

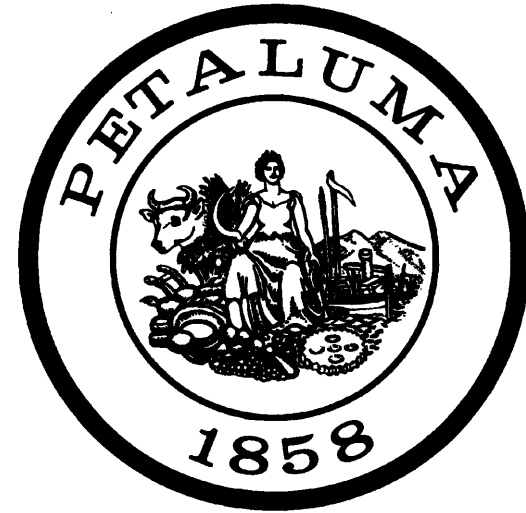
City of Petaluma, California

PAYRAN LIFT STATION REHABILITATION

8-12 JESS AVENUE

PROJECT NO. C66501519

VOLUME 2 OF 2

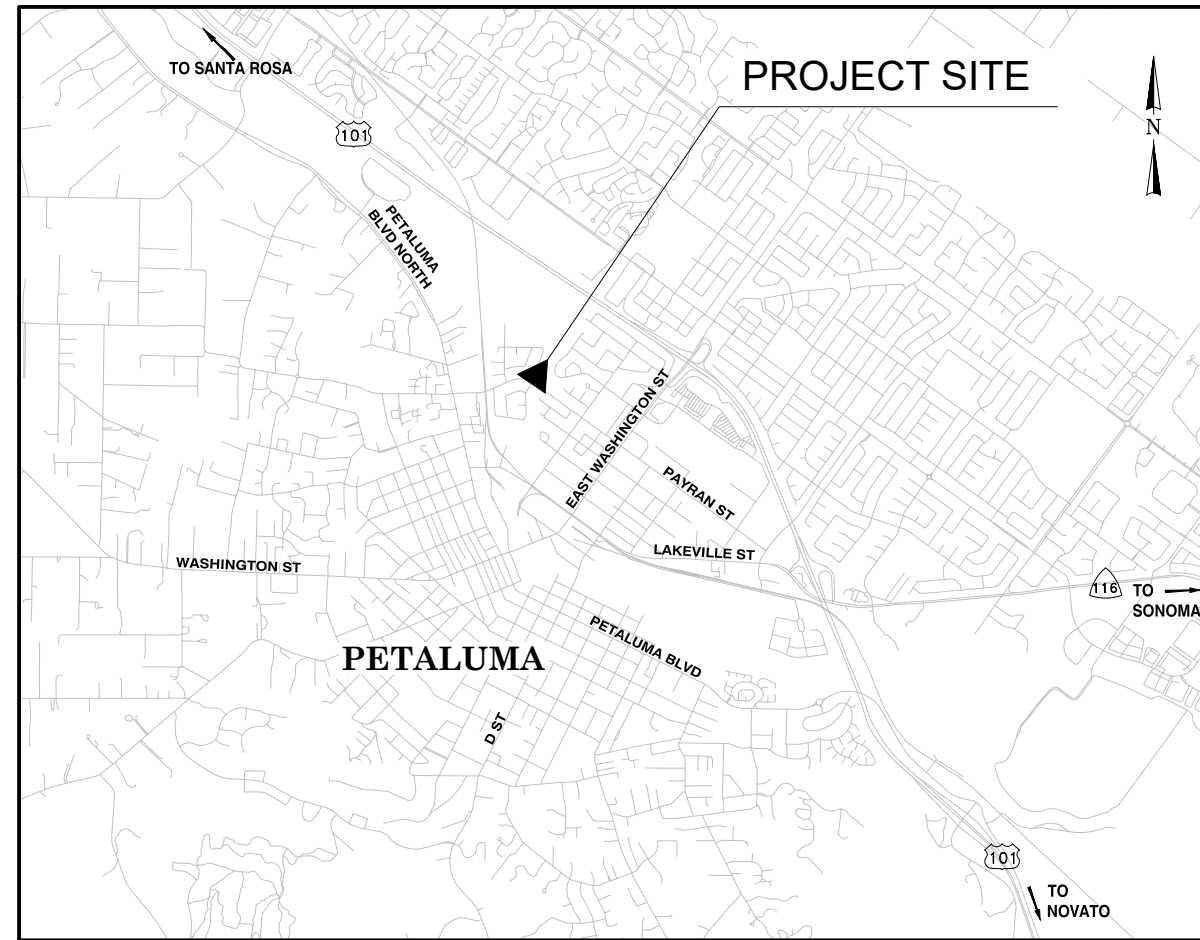


MAYOR
Teresa Barrett

COUNCIL MEMBERS
DLynda Fischer
Mike Healy
Dave King
Gabe Kearney
Kathy Miller
Kevin McDonnell

CITY MANAGER
Peggy Flynn

DIRECTOR OF PUBLIC WORKS & UTILITIES
Jason Beatty, P.E.



PROJECT LOCATION MAP
SCALE: N.T.S.

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	SIGNATURE	DATE
CITY ENGINEER		
ENGINEERING MANAGER		
FIRE MARSHAL		
PARKS		
PLANNING		
POLICE		
UTILITY MANAGER		

RECORD PLAN

I _____ HEREBY STATE THAT THESE RECORD PLAN CHANGES ARE COMPLETE FROM INFORMATION FURNISHED BY THE PROJECT CONTRACTOR, SOILS ENGINEER AND MY OFFICE. I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE THE WORK WAS DONE IN ACCORDANCE WITH THE FINAL APPROVED PLANS. THE ENGINEER AND THE CITY WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT. FIELD VERIFICATION OF CRITICAL FACTS AND DATA SHOULD BE MADE IF THESE DOCUMENTS ARE TO BE USED AS A BASIS FOR FUTURE WORK. ENGINEER'S SIGNATURE _____ DATE: _____

APPROVED BY: *Jason L. Beatty* 9/26/20
 JASON L. BEATTY P.E. C47694 DATE
 DIRECTOR OF PUBLICWORKS & UTILITIES

DESIGNED BY: *Mark Wilson* 8/12/20
 MARK WILSON P.E. C47988 EXP. 12/31/2021 DATE
 PRINCIPLE ENGINEER



DATE: AUG 2020
 DESIGNED BY: AAB
 DRAWN BY: AAB
 CHECKED BY: MTW

PROJECT NUMBER
C66501519

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PAYRAN LIFT STATION REHABILITATION
 8-12 JESS AVENUE
 TITLE SHEET

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SAFETY

1. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL BE IN POSSESSION OF AN APPROVED SAFETY PLAN. THE SAFETY PLAN SHALL MEET OR EXCEED ALL CAL-OSHA REQUIREMENTS AND THE CSRMA CONTRACTOR SAFETY HANDBOOK.
3. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF JOBSITE.
4. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONFORM TO THE CONTRACT DOCUMENTS AND APPROVED TRAFFIC CONTROL PLANS.
5. OVERHEAD ELECTRIC AND TELEPHONE DISTRIBUTION SYSTEMS AND INDIVIDUAL SERVICE LINES EXIST IN THE VICINITY OF THE WORK AREA AND ARE NOT ALL SHOWN ON THE DRAWINGS. CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING NEAR OR UNDER ALL UTILITY LINES.
6. WHILE WORKING ON THE PROJECT, THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH CONFINED SPACE ENTRY PROCEDURES FOR ALL PERMIT SPACE ENTRIES. THE FOLLOWING SPACES ARE HEREBY DESIGNATED PERMIT SPACES: MANHOLES, PUMP PITS, VALVE PITS, UNDERGROUND PITS, PUMP STATIONS, CONCRETE CULVERTS.

GENERAL PROJECT NOTES

7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL OF THE WORK PERFORMED BY HIS SUBCONTRACTORS, WITHOUT EXCEPTION.
8. THE CONTRACTOR SHALL IDENTIFY A RESPONSIBLE CONTACT PERSON, WHO IS AN EMPLOYEE OF THE CONTRACTOR, AND A 24-HOUR TELEPHONE NUMBER TO CALL TO RESOLVE PROBLEMS WITH NOISE, DUST OR OTHER CONSTRUCTION-RELATED ISSUES.
9. THE CONTRACTOR SHALL BE REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE RIGHTS-OF-WAY AND EASEMENTS OBTAINED FOR THIS PROJECT UNLESS OTHERWISE SHOWN. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, VEHICLES AND EQUIPMENT, LIMITS OF TRENCH EXCAVATIONS, AND STOCKPILED NEW MATERIAL.
10. THE CONTRACTOR SHALL PROVIDE PROTECTION DEVICES INCLUDING BARRICADES, FENCING, WARNING SIGNS, LIGHTS, FLAGGERS, CHANGEABLE MESSAGE SIGNS, FLASHING ARROW BOARDS OR OTHER ITEMS NECESSARY TO ENSURE PUBLIC SAFETY WITHIN THE PROJECT SITE. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
11. CONTRACTOR SHALL EXERCISE DUE CAUTION DURING CONSTRUCTION TO PROTECT ALL EXISTING LANDSCAPING, FENCING, EQUIPMENT, PIPES WHICH ARE TO REMAIN. ANY DAMAGE RESULTING FROM CONTRACTOR OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE CITY'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE CITY.
12. CONTRACTOR SHALL CONFORM TO ALL LAWS REGARDING MONUMENT AND SURVEY POINT PROTECTION, PRESERVATION, AND RESTORATION. THE CONTRACTOR SHALL PRESERVE ALL SURVEY MARKERS AND MONUMENTATION. THE CONTRACTOR SHALL NOTIFY THE CITY/COUNTY ENGINEER OF ANY EXISTING FEDERAL, STATE, COUNTY, CITY AND PRIVATE LAND SURVEY MARKER REQUIRING RESETTling PRIOR TO DISTURBANCE.
13. CONTRACTOR SHALL RESTORE ALL EXISTING PRIVATE AND PUBLIC IMPROVEMENTS TO THEIR EXISTING CONDITION OR BETTER. THIS INCLUDES, BUT IS NOT LIMITED TO ALL LANDSCAPING, IRRIGATION, AND UTILITIES UNLESS NOTED OR DIRECTED OTHERWISE BY THE CITY'S REPRESENTATIVE.
14. CONTRACTOR SHALL COMPLY WITH THE CITY OF PETALUMA'S STANDARD SPECIFICATIONS AND DRAWINGS.
15. ALL ABANDONED PIPES SHALL BE PLUGGED AT BOTH ENDS WITH 3' CONCRETE AND/OR FILLED WITH GROUT AS SPECIFIED ON PLANS.
16. PROJECT ACCEPTANCE WILL NOT BE MADE UNTIL THE CONTRACTOR DELIVERS TO THE CITY A NEAT AND LEGIBLE SET OF AS BUILT PRINTS.

LAYOUT NOTES

17. ALL ELEVATIONS ON THE DRAWINGS ARE BASED ON AN ASSUMED DATUM, AS NOTED.
18. HORIZONTAL AND VERTICAL DIMENSIONS PROVIDED ON THE DRAWINGS ARE APPROXIMATE. FIELD MEASUREMENTS MAY VARY FROM THOSE ON THE DRAWINGS. ADJUSTMENTS TO LINE AND GRADE MAY BE MADE BY THE ENGINEER DURING CONSTRUCTION.
19. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO, IS INSUFFICIENTLY OR INCORRECTLY DETAILED OR EXPLAINED ON THESE PLANS, CONTRACTOR SHALL CONTACT THE CITY'S REPRESENTATIVE FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
20. THE CONTRACTOR SHALL NOTIFY THE CITY'S REPRESENTATIVE IMMEDIATELY, UPON DISCOVERY OF ANY POTENTIAL FIELD CONFLICTS.

APPROVALS & COORDINATION NOTES

21. A MINIMUM OF 2 WORKING DAYS, BUT NOT MORE THAN 14 CALENDAR DAYS, PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" AT 1-800-227-2600 FOR LOCATING AND MARKING UTILITIES IN THE AREAS OF THE WORK.
22. THE CONTRACTOR SHALL PREPARE A WRITTEN NOTIFICATION OF THE STARTING AND ENDING DATES OF THE WORK AND DELIVER TO HOMES AND BUSINESSES IN THE VICINITY OF THE PROJECT AT LEAST TWO WEEKS IN ADVANCE OF THE WORK. THE CONTRACTOR SHALL INCLUDE THE HOURS OF WORK IN THE WRITTEN NOTIFICATIONS. PROVIDE THE CITY OF PETALUMA WITH A COPY OF ALL NOTIFICATION LETTERS TO BE SENT TO THE RESIDENTS AND BUSINESSES.
23. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL SOUND CONTROL AND NOISE LEVEL RULES, REGULATION AND ORDINANCES WHICH APPLY TO ANY WORK PERFORMED UNDER THE CONTRACT. EACH INTERNAL COMBUSTION ENGINE USED ON THE PROJECT SHALL BE EQUIPPED WITH A SPARK ARRESTING MUFFLER RECOMMENDED BY THE MANUFACTURER. NO INTERNAL COMBUSTION ENGINE SHALL BE OPERATED ON THE PROJECT WITHOUT SAID MUFFLER. NOISE LEVELS SHALL BE KEPT TO THE SATISFACTION OF THE CITY.
24. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY OF PETALUMA, OTHER CONTRACTORS WORKING IN THE AREA AND WITH THE APPROPRIATE UTILITY COMPANY.
25. UTILITY LOCATIONS ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIS(HER) OWN DETERMINATION OF LOCATIONS OF EXISTING UTILITIES BY POTHOILING (HAND EXCAVATING) POTENTIAL CONFLICTS IN ADVANCE OF CONSTRUCTING THE CONTRACT PIPELINES OR AS REQUIRED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO AND ALL PROTECTION FOR, AND/OR COORDINATING THE RELOCATION OF EACH BY THE UTILITY COMPANY AS NECESSARY.

TREE PROTECTION NOTES

26. ARBORIST: IF TREE ROOTS ARE TO BE ENCOUNTERED, CONTRACTOR SHALL CONTACT THE CITY'S ARBORIST FOR "ON-CALL" CONSULTATION DURING CONSTRUCTION. NO EXCAVATION SHALL BE PERMITTED ON-SITE UNTIL THE ARBORIST HAS APPROVED THE PROPOSED STAGING AREA(S). NO TREE PRUNING, REMOVAL OR ROOT-CUTTING SHALL OCCUR WITHOUT THE ARBORIST'S DIRECTION, RECOMMENDATIONS OR APPROVAL.
27. TRENCHING; ALL TRENCHING WITHIN THE DRIP LINE OF EXISTING TREES SHALL BE BY HAND WITH CARE TAKEN NOT TO DAMAGE ROOTS OVER 2" DIAMETER.
28. ADVANCE MARKING: CITY'S ARBORIST SHALL MARK LIMITS OF AREA WITHIN DRIP LINES IN ADVANCE PRIOR TO EXCAVATING.
29. PRUNING: TREE ROOTS & BRANCHES SHALL BE PRUNED ONLY AS RECOMMENDED BY CITY'S ARBORIST AND SHALL BE APPROVED IN ADVANCE AS DIRECTED BY THE CITY.
30. CONSTRUCTION OPERATIONS: NO CONSTRUCTION OPERATIONS SHALL BE CARRIED ON WITHIN THE DRIP LINE AREA OF ANY TREE DESIGNATED TO BE SAVED EXCEPT AS AUTHORIZED BY THE CITY ARBORIST.
31. STORAGE: THE AREA UNDER THE DRIP LINE OF THE TREE SHALL BE KEPT CLEAN. NO CONSTRUCTION MATERIALS NOR CHEMICAL SOLVENTS SHALL BE STORED OR DUMPED UNDER A TREE.
32. TREE DAMAGE: ANY DAMAGE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY BY AN APPROVED TREE SURGEON UNDER THE DIRECTION OF THE CITY'S ARBORIST.

ADDITIONAL NOTES

33. UNDERGROUND SERVICE LINES TO BUILDINGS INCLUDING WATER, GAS, ELECTRIC, TELEPHONE, CABLE ETC ARE NOT SHOWN. THE CONTRACTOR SHALL ASSUME THAT ALL BUILDINGS HAVE UNDERGROUND SERVICE LINES. CALL USA FOR MARKING AND POT-HOLE PRIOR TO TRENCHING. BID ITEM FOR POT-HOLING COVERS POT-HOLING FOR UTILITY MAINS ONLY.
34. THE CONTRACTOR SHALL USE SHORING METHODS THAT WILL PREVENT MOVEMENT OF ADJACENT GROUND.
35. WHERE A WATER MAIN IS CLOSE TO AN EXCAVATION THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE CITY WATER DEPARTMENT. IT IS THE CONTRACTORS RESPONSIBILITY TO SUPPORT THE WATER MAIN AT ALL TIMES.
36. USE EXTREME CARE WHEN EXCAVATING NEAR BENDS OR TEES ON WATER MAINS SO AS NOT TO DISTURB ANY THRUST BLOCKS. IF A THRUST BLOCK IS DISPLACED OR DISTURBED IT SHALL BE REPLACED BEFORE THE END OF THAT DAYS WORK PERIOD.
37. GROUND WATER CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. GROUND WATER SHALL NOT BE DISCHARGED TO STORM DRAINS. WATER FROM TRENCH DEWATERING MAY BE DISCHARGED TO THE SANITARY SEWER PROVIDING ROCKS, GRAVEL, DEBRIS, DIRT, AND SILT HAVE BEEN REMOVED.
38. ALL PAVEMENT, CURBS, GUTTERS AND SIDEWALKS DAMAGED BY THE WORK SHALL BE RESTORED PER THE SURFACE RESTORATION DETAILS. CURBS, GUTTERS AND SIDEWALKS SHALL BE REPLACED TO MATCH EXISTING DIMENSIONS AND CONFIGURATION.
39. THE USE OF "CUT BACK" ASPHALT FOR TEMPORARY TRENCH PAVING IN THE PUBLIC RIGHT OF WAY IS NOT PERMITTED. USE TRENCH PLATES OR HOT MIX ONLY.
40. THE PROJECT WILL REQUIRE EXCAVATION IN CLOSE VICINITY TO PG&E GAS MAINS. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL PG&E SAFETY REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY PG&E WHEN WORKING NEAR GAS MAINS AND COORDINATE CONTINUOUS OBSERVATION BY A PG&E REPRESENTATIVE AS REQUIRED. HAND DIGGING WILL BE REQUIRED WITHIN 5 FEET OF THE GAS TRANSMISSION PIPES OR DISTRIBUTION PIPES LARGER THAN 6" DIAMETER.

GENERAL TRAFFIC CONTROL REQUIREMENTS

41. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL MEASURES INCLUDING CONTROL MEASURES FOR SIDEWALK PEDESTRIANS, BICYCLES, SKATERS, ETC. TRAFFIC CONTROL MEASURES SHALL INCLUDE SIGNS, DELINEATORS, BARRICADES, K RAILS, FLAGGERS, ETC. AS NECESSARY FOR SAFE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC PAST THE WORK AREA.
42. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHOWING ALL EXISTING SIGNAGE, PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES AND FOR SHOWING ALL PROPOSED TEMPORARY CONSTRUCTION SIGN PLACEMENT, PAVEMENT MARKINGS, FLAGGERS, ETC. ON THE TRAFFIC CONTROL PLAN. THE TRAFFIC CONTROL PLAN IS SUBJECT TO APPROVAL BY THE CITY OF PETALUMA.
43. ALL TRAFFIC CONTROL MEASURES AND TEMPORARY SIGNS, LIGHTS AND DEVICES SHALL BE IN ACCORDANCE WITH THE CALIFORNIA STATE DIVISION OF HIGHWAYS "MANUAL OF TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES", CURRENT EDITION.
44. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES REGARDING PLANNED DETOURS AND PARKING RESTRICTIONS IN WRITING AT LEAST ONE (1) WEEK BEFORE THE START OF CONSTRUCTION AND 48 HOURS PRIOR TO ANY TRAFFIC CONTROL OR PARKING RESTRICTION.
45. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ALLOW EMERGENCY VEHICLES TO PASS THROUGH THE CONSTRUCTION ZONES WITHOUT ANY DELAYS.
46. DURING NON-WORKING HOURS, ALL EXCAVATIONS SHALL EITHER BE BACKFILLED AND TEMPORARILY PAVED OR COVERED WITH STEEL PLATES, AND ALL STREETS AND DRIVEWAYS OPEN TO NORMAL TRAFFIC. ALL STEEL PLATES SHALL HAVE A NON-SKID SURFACE.
47. UNLESS SPECIFIED OTHERWISE, WORKING HOURS IN PUBLIC STREETS SHALL BE BETWEEN 8 AM AND 5 PM. NO WORK IS PERMITTED ON SATURDAYS, SUNDAYS OR HOLIDAYS.
48. ALLOW ACCESS TO DRIVEWAYS AT ALL TIMES.
49. THE SPEED LIMIT THRU ANY DELINEATED AREAS SHALL BE POSTED AS 15 MPH.
50. THE COST OF ALL TRAFFIC CONTROL, INCLUDING ALL BARRICADES, DELINEATORS AND FLAGGERS, SHALL BE INCLUDED IN THE BID PRICE FOR THE VARIOUS BID ITEMS AND NO ADDITIONAL ALLOWANCE WILL BE MADE.

