



CITY OF PETALUMA

POST OFFICE BOX 61
PETALUMA, CA 94953-0061

Teresa Barrett
Mayor

November 11, 2022

Brian Barnacle
D'Lynda Fischer
Mike Healy
Dave King
Kevin McDonnell
Dennis Pocekay
Councilmembers

REQUEST FOR STATEMENT OF QUALIFICATIONS (RFQ) FOR ENGINEERING AND DESIGN SERVICES FOR THE WILSON STORMWATER PUMP STATION RECONSTRUCTION.

INTRODUCTION

The City of Petaluma's Department of Public Works & Utilities is requesting a statement of qualifications (SOQ) from qualified consulting firms interested in providing engineering and design services for the reconstruction of Wilson Pump Station. The City will enter into a Professional Service Agreement (PSA) with the top qualified firm(s) to provide services for the project as described in the scope of services. It is understood that the breadth of services required to complete the project runs the spectrum of civil, mechanical, and electrical engineering disciplines. The City will evaluate each firm's SOQ and determine the most qualified firm(s) to complete the project.

Public Works & Utilities

City Engineer
11 English Street
Petaluma, CA 94952
Phone (707) 778-4303

Environmental Services

Ellis Creek –
Water Recycling Facility
3890 Cypress Drive
Petaluma, CA 94954
Phone (707) 776-3777
Fax (707) 656-4067

Parks & Facility Maintenance

840 Hopper St. Ext.
Petaluma, CA 94952
Phone (707) 778-4303
Fax (707) 206-6065

Transit Division

555 N. McDowell Blvd.
Petaluma, CA 94954
Phone (707) 778-4421

Utilities & Field Operations

202 N. McDowell Blvd.
Petaluma, CA 94954
Phone (707) 778-4546
Fax (707) 206-6034

E-Mail:

publicworks@cityofpetaluma.org

PROJECT BACKGROUND

Wilson pump station, located at 540 Lakeville Street in Petaluma, was constructed in 1987 with minor upgrades in 2005. The pump station serves as the City's primary stormwater pump station, collecting stormwater from central Petaluma from Lakeville Street to the fairgrounds and discharging stormwater into McNear Channel, see Attachment D for a drainage area map. The pump station currently has two natural gas 125 hp pumps and one electric duty 25 hp pump. It is currently suffering from poor performance due to equipment condition, exposure to the elements, and general inefficiencies.

The biggest inefficiency is that Wilson Pump Station receives seawater through its 48-inch outlets when the tide is high. There are five outlet pipes for this pump station, one 24-inch steel pipe, two 36-inch steel pipes, and two gravity-fed 48-inch reinforced concrete pipes, and each outlet has a cast iron flap gate. The existing flap gates leak and cause the pump station to run when the tide is high, wasting energy and natural gas, and putting unnecessary wear on the pumps. The three smaller flap gates are currently being replaced, and the two 48-inch flap gates will be replaced as a part of this project. In addition, the

structure of the pump station is deteriorating and needs replacement; however, the City's preference is to convert this station to an outdoor pump station, similar to the City's Vallejo Stormwater Pump station. See Attachment E for as-built drawings of the Wilson Stormwater Pump Station, Attachment F for photographs of the Wilson Pump Station, and Attachment G for Vallejo Pump Station as-builts.

SCOPE OF SERVICES

The City is requesting that a qualified consultant and necessary subconsultants partner with the City to provide engineering and design services for the reconstruction of Wilson Stormwater Pump Station. The project will include an assessment of the current pump station, the outfall piping and gates, design flow volume, and overall structural, mechanical, electrical, and operational integrity. This may include investigation, recommendations for redesign of the existing pump station, permitting, as well as plans, specifications, and construction documents. Conditions to be assessed should include, but are not limited to:

- Evaluate replacing the flap gates and recommend an appropriate solution
- Calculate necessary pump sizing for the drainage area and flow volume
- Evaluate if variable frequency drives would improve operational efficiency
- Evaluate electrifying the pump station to eliminate the need for natural gas
- Evaluate and recommend requirements for an outdoor pump station
- Evaluate permitting and any environmental compliance constraints

This project will include a full set of design drawings for the reconstruction of Wilson Pump Station. Design considerations should include, but are not limited to:

- Site security and access, exterior lighting and intrusion alarm
- Maintain existing SCADA connection between Wilson Pump Station and Water Field Office
- Ensure future SCADA connection can be made between Wilson Pump Station and Ellis Creek Water Recycling Facility
- Motor control center, field wiring, and instrumentation
- Site modifications to include exterior pump station components
- Structural calculations and details for pump foundations.

The Consultant and its team may need to perform the following tasks to complete the items discussed above:

- Perform field investigations and/or studies to determine the condition and operation of the pump station and provide engineering report(s) that analyze the flow volumes, including future hydrology and hydraulics
- Provide detailed recommendations to improve inefficiencies
- Evaluate environmental constraints and assist in obtaining CEQA compliance, if directed.
- Assist in identifying and obtaining any regulatory permitting requirements for the project, if directed.
- Provide additional recommendations or analysis for completion of project not included in these tasks.
- Host biweekly project meetings and design review meetings at 60% design, 90% design, and Final design, if directed

- Provide design documents, including a basis of design report, which outline the design, construction method, identify all obstacles and remedies, prepare construction documents, provide construction cost estimates for design alternatives that align with City goals, and provide technical specifications for bidding of the project, as directed. The construction documents prepared by the Consultant shall be bid ready.
- Provide consulting during construction. The selected Consultant would provide assistance during construction by approving submittals, assistance during construction period for clarification or changes in the field, inspection of new drainage design and/or repairs for plan and design compliance, and assistance through successful completion of the project.

RESPONSE TO RFQ

Statement of Qualifications **must** be received by the City of Petaluma by **3:00 PM, Tuesday, December 20th, 2022**. At or before the time mentioned above, Consultants shall send an email to **Kristin Arnold, at the email: karnold@cityofpetaluma.org**, which shall contain the following attachment:

1. Electronic (PDF) copy of the Consultant’s Statement of Qualifications.

The Statement of Qualification PDF for the project shall be limited to a **maximum of fifteen (15)** single-sided pages, **excluding** necessary Appendices and required Exhibits. Specific requirements are described as follows. All electronic attachments should be clearly labeled to make it easy for the City to identify the separate documents.

Additional RFQ Notes:

1. The maximum receivable email size is around 20 MB, for City servers. Therefore, statement of qualifications exceeding this size (**20 MB**) will need to be sent via a downloadable link. Alternatively, if size permits multiple emails (up to **two (2)**) can be sent and should be properly numbered with matching subjects. If multiple emails are sent the first email should outline the number of emails planned and their contents. The City will confirm receipt of any emails received at or before the specified due date and time.
2. Front and back covers can be included and will **not** count as part of the 15-page maximum. However, please note that front and back covers will not be used as part of the RFQ scoring.
3. Dividers can be used in the statement of qualifications and will **not** be counted as part of the fifteen-page limit. However, please note that any content on the divider pages will not be used as part of the RFQ scoring.
4. 11x17 sheets are permitted to be used for proposed schedules **only** and will be counted as one (1) page.

For questions or clarifications contact Kristin Arnold, P.E. by phone at (707) 780-7892 or email at karnold@cityofpetaluma.org.

1.0 STATEMENT OF QUALIFICATION REQUIREMENTS

1.1 COVER LETTER

Provide a cover letter signed by an official authorized to bind the firm, and the letter shall contain a statement that the firm is able to sign the City of Petaluma's standard PSA (Attachment A, B, C and D).

1.2 INTRODUCTION

Provide an overview of the firm's qualifications as they relate to providing similar design, construction and/or feasibility study services to municipal agencies. Include a brief description of your understanding of the project and services to be provided for the City of Petaluma. Identify your project management and technical approach to providing the services identified in the scope of services. Indicate which portions of the project(s) the firm would like to be considered.

1.3 PROJECT TEAM ORGANIZATION

Identify proposed team members and work on similar projects; include an organizational chart. List all subconsultants including contact information and areas of expertise. Briefly describe the roles of the prime Consultant and subconsultants. Provide information regarding the size and years in business of your firm and each subconsultant.

1.4 RELEVANT EXPERIENCE

Describe your firm's experience in providing the scope of services described in this RFQ. Provide information for up to five relevant projects. For each project for which descriptions are to be included, provide the following information:

- Project name and location
- Brief description of project scope
- Firm's project responsibility.
- Client name, address, contact person, and telephone number

1.5 QUALIFICATIONS

Provide detailed resumes of the proposed principal-in-charge and the project manager(s). Clearly identify experience relative to the scope of services. Describe current workload; available staff and resources; capacity and flexibility to meet schedules, including any unexpected work; and ability to perform on short notice and under time constraints.

1.6 REFERENCES

Provide three (3) business related references, giving name, company, address, telephone number, and business relationship. For proposed project managers, provide two (2) business related references, giving name, company, telephone number, and business relationship to project managers.

2.0 SELECTION PROCESS

2.1 SELECTION CRITERIA

The following is a partial list of the City's selection criteria for this Request for Qualifications (RFQ):

- Responsiveness to RFQ – breadth and depth of response, overall quality, responsiveness, and completeness.
- Range of services provided by the firm.
- Experience in providing the scope of services as described in this RFQ.
- Demonstrated understanding of the City's scope of work and requirements.
- Competence, technical ability, and experience of proposed personnel. Quality of consultant's related work experience (and demonstrated supporting references from their municipal clients).

2.2 SELECTION PROCESS

The City will select one or multiple consulting firms for follow-up interviews and/or submittal of a proposal for the work. The interview and/or proposals will be used to further evaluate the consultant's understanding of the City's project and expertise in delivering similar projects.

3.0 GENERAL INFORMATION

3.1 STATEMENT SUBMITTAL/NEGOTIATION OF CONTRACT

After the selection of the Consultant(s), the City and the Consultant(s) shall negotiate the contract under which the work shall be performed. All items submitted in the Consultant's statement shall be subject to negotiation.

3.2 PROFESSIONAL SERVICES AGREEMENT

The successful firm will be required to execute the City of Petaluma's Standard Professional Services Agreement (see **Attachment A, B, and C**). The Consultant should assume that no exceptions to this agreement will be accepted and that any Consultant submitting a statement must be prepared to execute this agreement without modification.

3.3 ESTIMATED SCHEDULE

Advertisement Date	November 11 th , 2022
SOQ Due Date	3:00 PM on December, 20 th , 2022
Potential Consultant Interviews	Week of January 9 th , 2022
Proposal from Selected Consultant Due by	January 27 th , 2022
Negotiated PSA Executed / Notice to Proceed Issued	February 17 th , 2022

If any further information is required, please contact Kristin Arnold at (707) 780-7892 or karnold@cityofpetaluma.org. Your interest in these projects is greatly appreciated.

Sincerely,

Kristin Arnold, P.E.
Senior Civil Engineer
City of Petaluma

Enclosures:

- Attachment A: Standard Professional Services Agreement
- Attachment B: Insurance Information – Exhibit B
- Attachment C: Prevailing Wage and – Exhibit C
- Attachment D: Living Wage Information – Exhibit D
- Attachment E: Wilson Pump Station Drainage Area Map
- Attachment F: Wilson Pump Station As-Builts
- Attachment G: Wilson Pump Station Photos
- Attachment H: Vallejo Pump Station As-Builts

ATTACHMENT A
PROFESSIONAL SERVICES AGREEMENT

(Title of Project)

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

For multi-year contracts or contracts with multiple accounts:

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

FY _____ Fund # _____ Cost Center _____ Object Code _____ Project # _____ Amount \$ _____

THIS PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is entered into and effective as of _____, 20____ (“Effective Date”), by and between the City of Petaluma, a
(city use only)

municipal corporation and a charter city (“City”) and _____, a _____ (“Contractor”) (collectively, the “Parties”).

WHEREAS, the Parties enter into this Agreement for the purpose of Contractor providing professional services to City under the terms and conditions set forth herein.

THEREFORE, in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

1. **Services.** Contractor shall provide the services as described in and in accordance with the schedule set forth in Exhibit “A” attached hereto and incorporated herein (“Services”). Except as otherwise expressly provided in this Agreement, this Agreement does not authorize the Contractor to perform any services in addition to those specified in Exhibit A. The City has no obligation to award any additional Services to the Contractor. Any additional Services awarded to the Contractor pursuant to this Agreement will be in the sole discretion of authorized representatives of the City and shall be added to Exhibit A in accordance with Section 25, Amendment, of this Agreement.

2. **Compensation; Business Tax Certificate.**
 - A. For the full performance of the Services as described herein, City shall compensate Contractor in accordance with the rates specified in Exhibit A.

 - B. Contractor shall submit detailed monthly invoices reflecting all services performed during the preceding month and including a revised schedule for performance and additional documentation requested by City, as applicable.

 - C. Contractor shall be compensated for services in addition to those described in Exhibit A, only if Contractor and City execute a written amendment to this Agreement describing the additional services to be performed and the compensation to be paid for such services. In no case shall the total compensation under this Agreement exceed \$_____ without prior written authorization of the City Manager. Further, no compensation for a section or work program component attached with a specific budget shall be exceeded without prior written authorization of the City Manager.

- D. Notwithstanding any provision herein, Contractor shall not be paid any compensation until such time as Contractor has on file with the City Finance Department a current W-9 form available from the IRS website (www.irs.gov) and has obtained a currently valid Petaluma business tax certificate.
- E. City's obligation to pay compensation to Contractor as provided herein is contingent upon Contractor's performance of the Services pursuant to the terms and conditions of this Agreement and any amendments thereto.
3. **Term.** The term of this Agreement commences on the Effective Date, and terminates on _____, unless sooner terminated in accordance with Section 4. Upon termination, any and all of City's documents or materials provided to Contractor and any and all of the documents or materials prepared for City or relating to the performance of the Services, shall be delivered to the City as soon as possible, but not later than fourteen (14) days after termination of the Agreement.
4. **Termination.** City may terminate this Agreement without cause upon ten (10) days' written notice. City may immediately terminate or suspend this Agreement for cause. Cause for immediate termination or suspension shall include, but not be limited to, any breach of this Agreement by Contractor or Contractor's bankruptcy or insolvency. Upon receipt of notice of termination or suspension for cause, Contractor shall immediately stop all work in progress under this Agreement. In the event of early termination of this Agreement by City, Contractor shall be entitled to payment for all Services performed to the date of termination to the extent such Services were performed to the satisfaction of City in accordance with the terms and conditions of this Agreement. If City terminates this Agreement for cause, Contractor shall be liable to City for any excess cost City incurs for completion of the Services.
5. **Contractor's Representation; Independent Contractor.** Contractor represents that Contractor possesses distinct professional skills in performing the Services. City has relied upon said representation as a material inducement to enter into this Agreement. Contractor shall, therefore, provide properly skilled professional and technical personnel to perform all Services under this Agreement. It is expressly understood that Contractor and its agents and employees, shall act in an independent capacity and as an independent contractor and not as officers, employees or agents of City. This Agreement shall not be construed as an agreement for employment.
6. **Facilities and Equipment.** Contractor shall, at its sole cost and expense, furnish all facilities and equipment that may be required for furnishing Services pursuant to this Agreement. City shall furnish to Contractor no facilities or equipment, unless the City otherwise agrees in writing to provide the same.
7. **Licenses, Permits, Etc.** Contractor shall, at Contractor's sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits or other such approvals which are legally required for performing the Services.
8. **Time.** Contractor shall devote such time to the performance of the Services as may be reasonably necessary for satisfactory performance of Contractor's obligations pursuant to this Agreement.

9. **Inspection.** Contractor shall provide the City every reasonable opportunity to ascertain that the Services are being performed in accordance with the requirements and intentions of this Agreement. All work done and materials furnished, if any, shall be subject to inspection and approval by the City. The inspection of such work shall not relieve Contractor of any of its obligations pursuant to this Agreement.
10. **Progress Reports.** Upon the City's request, Contractor shall provide, in a form acceptable to City, written progress reports of all oral and written observations, opinions, recommendations, analyses, progress and conclusions related to Contractor's performance of the Services.
11. **Confidentiality.** In the course of Contractor's employment, Contractor may have access to trade secrets and confidential information, disclosure of which is protected or limited by law. Contractor shall not directly or indirectly disclose or use any such confidential information, except as required for the performance of the Services.
12. **Conflict of Interest.**
 - A. Contractor represents that it presently has no interest, and covenants that it shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services hereunder. Contractor further covenants that, in the performance of this Agreement, it shall not employ any subcontractor or person having such a conflict of interest. Contractor represents that no one who has or will have any financial interest under the Agreement is an officer or employee of City. If such conflict of interest arises during this Agreement or any extension, Contractor will immediately advise City and City may, at its sole discretion, immediately terminate this Agreement. Certain Contractors are subject to the requirements, including the disclosure and reporting requirements, of the City's Conflict of Interest Code adopted pursuant to the Political Reform Act. Such Contractors subject to the City's Conflict of Interest Code include those whose work may involve: making government decisions regarding approval or adoption of rates, rules, or regulations, action on permits or other applications, authorization to enter into or modify contracts, or approval of plans, designs, reports, or studies. Contractor agrees to comply fully with all such requirements to the extent they apply to Contractor's performance of the Services.
 - B. Certain contractors, in addition to being subject to the City's Conflict of Interest Code, may be subject to other conflict of interest prohibitions, including those in the Political Reform Act, Government Code Section 81000 and following, and Section 1090 and following of the Government Code. The Political Reform Act prohibits public officials, employees and certain contractors from participating in making governmental decisions that the official, employee or consultant knows or has reason to know will result in a material financial effect on their economic interests. Government Code Section 1090 and following prohibits government officials, employees, and certain contractors from participating in making government contracts in which the official, employee or contractor has a financial interest. As a result of the financial interest City contractors have in their City contracts, the Section 1090 prohibition regarding City contractors focuses on whether a contractor is or would be "making a government contract" in a quasi-governmental capacity for purposes of Section 1090. Section 1090

prohibits City contractors from using their role as a contractor to influence how the City spends the public's funds in a way that benefits the contractor. As a result, Section 1090 may in certain circumstances prohibit the Contractor from responding to solicitations for, or being awarded, subsequent contracts that result from or relate to the Services performed pursuant to this Agreement. . Penalties for violating Section 1090 are severe, and may include felony criminal penalties, permanent disqualification from holding public office in California, disgorgement of any benefit received by the financially interested contractor, civil and administrative penalties, and voiding of the prohibited contract.

13. **Contractor No Agent.** Except as the City may otherwise expressly specify in writing, the Contractor shall have no authority, express or implied, to act or transact on behalf of City in any capacity whatsoever, including advising or representing the City concerning City public contracts as an agent of the City. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.
14. **Standard of Performance.** Contractor shall perform all the Services in a manner consistent with the standards of Contractor's profession. All instruments of service of whatsoever nature, which Contractor delivers to City pursuant to this Agreement, shall be prepared in a substantial, workmanlike manner and conform to the standards of Contractor's profession. All such instruments of service shall become the sole and exclusive property of City upon delivery of the same.
15. **Assignment/Transfer.** No assignment or transfer in whole or in part of this Agreement shall be made without the prior written consent of City.
16. **Subcontractors.** Contractor shall directly perform all Services, and shall not subcontract any portion of performance of the Services without the prior written consent of City. Any such subcontractors shall be required to comply, to the full extent applicable, with the terms and conditions of this Agreement, including but not limited to, procuring and maintaining insurance coverage as required herein and which shall name City as an additional insured.
17. **Compliance With All Laws.** Contractor shall fully comply with all applicable local, state and federal rules, laws, regulations and ordinances pertaining to the performance of the Services required hereunder, including but not limited to, the California Building Standards Code as in effect in the City, the Americans with Disabilities Act, and any laws and regulations related to any copyright, patent, trademark or other intellectual property right involved in performance of the Services. Contractor's failure to comply with any law(s) or regulation(s) applicable to the performance of the Services hereunder shall constitute a material breach of this Agreement. To the extent that any other government agency or entity provides compensation for any Services, Contractor shall comply with all rules and regulations applicable to such fiscal assistance.
18. **Prevailing Wages.** This Agreement is subject to the requirements of the California Prevailing Wage Law, California Labor Code Section 1720 et seq., and the Services as described in Exhibit A will be performed in accordance with all applicable requirements of the California Prevailing Wage Law, including, but not limited to, all applicable requirements contained in Exhibit _____, which is attached to and made a part of this Agreement.

19. **Living Wage Ordinance.** Without limiting the foregoing Section 17, Contractor shall comply fully with all applicable requirements of Petaluma Municipal Code, Chapter 8.36, Living Wage (the “Living Wage Ordinance”), as the same may be amended from time to time. Upon the City’s request Contractor shall promptly provide to the City documents and information verifying Contractor’s compliance with the requirements of the Living Wage Ordinance, and shall within fifteen (15) calendar days of the Effective Date of this Agreement, notify each of its affected employees as to the amount of wages and time off that are required to be provided to them pursuant to the Living Wage Ordinance. The Acknowledgement and Certification Pursuant to City of Petaluma Living Wage Ordinance, attached to this Agreement at Exhibit _____, shall be a part of this Agreement for all purposes, and Contractors that are subject to Living Wage Ordinance requirements, as determined by the City, must provide a properly completed Exhibit _____ in accordance with the requirements of the Living Wage Ordinance. Contractor’s noncompliance with the applicable requirements of the Living Wage Ordinance shall constitute cause for City’s termination of this Agreement pursuant to Section 4 hereof.
20. **Discrimination.** During the performance of this Agreement, Contractor shall not discriminate against any employee or applicant for employment because of race, religion, creed, color, national origin, ancestry, gender, sexual orientation, age or physical or mental disability in violation of any applicable law.
21. **Notice.** Except as otherwise specified in this Agreement, all notices to be sent pursuant to this Agreement shall be made in writing, and sent to the Parties at their respective addresses specified below or to such other address as a Party may designate by written notice delivered to the other Party in accordance with this Section. All such notices shall be sent by:
- (i) personal delivery, in which case notice is effective upon delivery;
 - (ii) certified or registered mail, return receipt requested, in which case notice shall be deemed delivered on receipt if delivery is confirmed by a return receipt;
 - (iii) nationally recognized overnight courier, with charges prepaid or charged to the sender’s account, in which case notice is effective on delivery if delivery is confirmed by the delivery service; or
 - (iv) facsimile transmission, in which case notice shall be deemed delivered upon transmittal, provided that (a) a duplicate copy of the notice is promptly delivered by first-class or certified mail or by overnight delivery, or (b) a transmission report is generated reflecting the accurate transmission thereof. Any notice given by facsimile shall be considered to have been received on the next business day if it is received after 5:00 p.m. recipient’s time or on a nonbusiness day.

City: City Clerk
City of Petaluma
Post Office Box 61
Petaluma, California 94953
Phone: (707) 778-4360
Fax: (707) 778-4554
Email: cityclerk@ci.petaluma.ca.us

And:

Phone: _____
Fax: _____
Email: _____

Contractor: _____

Phone: _____
Fax: _____
Email: _____

22. **Ownership of Documents.** All original papers, documents or computer material on disk or microfilm, and copies thereof, produced as a result of this Agreement, shall be the property of City and may not be used by Contractor without the written consent of City. Copies of such documents or papers shall not be disclosed to others without the written consent of the City Manager or his or her designated representative. Notwithstanding this provision or any other provision in this Agreement to the contrary, the City and the Contractor shall each own all right, title and interest in and to any intellectual property authored by or on behalf of the City or the Contractor related to the Services. The City shall have an irrevocable, royalty-free, world-wide, fully-paid-up, non-exclusive license to use and authorize others to use any intellectual property of the Contractor included in the work products produced as part of the performance of the Services pursuant to this Agreement.

23. **Indemnification.** A. With respect to commercial general liability, to the maximum extent permitted by law, Contractor shall, at its own expense, indemnify, defend with counsel acceptable to the City, (which acceptance will not be unreasonably withheld), and hold harmless City and its officers, officials, employees, agents and volunteers (“Indemnitees”) from and against any and all liability, loss, damage, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, civil penalties and fines, expenses and costs (including, without limitation, claims expenses, attorney’s fees and costs and fees of litigation) (collectively, “Liability”) of every nature, whether actual, alleged or threatened, arising out of or in connection with the Contractor’s performance of the Services or Contractor’s failure to comply with any of the terms of this Agreement, regardless of any fault or alleged fault of the Indemnitees.

B. With respect to professional liability, notwithstanding the foregoing or any other provision in this Agreement, to the maximum extent permitted by law, Contractor shall indemnify defend and hold harmless the Indemnitees from Liability arising out of or in connection with the negligence, recklessness, or willful misconduct of Contractor.

C. The Contractor must respond within 30 calendar days to any tender of defense and indemnity by the City unless the time for responding has been extended by an authorized representative of the City in writing. If the Contractor fails to accept tender of defense and indemnity within 30 calendar days regarding a matter subject to tender pursuant to this Agreement, in addition any other remedies authorized by law, so much of the money due or

that may become due the Contractor under this Agreement as shall reasonably be considered necessary by the City may be retained by the City until disposition has been made of the matter subject to tender, or until the Contractor accepts the tender, whichever occurs first. In the event that the City must file responsive documents in a matter tendered to Contractor prior to Contractor's acceptance of tender, where such matter is subject to tender pursuant to this Agreement, Contractor agrees to fully reimburse all costs, including but not limited to attorney's fees and costs and fees of litigation, incurred by the City in filing such responsive documents.

D. Notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code Section 2783, as may be amended from time to time, Contractor's duty to indemnify under this provision shall not apply when to do so would be prohibited by California Civil Code Section 2782, as may be amended from time to time.

E. Notwithstanding the foregoing, to the extent that the Services include design professional services subject to California Civil Code Section 2782.8, as may be amended from time to time, Contractor's duty to indemnify shall only be to the maximum extent permitted by California Civil Code Section 2782.8.

24. **Insurance.** Contractor shall comply with the "Insurance Requirements for Contractors" in Exhibit B, attached hereto and incorporated herein by reference.

City reserves the right to review any and all of the required insurance policies and/or endorsements, but has no obligation to do so. City's failure to demand evidence of full compliance with the insurance requirements set forth in this Agreement or City's failure to identify any insurance deficiency shall not relieve Contractor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

25. **Amendment.** This Agreement may be amended only by a written instrument executed by both Parties.

26. **Litigation.** If litigation ensues which pertains to the subject matter of Contractor's services hereunder, Contractor, upon request from City, agrees to testify therein at a reasonable and customary fee.

27. **Construction.** This Agreement is the product of negotiation and compromise on the part of both Parties and that the Parties agree that, notwithstanding Civil Code section 1654, any uncertainty in the Agreement shall not be construed against the drafter of the Agreement.

28. **Governing Law; Venue.** This Agreement shall be enforced and interpreted under the laws of the State of California and the City of Petaluma. Any action arising from or brought in connection with this Agreement shall be venued in a court of competent jurisdiction in the County of Sonoma, State of California.

29. **Non-Waiver.** The City's failure to enforce any provision of this Agreement or the waiver thereof in a particular instance shall not be construed as a general waiver of any part of such provision. The provision shall remain in full force and effect.

30. **Severability.** If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.
31. **No Third Party Beneficiaries.** The Parties do not intend to create, and nothing in this Agreement shall be construed to create any benefit or right in any third party.
32. **Mediation.** The Parties agree to make a good faith attempt to resolve any dispute arising out of this Agreement through mediation prior to commencing litigation. The Parties shall mutually agree upon the mediator and shall divide the costs of mediation equally.
33. **Contractor's Books and Records.**
- A. Contractor shall maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to the City for a minimum period of three (3) years or for any longer period required by law, from the date of final payment to Contractor pursuant to this Agreement.
 - B. Contractor shall maintain all documents and records which demonstrate performance under this Agreement for a minimum period of three (3) years or for any longer period required by law, from the date of termination or completion of this Agreement.
 - C. Any records or documents required to be maintained pursuant to this Agreement shall be made available for inspection or audit, at any time during regular business hours, upon written request by the City Manager, City Attorney, City Finance Director, or a designated representative of these officers. Copies of such documents shall be provided to the City for inspection at Petaluma City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Contractor's address indicated for receipt of notices in this Agreement.
 - D. Where City has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of Contractor's business, City may, by written request by any of the above-named officers, require that custody of the records be given to the City and that the records and documents be maintained in Petaluma City Hall. Access to such records and documents shall be granted to any party authorized by Contractor, Contractor's representatives, or Contractor's successor in interest.
34. **Headings.** The headings used in this Agreement are for convenience only and are not intended to affect the interpretation or construction of any provisions herein.
35. **Survival.** All obligations arising prior to the termination or expiration of this Agreement and all provisions of this Agreement allocating liability between City and Contractor shall survive the termination or expiration of this Agreement.
36. **Entire Agreement.** This Agreement, including the exhibits attached hereto and incorporated herein, constitutes the entire agreement between the Parties with respect to

the Services, and supersedes all prior agreements or understandings, oral or written, between the Parties in this regard.

IN WITNESS WHEREOF, the parties hereto have executed this document the day, month and year first above written.

CITY OF PETALUMA

City Manager

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

CONTRACTOR

By _____
Name

Title

Address

City State Zip

Taxpayer I.D. Number

Petaluma Business Tax Certificate Number

ATTACHMENT B
EXHIBIT B
INSURANCE REQUIREMENTS
FOR ALL AGREEMENTS

Contractor's performance of the Services under this Agreement shall not commence until Contractor shall have obtained all insurance required under this paragraph and such insurance shall have been approved by the City Attorney as to form and the Risk Manager as to carrier and sufficiency. All requirements herein provided shall appear either in the body of the insurance policies or as endorsements and shall specifically bind the insurance carrier.

Contractor shall procure and maintain for the duration of the contract all necessary insurance against claims now and in the future for injuries to persons or damages to property which may arise from or in connection with the performance of the Services by the Contractor, the Contractor's agents, representatives, employees and subcontractors.

A. Required Minimum Scope of Insurance

- Coverage shall be at least as broad as:
Insurance Services Office Commercial General Liability coverage:
 - a. Personal injury;
 - b. Contractual liability.
- Insurance Services Office form covering Automobile Liability (any auto), if no company owned autos, non-owned and hired auto applies.
- Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.
- Professional Liability/Errors and Omissions
- Crime/Employee Blanket Fidelity Bond
- Property Insurance against all risks of loss to any tenant improvements or betterments.
- Pollution Liability Insurance
- Garage Liability
- Garagekeepers Insurance
- Technology Professional Liability Errors and Omissions Insurance (IT Consultant)/Cyber Liability
- Abuse or Molestation Liability Coverage

A.1 Required for All Contracts

- Policy Endorsements or Excerpts from the Policy Pursuant to Section D
- Copy of the Declarations and Policy Endorsements Page for the CGL Policy

B. Minimum Limits of Insurance

Consultant shall maintain limits no less than:

- General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate liability is used, either the general aggregate limit shall apply separately to this Agreement or the general aggregate limit shall be twice the required occurrence limit.
- Products/Completed Operations: \$1,000,000 per occurrence/aggregate.
- Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.
- Employer's Liability: Bodily Injury by Accident - \$1,000,000 each accident.

Bodily Injury by Disease - \$1,000,000 policy limit.

Bodily Injury by Disease - \$1,000,000 each employee.

- Professional Liability/Errors and Omissions: \$1,000,000 per occurrence or claim. If the policy provides coverage on a claims-made basis, the retroactive date must be shown and must be before the date of the Agreement or the beginning of the contract work.
 - Crime/Employee Blanket Fidelity Bond - \$1,000,000: Contractor, at its own cost and expense, must maintain a Crime/Employee Blanket Fidelity Bond in the amount of \$1,000,000 per employee covering dishonesty, forgery, alteration, theft, disappearance, destruction (inside or outside).
 - All Risk Property Insurance: Full replacement cost.
 - Pollution legal liability with limits no less than \$1,000,000 per occurrence or claim and \$2,000,000 policy aggregate. If the policy provides coverage on a claims-made basis, the retroactive date must be shown and must be before the date of the Agreement or the beginning of the contract work.
 - Garage Liability: \$1,000,000 per occurrence.
 - Garagekeepers Insurance: \$1,000,000 per occurrence.
 - Technology Professional Liability Errors and Omissions Insurance appropriate to the Consultant's profession and work hereunder, with limits not less than \$1,000,000 per occurrence. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by the Vendor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, copyright, trademark, invasion of privacy violations, information theft, release of private information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.
1. The Policy shall include, or be endorsed to include, **property damage liability coverage** for damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the City in the care, custody, or control of the Consultant. If not covered under the Consultant's liability policy, such "property" coverage of the City may be endorsed onto the Consultant's Cyber Liability as covered property as follows:
 2. **Cyber Liability coverage** in an amount sufficient to cover the full replacement value of damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the City that will be in the care, custody, or control of the Consultant.
 3. The Insurance obligations under this agreement shall be the greater of 1) all the Insurance coverage and limits carried by or available to the Consultant; or 2) the minimum Insurance requirements shown in this Agreement. Any insurance proceeds in excess of the specified limits and coverage required, which are applicable to a given loss, shall be available to the City. No representation is made that the minimum Insurance requirements of this Agreement are sufficient to cover the indemnity or other obligations of the Consultant under this agreement.
- Abuse or Molestation Liability Coverage: \$1,000,000 per occurrence; \$2,000,000 aggregate.

C. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees, and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured (Contractor) or the City.

City reserves the right to review any and all of the required insurance policies, declaration pages, and/or endorsements, but has no obligation to do so. City's failure to demand evidence of full compliance with the insurance requirements set forth in this Agreement or City's failure to identify any insurance deficiency shall not relieve Contractor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

D. Other Insurance Provisions

The required general liability and automobile policies are to contain, or be endorsed to contain the following provisions:

1. **Additional Insured:** The City, its officers, officials, employees, agents and volunteers are to be covered as Additional Insureds as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees, agents or volunteers.
2. **Primary and Non-Contributory:** For any claims related to this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City, its officers, officials, employees, agents or volunteers.
4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought except, with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.
6. **Waiver of Subrogation:** Consultant agrees to waive subrogation rights for commercial general liability, automobile liability and worker's compensation against City regardless of the applicability of any insurance proceeds, and to require all contractors, subcontractors or others involved in any way with the Services to do likewise.
7. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirement and/or limits shall be available to the additional insured. Furthermore, the requirement for coverage and limits shall be (1) the minimum coverage and limits specified in this

Agreement, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater.

8. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City of Petaluma before the City of Petaluma's own insurance or self-insurance shall be called upon to protect it as a named insured.

E. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

F. Verification of Coverage

NOTE: The City of Petaluma is now using an online insurance program, PINS Advantage. Once you have been awarded a contract with the City of Petaluma, you will receive an e-mail from PINS Advantage/City of Petaluma requesting that you forward the e-mail to your insurance agent(s). Consultant shall furnish the City with Certificate of Insurance along with Declarations and Endorsements effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by the City before the Services commence.

ATTACHMENT C
PREVAILING WAGE EXHIBIT C

HOURS OF WORK:

- A. In accordance with California Labor Code Section 1810, eight (8) hours of labor in performance of the Services shall constitute a legal day's work under this Agreement.
- B. In accordance with California Labor Code Section 1811, the time of service of any worker employed in performance of the Services is limited to eight hours during any one calendar day, and forty hours during any one calendar week, except in accordance with California Labor Code Section 1815; which provides that work in excess of eight hours during any one calendar day and forty hours during any one calendar week is permitted upon compensation for all hours worked in excess of eight hours during any one calendar day and forty hours during any one calendar week at not less than one-and-one-half times the basic rate of pay.
- C. The Consultant and its subconsultants shall forfeit as a penalty to the City \$25.00 for each worker employed in the performance of the Services for each calendar day during which the worker is required or permitted to work more than eight (8) hours in any one calendar day, or more than forty (40) hours in any one calendar week, in violation of the provisions of California Labor Code Section 1810 and following.

WAGES:

- A. In accordance with California Labor Code Section 1773.2, the City has determined the general prevailing wages in the locality in which the Services are to be performed for each craft or type of work needed to be as published by the State of California Department of Industrial Relations, Division of Labor Statistics and Research, a copy of which is on file with the City and shall be made available on request. The Consultant and subconsultants engaged in the performance of the Services shall pay no less than these rates to all persons engaged in performance of the Services.
- B. In accordance with Labor Code Section 1775, the Consultant and any subconsultants engaged in performance of the Services shall comply Labor Code Section 1775 which establishes a penalty of up to \$200.00 per day for each worker engaged in the performance of the Services that the Consultant or any subconsultant pays less than the specified prevailing wage. The amount of such penalty shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Consultant or subconsultant in failing to pay the correct rate of prevailing wages, or the previous record of the Consultant or subconsultant in meeting applicable prevailing wage obligations, or the willful failure by the Consultant or subconsultant to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Consultant or subconsultant had knowledge of their obligations under the California Labor Code. The Consultant or subconsultant shall pay the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate. If a subconsultant worker engaged in performance of the

Services is not paid the general prevailing per diem wages by the subconsultant, the Consultant is not liable for any penalties therefore unless the Consultant had knowledge of that failure or unless the Consultant fails to comply with all of the following requirements:

1. The Agreement executed between the Consultant and the subconsultant for the performance of part of the Services shall include a copy of the provisions of California Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815.
2. The Consultant shall monitor payment of the specified general prevailing rate of per diem wages by the subconsultant by periodic review of the subconsultant's certified payroll records.
3. Upon becoming aware of a subconsultant's failure to pay the specified prevailing rate of wages, the Consultant shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subconsultant for performance of the Services.
4. Prior to making final payment to the subconsultant, the Consultant shall obtain an affidavit signed under penalty of perjury from the subconsultant that the subconsultant has paid the specified general prevailing rate of per diem wages employees engaged in the performance of the Services and any amounts due pursuant to California Labor Code Section 1813.

C. In accordance with California Labor Code Section 1776, the Consultant and each subconsultant engaged in performance of the Services, shall keep accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in performance of the Services. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

1. The information contained in the payroll record is true and correct.
2. The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any Services performed by the employer's employees on the public works project.

The payroll records required pursuant to California Labor Code Section 1776 shall be certified and shall be available for inspection by the Owner and its authorized representatives, the Division of Labor Standards Enforcement, the Division of Apprenticeship Standards of the Department of Industrial Relations and shall otherwise be available for inspection in accordance with California Labor Code Section 1776. In addition, Consultant and sub-consultant shall be required to be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. Consultant and any sub-consultant shall submit certified payroll records to the Department of Industrial Relations Labor Commissioner online:

<https://efiling.dir.ca.gov/eCPR/pages/eCPROnlineForm.jsp>

Consultant is responsible for ensuring compliance with this section.

D. In accordance with California Labor Code Section 1777.5, the Consultant, on behalf of the Consultant and any subconsultants engaged in performance of the Services, shall be responsible

for ensuring compliance with California Labor Code Section 1777.5 governing employment and payment of apprentices on public works contracts.

- E. In case it becomes necessary for the Consultant or any subconsultant engaged in performance of the Services to employ on the Services any person in a trade or occupation (except executive, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate has been determined by the Director of the Department of Industrial Relations, the Consultant shall pay the minimum rate of wages specified therein for the classification which most nearly corresponds to Services to be performed by that person. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.

ATTACHMENT D

EXHIBIT D

ACKNOWLEDGEMENT AND CERTIFICATION PURSUANT TO CITY OF PETALUMA LIVING WAGE ORDINANCE PETALUMA MUNICIPAL CODE CHAPTER 8.36

The City of Petaluma Living Wage Ordinance (“Ordinance”), Petaluma Municipal Code Chapter 8.36, applies to certain service contracts, leases, franchises and other agreements or funding mechanisms providing financial assistance (referred to hereafter as an “Agreement”) between the City of Petaluma (“City”) and/or the Petaluma Community Development Commission (“PCDC”) and contractors, lessees, franchisees, and/or recipients of City and/or PCDC funding or financial benefits (“covered entities”).

Pursuant to Petaluma Municipal Code Section 8.36.120, as part of any bid, application or proposal for any Agreement subject to the Ordinance, the covered entity shall:

- Acknowledge that the covered entity is aware of the Ordinance and intends to comply with its provisions.
- Complete the Report of Charges, Complaints, Citations and/or Findings contained in this Acknowledgement and Certification by providing information, including the date, subject matter and manner of resolution, if any, of all wage, hour, collective bargaining, workplace safety, environmental or consumer protection charges, complaints, citations, and/or findings of violation of law or regulation by any regulatory agency or court including but not limited to the California Department of Fair Employment and Housing, Division of Occupational Safety and Health (OSHA), California Department of Industrial Relations (Labor Commissioner), Environmental Protection Agency and/or National Labor Relations Board, which have been filed or presented to the covered entity within the ten years immediately prior to the bid, proposal, submission or request.

Pursuant to Petaluma Municipal Code Section 8.36.120, before the beginning of the term of any covered Agreement, or prior to the execution of said Agreement by the City or the PCDC, each covered entity shall certify that its employees are paid a living wage that is consistent with Petaluma Municipal Code Chapter 8.36.

By executing this Acknowledgement and Certification, the covered entity (i) acknowledges that it is aware of the Ordinance and intends to comply with its provisions, (ii) attests to the accuracy and completeness of information provided in the Report of Charges, Complaints, Citations and/or Findings contained herein, (iii) certifies that it pays its covered employees a Living Wage as defined in Petaluma Municipal Code Chapter 8.36 and (iv) attests that the person executing this Acknowledgement and Certification is authorized to bind the covered entity as to the matters covered in this Acknowledgment and Certification.

SO ACKNOWLEDGED and CERTIFIED:

Project or Contract I.D: _____

_____ Date: _____
(Print Name of Covered Entity/Business Capacity)

By _____
(Print Name)

/s/ _____
(Signature)

Its _____
(Title /Capacity of Authorized Signer)

**REPORT OF CHARGES, COMPLAINTS, CITATIONS AND/OR FINDINGS
PURSUANT TO PETALUMA MUNICIPAL CODE SECTION 8.36.120**

FOR EACH WAGE, HOUR, COLLECTIVE BARGAINING, WORKPLACE SAFETY, ENVIRONMENTAL OR CONSUMER PROTECTION CHARGE, COMPLAINT, CITATION, AND/OR FINDING OF VIOLATION OF LAW OR REGULATION BY ANY REGULATORY AGENCY OR COURT, INCLUDING BUT NOT LIMITED TO THE CALIFORNIA DEPARTMENT OF FAIR EMPLOYMENT AND HOUSING, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (OSHA), CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (LABOR COMMISSIONER), ENVIRONMENTAL PROTECTION AGENCY AND/OR NATIONAL LABOR RELATIONS BOARD, WHICH:

- AFFECTS YOU AS A PROSPECTIVE CONTRACTOR, SUBCONTRACTOR, LESSEE, FRANCHISEE AND/OR PARTY TO ANY CITY OF PETALUMA AND/OR PETALUMA COMMUNITY DEVELOPMENT COMMISSION-FUNDED AGREEMENT OR BENEFIT SUBJECT TO PETALUMA MUNICIPAL CODE CHAPTER 8.36 (LIVING WAGE ORDINANCE), AND
- HAS BEEN FILED OR PRESENTED TO YOU WITHIN THE TEN YEARS IMMEDIATELY PRIOR TO THE BID, PROPOSAL, SUBMISSION OR REQUEST FOR WHICH THIS ACKNOWLEDGEMENT AND CERTIFICATION IS MADE.

PLEASE PROVIDE THE DATE, THE REGULATORY AGENCY OR COURT MAKING THE CHARGE COMPLAINT, CITATION OR FINDING, THE SUBJECT MATTER AND THE MANNER OF RESOLUTION, IF ANY, FOR EACH SUCH CHARGE COMPLAINT, CITATION OR FINDING.

IF NONE, PLEASE STATE "NONE": _____

ATTACH ADDITIONAL PAGES IF NEEDED.

Date: _____

Regulatory Agency or Court: _____

Subject Matter: _____

Resolution, if any: _____

Expected resolution, if known: _____

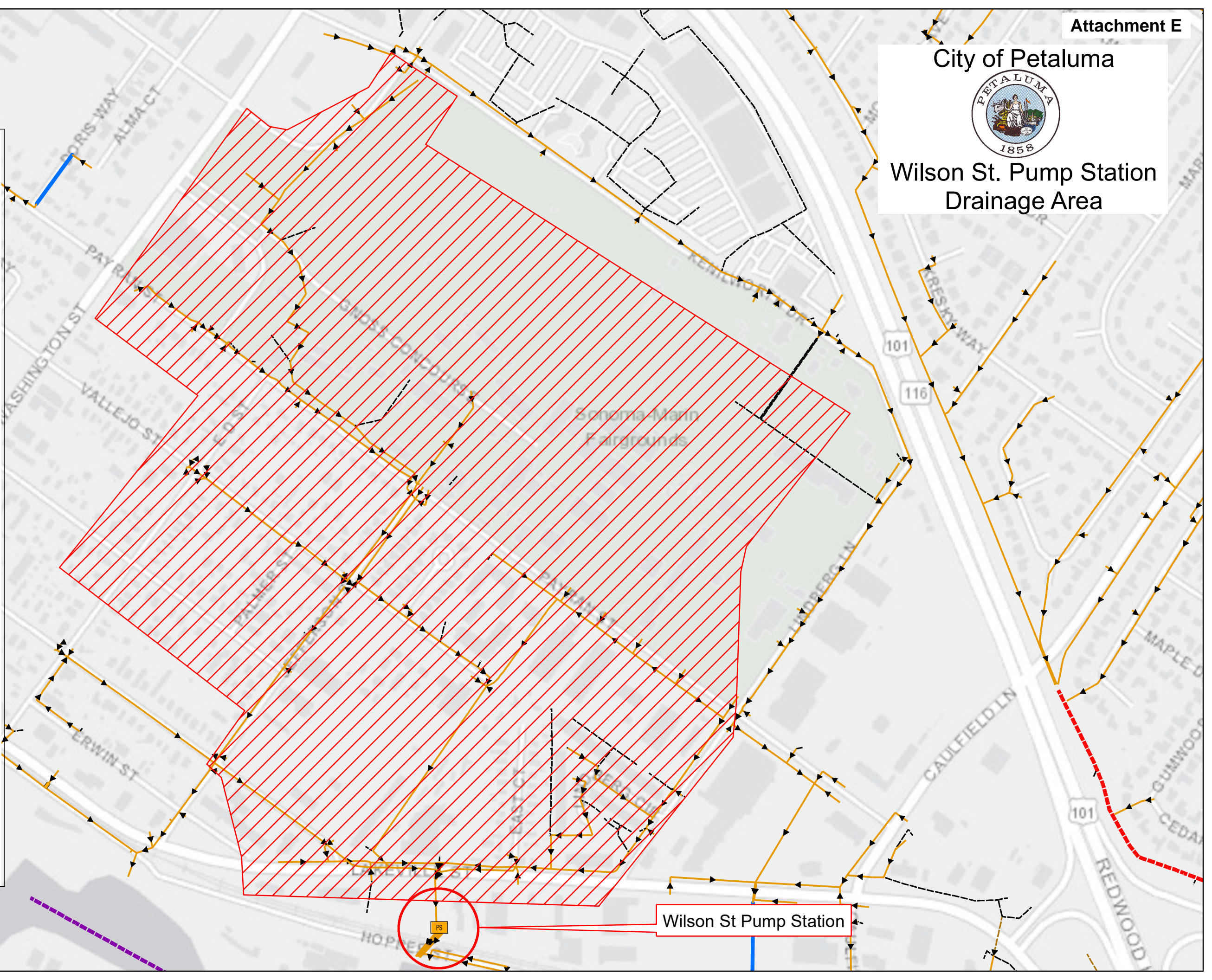
City of Petaluma



Wilson St. Pump Station Drainage Area

Legend

- Approx. Drainage Area
- Storm Pump Stations**
 - City
- Storm Casings**
 - Storm Casings
- Storm Culverts**
 - City
 - Private
 - Sonoma County
 - State Agency
- Stormwater Gravity Main**
 - City
 - Private
 - Sonoma County
 - State Agency
- Storm Open Drains**
- Managed By**
 - City
 - Private
 - Sonoma County
 - State Agency
 - Federal Agency

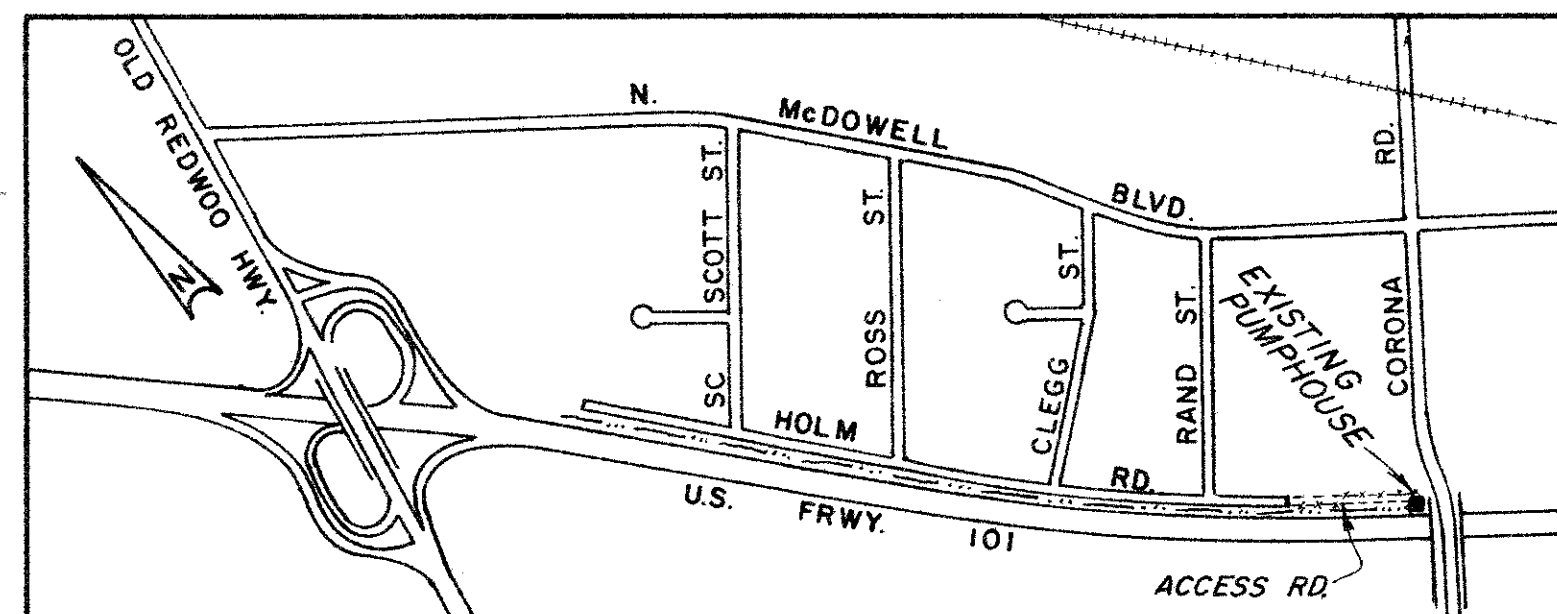


Wilson St Pump Station

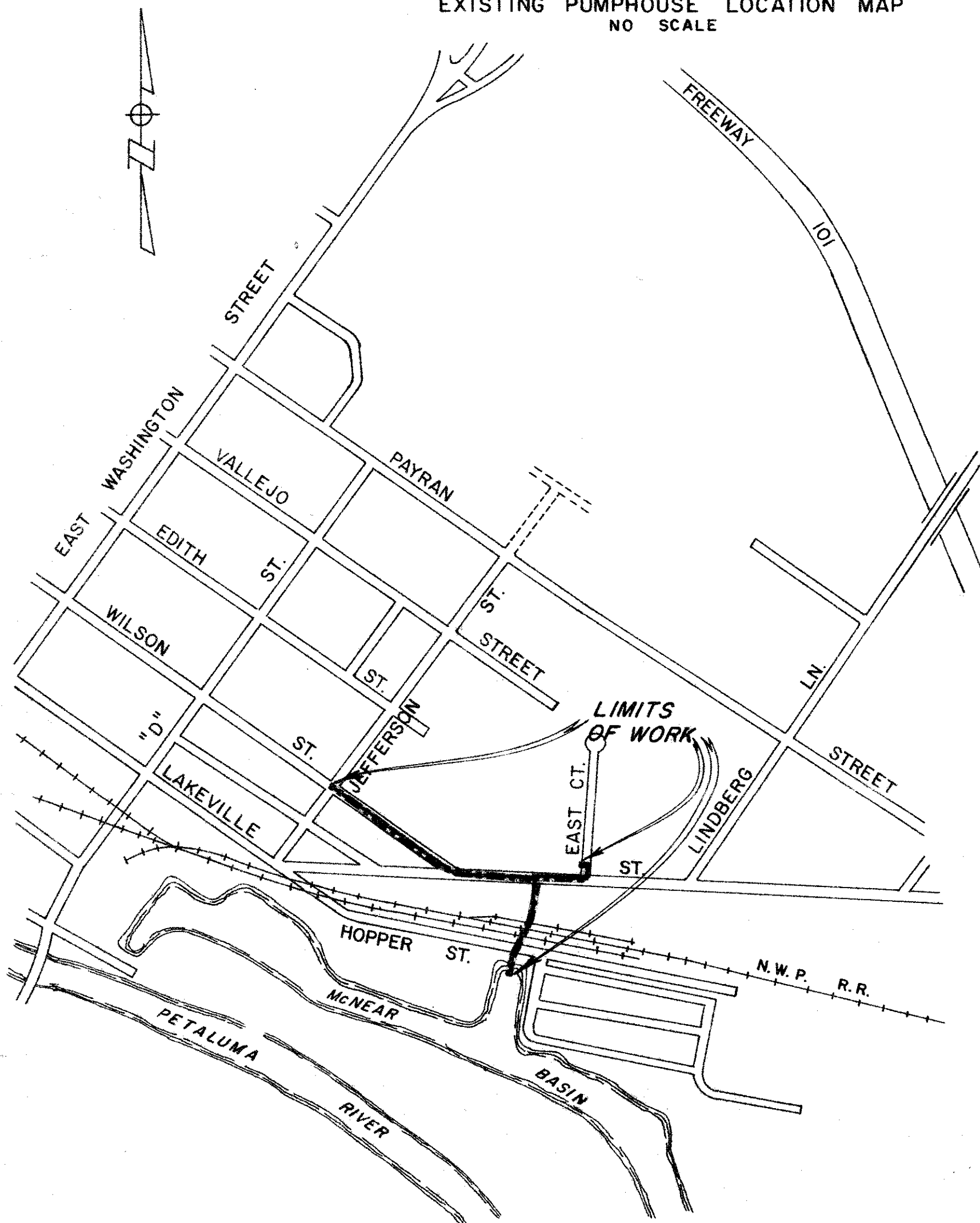
SONOMA COUNTY WATER AGENCY

WILSON / LAKEVILLE STREET PROJECT

PETALUMA BASIN ZONE 2A



EXISTING PUMPHOUSE LOCATION MAP
NO SCALE

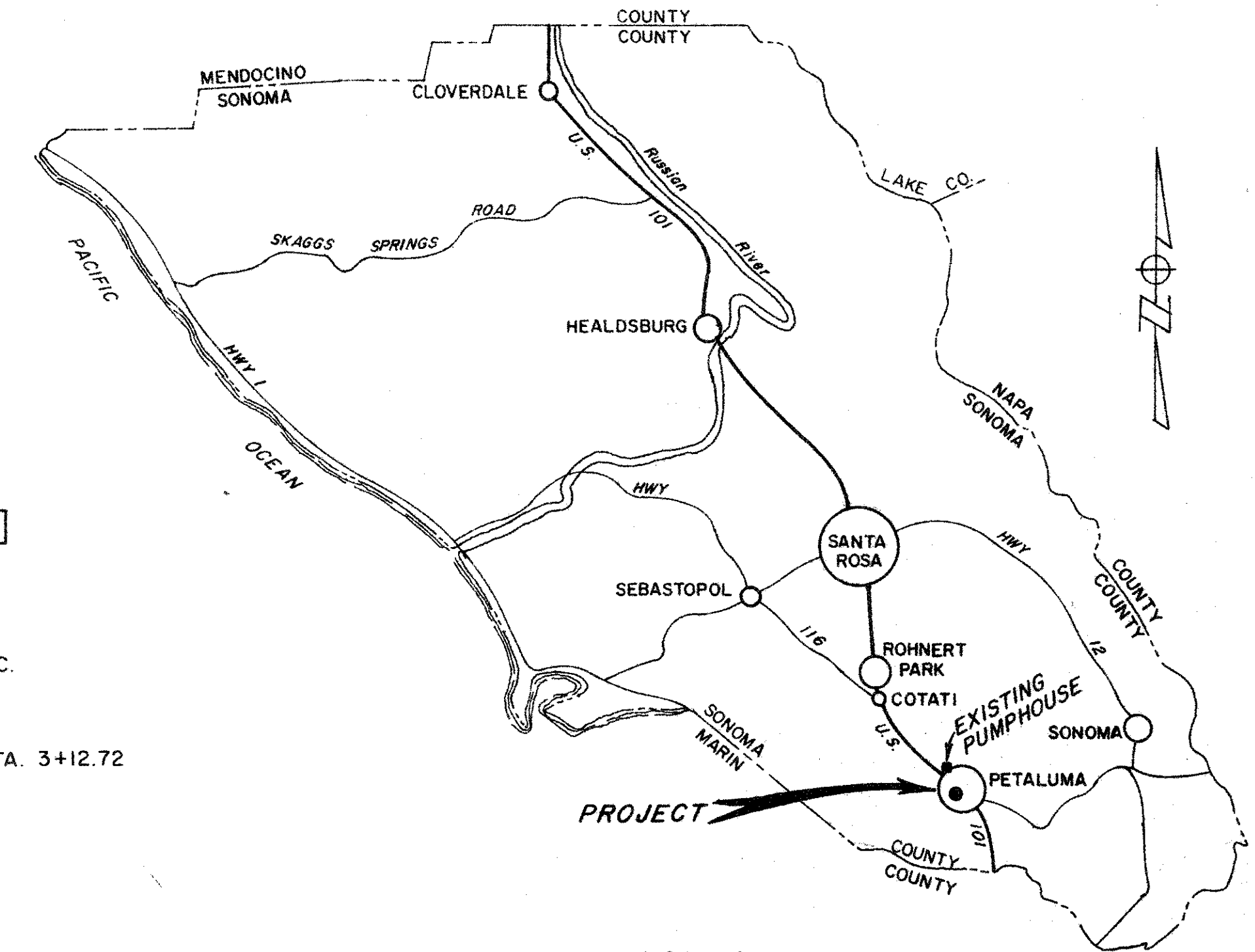


SITE MAP
1" = 500'

