MILL

STORAGE TANKS

3-1½ $ 3 0 Hook Bars each of 10 points

Beam C

Bin Wall

SECTION A-A

166 ⅝"x 3.0" @ 12 ctrs T13 and 21 less Spacers 18 T10

PLAN OF ROOF
Scale ⅛"-1'-0"

I70

Columns 12" x 12"
4-1"ø x 25'9" T15
25½"ø Stays 4 0 @ 12 ctrs T16
19 Thus

NORTH ELEVATION
Scale ⅛"-1'-0"

12-½"ø 6'-6" Stirrups T27 spaced thus in 9" beams C

3 Hook Bars T9 in 1st and 6th Beams

4" Slab

2 ¾"ø x 3 0" T6

3 Loop Bars in Cols. 6 and 7 of Head House for Beams

8-⅜"ø Stirrups T3 spaced thus Beam CA

1-BEAM CA 10"x24"h28"
9-BEAMS C 12"x24"h28"
Only 2 have Hook Bars

CROSS SECTION
Scale ¼"-1'-0"

11-⅜"ø Stirrups T3 spaced thus in each of 9 beams C.

PART PLAN OF WALL
(West End)

8 Stirrups T3

4" Slab

4 Beams thus 2 1⅛"ø T4, 2 ¾"ø T2, 2 T6

BEAM B 10"x24"
5 Thus

Bin Wall

3 Loop Bars in Bin Wall

3-1½"ø x 3-0" Hook Bars T9
11-⅜"ø Stirrups T9 : T7

2 ¾"ø x 8'-0" T6 11 Stirrups T7

BEAM A 12"x24"
4 Thus

Face of Wall of Bins

32'-0"

LIST OF BARS

MARK	NUMBER	SIZE	LENGTH	SHAPE	REMARKS
T1	30	1"ø	25'-2"	Str.	
T2	10	¾"ø	28'-2"	Str.	Bend Stirrup legs one side
T3	240	⅜"ø	5'-9"	Bnt.	
T4	10	1⅛"ø	26'-8"	Str.	
T5	5	1"ø	26'-8"	Str.	
T6	38	¾"ø	8'-6"	Bnt.	
T7	88	⅜"ø	5'-9"	Bnt.	
T8	20	1"ø	32'-4"	Str.	(Cut 32'-4", 32'-0")
T9	30	1½"ø	3'-0"	Bnt.	Bend on Job
T10	370	⅜"ø	21'-6"	Str.	
T11	45	⅜"ø	28'-6"	Str.	
T12	45	⅜"ø	26'-6"	Str.	
T13	172	⅜"ø	3'-6"	Str.	
T14	64	⅜"ø	15'-8"	Str.	
T15	76	¾"ø	25'-9"	Str.	
T16	475	¼"ø	4'-0"	Bnt.	
T18	169	⅜"ø	28'-0"	Str.	
T19	76	⅜"ø	29'-8"	Str.	
T20	32	⅜"ø	13'-8"	Str.	
T21	32	⅜"ø	49'-0"	Str.	
T22	8	⅜"ø	20'-0"	Str.	Run in T23
T23	16	⅜"ø	4'-2"	Bnt.	
T24	16	⅜"ø	4'-9"	Str.	
T25	8	⅜"ø	22'-6"	Str.	Cut 8 T20
T26	16	⅜"ø	21'-11"	Str.	(Cut 16 T 18)
T27	198	¼"ø	6'-6"	Bent	

BUDG 7

DATES
2-25-29
3-19-29
3-26-29
4-5-29
4-13-29
4-17-29
4-19-29
PRINTED:

CONCRETE TRACK SHED

FEED PLANT
FOR
RALSTON-PURINA CO.
DENVER, COLORADO

JONES-HETTELSATER CONST CO.
KANSAS CITY, MO.
ENGINEERS

JOB NO. 147

SHEET NO. G6

12-C-117 ... 12263

← I70 →

PLAN

SECTION-BB

SECTION-DD

SECTION-EE

SECTION-AA

SECTION CC

FOUNDATION PLAN

SECTION-FF

BILL OF BARS

Mk	No	Length	Bending
A1	[illegible]	16' 8"	Stm
B1	36	39'-0"	-
C1	24	5'-6"	-
D1	24	8'-6"	16'-0"
E1	10	6'-6"	Stm
F1	10	5'-5"	1'-6"
G1	65	9'-8"	Stm
G2	24	5'-6"	16"
G3	8	5'-8"	Stm
G4	44	26'-8"	-
H1	72	58'-0"	-
J1	54	18'-8"	-
J2	54	6'-6"	-
J3	61	11'-0"	-
J4	31	38'-8"	-
J5	18	4'-6"	-
J6	128	8'-6"	16"
J7	97	5'-6"	-
J8	46	11'-9"	-
J9	32	6'-6"	-
J10	70	5'-6"	16"
J11	18	14'-8"	6, 12", 6"

