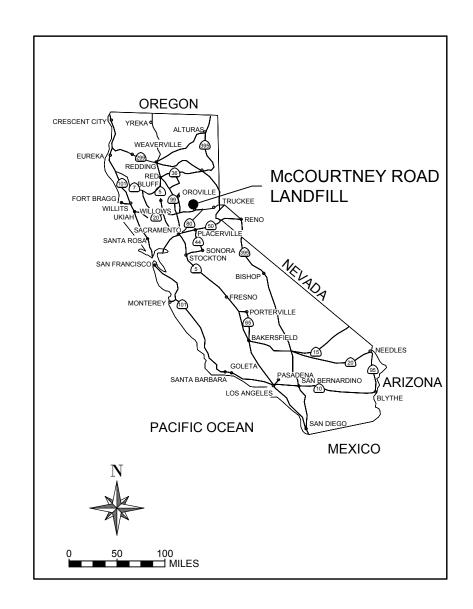
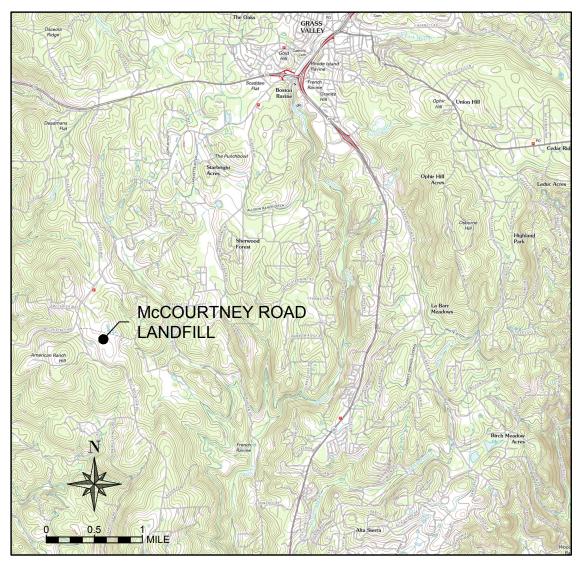
McCOURTNEY ROAD LANDFILL

LEACHATE PUMP IMPROVEMENTS COUNTY OF NEVADA, CALIFORNIA

FEBRUARY 2016
UPDATED JUNE 2016





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PLANS PREPARED BY:

LAWRENCE & ASSOCIATES

3590 IRON COURT SHASTA LAKE, CA 96019



JESSE SOLORIO RCE 65305

PLANS PREPARED FOR:

COUNTY OF NEVADA 950 MAIDU AVENUE NEVADA CITY, CA 95959

STANDARD GENERAL NOTES

- THE CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO THESE PLANS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK - CURRENT EDITION).
- ANY CHANGES TO THESE PLANS MUST RECEIVE PRIOR APPROVAL FROM LAWRENCE & ASSOCIATES.
- NOTIFY THE OWNER 48 HOURS IN ADVANCE OF ANY WORK.
- CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY LAWRENCE & ASSOCIATES OF ANY DIFFERENCE FROM THAT SHOWN ON THE PLAN.
- 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. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED, AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING, AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING, SHORING, BRACING, OR EQUIVALENT METHOD, FOR THE PROTECTION OF LIFE OR LIMB.
- CONTRACTOR'S CONSTRUCTION PRACTICES SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
- THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOB SITE.
- ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED WITHIN THESE PLANS, THE CONTRACTOR SHALL CONTACT LAWRENCE & ASSOCIATES AT (530) 275-4800 FOR FURTHER EXPLANATION, AS MAY BE NECESSARY
- UNLESS OTHERWISE NOTED, THE WORD "INSTALL" SHALL INCLUDE THE PURCHASE, DELIVERY, PLACEMENT, AND CONNECTION OF ITEMS DESCRIBED ON THESE PLANS AND ALL APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.

SOIL NOTES

- CONTRACTOR SHALL EXCAVATE TRENCH FOR ANY PROPOSED PIPE AND ELECTRICAL CONDUIT AND BACKFILL WITH APPROVED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS WITH SIMILAR MATERIALS AS REMOVED. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR AT A MOISTURE CONTENT OF 0-4% ABOVE OPTIMUM
- COMPACTED GENERAL FILL SHALL CONSIST OF SIMILAR MATERIALS AS REMOVED AND BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR
- GRANULAR MATERIAL SHALL BE CLASSIFIED AS CLASS 2 COMPACTED TO 95% STANDARD PROCTOR (ASTM D698).
- COMPACTED ROAD GRAVEL SHALL CONSIST OF CALTRANS 3/4" CLASS 2 AGGREGATE COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR
- 5. ALL BURIED CONDUIT AND PIPE SHALL HAVE DETECTION MARKER TAPE INSTALLED IN TRENCH.

ELECTRICAL NOTES

- 1. ALL ABOVE GROUND PIPE SHALL BE HEAT TRACED WITH SELF REGULATING 7.5 WATT/LF MINIMUM HEATING CABLE AND INSULATED WITH 2" THICK FIBERGLASS INSULATION WITH WEATHER RESISTANT CASING, OR EQUAL PER MANUFACTURER'S RECOMMENDATION FOR PIPE SIZE AND MINIMUM AMBIENT TEMPERATURE.
- 2. INSTALL ALL EQUIPMENT AND SYSTEMS PER MANUFACTURER'S RECOMMENDATIONS, CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICES, CRANES, SCAFFOLDING AND ANY OTHER EQUIPMENT NECESSARY TO PERFORM THE WORK IN A SAFE AND EXPEDITIOUS MANNER. ALL MATERIALS SHALL BE NEW.
- 3. ALL COMPONENTS UTILIZED IN THE ELECTRICAL INSTALLATION SUCH AS CONDUIT, FITTINGS, PANELS, AND COMPONENTS SHALL BE UL LISTED.
- 4. CONTRACTOR SHALL PROVIDE AS-BUILT ELECTRICAL PLANS, INCLUDING ONE-LINE DIAGRAMS FOR ALL INSTALLED SYSTEMS.

