

GENERAL SERVICES CONTRACT
Sonar Inspection of Large Diameter Sewers and Siphons
Specification No. S-2022-1327

This GENERAL SERVICES CONTRACT (hereinafter referred to as "Contract"), is made and entered into as of the date fully executed below, by and between Orange County Sanitation District (hereinafter referred to as "OC San") and Pipe and Plant Solutions, Inc. (hereinafter referred to as "Contractor"), and collectively referred to herein as the "Parties."

RECITALS

WHEREAS, OC San desires to retain the services of Contractor for sonar inspection of large diameter sewers and siphons ("Services") as described in Exhibit "A" attached hereto and incorporated herein by this reference; and

WHEREAS, Contractor is qualified to perform the Services by virtue of experience, training, education, and expertise; and

WHEREAS, OC San desires to engage Contractor to provide the Services; and

WHEREAS, OC San selected Contractor to provide the Services in accordance with Ordinance No. OC SAN-56; and

WHEREAS, on November 16, 2022, OC San's Board of Directors, by minute order, authorized execution of this Contract.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and benefits specified below, the Parties agree as follows:

1. General.

- 1.1 This Contract and all exhibits hereto are made by OC San and the Contractor.
- 1.2 The following exhibits, in order of precedence, are incorporated by reference and made part of this Contract.

Exhibit "A" – Scope of Work
Exhibit "B" – Proposal and Cost Matrix
Exhibit "C" – Determined Insurance Requirement Form
Exhibit "D" – Contractor Safety Standards
Exhibit "E" – Human Resources Policies
- 1.3 In the event of any conflict or inconsistency between the provisions of this Contract and any of the provisions of the exhibits hereto, the provisions in the Contract shall control and thereafter the provisions in the document highest in precedence shall be controlling.
- 1.4 Except as expressly provided otherwise, OC San accepts no liability for any expenses, losses, or actions incurred or undertaken by Contractor as a result of work performed in anticipation of acquisition of the Services by OC San.
- 1.5 Work Hours: Shall be as specified in Exhibit "A."
- 1.6 Days: Shall mean calendar days, unless otherwise noted.

- 1.7 OC San holidays (non-working days) are as follows: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, and Christmas Day.
- 1.8 Work: Shall mean all work, labor, and materials necessary to provide the Services.
- 1.9 The provisions of this Contract may be amended or waived only by an amendment executed by authorized representatives of both Parties.
- 1.10 The various headings in this Contract are inserted for convenience only and shall not affect the meaning or interpretation of this Contract or any paragraph or provision hereof.

2. Scope of Work.

- 2.1 Contractor shall perform the Services identified in Exhibit "A" in accordance with generally accepted industry and professional standards.
- 2.2 Modifications to Scope of Work. OC San shall have the right to modify the Scope of Work at any time. All modifications must be made by an amendment signed by both Parties.
- 2.3 Familiarity with Work. By executing this Contract, Contractor warrants that: (a) it has investigated the work to be performed; and (b) it understands the facilities, difficulties, and restrictions of the work under this Contract. Should Contractor discover any latent or unknown condition materially differing from those inherent in the work or as represented by OC San, it shall immediately inform OC San of this and shall not proceed, except at Contractor's risk, until written instructions are received from OC San.
- 2.4 Performance. Time is of the essence in the performance of the provisions hereof.

3. Contract Term.

- 3.1 The Services shall be completed within one hundred sixty-five (165) calendar days from the effective date of the Notice to Proceed.
- 3.2 Extensions. The term of this Contract may be extended only by an amendment signed by both Parties.

4. Compensation.

- 4.1 As compensation for the Services provided under this Contract, OC San shall pay Contractor a total amount not to exceed Three Hundred Forty-four Thousand, Nine Hundred Forty-nine Dollars (\$344,949.00).
- 4.2 Contractor shall provide OC San with all required premiums and/or overtime work at no charge beyond the amount specified above.

5. Payments and Invoicing.

- 5.1 OC San shall pay itemized invoices for work completed in accordance with Exhibit "A" at the prices identified in Exhibit "B", thirty (30) days from receipt of the invoice and after approval by OC San's Project Manager or designee. OC San shall be the determining party, in its sole discretion, as to whether the Services have been satisfactorily completed.

5.2 Contractor shall submit its invoices to OC San Accounts Payable by electronic mail to APStaff@OCSan.gov. In the subject line include "INVOICE" and the Purchase Order Number.

6. California Department of Industrial Relations Registration and Record of Wages.

6.1 To the extent Contractor's employees and/or its subcontractors perform work related to this Contract for which Prevailing Wage Determinations have been issued by the California Department of Industrial Relations (DIR) as more specifically defined under Labor Code section 1720 et seq., prevailing wages are required to be paid for applicable work under this Contract. It is Contractor's responsibility to interpret and implement any prevailing wage requirements and Contractor agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws.

6.2 Contractor and its subcontractors shall comply with the registration requirements of Labor Code section 1725.5. Pursuant to Labor Code section 1771.4(a)(1), the work is subject to compliance monitoring and enforcement by the California Department of Industrial Relations (DIR).

6.3 Pursuant to Labor Code section 1773.2, a copy of the prevailing rate of per diem wages is available upon request at OC San's principal office. The prevailing rate of per diem wages may also be found at the DIR website for prevailing wage determinations at <http://www.dir.ca.gov/DLSR/PWD>.

6.4 Contractor and its subcontractors shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations section 16461(e). Pursuant to Labor Code sections 1773.2 and 1771.4(a)(2), Contractor shall post a copy of the prevailing rate of per diem wages at the job site.

6.5 Contractor and its subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code section 1776. Contractor and its subcontractors shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3). Pursuant to Labor Code section 1776, the Contractor and its subcontractors shall furnish a copy of all certified payroll records to OC San and/or the general public upon request, provided the public request is made through OC San, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement of the Department of Industrial Relations. Pursuant to Labor Code section 1776(h), penalties for non-compliance with a request for payroll records may be deducted from progress payments.

6.5.1 As a condition to receiving payments, Contractor agrees to present to OC San, along with any request for payment, all applicable and necessary certified payrolls and other required documents for the period covering such payment request. Pursuant to Title 8, California Code of Regulations section 16463, OC San shall withhold any portion of a payment, up to and including the entire payment amount, until certified payroll forms and any other required documents are properly submitted. In the event certified payroll forms do not comply with the requirements of Labor Code section 1776, OC San may continue to withhold sufficient funds to cover estimated wages and penalties under the Contract.

6.6 The Contractor and its subcontractors shall comply with Labor Code section 1774 and section 1775. Pursuant to Labor Code section 1775, the Contractor and any of its subcontractors shall forfeit to OC San a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any work.

6.6.1 In addition to the penalty and pursuant to Labor Code section 1775, 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 shall be paid to each worker by the Contractor or its subcontractor.

6.7 Contractor and its subcontractors shall comply with Labor Code sections 1810 through 1815. Contractor and its subcontractors shall restrict working hours to eight (8) hours per day and forty (40) hours per week, except that work performed in excess of those limits shall be permitted upon compensation for all excess hours worked at not less than one and one-half (1.5) times the basic rate of pay, as provided in Labor Code section 1815. The Contractor shall forfeit, as a penalty to OC San, twenty-five dollars (\$25) per worker per calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Labor Code sections 1810 through 1815.

6.8 Contractor and its subcontractors shall comply with Labor Code sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices by Contractor or any subcontractor.

6.9 Contractor shall include, at a minimum, a copy of the following provisions in any contract it enters into with any subcontractor: Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860, and 1861.

6.10 Pursuant to Labor Code sections 1860 and 3700, the Contractor and its subcontractors will be required to secure the payment of compensation to employees. Pursuant to Labor Code section 1861, Contractor, by accepting this contract, certifies that:

“I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

Contractor shall ensure that all its contracts with its subcontractors provide the provision above.

7. **Damage to OC San’s Property.** Any of OC San’s property damaged by Contractor, any subcontractor, or by the personnel of either will be subject to repair or replacement by Contractor at no cost to OC San.

8. **Freight (F.O.B. Destination).** Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.

9. **Audit Rights.** Contractor agrees that, during the term of this Contract and for a period of three (3) years after its expiration or termination, OC San shall have access to and the right to examine any directly pertinent books, documents, and records of Contractor relating to the invoices submitted by Contractor pursuant to this Contract.
10. **Contractor Safety Standards and Human Resources Policies.** OC San requires Contractor and its subcontractor(s) to follow and ensure their employees follow all Federal, State, and local regulations as well as the Contractor Safety Standards while working at OC San locations. If, during the course of the Contract, it is discovered that the Contractor Safety Standards do not comply with Federal, State, or local regulations, the Contractor is required to follow the most stringent regulatory requirement at no additional cost to OC San. Contractor, its subcontractors, and all of their employees shall adhere to the safety requirements in Exhibit "A," all applicable Contractor Safety Standards in Exhibit "D," and the Human Resources Policies in Exhibit "E."
11. **Insurance.** Contractor and all its subcontractors shall purchase and maintain, throughout the term of this Contract and any periods of warranty or extensions, insurance in amounts equal to the requirements set forth in the signed Exhibit "C" – Determined Insurance Requirement Form. Contractor shall not commence work under this Contract until all required insurance is obtained in a form acceptable to OC San, nor shall Contractor allow any subcontractor to commence service pursuant to a subcontract until all insurance required of the subcontractor has been obtained. Failure to obtain and maintain the required insurance coverage shall result in termination of this Contract.
12. **Indemnification and Hold Harmless Provision.** Contractor shall assume all responsibility for damages to property and/or injuries to persons, including accidental death, which may arise out of or may be caused by Contractor's Services under this Contract, or by its subcontractor(s), or by anyone directly or indirectly employed by Contractor, and whether such damage or injury shall accrue or be discovered before or after the termination of the Contract. Except as to the sole active negligence of or willful misconduct of OC San, Contractor shall indemnify, protect, defend, and hold harmless OC San, its elected and appointed officials, officers, agents, and employees from and against any and all claims, liabilities, damages, or expenses of any nature, including attorneys' fees: (a) for injury to or death of any person, or damage to property, or interference with the use of property arising out of or in connection with Contractor's performance under the Contract, and/or (b) on account of use of any copyrighted or uncopyrighted material, composition, or process; or any patented or unpatented invention, article, or appliance furnished or used under the Contract, and/or (c) on account of any goods and services provided under this Contract. This indemnification provision shall apply to any acts or omissions, willful misconduct, or negligent misconduct, whether active or passive, on the part of Contractor or anyone employed by or working under Contractor. To the maximum extent permitted by law, Contractor's duty to defend shall apply whether or not such claims, allegations, lawsuits, or proceedings have merit or are meritless; or which involve claims or allegations that any of the parties to be defended were actively, passively, or concurrently negligent; or which otherwise assert that the parties to be defended are responsible, in whole or in part, for any loss, damage, or injury. Contractor agrees to provide this defense immediately upon written notice from OC San, and with well qualified, adequately insured, and experienced legal counsel acceptable to OC San. This section shall survive the expiration or early termination of the Contract.
13. **Independent Contractor.** The relationship between the Parties hereto is that of an independent contractor and nothing herein shall be deemed to make Contractor an OC San

employee. During the performance of this Contract, Contractor and its officers, employees, and agents shall act in an independent capacity and shall not act as OC San's officers, employees, or agents. Contractor and its officers, employees, and agents shall obtain no rights to any benefits which accrue to OC San's employees.

14. **Subcontracting and Assignment.** Contractor shall not delegate any duties nor assign any rights under this Contract without the prior written consent of OC San. Any such attempted delegation or assignment shall be void.
15. **Disclosure.** Contractor agrees not to disclose, to any third party, data or information generated from this Contract without the prior written consent from OC San.
16. **Non-Liability of OC San Officers and Employees.** No officer or employee of OC San shall be personally liable to Contractor, or any successor-in-interest, in the event of any default or breach by OC San, or for any amount which may become due to Contractor or to its successor, or for breach of any obligation under the terms of this Contract.
17. **Third-Party Rights.** Nothing in this Contract shall be construed to give any rights or benefits to anyone other than OC San and Contractor.
18. **Applicable Laws and Regulations.** Contractor shall comply with all applicable Federal, State, and local laws, rules, and regulations. Contractor also agrees to indemnify and hold OC San harmless from any and all damages and liabilities assessed against OC San as a result of Contractor's noncompliance therewith. Any provision required by law to be included herein shall be deemed included as a part of this Contract whether or not specifically included or referenced.
19. **Licenses, Permits, Ordinances, and Regulations.** Contractor represents and warrants to OC San that it has obtained all licenses, permits, qualifications, and approvals of whatever nature that are legally required to provide the Services. Any and all fees required by Federal, State, County, City, and/or municipal laws, codes, and/or tariffs that pertain to the work performed under this Contract will be paid by Contractor.
20. **Regulatory Requirements.** Contractor shall perform all work under this Contract in strict conformance with applicable Federal, State, and local regulatory requirements including, but not limited to, 40 CFR 122, 123, 124, 257, 258, 260, 261, and 503, Title 22, 23, and Water Codes Division 2.
21. **Environmental Compliance.** Contractor shall, at its own cost and expense, comply with all Federal, State, and local environmental laws, regulations, and policies which apply to the Contractor, its subcontractors, and the Services, including, but not limited to, all applicable Federal, State, and local air pollution control laws and regulations.
22. **South Coast Air Quality Management District's Requirements.** It is Contractor's responsibility to ensure that all equipment furnished and installed be in accordance with the latest rules and regulations of the South Coast Air Quality Management District (SCAQMD). All Contract work practices, which may have associated emissions such as sandblasting, open field spray painting, or demolition of asbestos containing components or structures shall comply with the appropriate rules and regulations of SCAQMD.

23. Dispute Resolution.

23.1 In the event of a dispute as to the construction or interpretation of this Contract, or any rights or obligations hereunder, the Parties shall first attempt, in good faith, to resolve the dispute by mediation. The Parties shall mutually select a mediator to facilitate the resolution of the dispute. If the Parties are unable to agree on a mediator, the mediation shall be conducted in accordance with the Commercial Mediation Rules of the American Arbitration Agreement, through the alternate dispute resolution procedures of Judicial Arbitration through Mediation Services of Orange County (“JAMS”), or any similar organization or entity conducting an alternate dispute resolution process.

23.2 In the event the Parties are unable to timely resolve the dispute through mediation, the issues in dispute shall be submitted to arbitration pursuant to Code of Civil Procedure, Part 3, Title 9, sections 1280 et seq. For such purpose, an agreed arbitrator shall be selected, or in the absence of agreement, each party shall select an arbitrator, and those two (2) arbitrators shall select a third. Discovery may be conducted in connection with the arbitration proceeding pursuant to Code of Civil Procedure section 1283.05. The arbitrator, or three (3) arbitrators acting as a board, shall take such evidence and make such investigation as deemed appropriate and shall render a written decision on the matter in question. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California. The arbitrator’s decision and award shall be subject to review for errors of fact or law in the Superior Court for the County of Orange, with a right of appeal from any judgment issued therein.

24. Remedies. In addition to other remedies available in law or equity, if the Contractor fails to make delivery of the goods and Services or repudiates its obligations under this Contract, or if OC San rejects the goods or Services or revokes acceptance of the goods and Services, OC San may (a) cancel the Contract; (b) recover whatever amount of the purchase price OC San has paid, and/or (c) “cover” by purchasing, or contracting to purchase, substitute goods and Services for those due from Contractor. In the event OC San elects to “cover” as described in (c), OC San shall be entitled to recover from Contractor as damages the difference between the cost of the substitute goods and Services and the Contract price, together with any incidental or consequential damages.

25. Force Majeure. Neither party shall be liable for delays caused by accident, flood, acts of God, fire, labor trouble, war, acts of government, or any other cause beyond its control, but the affected party shall use reasonable efforts to minimize the extent of the delay. Work affected by a force majeure condition may be rescheduled by mutual consent of the Parties.

26. Termination.

26.1 OC San reserves the right to terminate this Contract for its convenience, with or without cause, in whole or in part, at any time, by written notice from OC San. Upon receipt of a termination notice, Contractor shall immediately discontinue all work under this Contract (unless the notice directs otherwise). OC San shall thereafter, within thirty (30) days, pay Contractor for work performed (cost and fee) through the date of termination. Contractor expressly waives any claim to receive anticipated profits to be earned during the uncompleted portion of this Contract. Such notice of termination shall terminate this Contract and release OC San from any further fee, cost, or claim hereunder by Contractor other than for work performed through the date of termination.

26.2 OC San reserves the right to terminate this Contract immediately upon OC San's determination that Contractor is not complying with the Scope of Work requirements, if the level of service is inadequate, or for any other default of this Contract.

26.3 OC San may also immediately terminate this Contract for default, in whole or in part, by written notice to Contractor:

- if Contractor becomes insolvent or files a petition under the Bankruptcy Act; or
- if Contractor sells its business; or
- if Contractor breaches any of the terms of this Contract; or
- if the total amount of compensation exceeds the amount authorized under this Contract.

26.4 All OC San's property in the possession or control of Contractor shall be returned by Contractor to OC San on demand or at the expiration or early termination of this Contract, whichever occurs first.

27. **Attorney's Fees.** If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Contract, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which the prevailing party may be entitled.

28. **Waiver.** The waiver by either party of any breach or violation of, or default under, any provision of this Contract shall not be deemed a continuing waiver by such party of any other provision or of any subsequent breach or violation of this Contract or default thereunder. Any breach by Contractor to which OC San does not object shall not operate as a waiver of OC San's rights to seek remedies available to it for any subsequent breach.

29. **Severability.** If any section, subsection, or provision of this Contract; or any agreement or instrument contemplated hereby; or the application of such section, subsection, or provision is held invalid, the remainder of this Contract or instrument in the application of such section, subsection, or provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby, unless the effect of such invalidity shall be to substantially frustrate the expectations of the Parties.

30. **Survival.** The provisions of this Contract dealing with payment, warranty, indemnity, and forum for enforcement shall survive expiration or early termination of this Contract.

31. **Governing Law.** This Contract shall be governed by and interpreted under the laws of the State of California and the Parties submit to jurisdiction in the County of Orange in the event any action is brought in connection with this Contract or the performance thereof.

32. **Notices.**

32.1 All notices under this Contract must be in writing. Written notice shall be delivered by personal service, by electronic telecommunication, or sent by registered or certified mail, postage prepaid, return receipt requested, or by any other overnight delivery service which delivers to the noticed destination and provides proof of delivery to the sender. Rejection or other refusal to accept or the inability to deliver because of changed address

for which no notice was given as provided hereunder shall be deemed to be receipt of the notice, demand, or request sent. All notices shall be effective when first received at the following addresses:

OC San: Donald Herrera
Senior Buyer
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708
DHerrera@OCSan.gov

Contractor: William Gilmartin IV
President
Pipe and Plant Solutions, Inc.
600 Castro Street
San Leandro, CA 94557
BGilmartin@PipeandPlant.com

32.2 Each party shall provide the other party written notice of any change in address as soon as practicable.

33. **Read and Understood.** By signing this Contract, Contractor represents that it has read and understood the terms and conditions of the Contract.
34. **Authority to Execute.** The persons executing this Contract on behalf of the Parties warrant that they are duly authorized to execute this Contract and that by executing this Contract, the Parties are formally bound.
35. **Entire Agreement.** This Contract constitutes the entire agreement of the Parties and supersedes all prior written or oral communications and all contemporaneous oral agreements, understandings, and negotiations between the Parties with respect to the subject matter hereof.

[Intentionally left blank. Signatures follow on the next page.]

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Contract to be signed by their duly authorized representatives.

ORANGE COUNTY SANITATION DISTRICT

Dated: _____

By: _____

Chad P. Wanke
Chair, Board of Directors

Dated: _____

By: _____

Kelly A. Lore
Clerk of the Board

Dated: _____

By: _____

Ruth Zintzun
Purchasing & Contracts Manager

PIPE AND PLANT SOLUTIONS, INC.

Dated: _____

By: _____

Print Name and Title of Officer

CMM

Exhibit “A”
SCOPE OF WORK

EXHIBIT A
SCOPE OF WORK
Sonar Inspection of Large Diameter Sewers and Siphons
SPECIFICATION NO. S-2022-1327

1. **Background** – Orange County Sanitation District (OC San) is a public agency responsible for collecting, treating, and safely disposing of wastewater and its residuals for a population of 2.5 million inhabitants. This includes a collection system with approximately 364 miles of gravity sewers and 4 miles of inverted siphons. The purpose of this project is to perform sonar inspections of various large diameter sewers and siphons.

2. **General Description of the Work**

The work under this Contract is generally described by the following items:

A. **Sonar Inspection** – Provide sonar inspection of all pipeline segments included in Appendix A-1 and Appendix A-2 using high-resolution sonar units. Sonar units may be skid, float, or robotic tractor mounted and the best-suited configuration shall be selected for the pipe being inspected. Typical scan rate shall be two (2) to four (4) scans per foot.

If during the sonar inspection, the Contractor encounters a condition where public safety is threatened (such as, but not limited to, a pipe hole, pipe collapse, stoppage, blockage, and/or eminent sewer spill) the Contractor shall notify OC San's Control Center immediately at 714-593-7025.

If during the sonar inspection equipment is inside the sewer and cannot be retrieved, the Contractor shall not excavate the pipe to retrieve it without approval from OC San. Contractor shall inform the OC San Project Manager or designee immediately and submit a retrieval plan for approval. It is the Contractor's responsibility to remove the equipment and ensure that the sewer is not damaged.

Whenever non-remote powered and controlled winches are used to pull the equipment through a pipeline, telephone, radios, or other suitable means of communication shall be set up between the two (2) manholes of the section being inspected to ensure that adequate communication exists between members of the crew.

B. The Contractor shall visit all sites prior to performing sonar inspections. In areas requiring OC San support, Contractor shall request access from OC San at least two (2) weeks before inspecting said areas.

C. The Contractor shall reseal all currently sealed manhole covers with duct seal Cal Pico #CD-5, or equal, within twenty-four (24) hours after work is completed. OC San will provide the Contractor with the sealing material.

