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ADDENDUM NO. 2

Date: September 11, 2023
Project: **Secondary Effluent Line Modifications**
Job No.: 12600-07

To: All Planholders and Prospective Bidders

The following changes and/or clarifications are hereby made to the Contract Documents, and shall become a part of the Contract Documents dated August 2023.

1. **General Note:** As noted in the Scope of Work and the Bid Schedule, this project consists of two phases. The necessity of the Phase 2 will depend on the noted increased flow capacity accomplished with Phase 1 work. Accordingly, the District intends to proceed with the schedule and Notice to Proceed as follows:

Initial Award: Upon issuance of the initial Notice of Award, the District will prepare to issue a Notice to Proceed for **Phase 1 work only**. The anticipated project duration to substantial completion for Phase 1 work is **60 calendar days** from the Notice to Proceed date.

Phase 1 Completion & Testing: Upon completion of Phase 1 work, the District will prepare to test the true capacity of the combined existing 24" line and new parallel 36" line. In order to properly test the capacity, the District intends to use a combination of portable pumps, pond return pumps, and high flow events. The timing of this test will depend on multiple conditions but is anticipated to be complete by early 2024. **Pending the results of this test, if adequate flow capacity is still not provided with Phase 1 work, the District will then issue a Notice to Proceed for Phase 2 Work.**

Phase 2 Work: If necessary, the District will issue a separate Notice to Proceed for Phase 2 Work. It is anticipated that this would be issued during the first quarter of 2024, after testing the capacity of the system is completed. The anticipated project duration to substantial completion for Phase 2 work is **90 calendar days** from the second Notice to Proceed date.

2. **Section 011000 – Summary of Work:** Portions of paragraph 1.3.A have been updated to reflect the separation of the Notices to Proceed for Phase 1 and Phase 2 work as described above. An updated copy of this specification is included with this addendum for reference.
3. **Section 020960 – Temporary Bypass Pumping Systems:** This section has been updated in anticipation of bypass pumping be required for both Phase 1 and Phase 2 work. An updated copy of this specification is included with this addendum for reference.
4. **Sheet C201:** Due to variance in actual field conditions, the routing of the bypass line associated with Phase 1 has been shifted. An updated copy of this sheet is included with this addendum for reference.

In addition, the profile/depth of the new 36" line has been updated to accommodate existing duct banks and conduits on the site.

A note has been added to this sheet to reinstall an existing site glass by tapping the existing 24" line and relocating the site glass. Reference the updated sheet for additional details.

5. **Sheet C401:** Revisions to Manhole Detail #2 and Pipe Connection #3 on this sheet have been conducted to accommodate the change in layout and profile discussed above. A revised version of this sheet, including updates to the location and invert elevation/profile of the 36" pipe, is included with this addendum for reference.
6. **Sheet C402:** This sheet has been updated to include more detail for the 3"x1" containment plastic pipe that is being rerouted to manhole #2 (as part of Phase 2 work). The containment 3"x1" pipe should extend to and through the manhole wall. Inside of the manhole, the pipe transitions to single wall 1" CPVC. A cap or cover should be furnished at the transition point to close the opening at the transition from double wall to single wall pipe. The 1" PVC pipe should be strapped to the wall and floor of the manhole with 316 stainless-steel straps (and anchors). An updated copy of this sheet is included with this addendum for reference.
7. **Sheet C403:** An existing sample pump sits above the concrete-encased 24" HDPE line that is being removed from the CCC Weir Box. As part of Phase 2 work, this sample pump will need to be removed and relocated. An updated copy of this sheet is included with this addendum for reference.
8. **Sheet C404:** The sample pump removed as shown in the updated version of Sheet C403 can be relocated to an existing pad on the north side of the CCC Weir Box. The piping connection for 1" suction and 3/4" discharge to sampling, return, strainer, strainer bypass, and analyzer delivery lines will need to be rerouted and connected to the relocated pump. Exact routing and support can be located in-field with operators. An updated copy of this sheet is included with this addendum for reference.
9. **Sheet E001:** Has been updated to include conduit references as requested in the Q&A section below. An updated copy of this sheet is included with this addendum for reference.
10. **Sheet E002:** Calculations and loads sheet has been updated. An updated copy of this sheet is included with this addendum for reference.

Questions Received from Proposers/Bidders:

The following questions were submitted on or before 9/06/2023, questions that are received after the bid questions deadline may not be answered in addendum. LGVSD responses to the questions are in bold.

1. Please provide a shutdown and temporary bypass plan for the project.

Response: Preliminary information on bypass pumping requirements is provided in Section 020960 – Temporary Bypass Pumping. As noted above, bypass pumping is now anticipated to be required for both Phase 1 and Phase 2 work. Please reference the updated version of this specification for details on flow and other requirements. A bypass plan showing location for suction/source, piping/hose routing, and discharge point is included with this addendum for reference in Attachment C.

2. Can the District provide secondary effluent flow data?

Response: Flow data was requested for bypass pumping design. Details on anticipated flows are provided in Section 020960 of the technical specifications. Per the specifications, actual conditions at the plant are dynamic and dependent on the season, weather, day of the week, and time of day. Accordingly, final arrangements for bypass pumping must be confirmed with the Engineer and Operating staff when finalizing bypass pumping plans. Per the specifications, reasonable efforts should be made to ensure that timing of bypass pumping avoids storm events or other foreseeable peak flow events.

3. Please clarify whether dewatering is required for bidding purposes.

Response: Dewatering, including groundwater and potential surface runoff, are anticipated to be required for the project, especially for pipe trenching and other excavations in excess of 3 feet below finish grade. The Geotech report, provided with the original package, can be referenced for additional information on expected subsurface conditions.

4. Define “doghouse style” manhole. Include a picture if possible.

Response: A “doghouse” style manhole is a standard term and offering from pre-cast concrete suppliers such as Old Castle. This term references a manhole where the bottom ring or rings include oval openings that can fit over existing pipes to facilitate installation and connection of a new manhole over existing piping. The bottom ring is usually set into a cast-in-place base. A image of a typical “doghouse” style manhole as taken from Old Castle’s product page is as follows:



5. Phase 1 piping appears to conflict with existing electrical duct banks.

Response: Updated plans for Phase 1 piping are included with this addendum.

6. There appears to be a sample pump in the way of Phase 2 demolition work at the CCC Weir Box.

Response: The existing sample pump should be relocated, and 1" suction and 3/4" discharge piping routed to existing connection points accordingly. This is addressed in updated versions of Sheets C403 and C404 included with this addendum. Relocating this pump is part of Phase 2 work.

7. Clarify the method of abandoning existing piping.

Response: Additional detail and callouts have been added to sheets C201 and C401. In summary, the abandoned segment of 24" piping that is to remain in place should be plugged with flowable fill on each end. The stub of the 24" tee fitting should be fitted with a fused 24" HDPE cap.

8. Drawing E001 – we cannot find conduits SP36-1000 and SP36-1002 shown on the plan drawings. These also reference Drawing Sheet E-42 and E-39 which we cannot find.

Response: Sheet E001 has been updated to address these questions. Note that the references to sheets E-39 and E-42 are from a previous project when these ducts/conduits were originally installed and not relevant to this project.

9. Where are the duct bank schedules that show what is in DB21 and DB33 shown on Drawing E001?.

Response: These are existing duct banks in which the conduits are already installed.

10. Drawing E001 – DB21 shows a conduit going to the existing mag meter vault. What is the purpose of this conduit as it appears the new flowmeter is being installed in the manhole adjacent to it?

Response: This is the conduit servicing the existing flow meter in the vault that will be removed as part of Phase 2. This is the conduit being replaced by the new flowmeter in the adjacent manhole. This conduit has been removed in the updated drawing for clarification.

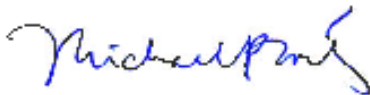
List of Attachments:

- 1) **Attachment A** (13 pages including coversheet) – Updated technical specification sections.
- 2) **Attachment B** (8 pages including coversheet) – Update design drawings.
- 3) **Attachment C** (2 pages including coversheet) – Supplemental Information.

This addendum consists of twenty-eight (28) pages including this page and all attachments and coversheets. Acknowledge receipt of this addendum in the space provided on page 95 of 658, Proposal Cover Page and Bid Schedule, of the Bid Forms, and by signing in the space provided below. Submit original copy of this addendum cover page along with the bid. Failure to do so may disqualify the bidder.

Las Gallinas Valley Sanitary District:

Bidder: _____



Michael P. Cortez, PE, District Engineer

(Authorized Signature)

(Date)

Attachment A

Updated Technical Specification Sections

- 1) Section 011000 – Summary of Work – revised copy
- 2) Section 020960 – Temporary Bypass Pumping Systems – revised copy

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work under separate contracts.
5. Access to site.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for details regarding temporary bypass pumping, limitations and procedures governing temporary use of Owner's facilities.

1.2 PROJECT INFORMATION

A. Project Identification: **Secondary Treatment Plant Upgrade and Recycled Water Expansion**

1. Project Location: 300 Smith Ranch Road, San Rafael, California 94903

B. Owner: Las Gallinas Valley Sanitary District (LGVSD)

C. Design Engineer: AQUA Engineering, (801) 299-1327

D. Construction Managers TBD

E. Owner's Programmer: ArcSine Engineering 530-222-7204

1. Consultants have been engaged for this Project to provide engineering and construction services and to serve as Project's coordinator.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- ##### A.
- The following list has been furnished for the convenience of the Contractor and shall not be considered as representing all Work required in the Contract Documents. Contractor shall not take advantage of any errors or omissions in this listing and shall report any discrepancies or

questionable items to the Engineer for clarification. The Work of Project is defined by the Contract Documents and consists of the following:

PHASE 1:

1. Install new 36” HDPE and buried gate valve to connect existing 24” HDPE flange connection to existing 36” chlorine contact chamber piping.
2. Install new 8-foot diameter manhole #1 (dog-house style with cast-in-place floor) to connect 36” piping from Item #1 to existing 36” piping.

Upon completion of Phase 1 work, the District will conduct testing to confirm the flow capacity of the existing 24” pipe and new 36” pipe operating in parallel. Pending the results of this testing, Phase 2 work may not be required.

If testing determines that Phase 2 work is necessary, the District will issue a separate Notice to Proceed for Phase 2 work. Testing of Phase 1 work/capacity is anticipated to be completed in late 2023 or early 2024. The Notice to Proceed for Phase 2 work, if so necessary, is anticipated to be issued Q1 of 2024.

PHASE 2:

1. Concrete encase existing 30” HDPE that sits beneath manhole #2.
2. Install 8-foot diameter manhole #2 (dog-house style with cast-in-place floor) over existing 42”/24” secondary clarifier effluent piping.
3. Disconnect existing 24” HDPE from tee fitting and remove concrete encased 24” HDPE from CCC Weir Box to allow for installation of new core and piping.
4. Install new 42” HDPE form manhole #2 to CCC Weir Box.
5. Install new doppler ultrasonic flow meter in manhole #2.
6. Route 3”x1” containment PVC piping from existing line to new manhole #2.
7. Install temporary bypass pumping to allow for cutting/completion of work in manhole #2.
8. Cut and remove 42”/24” piping (and reducers) to allow for installation of grout and completion of installation of manhole #2.
9. Remove 20” flow meter from vault and install blind flanges on 20” DIP piping in vault.

OTHER WORK:

1. All associated site grading, yard piping, electrical, valving, paving, and other appurtenances as indicated in the design drawings and specifications.

2. Coordination of all construction activities with plant operators to ensure the reliable and efficient operation of the plant during construction and transition to new processes. The WWTP is an active plant that must remain operational at all times.
3. Project Construction Survey – The Contractor shall be responsible to survey the location of all buried piping and fittings. The survey information shall be presented on the Record Drawings and each surveyed point shall have the Station, Offset, Elevation information and a brief description. The survey shall be performed and data certified by a licensed surveyor in the State of California.
4. Coordination with the District’s Programmer, including startup and testing.

List above is intended to provide an overview of the major project components and does not include all work described in Contract Documents.

