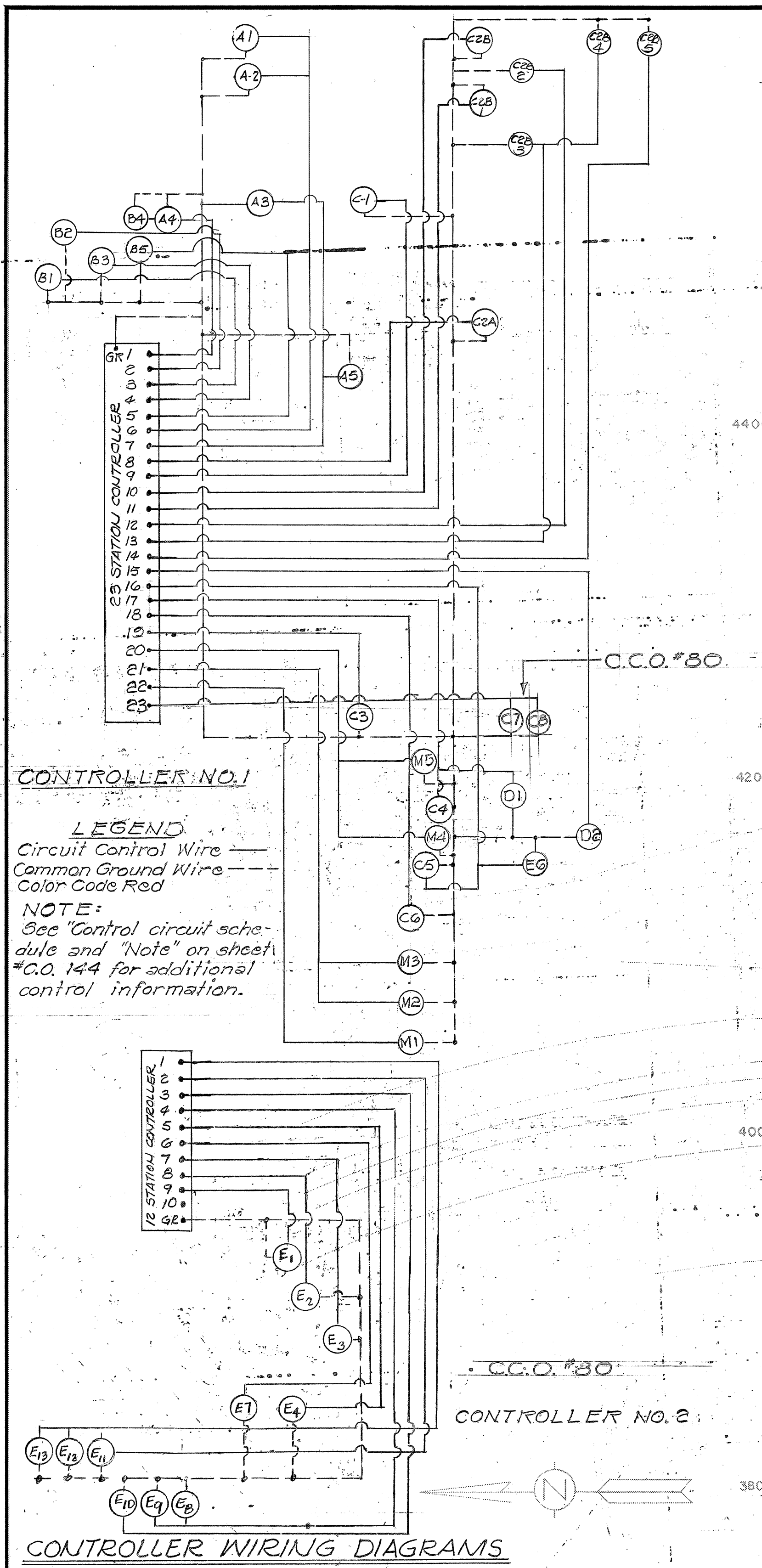
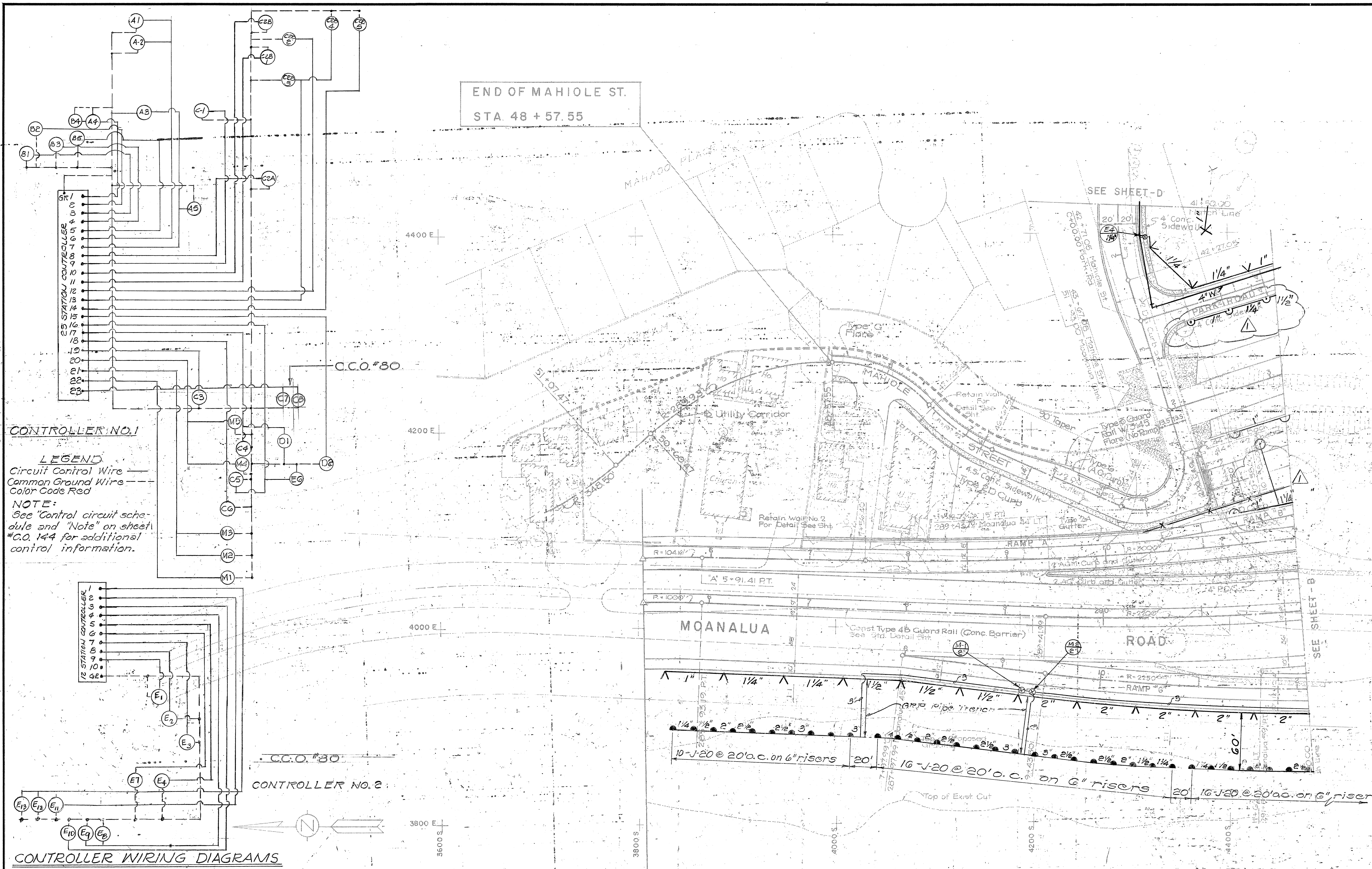


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	60.138	418



LEGEND
 Circuit Control Wire ———
 Common Ground Wire - - - - -
 Color Code Red

NOTE:
 See "Control circuit schedule and Note" on sheet #C.O. 144 for additional control information.

CONTROLLER NO. 1

CONTROLLER NO. 2

CONTROLLER WIRING DIAGRAMS

NOTE:
 1. For Design Detail not shown on 50' scale Plan Sht., see 20' scale Sht. & Special Detail Sht.

NOTE
 1. Spacing of jet & pop-up heads is 60' O.C.

BEG. OF MOANALUA RD. & RAMP "A"
 STA. 285+3.55

RAMP "A" STA. 5+31.79 (45' LT. @)

CCO.#80	Revised wiring diagram. Revised sprinklers on Moanalua Cut Slope and valve E-4.	5/78
PC#1	ADDED CONTROLLER WIRING DIAGRAM	3/6/78
NO.	REVISION	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SPRINKLER SYSTEM PLAN
SHEET A

F.A. Proj. No. F-078-1(10)

Scale: 1" = 50' Date: JAN 1971

SHEET No. 1 OF 9 SHEETS

C.O. 138

GENERAL NOTES

1. GENERAL CONTRACTOR TO COORDINATE ALL NEW WORK SHOWN ON THESE DRAWINGS WITH THE PROPOSED PLANS FOR CONSTRUCTION OF PUULOA INTERCHANGE, FAD PROJECT NO. F-078-1(10) PREPARED FOR THE STATE OF HAWAII DEPT. OF TRANSPORTATION HIGHWAY DIVISION.
2. ALL STONE VENEER WORK AS SHOWN SHALL HAVE ROCK QUARRY FROM MOANALUA STREAM WITHIN MOANALUA VALLEY. MAXIMUM STONE PROJECTION FROM FACE OF WALL 16 G. 1/4" MIN. GROUTING OF 3/4" 1/4".
3. WATERPROOFING OF REFLECTIVE POOL SLAB & WALL TO BE A HEAVY CEMENT BASE COATING APPLIED WITH FIBER BUSH. COATING SHALL MEET FEDERAL SPECIFICATION N2 TT-P-0035 INTENDED FOR WATERPROOFING USE.
4. THE GENERAL CONTRACTOR SHALL CONTACT THE REPRESENTATIVE OF THE DAMON ESTATE BEFORE ENTERING OR SECURING MATERIALS FROM MOANALUA VALLEY. THE REPRESENTATIVE FOR THE DAMON ESTATE IS: MOANALUA GARDENS SUPERINTENDENT TELEPHONE 837-2618
5. N.I.C. AS SHOWN & NOTED ON THESE DRAWINGS REPRESENT NOT IN THIS CHANGE ORDER.

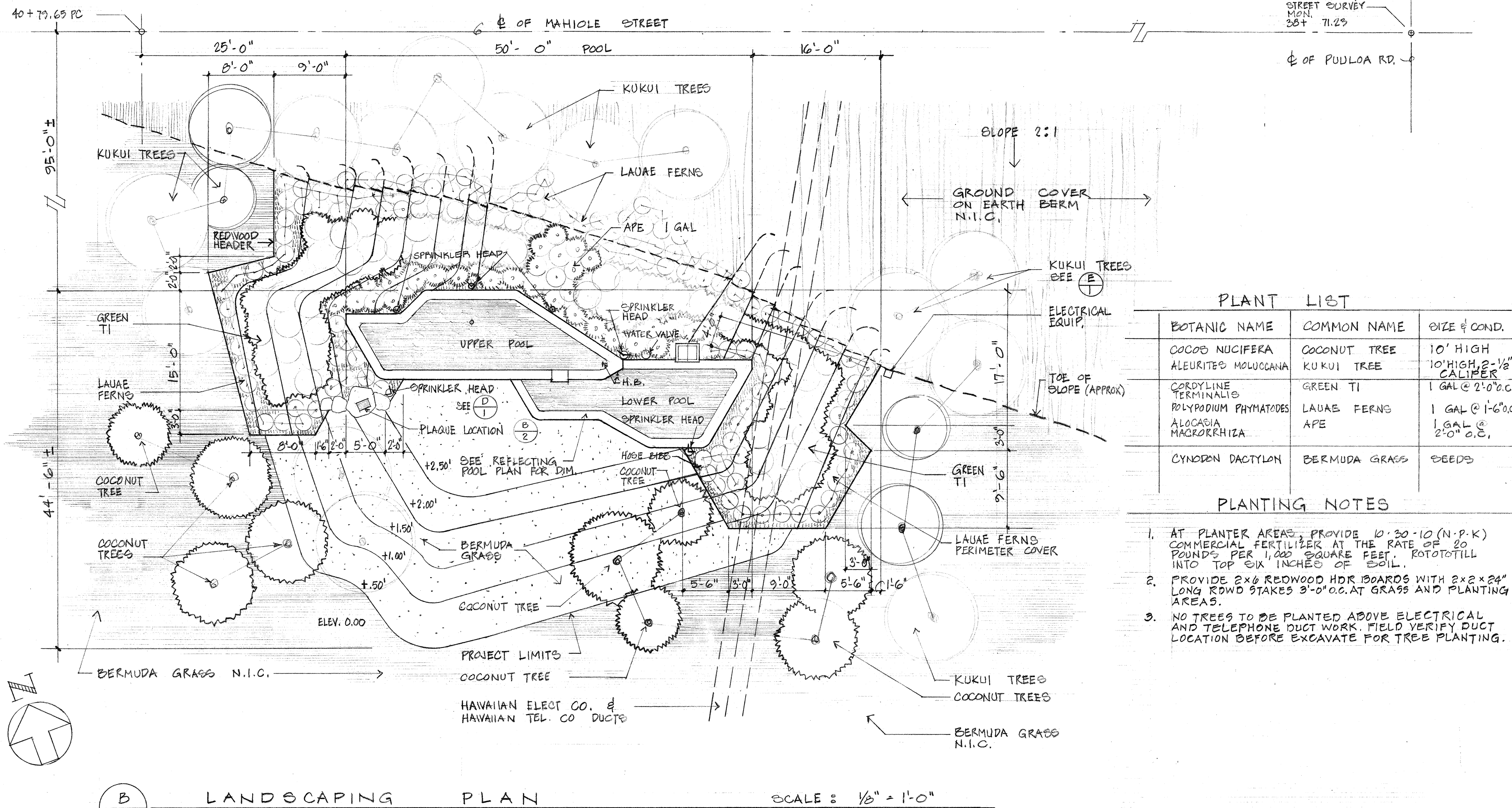
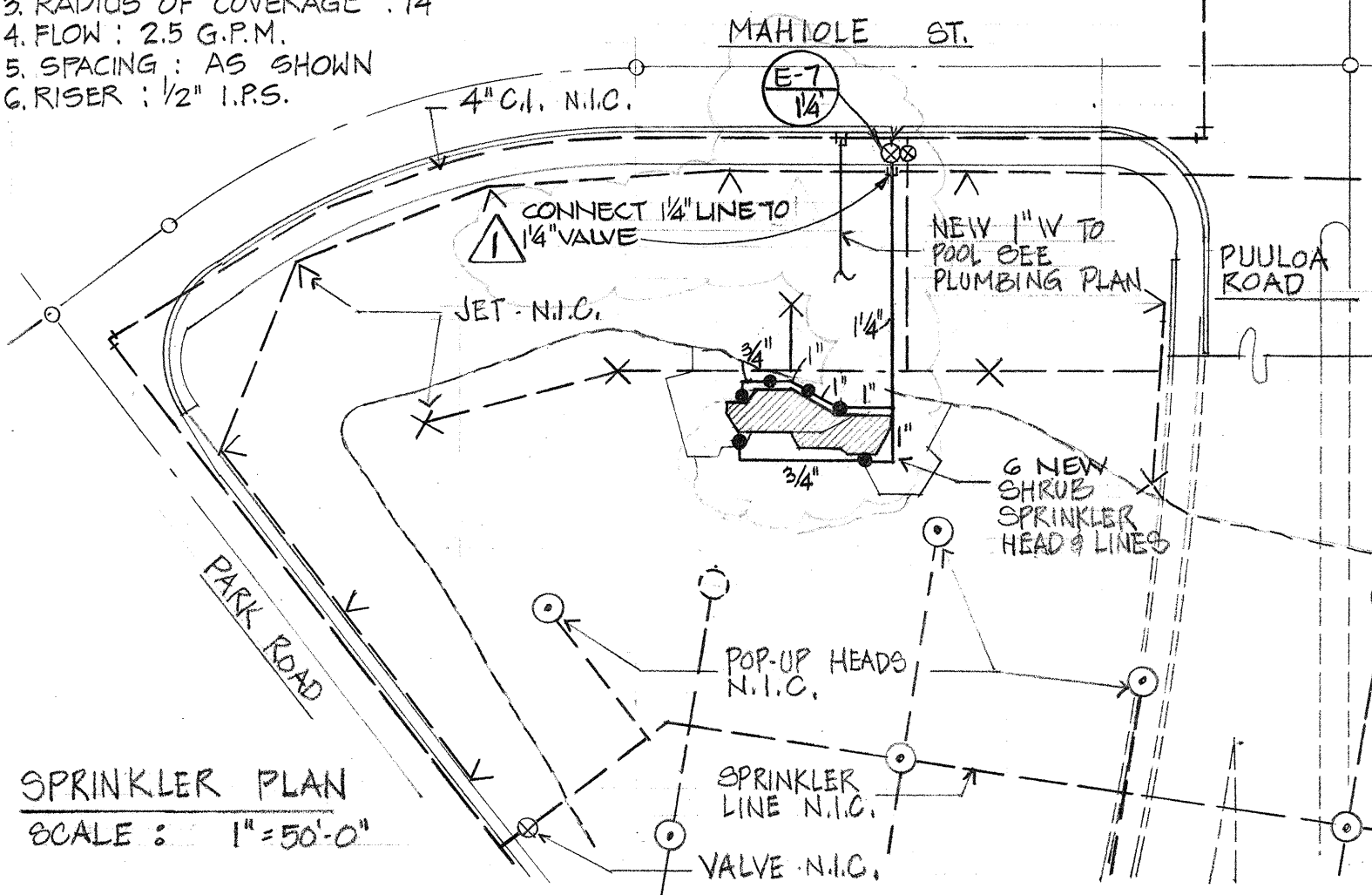
REVISIONS TO PROPOSED SPRINKLER SYSTEM UNDER THIS CHANGE ORDER

SPRINKLER HEAD SPECIFICATIONS

1. TYPE: SHRUBBERY - HALF CIRCLE
2. PRESSURE: 20 P.S.I.
3. RADIUS OF COVERAGE: 14'
4. FLOW: 2.5 G.P.M.
5. SPACING: AS SHOWN
6. RISER: 1/2" I.R.S.

