20 X 28 B

SANTA CATALINA ISLAND CO.

LOS ANGELES COUNTY, CALIFORNIA

CONSTRUCTION PLANS
FOR
FISHERMAN'S COVE WATER RECLAMATION PLANT

41289

PRIVATE CONTRACT № 7777 x
J.N. 0368.17

INDEX

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GENERAL GRADING NOTES:

1. ALL SLOPES ARE 2:1 UNLESS OTHERWISE NOTED.
2. NO FILL IS TO BE PLACED UNTIL PREPARED GROUND IS APPROVED BY CO. INSPECTOR.
3. IN FILL AREAS THE NAT. GROUND IS TO BE STRIPPED, SCARIFIED 6" AND COMPACTED.
4. ALL FILL UNDER STRUCTURES TO BE COMPACTED TO 90% OF MAX DENSITY PER A.S.T.M. D-1557-58T (MOD. TO 3 LAYERS) ALL REMAINING FILL SHALL BE COMPACTED TO 85%
5. FOUNDATION BEARING VALUE DESIRED IS 1500 LBS/FT²
6. ALL SLOPES ARE SUBJECT TO CO. INSPECTOR APPROVAL
7. ALL FILL TO BE PLACED AND COMPACTED IN 8" MAX LAYERS.
8. ALL CUT AND FILL SLOPES ARE TO BE PLANTED ACCORDING TO APPROVED CO. LIST. (MUSTARD- SOW PER SUPPLIERS REC.)
9. ONE SOIL TEST SHALL BE MADE FOR EACH 2' OF FILL BUT NOT LESS THAN ONE TEST PER 500 CU. YDS.
10. FILL SHALL BE ON-SITE TOPSOIL FREE FROM ORGANIC MATERIAL OR ROCK GREATER THAN 8" IN DIAMETER.

THE UNDERSIGNED CIVIL ENGINEER CERTIFIES THE ABOVE WORK WILL BE SUPERVISED IN ACCORDANCE WITH SEC. 7014 OF THE CO. BLDG. CODE.

L. Hintelman 11-28-66
CE 11038 DATE

PERMITS:

THE CONTRACTOR (OR OWNER) SHALL OBTAIN THE FOLLOWING PERMITS AND PAY THE REQUIRED FEES BEFORE STARTING CONSTRUCTION ON ANY OF THE PHASES OF WORK LISTED BELOW.

1 CONSTRUCTION AND OPERATING PERMITS:
L.A. COUNTY AIR POLLUTION CONTROL DISTRICT
434 S. SAN PEDRO ST.
LOS ANGELES 13, CALIF.

2. CONSTRUCTION PERMIT:
L.A. COUNTY ENGINEER
SANITATION DIVISION
108 W. 2nd ST. RM. 509
LOS ANGELES 12 CALIF.

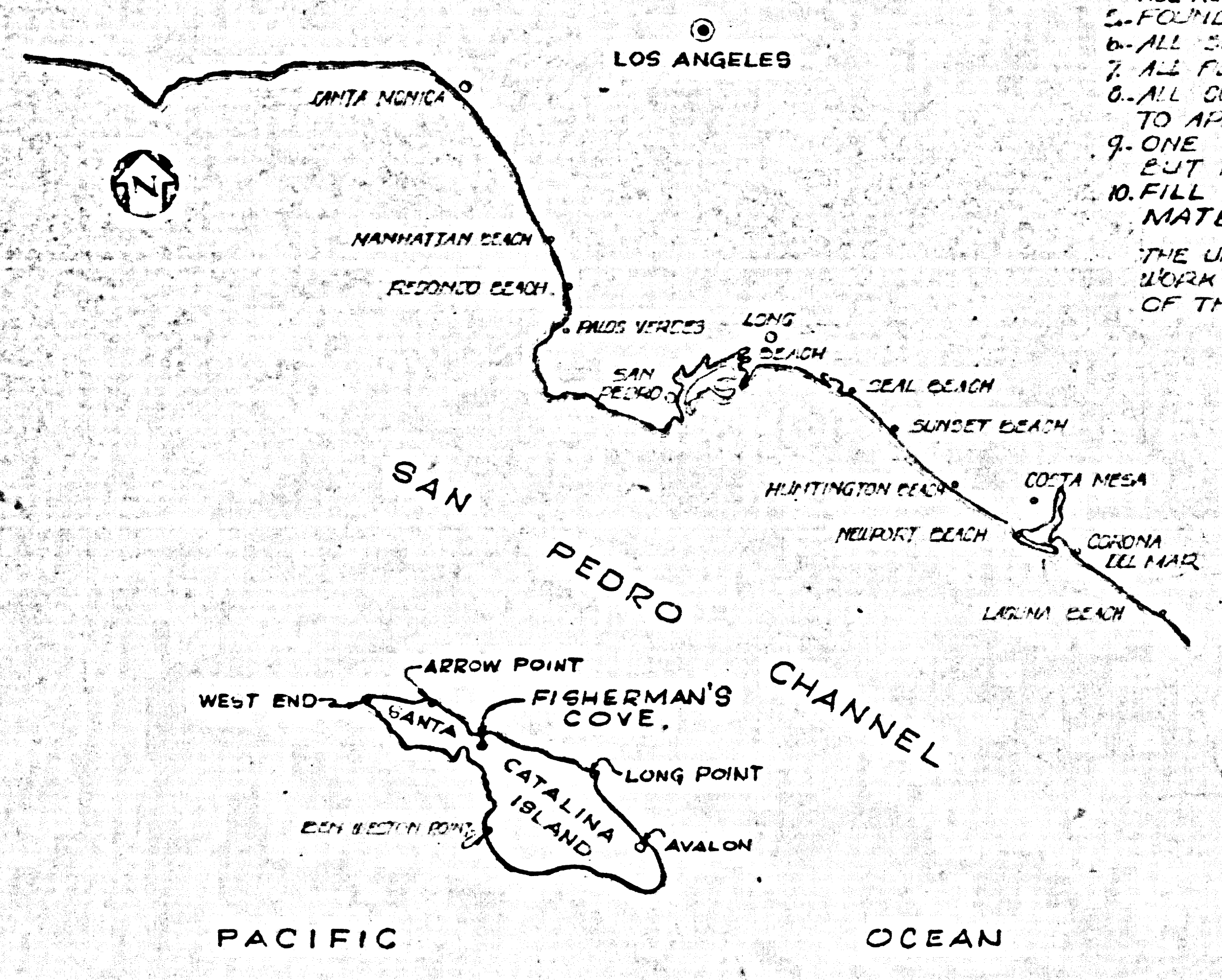
3. GRADING PERMIT
4. ELECTRICAL PERMIT
~~5. BUILDING PERMIT~~
~~6. PLUMBING PERMIT~~
} L.A. COUNTY ENGINEER
108 W. 2ND ST.
LOS ANGELES
CALIFORNIA

NOTE:

THIS PLANT SHALL NOT BE USED TO SERVE A SUBDIVISION OR ANY FACILITIES OTHER THAN THE MARINE BIOLOGICAL LABORATORY AND RELATED FACILITIES UNTIL ARRANGEMENTS TO GUARANTEE PERPETUITY OF SERVICE HAVE BEEN APPROVED BY THE HEALTH OFFICER AND COUNTY ENGINEER.

DESIGN DATA

POPULATION	PLANT CAPACITY
450	15,000 gpd



VICINITY MAP

HORIZONTAL CONTROL FOR ALL WORK SHOWN ON THE DRAWINGS IS BASED ON THE CALIF. GRID SYSTEM, ZONE 6 THROUGH THE MEDIUM OF U.S.C. & G.S. STATIONS.

VERTICAL CONTROL IS BASED ON MEAN SEA LEVEL DATUM OF 1929.
BENCH MARK: U.S.C. & G.S. MONUMENT
"CHANNEL" COORDINATES: N. 472,983.28
E.1,320,625.26
ELEVATION: 232.60

APPROVED BY: Richard M. Cron
ASS'T. DIVISION ENGINEER

APPROVED AS TO METHOD OF SEWAGE DISPOSAL: Marshall M. Mueller 3-13-67
HEALTH OFFICER DATE

CHECKED BY: R. J. Yelenek
14390 3-6-67
R.C.E. NO. DATE

DRAWING NO.	CROSS REFERENCES	No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT	No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT
		△									△								
		△									△1	3-14-67	ISSUED FOR CONSTRUCTION					ma	
		△									△0	11/28/66	ISSUED FOR BLDG. PERMIT	RA/DJ	JTT		JTT	ma	

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

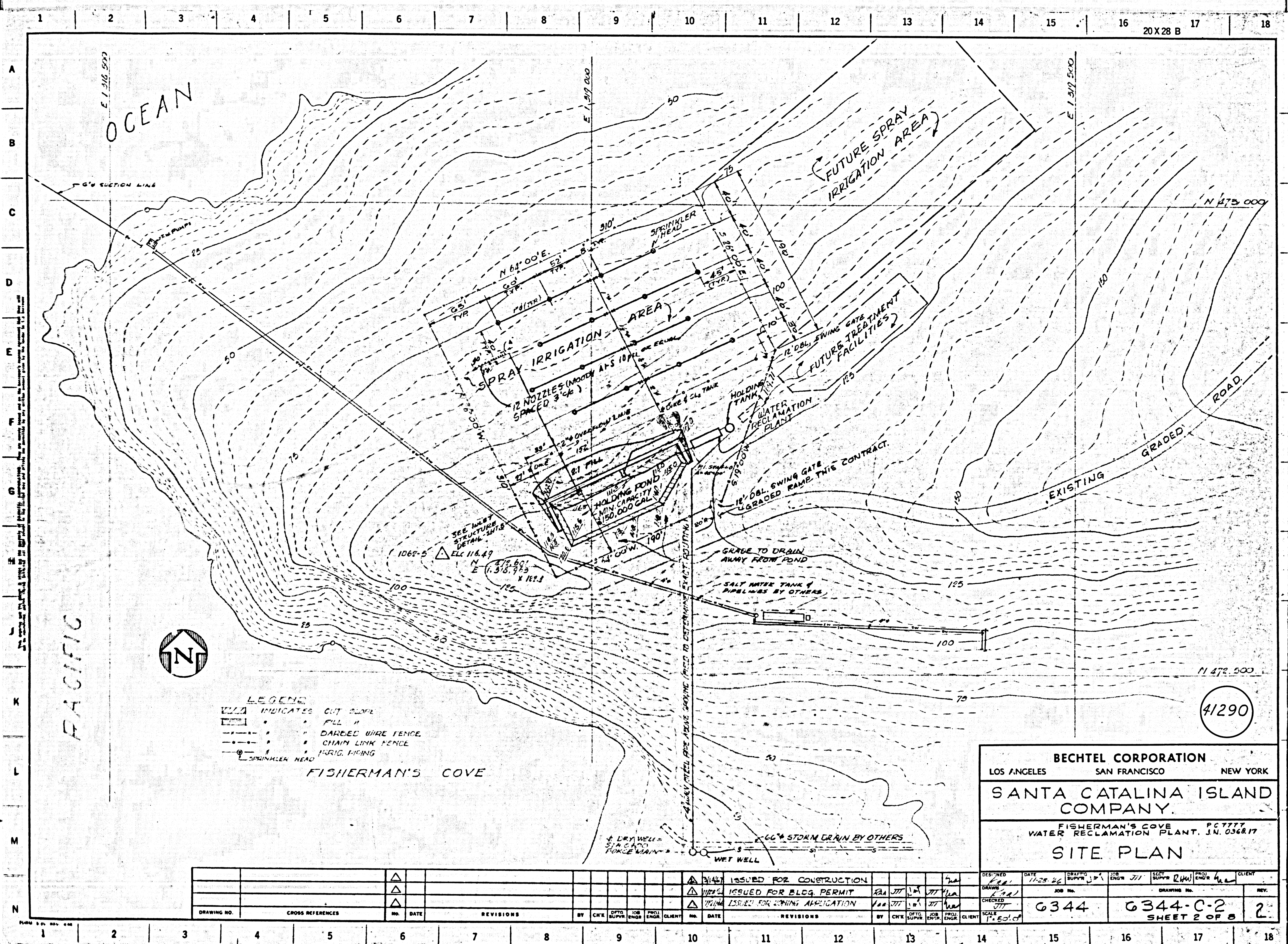
SANTA CATALINA ISLAND COMPANY.

FISHERMAN'S COVE WATER RECLAMATION PLANT. P.C. 7777 J.N. 0368.17

INDEX & VICINITY MAP

DESIGNED LAA	DATE 11-23-66	DRAFT'G SUPV'R	JOB ENG'R JTT	SECT SUPV'R RHW	PROJ ENG'R ma	CLIENT
DRAWN RAA	JOB No.		DRAWING No.			REV.
CHECKED JTT	6344		6344-C-1 SHEET 1 OF 8			1
SCALE AS NOTED						

FORM E-2V REV. 4-66


20 X 28 B
OCEAN
PACIFIC
FISHERMAN'S COVE
E 1,316,500
E 1,317,000
E 1,317,500
N 473,000
N 472,500
6" ϕ SUCTION LINE
50
75
100
125
150
25
FUTURE SPRAY IRRIGATION AREA
SPRAY IRRIGATION AREA
SPRINKLER HEAD
310'
N 64° 00' E.
65' TYP.
60' TYP.
52' TYP.
8' TYP.
45' (TYP.)
40'
190'
100
S 26° 00' E.
12 NOZZLES (MOODY A-S 10 PSI OR EQUAL) SPACED 3' c/c
2" ϕ OVERFLOW LINE
2:1 FILL
HOLDING POND MIN. CAPACITY 150,000 GAL.
HOLDING TANK
WATER RECLAMATION PLANT
CHLORINE & CL2 TANK
FUTURE TREATMENT FACILITIES
12' DBL. SWING GATE
12' DBL. SWING GATE & GRADED RAMP THIS CONTRACT.
GRADE TO DRAIN AWAY FROM POND
SALT WATER TANK & PIPELINES BY OTHERS
SEE INLET STRUCTURE DETAIL SHT. 5
1062-5 ELEV. 116.49
N 472,601
E 1,316,963
EXISTING GRADED ROAD
66" ϕ STORM DRAIN BY OTHERS
DRY WELL
FORCE MAIN
WET WELL
N
LEGEND
INDICATES CUT SLOPE
" " FILL "
" " BARBED WIRE FENCE
" " CHAIN LINK FENCE
" " IRRIG. PIPING
SPRINKLER HEAD
41290

DRAWING NO.	CROSS REFERENCES

NO.	DATE	REVISIONS	BY	CH'K	DFTG SUPVR	JOB ENGR	PROJ ENGR	CLIENT
△								
△								
△								

NO.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT
△	3/14/67	ISSUED FOR CONSTRUCTION					[illegible]	
△	11/28/66	ISSUED FOR BLDG. PERMIT	RAA	JTT	JP	JTT	[illegible]	
△	11/15/66	ISSUED FOR ZONING APPLICATION	RAA	JTT	JP	JTT	[illegible]	

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND COMPANY.

