Area of work

POWER FEED FROM ARROYO ROAD

SCALE: 1"=150'

21 KV LINE FROM POWER CO.

POWER POLE (TYP)

POWER BELOW GRADE

POWER ABOVE GRADE

FOR CONTINUATION OF POWER POLES SEE 1:150 SCALE DRAWING ABOVE

POWER PLAN

SCALE: 1"=60'

NORTH

0 30 60 120

SCALE: 1" = 60.0'

SYMBOL	DESCRIPTION	INITIAL	DATE

REVISION

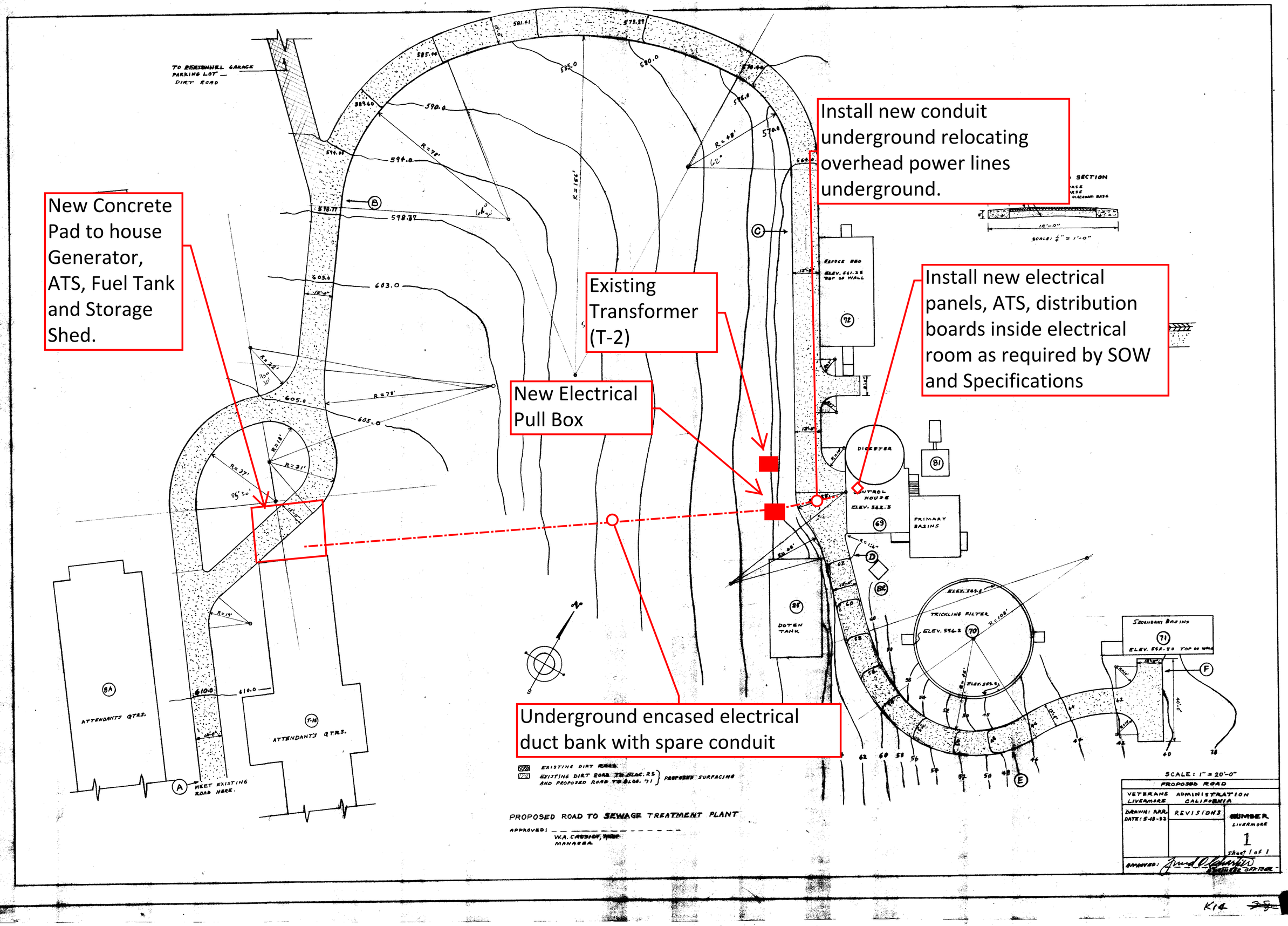
FILE UPDATED: OCTOBER 1 1998 BY RD

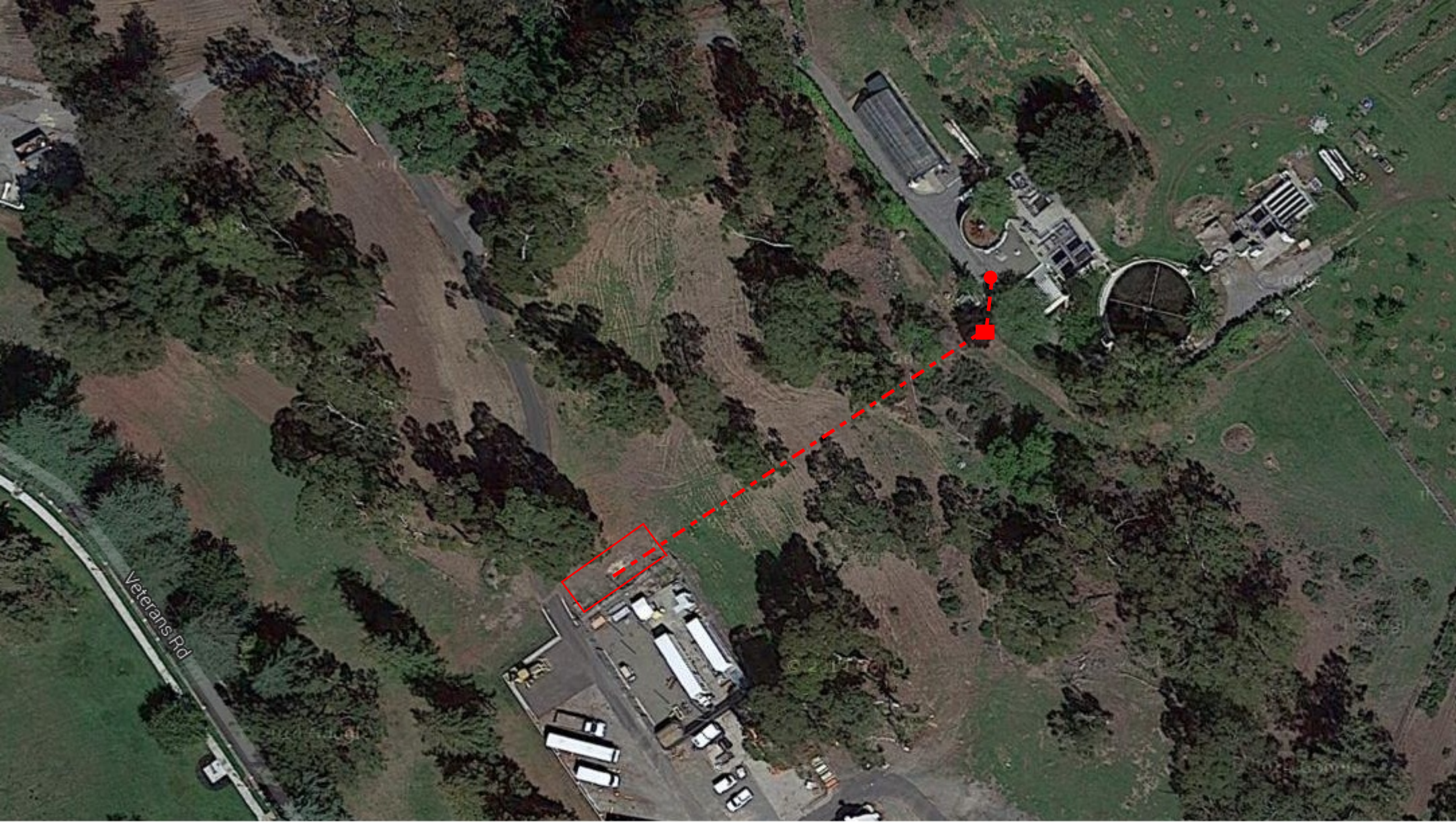
Job Title: GENERAL SITE UTILITIES AND FACILITIES SURVEY
LIVERMORE CAMPUS