INDEX TO DRAWINGS		
SHEET NO.	DRAWING NO.	TITLE
1	2-1132/003/000-102.1	LOCATION MAP & INDEX TO DRAWINGS
2	-104.1	RIGHT-OF-WAY MAP
3	-102.2	PLAN & PROFILE STA. 0+85.32 TO STA. 4+56.34 B.C.
4	-102.3	" " " STA. 4+56.34 B.C. TO STA. 8+05.09 E.C.
5	-102.4	" " " STA. 8+05.09 E.C. TO STA. 11+80
6	-102.5	" " " STA. 11+80 TO STA. 14+53.81
7	-102.6	PLAN & PROFILE EAST COURT BRANCH STA. 0+00 B.C. TO STA. 3+12.72
8	-102.7	PUMPHOUSE SITE PLAN AND ALIGNMENT OF OUTLET PIPES.
9	-102.8	OUTLET STRUCTURE DETAILS
10	-102.9	OUTLET STRUCTURE DETAILS
11	-102.10	JUNCTION STRUCTURES NO. 1 AND NO. 2
12	-102.11	CURB INLET AND MISCELLANEOUS DETAILS
13	-102.12	MISCELLANEOUS DETAILS
14	-102.13	PUMPHOUSE - PLAN AND ELEVATIONS
15	-102.14	" GENERAL ARRANGEMENT
16	-102.15	" ROOF FRAMING AND DETAILS
17	-102.16	" STRUCTURAL CONCRETE AND REINFORCING DETAILS
18	-102.17	" MISCELLANEOUS STEEL DETAILS
19	-102.18	" MECHANICAL EQUIPMENT LAYOUT
20	-102.19	TEST BORING LOGS
21	-102.20	POWER PLAN
22	-102.21	LIGHTING & DETAIL PLAN
23	-102.22	ENGINES 2 & 3 CONTROL & STARTING CIRCUIT WIRING
24	-102.23	GROUNDING DETAILS
25	-102.24	LANDSCAPE & IRRIGATION PLAN

ABBREVIATIONS:

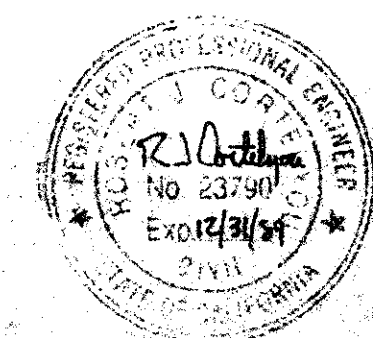
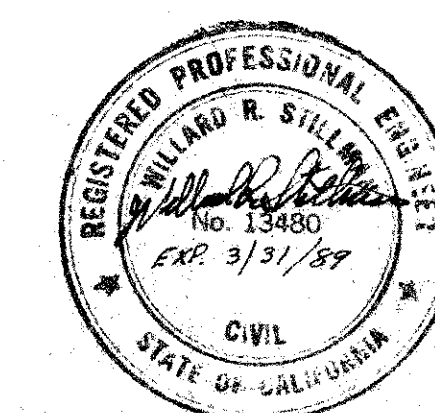
A.B. ANCHOR BOLT	M.H.W. MEAN HIGH HIGH WATER	M.L.L.W. MEAN LOW LOW WATER
A.C. ASPHALTIC CONCRETE	A.E. APPROVED EQUAL	NO. NUMBER
B.C. BEGIN HORIZONTAL CURVE	C.C. CENTER TO CENTER	C.I. CURB INLET OR CAST IRON
C.L. CENTERLINE	C.M.P. CORRUGATED METAL PIPE	C.P. CONCRETE PIPE
CONC. CONCRETE	C.S.S.P. CORRUGATED SPIRAL STEEL PIPE	DEFL. DEFLECTION
D.I. DROP INLET	E.A. EACH	E.C. END HORIZONTAL CURVE
E.L. ELEVATION	EXIST. EXISTING	E/P. EDGE OF PAVEMENT
EXP. EXPANSION	FF. FINISHED FLOOR	FG. FINISHED GRADE
F.H. FIRE HYDRANT OR FLAT HEAD	FL. FLOWLINE	G. GAS
H.G.L. HYDRAULIC GRADE LINE	HORIZ. HORIZONTAL	J.P. JOINT POLE
J.T. JOINT	L.F. LINEAL FEET	L.T. LEFT
MAX. MAXIMUM	M.H. MANHOLE	MIN. MINIMUM
	M.H.H.W. MEAN HIGH HIGH WATER	M.L.L.W. MEAN LOW LOW WATER
	N.T.S. NOT TO SCALE	O.C. ON CENTERS
	O.D. OUTSIDE DIAMETER	PL. PLATE
	R. PROPERTY LINE	PP. POWER POLE
	R.C.H.E.P. REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE	R.C.P. REINFORCED CONCRETE PIPE
	R.C.B. REINFORCED CONCRETE BOX	RT. RIGHT
	S.D. STORM DRAIN	S.M. SHEET METAL
	S.S. SANITARY SEWER	STA. STATION
	STD. STANDARD	T OR TEL. TELEPHONE LINE
	TYP. TYPICAL	UG. UNDERGROUND
	W. WATERLINE	WM. WATER METER
	W.V. WATER VALVE	YR. YEAR
	D.I.P. DUCTILE IRON PIPE	E. ELECTRICAL



LOCATION MAP
NO SCALE

GENERAL NOTES

1. HORIZONTAL DATUM: COORDINATES FROM CITY OF PETALUMA 1971 IMPROVEMENT PLANS FOR LAKEVILLE HIGHWAY EXTENSION (MONS. AT @ STA. 17+75.28 AND STA. 34+34.25)
2. VERTICAL DATUM: MEAN SEA LEVEL OF 1929. BASED ON USNGS BM H-107 1932 (E.L. 13.41). PROJECT BM: CHISELED 'X' IN METAL BRACE ATOP CURB INLET AT N'LY CORNER EDITH AND JEFFERSON STREETS (E.L. = 8.6) [1068]
3. STATIONING: ALL STATIONING REPRESENTS HORIZONTAL MEASUREMENT AT CENTERLINE OF CONSTRUCTION
4. ORIENTATION: RIGHT AND LEFT DIRECTIONS ARE FROM CENTERLINE LOOKING UPSTREAM.
5. UTILITIES: THE AGENCY, TO THE BEST OF ITS ABILITY, HAS DELINEATED ON THE DRAWINGS ALL UTILITY INSTALLATIONS TO BE ENCOUNTERED WITHIN THE LIMITS OF WORK. SUCH INFORMATION IS BASED UPON INFORMATION FURNISHED TO THE AGENCY BY THE UTILITY OWNERS, AND THE AGENCY DOES NOT EITHER EXPRESSLY OR BY IMPLICATION GUARANTEE THAT UTILITY INSTALLATIONS WILL BE FOUND AT THE LOCATIONS OR DEPTHS INDICATED. THE AGENCY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN OR THE INADVERTENT OMISSION OF ANY SUCH INFORMATION.
6. FENCING: EXISTING FENCING DISTURBED BY CONSTRUCTION SHALL BE RESET OR REPLACED IN KIND UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.



RECORD DRAWING
Date: 28 Oct 1988

No.	Date	REVISION	By	

RECEIVED

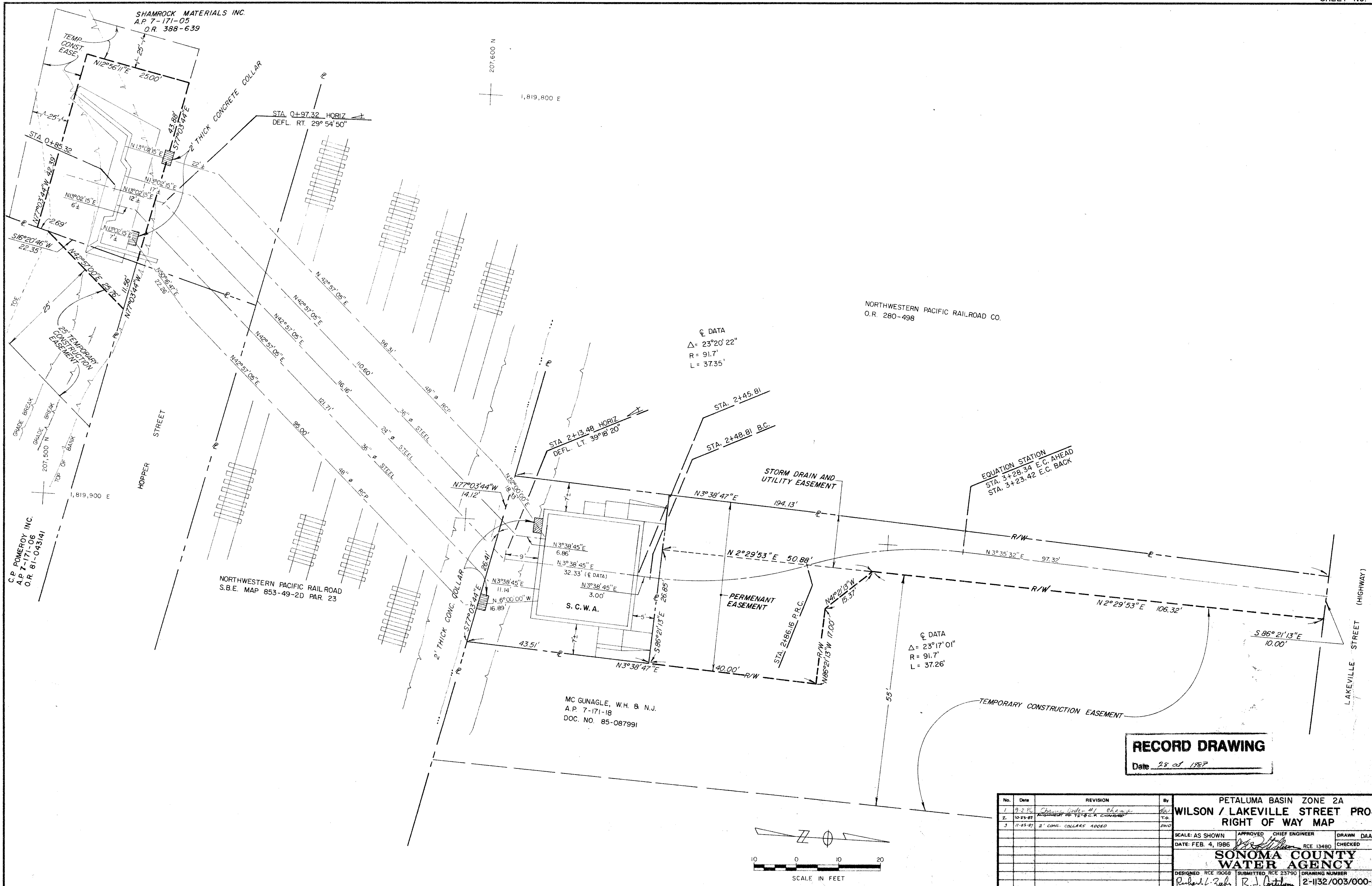
SEP 15 1988

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
LOCATION MAP & INDEX TO DRAWINGS

SCALE: AS SHOWN APPROVED: CHIEF ENGINEER DRAWN: gdf
DATE: 30 APR 1988 [Signature] R.C.E. 13480 CHECKED: [Signature]

SONOMA COUNTY
WATER AGENCY

DESIGNED: R.C.E. 19068 SUBMITTED: R.C.E. 23750 DRAWING NUMBER: 2-1132/003/000-102.1
Richard L. Ziehl R.J. Antilman



RECORD DRAWING
Date 28 of 1987

No.	Date	REVISION	By
1	7-2-86	Change width of easement	WJ
2	10-29-87	ALIGNMENT TO 12'-0" C.C. CHANGE	T.G.
3	11-23-87	2' CONC. COLLARS ADDED	DWO

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
RIGHT OF WAY MAP

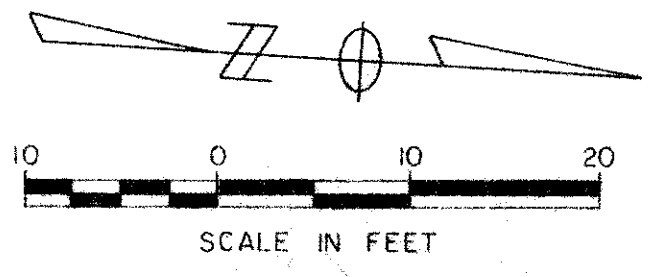
SCALE: AS SHOWN
DATE: FEB. 4, 1986

APPROVED: *[Signature]* CHIEF ENGINEER
RCE 13480
DRAWN: DAA
CHECKED: []

SONOMA COUNTY WATER AGENCY

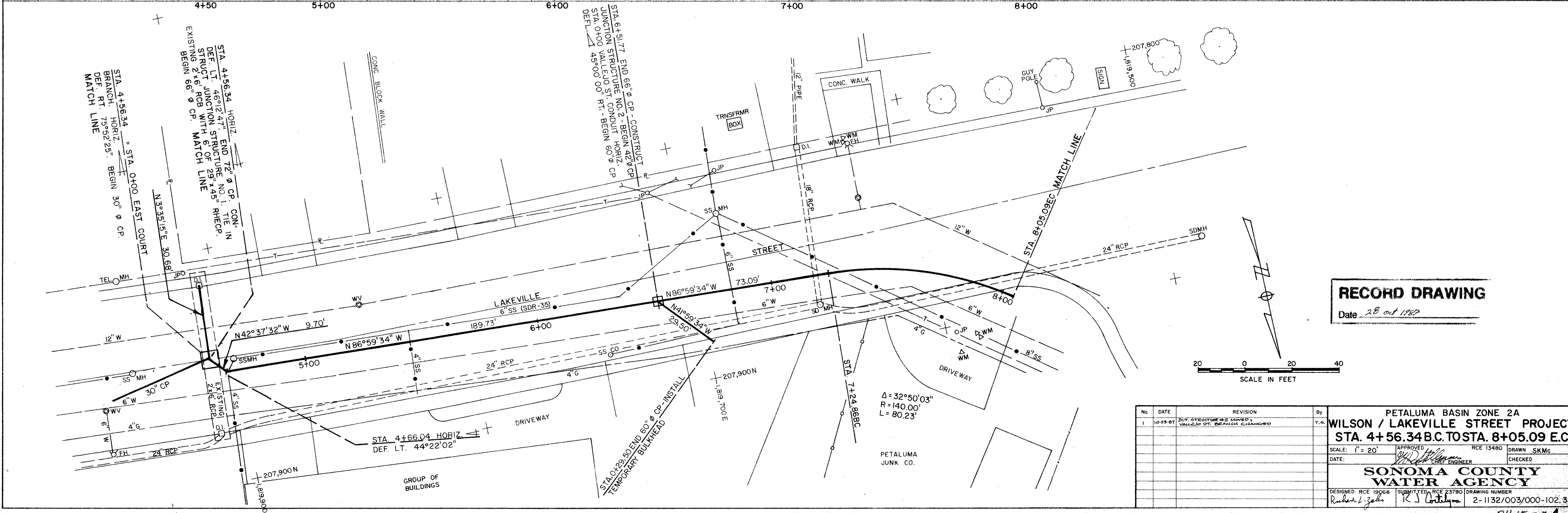
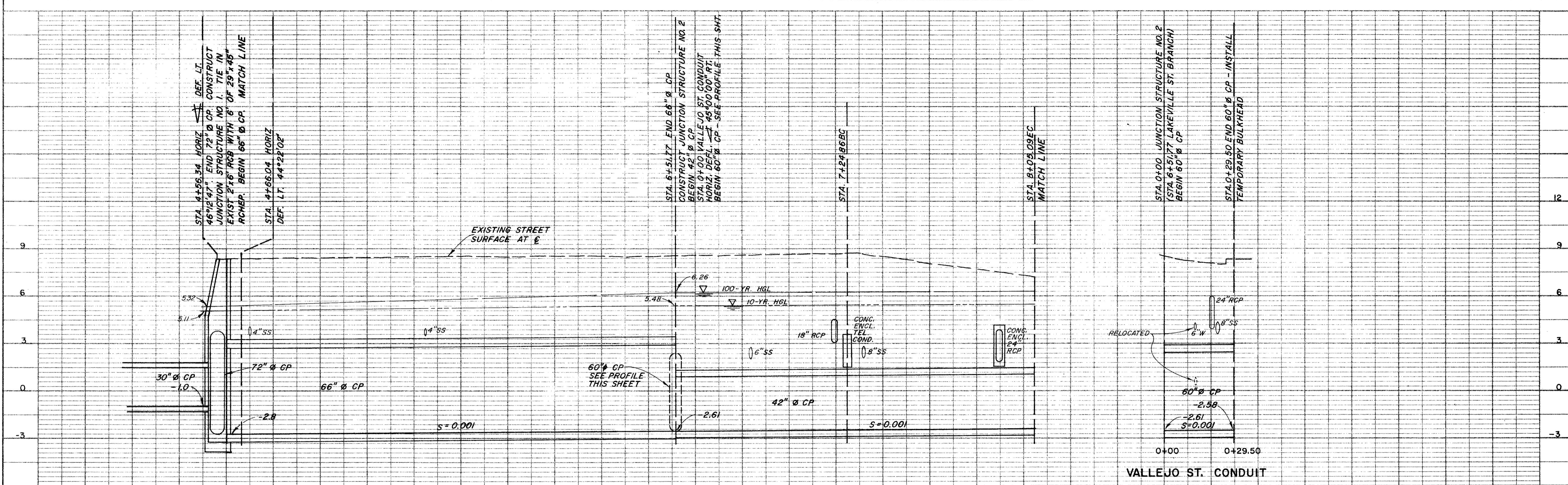
DESIGNED: RCE 19068
SUBMITTED: RCE 23790
DRAWING NUMBER: 2-1132/003/000-104.1

Richard L. Zehn R. J. Costigan

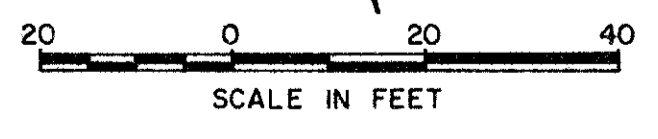


SHEET NO. 2

PH 15-2A 4-61

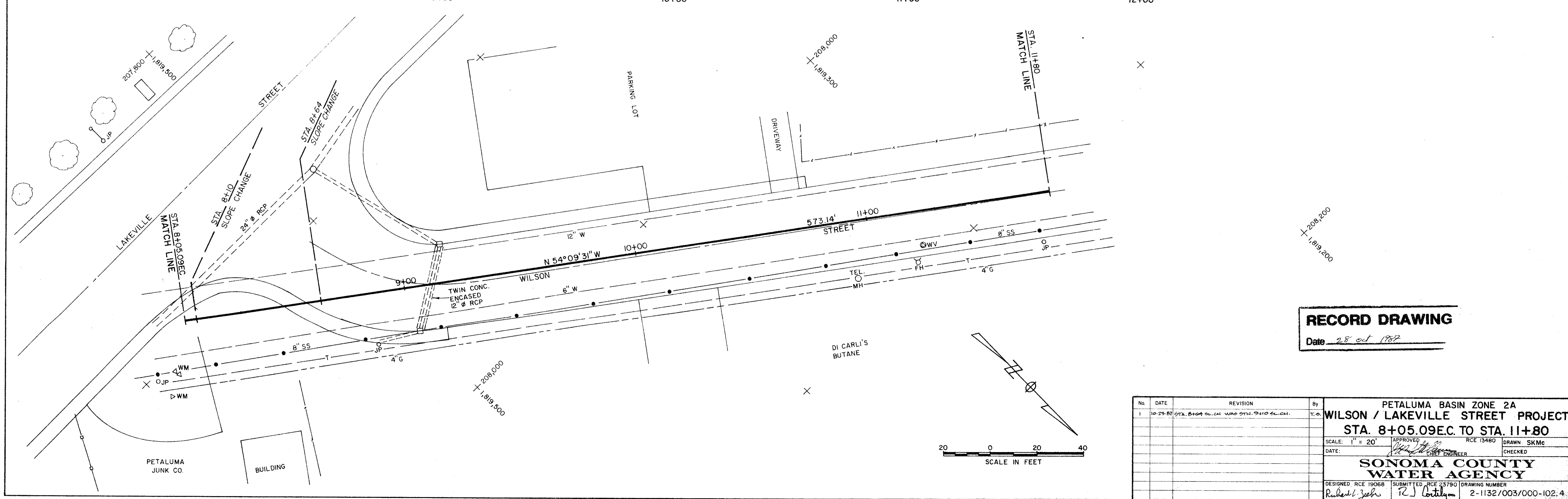
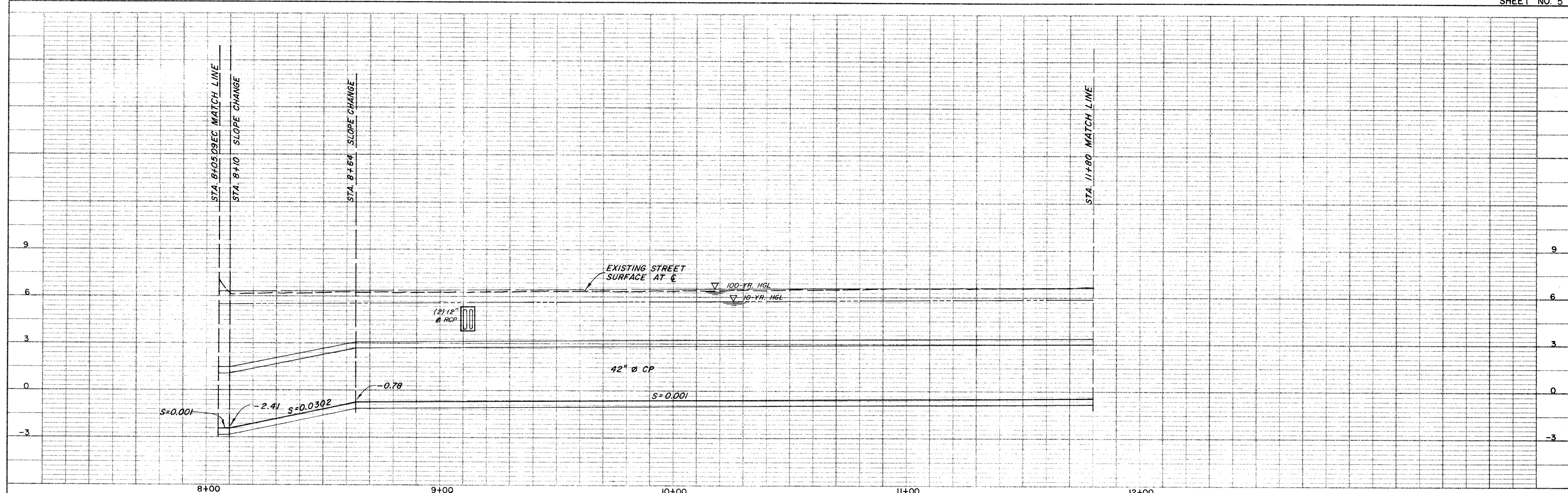


RECORD DRAWING
Date 28 Oct 1987



No.	DATE	REVISION	By
1	10-29-87	20\"/>	

PETALUMA BASIN ZONE 2A
 WILSON / LAKEVILLE STREET PROJECT
 STA. 4+56.34 TO STA. 8+05.09 E.C.
 SCALE: 1" = 20'
 DATE: _____
SONOMA COUNTY WATER AGENCY
 DESIGNED: RCE 19068
 SUBMITTED: RCE 23790
 DRAWING NUMBER: 2-1132/003/000-102.3
 PH 15-2A 4-61



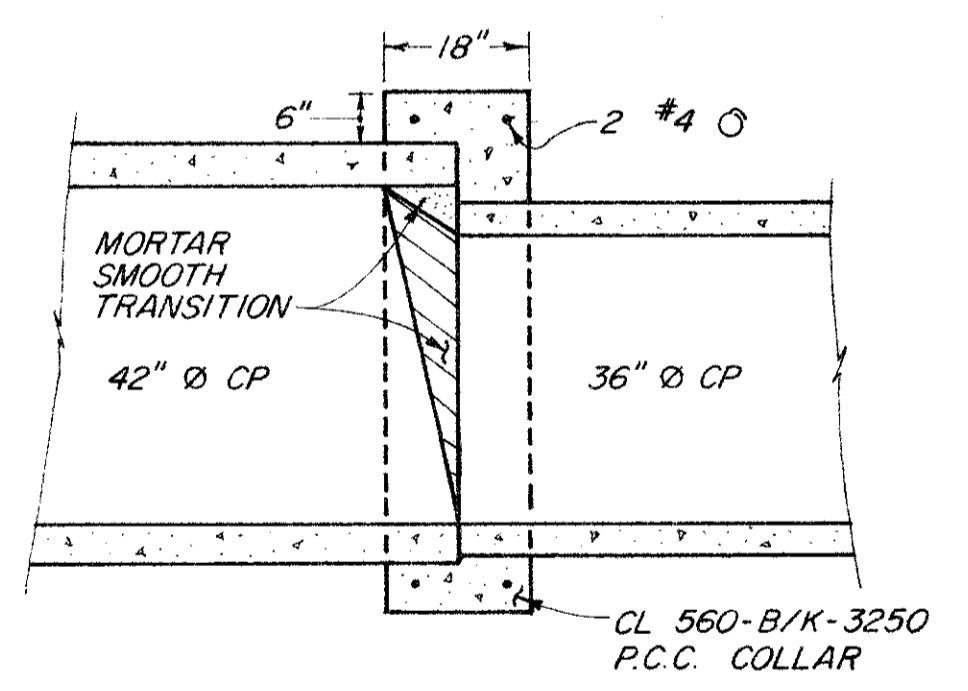
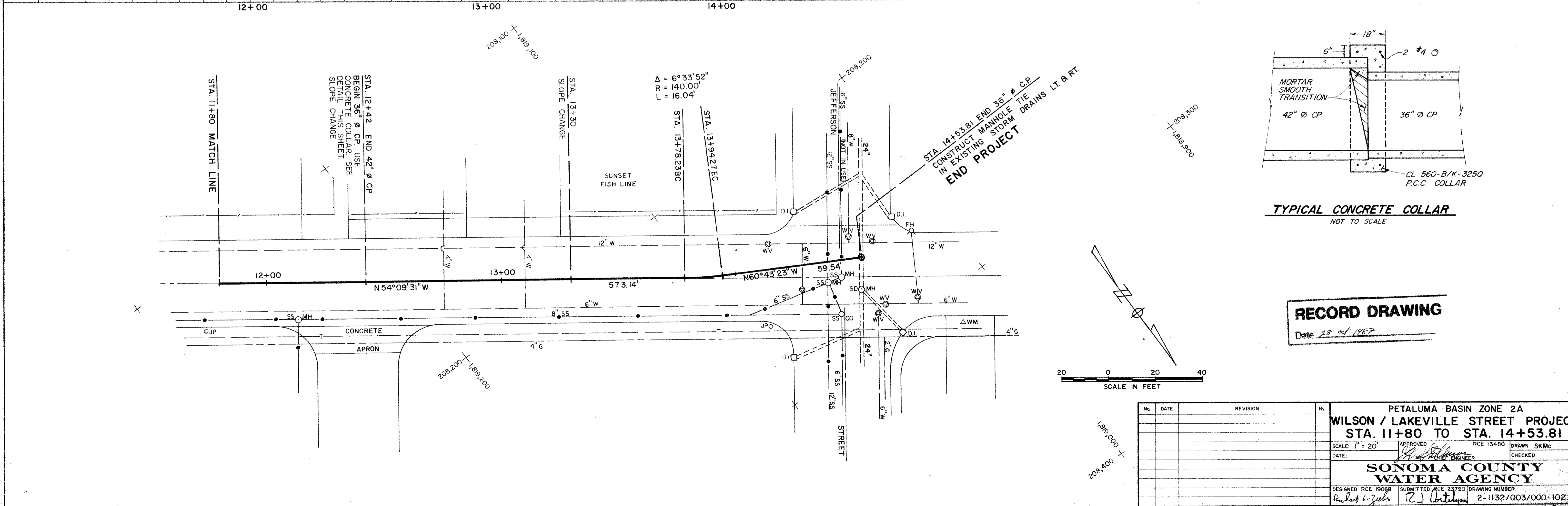
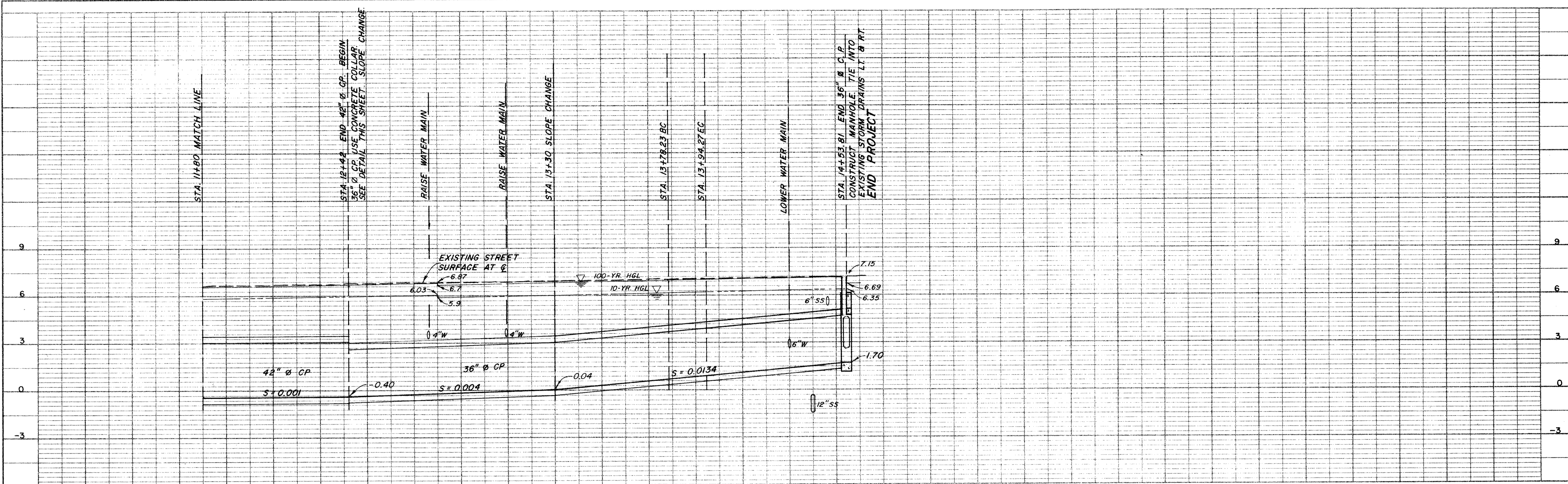
RECORD DRAWING
Date 28 Oct 1987



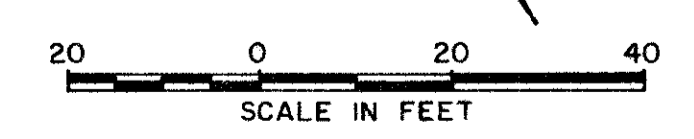
No.	DATE	REVISION	By
1	10-29-87	STA. 8+05.09E.C. WAS STA. 9+10 S.L.C.H.	T.S.

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
STA. 8+05.09E.C. TO STA. 11+80
 SCALE: 1" = 20'
 DATE: *Robert J. Zehr* RCE 13480
 DRAWN: SKMc
 CHECKED: *Robert J. Zehr* CHIEF ENGINEER
SONOMA COUNTY WATER AGENCY
 DESIGNED: RCE 19068
 SUBMITTED: RCE 23790
 DRAWING NUMBER: 2-1132/003/000-102.4

NO. 10-29-87
 ST. OF A/C CHECKED
 B. M. & N. NOTED
 STRUCTURE MONITORING CHECKED
 SHEET NO. 6



RECORD DRAWING
Date 28 Oct 1987



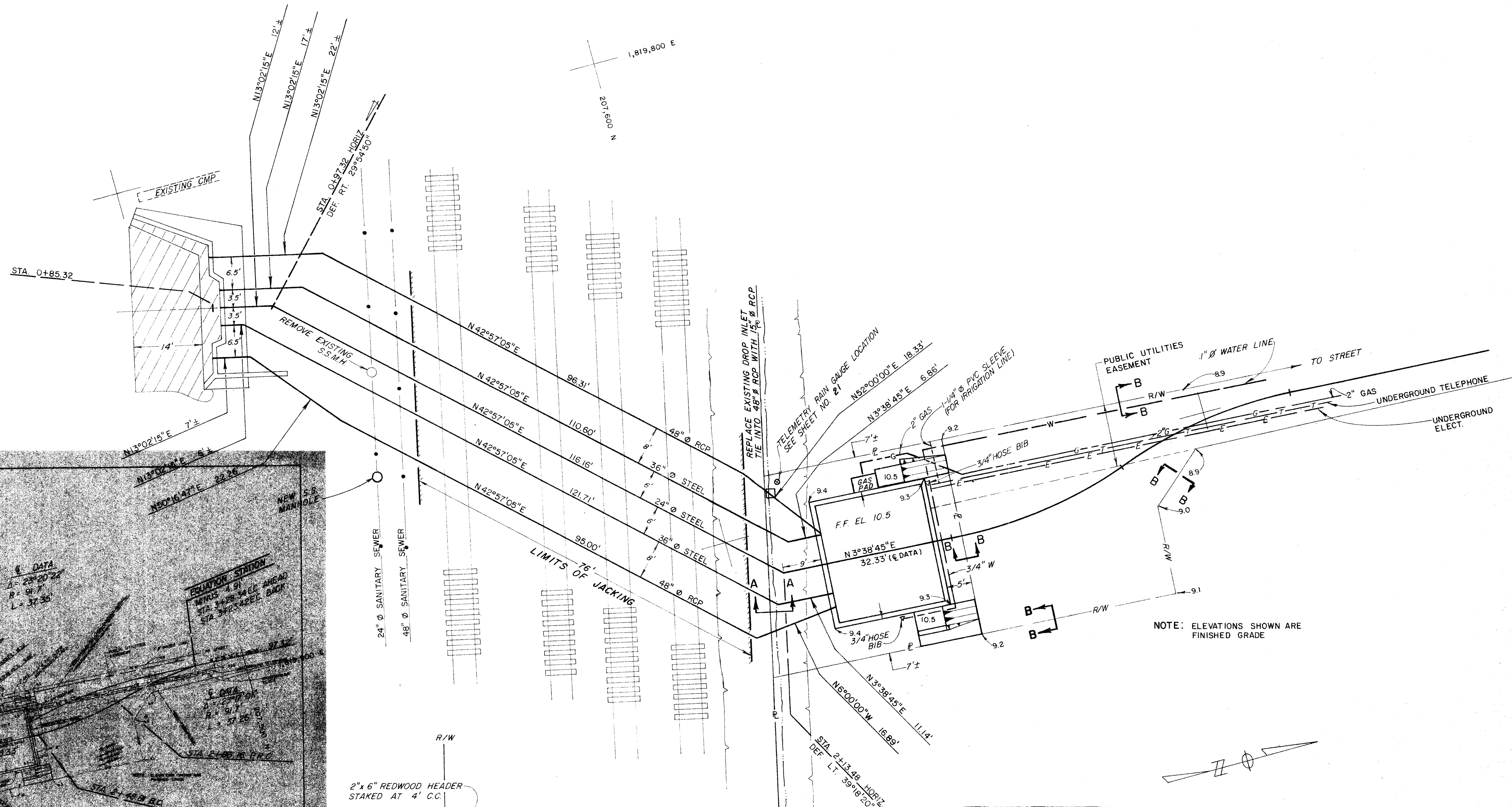
No.	DATE	REVISION	By

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
 STA. 11+80 TO STA. 14+53.81
 SCALE: 1" = 20'
 DATE: _____
 DESIGNED RCE 19068 SUBMITTED RCE 23790 DRAWING NUMBER 2-1132/003/000-102.5
 APPROVED RCE 13480 DRAWN SKMc
 CHECKED _____
SONOMA COUNTY WATER AGENCY
 PH 15-2A 4-61

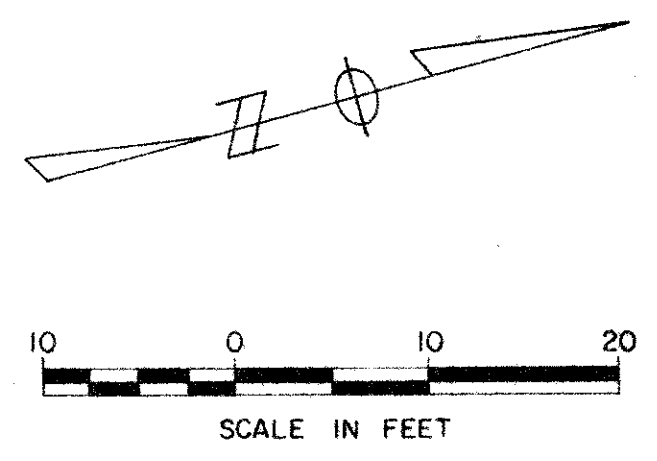
NO. 1
 DATE 10/28/87
 CHECKED SKMc
 DRAWN SKMc
 DESIGNED RCE 19068

NO. 2
 DATE 10/28/87
 CHECKED SKMc
 DRAWN SKMc
 DESIGNED RCE 19068

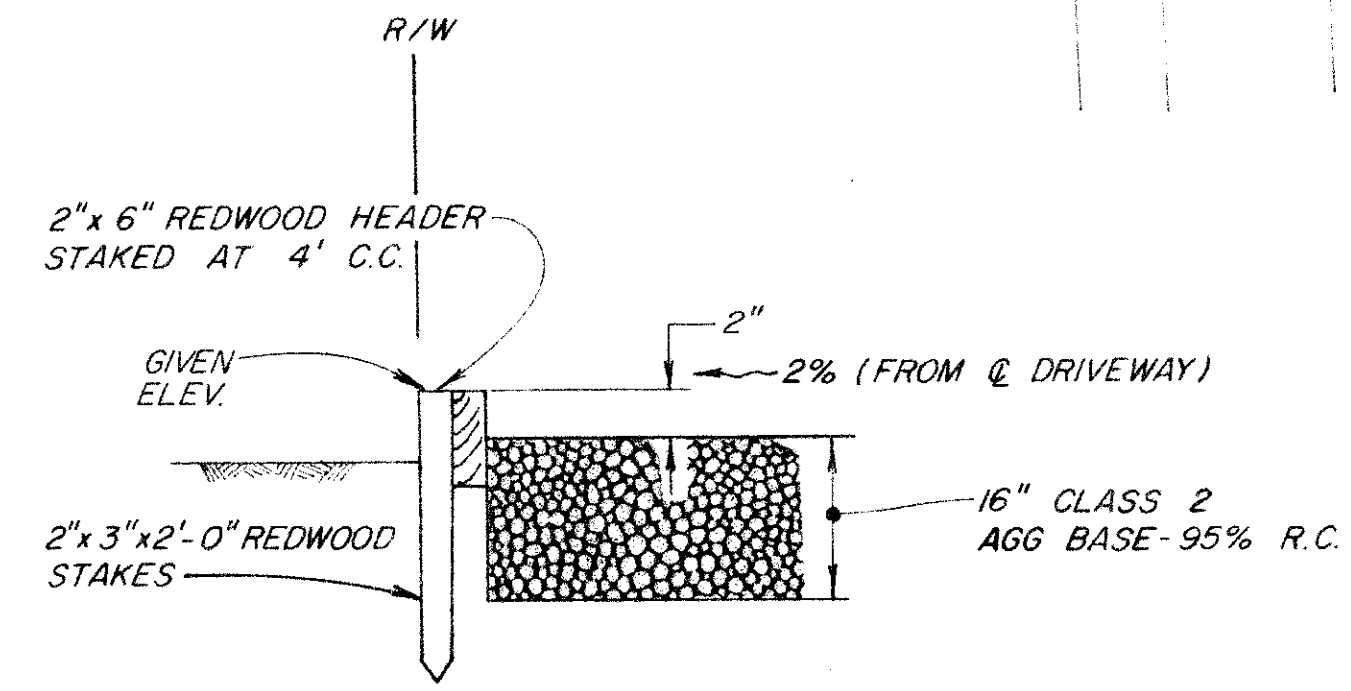
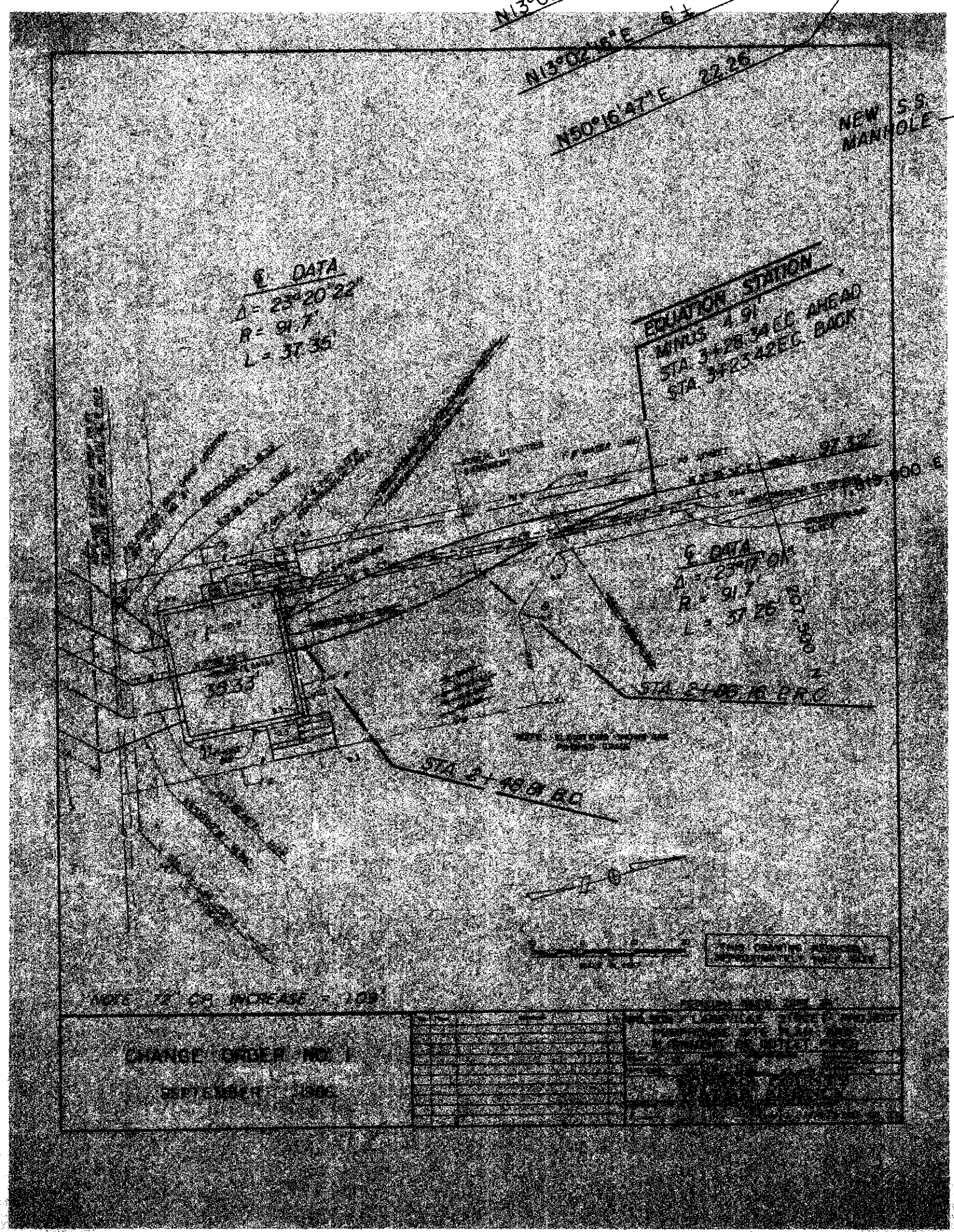
NO. 3
 DATE 10/28/87
 CHECKED SKMc
 DRAWN SKMc
 DESIGNED RCE 19068



NOTE: ELEVATIONS SHOWN ARE FINISHED GRADE



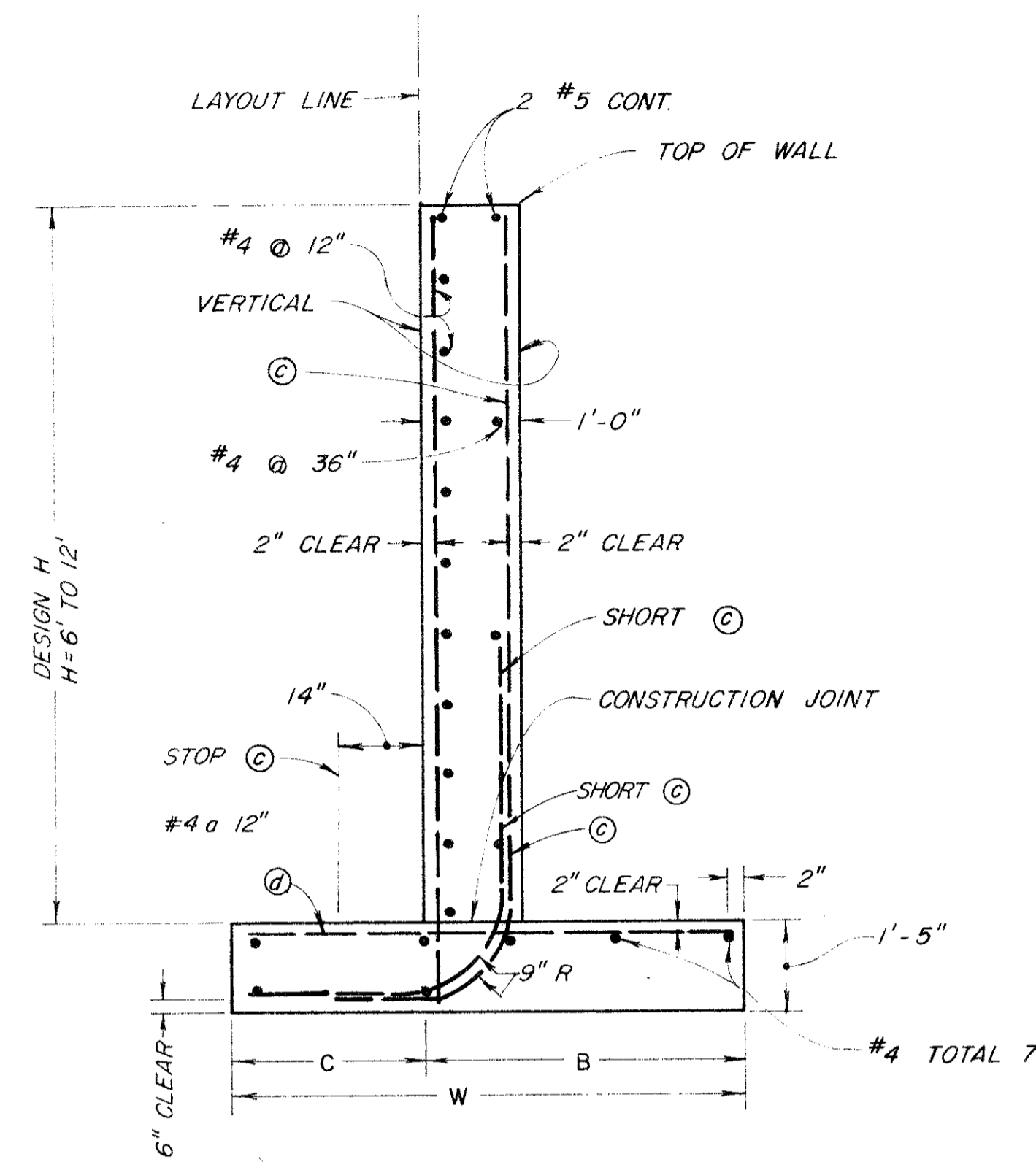
RECORD DRAWING
Date 18 Oct 1987



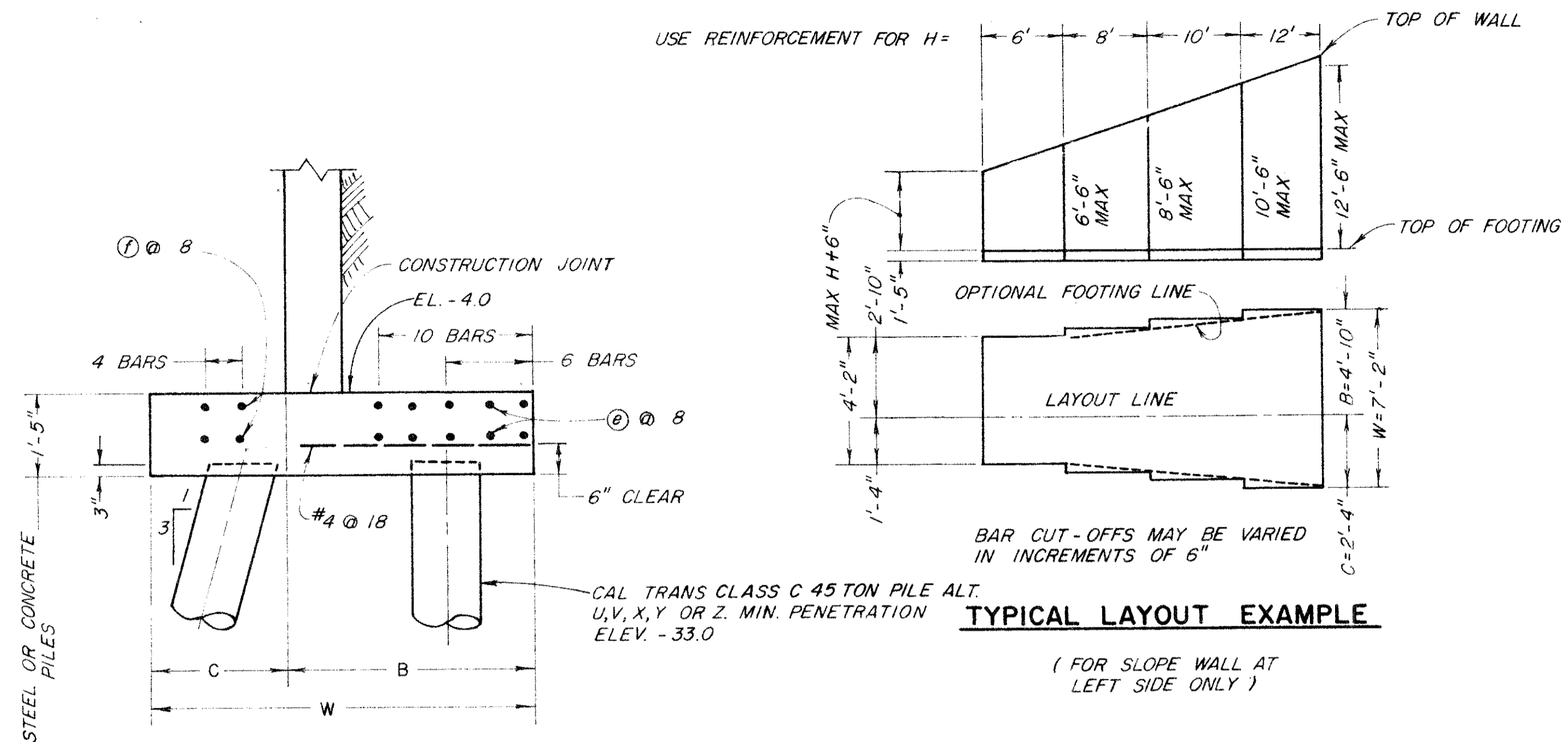
SECTION B-B
(TYPICAL WITH HEADER)
NO SCALE

No.	Date	REVISION	By
1	2-29-85	CHANGE ORDER #1 CHANGE	JA
2	10-25-87	ALIGNMENT OF 72\"/>	T-D

SCALE: 1" = 10'		APPROVED CHIEF ENGINEER	DRAWN R.D.
DATE: APRIL 1, 1985	RCE 13480	CHECKED	
SONOMA COUNTY WATER AGENCY			
DESIGNED RCE 15068	SUBMITTER RCE 23790	DRAWING NUMBER	
Richard L. Zeb	R. Cortez	2-1132/003/000-102.7	

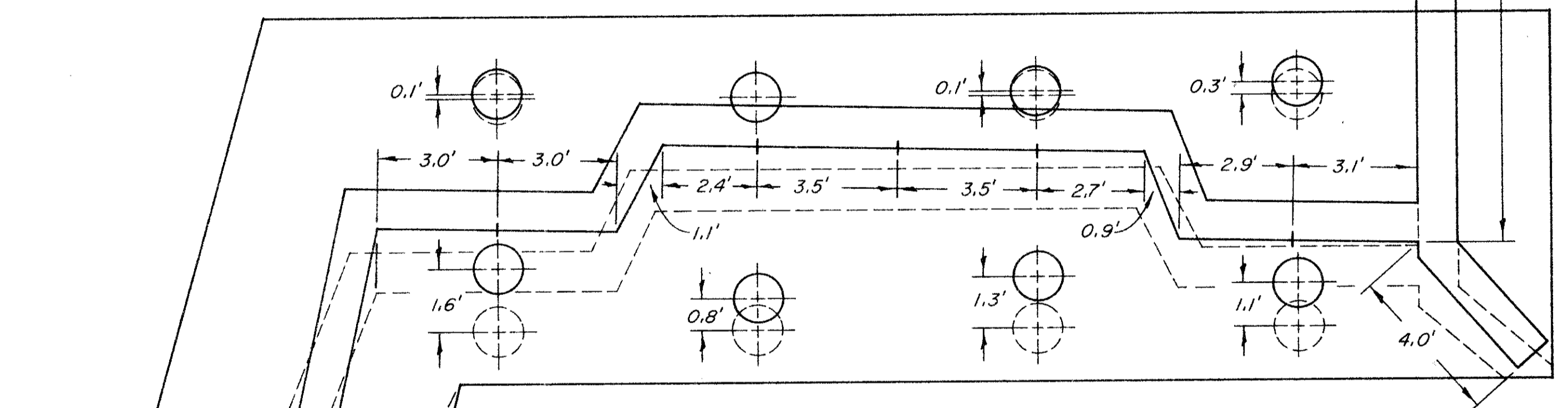


SPREAD FOOTING SECTION



45T PILE FOOTING SECTION

REINFORCEMENT DETAILED IS TO BE PLACED IN ADDITION TO THAT SHOWN FOR SPREAD FOOTING. ALL PILES NOT SHOWN, SEE PILE LAYOUT ON SHEET NO 9

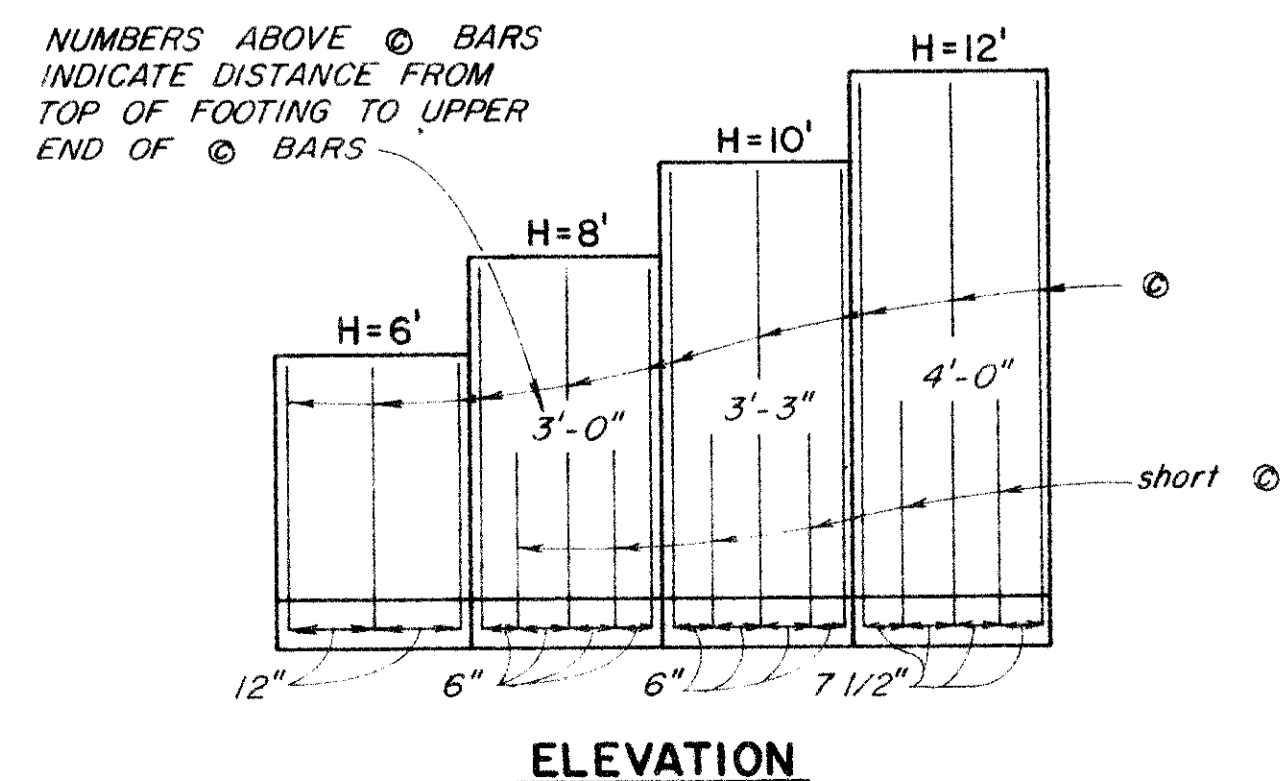


PLAN OUTLET STRUCTURE
3/8"=1'-0"

AS BUILT

SOLID LINES INDICATE AS-BUILT CONSTRUCTION. DASHED LINES INDICATE DESIGN INTENTIONS. DIMENSIONS SHOWN WERE TAKEN AFTER FEATURES WERE INSTALLED OR CONSTRUCTED. SEE SHEET NO.9 FOR ALL DESIGN DIMENSIONS. SEE SURVEY FIELD NOTES FOR SKETCHES BY DORI ANDERSON 11-6-86 & THEO SALLY 10-23-87 OF RECORD DIMENSIONS.

