

B.M. CG 2712 ELEV. 788.307
 RD. B.M. TAG IN NW 1/4 CORNER OF CATCH BASIN ON N.E. CORNER OF GRAND AVE. AND MOUNTAIN ROAD 30 FT. N. AND 30 FT. E. OF APPROX. C.L. INT. OF GRAND AVE.
QUAD. 1982

REVISION NO. 4 DATE: 6.21.96
 PAGE 12: REV. PLAN & PROFILE OF FORCE MAIN & PUMP STATION
 PAGE 13: REV. LOCATION OF VENT WELLS, VALVE VAULT, INVERTS & CONTROL PANEL HOUSE
 PUMP STATION & S.S. EASEMENT

APPROVED BY: *[Signature]* DATE: 6/21/96
 OFFICE OF THE DIRECTOR OF PUBLIC WORKS

CONSTRUCTION NOTES

GENERAL NOTES

DOUBLE SCALE

PROFILE, ALIGNMENT AND GRADE OF SANITARY SEWERS TO BE CONSTRUCTED IN

TRACT NO. 41504
PRIVATE CONTRACT NO. 10901

INDEX U-75,2345
9 SHEETS, 15 PAGES

SIKAND ENGINEERING ASSOCIATES
 15230 BURNING BLDG, VAN NUYS, CA 91411-3566
 REG. C.E. No. 42890

INDEX MAP
 PC. 10901
 TRACT NO. 41504
 SCALE: 1" = 600'
 7.6 639, F1

NOTE:
 INDICATES VOID PAGES
 NUMBERS IN THE CIRCLES INDICATE PAGE NUMBERS

ISSUE NO H.L. CONNECTION PERMIT UNTIL OUTLET SEWER TO LOT 32 TR. 41504 IS ACCEPTED FOR PUBLIC USE BY THE COUNTY OF LOS ANGELES.

1. PROPOSED SURVEY STAKES ON THE PROPERTY LINE OR PROPERTY LINES PROUD TO RIGHT ANGLES TO THE SEWER LINE AT THE CENTERLINE OF EACH MANHOLE.

2. INVERTED CLAY PIPE JOINTS SHALL BE TYPE "D" OR "E" PER STANDARD SPECIFICATIONS SECTION 208.2.

3. IF A POWER POLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER STANDARD PLAN 232 CASE II. TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.

4. ALL JOINTS BETWEEN CAST IRON PIPE AND INVERTED CLAY PIPE SHALL BE MADE WITH A RUBBER SLEEVE JOINT TYPE "D" WITH BUSHING IF NECESSARY PER STANDARD SPECIFICATIONS SECTION 208.2.

5. HOUSE LATERALS TO BE CONSTRUCTED WITH 12" R/SUJFF TO THE SIDE OF THE R/W LINE.

6. A R/W OR THE BRANCHES MAY BE USED FOR CONNECTIONS TO MANHOLE 11 HERE EXCEPT AS NOTED.

7. IF DURING THE COURSE OF CONSTRUCTION IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAINLINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS INDICATED ON THE PLANS, THE PIPE SHALL BE ENCASED PER STANDARD PLAN 232 CASE II, UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.

8. ALL STRUCTURES SHALL BE CONSTRUCTED TO MEET LOS ANGELES COUNTY PUBLIC WORKS OR CALIFORNIA STATE HIGHWAY REQUIREMENTS AS ACCORDANCE WITH THE PERMITS.

9. FULL COMPLIANCE WITH SECTION 208-7.2 OF THE STANDARD SPECIFICATIONS WILL BE REQUIRED FOR BACKFILL IN STREETS. CERTIFICATION OF BACKFILL COMPACTION AND SAND EQUIVALENTS BY A QUALIFIED CIVIL ENGINEER SHALL BE PROVIDED BY THE PERMITTEE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF MATING ACCEPTANCE.

10. ALL BACKFILL AND FILLS OUTSIDE OF STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY A 20 IN SOIL COMPACTOR TEST TO 10% TB METHOD OR UNLESS OTHERWISE SPECIFIED THIS SHALL BE CERTIFIED BY A QUALIFIED CIVIL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CONSTRUCTION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS PRIOR TO ACCEPTANCE OF THE WORK BY THE COUNTY.

11. MANHOLE TOPS IN UNIMPROVED RIGHTS OF WAY TO BE SIX INCHES ABOVE FINISHED GRADE.

12. SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 208-1.4 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

13. Full compliance with part IV of the special provisions is required for the installation of A.B.S. composite pipe.

14. Manhole water stop gaskets and covers are required for the connection of A.B.S. composite pipe to manhole.

15. A.B.S. pipe must be used for use and house lateral connections to A.B.S. composite mainline sewer pipe.

16. The deflection gauges are required for a radius of curvature less than 500' when using A.B.S. composite pipe.

17. No connections for disposal of industrial wastes are allowed if A.B.S. composite pipe is used.

18. Sewer line curvature shall not be achieved by pulling of manhole or having pipe under using plastic pipe including A.B.S. composite pipe.

19. A.B.S. solid wall pipe is not acceptable for use in existing sewer.

20. Only eye branches are to be used for connection to A.B.S. composite mainline sewer pipe.

NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNTIL A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY THE SANITATION DISTRICTS FOR SAID CONNECTION.

DEFENSE BREAKING INTO OR CONSTRUCTION ON A COUNTY SANITATION DISTRICT SEWER AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, A SANITATION DISTRICT INSPECTOR SHALL BE NOTIFIED BY PHONE AT (916) 868-0000 SO THAT REQUIRED INSPECTIONS CAN BE MADE.

1. A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR CONSTRUCTION INSPECTION AND RECORD PLANS TO THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF LOS ANGELES, AT LEAST 72 HOURS PRIOR TO STARTING WORK UNDER THIS CONTRACT. COPIES OF ALL OTHER REQUIRED PERMITS SUCH AS ROAD EXCAVATION, CALTRANS, ETC. MUST BE FILED WITH THE PERMIT APPLICATION.

2. PRIOR TO ISSUANCE OF ANY PERMIT THE CONTRACTOR SHALL FILE A PERMIT FOR EXCAVATIONS AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND CERTIFY THAT WORKERS' COMPENSATION INSURANCE WITH THE DEPARTMENT OF PUBLIC WORKS NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF POLICY.

3. IF WORK IS TO BE DONE IN A STATE HIGHWAY A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS, 730 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.

4. WHEN WORK IS WITHIN CONTRACT CITY THE CONTRACTOR MUST CONTACT THE DIRECTOR OF PUBLIC WORKS OF THAT CITY TO DETERMINE THE LOCATION TO CONTACT THE INSPECTOR.

5. THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE (1) ON THE APPLICATION FOR CONSTRUCTION PERMIT TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE AND SHALL (2) IN THE CONSTRUCTION DIVISION BY TELEPHONE (316) 448-3128 AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.

6. APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION 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.

7. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1988 EDITION INCLUDING SUPPLEMENT 2 AND THE SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS DATED JULY 31, 1989 AND SHALL BE PRECEDED ONLY IN THE PRESENCE OF THE DEPARTMENT OF PUBLIC WORKS PERSONNEL.

8. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 106.4 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE MINIMUM PUBLIC SAFETY REQUIREMENTS AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS STANDARD 2.

9. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.

10. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS.

11. NO REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.

12. GRADIES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS OR CENTERLINE OF ALLEYS ARE INDICATED BY CIRCLES ON PROFILES. ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.

13. THE PRIVATE ENGINEER SHALL FURNISH THE DEPARTMENT OF PUBLIC WORKS WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND 12" OR 15" BRANCHES AND SHALL PROVIDE 5' CLEARANCE FROM ALL PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE MAIN SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.

14. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.

NOTE:
PARTIAL APPROVAL ONLY FOR PAGES 1, 2, 4, 6, 7.
REVISION NO. 2 COMPLETES THIS SEWER IMPROVEMENT PLANS.

REVISION NO. 3 DATE: 6/16/96
 PAGE 12: REVISED FORCE MAIN PROFILE FROM STA. 8+45.00 TO STA. 3+83.84 PER AS SHOWN DATA.

APPROVED BY: *[Signature]* DATE: 6/11/96
 OFFICE OF THE DIRECTOR OF PUBLIC WORKS

NOTE:
 THIS PLAN IS AN OFFER OF SERVICE NOT RESTRICTED TO NO CONSTRUCTION AND WILL NOT BE PERVED BY THE ENGINEER.

REVISION NO. 1 DATE: 11-23-35
 PAGE 11: REVISED INDEX MAP
 PAGE 17: ADDED PLAN & PROFILE FROM STA. 8+45.00 TO STA. 14+66.00.

APPROVED BY: *[Signature]* DATE: 11/23/35
 OFFICE OF THE DIRECTOR OF PUBLIC WORKS

REVISION NO. 2 DATE: 12-12-35
 PAGE 3: ADDED PLAN & PROFILE FROM STA. 1158.00 TO STA. 8+40.00
 PAGE 10: ADDED PLAN & PROFILE FROM STA. 1120.00 TO STA. 8+10.00
 PAGE 11: ADDED 3" CHIMNEY FROM STA. 8+42.79 TO STA. 8+82
 PAGE 12: ADDED PLAN & PROFILE FROM STA. 1+47.62 TO STA. 518.94
 PAGE 13: ADDED PUMP STATION.

APPROVED BY: *[Signature]* DATE: 12/12/35
 OFFICE OF THE DIRECTOR OF PUBLIC WORKS

URBAN	\$1.00
SEWER PUBLIC IMPROVEMENTS	\$1.00
REINFORCED PRECAST CONCRETE MANHOLE	\$1.00
STANDARD MANHOLE STEP	\$1.00
ROOFING FOR STEEP PIPE	\$1.00
CHIMNEY AND ENCLOSURE	\$1.00
WYE OR TE SUPPORT	\$1.00
ALLOWABLE TRENCH WIDTH	\$1.00
EXCISE MANHOLE FRAMES AND COVERS	\$1.00
NON-REINFORCED PRECAST CONCRETE MANHOLE	\$1.00
SPECIAL HOUSE LATERALS	\$1.00
ALUMINUM DRUGGISTS	\$1.00
REVISION PROTECT PADS	\$1.00
CRATE WITH 4" BRICKS	\$1.00
CHIMNEY PIPE & BASE	\$1.00

COUNTY OF LOS ANGELES, CALIFORNIA

HARRY W. STONE
 ACTING DIRECTOR OF PUBLIC WORKS

CHARLES W. CARRY
 CHIEF ENGINEER
 60 SAN DIEGO, LOS ANGELES, CALIF. 90012

APPROVED: *[Signature]* DATE: 7/22/94
 APPROVED: *[Signature]* DATE: 7/22/94

CHECKED: *[Signature]* DATE: 7/22/94
 REG. C.E. No. 20273

LA PUENTE BLDG. DIST. 2

REVISIONS NO. 1 & 2
 APPROVED: COUNTY SANITATION DISTRICT NO. 22
 CHARLES W. CARRY, CHIEF ENGINEER
 DATE: 3/4/94

SEE NOTE 11 ON PAGE 1 REGARDING COMPACTION

NO CHARGE FOR CONNECTION

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES (310) 639-1411 EXT. 2127

63919

ISSUE NO PERMITS. MAINLINE MUST BE EXTENDED AND MANHOLE CONSTRUCTED.

