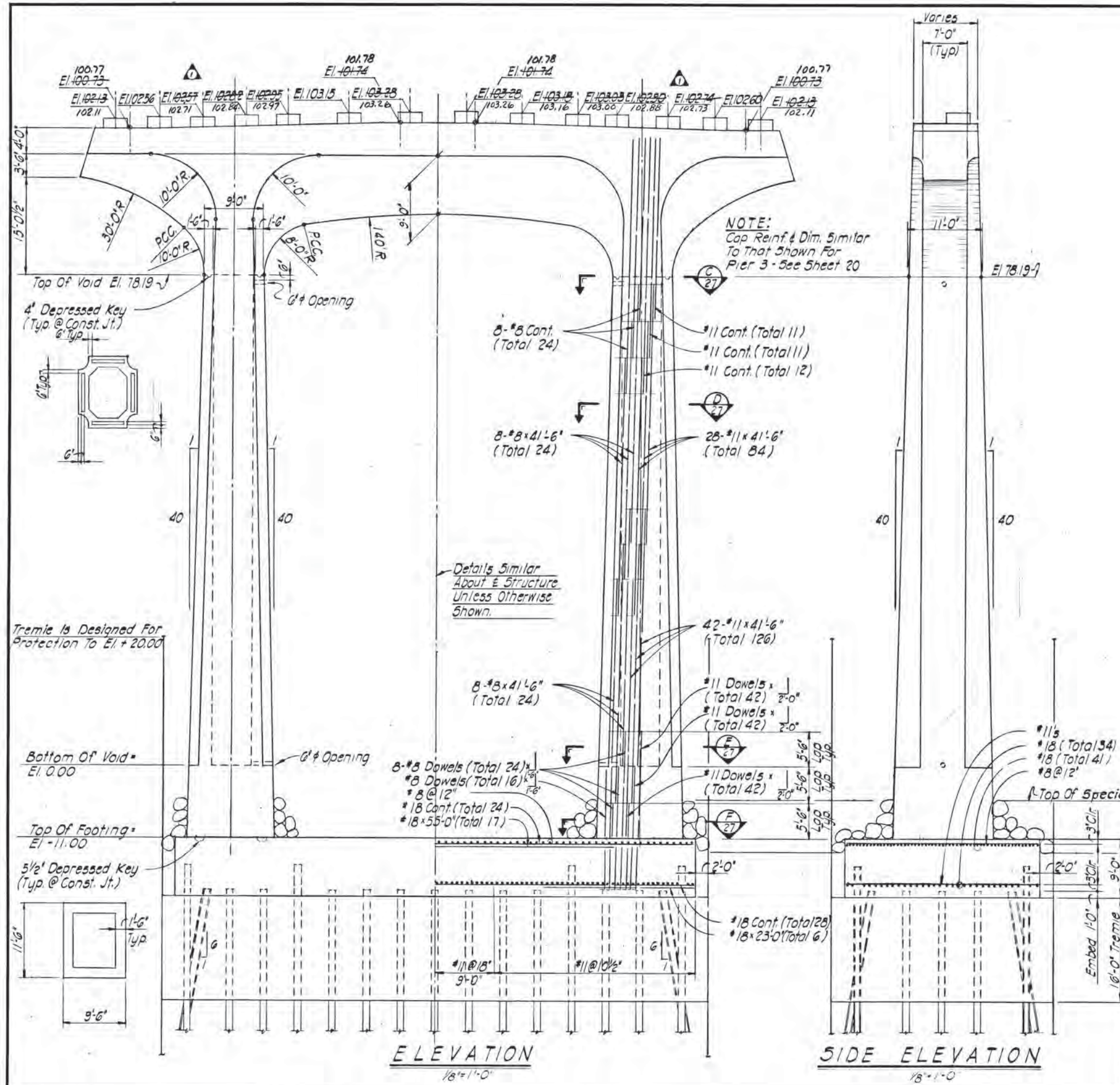
DATE	REVISION
1-8-71	As Constructed
APPROVED: <i>Robert M. Bonney</i>	
BRIDGE ENGINEER	
DESIGNED: A.L.E.	CHECKED: J.L.G.
DRAWN: C.V.R.	CALC. BOOK: 4

OREGON STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION

WILLAMETTE RIVER BRIDGE
1-205
CLACKAMAS COUNTY

PIER 5 - DETAILS

DATE: OCT. 6, 1967 SHEET 25 OF 129
BRIDGE NO. 9403 DRAWING NO. 22229



NOTE:
Cap Reinf. & Dim. Similar
To That Shown For
Pier 3 - See Sheet 20

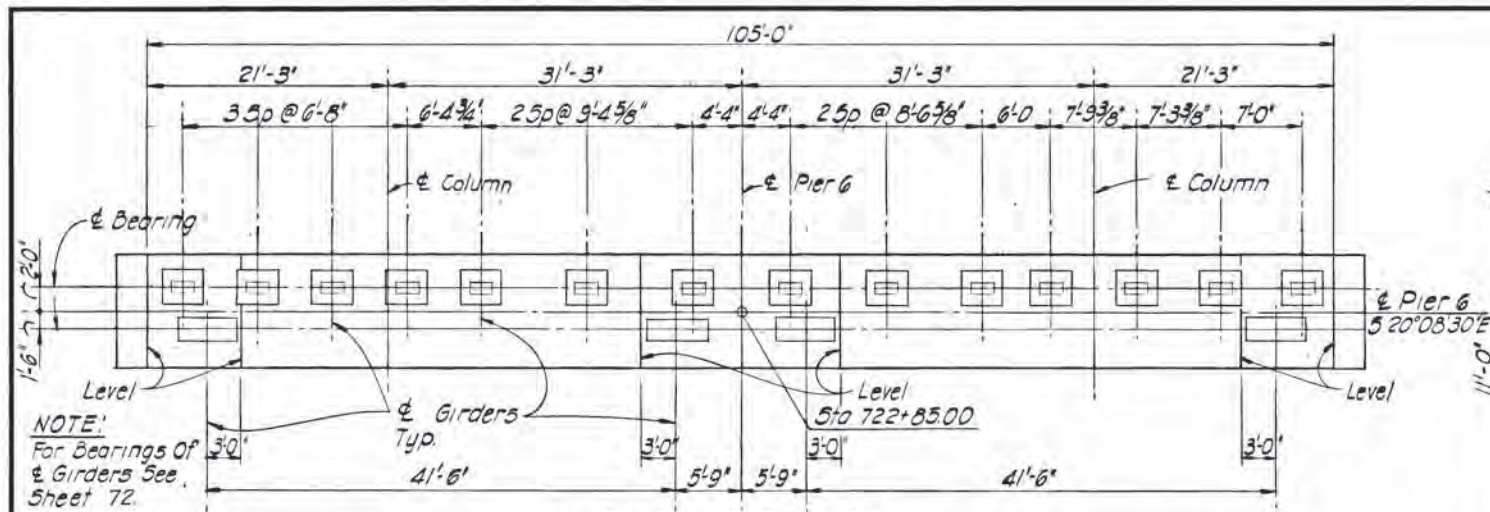
Details Similar
About & Structure
Unless Otherwise
Shown.

NOTE:
All column vertical & column dowel reinforcing this
sheet shall be A.S.T.M. A-432 yield point 60,000 psi.
For "As Constr." Pier dimensions Refer to "Kamp Engr & Fab" Dwg # 1027-6

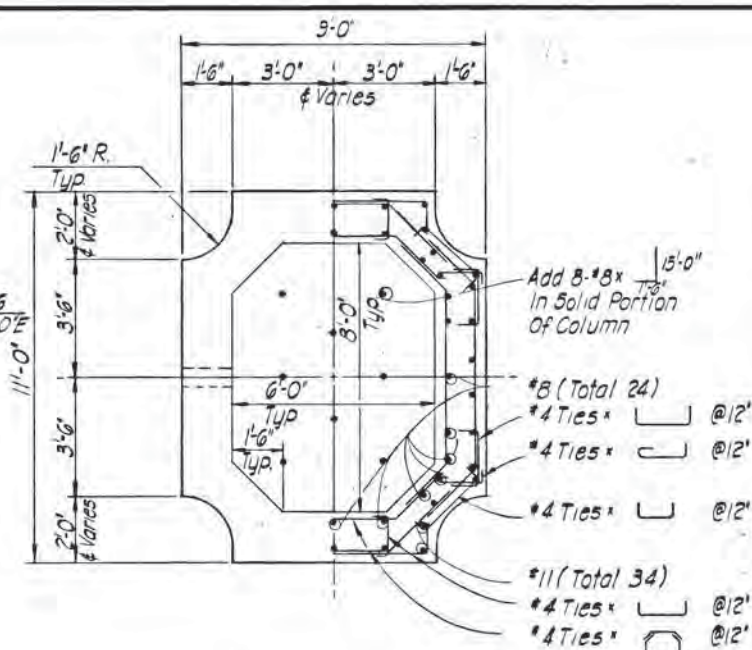
FOR INFORMATION
ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-8-71 As Constructed APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
DESIGNED: A.L.E.	CHECKED: H.B.N.	DATE: Oct. 9, 1967	PIER 6
DRAWN: C.V.R.	CALC. BOOK: 3	BRIDGE NO. 9403	SHEET 26 OF 129
		DRAWING NO. 22230	

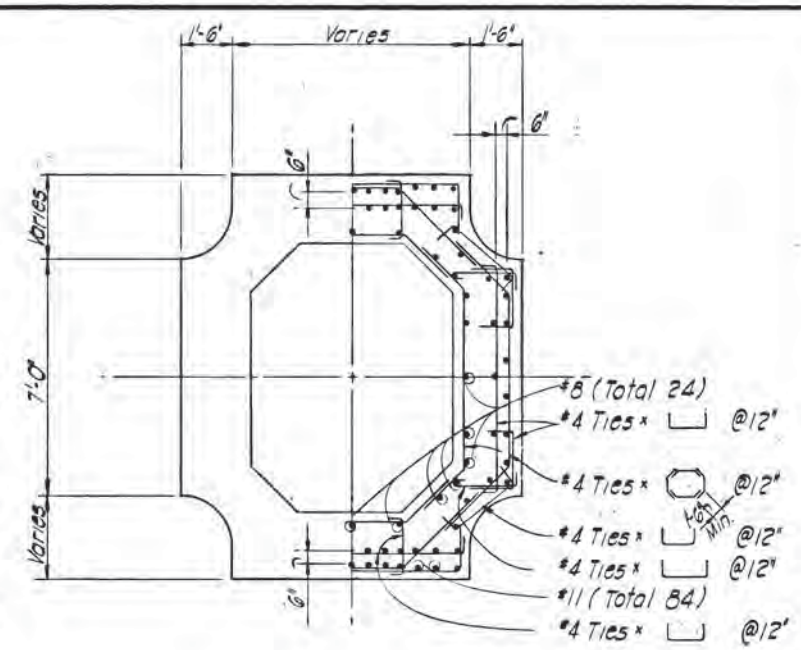
NOV 3 1967



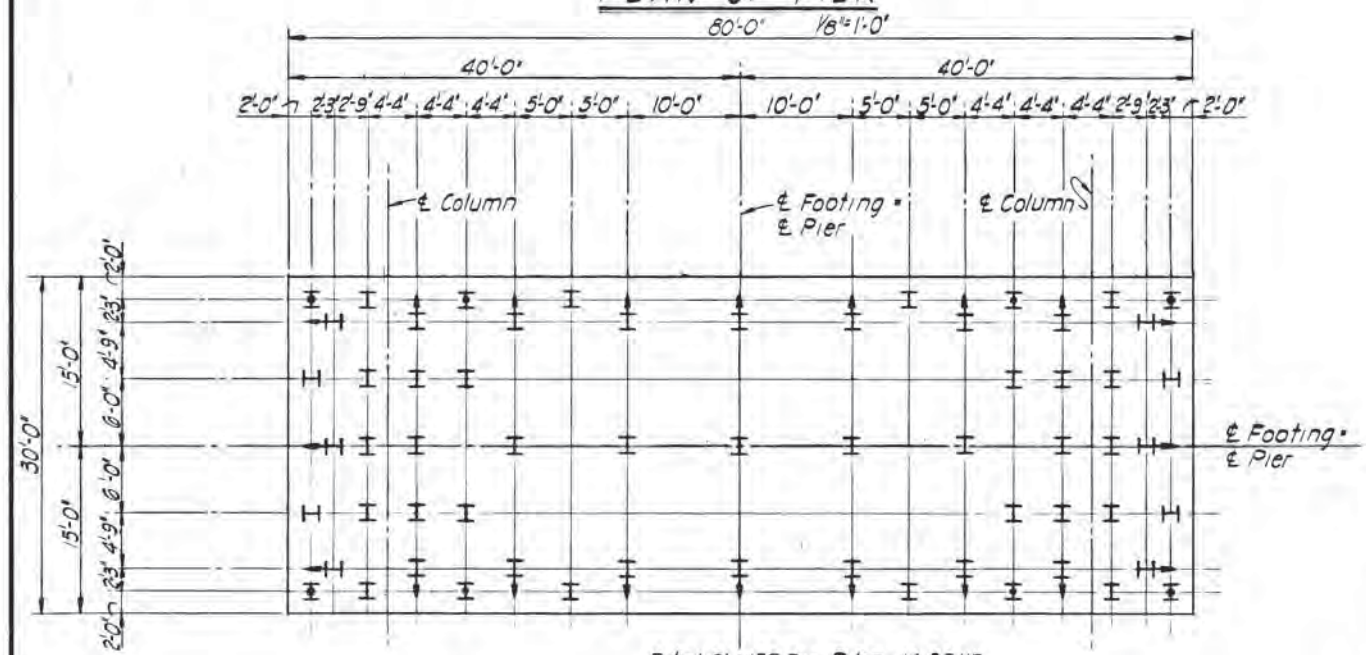
PLAN OF PIER



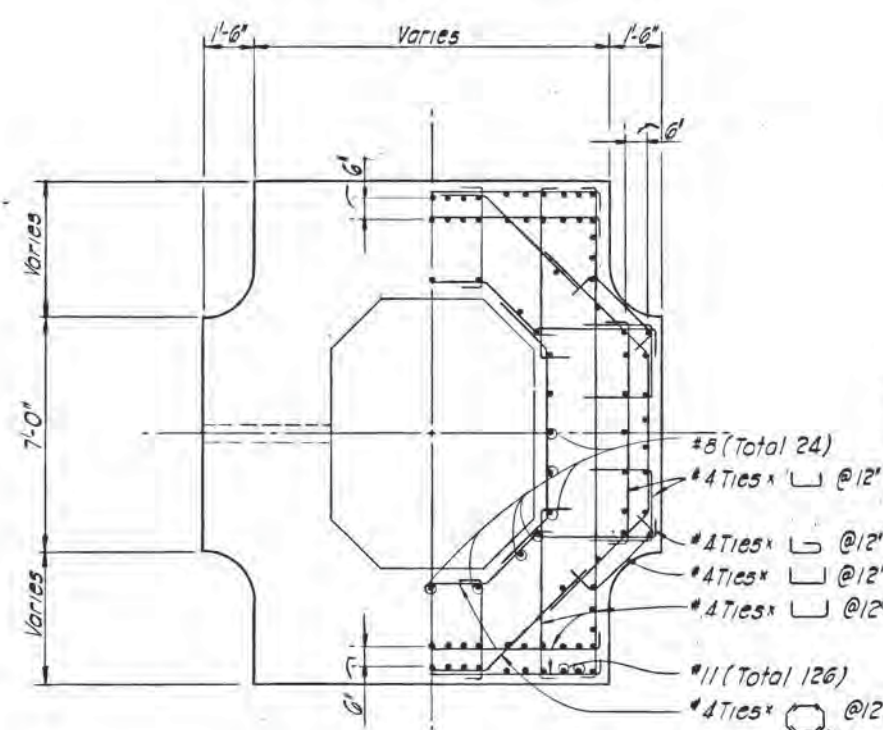
SECTION C
3/8" x 11'-0"



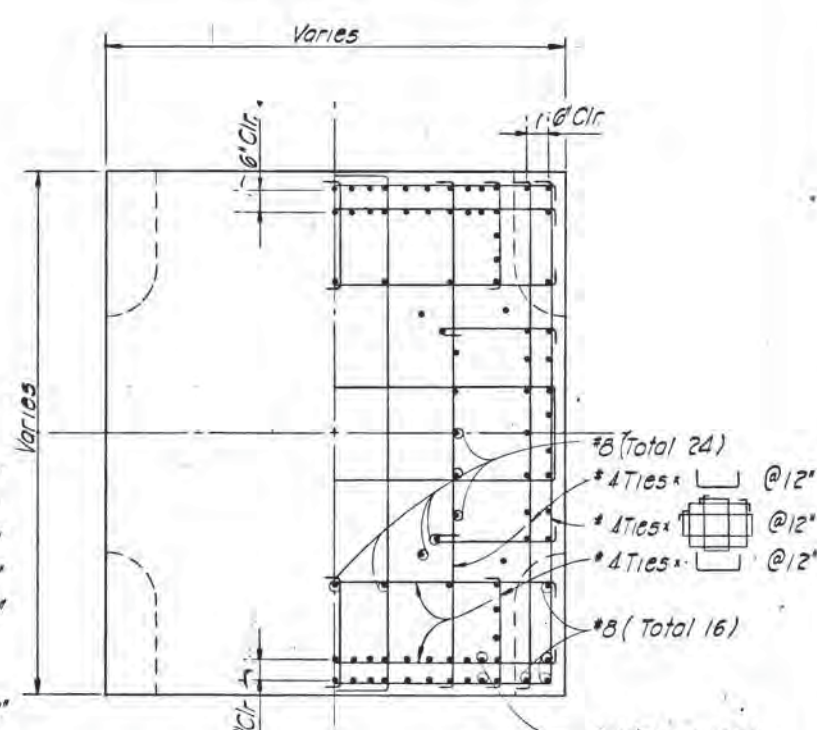
SECTION D
3/8" x 11'-0"



Total 61-150 Ton Piles - 14 BP117
FOOTING PLAN
1/8" x 11'-0"



SECTION E
3/8" x 11'-0"