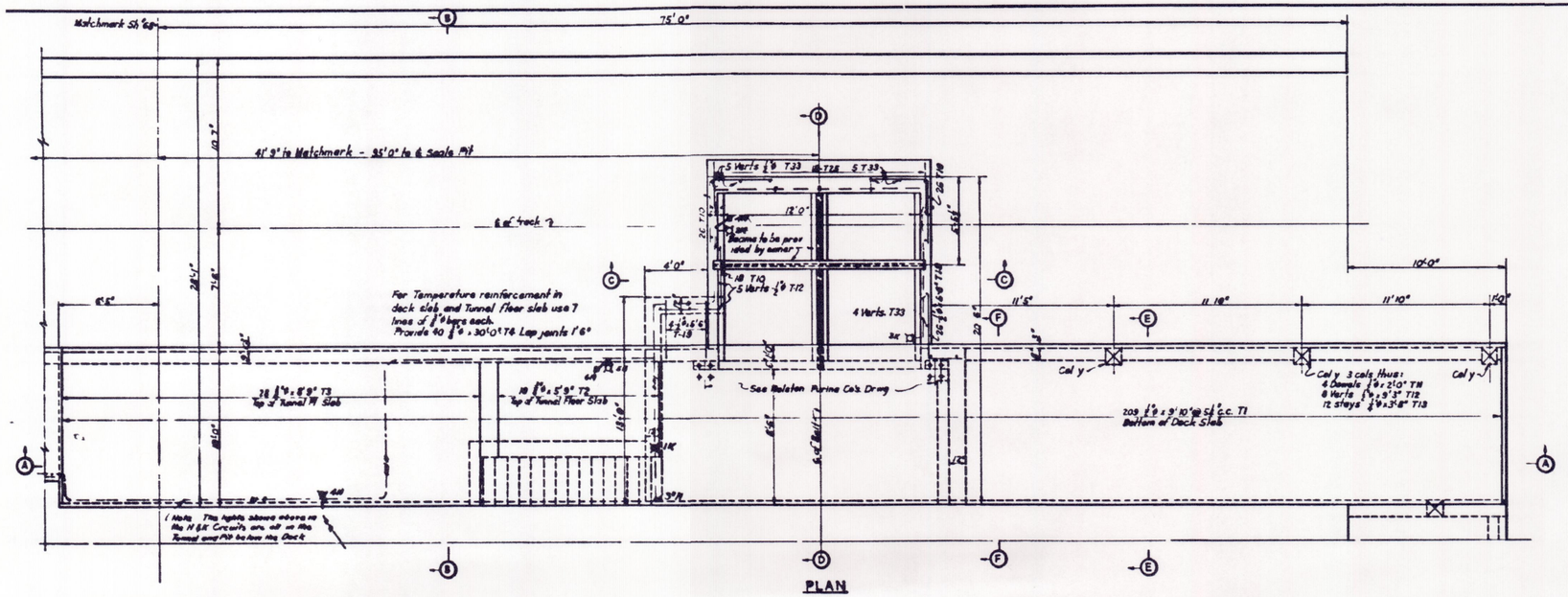
Note:- Exact dimensions and location of holes are to be taken from Ralston-Purina Co. drawings. The Ralston-Purina Company will supply all structural steel parts and details for their connections excepting only the steel ladder and 4"L guards for Dock.
Before constructing scale pits, dimensions of same are to be checked against details to be supplied by the company furnishing the scales.
All concrete this sheet to be 2500# mixture

BLDG 7

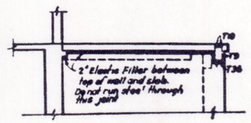
DATES
2-19-29
6-21-29
9-22-29
PRINTED:

SCALE PIT, & TANK DOCK
FEED PLANT
FOR
RALSTON-PURINA CO.
DENVER, COLORADO.
JONES-HETTELSATER CONST. CO.
JOB NO 147
KANSAS CITY, MO. ENGINEERS.

12-C-115 and 122



PLAN



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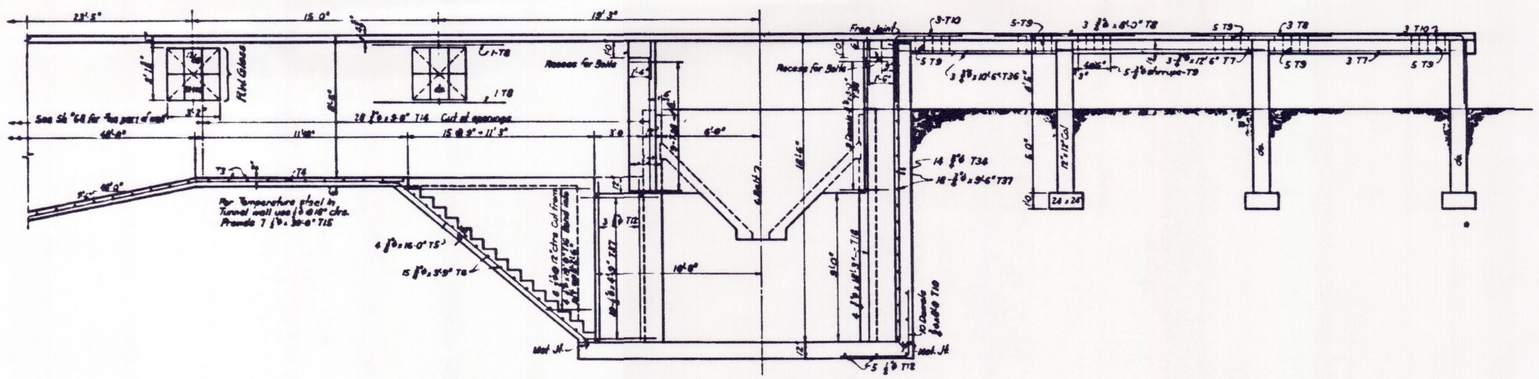
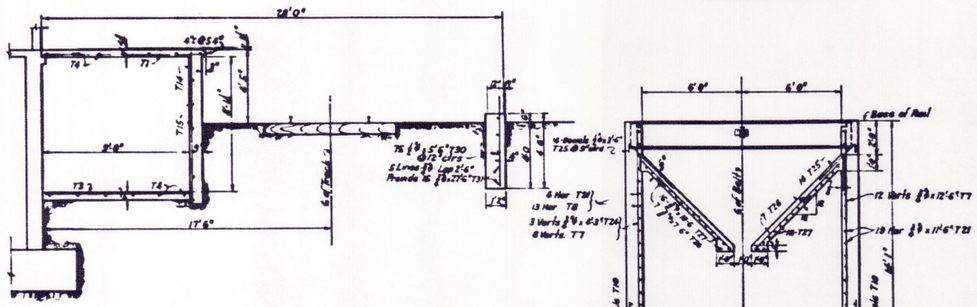