Deliverables

Draft summary reports for each pipeline segment inspection and associated digital photos/imagery, database file(s), etc. shall be provided to OC San within fourteen (14) calendar days of all inspections being completed. After receipt of all deliverables, OC San shall review and provide any comments to Contractor. Contractor shall address all OC San comments and return finalized summary reports within fourteen (14) calendar days of receiving OC San comments.

Summary reports shall include, at a minimum:

- a) Single PDF file for each pipeline segment inspected
- b) A summary page of the inspection with a table showing Manhole Numbers, Distance Profiled (feet), Debris (cubic feet), Average Water Level (inches) and Pipe Diameter (inches).
- c) A report for each pipeline that shall include:
 - a. A summary table showing observations along the length of inspection, including average debris depth (inches) and debris volume (cubic feet)
 - b. A profile graph showing Debris Height and Water Height along the pipeline length.
 - c. Inspection date
 - d. Inspection time
 - e. Contractor name
 - f. Operator name
 - g. Street name or location
 - h. Manhole number upstream
 - i. Manhole number downstream
 - j. Survey direction (downstream/upstream)
 - k. Pipe size
 - l. Pipe material
 - m. Pipe slope
 - n. Photos and graphics
 - o. Observation descriptions
 - p. Clock position of noted observations
 - q. Associated data
- d) For each pipeline segment, a single PDF file containing the summary page and inspection report shall be provided.
- e) Reports missing any of the above data will be rejected and shall be revised at no additional cost to OC San. If field work is required to correct the reports, it shall be done at no additional cost to OC San.

3. **Project Schedule and Progress Payments** –The Contractor shall submit a project schedule to the OC San Project Manager for approval. A suggested schedule is provided below but may be updated with the approval of the OC San Project Manager.

Milestones/Timeline	Deadline Kick-Off/Notice to Proceed (NTP)	Review Period (Calendar days)	Cumulative Calendar Days	Milestone Payment
Kick-Off Meeting	Day of NTP	N/A	1 day	N/A
Mobilization	Within 14 days of NTP	N/A	14 days	N/A
Progress Meeting	Within 60 days of NTP	N/A	60 days	N/A
Submit Draft Deliverables	Within 105 days of NTP	30 days	135 days	60%
Review Meeting	Within 135 days of NTP	N/A	135 days	N/A
Submit Final Deliverables	Within 165 days of NTP	N/A	165 days	40%

4. **Contractor Requirements**

The Contractor's supervisor(s) must be able to communicate both verbally and in writing with OC San staff as well as with his or her crew. All work and equipment utilized shall conform to FED-OSHA and Cal/OSHA Title 8 requirements including, but not limited to, work performed in confined spaces and/or gas hazardous environments. Contractor shall also comply with OC San's Contractor Safety Standards.

5. **Permits and Access** – Contractor shall prepare permit applications, submit permit applications, and acquire all permits required by Federal, State, County, and/or City for all aspects of the work performed within their jurisdiction including but not limited to traffic control and encroachment permits. Any and all fees required by Federal, State, County, and/or local laws, codes, and/or tariffs that pertain to work performed under the terms of this Contract shall be paid by the Contractor. Fees demanded for obtaining permits, including associated inspection fees and expenses of regulatory body inspectors shall be paid by the Contractor.

The Contractor shall visit all sites prior to performing sonar inspections. In areas requiring OC San support, Contractor shall request access from OC San at least two (2) weeks before inspecting said areas.

6. **Work Hours / Noise Requirements** – Typical work hours are identified as 7:00am to 4:30pm Monday through Thursday. However, some inspections will require the Contractor to work schedules outside of the normal OC San business hours during nights or weekends due to traffic conditions or permit requirements. Contractor's rate shall be applicable to all work hours.

Cities, the County, and the State may impose limited work hours and nighttime schedules to accomplish the assigned work tasks. Contractor is required to work within jurisdictional permits and to provide necessary equipment to meet local noise restrictions that may be imposed. Typical levels shall not exceed 50 decibels (dBA) measured at any residential property.

7. **Traffic Control** – All traffic control shall be in accordance with the latest Caltrans Manual on Uniform Traffic Control Devices (MUTCD). Additional local regulations shall have precedence. Safe and adequate pedestrian, bicyclist and vehicular access shall be provided in accordance with Section 600 of the Standard Specifications for Public Works Construction (The "Greenbook"), 2021 Edition.

Some locations involve working near a live railroad. If the worksite cannot be maintained to OC San's easement a separate access permit would be needed from the railroad right-of-way owner and shall be obtained by Contractor at no additional cost to OC San.

8. **Confined Space Procedure** – Manhole entry shall be coordinated with and approved by OC San's Risk Management-Safety Division prior to any entry being made. The applicable regulations include compliance with State and Federal OSHA requirements and OC San's Contractor Safety Standards. The Contractor shall provide a ventilation plan and confined space entry permit if confined space entry is required.

9. **OC SAN Equipment and Labor** – OC San equipment and labor, except for OC San's Project Manager or designee to monitor the work, shall not be utilized at any time by the

Contractor.

10. **Spill Reporting and Handling** – In the event of any Contractor related overflow or interruption/backup of residential service, the Contractor shall immediately notify OC San’s Control Center at (714) 593-7025 and shall contain and eliminate the overflow.

The Contractor shall be responsible for any fines levied by others, reimbursement of any agency incurred costs, damage, cleanup, restoration of flow, and any disruption of service costs to OC San customers as a result of Contractor’s work. In addition, Contractor is responsible for any and all costs incurred by the customers.

11. **Staff Assistance**

The Contractor will be assigned a single point of contact for this Contract (“OC San Project Manager”). Any meetings and/or correspondence related to this Contract shall be scheduled and approved by the OC San Project Manager or designee.

Contractor shall coordinate with OC San Project Manager or designee all nighttime work. OC San shall provide notifications to the public for nighttime work as required.

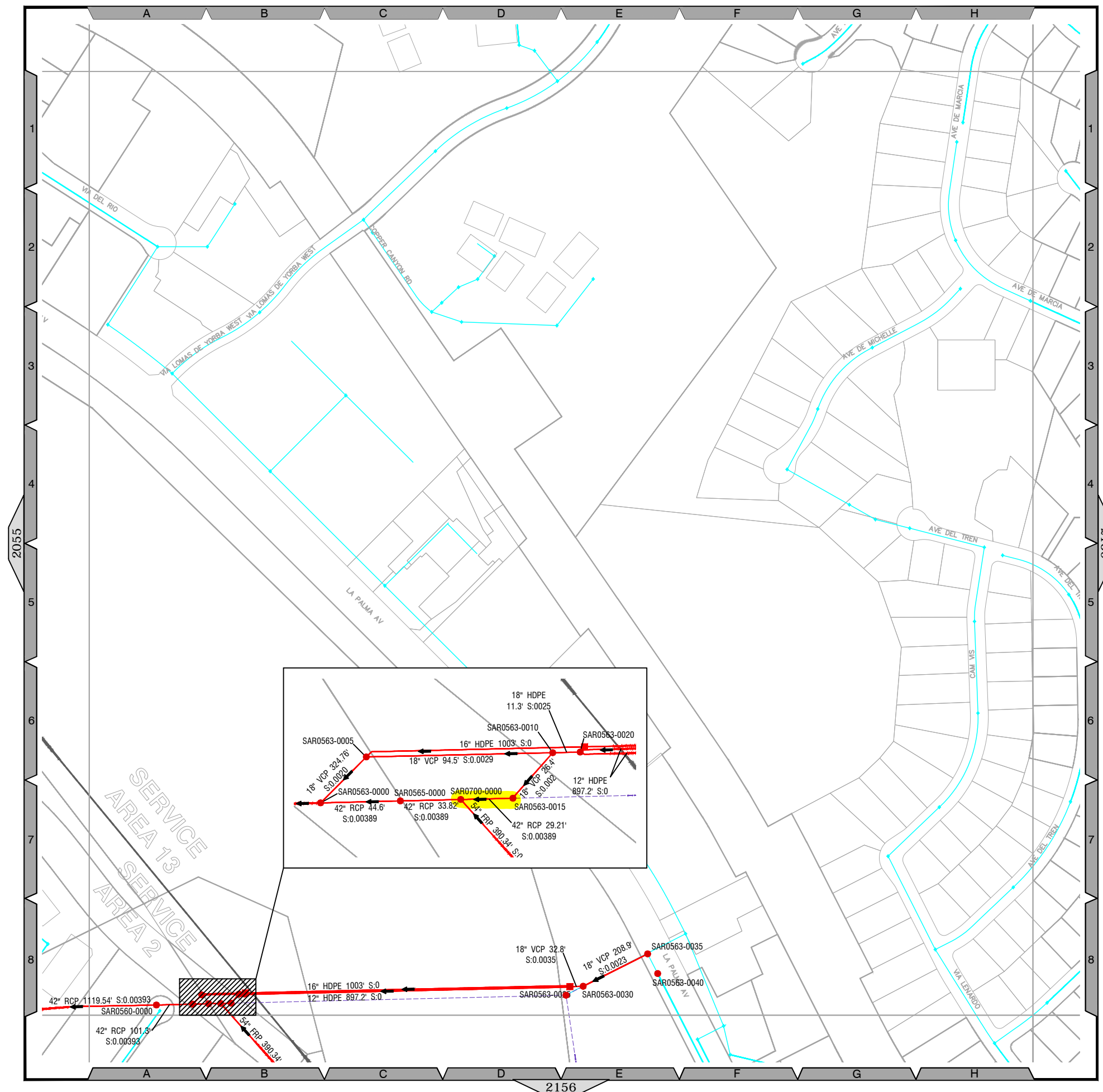
Appendix A-1: Sonar Locations, Approximate Flows, and Cleaning Information

Sewer Type	Pipeline Segment	Facility ID	Upstream MH	Downstream MH	Map Page	Subledger	Street	Diameter (in)	OCS D Map Length (ft)	Dry Weather Average Flow (MGD)	Dry Weather Minimum Flow Depth (in) ¹	Dry Weather Maximum Flow Depth (in) ¹	Last Cleaned Date
Gravity	1	BKR0010-0000:BKR0015-0000	BKR0015-0000	BKR0010-0000	4632	5301	EASEMENT	96 W x 72 H	377.5	16.1	14.3	28.3	-
Inverted Siphon	2	BKR0015-0000:BKR0020-0000	BKR0020-0000	BKR0015-0000	4632	5601	EASEMENT	66	503.0	16.1	-	-	2/12/2022
Gravity	3	BKR0020-0000:BKR0025-0000	BKR0025-0000	BKR0020-0000	4632	5601	EASEMENT	96 W x 84 H	1,427.5	15.7	11.5	23.4	-
Inverted Siphon	4	BKR0175-0000:BKR0180-0000	BKR0180-0000	BKR0175-0000	4737	5911	W BAKER ST	63	71.2	9.5	-	-	2/14/2022
Inverted Siphon	5	BKR0200-0000:BKR0205-0000	BKR0205-0000	BKR0200-0000	4738	5910	W BAKER ST	60	84.0	9.5	46.8	-	1/19/2022
Inverted Siphon	6	BKR0220-0000:BKR0225-0000	BKR0225-0000	BKR0220-0000	4739	5910	E BAKER ST	54	60.0	9.5	23.2	37.7	1/19/2022
Inverted Siphon	7	BKR0230-0000:BKR0235-0000	BKR0235-0000	BKR0230-0000	4839	5910	RED HILL AV	66	67.0	9.5	44.2	55.6	1/19/2022
Gravity	8	BUS0020-0000:BUS0025-0000	BUS0025-0000	BUS0020-0000	5230	5801	BROOKHURST ST	108	976.7	3.4	26.6	32.3	-
Gravity	9	CST0005-0000:CST0010-0000	CST0010-0000	CST0005-0000	5329	5801	EASEMENT	84	482.0	4.2	37.8	42.7	-
Gravity	10	CST0010-0000:CST0015-0000	CST0015-0000	CST0010-0000	5329	5801	EASEMENT	84	328.8	4.2	36.9	41.8	-
Gravity	11	CST0015-0000:CST0020-0000	CST0020-0000	CST0015-0000	5329	5801	EASEMENT	84	687.8	4.2	36.2	41.1	-
Gravity	12	CST0020-0000:CST0025-0000	CST0025-0000	CST0020-0000	5329	5801	EASEMENT	84	880.5	4.2	34.9	39.8	-
Gravity	13	CST0025-0000:CST0030-0000	CST0030-0000	CST0025-0000	5328	5817	EASEMENT	84	1,204.2	4.2	33.2	38.6	-
Gravity	14	CST0030-0000:CST0035-0000	CST0035-0000	CST0030-0000	5328	5817	EASEMENT	84	1,285.3	4.2	30.9	36.0	-
Gravity	15	CST0035-0000:CST0040-0000	CST0040-0000	CST0035-0000	5328	5817	EASEMENT	84	1,159.7	4.2	31.0	36.1	-
Inverted Siphon	16	CST0050-0000:CST0055-0000	CST0055-0000	CST0050-0000	5227	5817	EASEMENT	84	265.3	4.2	-	-	12/19/2021
Gravity	17	CST0055-0000:CST0060-0000	CST0060-0000	CST0055-0000	5227	5817	EASEMENT	84	412.4	4.2	11.7	18.0	-
Gravity	18	CST0060-0015:CST0060-0020	CST0060-0020	CST0060-0015	5127	5817	NEWLAND ST	48	599.0	2.2	8.9	15.7	-
Gravity	19	EUB0005-0000:EUB0010-0000	EUB0010-0000	EUB0005-0000	4532	5201	EUCLID ST	54	412.0	8.5	17.6	35.9	-
Gravity	20	EUB0010-0000:EUB0015-0000	EUB0015-0000	EUB0010-0000	4532	5201	EUCLID ST	54	287.4	8.5	16.7	35.3	-
Gravity	21	EUB0015-0000:EUB0020-0000	EUB0020-0000	EUB0015-0000	4532	5201	EUCLID ST	54	892.6	8.5	16.2	34.9	-
Inverted Siphon	22	EUB0560-0000:EUB0565-0000	EUB0565-0000	EUB0560-0000	2532	5201	N EUCLID ST	48	148.0	4.6	-	-	2/15/2022
Inverted Siphon	23	EUB0630-0000:EUB0635-0000	EUB0635-0000	EUB0630-0000	2232	5201	ORANGETHORPE AV	48	187.7	4.3	-	-	3/12/2022
Gravity	24	EUB0640-0000:EUB0645-0000	EUB0645-0000	EUB0640-0000	2233	5201	HILL AV	48	612.6	2.6	7.1	16.6	-
Gravity	25	EUB0645-0000:EUB0650-0000	EUB0650-0000	EUB0645-0000	2233	5201	RICHMAN AV	48	384.9	2.6	6.9	16.0	-
Gravity	26	EUB0650-0000:EUB0655-0000	EUB0655-0000	EUB0650-0000	2233	5201	KNEPP AV	48	125.3	2.6	6.5	15.5	-
Inverted Siphon	27	EUB0655-0000:EUB0660-0000	EUB0660-0000	EUB0655-0000	2233	5201	RICHMAN AV	48	223.5	2.6	-	-	3/12/2022
Inverted Siphon	28	IPD0035-0000:IPD0040-0000	IPD0040-0000	IPD0035-0000	5130	5301	BROOKHURST ST	96	88.5	34.0	65.8	91.8	2/10/2022
Inverted Siphon	29	IPD0055-0000:IPD0060-0000	IPD0060-0000	IPD0055-0000	5030	5301	CLIFF DR	96	133.9	34.0	-	-	2/10/2022
Gravity	30	IPD0110-0000:IPE0000-0005	IPE0000-0005	IPD0110-0000	4530	5301	ELLIS AV	96	810.0	0.0	28.7	54.9	-
Inverted Siphon	31	KNT0110-0000:KNT0115-0000	KNT0115-0000	KNT0110-0000	4227	5301	NEWLAND ST	84 W x 72 H	74.4	35.3	-	-	8/16/2020
Inverted Siphon	32	KNT0275-0020:KNT0275-0025	KNT0275-0025	KNT0275-0020	3623	5301	WESTMINSTER AV	48	97.0	9.1	17.9	28.6	3/12/2022
Inverted Siphon	33	KNT0410-0000:KNT0415-0000	KNT0415-0000	KNT0410-0000	2924	5301	KNOTT AV	51	50.6	12.0	46.5	102.0	2/14/2022
Inverted Siphon	34	KNT0430-0000:KNT0435-0000	KNT0435-0000	KNT0430-0000	2824	5301	W BALL RD	51	66.5	11.8	-	-	2/14/2022
Inverted Siphon	35	KNT0445-0000:KNT0450-0000	KNT0450-0000	KNT0445-0000	2724	5301	S KNOTT AV	51	92.1	11.5	-	-	2/14/2022
Gravity	36	MLR0160-0000:MLR0165-0000	MLR0165-0000	MLR0160-0000	4225	5301	UP RR	69	100.0	9.7	16.2	25.3	6/8/2021
Gravity	37	MLR0165-0000:MLR0170-0000	MLR0170-0000	MLR0165-0000	4225	5301	UP RR	69	192.3	9.7	16.3	25.2	6/8/2021
Inverted Siphon	38	MLR0490-0000:MLR0495-0000	MLR0495-0000	MLR0490-0000	2222	5301	VALLEY VIEW ST	45	81.8	2.6	-	-	2/22/2022
Gravity	39	NHP0015-0000:EUB0005-0000	EUB0005-0000	NHP0015-0000	4532	5201	EUCLID ST	54	320.0	8.5	22.2	40.1	-
Inverted Siphon	40	SAN0020-0000:SAN0025-0000	SAN0025-0000	SAN0020-0000	4532	5601	EASEMENT	48	510.0	6.4	-	-	2/10/2022
Gravity	41	SAN0025-0000:SAN0030-0000	SAN0030-0000	SAN0025-0000	4532	5601	EASEMENT	48	42.4	6.4	27.2	35.5	-
Inverted Siphon	42	SAN0115-0000:SAN0120-0000	SAN0120-0000	SAN0115-0000	4435	5101	UP RR	48	62.6	6.0	-	-	3/12/2022
Inverted Siphon	43	SAR0150-0000:SAR0155-0000	SAR0155-0000	SAR0150-0000	3438	5206	EASEMENT	78	65.2	29.5	17.0	25.8	8/29/2020
Inverted Siphon	44	SAR0195-0020:SAR0195-0025	SAR0195-0025	SAR0195-0020	3138	5201	E ORANGEWOOD AV	48	146.0	6.5	-	-	1/12/2022
Gravity	45	SAR0345-0000:SAR0345-0005	SAR0345-0005	SAR0345-0000	2343	5201	E LA PALMA AV	66	104.5	2.2	17.0	24.9	-
Gravity	46	SAR0345-0005:SAR0345-0010	SAR0345-0010	SAR0345-0005	2343	5201	E LA PALMA AV	66	1,147.1	2.2	17.0	24.9	-

Sewer Type	Pipeline Segment	Facility ID	Upstream MH	Downstream MH	Map Page	Subledger	Street	Diameter (in)	OCSD Map Length (ft)	Dry Weather Average Flow (MGD)	Dry Weather Minimum Flow Depth (in) ¹	Dry Weather Maximum Flow Depth (in) ¹	Last Cleaned Date
Gravity	47	SAR0345-0010:SAR0345-0015	SAR0345-0015	SAR0345-0010	2343	5201	N MILLER ST	66	302.8	2.2	11.7	19.8	-
Gravity	48	SAR0345-0015:SAR0345-0020	SAR0345-0020	SAR0345-0015	2343	5201	N MILLER ST	66	1,136.5	2.2	10.4	18.6	-
Gravity	49	SAR0345-0020:SAR0345-0025	SAR0345-0025	SAR0345-0020	2242	5201	E MIRALOMA AV	60	1,348.1	2.2	7.0	15.0	-
Gravity	50	SAR0700-0000:SAR0563-0015	SAR0563-0015	SAR0700-0000	2056	5210	EASEMENT	42	29.2	0.5	13.7	17.5	-
Inverted Siphon	51	SUN0095-0000:SUN0100-0000	SUN0100-0000	SUN0095-0000	4538	5701	SUNFLOWER AV	78	178.0	15.7	39.8	56.9	3/12/2022
Inverted Siphon	52	SUN0105-0000:SUN0110-0000	SUN0110-0000	SUN0105-0000	4538	5701	SUNFLOWER AV	60	203.5	15.5	-	-	3/12/2022
Inverted Siphon	53	SUN0185-0000:SUN0190-0000	SUN0190-0000	SUN0185-0000	4542	5401	RED HILL AV	54	113.7	7.5	-	-	1/24/2022

1. Blanks indicate fully surcharged pipelines.

TOTAL DISTANCE 21,642.5



MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
SAR0560-0000	2-14-4	1030+88.34	27.1	347	A	8
SAR0563-0000	2-41	2+00.00	30.35	353.1	A	8
SAR0563-0005	2-41	2+36.23	27.83	352.65	A	8
SAR0563-0010	2-41	10+33.81	27.56	352.75	B	8
SAR0563-0015	2-41	10+00.00	29.95	353.1	B	8
SAR0563-0020	2-41	10+51.81	27.43	352.75	B	8
SAR0563-0025	2-41	19+57.00	19.45	348.3	E	8
SAR0563-0030	2-41	19+19.14	19.23	348.3	E	8
SAR0563-0035	2-41	22+08.04	34.08	363.7	E	8
SAR0563-0040	2-41	22+70.00	13.28	364.0	E	8
SAR0565-0000	2-40	1032+35.00	30.3	350.8	B	8
SAR0570-0000	2-14-4	1042+44.28	22.4	346.8	E	8

LEGEND

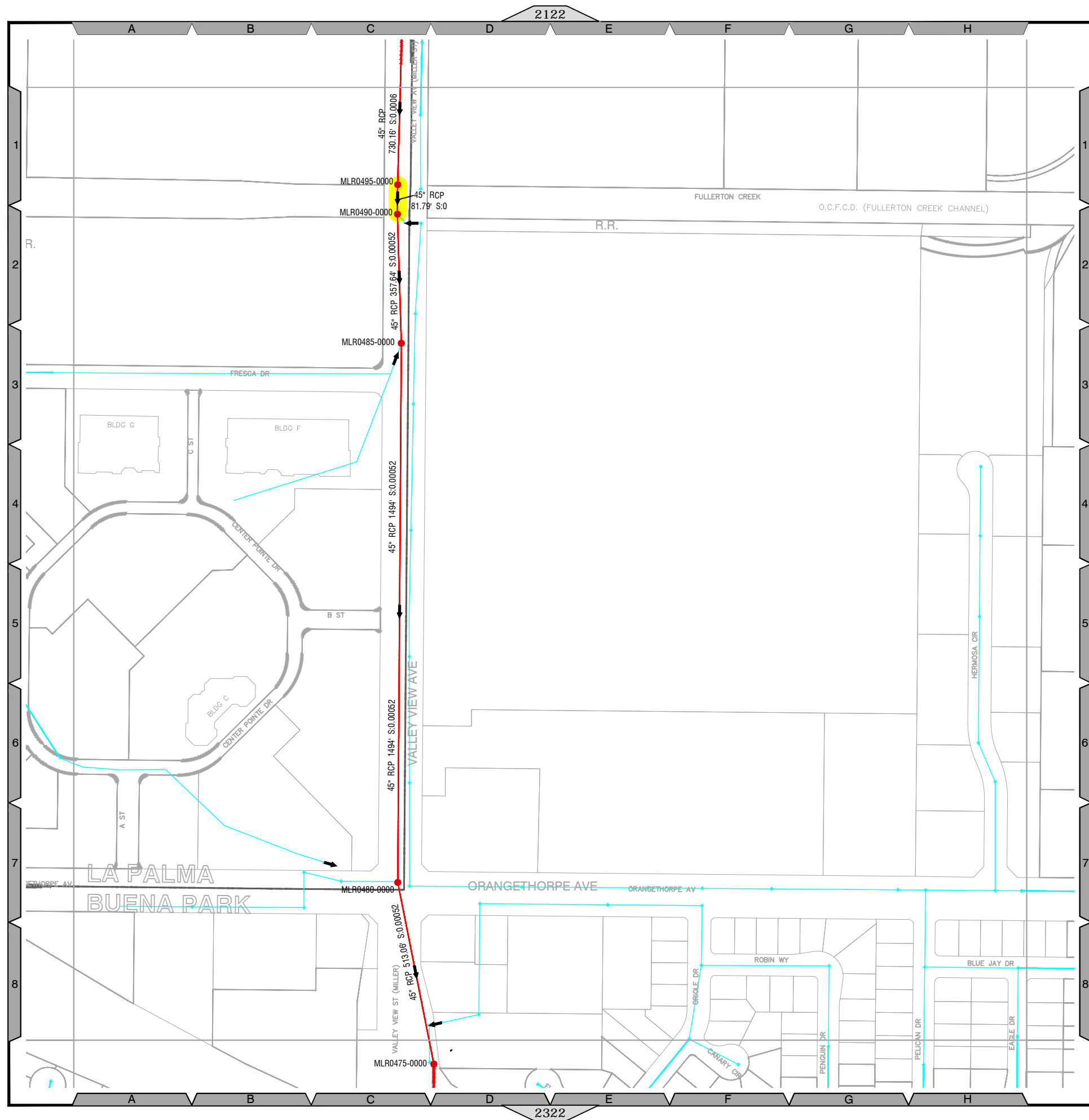
- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name

North arrow pointing up.

