

50673

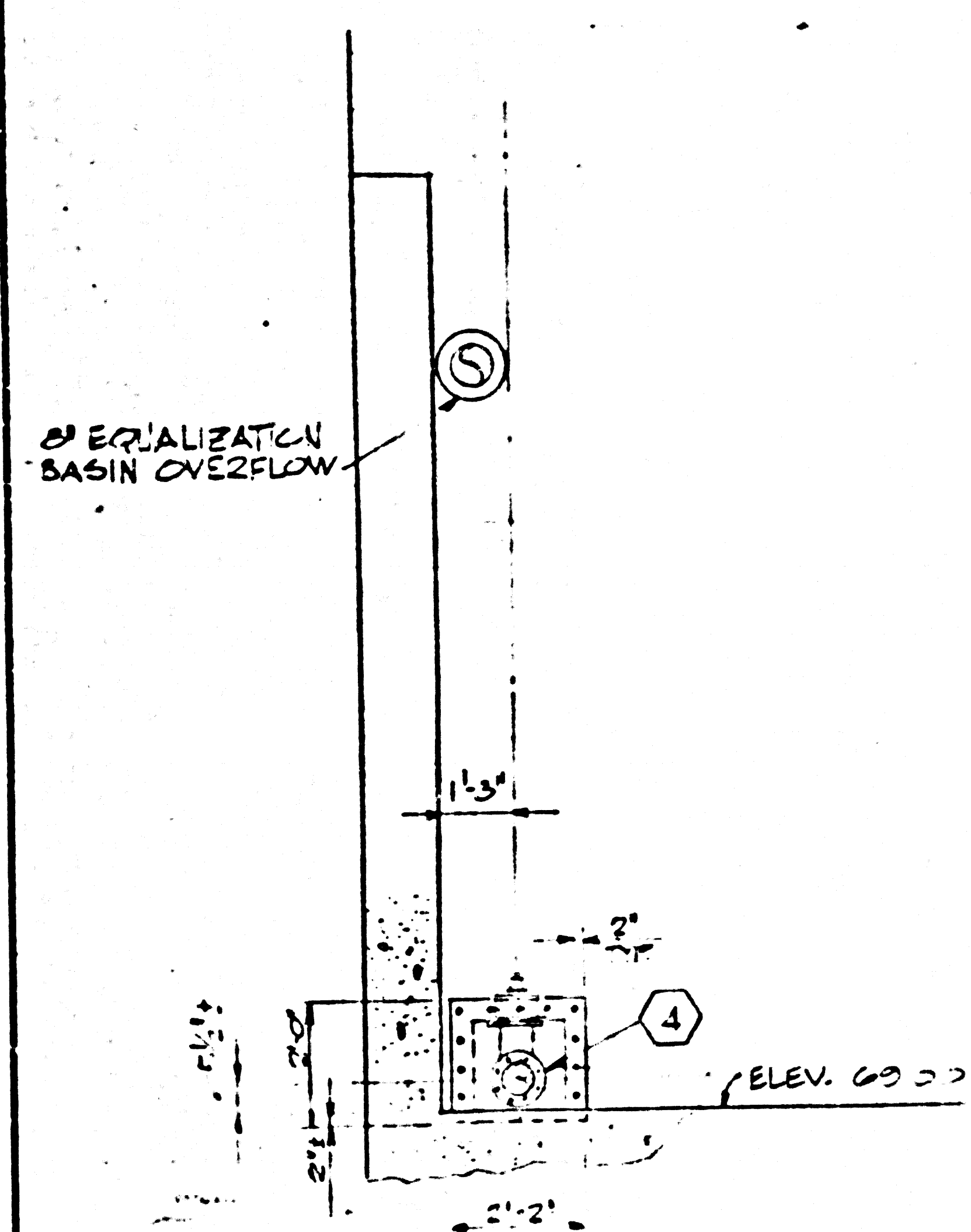
LOS ANGELES COUNTY

MALIBU WASTEWATER RECLAMATION PLANT

MODIFICATIONS

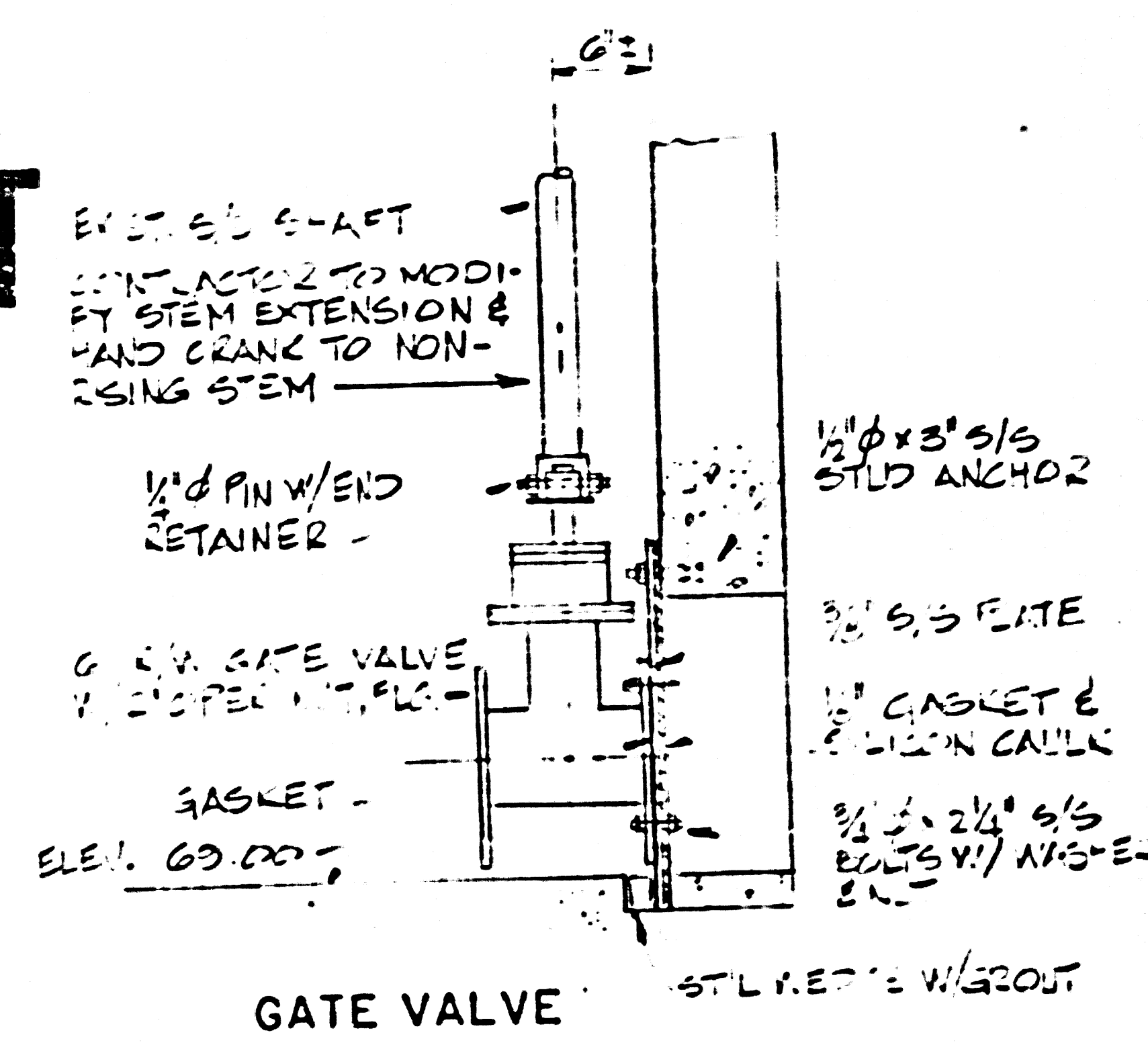
MALIBU, CALIFORNIA

PC 9901-B



GATE VALVE

DETAIL NOT TO SCALE R
4

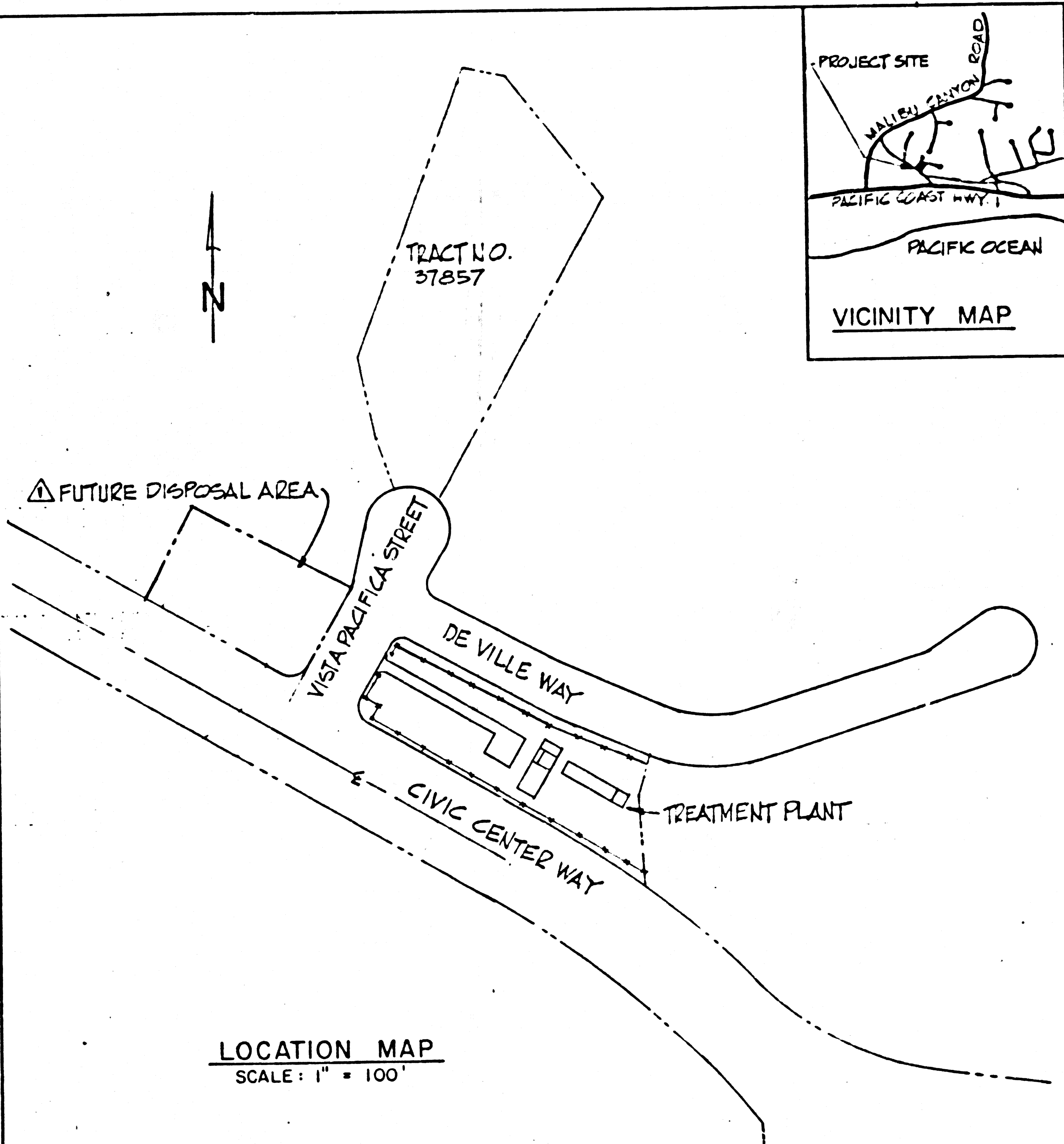


GATE VALVE

DETAIL NOT TO SCALE S
3

SECTION AND DETAIL IDENTIFICATION SYSTEM

- (1) SECTION CUT ON SHEET 2
1
4 SECTION NUMBER SHEET ON WHICH SECTION APPEARS
- (2) SECTION IDENTIFIED ON SHEET 4 AS
1
2 SECTION NUMBER SHEET FROM WHICH SECTION WAS TAKEN
- (3) DETAIL REFERENCED ON SHEET 2
A
3 DETAIL LETTER SHEET ON WHICH DETAIL APPEARS
- (4) DETAIL IDENTIFIED ON SHEET 3 AS
A
2 DETAIL LETTER SHEET FROM WHICH DETAIL WAS REFERENCED



LIST OF DRAWINGS	
SHEET	DESCRIPTION
1	TITLE SHEET, LIST OF DRAWINGS, SECTION AND DETAIL IDENTIFICATION SYSTEM, VICINITY MAP AND LOCATION MAP
2	HYDRAULIC PROFILE AND SITE PLAN
3	EQUALIZATION BASIN, WET WELL AND DIVISION BOX PLAN, SECTIONS AND DETAILS
4	EQUALIZATION BASIN AND WET WELL SECTIONS AND DETAILS
5	STRUCTURAL SECTIONS AND DETAILS
△ 6	PLAN AND PROFILE OF FORCE MAIN, OVERFLOW, AND SEEPAGE PIT ARRANGEMENT
△ 7	ELECTRICAL AND CONTROL DIAGRAM

REVISION NO. 1 DATE 2-7-83
 CHANGE SLIDE GATE TO 6-INCH GATE VALVE SHEETS 1, 2, 3, 4 AND 5 OF 7
 APPROVED [Signature] OFFICE OF COUNTY ENGINEER

PC 9901-B-1



COUNTY OF LOS ANGELES, CALIFORNIA
 DEPT. OF COUNTY ENGINEER / FACILITIES
 CHECKED BY: [Signature] ARCHITECT/ENGINEER DIV. [Signature] SEWER MAINTENANCE
 APPROVED BY: [Signature] ENVIRONMENTAL DEVELOPMENT DIVISION

DESIGNED	GLJ	SUBMITTED	<u>[Signature]</u>	DATE	1-7-81
DRAWN	CS	APPROVED	<u>[Signature]</u>	DATE	
CHECKED	CRB	APPROVED	<u>[Signature]</u>	DATE	1-8-81

B BROCKMEIER
 CONSULTING ENGINEERS, INC.
 P.O. BOX 1819, SANTA MONICA, CA. 90406

APPROVED FOR	DATE
APPROVED FOR	DATE

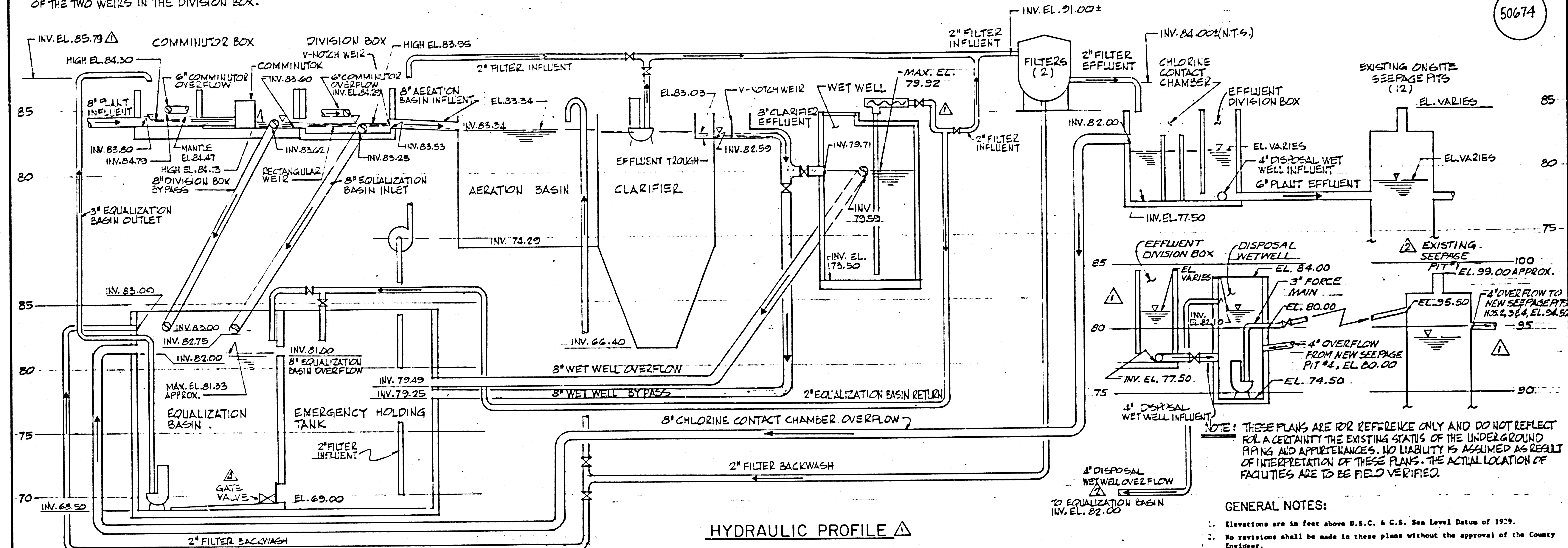
MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS

TITLE SHEET, LIST OF DRAWINGS, SECTION & DETAIL IDENTIFICATION SYSTEM, VICINITY & LOCATION MAP

SCALE	AS SHOWN	SHEET NO.	1	DRAWING NO.	
JOB NO.	165.1	OF 7 SHEETS			
DATE	1-6-81				

NOTE: THE HIGH WATER SURFACE ELEVATIONS IN THE COMMUNICATOR & DIVISION BOXES CAN BE RAISED OR LOWERED BY ADJUSTMENT OF THE TWO WEIRS IN THE DIVISION BOX.

