

STANDARD DRAWINGS

DELAWARE COUNTY SANITARY STD. DWGS.

- SEWER INSTALLATION
- TYPICAL SERVICE CONNECTION
- BRANCH & RISER PIPE
- MANHOLE CHANNEL DETAIL
- MANHOLE TYPE "A"
- DROP MANHOLE
- FORCEMAIN CONNECTION TO MANHOLE
- WATERTIGHT MANHOLE
- MANHOLE MARKING DETAIL
- CONCRETE REACTION BACKING DETAILS
- BACKING FOR VERTICAL BENDS

LIST POWELL STANDARD CONSTRUCTION DRAWINGS

- PRECAST CONCRETE MANHOLE ST.-3
- MANHOLE STEPS ST.-9
- DITCH AND SURFACE INLET ST.-10
- 42" OPENING CURB INLET ST.-17
- 60" OPENING CURB INLET ST.-18
- 24" MANHOLE FRAME & COVER CASTINGS ST.-31
- FRAME AND GRATE FOR DITCH AND SURFACE INLET ST.-34
- TYPICAL TRENCH FOR CULVERT AND STORM SEWER ST.-49
- RESIDENTIAL DRIVEWAY DETAIL ST.-50
- STREET STANDARDS ST.-54
- RESIDENTIAL LIGHT POLES ST.-60
- RESIDENTIAL STREET SIGNS ST.-61
- TYPICAL GRADING FOR SUBDIVISION LOTS ST.-70

O.D.O.T. STANDARD DRAWINGS

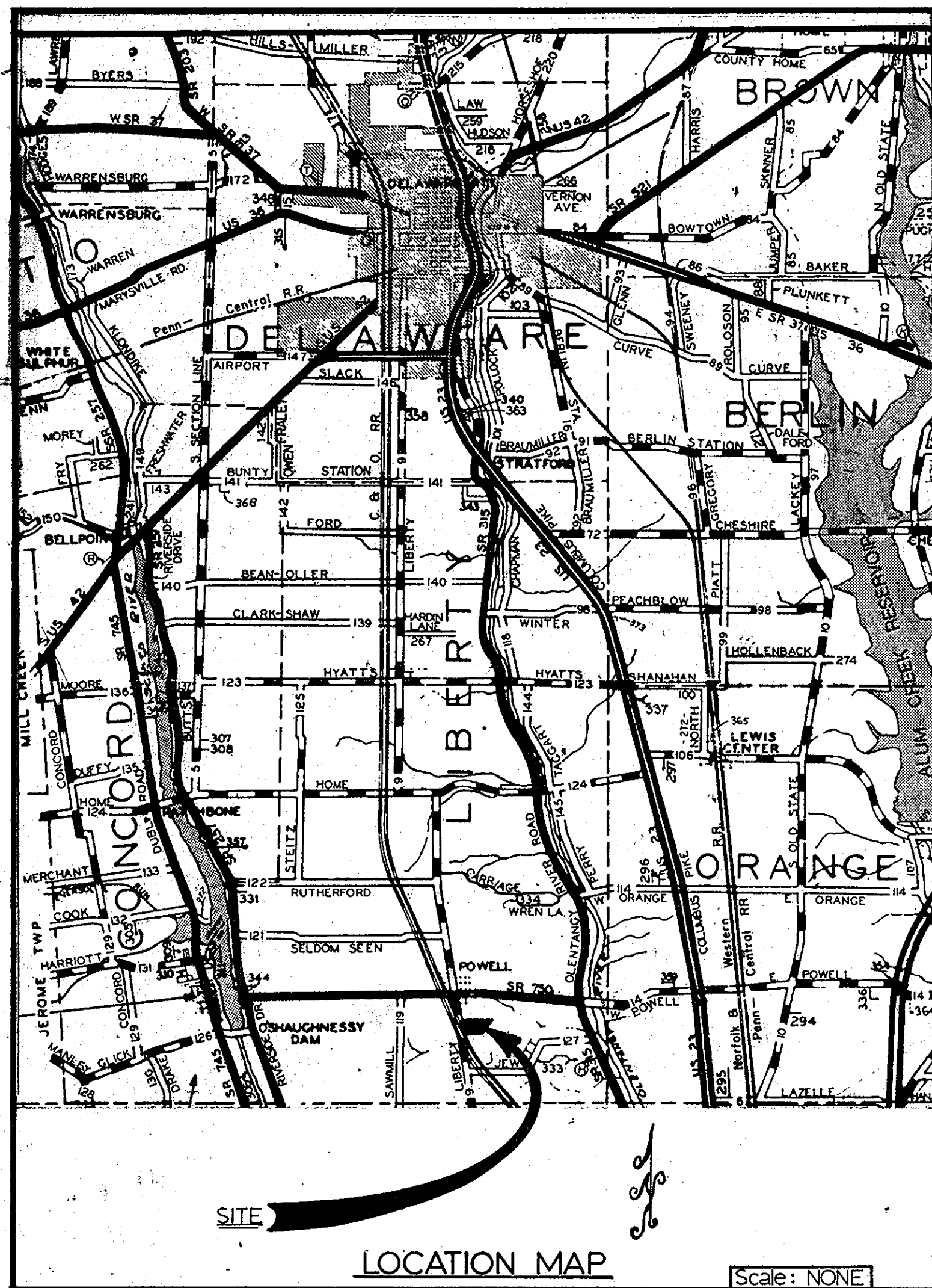
- HW-4B HEADWALL
- HW-3 HEADWALL
- GUARD RAIL, TYPE 4 GR.-2C

CITY OF COLUMBUS, OHIO STANDARD DRAINAGE

- 48" INLET CATCH BASIN AA.-S136

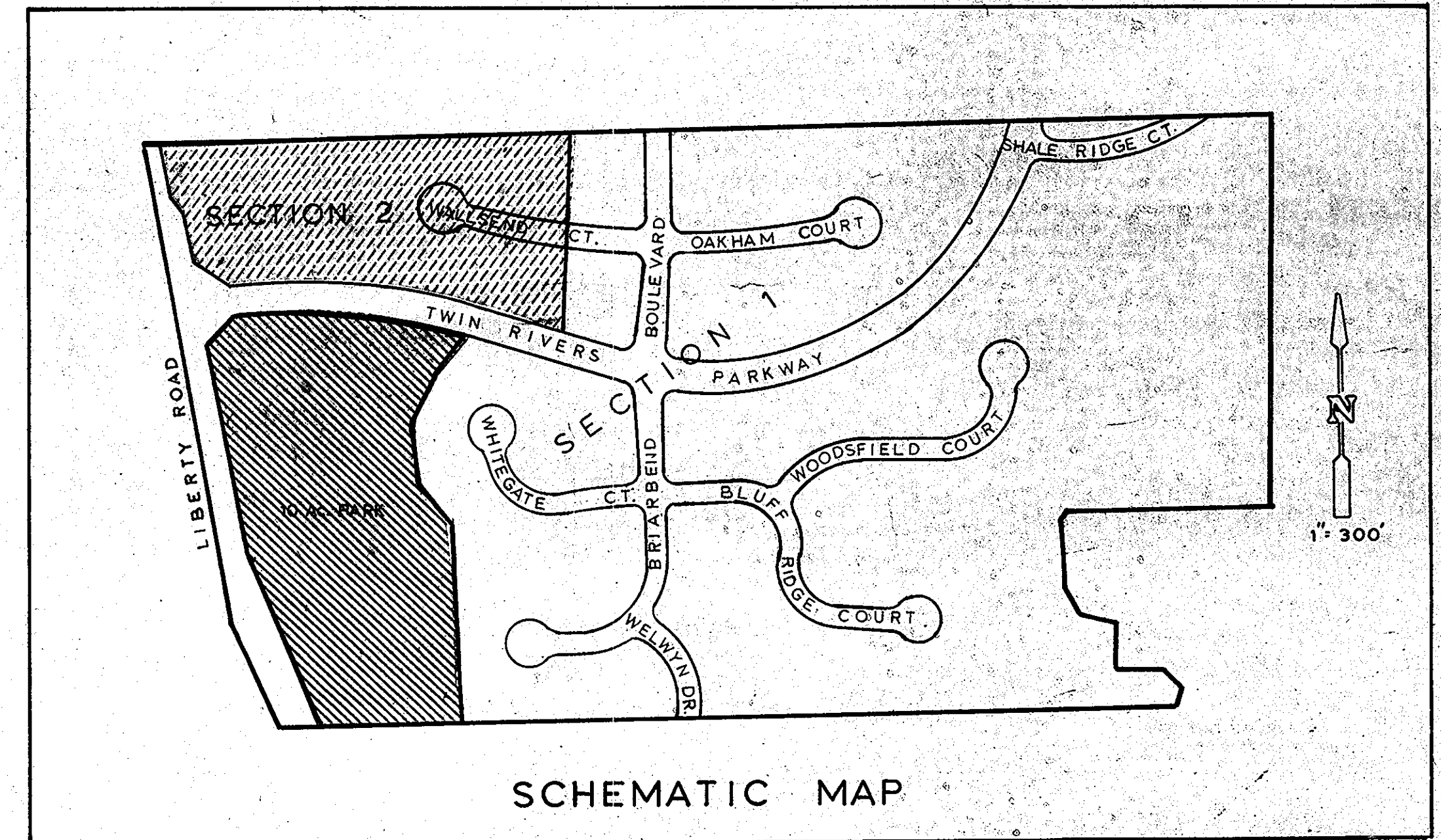
# LIBERTY HILLS SECTION NO. 1

BEING A PART OF FARM LOTS 26 & 27, SEC. 4, TWP.  
3, RANGE 19, UNITED STATES MILITARY LANDS  
LIBERTY TOWNSHIP, DELAWARE COUNTY, OHIO  
VILLAGE OF POWELL, OHIO  
1988



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### CONSTRUCTION PLAN APPROVALS

*Edward A. Lochhoff, PE* DATE 8 Oct 88  
VILLAGE OF POWELL - VILLAGE ENGINEER

DATE  
VILLAGE OF POWELL - VILLAGE RECORDER  
WATER SYSTEM APPROVAL

*Robert W. McAdams* DATE 8-17-88  
ROBERT W. McADAMS MANAGER - DEL. CO WATER

DESIGN ENGINEER

*Gary W. Gilbert* DATE 7/19/88  
GARY W. GILBERT P.E. NO. 38667

### SANITARY SEWER ONLY

*Jack Smelker* DATE 8-1-88  
DELAWARE COUNTY SANITARY ENGINEER

DELAWARE COUNTY COMMISSIONERS

*Foy L. Parrott* DATE 8-1-88

*Mark Jans* DATE 8-1-88

*Keith B. Corgan* DATE 8-1-88

DESIGN ENGINEER *Gary W. Gilbert* DATE 7/21/88  
GARY W. GILBERT P.E. NO. 38667



**STULTS and ASSOCIATES, INC.**  
67 North Sandusky St. Delaware, Ohio  
TELEPHONE: (614) 383-6702  
Columbus TELEPHONE: (614) 436-5238  
Engineering - Surveying



# UTILITY STRUCTURES

## SANITARY STRUCTURES

## STORM STRUCTURES

1. Precast Sanitary Manhole  
Top of Casting = 852.8  
Inv. South = 840.95  
Inv. West = 843.30  
Inv. North = 840.85
2. Precast Sanitary Manhole  
Top of Casting = 853.3  
Inv. South = 844.56  
Inv. North = 844.48
3. Precast Sanitary Manhole  
Top of Casting = 861.5  
Inv. South = 847.25  
Inv. North = 842.55
4. Precast Sanitary Manhole  
Top of Casting = 856.5  
Inv. East = 849.53  
Inv. North = 849.83
5. Precast Sanitary Manhole  
Top of Casting = 857.3  
Inv. South = 850.36  
Inv. West = 850.25
6. Precast Sanitary Manhole  
Top of Casting = 857.6  
Inv. South = 850.84  
Inv. West = 851.42  
Inv. North = 850.81
7. Precast Sanitary Manhole  
Sta. 648.71, 20.67' Rt.  
Woods Field Court  
Top of Casting = 894.6  
Inv. Southwest = 876.55  
Inv. North = 876.29
8. Precast Sanitary Manhole  
Sta. 5+29.25, 39.97' Rt.  
Woods Field Court  
Top of Casting = 893.6  
Inv. West = 875.22  
Inv. Northeast = 875.12
9. Precast Sanitary Manhole  
Sta. 1+87.24, 35.19 Rt.  
Woods Field Court  
Top of Casting = 897.6  
Inv. West = 880.66  
Inv. East = 880.56
10. Precast Sanitary Manhole  
Sta. 1+89.62, 32.5' Lt.  
Bluff Ridge Court  
Top of Casting = 896.7  
Inv. West = 881.84  
Inv. East = 881.74
11. Precast Sanitary Manhole  
Sta. 1+68.93, 32.49' Rt.  
White Gate Court  
Top of Casting = 898.6  
Inv. West = 883.39  
Inv. East = 883.29
12. Precast Sanitary Manhole  
Sta. 3+85.08, 32.40' Lt.  
White Gate Court  
Top of Casting = 898.6  
Inv. North = 884.34  
Inv. West = 886.73  
Inv. East = 884.24
13. Precast Sanitary Manhole  
Sta. 5+41.15 - Ext., 19.78' Lt.  
White Gate Court  
Top of Casting = 897.5  
Inv. South = 885.00
14. Precast Sanitary Manhole  
Top of Casting = 897.9  
Inv. North = 878.73  
Inv. East = 878.63
15. Precast Sanitary Manhole  
Sta. 8+83.42 - Ext., 77.67' Rt.  
Bluff Ridge Court  
Top of Casting = 894.5  
Inv. North = 879.22  
Inv. South = 879.12
16. Precast Sanitary Manhole  
Sta. 8+79.88 - Ext., 37.25' Lt.  
Bluff Ridge Court  
Top of Casting = 896.0  
Inv. West = 878.83  
Inv. South = 879.73
17. Precast Sanitary Manhole  
Sta. 4+86.10, 32.50' Rt.  
Bluff Ridge Court  
Top of Casting = 894.3  
Inv. West = 881.50  
Inv. East = 881.40
18. Precast Sanitary Manhole  
Top of Casting = 896.15  
Inv. West = 884.54  
Inv. East = 882.96  
Inv. South = 882.16
19. Precast Sanitary Manhole  
Sta. 2+61.24, 32.50' Rt.  
Briar Bend Court  
Top of Casting = 897.7  
Inv. Southwest = 885.58  
Inv. East = 885.48
20. Precast Sanitary Manhole  
Sta. 4+18.28, 32.46' Rt.  
Briar Bend Court  
Top of Casting = 897.7  
Inv. West = 886.16  
Inv. Northeast = 886.06
21. Precast Sanitary Manhole  
Sta. 6+29.07 - Ext., 5.82' Rt.  
Briar Bend Court  
Top of Casting = 899.2  
Inv. East = 887.00
22. Precast Sanitary Manhole  
With Watertight Casting  
Top of casting = 892.4  
Inv. North = 883.00
23. Precast Watertight Sanitary Manhole  
Top of Casting = 850.5  
Inv. Southwest = 850.75  
Inv. East = 850.64
24. Precast Watertight Sanitary Manhole  
Top of Casting = 860.4  
Inv. West = 853.97  
Inv. Northeast = 853.87
25. Precast Watertight Sanitary Manhole  
With Vent Pipe  
Top of Casting = 866.0  
Inv. West = 858.59  
Inv. East = 858.49
26. Precast Watertight Sanitary Manhole  
Sta. 20+73.92, 79.72' Rt.  
Twin Rivers Parkway  
Top of Casting = 870.0  
Inv. North = 862.35  
Inv. East = 862.25
27. Precast Watertight Sanitary Manhole  
Top of Casting = 875.5  
Inv. West = 867.5  
Inv. South = 866.5
28. Precast Sanitary Manhole  
Sta. 3+22.05, 40' Rt.  
Oakham Court  
Top of Casting = 892.0  
Inv. West = 876.06  
Inv. East = 877.96
29. Precast Sanitary Manhole  
Sta. 5+61.84, 43.08' Lt.  
Briar Bend Boulevard  
Top of casting = 895.4  
Inv. North = 880.24  
Inv. South = 884.54  
Inv. West = 879.67  
Inv. East = 879.57
30. Precast Sanitary Manhole  
Sta. 4+39.10, 38.19' Lt.  
Briar Bend Boulevard  
Top of Casting = 893.0  
Inv. North = 882.00
31. Precast Sanitary Manhole  
Sta. 7+33.82, 37.50' Lt.  
Briar Bend Boulevard  
Top of Casting = 893.8  
Inv. South = 886.00
32. Precast Sanitary Manhole  
Top of Casting = 885.2  
Inv. West = 877.67  
Inv. East = 875.75
33. Reserved
34. Reserved