REDORD DRAWING REFERENCE

NO.	DATE	DESCRIPTION	BY

ABBREVIATIONS INCLUDE BUT ARE NOT LIMITED TO:

AB	AGGREGATE BASE	IRR	IRRIGATION
ABND	ABANDONED	JT	JOINT TRENCH
AC	ASPHALTIC CONCRETE	LG	LIP OF GUTTER
ACP	ASBESTOS CEMENT PIPE	MJ	MECHANICAL JOINT
CDF	CONTROL DENSITY FILL	MH	MANHOLE
CI	CAST IRON	MON	MONUMENT
CIPP	CURED IN PLACE PIPE	N.I.C.	NOT IN CONTRACT
CL	CENTERLINE	PCC	PORTLAND CEMENT CONCRETE
CMP	CORRUGATED METAL PIPE	PE	PLAIN END
CO	CLEAN OUT	PL	PLASTIC
CR	CURB RETURN	PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE	RC	RELATIVE COMPACTION
EG	EXISTING GRADE	RCP	REINFORCED CONCRETE PIPE
EL	ELEVATION	SS	SANITARY SEWER
ELEC	ELECTRIC	SQFT	SQUARE FEET
EP	EDGE OF PAVEMENT	STA	STATION
EX	EXISTING	STL	STEEL
FC	FACE OF CURB	SD	STORM DRAIN
FDC	FIRE DEPT CONNECTION	SL	STREET LIGHT
FG	FINISH GRADE	TEL	TELEPHONE
FH	FIRE HYDRANT	TC	TOP OF CURB
FL	FLANGE	TP	TOP OF PIPE
FO	FIBER OPTIC CABLE	TV	TV CABLE
G	GAS	TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE	UTILP	UTILITY POLE
INV	INVERT	VCP	VITRIFIED CLAY PIPE
		W	WATER
		WS	WATER SERVICE

PROJECT RESOURCE DATA (FOR CITY USE)

PROJECT START	
PROJECT END	
PROJECT CONTRACTOR	
CONTRACTOR'S SUPER.	
UTILITY CONT.	
UTILITY CONT.	
UTILITY CONT.	
SEWER PIPE, MH, CO	
STORM DRAIN PIPE, INLET	
WATER PIPE, VALVES, HDY.	
PROJECT MANAGER	
PROJECT INSPECTOR	
OTHER	

DATE: AUG 2020
DESIGNED BY: AAB
DRAWN BY: AAB
CHECKED BY: MTW

PROJECT NUMBER
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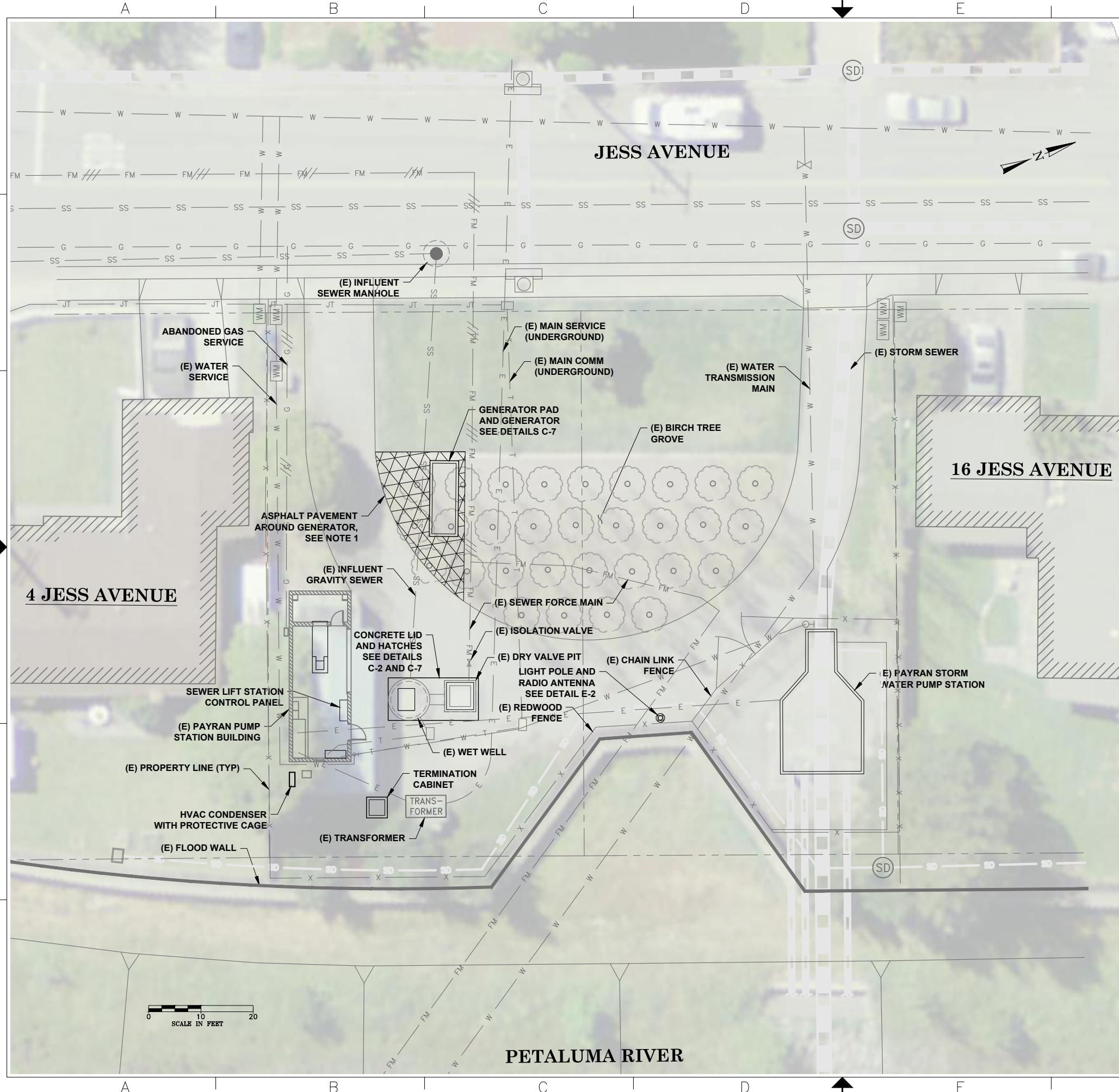


PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
NOTES AND ABBREVIATIONS



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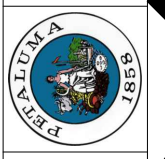
- CLEAR AND GRUB APPROXIMATELY 6 TREES TO MAKE ROOM FOR GENERATOR PAD AND ASPHALT APRON. TREES TO BE REMOVED SHALL BE FLAGGED BY THE CONTRACTOR AND THE CITY STAFF SHALL APPROVE OF THE TREE REMOVAL BEFORE ANY TREES ARE REMOVED. TREES REMOVED WITHOUT AUTHORIZATION WILL BE REPLACED AND MAINTAINED BY THE CONTRACTOR FOR A MIN. OF ONE YEAR OR UNTIL ESTABLISHED. OVER EXCAVATE 2 FEET BELOW STRUCTURAL SECTIONS AND COMPACT CLEAN NATIVE SUBGRADE TO 90% PRIOR TO INSTALLING GENERATOR PAD OR PAVEMENT SECTION. SLOPE PAVEMENT TO DRAIN AWAY FROM EXISTING DRIVEWAY.

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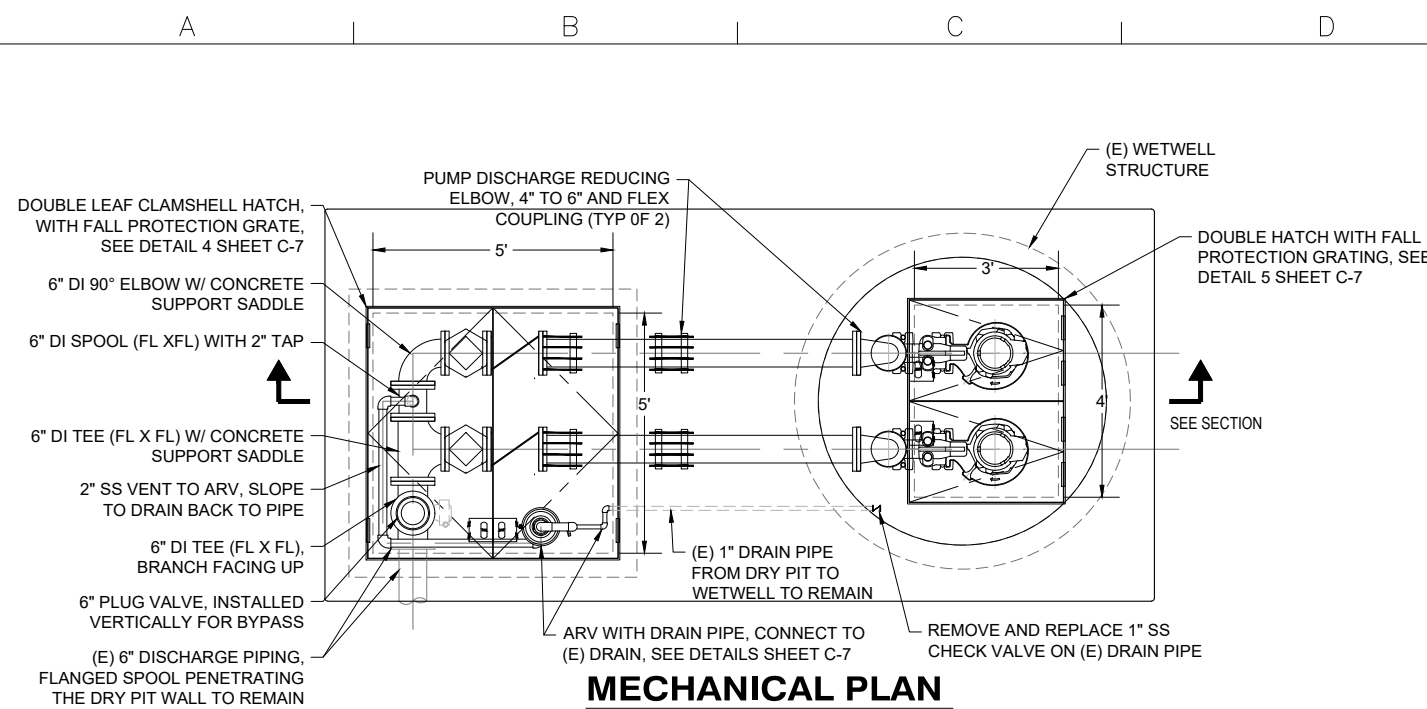


PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
PAYRAN SITE PLAN

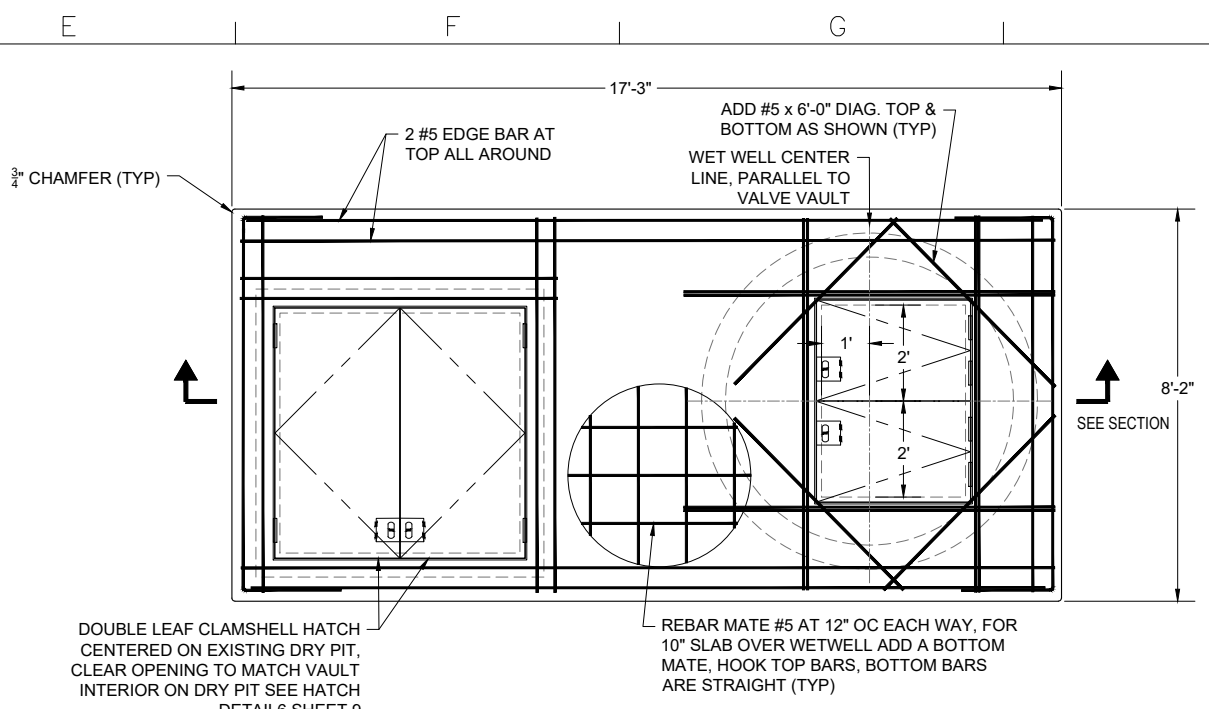


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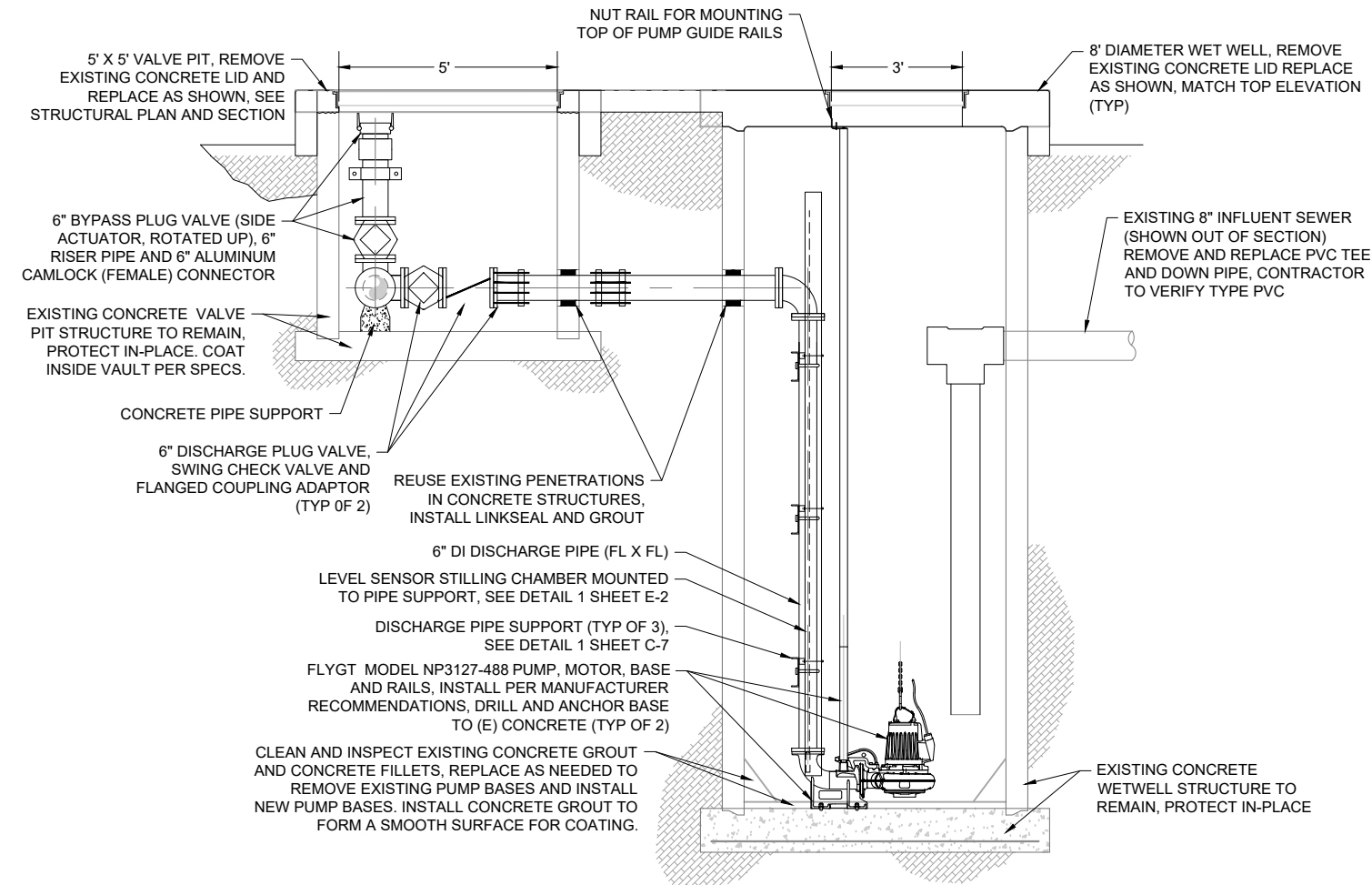
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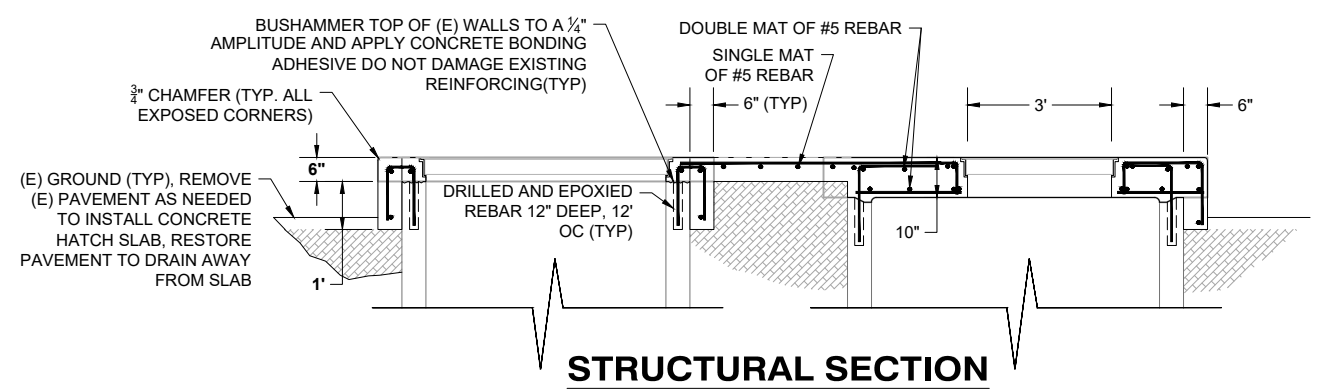
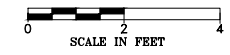
MECHANICAL PLAN



STRUCTURAL PLAN



MECHANICAL SECTION



STRUCTURAL SECTION

- NOTE:
1. NEW LID ELEVATION SHALL MATCH EXISTING LID ELEVATION.
 2. ALL PIPING AND APPURTENANCES INSIDE THE VALVE PIT AND THE WET WELL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. CONTRACTOR SHALL CAREFULLY REMOVE AND ALLOW CITY STAFF A MIN OF TWO BUSINESS DAYS TO INSPECT AND DECIDE WHETHER THE CITY WOULD LIKE TO RETAIN SPECIFIC ITEMS.
 3. ALL BARE METAL SURFACES THAT ARE BURIED IN SOIL INCLUDING PIPE AND PIPE FITTINGS SHALL BE COATED WITH 50 MILS OF BITUMASTIC 50 AND WRAPPED WITH TWO LAYERS OF 35 MIL POLYETHYLENE TAPE. SEE SPECIFICATIONS.
 4. ALL FASTENERS, BOLTS, LUGS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.



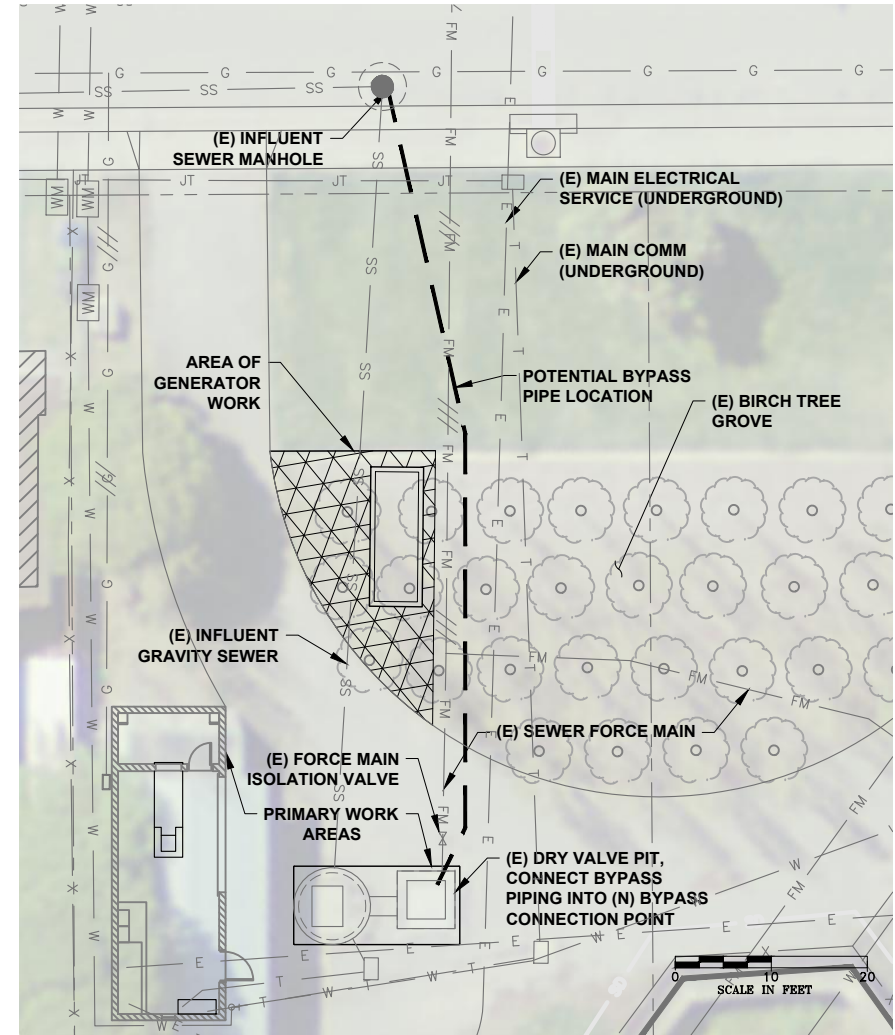
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE SEWER PUMP STATION PLAN AND SECTION			
SHEET			
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CONSTRUCTION SEQUENCE:

1. VERIFY FORCE MAIN ISOLATION VALVE WORKS
2. INSTALL TEMPORARY, DUPLEX, SUBMERSIBLE BYPASS PUMPING SYSTEM AT THE INFLUENT MANHOLE
3. INSTALL 8" DIAMETER TEMPORARY BYPASS PIPING. PIPING MAY BE HDPE, D.I., STEEL OR YELOMINE WITH RESTRAINED JOINTS. (HOSE IS PROHIBITED EXCEPT FOR AT QUICK CONNECT.
4. AFTER THE BYPASS PUMPING SYSTEM IS FULLY TESTED AND OPERATIONAL, THE CONTRACTOR MAY CONSTRUCT THE NEW BYPASS CONNECTION IN THE DRY PIT, INSTALLING PIPING TO INCLUDE THE NEW PLUG VALVES. THIS WORK SHALL BE MADE AT NIGHT UNLESS OTHERWISE APPROVED BY AGENCY.