Scale bar: 0, 300, 600 FEET.

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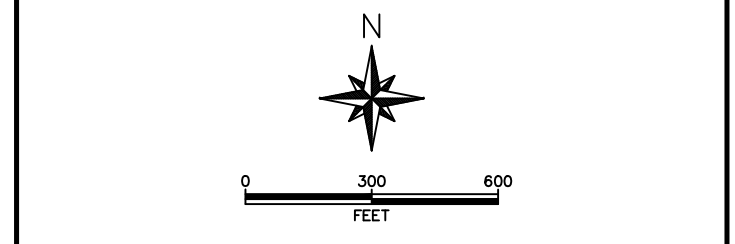


MANHOLE DATA TABLE

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MLR0480-0000	3-4A	1013+25.86	18	53.2	C	7
MLR0485-0000	3-4A	1028+09.00	19.2	55.1	C	3
MLR0490-0000	3-4A	1031+66.64	17.8	53.9	C	2
MLR0495-0000	3-4A	1032+48.16	18	53.4	C	1

LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name



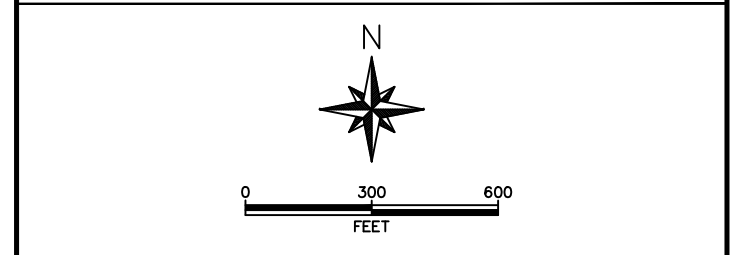
ORANGE COUNTY SANITATION DISTRICT

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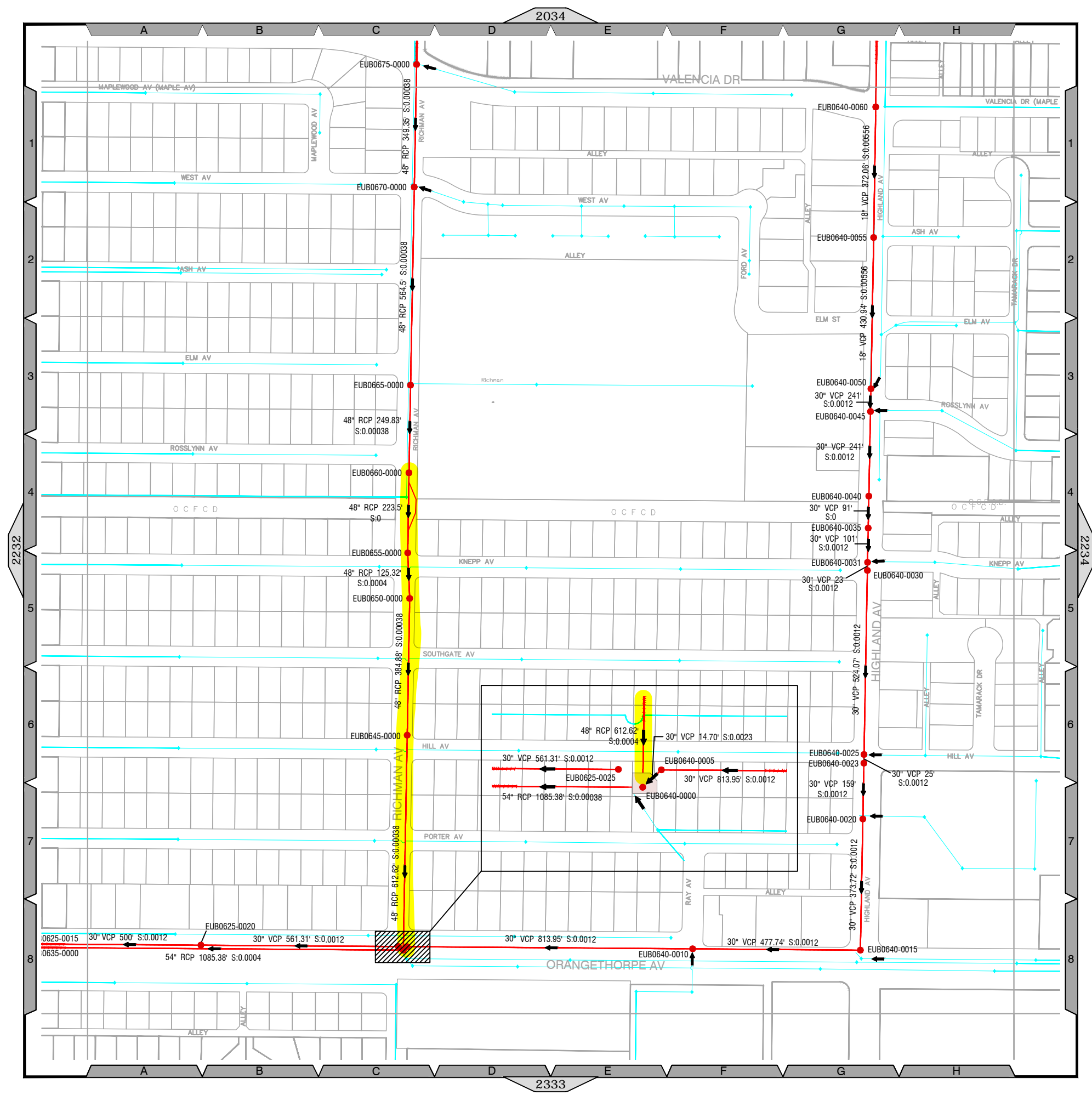


MANHOLE DATA TABLE						
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BUS0630-0000	2-G	97+50.00	7.9	120.5	A	8
BUS0635-0000	2-G	105+35.00	8.5	124.6	C	8
BUS0640-0000	2-10-3	1+29.85	13.2	133.78	E	8
EUB0600-0030	2-10-3	49+77.00	6.8	133	E	8
EUB0600-0035	2-10-3	50+59.53	7.1	133.4	E	8
EUB0600-0040	2-25	1+25.86	8.3	134.5	E	8
EUB0600-0045	2-25	1+77.79	8.3	134.7	E	8
EUB0625-0000	2-26-3	24+72.16	8.5	134.5	E	8
EUB0625-0005	2-26-3	25+00.36	8.5	134.5	E	8
EUB0625-0010	2-B	14+71.31	6.6	131	H	8
EUB0625-0015	2-B	16+00.00	6.7	131.3	H	8
EUB0630-0000	2-25	8+59.61	9.8	136.6	G	8
EUB0635-0000	2-25	10+52.00	9.8	137.2	H	8

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name



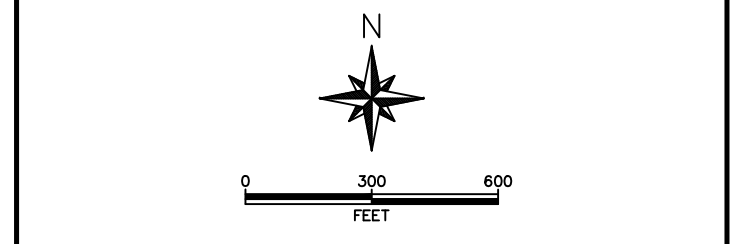
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
EUB0625-0020	2-B	21+00.00	7.8	133	A	8
EUB0625-0025	2-B	26+61.31	8.5	134.4	C	8
EUB0640-0000	2-25	21+37.38	11.7	140	C	8
EUB0640-0005	2-25	26+86.31	8.3	140	C	8
EUB0640-0010	2-B	35+00.26	9.9	136.8	F	8
EUB0640-0015	2-B	39+78.00	11.1	138.6	G	8
EUB0640-0020	2-B	44+08.72	11.4	139.1	G	7
EUB0640-0023	2-B	45+67.00	11	139	G	6
EUB0640-0025	2-B	45+92.00	11.2	139.3	G	6
EUB0640-0030	2-B	51+16.07	11.4	140.2	G	5
EUB0640-0031	2-B	51+39.07	11.4	140.3	G	5
EUB0640-0035	2-B	52+37.00	12	140.9	G	4
EUB0640-0040	2-B	53+28.00	11.9	140.9	G	4
EUB0640-0045	2-B	55+89.00	11.5	140.8	G	3
EUB0640-0050	2-B	56+34.00	11.6	141	G	3
EUB0640-0055	2-B	60+64.96	10	141.8	G	2
EUB0640-0060	2-B	64+37.00	9.2	142.9	G	1
EUB0645-0000	2-25	27+50.00	10.9	139.6	C	6
EUB0650-0000	2-25	31+39.56	11.1	140	C	5
EUB0655-0000	2-25	35+69.49	11	140	C	5
EUB0660-0000	2-25	34+97.67	9.6	139.7	C	4
EUB0665-0000	2-25	37+47.50	9.8	140	C	3
EUB0670-0000	2-25	43+12.00	10	140.6	C	1

LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- Pump Station
- Force Main
- Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- Historic Street Name (SANTA ANA AV)

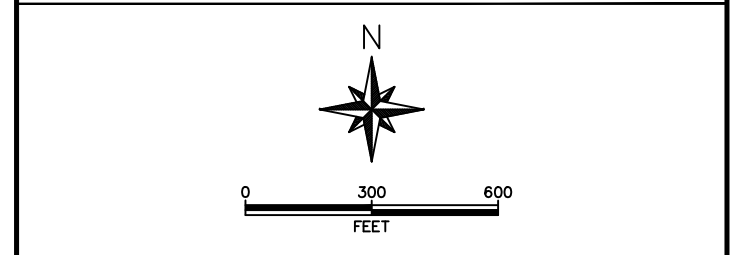


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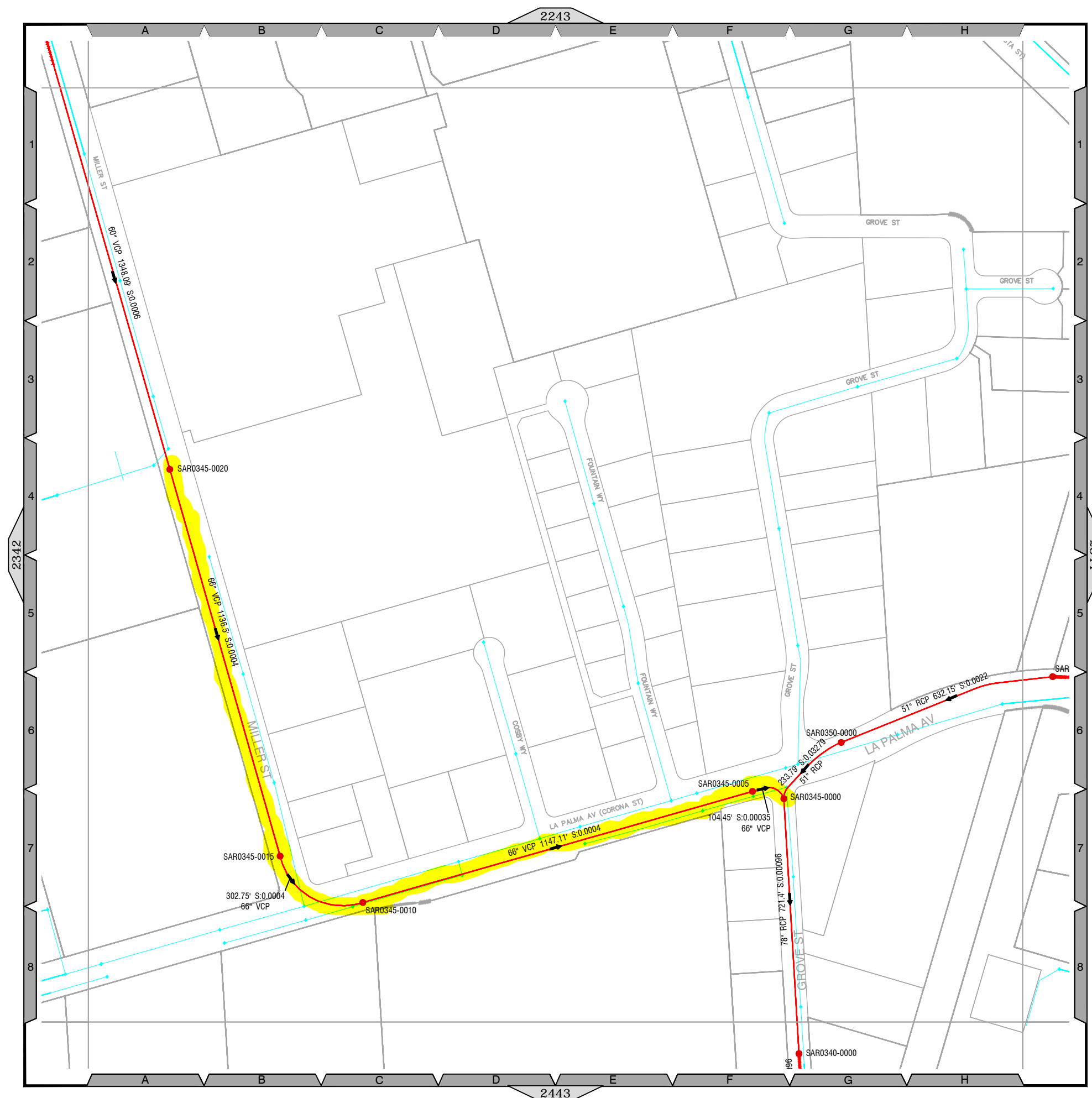


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
NHP0410-0135	2-7	138+81.27	15.6	225.5	F	8
NHP0410-0140	2-7	142+66.10	15.5	225.5	G	8
NHP0410-0145	2-18	144+76.10	15.5	227	H	8
SAR0345-0025	2-18	40+94.45	18.9	226	H	8
SAR0345-0030	2-18	53+06.45	18.7	227.7	G	4
SAR0345-0035	2-18	64+89.99	16.9	227.6	F	1
SAR0345-0040	2-18	65+78.13	19	230.2	F	1
SAR0345-0265	2-7	145+40.10	15.6	227	H	8

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name (SANTA ANA AV)



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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
SAR0345-0000	2-14-2	668+38.60	28.5	232.8	F	7
SAR0345-0005	2-18	1+60.00	27.3	232.5	F	7
SAR0345-0010	2-18	13+07.11	23.7	229.4	C	7
SAR0345-0015	2-18	16+09.86	23.7	229.5	B	7
SAR0345-0020	2-18	27+46.36	22.8	229	A	4
SAR0350-0000	2-14-3	678+06.57	20.7	233.4	G	6

LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- Historic Street Name (SANTA ANA AV)

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ORANGE COUNTY SANITATION DISTRICT

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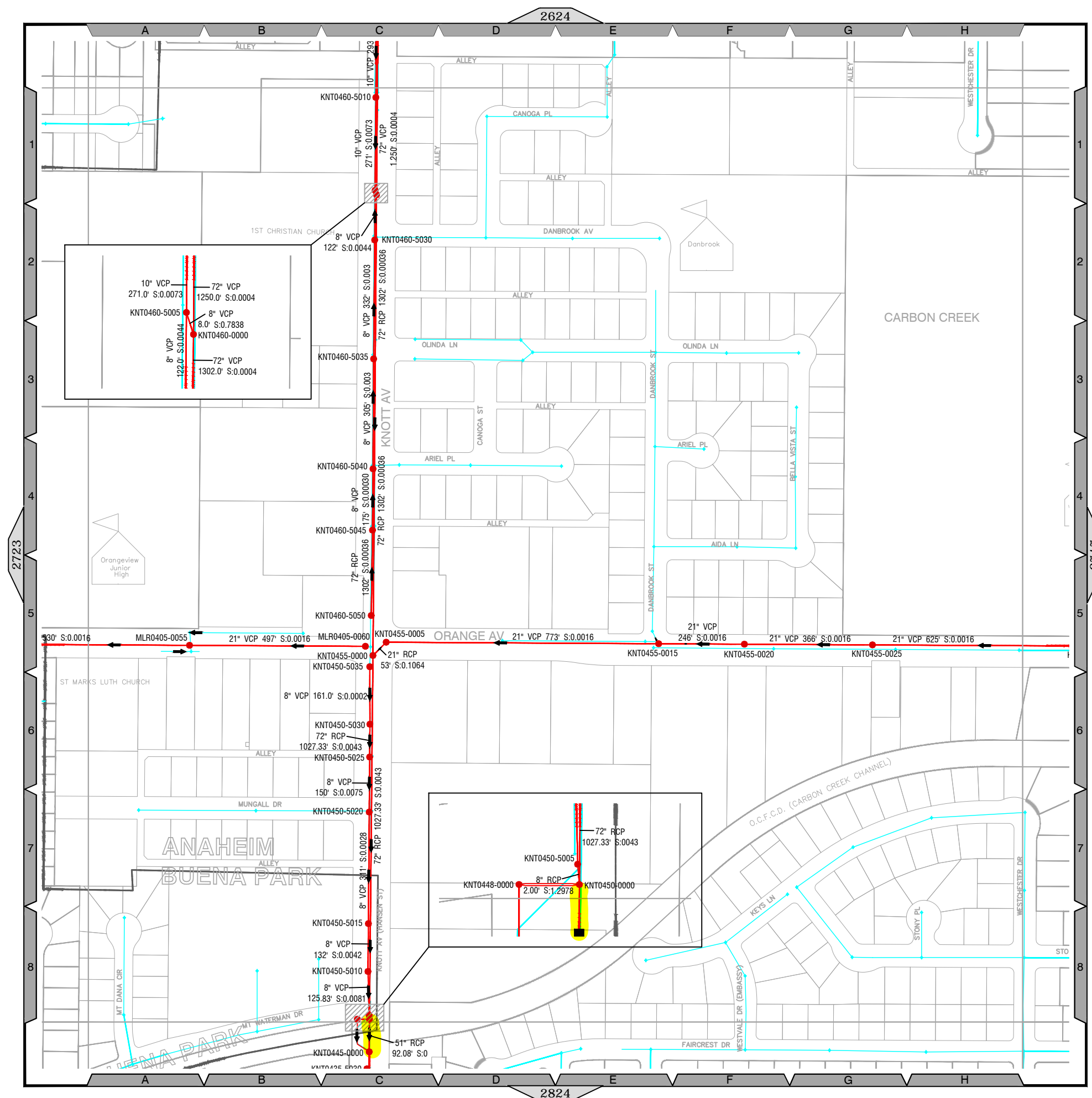


MANHOLE DATA TABLE						
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EUB0455-0110	1-98	521+30.48	16.2	130.9	C	8
EUB0455-0115	1-98	532+63.80	14.3	130	C	6
EUB0455-0120	2-26-3	533+38.80	13.3	130	C	5
EUB0455-0125	2-26-3	535+25.03	15	130.5	C	5
EUB0455-0130	2-10-6	539+13.93	15.1	131.8	C	4
EUB0455-0135	2-10-6	540+14.32	14.9	131.9	C	3
EUB0455-0140	2-10-6	541+65.00	14	131.3	C	3
EUB0455-0145	2-10-6	545+93.81	14.6	132.3	C	2
EUB0545-0000	1-98	41+57.85	16.7	130.8	C	8
EUB0547-0000	2-26-3	10+56.00	11.83	132	C	8
EUB0550-0000	2-26-3	15+09.45	16.4	131	C	6
EUB0555-0000	2-26-3	18+10.00	15.1	130	C	5
EUB0560-0000	2-26-3	23+61.00	16	131.5	C	4
EUB0565-0000	2-26-3	25+09.00	15.3	131.6	C	3
EUB0570-0000	2-26-3	30+44.50	15.9	132.8	C	2