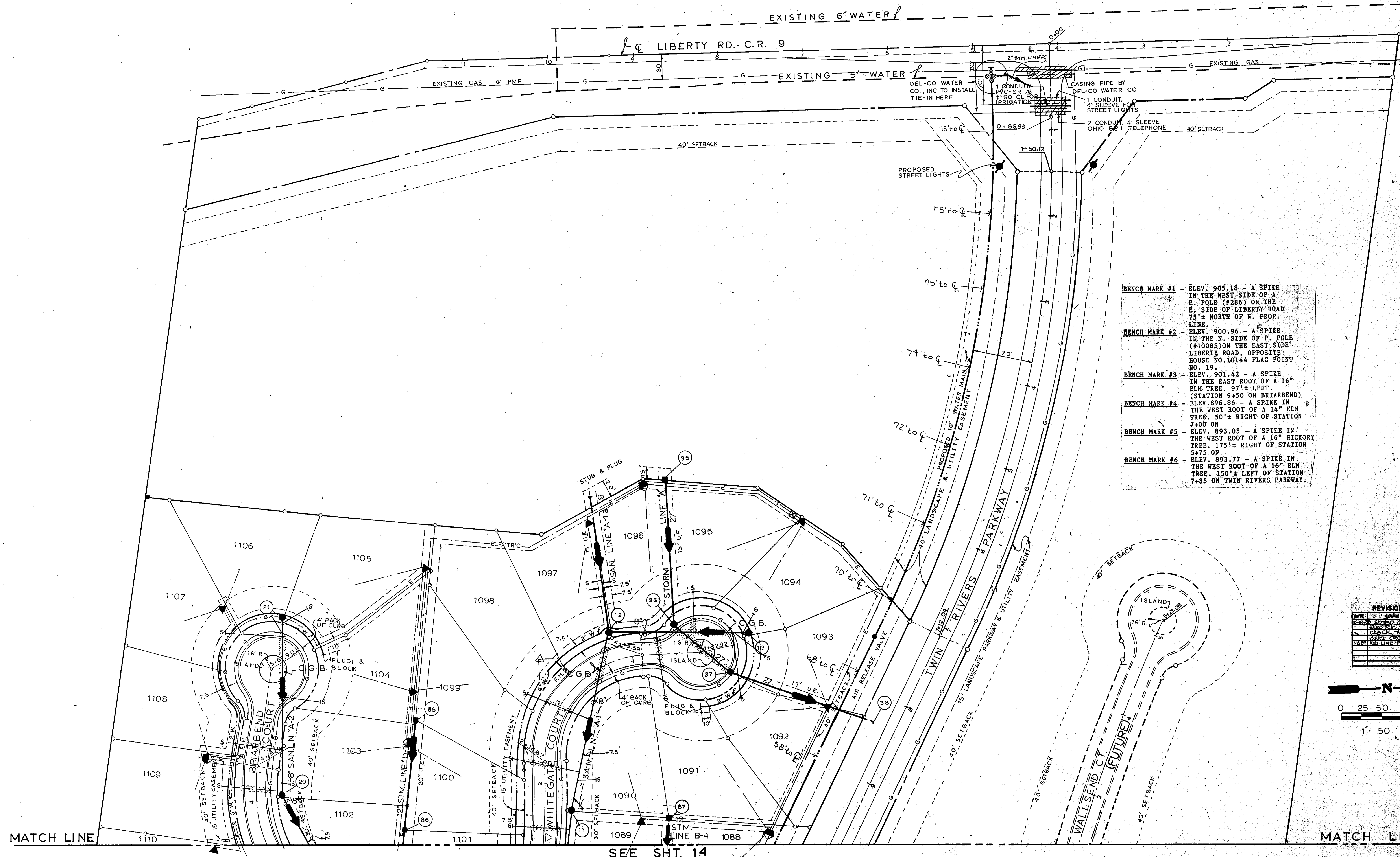
35. 3' x 3' Ditch & Surface Inlet  
Top of Casting = 896.29  
Inv. East = 892.99  
FLOW LINE WINDOWS S.W. = 895.37'
36. Precast Storm Manhole  
Sta. 4+52.18, 34.93' Lt.  
Whitegate Court  
Top of Casting = 897.76  
Inv. West = 892.40  
Inv. Northeast = 892.40
37. 42" Opening Curb Inlet  
Sta. 5+16.59 - Ext., 24.97' Rt.  
Whitegate Court  
Top of Curb = 896.55  
Inv. = 892.09
38. Standard O.D.O.T. HW-4B Headwall  
Sta. 4+73.40, 44.51' Lt.  
Oakham Court  
Ditch Bottom = 890.45
39. Standard O.D.O.T. HW-4B Headwall  
Inv. = 877.28
40. 42" Opening Curb Inlet  
Back of Cul-de-sac  
Oakham Court  
Top of Curb = 890.4  
Inv. = 884.50
41. Precast Storm Manhole (60")  
Sta. 4+73.40, 44.51' Lt.  
Oakham Court  
Top of Casting = 890.95  
Inv. (S.E. 12") = 883.75  
Inv. = 878.22
42. Precast Storm Manhole (60")  
Sta. 6+16.23, 40' Rt.  
Briar Bend Boulevard - North  
Top of Casting = 895.37  
Inv. = 881.64  
Inv. West = 884.08  
Inv. Northeast = 881.08
43. 4' x 4' Ditch & Surface Inlet  
Sta. 12+28.20, 24.59' Lt.  
Twin Rivers Parkway  
Top of Casting = 888.86  
F.L. Windows = 887.54  
Inv. = 883.50  
Inv. South = 884.80
44. 4' x 4' Ditch & Surface Inlet  
Sta. 10+98.63, 25' Lt.  
Twin Rivers Parkway  
Top of Casting = 888.85  
Inv. Windows = 887.76  
Inv. = 883.63
45. 4' x 4' Ditch & Surface Inlet  
Sta. 11+17.26, 25' Rt.  
Top of Casting = 888.54  
Inv. Windows = 887.59  
Inv. (15") = 885.50  
Inv. (36") = 883.75
46. 42" Opening Curb Inlet  
Sta. 0+16.87, 32.38' Lt.  
Briar Bend Boulevard - North  
Top of Curb = 897.59  
Inv. = 891.88
47. 42" Opening Curb Inlet  
Sta. 0+13.47, 33.70' Lt.  
Briar Bend Boulevard - South  
Top of Curb = 897.50  
Inv. = 892.00
48. 42" OPENING CURB INLET  
Sta. 2+45.78, 14.92' Lt.  
Oakham Court  
Top of Curb = 890.99  
Inv. (15") = 885.60
49. 42" Opening Curb Inlet  
Sta. 2+45.78, 14.92' Lt.  
Oakham Court  
Top of Curb = 890.99  
Inv. = 885.90
50. 2' x 2' Surface & Ditch Inlet  
Top of Casting = 890.0  
Inv. = 887.00
51. Reserved
52. Reserved
53. Reserved
54. 2' x 2' Ditch & Surface Inlet  
Sta. 12+32.45, 25.43 Rt.  
Twin Rivers Parkway  
Top of Casting = 888.54  
F.L. Windows = 887.61  
Inv. = 885.50
55. Standard O.D.O.T. HW-4B Headwall  
Ditch Bottom = 884.00
56. 42" Opening Curb Inlet  
Sta. 8+39.35, 21.42' Rt.  
Briar Bend Boulevard - North  
Top of Curb = 890.74  
Inv. = 884.27
57. 42" Opening Curb Inlet  
Sta. 8+39.35, 21.42' Lt.  
Briar Bend Blvd. - North  
Top of Curb = 890.74  
Inv. = 884.27
58. Standard O.D.O.T. HW-4B Headwall  
Inv. = 885.30  
Ditch Bottom = 885.73
59. Standard O.D.O.T. HW-4B Headwall  
Inv. = 885.00  
Ditch Bottom = 884.88
60. Precast Storm Manhole  
Top of Casting = 891.0  
Inv. = 886.79
61. 60" Opening Curb Inlet  
Sta. 3+89.26, 14.92' Lt.  
Bluff Ridge Court  
Top of Curb = 892.30  
Inv. (12") = 886.46  
Inv. = 886.43
62. 60" Opening Curb Inlet  
Sta. 3+89.26, 14.92' Rt.  
Bluff Ridge Court  
Top of Curb = 892.30  
Inv. = 886.59
63. 3' x 3' Surface and Ditch Inlet  
Top of Casting = 895.0  
Inv. = 888.93
64. Precast Storm Manhole  
Sta. 1+37.01, 30' Lt.  
Briar Bend Boulevard - South  
Top of Casting = 899.6  
Inv. (12") = 894.04  
Inv. (21") = 890.20
65. 60" Opening Curb Inlet  
Sta. 2+87.56, 18.45' Lt.  
BRIARBEND BLVD.  
Top of Curb = 896.04  
Inv. = 890.78
66. 42" Opening Curb Inlet  
Sta. 3+32.48, 16.33' Lt.  
BRIARBEND BLVD.  
Top of Curb = 896.44  
Inv. = 891.16
67. 42" Opening Curb Inlet  
Sta. 0+26.99, 16.27' Lt.  
Woodsfield Court  
Top of Curb = 893.54  
Inv. = 888.87
68. 42" Opening Curb Inlet  
Sta. 3+07.83, 15.92' Rt.  
Briar Bend Boulevard - South  
Top of Curb = 896.88  
Inv. = 890.74
69. Standard O.D.O.T. HW-4B Headwall  
Inv. = 883.00  
Ditch Bottom = 882.00
70. 42" Opening Curb Inlet  
Sta. 2+49.30, 14.92' Lt.  
Welwyn Place  
Top of Curb = 895.33  
Inv. = 889.64
71. 42" Opening Curb Inlet  
Sta. 2+49.30, 14.92' Rt.  
Welwyn Place  
Top of Curb = 895.33  
Inv. = 889.64
72. Standard O.D.O.T. HW-4B Headwall  
Inv. = 888.41  
Ditch Bottom = 887.78

73. 60" Opening Curb Inlet  
Sta. 8+71.24 Ext., 11.62' Rt.  
Bluff Ridge Court  
Top of Curb = 896.03  
Inv. = 890.50
74. Standard O.D.O.T. HW-4B Headwall  
Inv. = 882.07
75. 42" Opening Curb Inlet  
Sta. 6+36.00, 15.92' Rt.  
Woodsfield Court  
Top of Curb = 894.44  
Inv. = 884.52
76. 42" Opening Curb Inlet  
Sta. 6+36.00, 15.92' Lt.  
Woodsfield Court  
Top of Curb = 894.44  
Inv. = 884.52
77. 2' X 2' Surface & Ditch Inlet  
Top of Casting = 892.5  
Inv. = 889.59
78. Standard O.D.O.T. HW-3 Headwall  
Inv. = 887.00
79. Standard O.D.O.T. HW-3 Headwall  
Inv. = 887.00
80. Standard O.D.O.T. HW-4B Headwall  
Inv. = 877.00  
Ditch Bottom = 877.79
81. 60" Opening Curb Inlet  
Sta. 1+70.75, 14.92' Rt.  
Shale Ridge Way  
Top of Curb = 894.23  
Inv. = 878.86
82. 60" Opening Curb Inlet  
Sta. 1+70.75, 14.92' Lt.  
Shale Ridge Way  
Top of Curb = 894.23  
Inv. 18" = 878.79  
Inv. 12" = 878.22
83. 2' X 2' Surface & Ditch Inlet  
Sta. 23+53.58, 25' Rt.  
Twin Rivers Parkway  
Top of Casting = 896.7  
F.L. Windows = 885.50  
Inv. = 887.50
84. Precast Storm Manhole  
Sta. 1+62.36, 32.5' Rt.  
Briar Bend Boulevard - South  
Top of Casting = 899.2  
Inv. = 894.10
85. 2' X 2' Surface & Ditch Inlet  
Top of Casting = 896.0  
Inv. = 895.00
86. 2' X 2' Surface & Ditch Inlet  
Top of Casting = 897.5  
Inv. = 892.00
87. 2' X 2' Surface & Ditch Inlet  
Top of Casting = 896.0  
Inv. = 891.00
88. Precast Storm Manhole  
Sta. 1+49.04, 38.09' Lt.  
Briar Bend Boulevard - North  
Top of Casting = 894.2  
Inv. West = 889.20  
Inv. North & South = 888.34
89. 60" Precast Storm Manhole  
Sta. 2+45.78, 25' Lt.  
Oakham Court  
Top of Casting = 891.1  
Inv. 42" = 885.0  
Inv. South = 885.0
90. PRECAST 60" STORM MANHOLE  
Sta. 2+83.91, 26.91' Lt.  
BRIARBEND BLVD.  
TOP OF CASTING = 897.31  
INV. = 890.78

AS-BUILT ELEVATIONS  
FIELD CHECKED AND  
AMENDED  
*[Signature]*  
REGISTERED SURVEYOR  
NO. 555 11/11/84

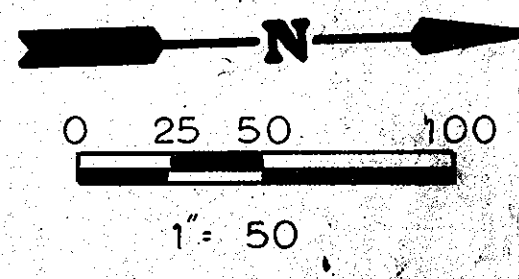
DATE	COMMENTS
11/11/84	AS-BUILT ELEVATIONS





- BENCH MARK #1** - ELEV. 905.18 - A SPIKE IN THE WEST SIDE OF A P. POLE (#286) ON THE E. SIDE OF LIBERTY ROAD 75'± NORTH OF N. PROP. LINE
- BENCH MARK #2** - ELEV. 900.96 - A SPIKE IN THE N. SIDE OF P. POLE (#10085) ON THE EAST SIDE LIBERTY ROAD, OPPOSITE HOUSE NO. 10144 FLAG POINT NO. 19.
- BENCH MARK #3** - ELEV. 901.42 - A SPIKE IN THE EAST ROOT OF A 16" ELM TREE 97'± LEFT (STATION 9+50 ON BRIARBEND)
- BENCH MARK #4** - ELEV. 896.86 - A SPIKE IN THE WEST ROOT OF A 14" ELM TREE. 50'± RIGHT OF STATION 7+00 ON
- BENCH MARK #5** - ELEV. 893.05 - A SPIKE IN THE WEST ROOT OF A 16" HICKORY TREE. 175'± RIGHT OF STATION 5+75 ON
- BENCH MARK #6** - ELEV. 893.77 - A SPIKE IN THE WEST ROOT OF A 16" ELM TREE. 150'± LEFT OF STATION 7+35 ON TWIN RIVERS PARKWAY.

REVISIONS	
DATE	COMMENTS

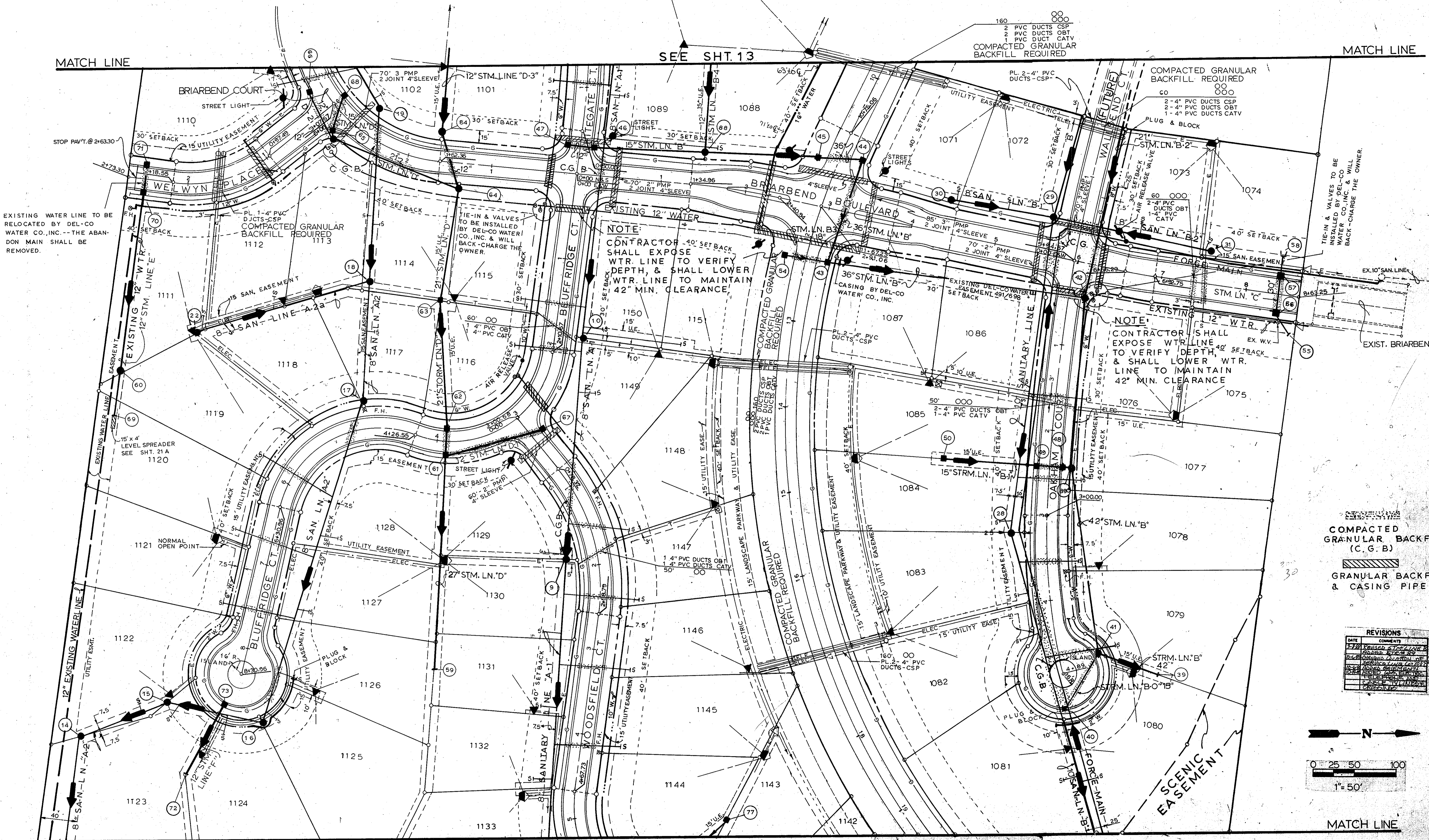


MATCH LINE

MATCH LINE

SEE SH. 14





SEE SHT. 13

MATCH LINE

MATCH LINE

**NOTE:**  
CONTRACTOR SHALL EXPOSE WTR. LINE TO VERIFY DEPTH, & SHALL LOWER WTR. LINE TO MAINTAIN 42" MIN. CLEARANCE.

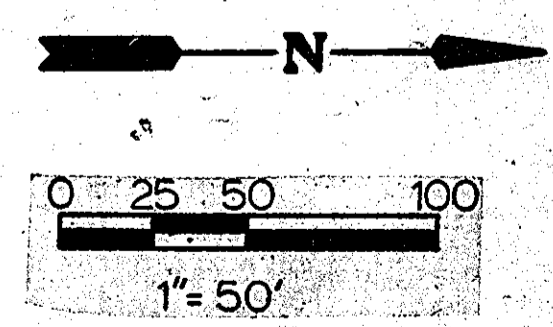
**NOTE:**  
CONTRACTOR SHALL EXPOSE WTR. LINE TO VERIFY DEPTH, & SHALL LOWER WTR. LINE TO MAINTAIN 42" MIN. CLEARANCE.

