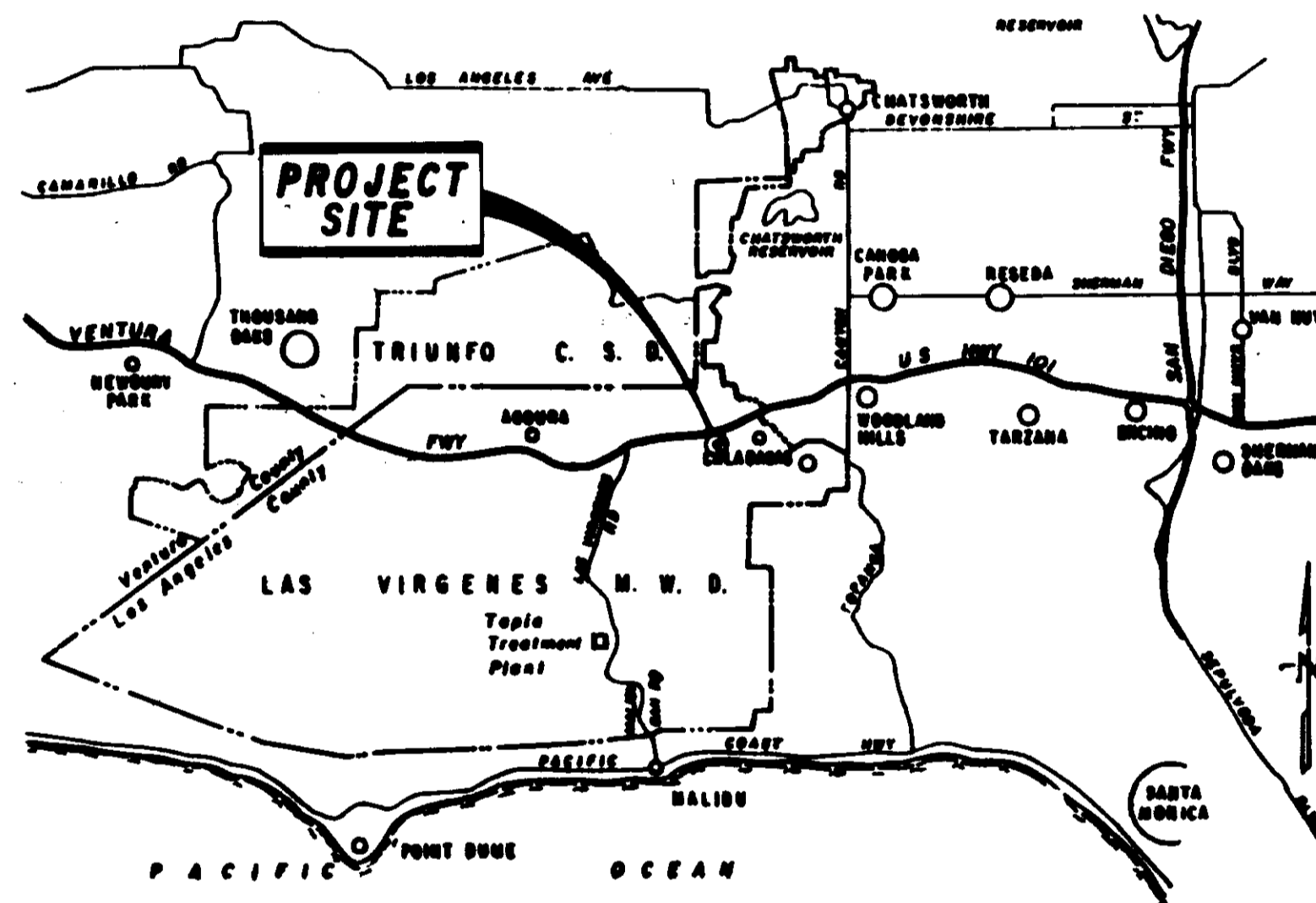


LAS VIRGENES MUNICIPAL WATER DISTRICT

LOS ANGELES COUNTY, CALIFORNIA

CONSTRUCTION PLANS FOR CORDILLERA TANK AND ASSOCIATED PIPELINES CALABASAS RECLAIMED WATER SYSTEM



1 0 1 2 3 4 5
SCALE IN MILES
VICINITY MAP

FULL SIZE PLAN SHEETS (22" x 34")
 ISSUED WITH ADDENDUM NO. 2 (SHEETS 1 THROUGH 34 INCLUSIVE)
 ONE-HALF SIZE PLAN SHEETS ARE TO BE DELETED IN THEIR
 ENTIRETY PER ADDENDUM NO. 2.

RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
 CONST. INSPECTOR: _____ DATE: _____
 DRAFTED BY: ASR DATE: 6-25-90
 PROJ. ENGR. J.P.S. DATE: 6-25-90

LAS VIRGENES MUNICIPAL WATER DISTRICT
 LOS ANGELES COUNTY
BOARD OF DIRECTORS

HAROLD V. HELSLEY - PRESIDENT
 A. MACNEIL STELLE STEVE GAVIN
 GLEN PETERSON ANN DORGELO
 EDWARD E. MCCOMBS - GENERAL MANAGER

Approved by the Board of Directors
 on this 25 day of JUNE 1990

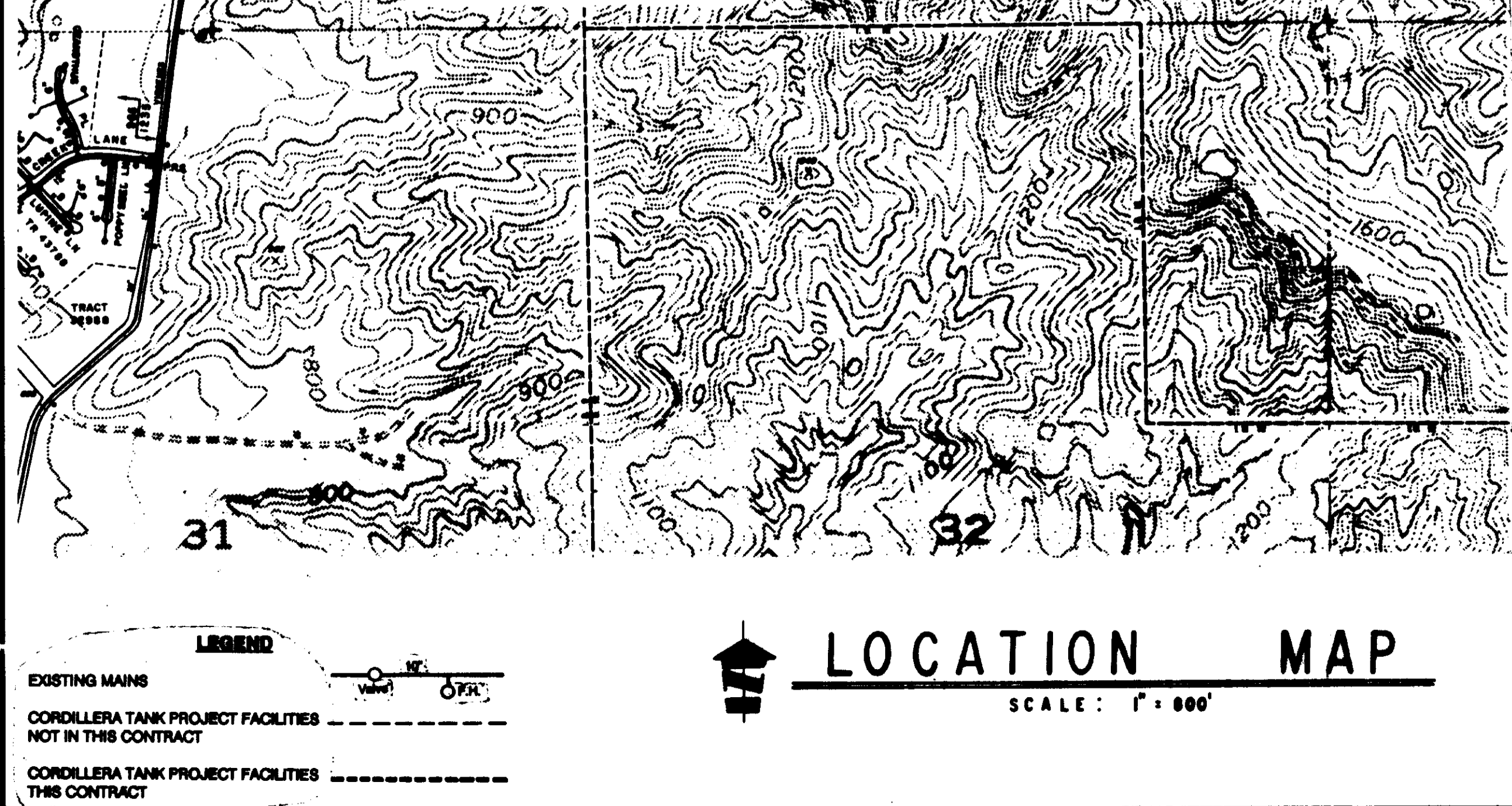
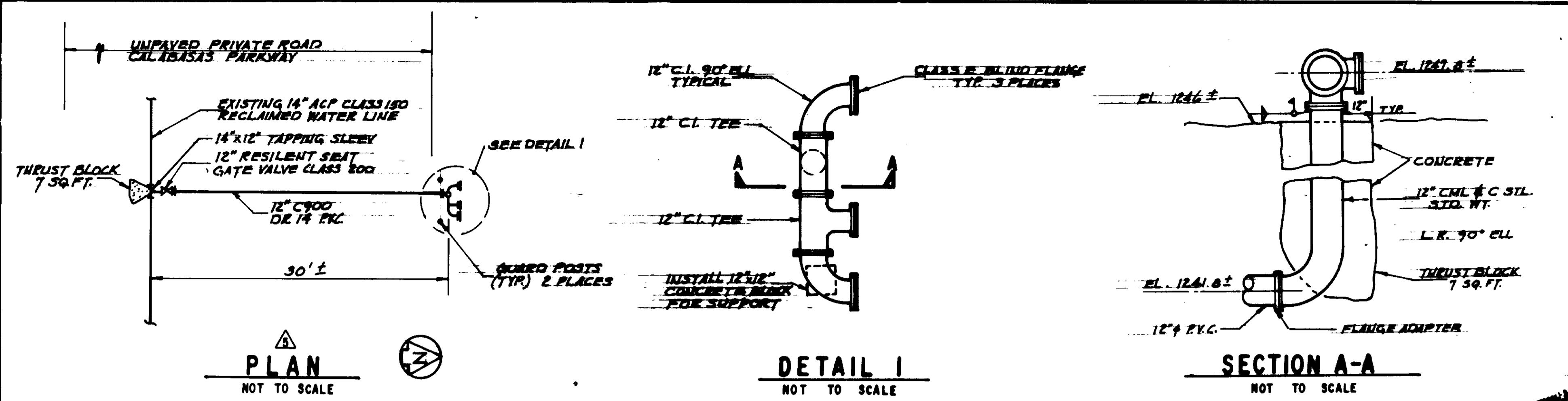
BY [Signature]
 HAROLD V. HELSLEY - PRESIDENT
 BY [Signature]
 STEVE GAVIN - SECRETARY
 BY [Signature]
 EDWARD E. MCCOMBS - GENERAL MANAGER
 BY [Signature]
 JAMES E. GOLBAUGH
 DIRECTOR OF PLANNING AND ENGINEERING

PLANS PREPARED BY
BOYLE ENGINEERING CORPORATION
 consulting engineers | architects

Donald F. Mills
 DONALD F. MILLS 6-25-90
 MANAGING ENGINEER DATE

ADDENDUM NO. 2

05530



- CONSTRUCTION NOTES**
- TREES, SHRUBS, AND OTHER VEGETATION ARE NOT SHOWN EXCEPT OAK TREES IN IMMEDIATE CONSTRUCTION AREAS.
 - ALL OAK TREES SHALL BE PROTECTED FROM DAMAGE.
 - ALL GRADING SHALL BE IN COMPLIANCE WITH THE LOS ANGELES COUNTY GRADING STANDARDS.
 - ELEVATIONS SHOWN ARE TO THE TOP OF FINISHED GRADE, UNLESS NOTED OTHERWISE.
 - SEE SPECIFICATIONS FOR CONSTRUCTION SEQUENCE.
 - ALL EXPOSED PIPE AND APPURTENANCES SHALL BE COATED WITH COLORS APPROVED BY THE DISTRICT.
 - LIQUID LEVEL TRANSMITTER, RTU & IRRIGATION PUMP AND SHD ARE PROVIDED BY OTHERS TO BE INSTALLED BY THE CONTRACTOR.
 - PLUG TEMPORARY DRAIN HOLES IN CATCH BASINS PRIOR TO PAVING.
 - CONTRACTOR SHALL PROVIDE PROVISIONS TO PROTECT TEMPORARY ABOVE GROUND WATER PIPES AS REQUIRED FOR CONSTRUCTION OR OTHER CONSTRUCTION ACTIVITY.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
 - NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE STRUCTURAL NOTES AND TYPICAL DETAIL SHEETS.
 - ALL CONSTRUCTION SHALL BE COORDINATED WITH AND IN ACCORDANCE WITH THE CONSTRUCTION CONTRACT DOCUMENTS.
 - WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCTION DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
 - TANK DIAMETER = 132.0 FEET. CONCRETE RINGWALL INSIDE DIAMETER = 130.0 FEET. CONCRETE RINGWALL OUTSIDE DIAMETER = 134.0 FEET. SEE SHEET 4
 - ALL FLANGES SHALL BE HUB STYLE FLAT FACE BOLTHOLES TO STRADDLE VERTICAL AXIS.
 - INTERIOR SURFACES OF ALL TANK PIPING SHALL BE COATED AS SPECIFIED. EXTERIOR SURFACES OF ALL PIPING INSIDE OF TANK SHALL BE COATED WITH THE SAME TYPE OF COATING AS SPECIFIED FOR THAT PORTION OF TANK THROUGH WHICH PIPING PASSES. EXTERIOR SURFACES OF ABOVE-GROUND PIPING OUTSIDE OF TANK SHALL BE PAINTED THE SAME AS SPECIFIED FOR EXTERIOR TANK PAINTING.
 - GALVANIZED SURFACES SHALL BE TREATED AND PAINTED IN ACCORDANCE WITH SPECIFICATIONS.
 - LOCATE WATER LEVEL INDICATOR AND GAUGE WIRES APPROXIMATELY 1-FT. AWAY FROM INSIDE LADDER SUPPORT BRACKETS.

- GENERAL NOTES**
- PIPELINE ELEVATIONS SHOWN IN PLAN AND PROFILE ARE TOP OF PIPE UNLESS SHOWN OTHERWISE.
 - TYPE B PIPE IS CEMENT MORTAR LINED AND COATED STEEL WATER PIPE PER PROJECT SPECS.
 - ALL FIELD WELDED JOINTS SHALL BE LAP WELD JOINTS UNLESS SHOWN OTHERWISE ON THESE DRAWINGS.
 - ALL STEEL PIPE SHALL BE CEMENT MORTAR LINED AND COATED WITH THE MATERIALS SPECIFIED IN SECTION 18078.
 - ALL SURFACES OF BURIED STEEL PIPE AND FITTINGS SHALL BE WRAPPED IN PLASTIC FILM SECURED WITH POLYETHYLENE ADHESIVE TAPE IN ACCORDANCE WITH SECTION 18078.
 - SEE SPECIFICATION SECTION 08200 FOR SHEETING SHORING AND BRACING REQUIREMENTS.
 - BACKFILL MATERIAL WITHIN THE PIPE ZONE SHALL BE IN CONFORMANCE WITH SECTION 08200 OF THE PROJECT SPECIFICATIONS AND CONSTRUCTION DETAILS AND CROSS SECTION 8 ON SHEET 11 OF THESE PLANS. BACKFILL MATERIAL ABOVE THE PIPE ZONE SHALL BE IN CONFORMANCE WITH SECTION 08200 OF THE PROJECT SPECIFICATIONS AND CROSS SECTION 8 ON SHEET 11 OF THESE PLANS.
 - ALL ABOVE-GROUND APPURTENANCES SHALL BE SHOP PRIMED OR PAINTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS IN SECTION 08200.
 - THE CONTRACTOR SHALL CONFINE ALL OF HIS ACTIVITIES TO WITHIN THE RIGHTS-OF-WAY DISCLOSED ON SHEET 3 OF THE CONTRACT DRAWINGS. IF THE CONTRACTOR DESIRES TO USE ADJACENT AREAS, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE PROPERTY OWNERS ADJACENT TO THE PROJECT SITE BEFORE ANY USE IS MADE OF SUCH AREA FOR ANY PURPOSE. AREAS USED SHALL BE RETURNED TO THEIR ORIGINAL CONDITIONS PRIOR TO THE FINAL ACCEPTANCE OF WORK.
 - FILL MATERIAL INCLUDING TEMPORARY STOCKPILING SHALL NOT BE PLACED IN ANY NATURAL WATER COURSE.
 - ALL SITE DRAINAGE FACILITIES (TEMPORARY OR PERMANENT) SHALL BE OPERABLE AT ALL TIMES.
 - CONCURRENT WITH THE CONTRACT WORK UNDER THESE PLANS AND SPECIFICATIONS THE OWNER WILL HAVE A SEPARATE CONTRACT WITH OTHERS TO PERFORM FINAL LANDSCAPE PLANTING AND INSTALLATION OF TEMPORARY RECLAIMED WATER LINES.
- REINFORCED CONCRETE**
- THE MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS: STRUCTURAL CONCRETE - CLASS A - 3800 PSI.
 - REINFORCING STEEL SHALL CONFORM TO ASTM-A618 - GRADE 60.
 - UNLESS OTHERWISE DETAILED, PROVIDE 3/8-INCH DIAMETER SPACER BARS OR TIES AT 24 INCH ON CENTER IN SLABS, BEAMS, GIRDERS AND FOOTINGS TO KEEP MAIN REINFORCING IN PLACE.
 - NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE WALLS, PIERS, SLABS OR FOOTINGS UNLESS SPECIFICALLY DETAILED.
 - CONCRETE QUALITY CONTROL TESTING WILL BE PERFORMED ON THE CONCRETE AS SPECIFIED IN SECTION 08200 OF THE PROJECT SPECIFICATIONS.
 - WATERSTOPS AND JOINT SEALANT SHALL BE PLACED IN ALL CONSTRUCTION AND EXPANSION JOINTS.
 - REINFORCED STEEL SPLICE LENGTHS SHALL CONFORM TO THE STRUCTURAL DETAILS AND SHALL HAVE A MINIMUM LAP LENGTH OF 48 BAR DIAMETERS. LOCATION OF SPLICES SHALL BE AS SHOWN. WHERE SPLICE LAP LOCATIONS ARE NOT SHOWN, STAGGER SPLICE LAPS IN ADJACENT BARS 48 BAR DIAMETERS.
 - ALL ANCHOR BOLTS, DOWNLS AND OTHER ITEMS EMBEDDED OR ANCHORED IN CONCRETE SHALL BE SECURED IN PLACE PRIOR TO CONCRETED PLACEMENT.
 - PROVIDE 3/4 INCH CHAMFER AT ALL EXPOSED CONCRETE EDGES AND CORNERS UNLESS OMITTED BY NOTE ON DRAWINGS.
- REINFORCED MASONRY**
- REFER TO CONSTRUCTION SPECIFICATION SECTION 04220 AND STRUCTURAL DRAWINGS.

RECORD DRAWING

THIS RECORD DRAWING APPLIES ONLY TO THOSE WORKS SHOWN UNDER THE CONTRACT NUMBER 05531. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF INFORMATION PROVIDED BY THE CONTRACTOR AND THE CONSULTING ENGINEER.

CONST. NO. 05531, DATE 12/15/99
 DRAFTED BY: LSP, DATE 12/15/99
 PROJ. ENGR. PAB, DATE 12/15/99

REV.	DATE	DESCRIPTION	APP.
1	12/15/99	ISSUED FOR BIDDING	PAB
2	1/12/00	REVISIONS TO SHEETS 14, 21, 22, 23, AND 24	PAB
3	2/10/00	REVISIONS TO SHEETS 14, 21, 22, 23, AND 24	PAB
4	2/14/00	REVISIONS TO SHEETS 14, 21, 22, 23, AND 24	PAB
5	2/14/00	REVISIONS TO SHEETS 14, 21, 22, 23, AND 24	PAB
6	2/14/00	REVISIONS TO SHEETS 14, 21, 22, 23, AND 24	PAB
7	3-9-00	ISSUED FOR BIDDING	PAB

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- FOUNDATIONS**
- REFER TO THE CONSTRUCTION SPECIFICATIONS FOR EARTHWORK AND FOUNDATION PREPARATION REQUIREMENTS.
 - FOR SUBSURFACE INFORMATION REFER TO STAAL, GARDNER AND DUNNE, GEOTECHNICAL STUDY FOR CORDILLERA RECLAIMED WATER RESERVOIR, APRIL 1980.
- STRUCTURAL STEEL**
- ASTM A36 (EXCEPT TANK).
 - CONNECTION BOLTS, A307 GALV.
 - ANCHOR BOLTS, A307 GALV.
 - WELDING ELECTRODES, E70 SERIES.
 - WELDING CODE, AWS D1.1 (EXCEPT TANK)
 - ALL MATERIAL SHALL BE HOT DIPPED GALV. AFTER FAB UNLESS NOTED OTHERWISE.
- TUBING**
- SEE NOTES ON SHEET NO. 15.

- SOIL INSPECTION**
- FOUNDATION AND/OR WALL EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE CONSULTING GEOTECHNICAL ENGINEER, PRIOR TO THE PLACING OF STEEL OR CONCRETE.
 - THE CONTRACTOR SHALL COOPERATE AND COORDINATE INSPECTIONS BY THE GEOTECHNICAL ENGINEER DURING THE PREPARATION OF THE NATURAL GROUND AND EARTHWORK.

N.I.C. DENOTES NOT IN CONTRACT **05531**

NOTIFICATION OF UTILITIES

48 HOURS PRIOR TO ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES IN THE AREA BY MEANS OF THE UNDERGROUND SERVICE ALERT SYSTEM (U.S.A.): 1-800-422-4133.

LAS VIRGENES MUNICIPAL WATER DISTRICT

CORDILLERA TANK & ASSOCIATED PIPE LINES

INDEX SHEET AND LOCATION MAP

BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.

Donald F. Miller
 6-25-00
 12/15/99

DESIGN: PAB, DRAWN: S.L.A., CHECKED: HED, C.A. NO.: VT-LR-0294, DRAWING NO.: 3-229, SHEET NO.: 2 OF 34 SHEETS

TRACT NO. 31164

TRACT NO. 31277

TRACT NO. 34500

TRACT NO. 35396

FD. 2' I.P. N 7454.67' E 1928.82' 5.59' S/COR. 2.18' W/COR.

N 8°45'18" W 286.98'

N 0°09'00" E 1668.95'

N 78°16' E

BASIS OF BEARINGS - N 0°01'52" W 1735.64' MEASURED

MOST NORTHWESTERLY CORNER TRACT NO. 31277 N 6704.57' E 4931.41'

N 0°09'00" E 1668.95'

N 78°16' E

CORDILLERA DRIVE 20-FOOT PIPELINE EASEMENT (W)

20-FOOT ACCESS & UTILITY EASEMENT (M)

The centerline of a strip of land 20 feet wide.

BEARING	DISTANCE
C1	S 33.00°00'W 105.94 feet
C2	R = 498.00', Δ = 200.00' RIGHT, L = 61.44'
C3	S 27.30°00'W 12.19 feet
C4	R = 295.00', Δ = 18.30° LEFT, L = 128.73'
C5	S 65.20°00'W 8.03 feet
C6	R = 270.00', Δ = 17.00° LEFT, L = 128.11'
C7	S 40.00°00'W 41.16 feet

Approximate Area: 0.18 Acres

ACCESS & UTILITY EASEMENT (D)

The centerline of a strip of land 20 feet wide.

BEARING	DISTANCE
D1	S 40.00°00'W 105.94 feet
D2	R = 800.00', Δ = 200.00' RIGHT, L = 54.91'
D3	S 24.00°00'W 78.70 feet
D4	R = 200.00', Δ = 18.00° RIGHT, L = 80.12'
D5	S 60.30°00'W 23.86 feet
D6	R = 80.00', Δ = 4.00° RIGHT, L = 5.90'
D7	S 66.30°00'W 26.48 feet
D8	R = 740.00', Δ = 100.00° LEFT, L = 71.00'
D9	S 81.00°00'W 20.07 feet
D10	R = 80.00', Δ = 7.00° LEFT, L = 8.77'
D11	S 44.00°00'W 88.80 feet
D12	R = 100.00', Δ = 7.00° RIGHT, L = 148.61'
D13	S 63.00°00'W 55.11 feet
D14	R = 390.00', Δ = 5.18° LEFT, L = 39.92'
D15	S 45.40°17'W 103.19 feet
D16	S 40.17°30'W 48.77 feet

Approximate Area: 0.43 Acres

TEMPORARY PIPELINE EASEMENT (N)

The centerline of a strip of land 20 feet wide.

BEARING	DISTANCE
N1	S 45.40°17'W 103.19 feet
N2	S 44.18°40'W 10.00 feet
N3	S 19.20°00'W 217.58 feet
N4	S 18.00°00'W 217.58 feet
N5	S 18.00°00'W 217.58 feet
N6	S 18.00°00'W 217.58 feet
N7	S 18.00°00'W 217.58 feet
N8	S 18.00°00'W 217.58 feet
N9	S 18.00°00'W 217.58 feet
N10	S 18.00°00'W 217.58 feet
N11	S 18.00°00'W 217.58 feet
N12	S 18.00°00'W 217.58 feet
N13	S 18.00°00'W 217.58 feet
N14	S 18.00°00'W 217.58 feet
N15	S 18.00°00'W 217.58 feet
N16	S 18.00°00'W 217.58 feet
N17	S 18.00°00'W 217.58 feet
N18	S 18.00°00'W 217.58 feet
N19	S 18.00°00'W 217.58 feet
N20	S 18.00°00'W 217.58 feet

Approximate Area: 0.89 Acres

CONSTRUCTION AND SLOPE EASEMENT (F)

The centerline of a strip of land 20 feet wide.

BEARING	DISTANCE
F1	R = 44.8423°W 564.16 feet
F2	S 88.47°32'W 734.07 feet
F3	N 10.18°00'W 140.00 feet
F4	N 70.11°00'W 28.00 feet
F5	N 74.43°00'W 225.01 feet
F6	N 46.16°21'W 30.00 feet
F7	N 24.45°00'W 277.98 feet
F8	N 40.52°00'W 288.82 feet
F9	N 26.42°00'W 140.58 feet
F10	S 55.30°00'W 170.00 feet
F11	S 38.50°00'W 100.48 feet

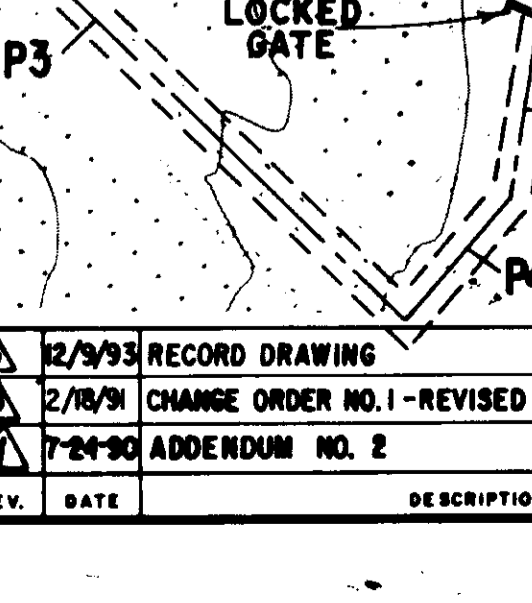
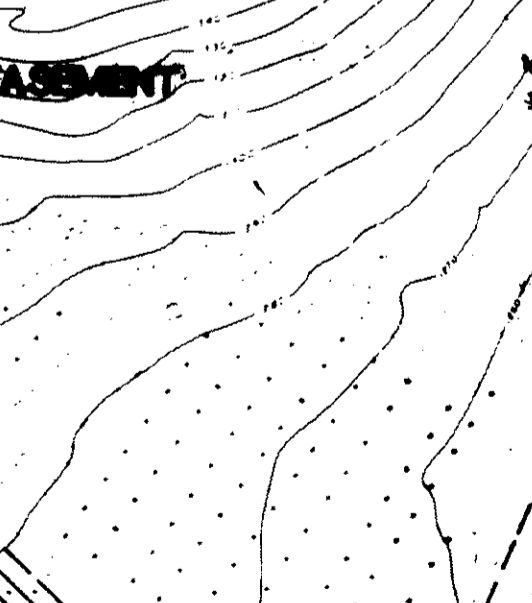
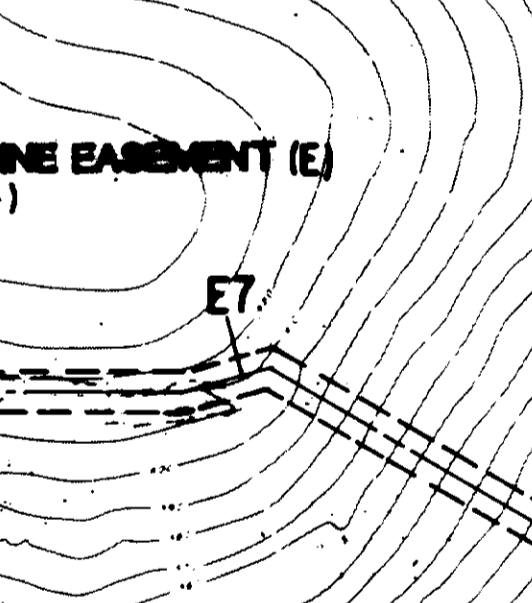
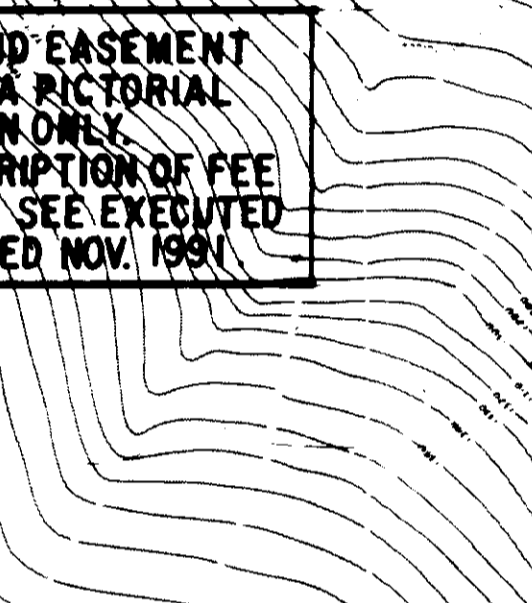
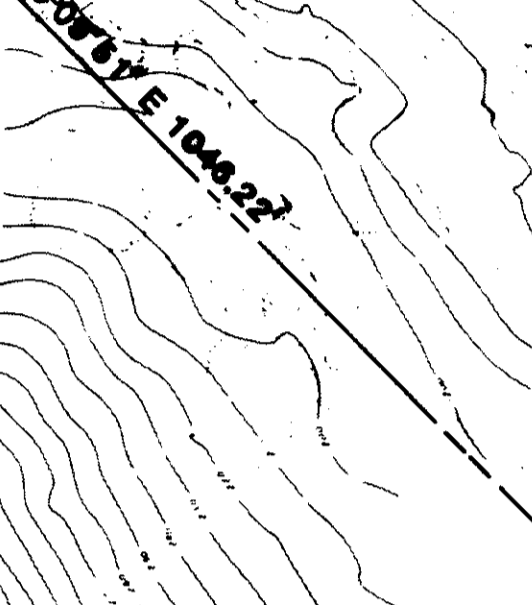
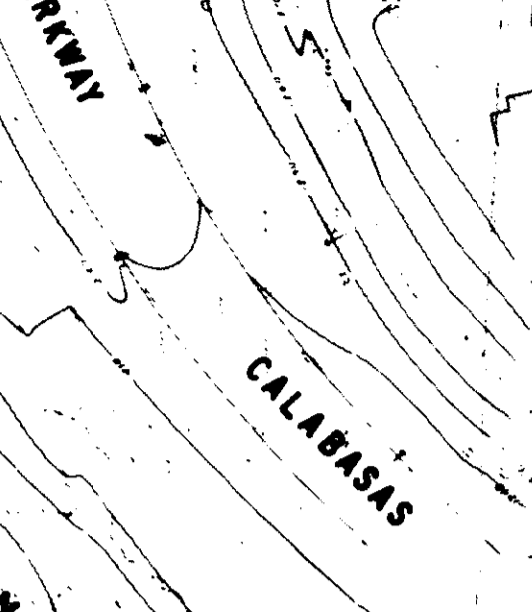
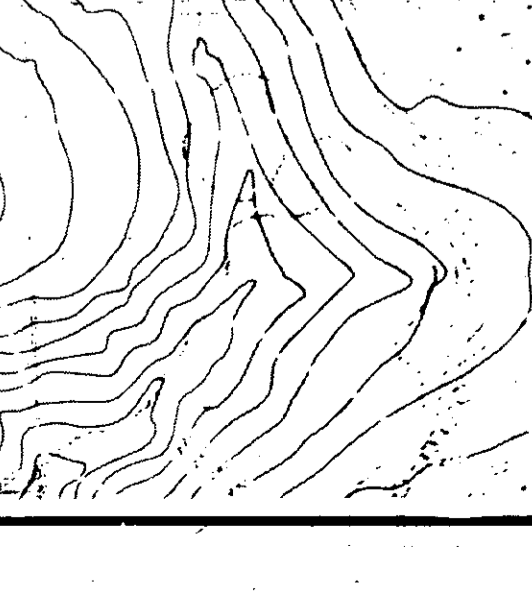
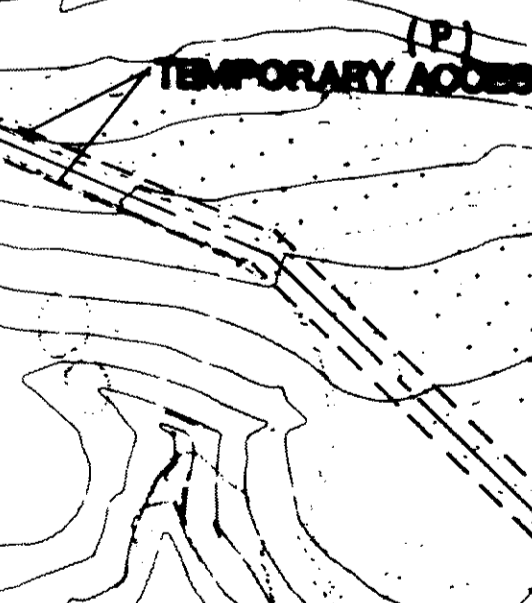
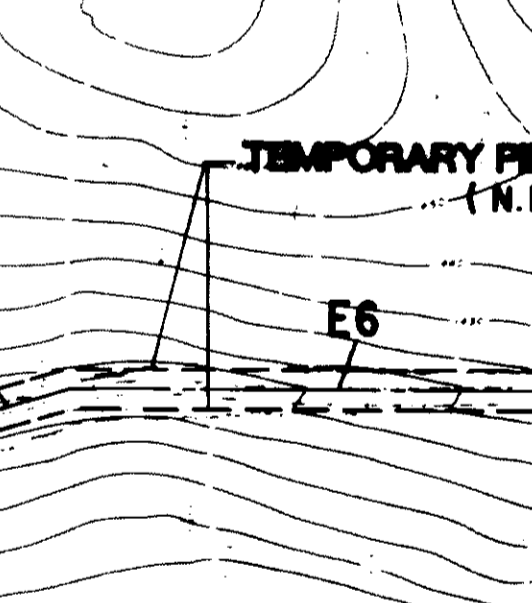
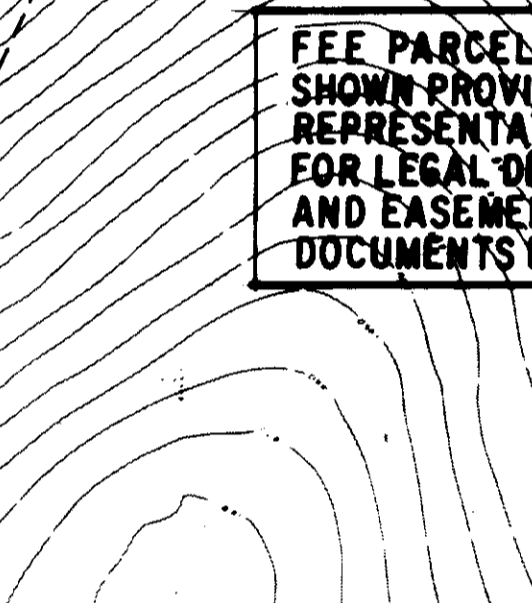
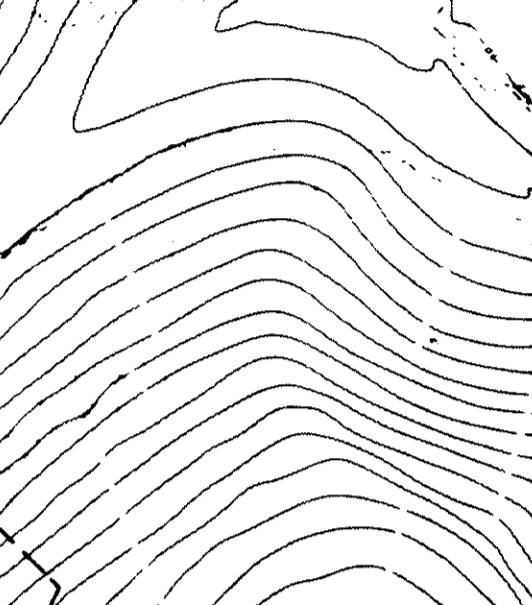
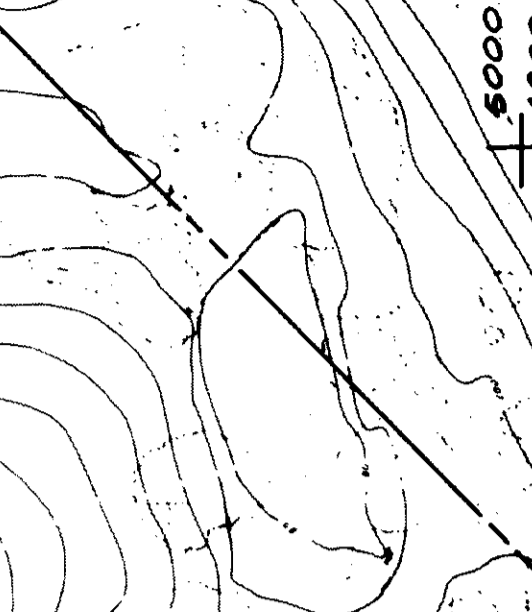
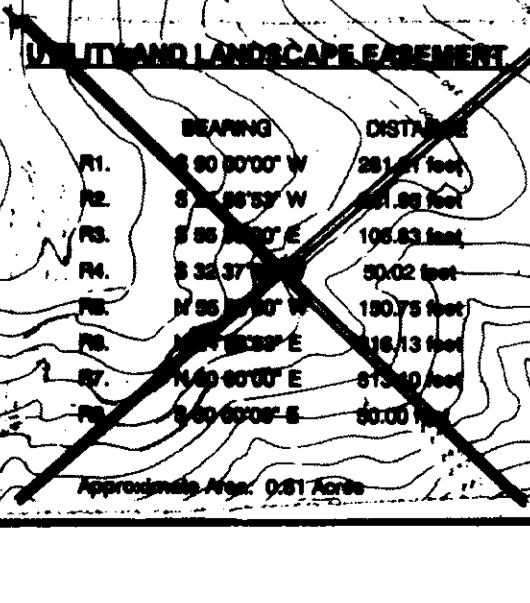
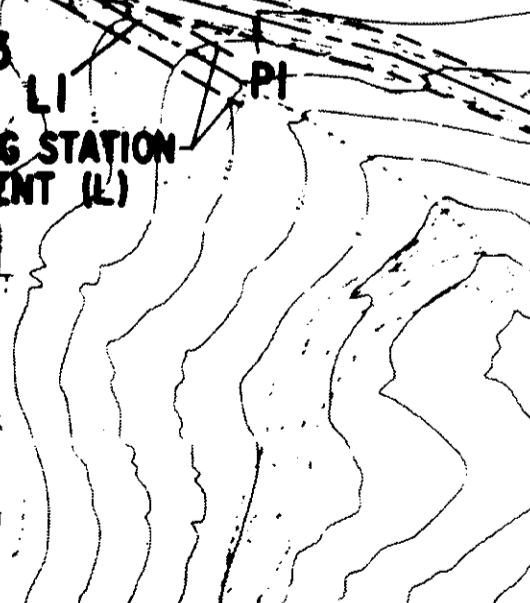
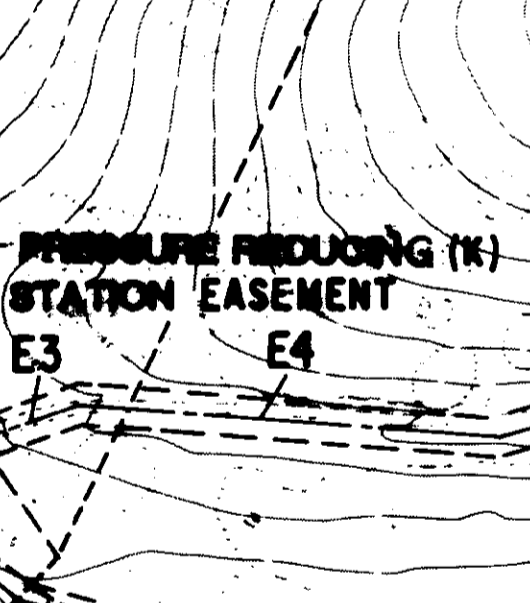
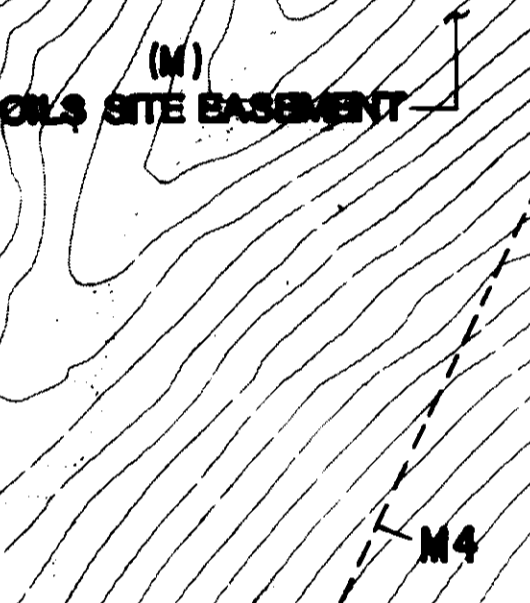
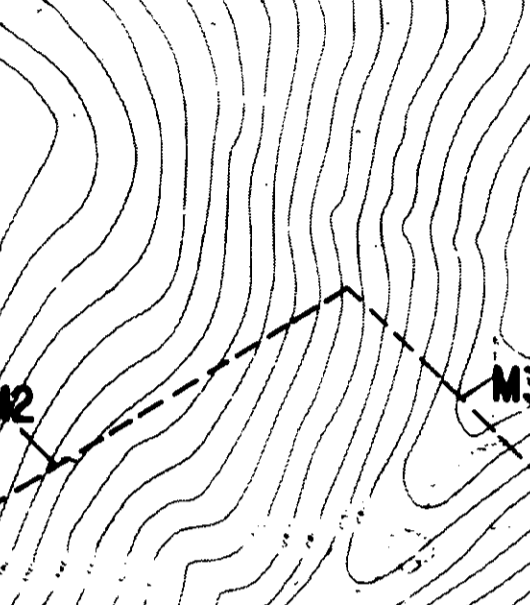
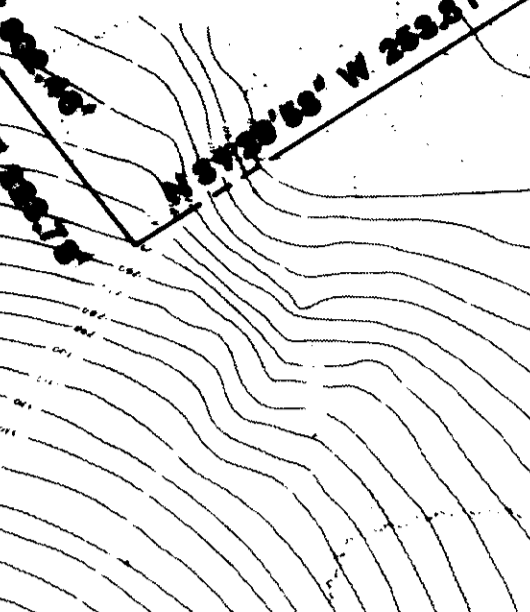
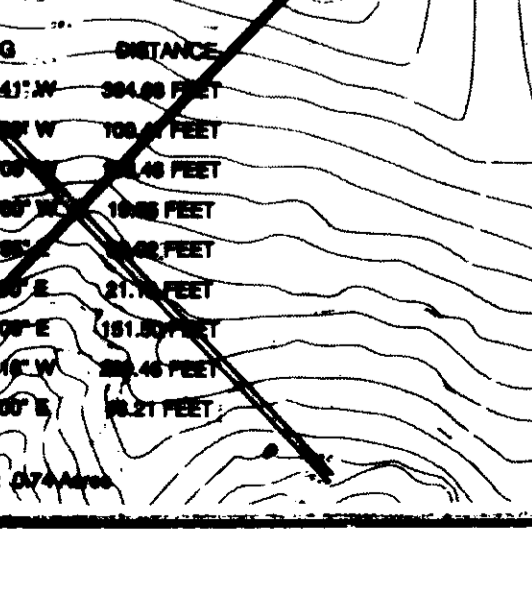
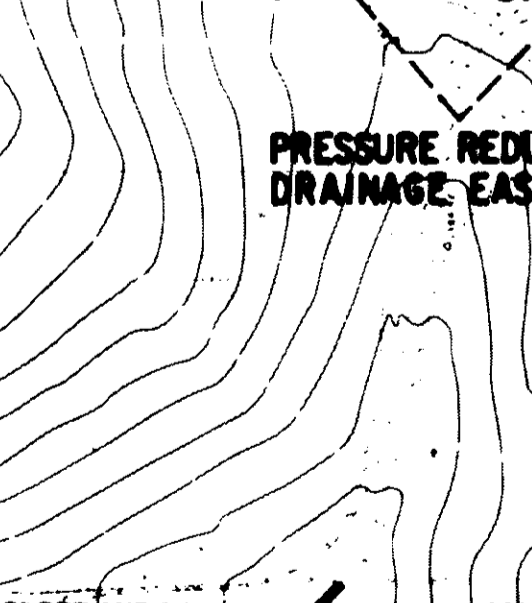
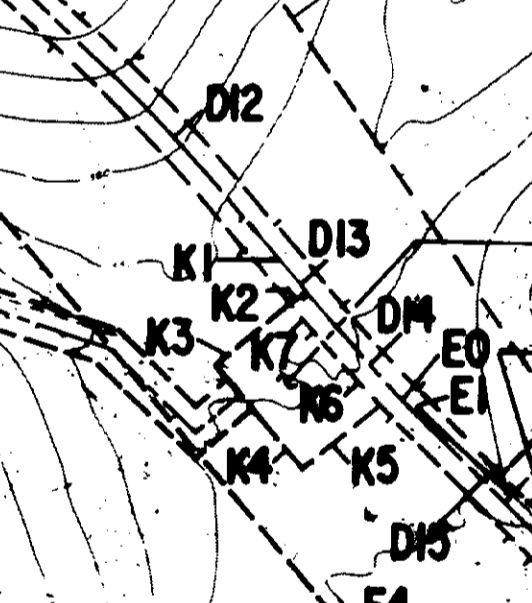
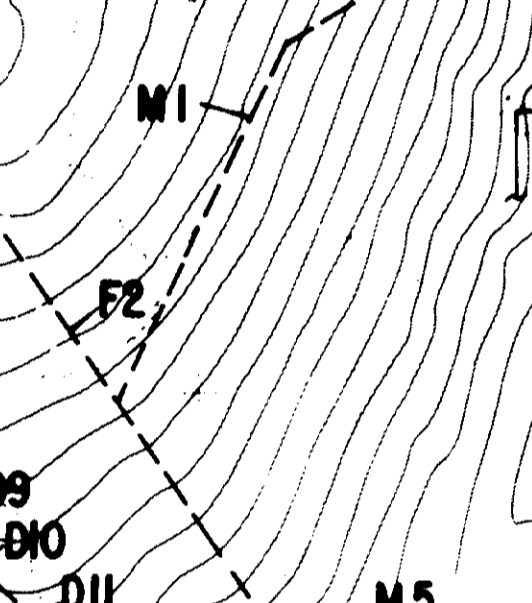
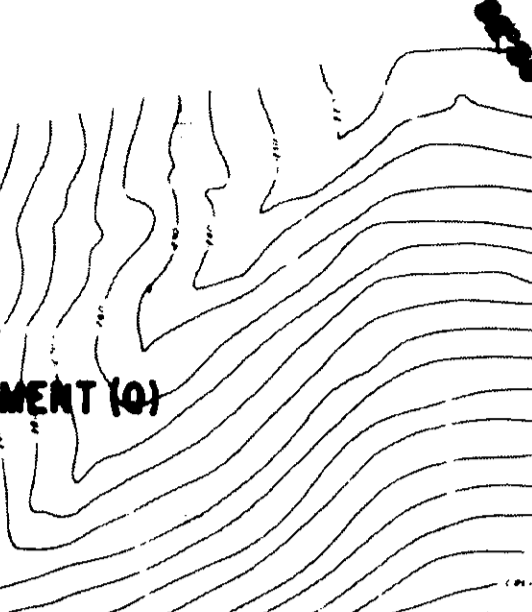
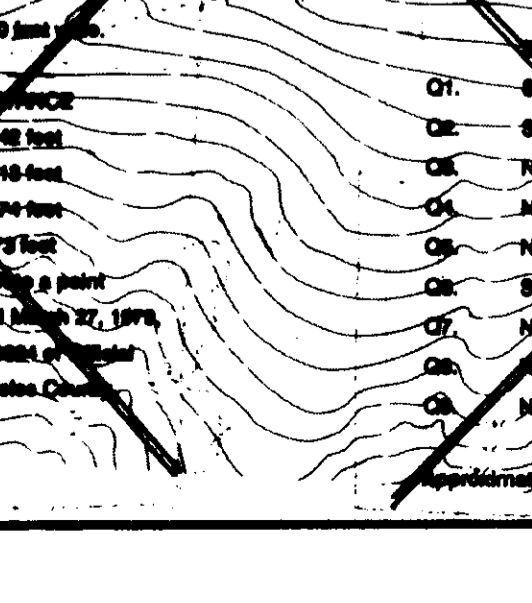
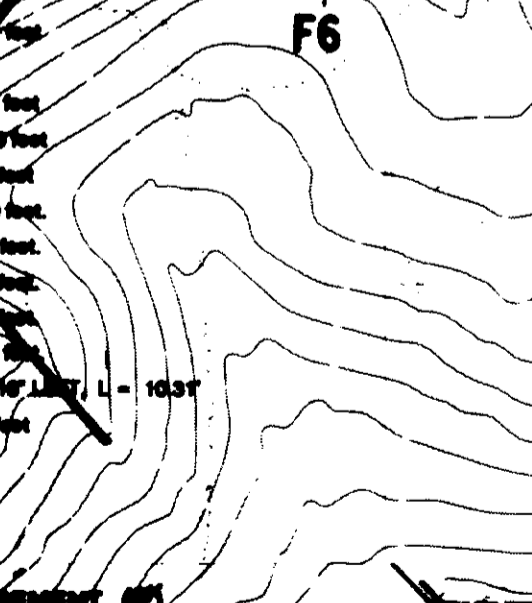
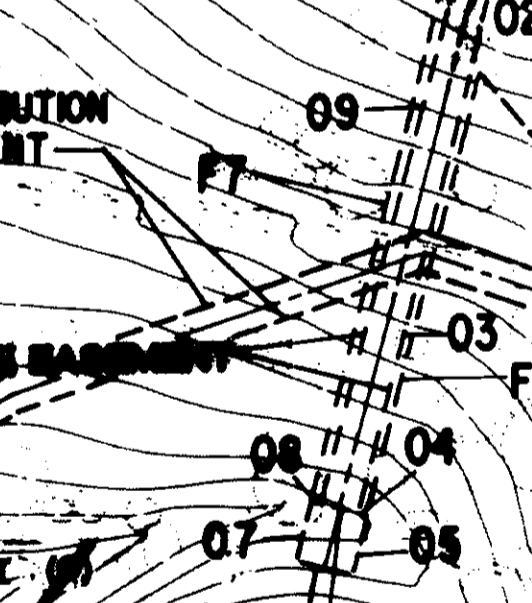
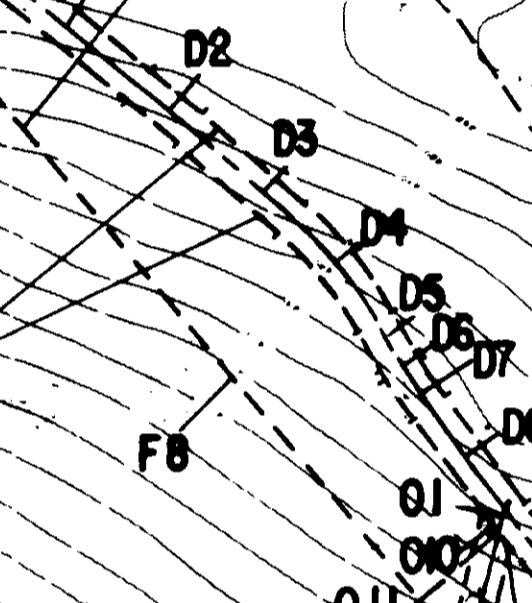
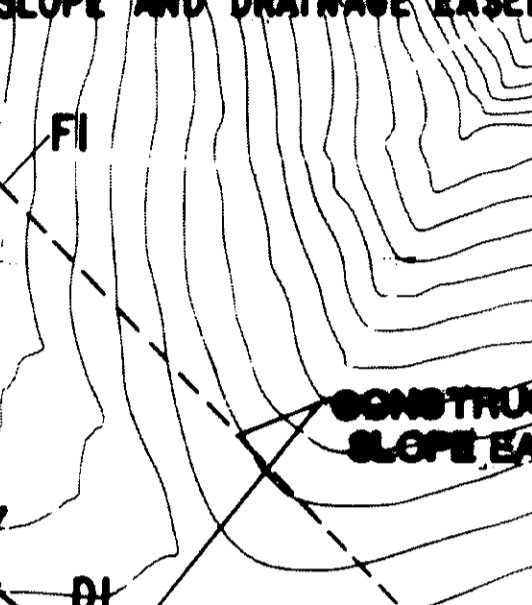
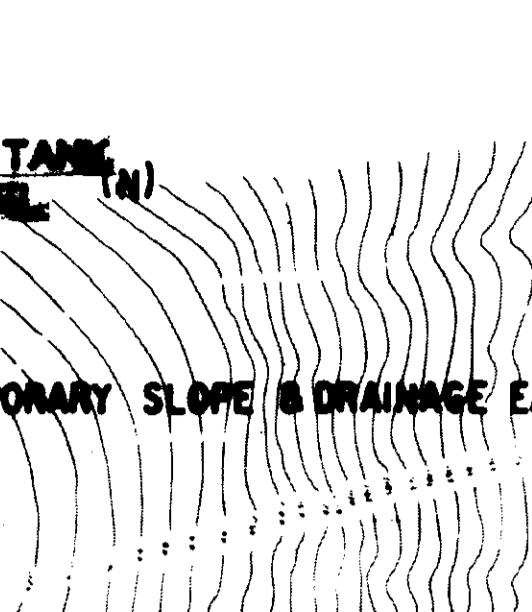
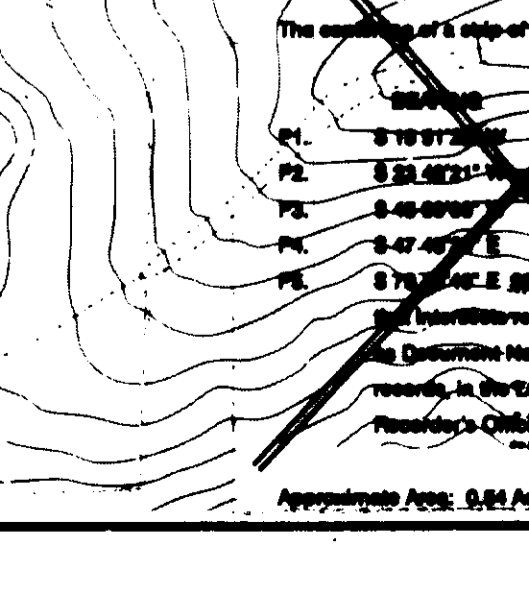
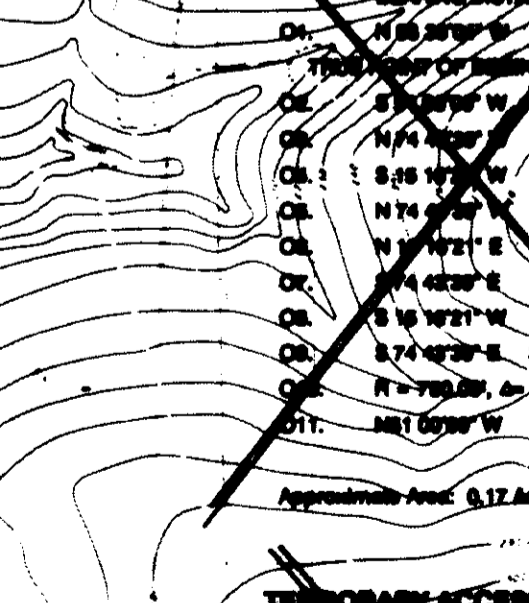
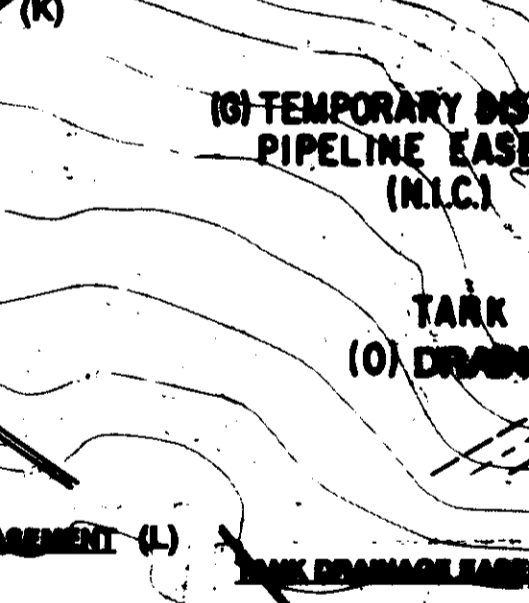
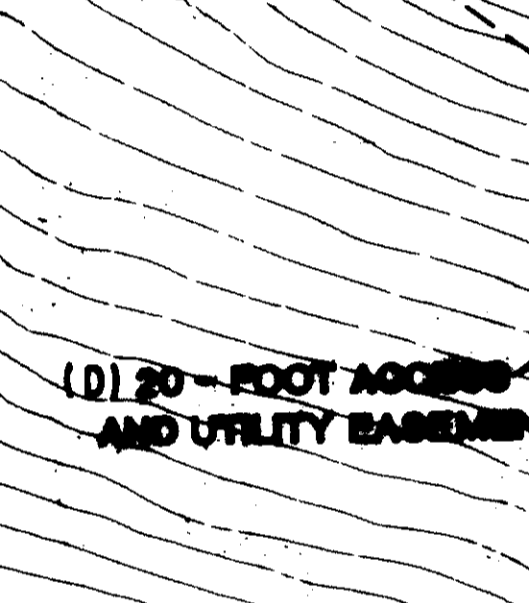
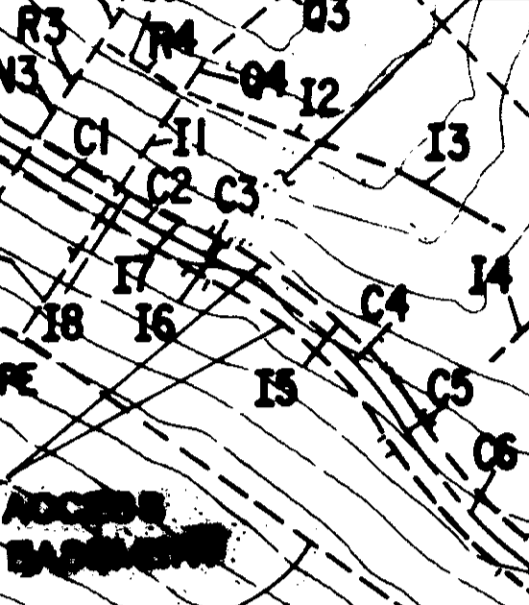
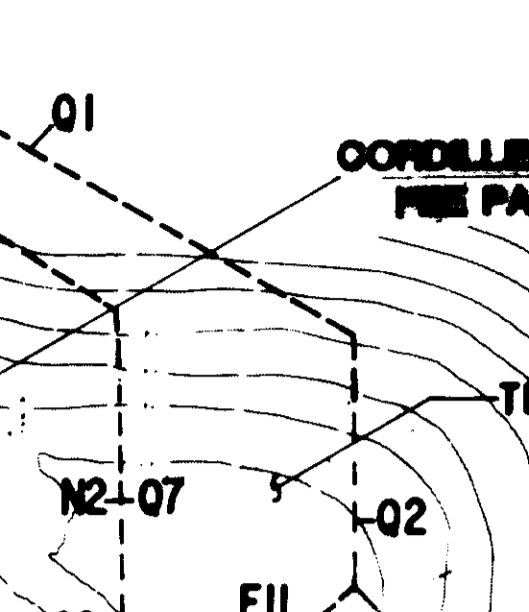
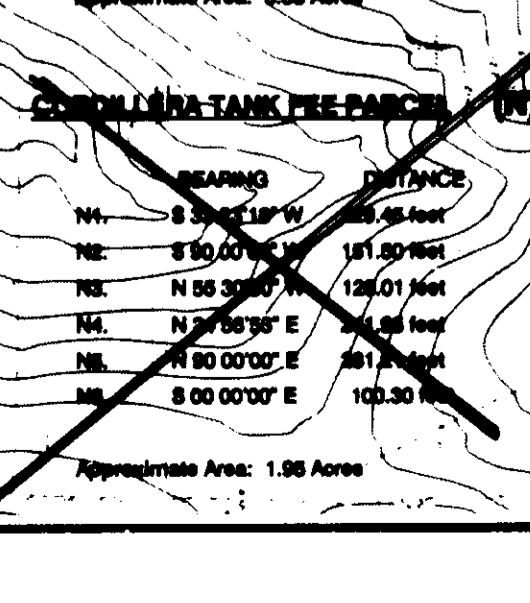
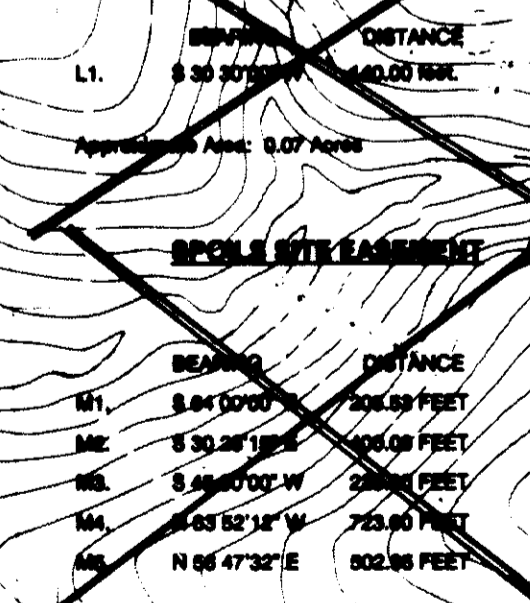
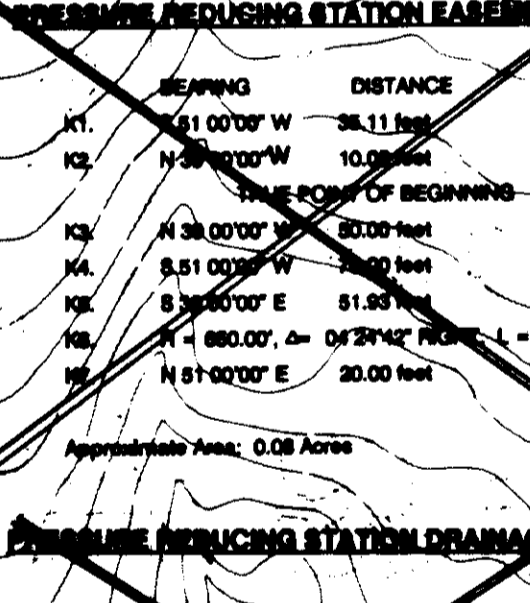
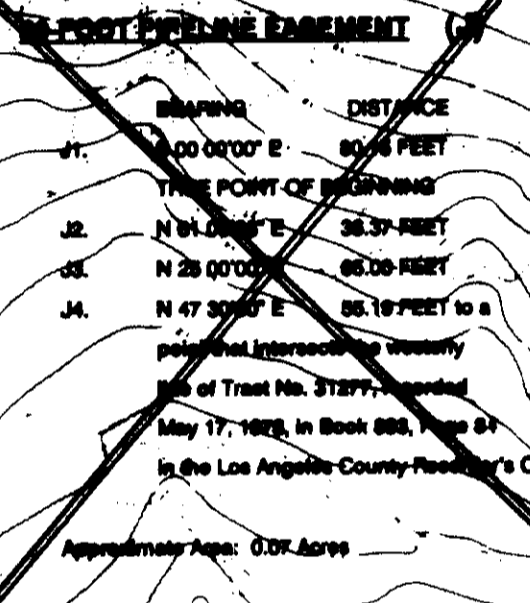
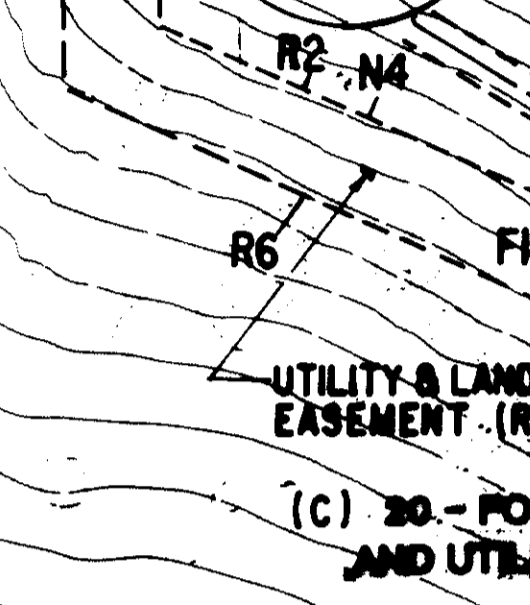
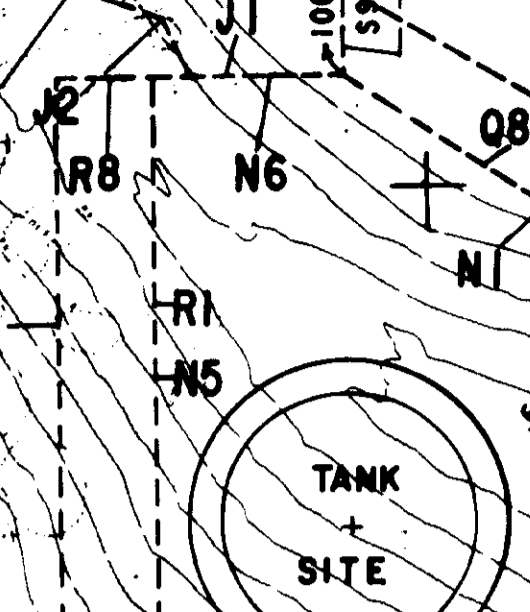
Approximate Area: 4.90 Acres

SLOPE AND DRAINAGE EASEMENT (J)

The centerline of a strip of land 20 feet wide.

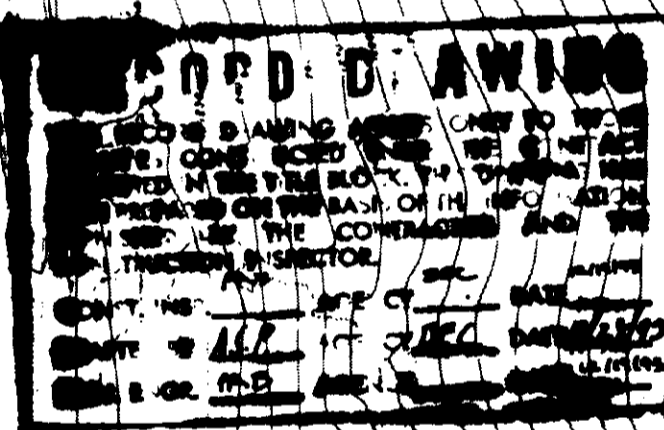
BEARING	DISTANCE
J1	S 36.20°00'W 48.93 FEET
J2	S 18.20°00'W 74.48 FEET
J3	S 28.30°00'W 113.90 FEET
J4	N 44.44°00'W 86.86 FEET
J5	R = 980.00', Δ = 18.01° LEFT, L = 110.50'
J6	N 27.30°00'W 1.18 FEET
J7	R = 200.00', Δ = 3.30° RIGHT, L = 30.46'
J8	N 43.50°00'W 15.47 FEET

Approximate Area: 0.34 Acres



- NOTES:
1. ACCESS IS AVAILABLE FROM PARKWAY CALABASAS TO THE MOST SOUTHERLY BOUNDARY OF 38 FOOT ACCESS AND UTILITY EASEMENT (EXHIBIT G, PARCEL 5).
 2. ACCESS FROM CORDILLERA DRIVE WILL BE PROHIBITED EXCEPT DURING CONSTRUCTION OF POTABLE WATERLINE.
 3. TEMPORARY PIPELINE TO BE INSTALLED BY OTHERS WITHIN THE TEMPORARY PIPELINE EASEMENT (EXHIBIT L, PARCEL 10) CONTRACTOR TO MAKE CONNECTION TO TEMPORARY PIPELINES AS SHOWN ON SHEET 14.
 4. NOTIFY DISTRICT AT LEAST 72 HRS. PRIOR TO SCHEDULING ANY DISRUPTION OF SERVICE. SCHEDULE SHALL BE SUBJECT TO DISTRICT APPROVAL.
 5. CONTRACTOR SHALL INSTALL THEIR OWN LOCK ON GATES AND SHALL BE RESPONSIBLE TO KEEP GATES CLOSED DURING CONSTRUCTION AT TIMES ANIMALS (SHEEP) GRAZE IN THE AREA.
 6. EXISTING FENCES SHALL REMAIN IN TACT AT ALL TIMES.

FEE PARCEL AND EASEMENT SHOWN PROVIDE A PICTORIAL REPRESENTATION ONLY FOR LEGAL DESCRIPTION OF FEE AND EASEMENTS SEE EXECUTED DOCUMENTS DATED NOV. 1991



SCALE: 1"=100'

LEGEND

- POINT OF BEGINNING
- EASEMENT BEARING AND DISTANCE
- TRACT BOUNDARIES
- CENTERLINE EASEMENT
- EASEMENT AND FEE PARCEL BOUNDARIES

05532

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

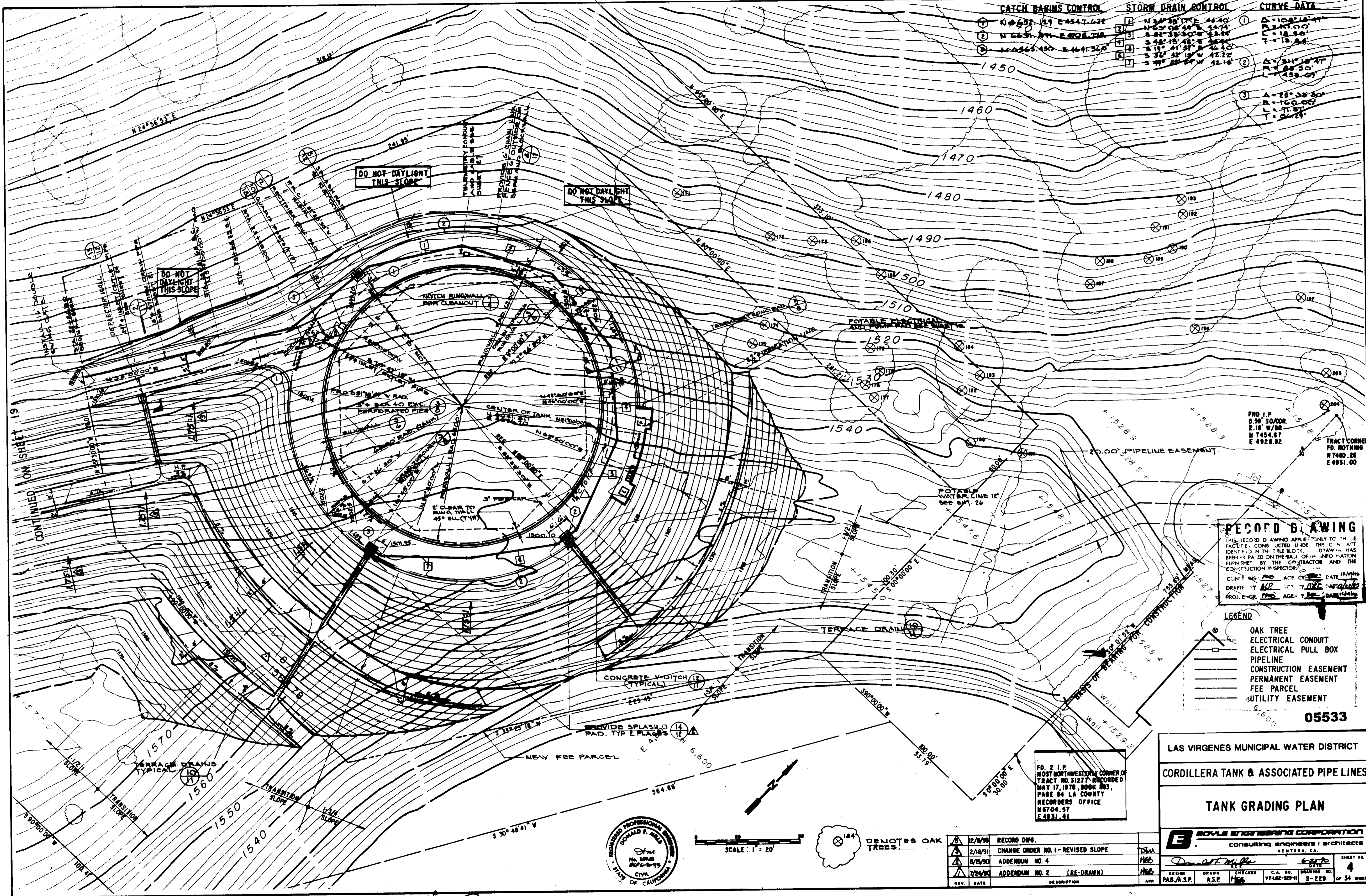
PROJECT LAYOUT

BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA.

DESIGN: P.A.B. DRAWN: K.L.A. CHECKED: HEG. DATE: 12-30-93. SHEET NO. 3 OF 34 SHEETS.

REV.	DATE	DESCRIPTION	APP.
1	12/9/93	RECORD DRAWING	
2	2/7/94	CHANGE ORDER NO. 1 - REVISED EASEMENTS	
3	7-24-90	ADDENDUM NO. 2	

CATCH BASINS CONTROL		STORM DRAIN CONTROL		CURVE DATA	
1	N 66° 52' 12" E 4547.622	1	N 34° 35' 17" E 4640'	1	Δ = 104.1647'
2	N 66° 52' 12" E 4547.622	2	N 62° 08' 49" E 4474'	2	R = 100.00'
3	N 66° 52' 12" E 4547.622	3	S 44° 33' 30" E 4348'	3	C = 18.88'
4	N 66° 52' 12" E 4547.622	4	S 44° 15' 48" E 4274'	4	L = 18.88'
5	N 66° 52' 12" E 4547.622	5	S 19° 41' 51" W 4640'	5	Δ = 211.1647'
		6	S 32° 42' 19" W 4272'	6	R = 100.00'
		7	S 79° 29' 54" W 4272'	7	C = 18.88'
				8	L = 18.88'



RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THE IDENTIFIED CONDITIONS UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
 CONTRACT NO. 05533 DATE 12/11/99
 DRAFTED BY [Signature] CHECKED BY [Signature]
 PROJECT NO. 05533 AGENCY [Signature]

LEGEND

(Symbol)	OAK TREE
(Symbol)	ELECTRICAL CONDUIT
(Symbol)	ELECTRICAL PULL BOX
(Symbol)	PIPELINE
(Symbol)	CONSTRUCTION EASEMENT
(Symbol)	PERMANENT EASEMENT
(Symbol)	FEE PARCEL
(Symbol)	UTILITY EASEMENT

05533

**LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 TANK GRADING PLAN**

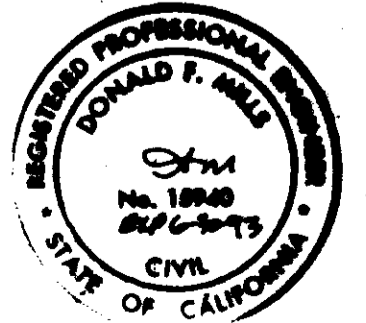
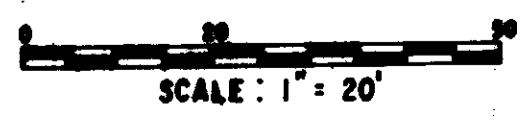
BOYLE ENGINEERING CORPORATION
 Consulting Engineers & Architects
 VENTURA, CA

Donald F. Miley
 P.E.

DESIGN: PAB/A.S.P. DRAWN: A.S.P. CHECKED: HEB C.A. NO: VT-400-369-H DRAWING NO: S-229 SHEET NO: 4 OF 34 SHEETS

FD. 2 I.P. MOST NORTHWESTERN CORNER OF TRACT NO. 31277 RECORDED MAY 17, 1978, BOOK 883, PAGE 84. LA COUNTY RECORDERS OFFICE N 6704.97 E 4931.41

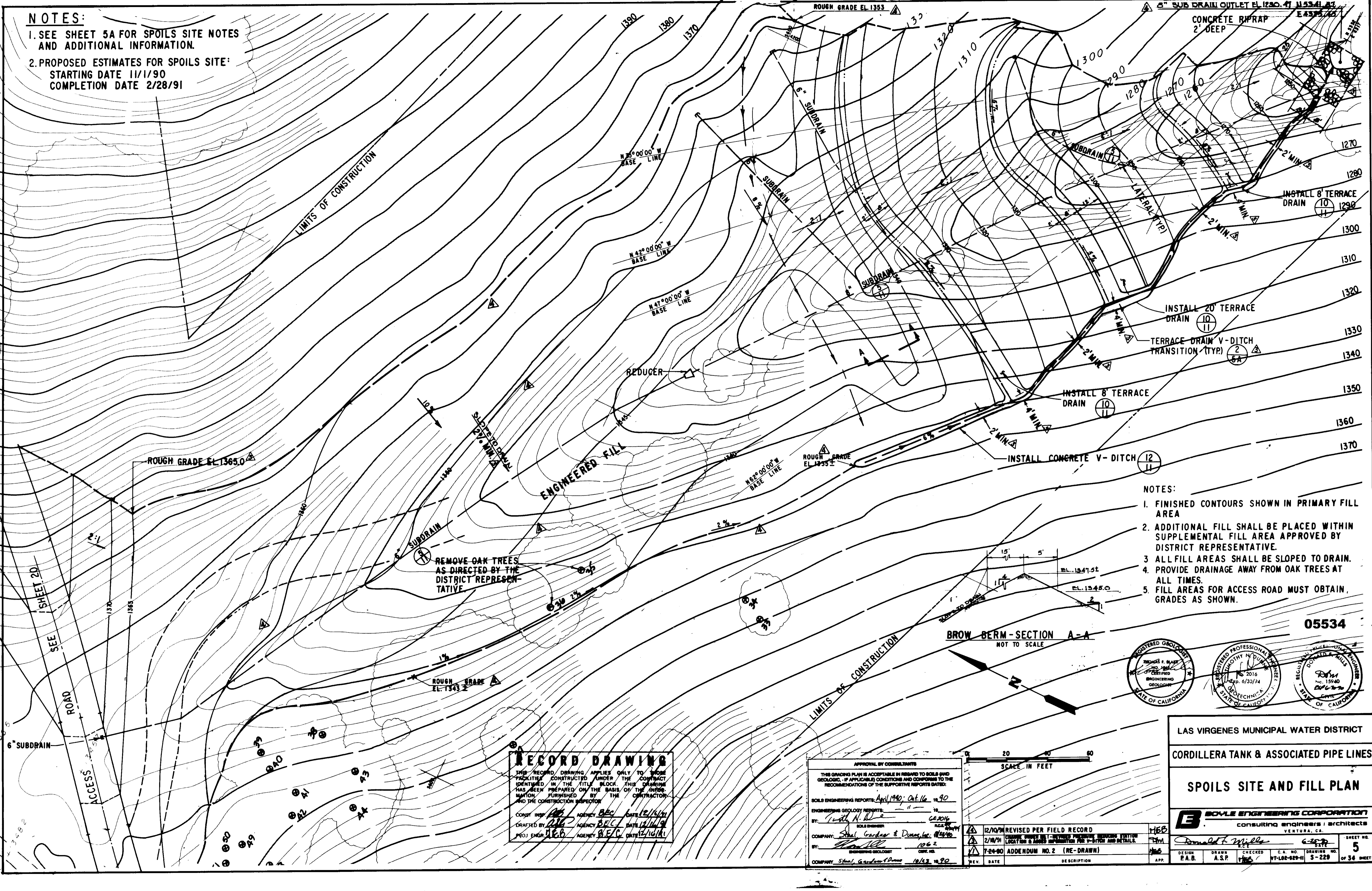
REV.	DATE	DESCRIPTION	APP.
1	12/8/99	RECORD DWG.	[Signature]
2	2/18/91	CHANGE ORDER NO. 1 - REVISED SLOPE	[Signature]
3	6/15/90	ADDENDUM NO. 4	[Signature]
4	7/24/90	ADDENDUM NO. 2 (RE-DRAWN)	[Signature]



(Symbol) DENOTES OAK TREES.

NOTES:

1. SEE SHEET 5A FOR SPOILS SITE NOTES AND ADDITIONAL INFORMATION.
2. PROPOSED ESTIMATES FOR SPOILS SITE:
STARTING DATE 11/1/90
COMPLETION DATE 2/28/91



NOTES:

1. FINISHED CONTOURS SHOWN IN PRIMARY FILL AREA
2. ADDITIONAL FILL SHALL BE PLACED WITHIN SUPPLEMENTAL FILL AREA APPROVED BY DISTRICT REPRESENTATIVE.
3. ALL FILL AREAS SHALL BE SLOPED TO DRAIN.
4. PROVIDE DRAINAGE AWAY FROM OAK TREES AT ALL TIMES.
5. FILL AREAS FOR ACCESS ROAD MUST OBTAIN GRADES AS SHOWN.

05534



LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
SPOILS SITE AND FILL PLAN

BOYLE ENGINEERING CORPORATION
consulting engineers / architects
VENTURA, CA

DESIGN: P.A.B. DRAWN: A.S.P. CHECKED: H.E.B. C.A. NO. DRAWING NO. WT-102-629-11 5-229 SHEET NO. 5 OF 36 SHEETS

RECORD DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.

CONST. INSPECTION: [Signature] AGENCY: [Signature] DATE: 12/15/91
DRAFTED BY: [Signature] AGENCY: [Signature] DATE: 12/14/91
PROJ. ENGR.: [Signature] AGENCY: [Signature] DATE: 12/16/91

APPROVAL BY CONSULTANTS

THIS GRADING PLAN IS ACCEPTABLE IN REGARD TO SOILS (AND GEOLOGIC, IF APPLICABLE) CONDITIONS AND CONFORMS TO THE RECOMMENDATIONS OF THE SUPPORTIVE REPORTS DATED:

SOILS ENGINEERING REPORTS:	April 1990, Oct 16, 1990
ENGINEERING GEOLOGY REPORTS:	" " " "
BY:	[Signature] GEOLOGIST
SOILS ENGINEER:	[Signature] GEOLOGIST
COMPANY:	Shel Gardner & Dunne, Inc. 10/24/90
BY:	[Signature] 1062
ENGINEERING GEOLOGIST:	[Signature] 1062
COMPANY:	Shel Gardner & Dunne 10/23, 10/90

12/10/91	REVISED PER FIELD RECORD	H.E.B.
2/18/91	CHANGE DRAIN NO. 1 - REVISED PROPOSED DRAINAGE STATION LOCATION & ADDED INFORMATION FOR V-DITCH AND DETAILS.	T.M.
7-24-90	ADDENDUM NO. 2 (RE-DRAWN)	H.E.B.
REV.	DATE	DESCRIPTION

SPOILS SITE NOTES

GENERAL NOTES

1. ANY MODIFICATIONS OR CHANGES IN APPROVED GRADING PLANS MUST BE APPROVED BY THE BUILDING OFFICIAL.
2. ALL GRADED SITES MUST HAVE DRAINAGE SWALES, BERMS, AND OTHER DRAINAGE DEVICES APPROVED AT THE ROUGH GRADING STATE. 7020(C)
3. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
4. THE FIELD ENGINEER MUST SET DRAINAGE STAKES FOR ALL DRAINAGE DEVICES.
5. ALL STORM DRAIN WORK IS TO BE DONE UNDER CONTINUOUS INSPECTION BY THE FIELD ENGINEER. WEEKLY STATUS REPORTS SHALL BE SUBMITTED BY THE FIELD ENGINEER TO THE LOCAL BUILDING AND SAFETY OFFICE.
6. SEPARATE PLANS FOR TEMPORARY DRAINAGE AND EROSION CONTROL MEASURES TO BE USED DURING THE RAINY SEASON MUST BE SUBMITTED PRIOR TO OCTOBER 1. THE EROSION CONTROL DEVICES SHOW ON SAID PLANS MUST BE INSTALLED BY NOT LATER THAN NOVEMBER 1 AND MAINTAINED IN OPERABLE CONDITION UNTIL APRIL 15.
7. ALL SUBDRAIN OUTLETS TO BE SURVEYED FOR LINE AND ELEVATION. THIS CAN BE SHOWN ON A AS-BUILT GRADING PLAN.

FILL NOTES

1. FILL SHALL BE COMPACTED THROUGHOUT THEIR FULL EXTENT TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557-78, METHOD "D", WHERE APPLICABLE. WHERE NOT APPLICABLE A TEST ACCEPTABLE TO THE BUILDING OFFICIAL SHALL BE USED. 7016(A)
2. FIELD DENSITY SHALL BE DETERMINED BY A METHOD ACCEPTABLE TO THE BUILDING OFFICIAL. 7016(A)
3. SUFFICIENT TESTS OF THE FILL SOILS SHALL BE MADE TO DETERMINE THE DENSITY THEREOF.

THE MINIMUM NUMBER OF TESTS SHALL BE AS FOLLOWS:

- A. ONE TEST FOR EACH TWO FOOT VERTICAL LIFT.
- B. ONE TEST FOR EACH 1000 CUBIC YARDS OF MATERIAL PLACED.
- C. ONE TEST AT THE LOCATION OF THE FINAL FILL SLOPE FOR EACH BUILDING SITE (LOT) IN EACH FOUR FOOT VERTICAL LIFT OR PORTION THEREOF.
- D. ONE TEST IN THE VICINITY OF EACH BUILDING PAD FOR EACH FOUR FOOT VERTICAL LIFT OR PORTION THEREOF.

SUFFICIENT TESTS OF FILL SOILS SHALL BE MADE TO VERIFY COMPLIANCE OF THE SOIL PROPERTIES WITH THE DESIGN REQUIREMENTS INCLUDING SOIL TYPES AND SHEAR STRENGTHS.

THE RESULTS OF SUCH TESTING SHALL BE INCLUDED IN THE REPORTS REQUIRED BY CHAPTER 70. 7016(H)

4. NO FILL SHALL BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS, AND INSTALLATION OF SUBDRAINS (IF ANY) HAVE BEEN INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
5. NO ROCK OR SIMILAR MATERIAL GREATER THAN 12-INCHES IN DIAMETER WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE GEOTECHNICAL ENGINEER AND APPROVED IN ADVANCE BY THE BUILDING OFFICIAL. SEE SPECIFICATION SECTION 02200, EARTHWORK FOR SPECIFIC REQUIREMENTS FOR ENGINEERED FILL.
6. CONTINUOUS INSPECTION BY THE GEOTECHNICAL ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE SHALL BE PROVIDED DURING ALL FILL PLACEMENT AND COMPACTION OPERATIONS WHERE FILLS HAVE A DEPTH GREATER THAN 30 FEET OR SLOPE SURFACE STEEPER THAN 2:1.
7. CONTINUOUS INSPECTION BY THE GEOTECHNICAL ENGINEER OR HIS RESPONSIBLE REPRESENTATIVE SHALL BE PROVIDED DURING ALL SUBDRAIN INSTALLATIONS.
8. FILL SLOPES IN EXCESS OF 2:1 STEEPNESS RATIO ARE TO BE CONSTRUCTED BY THE PLACEMENT OF SOIL AT SUFFICIENT DISTANCE BEYOND THE PROPOSED FINISH SLOPE TO ALLOW COMPACTION EQUIPMENT TO BE OPERATED AT THE OUTER LIMITS OF THE FINAL SLOPE SURFACE. THE EXCESS FILL IS TO BE REMOVED PRIOR TO COMPLETION OF ROUGH GRADING. (OTHER CONSTRUCTION PROCEDURES MAY BE USED WHEN IT IS DEMONSTRATED TO THE SATISFACTION OF THE BUILDING OFFICIAL THAT THE ANGLE OF SLOPE, CONSTRUCTION METHOD AND OTHER FACTORS WILL HAVE EQUIVALENT EFFECT). 7016(A)
9. THE GEOTECHNICAL ENGINEER SHALL PROVIDE SUFFICIENT INSPECTIONS DURING THE PREPARATION OF THE NATURAL GROUND AND THE PLACEMENT AND COMPACTION OF THE FILL TO BE SATISFIED THAT THE WORK IS BEING PERFORMED IN ACCORDANCE WITH THE PLAN AND APPLICABLE CODE REQUIREMENTS.
10. THE GRADING CONTRACTOR SHALL SUBMIT THE STATEMENT REQUIRED BY SECTION 7021 AT THE COMPLETION OF ROUGH GRADING.

INSPECTION NOTES

REGULAR GRADING REQUIREMENTS

THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE BUILDING OFFICIAL AT LEAST ONE WORKING DAY IN ADVANCE OF REQUIRED INSPECTIONS AT FOLLOWING STAGES OF THE WORK:

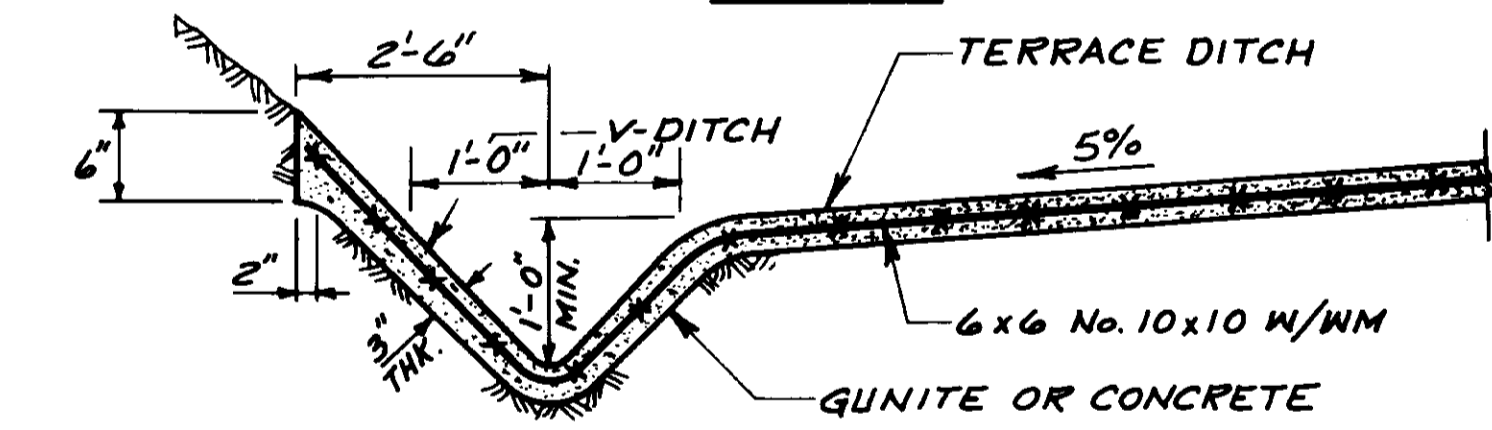
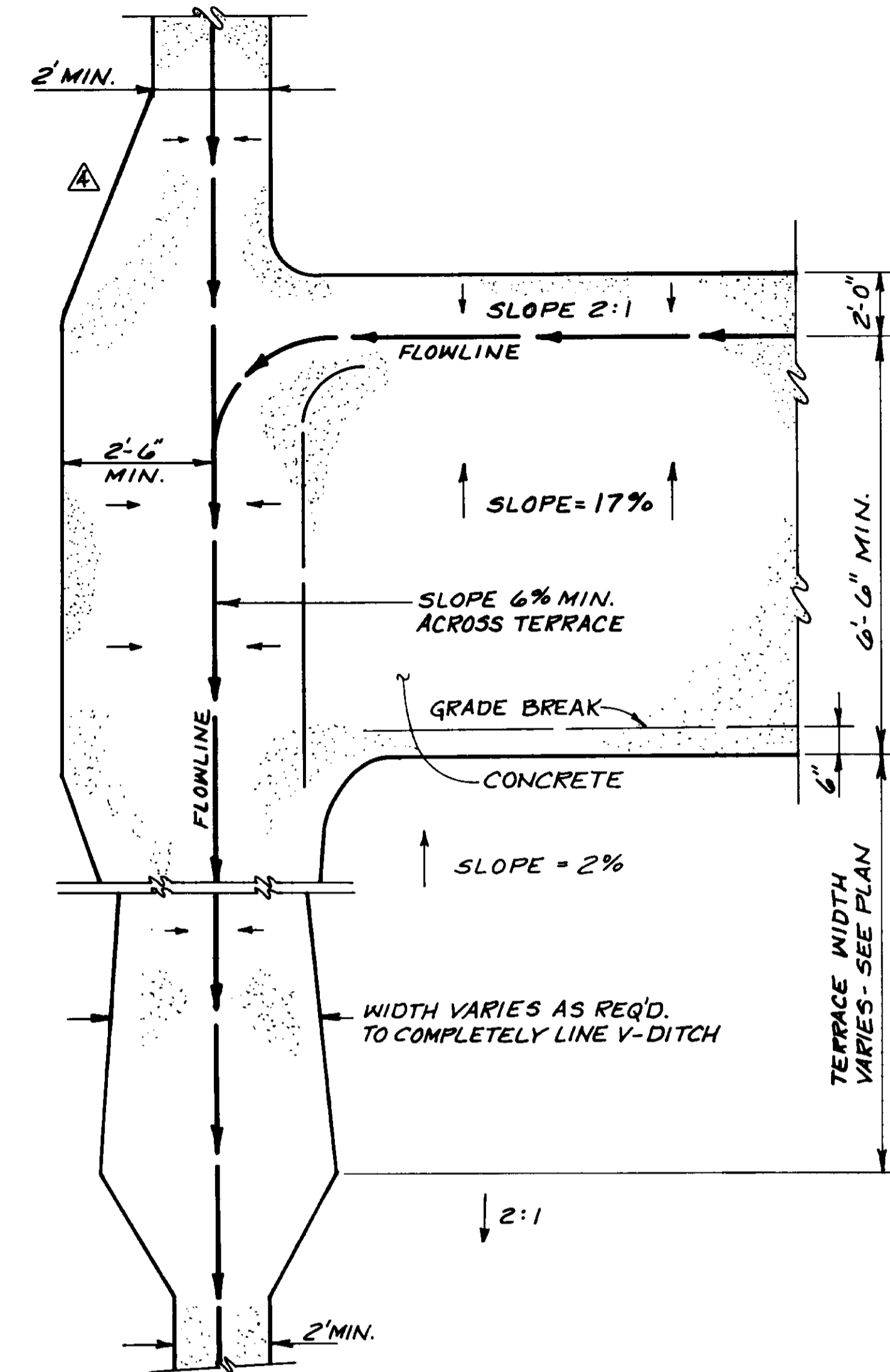
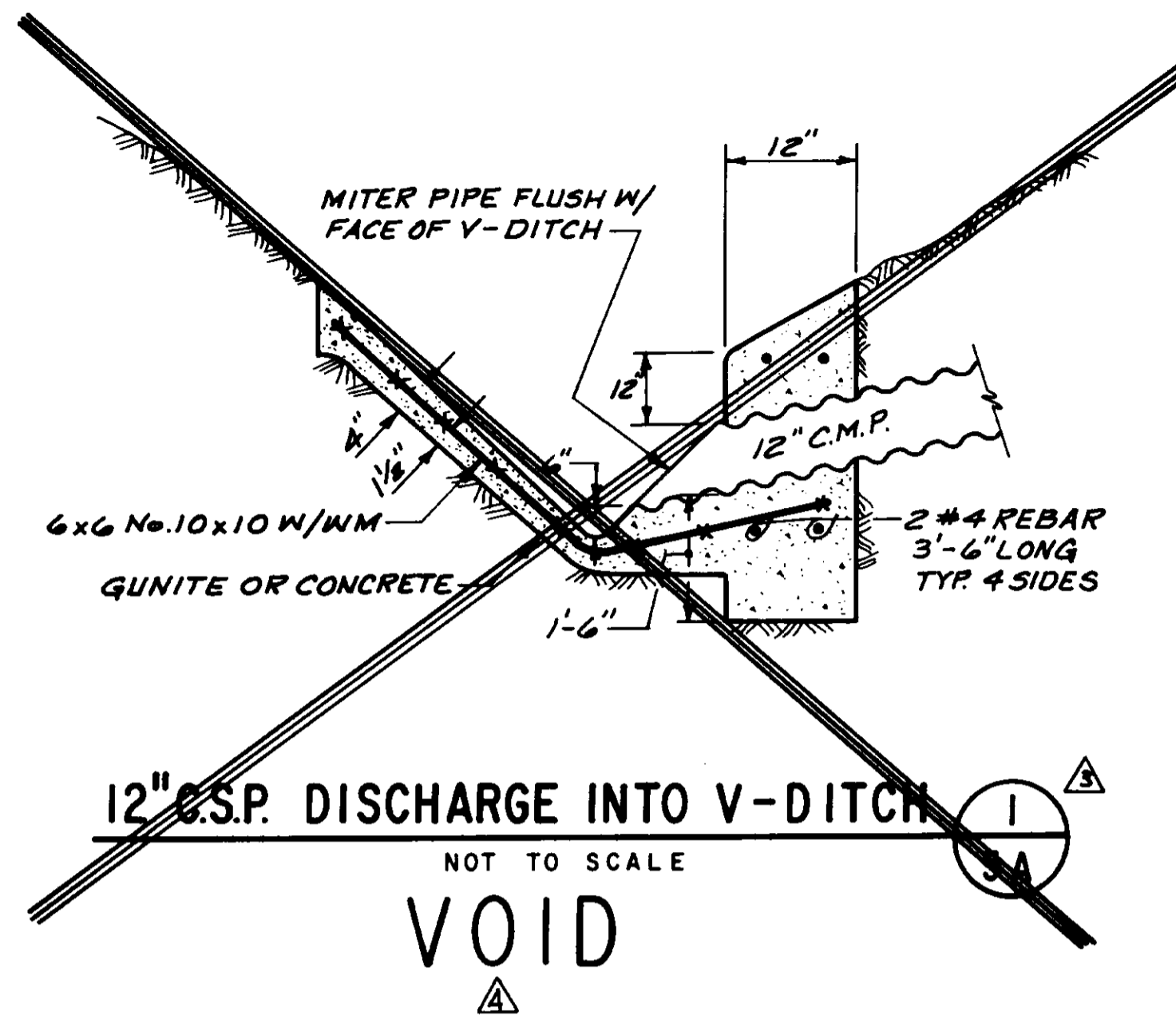
- A. **INITIAL** WHEN THE SITE HAS BEEN CLEARED OF VEGETATION AND UNAPPROVED FILL AND IT HAS BEEN SCARIFIED, BENCHED OR OTHERWISE PREPARED FOR FILL. NO FILL SHALL HAVE BEEN PLACED PRIOR TO THIS INSPECTION.
- B. **ROUGH** WHEN APPROXIMATE FINAL ELEVATIONS HAVE BEEN ESTABLISHED; DRAINAGE TERRACES, SWALES AND BERMS INSTALLED AT THE TOP OF THE SLOPES; AND THE STATEMENTS REQUIRED SECTION 7020 HAVE BEEN RECEIVED.
- C. **FINAL** WHEN GRADING HAS BEEN COMPLETED; ALL DRAINAGE DEVICES INSTALLED; SLOPE PLANTING ESTABLISHED, IRRIGATION SYSTEMS INSTALLED AND THE AS-BUILT PLANS, REQUIRED STATEMENTS, AND REPORTS HAVE BEEN SUBMITTED.

ENGINEERED GRADING REQUIREMENTS

IN ADDITION TO THE INSPECTION REQUIRED OF THE BUILDING OFFICIAL FOR REGULAR GRADING, REPORTS AND STATEMENTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL IN ACCORDANCE WITH SECTION 7020 AND 7021.