(TENTATIVE TRACT 41004) A PORTION OF LOT 2 OF THE HONDIS AND CHAPMAN TRACT RECORDED BOOK 2, PAGES 614 OF MAPS, RECORDS IN LOS ANGELES COUNTY.

10' SANITARY SEWER EASEMENT DEDICATED TO THE COUNTY OF LOS ANGELES

4" DIA. FORCE MAIN SEE SHEET 8

50' WIDE SANITARY SEWER EASEMENT

8" V.C.P. OR ABS/CCP SEWER

2" DIA. SEWER EASEMENT DEDICATED TO THE COUNTY OF LOS ANGELES

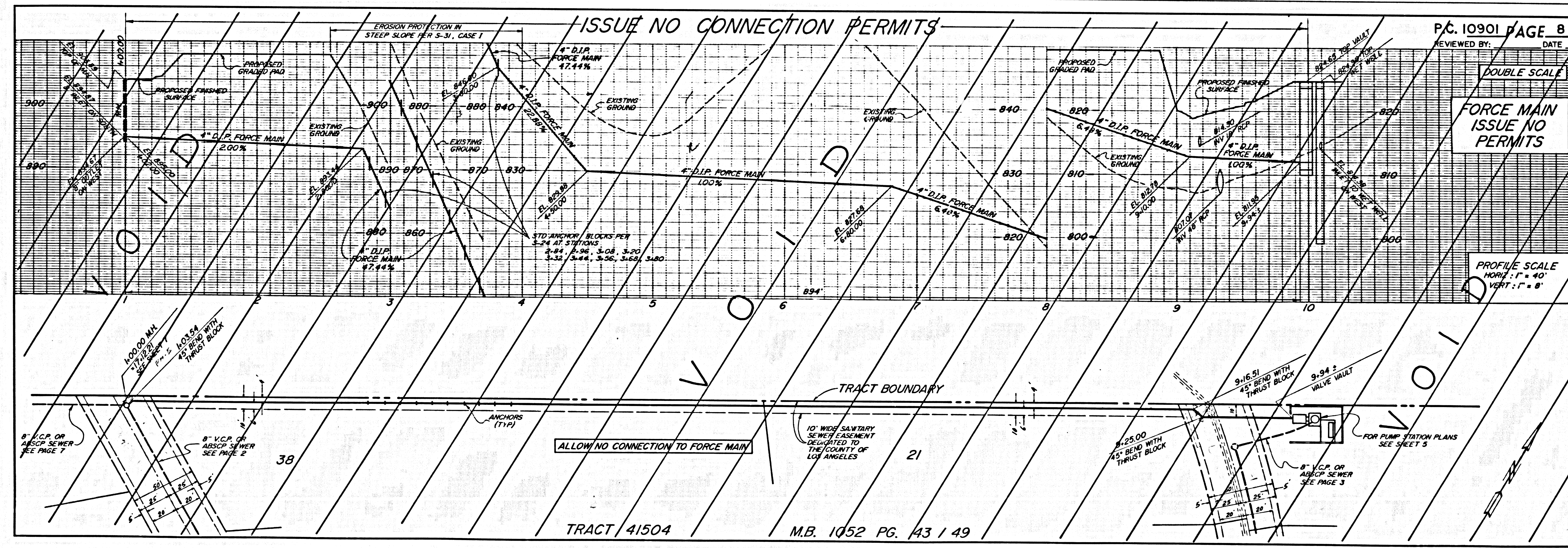
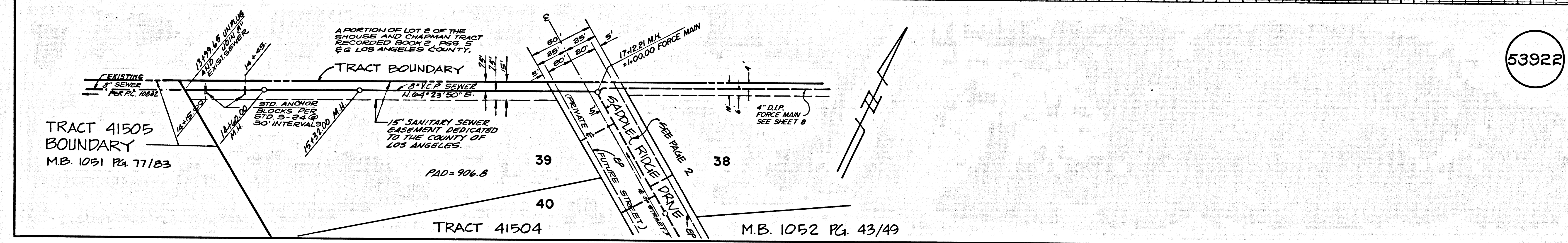
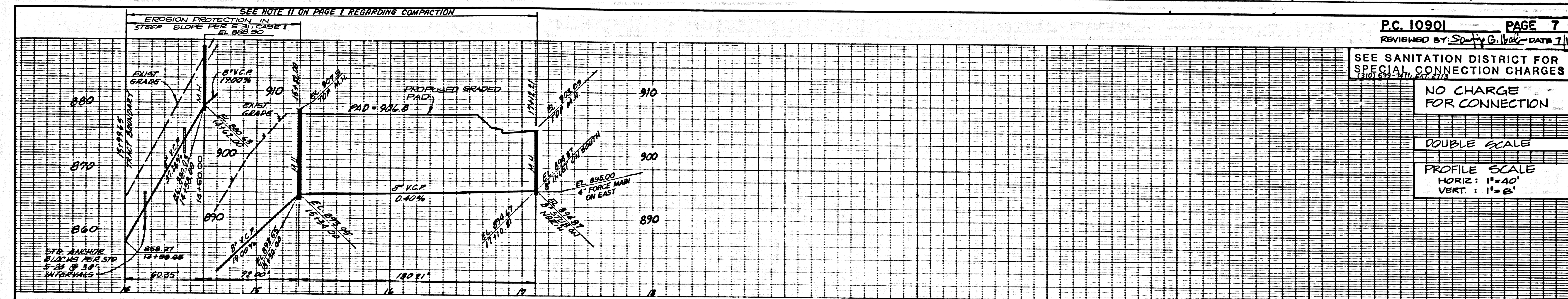
SEWER CURVE DATA
 Δ = 164.46°, 00"
 R = 117.81'
 T = 406.33', 32"

TRAJECT NO. 41504 M.B. 1052 Pg. 43/49

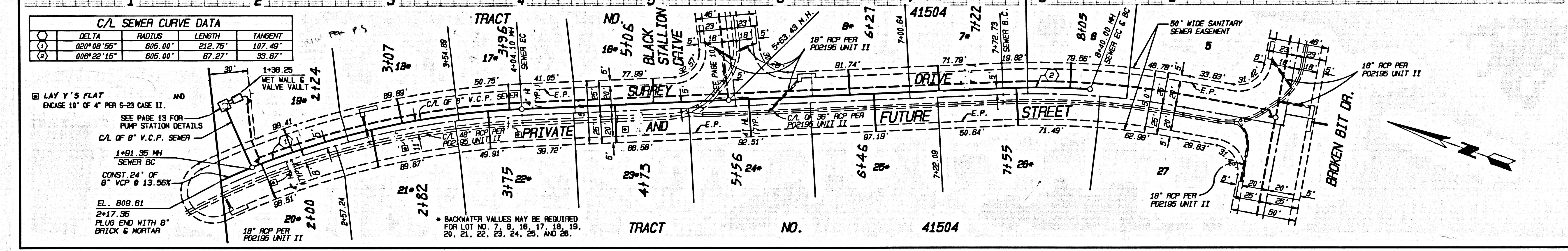
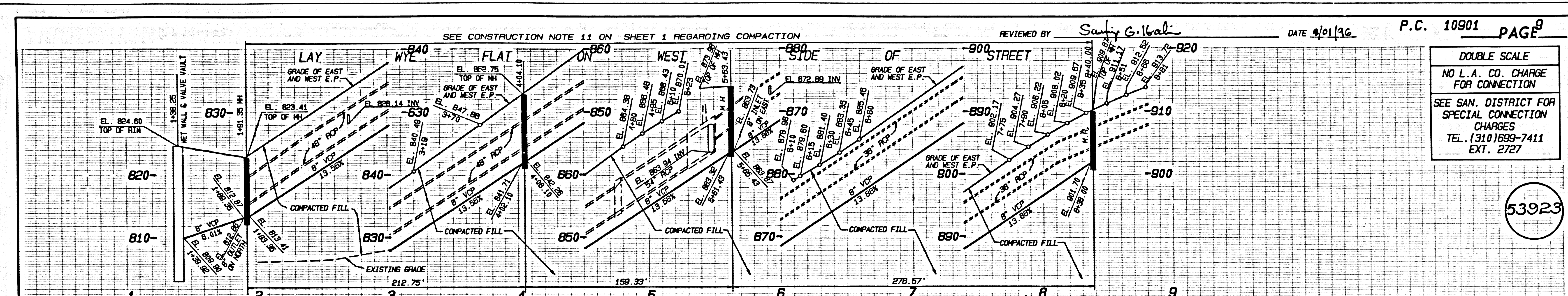
LA COUNTY SEWER SHEET NO. 1 SOUTHERN CALIFORNIA ALUMINUM CO. 641