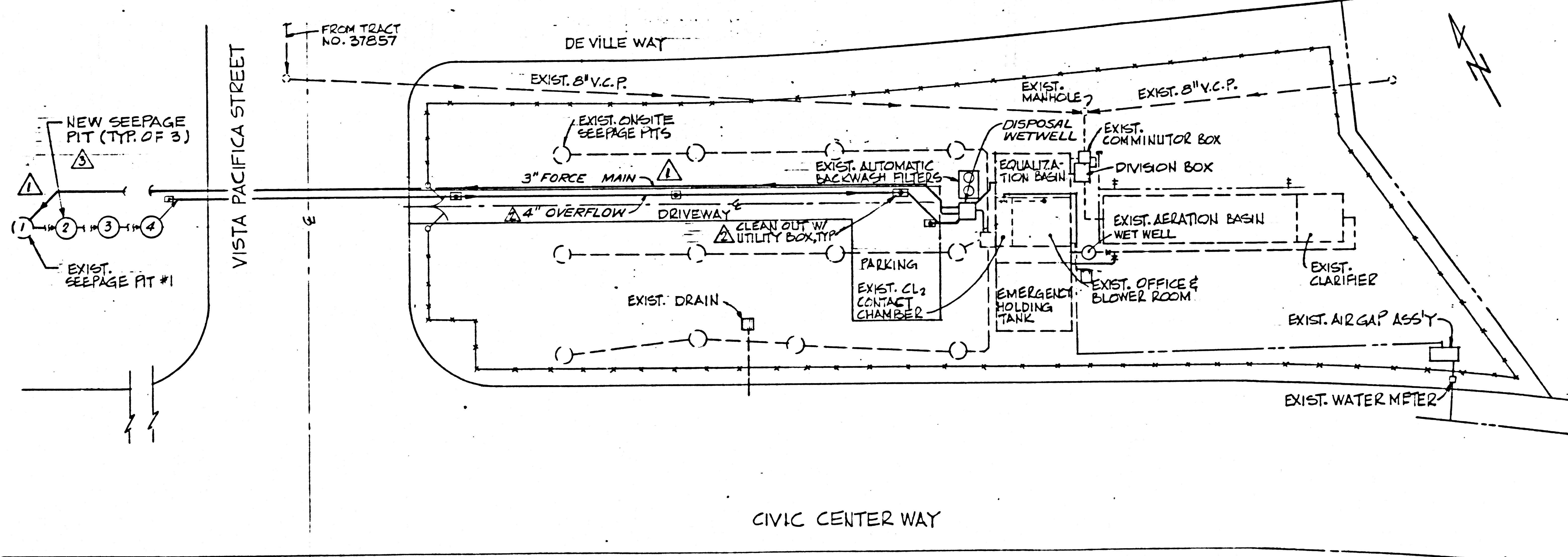
50674



NOTE: THESE PLANS ARE FOR REFERENCE ONLY AND DO NOT REFLECT FOR A CERTAINTY THE EXISTING STATUS OF THE UNDERGROUND PIPING AND APPURTENANCES. NO LIABILITY IS ASSUMED AS RESULT OF INTERPRETATION OF THESE PLANS. THE ACTUAL LOCATION OF FACILITIES ARE TO BE FIELD VERIFIED.

- GENERAL NOTES:**
- Elevations are in feet above U.S.C. & G.S. Sea Level Datum of 1929.
 - No revisions shall be made in these plans without the approval of the County Engineer.
 - No representative of the County Engineer will survey or lay out any portion of the work.
 - Before work can be started, the Contractor must obtain a permit to excavate in County streets from the L.A. County Road Dept., District Office No. 3, and pay a fee to the County Engineer, 550 South Vermont Ave., Los Angeles, California 90020, to cover the cost of construction inspection and record plans.
 - Approval of this plan by the County of Los Angeles does not constitute a representation as to the accuracy of the location of or the existence or non-existence of any underground utility pipe, or structure within the limits of this project. This note applies to all pages.
 - Refer to Section 7.10.4.1. of the Standard Specifications, regarding safety orders.
 - Prior to the issuance of the required sewer construction permit, the Contractor shall obtain and file with the County Engineer copies of the permit to excavate in County streets from the Los Angeles County Road Dept., a permit for excavations and trenches from the State of California Division of Industrial Safety and a Certificate of Workers Compensation Insurance with the Department of County Engineer, 550 South Vermont Ave., Los Angeles, California 90020, Room 406, named as the certificate holder to be notified 30 days prior to cancellation of policy.

- CONSTRUCTION NOTES:**
- Work shall be constructed according to the Standard Specifications for Public Works Construction (1982 edition with all supplements) and County Engineer Special Provisions for the construction of sanitary sewers dated Sept. 21, 1976 and shall be prosecuted only in the presence of the County Engineer.
 - The Contractor shall notify the Construction Division by telephone, 738-2156, at least twenty-four hours before starting any work under this contract.
 - If a power pole is within three feet of the sewer, the sewer shall be encased, per S-23, Case II, two feet on each side from the point of interference.
 - Sewers to be tested for leakage per Section 306.1.4 of the Standard Specifications and Special Provisions.
 - Resurface all trenches within paved areas to meet L.A. County Road Dept. or California State Highway requirements in accordance with permits.
 - Full compliance with Section 306.1.3.5. of the Special Provisions will be required for backfill in streets. Certification of backfill compaction and sand equivalents by a qualified, registered testing laboratory shall be provided by the permittee prior to the issuance of a certificate of partial acceptance.

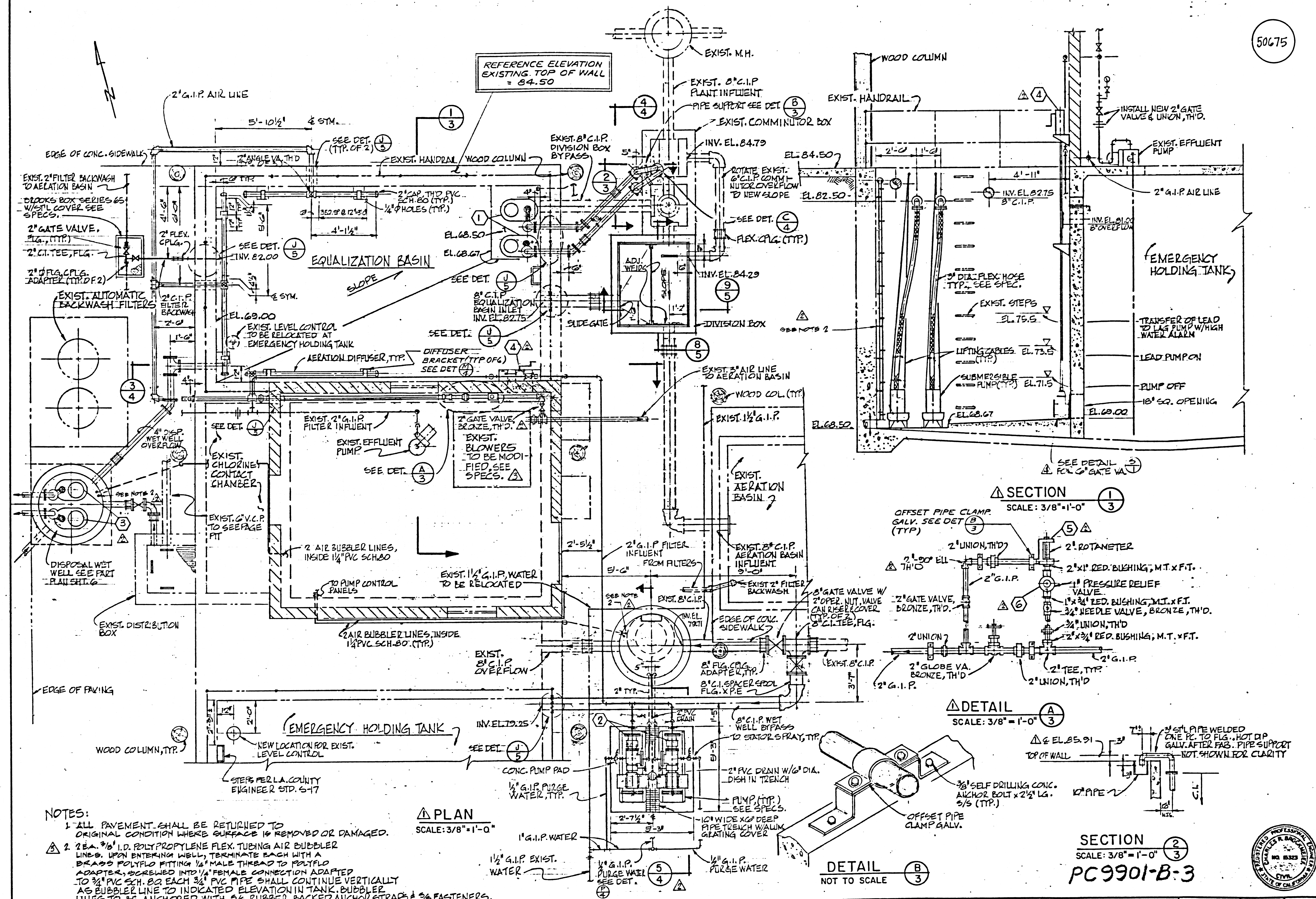


SITE PLAN
SCALE: 1" = 20'

PC9901-B-2



<table border="1"> <tr> <th>MARK</th> <th>DATE</th> <th>APP'D</th> <th>REVISIONS</th> </tr> <tr> <td>1</td> <td>4-17-81</td> <td></td> <td>CHANGE SG TO G.V.</td> </tr> <tr> <td>2</td> <td>7-17-81</td> <td>CSB</td> <td>ADD SEEPAGE PITS #1, #2</td> </tr> <tr> <td>3</td> <td>7-29-81</td> <td>CSB</td> <td>ADD CLEANOUT</td> </tr> <tr> <td>4</td> <td>9-2-81</td> <td>CSB</td> <td>ADD SEEPAGE PITS NOTE</td> </tr> </table>	MARK	DATE	APP'D	REVISIONS	1	4-17-81		CHANGE SG TO G.V.	2	7-17-81	CSB	ADD SEEPAGE PITS #1, #2	3	7-29-81	CSB	ADD CLEANOUT	4	9-2-81	CSB	ADD SEEPAGE PITS NOTE	<table border="1"> <tr> <td>DESIGNED</td> <td>GLJ</td> <td>SUBMITTED</td> <td>DATE</td> </tr> <tr> <td>DRAWN</td> <td>CS</td> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td>CHECKED</td> <td>CRB</td> <td>APPROVED</td> <td>DATE</td> </tr> </table>	DESIGNED	GLJ	SUBMITTED	DATE	DRAWN	CS	APPROVED	DATE	CHECKED	CRB	APPROVED	DATE	<table border="1"> <tr> <td>APPROVED FOR</td> <td>DATE</td> </tr> <tr> <td>APPROVED FOR</td> <td>DATE</td> </tr> </table>	APPROVED FOR	DATE	APPROVED FOR	DATE	B BROCKMEIER CONSULTING ENGINEERS, INC. P.O. BOX 1819, SANTA MONICA, CA. 90406	MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS	HYDRAULIC PROFILE AND SITE PLAN	SCALE AS SHOWN JOB NO. 165.1 DATE 1-2-81	SHEET NO. 2 OF 7 SHEETS	DRAWING NO.
MARK	DATE	APP'D	REVISIONS																																									
1	4-17-81		CHANGE SG TO G.V.																																									
2	7-17-81	CSB	ADD SEEPAGE PITS #1, #2																																									
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APPROVED FOR	DATE																																											
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- NOTES:**
1. ALL PAVEMENT SHALL BE RETURNED TO ORIGINAL CONDITION WHERE SURFACE IS REMOVED OR DAMAGED.
 2. 2 EA. 3/8" I.D. POLYPROPYLENE FLEX. TUBING AIR BUBBLER LINES. UPON ENTERING WELL, TERMINATE EACH WITH A BRASS POLYFLO FITTING 1/4" MALE THREAD TO POLYFLO ADAPTER, SCREWED INTO 1/4" FEMALE CONNECTION ADAPTED TO 3/4" PVC SCH. 80 EACH 3/4" PVC PIPE SHALL CONTINUE VERTICALLY AS BUBBLER LINE TO INDICATED ELEVATION IN TANK. BUBBLER LINES TO BE ANCHORED WITH 3/8" RUBBER BACKED ANCHOR STRAPS & 3/8" FASTENERS.

PLAN
SCALE: 3/8" = 1'-0"

DETAIL B
NOT TO SCALE

DETAIL A
SCALE: 3/8" = 1'-0"

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

SECTION 2
SCALE: 3/8" = 1'-0"
PC9901-B-3

MARK	DATE	APP'D	REVISIONS
1	1-7-81	CS	REV. NOTES
2	1-7-81	CS	REV. EQUIP. SCHEDULE NOTES
3	1-7-81	CS	GENERAL REV.