Approved for cross-connection control requirements.

Board of Water Supply
7/17/72
Date

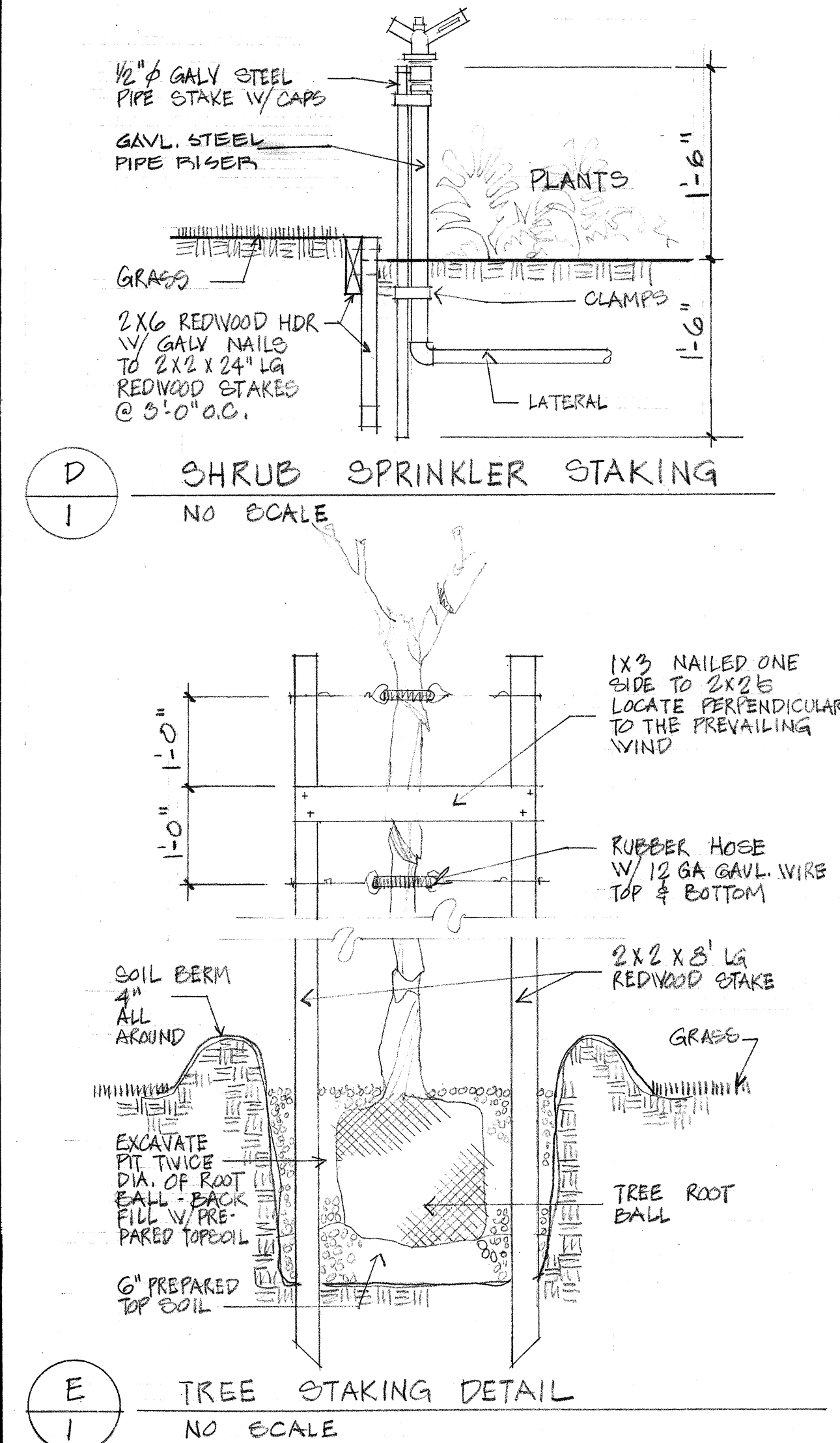
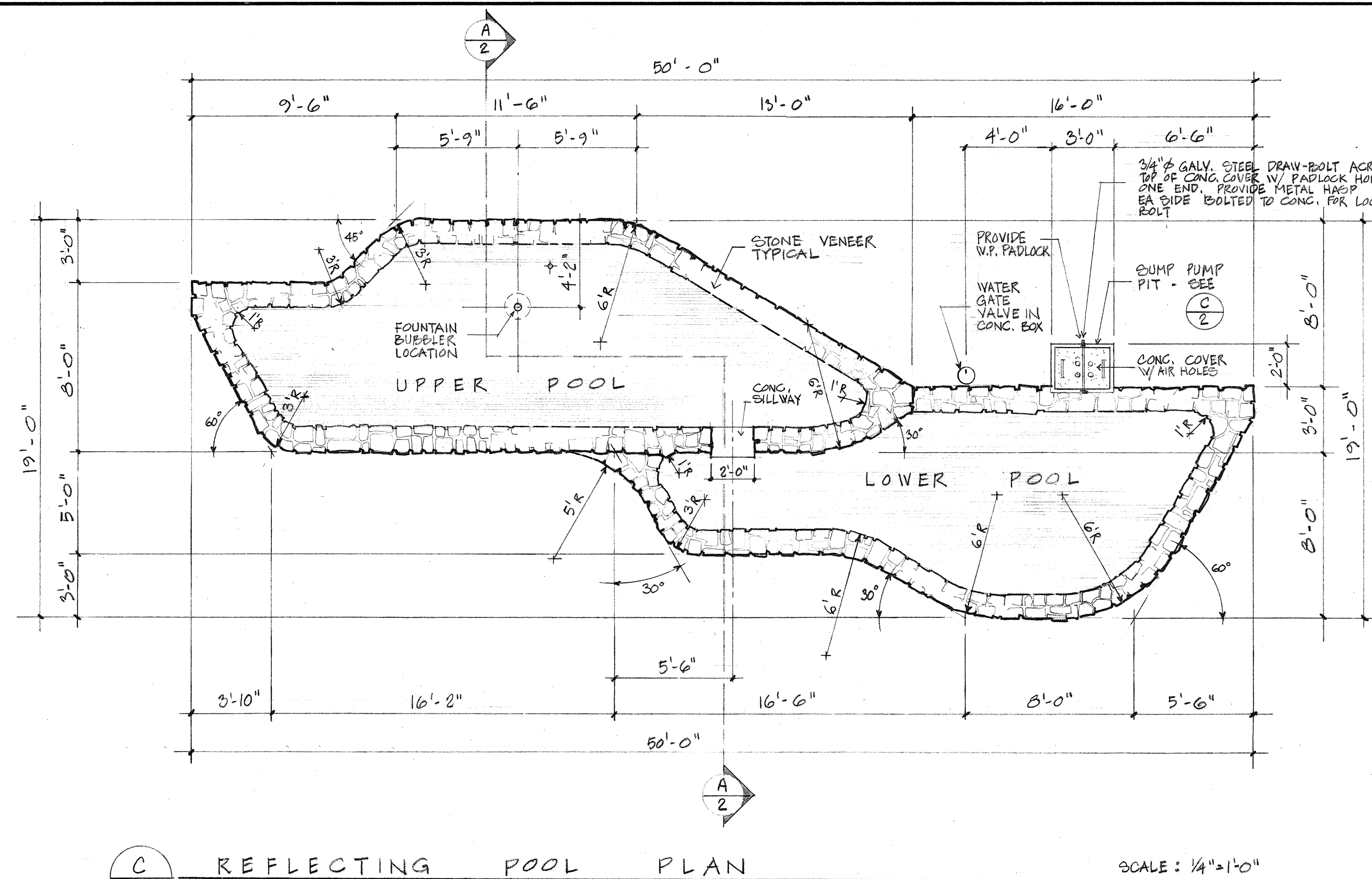
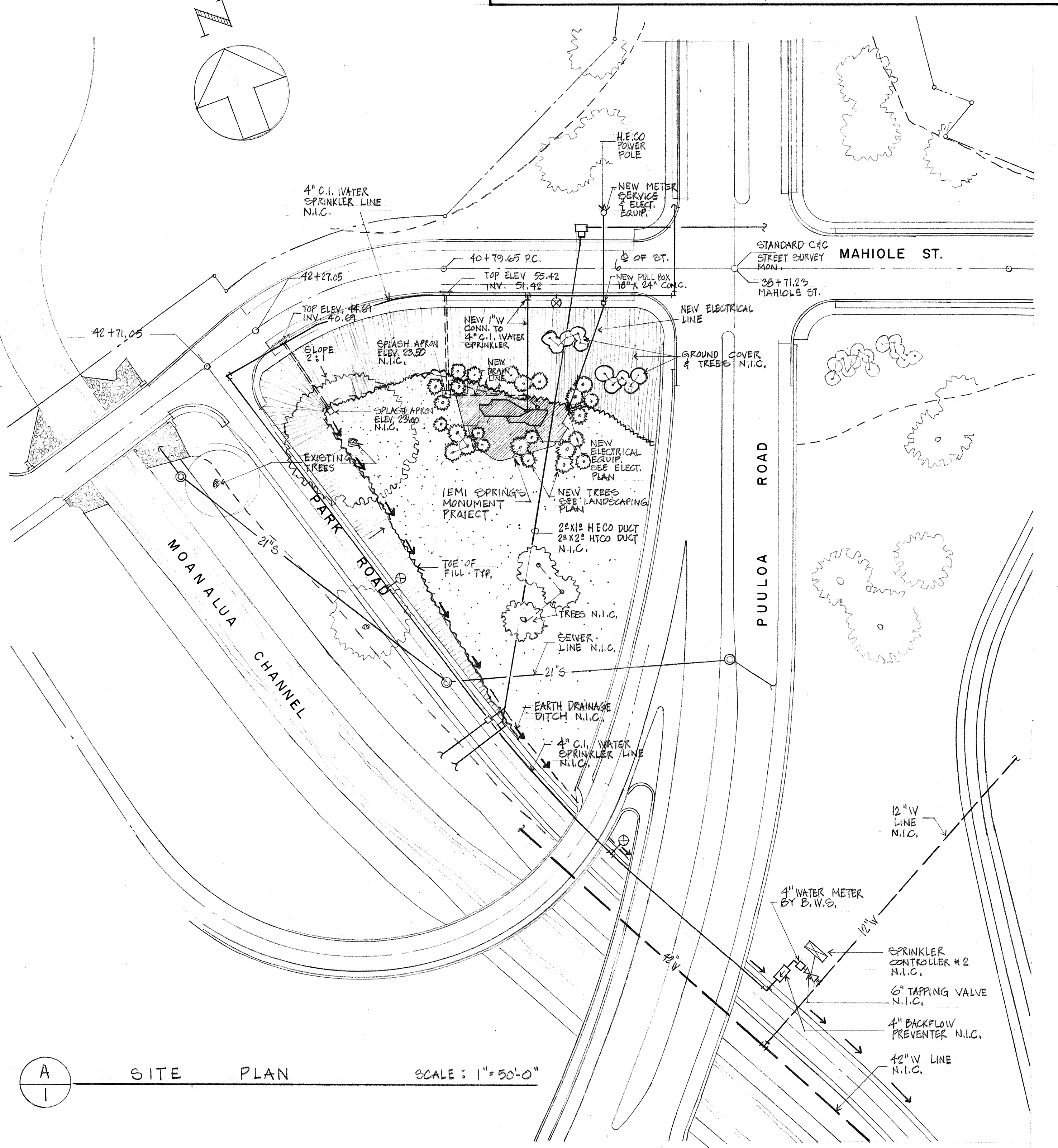


PLANT LIST

BOTANIC NAME	COMMON NAME	SIZE & COND.
COCOS NUCIFERA	COCONUT TREE	10' HIGH
ALUEBITES HOWOCCANA	KUKUI TREE	10' HIGH, 2-1/2" CALIFER
CORYLINE TERMINALIS	GREEN TI	1 GAL @ 2'-0" O.C.
POLYPODIUM PHYMATOPES	LAUAE FERNS	1 GAL @ 1'-6" O.C.
ALOCASIA MACROSPHIZA	LAUAE FERNS	1 GAL @ 2'-0" O.C.
CYNODEN DACTYLON	BERMUDA GRASS	SEEDS

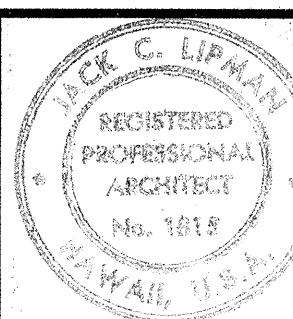
PLANTING NOTES

1. AT PLANTER AREAS, PROVIDE 10'-30'-10" (N.P.K) COMMERCIAL FERTILIZER AT THE RATE OF 20 POUNDS PER 1,000 SQUARE FEET. ROTOTILL INTO TOP SIX INCHES OF SOIL.
2. PROVIDE 2X6 REDWOOD HDR BOARDS WITH 2X2X28" LONG RWD STAKES 3'-0" O.C. AT GRASS AND PLANTING AREAS.
3. NO TREES TO BE PLANTED ABOVE ELECTRICAL AND TELEPHONE DUCT WORK. FIELD VERIFY DUCT LOCATION BEFORE EXCAVATE FOR TREE PLANTING.



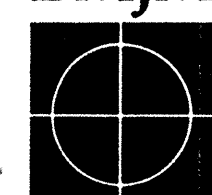
REVISIONS

REV.	DATE	DESCRIPTION	BY
1	6 FEB 73	ADDED SPRINKLER STATION E-1	OGN



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DMJM



DANIEL, MANN, JOHNSON & MENDENHALL OF HAWAII
WARD PLAZA, SUITE 212, 210 WARD AVENUE, HONOLULU, HAWAII 96814
PLANNING & ARCHITECTURE & ENGINEERING & SYSTEMS

IEMI SPRINGS MONUMENT
PUULOA ROAD AND MAHIOLE STREET
HONOLULU HAWAII

DESIGNED BY

C.C.O. #82

DRAWN BY

PUULOA INTERCHANGE

CHECKED BY

F.A.P. No. F-078-1(10)