GENERAL PIPE NOTES

- 1. ALL HDPE PIPE SHALL CONFORM WITH ASTM D3550 AND "LEACHATE COLLECTION SYSTEMS" ASTM F714
- 2. ALL HDPE COMPONENTS SHALL BE STANDARD HDPE RESIN PE 3408 OR 4710. ALL FITTINGS SHALL HAVE THE SAME CLASSIFICATION AND RATING EQUAL TO OR EXCEEDING THAT OF THE PIPE.
- 3. ALL HDPE JOINTS SHALL BE JOINED BY BUTT FUSION WELDING METHOD OR ELECTROFUSION.
- 4. ALL PVC PIPE OR FITTINGS SHALL BE SCHEDULE 80.
- 5. CONTRACTOR SHALL ENSURE ALL PIPING IS FREE OF DEBRIS AND OTHER OBSTRUCTIONS PRIOR TO INSTALLATION.

MATERIALS AND WORKMANSHIP

- UNLESS OTHERWISE SPECIFICALLY PROVIDED IN THESE PLANS. ALL EQUIPMENT, MATERIALS, AND OTHER ITEMS SHALL BE NEW AND IN ORIGINAL CONDITION.
- ALL MATERIALS AND EQUIPMENT SHALL BE SUITABLE FOR THE INTENDED USE.
- MATERIALS AND EQUIPMENT USED WITHOUT APPROVAL BY THE OWNER MAY BE REJECTED BY THE OWNER WHETHER INSTALLED
- ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS
- THE CONTRACTOR SHALL PROVIDE A MANUFACTURER AUTHORIZED TECHNICIAN TO VERIFY PROPER SETTINGS AND OPERATION OF THE EPG PUMPING SYSTEMS FOR THE INTENDED USE.

LEGEND

(E) EXISTING, (N) NEW, (TYP) TYPICAL

SITE SAFETY

- 1. THE CONTRACTOR SHALL MAINTAIN A CURRENT COPY OF THEIR GENERAL COMPANY SAFETY PLAN EITHER ON SITE OR WITHIN 1/2 HOUR ROUND-TRIP TRAVEL TIME OF THE SITE. A SITE- SPECIFIC SITE-SAFETY AND HEALTH PLAN SHALL BE KEPT ON SITE ANYTIME WORK IS CONDUCTED WITH HAZARDOUS MATERIALS. THE PLAN SHALL INCLUDE ALL POTENTIAL HAZARDS AND METHODS FOR MITIGATING THE HAZARDS. THE PLAN SHALL INCLUDE DIRECTIONS AND A MAP SHOWING THE WAY TO THE NEAREST HOSPITAL, A LIST OF EMERGENCY PHONE NUMBERS, INCLUDING EMERGENCY SERVICES, THE OWNER, AND THE RESPONSIBLE CONTRACTOR'S BUSINESS, AND HOME PHONE NUMBERS.
- CONTRACTOR SHALL COMPLY WITH ALL OWNER SAFETY POLICIES AND PROCEDURES
- 3. PROVIDE EMPLOYEE PROTECTION FROM NON-HAZARDOUS LANDFILL LEACHATE (ANALYTICAL DATA AVAILABLE ON REQUEST).
- 4. POTENTIAL FOR FLAMMABLE LANDFILL GAS. NO SMOKING ON SITE. NO OPEN FLAME NEAR WORK. CONTRACTOR SHALL PROVIDE EXPLOSIVE GAS AND OXYGEN DEFICIENT MONITORING.

DISPOSAL OF CONSTRUCTION DEBRIS

ALL CONSTRUCTION DEBRIS, INCLUDING CONCRETE SHALL DISPOSED OF AT A CLASS III MUNICIPAL REFUSE FACILITY, OR AS SPECIFICALLY APPROVED IN WRITING FROM THE LOCAL ENFORCEMENT

INSTALLATION OF NEW MATERIALS

PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL PROVIDE TO THE OWNER. A SCHEDULE SHOWING DEADLINES FOR COMPLETION OF SIGNIFICANT GROUPS OF WORK.

SCOPE OF WORK

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF THE FOLLOWING ITEMS

<u>PS-1</u>

- 1. PROVIDE FOR TEMPORARY LEACHATE STORAGE AND DIVERSION DURING CONSTRUCTION. LEACHATE MAY BE HAULED TO LEACHATE TANK FARM
- 2. DRAIN EXISTING LEACHATE PIPES PRIOR TO WORK. CAPTURE ALL LEACHATE.
- REMOVE TWO (2) EXISTING 40-GPM TURBINE PUMPS AND ONE (1) 500-GPM PUMP AND INSTALL TWO (2) EPG 2-HP SURE PUMPS AND ONE (1) 80-GPM
- INSTALL NEW WIRING, LEVEL SENSORS, AND FLOW METERS WITH EACH NEWLY INSTALLED PUMP.
- REMOVE ABOVE GROUND FIBERGLASS PUMP ENCLOSURE AND STOCKPILE ON-SITE.
- 6. REMOVE EXISTING THREE (3) PUMP CONTROL PANELS AND REPLACE WITH EPG L950PT DUPLEX (LEAD/LAG) PUMP CONTROL PANEL AND STARTER FLOAT SWITCH PUMP PANEL WITH HAND-AUTO-OFF SETTING.
- 7. REMOVE ALL EXISTING HEAT TRACING AND PIPE JACKETING ON 6-INCH PS-1 LEACHATE INFLOW LINE AND 6-INCH PS-1 LEACHATE OUTFLOW LINE AND
- REMOVE EXISTING WOOD PIPE SUPPORTS FOR 6-INCH LEACHATE INFLOW LINE AND REPLACE WITH CONCRETE SUPPORTS AND RE-PLUMB 6-INCH FLOW METER.
- REFURBISH LEACHATE CONTROL VALVE ASSEMBLY INCLUDING, INSTALL 2" EPG FLOW METER, INSTALL 6-INCH BLIND FLANGE, REPLACE 6-INCH OUTLET GATE
- 10. REMOVE EXISTING STEEL FLOAT SWITCH HANGER.