BROCKMEIER
CONSULTING ENGINEERS, INC.
P.O. BOX 1819, SANTA MONICA, CA. 90406

DESIGNED: GLJ
DRAWN: CS
CHECKED: CRB

SUBMITTED: *Charles R. Brockmeier*
APPROVED: *Charles R. Brockmeier*

DATE: 1-7-81
DATE: 1-7-81
DATE: 1-7-81

APPROVED FOR	DATE
APPROVED FOR	DATE
APPROVED FOR	DATE

MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS

EQUALIZATION BASIN, WET WELL & DIVISION BOX PLAN, SECTIONS & DETAILS

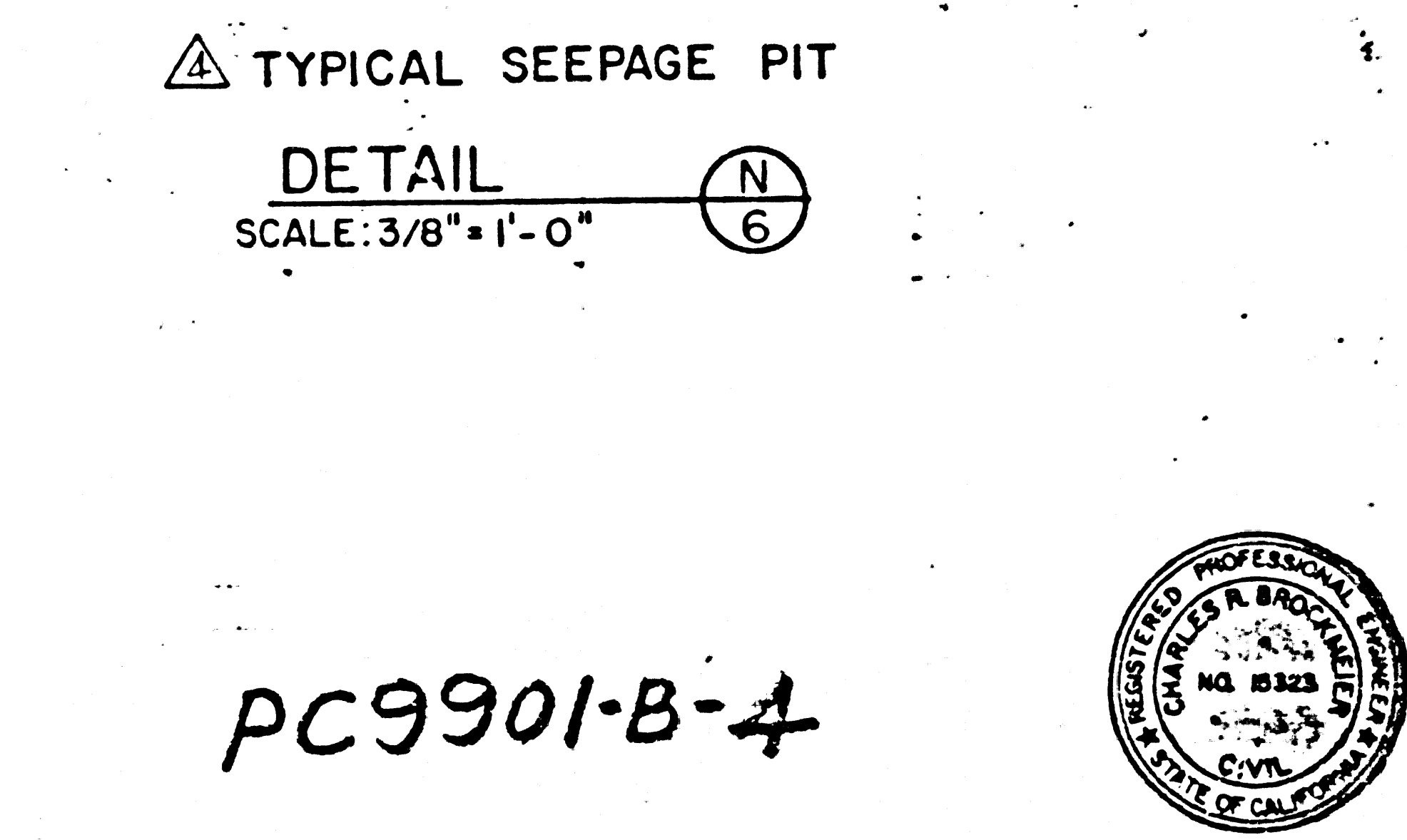
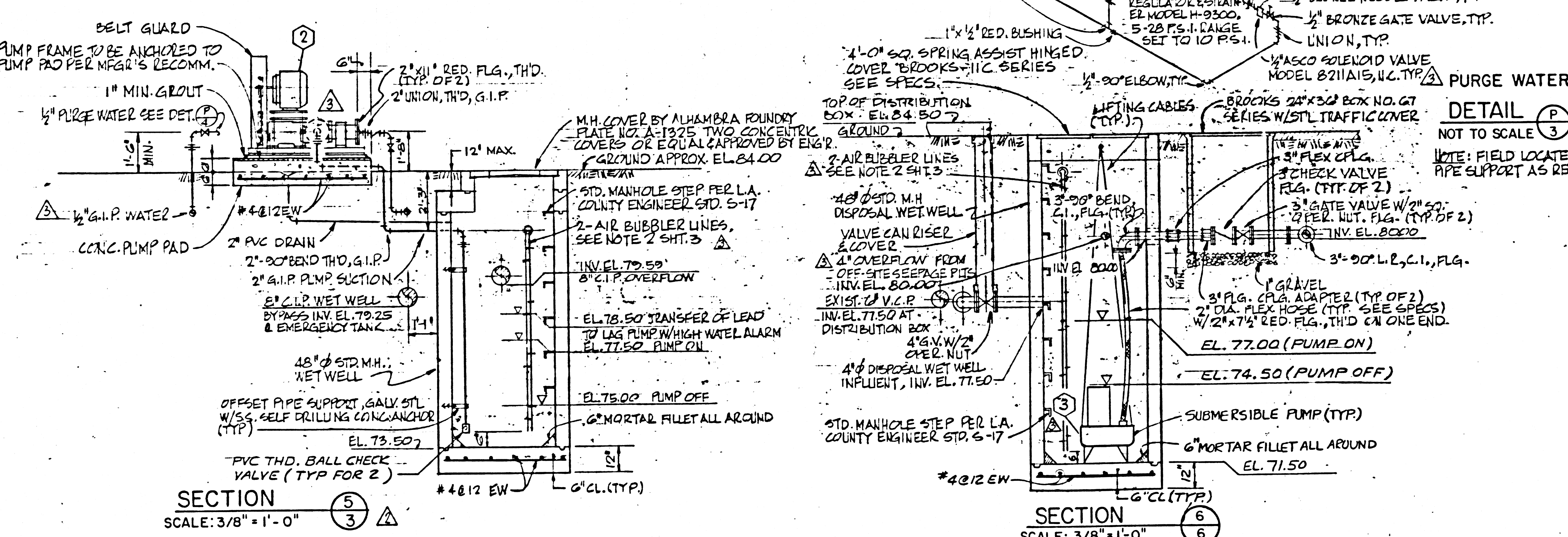
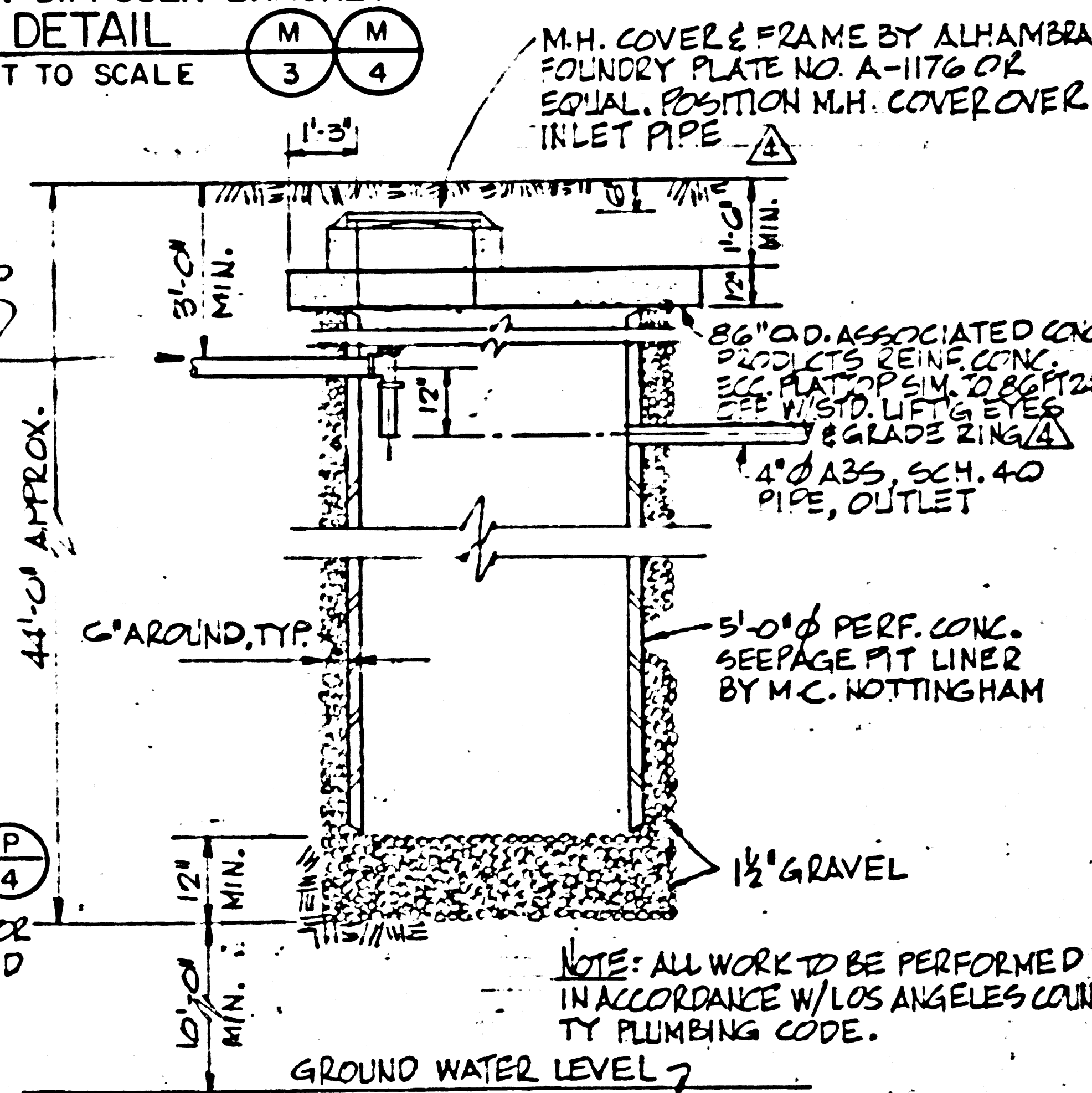
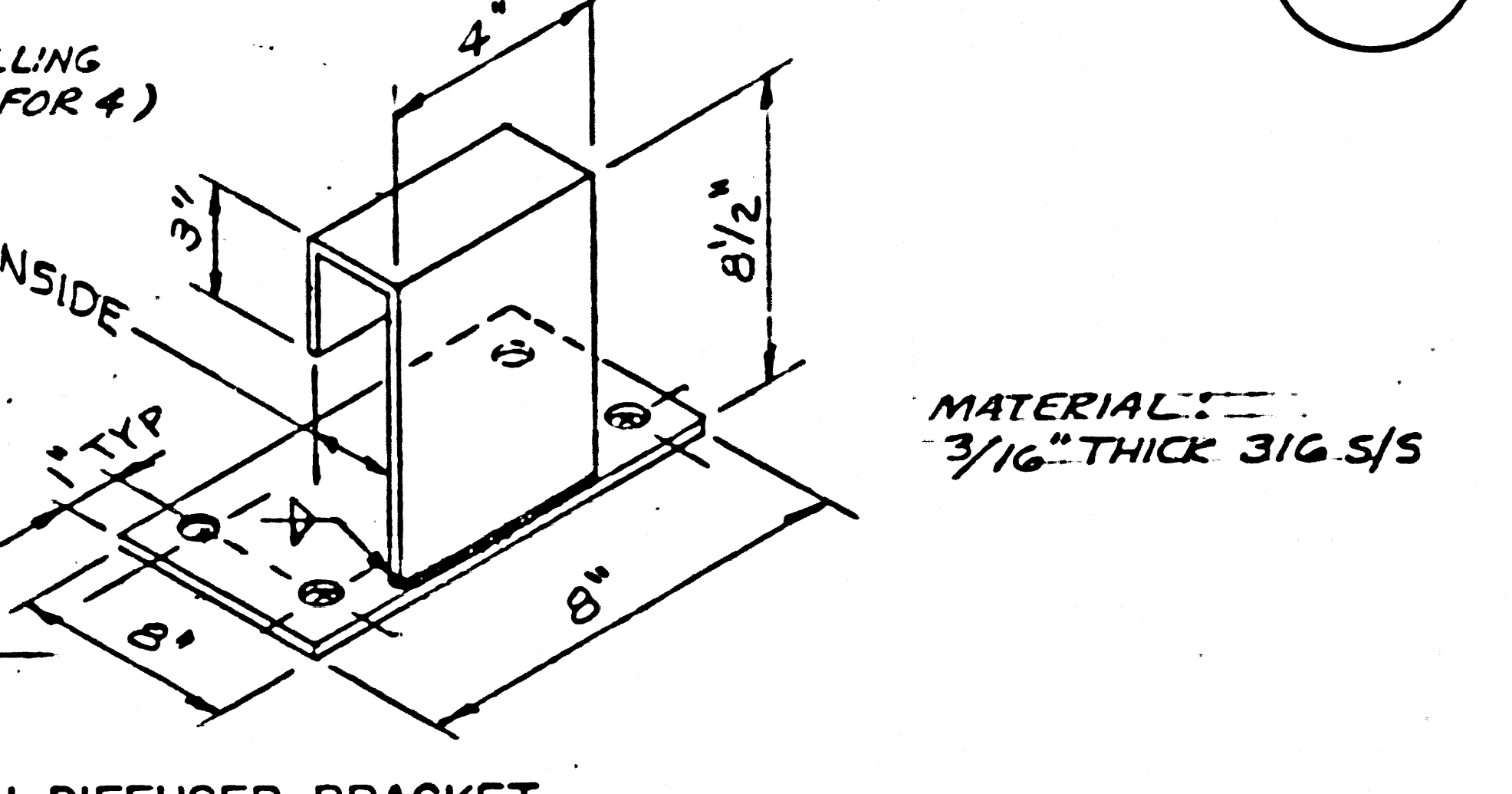
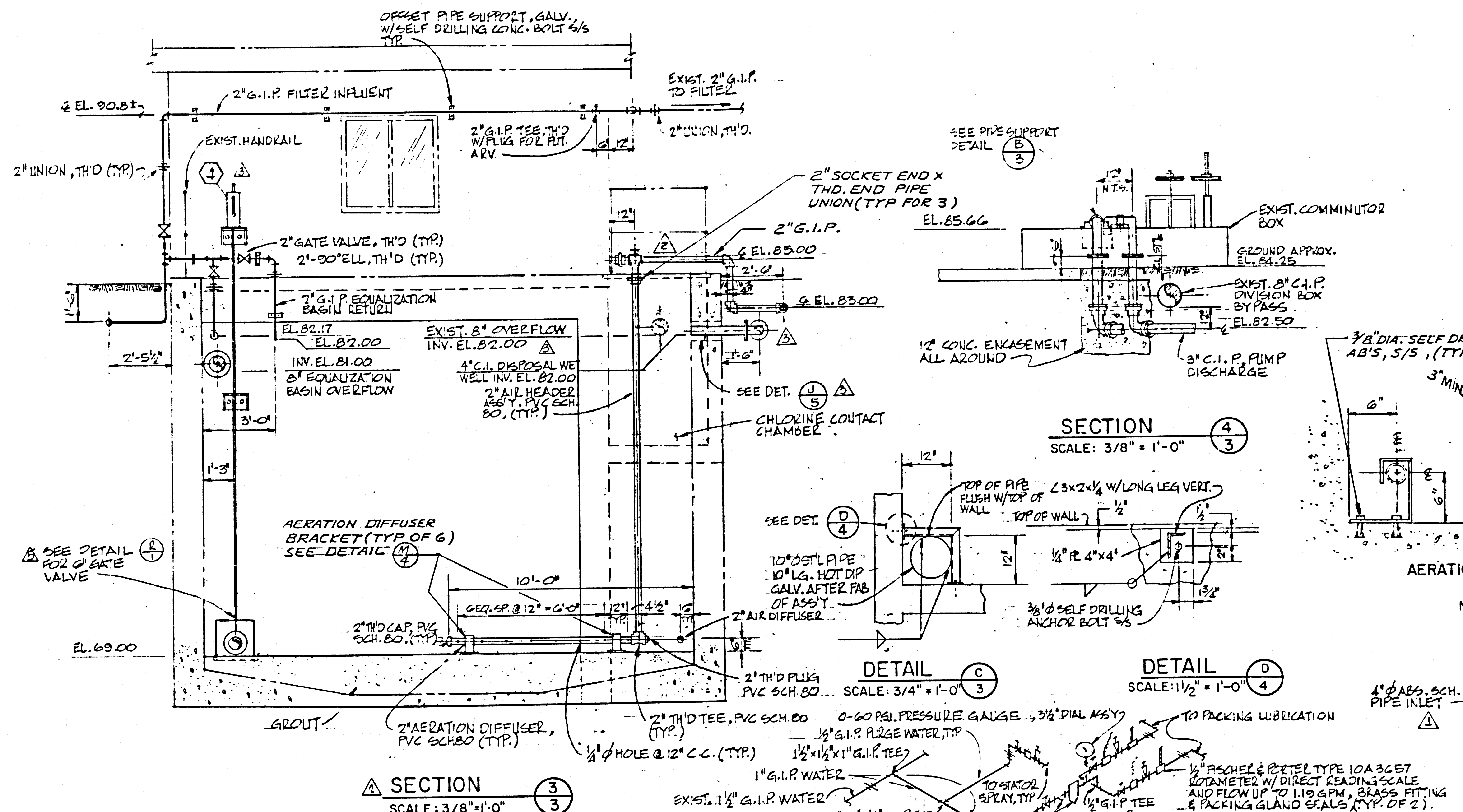
SCALE AS SHOWN	SHEET NO.	DRAWING NO.
JOB NO. 165.1	3	
DATE 1-5-81	OF 7 SHEETS	