TEMPORARY PUMPING NOTES:

1. THE PUMP STATION IS AN OPERATING SEWAGE PUMP STATION. THE CONTRACTOR IS RESPONSIBLE FOR HIS ACTIONS OR HIS SUBCONTRACTOR'S ACTIONS THAT MAY DISRUPT THE OPERATION OF THE PUMP STATION. THE CITY OF PETALUMA SHALL BE NOTIFIED 48 HOURS PRIOR TO THE CONTRACTOR COMMENCING HIS OPERATIONS ON THE SITE. ONCE THE CONTRACTOR ALTERS ANY EQUIPMENT OR CONTROLS OF THE PUMP STATION- THE CONTRACTOR IS RESPONSIBLE FOR OPERATING THE PUMP STATION UNTIL THE ACCEPTANCE OF THE PROJECT. THE CITY STAFF SHALL BE KEPT INFORMED DURING CONTRACTOR OPERATION OF THE PUMP STATION.
2. ONCE THE EXISTING PUMP STATION IS TAKEN OUT OF SERVICE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CONTINUOUS PUMPING OF ALL SEWAGE. A TEMPORARY PUMPING SYSTEM PLAN SHALL BE SUBMITTED TO THE CITY OF PETALUMA FOR REVIEW AT LEAST TWOS WEEK PRIOR TO TAKING THE EXISTING PUMP STATION OUT OF SERVICE.
3. THE CONTRACTOR SHALL COORDINATE WITH CITY OF PETALUMA PERSONNEL FOR ANY SHUT DOWN OF EXISTING PUMP STATION AND/OR UTILITIES. PUMP STATION SHUTDOWNS SHALL LAST NO LONGER THAN 30 MINUTES, AND CAN OCCUR NO MORE THAN 4 TIMES DURING THE CONSTRUCTION PERIOD, EXCEPT FOR THE FORCE MAIN CONNECTION SPECIFIED BELOW. PUMP STATION SHUTDOWNS (E.G. SYSTEM OUTAGE REQUESTS, SOR'S) SHALL BE PRE-APPROVED AND SCHEDULED AND ARE AT THE CITY'S SOLE DISCRETION. NO SHUTDOWN SHALL OCCUR DURING WET WEATHER EVENTS.
4. THE CITY OF PETALUMA WILL CONTINUE TO OPERATE AND SERVICE THE STORM PUMP STATION DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING AROUND STORM WATER PUMP STATION CONTROLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POWER TO THE STORM PUMP STATION DURING WET WEATHER FLOWS.
5. THE CONTRACTOR SHALL INSTALL A TEMPORARY DUPLEX PUMPING SYSTEM IN THE EXISTING INFLUENT MANHOLE, COMPLETE WITH MANIFOLD, CHECK VALVES, PUMP CONTROLLER, STANDBY POWER AND ATS, A TELEPHONE DIALER AND ALARMS AS DESCRIBED BELOW, AND COMMENCE TEMPORARY PUMPING DURING PUMP STATION CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PUMPING ALL WASTE WATER FLOWS DURING CONSTRUCTION. USE OF NEW PERMANENT SEWAGE PUMPS, (E) MCC AND (N) PUMP CONTROL PANEL IS PROHIBITED. THE EXISTING PUMP STATION CAN BE TAKEN OFF LINE ONLY AFTER COMPLETION AND SUCCESSFUL TESTING OF THE TEMPORARY PUMPING SYSTEM AND THE TEMPORARY STANDBY ENGINE GENERATOR.
6. THE CONTRACTOR SHALL COORDINATE WITH PG&E FOR ELECTRICAL POWER SERVICE TO THE TEMPORARY PUMPING SYSTEM. THE CONTRACTOR SHALL ARRANGE FOR HIS/HER ELECTRICAL POWER WITH PG&E, AND MAY NOT USE THE (N) PUMP CONTROL PANEL FOR OPERATING HIS/HER TEMPORARY PUMPING SYSTEM.
7. THE CONTRACTOR SHALL PROVIDE A TEMPORARY STANDBY PORTABLE ENGINE GENERATOR SET (73db @ 23 FEET) WITH AN AUTOMATIC TRANSFER SWITCH TO PROVIDE STANDBY POWER FOR HIS/HER TEMPORARY PUMPING SYSTEM.
8. THE CONTRACTOR SHALL FOR PROVIDE THE TEMPORARY PUMPING SYSTEM WITH THE FOLLOWING ALARMS:
 HIGH WATER
 LOW WATER
 PUMP 1 FAIL
 PUMP 2 FAIL
 POWER FAILURE
9. EACH TEMPORARY PUMP SHALL HAVE A CAPACITY OF 500 GPM @ 55 FT TDH. (CONTRACTOR MAY USE APPROVED BOOSTER PUMP SYSTEM.)
10. FLOATS AND/OR CONTACTS SHALL BE PROVIDED TO PICK UP THESE ALARMS. THE CONTRACTOR SHALL INSTALL HIS/HER OWN TELEPHONE DIALER TO CALL THE EMERGENCY PHONE NUMBERS OF HIS/HER EMPLOYEES, WHO WILL RESPOND ON A 24 HOUR BASIS AND NOTIFY AGENCY EMERGENCY PERSONNEL. PROVIDE A RED LIGHT ON TOP OF THE TEMPORARY CONTROL PANEL WHICH WILL INDICATE ANY ONE OF THESE ALARMS.
11. IF TEMPORARY PUMPS ARE OUT OF SERVICE FOR ANY REASON THE CONTRACTOR SHALL PROVIDE TANK TRUCKS TO PUMP OUT SEWAGE AND TRANSPORT TO THE LOCATION DESIGNATED BY THE CITY OF PETALUMA.
12. DISCHARGE OF ANY RAW SEWAGE TO WATER COURSES IS STRICTLY PROHIBITED. (SEE SPECS)
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SEWERS, PRIVATE LATERALS, SPILLS, FINES, ETC THAT MAY RESULT FROM HIS WORK.
14. THE CONTRACTOR SHALL PHYSICALLY LOCATE AND UNCOVER (POTHOLE) ALL UTILITIES IN THE AREA OF THE CONSTRUCTION OR AS REQUIRED ON THE PLANS AND SHALL BE RESPONSIBLE FOR DAMAGE THERETO.
15. ALL TEMPORARY PUMPING WORK SHALL BE DONE WITHIN THE PUMP STATION PROPERTY AND PUBLIC RIGHT-OF-WAY.
16. TEMPORARY RAMPS SHALL BE INSTALLED OVER BYPASS PIPING AS NEEDED TO ALLOW THE SIDEWALK TO REMAIN OPEN DURING CONSTRUCTION.
17. CONTRACTOR SHALL NOTIFY CITY STAFF OF ANY POTENTIAL OR OCCURRING SSO VIOLATION AT THE LIFT STATION SITE DURING CONSTRUCTION.



**PAYRAN PUMP STATION EXISTING SITE
CONSTRUCTION BYPASS PUMPING SITE PLAN**

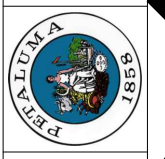


DATE: AUG 2020
DESIGNED BY: AAB
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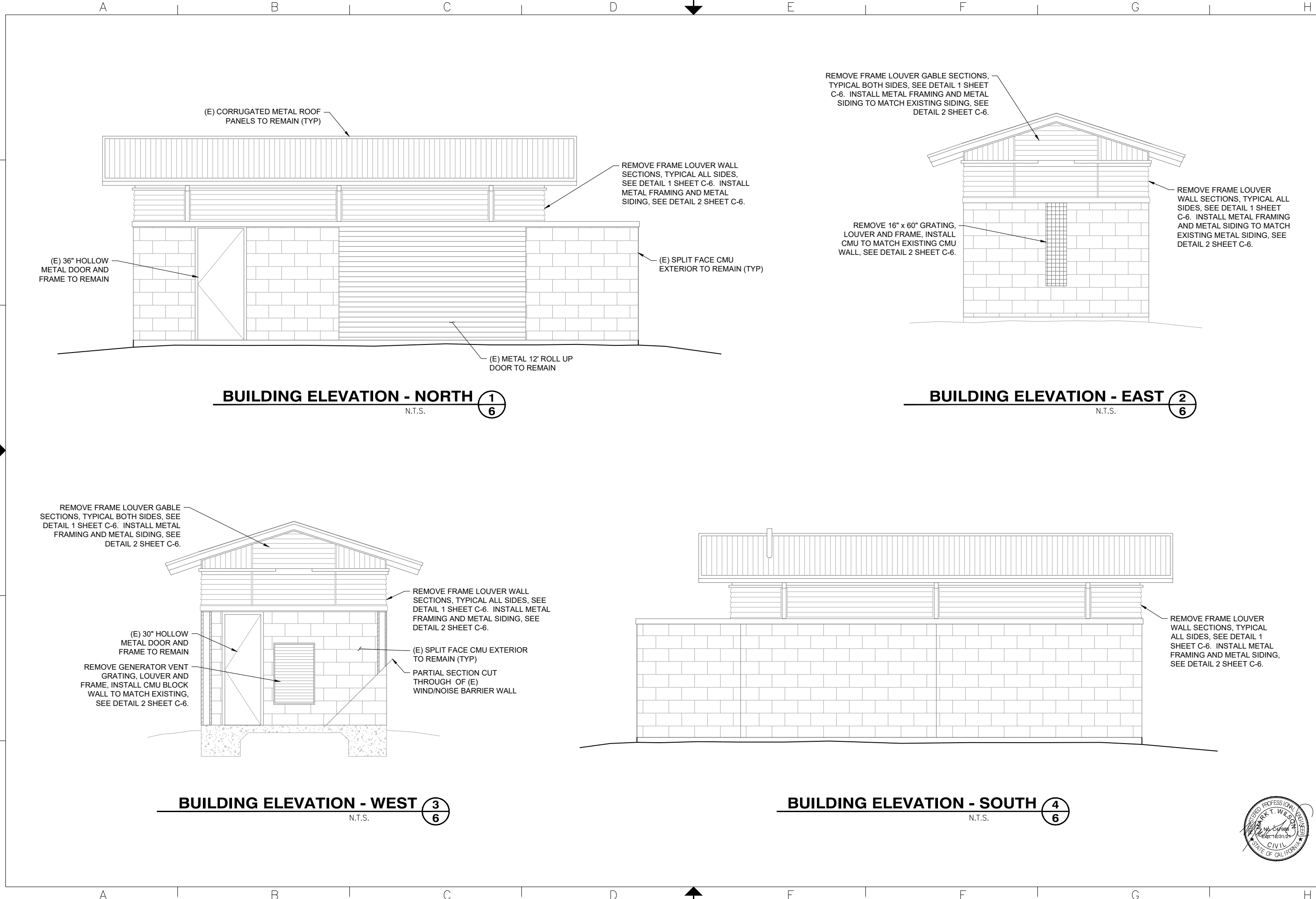


PAYRAN LIFT STATION REHABILITATION
 8-12 JESS AVENUE
 TEMPORARY BYPASS PUMPING

SHEET
C-3
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P:_Projects\8723 Petaluma Payran Lift Station\2_Design\CAD\8723 Building.dwg Layout: Building Exterior Pagesetup: 11x17.pdf



BUILDING ELEVATION - NORTH (1/6)
N.T.S.

BUILDING ELEVATION - EAST (2/6)
N.T.S.

BUILDING ELEVATION - WEST (3/6)
N.T.S.

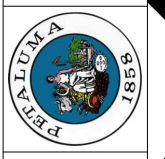
BUILDING ELEVATION - SOUTH (4/6)
N.T.S.

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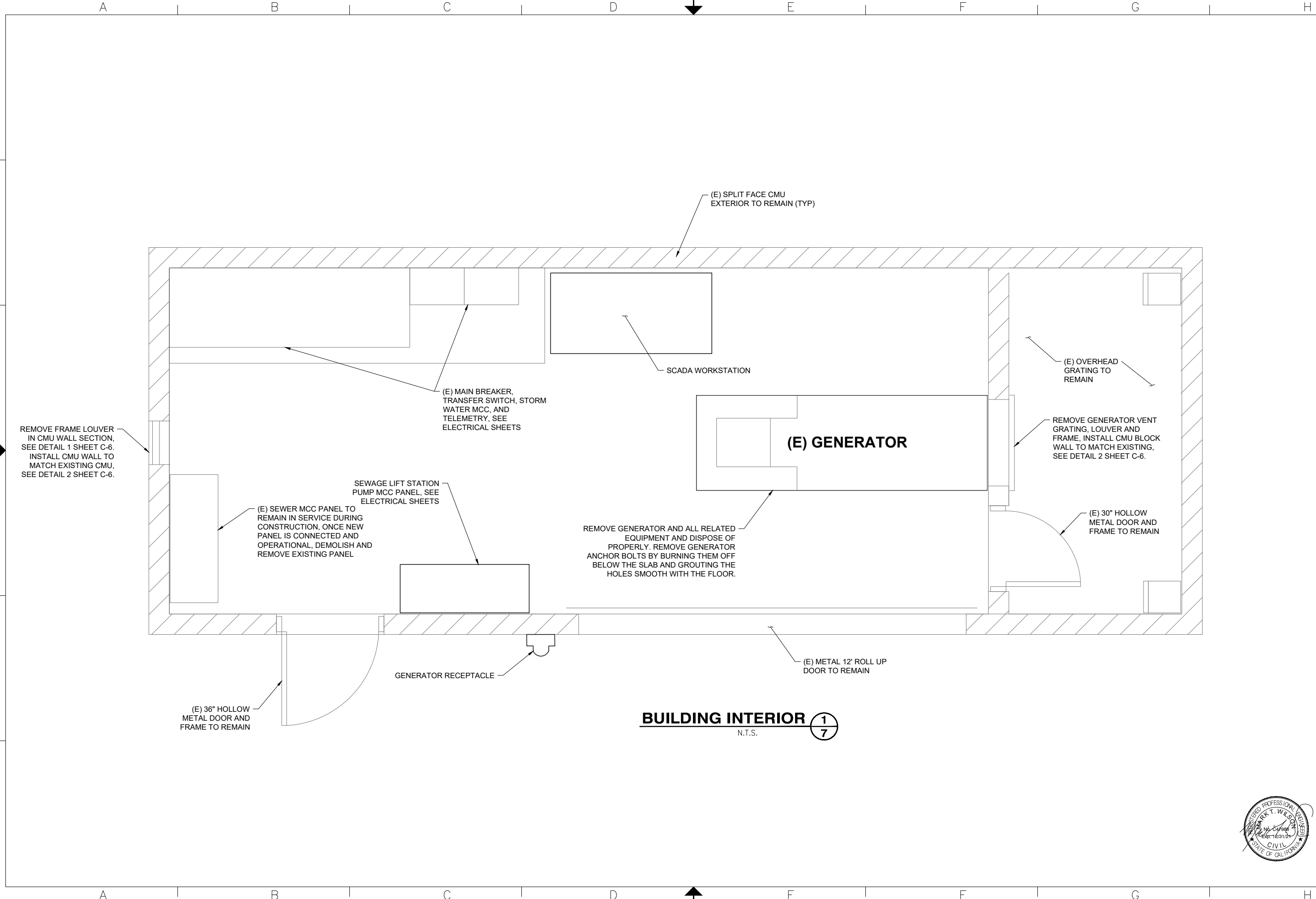
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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
BUILDING ELEVATIONS



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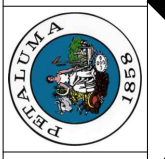
BUILDING INTERIOR (1/7)
N.T.S.

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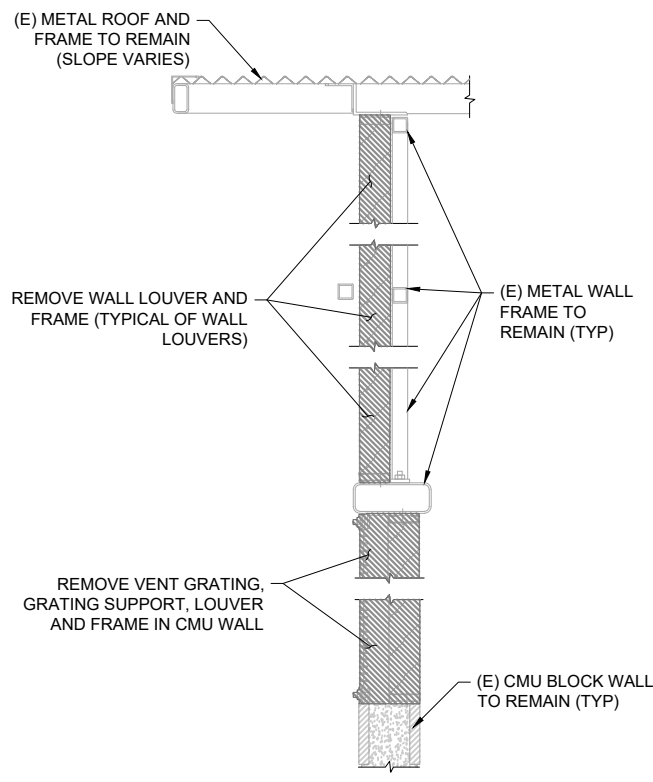


PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
BUILDING INTERIOR

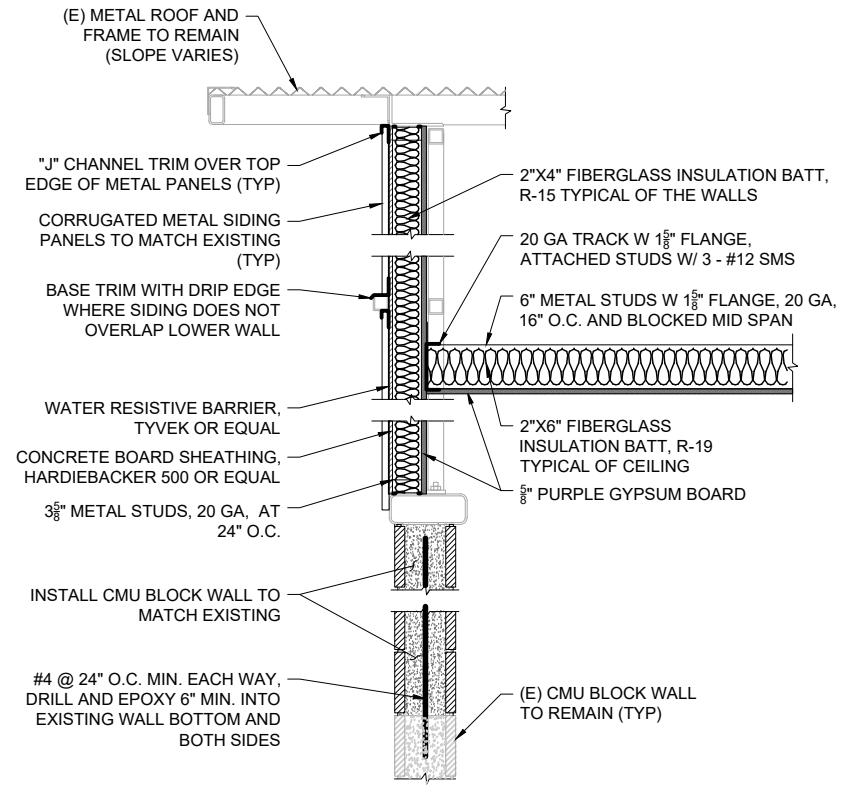


SHEET
C-5
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BUILDING LOUVER DEMOLITION 1/8
N.T.S.



BUILDING CONSTRUCTION 2/8
N.T.S.

DEMOLITION:

1. SAFETY NOTE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS. THE ENGINEER AND OWNER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
2. SHORE OR BRACE TRUSSES, BEAMS, COLUMNS, AND WALLS AS REQUIRED TO MAINTAIN THE STABLE INTEGRITY OF THE EXISTING STRUCTURE PRIOR TO DEMOLITION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE COMPETENT SHORING AND BRACING FOR ALL LOADS IMPOSED DURING AND AFTER DEMOLITION THROUGH COMPLETION OF NEW CONSTRUCTION
3. ALL DIMENSIONS GIVEN TO AND OF THE EXISTING STRUCTURE ARE APPROXIMATE. VERIFY THE STABLE INTEGRITY OF THE EXISTING STRUCTURE BY FIELD MEASUREMENTS. WHERE ACTUAL CONDITIONS DEVIATE FROM THE DETAILS SHOWN ON THE DRAWINGS, NOTIFY THE ENGINEER FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.
4. DEMOLITION AND REMOVAL OF EXISTING CONSTRUCTION SHALL BE MADE IN SUCH A MANNER AS TO AVOID OR MINIMIZE DAMAGE TO ADJACENT CONSTRUCTION.
5. EXTENT OF DEMOLITION IS TO BE AS INDICATED ON PLANS, SECTIONS AND DETAILS. DEMOLITION IS TO INCLUDE REMOVAL AND DISPOSAL OF CONSTRUCTION MATERIALS.

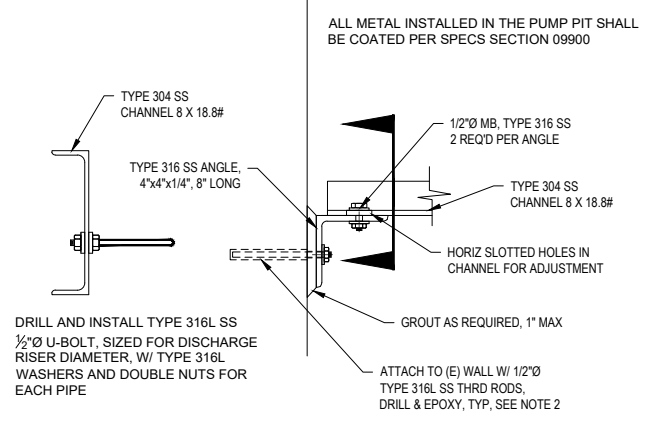
COLD FORMED METAL FRAMING:

1. GALVANIZED SHEET STEEL SHALL CONFORM TO ASTM A653, STRUCTURAL QUALITY, WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 18 GA AND LIGHTER OR ASTM A653, STRUCTURAL QUALITY, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR 16 GA AND HEAVIER. HOT-ROLLED CARBON SHEET AND STRIP STEEL USED IN THE FABRICATION OF COLD-FORMED MEMBERS SHALL CONFORM TO ASTM A570 WITH A RUST INHIBITIVE COATING.
2. METAL STUDS AND JOISTS SHALL BE OF SIZE AND THICKNESS SHOWN ON DRAWINGS.
3. MINIMUM THICKNESS SHOWN IN TABLE FOR THE THICKNESS SPECIFIED REPRESENTS 95% OF DESIGN THICKNESS PER CURRENT AISI COCE.
4. METAL FRAMING SHALL BE PER ICBO ES NO. 4943P. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CITY APPROVAL FOR ANY SUBSTITUTIONS.
5. WELDING SHALL BE IN ACCORDANCE WITH AWS 01.3 "STRUCTURAL WELDING CODE-SHEET STEEL". WELDERS SHALL BE AWS CERTIFIED. WELDING RODS; E60XX SERIES. ALL FIELD WELDING SHALL HAVE SPECIAL INSPECTION.
6. METAL TRACKS SHALL BE SAME GAUGE AS STUDS WHICH IT SUPPORTS, UNPUNCHED, WITH MINIMUM FLANGE WIDTH OF 1-3/4".
7. METAL STUDS SHALL NOT HAVE PUNCH-OUTS CLOSER THAN 1.5 TIMES THE DEPTH OF THE STUD FROM THE END OF THE STUD OR AT INTERMEDIATE LATERAL BEARING POINTS OF STUDS.