GEOLOGY AND SOILS NOTES

1. ALL RECOMMENDATIONS INCLUDED IN THE CONSULTANT'S SOIL AND GEOLOGY REPORT MUST BE COMPLIED WITH AND ARE A PART OF THE GRADING SPECIFICATIONS.
2. GRADING OPERATIONS MUST BE CONDUCTED UNDER PERIODIC GEOLOGIC INSPECTION WITH MONTHLY INSPECTION REPORTS TO BE SUBMITTED TO THE ENGINEERING GEOLOGY AND SOILS SECTION.
3. THE CONSULTING GEOLOGIST MUST APPROVE ROUGH GRADING BY FINAL REPORT PRIOR TO THE APPROVAL BY THE ENGINEERING GEOLOGY AND SOILS SECTION. THE FINAL REPORT MUST INCLUDE AN AS-BUILT GEOLOGIC MAP.



SECTION 05535

TERRACE DITCH ~ V-DITCH TRANSITION (TYP.) 2 5A
NOT TO SCALE

RECORD DRAWING
 THIS DRAWING IS THE PROPERTY OF THE ENGINEER AND ARCHITECT. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, REPRODUCED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND ARCHITECT.
 CONTRACTOR: *ASB* AGENCY: *B.E.C.* 12/16/91
 DRAWN BY: *ASB* CHECKED BY: *B.E.C.* 12/16/91
 PROJECT: *HEB* AGENCY: *B.E.C.* 12/16/91

REGISTERED PROFESSIONAL ENGINEER
 DONALD F. MILLS
 No. 15940
 EXP. 6-30-93
 CIVIL
 STATE OF CALIFORNIA

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES

SUPPLEMENTAL NOTES FOR SPOIL SITE AND DETAILS

BOYLE ENGINEERING CORPORATION
 consulting engineers / architects
 VENTURA, CA

DESIGN	DRAWN	CHECKED	C.A. NO.	DRAWING NO.	SHEET NO.
P.A.B.	J.R.G.	HEB	VT-L02-529-II	S-229	5A
REV.	DATE	DESCRIPTION	APP.		
1	12/10/91	REVISED PER FIELD RECORD	HEB		
2	2/18/92	CHANGE ORDER NO. 1 ADDED INFORMATION FOR V-DITCH AND DETAILS.	HEB		

BATTERY POWERED IRRIGATION CONTROLLER, B.O.S.S. OR EQUIV.

1" WATER SERVICE ASSEMBLY

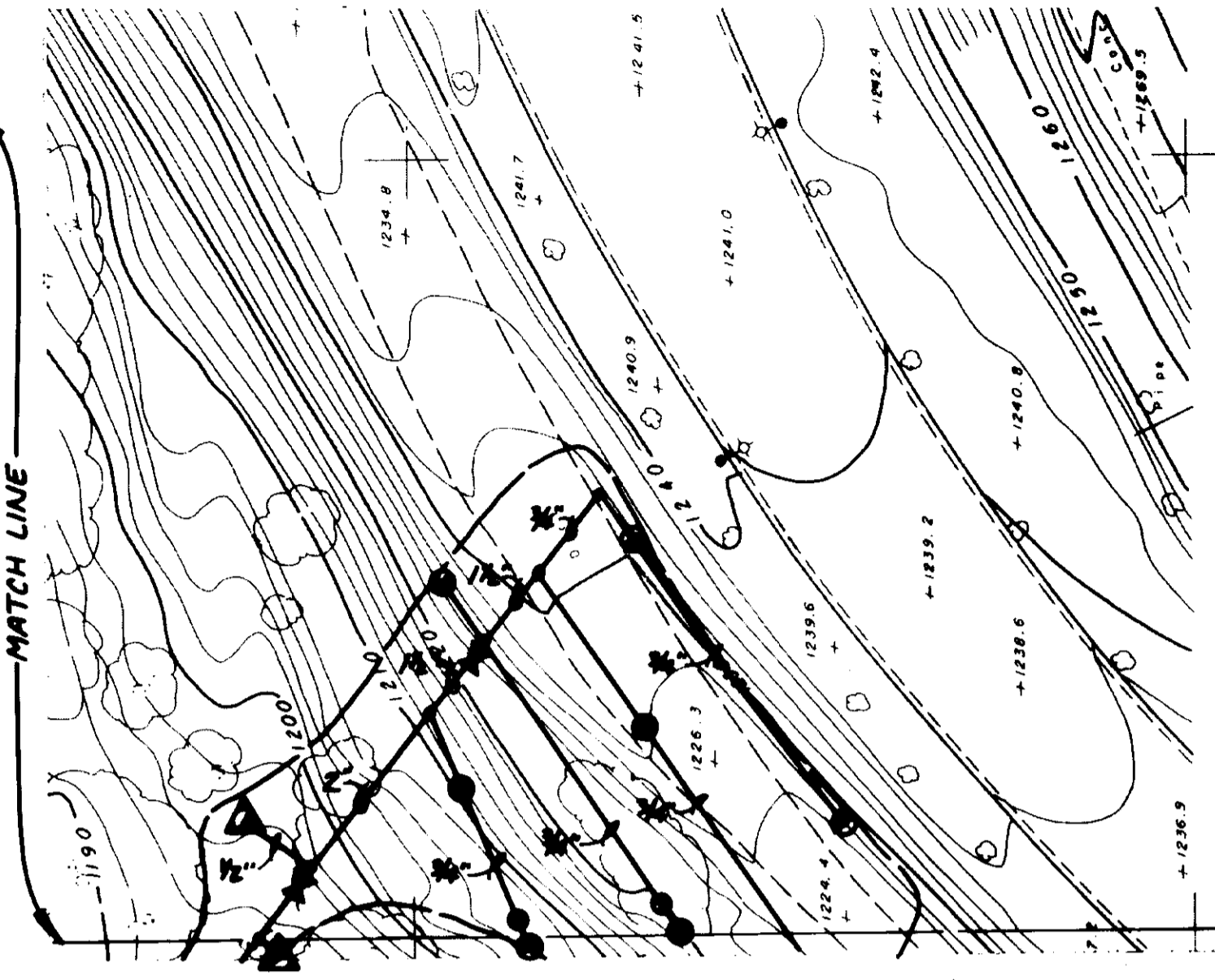
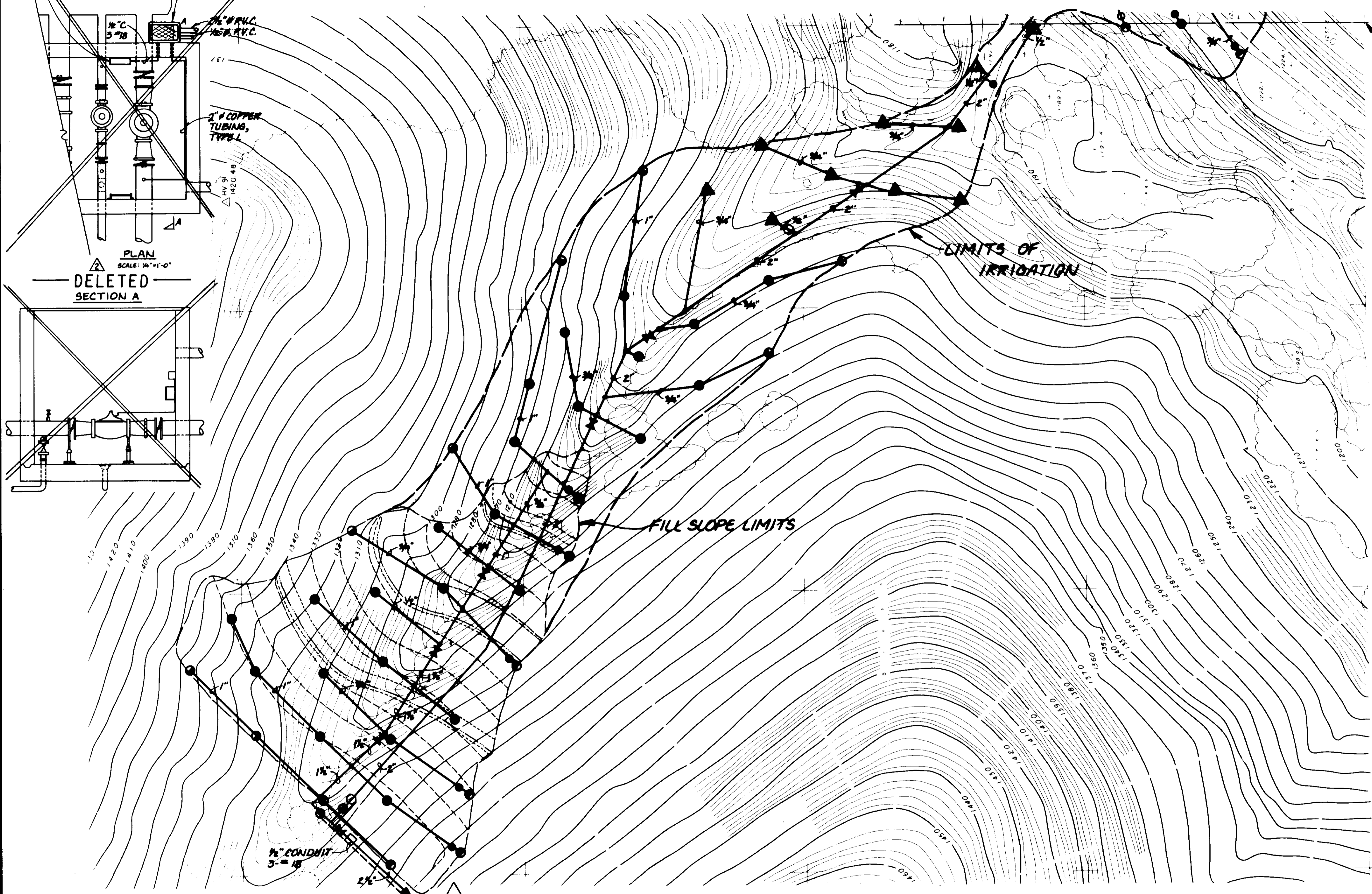
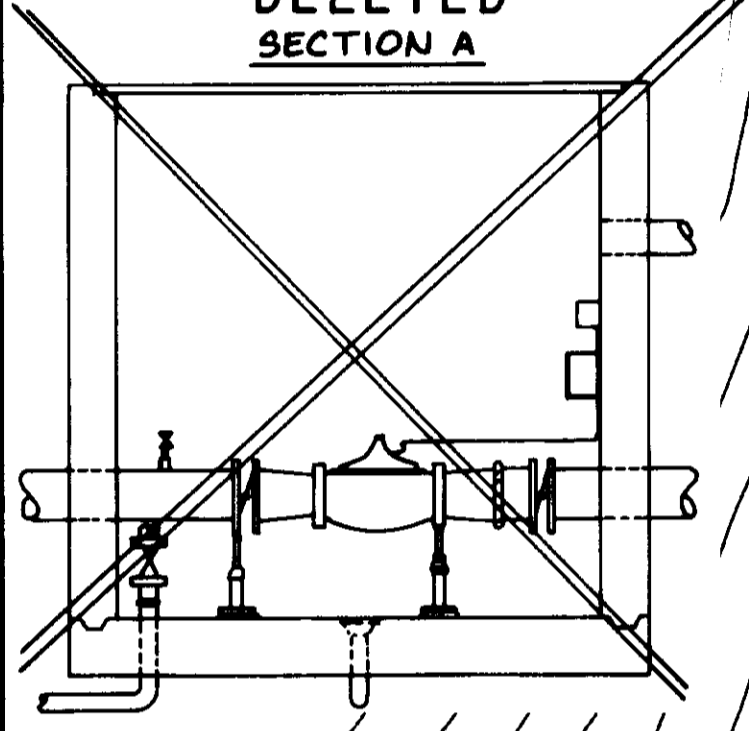
1/2" W.P.V.C. 1/2" W.P.V.C.

1" COPPER TUBING, TYPE L

1/4" W.P.V.C. 1/2" W.P.V.C.

PLAN SCALE: 1/4"=1'-0"

DELETED SECTION A



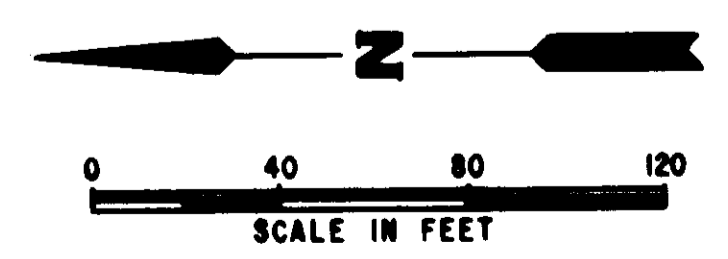
LEGEND

- GEAR DRIVEN SHRUB ROTOR SPRINKLERS WITH No. 6 NOZZLES AND 18" RISERS, FULL ARC (HUNTER, PGS-360-08 OR EQUAL)
- GEAR DRIVEN SHRUB ROTOR SPRINKLERS WITH No. 6 NOZZLES AND 18" RISERS, ADJUSTABLE ARC (HUNTER, PGS-ADJ-08 OR EQUAL)
- 2" BRASS PRESSURE REGULATOR (TORO 216-27-08 OR EQUAL)
- PVC SPRING CHECK VALVE PER LINE SIZE (KING BROS., CV OR EQUAL)
- ⊗ PVC BALL VALVE PER LINE SIZE (KING BROS., BTV-E OR EQUAL)
- ⊕ REMOTE CONTROL VALVE (HARDE, 700 SERIES OR EQUAL)
- PVC SCH 40 PIPELINE (BROWNLINER OR EQUAL)
- 2-1/2" FILTER WITH 50 MESH SCREEN (AMAID OR EQUAL)
- ▲▲ PVC BALL VALVE INSTALLED IN RISER, MANUAL ADJUST FOR UNIFORM FLOW (KING BROS., BVT-E OR EQUAL)

05536

RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THE FACILITY CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSULTING ENGINEER. DATE: 12/14/10
 DRAWN BY: A.C.P. DATE: 12/14/10
 PROJECT: LAS VIRGENES MUNICIPAL WATER DISTRICT

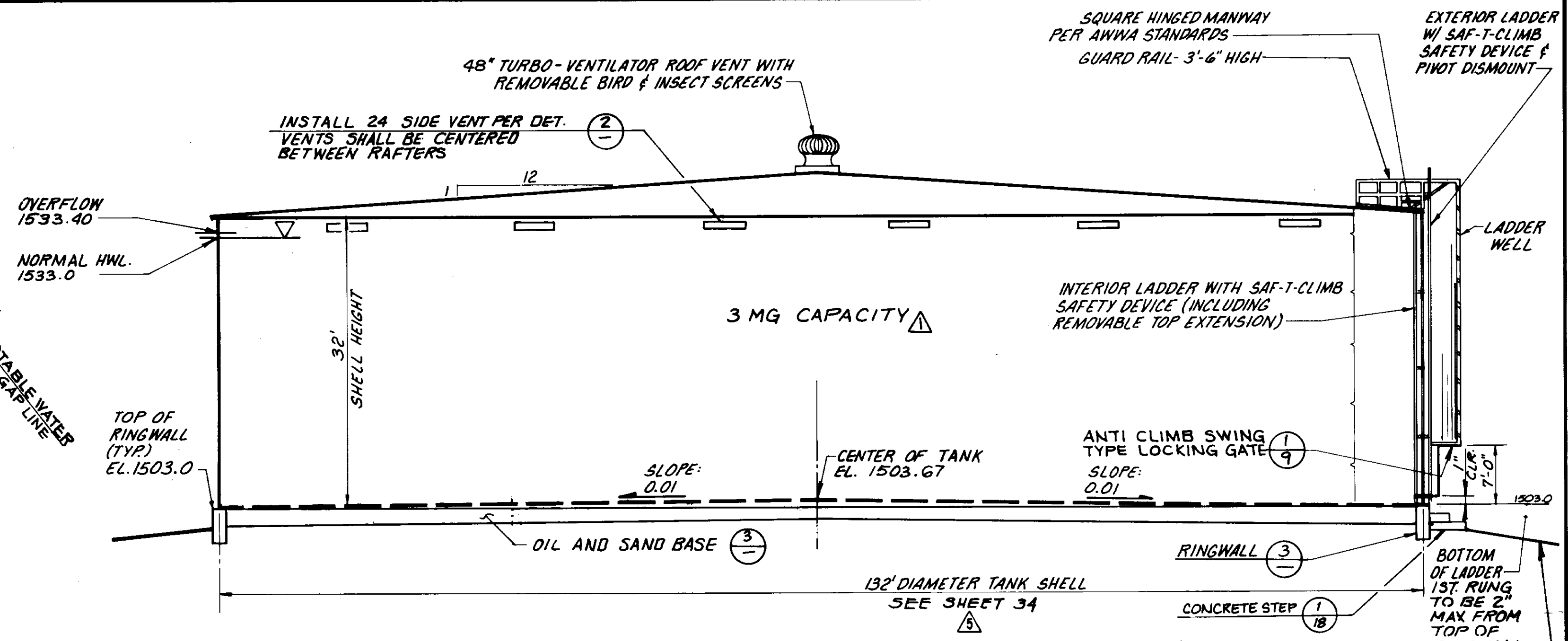
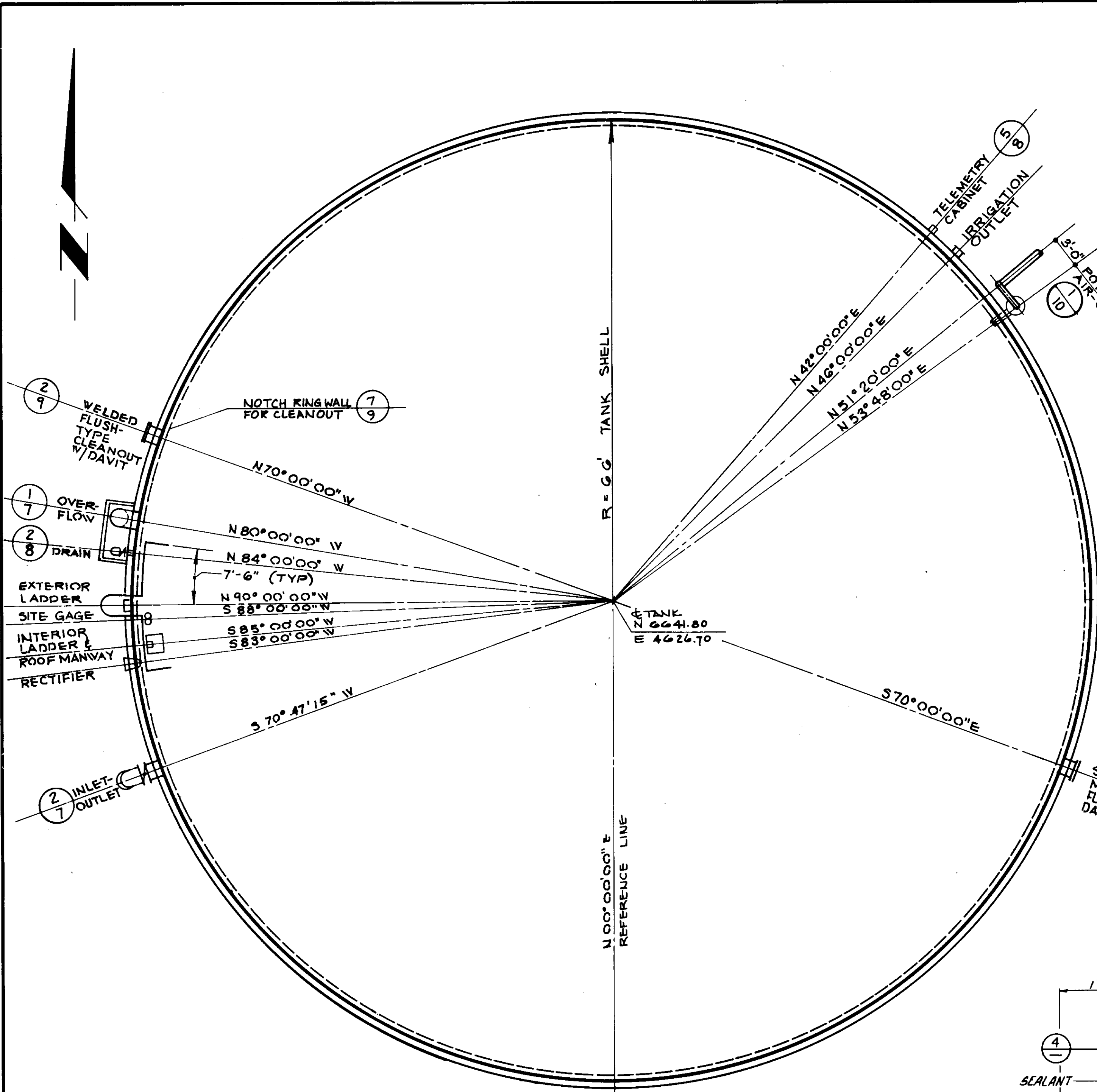
- NOTES:**
1. SPRING CHECK VALVES TO BE PLACED AT ALL LOW SPOTS.
 2. DO NOT IRRIGATE WITHIN 5 FEET OF OAK TREE DRIP LINES.
 3. ANCHOR PIPE AND SPRINKLER RISERS WITH #3 BARS.



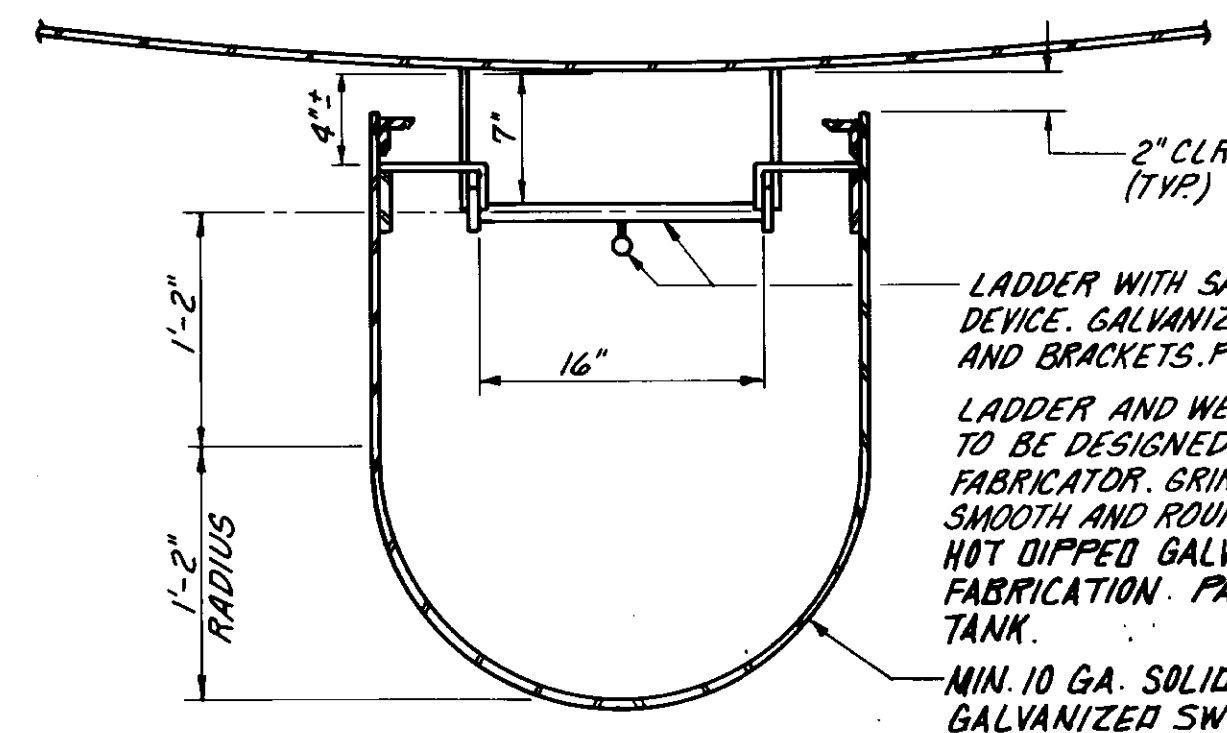
LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPELINES
IRRIGATION PLAN

BOYLE ENGINEERING CORPORATION
 consulting engineers / architects
 VENTURA, CA.

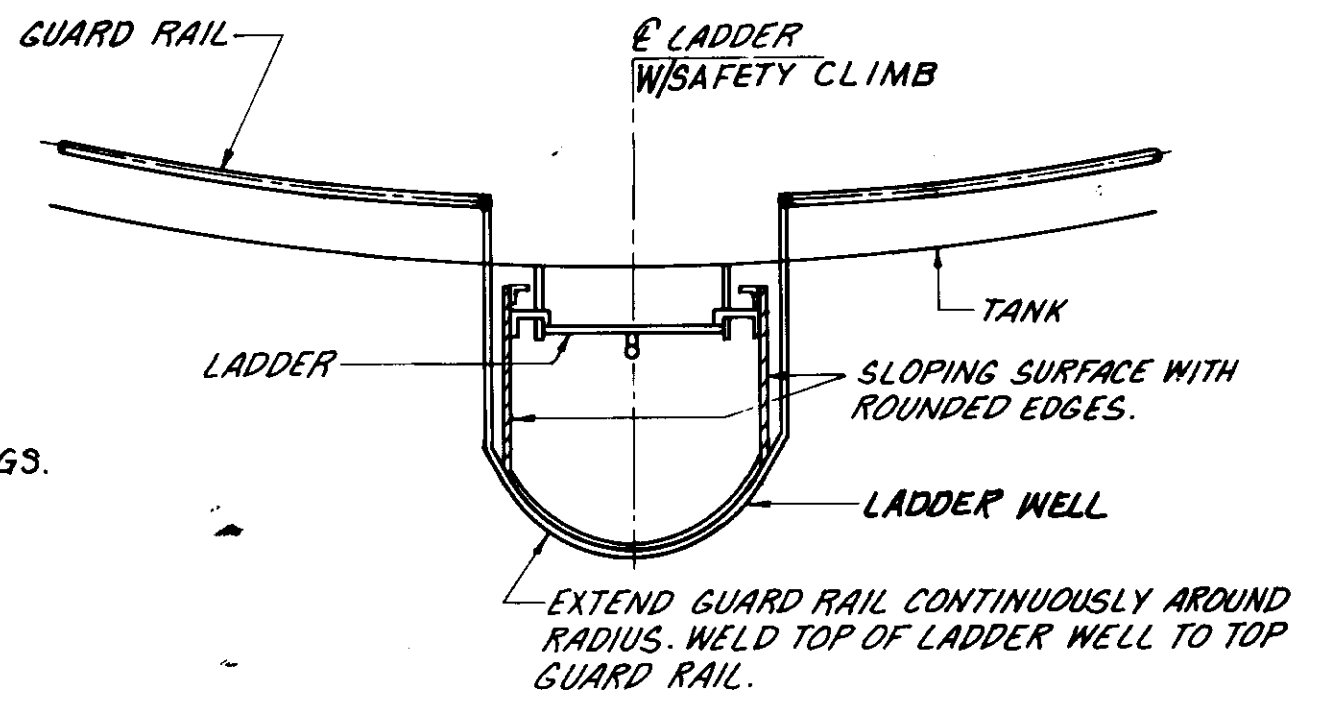
DESIGN M.F.D.	DRAWN K.L.A.	CHECKED	C.A. NO.	DRAWING NO.	SHEET NO.
			MT-L02-528-15	5B	5B
DATE: 12/14/10					OF 34 SHEETS



TANK ELEVATION
SCALE: 1" = 10'
SEE SHEET 34

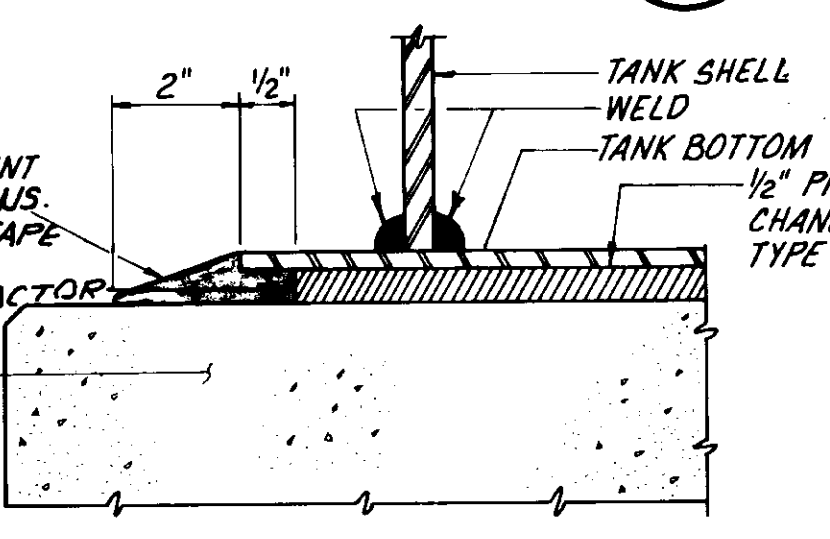


SECTIONAL PLAN

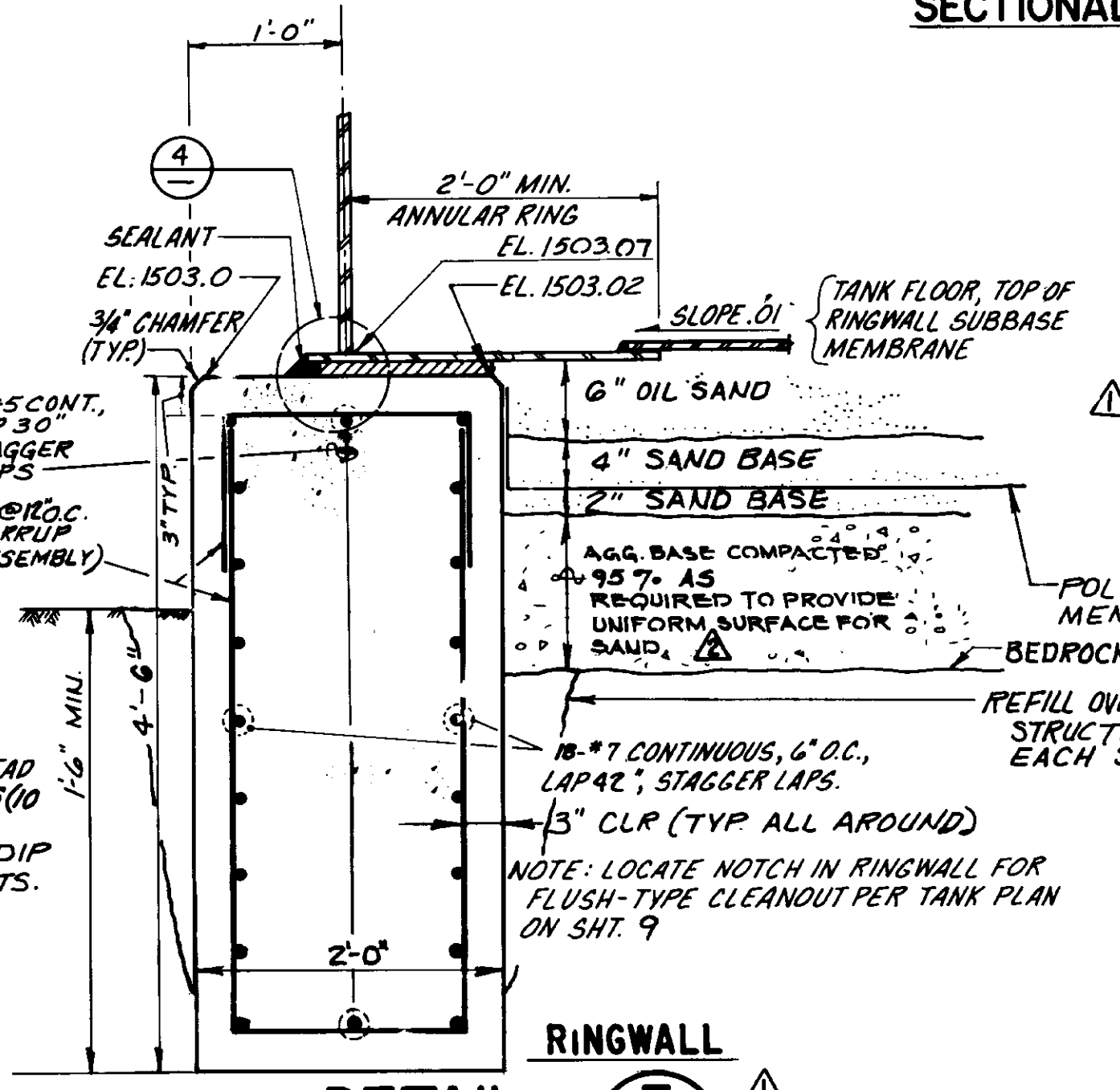


TOP PLAN

**LADDER SAFETY BARRIER
DETAIL**
SCALE: NONE

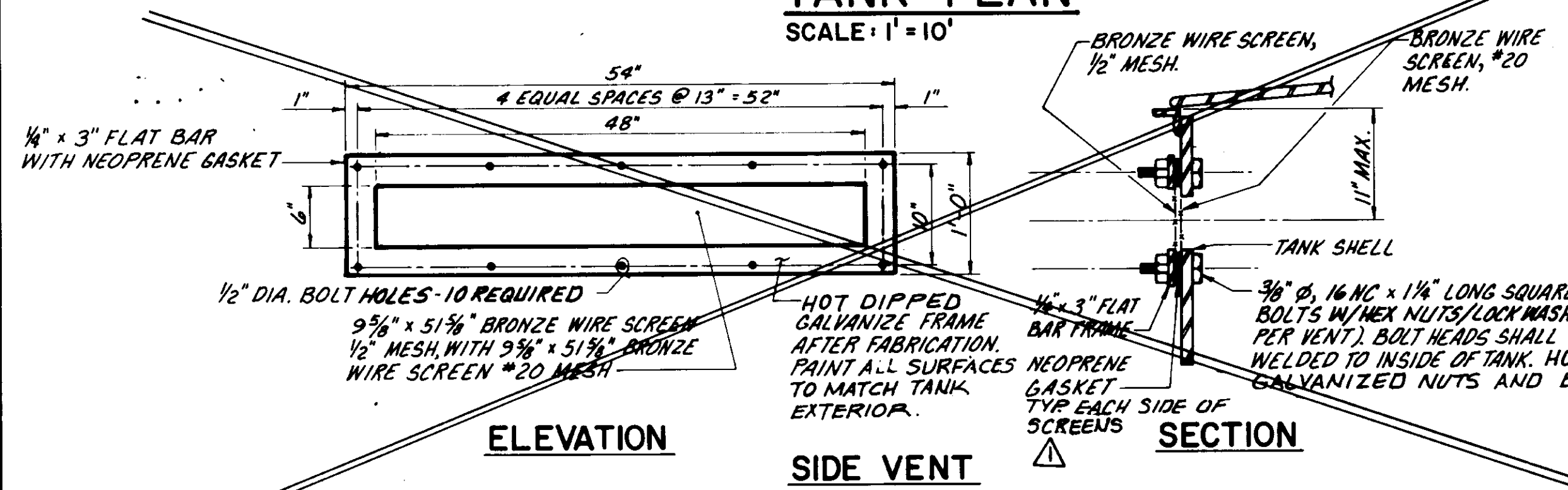


**WATER PROOFING
DETAIL**
SCALE: NONE



**RINGWALL
DETAIL**
SCALE: 1" = 1'

TANK PLAN
SCALE: 1" = 10'



ELEVATION

SIDE VENT

DETAIL
SCALE: 1" = 1'
—DELETED—

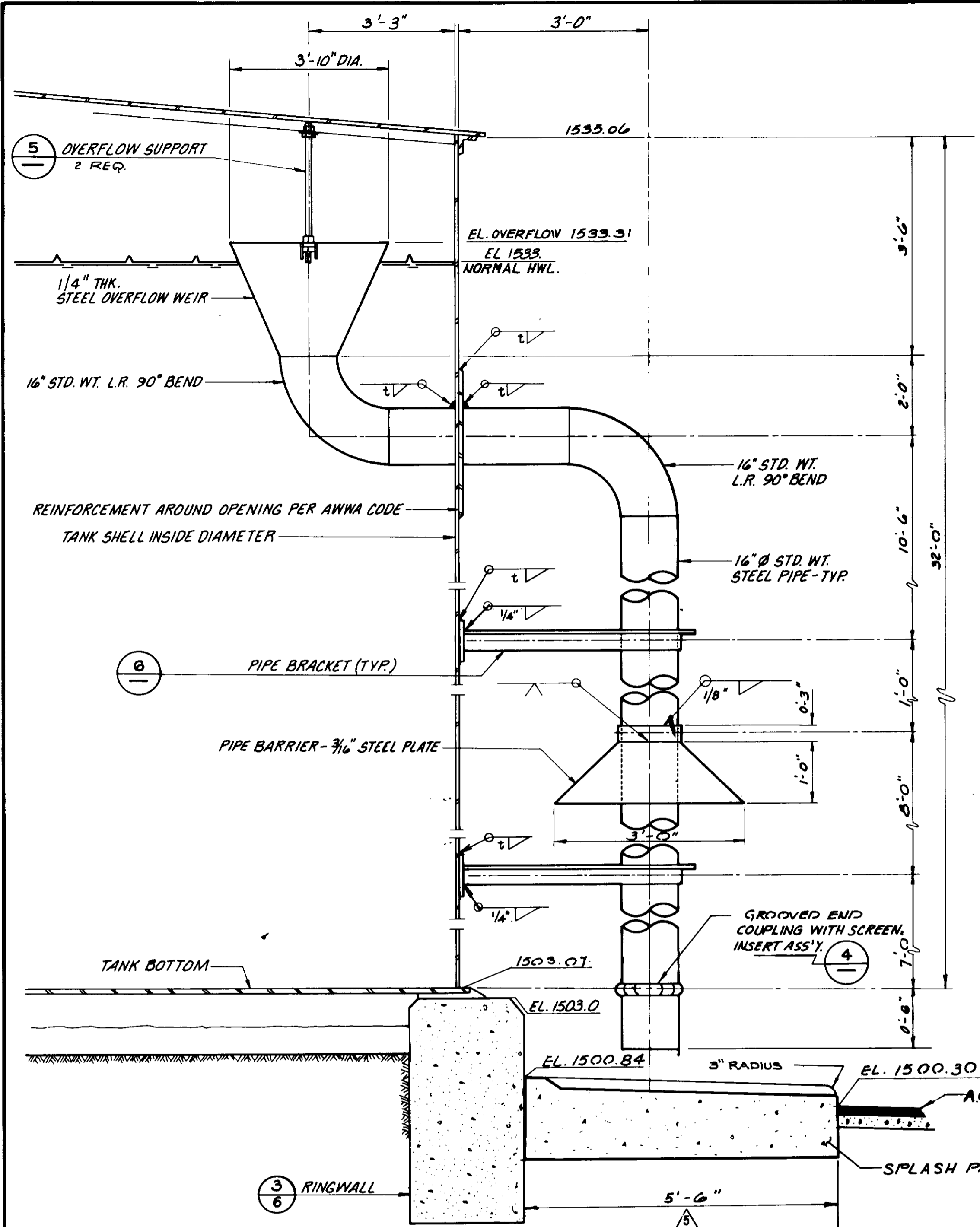
RECORD DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THE FACILITY CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PAID FOR ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSULTING ENGINEER.
CLIENT: P.A.B. AGE: Y. DATE: 12/9/93
DRAWN BY: P.A.B. CHECKED BY: D.P.J. DATE: 1/14/94
PROJECT: LAS VIRGENES WATER DISTRICT



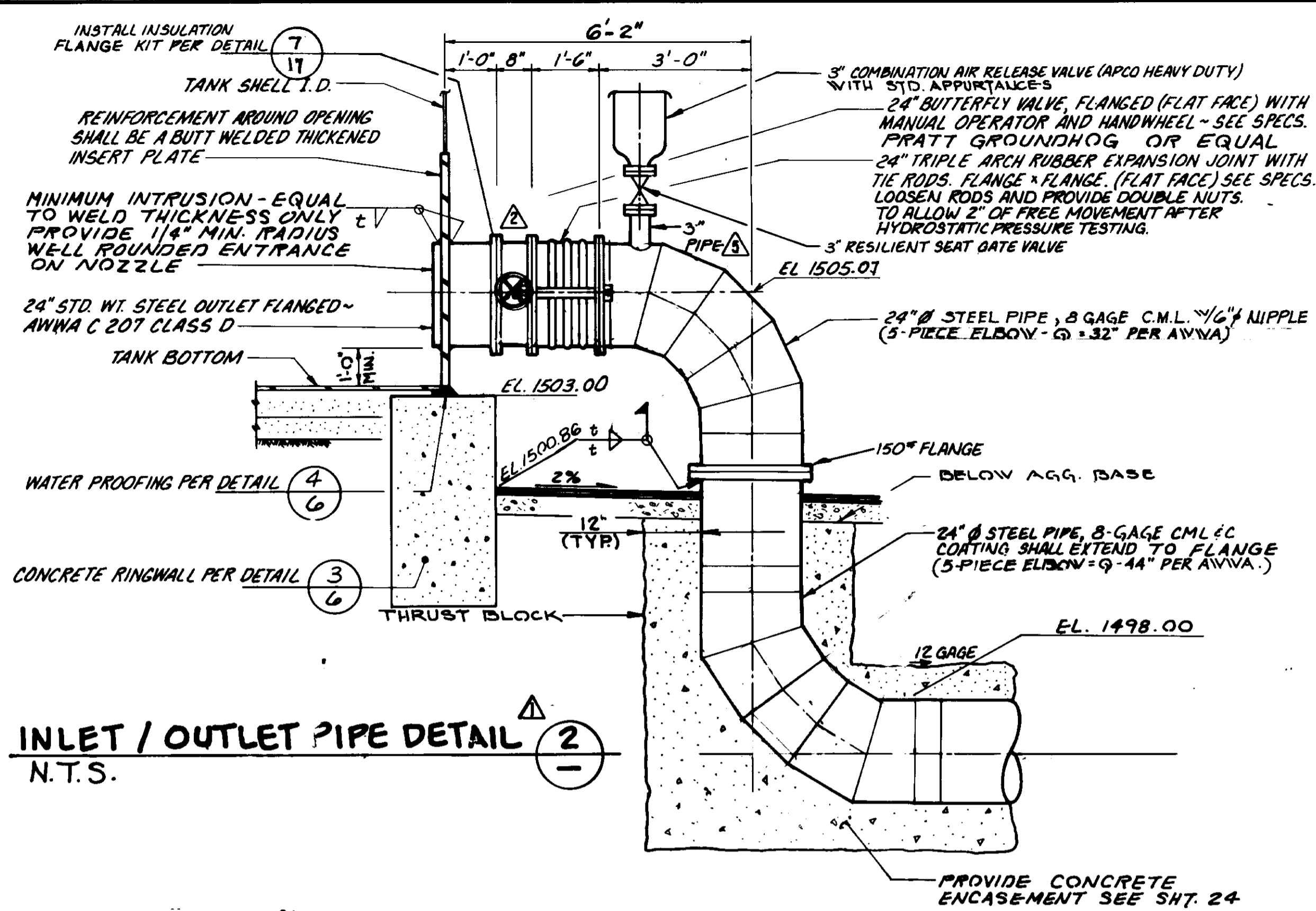
REFERENCE BID ITEM NO. 15A
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
05537
RESERVOIR PLAN/ELEVATION
AND DETAILS

12/9/93	RECORD DRAWING	
8/14/90	ADDENDUM NO. 4 - ADD NOTE	M.E.B.
7/24/90	ADDENDUM NO. 2 REVISED PLAN AND DETAILS 1, 2, 3 AND 4	M.E.B.
7-3-90	ISSUED FOR BIDDING	M.E.B.
REV.	DATE	DESCRIPTION

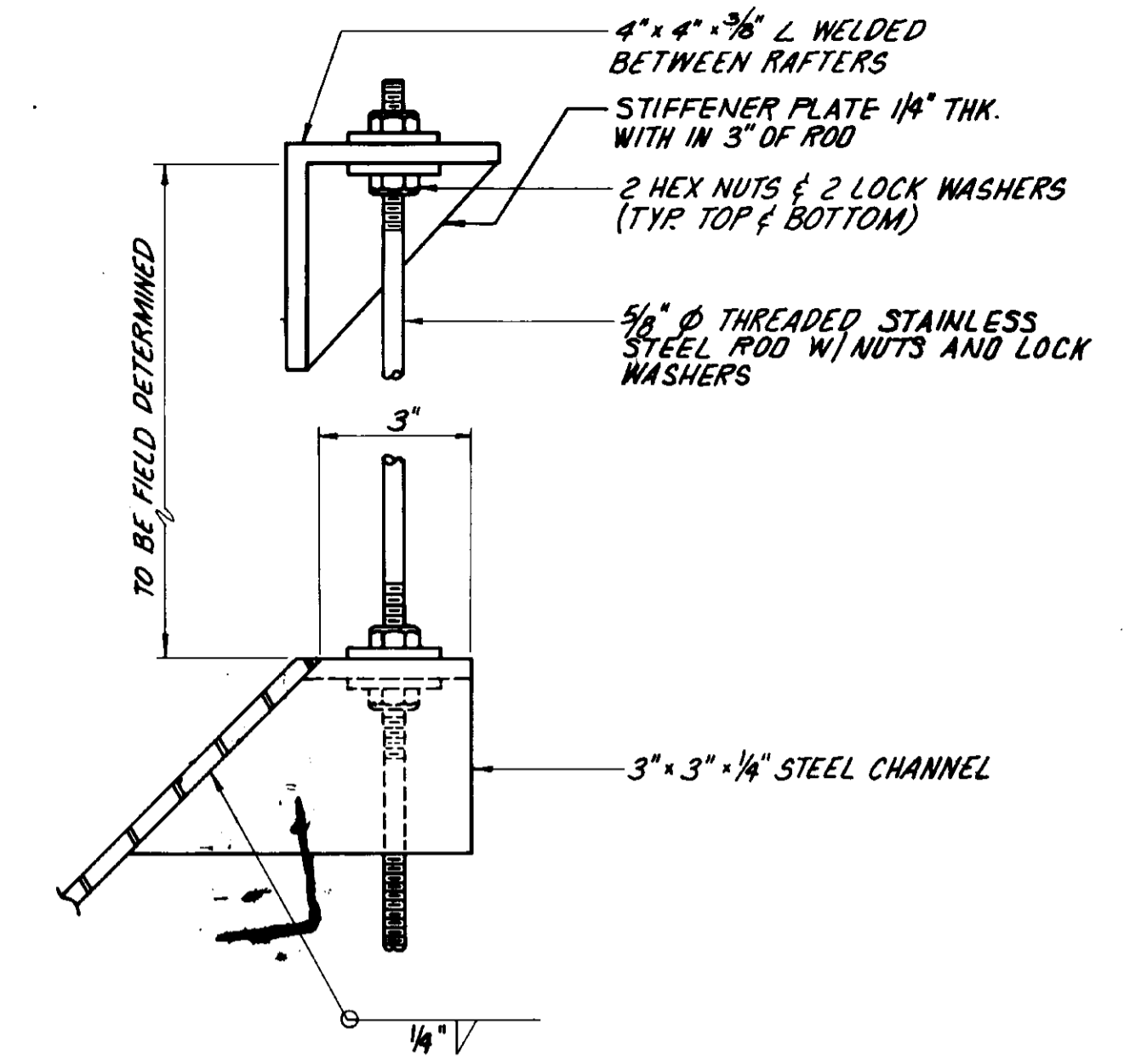
BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VERTURA, CA.
DESIGN: P.A.B. DRAWN: D.P.J. CHECKED: M.E.B. C.A. NO.: VT-102-529-11 DRAWING NO.: S-229 SHEET NO.: 6 OF 34 SHEETS



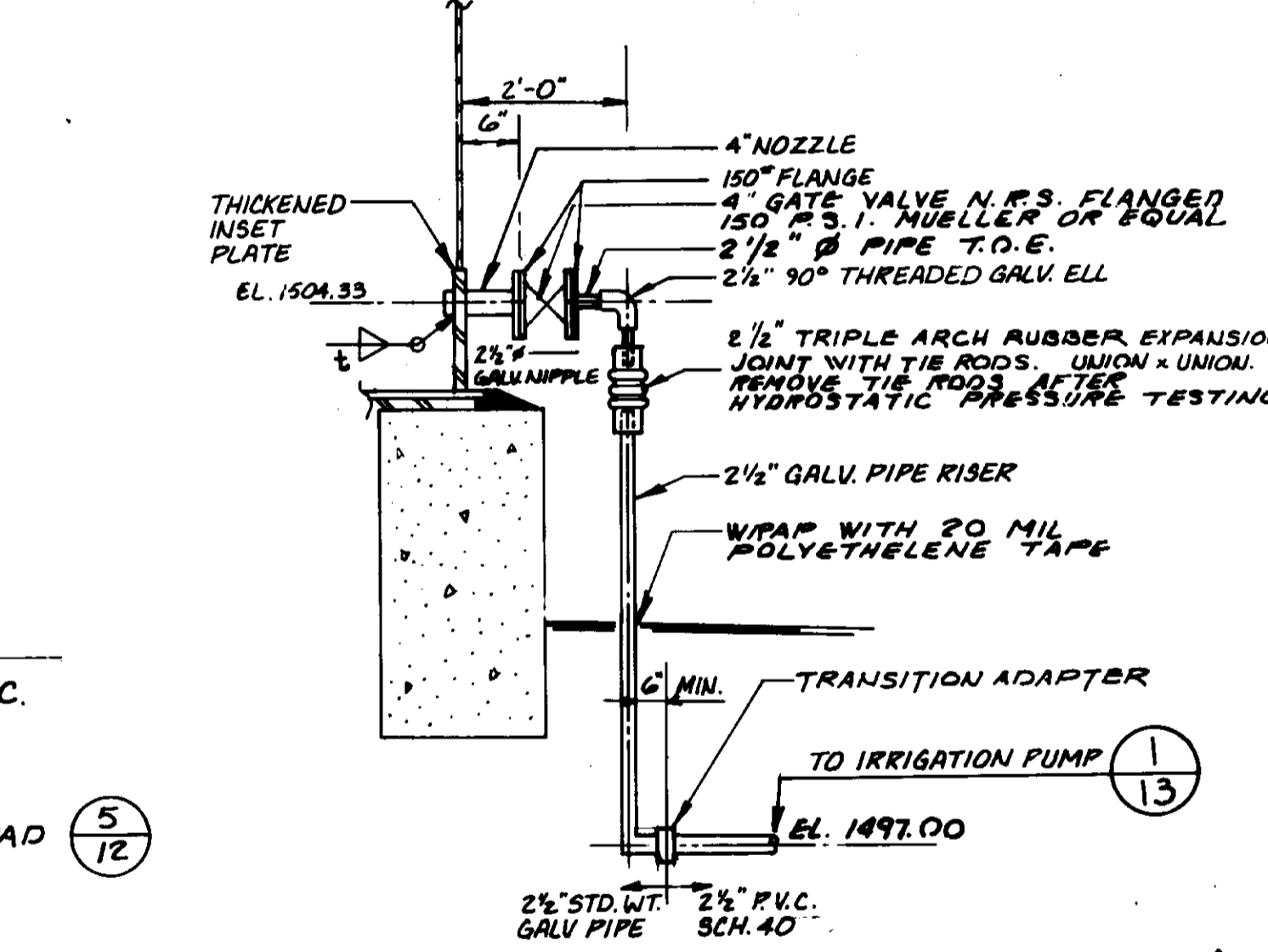
TANK OVERFLOW DETAIL
SCALE: NONE



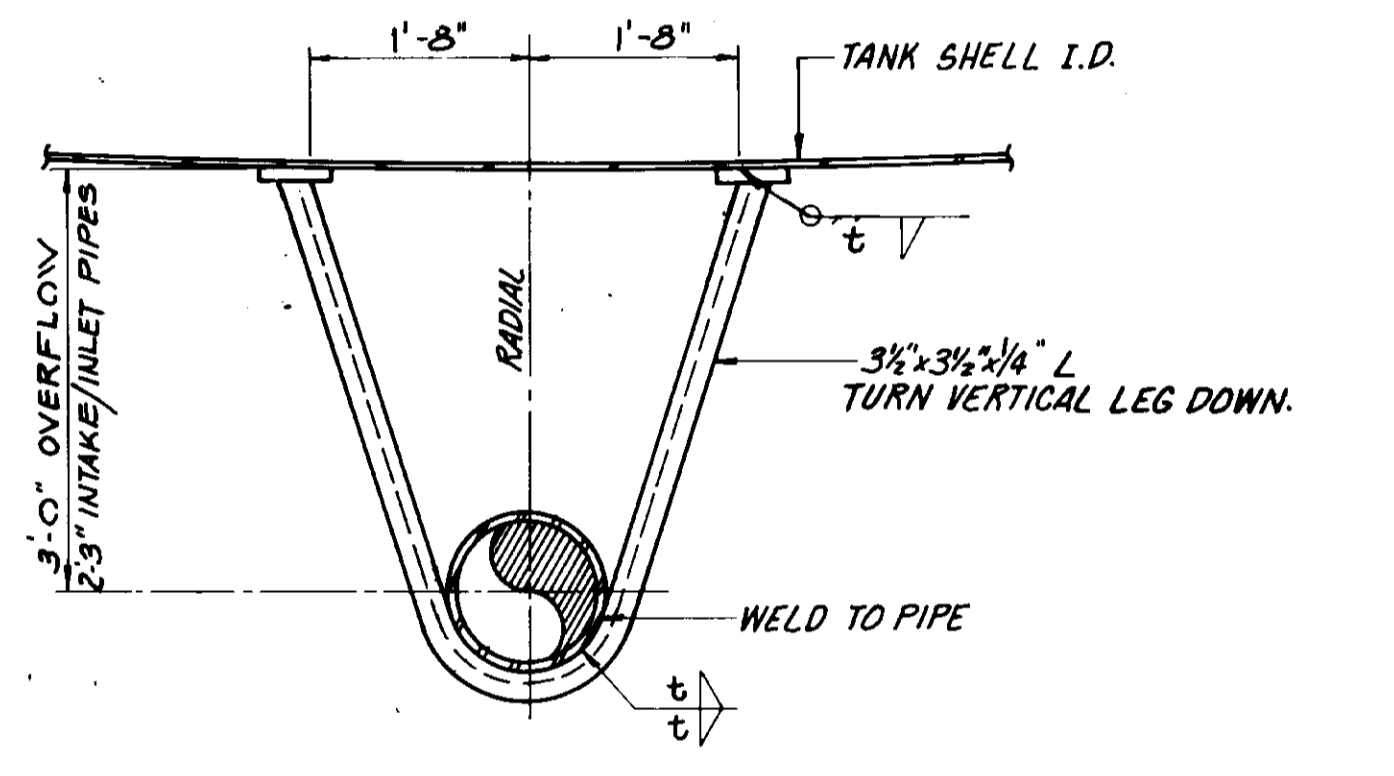
INLET / OUTLET PIPE DETAIL
N.T.S.



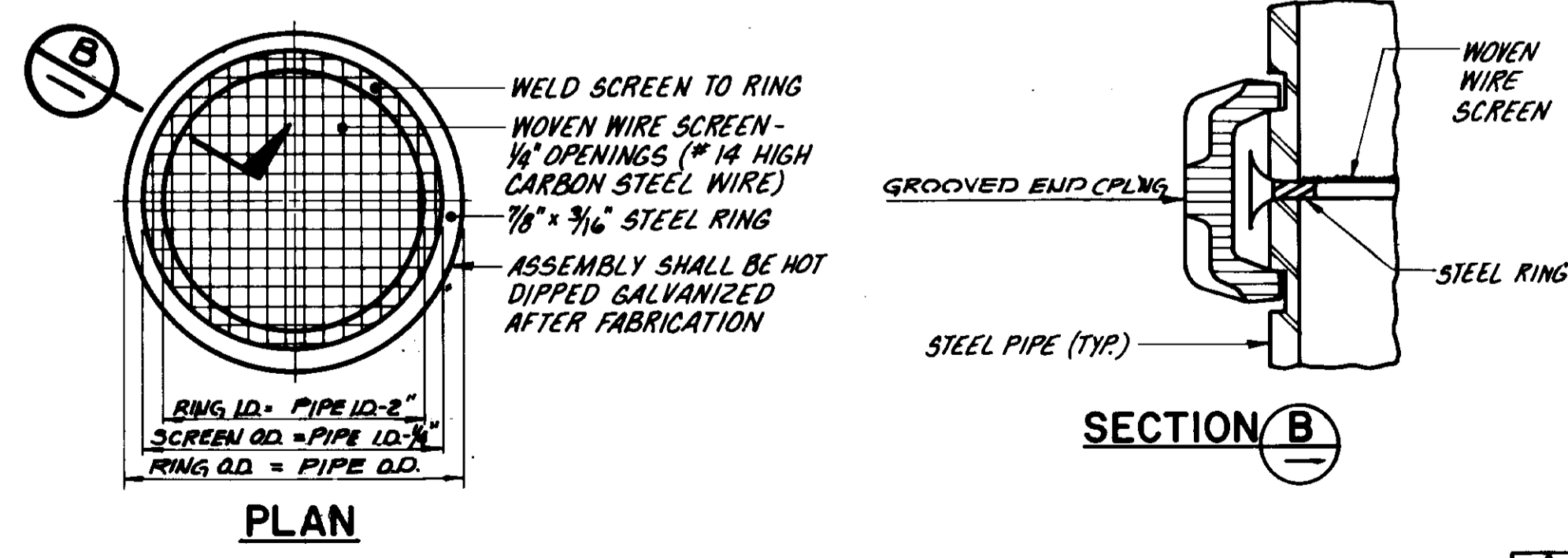
OVERFLOW SUPPORT DETAIL
SCALE: NONE



IRRIGATION OUTLET DETAIL
1/2" = 1'



PIPE BRACKET DETAIL
SCALE: NONE



SCREEN INSERT ASSEMBLY DETAIL
SCALE: NONE

RECORD DRAWING 05538

THIS RECORD DRAWING APPLIES TO THE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.

C. N. T. INS. _____ AGY _____ DEL. _____
 DRAFTER: ASP AGY: BEC DATE: 12/11/89
 PROJ. ENGR. P. B. AGY: T. B. DATE: 12/11/89

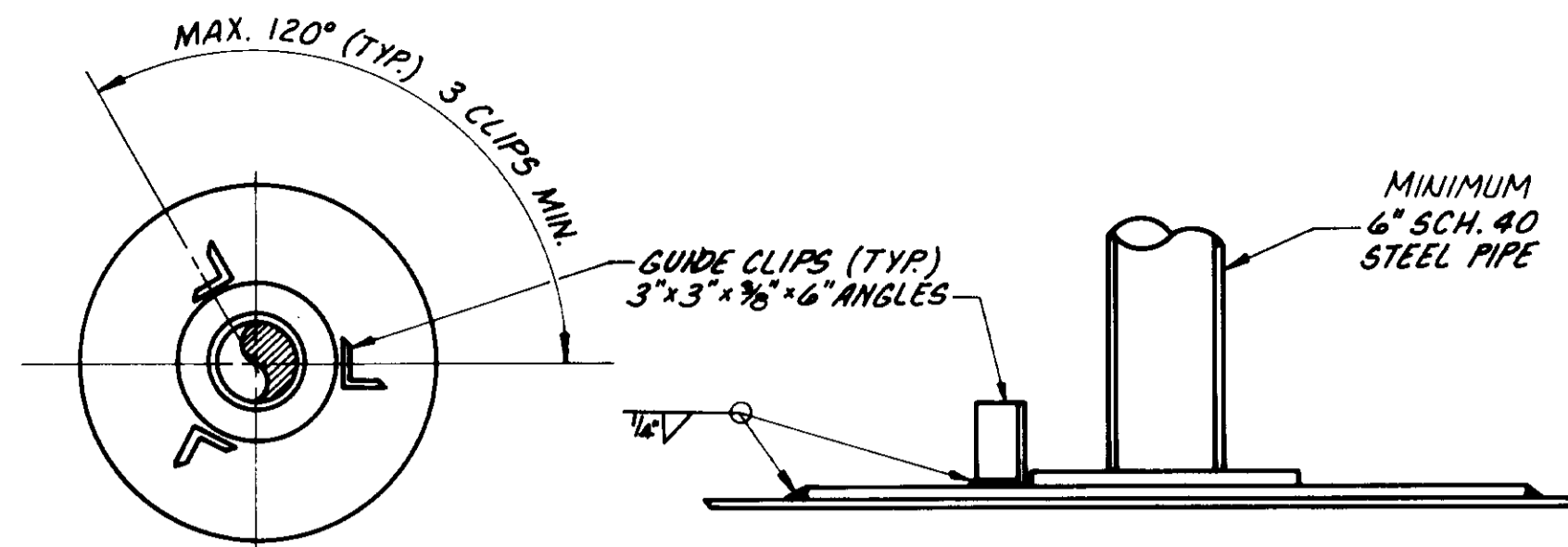
REGISTERED PROFESSIONAL ENGINEER
 DONALD F. WILLE
 No. 15940
 Exp. 12-31-93
 CIVIL
 STATE OF CALIFORNIA

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 RESERVOIR DETAILS

BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.

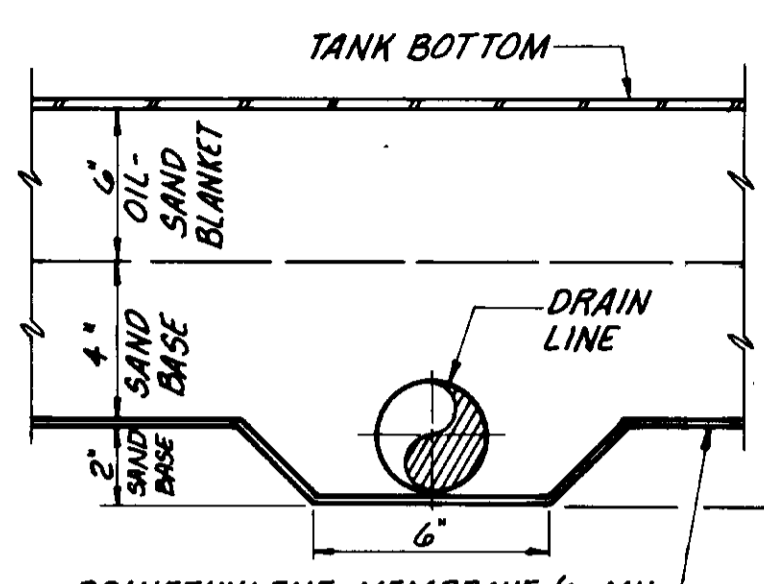
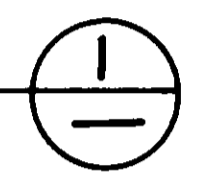
DESIGN: P.A.B. DRAWN: D.P.J. CHECKED: HEB C.A. NO. VT-102-529-11 DRAWING NO. S-229 SHEET NO. 7 OF 34 SHEETS

12/9/93	RECORD DRAWING	
7/24/94	ADDENDUM NO. 2 REVISED DETAILS 12/3/89	HEB
7-3-90	ISSUED FOR BIDDING	HEB
REV.	DATE	DESCRIPTION



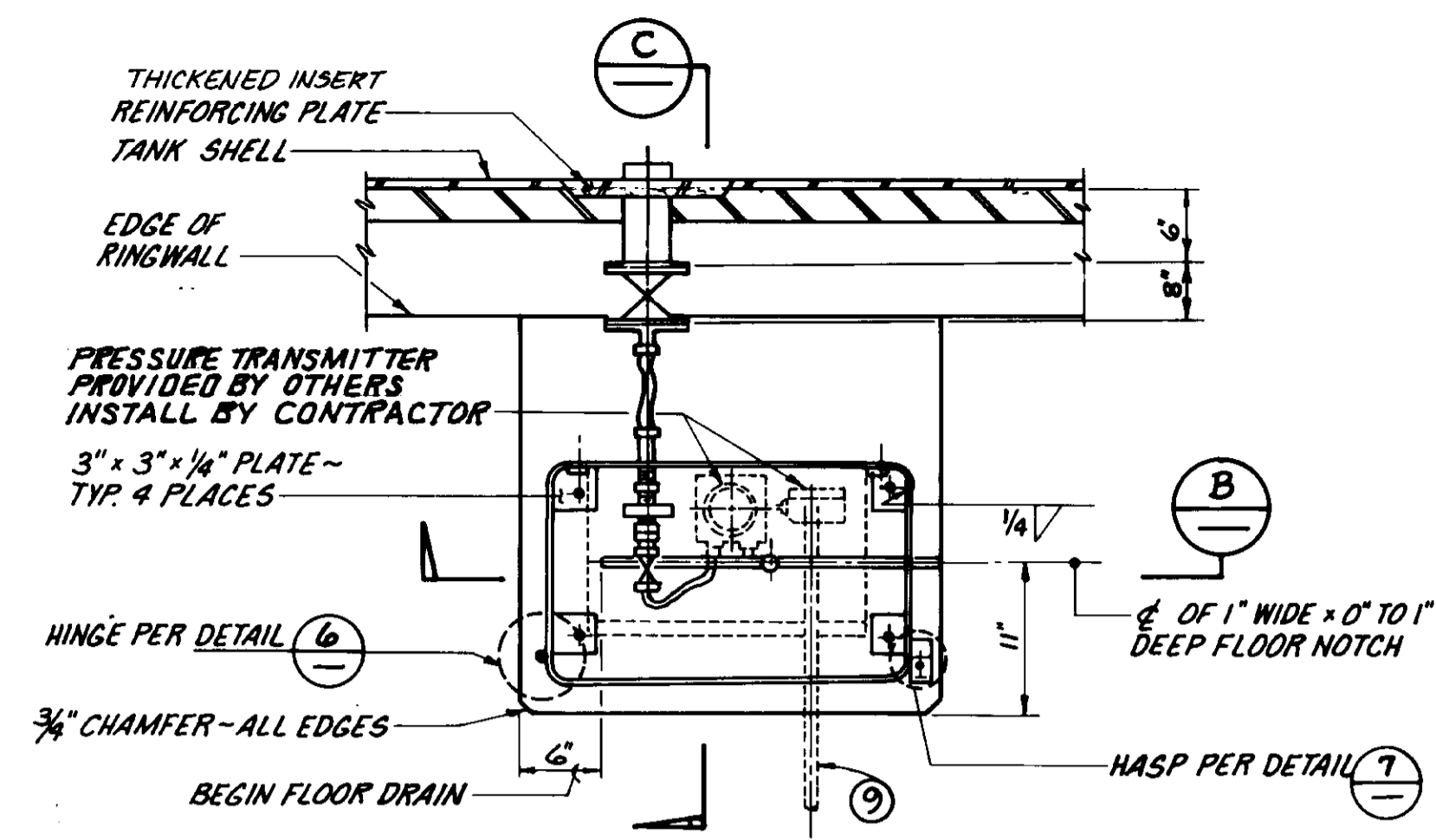
PLAN
 NOTES:
 1. SHIM UNDER COLUMN BASES AT SEAMS IN FLOOR PLATES TO PROVIDE UNIFORM BEARING.
 2. CLEAN & COAT BOTTOM OF COLUMN BASES & TOP OF TANK BOTTOM PLATES PRIOR TO INSTALLING COLUMN ASSEMBLY.
 3. DESIGN BASE PLATES FOR ALLOWABLE SOIL BEARING 2000 PSF AND BENDING STRESS OF 27,000 PSI. LOAD TO INCLUDE ROOF DEAD AND LIVE LOADS PLUS COLUMN LOAD.

COLUMN BASE DETAIL
 SCALE: NONE

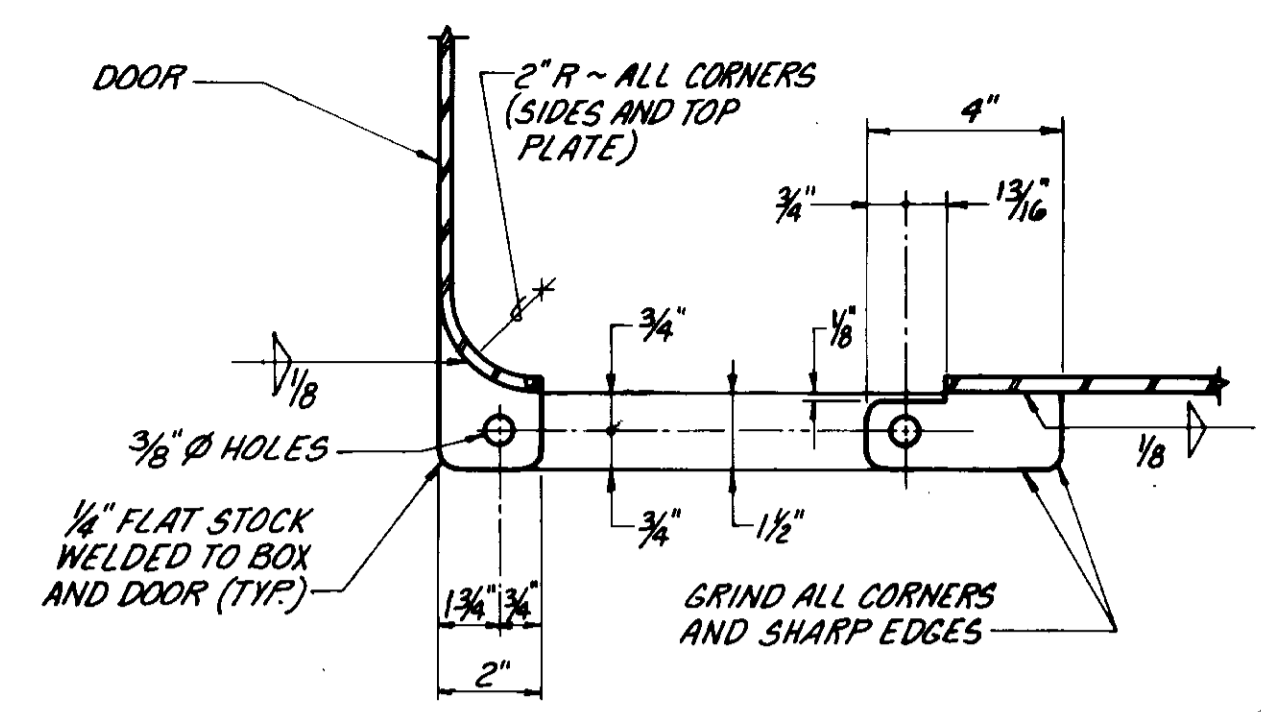


POLYETHYLENE MEMBRANE (10 MIL THICKNESS), 12" OVERLAP BETWEEN SHEETS.

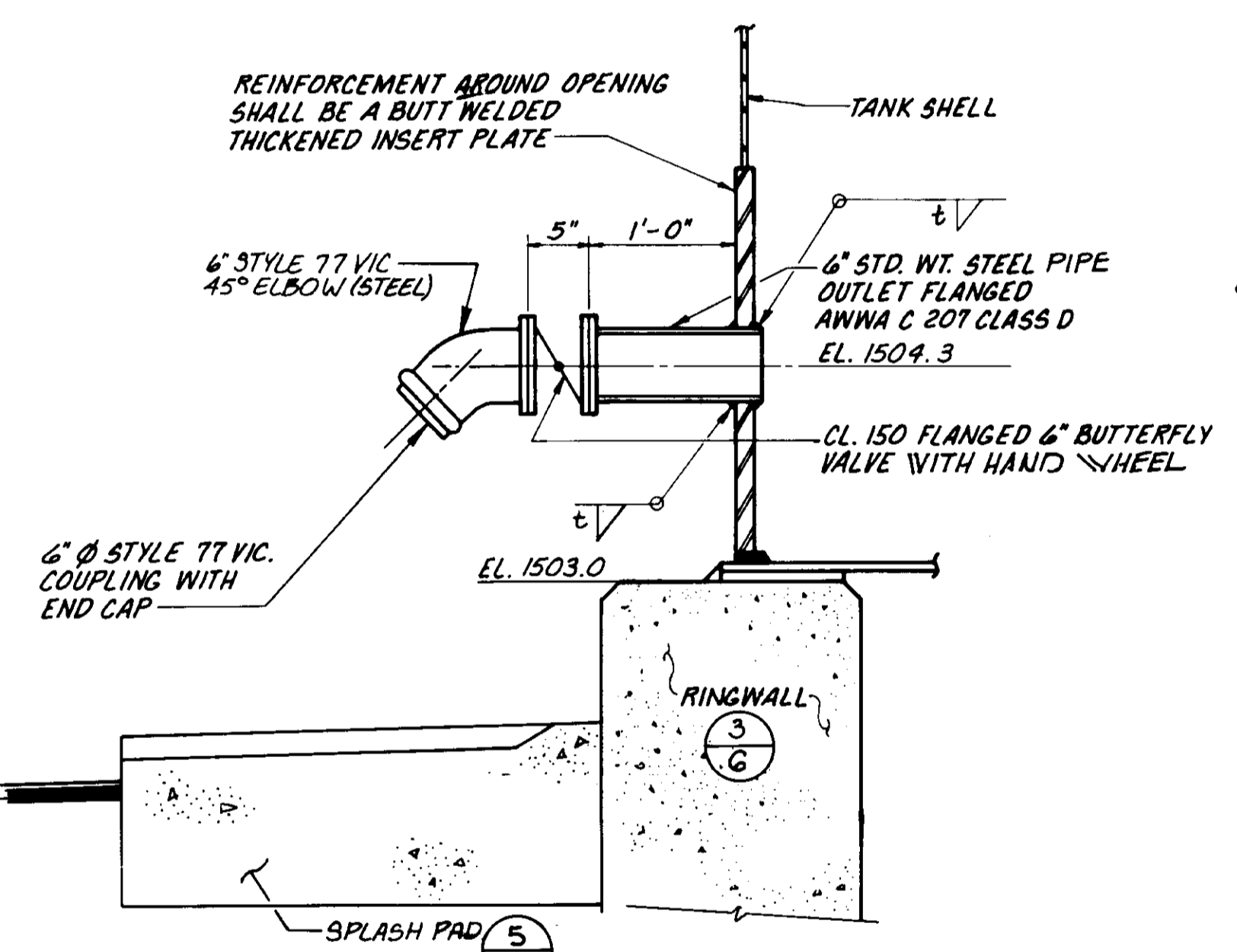
SECTION A-A
 SCALE: 1" = 5"



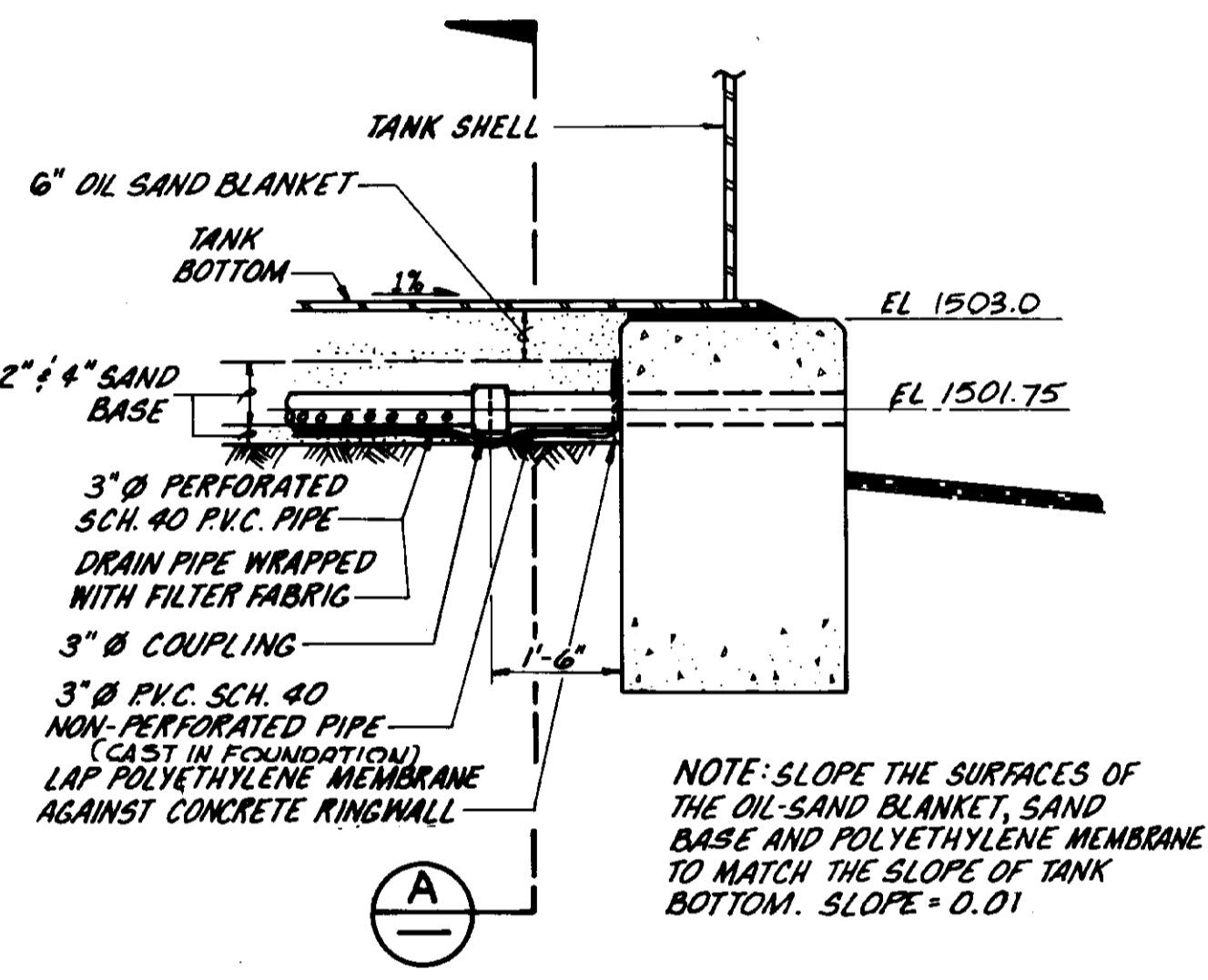
LEVEL TRANSMITTER PLAN
 SCALE: 1" = 1"



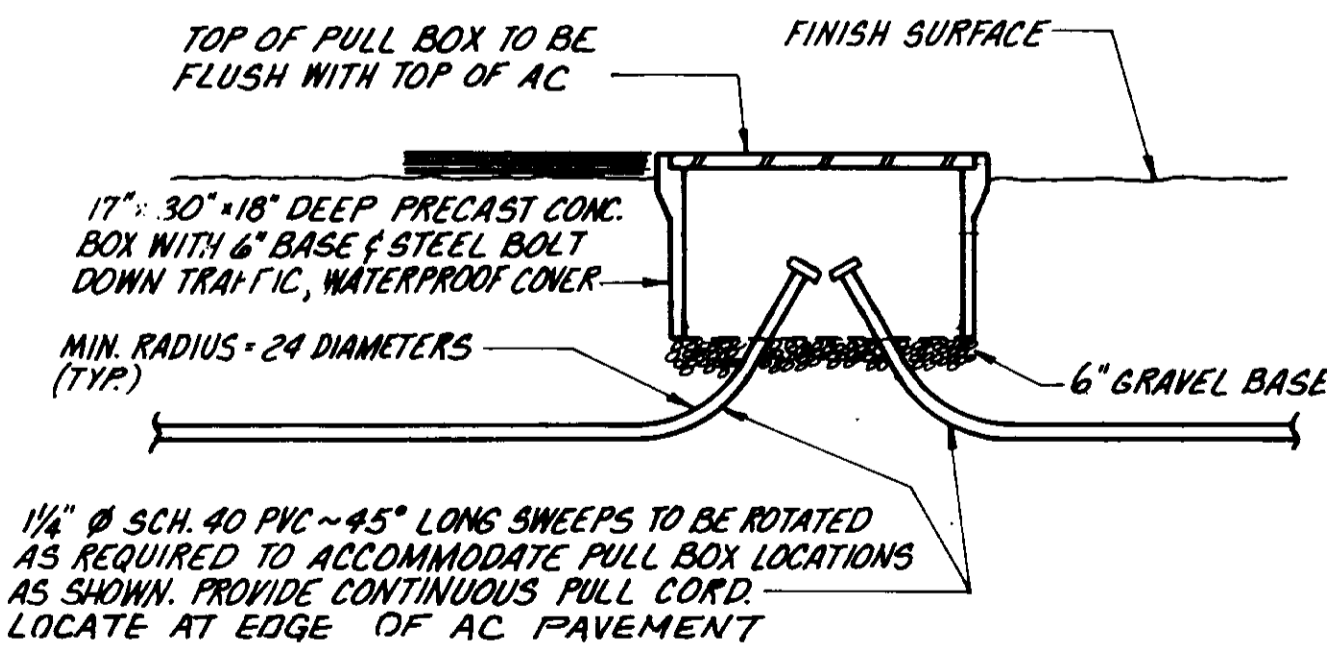
HASP DETAIL
 SCALE: NONE



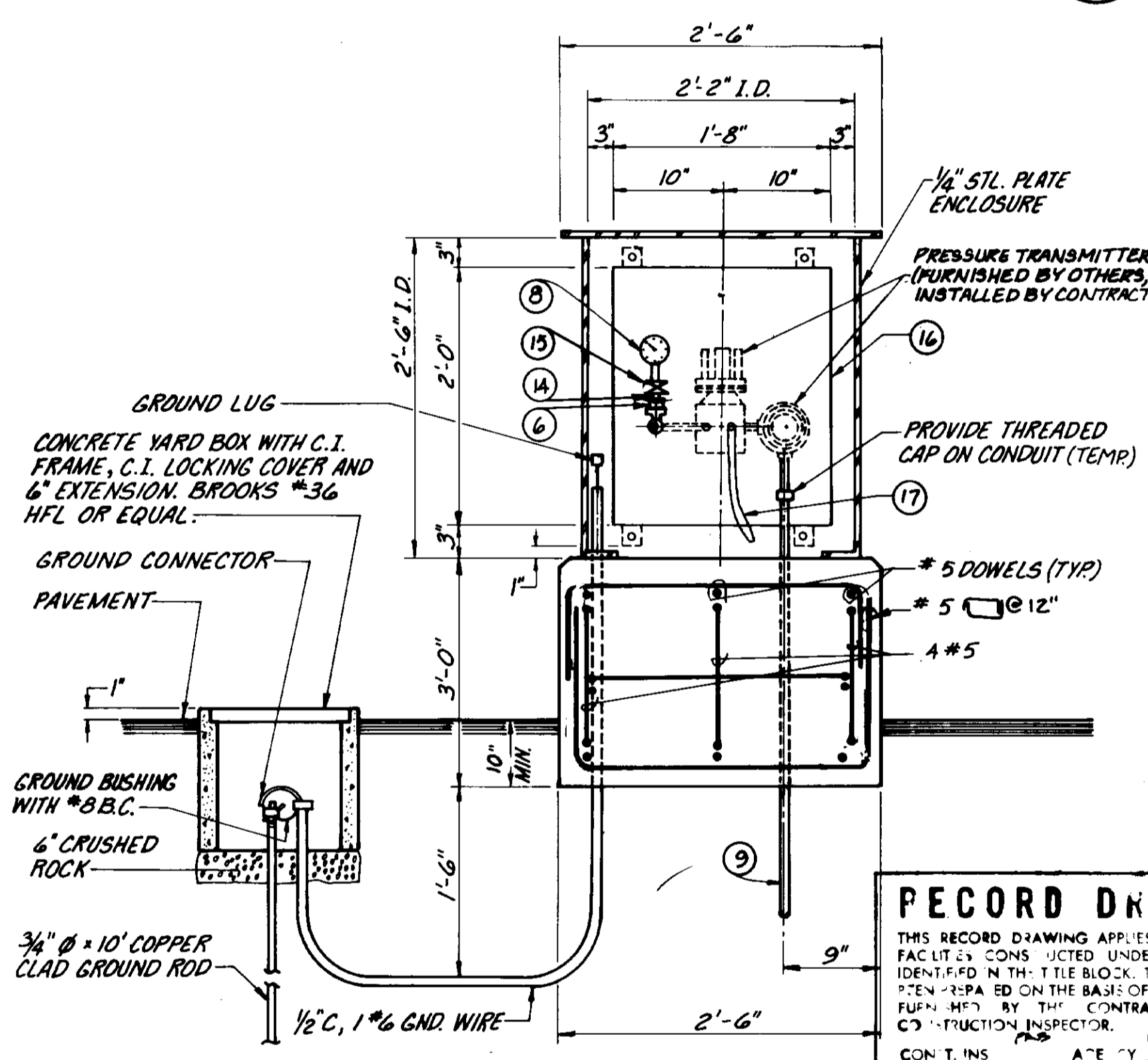
6" TANK DRAIN DETAIL
 SCALE: NONE



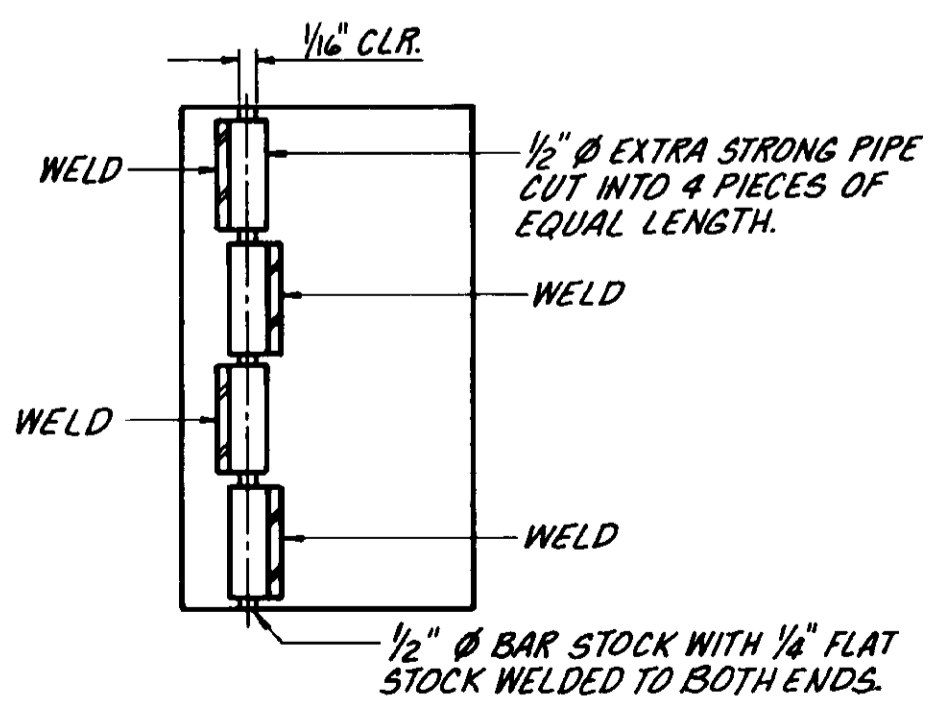
DRAIN LINE THROUGH RINGWALL DETAIL
 SCALE: NONE



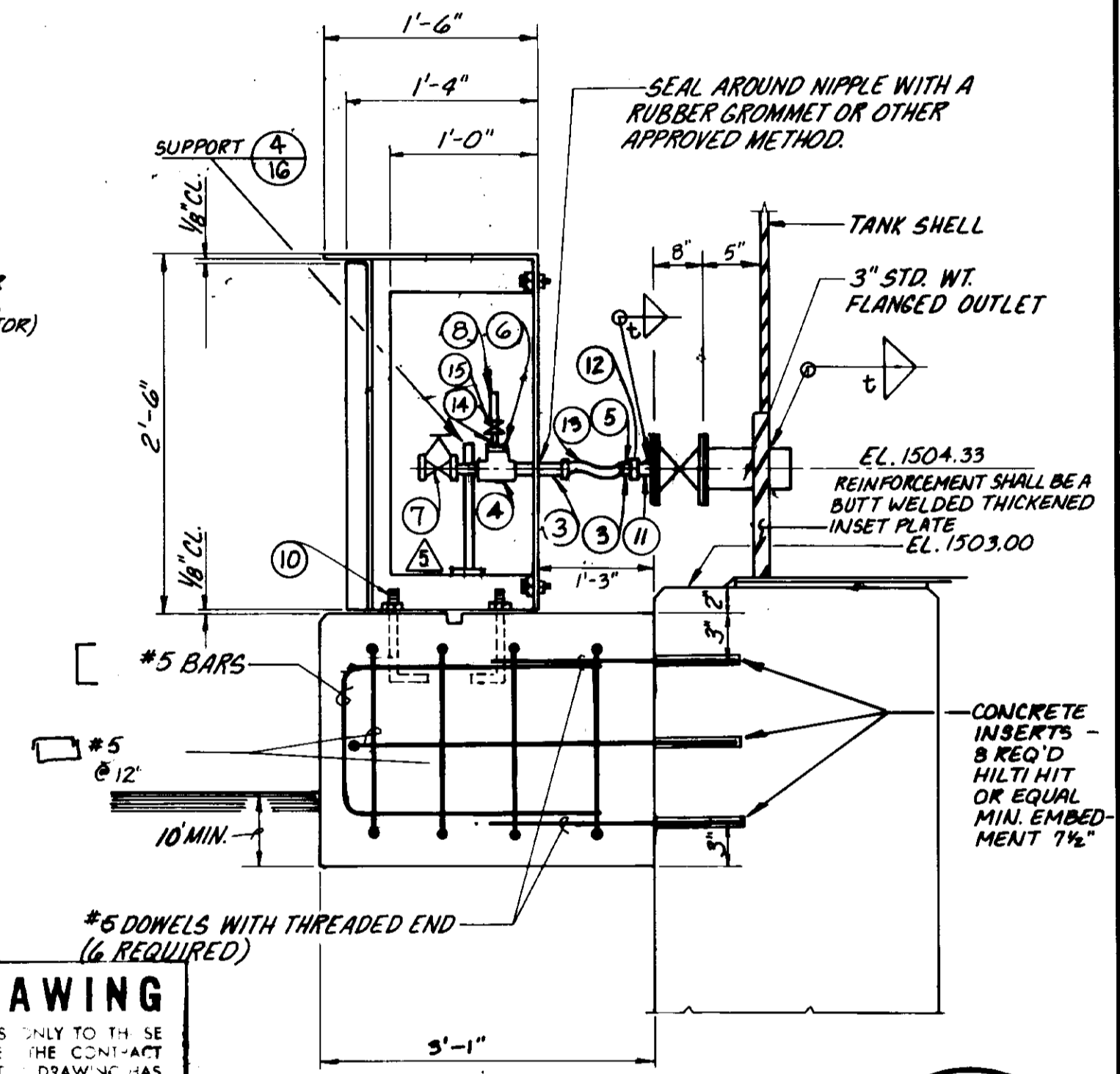
TELEMETRY PULL BOX
 SCALE: NONE



SECTION B-B
 SCALE: 1" = 1"



HINGE DETAIL
 SCALE: NONE



SECTION C-C
 SCALE: 1" = 1"

RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THE SE FACILITY CONS. UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSULTING ENGINEER.
 CONTRACT NO. DATE 12/11/93
 DRAFTED BY ASP AGENCY BEC DATE 01/11/94
 PROJ. ENGR. P.E. AGENCY BEC DATE 01/11/94

LEVEL TRANSMITTER ASSEMBLY

- 1 - 3" GATE VALVE - FLANGE x FLANGE
- 2 - 3" STEEL BLIND FLANGE - PROVIDE HOLE FOR STUB IN PIPE NIPPLE
- 3 - 1" STANDARD BRASS NIPPLE
- 4 - 1/2" STANDARD BRASS TEE
- 5 - 1" x 1/2" REDUCING BRASS BUSHING
- 6 - 1/2" x 1/4" REDUCING BRASS BUSHING
- 7 - 1/2" S.S. BALL VALVE, THREADED, WITH 1/2" BRASS NIPPLE.
- 8 - 3/2" PRESSURE GAUGE, 0 TO 30 P.S.I.G., MARSH NO. H0242.
- 9 - 1/4" ELECTRICAL CONDUIT WITH LONG SWEEP.
- 10 - 1/2" ANCHOR BOLT.
- 11 - 1" SCH. 80 PIPE TOE
- 12 - 1" DIELECTRIC COUPLING
- 13 - 1/2" FLEX HOSE STRANDED STAINLESS STEEL

- 14 - 1/2" THREADED BRASS NIPPLE
- 15 - 1/2" BALL VALVE. S.S. THRD. - 200 P.S.I.
- 16 - 24" x 20" x 12" NEMA 12 ENCLOSURE
- 17 - BLEED HOSE

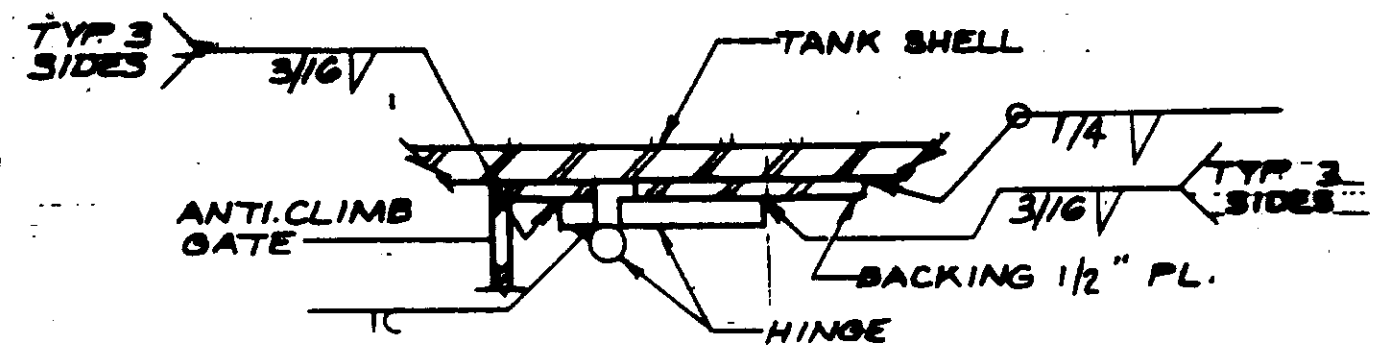
05539

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
TANK DETAIL

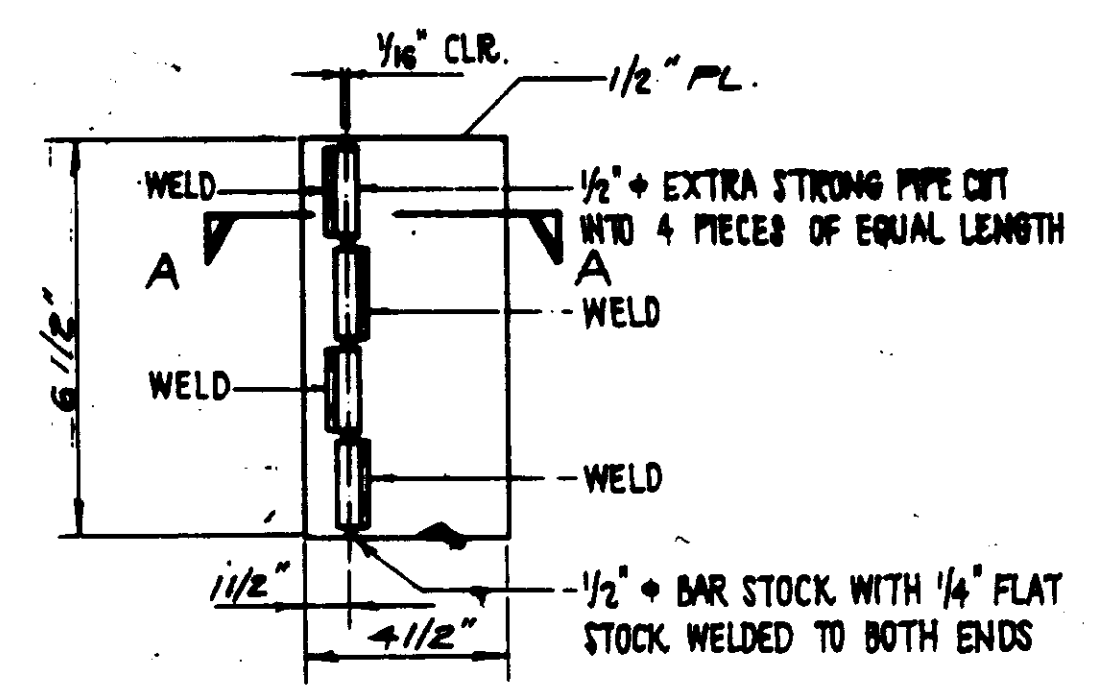
BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA
 SHEET NO. 8
 OF 34 SHEETS

12/9/93	RECORD DRAWING	HEB
7/24/90	ADDENDUM NO. 2	HEB
7/3/90	ISSUED FOR BIDDING	HEB
REV.	DATE	DESCRIPTION

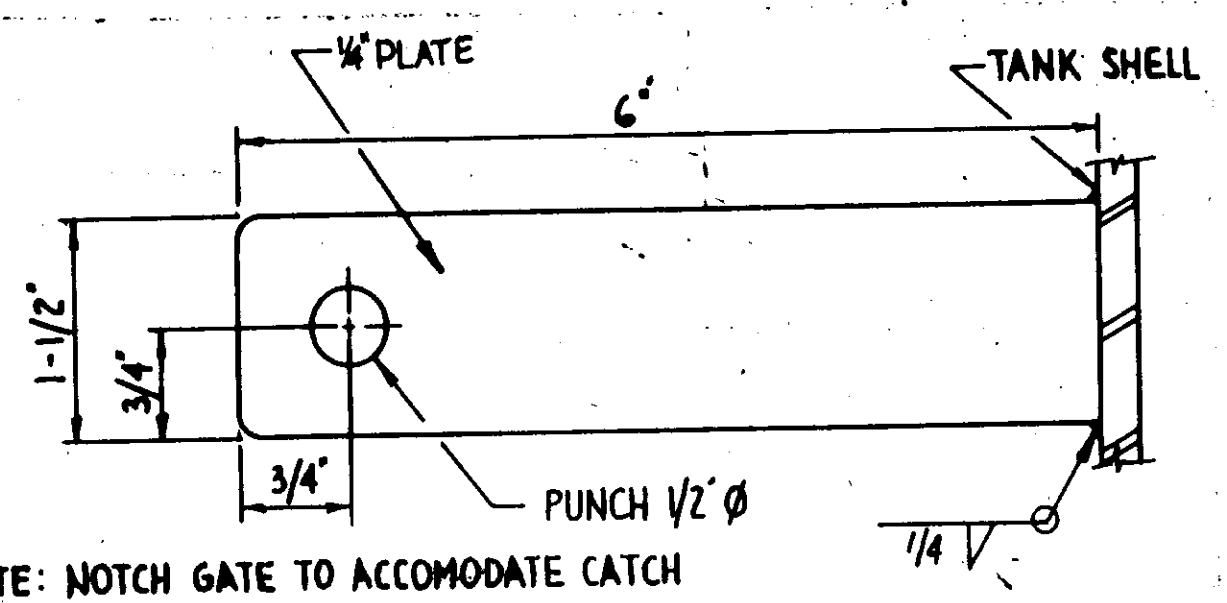




SECTION A-A
N.T.S.

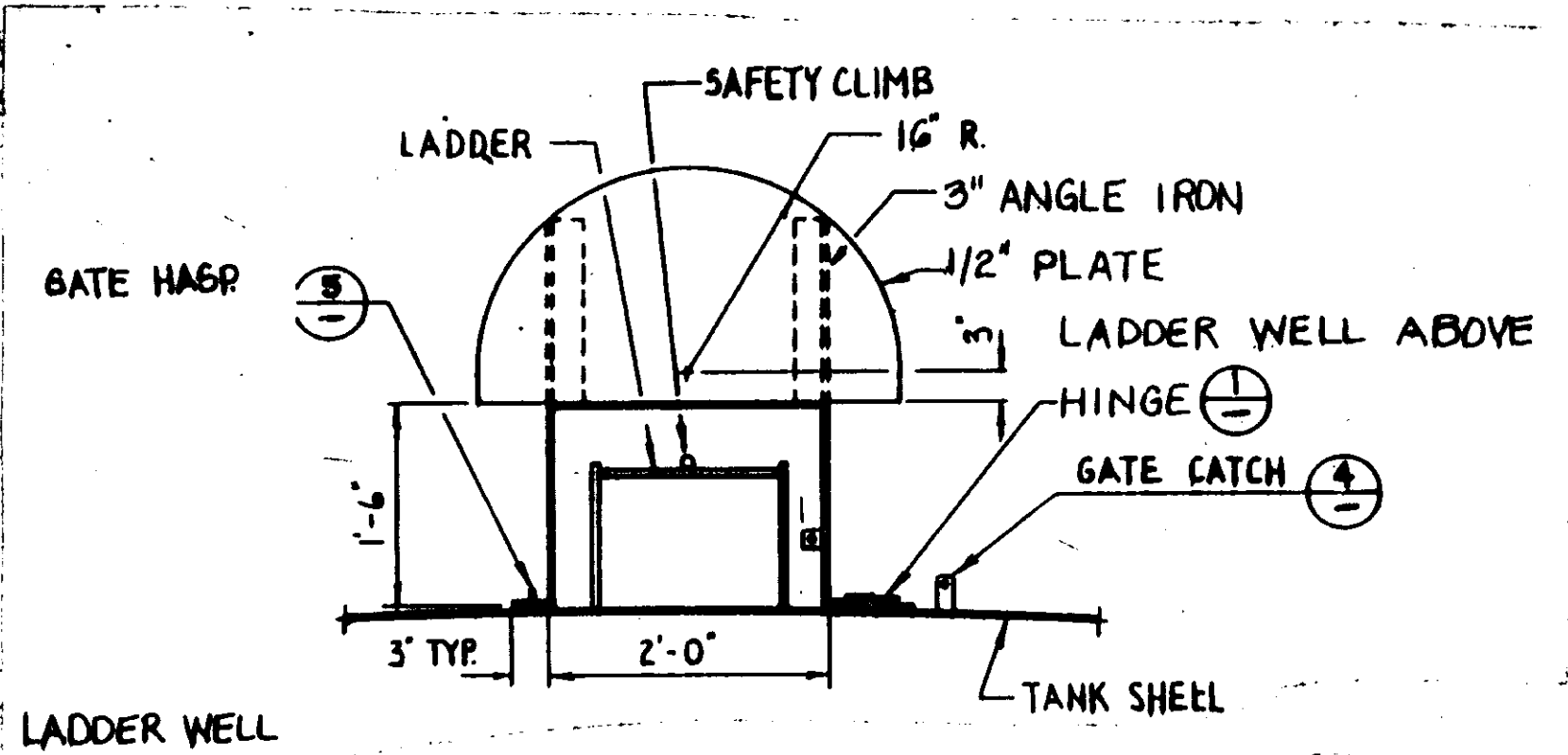


ANTI CLIMB GATE HINGE DETAIL (1)
N.T.S.