DATE

OCT. 6, 1972

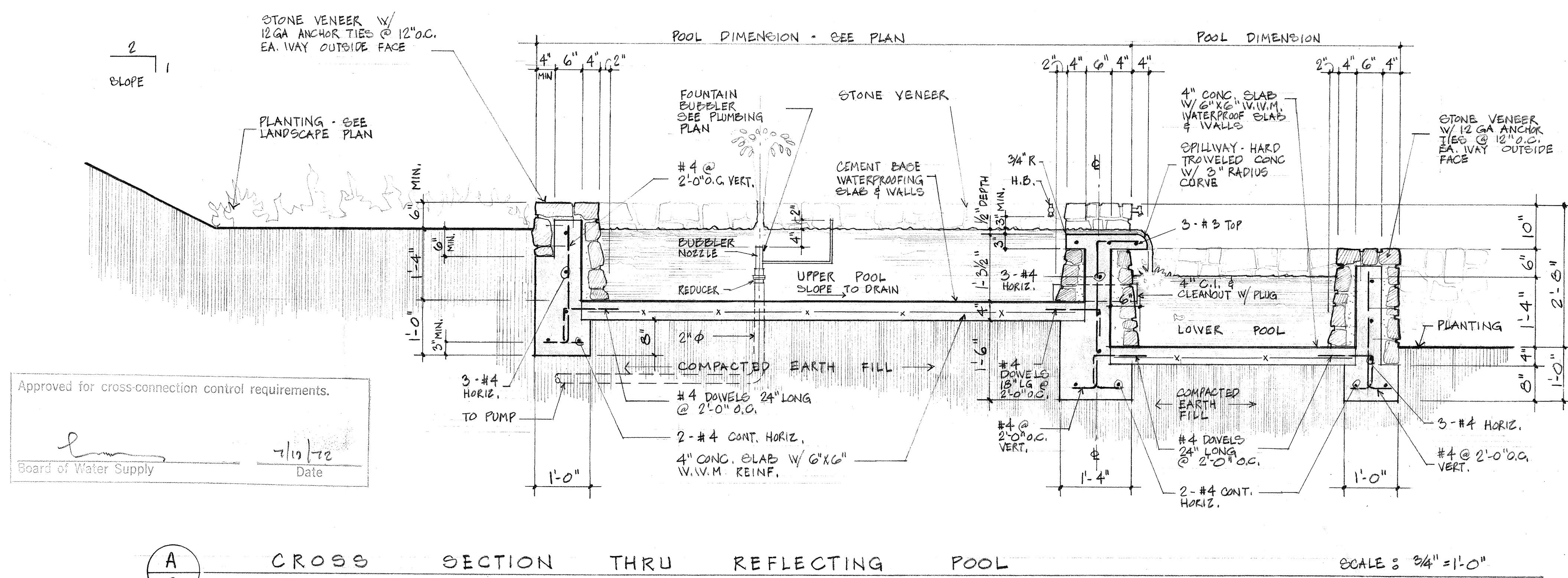
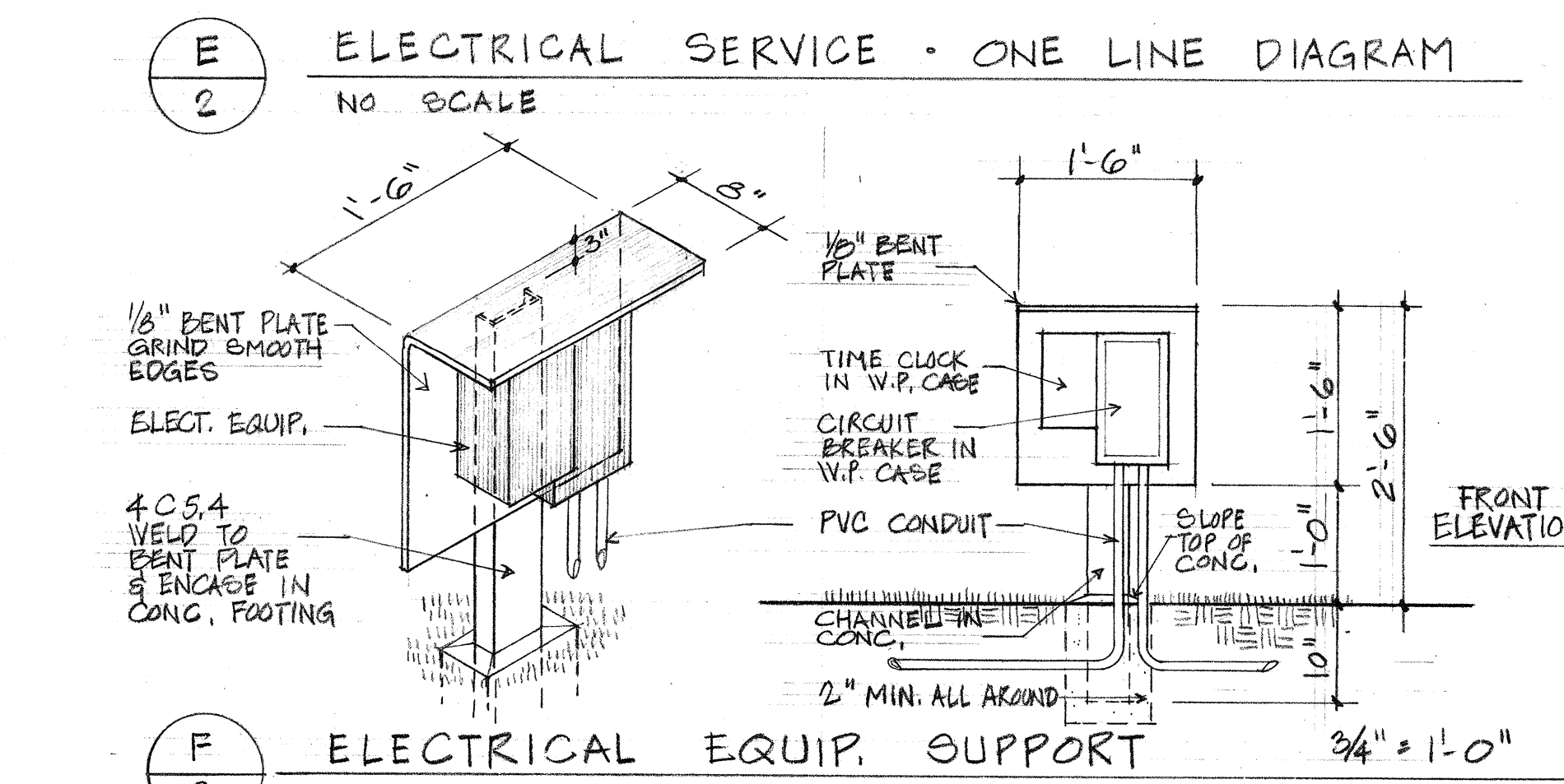
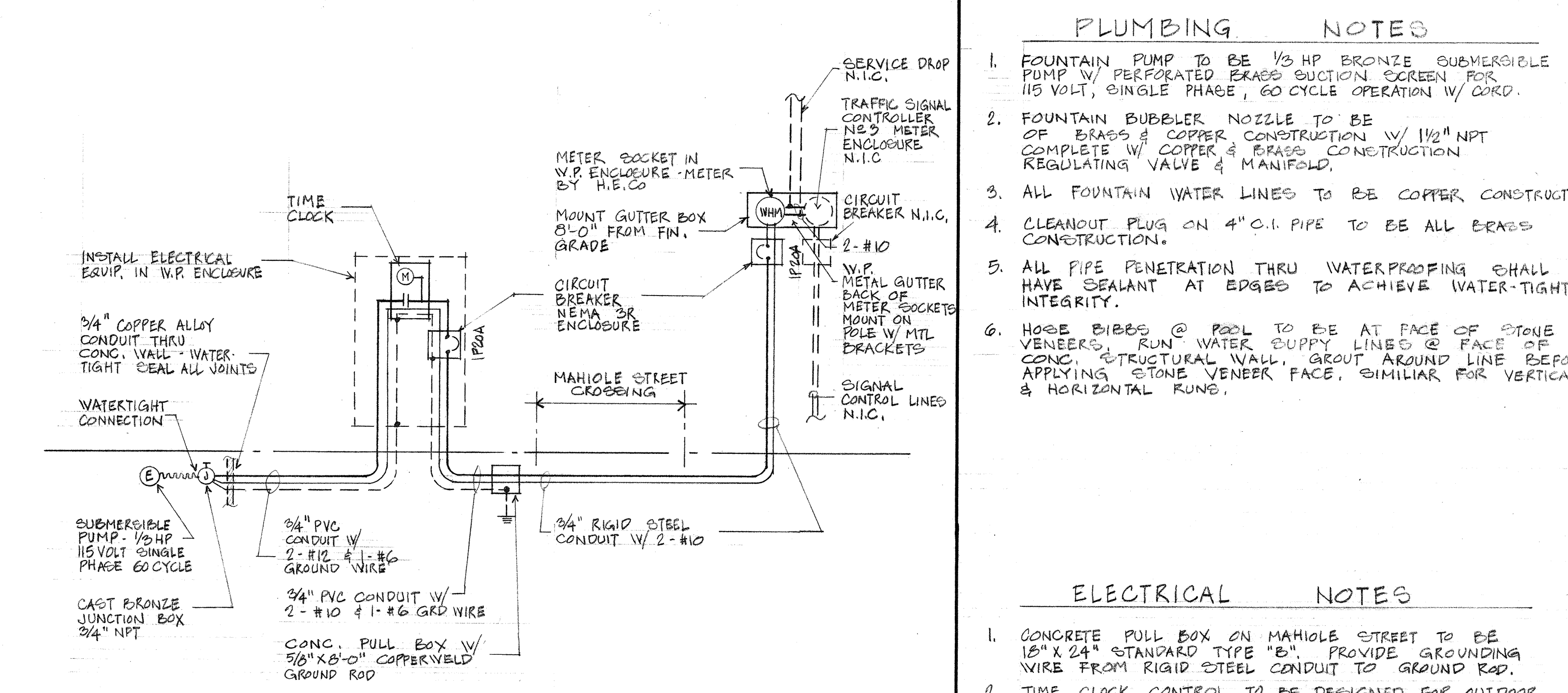
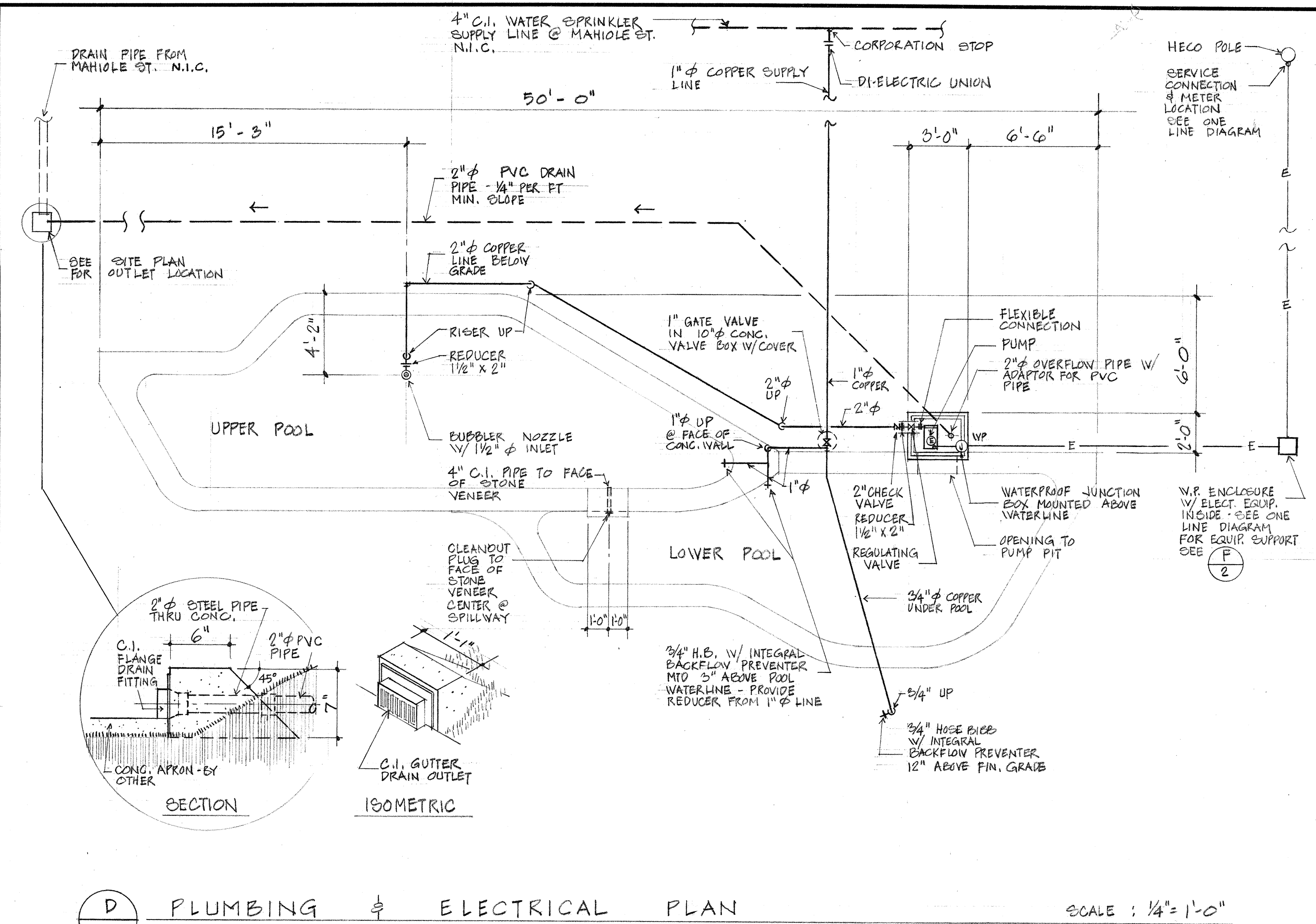
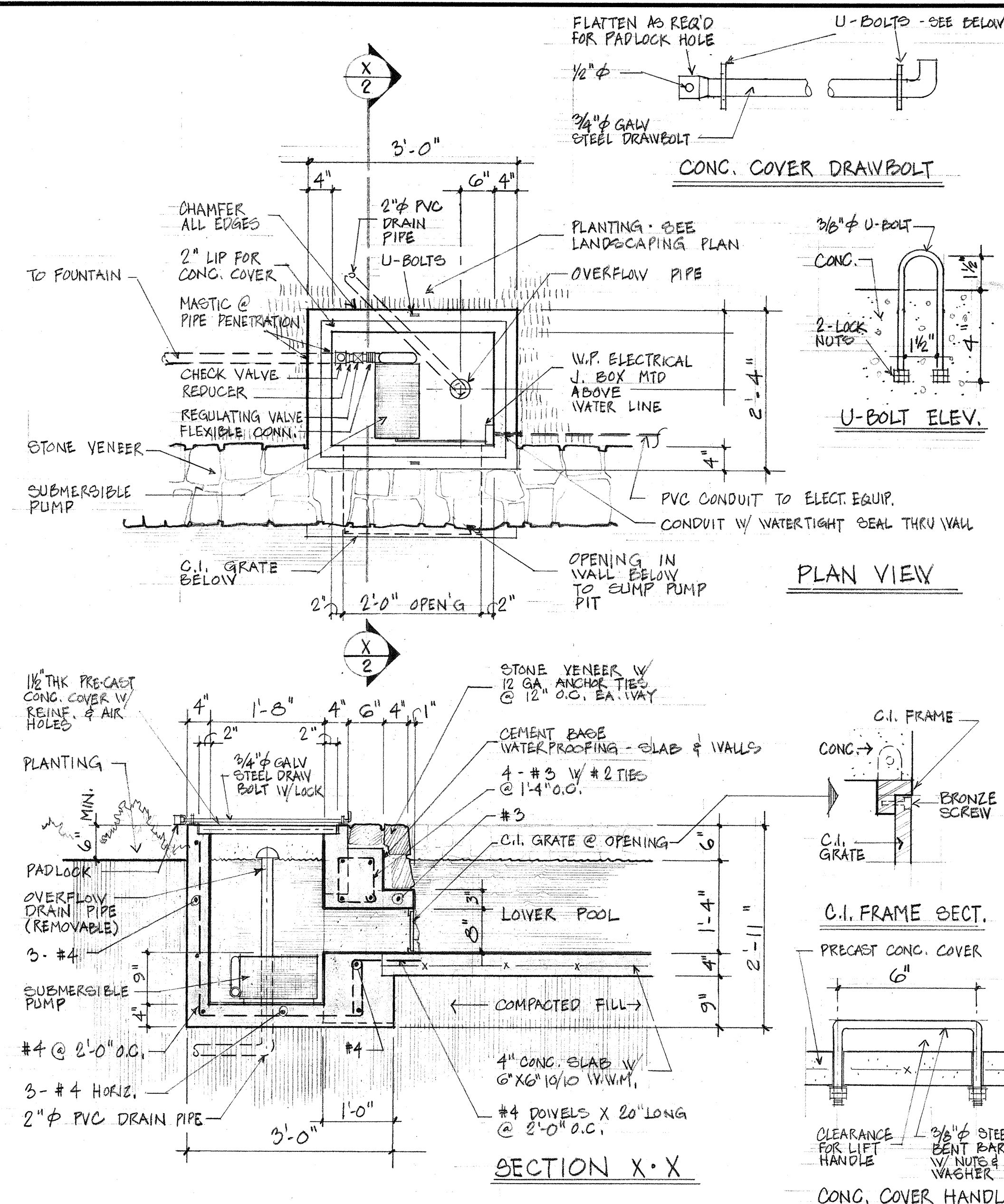
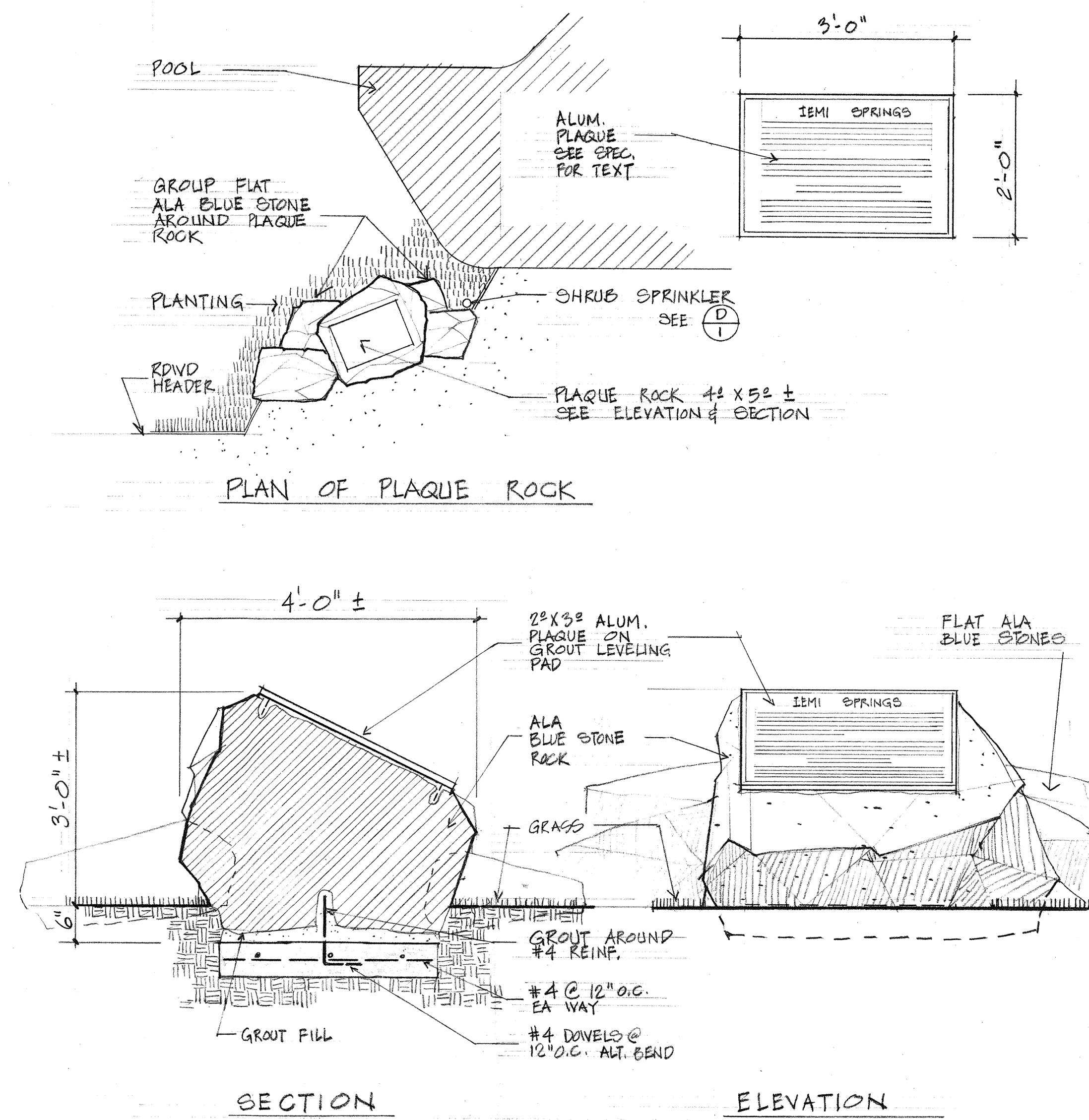
PROJECT NO. 3705-4-1

SHEET NO.