EXISTING WATER LINE TO BE RELOCATED BY DEL-  
CO WATER CO., INC. - THE ABANDON MAIN SHALL BE REMOVED.

TIE-IN & VALVES TO BE INSTALLED BY DEL-  
CO WATER CO., INC. & WILL BACK-CHARGE THE OWNER.

COMPACTED GRANULAR BACKFILL (C.G.B.)  
GRANULAR BACKFILL & CASING PIPE

DATE	REVISIONS
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING
12/15/10	REVISED STATIONING



MATCH LINE

MATCH LINE

SEE SHT. 15

STM. LN. 'G'  
15"

**BENCH MARK #1** - ELEV. 905.18 - A SPIKE IN THE WEST SIDE OF A P. POLE (#286) ON THE E. SIDE OF LIBERTY ROAD 75'± NORTH OF N. PROP. LINE.  
**BENCH MARK #2** - ELEV. 900.96 - A SPIKE IN THE N. SIDE OF P. POLE (#10085) ON THE EAST SIDE LIBERTY ROAD, OPPOSITE HOUSE NO. 10144 FLAG POINT NO. 19.

**BENCH MARK #3** - ELEV. 904.42 - A SPIKE IN THE EAST ROOT OF A 16" ELM TREE, 97'± LEFT (STATION 9+50 ON BRIARBEND)  
**BENCH MARK #4** - ELEV. 896.86 - A SPIKE IN THE WEST ROOT OF A 14" ELM TREE, 50'± RIGHT OF STATION 7+00 ON.  
**BENCH MARK #5** - ELEV. 893.05 - A SPIKE IN THE WEST ROOT OF A 16" HICKORY TREE, 175'± RIGHT OF STATION 5+75 ON.

**BENCH MARK #6** - ELEV. 893.77 - A SPIKE IN THE WEST ROOT OF A 16" ELM TREE, 150'± LEFT OF STATION 7+35 ON TWIN RIVERS PARKWAY.

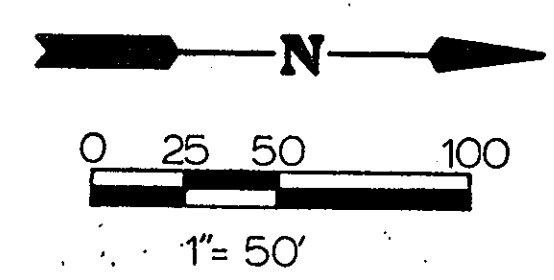
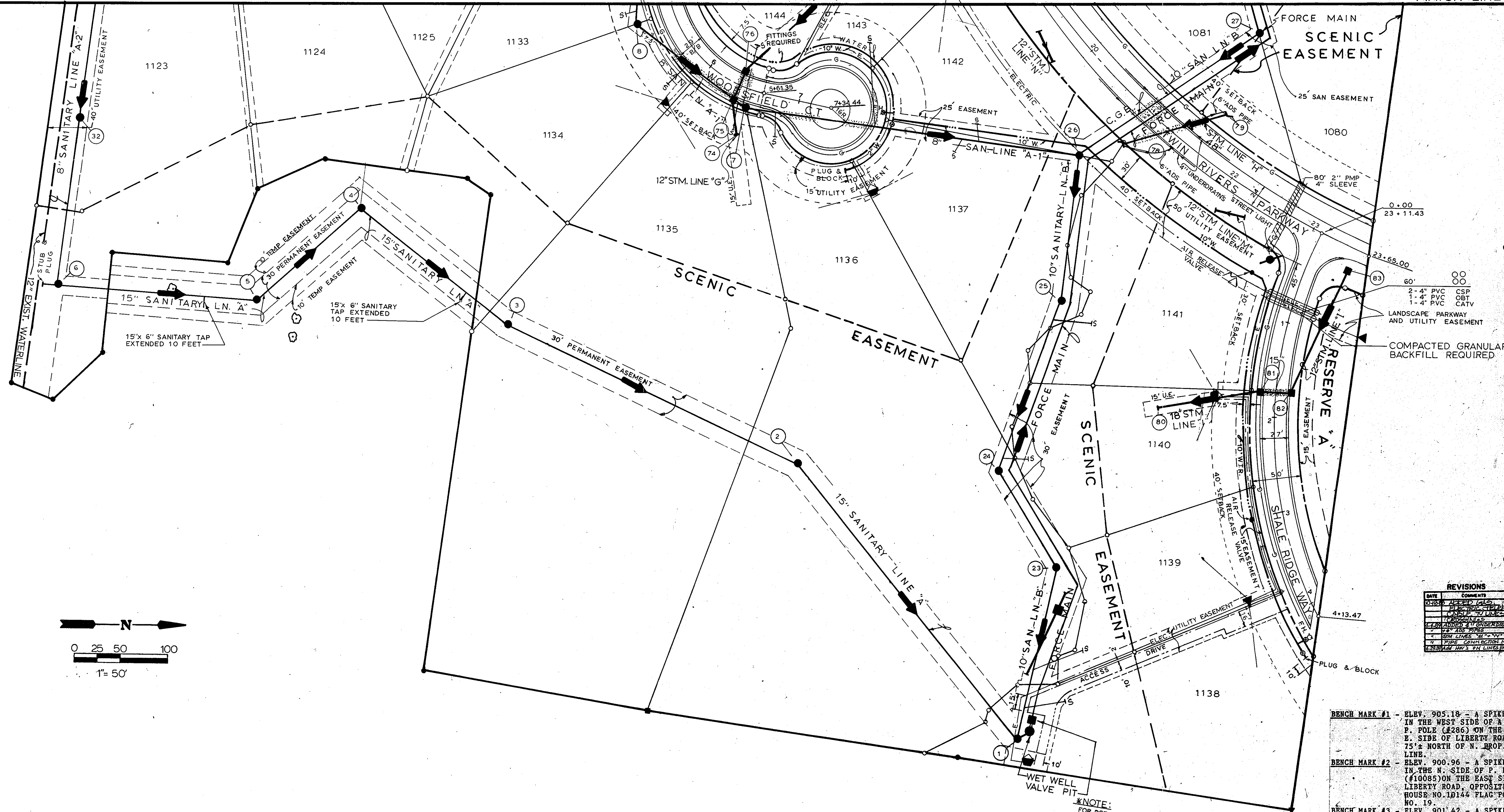


4" UNDERDRAINS & 6" ADS  
CONNECTION @ STN. 21+30.65  
13.33' LEFT & RIGHT

MATCH LINE

MATCH LINE

SEE SHT. 14



DATE	REVISIONS
01/23/20	ISSUED FOR PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS
01/23/20	REVISIONS TO PERMITS

- BENCH MARK #1** - ELEV. 905.18 - A SPIKE IN THE WEST SIDE OF A P. POLE (#286) ON THE E. SIDE OF LIBERTY ROAD 75'± NORTH OF N. PROP. LINE.
- BENCH MARK #2** - ELEV. 900.96 - A SPIKE IN THE N. SIDE OF P. POLE (#10085) ON THE EAST SIDE LIBERTY ROAD, OPPOSITE HOUSE NO. 10144 FLAG POINT NO. 19.
- BENCH MARK #3** - ELEV. 901.42 - A SPIKE IN THE EAST ROOT OF A 16" ELM TREE. 97'± LEFT. (STATION 9+50 ON BRIARBEND)
- BENCH MARK #4** - ELEV. 896.86 - A SPIKE IN THE WEST ROOT OF A 14" ELM TREE. 50'± RIGHT OF STATION 7+00 ON
- BENCH MARK #5** - ELEV. 893.05 - A SPIKE IN THE WEST ROOT OF A 16" HICKORY TREE. 175'± RIGHT OF STATION 5+75 ON
- BENCH MARK #6** - ELEV. 893.77 - A SPIKE IN THE WEST ROOT OF A 16" ELM TREE. 150'± LEFT OF STATION 7+35 ON TWIN RIVERS PARKWAY

\*NOTE:  
FOR DETAIL OF LEFT  
STATION REFER TO SHT. 29 & 30

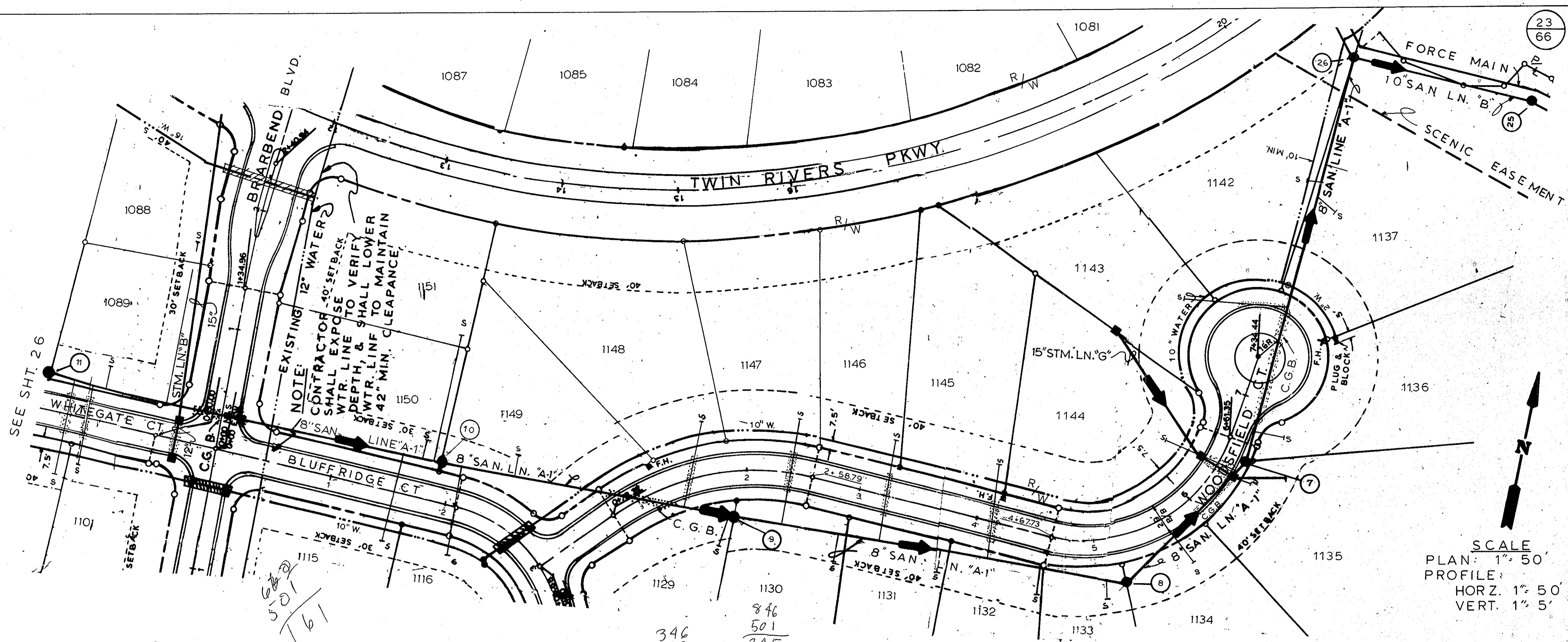




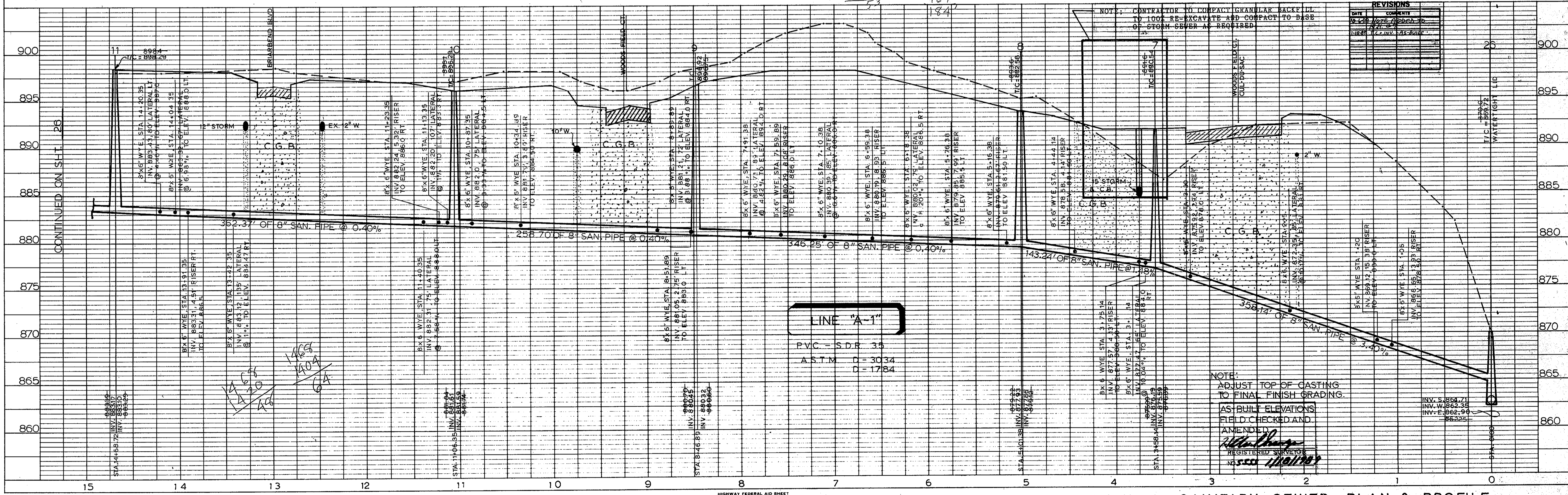


DATE	
BY	
SHAWYD	
NOTED	
ALIGNED	
GRADE CHECKED	
NO. OF WKS. CHECKED	
NO.	

DATE	
BY	
SHAWYD	
NOTED	
GRADE CHECKED	
STRUCTURE NOTATIONS CHECKED	
NO.	



SCALE  
 PLAN: 1" = 50'  
 PROFILE: 1" = 5' VERT. 1" = 5'



DATE	REVISIONS

NOTE: CONTRACTOR TO COMPACT GRANULAR SACKS LL TO 100% RE-EXCAVATE AND COMPACT TO BASE OF STORM SEWER AS REQUIRED.

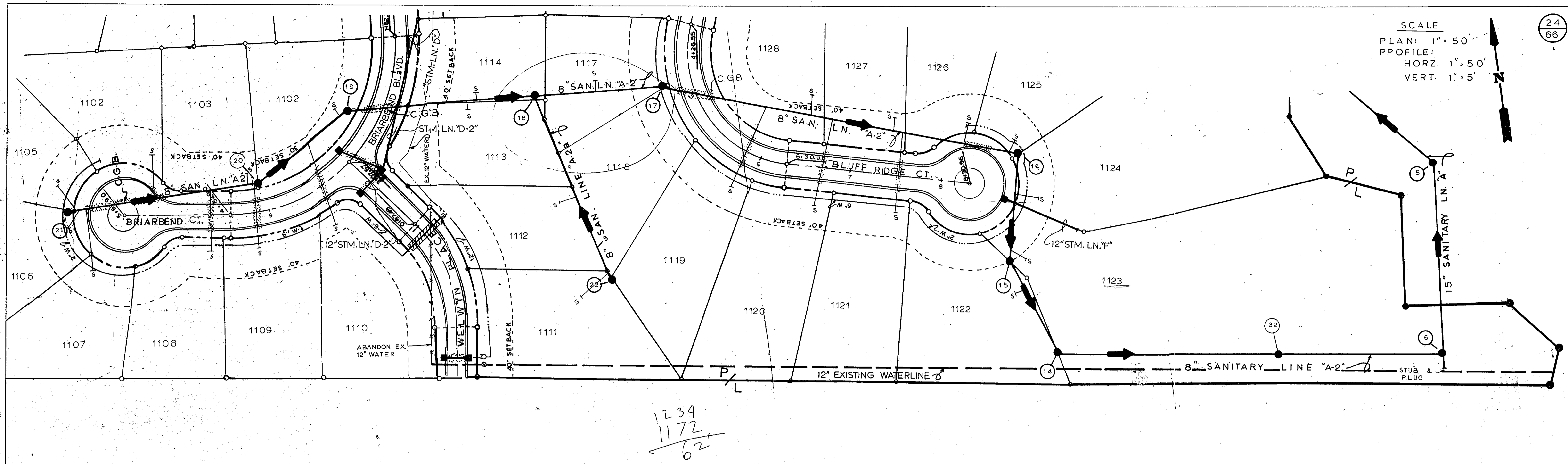
NOTE: ADJUST TOP OF CASTING TO FINAL FINISH GRADING.