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name

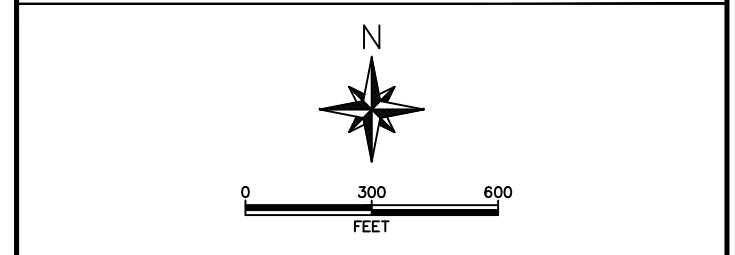
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
KNT0448-0000	2-68	1+10.00	6.3	60.7	C	8
KNT0450-0000	3-20-2	629+20.67	19.2	58.7	C	8
KNT0450-5005	3-20-2	629+27.17	13.27	58.6	C	8
KNT0450-5010	3-20-2	630+55.00	12.75	59.1	C	8
KNT0450-5015	3-20-2	631+91.00	12.89	59.8	C	8
KNT0450-5020	3-20-2	635+06.00	13.2	61	C	7
KNT0450-5025	3-20-2	636+60.00	9.72	61.6	C	6
KNT0450-5030	3-20-2	637+55.00	10.11	62	C	6
KNT0450-5035	3-20-2	639+20.00	10.18	62.1	C	5
KNT0455-0000	3-20-2	639+48.00	22.2	62.2	C	5
KNT0455-0005	3-20-2	640+01.00	16.6	62.2	C	5
KNT0455-0015	3-6	60+92.00	17.7	65	E	5
KNT0455-0020	3-6	62+57.00	18	65	F	5
KNT0455-0025	3-6	67+00.00	15.8	64	G	5
KNT0460-0000	3-20-2	652+50.00	25	65.5	C	1
KNT0460-5005	3-20-2	652+54.00	15.17	65.5	C	1
KNT0460-5010	3-20-2	655+33.00	13.55	62.2	C	1
KNT0460-5030	3-20-2	651+28.00	14.9	65.8	C	2
KNT0460-5035	3-20-2	647+92.00	14.08	66	C	3
KNT0460-5040	3-20-2	644+83.00	12.35	65.2	C	4
KNT0460-5045	3-20-2	643+04.00	11.4	64.8	C	4
KNT0460-5050	3-20-2	640+60.00	8.85	63	C	5
MLR0405-0055	3-6	47+70.00	18.4	63.5	A	5
MLR0405-0060	3-6	52+67.00	16.1	62	C	5

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name (SANTA ANA AV)



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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
KNT0430-0000	3-20-2	612+44.54	20.6	57.5	C	6
KNT0435-0000	3-20-2	613+11.00	20.3	57.6	C	5
KNT0435-5005	3-20-2	613+11.00	15.2	57.6	C	5
KNT0435-5010	3-20-2	616+54.00	14.38	57.4	C	4
KNT0435-5015	3-20-2	620+05.00	13.4	59.1	C	3
KNT0435-5020	3-20-2	622+63.00	12.56	59.5	C	2
KNT0435-5025	3-20-2	624+84.00	11.3	59.3	C	2
KNT0435-5030	3-20-2	627+73.00	9.01	58.4	C	1
KNT0440-0000	3-20-2	620+92.74	20.8	59.2	C	3
KNT0445-0000	3-20-2	628+28.59	19	58.4	C	1

LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- Pump Station
- Force Main
- Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- Historic Street Name (SANTA ANA AV)

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ORANGE COUNTY SANITATION DISTRICT

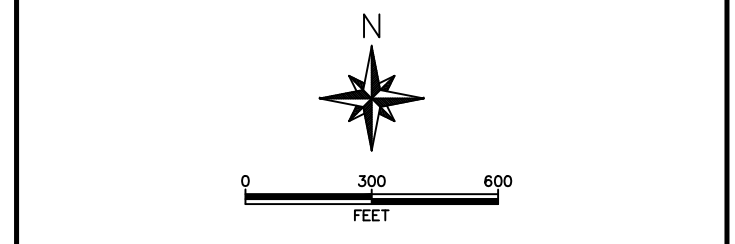
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
KNT0410-0000	3-20-2	584+35.67	15.4	49.5	C	6
KNT0415-0000	3-20-2	584+86.23	15.1	49.5	C	6
KNT0420-0000	3-20-2	590+77.00	16	51	C	4
KNT0425-0000	3-20-2	600+75.00	18.3	54.1	C	1

LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- Pump Station
- Force Main
- Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- Historic Street Name



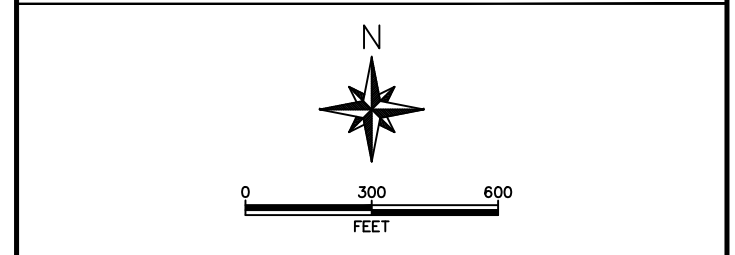
ORANGE COUNTY SANITATION DISTRICT

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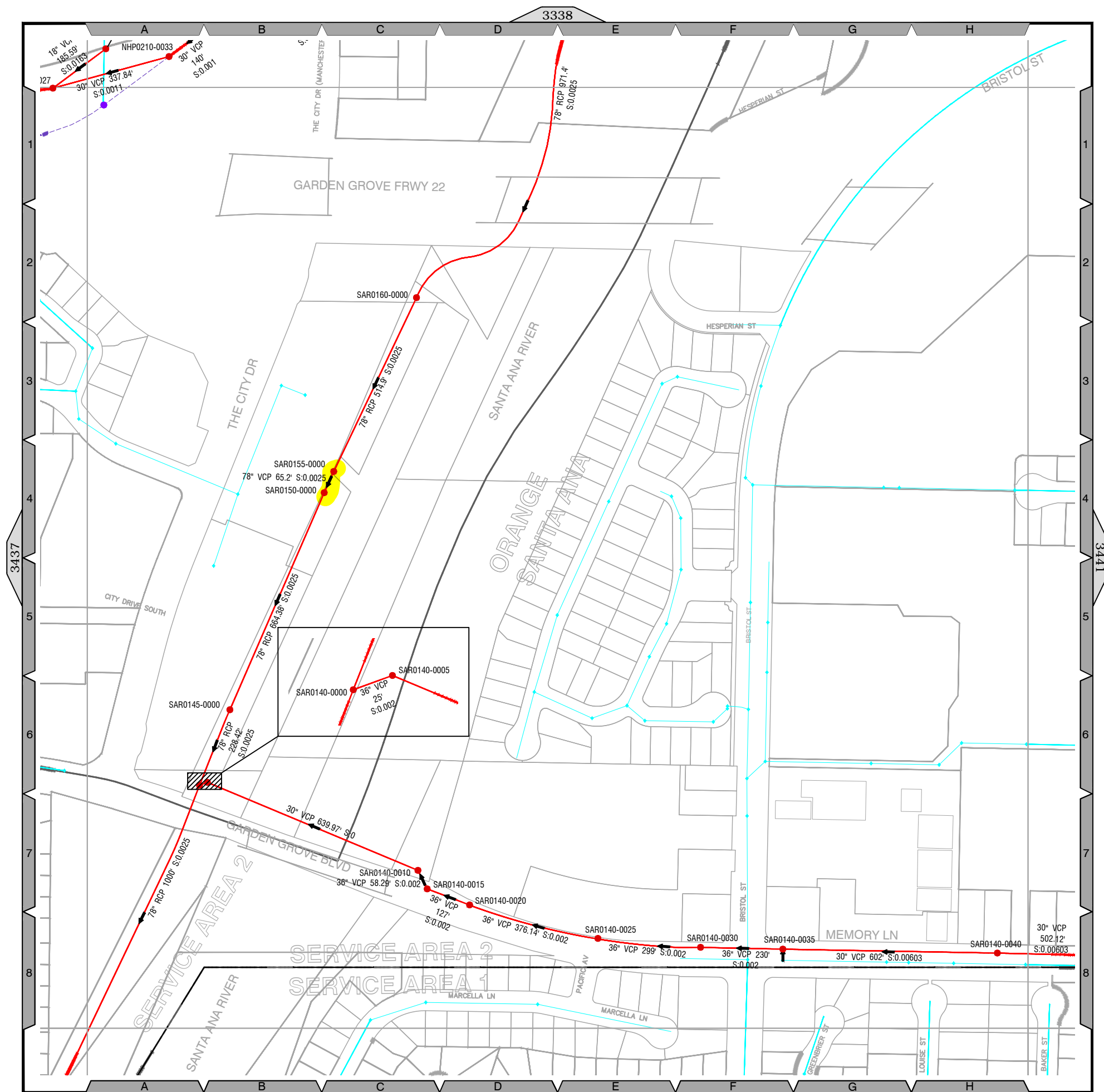


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
NHP0285-0000	2-3	502+32.59	16	144	A	6
NHP0290-0000	2-3	507+13.87	15.4	145	B	6
NHP0295-0000	2-29	9+66.14	12.2	142	B	6
NHP0300-0000	2-3	520+05.10	13.5	146	C	3
NHP0303-0000	2-3	526+12.20	9.84	144	C	1
SAR0195-0010	2-29	28+06.60	19	145	H	7
SAR0195-0015	2-29	23+17.60	18.1	145	F	7
SAR0195-0020	2-29	18+28.60	15.2	143	E	7
SAR0195-0025	2-29	16+82.60	13.6	142	E	7
SAR0195-0030	2-29	10+70.88	11.4	141	C	7

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name

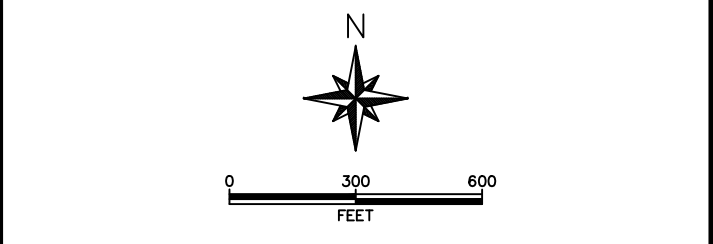


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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
SAR0140-0000	1-98	1+68.03	23.9	120	A	6
SAR0140-0005	1-98	1+93.03	23.8	120	B	6
SAR0140-0010	1-98	8+33.00	20	119	C	7
SAR0140-0015	1-98	8+86.76	19.9	119	C	7
SAR0140-0020	1-98	9+92.86	16.6	116	D	7
SAR0140-0025	1-98	13+69.00	16.4	116.5	E	8
SAR0140-0030	1-98	16+68.60	17.3	118	F	8
SAR0140-0035	1-98	18+98.00	17.9	119	F	8
SAR0140-0040	1-98	25+00.00	16.7	122	H	8
SAR0145-0000	2-14-1	332+35.30	28.6	121.8	B	6
SAR0150-0000	2-14-1	338+99.50	31.2	126	C	4
SAR0155-0000	2-14-1	339+64.70	31	126	C	4
SAR0160-0000	2-14-1	344+79.60	31.7	128	C	2

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name

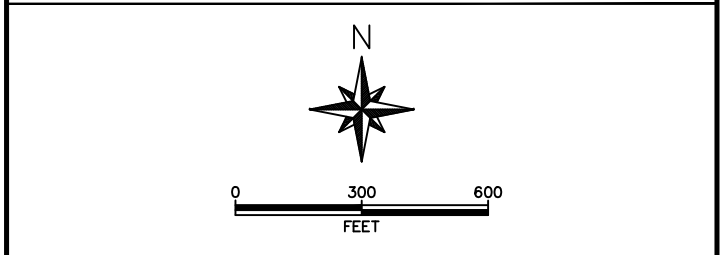


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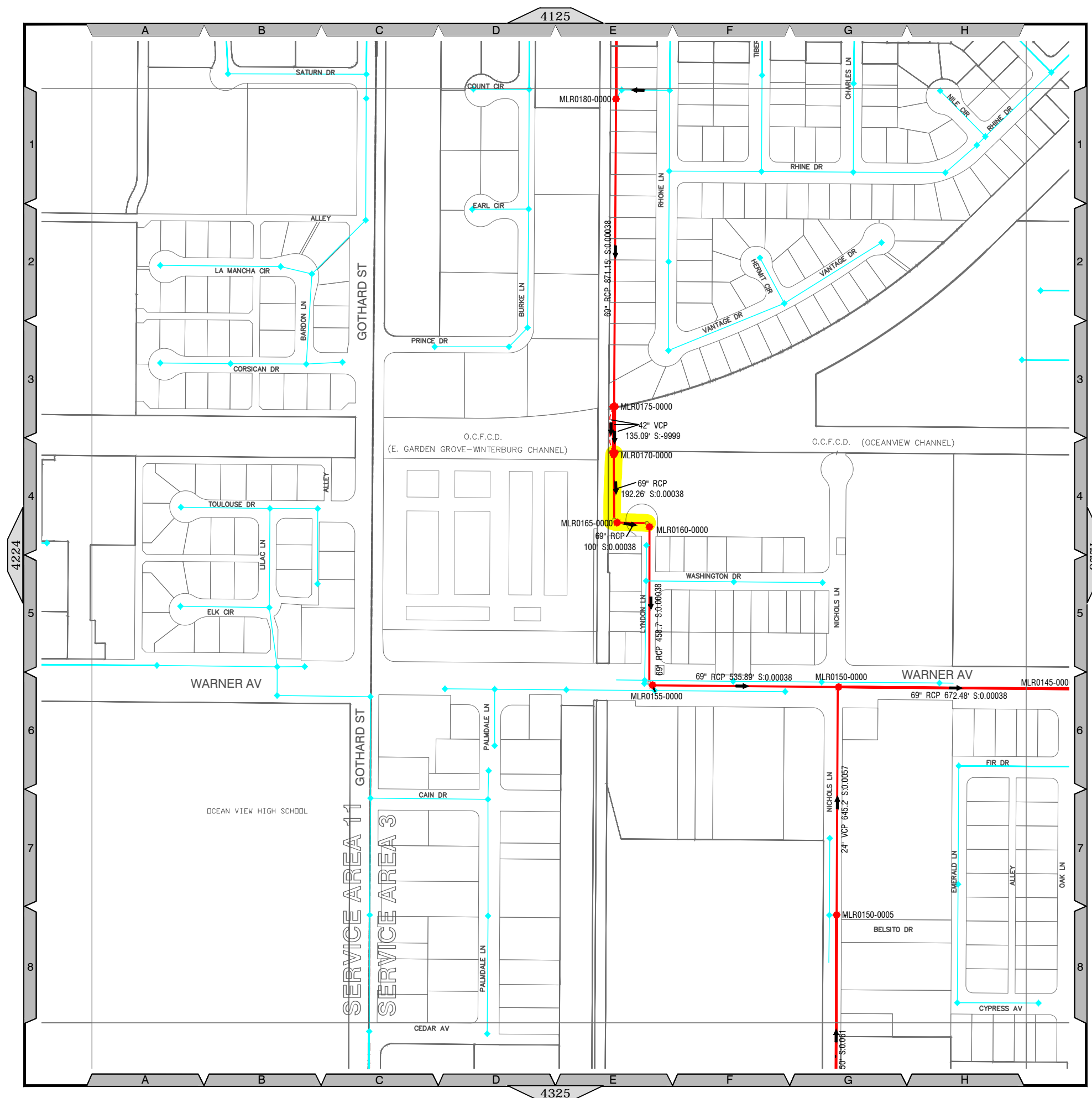


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
KNT0275-0015	3-18	416+17.00	18.5	33.5	G	5
KNT0275-0020	3-18	423+02.00	16.7	31.9	E	5
KNT0275-0025	3-14	0+40.80	15.9	31.7	E	5
KNT0275-0030	3-14R	8+58.30	13.3	29.5	C	5
KNT0275-0035	3-14	8+77.80	13.3	29.5	B	5
KNT0275-0040	3-14	13+32.07	21.1	37.5	A	5
KNT0275-0045	3-14	14+41.36	13	29.5	A	5
MLR0270-0000	3-3	617+99.50	20.5	32.8	E	6
MLR0275-0000	3-3	632+95.90	17.6	30.5	E	1

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC
	Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name (SANTA ANA AV)



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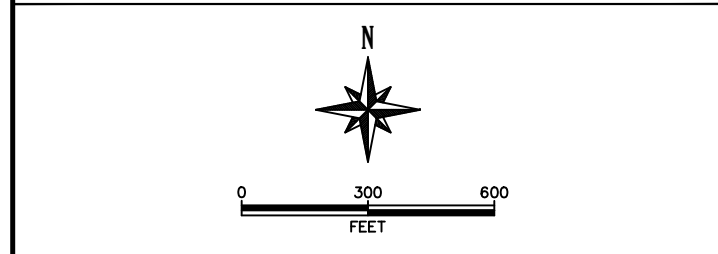


MANHOLE DATA TABLE

MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
MLR0150-0000	11-10-1	5945+20.00	23.2	24.99	G	6
MLR0150-0005	11-10-1	53+00.00	18.3	27.61	G	8
MLR0155-0000	3-2	405+61.30	23.7	25.8	E	6
MLR0160-0000	3-2	410+20.00	18.9	21.2	E	4
MLR0165-0000	3-2	413+11.26	18.9	21.2	E	4
MLR0170-0000	3-2	413+12.26	16.7	19.1	E	4
MLR0175-0000	3-2	414+47.35	16.7	20.1	E	3
MLR0180-0000	3-2	423+18.50	16.5	20.2	E	1

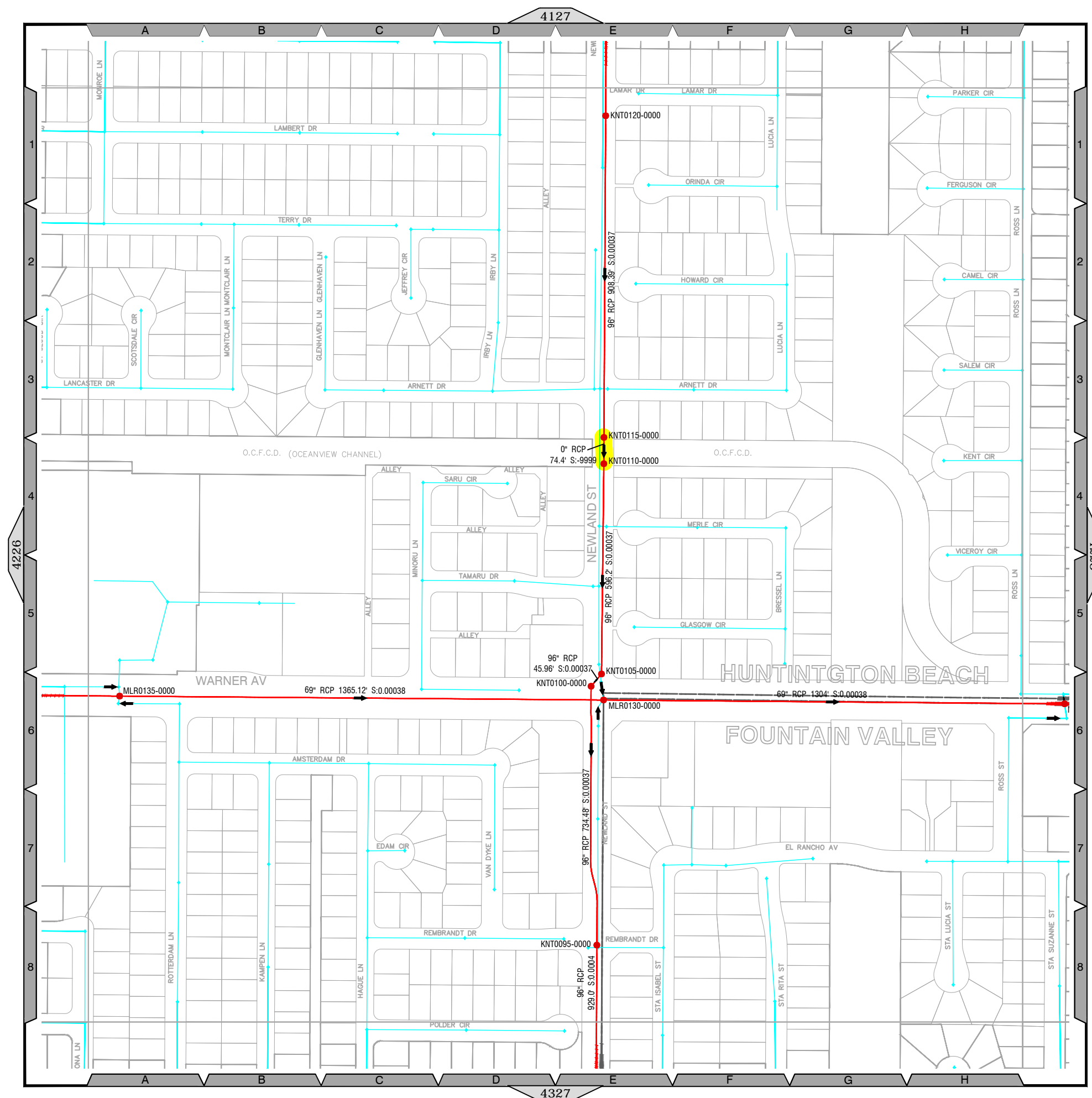
LEGEND

- Diversion Structure
- Manhole
- Manhole - Temp out-of-service
- Manhole - Abandoned
- Sewer
- Air Vent
- Sewer - Temp out-of service
- Sewer - Abandoned
- Force Main
- Valve
- Fitting
- Vault
- Pump Station
- Directional Flow Arrow
- Non OCSD System
- Historic Street Name