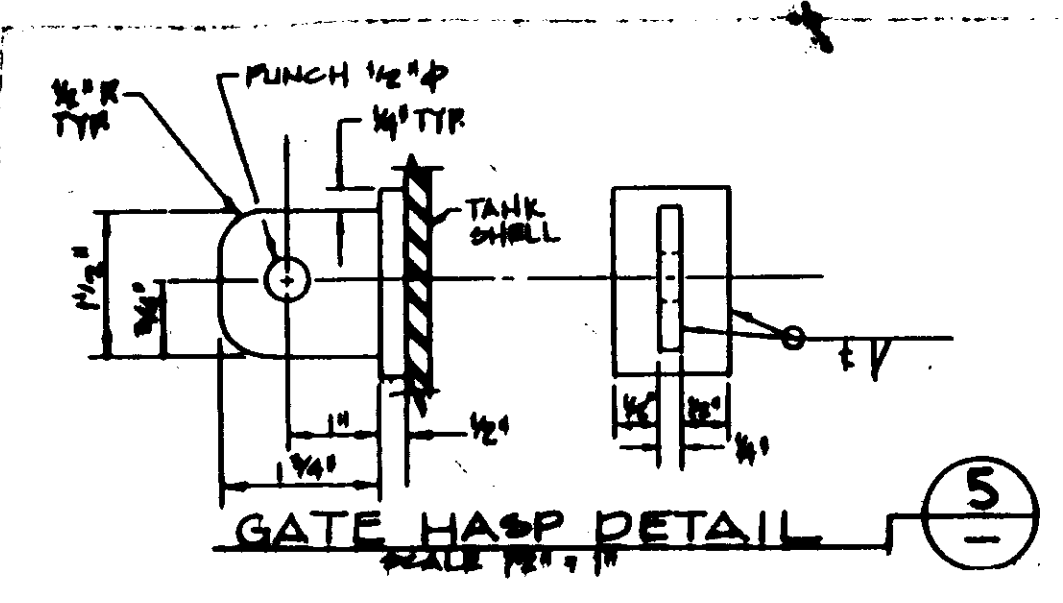


NOTE: NOTCH GATE TO ACCOMMODATE CATCH

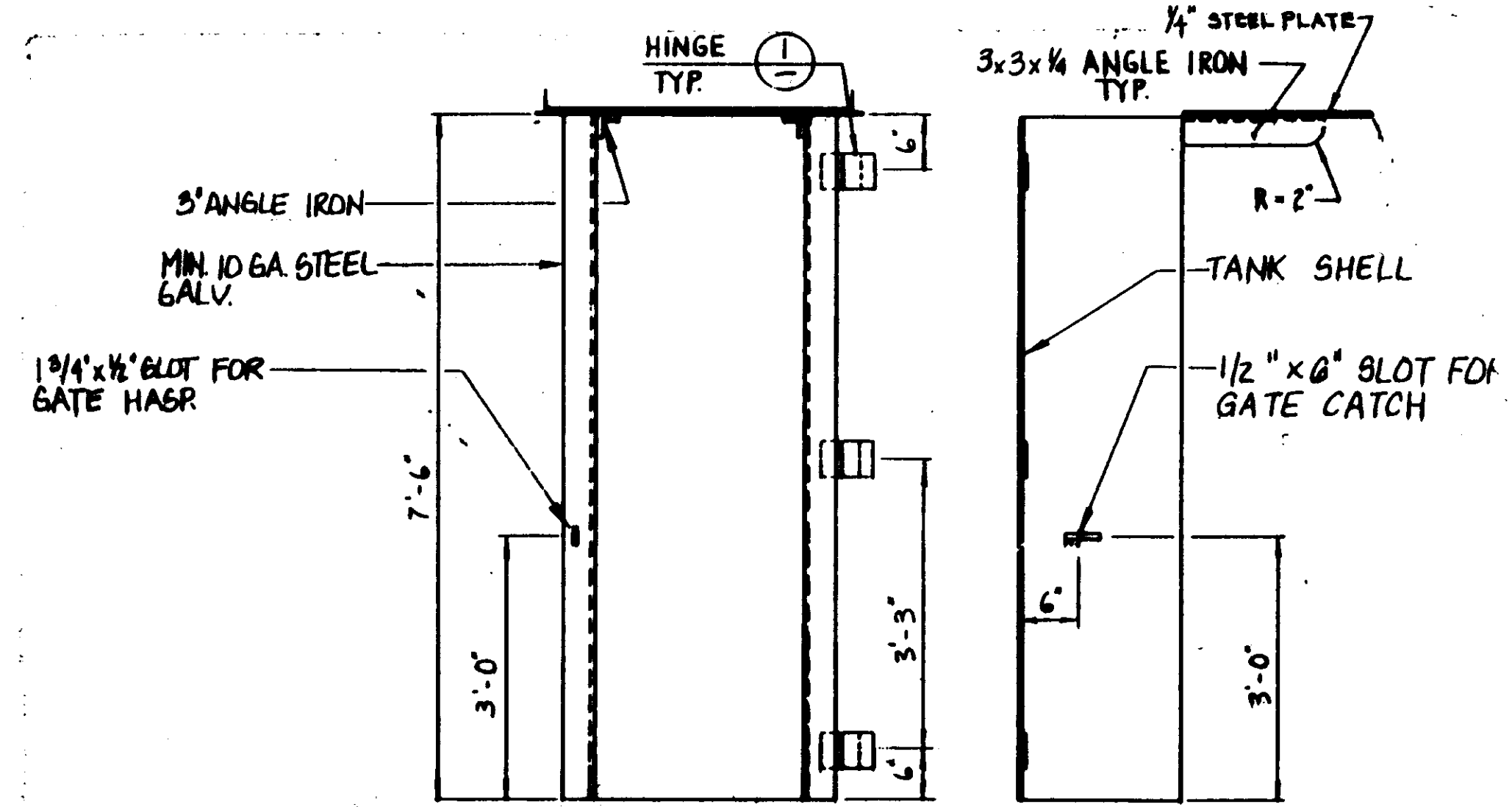
GATE CATCH DETAIL (4)
SCALE: 3/4\"/>



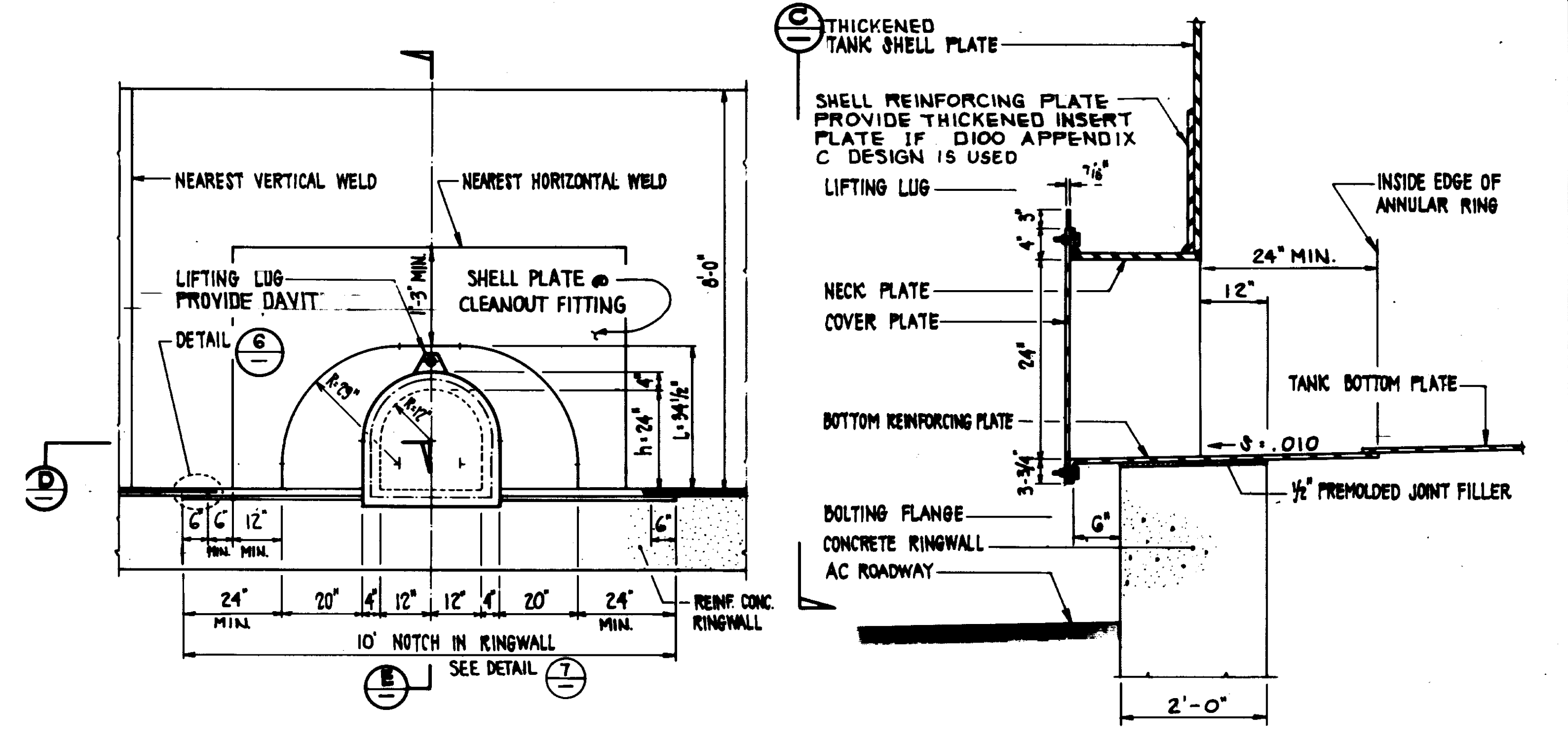
LADDER WELL



GATE HASP DETAIL (5)
SCALE: 1\"/>



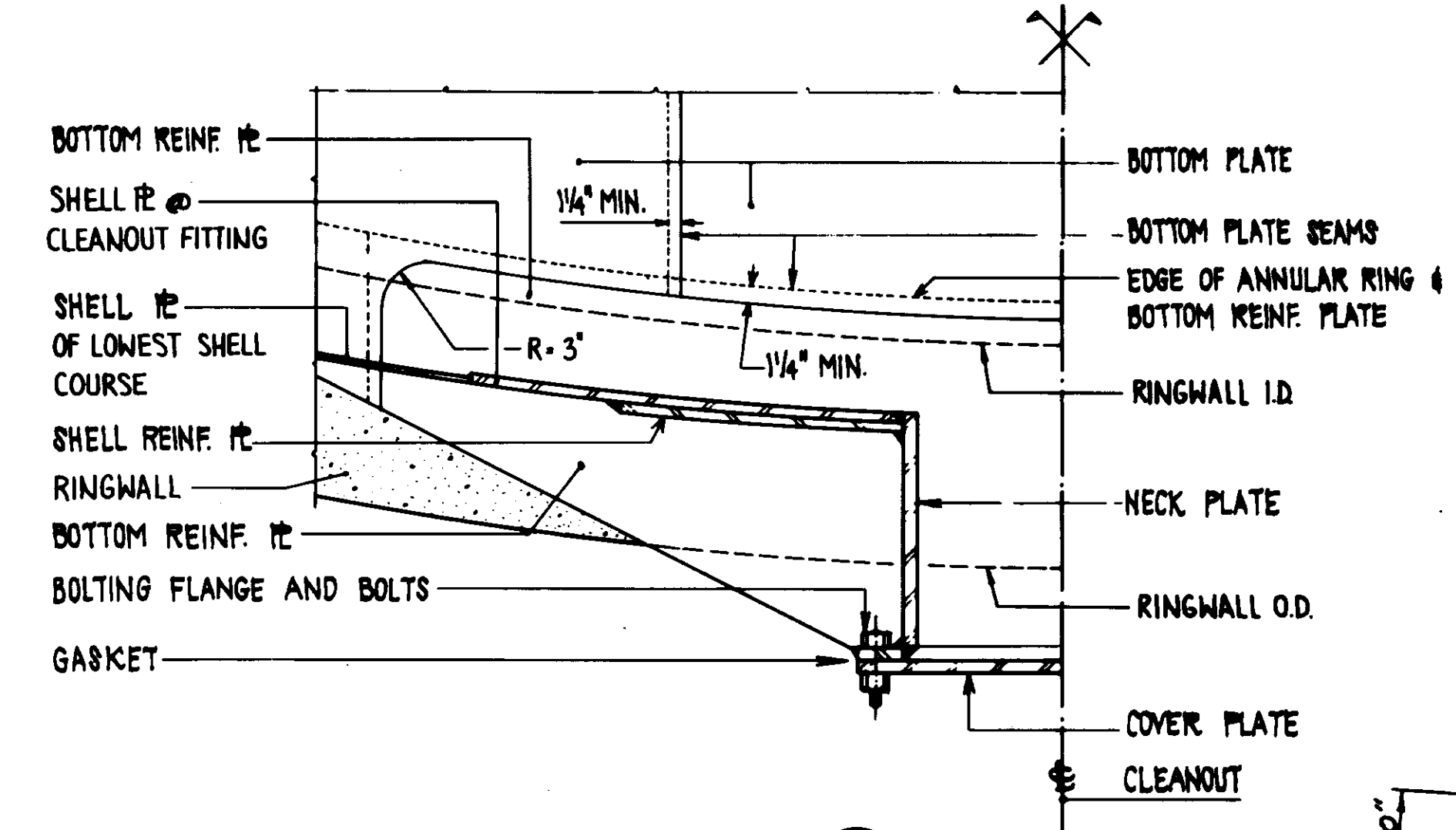
ANTI-CLIMB GATE DETAIL (2)
N.T.S.



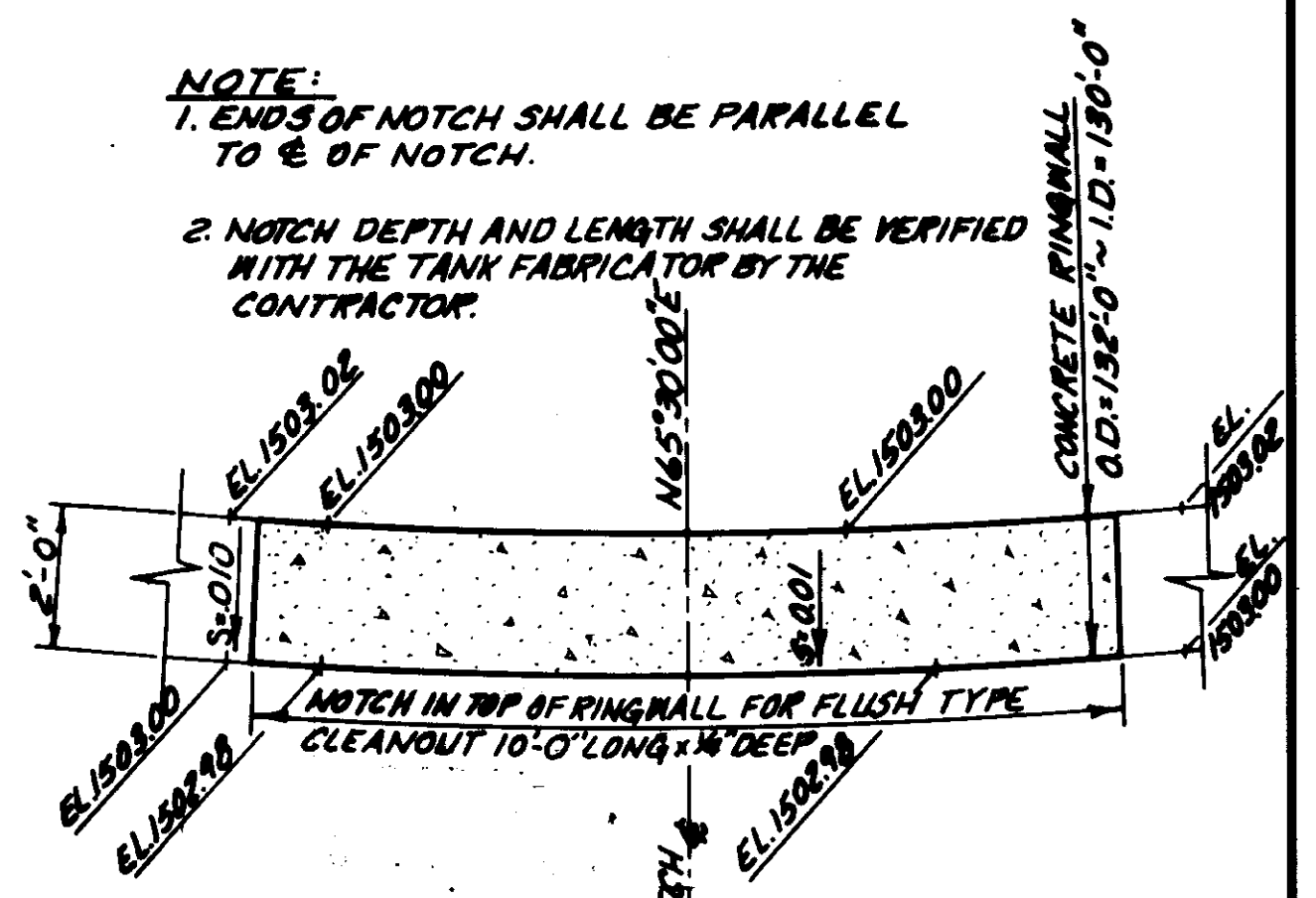
ELEVATION (C)
SCALE: 1/2\"/>

SECTION (E)
SCALE: 1\"/>

1. CLEANOUT SHALL BE IN ACCORDANCE WITH AMERICAN PROTOLEUM INSTITUTE G50

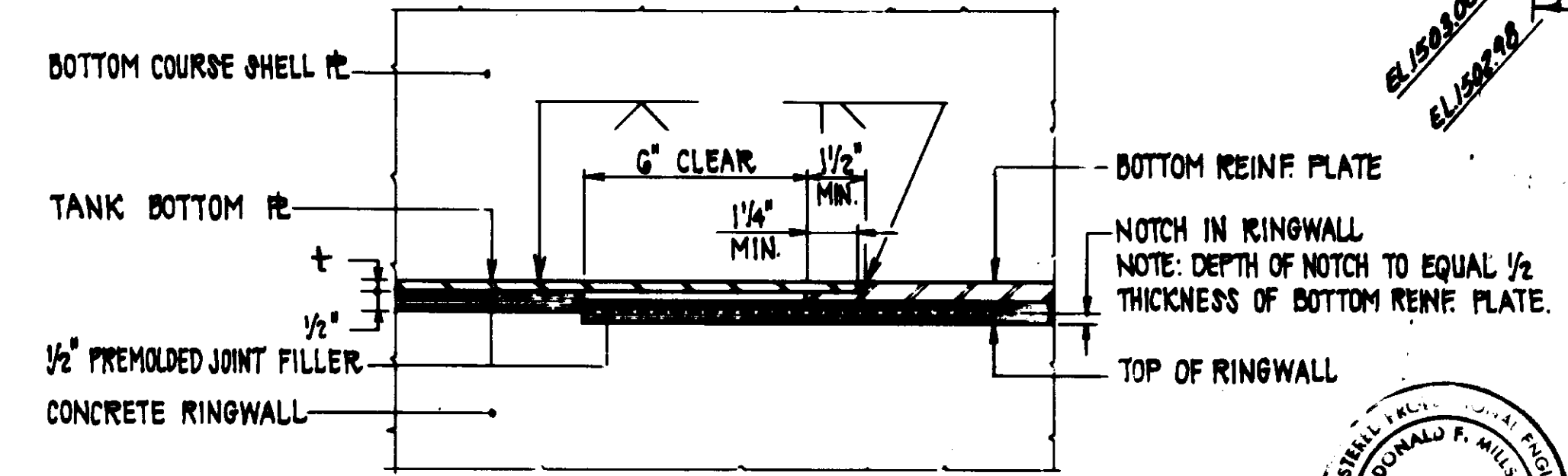


SECTION (D)
N.T.S.



NOTE:
1. ENDS OF NOTCH SHALL BE PARALLEL TO C OF NOTCH.
2. NOTCH DEPTH AND LENGTH SHALL BE VERIFIED WITH THE TANK FABRICATOR BY THE CONTRACTOR.

RINGWALL NOTCH DETAIL (7)
SCALE: 1/2\"/>



DETAIL (6)
SCALE: 3\"/>

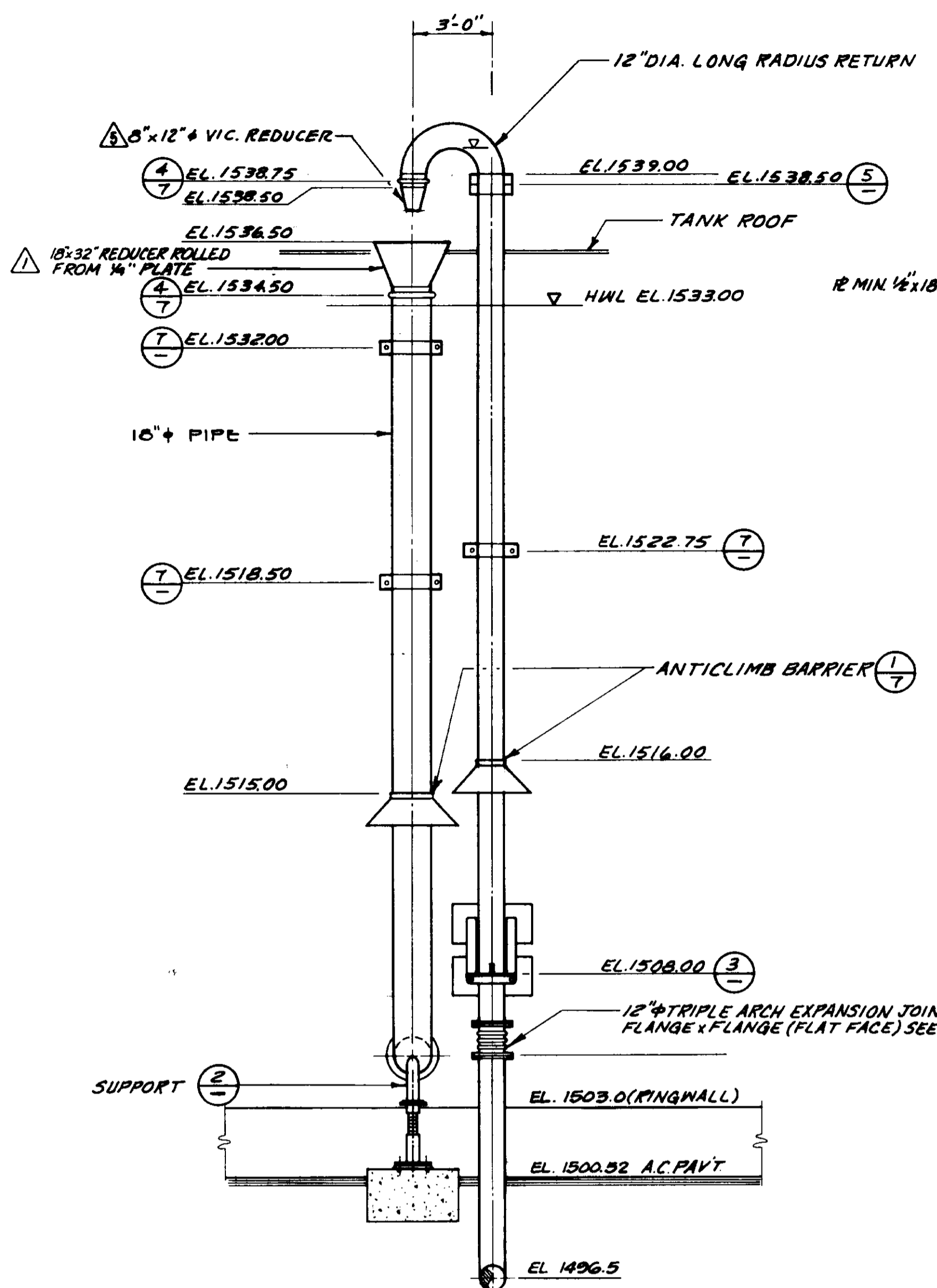
TANK FLUSH-TYPE CLEANOUT DETAILS
SCALES AS SHOWN

RECORD DRAWING
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CON'T. INS. _____ DATE _____
DRAFTED BY AS.P. CHECKED BY DEC.
PROJ. ENGR. DEC. AGENCY DEC.

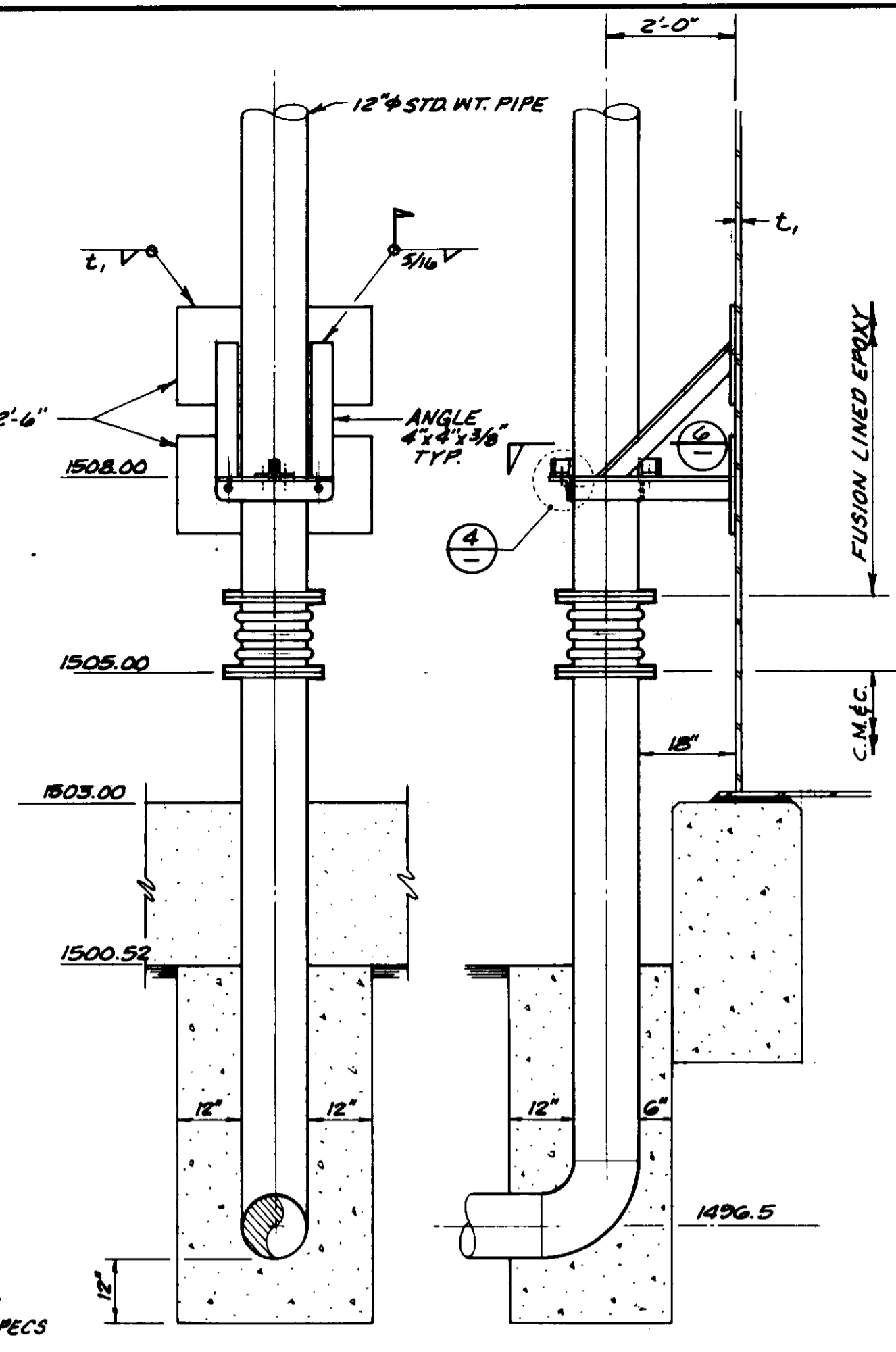


LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
TANK DETAIL
05540
SOYLE ENGINEERING CORPORATION
consulting engineers / architects
VENTURA, CA.
DESIGN: Donald F. Mills CHECKED: AS.P. DATE: 6-25-99
DRAWN: D.P.J. DRAWING NO. 17-102-203-11 SHEET NO. 9
REV. DATE DESCRIPTION APP. 7-3-90 ISSUED FOR BIDDING HES

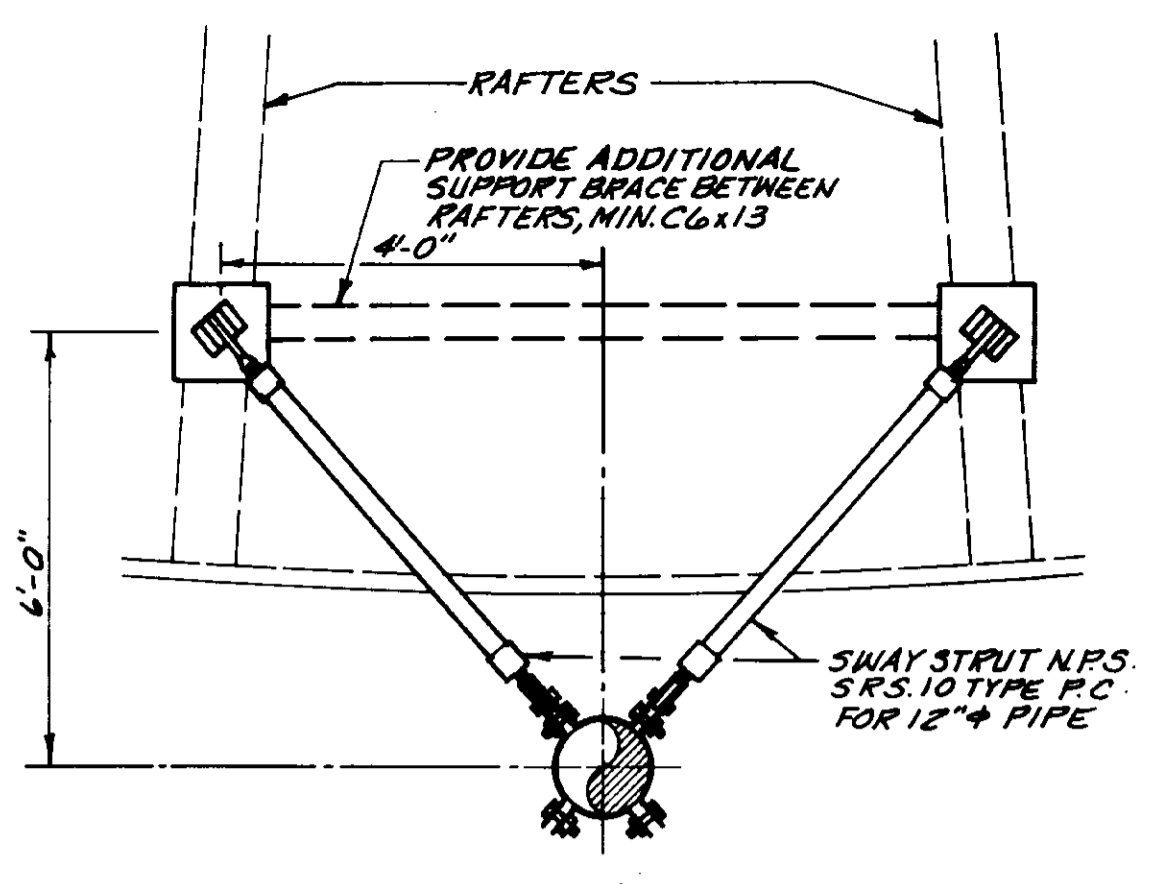
7-3-90	ISSUED FOR BIDDING	HES



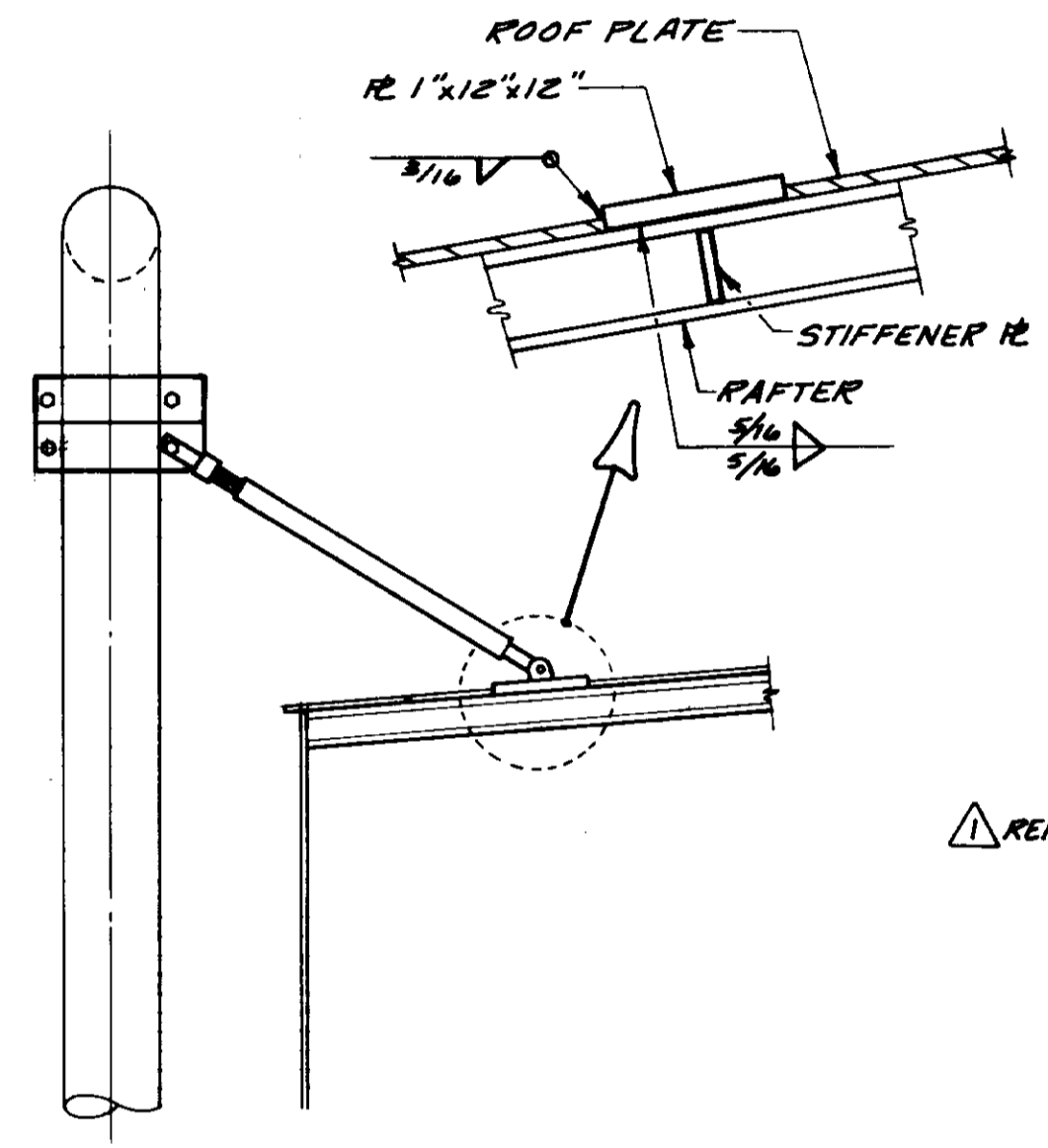
POTABLE WATER AIR GAP ELEVATION (1)
SCALE: 1/4" = 1'-0"



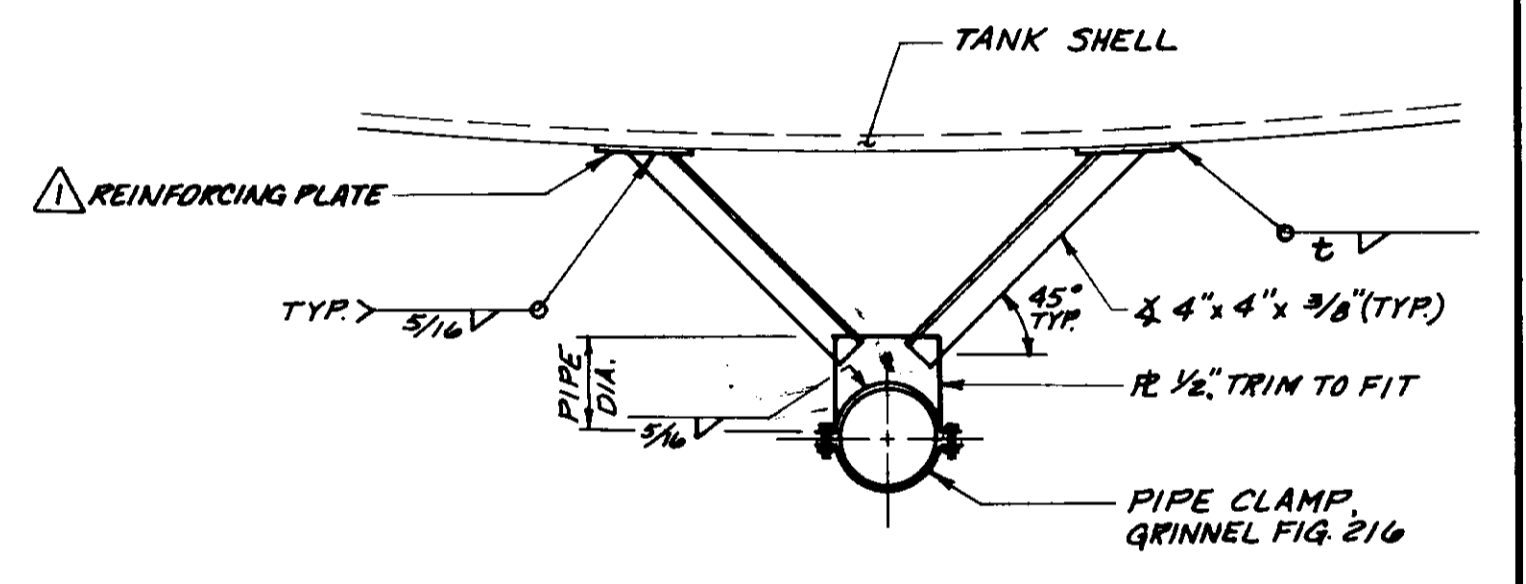
POTABLE WATER SUPPORT DETAIL (3)
SCALE: 1/2" = 1'-0"



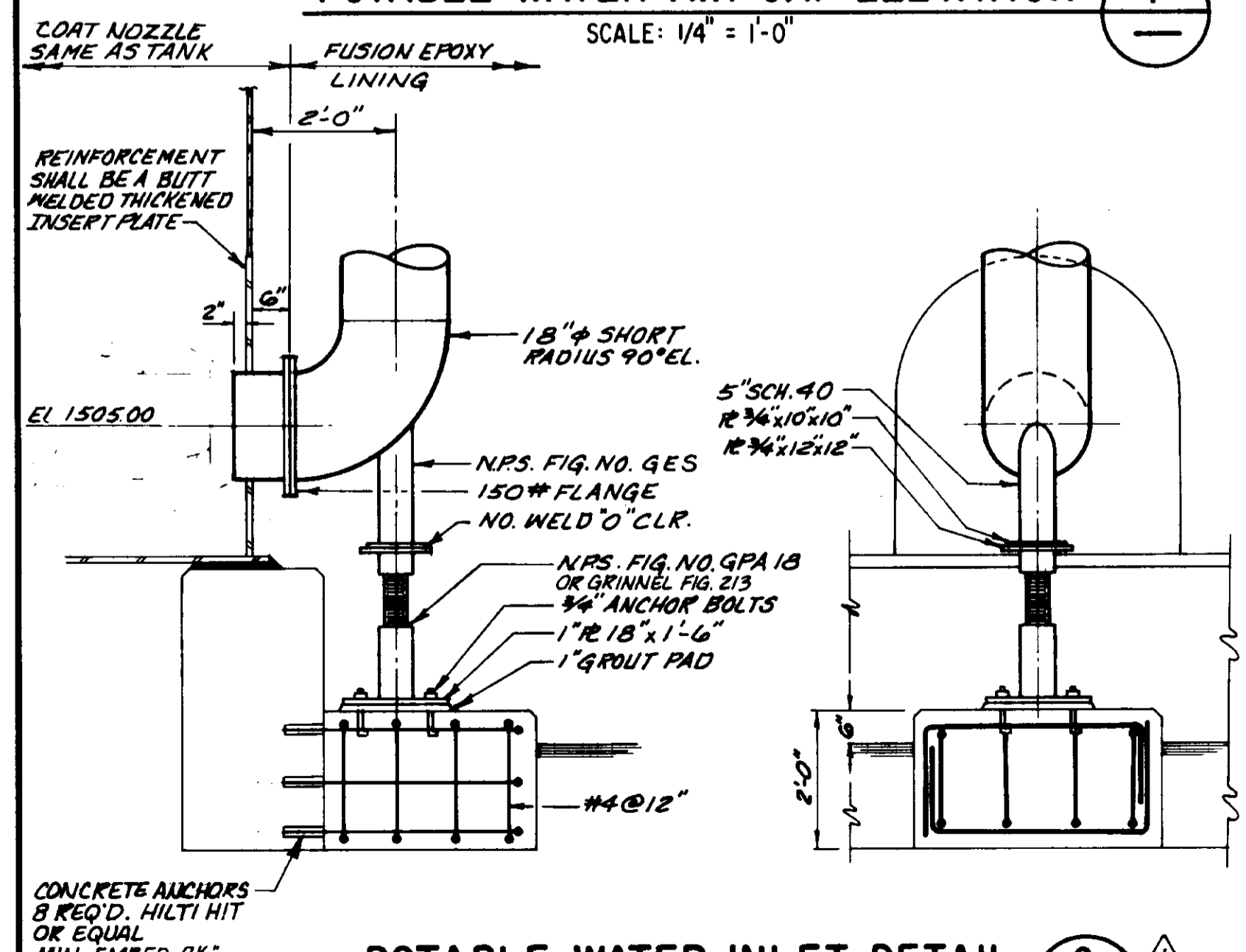
PLAN (5)



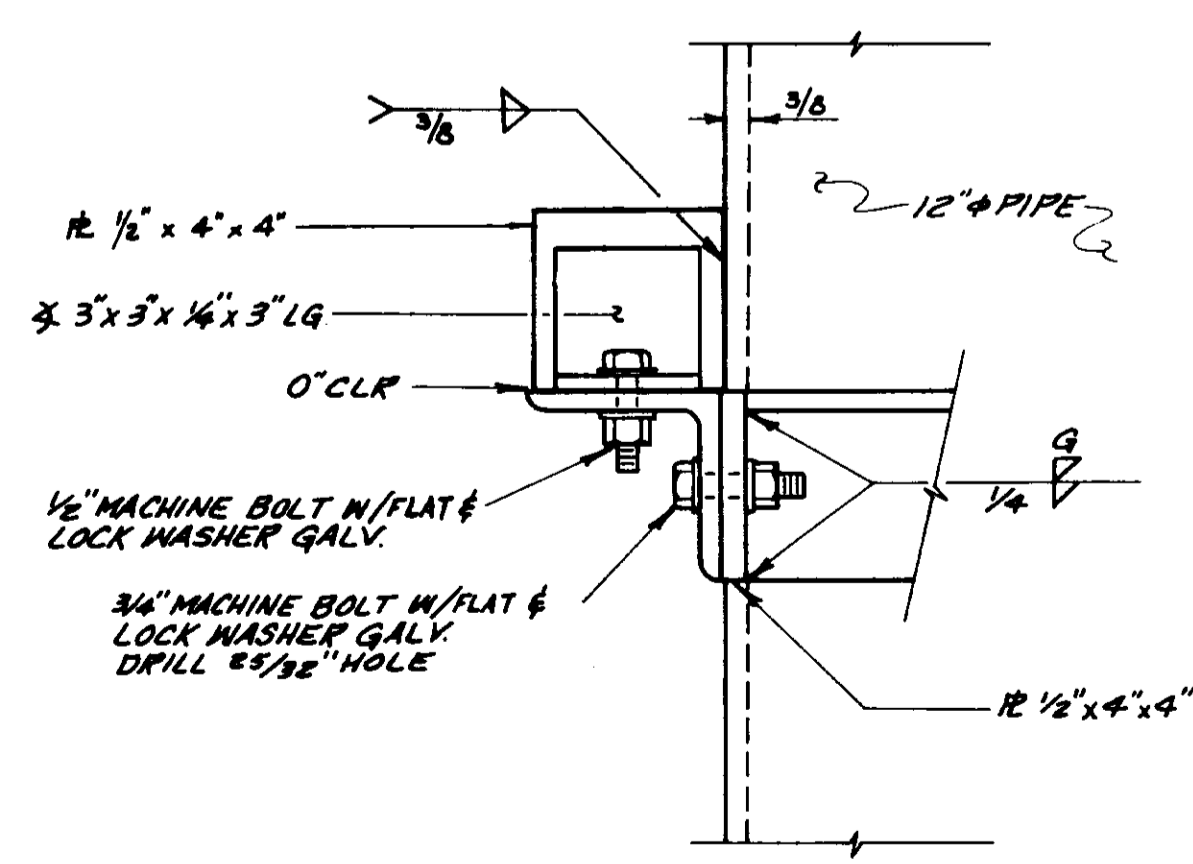
ELEVATION (5)



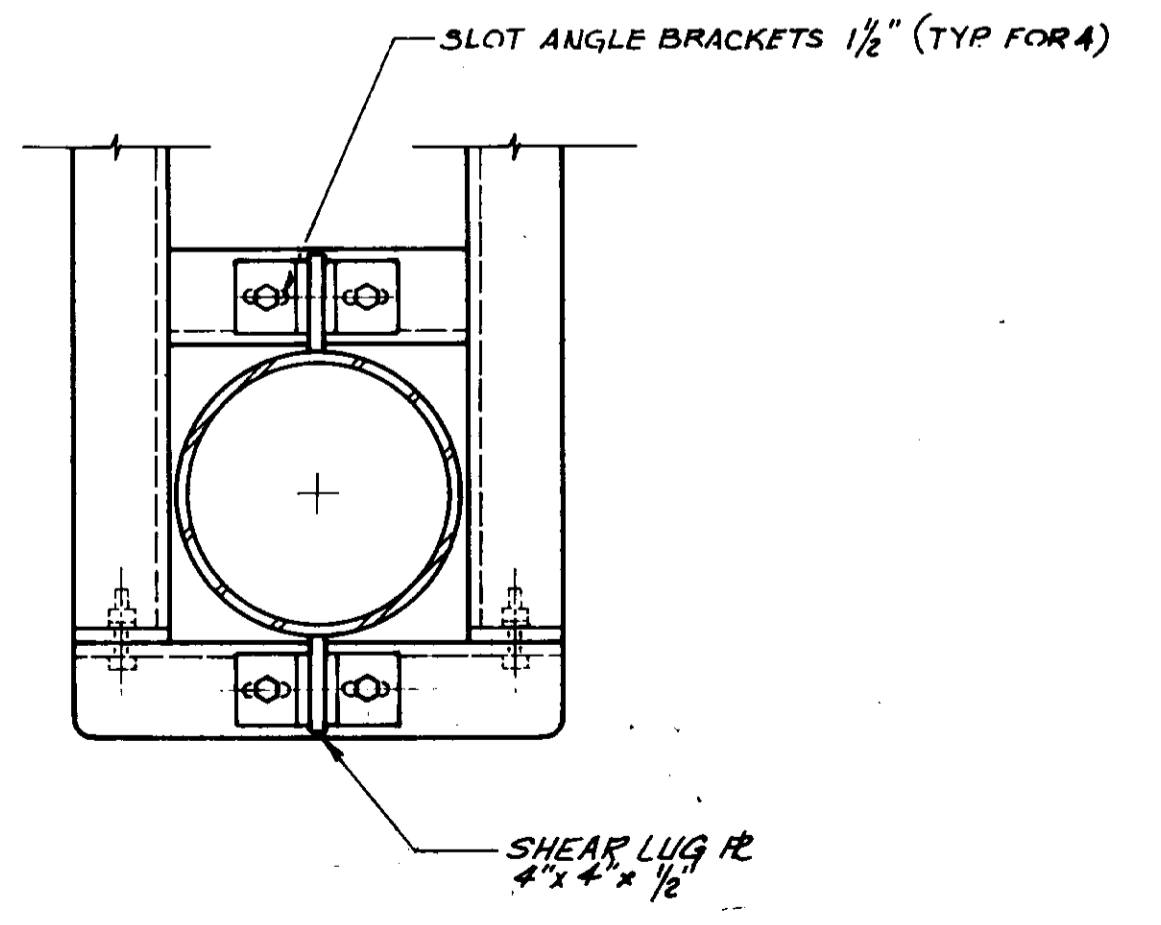
PIPE SUPPORT DETAIL (7)
NOT TO SCALE



POTABLE WATER INLET DETAIL (2)
SCALE: 1/2" = 1'-0"



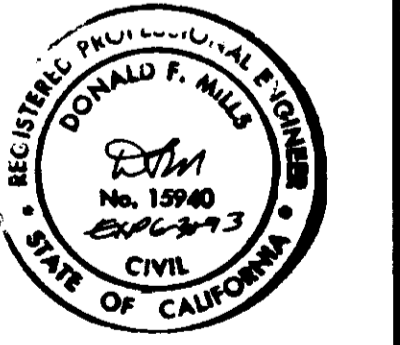
DETAIL (4)
SCALE: 1/4" = 1'-0"



DETAIL (6)
SCALE: 1/8" = 1'-0"

- NOTES**
1. ALL PIPE IS STD. WT. STL.
 2. NO FIELD WELDING WILL BE PERMITTED ON FUSION EPOXY LINED PIPE.
 3. ALL TANK SHELL REINFORCING PADS SHALL BE ROLLED TO MATCH TANK DIAMETER.
 4. ALL AREAS MADE INACCESSIBLE BY SUPPORT HARDWARE SHALL BE COATED PRIOR TO ERECTION.

RECORD DRAWING
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CONTRACT NO. DATE PROJECT LOCATION
DRAFTED BY: ASP DATE: 11/19/93
PROJ. E. GR. AGENCY DATE: 11/19/93



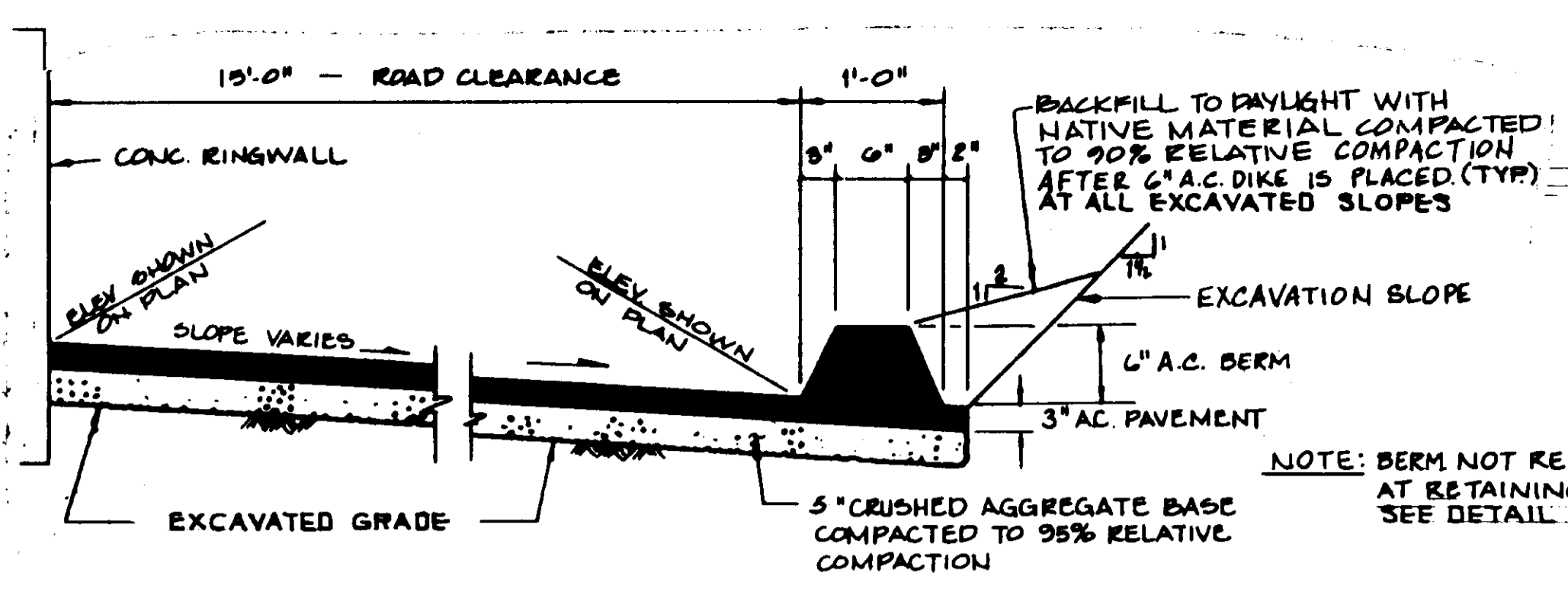
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
TANK DETAILS

BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA.

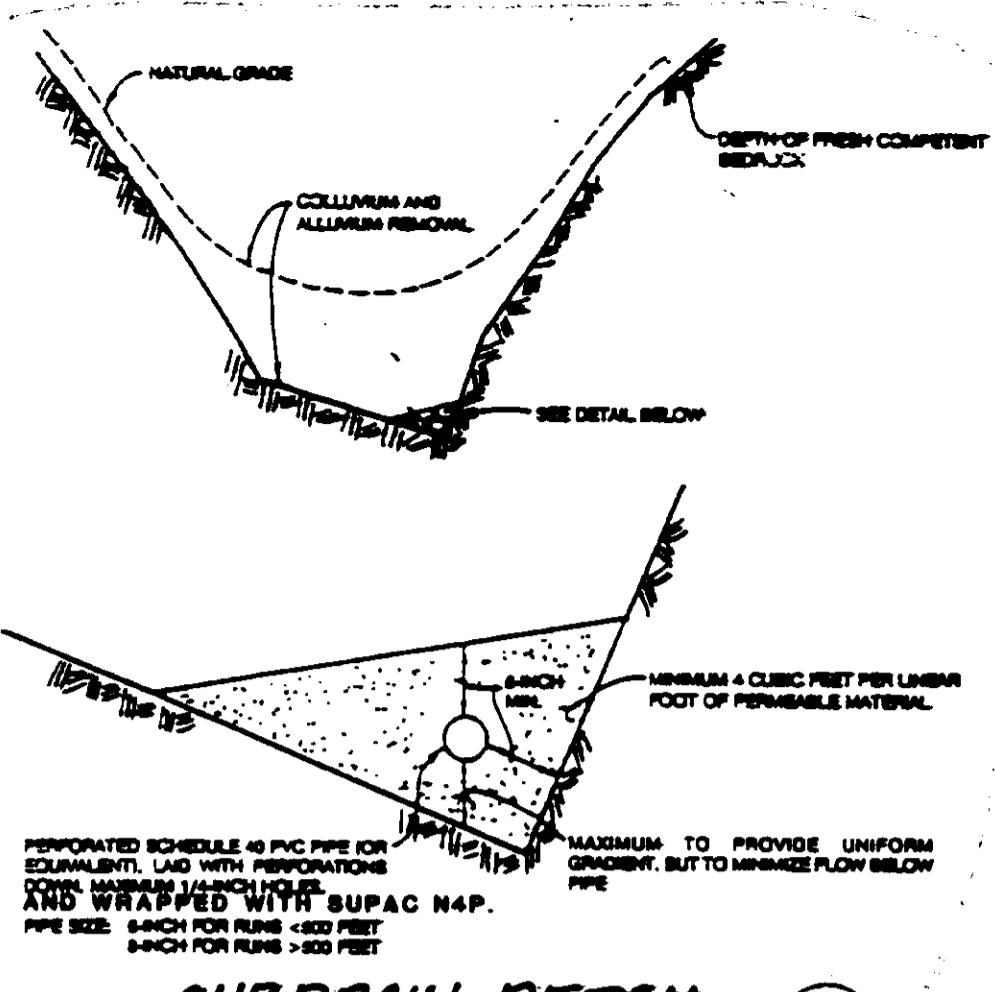
DESIGN: P.A.B. DRAWN: J.R.G. CHECKED: MEB. DATE: 6-25-90
C.A. NO. VT-L02-52911 S-229 DRAWING NO. 10 OF 34 SHEETS

12/9/93	RECORD DRAWING	
7-23-90	ADDENDUM NO. 1 REVISED DETAIL 1,2,3,4,7	MEB
7-3-90	ISSUED FOR BIDDING	MEB
REV.	DATE	DESCRIPTION

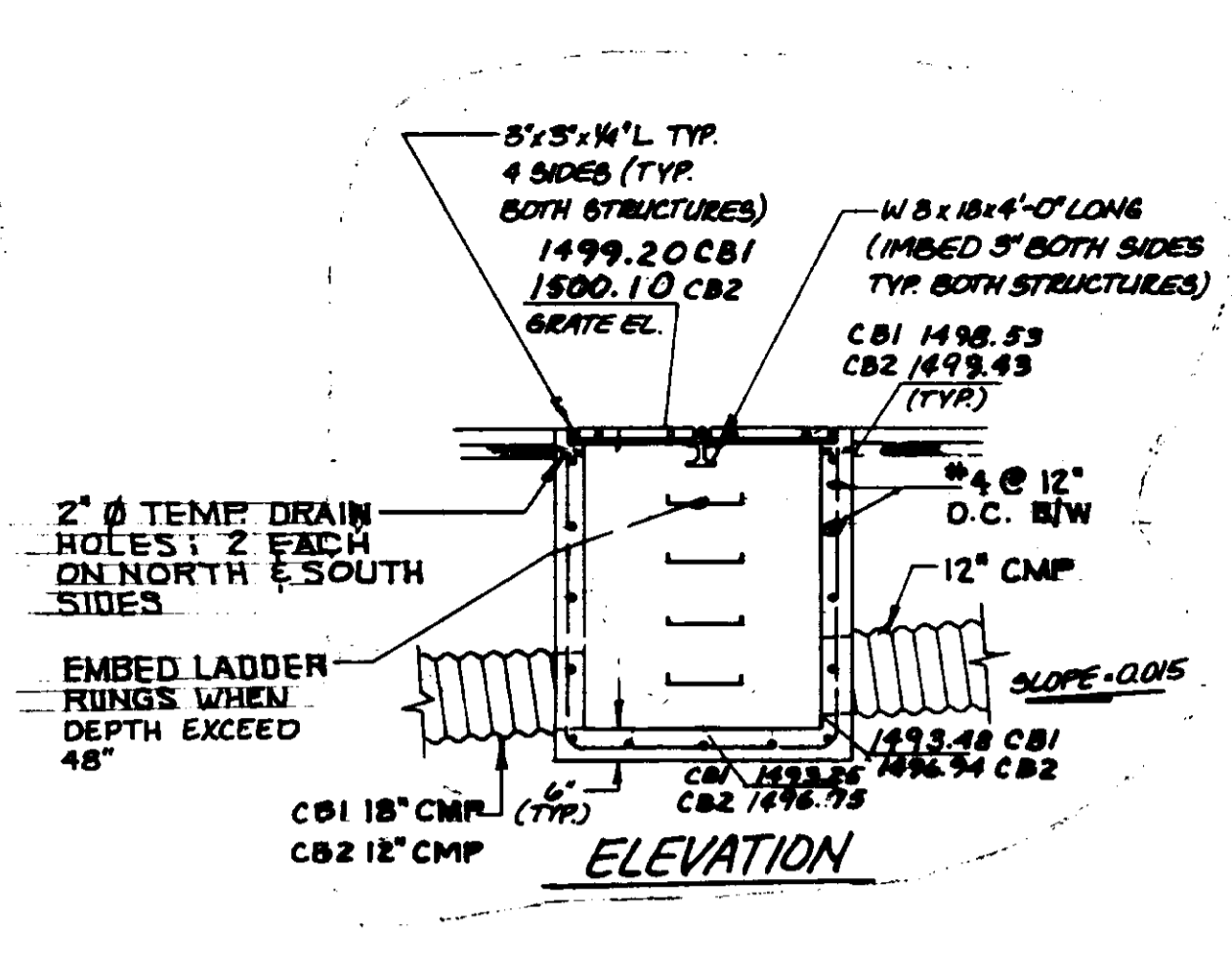
05541



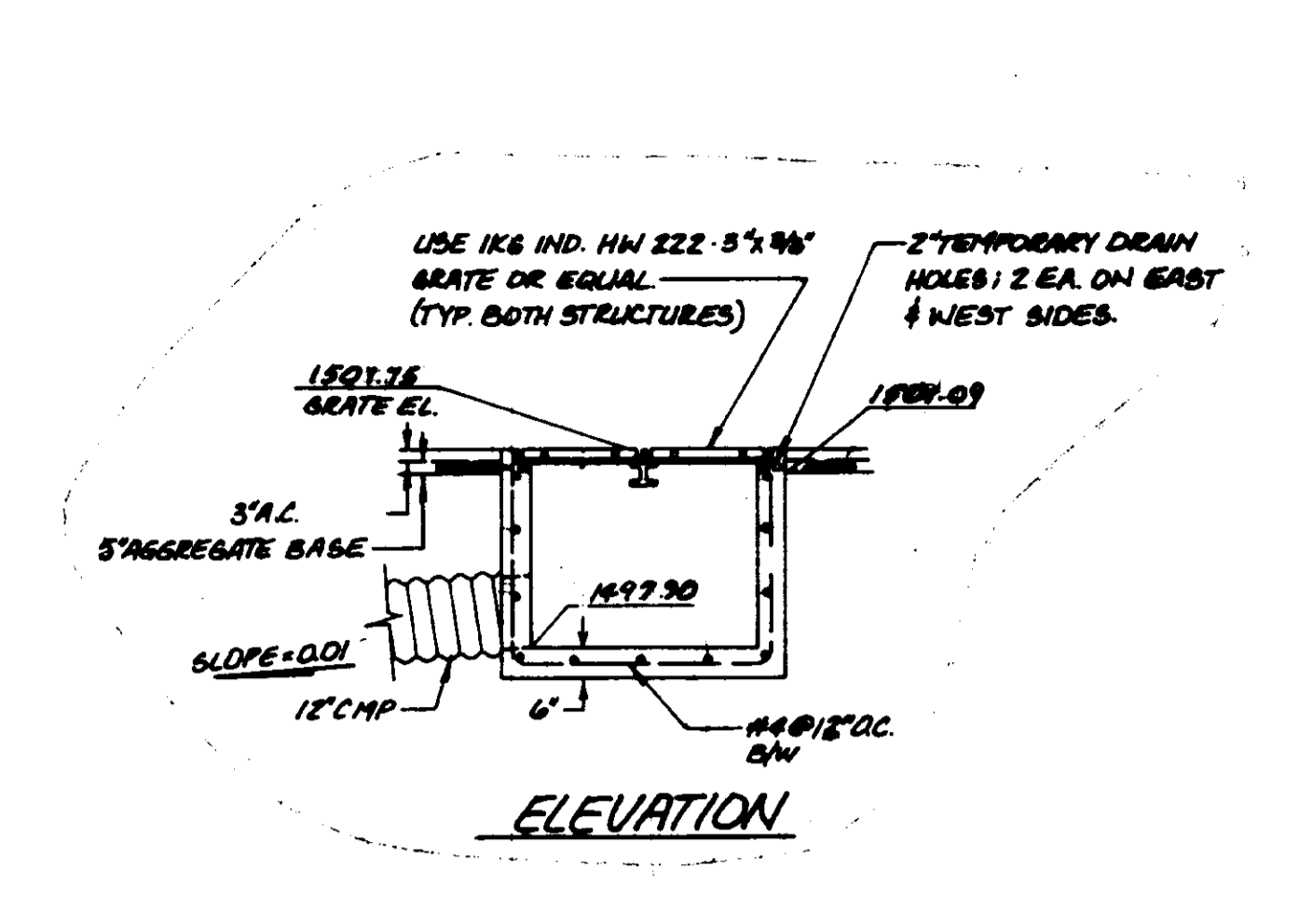
TYPICAL SECTION - PERIMETER ROAD PAVING
SCALE: 1" = 1'-0"



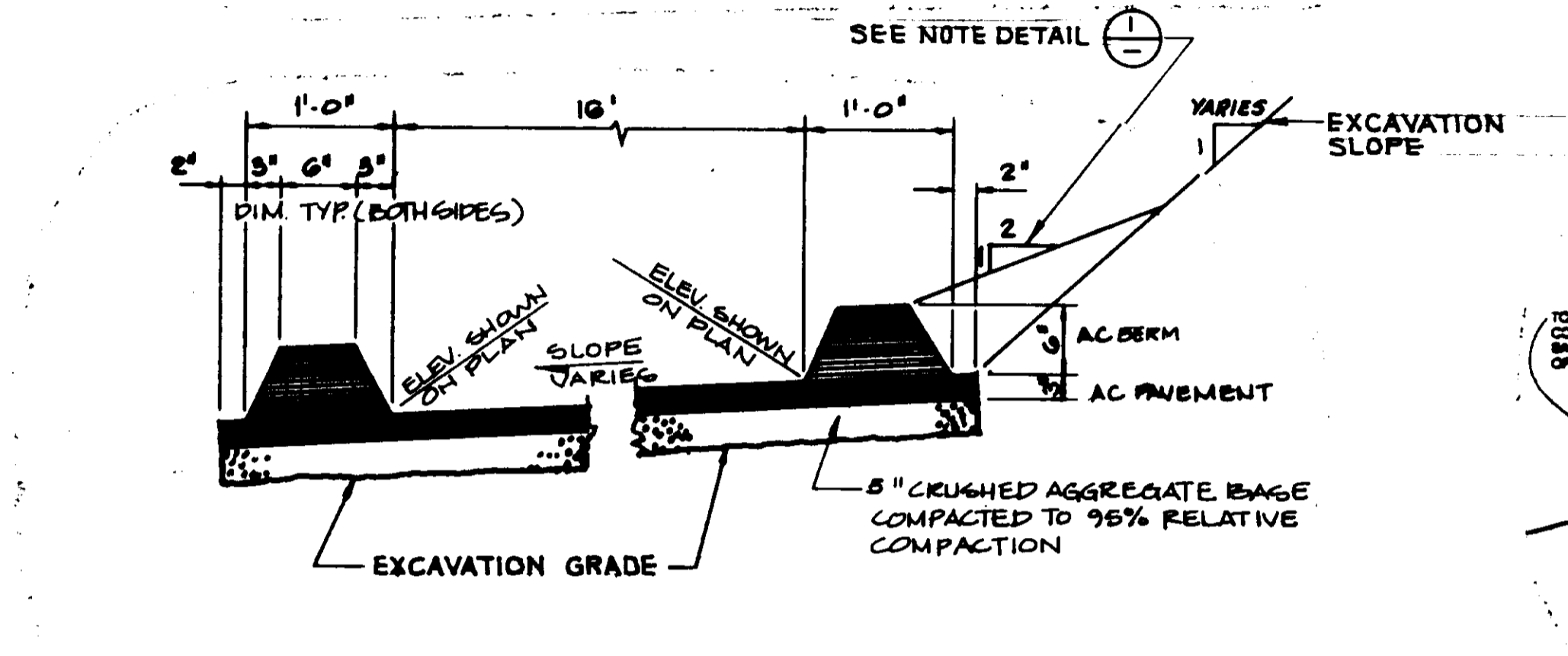
SUBDRAIN DETAIL
N.T.S.



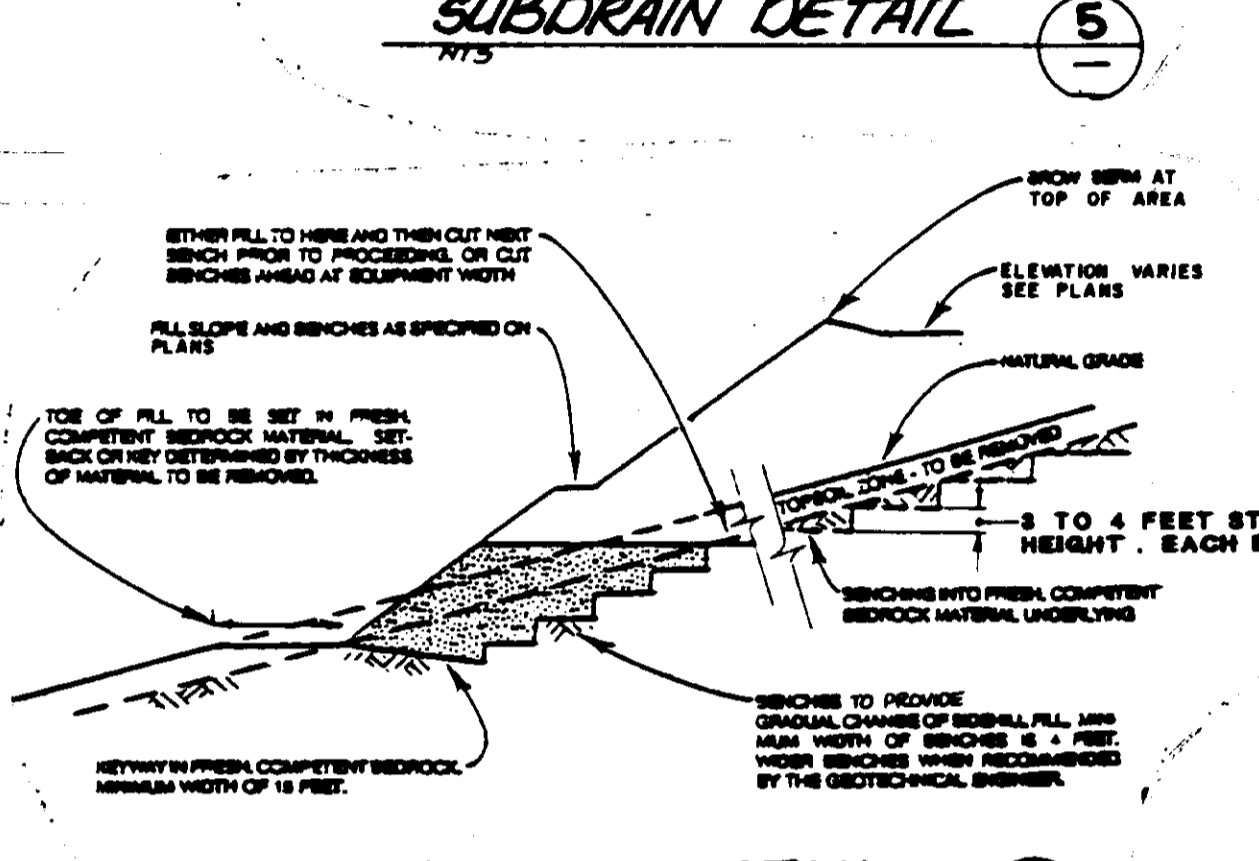
CATCH BASIN NO. 1 & 2
N.T.S.



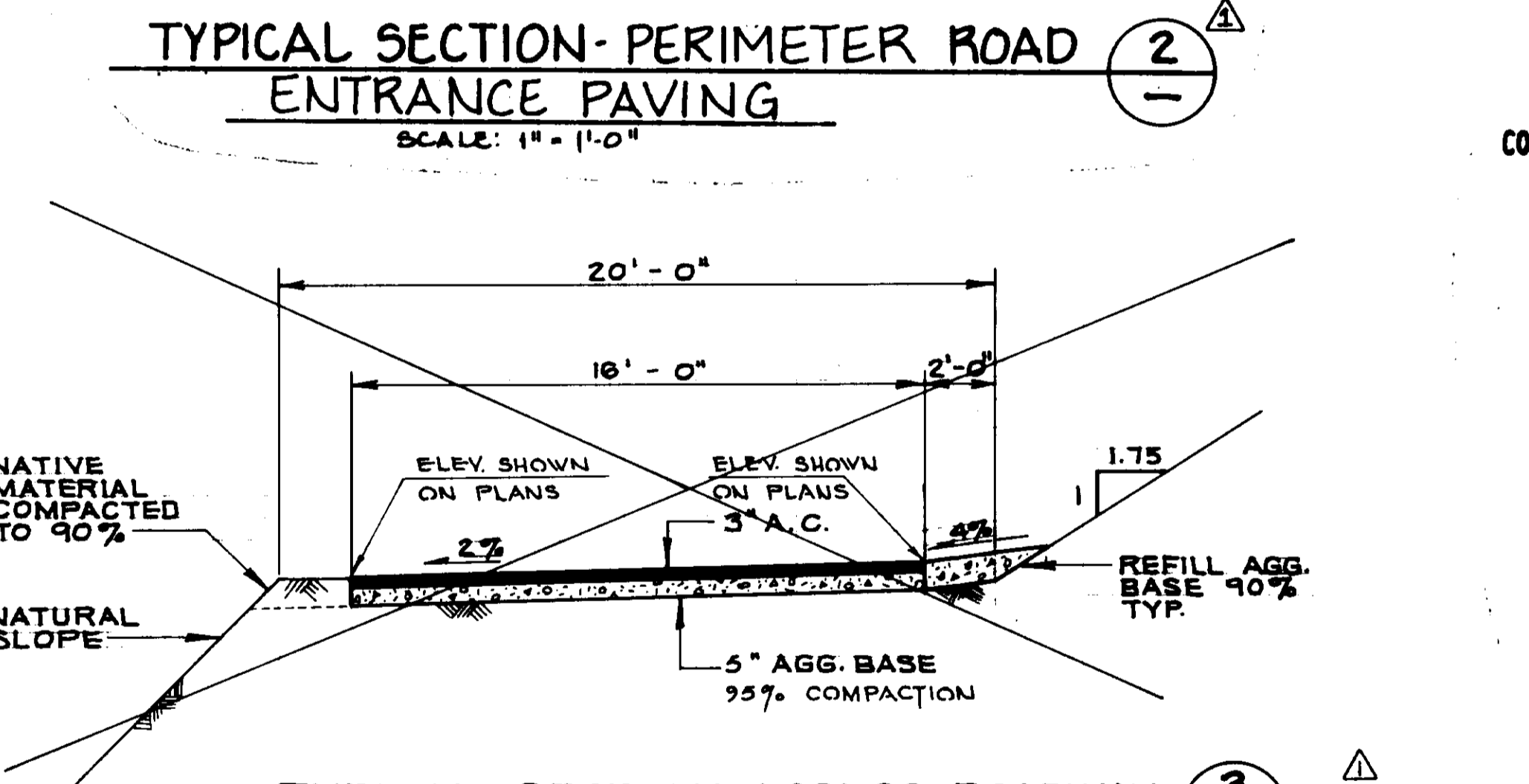
CATCH BASIN NO. 3
N.T.S.



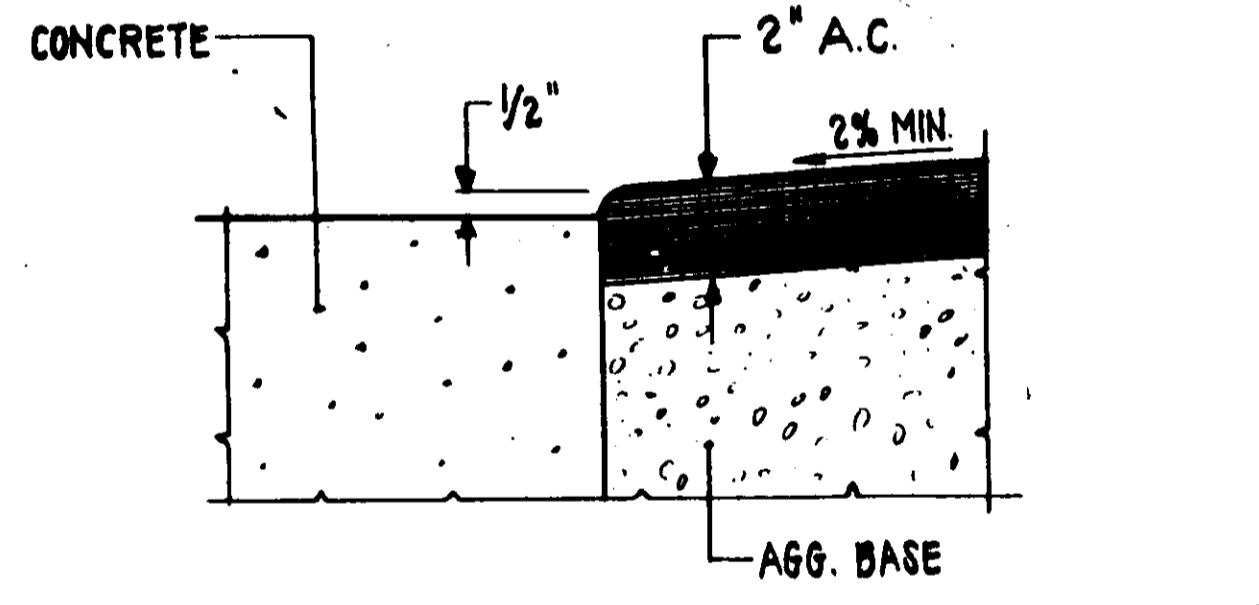
TYPICAL SECTION - PERIMETER ROAD ENTRANCE PAVING
SCALE: 1" = 1'-0"



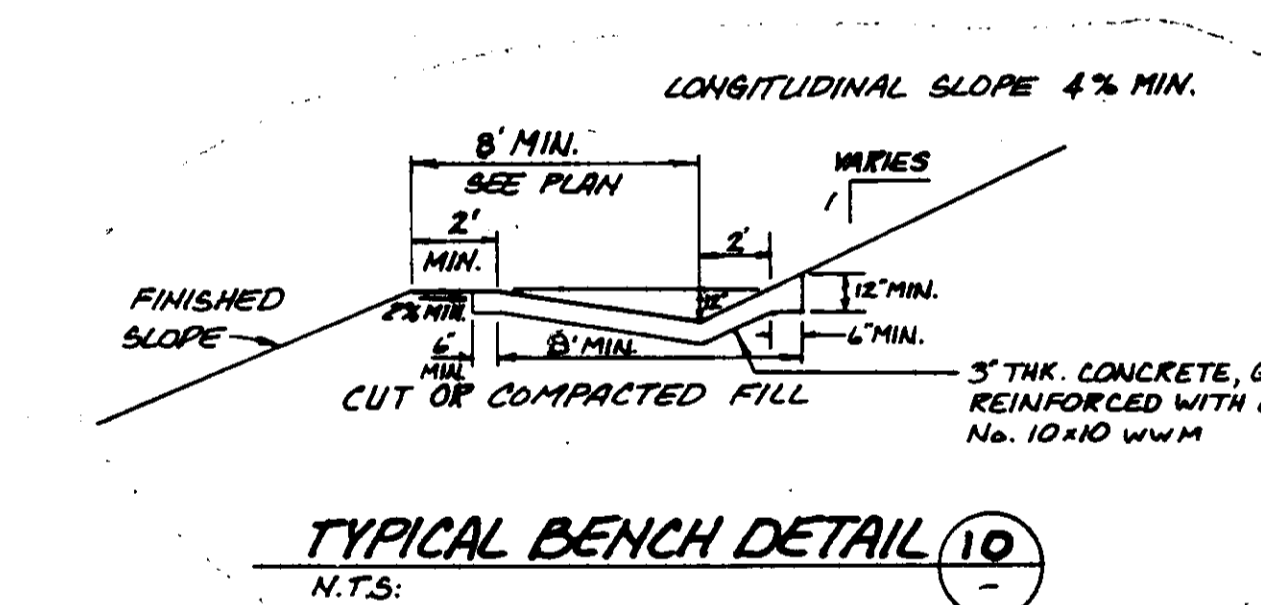
TYPICAL FILL DETAIL
N.T.S.



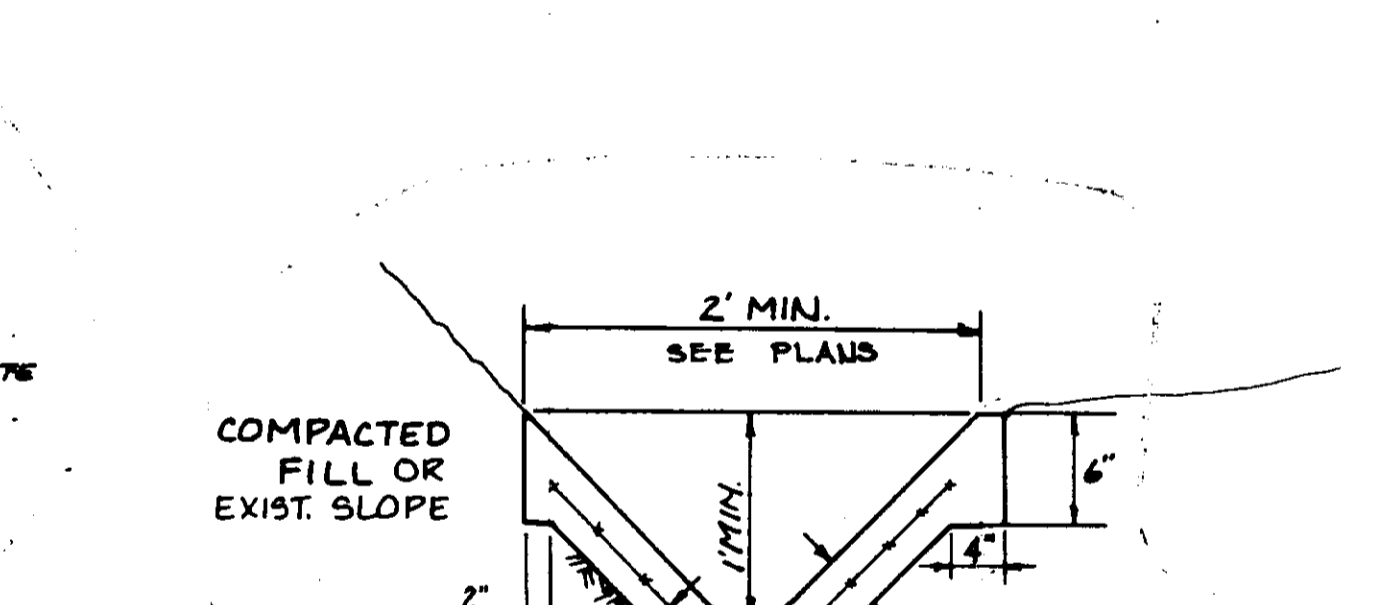
TYPICAL SECTION ACCESS ROADWAY
SCALE: 1" = 4'-0"



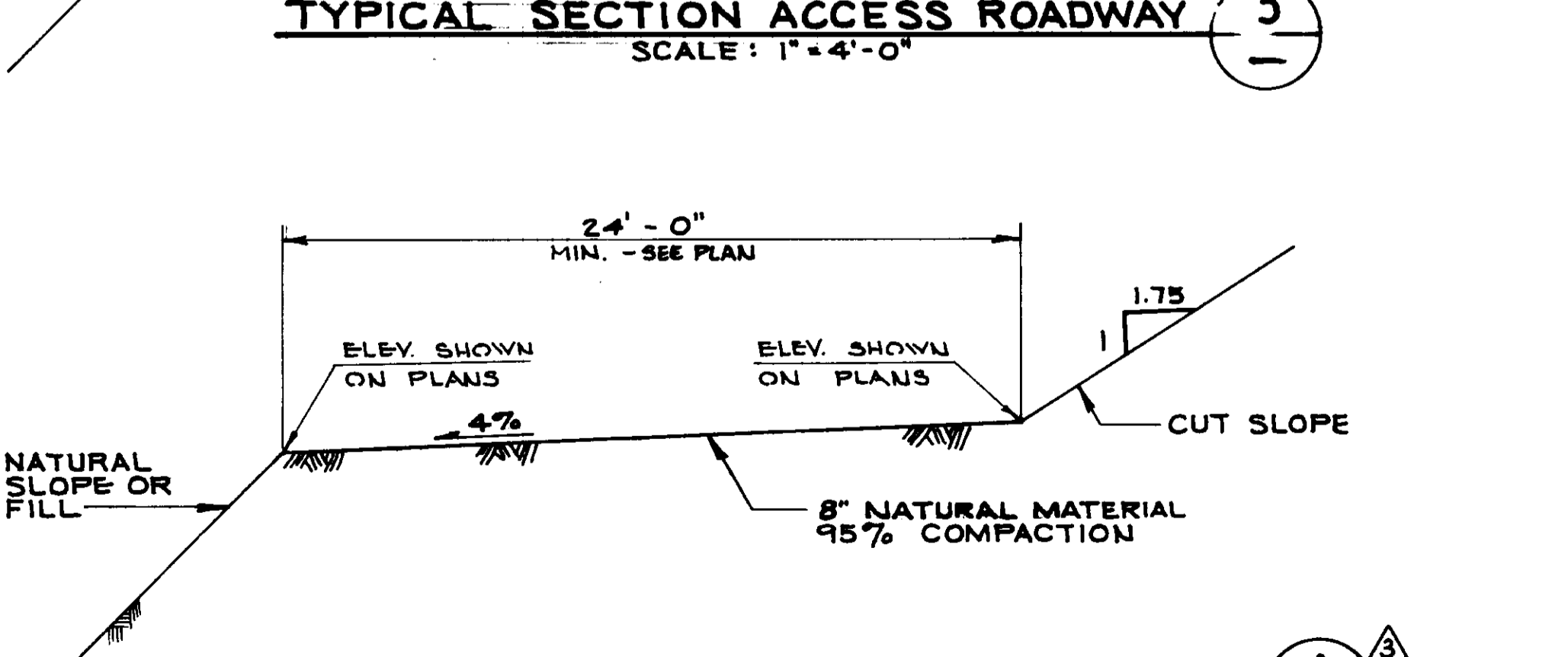
TYPICAL JOINING OF A.C. PAVEMENT & CONCRETE
SCALE: 1" = 3"



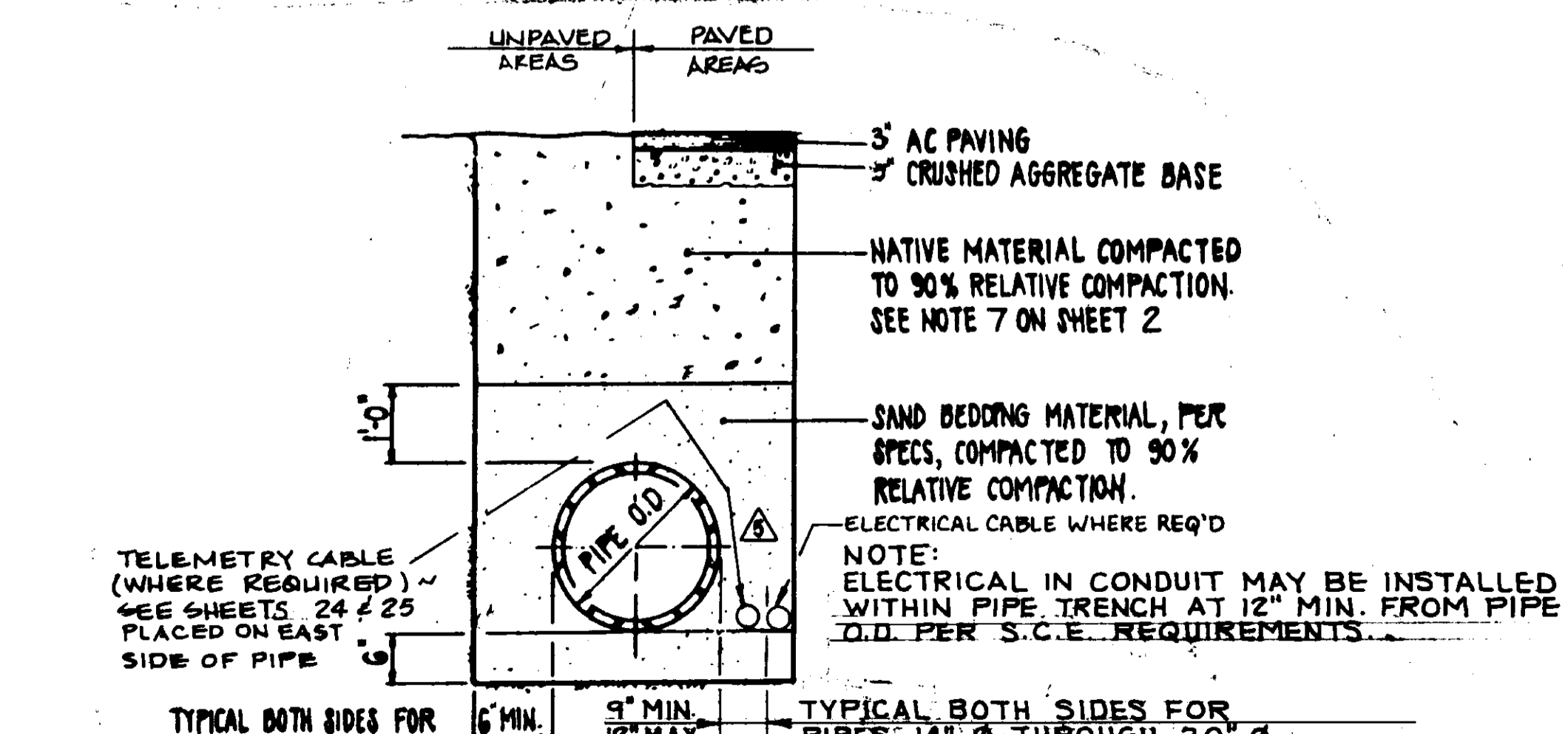
TYPICAL BENCH DETAIL
N.T.S.



V-DITCH TYP. SECTION
N.T.S.