B. Type of Contract.

1. Project will be constructed under a single prime contract.

1.4 CONSTRUCTION DOCUMENTS

- A. The Contractor may obtain copies of the construction documents as directed in Volume I, “Contract Documents.” Electronic copies of the existing plant drawings will be available to the successful Contractor through the same means. Please note that hard copies of “record drawings” or “as-constructed drawings” from previous construction projects are not available. The contractor may produce hard copies as they may require internally from the electronic files provided.
- B. The Contractor’s Schedule shall include work phases and completion dates. It shall also be coordinated with the phasing and sequencing plan. It is anticipated and expected that work on all Phases will begin with the Notice to Proceed and only the completion dates of these Phases will be different. Items in later phases may be completed earlier based on an approved Contractor Schedule.
- C. There will be several local tie-ins and shut downs in order to bring on-line new equipment and infrastructure. The contractor shall coordinate ahead of time local tie-ins and shut-downs with the Plant staff and will be responsible for planning and coordinating all aspects of the work. The Contractor is required to submit a detailed work plan for each shutdown or tie-in event.
- D. While localized shut downs or bypassing may be required, the Plant shall continue to process influent flows and meet the current Water Discharge Permit (available upon request). It shall be the responsibility of the Contractor to ensure that each process maintains operability throughout the construction. All bypass pumping shall be provided with complete redundancy. The Contractor shall bear any fines associated with the failure to meet Water Discharge Permit requirements due to construction activities. The Contractor shall also be held liable for violations of applicable permits due to construction activities. The Contractor shall be held liable for damages resulting from sewage spills caused by improperly performed shutdowns and bypasses.
- E. For each proposed bypass operation, the Contractor shall submit a bypass plan in accordance with Section 020960 of the Specifications. Prior to any bypassing, the plan must be approved by the

Owner and Engineer. The Contractor shall be responsible for clean-up and repair of any damage caused during bypassing.

1.5 OWNER FURNISHED EQUIPMENT

There is no Owner Furnished Equipment associated with this project.

1.6 OWNER SELECTED EQUIPMENT

- A. There is no Owner Selected Equipment associated with this project.

1.7 ACCESS TO SITE

- A. General: Contractor shall have access to the Project site, defined as the limits of construction, for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors for work on the site or facilities. Contractor shall coordinate and confirm with Owner the areas that are essential for facility operation which shall not be disturbed, blocked, or impacted by the construction efforts.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. This includes maintaining access to the county facility located just south of the MMWD treatment facility.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

1.8 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.
- B. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 2. Provide not less than 72 hours notice to Owner of activities that will affect Owner's operations.
- C. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
1. Engineer will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
 3. Before limited Owner occupancy, mechanical and electrical systems shall be Substantially Complete, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
 4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work at the existing site to normal business working hours, which are 7:00 AM to 6:00 PM Monday through Friday and 9:00 AM to 6:00 PM on Saturday with Sunday and Holidays being prohibited. Work outside these hours must be approved by the District.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
1. Notify Owner not less than 72 hours in advance of proposed utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate with Owner all operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy.
1. Notify Owner not less than 72 hours in advance of proposed disruptive operations.
 2. Additional limits on allowable vibrations are applicable for shoring/pile driving required for excavation near existing structures and improvements. Refer to Section 312000 for additional details.

- E. Smoking requirements are to comply with California State law.

1.10 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. General and Special Conditions: Requirements of General and Special conditions provided in Volume I of Contract Documents apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

END OF SECTION 011000

SECTION 020960 – TEMPORARY BYPASS PUMPING SYSTEMS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Section includes requirements for implementing a temporary pumping system for the purpose of diverting sewage and process flows around work areas as needed to accomplish the work.
- B. The Contractor shall maintain the sewage and process flows through the existing system at all times during construction. Sewage and process flows shall not be allowed to back up and surcharge within the system. To accomplish this, bypass pumping of sewage and process flows may be required by the Contractor. Section 2.3 identifies potential areas of work where temporary bypass pumping may be required. Contractor shall determine if this and any additional bypass pumping associated with the project work will be required.
- C. The Contractor shall coordinate all bypass pumping work with the Owner or Owner's Representative.
- D. If bypass pumping is required or desired, the requirements of this section shall apply.

1.2 QUALITY ASSURANCE

- A. Follow national standards and as specified herein.
- B. Perform leakage and pressure tests on discharge piping using clean water, before operation. Notify Engineer 24 hours prior to testing.
- C. Maintain and inspect temporary pumping system every two hours. The Contractor shall have a responsible operator on site when pumps are operating.
- D. Keep and maintain spare parts for pumps and piping on site, as required.
- E. Maintain adequate hoisting equipment and accessories on site for each pump.

1.3 SUBMITTALS

- A. Submit the following in accordance with Section 013300.
 - 1. Detailed plan and description of proposed pumping system. Indicate number, size, material, location and method of installation of suction and discharge piping, size of pipeline or conveyance system to be bypassed, staging area for pumps, site access point, and expected flow.
 - a. Size and location of manhole or access points for suction and discharge hose or piping.
 - b. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill, if buried.
 - c. Temporary pipe supports and anchoring required.

- d. Thrust and restraint block sizes and locations.
 - e. Sewer plugging method and type of plugs.
 - f. Bypass pump sizes, capacity, number of each size to be on site and power requirements.
 - g. Backup pump, power and piping equipment.
 - h. Calculations of static lift, friction losses, and flow velocity. Pump curves showing pump operating range.
 - i. Design plans and computation for access to bypass pumping locations indicated on drawings.
 - j. Calculations for selection of bypass pumping pipe size.
 - k. Method of noise control for each pump and/or generator.
 - l. Method of protecting discharge manholes or structures from erosion and damage.
 - m. Schedule for installation and maintenance of bypass pumping lines.
 - n. Procedures to monitor upstream mains for backup impacts.
 - o. Procedures for setup and breakdown of pumping operations.
 - p. Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewage spillage.
 - q. List of equipment for spill containment and cleanup.
- 2. Maintain copy of emergency plan on site for duration of project.
- B. Certify bypass system will meet requirements of codes, and regulatory agencies having jurisdiction.

1.4 CONTRACTORS RESPONSIBILITY

- A. FOR OVERFLOW AND SPILLS: Schedule and perform work in manner that does not cause or contribute to incidence of overflows, releases or spills of sewage from sanitary sewer system or bypass operation.
- B. Contractor is responsible to obtain air permits if diesel pumps are to be utilized.

1.5 DELIVERY AND STORAGE

- A. Transport, deliver, handle, and store pipe, fittings, pumps, ancillary equipment and materials to prevent damage and following manufacturer's recommendations.
 - 1. Inspect all material and equipment for proper operation before initiating work.
- B. For material found to be defective or damaged due to manufacturer or shipment;
 - 1. When repairable: Repair as recommended by manufacturer.
 - 2. When not repairable: Replace before initiating work.
 - 3. Repair or replacement of defective or damaged material and equipment will be at no cost to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Discharge and Suction Pipes: Approved by Engineer.

LGVSD
SECONDARY EFFLUENT LINE MODIFICATIONS

TEMPORARY BYPASS PUMPING SYSTEMS
020960 - 2

1. Discharge piping: Determined according to flow calculations and system operating calculations.
2. Suction piping: Determined according to pump size, flow calculations, and manhole/structure depth following manufacturer's specifications and recommendations.

B. Polyethylene Plastic Pipe:

1. High density solid wall and following ASTM F714 Polyethylene (PE) Plastic Pipe (SDR-DR) based on Outside Diameter, ASTM D1248 and ASTM D3550.
2. Homogenous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other deleterious faults.

C. High-Density Polyethylene (HDPE).

1. Homogenous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other deleterious faults.
 - a. Defective areas of pipe: Cut out and joint fused as stated herein.
2. Assembled and joined at site using couplings, flanges or butt-fusion method to provide leak proof joint. Follow manufacturer's instructions and ASTM D 2657.
 - a. Threaded or solvent joints and connections are not permitted.
3. Fusing: By personnel certified as fusion technicians by manufacturer of HDPE pipe and/or fusing equipment.
4. Butt-fused joint: True alignment and uniform roll-back beads resulting from use of proper temperature and pressure.
 - a. Allow adequate cooling time before removal of pressure.
 - b. Watertight and have tensile strength equal to that of pipe.
 - c. Acceptance by Engineer before insertion.

D. Flexible Hoses and Associated Couplings and Connectors.

1. Abrasion resistant.
2. Suitable for intended service.
3. Rated for external and internal loads anticipated, including test pressure.
 - a. External loading design: Incorporate anticipated traffic loadings, including traffic impact loading.
4. When subject to traffic loading, compose system, such as traffic ramps or covers.
 - a. Install system and maintain H-20 loading requirements while in use or as directed by the Engineer.

E. Valves and Fittings: Determined according to flow calculations, pump sizes previously determined, and system operating pressures.

F. Plugs: Selected and installed according to size of line to be plugged, pipe and manhole configurations, and based on specific site.

1. Additional plugs: Available in the event a plug fails. Plugs will be inspected before use for defects which may lead to failure.

G. Aluminum "irrigation type" piping or glued PVC piping will not be permitted.

- H. Discharge hose will only be allowed in short sections when approved by Engineer.
- I. For pipelines or hoses that are above ground and/or cross roadways or other traffic areas:
 - 1. Route of above ground pipeline/hose must be approved by Engineer and operating staff.
 - 2. For any pipeline or hose that crosses a roadway above ground, contractor shall furnish suitable firehose bridge or hose/pipeline ramp across the entire intersection of the pipe with the roadway. The ramp or bridge must be minimum H-20 traffic rated, and suitable to handle all traffic that will cross the bridge for the duration of its installation. Temporary piping/hose and ramps shall be removed by the contractor when bypassing pumping operation ceases.

2.2 EQUIPMENT

A. Pumps.

- 1. Fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in priming system.
- 2. Electric or diesel powered.
 - a. Diesel powered equipment shall be supplied with hospital grade mufflers for noise suppression. Equipment shall meet air quality exhaust criteria of the local Air Pollution Control District as applicable. Contractor is responsible to obtain air permit for diesel pumps.
- 3. Pumps shall be capable of variable flow to accommodate the cyclical nature of influent flows to the plant. Minimum 50% turn down of pump's max capacity is anticipated.
- 4. Constructed to allow dry running for long periods of time to accommodate cyclical nature of influent flows.

B. Provide.

- 1. Necessary stop/start controls for each pump.
- 2. One standby pump of each size maintained on site.
 - a. On-line, isolated from primary system by a valve.
- 3. Quiet flow pumps.

2.3 DESIGN REQUIREMENTS

- A. The anticipated flow in areas that **will** require bypass pumping is given based on historical plant influent and/or process flows. Please note that the plant flows are not constant and vary during any given day and/or season. Bypass pumping will be required to accommodate hourly flow variations based on influent flow received at the treatment facility. Flow areas are given for the following areas where bypass pumping may occur:

- 1. **PHASE 1:** Bypass Line from Secondary Clarifier #2 Effluent Chamber to CCC Weir Box or CCC riser. **This bypass is anticipated to be needed to complete connection of a new MJ valve connection to existing 24" HDPE. This is part of Phase 1 work.**
- 2. **Phase 2:** Bypass Line from Secondary Clarifier #2 Effluent Chamber to CCC Weir Box or CCC riser. **This bypass will be needed to complete the end of Phase 2 work when the 42"/24" piping is cut to accommodate connection of flow in manhole #2 to new 42" piping. If Phase 2 is not needed, this bypass pumping will not be required.**

- a. **This bypass will be needed to complete the end of Phase 2 work when the 42"/24" piping is cut to accommodate connection of flow in manhole #2 to new 42" piping. If Phase #2 is not needed, this bypass pumping will not be required.**
- B. Peak Flow = 6.0 MGD (Verify with Engineer prior to completing the bypass pumping system design to confirm head requirements). Flow conditions are the same for both bypass pumping scenarios discussed above, including the same suction connection and discharge connection points.
- C. This require a temporary 18" bypass line (or the equivalent from multiple smaller lines) from the secondary clarifier #2 effluent box to the northeast portion of the CCC Weir Box or an adjacent CCC riser. This temporary bypass may be installed above ground as long as proper ramps and other procedures are followed as described above.
- D. Provide pipeline plugs and pumps of adequate size to handle peak flow, and temporary discharge piping to ensure total flow associated with structures can be safely diverted around structures to be constructed or modified.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Determining location of bypass pipelines.
 - 1. Minimal disturbance to existing utilities and facilities.
 - a. Field locate existing utilities in proposed bypass area including convenient points.
 - 2. Obtain Engineer's approval of location.