ORANGE COUNTY SANITATION DISTRICT

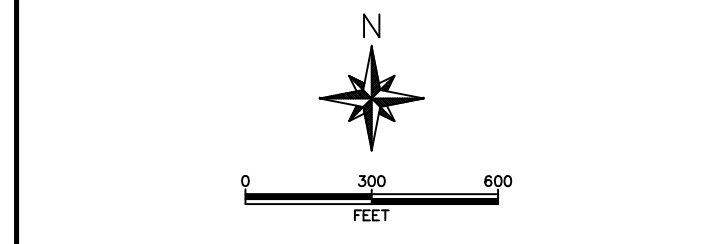
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
KNT0095-0000	3-17	15+56.50	18.8	23.3	E	8
KNT0100-0000	3-17	158+89.00	21.8	26.6	E	6
KNT0105-0000	3-17	159+34.93	21.6	26.4	E	6
KNT0110-0000	3-17	165+17.70	21.9	26.9	E	4
KNT0115-0000	3-17	165+92.11	21.6	26.7	E	3
KNT0120-0000	3-17	175+00.50	17	27	E	1
MLR0130-0000	3-2	354+00.60	27.5	27.6	E	6
MLR0135-0000	3-2	367+65.72	25.7	26.4	A	6

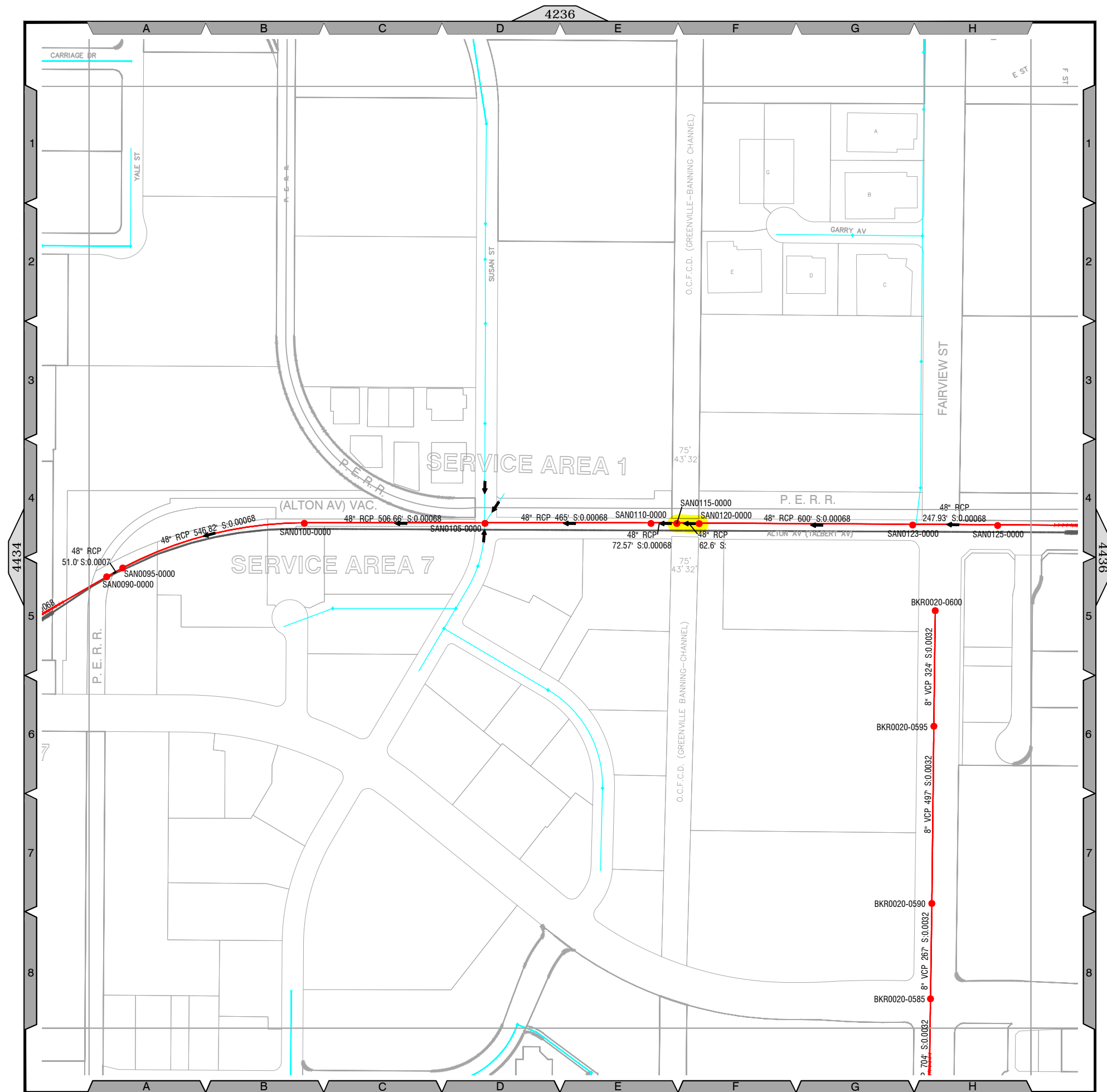
LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- Pump Station
- Force Main
- Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- Historic Street Name



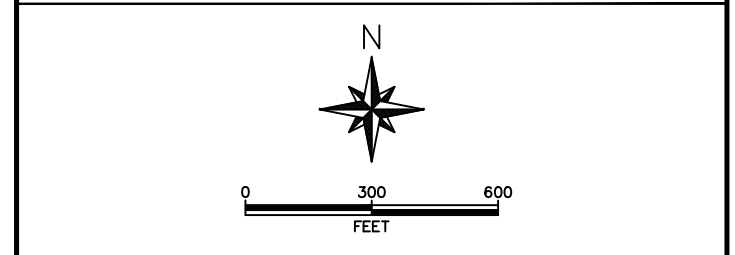
ORANGE COUNTY SANITATION DISTRICT

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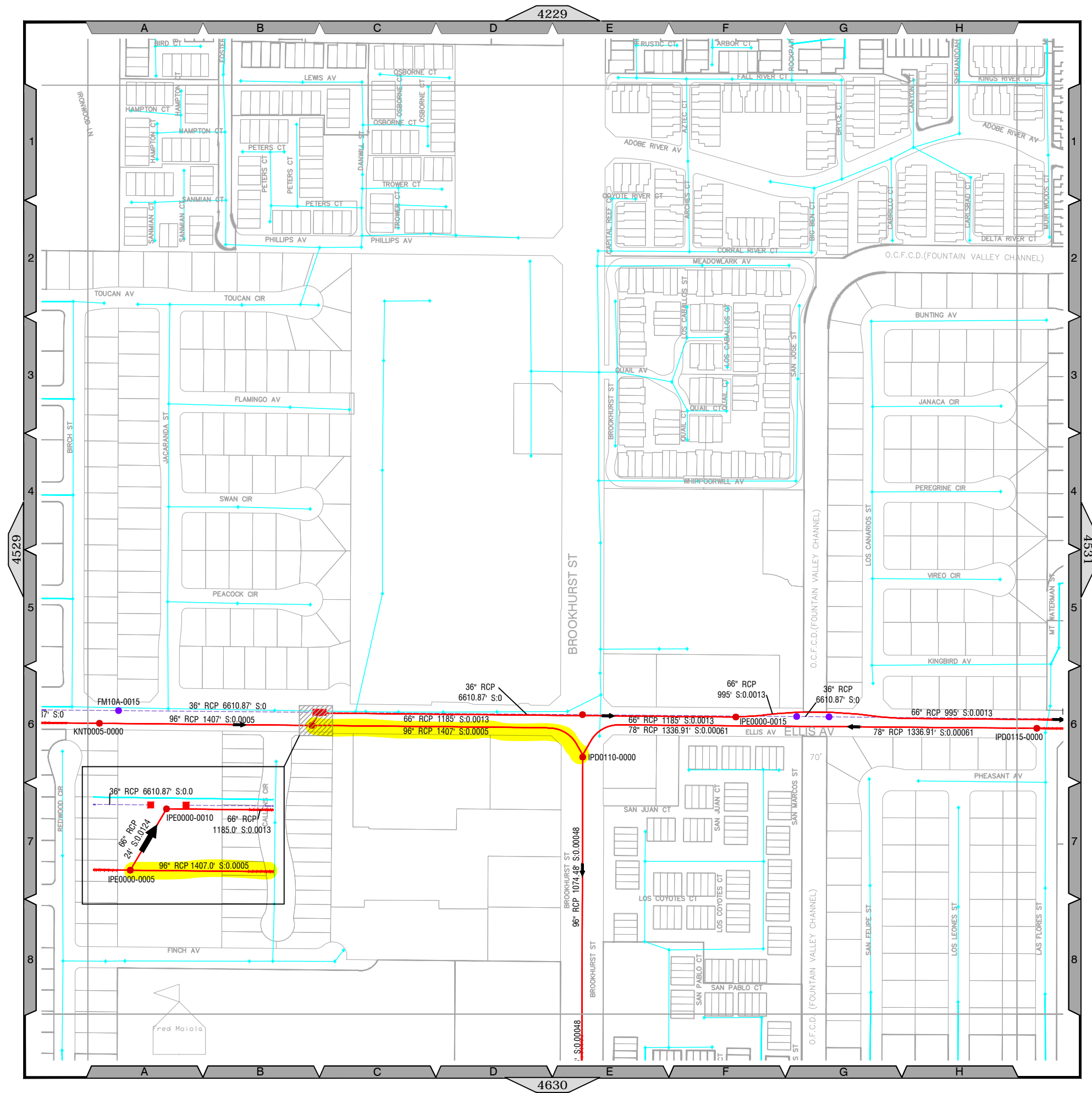


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0020-0585	SSI-C	47+12.00	11	33.74	H	8
BKR0020-0590	SSI-C	49+79.00	10	33.56	H	7
BKR0020-0595	SSI-C	54+76.00	9.5	34.68	H	6
BKR0020-0600	SSI-C	58+00.00	8.8	35.02	H	5
SAN0090-0000	1-1	81+51.82	17.9	38.6	A	5
SAN0095-0000	1-1	82+03.00	17.9	38.6	A	5
SAN0100-0000	1-1	87+27.82	17.8	38.85	B	4
SAN0105-0000	1-1	92+50.00	17	38.5	D	4
SAN0110-0000	1-1	97+15.00	16.3	40	E	4
SAN0115-0000	1-1	97+87.57	16.1	37.9	E	4
SAN0120-0000	1-1	98+50.17	16.1	38	F	4
SAN0123-0000	1-1	104+39.07	14.9	37.9	G	4
SAN0125-0000	1-1	106+87.00	14.9	37.9	H	4

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Node
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name

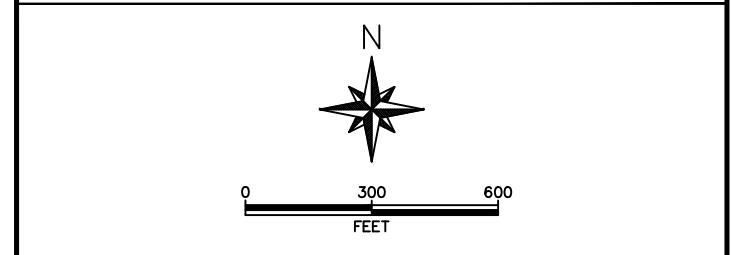


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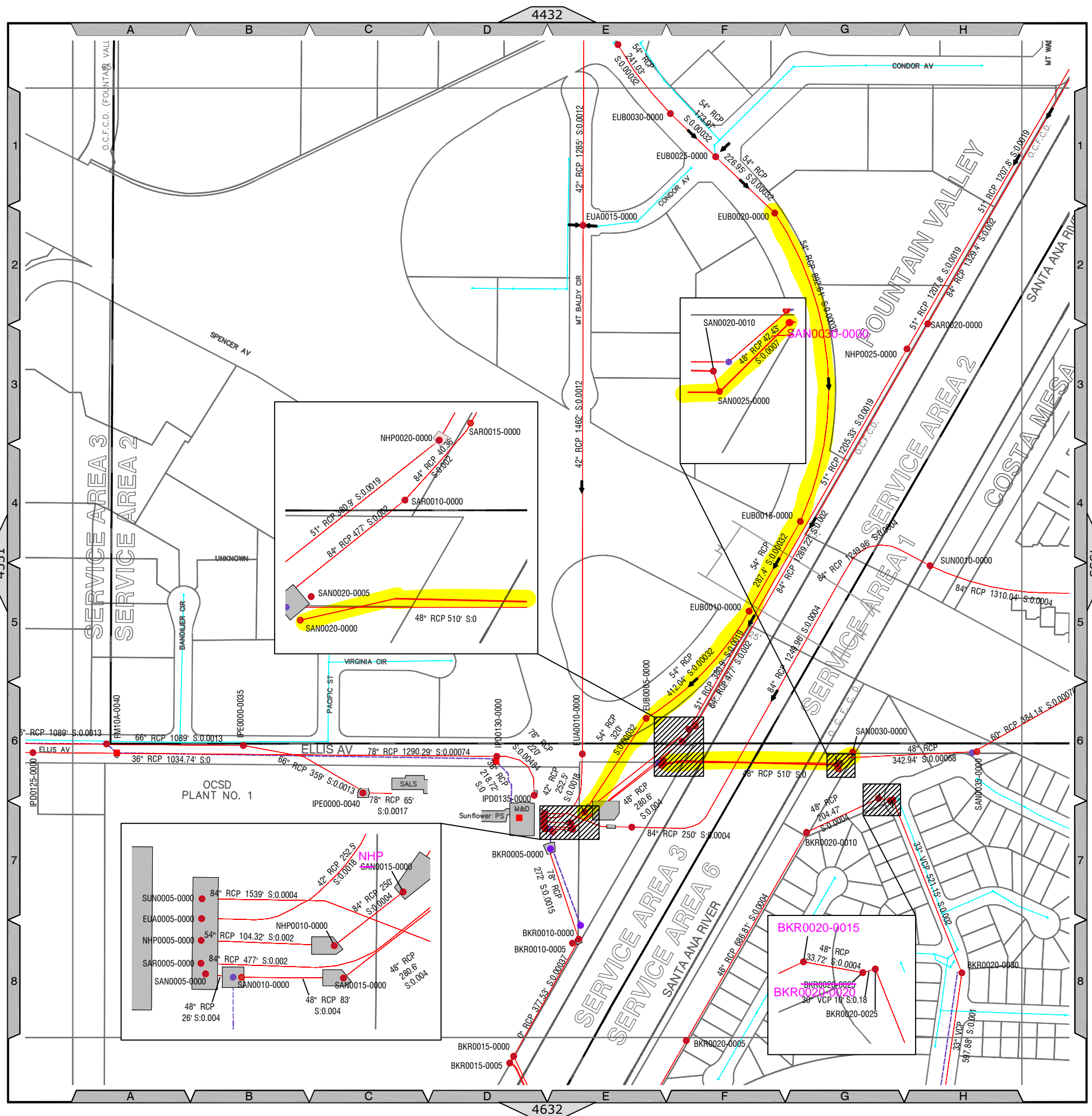


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
FM10A-0015	I-1	13+19.20	12.1	20.5	A	6
IPD0110-0000	I-8	208+47.75	20	17.2	E	6
IPE0000-0005	I-10	49+94.59	18.41	18	B	6
IPE0000-0010	I-10A	50+35.00	18.41	18	B	6
IPE0000-0015	I-10A	62+19.42	20.55	18.1	F	6
KNT0005-0000	3-17	13+73.60	16.7	14.6	A	6

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name



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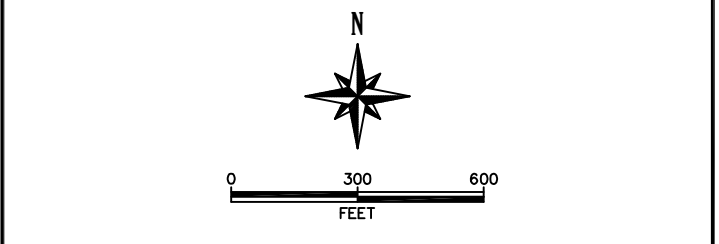
MANHOLE DATA TABLE

MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0005-0000	P1-20	0+54.00	14	29	E	7
BKR0010-0000	14-1-1A-2	3+65.01	14.2	29	E	8
BKR0010-0005	14-1-1A-2	3+45.01	-9999	-9999	E	8
BKR0020-0010	14-1-1A-2	13+86.81	10.3	28	G	7
BKR0020-0015	1-98	15+91.28	8.8	26.5	G	6
BKR0020-0020	1-98	16+25.00	8.3	26	G	6
BKR0020-0025	1-98	16+35.00	6.5	26	G	6
BKR0020-0030	1-98	5+21.15	8.8	29.2	H	8
EUA0005-0000	P1-20	IN-PLANT	-9999	-9999	D	7
EUA0010-0000	2-10-1	0+06.00	12.2	27	E	6
EUA0015-0000	2-10-1	14+68.00	11.5	28	E	2
EUB0005-0000	2-10-1A	5+60.00	11.3	25.6	E	6
EUB0010-0000	2-10-1A	9+72.04	11.5	26.3	F	5
EUB0015-0000	2-10-1A	12+59.44	11.2	26	G	4
EUB0020-0000	2-10-1A	21+58.05	11.2	26.3	F	2
EUB0025-0000	2-10-1A	23+85.00	10.8	26	F	1
EUB0030-0000	2-10-1A	25+58.97	10.7	26	F	1
FM10A-0040	I-1	65+98.87	11.40	25.00	A	6
IPD0130-0000	I-8	259+90	22.3	24.8	D	6
IPD0135-0000	I-8	259+90.00	-9999	-9999	D	7
IPE0000-0035	I-10A	101+33.00	33.5	26	B	6
IPE0000-0040	I-10A	104+90.40	36.8	28.8	C	6
NHP0005-0000	P1-20	IN-PLANT	-9999	-9999	D	7
NHP0010-0000	I-8-3	IN-PLANT	13.1	27.42	E	7
NHP0015-0000	2-10-1A	2+40.00	14.6	28.8	E	7
NHP0020-0000	2-1	9+56.48	12.1	27.5	F	6
NHP0025-0000	2-1	33+69.91	10.3	28	H	3
SAN0005-0000	P1-20	IN-PLANT	-9999	-9999	D	7
SAN0010-0000	P1-20	IN-PLANT	-9999	-9999	E	7

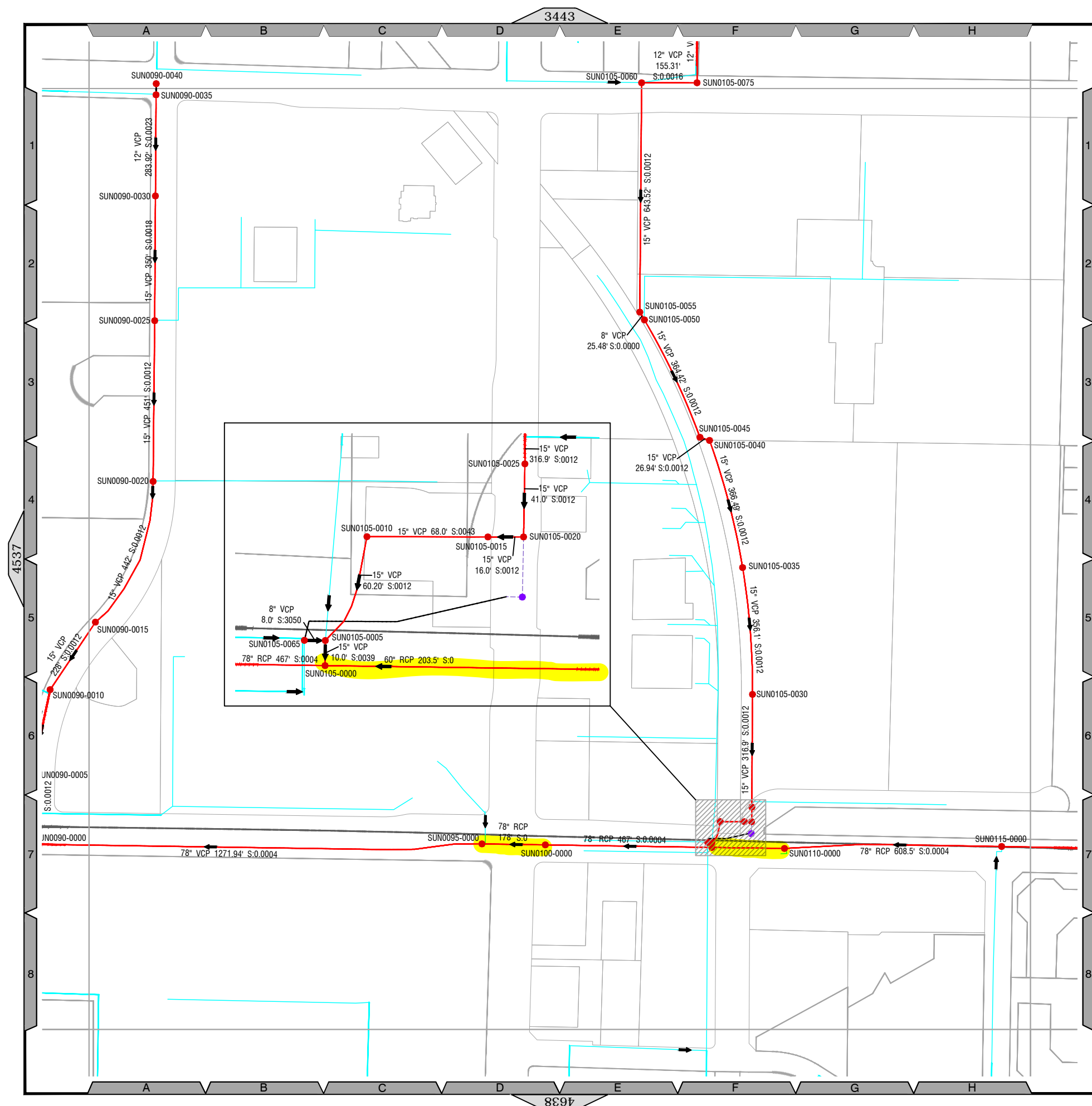
For continuation of Manhole table see page 4532A.