TYPICAL ACCESS ROAD UNPAVED AREAS
SCALE: 1" = 4'-0" WITH CROSS SLOPE



TRENCH BACKFILL IN PAVED/UNPAVED AREAS
SCALE: NONE

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CON'TS: [] DATE: 12/17/93
DRAFT BY: [] DATE: 12/17/93
PROJ. ENGR. [] AGENCY: [] DATE: 12/17/93

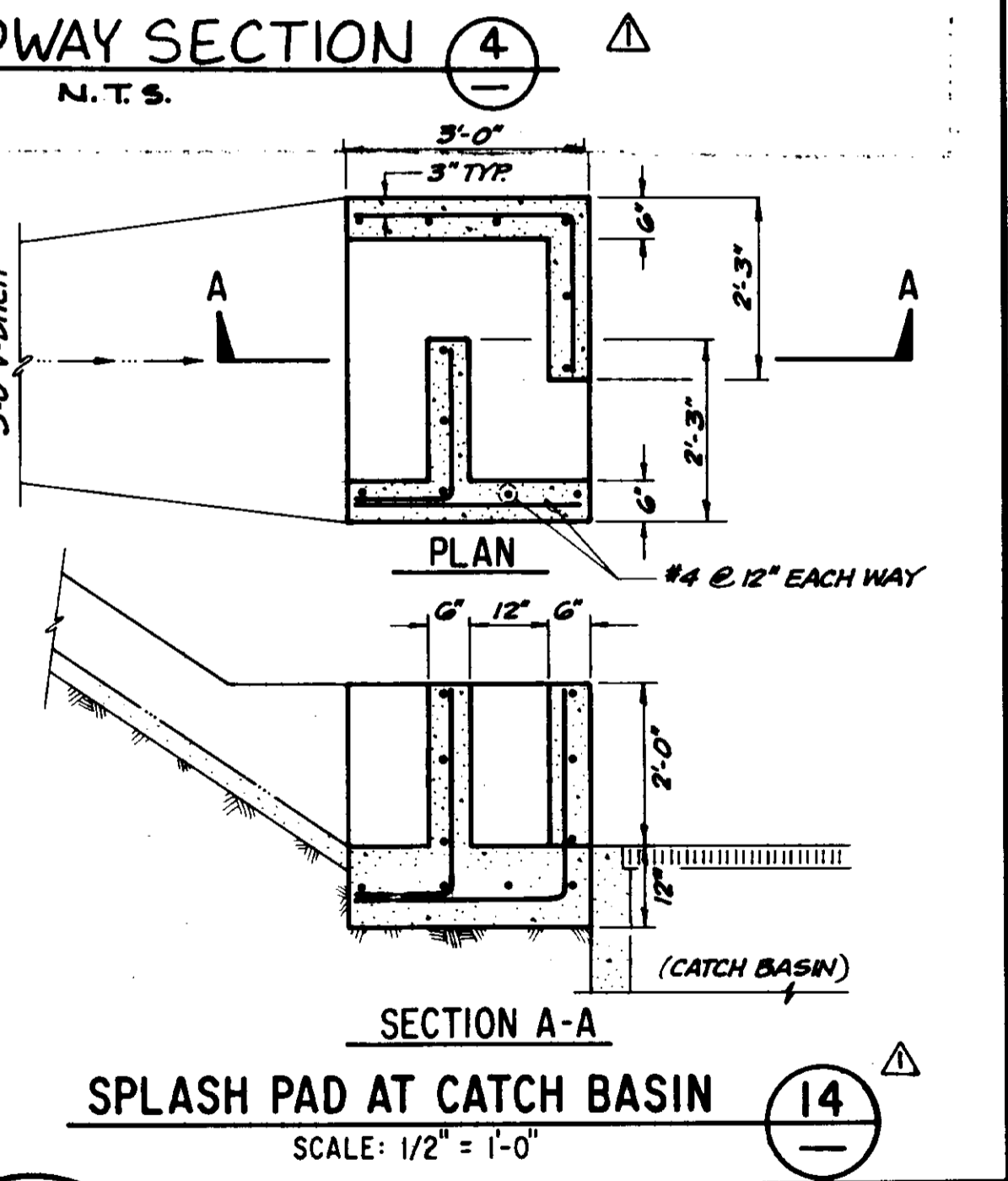
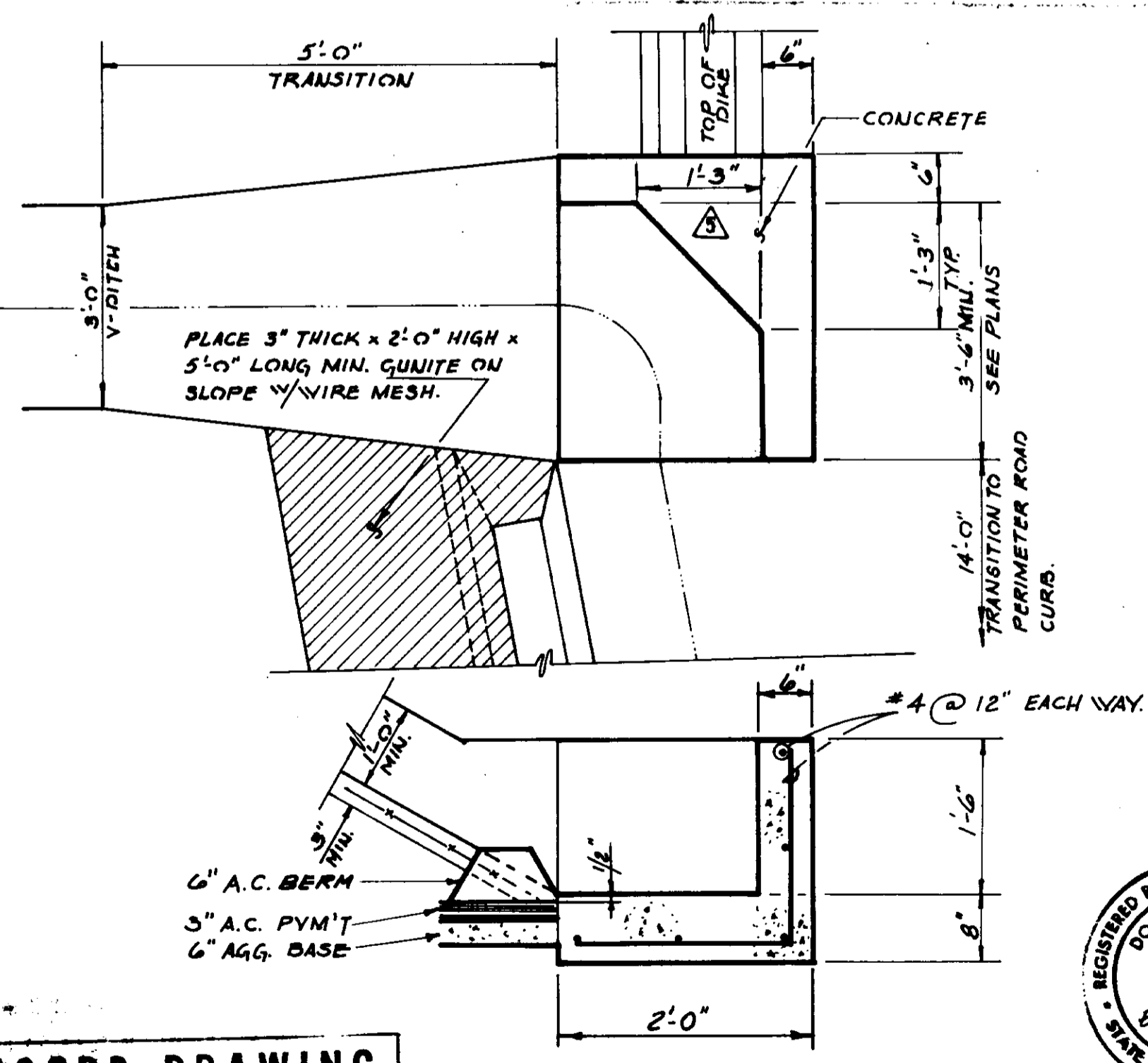
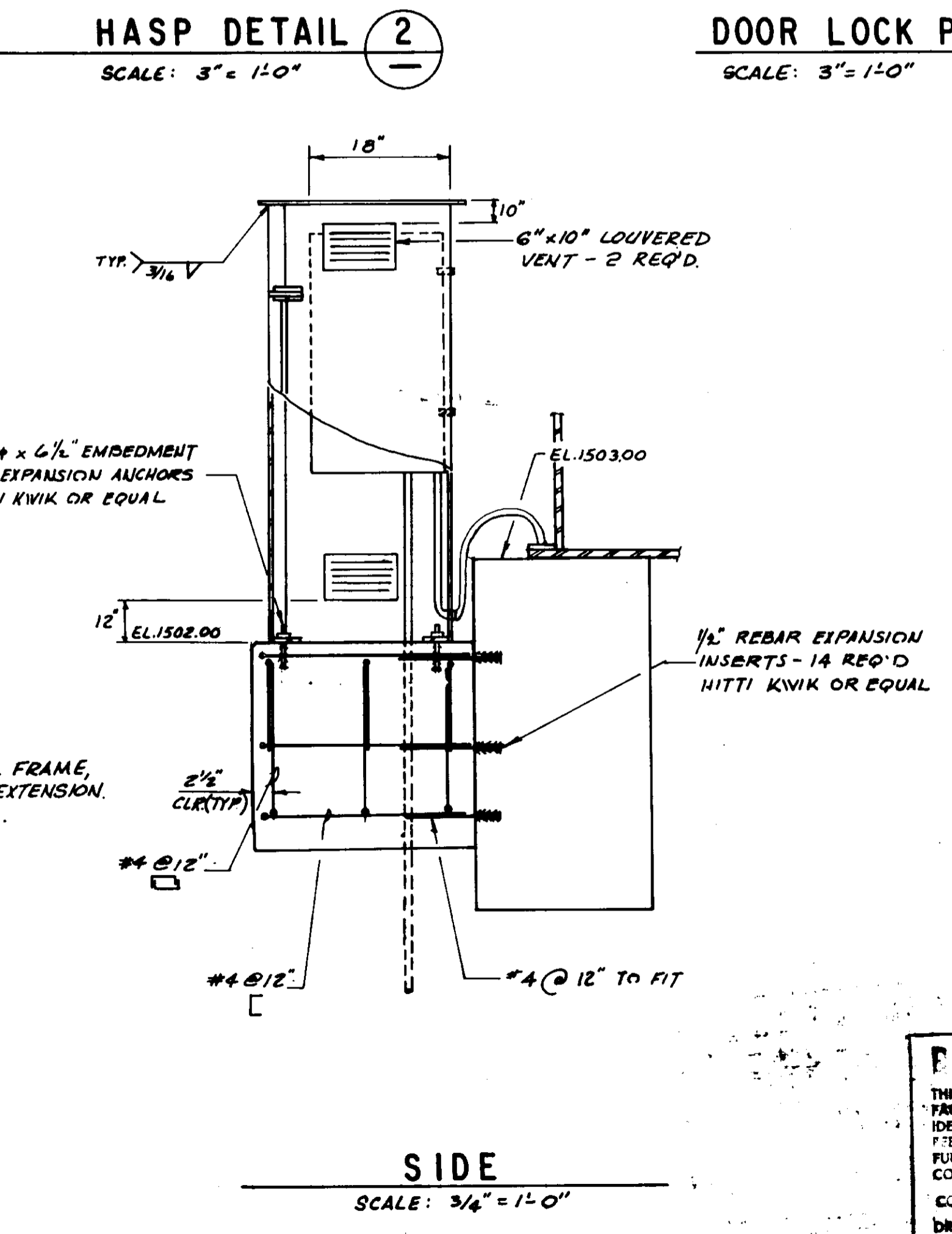
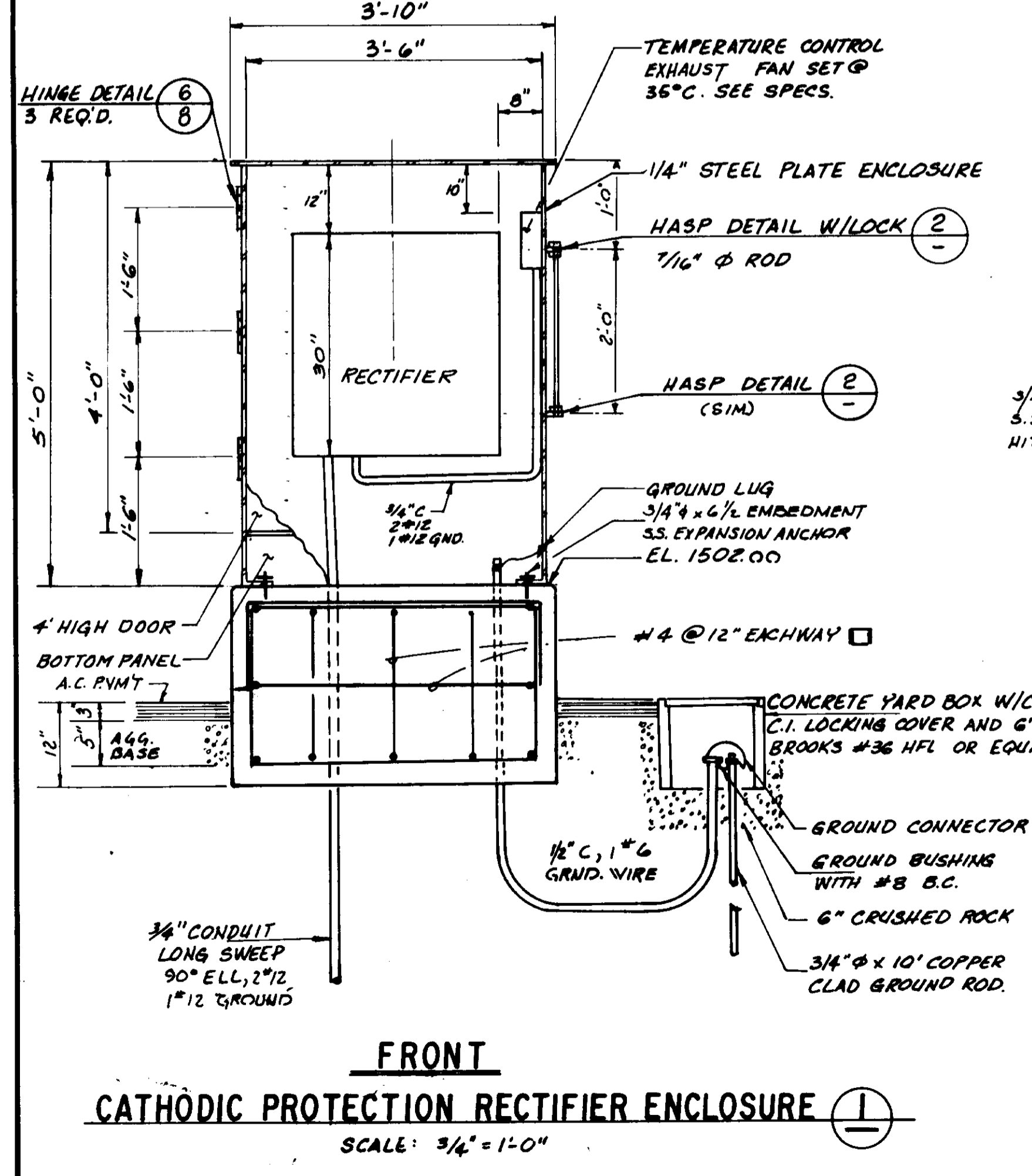
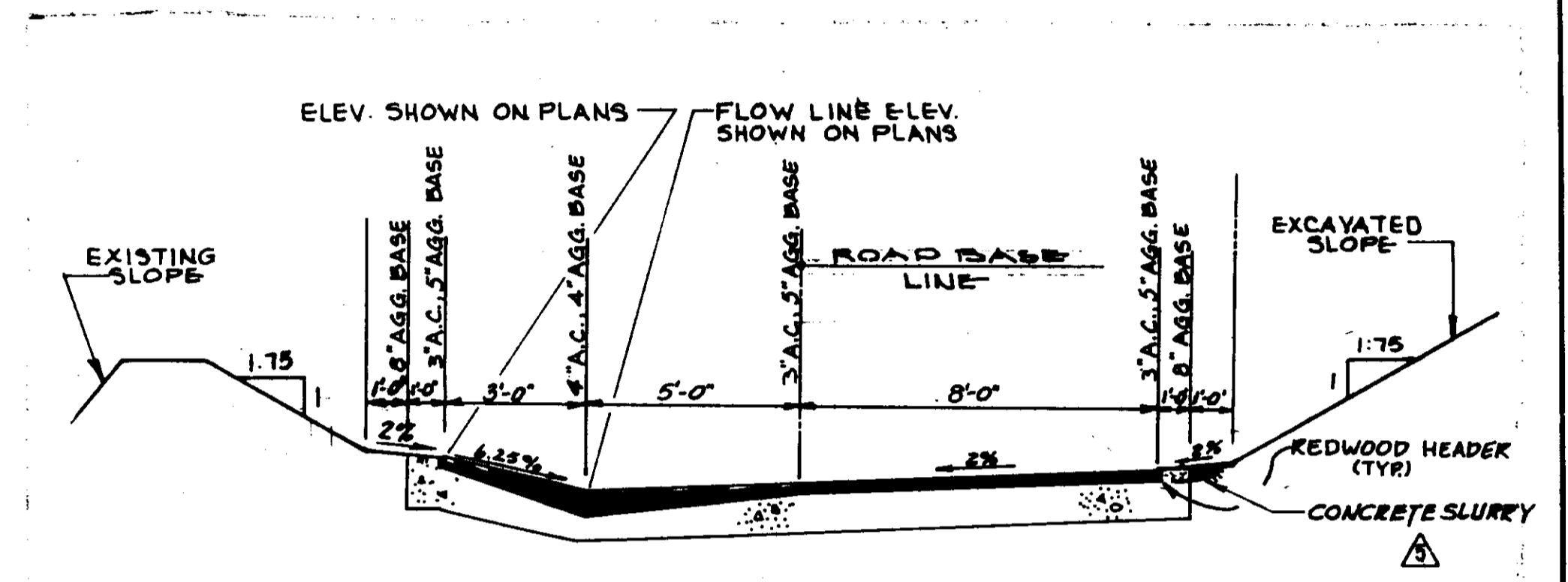
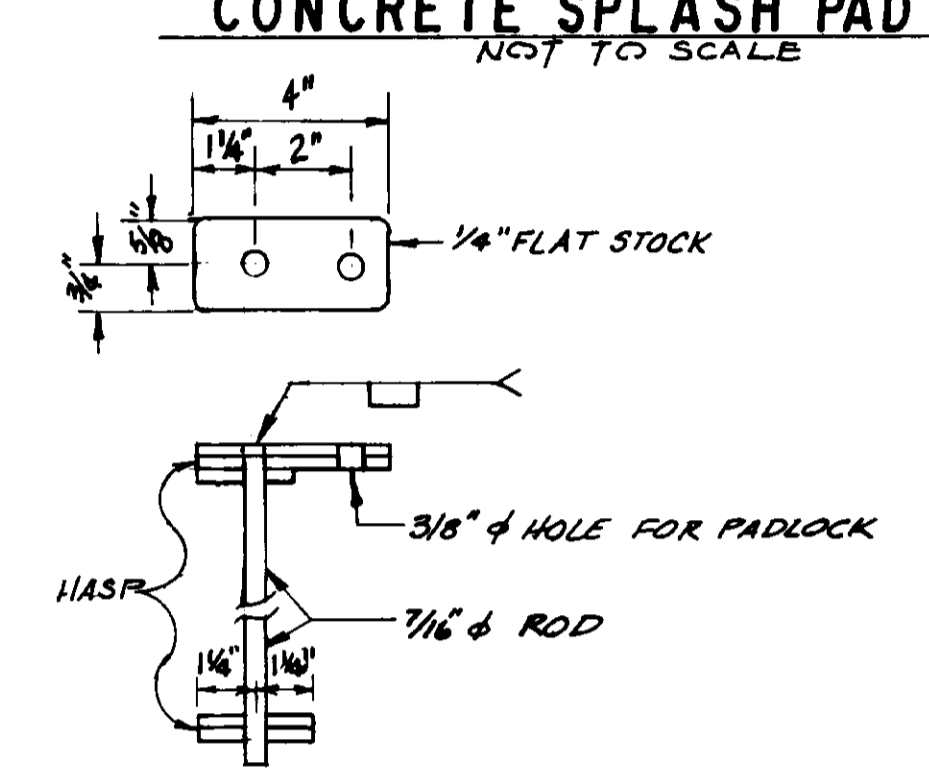
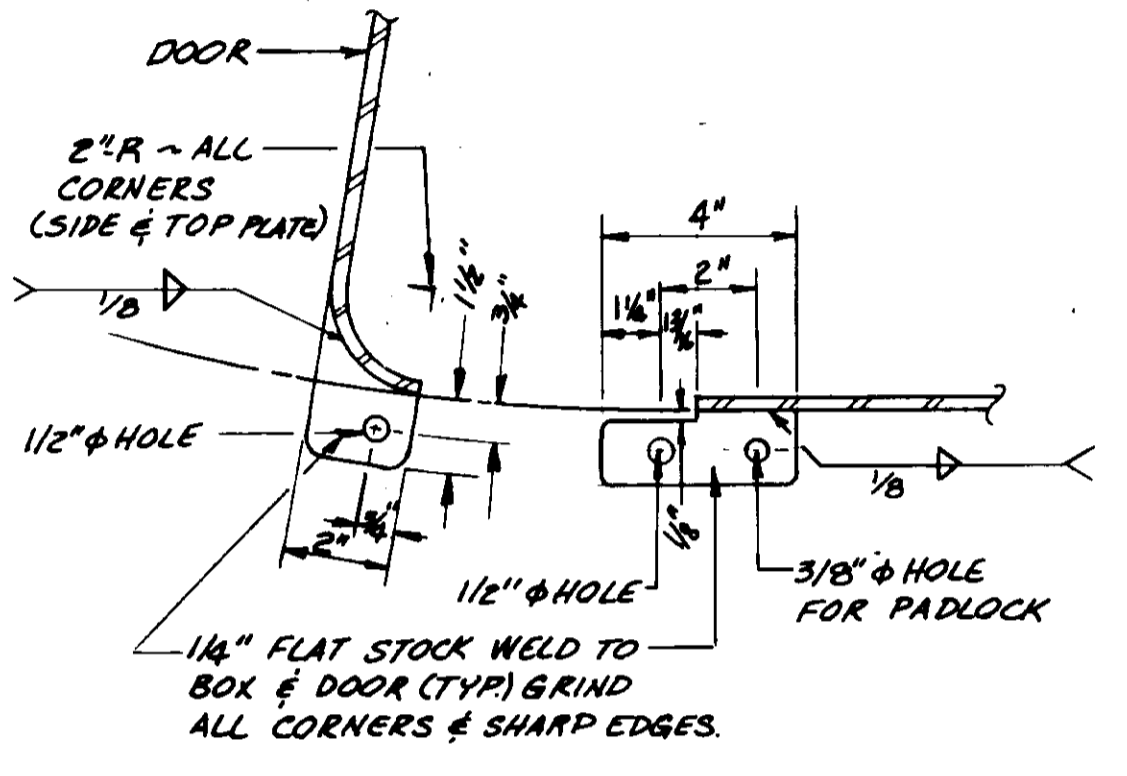
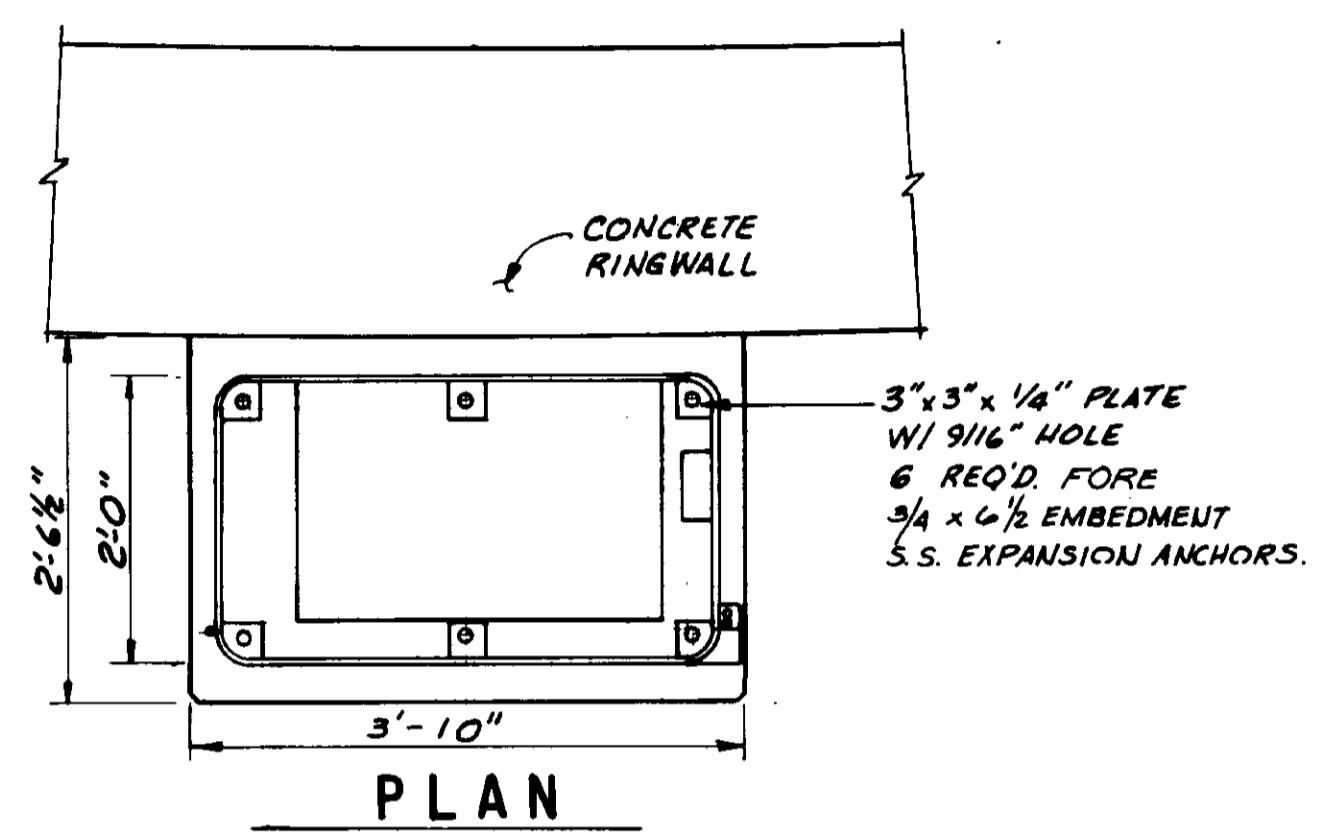
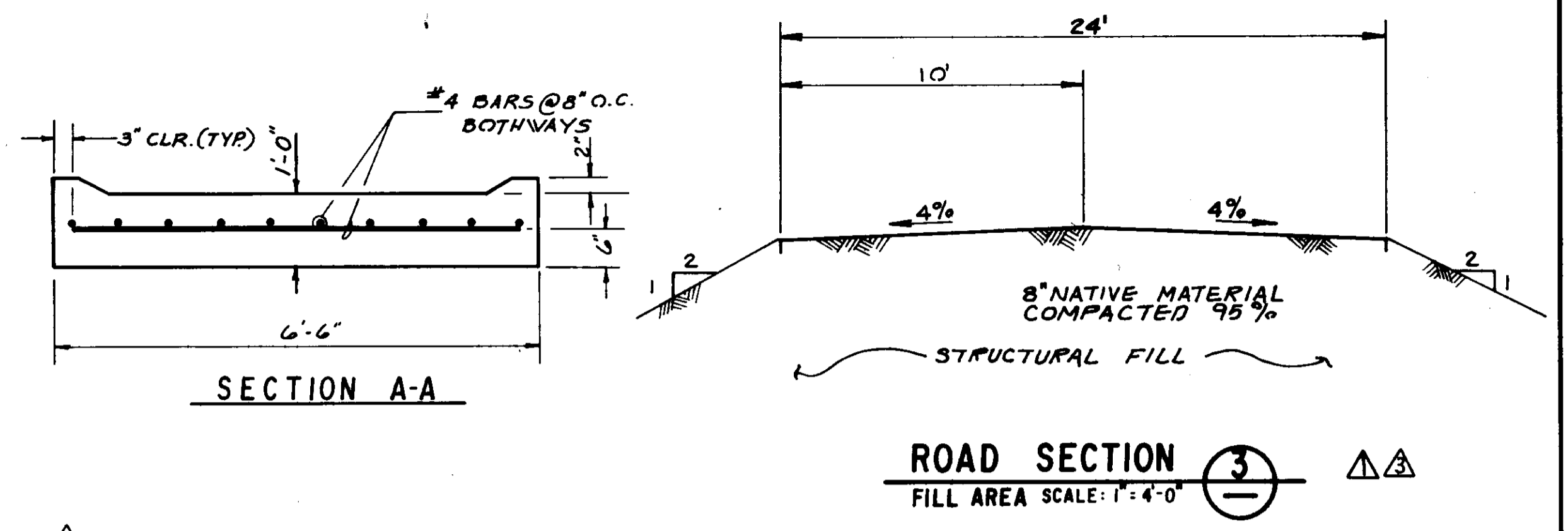
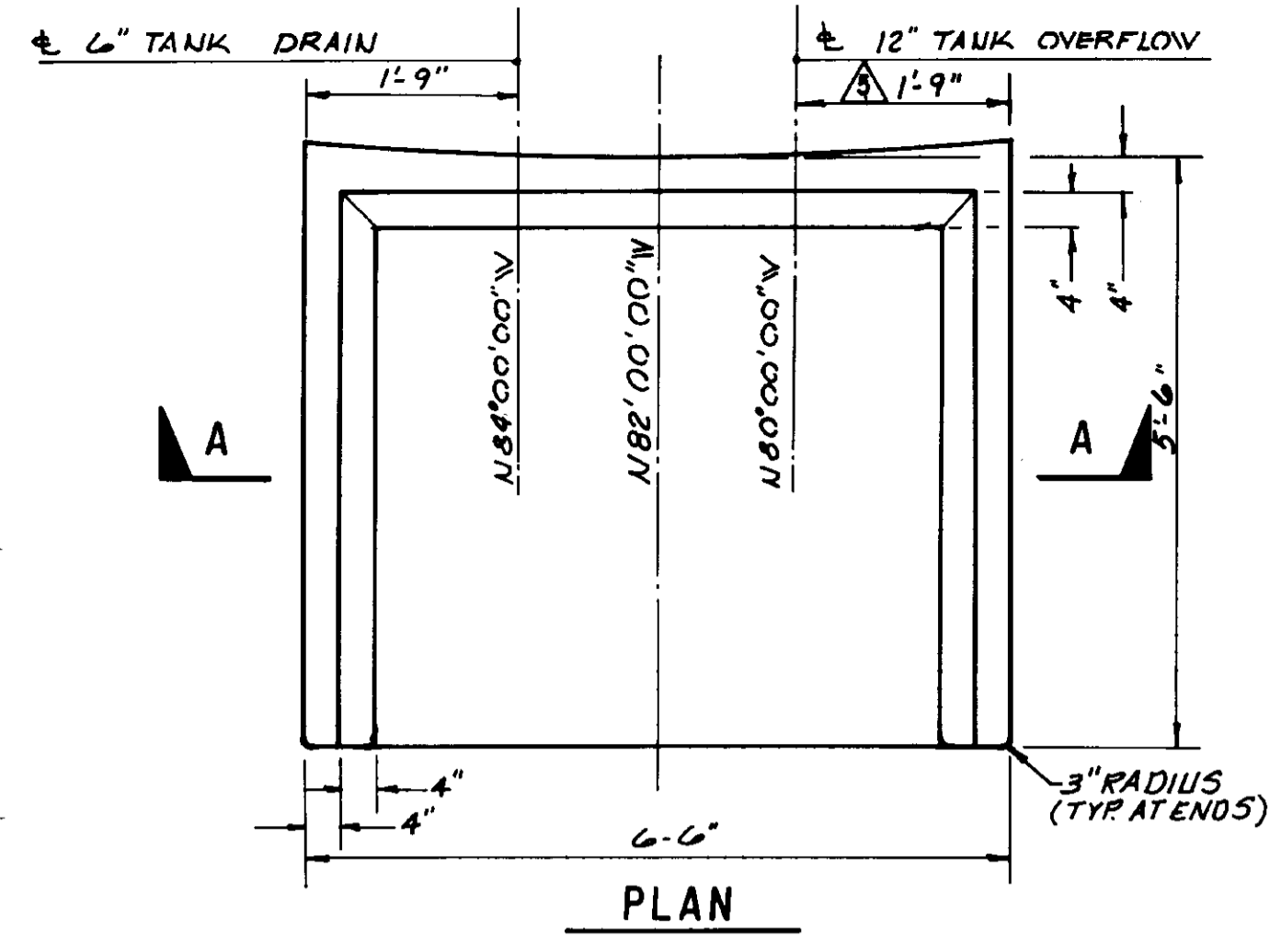
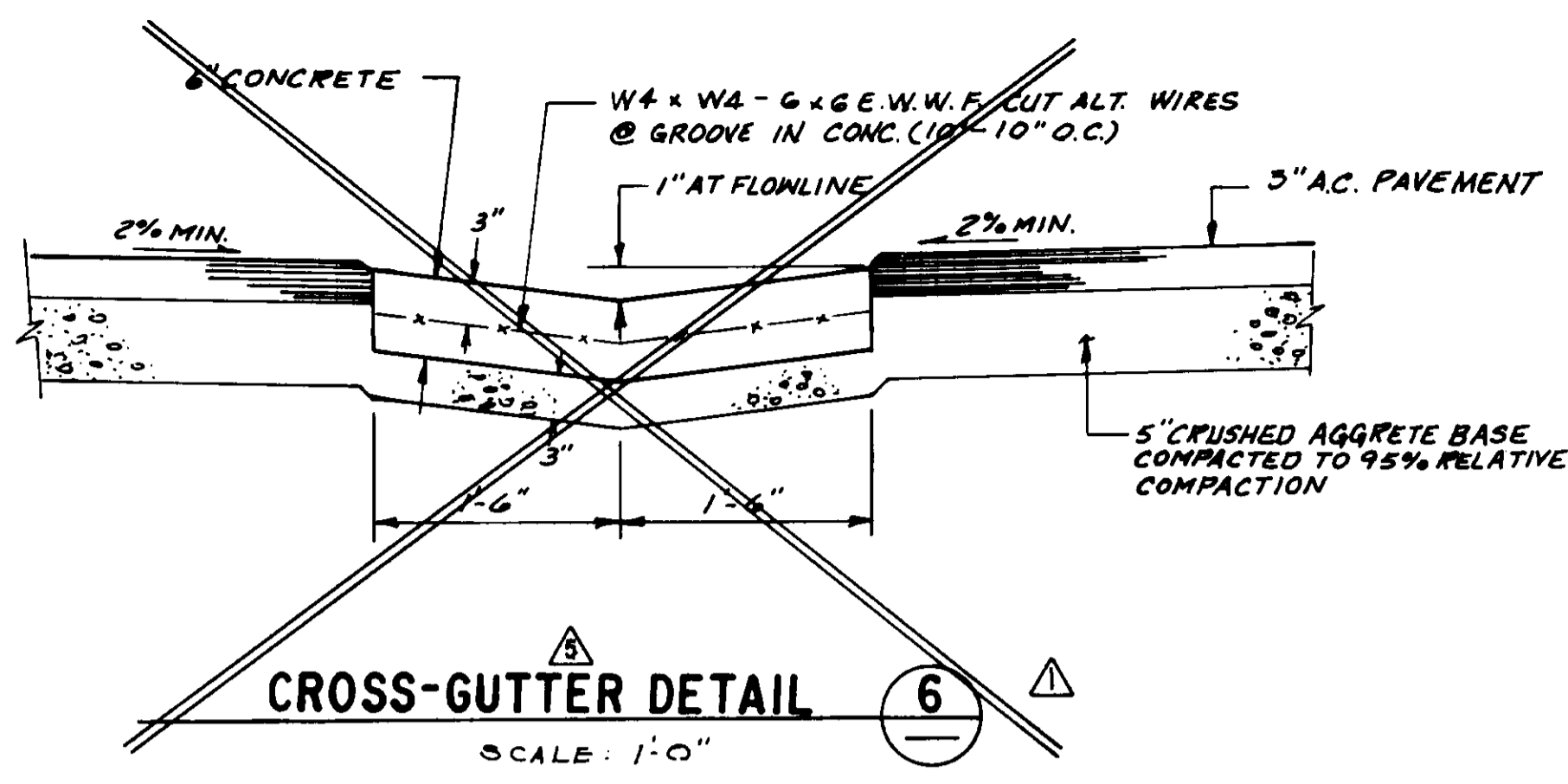
05542



LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
MISCELLANEOUS DETAILS

BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA.
DESIGN: [] DRAWN: [] CHECKED: [] C.A. NO.: [] DRAWING NO.: []
P.A.B. K.L.A. [] VT-102-589-11 5-229 OF 34 SHEETS

REV.	DATE	DESCRIPTION	APP.
1	12/9/93	RECORD DRAWING	
2	2/18/94	CHANGE ORDER NO. 1 - REVISED DETAIL 4	MEB
3	7-24-94	ADDENDUM NO. 2 REVISED DETAILS 1,2,3,4,8,9,11	MEB
4	7-3-90	ISSUED FOR BIDDING	MEB



RECORD DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
CONF. INS. AGE. CY. DATE
DRAWN BY: ASP AGENCY REC DATE: 7/14/93
PROJ. ENGR. PAB AGENCY REC DATE: 7/14/93

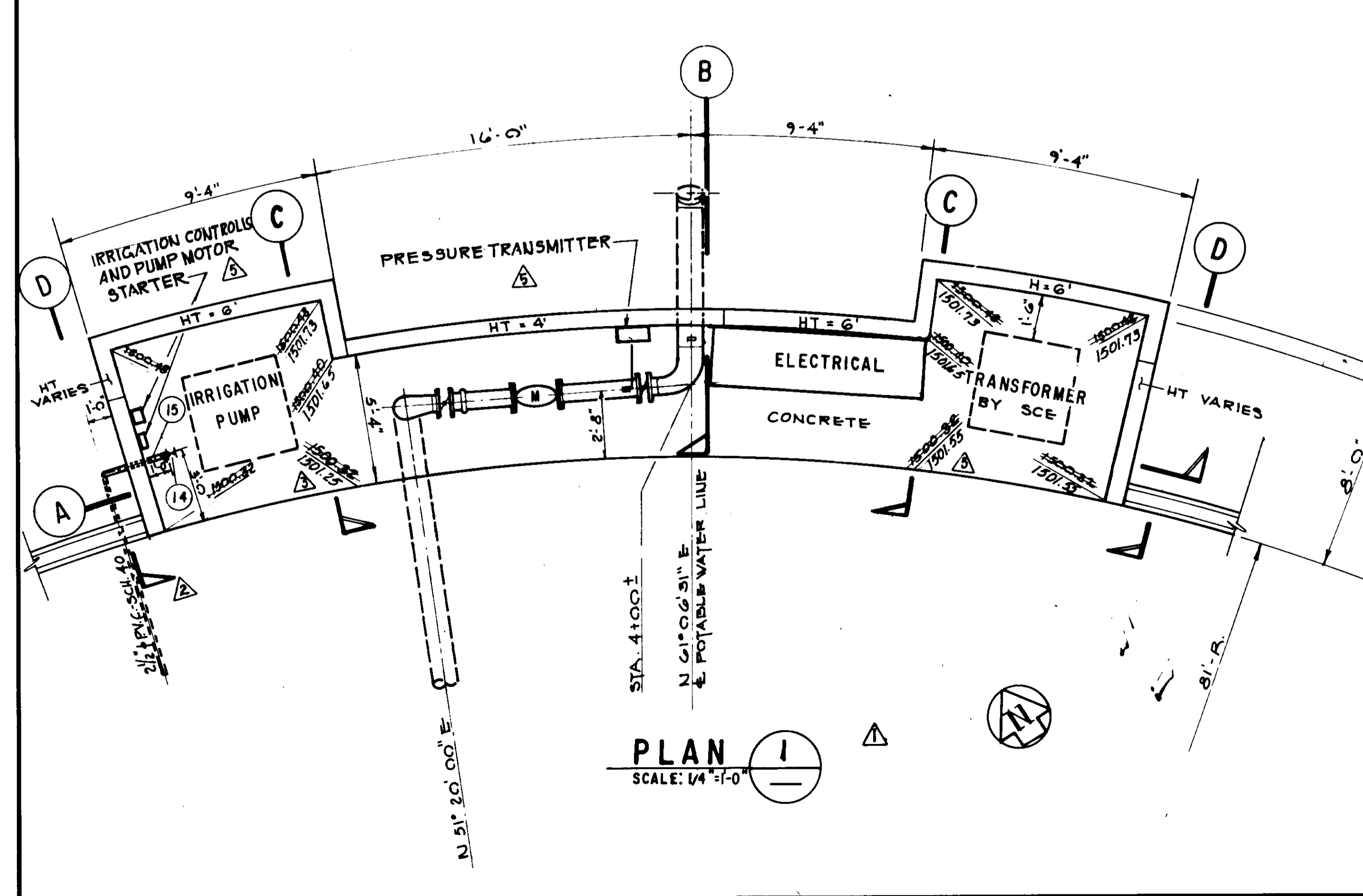
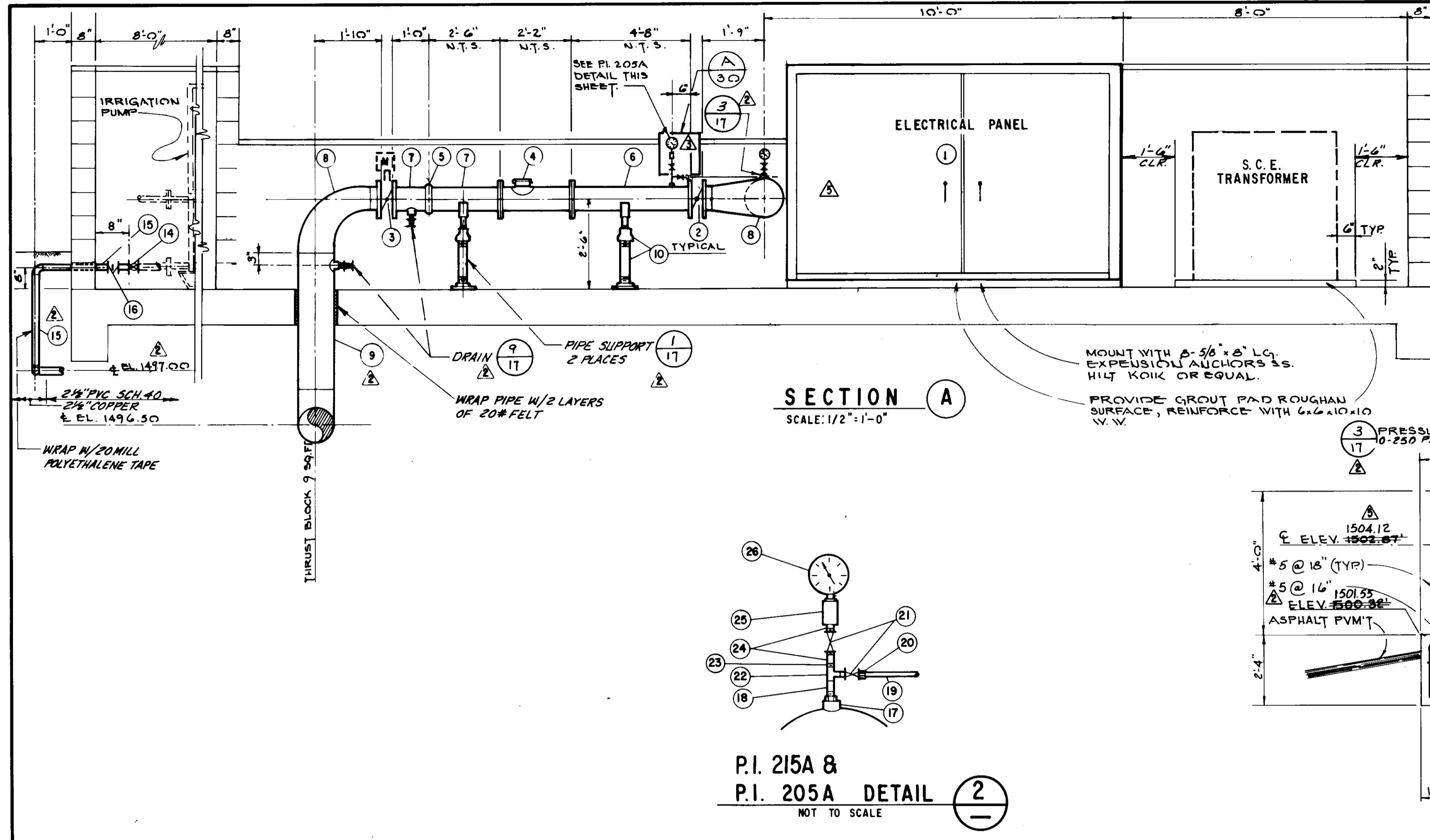
DEFLECTOR WALL 13

12/9/93	RECORD DRAWING	
2/18/91	CHANGE ORDER NO. 1 - REVISED DETAIL 3	HEB
7/14/93	ADDENDUM NO. 2 - REVISED DETAILS	HEB
7-3-90	ISSUED FOR BIDDING	HEB
REV.	DATE	DESCRIPTION



05543

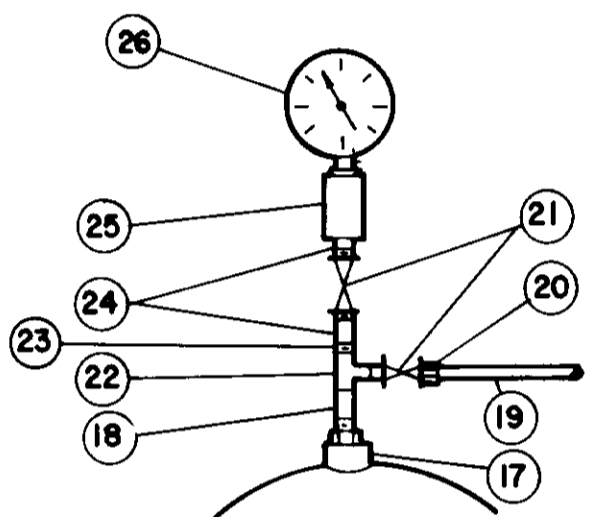
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
MISCELLANEOUS DETAILS
BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA
SHEET NO. 12
OF 34 SHEETS



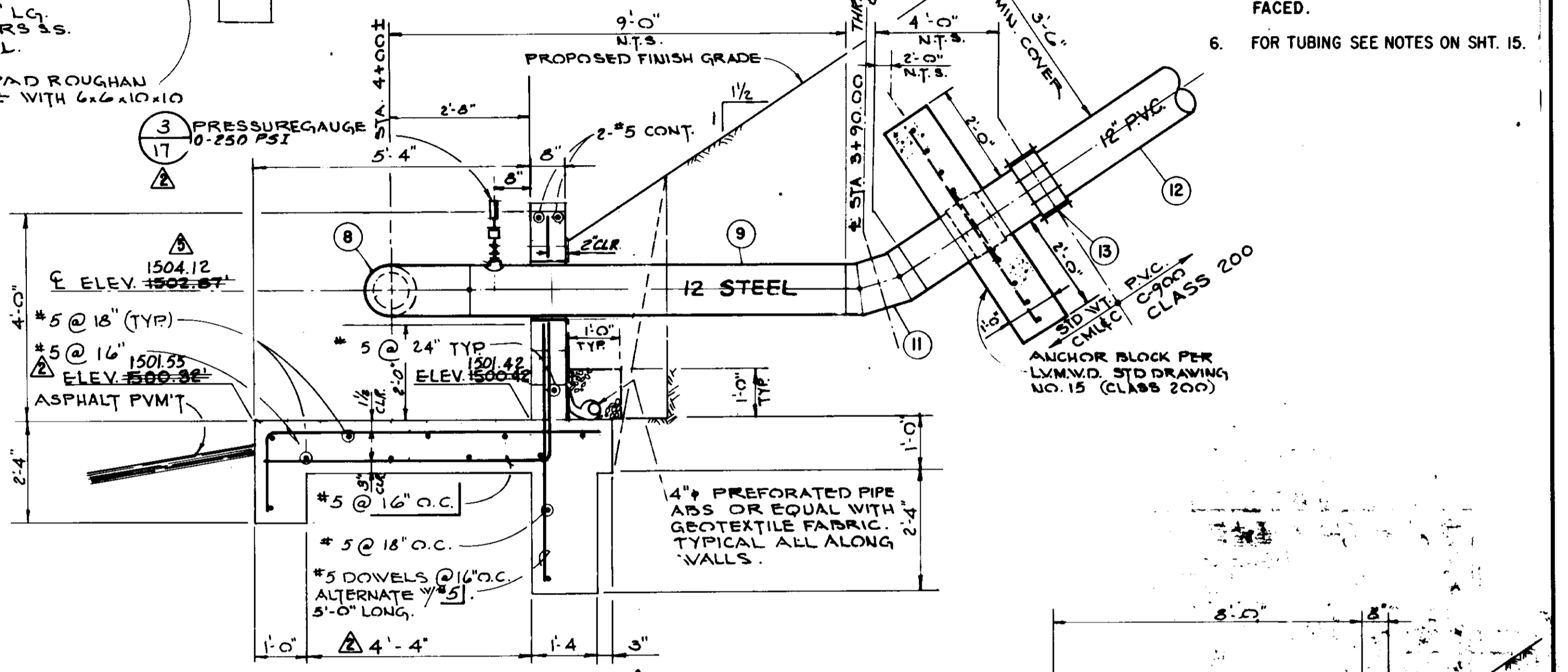
- MATERIAL LIST**
- ELECTRICAL PANEL - SEE ELECTRICAL PLANS.
 - 10-INCH LUG TYPE BUTTERFLY VALVE S.S. (CL 150) WITH HANDWHEEL ACTUATOR DEZURIK OR EQUAL.
 - 10-INCH LUG TYPE BUTTERFLY VALVE S.S. (CL 150) WITH MOTOR CONTROL ACTUATOR, POSITION INDICATOR, SWITCHES, AND SPEED CONTROL DEZURIK PANEL MOUNT - SEE SPECIFICATIONS.
 - 10-INCH ROCKWELL MAINLINE PROPELLER METER MODEL 102 WITH ELECTRONIC PULSE TRANSMITTER AND ACT-PAK MODEL 1000 OPTION A - SEE SPECIFICATION CABINET MOUNT.
 - 10-INCH GROOVED COUPLING.
 - 10-INCH CML STEEL PIPE SPOOL FLANGED END X FLANGED END CLASS 150.
 - 10-INCH CML STEEL PIPE SPOOL STEEL FLANGE X GROOVED END CLASS 150.
 - 10-INCH X 12-INCH 60 LONG RADIUS STEEL ELBOW STD. WT. CML.
 - 12-INCH CML&C STEEL PIPE PLAIN END X PLAIN END.
 - ADJUSTABLE PIPE SUPPORT; GRINNEL FIG. 284 OR EQUAL.
 - 12-INCH STEEL ELBOW (3-PIECE) CML&C PLAIN END X PLAIN END.
 - 12-INCH PVC, AWWA C-900 CL 200.
 - 12-INCH TRANSITION FLEXIBLE COUPLING, STEEL.
 - 2-1/2-INCH BALL VALVE FEMALE X FEMALE THREADED ENDS, STOCKHAM'S - FIG. 9-216 BR-R-T OR EQUAL.
 - 2-1/2-INCH COPPER PIPE TYPE L.
 - 2-1/2-INCH BRASS UNION.
 - 3/4-INCH X 10-INCH THRED-O-LET.
 - 3/4-INCH X S.S. THRED. PIPE NIPPLE.
 - 1/2-INCH S.S. TUBING. ROUTE TO INSTRUMENT STATION.
 - 1/2-INCH TUBING ADAPTER.
 - 1/2-INCH S.S. BALL VALVE CLASS 200.
 - 3/4-INCH X 1/2-INCH X 1/2-INCH S.S. THRED. TEE.
 - 3/4-INCH X 1/2-INCH S.S. BUSHING.
 - 1/2-INCH S.S. THRED. NIPPLE.
 - 1/2-INCH X 1/4-INCH S.S. COUPLING WITH PRESSURE SNUBBER.
 - 4-1/2-INCH DIAL PRESSURE GAGE 0-250 PSI.

- NOTES**
- TRANSFORMER TO BE INSTALLED BY OTHERS. PROVIDE GROUT PAD ANCHOR BOLTS AND CONDUIT - SEE ELECTRICAL PLANS.
 - USE COAL-TAR SATURATED FELT NOMINAL 15-POUND WEIGHT PER ASTM D-277.
 - IRRIGATION PUMP SKID WILL BE SUPPLIED BY OTHERS AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE MATERIALS FOR CONNECTION TO 2-1/2-INCH FLANGE AND 6-1/2-INCH X 8-INCH LONG S.S. ANCHORS, HILT-KWIK.
 - PRESSURE TRANSMITTER AND CABINET ARE PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR.
 - ALL FLANGES THIS SHEET SHALL BE ANSI B16-5 150 PSI FLAT FACED.
 - FOR TUBING SEE NOTES ON SHT. 15.

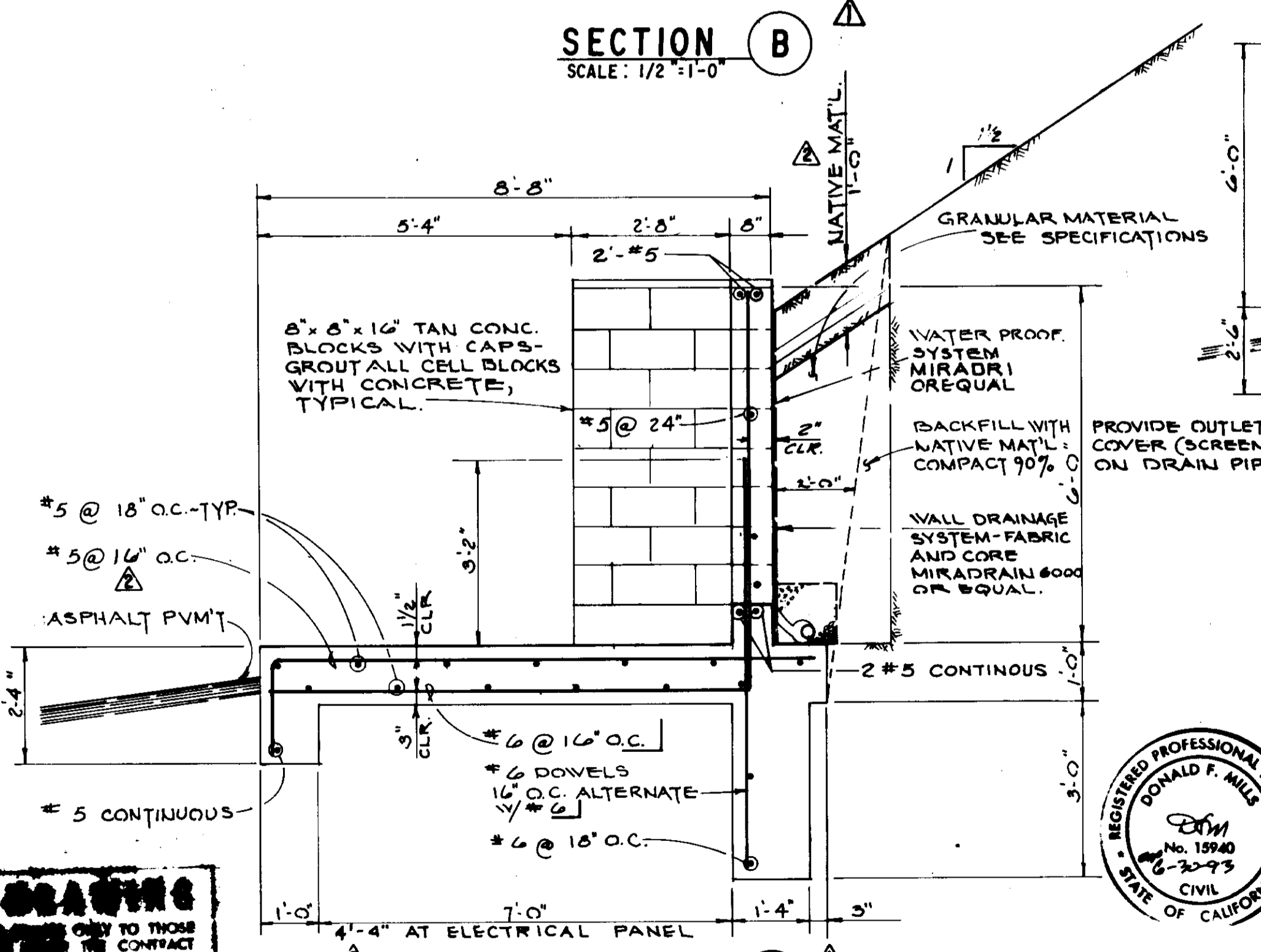
SECTION A
SCALE: 1/2" = 1'-0"



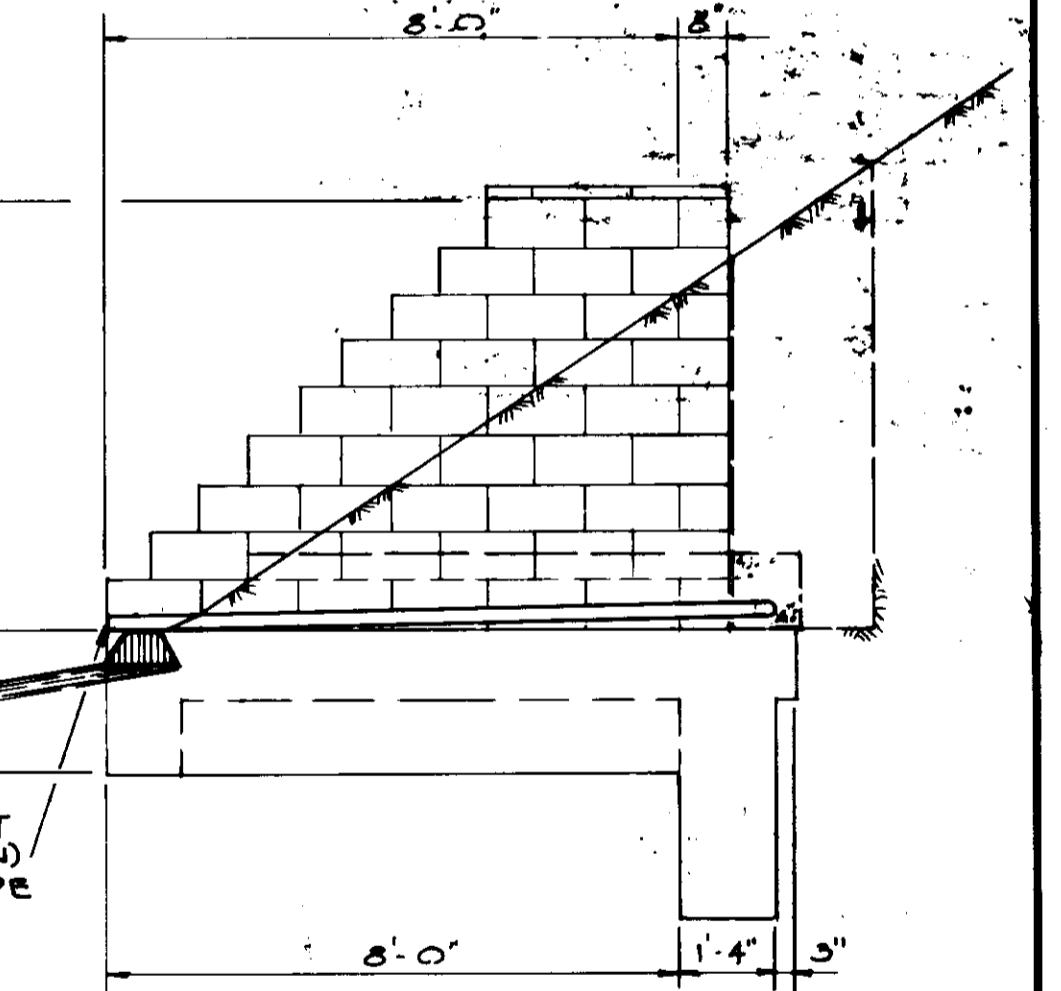
P.I. 215A & P.I. 205A DETAIL 2
NOT TO SCALE



SECTION B
SCALE: 1/2" = 1'-0"



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



SECTION D
SCALE: 3/8" = 1'-0"

FIELD MARKING
THIS DRAWING IS TO BE USED ONLY BY THOSE PERSONS WHOSE NAMES ARE ON THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF ALL FIELD MARKS AND THE CONSTRUCTION OF THE PROJECT.

REV.	DATE	DESCRIPTION	APP.
1	2/8/93	RECORD DRAWING	HEB
2	8/14/90	ADDENDUM NO. 4	HEB
3	7/24/90	ADDENDUM NO. 2 DETAIL 1 + SECTION C	HEB
4	7-3-90	ISSUED FOR BIDDING	HEB

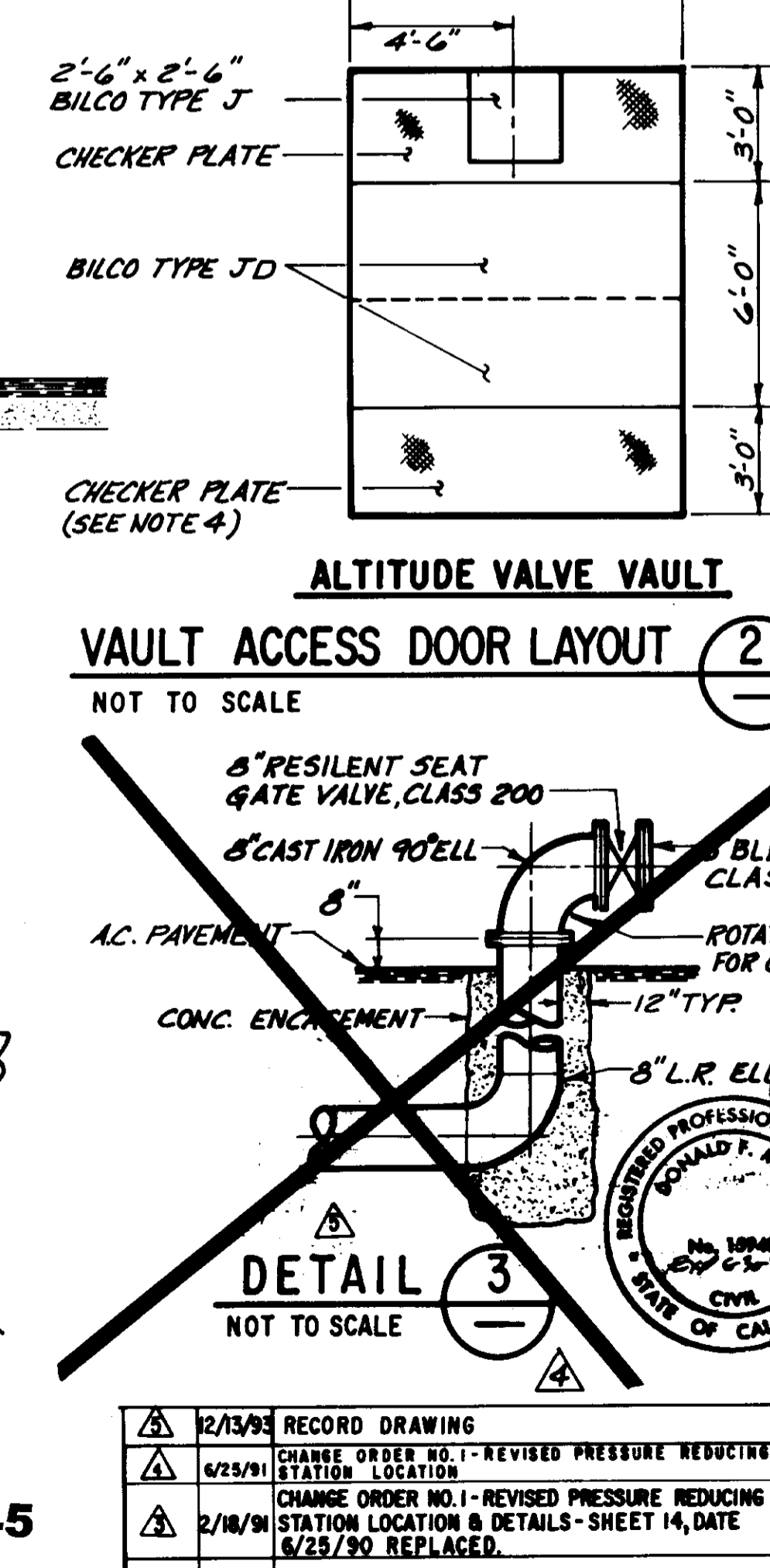
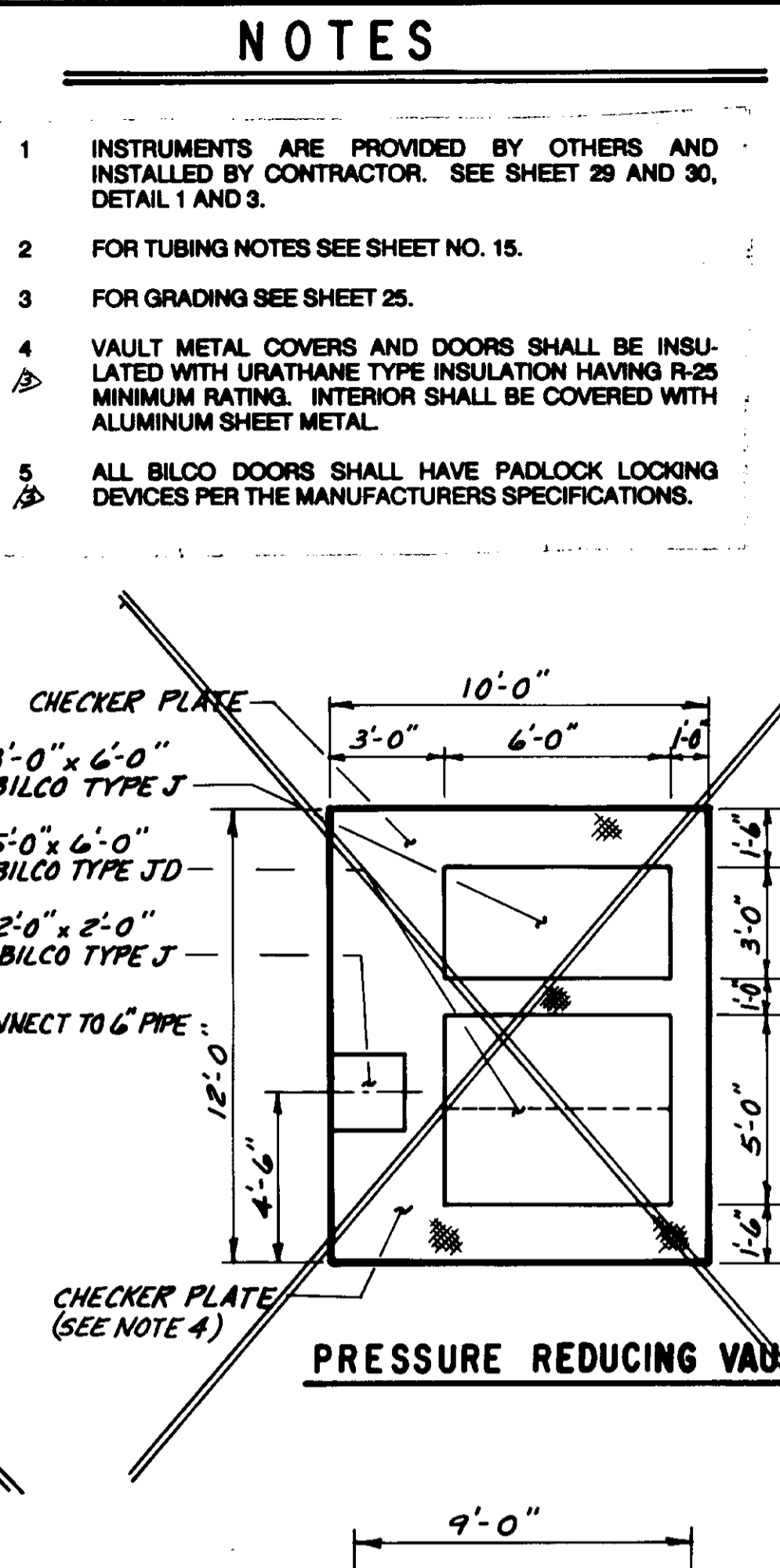
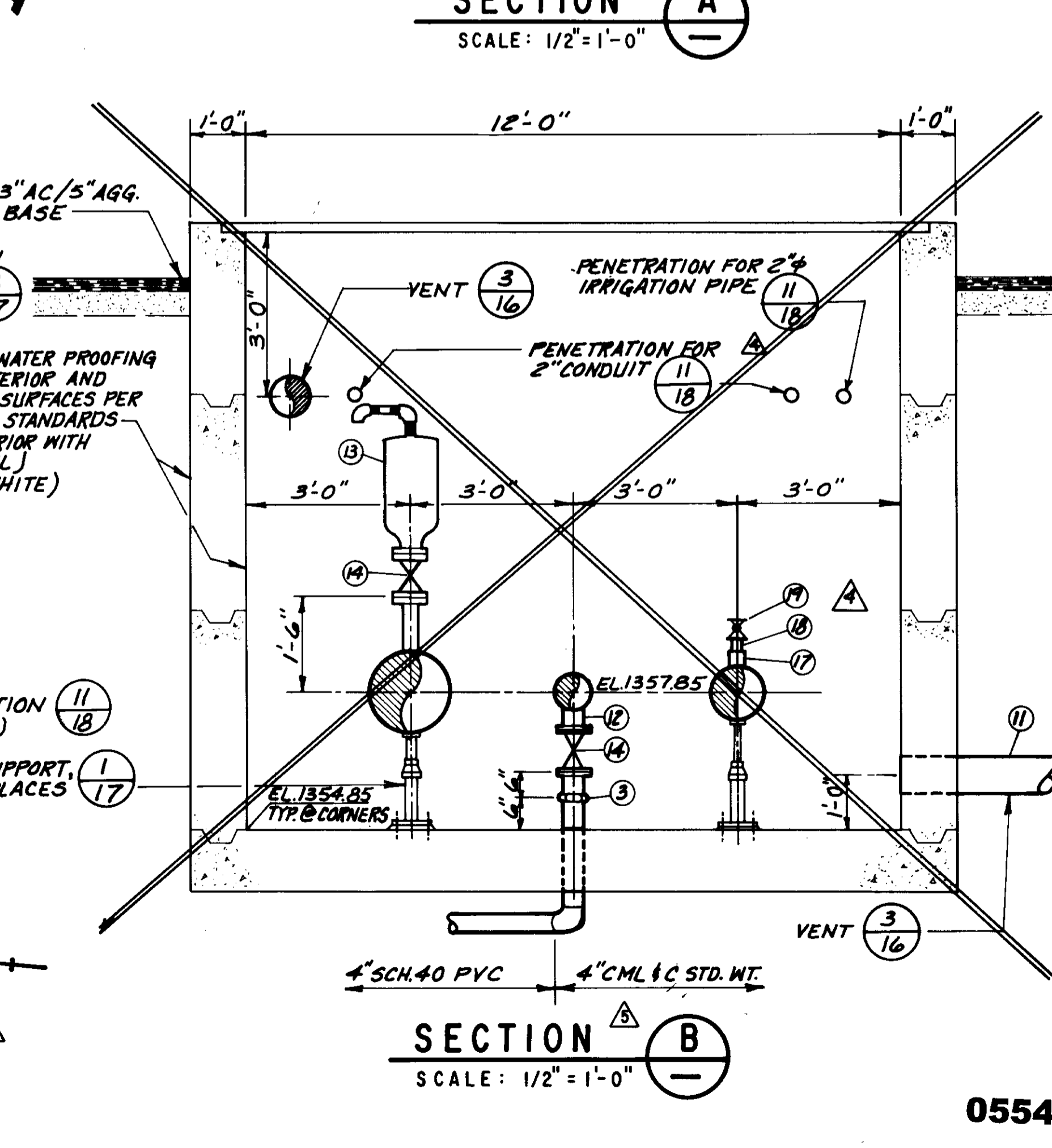
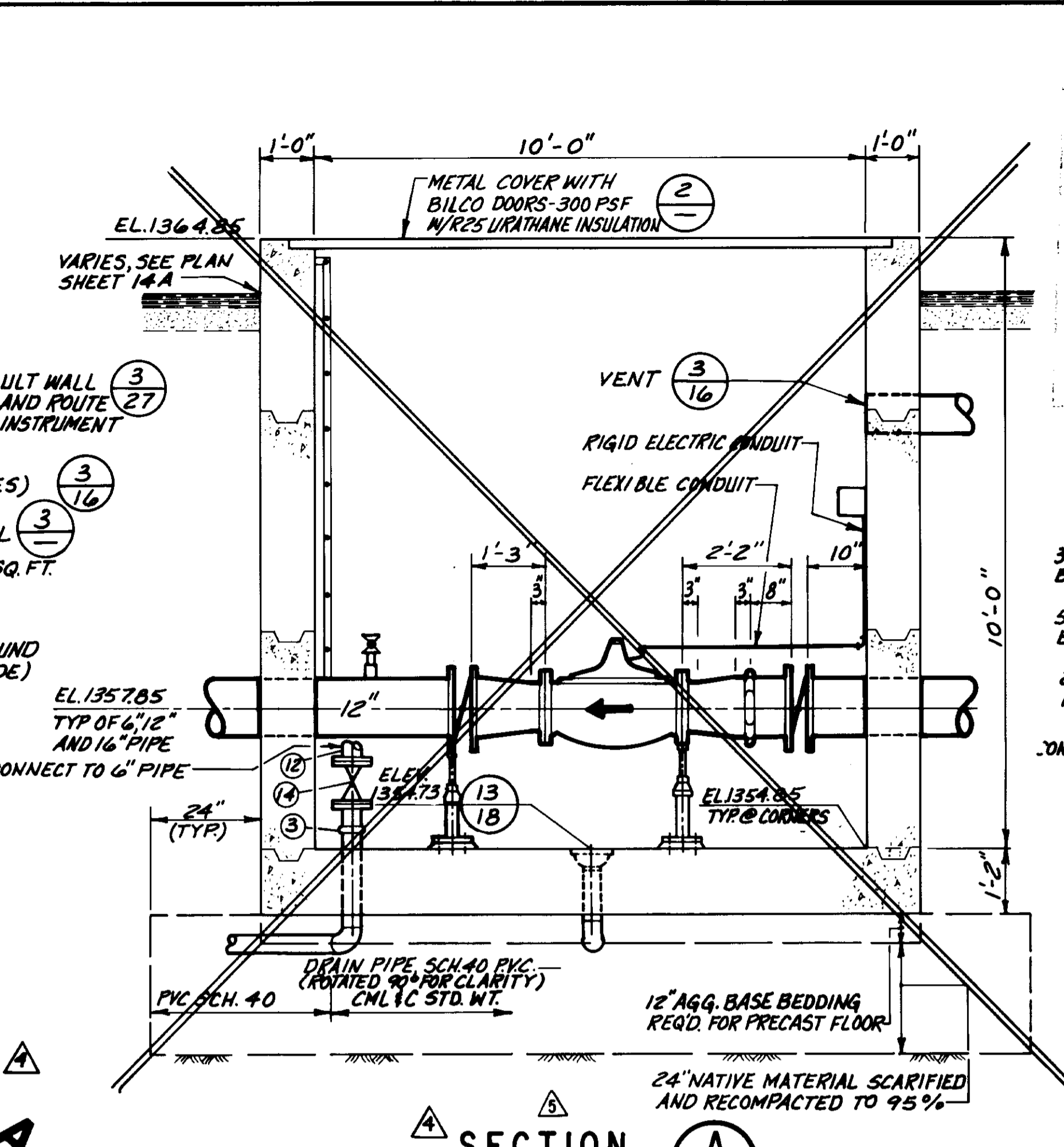
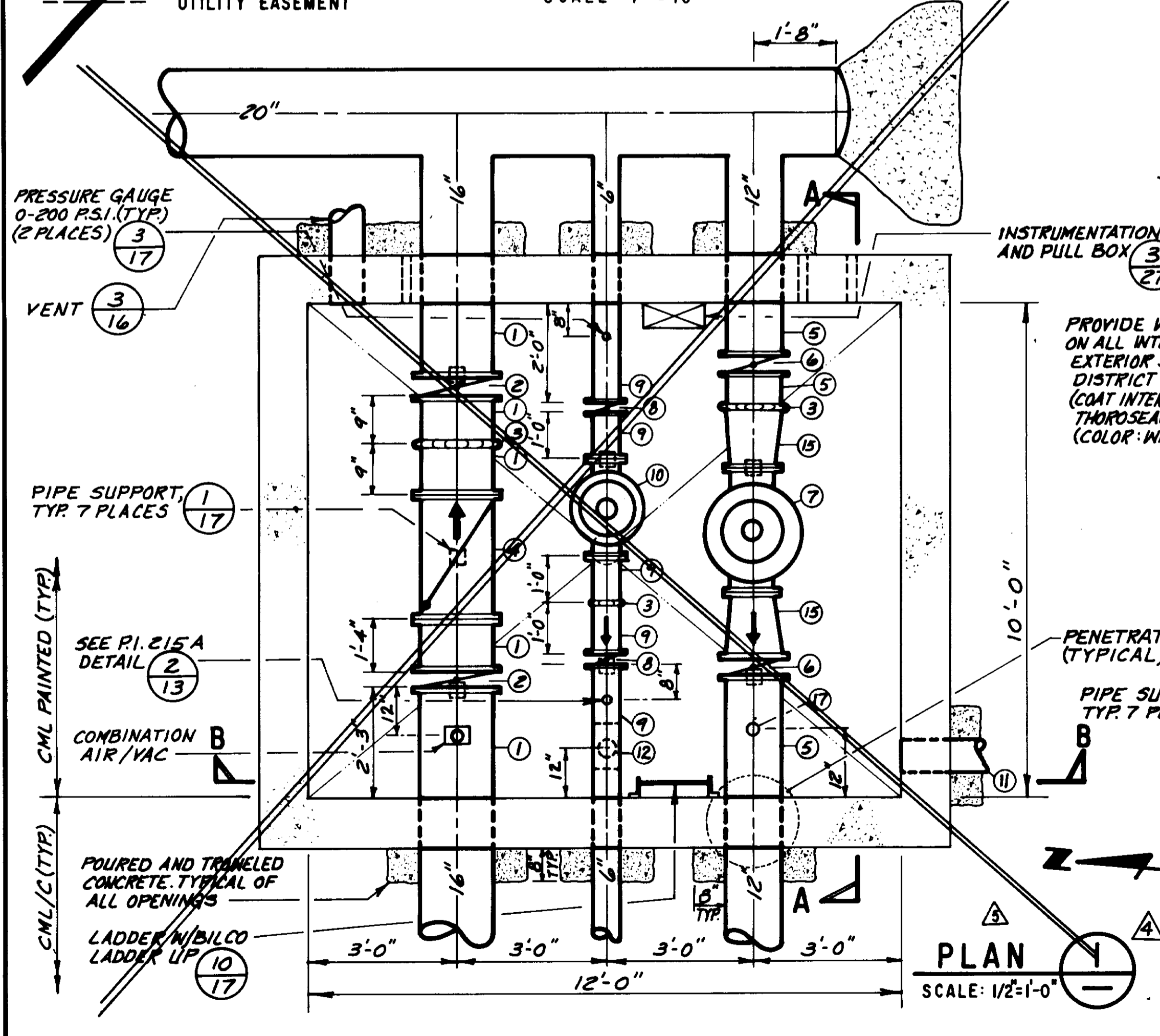
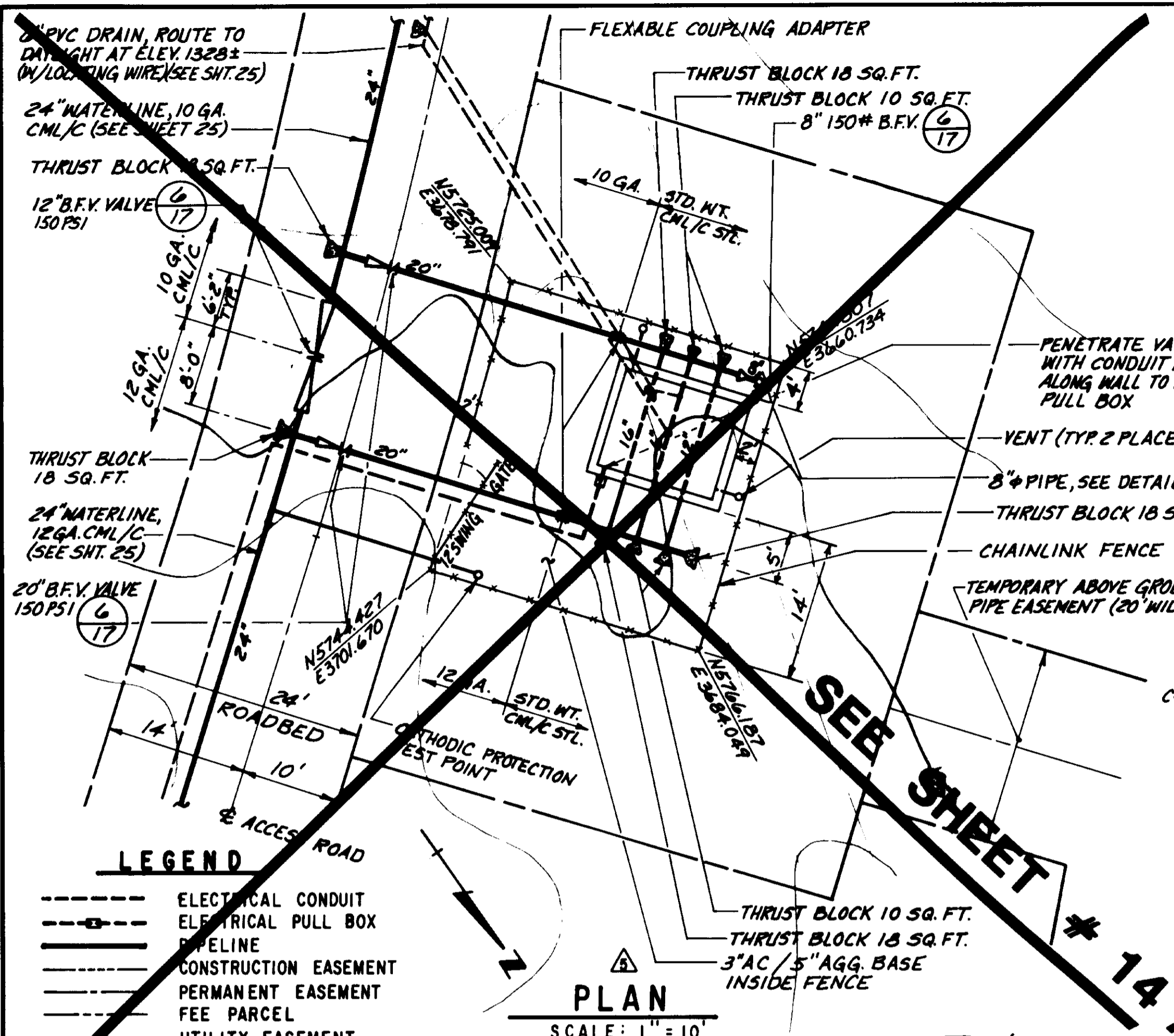


05544

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
POTABLE WATER PIPING, IRRIGATION PUMP PAD & SECTIONS

BOYLE ENGINEERING CORPORATION
consulting engineers | architects
VENTURA, CA.

DESIGN P.A.B. DRAWN A.S.P. CHECKED HEB. C.A. NO. MT-102-229-11. DRAWING NO. S-229. SHEET NO. 13 OF 34 SHEETS.



- ### NOTES
- INSTRUMENTS ARE PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR. SEE SHEET 29 AND 30, DETAIL 1 AND 3.
 - FOR TUBING NOTES SEE SHEET NO. 15.
 - FOR GRADING SEE SHEET 25.
 - VAULT METAL COVERS AND DOORS SHALL BE INSULATED WITH URATHANE TYPE INSULATION HAVING R-25 MINIMUM RATING. INTERIOR SHALL BE COVERED WITH ALUMINUM SHEET METAL.
 - ALL BILCO DOORS SHALL HAVE PADLOCK LOCKING DEVICES PER THE MANUFACTURERS SPECIFICATIONS.
- ### LIST OF MATERIALS
- 18" ϕ STL. PIPE STD. WT. CML
 - 18" ϕ BUTTERFLY VALVE 150 PSI SINGLE FLANGE LUG TYPE S.S. W/MANUAL OPERATOR AND HANDWHEEL. DEZURIK HP.
 - GROOVED END COUPLING VICTAULIC STYLE 77 PER LINE SIZE.
 - 18" ϕ SLANTING DISC. CHECK VALVE W/POSITION INDICATOR 150 PSI, APCO SERIES 800.
 - 12" ϕ STL. PIPE STD. WT. CML
 - 12" ϕ BUTTERFLY VALVE 150 PSI LUG TYPE S.S. W/MANUAL OPERATOR AND HANDWHEEL. DEZURIK HP.
 - 10" ϕ PRESSURE REDUCING VALVE FLANGED 125 PSI CLA-VAL 91G-01-BSCYKC. SPRING 30-300 PSI. SEE DETAIL AND SPECS FOR "X" INFORMATION.
 - 6" ϕ BUTTERFLY VALVE 150 PSI LUG TYPE S.S. W/MANUAL OPERATOR AND HANDWHEEL. DEZURIK HP.
 - 6" ϕ STL. PIPE STD. WT. CML
 - 6" ϕ BUTTERFLY PRESSURE REDUCING VALVE. FLANGED 125 PSI CLA-VAL 91G-01-BSCYKC SPRING 30-300 PSI. SEE DETAIL AND SPECS FOR "X" INFORMATION.
 - 8" ϕ PVC PIPE AND FITTINGS SCH. 80, WATER TIGHT, FIELD ROUTE SEE PLANS.
 - 6"x6"x4" STL. TEE STD. WT. CML
 - 4" COMBINATION AIR RELEASE VALVE W/APURTENANCES. FLANGED APCO 150 C.
 - 4" GATE VALVE, RESILIENT SEAT, NON-RISING STEM, 200 PSI, FLANGED, MUELLER.
 - 10"x12" STL. REDUCER STD. WT. CML. PER LVMMWD STD. SPEC.
 - HYDROKLEEN TUBESCREEN FILTER MODEL NO. 1712-0.5. NO. .80 STAINLESS STEEL TUBE SCREEN.
 - 2" ϕ THREAD-O-LET A105 GRB
 - 2" ϕ THRD. NIPPLE A 316
 - 2" ϕ BALL VALVE THRD., 200 PSI, A 316

RECORD DRAWING

THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED BY THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.

COM. T. INS. _____ DATE _____
 DRAFTED BY D.S.P. AGENCY, INC. DRAWN BY D.S.P.
 PROJ. ENGR. P.B.E. AGENCY P.B.E. DATE 6/28/90

FILTER ARRANGEMENT FOR CONTROL VALVES
NOT TO SCALE

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
PRESSURE REDUCING STATION VAULT

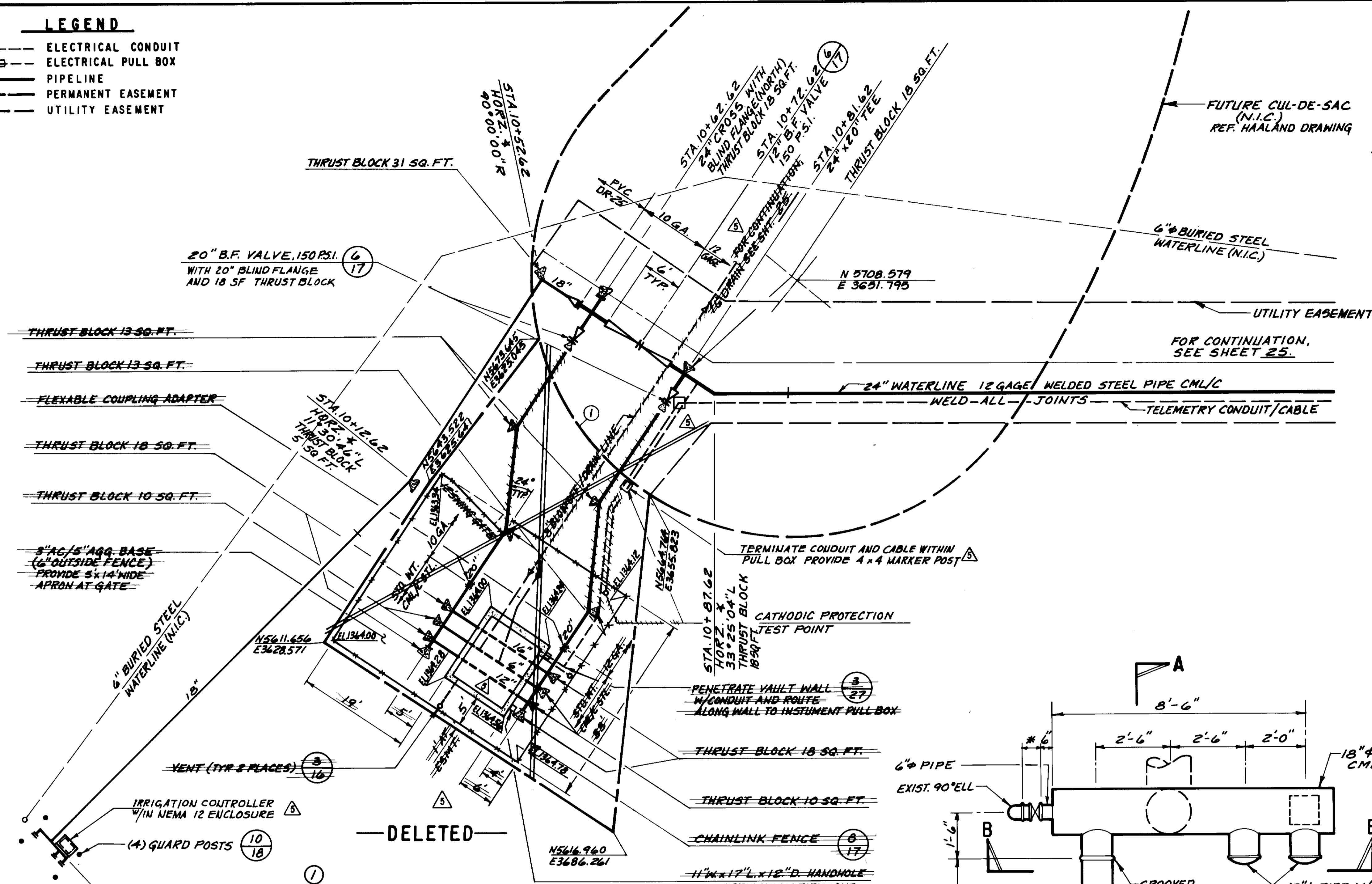
BOYLE ENGINEERING CORPORATION
 consulting engineers, architects
 VENTURA, CA.

DESIGN: P.A.B. DRAWN: J.R.G. CHECKED: HGB C.A. NO. VT-102-529-11 DRAWING NO. S-229 SHEET NO. 14 OF 34 SHEETS

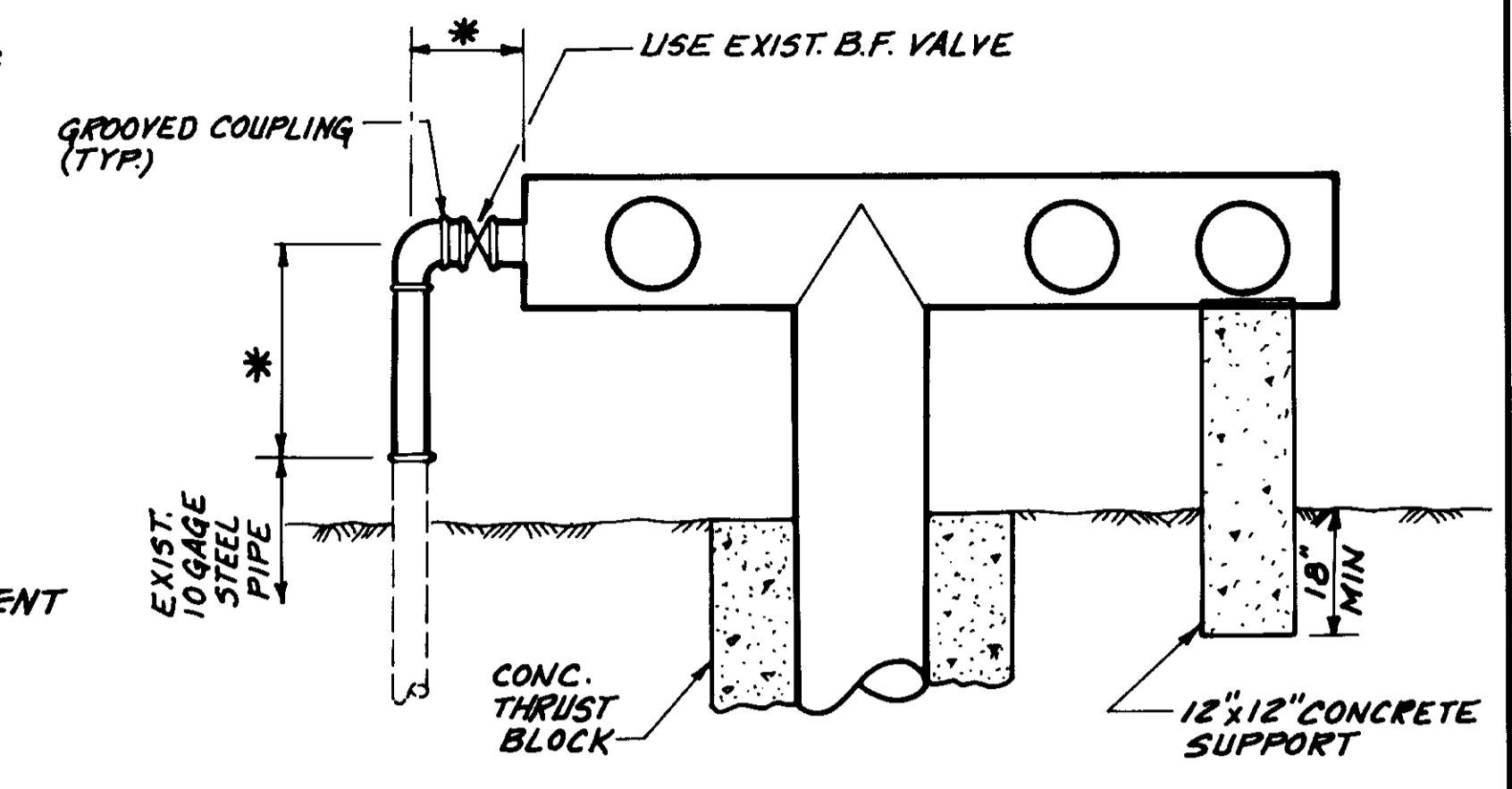
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LEGEND

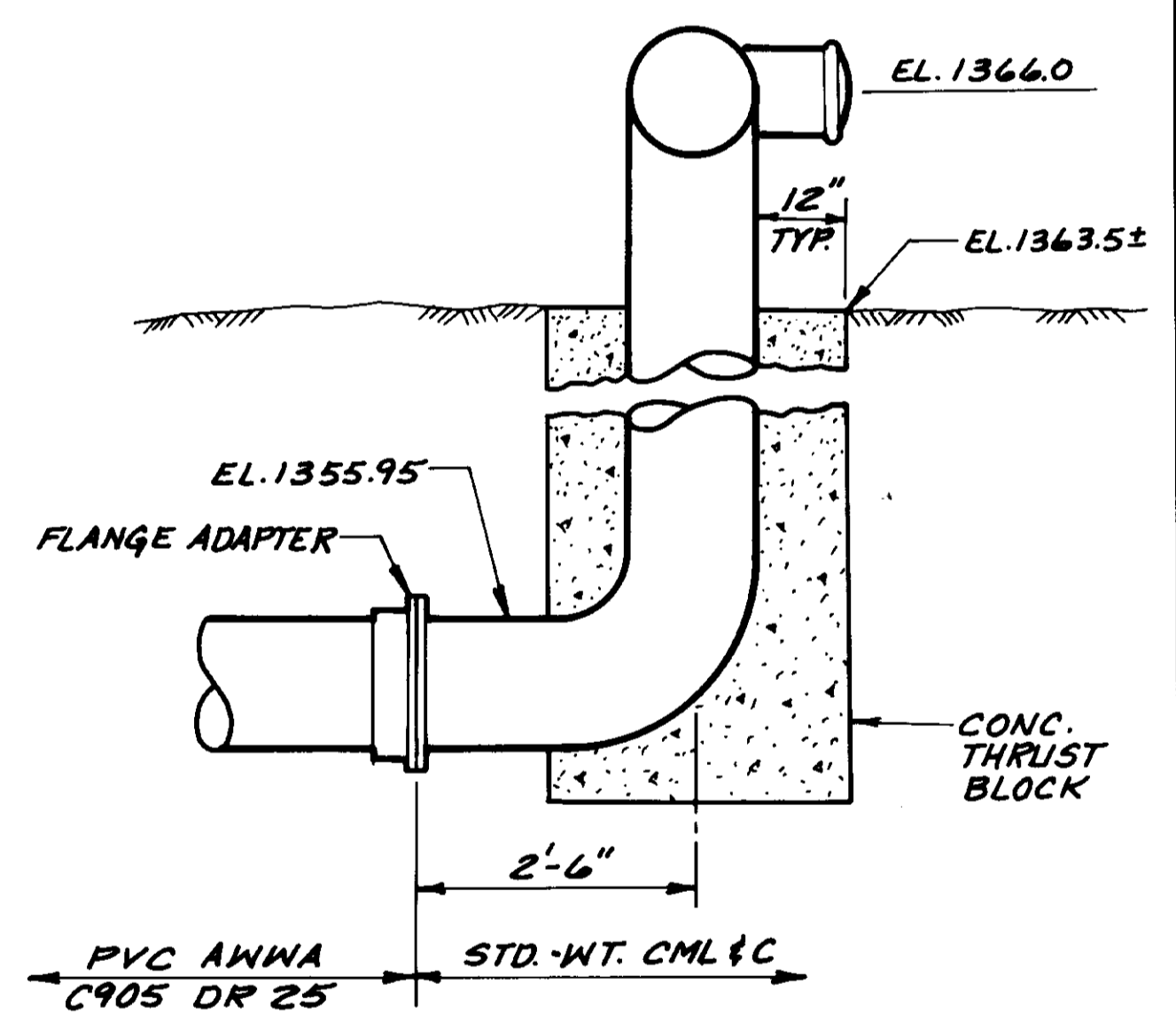
- ELECTRICAL CONDUIT
- ELECTRICAL PULL BOX
- PIPELINE
- - - PERMANENT EASEMENT
- - - UTILITY EASEMENT



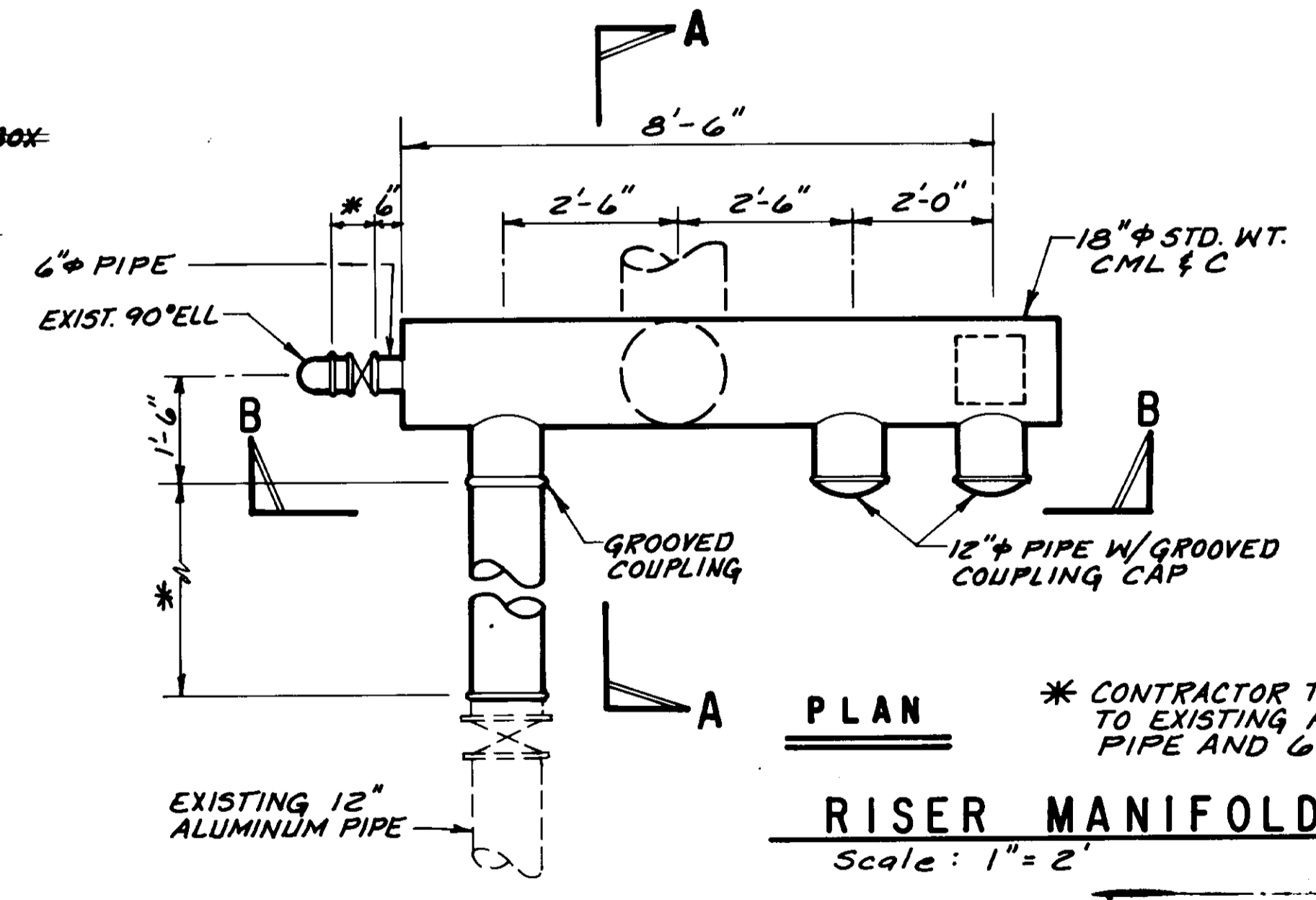
CURVE DATA
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 E 3651.795
 Δ = 42°41'40"
 L = 32.787'
 R = 44.0'



SECTION B-B

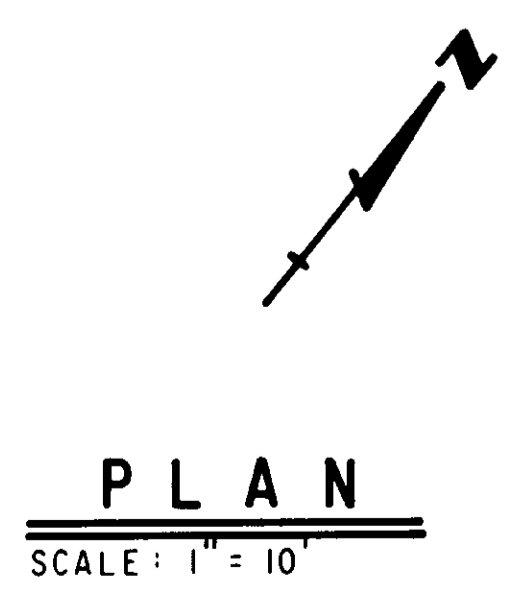
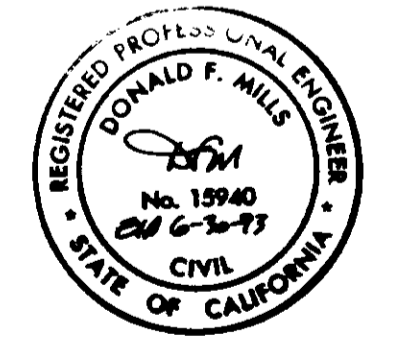


SECTION A-A



PLAN
RISER MANIFOLD DETAIL
 Scale: 1" = 2'

* CONTRACTOR TO VERIFY AND CONNECT MANIFOLD TO EXISTING ABOVE GROUND 12" ALUMINUM PIPE AND 6" STEEL PIPE.

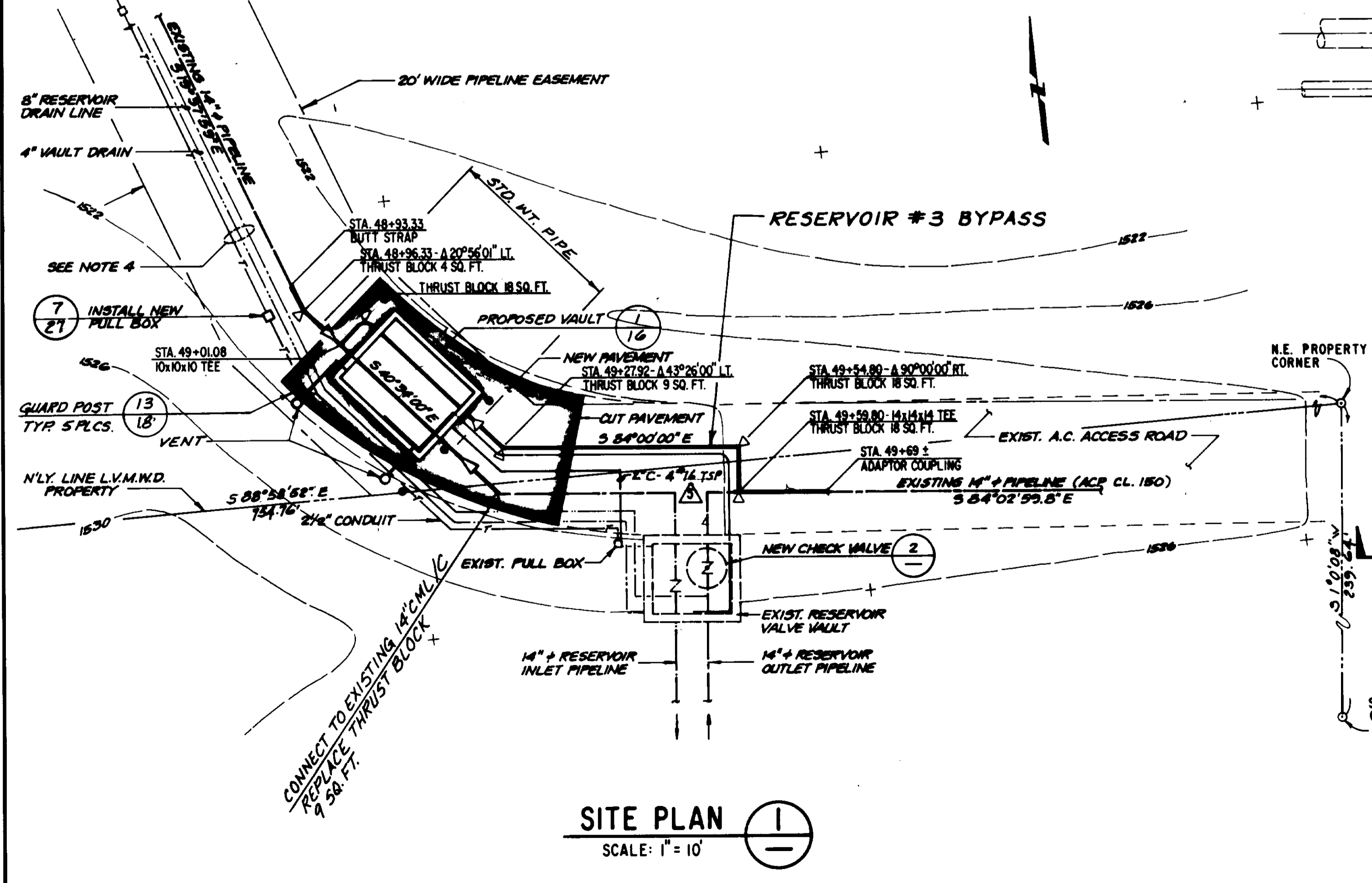
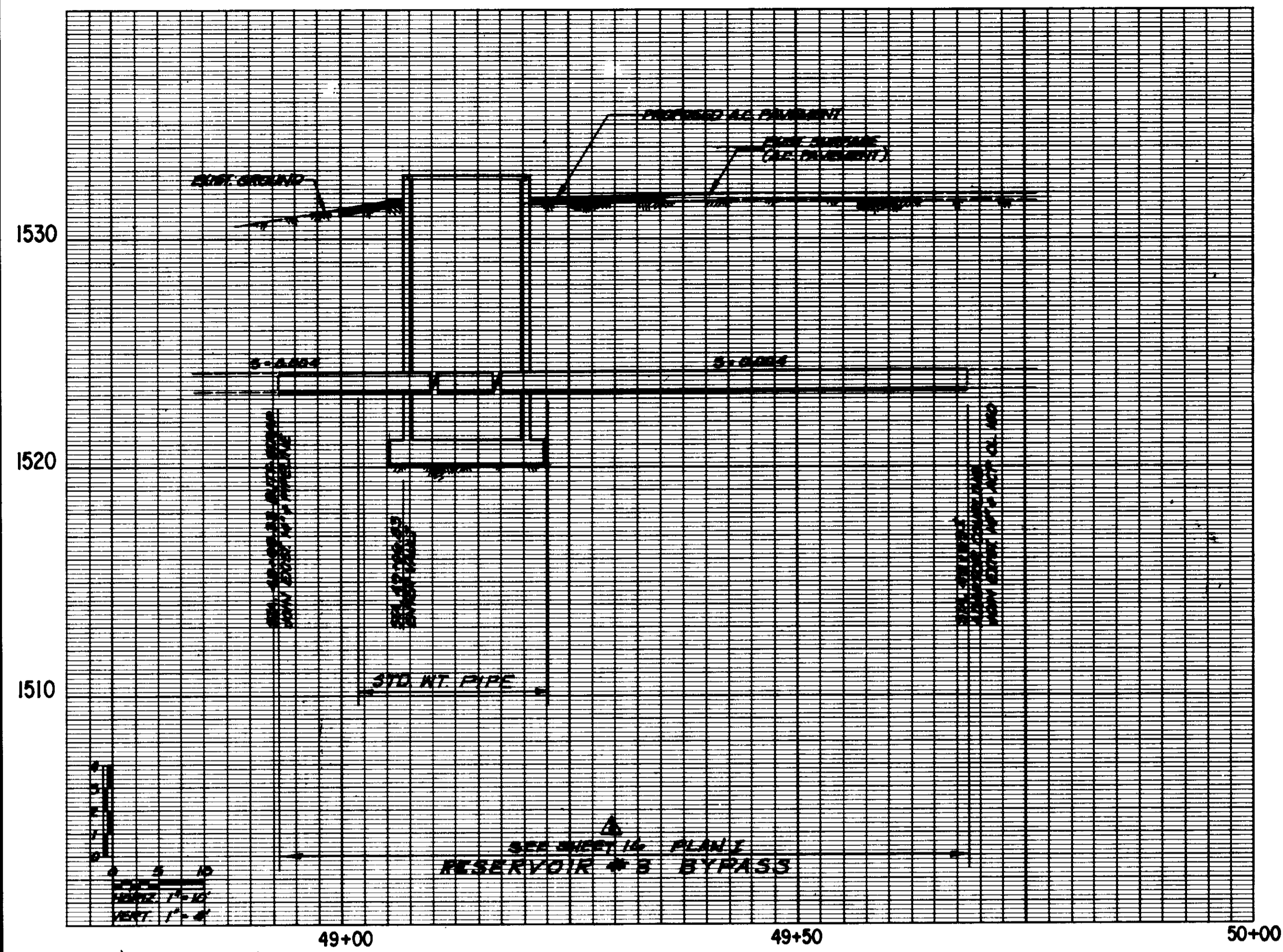


RECORD DRAWING
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 CON'T. INSP. *ASR* AGE-CY *DEL* DATE *12/19/93*
 DRAFTER BY *ASR* AGE-CY *DEL* DATE *12/19/93*
 PROJ. GR. *DAS* AGE-CY *DEL* DATE *12/19/93*

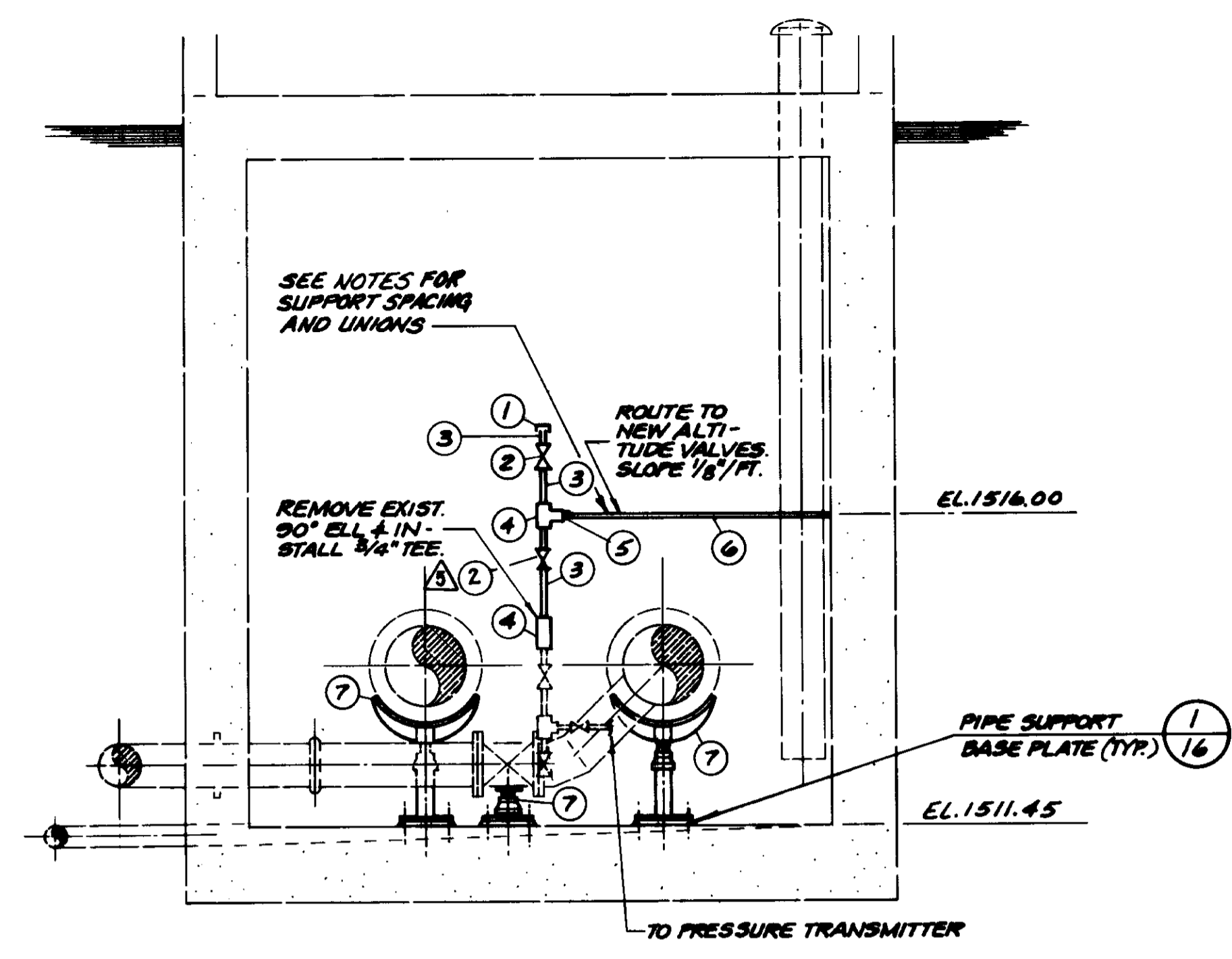
LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 PRESSURE REDUCING STATION VAULT

BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA

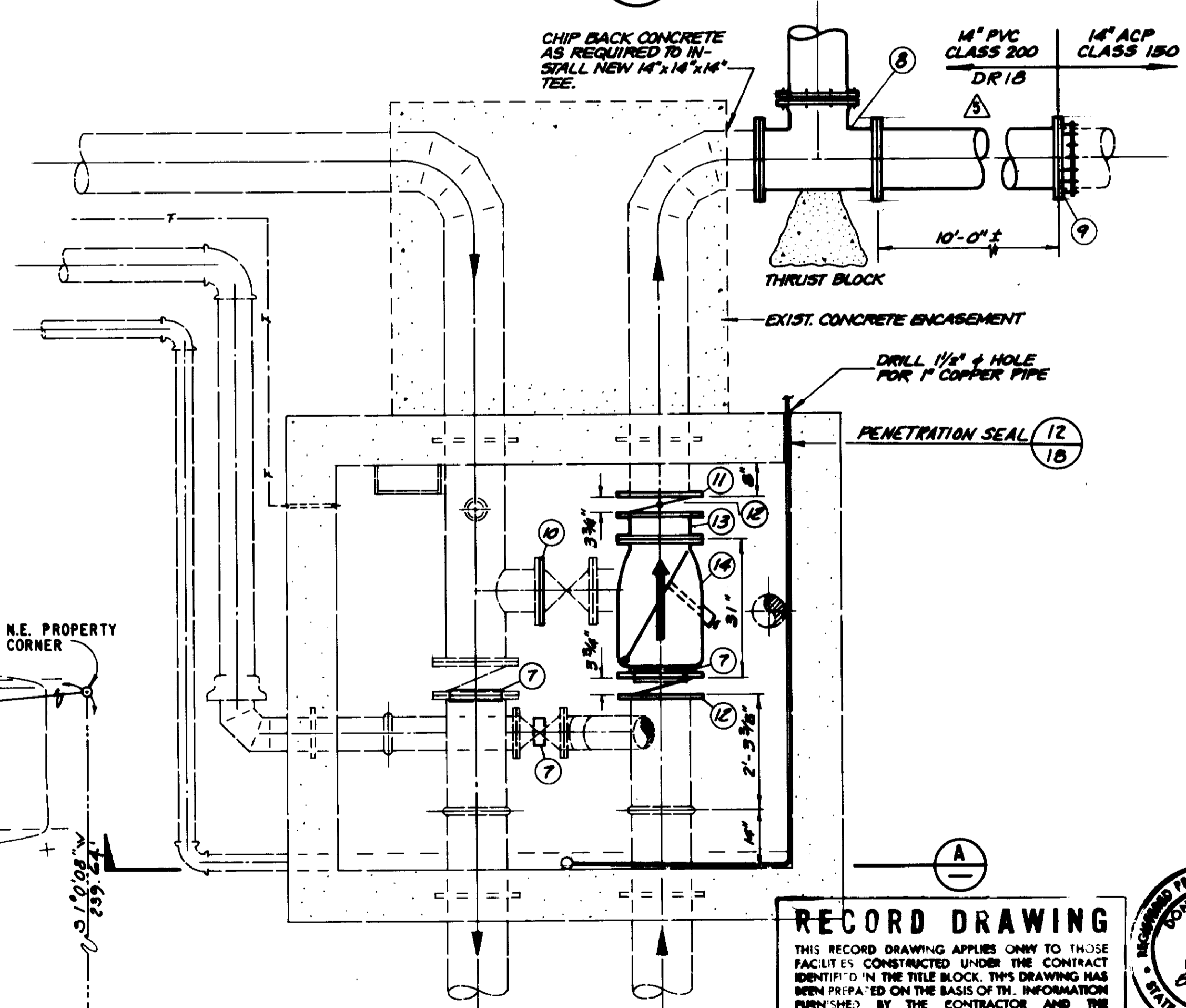
12/8/93	RECORD DRAWING				
12/25/91	CHANGE ORDER NO. 1-REVISED PRESSURE REDUCING STATION LOCATION	<i>ASR</i>	<i>DEL</i>	<i>12/19/93</i>	
REV.	DATE	DESCRIPTION	APP.	DESIGN P.A.B.	DRAWN J.R.G.