SECTION A-A



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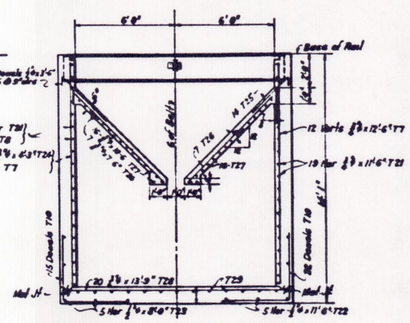

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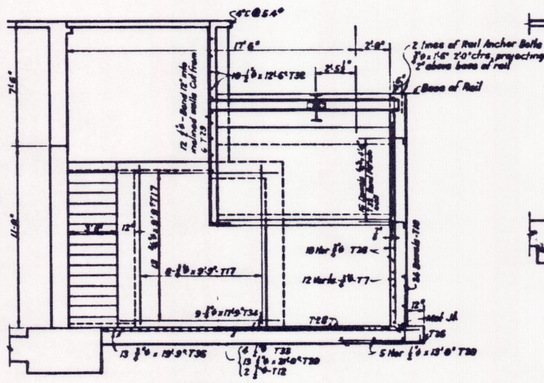

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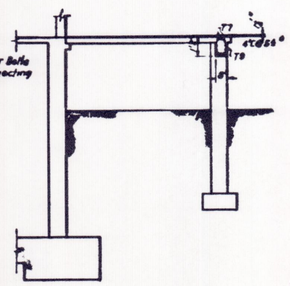


SECTION E-E

BILL OF BARS

Mark	No	Size	Length	Bending
T1	209	⅝	9'-10"	straight
T2	16	⅝	5'-9"	"
T3	28	"	6'-9"	"
T4	42	"	30'-0"	"
T5	4	"	15'-0"	"
T6	15	"	3'-9"	"
T7	36	⅝	12'-6"	"
T8	21	"	8'-0"	"
T9	36	⅝	3'-6"	Bar
T10	147	⅝	8'-6"	Mat
T11	12	⅝	7'-0"	Straight
T12	30	⅝	9'-3"	"
T13	36	⅝	3'-8"	Bar
T14	78	⅝	9'-0"	Straight
T15	7	⅝	30'-0"	"
T16	6	⅝	30'-3"	"
T17	21	⅝	9'-3"	"
T18	4	⅝	15'-3"	"
T19	30	⅝	5'-6"	Mat Strt
T20	5	⅝	13'-0"	Straight
T21	25	⅝	11'-6"	Straight
T22	5	½	11'-6"	"
T23	5	"	8'-0"	"
T24	3	⅝	4'-3"	"
T25	28	⅝	3'-8"	Mat Strt
T26	16	⅝	7'-6"	Straight
T27	32	⅝	10'-6"	"
T28	30	⅝	8'-6"	"
T29	10	⅝	11'-0"	"
T30	16	⅝	5'-6"	"
T31	15	⅝	11'-6"	"
T32	26	⅝	6'-0"	Mat Strt
T33	8	⅝	12'-6"	Straight
T34	23	⅝	11'-6"	"
T35	13	"	13'-9"	"
T36	3	"	10'-6"	"
T37	28	"	9'-6"	"
T38	18	⅝	31'-0"	Straight

BLDG 7

DATES	TRACK PIT & HEADHOUSE DOCK
2-21-27	FEED PLANT FOR RALSTON-PURINA CO. DENVER, COLORADO
3-22-27	JONES-HETTELSATER CONST CO. KANSAS CITY, MO
PRINTED	JOB NO. 147 ENGINEERS SHEET NO. 67

NORTH

DRILLED PIER SCHEDULE			
TYPE	SHAFT DIAMETER	REINFORCING	DOWELS
A	30"ø	4 - #9	4 - #9
B	36"ø	5 - #9	6 - #9
C	36"ø	8 - #9	Hoops
D	42"ø	6 - #9	See Plan
E	42"ø	6 - #9	6 - #9
F	42"ø	6 - #9	6 - #9
G	48"ø	7 - #9	See Plan
H	48"ø	8 - #9	6 - #9
J	48"ø	8 - #9	Hoops
K	54"ø	8 - #9	See Plan
L	54"ø	8 - #9	Hoops
M	60"ø	8 - #9	Hoops
N	66"ø	9 - #9	Hoops

1. Drilled piers shall be founded 1'-0" into well graded sand and gravel.
2. For estimating purposes, bottom of drilled piers are at elevation 86'-0".
3. Provide scheduled reinforcing full length of drilled pier and tie with #3 circular ties @ 1'-0".
4. For pier to grade beam dowels see plan and sections.
5. Soil report prepared by Hal Zeff and Associates, Nov. 23, 1971, project No. 9821.
6. Center drilled piers on column centerlines unless noted.