Sheet Title: PRIMARY POWER PLAN

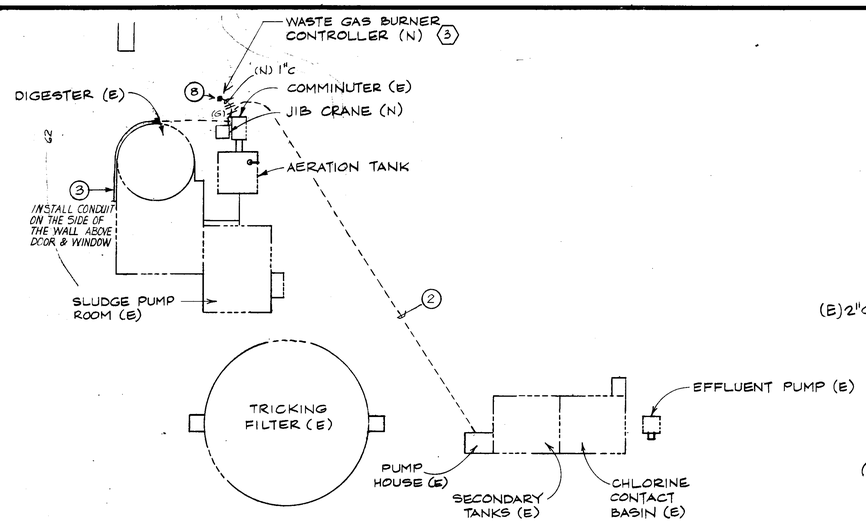
VETERAN AFFAIRS PALO ALTO HEALTH CARE SYSTEM
STATION 640, PALO ALTO, CA 94304

Drawn By: R. DIDONATO	Date: 7/98	Checked By: S. HRUCKEY	Date: 7/98
Submitted By: CADWORKS	Date: 7/98	Approved By: A. BINSOL	Date: 7/98
Scale: AS NOTED	Using Service Approval:		Date:
Reviewed For Fire & Safety Compliance:			Date:
Reviewed For Maintenance & Repair Compliance:			Date:
Reviewed For Security Compliance:			Date:
Date: 7/98	Drawing No.: L-09		
Proj. No: 640-C80603	Sheet 10 Of 15		


Install new conduit underground relocating overhead power lines underground.
New Concrete Pad to house Generator, ATS, Fuel Tank and Storage Shed.
Existing Transformer (T-2)
New Electrical Pull Box
Install new electrical panels, ATS, distribution boards inside electrical room as required by SOW and Specifications
Underground encased electrical duct bank with spare conduit
TO PERSONNEL GARAGE PARKING LOT — DIRT ROAD
ATTENDANTS QTRS.
MEET EXISTING ROAD HERE.
DIGESTER
CONTROL HOUSE
ELEV. 562.5
PRIMARY BASINS
DOTEN TANK
TRICKLING FILTER
ELEV. 556.2
SECONDARY BASINS
ELEV. 562.50 TOP OF WALL
SCALE: 1" = 20'-0"
PROPOSED ROAD
VETERANS ADMINISTRATION
LIVERMORE CALIFORNIA
DRAWN: R.R.R.
DATE: 5-13-52
REVISIONS
NUMBER
LIVERMORE
1
sheet 1 of 1
APPROVED:
EXISTING DIRT ROAD
EXISTING DIRT ROAD TO BLDG. 25 AND PROPOSED ROAD TO BLDG. 71 } PROPOSED SURFACING
PROPOSED ROAD TO SEWAGE TREATMENT PLANT
APPROVED:
W.A. CAUSHOF, MANAGER
K14

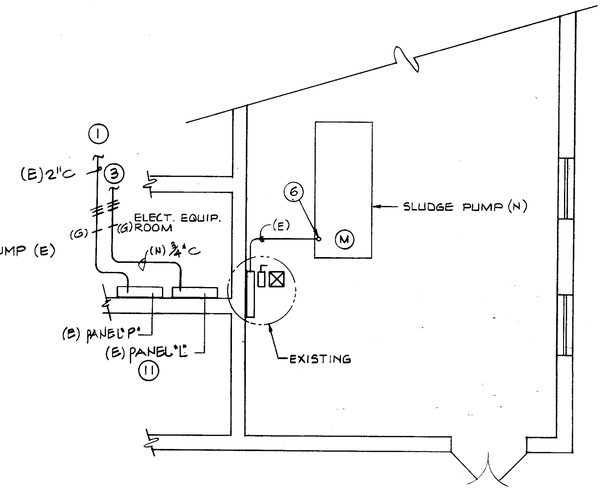

Veterans Rd

Lite Mode
Map d



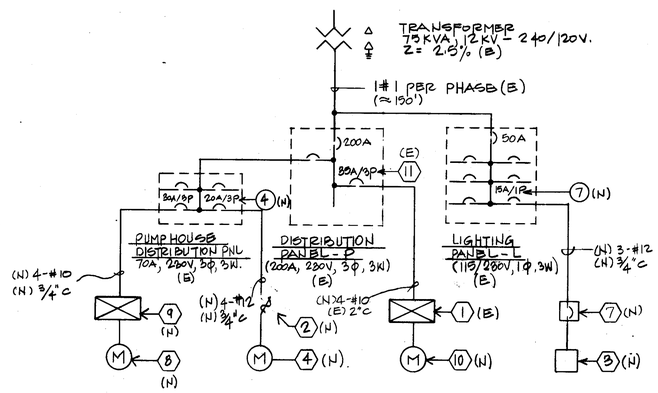
PLOT PLAN

SCALE: 1" = 20'-0"