EQUIPMENT SCHEDULE

- 1 Submersible sewage pump and motor - Hanco Torque-Flow Model 352 with 1130 R.P.M. 1 1/2 H.P. motor, rated to deliver 75 G.P.M. against 15.0 ft. T.D.H., and 175 G.P.M. against 10.3 ft. T.D.H.
- 2 Progressive cavity pump and motor - Novno Model 1E0F51 with 870 R.P.M. 5 H.P. motor and belt drive, rated to deliver 60 G.P.M. at 0-115 ft. T.D.H.
- 3 Submersible sump pump and motor - Paco Type SM Model 1570-0 with 1750 R.P.M. 1 H.P. motor, rated to deliver 40 G.P.M. against 25.0 ft. T.D.H., and 70 G.P.M. against 10.0 ft. T.D.H.
- 4 6" resilient wedge gate valve, Clew Model F-6102, cast iron body, epoxy lined, non-rising stem with stem extension and horizontal axis hand crank with enclosed gears.
- 5 2" Fischer and Porter Type 10A2235 "Rotasight" rotameter with 3" scale length and flow range of 8-80 acfm.
- 6 1" Fisher Controls Co. Type 98L pressure relief valve with cast iron body, composition seat, trim #3, spring #1E398927022, and handwheel.

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MARK	DATE	APP'D	REVISIONS	DESIGNED	DRAWN	CHECKED	APPROVED	DATE
	6/17/84		CHG. SG TO GV.	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81
	1/17/83	CSB	REV. SEEPAGE PIT DET.	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81
	4/6/81	CSB	REV. M.H. & NOTE	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81
	3/16/81	CSB	GENERAL REVISION	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81
	1/17/81	CSB	REV. PUMPS RATING	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81
			REVISIONS	GLJ	CS	CRB	<i>Richard L. Johnson</i>	1-7-81

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P.O. BOX 1819, SANTA MONICA, CA 90406

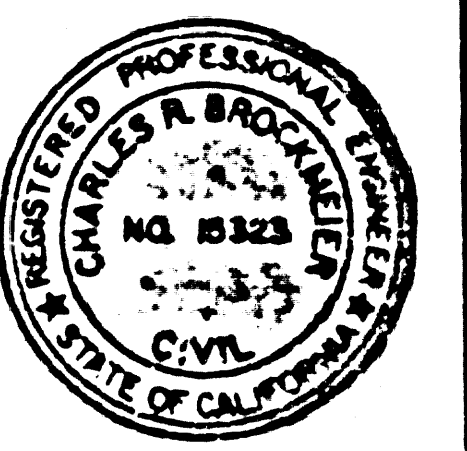
APPROVED FOR: _____ DATE: _____
APPROVED FOR: _____ DATE: _____

MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS

EQUALIZATION BASIN & WET WELL SECTIONS & DETAILS

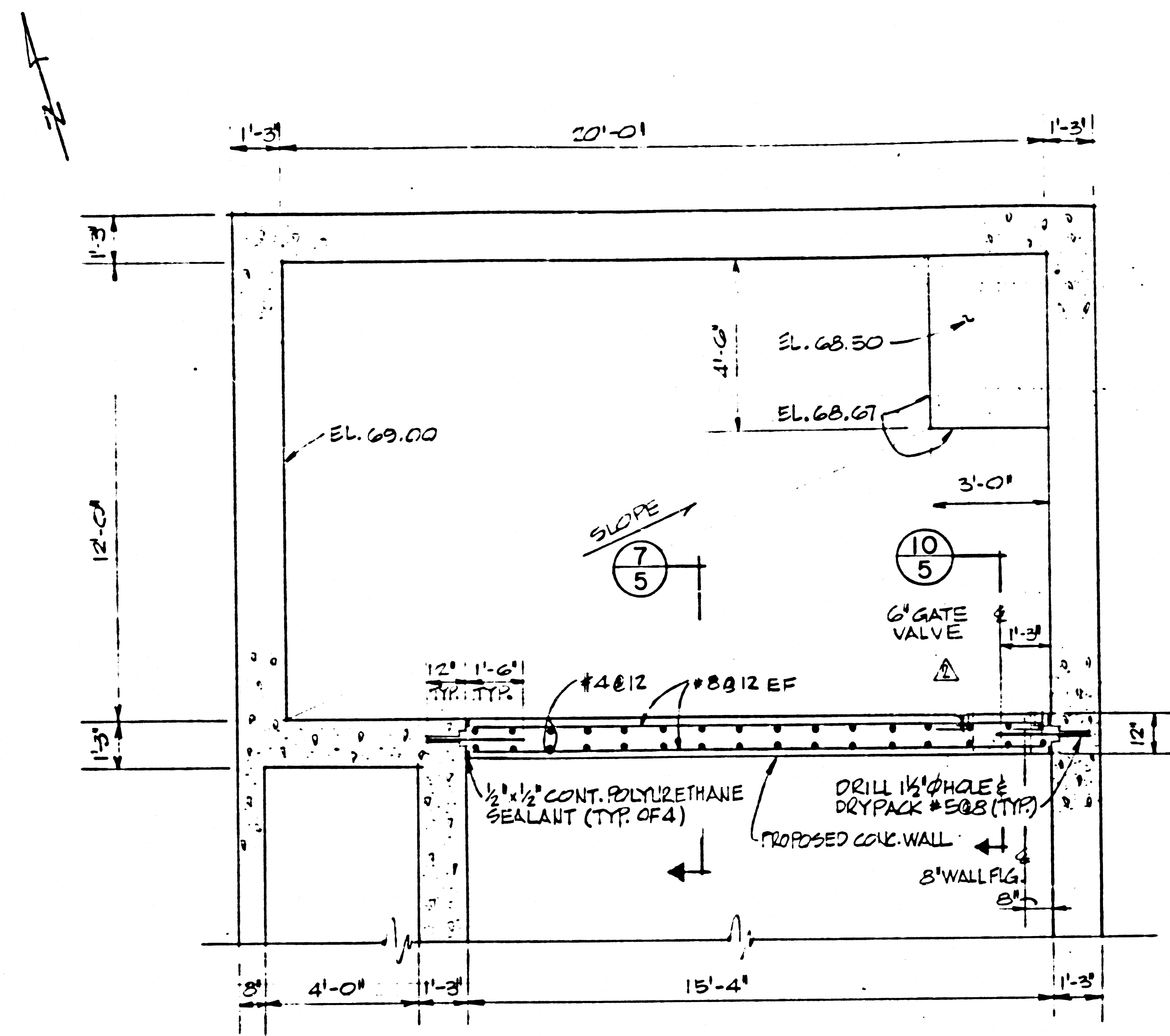
SCALE AS SHOWN JOB NO. 165.1 SHEET NO. 4 DRAWING NO. DATE 1-6-81 OF 7 SHES

PC9901-B-4

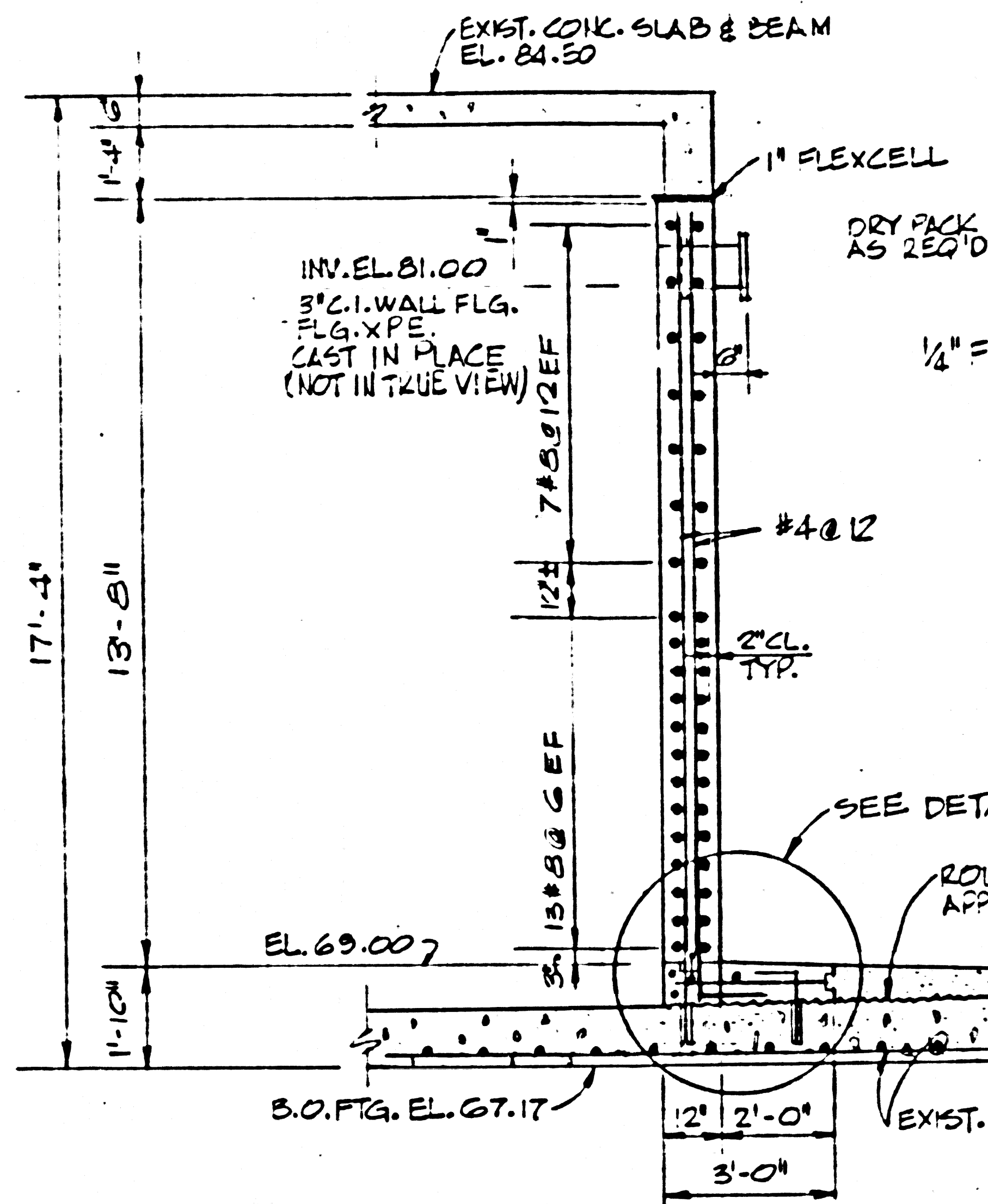


SLIDE GATE SCHEDULE

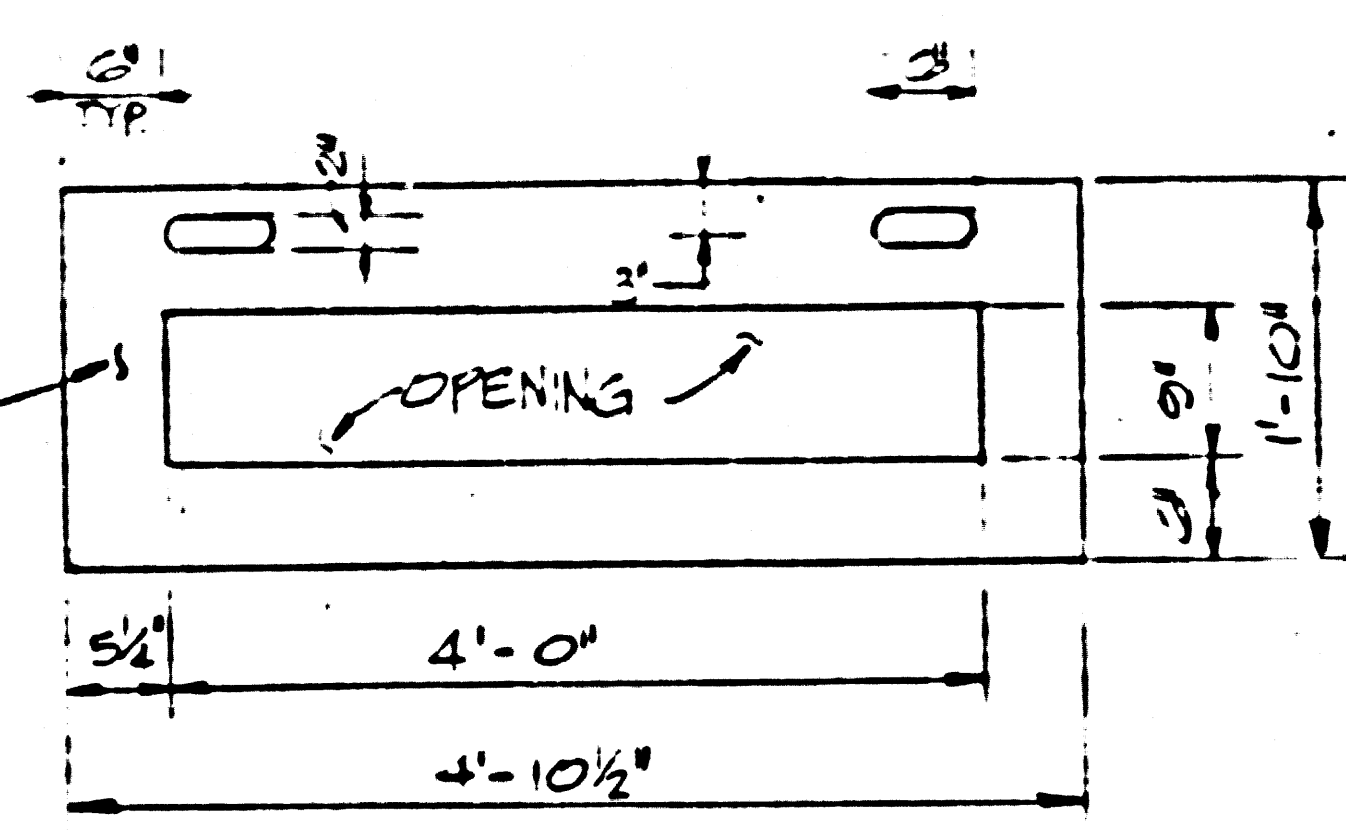
GATE NO.	GATE TYPE	GUIDE TYPE		GATE DIM.		REMARKS
		SIDE	BOTTOM	HEIGHT	WIDTH	
1	FRP	ALUM. &	ALUM.	1'-10"	4'-10 1/2"	
2	FRP	FRP	ALUM.	1'-6"	1'-7 1/2"	SIDE GUIDE 6" LONGER THAN GATE HEIGHT
3	FRP	FRP	FRP	1'-6"	1'-7 1/2"	SAME AS GATE NO. 2 WITHOUT OPENING



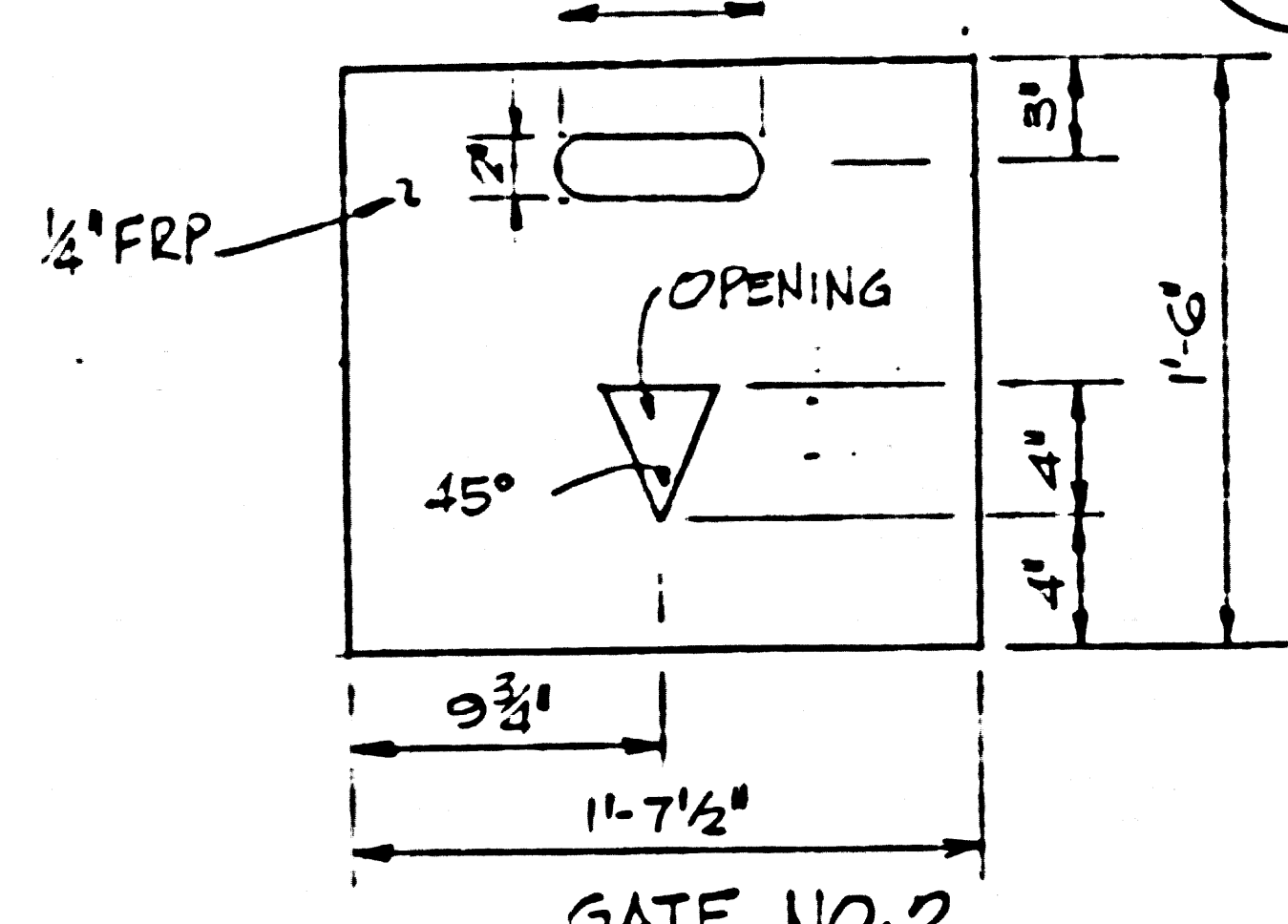
PLAN AT ELEVATION 82.00
SCALE: 3/8" = 1'-0"



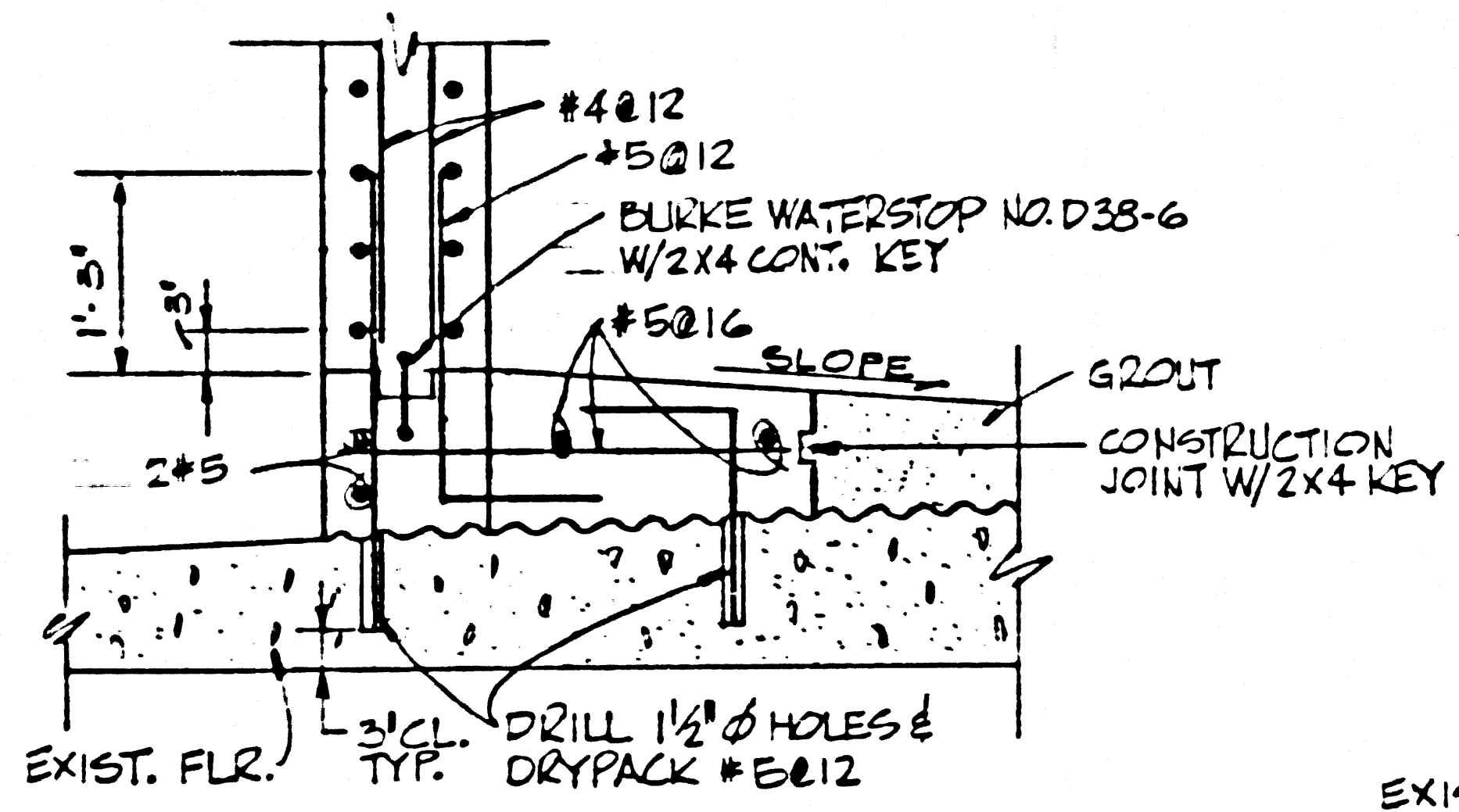
SECTION 7
SCALE: 3/8" = 1'-0"



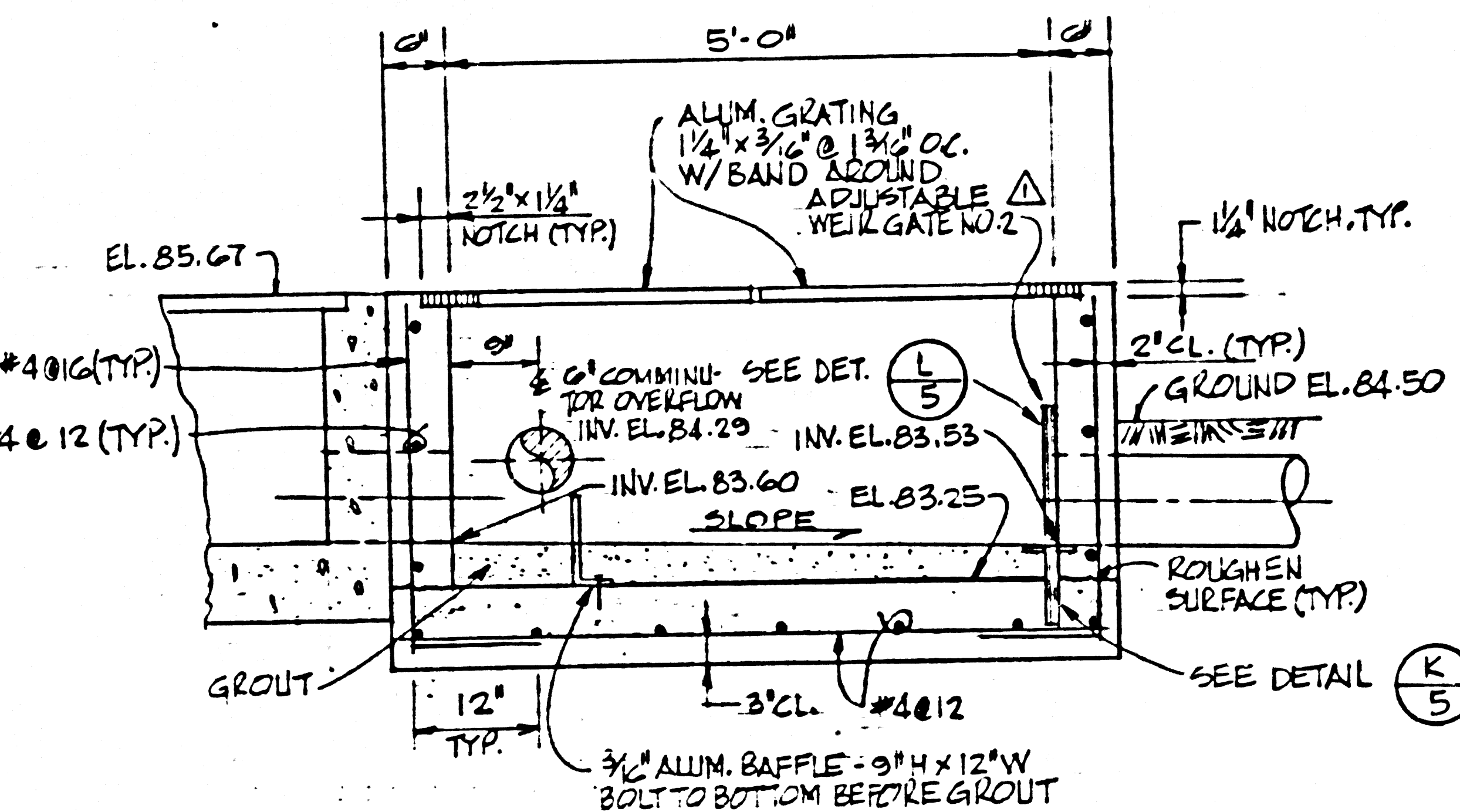
GATE NO. 1
DETAIL E
SCALE: 3/4" = 1'-0"