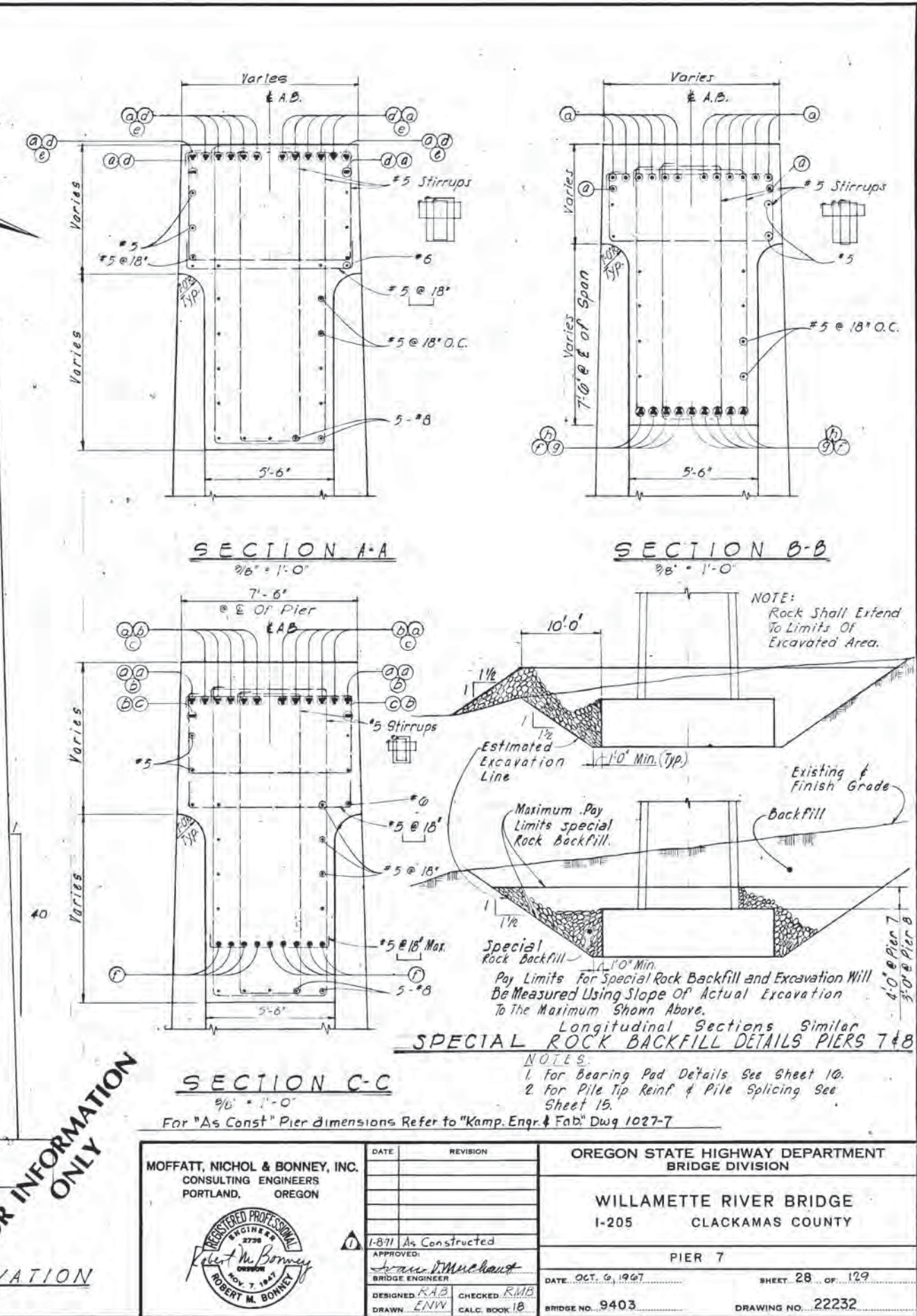
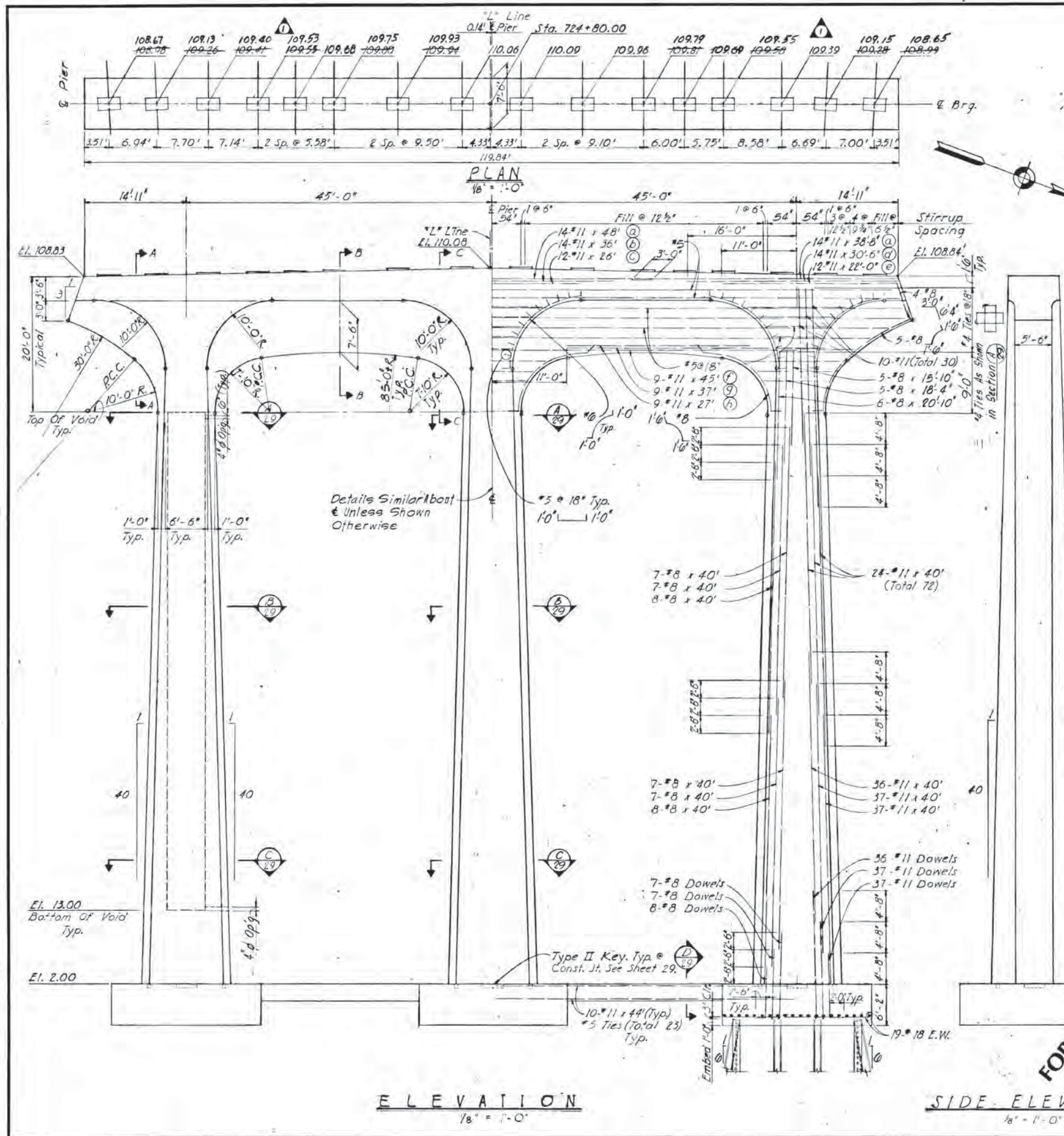
SECTION F
3/8" x 11'-0"

NOTE:
 ▬ Piles noted thus shall extend thru seal & 5'-0" into footing
 ▬ Piles noted thus shall be battered at 1:6 in direction of arrow & shall extend thru seal & 1'-0" into footing
 ▬ Piles noted thus shall extend 1'-0" into footing.

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 6 - DETAILS
	1-8-71 As Constructed APPROVED: BRIDGE ENGINEER DESIGNED: A.L.E. DRAWN: L.V.R.	CHECKED: H.A.N. CALC. BOOK: 3	

FOR INFORMATION ONLY

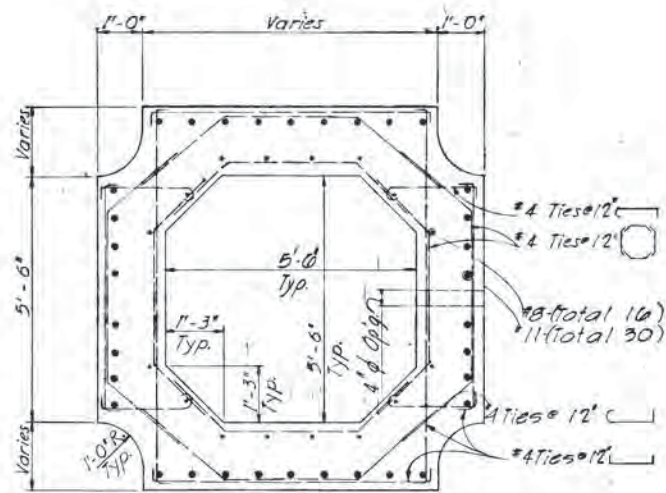
NOV 3 1967



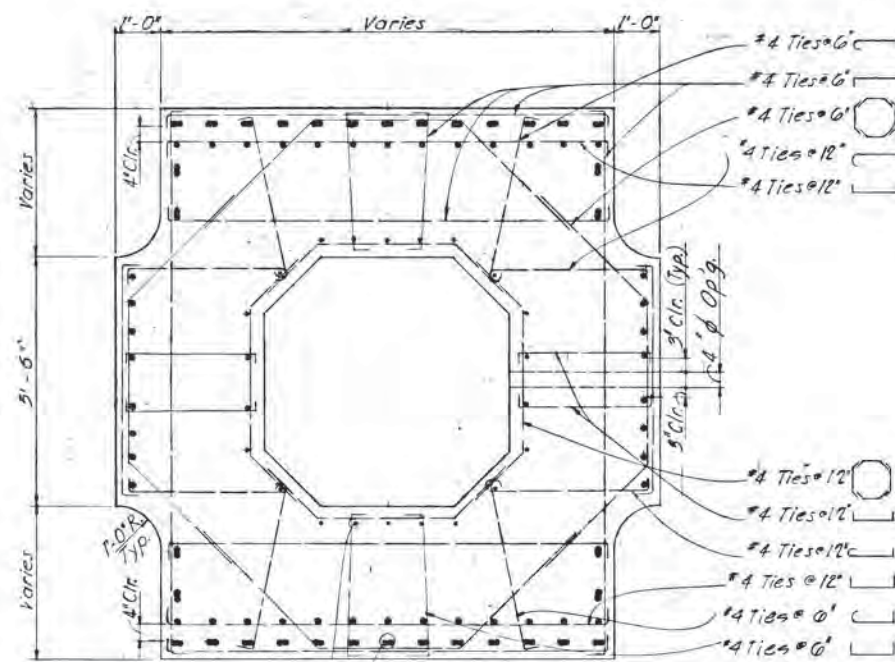
FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
			WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
REGISTERED PROFESSIONAL ENGINEER Robert M. Bonney NOV. 7, 1947 ROBERT M. BONNEY	1-871 As Constructed		PIER 7	
	APPROVED: <i>John V. Muehlhaas</i> BRIDGE ENGINEER	DESIGNED: RAB DRAWN: ENV	CHECKED: RMB CALC. BOOK 18	DATE: OCT. 6, 1947 BRIDGE NO. 9403
			SHEET 28 OF 129 DRAWING NO. 22232	

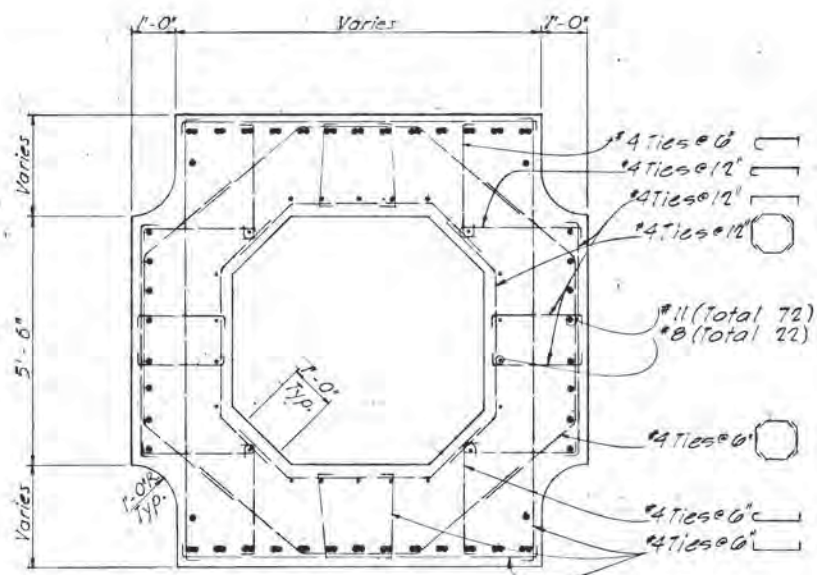
RECORDED FOR ENGINEERING PLANS
NOV 3 1947



SECTION A
1/2" = 1'-0"

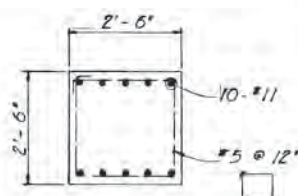


SECTION C
1/2" = 1'-0"



SECTION B
3/8" = 1'-0"

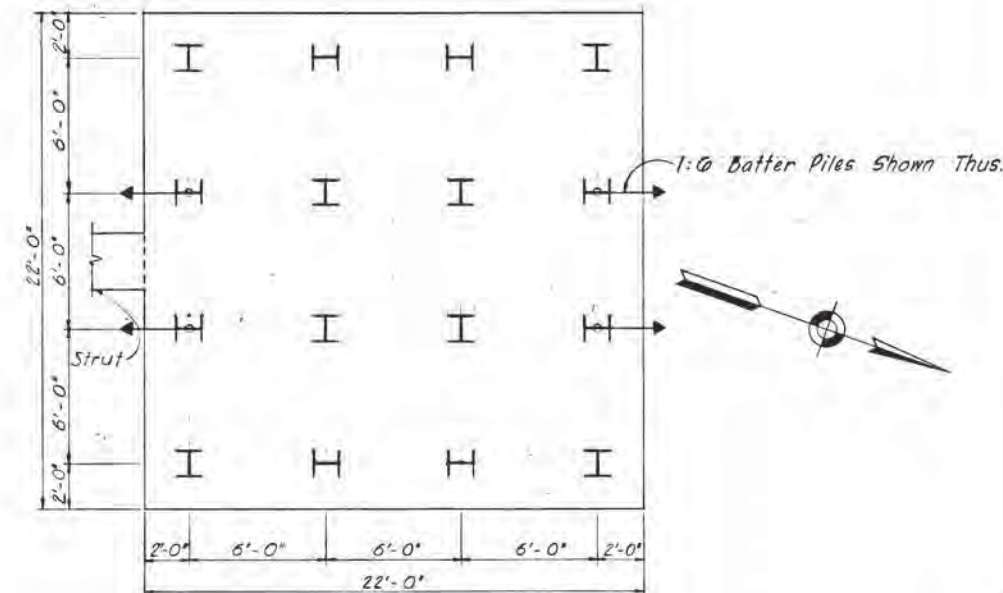
NOTE:
All Ties Are Symm. About
to of Col



SECTION D
1/2" = 1'-0"

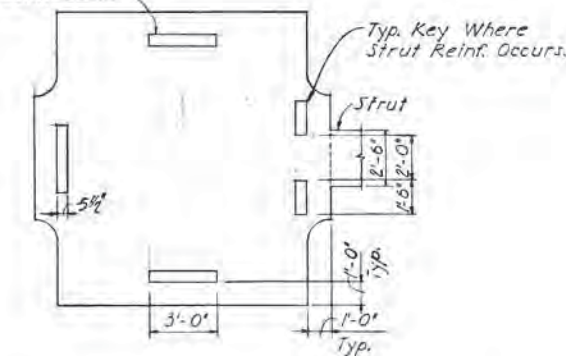
NOTE:

The Design Of Pier 7 Is Based On The Assumption That The Foundations Will Be Constructed Near Low Water Stage In The River With Diking And Pumping As Required So That The Work Can Be Accomplished In The Dry. If The Contractor Elects To Construct Pier 7 Foundations In A Different Manner, Such Procedures Shall Be Subject To Approval Of The Engineer And All Costs In Connection With Such Construction Such As Cofferdam, Seal Concrete, Additional Piling, Etc. Shall Be At The Contractor's Expense. No Separate Payment Will Be Made For Any Work Required By The Contractor's Election To Construct Pier 7 In A Manner Different Than Was Assumed For Design.



PLAN AT BASE
10 Piles - 14 BP 117 (150 ton)
4" = 1'-0"

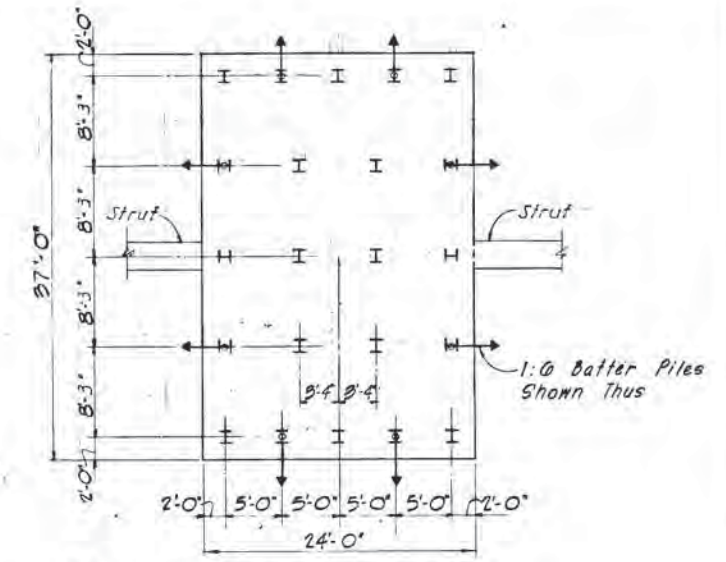
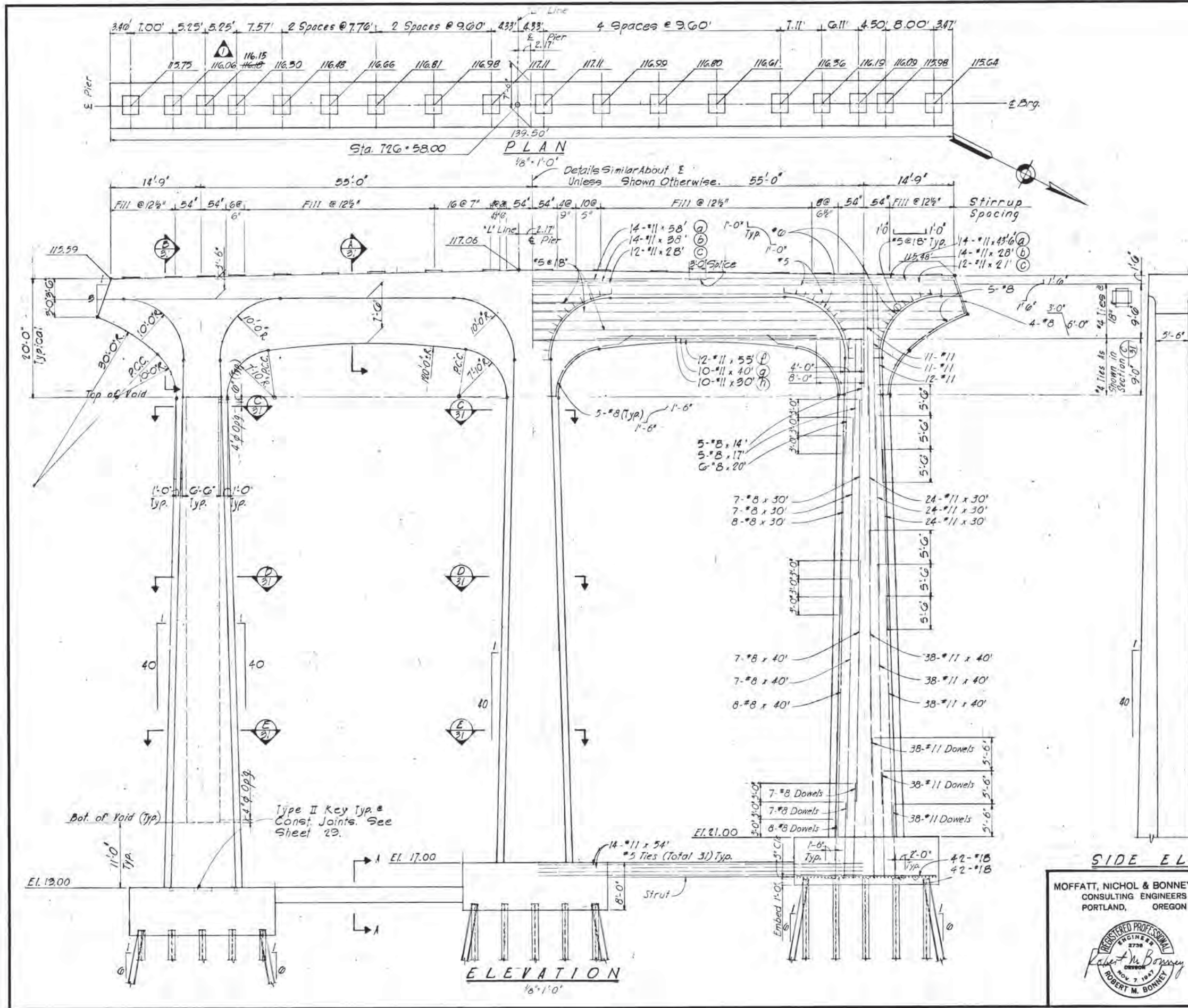
36" x 5 1/2" x 5 1/2" Deep Key
Typical At Const. Joint



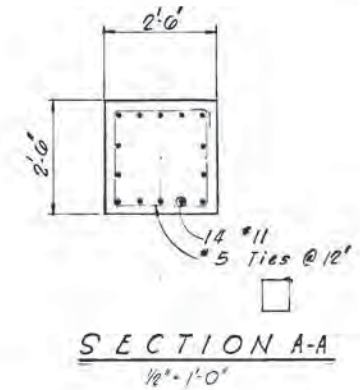
PIERS 7-8-9-10
PLAN - TYPE II KEY
4" = 1'-0"

FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-8-71	As Constructed	
	APPROVED:		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
	BRIDGE ENGINEER	<i>Robert M. Bonney</i>	
DESIGNED: <i>ENW</i>	CHECKED: <i>AMB</i>	DATE: OCT. 6, 1967	PIER 7 DETAILS
DRAWN: <i>ENW</i>	CALC. BOOK: <i>18</i>		SHEET 29 OF 129
		BRIDGE NO. 9403	DRAWING NO. 22233



TYP. PLAN AT BASE
22 PILES 14 B.P. 117 (150 Ton)
1/8" = 1'-0"



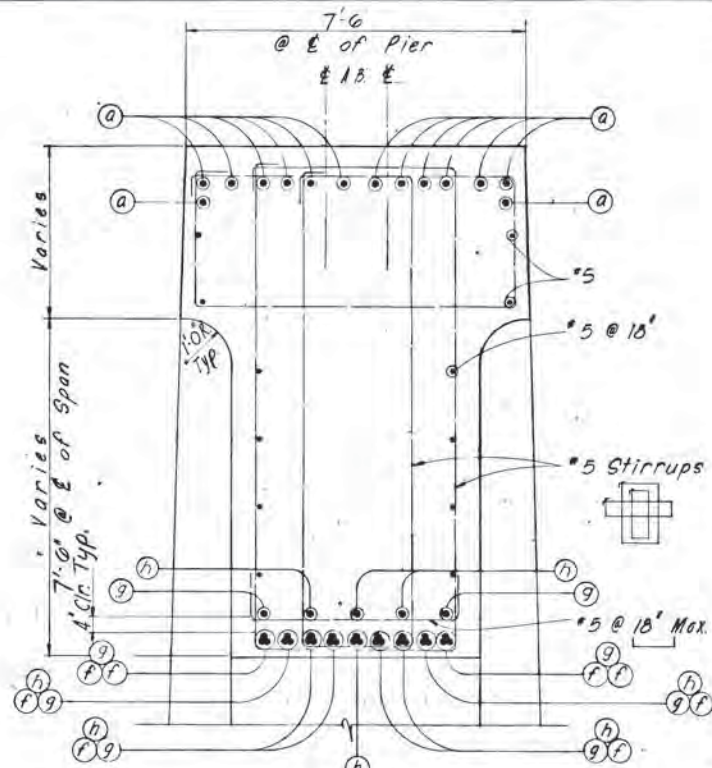
- NOTES:
1. For Bearing Pad Details See Sheet 10.
 2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
 3. All Column Vertical & Column Dowel Reinforcing This Sheet Shall Be A.S.T.M. A-492 Yield Point 60,000 P.S.I.