3.2 INSTALLATION AND REMOVAL

- A. Provisions and requirements must be reviewed by Engineer before starting construction.
- B. Construct temporary bypass pumping structures and make connections to existing and/or newly constructed structures requiring bypass pumping and as required to provide adequate suction conduit.
- C. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, remove in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- D. When working inside structure and manholes, exercise caution. Follow OSHA, Local, State and Federal requirements. Take required measures to protect workforce against sewer gases and/or combustible or oxygen-deficient atmosphere.
- E. Installation of Bypass Pipelines:
 - 1. Pipeline may be placed along shoulder of roads and access ways.

2. If a pipeline must be placed across a roadway and/or access way provide adequate roadway maps suitable for expected traffic loads associated with normal plant operations and construction traffic.
 3. Following Engineer's approval, the contractor may place bypass piping in trenches and cover with temporary pavement.
- F. During bypass pumping operation, protect existing utilities and infrastructure from damage inflicted by equipment.
- G. Upon completion of bypass pumping operations, and after the receipt of written permission from Engineer, remove piping, restore property to pre-construction condition and restore pavement.

3.3 MEASUREMENT AND PAYMENT

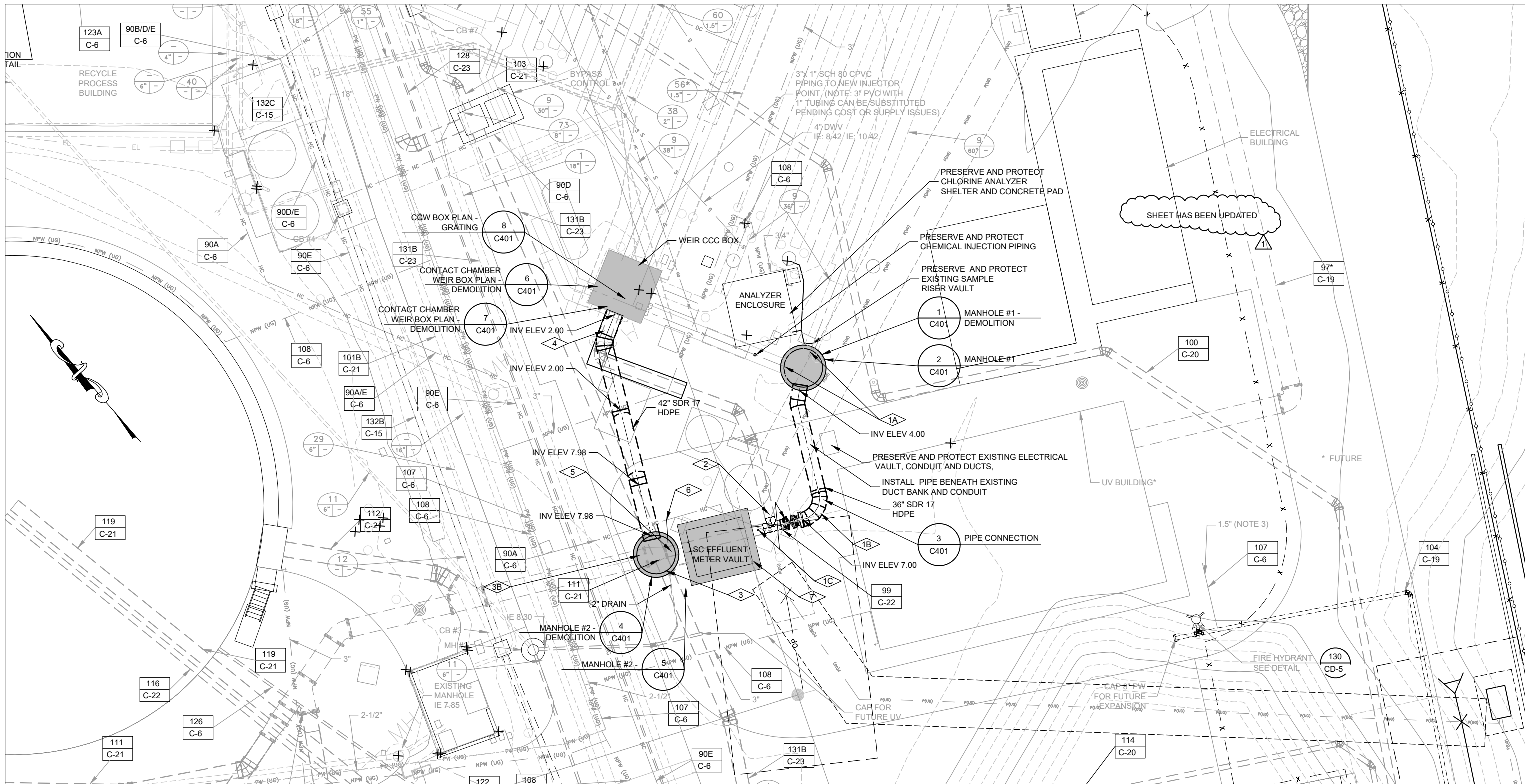
- A. Except as otherwise specified herein, providing for and complying with requirements in this Section will not be measured for payment, but cost will be considered incidental to Contract.

END SECTION 020960

Attachment B

Updated Design Drawings

- 1) Sheet C201 – revised copy
- 2) Sheet C401 – revised copy
- 3) Sheet C402 – revised copy
- 4) Sheet C403 – revised copy
- 5) Sheet C404 – revised copy
- 6) Sheet E001 – revised copy
- 7) Sheet E002 – revised copy



KEY NOTES:

- 1A - PLACE 8" Ø DOGHOUSE STYLE MANHOLE AND CUT EXISTING (2) 36" Ø HDPE PIPE, SEE DETAIL #1 & #2 ON SHEET C401.
- 1B - INSTALL 24" BURIED GATE VALVE, 24"x 36" REDUCER, AND 36" HDPE FROM EXISTING TEE TO MANHOLE #1.
- 1C - REMOVE EXISTING SITE GLASS FROM BIND FLANGE ON 24" TEE. TAP EXISTING 24" HDPE BEFORE TEE FITTING AND RELOCATE/REINSTALL SITE GLASS.
- 2 - DISCONNECT 24" Ø HDPE PIPE #99 FROM TEE FITTING AND INSTALL HDPE FUSED CAP ON ABANDONED TEE SEGMENT SEE DETAIL #3 ON SHEET C401. COMPLETE AFTER INSTALLATION OF MANHOLE #1 AND NEW 36" Ø HDPE PIPE.
- 3 - REMOVE PIPE SLEEVE, CONCRETE ENCASE PIPE #131B. INSTALL 8" Ø MANHOLE #2 OVER 42"/24" HDPE PIPE #111, SEE DETAIL #4 ON SHEET C402, NOTE PIPE #131B AND PIPE #111 TO REMAIN IN SERVICE.
- 3B - REMOVE PIPE SLEEVE, CONCRETE ENCASE PIPE #131B. INSTALL 8" Ø MANHOLE #2 OVER 42"/24" PIPE #111, SEE DETAIL #5 ON SHEET C402.
- 4 - REMOVE PORTION OF ENCASED 24" Ø HDPE PIPE #99, INSTALL 42" Ø HDPE PIPE #111, SEE DETAIL #6 ON SHEET C403 AND DETAIL #7 ON SHEET C404. PLUG BOTH ENDS OF ABANDONED 24" HDPE FLOWABLE FILL.

- 5 - CUT 24" Ø HDPE TO REMOVE PIPING TO METER VAULT AND REDUCERS, LEAVING ONLY 42" HDPE PIPING STUB IN MANHOLE #2, SEE DETAIL #5 ON SHEET C402.
- 6 - REROUTE DOUBLE CONTAINMENT PVC NEW CHLORINE INJECTION POINT IN MANHOLE PIPE #90A, SEE DETAIL #9 ON SHEET C404.
- 7 - REMOVE AND SALVAGE EXISTING MAG METER SEE DETAIL #10 ON SHEET C405.

YARD PIPING PLAN

SCALE: 1"=10'-0"
 0 10 20
 Scale in Feet

JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
 MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

CIVIL SITE PLAN

CHECKED JRL	DRAWN KRB	SCALE AS SHOWN
APPROVED JRL	DESIGNED EES	DATE 08/10/23
GENERAL MANAGER CUSTIS PAXTON	DISTRICT ENGINEER Michael P Cortez	
RICE # 54039		