TABLE OF REINFORCING STEEL DIMENSIONS AND DATA					
Design H	6'	8'	10'	12'	
W	4'-2"	5'-2"	6'-2"	7'-2"	
C	1'-4"	1'-8"	2'-0"	2'-4"	
B	2'-10"	3'-6"	4'-2"	4'-10"	
⊙ bars	#4 @ 12"	#4 @ 6"	#5 @ 6"	#7 @ 7 1/2"	
Ⓞ bars	#4 @ 12"	#4 @ 12"	#6 @ 12"	#6 @ 7 1/2"	
Total ⊙ bars	6 - #6	6 - #6	10 - #7	10 - #7	
Total Ⓞ bars			4 - #7	4 - #7	
CASE I - Toe Press. psf	1930	2240	2550	2840	
CASE II - Toe Press. psf	1460	1860	2280	2700	
Pile	Steel lbs/ft	34	38	75	101
Footing	Conc CF/ft	11.9	15.3	18.8	22.2

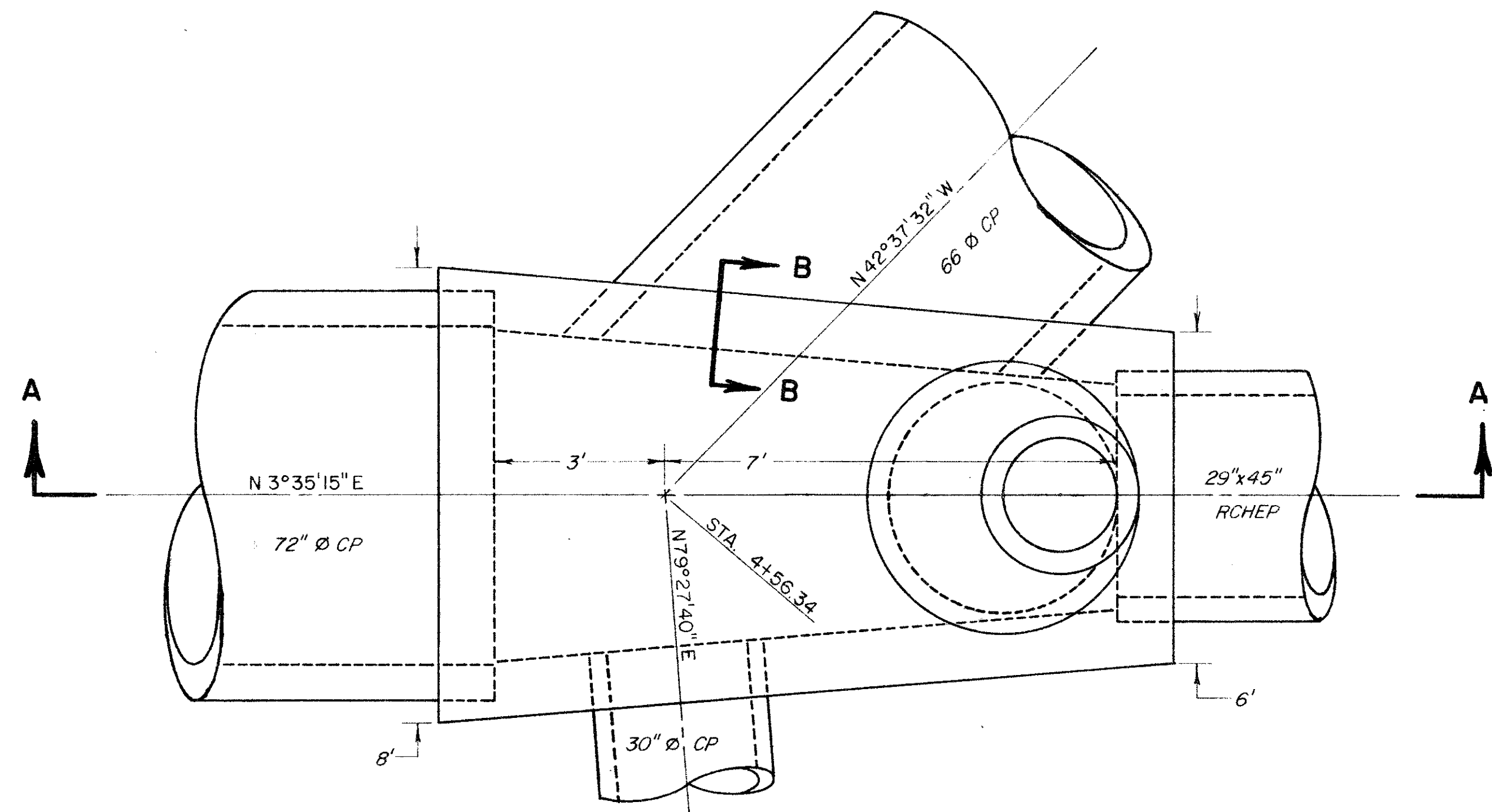


ELEVATION

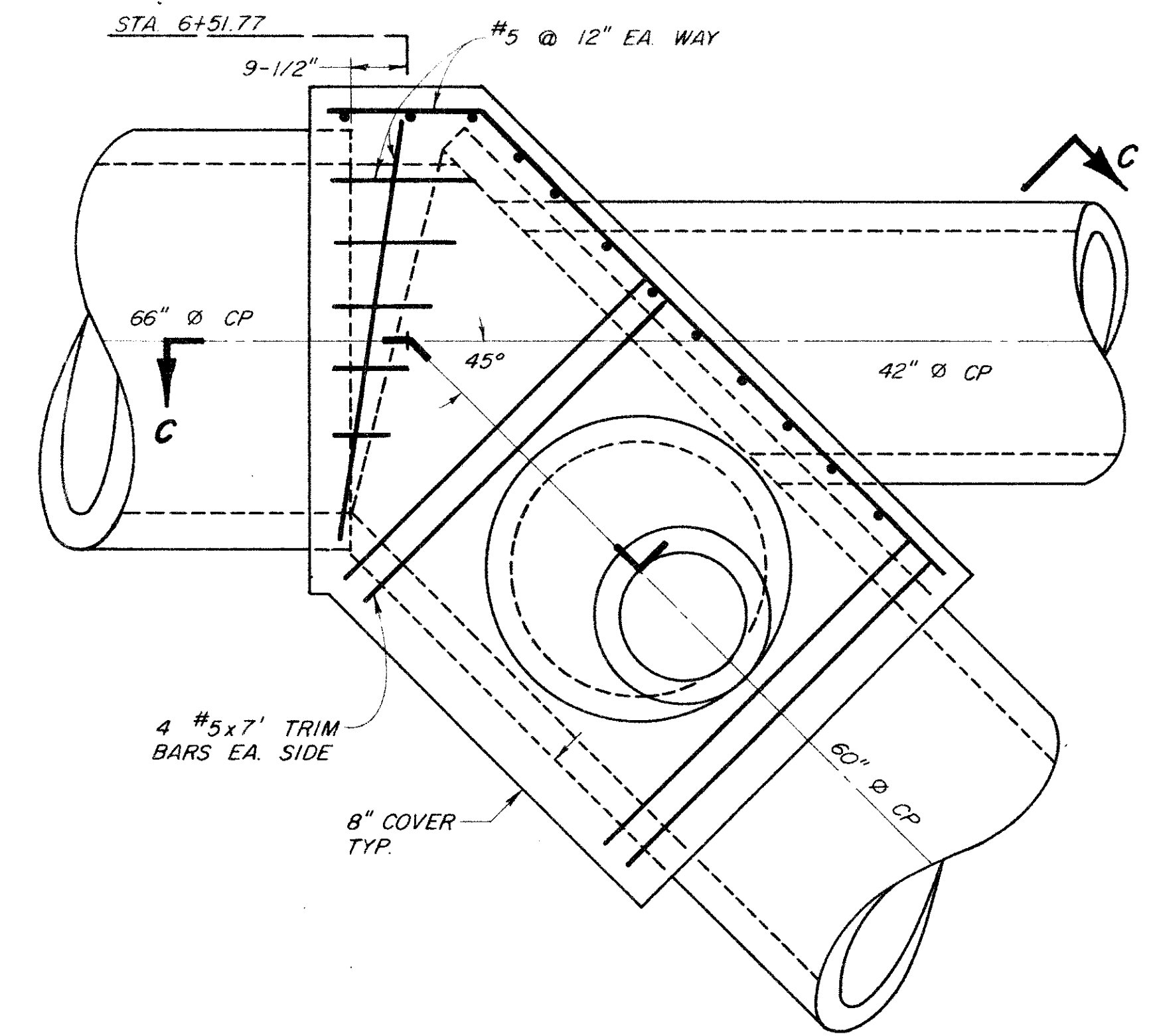
RECORD DRAWING
Date 28 OCT 1987

No.	Date	REVISION	By
1	10-21-87	ADDED AS-BUILT OUTLET STRUCTURE VIEW	T.C.

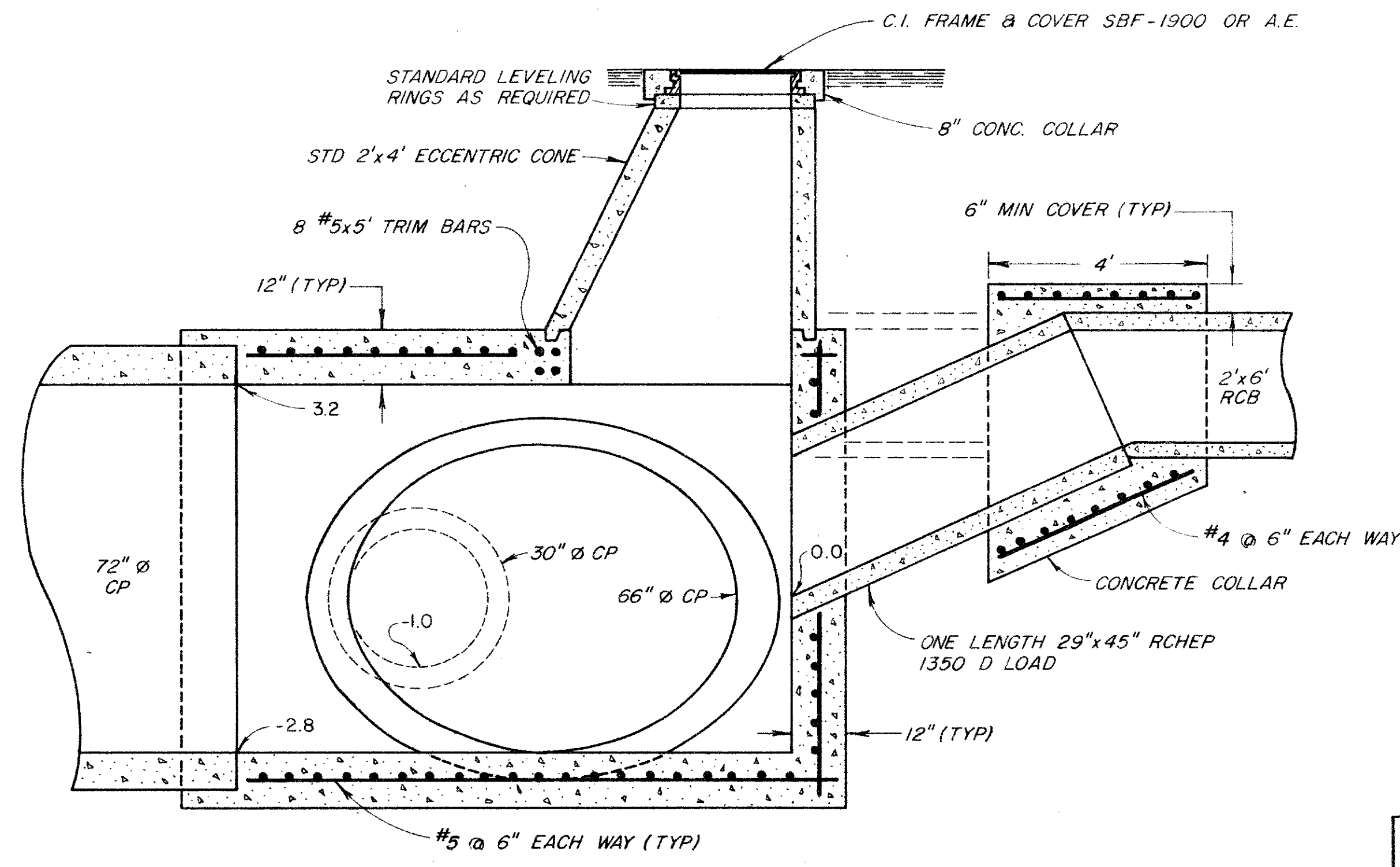
PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
 OUTLET STRUCTURE DETAILS
 SCALE: NO SCALE APPROVED: CHIEF ENGINEER DRAWN: R. D.
 DATE: MAR. 27, 1985 RCE 13480 CHECKED
SONOMA COUNTY WATER AGENCY
 DESIGNED: RCE 19068 SUBMITTED: RCE 23790 DRAWING NUMBER
 Robert L. Zeebe R. D. Cothran 2-1132/003/000-102.9



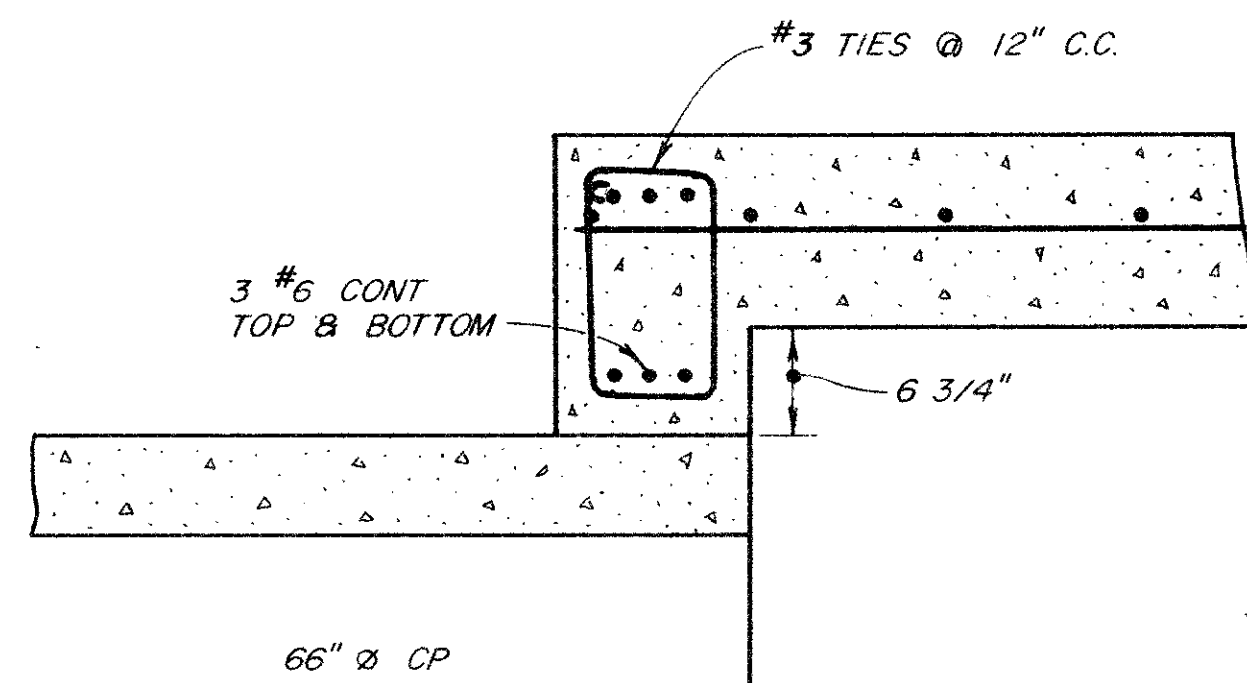
JUNCTION STRUCTURE #1
SCALE 1/2" = 1'



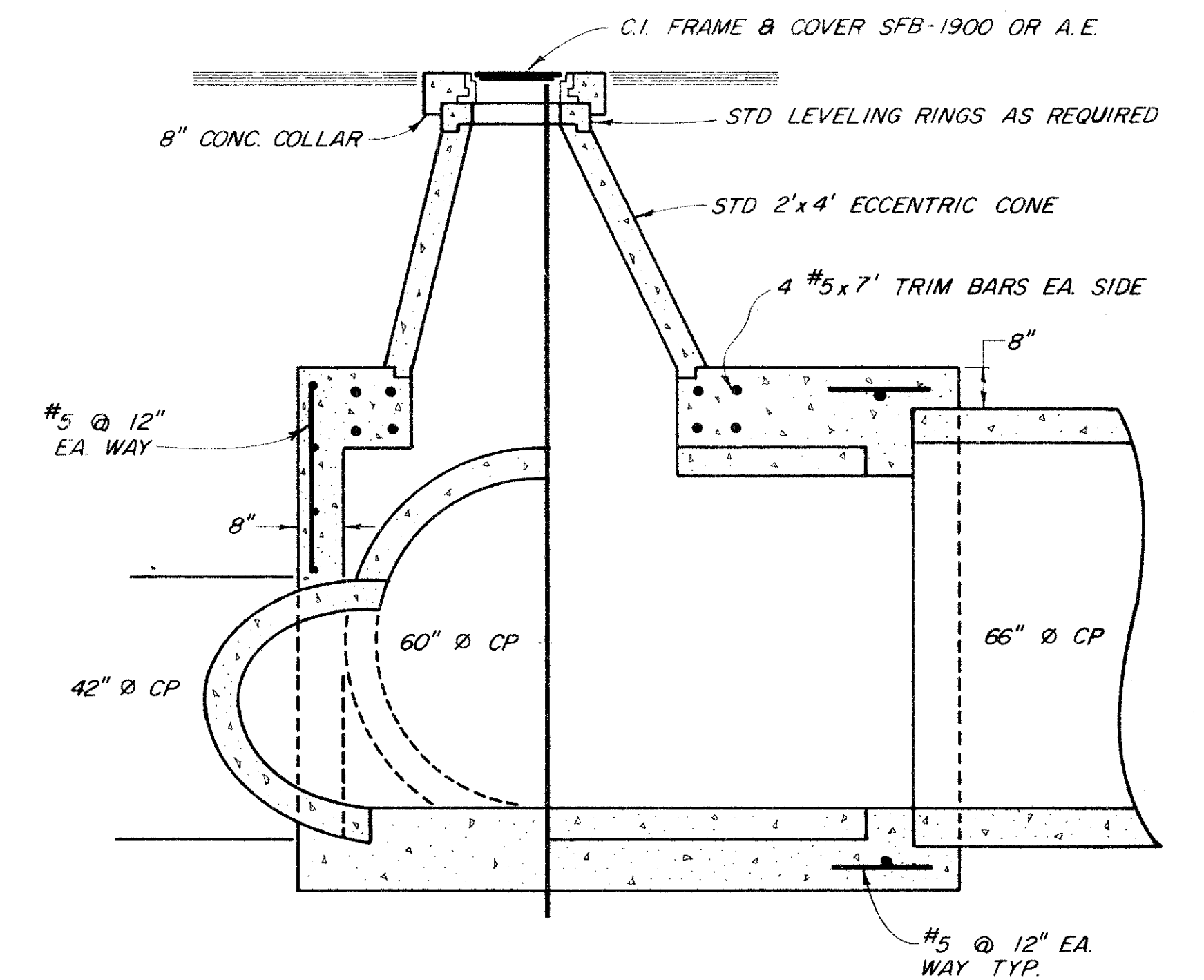
ALTERNATE 1
JUNCTION STRUCTURE #2
SCALE 1/2" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'



SECTION B-B
NOT TO SCALE



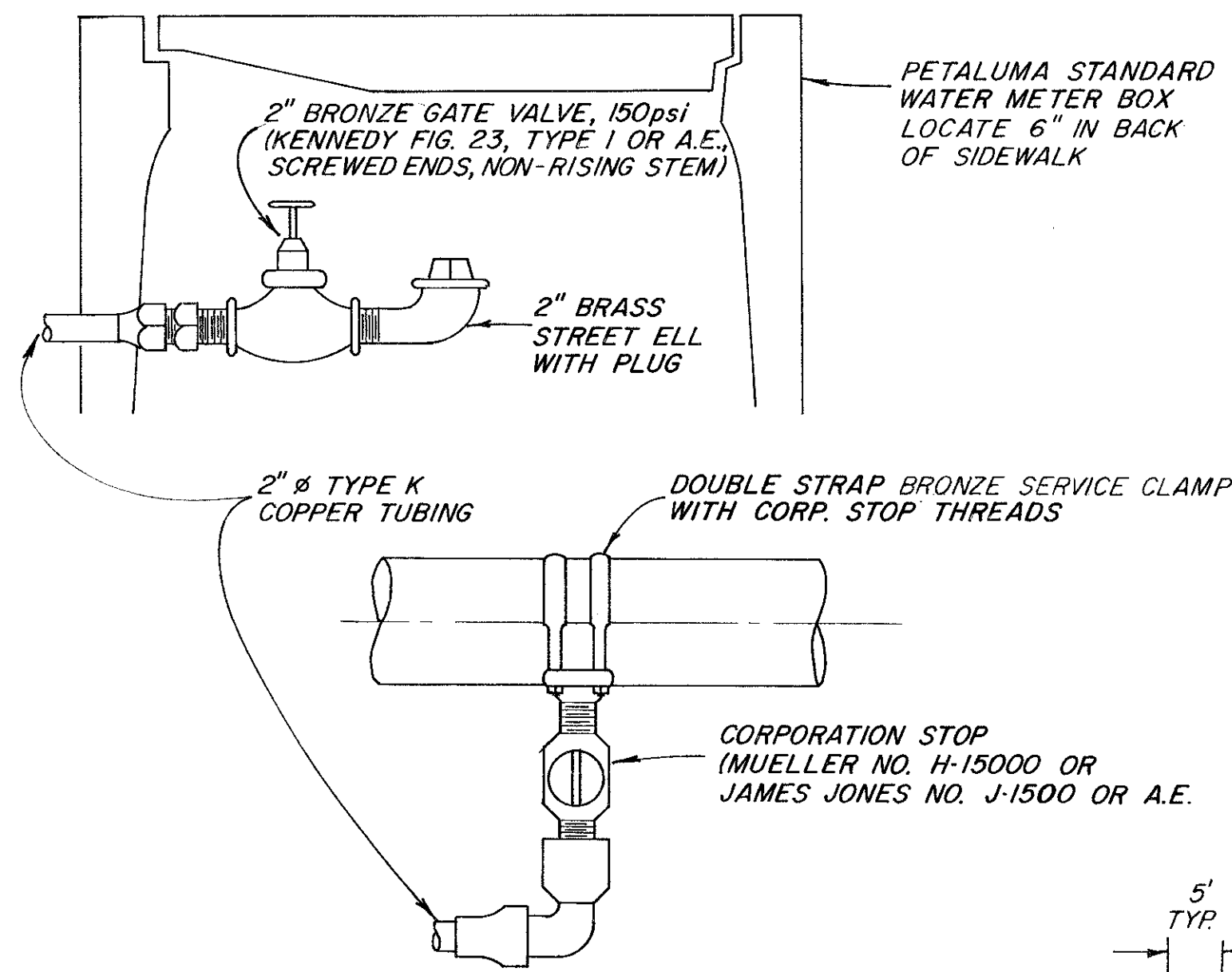
SECTION C-C
SCALE 1/2" = 1'-0"

RECORD DRAWING
Date 28 of 1987

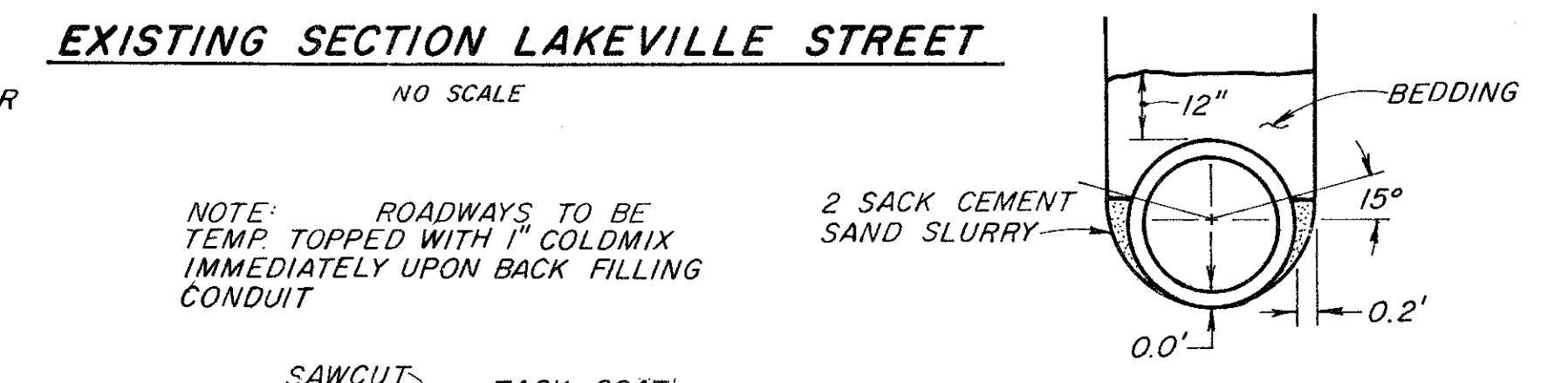
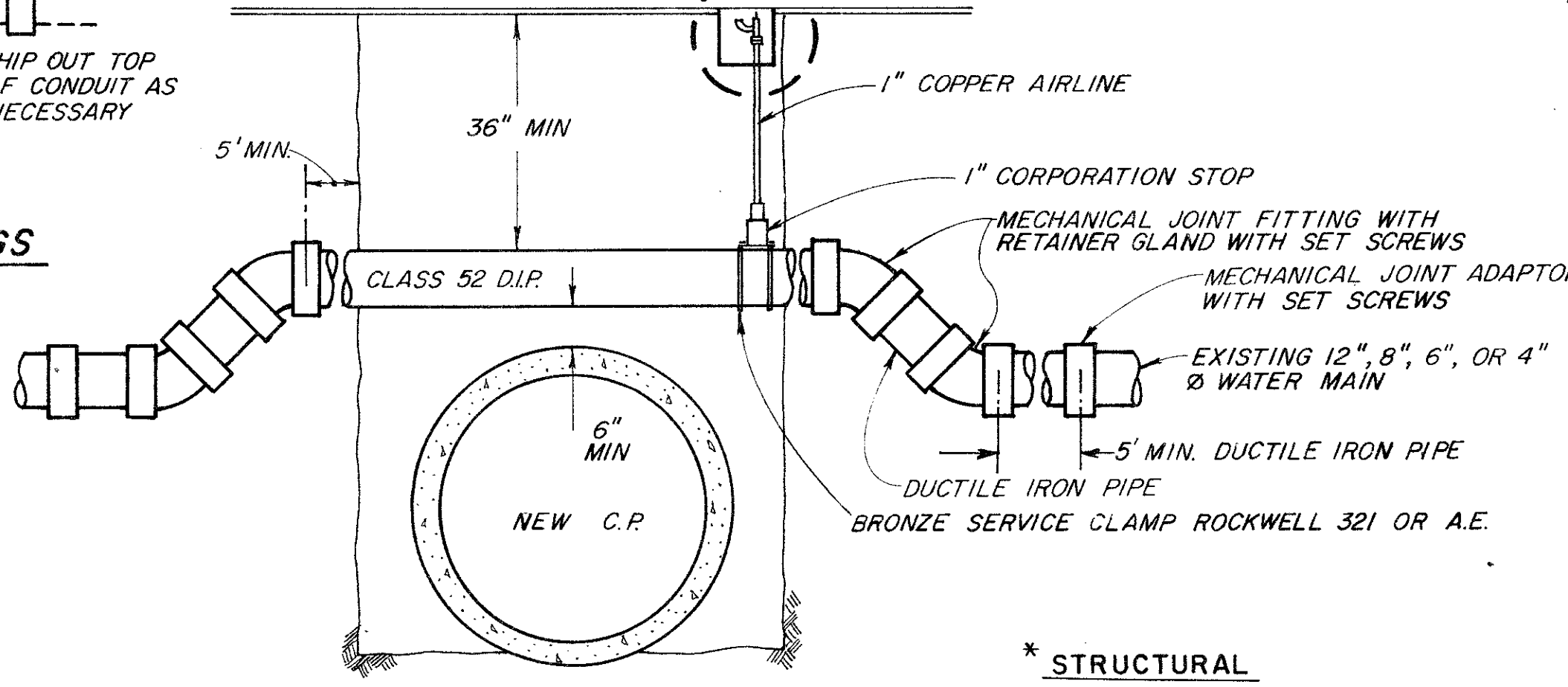
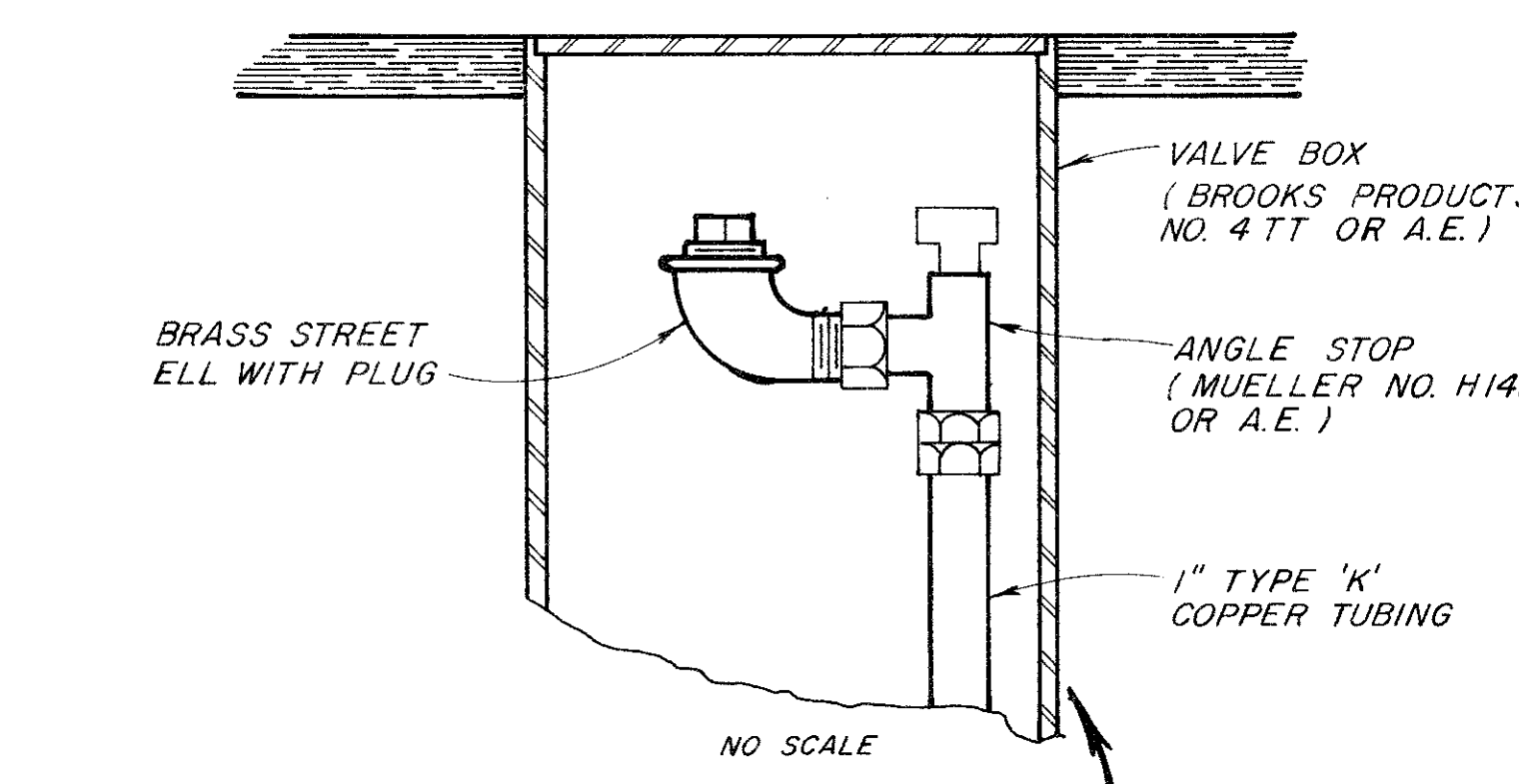
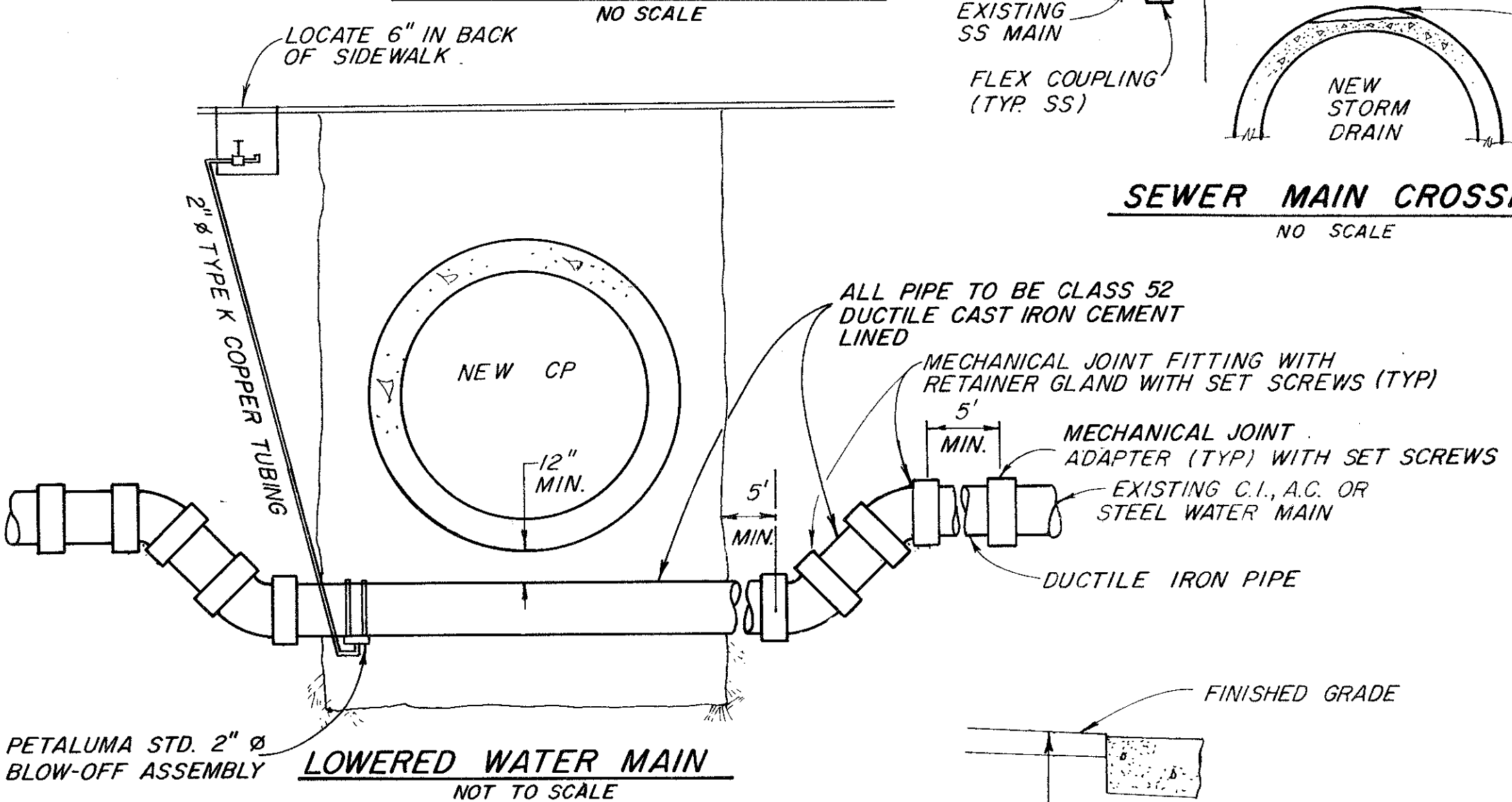
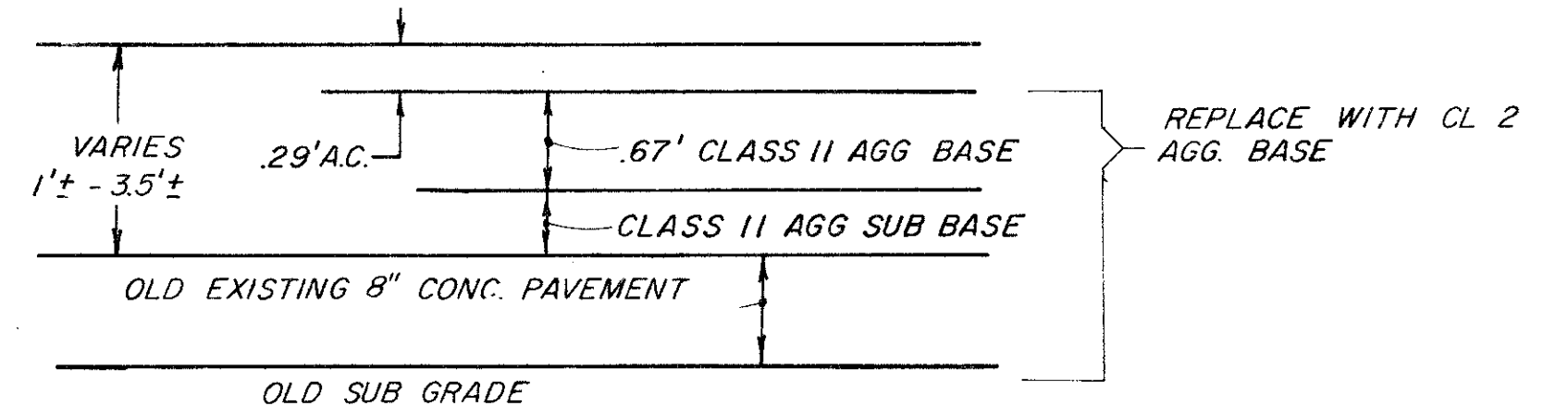
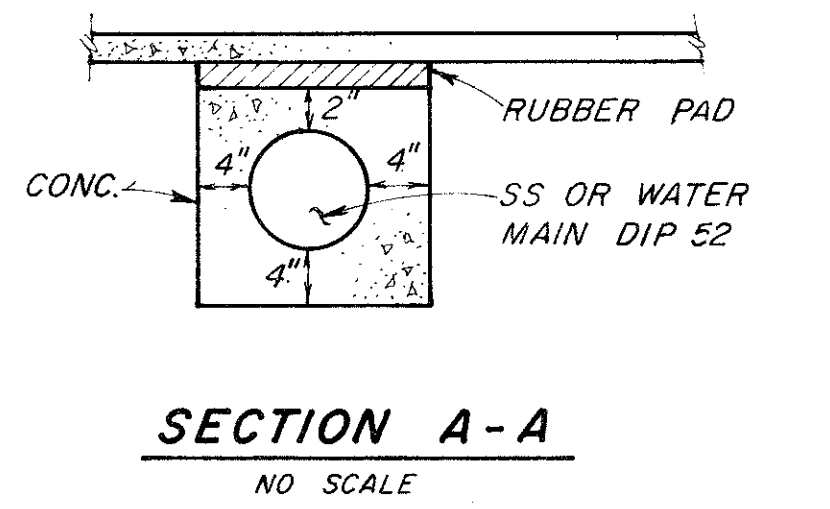
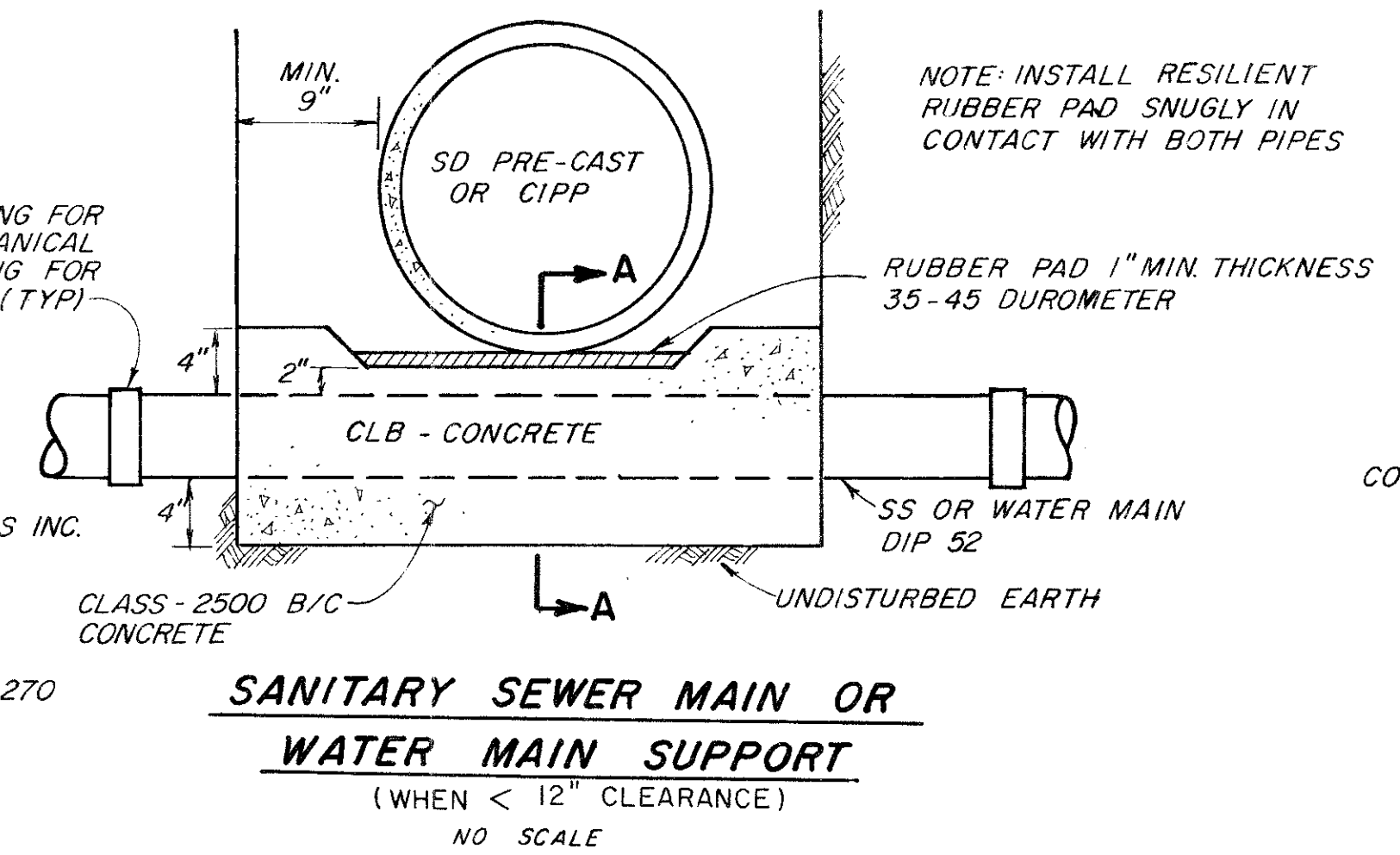
No.	Date	REVISION	By
1	10-29-87	REV. APPROVED FOR SUBMITTAL C-C CHANGED TO ALTERNATE #1	T.S.

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
JUNCTION STRUCTURE #1 & #2
 SCALE: AS SHOWN
 DATE: MAR. 7, 1985
 DESIGNED: RCE 19068
 SUBMITTED: RCE 23790
 DRAWING NUMBER: 2-1132/003/000-102.10

APPROVED: CHIEF ENGINEER
 CHECKED: RCE 13480
SONOMA COUNTY WATER AGENCY
 DRAWN: R. D.
 CHECKED:

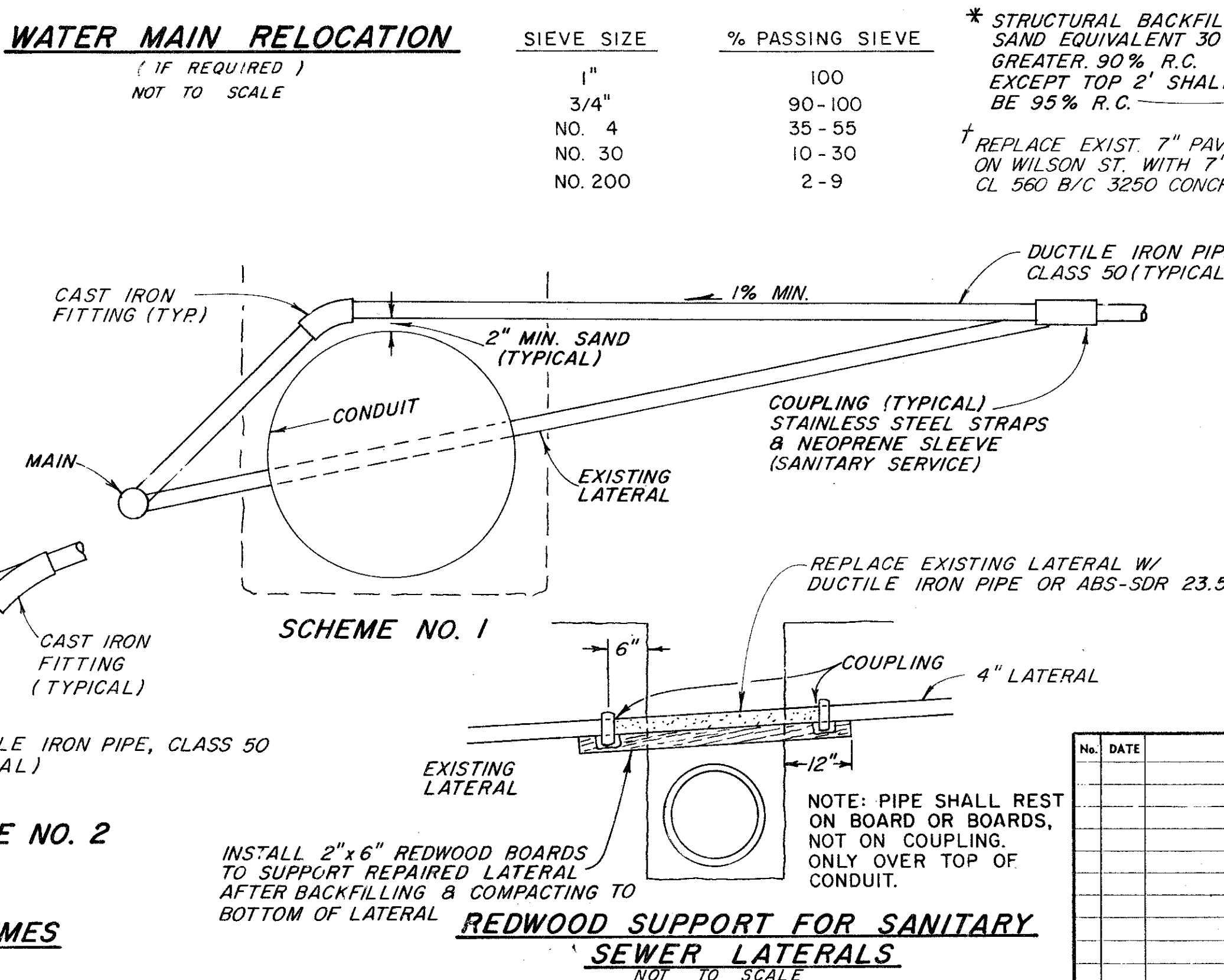
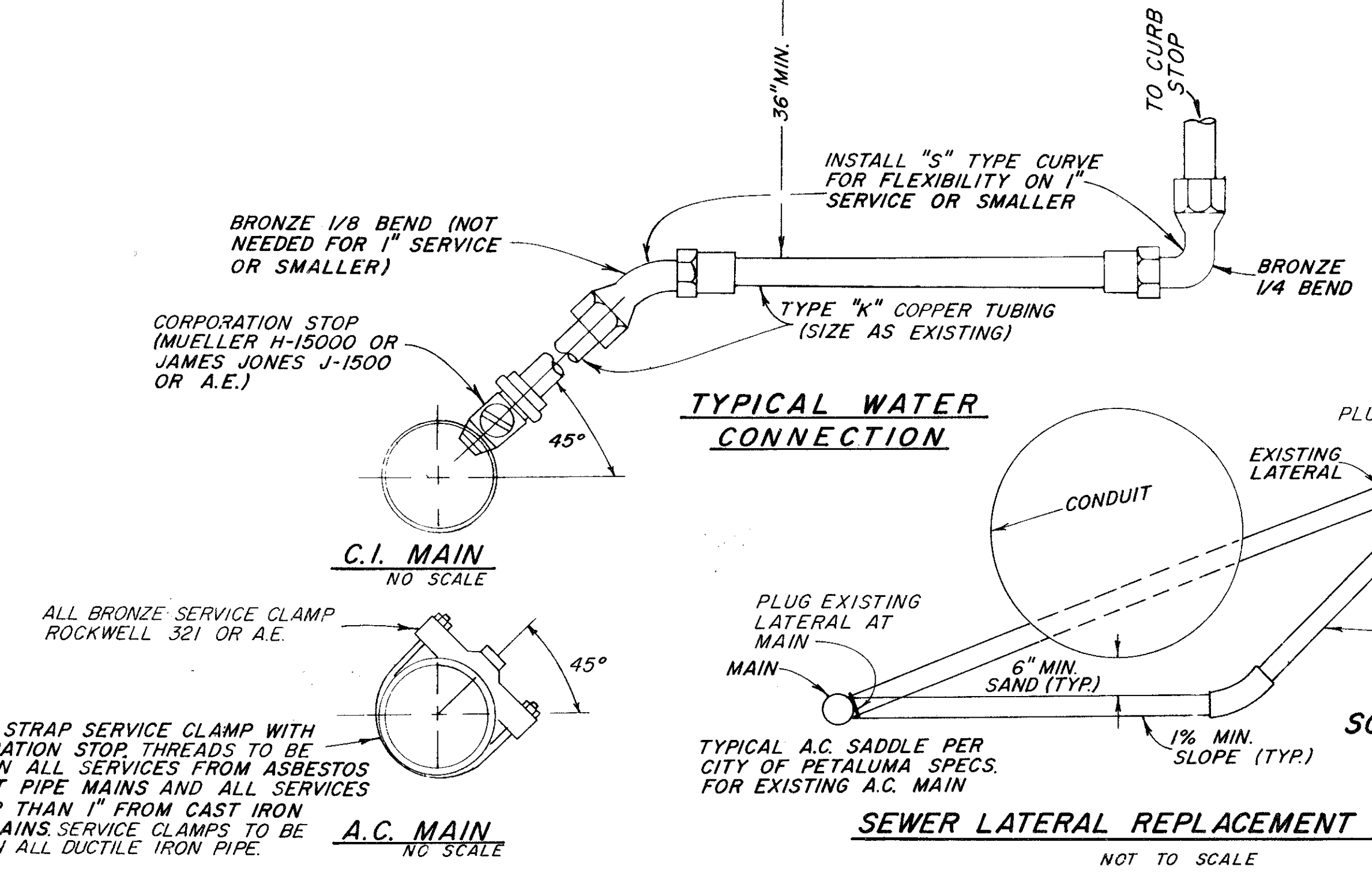
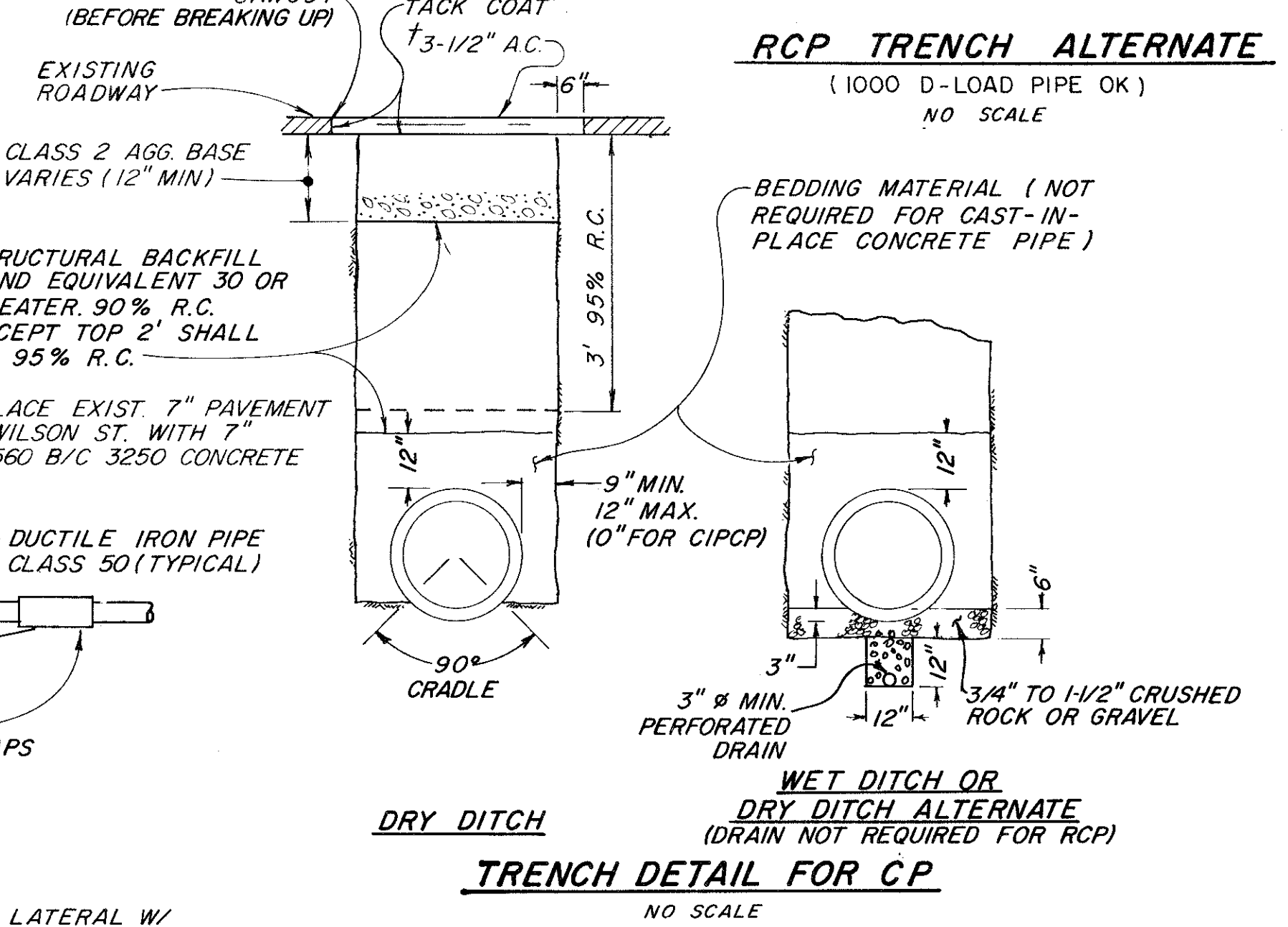


NOTE:
ALL EXISTING WATER MAINS REPLACED OR RELOCATED UNDER/OVER STORM PIPE TO BE CLASS 52 DUCTILE IRON CEMENT MORTAR-LINED PIPE WITH CLASS 250 CAST IRON CEMENT MORTAR-LINED FITTINGS. MECHANICAL JOINT FITTINGS WITH RETAINING GLANDS AND SET SCREWS OR A.E. RETAINING SYSTEM. ALL BACKFILL & BEDDING FOR CITY OF PETALUMA UTILITIES SHALL BE CLASS 2 AGGREGATE BASE COMPACTED TO 95% R.C.