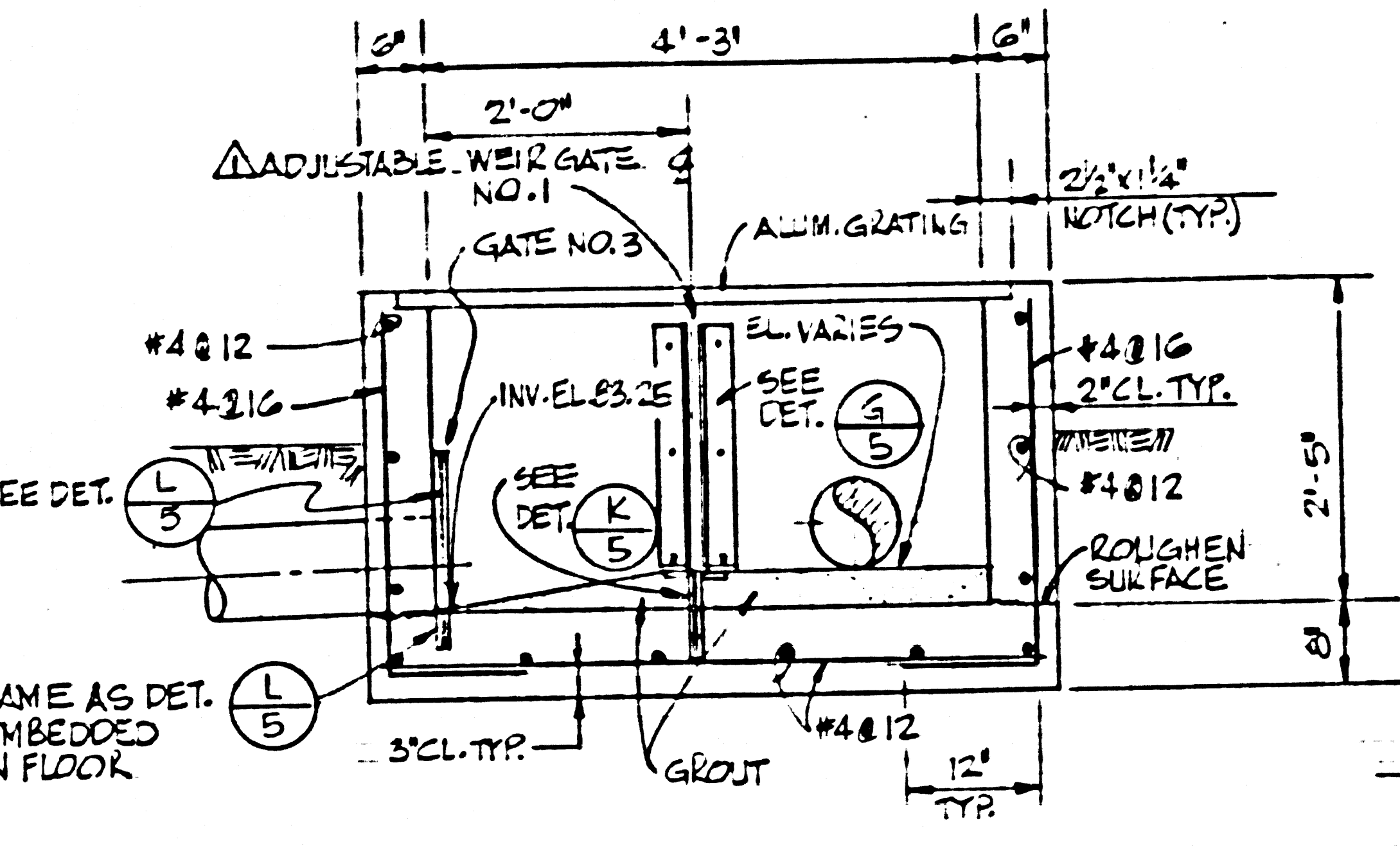
GATE NO. 2
DETAIL F
SCALE: 1/2" = 1'-0"



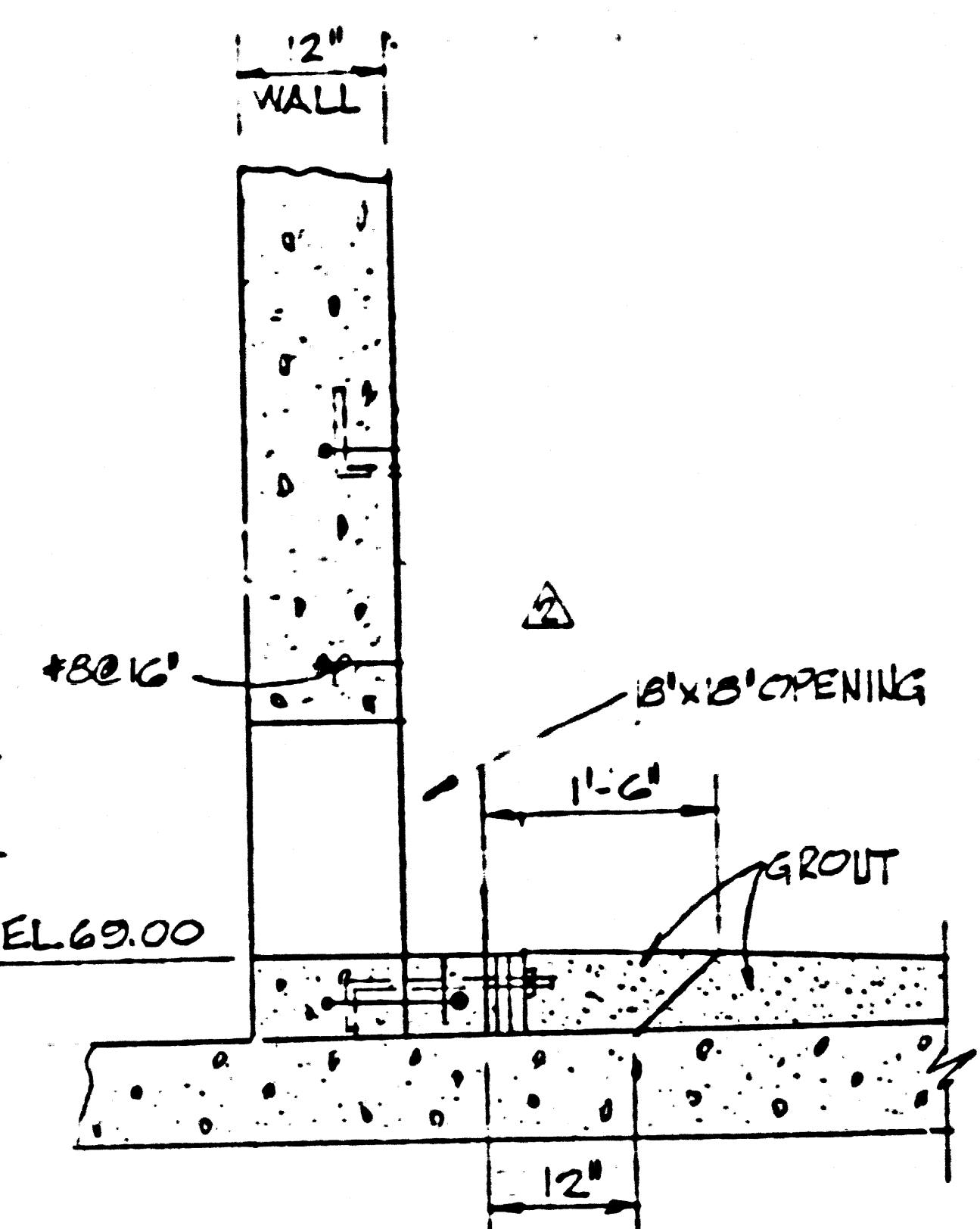
DETAIL H
SCALE: 3/4" = 1'-0"



SECTION 8
SCALE: 3/4" = 1'-0"

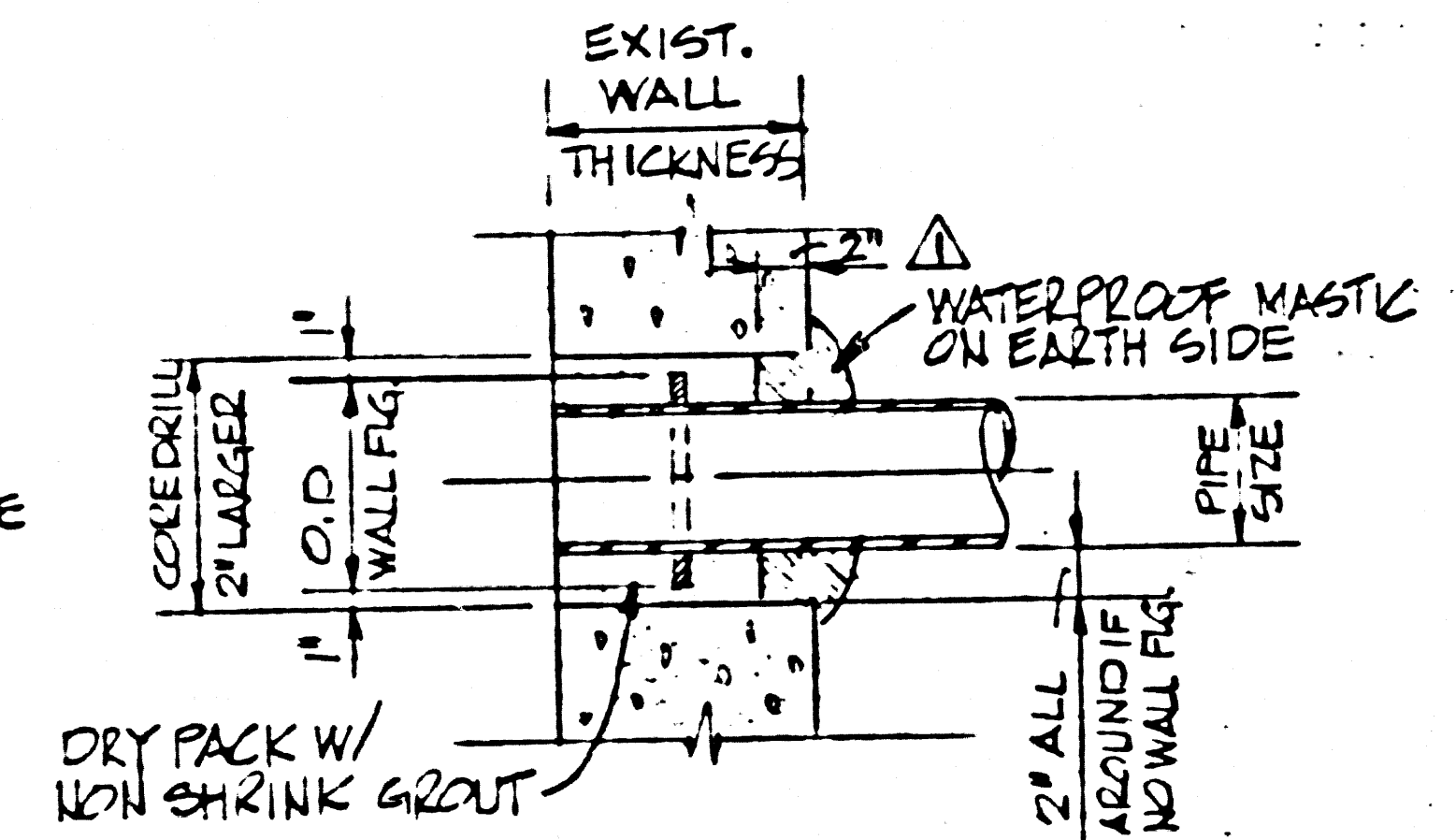


SECTION 9
SCALE: 3/4" = 1'-0"

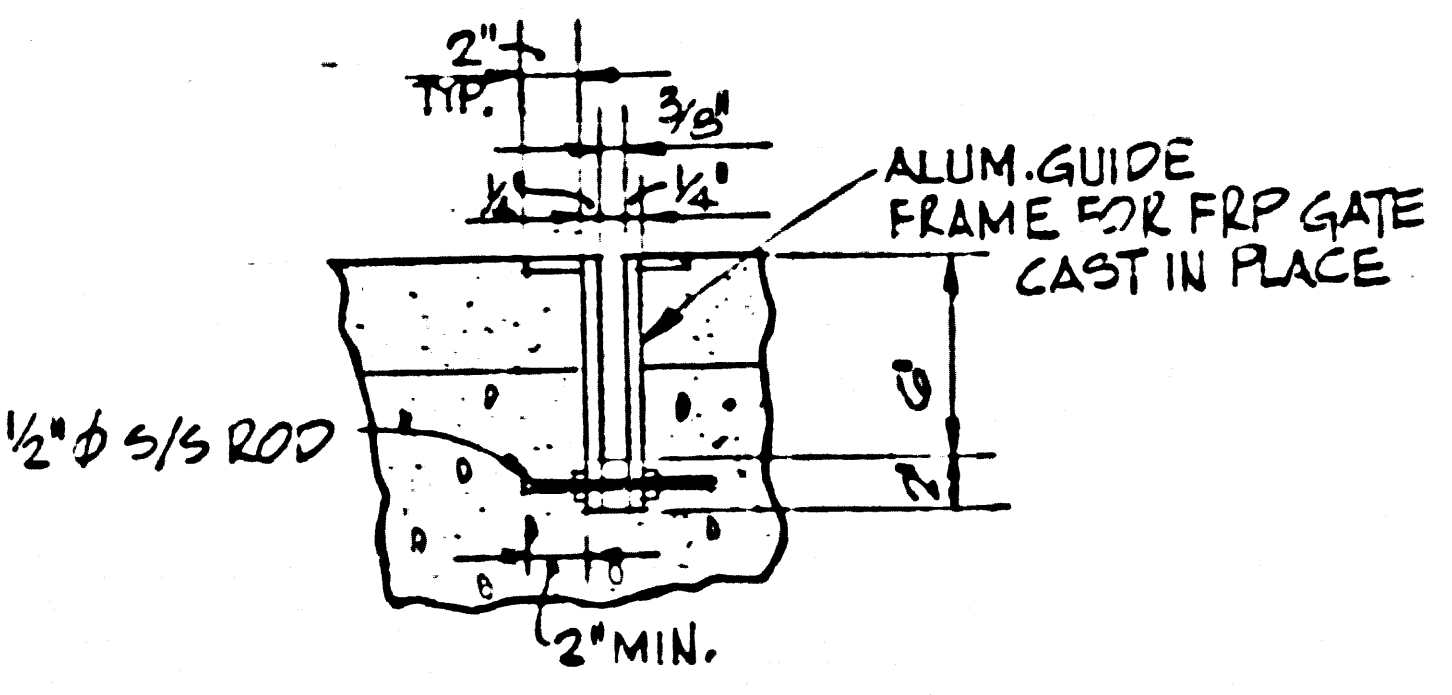


SECTION 10
SCALE: 3/4" = 1'-0"

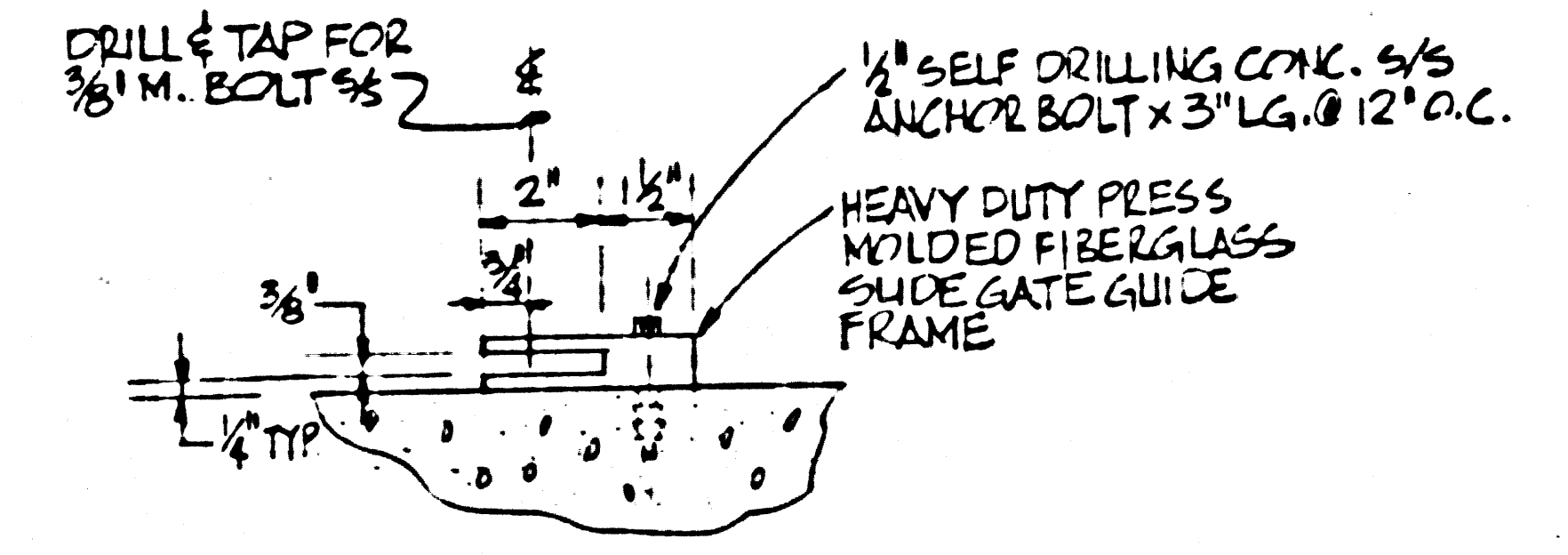
NOTE: ALL ALUM. TO BE 6061-T6 UNLESS OTHERWISE NOTED.