AS BUILT ELEVATIONS FIELD CHECKED AND AMENDED  
*[Signature]*  
 REGISTERED SURVEYOR  
 NO. 5500

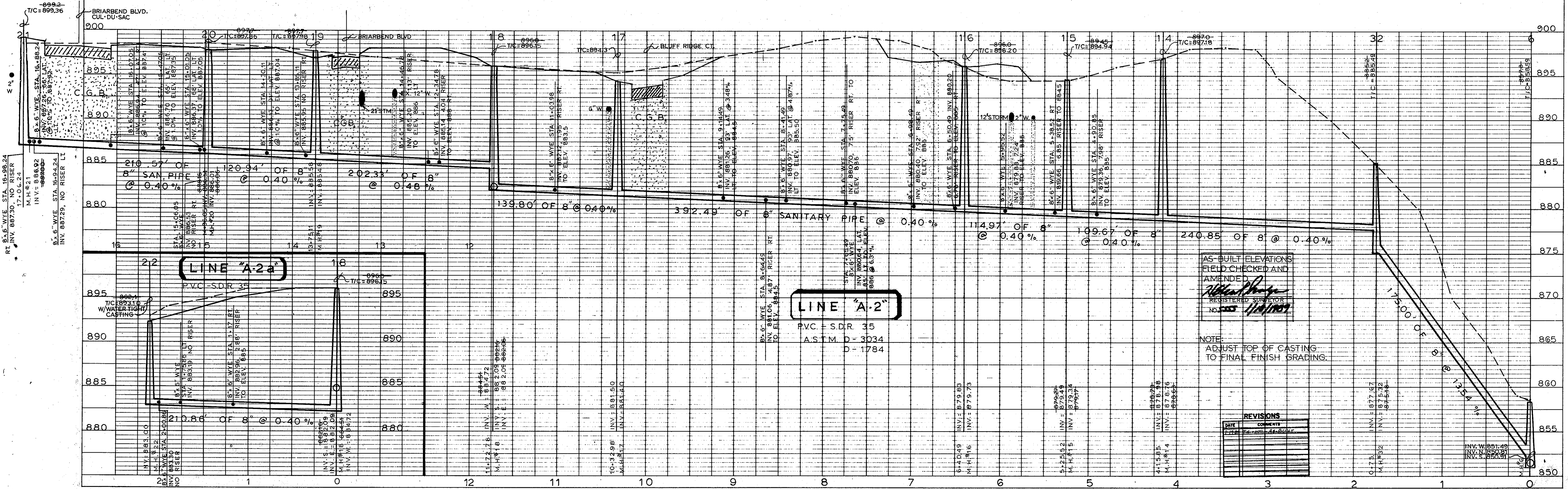


SCALE  
 PLAN: 1" = 50'  
 PROFILE: 1" = 50'  
 HORZ. 1" = 50'  
 VERT. 1" = 5'

24  
66



1234  
1172  
62

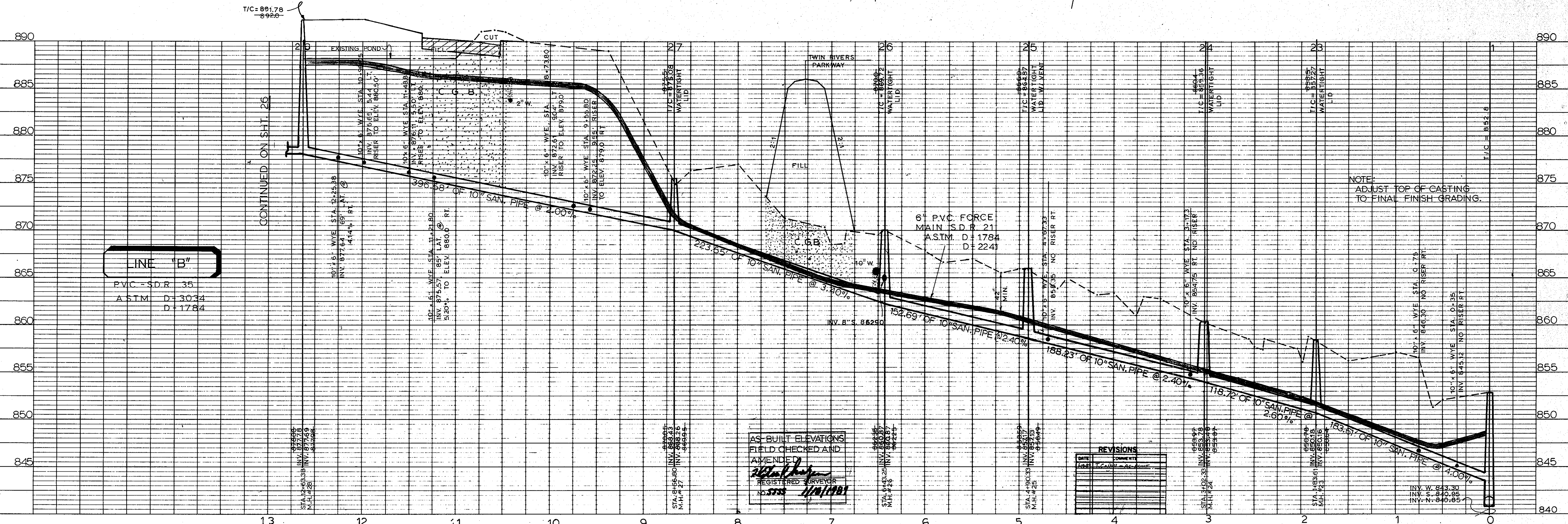
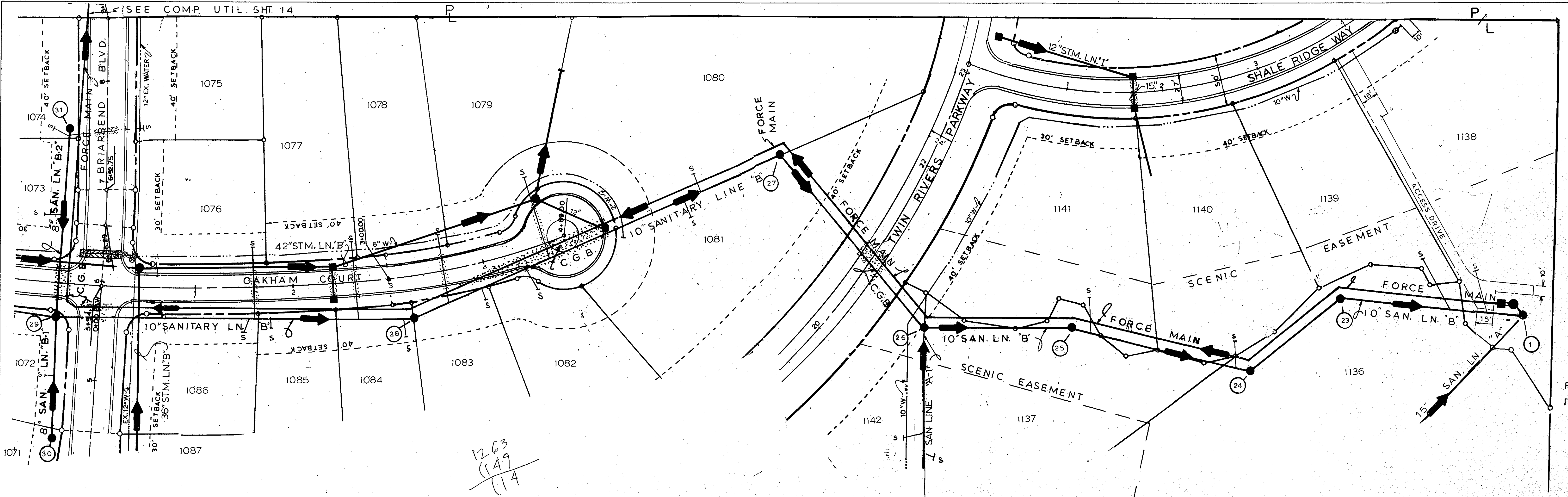


AS-BUILT ELEVATIONS  
 FIELD CHECKED AND  
 AMENDED  
*[Signature]*  
 REGISTERED SURVEYOR  
 NO. 555 1/10/1997

NOTE:  
 ADJUST TOP OF CASTING  
 TO FINAL FINISH GRADING.

DATE	REVISIONS

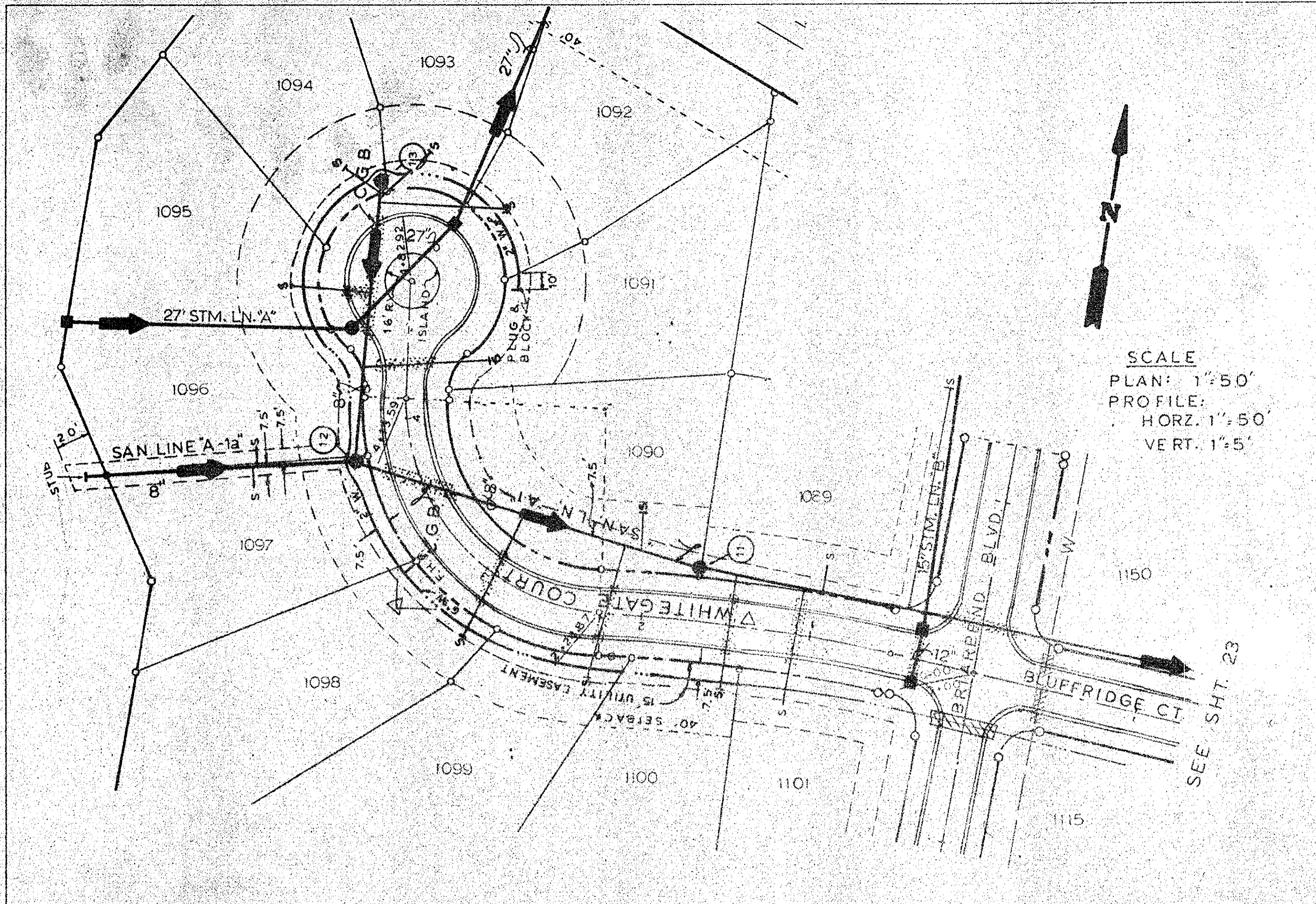




HIGHWAY FEDERAL AID SHEET  
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE  
PRINTED IN U.S.A.  
LIBERTY HILLS-SECT. NO. 1-SANITARY SEWER-PLAN & PROFILE  
LINE "B" & FORCE MAIN

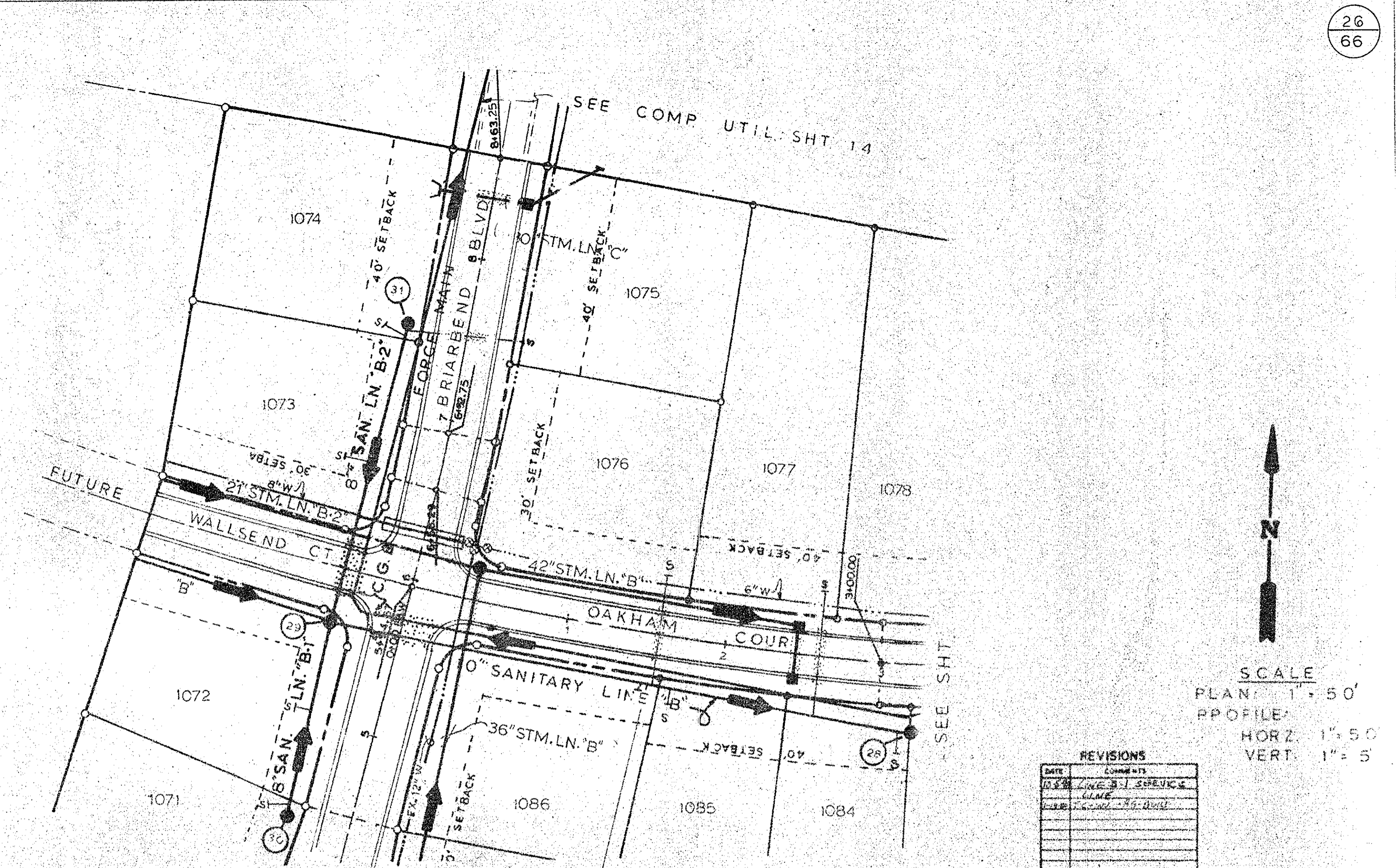


PLAN  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
SURVEYED: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
NOTE BOOK: \_\_\_\_\_  
No. \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
AT: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_



SCALE  
PLAN: 1"=50'  
PROFILE:  
HORZ. 1"=50'  
VERT. 1"=5'