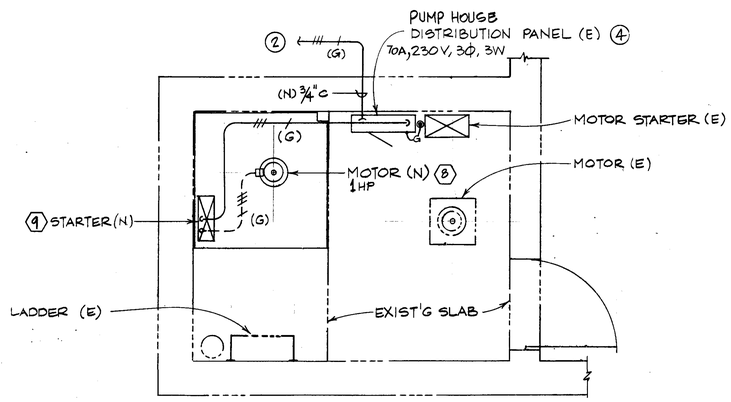


SLUDGE PUMP RM - PLAN

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

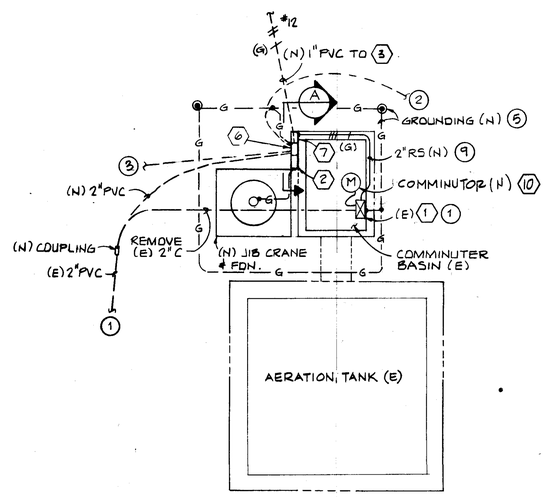


SINGLE LINE DIAGRAM



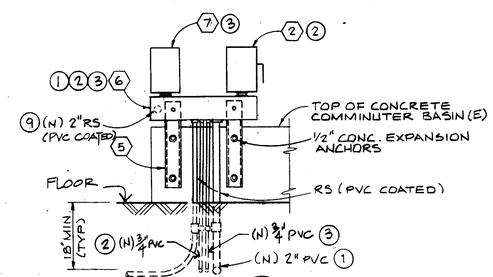
PUMP HOUSE PLAN

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



AERATION TANK, COMMINUTER PLAN

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



SECTION A

ELEVATION AT COMMINUTER PIT

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

NOTES

1. REMOVE (E) 2"C FROM (E) COMMINUTER STARTER TO (N) COUPLING AND INSTALL (N) 2"C FROM (N) COUPLING TO (N) GUTTER. REMOVE (E) FEEDER WIRING FROM (E) DISTRIBUTION PANEL-P TO (E) COMMINUTER STARTER AND PULL IN (N) FEEDER WIRING TO (E) COMMINUTER STARTER VIA (N) GUTTER.
2. INSTALL (N) CONDUIT FROM (E) DISTRIBUTION PANEL IN PUMP HOUSE TO (N) GUTTER AND PULL IN (N) FEEDER WIRING TO (N) JIB CRANE DISCONNECT SWITCH VIA (N) GUTTER.
3. INSTALL (N) CONDUIT FROM (E) PANEL-L TO (N) GUTTER AND PULL IN (N) FEEDER WIRING TO (N) WASTE GAS CIRCUIT BREAKER VIA (N) GUTTER.
4. INSTALL (N) 20 AMP, 3 POLE, 240 V, 10,000 AMP RMS SYM. (MIN) RATING CIRCUIT BREAKER IN (E) DISTRIBUTION PANEL AT PUMP HOUSE FOR (N) CIRCUIT IN NOTE 2. RELABEL CIRCUIT DIRECTORY IN PANEL ACCORDINGLY.
5. INSTALL 4/0 COPPER GROUND WIRE AND GROUND RODS AROUND COMMINUTER BASIN AS SHOWN AND CONNECT TO ELECTRICAL EQUIPMENT AND JIB CRANE COLUMN. BURY GROUND WIRE AT 18" MINIMUM BELOW GRADE.
6. INSTALL (N) CIRCUIT WIRING IN (E) CONDUIT FROM (E) PANEL TO (N) SLUDGE PUMP MOTOR.
7. REMOVE (E) 50 AMP, 1 POLE SPARE CIRCUIT BREAKER AND INSTALL (N) 15 AMP, 1 POLE, 120 V, 10,000 AMP RMS SYM. (MIN) RATING CIRCUIT BREAKER IN (E) PANEL-L FOR (N) CIRCUIT IN NOTE 3. RELABEL CIRCUIT DIRECTORY IN PANEL ACCORDINGLY.
8. INSTALL (N) CONDUIT FROM (N) GUTTER TO (N) WASTE GAS BURNER CONTROLLER AND PULL IN (N) FEEDER TO (N) WASTE GAS BURNER CONTROLLER.
9. INSTALL (N) CONDUIT FROM (N) GUTTER TO (E) COMMINUTER AND PULL IN (N) FEEDER TO (E) COMMINUTER STARTER.

SYMBOLS

1	INDICATES EQUIPMENT NUMBER
1	INDICATES NOTE NUMBER
RS	RIGID STEEL CONDUIT
PVC	POLYVINYL CHLORIDE CONDUIT
(E)	INDICATES EXISTING
(N)	INDICATES NEW
	GROUND ROD, 5/8" X 8' LONG COPPER CLAD STEEL.
	DISCONNECT SWITCH
M	MOTOR
	MOTOR STARTER W/ OVERLOAD
(G)	EXPOSED CONDUIT WITH NUMBER OF CONDUCTOR SHOWN (G) INDICATES GROUNDING CABLE.
	EMBEDDED OR BURIED CONDUIT
	CONDUIT DOWN
	CONDUIT UP
G	BURIED BARE COPPER CONDUCTOR
	NEMA 3R ENCLOSURE W/ CIRCUIT BREAKER

EQUIPMENT

1. EXISTING COMMINUTER COMBINATION DISCONNECT AND STARTER.
2. (N) JIB CRANE DISCONNECT SWITCH, 50 A, 3 POLE, 3PHASE, NEMA 3R FUSED, 30A FUSE CLIP RATING, WITH 2 1/2 A (TYPE FRN) BUSSMAN, DUAL-ELEMENT TIME DELAY FUSE.
3. (N) WASTE GAS BURNER CONTROLLER, 115 V, 1 PHASE, 2 WIRE, 60 HZ, 0.7 A.
4. (N) JIB CRANE, 1/2 HP, 3 PHASE, 230 V, 60 HZ.
5. 4" X 7.25" CHANNEL, HOT DIPPED GALVANIZED, LENGTH AS REQUIRED.
6. GUTTER 6" x 6" x LENGTH AS REQUIRED, NEMA 3R ENCLOSURE.
7. NEMA 3R ENCLOSURE WITH 1P/15A CIRCUIT BREAKER WASTE GAS BURNER.
8. (N) RECYCLE PUMP SQUIRREL CAGE INDUCTION MOTOR, 1 HP, 3 PHASE, 230 V, 60 HZ, 1,150 RPM.
9. (N) RECYCLE PUMP MOTOR STARTER, NEMA SIZE 0.
10. (N) COMMINUTER, 1/3 HP.
11. (G) 35A/3P COMMINUTER FEEDER BREAKER.

Revisions	Date

SAI ENGINEERS, INC.
3030 Patrick Henry Dr., Santa Clara, Ca., 95050
SAI Project No. 8714 Date: 5-5-87

Drawing Title	ELECTRICAL DETAILS
Project Title	SEWAGE TREATMENT PLANT REHABILITATION
Date	5 MAY -87
Project No.	86-1020
Approved: Division Chief	
Approved: Service Director	
Building Number	69 / 71
Checked	PH
Drawn	RS/PH
Location	LIVERMORE CALIFORNIA
DRAWING NO.	E-1
Dwg. Of	