DETAIL J
NOT TO SCALE



DETAIL K
NOT TO SCALE



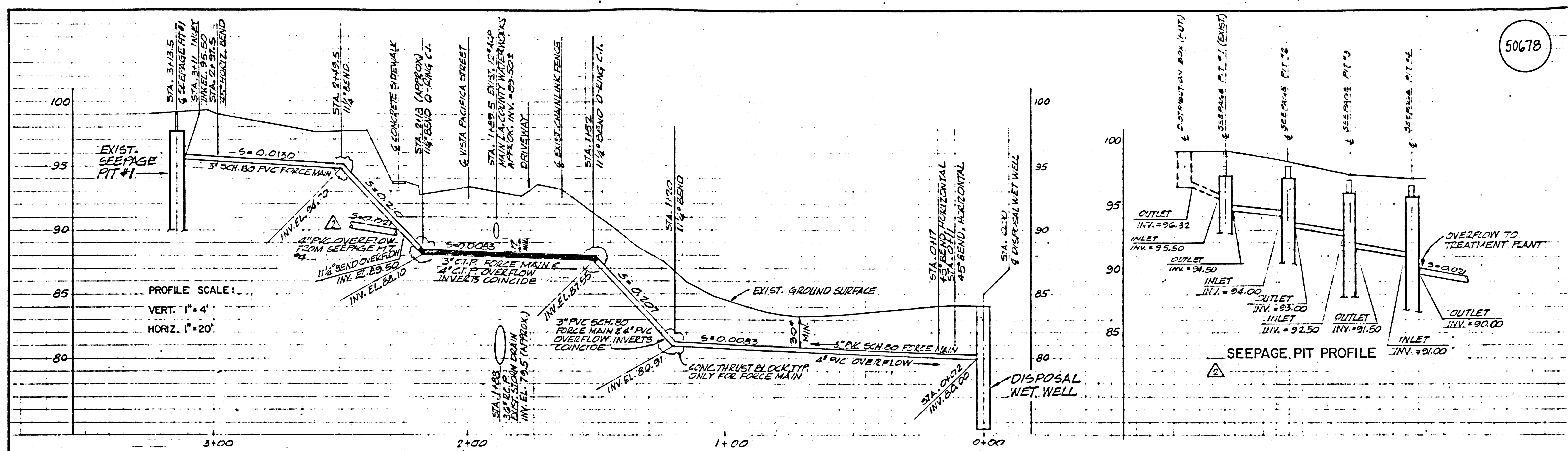
DETAIL L
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PC9901-B-5



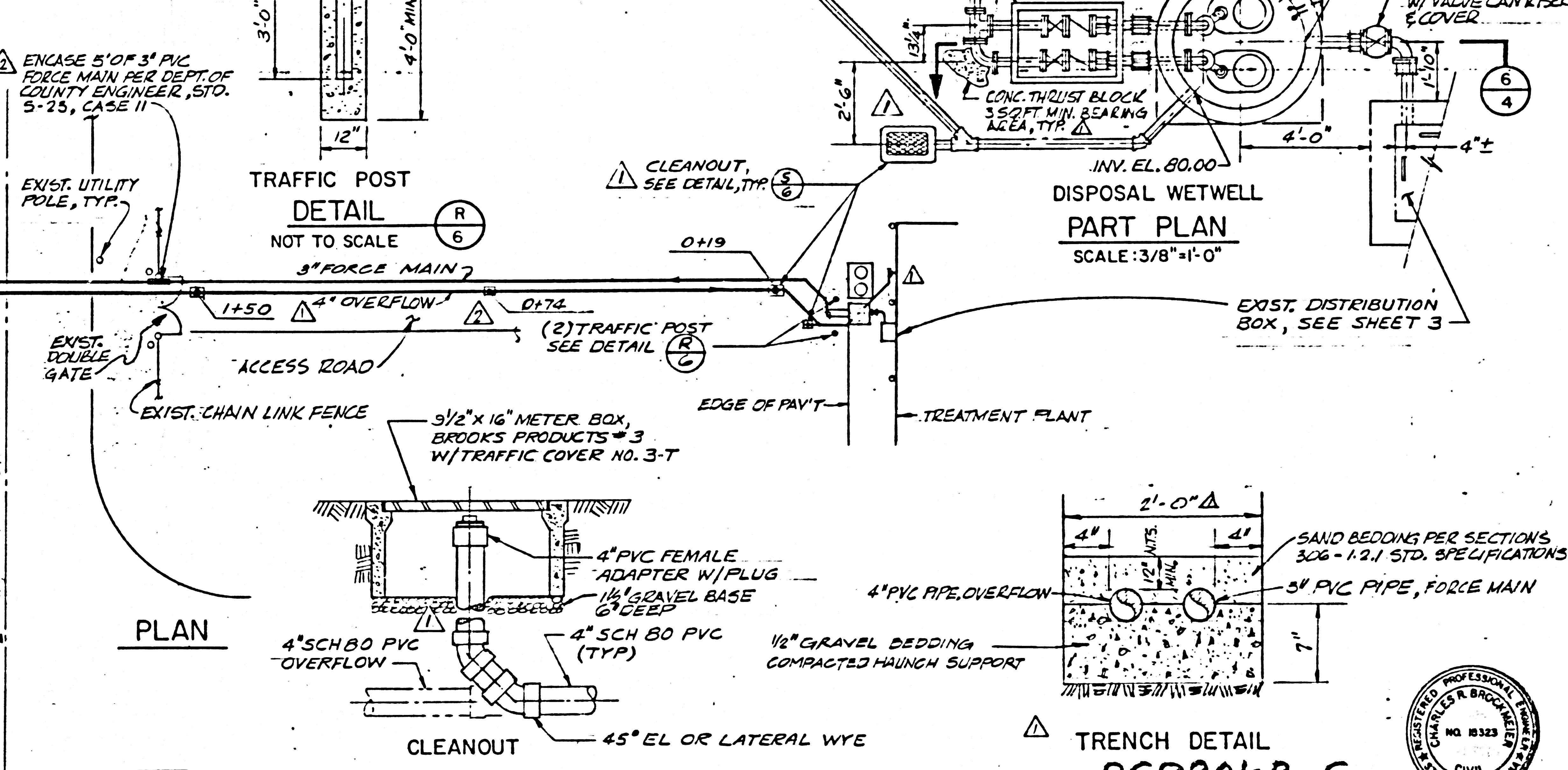
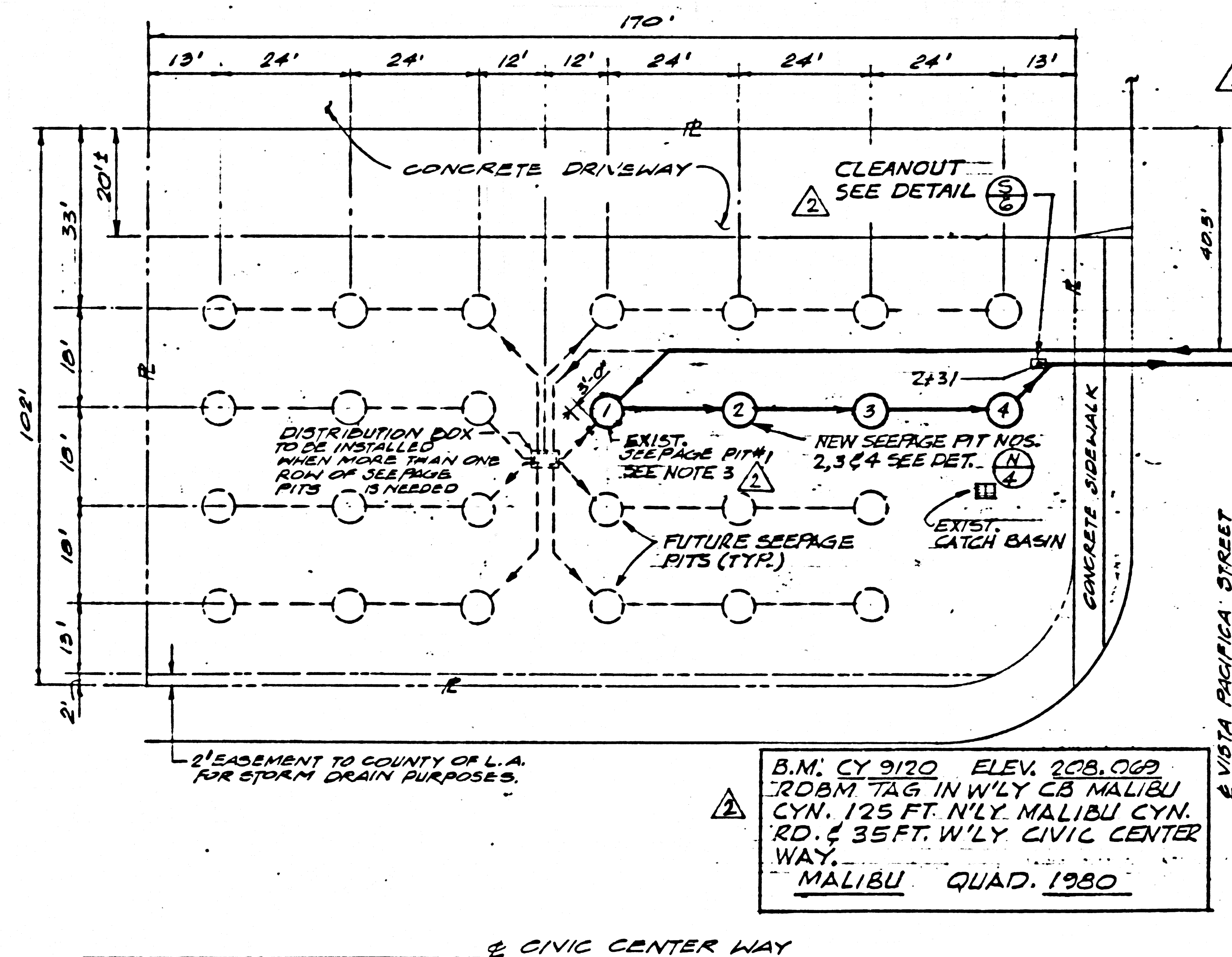
DESIGNED BEI	SUBMITTED	DATE	APPROVED	DATE	MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS	STRUCTURAL SECTIONS AND DETAILS	SCALE AS SHOWN JOB NO. 165.1 DATE 1-2-81	SHEET NO. 5 OF 7 SHEETS	DRAWING NO.
DRAWN CS	APPROVED	DATE 1-7-81	FOR	DATE					
CHECKED CRB	APPROVED	DATE 1-8-81	FOR	DATE					

B BROCKMEIER CONSULTING ENGINEERS, INC. P.O. BOX 1819, SANTA MONICA, CA. 90406



- NOTES:**
1. STATIONS GIVEN ARE FOR PVC FORCE MAIN
 2. WATER MAIN UNDERCROSSING AT STA. 1+30.5 SHALL BE PER DEPT. OF COUNTY ENGINEER WATERWORKS DIVISION STD. S-C1. CONTRACTOR TO FIELD VERIFY MAIN LOCATION.
 3. CONTRACTOR TO INSTALL 4" INLET PIPE AT INV. EL. 95.50 AT EXIST. SEEPAGE PIT #1 FROM DIRECTION OF FUTURE DISTRIBUTION BOX. THE INLET PIPE SHALL BE SCH. 40 ABS W/TEMP. CAP, EXTENDING TO 3'-0" FROM OUTSIDE OF PIT, 11/31-D" MIN. DEPTH, AT EXIST. SEEPAGE PIT #1. CONTRACTOR TO ALSO INSTALL 12" BROOKS BOX, 3 RT SERIES W/EXTENSION & C.I. COVER TO BE BOLTED DOWN. BOX TO BE CONCRETE ENCASED & FLUSH W/GROUND SURFACE.

SCALE: 1" = 20'