SEE SHT. 23

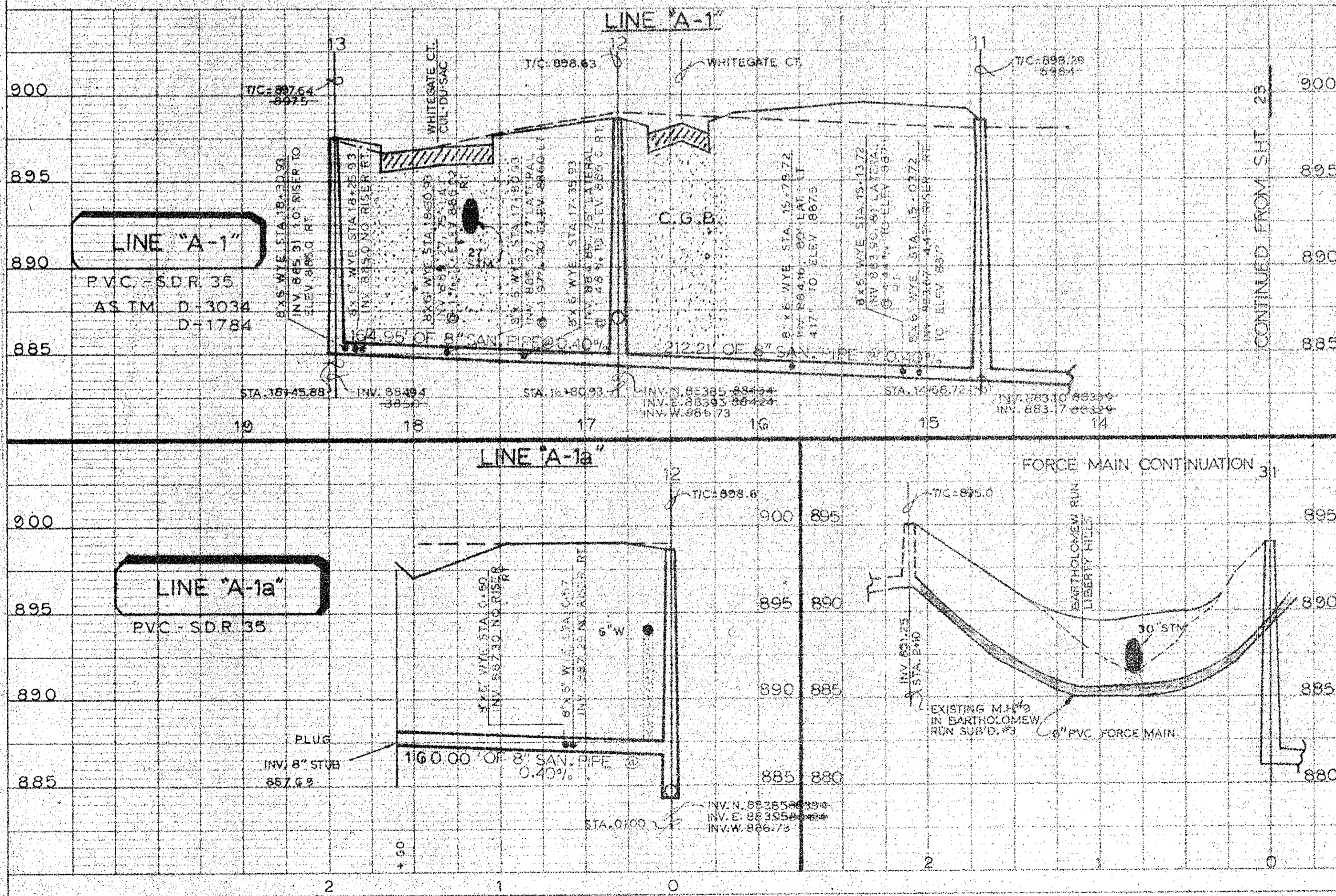


SCALE  
PLAN: 1"=50'  
PROFILE:  
HORZ. 1"=50'  
VERT. 1"=5'

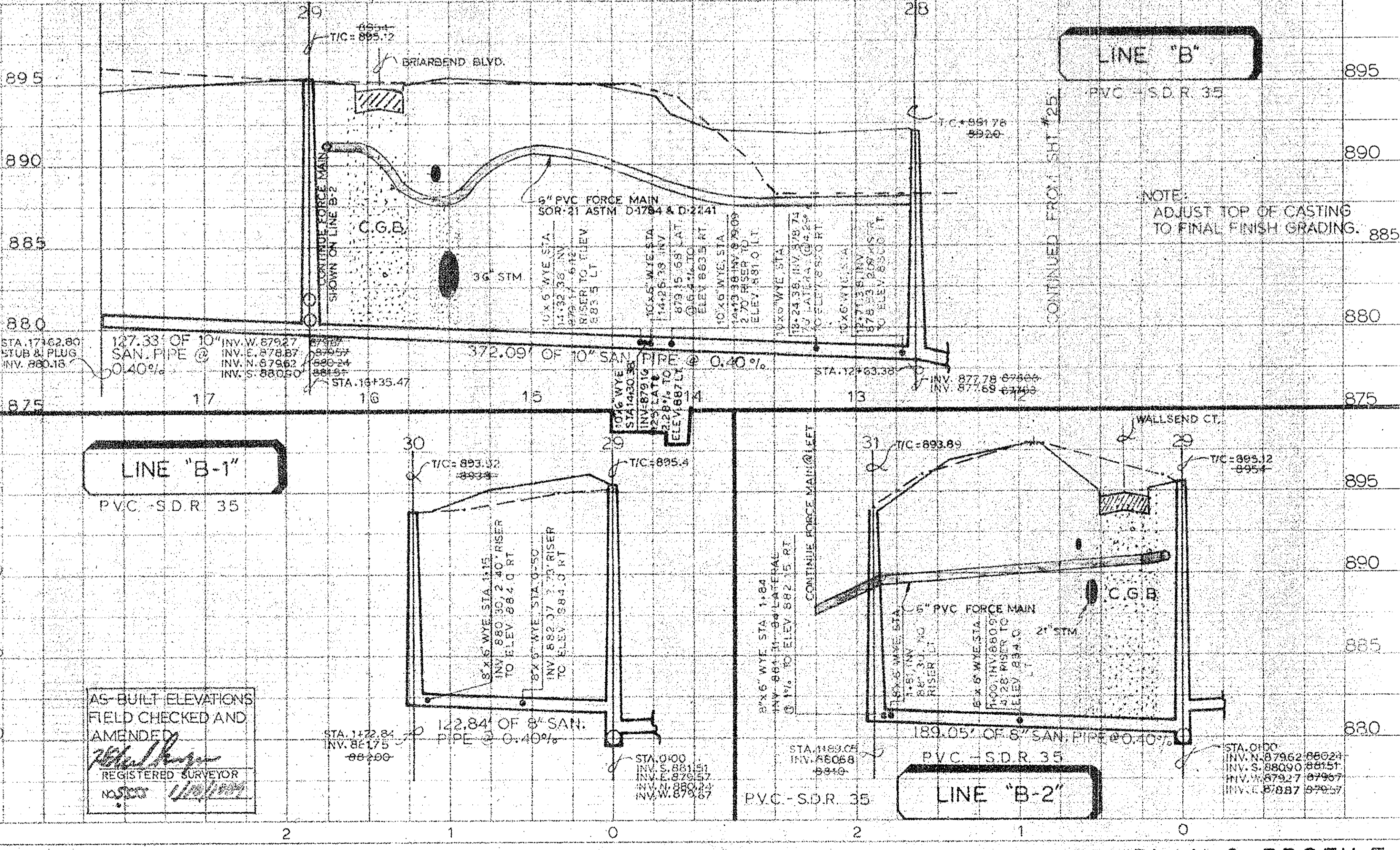
REVISIONS

DATE	REVISIONS
05/28/08	LINE B-1 SERVICE LINE
06/10/08	LINE B-2 SERVICE LINE
06/10/08	LINE B-2A SERVICE LINE

PROFILE  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
SURVEYED: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
NOTE BOOK: \_\_\_\_\_  
No. \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
AT: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_



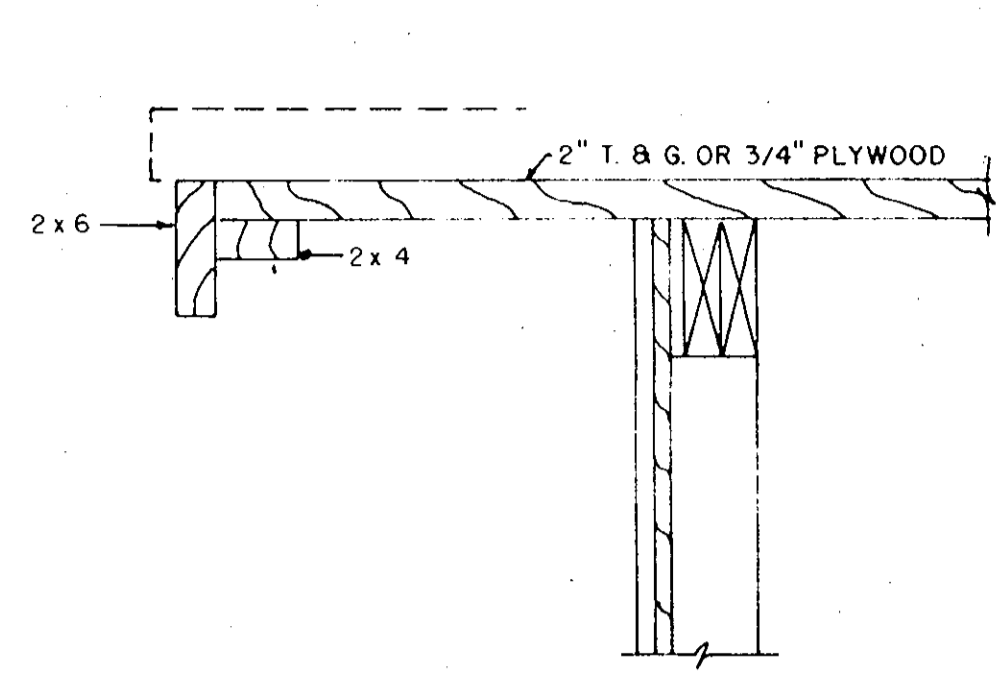
CONTINUED FROM SHT. 23



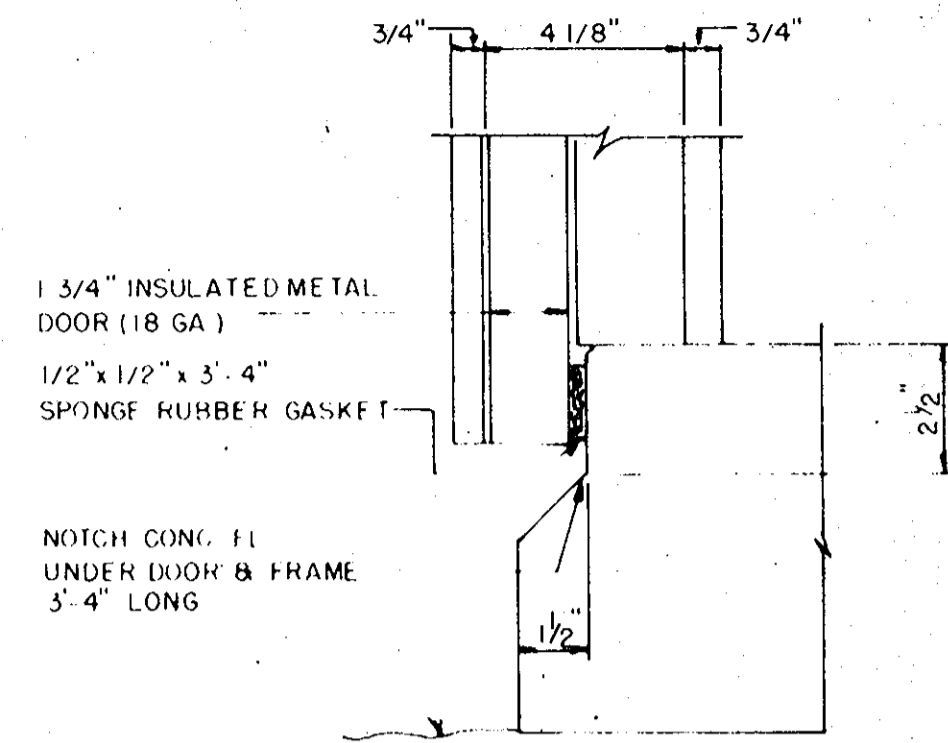
NOTE:  
ADJUST TOP OF CASTING  
TO FINAL FINISH GRADING.

