

City of San Diego

CONTRACTOR'S NAME: Ahrens Mechanical
ADDRESS: 5959 Mission Gorge Road, Ste. #204, San Diego, CA 92120
TELEPHONE NO.: 619-487-9036 **FAX NO.:** 619-487-9195
CITY CONTACT: Rosa Isela Riego, Senior Contract Specialist, Email: RRiego@sanidiego.gov
Phone No. (619) 533-3426
M. Gonzalez

QUOTE DOCUMENTS

FOR

FINAL

MID-CITY AND BOINTA PIPELINE



MC NO.: M-20-0011
SAP NO. (WBS/IO/CC): 21004808, 21004809

THIS CONTRACT WILL BE SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.
- PREVAILING WAGE RATES: STATE
- APPRENTICESHIP

QUOTE DUE DATE:

2:00 PM

SEPTEMBER 16, 2019

CITY OF SAN DIEGO'S ELECTRONIC BIDDING SITE, PLANETBIDS

<http://www.sandiego.gov/cip/bidopps/index.shtml>

TABLE OF CONTENTS

| SECTION | PAGE |
|--|-------------|
| 1. NOTICE INVITING QUOTE | 3 |
| 2. INSTRUCTIONS TO BIDDERS..... | 4-11 |
| 3. PERFORMANCE AND PAYMENT BONDS..... | 12-13 |
| 4. ATTACHMENTS: | |
| A. SCOPE OF WORK..... | 15-18 |
| B. INTENTIONALLY LEFT BLANK | 19 |
| C. INTENTIONALLY LEFT BLANK | 20 |
| D. PREVAILING WAGE..... | 21-25 |
| E. SUPPLEMENTARY SPECIAL PROVISIONS..... | 26-32 |
| 1. TECHNICALS..... | 33-47 |
| 2. PLANS | 48-56 |
| F. INTENTIONALLY LEFT BLANK | 57 |
| G. CONTRACT AGREEMENT | 58-60 |
| 5. CERTIFICATIONS AND FORMS..... | 61-75 |

NOTICE INVITING QUOTES

1. **SUMMARY OF WORK:** This is the City of San Diego's (City) solicitation process to acquire Minor Construction services for Mid-City and Bonita Pipeline. For additional information refer to Attachment A.
2. **LIMITED COMPETITION:** This solicitation is open only to City-certified **SLBE/ELBE** firms on the City's approved Prequalified Contractors List. For information regarding the SLBE-ELBE Construction Program and registration visit the City's web site: <http://www.sandiego.gov>.
3. **ESTIMATED CONSTRUCTION COST:** The City's estimated construction cost for this project is **\$170,100.00**.
4. **QUOTE DUE DATE AND TIME ARE: September 16, 2019 at 2:00 p.m.**
5. **PREVAILING WAGE RATES APPLY TO THIS CONTRACT:** Refer to Attachment D.
6. **LICENSE REQUIREMENT:** The City has determined that the following licensing classification(s) are required for this contract: **A**

Additional license requirement please refer to the Technical as part of these Contract Documents.

7. **AWARD PROCESS:**

- 7.1. The Award of this contract is contingent upon the Contractor's compliance with all conditions of Award as stated within these documents.
- 7.2. The City may award the contract to the contractor with the written price quotation offering the best value to the City, considering factors such as price, unit cost, life cycle cost, economic cost analysis, operating efficiency, warranty and quality, compatibility with existing equipment, maintenance costs, experience and qualification of the contractor, when the contractor can start and complete the project, and any additional factors deemed relevant.
- 7.3. This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form by the City Attorney's Office.

8. **SUBMISSION OF QUESTIONS:**

- 8.1. Any questions related to this solicitation shall be submitted to:
Public Works Contracts
525 B Street, Suite 750
San Diego, California, 92101
Attention: Rosa Isela Riego
OR:

RRiego@sandiego.gov

INSTRUCTIONS TO BIDDERS

1. PREQUALIFICATION OF CONTRACTORS:

- 1.1. Contractors submitting a Quote must be pre-qualified for the total amount proposed, including all alternate items, prior to the date of submittal.

2. ELECTRONIC FORMAT RECEIPT AND OPENING OF QUOTES: Quotes will be received in electronic format EXCLUSIVELY at the City of San Diego's electronic bidding (eBidding) site, at: <http://www.sandiego.gov/cip/bidopps/index.shtml> and are due by the date, and time shown on the cover of this solicitation.