1

OF 2 SHEETS

C01385-1



REVISIONS			
REV.	DATE	DESCRIPTION	BY



THIS WORK WAS PREPARED
BY ME OR UNDER MY
SUPERVISION.

Jack C. Lipman

DMJM
 **DANIEL, MANN, JOHNSON & MENDENHALL OF HAWAII**
 WARD PLAZA, SUITE 212, 210 WARD AVENUE, HONOLULU, HAWAII 96814 TELEPHONE 538-6747
PLANNING \$ ARCHITECTURE \$ ENGINEERING \$ SYSTEMS

ITEM SPRINGS MONUMENT
PUULOA ROAD AND MAHIOLE STREET
HONOLULU HAWAII

DESIGNED BY	C.C.O. #82		SHEET NO.
DRAWN BY P. O.	PUULOA INTERCHANGE F.A.P. No. F-078-1(10)		2
CHECKED BY			
DATE OCT. 6, 1972	PROJECT NO.	3705-4-1	OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	00139	418

NOTES

- Sprinkler system control valves are located as follows:
System A-3 - Sta. 13+25 Ramp 'E'
System A-4 - Sta. 300+00 Moanalua Rd.
System A-5 - Sta. 10+00 Ramp 'E'

System C-2A - Sta. 20+40 Ramp 'G'
System C-3 - Sta. 19+90 Ramp 'G'
System C-4 - Sta. 17+70 Ramp 'G'
System C-5 - Sta. 13+95 Ramp 'G'
System C-6 - Sta. 12+60 Ramp 'G'

System D-2 - Sta. 14+60 Ramp 'A'
System E-1 - Sta. 5+60 Park Rd.
System E-2 - Sta. 4+60 Park Rd.
System E-3 - Sta. 2+00 Park Rd.
2. Unless noted otherwise, spacing for jet & pop-up heads is 60' O.C. Normal spacing for shrubbery heads is 20' O.C.
3. See Sheet No. 7 for water line fittings.
4. Exact locations of Water Meters, Valves, & Controllers to be determined in the field by the Engineer.

INSTALL:
1- 1" SINGLE COMPOUND WATER METER BY B.W.S.
1- 6" TAPPING VALVE - 150# W/ TAPPING SLEEVE
1- 6" BACKFLOW PREVENTER UNIT (SEE DETAIL)
1- 6" x 6" x 6" Tee
23 Sta. Controller w/110 Volt Power

5-15-73 Changed 3" x 2 1/2" control valves sizes to 2". Changed 13 Station Controller to 23 Sta. Controller. Revised valve sizes and sprinklers on Moanalua Cut Slope

RE#1 1-12-73 ADDED AND RESPAVED SPRINKLER HEADS
4-10-72 INDICATED 4" G" SIZE FOR BACKFLOW PREVENTER UNIT. CHANGE 17 STA. CONTROLLER TO 20 STA.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPRINKLER SYSTEM PLAN SHEET B

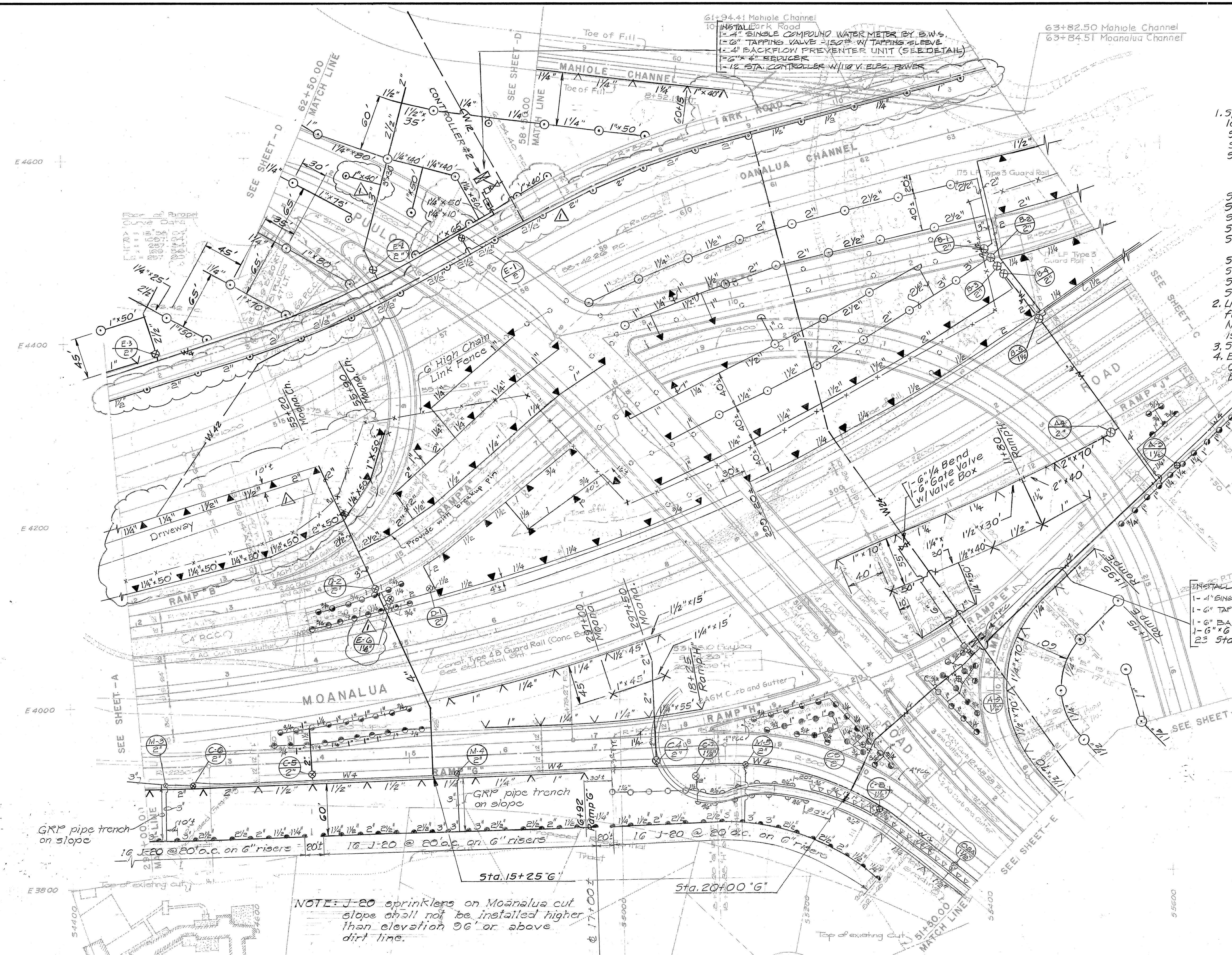
F.A. Proj No. F-078-1(10)

Scale: 1" = 50'

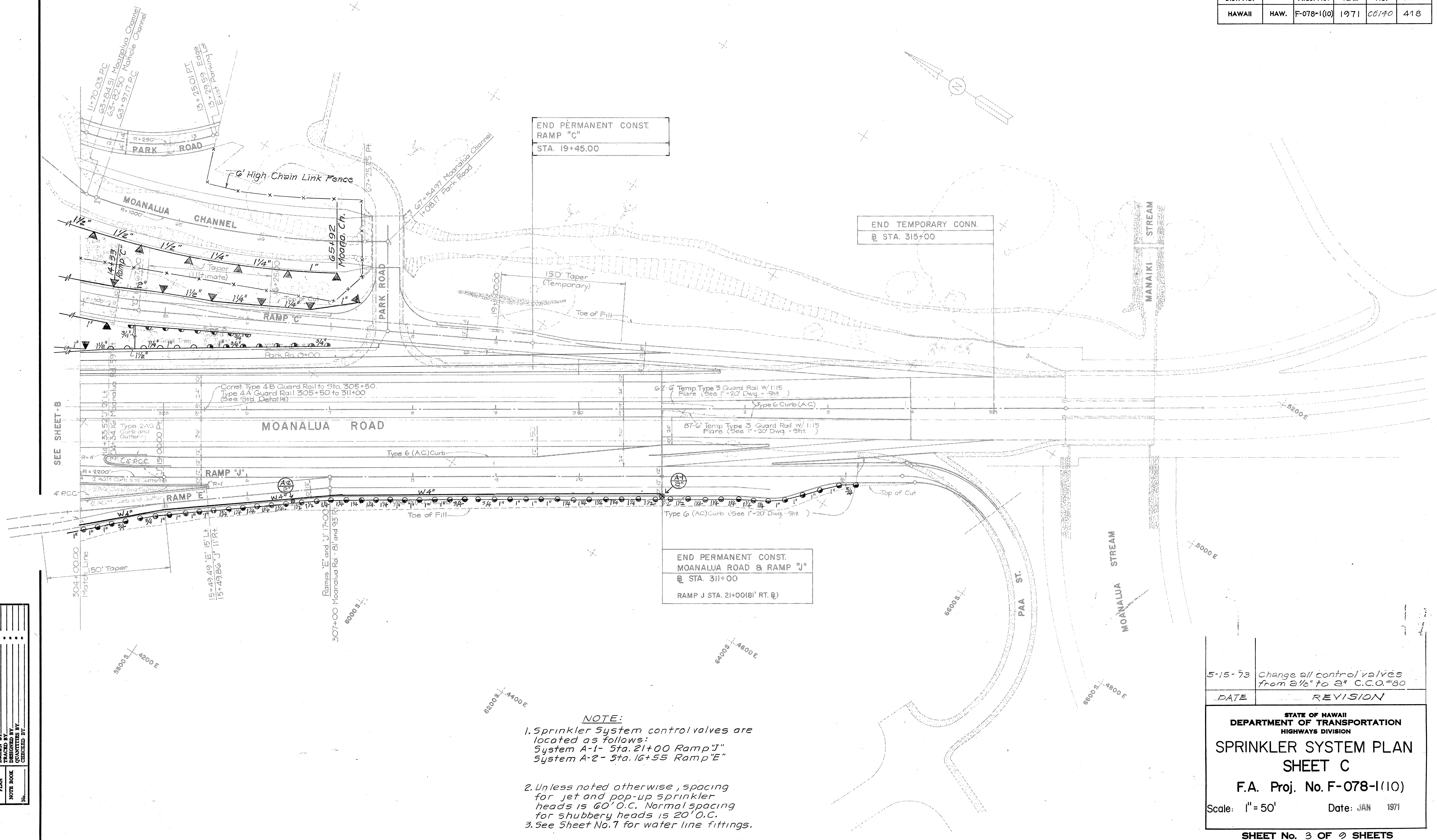
Date: JAN 1971

SHEET No. 2 OF 2 SHEETS

00139



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	00190	418



END PERMANENT CONST.
RAMP "C"
STA. 19+45.00

END TEMPORARY CONN.
@ STA. 315+00

END PERMANENT CONST.
MOANALUA ROAD & RAMP "J"
@ STA. 311+00
RAMP J STA. 21+00(81' RT. R.)

NOTE:
1. Sprinkler System control valves are located as follows:
System A-1- Sta. 21+00 Ramp "J"
System A-2- Sta. 16+55 Ramp "E"

2. Unless noted otherwise, spacing for jet and pop-up sprinkler heads is 60' O.C. Normal spacing for shubbery heads is 20' O.C.
3. See Sheet No. 7 for water line fittings.

5-15-73	Change all control valves from 2 1/2" to 2" C.C.O. #80
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SPRINKLER SYSTEM PLAN
SHEET C**

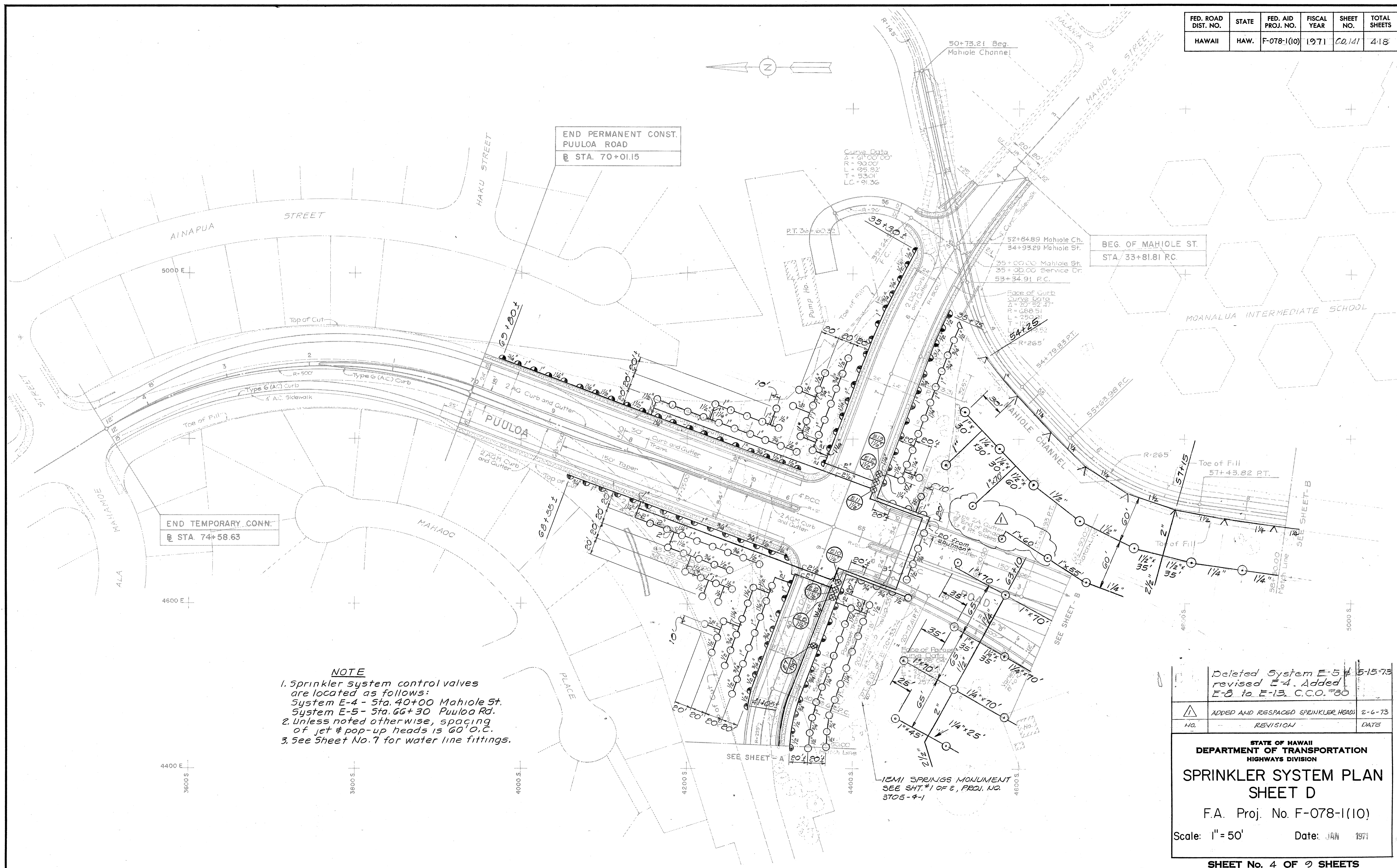
F.A. Proj. No. F-078-1(10)

Scale: 1" = 50' Date: JAN 1971

SHEET No. 3 OF 9 SHEETS

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	00.141	418



NOTE
 1. Sprinkler system control valves are located as follows:
 System E-4 - Sta. 40+00 Mahiole St.
 System E-5 - Sta. 66+30 Puuloa Rd.
 2. Unless noted otherwise, spacing of jet & pop-up heads is 60' O.C.
 3. See Sheet No. 7 for water line fittings.