FOR INFORMATION ONLY

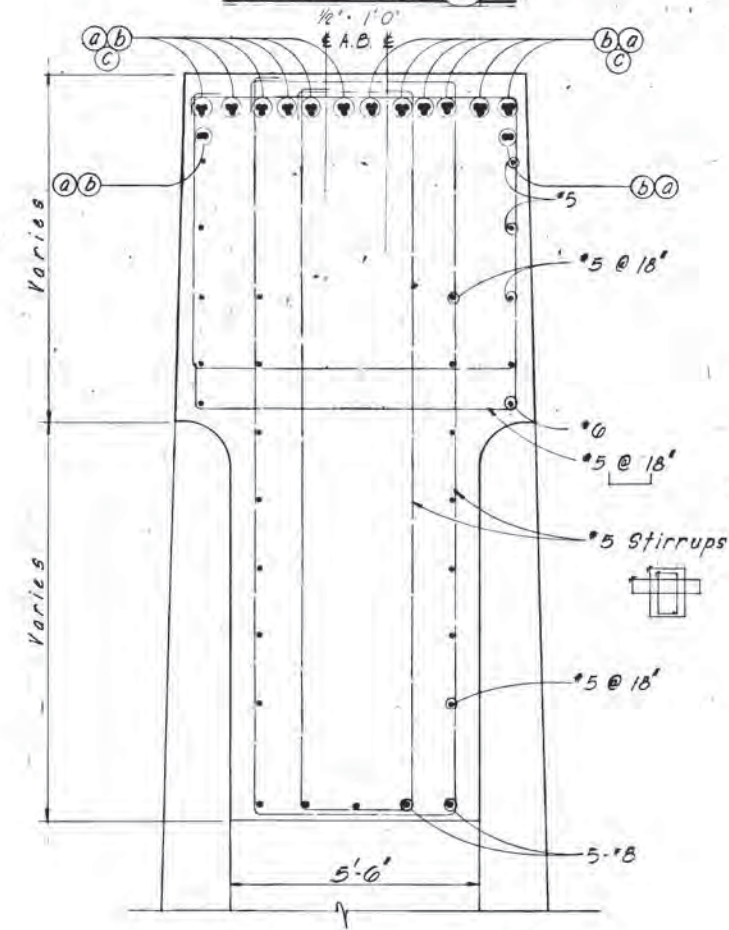
SIDE ELEVATION For "As Const" Pier dimensions Refer to Kamb Engr. & Fab. Dwg. 1027-B

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 8	
	APPROVED: <i>Robert M. Bonney</i> REGISTERED PROFESSIONAL ENGINEER NOV 7 1967 ROBERT M. BONNEY	DESIGNED: A.T.O.		CHECKED: R.H.B.
	DRAWN: R.L.H.	CALC. BOOK 18		DATE: OCT. 6, 1967
	BRIDGE NO. 9403			SHEET 30 OF 129

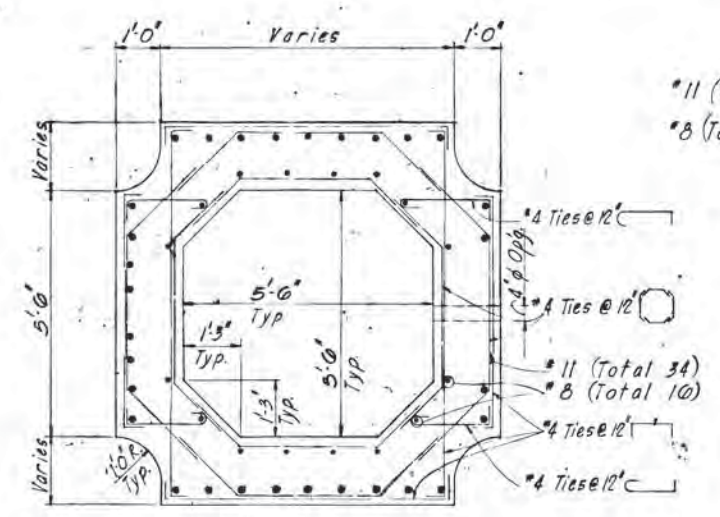
NOV 8 1967



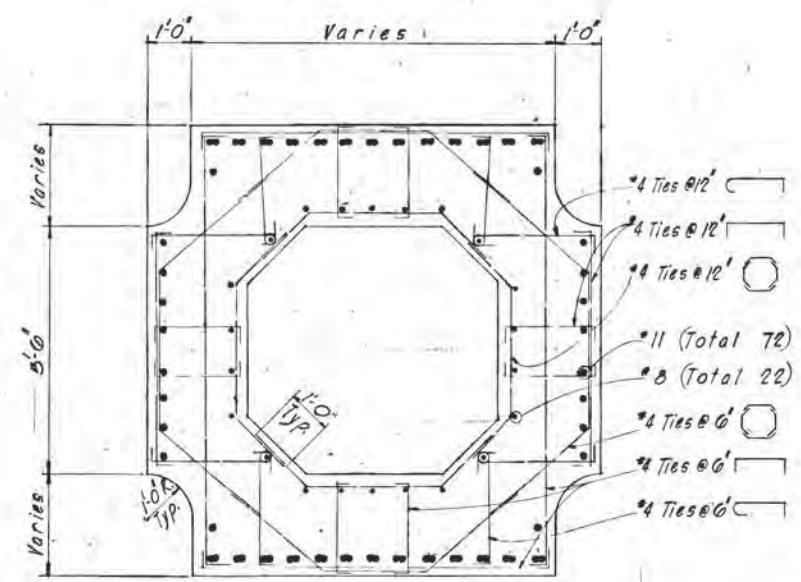
SECTION A
31



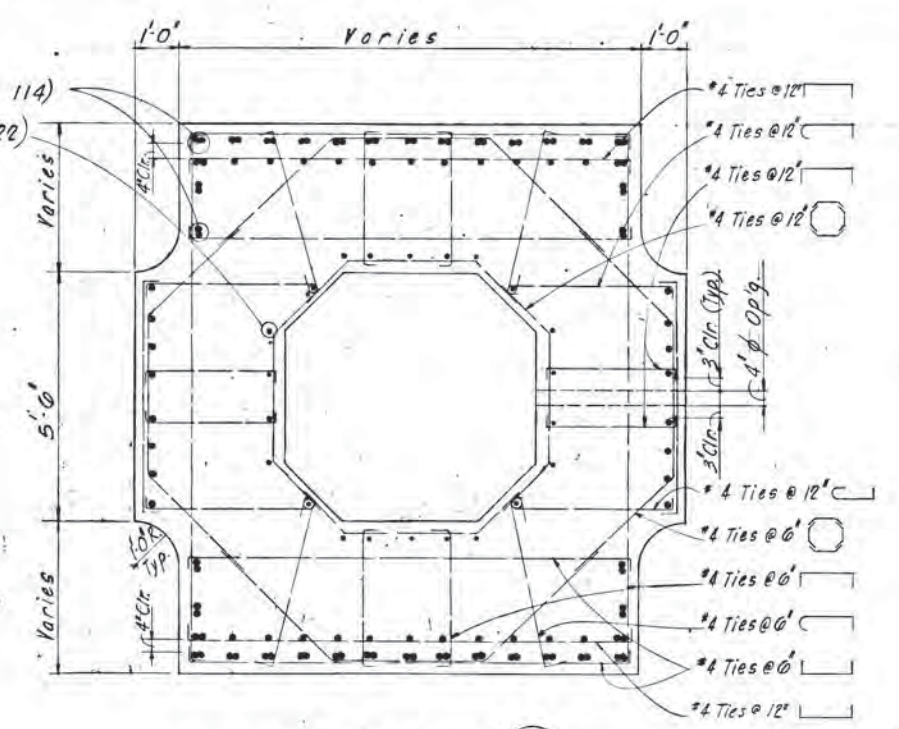
SECTION B
31



SECTION C
31



SECTION D
31



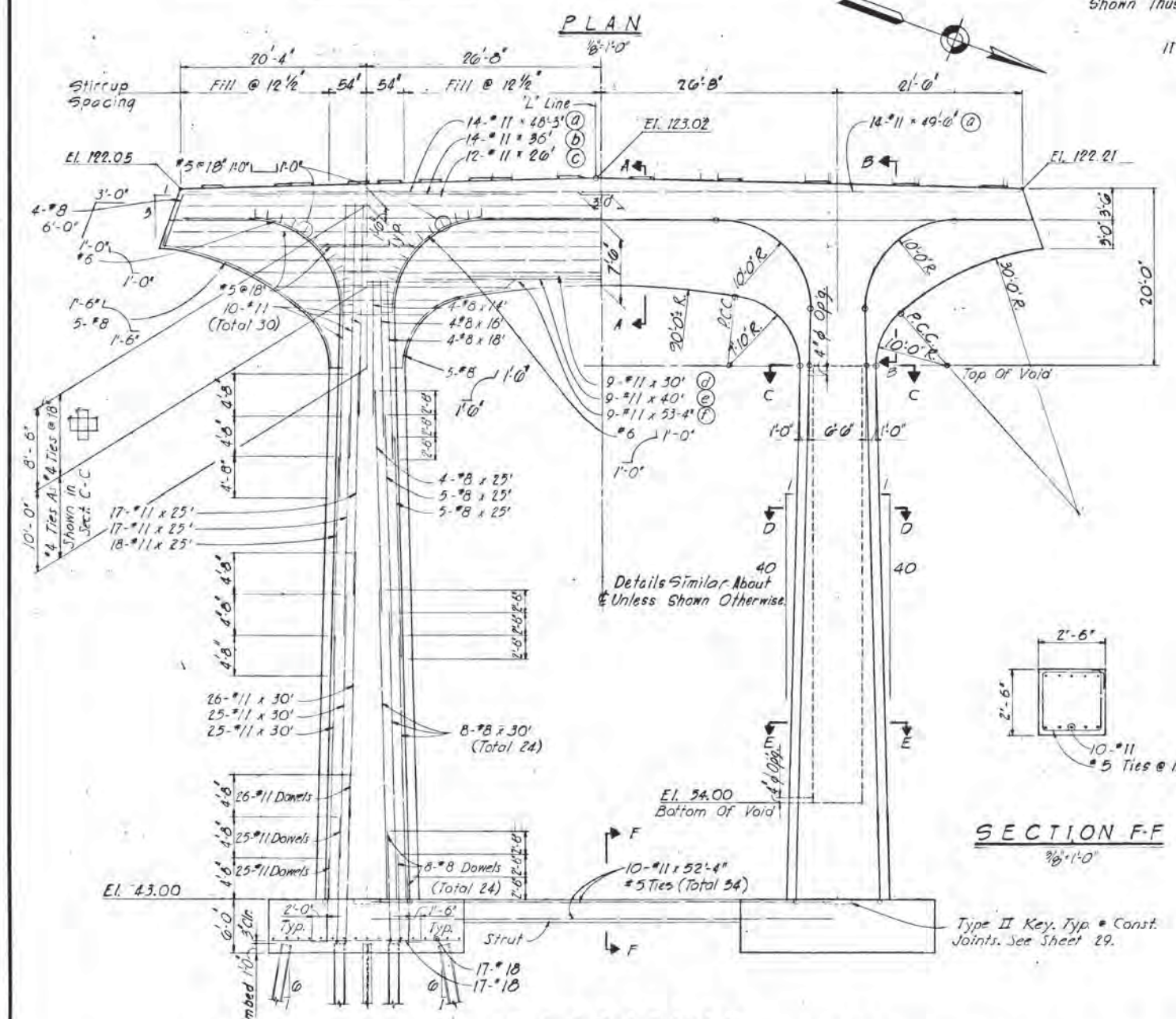
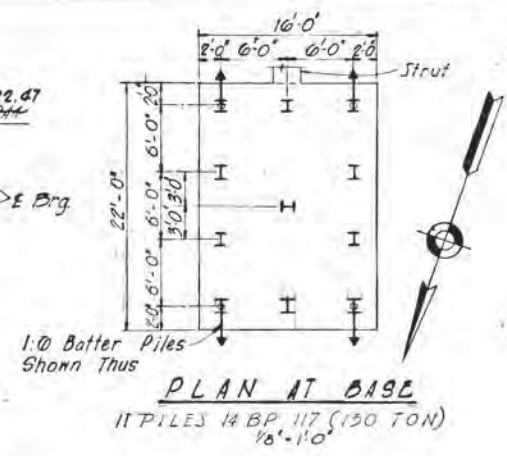
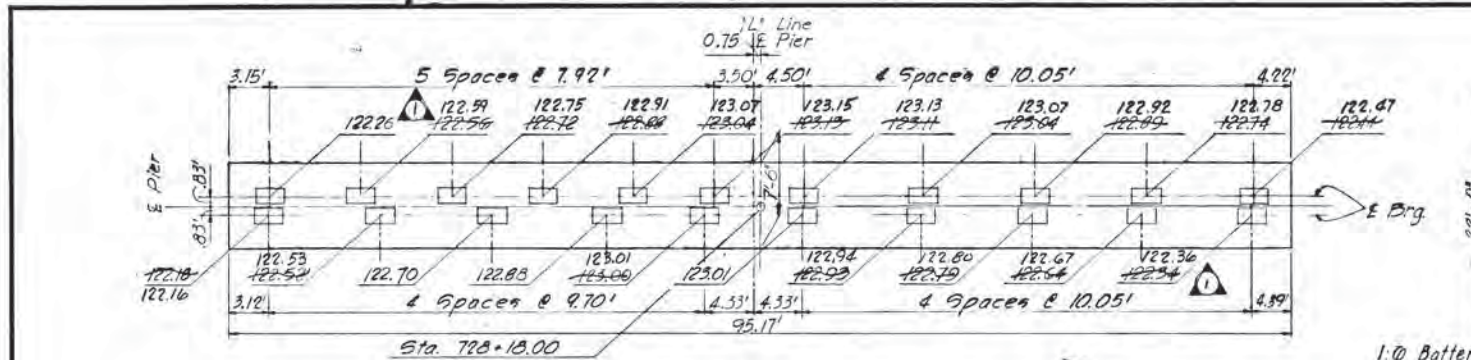
SECTION E
31

NOTE:
All Ties Symm. About \bar{E} of Column.

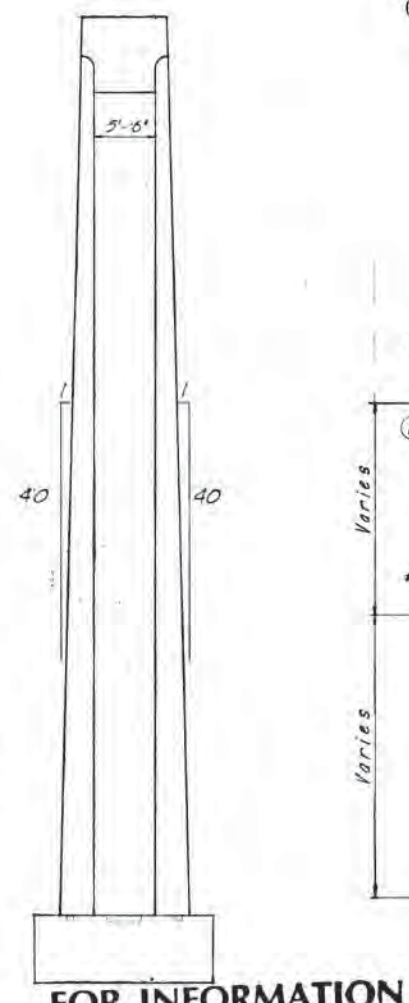
FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 8 DETAILS DATE OCT. 6, 1967 SHEET 31 OF 129 BRIDGE NO. 9403 DRAWING NO. 22235
	DESIGNED A.V.O.	CHECKED R.M.B.	
	DRAWN A.V.T.	CALC. BOOK 18	
	APPROVED: Robert M. Bonney BRIDGE ENGINEER REGISTERED PROFESSIONAL ENGINEER 2728 NOV. 7 1967 OREGON	1-8-71 As Constructed APPROVED: Brian M. Muehau BRIDGE ENGINEER	

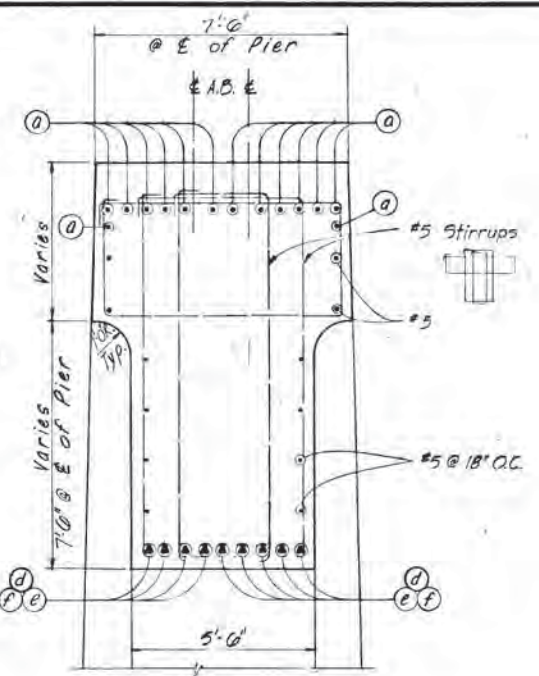
NOV 3 1967



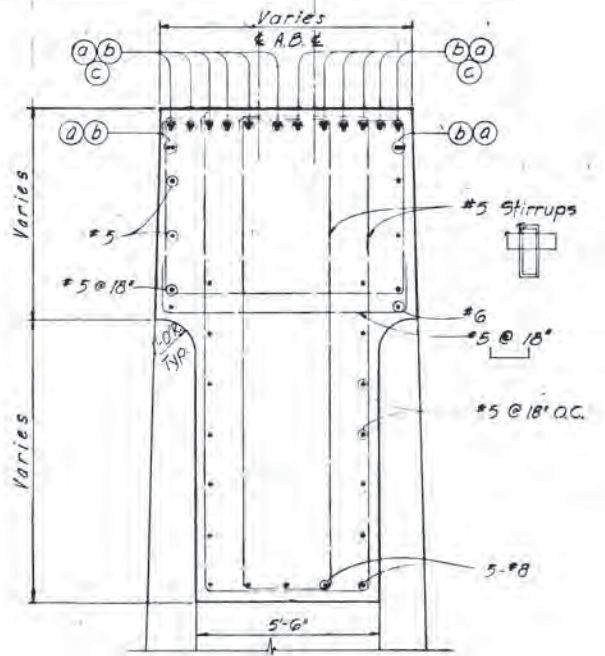
SECTION F-F
3/8" x 1'-0"