PS-2

- EXCAVATE AND CUT FNDS OF 12-INCH LEACHATE RISER PIPE AND 12-INCH LEACHATE LEAK DETECTION RISER PIPE AND INSTALL NEW PIPE SECTIONS AND
- 2. INSTALL WHEELED ½-HP EPG SURE PUMP IN 12-INCH LCRS RISER PIPE AND 1.5-INCH INSULATED DISCHARGE PIPING WITH HEAT TRACER TAPE IN PIPE
- REMOVE TWO (2) LEACHATE CONTROL PANELS AND REPLACE WITH EPG CONTROL
- INSTALL NEW WIRING TO PUMP, LEVEL SENSOR, AND FLOW METER. INSTALL NEW LEVEL SENSOR AND FLOW METER.
- SLOPE GROUND SURFACE AT LEACHATE RISER AREA TO DRAIN AT 2% TOWARDS

GENERAL CONDITIONS

- THE GENERAL CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, AND OTHER FACILITIES, UNLESS SPECIFICALLY STATED OTHERWISE IN THESE DOCUMENTS. ANY ITEMS DAMAGED OR DESTROYED BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL SUBCONTRACTORS AND INSPECTION OF THEIR WORK. THE GENERAL CONTRACTOR WILL BE HELD RESPONSIBLE AND FINANCIALLY ACCOUNTABLE FOR DEFICIENCIES IN SUBCONTRACTORS WORK
- ALL WORK SHALL BE PROVIDED COMPLETE IN PLACE, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, FEES, AND APPURTENANCES TO INSTALL THE WORK IN OPERATING CONDITION IN A WORKMAN LIKE MANNER.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY LEACHATE SYSTEM DURING CONSTRUCTION, TEMPORARY DRAFT PUMP IS ON SITE, VERIFY WITH LANDFILL,

LICENSING AND EXPERIENCE REQUIREMENTS

THE CONTRACTOR SHALL POSSESS A CLASS A CURRENT CALIFORNIA CONTRACTOR'S LICENSE.

PAYMENT

PAYMENT SHALL INCLUDE ALL MOBILIZATION, SALES TAXES, SHIPPING, TRANSPORTATION MATERIALS, LABOR, SUPERINTENDENCE, AND INCIDENTALS TO CONSTRUCT THE WORK COMPLETE IN PLACE.

IF THE OWNER REQUESTS A CHANGE IN WORK, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR CHANGE ORDER FOR APPROVAL BEFORE PERFORMING THE WORK. EXTRA WORK PERFORMED WITHOUT PRIOR APPROVAL WILL NOT BE PAID.

SUBMITTALS

- VERIFY PUMPS MEET HEAD AND FLOW REQUIREMENT AND SUBMIT SUPPLIER VERIFICATION.
- SUBMIT ELECTRICAL PANEL LAYOUT FOR APPROVAL.
- SUBMIT CONTRACTOR DESIGN OF BACKUP PUMP, FLOAT SWITCH, AND STARTER PANEL.

P:\013007 MCCOURTNEY ROAD LANDEILL\LEACHATE IMPROVEMENTS 16.6.27 dwg.LR B. 6/27/201

NO. DATE REVISIONS BY CHK PROJECT NO 013007.00 SCALE: DRAWN BY J. BEERS NTS ENGINEER DATE: J. SOLORIO CHECKED BY: DATE: I. MCFADDEI