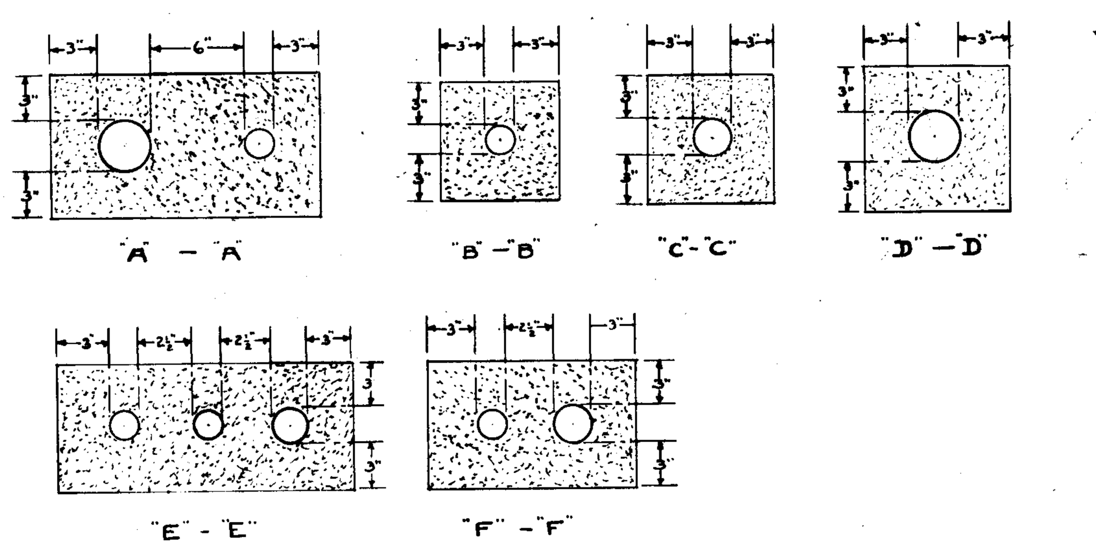
Veterans Administration

VA FORM 08-6231, FEB. 1983

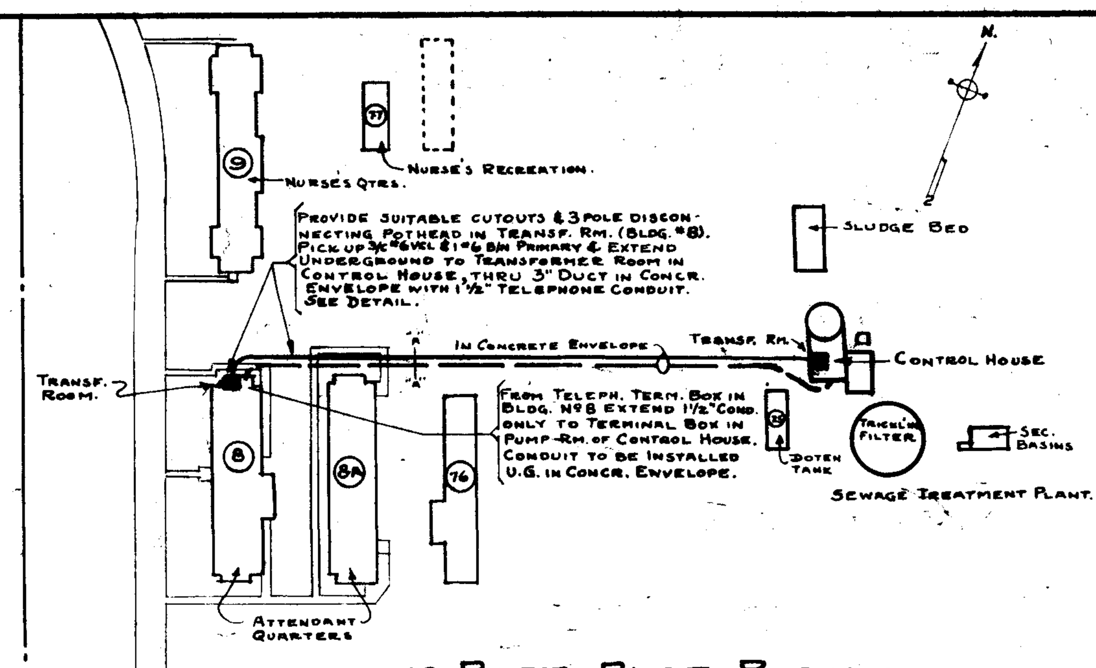
U.S. GOVERNMENT PRINTING OFFICE: 1984-455-088

ELECTRICAL SYMBOLS

- CEILING OUTLET, LIGHTING FIXTURE.
- WALL " , "
- DUPLEX PLUG RECEPTACLE, 15AMP. 16" ABOVE FLOOR.
- PLUG RECEPTACLE, 10AMP. 7'-0" ABOVE FLOOR, FOR FAN.
- DUPLEX " BELOW WITH FAN RECEPTACLE ABOVE.
- S FLUSH SWITCH, SINGLE POLE, 4'-6" ABOVE FLOOR.
- S^WP " " " " " " WEATHERPROOF.
- MOTOR OUTLET, H.P. INDICATED.
- MOTOR CONTROLLER AS DESCRIBED IN SPECS.
- SAFETY SWITCH, SIZE AS SHOWN ON DRAWINGS.
- J.B. JUNCTION OR PULL BOX 4"/16" SQ OUTLET BOX WITH BLANK COVER, UNLESS OTHERWISE NOTED.
- DISTRIBUTION PANEL & CABINET
- O.C.B. OIL CIRCUIT BREAKER (SEE ELECT'L SPECS)
- O P.H. POT HEAD WHEN SO LABELED.
- TRANSFORMER, KVA INDICATED.
- TELEPHONE OUTLET, 5'-2" ABOVE FLOOR (WALL TYPE).
- TELEPHONE TERMINAL BOX.
- LIGHT & POWER CONDUIT & WIRING
- TELEPHONE CONDUIT ONLY.



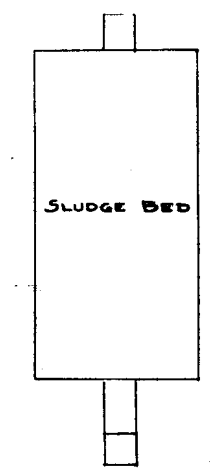
DETAILS OF CONCRETE ENVELOPE FOR U.G. SERVICES
(SEE PART PLOT PLAN FOR LOCATION OF SECTIONS)
NOT TO SCALE

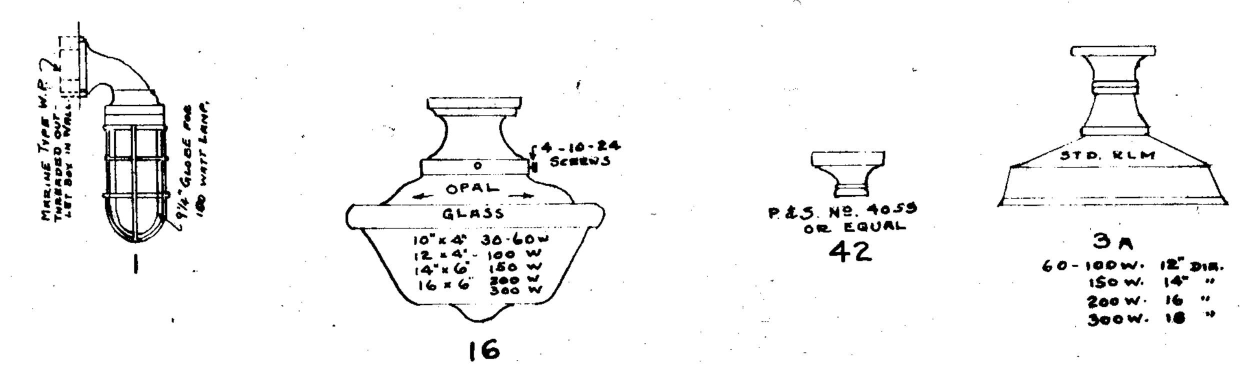


PART PLOT PLAN
SCALE 1 INCH = 100 FEET.