89529E CUS.001

TRACT NO. 41504

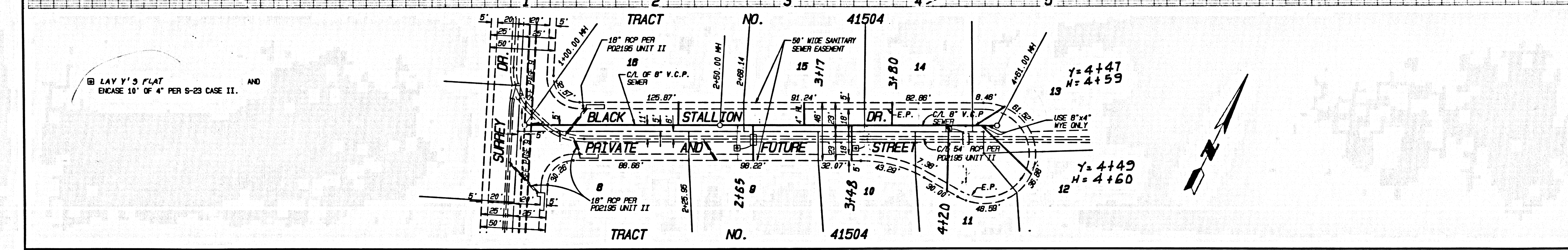
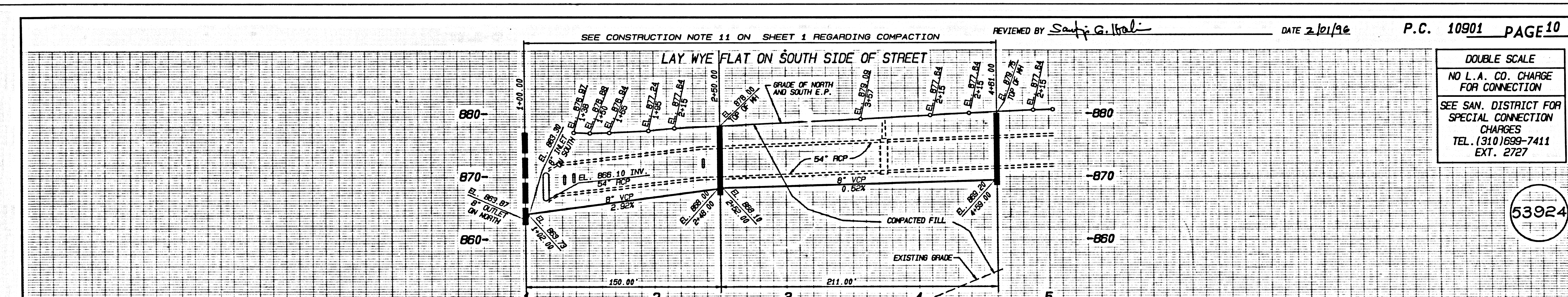
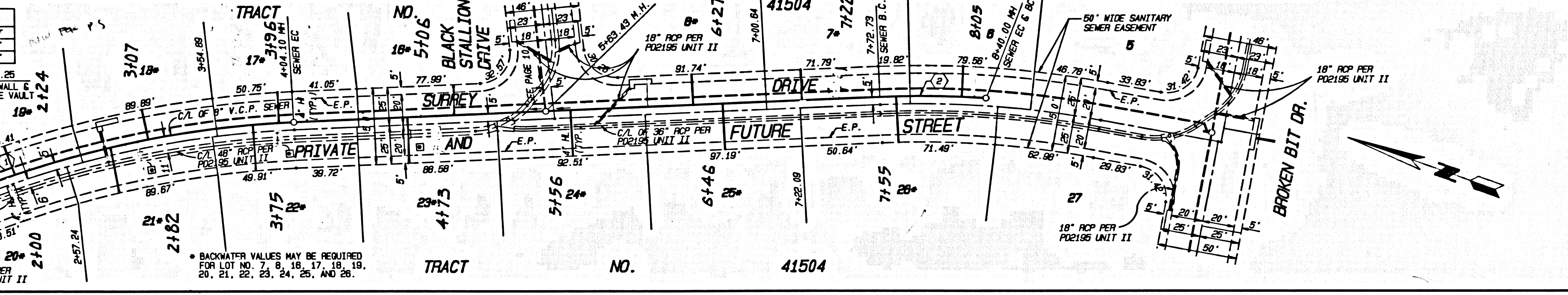
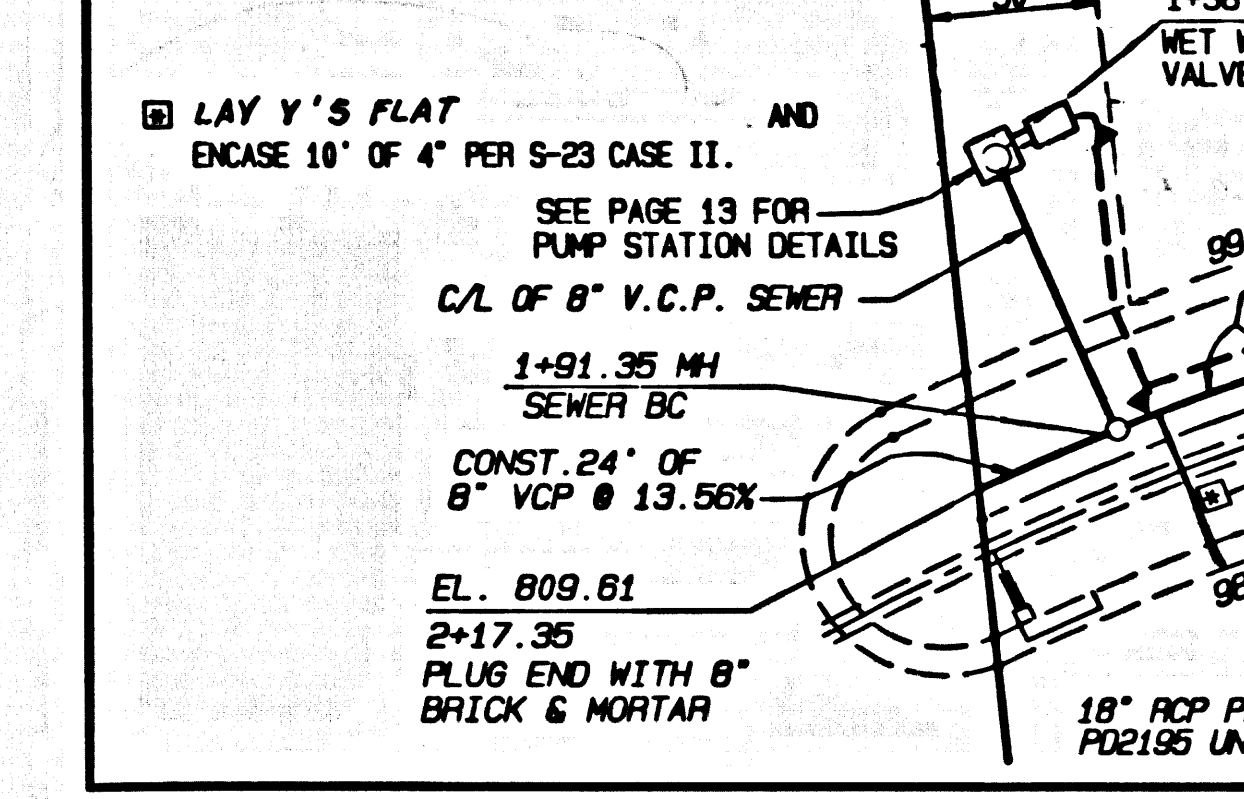


PC 10901 PAGE 7
 REVISIONS BY: DATE
 SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES
 NO CHARGE FOR CONNECTION
 DOUBLE SCALE
 PROFILE SCALE
 HORIZ: 1"=40'
 VERT: 1"=8'
 53922
 PC 10901 PAGE 8
 REVISIONS BY: DATE
 DOUBLE SCALE
 FORCE MAIN ISSUE NO PERMITS
 PROFILE SCALE
 HORIZ: 1"=40'
 VERT: 1"=8'

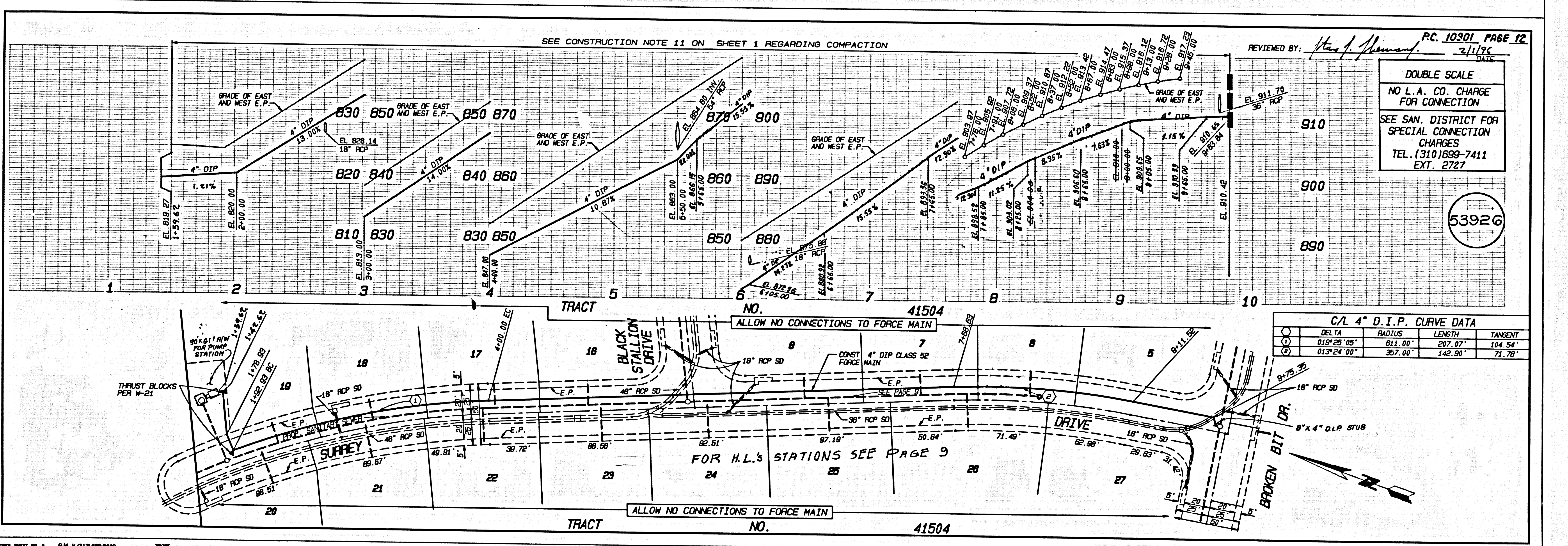
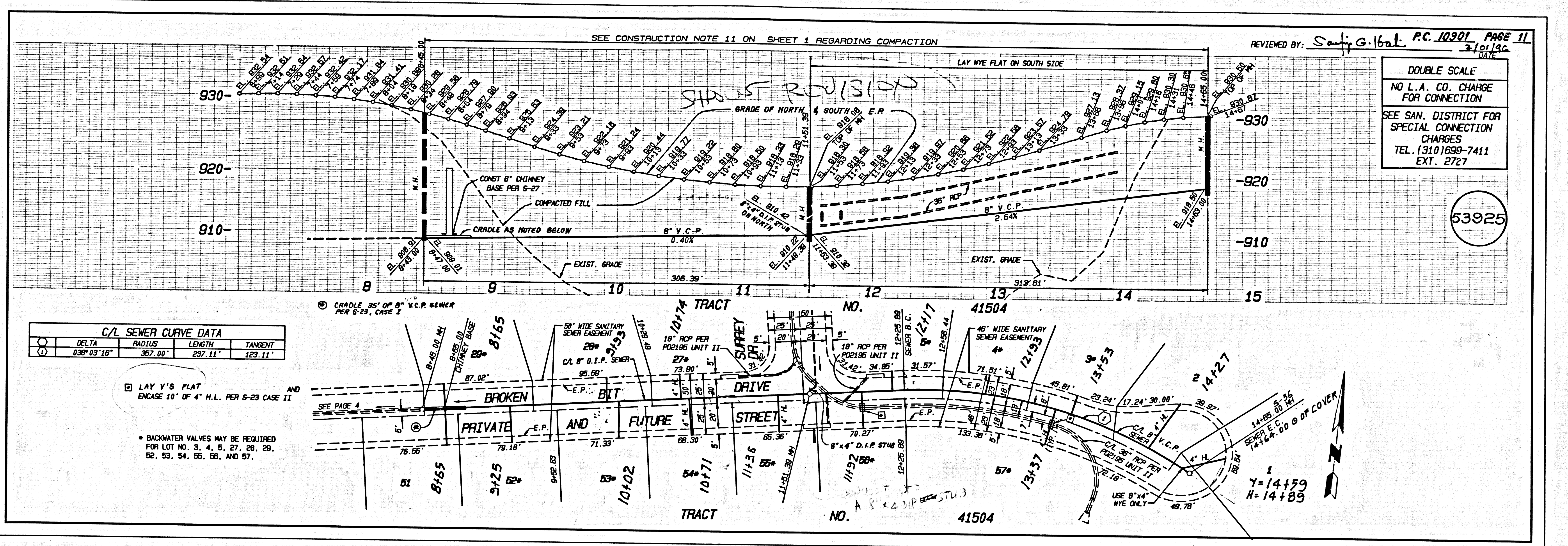