NO.	DATE	DESCRIPTION	BY	APPROV
1	9-8-23	BYPASS DESIGN	EES	JRL
REVISIONS				

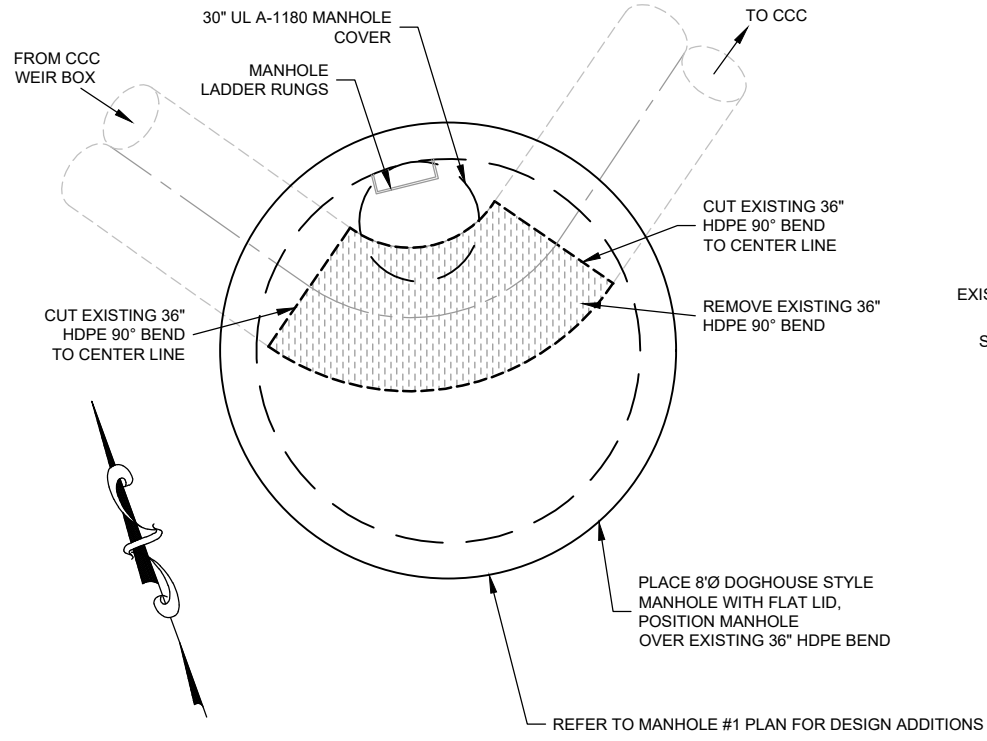


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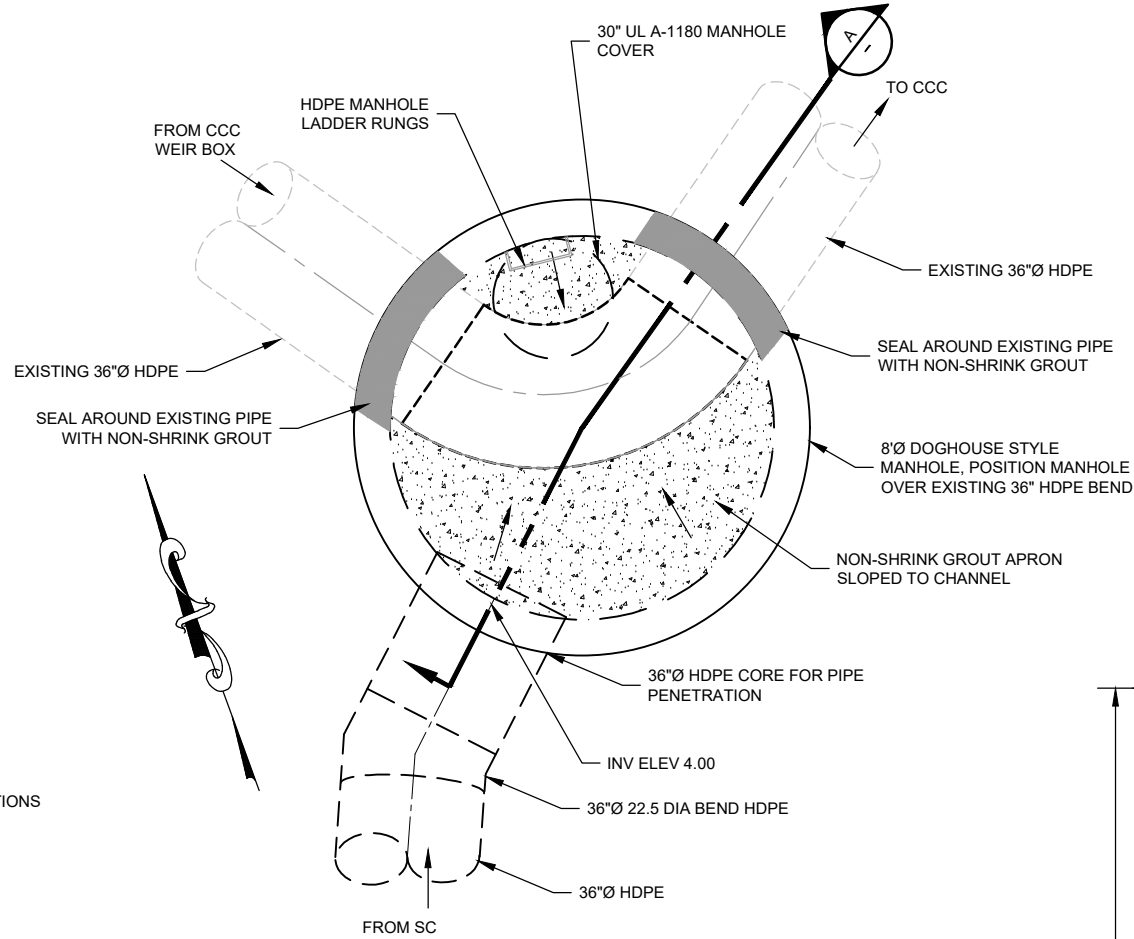
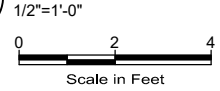
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
 SECONDARY EFFLUENT LINE MODIFICATIONS

PLOTTED: EXTEND
 SCALE: 1:1
 BORDER: 22,34
 COLOR: No.
 RED 0.70MM
 YELLOW 0.20MM
 GREEN 0.25MM
 CYAN 0.40MM
 BLUE 0.50MM
 MAGENTA 0.20MM
 WHITE 0.35MM
 GRAY 0.15MM
 9 0.15MM
 10 1.00MM
 100 0.70MM
 210 0.60MM

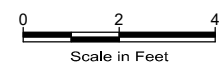
LGVSD 1 FILE:
 FD144793
 ADDENDUM 2



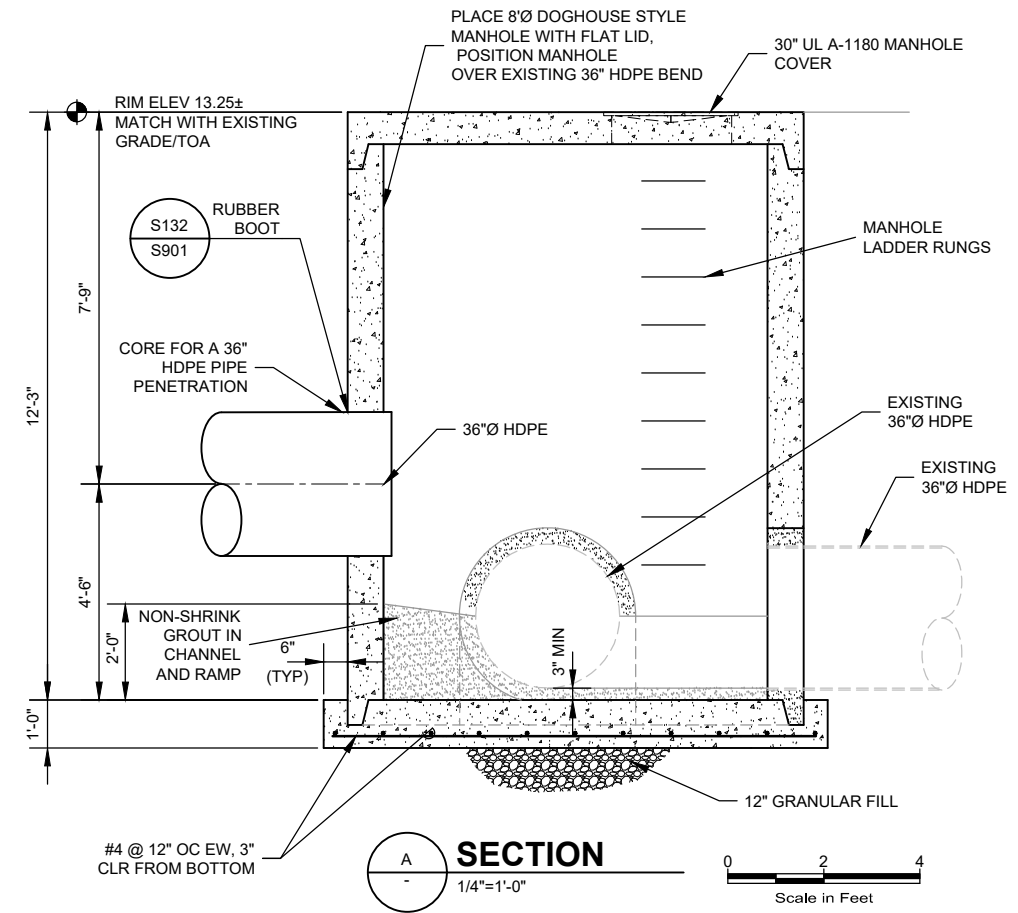
1 **MANHOLE #1 - DEMOLITION**



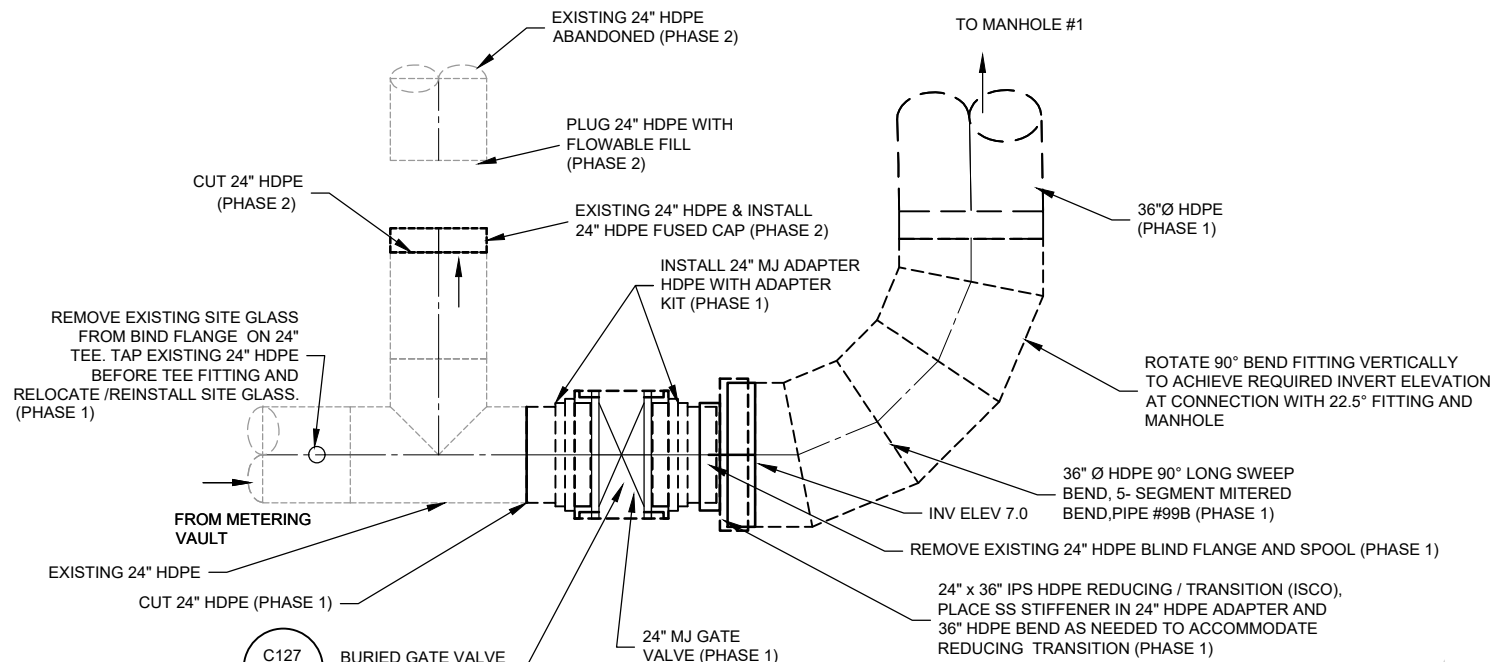
2 **MANHOLE #1**



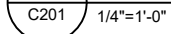
SHEET HAS BEEN UPDATED



A **SECTION**



3 **PIPE CONNECTION**



NOTES:

- 1- ALL DIMENSIONS, PIPE SIZES, AND LOCATIONS ARE FROM RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.



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JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

**CIVIL
MANHOLE #1**

CHECKED JRL	DRAWN KRB	SCALE AS SHOWN
APPROVED JRL	DESIGNED EES	DATE 08/10/23
GENERAL MANAGER CUSTIS PAXTON	DISTRICT ENGINEER Michael P Cortez	

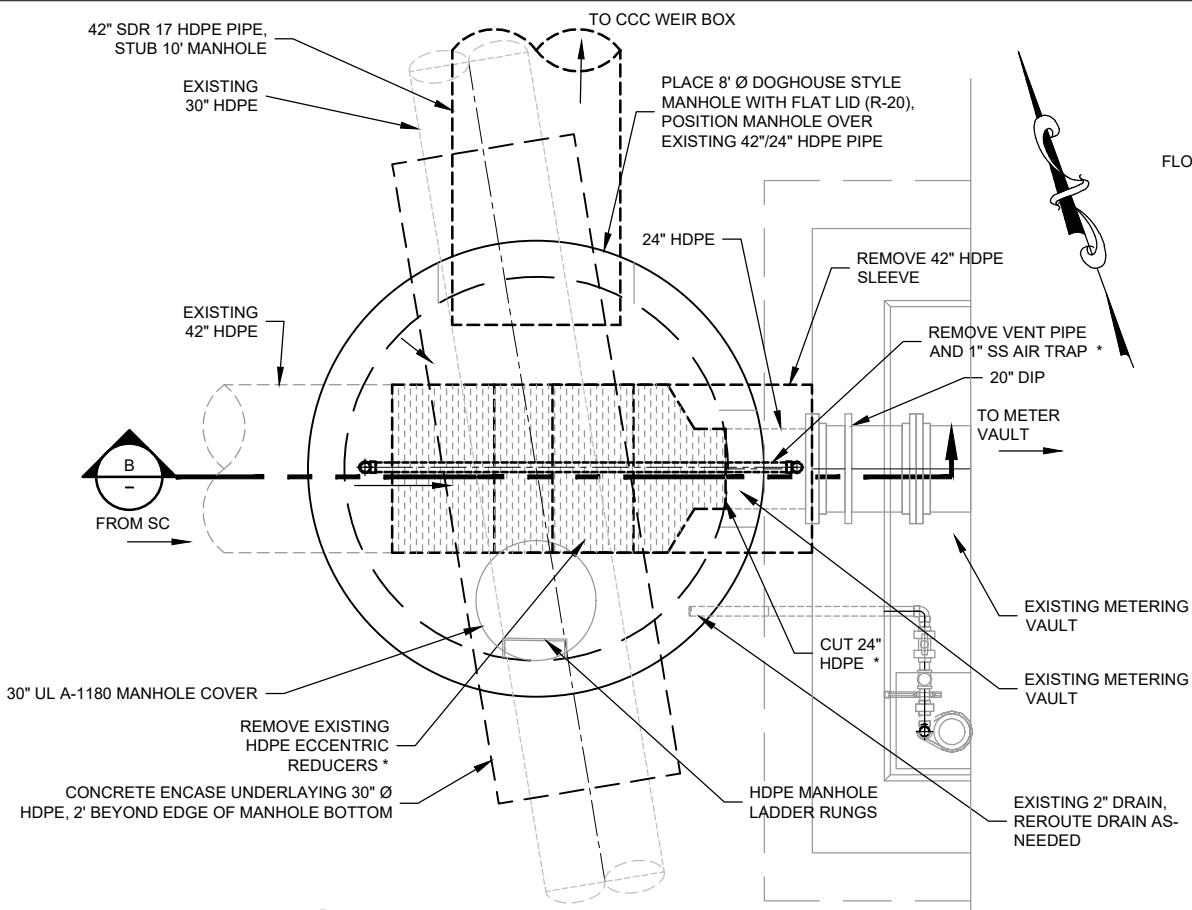
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1	9-8-23	BYPASS DESIGN	EES	JRL