*** STRUCTURAL BACKFILL GRADING**

SIeve SIZE	% PASSING SIEVE
1"	100
3/4"	90-100
NO. 4	35-55
NO. 30	10-30
NO. 200	2-9



RECORD DRAWING
Date 28 Oct 1987

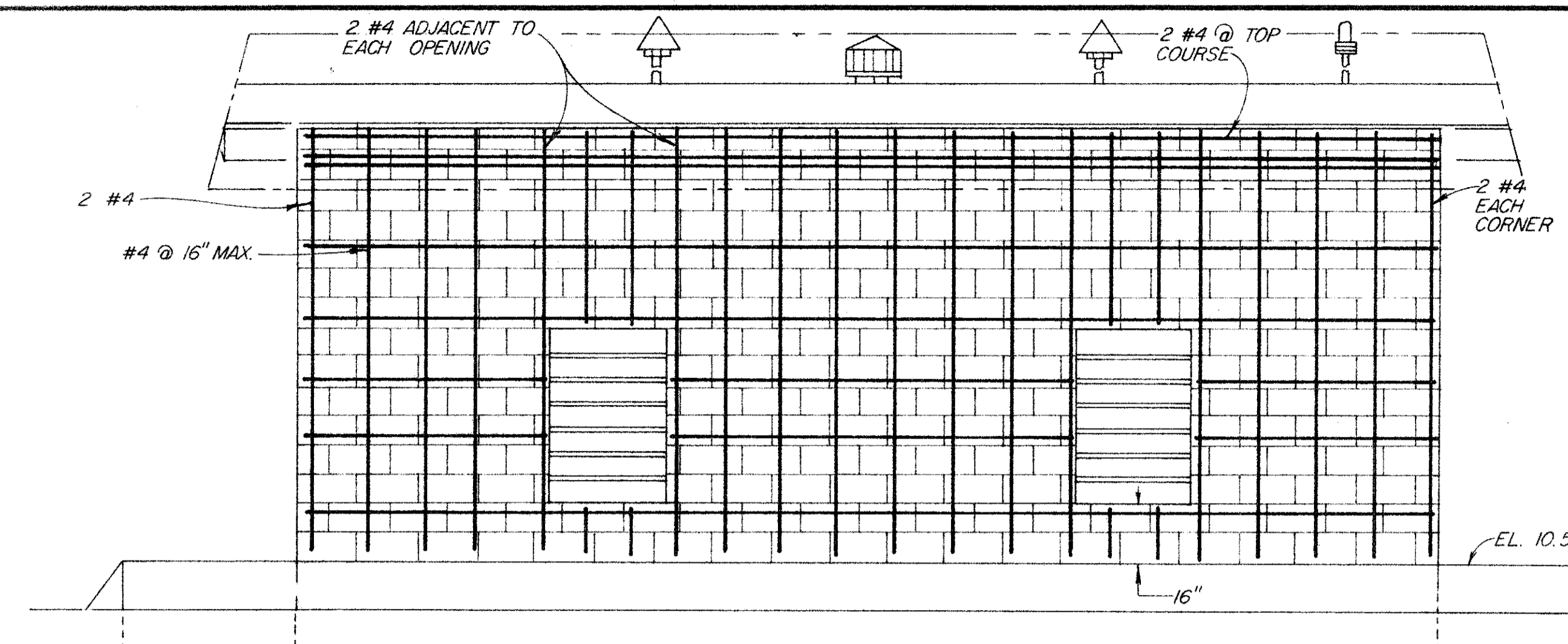
No.	DATE	REVISION	By

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
MISCELLANEOUS DETAILS

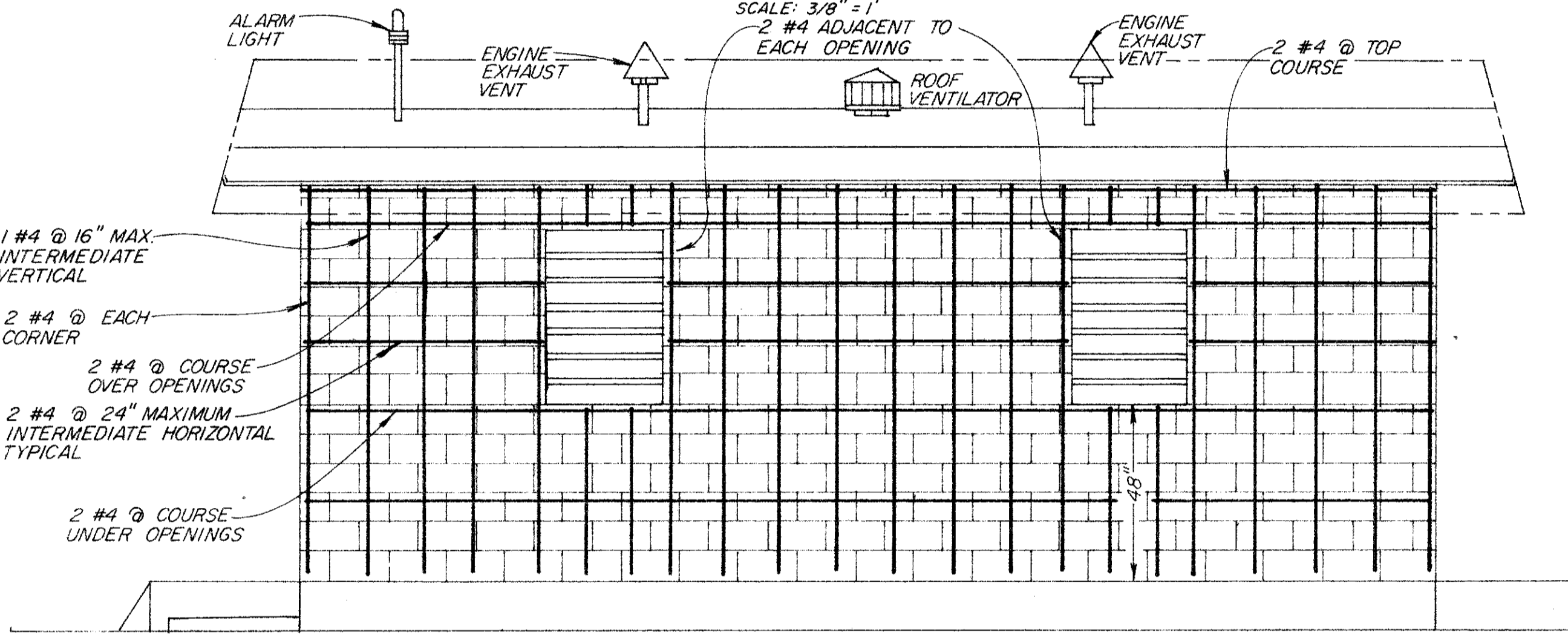
SCALE: AS SHOWN
DATE: 28 MAR 1983
DESIGNED: R.C.E. 15480
SUBMITTED: R.C.E. 23730
DRAWING NUMBER: 2-1130/003/000-102.12

APPROVED: [Signature]
CHECKED: [Signature]

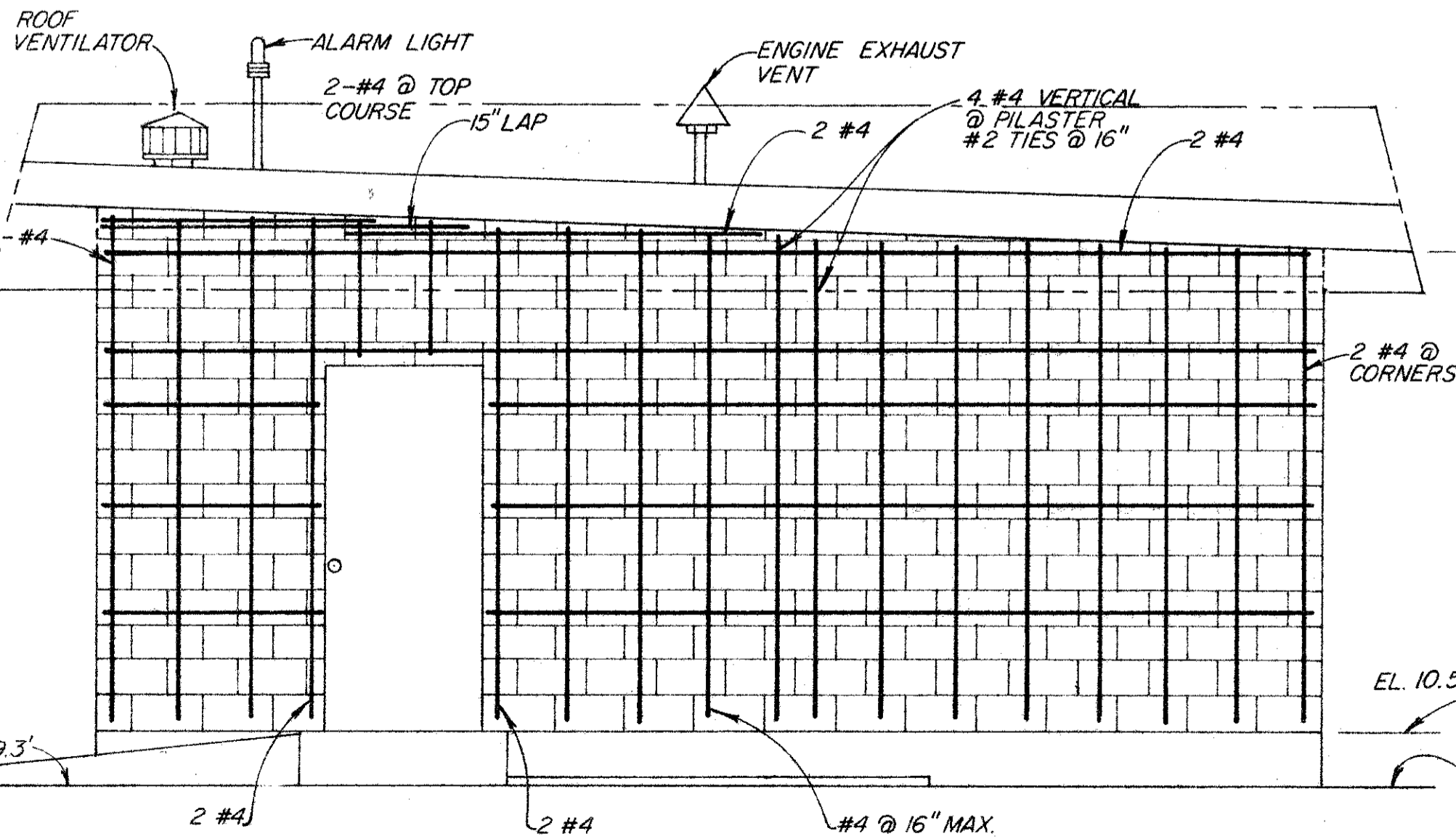
SONOMA COUNTY WATER AGENCY



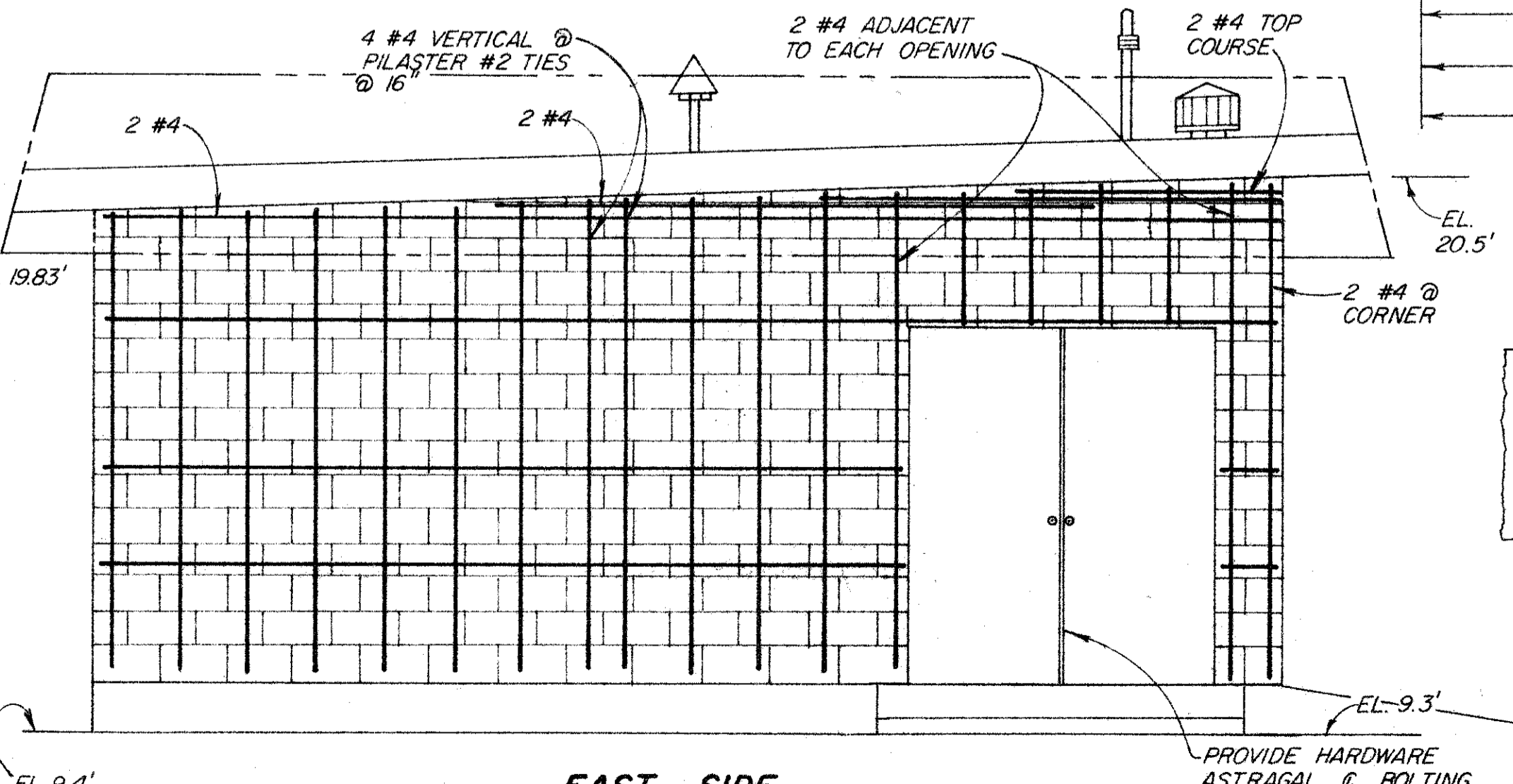
NORTH SIDE
(FACING LAKEVILLE STREET)
SCALE: 3/8" = 1'



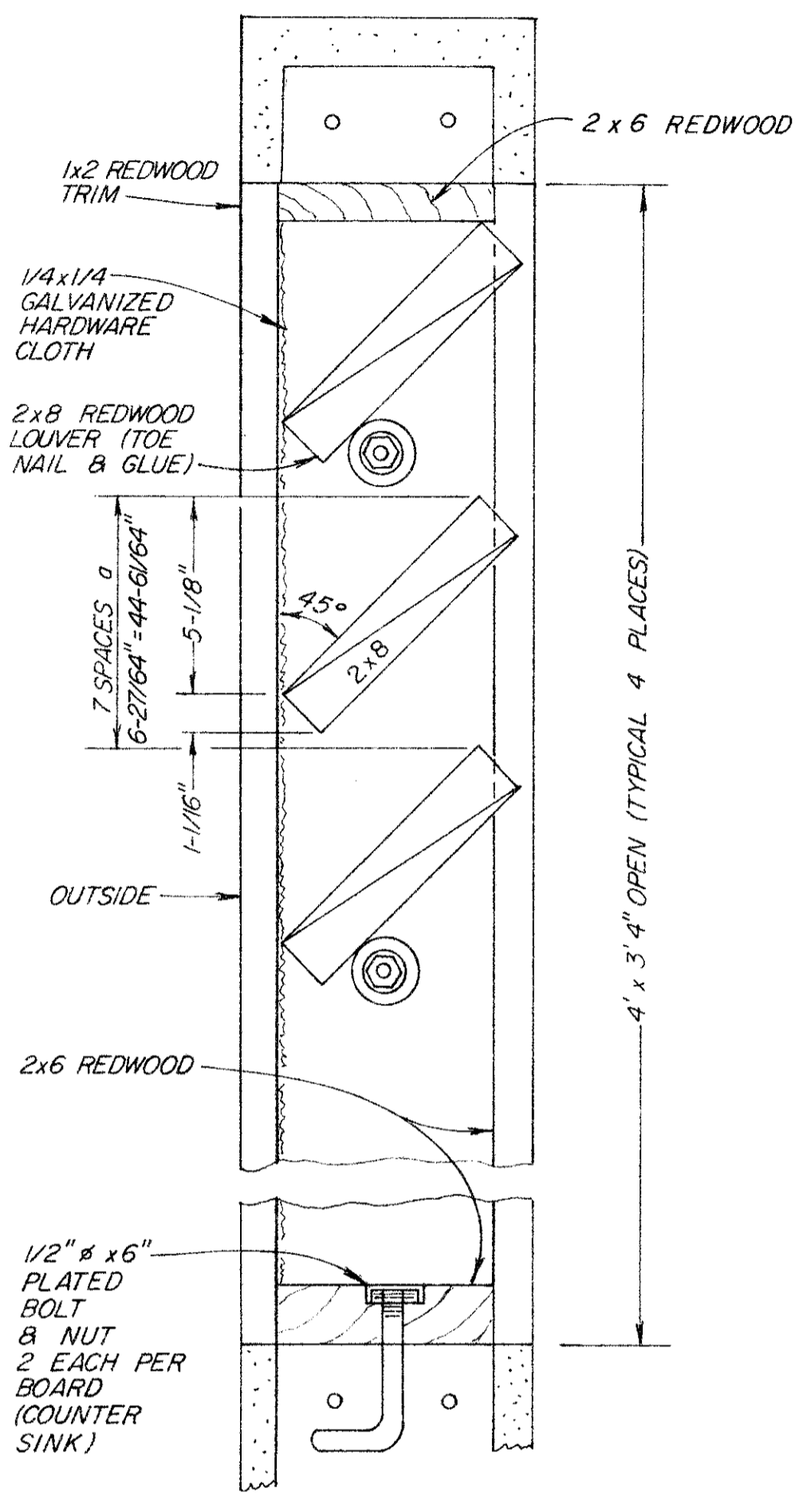
NOTE: ALL HORIZONTAL TO BE CONTINUOUS @ CORNERS WITH 15" LAP.
SOUTH SIDE
(FACING RAILROAD TRACKS)
SCALE: 3/8" = 1'



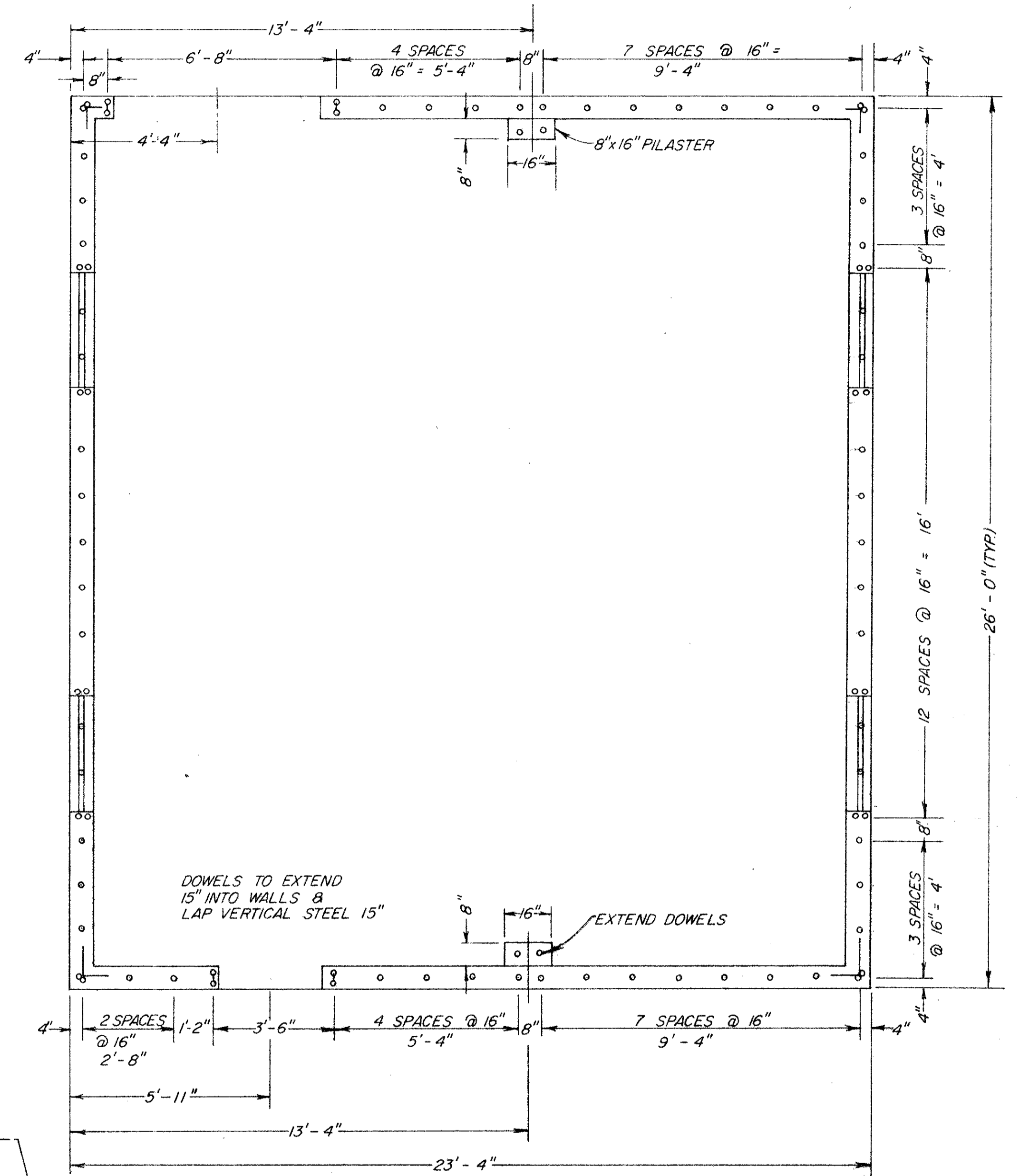
WEST SIDE
SCALE: 3/8" = 1'



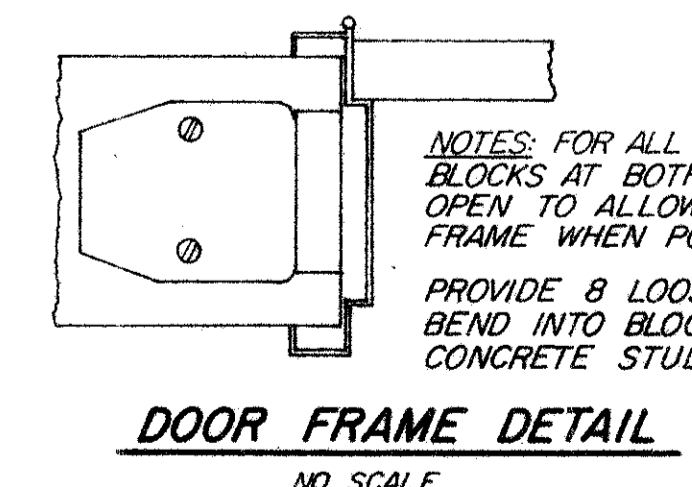
EAST SIDE
SCALE: 3/8" = 1'



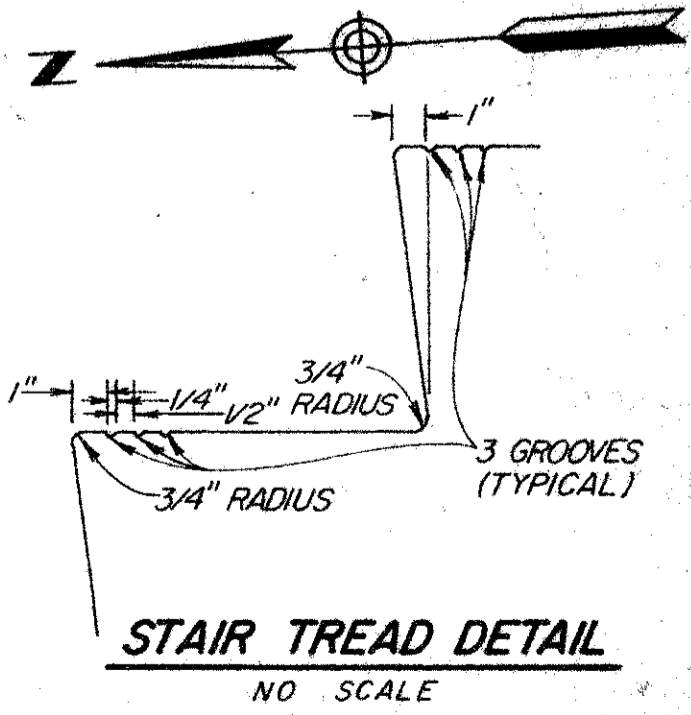
LOUVER DETAIL
SCALE: 3" = 1'



CONCRETE BLOCK DOWEL SETTING PLAN
SCALE: 3/8" = 1'



DOOR FRAME DETAIL
NO SCALE



STAIR TREAD DETAIL
NO SCALE

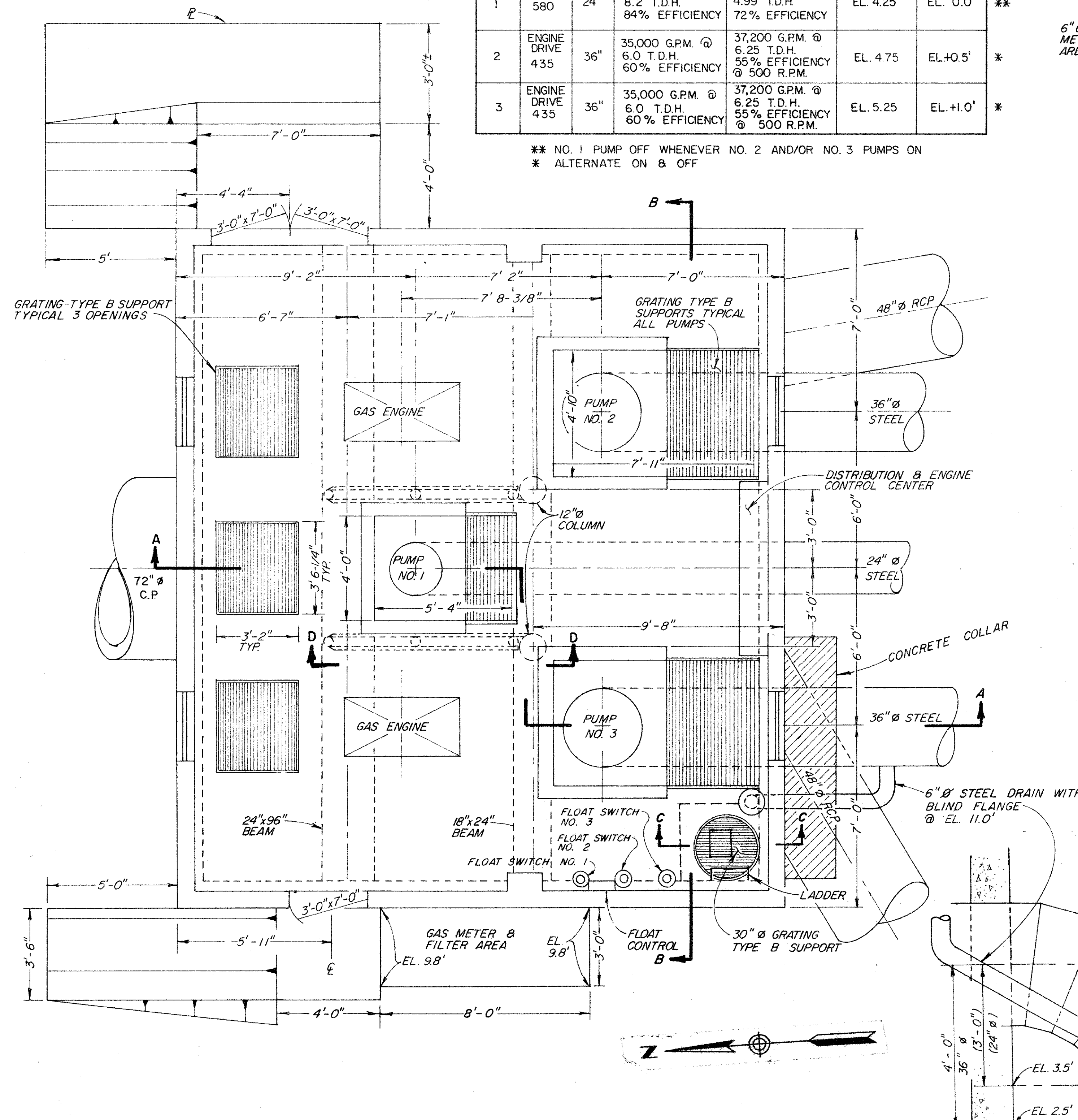
No.	Date	REVISION	By

PETALUMA BASIN ZONE 2A
 WILSON / LAKEVILLE STREET PROJECT
 PUMPHOUSE - PLAN & ELEVATIONS
 SCALE: AS SHOWN APPROVED: CHIEF ENGINEER DRAWN: D.A.A.
 DATE: 4-17-85 RCE 13480 CHECKED:
SONOMA COUNTY WATER AGENCY
 DESIGNED: RCE 19068 SUBMITTED: RCE 23790 DRAWING NUMBER:
 Robert L. Fisher R. J. Lott 2-1132/003/000-102.13

RECORD DRAWING
Date: 28 Oct 1987

PUMP DATA							
PUMP NO.	H.P.	R.P.M.	SIZE	PUMP REQUIREMENTS		CONTROL	
				CAPACITY G.P.M. @ T.D.H.	CAPACITY G.P.M. @ T.D.H.	ON	OFF
1	25	580	24"	9,400 G.P.M. @ 8.2 T.D.H. 84% EFFICIENCY	10,400 G.P.M. @ 4.99 T.D.H. 72% EFFICIENCY	EL. 4.25'	EL. 0.0'
2	ENGINE DRIVE	435	36"	35,000 G.P.M. @ 6.0 T.D.H. 60% EFFICIENCY	37,200 G.P.M. @ 6.25 T.D.H. 55% EFFICIENCY @ 500 R.P.M.	EL. 4.75	EL.+0.5'
3	ENGINE DRIVE	435	36"	35,000 G.P.M. @ 6.0 T.D.H. 60% EFFICIENCY	37,200 G.P.M. @ 6.25 T.D.H. 55% EFFICIENCY @ 500 R.P.M.	EL. 5.25	EL.+1.0'

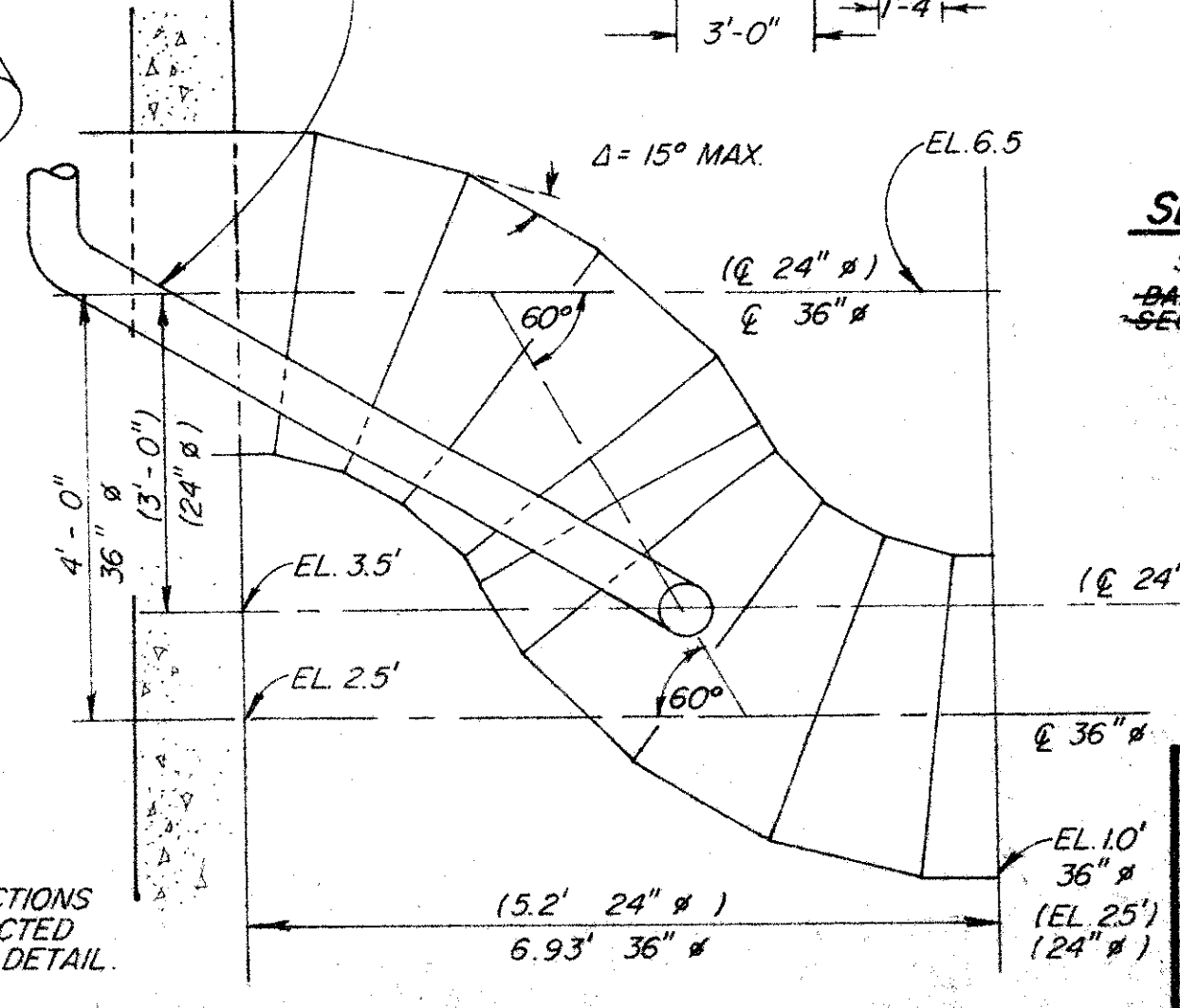
** NO. 1 PUMP OFF WHENEVER NO. 2 AND/OR NO. 3 PUMPS ON
* ALTERNATE ON & OFF



GENERAL ARRANGEMENTS

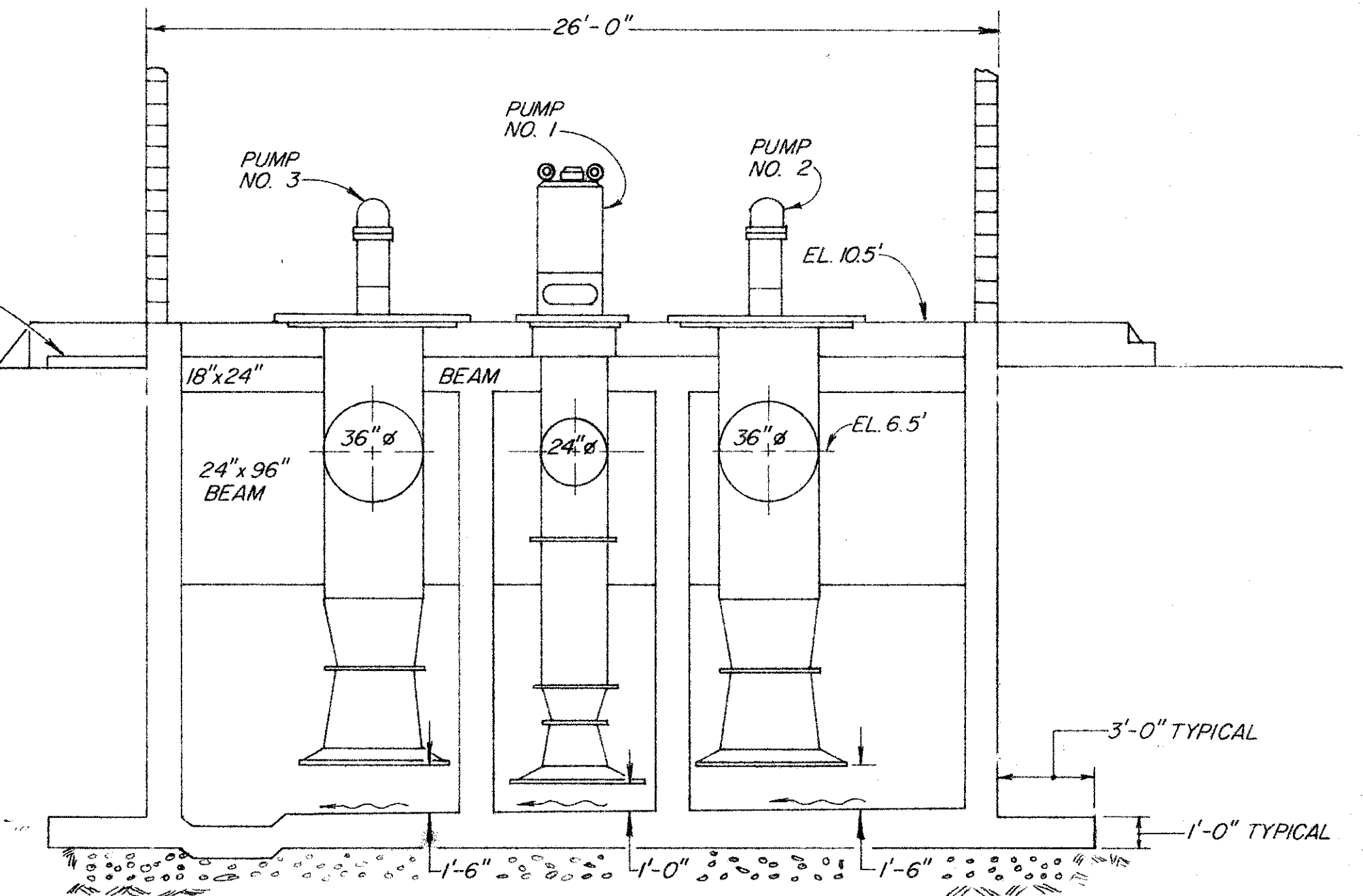
SCALE: 3/8" = 1'

NOTE: HORIZONTAL DEFLECTIONS SHALL BE CONSTRUCTED SIMILAR TO THIS DETAIL.



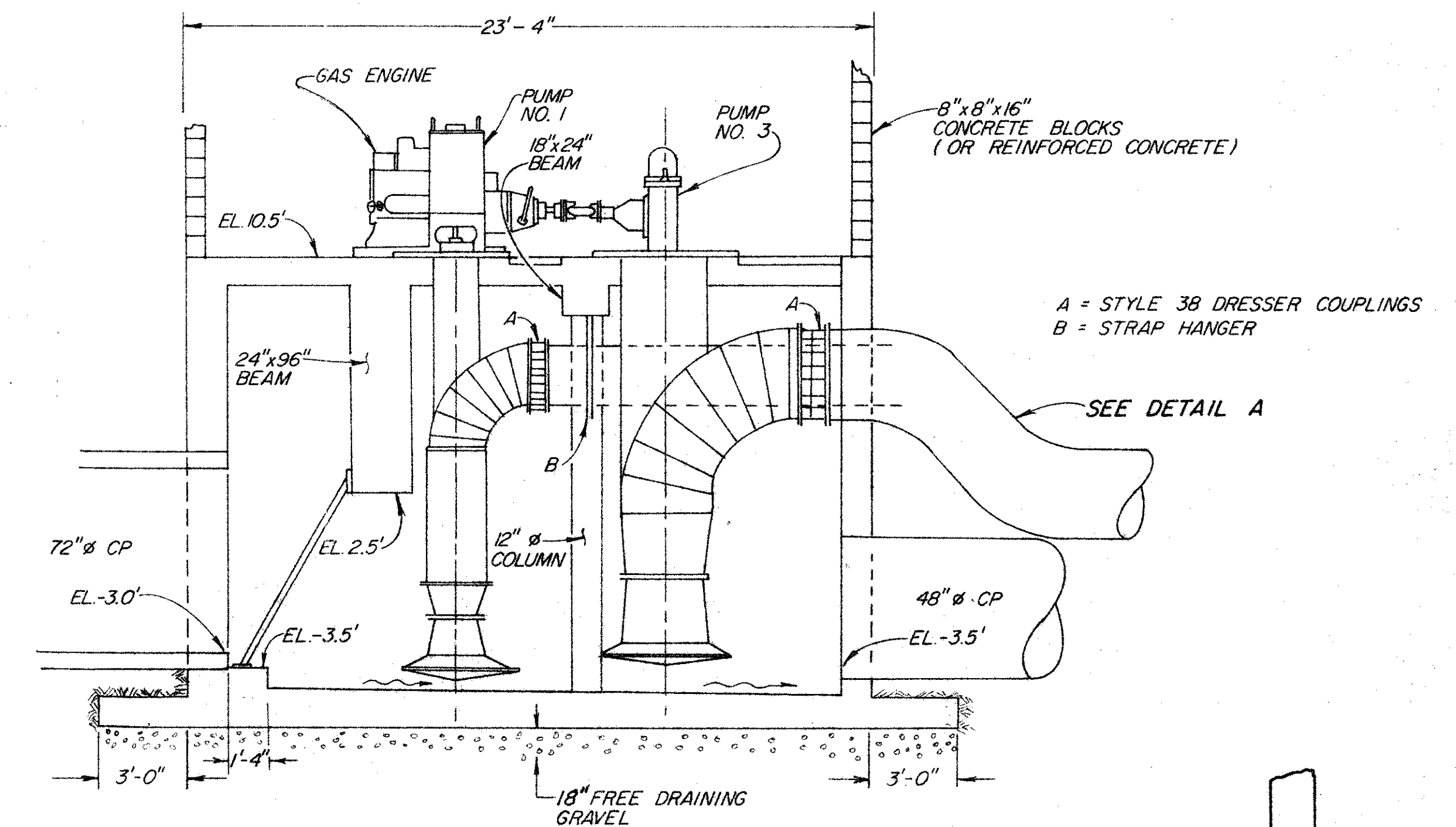
DETAIL A

NO SCALE



SECTION B-B

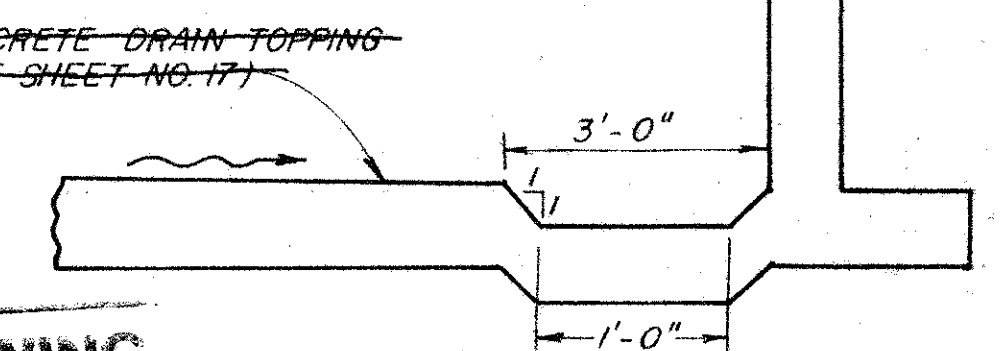
SCALE: 1/4" = 1'



SECTION A-A

SCALE: 1/4" = 1'

BARRELS NOT SHOWN - SEE SECTION B-B



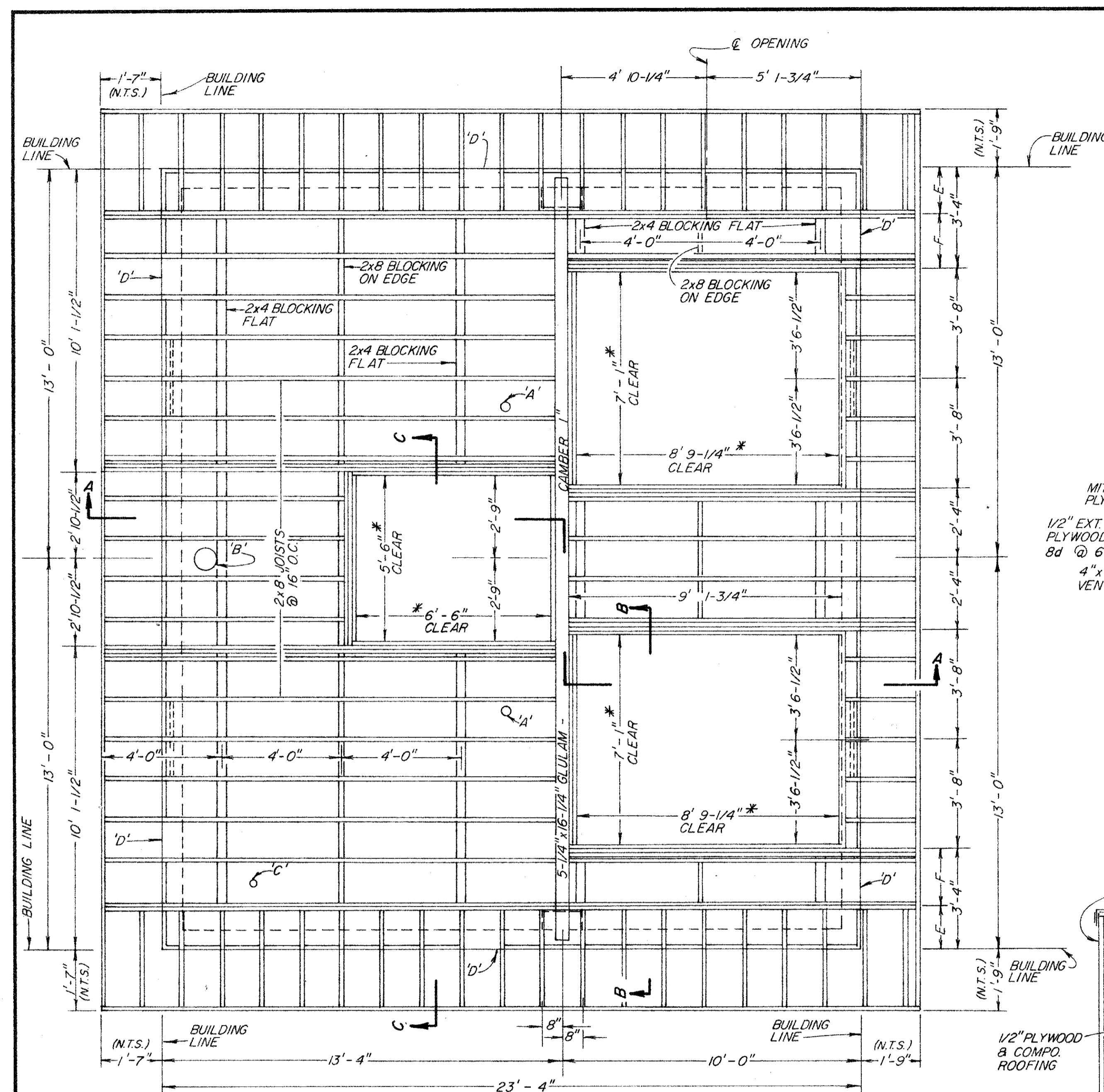
SECTION C-C SUMP

NO SCALE

RECORD DRAWING
Date 28 Oct 1987

No.	Date	REVISION	By
1	2/2/85	ADDED INT. WATER BARRIER	WJ
2	11-23-85	ADDED CONCRETE COLLAR	WJ
3	11-29-85	DELETED CONC. DRAIN TOPPING REMOVE BARRIERS	WJ
4	5-22-87	PUMP DATA REVISED CONTROL SETTING OFF	WJ

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
 PUMPHOUSE - GENERAL ARRANGEMENT
 SCALE: AS SHOWN
 DATE: 4-17-85
SONOMA COUNTY WATER AGENCY
 DESIGNED RCE 19068
 SUBMITTED RCE 23790
 DRAWING NUMBER 2-1132/003/000-102-14

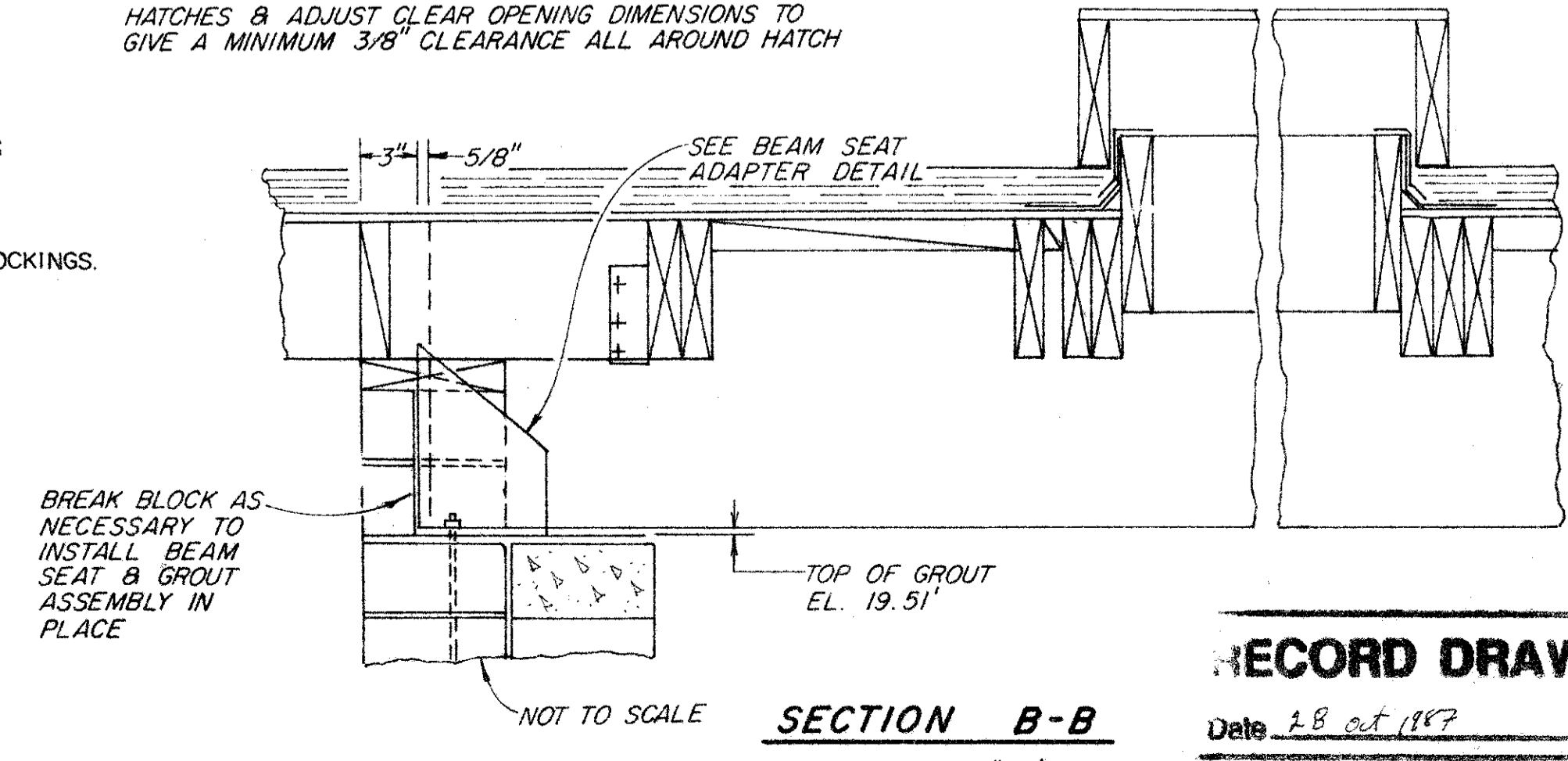


ROOF FRAMING PLAN
 SCALE: 3/8" = 1'
 A = APPROXIMATE LOCATION OF EXHAUST VENTS. SEE ENGINES FOR EXACT LOCATION. SEE DETAIL THIS SHEET.
 B = 8" ROOF VENTILATOR. GRAVITY ROTATING TYPE "BREIDERT" OR EQUAL.
 C = ALARM LIGHT. EXTEND 2'-6" ABOVE ROOF LINE.
 D = SCREEN VENT. (6 REQUIRED)
 E = 1'-4-3/4"
 F = 1'-11-1/4"

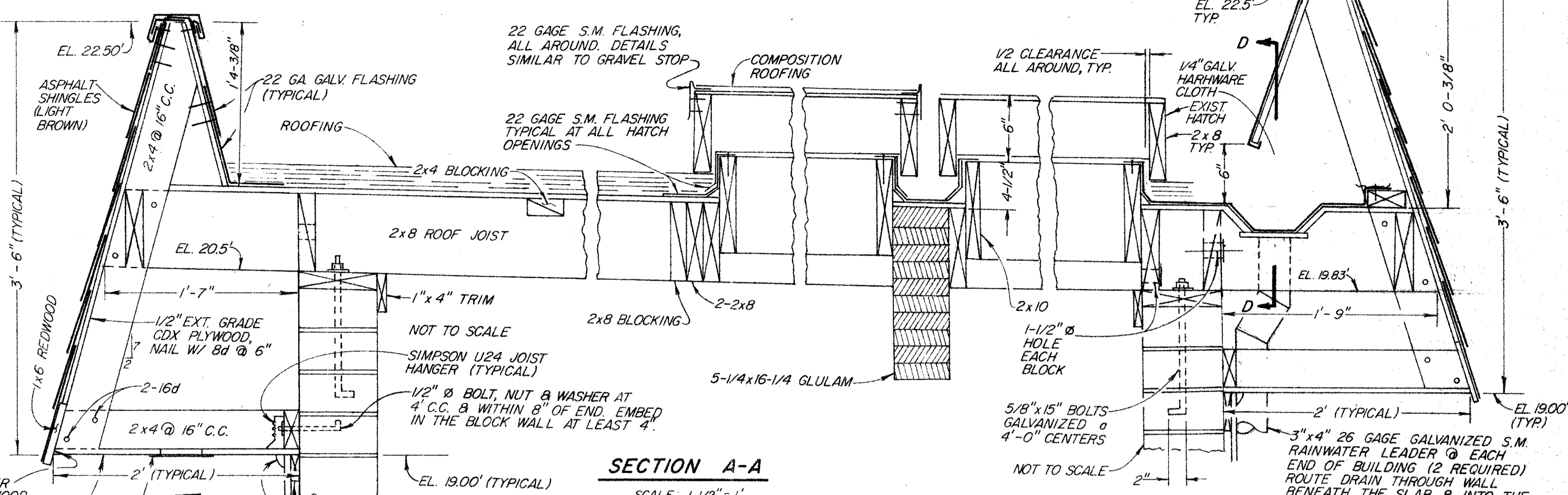
- ROOF SHEATHING SCHEDULE**
- PLYWOOD: 1/2" EXTERIOR, D.F.P.A., AC GRADE.
 - PLYWOOD TO BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS WITH STAGGERED END JOINTS.
 - ALL EDGES OF PLYWOOD TO BE BLOCKED.
 - NAILING SCHEDULE FOR PLYWOOD.
 8d NAILS @ 4" AROUND PERIMETER OF ROOF & AT WALL BLOCKINGS.
 8d NAILS @ 6" ALONG PANEL EDGES.
 8d NAILS @ 12" AT INTERMEDIATE CONTACTS.