AS-BUILT ELEVATIONS  
FIELD CHECKED AND  
AMENDED  
*[Signature]*  
REGISTERED SURVEYOR  
NO. 1000

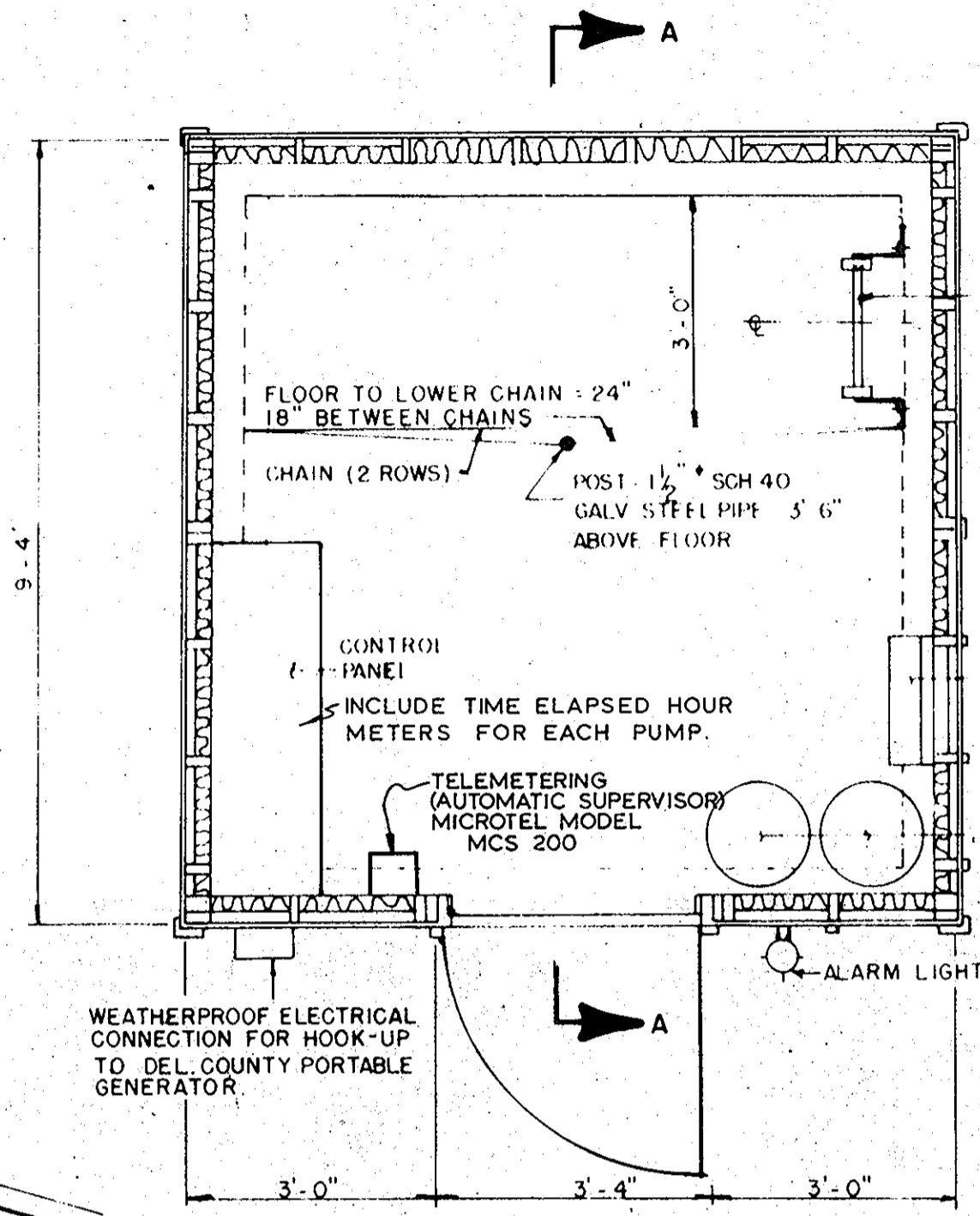




**RAKE SECTION**  
SCALE: 1/2" = 1'



**DOOR THRESHOLD DETAIL**  
SCALE: 3" = 1'

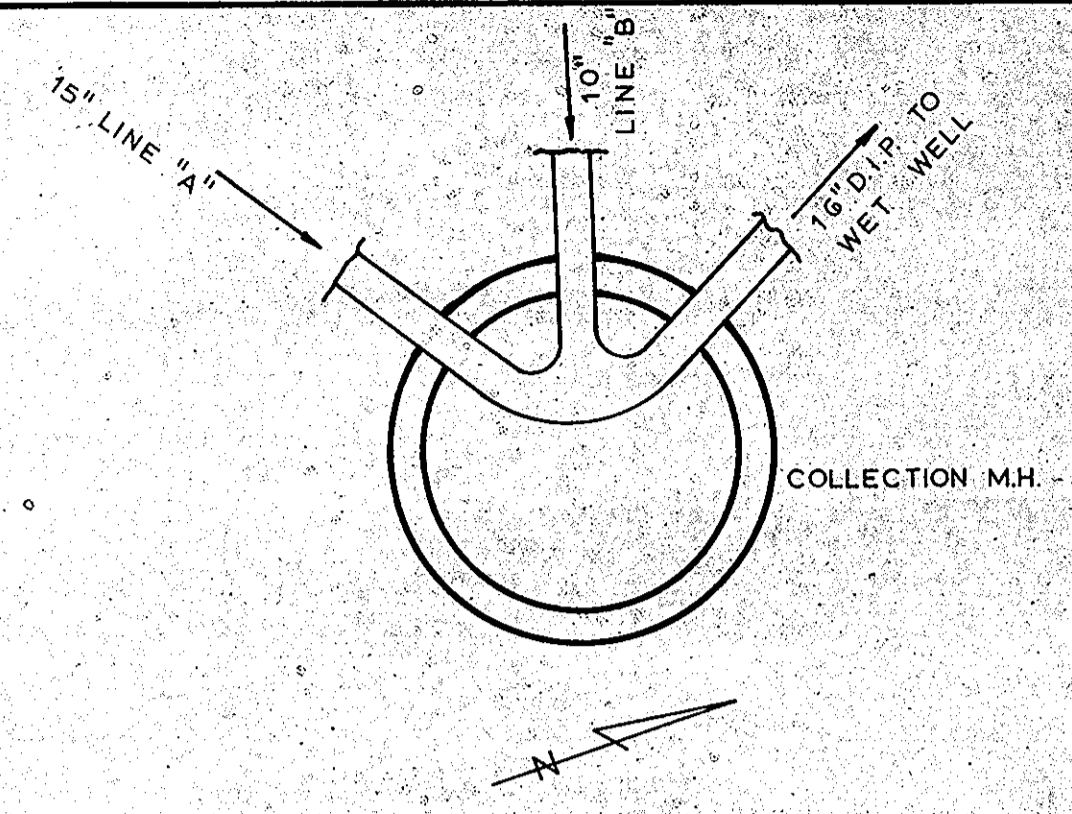


**PLAN**  
SCALE: 1/2" = 1'

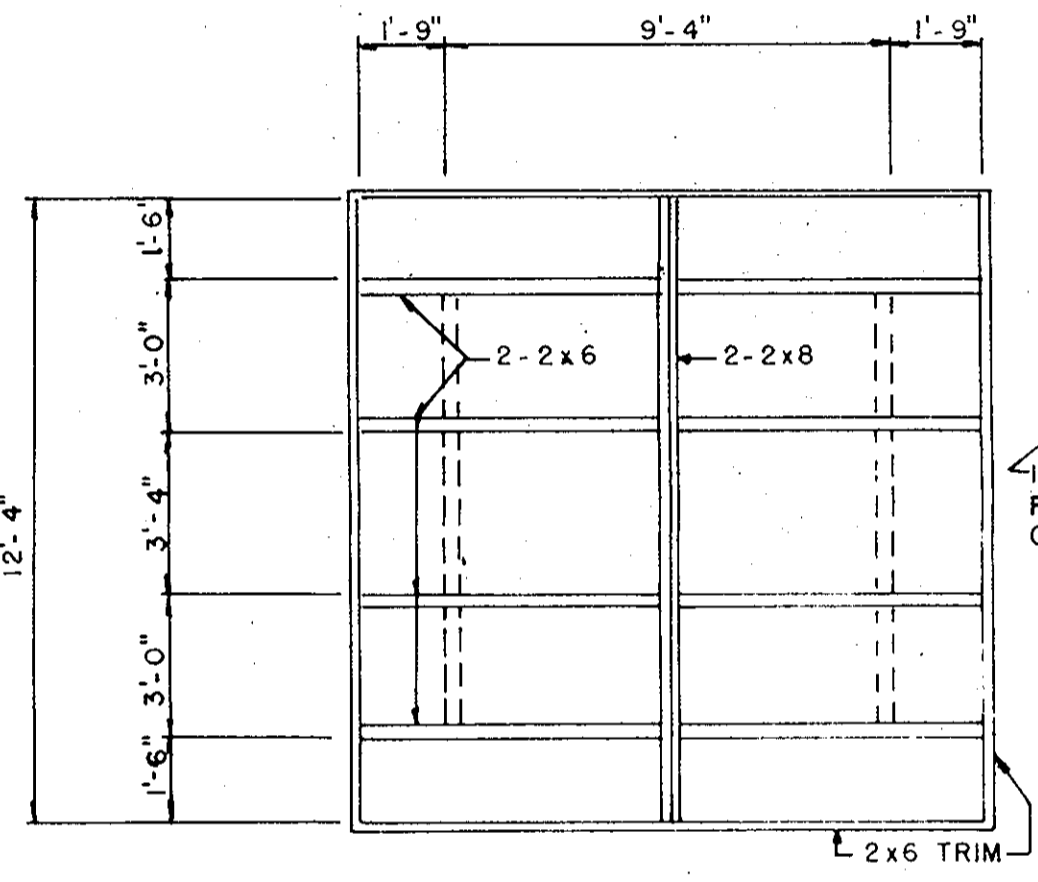
VAULT LADDER TO EXTEND 5' ABOVE MAIN FLOOR SLAB

WALL MOUNTED, HEAVY DUTY ELECTRIC HEATER ON THERMOSTAT, 240 VAC, 2500 WATTS MIN 8500 BTU/HR MIN DAYTON 21455 OR EQUAL

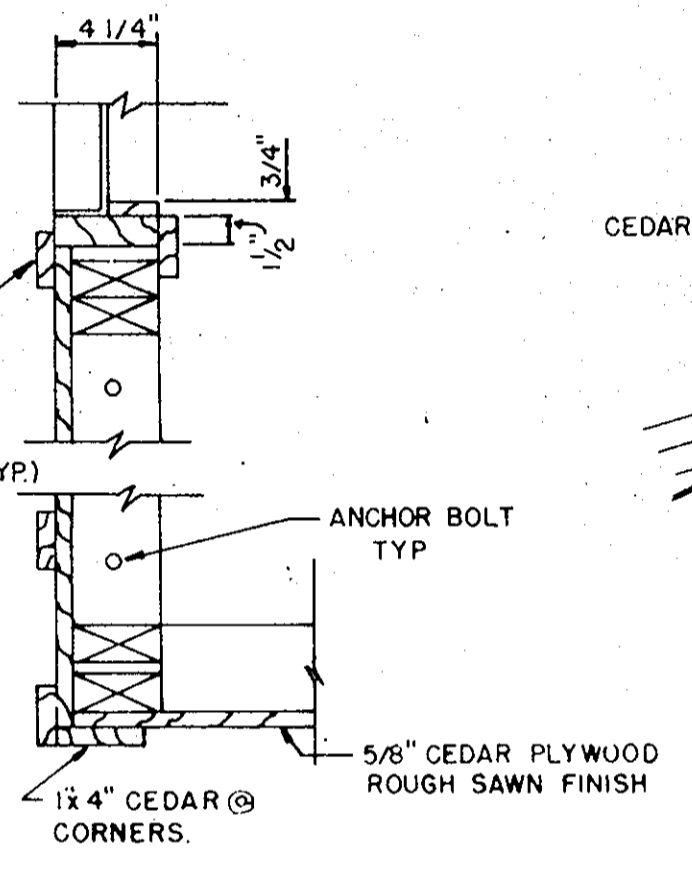
2 HEAVY DUTY, 50 GAL GARBAGE CANS W/LIDS



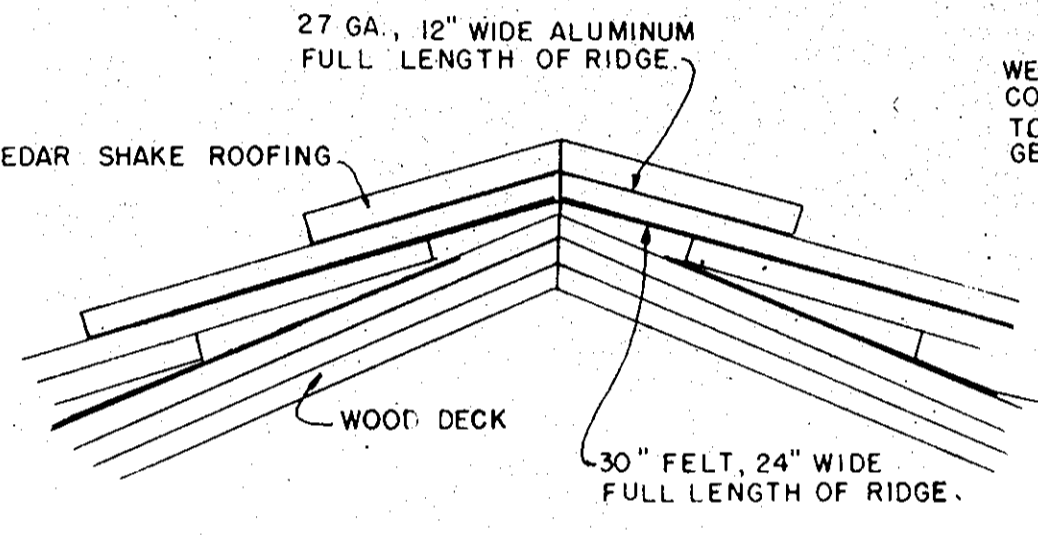
**COLLECTION M.H. DETAIL**  
NO SCALE



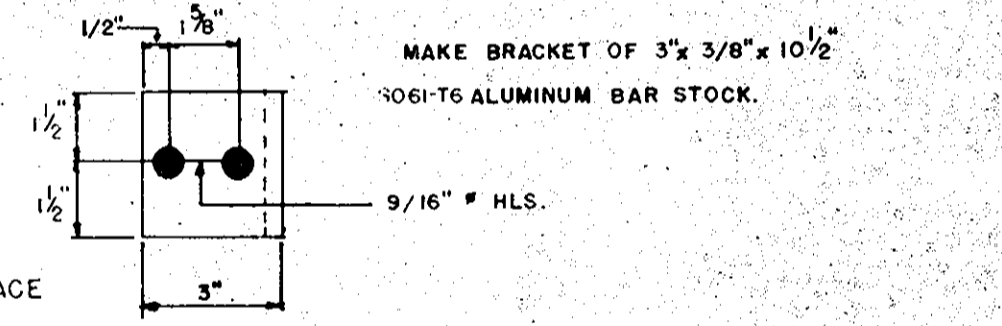
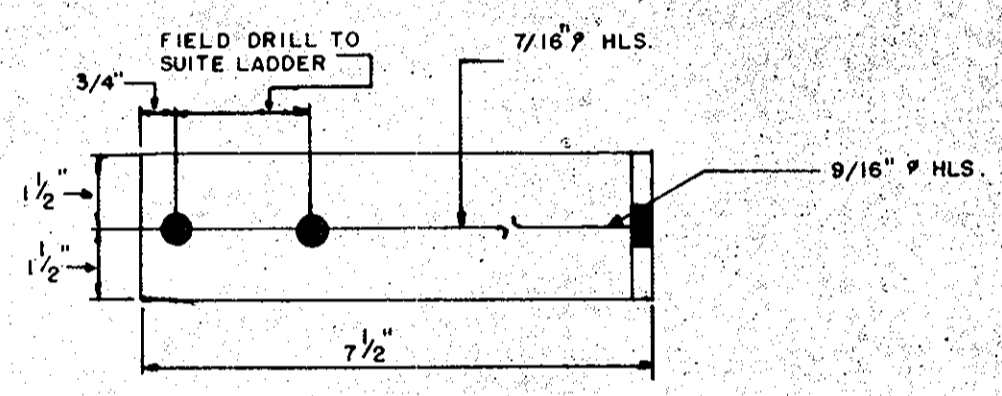
**ROOF FRAMING PLAN**  
SCALE: 1/4" = 1'



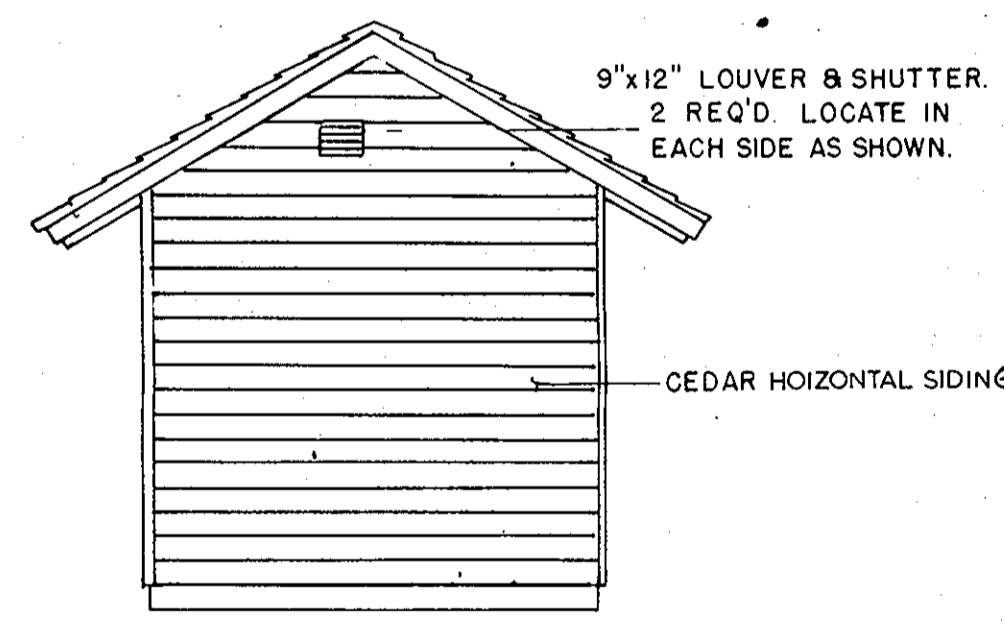
**TYPICAL CORNER**  
SCALE: 1/2" = 1'