LEGEND

- ▲ OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve Force Main Air Valve
- Force Main Fitting Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name

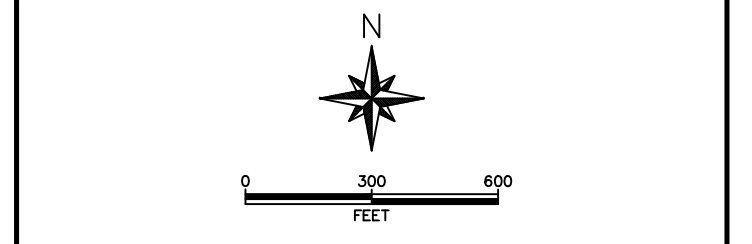


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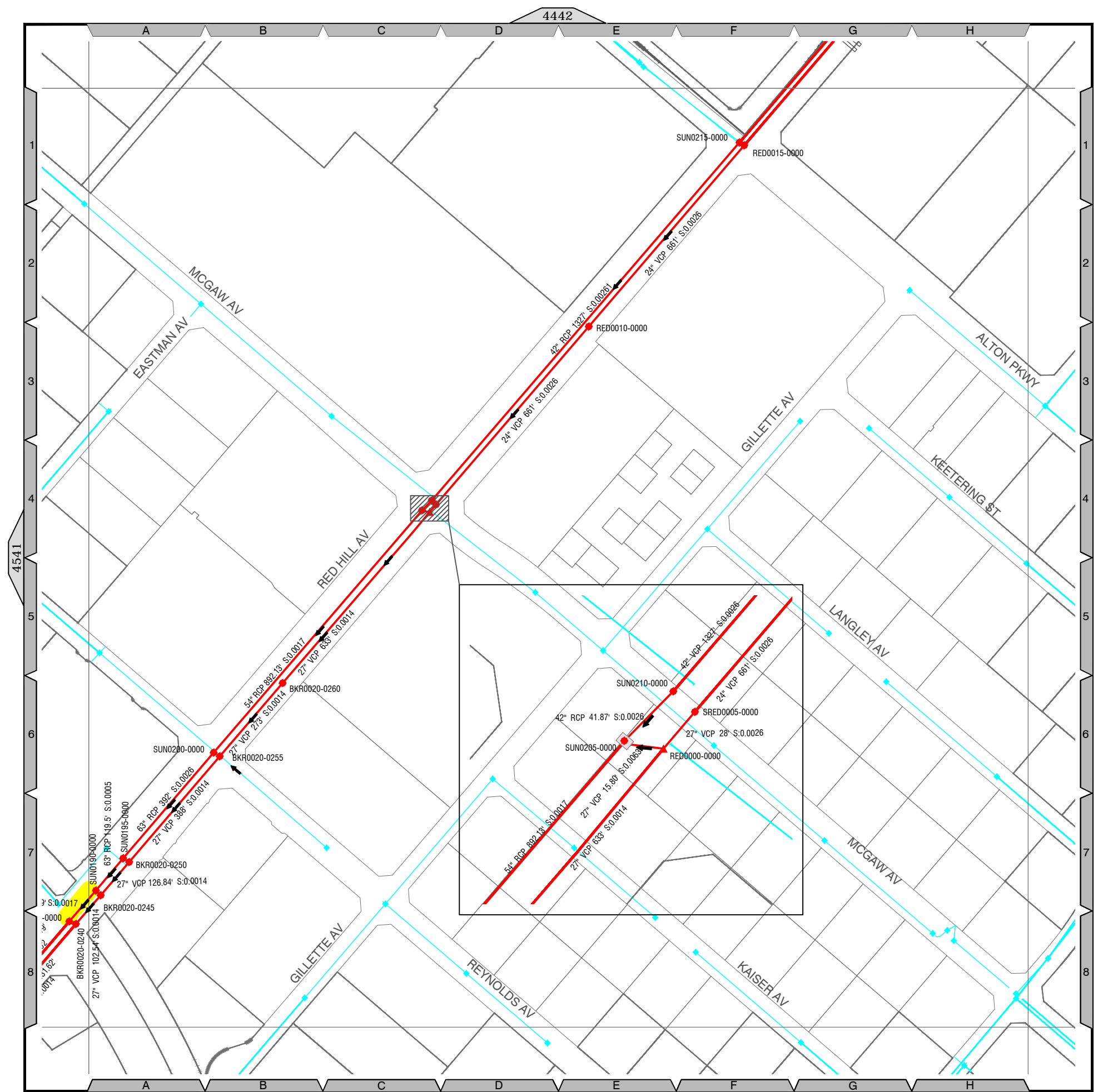


MANHOLE DATA TABLE						
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SUN0090-0020	7-6-2A	10+79.43	13.3	32.4	A	4
SUN0090-0025	7-6-2A	15+30.00	13.4	33	A	2
SUN0090-0030	7-6-2A	18+80.00	11.8	32.2	A	1
SUN0090-0035	7-6-2A	21+63.92	11.9	33.1	A	1
SUN0095-0000	7-6-2	164+57.50	20.2	33.2	D	7
SUN0100-0000	7-6-2	166+28.00	20.1	33.2	D	7
SUN0105-0000	7-6-2	170+95.00	20.5	33.8	F	7
SUN0105-0005	7-6-2	170+95.00	9.7	33.76	F	7
SUN0105-0010	7-6-2	171+17.00	15.5	33.8	F	7
SUN0105-0015	7-6-2	171+85.00	16.8	35.33	F	7
SUN0105-0020	7-6-2	172+05.00	16.8	35.33	F	7
SUN0105-0025	7-1F-B	1+12.00	13.5	31.6	F	7
SUN0105-0030	7-1F-B	4+28.90	12.9	31.6	F	6
SUN0105-0035	7-1F-B	7+85.00	12.2	31.6	F	5
SUN0105-0040	7-1F-B	11+51.49	12.6	32.2	F	3
SUN0105-0045	7-1F-B	11+78.43	12.4	32	F	3
SUN0105-0050	7-1F-B	15+45.00	12.6	32.7	E	2
SUN0105-0055	7-1F-B	15+70.48	12.4	32.5	E	2
SUN0105-0065	7-1-F-A	15+09.91	16.6	37.5	F	7
SUN0110-0000	7-6-2	172+98.50	20.1	33.8	F	7
SUN0115-0000	7-6-2	179+07.00	19	33	H	7

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	Pump Station
	Force Main
	Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	Historic Street Name



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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0020-0245	7-2	53+67.16	12.6	35.8	A	7
BKR0020-0250	7-2	54+94.00	12.4	35.8	A	7
BRK0020-0255	67-44	0+00.00	11.6	35.6	B	6
BKR0020-0260	7-2	61+55.00	12.5	36.8	B	6
RED0000-0000	7-6-3	68+88.38	12.2	37.4	C	4
RED0005-0000	7-2	68+16.00	11.7	36.93	C	4
RED0010-0000	7-2	74+77.00	12.4	39.6	E	2
RED0015-0000	7-2	81+38.00	12.2	41.1	F	1
SUN0190-0000	7-6-3	53+71.50	15.1	35.4	A	7
SUN0195-0000	7-6-3	54+91.00	14.4	34.8	A	7
SUN0200-0000	7-6-3	58+83.00	15	35.6	B	6
SUN0205-0000	7-6-3	67+75.13	14.3	37.4	C	4
SUN0210-0000	7-6-4	68+17.00	13.3	37/4	C	4
SUN0215-0000	7-6-4	81+44.00	12.5	40.1	F	1

LEGEND

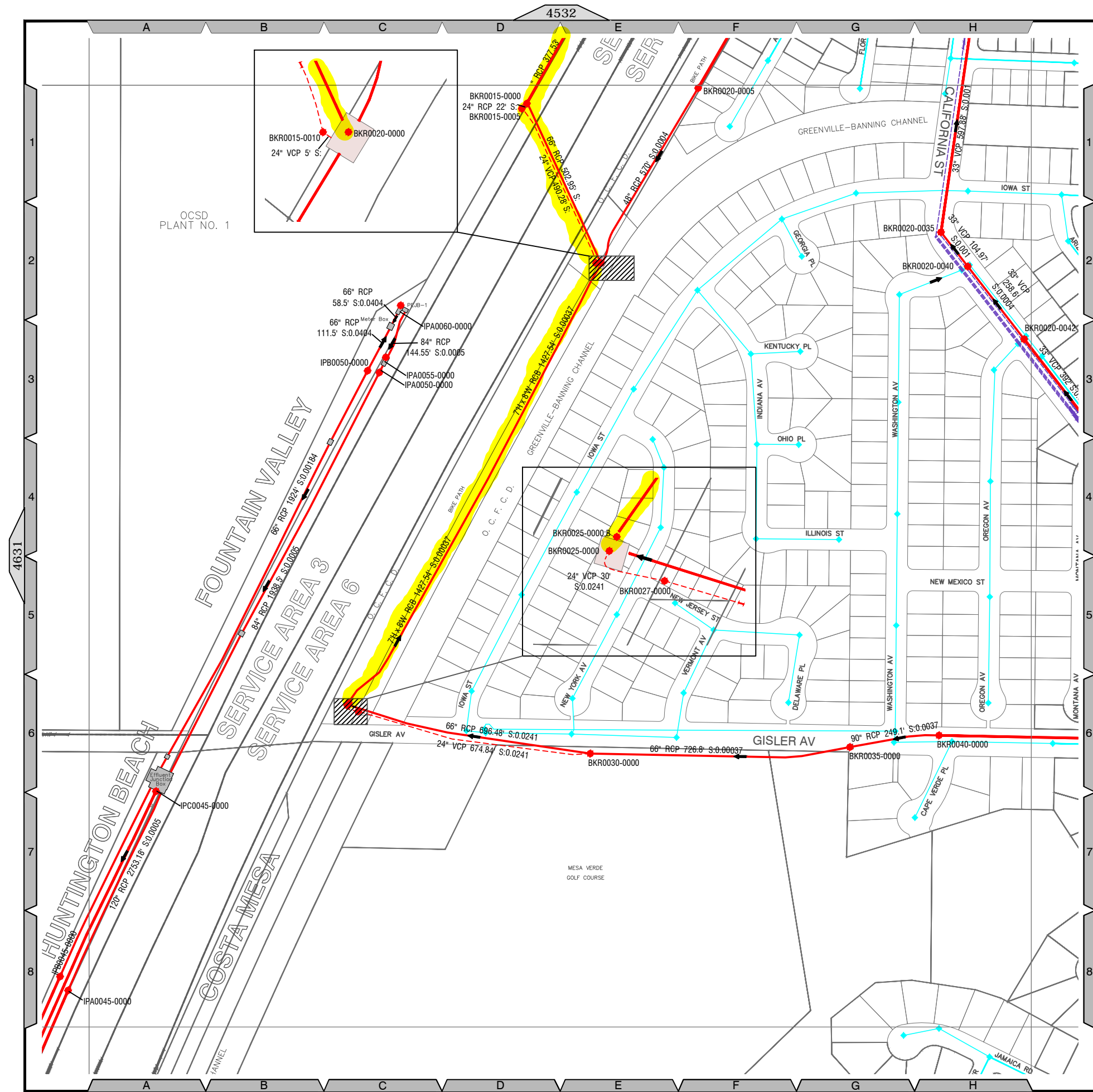
- Diversion Structure
- Manhole
- Manhole - Temp out-of-service
- Manhole - Abandoned
- Sewer
- Air Vent
- Sewer - Temp out-of service
- Sewer - Abandoned
- Force Main
- Valve
- Fitting
- Vault
- Pump Station
- Directional Flow Arrow
- Non OCSD System
- Historic Street Name (SANTA ANA AV)

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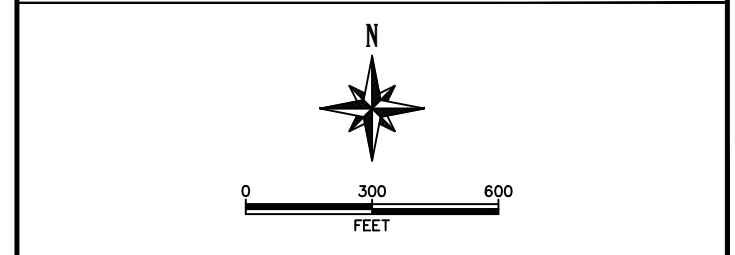
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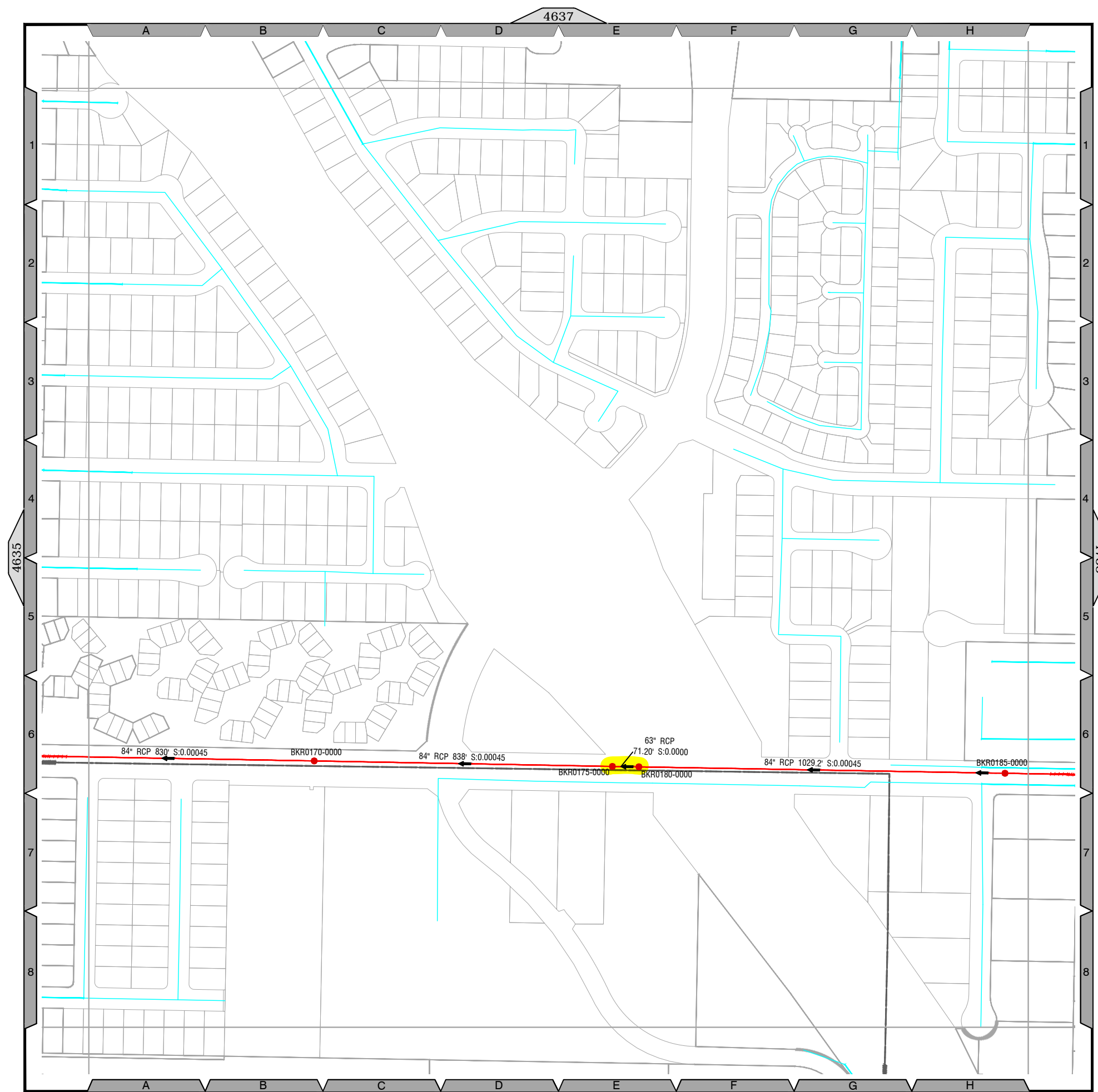
MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0015-0000	14-1-1A-2	7+42.54	13.6	28.5	D	1
BKR0015-0005	14-1-1A-2	7+62.64	11.1	26	D	1
BKR0015-0010	14-1-1A-2	12+50.49	12.6	28	E	2
BKR0020-0000	14-1-1A-2	12+45.49	11.7	27.3	E	2
BKR0020-0005	14-1-1A-2	7+00.00	8.6	26	F	1
BKR0020-0035	7-1C	11+13.51	6.6	27.8	H	2
BKR0020-0040	7-1C	12+44.40	6.7	28.7	H	2
BKR0020-0042	6-13-3	15+03.00	9.04	30.24	H	3
BKR0025-0000	14-1-1A-2	26+26.72	11.1	27.2	C	6
BKR0027-0000	14-1-1A-2	26+59.84	24.6	21.1	C	6
BKR0030-0000	14-1-1A	33+13.20	11.4	29	E	6
BKR0035-0000	14-1-1A	40+40.00	18.2	36	G	6
BKR0040-0000	14-1-1A	42+89.10	17.6	35.4	H	6
IPA0050-0000	I-6-1	8+00.00	10.2	20.5	C	3
IPA0055-0000	I-6-2	7+57.00	17	28	C	3
IPA0060-0000	I-3	8+95.25	16	29.7	C	2
IPB0050-0000	I-3	10+72.08	8.3	27.5	C	3
IPC0045-0000	I-9	10+45.00	18.9	25.6	A	7

LEGEND

- Diversion Structure
- Manhole
- Manhole - Temp out-of-service
- Manhole - Abandoned
- Sewer
- Air Vent
- Sewer - Temp out-of service
- Sewer - Abandoned
- Force Main
- Valve
- Fitting
- Vault
- Pump Station
- Directional Flow Arrow
- Non OCSD System
- Historic Street Name (SANTA ANA AV)



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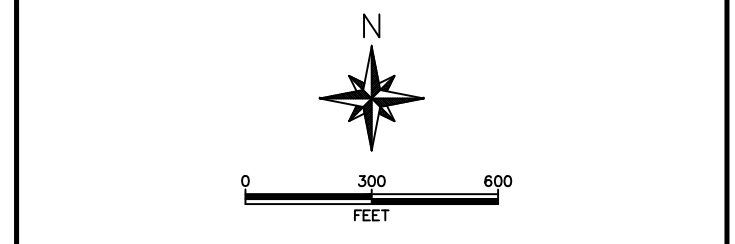


MANHOLE DATA TABLE

MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0170-0000	14-1-1B	184+10.00	15.4	39.6	B	6
BKR0175-0000	14-1-1B	192+51.30	14.3	38.9	E	6
BKR0180-0000	14-1-1B	193+22.50	14.1	38.8	E	6
BKR0185-0000	14-1-1B	203+55.00	14.7	39.8	H	6