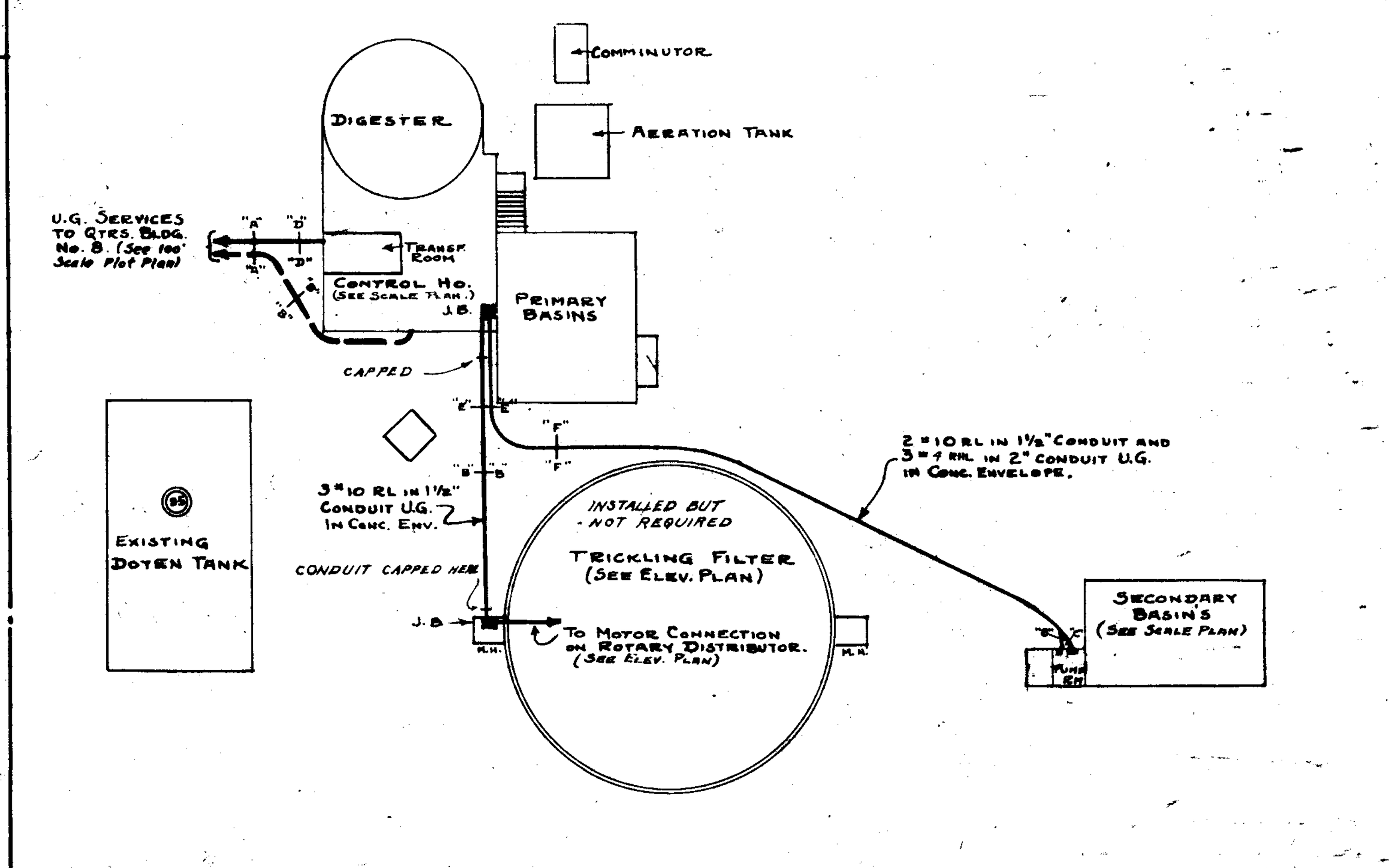
AS BUILT DRAWING

DRAWING #69-E1 - ELECTRICAL
ADDENDUM #1 -
A. TWO KW UNIT HEATERS INSTALLED, SOUTHEAST CORNER OF CLORINATOR ROOM, FIRST FLOOR PLAN, HOME RUN FROM CONTROL FOR HEATER - P-12.
B. PANEL SCHEDULE FOR MAIN PANEL "P." CIRCUIT #11, 12-2-50-25 2 #10 RH 3/4" FOR UNIT HEATER. CLORINATOR ROOM 13 AND 14, 50 AMP SPARE SPACES.
ADDED WALL MOUNTED SWITCH FOR RECORDER ADJACENT TO JUNCTION BOX.
CIRCUIT #5 - PANEL "P", THREE #4 WIRES INSTALLED.
CIRCUIT # "P-9", FIVE WIRES INSTALLED BETWEEN MAGNETIC STARTER AND SLUDGE COLLECTOR MOTOR.
ROTARY DISTRIBUTOR CONDUIT INSTALLED BUT NOT UTILIZED AS RE-ACTIVE DISTRIBUTOR IS INSTALLED. CONDUIT CAPPED APPROXIMATELY 5' OUTSIDE OF STRUCTURE.
CONDUIT INSTALLED AND CAPPED 5' FROM CONTROL HOUSE. THIS CONDUIT IN CONTROL HOUSE TO BE UTILIZED AT A LATER DATE BY THE STATION FOR ELECTRICAL SERVICES TO BLDG. #25.
UNDERGROUND SERVICE FROM CONTROL HOUSE TO SECONDARY BASIN, THREE #4 WIRES INSTALLED IN LIEU OF THREE #6 WIRES SPECIFIED. SECONDARY BASIN - FIVE WIRES INSTALLED BETWEEN MAGNETIC STARTER AND SLUDGE COLLECTOR MOTOR IN LIEU OF THREE WIRES SPECIFIED.
CHANGE ORDER "B" AUTHORIZED SUBSTITUTION OF TW WIRE FOR ALL RH WIRE INDICATED ON DRAWINGS.

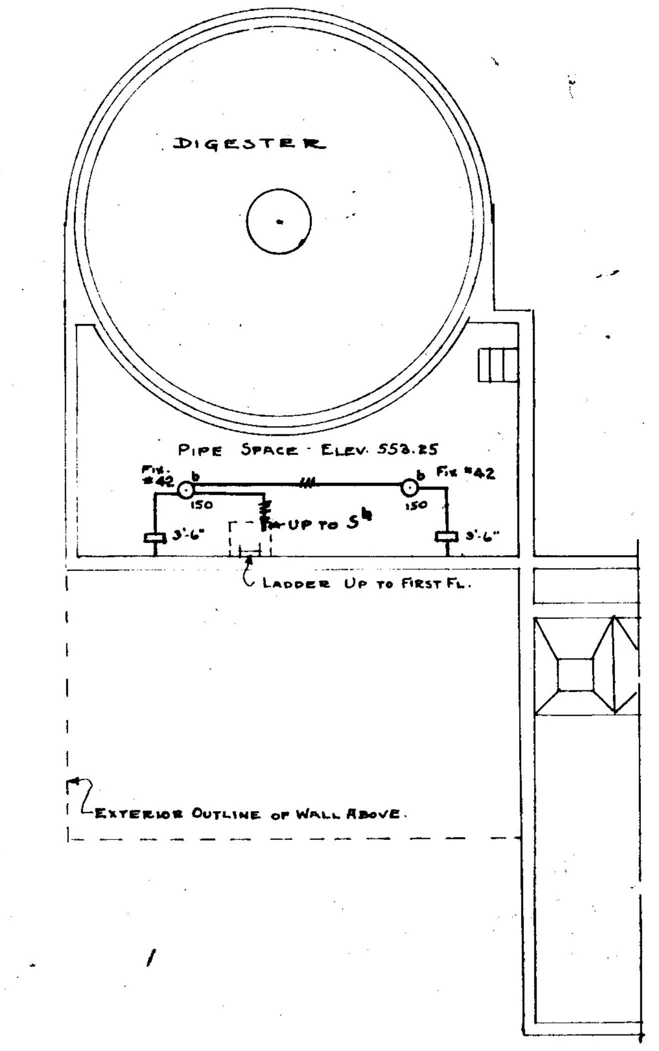




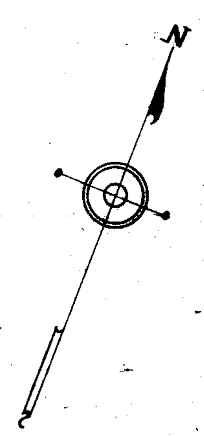
DETAIL OF LIGHTING FIXTURES
NOT TO SCALE