PARTIAL FOUNDATION & FIRST FLOOR PLAN - PART 'A' 1/8" = 1'-0"

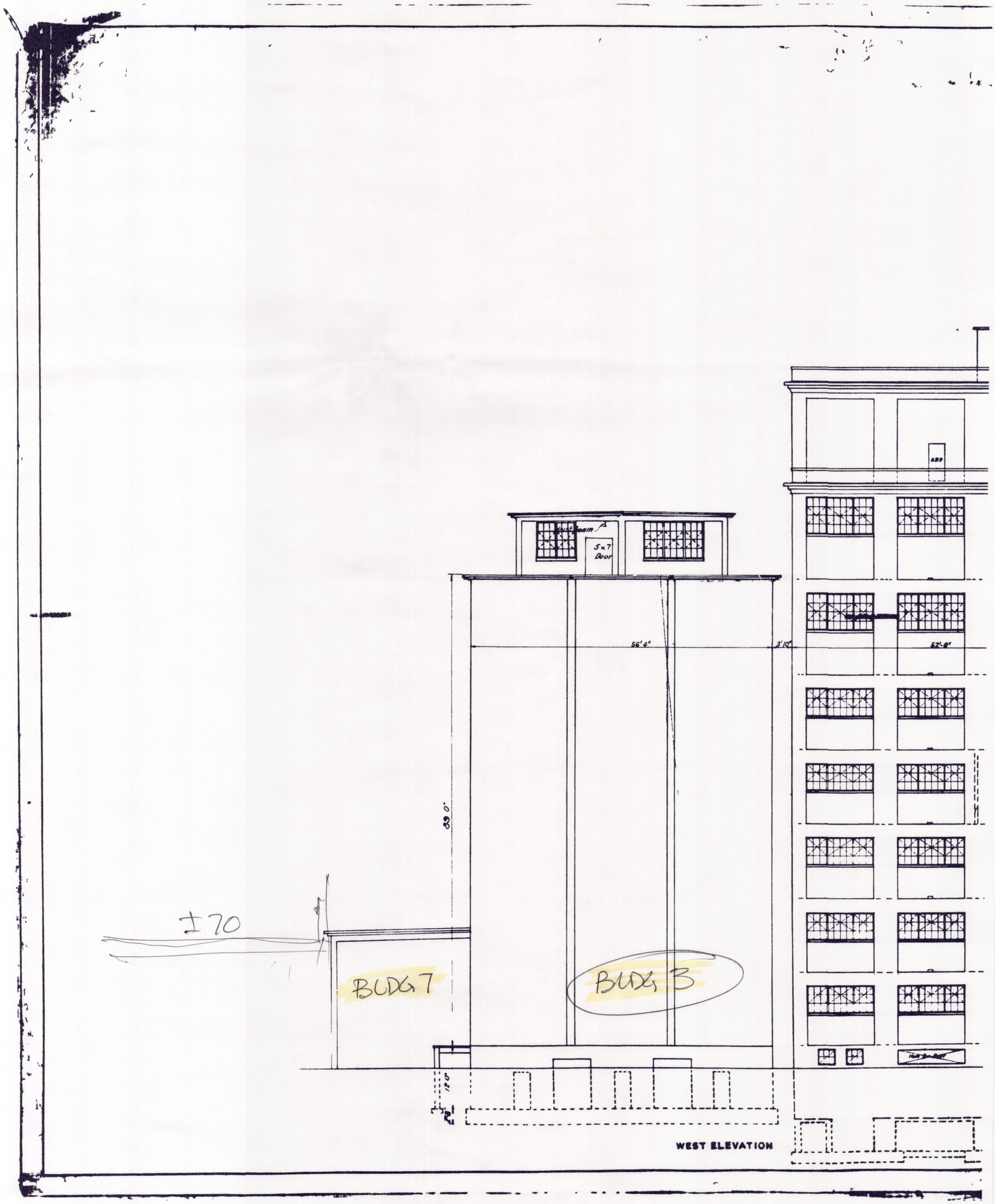
TOP OF EXTERIOR PIERS AT ELEVATION 92'-0", TOP OF INTERIOR PIERS AT ELEVATION 98'-10", TYPICAL UNLESS NOTED THUS ( ).
TOP OF GRADE BEAM AT ELEVATION 98' 0" UNLESS NOTED OTHERWISE. TOP OF FINISHED SLAB ON GRADE AT ELEVATION 100'-0" UNLESS NOTED THUS ▭
ALL PRECAST CONCRETE SHALL DEVELOP 5,000 P.S.I COMPRESSIVE STRENGTH IN 28 DAYS.
POUR SLAB ON GRADE IN A CHECKERBOARD PATTERN WITH A MAXIMUM AREA TO BE DETERMINED BY THE CONTRACTOR.
ALL CEMENT FOR SLABS ON GRADE SHALL BE "CHEM COMP" SHRINKAGE COMPENSATING CEMENT AS MANUFACTURED BY TEXAS INDUSTRIES INC.
ALL SLAB ON GRADE CONCRETE SHALL DEVELOP 4000 PSI COMPRESSIVE STRENGTH IN 28 DAYS.