FISHERMAN'S COVE PC 7777
WATER RECLAMATION PLANT. J.N. 0368.17

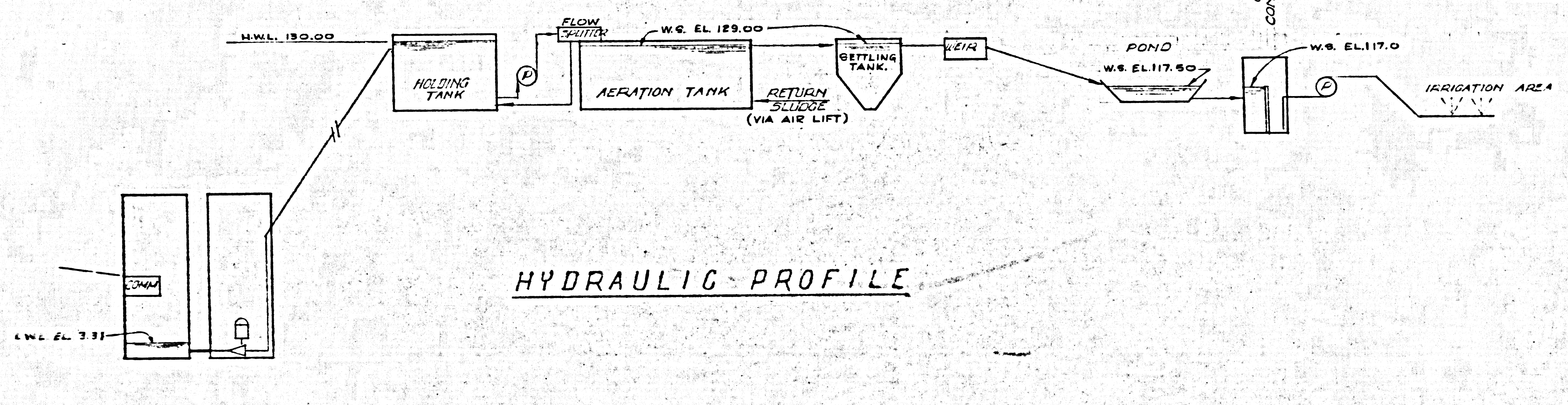
SITE PLAN

DESIGNED	DATE	DRAFT'G SUPV'R	JOB ENG'R	SECT SUPV'R	PROJ ENG'R	CLIENT
RAA	11-23-66	JP	JTT	RHW	[illegible]	

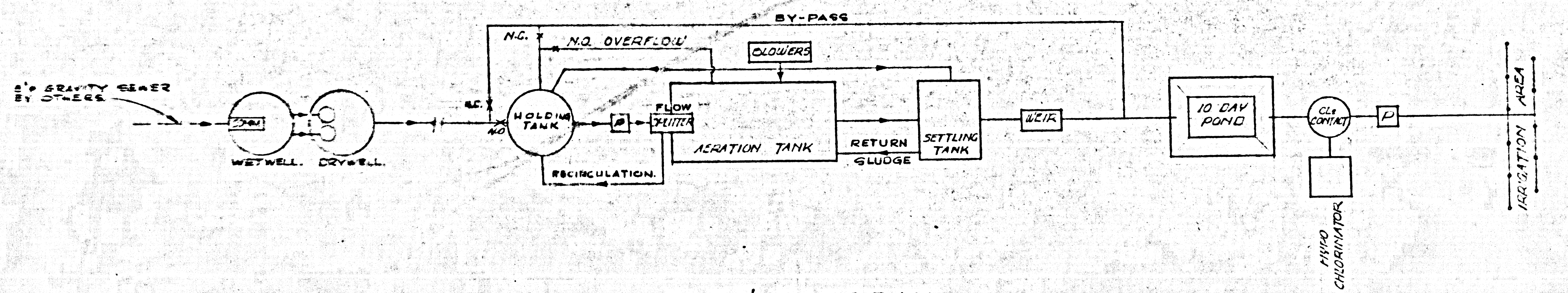
	JOB No.	DRAWING No.	REV.
DRAWN RAA			
CHECKED JTT			
SCALE 1" = 50'-0"	6344	6344-C-2 SHEET 2 OF 8	2

20 X 28 B

41291


H.W.L. 130.00
HOLDING TANK
P
FLOW SPLITTER
W.S. EL. 129.00
AERATION TANK
RETURN SLUDGE (VIA AIR LIFT)
SETTLING TANK.
WEIR
POND
W.S. EL.117.50
CHLORINE CONTACT TANK
W.S. EL.117.0
P
IRRIGATION AREA
COMM
LWL EL 3.31

HYDRAULIC PROFILE


8"φ GRAVITY SEWER BY OTHERS
COMM
WETWELL.
DRYWELL.
N.C.
N.O.
BY-PASS
N.O. OVERFLOW
BLOWERS
HOLDING TANK
P
FLOW SPLITTER
AERATION TANK
RECIRCULATION.
RETURN SLUDGE
SETTLING TANK
WEIR
10 DAY POND
CL2 CONTACT
HYPO CHLORINATOR
P
IRRIGATION AREA

FLOW DIAGRAM

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND
COMPANY

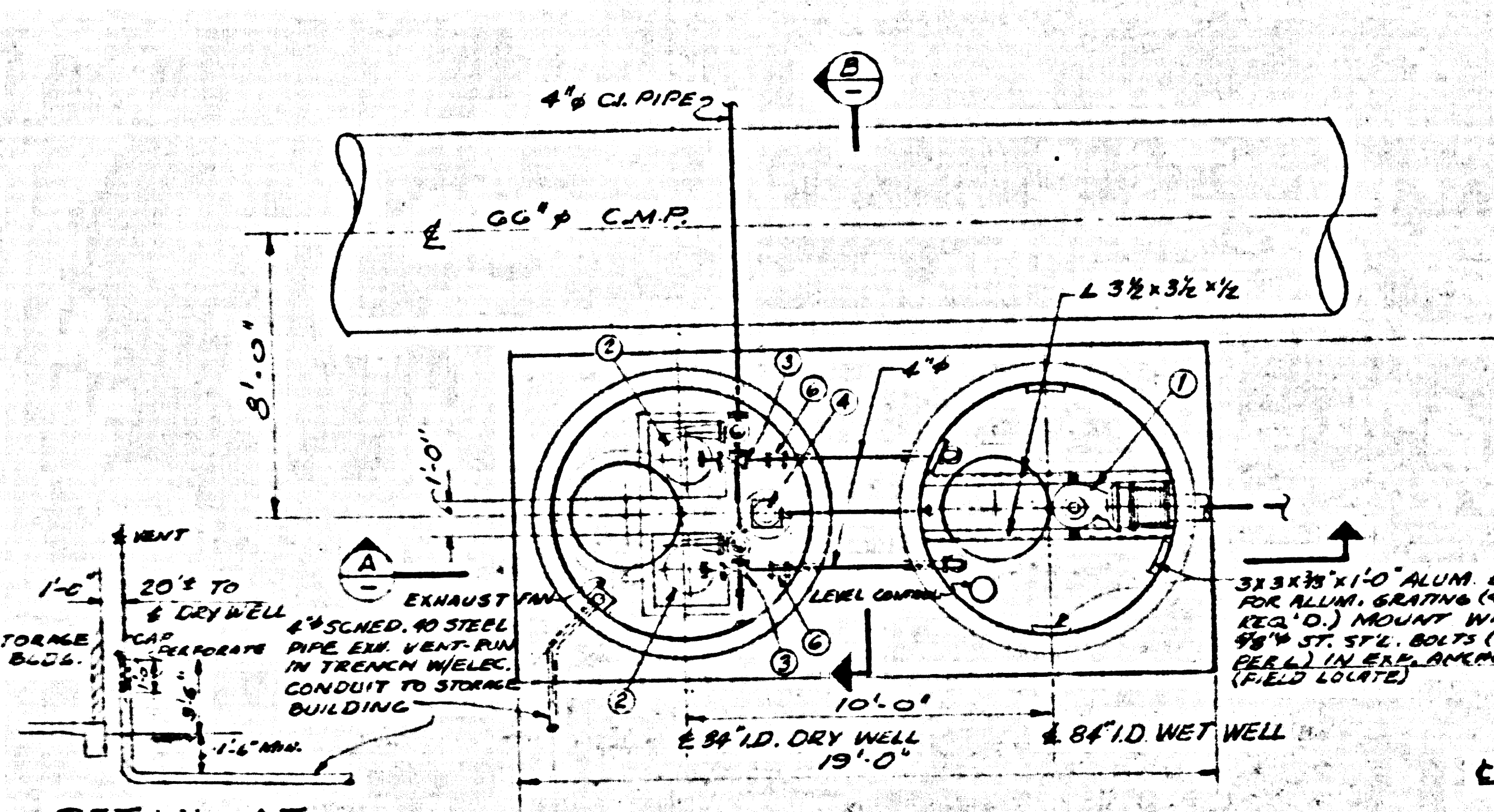
FISHERMAN'S COVE
WATER RECLAMATION PLANT.
P.C. 7777
J.N 0368.17
HYDRAULIC PROFILE &
FLOW DIAGRAM

No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT
△								
△1	3/14/67	ISSUED FOR CONSTRUCTION						
△0	11/28/66	ISSUED FOR BLDG. PERMIT	RAA	JTT		JTT		

DESIGNED JTT
DATE 11-29-66
DRAFT'G SUPV'R
JOB ENG'R JTT
SECT SUPV'R RHW
PROJ ENG'R
CLIENT
DRAWN RAA
CHECKED JTT
SCALE NONE
JOB No. 6344
DRAWING No. 6344-C-3
SHEET 3 OF 8
REV. 1

20 X 28 B

41292

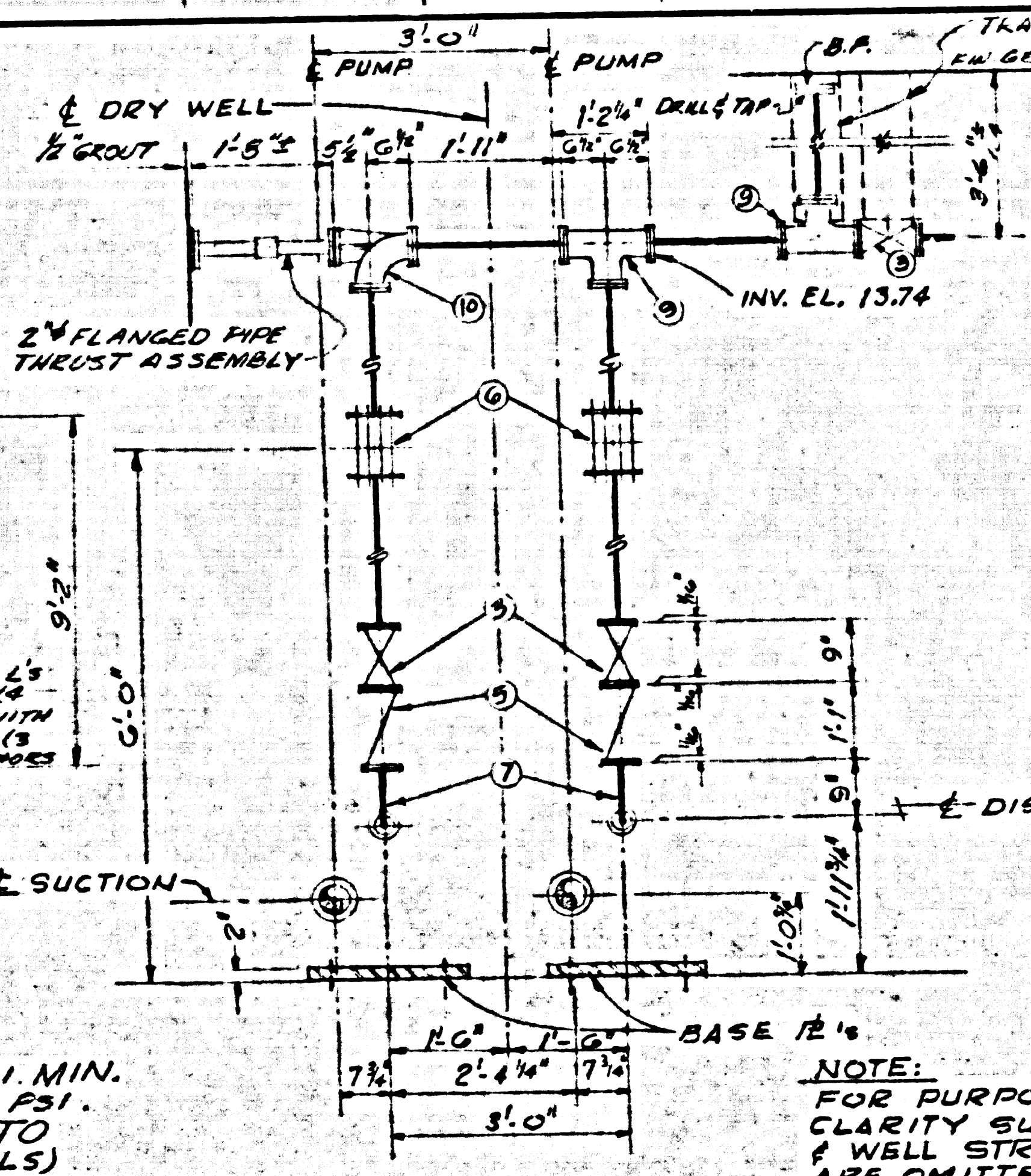


4"∅ C.I. PIPE
66"∅ C.M.P.
L 3½×3½×½
4"∅ VENT
20'± TO ℄ DRY WELL
STORAGE BLDG.
EXHAUST FAN
4"∅ SCHED. 40 STEEL PIPE, EXH. VENT PIPE IN TRENCH W/ELEC. CONDUIT TO STORAGE BUILDING
LEVEL CONTROL
3¼×3/16×1'-0" ALUM. L's FOR ALUM. GRATING (4 REQ'D.) MOUNT WITH 3/8"∅ ST. STL. BOLTS (2 REQ'D.) IN EXP. ANCHORS (FIELD LOCATE)
10'-0"
℄ 84" I.D. DRY WELL
℄ 84" I.D. WET WELL
19'-0"
8'-0"
9'-0"