- FRAMING NAILING SCHEDULE**
- PLATE TO BLOCKING 16d @ 16" O.C.
 - JOIST TO PLATE TOE NAIL 2-16d EACH SIDE.
 - EDGE BLOCKING TO JOIST 2-16d NAILS.
 - FLAT BLOCKING TO JOIST 2-16d NAILS.
 - JOISTS TO HEADERS & GLULAM-APPROVED S.M. JOIST HANGERS.

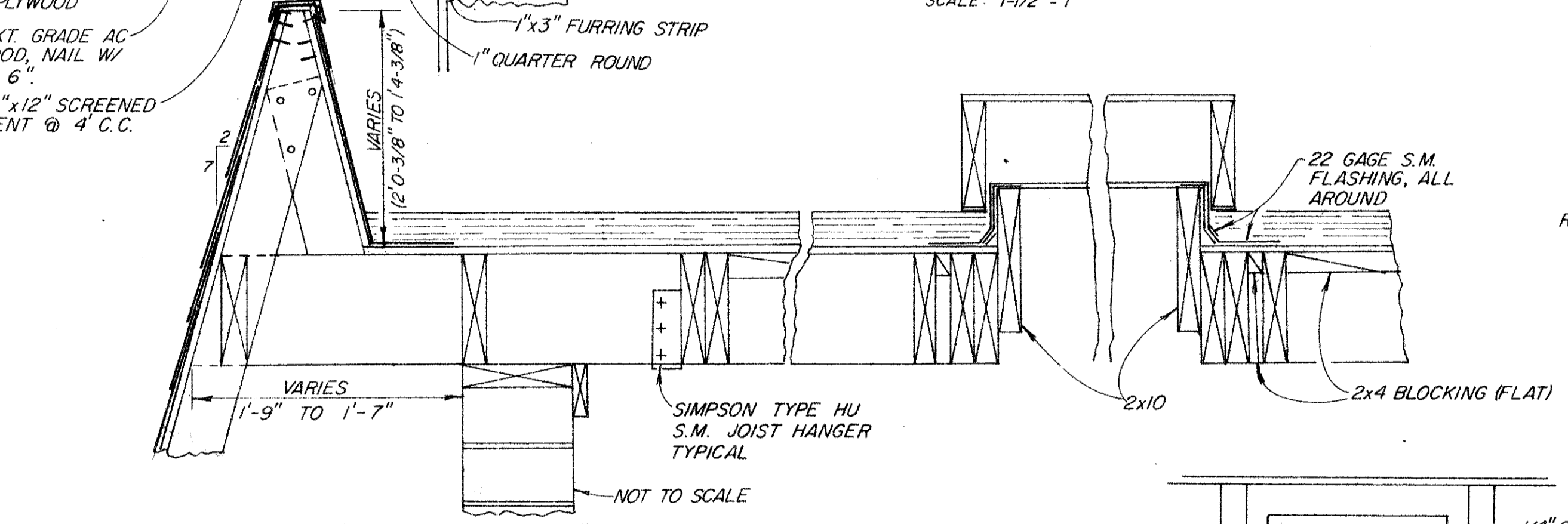
* NOTE: CHECK EXISTING CLEAR OPENINGS ON SALVAGEABLE HATCHES & ADJUST CLEAR OPENING DIMENSIONS TO GIVE A MINIMUM 3/8" CLEARANCE ALL AROUND HATCH



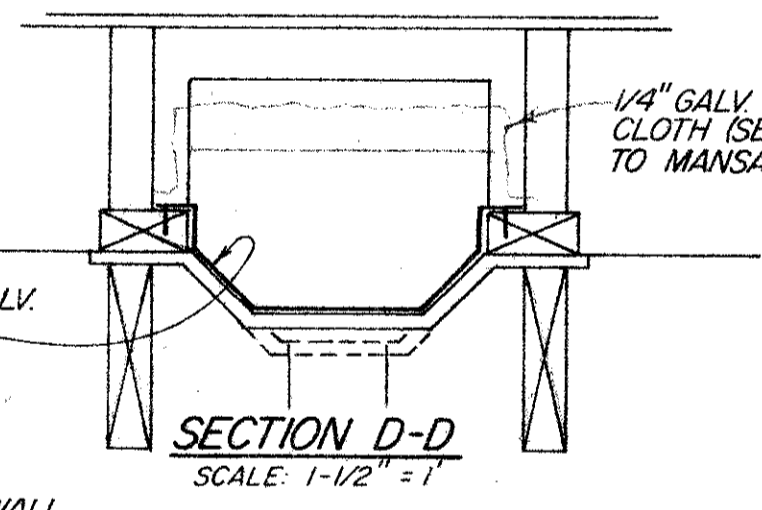
SECTION B-B
 SCALE: 1-1/2" = 1'



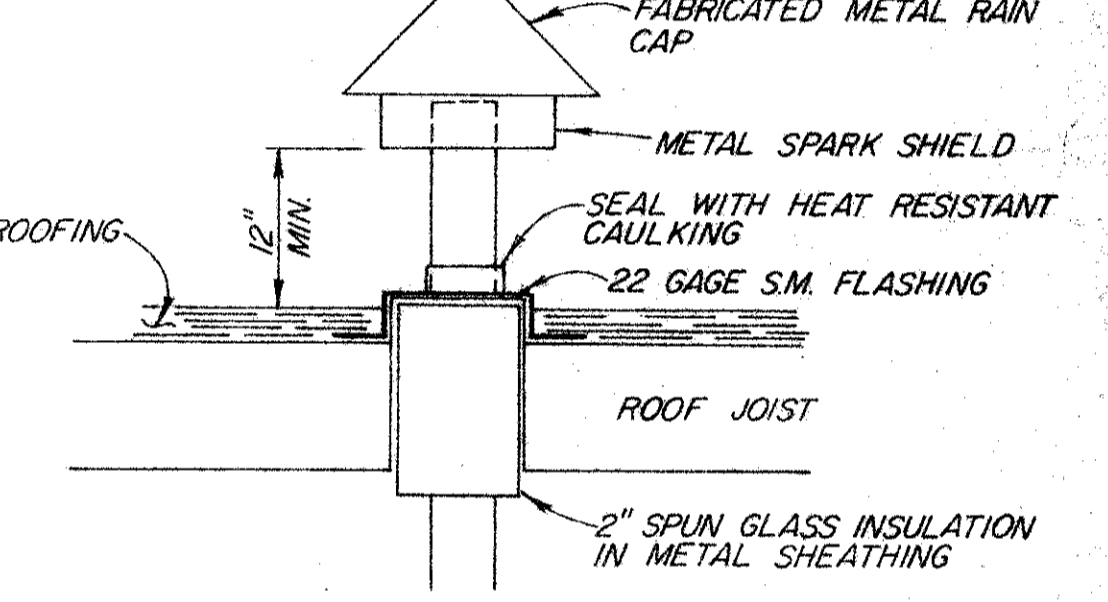
SECTION A-A
 SCALE: 1-1/2" = 1'



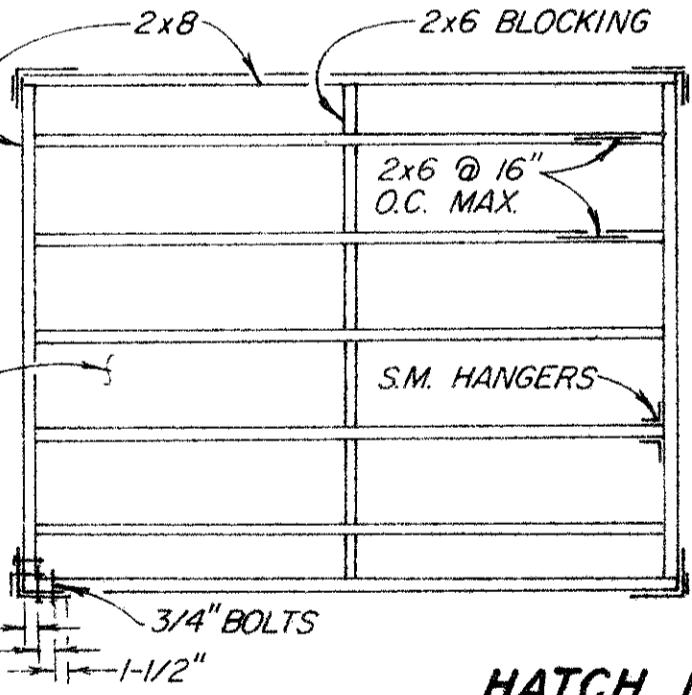
SECTION C-C
 SCALE: 1-1/2" = 1'



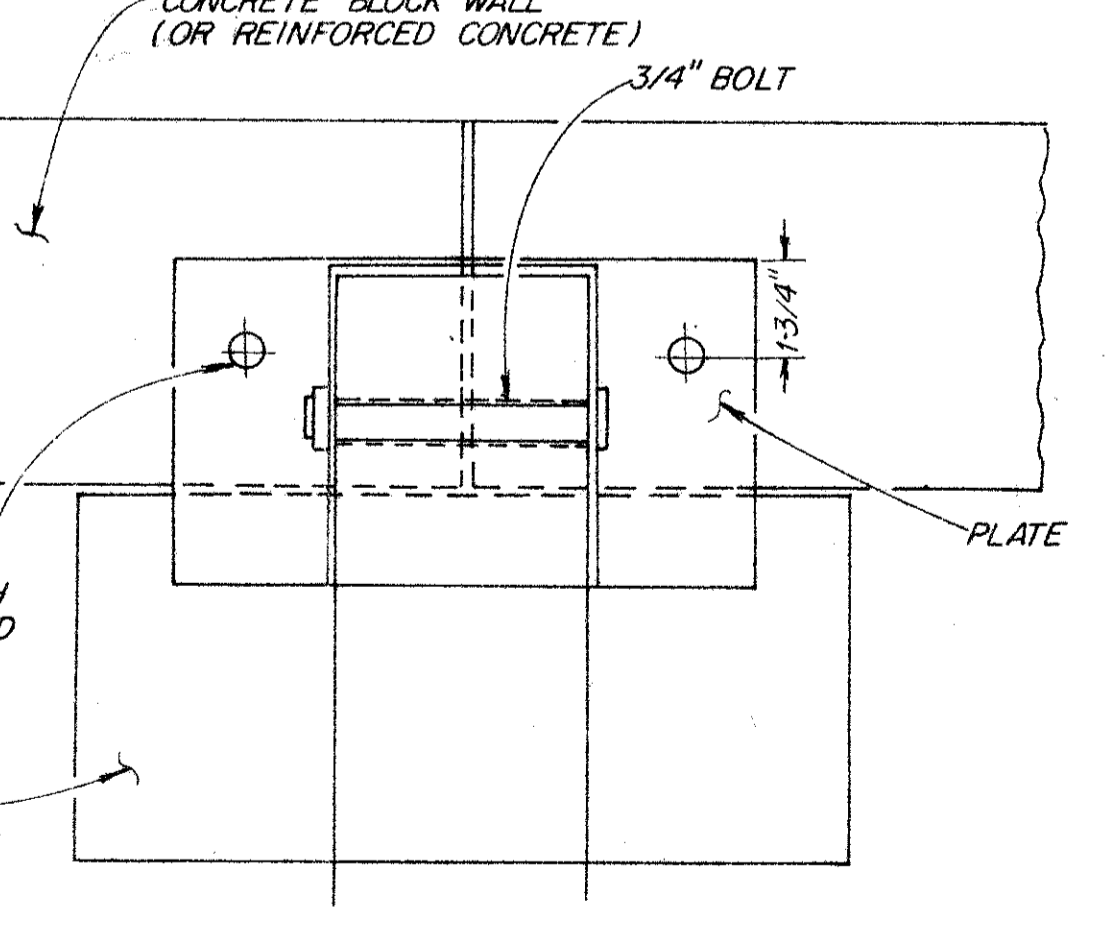
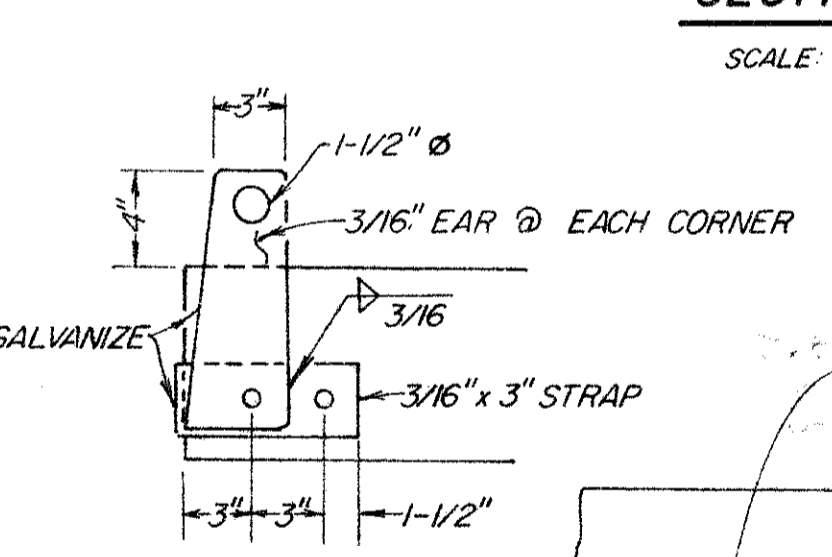
SECTION D-D
 SCALE: 1-1/2" = 1'



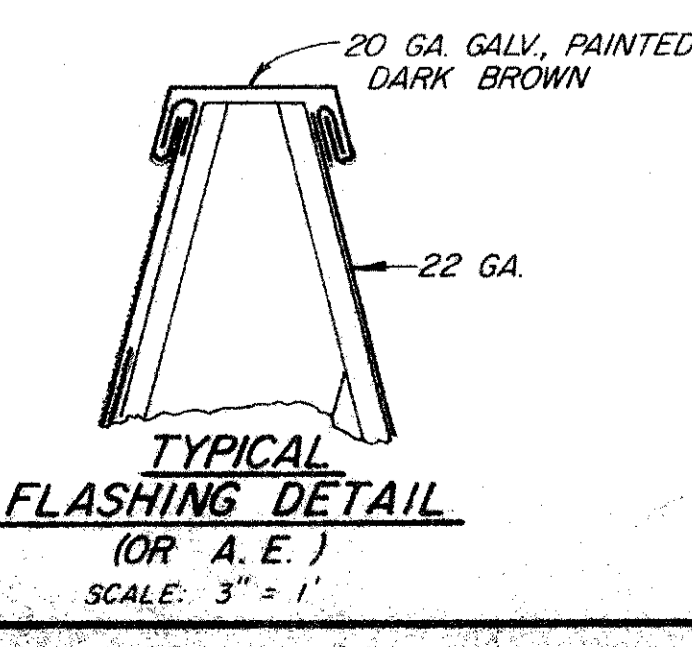
EXHAUST VENT DETAIL
 SCALE: 1" = 1'



HATCH DETAIL (EXISTING)
 NO SCALE



BEAM SEAT ADAPTER DETAILS
 SCALE: 3" = 1'



TYPICAL FLASHING DETAIL (OR A.E.)
 SCALE: 3" = 1'

RECORD DRAWING
 Date 2.8 Oct 1987

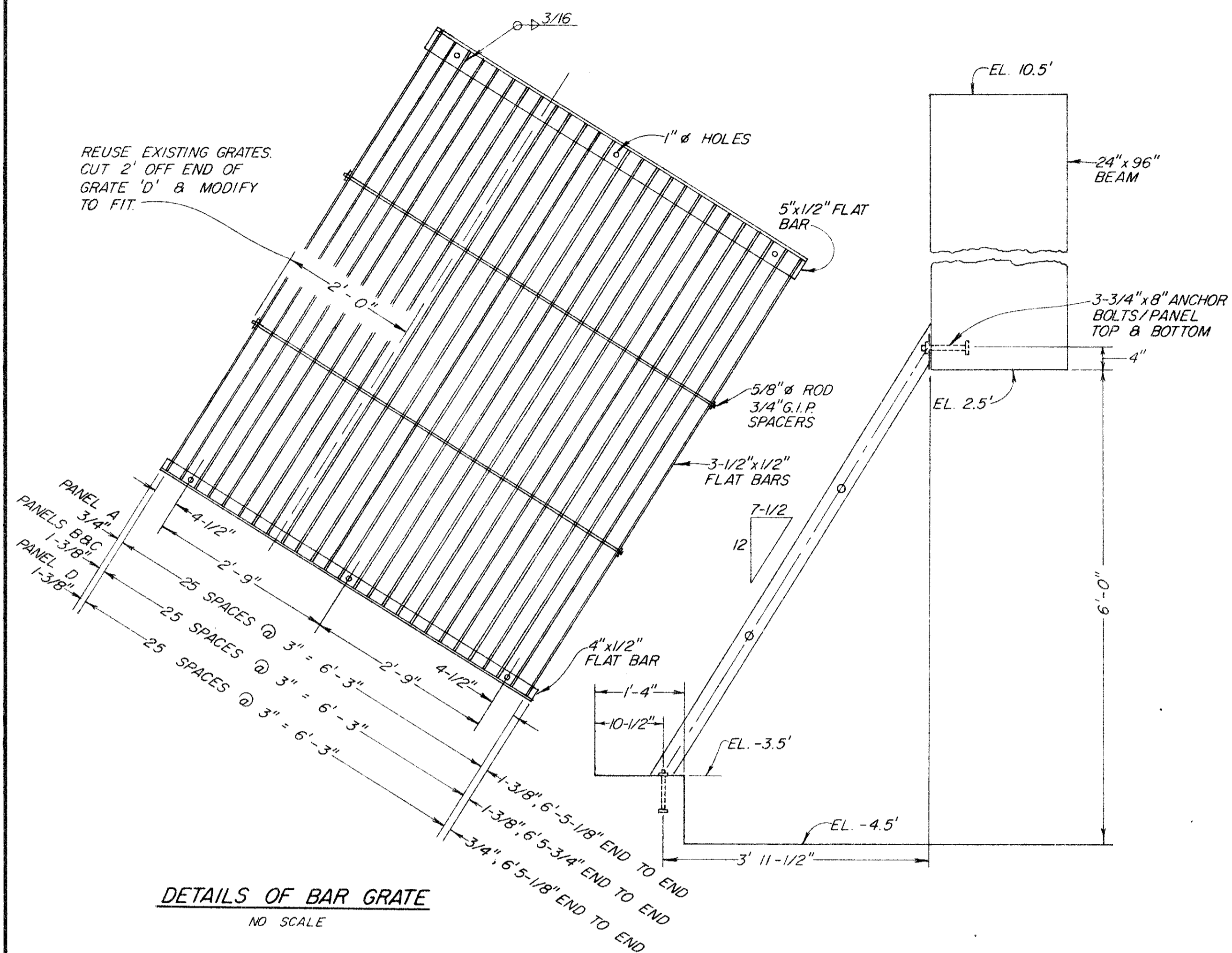
No.	Date	REVISION	By

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
PUMPHOUSE - ROOF FRAMING & DETAILS

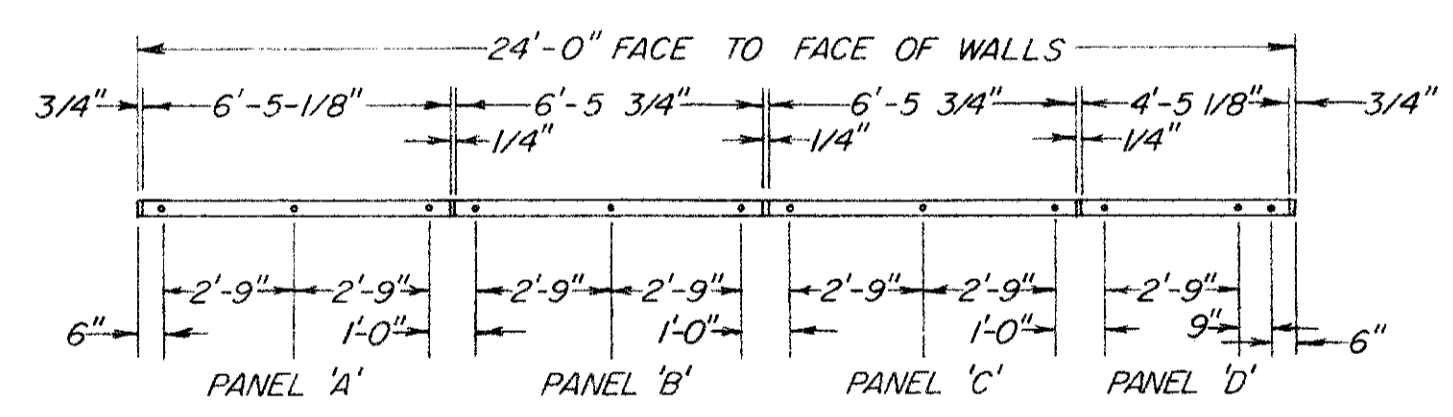
SCALE: AS SHOWN APPROVED: CHIEF ENGINEER DRAWN: D.A.A.
 DATE: 4-17-85 RCE 13480 CHECKED: *[Signature]*

SONOMA COUNTY WATER AGENCY

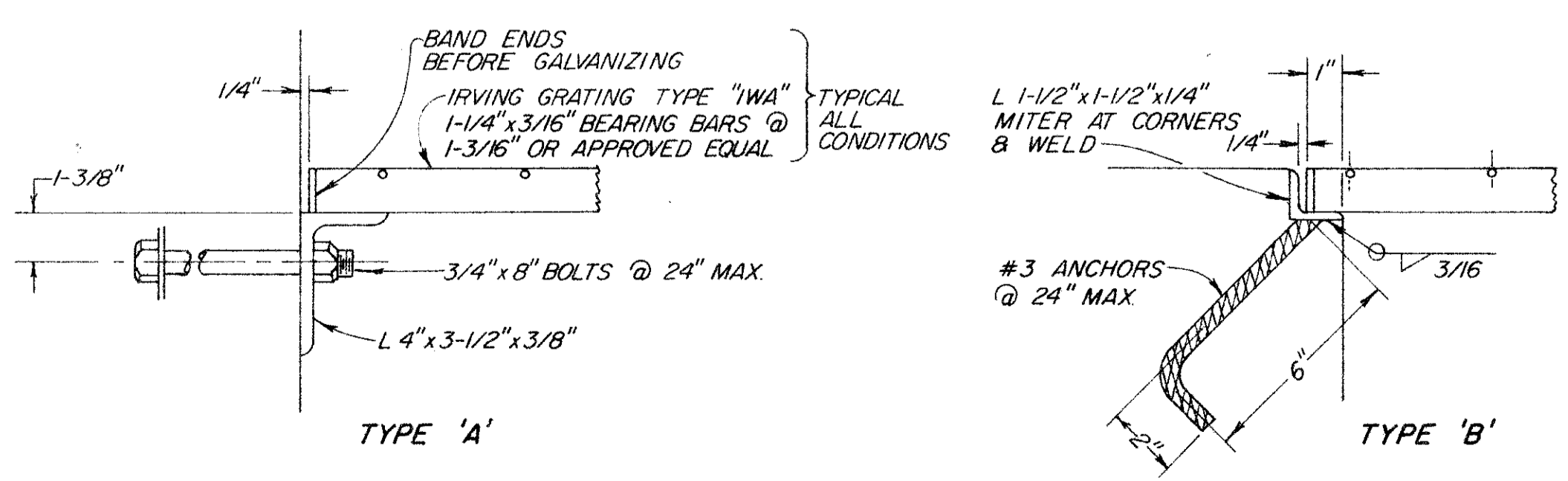
DESIGNED: RCE 19068 SUBMITTED: RCE 23790 DRAWING NUMBER: 2-1132/003/000-102.15



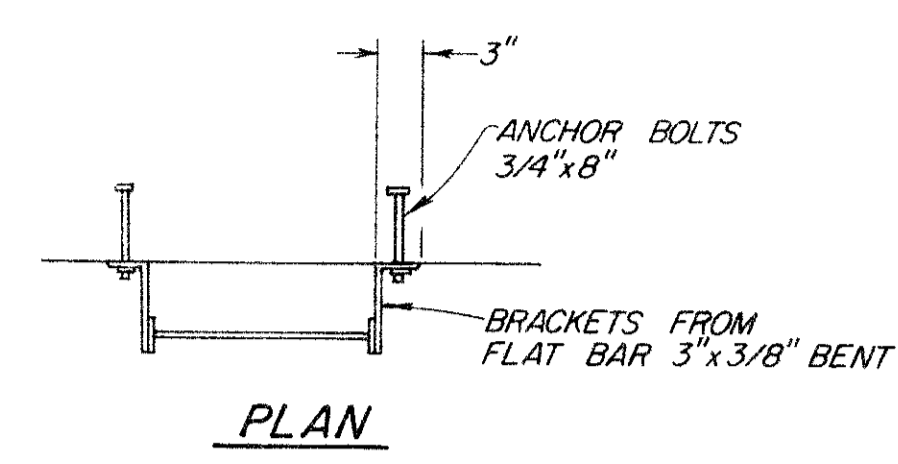
DETAILS OF BAR GRATE
NO SCALE



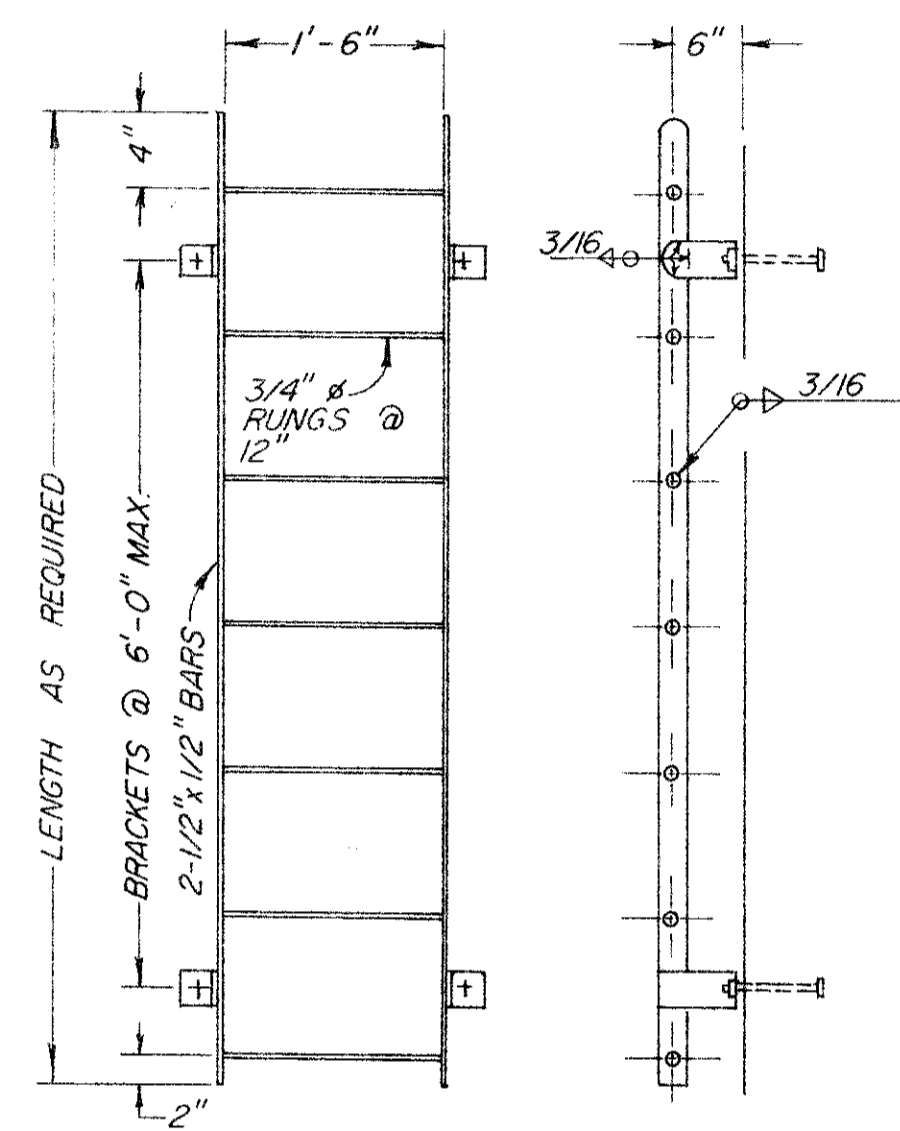
BOLT SETTING PLAN
NO SCALE
(CONTRACTOR TO VERIFY WITH EXISTING GRATES)



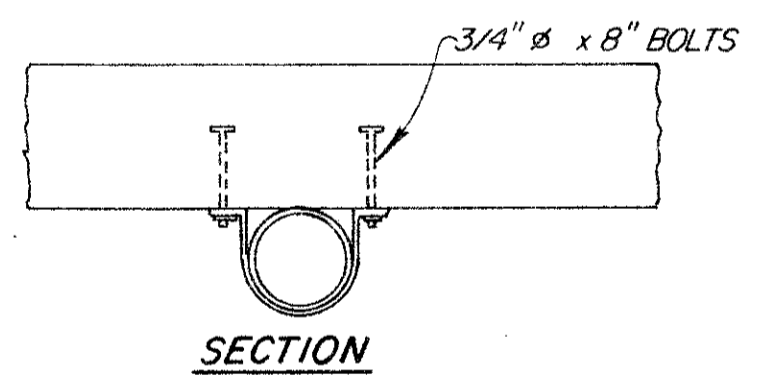
TYPICAL GRATING EDGE SUPPORT DETAILS
SCALE: 3" = 1'-0"



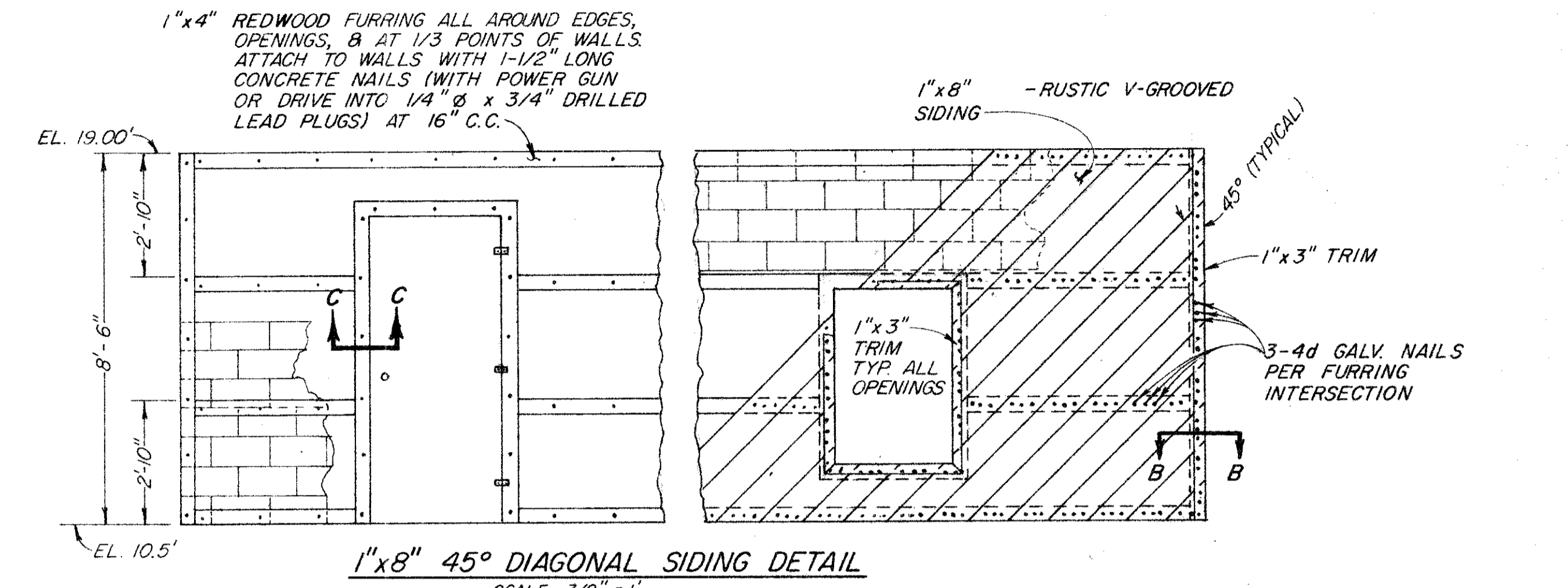
PLAN



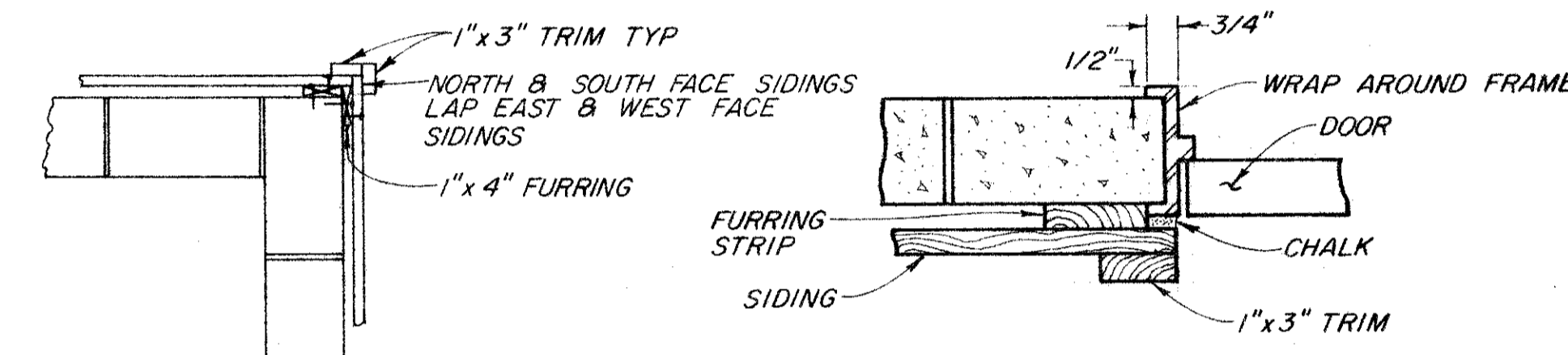
TYPICAL LADDER DETAILS
SCALE: 3/4" = 1'-0"



SECTION

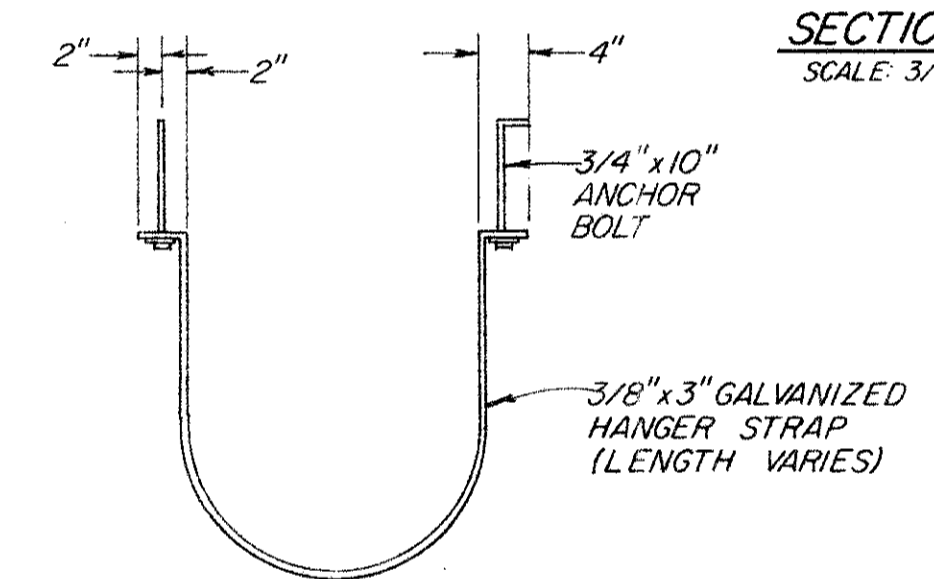


1" x 8" 45° DIAGONAL SIDING DETAIL
SCALE: 3/8" = 1'

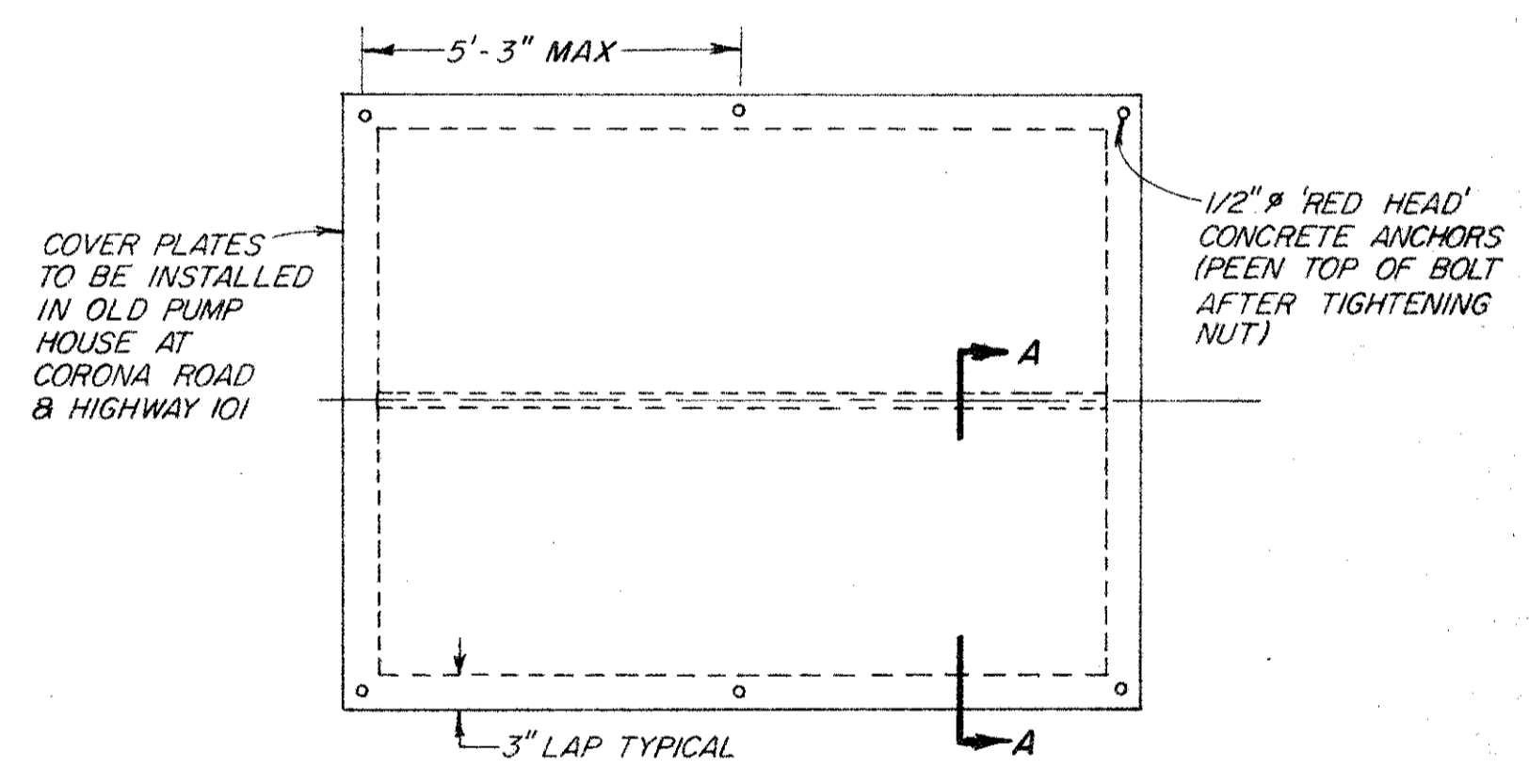


SECTION B-B
SCALE: 3/4" = 1'

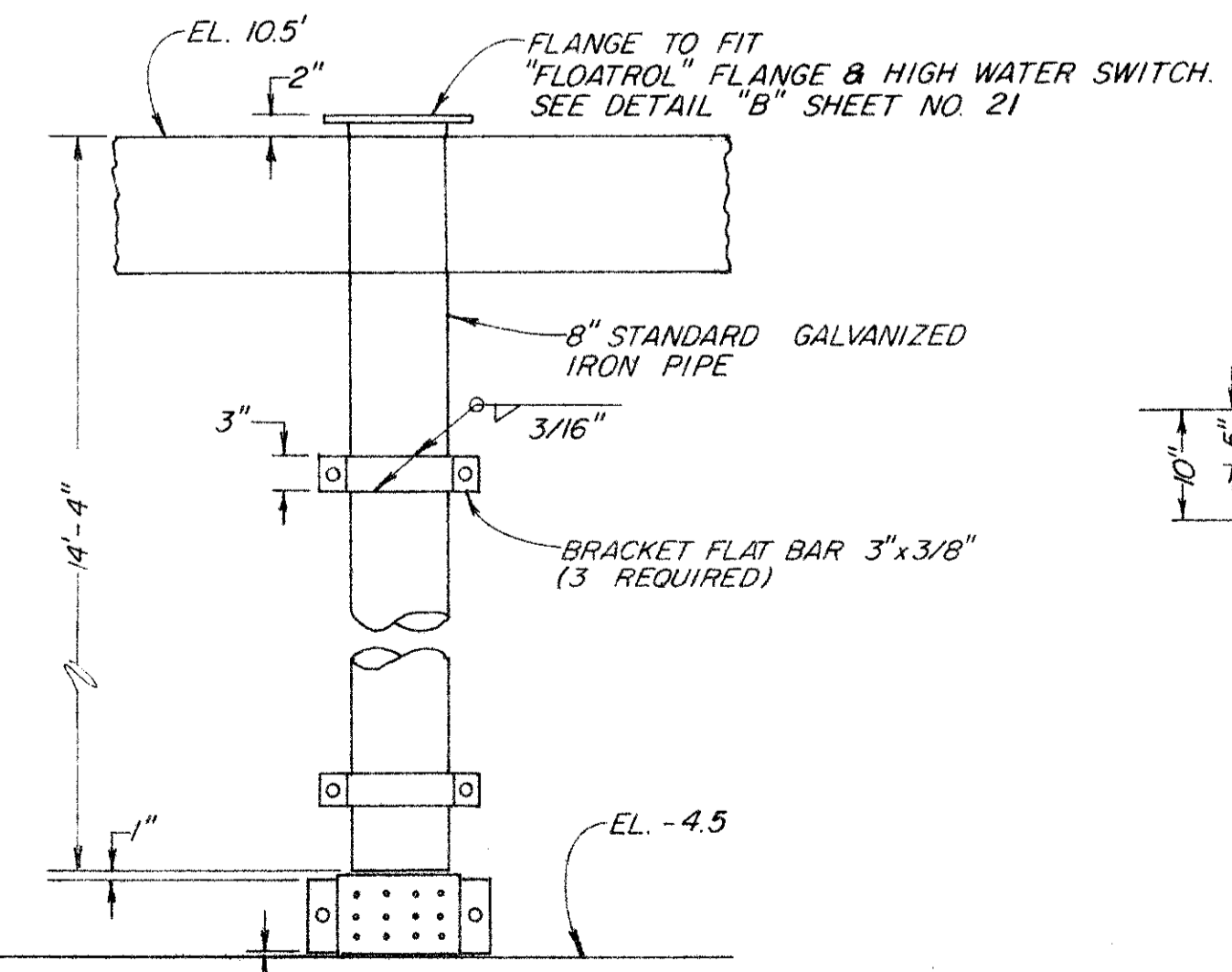
SECTION C-C
NO SCALE



STRAP HANGER DETAIL
SCALE: 3/4" = 1'-0"



SECTION A-A
COVER PLATES FOR EXISTING OPENINGS
(AT EXISTING CORONA ROAD PUMPING PLANT)
NO SCALE



DETAILS OF FLOAT TUBE
SCALE: 3/4" = 1'

RECORD DRAWING
Date: 28 of 1987

No.	Date	REVISION	By

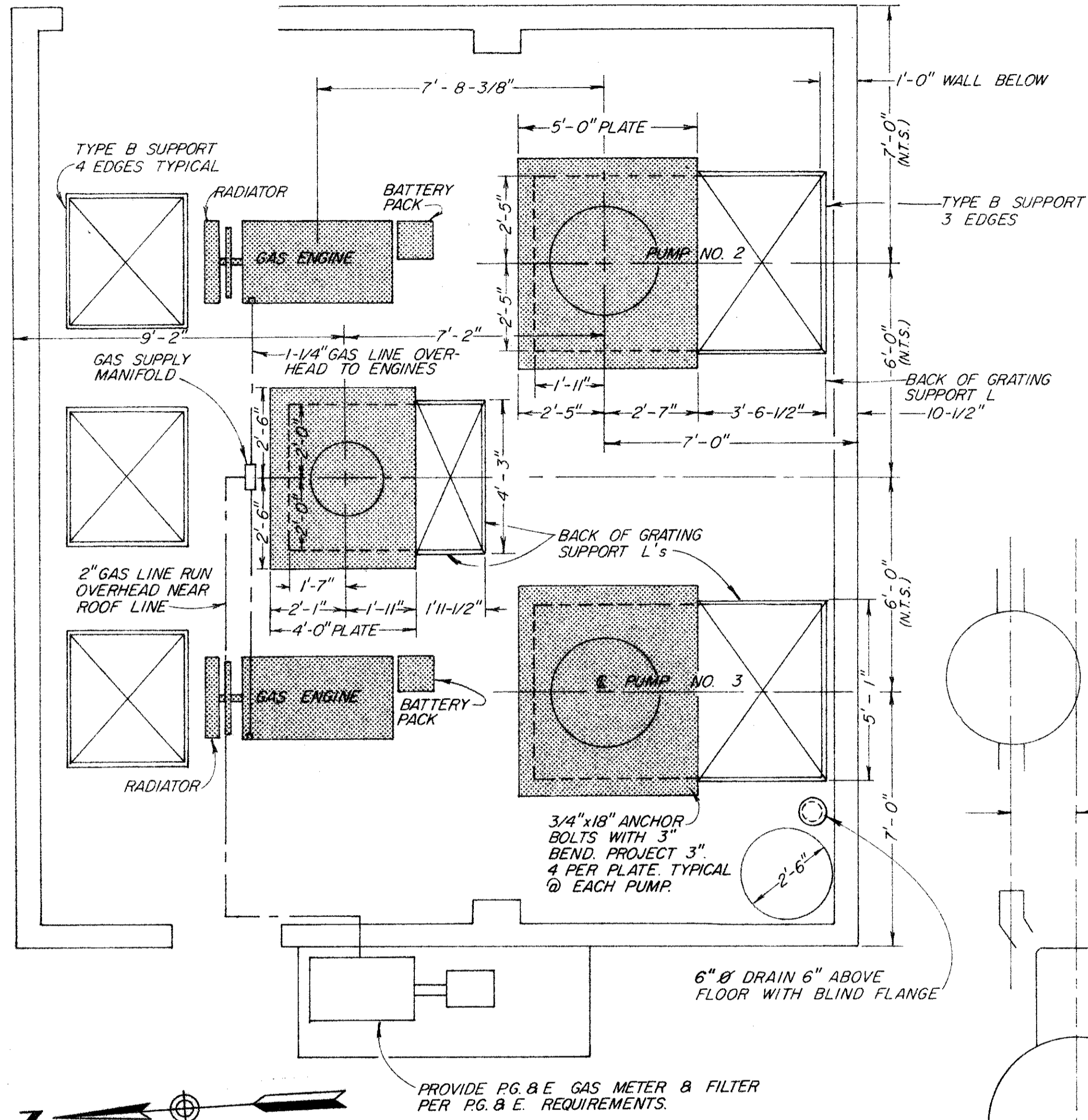
PETALUMA BASIN ZONE 2A

WILSON / LAKEVILLE STREET PROJECT
PUMPHOUSE-MISCELLANEOUS STEEL DETAILS

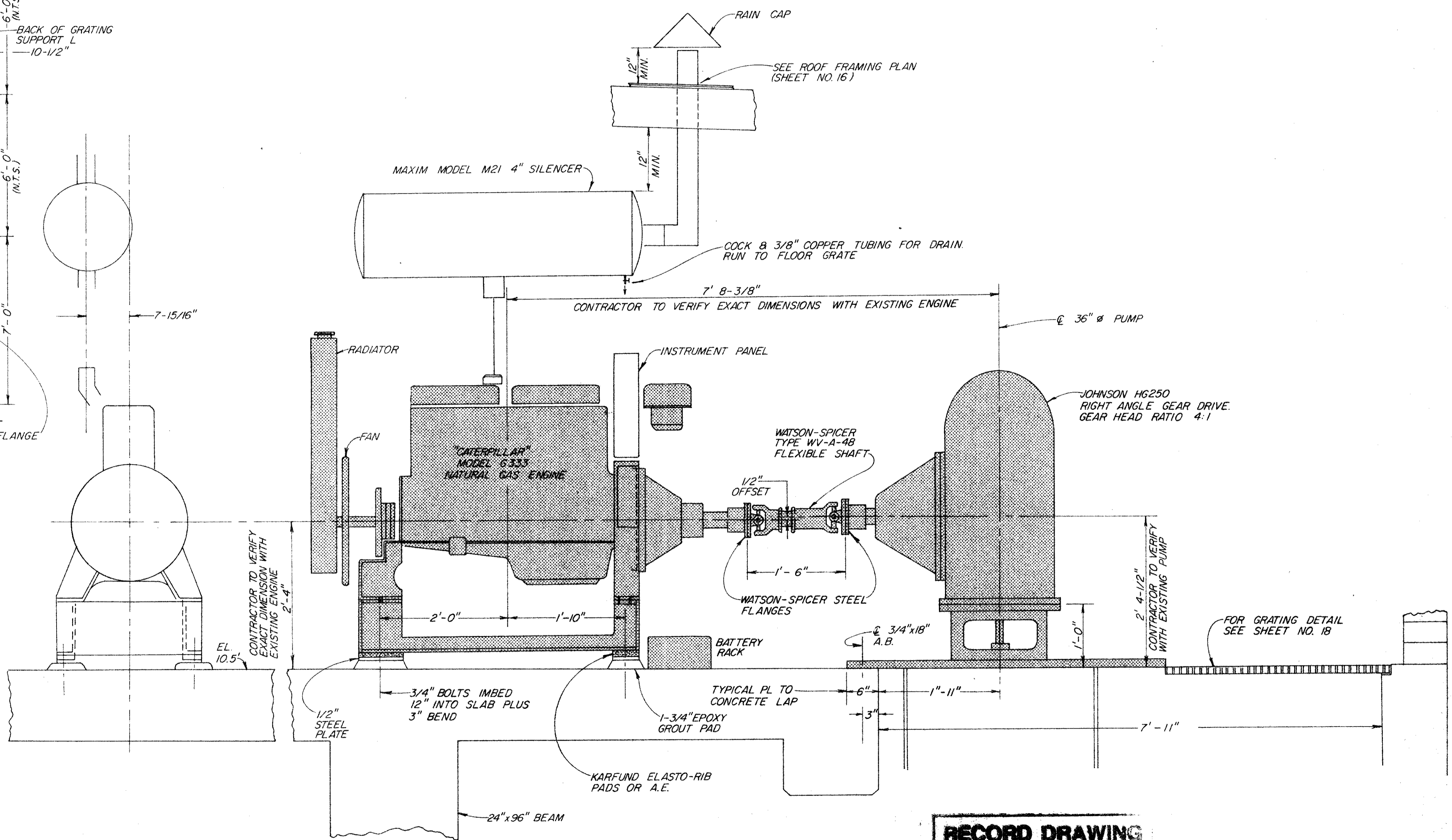
SCALE: AS SHOWN APPROVED: CHIEF ENGINEER DRAWN: D.A.A.
DATE: 4-17-85 RCE 13480 CHECKED: *[Signature]*

SONOMA COUNTY
WATER AGENCY

DESIGNED: RCE 19068 SUBMITTED: RCE 22790 DRAWING NUMBER: 2-1132/003/000-102.17
[Signature] *[Signature]*



PLAN
SCALE: 3/8" = 1'-0"



ENGINE & ANGLE GEAR ELEVATIONS
SCALE: 1" = 1'-0"