C/L SEWER CURVE DATA

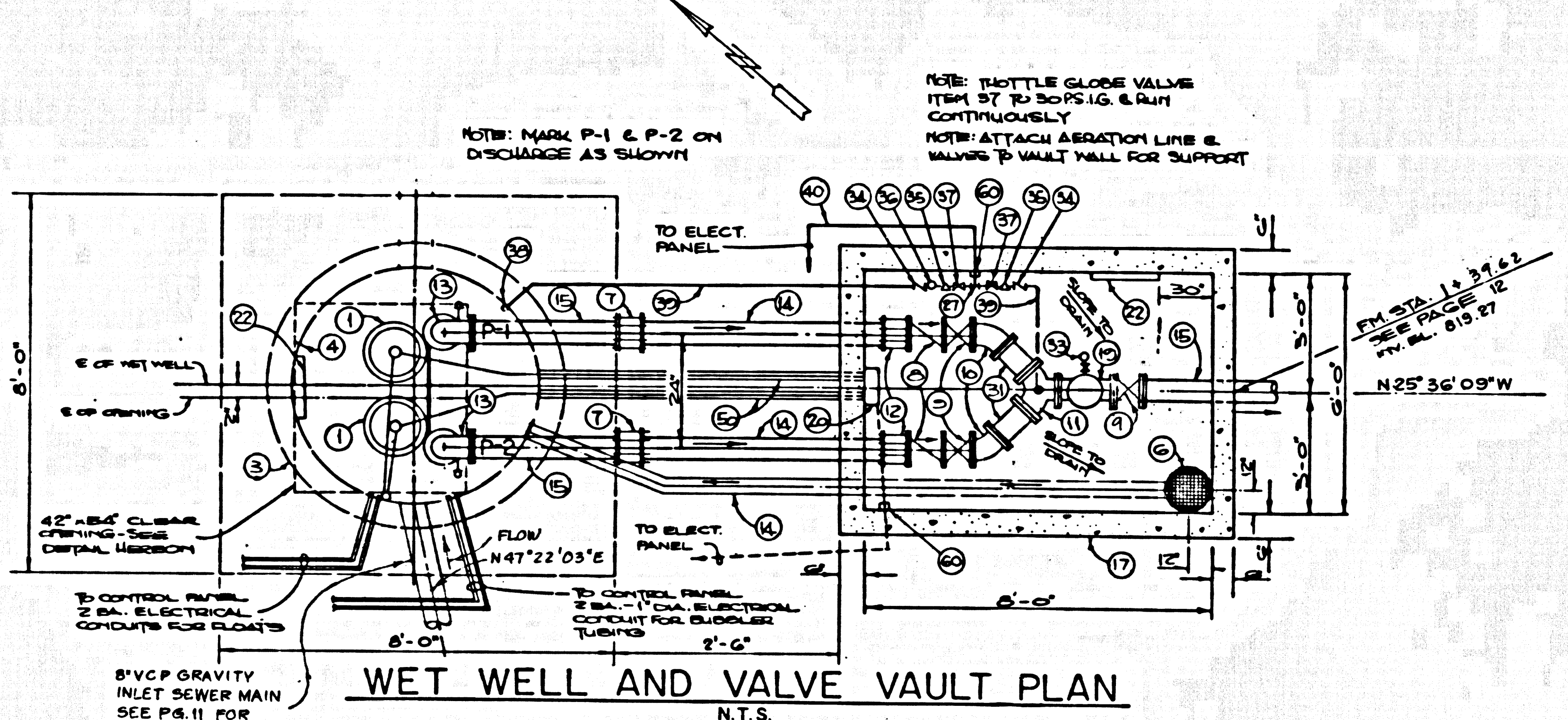
DELTA	RADIUS	LENGTH	TANGENT
02° 04' 08" 55"	805.00'	212.75'	107.49'
00° 22' 15"	805.00'	67.27'	33.67'