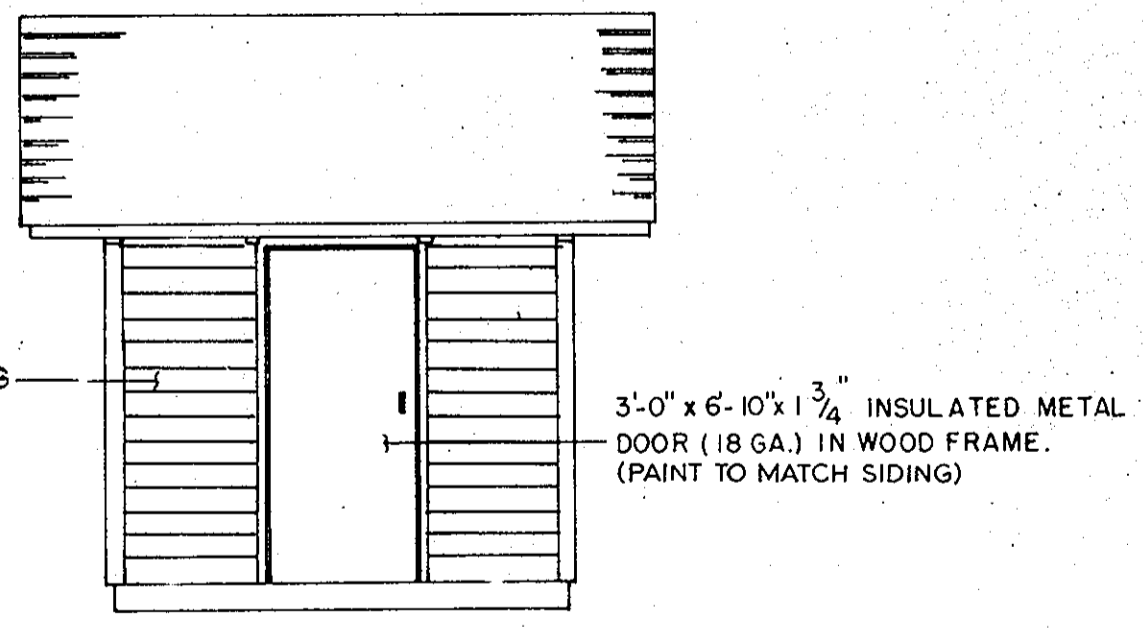
**RIDGE DETAIL**



**ALUM. SUPPORT BRACKET DETAIL**  
MAKE THREE AS SHOWN, THREE REVERSE SIX TOTAL

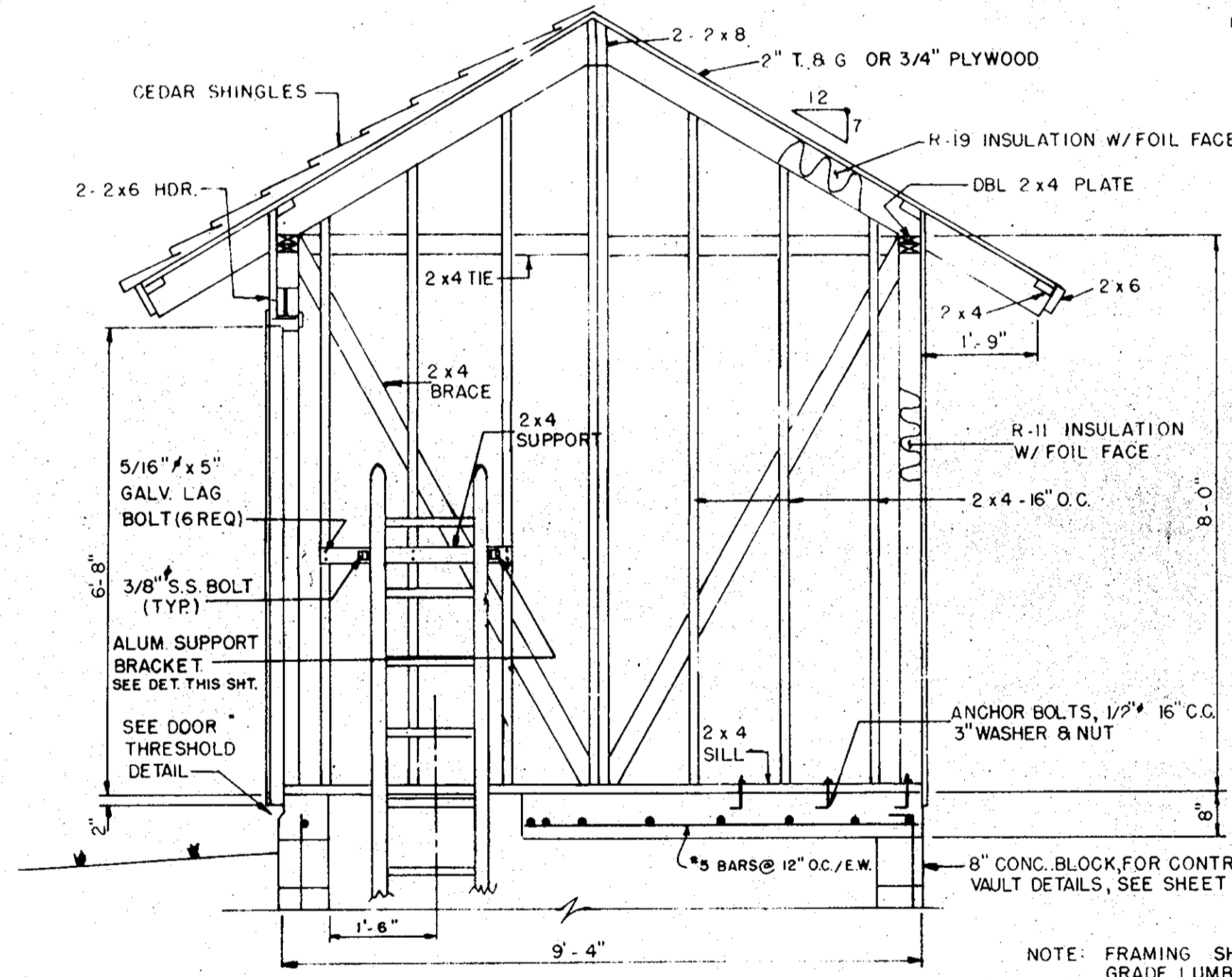


**SIDES**



**FRONT**  
(REAR ELEVATION SAME EXCEPT NO DOOR)

**ELEVATIONS**  
SCALE: 1/4" = 1'

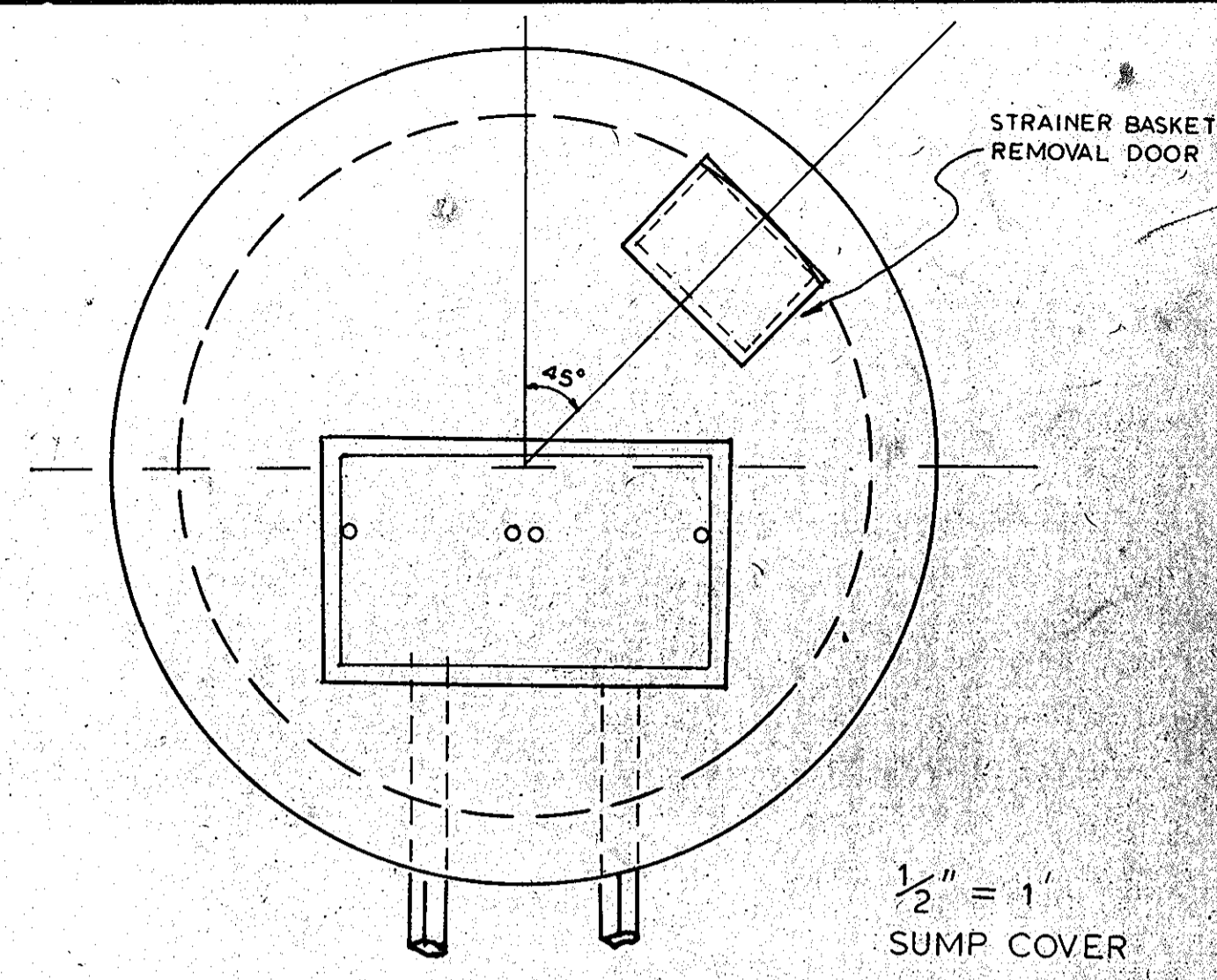
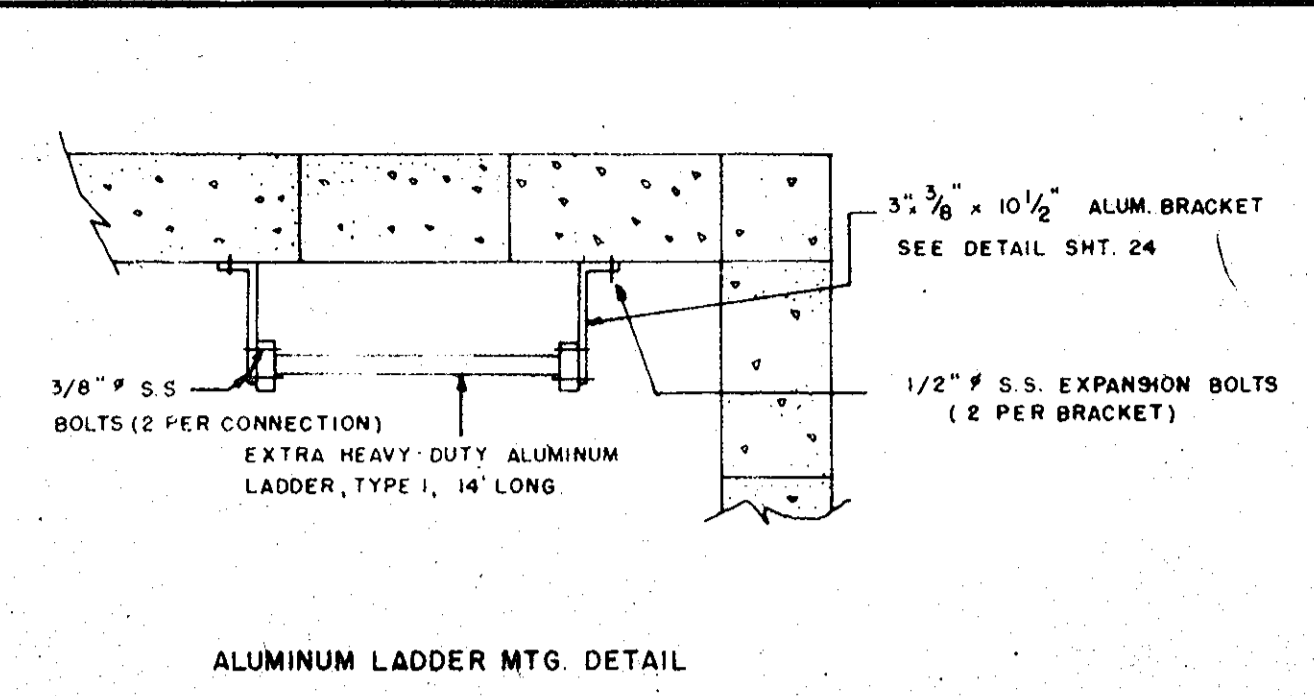
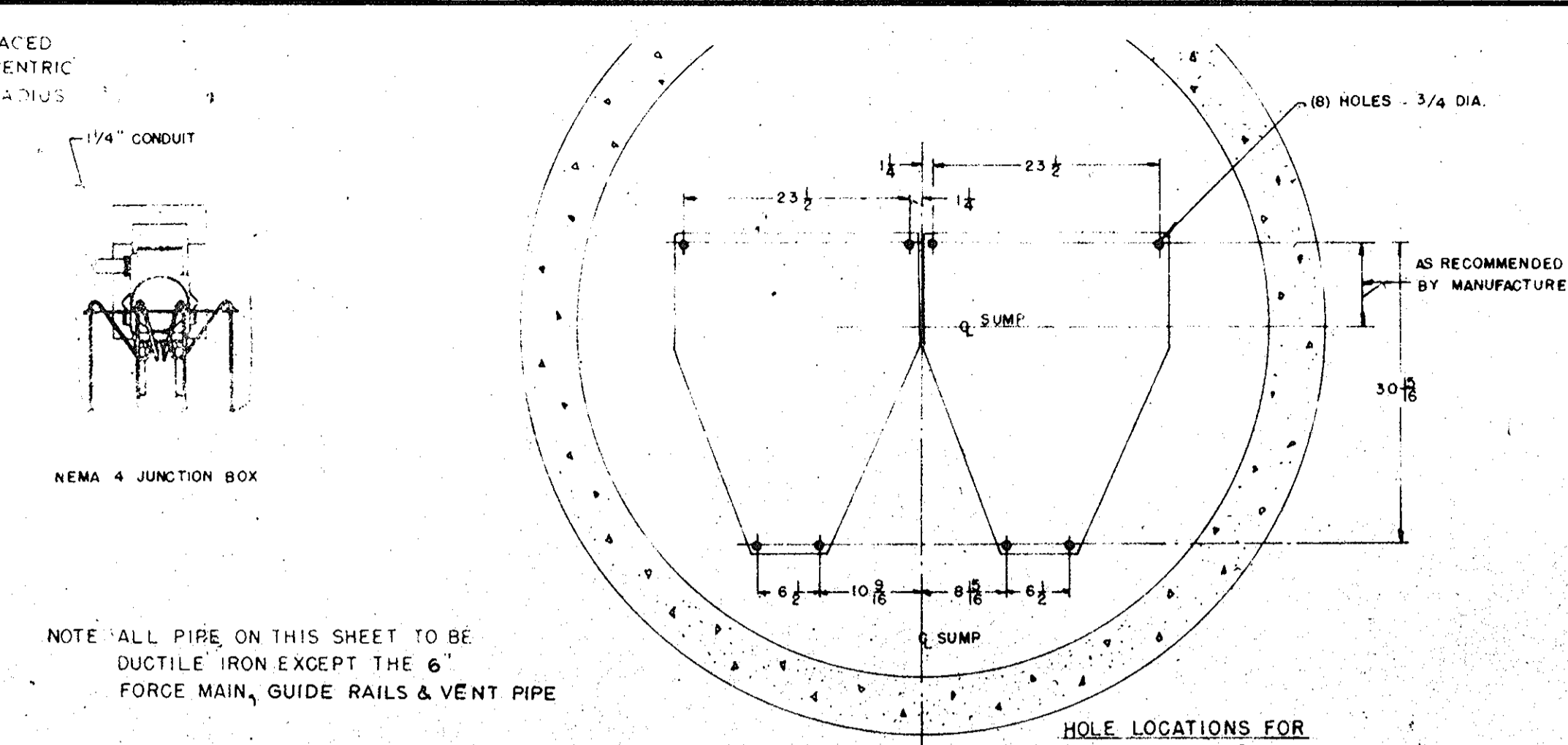
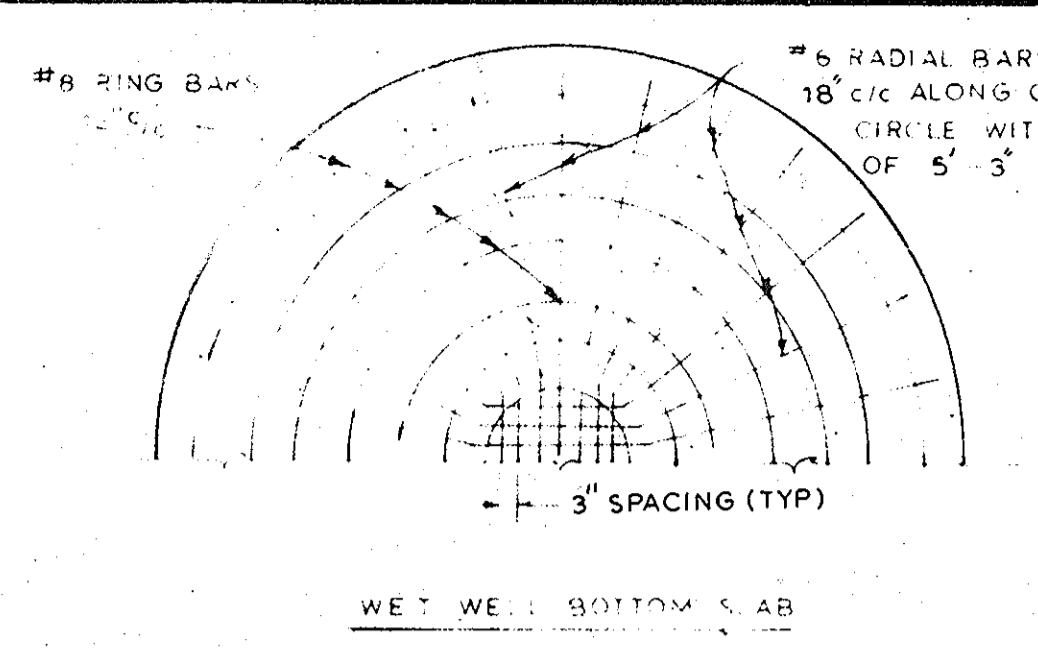


**SECTION "A-A"**  
SCALE: 1/2" = 1'

NOTE: FRAMING SHALL BE CONSTRUCTION GRADE LUMBER.