ORIGINAL SCALE IN INCHES



McCOURTNEY ROAD LANDFILL

NEVADA COUNTY

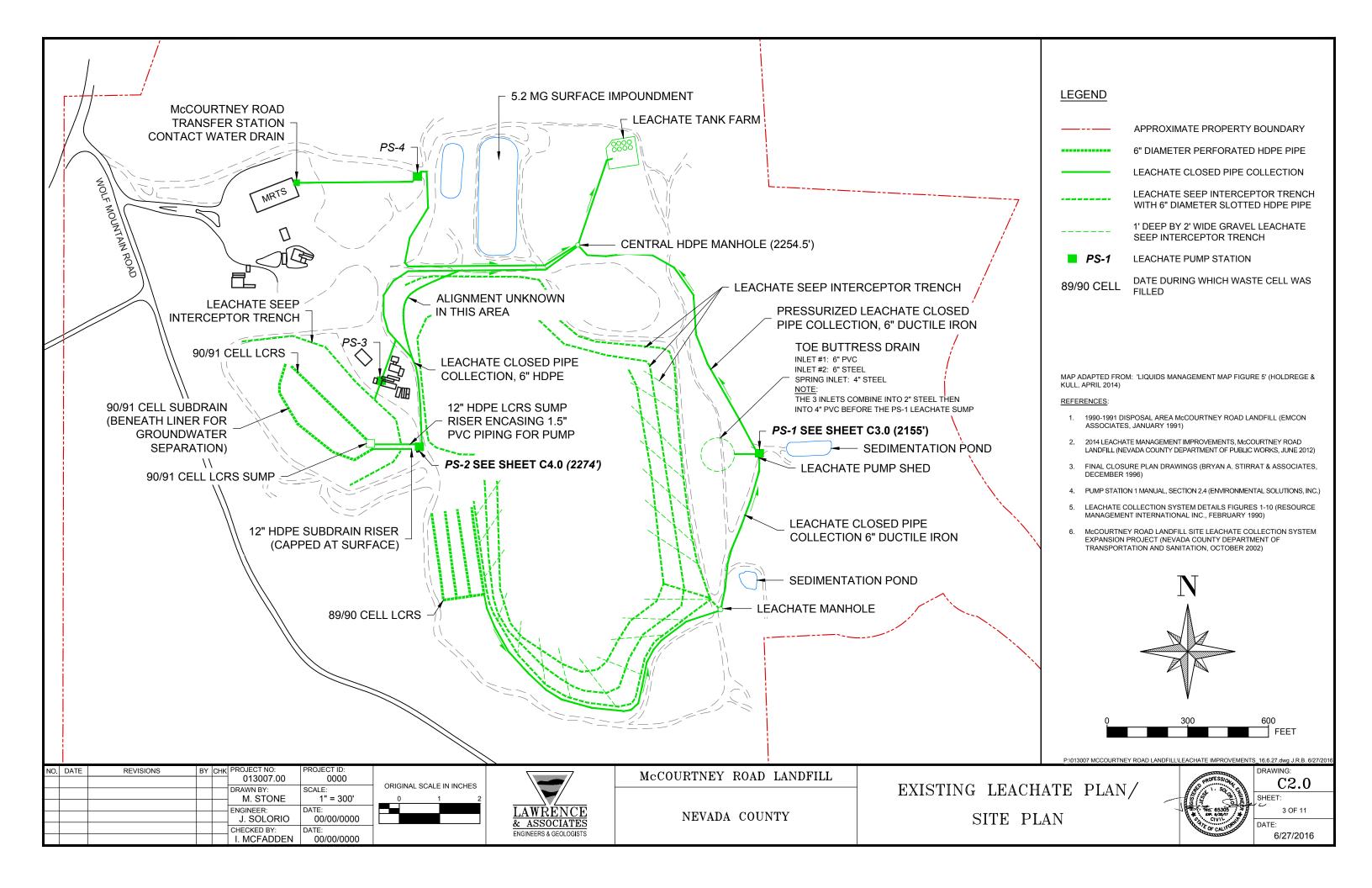
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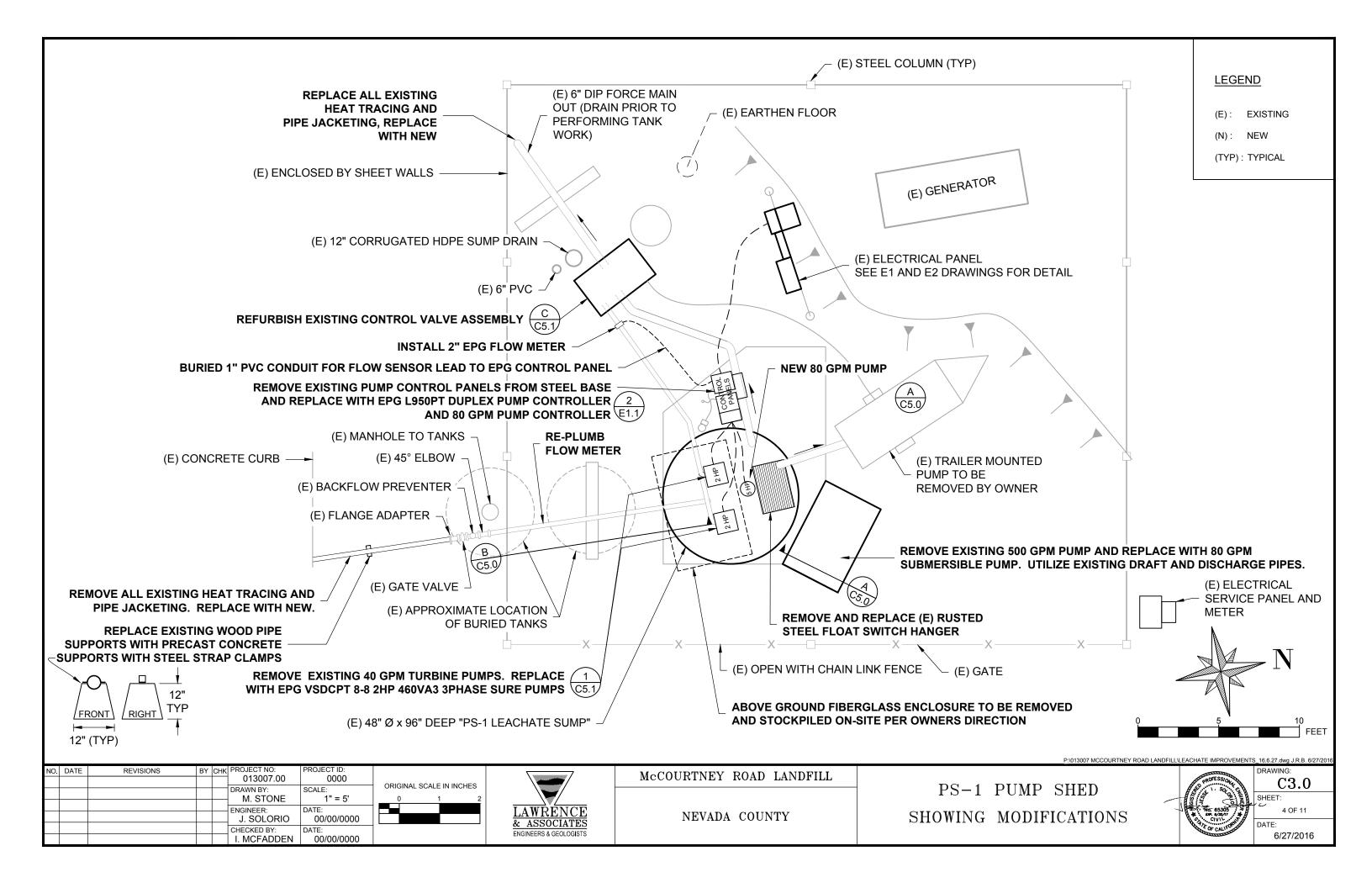