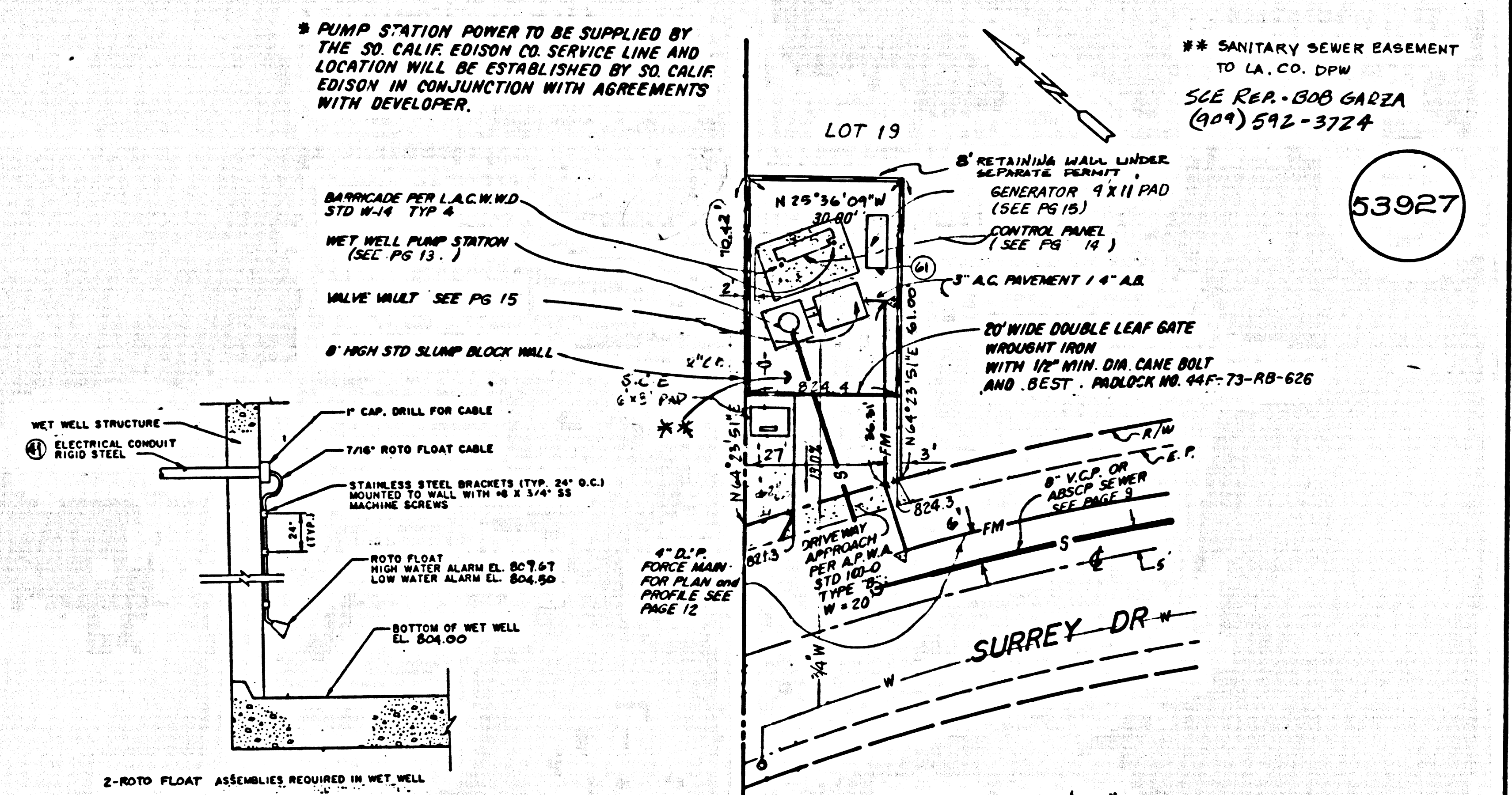
10901 39 10901A 0M 11



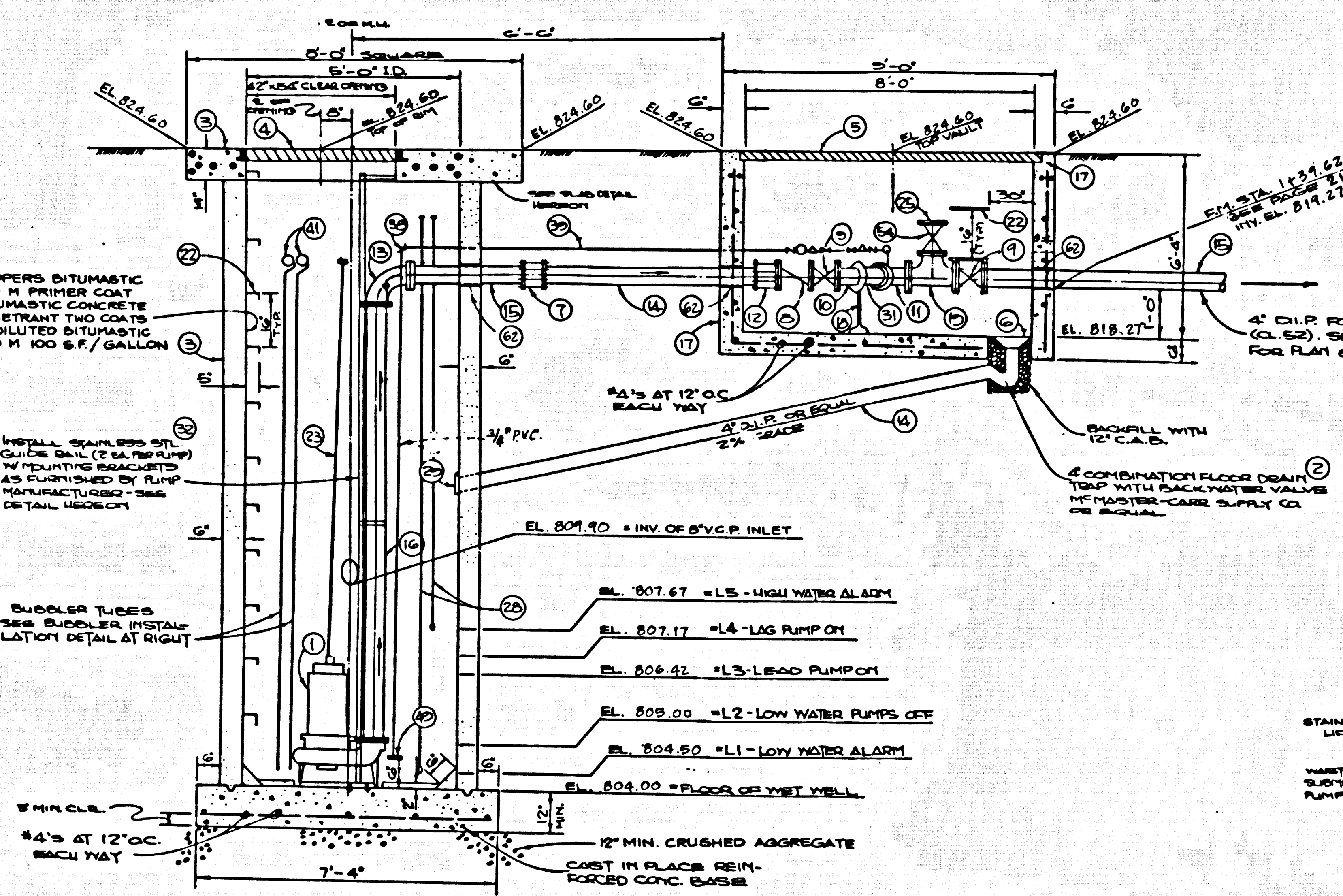
10901 09
40214 0M RT



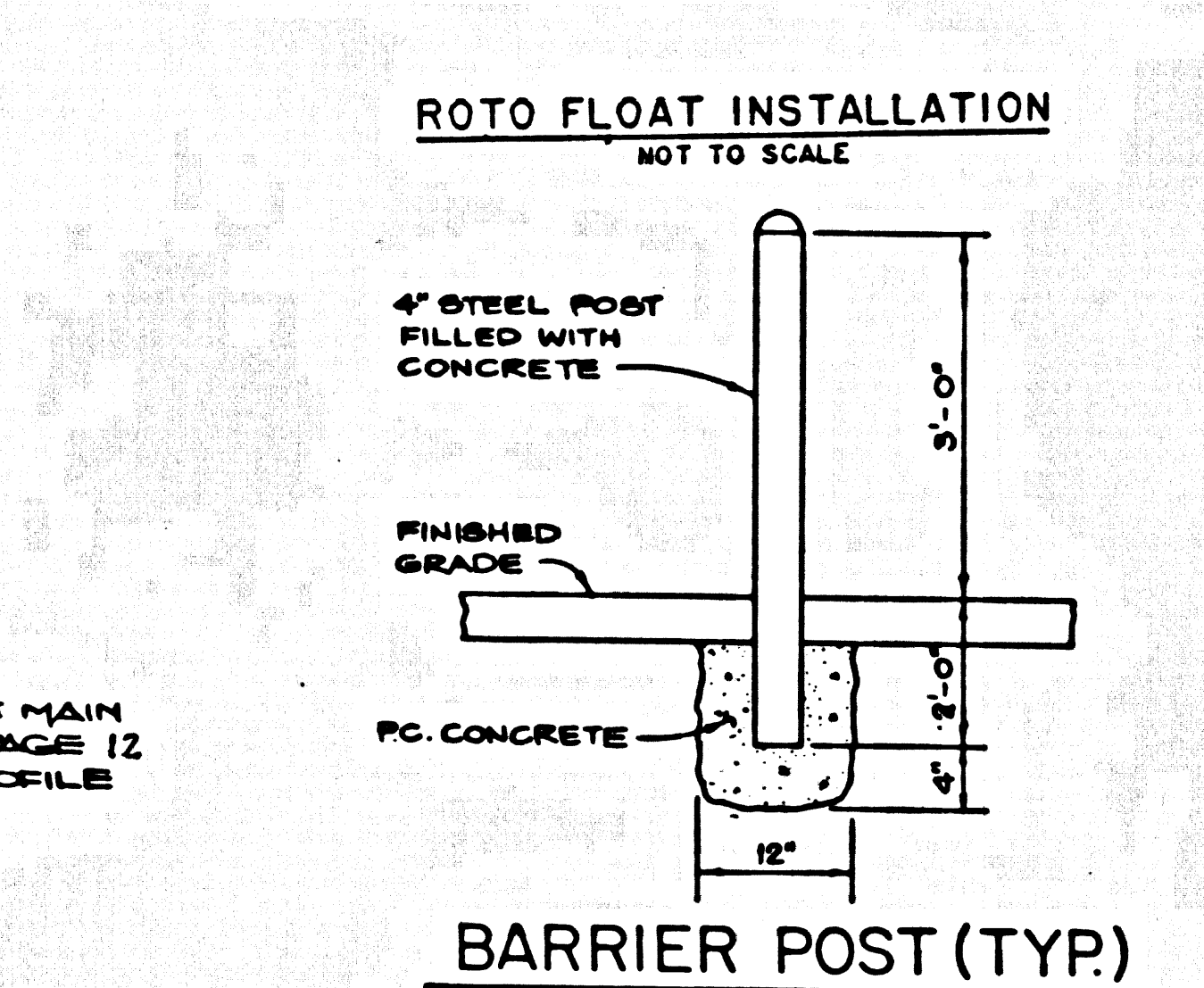
WET WELL AND VALVE VAULT PLAN
N.T.S.



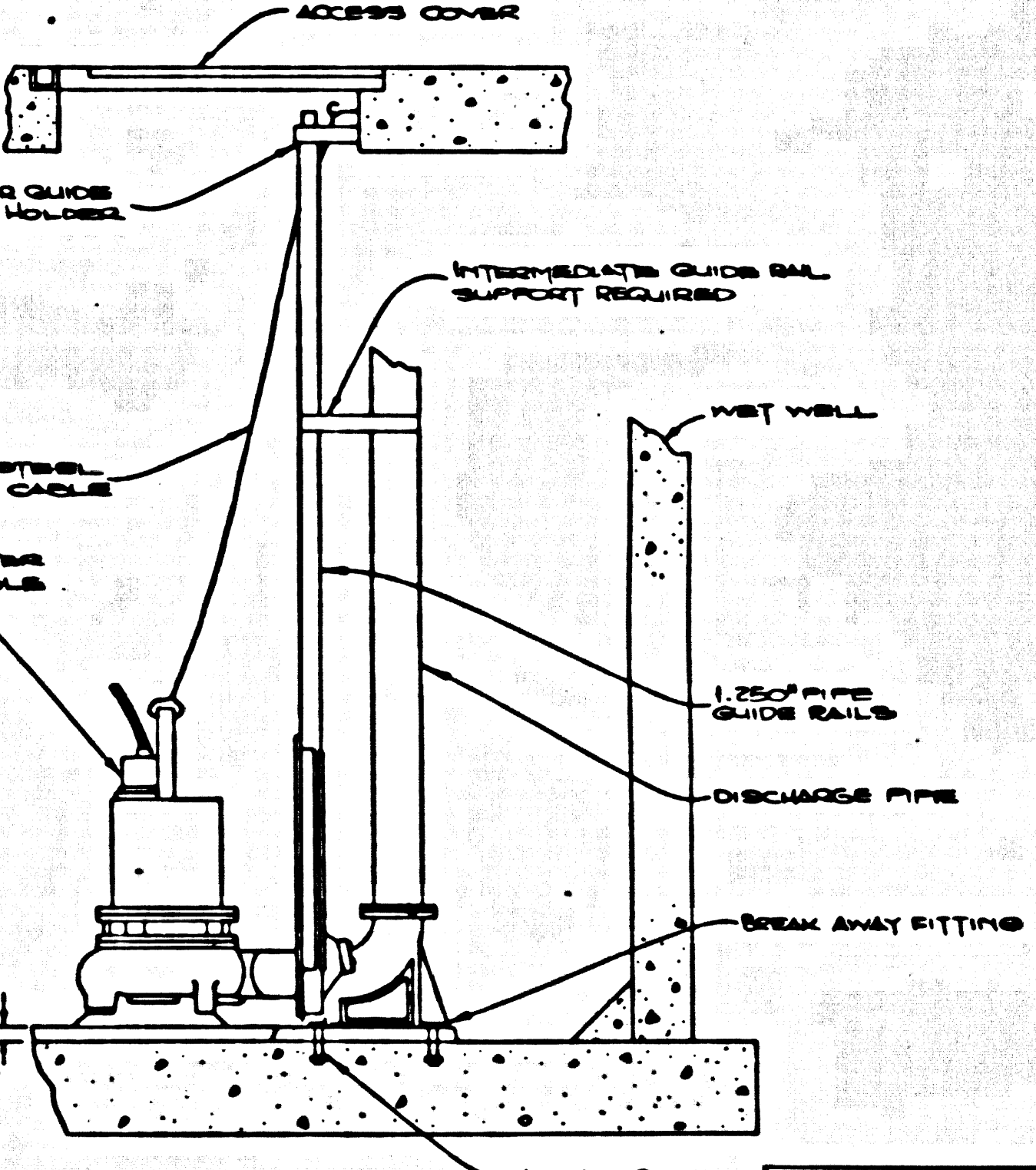
SITE PLAN
SCALE: 1" = 20'



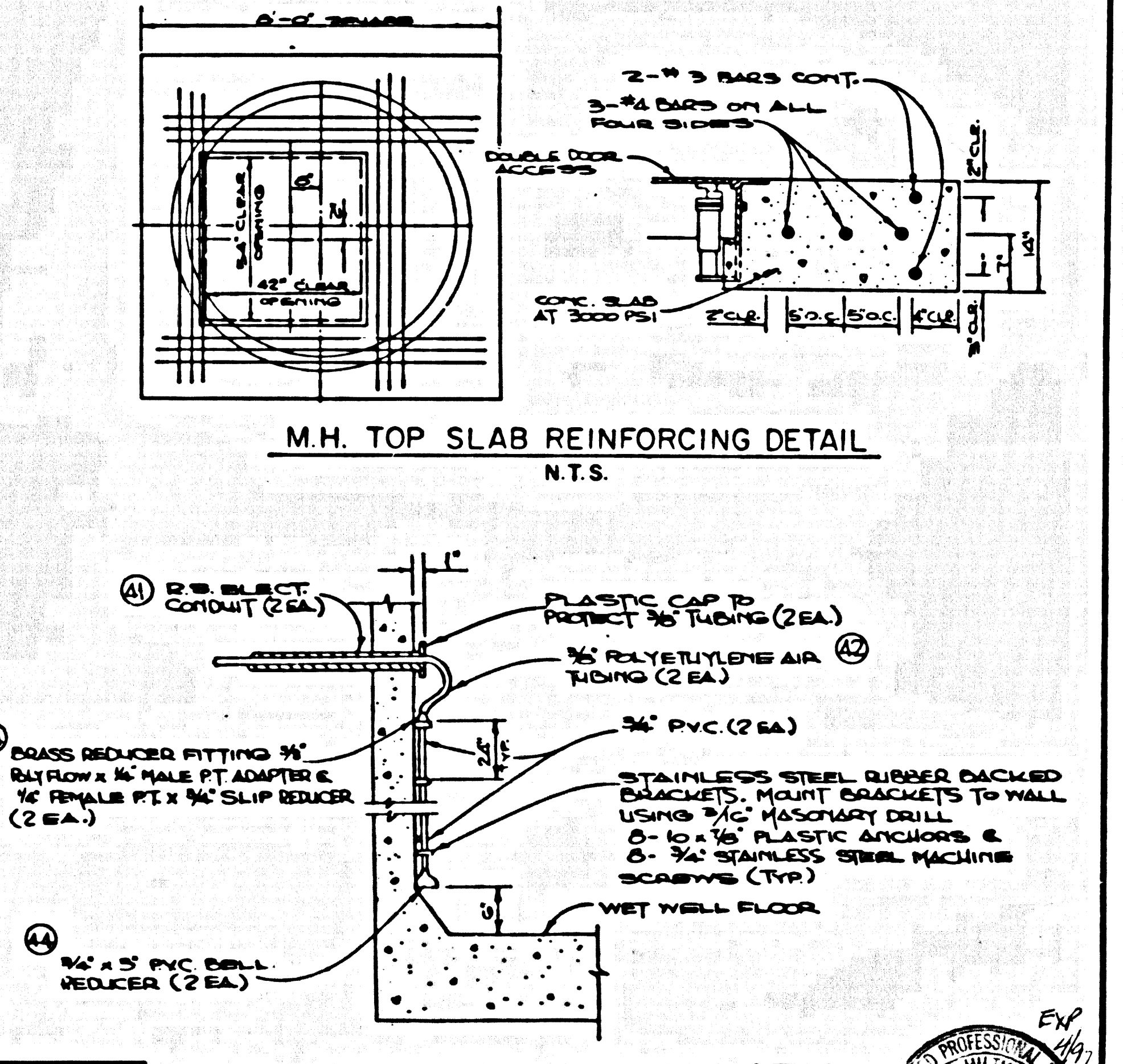
WET WELL & VALVE VAULT SECTION
DETAIL
N.T.S.