KEY PLAN

RALSTON PURINA COMPANY
ENGINEERING DEPT. ST. LOUIS, MO.
DENVER, COLO. PLANT

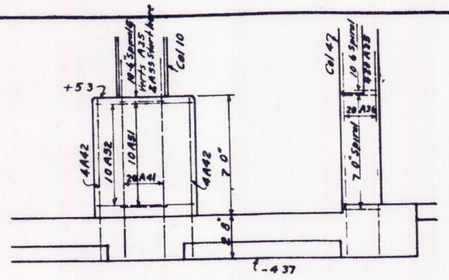
TENDER VITTLES EXPAN.
PROCESSING
PLAN & DETAILS
FOUNDATION & 1ST FLOOR

BCD 5116



WEST ELEVATION

GLAZING DIAGRAM FOR MILL – See Sh "34 for note
Roof
6" conc wall
Roof Line
Mill Roof
6" conc wall & 4" brick veneer
10'6"
24'2"
24'0"
107'0"
110'6"
10K3
10K10
9K5
6K5
8K5
7K5
11K5
4K5
1K=1 inner face, 103 K4 outer face 8'cc
1 Corr 5" Purlins
PW Glass
1D12
1D21
1D16
EAST ELEVATION
BLDG 1
BLDG 7



SEC KK

COLUMN SCHEDULE

Col. No.	Bars in 1 Column
1	21 Sp. of ⅜" ø 2'-3" p. x 10'-6" 14 Vert #9 x 14'-0" A33 10 Dowels #9 x 4'-6" A34
2	25 Sp. of ⅜" ø 3'-3" p. x 10'-6" 20 #10 x 14'-0" A36 16 Dowels #10 x 4'-6" A36
3 & 5	25 Sp. of ⅜" ø 3'-3" p. x 10'-6" 20 Vert A35 20 Dowels #9 11'-8" A36 10 Dowel Hoops ⅜" x 2'-9" (Tie Bars) A34
4	25 Sp. of ⅜" ø 3'-3" p. x 10'-6" (Above Elev +7'-3") 20 Verts A35 25 Sp. of ⅜" ø 3'-3" p. x 7'-0" (Below Elev +7'-3") 20 Verts 12'-8" A36 (Short at Elev. +4'-3")
6	25 Sp. ⅜" x 3'-5" p. x 10'-6" 18 Verts A36 16 Dowels A34
7 13 19	25 Sp. ⅜" ø 3'-3" p. x 9'-0" 21 Verts #9 12'-6" A37 16 Dowels #9 x 6'-0" A39 3 Dowel Hoops A34
8	33 Sp. ⅜" ø 2'-7" p. 10'-6" 26 Verts 18 #10 x 14'-0" A39 20 Dowels #9 x 8'-0" A40 8 Dowel Hoops ⅜" x 8'-0" A34
25	22 Verts A33 32 Steps ⅜" x 8'-6" A34 28 Dowels #9 6'-6" A37
9 11 15 16 17	33 Sp. ⅜" ø 2'-7" p. x 10'-6" 26 Vert A39 28 Dowels #9 x 8'-8" A40 10 Dowel Hoops A34

Col. No.	Bars in 1 Column
10	33 Sp. ½" x 2'-2" p. x 10'-6" 4 Verts #11 x 14'-0" A38 8 " ½" x 14'-0" A39 20 Dowels 1⅜" x 11'-8" A41 8 Base Verts #9 x 6'-6" A42 10 Conc. Hoops A31 6 Belt Hoops #9 x 9'-0" A32
12 18 30	30 Sp. ½" ø 2'-7" p. x 10'-6" 9 Vert A35 18 Dowels #9 6'-6"
24	30 Sp. ½" ø 2'-9" p. x 10'-6" 19 Vert A35 12 Dowels #9 6'-6" A41 6 " A43 9 Dowel Hoops ⅜" x 9'-0" Bend as reqd
4 23 29 26 27 28	30 Sp. ½" ø 2'-2" p. x 9'-0" 26 Verts #9 12'-6" Bent 20 Dowels #9 6'-6" A40 3 Dowel Hoops A34 (above El. +3')
21 22	33 Sp. ½" ø 2'-7" p. x 10'-6" 28 Verts #9 14'-0" A39 32 Dowels A44 9 Dowel Hoops A34

Note
Bend vertical bars slightly at top of Cols to fit spiral 1 smaller in dia

LIST OF BARS

Mk	No	Size	Length	Bending
A1	515	⅝	12'-6"	Str
A2	371	⅝	13'-6"	-
A3	18	⅜	11'-6"	Str
A4	4	1"	14'-6"	Str
A5	193	⅜	12'-6"	Str
A6	54	⅜	11'-6"	Str
A7	47	⅜	7'-0"	Str
A8	68	⅜	10'-0"	Str
A9	21	⅜	14'-0"	Str
A10	32	⅜	9'-2"	Str
A11	8	⅜	10'-6"	Str
A12	5	⅜	12'-0"	Str
A13	24	⅜	8'-6"	Str
A14	79	⅜	10'-2"	Str
A15	117	⅜	11'-0"	Str
A16	187	⅜	6'-0"	Str
A17	435	⅜	9'-0"	Str
A18	41	-	8'-0"	Str
A19	363	-	11'-0"	Str
A20	200	-	6'-6"	Str
A21	10	-	7'-6"	Str
A22	100	⅜	5'-0"	Str
A23	159	⅜	16'-2"	Str
A24	86	⅜	9'-6"	Str
A25	172	⅜	16'-2"	Str
A26	9	⅜	7'-6"	Str
A27	80	-	12'-6"	Str
A28	22	⅜	11'-6"	Str
A29	68	⅜	16'-6"	Str
A30	44	⅜	18'-2"	Str
A31	6	-	20'-6"	Str
A32	8	⅜	16'-6"	Str
A33	36	-	16'-6"	Str
A34	48	-	6'-6"	Str
A35	36	-	16'-6"	Str
A36	88	-	11'-6"	Str
A37	63	-	12'-6"	Str
A38	46	-	15'-6"	Str
A39	388	-	16'-6"	Str
A40	30	-	8'-6"	Str
A41	726	-	11'-8"	Str
A42	8	-	7'-0"	Bend to 25° Hook
A43	107	-	10'-6"	33
A44	10	-	19'-6"	Str
A45	9	-	10'-6"	Bend as reqd
A46	32	-	11'-6"	Str
A47	94	⅜	16'-6"	Str
A48	4	-	15'-6"	Str
A49	28	-	6'-6"	Str
A50		⅜	15'-6"	Col Bars A43
A51		⅜	7'-6"	A43
A52		⅜	8'-6"	Col from A49 Above
A53		⅜	22'-6"	Col from A49
A54		⅜	7'-6"	A49
A55		⅜	15'-6"	Str
A56		⅜	14'-6"	Col from Pit Above
A57		-	5'-6"	-
A58		-	6'-6"	-
A59		-	5'-0"	-
A60		-	3'-0"	-
A71		⅜	3'-0"	-
A72		-	4'-6"	-
A73		⅜	8'-3"	Col from 1" Abv
A74		⅜	7'-7"	- A30