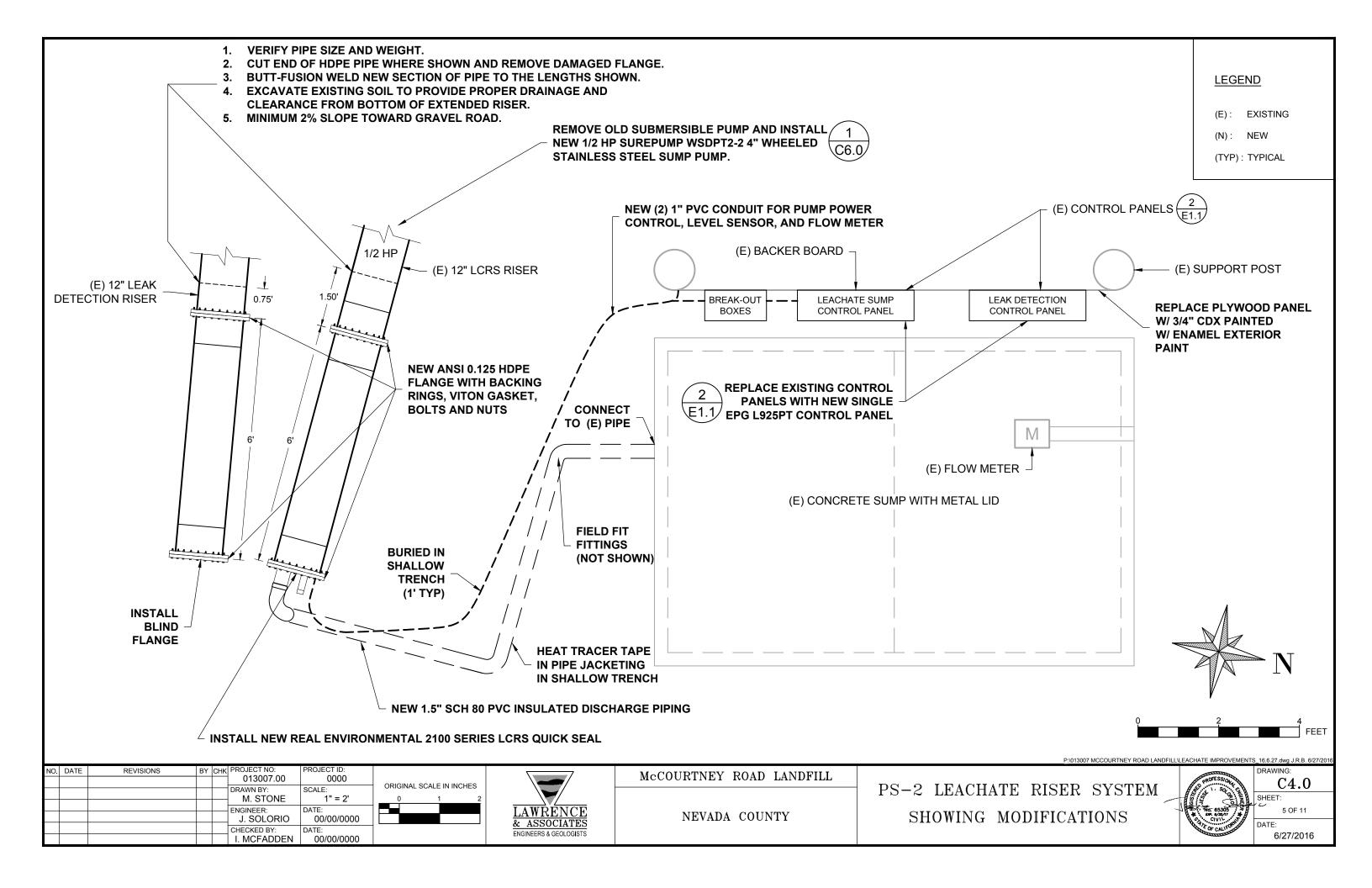
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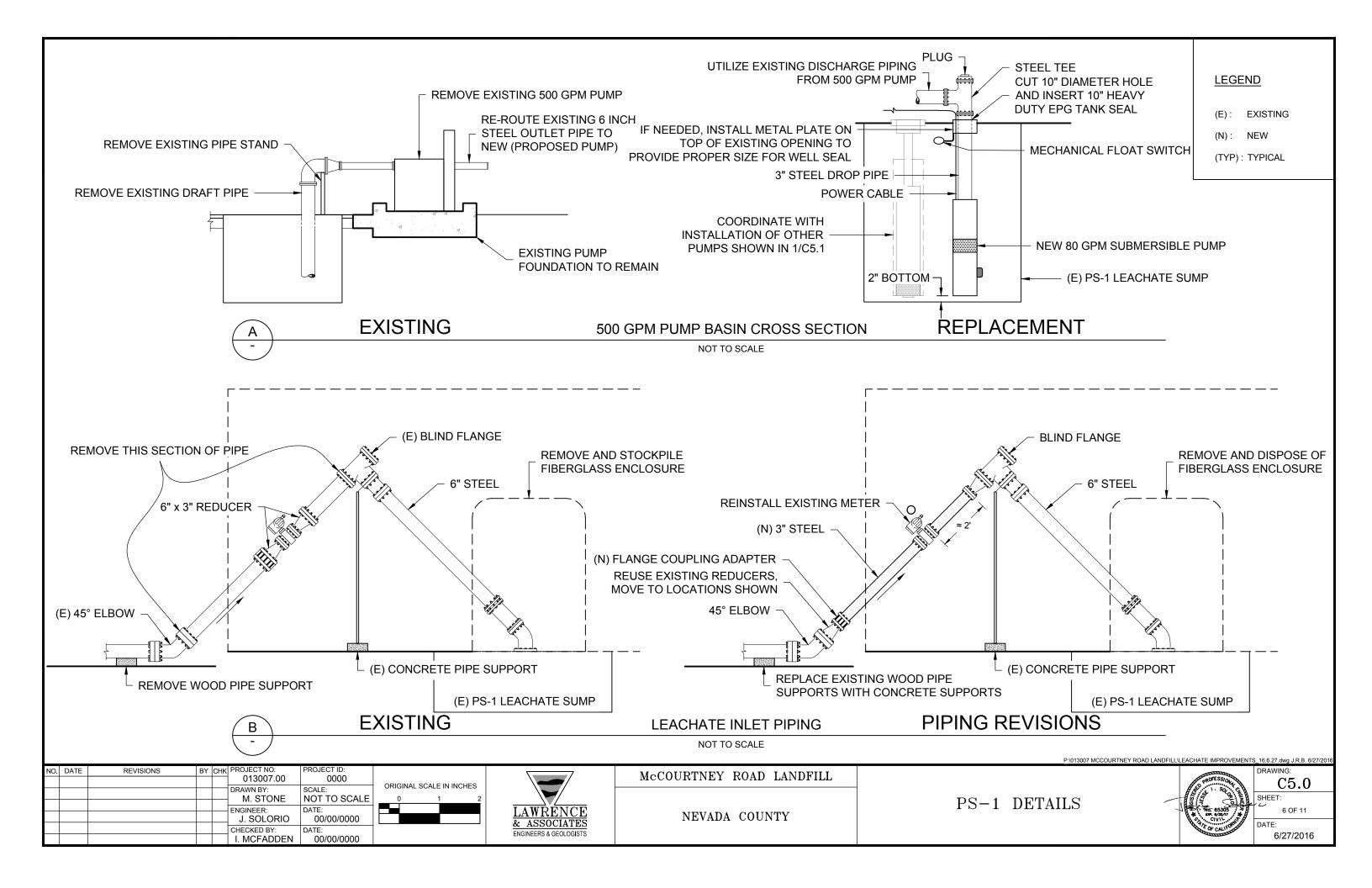
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