ROTO FLOAT INSTALLATION
N.T.S.



GUIDE RAIL DETAIL
N.T.S.

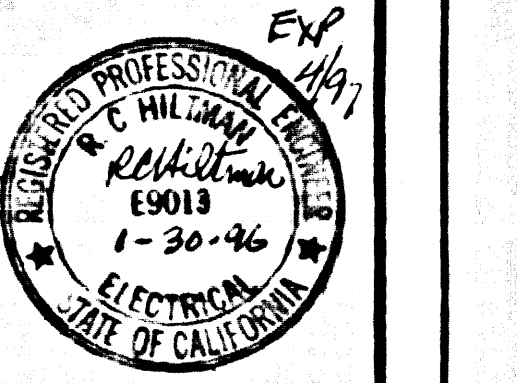


AIR BUBBLER INSTALLATION
DETAIL
N.T.S.

DEPARTMENT OF PUBLIC WORKS, L.A. CO.
CHECKED *Flora L. Stewart* 2/1/96
DESIGN DIVISION DATE

NOTE: SEE PAGE NO. 15 FOR MATERIAL SCHEDULE

Electrical Consulting Engineers
HILTMAN & ASSOCIATES
3138 Rio Loma Drive
Hacienda Heights, CA 91745
PHONE (818) 968-2289



10801 29 40214 0M 73A97

53929

10901 CP 40219 ON T3ART

NO.	DESCRIPTION OF ITEM	QUANTITY
1	"ESSCO" MODEL 4 X 12-TF SUPERBIBLE PUMP AND MOTOR. TORQUE FLOW, NON-CLOG, 100% RECESSED IMPELLER, RELIANCE DOUBLE SEAL, OIL BUFFER ZONE, 1750 RPM, 25 H.P. MOTOR WITH WINDING DEVICE, RATED TO DELIVER 150 G.P.M. AGAINST 155 FT. T.D.H. AND MEET MOST OF EXCEED REQUIREMENTS OF L.A. CO. S.M.D. SPECIFICATIONS. PUMP AND MOTOR SHALL BE U.L. LISTED.	2 EA
2	COMBINATION FLOOR DRAIN AND TRAP WITH BACK WATER VALVE, MC MASTER-CARR 4" OUTLET SIZE, OR EQUAL.	1 EA
3	60" DIA. MET WELL, ASSOCIATED CONCRETE PRODUCTS 60" I.D. PRECAST CONCRETE MANHOLE WITH CAST IN PLACE REINFORCED CONC. TOP SLAB & BASE OR EQUAL. COAT INTERIOR WITH ENRAC 465 HYPERPLASTIC EPOXY OR APPROVED EQUAL. OPENING TO BE INSTALLED OVER MANHOLE STEPS.	1 EA
4	DOUBLE DOOR ACCESS FRAME & COVER, HALLIDAY PRODUCTS, DIMENSIONS 48" X54" CLR. OPENING W/SPRING ASSISTED LIFT COVERS AND FRAME WITH LATCH AND LOCK KEYS TO L.A. CO. S.M.D. SHALL BE RATED TO H-20 LOADING.	1 EA
5	DEL. DOOR ACCESS FRAME & COVER, U.S. FOUNDRY & MANUFACTURING CORP. 6" X 8" CLR. OPENING ALUMINUM W/SPRING ASS'TD. LIFT COVERS & FRAME W/LATCH & LOCK KEYS TO L.A. CO. S.M.D. & SHALL BE RATED TO H-20 LOADING.	1 EA
6	STD. DUCTILE IRON GRATE AND FRAME	1 EA
7	4" DIA. FLEXIBLE COUPLING, DRESSER MANUF., STYLE 38 (C.I.P.) WITH STAINLESS STEEL BOLTS OR APPROVED EQUAL.	2 EA
8	4" CHECK VALVE (FLG'D.), APCO MOD. 104 P3 WITH STEEL REINFORCED RUBBER FLAPPER.	2 EA
9	4" GATE VALVE (FLG'D.), CRANE NO. 461 OR APPROVED EQUAL, N.R.S., CLASS 125	2 EA
10	4" D.I.P. 45' BEND (FLG'D.), CLASS 125.	2 EA
11	4" D.I.P. TRUE WYE (FLG'D.), CLASS 125. DRILL AND TAP 1/2" NPT.	1 EA
12	4" FLEXIBLE ADAPTER COUPLING, DRESSER MANUF., STYLE 127 (D.I.P.) OR EQUAL.	2 EA
13	4" D.I.P. 90° LONG RADIUS ELBOW (FLG'D.), CLASS 125. DRILL AND TAP 1/2" NPT.	2 EA
14	4" D.I.P. (P.E. X P.E.), CLASS 125	LENGTH AS REQ'D
15	4" D.I.P. (FLG'D. X P.E.), CLASS 125	LENGTH AS REQ'D
16	4" D.I.P. (FLG. X FLG.) DISCHARGE PIPES (LENGTH AS REQ'D)	LENGTH AS REQ'D
17	6" X 8" UTILITY VALVE WITH 6" WALLS, BROOKS PRODUCTS, INC., WITH CAST IN PLACE REINFORCED CONCRETE TOP SLAB WITH DESIGN LOADING H-20 PLANE SUPPORT	1 EA
18	4" X 4" D.I.P. TEE (FLG'D.), CLASS 125, WITH 1/4" TAP AT MIDDLE OF TEE FOR PRESSURE GAUGE	1 EA
19	CLASS I, GROUP D, TEE CAST FERALLOY JUNCTION BOX, TO BE USED AS PULL BOX ONLY. AFTER INSTALLATION THE J BOX AND CONNECTORS SHALL BE SEALED WATER TIGHT AND GAS TIGHT CHECK KINDS CLR-01. POWER AND CONTROL LEADS SHALL BE CONTINUOUS WITH NO SPLICES FROM MOTOR TO CONTROL PANEL.	1 EA
20	RECEPTACLE, 20 AMP G.F.I. LEVITON SURGELOAD 83 STK. NO. 6398-1 125 A.C. 20 AMP 2 POLE 3 WIRE GROUNDED RECEPTACLE	1 EA
21	MANHOLE STEPS PER M.A. INDUSTRIES, INC. MODEL P52-77 OR APPROVED EQUAL	25 EA
22	STAINLESS STEEL CABLE, 1/4" X 5/16" NYLON COVERED WITH 1/2" X 6" STAINLESS STEEL EYELETS AND HOOK	LENGTH AS REQ'D
23	BRASS REDUCER FITTING, 3/8" POLYETHYLENE 1/4" MALE P.T. ADAPTER AND 1/4" FEMALE P.T. X 3/4" SLIP REDUCER	2 EA
24	4" DUCTILE IRON ELBOW FLANGE (WITH STAINLESS STEEL BOLTS), CLASS 125	1 EA
25	EDGEMET BREAKER, DAYTON MODEL NO. 46304, 1/6 HP, 1100/800 RPM, 2 SPEED 1450 CPM AIR DELIVERY, 14" FAN DIAMETER WITH 2 SPEED SWITCH AND CIRCUIT BREAKER OR APPROVED EQUAL.	1 EA
26	1/2" COPPER TEE	1 EA
27	NOTOPLANTS IN MET WELL SET AT HIGH LEGAL ALARM ELEV. & AT LOW LEVEL ALARM ELEV. ONE FLOUT CABLE SHALL BE RUN WITH EACH MOTOR CABLE	1 EA
28	4" WATSON FLAP GATE MODEL NO. P-10 OR APPROVED EQUAL	1 EA
29	ADENCO ALARM & MONITORING SYSTEM (SEE ELECTRICAL GENERAL NOTES NO. 7)	1 EA
30	4" D.I.P. SPOOL (FLG. X FLG.) LENGTH AS REQUIRED	2 EA
31	STABILIZING STAINLESS STEEL (1250" DIA.) PIPE GUIDE RAILS, RAIL HOLDER & INTERMEDIATE HOLDER, NON SPARKING/NON-CORROSIVE W/ATTACHMENT HARDWARE PER PUMP MANUFACTURER'S REQ'TS	AS REQ'D
32	1 1/2" BRASS NEEDLE VALVE AND BRASS CASE PRESSURE GAUGE (0-30 P.S.I.)	1 EA
33	1 1/2" CHECK VALVE	2 EA
34	1 1/2" AIR PRESSURE REGULATOR	2 EA
35	1 1/2" AIR FLOW METER	1 EA
36	1 1/2" GLOBE VALVE	2 EA
37	3/4" X 1/2" BRASS REDUCER ELBOW	1 EA
38	1 1/2" COPPER TUBING (LENGTH AS REQ'D.)	LENGTH AS REQ'D
39	3/4" ELECTRICAL CONDUIT, RIGID STEEL TO ELECTRIC PANEL	LENGTH AS REQ'D

NO.	DESCRIPTION OF ITEM	QUANTITY
41	1" ELECTRICAL CONDUIT, RIGID STEEL (LENGTH AS REQ'D.)	LENGTH AS REQ'D
42	3/8" POLYETHYLENE TUBING (LENGTH AS REQ'D.)	LENGTH AS REQ'D
43	3/4" WATER PIPE, STD. WT., WRAPPED GALV. STEEL	LENGTH AS REQ'D
44	3/4" X 3" P.V.C. BELL REDUCER	2 EA
45	CONTROL PANEL, PREMIER CONTROL PANEL AS MAN'FD. BY "ESSCO" AND DESIGNED TO L.A. CO. ENGINEER SPECIFICATIONS, SEE PAGE 24.	1 EA
46	RECIPROCATING AIR COMPRESSOR KAESER GREEN MODEL 688 WITH 7.5 HP MOTOR, 3 PHASE 230V/460V MOTOR, RATED TO DELIVER 25 CPM AT 145 PSI	1 EA
47	"BISCO" (HORSBY PRODUCTS) MODEL PRP 3/4" BACKFLOW PREVENTER ASSEMBLY, INCLUDING ALL REQ'D. VALVES, NIPPLES AND MOUNTING BRACKETS.	1 EA
48	3/4" HOSE BIB, CHAMPION BRASS WGT., HB BRASS HOSE BIB MODEL HB-27, OR EQUAL	1 EA
49	1/2" P.V.C. ABRATOR JET	1 EA
50	2-2" UNDERGROUND ELECTRICAL CONDUIT, RIGID STEEL (LENGTH AS REQ'D.)	LENGTH AS REQ'D
51	GROUNDING ROD 3/4" DIA., COPPER CLAD STEEL, 8' LONG	1 EA
52	HYDROVAC AIR REGULATOR	1 EA
53	HOFFMAN ENGR. CO. FAN PACKAGE MODEL A-PAID A37N WITH VENT AND FILTER SIZE 11.6" X 13" X 8", RATED AT 560 CPM, 115 V, 60 CYCLE AND 36 WATTS FURNISHED WITH POLARIZED PLUG AND RECEPTACLE. PROVIDE AND INSTALL 3 ADDITIONAL GRILLS AND FILTER KIT NO. A68R10, 11.6" X 13" X 8" HOFFMAN ENGR. CO. OR APPROVED EQUAL.	1 EA
54	4" ROBBINS & MYERS MANUALLY OPERATED HOYND PINCH VALVE OR APPROVED EQUAL	2 EA
55	MASTER CARR CAT. 94 P3 OR #2095 K1E 1/3 H.P. 120 VOLTS 60 CYCLE (1725 RPM EXPLOSION PROOF.	1 EA
56	PLUG-IN LIMIT SWITCH NO. 802T-ASP SERIES F PER ALLEN - BRADLEY	1 EA
57	JOHNSON CONTROLS, INC. TYPE #25AA AIR FLOW CONTROL	1 EA
58	6" DIA. GALVANIZED STEEL PIPE WITH MUSHROOM TYPE HOOD INLET	LENGTH AS REQ'D
59	6" DIA. P.V.C. (SCH. 80) AND FITTINGS.	LENGTH AS REQ'D
60	PROVIDE SEAL-OFF FOR ELECTRICAL CONDUIT ENTERING OR LEAVING THE HAZARDOUS AREA PER ART. 500 OF 1967 N.E.C.	AS REQ'D
61	DIESEL POWERED, FOUR CYCLE ONLY, FOUR CYLINDER MIN., ONAN MODEL 80DADA FACTORY RATED 80 KW, 100KVA, 0.8 PF ON A CONTINUOUS STANDBY BASIS, 400/277 VOLTS, 3-PHASE 4 WIRE, 60 HERTZ	1 EA
62	LINK-SEAL WALL SLEEVE BY THUNDERLINE CORP OR EQUAL	5 EA