SITE PLAN
SCALE: 1" = 10'



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



EXISTING VAULT PLAN
SCALE: 1/2" = 1'-0"

CONSTRUCTION NOTES

1. CONTRACTOR TO FIELD VERIFY DIMENSIONS EXISTING PIPE LOCATION AND ELEVATION PRIOR TO FABRICATION.
2. WATER SYSTEM OUTAGES SHALL BE MINIMIZED AND SCHEDULED WITH THE DISTRICT REPRESENTATIVE TWO (2) WEEKS IN ADVANCE.
3. ALL REMOVED VALVES AND EQUIPMENT SHALL BE DELIVERED TO THE DISTRICT OR DISCARDED AS DIRECTED BY THE DISTRICT.
4. RELOCATE 1-1/4-INCH TELEMETRY CONDUIT AND WIRES, 8-INCH ACP RESERVOIR DRAIN, 4-INCH ACP VAULT DRAIN PIPE AND CATHODIC PROTECTION TEST POINT AS REQUIRED TO INSTALL NEW VAULT.
5. PROVIDE TEMPORARY SUPPORT FOR EXCAVATION UNDER PIPE AT A MAXIMUM OF 8-FOOT INTERVALS AS REQUIRED TO PROVIDE THRUST RESTRAINT AND SUPPORT PIPE.

LIST OF MATERIALS

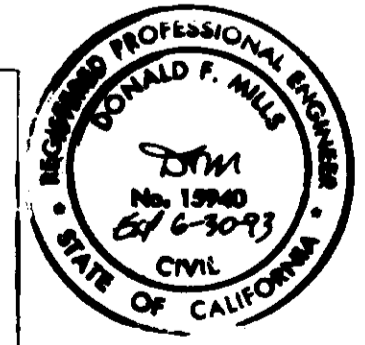
1. 3/4" BRASS CAP.
2. 3/4" 200# WOG. BRONZE GATE VALVE NRS SOLID WEDGE.
3. 3/4" BRASS NIPPLE.
4. 3/4" BRASS TEE.
5. 3/4" X 1" BRASS ADAPTOR.
6. 1" COPPER TUBING.
7. PIPE SUPPORT GRINNEL FIG. 264.
8. 14" TEE FLG. x FLG. x M.J. CLASS 150.
9. ADAPTOR COUPLING.
10. 8" BLIND FLANGE AWWA 207 CLASS D.
11. 14" FLANGE SLIP ON FLAT FACE AWWA 200 CLASS D.
12. 14" BUTTERFLY VALVE, LUG TYPE 150 PSI, S.S. DEZURIK HP11 W/ MANUAL OPERATOR & HAND-WHEEL.
13. 14" 12 GAGE CML/C STEEL PIPE.
14. 14" FLAPPER CHECK VALVE W/BACK FLUSH DEVICE, HYPALON LINING 150 PSI FLANGES APCO 114.

TUBING NOTES

1. COPPER TUBING SHALL CONFORM TO ASTM B 88. TUBING ABOVE GROUND SHALL BE TYPE L, HARD DRAWN, EXCEPT THAT TUBING USING NUT AND FERRULE FITTINGS SHALL BE SOFT ANNEALED (TEMPER C). BURIED TUBING SHALL BE TYPE K.
2. SOLDER SHALL BE SWAGEL SOLDER CONFORMING TO ANSI 4775C. DO NOT USE CORED SOLDER. BRAZING PROCEDURES SHALL BE IN ACCORDANCE WITH ARTICLES XI AND XII, SECTION IX, OF THE ASME BOILER AND PRESSURE VESSEL CODE.
3. PIPE AND NIPPLES SHALL BE BRASS CONFORMING TO ASTM B 43 SCHEDULE EXTRA STRONG.
4. UNIONS SHALL BE THREE PART MUELLER H-18480 OR EQUAL. PROVIDE UNIONS AT EVERY CHANGE IN DIRECTION AND TO 12 INCHES DOWNSTREAM OF VALVE.
5. PROVIDE SUPPORTS AT A MAXIMUM SPACING OF 4 FEET AND ADDITIONAL SUPPORTS WITHIN 12 INCHES OF VALVES, EQUIPMENT OR CHANGES IN DIRECTION.
6. ABOVE GROUND TUBING SHALL BE COATED PER SECTION 08850, SYSTEM NO. 16. BURIED TUBING SHALL BE WRAPPED 35 MILS OF PROTECTO-WRAP 350 OR EQUAL. TAPE SHALL OVERLAP 50%.

05547

RECORD DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
CON'T. INF. AGE CY. DATE: 12/1/92
DRAFTER: ASD AGE CY. DATE: 12/1/92
PROJ. E. GR. AGENCY DATE: 12/1/92



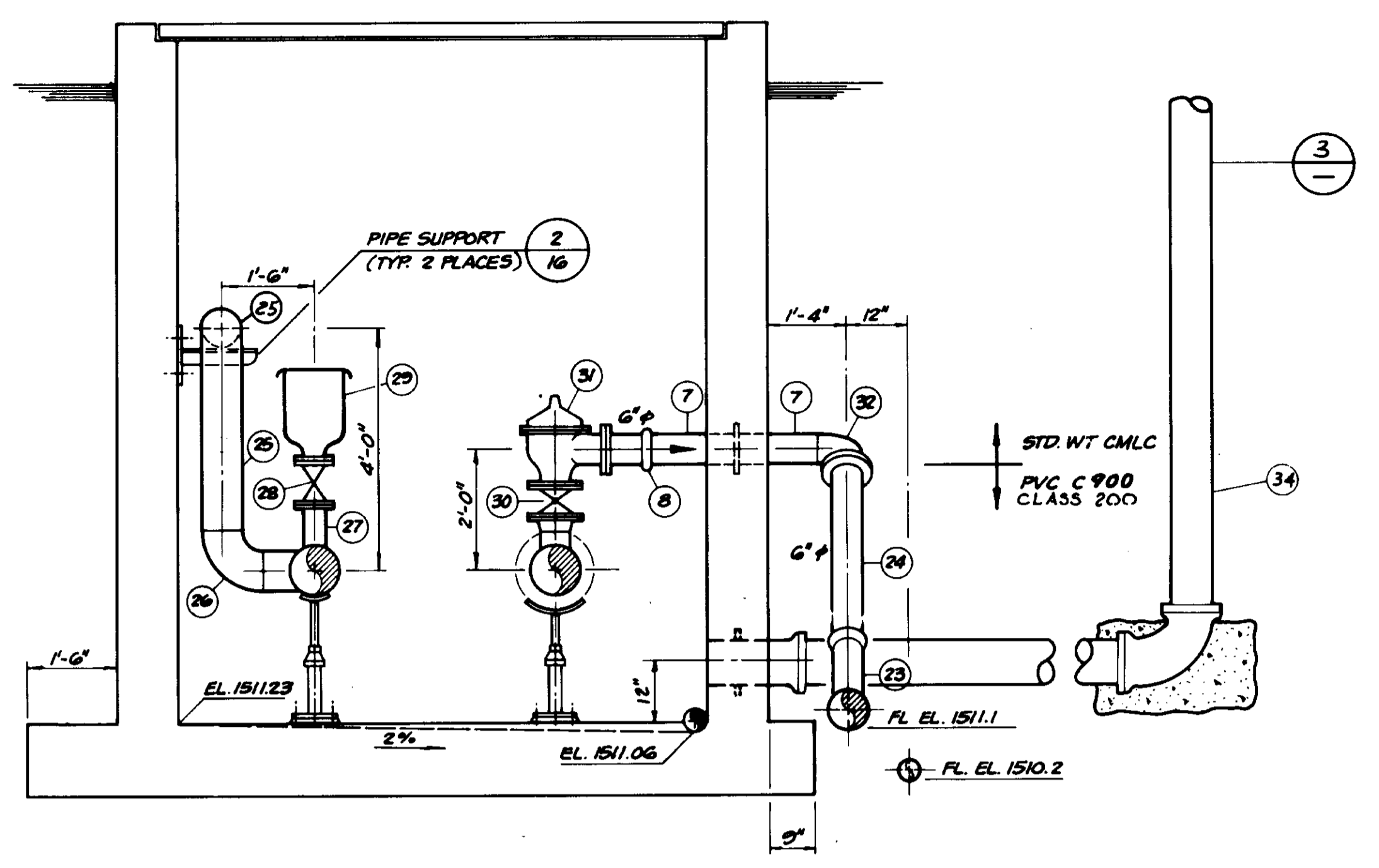
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
RESERVOIR No. 3 VAULT - SITE PLAN & PROFILE AND DETAILS

DESIGN P.A.B.		DRAWN B.G.R.		CHECKED H.M.B.		C.A. NO. 5-299		DRAWING NO. 5-299		SHEET NO. 15	
DATE		DATE		DATE		DATE		DATE		DATE	

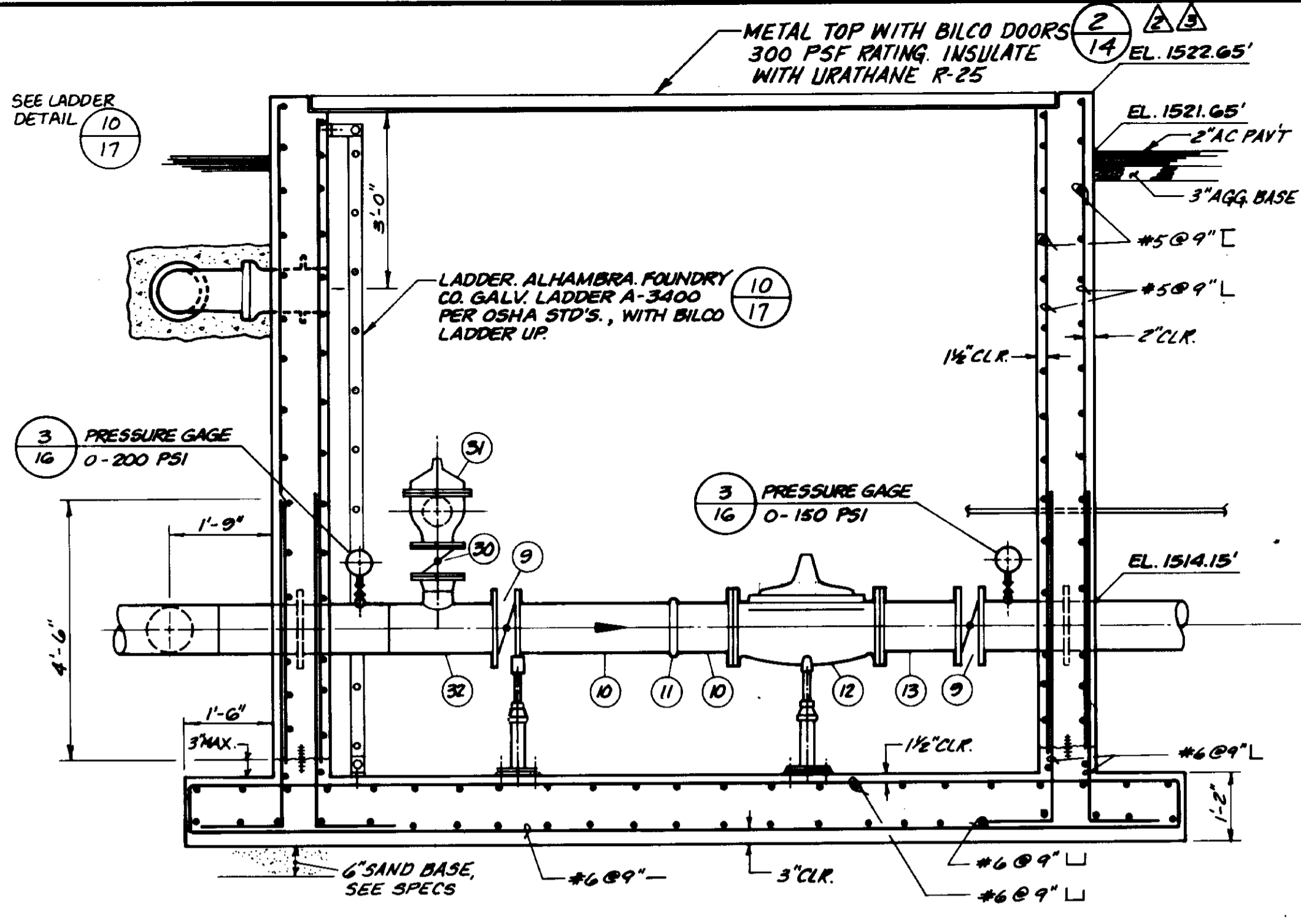
REV.	DATE	DESCRIPTION	APP.
1	12/1/92	ISSUED FOR BIDDING	ASD

LIST OF MATERIALS

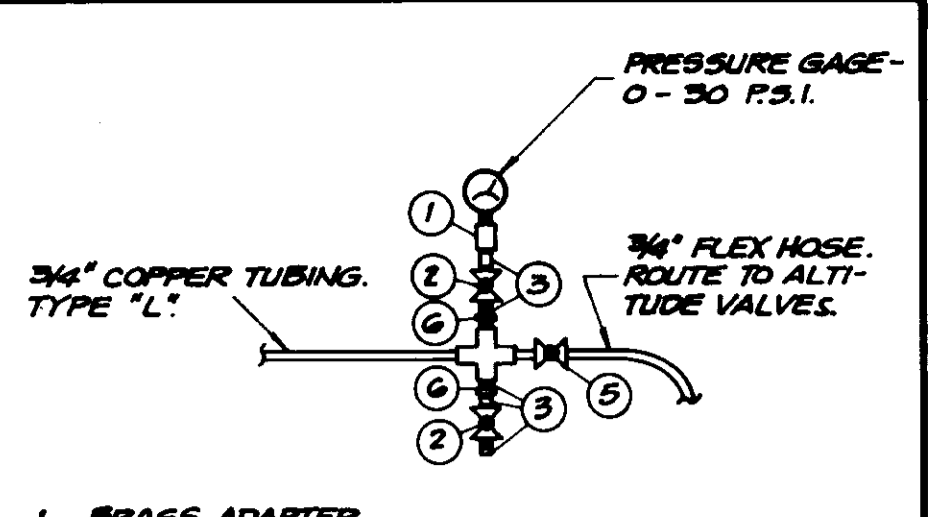
1. FLEXIBLE PIPE ADAPTOR.
2. 14" X 10" REDUCER PER DISTRICT STANDARD SPEC. SCH. STD. WT. STL. CML/C.
3. 10" STD. WT. STEEL PIPE CML/C.
4. 10" X 10" X 10" TEE STD. WT. STL. CML/C.
5. 10" S.R. 90 EL. STD. WT. STL. CML/C.
6. 10" PIPE STD. WT. STL. CML/C.
7. 6" PIPE STD. ST. STL. CML/C.
8. 6" GROOVED END COUPLING. VICTALUC COUPLING STYLE 77.
9. 10" BUTTERFLY VALVE. 150 PSI LUG TYPE. S.S. WITH MANUAL ACTUATOR AND HAND-WHEEL DEZURIK OR EQUAL.
10. 10" PIPE STD. WT. STL. CML/C.
11. GROOVED END COUPLING. VICTALUC STYLE 77.
12. 10" ALTITUDE VALVE. 125 PSI FLANGED ENDS. CLA-VAL 10" 210G-01-BCSYKX SPRING RANGE 5-40 FEET SEE SPEC. FOR X DESIGNATION.
13. 10" STD. WT. STL. PIPE FLANGE X FLANGE.
14. 10" STD. ST. STL. PIPE FLANGE X PE. CML/C.
15. 10" ALTITUDE VALVE. 125 PSI FLANGED END, HYDRO MERCURY CONTROL. CLA-VAL #206-4M-BC XYKX. SEE SPEC FOR X INFORMATION.
16. 4" SLIP ON 22 EL. D.I. 125 PSI.
17. 1" COPPER PIPE TYPE K.
18. 4" PVC C900 PIPE CLASS 200.
19. 8" PVC C900 PIPE SLIP ON DI 125.
20. 4" 45 EL. SLIP ON D.I. CLASS 125.
21. 8" 22 EL. SLIP ON D.I. CLASS 125.
22. 4" 45 EL. SLIP ON D.I. CLASS 125.
23. 8" X 8" X 6" 45 LATERAL SLIP ON D.I. CLASS 125.
24. 6" PVC C900 CLASS 200 WITH FLANGE ADAPTOR.
25. 8" STD. ST. STL. PIPE CML.
26. 8" 90 EL. STD. ST. STL. PIPE CML.
27. 4" STD. ST. PIPE STL. CML.
28. 4" 200 PSI GATE VALVE. RESILIENT SEAT, NON-RISING STEM, FLANGED, MUELLER.
29. 4" COMBINATION VACUUM AIR-RELEASE VALVE APCO HEAVY DUTY 149C WITH APPURTENANCES.
30. 6" GATE VALVE. 200 PSI RESILIENT SEAT, NON-RISING STEM, FLANGED, MUELLER.
31. 6" PRESSURE RELEASE VALVE. CLASS 150 SPRING RANGE 20-200 FEET, CLA-VAL 50A-01PKCX. SEE SPECS. FOR X INFORMATION.
32. 6" 90 EL. S.R. STD. WT. CML/C.
33. 8" BUTTERFLY VALVE CLASS 150 LUG TYPE.
34. 8" PVC PIPE & FITTINGS SCH 80. USE WATER TIGHT JOINTS. CONSTRUCT TO MEET FIELD CONDITIONS.
35. 8" MUSHROOM TYPE PIPE VENT GALVANIZED, ALHAMBRA A-2165.



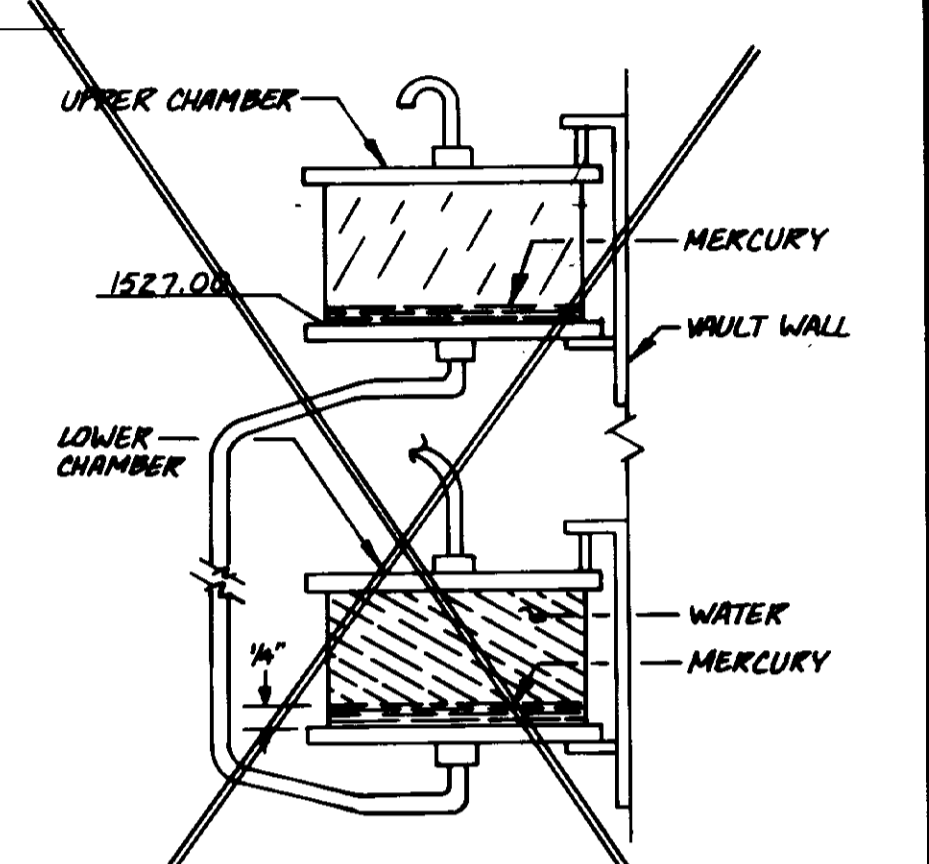
SECTION C
SCALE: 1/2" = 1'-0"



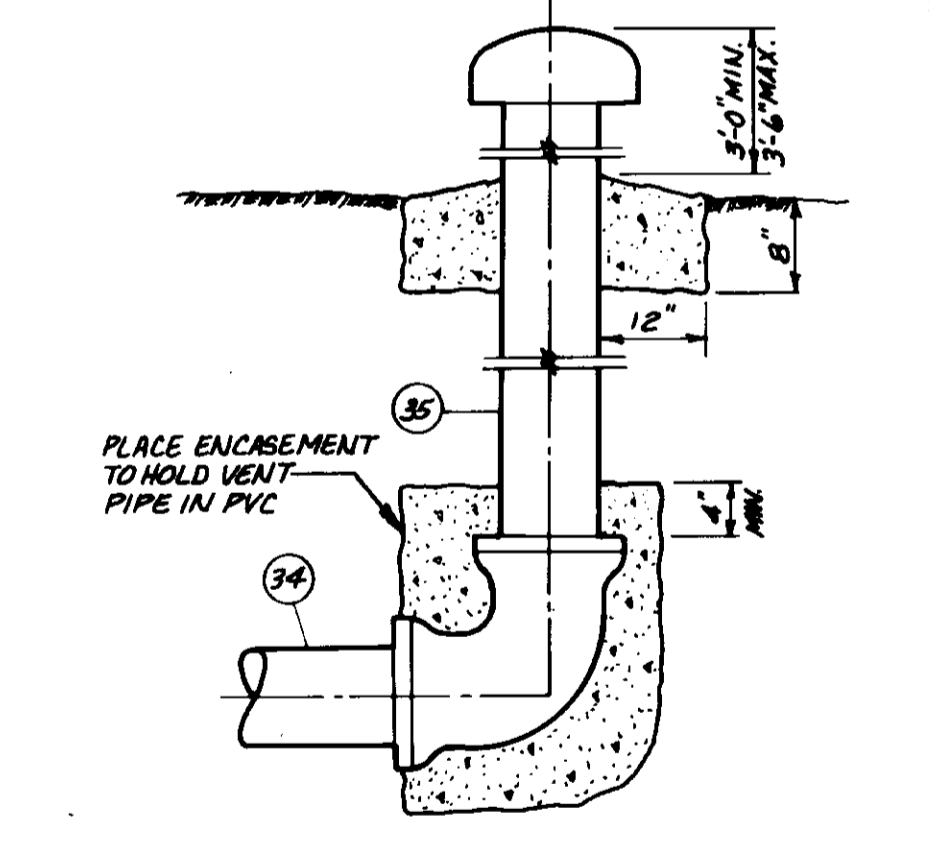
SECTION B
SCALE: 1/2" = 1'-0"



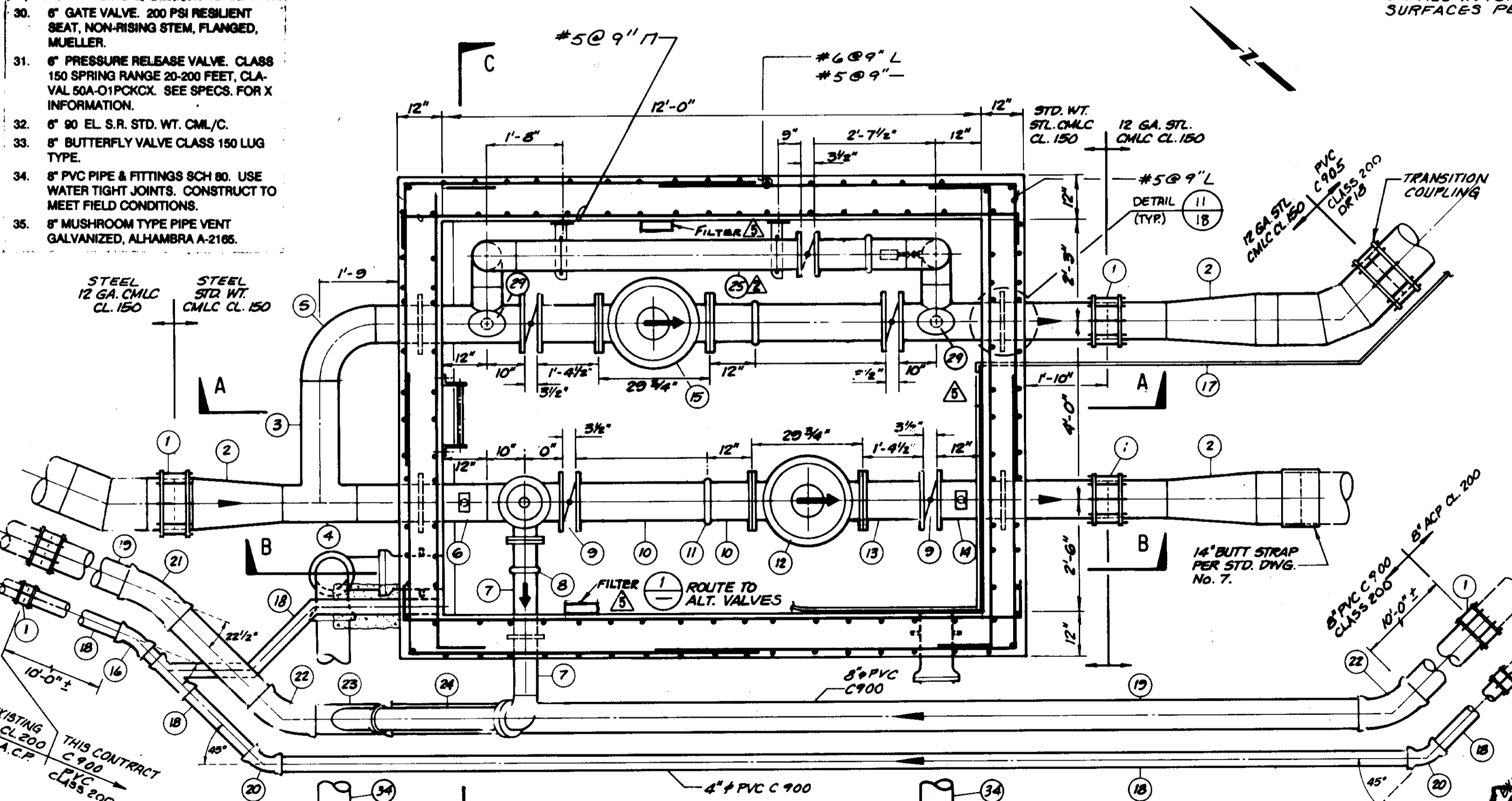
PRESSURE GAGE DETAIL 1
NOT TO SCALE



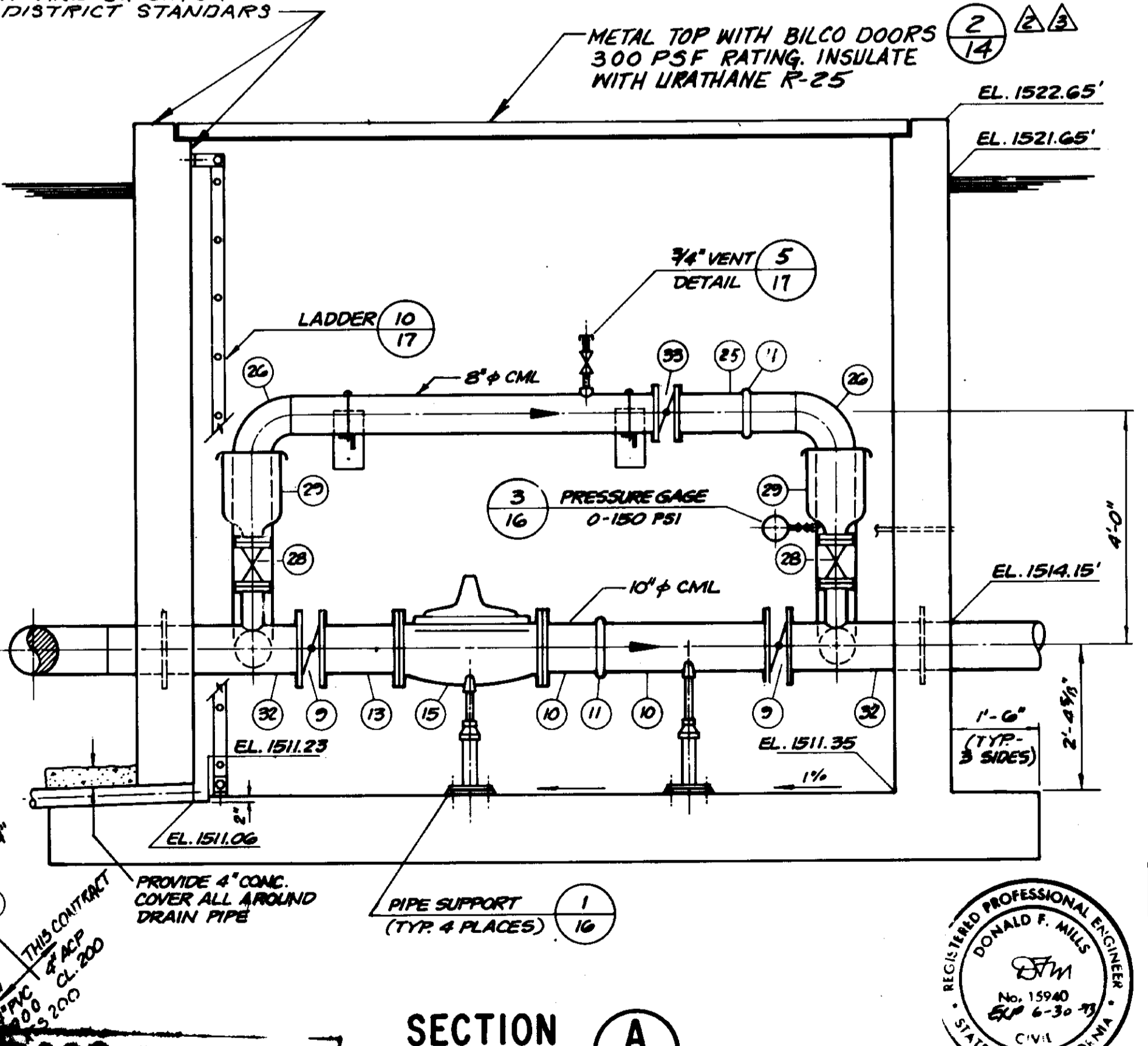
HYDRO-MERCURY CONTROL DETAIL 2
NOT TO SCALE
~~DELETED~~



VENT DETAIL 3
NOT TO SCALE



PLAN VIEW 1
SCALE: 1/2" = 1'-0"



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

PROVIDE WATER PROOFING ON ALL INTERIOR AND EXTERIOR SURFACES PER DISTRICT STANDARDS

METAL TOP WITH BILCO DOORS 300 PSF RATING. INSULATE WITH URATHANE R-25

RECORD DRAWING

THIS RECORD DRAWING IS FOR INFORMATION ONLY TO THOSE CONTRACTORS WHOSE CONTRACTS ARE IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING WAS PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.

CONST. INSPECTOR: _____ DATE: 11/14/93
 AGENCY: A.S.P. DATE: 11/14/93
 PROJ. F. GR.: _____ DATE: 11/14/93

12/9/93	RECORD DRAWING	
2/18/91	ADD INSULATION TO VAULT	
8/14/90	ADDENDUM NO. 4	
7/3/90	ADDENDUM NO. 2 SECTION A/PLAN	
7-3-90	ISSUED FOR BIDDING	
REV.	DATE	DESCRIPTION



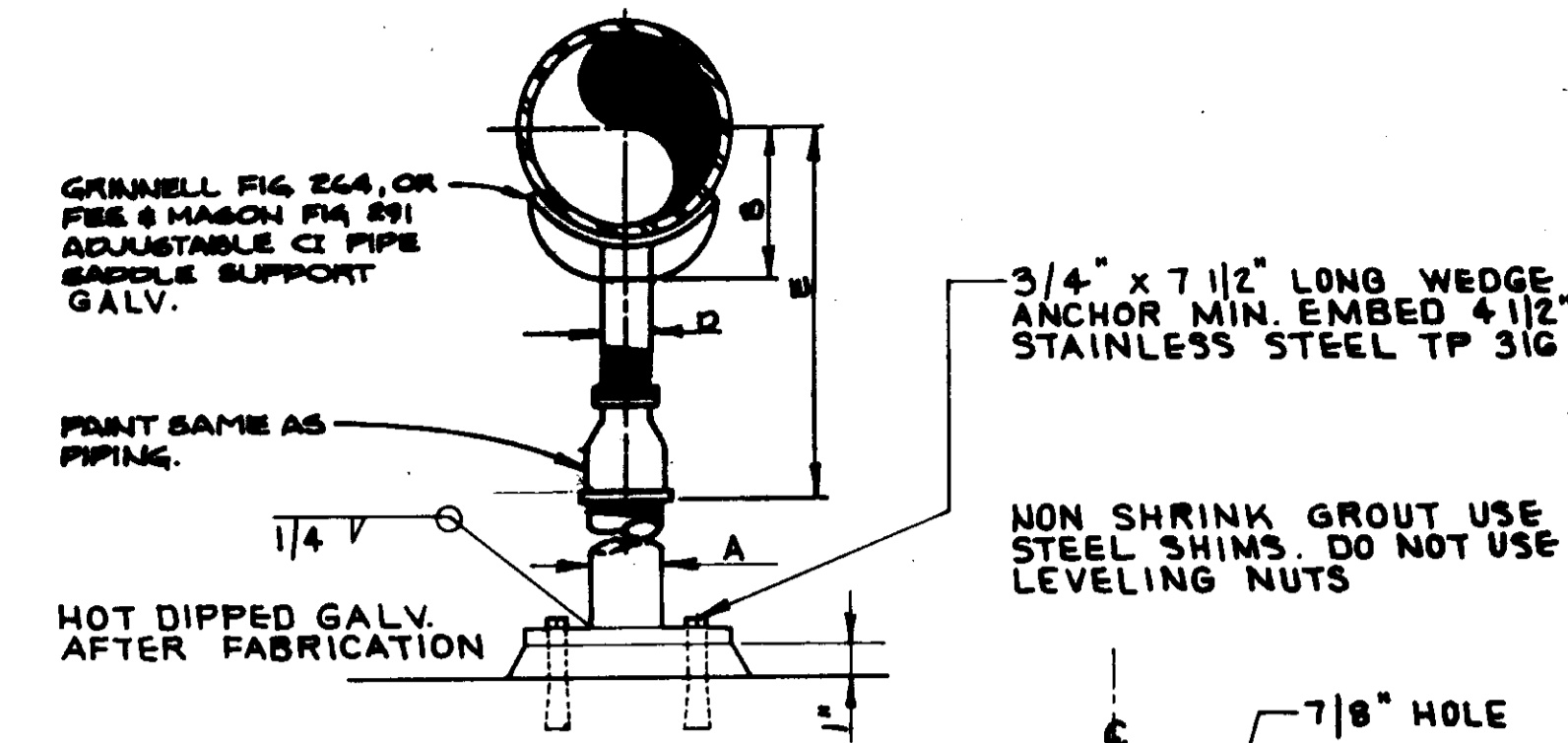
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

ALTITUDE VALVE VAULT RESERVOIR No. 3

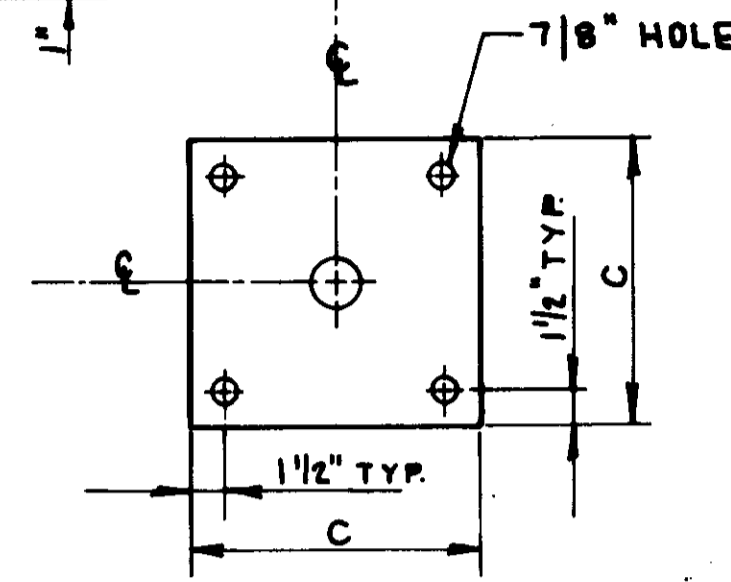
BOYLE ENGINEERING CORPORATION
consulting engineers | architects
VENTURA, CA.

Donal P. Mills
C.E. No. 15940
Exp. 6-30-99

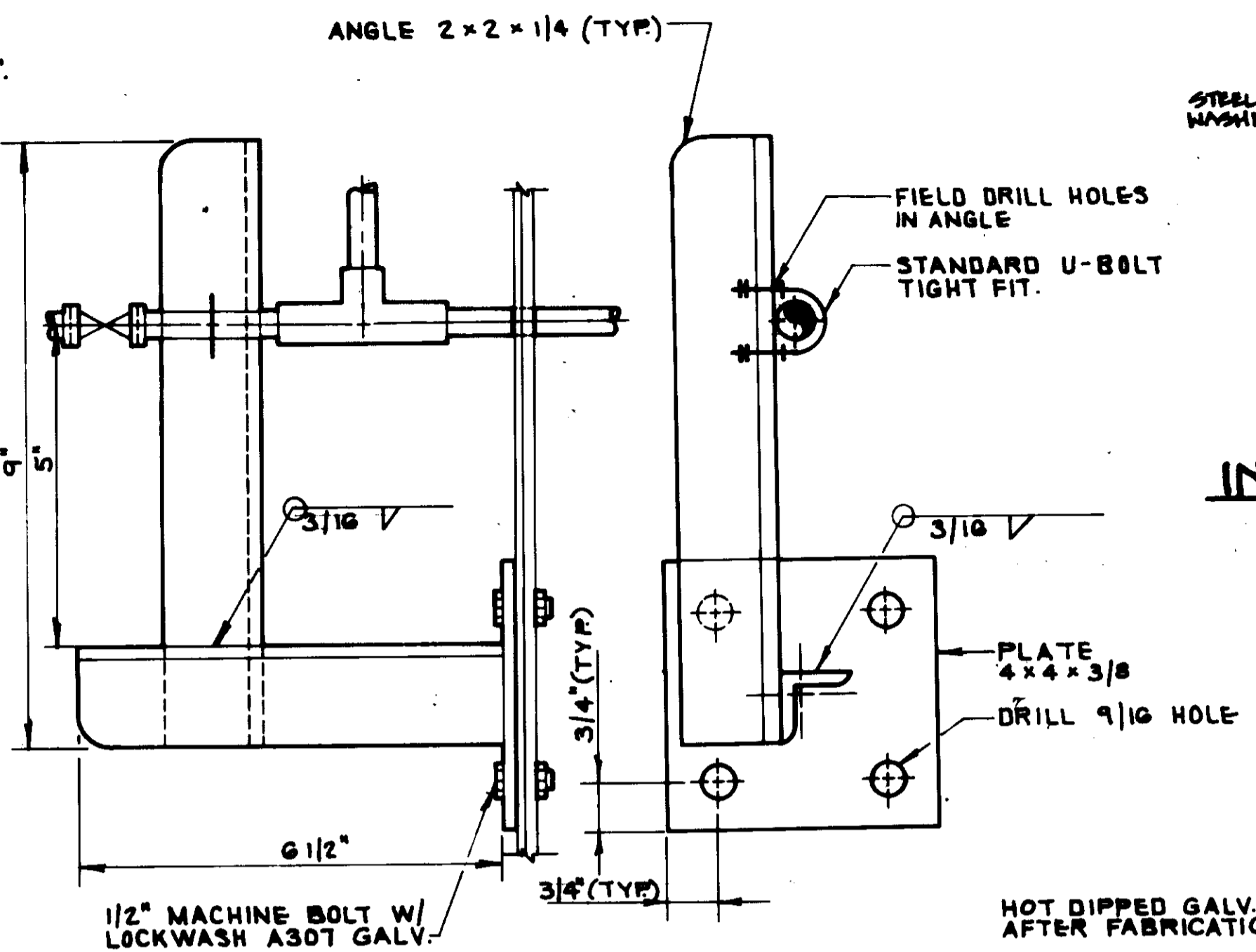
SHEET NO. 16
OF 34 SHEETS



PIPE SIZE	A	B	C	D	MIN	MAX
4	3	4 1/4	10	2 1/2	9 1/4	14
6	3	5 1/2	10	2 1/2	10 1/2	15 1/4
8	3	6 3/8	10	2 1/2	11 3/4	16 1/2
10	3	8 1/4	10	2 1/2	13 1/2	18 1/4
12	3	9 1/4	10	2 1/2	15	19 1/4
14	4	10 1/4	12	3	16 1/4	20 1/4
16	4	12 1/8	12	3	17 3/4	22 1/4



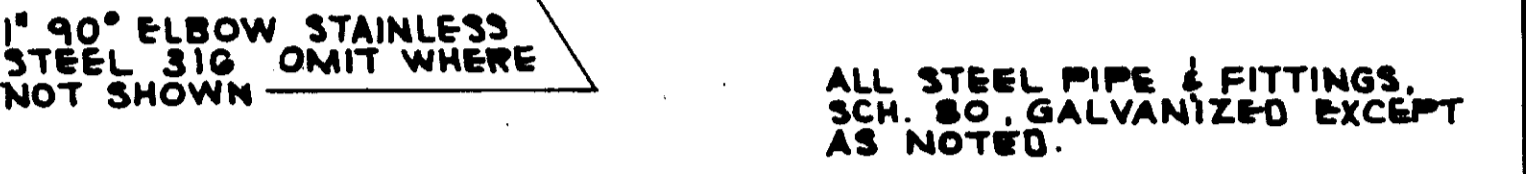
PIPE SUPPORT 1



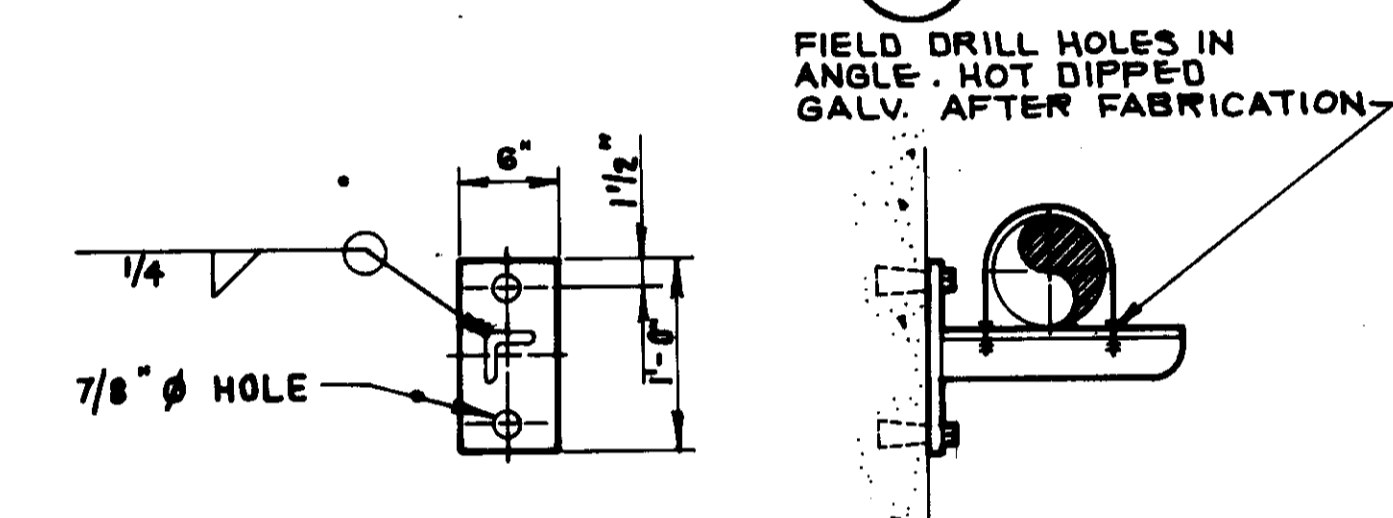
TELEMETRY PIPE SUPPORT 4

INSULATED FLANGE JOINT DETAIL 7

- N.T.S.
- NOTES:
1. PLACE NON-INSULATED SIDE OF BOLT TOWARD VALVE.
 2. DO NOT APPLY METALLIC OR OTHER NON-INSULATING PARTS TO INSULATING PARTS OR FLANGES.
 3. INSULATING SLEEVE TO BE 1/4" SHORTER THAN DISTANCE BETWEEN STEEL WASHERS WHEN BOLT IS FULLY TIGHTENED.
 4. INSULATING KIT TO BE PER COMPANY TYPE E OR APPRO. EQUAL.
 5. COAT WITH COLO APPROX COAL TAR MASTIC AFTER ASSEMBLING JOINT AND WRAP WITH A BUTYL RUBBER ADHESIVE, POLYETHYLENE BACKED TAPE, AT BURIED LOCATIONS.

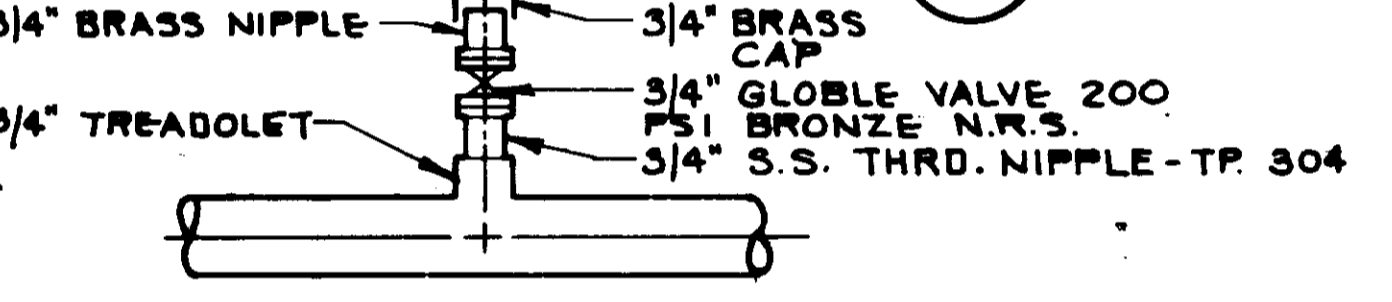


DRAIN CONNECTION DETAIL 9

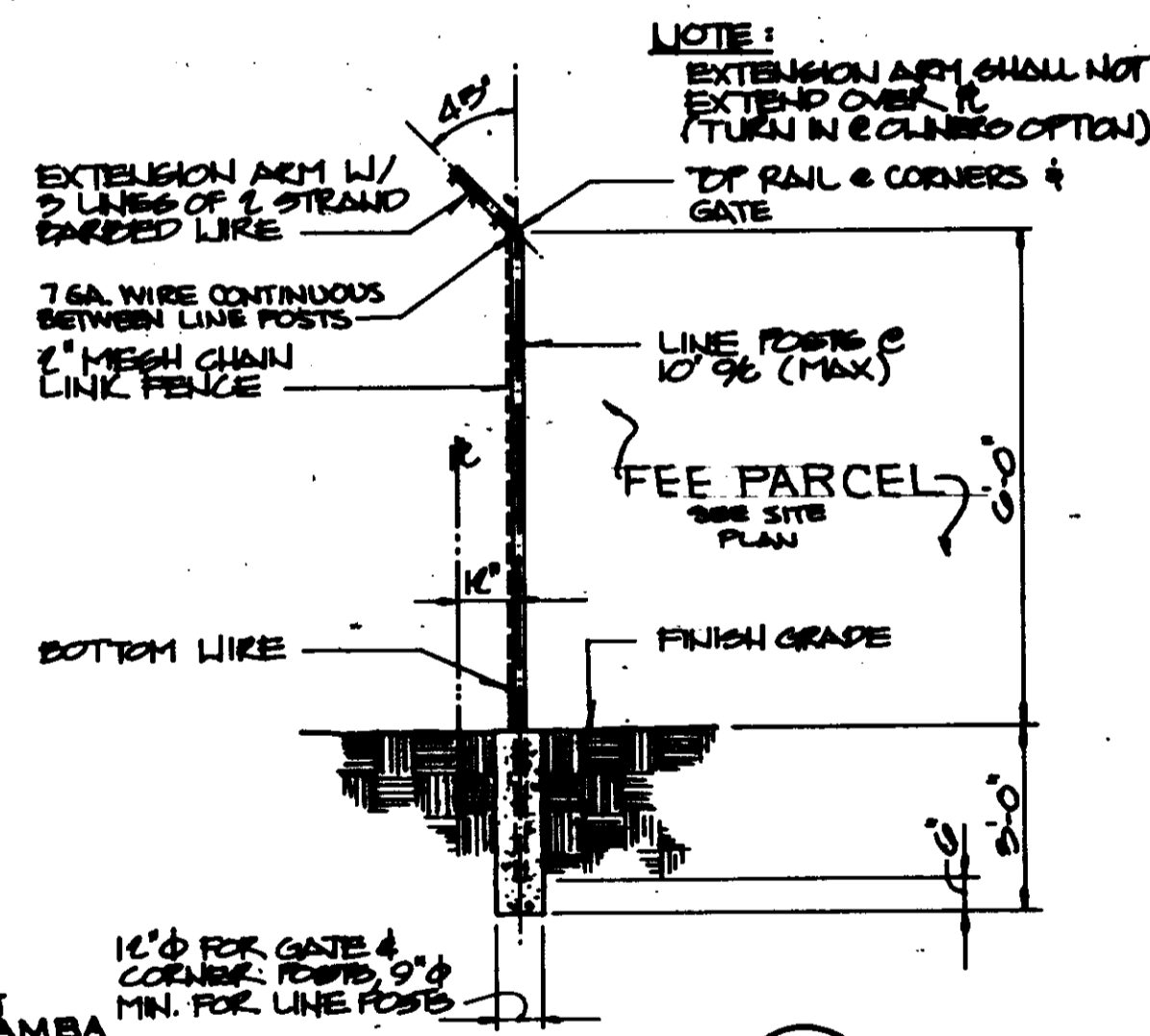


PIPE SUPPORT 2

1. STANDARD U-BOLT GRINNELL FIG. 137 W/6 HEX NUTS. HOT DIP GALV. OR EQUAL.
2. PLATE 3/4 x 6" x 1'-0" LG. A-36 GALV.
3. 3 x 3 x 3/8 x 1'-3" LG. A-36 GALV.
4. 3/4" x 7" LG. HILTA KWIK BOLTS STAINLESS TYPE 316 WITH LOCKWASHER 4 1/2" MIN. EMBED.
5. SHIMS WHEN REQ'D SHALL BE S.S. TYPE 316 W/ 2 HOLES FOR U-BOLTS.



VENT DETAIL 5



FENCE DETAIL 8

SPECIFICATION

BARBED WIRE: 3 STRANDS OF NO. 12 1/2 STL WIRE W/ 4 FT. BARBS

FABRIC: NO. 9 GALV. STL WIRE, 2" MESH.

FABRIC TIES: NO. 9 GALV. STL WIRE SPACED 14" APART ON POSTS & 24" APART ON RAILS.

CORNER POSTS: 3" O.D. PIPE, 5.79 LB/FT.

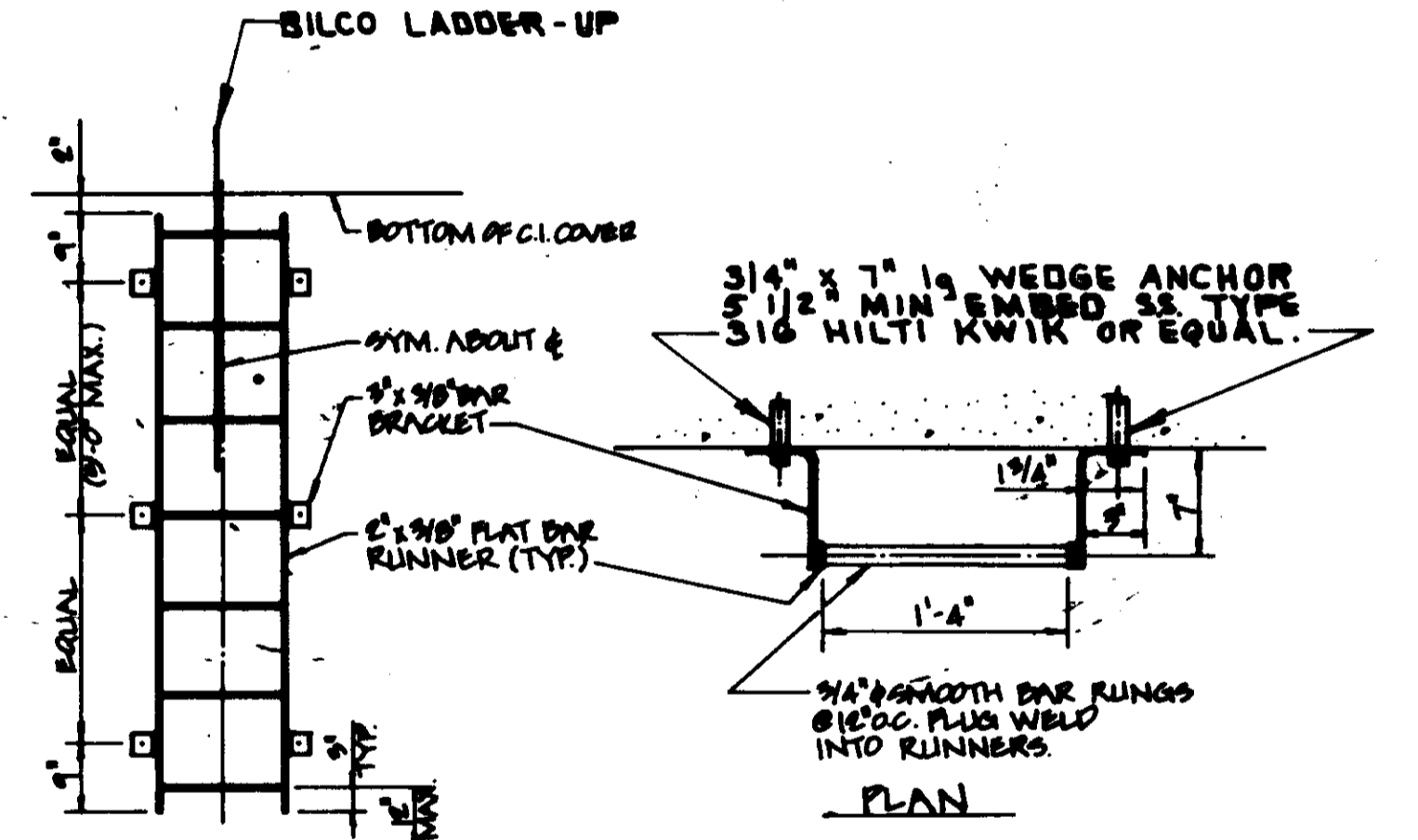
LINE POSTS: 2.25" H. COLUMN SECTION, 4.1 LB/FT. OR STD. WT. 2 1/2" O.D. PIPE, 3.60

SLING GATE POSTS: 4" O.D. PIPE, 9.1 LB/FT.

TOP RAIL & BRACES: 1 3/8" O.D. PIPE, 2.27 LB/FT. OR 1 1/2" x 1 3/8"

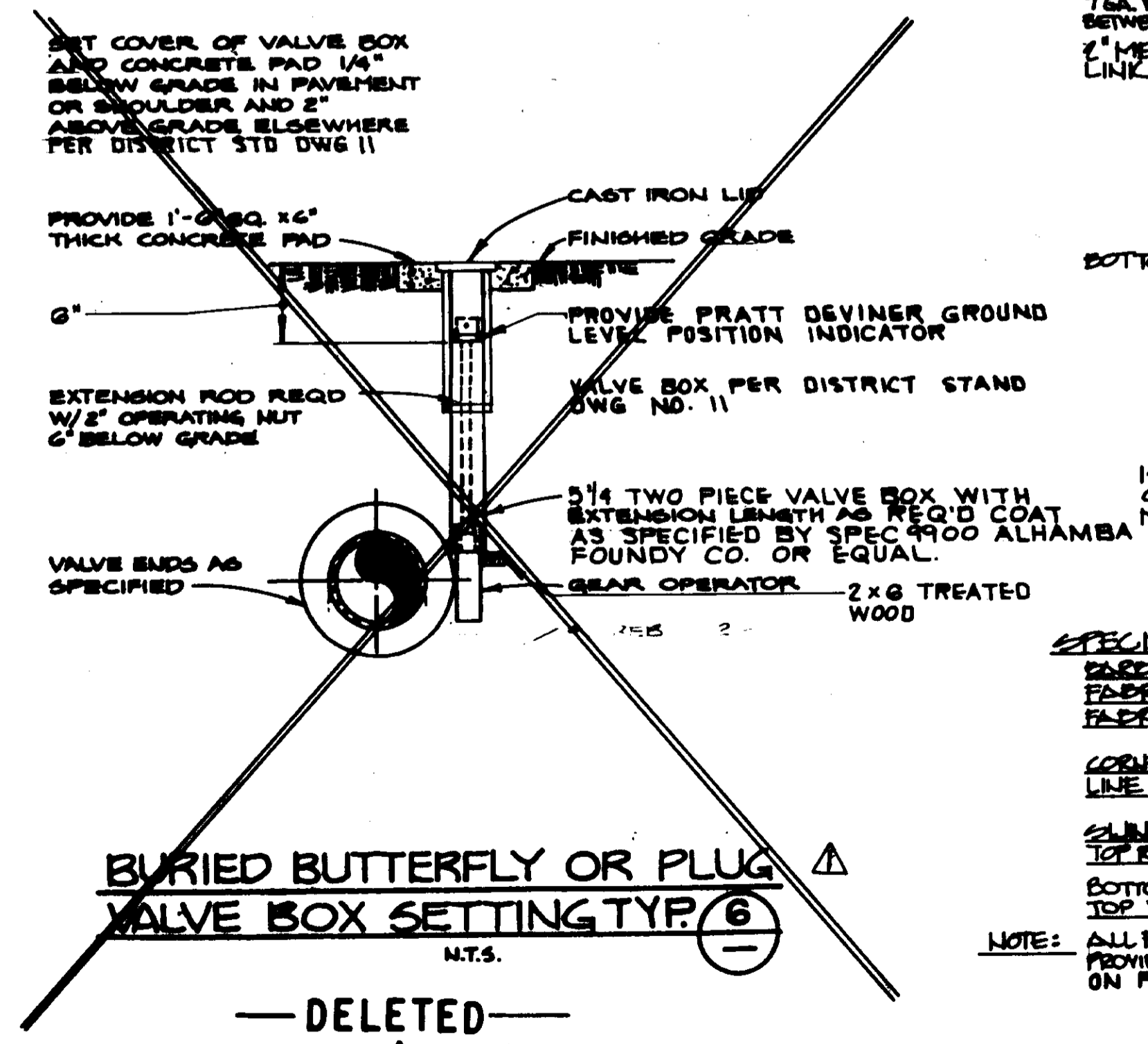
BOTTOM & TOP WIRE: COIL SPRING WIRE 7 GA.

NOTE: ALL FENCING MATERIALS TO BE HOT-DIPPED GALV. AFTER FAB. PROVIDE 20" WIDE DOUBLE SWING GATE AT ENTRANCE AS SHOWN ON PLANS.

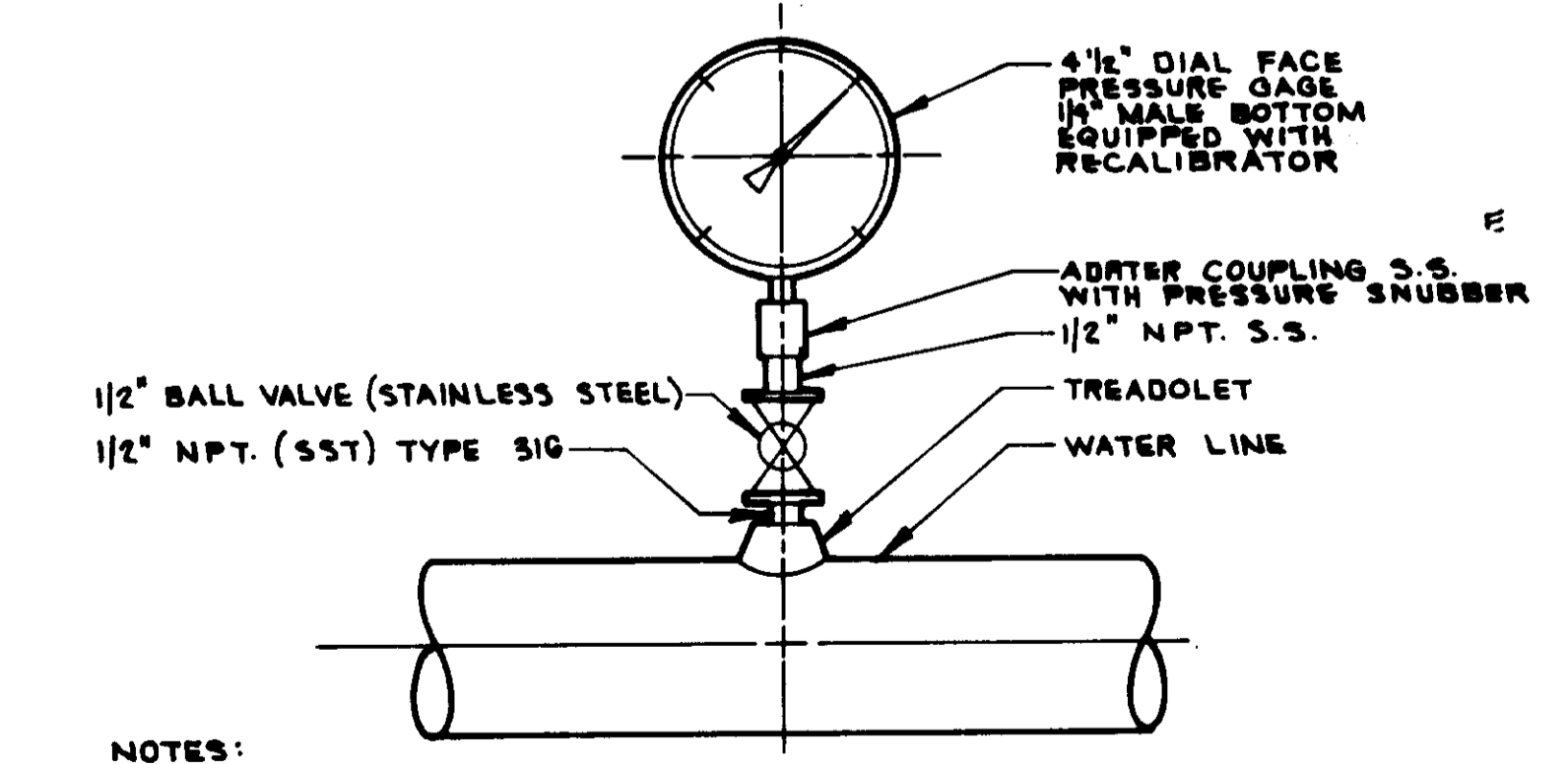


LADDER DETAIL 10

NOTE: HOT DIPPED GALVANIZE ENTIRE STEEL LADDER AFTER FABRICATION.



BURIED BUTTERFLY OR PLUG VALVE BOX SETTING TYP. 6



PRESSURE GAGE MOUNTING DETAIL 3

- NOTES:
1. RANGE OF PRESSURE GAGE SHALL BE AS SPECIFIED ON THE PLANS
 2. PIPE NIPPLES SHALL BE SCH 80
 3. PRESSURE RATING OF BALL VALVE SHALL BE AS SPECIFIED IN S. O. M.
 4. STAINLESS IS TYPE 316

RECORD DRAWING

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CONST. INSP. [] AGE-CY [] DATE []

DRAFTED BY LCP AGENCY BEC DATE []

PROJ. OR. [] AGENCY [] DATE []

DATE	DESCRIPTION	BY	APP.
12/23/93	RECORD DRAWING	[]	[]
7/24/94	ADDENDUM NO. 2 DETAILS 2+8	[]	[]
7-3-90	ISSUED FOR BIDDING	[]	[]

05549



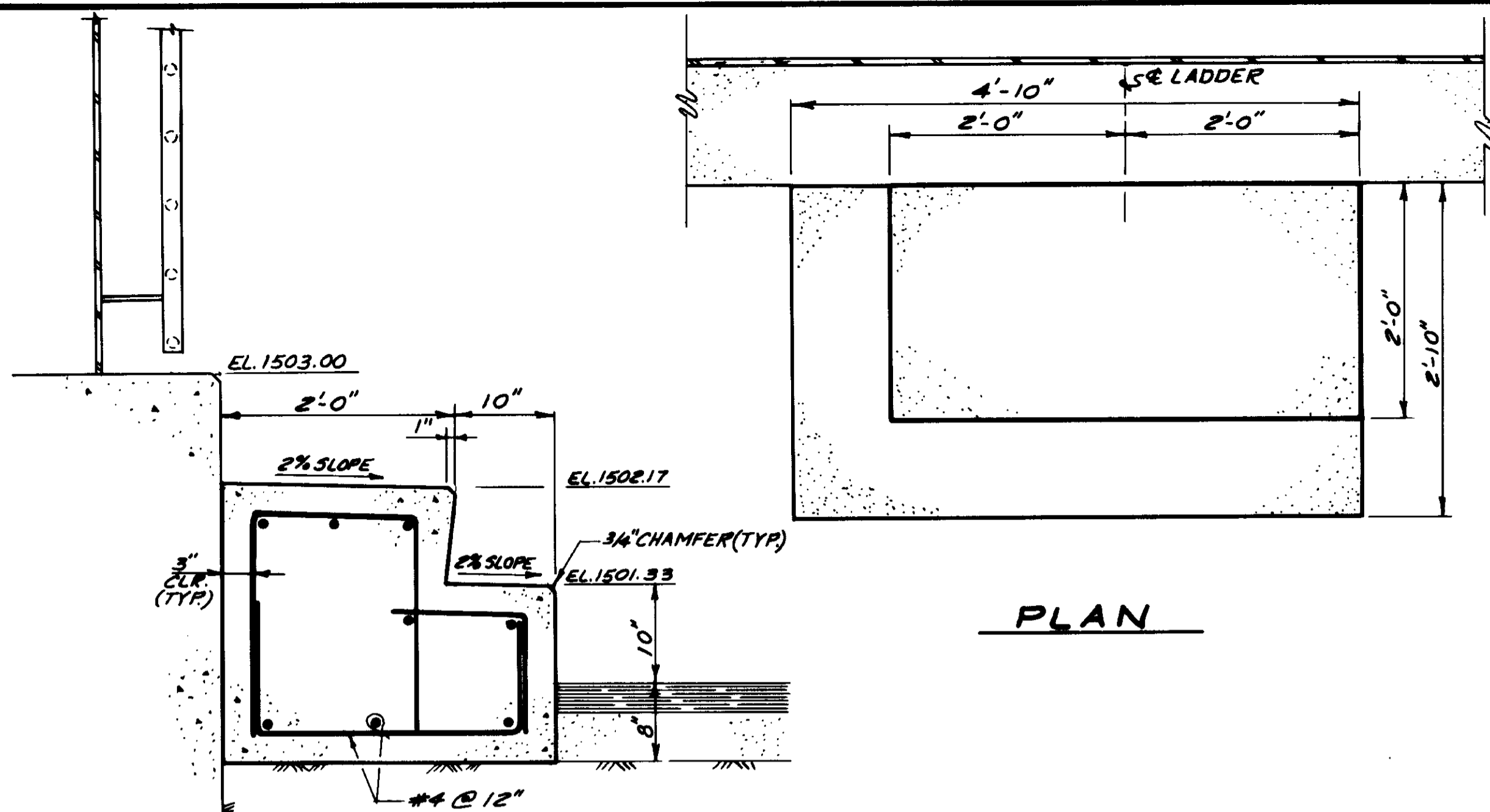
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

MISCELLANEOUS DETAILS

BOYLE ENGINEERING CORPORATION
CONSULTING ENGINEERS & ARCHITECTS
VENTURA, CA.

Donal F. Miller [Signature]

DESIGN: P.A.B. DRAWN: B.P.J. CHECKED: [] EST. NO.: VT-06-000-11 E.C. NO.: 8-229 SHEET NO.: 19 OF 34 SHEETS

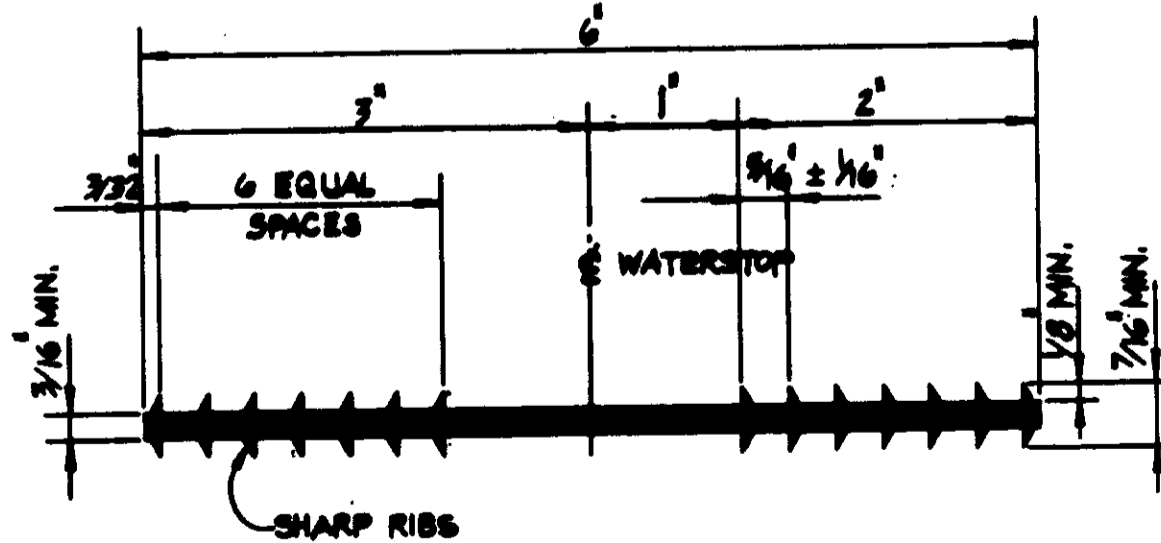


SECTION LADDER STEP DETAIL (1)
SCALE: 1" = 1'-0"

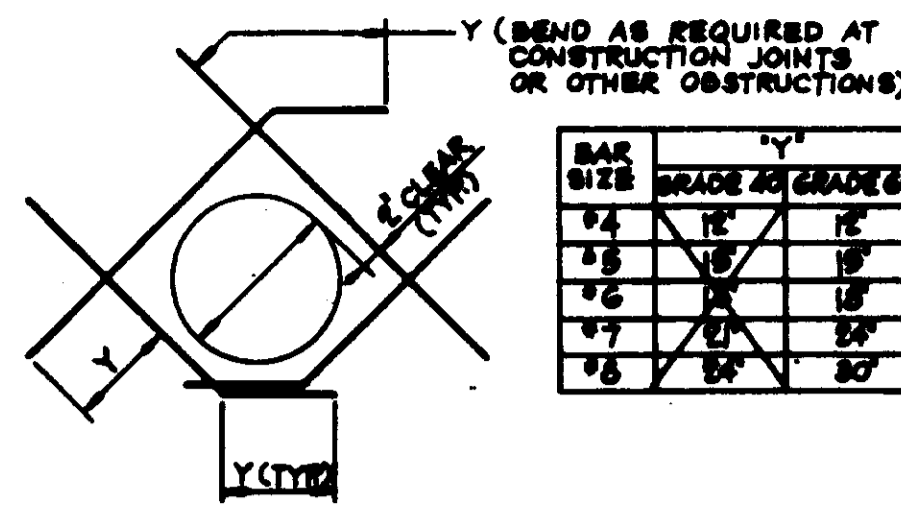
BAR SIZE	90° HOOKS 'X'	BAR SIZE	90° HOOKS 'X'
#3	2'	#6	10'
#4	3'	#8	14'
#5	4'	#10	18'
#6	5'	#11	24'
#7	6'		

NOTE:
UNLESS NOTED OTHERWISE ON DRAWINGS ALL LENGTHS OF BAR HOOKS IN FOOTINGS, COLUMNS, WALLS AND SLABS SHALL BE AS GIVEN IN TABLE ABOVE.
HOOK LENGTH 'X' IS STANDARD 90° BAR HOOK LENGTH.

STANDARD 90° BAR HOOK (5)
ALL GRADES REINFORCING



PVC FLATSTRIP WATERSTOP AT CONSTRUCTION JOINTS (6)
SEE SPECIFICATIONS



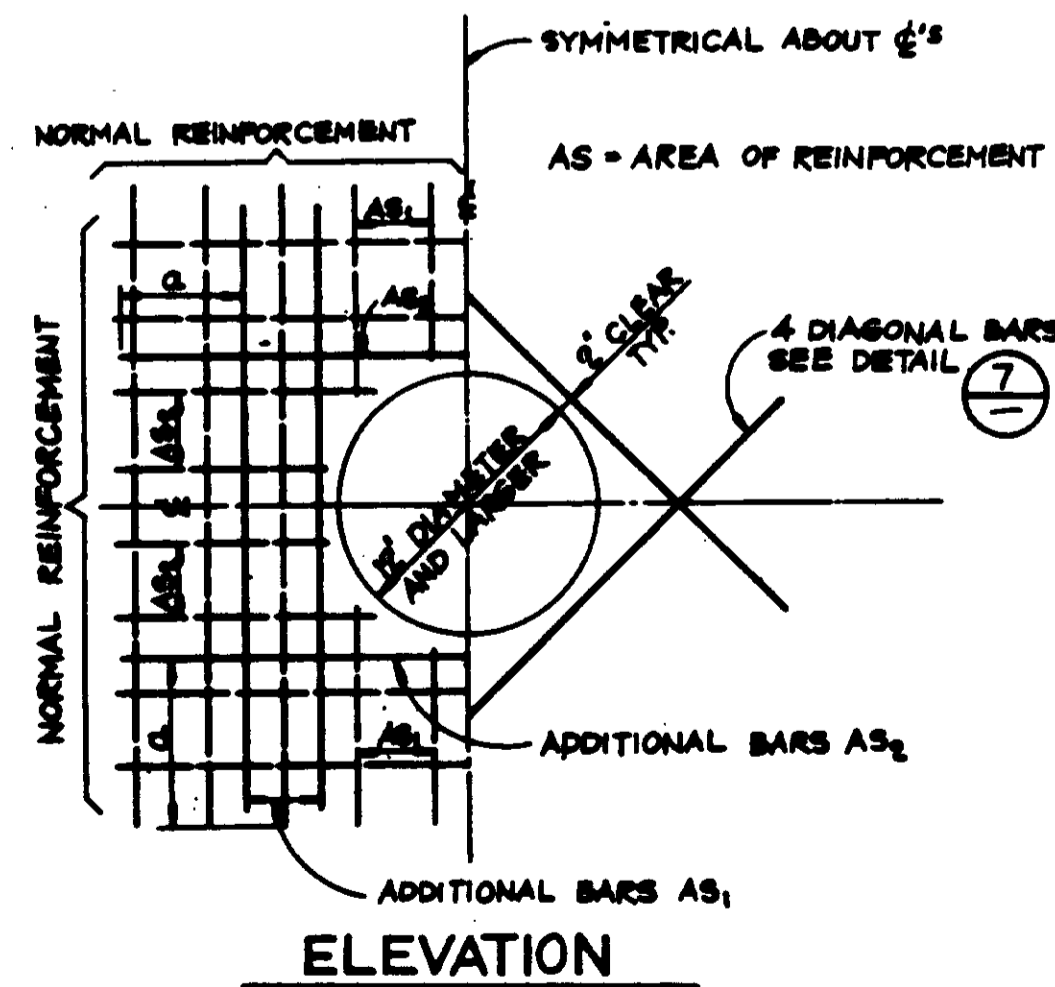
- DIAGONAL BARS TO BE PLACED:
 - AT $\frac{1}{2}$ OF WALL OR SLAB WHERE ONE LAYER OF REINFORCEMENT IS PROVIDED.
 - AT EACH FACE OF WALL OR SLAB WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
- UNLESS OTHERWISE NOTED, SIZE OF DIAGONAL BARS SHALL BE THE SIZE OF THE HORIZONTAL REINFORCEMENT.
- USE THIS DETAIL FOR ALL CIRC. OPENINGS 6" THROUGH 11" UNLESS NOTED OTHERWISE ON THE STRUCT. DWGS.

DIAGONAL REINFORCEMENT AT CIRCULAR OPENINGS TYP. (7)

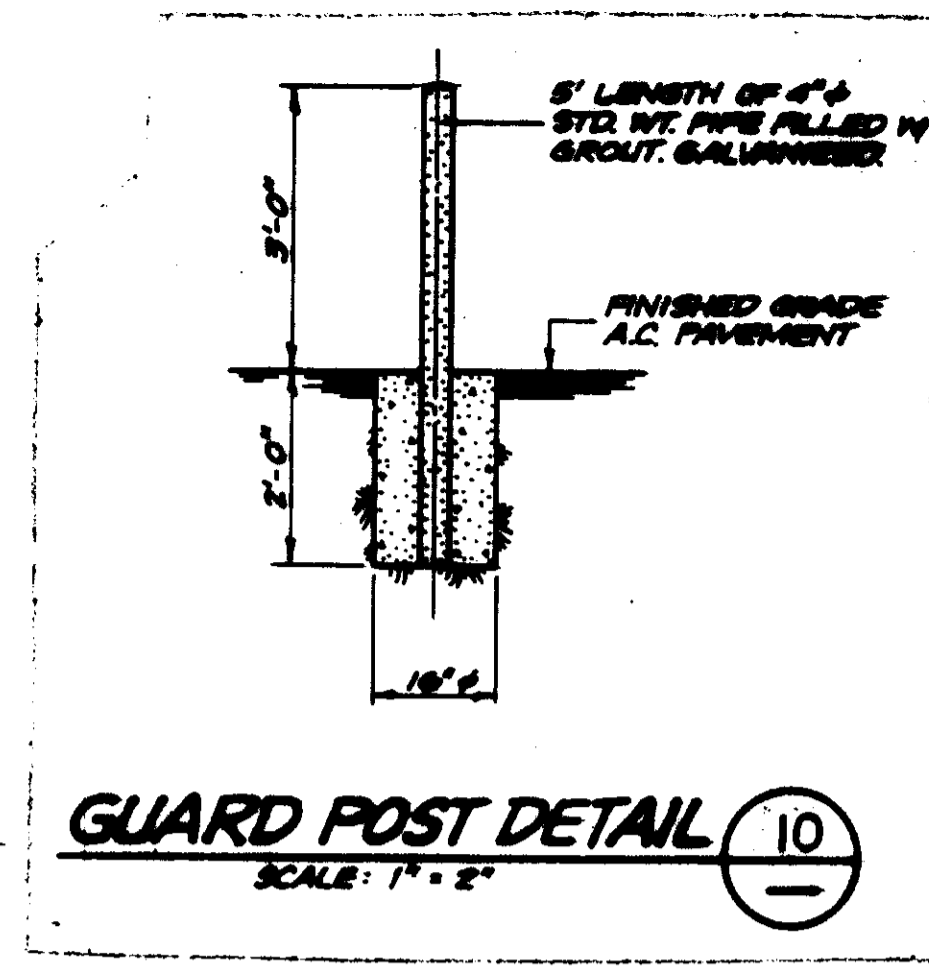
BAR SIZE	GRADE	GRADE 60	GRADE 40
#4	12	12	12
#5	16	16	16
#6	20	20	20
#7	24	24	24
#8	28	28	28
#9	32	32	32

- THIS DETAIL TO BE USED EXCEPT WHEN NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- NORMAL REINFORCEMENT CUT AT OPENING: AS_1 AND $AS_2 = \frac{1}{2}$ AREA OF CUT BARS TO BE ADDED ON EACH SIDE OF OPENING.
- ADDITIONAL REIN. AS_1 AND AS_2 TO BE PLACED:
 - AT $\frac{1}{2}$ OF WALLS OR SLABS WHERE ONE LAYER OF REINFORCEMENT IS PROVIDED.
 - AT EACH FACE OF WALLS OR SLABS WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
- PROVIDE DIAGONAL DOWEL FOR EACH LAYER OF REINFORCEMENT. (Y-BARS)
- LOCATE ADDITIONAL BARS AT $\frac{1}{2}$ BETWEEN CONTINUOUS BARS THAT ARE NOT CUT.
- DO NOT WELD REINFORCING TO PIPE WALL COLLARS OF EMBEDDED PIPES.

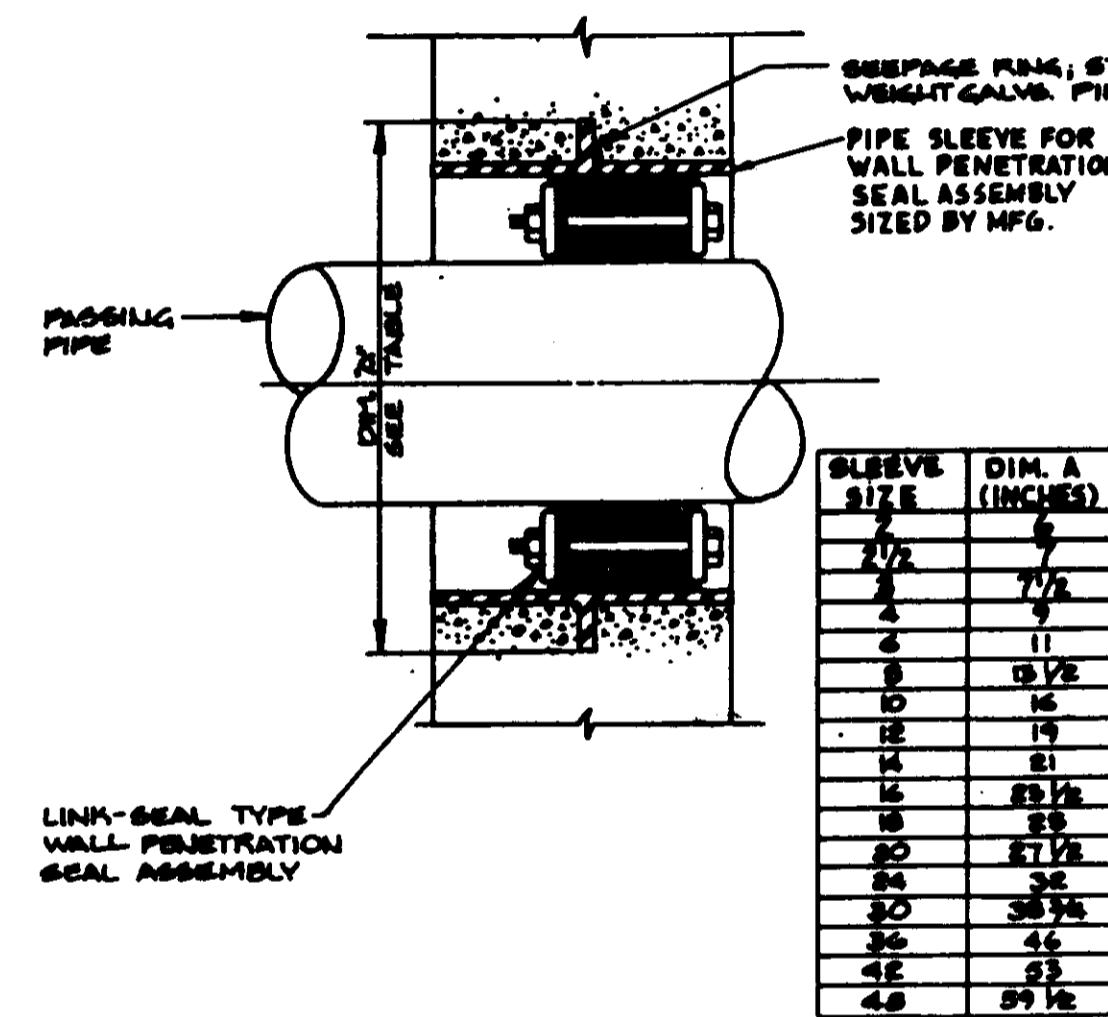
ADDITIONAL REINF. NOTES FOR CIRCULAR OPENINGS (8)



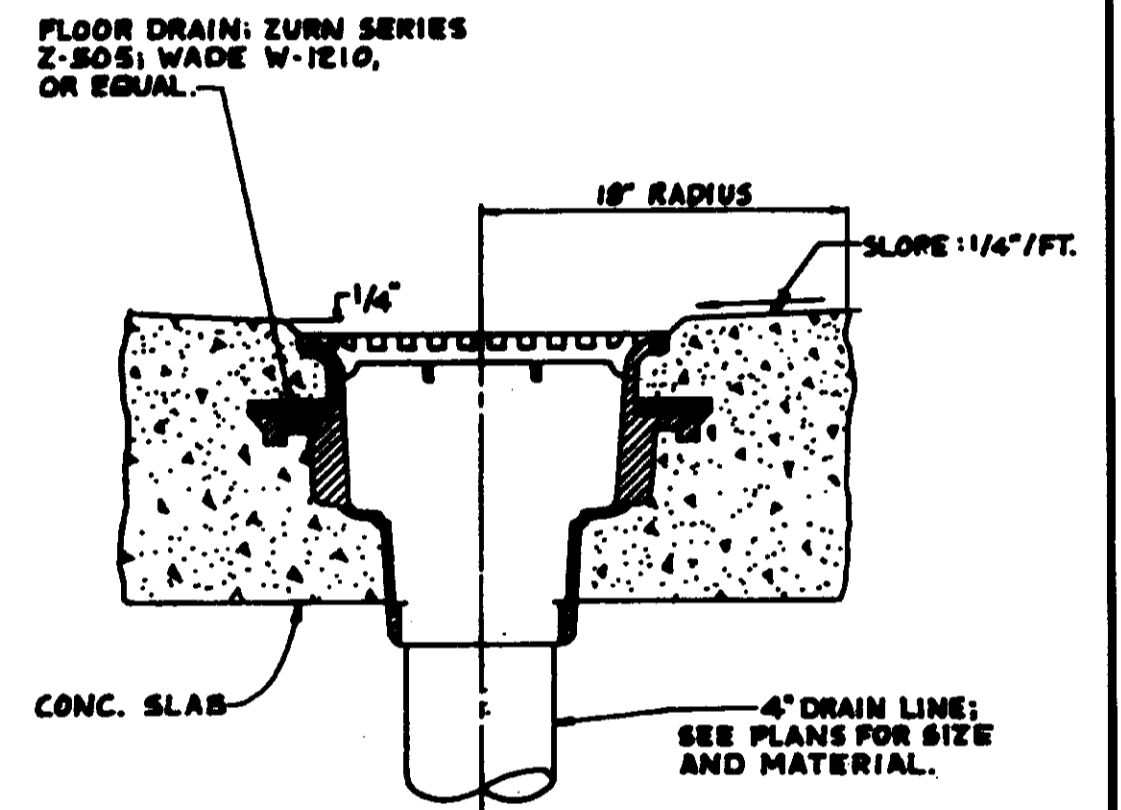
ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS TYP. (9)



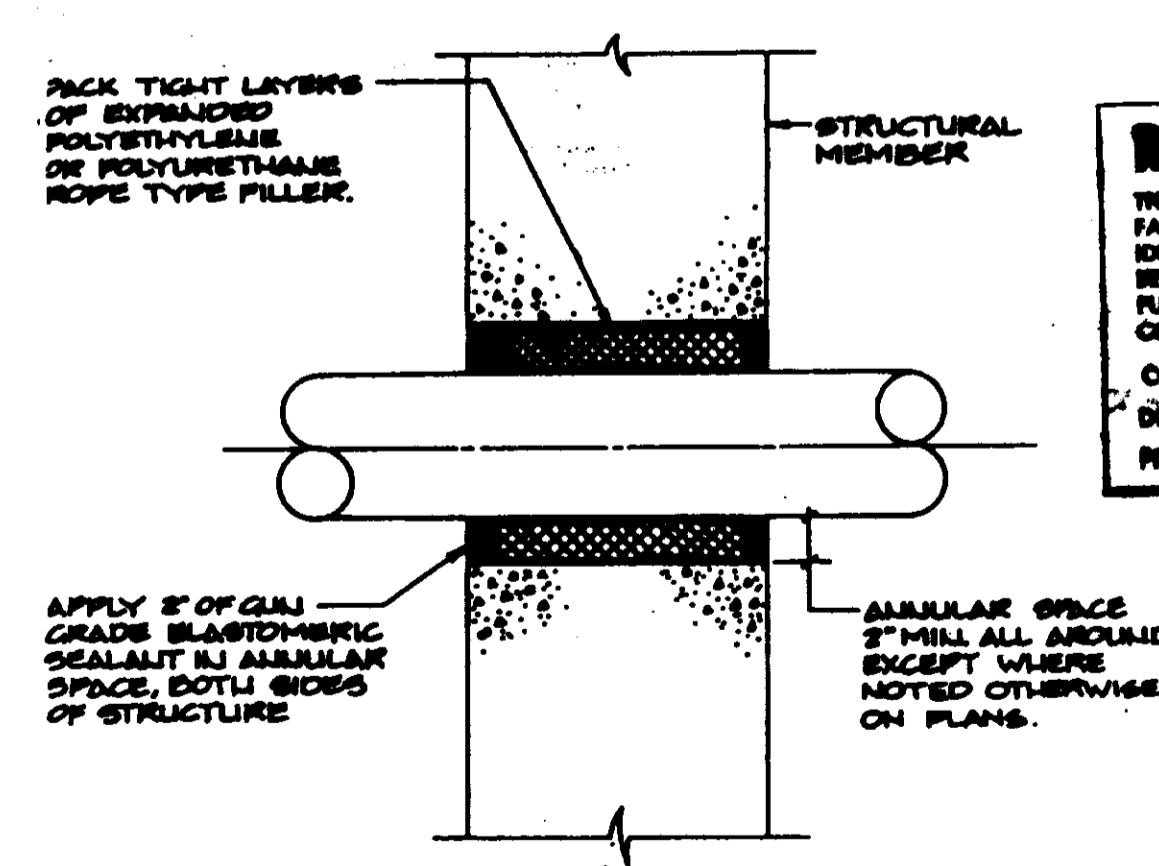
GUARD POST DETAIL (10)
SCALE: 1" = 2"



WALL PENETRATION SEAL DETAIL (11)
N.T.S.



TYPE V FLOOR DRAIN (13)
N.T.S.



WALL OR FLOOR PIPE PENETRATION DETAIL (12)
N.T.S.

RECORD DRAWING
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CONST. INSP. P.A.B. AGENCY BCL DATE 11/16/06
DRAFTED BY A.S.P. AGENCY BCL DATE 11/16/06
PROJ. ENGR. P.A.B. AGENCY BCL DATE 11/16/06



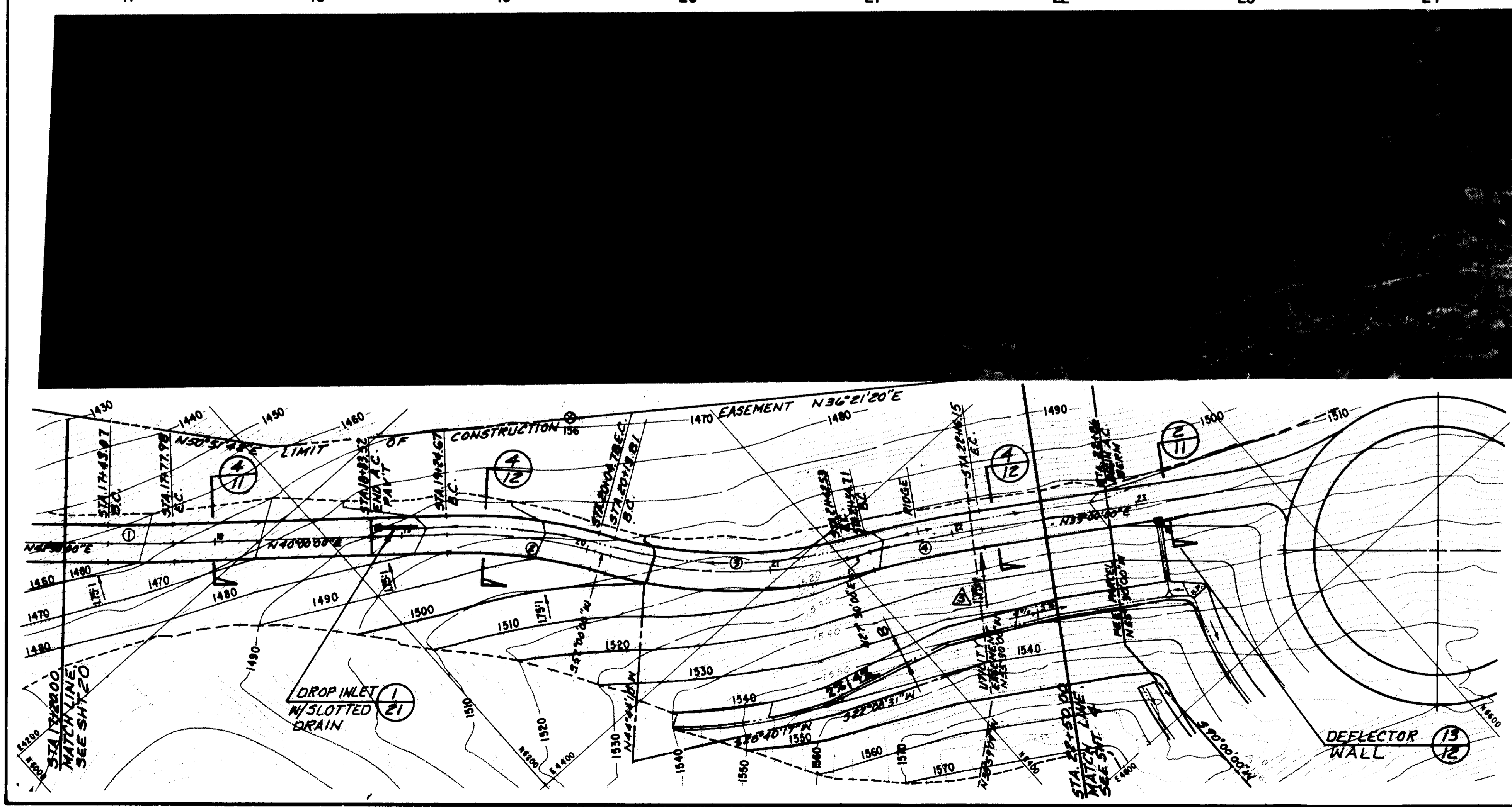
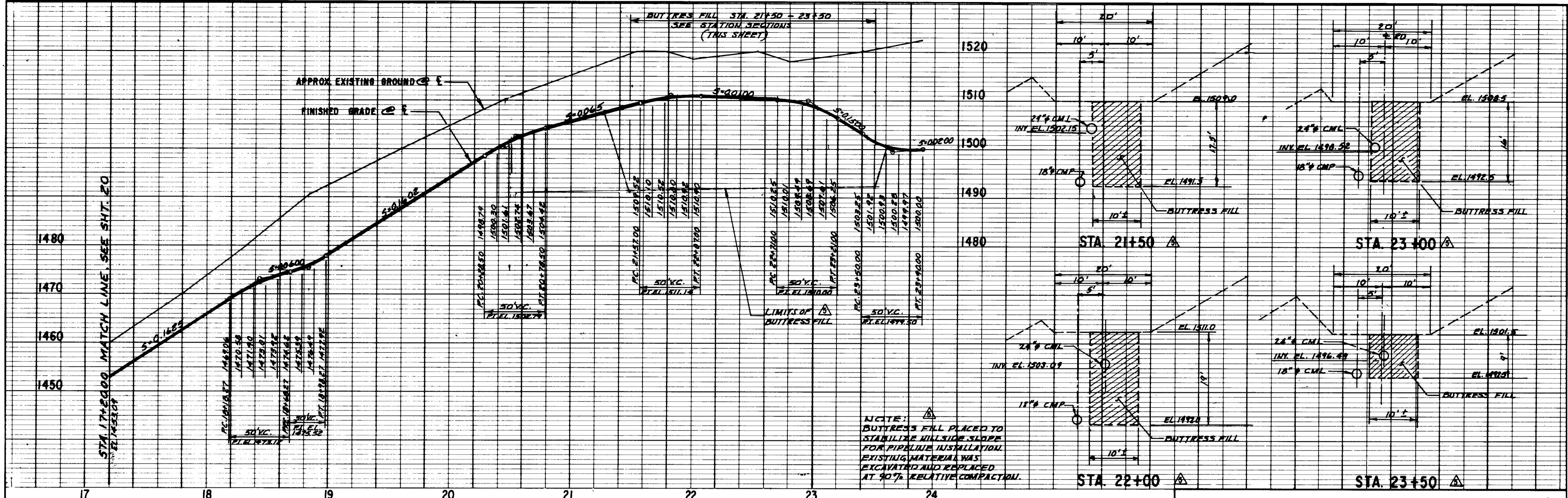
05550

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
STRUCTURAL DETAILS

SCALE ENGINEERING CORPORATION
CONSULTING ENGINEERS | ARCHITECTS
VENTURA, CA.