DETAIL AT STORAGE BLDG.
NO SCALE

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

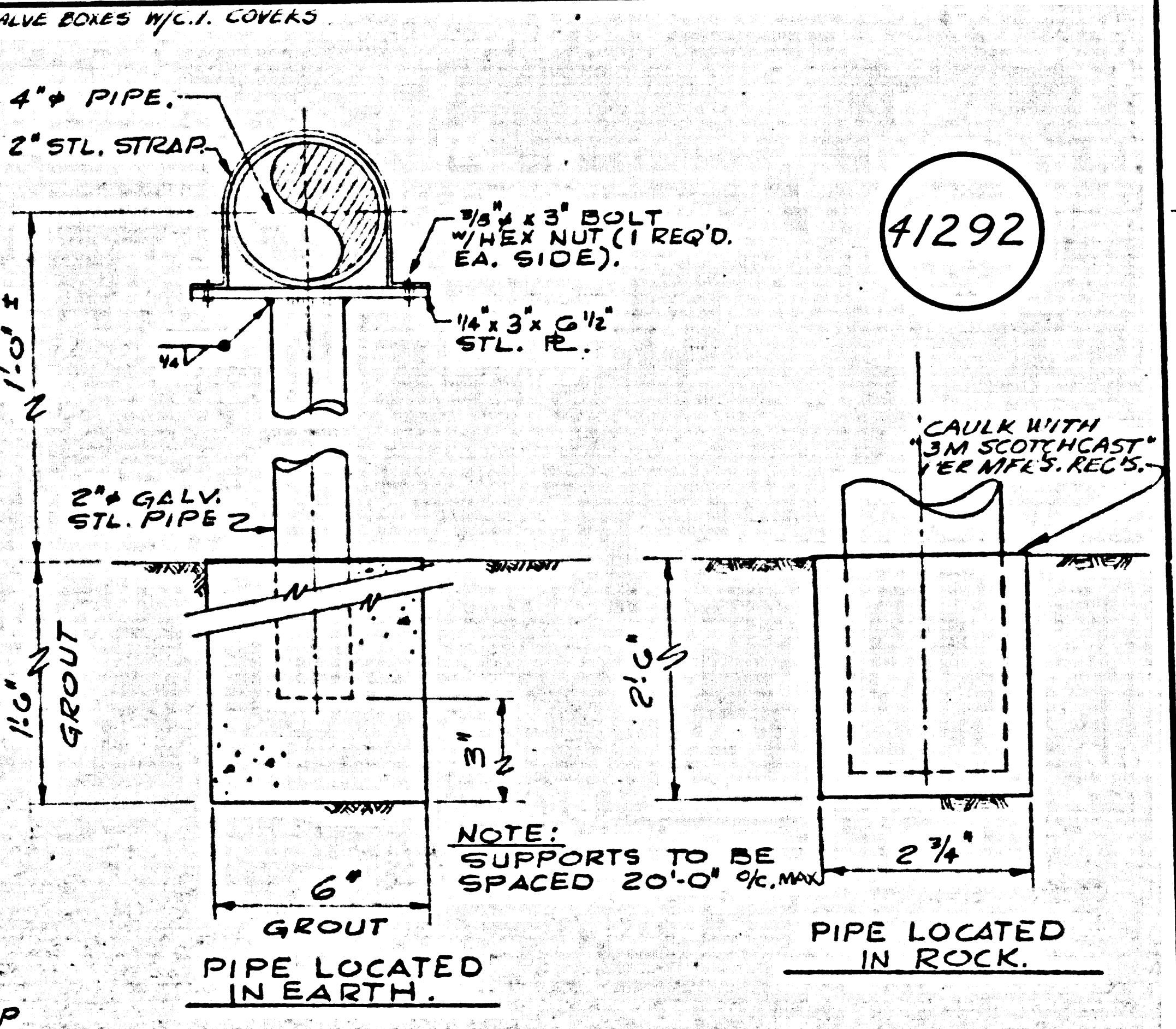
NOTES:
1. ULTIMATE STRENGTH OF CONCRETE (28 DAYS) 3000 PSI. MIN.
2. INTERMEDIATE GRADE REINFORCING BARS 20,000 PSI.
3. ALL EXTERIOR SURFACES OF WET WELL AND DRY WELL TO BE SEALED WITH POLYETHYLENE SHEETING (MIN. 6 MILS)



℄ PUMP
℄ PUMP
3'-0"
℄ DRY WELL
½ GROUT
TRAFFIC TYPE VALVE BOXES W/C.I. COVERS
2"∅ FLANGED PIPE THRUST ASSEMBLY
INV. EL. 13.74
℄ DISCHARGE
℄ SUCTION
BASE ℄'s
3'-0"

NOTE:
FOR PURPOSES OF CLARITY SUMP PUMP & WELL STRUCTURE ARE OMITTED FROM THIS SCHEMATIC.

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



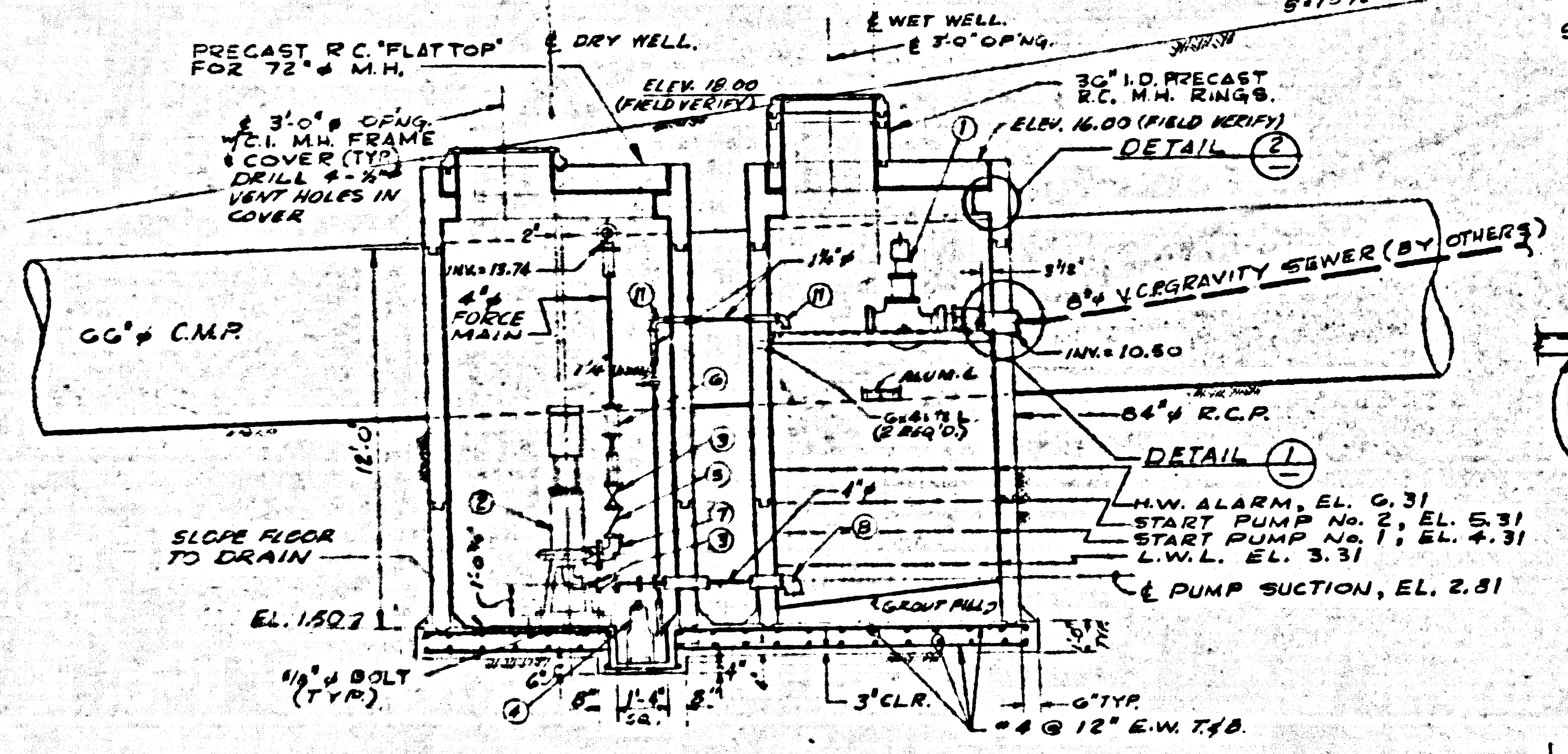
4"∅ PIPE
1/8" × 2" STL. STRAP
3/8" × 3" BOLT W/HEX NUT (1 REQ'D. EA. SIDE)
1/4" × 3" × 6½" STL. ℄
2"∅ GALV. STL. PIPE
GROUT
6"
21'-6"
CAULK WITH 3M SCOTCHCAST (OR EQUAL) VERIFY MFG. RECO.
2¾"

NOTE:
SUPPORTS TO BE SPACED 20'-0" O/C. MAX.

PIPE LOCATED IN EARTH.

PIPE LOCATED IN ROCK.

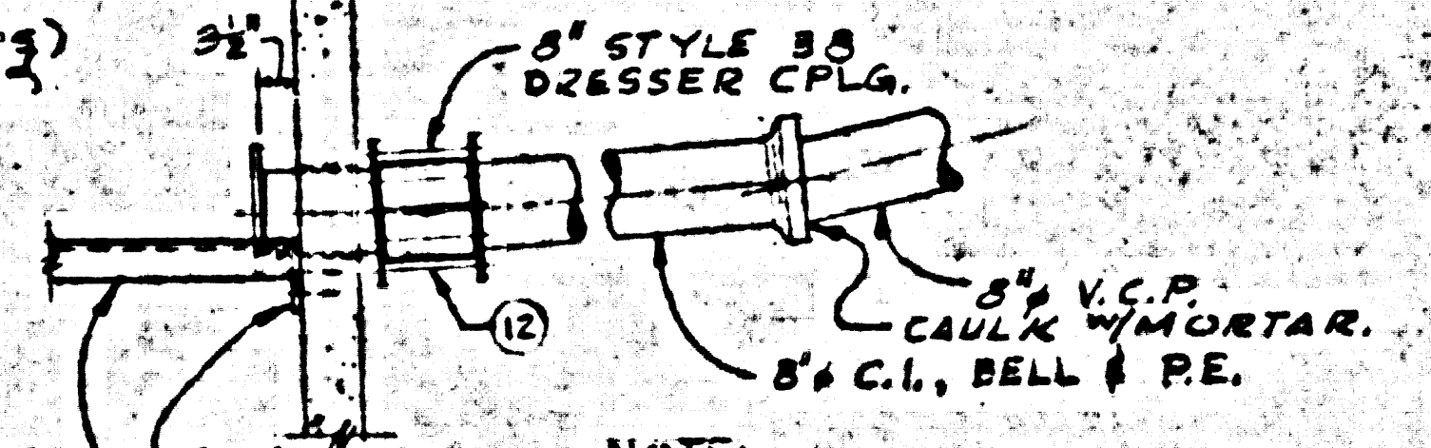
PIPE SUPPORT FOR FORCE MAIN.
(TYPICAL)



10'-0"
PRECAST R.C. "FLATTOP" FOR 72"∅ M.H.
℄ DRY WELL.
℄ WET WELL.
℄ 3'-0" OP'NG.
S = 15%
3'-0"∅ OP'NG. C.I. M.H. FRAME & COVER (TYP.) DRILL 4-¾" VENT HOLES IN COVER
ELEV. 18.00 (FIELD VERIFY)
36" I.D. PRECAST R.C. M.H. RINGS.
ELEV. 16.00 (FIELD VERIFY)
DETAIL (2)
8"∅ V.C.P. GRAVITY SEWER (BY OTHERS)
66"∅ C.M.P.
INV. = 13.74
4"∅ FORCE MAIN
INV. = 10.60
84"∅ R.C.P.
DETAIL (1)
H.W. ALARM, EL. 6.31
START PUMP No. 2, EL. 5.31
START PUMP No. 1, EL. 4.31
L.W.L. EL. 3.31
℄ PUMP SUCTION, EL. 2.81
SLOPE FLOOR TO DRAIN
EL. 1.50
5/8"∅ BOLT (TYP.)
GROUT FILL
6" TYP.
3" CLR.
#4 @ 12" E.W. T.&B.
12'-0"

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

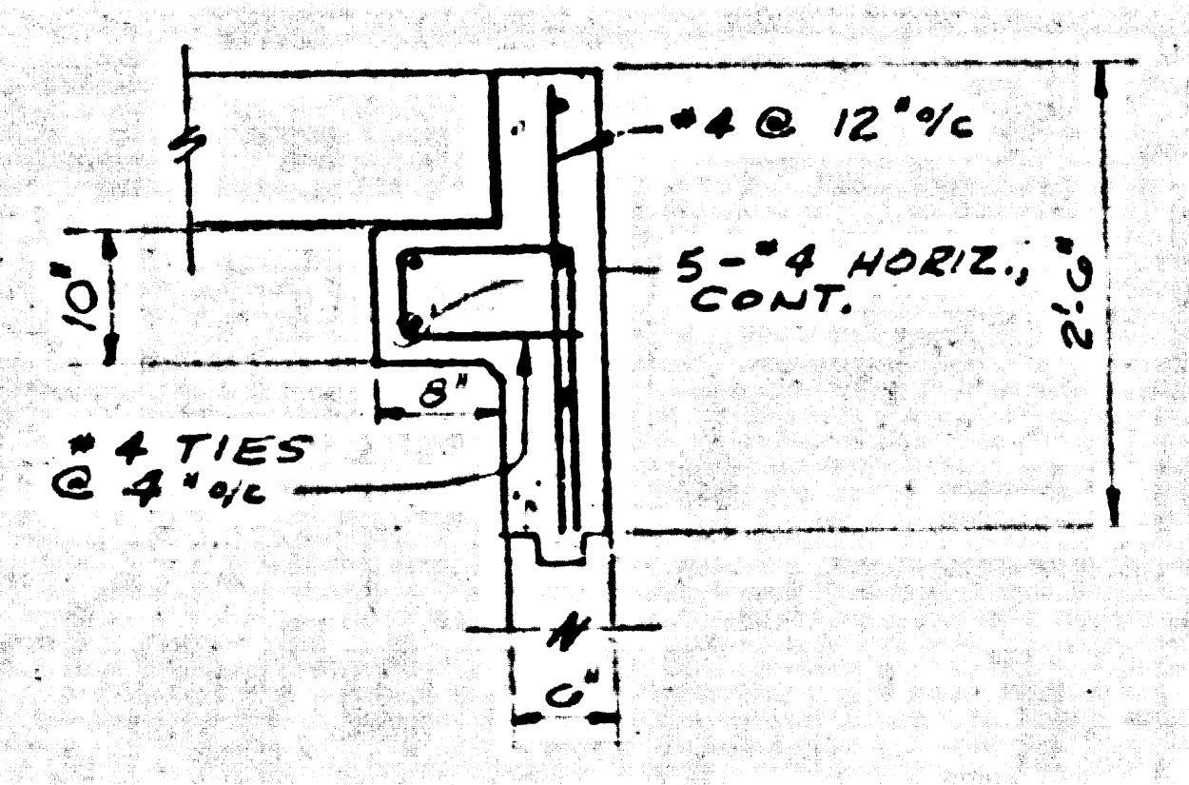
NOTES.
1. INSTALL 1-EYE-BOLT IN ¾"∅ EXP. ANCHOR OVER EACH MOTOR.
2. INSTALL ¼"∅ VENT LINES FROM PUMP VOLUTES TO WET WELL. LOCATE WITH 1¼"∅ SUMP DISCH. LINE.
3. INSTALL STANDARD ALUMINUM LADDER TO EXTEND FULL HEIGHT OF EACH STRUCTURE. FASTEN LADDER TO WALL AND BOTTOM WITH STAINLESS STEEL BOLTS IN EXPANSION ANCHORS.
4. VERIFY ALL EQUIPMENT SIZES AND LOCATIONS IN FIELD.