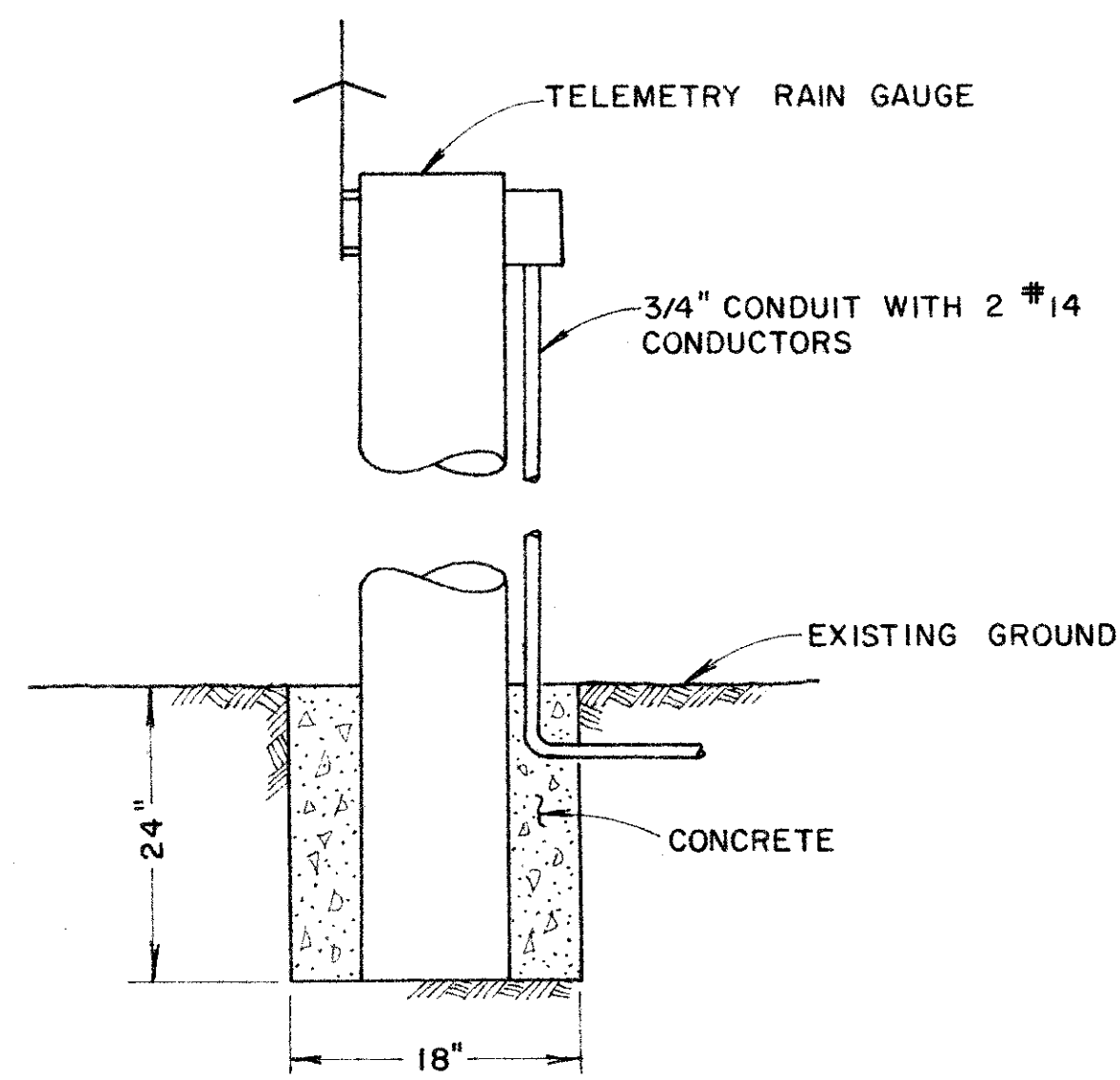
RECORD DRAWING
Date 28 Oct 1987

■ EQUIPMENT TO BE FURNISHED BY AGENCY

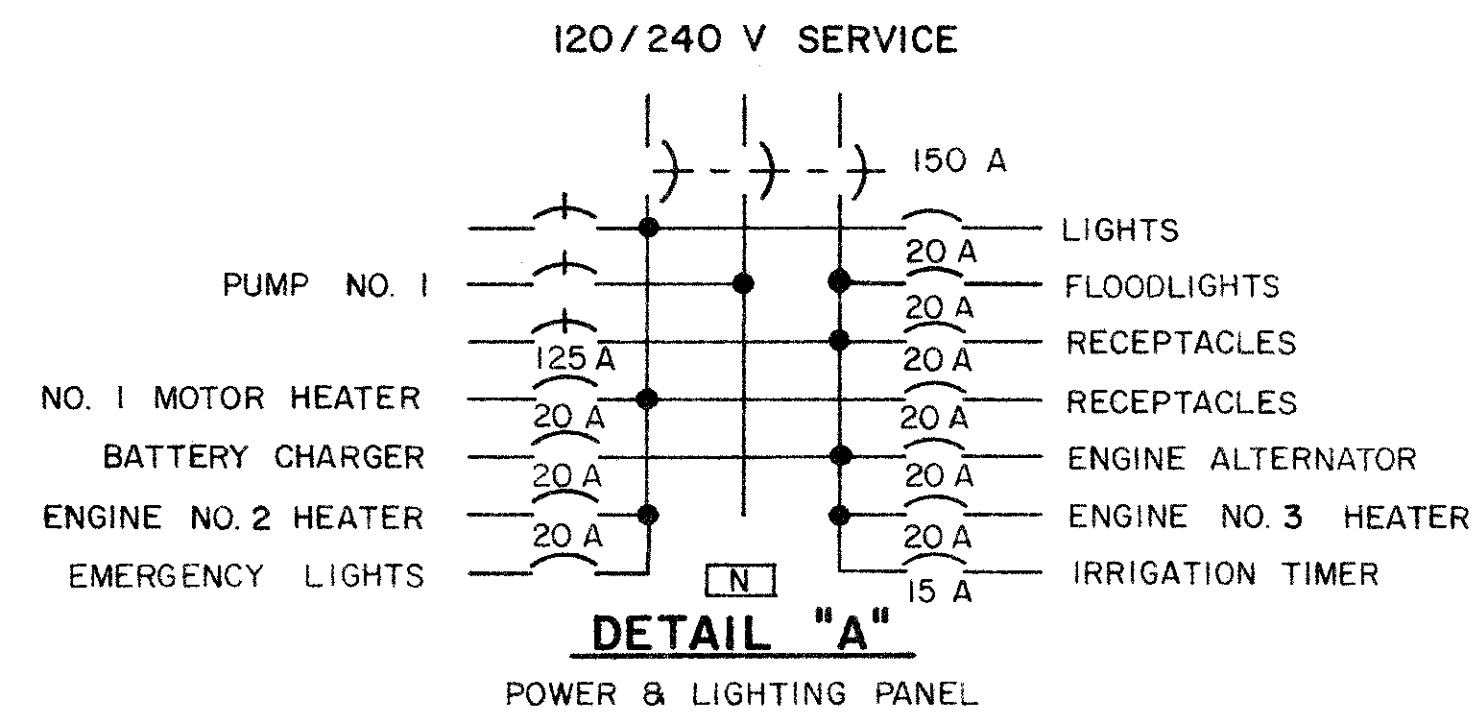
No.	Date	REVISION	By

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
PUMPHOUSE - MECHANICAL EQUIPMENT LAYOUT

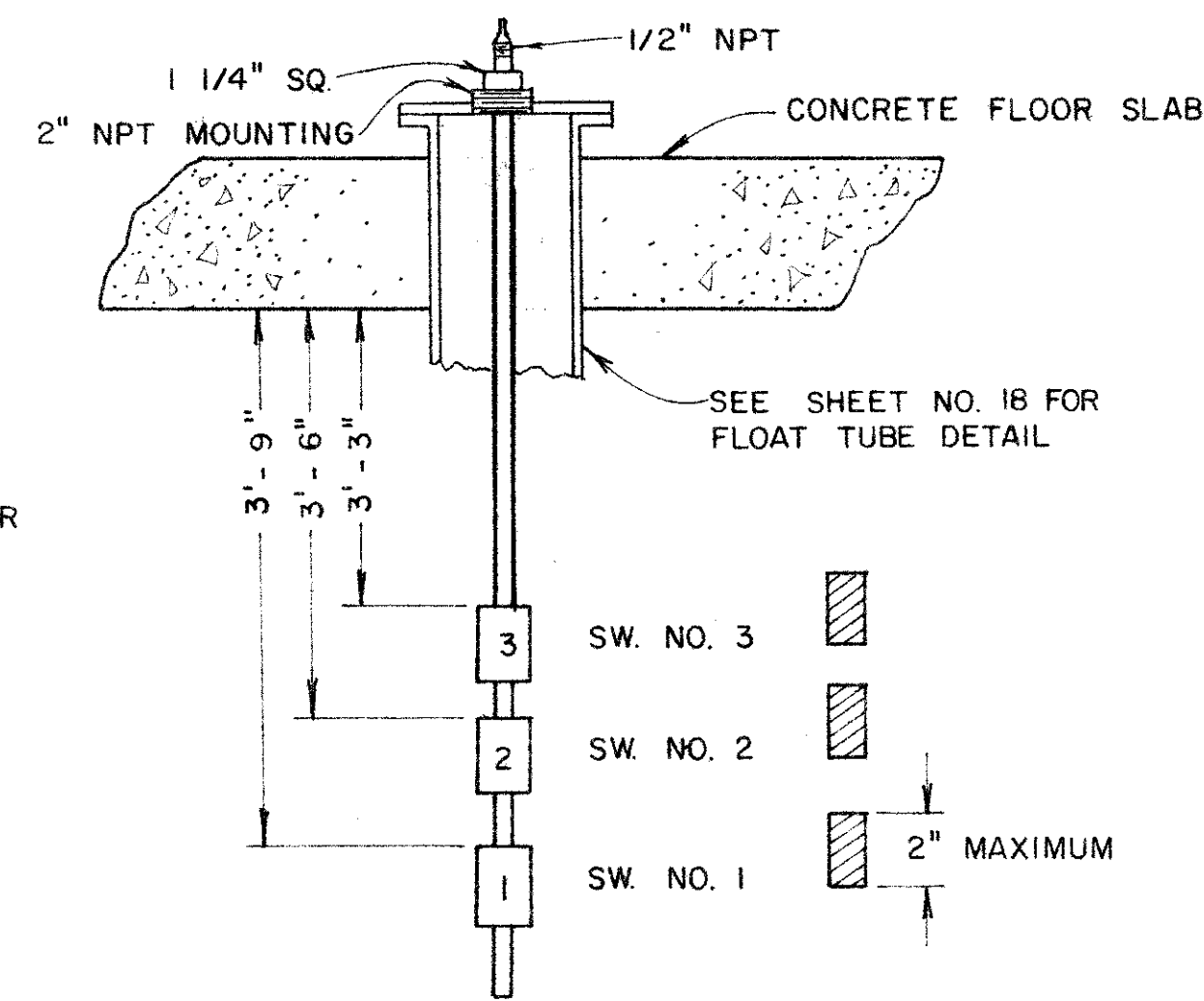
SCALE: AS SHOWN	APPROVED CHIEF ENGINEER	DRAWN: D.A.A.
DATE: 4-17-85	<i>[Signature]</i> RCE 13480	CHECKED
SONOMA COUNTY WATER AGENCY		
DESIGNED RCE 19068	SUBMITTED RCE 23790	DRAWING NUMBER
<i>[Signature]</i>	<i>[Signature]</i>	2-1132/003/000-102.18



DETAIL "C"
TELEMETRY RAIN GAUGE
INSTALLATION DETAIL



DETAIL "A"
POWER & LIGHTING PANEL



NOTES: SWITCHES SHALL BE CONNECTED IN PARALLEL.

INDICATE SWITCH ON

DETAIL "B"

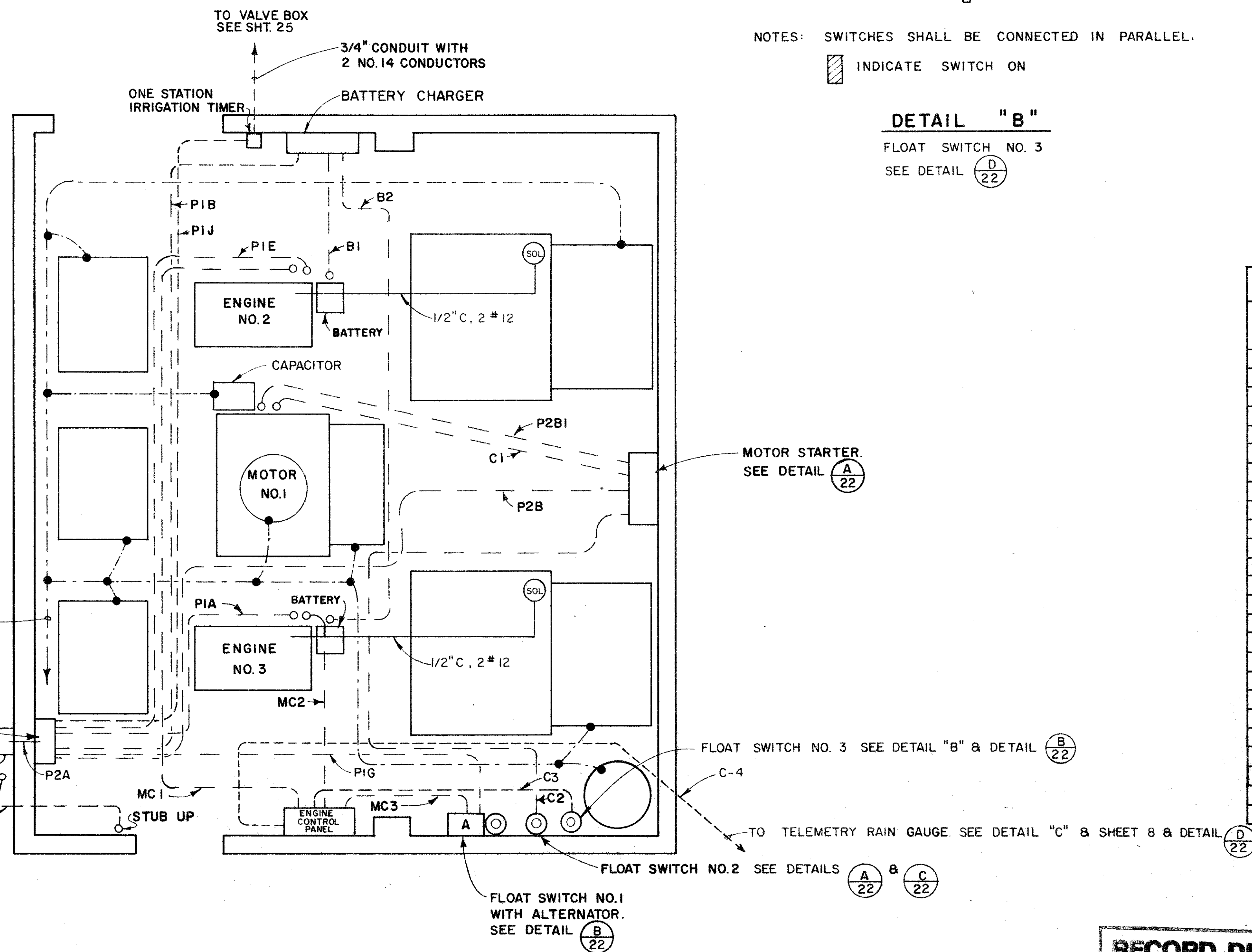
FLOAT SWITCH NO. 3
SEE DETAIL **(D 22)**

NOTES

1. CONDUIT SHALL BE GALVANIZED RIGID STEEL UNLESS OTHERWISE NOTED. SEE SCHEDULE THIS SHEET FOR SIZES.
2. WIRE SHALL BE TW OR THW 600 V COPPER. SEE SCHEDULE THIS SHEET FOR SIZES.
3. MOUNTING ANCHORS FOR CONDUIT, BOXES, PANELS ETC. SHALL BE DRILLED TYPE B IN NO CASE SHALL SHOT ANCHORS BE USED.
4. THE CONTRACTOR SHALL BE CERTAIN CONDUITS STUB UPS NEAR PUMP NO. 1 SHALL CLEAR SOLE PLATE.
5. METERING EQUIPMENT SHALL BE PER PG & E REQUIREMENTS

SYMBOLS

- ⊙ FLOAT SWITCH
- ⊙A FLOAT SWITCH WITH ALTERNATOR
- CONDUIT (EMBEDDED)
- CONDUIT (BENDING TOWARD OBSERVER)
- CONDUIT (BENDING AWAY FROM OBSERVER)
- CONDUIT (EXPOSED)
- ⊙ SOL OILER SOLENOID
- GROUND WIRE (EMBEDDED)



POWER PLAN
NOT TO SCALE

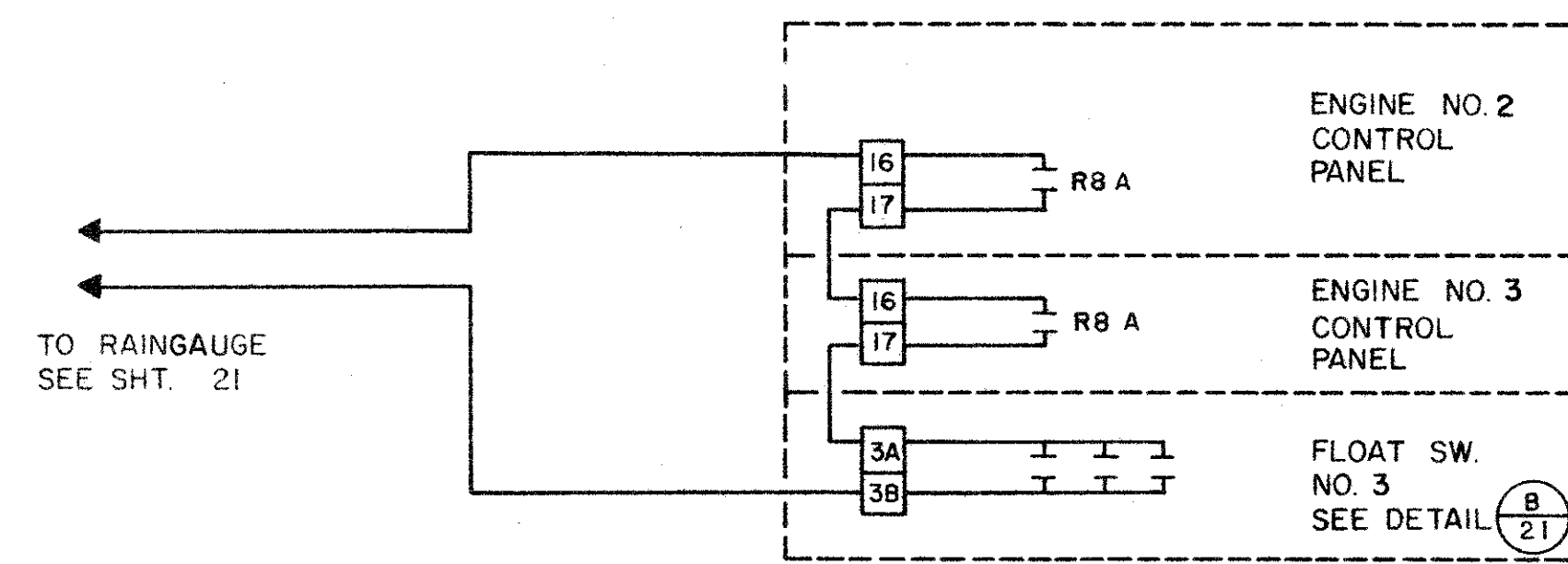
CONDUIT SCHEDULE						
NO.	FROM	TO	COND. SIZE	WIRE SIZE	NO. WIRES	PURPOSE
P2	PG & E SERVICE POLE	METER	4" PVC			PG & E SERVICE
P2(I)	PG & E SERVICE POLE	METER	4" PVC			SPARE
P2A	METER	PWR & LTG PNL	3"	300 MCM	4	PG & E SERVICE
P2B	PWR & LTG PNL	PUMP NO. 1 STARTER	2"	#2/0/#12	3/2	240 V SUPPLY & HEATERS
P2B1	PUMP NO. 1 STARTER	MOTOR NO. 1	2"	#2/0	3	240 V SUPPLY
P1A	PWR & LTG PNL	ENGINE NO. 3	1/2"	12	2	ENG NO. 3 HEATERS
P1B	PWR & LTG PNL	BATTERY CHARGER	1/2"	12	2	120 V SUPPLY
P1C	PWR & LTG PNL	RECEPTACLES	1/2"	12	2	120 V SUPPLY
P1D	PWR & LTG PNL	RECEPTACLES	1/2"	12	2	120 V SUPPLY
P1E	PWR & LTG PNL	ENGINE NO. 2	1/2"	12	2	ENGINE NO. 2 HEATERS
P1F	PWR & LTG PNL	LIGHTS	1/2"	12	2	120 V SUPPLY
P1G	PWR & LTG PNL	ENGINE ALTERNATOR	1/2"	12	2	120 V SUPPLY
MC1	ENGINE CONT. PNL	ENGINE NO. 2	1 1/4"	12	18	ENGINE CONTROL & 4 SPARES
MC2	ENGINE CONT. PNL	ENGINE NO. 3	1 1/4"	12	18	ENGINE CONTROL & 4 SPARES
MC3	ENGINE CONT. PNL	FLOAT SW. NO. 1	3/4"	12	4	ENGINE CONTROL
C4	ENGINE CONT. PNL	TELEMETRY RAINGAUGE	3/4"	14	2	ENGINE 2 & 3 FAIL & HI H ₂ O ALM.
C1	MOTOR STARTER NO. 1	MOTOR NO. 1	3/4"	12	4	HTRS. & OILER SOL.
C2	MOTOR STARTER NO. 1	FLOAT SW. NO. 2	3/4"	12	2	MOTOR NO. 2 CONTROL
B1	BATTERY CHARGER	ENGINE NO. 2	3/4"	10	2	12 V DC
B2	BATTERY CHARGER	ENGINE NO. 3	3/4"	10	2	12 V DC
T1	PG & E SERVICE POLE	SEE PLAN	2"			TELEPHONE
C3	ENGINE CONTROL PNL	FLOAT SW. NO. 3	3/4"	12	2	HIGH WATER ALARM
PIH	PWR & LTG PNL	FLOOD LIGHTS	1/2"	12	2	120 V SUPPLY
PIJ	PWR & LTG PNL	IRRIGATION TIMER	1/2"	12	2	120 V SUPPLY
PIK	PWR & LTG PNL	EMERGENCY LIGHTS	1/2"	12	2	120 V SUPPLY

RECORD DRAWING

Date: 28 Oct 1977

No.	Date	REVISION	By

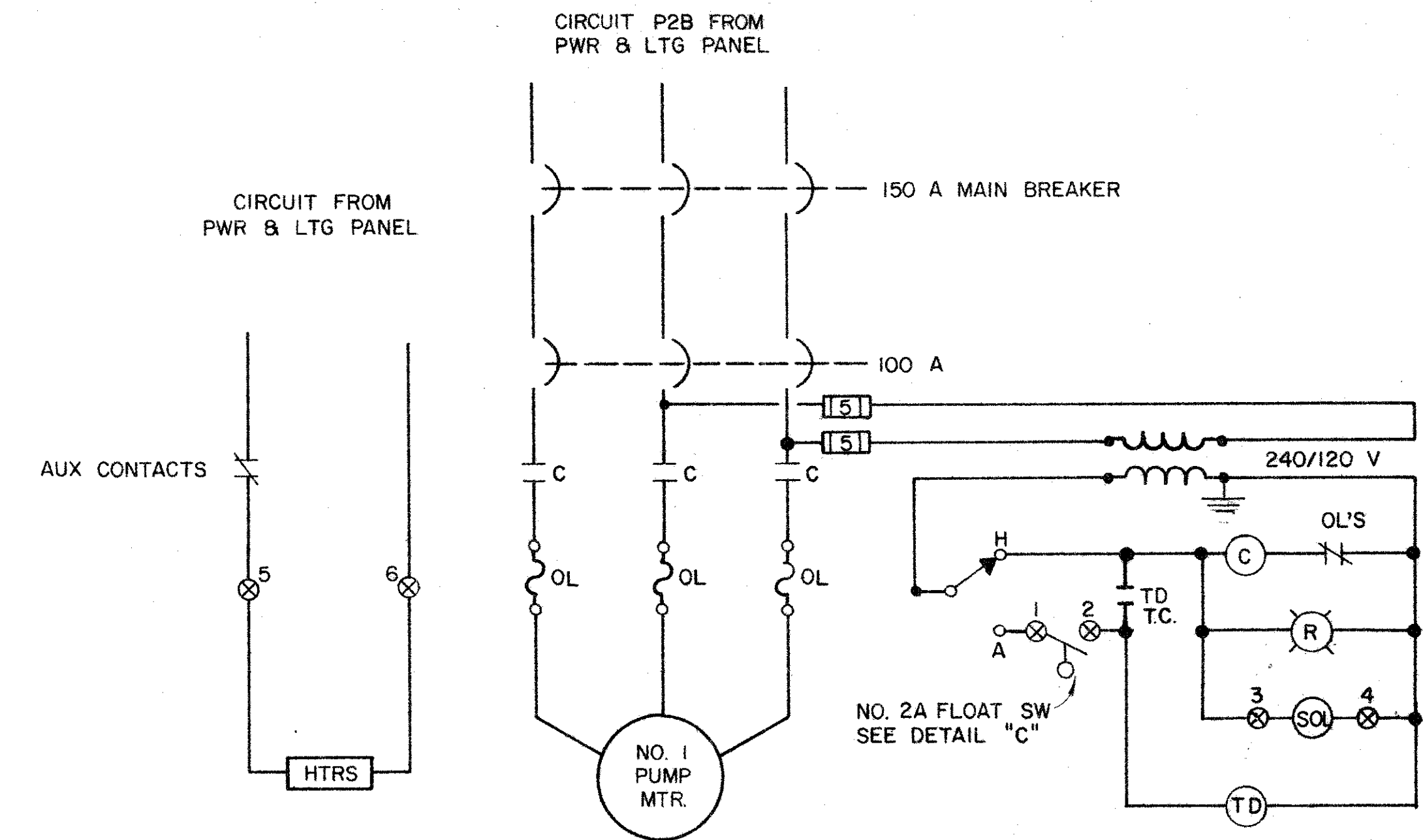
PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
POWER PLAN
 SCALE: NONE APPROVED: *[Signature]* CHIEF ENGINEER DRAWN: R.D./C.B.T.
 DATE: APRIL 3, 1985 CHECKED: *[Signature]* RCE 13480
SONOMA COUNTY WATER AGENCY
 DESIGNED: *[Signature]* SUBMITTED: RCE 23790 DRAWING NUMBER: 2-1132/003/000-102



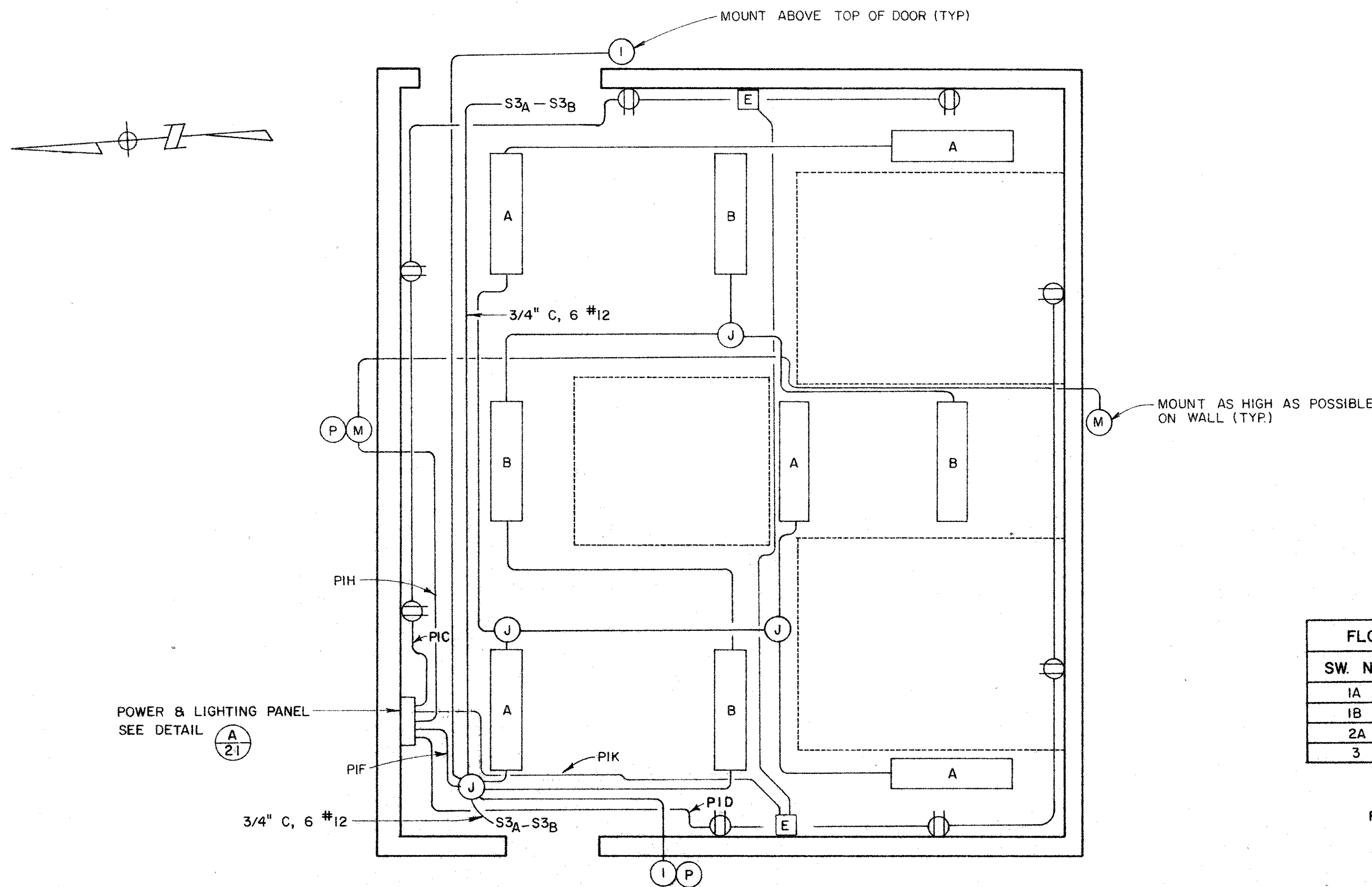
DETAIL "D"
ALARM WIRING DIAGRAM

SYMBOLS

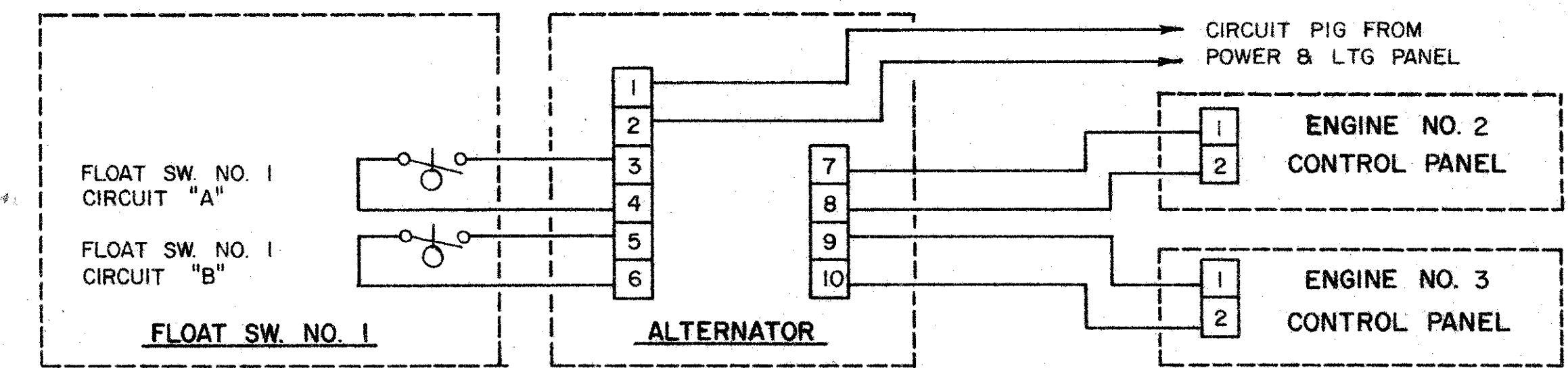
S3	THREE WAY SWITCH
—	CONDUIT (EXPOSED)
J	4 FT. 4 LAMP FLOURESCENT FIXTURE
J	JUNCTION BOX
I	100 WATT INCANDESCENT FIXTURE
P	PHOTOELECTRIC CELL
P	DUPLEX RECEPTACLE
TD	TIME DELAY RELAY
C	STARTER CONTACTS
S	OILER SOLENOID
⊗	TERMINAL FOR EQUIPMENT LOCATED EXTERNAL OF MOTOR STARTER
M	OUTSIDE FLOODLIGHT WITH PHOTOCELL
E	EMERGENCY LIGHTING UNIT



DETAIL "A"
PUMP MOTOR NO. 1 STARTER



LIGHTING AND RECEPTACLE PLAN
NOT TO SCALE



DETAIL "B"
ENGINE 2 & 3 ALTERNATOR WIRING

FLOAT SWITCH SETTINGS

SW. NO.	ON ELEV.	OFF ELEV.
1A	5.25	-1.00
1B	4.75	-1.50
2A	4.25	-2.00
3	SEE DETAIL "B" SHT. 21	

DETAIL "C"
FLOAT SWITCH SETTINGS

GENERAL NOTES

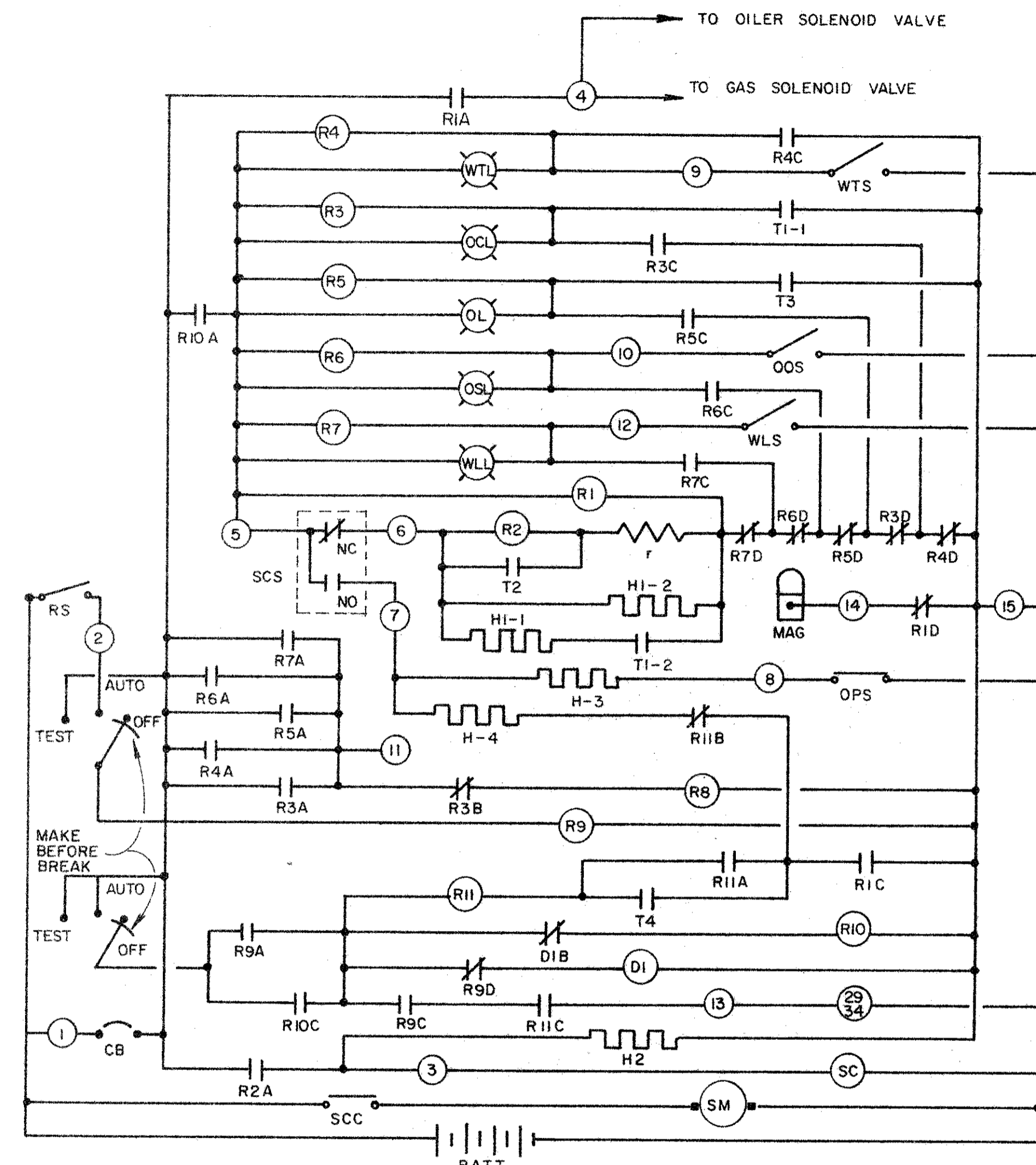
- CONDUIT SHALL BE RIGID GALVANIZED STEEL, AND ALL WIRE SHALL BE NO. 12 600 V COPPER UNLESS OTHERWISE NOTED.
- SWITCHES SHALL BE MOUNTED 4'-2" ABOVE FLOOR.
- MOUNTING ANCHORS FOR FIXTURES, JUNCTION BOXES, CONDUIT & RECEPTACLES SHALL BE DRILLED TYPE, AND IN NO CASE SHALL SHOT-IN ANCHORS BE USED.
- OUTSIDE LIGHTING FIXTURES SHALL BE MOUNTED A MINIMUM OF 8'-0" ABOVE FLOOR LEVEL.
- MOUNT EMERGENCY LIGHTING UNITS AS HIGH AS POSSIBLE ON WALLS.

RECORD DRAWING
Date 28 Oct 1988

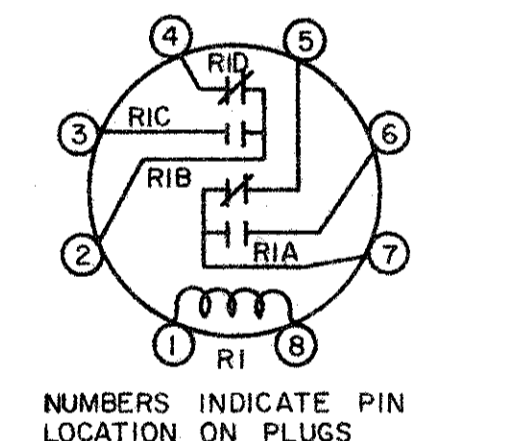
No.	Date	REVISION	By

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
LIGHTING AND DETAIL PLAN

SCALE: NONE APPROVED: CHIEF ENGINEER DRAWN: R. D.
DATE: APRIL 4, 1985 SUBMITTED: RCE 23780 CHECKED: RCE 13480
SONOMA COUNTY WATER AGENCY
DESIGNED: R. Kelly SUBMITTED: RCE 23780 DRAWING NUMBER: 2-1132/003/000-102-21



- LEGEND**
- | SYMBOL | DESCRIPTION |
|-------------|----------------------------------------------------------------------------------------------|
| R1 | IGNITION RELAY COIL |
| R2 | CRANK RELAY COIL |
| R3 | OVERCRANK RELAY COIL |
| R4 | HIGH WATER TEMPERATURE RELAY COIL |
| R5 | LOW OIL PRESSURE RELAY COIL |
| R6 | OVERSPEED RELAY COIL |
| R7 | LOW WATER LEVEL RELAY COIL |
| R8 | REMOTE FAILURE RELAY COIL |
| R9 | PILOT RELAY COIL |
| R10 | IDLE STOP DELAY RELAY COIL |
| R11 | IDLE START DELAY RELAY COIL |
| HI-1 & HI-2 | OVERALL CRANKING LIMIT THERMO INTERRUPTER CRANKING THERMO |
| H3 | ENGINE OIL PRESSURE THERMO |
| H4 | IDLE START DELAY THERMO |
| T1 to T4 | CONTACTS OF HI TO H4 THERMOS |
| D1 | IDLE STOP DELAY TIMER COIL (ND-12) |
| WTL | HIGH WATER TEMPERATURE LIGHT |
| OCL | OVERCRANK LIGHT |
| OL | LOW OIL PRESSURE LIGHT |
| OSL | OVERSPEED LIGHT |
| WLL | LOW WATER LEVEL LIGHT |
| I to IB | ENGINE WIRING TERMINALS |
| A to D | RELAY CONTACTS. EACH CONTACT CARRIES THE RELAY COIL DESIGNATION AS ITS PREFIX. (ILLUSTRATED) |
| CB | CIRCUIT BREAKER |
| f | RESISTOR |
| RS | REMOTE SWITCH |
| ALM | ENGINE FAILURE ALARM |
| MAG | MAGNETO |
| SM | ENGINE STARTING MOTOR |
| SC | STARTING MOTOR CONTACTOR |
| BAT | BATTERY |
| SCS | STARTER CUT-OUT SWITCH OF TWO ELEMENT SPEED SWITCH |
| OS | OVERSPEED SWITCH OF TWO ELEMENT SPEED SWITCH |
| OPS | OIL PRESSURE SWITCH |
| WTS | WATER TEMPERATURE SWITCH |
| WLS | WATER LEVEL SWITCH |
| 2934 | THROTTLE SOLENOID PILOT RELAY |



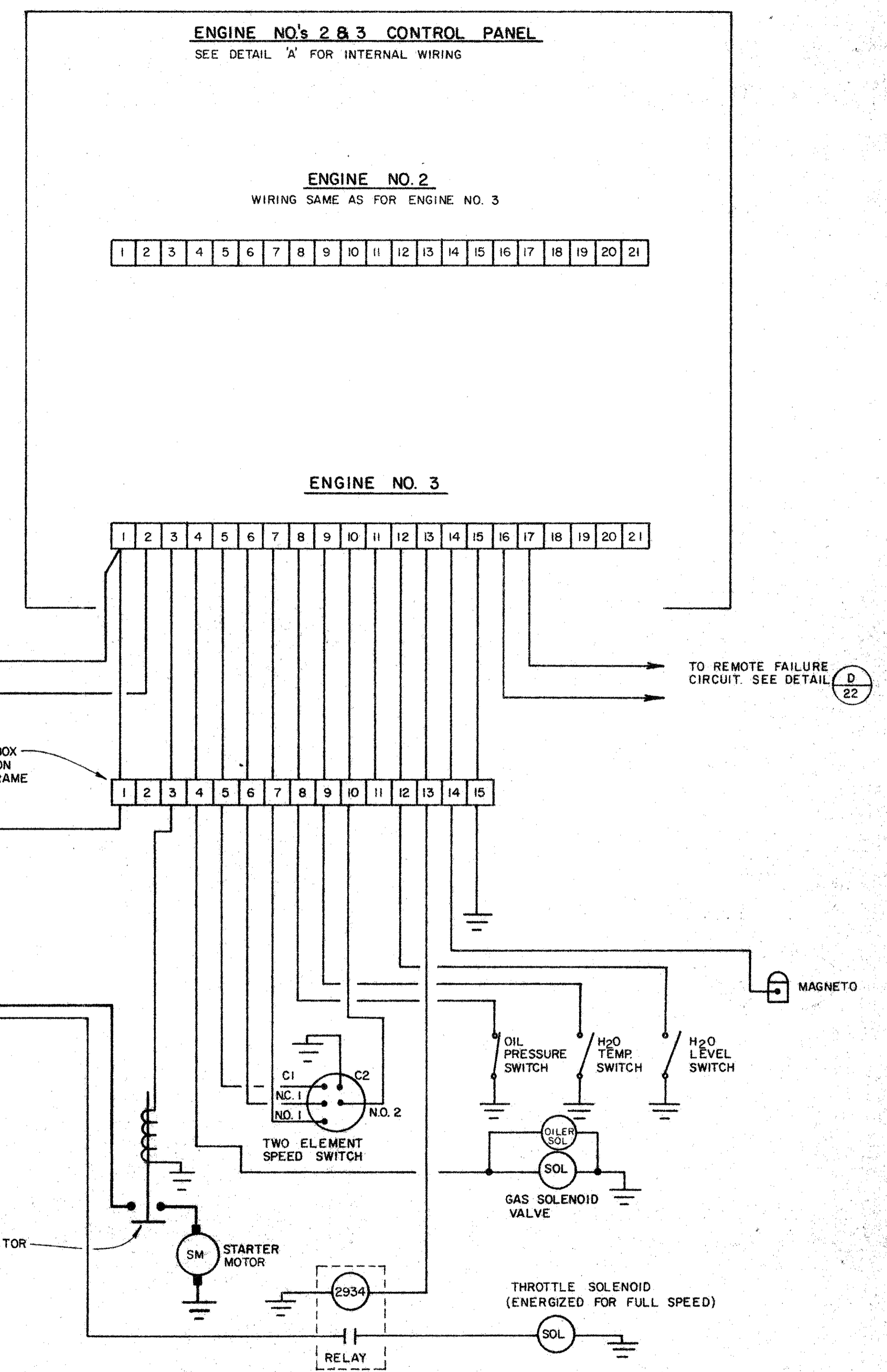
RELAY CONTACT CODING

NOTES

- THE AGENCY WILL FURNISH THE CONTRACTOR THE CONTROL PANEL, BATTERIES & ENGINES. THE CONTRACTOR SHALL:
 - MOUNT CONTROL PANEL AS SHOWN ON SHEET NO. 21
 - PROVIDE ALL WIRING BETWEEN CONTROL PANEL, BATTERIES, DEVICES MOUNTED ON ENGINE FRAMES, ALARM CIRCUITS, CONTROL CIRCUITS & MISCELLANEOUS EQUIPMENT TO PROVIDE A COMPLETE WORKING SYSTEM AS SHOWN ON THIS SHEET.

DETAIL 'A'

TYPICAL WIRING DIAGRAM FOR ENGINES 2 & 3 CONTROL PANEL



TYPICAL WIRING DIAGRAM FOR ENGINES 2 & 3

RECORD DRAWING
Date 28 Oct 1987

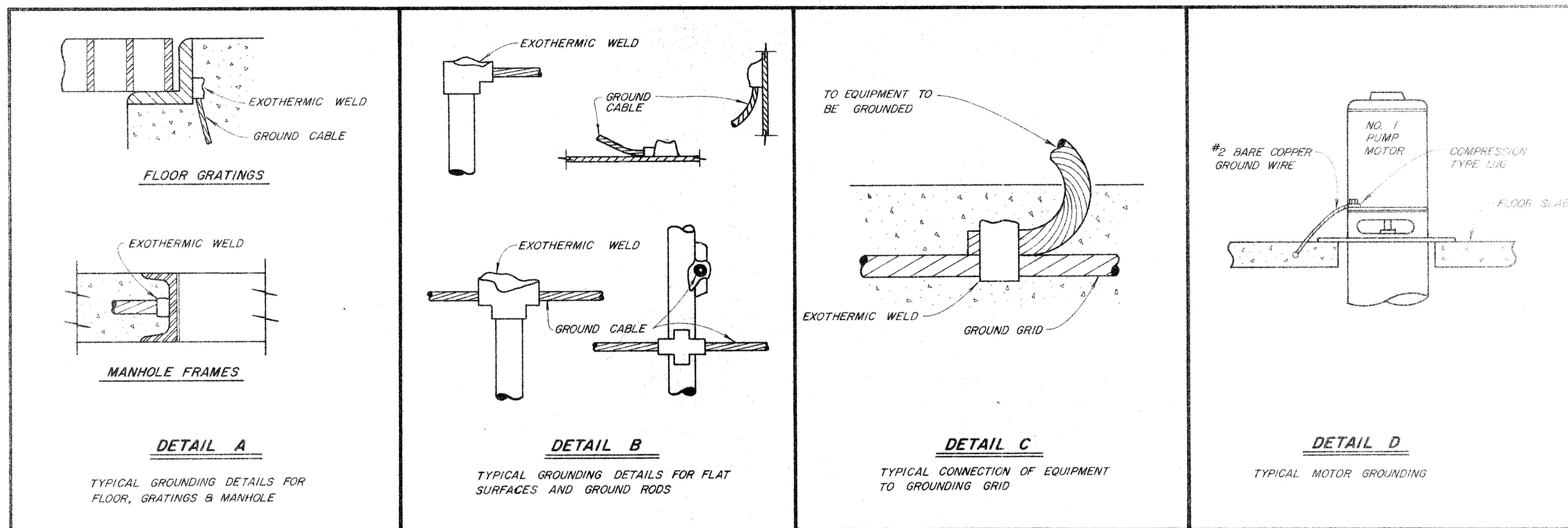
No.	Date	REVISION	By
1	11-27-84	ADDED OILER SOLENOID VALVE	DWB

PETALUMA BASIN ZONE 2A
WILSON / LAKEVILLE STREET PROJECT
ENGINES 2&3 CONTROL & STARTING CIRCUIT WIRING

SCALE: NONE
DATE: 12-27-84
DESIGNED: R. K. W. G.
SUBMITTED: 12/1/84
DRAWING NUMBER: 2-1132/003/000-102.22

APPROVED: CHIEF ENGINEER
CHECKED: RCE 13480

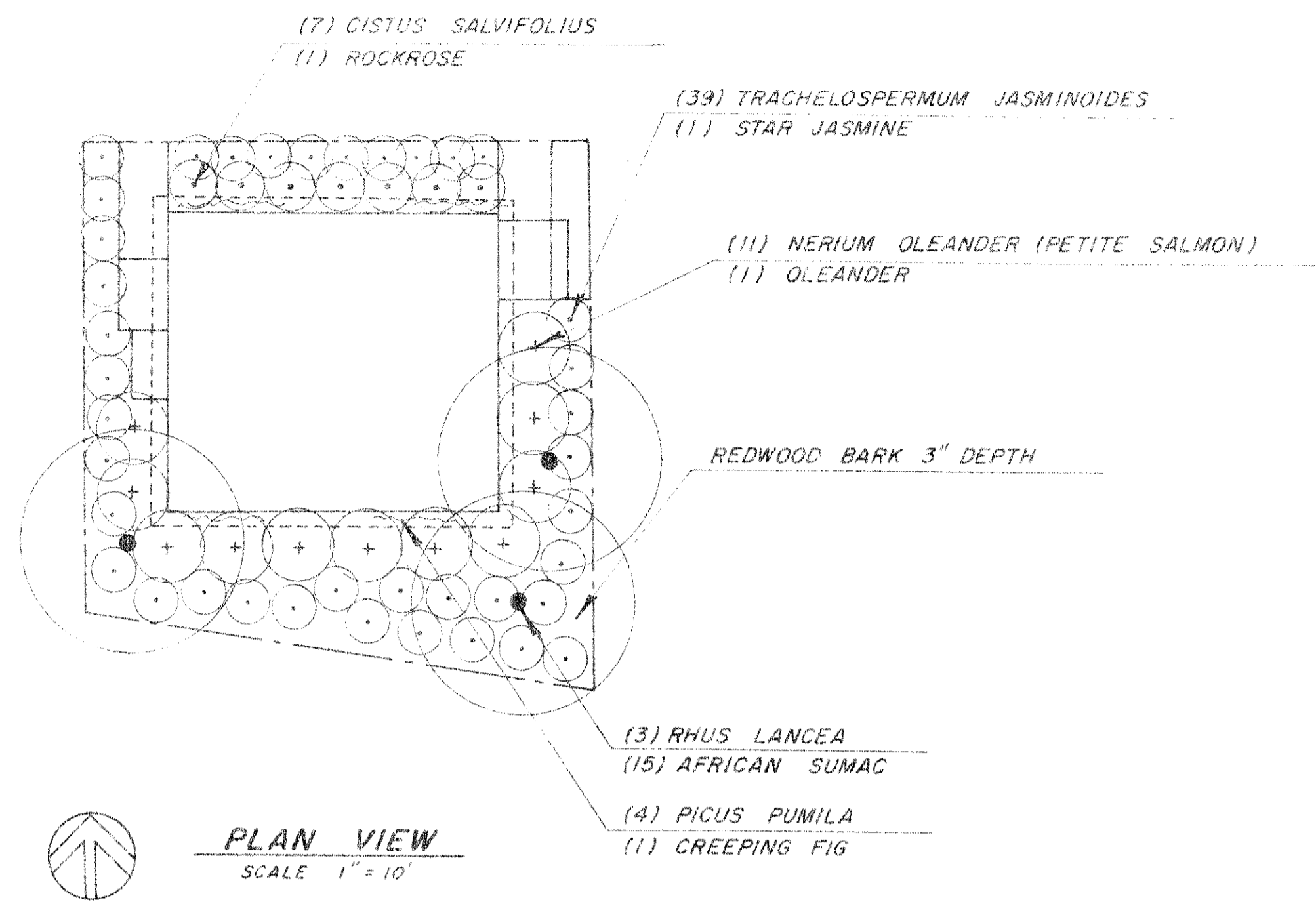
SONOMA COUNTY WATER AGENCY



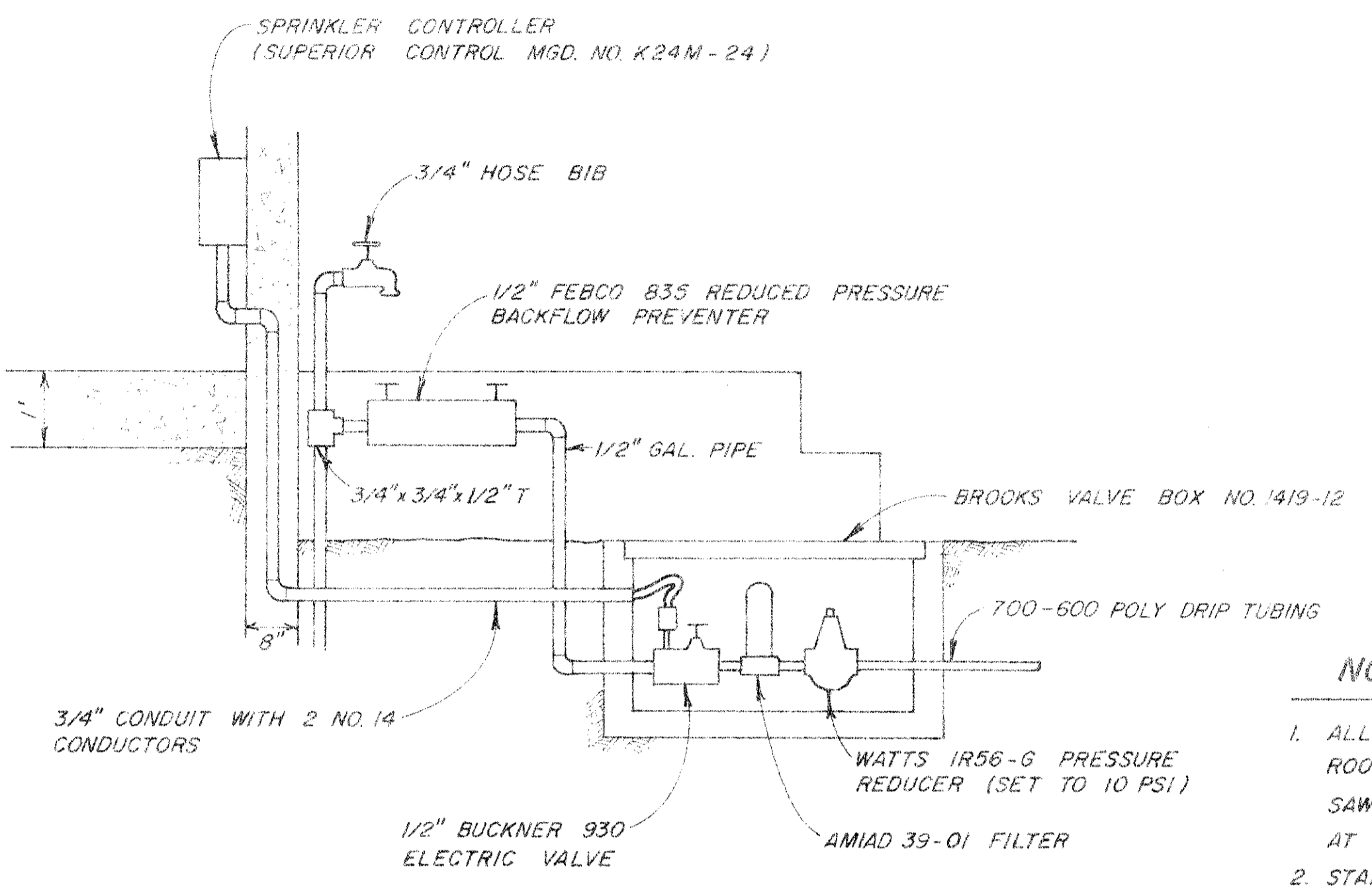
RECORD DRAWING
Date 28 Oct 1987

No.	Date	REVISION	BY

PETALUMA BASIN ZONE 2A WILSON / LAKEVILLE STREET PROJECT GROUNDING DETAILS	
SCALE: NONE DATE: APRIL 1, 1985	APPROVED: CHIEF ENGINEER CHECKED:
SONOMA COUNTY WATER AGENCY	
DESIGNED: R. Kelly	SUBMITTED: REC 23750 DRAWING NUMBER: 2-1132/003/000-102-25