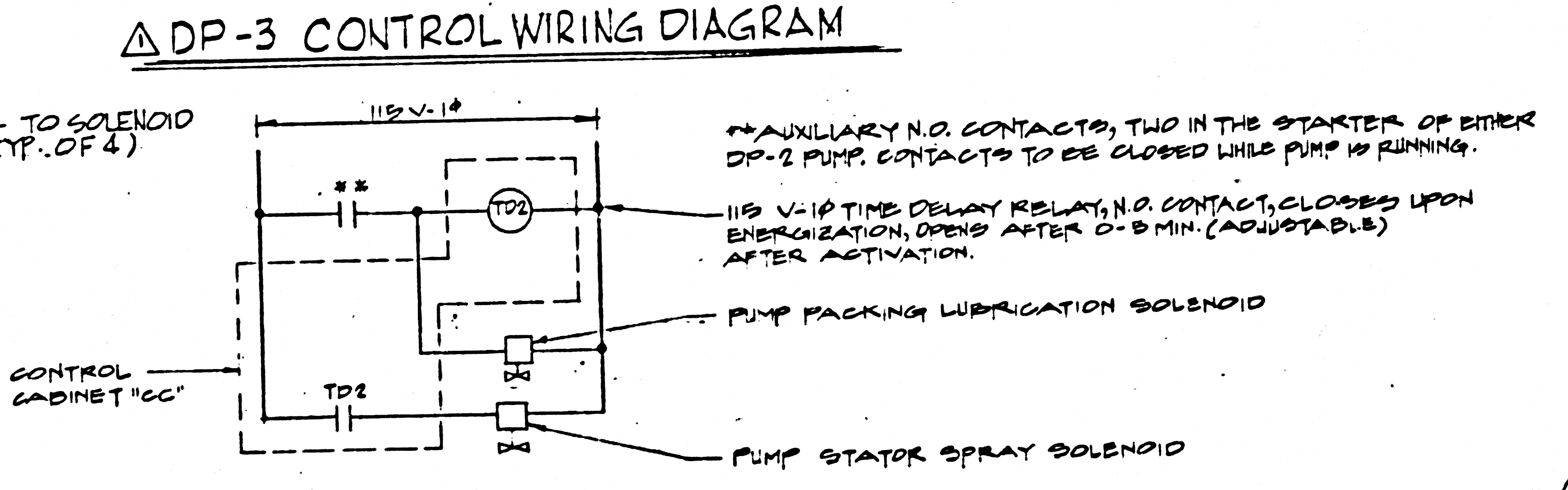
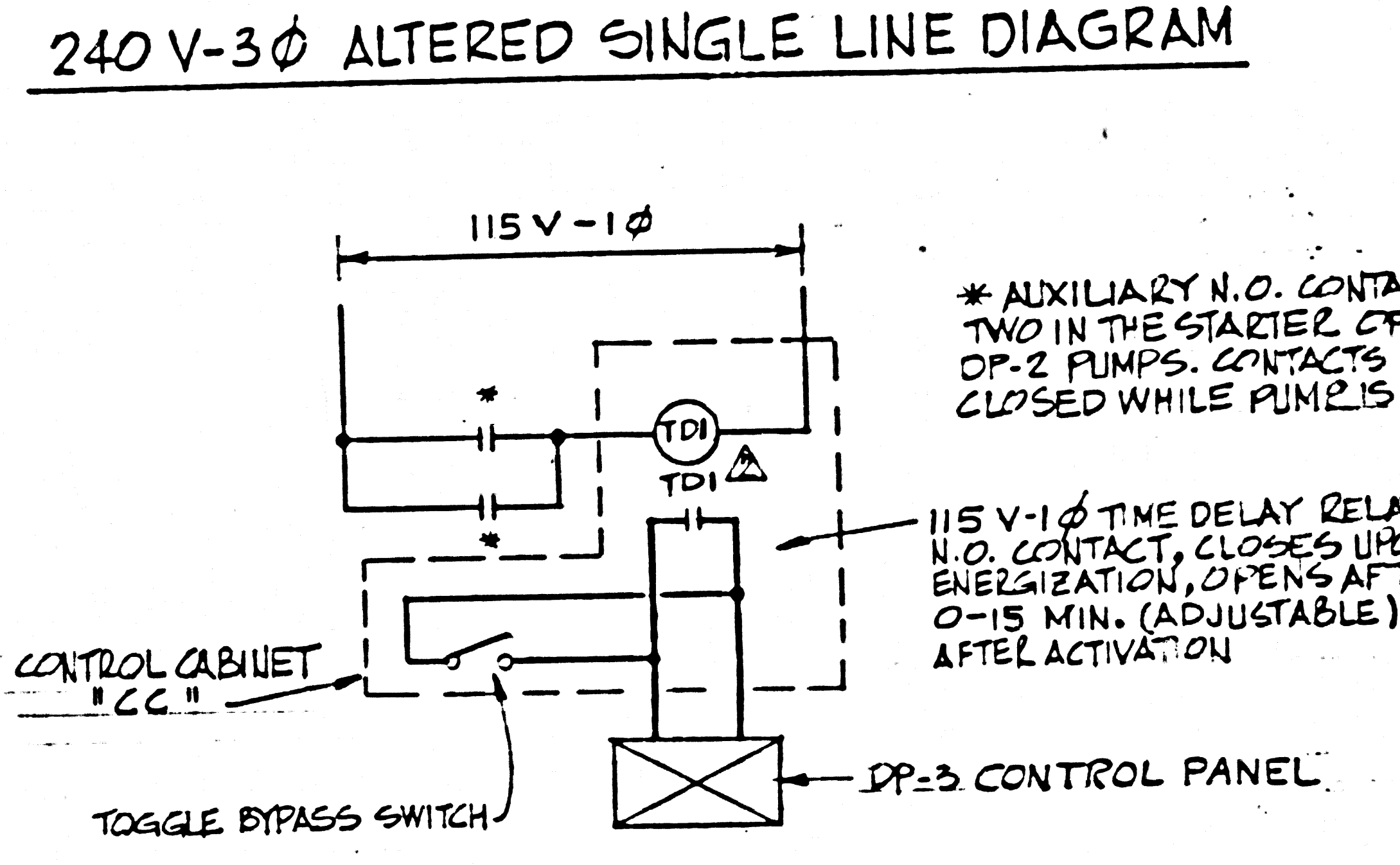
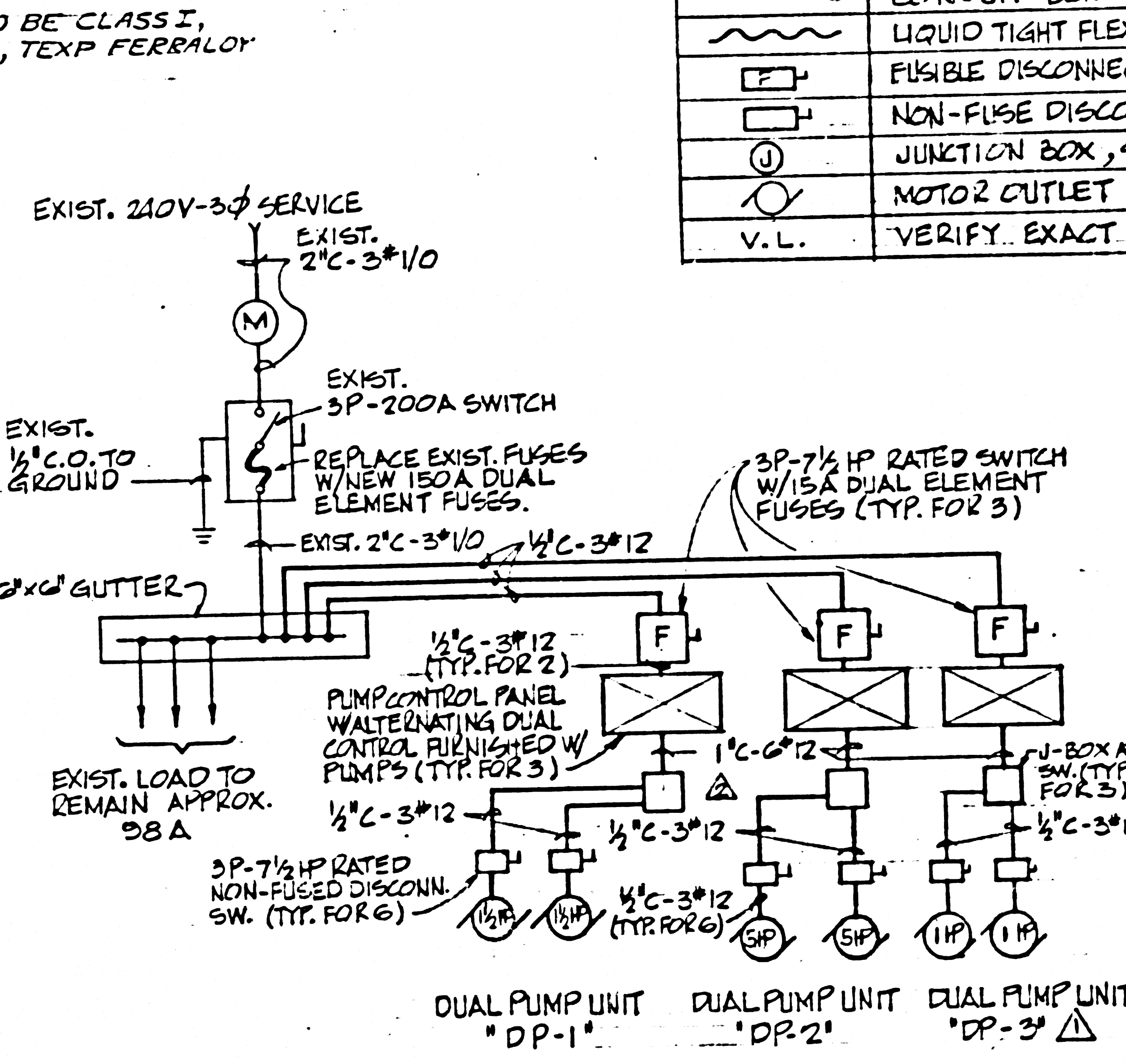
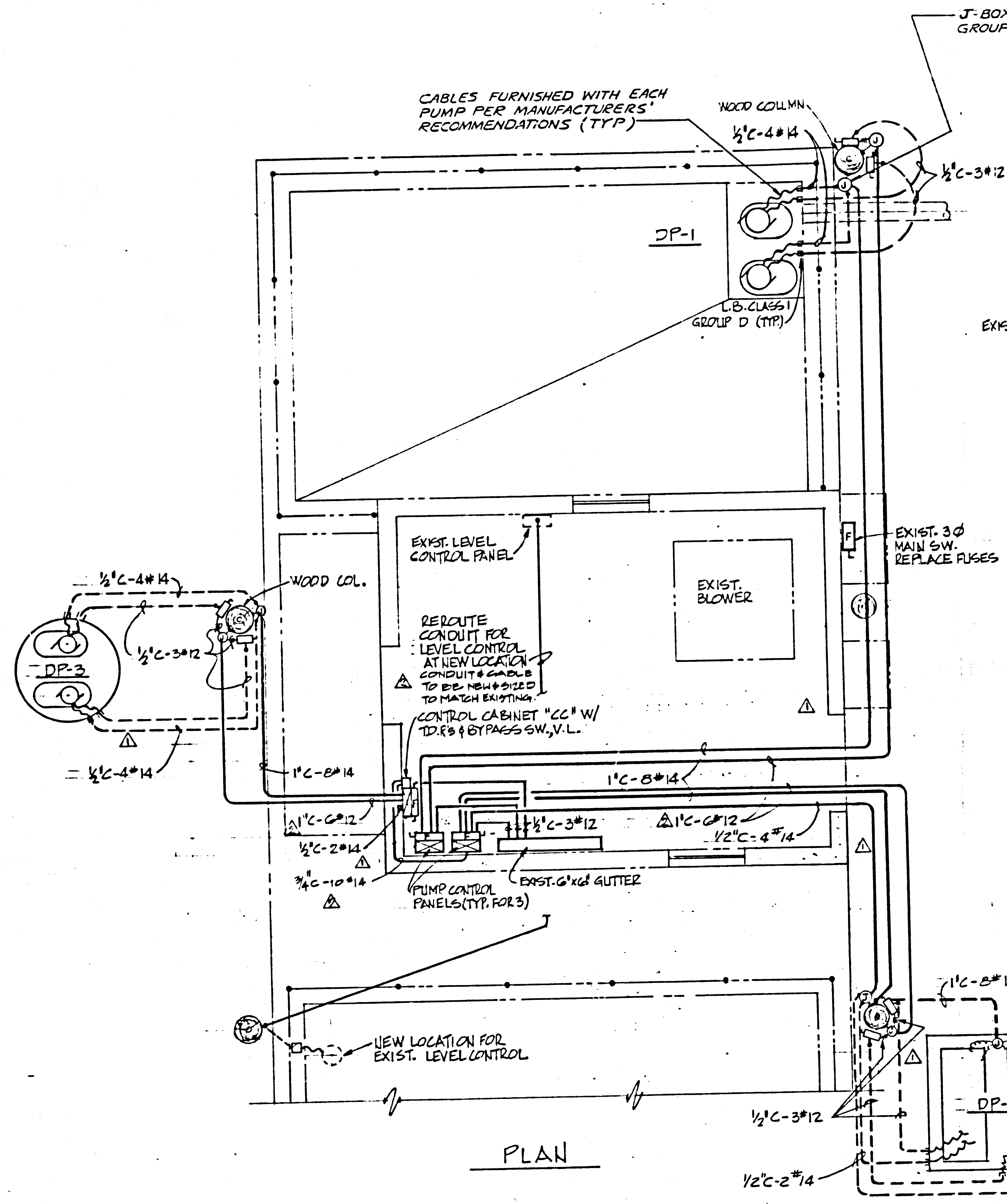
DESIGNED	GLJ	SUBMITTED	3-17-81		APPROVED		MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS	PLAN AND PROFILE OF FORCE MAIN, OVERFLOW AND SEEPAGE PIT ARRANGEMENT	SCALE	AS SHOWN	SHEET NO.	6	DRAWING NO.	
DRAWN	DAD	APPROVED			FOR				JOB NO.	165.1	DATE	3-15-81	OF 7 SHTS	
CHECKED	CRB	APPROVED	3-17-81		FOR									



LEGEND	
SYMBOL	DESCRIPTION
—	CONDUIT RUN ABOVE GRADE EXPOSED OR IN CEILING SPACE
- - -	CONDUIT RUN BELOW GRADE OR IN SLAB
○	CONDUIT BENDS UP
●	CONDUIT BENDS DOWN
~	LIQUID TIGHT FLEXIBLE CONDUIT
⊞	FUSIBLE DISCONNECT SWITCH
⊞	NON-FUSE DISCONNECT SWITCH V.L.
⊞	JUNCTION BOX, SIZE AS REQUIRED PER CODE V.L.
⊞	MOTOR OUTLET
V.L.	VERIFY EXACT LOCATION

50679

- NOTES:
1. ALL CONDUIT, WIRES, J-BOX, DEVICES & ETC SHOWN ARE NEW UNLESS OTHERWISE NOTED.
 2. ALL ELECTRICAL INSTALLATIONS SHALL BE PER NATIONAL ELECTRICAL CODE AND LOCAL CODE.
 3. ALL ELECTRICAL DEVICES EXPOSED TO WEATHER SHALL BE OF "WEATHER PROOF" TYPE.
 4. THE GENERAL CONTRACTOR SHALL VISIT THE SITE & THOROUGHLY FAMILIARIZE HIMSELF WITH THE CONDITIONS PRIOR TO SUBMITTING HIS BID. THE OWNER IS NOT LIABLE FOR ANY OMISSION AS A RESULT OF THE CONTRACTOR'S FAILURE TO MAKE A THOROUGH INVESTIGATION FOR A COMPLETE AND OPERATIONAL INSTALLATION.
 5. PROVIDE ADDITIONAL #14 GREEN EQUIPMENT GROUND CONDUCTORS TO BRANCH CIRCUITS.
 6. PUMP CONTROLS SHALL BE PUMP MANUFACTURER'S STANDARD CONTROL SYSTEM, AS DESCRIBED IN SPECIFICATIONS.
 7. WIRES SHALL NOT BE SPICED BETWEEN THE PUMP MOTORS AND THE CONTROL PANELS.
 8. ELECTRICAL EQUIPMENT SHALL BE APPROVED FOR THE CLASS I GROUP D CONDITIONS TO BE ENCOUNTERED. PROVIDE SWITCHES, PANELS, FITTINGS & CONDUIT SEAL OFFS AS REQUIRED BY NEC ARTICLES E00 & E01.



MARK	DATE	APP'D	REVISIONS	DESIGNED	ALL	SUBMITTED	DATE
1	4-6-81	CRB	ADD DP-2 DIAGRAM	CS	APPROVED	DATE	1-7-81
2	5-12-81	CRB	ADD DP-3 PUMPS	CRB	APPROVED	DATE	1-8-81

B BROCKMEIER CONSULTING ENGINEERS, INC. P.O. BOX 1819, SANTA MONICA, CA. 90406

APPROVED	DATE
FOR	DATE
APPROVED	DATE
FOR	DATE

MALIBU WASTEWATER RECLAMATION PLANT MODIFICATIONS

ELECTRICAL AND CONTROL DIAGRAMS

SCALE	AS SHOWN	SHEET NO.	7	DRAWING NO.
JOB NO.	165.1	OF 7 SHEETS		
DATE	1-6-81			