8" STYLE 38 DRESSER CPLG.
8"∅ V.C.P.
CAULK W/MORTAR.
8"∅ C.I., BELL & P.E.
(12)
6×4×½ L
3½×3½×½ L

NOTE:
WELD 6×4 L TO 3½×3½ L & ANCHOR TO CONC. WALL W/ 3/8"∅ × 6" LG. BOLTS (2 REQ'D. @ EA. L).

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



#4 @ 12" O/C
5-#4 HORIZ., CONT.
#4 TIES @ 4" O/C
10"
8"
6"

DETAIL (2)
SCALE: 3/4" = 1'-0"

BILL OF MATERIAL

①	1 REQ'D.	CHICAGO PUMP SIZE 7B COMMINUTOR.
②	2 REQ'D.	FAIRBANKS MORSE, FIG. 5443, 3" VERT. PUMP.
③	5 REQ'D.	4"∅ GATE VALVE.
④	1 REQ'D.	SUBMERSIBLE SUMP PUMP.
⑤	2 REQ'D.	4"∅ CHECK VALVE W/OUTSIDE LEVER & SPRING
⑥	4 REQ'D.	4"∅, STYLE 38, DRESSER COUPLING.
⑦	2 REQ'D.	4"∅, SHORT RADIUS, 90° ELL (FLANGED).
⑧	2 REQ'D.	4"∅, SHORT RADIUS, 90° ELL (SCREWED).
⑨	2 REQ'D.	4"×4"×4"∅ TEE (FLANGED).
⑩	1 REQ'D.	4"∅ SHORT RAD. BASE ELL (FLANGED).
⑪	2 REQ'D.	1¼"∅ SHORT RADIUS ELL (SCREWED).
⑫	1 REQ'D.	8"∅ STYLE 38 DRESSER COUPLING

NOTE:
ALL FITTINGS TO BE C.I. UNLESS OTHERWISE STATED.

NO.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT
△								
△1	3/14/67	ISSUED FOR CONSTRUCTION						
△	11/28/66	ISSUED FOR BLDG. PERMIT.	DJ	JTT		JTT		

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND COMPANY

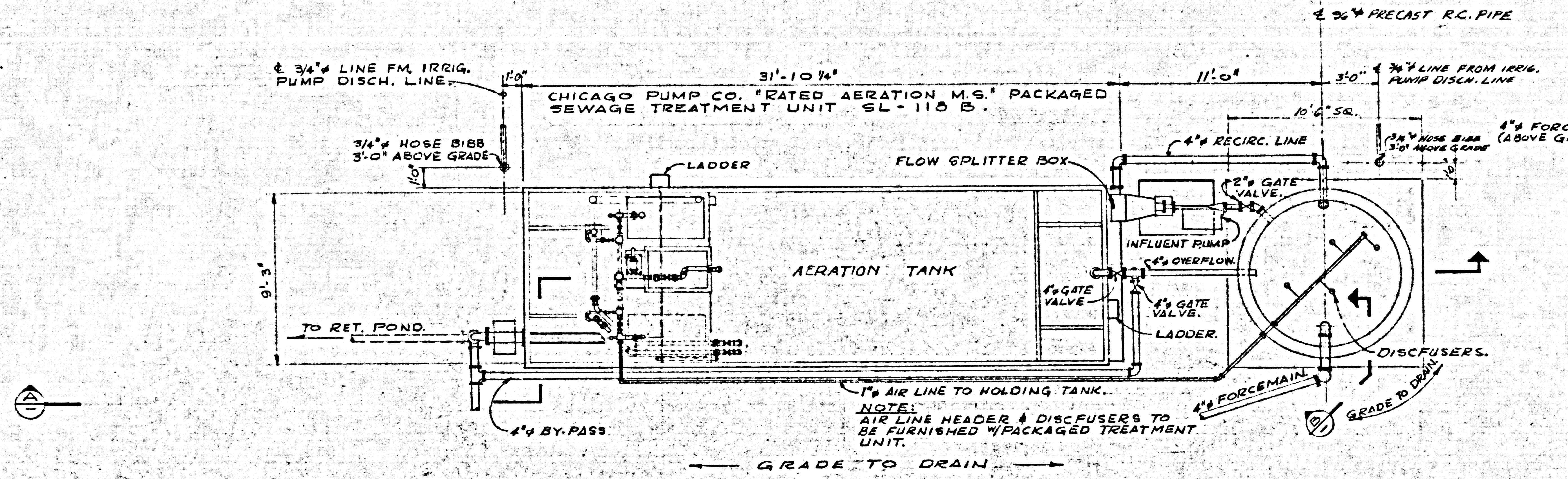
FISHERMAN'S COVE
WATER RECLAMATION PLANT.
P.C. 7777
J.N. 0362.17

LIFT STATION, FORCE MAIN & DETAILS.

DESIGNED JTT
DATE 11-28-66
JOB ENG'R JTT
SECT SUPV'R RHW
DRAWN D.R.J.
CHECKED J.T.
SCALE AS NOTED

JOB No.	DRAWING No.	REV.
6344	6344-C-4 SHEET 4 OF 8	1

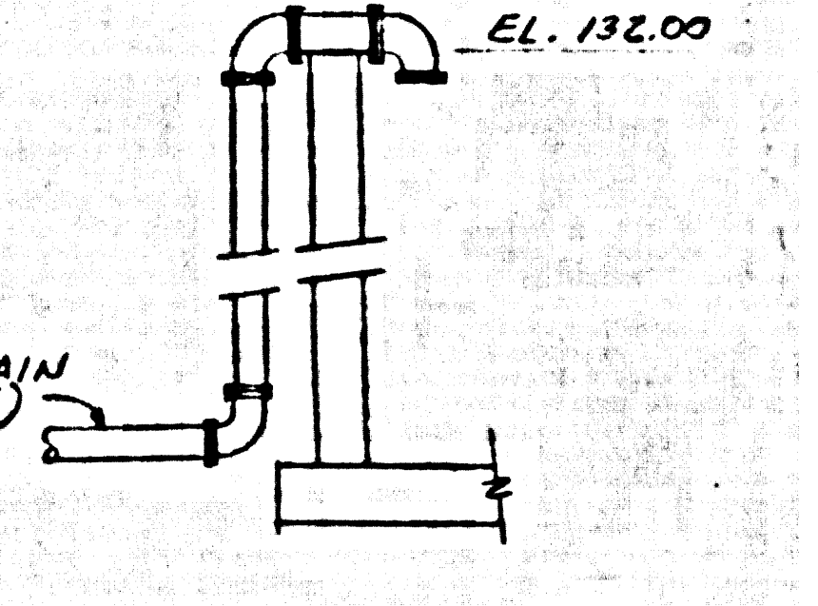
20 X 28 B



℄ 3/4"ϕ LINE FM. IRRIG. PUMP DISCH. LINE.
1'-0"
31'-10 1/4"
11'-0"
3'-0"
CHICAGO PUMP CO. "RATED AERATION M.S." PACKAGED SEWAGE TREATMENT UNIT SL-118 B.
℄ 96"ϕ PRECAST R.C. PIPE
3/4"ϕ LINE FROM IRRIG. PUMP DISCH. LINE
10'6" SQ.
3/4"ϕ HOSE BIBB 3'-0" ABOVE GRADE
1'0"
LADDER
FLOW SPLITTER BOX
4"ϕ RECIRC. LINE
2"ϕ GATE VALVE.
INFLUENT PUMP
4"ϕ OVERFLOW.
9'-3"
AERATION TANK
4"ϕ GATE VALVE
4"ϕ GATE VALVE.
LADDER.
TO RET. POND.
DISCFUSERS.
1"ϕ AIR LINE TO HOLDING TANK.
4"ϕ FORCEMAIN.
GRADE TO DRAIN
4"ϕ BY-PASS
NOTE: AIR LINE HEADER & DISCFUSERS TO BE FURNISHED W/PACKAGED TREATMENT UNIT.
GRADE TO DRAIN

PLAN

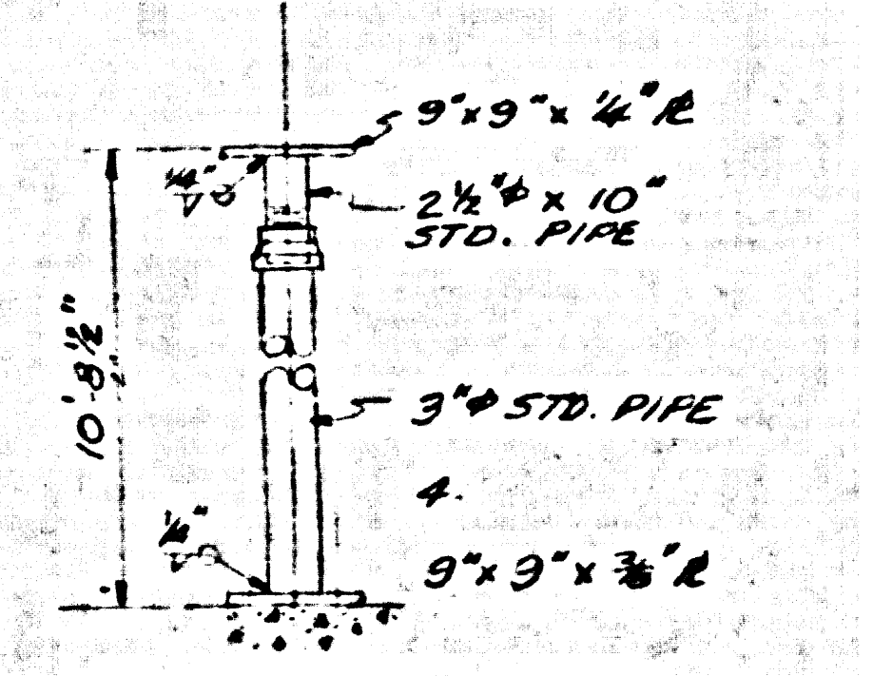
SCALE: 1/4" = 1'-0"



EL. 132.00
4"ϕ FORCE MAIN (ABOVE GRADE)

SECTION (B)

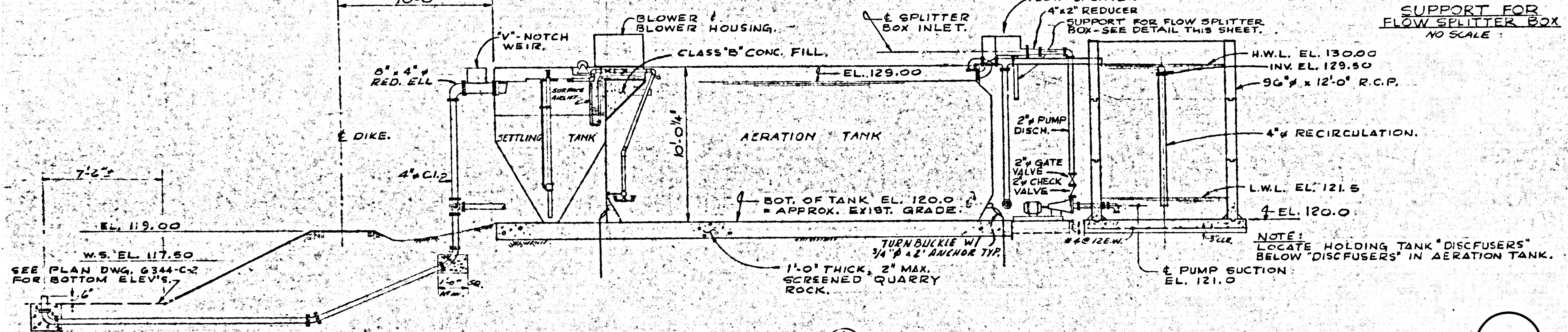
NOT TO SCALE



9"x9"x 1/4" ℞
2 1/2"ϕ x 10" STD. PIPE
10'-8 1/2"
3"ϕ STD. PIPE
4.
9"x9"x 3/8" ℞

SUPPORT FOR FLOW SPLITTER BOX

NO SCALE

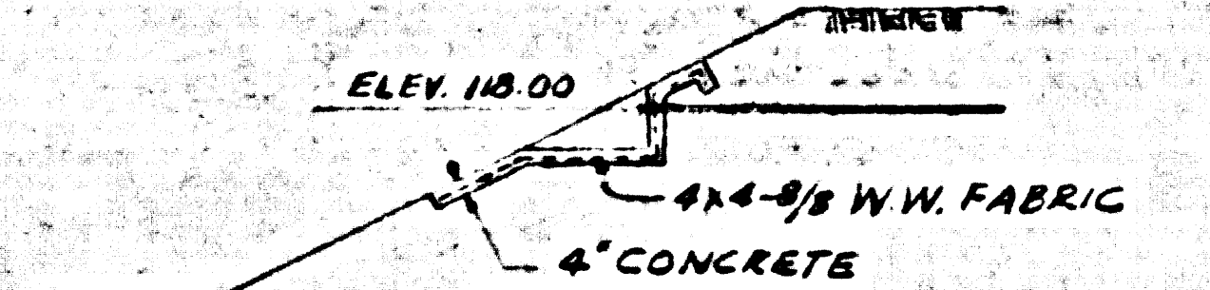


10'-0"
"V"-NOTCH WEIR.
BLOWER & BLOWER HOUSING.
CLASS "B" CONC. FILL.
℄ SPLITTER BOX INLET.
FLOW SPLITTER BOX
4"x2" REDUCER
SUPPORT FOR FLOW SPLITTER BOX-SEE DETAIL THIS SHEET.
8" x 4"ϕ RED. ELL
EL. 129.00
H.W.L. EL. 130.00
INV. EL. 129.50
96"ϕ x 12'-0" R.C.P.
SURFACE AIRLIFT
SETTLING TANK
10'-0 1/4"
AERATION TANK
2"ϕ PUMP DISCH.
4"ϕ RECIRCULATION.
℄ DIKE.
4"ϕ C.I.P.
7'-2"±
2"ϕ GATE VALVE
2"ϕ CHECK VALVE
L.W.L. EL. 121.5
BOT. OF TANK EL. 120.0 = APPROX. EXIST. GRADE.
EL. 120.0
EL. 119.00
W.S. EL. 117.50
TURNBUCKLE W/ 3/4"ϕ x 2' ANCHOR TYP.
#4@12 E.W.
3" CLR.
SEE PLAN DWG. 6344-C-2 FOR BOTTOM ELEV'S.
1'-6"
1'-0" SQ. MIN.
1'-0" THICK, 2" MAX. SCREENED QUARRY ROCK.
℄ PUMP SUCTION EL. 121.0
1'-0" SQ. MIN.
NOTE: LOCATE HOLDING TANK "DISCFUSERS" BELOW "DISCFUSERS" IN AERATION TANK.