GENERAL NOTES:

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- THE PUMPING EQUIPMENT MANUFACTURER'S REPRESENTATIVE SHALL SUPERVISE THE INSTALLATION, STARTING AND TESTING OF THE EQUIPMENT.
- ALL CONSTRUCTION JOINTS SHALL BE WATERPROOF. THERE SHALL BE NO TRACE OF WATER LEAKS INTO MET WELL UPON COMPLETION OF THE PROJECT.
- ALL WORK AND MATERIALS TO BE GUARANTEED FOR NOT LESS THAN ONE (1) YEAR.
- CONCRETE SHALL BE PORTLAND CEMENT CONCRETE AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.
- BEDDING AND BACKFILL SHALL BE COMPACTED TO 90% RELATIVE DENSITY. BACKFILL SHALL NOT BE COMPACTED BY FLOUTING, SLUICING, JETTING OR BY ANY OTHER HYDRAULIC METHOD WHICH WILL SATURATE THE SOIL.
- BACKFILL SHALL BE FROM THE MATERIAL EXCAVATED OR SHALL BE A GRANULAR MATERIAL APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.
- ALL PRACTICES AND PROCEDURES, MATERIALS AND PLACEMENT OF MATERIALS SHALL CONFORM IN EVERY RESPECT TO THE L. A. COUNTY BUILDING LAWS (LATEST EDITION) AND ALL APPLICABLE SUPPLEMENTS.
- ESSCO PUMPS ARE DISTRIBUTED BY "ENGINEERS SALES SERVICE COMPANY", 4935 TELEGRAPH ROAD, L.A., CO 90022, (818) 261-2181.
- THE CONTRACTOR SHALL SUPPLY ALL MATERIALS AND EQUIPMENT UNLESS OTHERWISE NOTED.
- NOTCHES OR GROOVES AROUND OPENINGS IN CONCRETE SHALL BE PROVIDED AS REQUIRED TO RECEIVE MANHOLE FRAMES AND ACCESSORIES. DIMENSIONS AND POSITIONS WHERE NOT SPECIFIED FOR CONDUITS, FRAMES AND ACCESSORIES SHALL BE DETERMINED FROM THE DETAILS AND FROM MANUFACTURER'S SHOP DRAWINGS.
- NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT WRITTEN APPROVAL OF THE COUNTY DEPARTMENT OF PUBLIC WORKS OR AS DIRECTED BY THE L.A. CO. INSPECTOR.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
- ALL STATE AND LOCAL TRENCH SAFETY ORDERS TO BE STRICTLY ENFORCED.
- ALL LOCKS SHALL BE KEYS FOR O.P.W., S.M. STANDARD BEST LOCK # 44F-73-FB-624

ELECTRICAL GENERAL NOTES:

- THE CONTRACTOR SHALL CONTACT & MAKE ARRANGEMENTS WITH THE SOUTHERN CALIFORNIA EDISON CO. FOR SERVICE & POWER.
- THE ELECTRICAL CONTRACTOR SHALL RUN A #4 BARE COPPER M.H.D. GROUND WIRE & ATTACH AS PER CODE TO ALL METAL PIPING, PUMP PLATES & STEPS.
- THE ELECTRICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE PROVISIONS OF THE NATIONAL ELECTRICAL CODE, STATE SAFETY ORDERS & ALL APPLICABLE CODES.
- CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE DETERMINED IN THE FIELD TO SUIT FIELD CONDITIONS.
- ALL ELECTRICAL EQUIPMENT IN THE MET WELL TO BE EXPLOSION PROOF PER CLASS 1, DIVISION 1 OF CALIFORNIA ELECTRICAL CODE. SEAL CONDUITS INTO THIS AREA. ALL ELECTRICAL IN DRY WELLS (VAULT) SHALL BE VAPOR TIGHT SEALED CONDUITS.
- THE ELECTRICAL CONTROL PANEL SHALL BE AS MANUFACTURED BY ESSCO IN ACCORDANCE WITH L.A. COUNTY ENGINEER SPECIFICATIONS, ENGINEERS SALES-SERVICE CO. (ESSCO), 4935 TELEGRAPH ROAD, L.A., CA 90022, (213) 261-2181.
- ALL ITEMS FROM SECURITY HANDBOOK, ADENCO CATALOGUE OF PRODUCTS, 1986. ALL COMPONENTS MUST BE COMPATIBLE WITH COUNTY OF L.A., DEPT. OF PUBLIC WORKS, S.A.T.S. MONITORING SYSTEM UTILIZING ADENCO VISTA 4140 XMP DIGITAL RECEIVER.
 - CONTRACTOR SHALL FURNISH WORKING TOUCHTONE TELEPHONE SERVICE & SINGLE INSTRUMENT WALL MOUNT TOUCHTONE TELEPHONE. TELEPHONE LINE SHALL TERMINATE IN A DUPLEX FEMALE TELEPHONE JACK TO FACILITATE PLUGGING OF TELEPHONE INSTRUMENT & ADENCO DIALER SIMULTANEOUSLY IN THE SAME JACK. THE TELEPHONE INSTRUMENT & JACK SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE ADENCO VISTA 4140 XMP DIGITAL COMMUNICATOR.
 - THE PROGRAMMABLE CHIP, ADENCO 8691 SHALL BE PROGRAMMED TO SEWER MAINTENANCE DISTRICT'S SPECIFICATIONS.
 - IN ADDITION TO THE ABOVE ADENCO ALARM SYSTEM A POWER FAILURE RELAY IS REQUIRED TO CALL IN POWER FAILURE AT THE PUMPING STATION.
- THE WATER LEVEL CONTROL SETTINGS SHOWN ON THE MET WELL ON PAGE 23 SHALL BE AS FOLLOWS:
 - LOW WATER ALARM
 - LEAD PUMP "OFF" AND LAG PUMP OFF
 - LEAD PUMP "ON"
 - TRANSFER OF LEAD PUMP TO LAG PUMP
 - HIGH WATER ALARM CIRCUIT