Deleted System E-5 & E-15-73 revised E-4. Added E-8 to E-13. C.C.O. #80		
NO.	REVISION	DATE
1	ADDED AND RESPAVED SPRINKLER HEADS	2-6-73

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

**SPRINKLER SYSTEM PLAN
SHEET D**

F.A. Proj. No. F-078-1(10)

Scale: 1" = 50' Date: JAN 1971

SHEET No. 4 OF 2 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	C.O.143	418

△ LEGEND AND SPRINKLER HEAD SPECIFICATIONS

SYMBOL	NUMBER	TYPE	PRESSURE PSI.	RADIUS OF COVERAGE	FLOW (G.P.M.)	SPACING	RISER
●	S-14-H	SHRUBBERY - HALF CIRCLE	30	14'	2.5	15'	1/2" I.P.S.
●	S-14-F	SHRUBBERY - FULL CIRCLE	30	14'	3.8	15'	1/2" I.P.S.
▽	S-7-FLT	SHRUBBERY - HALF CIRCLE - FLAT SPRAY	15	7'	.90	10'	1/2" I.P.S.
▲	J-20	JET - PART (P) 3/16" NOZZLE	20	20'	4.3	20'	1/2" I.P.S.
V. +	J-38	JET - PART (P) OR FULL (F) CIRCLE, 1/8" NOZZLE	35	38'	2.82	AS SHOWN	1/2" I.P.S.
▼	J-40	JET - PART (P) 9/64" NOZZLE	30	38'	3.1	30'	1/2" I.P.S.
⊖	P-41-P	ROTOR POP-UP (P) PART CIRCLE 9/64" NOZZLE	30	38'	3.1	60' *	3/4" I.P.S.
⊙	P-41-F	ROTOR POP-UP (F) FULL CIRCLE 9/64" NOZZLE	30	38'	3.1	60' *	3/4" I.P.S.
		SPRAY NOZZLE - HALF CIRCLE, 5/16 x 24 NF MALE THREAD	25	8'	.75	8'	
2" W		IRRIGATION WATER MAIN					
⊗	R.C.V.	REMOTE CONTROL VALVE W/ VALVE BOX					
⊗	G.V.	GATE VALVE W/ VALVE BOX					
⊗	B.P.U.	BACKFLOW PREVENTION UNIT					
⊗		AUTOMATIC CONTROLLER (#1-23 STA., #2-12 STA.)					
▲	P-20	LAWN POP-UP, 2 3/16" POP-UP HT.	20	18'	1.0	20'	1/2" I.P.S.
⊖	S-20H	SHRUBBERY, HALF CIRCLE	20	18'	1.0	20'	1/2" I.P.S.
⊙	S-20F	SHRUBBERY, FULL CIRCLE	20	18'	1.7	20'	1/2" I.P.S.

* Except as shown on plans.

△ GENERAL NOTES:

- RISER SUPPORTS SHALL BE 1/2" φ OR 3/4" φ GALVANIZED STEEL PIPE OR #6 REINFORCING BAR.
- FINAL LOCATIONS OF VALVES, BACKFLOW PREVENTERS AND VACUUM BREAKERS SHALL BE DETERMINED BY THE ENGINEER.
- CONCRETE REACTION BLOCKS AND REINFORCED CONCRETE JACKET SHALL BE CLASS B.
- MINIMUM LINE SIZE BETWEEN SPRINKLER HEADS SHALL BE AS SHOWN ON THE PLANS.
- PIPE 4" IN DIAMETER AND LARGER SHALL BE CAST IRON INSTALLATION - SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 624, WATER SYSTEM OF THE STANDARD SPECIFICATIONS.
- LINE SIZES UP TO AND INCLUDING 3" SHALL BE GALVANIZED STEEL PIPE, COPPER PIPE OR P.V.C. PIPE, EXCEPT THAT PIPE IN THE ROADWAY AND SHOULDER AREAS SHALL BE COPPER.
- UNLESS OTHERWISE INDICATED ON THE PLANS THE LATERAL FOR THE SPRINKLER HEADS SHALL BE LOCATED AS FOLLOWS:
2" - FROM TYPE 1 SWALES AND RETAINING WALLS
1" - FROM THE RAIL FENCE LINE
2' - FROM EDGE OF SHOULDER WHERE NO SWALE OR GUARD RAIL OCCURS.
7' - FROM EDGE OF SHOULDER WHERE TYPE 2 (FILL SECTION) SWALE, OR GUARD RAIL OCCURS.
- GATE VALVES SHALL BE CLASS 150.
- INDICATED 4" WATER METERS WILL BE INSTALLED BY GWS. MATERIALS SHALL BE PROVIDED BY THE CONTRACTOR.
- UNLESS NOTED OTHERWISE, ALL AUTOMATIC CONTROL WIRE SHALL BE 14 GA. AND UNDER THE ROADWAY PAVEMENT, 1" PVC CONDUIT SHALL BE INSTALLED FOR THE CONTROL WIRE. THE MIN. COVER FOR THE CONDUIT SHALL BE 2'-0".
- THE DURATION OF EACH CIRCUIT SHALL BE TIMED AS INDICATED ON THE CIRCUIT SCHEDULE.

LEGEND NOTES:

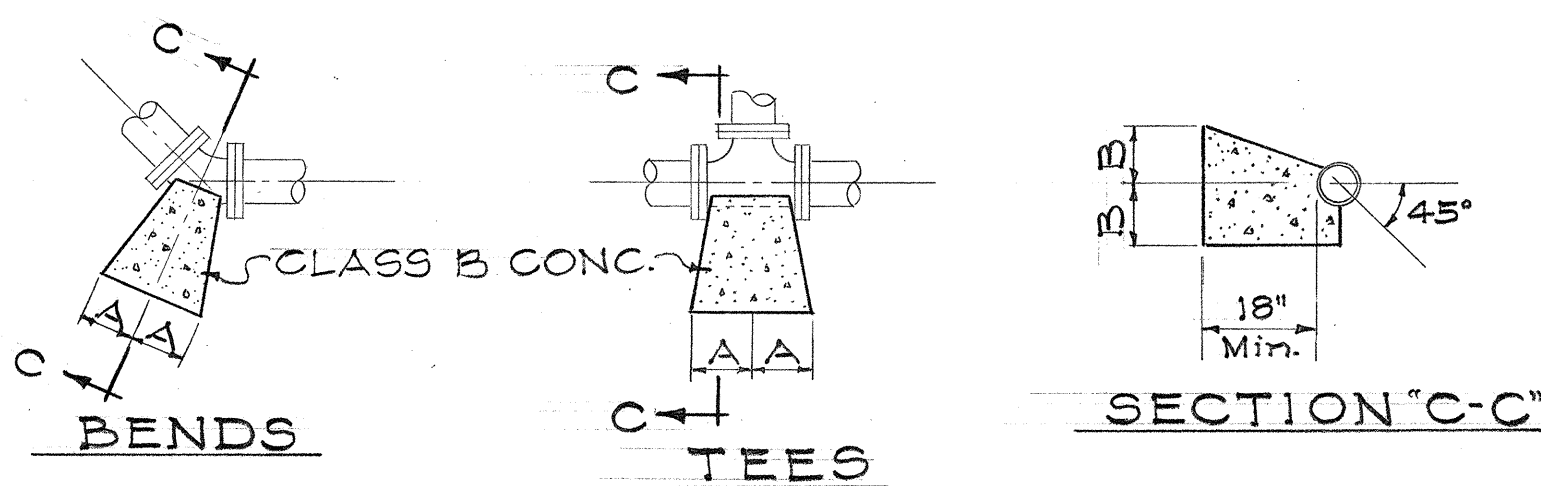
- "PRESSURE" IS THE MINIMUM PRESSURE, IN POUNDS PER SQUARE INCH, WHICH IS AVAILABLE AT THE EDGE OF THE LAST HEAD. THE OPERATING PRESSURE OF ACCEPTABLE HEADS MUST NOT EXCEED THIS VALUE WHEN OPERATING AT THE TABULATED FLOW AND RADIUS.
- "RADIUS OF COVERAGE" IS THE MINIMUM RADIUS AT THE TABULATED PRESSURE.
- "FLOW" IS THE MAXIMUM FLOW, IN GALLONS PER MINUTE, WHICH IS DISCHARGED AT THE TABULATED PRESSURE.
- "SPACING" IS THE CENTER TO CENTER SPACING OF SPRINKLER HEADS, UNLESS OTHERWISE NOTED OR SHOWN ON THE PLANS.

△ ESTIMATED QUANTITIES

Structural Excavation	1500 C.Y.*	GRP	22 C.Y.	P-20 Sprinkler Hd.	82 Ea.
Class "B" Concrete	25 C.Y.*	1/2" Galv. Pipe	1074 L.F.	S-20 (H/F) "	111 Ea.
1/2" Copper Pipe	250 L.F.	3/4" " "	50 L.F.	J-20 " "	100 Ea.
2" Copper Pipe	450 L.F.	1" " "	130 L.F.	J-40 " "	37 Ea.
2 1/2" Copper Pipe	750 L.F.	1 1/4" " "	180 L.F.	Anchor Rings	308 Ea.
1/2" Galv. Sti., Copper, or PVC Pipe	690 L.F.	1 1/2" " "	180 L.F.		
3/4" " " " " " "	1370 L.F.	2" " "	180 L.F.		
1" " " " " " "	5840 L.F.	2 1/2" " "	540 L.F.		
1 1/4" " " " " " "	6832 L.F.	3" " "	310 L.F.		
1 1/2" " " " " " "	3874 L.F.				
2" " " " " " "	1208 L.F.				
2 1/2" " " " " " "	366 L.F.				
3" " " " " " "	2516 L.F.				
4" Cast Iron Pipe	4350 L.F.				
6" Cast Iron Pipe	150 L.F.				
P-41 (P/F) Sprinkler Head	129 Ea.				
5-14 (Q, H, # F) Sprinkler Head	162 Ea.				
J-38 (P/F) Sprinkler Head	182 Ea.				
S-7-FLT Sprinkler Head	52 Ea.				
1 1/2" Remote Control Valve w/ Type "A" V.B.	10 Ea.				
2" " " " " " "	28 Ea.				

6" Shut Off Valve w/ Type "A" V.B.	2 Ea.
12 Station Automatic Controller	1 Ea.
23 Station Automatic Controller	1 Ea.
14 Gauge Direct Burial Wire Cable	33000 L.F.
Cast Iron Fittings	2500 Lbs.*
Reinforcing Steel	1400 Lbs.*
6" Backflow Preventer	1 Ea.
4" Backflow Preventer	1 Ea.
Nozzle Line	1876 L.F.
1 1/4" Remote Control Valve "Type A" V.B.	3 Ea.

* Incidental to other sprinkler system items



SIZE	1/4 BEND	1/8 BEND	TEES
	A	B	A B
3"	5"	3.5"	3.5" 4" 4"
4"	6"	5"	5" 6" 6"
6"	10"	9"	10" 10" 12"

DETAIL OF CONCRETE BLOCKS

NOT TO SCALE

NOTE:

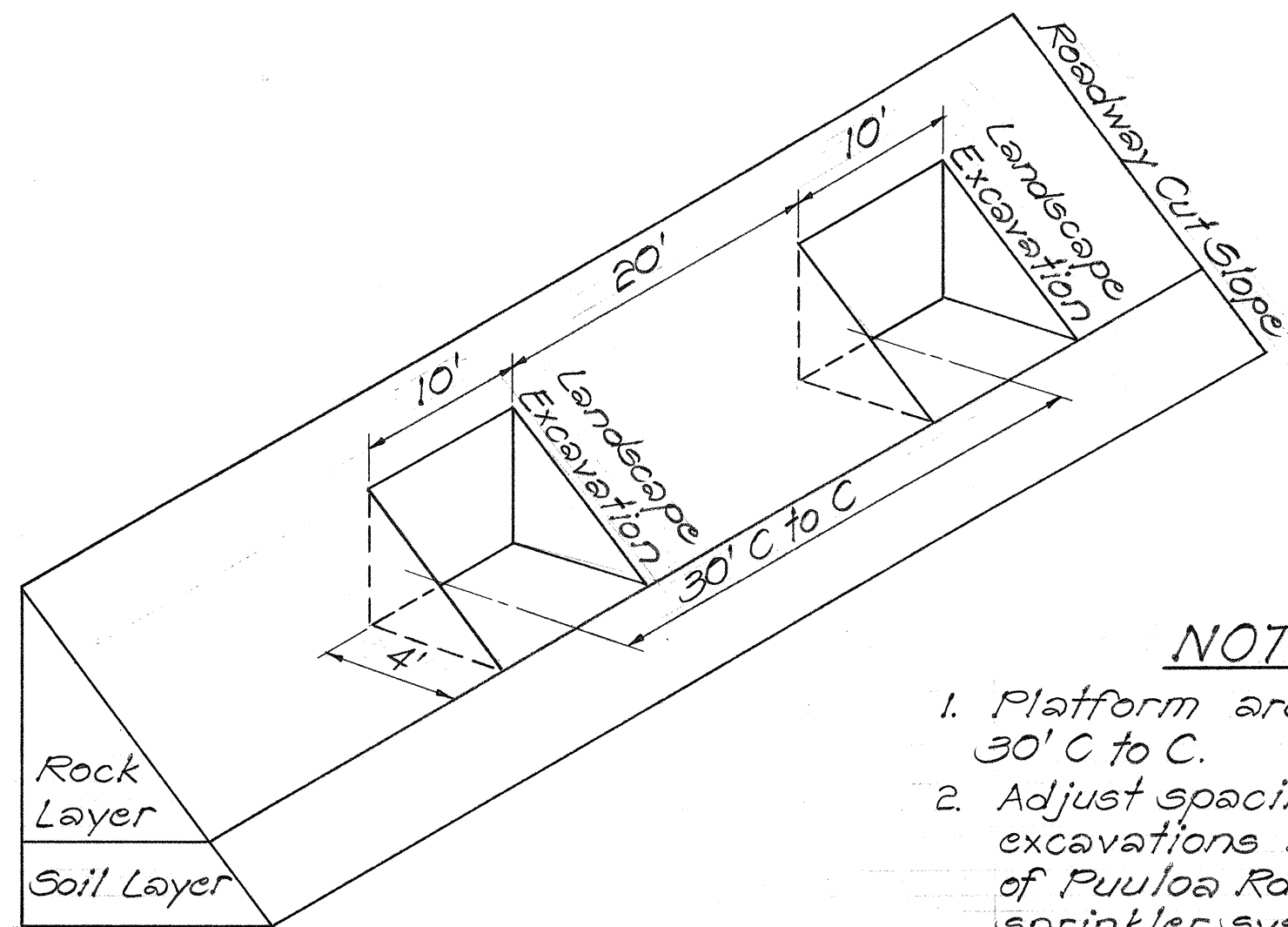
- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- CONCRETE REACTION BLOCKS ARE RECOMMENDED SIZES. ENGINEER MAY CHANGE REQUIREMENTS TO MEET FIELD CONDITIONS.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SPRINKLER SYSTEM SCHEDULE & NOTES	
F.A. PROJ. NO. F-078-1 (10)	
SCALE: AS SHOWN	DATE: JAN 1971

SHEET No. 6 OF 9 SHEETS

C O 143

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-100	1977	1445-1	418

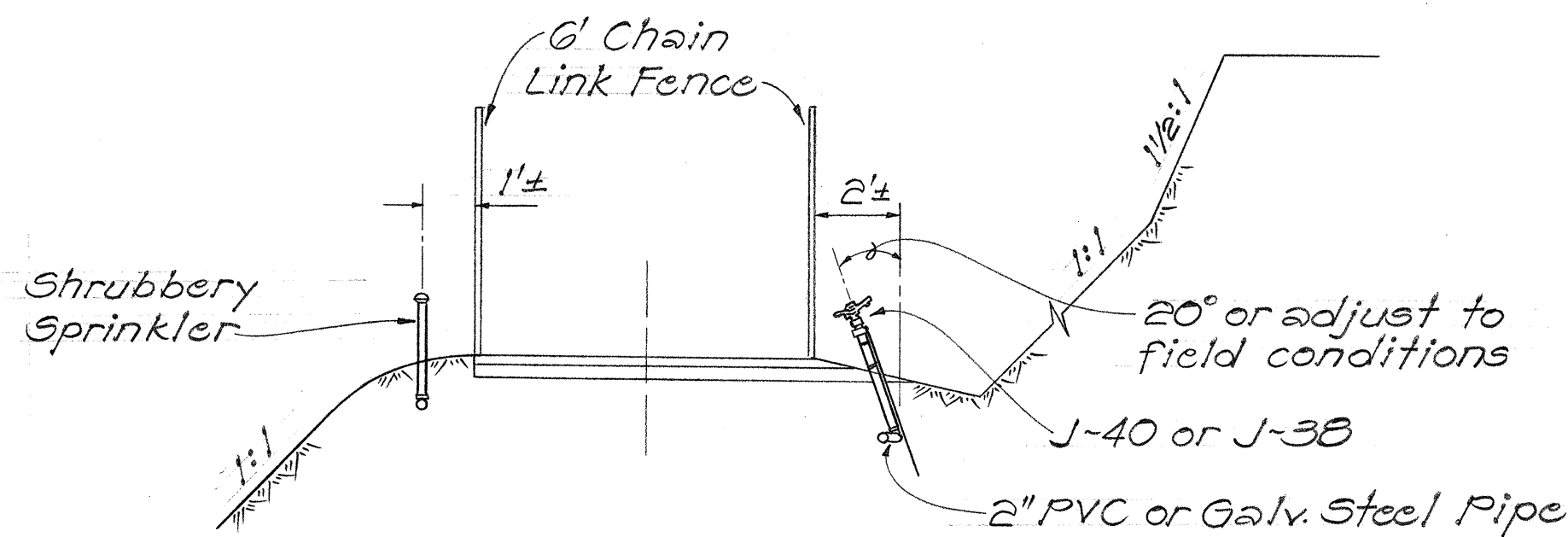


- NOTES**
1. Platform areas 4'x10' @ 30' C to C.
 2. Adjust spacing between excavations in vicinity of Puuloa Rd. 44+00 to miss sprinkler system pipes on slope.