SECTION (A)

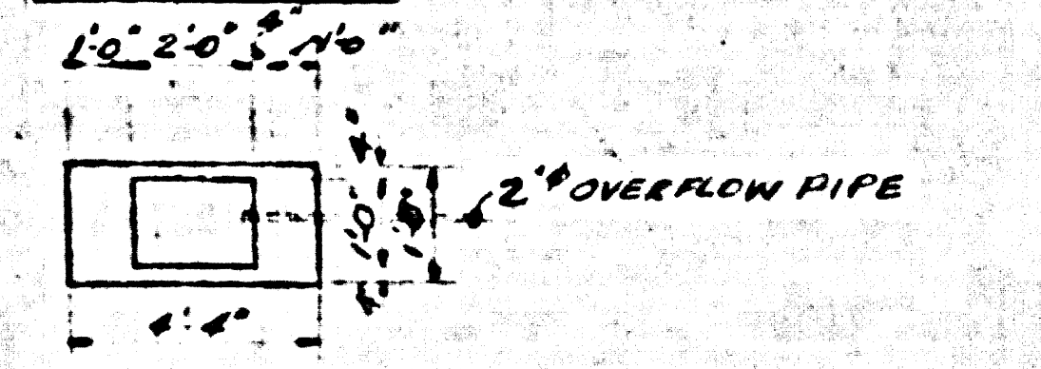
SCALE: 1/4" = 1'-0"

41293



ELEV. 118.00
4x4-8/8 W.W. FABRIC
4" CONCRETE

SECTION



1'0" 2'0" 4" 1'0"
2"ϕ OVERFLOW PIPE
4'-4"

PLAN

OVERFLOW OUTLET STRUCTURE

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

BECHTEL CORPORATION

LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND COMPANY

FISHERMAN'S COVE WATER RECLAMATION PLANT. P.C. 7777 J.N. 0368.17

HOLDING TANK & PACKAGED TREATMENT PLANT.

DESIGNED	DATE	DRAFT'G SUPV'R	JOB ENG'R	SECT SUPV'R	PROJ ENG'R	CLIENT
JTT	11-29-66		JTT	RHW		

DRAWN	JOB No.	DRAWING No.	REV.
R.A.	6344	6344-C-5 SHEET 5 OF 8	1

CHECKED JTT

SCALE 1/4" = 1'-0"

DRAWING NO.	CROSS REFERENCES	No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR	PROJ. ENGR.	CLIENT
		△								
		△								
		△								

No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR	PROJ. ENGR.	CLIENT
△						-		
△	3/14/67	ISSUED FOR CONSTRUCTION						
△	11-29-66	ISSUED FOR BLDG. PERMIT	RA/DJ	JTT		JTT		

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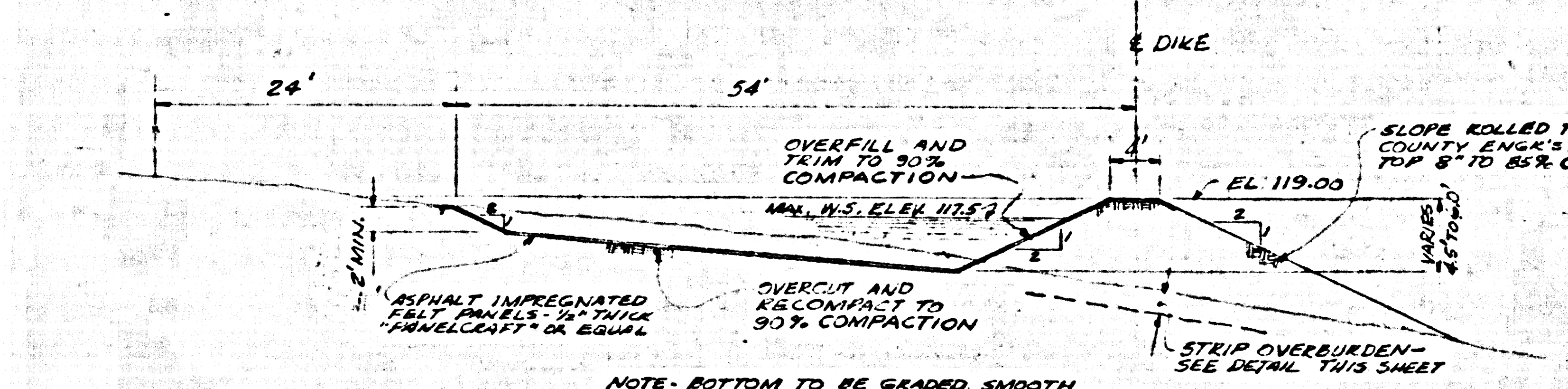
FORM E-2V REV. 4-66

20 X 28 B

41294



℄ DIKE
24'
54'
OVERFILL AND TRIM TO 90% COMPACTION
MAX. W.S. ELEV. 117.5
4'
EL. 119.00
SLOPE ROLLED TO COUNTY ENGR'S. REQ'MTS. TOP 8" TO 85% COMPACTION
VARIES 4.5' TO 0'
2'MIN.
ASPHALT IMPREGNATED FELT PANELS - ½" THICK "PANELCRAFT" OR EQUAL
OVERCUT AND RECOMPACT TO 90% COMPACTION
STRIP OVERBURDEN- SEE DETAIL THIS SHEET

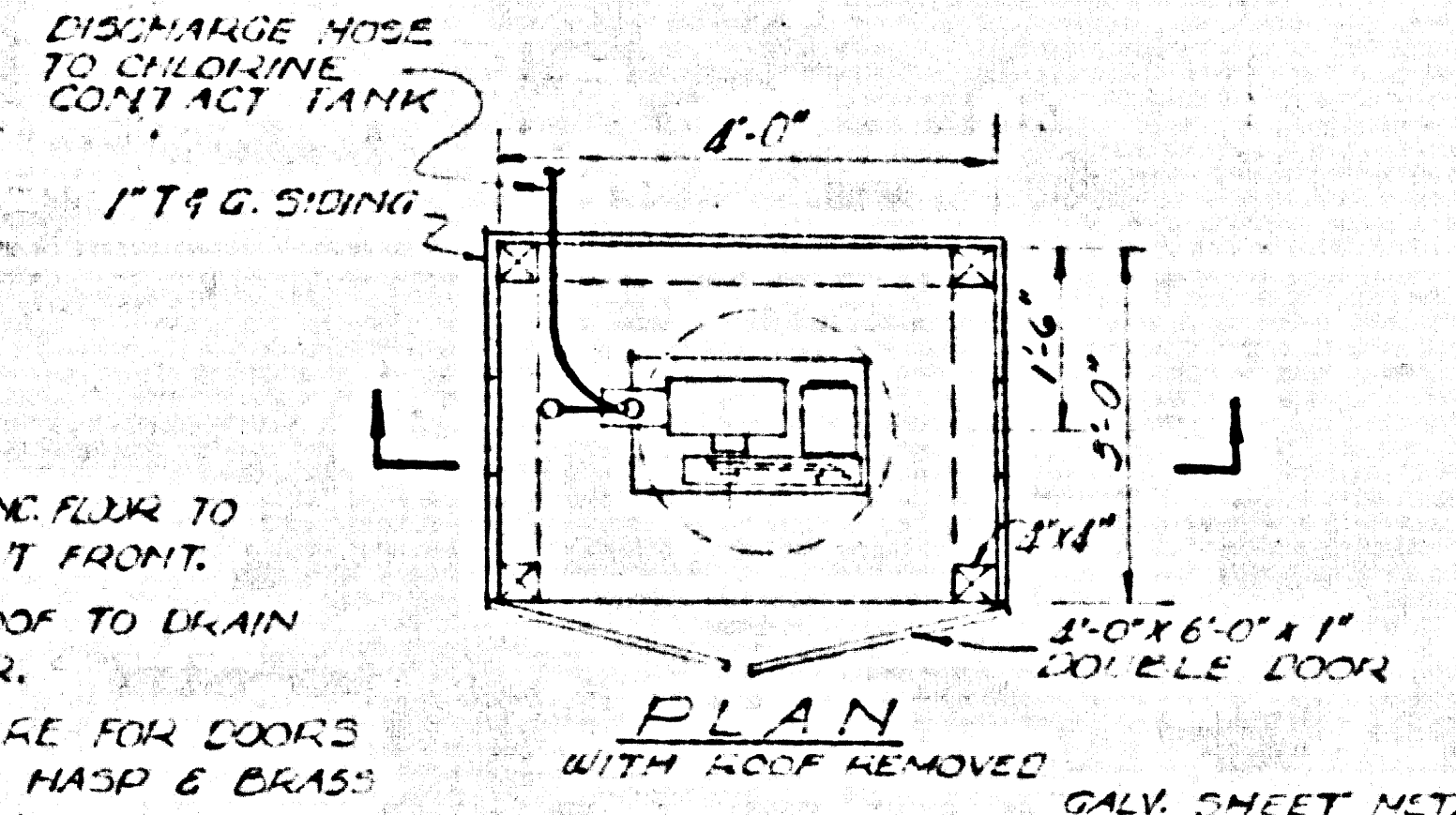
NOTE - BOTTOM TO BE GRADED SMOOTH AND AS LEVEL AS PRACTICABLE AVOIDING ROCK CUT.

TYPICAL SECTION Ⓐ

SCALE: 1"=10'

NOTES

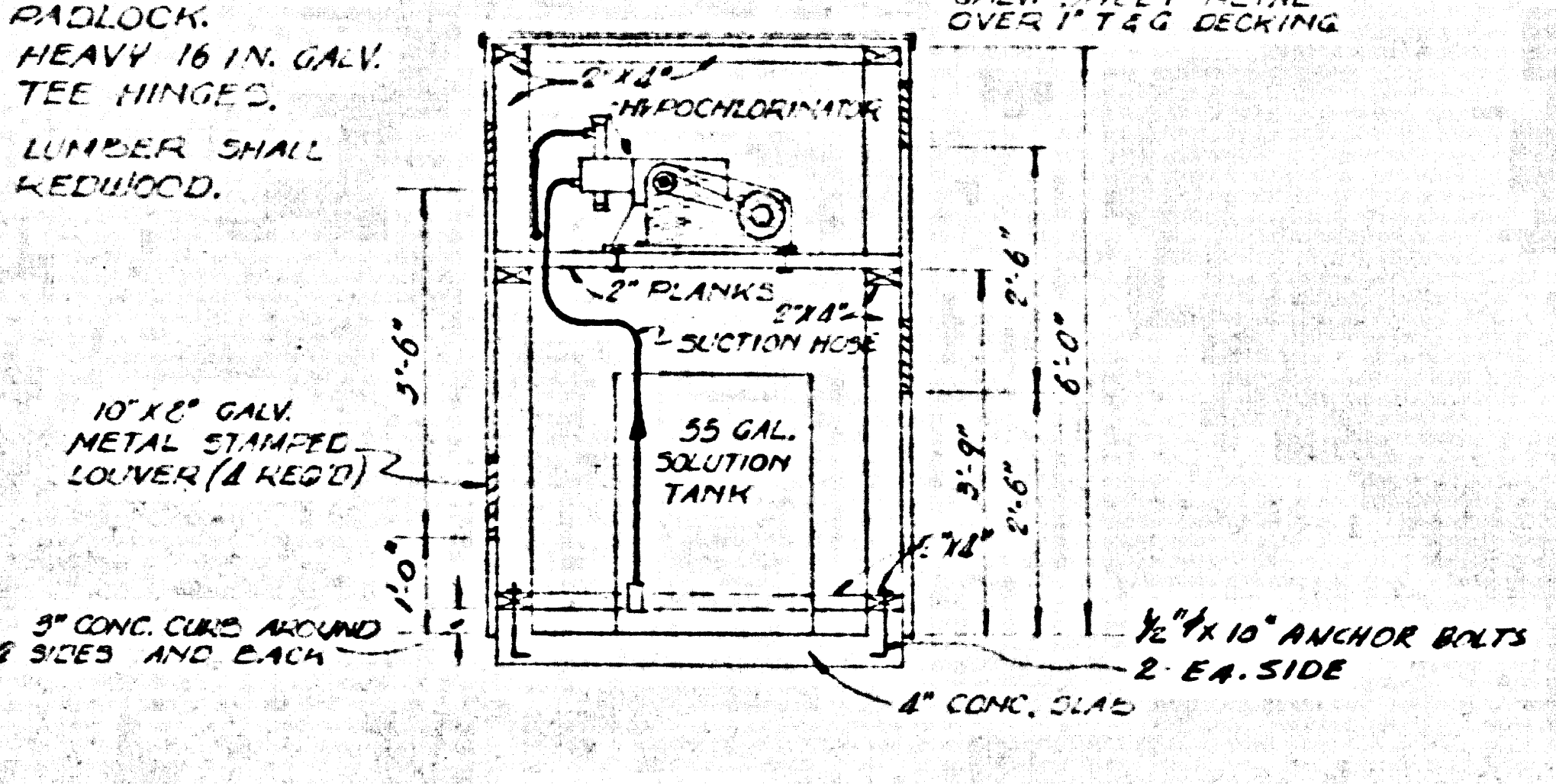
1. PITCH CONC. FLOOR TO DRAIN OUT FRONT.
2. PITCH ROOF TO DRAIN TO REAR.
3. HARDWARE FOR DOORS
   1 GALV. HASP & BRASS PADLOCK.
   6 HEAVY 16 IN. GALV. TEE HINGES.
4. ALL LUMBER SHALL BE REDWOOD.