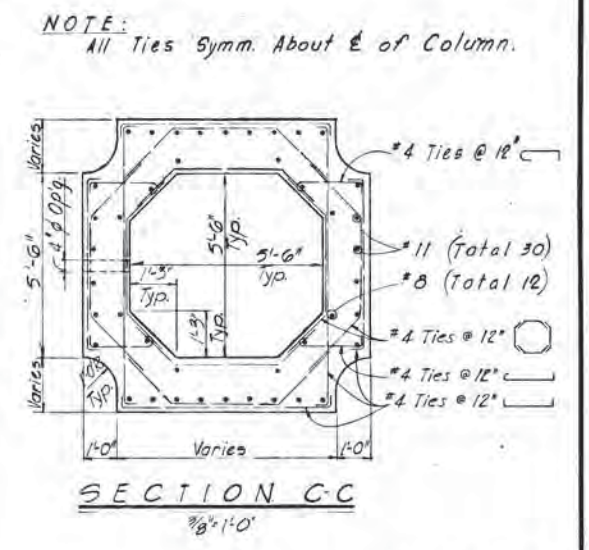
FOR INFORMATION ONLY
SIDE ELEVATION
3/8" x 1'-0"



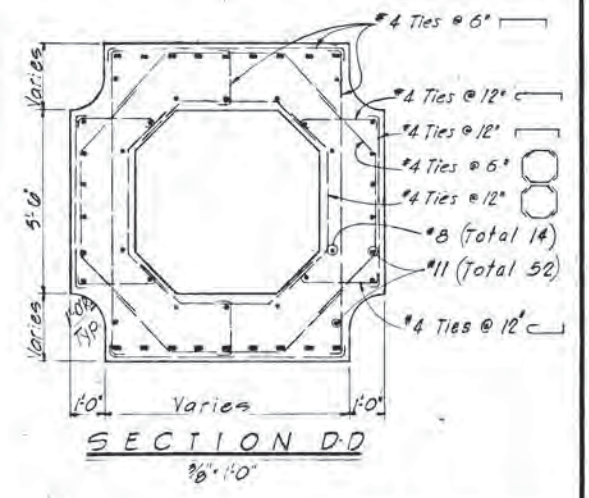
SECTION A-A
3/8" x 1'-0"



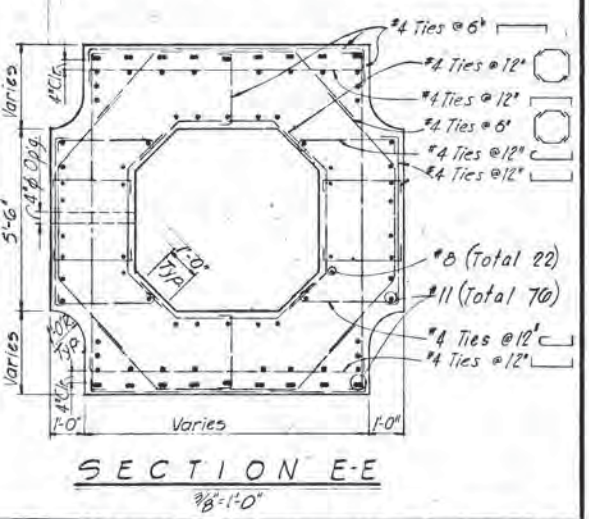
SECTION B-B
3/8" x 1'-0"



SECTION C-C
3/8" x 1'-0"



SECTION D-D
3/8" x 1'-0"



SECTION E-E
3/8" x 1'-0"

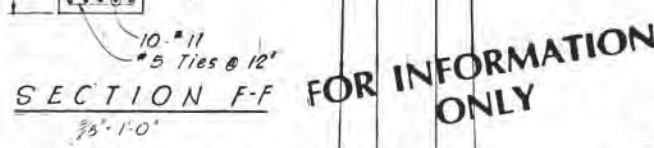
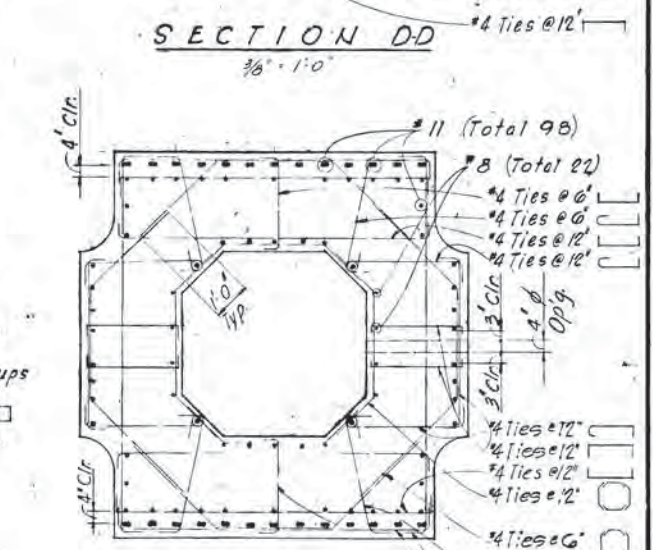
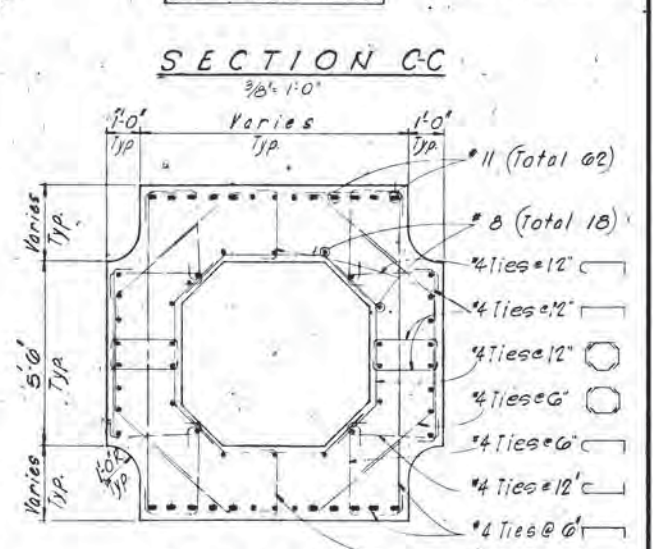
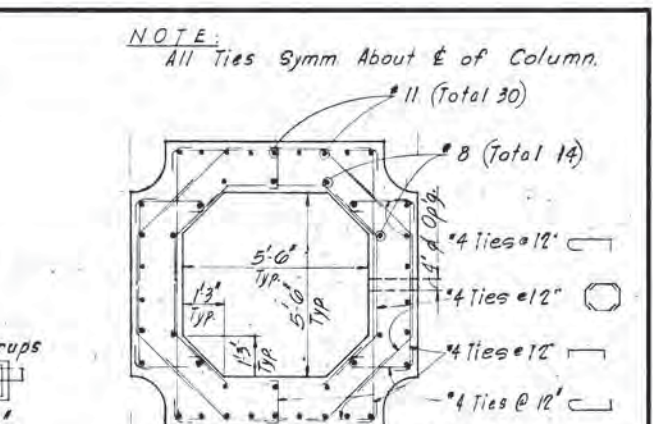
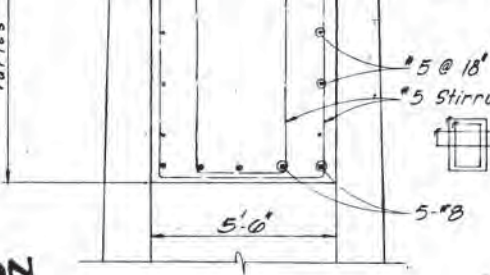
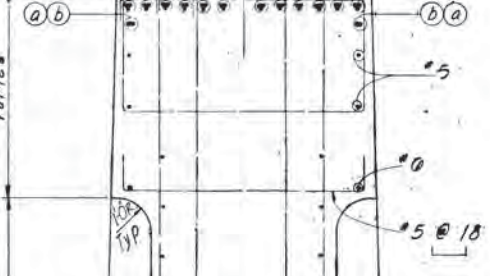
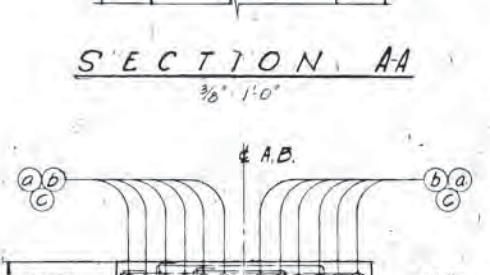
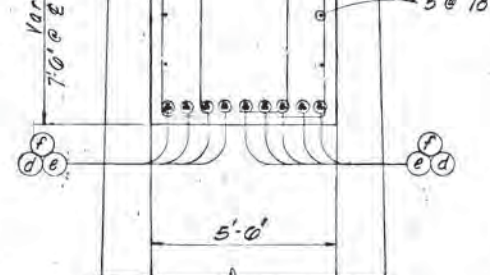
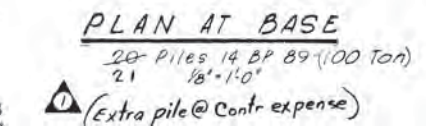
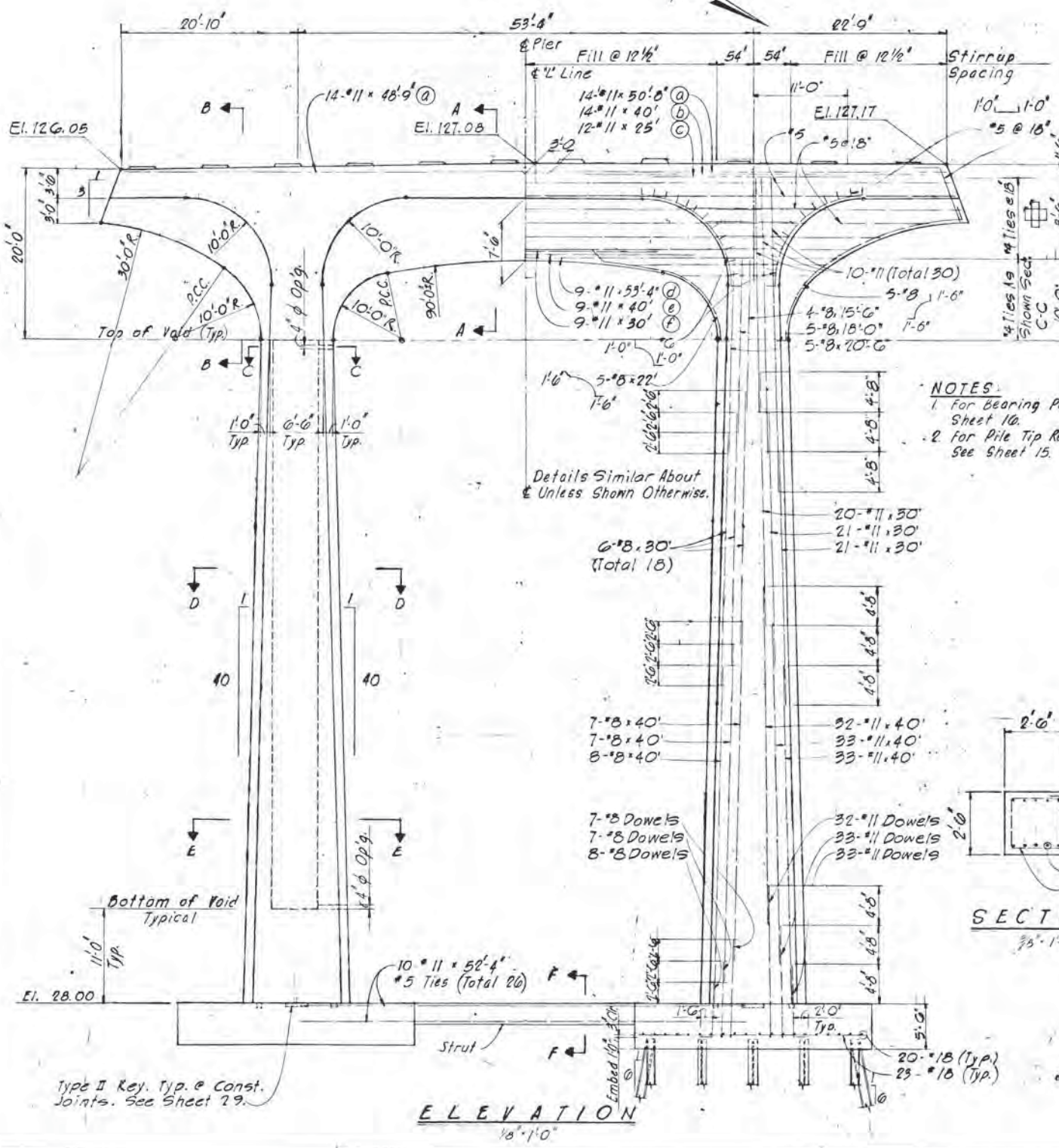
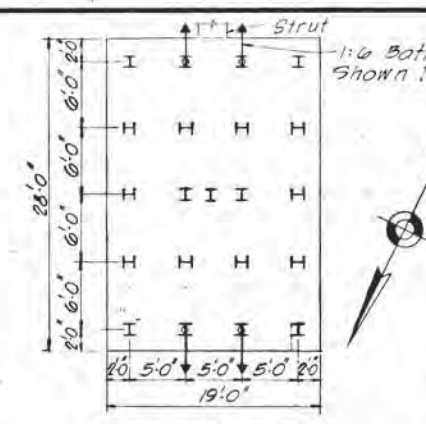
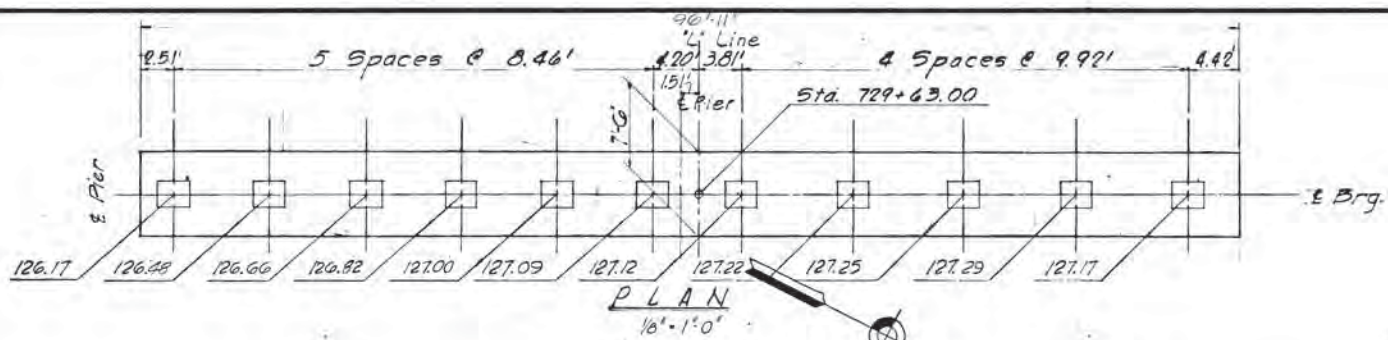
NOTE:
All Ties Symm. About E of Column.

- NOTES:
1. For Bearing Pad Details See Sheet 16.
2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.

For 'As Constr' Pier dimensions Refer to 'Kamb Engr. & Fab' Dwg. 1027-9

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY PIER 9
	1-871 As Constructed APPROVED: <i>John W. Meschan</i> BRIDGE ENGINEER DESIGNED: AVD DRAWN: JEK	CHECKED: RMB CALC. BOOK 19	