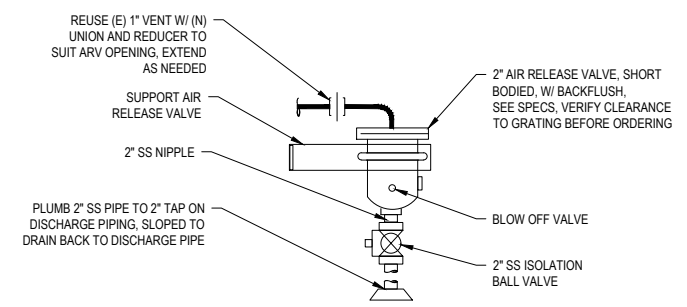
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE BUILDING DETAILS			
SHEET			
C-6			
8 OF 27			

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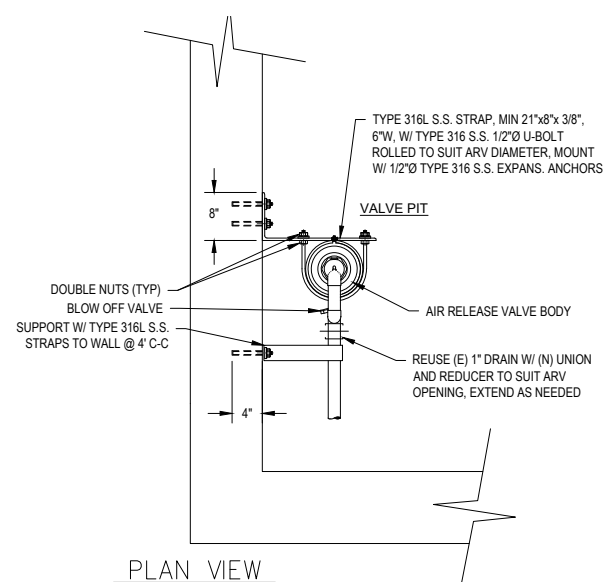


- NOTES:
1. ALL FASTENERS SHALL BE TYPE 316L STAINLESS STEEL.
 2. FOR ALL DRILL & EPOXIED THREADED RODS - DRILL HOLE 4" DEEP, CLEAN HOLE W/ WIRE BRUSH & COMPRESSED AIR, SET TYPE 316L SS THRD ROD IN NON-SAG EPOXY, TEMPLATE SIZE & LOCATION FROM BASE.
 3. PROVIDE DETAILED SHOP DRAWINGS FOR SUPPORTS FOR FAVORABLE REVIEW.

WET WELL SUPPORT 1/9
N.T.S.



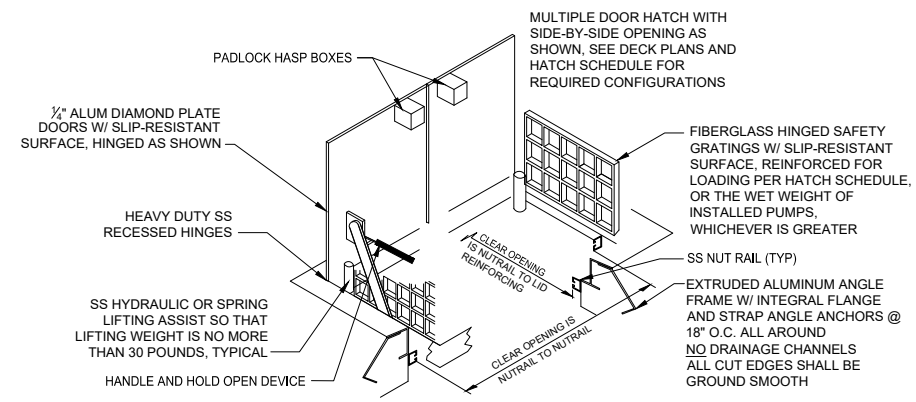
ARV CONNECTION 2/9
N.T.S.



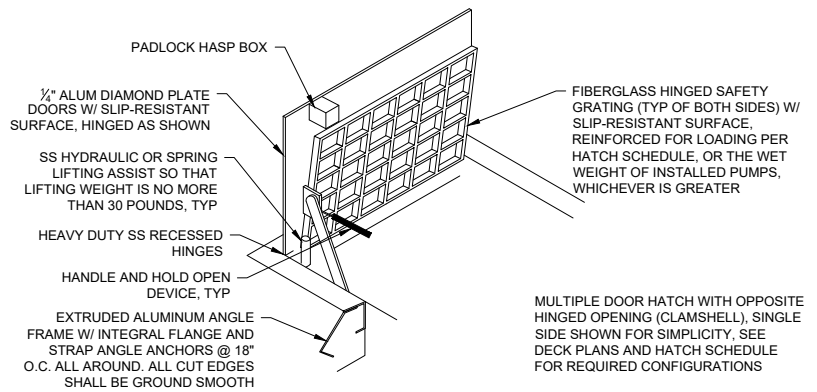
ARV SUPPORT 3/9
N.T.S.

HATCH SCHEDULE

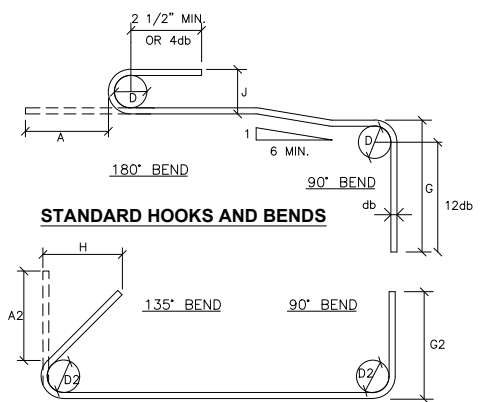
LOCATION	CLEAR OPENING	CONCRETE OPENING	SAFETY GRATE	NUT RAIL	NUMBER OF LEAVES	LOAD RATING
PUMP PIT	3'-0" x 4'-0"	TO FIT	YES	YES	2	300
VALVE PIT	5'-0" x 5'-0"	TO FIT	YES	NO	2	300



PUMP PIT HATCH 4/9
N.T.S.



VALVE PIT HATCH 5/9
N.T.S.



STIRRUP HOOKS

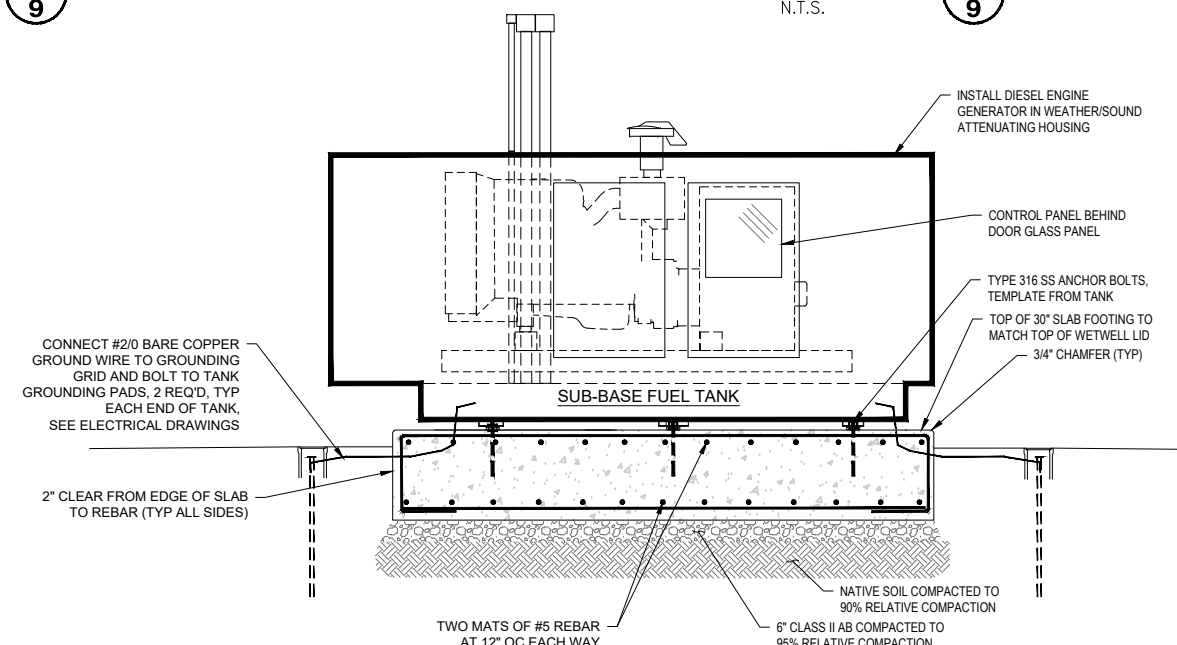
STIRRUP HOOK DETAILS

BAR SIZE	A2	G2	D2	H
#3	4 1/4"	4"	1 1/2"	3"
#4	4 1/2"	4 1/2"	2"	3"
#5	5 1/2"	6"	2 1/2"	3 3/4"
#6	7 3/4"	12"	4 1/2"	4 1/2"

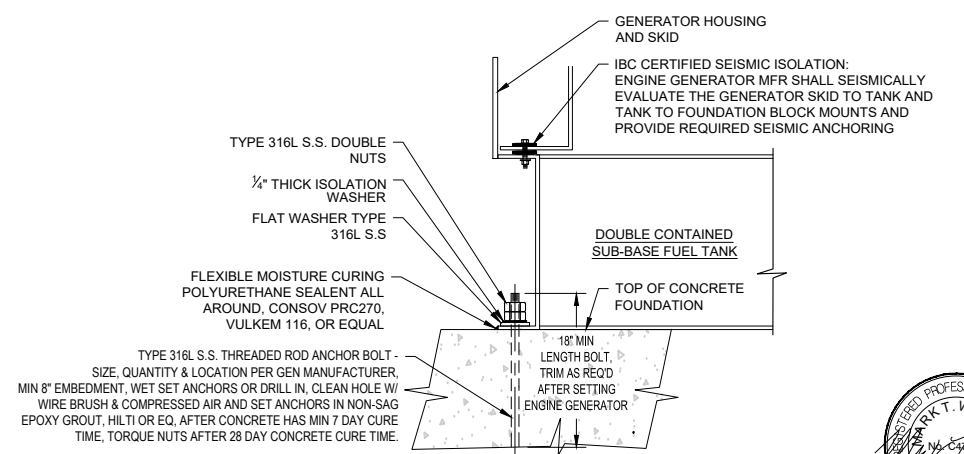
STANDARD HOOK DETAILS

BAR SIZE	A	J	D	G
#3	5"	3"	2 1/4"	6"
#4	6"	4"	3"	8"
#5	7"	5"	3 3/4"	10"
#6	8"	6"	4 1/2"	12"
#7	10"	7"	5 1/4"	14"
#8	11"	8"	6"	16"
#9	15"	11 3/4"	9 1/2"	19"

REBAR STANDARD DETAILS 6/9
N.T.S.



GENERATOR SLAB 7/9
N.T.S.



GENERATOR ANCHOR DETAIL 8/9
N.T.S.



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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
CIVIL AND STRUCTURAL DETAILS

SHEET
C-7
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ABBREVIATIONS

A AMPERES	NTS NOT TO SCALE
AFF ABOVE FINISHED FLOOR	OL OVERLOAD
AFG ABOVE FINISHED GRADE	PCP PUMP CONTROL PANEL
ATS AUTOMATIC TRANSFER SWITCH	PFR POWER FAIL RELAY
BCW BARE COPPER WIRE	PLC PROGRAMMABLE LOGIC CONTROLLER
C CONDUIT	PQM POWER QUALITY METER
CO CONDUIT ONLY	PS PRESSURE SWITCH
CPT CONTROL POWER TRANSFORMER	PR PAIR
CT CURRENT TRANSFORMER	RR RUN RELAY
CU COPPER	RTU REMOTE TERMINAL UNIT
FU FUSE	S START RELAY
FS FLOAT SWITCH	SHD SHIELDED
GND GROUND	SPD SURGE PROTECTION DEVICE
GFI GROUND FAULT CIRCUIT INTERRUPTER	SSTL STAINLESS STEEL
GRS GALVANIZED RIGID STEEL	SV SOLENOID VALVE
HOA HAND-OFF-AUTO	T TELEPHONE
HMI HUMAN-MACHINE INTERFACE	TC TIME CLOCK
LIT LEVEL INDICATOR/TRANSMITTER	TDC TIME DELAY CLOSING
LOS LOCKOUT STOP	TDO TIME DELAY OPENING
LS LIMIT SWITCH	TR TIME RELAY
MCC MOTOR CONTROL CENTER	TS TEMPERATURE SWITCH
MCP MOTOR CIRCUIT PROTECTOR	TSP TWISTED SHIELDED PAIR(S)
MFM MULTI FUNCTION METER	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR
MANU MANUFACTURER CABLE (PUMP OR FLOAT)	U.O.N. UNLESS OTHERWISE NOTED
MTS MANUAL TRANSFER SWITCH	V VOLTS
NC NORMALLY CLOSED	VFD VARIABLE FREQUENCY DRIVE
NEC NATIONAL ELECTRICAL CODE	W WIRE
NO NORMALLY OPEN	WP WEATHER PROOF

LEGEND

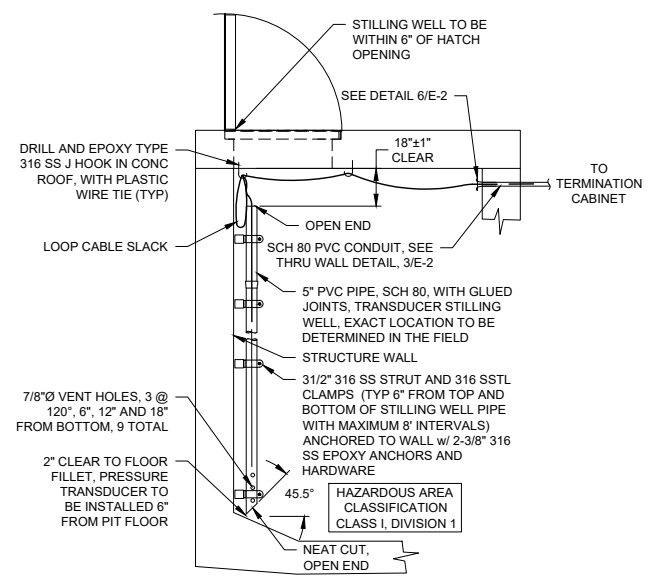
	NEW EMBEDDED OR ENCASED HOMERUN WITH DESTINATION INDICATED		FUSE		CONDUCTOR CONNECTED
	NEW EXPOSED HOMERUN WITH DESTINATION INDICATED		FUSE WITH BLOWN FUSE INDICATOR		CONDUCTOR NOT CONNECTED
	NEW CONDUIT IN DUCTBANK, SLAB OR BELOW GRADE		GROUND CONNECTION		RUNNING TIME METER
	NEW EXPOSED CONDUIT		CONTROL RELAY		PENDANT OR CEILING MOUNTED LIGHTING FIXTURE
	CONDUIT BENDS TOWARD OBSERVER		TIME DELAY RELAY		WALL MOUNTED LIGHTING FIXTURE
	CONDUIT BENDS AWAY FROM OBSERVER		ALARM RELAY		POLE OR STANCHION MOUNTED LIGHTING FIXTURE
	EXISTING EXPOSED CONDUIT		NORMALLY OPEN CONTACT, RELAY COIL INDICATED		DUAL HEAD EMERGENCY LIGHTING UNIT WITH BATTERY PACK
	EXISTING CONDUIT IN DUCTBANK, SLAB OR BELOW GRADE		NORMALLY CLOSED CONTACT, RELAY COIL INDICATED		EXIT LIGHTING FIXTURE-DARKENED QUADRANT INDICATES ILLUMINATED FACE; ARROW INDICATES DIRECTION
	CONDUIT CHANGE IN ELEVATION		PLC DISCRETE OUTPUT CONTACT		PENDANT OR CEILING MOUNTED LIGHTING FIXTURE (UNSWITCHED) WITH EMERGENCY POWER PACK
	CONDUIT STUBBED-OUT AND CAPPED		TIME DELAY RELAY CONTACT (NORMALLY OPEN WITH TIME DELAYED CLOSING UPON COIL ENERGIZATION)		DISCONNECT SWITCH
	CONDUIT ENDS WITH INSULATED BUSHING UNLESS OTHERWISE NOTED		TIME DELAY RELAY CONTACT (NORMALLY CLOSED WITH TIME DELAYED OPENING UPON COIL ENERGIZATION)		SINGLE POLE SWITCH
	FLEXIBLE CONDUIT		TIME DELAY RELAY CONTACT (NORMALLY CLOSED WITH TIME DELAYED CLOSING UPON COIL DE-ENERGIZATION)		THREE WAY SWITCH
	SUBMERSIBLE CABLE		TIME DELAY RELAY CONTACT (NORMALLY OPEN WITH TIME DELAYED OPENING UPON COIL DE-ENERGIZATION)		MANUAL STARTER
	SOFTWARE OR DATA LINK		DOOR LIMIT SWITCH		LOCALLY MTD STARTER OR CONTROLLER
	MOTOR STARTER		MOTOR STARTER COIL (SCHEMATIC DIAGRAMS ONLY)		LOCAL CONTROL STATION
	AUTOMATIC TRANSFER SWITCH		MOISTURE DETECTOR		MOTORIZED VALVE
	MOTOR CIRCUIT PROTECTOR WITH CURRENT RATING		SOLENOID VALVE		CABLE TRAY
	CIRCUIT BREAKER WITH TRIP RATING INDICATED		THERMOSTAT		ALARM BEACON
	TRANSFORMER		PHOTOCELL		FIRE ALARM HORN, WITH STROBE
	DIGITAL METER PACKAGE		TIMER		SMOKE DETECTOR
	POWER MULTI FUNCTION METER		LIMIT OR POSITION SWITCH		FIRE ALARM MANUAL PULL STATION
	CURRENT TRANSFORMER (QUANTITY INDICATED)		PRESSURE SWITCH		HEAT DETECTOR
	AMMETER		FLOW SWITCH		FIRE ALARM CONTROL PANEL
	VOLTMETER		TEMPERATURE SWITCH		DUCT MOUNTED SMOKE DETECTOR
	MOTOR-NUMBER INDICATES HORSEPOWER		LEVEL FLOAT SWITCH		INTERCOM SPEAKER
	ELECTRIC GENERATOR		START PUSHBUTTON		RELAY
	MOTOR SPACE HEATER		STOP OR RESET PUSHBUTTON		END-OF-LINE RESISTOR
	VARIABLE FREQUENCY DRIVE		STOP PUSHBUTTON WITH LOCKOUT		COMPUTER OUTLET
	KIRK-KEY INTERLOCK		SELECTOR SWITCH		TELEPHONE OUTLET
	SURGE PROTECTION DEVICE		INDICATING LIGHT-LETTER DENOTES COLOR (SCHEMATIC OR ELEVATION ONLY) A=AMBER, R=RED, W=WHITE, G=GREEN		SIMPLEX RECEPTACLE
	SOLID STATE TRIP UNIT				DUPLEX RECEPTACLE
	VOLTAGE SURGE SUPPRESSOR				RECEPTACLE 250 VOLT
	RELAY DEVICE (NUMBER REFERS TO ANSI/IEEE STD C37.2 DEVICE DESCRIPTION)				RECEPTACLE, RATING INDICATED
	UTILITY COMPANY METER				JUNCTION BOX
	BIMETALLIC THERMAL OVERLOAD RELAY				EXPOSED GROUNDING CABLE
	INDICATES DEVICE LOCATED IN FIELD AT OR NEAR LOAD				BURIED OR CONCRETE ENCASED GROUNDING CABLE
					GROUNDING CABLE CONNECTION
					GROUND ROD IN GROUND WELL
					DEMOLISH AND REMOVE FROM SITE

GENERAL NOTES:

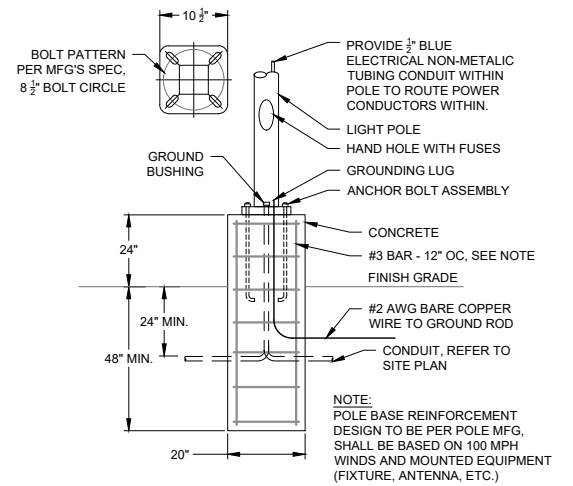
- NOT ALL EQUIPMENT INTERCONNECTIONS ARE SHOWN ON THE PLANS. REFER TO ALL DETAILS, SCHEMATIC DIAGRAMS, CONTROL DIAGRAMS, SINGLE LINE DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL FIELD WIRING REQUIRED.
- ALL CONDUIT RUNS SHALL CONTAIN A SEPARATE EQUIPMENT GROUNDING CONDUCTOR. IF NOT SHOWN ON THE PLANS, SIZE PER NEC.
- COORDINATE ALL CONDUIT STUB-UP LOCATIONS INTO ELECTRICAL EQUIPMENT WITH ACCEPTED VENDOR DRAWINGS.
- COORDINATE ALL NEW UNDERGROUND ELECTRICAL DUCTBANK RUNS WITH NEW AND EXISTING UNDERGROUND PIPING AND UTILITIES.
- INSTALL PULL TAPE IN ALL SPARE CONDUIT RUNS.
- ALL OUTDOOR ENCLOSURES SHALL BE 316 STAINLESS STEEL UNLESS NOTED OTHERWISE.
- THE CONDUIT ROUTES SHOWN ARE SCHEMATIC IN NATURE AND ARE INTENDED TO BE USED AS A GUIDE.
- CONDUITS SHALL BE ROUTED TO AVOID INTERFERENCES WITH NEW AND EXISTING PROCESS PIPING, CONDUITS, STRUCTURES ETC.
- SEAL ALL CONDUITS IN UNDERGROUND PULLBOXES AND CONDUITS THAT STUB-UP INTO THE BOTTOM OF ELECTRICAL EQUIPMENT USING PUTTY-TYPE DUCT SEAL, INCLUDING SPARE CONDUITS.