DISCHARGE HOSE TO CHLORINE CONTACT TANK
1" T & G. SIDING
4'-0"
1'-6"
3'-0"
2"x4"
4'-0" X 6'-0" x 1" DOUBLE DOOR

PLAN

WITH ROOF REMOVED

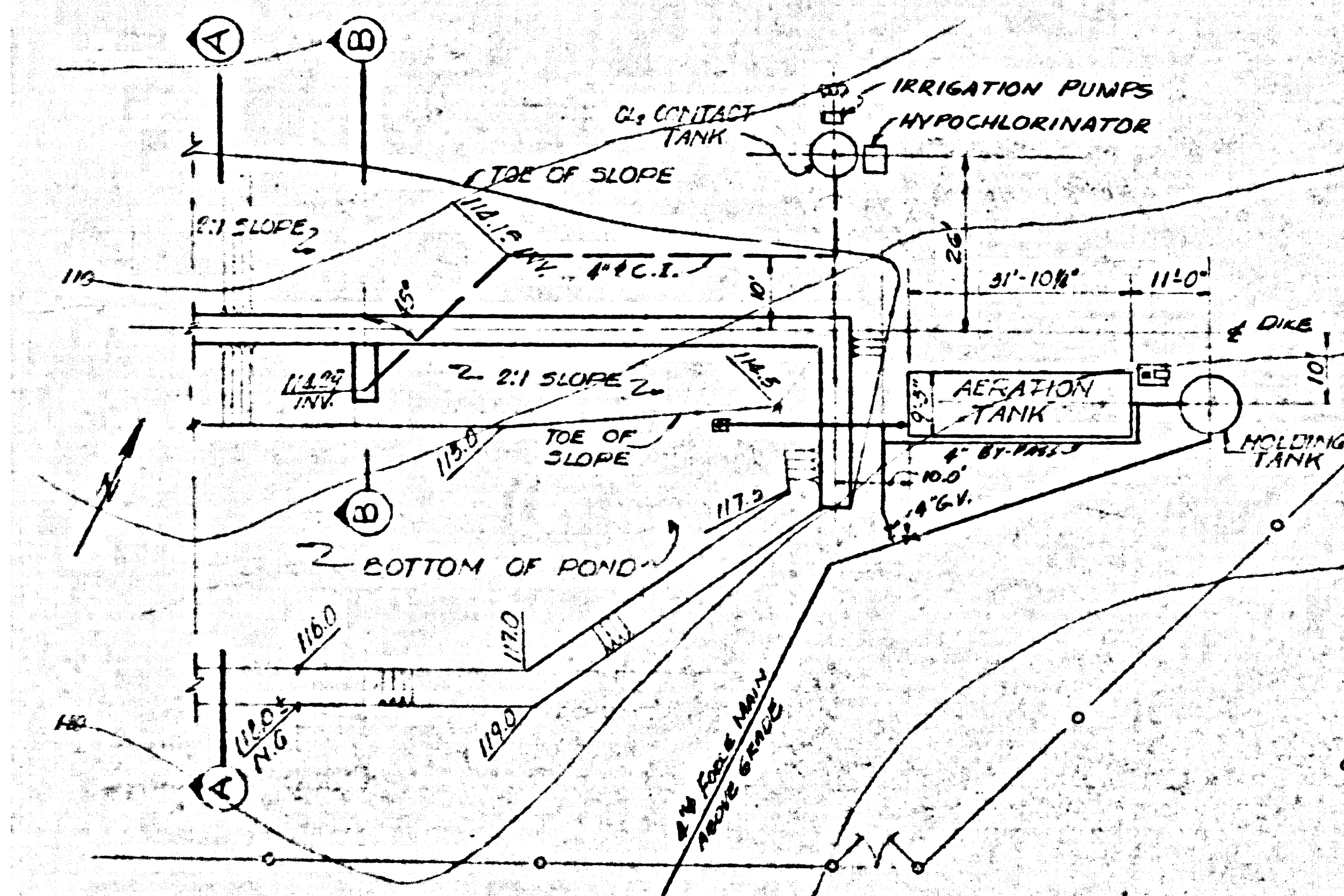


GALV. SHEET METAL OVER 1" T & G DECKING
2"x4"
HYPOCHLORINATOR
2" PLANKS
2"x4"
SUCTION HOSE
10" X 8" GALV. METAL STAMPED LOUVER (4 REQ'D)
55 GAL. SOLUTION TANK
3'-6"
2'-6"
6'-0"
3'-9"
2'-6"
1'-0"
2"x4"
3" CONC. CURB AROUND 3 SIDES AND EACH
½"⌀ x 10" ANCHOR BOLTS 2 EA. SIDE
4" CONC. SLAB

SECTION

HYPOCHLORINATOR HOUSE

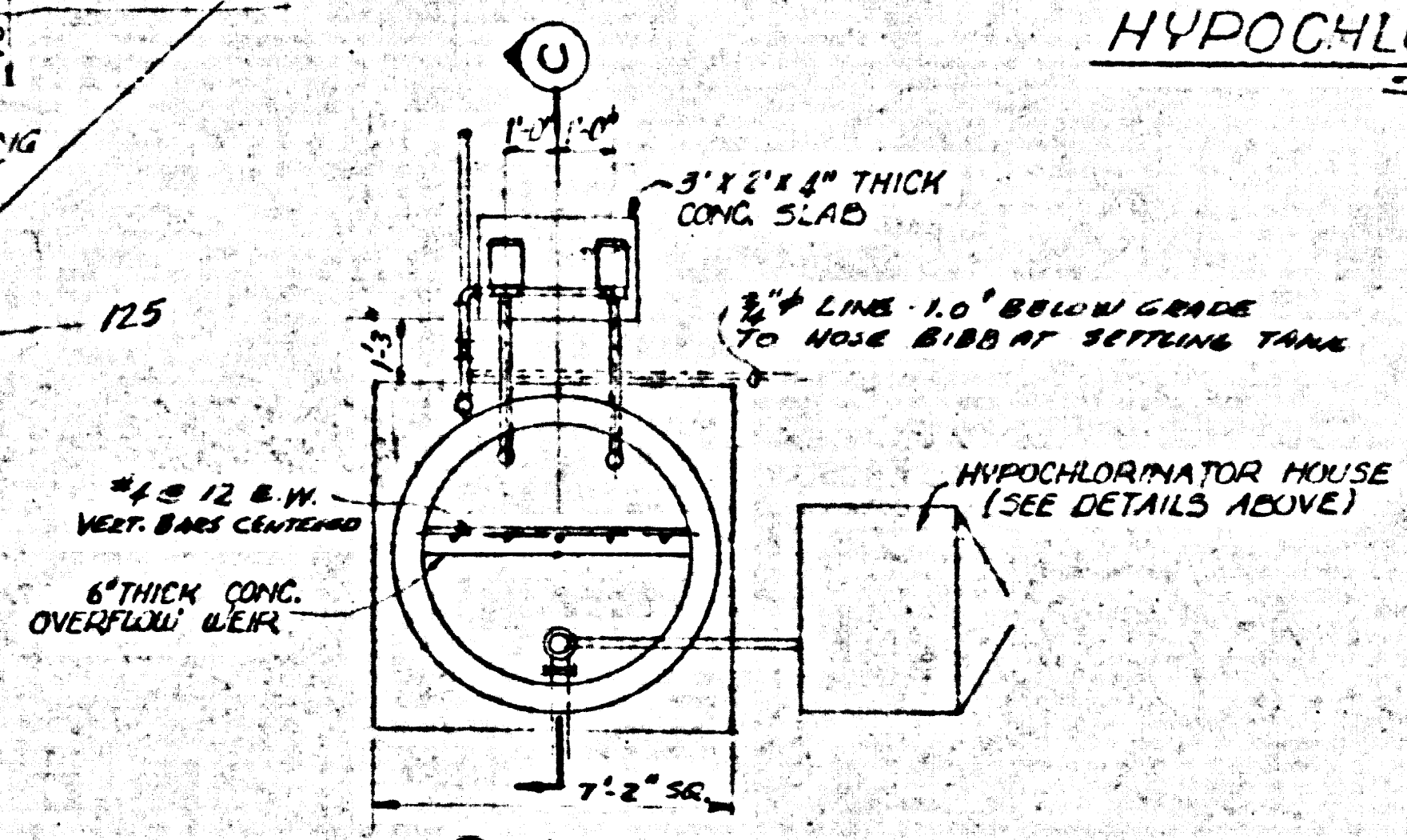
SCALE 1/2"=1'-0"



Ⓐ
Ⓑ
IRRIGATION PUMPS
HYPOCHLORINATOR
Cl₂ CONTACT TANK
TOE OF SLOPE
2:1 SLOPE
114.1
4"⌀ C.I.
26'
10'
31'-10½"
11'-0"
℄ DIKE
10'
45°
114.0 INV.
2:1 SLOPE
114.5
AERATION TANK
9'-3"
4" BY-PASS
HOLDING TANK
TOE OF SLOPE
115.0
10.0'
4" G.V.
117.5
BOTTOM OF POND
125
116.0
117.0
119.0
118.0 N.G.
4" FORCE MAIN ABOVE GRADE
110

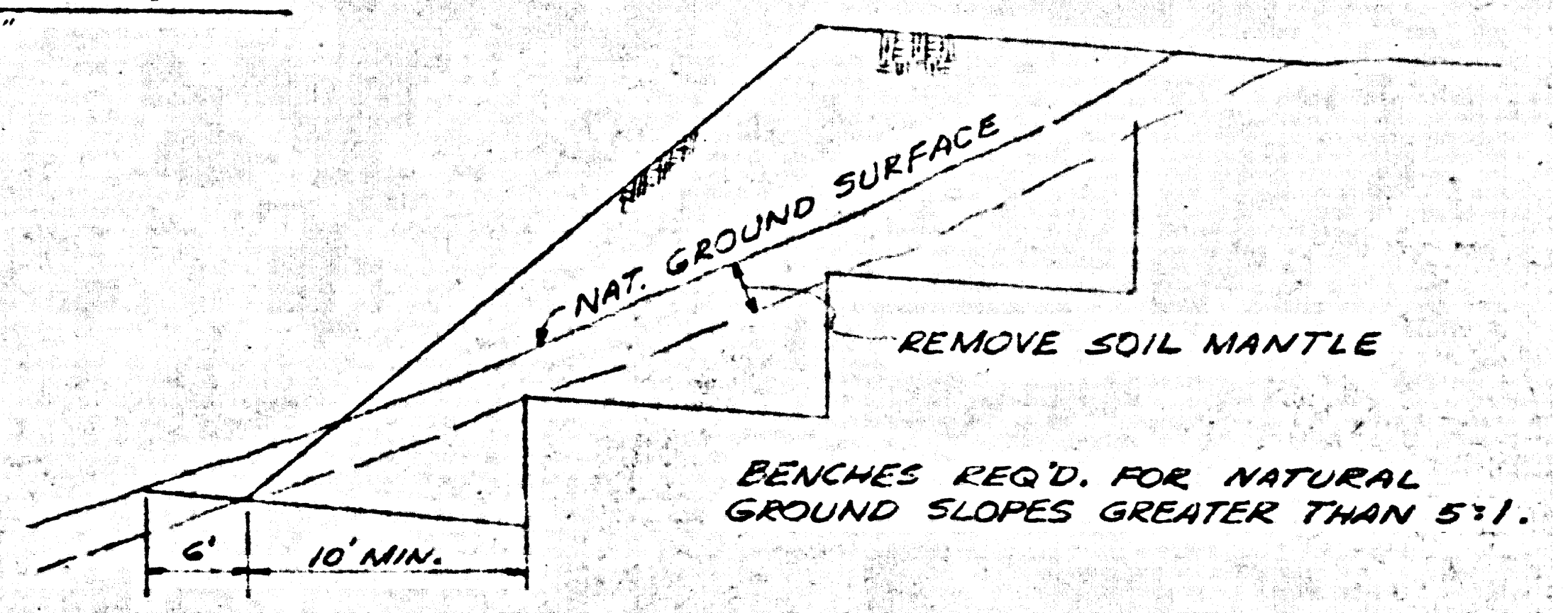
PART PLAN

SCALE: 1"=20'



Ⓒ
1'-0" 1'-0"
3' x 2' x 4" THICK CONC. SLAB
¾"⌀ LINE - 1.0' BELOW GRADE TO HOSE BIBB AT SETTLING TANK
1'-3"
#4 @ 12 E.W. VERT. BARS CENTERED
6" THICK CONC. OVERFLOW WEIR
HYPOCHLORINATOR HOUSE (SEE DETAILS ABOVE)
7'-2" SQ.

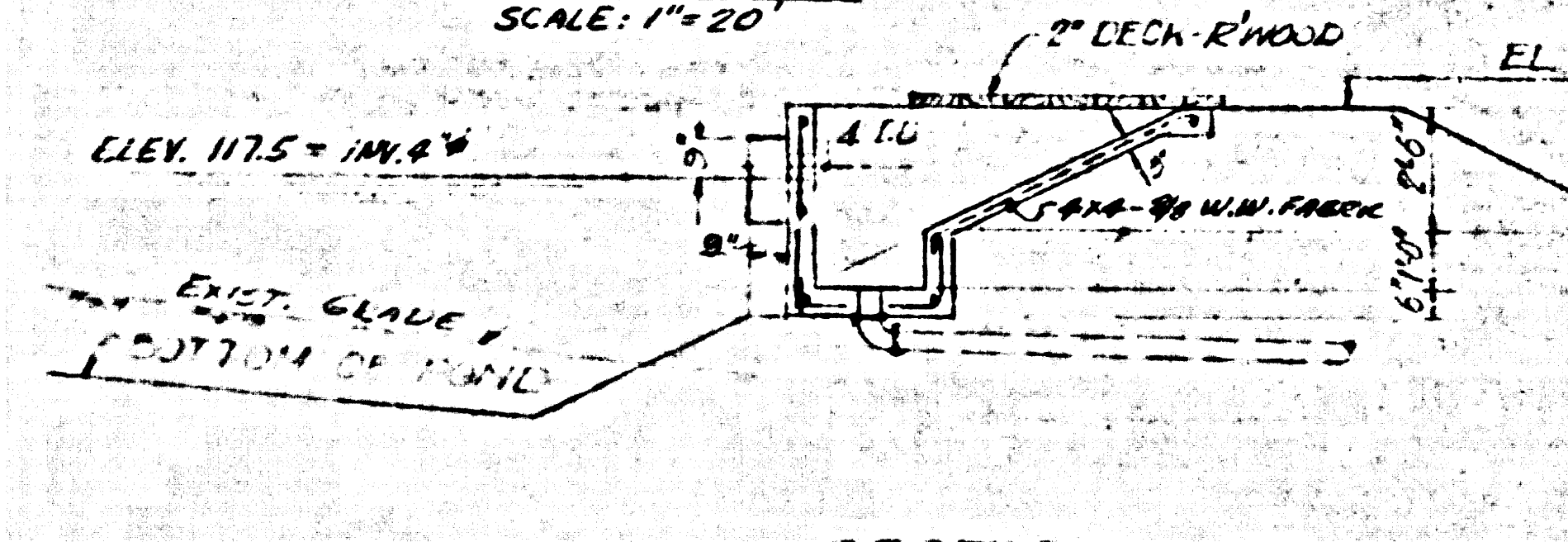
PLAN



NAT. GROUND SURFACE
REMOVE SOIL MANTLE
BENCHES REQ'D. FOR NATURAL GROUND SLOPES GREATER THAN 5:1.
6'
10' MIN.