Note
All steel marked T to be in top
All marked B to be in bottom
Bars not marked T or B to be bent top to bottom

BLDG 3 IS ON THIS SIDE

BLDG 1

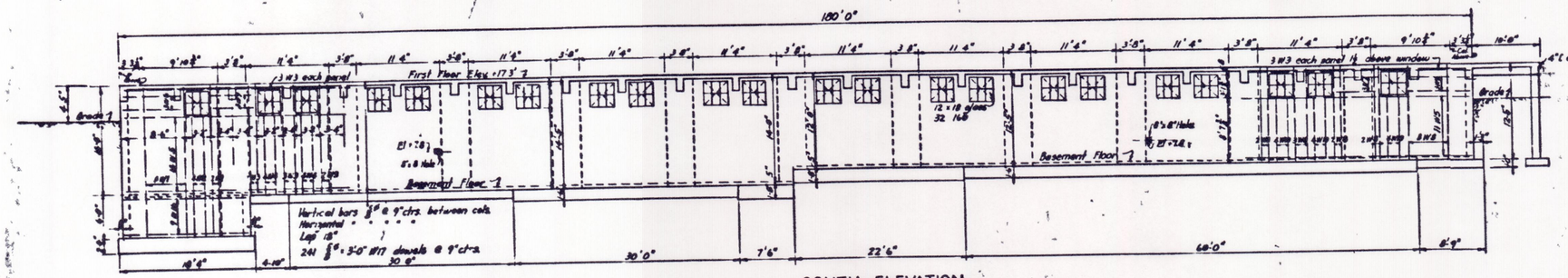
DATES
1-9-39
1-12-39
1-13-39
1-18-39
1-19-39
PRINTED:

HEADHOUSE - BASEMENT & FDN PLAN

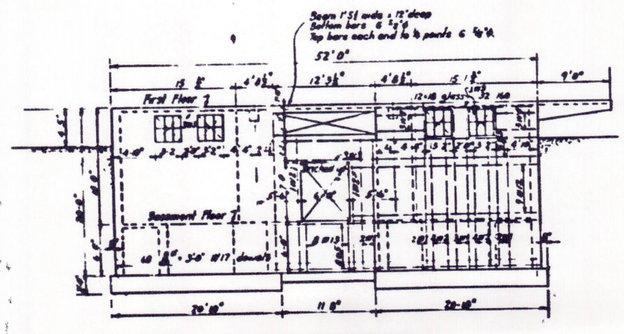
FEED PLANT
FOR
RALSTON-PURINA CO
DENVER, COLORADO

JONES-HETTELSATER CONST CO.
KANSAS CITY, MO
ENGINEERS

JOB NO 147 — SHEET NO 40



SOUTH ELEVATION



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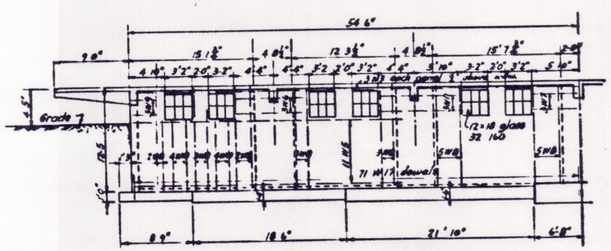
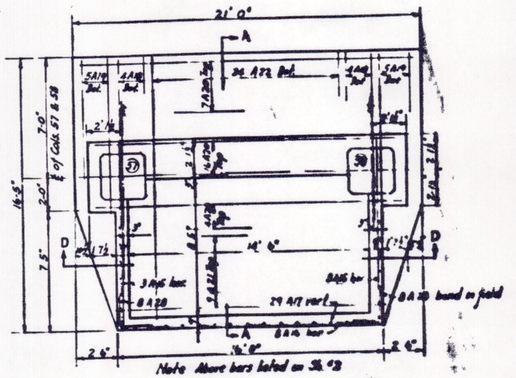
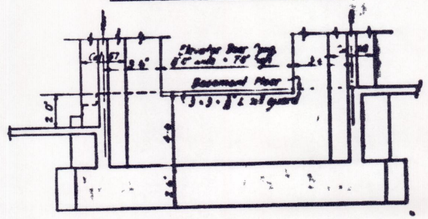