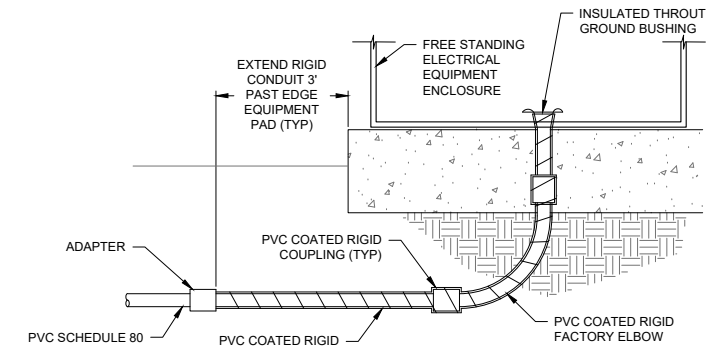
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DRAWN BY: AAB	CHECKED BY: JC	 NUTE ENGINEERING 907 MISSION AVE. SAN RAFAEL, CALIFORNIA 94901 TEL: 415.453.4480 FAX: 415.453.0343
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE ELECTRICAL LEGEND AND ABBREVIATIONS		
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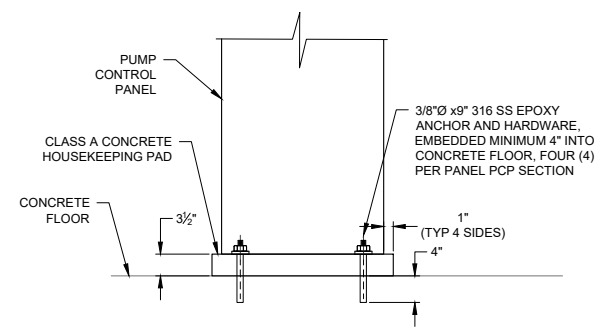
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11 LEVEL TRANSDUCER STILLING WELL
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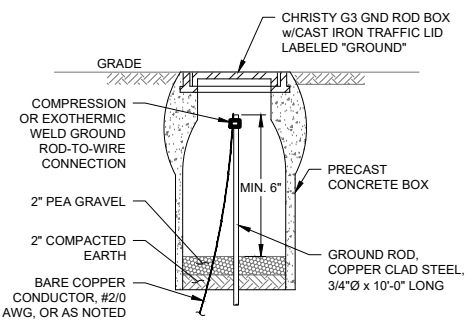
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11 LIGHT POLE MOUNTING
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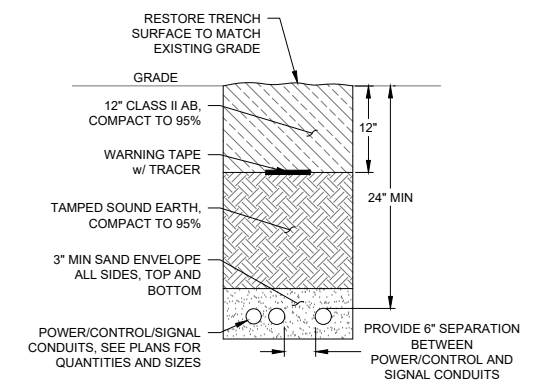
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11 CONCEALED CONDUIT STUB-UP
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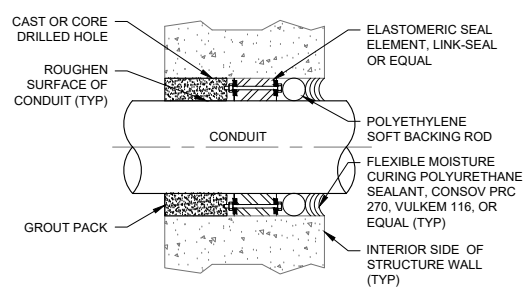
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11 PUMP CONTROL PANEL ANCHORING
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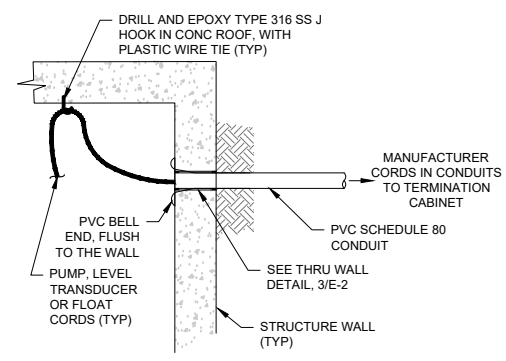
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11 GROUND ROD BOX
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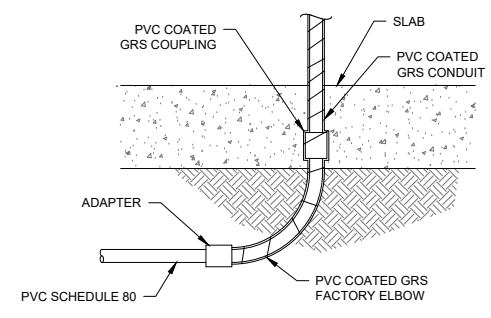
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11 UNDERGROUND CONDUIT TRENCH
N.T.S.



3
11 LINK SEAL THROUGH WALL
N.T.S.



6
11 CONDUIT PENETRATION
N.T.S.



9
11 EXPOSED CONDUIT STUB-UP
N.T.S.

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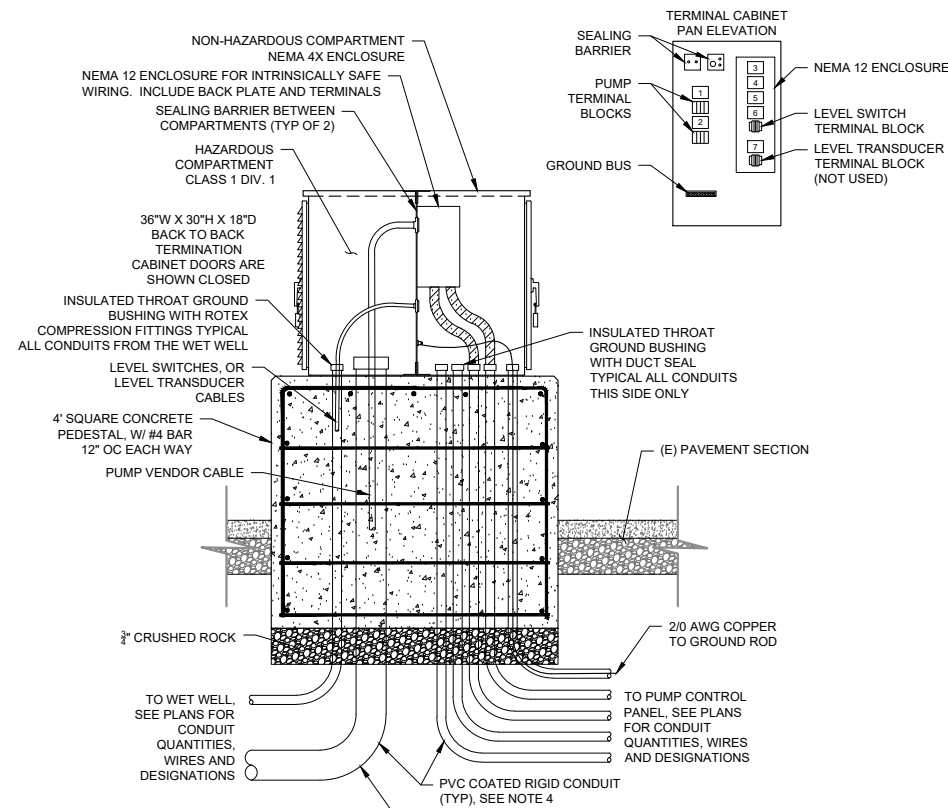
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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
ELECTRICAL DETAILS

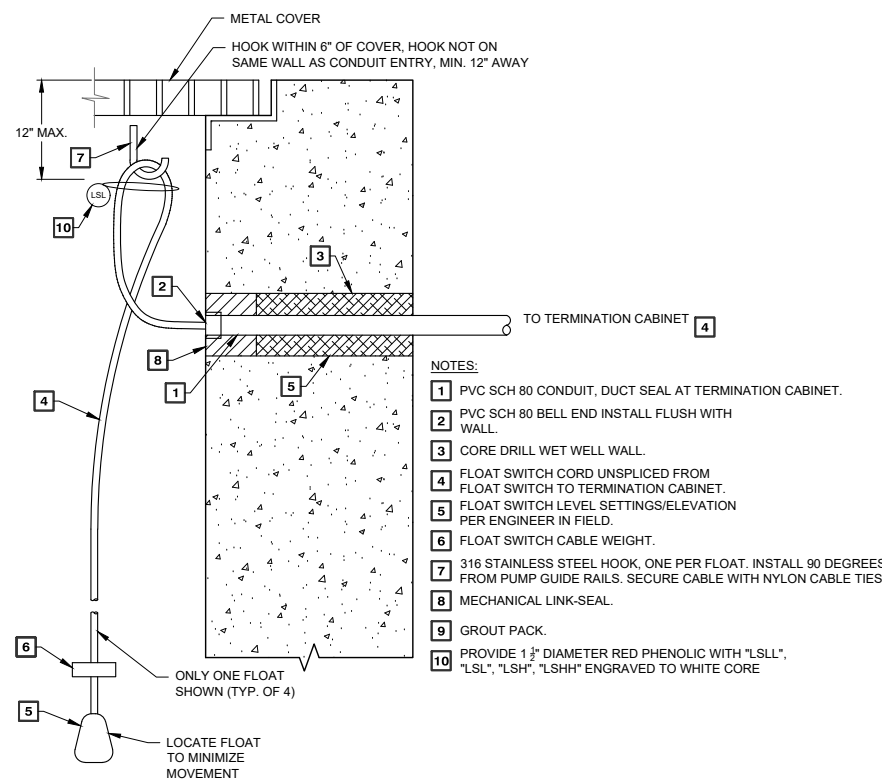
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- DETAIL NOTES:**
- PROVIDE SEPARATE COMPRESSION SEAL BLOCKS FOR LEVEL SWITCH AND LEVEL TRANSDUCER CABLES FROM PUMP CABLES.
 - LEVEL TRANSDUCER CABLE SHALL NOT BE SPLICED AND SHALL EXTEND TO PUMP CONTROL PANEL.
 - NAMEPLATES SHALL BE LABELED PER THE SCHEDULE AND LETTER SIZE SHALL BE 3/16".
 - ROUTE PVC COATED RIGID CONDUIT FROM CABINET < DOWN THROUGH PEDESTAL AND EXTEND 3' BEYOND PEDESTAL BEFORE TRANSITIONING TO PVC SCH 80 CONDUITS.
- NAMEPLATE SCHEDULE:**
- SEWAGE PUMP 1, PMP-01
 - SEWAGE PUMP 2, PMP-02
 - LSHH-051
 - LHS-052
 - LSL-053
 - LSLL-054
 - LT-053

1 **TERMINATION CABINET DETAIL**
12 N.T.S.



2 **TYPICAL FLOAT SWITCH DETAIL**
12 N.T.S.

EXISTING LIGHTING PANELBOARD "LP-A"										8/21/2020
LOCATION: SDPS MCC		NEMA 1		FEED: SDPS MCC						
VOLTS: 120/240		MTG: INTERNAL TO MCC								
PHASE & W/ 1PH, 3W		BUS RATING: 100 A								
INTERRUPT:		MAIN: 100 A								
OPTIONS:										
DESCRIPTION	LOAD (VA)	BKR	CIR	PH	CIR	BKR	LOAD (VA)	DESCRIPTION		
PUMP CONTROLS	500	20A-1P	1	A	2	20A-1P	540	RECEPTACLES		
AUTODIAL UNIT	100	20A-1P	3	B	4	20A-1P	240	BATTERY CHARGER		
IRRIGATION CONTROLLER	100	20A-1P	5	C	6	20A-2P	800	BLOCK HEATER		
LIGHTS	350	20A-1P	7	A	8		250			
RTU	100	20A-1P	9	B	10	15A-1P	250	SITE FLOOD LIGHTS		
SPARE		20A-1P	11	C	12	20A-2P	800	AC UNIT		
SPACE			13	A	14		800			
SPACE			15	B	16	20A-1P	180	EXTERIOR RECEPTACLE		
SPACE			17	C	18	20A-1P		SPARE		
SPACE			19	A	20	20A-1P		SPARE		

3 **PANELBOARD SCHEDULE**
12 N.T.S.

CONDUIT AND CABLE SCHEDULE									
CONDUIT			CONDUIT AND CABLE SCHEDULE						
NO.	SIZE	MATERIAL	CABLE SIZE AND QUANTITIES	FROM	TO	REMARKS			
P01	2"	SCH80, PVC-GRS	3-#250, #2G	SWBD ATS - EMERGENCY SIDE	STANDBY GENERATOR	480VAC			
P02	1 1/2"	GRS	3-#4, #8G	SDPS MCC - 60A BREAKER	PUMP CONTROL PANEL - MTS	480VAC			
P03	1 1/2"	GRS	3-#1, #6G	PUMP CONTROL PANEL - MTS	GENERATOR RECEPTACLE	480VAC			
P04	1"	SCH80, PVC-GRS	3-#10, #10G, 4#14	PUMP CONTROL PANEL - PUMP 1	TERMINATION CABINET - PUMP 1		TERMINATE ON BLOCKS. DUCT SEAL CONDUIT		
P04A	1 1/2"	SCH80, PVC-GRS	MANU CABLE (POWER, TS, MS)	TERMINATION CABINET - PUMP 1	SLS PUMP 1 IN WET WELL		PROVIDE SEAL OFF FITTING AT TERMINATION CABINET		
P05	1"	SCH80, PVC-GRS	3-#10, #10G, 4#14	PUMP CONTROL PANEL - PUMP 2	TERMINATION CABINET - PUMP 2		TERMINATE ON BLOCKS. DUCT SEAL CONDUIT		
P05A	1 1/2"	SCH80, PVC-GRS	MANU CABLE (POWER, TS, MS)	TERMINATION CABINET - PUMP 2	SLS PUMP 2 IN WET WELL		PROVIDE SEAL OFF FITTING AT TERMINATION CABINET		
P06	1"	SCH80, PVC-GRS	#12, #12N, #12G	SDPS MCC - PANELBOARD (CKT 10)	SITE LIGHTS		SAME CIRCUIT FOR BOTH FLOOD LIGHTS. ADD SWITCHES		
P07	1"	SCH80, PVC-GRS	3-#12, #12N, #12G	SDPS MCC - PANELBOARD (CKTS, 4 & 8)	STANDBY GENERATOR		BATTERY CHARGER AND BLOCK HEATER CIRCUITS		
C01	1"	SCH80, PVC-GRS	12-#14, #14G	SWBD ATS	STANDBY GENERATOR		GENERATOR STATUS, ALARMS, START/STOP COMMANDS		
C02	1"	GRS	8-#14, #14G	SWBD ATS	PUMP CONTROL PANEL		ATS AND GENERATOR STATUS, ALARMS		
A01	1 1/2"	SCH80, PVC-GRS	10-#14, #14G	PUMP CONTROL PANEL	TERMINATION CABINET - FLOATS		TERMINATE ON BLOCKS. DUCT SEAL CONDUIT, 2 SPARES		
A01A	1 1/2"	SCH80, PVC-GRS	4 MANU FLOAT CABLES	TERMINATION CABINET - FLOATS	WET WELL		PROVIDE SEAL OFF FITTING AT TERMINATION CABINET		
A02	1"	SCH80, PVC-GRS	LT MANU CABLE	PUMP CONTROL PANEL	TERMINATION CABINET		DUCT SEAL CONDUIT		
A02A	1"	SCH80, PVC-GRS	LT MANU CABLE	TERMINATION CABINET	WET WELL		PROVIDE SEAL OFF FITTING AT TERMINATION CABINET		
A03	1 1/2"	GRS	1/2" COAX ANTENNA	PUMP CONTROL PANEL	ANTENNA		INCLUDE WEATHERPROOF SPLICE KIT AT ANTENNA		
A04	2"	SCH80, PVC-GRS	PULL TAPE	PUMP CONTROL PANEL	TERMINATION CABINET		DUCT SEAL CONDUIT		
A04A	2"	SCH80, PVC-GRS	PULL TAPE	TERMINATION CABINET	WET WELL		PROVIDE SEAL OFF FITTING AT TERMINATION CABINET		
A05	3/4"	GRS	4PR TELEPHONE CABLE	TELEPHONE MPOE	PUMP CONTROL PANEL		TIE INTO SAME TERMINALS AS EXISTING AUTODIALER		
A06	1"	GRS	CAT 6 CABLE	PUMP CONTROL PANEL	SCADA WORKSTATION DESK		LEAVE 6" TAIL AT DESK		

4 **CONDUIT AND CABLE SCHEDULE**
12 N.T.S.

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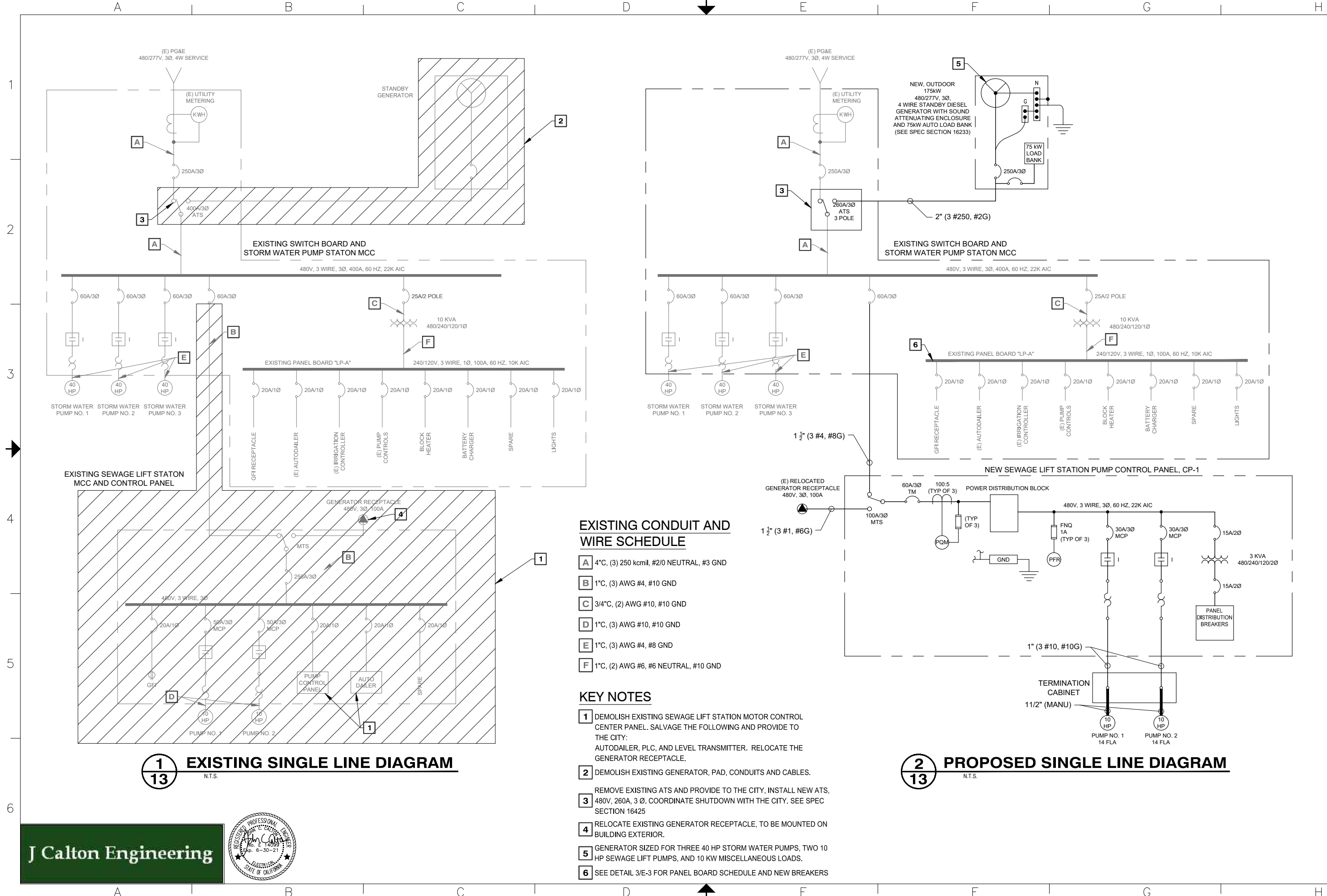
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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
ELECTRICAL DETAILS 2 AND SCHEDULES

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1
13 N.T.S.
EXISTING SINGLE LINE DIAGRAM

2
13 N.T.S.
PROPOSED SINGLE LINE DIAGRAM

EXISTING CONDUIT AND WIRE SCHEDULE

- A** 4"C, (3) 250 kcmil, #2/0 NEUTRAL, #3 GND
- B** 1"C, (3) AWG #4, #10 GND
- C** 3/4"C, (2) AWG #10, #10 GND
- D** 1"C, (3) AWG #10, #10 GND
- E** 1"C, (3) AWG #4, #8 GND
- F** 1"C, (2) AWG #6, #6 NEUTRAL, #10 GND

KEY NOTES

- 1** DEMOLISH EXISTING SEWAGE LIFT STATION MOTOR CONTROL CENTER PANEL. SALVAGE THE FOLLOWING AND PROVIDE TO THE CITY: AUTODAILER, PLC, AND LEVEL TRANSMITTER. RELOCATE THE GENERATOR RECEPTACLE.
- 2** DEMOLISH EXISTING GENERATOR, PAD, CONDUITS AND CABLES.
- 3** REMOVE EXISTING ATS AND PROVIDE TO THE CITY, INSTALL NEW ATS, 480V, 260A, 3 Ø. COORDINATE SHUTDOWN WITH THE CITY. SEE SPEC SECTION 16425
- 4** RELOCATE EXISTING GENERATOR RECEPTACLE, TO BE MOUNTED ON BUILDING EXTERIOR.
- 5** GENERATOR SIZED FOR THREE 40 HP STORM WATER PUMPS, TWO 10 HP SEWAGE LIFT PUMPS, AND 10 KW MISCELLANEOUS LOADS.
- 6** SEE DETAIL 3/E-3 FOR PANEL BOARD SCHEDULE AND NEW BREAKERS

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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
SINGLE LINE DIAGRAMS

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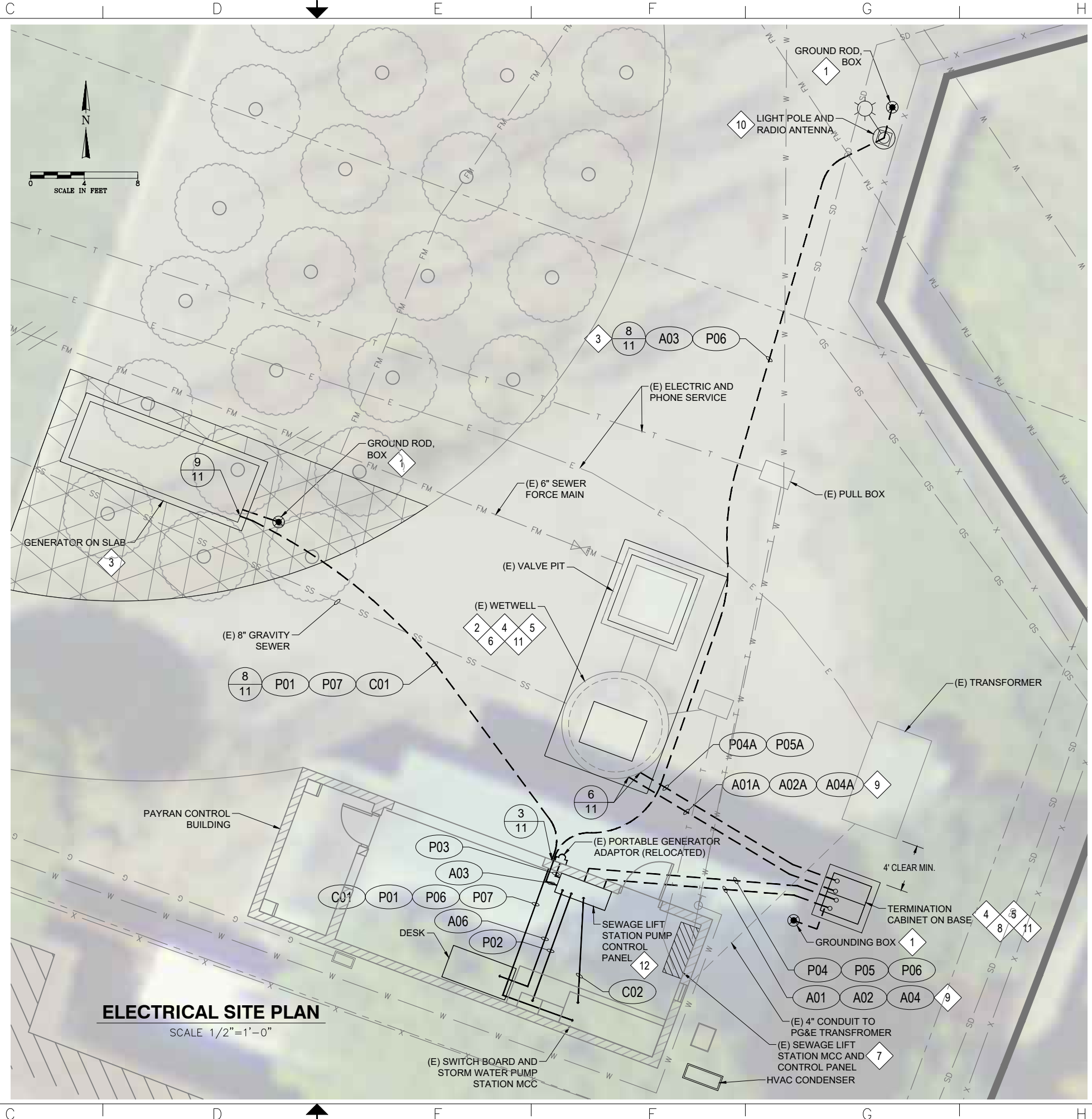
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GENERAL NOTES:

- REFER TO CIVIL DRAWINGS FOR LOCATIONS OF EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR ROUTING OF CONDUITS, AS APPROVED BY CITY INSPECTOR IN FIELD AND SHOW ON AS-BUILT DRAWINGS ACCORDINGLY.
- FIELD LOCATE ELECTRICAL PANELS TO MAXIMIZE WORKING CLEARANCES AS REQUIRED PER NATIONAL ELECTRICAL CODE (NEC). LOCATIONS OF PANELS AND CONDUIT ROUTING SHOWN ARE APPROXIMATE. FINAL LOCATIONS SHALL BE APPROVED IN FIELD BY CITY INSPECTOR.
- ALL HARDWARE, STRUT, STRAPS AND ANCHORS SHALL BE 316 STAINLESS STEEL UNLESS SHOWN OTHERWISE.
- PROVIDE NAMEPLATES ON ALL EQUIPMENT AND INSTRUMENTS. PROVIDE LABELS ON ALL CONDUITS AND CABLES PER SPECIFICATION SECTIONS 16050, 16110, 16111, 16120.
- CONDUIT AND CABLE SIZES SHOWN ON CONDUIT AND CABLE SCHEDULE ARE MINIMUM. ACTUAL SIZES MAY BE LARGER BASED ON SUBMITTED AND APPROVED EQUIPMENT, AT NO EXTRA COSTS.
- STANDARD DETAILS APPLY WHERE APPLICABLE, EVEN IF NOT REFERENCED.
- REFER TO CONDUIT SCHEDULE, 4/E-3

KEY NOTES:

- PROVIDE AND INSTALL 3/4"x10" GROUND ROD AND BOX. REFER TO DETAIL 5/E-2. ROUTE #2/0 AWG FROM GROUND ROD COMPLETE TO TERMINATION CABINET, GENERATOR FRAME AND NEUTRAL, OR LIGHT POLE AS APPLICABLE.
- ELEVATIONS OF FLOAT SWITCHES PER ENGINEER IN FIELD. WETWELL INSTRUMENTS (FLOAT SWITCHES AND LEVEL TRANSDUCER) AND HOOKS SHALL BE LOCATED WITHIN WETWELL PER OWNER TO FACILITATE EQUIPMENT RETRIEVAL, AND MINIMIZE MOVEMENT WITHIN WETWELL. REFER TO DETAILS 1/E-2 AND 2/E-3.
- CONNECT #2/0 AWG GROUNDING ELECTRODE CONDUCTOR TO GENERATOR'S NEUTRAL BUS. CONFIRM, AND PROVIDE IF REQUIRED, SUPPLY SIDE BONDING JUMPER AND MAIN BONDING JUMPER WITHIN GENERATOR. SERVICE GROUNDING TO BE PER NEC.
- PROVIDE MANUFACTURER CABLES FROM LEVEL TRANSDUCER COMPLETE TO PUMP CONTROL PANEL. PROVIDE 2' CABLE LOOP WITHIN TERMINATION CABINET. DO NOT SPLICE.
- PROVIDE MANUFACTURER CABLES FROM SUBMERSIBLE PUMPS TO TERMINATION CABINET. ROUTE XHHW-2 CABLES FROM TERMINATION CABINET TO PUMP CONTROL PANEL. SPLICE AT CABINET.
- WETWELL INTERIOR IS CLASS 1, DIVISION 1, GROUP C AND D, HAZARDOUS LOCATION PER NEC.
- SALVAGE EXISTING PLC, LEVEL TRANSDUCER, ATS AND AUTODIALER FROM EXISTING SEWER LIFT STATION PANEL AND MCC. DELIVER TO OWNER.
- MOUNT TERMINATION CABINET ON CONCRETE PEDESTAL. SEE DETAIL 1/E-3.
- MAINTAIN MINIMUM 6" SEPARATION BETWEEN "P" AND "A" CONDUITS.
- MOUNT ANTENNA TO SITE LIGHT POLE 15' ABOVE GRADE, ORIENT ANTENNA AS DIRECTED BY CITY. REFER TO DETAIL 4/E-2 FOR POLE BASE. ORIENT LIGHT TOWARDS STORM DRAIN PUMP STATION. PROVIDE SPRING WOUND TIMER WITH LOCK BOX FOR LIGHT CONTROL.
- PROVIDE MANUFACTURER CABLES FROM FLOAT SWITCHES TO TERMINATION CABINET. ROUTE XHHW-2 CABLES FROM THE TERMINATION CABINET TO PUMP CONTROL PANEL. SPLICE AT CABINET.
- PROVIDE CONCRETE PAD FOR PUMP CONTROL PANEL, DETAIL 2/E-2.



ELECTRICAL SITE PLAN
SCALE 1/2"=1'-0"



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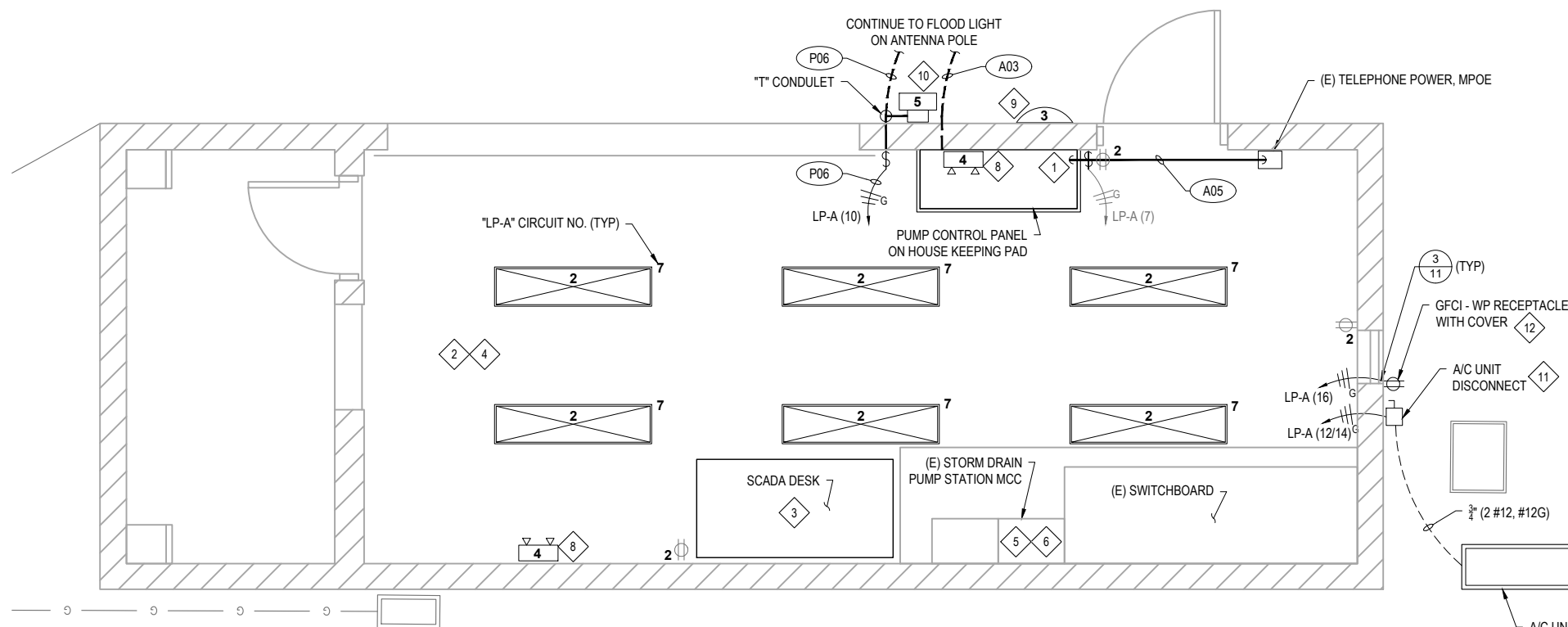
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GENERAL NOTES:

1. ALL EXPOSED CONDUITS, INCLUDING FITTINGS, CONDULETS, CLAMPS, COUPLINGS, ETC., SHALL BE GALVANIZED RIGID STEEL.
2. REFER TO ELECTRICAL SITE PLAN FOR ADDITIONAL CONDUITS ROUTED WITHIN BUILDING.
3. REMOVE EXISTING LIGHTING FIXTURES. DISPOSE OF PROPERLY.
4. ALL DETAILS APPLY, EVEN IF NOT CALLED OUT.

KEY NOTES:

- 1 REROUTE EXISTING CONDUIT AND RELOCATE EXISTING RECEPTACLE BELOW EXISTING LIGHT SWITCH. RELOCATE HOSE RACK AND FIRE EXTINGUISHER TO WALL WHERE EXISTING SEWAGE LIFT STATION MCC AND CONTROL PANEL WERE LOCATED.
- 2 PROVIDE GALVANIZED STRUT SYSTEM TO SUPPORT LIGHT FIXTURES. EXISTING STRUT SYSTEM MAY BE USED WHERE APPLICABLE.
- 3 SCADA WORKSTATION DESK. PROVIDE 60" WIDE X 30" DEEP STEEL WORKBENCH/DESK, JAMCO #WU360GP, OR APPROVED EQUAL. PROVIDE METAL ISOLATED SURGE MULTIOUTLET STRIP, TRIPP-LITE #ISOBAR 6 ULTRA, AND PLUG INTO EXISTING RECEPTACLE.
- 4 REMOVE ALL EXPOSED CONDUITS AND CABLES ASSOCIATED WITH EXISTING GENERATOR. CONDUITS SHALL BE CUT EVEN WITH FLOOR AND FILLED WITH NON-SHRINK GROUT.
- 5 REUSE EXISTING PANELBOARD CIRCUIT BREAKERS FOR NEW STANDBY GENERATOR BATTERY CHARGER AND BLOCK HEATER CIRCUITS.
- 6 PROVIDE NEW CIRCUIT BREAKERS FOR AC UNIT AND EXHAUST FAN AS REQUIRED BY APPROVED EQUIPMENT.
- 7 PROVIDE UPDATED PANELBOARD SCHEDULE WITH EXISTING AND NEW LOADS LISTED.
- 8 REPLACE EXISTING EMERGENCY LIGHT WITH FIXTURE TYPE 4. TYPICAL OF TWO.
- 9 REPLACE EXISTING WALL PACK LIGHT WITH FIXTURE TYPE 3.
- 10 INSTALL NEW SEWAGE WET WELL FLOOD LIGHT, FIXTURE TYPE 5, ON BUILDING EXTERIOR AS HIGH AS POSSIBLE. PROVIDE INDOOR SWITCH AND LABEL "WETWELL FLOOD LIGHT". CAN BE ON SAME PANELBOARD CIRCUIT AS SDPS FLOOD LIGHT. MOUNT SWITCH 48" ABOVE GRADE.
- 11 PROVIDE NEMA 3R DISCONNECT SWITCH, PADLOCKABLE, FOR AC UNIT. PROVIDE ALL CONDUIT AND CABLES FOR COMPLETE AC SYSTEM. SWITCH SHALL BE EATON #DPF221R, OR APPROVED EQUAL, WITH FUSES.
- 12 PROVIDE GFIC RECEPTACLE WITH METAL WHILE IN USE COVER. MOUNT 24" ABOVE GRADE.



BUILDING LIGHTING AND RECEPTACLE PLAN

SCALE: NTS

LIGHTING FIXTURE SCHEDULE						
TYPE	VAC	DESCRIPTION	LAMPS	MOUNTING	MANUFACTURER / MODEL NO.	
1	120	LED FLOOD LIGHT WITH PHOTOCELL AND SWITCH ON POLE FOR OPERATION. FIXTURE TO BE DIE CAST ALUMINUM HOUSING WITH HEAT SINK FINS. FIXTURE FINISH TO BE ZINC INFUSED DURABLE THERMOSET POWDER COAT FINISH, CORROSION RESISTANT, DARK BRONZE. PRECISION MOLDED ACRYLIC LENS. 4000K COLOR TEMPERATURE. FLOOD DISTRIBUTION. HIGH EFFICIENCY LEDS, 120 VAC DRIVER, 129 WATTS. PROVIDE FIXTURE WITH UPPER VISOR, AND SINGLE FUSE OPTION. UL LISTED FOR WET LOCATIONS. 5 YEAR WARRANTY. POLE TO BE 18', ROUND STEEL POLE, 4.5" BASE, WITH ANCHOR BOLTS, BASE COVER, TOP CAP AND TOTAL OF THREE HANDHOLES. STANDARD HANDHOLE FOR WIRE PULLING SHALL BE AT HEIGHT 1'-6". ADDITIONAL HANDHOLE FOR WEATHERPROOF LIGHT SWITCH AT HEIGHT 2'-0". THIRD HANDHOLE FOR ANTENNA CABLE ACCESS AT HEIGHT 13'-0".	LED 129 WATTS 14,666 LUMENS	18' ROUND STRAIGHT STEEL POLE, 4.5" BASE. HOT DIPPED GALVANIZED ANCHOR BOLTS, WITH BASE COVER	FIXTURE: LITHONIA DSXF3 LED-6-P1-40K-FL-120-IS-PER-SF-UBV-DDBXD. POLE: LITHONIA RSS-18'-4-5B-T20-EHH2-0A-EHH13-0A-DDBXD, EXTRA HANDHOLES SAME SIDE AS STANDARD HANDHOLE. PROVIDE WEATHERPROOF SWITCH ON POLE FOR LIGHT OPERATION.	
2	120	LED, 48", PENDENT MOUNT WITH WRAP AROUND LENS. ONE PIECE FIBERGLASS HOUSING WITH CONTINUOUS GASKET, APPROVED AS WIREWAY FOR THRU WIRING. SUITABLE FOR PENDENT MOUNTING. POLYMERIC LATCHES. INJECTION MOLDED ACRYLIC LENS, LINEAL RIBBED AND FROSTED. MEDIUM DISTRIBUTION. HIGH EFFICIENCY LEDS SUITABLE FOR DIMMING. 4000K COLOR TEMPERATURE, 80 CRI. 120 VAC, SUITABLE FOR DAMP LOCATIONS. CSA CERTIFIED, IP65 RATED. 5 YEAR WARRANTY. DLC QUALIFIED. WITH SINGLE FUSE OPTION.	LED 45 WATTS 6151 LUMENS	PENDANT OR UNISTRUT FRAME, 9' ABOVE FLOOR	FIXTURE: LITHONIA FEM-L48-6000LM-IMAF-LMD-120-GZ10-40K-80CRI-SF.	
3	120	LED WALL SCONCE WITH MOTION/AMBIENT LIGHT SENSOR. SINGLE PIECE DIE CAST ALUMINUM HOUSING WITH HEAT SINKS. FINISH TO BE ZINC INFUSED DURABLE THERMOSET POWDER COAT FINISH, CORROSION RESISTANT, DARK BRONZE. PRECISION MOLDED ACRYLIC LENS, ZERO UP LIGHT. FIXTURE TO HINGE DOWN TO WIRING ACCESS. 4000K COLOR TEMPERATURE. TYPE III DISTRIBUTION. 120 VAC. CSA CERTIFIED, IP65 RATED, SUITABLE FOR WET LOCATIONS. 5 YEAR WARRANTY. DLC QUALIFIED. WITH MOTION/AMBIENT LIGHT SENSOR AND SINGLE FUSE OPTIONS.	LED 29 WATTS	WALL, REPLACE EXISTING FIXTURE, SAME LOCATION	FIXTURE: LITHONIA WSQ-LED-P2-40K-SR3-120-PIR-SF-DDBXD	
4	120	LED EMERGENCY LIGHTING, WALL MOUNT. GRAY THERMOPLASTIC HOUSING, SUITABLE FOR DAMP LOCATIONS. LED LAMPS, 3.3 WATTS. LITHIUM ION BATTERIES. 120 VAC. SELF DIAGNOSTICS. UL LISTED, CALIFORNIA COMPLIANT. 5 YEAR WARRANTY.	LED 3.3 WATTS 640 LUMENS	WALL, REPLACE EXISTING FIXTURE, SAME LOCATION	FIXTURE: LITHONIA INDL-SP640L-UVOLT-LTP-SDRT	
5	120	LED FLOOD LIGHT WITH PHOTOCELL. FIXTURE TO BE DIE CAST ALUMINUM HOUSING WITH HEAT SINK FINS. FIXTURE FINISH TO BE ZINC INFUSED DURABLE THERMOSET POWDER COAT FINISH, CORROSION RESISTANT, DARK BRONZE, SUITABLE FOR MOUNTING TO SIDE OF BUILDING. TEMPERED GLASS LENS. 4000K COLOR TEMPERATURE. FLOOD DISTRIBUTION. HIGH EFFICIENCY LEDS, 120 VAC DRIVER, 78 WATTS. PROVIDE FIXTURE WITH UPPER VISOR. UL LISTED FOR WET LOCATIONS. 5 YEAR WARRANTY.	LED 78 WATTS 10,531 LUMENS	MOUNT ON BOX ATTACHED TO BUILDING AS HIGH AS POSSIBLE, DIRECTED TO WETWELL	FIXTURE: LITHONIA DSXF2 LED-P2-40K-FL-120-YK62-PE-UBV-DDBXD.	

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PROJECT NUMBER
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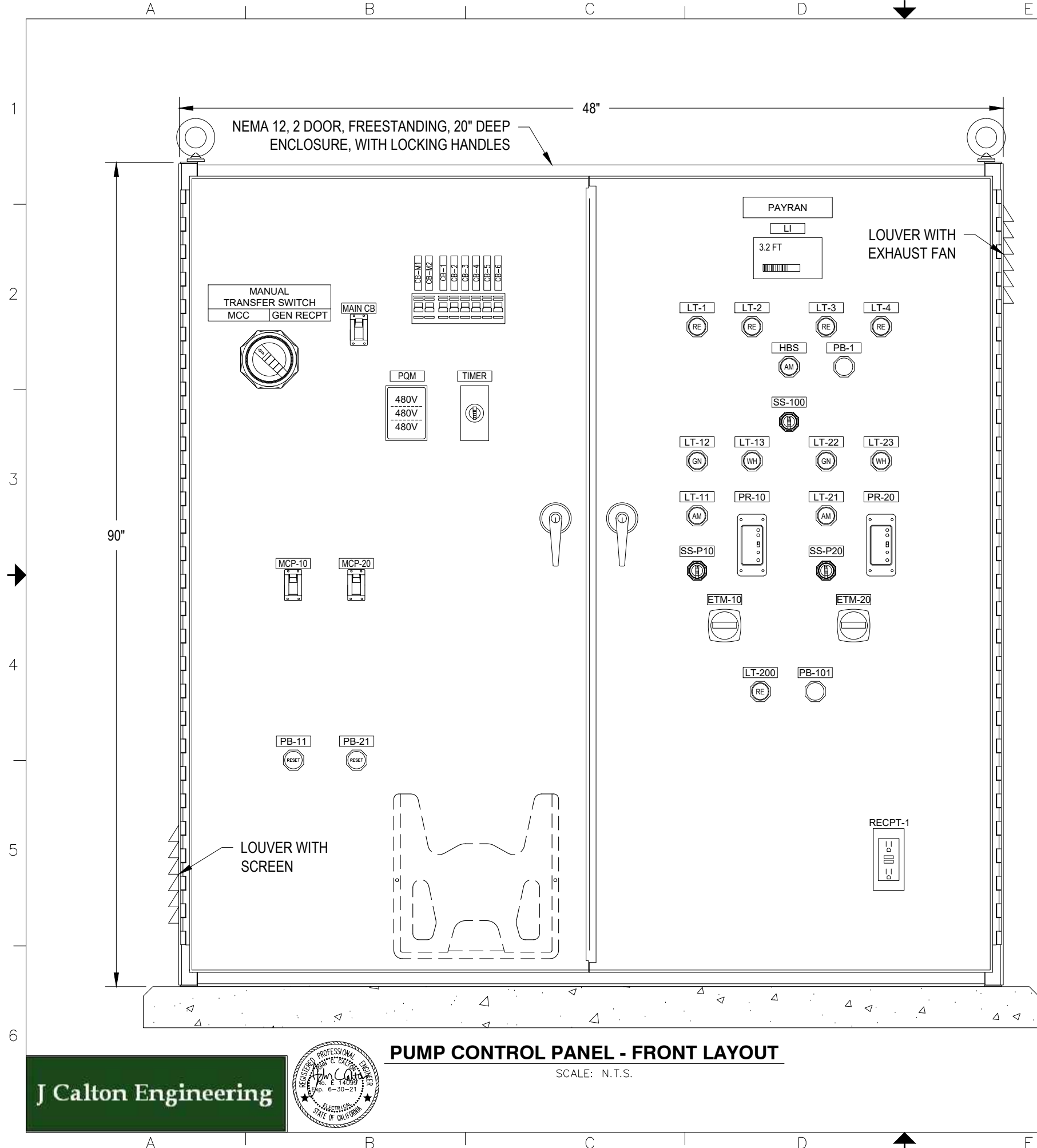
NUTE ENGINEERING
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TEL: 415.453.4480 FAX: 415.453.0343

CITY OF PETALUMA
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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
BUILDING LIGHTING PLAN

SHEET
E-6
15 OF 27

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PUMP CONTROL PANEL - FRONT LAYOUT

SCALE: N.T.S.