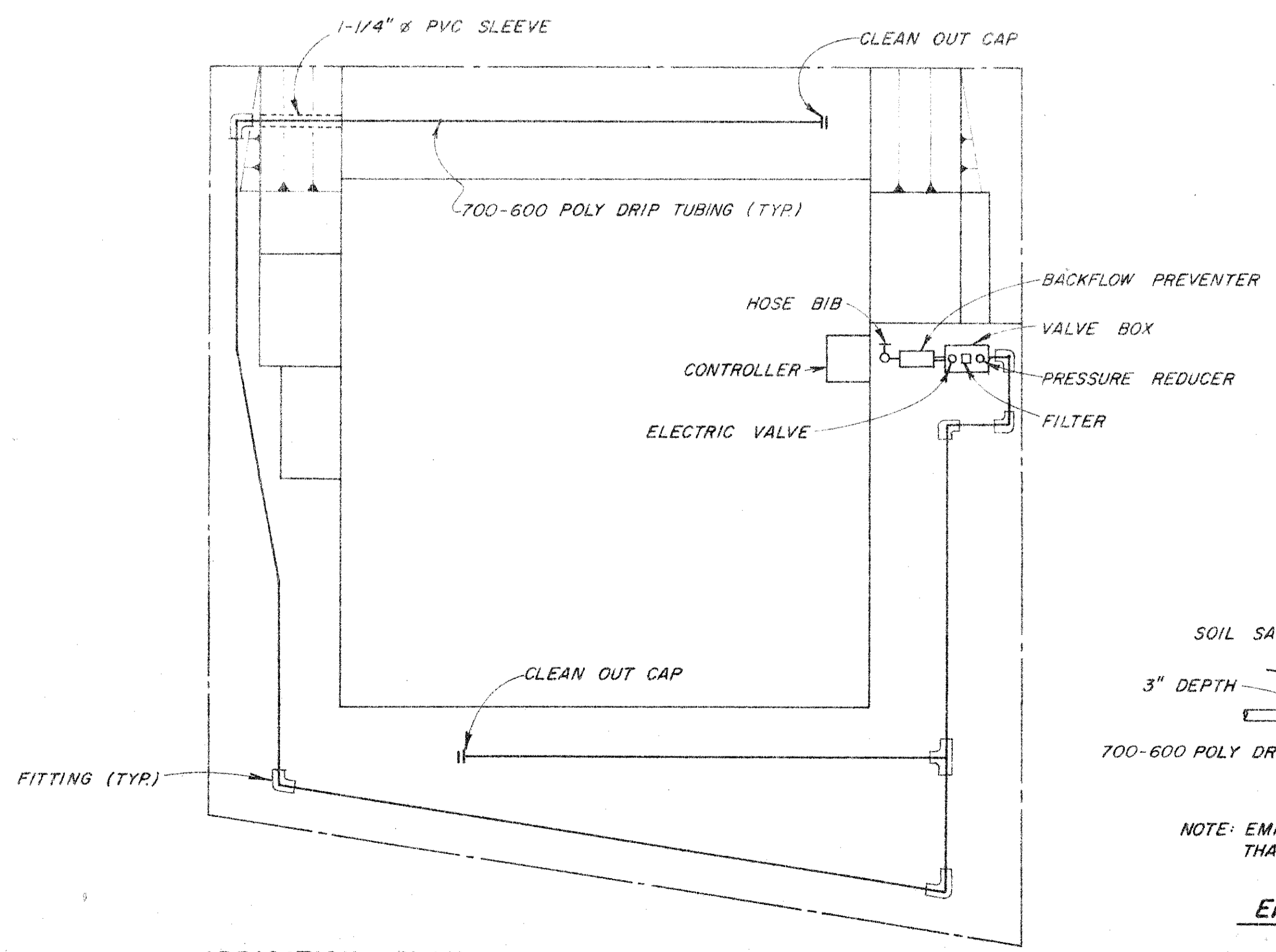
PLAN VIEW
SCALE 1" = 10'



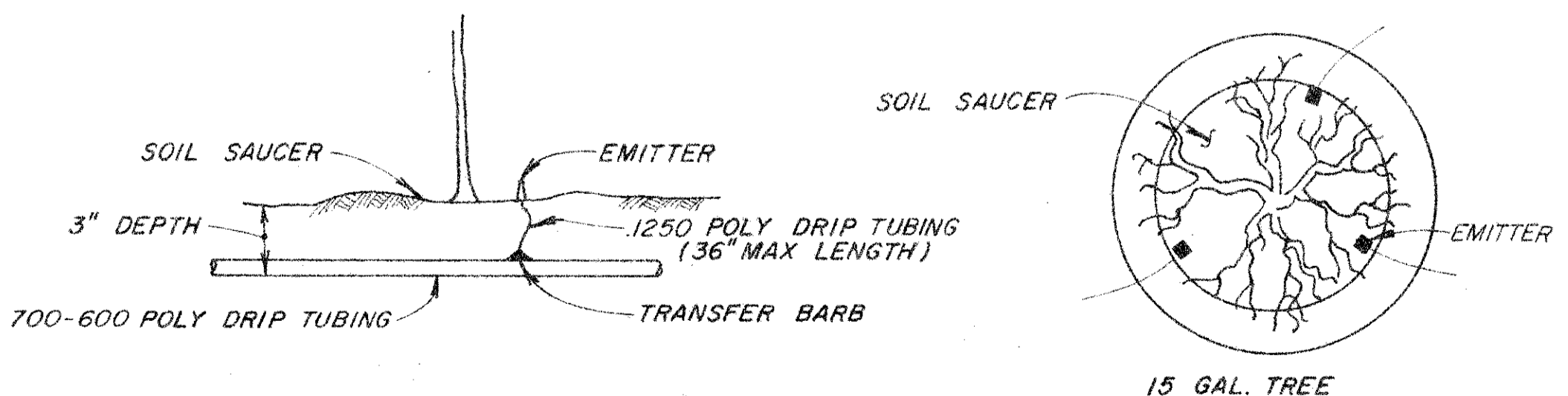
IRRIGATION SYSTEM DETAIL
NOT TO SCALE

NOTES

1. ALL TREE AND SHRUB PLANTING PITS TO BE 2 X DIAMETER AND 1 1/2 X DEPTH OF ROOTBALL. BACKFILL SHALL CONSIST OF 50% SITE SOIL AND 50% NITROLIZED REDWOOD SAWDUST. PLACE AGRIFORM 21 GRAM 20-10-5 PLANT TABS 2/3 INTO BACKFILL. MIX AT THE FOLLOWING RATES: 1 PER 1 GALLON, 2 PER 5 GALLONS, 3 PER 15 GALLONS.
2. STAKE ALL TREES WITH ONE 2" DIAMETER X 8'-0" LODGEPOLE PINE STAKE AND TWO TREE TIES. PLACE STAKE AT WINDWARD SIDE OF TREE.
3. MULCH ENTIRE AREA WITH 3" DEPTH SHREDDED REDWOOD BARK TREATED WITH UREA.
4. PLANT QUANTITY () BOTANICAL NAME
PLANT SIZE (GAL) () COMMON NAME
5. VALVE BOX: BROOKS NO. 1419-12
6. EMITTERS SHALL BE TURBO-FLO SUB-TERRAIN AS MANUFACTURED BY GLOBAL 70 REQUIRED
7. CARE SHALL BE TAKEN TO COORDINATE EMITTER POSITIONS WITH INDIVIDUAL PLANT POSITIONS AS DEPICTED ON THE PLANTING PLAN.
8. EMITTER PLACEMENT SHALL BE: THREE EMITTERS EQUALLY SPACED ALONG DRIP LINE OF PERIMETER OF TREES (SEE DETAIL THIS PAGE), ONE EMITTER PER 1 GALLON PLANT, TWO EMITTERS PER 5 GALLON PLANT, THREE EMITTERS PER 15 GALLON PLANT.
9. FITTINGS SHALL BE 1/2" SCHED. 40 PVC WITH COMPRESSION ADAPTORS OR HIT 1/2" COMPRESSION FITTINGS.
10. CLEANOUTS AT ENDS OF 700-600 POLY DRIP TUBING RUNS SHALL BE HIT COMPRESSION FITTING WITH CAP.
11. TUBING SHALL BE BY BOW-SMITH.
12. TRANSFER BARBS SHALL BE SPOT SYSTEMS PART 3023-375



IRRIGATION PLAN
SCALE 1" = 5'



NOTE: EMITTERS PLACED JUST ABOVE & NOT MORE THAN 1" ABOVE FIRBARK MULCH OR FINISH GRADE

EMITTER CONNECTION AND PLACEMENT DETAIL
NOT TO SCALE

RECORD DRAWING
Date 28 Oct 1987

No.	Date	REVISION	By

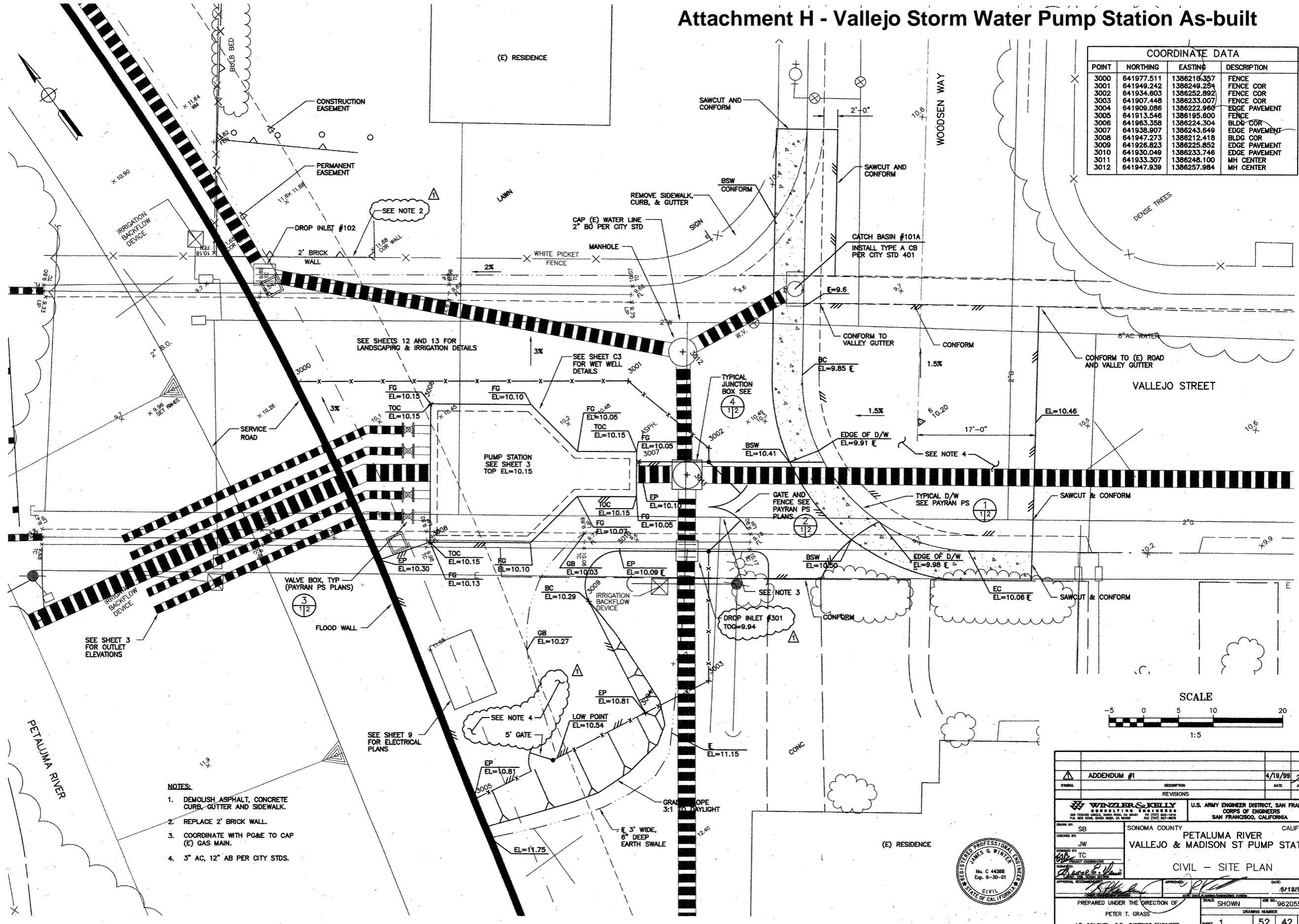
PETALUMA BASIN ZONE 2A			
WILSON / LAKEVILLE STREET PROJECT			
LANDSCAPE & IRRIGATION PLAN			
SCALE: AS SHOWN	APPROVED	CHIEF ENGINEER	DRAWN: DWD
DATE: JAN. 27, 1986		RCE 13480	CHECKED
SONOMA COUNTY WATER AGENCY			
DESIGNED: RCE 19068	SUBMITTED: RCE 23790	DRAWING NUMBER	
Rakal		2-1132/003/000-102 24	

Attachment G - Wilson Stormwater Pump Station Photos

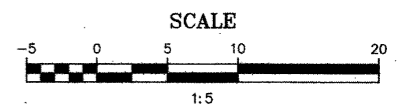


Attachment H - Vallejo Storm Water Pump Station As-built

COORDINATE DATA			
POINT	NORTHING	EASTING	DESCRIPTION
3000	641977.511	1386216.357	FENCE
3001	641949.242	1386249.254	FENCE COR
3002	641954.603	1386252.692	FENCE COR
3003	641907.448	1386233.007	FENCE COR
3004	641909.086	1386222.969	EDGE PAVEMENT
3005	641913.546	1386195.600	FENCE
3006	641963.358	1386224.304	BLDG COR
3007	641938.907	1386243.649	EDGE PAVEMENT
3008	641947.273	1386212.418	BLDG COR
3009	641926.823	1386225.852	EDGE PAVEMENT
3010	641930.049	1386233.746	EDGE PAVEMENT
3011	641933.307	1386248.100	MH CENTER
3012	641947.939	1386257.984	MH CENTER



- NOTES:**
1. DEMOLISH ASPHALT, CONCRETE CURB, GUTTER AND SIDEWALK.
 2. REPLACE 2' BRICK WALL.
 3. COORDINATE WITH PG&E TO CAP (E) GAS MAIN.
 4. 3" AC, 12" AB PER CITY STDs.



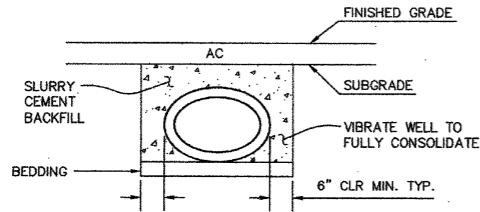
ADDENDUM #1	DATE	4/19/99	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS 1000 CALIFORNIA STREET, SUITE 200 SAN FRANCISCO, CALIFORNIA 94109		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DESIGNED BY: SB	SONOMA COUNTY	CALIFORNIA	
DRAWN BY: JW	PETALUMA RIVER		
CHECKED BY: TC	VALLEJO & MADISON ST PUMP STATION		
APPROVED BY: [Signature]	CIVIL - SITE PLAN		
DATE: 5/13/99	SCALE: SHOWN	JOB NO.: 96205504	
PREPARED UNDER THE DIRECTION OF		DRAWING NUMBER	
PETER T. GRASS		SHEET 1 52 42 2	
LT. COLONEL, C.E., DISTRICT ENGINEER			



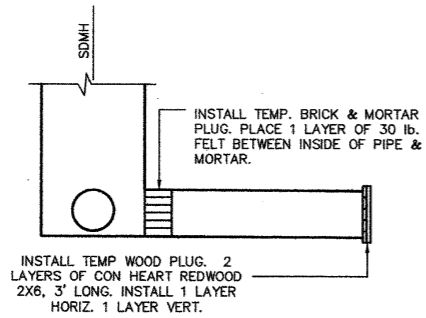
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CONTRACT RECORD DWG

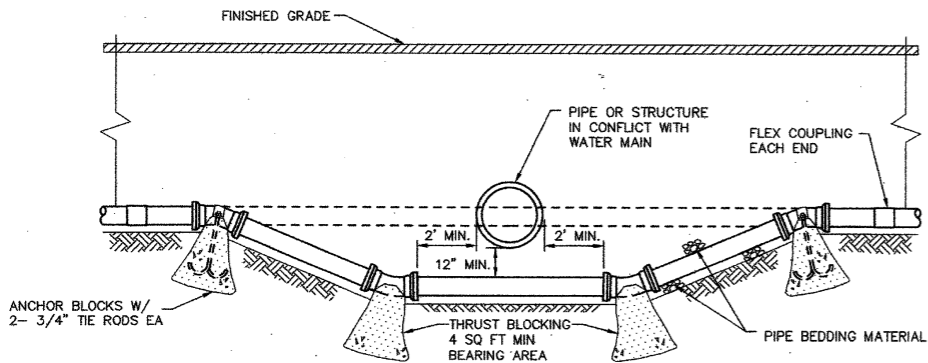
14-050



1 ENCASEMENT DETAIL
3 2 NTS



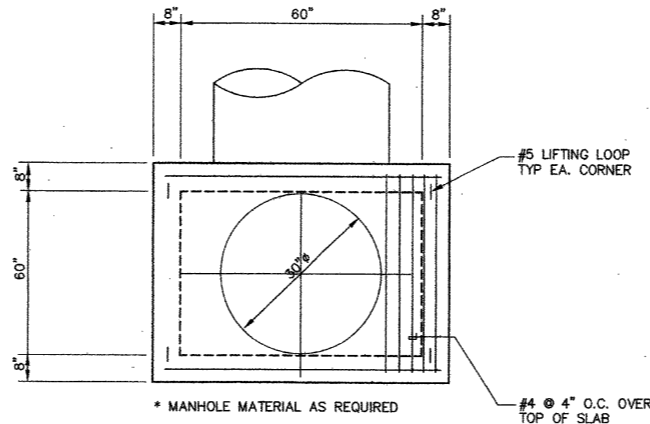
2 STORM DRAIN STUB OUT DETAIL
5 2 NTS



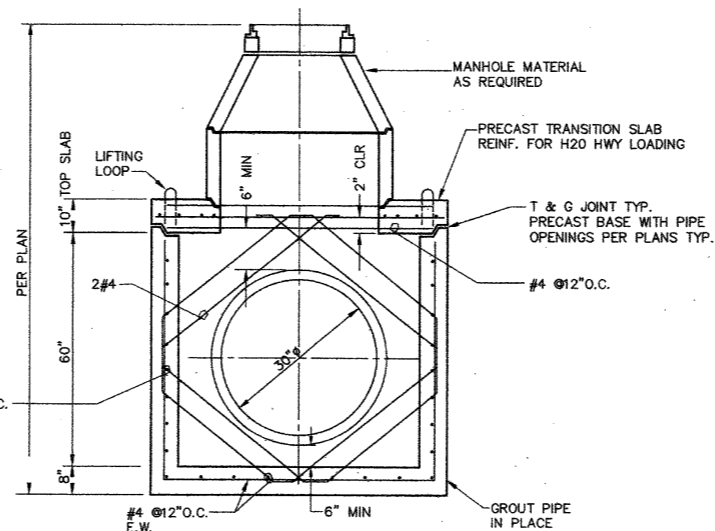
NOTES:

1. ALL PIPE & FITTINGS SHALL BE DUCTILE IRON & SHALL BE WRAPPED IN 8 MIL POLYETHYLENE.
2. ONLY MECHANICAL JOINT FITTINGS WITH RETAINER GLANDS OR FLANGED FITTINGS MAY BE USED.
3. ALL BENDS SHALL BE 45° OR 22-1/2° FITTINGS
4. TIE RODS SHALL CONFORM TO ASTM A320, TYPE 304 SS.

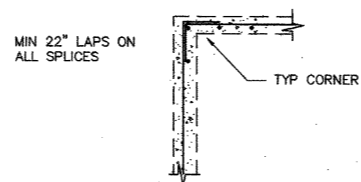
3 TYPICAL WATER MAIN LOWERING DETAIL
5 2 NTS



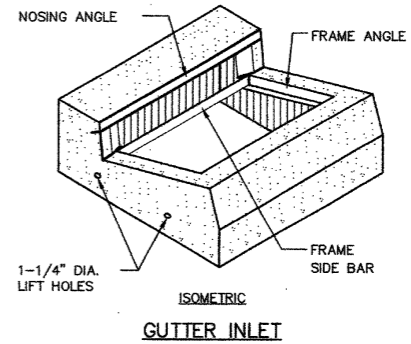
TYPICAL PLAN



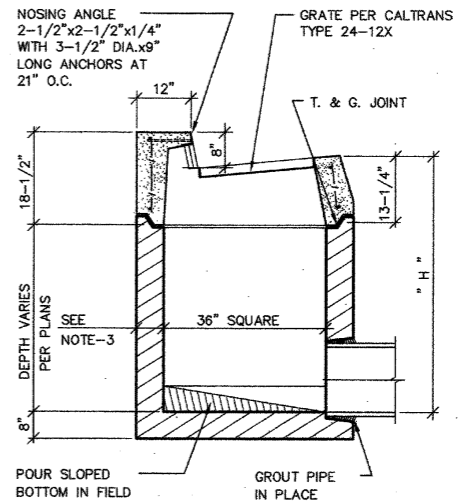
TYPICAL SECTION



4 60" JUNCTION BOX
1 2 NTS
4, 6, 7



GUTTER INLET

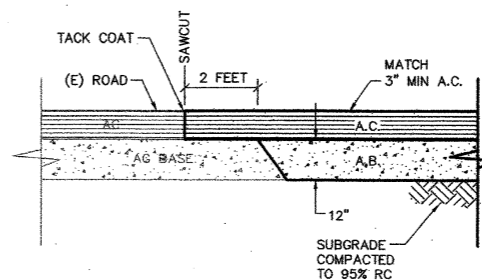


TYPICAL INSTALLATION

NOTES:

1. CONCRETE SHALL TEST TO 3000 PSI AT 28 DAYS.
2. FRAME, GRATE AND NOSING ANGLE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM SPEC. A-123.
3. WHERE "H" IS 8'-0" OR LESS THE WALL THICKNESS OF THE BASE SHALL BE 6". WHERE "H" IS GREATER THAN 8'-0" THE WALL THICKNESS SHALL BE 8".

5 PRECAST GUTTER INLET (GI)
5 2 NTS



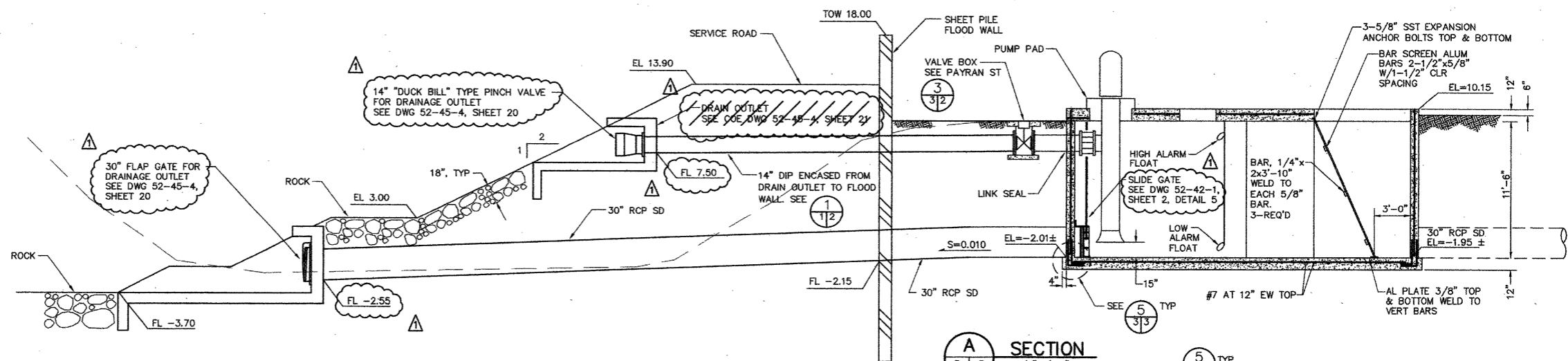
6 CONFORM
1 2 NTS



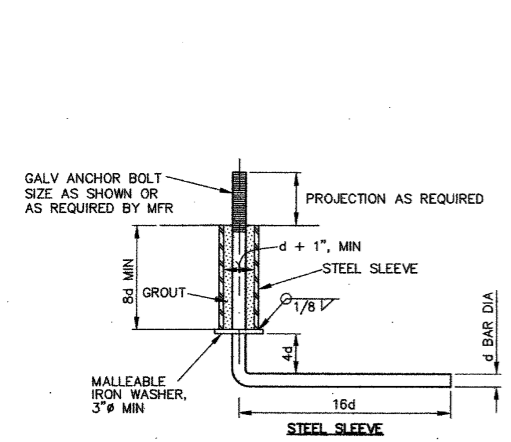
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS 400 SECOND STREET, SUITE 200, SAN FRANCISCO, CA 94101 P.O. BOX 8700, SAN FRANCISCO, CA 94120 (415) 398-1200 (415) 398-1200		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: SB	SONOMA COUNTY	CALIFORNIA	
CHECKED BY: JW	PETALUMA RIVER		
DESIGNED BY: RS	VALLEJO & MADISON ST PUMP STATION		
CIVIL - DETAILS			
APPROVAL: [Signature]	DATE: 5/13/99		
PREPARED UNDER THE DIRECTION OF		SCALE: 1"=20'	JOB NO.: 96205504
PETER T. GRASS		DRAWING NUMBER	
LT. COLONEL, C.E., DISTRICT ENGINEER		SHEET 2	52 42 2

CONTRACT RECORD DWG

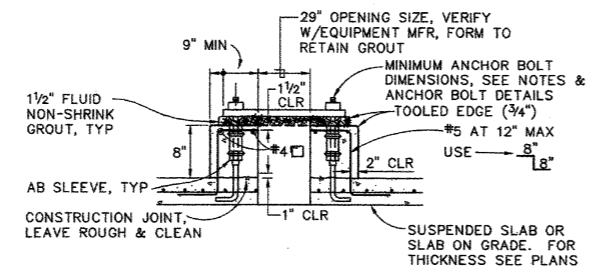
14-050



A SECTION
1/4"=1'-0"

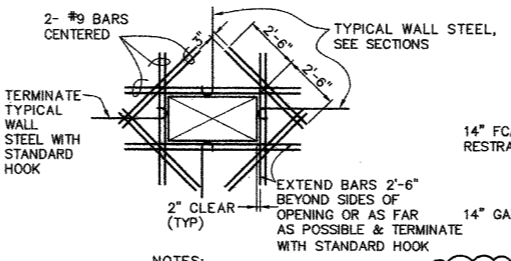


1 ANCHOR BOLT
NTS



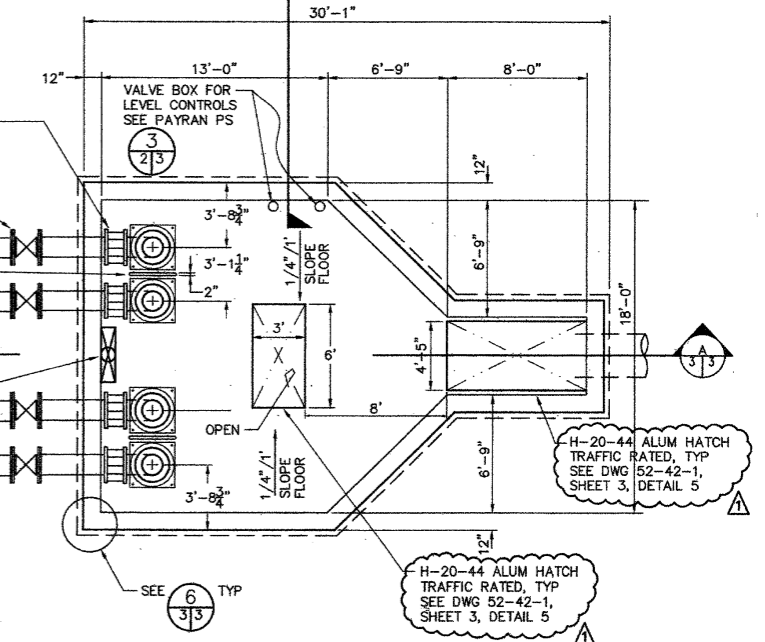
1. THE SIZE, NUMBER, TYPE, LOCATION AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER, AND SHALL BE AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE WHILE PAD IS BEING POURED.
2. ANCHOR BOLT SLEEVES SHALL BE USED TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS.
3. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER.
4. EQUIPMENT BASES SHALL BE INSTALLED LEVEL.
5. WEDGES OR SHIMS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. IF LEFT IN, THE WEDGES OR SHIMS SHALL NOT BE EXPOSED TO VIEW.

2 PUMP PAD
NTS

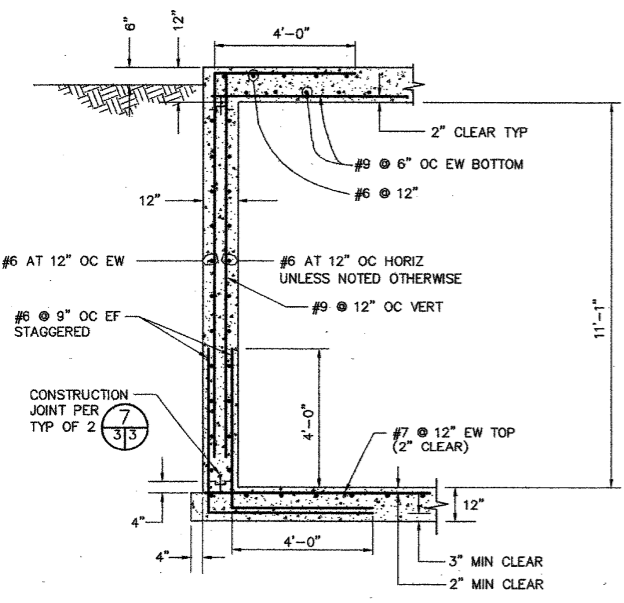


- NOTES:**
1. FOR ROUND OPENING USE CIRCUMSCRIBING RECTANGLE FOR REINFORCING APPLICATION
 2. PROVIDE EXTRA BARS (NOT SHOWN) PARALLEL TO SIDES OF OPENINGS EQUAL TO AREAS OF INTERRUPTED SLAB BARS. EXTEND FULL LENGTH OF SPAN AND/OR LENGTH OF TOP BARS AS APPLICABLE
 3. PIPE PENETRATIONS SHALL BE MADE THROUGH STEEL SLEEVES W/3" WEEP RINGS. VOID BETWEEN PIPE AND SLEEVE SHALL BE SEALED WITH "LINK SEAL"

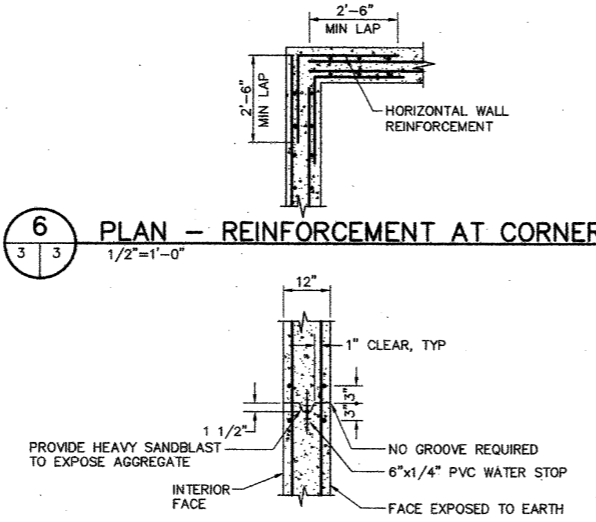
3 TYPICAL OPENING REINFORCING
NTS



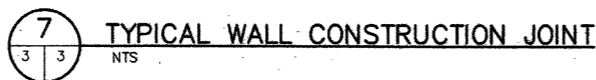
4 WET WELL PLAN
1/4"=1'-0"



5 WALL SECTION
1/2"=1'-0"



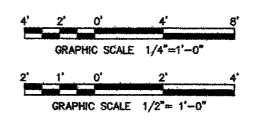
6 PLAN - REINFORCEMENT AT CORNER
1/2"=1'-0"



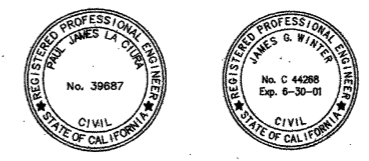
7 TYPICAL WALL CONSTRUCTION JOINT
NTS

- NOTES:**
1. CONTRACTOR TO VERIFY THAT EQUIP & FITTING SUPPLIED WILL FIT IN WET WELL - BOTH LENGTH AND DEPTH.
 2. ALL PIPING, EXCEPT 30" RCP GRAVITY LINE, SHALL BE FLANGED DIP.

PUMP ON/OFF & ALARM LEVELS	
BOTTOM OF WET WELL	-EL -2.0
LOW ALARM	-EL -0.5
PUMP 1 OFF	-EL +0.5
PUMP 2 OFF	-EL +0.5
PUMP 3 OFF	-EL +0.5
PUMP 4 OFF	-EL +0.5
PUMP 1 ON	-EL +6.5
PUMP 2 ON	-EL +7.0
PUMP 3 ON	-EL +7.5
PUMP 4 ON	-EL +8.0
HIGH ALARM	-EL +8.5



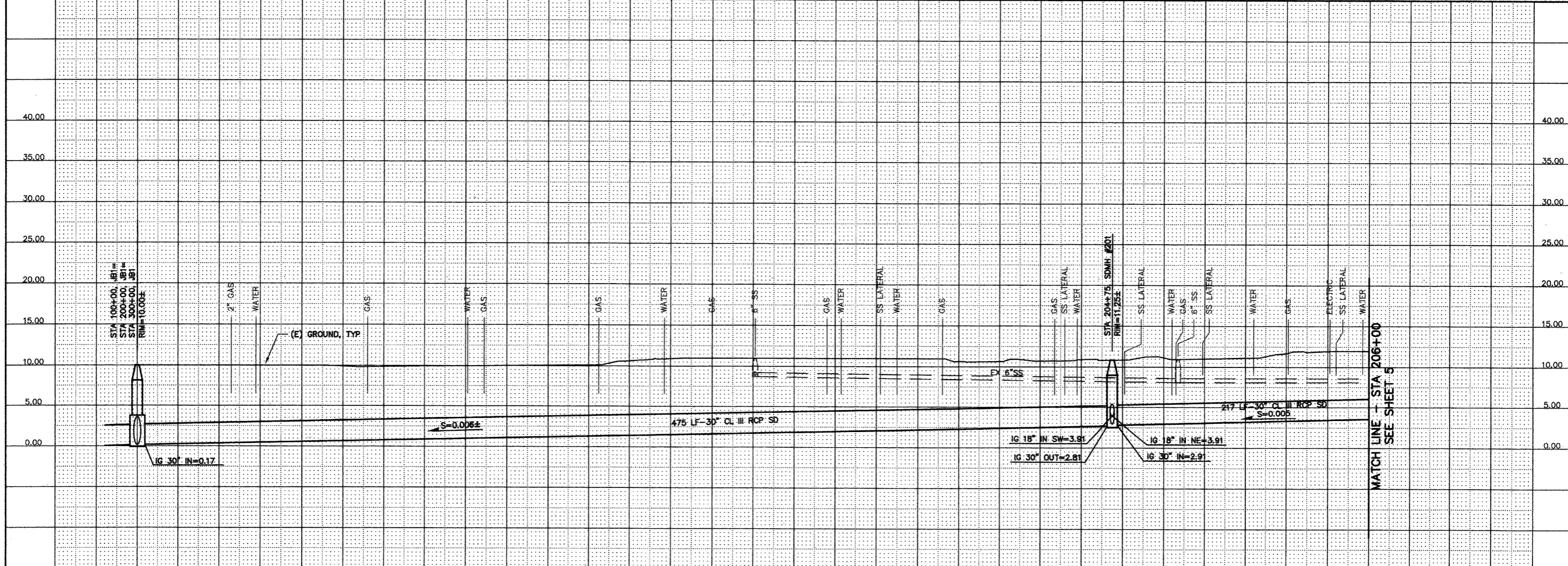
ADDENDUM #1		4/19/99
REVISIONS		
WINZLER & KELLY CONSULTING ENGINEERS 400 BAY STREET, SUITE 200, SAN FRANCISCO, CA 94111 TEL: (415) 774-1100 FAX: (415) 774-1101		
U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA		SONOMA COUNTY CALIFORNIA
PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION CIVIL - WET WELL PLANS & DETAILS		
DESIGNED BY: SB CHECKED BY: JW DRAWN BY: TC APPROVED BY: [Signature]	APPROVAL: [Signature] DATE: 5/13/99	PREPARED UNDER THE DIRECTION OF: PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER
SHEET 3 OF 52		DRAWING NUMBER: 96205504 SHEET 3 OF 52



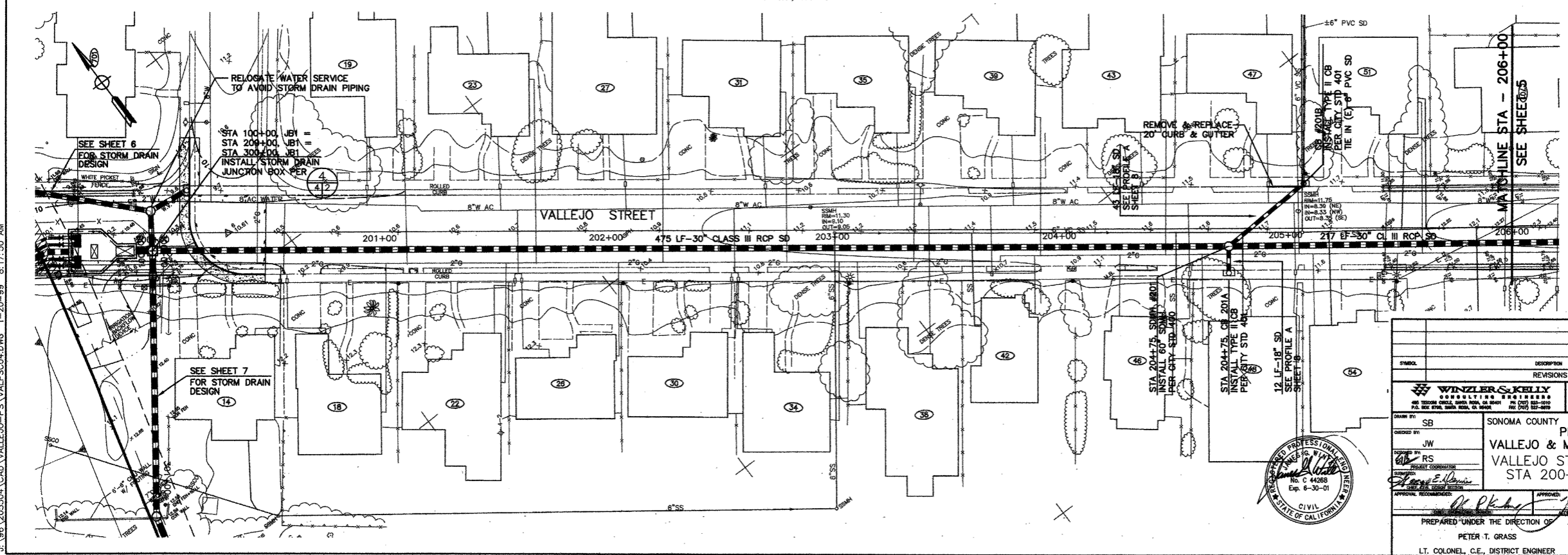
CONTRACT RECORD DWG

14-050

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PROFILE
H:1"=20', V:1"=5'



- NOTES:
- CONTRACTOR SHALL INSTALL (N) CURB & GUTTER AT CATCH BASINS AS SHOWN (MIN 2' EACH SIDE). TRANSITION FROM (E) ROLLED CURBS TO STANDARD CURBS.

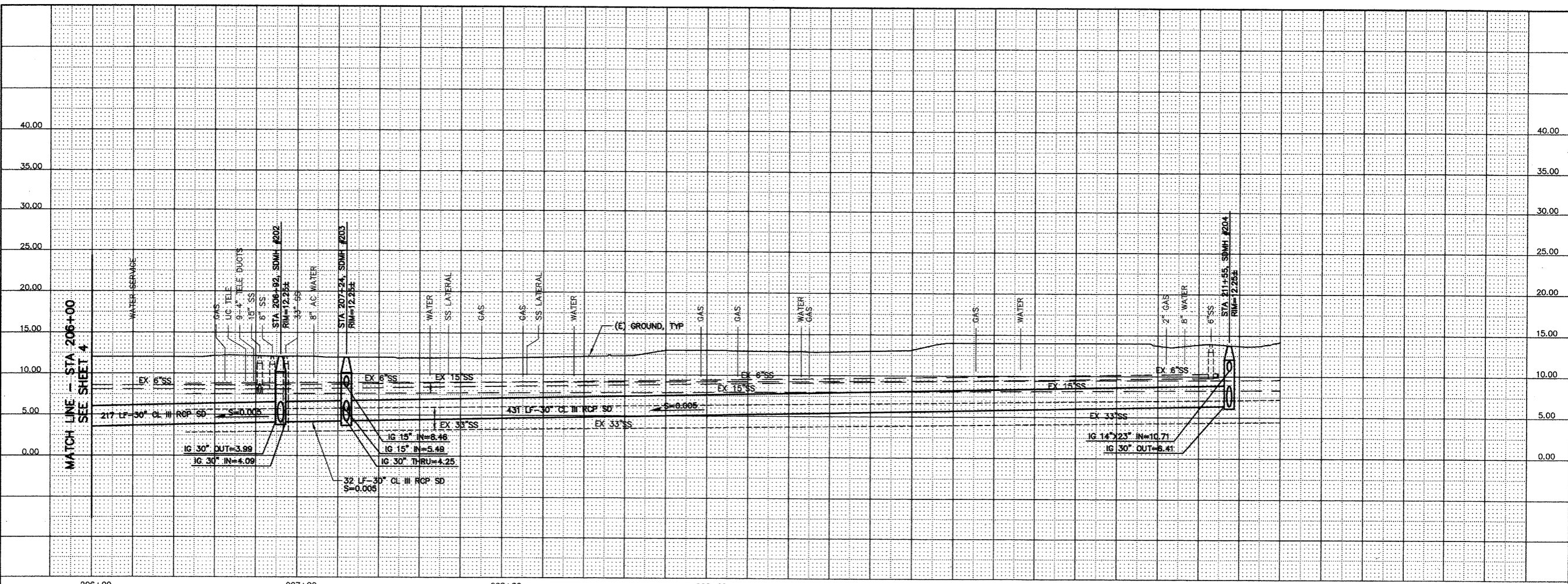
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SCALE: 1" = 25'

SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DESIGN BY:	SONOMA COUNTY		CALIFORNIA
DESIGNED BY:	PETALUMA RIVER		
DRAWN BY: JW CHECKED BY: RS PROJECT COORDINATOR: <i>James E. Hester</i>	VALLEJO & MADISON ST PUMP STATION VALLEJO STREET PLAN & PROFILE STA 200+00 TO STA 206+00		
APPROVAL RECOMMENDED:	APPROVED:	DATE:	
	<i>Peter T. Grass</i>	3/31/99	
PREPARED UNDER THE DIRECTION OF		SCALE: 1"=20'	DRAWING NUMBER: 96205504
PETER T. GRASS			SHEET 4
LT. COLONEL, C.E., DISTRICT ENGINEER			52 42 2



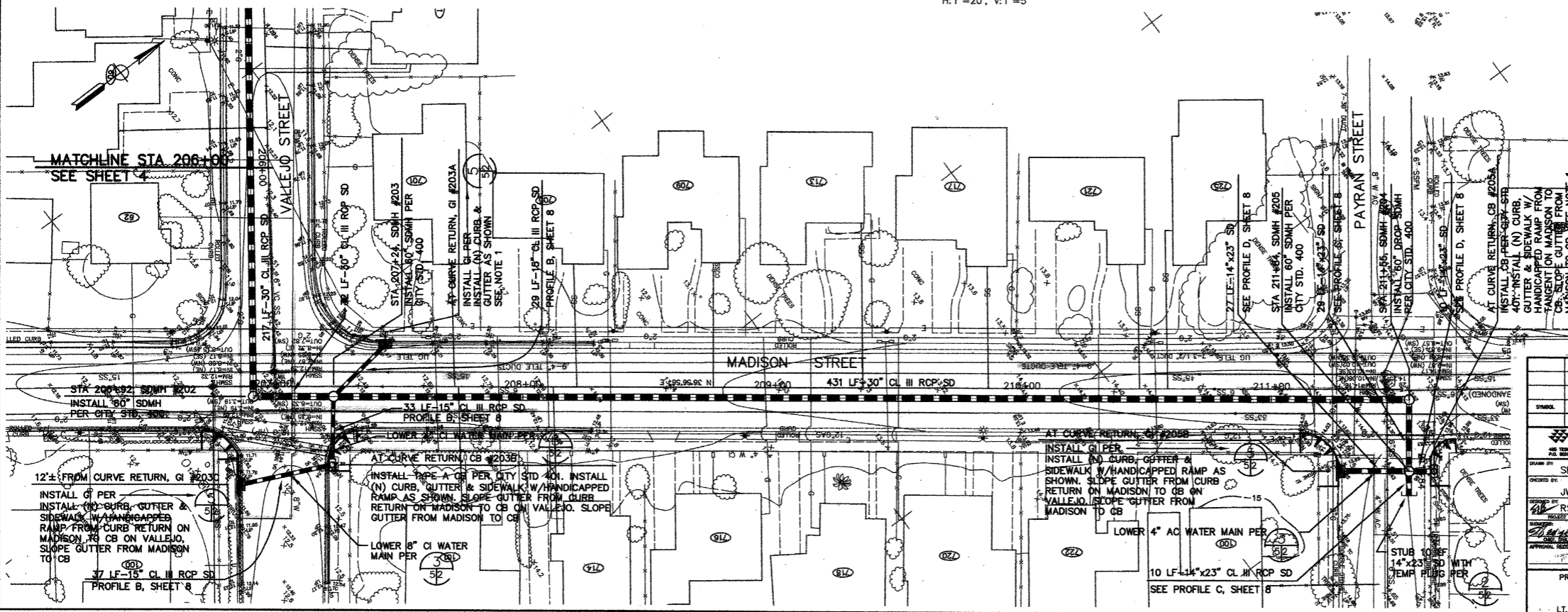
CONTRACT RECORD DWG

14-050

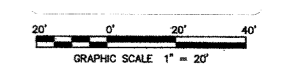


PROFILE
H: 1"=20', V: 1"=5'

NOTE:
1. CONTRACTOR SHALL INSTALL (N) CURB & GUTTER AT CATCH BASINS AS SHOWN (MIN 2' EACH SIDE). TRANSITION FROM (E) ROLLED CURBS TO STANDARD CURB.



ENLARGED TO:
SCALE: 1" = 25'

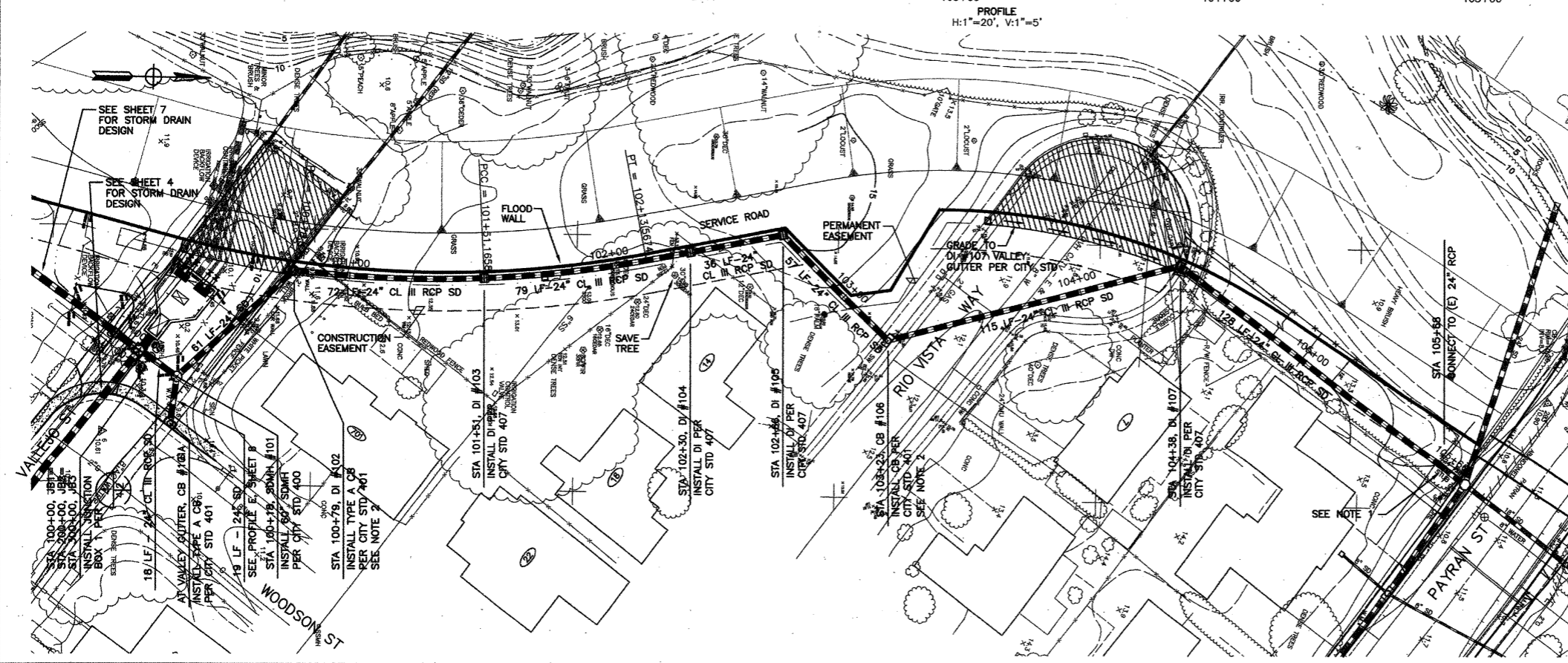
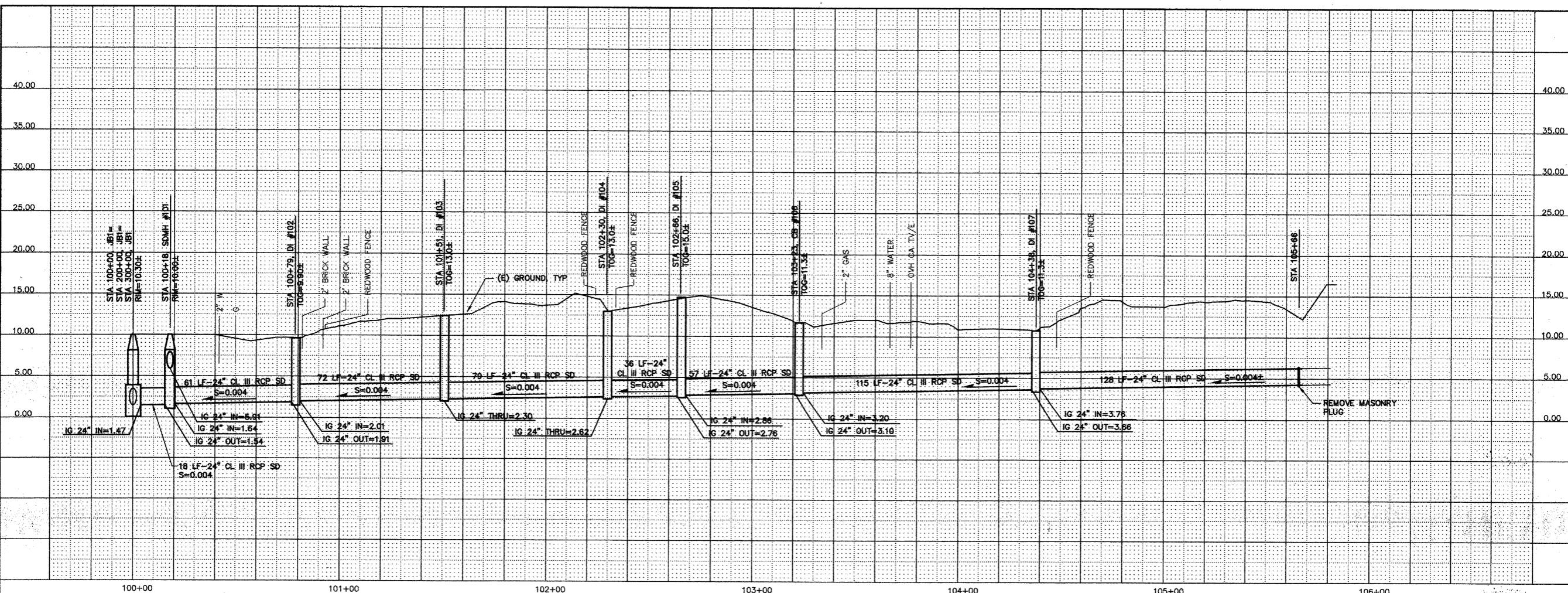


SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
SB	SONOMA COUNTY		
JW	PETALUMA RIVER		
RS	VALLEJO & MADISON ST PUMP STATION		
	MADISON STREET PLAN & PROFILE		
	STA 206+00 TO STA 211+84		
PREPARED UNDER THE DIRECTION OF		DATE	
PETER T. GRASS		3/31/99	
LT. COLONEL, C.E., DISTRICT ENGINEER		SCALE	DRAWING NUMBER
		1"=20'	96205504
		SHEET	52 42 2

CONTRACT RECORD DWG

14-050

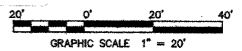
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- NOTES:**
1. AT EXISTING MANHOLE, REMOVE TWO TEMPORARY MASONRY PLUGS. INSTALL PERMANENT MASONRY PLUG AT WEST 24\"/>



ENLARGED TO:
SCALE: 1" = 25'



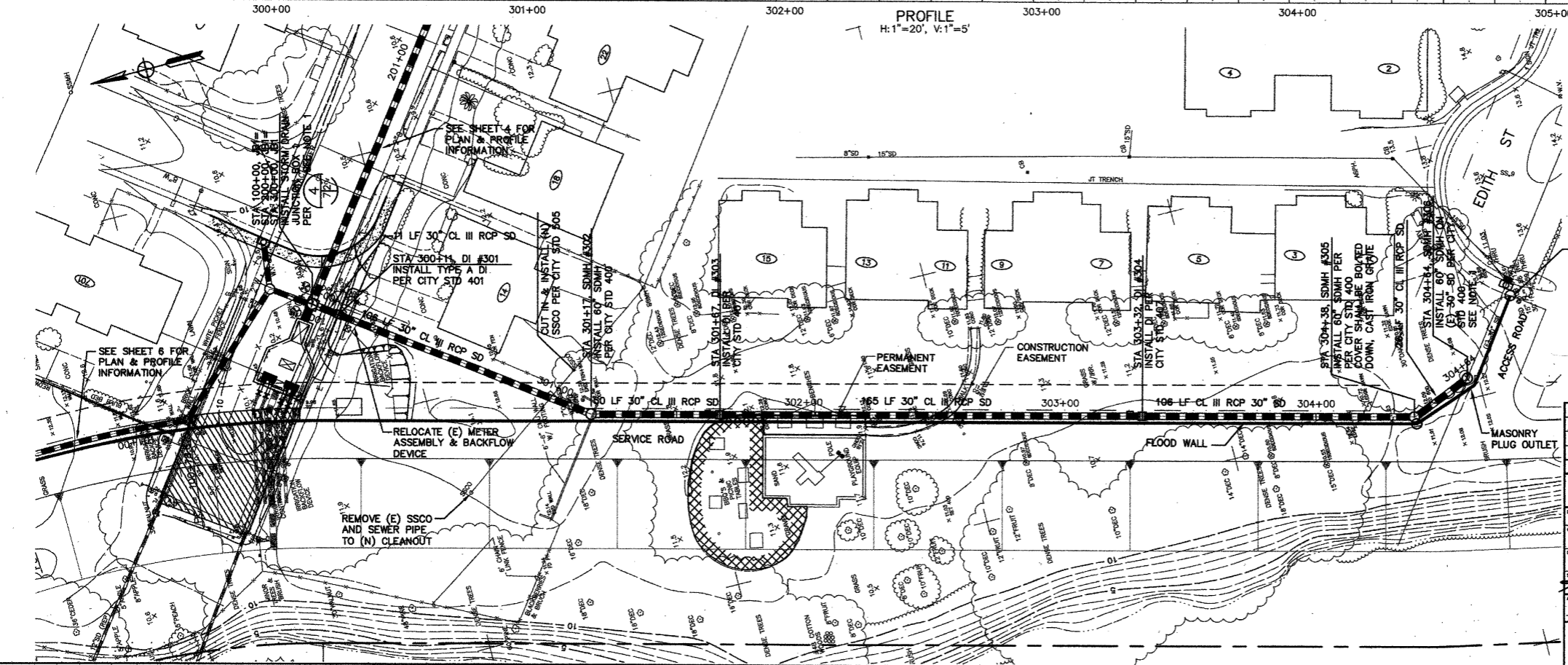
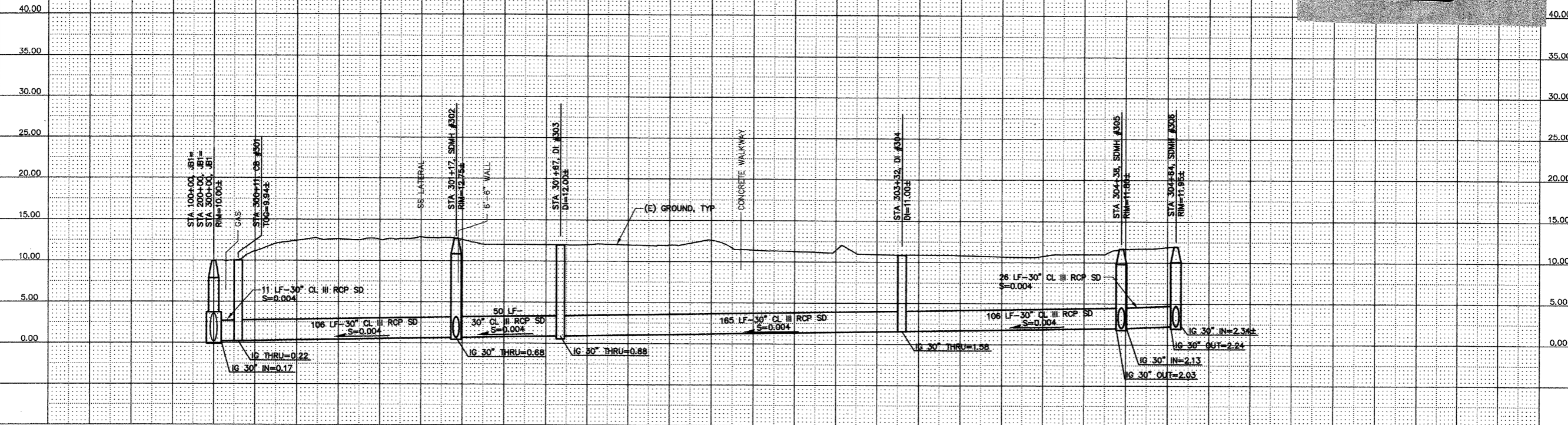
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: SB CHECKED BY: JW DESIGNED BY: RS PROJECT COORDINATOR:	SONOMA COUNTY PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION PAYRAN STREET TIE - PLAN & PROFILE STA 100+00 TO STA 105+66	CALIFORNIA	DATE: 3/31/99 SCALE: 1" = 20' DRAWING NUMBER: 96205504
PREPARED UNDER THE DIRECTION OF PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER		SHEET: 6	TOTAL SHEETS: 52 42 2

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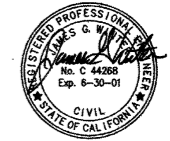
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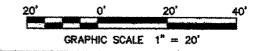
DEFENDANT'S EXHIBIT
 3-1-25-00
 T. Harms



NOTE:
 1. CONTRACTOR SHALL POTHOLE AND VERIFY (E) FLOW LINE ELEVATIONS AT STA 105+75 AND STA 304+64 A MINIMUM OF 14 DAYS PRIOR TO STARTING INSTALL OF MANHOLE.