Not to Scale

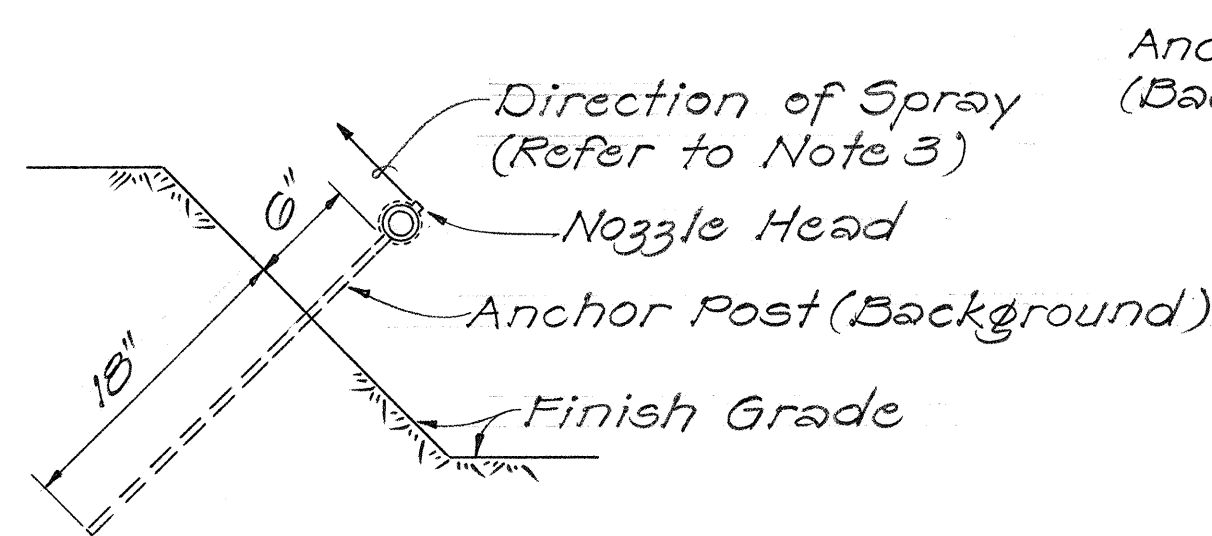
LOCATION: Puuloa Rd, Approximate Sta. 37+50 to 47+50 9% Lt.

C.C.O. #14

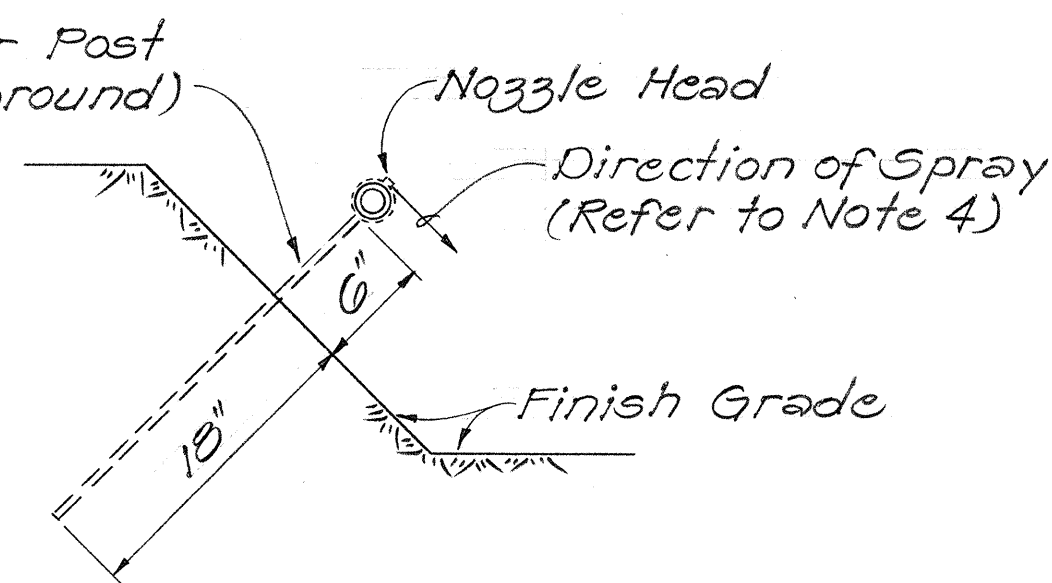


SECTION AT PEDESTRIAN WALKWAY
Not to Scale

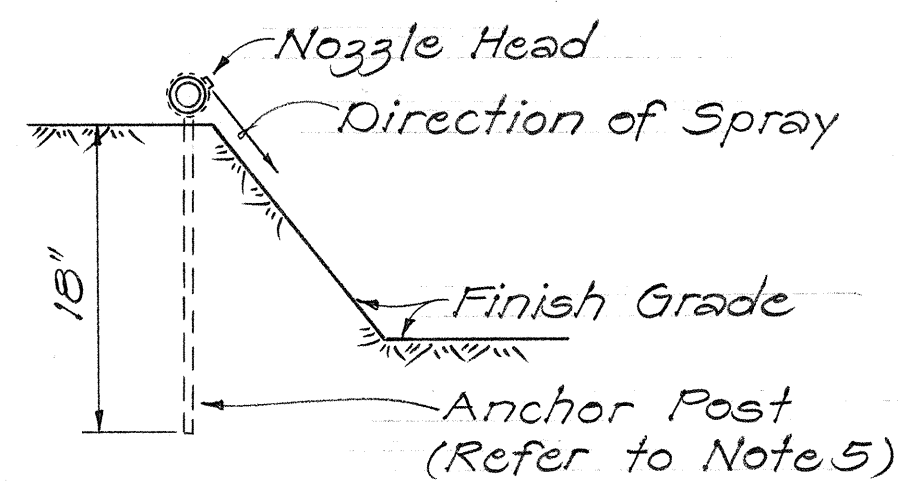
C.C.O. #80



X-SECTION NOZZLE LINE-RELOCATED
SYSTEM C-2B1 PUULOLO CUT SLOPE
Not to Scale



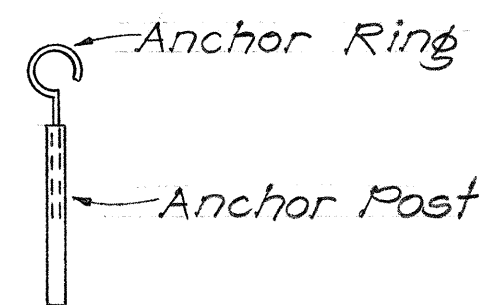
X-SECTION NOZZLE LINE-RELOCATED
SYSTEM C-2B1 PUULOLO CUT SLOPE
Not to Scale



X-SECTION NOZZLE LINE-LOWERED
SYSTEM C-2B2 PUULOLO CUT SLOPE
Not to Scale

- NOTES:**
1. Nozzle line to be oriented so nozzles spray parallel to slope.
 2. Elevation to be constant for relocated nozzle line between Sta. 44+00 to 48+24
 3. Approx. 100 L.F. of relocated nozzle line shall have nozzle heads spraying in the up slope direction. Refer to opposite page for direction.
 4. Approx. 510 L.F. of relocated nozzle line shall have nozzle heads spraying in the down slope direction.

5. All anchor posts for system C-2B2 shall be cut 6" and the nozzle line lowered to ground elevation. Remove burrs after cutting. Driving of anchor post will be allowed only if ground conditions permit.
 6. The abandoned nozzle line including nozzle heads, anchor rings, and anchor posts shall be stockpiled at the state field office.
- | | |
|--------------|----------|
| Nozzle Line | 100 L.F. |
| Anchor Posts | 10 EA. |
| Nozzle Heads | 24 EA. |



ANCHOR POST
Not to Scale

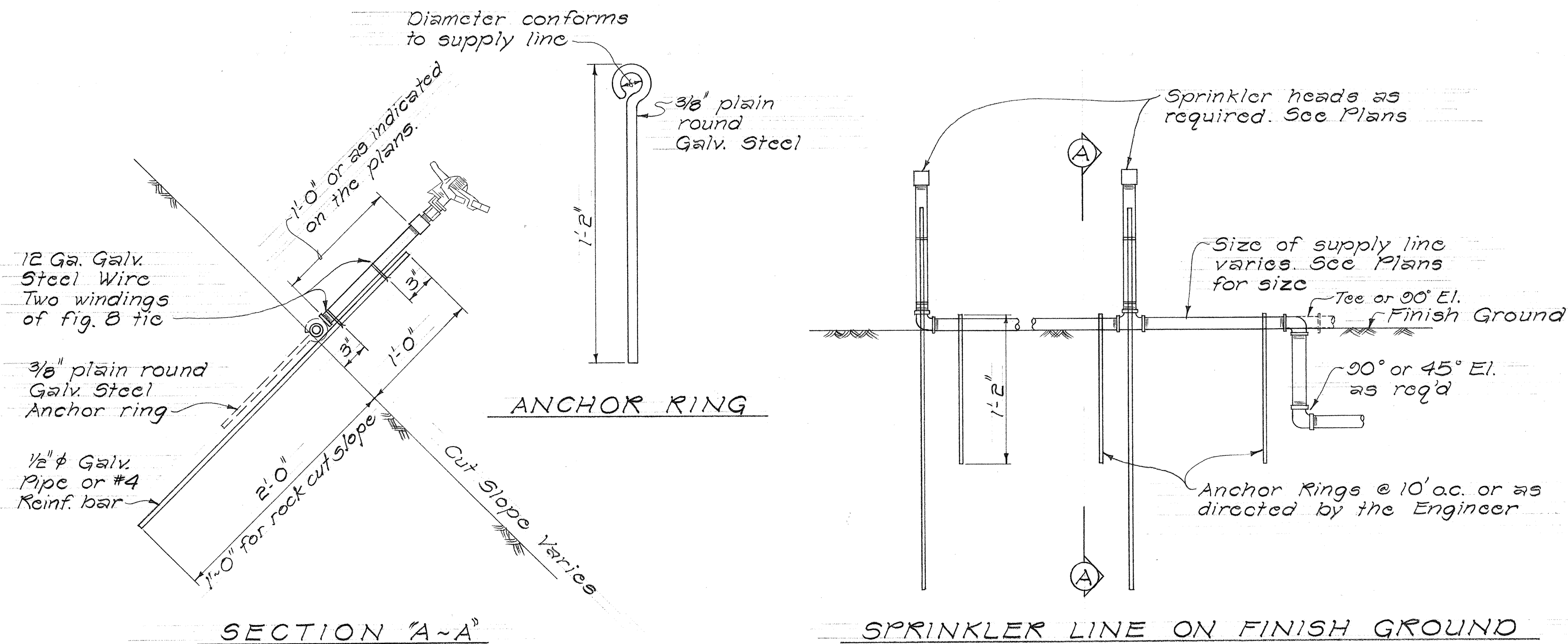
C.C.O. #74

Note: This supplement sheet prepared during As-built posting.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>CHANGE ORDER DETAILS</u>	
F.A. Proj. No. F-07B-1(10)	
Not to Scale	Date: Jan. 1977
SHEET No. OF SHEETS	

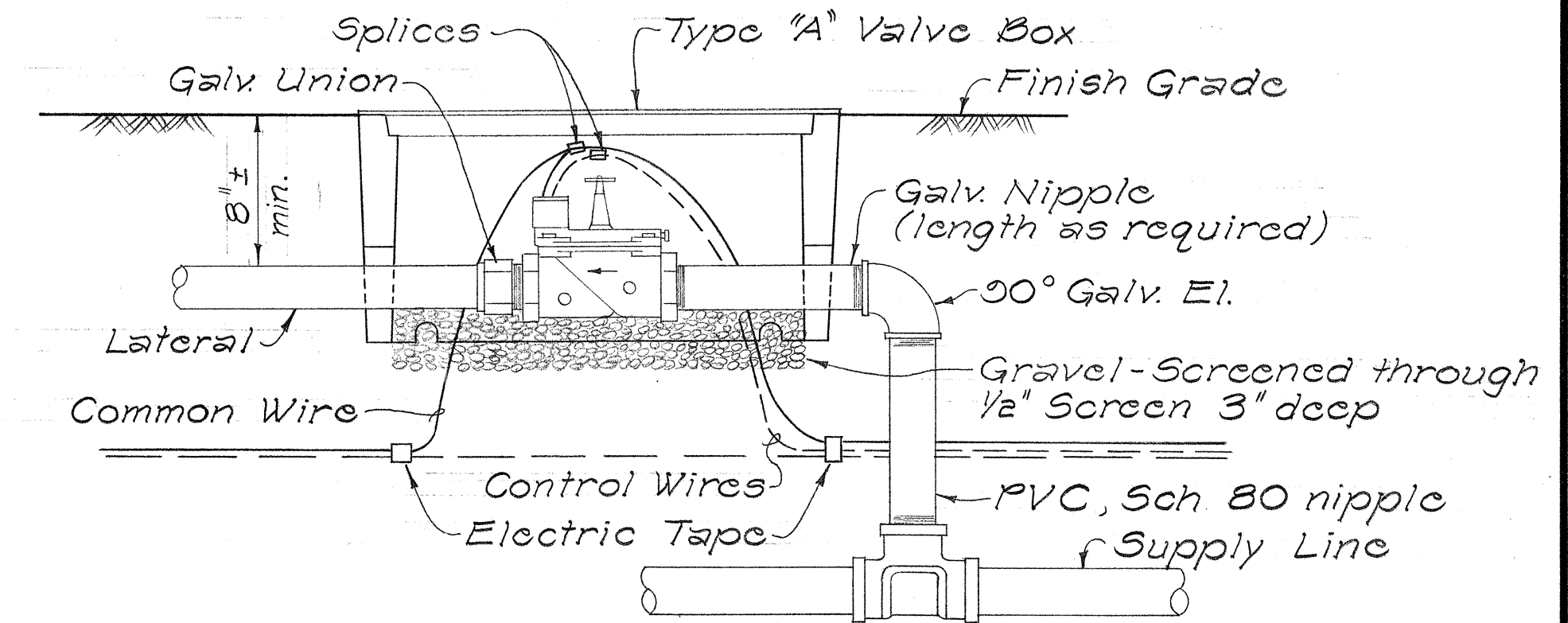
1445-1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1973	C0 145 S-1	418

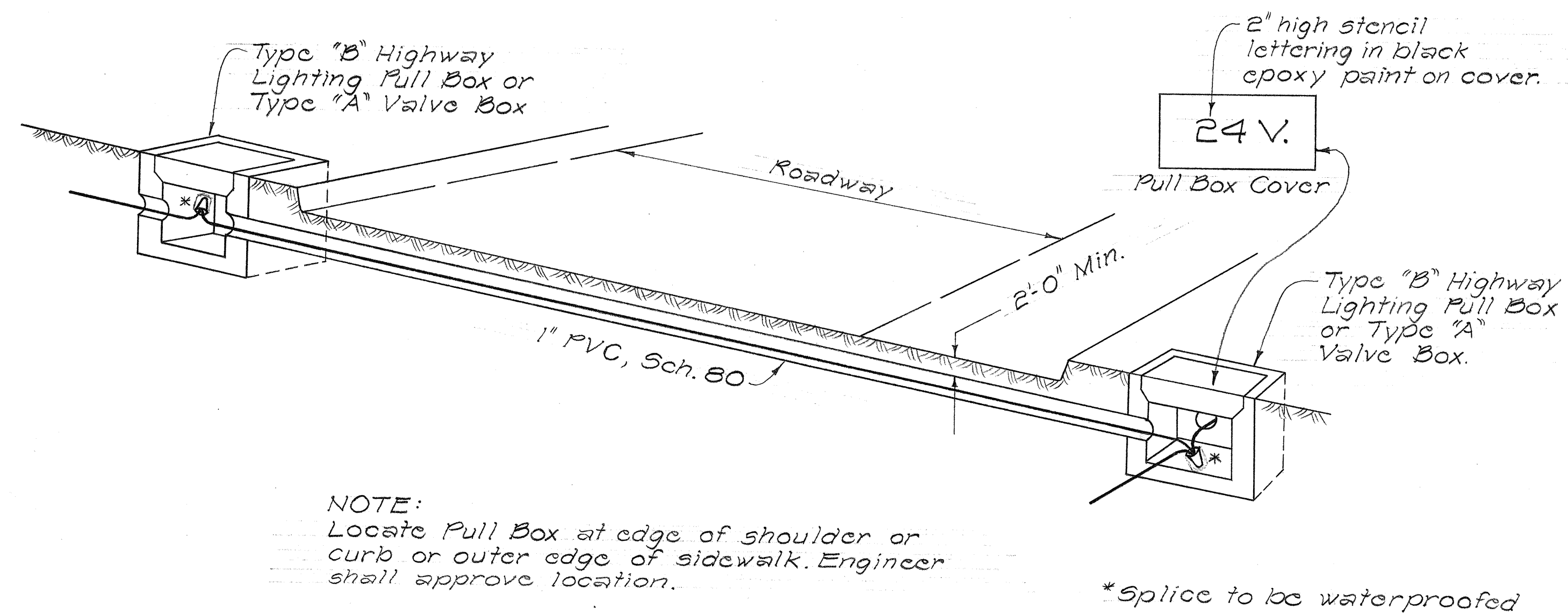


NOTE: Sprinkler lines installed above ground shall be galvanized pipe. For rock cut slope, drill 1" dia. hole x 12" deep for anchor rings and riser support. Fill with epoxy grout.