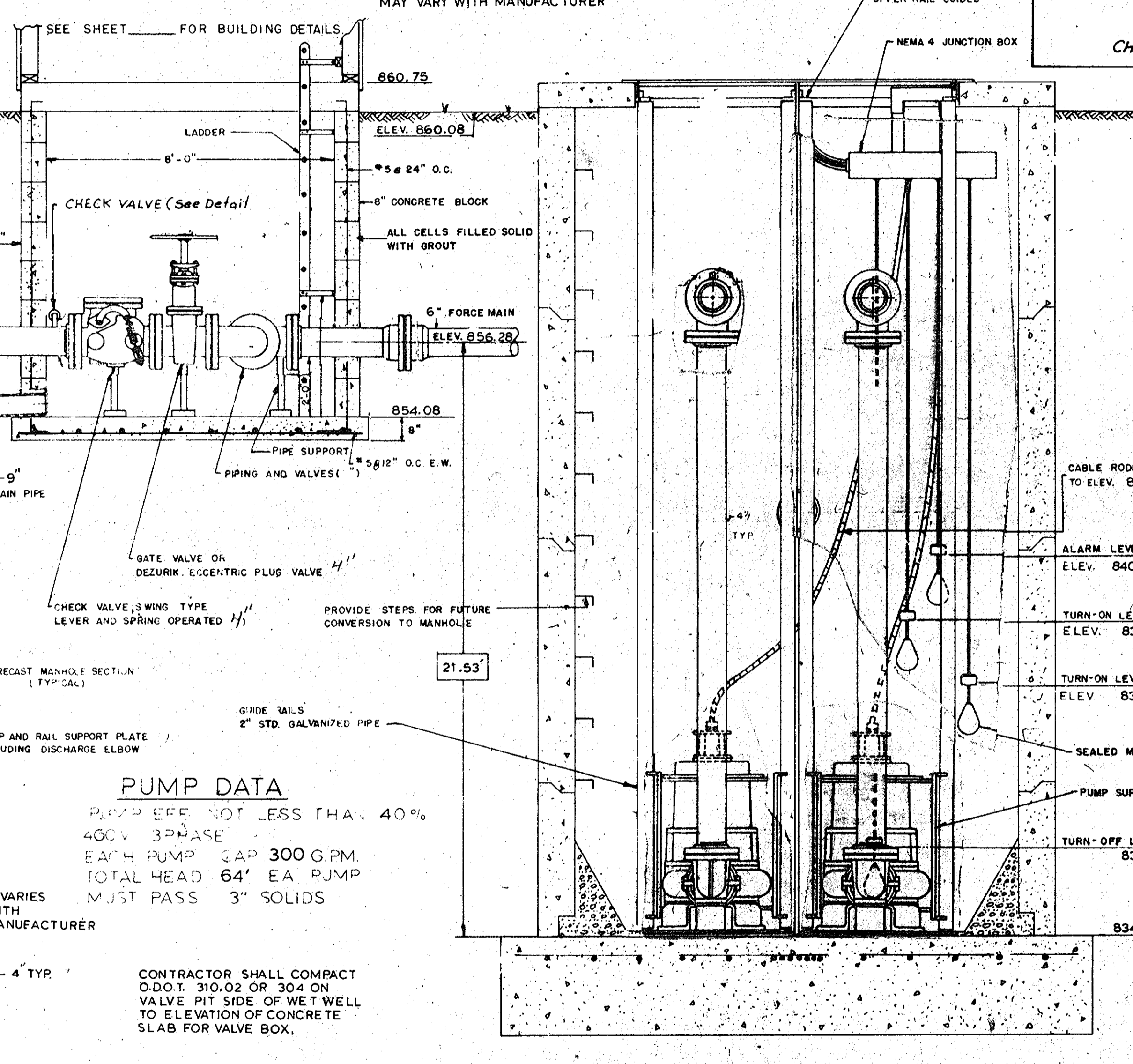
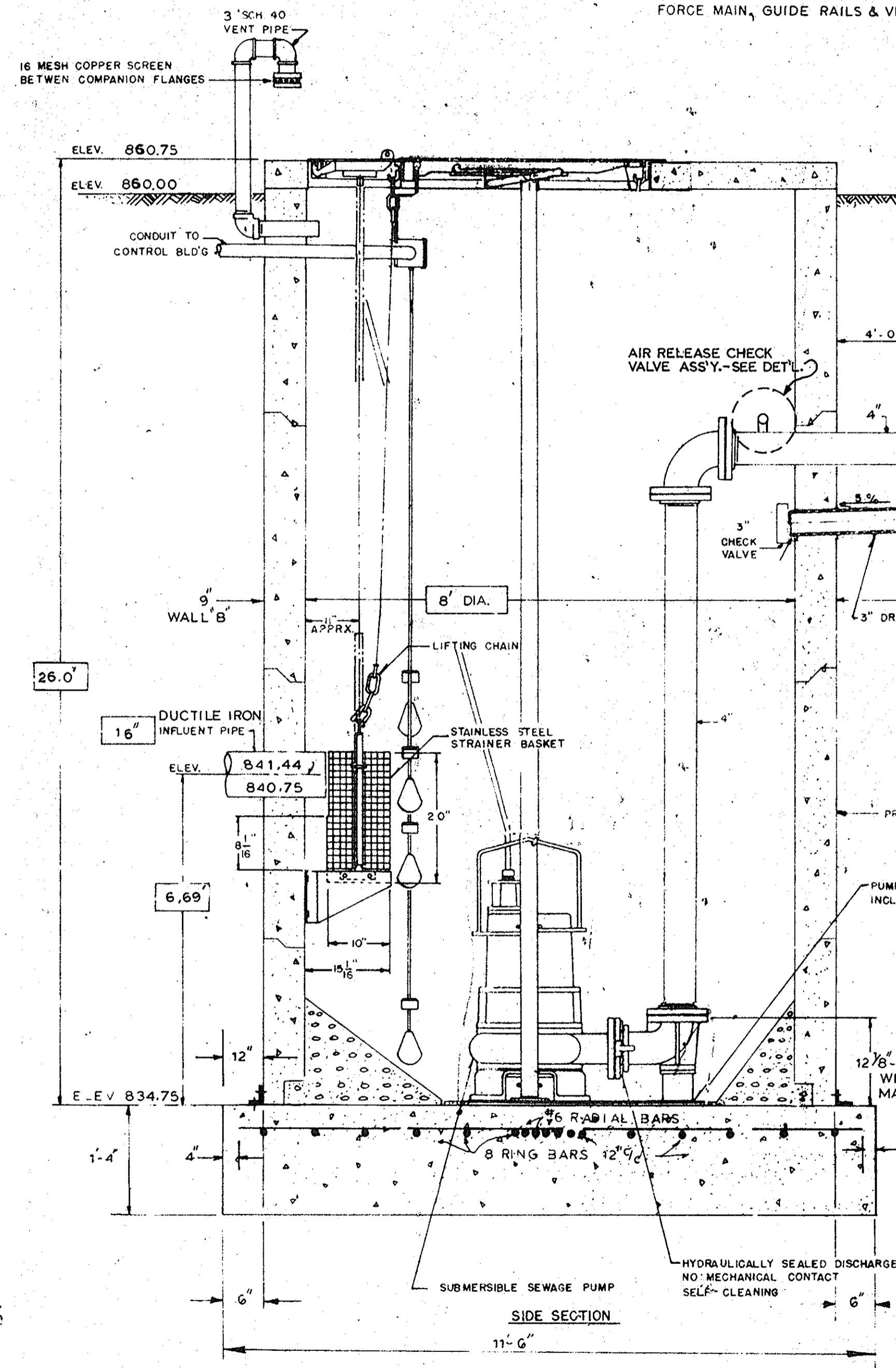
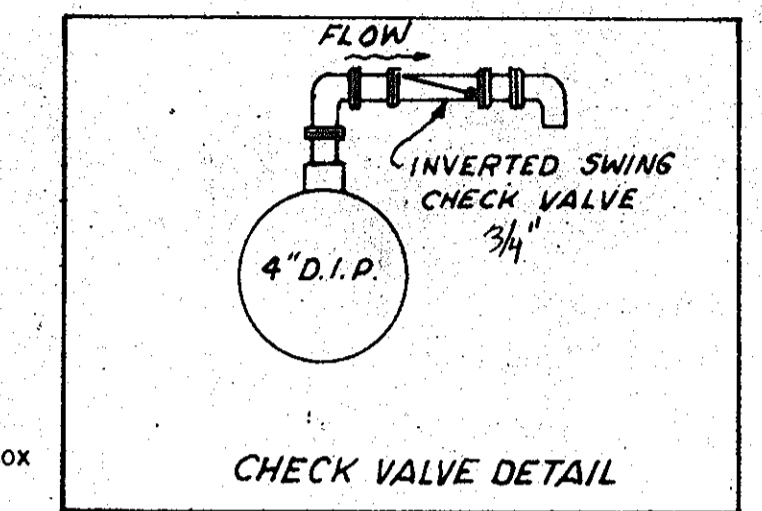
NOTE: BUILDING EXTERIOR TO BE STAINED WITH "OLYMPIC" NATURAL STAIN, CEDAR NATURAL TONE APPLIED AT RATE OF 1 GAL PER 100 SQ FT. (2 COATS AT RATE OF 1/2 GAL PER 50 SQ FT.)





NOTE ALL PIPE ON THIS SHEET TO BE DUCTILE IRON EXCEPT THE 6" FORCE MAIN, GUIDE RAILS & VENT PIPE

HOLE LOCATIONS FOR PUMP MOUNTING PLATES MAY VARY WITH MANUFACTURER

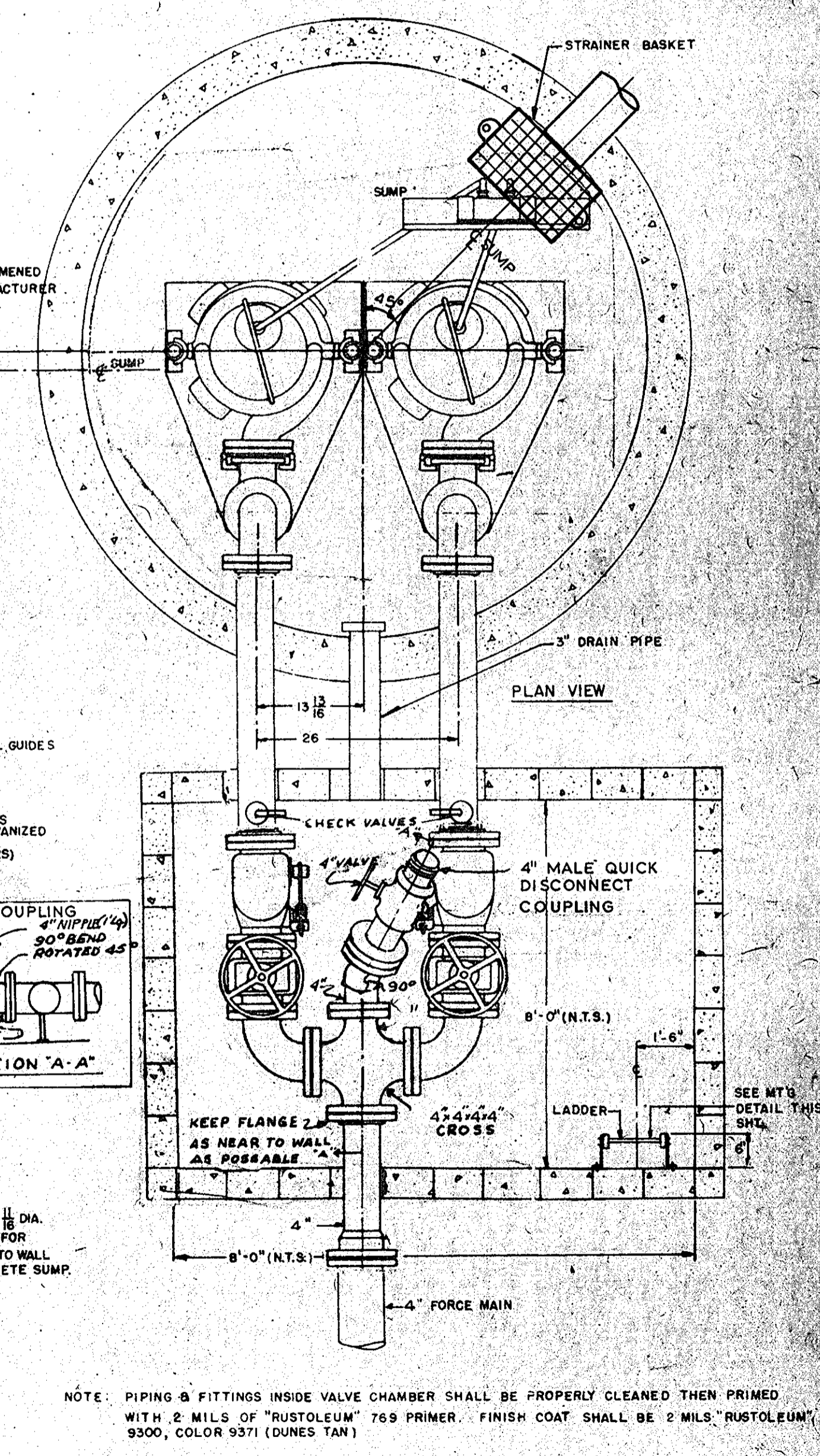
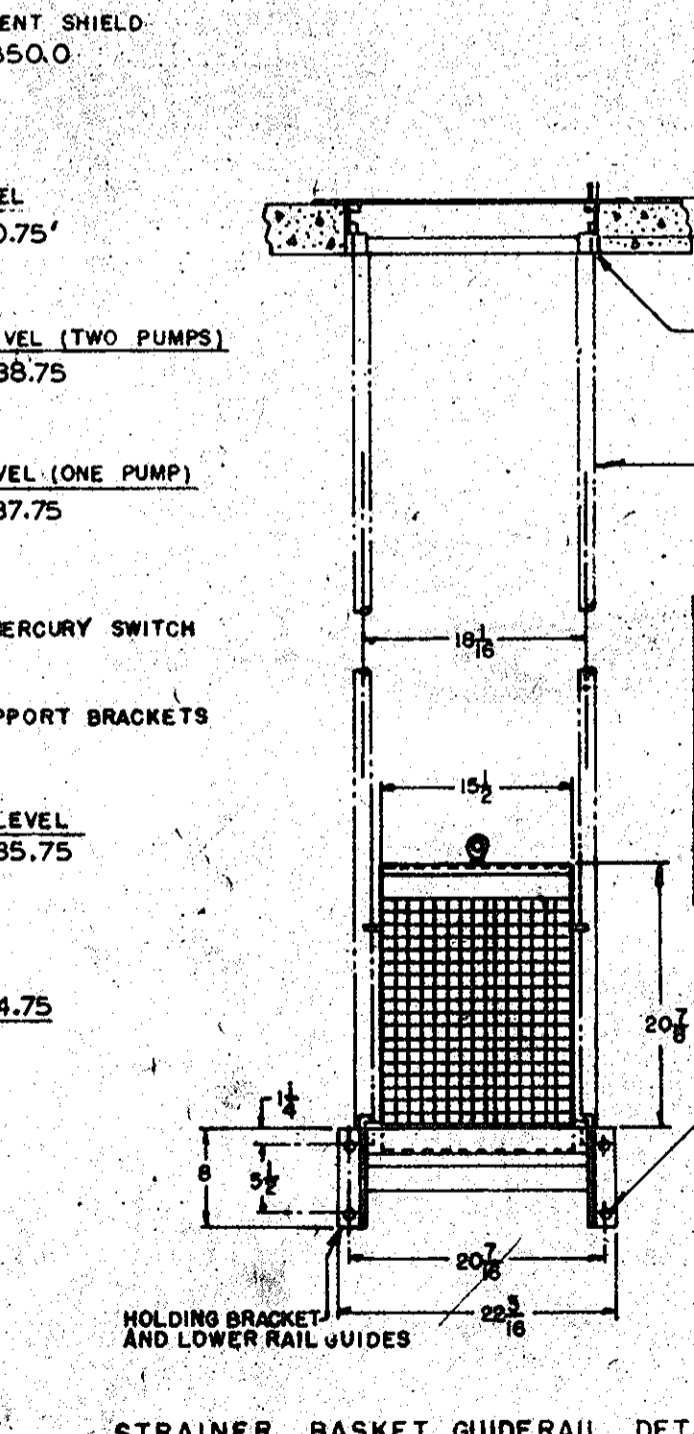
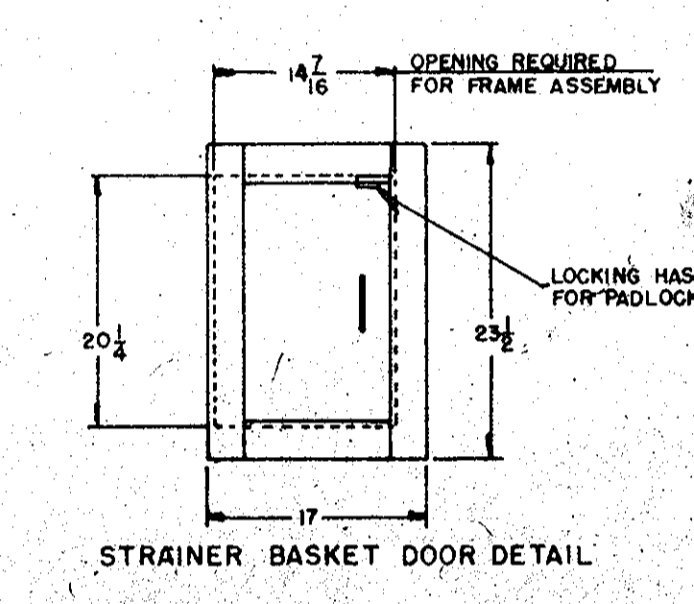


**PUMP DATA**  
PUMP EFF. NOT LESS THAN 40%  
460V 3PHASE  
EACH PUMP CAP 300 G.P.M.  
TOTAL HEAD 64' EA PUMP  
MUST PASS 3" SOLIDS

CONTRACTOR SHALL COMPACT O.D.T. 310.02 OR 304 ON VALVE PIT SIDE OF WET WELL TO ELEVATION OF CONCRETE SLAB FOR VALVE BOX.

NOTE THE WET WELL CAN BECOME BUOYANT PRIOR TO PLACEMENT OF FINAL BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AGAINST DISPLACEMENT DURING CONSTRUCTION.

NOTE THE CONTRACTOR SHALL SUBMIT ALL DETAILED DRAWINGS AND SPECIFICATIONS TO THE ENGINEER FOR REVIEW & COMMENTS BEFORE FABRICATION.



NOTE: PIPING & FITTINGS INSIDE VALVE CHAMBER SHALL BE PROPERLY CLEANED THEN PRIMED WITH 2 MILS OF "RUSTOLEUM" 769 PRIMER. FINISH COAT SHALL BE 2 MILS "RUSTOLEUM" 9300, COLOR 9371 (DUNES TAN)

FLOAT SWITCH LEVELS CONTROLS HYDROMATIC MODEL 3900 OR EQUAL

PUMPS, CONTROLS, GUIDE RAILS, MOUNTING PLATES, SHALL BE FROM ONE MANUFACTURER

DATE	REVISIONS
10/28/03	ELEVATION REVISION

PUMP DESIGN BASIS - HYDROMATIC S4M 1750 RPM, 10 HP (MIN.), MOTOR NOT TO BE OVERLOADED AT ANY POINT ON CURVE - 460V - 3 Ø 300 GPM @ 64' TDH - IMPELLOR DIA. 9" (NOMINAL) TRIM TO MEET OPERATING CONDITIONS. EFFICIENCY AT OPERATING POINT = 55±%