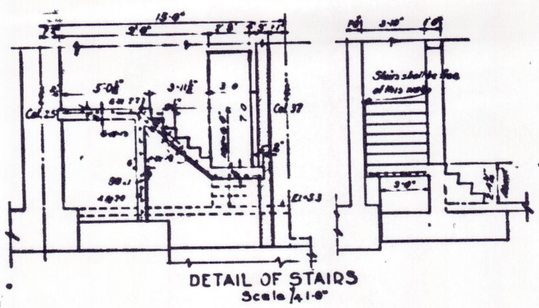
EAST ELEVATION



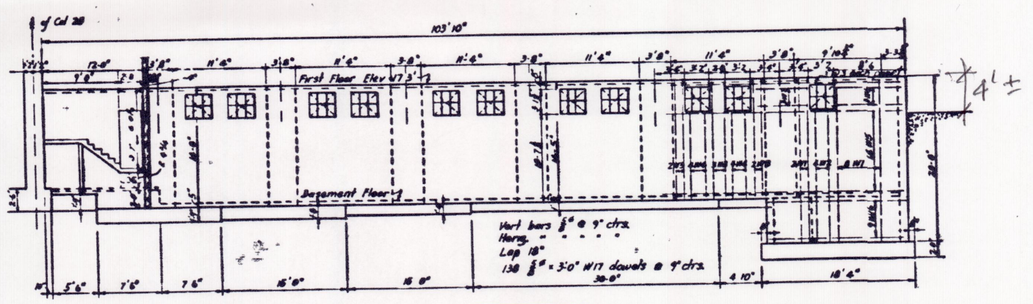
FOOTING PLAN AT COLS 37 & 58



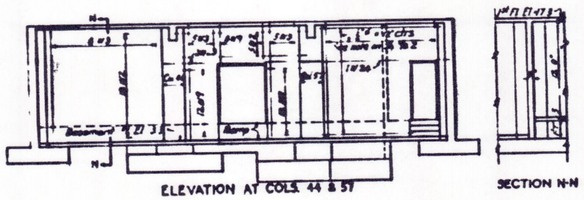
SECTION D-D



DETAIL OF STAIRS
Scale 1/4"-1'-0"



NORTH ELEVATION



ELEVATION AT COLS 44 & 57

SECTION N-N

BILL OF BARS

Mark	No.	Size	Length	Bending
#1	30	3/4" ø	19'-0"	Str.
#2	26	"	6'-0"	"
#3	152	"	15'-9"	"
#4	48	"	20'-0"	"
#5	200	"	30'-0"	"
#6	12	"	8'-9"	"
#7	60	"	6'-9"	"
#8	48	"	5'-9"	"
#9	9	"	4'-0"	"
#10	52	"	5'-0"	"
#11	3	"	9'-0"	"
#12	16	"	23'-9"	"
#13	8	"	5'-0"	"
#14	3	"	6'-0"	"
#15	16	"	20'-0"	"
#16	8	"	16'-9"	"
#17	100	"	3'-0"	"
	Col. above	bars from		
	300	#16	13'-0"	
	220	#17	11'-9"	
	400	#18	5'-0"	
	260	#19	30'-0"	1'-0" - 2'-6" - 2'-6"
#18	8	3/4" ø	11'-0"	2'-6"
#19	16	"	3'-7"	Str.
#20	4	"	6'-2"	"
#21	8	"	2'-9"	"
#22	8	"	7'-6"	4'-0" - 3'-6"
#23	2	"	19'-0"	"
#24	2	"	18'-0"	"
#25	1	"	17'-6"	"

BLDG 1

DATES	MILL FOUNDATION ELEVATIONS
1-5-59	FEED PLANT
1-7-59	FOR
1-14-59	RALSTON-PURINA CO
1-19-59	DENVER, COLORADO
4-10-59	
2-5-59	JONES HETTELSATER CONST. CO.
PRINTED	KANSAS CITY, MO. ENGINEERS
JOB NO. 147	SHEET NO. 3