SHEET	PLAN NO.	DRAWING NO. C401	REVISION NO. B
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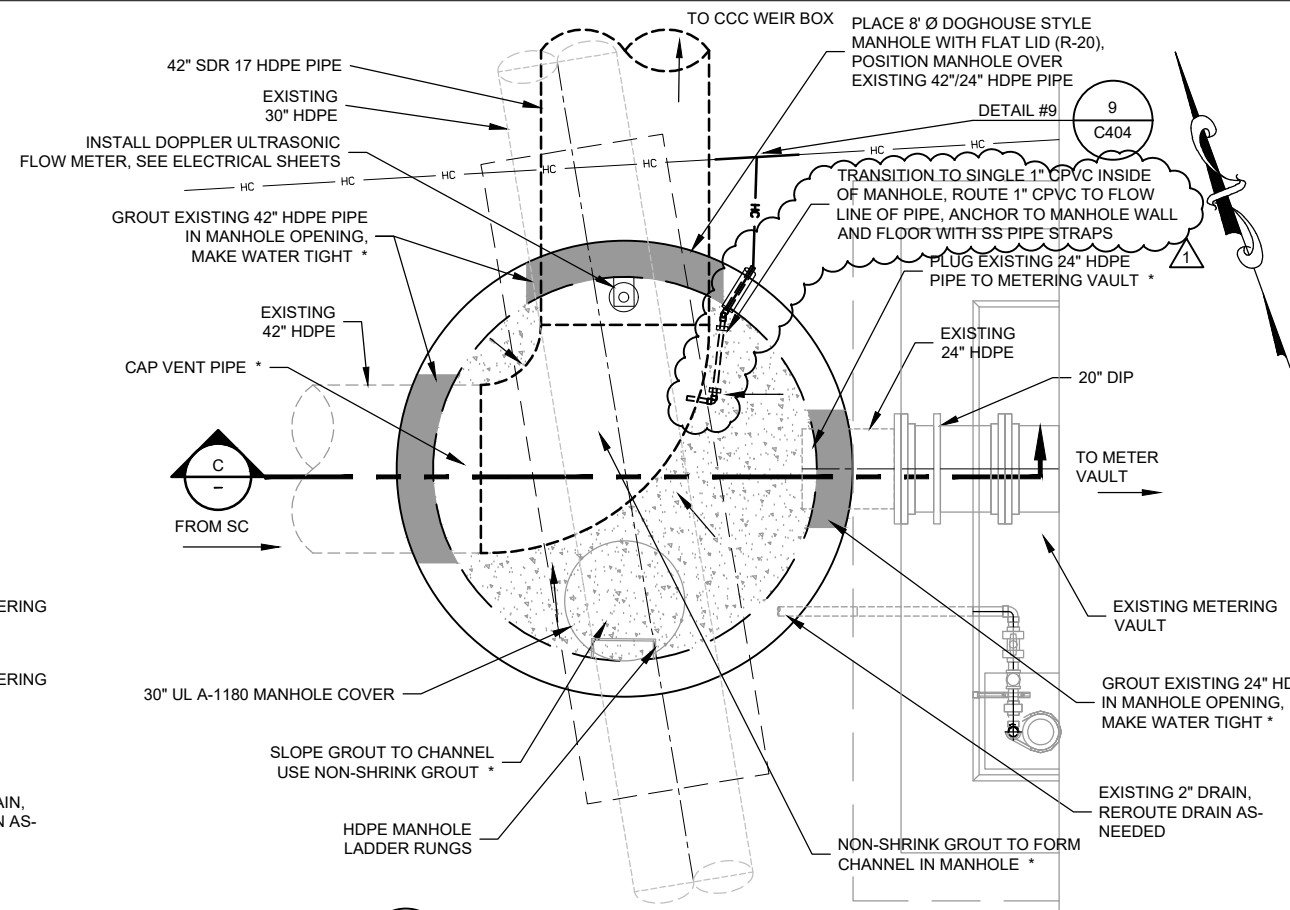
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9/8/2023 PLOTTED: EXTEND SCALE: 1:1 BORDER: 22,34

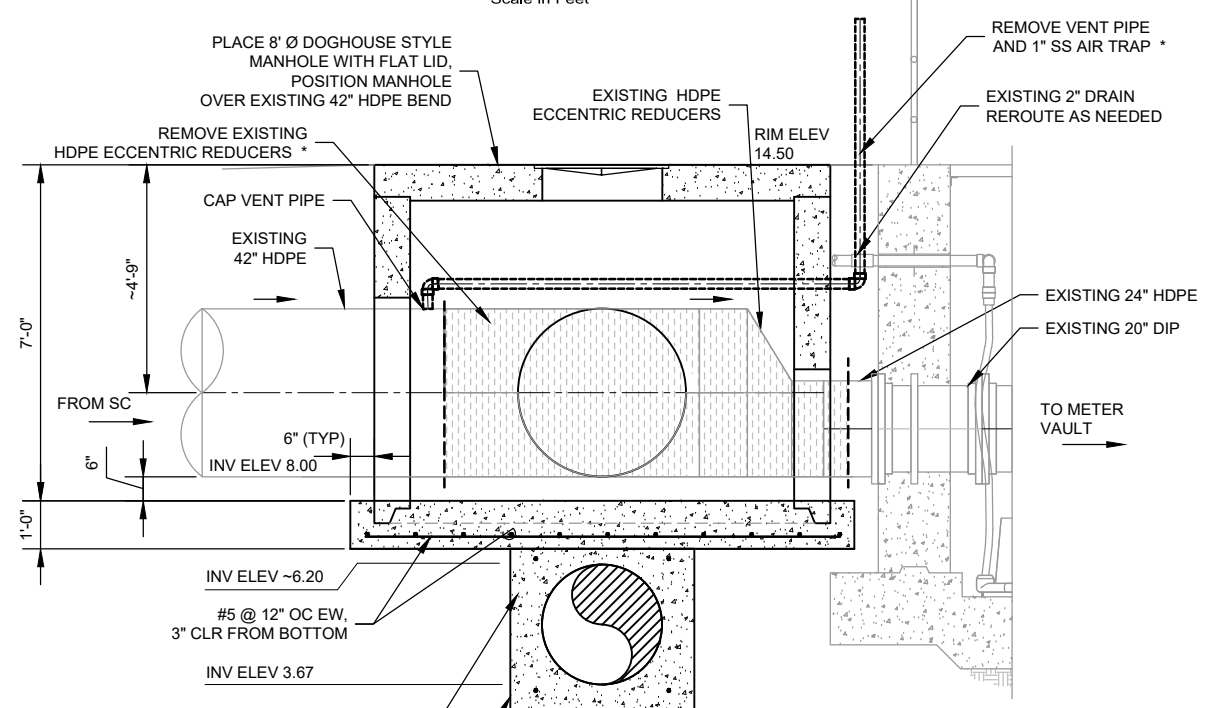
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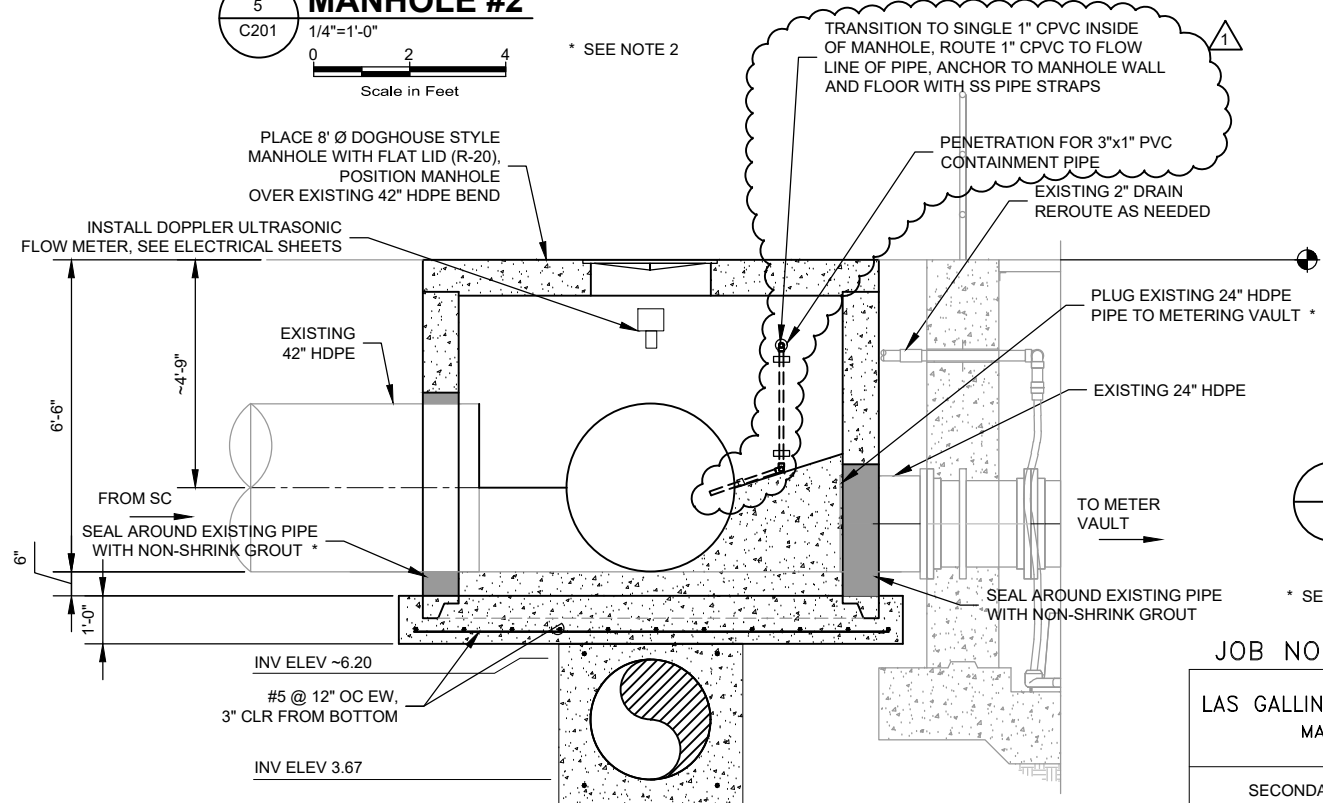
4 MANHOLE #2 - DEMOLITION
C201 1/4"=1'-0"
Scale in Feet * SEE NOTE 2



5 MANHOLE #2
C201 1/4"=1'-0"
Scale in Feet * SEE NOTE 2



B SECTION
1/4"=1'-0"
Scale in Feet * SEE NOTE 2



C SECTION
1/4"=1'-0"
Scale in Feet * SEE NOTE 2

- NOTES:
- ALL DIMENSIONS, PIPE SIZES, AND LOCATIONS ARE FROM RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.
 - CUT 24" PIPE AND REMOVE REDUCERS ONCE NEW 42" PIPE TO CCC WEIR BOX IS INSTALLED. 24" PIPE AND FLOW METER TO REMAIN IN SERVICE UNTIL NEW 42" CONNECTION IS READY.



JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

CIVIL MANHOLE #2

CHECKED JRL	DRAWN KRB	SCALE AS SHOWN
APPROVED JRL	DESIGNED EES	DATE 08/10/23
GENERAL MANAGER CUSTIS PAXTON	DISTRICT ENGINEER Michael P Cortez	

RCE # 54039

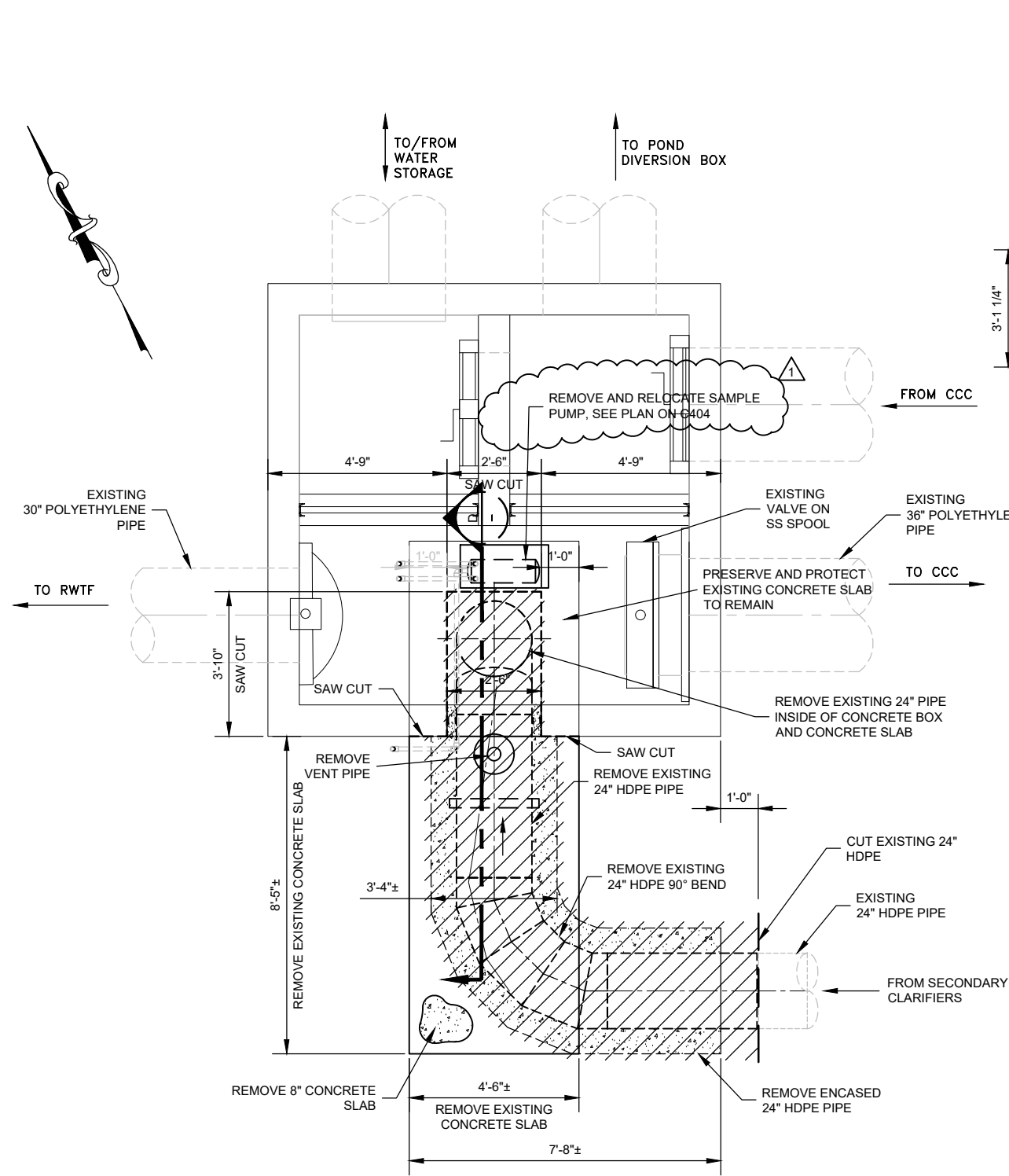
NO.	DATE	DESCRIPTION	BY	APPR'D
1	9-8-23	BYPASS DESIGN	EES	JRL

REVISIONS

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
		C402	B

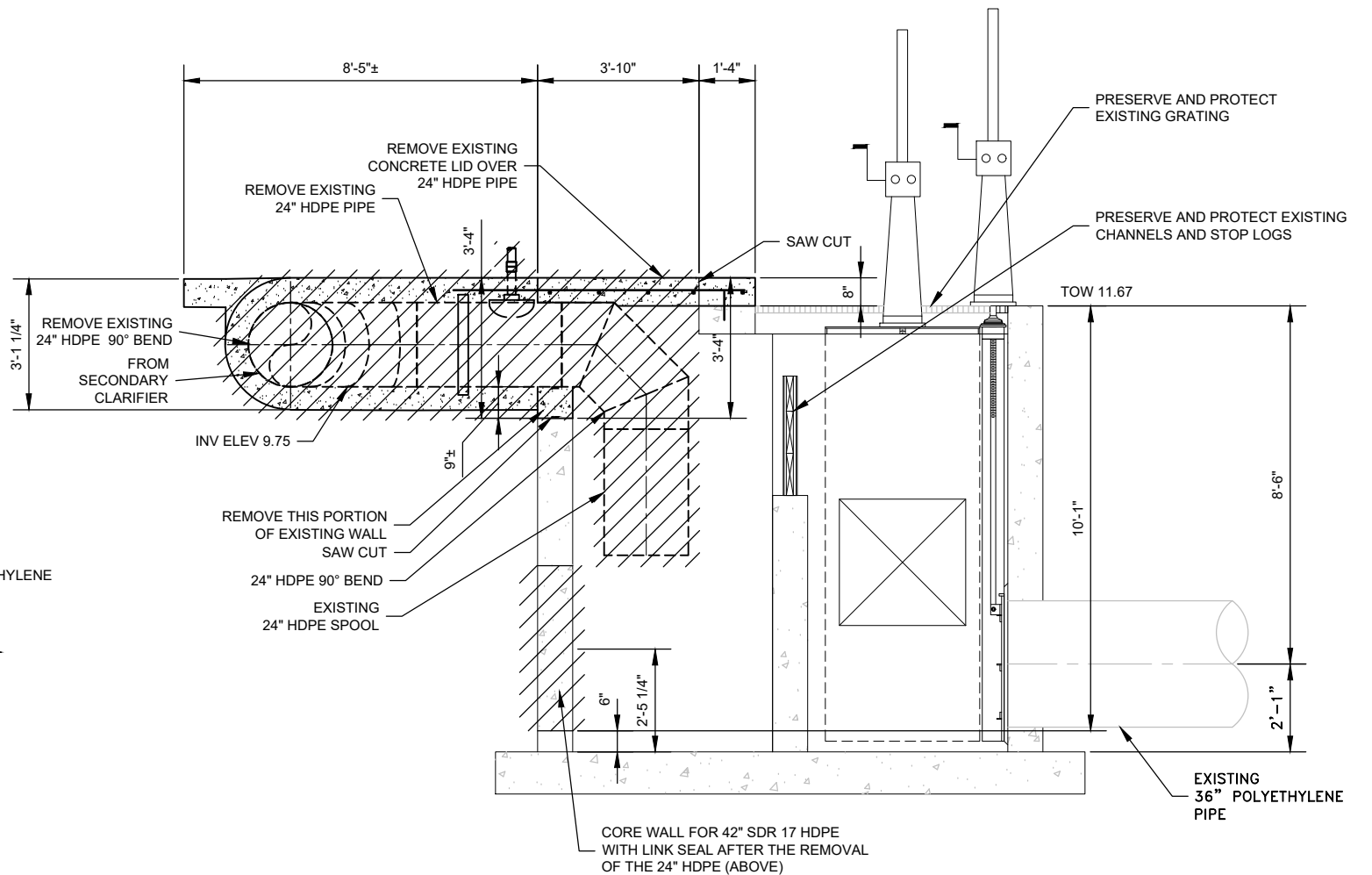
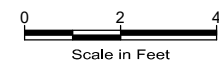
PLOT: EXTEND
 SCALE: 1:1
 BORDER: 22,34

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 CYAN 0.40MM
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 210 0.60MM



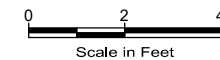
CONTACT CHAMBER WEIR BOX PLAN - DEMOLITION

SCALE: 1/2"=1'-0"



SECTION - DEMOLITION

SCALE: 1/2"=1'-0"



NOTES:

- 1- ALL DIMENSIONS, PIPE SIZES, AND LOCATIONS ARE FROM RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.



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JOB NO. -

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 MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

**CIVIL
 CCC WEIR BOX PLAN/SECTION - DEMOLITION**

CHECKED JRL	DRAWN KRB	SCALE AS SHOWN
APPROVED JRL	DESIGNED EES	DATE 08/10/23
GENERAL MANAGER CUSTIS PAXTON	DISTRICT ENGINEER Michael P Cortez	

NO.	DATE	DESCRIPTION	BY	APPR'D
1	9-8-23	BYPASS DESIGN	EES	JRL

SHEET	PLAN NO.	DRAWING NO. C403	REVISION NO. B
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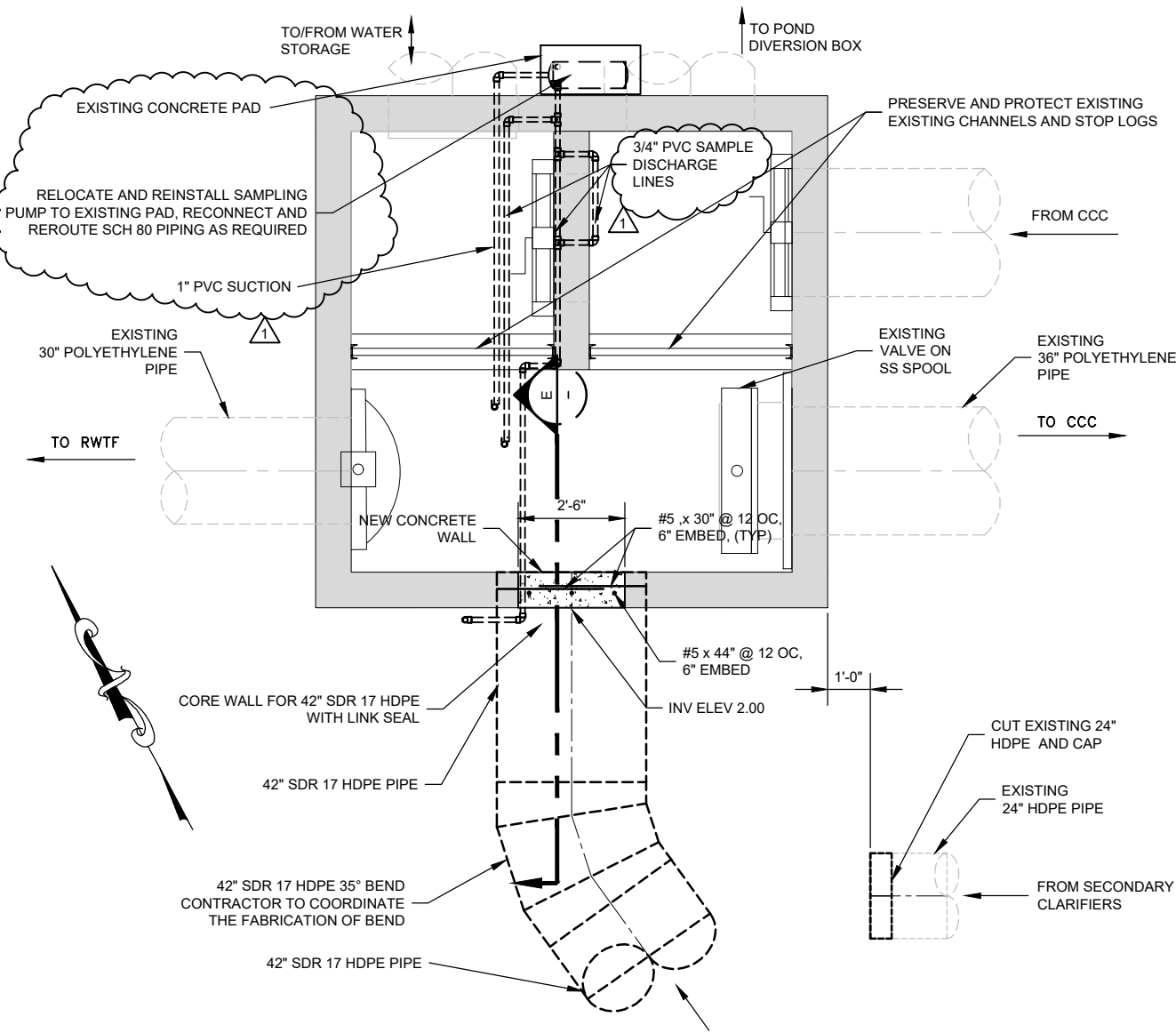
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9/8/2023