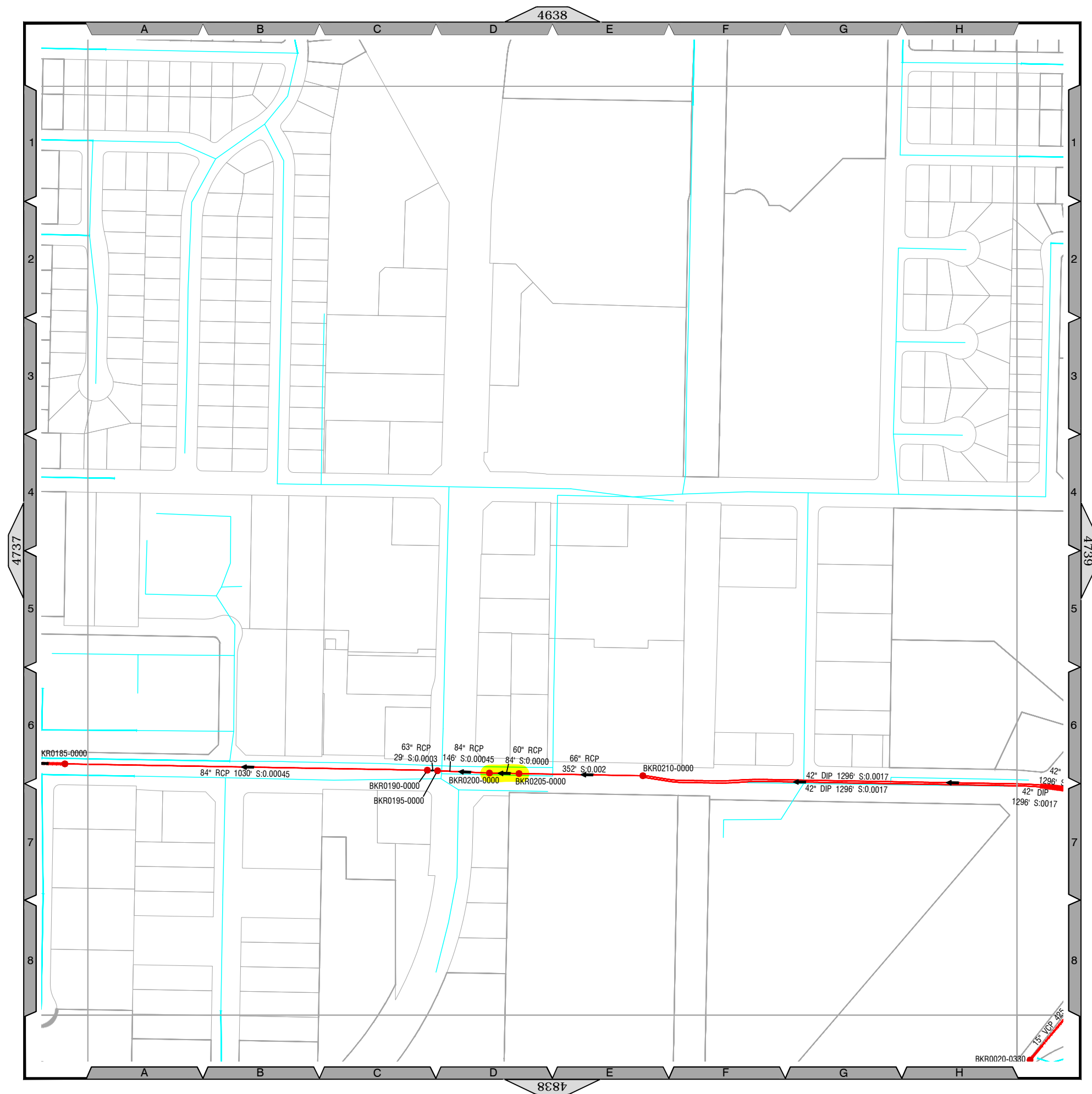
LEGEND

- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name



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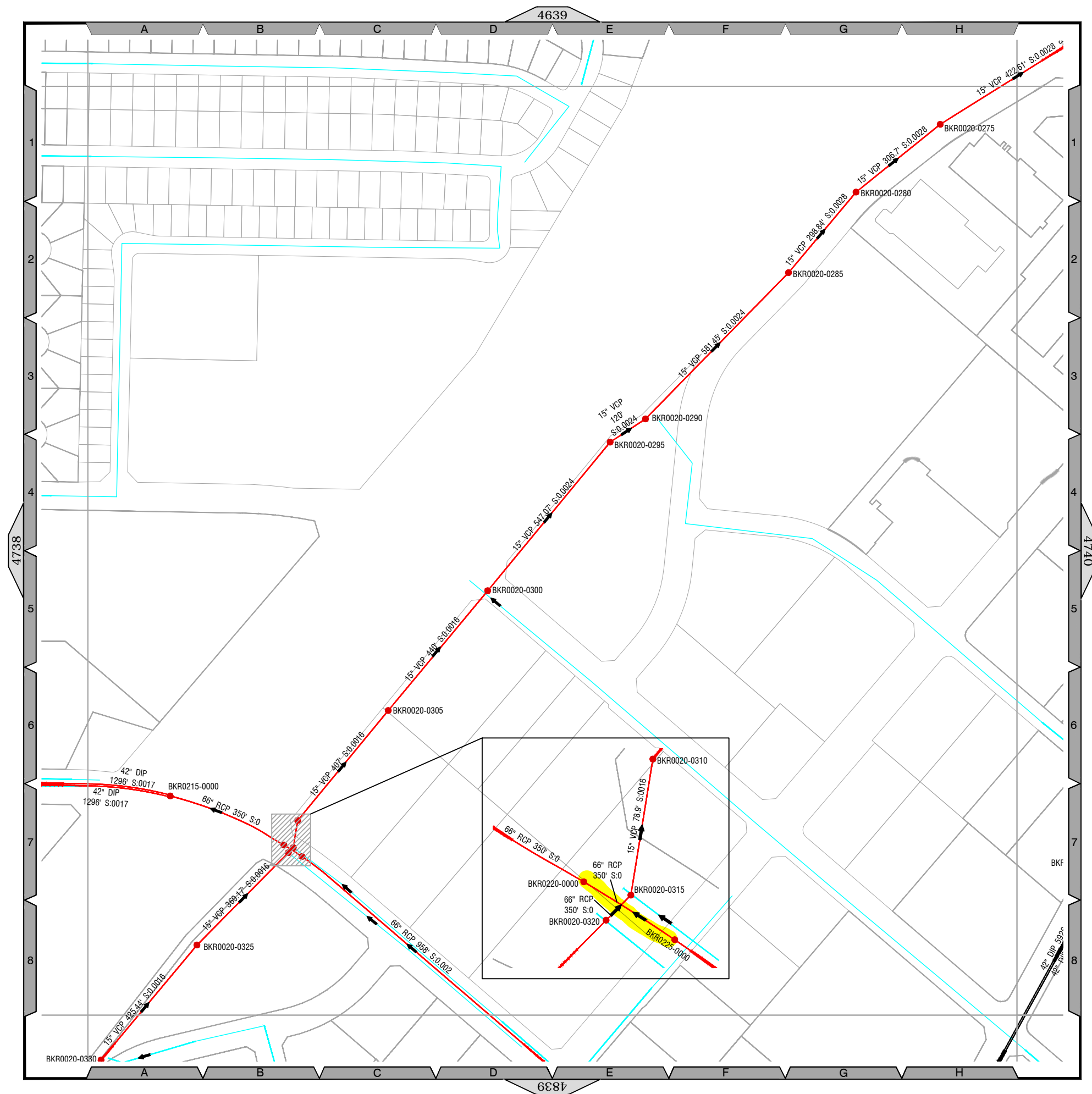


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0190-0000	14-1-1B	213+85.00	13.2	38.8	C	6
BKR0195-0000	14-1-1B	214+14.00	13.2	38.8	D	6
BKR0200-0000	14-1-2	215+58.00	12.6	38	D	6
BKR0205-0000	14-1-2	216+42.00	9.6	36.2	D	6
BKR0210-0000	14-1-2	219+94.00	8.1	35.4	E	6

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name

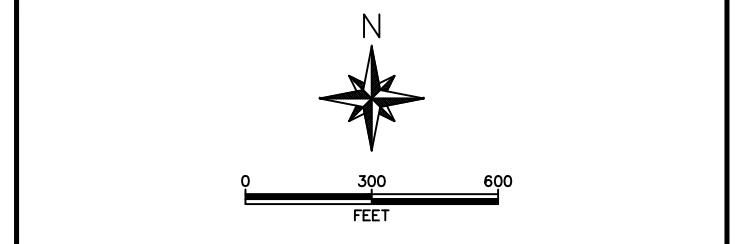
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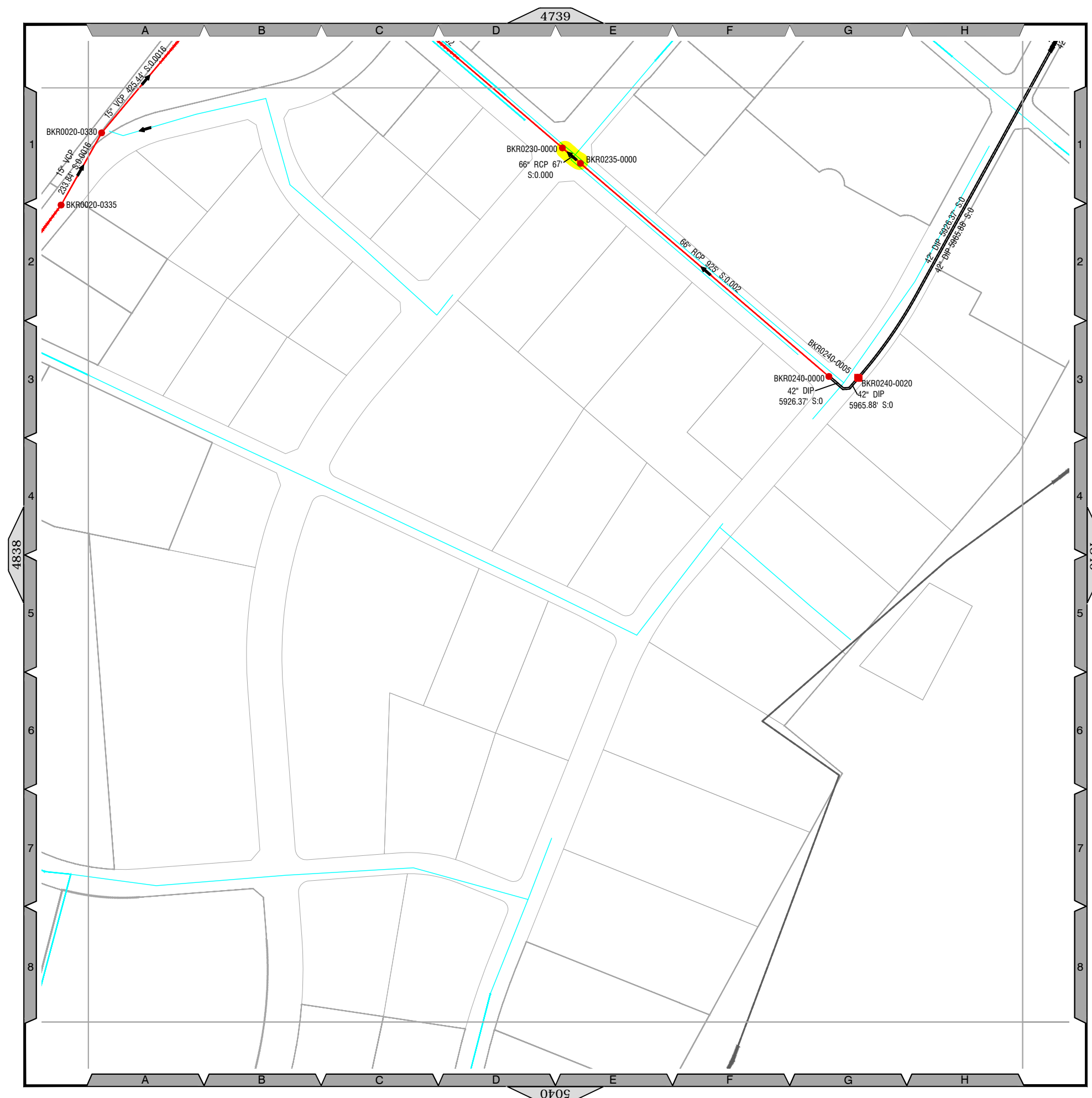


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0020-0275	SSI-E	9+19.11	14.8	34.65	H	1
BKR0020-0280	SSI-E	12+25.81	16	36.68	G	1
BKR0020-0285	SSI-E	15+24.65	17	38.52	G	2
BKR0020-0290	SSI-D	0+00.00	17.6	42	E	3
BKR0020-0295	SSI-E	22+26.10	18.5	41.71	E	4
BKR0020-0300	SSI-E	27+73.17	18	42.52	D	5
BKR0020-0305	SSI-E	32+13.17	17.7	42.98	C	6
BKR0020-0310	SSI-E	36+20.17	16	41.88	B	7
BKR0020-0315	SSI-E	36+99.07	17	43.16	B	7
BKR0020-0320	SSI-E	37+19.07	16	42	B	7
BKR0020-0325	SSI-E	40+87.55	15.8	42.61	A	8
BKR0215-0000	14-1-2	236+40.00	11.7	41.5	A	7
BKR0220-0000	14-1-2	236+40.00	11.8	41.6	B	7
BKR0225-0000	14-1-2	237+00.00	11.4	41.6	B	7

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name

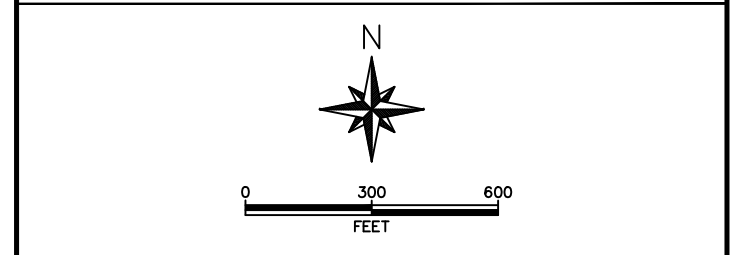


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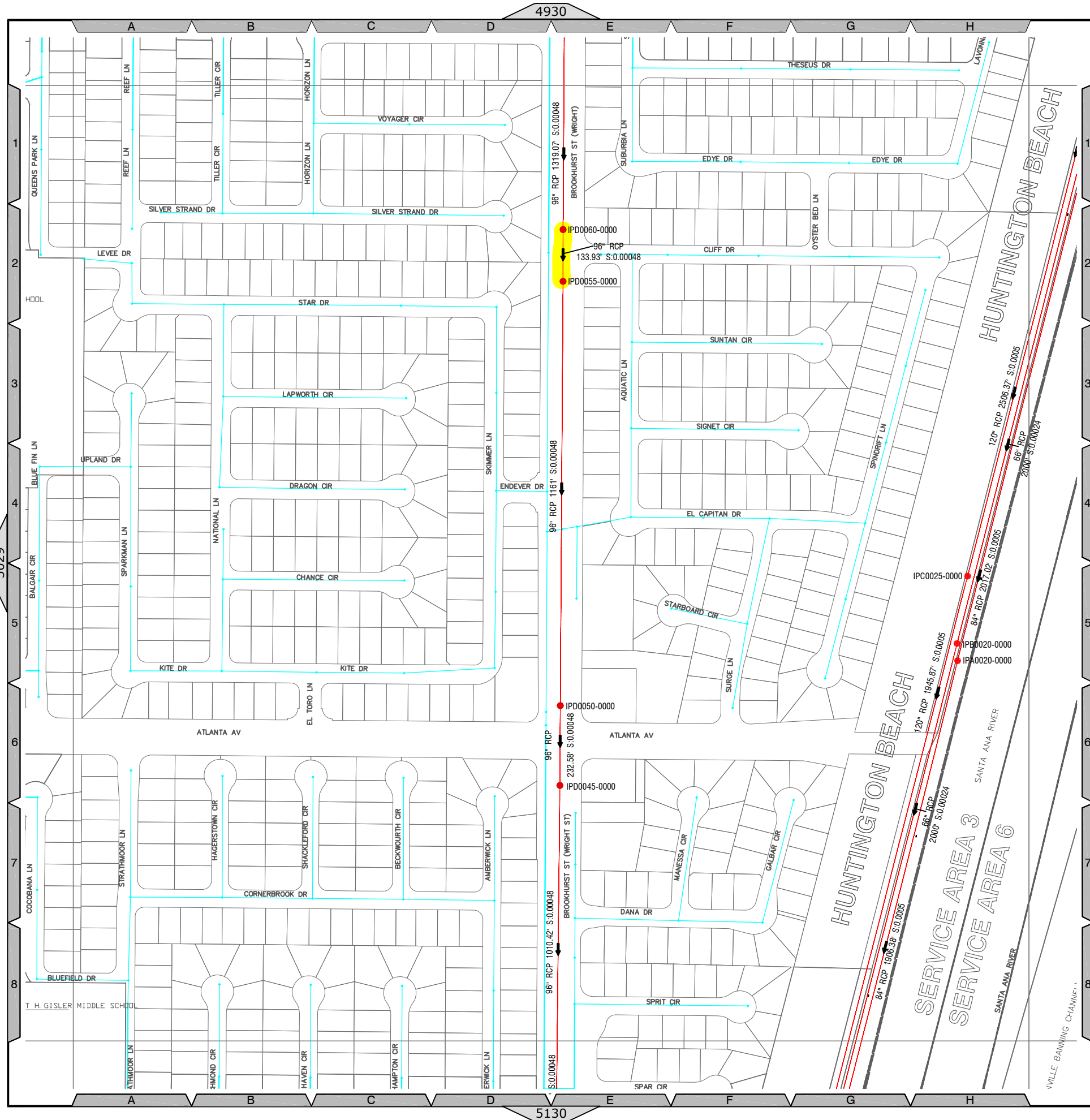


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BKR0230-0000	14-1-2	246+58.00	12.4	44.6	E	1
BKR0235-0000	14-1-2	247+25.00	12.2	44.8	E	1
BKR0240-0000	14-1-2	256+50.00	12	46.5	G	3
BKR0240-0005	14-1-2	257+74.53	00.0	00.0	G	3
BKR0240-0020	14-1-2	257+67.08	00.0	00.0	G	3

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Sewer
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name



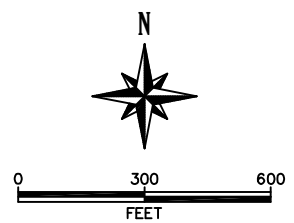
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
IPA0020-0000	I-6-1	127+41.92	13.5	18	H	5
IPB0020-0000	I-3	130+00.00	6.9	10.5	H	5
IPC0025-0000	I-9	114+04.16	14.3	15.8	H	5
IPD0045-0000	I-8	76+24.42	17.6	7.4	E	6
IPD0050-0000	I-8	78+57.00	17.1	7.5	E	6
IPD0055-0000	I-8	90+18.00	16.8	7.8	E	2
IPD0060-0000	I-8	91+51.93	16.3	7.9	E	2

LEGEND

- ▲ OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG #
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name



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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
CST0060-0015	11-14	27+35.00	16.8	7.1	D	8
CST0060-0020	11-14	33+34.00	12.1	3	D	6
CST0060-0025	11-E	0+12.87	15.1	4.98	D	8
CST0060-0030	11-E	1+49.94	6.7	3.63	D	8
CST0060-0035	11-E	5+52.22	5.8	3.06	C	8
CST0060-0040	11-E	11+51.79	5.4	3.17	A	8
CST0060-0100	11-14	33+62.00	11.8	2.8	E	6
CST0060-0105	11-8	1+65.95	9.1	2.3	E	6
CST0060-0110	11-8	6+63.10	9.5	6.26	E	8
CST0060-0150	11-1	0+68.00	11	2.5	E	6
CST0060-0155	11-1	2+53.07	11	2.25	E	5
CST0060-0160	11-1	12+55.00	10	2.25	E	2
CST0060-0165	11-1	14+00.00	10.4	3.07	E	2
CST0060-0170	11-1	16+48.94	10	2.25	E	1

LEGEND

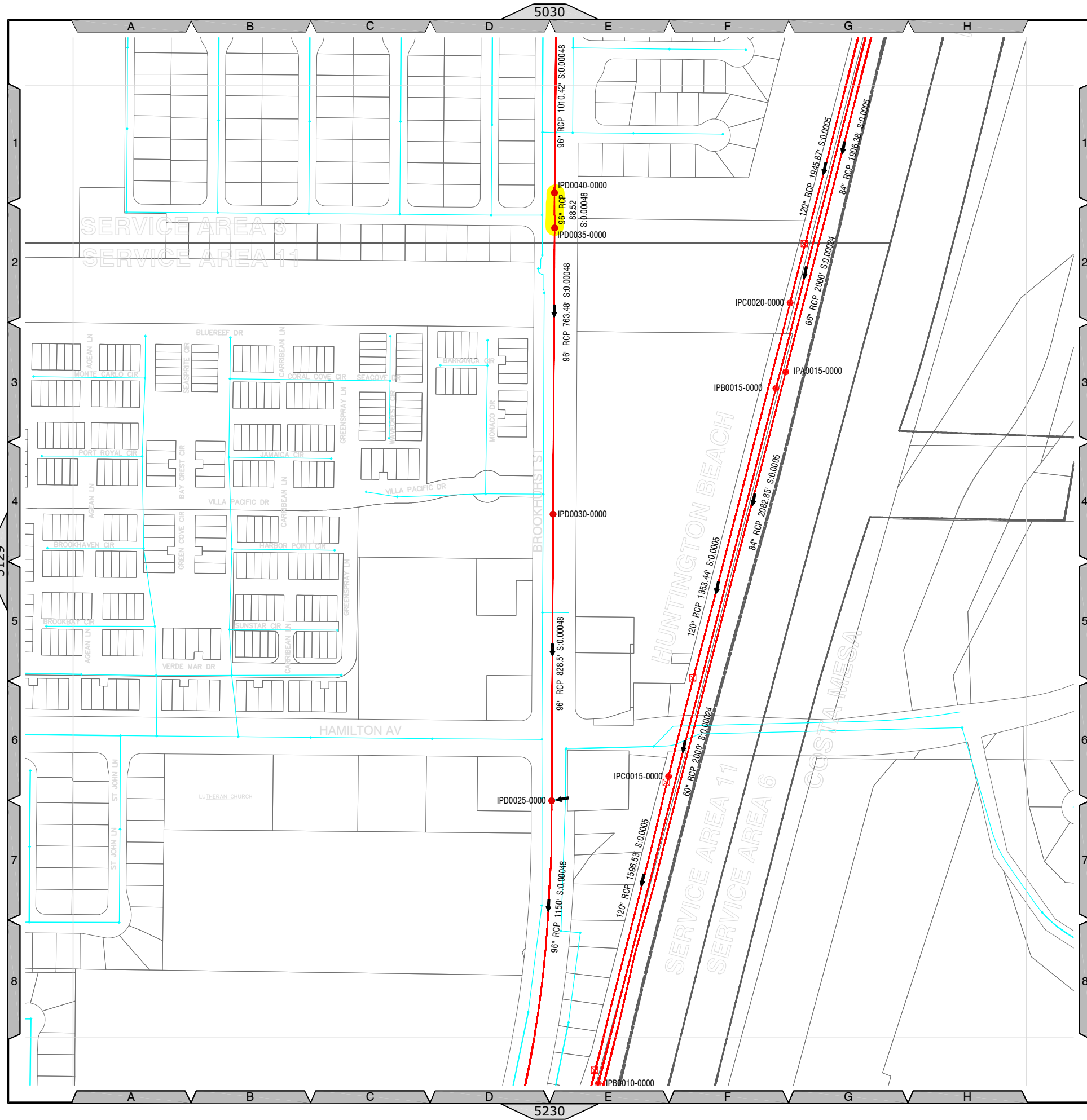
- OCSD Diversion Structure
- OCSD Manhole
- OCSD Sewer
- OCSD Manhole - Abandoned
- OCSD Sewer - Abandoned
- PS-AREA/LOC Pump Station
- Force Main
- LOOP TAG # Force Main Valve
- Force Main Air Valve
- Force Main Fitting
- Directional Flow Arrow
- Third Party Connection
- Non OCSD System
- (SANTA ANA AV) Historic Street Name

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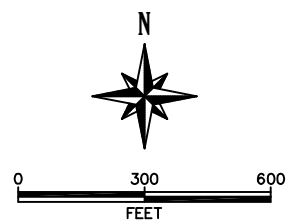
ORANGE COUNTY SANITATION DISTRICT