REVISED FOR BRIDGE PLAN
 NOV 8 1967



MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



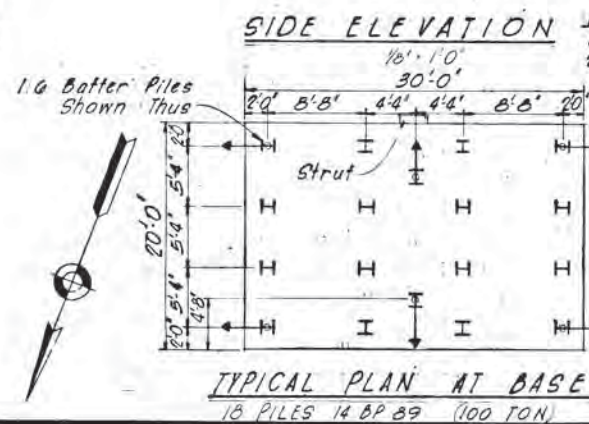
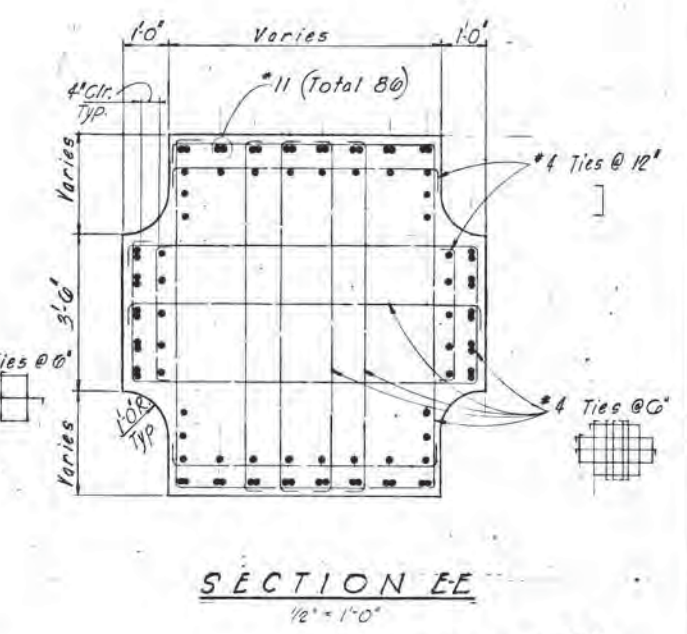
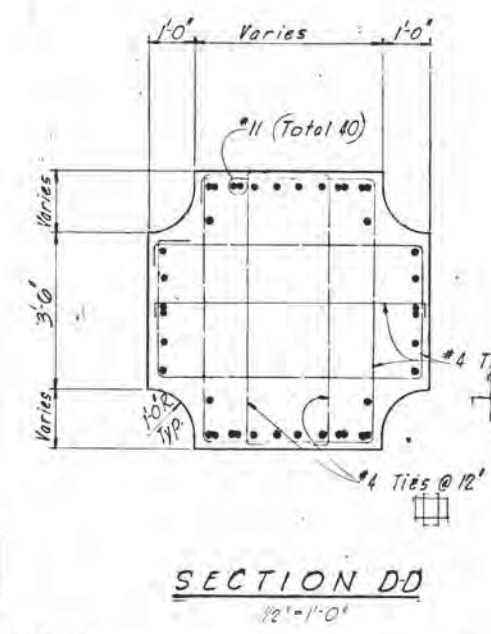
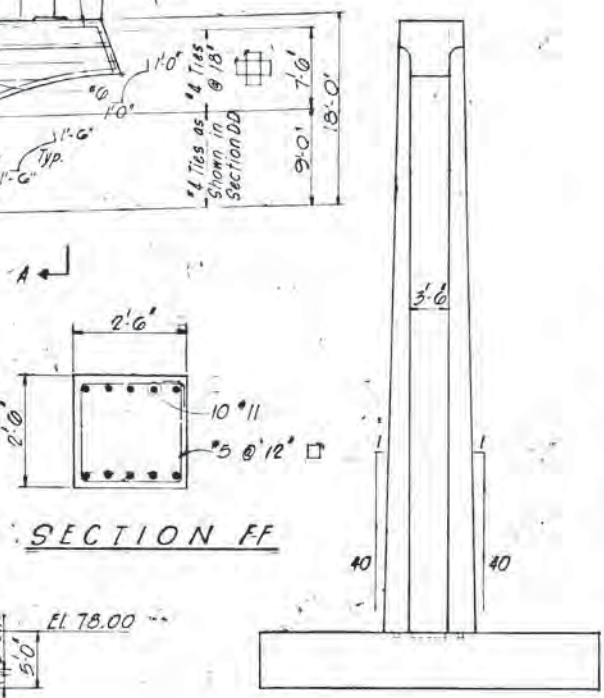
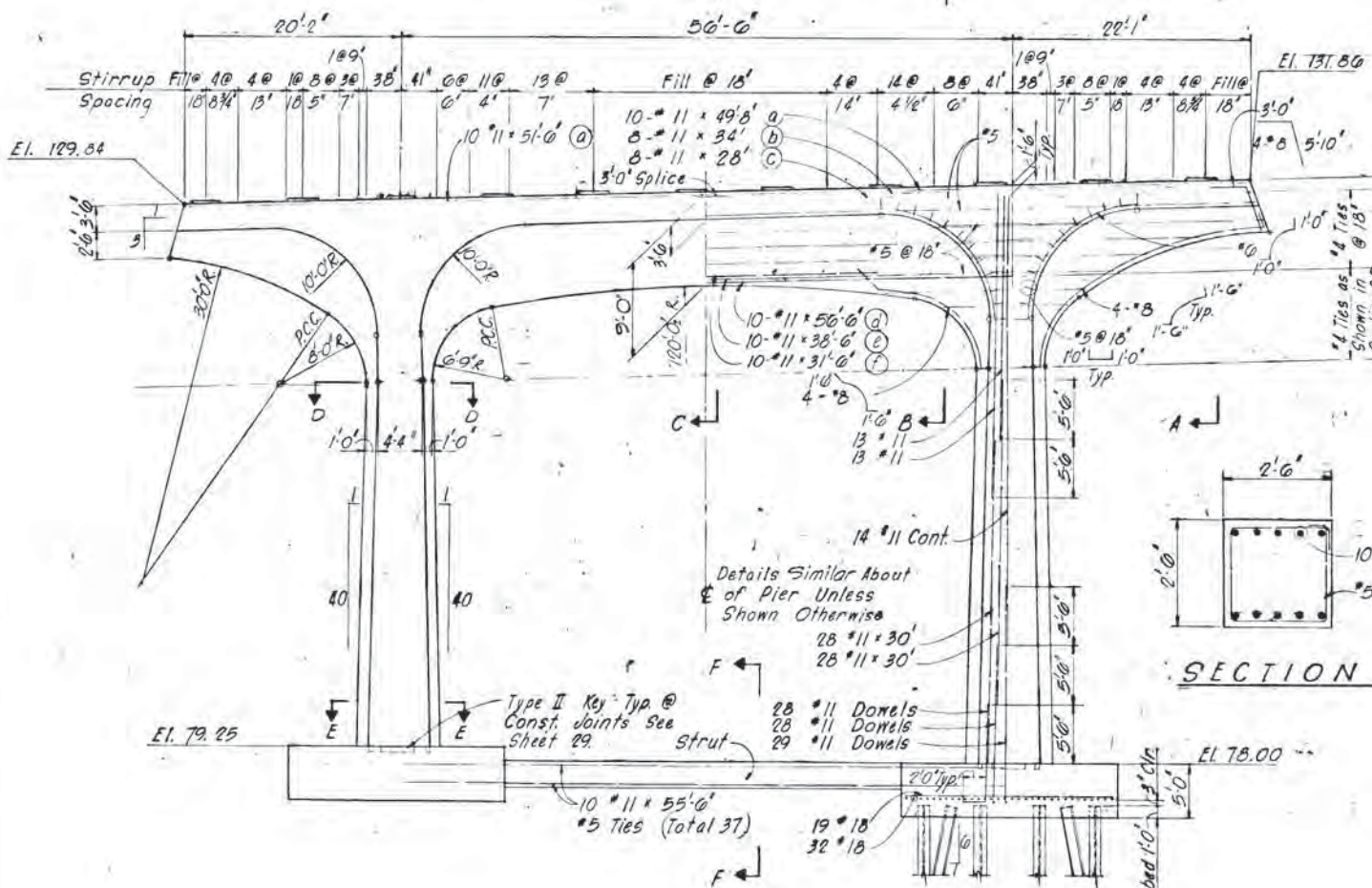
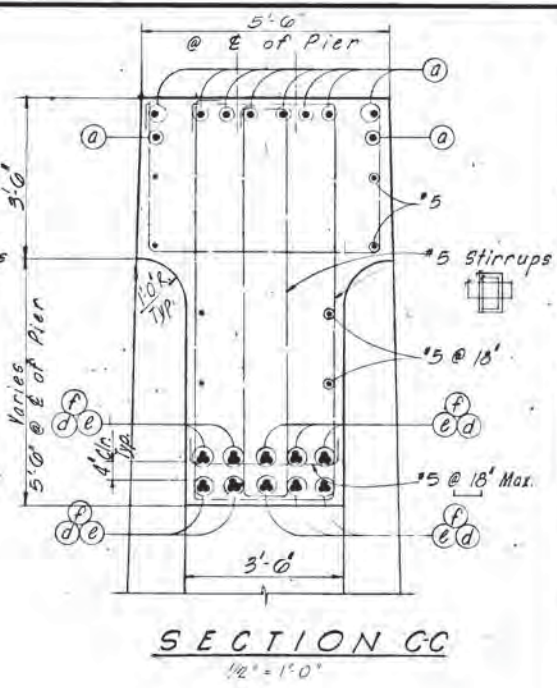
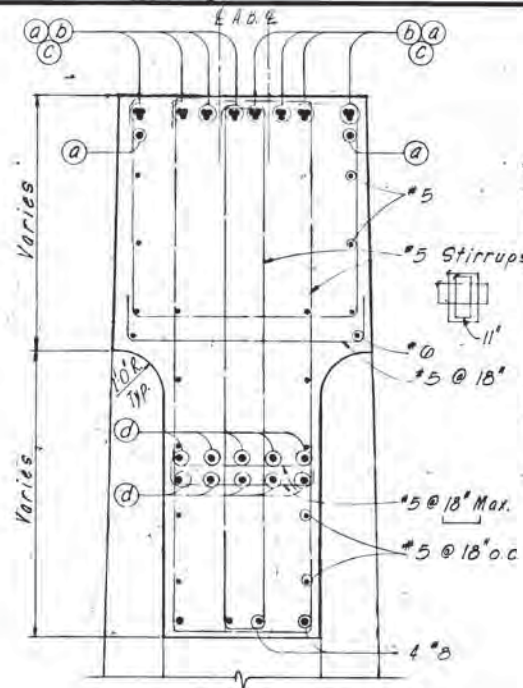
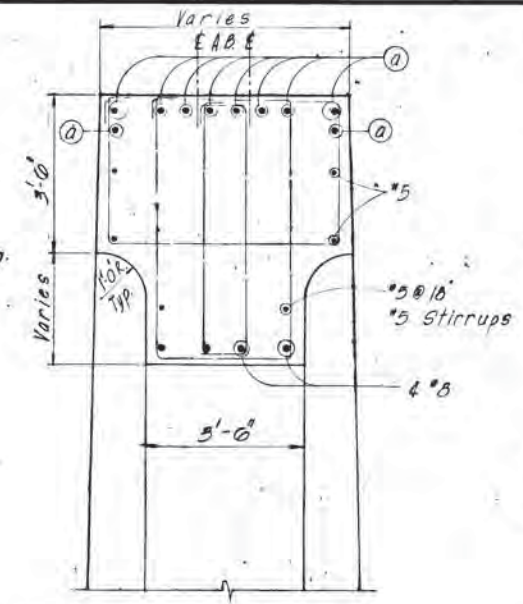
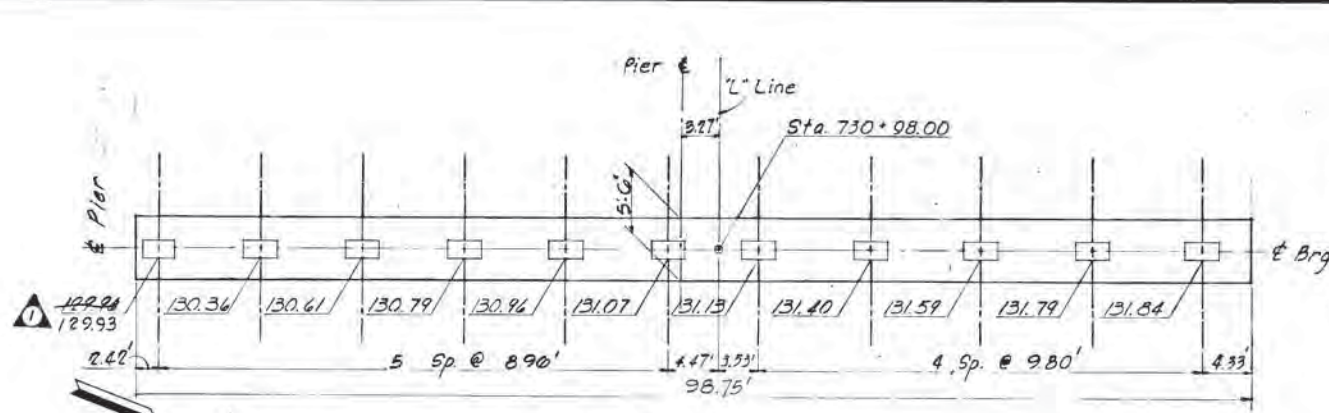
DATE	REVISION
1871	As Constructed
APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER	
DESIGNED: R.A.B.	CHECKED: R.M.B.
DRAWN: A.V.T.	CALC. BOOK: 19

OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
WILLAMETTE RIVER BRIDGE 1-205 CLACKAMAS COUNTY	
PIER 10	
DATE: OCT. 6, 1967	SHEET 33 OF 129
BRIDGE NO. 9403	DRAWING NO. 22237

NOV 3 1967

Type II Key, Typ. & Const. Joints. See Sheet 29.

For "As Const." Pier dimensions Refer to "Kamb Engr. & Fab." Drawg 1027-10



NOTES:
1. For Bearing Pad Details See Sheet 10.
2. All Column Vertical & Column Donel Reinforcing This Sheet Shall Be A.S.T.M. A432 Yield Point 60,000 P.S.I.

FOR INFORMATION ONLY

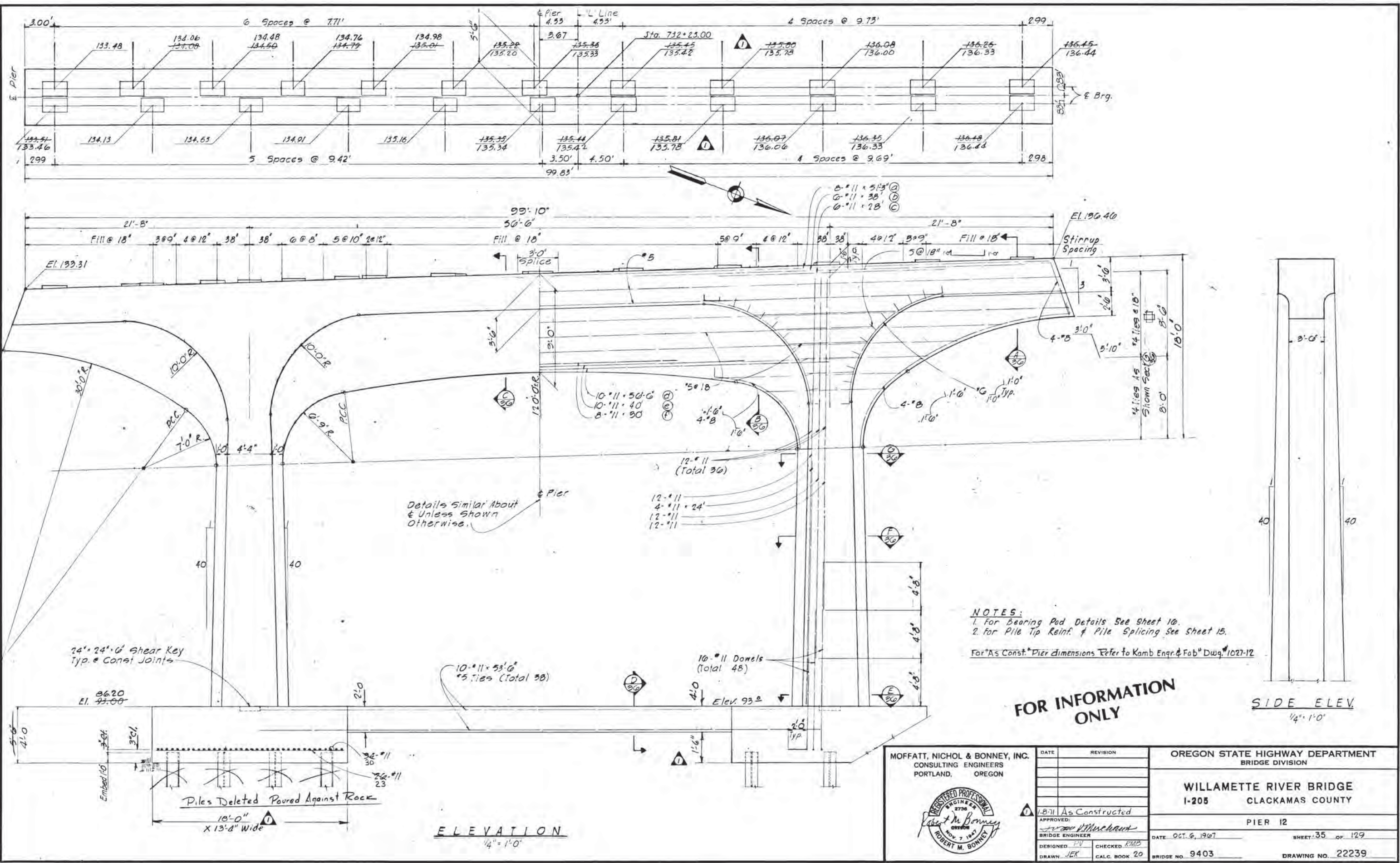
MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



DATE	REVISION
10-11-71	As Constructed
APPROVED:	
BRIDGE ENGINEER	
DESIGNED: VD	CHECKED: RMB
DRAWN: ART	CALC: BOOK 20

OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
PIER II	
DATE OCT. 6, 1967	SHEET 34 OF 129
BRIDGE NO. 9403	DRAWING NO. 22238

NOV 3 1967



Details Similar About
& Unless Shown
Otherwise.

NOTES:
1. For Bearing Pad Details See Sheet 10.
2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
For "As Const." Pier Dimensions Refer to Kamb Engr. & Fab. DWG. 1027-12

FOR INFORMATION ONLY

SIDE ELEV.
1/4" = 1'-0"

MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



DATE	REVISION
1-8-71	As Constructed
APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER	
DESIGNED: <i>J.E.K.</i>	CHECKED: <i>R.M.D.</i>
DRAWN: <i>J.E.K.</i>	CALC. BOOK 20

OREGON STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION

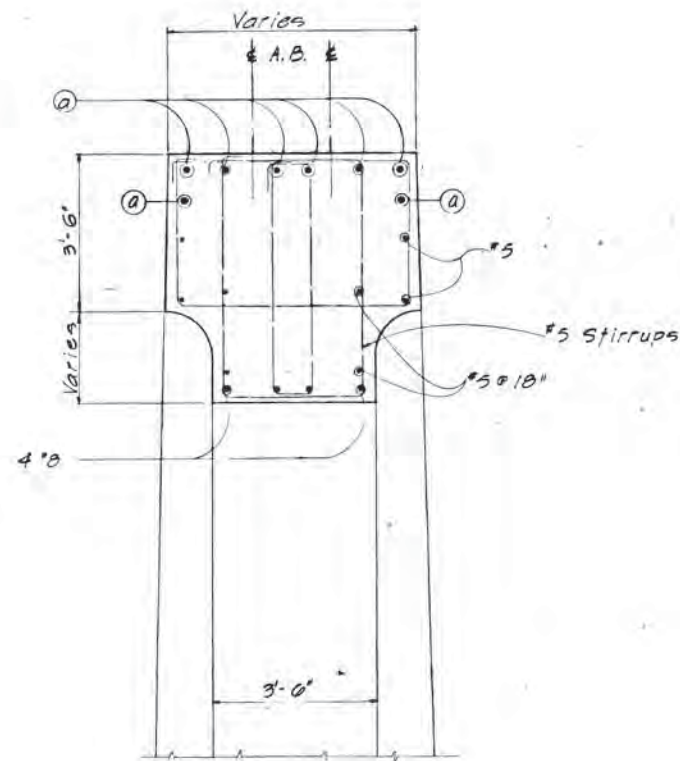
WILLAMETTE RIVER BRIDGE
I-205 CLACKAMAS COUNTY

PIER 12

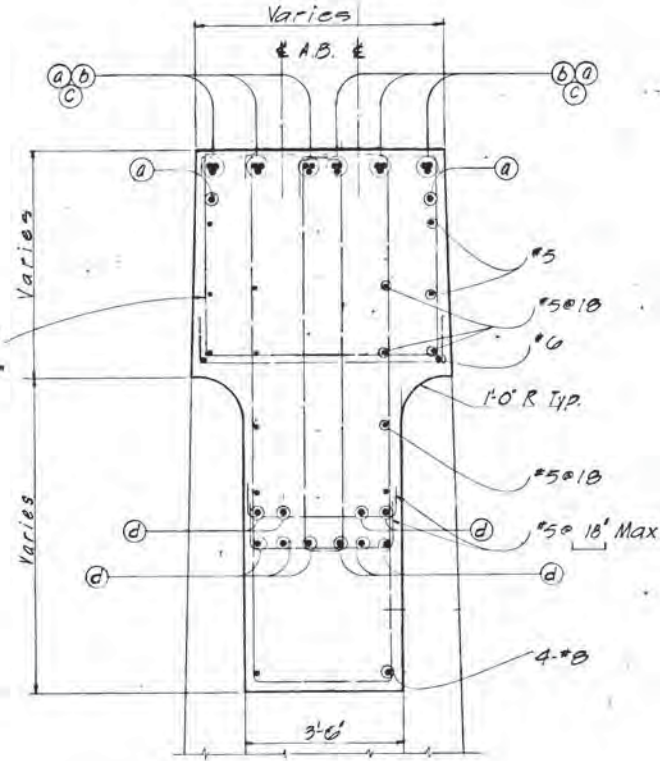
DATE: OCT. 6, 1967 SHEET: 35 OF 129
BRIDGE NO. 9403 DRAWING NO. 22239

DES. & ACV

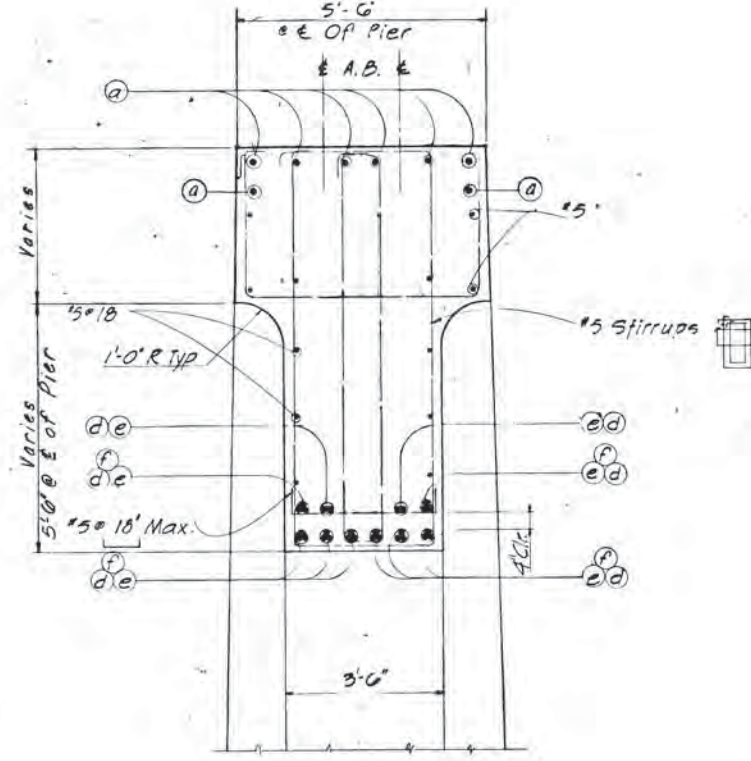
ELEVATION
1/4" = 1'-0"