J Calton Engineering



NAME PLATE SCHEDULE					
NAMEPLATE	ROW 1	ROW 2	COLOR	SIZE	LETTERING
PAYRAN	PAYRAN SLS	PUMP CONTROL PANEL, CP-1	BLACK WITH WHITE TEXT	1-1/2" X 6-1/2"	1/4"
CB-3	LIGHT, RECPT	CB-3	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
CB-2	HBS CONTROL	CB-2	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
CB-4	PQM	CB-4	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
CB-5	SPARE	CB-5	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
CB-6	SPARE	CB-6	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
CB-1	UPS CONTROLS	CB-1	BLACK WITH WHITE TEXT	1/2" X 2-1/2"	1/8"
PB-101	STATION ALARM	RESET	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
SS-P10	PUMP #1	LOCAL OFF AUTO	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
SS-P20	PUMP #2	LOCAL OFF AUTO	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
SS-100	LEAD PUMP	P1-AUTO-P2	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
MAIN CB	MAIN	BREAKER	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LI	WETWELL	LEVEL	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PR-10	PUMP #1	MONITORING RELAY	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PR-20	PUMP #2	MONITORING RELAY	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
MCP-10	PUMP #1	DISCONNECT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
MCP-20	PUMP #2	DISCONNECT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-13	PUMP #1	LEAD	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-23	PUMP #2	LEAD	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-12	PUMP #1	RUNNING	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-22	PUMP #2	RUNNING	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
ETM-10	PUMP #1	RUN TIME	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
ETM-20	PUMP #2	RUN TIME	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-11	PUMP #1	FAIL	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-21	PUMP #2	FAIL	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-200	STATION	ALARM	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
CB-M2	CPT SECONDARY	CB-M2	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PB-11	PUMP #1	O/L RESET	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PB-21	PUMP #2	O/L RESET	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
TRANSFER SWITCH	TRANSFER SWITCH	MCC GEN/RECPT	BLACK WITH WHITE TEXT	1-1/2" X 4"	1/8"
CB-M1	CPT PRIMARY	CB-M1	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-1	LEVEL BELOW	LOW-LOW FLOAT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-2	LEVEL BELOW	LOW FLOAT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-3	LEVEL ABOVE	HIGH FLOAT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
LT-4	LEVEL ABOVE	HIGH-HIGH FLOAT	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
HBS	HBS ACTIVE	ALARM	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PB-1	HBS ALARM	RESET	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
PQM	POWER MONITOR	(LOAD SIDE)	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"
TIMER	TIMER	HOURS	BLACK WITH WHITE TEXT	3/4" X 2-1/2"	1/8"

NOTES:

- PANEL SHALL BE PROVIDED SO RIGHT SIDE DOOR CAN BE OPENED WITHOUT EXPOSING 480VAC EQUIPMENT. PROVIDE INTERNAL BARRIER TO ISOLATE 480 VAC SIDE WHEN RIGHT SIDE DOOR IS OPENED.

DATE: AUG 2020
 DESIGNED BY: JC
 DRAWN BY: AAB
 CHECKED BY: JC

PROJECT NUMBER
C66501519

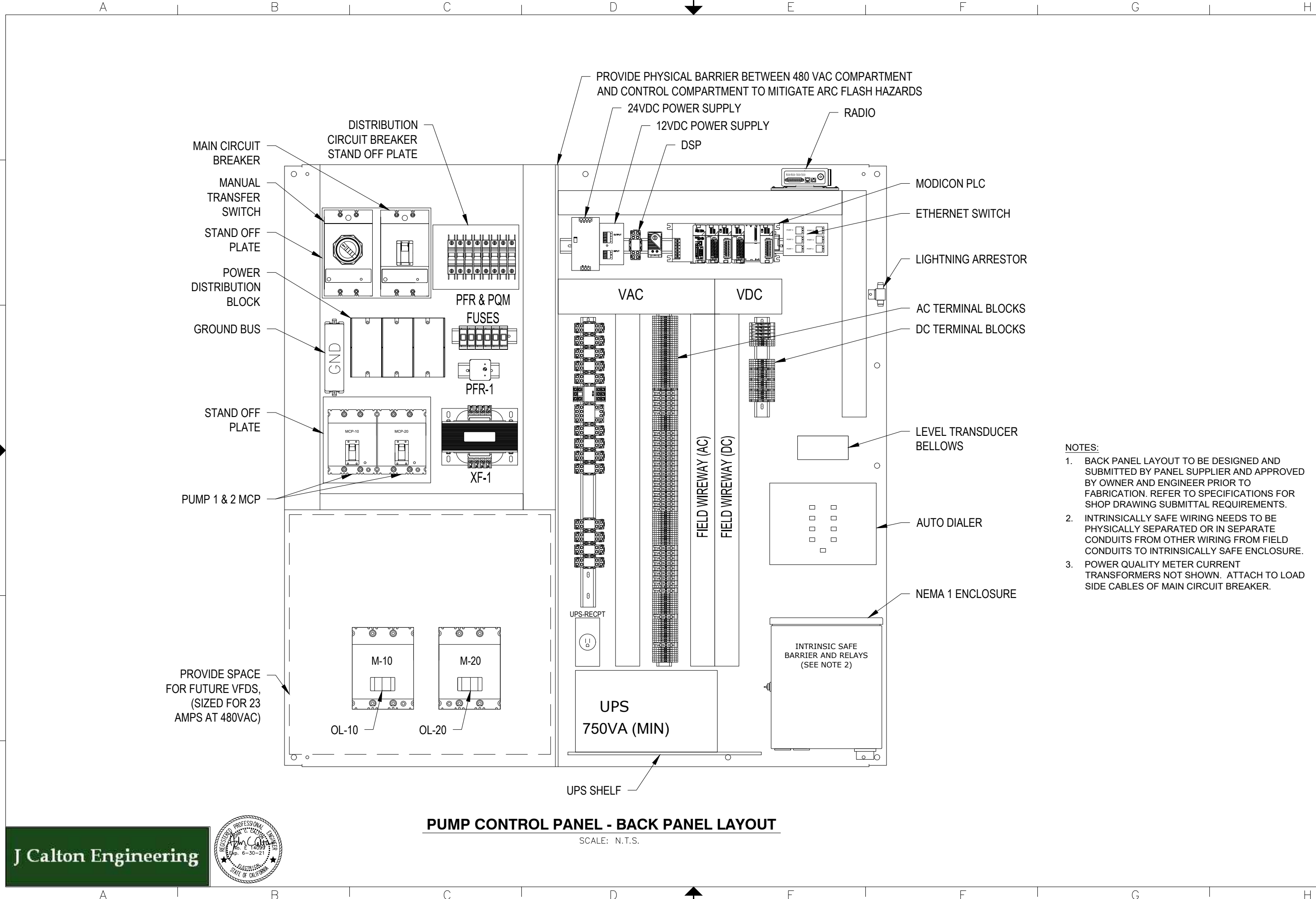
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PAYRAN LIFT STATION REHABILITATION
 8-12 JESS AVENUE
 PUMP CONTROL PANEL

SHEET
E-7
 16 OF 27

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PUMP CONTROL PANEL - BACK PANEL LAYOUT

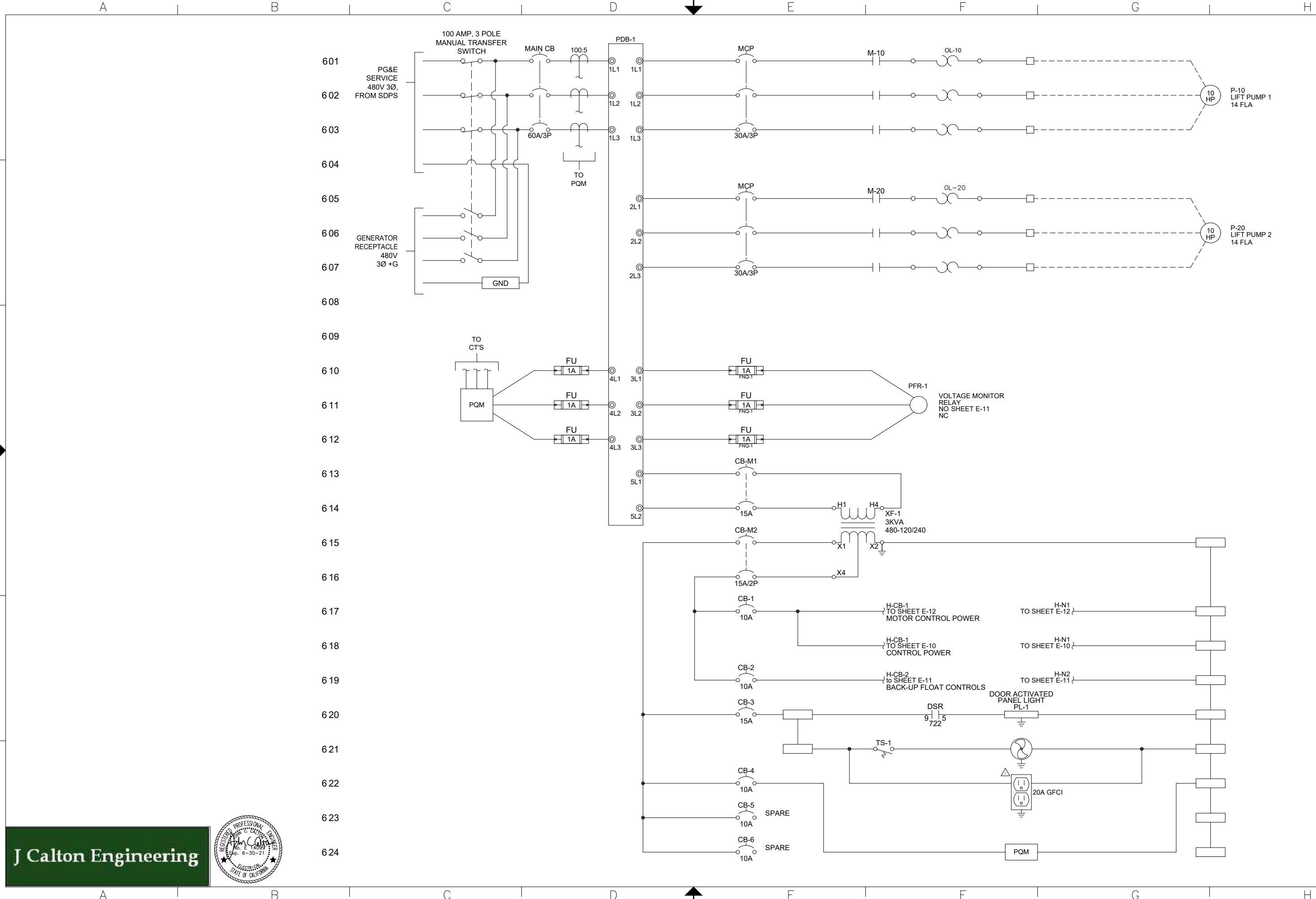
SCALE: N.T.S.

- NOTES:**
1. BACK PANEL LAYOUT TO BE DESIGNED AND SUBMITTED BY PANEL SUPPLIER AND APPROVED BY OWNER AND ENGINEER PRIOR TO FABRICATION. REFER TO SPECIFICATIONS FOR SHOP DRAWING SUBMITTAL REQUIREMENTS.
 2. INTRINSICALLY SAFE WIRING NEEDS TO BE PHYSICALLY SEPARATED OR IN SEPARATE CONDUITS FROM OTHER WIRING FROM FIELD CONDUITS TO INTRINSICALLY SAFE ENCLOSURE.
 3. POWER QUALITY METER CURRENT TRANSFORMERS NOT SHOWN. ATTACH TO LOAD SIDE CABLES OF MAIN CIRCUIT BREAKER.

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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PUMP CONTROL PANEL - BACK PANEL LAYOUT			
SHEET			
E-8			
17 OF 27			

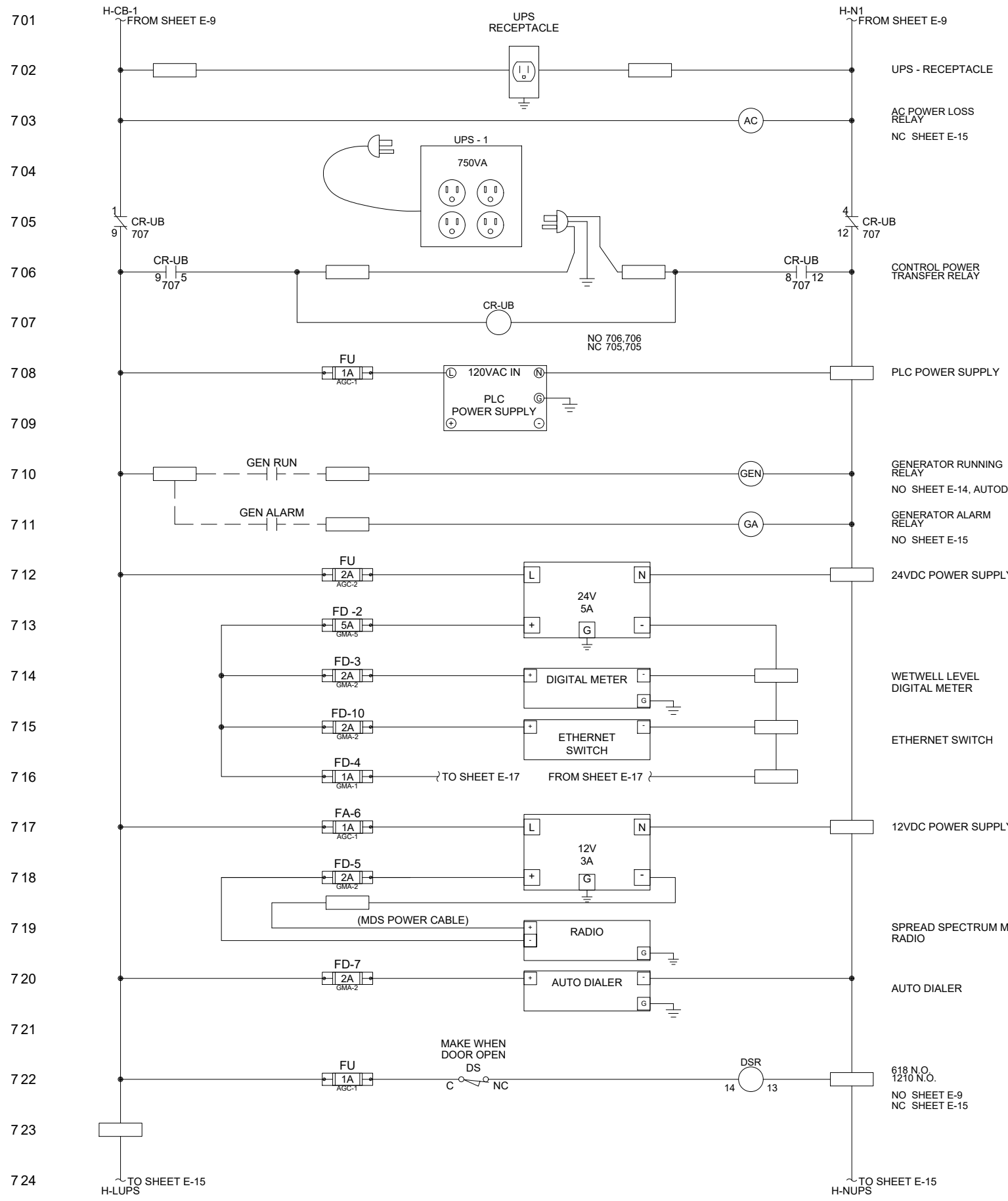
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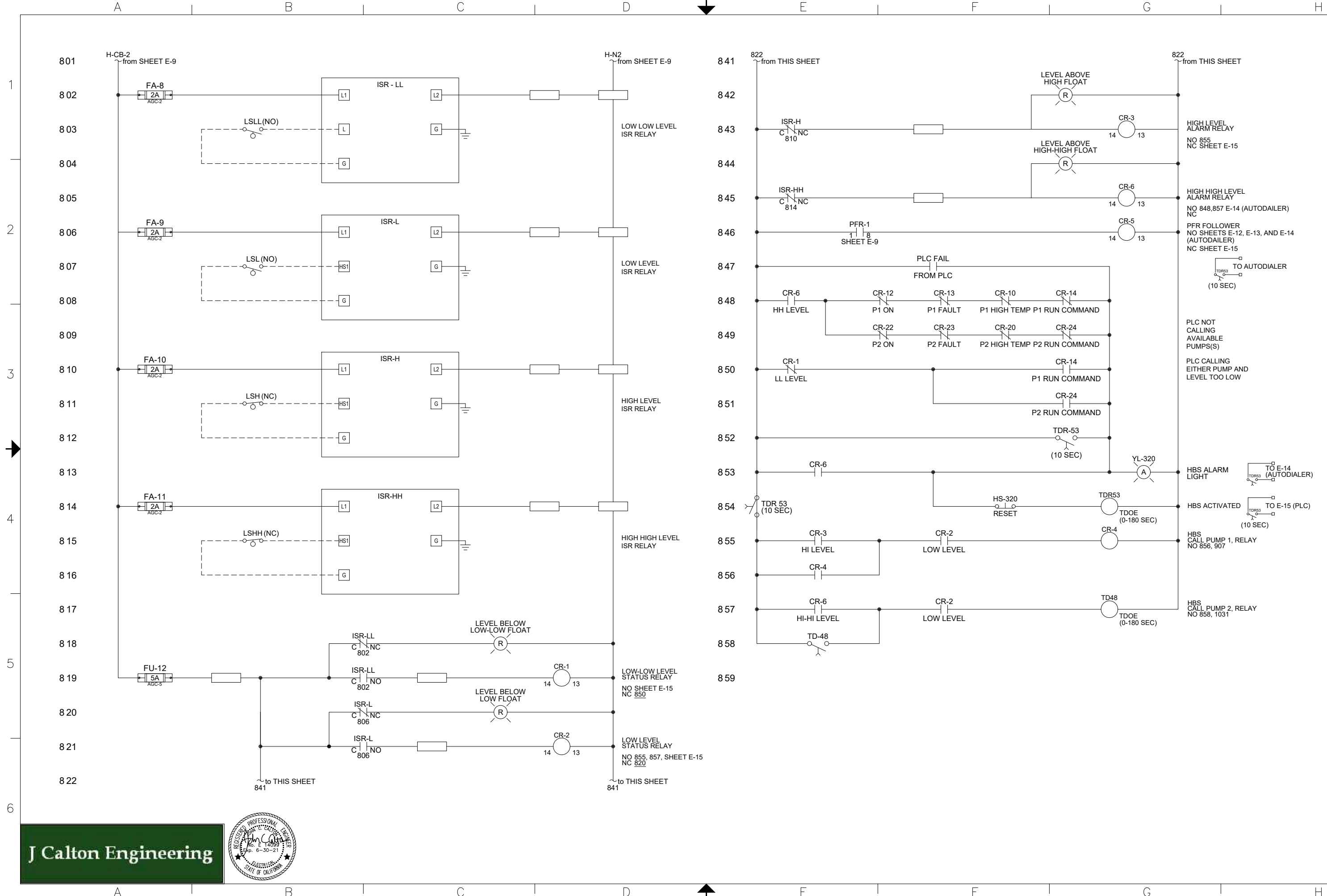
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PROJECT NUMBER C66501519			
 NUTE ENGINEERING 907 MISSION AVE. SAN RAFAEL, CALIFORNIA 94901 TEL: 415-453-4480 FAX: 415-453-0343			
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PUMP CONTROL PANEL POWER DISTRIBUTION - 1			
SHEET E-9			
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PUMP CONTROL PANEL POWER DISTRIBUTION - 2			
SHEET E-10			
19 OF 27			

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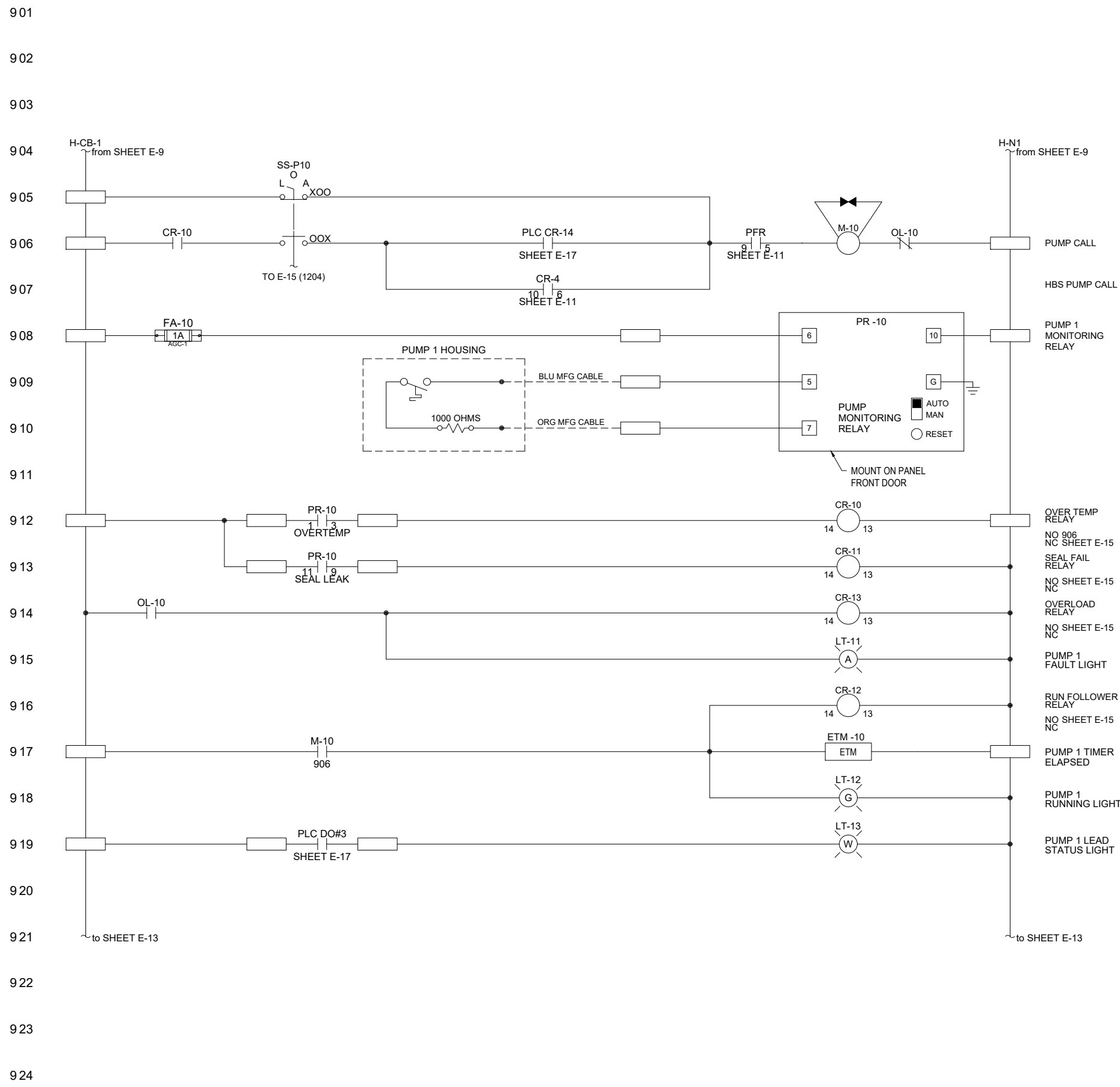


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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE HBS CONTROL WIRING DIAGRAM		
SHEET E-11 20 OF 27		