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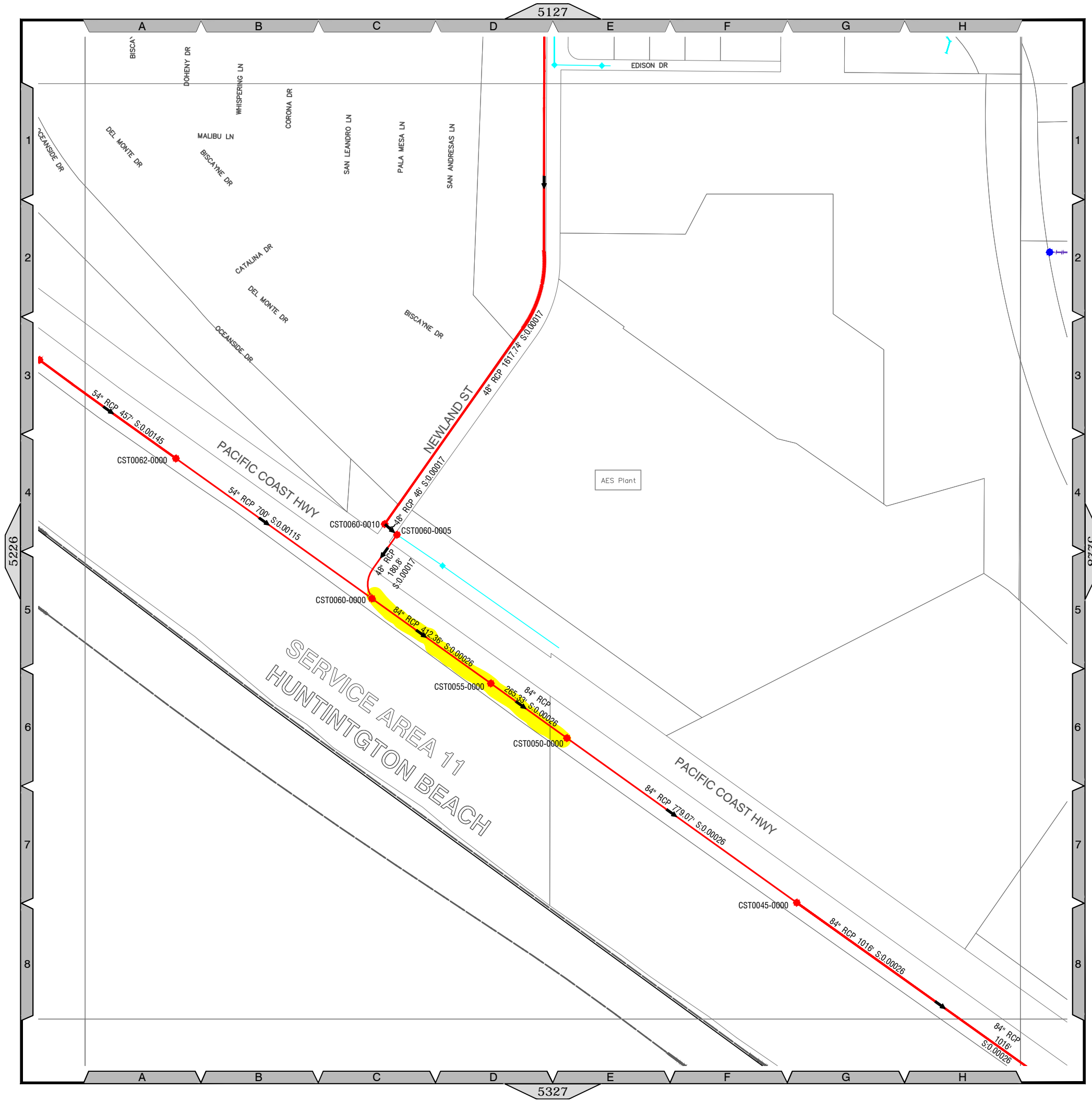


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
IPA0015-0000	I-6-1	146+48.30	14.5	18	F	3
IPB0015-0000	I-3	150+00.00	8.7	11.75	F	3
IPC0015-0000	I-9	147+03.47	14.7	14.5	E	6
IPC0020-0000	I-9	133+50.03	14.7	13.6	G	2
IPD0025-0000	I-8	49+33.50	18.4	6.4	E	7
IPD0030-0000	I-8	57+62.00	18.3	6.7	E	4
IPD0035-0000	I-8	65+25.48	18.2	7	E	2
IPD0040-0000	I-8	66+14.00	17.7	7	E	1

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name



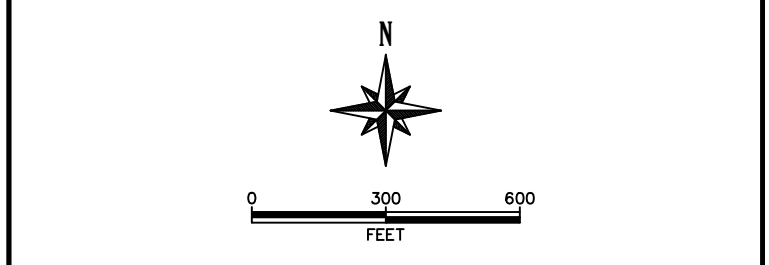
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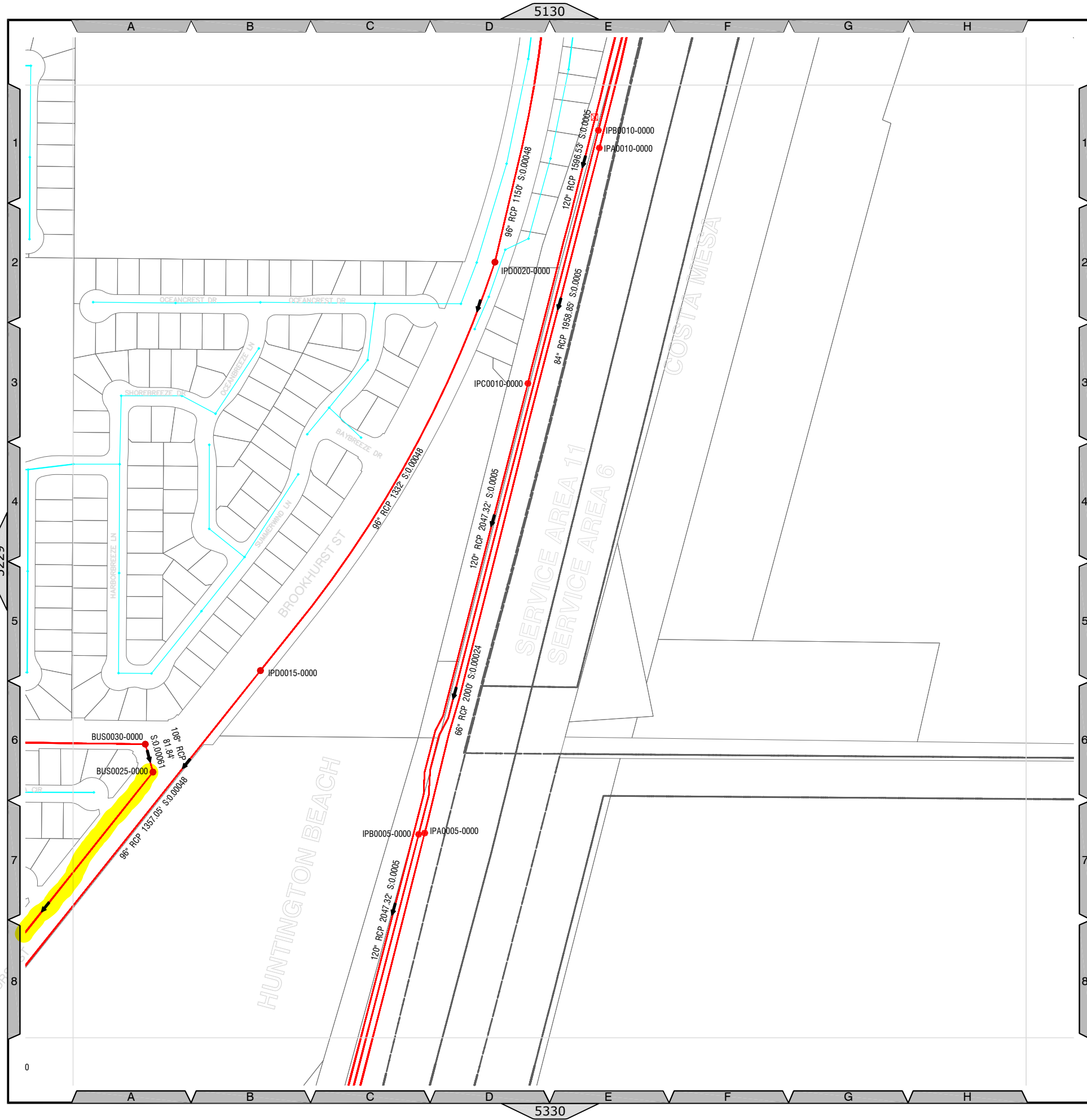
MANHOLE DATA TABLE					
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X Y
CST0045-0000	11-13-2	86+22.22	22	7	G 7
CST0050-0000	11-13-2	94+01.29	18.6	7.5	E 6
CST0055-0000	11-13-2	96+66.62	19.1	8	D 6
CST0060-0000	11-13-2	100+78.98	19	8	C 5
CST0060-0005	11-14	11+02.88	19	9	C 4
CST0060-0010	11-14	11+48.88	18.7	8.8	C 4
CST0062-0000	11-26R	107+79.20	16.8	7.1	A 4

LEGEND

- Diversion Structure
- Manhole
- Manhole - Temp out-of-service
- Manhole - Abandoned
- Sewer
- Air Vent
- Sewer - Temp out-of service
- Sewer - Abandoned
- Force Main
- Valve
- Fitting
- Vault
- Pump Station
- Directional Flow Arrow
- Non OCSD System
- Historic Street Name (SANTA ANA AV)

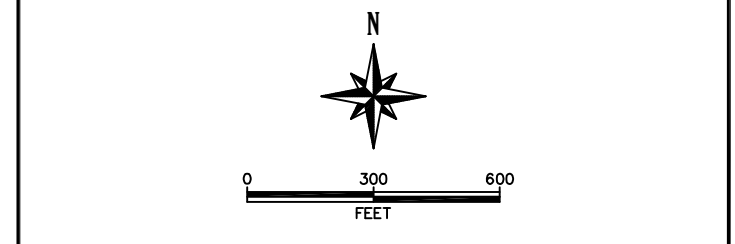


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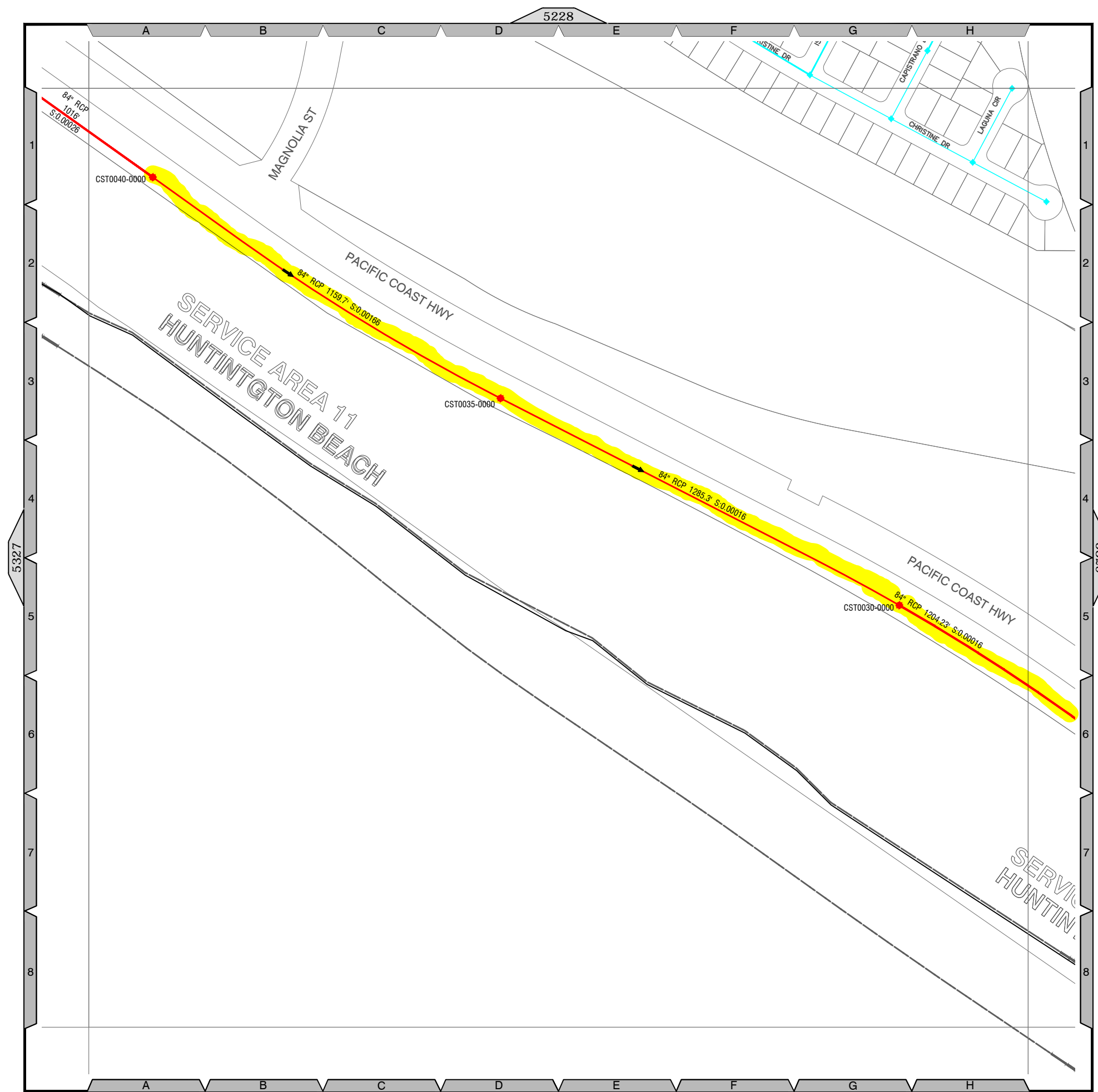


MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BUS0025-0000	I-2-4	26+04.55	18.5	4.9	A	6
BUS0030-0000	I-2-4	26+86.39	18.4	4.9	A	6
IPA0005-0000	I-6-1	186+89.10	11.5	13.5	C	7
IPA0010-0000	I-6-1	167+31.00	12.5	15	E	1
IPB0005-0000	I-3	190+00.00	7.4	9.5	C	7
IPB0010-0000	I-3	170+00.00	7.8	10.4	E	1
IPC0010-0000	I-9	163+02.54	14.7	13.8	D	3
IPD0015-0000	I-8	24+67.05	19.2	6	B	5
IPD0020-0000	I-8	49+33.50	18.7	6.2	D	2

LEGEND	
	OCSD Diversion Structure
	OCSD Manhole
	OCSD Manhole - Abandoned
	OCSD Sewer - Abandoned
	PS-AREA/LOC Pump Station
	Force Main
	LOOP TAG # Force Main Valve
	Force Main Air Valve
	Force Main Fitting
	Directional Flow Arrow
	Third Party Connection
	Non OCSD System
	(SANTA ANA AV) Historic Street Name



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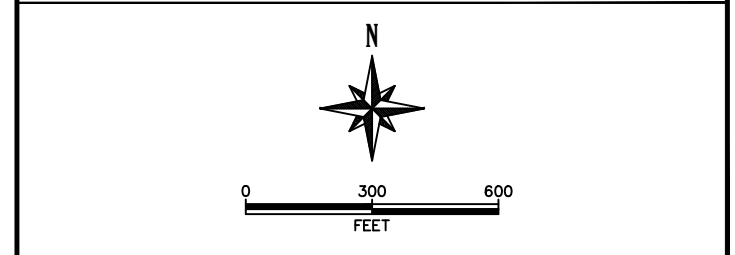


MANHOLE DATA TABLE

MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
CST0030-0000	11-13-2	51+74.22	23.8	8	H	5
CST0035-0000	11-13-2	64+46.22	23.5	8	D	3
CST0040-0000	11-13-2	76+06.22	21.5	7	A	1

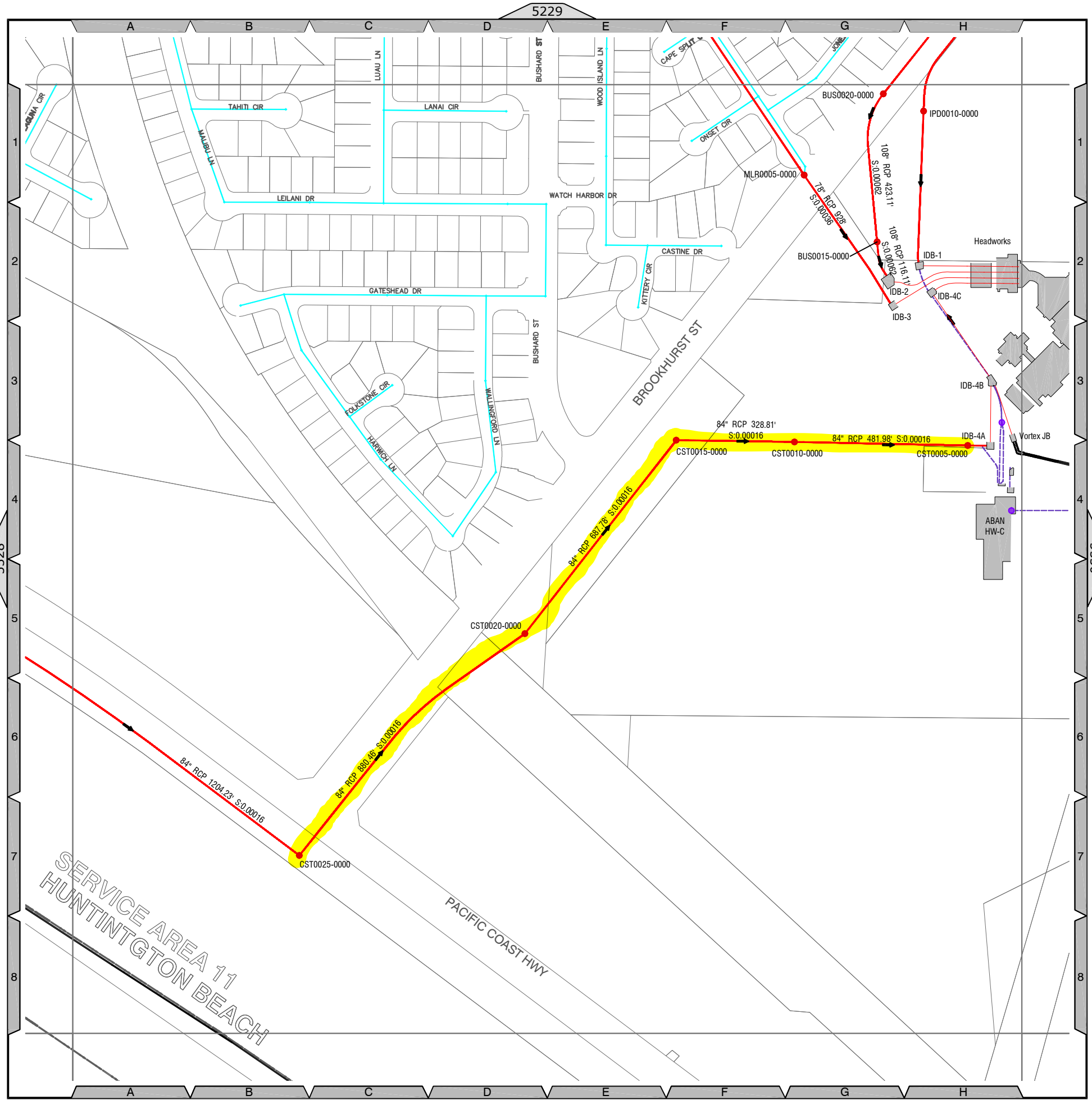
LEGEND

- Diversion Structure
- Manhole
- Manhole - Temp out-of-service
- Manhole - Abandoned
- Sewer
- Air Vent
- Sewer - Temp out-of-service
- Sewer - Abandoned
- Force Main
- Valve
- Fitting
- Vault
- Pump Station
- Directional Flow Arrow
- Non OCSD System
- Historic Street Name (SANTA ANA AV)



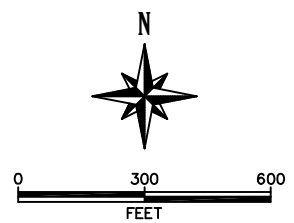
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MANHOLE DATA TABLE						
MANHOLE ID	CONTRACT	STATION NUMBER	MH DEPTH	RIM ELEV CD	X	Y
BUS0015-0000	1-2-4	12+04.73	19.3	4.85	G	2
BUS0020-0000	1-2-4	16+27.84	18.7	4.55	G	1
CST0005-0000	11-13-2	17+29.43	24.8	10.5	H	3
CST0010-0000	11-13-2	22+03.41	24	8	G	3
CST0015-0000	11-13-2	25+32.32	21.2	7	F	3
CST0020-0000	11-13-2	32+20.00	20.1	6	D	5
CST0025-0000	11-13-2	40+87.60	22	8	B	7
IPD0010-0000	1-8	11+10.00	18.6	4.8	H	1
MLR0005-0000	3-1	24+28.00	18.2	4	G	1

- LEGEND**
- OCSD Diversion Structure
 - OCSD Manhole
 - OCSD Sewer
 - OCSD Manhole - Abandoned
 - OCSD Sewer - Abandoned
 - PS-AREA/LOC Pump Station
 - Force Main
 - LOOP TAG # Force Main Valve
 - Force Main Air Valve
 - Force Main Fitting
 - Directional Flow Arrow
 - Third Party Connection
 - Non OCSD System
 - (SANTA ANA AV) Historic Street Name



ORANGE COUNTY SANITATION DISTRICT	
SERVICE AREA	EMB PAGE
11	5329
REVISION DATE	
Feb 22, 2017	

Exhibit “B”

COST MATRIX



**EXHIBIT B
COST MATRIX**

(USE ELECTRONIC FORM TO SUBMIT PROPOSED PRICING)

**SONAL INSPECTION OF LARGE DIAMETER SEWERS AND SIPHONS
SPECIFICATION NO. S-2022-1327**

In accordance with Exhibit A, Scope of Work, the following items are to be completed by the Consultant. Total costs should include labor, travel and any other expenses.

Line Items	DESCRIPTION	Unit of Measure	Qty	Per Unit	TOTAL COST
1	Sonar Inspection	Lot	1	\$ 329,700.00	\$ 329,700.00
2	Additional Mobilization	Each	1	\$ 15,249.00	\$ 15,249.00
Total Lump Sum Cost for Services (Line Items 1 & 2)					\$ 344,949.00