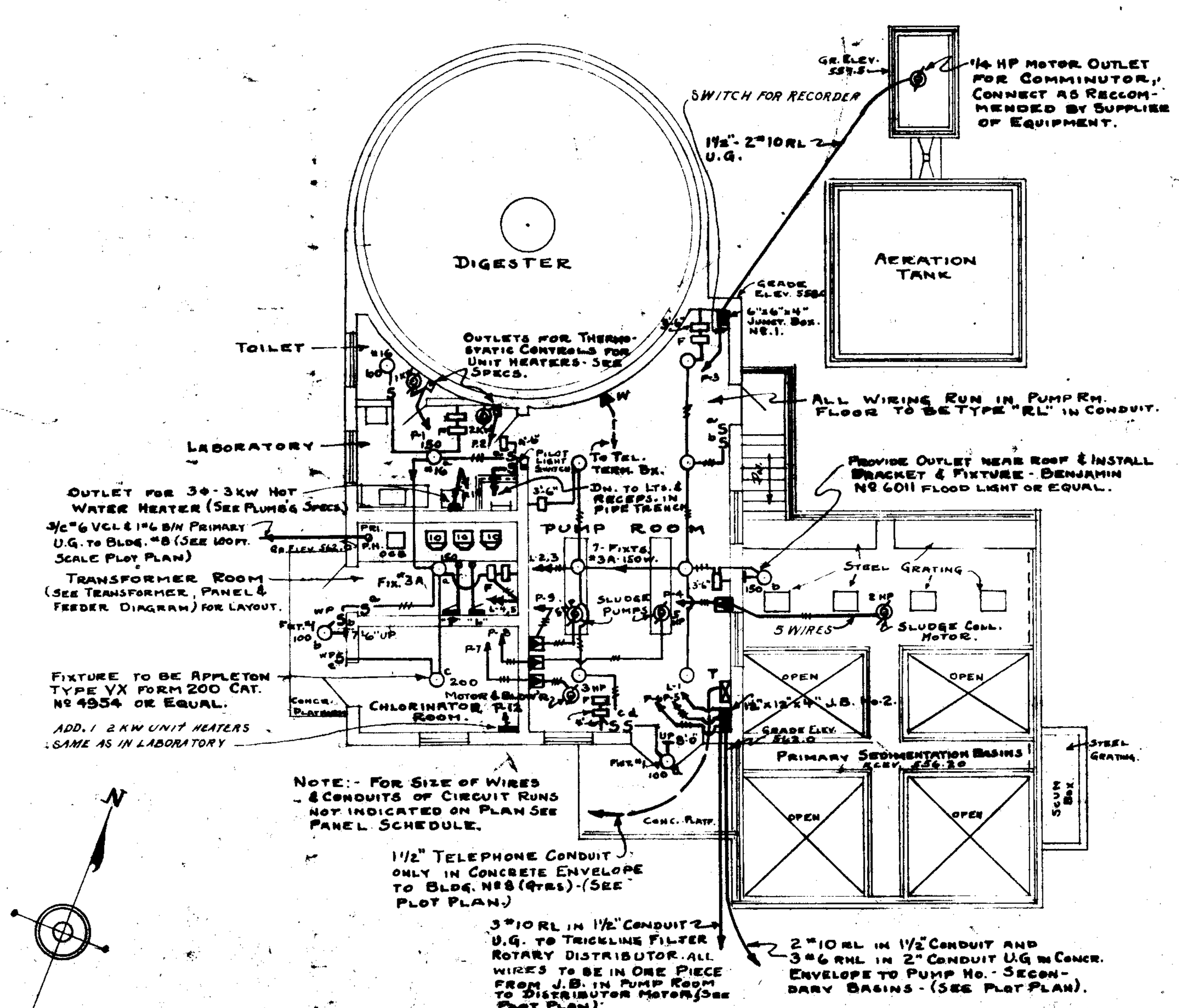


PART PLOT PLAN
SCALE 1" = 20 FEET.



CONTROL HOUSE
PLAN BELOW FIRST FLOOR
SHOWING PIPE TRENCH ETC.
SCALE: 1/8" = 1'-0"

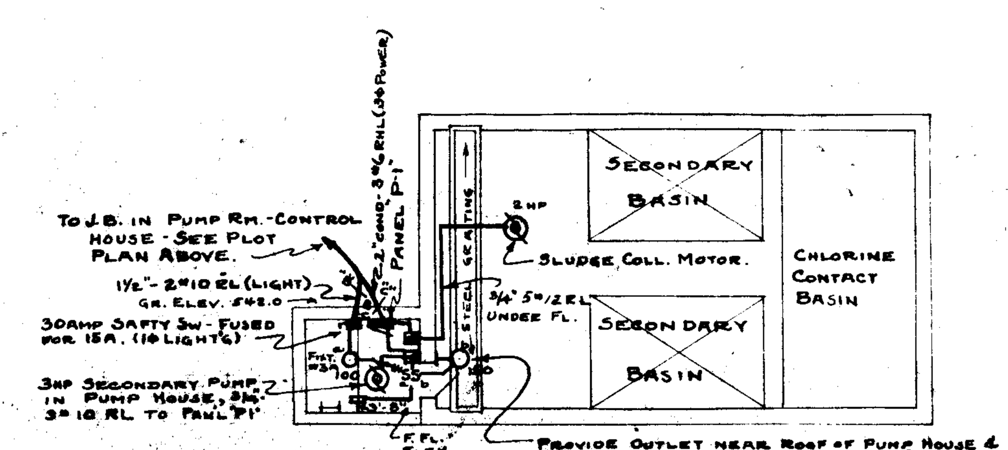




CONTROL HOUSE (F.FL. ELEV. 562.5)
FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"

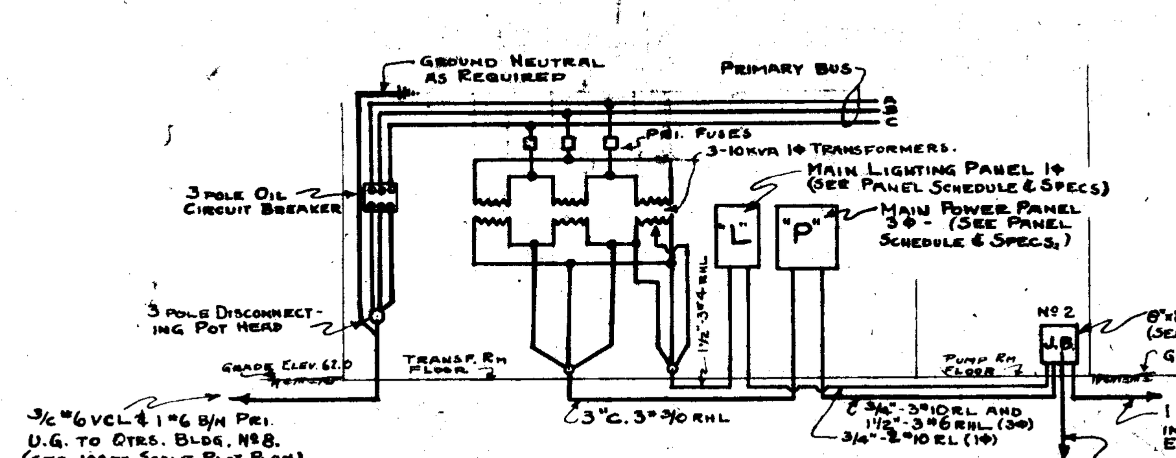
PANEL SCHEDULE

CIRC. No.	No. POLES	CIRC. BREAKERS FRAME AMP.	CIRC. BREAKERS TRIP AMP.	WIRE AWG.	CONDUIT INCHES	REMARKS
MAIN PANEL "P" - 225A. MN. BKR - TRIP 200A. 3Φ-230V.						
1	2	50	20	2 #10 RH	3/4"	UNIT HEATER (1000 W.) - TOILET.
2	2	50	25	2 #10 RH	3/4"	" " (2000 W.) - LABORATORY.
3	2	50	20	2 #10 RL	3/4"	COMMINUTOR - 1/4 H.P.
4	3	50	20	3 #10 RL	3/4"	PRI. SLUDGE COLL. MOTOR - 2 HP.
5	3	100	70	4 #6 RHL	1½"	SUB-FEEDER TO PANEL "P-1"
6	3	50	20	3 #10 RL	3/4"	TRICKLING FILTER - 1 HP. (SEE NOTE "A")
7	3	50	25	3 #10 RL	3/4"	MOTOR & BLOWER - 3 HP.
8,9,10	3	50	35	3 #10 RL	3/4"	2-SLUDGE PUMPS - 5HP & 30 GAL. 3KW HOT WATER HEATER
12	2	50	25	2 #10 RH	3/4"	UNIT HEATER (2000 W.) ADDENDUM NO. 1
MAIN PANEL "L" 115/230V. 1Φ MN BKR 100A TO TRIP 50 AMP.						
1	1	50	20	2 #10 RL	3/4"	SUBFEED TO SAFETY SW. (30A.) IN PUMP HO.
2	1	50	20	#12 RH	3/4"	LIGHTS & RECEPTACLES.
3	1	50	20	#12 RH	3/4"	" " "
4	1	50	20	#12 RH	3/4"	" " "
5	1	50	20	#12 RH	3/4"	" " "
6		50 AMP.	SPARE SPACE.			
PANEL "P-1" - 60 AMP MAIN BUS & LUGS						
1	3	50	25	3 #10 RL	3/4"	SECONDARY PUMP - 3 HP.
2	3	50	20	3 #10 RL	3/4"	" SLUDGE COLL. MOTOR - 2 HP.
3	1	50	20	3 #12 RH	3/4"	LIGHTS & RECEPTS.
4		50 AMP	SPARE	SPACE.		
5		100	"	"	"	