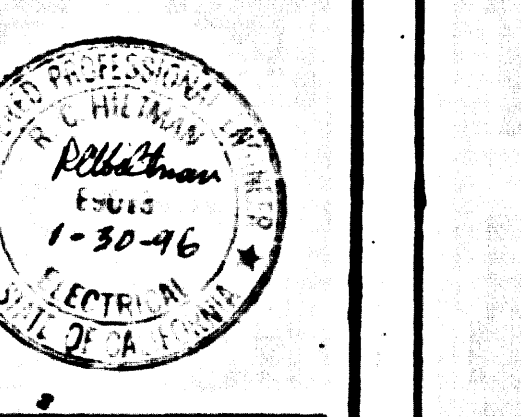
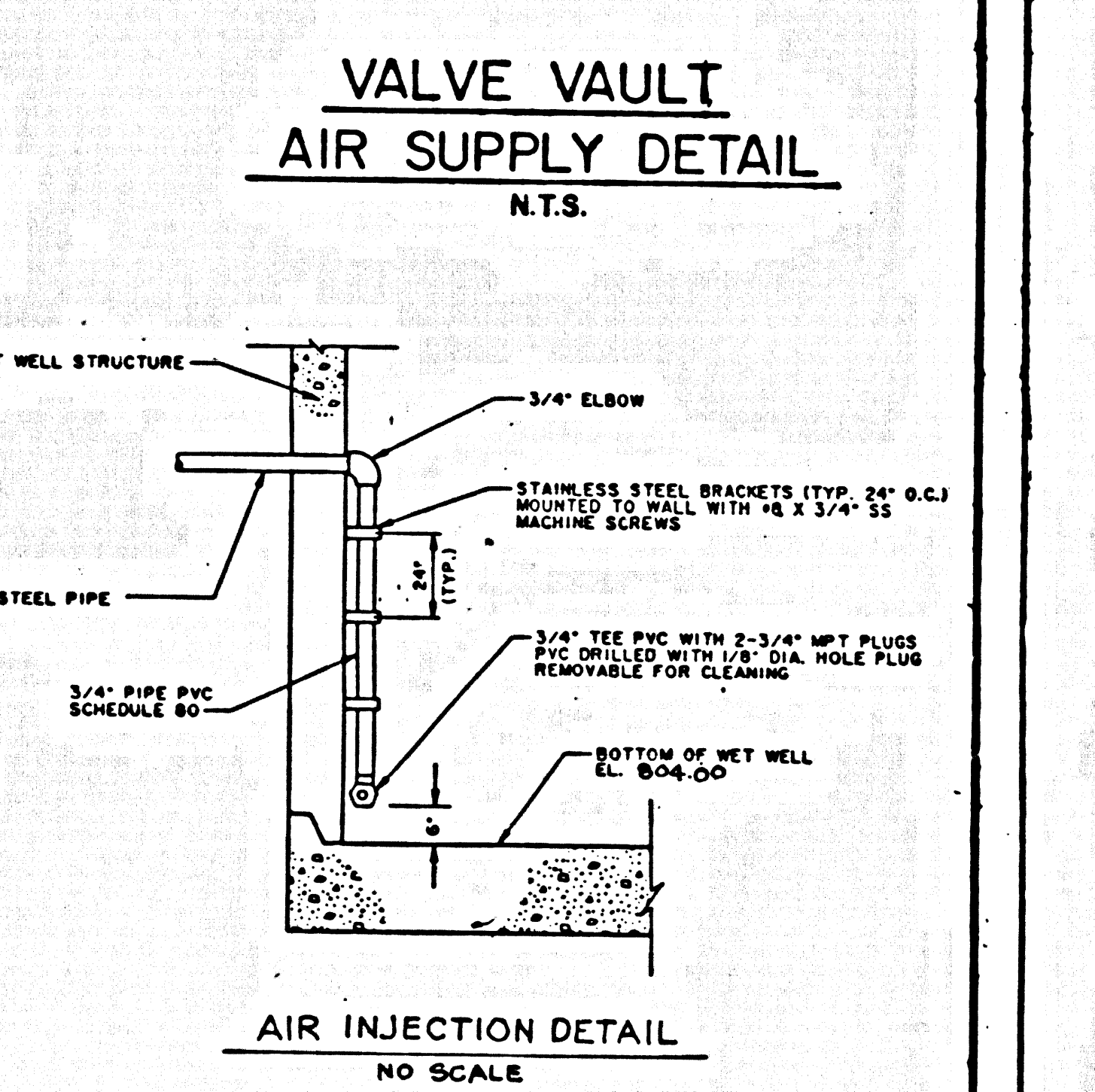
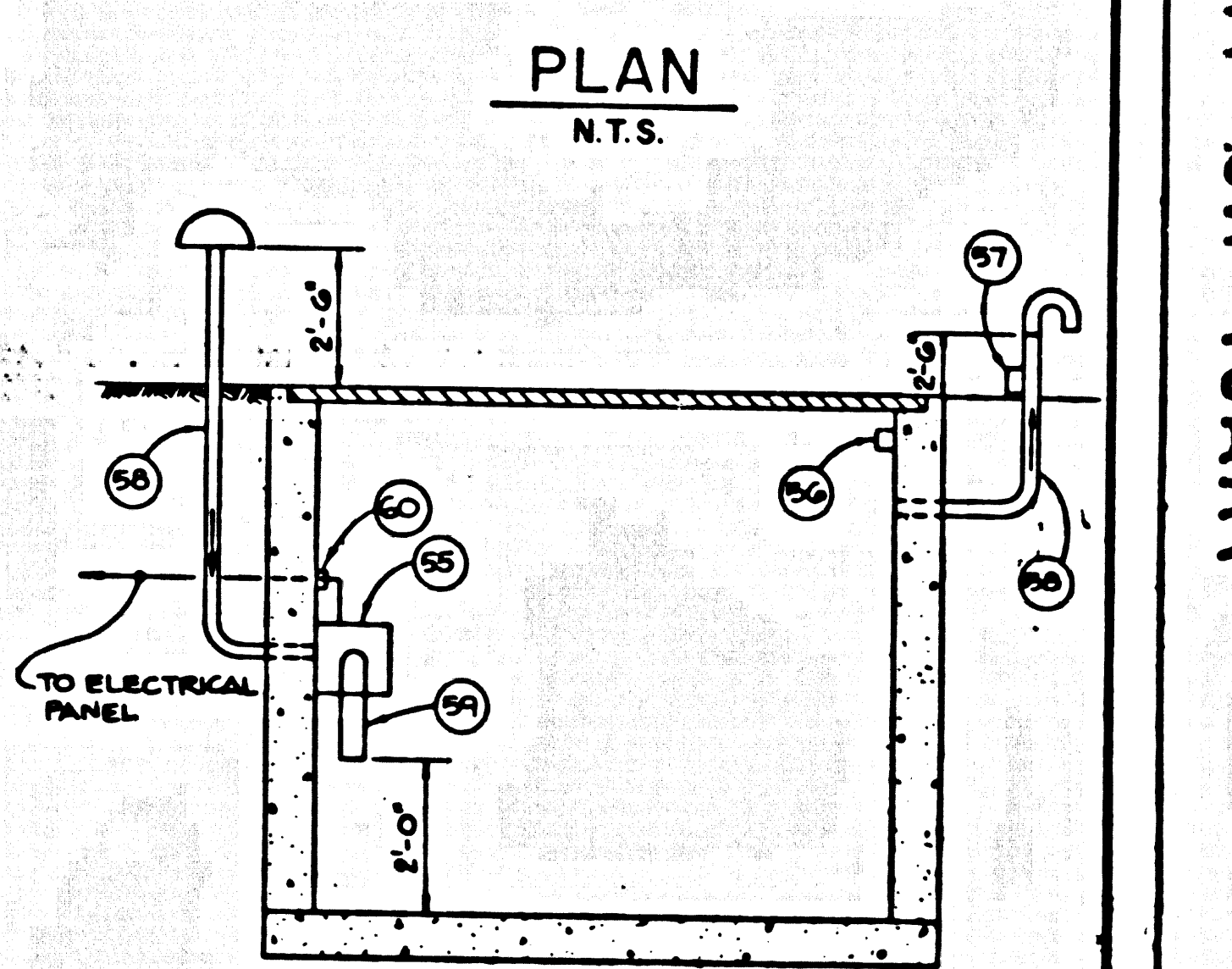
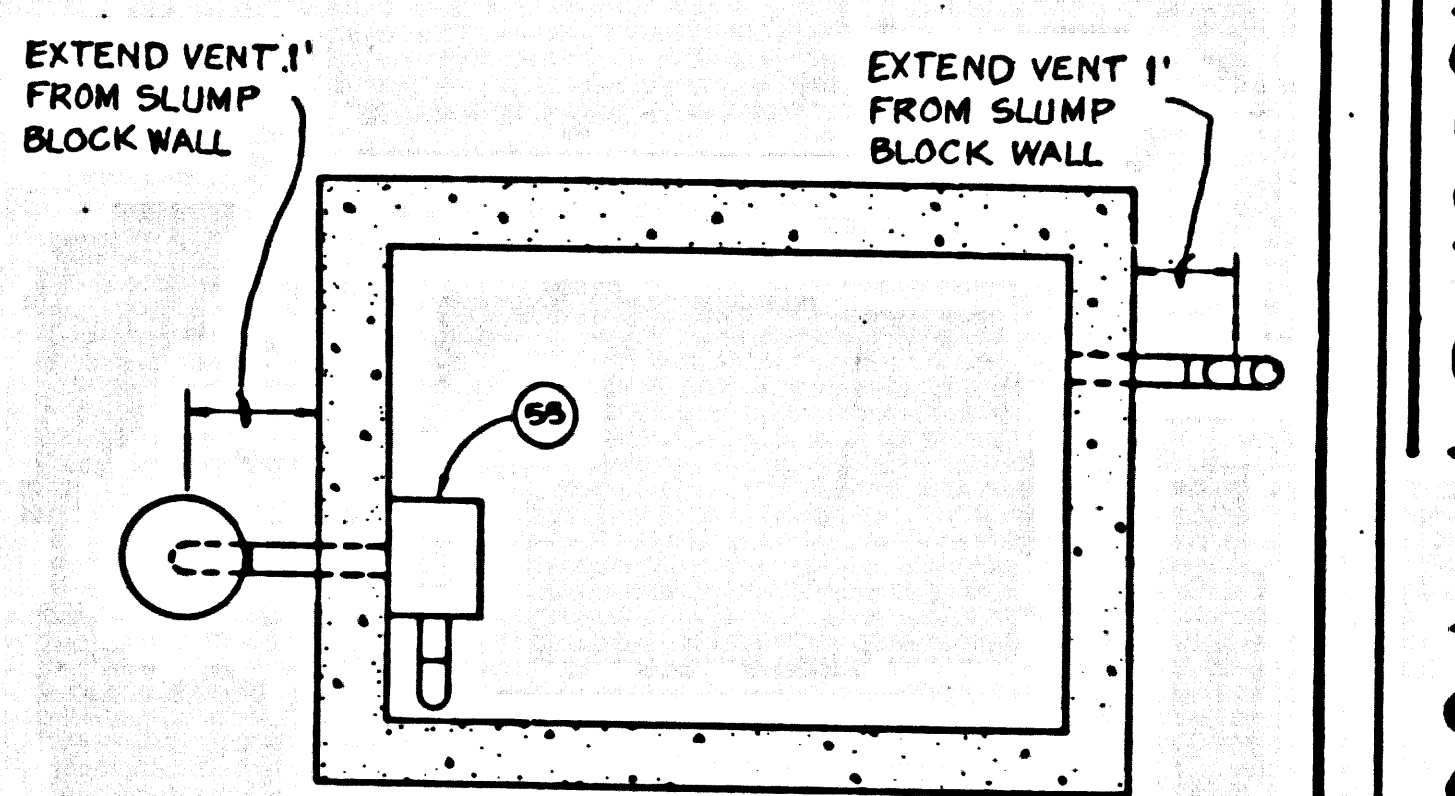
CONTROL PANEL SHALL PROVIDE AUTOMATIC LEVEL CONTROL FOR PUMPS. LEAD PUMP SHALL START WHEN LIQUID RISES TO LEVEL L3 & STOP WHEN LIQUID RECESSES TO LEVEL L2. WHEN THE LIQUID RISES TO LEVEL L4, LAG PUMP SHALL START. WHEN THE LIQUID RISES TO LEVEL L5, THE HIGH WATER ALARM CIRCUIT SHALL BE ENERGIZED. THE HIGH WATER ALARM CIRCUIT SHALL BE MANUALLY DE-ENERGIZED WHEN THE LIQUID RECESSES TO LEVEL L1. WHEN THE LIQUID DROPS TO L1, THE LOW WATER ALARM CIRCUIT SHALL BE ENERGIZED, AND SHALL BE MANUALLY DE-ENERGIZED WHEN THE LIQUID RISES ABOVE L1. THE ALTERNATOR SHALL AUTOMATICALLY SEQUENCE THE PUMPS AFTER EACH OPERATION.

ELECTRICAL COMPONENT LIST:

COMPONENTS FOR THE ELECTRICAL SYSTEM SHALL BE AS, BUT NOT LIMITED TO THE FOLLOWING ITEMS IDENTIFIED BELOW. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT MATERIAL AS WELL AS A DETAILED LIST OF MATERIAL QUANTITIES AS PART OF THE SHOP DRAWING SUBMITTAL. THE FOLLOWING LIST IS GENERAL IN NATURE AND SHALL ONLY ACT AS A GUIDE.

- MAIN CIRCUIT BREAKER & METER SOCKET
- CIRCUIT BREAKERS THERMAL MAGNETIC TYPE
- CIRCUIT BREAKERS MOTOR CONTROL TYPE
- MAGNETIC STARTERS W/3RD LEG RELAY ADDITION
- H-O-A (HAND-OFF-AUTOMATIC) SELECTOR SWITCHES
- INDICATOR LAMPS (COLORS AS SHOWN ON DRAWINGS)
- CONTROL TRANSFORMER
- ELECTRIC ALTERNATORS
- RELAY PULSE W/ INDICATING LIGHTS & "TEST", "SILENCE" & "TEST" PUSH BUTTONS
- INDUCTION TYPE RELAYS FOR MOTOR MOISTURE SENSING PROBES
- PUSH TO TEST BUTTONS (AS INDICATED ON DRAWINGS)
- CONTROL SYSTEM AIR BUBBLER
- UNAUTHORIZED BUILDING ENTRY ALARM SYSTEM
- RED EXTERIOR ALARM LIGHT W/ 100W BULB & ALUMINUM GUARD
- RECEPTACLES
- RUNNING TIME METERS
- ELECTRICAL PANEL 19, 3W, 120/240 V
- BACKFLOW PREVENTER
- AMMETERS
- INTAKE & EXHAUST FANS

NOTE: ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE U.L. LISTED.



Electrical Consulting Engineers
HILTMAN & ASSOCIATES
 3138 Rio Linda Drive
 Hacienda Heights, CA 91745
 Phone (618) 968-2289

DEPARTMENT OF PUBLIC WORKS, L.A. CO.
 CHECKED *Stan J. Jensen* 2/11/76
 DESIGN DIVISION DATE