REV.	DATE	DESCRIPTION	APP.
1	2/13/06	RECORD DRAWING	MB
2	7/14/06	ADDENDUM NO. 2 DETAILS 7+9	MB
3	7-3-00	ISSUED FOR BIDDING	MB

SHEET NO. 18
OF 34 SHEETS



ACCESS ROAD CENTERLINE HORIZONTAL CONTROL

NORTHING	EASTING	STATION	BEARING	BEARING AHEAD	COMMENT
6095.160	4131.884	17+00.00	N 42-30-00 E	.0 E	P.I. MATCH LINE
6112.168	4147.470	17+43.07	N 42-30-00 E	.0 E	P.C.
6138.410	4170.483	17+77.98	N 40-0-00 E	.0 E	P.T.
6219.261	4238.326	18+83.52	N 40-0-00 E	.0 E	P.I. END PAV'T.
6230.752	4247.968	18+98.52	N 40-0-00 E	.0 E	P.I.
6250.782	4264.775	19+24.67	N 40-0-00 E	.0 E	P.C.
6303.671	4324.555	20+04.78	N 57-0-00 E	.0 E	P.T.
6308.588	4332.126	20+13.81	N 57-0-00 E	.0 E	P.C.
6402.818	4417.719	21+42.53	N 27-30-00 E	.0 E	P.T.
6413.625	4423.345	21+54.71	N 27-30-00 E	.0 E	P.C.
6466.675	4454.282	22+16.15	N 33-0-00 E	.0 E	P.T.
6604.015	4543.471	22+86.00	N 33-0-00 E	.0 E	P.I. BEGIN AC BERM
6612.820	4549.190	23+90.40			P.I. AT TANK PARIM ROAD

RECORD DRAWING

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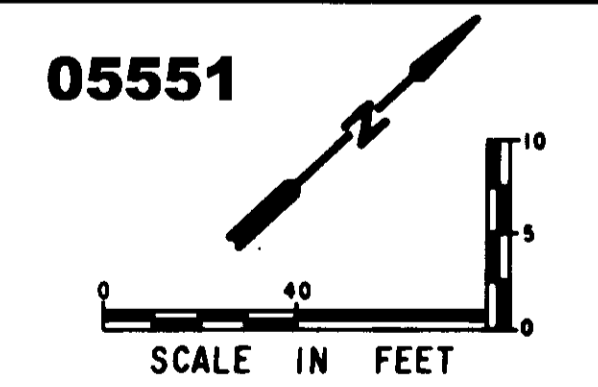
CONST. INSPECTION DATE: 1/11/91

DRAWN BY: L.S.P. AGENCY REC. DATE: 1/11/91

PROJ. E. GR. REC. AGENCY REC. DATE: 1/11/91

- CURVE DATA**
- ① Δ = 2°30'00" L = 800.00' R = 34.91'
 - ② Δ = 17°00'00" L = 270.00' R = 80.11'
 - ③ Δ = 29°30'00" L = 250.00' R = 128.72'
 - ④ Δ = 5°30'00" L = 640.00' R = 61.44'

- LEGEND**
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - CONSTRUCTION EASEMENT
 - PERMANENT EASEMENT
 - FEE PARCEL
 - UTILITY EASEMENT



LAS VIRGENES MUNICIPAL WATER DISTRICT

CORDILLERA TANK & ASSOCIATED PIPE LINES

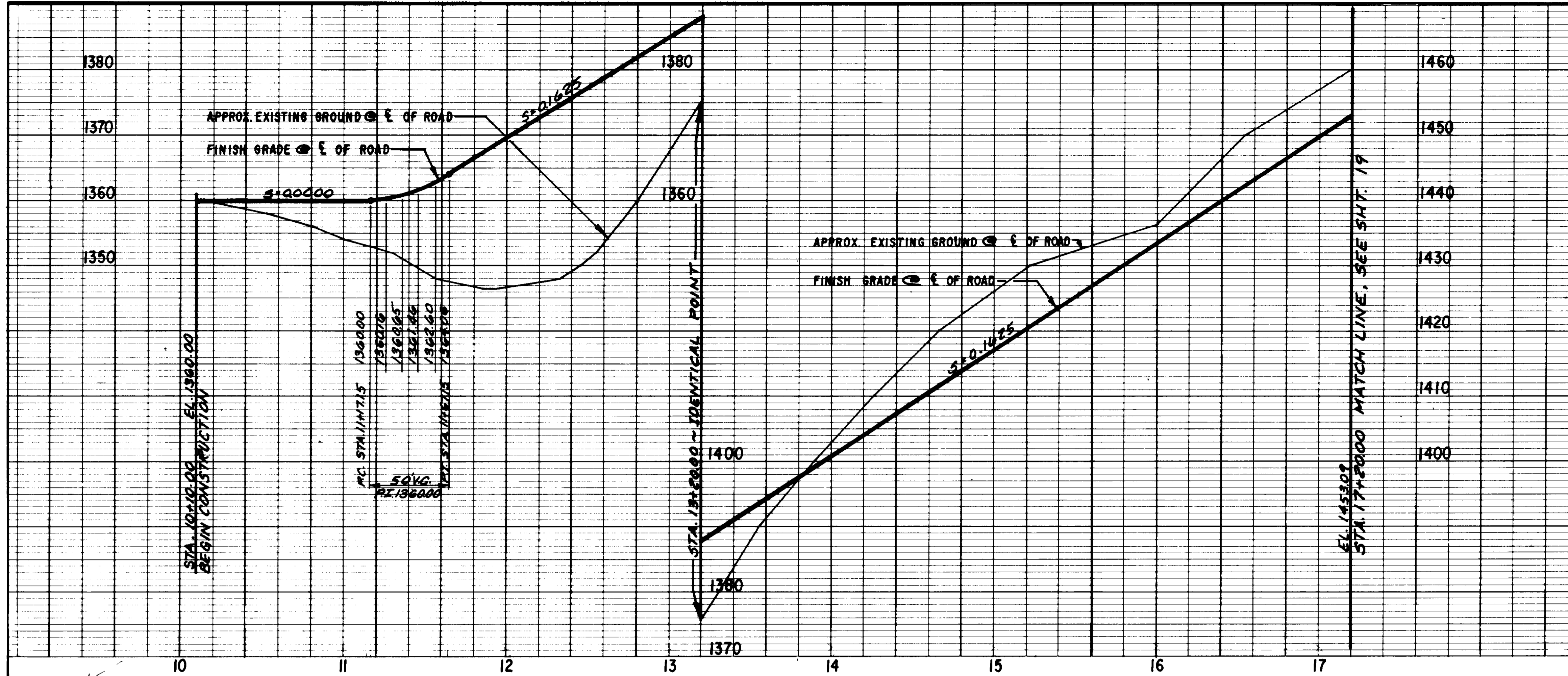
ACCESS ROAD PLAN AND PROFILE

BOYLE ENGINEERING CORPORATION
consulting engineers / architects
VENTURA, CA.

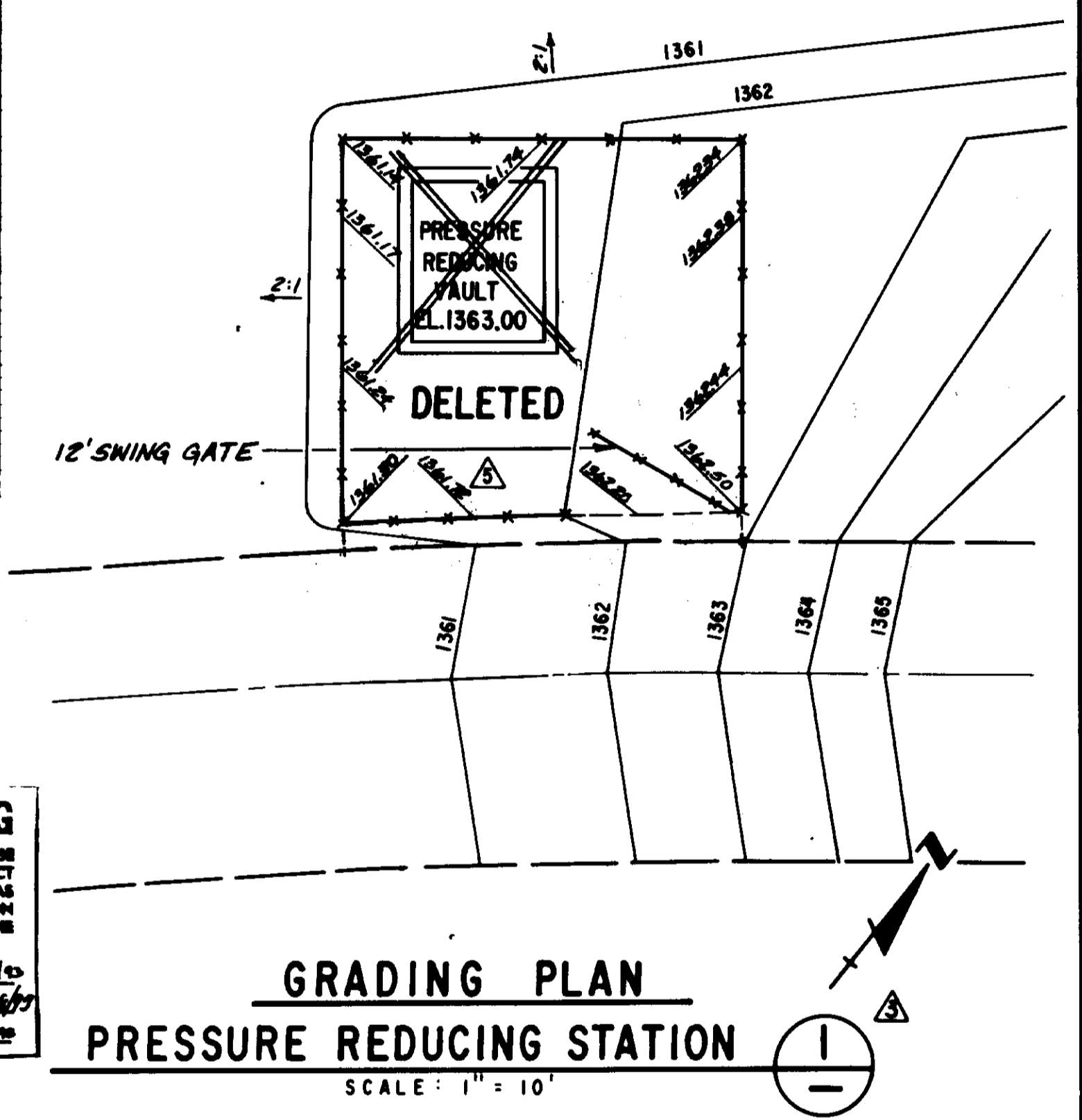
DESIGN: P.A.B. DRAWN: J.R.G. CHECKED: H.G. DATE: 1/11/91

SHEET NO. 19 OF 34 SHEETS

REV.	DATE	DESCRIPTION	APP.
1	12/12/90	RECORD DRAWING	
2	2/18/91	CHANGE ORDER NO. 1 REVISED SLOPE	
3	7-24-90	ADDENDUM NO. 2	



ACCESS ROAD CENTERLINE HORIZONTAL CONTROL				
NORTHING	EASTING	STATION	BEARING AHEAD	COMMENT
5623.484	3590.999	10+00.00	N 45-40-17.0 E	P.I.
5695.548	3664.772	11+03.13	N 45-40-17.0 E	P.C.
5735.101	3709.221	11+62.65	N 51- 0- .0 E	P.T.
5769.781	3752.048	12+17.76	N 51- 0- .0 E	P.C.
5868.766	3860.071	13+64.37	N 44- 0- .0 E	P.T.
5916.818	3906.474	14+31.17	N 44- 0- .0 E	P.C.
5923.417	3913.676	14+40.94	N 51- 0- .0 E	P.T.
5947.755	3943.731	14+79.61	N 51- 0- .0 E	P.C.
5989.743	4000.995	15+50.65	N 56-30- .0 E	P.T.
6002.526	4020.309	15+73.81	N 56-30- .0 E	P.C.
6005.444	4025.070	15+79.39	N 60-30- .0 E	P.T.
6017.194	4045.838	16+03.26	N 60-30- .0 E	P.C.
6060.043	4099.706	16+72.37	N 42-30- .0 E	P.T.

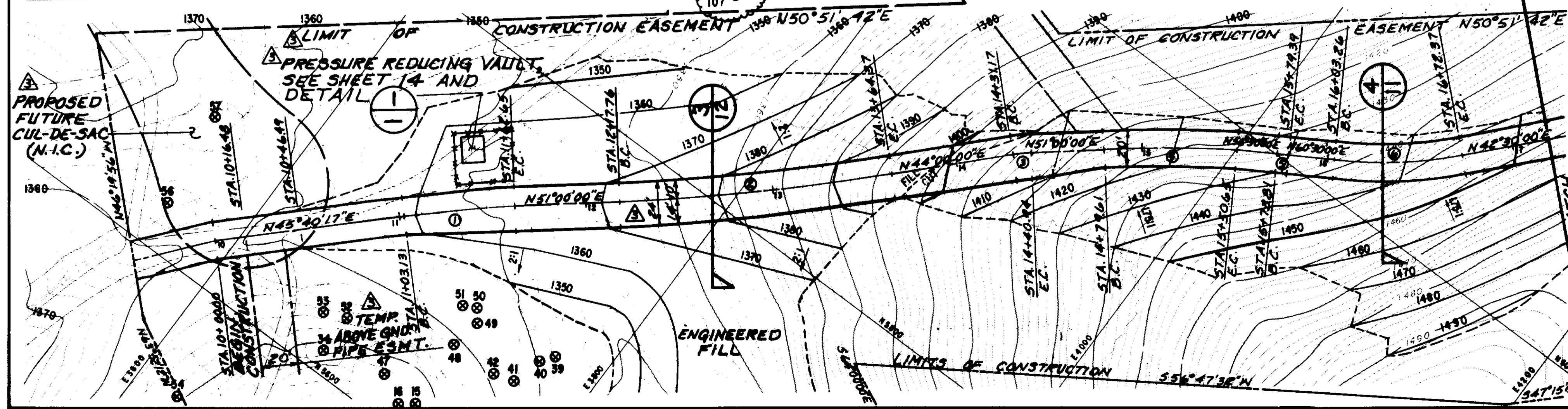
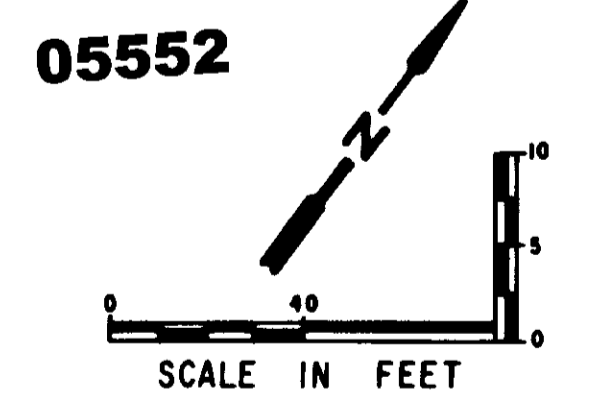
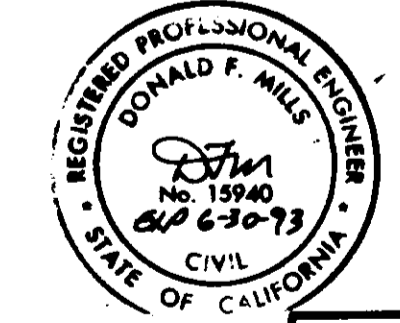


RECORD DRAWING
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 CONST. INSP. *FPD* AGENCY *BC* DATE *12/14/93*
 DRAFTED BY *D.S.P.* AGENCY *BC* DATE *12/14/93*
 P.P. J.E. GR. *BC* AGENCY *BC* DATE *12/14/93*

CURVE DATA

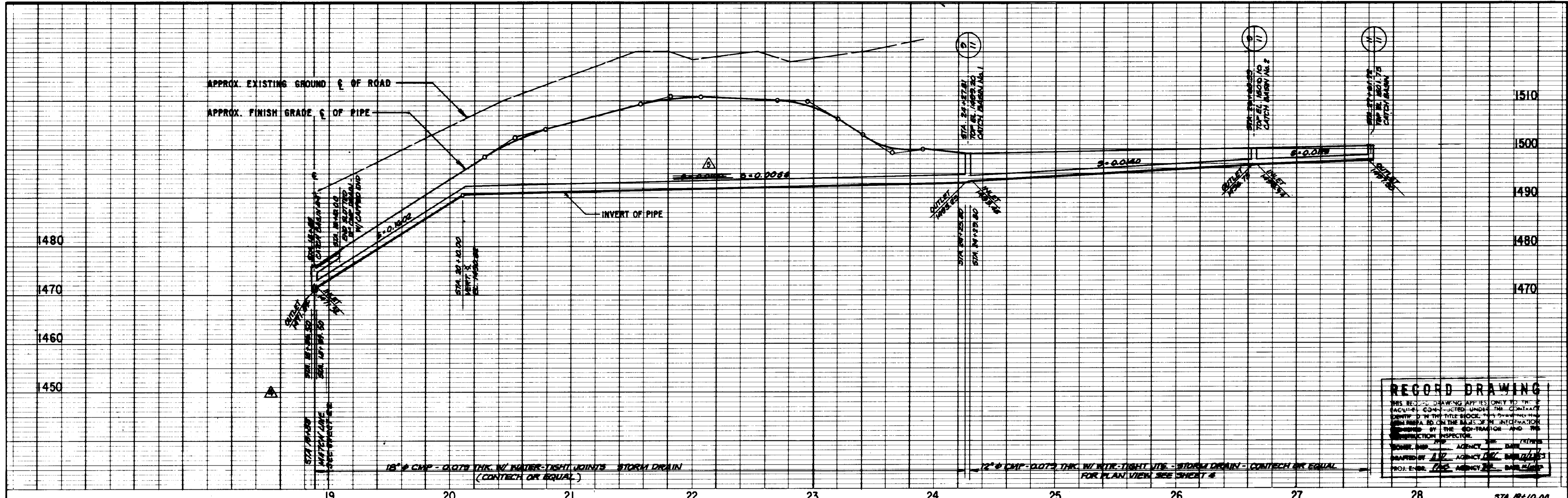
- $\Delta = 5^{\circ}19'43''$
 $R = 64,000'$
 $L = 59.58'$
- $\Delta = 7^{\circ}00'00''$
 $R = 120,000'$
 $L = 146.61'$
- $\Delta = 7^{\circ}00'00''$
 $R = 80,000'$
 $L = 9.77'$
- $\Delta = 5^{\circ}30'00''$
 $R = 740,000'$
 $L = 71.04'$
- $\Delta = 4^{\circ}00'00''$
 $R = 80,000'$
 $L = 5.59'$
- $\Delta = 18^{\circ}00'00''$
 $R = 280,000'$
 $L = 69.12'$

- LEGEND:**
- OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - CONSTRUCTION EASEMENT
 - PERMANENT EASEMENT
 - FEE PARCEL
 - UTILITY EASEMENT

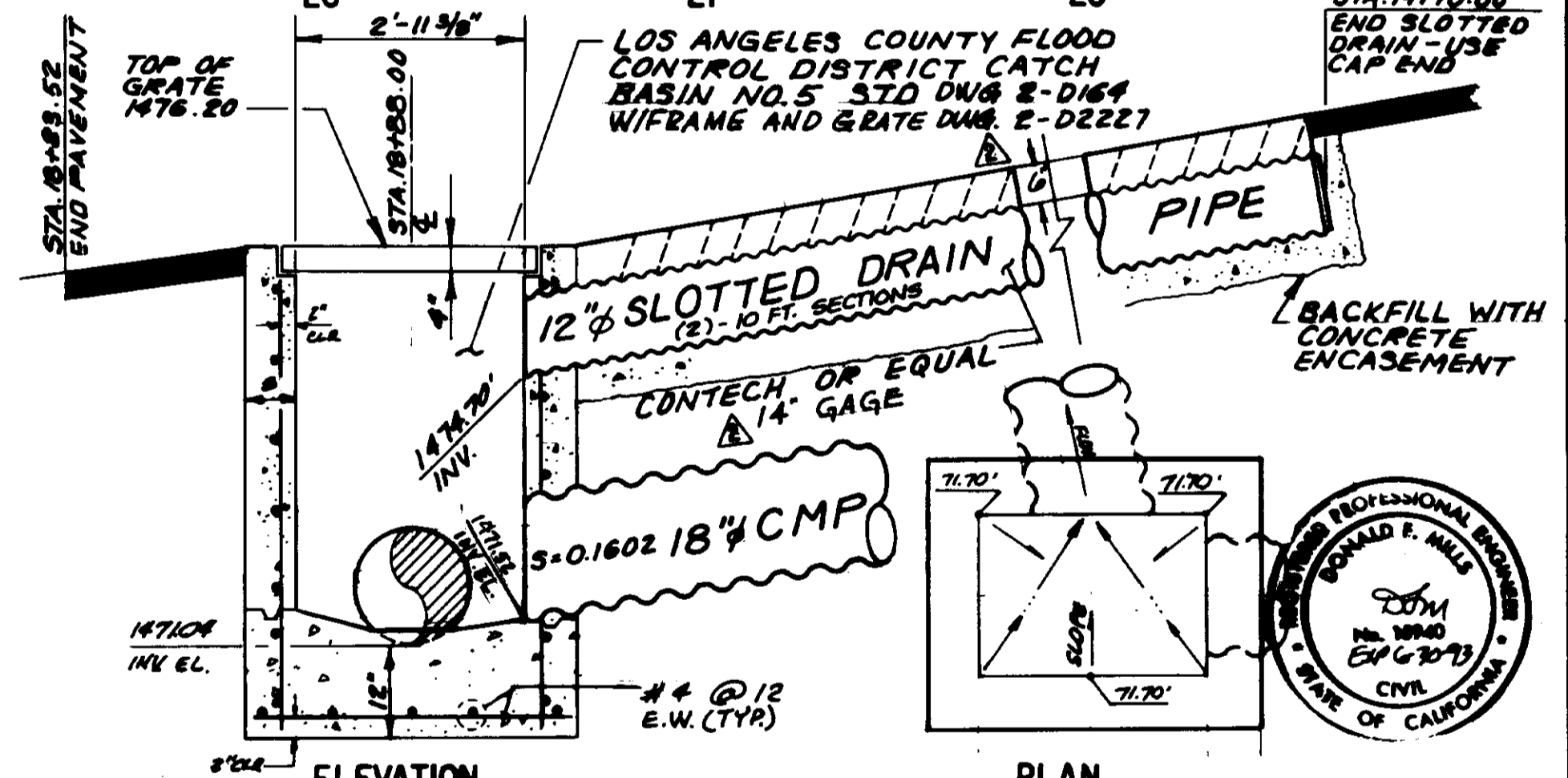
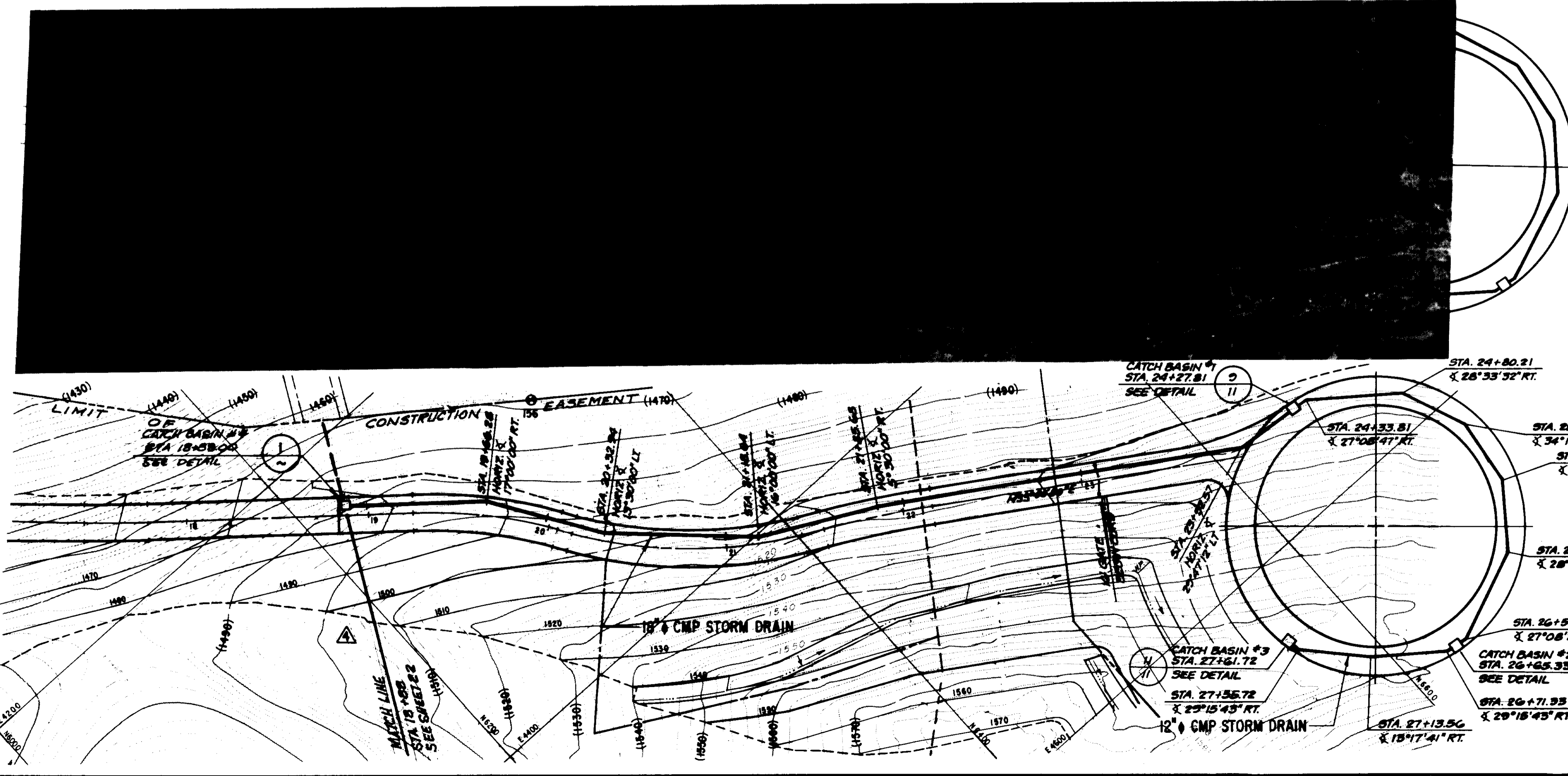


LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
ACCESS ROAD PLAN AND PROFILE
 BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.
 DESIGN: P.A.B. DRAWN: J.R.G. CHECKED: H.E. DATE: 6-25-90
 SHEET NO. 20 OF 24 SHEETS

2/16/93	RECORD DRAWING	
2/18/91	CHANGE FROM 18" REVERED PRESSURE REDUCING STATION	
7-29-90	ADDENDUM NO. 2	
REV.	DATE	DESCRIPTION



RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED IN THE OFFICE OF THE INSPECTOR GENERAL BY THE INSPECTOR AND THE INSPECTION INSPECTOR.
 WORKING DRAWING AGENCY USE ONLY. NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.
 PROJECT NO. 05553 AGENCY USE ONLY. NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.



ELEVATION
CATCH BASIN #4
 SCALE: 1/2" = 1'-0"

- LEGEND**
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - - - CONSTRUCTION EASEMENT
 - - - PERMANENT EASEMENT
 - - - FEE PARCEL
 - - - UTILITY EASEMENT

REV.	DATE	DESCRIPTION	APP.
1	12/16/93	RECORD DRAWING	DM
2	6/25/94	REVISED ALIGNMENT	DM
3	8/14/90	ADDENDUM NO. 4 - CLARIFICATION.	DM
4	7/24/90	ADDENDUM NO. 2	DM

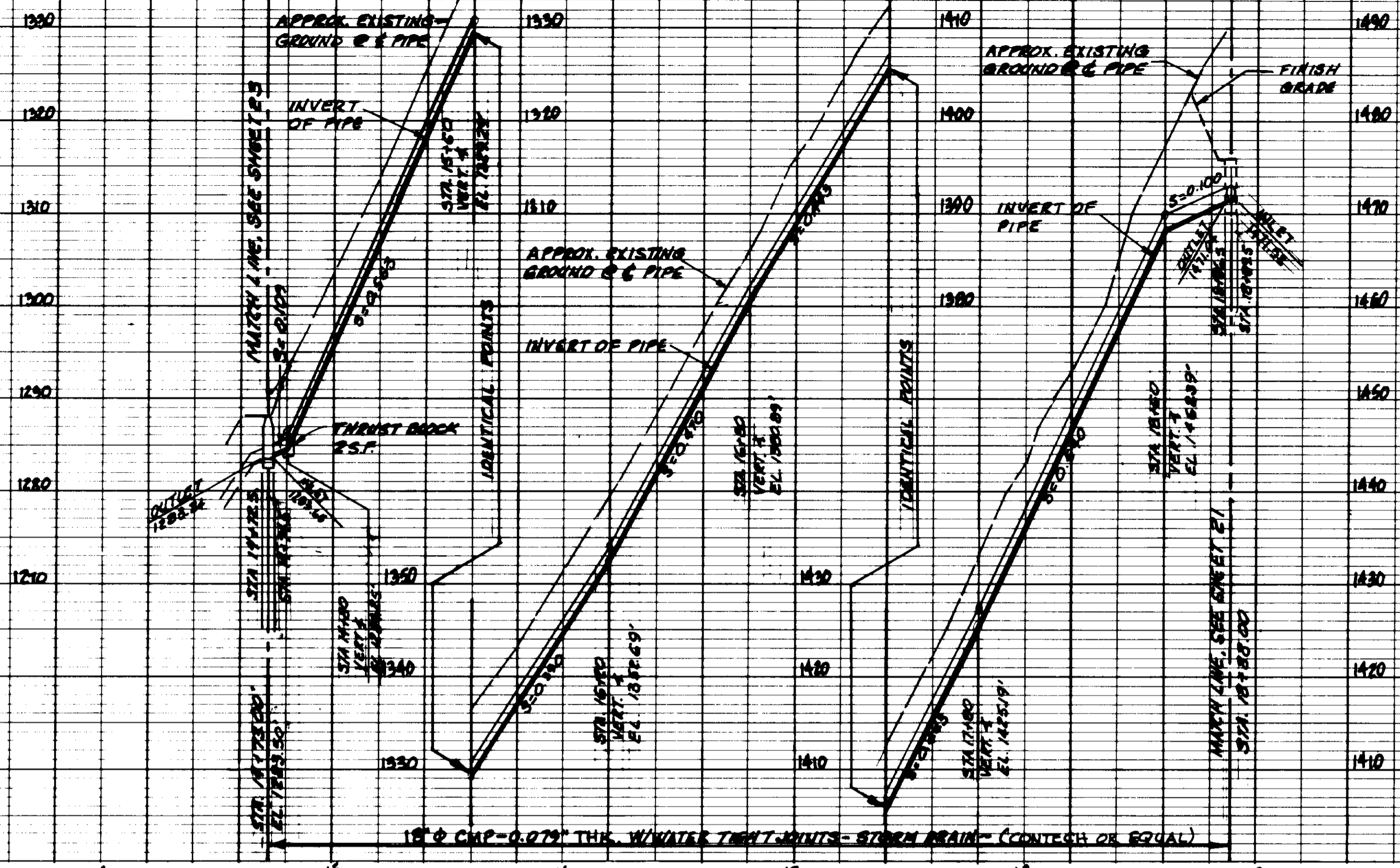
05553

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

18" STORM DRAIN
PLAN AND PROFILE

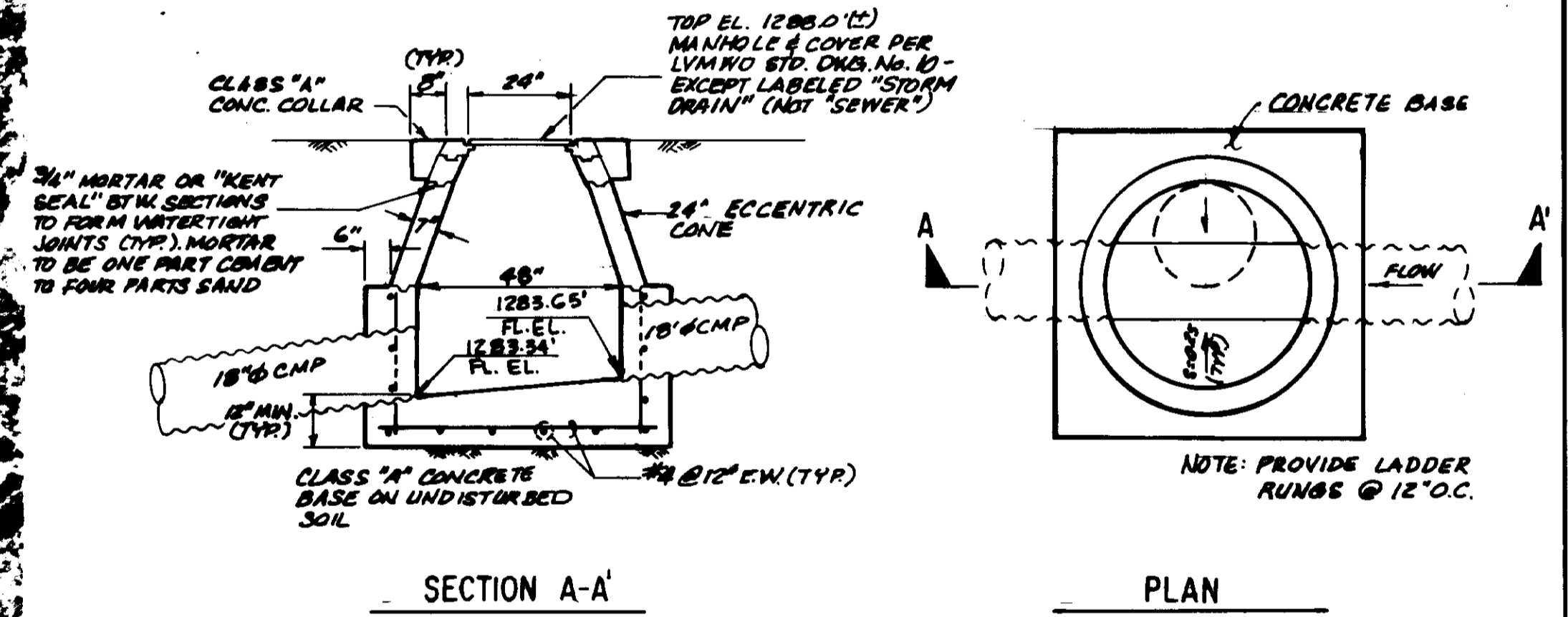
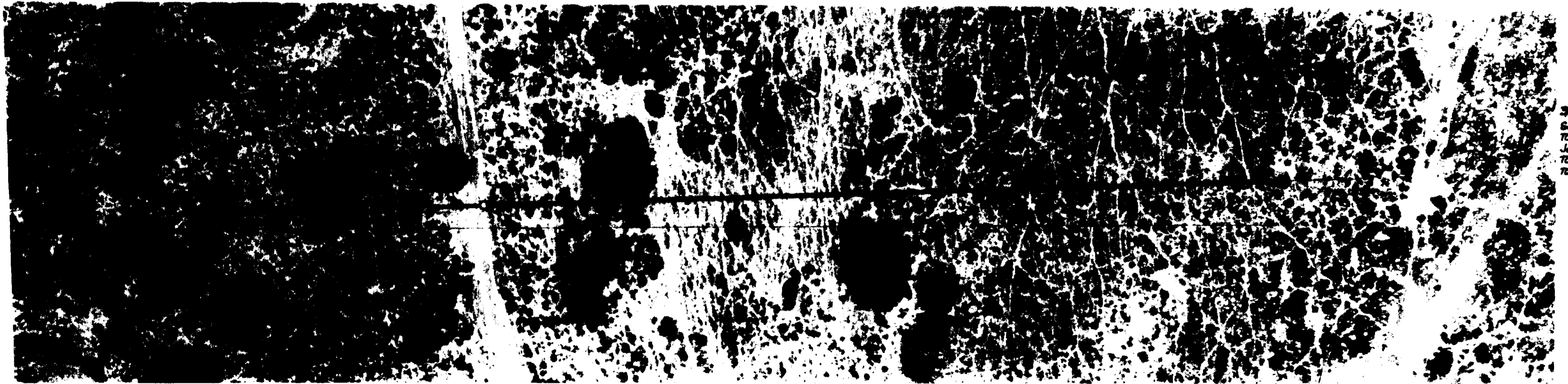
BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.

DESIGN: P. A. B. DRAWN: D. P. J. CHECKED: [Signature] C.A. NO. 97-LAB-889-VL DRAWING NO. 5-229 SHEET NO. 21 OF 34 SHEETS



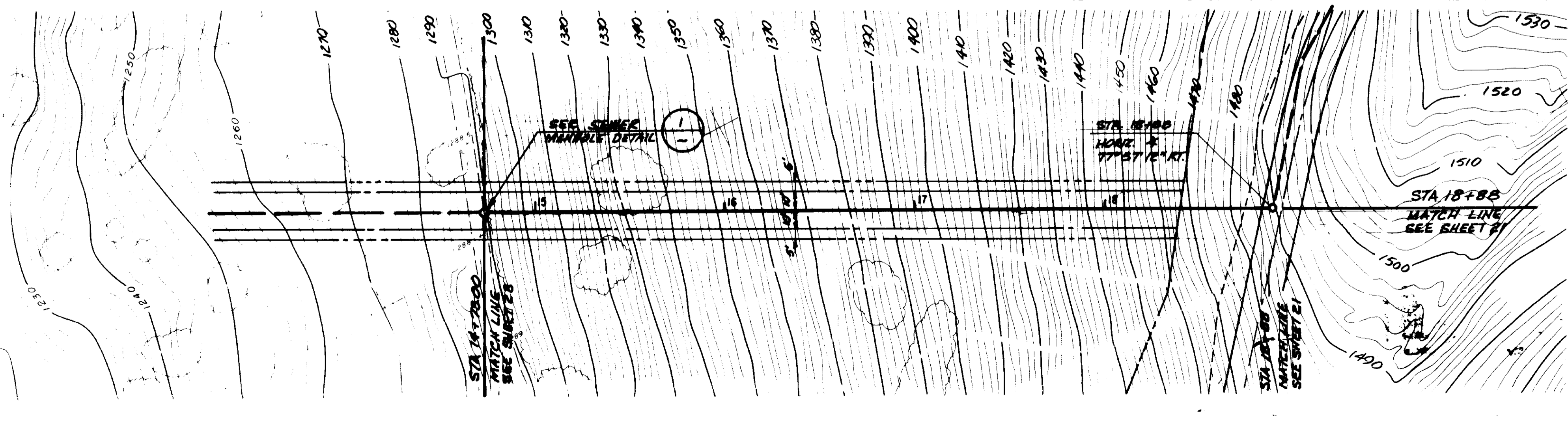
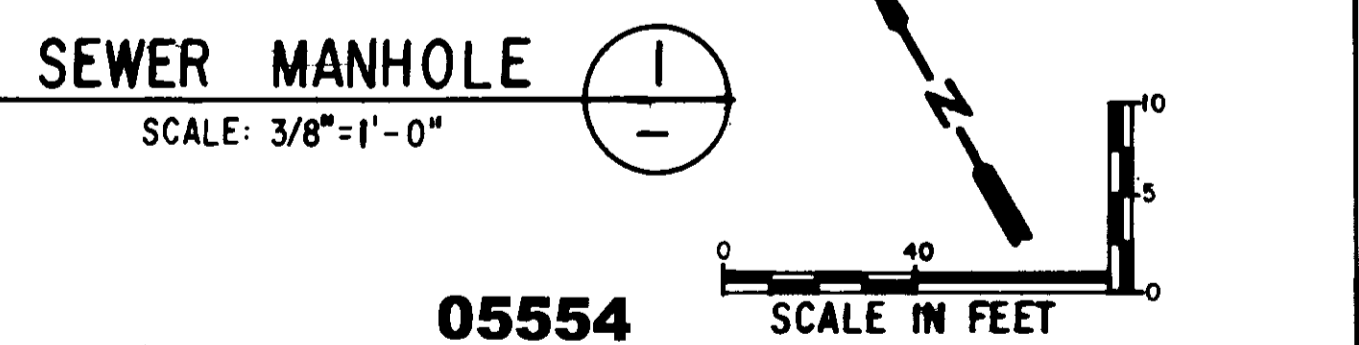
NOTES
 1. 42" MINIMUM COVER ABOVE TOP OF PIPE (CYR)
 2. PROVIDE REDWOOD HEADERS @ 5' O.C. AND CONCRETE COLLARS PER LVMWD STD. DWG. NO. 35, ONE PER JOINT (18" MAX.)

STORM DRAIN CENTERLINE HORIZONTAL CONTROL				
NORTHING	EASTING	STATION	BEARING/AHEAD	COMMENT
6642.468	3451.323	9+88.50	S 82-2-48 E	P.I. MANHOLE
6420.045	3670.463	14+73.00	S 82-2-48 E	P.I. MANHOLE
6225.513	4237.045	18+86.00	N 40-0-.0 E	P.I. DROP INLET
6285.480	4287.363	19+86.29	N 57-0-.0 E	P.I.
6321.783	4343.265	20+32.94	N 43-30-.0 E	P.I.
6363.952	4402.261	21+18.64	N 27-30-.0 E	P.I.
6443.415	4433.215	21+85.68	N 33-0-.0 E	P.I.
6616.926	4545.895	23+92.57	N 2-48-29.3 E	P.I.
6652.129	4547.822	24+27.81	N 7-26-30.0 E	P.I. CB-1
6658.078	4548.399	24+33.81	N 34-35-17.0 E	P.I.
6686.277	4574.739	24+80.21	N 63-8-49.0 E	P.I.
6716.487	4614.854	25+24.95	S 82-33-30.0 E	P.I.
6710.886	4657.530	25+68.19	S 48-15-48.0 E	P.I.
6681.103	4680.916	26+12.93	S 19-41-56.6 E	P.I.
6637.421	4706.555	26+59.33	S 7-26-30.0 W	P.I.
6631.471	4705.778	26+65.33	S 7-26-30.0 W	P.I. CB-2
6625.522	4705.001	26+71.33	S 36-42-12.7 W	P.I.
6591.670	4679.786	27+13.56	S 49-59-53.4 W	P.I.
6564.569	4647.470	25+55.72	S 78-15-.0 W	P.I.
6563.450	4641.56	27+61.72		CB-3



RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
 CONST. INSP. *PS* AGENCY *DB* DATE *12/11/03*
 DRAFTED BY *R.S.P.* AGENCY *DB* DATE *12/11/03*
 PROJECT GR. *PS* AGENCY *DB* DATE *12/11/03*

- LEGEND**
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - CONSTRUCTION EASEMENT
 - PERMANENT EASEMENT
 - FEE PARCEL
 - UTILITY EASEMENT



05554 SCALE IN FEET

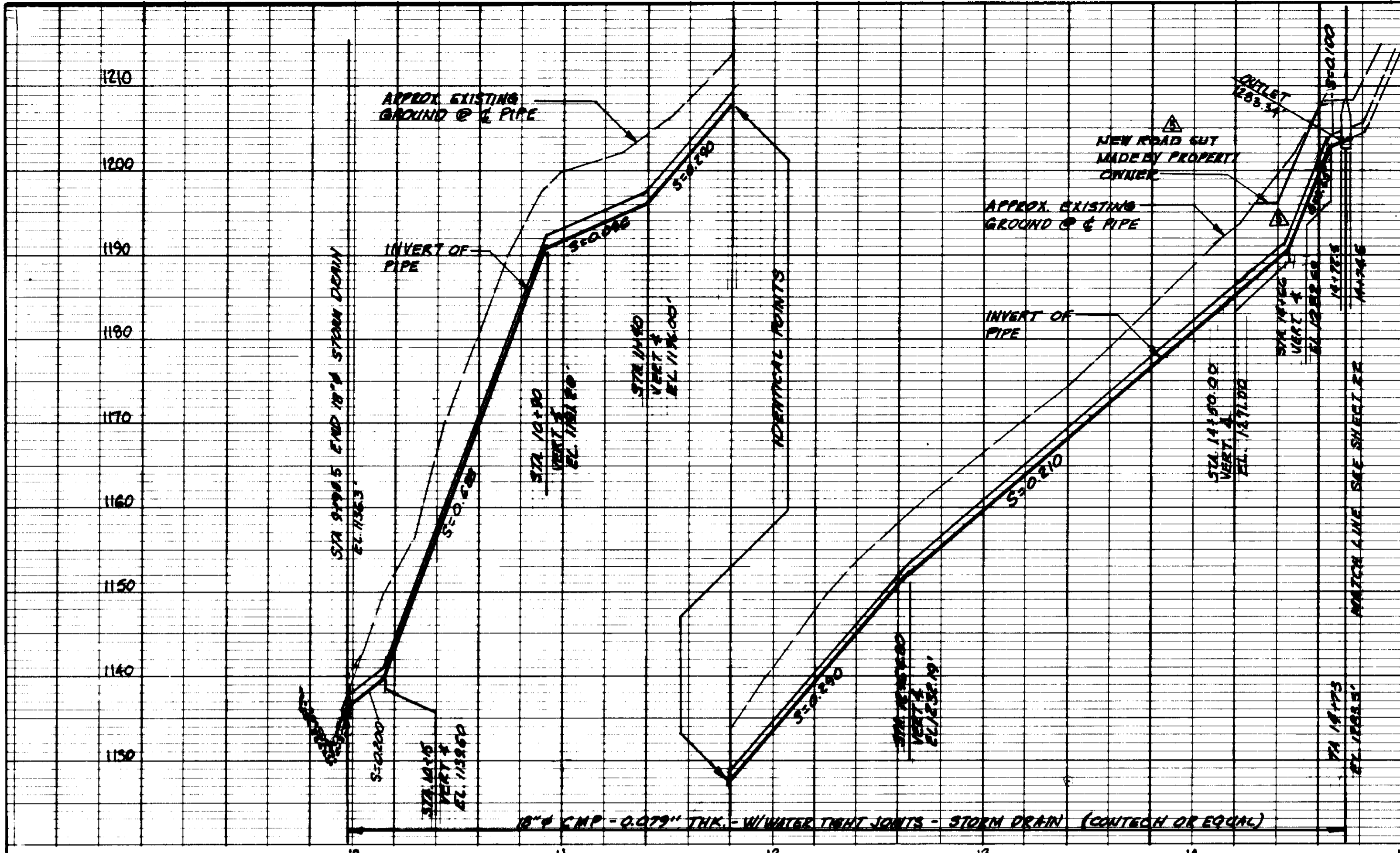
LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES

18" STORM DRAIN PLAN AND PROFILE

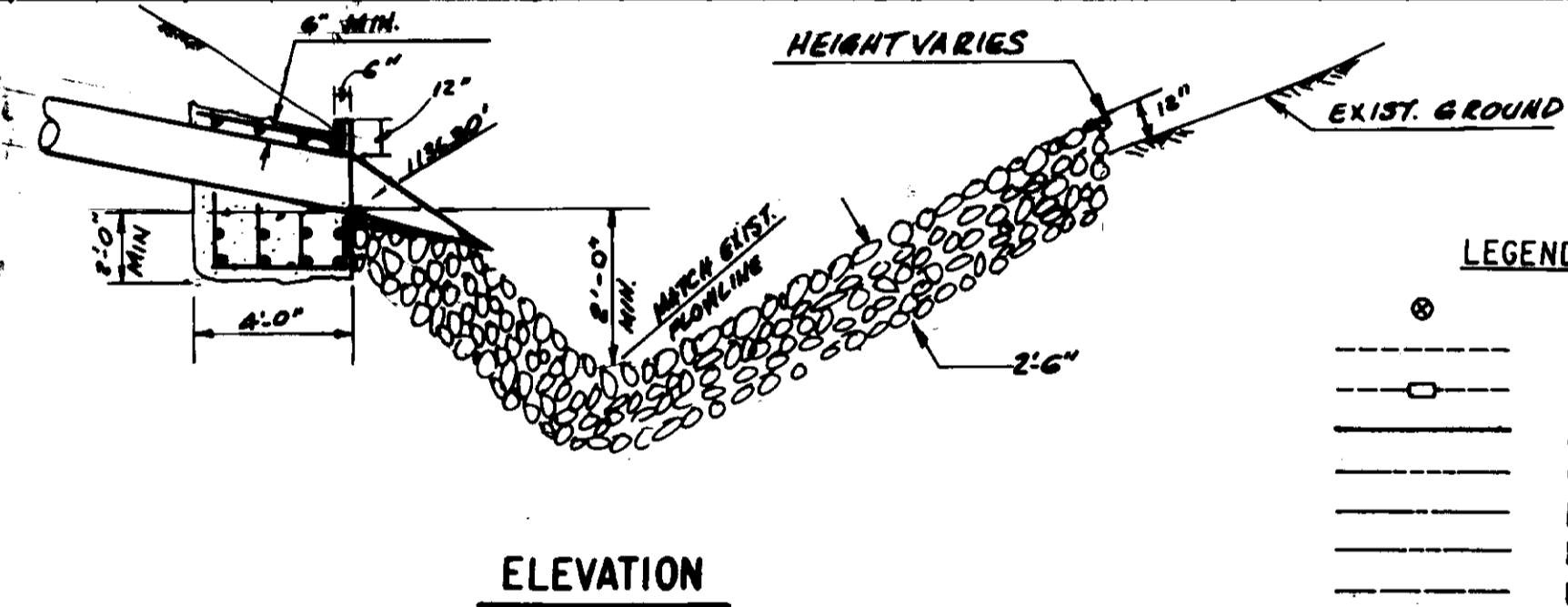
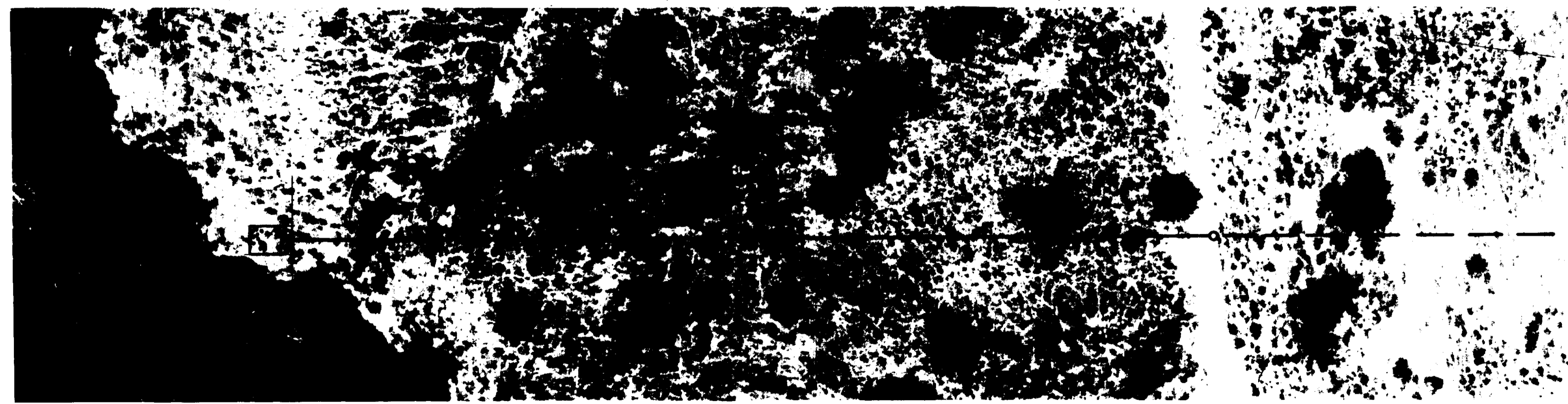
BOYLE ENGINEERING CORPORATION
 consulting engineers / architects
 VENTURA, CA.

REGISTERED PROFESSIONAL ENGINEER
 DONALD F. MILLS
 No. 15940
 6-2-73
 CIVIL
 STATE OF CALIFORNIA

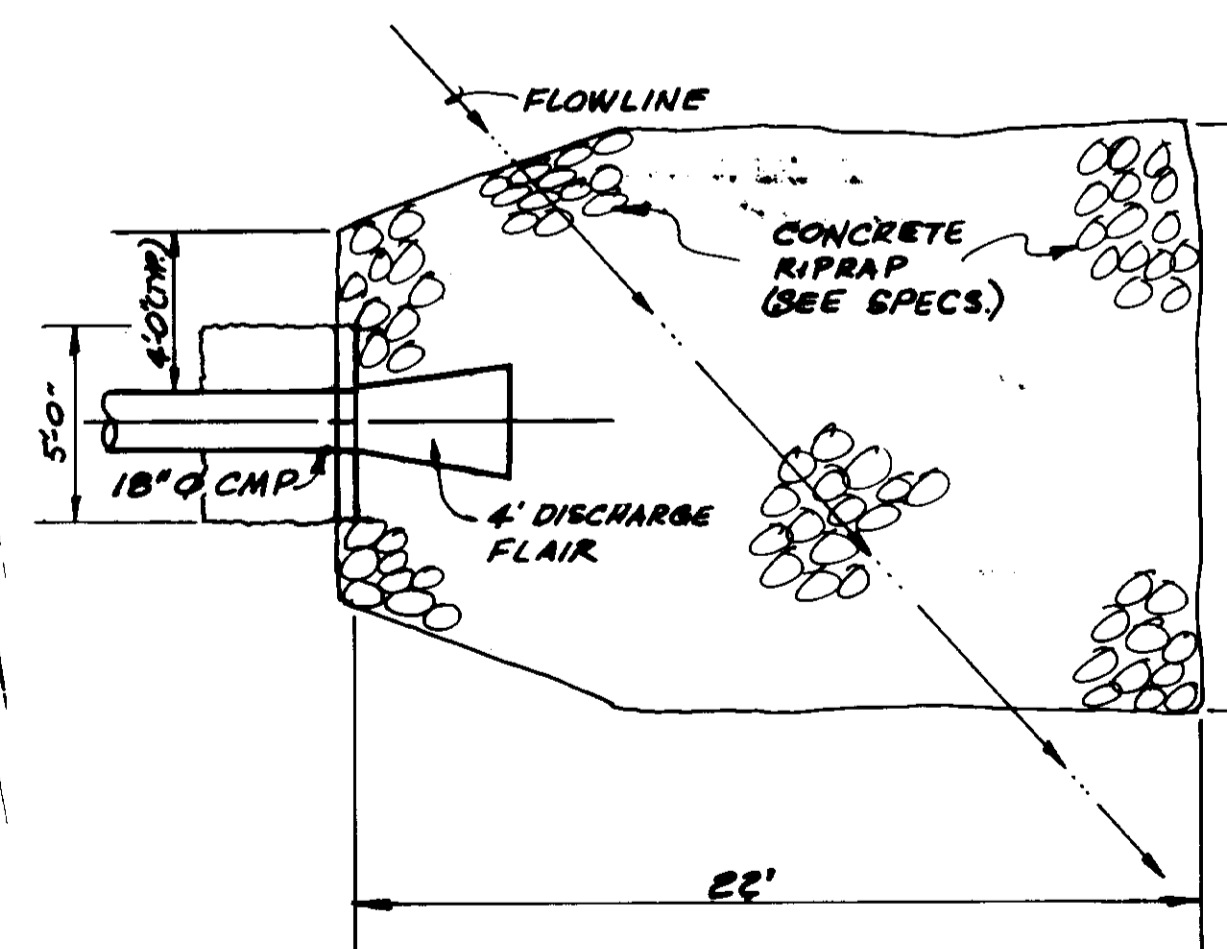
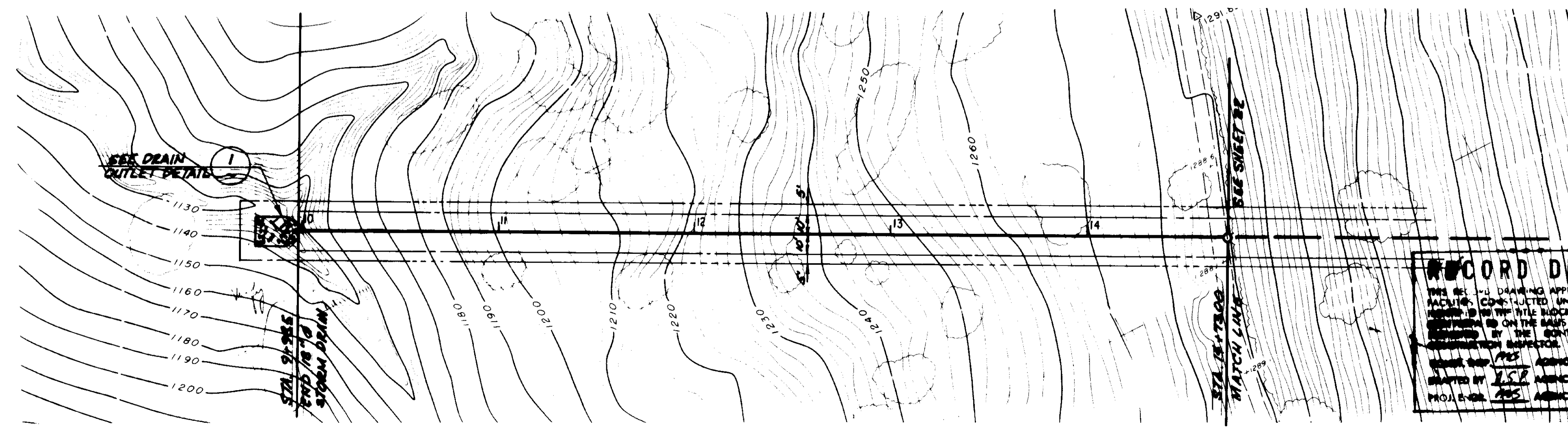
DESIGN	M D	DRAWN	T J F	CHECKED	MEB	C.A. NO.	VT-02-529-11	DRAWING NO.	S-229	SHEET NO.	22
REV.	DATE	DESCRIPTION	APP.								



- NOTES:
1. 42" MINIMUM COVER ABOVE TOP OF PIPE (TYPE)
 2. PROVIDE REDWOOD READERS @ 5' O.C. AND CONCRETE COLLARS FOR LYMWD STD. DWG. NO. 55, ONE PER JOINT, (12" MAX)
 3. FOR HORIZONTAL CONTROL, SEE SHEET 22



- LEGEND
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - CONSTRUCTION EASEMENT
 - PERMANENT EASEMENT
 - FEE PARCEL
 - UTILITY EASEMENT



05555

SCALE IN FEET

RECORD DRAWING

THIS RECORD DRAWING APPLIES ONLY TO THE FACILITIES CONSTRUCTED UNDER THE CONTRACT NUMBERED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE DESIGNATION SURVEYOR.

DESIGNED BY: JES DATE: 12/1/93
 DRAWN BY: T.J.F. DATE: 12/1/93
 CHECKED BY: M.E.B. DATE: 12/1/93
 PROJECT NO.: 955

REV.	DATE	DESCRIPTION	APP.
1	12/9/93	RECORD DRAWING	DM
2	1/2/94	REVISED ALIGNMENT	DM

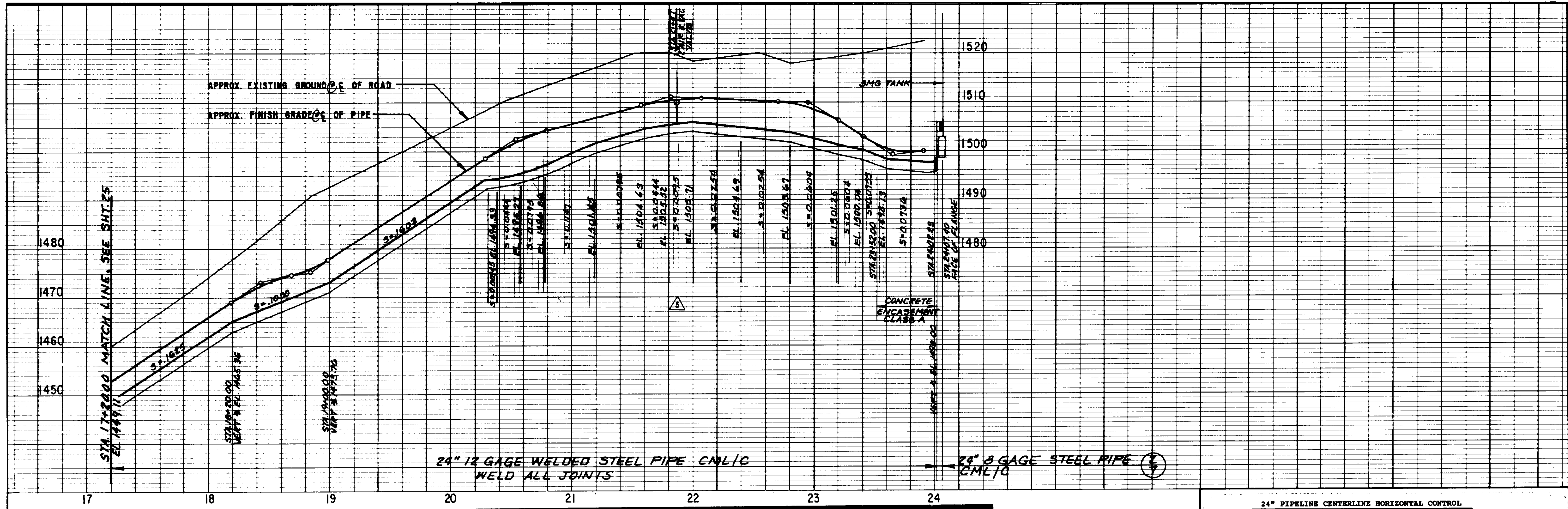
LAS VIRGENES MUNICIPAL WATER DISTRICT

CORDILLERA TANK & ASSOCIATED PIPE LINES

18" STORM DRAIN PLAN AND PROFILE

SOYLE ENGINEERING CORPORATION
 consulting engineers / architects
 VENTURA, CA.

DESIGN: M.D. DRAWN: T.J.F. CHECKED: M.E.B. C.A. NO.: MT-102-929-H. DRAWING NO.: S-229. SHEET NO.: 23 OF 34 SHEETS.



24" PIPELINE CENTERLINE HORIZONTAL CONTROL

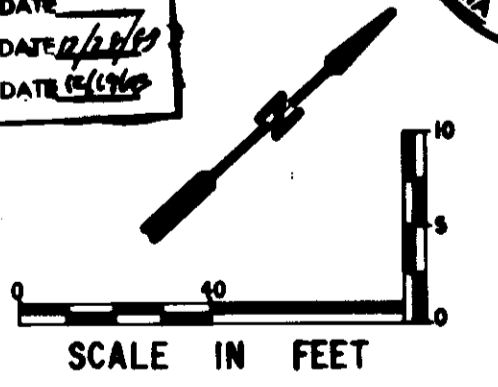
NORTHING	EASTING	STATION	BEARING	AHEAD	COMMENT
6091.121	4134.965	17+20.00	N 42-30-	.0 E	P.I. MATCH LINE
6121.740	4163.023	17+61.53	N 40- 0-	.0 E	P.I.
6837.907	4294.063	19+65.39	N 57- 0-	.0 E	P.I.
6834.043	4349.704	2031.733	N 43-30-	.0 E	P.I.
6378.088	4420.482	21+20.00	N 37-30-	.0 E	P.I.
6438.371	4441.864	21+87.99	N 33- 0-	.0 E	P.I.
6628.081	4558.548	24+02.23	N 70-47-15-	0 E	P.I.
6619.751	4563.428	24+07.40	N 70-47-15-	0 E	P.I. FACE OF FLANGE

FOR ALIGNMENT SEE PLAN VIEW THIS SHEET

RECORD DRAWING
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 CON'T. INSP. [Signature] AGENCY [Signature] DATE [Signature]
 DRAFTED BY [Signature] AGENCY [Signature] DATE [Signature]
 PROJ. ENGR. [Signature] A.E. Y. [Signature] DATE [Signature]



05556



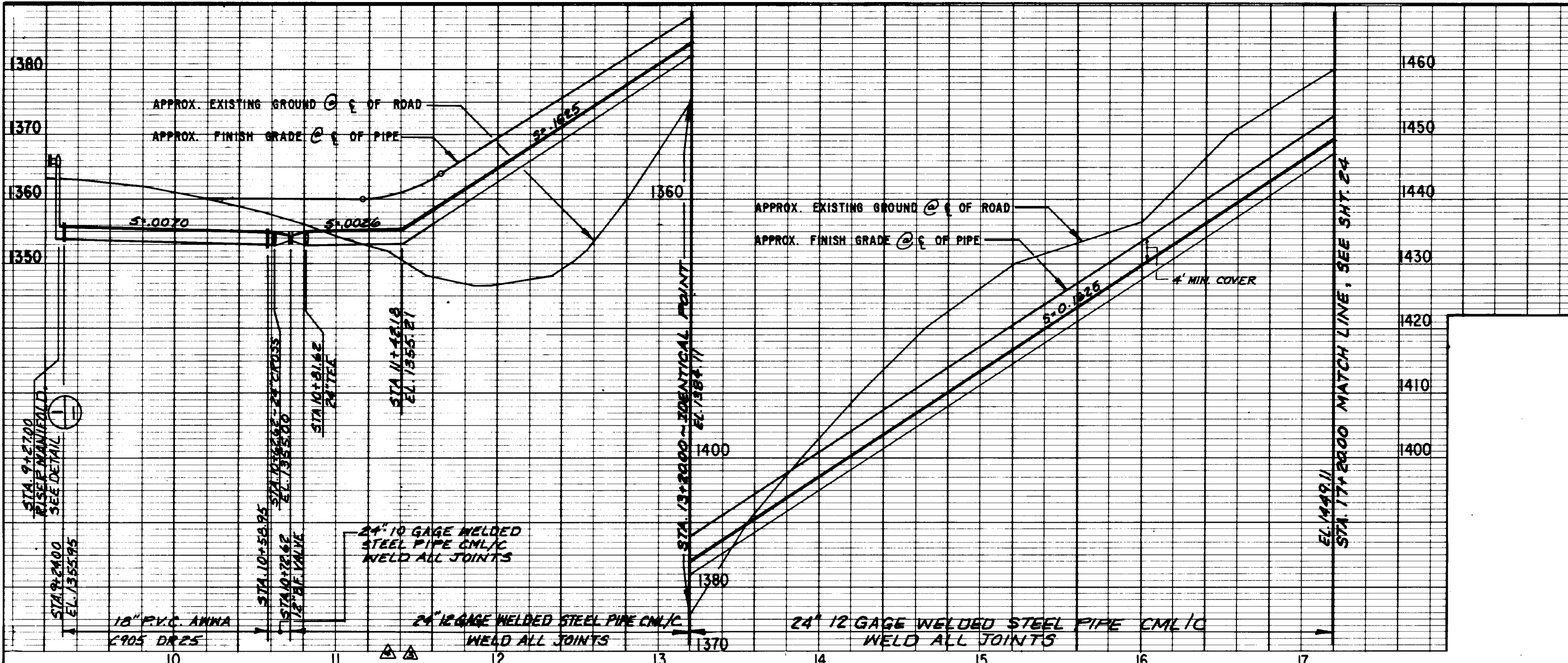
- LEGEND**
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - - - CONSTRUCTION EASEMENT
 - - - PERMANENT EASEMENT
 - - - FEE PARCEL
 - - - UTILITY EASEMENT

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
24" INLET / OUTLET PIPE PLAN AND PROFILE

BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.
 DESIGN: P.A.B. DRAWN: D.P.J. CHECKED: HEG C.A. NO. 625-90 DRAWING NO. 24
 DATE: 12/13/93

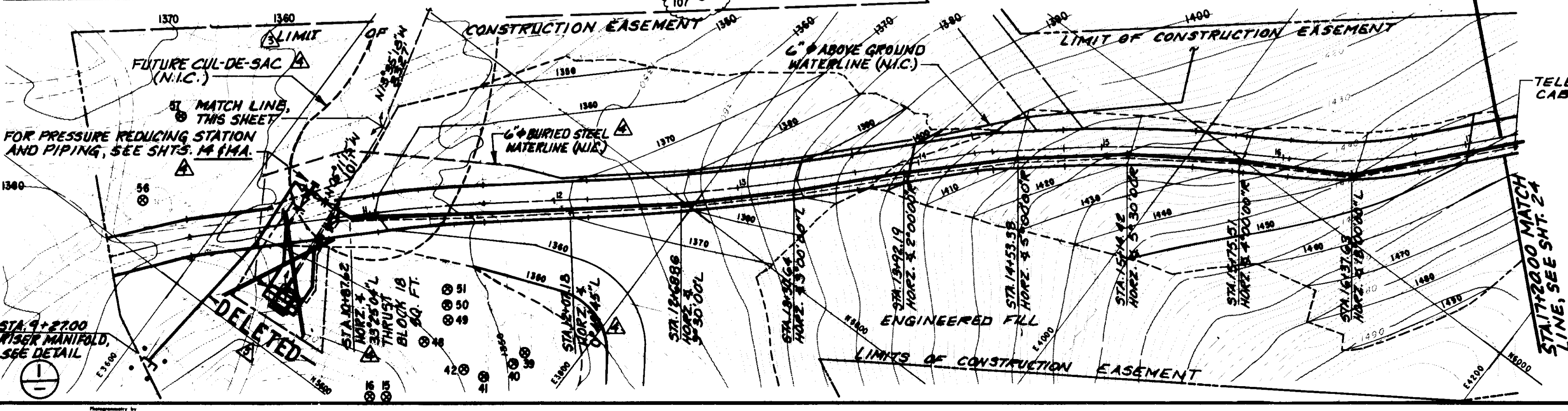
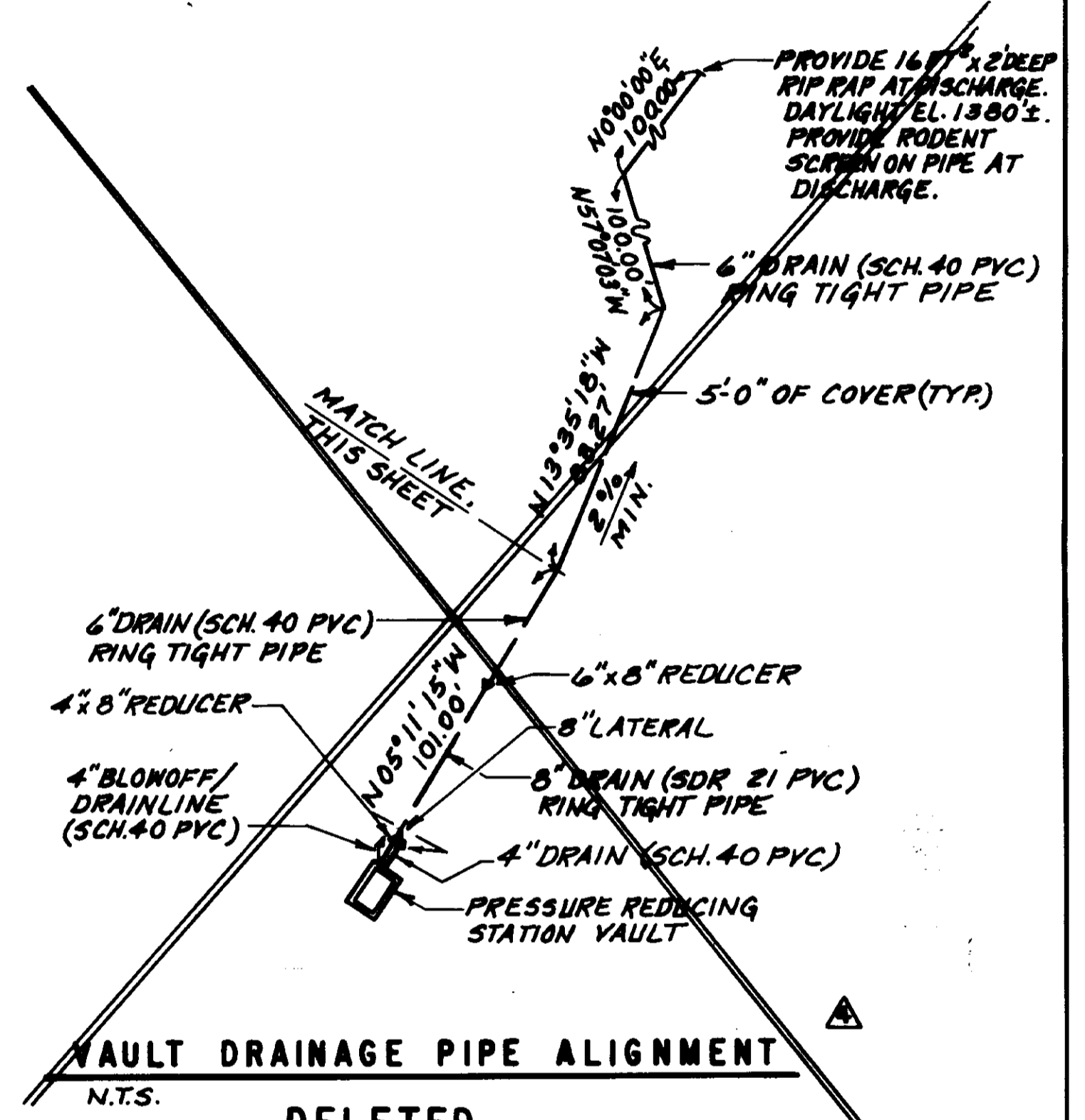
REV.	DATE	DESCRIPTION	APP.
1	12/13/93	RECORD DRAWING	HEG
2	7-24-94	ADDENDUM NO. 2	HEG



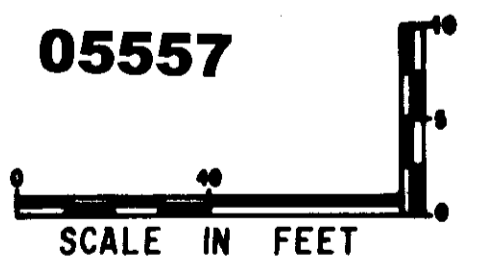
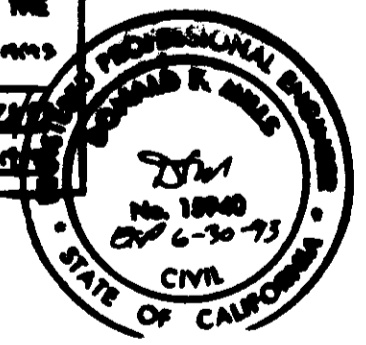


24" PIPELINE CENTERLINE HORIZONTAL CONTROL

NORTHING	EASTING	STATION	BEARING AHEAD	COMMENT
5556.676	3613.459	9+27.00	N 06-15-35.0 E	CENTER RISER MANIFOLD
5641.785	3622.794	10+12.62	N 05-15-41.9 W	P.I.
5681.613	3619.127	10+52.62	N 84-44-49.0 E	P.I.
5682.528	3629.085	10+62.62	N 84-44-49.0 E	P.I. CENTER MAN CROSS
5684.268	3648.005	10+81.62	N 84-44-49.0 E	P.I. CENTER MAN TEE
5684.817	3653.980	10+87.62	N 51-19-45.0 E	P.I.
5759.526	3747.329	12+07.19	N 50-30-00.0 E	P.I.
5798.756	3794.919	12+68.86	N 47-00-00.0 E	P.I.
5840.893	3840.105	13+30.64	N 44-00-00.0 E	P.I.
5885.163	3882.857	13+92.19	N 46-00-00.0 E	P.I.
5927.673	3926.876	14+53.38	N 51-00-00.0 E	P.I.
5966.087	3974.314	15+14.42	N 56-30-00.0 E	P.I.
5999.803	4025.253	15+75.51	N 60-30-00.0 E	P.I.
6030.391	4079.317	16+37.63	N 42-30-00.0 E	P.I.



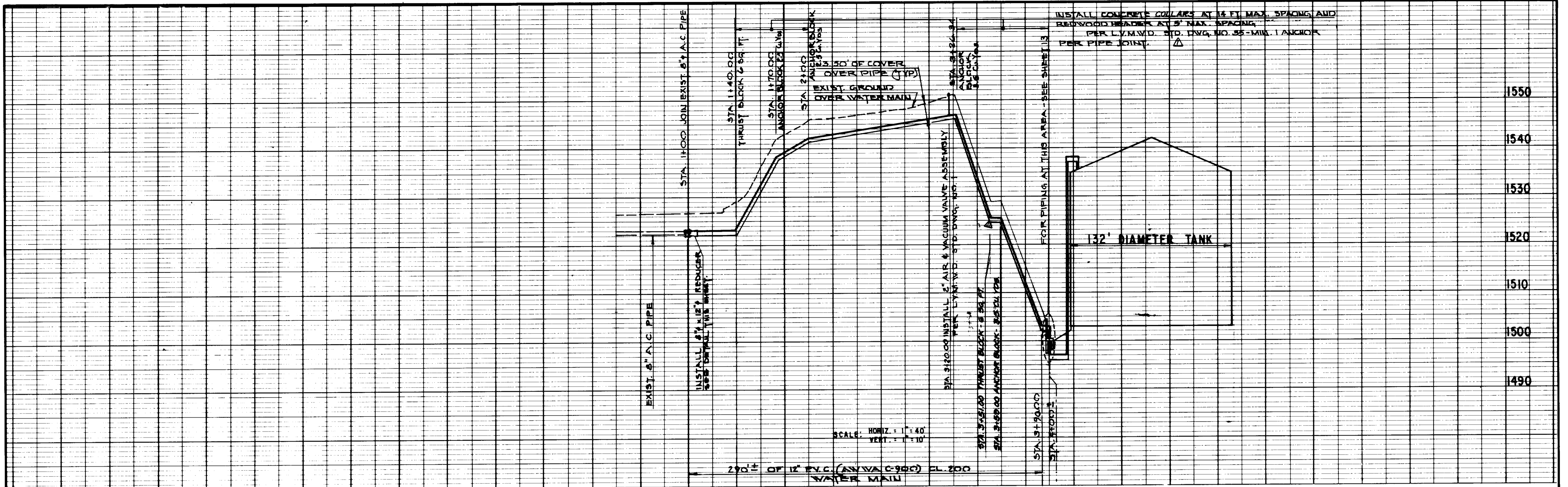
RECORD DRAWING
 THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
 CONST. INSP. *PMB* AGENCY *DEL* DATE *12/19/93*
 DRAFTED BY *ASP* AGENCY *DEL* DATE *12/19/93*
 PROJ. ENGR *PMB* AGE *Y* DATE *12/19/93*



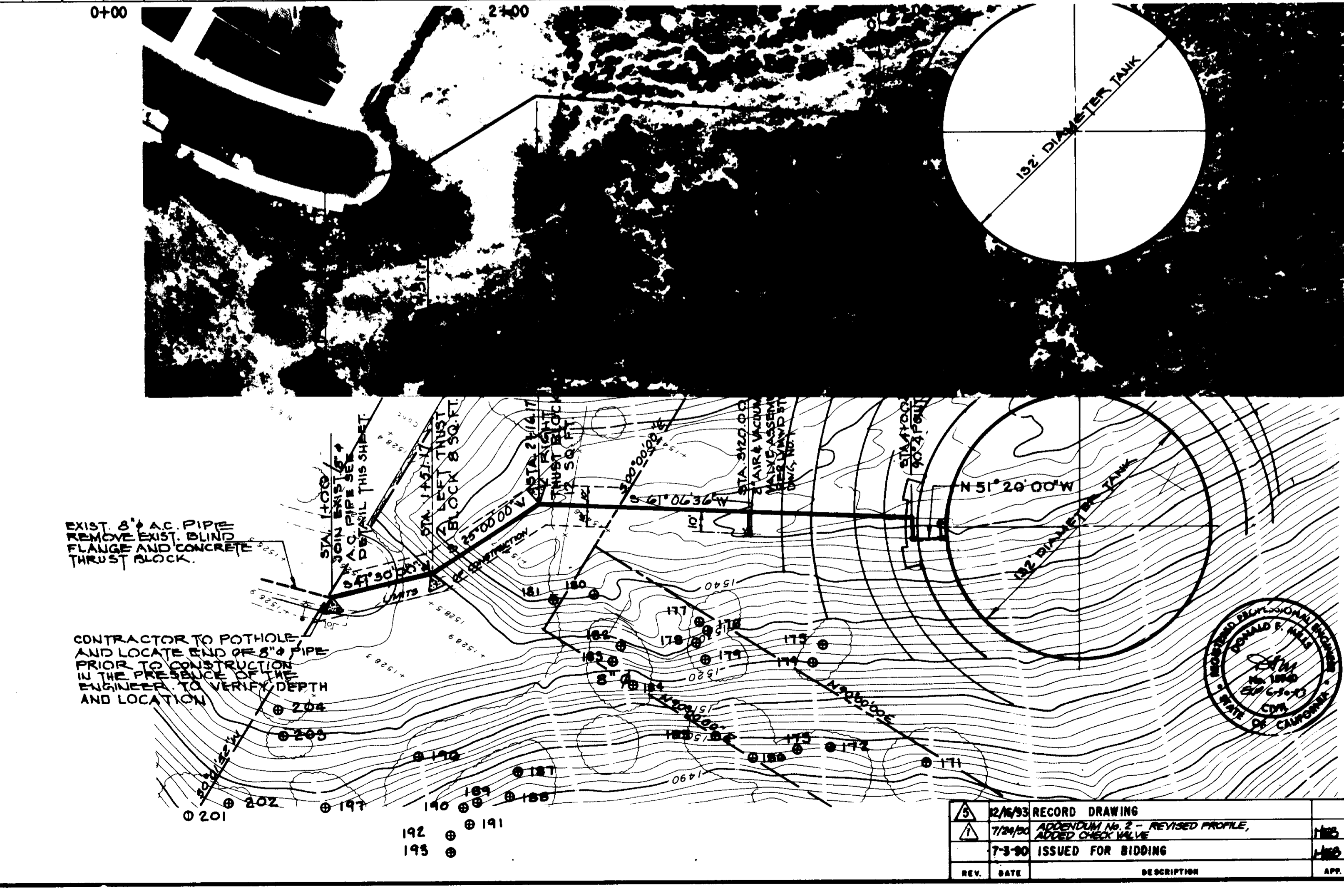
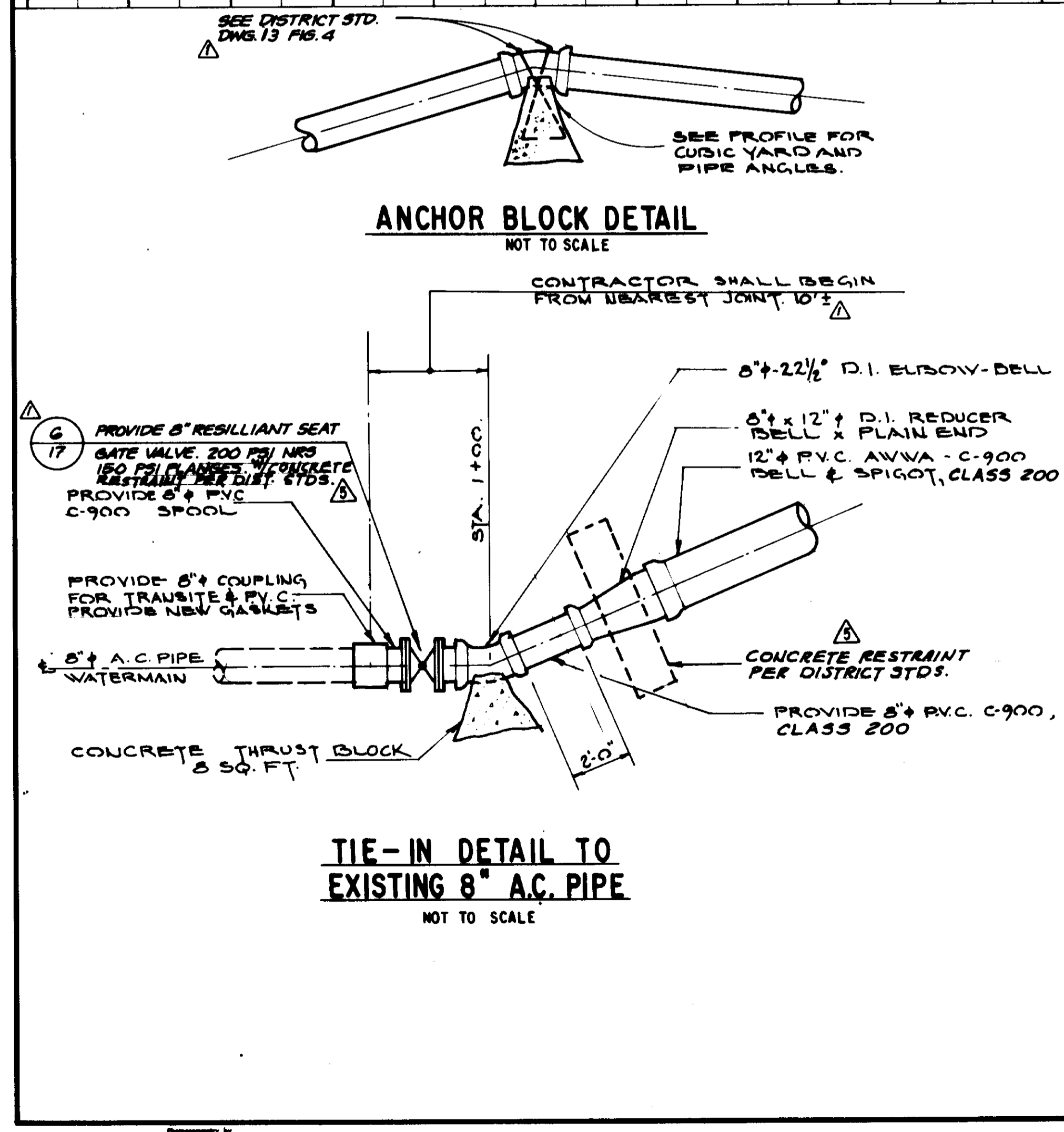
- LEGEND**
- ⊙ OAK TREE
 - ELECTRICAL CONDUIT
 - ELECTRICAL PULL BOX
 - PIPELINE
 - CONSTRUCTION EASEMENT
 - PERMANENT EASEMENT
 - FEE PARCEL
 - UTILITY EASEMENT

LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
24" INLET / OUTLET PIPE PLAN AND PROFILE
 BOYLE ENGINEERING CORPORATION
 consulting engineers | architects
 VENTURA, CA
 DESIGN: P.A.B. DRAWN: D.P.J. CHECKED: *[Signature]* C.A. NO. DRAWING NO. 5-229
 SHEET NO. **25** OF 34 SHEETS

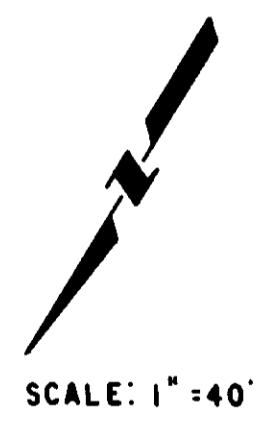
REV.	DATE	DESCRIPTION	APP.
1	12/9/93	RECORD DRAWING	
2	4/23/91	CHANGE ORDER NO. 1 - REVISED PRESSURE REDUCING STATION LOCATION	
3	2/18/91	CHANGE ORDER NO. 2 - REVISED PRESSURE REDUCING STATION LOCATION AND ADDED DETAIL 1.	
4	7-24-90	ADDENDUM NO. 2	



1550
1540
1530
1520
1510
1500
1490



RECORD DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
CONST. INSP. *[Signature]* AGENCY *[Signature]* DATE 11/19/93
DRAFTED BY *[Signature]* AGENCY *[Signature]* DATE 11/19/93
PROJ. ENGR. *[Signature]* AGENCY *[Signature]* DATE 11/19/93