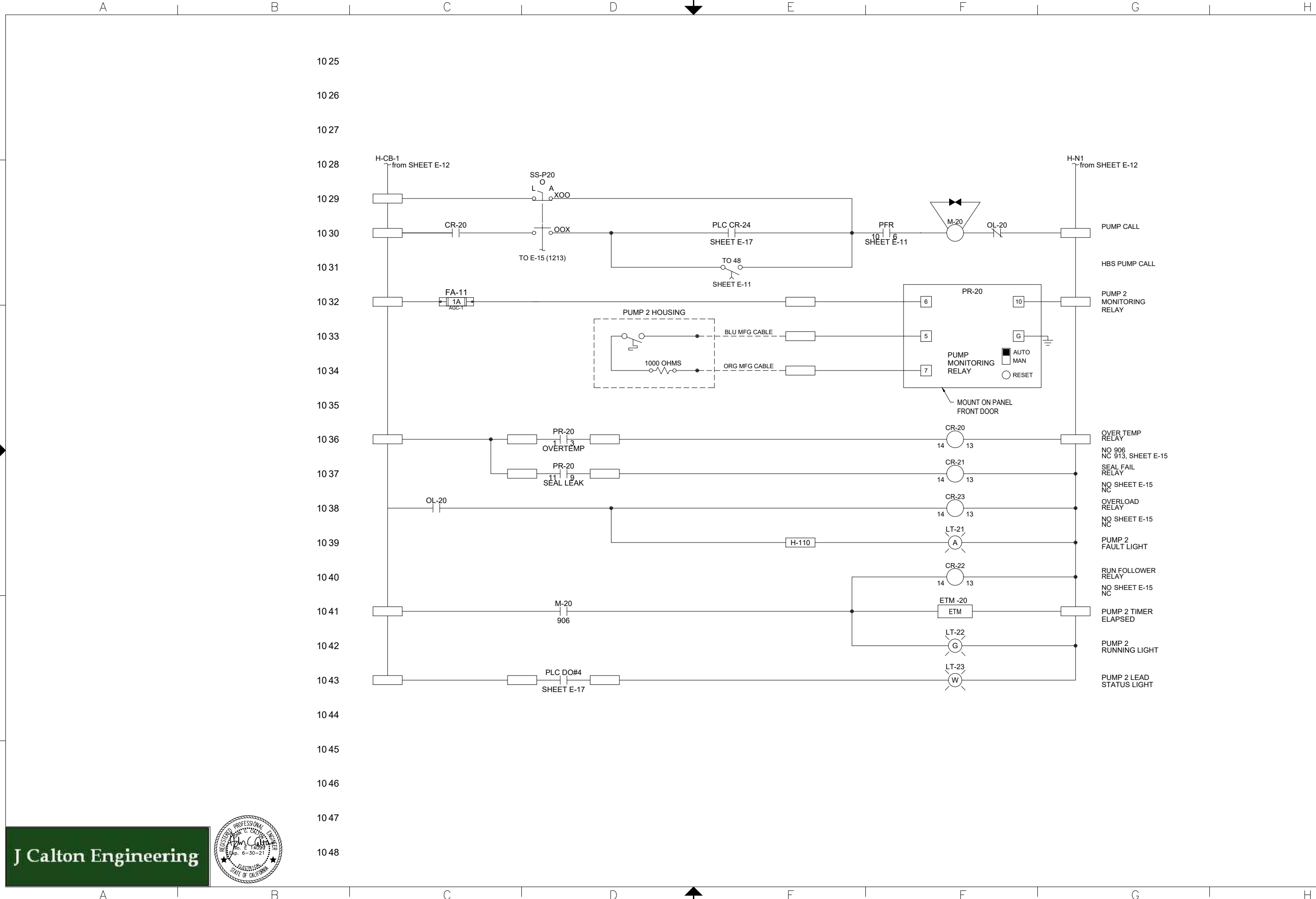
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PUMP 1 SCHEMATIC DIAGRAM			
SHEET E-12			
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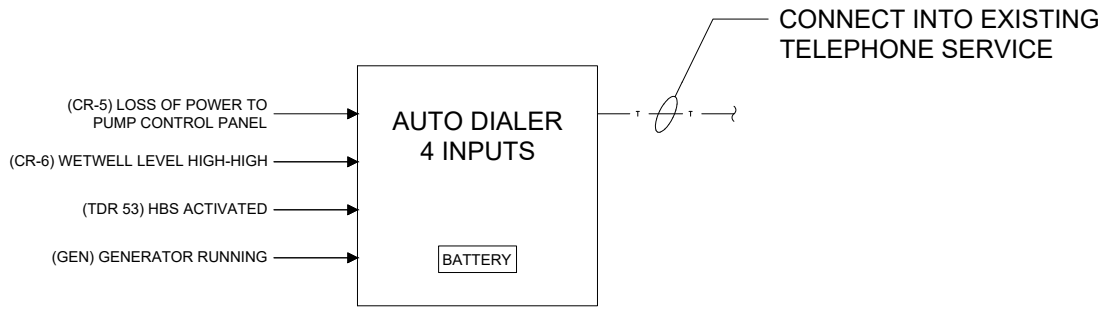
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PUMP 2 SCHEMATIC DIAGRAM			
SHEET E-13			
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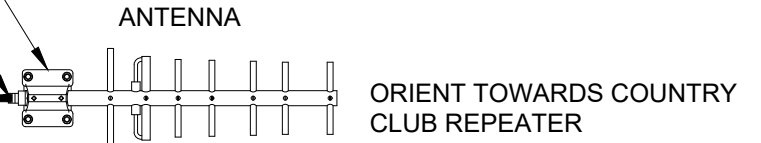
J Calton Engineering

REGISTERED PROFESSIONAL ENGINEER
 No. 14099
 State of California
 6-30-21

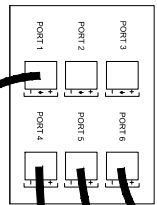


AUTODIALER CONNECTION DIAGRAM
SCALE: N.T.S.

MOUNT TO LIGHT POLE NEAR PAYRAN
STORM WATER PUMP STATION (SEE SHEET E-5)
WEATHER PROOF SPLICE KIT



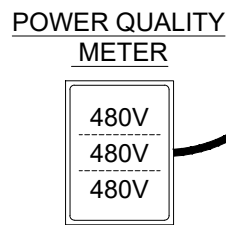
ETHERNET SWITCH



MODICON M340 PLC W/ 12 SLOT CHASSIS

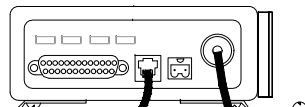
PS	CPU	COM	DI	DI	DO	AI	SPACES

CAT6 CABLE, SWITCH TO PQM

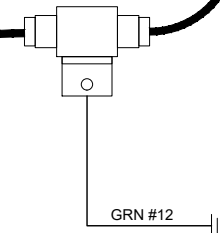


CAT6 CABLE, SWITCH TO RADIO

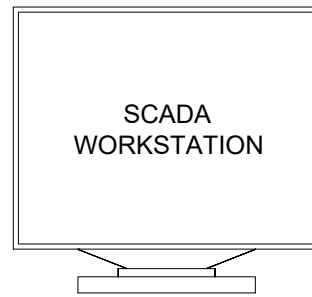
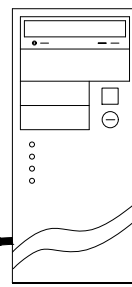
MDS RADIO



POLYPHASER IS-50NX-C2



CAT6 CABLE, SWITCH TO WORKSTATION



NETWORK BLOCK DIAGRAM
SCALE: N.T.S.

1/2" COAX ANTENNA CABLE

FLEXIBLE COAX CABLE

- NOTES:**
1. PLC, RADIO, AND SCADA WORK STATION PROGRAMMING SHALL BE BY THE CITY PROGRAMMER, ARCSINE ENGINEERING. REFER TO SPECIFICATIONS FOR TABLE OF RESPONSIBILITIES.

DATE: AUG 2020
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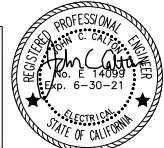
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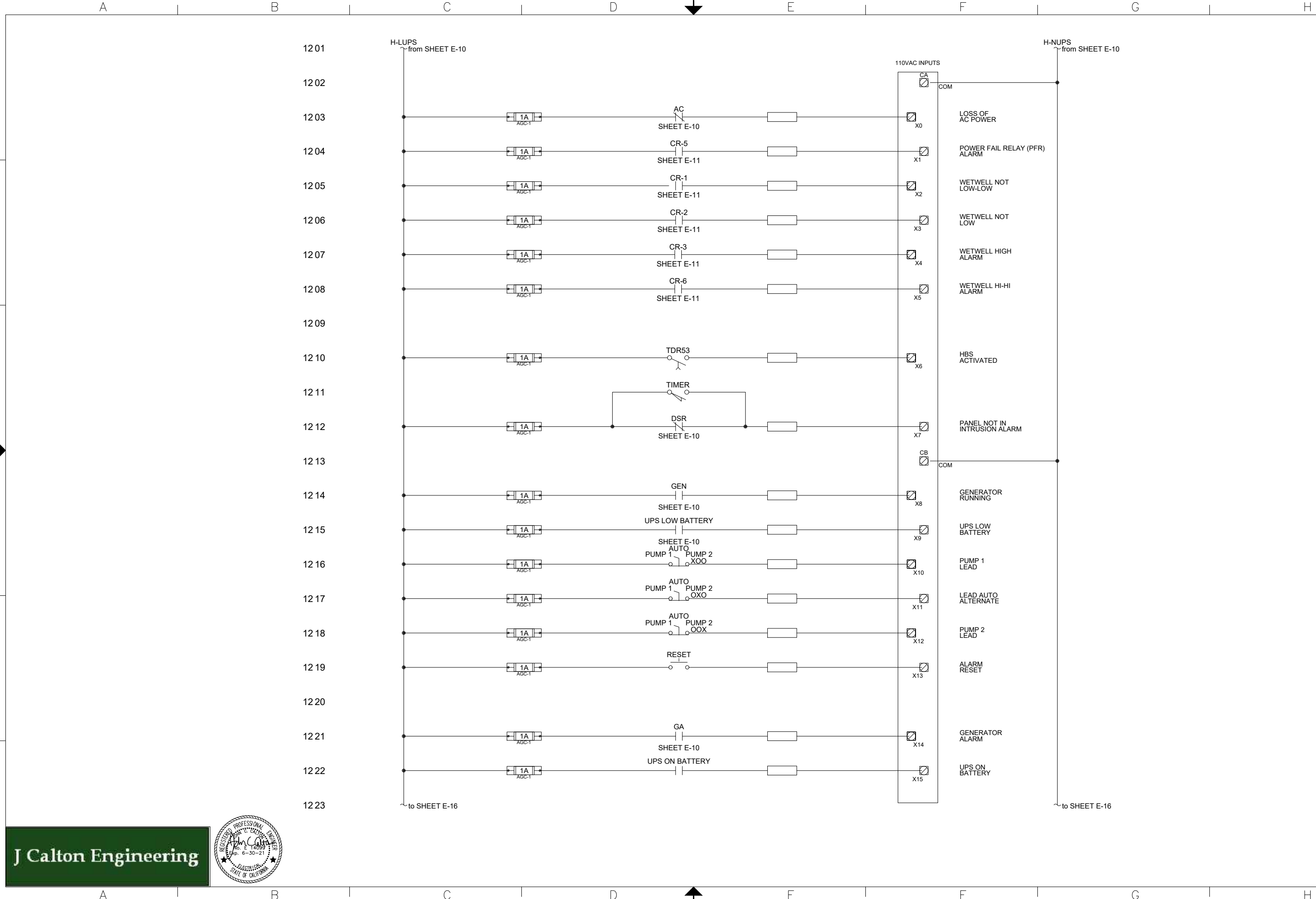
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PAYRAN LIFT STATION REHABILITATION
8-12 JESS AVENUE
AUTODIALER AND NETWORK BLOCK DIAGRAM

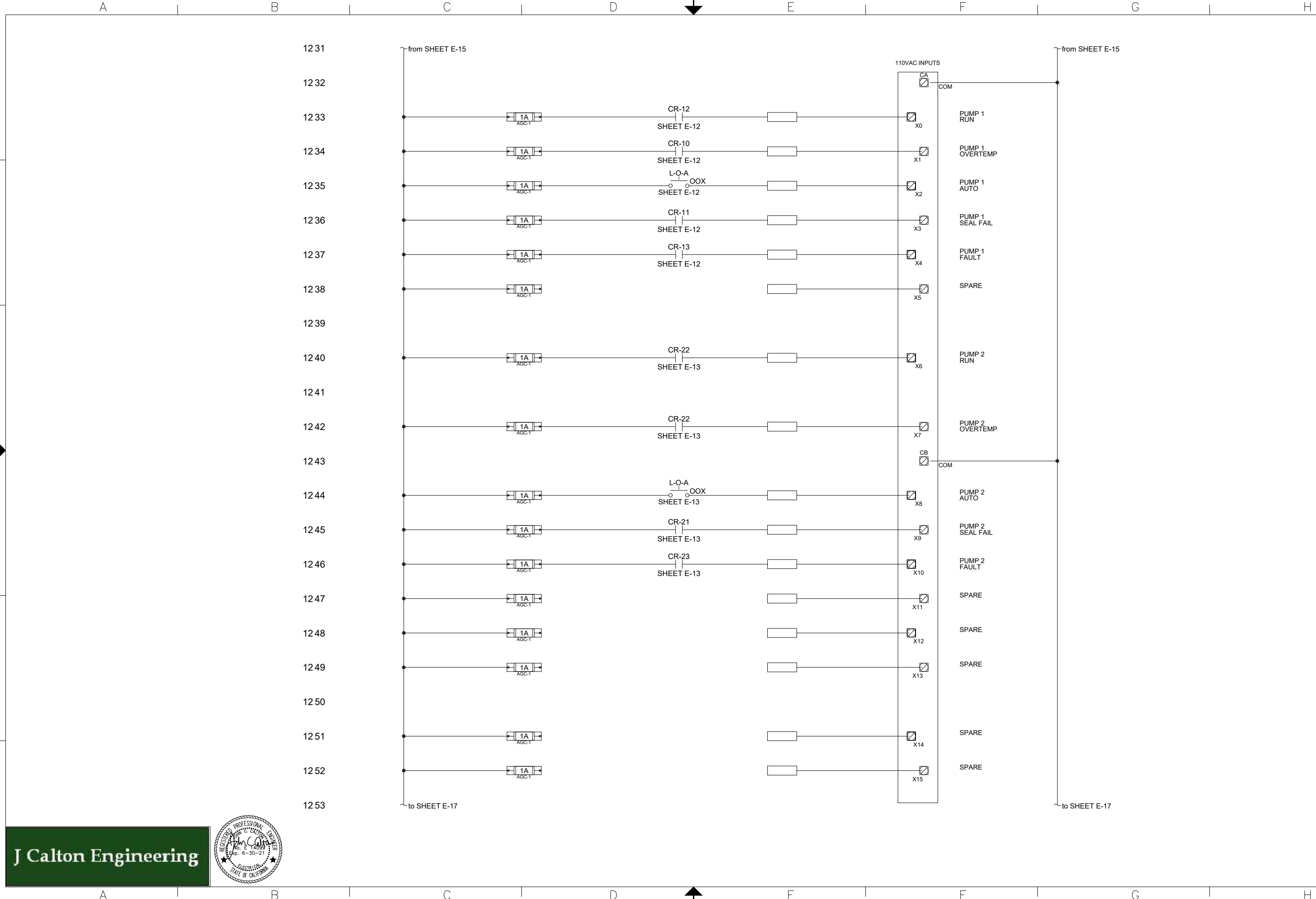


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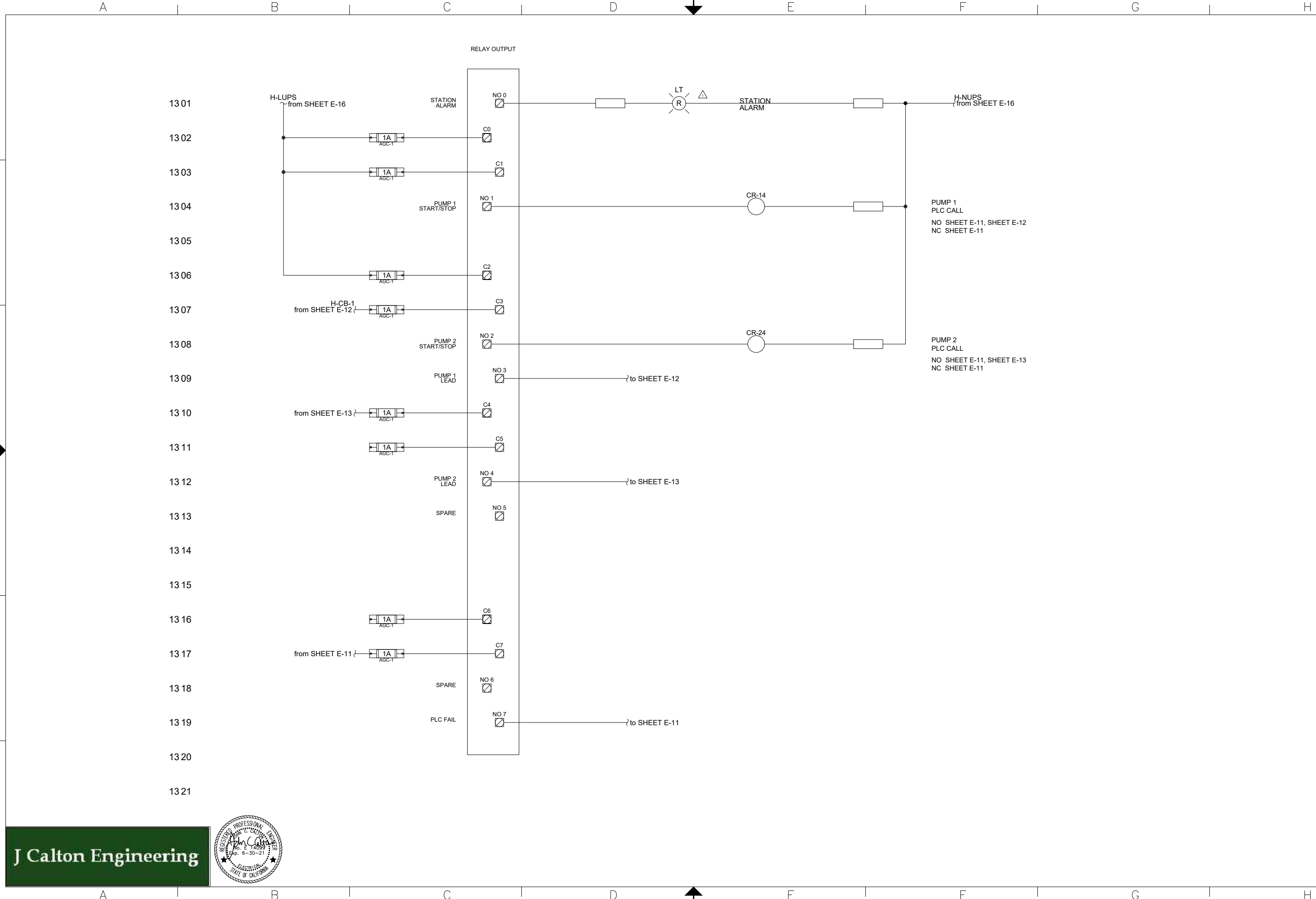
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PLC DISCRETE INPUT WIRING DIAGRAM - 1			
SHEET E-15			
24 OF 27			

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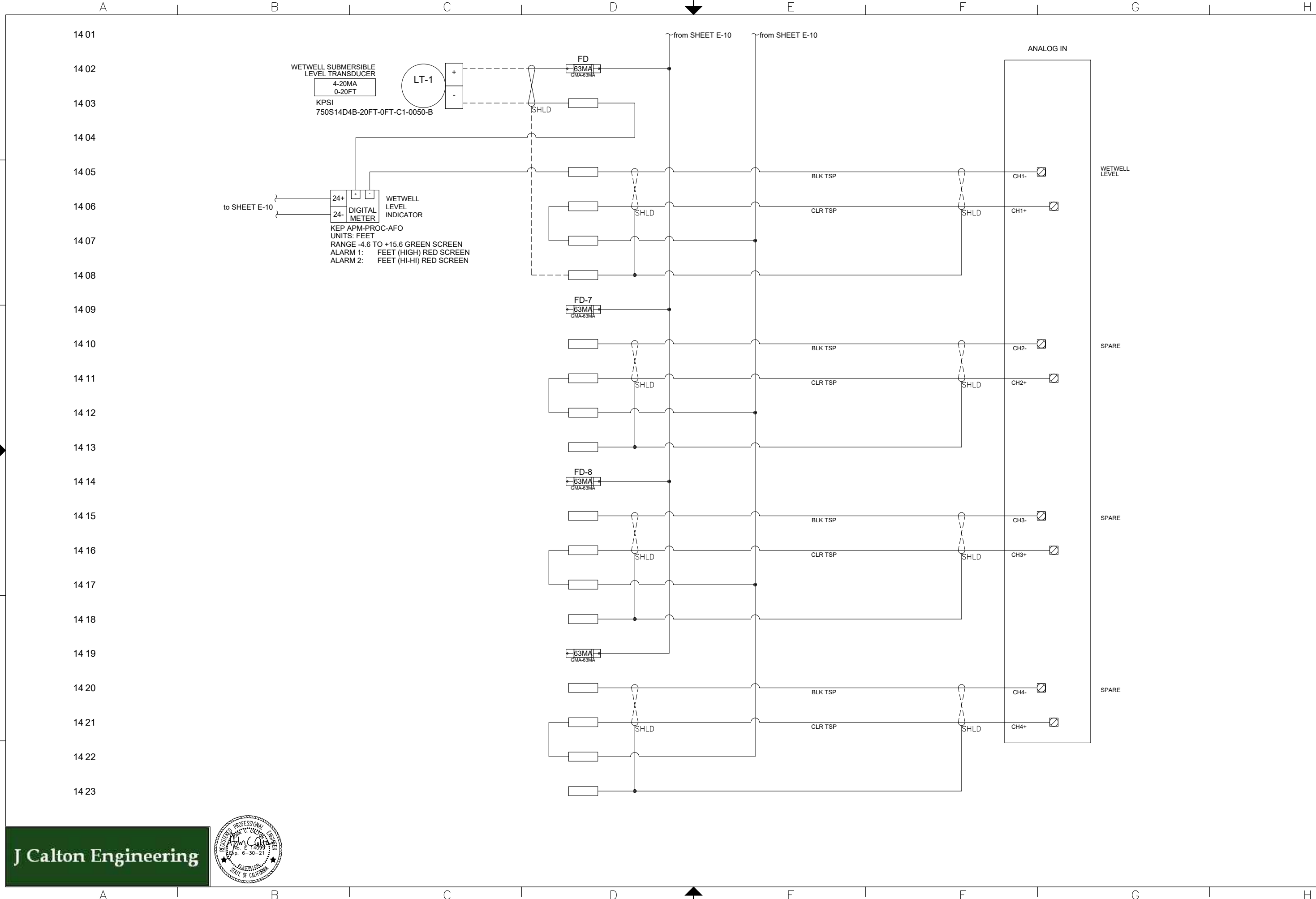
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PROJECT NUMBER C66501519			
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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PLC DISCRETE INPUT WIRING DIAGRAM - 2			
SHEET E-16			
25 OF 27			

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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PLC DISCRETE OUTPUT WIRING DIAGRAM			
SHEET E-17			
26 OF 27			

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PAYRAN LIFT STATION REHABILITATION 8-12 JESS AVENUE PLC ANALOG INPUT WIRING DIAGRAM			
SHEET			
E-18			
27 OF 27			

J Calton Engineering

REGISTERED PROFESSIONAL ENGINEER
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 No. 14099
 6-30-21
 STATE OF CALIFORNIA