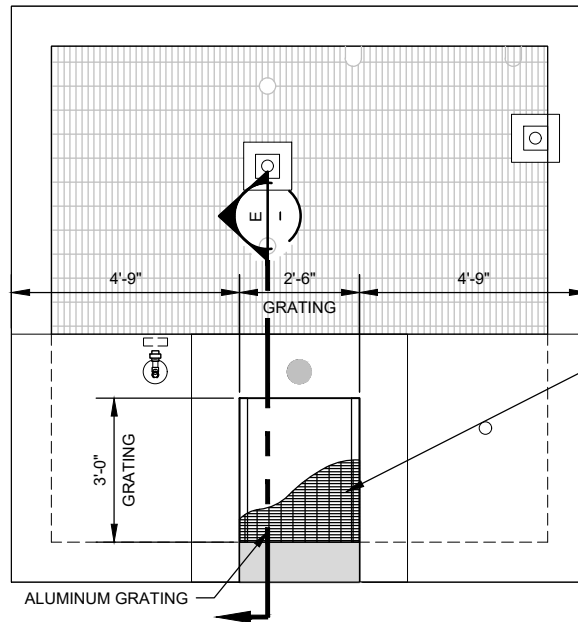
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SCALE: 1:1
BORDER: 22,34

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GREEN 0.25MM
CYAN 0.40MM
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WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.70MM
210 0.60MM

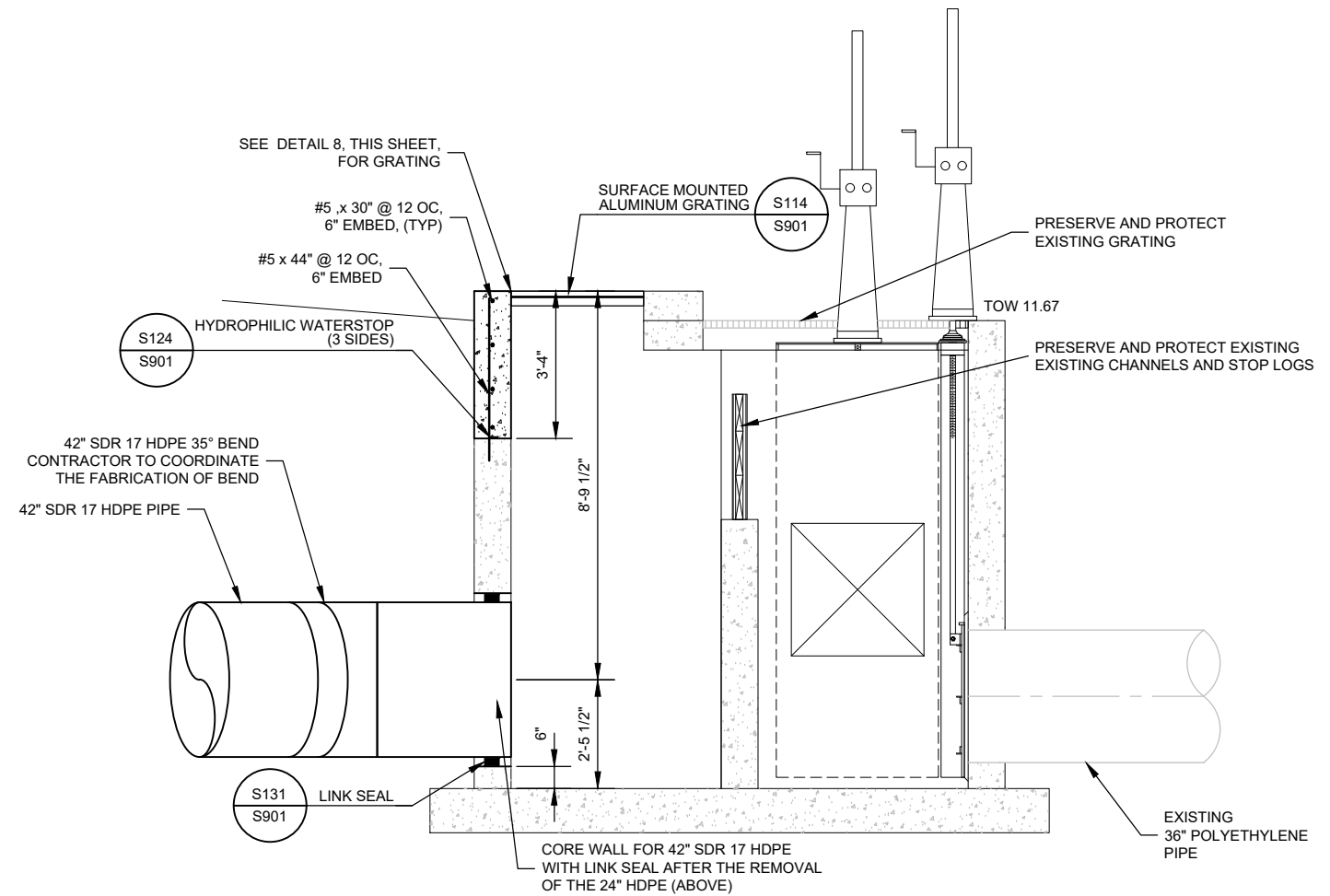
LGVSD 1 FILE:
FD144793
ADDENDUM 2



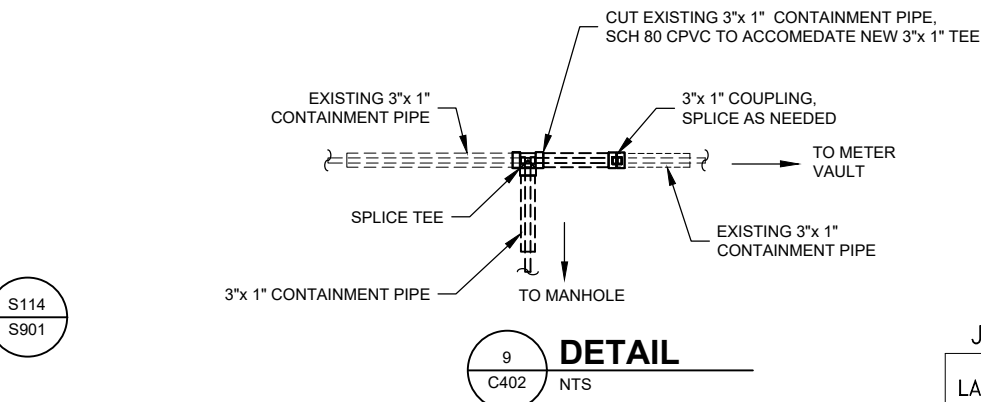
CONTACT CHAMBER WEIR BOX PLAN
7 C201 SCALE: 1/2"=1'-0"
0 2 4
Scale in Feet



CCW BOX GRATING PLAN
8 C201 SCALE: 1/2"=1'-0"
0 2 4
Scale in Feet



E SECTION
SCALE: 1/2"=1'-0"
0 2 4
Scale in Feet



9 DETAIL
C402 NTS

NOTES:
1- ALL DIMENSIONS, PIPE SIZES, AND LOCATIONS ARE FROM RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.



JOB NO. -
LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

**CIVIL
CCC WEIR BOX PLAN AND SECTION**

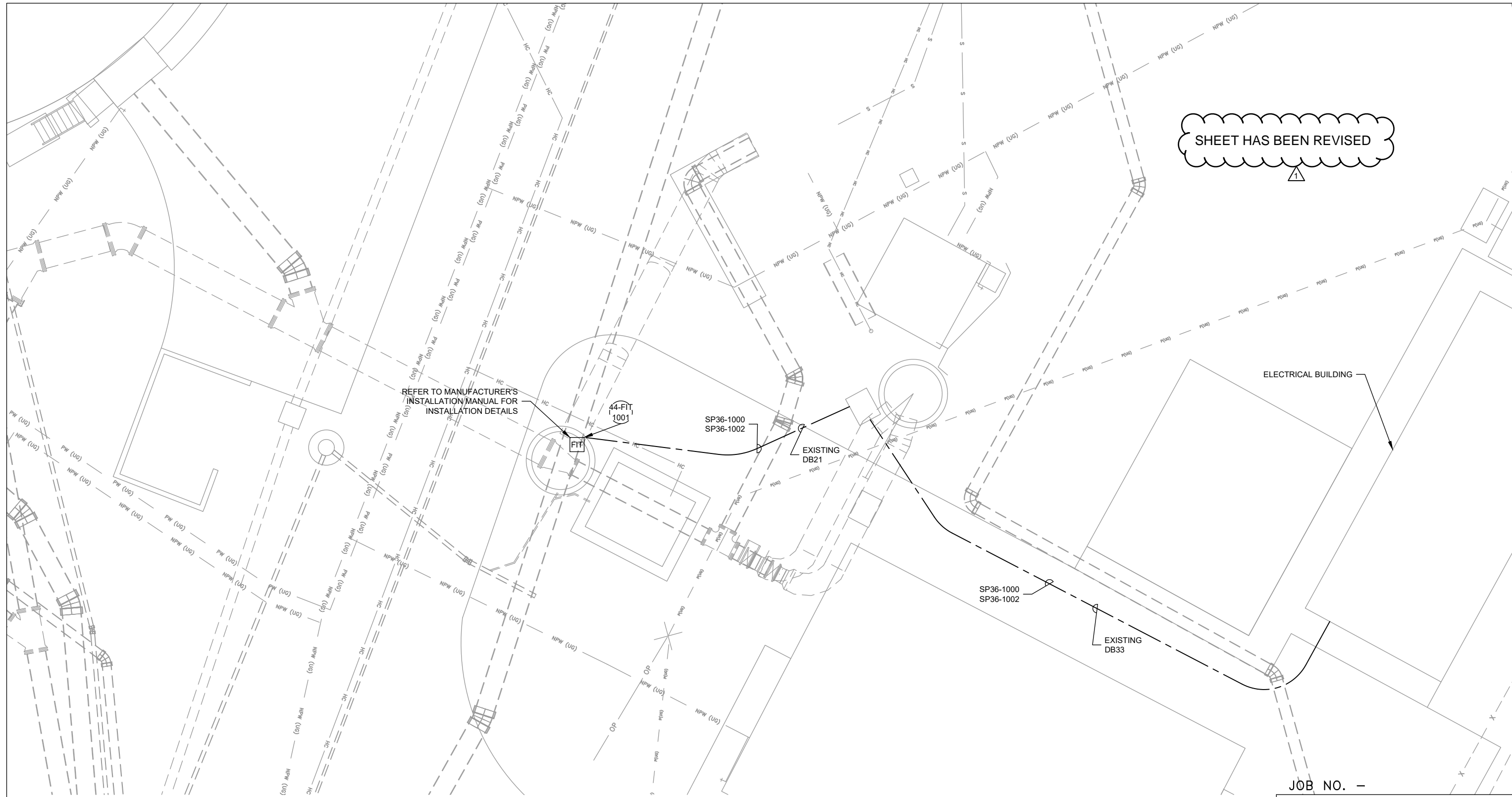
CHECKED JRL	DRAWN KRB	SCALE AS SHOWN
APPROVED JRL	DESIGNED EES	DATE 08/10/23
GENERAL MANAGER CUSTIS PAXTON	DISTRICT ENGINEER Michael P Cortez	RCE # 54039

NO.	DATE	DESCRIPTION	BY	APPROV
1	9-8-23	BYPASS DESIGN	EES	JRL

SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
		C404	B

PLOT: EXTEND
SCALE: 1:1
BORDER: 22,34

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GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.70MM
210 0.60MM



JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

ELECTRICAL
SITE LAYOUT PLAN

CHECKED	DRAWN	SCALE
APPROVED	DESIGNED	DATE
GENERAL MANAGER		DISTRICT ENGINEER
RCE # 54039		
SHEET	PLAN NO.	DRAWING NO. E001
		REVISION NO. B