05558

LAS VIRGENES MUNICIPAL WATER DISTRICT

CORDILLERA TANK & ASSOCIATED PIPE LINES

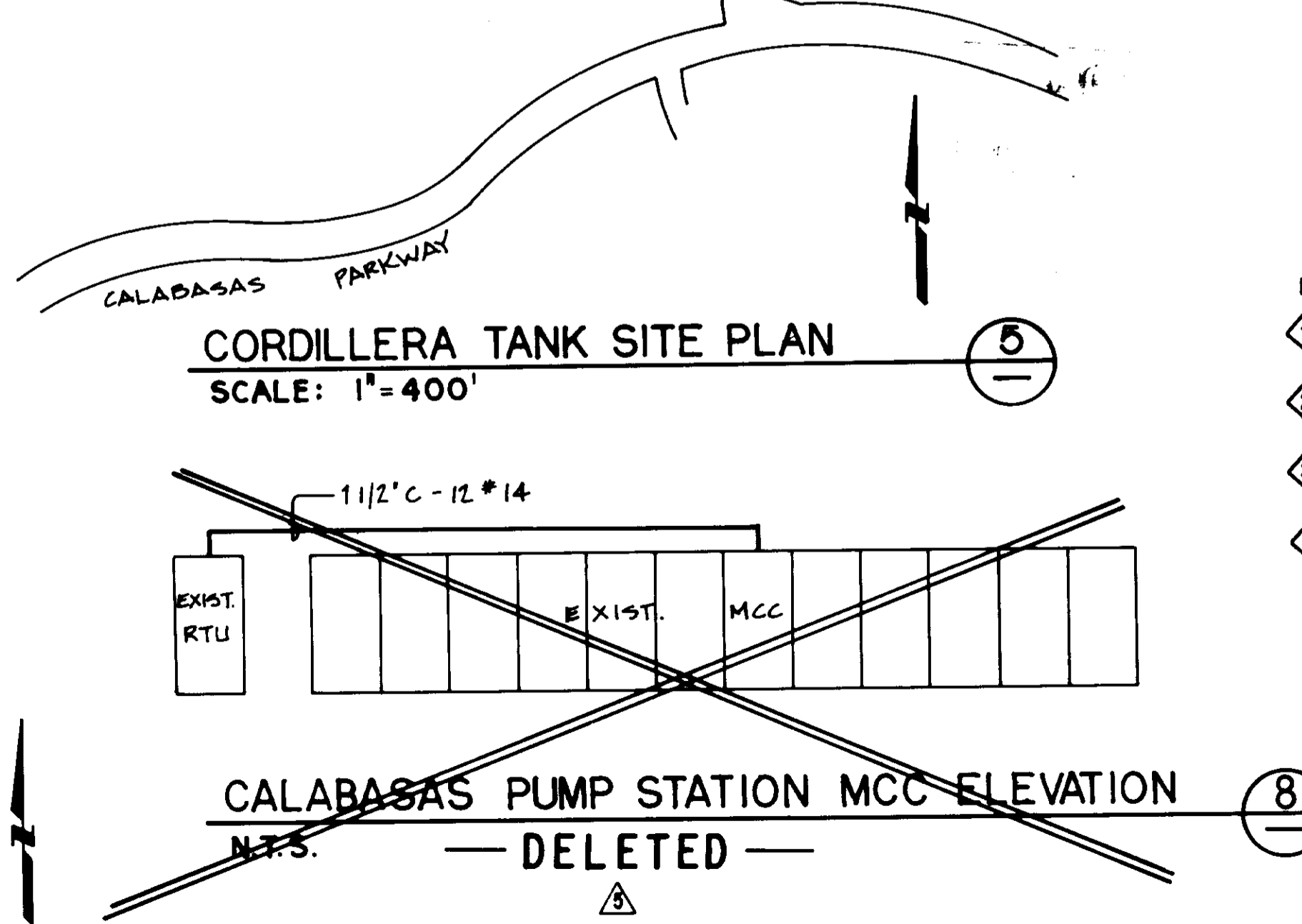
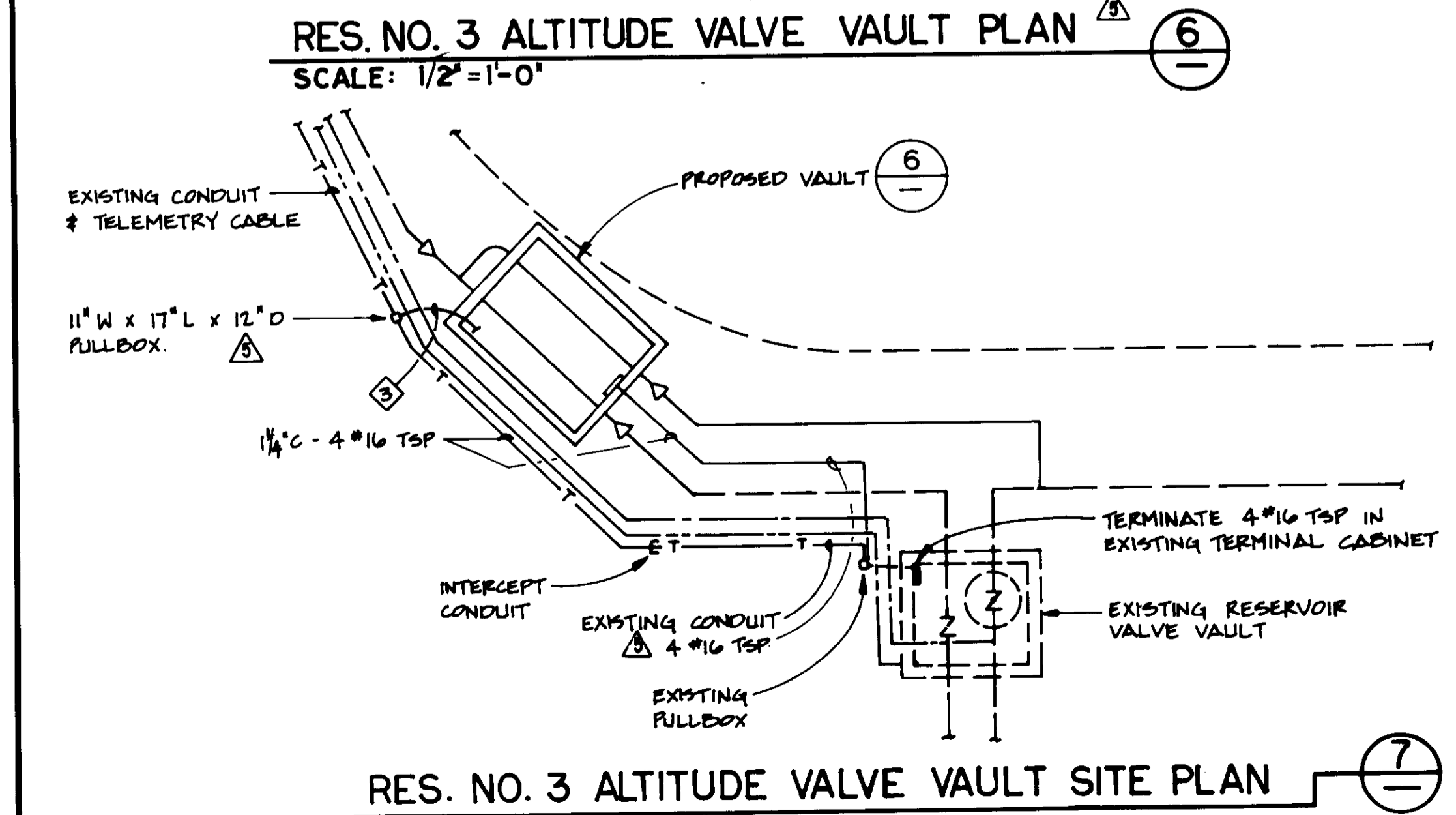
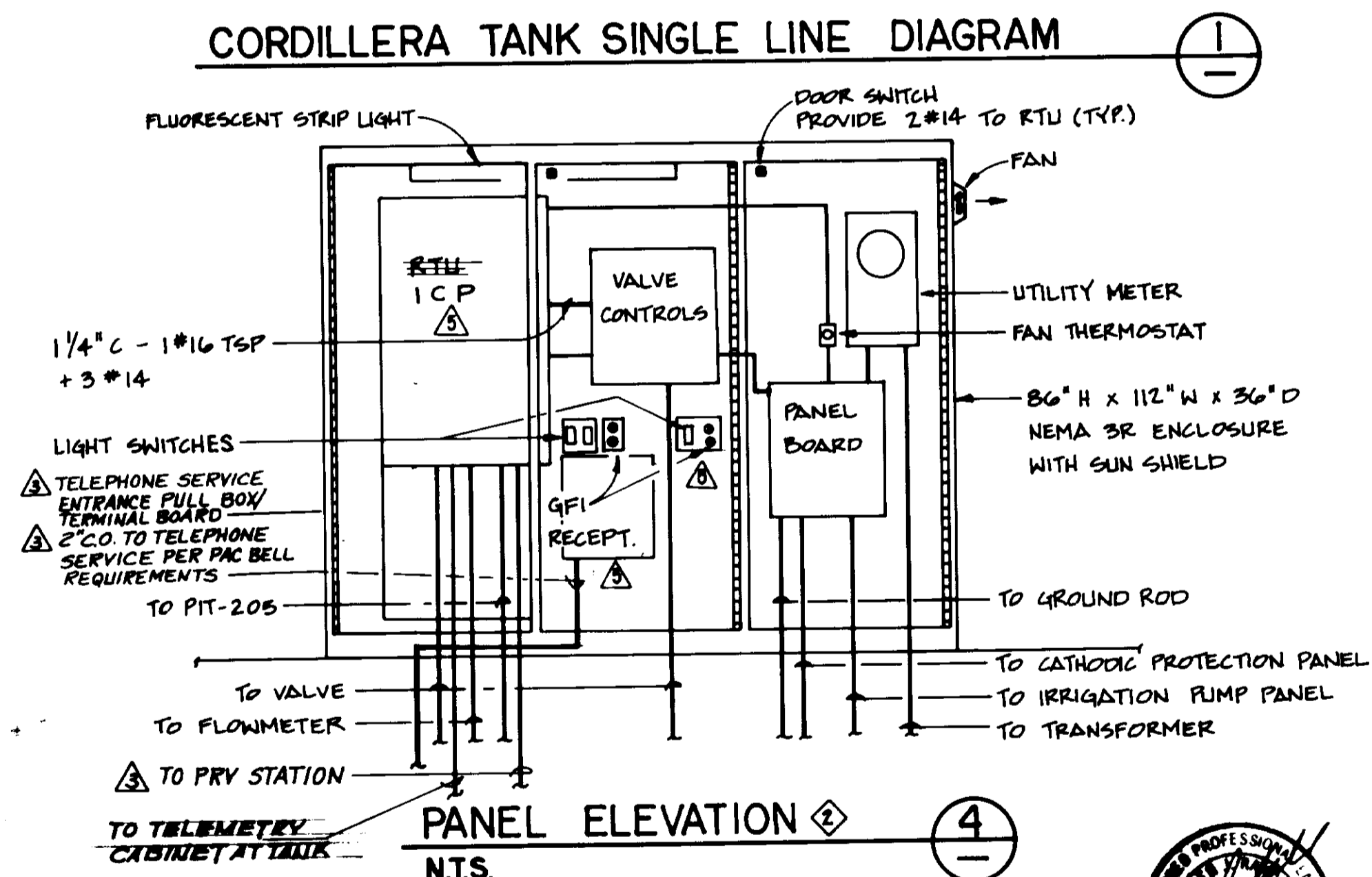
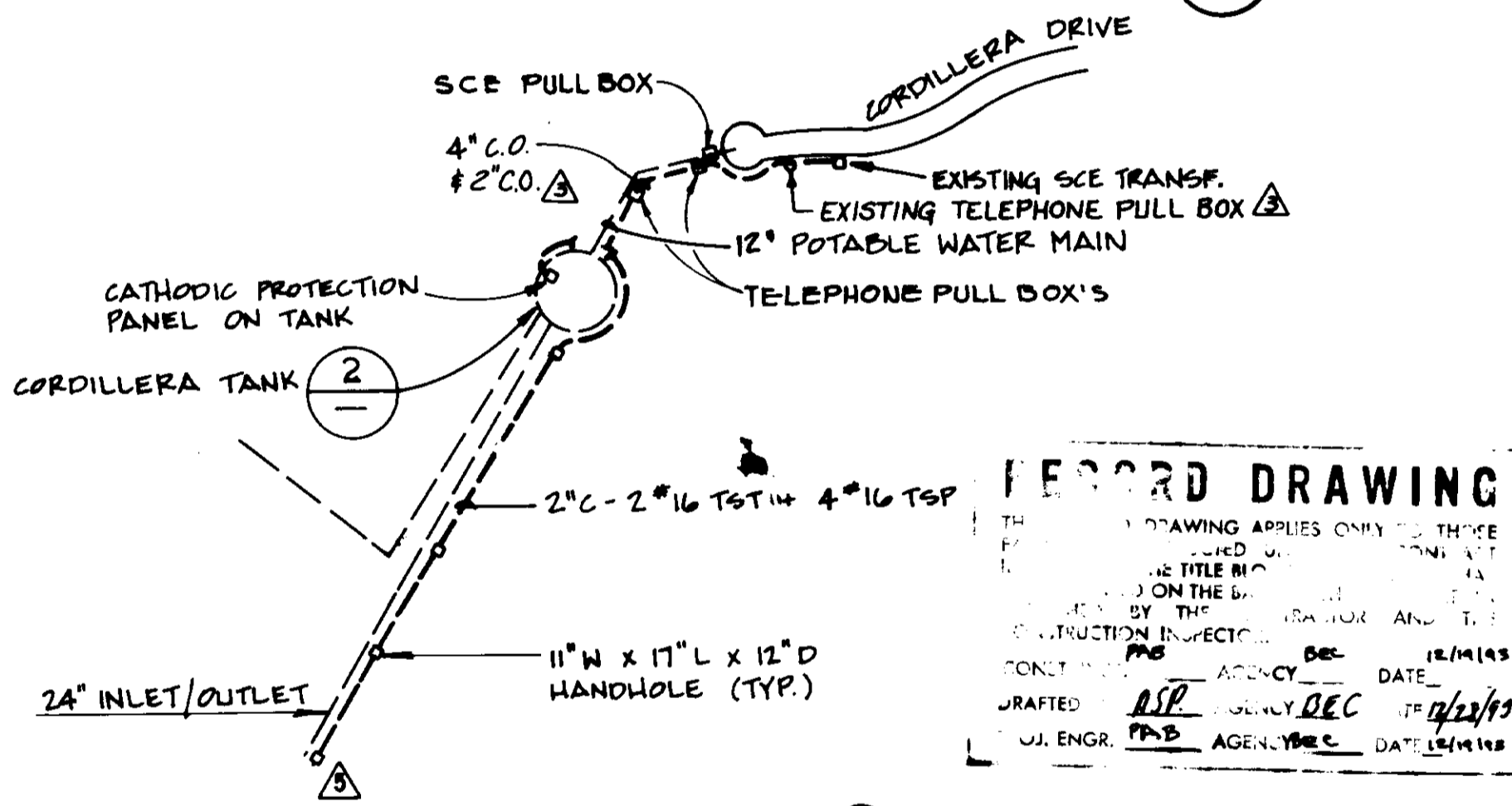
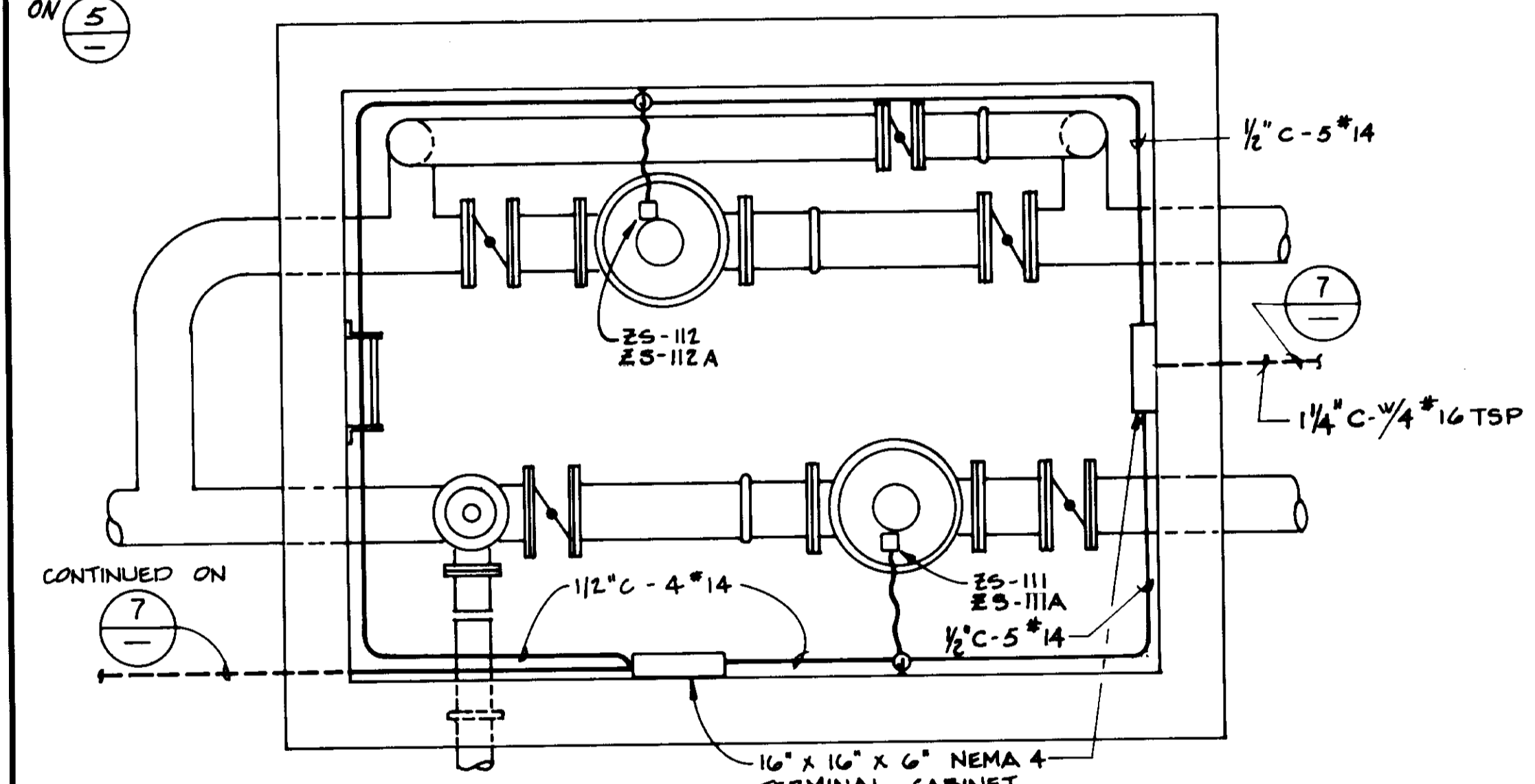
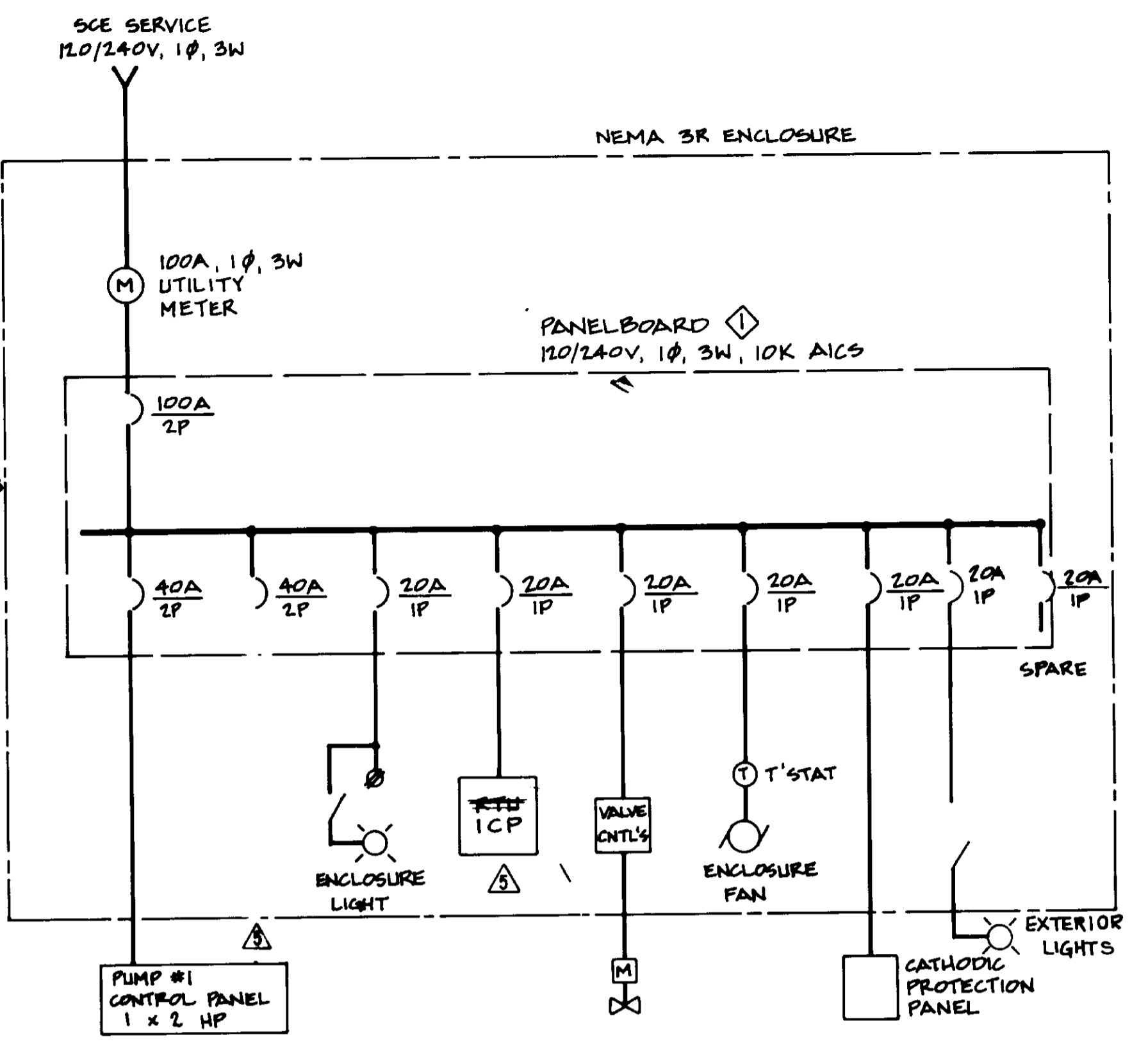
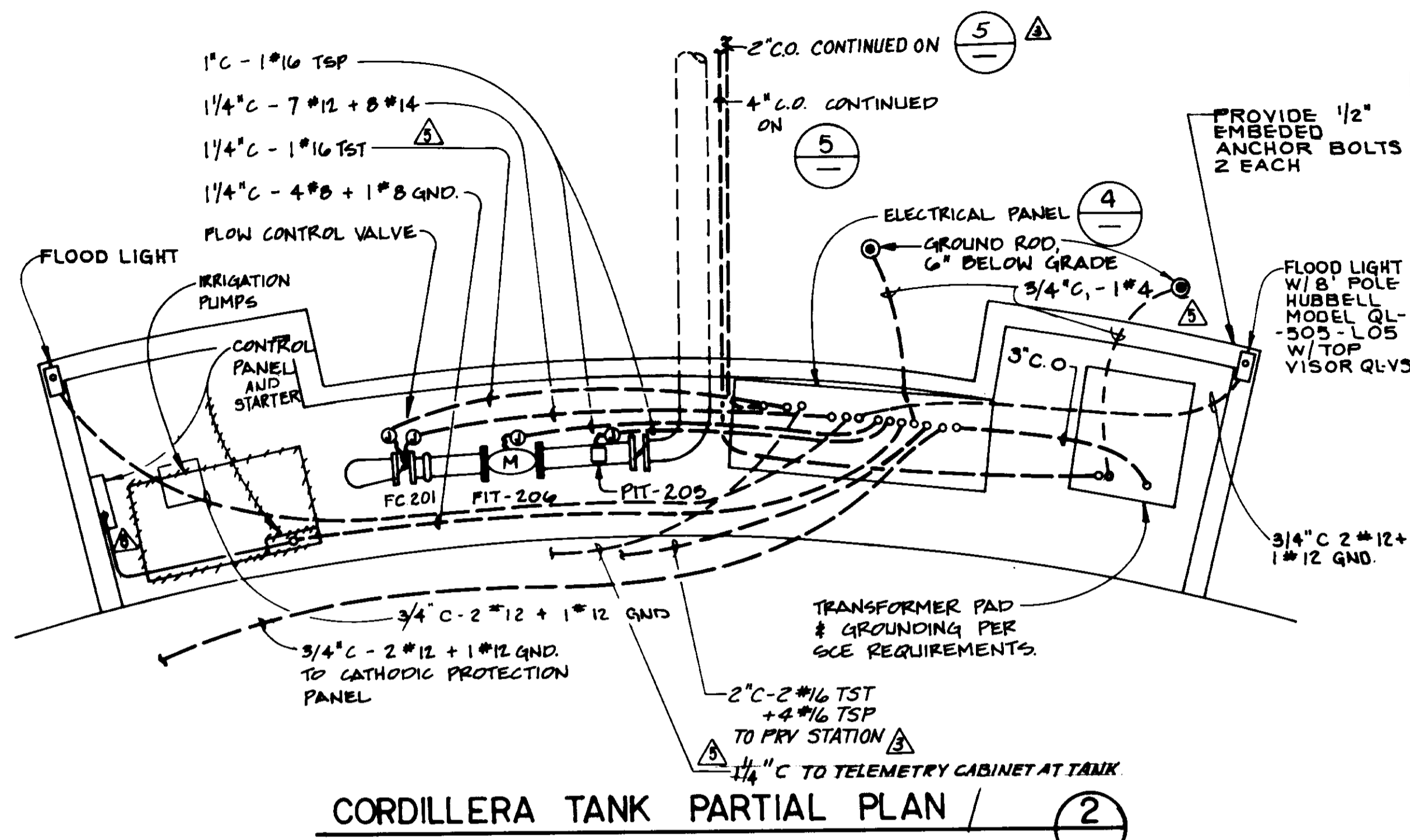
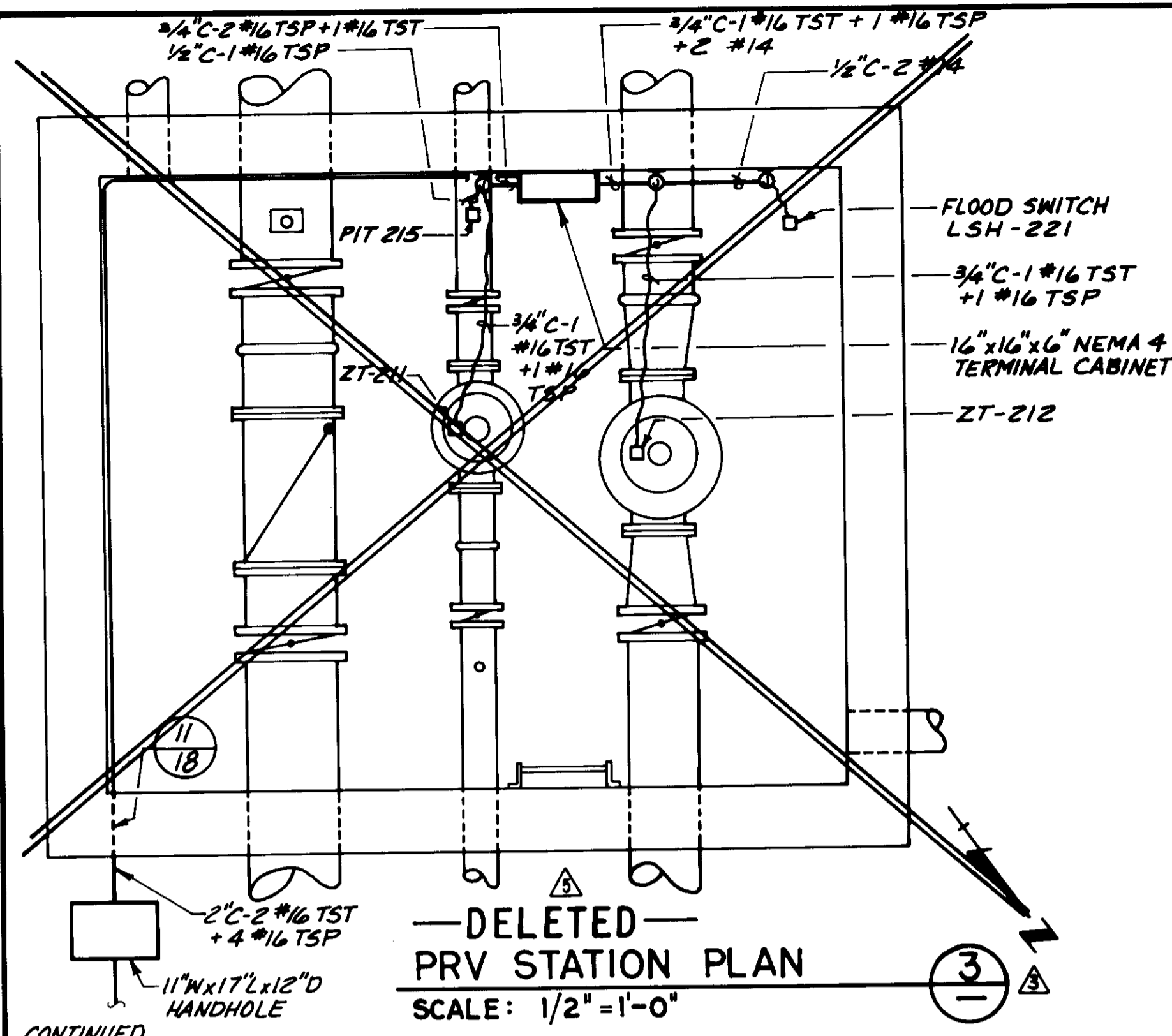
POTABLE WATER LINE
PLAN AND PROFILE

BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA.

Donald F. Mills
DATE 6-25-90

DESIGN A.S.P. DRAWN A.S.P. CHECKED *[Signature]* C.A. NO. VENT-100-320-11 SHEET NO. 26 OF 34 SHEETS

REV.	DATE	DESCRIPTION	APP.
1	12/16/93	RECORD DRAWING	
2	7/24/94	REVISION #2 - REVISED PROFILE, ADDED CHECK VALVE	
3	7-3-90	ISSUED FOR BIDDING	



- NOTES:
- 1 PROVIDE PANELBOARD WITH UL LABEL, "SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT."
 - 2 REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL CONDUIT AND WIRING NOT SHOWN ON ELEVATION.
 - 3 1-1/2 INCH CONDUIT AND 4 # 16 TSP.
 - 4 TST: TWISTED SHIELDED TRIAD INSTRUMENT CABLE. TSP: TWISTED SHIELDED PAIR INSTRUMENT CABLE.



05559

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES
ELECTRICAL PLAN & DETAILS

BOYLE ENGINEERING CORPORATION
CONSULTING ENGINEERS / ARCHITECTS
VENTURA, CA.

DESIGN	DRAWN	CHECKED	C.A. NO.	DRAWING NO.	SHEET NO.
A.R.	E.S.D.	HEB	VT-102-28916	S-229	27

OF 34 SHEETS

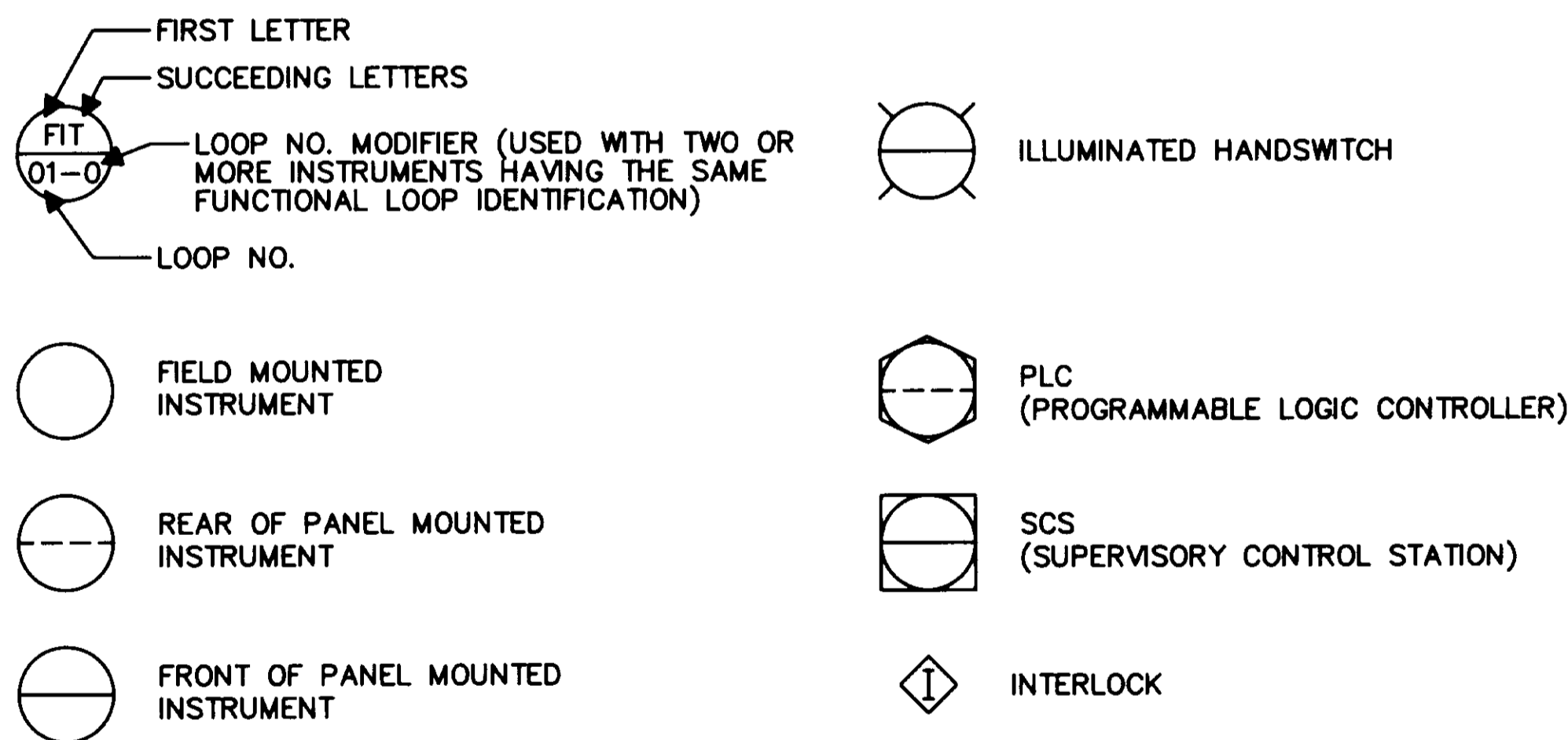
REV.	DATE	DESCRIPTION	APP.
1	2/8/93	RECORD DRAWING	
2	2/18/91	CHANGE ORDER NO. 1 - ADDED 2" C (TELEPHONE) FROM RTU TO EXISTING TELEPHONE PULL BOX & REVISED DETAIL'S	JSM
3	7/24/90	ADDENDUM NO. 2	HEB
4	7-3-90	ISSUED FOR BIDDING	HEB

INSTRUMENT SOCIETY OF AMERICA TABLE

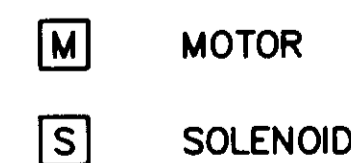
LETTER	FIRST LETTER		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS(*)		ALARM		
B	BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY			CONTROL	
D	DENSITY(MASS)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	GAGING		GLASS	GATE	
H	HAND(MANUAL)				HIGH
I	CURRENT		INDICATE/STATUS		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT(PILOT)		LOW
M	MOTION				MIDDLE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE		
P	PRESSURE (OR VACUUM)		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE,DAMPER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED(*)		UNCLASSIFIED(*)	UNCLASSIFIED(*)	UNCLASSIFIED(*)
Y	USER'S CHOICE		RELAY OR COMPUTE(*)		
Z	POSITION		DRIVE,ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT		

(*) WHEN USED EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL

INSTRUMENT IDENTIFICATION



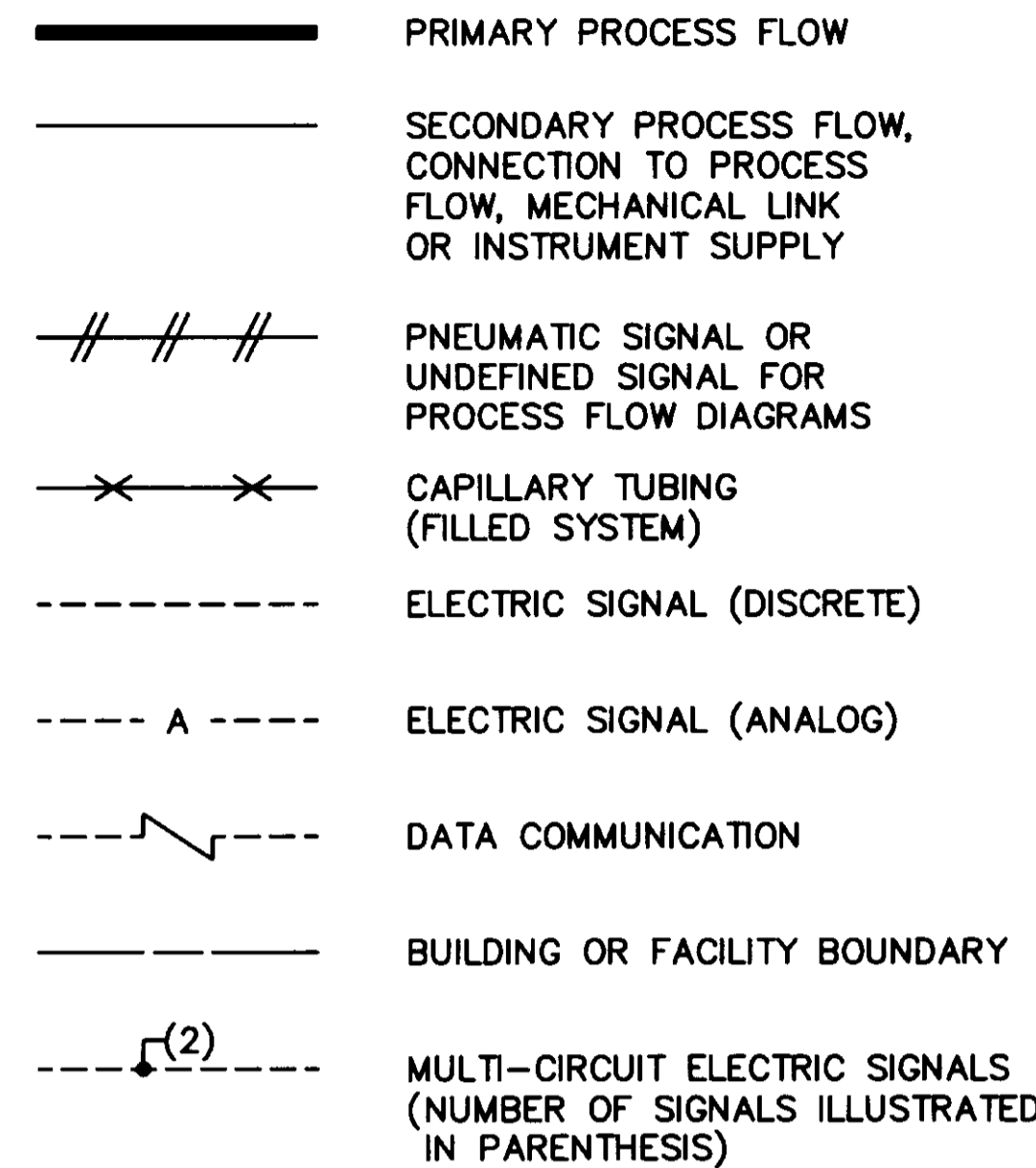
ACTUATORS OR OPERATORS



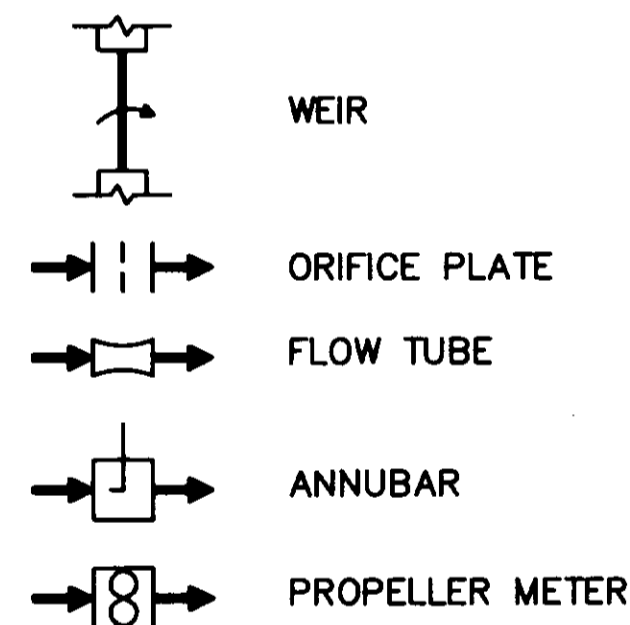
PUMPS & COMPRESSORS



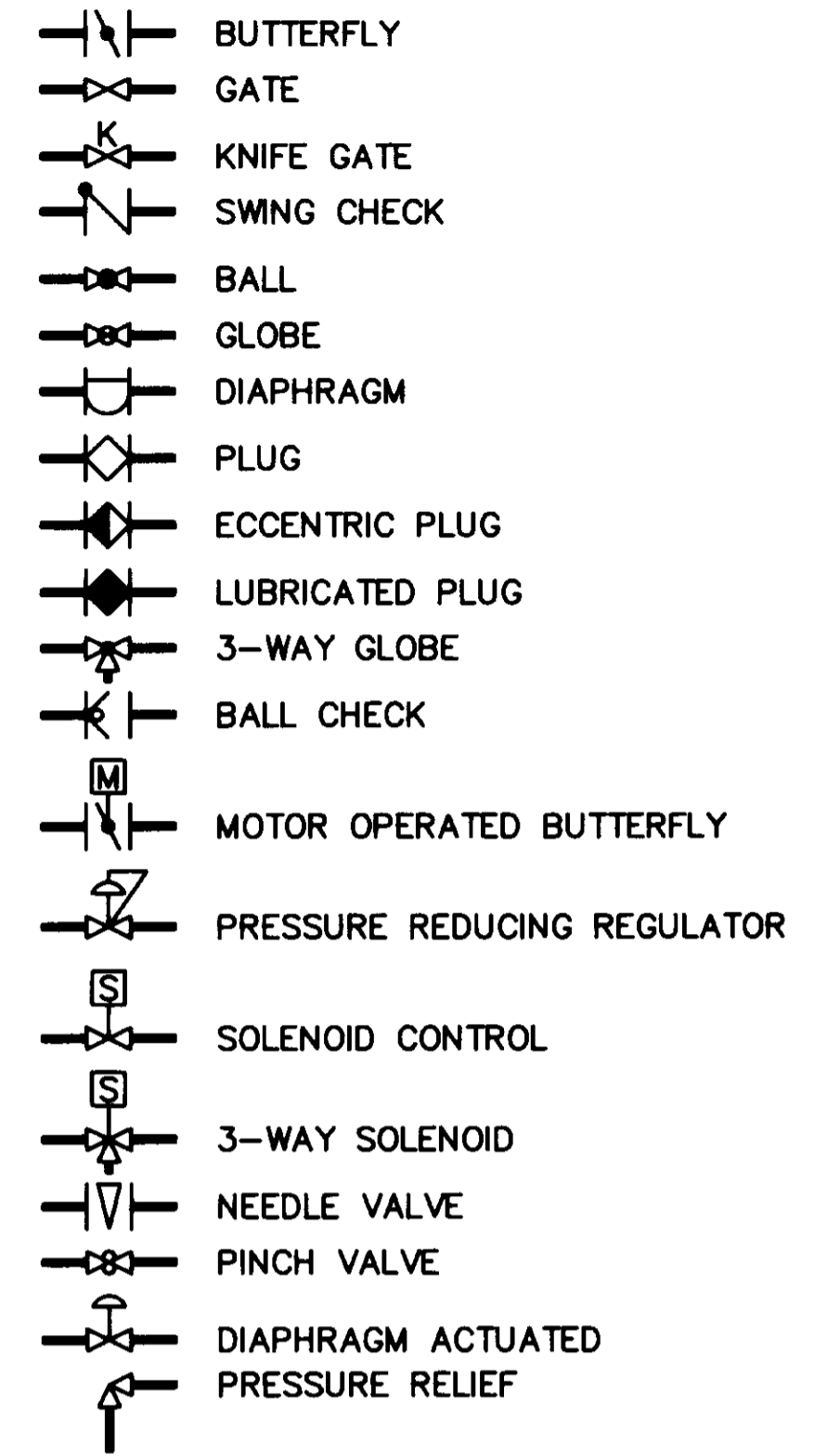
INSTRUMENT LINE SYMBOLS



PRIMARY ELEMENTS



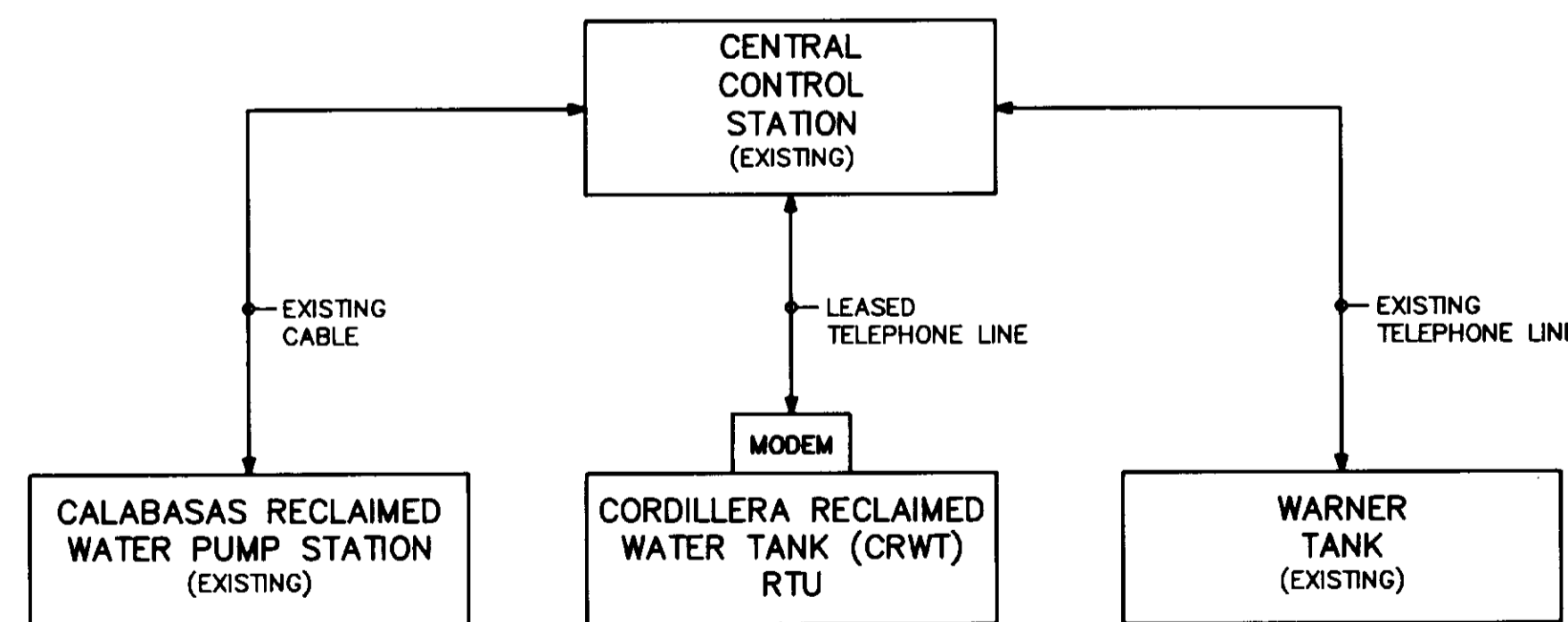
VALVES & GATES



INSTRUMENT ABBREVIATIONS

AL	ALARM	O	OPEN
AC	ALTERNATING CURRENT	OSCA	OPEN-STOP-CLOSE-AUTO
AI	ANALOG INPUT	OOR	ON-OFF-REMOTE
AO	ANALOG OUTPUT	OO	ON-OFF
AM	AUTO-MANUAL	OOA	ON-OFF-AUTO
AMR	AUTO-MANUAL-REMOTE	ORO	OFF-RESET-ON
CA	COMMON ALARM	OSC	OPEN-STOP-CLOSE
C	CLOSE	OSCR	OPEN-STOP-CLOSE-REMOTE
CCS	CENTRAL CONTROL STATION	OCA	OPEN-CLOSE-AUTO
DC	DIRECT CURRENT	P/A	PULSE TO ANALOG
DI	DISCRETE INPUT	PID	PROPORTIONAL-INTEGRAL-DERIVATIVE
DO	DISCRETE OUTPUT	PLC	PROGRAMMABLE CONTROLLER
ETM	ELAPSED TIME METER	P&ID	PROCESS & INSTRUMENTATION DIAGRAM
HOA	HAND-OFF-AUTO	PRV	PRESSURE RELIEF VALVE
HL	HIGH-LOW	RTU	REMOTE TERMINAL UNIT
HLOR	HIGH-LOW-OFF-REMOTE	RSP	REMOTE SET POINT
I/O	INPUT/OUTPUT	SCS	SUPERVISORY CONTROL STATION
LR	LOCAL-REMOTE	SS	START-STOP
LOS	LOCK-OUT-STOP	SP	SET POINT
LOR	LOCAL-OFF-REMOTE	TSP	TWISTED SHIELDED PAIR
LPU	LINE PROTECTION UNIT	TURB	TURBIDITY
LCP	LOCAL CONTROL PANEL	TPC	TIME PROPORTIONAL CONTROL
MCC	MOTOR CONTROL CENTER	TOT	TOTALIZATION
MCS	MASTER CONTROL STATION		
MODEM	MODULATE-DEMODULATE		

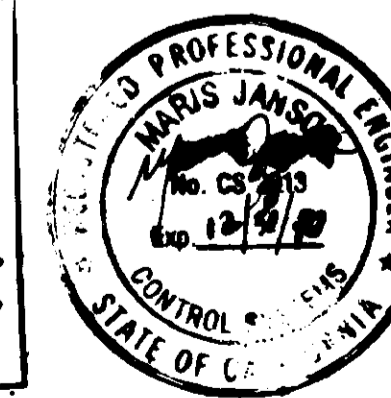
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SYSTEM BLOCK DIAGRAM

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1993 OPERATIONAL GUIDE

PERIODIC DRAWING
THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
CONST. INSP. PAP AGENCY SEL DATE 12/14/93
DRAFTED BY ASP AGENCY SEL DATE 12/14/93
PROJ. ENGR. PBS AGENCY SEL DATE 12/14/93



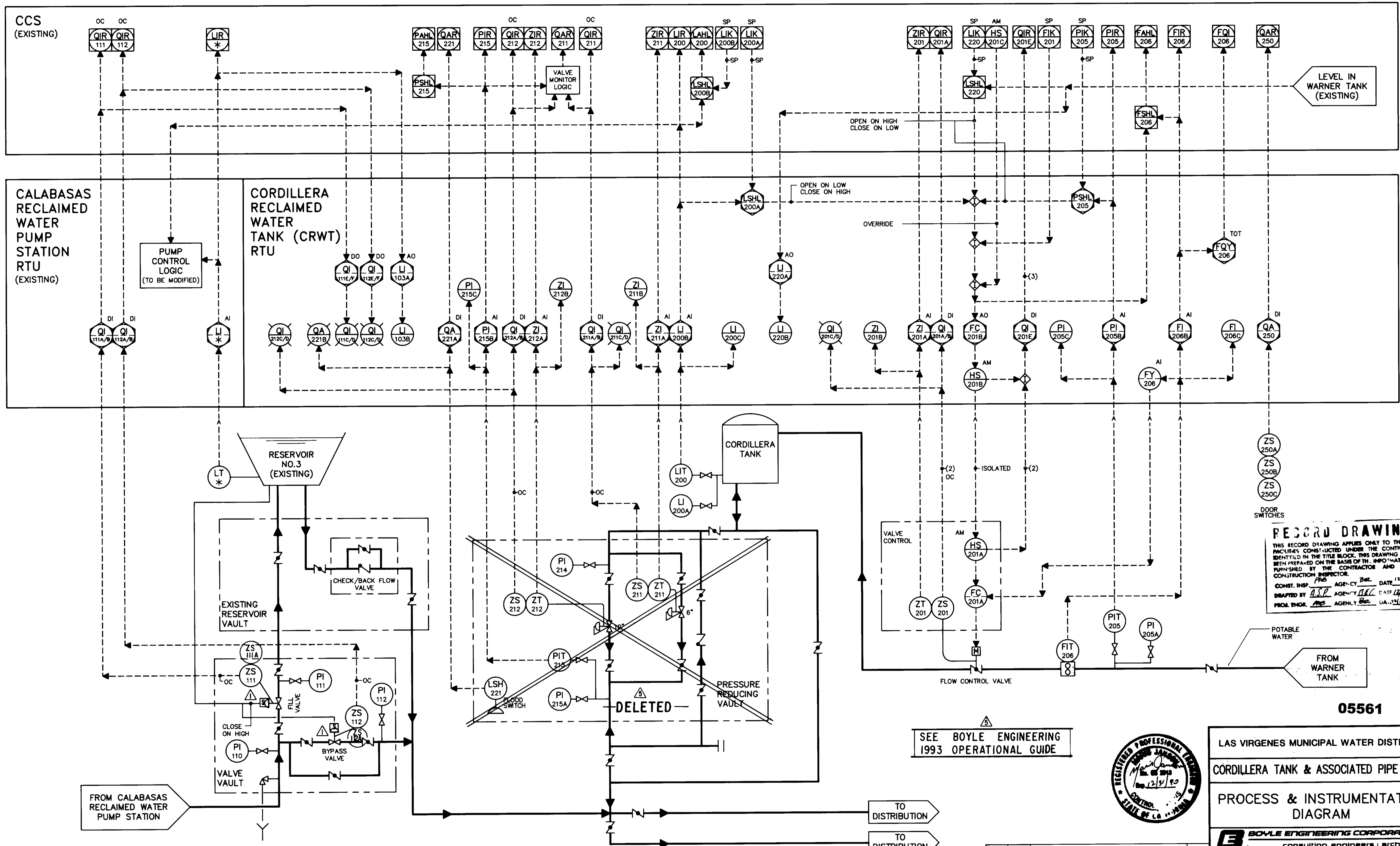
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

INSTRUMENT LEGEND & SYMBOLS. BLOCK DIAGRAM

BOYLE ENGINEERING CORPORATION
consulting engineers | architects
VENTURA, CA.

REV.	DATE	DESCRIPTION	APP.	DESIGN	DRAWN	CHECKED	C.A. NO.	DRAWING NO.	SHEET NO.
1	12/16/93	RECORD DRAWING		ES	ES	MJ		S-231	28

DATE: 12/16/93
SHEET NO. 28 OF 34 SHEETS



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 THIS RECORD DRAWING APPLIES ONLY TO THOSE FACILITIES CONSTRUCTED UNDER THE CONTRACT IDENTIFIED IN THE TITLE BLOCK. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF THE INFORMATION FURNISHED BY THE CONTRACTOR AND THE CONSTRUCTION INSPECTOR.
 CONST. INSP. *[Signature]* AGENCY *[Signature]* DATE *12/19/93*
 DRAFTED BY *[Signature]* AGENCY *[Signature]* DATE *12/19/93*
 PROJ. ENGR. *[Signature]* AGENCY *[Signature]* DATE *12/19/93*

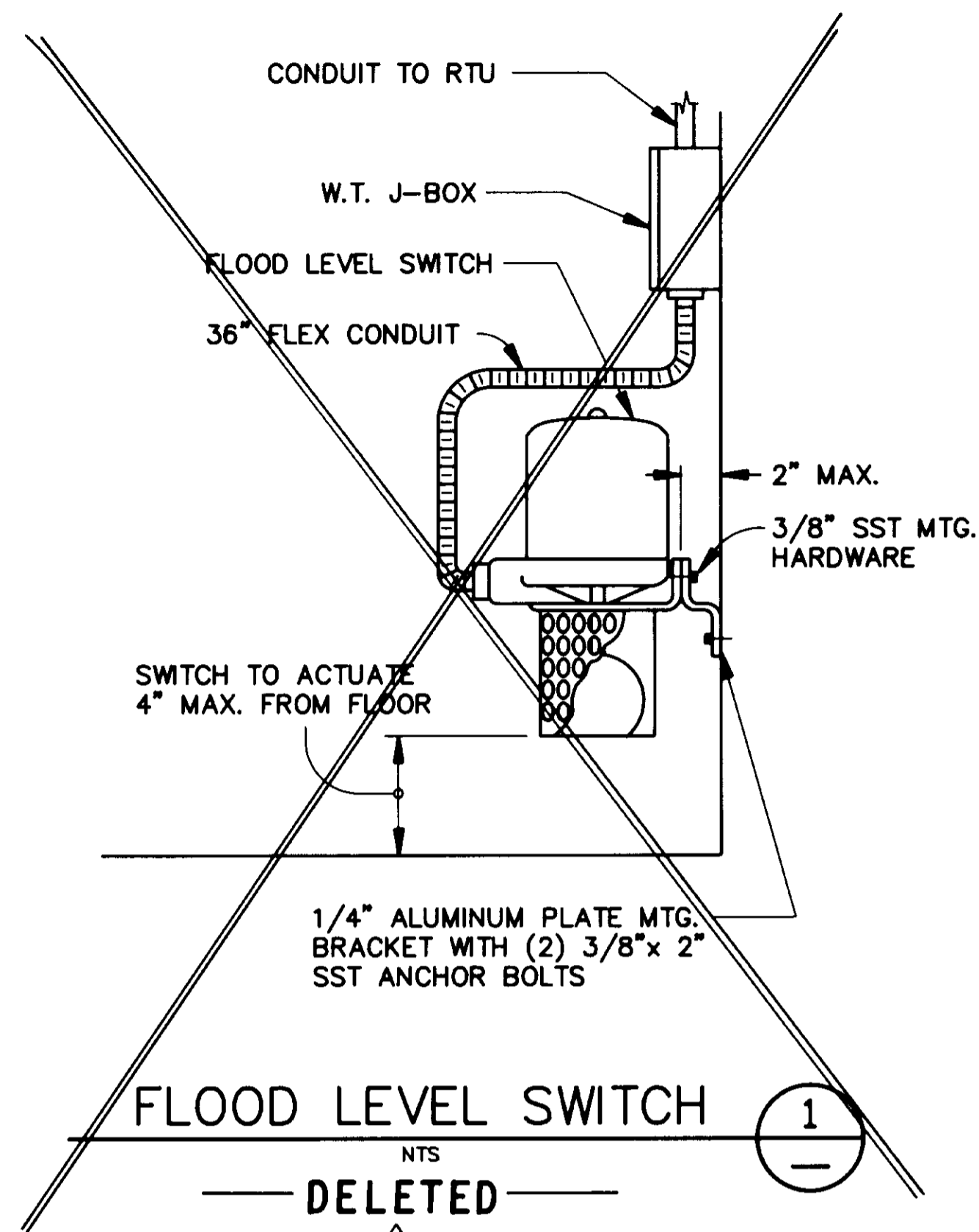
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LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 PROCESS & INSTRUMENTATION
 DIAGRAM
BOYLE ENGINEERING CORPORATION
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 VENTURA, CA.

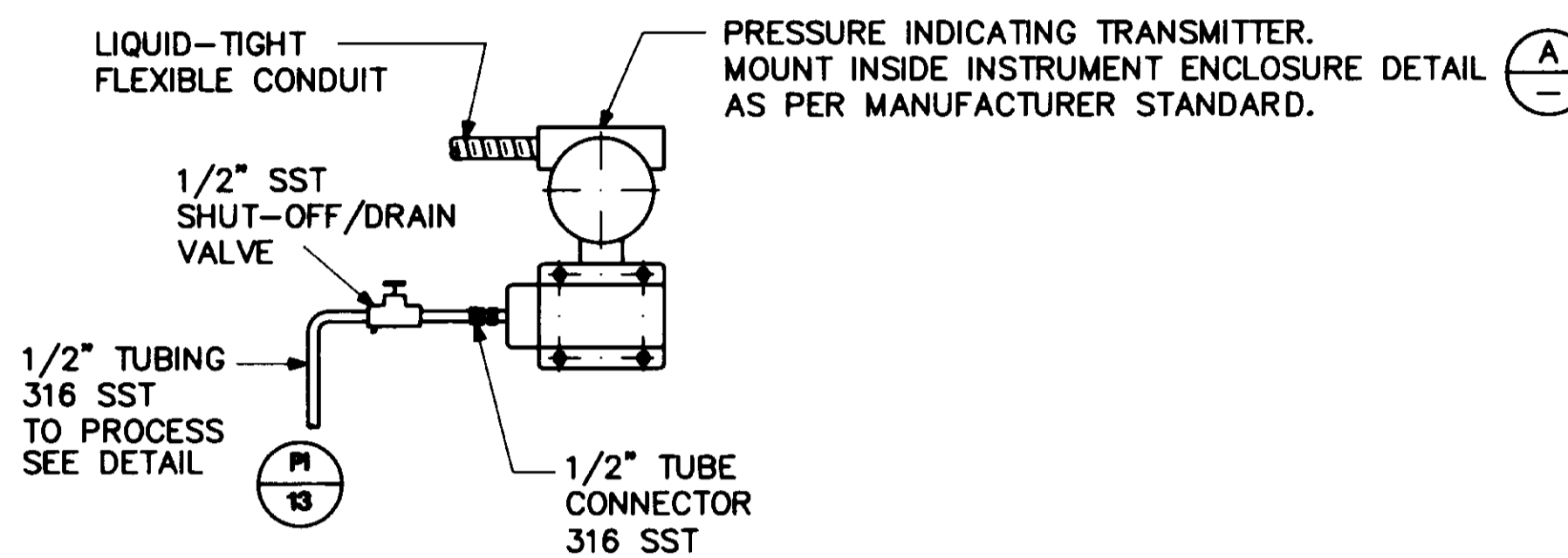
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REV.	DATE	DESCRIPTION		APP.								



FLOOD LEVEL SWITCH

1

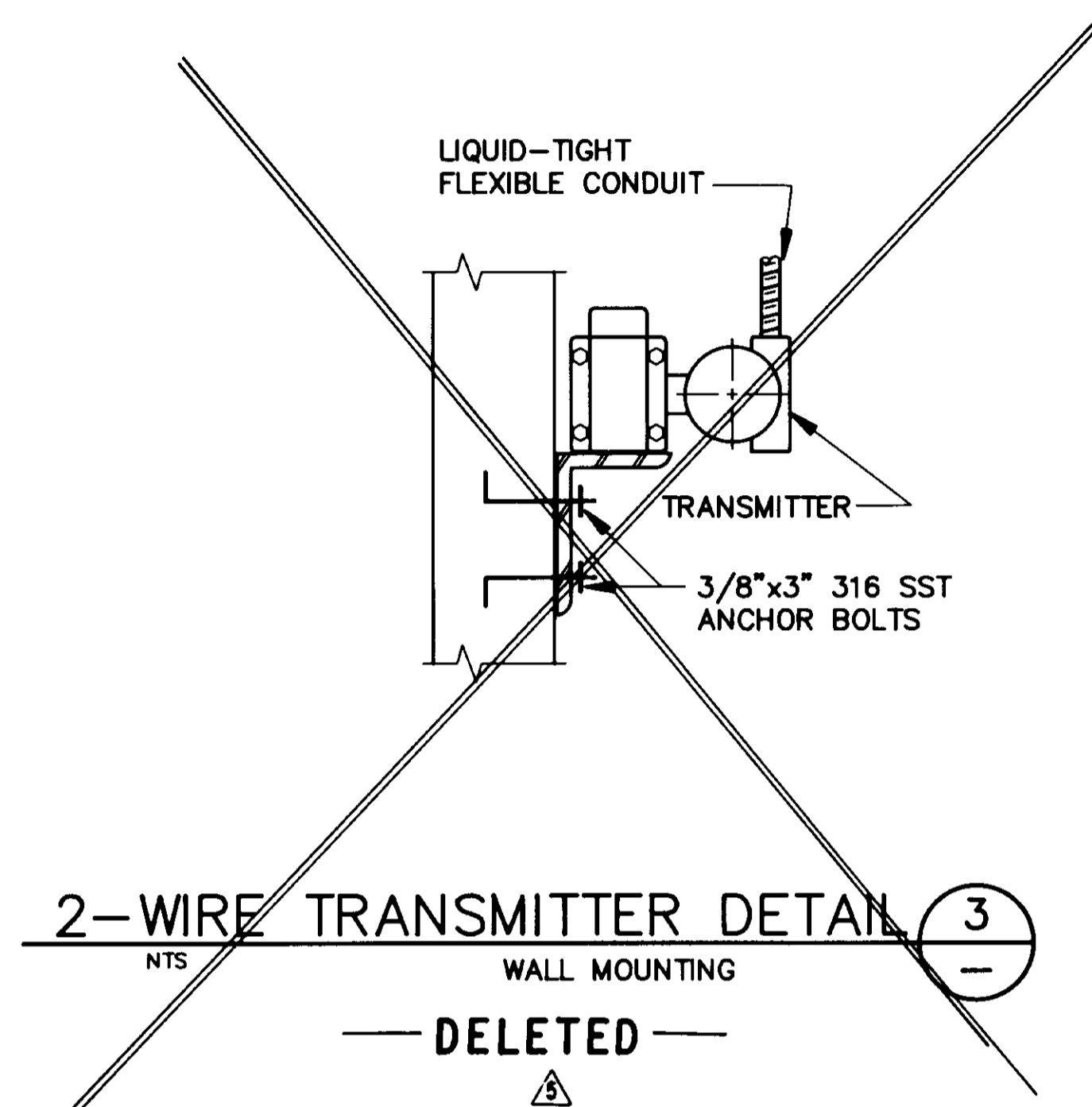
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PRESSURE INDICATING TRANSMITTER

2

NTS



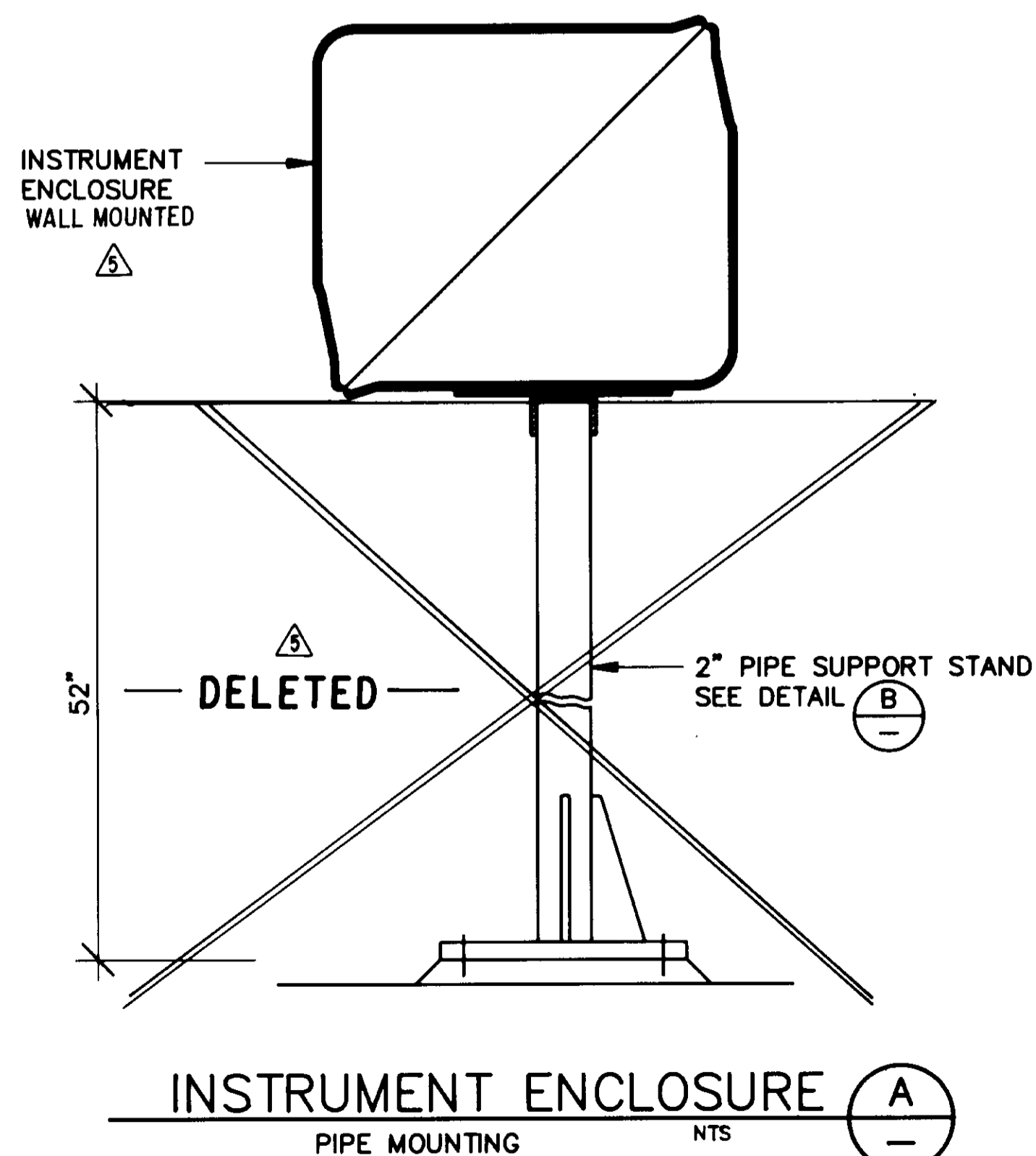
2-WIRE TRANSMITTER DETAIL

3

NTS

WALL MOUNTING

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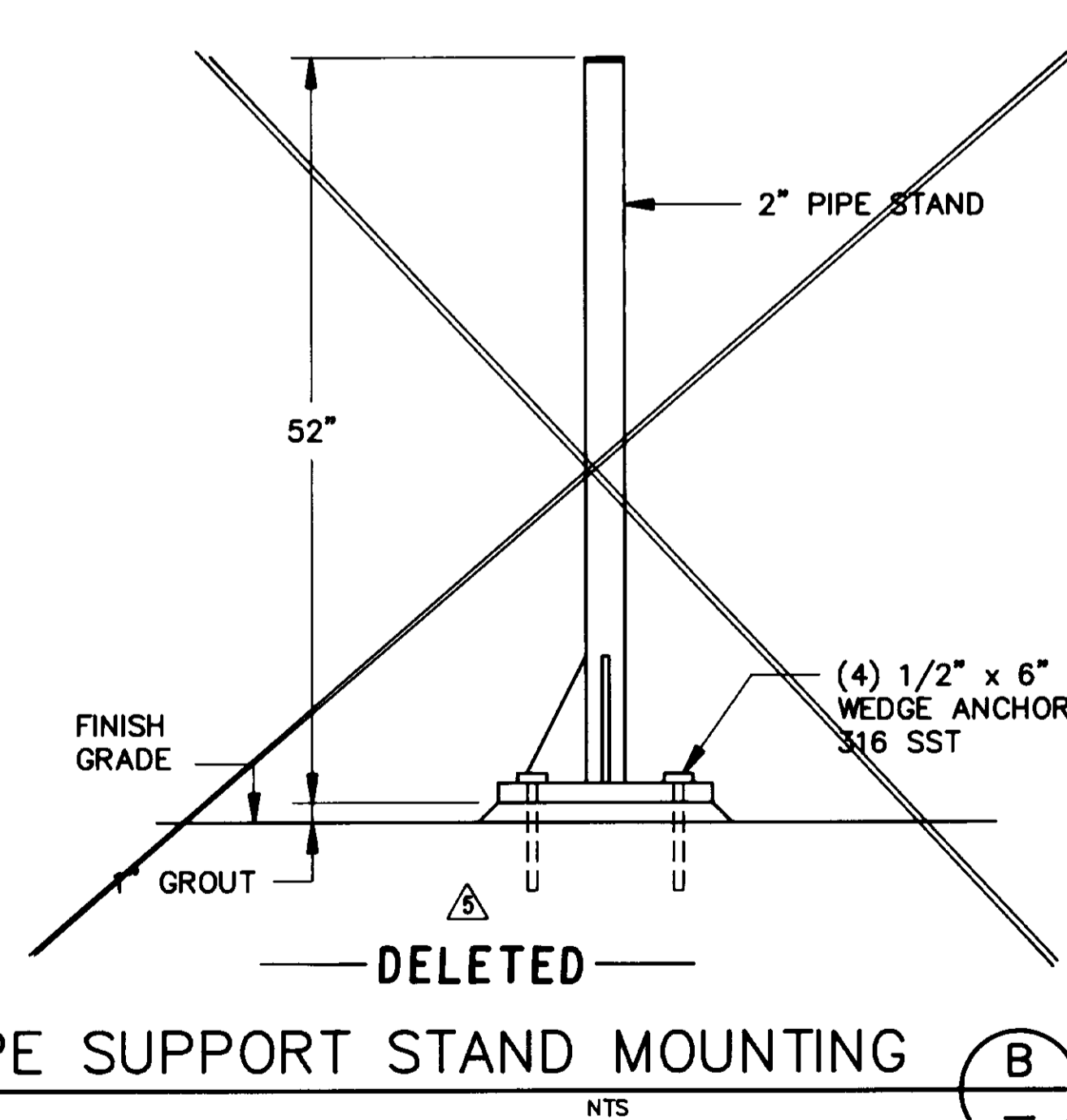


INSTRUMENT ENCLOSURE

A

PIPE MOUNTING

NTS



PIPE SUPPORT STAND MOUNTING

B

NTS

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 CONST. INSP. P.M.B. AGENCY B.E.C. DATE 12/11/93
 DRAFTED BY P.S.P. AGENCY B.E.C. DATE 12/11/93
 PROJ. ENGR. P.S.P. AGENCY B.E.C. DATE 12/11/93

05562

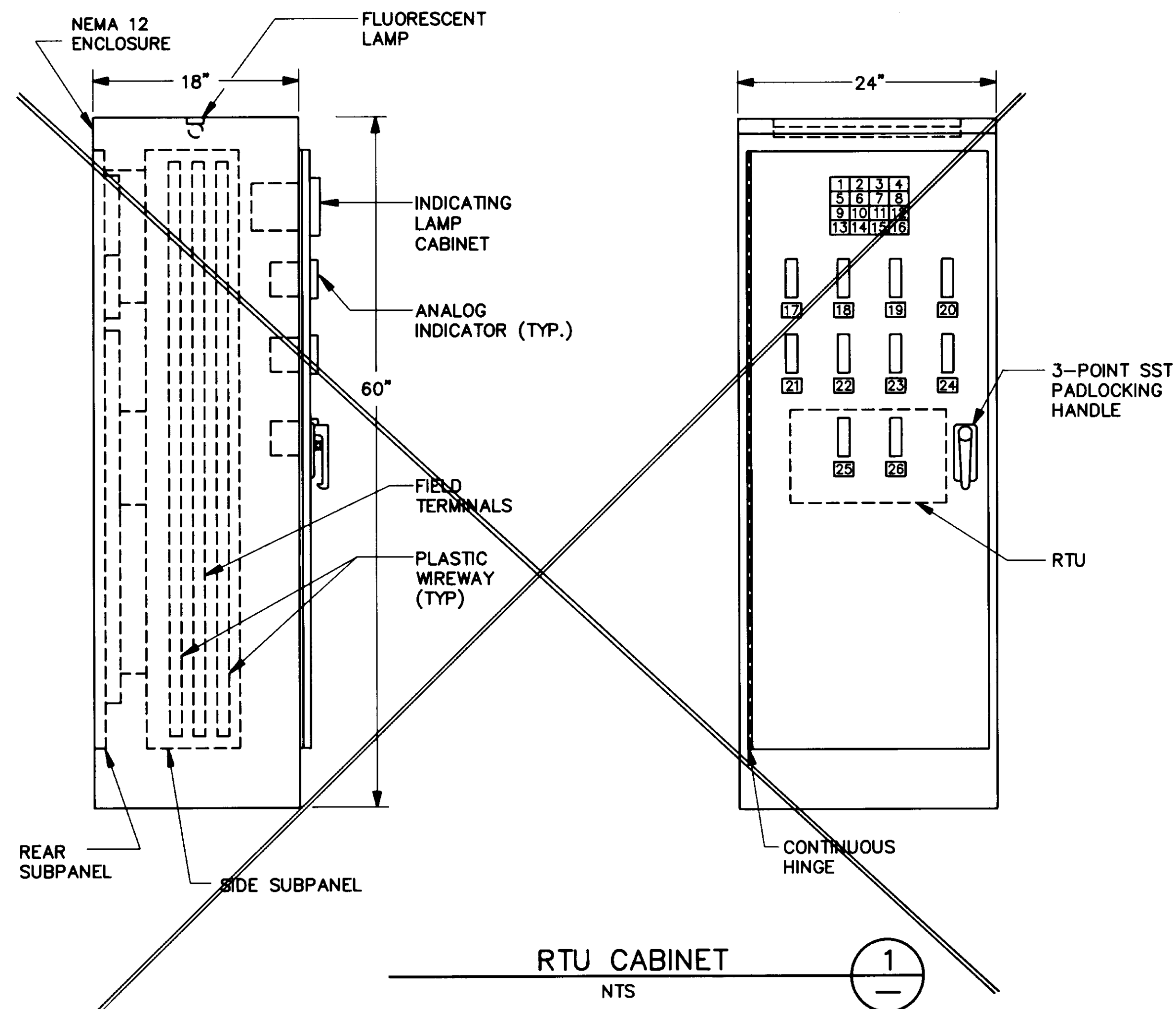


LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 INSTRUMENT MOUNTING
 DETAILS

BOYLE ENGINEERING CORPORATION
 consulting engineers & architects
 VENTURA, CA.

DESIGN	ES	DRAWN	ES	CHECKED	MJ	C.A. NO.	DATE	SHEET NO.	30
REV.	DATE	DESCRIPTION	APP.						
1	12/9/93	RECORD DRAWING							

OF 34 SHEETS



DELETED

PANEL NAMEPLATES SCHEDULE				
ITEM	TAG NO	ENGRAVING	DESCRIPTION	
1	QI-111C	RES.3 FILL VALVE OPEN	INDICATING LAMP CABINET	
2	QI-111D	RES.3 FILL VALVE CLOSED		
3	QI-112C	RES.3 BYPASS VALVE OPEN		
4	QI-112D	RES.3 BYPASS VALVE CLOSED		
5	QI-211C	6" PRV OPEN		
6	QI-211D	6" PRV CLOSED		
7	QI-212C	10" PRV OPEN		
8	QI-212D	10" PRV CLOSED		
9	QI-201C	FLOW CONTROL VALVE OPEN		
10	QI-201D	FLOW CONTROL VALVE CLOSED		
11	QI-221B	PR VAULT FLOODING		ANALOG INDICATOR
12-15	SPARE	-		
16	-	TEST		
17	ZI-211B	6" PRV POSITION		
18	ZI-212B	10" PRV POSITION		
19	PI-215C	RECLAIMED WATER PRESSURE		
20	LI-103B	RES.3 LEVEL		
21	LI-220B	WARNER TANK LEVEL		
22	LI-103B	CORDILLERA TANK LEVEL		
23	FI-106C	POTABLE WATER FLOW		
24	PI-205C	POTABLE WATER PRESSURE		
25	ZI-201B	FLOW CONTROL VALVE POSITION		
26	HS-201B	FLOW CONTROL VALVE CONTROL	AUTO/MANUAL LOADING STATION	

DELETED

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 CONST. INSP. _____ AGENCY _____ DATE 12/15/93
 DRAFTED BY ES AGENCY BE DATE 12/15/93
 PROJ. ENGR. P.S. AGENCY BE DATE 12/15/93

05563

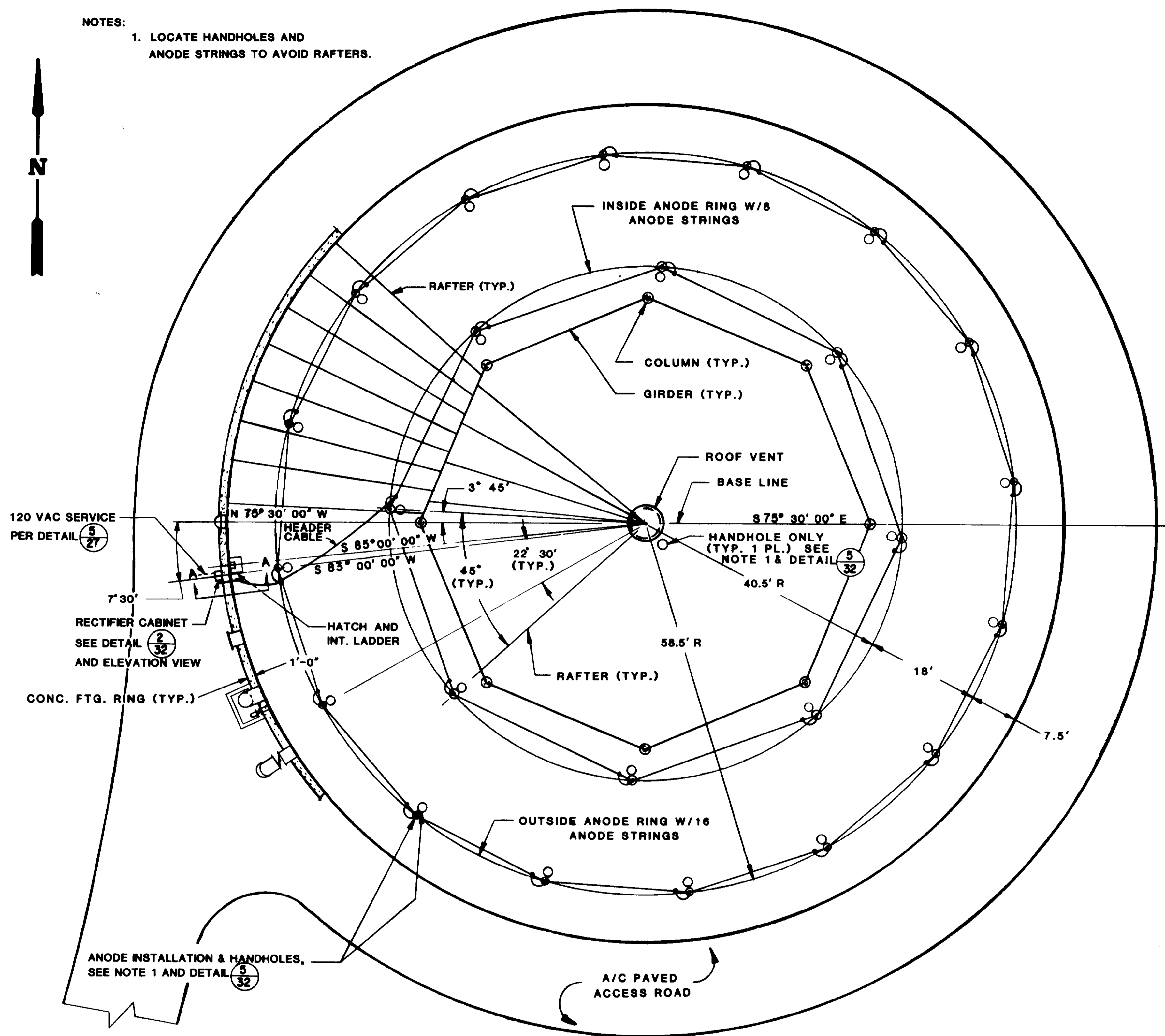


LAS VIRGENES MUNICIPAL WATER DISTRICT
 CORDILLERA TANK & ASSOCIATED PIPE LINES
 RTU CABINET LAYOUT
BOYLE ENGINEERING CORPORATION
 consulting engineers / architects
 VENTURA, CA.

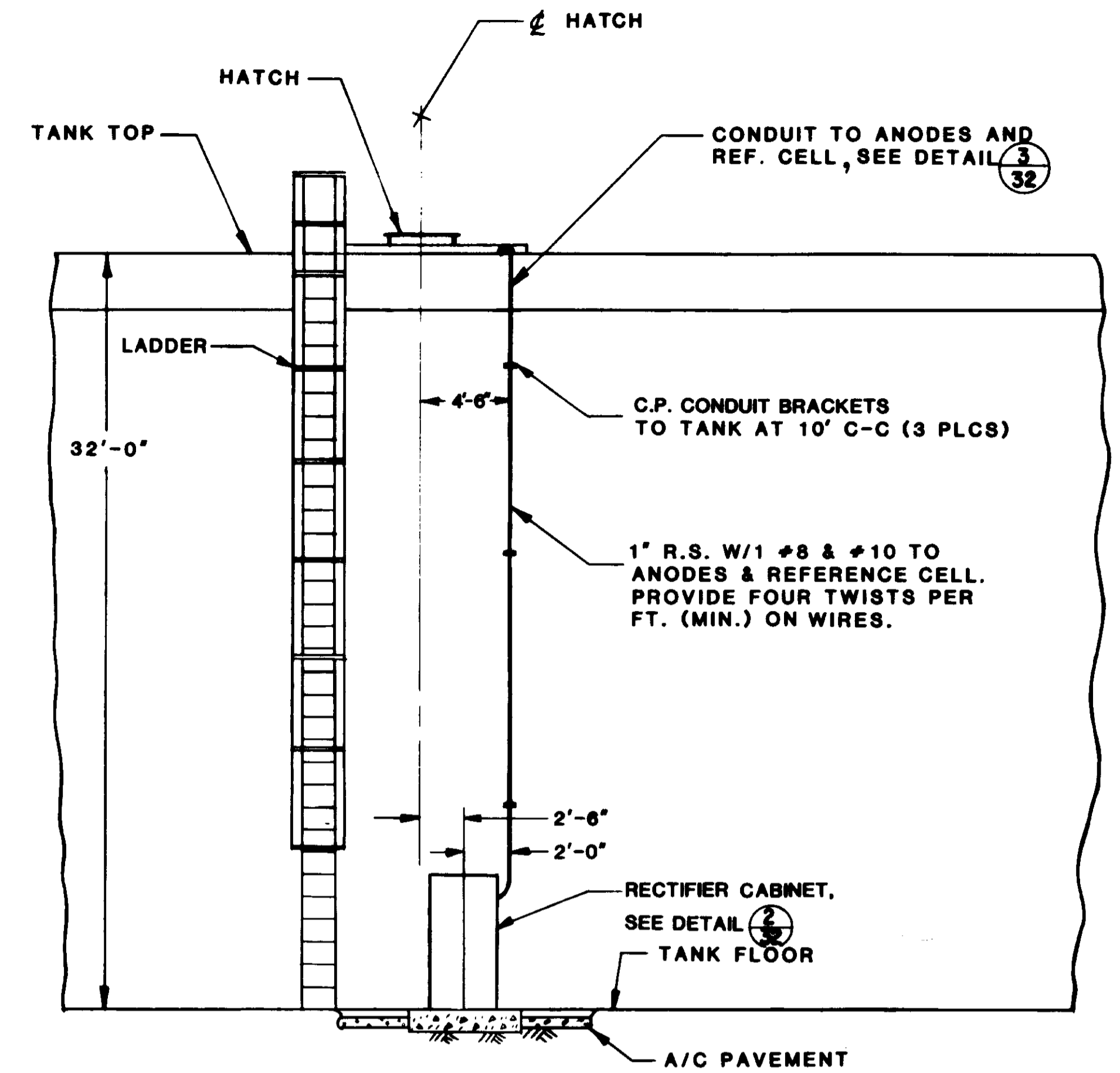
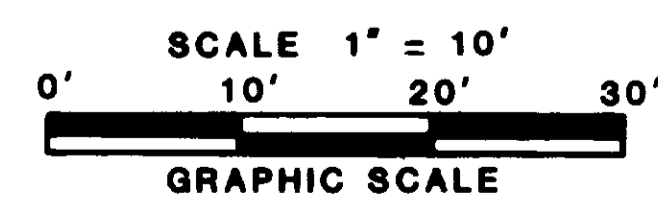
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SHEET NO. 30A
OF 34 SHEETS

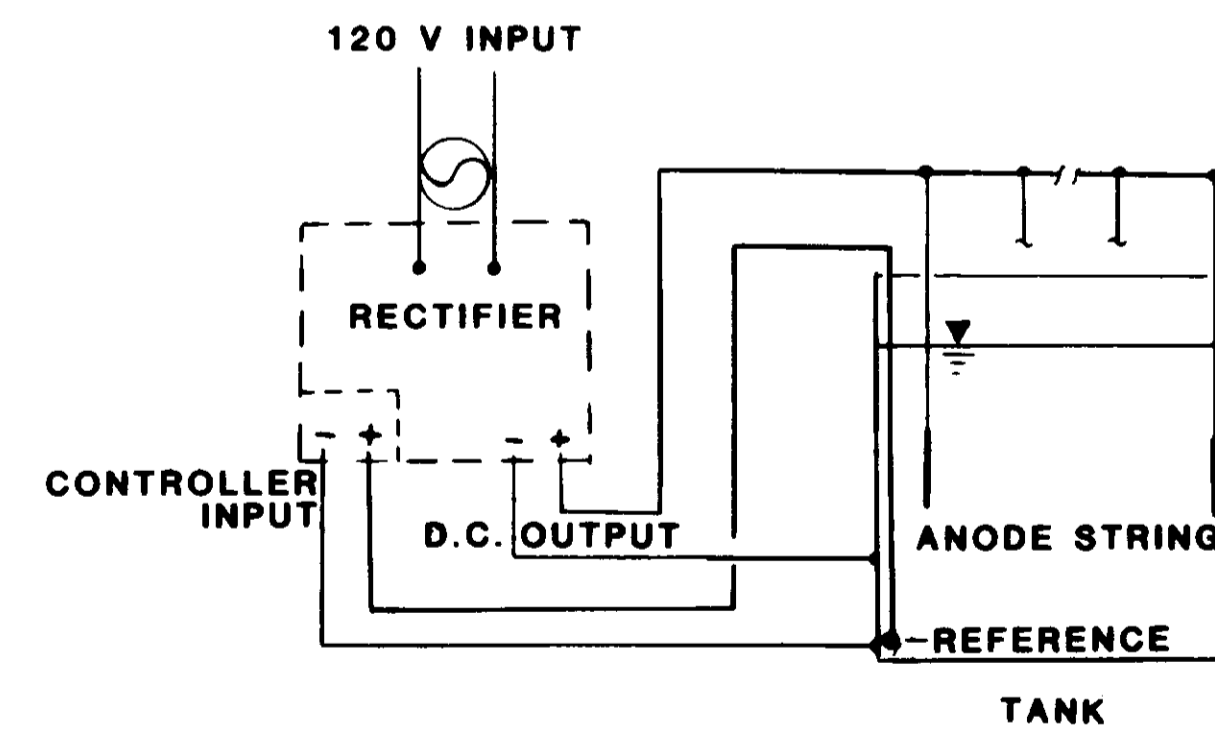
NOTES:
1. LOCATE HANDHOLES AND ANODE STRINGS TO AVOID RAFTERS.



**CORDILLERA RESERVOIR
LOCATION PLAN**



**ELEVATION VIEW
RECTIFIER AND CONDUIT**
N.T.S.



SCHEMATIC DIAGRAM
N.T.S.

05564

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CONTR. NO. _____ AGENCY _____ DATE 12/14/93
DRAWN BY J.P. AGENCY J.P. DATE 12/14/93
PROJ. ENG. J.P. AGENCY J.P. DATE 12/14/93

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

CATHODIC PROTECTION SYSTEM

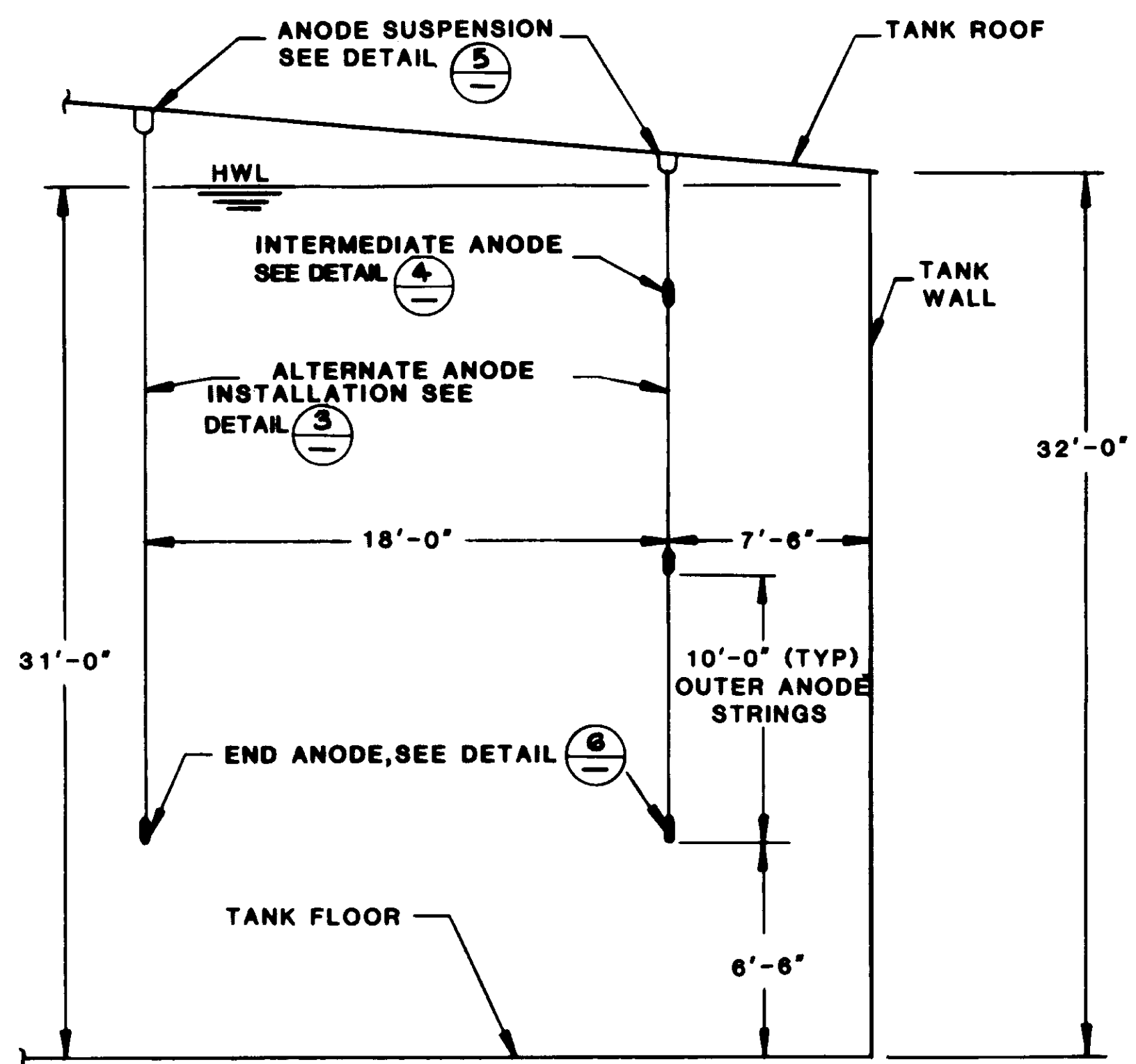
BOYLE ENGINEERING CORPORATION
consulting engineers / architects
VENTURA, CA.

PREPARED BY:
CONCECO ENGINEERING, INC.
2160 WINIFRED STREET
SIMI VALLEY, CA 93063
PHONE (805) 527-3266

2/16/93	RECORD DRAWING	
7/24/93	ADDENDUM NO. 2	MFB
7-3-90	ISSUED FOR BIDDING	MFB
REV.	DATE	DESCRIPTION

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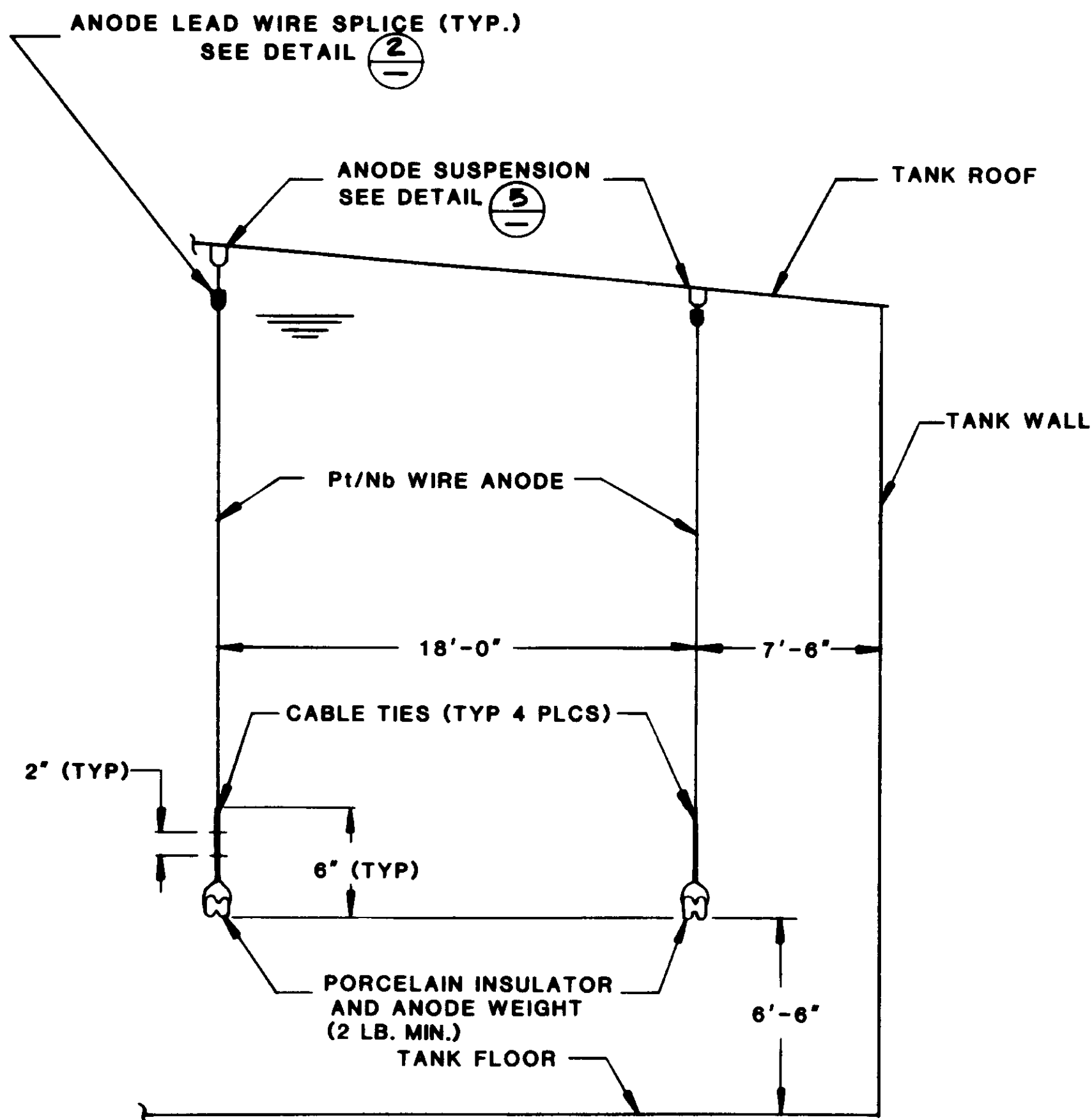
OF 34 SHEETS



ANODE INSTALLATION

N.T.S.

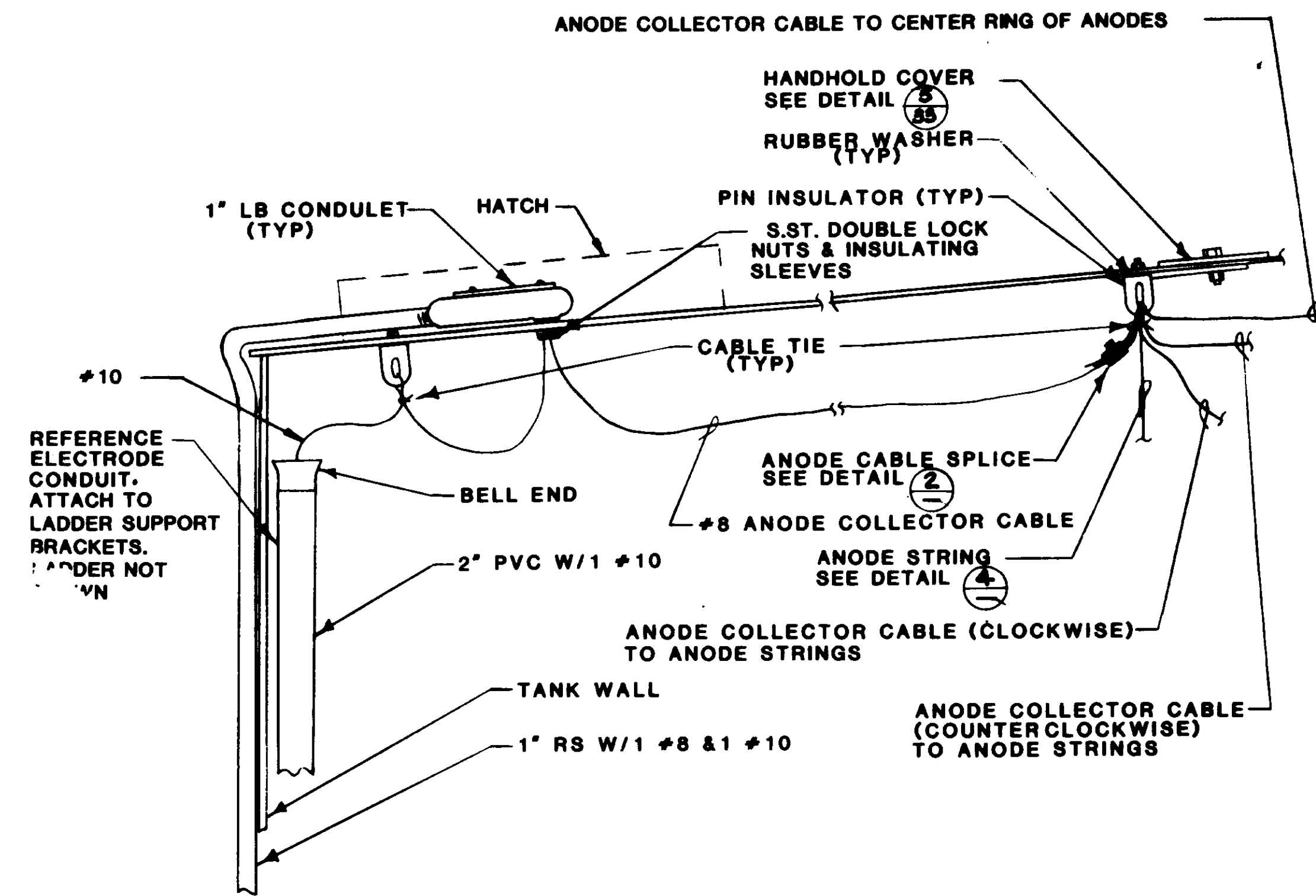
DETAIL 1



ALTERNATE ANODE INSTALLATION

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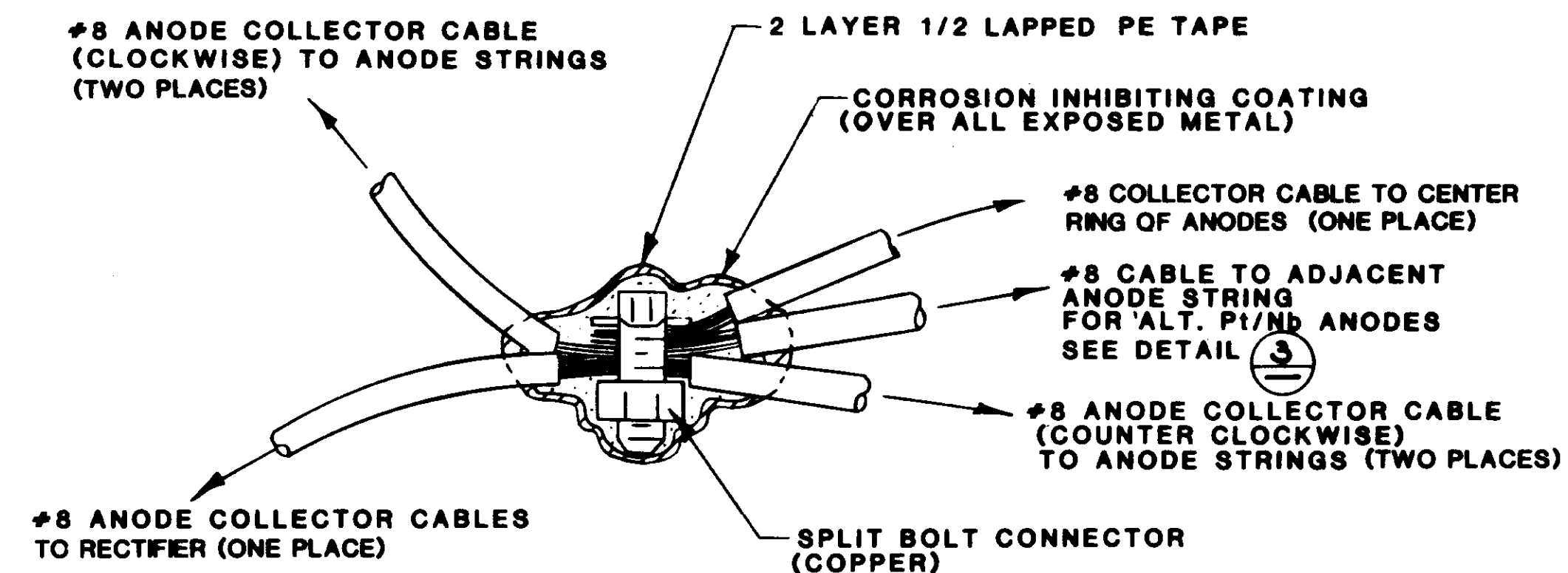
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ANODE SUSPENSION DETAIL

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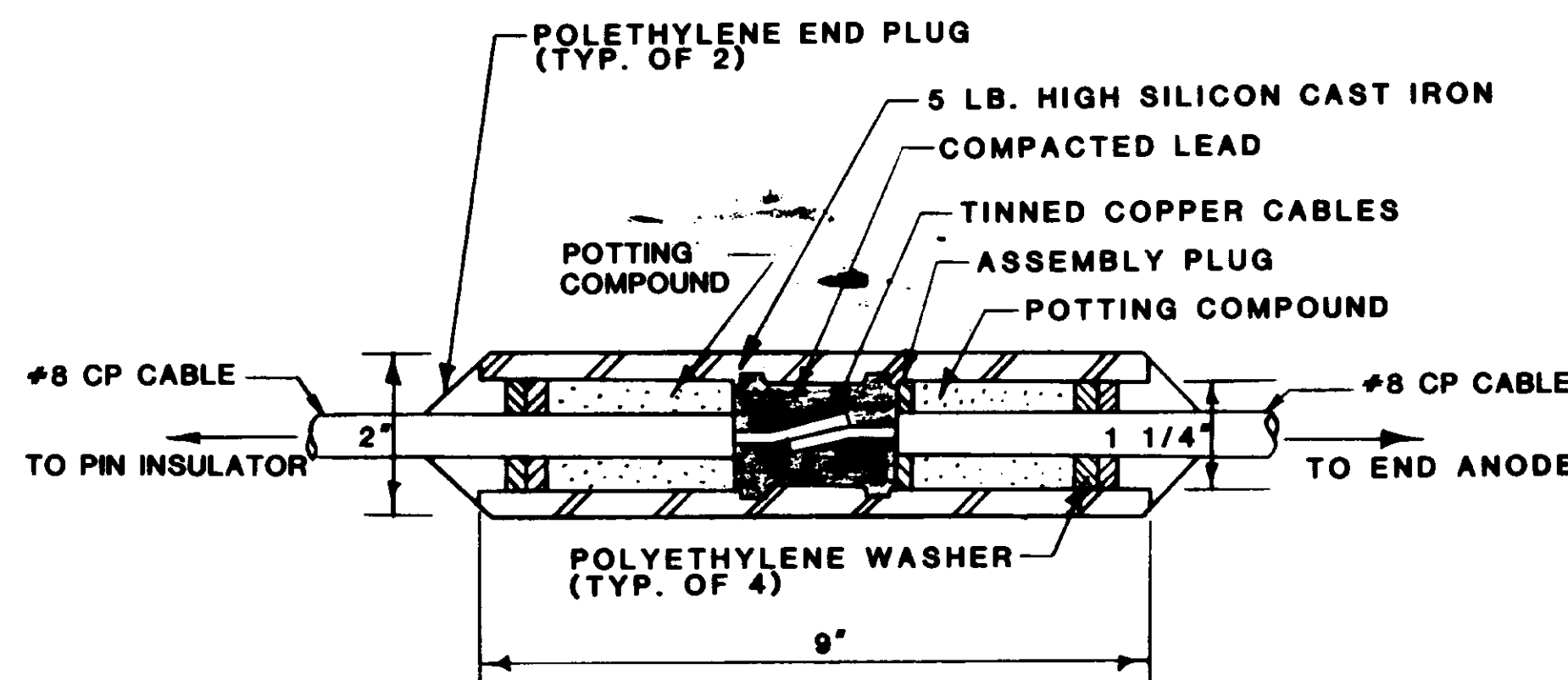
DETAIL 5



ANODE CABLE SPLICE (TYP)

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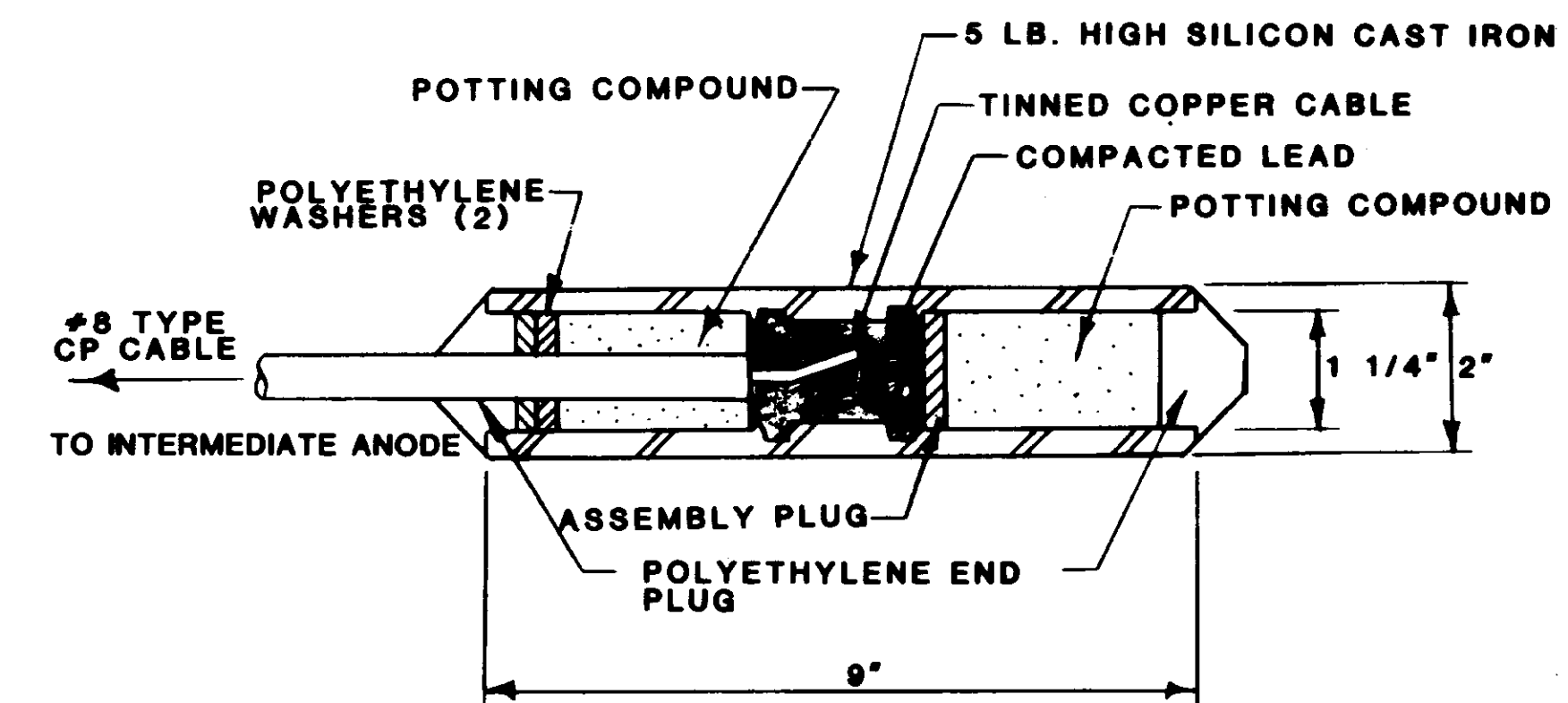
DETAIL 2



INTERMEDIATE ANODE

N.T.S.

DETAIL 4

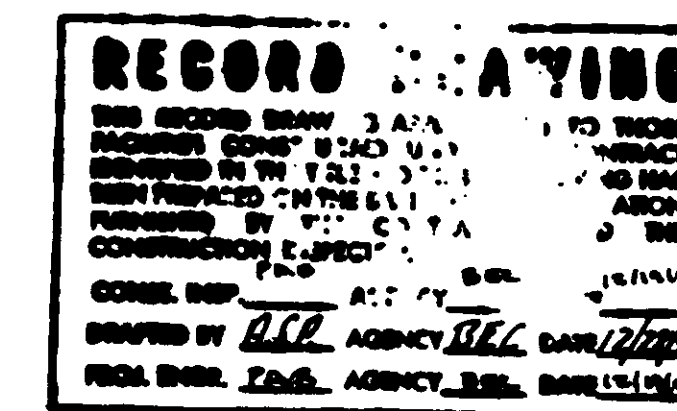


END ANODE

N.T.S.