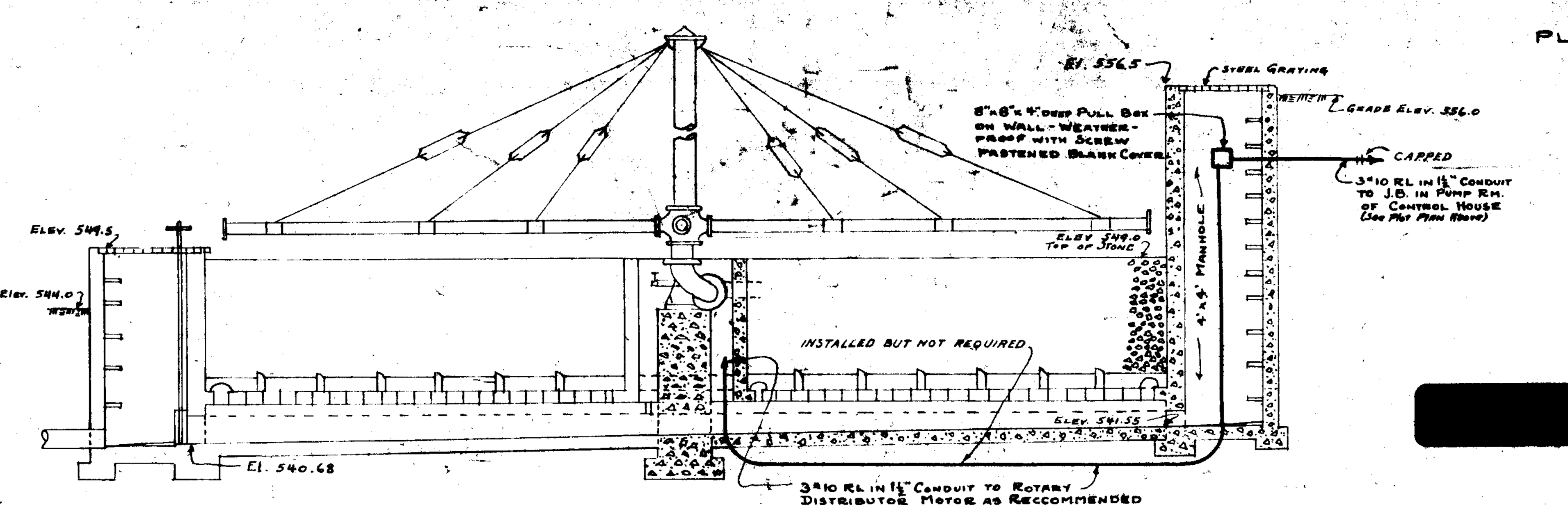


PLAN - SECONDARY BASIN & PUMP HO.
SCALE 1/8" = 1'-0".

NOTE: GRADE ELEVATIONS ARE APPROXIMATE. SEE ARCHITECTURAL AND SANITARY DWGS.



TRANSFORMER, FEEDER & PANEL DIAGRAM
(SEE FIRST FLOOR PLAN-(CONTROL HOUSE) & SPECS.)
NOT TO SCALE



ELEVATION PLAN OF ROTARY DISTRIBUTOR
(SHOWING ELECTRICAL INSTALLATION AS REQUIRED - SEE NOTE "A")
NOT TO SCALE

NOTE "A":- IF A REACTIVE TYPE DISTRIBUTOR FOR THE TRICKLING FILTER IS TO BE INSTALLED UNDER PROVISIONS OF PAR. 409-20 OF THE SPECS., OMIT ELECTRICAL SERVICE BETWEEN PANEL "P" AND ROTARY DISTRIBUTOR.

ELECTRICAL

[redacted]

AS BUILT

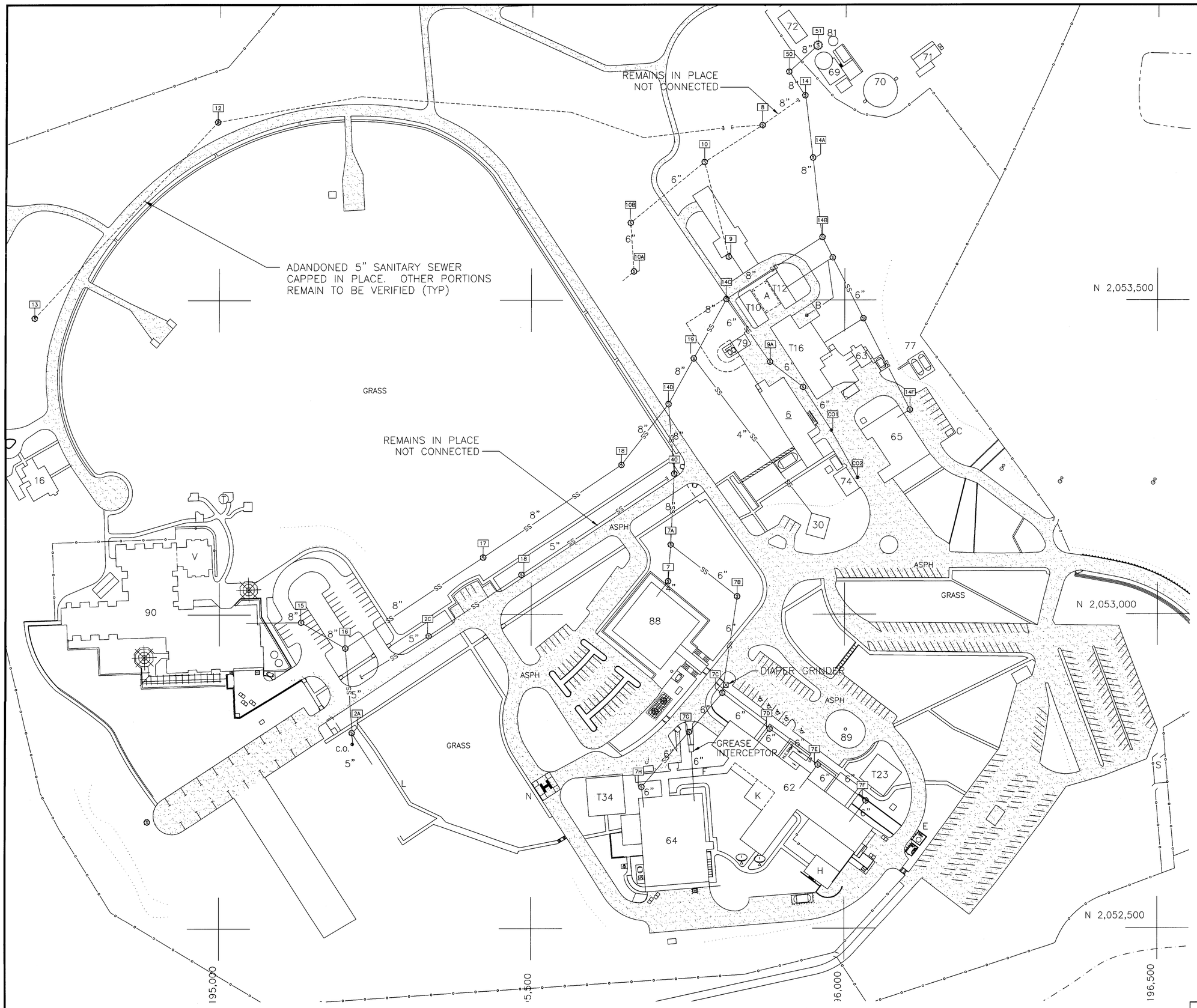
SEWAGE TREATMENT PLANT BLDG. 69		
VETERANS ADMINISTRATION LIVERMORE, CAL.		
Drawn J.R.G.	REVISIONS	NUMBER
Traced J.R.G.	8-3-55	69-E1
Sect. Chf. Jmw		
Date 4-2-37		SHEET 1 OF 1
Division Chief N. C. Heplaine		Proj. No. 4807

VETERANS ADMINISTRATION
WASHINGTON, D. C.