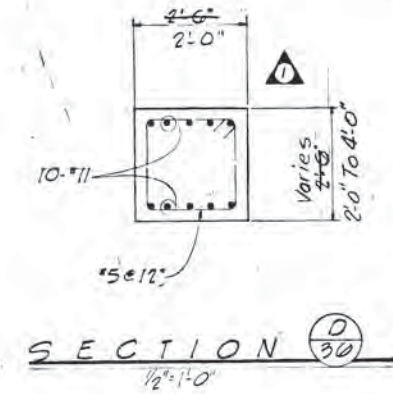
SECTION $\frac{A}{30}$
 $\frac{1}{2} \times 1'-0"$



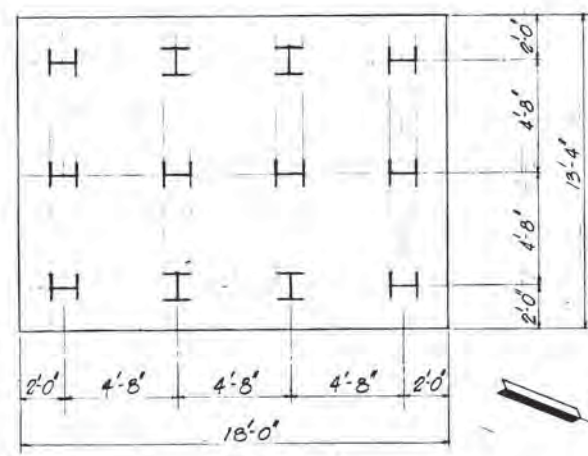
SECTION $\frac{B}{30}$
 $\frac{1}{2} \times 1'-0"$



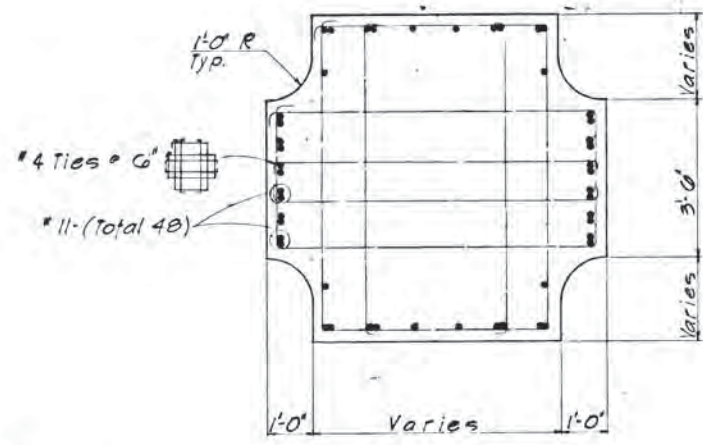
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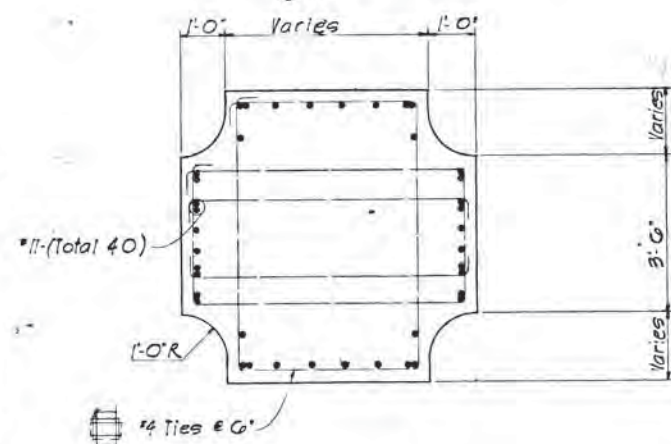
SECTION $\frac{D}{30}$
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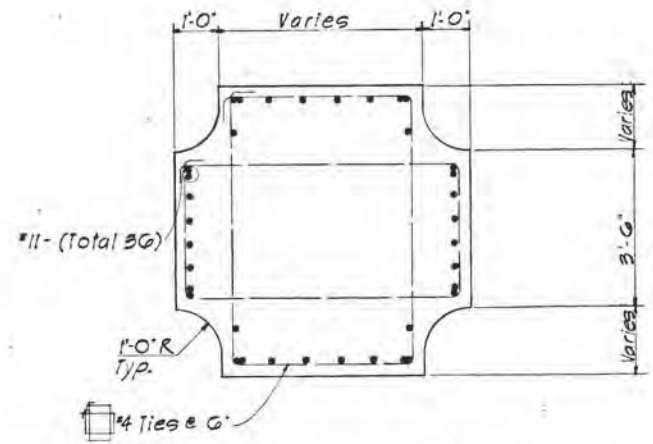
PLAN AT BASE
12 PILES - 14 BP 89 (100 Ton)
 $\frac{1}{4} \times 1'-0"$



SECTION $\frac{E}{30}$
 $\frac{1}{2} \times 1'-0"$



SECTION $\frac{F}{30}$
 $\frac{1}{2} \times 1'-0"$

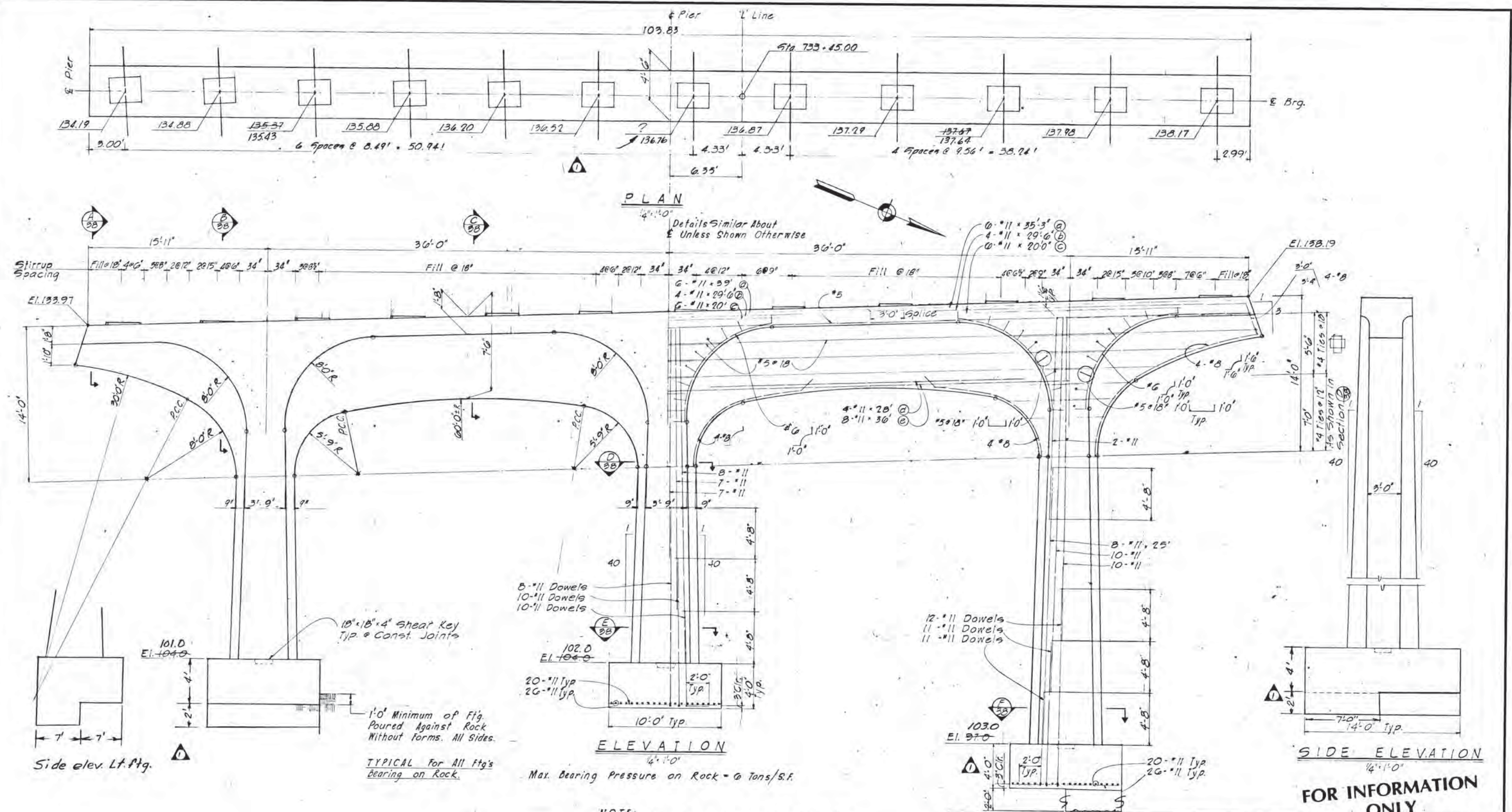


SECTION $\frac{G}{30}$
 $\frac{1}{2} \times 1'-0"$

FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
			WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
			PIER 12 DETAILS	
			DATE OCT. 2, 1967	SHEET 36 OF 129
			BRIDGE NO. 9403	DRAWING NO. 22240

PREPARED BY: JER
 CHECKED BY: RMB
 DRAWN BY: JER



ELEVATION
1/4" = 1'-0"

Max. Bearing Pressure on Rock = 6 Tons/S.F.

NOTE:
For Bearing Pad Details See Sheet 10.

For "As Const." Pier Dim. Refer to "Kamb Engr & Fab" Dwg #1027-13

Side elev. Lt. Ftg.

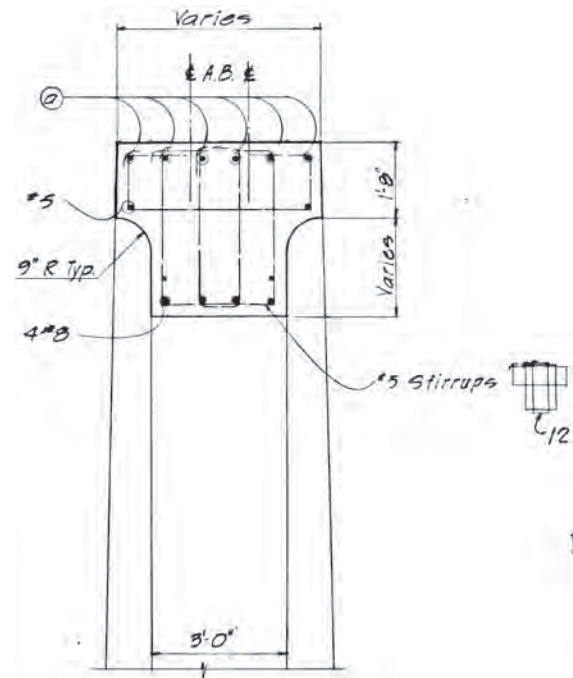
TYPICAL For All Ftg's
Bearing on Rock.

SIDE ELEVATION
1/4" = 1'-0"

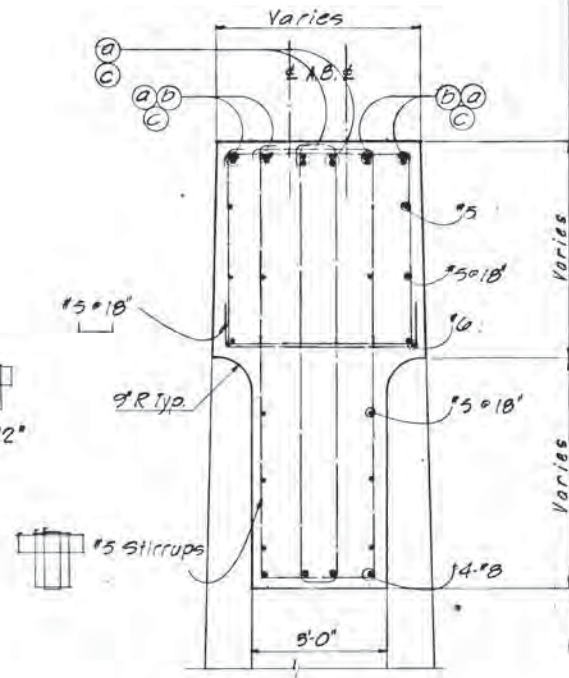
FOR INFORMATION ONLY

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON 	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
	1-571 As Constructed		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
APPROVED: <i>Robert M. Bonney</i> BRIDGE ENGINEER	DESIGNED: A.D.	CHECKED: R.M.B.	DATE: OCT. 6, 1967	SHEET: 37 OF 129
DRAWN: J.E.K.	CALC. BOOK: 21	PIER 13		BRIDGE NO. 9403
			DRAWING NO. 22241	

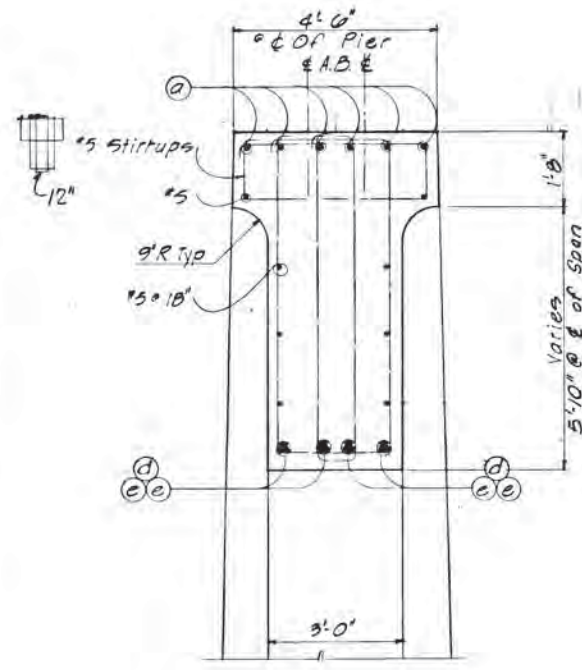
REVISION FOR BRIDGE PLAN
 NOV 3 1967



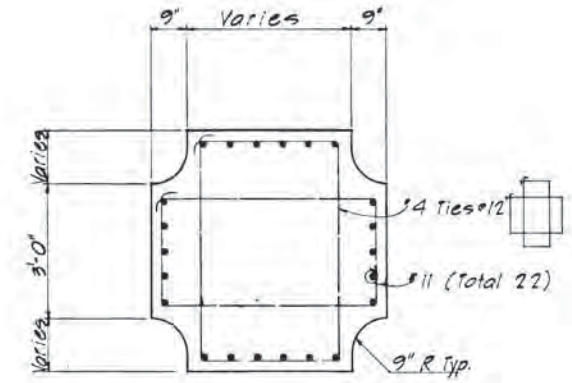
SECTION A (38)
1/2" = 1'-0"



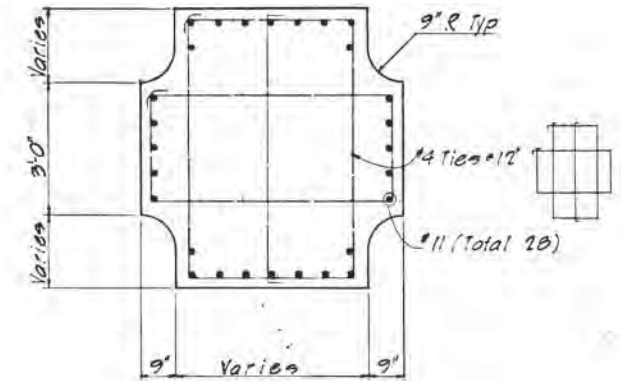
SECTION B (38)
1/2" = 1'-0"



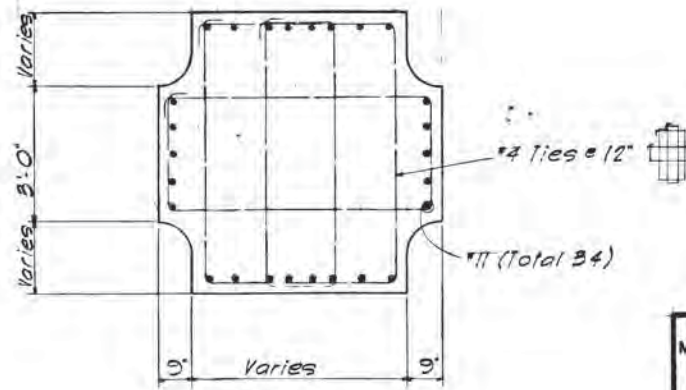
SECTION C (38)
1/2" = 1'-0"



SECTION D (38)
1/2" = 1'-0"



SECTION E (38)
1/2" = 1'-0"



SECTION F (38)
1/2" = 1'-0"

FOR INFORMATION ONLY

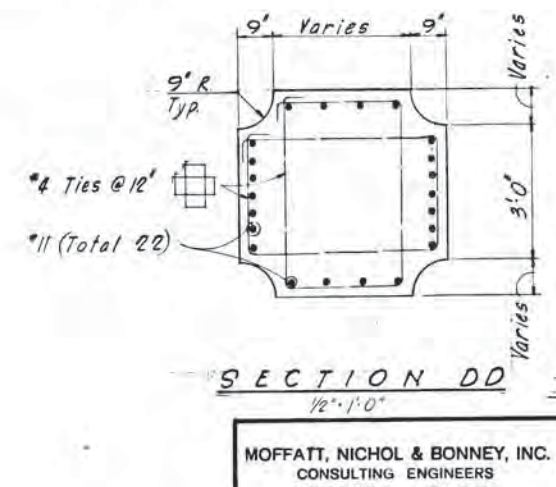
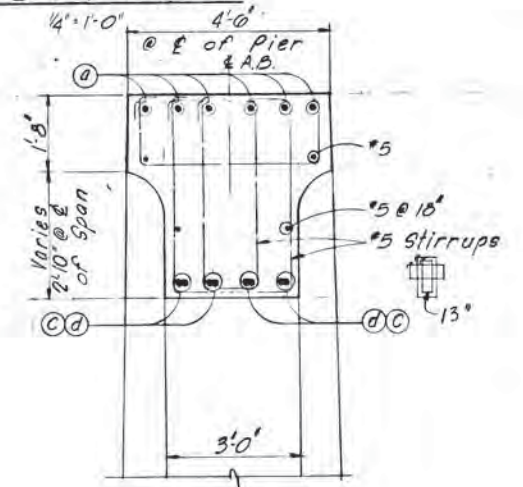
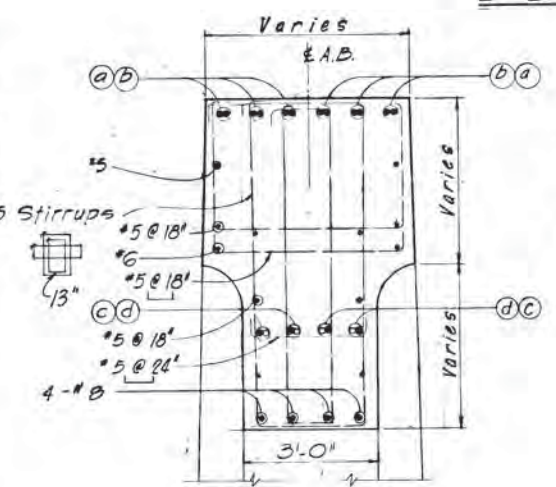
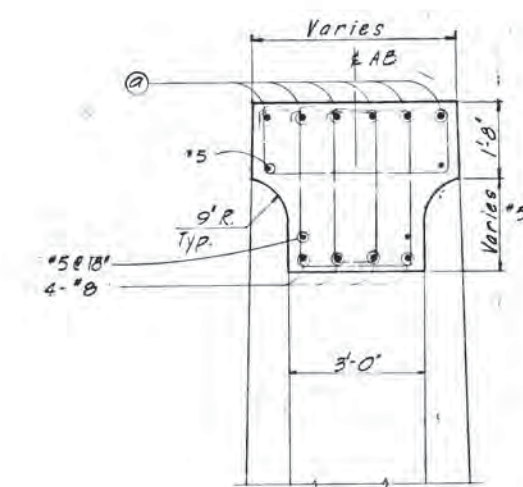
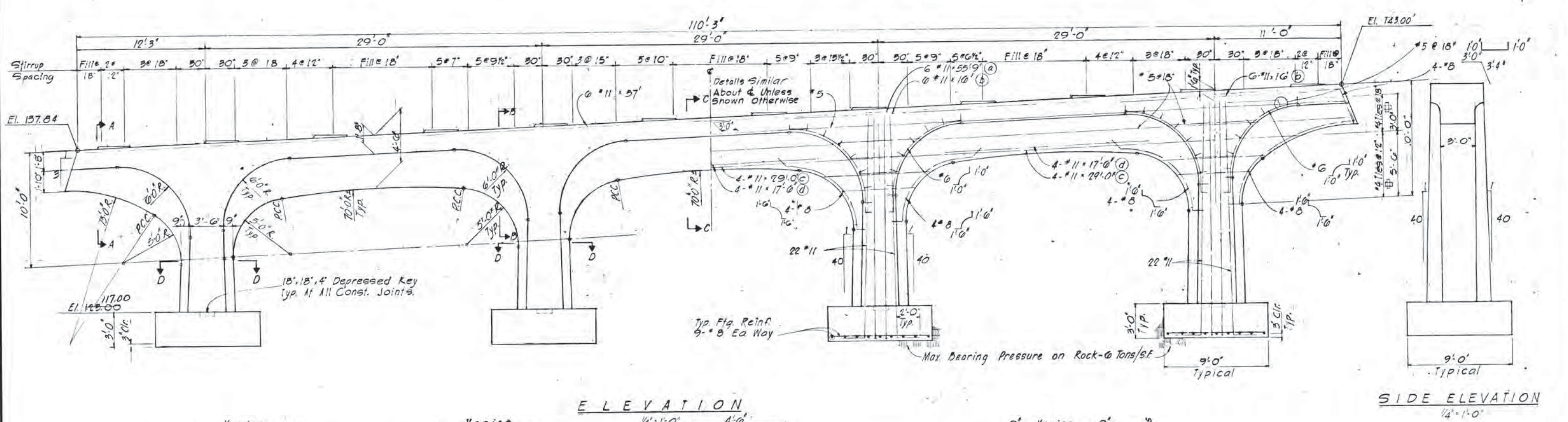
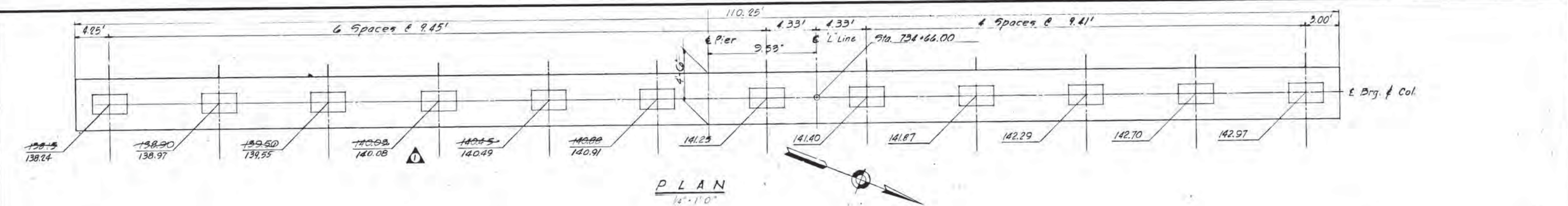
MOFFATT, NICHOL & BONNEY, INC.
CONSULTING ENGINEERS
PORTLAND, OREGON