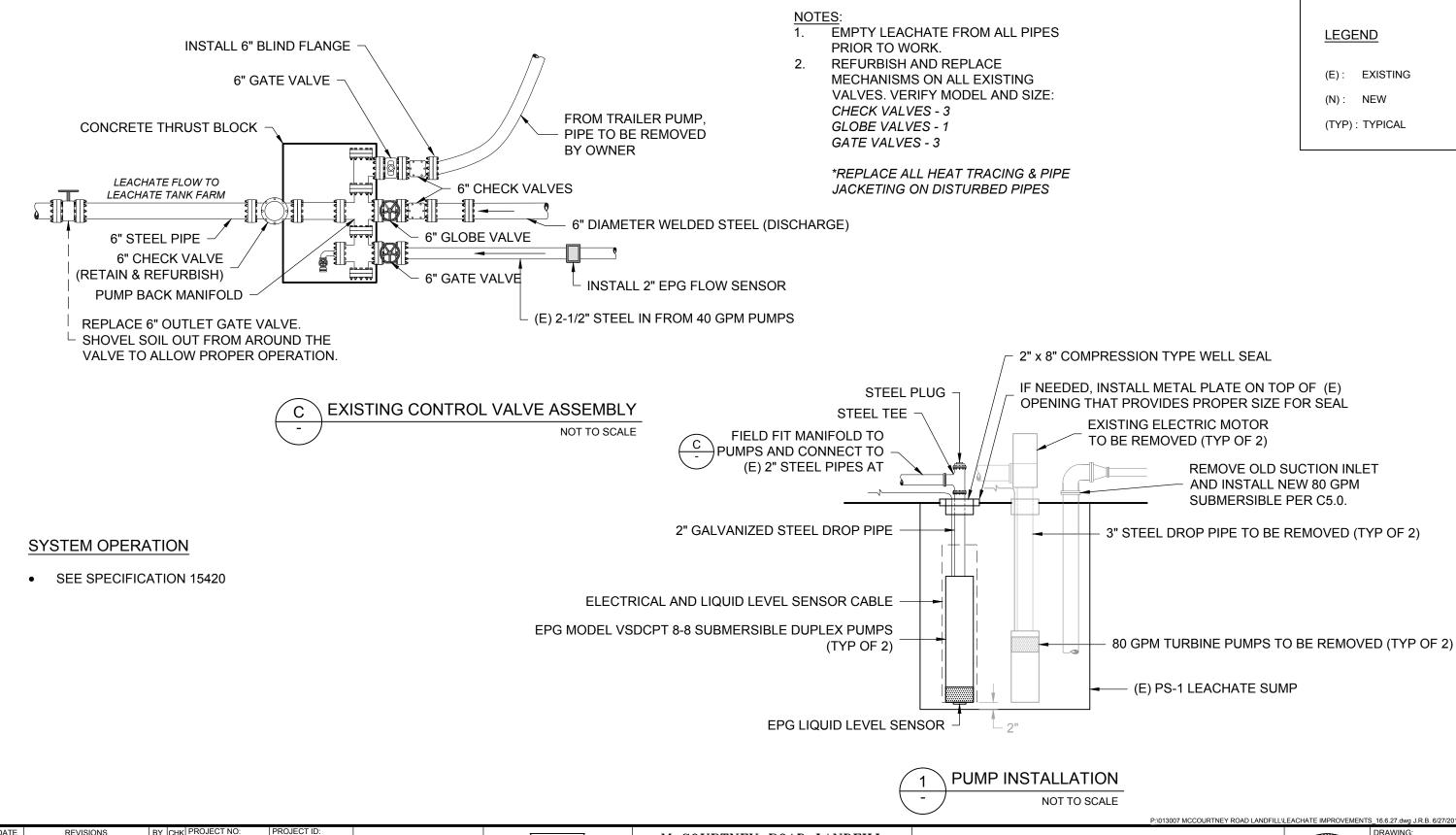
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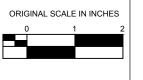