DETAILS OF SPRINKLER ON CUT SLOPE



TYPICAL SOLENOID GLOBE VALVE DETAIL



NOTE: Locate Pull Box at edge of shoulder or curb or outer edge of sidewalk. Engineer shall approve location.

DETAIL OF ROADWAY CROSSING FOR 24V. DIRECT BURIAL WIRING

Not to Scale

5-15-73 Sht. added to Contract Plans to show additional details for Sprinkler System. CCA#80

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPRINKLER SYSTEM PLAN

F.A. Proj. No. F-078-1(10)

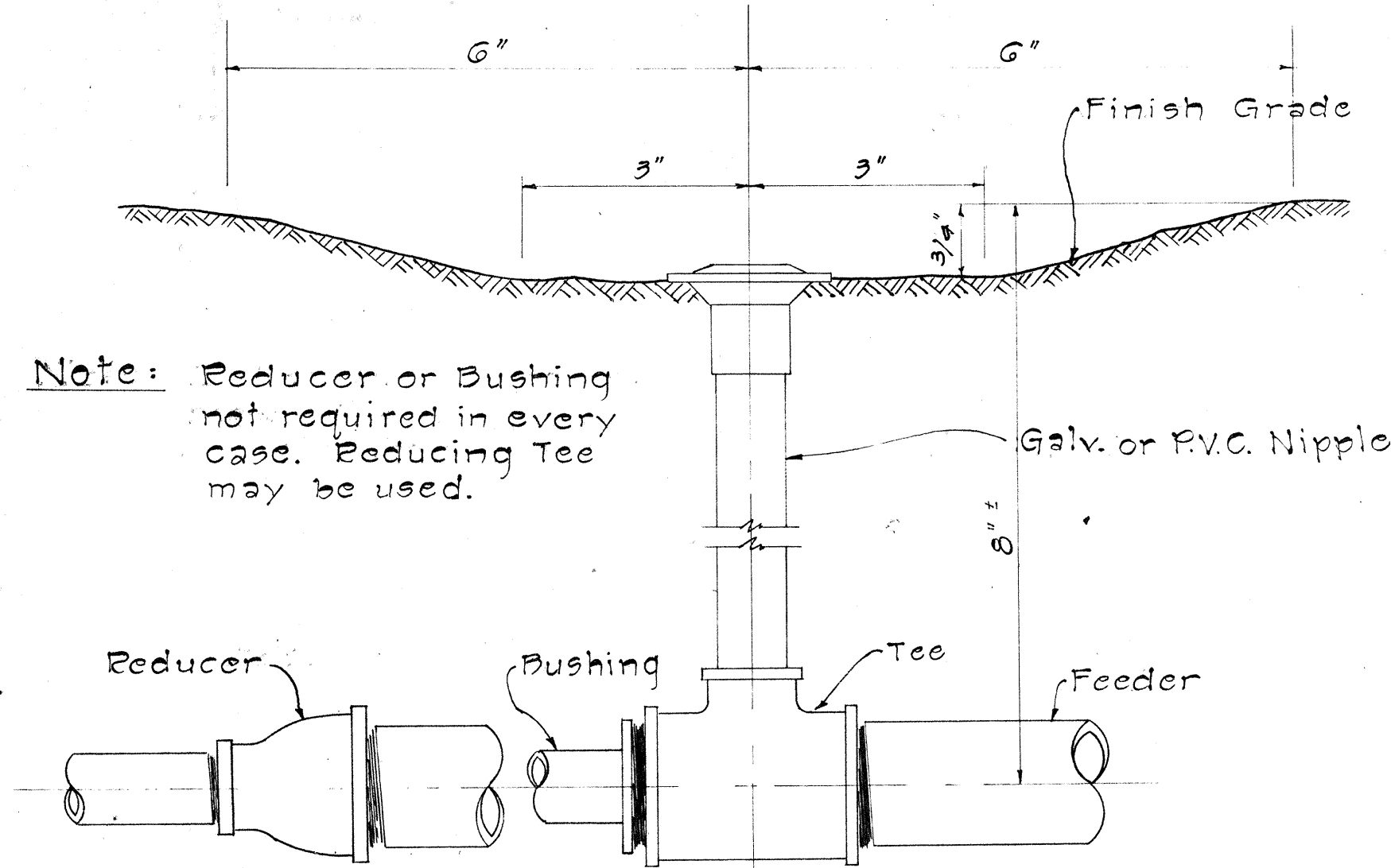
Date: May 1973

SHEET No. OF SHEETS

C0 145 S-1

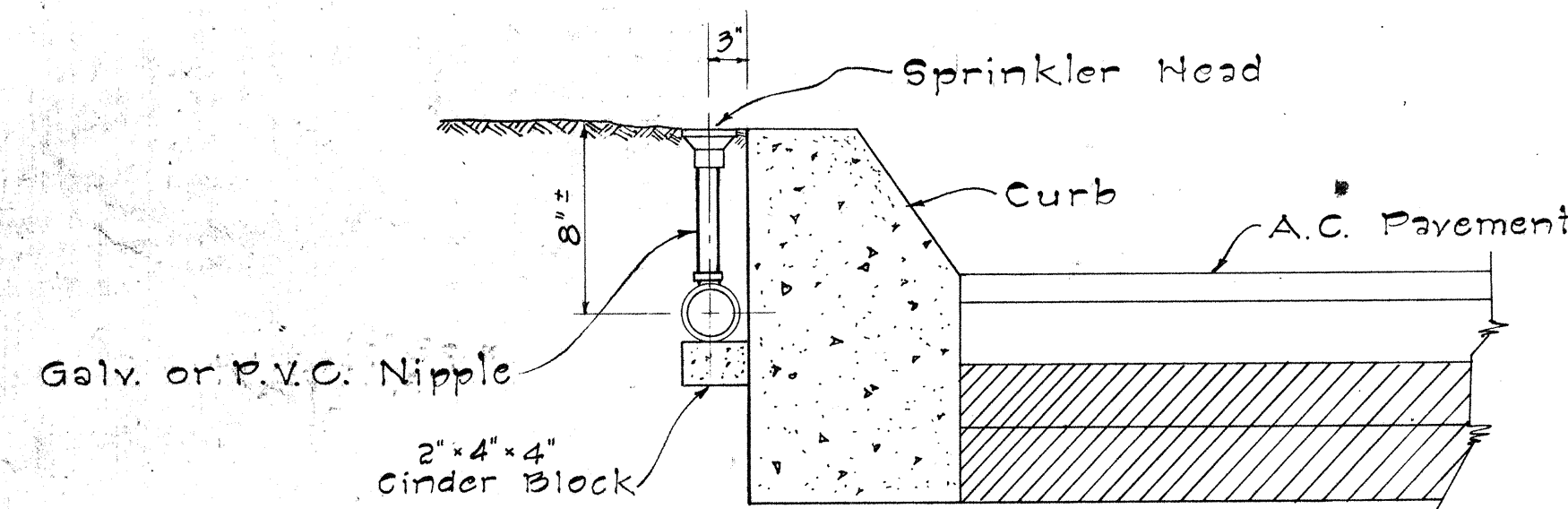
DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(10)	1971	146	418



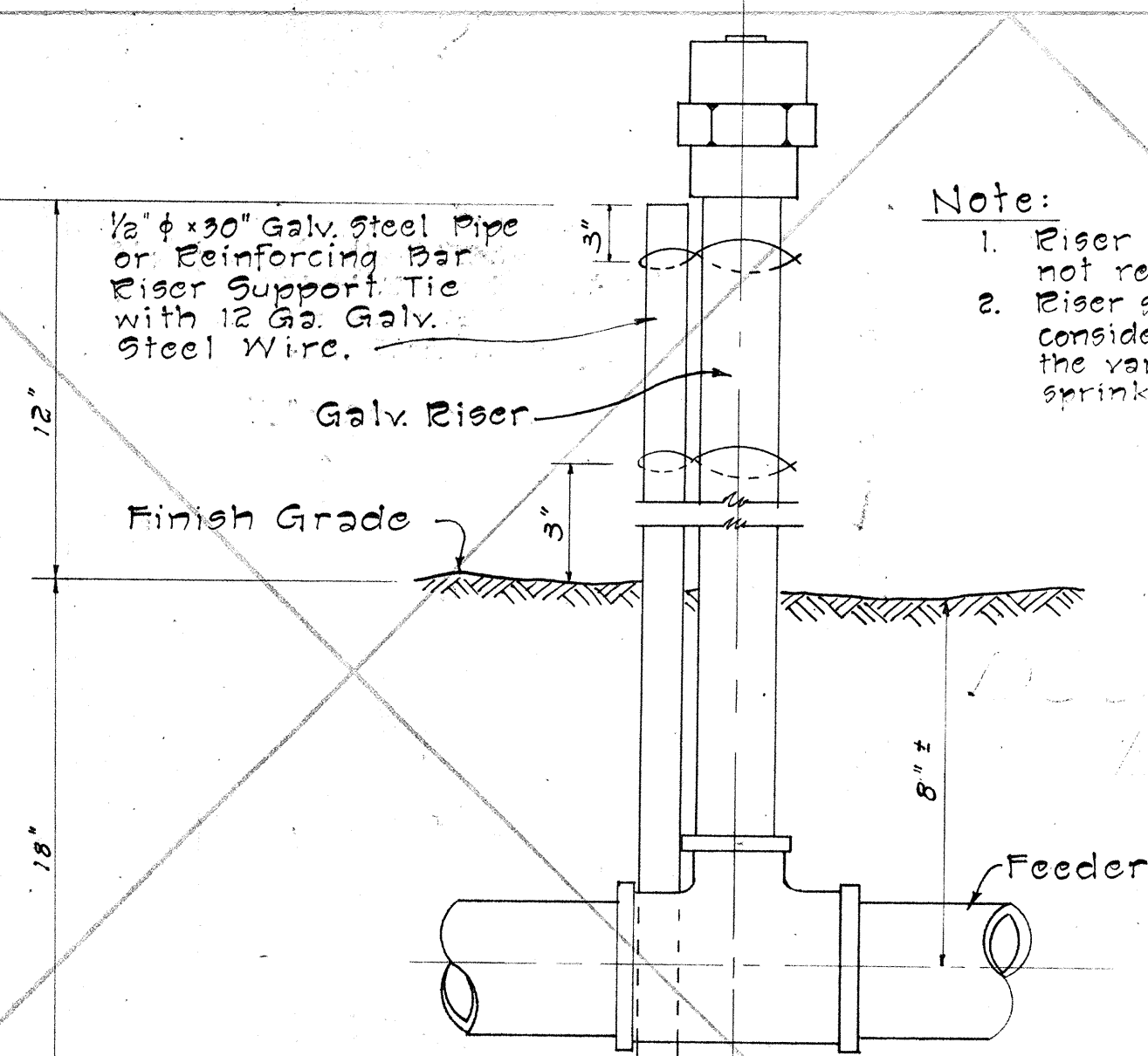
CONNECTION OF SPRINKLER HEAD TO FEEDER

Not to Scale



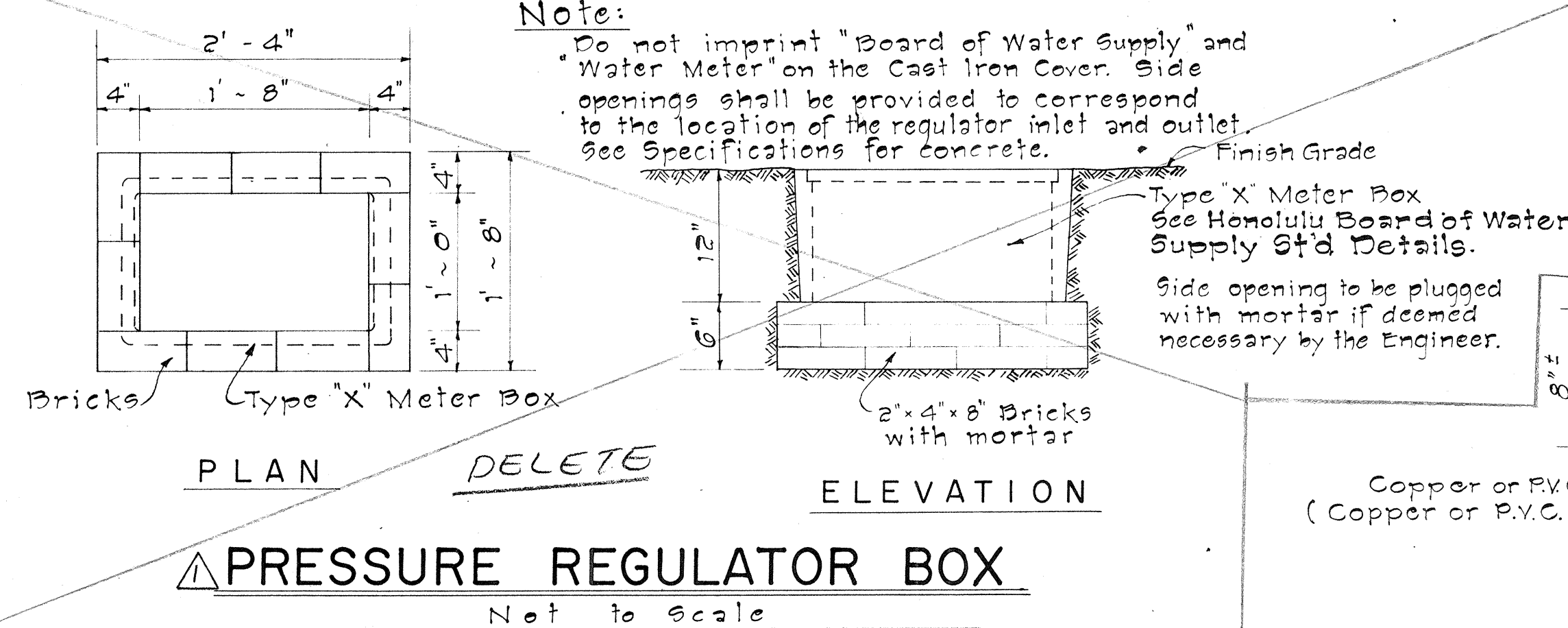
TYPICAL DETAIL OF SPRINKLER HEAD AT CONC. CURB