12-C-8 aw 12219

SECTION F-F

SECTION A-A

NORTH WALL

Sump Here See Plan

TYPICAL FOR TRANSVERSE BEAMS NOT OTHERWISE SHOWN

SECTION D-D

NORTH SIDE

SECTION B-B

TYPICAL FOR LONGITUDINAL BEAMS WHERE NOT OTHERWISE SHOWN

SECTION E-E

NORTH SIDE

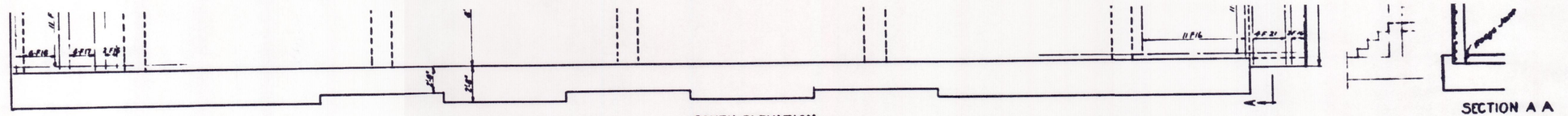
SECTION C-C

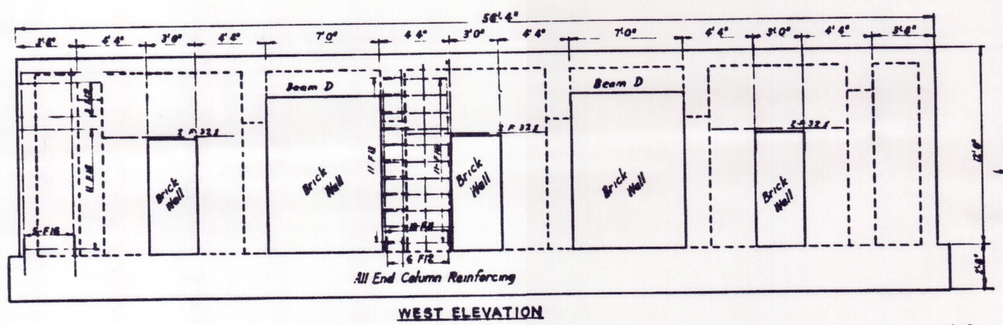
SECTION G-G

BLDG 1

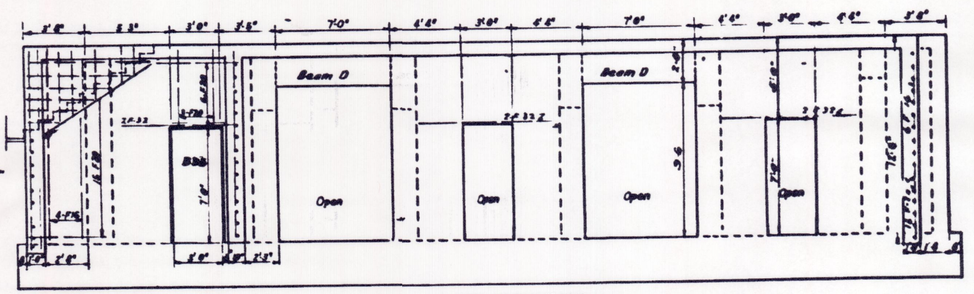
DATES	HEADHOUSE - BASEMENT SECTIONS
1-8-29 1-9-29 10-19 1-18-29	FEED PLANT FOR RALSTON - PURINA CO DENVER, COLORADO
PRINTED	JONES-HETTELSATER CONST CO KANSAS CITY, MO. ENGINEERS
JOB NO. 147	SHEET NO. 41

12-C-25 or 12245

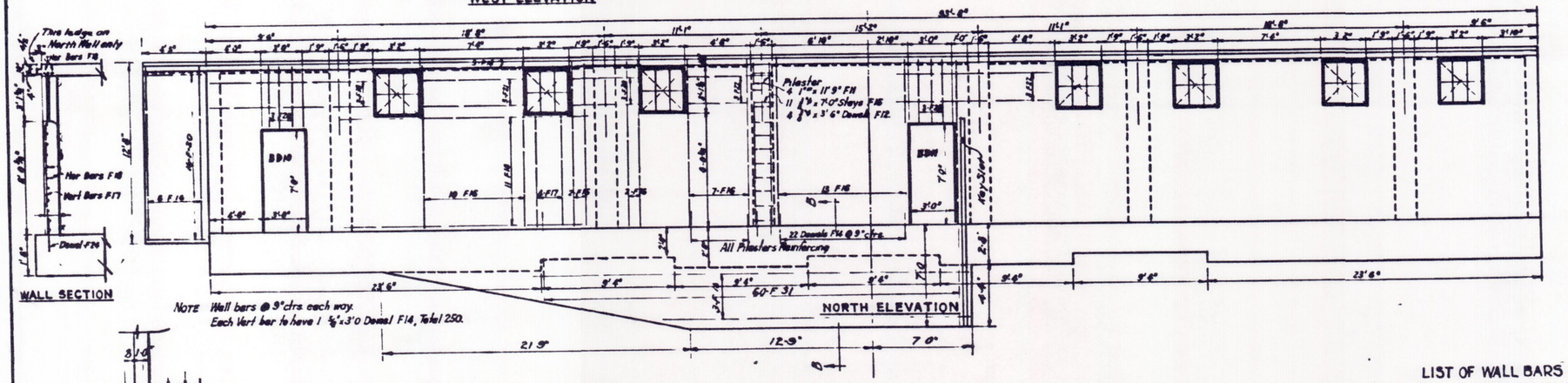


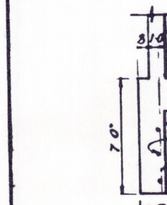


WEST ELEVATION



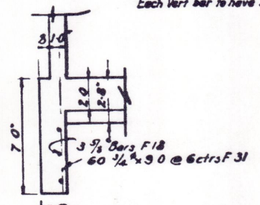
EAST ELEVATION



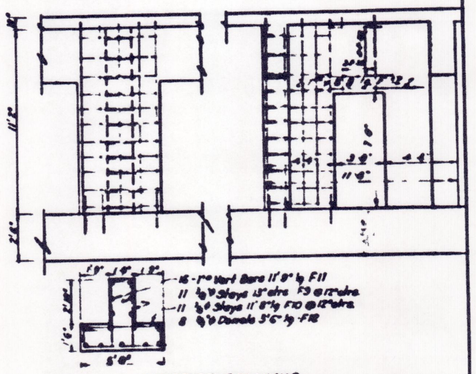


WALL SECTION

NOTE Wall bars @ 9" ctrs each way.
Each Vert bar to have 1 5/8"x3'0 Dowel F14, Total 250.



SECTION B-B



INTERIOR COLUMNS

LIST OF WALL BARS

MARK	NUMBER	SIZE	LENGTH	SHAPE	REMARKS
F 16	196	5/8"	11'8"	Str	
F 17	71	5/8"	7'10"	Str	
F 18	130	7/8"	27'0"	Str	
F 19	9	5/8"	8'6"	Str	
F 20	273	5/8"	4'10"	Str	
F 21	25	5/8"	7'2"	Str	
F 14	250	5/8"	3'0	Str	Dowels
F 22	6	5/8"	14'0"	Str	
F 29	5	5/8"	13'0"	Bent	
F 30	8	5/8"	4'0"	Str	
F 31	60	3/4"	9'8"	Str	
F 32	36	1"	8'0"	Str	

Note Column and Pilaster reinforcing on Sheet 60

BLDG 3

DATES	STORAGE TANKS-BASEMENT WALLS
1-8-58	FEED PLANT FOR RALSTON-PURINA CO. DENVER, COLORADO
1-10-58	
1-15-58	
2-21-58	
PRINTED	JONES-HETTELSATER CONST CO. KANSAS CITY, MO. ENGINEERS
	JOB NO 147
	SHEET NO 61