DETAIL FOR FILL SLOPE

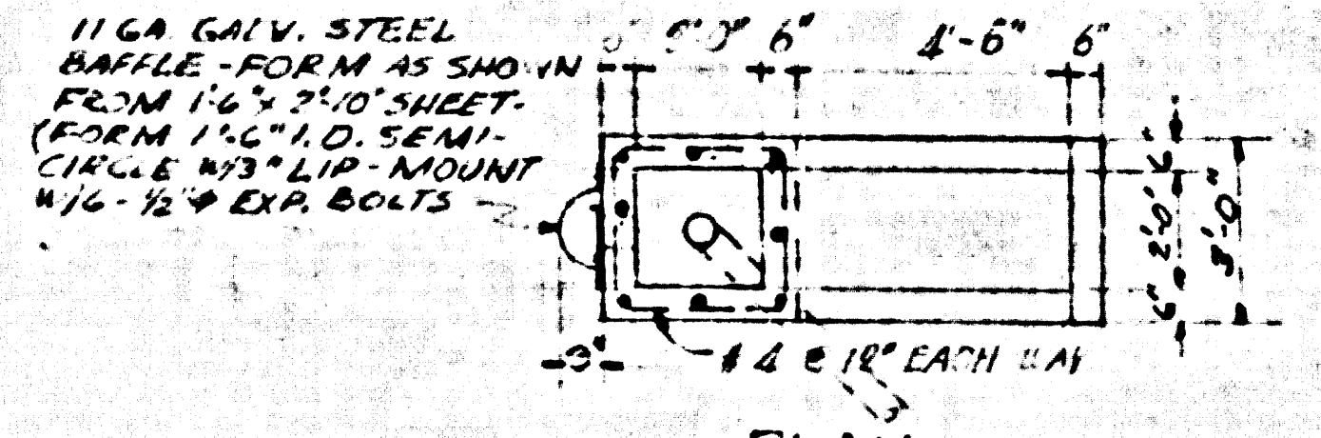
NO SCALE



2" DECK - R'WOOD
EL. 119.0
ELEV. 117.5 = INV. 4"⌀
4' I.D.
9"
9"
6x6 - 8/8 W.W. FABRIC
2'-6"
6'-0"
EXIST. GRADE & BOTTOM OF POND

SECTION Ⓑ

SCALE 1/2" = 1'-0"

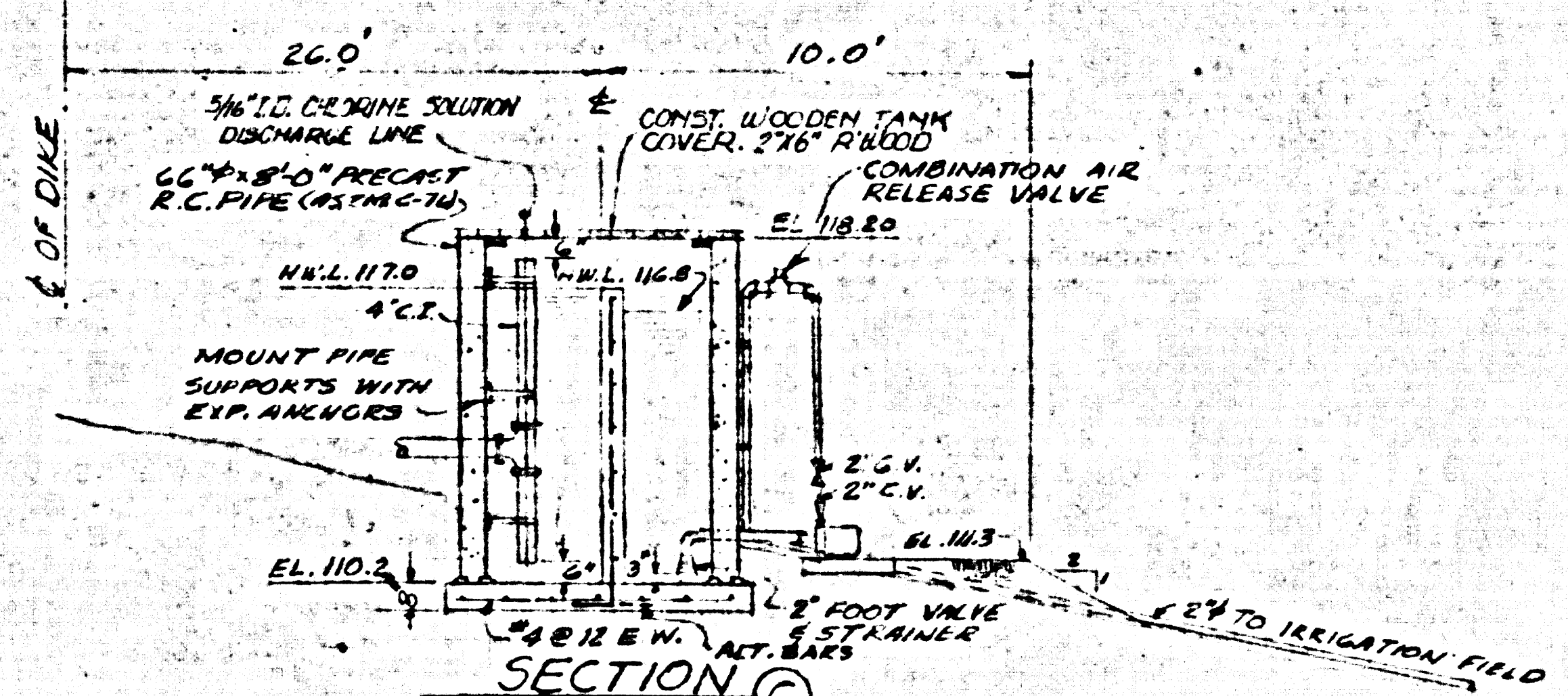


11 GA. GALV. STEEL BAFFLE - FORM AS SHOWN FROM 1'-6" x 2'-10" SHEET - (FORM 1'-6" I.D. SEMI-CIRCLE W/3" LIP - MOUNT W/6 - ½"⌀ EXP. BOLTS
6" 4'-0" 6"
4'-6"
6"
2'-0"
3'-0"
3"
#4 @ 12" EACH WAY

PLAN

DISCHARGE STRUCTURE

SCALE ¼"=1'-0"



26.0'
10.0'
℄ OF DIKE
5/16" I.D. CHLORINE SOLUTION DISCHARGE LINE
66"⌀ x 8'-0" PRECAST R.C. PIPE (ASTM C-76)
CONST. WOODEN TANK COVER. 2"X6" R'WOOD
COMBINATION AIR RELEASE VALVE
EL. 118.20
H.W.L. 117.0
H.W.L. 116.8
4" C.I.
MOUNT PIPE SUPPORTS WITH EXP. ANCHORS
2" G.V.
2" C.V.
EL. 111.3
EL. 110.2
2" FOOT VALVE & STRAINER
#4 @ 12 E.W. ALT. BARS
2"⌀ TO IRRIGATION FIELD

SECTION Ⓒ

CHLORINE CONTACT TANK

NO SCALE

DRAWING NO.	CROSS REFERENCES

No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR.	JOB ENGR.	PROJ. ENGR.	CLIENT
△								
△								
△								

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△	11/28/66	ISSUED FOR BLDG PERMIT	RAA			JTT		

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND COMPANY

FISHERMAN'S COVE WATER RECLAMATION PLANT, F.C. 7777 J.N. 0368.17

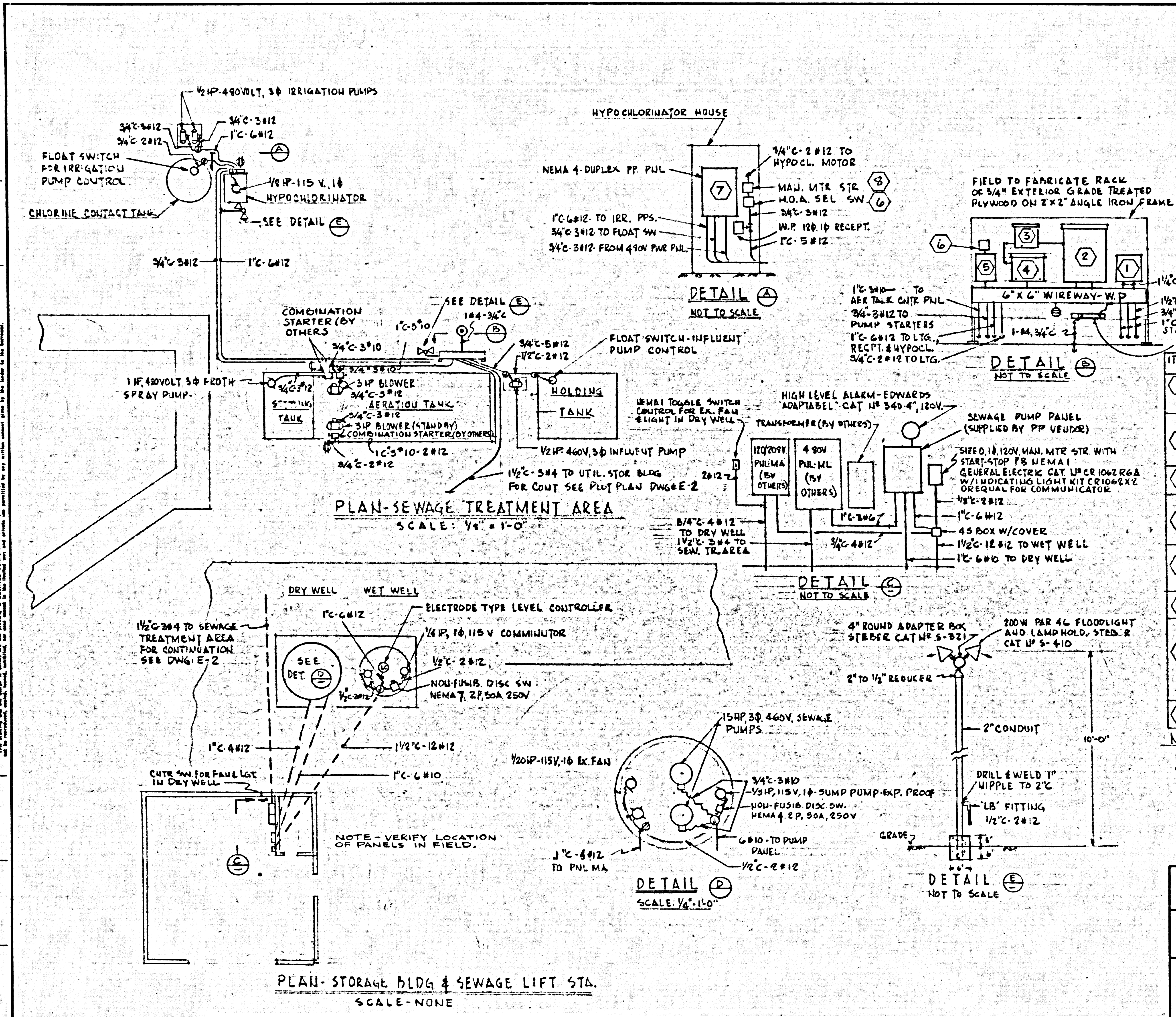
SECTIONS & DETAILS

DESIGNED	DATE	DRAFT'G SUPV'R	JOB ENG'R	SECT SUPV'R	PROJ ENG'R	CLIENT
JTT	11-28-66		JTT	KHW		

DRAWN	JOB No.	DRAWING No.	REV.
RA.	6344	6344-C-6 SHEET 6 OF 8	1
CHECKED			
SCALE AS NOTED			

FORM E-2V REV. 4-46

20 X 28 B



½HP-480VOLT, 3Φ IRRIGATION PUMPS
¾"C-3#12
¾"C-3#12
¾"C 2#12
1"C-6#12
FLOAT SWITCH FOR IRRIGATION PUMP CONTROL
⅛HP-115 V, 1Φ
HYPOCHLORINATOR
CHLORINE CONTACT TANK
SEE DETAIL E
¾"C-3#12
1"C-6#12
COMBINATION STARTER (BY OTHERS
SEE DETAIL E
1#4-¾"C
1"C-3#10
B
¾"C-3#10
¾"5#10
¾"C-5#12
1½"C-2#12
FLOAT SWITCH-INFLUENT PUMP CONTROL
1 HP, 480VOLT, 3Φ FROTH SPRAY PUMP
¾"C-3#12
3 HP BLOWER
¾"C-3#12
SETTLING TANK
AERATION TANK
¾"C-3#12
3 HP BLOWER (STANDBY)
COMBINATION STARTER (BY OTHERS)
1"C-3#10-2#12
¾"C-2#12
HOLDING TANK
½HP 460V, 3Φ INFLUENT PUMP
1½"C-3#4 TO UTIL. STOR BLDG
FOR CONT SEE PLOT PLAN DWG E-2
PLAN-SEWAGE TREATMENT AREA
SCALE: ⅛" = 1'-0"
HYPOCHLORINATOR HOUSE
NEMA 4-DUPLEX PP. PNL
¾"C-2#12 TO HYPOCL. MOTOR
MAN. MTR STR 8
H.O.A. SEL SW 6
¾"C-3#12
W.P. 120, 1Φ RECEPT.
1"C-5#12
1"C-6#12 TO IRR. PPS.
¾"C-3#12 TO FLOAT SW
¾"C-3#12 FROM 480V PWR PNL
7
DETAIL A
NOT TO SCALE
FIELD TO FABRICATE RACK OF ¾" EXTERIOR GRADE TREATED PLYWOOD ON 2"x2" ANGLE IRON FRAME
6
5
3
4
2
1
1¼"C-3#4
6"x6" WIREWAY-W.P.
1"C-3#10 TO AER TANK CNTR PNL
¾-3#12 TO PUMP STARTERS
1"C-6#12 TO LTG., RECPT. & HYPOCL.
¾"C-2#12 TO LTG.
1-#4, ¾"C
1½"C-3#4-FROM UTIL STORAGE BLDG
¾"C-5#12 TO INFLUENT PP
1"C-3#10 & 2#12 TO RECPT. SO. SIDE & STANDBY BLOWER
¼"x1"x12" COPPER GROUND BAR-
DETAIL B
NOT TO SCALE
NEMA 1 TOGGLE SWITCH CONTROL FOR EX. FAN & LIGHT IN DRY WELL
HIGH LEVEL ALARM-EDWARDS "ADAPTABEL" CAT Nº 340-4", 120V.
TRANSFORMER (BY OTHERS)
SEWAGE PUMP PANEL (SUPPLIED BY PP VENDOR)
120/208V PNL-MA (BY OTHERS)
480V PNL-ML (BY OTHERS)
2#12
SIZE 0, 1Φ, 120V, MAN. MTR STR WITH START-STOP PB NEMA 1 GENERAL ELECTRIC CAT Nº CR 1062 R6A W/INDICATING LIGHT KIT CR1062X2 OR EQUAL FOR COMMUNICATOR
½"C-2#12
1"C-6#12
1"C-3#6
4S BOX W/COVER
1½"C-12#12 TO WET WELL
1"C-6#10 TO DRY WELL
¾"C-4#12 TO DRY WELL
1½"C-3#4 TO SEW. TR. AREA
¾"C-4#12
DETAIL C
NOT TO SCALE
DRY WELL
WET WELL
1"C-6#12
ELECTRODE TYPE LEVEL CONTROLLER
¼HP, 1Φ, 115 V COMMINUTOR
1½"C-3#4 TO SEWAGE TREATMENT AREA FOR CONTINUATION SEE DWG E-2
SEE DET D
½"C-2#12
½"C-2#12
NON-FUSIB. DISC SW NEMA 7, 2P, 30A, 250V
1"C-4#12
1½"C-12#12
1"C-6#10
CNTR SW. FOR FAN & LGT IN DRY WELL
NOTE - VERIFY LOCATION OF PANELS IN FIELD.
C
PLAN- STORAGE BLDG & SEWAGE LIFT STA.
SCALE-NONE
1/20HP-115V, 1Φ EX. FAN
15HP, 3Φ, 460V, SEWAGE PUMPS
¾"C-3#10
⅓HP, 115V, 1Φ-SUMP PUMP-EXP. PROOF
NON-FUSIB. DISC. SW. NEMA 4, 2P, 30A, 250V
1"C-4#12 TO PNL MA
6#10-TO PUMP PANEL
½"C-2#12
DETAIL D
SCALE: ¼"-1'-0"
4" ROUND ADAPTER BOX STEBER CAT Nº S-321
200W PAR 46 FLOODLIGHT AND LAMP HOLD. STEBER CAT Nº S-410
2" TO ½" REDUCER
2" CONDUIT
10'-0"
DRILL & WELD 1" NIPPLE TO 2"C
"LB" FITTING
½"C-2#12
GRADE
DETAIL E
NOT TO SCALE