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McCOURTNEY ROAD LANDFILL

NEVADA COUNTY

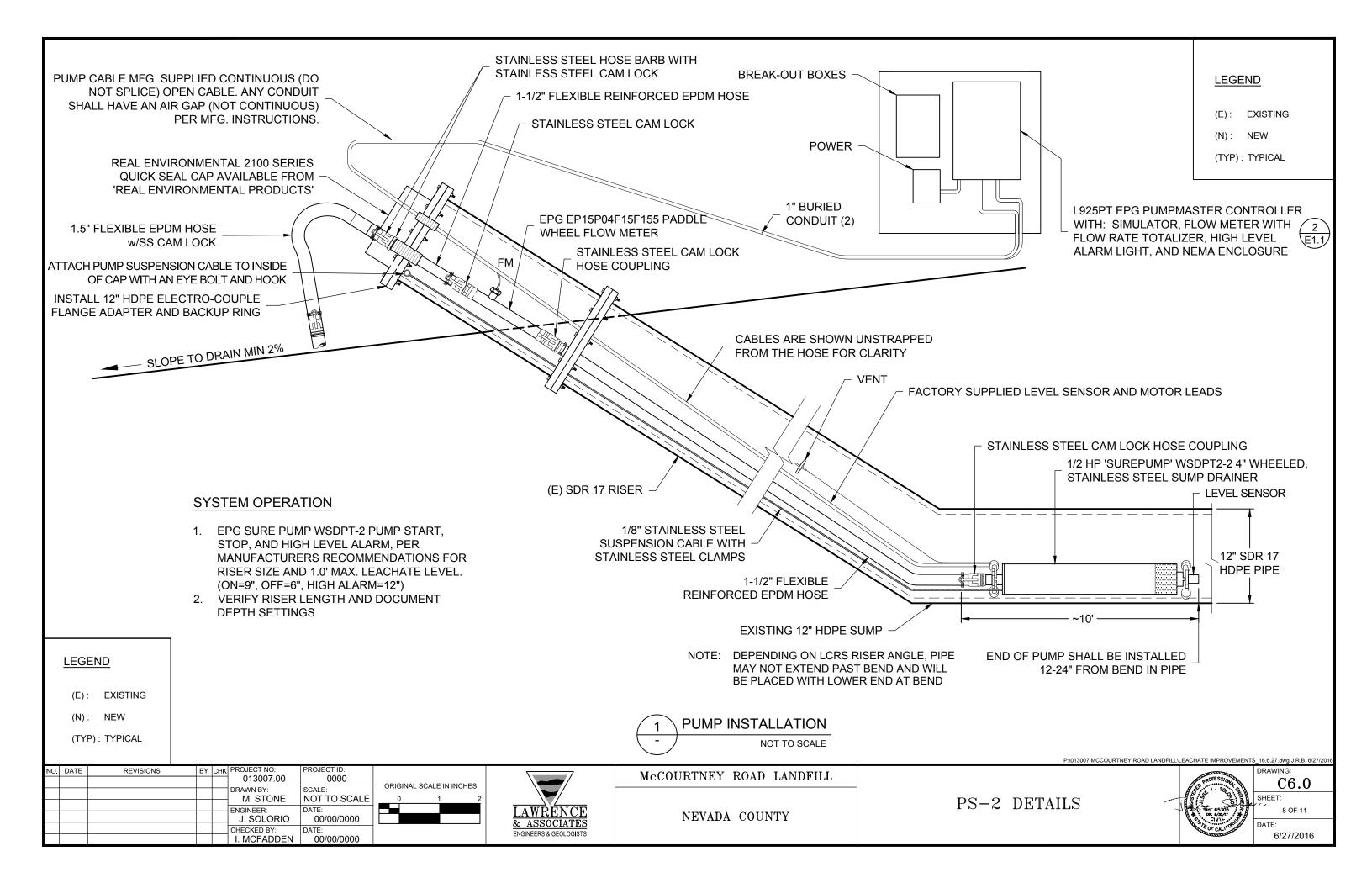
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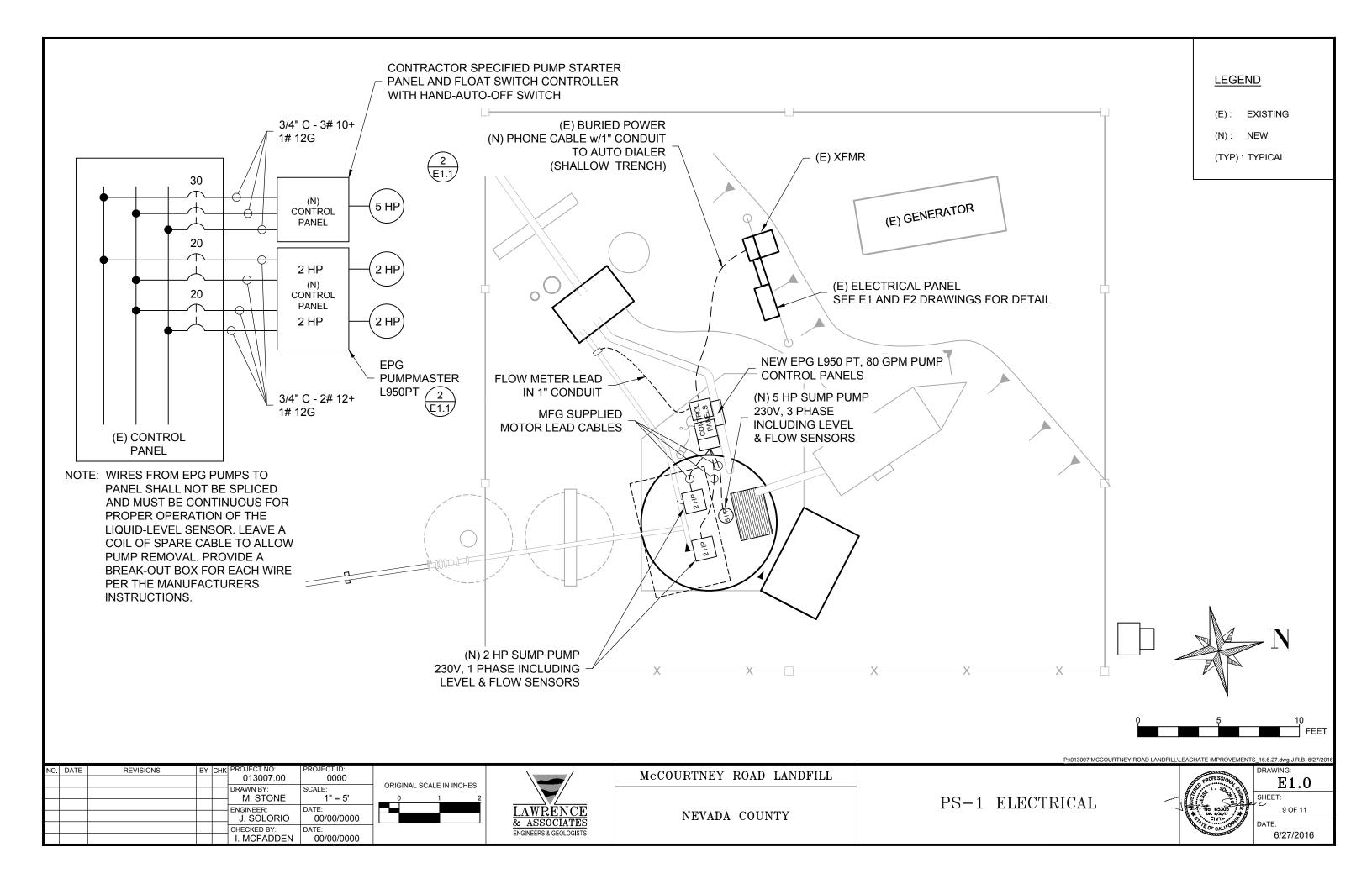