APPROVED [signature]
ASSISTANT ADMINISTRATOR, C., S. AND R.E.

[signature]
DIRECTOR, TECHNICAL SERVICE

U.S. GOVERNMENT PRINTING OFFICE 886262



SANITARY SEWER

--NOTES FROM 1980--

NODE NUMBER	INVERT ELEVATION
1	671.01
2	648.60
2A	649.00
2B	*
2C	*
3	635.43
4A	628.00
4B	622.00
4C	624.10
4D	*
7	632.61
7A	630.33
7B	632.45
7C	634.09
7D	635.10
7E	636.08
7F	636.92
7G	640.30
7H	641.85
8	582.73
8A	588.51
8B	588.51
9	*
9A	606.31
9B	607.92
10	593.05
10A	605.32
10B	601.32
11	594.36
11A	598.03
12	603.06
13	633.31
14	566.50
14A	571.20
14B	585.60
14C	601.50
14D	611.00
14E	600.00
15	643.50
16	641.50
17	634.70
18	628.00
19	608.80
50	554.61
51	554.22

*INVERT ELEVATIONS TO BE FIELD VERIFIED

LEGEND

14F — SEWER MANHOLE

CO1 — SEWER CLEANOUT

——SS—— SEWER LINE

**SEE SHEET L-02 FOR COMPLETE LEGEND

NORTH

0 30 60 120

SCALE: 1" = 60.0'

SYMBOL	DESCRIPTION	INITIAL	DATE
	REVISION		

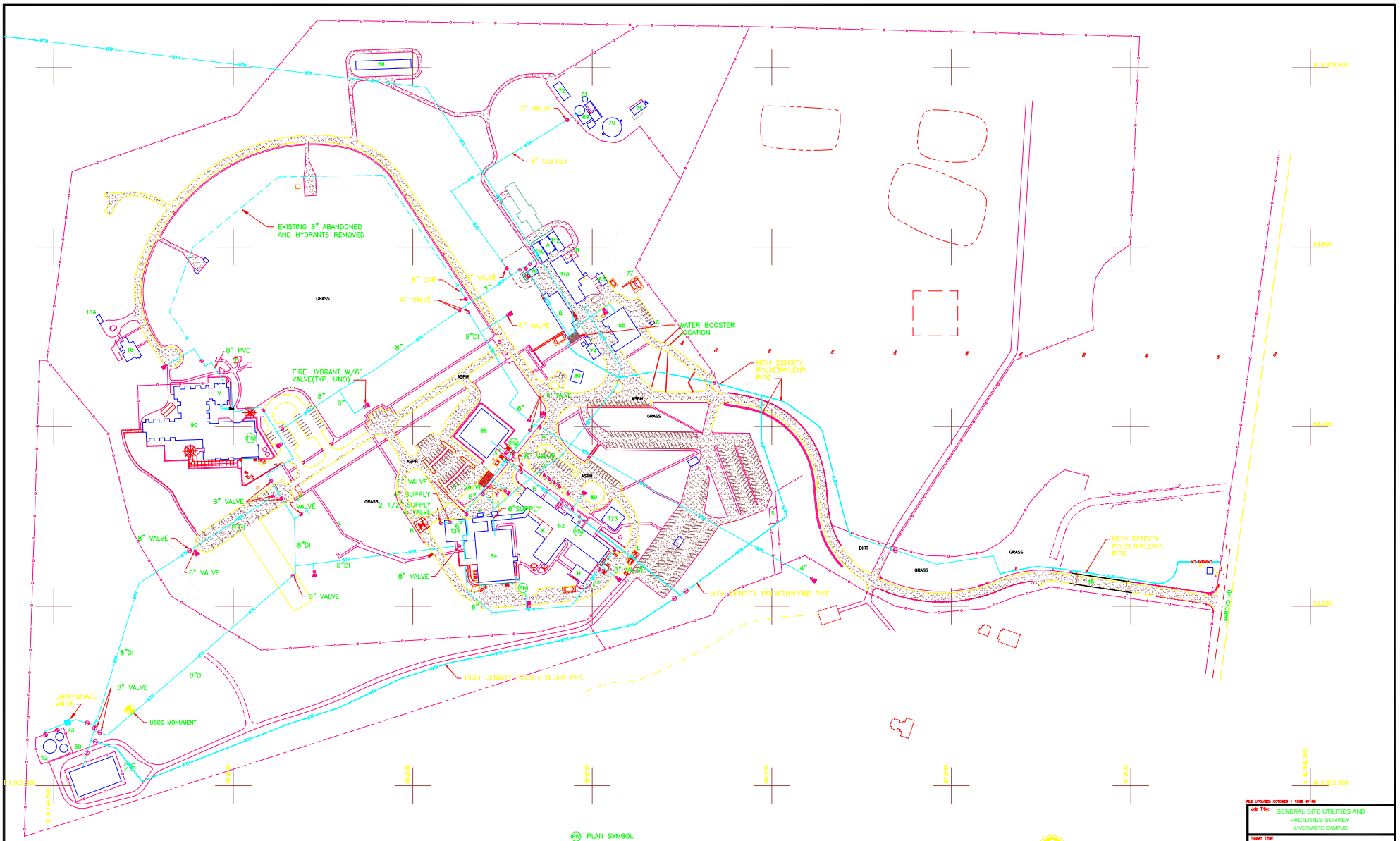
FILE UPDATED: OCTOBER 1 1998 BY RD

Job Title: GENERAL SITE UTILITIES AND FACILITIES SURVEY
LIVERMORE CAMPUS

Sheet Title: SANITARY SEWER PIPING PLAN

VETERAN AFFAIRS PALO ALTO HEALTH CARE SYSTEM
STATION 640, PALO ALTO, CA 94304

Drawn By: R. DIDONATO	Date: 7/98	Checked By: S. HRUSECKY	Date: 7/98
Submitted By: CADWORKS	Date: 7/98	Approved By: A. BINSOL	Date: 7/98
Scale: AS NOTED	Using Service Approval:		Date:
Reviewed For Fire & Safety Compliance:			Date:
Reviewed For Maintenance & Repair Compliance:			Date:
Reviewed For Security Compliance:			Date:
Date: 7/98	Drawing No.: L-07		
Proj. No: 640-C80603	Sheet 3 Of 15		



PIV PLAN SYMBOL

GENERAL DETAIL

NORTH

0 50 100 200

SCALE: 1" = 100.0'

FIRE DEPARTMENT PIV VALVE. SUPPLY TO SPRINKLER SYSTEM.

SYMBOL	DESCRIPTION	INITIAL	DATE

REVISION

FILE UPDATED: OCTOBER 1 1998 BY RD

Job Title: GENERAL SITE UTILITIES AND FACILITIES SURVEY
LIVERMORE CAMPUS

Sheet Title: DOMESTIC WATER PLAN

VETERAN AFFAIRS PALO ALTO HEALTH CARE SYSTEM
STATION 640, PALO ALTO, CA 94304

Drawn By: M. DUONATO Date:
Checked By: S. WIKLINSKY Date:
Submitted By: Date:
Approved By: Date:
Scale: AS NOTED
Using Service Approval: Date:
Reviewed For Fire & Safety Compliance: Date:
Reviewed For Maintenance & Repair Compliance: Date:
Reviewed For Security Compliance: Date:
Date: 7/98
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