Not to Scale



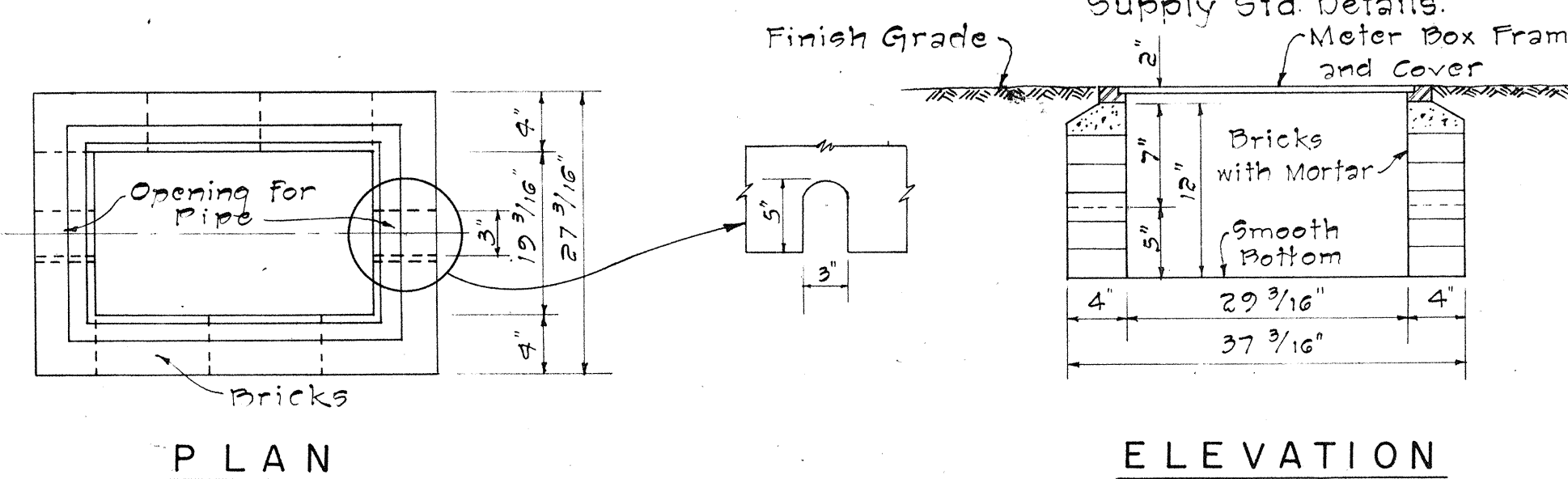
DETAIL OF SPRINKLER HEAD ON RISER

Not to Scale



△ PRESSURE REGULATOR BOX

Not to Scale

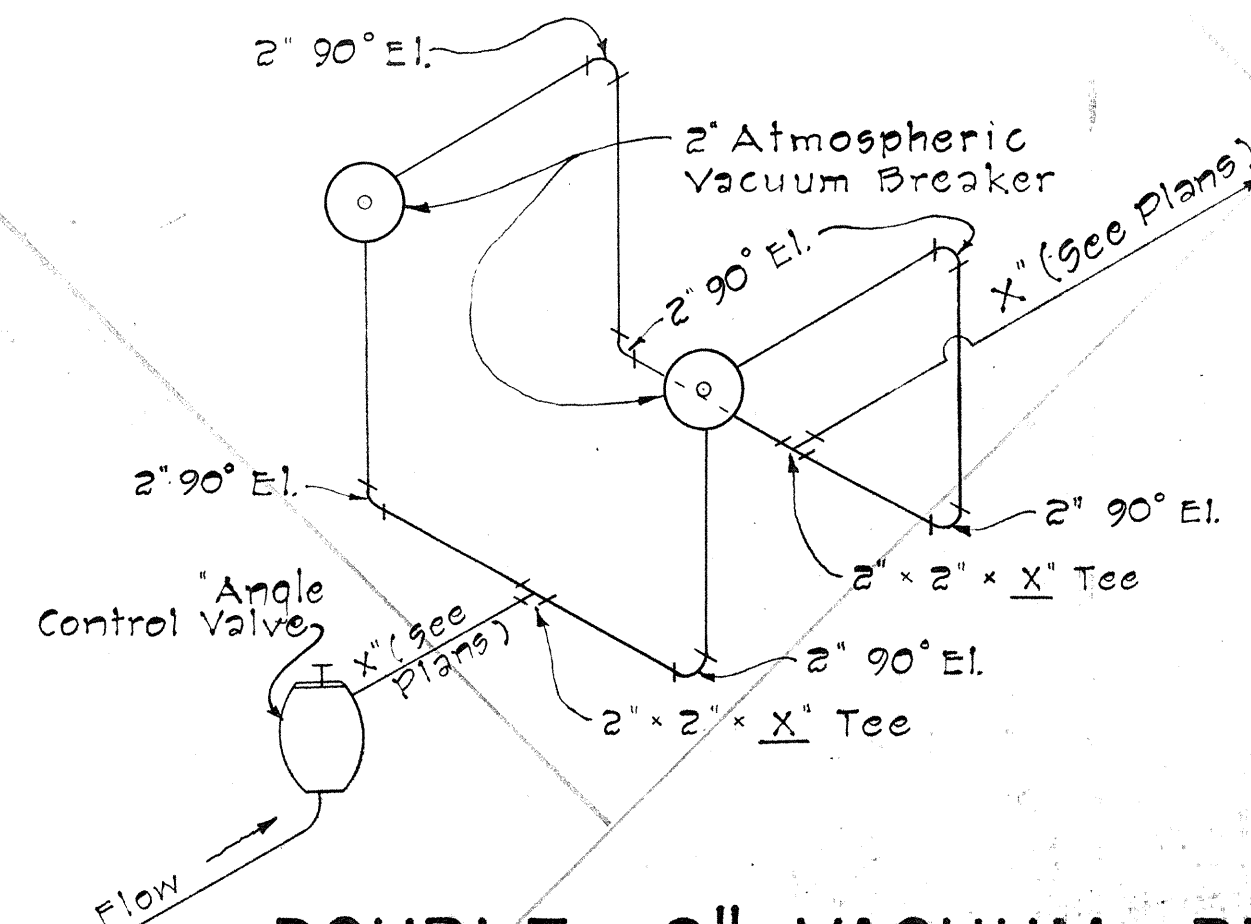


TYPE III METER BOX

Not to Scale

TYPICAL LAYOUT OF 2 1/2" SERVICE LATERAL AND CONNECTION (TYPE "E")

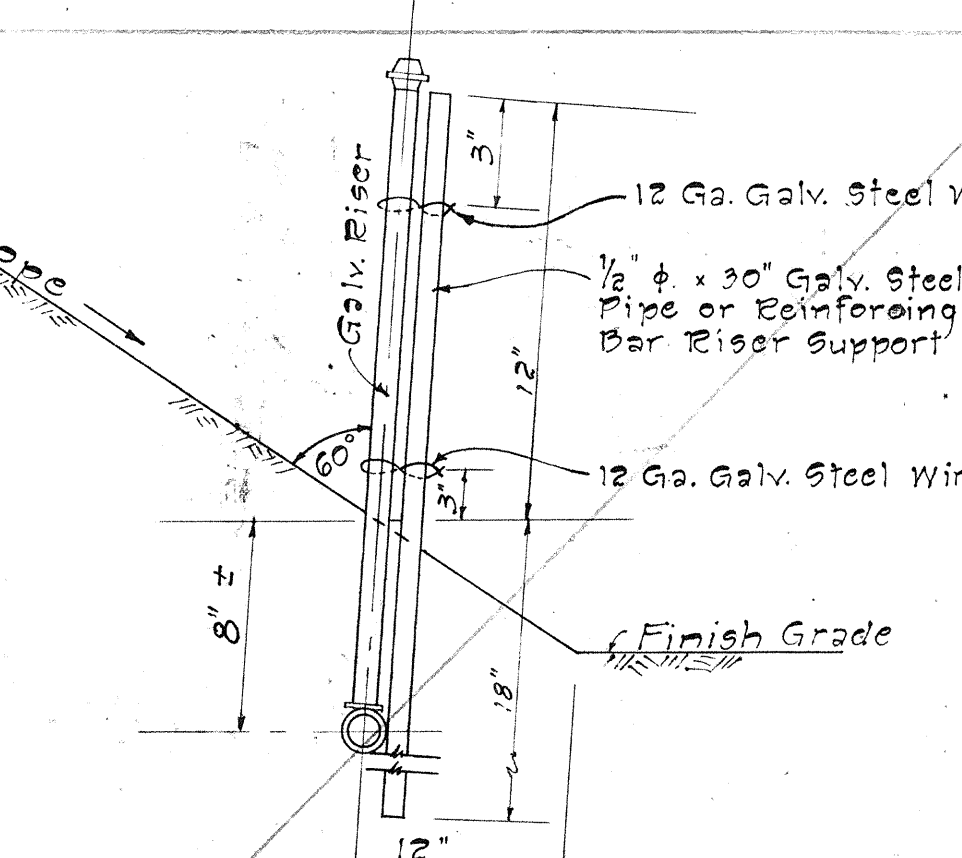
Not to Scale



DOUBLE - 2" VACUUM BREAKER

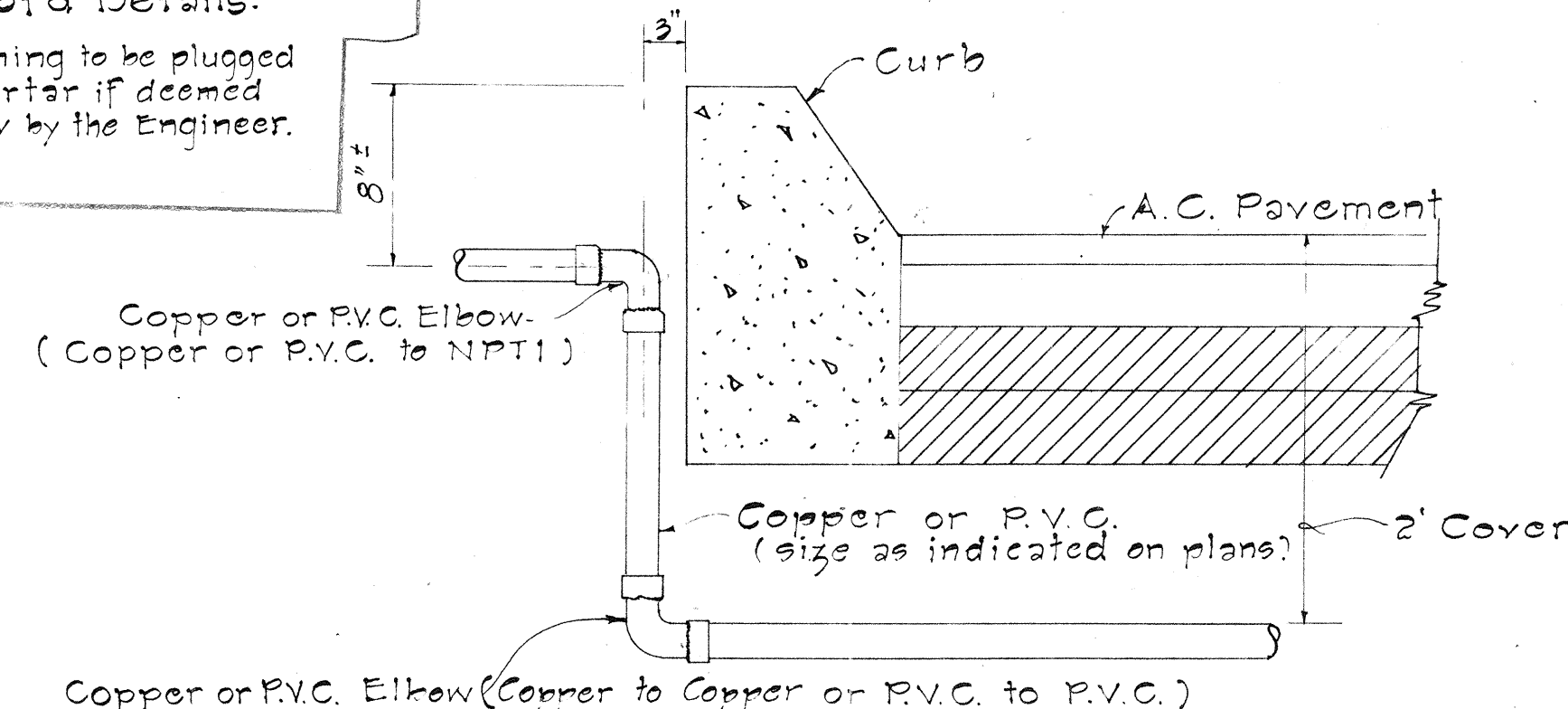
(ATMOSPHERIC TYPE)

Not to Scale



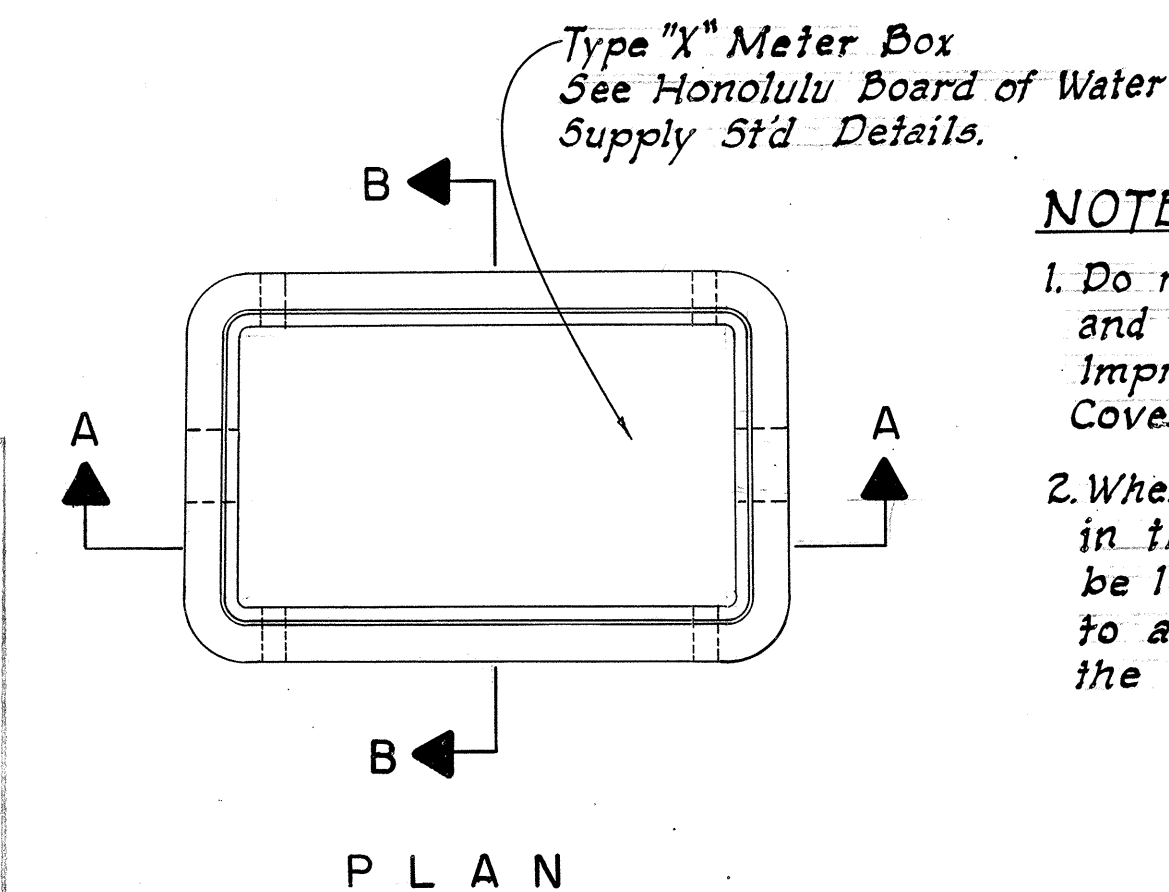
INSTALLATION OF SPRINKLER ON SLOPE

Not to Scale

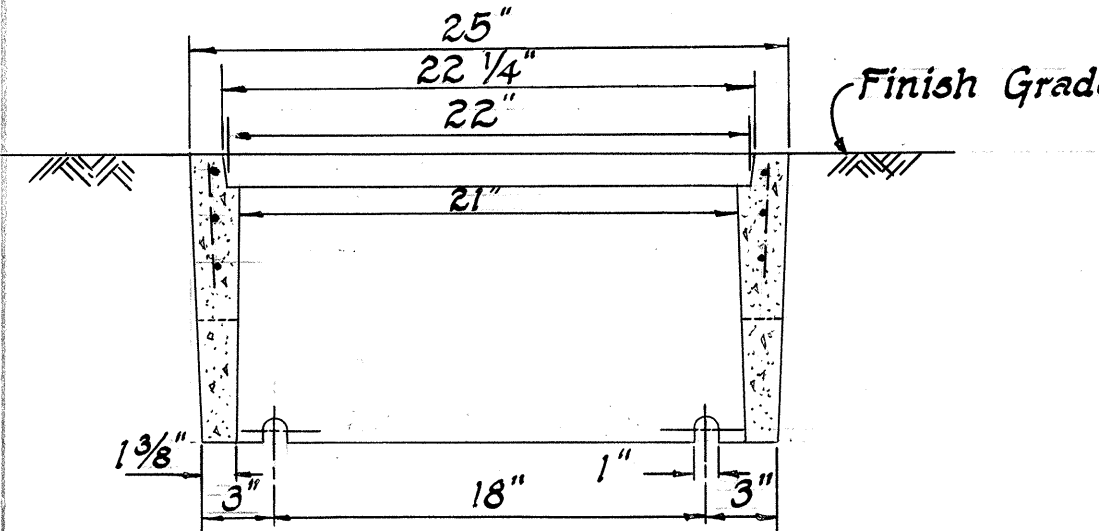


TYPICAL DETAIL OF ROADWAY CROSSING

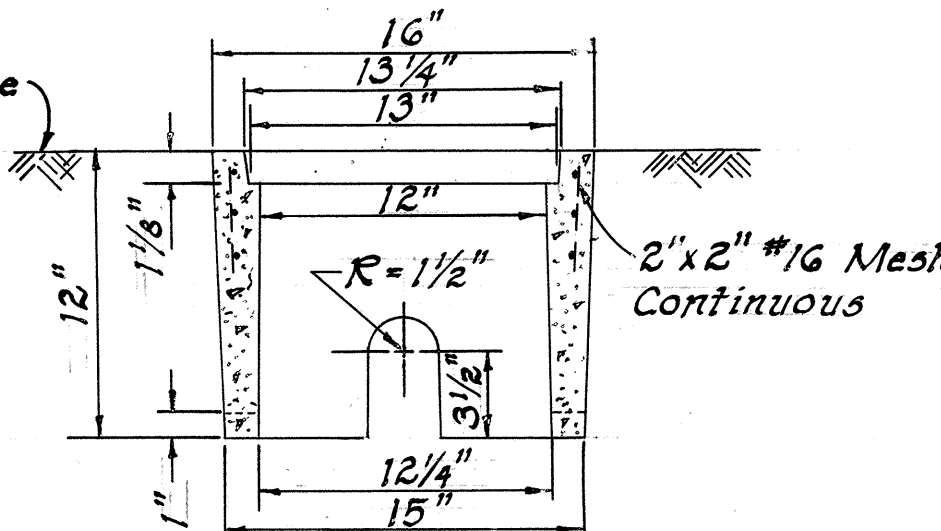
Not to Scale



PLAN



SECTION A - A



SECTION B - B

TYPE "A" VALVE BOX

Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SPRINKLER DETAILS

F.A. PROJ. NO. F-078-1(10)

Scale: As Noted Date: May, 1971
SHEET NO. 9 OF 9 SHEETS