ENLARGED TO:
 SCALE: 1" = 25'



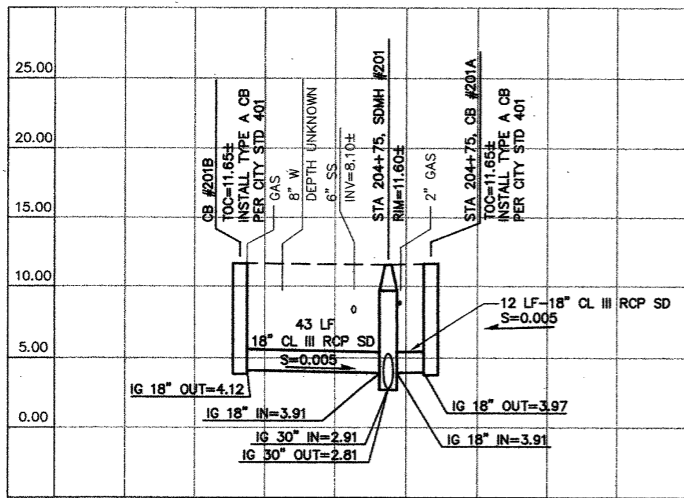
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS 400 TOWN CENTER, SUITE 200, SAN FRANCISCO, CA 94104 TEL: (415) 774-1100 FAX: (415) 774-1101 WWW: WWW.WK-ENGINEERS.COM		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: SB CHECKED BY: JW PROJECT COORDINATOR:	SONOMA COUNTY CALIFORNIA PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION PLAN & PROFILE STA 300+00 TO STA 304+64		
PREPARED UNDER THE DIRECTION OF PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER		DATE: 8/31/99 SCALE: 1"=20' JOB NO: 9620504 DRAWING NUMBER:	SHEET 7 OF 42

CONTRACT RECORD DWG

14-050

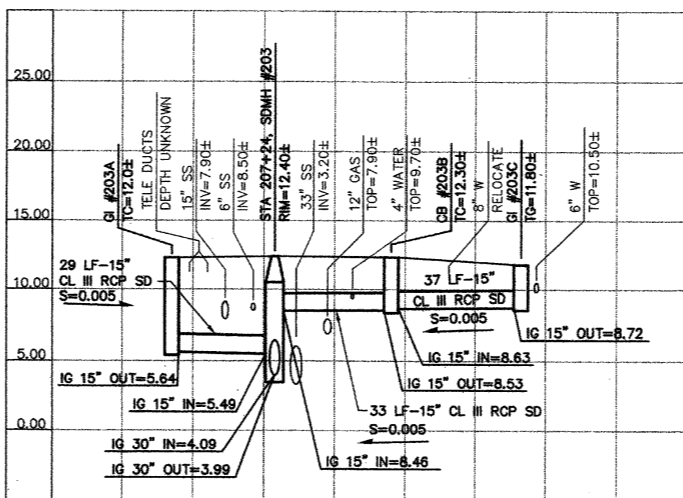
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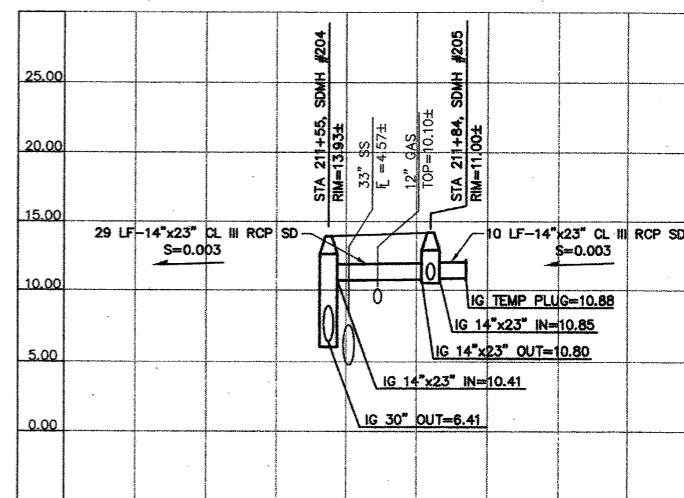
205+00

PROFILE A



207+00

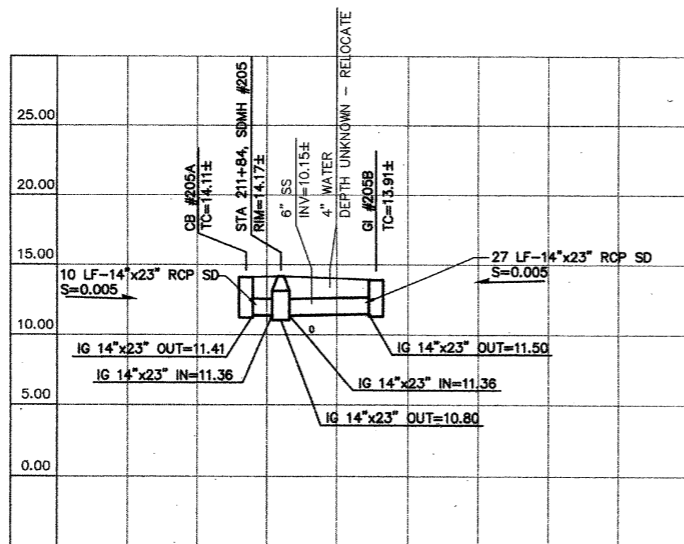
PROFILE B



211+00

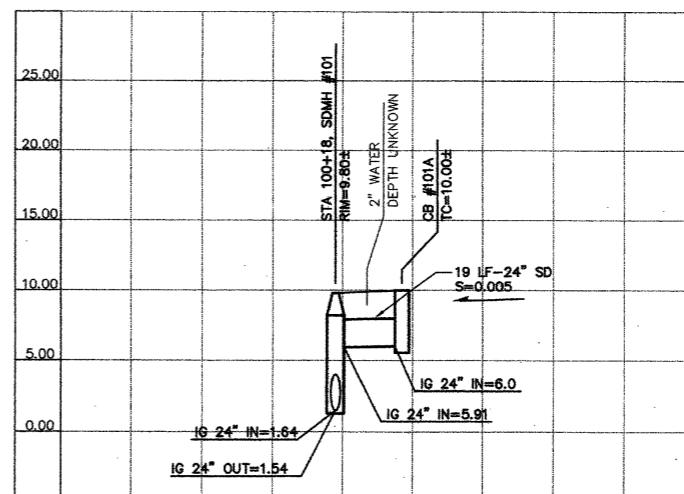
212+00

PROFILE C



212+00

PROFILE D

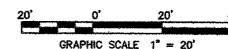


100+00

101+00

PROFILE E

ENLARGED TO:
SCALE: 1" = 25'



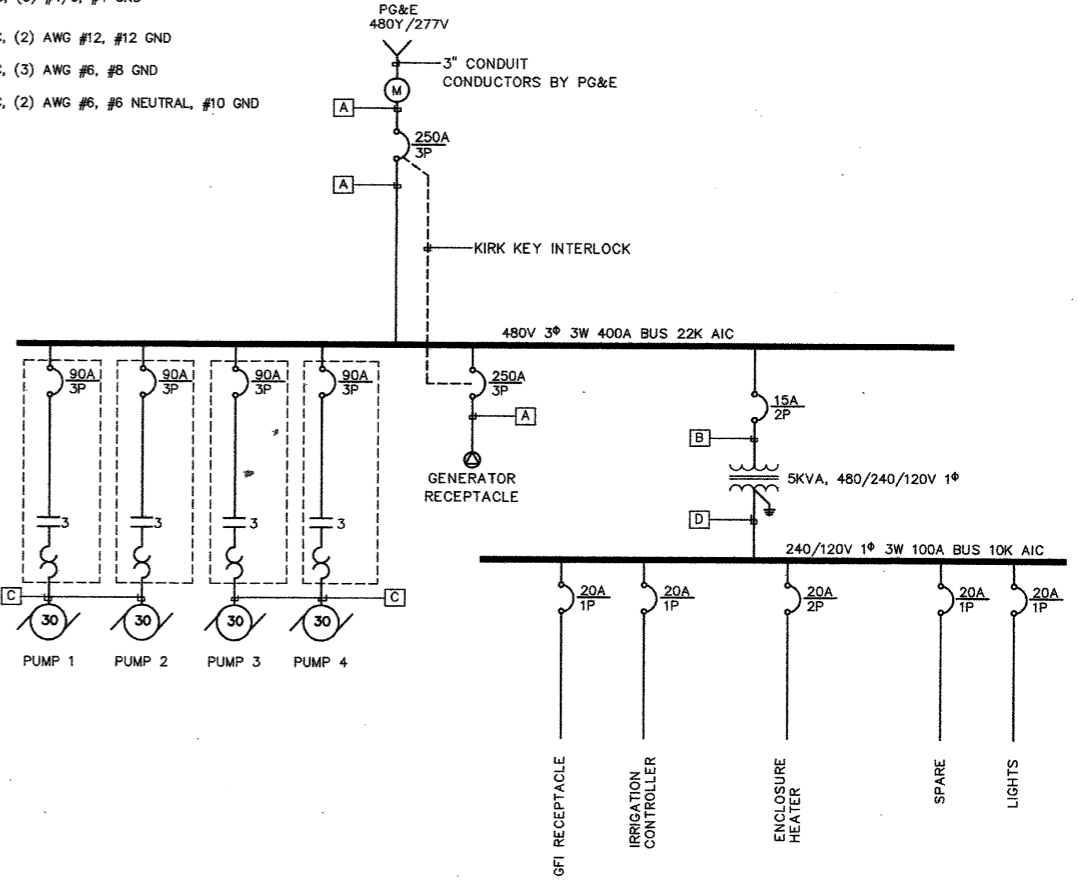
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS <small>1000 RIVER STREET, SUITE 200, SAN FRANCISCO, CA 94109 TEL: (415) 774-1100 FAX: (415) 774-1101</small>		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DESIGN BY:	SB	SONOMA COUNTY	PETALUMA RIVER CALIFORNIA
CHECKED BY:	JW	VALLEJO & MADISON ST PUMP STATION	
DATE:	9/21/99	STORM DRAIN PROFILES	
PREPARED UNDER THE DIRECTION OF:	PETER T. GRASS	SCALE:	1" = 20'
DATE:	9/21/99	JOB NO.:	96205504
LT. COLONEL C.E. DISTRICT ENGINEER		DRAWING NUMBER:	8 52 42 2



CONTRACT RECORD DWG

14-050

- [A] 3" C, (3) #4/0, #4 GND
- [B] 1" C, (2) AWG #12, #12 GND
- [C] 1" C, (3) AWG #6, #6 GND
- [D] 1" C, (2) AWG #6, #6 NEUTRAL, #10 GND



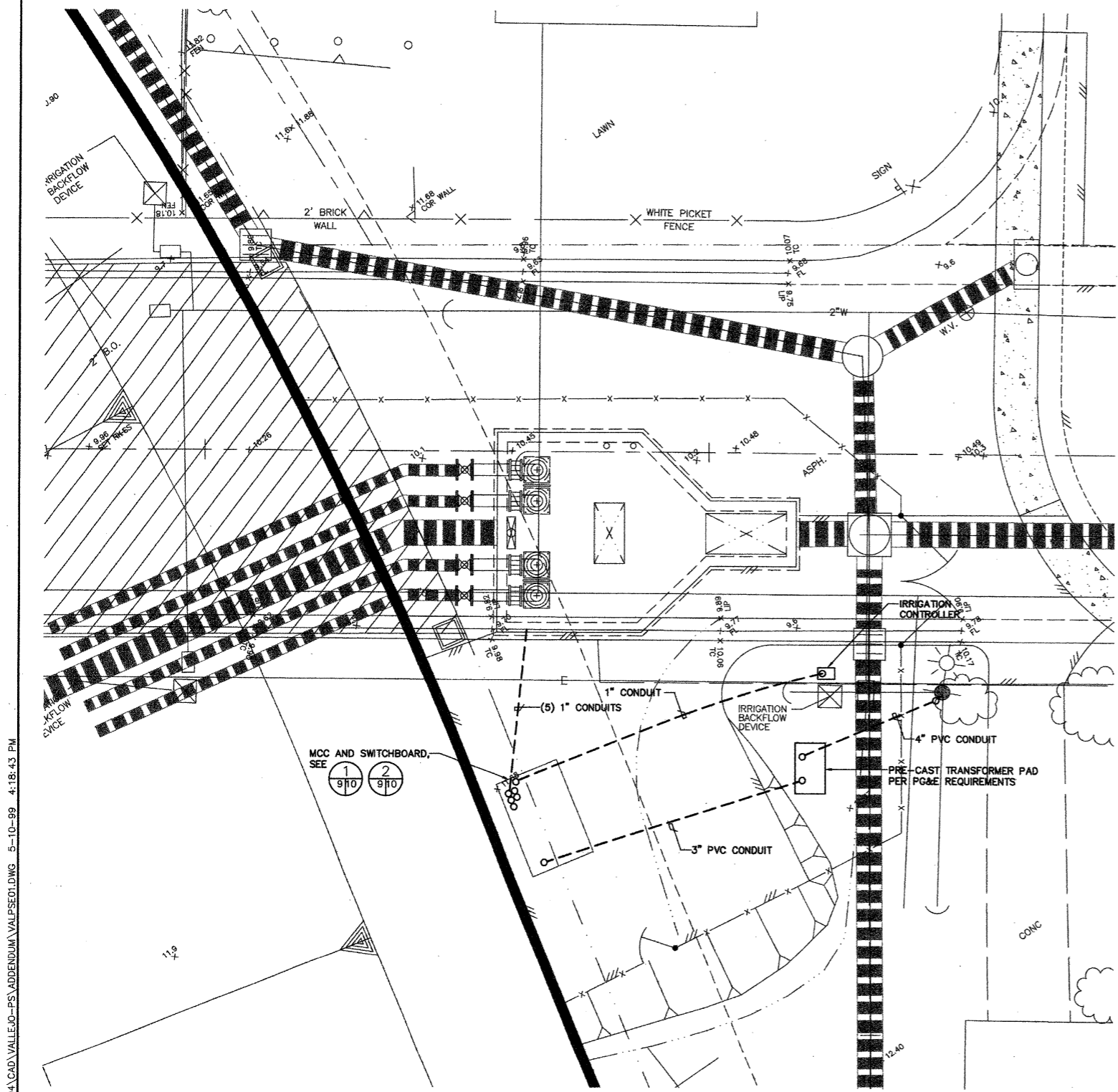
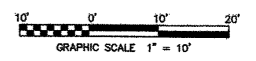
SINGLE LINE DIAGRAM
NTS

LEGEND

- UNDERGROUND CONDUITS
- CONDUIT STUB UP
- PULLBOX, 10"x17" U.N.O.
- ≡ TRANSFORMER
- ⌋ CIRCUIT BREAKER
- ⌋ MOTOR STARTER, SIZE AS INDICATED
- ⊕ DUPLEX RECEPTACLE
- ⊕ SPECIAL PURPOSE RECEPTACLE
- (M) METER
- (S) DOOR SWITCH (MAGNETIC)

NOTES

1. CONDUITS SHOWN ARE SCHEMATIC. ADJUST ACTUAL LOCATION TO MEET PROJECT CONDITIONS.
2. COORDINATE POWER WITH PAT HAYES/PG&E (707) 765-5162.
3. INTERIOR OF THE WET WELL IS CLASSIFIED AS A CLASS I, DIVISION 2 HAZARDOUS LOCATION.



SITE PLAN
1"=5'-0"

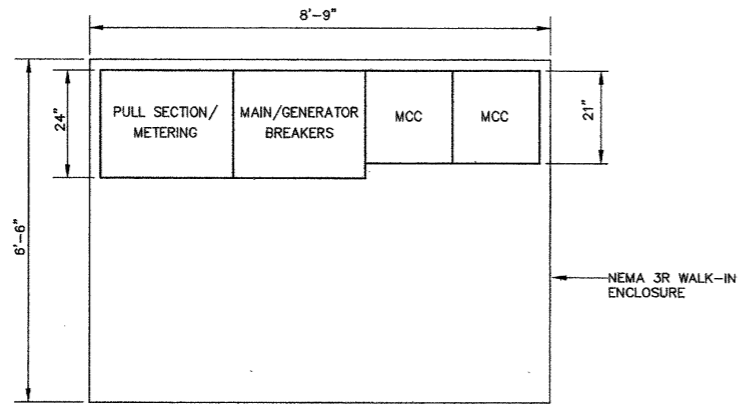


ADDENDUM #1		DATE	4/19/99
DESCRIPTION		DATE	
REVISIONS		DATE	
		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: RM	SONOMA COUNTY	PETALUMA RIVER	CALIFORNIA
CHECKED BY: FTB	VALLEJO & MADISON ST PUMP STATION		
PROJECT COORDINATOR: RG	ELECTRICAL-SITE PLAN AND SINGLE LINE DIAGRAM		
APPROVAL: <i>[Signature]</i>	DATE: 5/13/99	SCALE: SHOWN	JOB NO: 96205504
PREPARED UNDER THE DIRECTION OF: PETER T. GRASS		DRAWING NUMBER:	
LT. COLONEL, C.E. DISTRICT ENGINEER		SHEET: 9	52 42 2

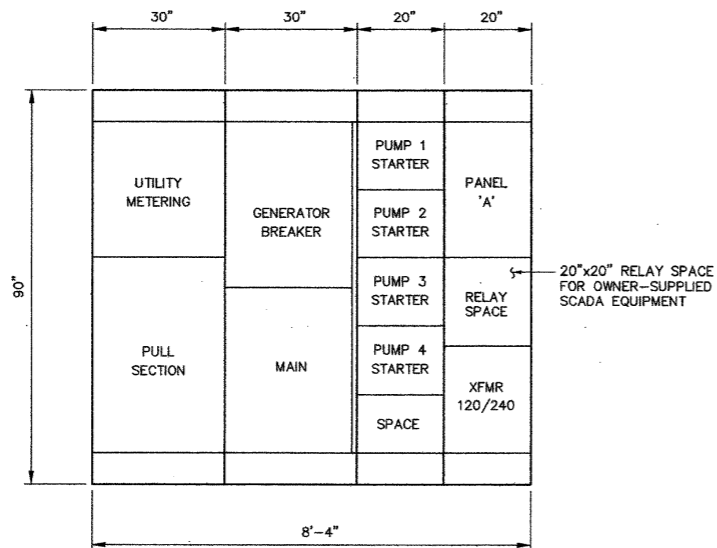
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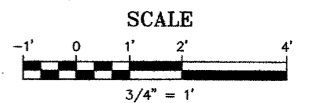


1 MCC AND SWITCHBOARD PLAN
3/4"=1'-0"



2 MCC AND SWITCHBOARD ELEVATION
3/4"=1'-0"

SCHEDULE PANEL A										TYPE 100A MCB 100A BUS 120/240V 1φ 3W 10K AIC			MOUNTING: IN MCC				
POLE NO	CIRCUIT SIZE	SERVING	CKT LOAD			BREAKER		BREAKER			CKT LOAD			SERVING	CIRCUIT SIZE	POLE NO	
			A	B	C	FR	TRIP	A	B	C	FR	TRIP	A				B
1	#12 AWG	SCADA EQUIPMENT	5					20				20	10		RECEPTACLE	#12 AWG	2
3	#12 AWG	IRRIGATION CONTROLLER			5			20				20		2	LIGHTS	#12 AWG	4
5		SPARE						20				20	8.5		ENCLOSURE HEATER	#12 AWG	6
7		SPACE											8.5		SPACE		8
9															SPACE		10
11															SPACE		12
13																	14
15																	16
17																	18
19																	20
21																	22
23																	24
25																	26
27																	28
29																	30
31																	32
33																	34
35																	36
37																	38
39																	40
41																	42
CONNECTED LOAD			5	5		23.5		15.5		18.5	10.5	REMARKS					
KVA 4.7																	

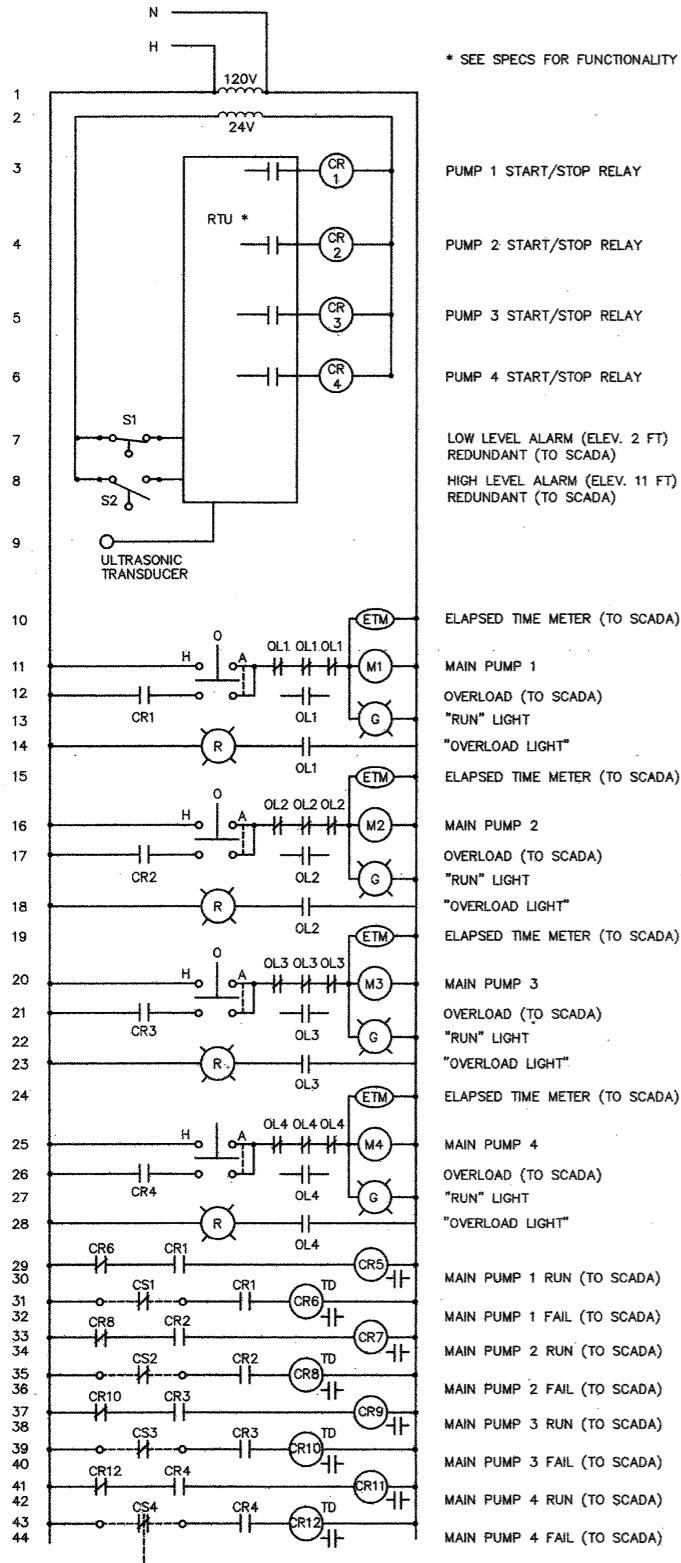


SYMBOL		DESCRIPTION	DATE	APPROVAL
REVISIONS				
 400 RICHMOND STREET, SUITE 1000, SAN FRANCISCO, CA 94111 P.O. BOX 4700, SAN FRANCISCO, CA 94116		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA		
DRAWN BY: RM CHECKED BY: FTB DESIGNED BY: RG APPROVED BY: <i>[Signature]</i> APPROVAL RECOMMENDED BY: <i>[Signature]</i>	SONOMA COUNTY PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION ELECTRICAL-GENERATOR BUILDING AND EQUIPMENT	CALIFORNIA		
PREPARED UNDER THE DIRECTION OF PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER		SCALE: SHOWN SHEET 10	JOB NO.: 52 42 2	DATE: 3/31/99

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1 CONTROL DIAGRAM
NTS

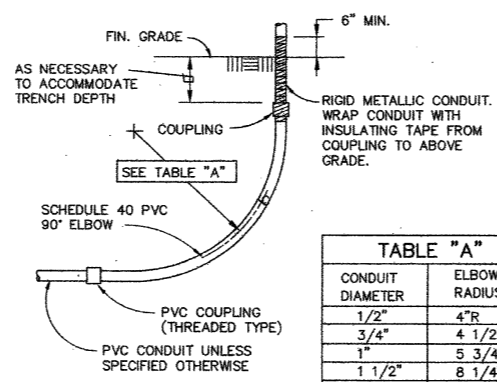
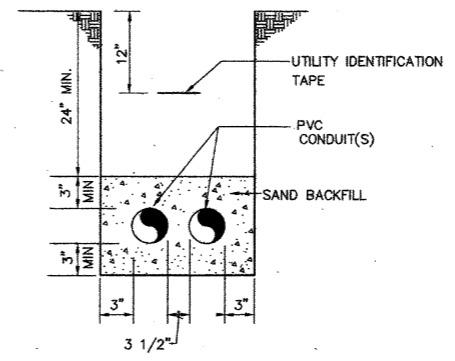


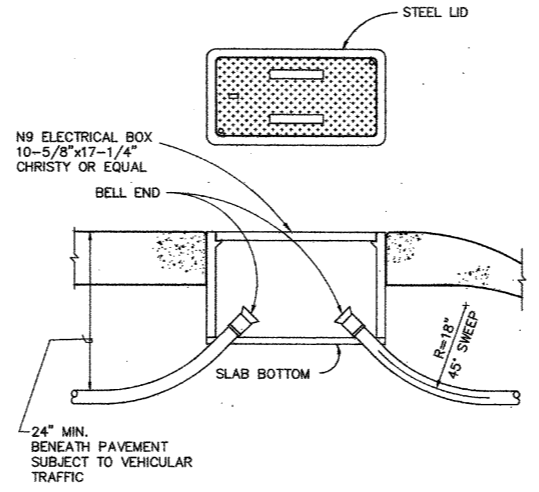
TABLE "A"

CONDUIT DIAMETER	ELBOW RADIUS
1/2"	4"R
3/4"	4 1/2"R
1"	5 3/4"R
1 1/2"	8 1/4"R
2"	9 1/2"R
2 1/2"	10 1/2"R
3"	13"R
4"	16"R
5"	24"R

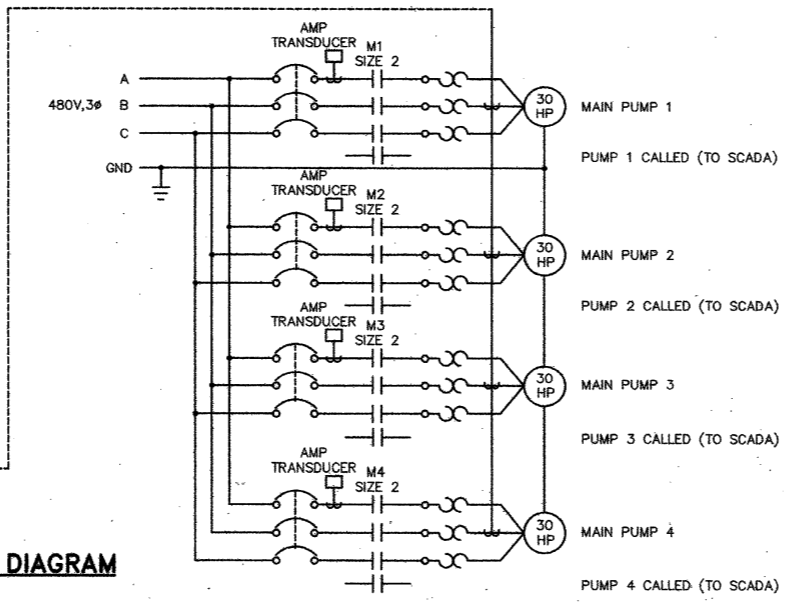
2 CONDUIT STUB-UP
NTS



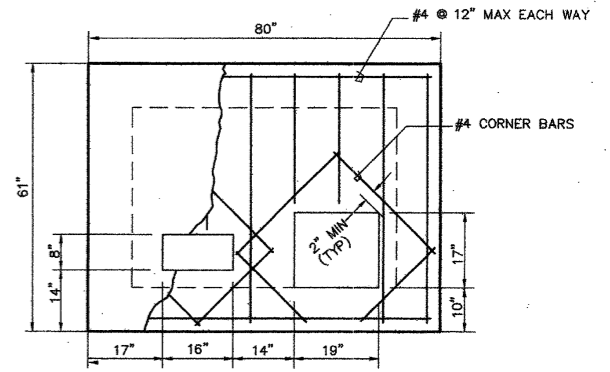
3 TYPICAL TRENCH DETAIL
NTS



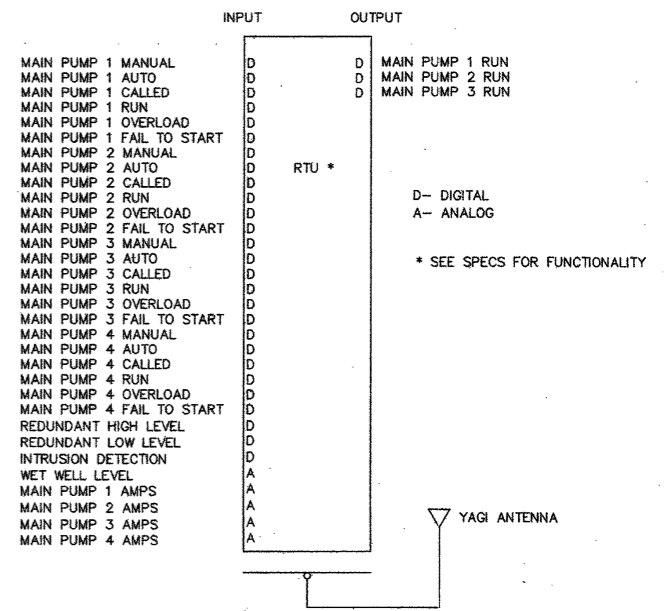
4 PULLBOX DETAIL
NTS



5 SCADA I/O DIAGRAM
NTS



6 PG&E TRANSFORMER PAD DETAIL
3/4"=1'-0"



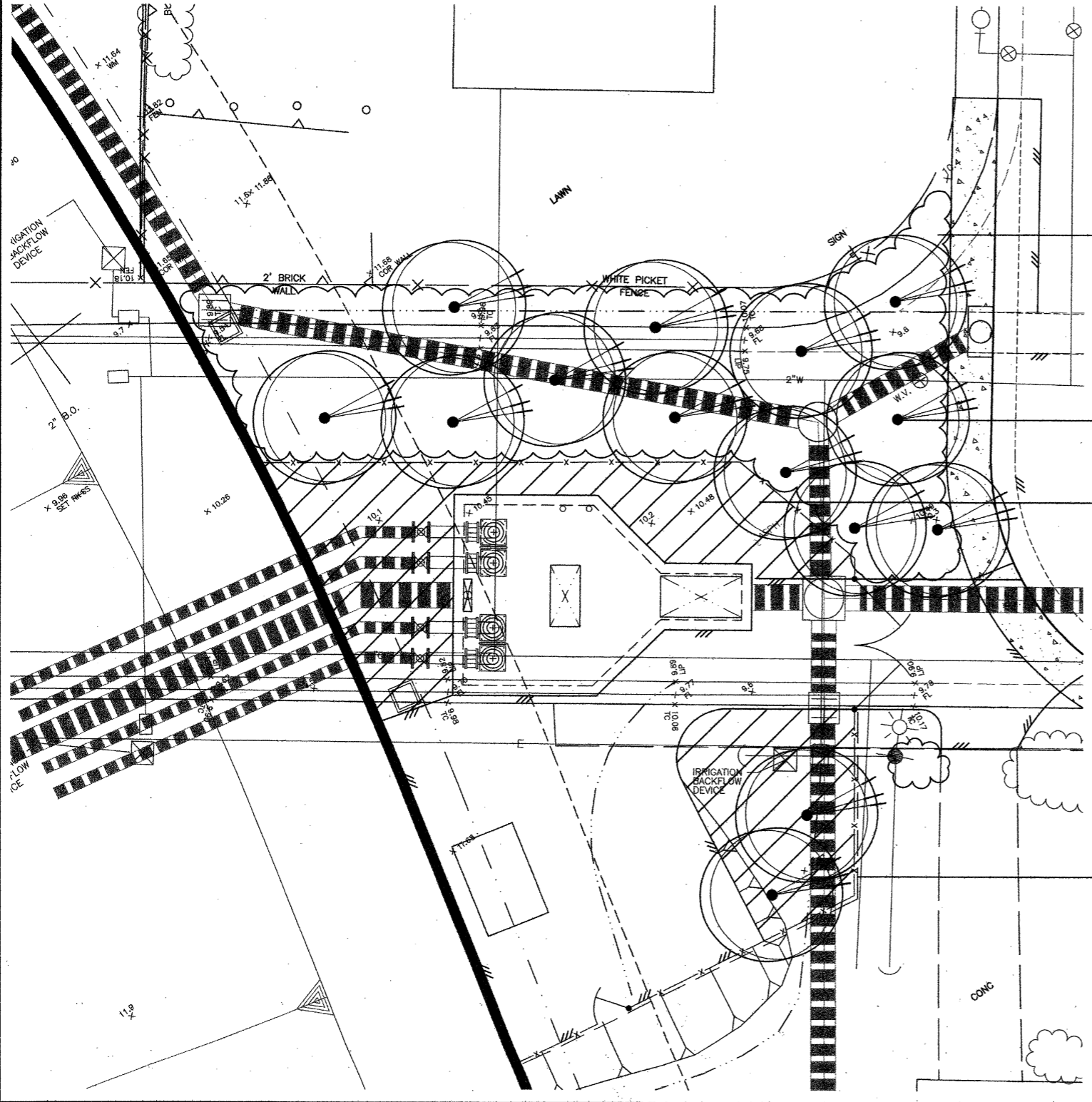
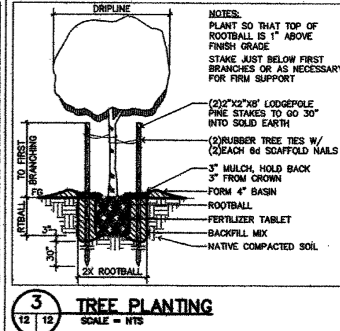
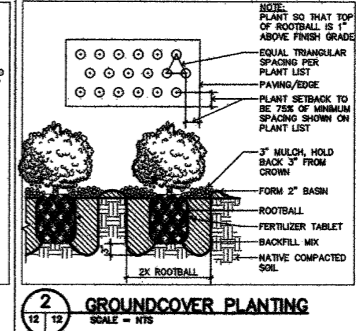
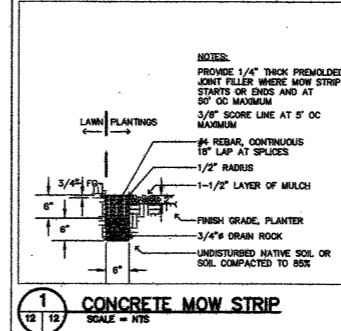
7 SCADA I/O DIAGRAM
NTS



SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS 400 TOWN CENTER, SUITE 1000, CA 94901 P.O. BOX 2700, SAN FRANCISCO, CA 94116 TEL: (415) 774-1100 FAX: (415) 774-1101		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: RM CHECKED BY: FTB DESIGNED BY: RG	SONOMA COUNTY PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION ELECTRICAL-CONTROL DIAGRAM AND DETAILS		
APPROVED: <i>[Signature]</i> PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER		DATE: 3/24/99 SHEET: 11 OF 52	

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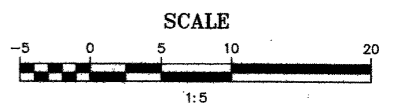
PLANT LIST:

SYMBOL	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
TREES:					
⊙	14	ACER RUBRUM 'ARMSTRONG'	RED MAPLE	15 GAL	
GROUNDCOVERS:					
		VINCA MAJOR	PERENNIALE	1 GAL	24" O.C.

PLANTING NOTES:

- THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. PLANT SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED.
- QUANTITIES SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY.
- CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
- TREES LOCATED WITHIN 5 FEET OF OVERHEAD ELECTRICAL LINES SHALL, PRIOR TO PLANTING, BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER FOR ADJUSTMENT.
- CONTRACTOR SHALL APPLY A CONTACT HERBICIDE, WHERE WEEDS ARE PRESENT, PER MANUFACTURER'S SPECIFICATIONS, A MINIMUM OF TEN (10) DAYS PRIOR TO COMMENCEMENT OF ANY PLANTING OF IRRIGATION WORK. WEEDS SHALL BE ALLOWED TO COMPLETELY DIE BACK, INCLUDING THE ROOTS, BEFORE SOIL AMENDING AND PLANTING COMMENCES.
- STAKE OR GUY ALL TREES PER DETAIL.
- REMOVE NURSERY STAKES ON ALL VINES AND ATTACH TO ADJACENT WALLS OR FENCES WITH NON-METALLIC TIES.
- REMOVE NURSERY STAKES AND TIES FROM ALL CONTAINER STOCK, MAINTAIN SIDE GROWTH ON ALL TREES.
- PLANTS SHALL NOT BE PLACED WITHIN TWELVE (12") INCHES OF SPRINKLER HEADS.
- SHRUBS SHOWN IN PLANT AREAS SHALL BE UNDER-PLANTED WITH GROUNDCOVER SHOWN BY ADJACENT SYMBOL, TO WITHIN 12" OF MAIN PLANT STEM.
- INSTALL 1 1/2" LAYER OF 'ARBOR MULCH' AROUND WATERING BASINS AND THRU-OUT ALL PLANTING AREAS, EXCEPT LAWN AREAS AND 2:1 SLOPES. 'ARBOR MULCH' AVAILABLE THRU:

GRAB N GROW SOIL PRODUCTS
2759 LLANO ROAD
SANTA ROSA, CA 95407
707/575-7275
- CONTRACTOR SHALL TAKE A MINIMUM OF THREE SOIL SAMPLES FROM PLANTING AREAS. A SOIL ANALYSIS SHALL BE PERFORMED BY A TESTING LAB APPROVED BY THE CONTRACTING OFFICER. SUBMIT ANALYSIS TO THE CONTRACTING OFFICER PRIOR TO INCORPORATION OF SPECIFIED SOIL AMENDMENTS INTO THE PROJECT. SOIL AMENDMENT ADJUSTMENT MAY BE REQUIRED DEPENDING ON THE OUTCOME OF ANALYSIS.
- CONTRACTOR SHALL INCLUDE UNIT PRICES IN BASE BID FOR ALL SOIL AMENDMENTS (i.e. SOIL CONDITIONER, FERTILIZER, ETC).
- ALL PLANT MATERIAL SHALL BE APPROVED AT THE PROJECT SITE BY THE CONTRACTING OFFICER PRIOR TO PLANTING. ALL PLANT MATERIAL REJECTED BY THE OWNER OR THE CONTRACTING OFFICER SHALL BE REMOVED FROM THE PROJECT SITE AT NO ADDITIONAL COST. NO TREES SHALL BE PLANTED WITHOUT APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL TREES AT THE PROJECT SITE FOR CHECKING AT ONE TIME.
- JUTE MATTING SHALL BE INSTALLED ON ALL SLOPES 2:1 OR GREATER. OVERLAP EDGES OF JUTE MATTING TWO INCHES. INSTALL JUTE MATTING STAPLES AT A RATE OF 200 STAPLES PER 900 SQUARE FEET OF JUTE MATTING.



VINCA MAJOR 2
12 12

ACER RUBRUM 'ARMSTRONG' 3
12 12

BARK MULCH (TYPICAL SYMBOL)

CONCRETE MOW STRIP 1
12 12

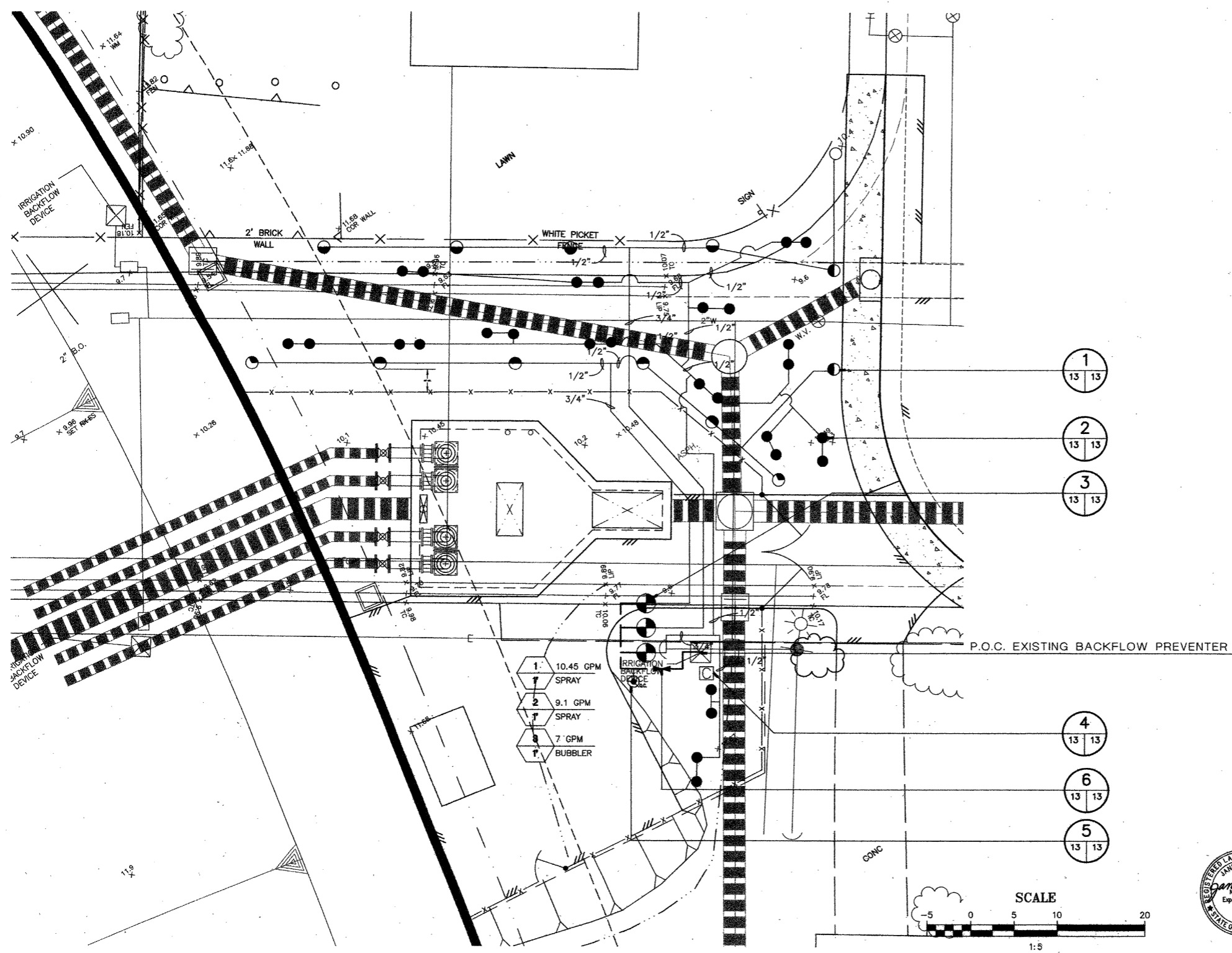
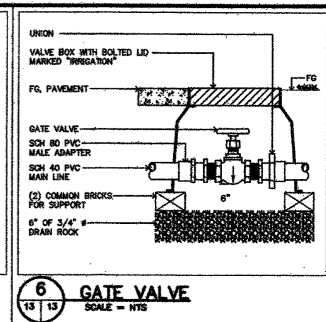
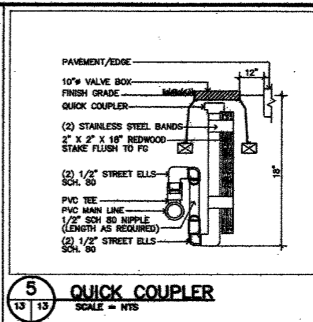
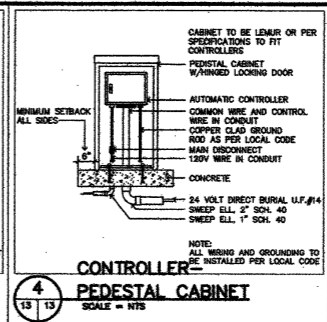
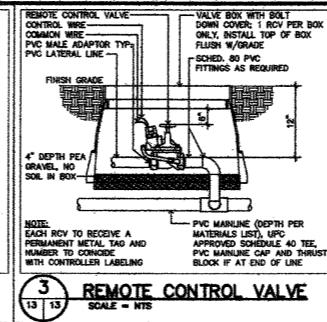
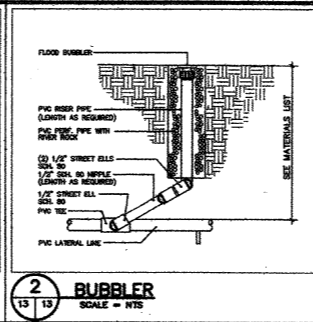
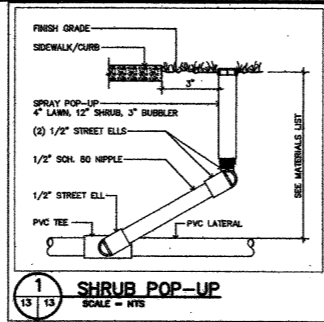


SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
WINZLER & KELLY CONSULTING ENGINEERS 400 BAY STREET, SUITE 200, SAN FRANCISCO, CA 94111 TEL: (415) 774-1100 FAX: (415) 774-1101		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
ORDERED BY:	KAY	SONOMA COUNTY	CALIFORNIA
DESIGNED BY:	JW	PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION	
CHECKED BY:	WM	LANDSCAPING - PLANTING PLAN	
DATE:	3/31/99		
PREPARED UNDER THE DIRECTION OF:	PETER T. GRASS		
DATE:	3/31/99		
APPROVED:	 L.T. COLONEL, C.E. DISTRICT ENGINEER		
DRAWING NUMBER		JOB NO.	
12		96205504	
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MATERIALS LIST:

SYMBOL	QTY.	DESCRIPTION	MANUFACTURER'S NUMBERS & NOTES
IRRIGATION:			
POC	-	POINT OF CONNECTION	POINT OF CONNECTION TO BE PER LOCAL CITY STANDARDS
---	-	MAINLINE, PVC SCHEDULE 40	24" UNDER PAVEMENT W/6" SAND BED IN CHASE 18" UNDER EARTH
⊞	1	AUTOMATIC CONTROLLER - PEDESTAL MOUNT	IRRITROL 4 STATION
⊞	1	GATE VALVE	STOCKHAM B-110, SIZE TO MATCH MAINLINE
⊞	3	REMOTE CONTROL VALVE	RANBRID INSTALL IN RECTANGULAR VALVE BOX
⊞	1	QUICK COUPLER	NELSON 7646, 1" W/SWIVEL ELLS AND KEYS
---	-	LATERAL LINE, PVC CLASS 200 ALL SIZED AT 3/4" UNLESS NOTED ON PLAN	18" UNDER PAVEMENT W/6" SAND BED IN CHASE 12" UNDER EARTH
---	-	IRRIGATION LINE IN PVC SCHEDULE 40 CHASE	CHASE TO BE TWICE THE SIZE OF LINE(S)
⊞	-	SPRAY POP UP	TORO 8702-12-S-COM-15 W/CHECK VALVES AS REQ. TO PREVENT LOW HEAD DRAINAGE
●	-	FLOOD BUBBLER	RANBRID 1401 (.25 GPM) NOZZLES

NOTE: IRRIGATION SYSTEM IS DESIGNED FOR A MAXIMUM OF 11 GPM AT 30 PSI FOR SPRAY CIRCUITS. SYMBOLS REPRESENT ADJUSTABLE (○), HALF (◐), AND THIRD (◑) SPRAY PATTERNS.

IRRIGATION NOTES:

1. THE IRRIGATION SYSTEM IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT EACH POINT OF CONNECTION. THE CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT TO THE CONTRACTING OFFICER ANY DIFFERENCE BETWEEN THE WATER PRESSURE SHOWN ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
2. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY. INSTALL PIPING AND VALVES IN PLANTING AREAS WHERE POSSIBLE, AND LOCATE ELECTRIC CONTROL AND QUICK COUPLING VALVES IN GROUND COVER/SHRUB AREAS, 6" TO 12" AWAY FROM HARD-SCAPE OR TURF AREA FOR EASY ACCESS.
3. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL LATERAL LINES AND HEADS FOR OPTIMUM PERFORMANCE. THIS SHALL INCLUDE THROTTLING THE FLOW CONTROL AT EACH VALVE.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, EXISTING METER, CONTROLLER, AND BACKFLOW DEVICES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 TO FIELD LOCATE ALL EXISTING UTILITIES. ALSO, THE CONTRACTOR SHALL CONSULT WITH THE OWNERS TO FAMILIARIZE HIMSELF WITH EXISTING UNDERGROUND UTILITIES, STRUCTURES, WALLS AND GRADES PRIOR TO CONSTRUCTION.
5. FIELD ADJUSTMENTS MAY BE REQUIRED TO PROVIDE OPTIMUM OPERATING EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CONTRACTING OFFICER TO REVIEW FIELD ADJUSTMENTS PRIOR TO INSTALLATION. IN THE EVENT THAT NO CONTACT IS MADE WITH THE CONTRACTING OFFICER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS.
6. SLEEVE ALL PRESSURE MAIN LINE PIPE AND CONTROL WIRES UNDER STREETS AND WALKWAYS WITH THE PROPER SIZE SCHEDULE 40 PVC PIPE TO DEPTH AS SPECIFIED.
7. CONFORM TO ALL LOCAL CODES.
8. FOR ADDITIONAL INFORMATION, SEE PROJECT DETAILS AND SPECIFICATIONS.
9. IF A CONFLICT, PROBLEM OR FAILURE ARISES DURING IRRIGATION INSTALLATION, THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS FOR THE USE OF THEIR PRODUCTS WILL TAKE PRECEDENT OVER THE CONTRACTING OFFICER'S CONSTRUCTION DOCUMENTS.

SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
		U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO CORPS OF ENGINEERS SAN FRANCISCO, CALIFORNIA	
DRAWN BY: KAY CHECKED BY: JW DESIGNED BY: WM	SONOMA COUNTY PETALUMA RIVER VALLEJO & MADISON ST PUMP STATION LANDSCAPING - IRRIGATION PLAN	CALIFORNIA	
PREPARED UNDER THE DIRECTION OF: PETER T. GRASS LT. COLONEL, C.E., DISTRICT ENGINEER		SCALE: SHOWN SHEET: 13	DATE: 3/31/99 JOB NO.: 96205504 DRAWING NUMBER: 52 42 2



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