NO.	DATE	DESCRIPTION	BY	APPR'D
1	9/8/2023		AW	ASR
REVISIONS				



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PHONE (801) 299-1327 FAX (801) 299-0153

C:\USERS\MICHAEL_JOHNSON\AQUA_ENGINEERING\LGVS-D - LAS G190119-SECONDARY TREATMENT UPGRADES\PHASE 1\DRAWING\987 ELECTRICAL\002 - ELECTRICAL CALCULATIONS AND SCHEDULES

SHEET HAS BEEN REVISED

SHEET	CONDUIT	SIZE	CONDUCTORS	SERVICE	AG MATERIAL	UG MATERIAL	FROM	TO	DUCTBANKS	NOTES
E001	SP36-1000	1"	TSP	SIGNAL	PVC GRS	PVC 40	PLC-AB	V#20S	DB21,DB-33	SPARE
E001	SP36-1002	1"	2 #12 AWG W/ #12 GND	120VAC	PVC GRS	PVC 40	LP-AB	V#20P	DB21,DB-33	SPARE

CONDUIT SCHEDULE

SHEET	TAG	DESCRIPTION	MAKE	MODEL	SUPPLY	RANGE	COMMENTS
	44-FIT-1001	CLARIFIER BYPASS FLOW	HACH	FL900AV	120VAC		WITH AV9000 TRANSMITTER

INSTRUMENT SCHEDULE

CIRCUIT DESCRIPTION	PANEL: LP-AB CB TYPE: BOLT-ON		VOLTAGE: 120/240 MOUNTING: SURFACE		MAIN CB: 225 AMP BUS BRACING: 22KA		BUS AMPS: 225 AMP BKR AIC: 22KA	
	BKR	CIRCUIT	LINE 1	LINE 2	CIRCUIT	BKR	CIRCUIT DESCRIPTION	
ELECTRICAL BLDG. LIGHTS (8, A)	20/1	1	288 80		2	20/1	ELECTRICAL BLDG. OUTDOOR LIGHTS (2, B)	
ELECTRICAL BLDG. OUTLETS (3, C)	20/1	3		540 100	4	20/1	LIGHTING CONTROL PANEL (LCP-AB)	
CTC-AB	20/1	5	1000 816		6	20/1	EQ/ANOXIC BASINS LIGHTS/OUTLETS (4,3)	
AEROTOR BASINS LIGHTS/OUTLETS (4,3)	20/1	7		816 1200	8	20/1	GENERATOR BATTERY CHARGER	
AEROTOR BASINS LIGHTS/OUTLETS (4,3)	20/1	9	816 100		10	20/1	44-FIT-1001	
PLC-AB	20/1	11		500	12	20/1		
	20/1	13			14	20/1	23-FIT-1010	
	20/1	15	100		16	20/1	POND RETURN SUMP	
23-FIT-1020	20/1	17	100 100		18	20/1	31-AIT-1010	
44-FIT-1000	20/1	19		100 100	20	20/1	31-AIT-4010	
31-AIT-2010	20/1	21	100 100		22	20/1	31-AIT-2001/2002	
31-AIT-1001/1002	20/1	23		150 100	24	20/1	31-AIT-4001/4002	
31-AIT-3010	20/1	25	100 100		26	20/1		
31-AIT-3001/3002	20/1	27		100 100	28	20/1		
36-FIT-1000	20/1	29	100 100		30	20/1	42-FIT-1120	
SC 1 LIGHTS AND OUTLET	20/1	31		318 567	32	20/1	SC 2 LIGHTS AND OUTLET	
SC 3 LIGHTS AND OUTLET (FUTURE)	20/1	33	318 240		34	20/1	31-H-1110	
31-H-1210	20/1	35		240 400	36	20/1	EXISTING 21-LIT-1101, 21-LIT-1204B, 21-LIT-1304B, 21-LIT-1305B	
EXISTING 21-LIT-1204A, 21-LIT-1205A, 21-LIT-1304A, 21-LIT-1305A	20/1	37	400 100		38	20/1	EXISTING 51-LIT-1101	
EXISTING SITE LIGHTING L1, L2, L3, L4, L5, L6, L8, L9	20/2	39		350	40	20/1		
		41	350		42	20/1		
61-LIT-1000	20/1	43		100 100	44	20/1	23-LIT-1002	
MCC-AB2 LOW LEVEL RELAY SECTION (MCC-AB2 SECTION 12)	20/1	45	100 100		46	20/1	MCC-AB3 LOW LEVEL RELAY SECTION (MCC-AB3 SECTION 12)	
FUTURE EQ BASIN CHEM PUMP AND ANALYZER	20/1	47		1000 360	48	20/1	LOCAL YARD RECEPTACLES	
FUTURE METHANOL PUMP EAST OF ANOXIC BASIN 3	20/1	49	1000 360		50	20/1	RECEPTACLE AT CONSOLES	
CHLORINATION STRUCTURE EXHAUST/LIGHTS	20/1	51		200	52	20/1		
EXISTING EFFLUENT PIT LIGHTING	20/1	53	200		54	20/2		
EXISTING EFFLUENT PIT RECEPTACLE	20/1	55		600	56	20/2		
SUMP RECEPTACLE (42-P-1120)	20/1	57	1500 1500		58	20/1	SAMPLING PUMP (43-P-2300)	
SAMPLING PUMP (43-P-2100)	20/1	59		1500	60	20/1	SPARE	
SAMPLING PUMP (43-P-2200)	20/1	61	1500		62	20/1	SPARE	
43-P-1300	20/1	63		1500	64	20/1	SPARE	
43-AIT-1340	20/1	65	500 1500		66	20/1	SAMPLING PUMP (43-P-2400)	
SITE LIGHT	20/2	67		80 400	68	20/2	SITE LIGHTS (ALONG BASIN)	
	20/2	69	80 400		70	20/2		
	20/2	71			72	20/1		
	20/2	73			74	20/1		
SPARE	20/1	75			76	20/1	SPARE	
SPARE	20/1	77			78	20/1	SPARE	
SPARE	20/1	79			80	20/1	SPARE	
SPARE	20/1	81			82	20/1	SPARE	
SPARE	20/1	83			84	20/1	SPARE	
CONNECTED VA PER PHASE			14148.0	13021.0	NOTES:			
CONNECTED AMPS PER PHASE			117.9	108.5				
25% OF CONTINUOUS & LIGHTING LOAD (VA)			637.5	491.5				
LARGEST MOTOR (25%)			375.0	250.0				
CODE VA PER PHASE			15160.5	13762.5				
CODE AMPS PER PHASE			126.3	114.7				

PANEL LP-AB CALCULATIONS



JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

**ELECTRICAL
CALCULATIONS**

CHECKED	DRAWN	SCALE
APPROVED	DESIGNED	DATE
GENERAL MANAGER		DISTRICT ENGINEER
RCE # 54039		
NO.	DATE	DESCRIPTION
BY		APPR'D
SHEET		REVISIONS
PLAN NO.	DRAWING NO.	REVISION NO.
	E002	B

PLOT: EXTEND
SCALE: 1:1
BORDER: 22,34

COLOR: No.
RED 0.70MM
YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.70MM
210 0.60MM

Attachment C

Additional Supplemental Information

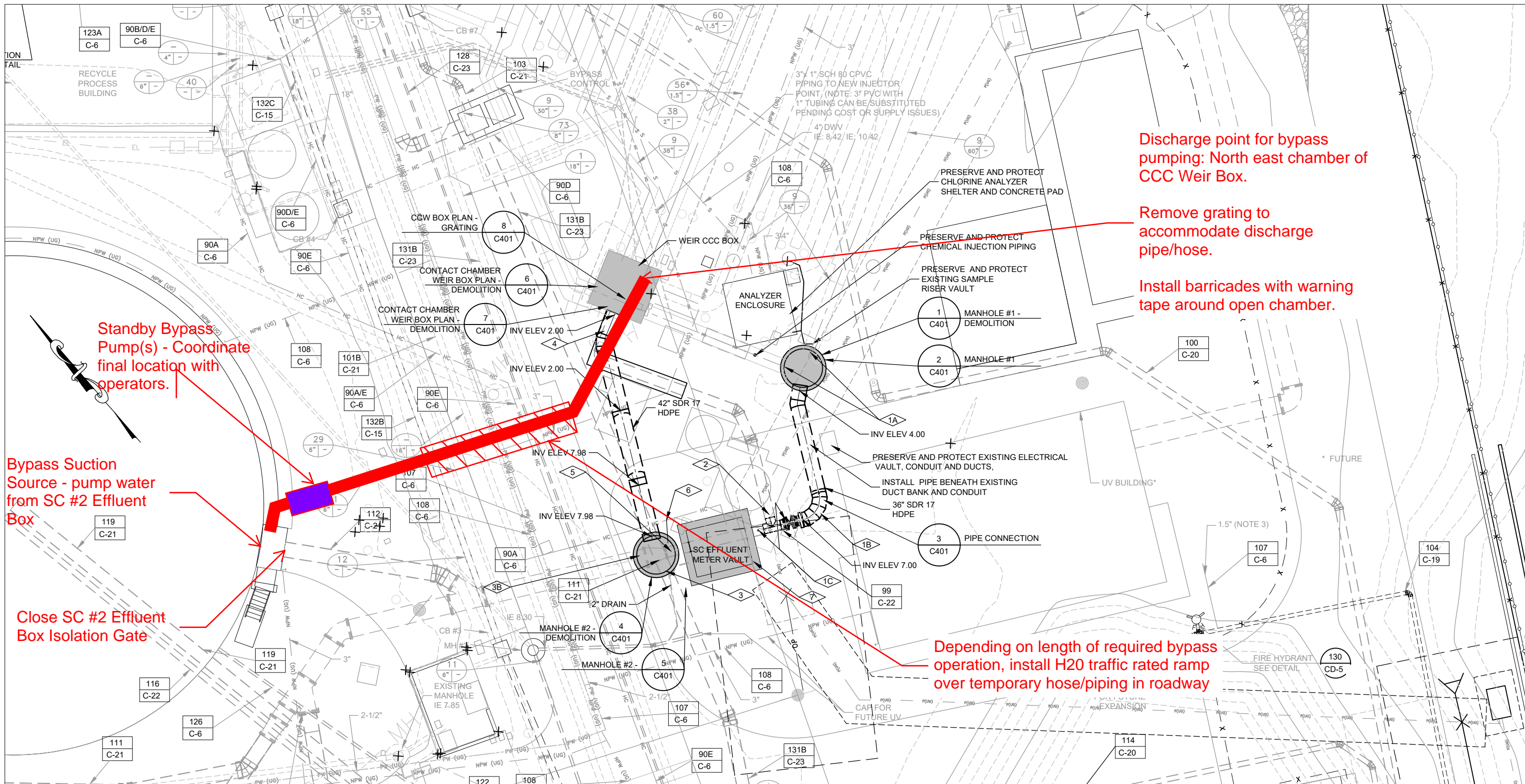
- 1) Bypass pumping site plan

C:\USERS\KENNETH.BAETZ\AQUA ENGINEERING\LGVS.D - DOCUMENTS\LASG1501119-SECONDARY TREATMENT UPGRADES\PHASE 18\DRAWING\001 SITE CIVIL\0201.DWG

9/8/2023

PLOTTED:
SAVED:

PLOT: EXTEND
SCALE: 1:1
BORDER: 22,34
COLOR: No.
RED 0.70MM
YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.70MM
210 0.60MM



LGVS.D 1 FILE:
FD144793
ADDENDUM 2

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 10 20
SECONDARY EFFLUENT LINE MODIFICATIONS

BYPASS PUMPING PLAN
SCALE: 1"=10'-0"
0 10 20
Scale in Feet



533 W 2600 S, SUITE 275, BOUNTIFUL, UT 84010
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JOB NO. -

LAS GALLINAS VALLEY SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SECONDARY EFFLUENT LINE MODIFICATIONS

CHECKED: JRL
APPROVED: JRL
GENERAL MANAGER: CUSTIS PAXTON

DRAWN: KRB
DESIGNED: EES
DISTRICT ENGINEER: Michael P Cortez

SCALE: AS SHOWN
DATE: 08/10/23

NO.	DATE	DESCRIPTION	BY	APPRD	SHEET	PLAN NO.	DRAWING NO.	REVISION NO.
REVISIONS								B