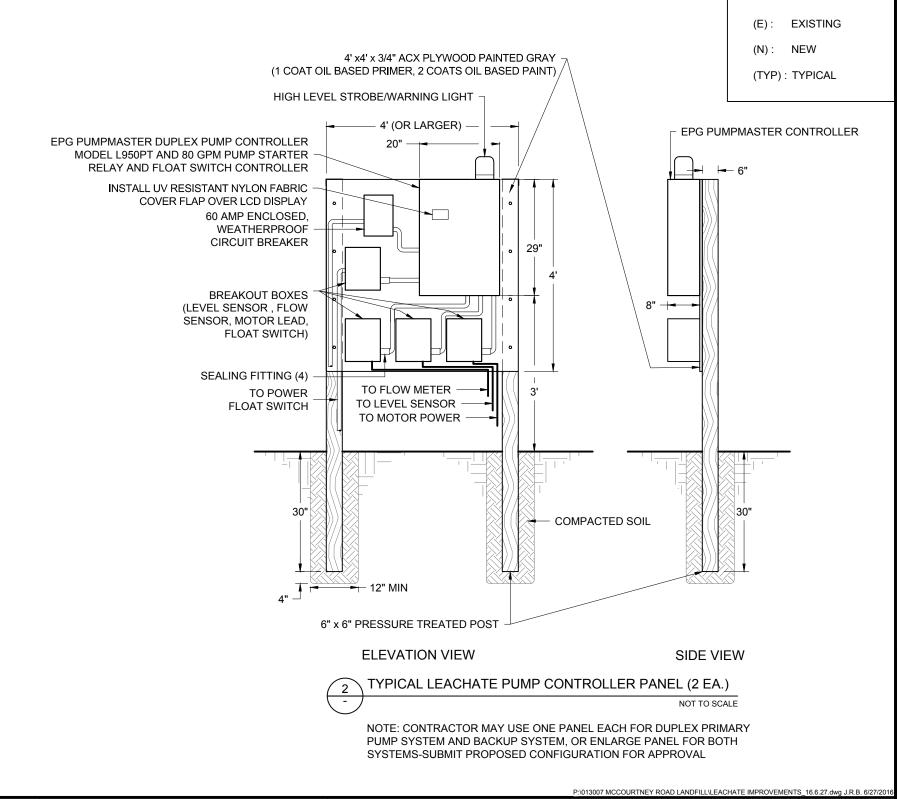
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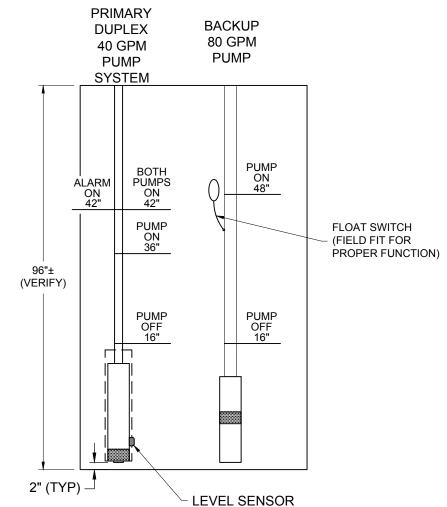
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SCHEMATIC PUMP DIAGRAM NOT TO SCALE

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ORIGINAL SCALE IN INCHES

& ASSOCIATES ENGINEERS & GEOLOGISTS

McCOURTNEY ROAD LANDFILL

NEVADA COUNTY

PS-1 ELECTRICAL



LEGEND

E1.1 SHEET:

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6/27/2016