DETAIL 6

05565



PREPARED BY:
CONCECO ENGINEERING, INC.
2160 WINIFRED STREET
SIMI VALLEY, CA. 93063
PHONE (805)527-3266

2/16/90	RECORD DRAWING	HES
7/24/90	ADDENDUM NO. 2	HES
7-3-90	ISSUED FOR BIDDING	HES
REV.	DATE	DESCRIPTION

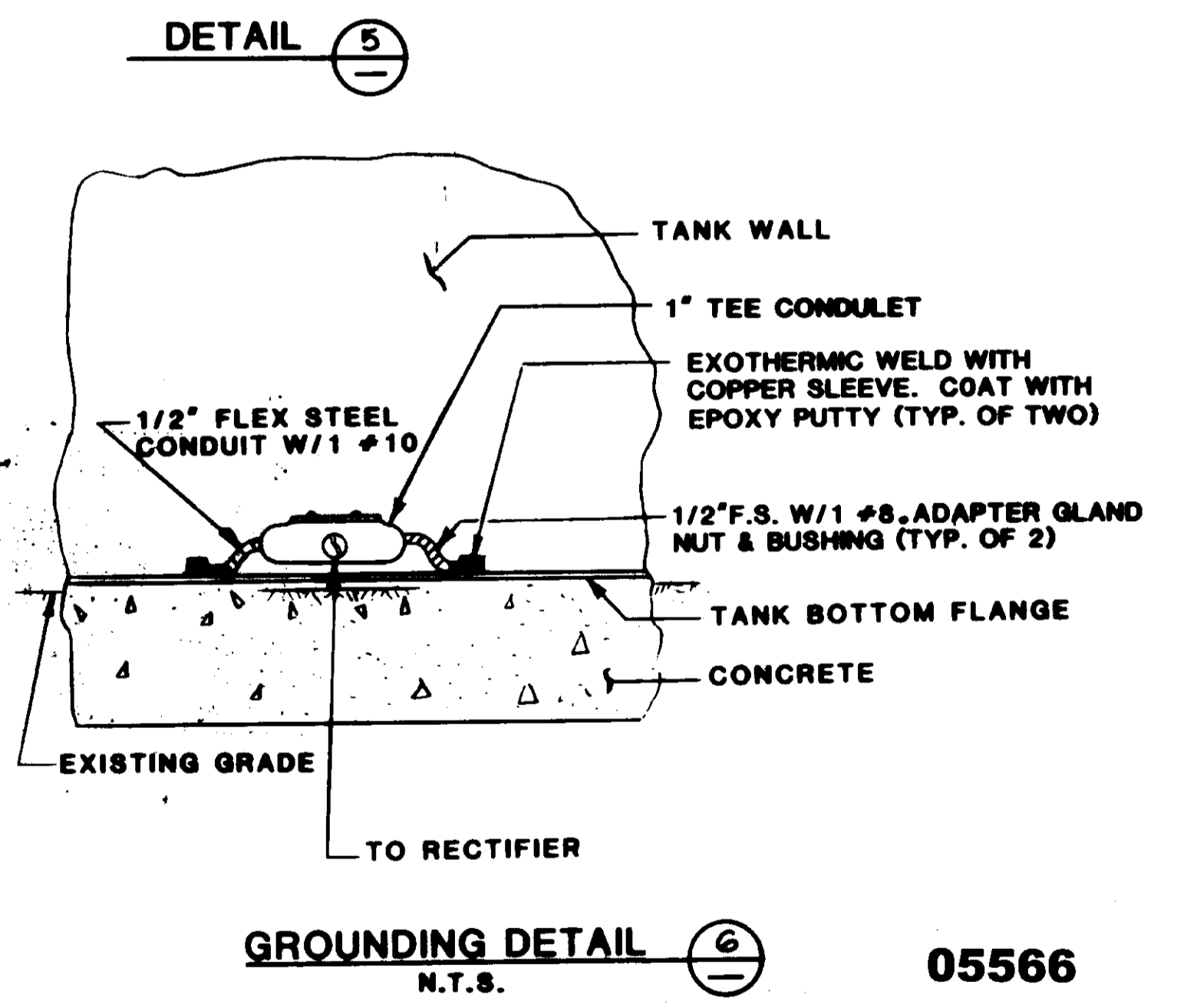
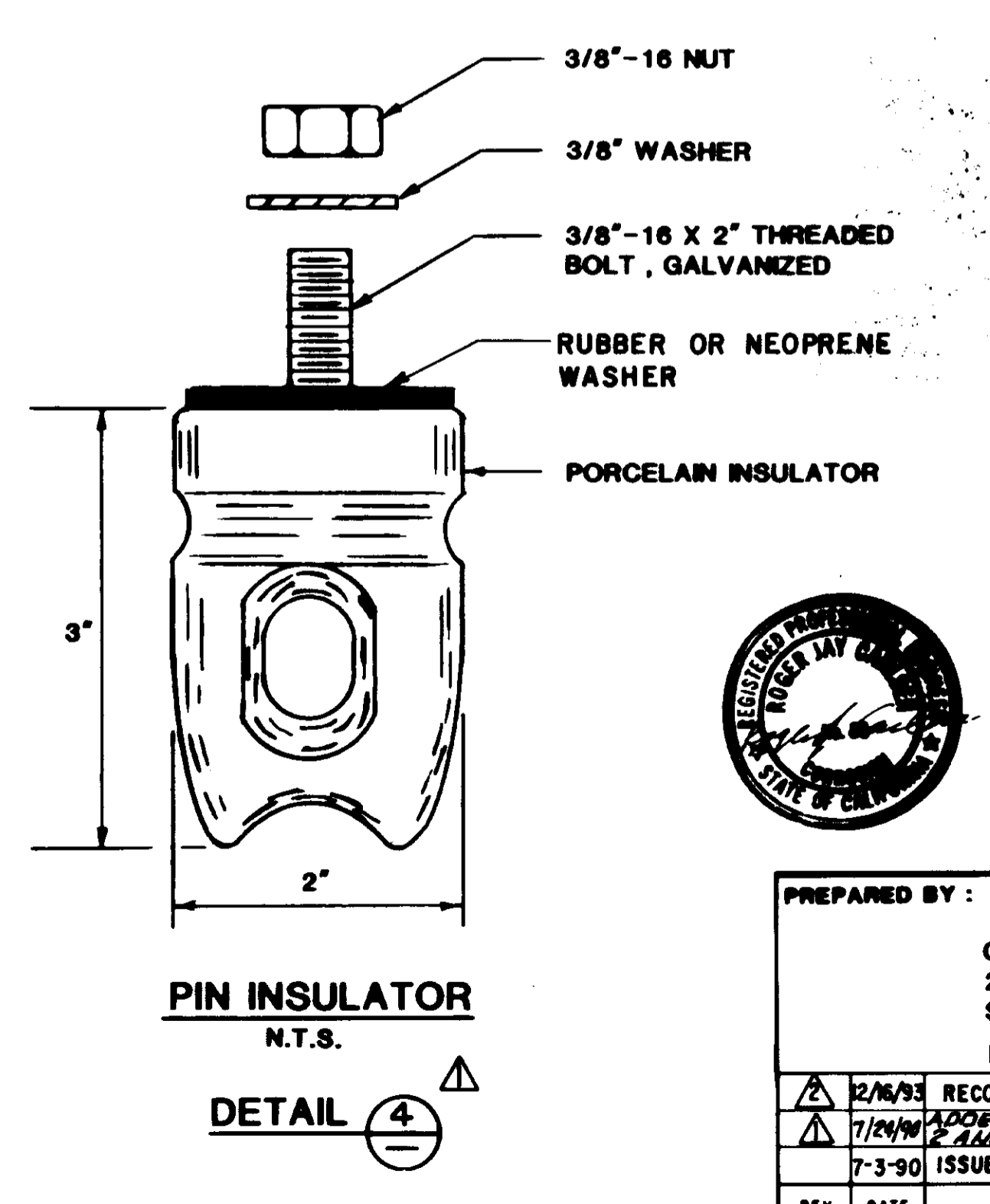
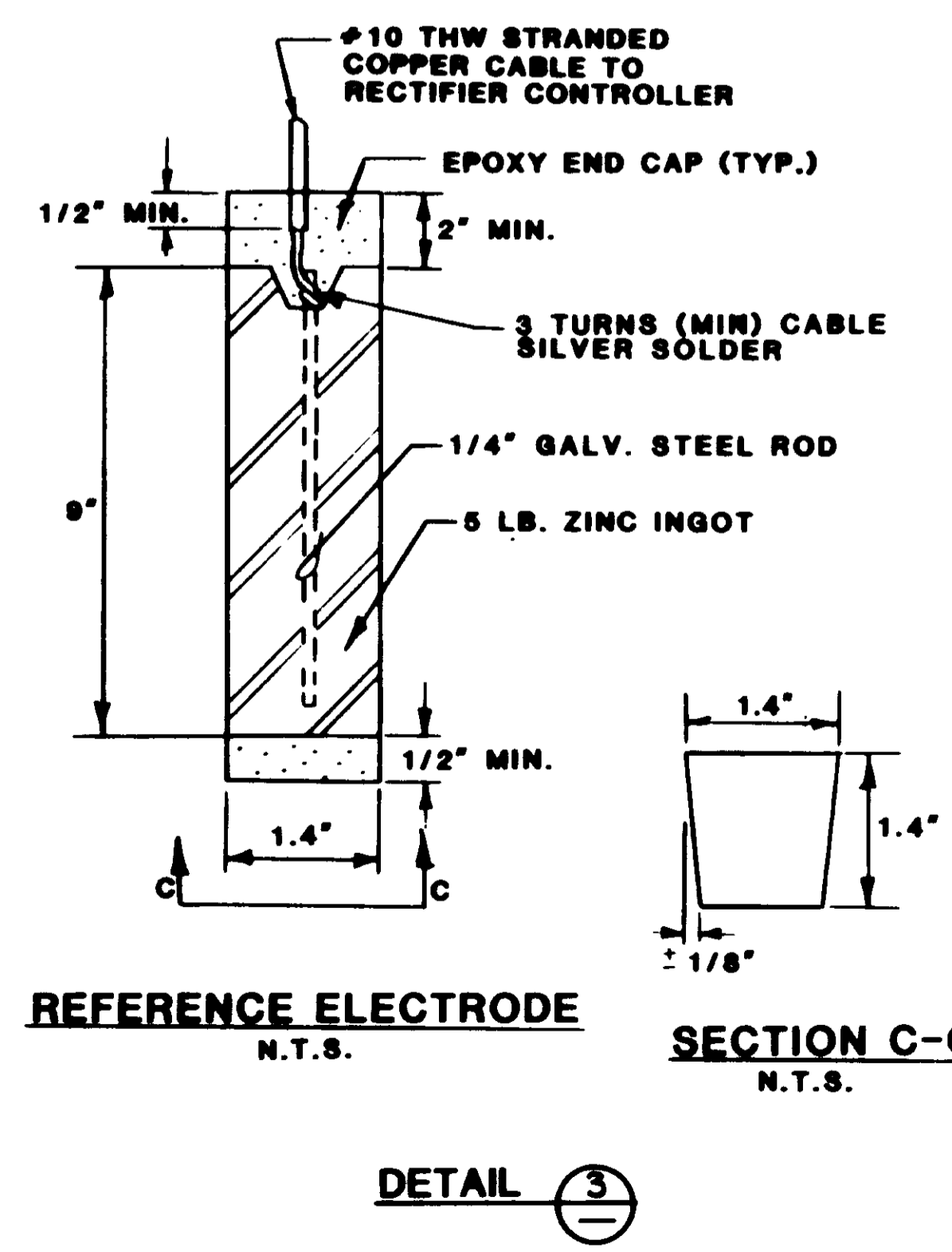
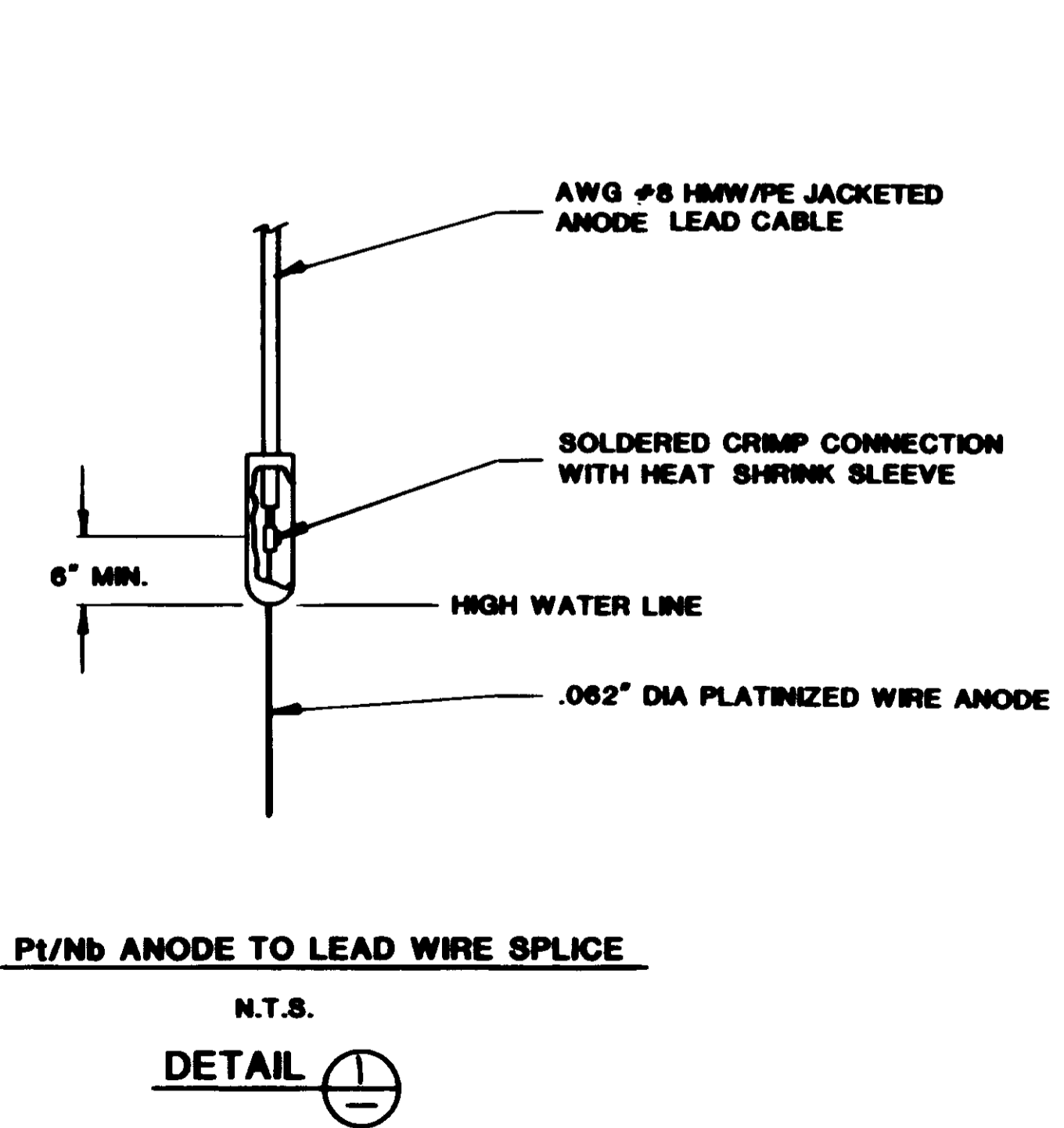
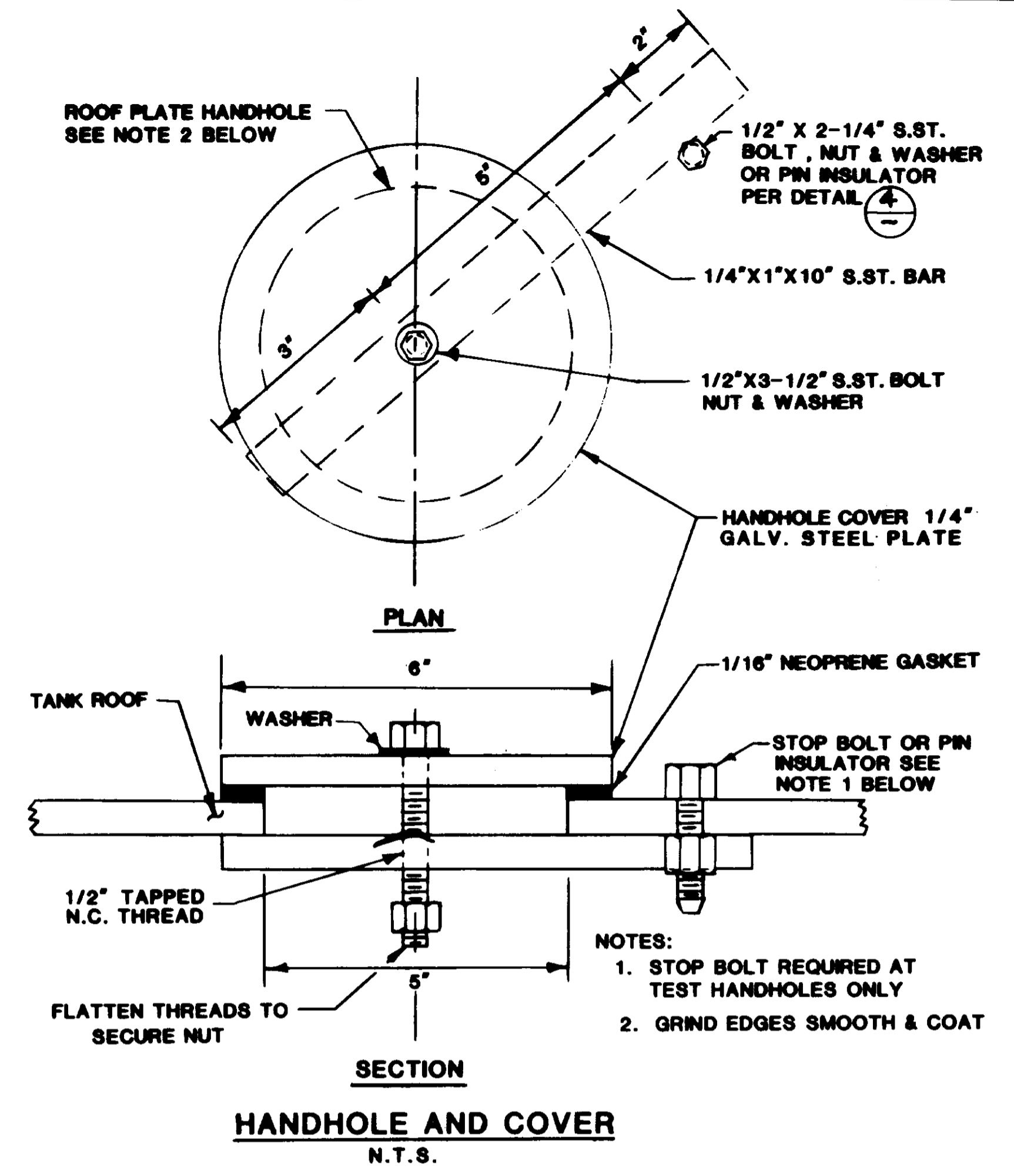
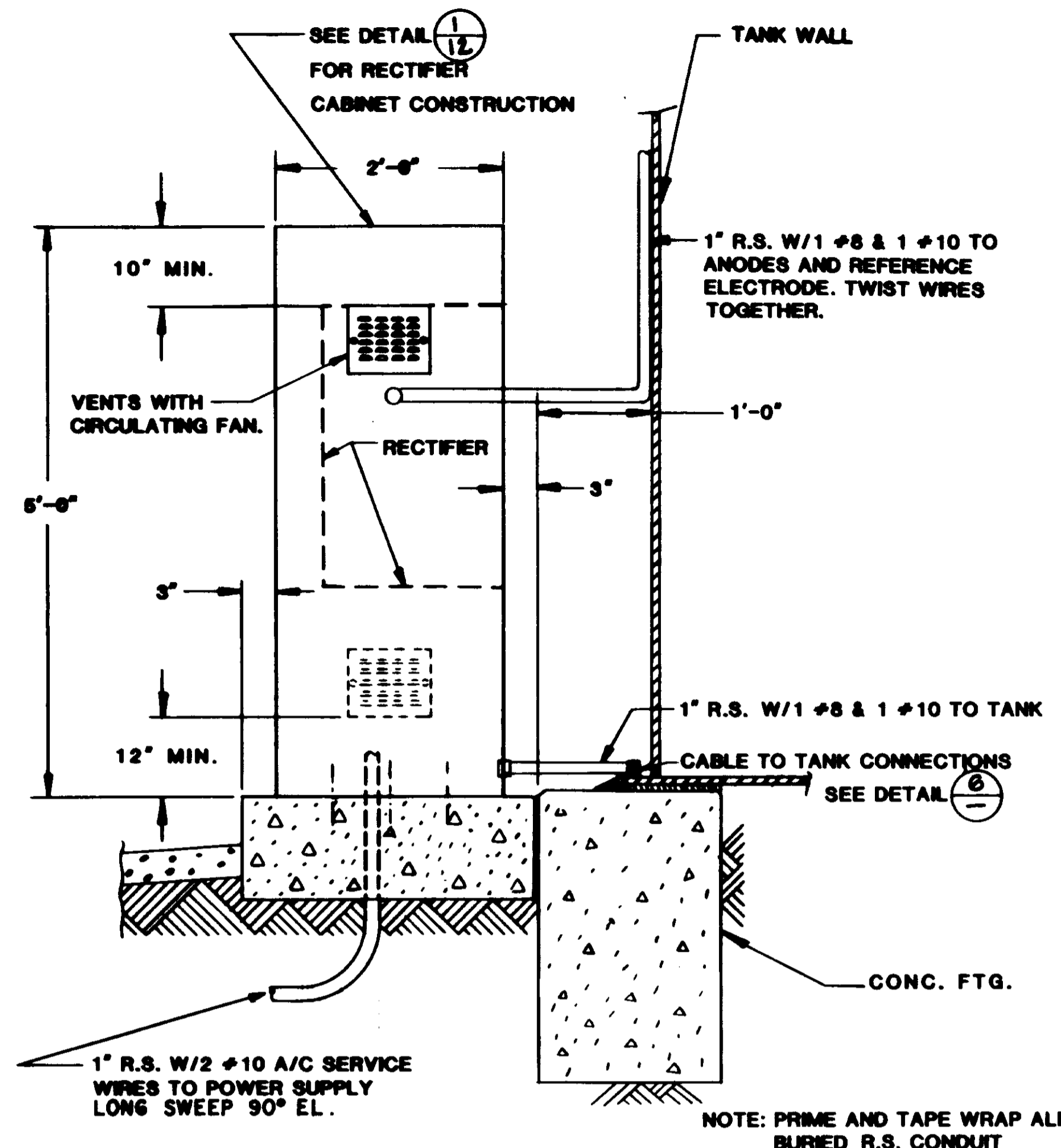
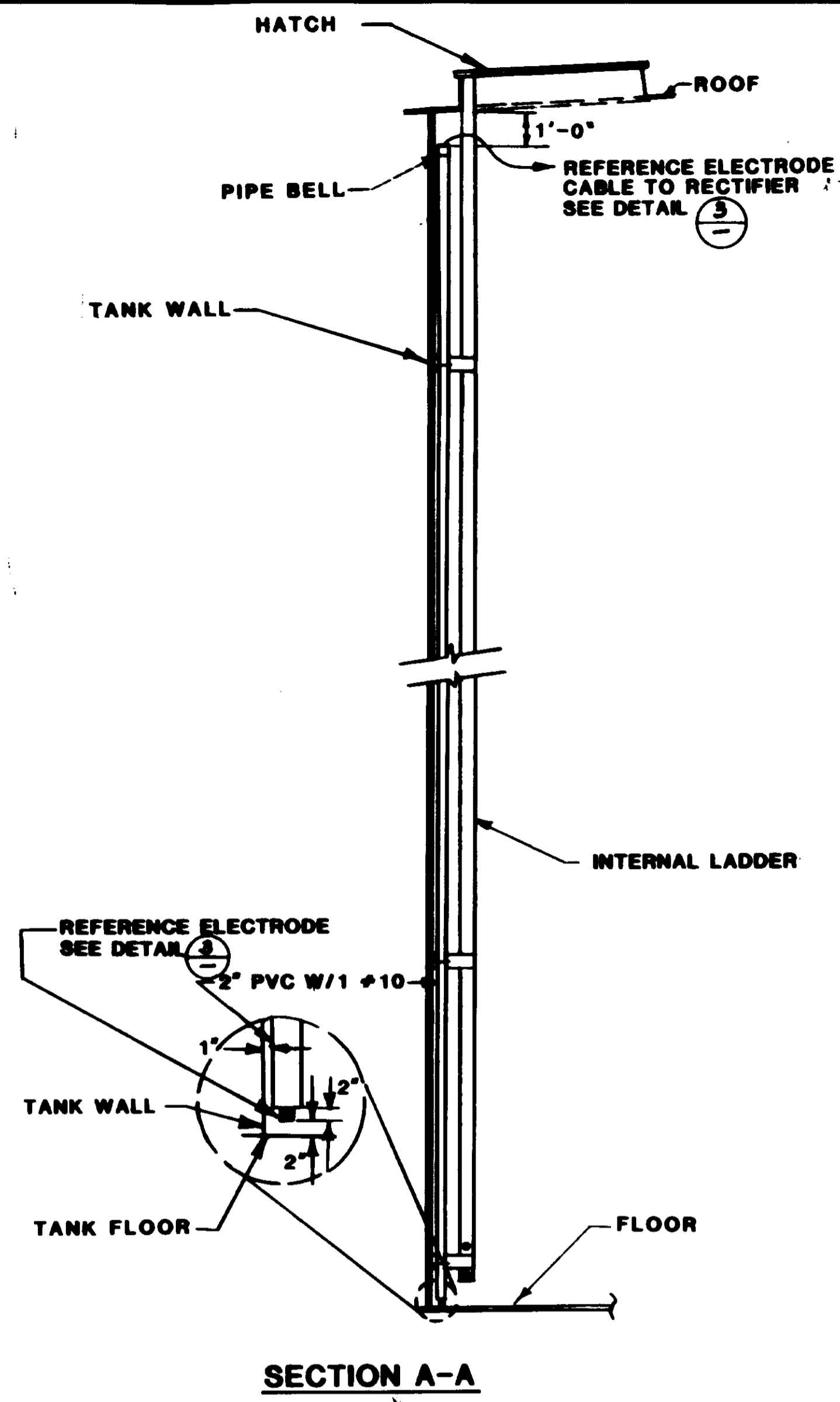
LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA-TANK & ASSOCIATED PIPE LINES

CATHODIC PROTECTION SYSTEM

BOYLE ENGINEERING CORPORATION
consulting engineers / architects
VENTURA, CA.

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C.E.I.	C.E.I.		VT-102-529-II	S-229	32

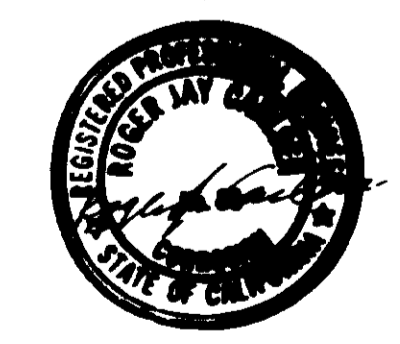
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CONTR. ENG. P.D. AGENCY BEC DATE 12/15/93
DRAWN BY A.P.P. AGENCY BEC DATE 12/15/93
FIELD ENGR. J.S. AGENCY BEC DATE 12/15/93



PREPARED BY:

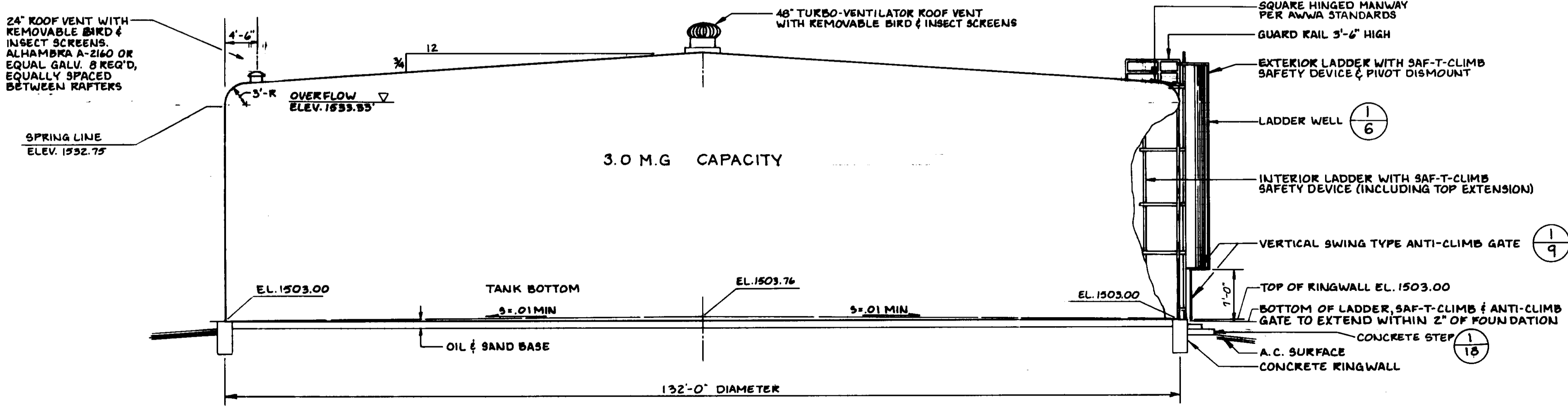
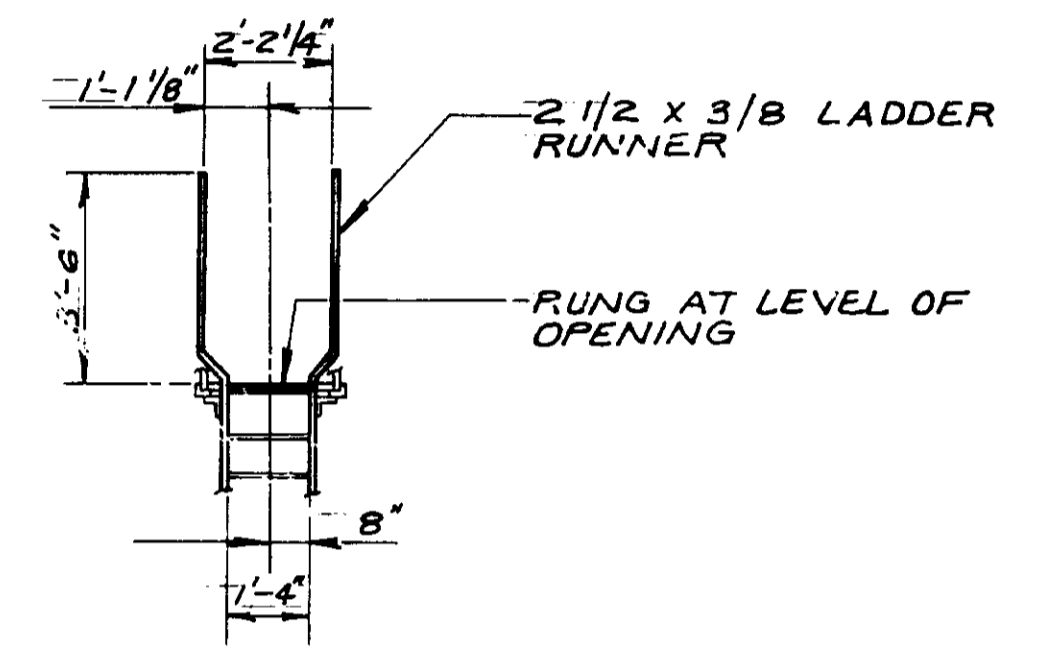
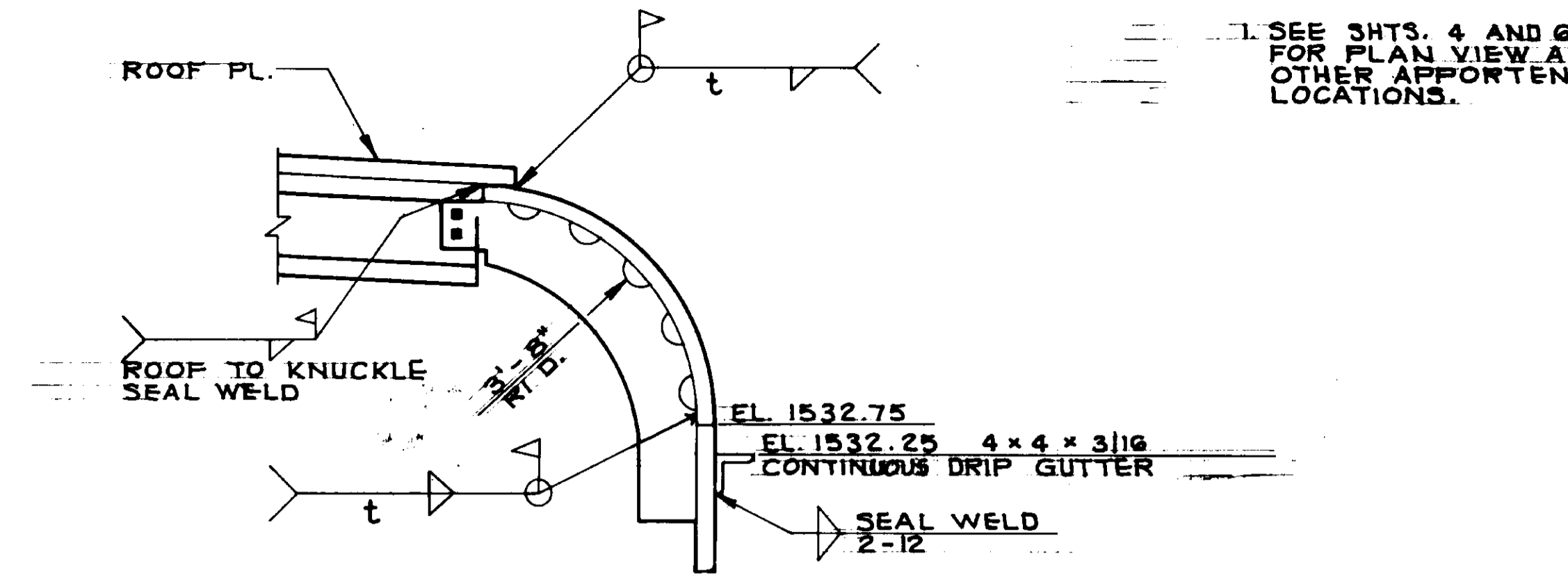
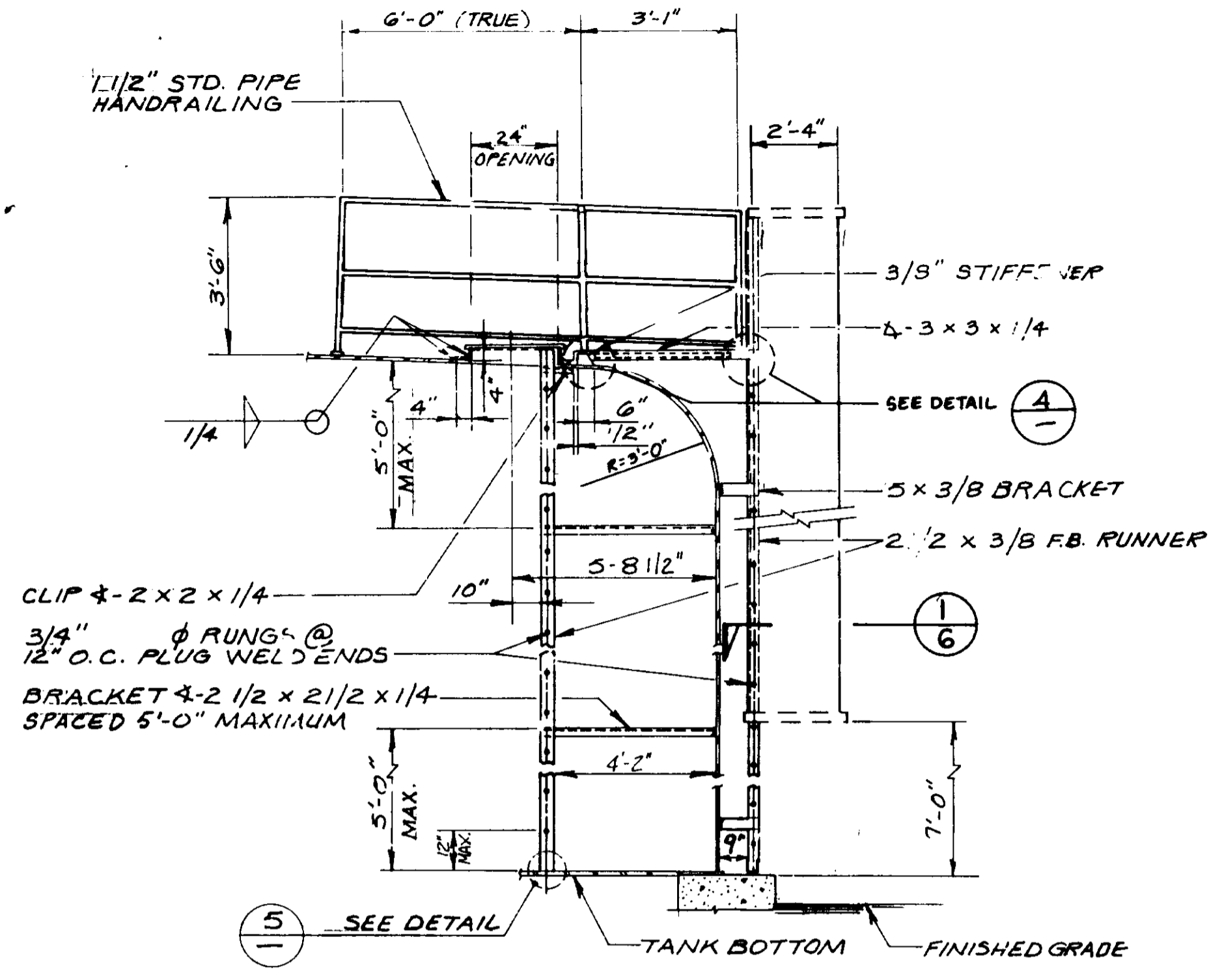
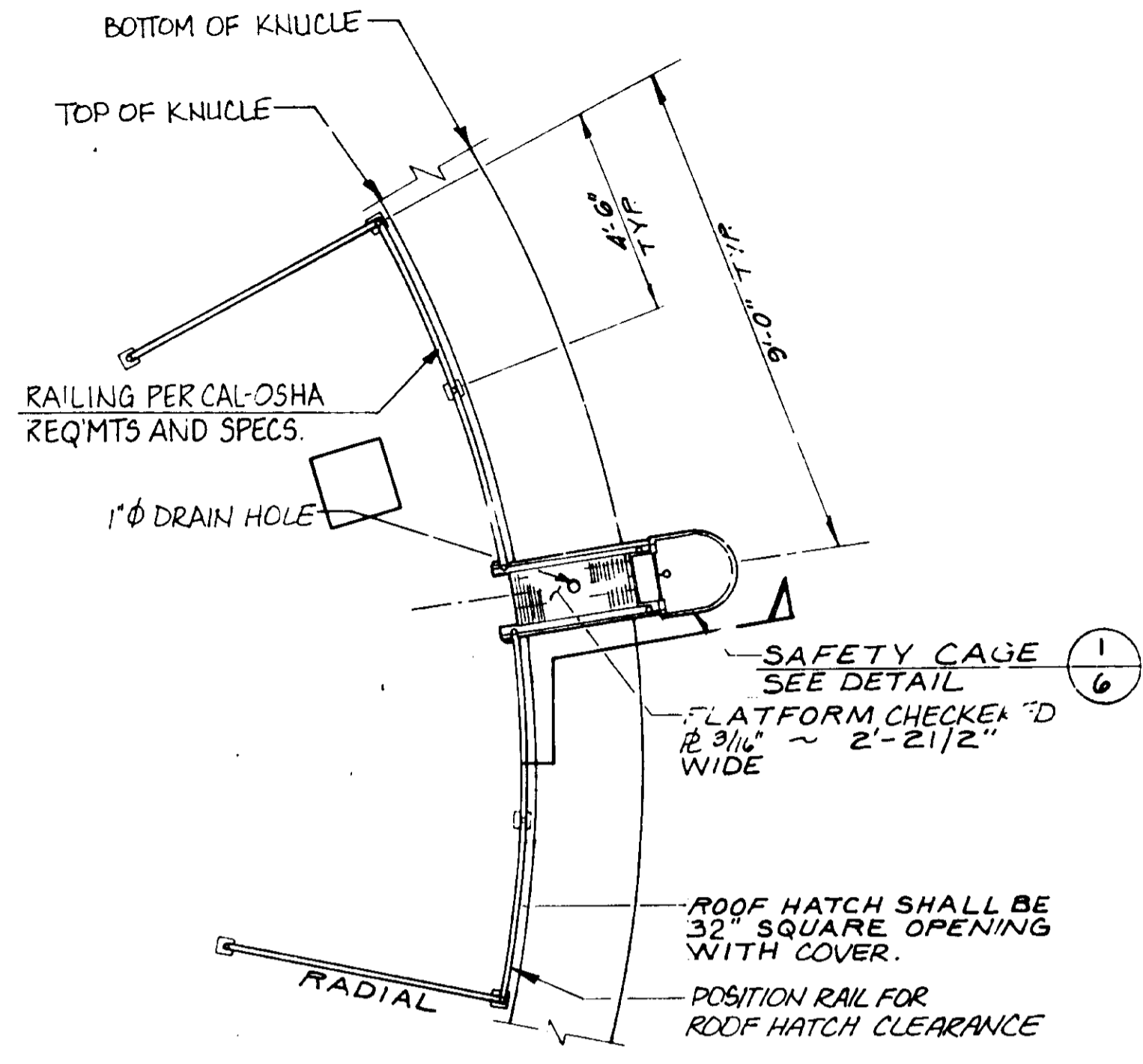
CONCECO ENGINEERING, INC.
2160 WINFRED ST.
SIMI VALLEY CA. 93063
PHONE (805) 527-3266

2/16/93	RECORD DRAWING	
7/17/93	ADDENDUM NO. 2 REVISED DETAIL	ME
7-3-90	ISSUED FOR BIDDING	ME
REV.	DATE	DESCRIPTION

LAS VIRGENES MUNICIPAL WATER DISTRICT	
CORDILLERA TANK & ASSOCIATED PIPE LINES	
CATHODIC PROTECTION SYSTEM	
SOLE ENGINEERING CORPORATION consulting engineers / architects VENTURA, CA.	
DESIGN C.E.I.	DRAWN C.E.I.
CHECKED C.E.I.	C.A. NO. VT-102-92911
DRAWING NO. S-229	SHEET NO. 33

NOTE:

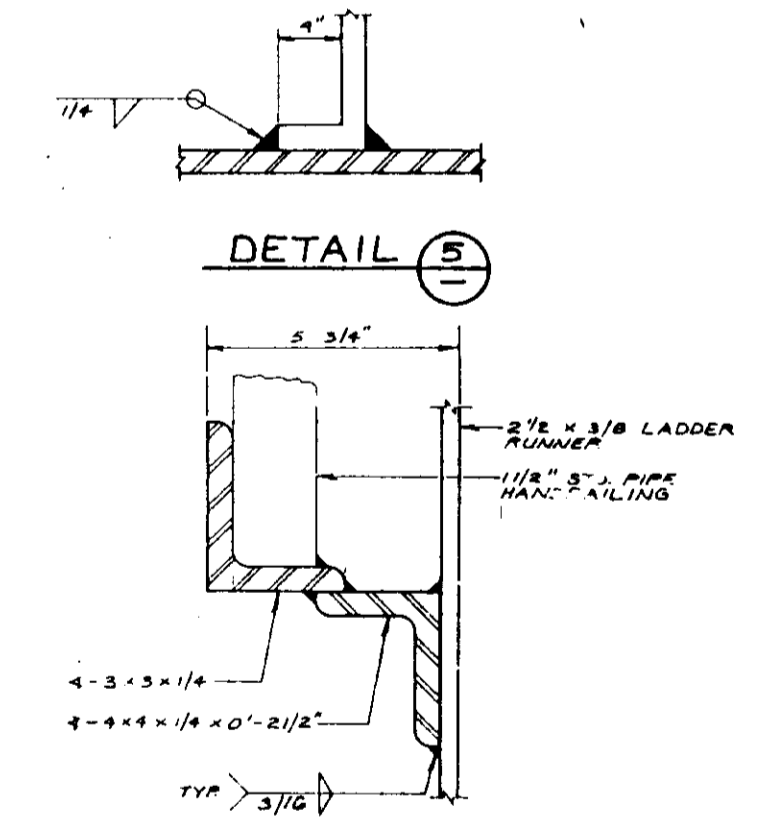
SEE SHTS. 4 AND 6 FOR PLAN VIEW AND OTHER APPORTENANCE LOCATIONS.



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CONST. INSP. P.P.O. AGENCY B.E.L. DATE 12/18/93
 DRAFTED BY A.P.P. AGENCY B.E.L. DATE 12/18/93
 PROJ. ENGR. P.P.O. AGENCY B.E.L. DATE 12/18/93



CHECKED PLATE SUPPORT DETAIL 4
N.T.S. 05567



REFERENCE BID ITEM NO. 15 B

LAS VIRGENES MUNICIPAL WATER DISTRICT
CORDILLERA TANK & ASSOCIATED PIPE LINES

KNUCKLE TANK ELEVATIONS AND DETAILS

BOYLE ENGINEERING CORPORATION
consulting engineers & architects
VENTURA, CA.

2/16/93	RECORD DRAWING		
7-24-90	ADDENDUM NO 2	HEB	
DESIGN	DRAWN	CHECKED	C.A. NO. DRAWING NO.
P. A. B.	D. P. J.	HEB	MT 100-SEP-II 5-229
			SHEET NO. 34 OF 34 SHEETS



LAS VIRGENES MUNICIPAL WATER DISTRICT
 10000 W. CENTRAL AVENUE
 CHATWORTH, CA 91311
 PHONE: (818) 708-1110

**CORNELIA TANK
 LANDSCAPE PLAN**

LANDSCAPE PLANS

the oak collaborative
 P.O. BOX 1779 • THOUSAND OAKS, CA 91320 • (805) 499-8888

LAS VIRGENES MUNICIPAL WATER DISTRICT
LOS ANGELES COUNTY
BOARD OF DIRECTORS

GLEN PETERSON, President
 A. MACNEIL STELLE, Metropolitan Water District Representative
 HAROLD V. HELSLEY

STEVE GAVIN
 ANN DORGELO

EDWARD E. McCOMBS, GENERAL MANAGER

Approved by the Board of Directors

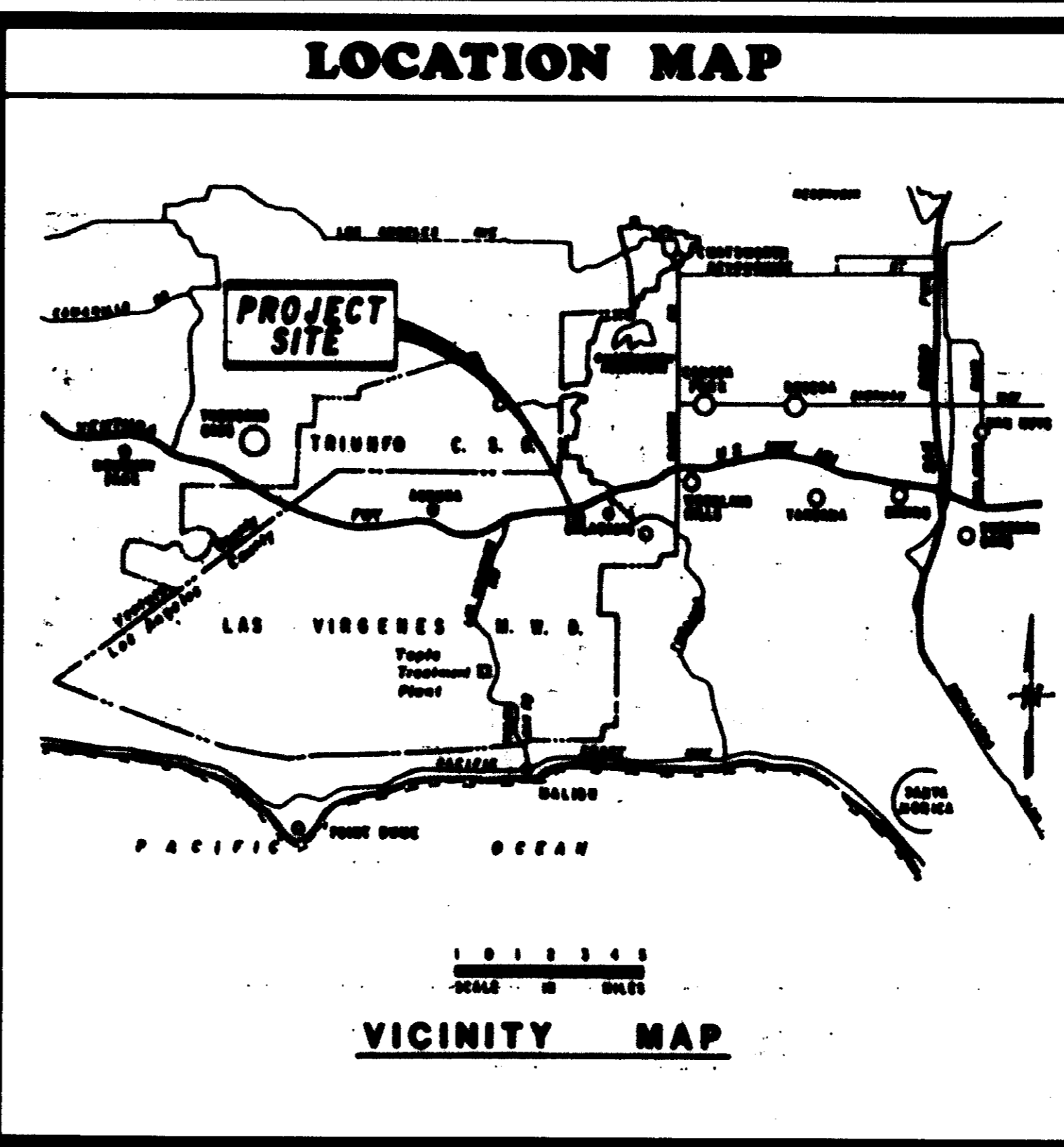
BY: *Glen Peterson*
 GLEN PETERSON - PRESIDENT

BY: *Harold V. Helsley*
 HAROLD V. HELSLEY - SECRETARY

BY: *Edward E. McCombs*
 EDWARD E. McCOMBS - GENERAL MANAGER

BY: *James E. Colbaugh*
 JAMES E. COLBAUGH
 DIRECTOR OF PLANNING AND ENGINEERING

ABBREVIATIONS			
AC.	acre	G.C.	gallon container
ADJ.	adjacent	G.P.M.	gallons per minute
ALT.	alternate	GALV.	galvanized
APPROX.	approximate	GEN.	general
B.F.P.	backflow preventer	HDR.	header
BLDG.	building	HT.	height
B.W.	both ways	H.S.	hose bibb
CL	center line	HOR.	horizontal
C.L.F.	chain link fence	HWY.	highway
CL.	class	IN.	inch(es)
CONC.	concrete	I.D.	inside diameter
CONT.	continuous	L.A.	landscape architect
CONT'R	contractor	L.C.	landscape contractor
C.F.	cubic feet	MAX.	maximum
C.Y.	cubic yard(s)	MIN.	minimum
DET.	detail	MISC.	miscellaneous
DIA.	diameter	NAT.	natural
DIM.	dimension	N	north
DWG.	drawing	N.I.C.	not in contract
EA.	each	N.T.S.	not to scale
E	east	NO.	number
ENGR.	engineer	O.C.	on center
EQ./=	equal	O.D.	outside diameter
EQUIP.	equipment	P.A.	planting area
EX.	existing	P.O.C.	point of connection
F.G.	finish grade	P.V.C.	polyvinyl chloride
F.S.	finish surface	P.S.I.	pounds per sq. inch
FT.	foot or feet	PL	property line
FTG.	footing	R/RAD.	radius
GAL.	gallon	R.P.	reduced pressure
		RWD.	redwood
		REINF.	reinforcing
		R.C.V.	remote control valve
		REQ'D	required
		REV.	revision
		R.O.V.	right of way
		SCH.	schedule
		SMT.	sheet
		SIM.	similar
		S	south
		SPEC.	specifications
		SQ.	square
		STD.	standard
		STL.	steel
		S.F.	square foot
		S.Y.	square yard(s)
		TYP.	typical
		VAR.	varies
		VERT.	vertical
		W	west
		W/	with
		W/O	without
		W.I.	wrought iron
		W.M.	water meter
		@	at
		#	diameter
		'	feet
		"	inches
		#1	number
		lb	pound(s)



SHEET INDEX

TITLE	SHEET NO.
COVER SHEET	
PLANTING - TREES	1
PLANTING - SHRUBS & HYDROSEED ..	2
IRRIGATION	3
DETAILS	4

05568

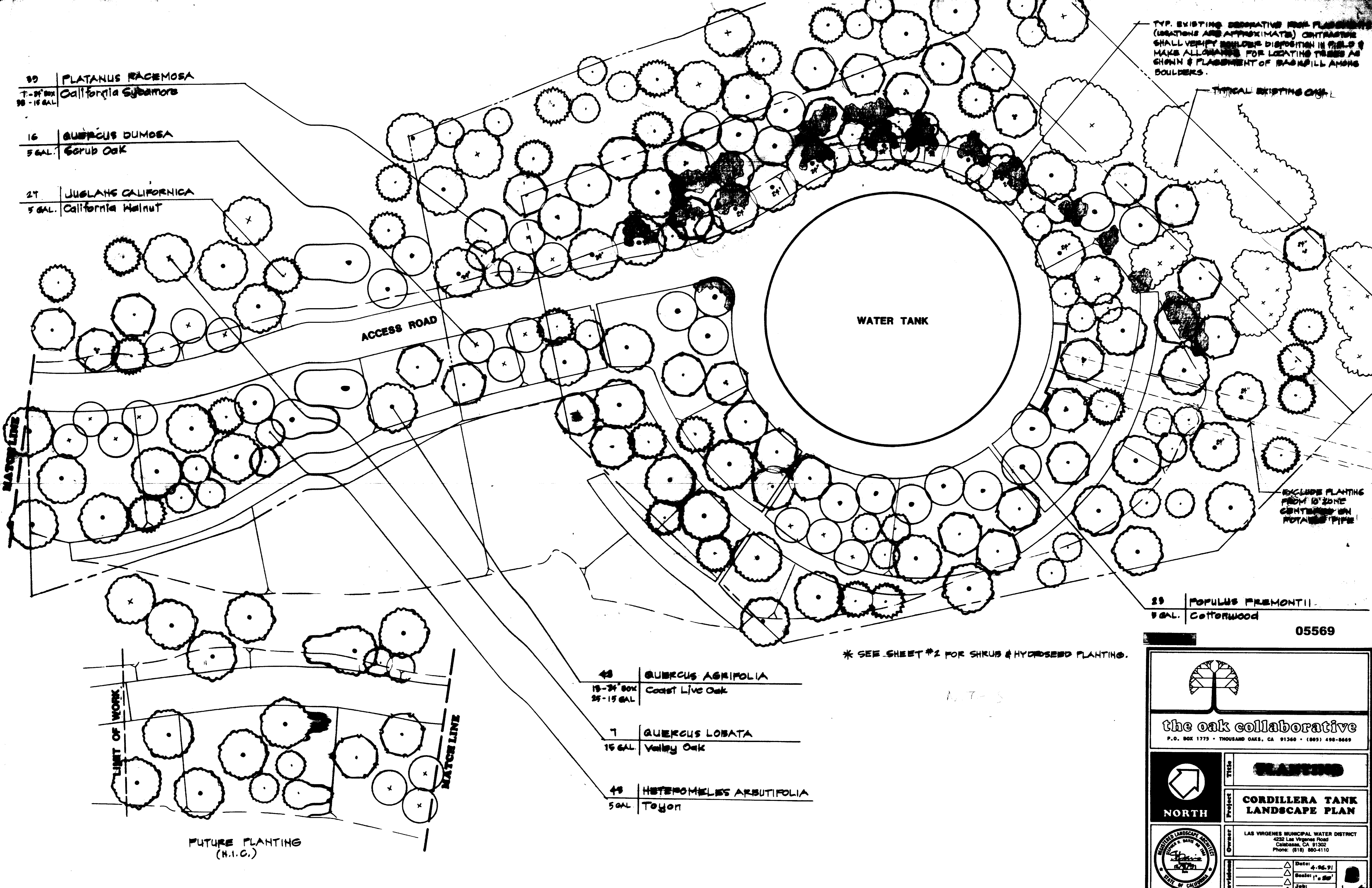
30 PLATANUS RACEMOSA
 7-24" BOX California Sycamore
 30-15 GAL

16 QUERCUS DUMOSA
 5 GAL Scrub Oak

27 JUGLANS CALIFORNICA
 5 GAL California Walnut

TYP. EXISTING SEPARATING ROCK PLACEMENTS
 (LOCATIONS ARE APPROXIMATE) CONTRACTOR
 SHALL VERIFY EXISTING DISPOSITION IN FIELD &
 MAKE ALLOWANCE FOR LOCATING TREES AS
 SHOWN & PLACEMENT OF BACKFILL AMONG
 BOULDERS.

TYPICAL EXISTING CURB



WATER TANK

ACCESS ROAD

EXCLUDE PLANTING
 FROM 10' ZONE
 CENTERED ON
 POTABLE PIPE

29 POPULUS FREMONTII
 5 GAL Cottonwood

05569

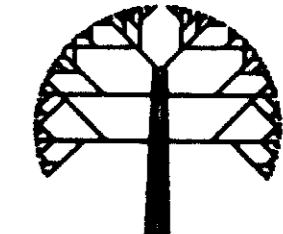

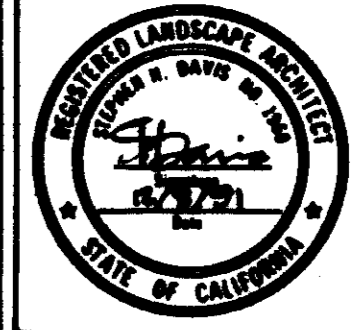
* SEE SHEET #2 FOR SHRUB & HYDRANGEA PLANTING.

48 QUERCUS AGRIFOLIA
 15-24" BOX Coast Live Oak
 25-15 GAL

7 QUERCUS LOBATA
 15 GAL Valley Oak

48 HETEROMELES ARBUTIFOLIA
 5 GAL Toyon

FUTURE PLANTING
 (N.I.C.)

 the oak collaborative <small>P.O. BOX 1775 • THOUSAND OAKS, CA 91320 • (805) 498-8669</small>	
 NORTH	PLANNED CORDILLERA TANK LANDSCAPE PLAN
	<small>Owner:</small> LAS VIRGENES MUNICIPAL WATER DISTRICT <small>4222 Las Virgenes Road Calabasas, CA 91302 Phone: (818) 880-4110</small> <small>Date:</small> 4-26-21 <small>Scale:</small> 1" = 50' <small>Job:</small>

45 CEANOTHUS ORISEUS
1 GAL. Wild Lilac

24 CEANOTHUS "ROY HARTMAN"
1 GAL. Wild Lilac

17 RHUS OVATA
1 GAL. Sugarbush

12 RHUS LAURINA
1 GAL. Laurel Sumac

52 SAMBUCUS MEXICANA
1 GAL. Elderberry

36 ADENOSTEMA FASCICULATUM
1 GAL. Chamise

RIBES SPECIOSUM
1 GAL. Fuchsia Flowered Gooseberry

SEE NOTE ON SHEET #1 RE PLANTING AROUND EXISTING BOULDERS.

EXCLUDE PLANTING FROM 10' ZONE CENTERED ON POTABLE PIPE

* SEE SHEET #1 FOR TREE PLANTING.

05570

SEEDS & HYDROSEED

MATCH LINE

ACCESS ROAD

WATER TANK

LIMIT OF WORK

MATCH LINE

FUTURE PLANTING (N.I.C.)

HYDROSEED NOTES

ATTENTION: ALL SEED APPLICATION RATES ARE IN POUNDS PER ACRE

HYDROSEED MIX

Bromus carinatus	8%
Adenostema fasciculatum	12%
Cercocarpus betuloides	8%
Ceanothus magnanifus	10%
Eriogonum fasciculatum	18%
Elymus condrochloa	3%
Eschscholzia californica	2%
Lotus scoparius	15%
Lupinus succulentus	18%
Salvia mollera	2%
Salvia spina	2%
Sida pulchra	5%
Silva Fibra mesh	2,000%
Ecology Control	100%
Terrasorb "SB" Polymer	75%

NOTE: APPLY HYDROSEED TO ALL IRRIGATED AREAS

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PLANTING

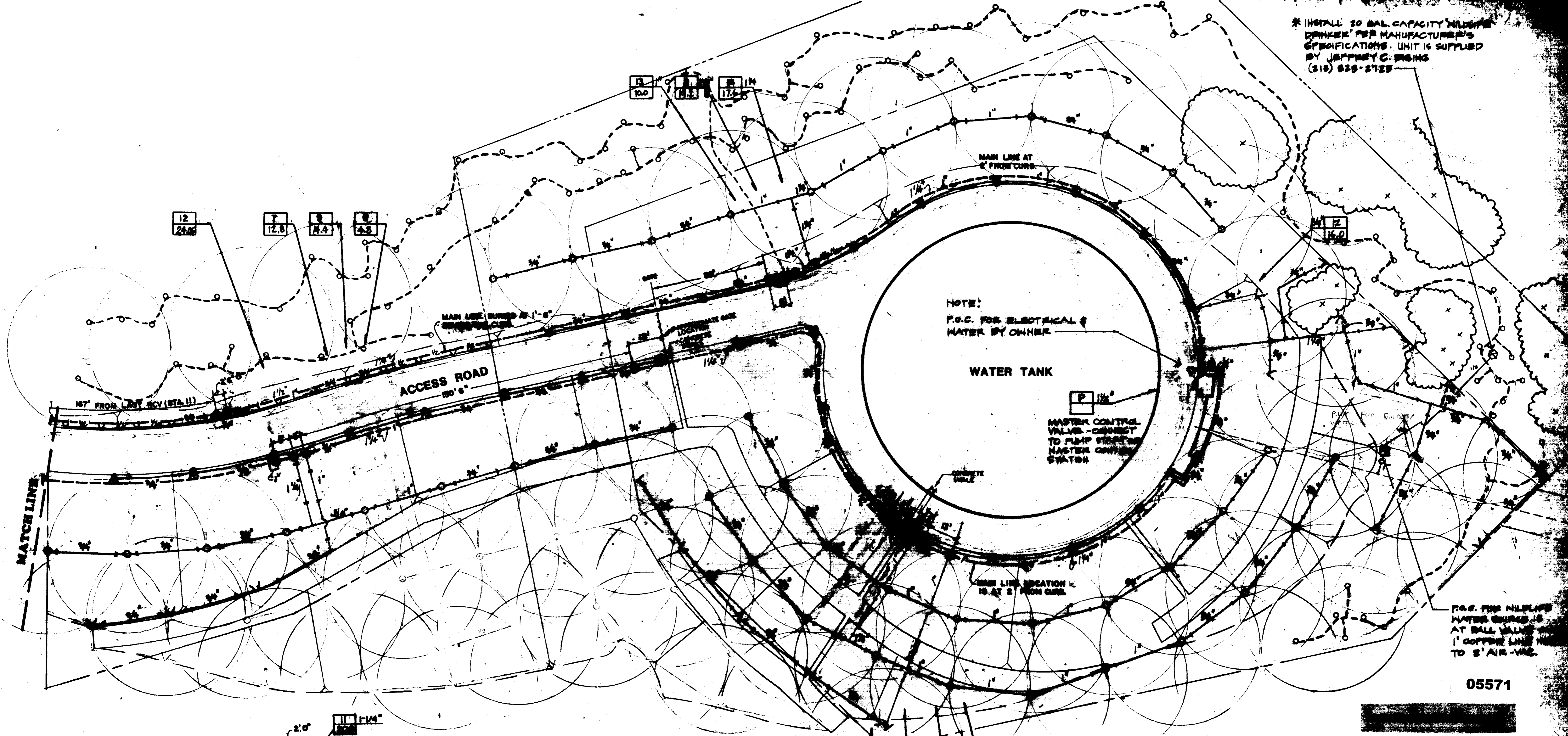
CORDILLERA TANK LANDSCAPE PLAN

NORTH

Owner: LAS VIRGENES MUNICIPAL WATER DISTRICT
4232 Las Virgenes Road
Carpasas, CA 91302
Phone: (818) 880-4110

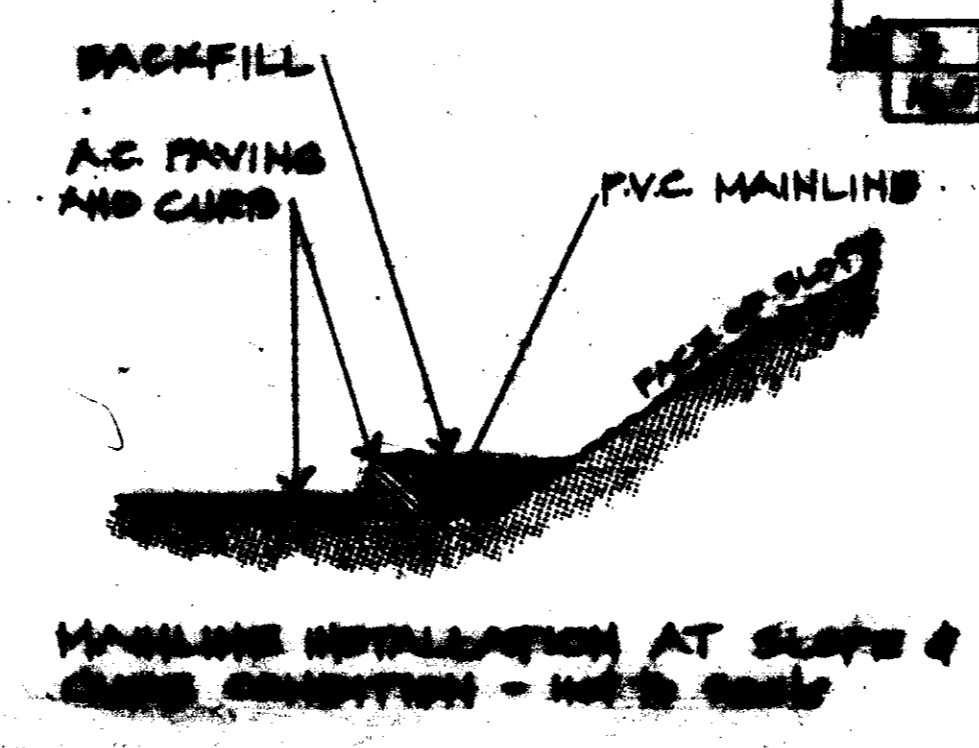
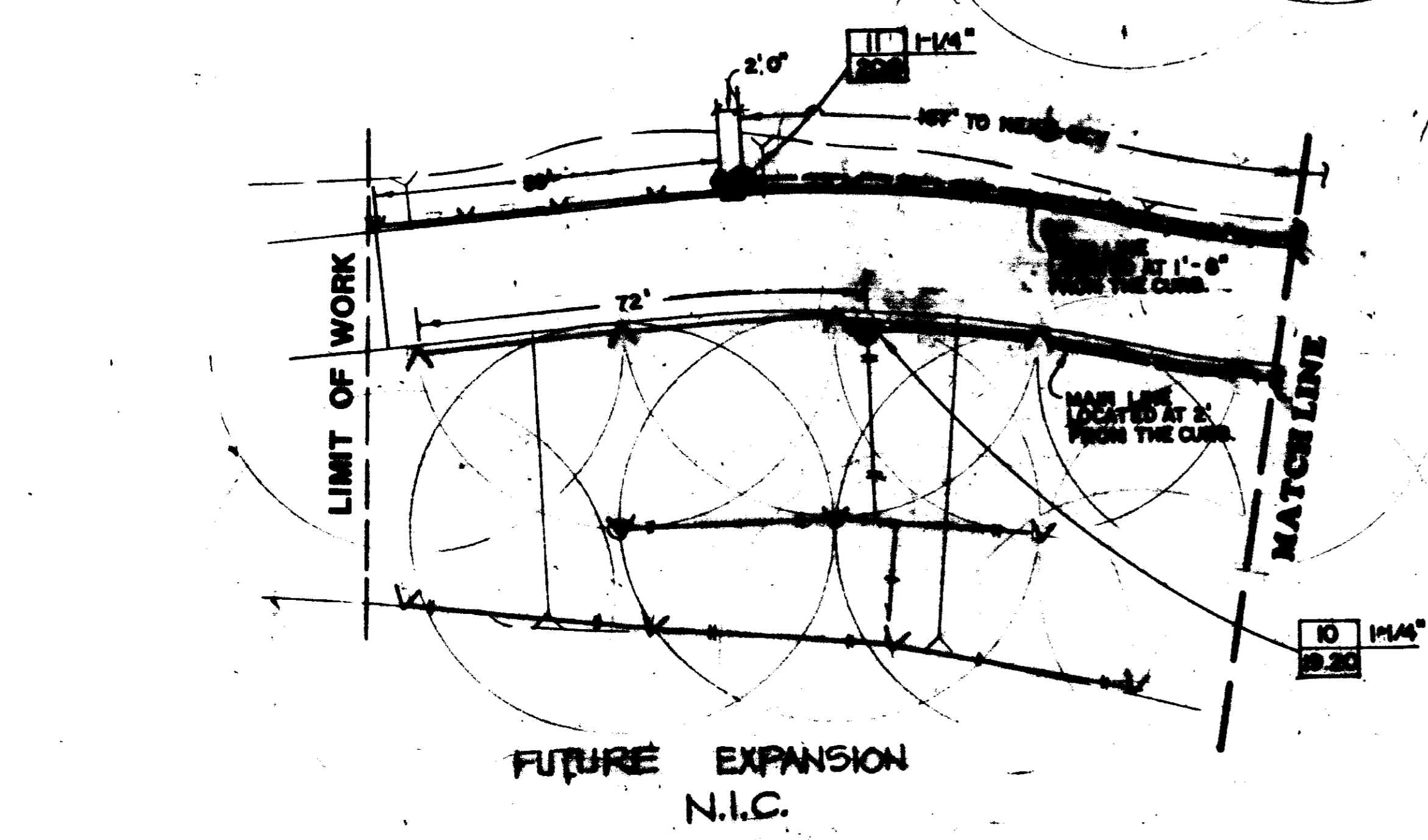
Date: 4-26-91
Scale: 1"=20'
Job: 2 of 4

* INSTALL 20 GAL CAPACITY MILWAUKEE 'DRINKER' PER MANUFACTURER'S SPECIFICATIONS. UNIT IS SUPPLIED BY JEFFREY G. BRINGS (310) 828-2725



P.C. FOR MILWAUKEE WATER SOURCE IS AT BALL VALVE ON 1" COPPER LINE NEAR TO 2' AIR-VAC.

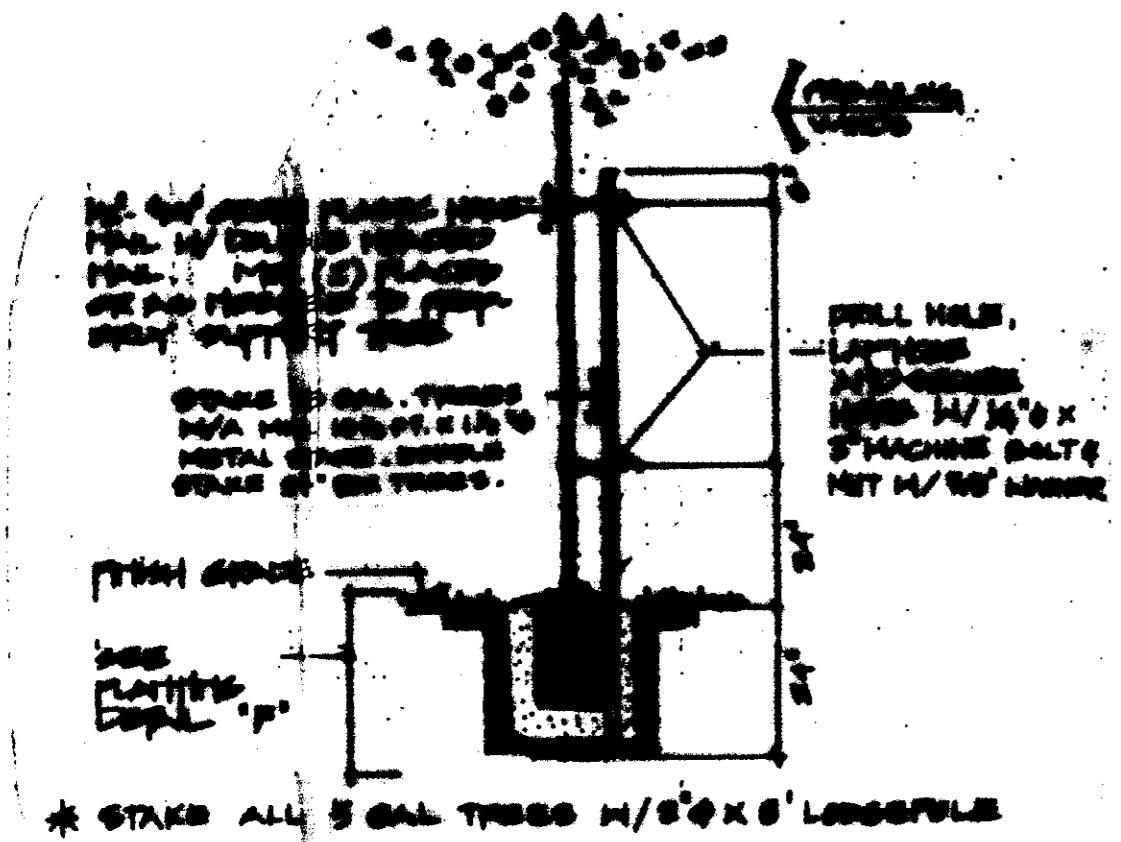
05571



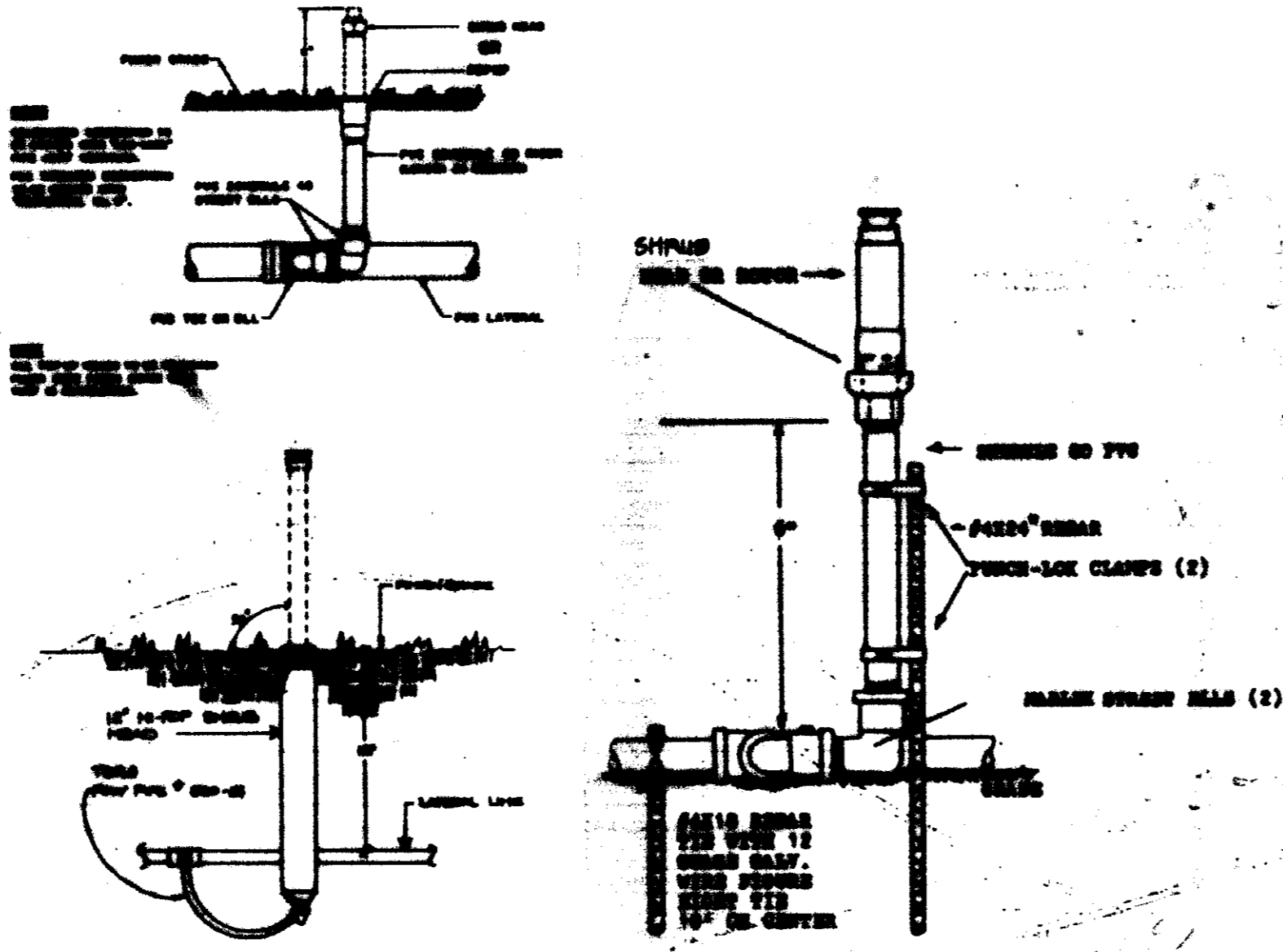
- A. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- C. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- E. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- F. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- G. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- H. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- I. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.
- J. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND AGENCIES.

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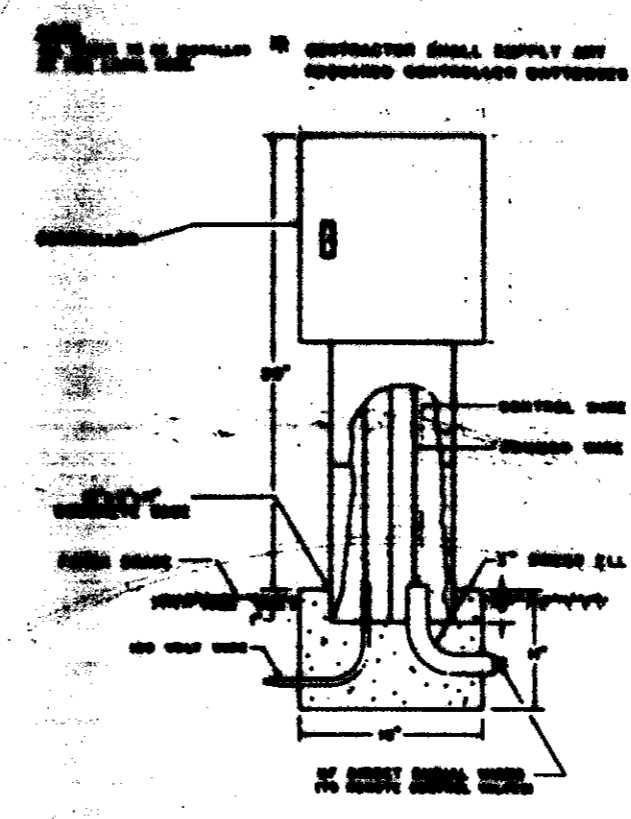
 NORTH	CORDILLERA TA LANDSCAPE PLAN
	<p>LAS VEGAS MUNICIPAL WATER DEPT. 400 LAS VEGAS BLVD LAS VEGAS, NV 89101 PHONE (702) 595-4111</p>



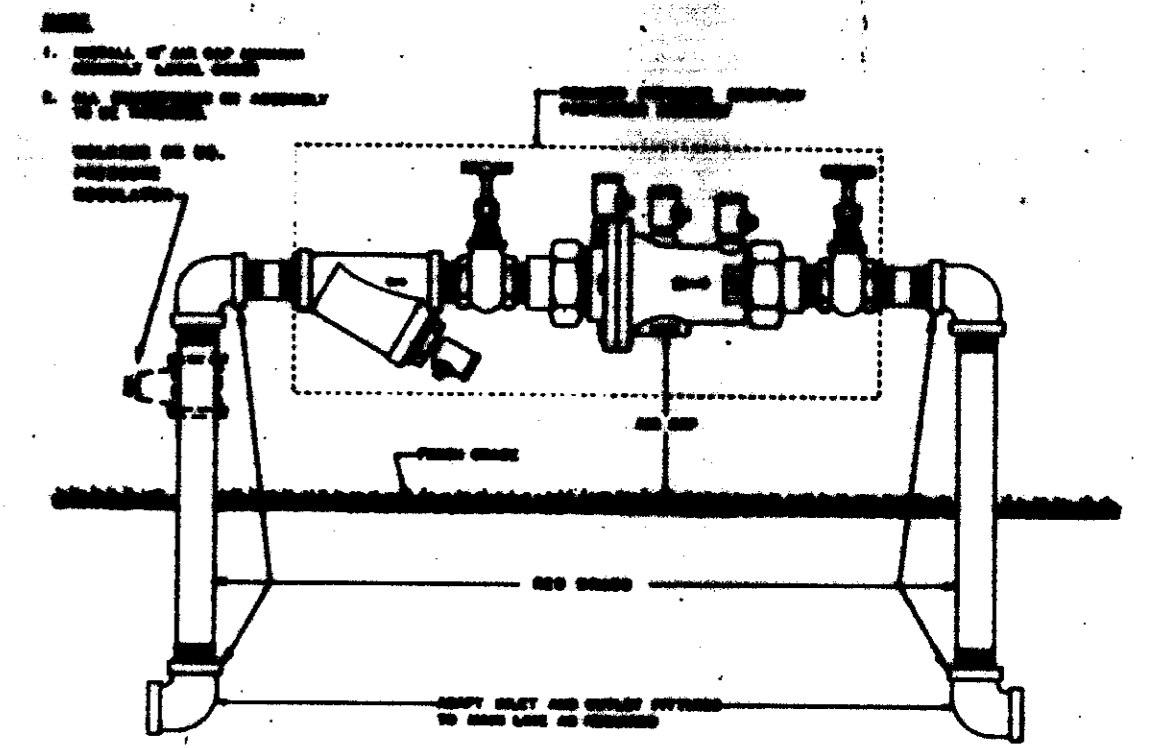
I STAKING
r.l.s.



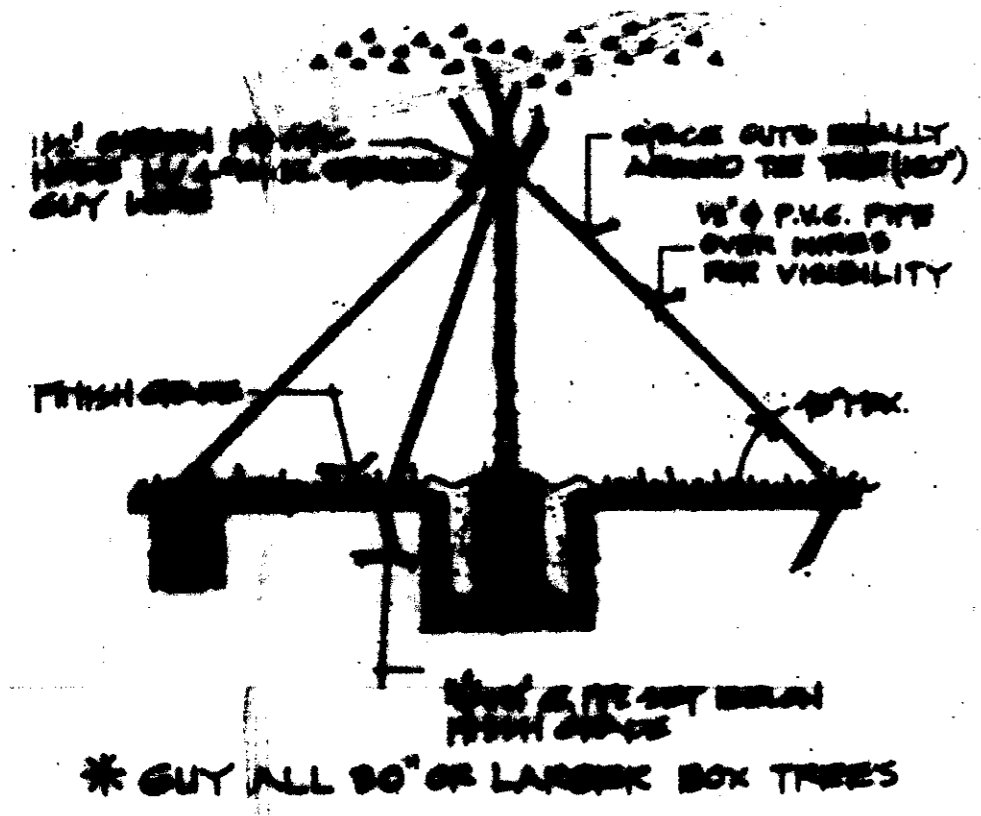
E IRRIGATION HEADS
r.l.s.



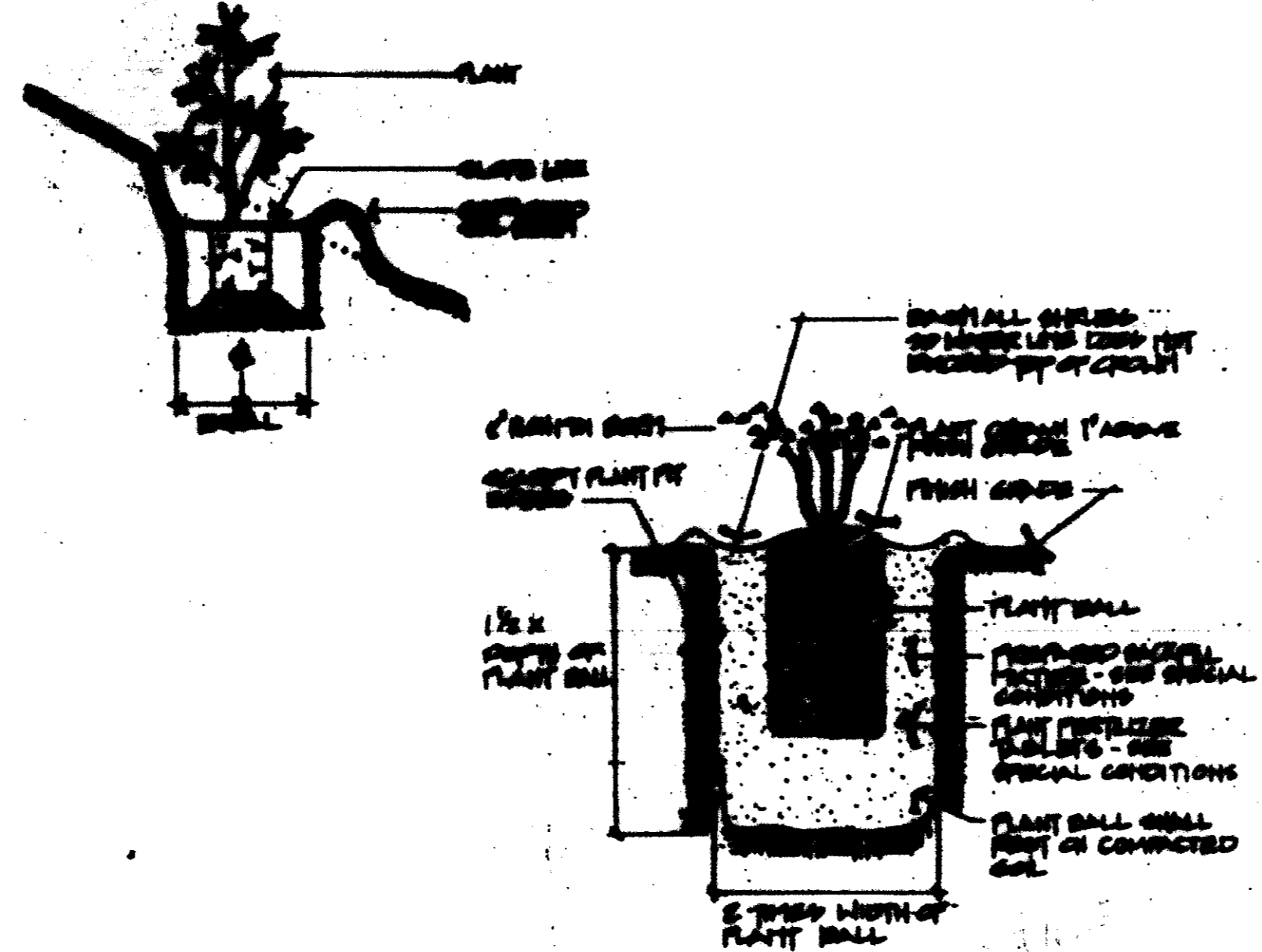
D CONTROLLER
r.l.s.



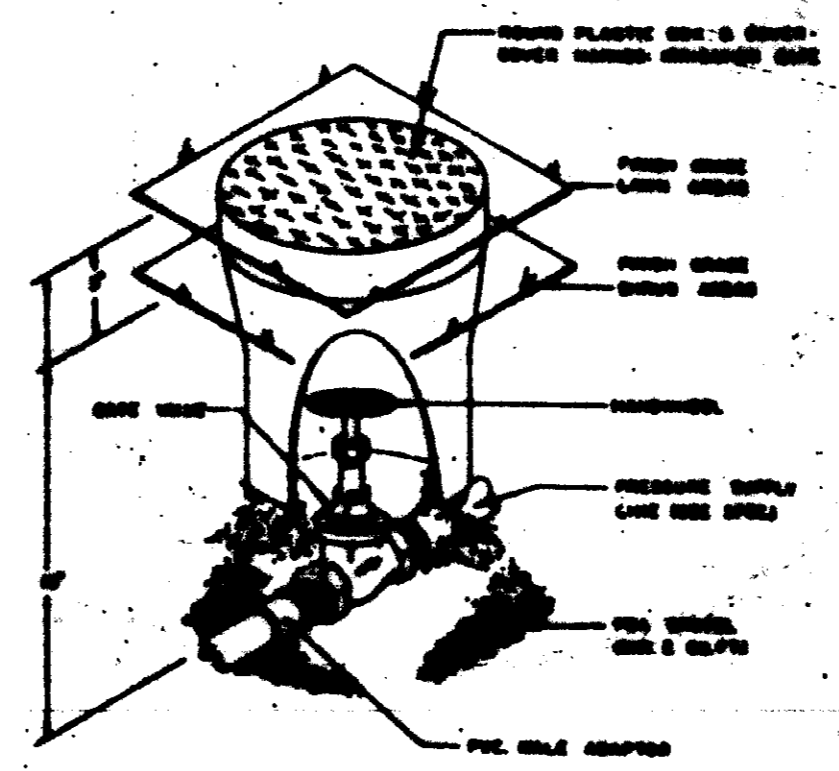
A BACKFLOW PREVENTER
not to scale



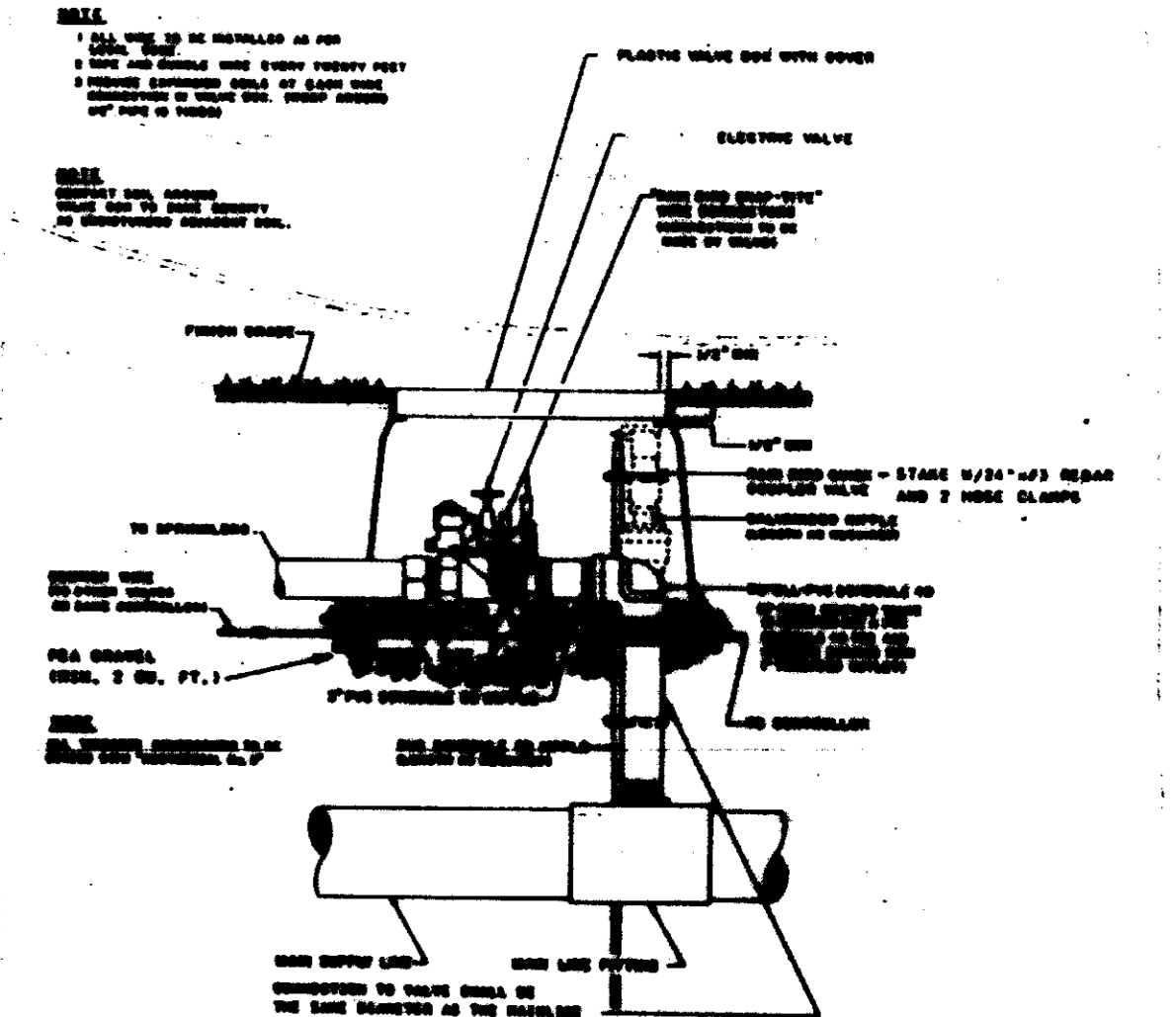
H GUYING
r.l.s.



F PLANTING
r.l.s.



C GATE VALVE
r.l.s.



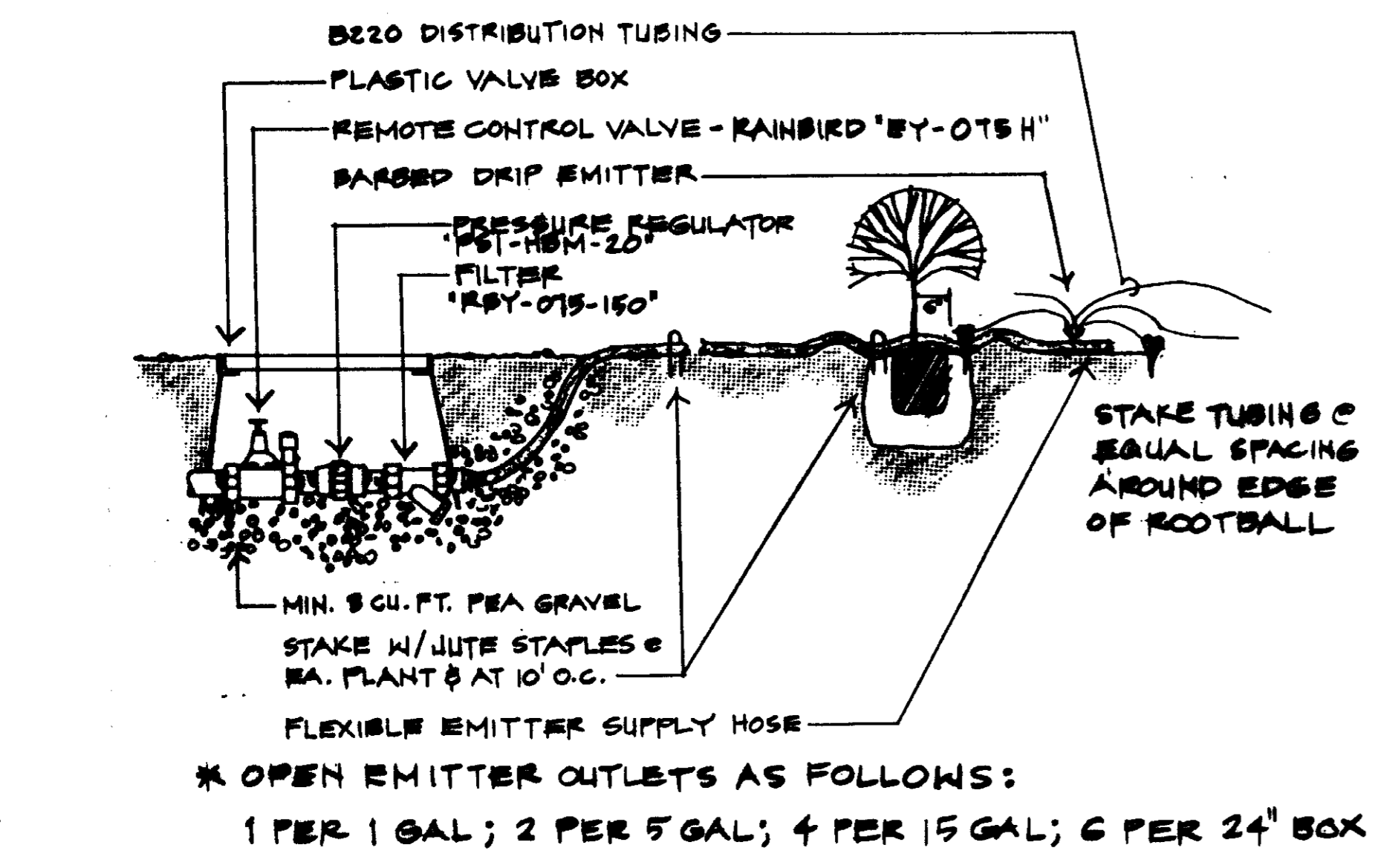
B REMOTE CONTROL VALVE
r.l.s.

05572

NOTES

IRRIGATION LEGEND

symbol	model	part no.	description	rad.	p.s.i.	g.p.m.	remarks
○	HUNTER	PSB-SBV-05	ROTOR HEAD - FULL	3"	30	1.0	INSTALL PER DETAIL "I"
▽	HUNTER	PSB-ADV-05	ROTOR HEAD - Adjustable Arc	7-10"	30	1.0	INSTALL PER DETAIL "I"
▽	RAINBIRD	1000-SAL-FPS-10H	SPRAY HEAD - 10"	10"	30	2.0	INSTALL PER DETAIL "I"
▽	HUNTER	PSB-ADV-05	ROTOR HEAD - Adjustable Arc	3"	30	1.0	INSTALL PER DETAIL "I"
○	RAINBIRD	SMO-101	MULTI OUTLET DRIP EMITTER		30	0.0 g.p.h.	INSTALL PER DETAIL "I"
●	RAINBIRD	RFA-CP-FPS SERIES	REMOTE CONTROL VALVE				INSTALL PER DETAIL "B"
○	RAINBIRD	30 DRC	QUICK COUPLER				INSTALL PER DETAIL "I"
□	RainMaster	RM100 WHIRLPOD	10 STATION CONTROLLER				INSTALL PER DETAIL "D" ON PEDESTAL MOUNT
—	WESCO	LINE SIZE	BALL VALVE				INSTALL PER DETAIL "C"
—	RESCO	88V - 1"	REDUCED PRESS. SERVICE				INSTALL PER DETAIL "I"
—	LASCO	CLASS 200	P.V.C. LATERAL LINE				SEE AS NOTED ON PLAN - MINIMUM 1/2" BURIAL OR AS NOTED
—	LASCO	CLASS 515	P.V.C. MAINLINE				SEE AS NOTED ON PLAN - MINIMUM 1/2" BURIAL OR AS NOTED
—	LASCO	SCHED 40	P.V.C. ELBOW				SEE TO BE 2 X DIA. ENCLOSED PIPE - MIN. 3/4" BURIAL
—	BROWNLINE	SCHED 40	UVR-PVC				SEE AS NOTED-STAKE @ 1/2" O.C. MINIMUM 1/2" BURIAL
—	RAINBIRD	RST - 110148	POLYETHYLENE TUBING				INSTALL PER DETAIL "I"
—	RAINBIRD	3 PIPES per detail	DRIP VALVE ASSEMBLY				INSTALL PER DETAIL "I"



C GUYING
r.l.s.

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NORTH

DETAILS

CORDILLERA TANK LANDSCAPE PLAN

DATE: 4-25-91
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 SCALE: AS NOTED