LEGEND

⊗	150W-INCANDESCENT LIGHTING FIXTURE-WITH GLOBE GUARD - VAPORTIGHT IN DRY WELL-EXPLOSION PROOF IN WET WELL MOUNT 1'-0" BELOW WELL ROOFS
Φ	120V-2P, 3W-20A RECEPT IN NEMA 4 ENCLOSURE EXCEPT FOR WET WELL TO BE NEMA 7-MNT A MIN. 3'-0" ABOVE GRADE IN SWG. TR AREA
$	TOGGLE SWITCH, 120V, 1P, 15A-NEMA 4 ENCLOSURE IN DRY WELL, NEMA 7 ENCLOSURE IN WET WELL-MNT 1'-0" BELOW WELL ROOFS
—	CONDUIT ABOVE GRADE
- - -	CONDUIT BELOW GRADE
〰	"SEALTITE" FLEXIBLE CONDUIT TO BE EXPLOSION PROOF IN LIFT STATION.
◎	GROUND ROD

41295

ITEM	DESCRIPTION
1.	DISCONNECT SWITCH- NON-FUSIBLE IN NEMA 3R RAINTIGHT ENCLOSURE, 60AMPS, 3 POLE, 600VOLT. CUTLER-HAMMER CAT Nº 4105-H3332 OR EQUAL
2.	480VOLT 3Φ CIRCUIT BREAKER PANELBOARD IN NEMA 3R RAINTIGHT ENCLOSURE, 100AMP MAIN. WITH MAIN LUG ONLY WITH NUMBER AND SIZE BREAKERS AS INDICATED ON THE SINGLE LINE DIAGRAM- CUTLER-HAMMER TYPE NHDP OR EQUAL
3	3 KVA TRANSFORMER, 480-120/240VOLT, 1Φ FOR OUTDOOR USE, WESTINGHOUSE TYPE EP CAT NO. 548G11503A OR EQUAL
4	120/240V, 1Φ, 3W, CIRCUIT BREAKER PANELBOARD IN NEMA 3R, RAINTIGHT ENCLOSURE, 100AMP BUS MAIN LUGS ONLY WITH 6, 1P, 120V, 15AMP CIRCUIT BREAKERS, CUTLER-HAMMER CAT Nº CH6-R OR EQUAL
5	MAGNETIC MOTOR STARTER SIZE 0, 3Φ, 480VOLT IN NEMA 4 WATERTIGHT ENCLOSURE, COMPLETE WITH 120VOLT HOLDING COIL, 120VOLT CONTROL TRANSFORMER, 2 NO AUXILIARY CONTACTS & 3 O.L. HEATER, GENERAL ELECTRIC CAT Nº CR106B4-02 OR EQUAL
6	HAND-OFF-AUTO SELECTOR SWITCH IN NEMA 4, WATERTIGHT ENCLOSURE GENERAL ELECTRIC CAT Nº CR2940AJ101D OR EQUAL
7	DUPLEX PUMP PANEL-IN NEMA 4, WATERTIGHT ENCLOSURE COMBINATION FORM WITH 2-SIZE 1, 3Φ, 480V MAGNETIC MOTOR STARTERS, AND 20A, 3P, 480V. CIRCUIT BREAKERS-COMPLETE WITH AUTOMATIC ALTERNATOR, CONTROL TRANSFORMERS, 3 O.L. HEATERS/STARTER, AND 2-HAND-OFF-AUTO SELECTOR SWITCHES. STARTERS TO HAVE 120V HOLDING COILS. GENERAL ELECTRIC SIMILAR TO CAT. Nº CR160C1002-020 OR EQUAL
8	FRACTIONAL HP, MANUAL MOTOR STARTER, 1 POLE 115 VOLTS GENERAL ELECTRIC CAT Nº CR101Y400J OR EQUAL

NOTES

1. ALL CONDUIT & FITTINGS TO BE PVC. COATED RIGID STEEL
2. GROUNDING TO BE PROVIDED FOR ALL EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS
3. CONDUIT SHOWN RUN SCHEMATICALLY. ALL CONDUIT TO BE SUPPORTED 6" ABOVE GRADE ON CONCRETE SADDLES UNLESS OTHERWISE NOTED UNDERGROUND CONDUIT TO BE A MINIMUM OF 30" BELOW GRADE

BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND
COMPANY

SEWAGE PUMP STATION
TREATMENT AREAS
AND DETAILS

P.C. 7777
J.N. 0368.17

DESIGNED	DATE	DRAFT'G SUPV'R	JOB ENG'R	SECT SUPV'R	PROJ ENG'R	CLIENT
MHP	11-28-66		MHP			

DRAWN	CHECKED	SCALE	JOB No.	DRAWING No.	REV.
MHP	RCB	AS NOTED	6344	6344-E-1 SHEET 7 OF 8	1

DRAWING NO.	CROSS REFERENCES	No.	DATE	REVISIONS	BY	CH'K	DFTG. SUPVR	JOB ENGR.	PROJ. ENGR.	CLIENT
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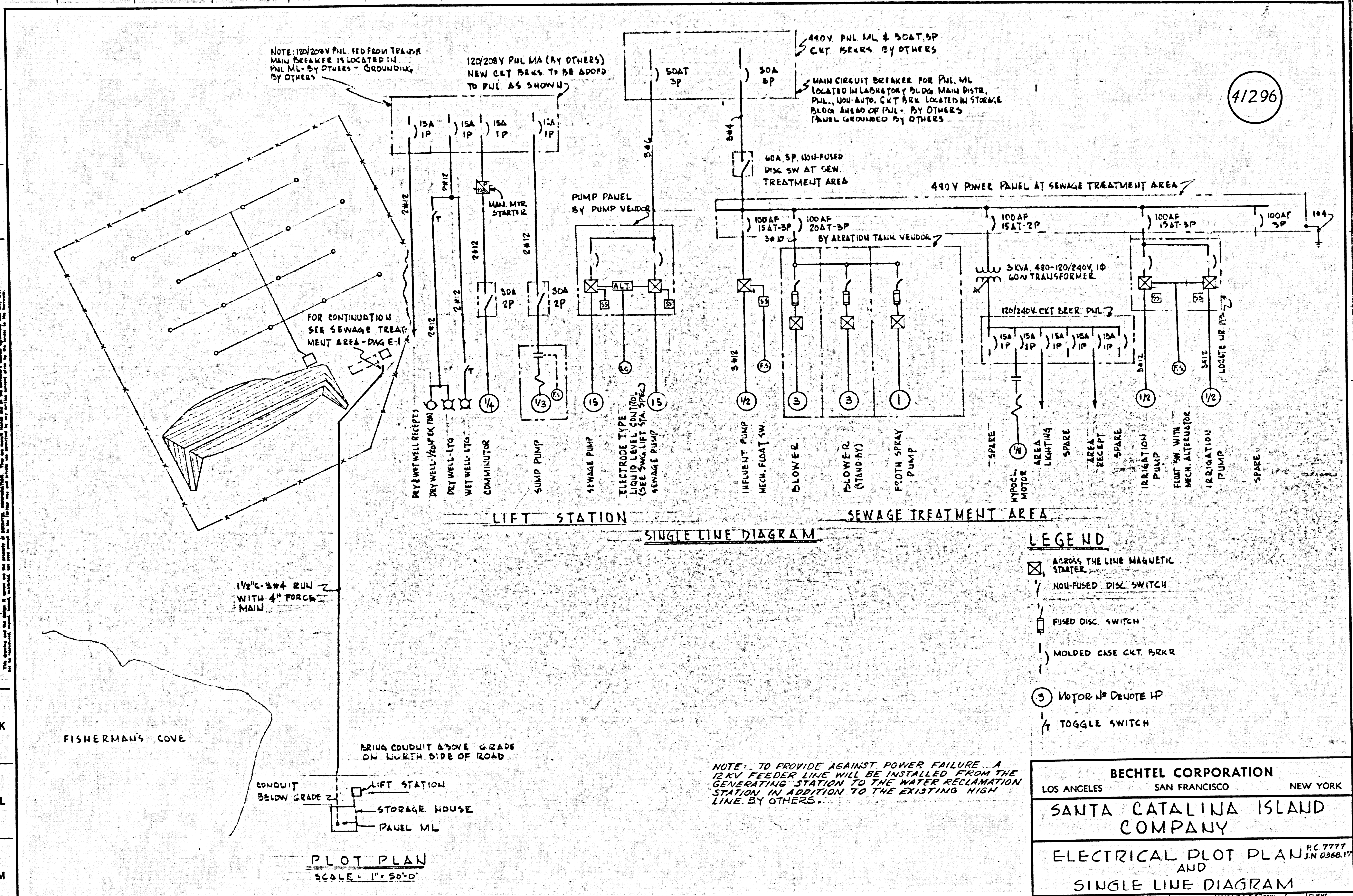
△	11/30/66	ISSUED FOR BLDG PERMIT	MHP			MHP		

FORM E-2V REV. 4-66

41296


NOTE: 120/208V PNL. FED FROM TRANSF. MAIN BREAKER IS LOCATED IN PNL ML - BY OTHERS - GROUNDING BY OTHERS
120/208Y PNL MA (BY OTHERS) NEW CKT BRKS TO BE ADDED TO PNL AS SHOWN
15A 1P
15A 1P
15A 1P
12A 1P
490V. PNL. ML & 50AT, 3P CKT. BRKRS BY OTHERS
50AT 3P
30A 3P
MAIN CIRCUIT BREAKER FOR PNL. ML LOCATED IN LABORATORY BLDG. MAIN DISTR. PNL., NON-AUTO. CKT BRK. LOCATED IN STORAGE BLDG. AHEAD OF PNL. - BY OTHERS PANEL GROUNDED BY OTHERS
3#6
3#4
60A, 3P. NON-FUSED DISC SW AT SEW. TREATMENT AREA
490V POWER PANEL AT SEWAGE TREATMENT AREA
2#12
2#12
2#12
2#12
2#12
2#12
MAN. MTR STARTER
30A 2P
30A 2P
PUMP PANEL BY PUMP VENDOR
ALT.
SS
SS
L.C.
F.S.
FOR CONTINUATION SEE SEWAGE TREATMENT AREA - DWG E-1
1/4
1/3
15
15
DRY & WET WELL RECEPTS
DRY WELL - 1/20HP EX FAN
DRY WELL - LTG
WET WELL - LTG
COMMINUTOR
SUMP PUMP
SEWAGE PUMP
ELECTRODE TYPE LIQUID LEVEL CONTROL (SEE SWG. LIFT STA. SPEC.)
SEWAGE PUMP
LIFT STATION
100AF 15AT-3P
100AF 20AT-3P
3#10
BY AERATION TANK VENDOR
100AF 15AT-2P
100AF 15AT-3P
100AF 3P
1#4
3KVA, 480-120/240V, 1Ø GON TRANSFORMER
120/240V. CKT BRKR PNL
15A 1P
15A 2P
15A 1P
15A 1P
15A 1P
3#12
3#12
3#12
LOCATE NR. P.S.
1/2
3
3
1
1/8
1/2
1/2
INFLUENT PUMP
MECH. FLOAT SW.
BLOWER
BLOWER (STAND-BY)
FROTH SPRAY PUMP
SPARE
HYPOCL. MOTOR
AREA LIGHTING
SPARE
AREA RECEPT.
SPARE
IRRIGATION PUMP
FLOAT SW. WITH MECH. ALTERNATOR
IRRIGATION PUMP
SPARE
SEWAGE TREATMENT AREA
SINGLE LINE DIAGRAM
LEGEND
ACROSS THE LINE MAGNETIC STARTER
NON-FUSED DISC. SWITCH
FUSED DISC. SWITCH
MOLDED CASE CKT. BRKR
3 MOTOR - Nº DENOTE HP
T TOGGLE SWITCH
1½"C - 3#4 RUN WITH 4" FORCE MAIN
FISHERMAN'S COVE
BRING CONDUIT ABOVE GRADE ON NORTH SIDE OF ROAD
CONDUIT BELOW GRADE
LIFT STATION
STORAGE HOUSE
PANEL ML
PLOT PLAN
SCALE - 1" = 50'-0"

NOTE: TO PROVIDE AGAINST POWER FAILURE A 12 KV FEEDER LINE WILL BE INSTALLED FROM THE GENERATING STATION TO THE WATER RECLAMATION STATION IN ADDITION TO THE EXISTING HIGH LINE. BY OTHERS.

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BECHTEL CORPORATION
LOS ANGELES SAN FRANCISCO NEW YORK

SANTA CATALINA ISLAND
COMPANY

ELECTRICAL PLOT PLAN
AND
SINGLE LINE DIAGRAM

P.C. 7777
J.N 0368.17

DESIGNED MHP	DATE 11-28-66	DRAFT'G SUPV'R	JOB ENG'R MHP	SECT. SUPV.	PROJ. ENG'R	CLIENT
DRAWN MHP	JOB No.		DRAWING No.			REV.
CHECKED KCB	6344		6344-E-2 SHEET 8 OF 8			1
SCALE AS NOTED						

FORM E-2Y REV. 4-65

20 X 28 B