DATE	REVISION
1-8-71	As Constructed
APPROVED:	
BRIDGE ENGINEER	
DESIGNED: JIK	CHECKED: RLB
DRAWN: JEK	CALC. BOOK: 21

OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
PIER 13 DETAILS	
DATE: OCT. 6, 1967	SHEET 38 of 129
BRIDGE NO. 9403	DRAWING NO. 22242

201-02
 DRAWING FOR RECORD PLANS
 10/27/67 S 2557



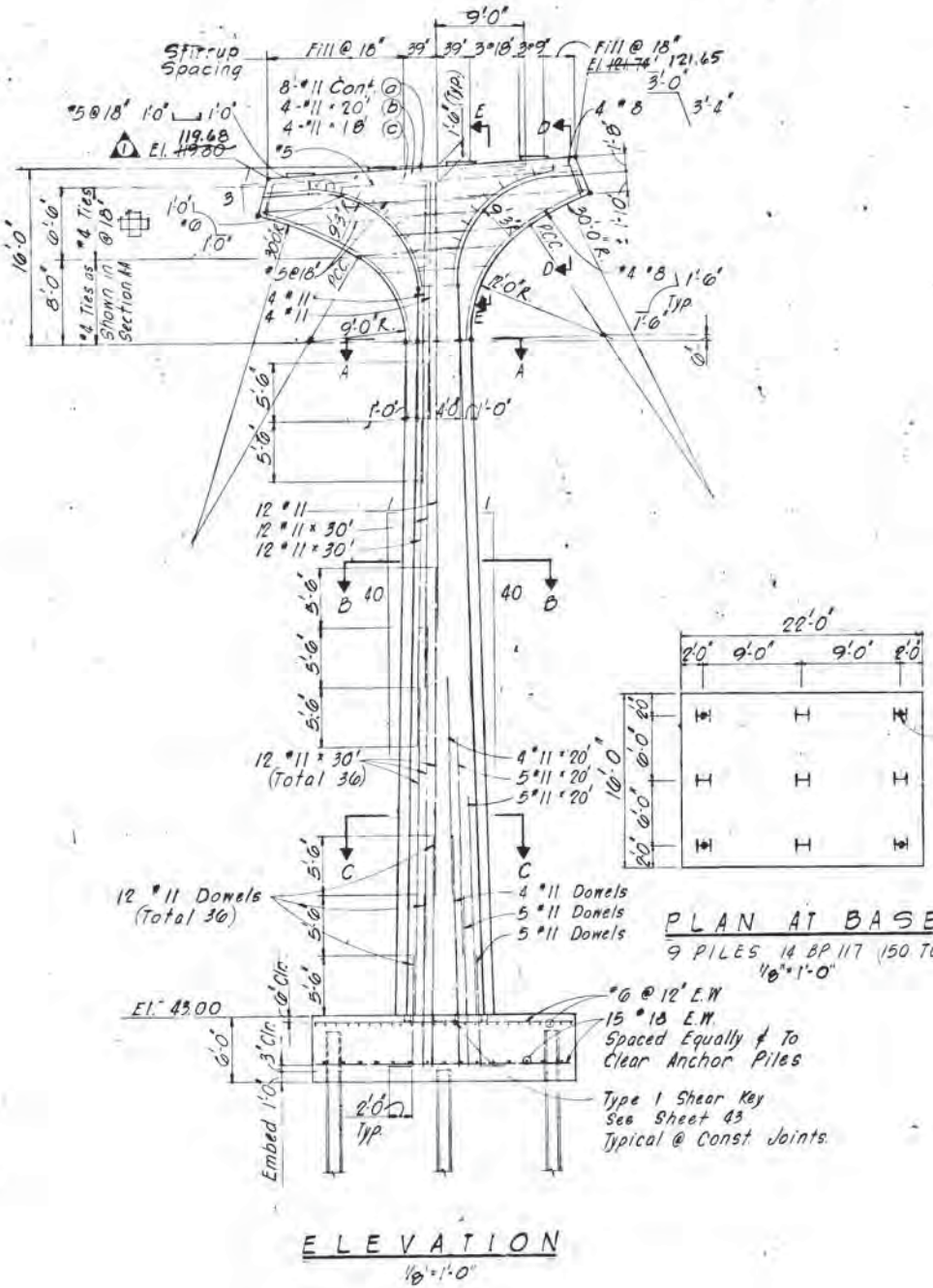
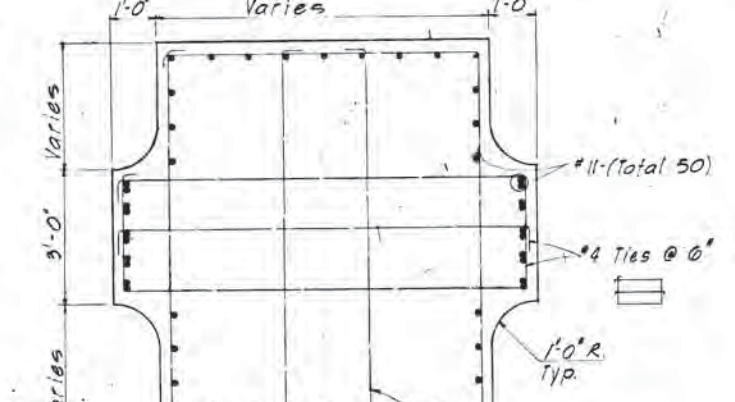
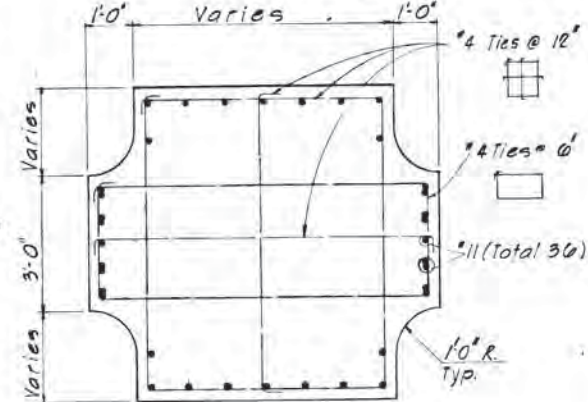
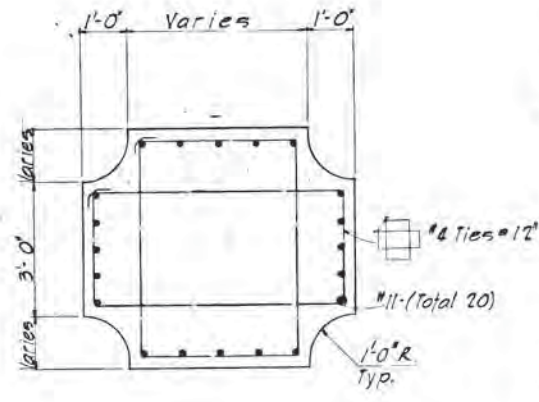
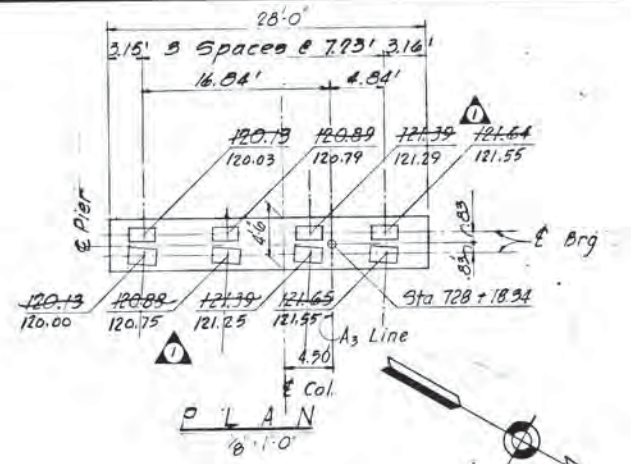
NOTE: For Bearing Pad Details See Sheet 10.

FOR INFORMATION ONLY

For "As Const" Pier Dim's Refer to Kamb Engr & Fab's Dwg # 1027-14

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-8-71 As Constructed APPROVED: <i>James W. McHard</i> BRIDGE ENGINEER		
DESIGNED: PV DRAWN: AT	CHECKED: RMD CALC. BOOK: 21	DATE: OCT. 6, 1967	SHEET 39 OF 129 BRIDGE NO. 9403 DRAWING NO. 22243

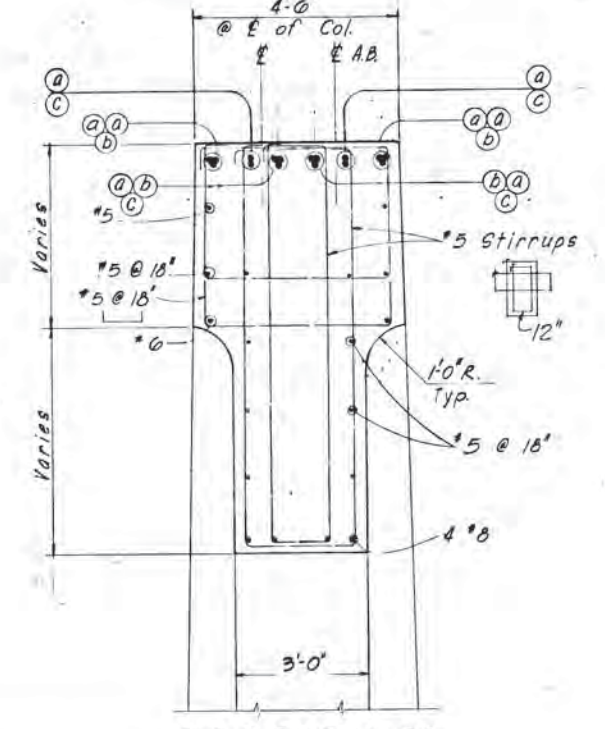
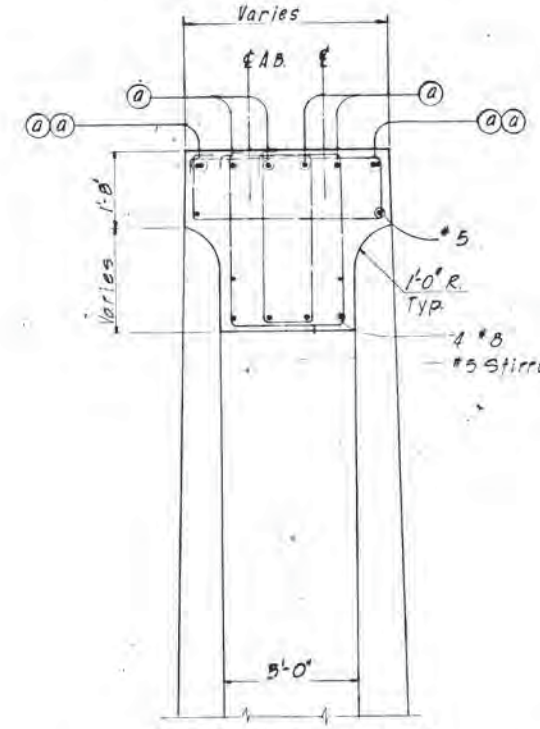
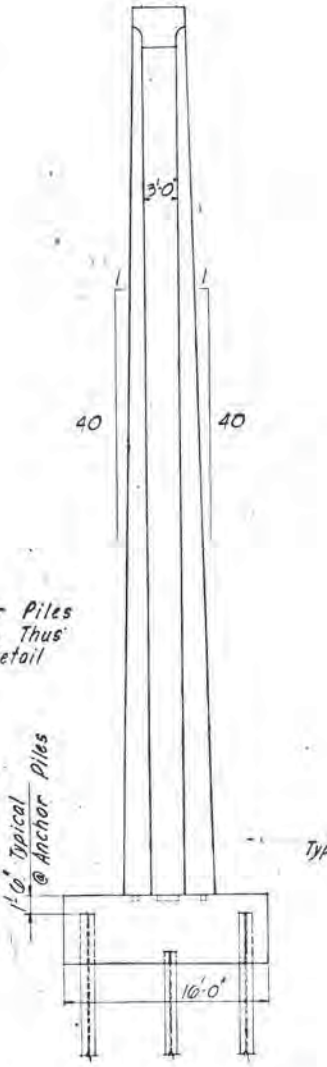
NOV 3 1967



SECTION AA
1/2" = 1'-0"

SECTION BB
1/2" = 1'-0"

SECTION CC
1/2" = 1'-0"



SECTION D-D
1/2" = 1'-0"

SECTION EE
1/2" = 1'-0"

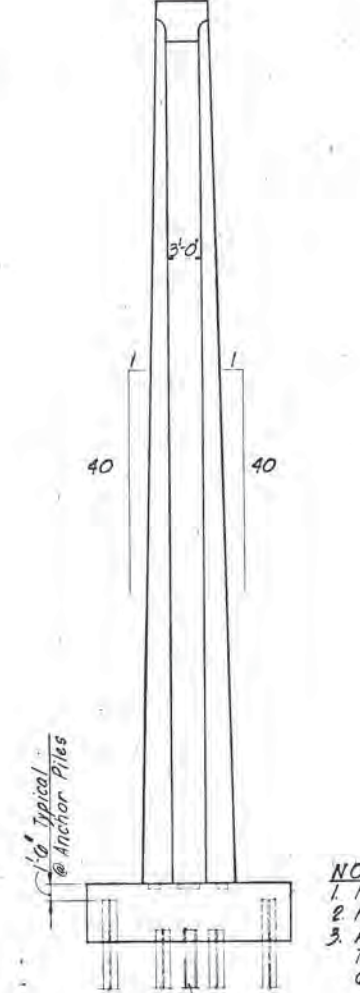
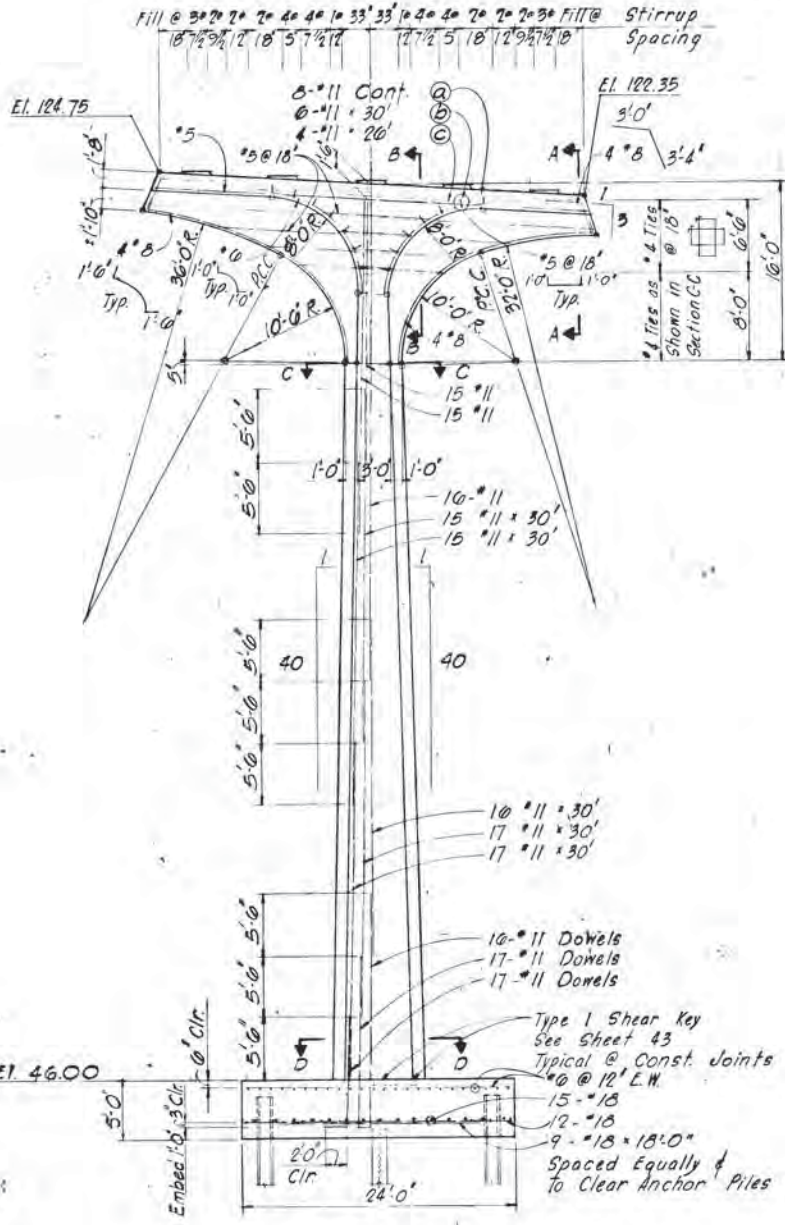
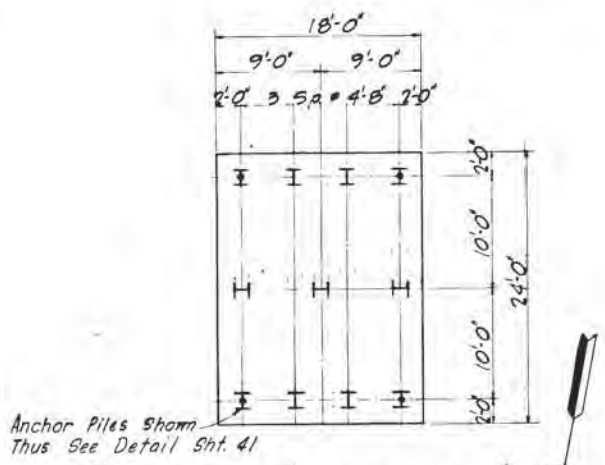
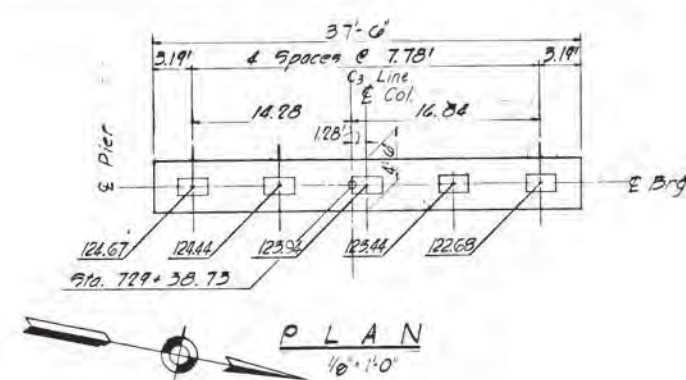
- NOTES:
1. For Bearing Pad Details See Sheet 10.
 2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
 3. All Column Vertical & Column Dowel Reinforcing This Sheet Shall Be A.S.T.M. A 432 Yield Point 60,000 P.S.I.

FOR INFORMATION ONLY

For "As Const" Pier Dim's. Refer to "Kamb Engr. & Fab" Dwg # 1027-A3-1

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
	1-8-71 As Constructed		WILLAMETTE RIVER BRIDGE 1-205 CLACKAMAS COUNTY	
REGISTERED PROFESSIONAL ENGINEER Robert M. Bonney OREGON NOV. 7, 1947	DESIGNED: AND	CHECKED: RMB	PIER A3-1	
	DRAWN: JER	CALC. BOOK 14	DATE OCT. 2, 1967	SHEET 41 of 129
			BRIDGE NO. 9403	DRAWING NO. 22245

NOV 3 1967

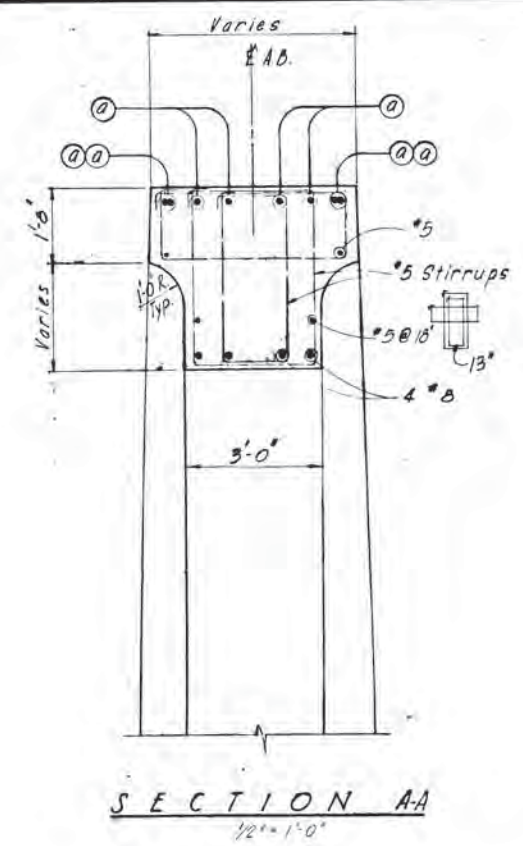


ELEVATION
1/8" = 1'-0"

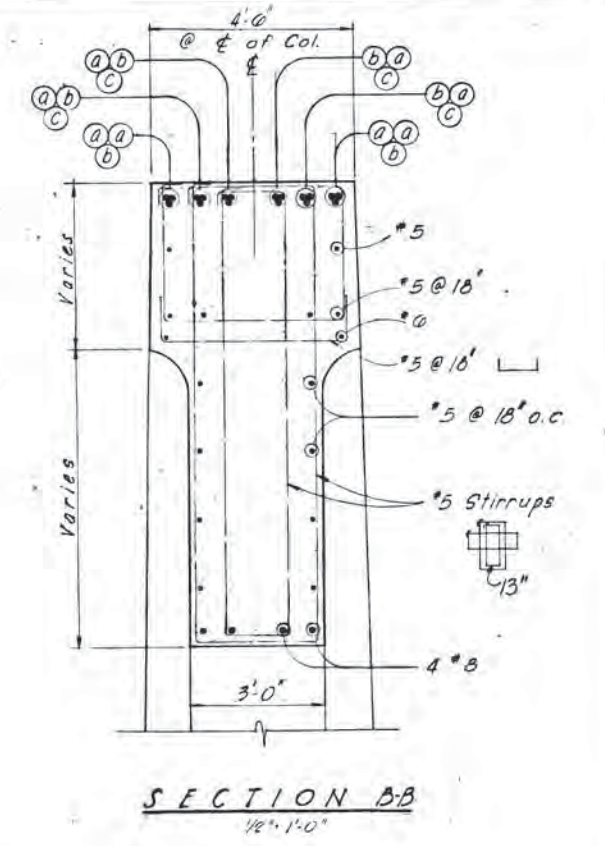
SIDE ELEVATION
1/8" = 1'-0"

PLAN AT BASE
11 PILES 14 BP B9 (100 TON)
1/8" = 1'-0"

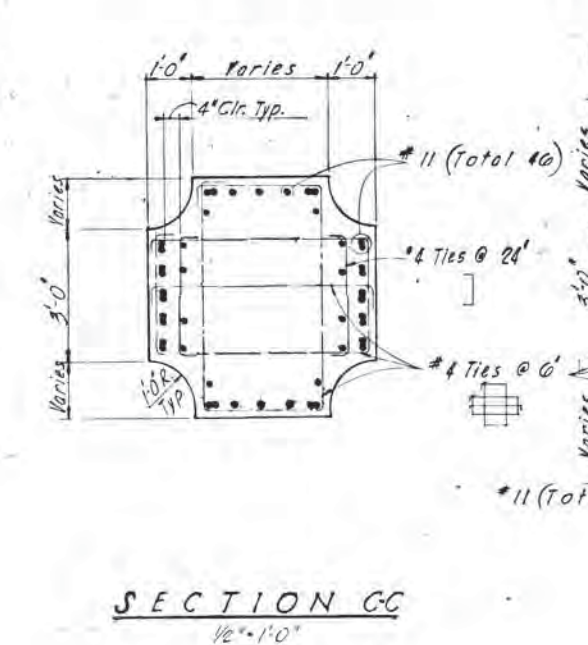
- NOTES:
1. For Bearing Pad Details See Sheet 10.
 2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
 3. All Column Vertical & Column Dowel Reinforcing This Sheet Shall Be A.S.T.M. A 432 Yield Point 60,000 P.S.I.



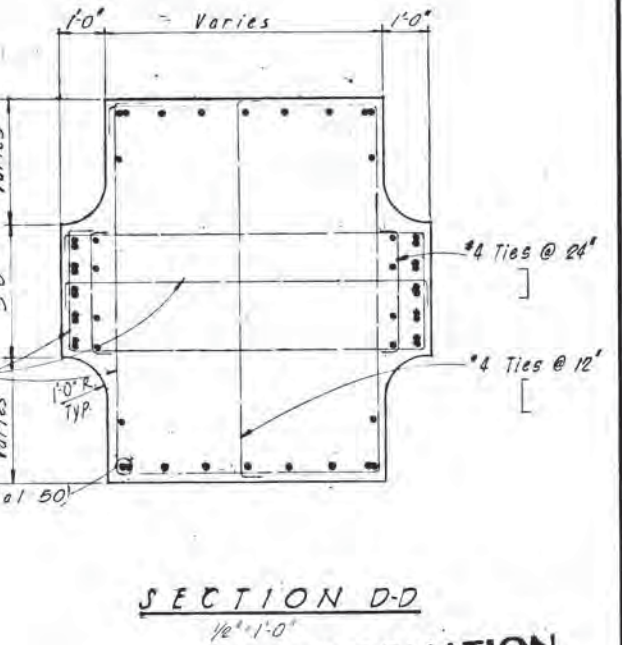
SECTION AA
1/2" = 1'-0"



SECTION BB
1/2" = 1'-0"



SECTION CC
1/2" = 1'-0"



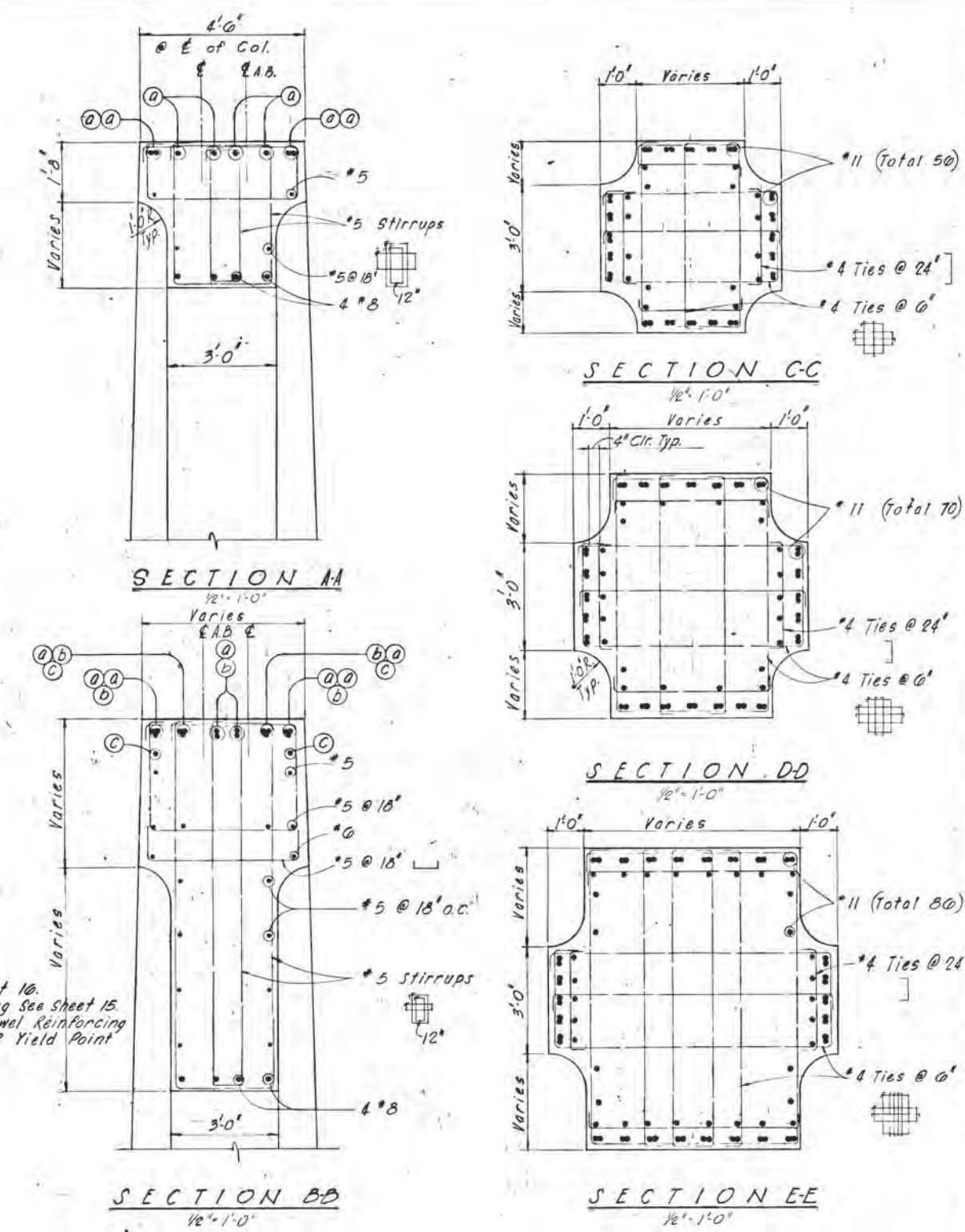
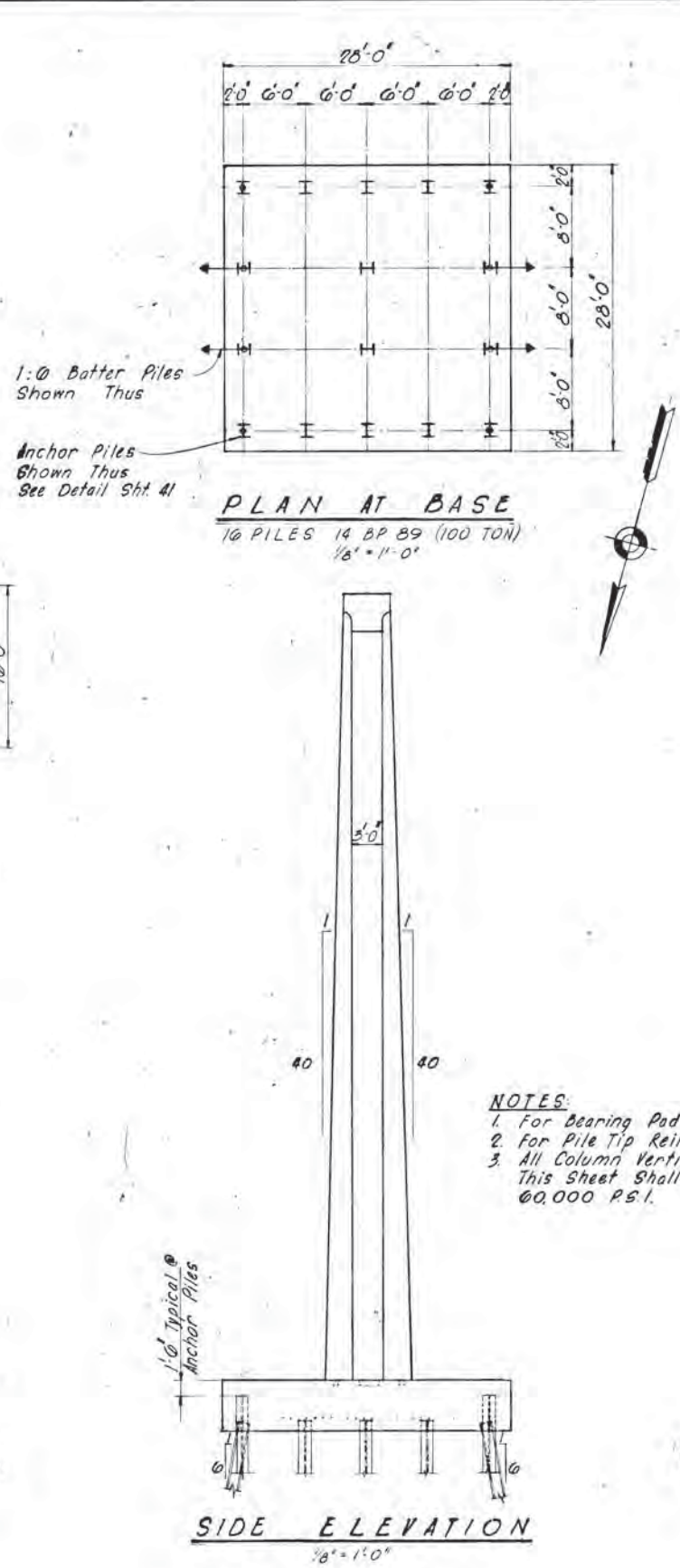
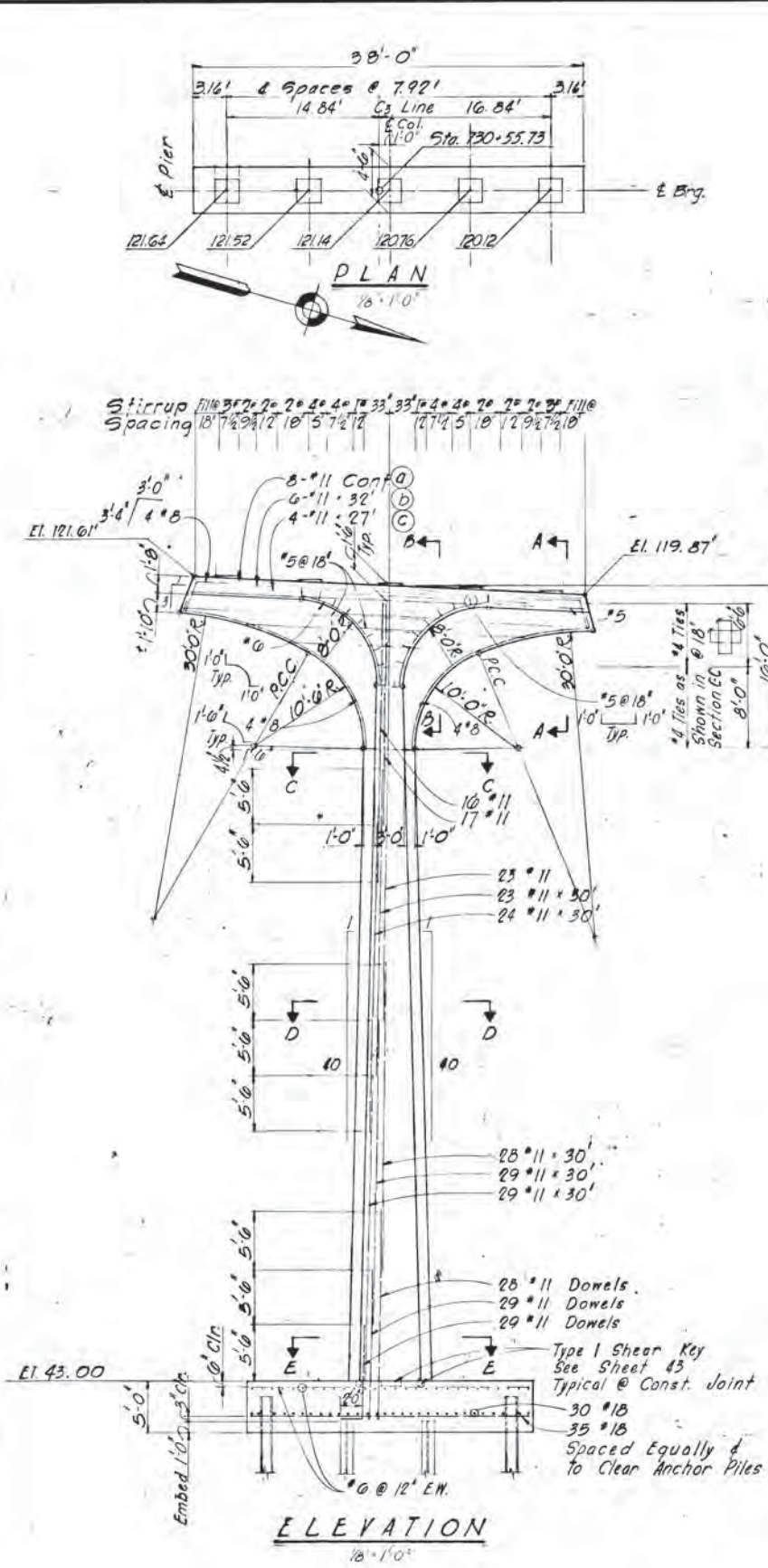
SECTION DD
1/2" = 1'-0"

FOR INFORMATION ONLY

For "As Const." Pier Dim's. Refer to Komb Engr. & Fab. Dwg. 1027-C3-2

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION	
	1-8-11 As Constructed		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY	
 APPROVED: Robert M. Bonney BRIDGE ENGINEER	DESIGNED: AVT	CHECKED: RMP	PIER C3-2	
	DRAWN: AVT	CALC. BOOK 15	DATE: OCT. 6, 1967	SHEET 50 OF 129
			BRIDGE NO. 9403	DRAWING NO. 22254

REVISIONS
NOV 8 1967



- NOTES:**
1. For Bearing Pad Details See Sheet 16.
 2. For Pile Tip Reinf. & Pile Splicing See Sheet 15.
 3. All Column Vertical & Column Dowel Reinforcing This Sheet Shall Be A.S.T.M. A432 Yield Point 60,000 P.S.I.

FOR INFORMATION ONLY

For "As Const." Pier Dim's. Refer to Komb. Engr & Fab Dwg 1027-C3-3

MOFFATT, NICHOL & BONNEY, INC. CONSULTING ENGINEERS PORTLAND, OREGON	DATE	REVISION	OREGON STATE HIGHWAY DEPARTMENT BRIDGE DIVISION
	1-8-71 As Constructed		WILLAMETTE RIVER BRIDGE I-205 CLACKAMAS COUNTY
	APPROVED:	[Signature]	
DESIGNED: RVD	CHECKED: RMB	DATE: OCT. 6, 1967	PIER C3-3
DRAWN: AIT	CALC. BOOK: 15		SHEET 51 OF 129
		BRIDGE NO. 9403	DRAWING NO. 22255