- 2.1. **BIDDERS MUST BE PRE-REGISTERED** with the City's bidding system and possess a system-assigned Digital ID in order to submit an electronic quote.
- 2.2. The City's bidding system will automatically track information submitted to the site including IP addresses, browsers being used and the URLs from which information was submitted. In addition, the City's bidding system will keep a history of every login instance including the time of login, and other information about the user's computer configuration such as the operating system, browser type, version, and more. Because of these security features, Contractors who disable their browsers' cookies will not be able to log in and use the City's bidding system.
- 2.3. The City's electronic bidding system is responsible for quote tabulations. Upon the bidder's or proposer's entry of their quote, the system will ensure that all required fields are entered. **The system will not accept a quote for which any required information is missing.** This includes all necessary pricing, subcontractor listing(s) and any other essential documentation and supporting materials and forms requested or contained in these solicitation documents.
- 2.4. **QUOTES REMAIN SEALED UNTIL QUOTE DEADLINE.** eBids are transmitted into the City's bidding system via hypertext transfer protocol secure (https) mechanism using SSL 128-256 bit security certificates issued from Verisign/Thawte which encrypts data being transferred from client to server. Quotes submitted prior to the "Quote Due Date and Time" are not available for review by anyone other than the submitter who has until the "Quote Due Date and Time" to change, rescind or retrieve its proposal should it desire to do so.
- 2.5. **QUOTES MUST BE SUBMITTED BY QUOTE DUE DATE AND TIME.** Once the quote deadline is reached, no further submissions are accepted into the system. Once the Quote Due Date and Time has lapsed, bidders, proposers, the general public, and City staff are able to immediately see the results on line. City staff may then begin reviewing the submissions for responsiveness.

2.6. QUOTES MAY BE WITHDRAWN by the Bidder only up to the quote due date and time.

2.6.1. Important Note: Submission of the electronic quote into the system may not be instantaneous. Due to the speed and capabilities of the user's internet service provider (ISP), bandwidth, computer hardware and other variables, it may take time for the bidder's submission to upload and be received by the City's eBidding system. It is the bidder's sole responsibility to ensure their quotes are received on time by the City's eBidding system. The City of San Diego is not responsible for quotes that do not arrive by the required date and time.

2.7. ACCESSIBILITY AND AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE: To request a copy of this solicitation in an alternative format, contact the Public Works Contract Specialist listed on the cover of this solicitation at least five (5) working days prior to the Quote due date to ensure availability.

3. ELECTRONIC QUOTE SUBMISSIONS CARRY FULL FORCE AND EFFECT

3.1. The bidder, by submitting its electronic quote, acknowledges that doing so carries the same force and full legal effect as a paper submission with a longhand (wet) signature.

3.2. By submitting an electronic quote, the bidder certifies that the bidder has thoroughly examined and understands the entire Contract Documents (which consist of drawings, forms, affidavits and the solicitation documents), and that by submitting the eBid as its quote proposal, the bidder acknowledges, agrees to and is bound by the entire Contract Documents.

3.3. The Bidder, by submitting its quote, agrees to and certifies under penalty of perjury under the laws of the State of California, that the certification, forms and affidavits submitted as part of this quote are true and correct.

3.4. The Bidder agrees to the construction of the project as described in Attachment "A-Scope of Work" for the City of San Diego, in accordance with the requirements set forth herein for the electronically submitted prices. The Bidder guarantees the Contract Price for a period of 120 days from the date of quote opening. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent.

4. QUOTES ARE PUBLIC RECORDS: Upon receipt by the City, Quotes shall become public records subject to public disclosure. It is the responsibility of the respondent to clearly identify any confidential, proprietary, trade secret or otherwise legally privileged information contained within the Quote. General references to sections of the California Public Records Act (PRA) will not suffice. If the Contractor does not provide applicable case

law that clearly establishes that the requested information is exempt from the disclosure requirements of the PRA, the City shall be free to release the information when required in accordance with the PRA, pursuant to any other applicable law, or by order of any court or government agency, and the Contractor will hold the City harmless for release of this information.

5. CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:

5.1. **Prior** to the Award of the Contract or Task Order, you and your Subcontractors and Suppliers must register with the City's web-based vendor registration and quote management system. For additional information go to:

<http://www.sandiego.gov/purchasing/bids-contracts/vendorreg.shtml>.

5.2. The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.

6. JOINT VENTURE CONTRACTORS: Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receiving the Contract forms. See 3-6, "The Contractors Representative" in The GREENBOOK and WHITEBOOK.

7. PREVAILING WAGE RATES WILL APPLY: Refer to Attachment D.

8. INSURANCE REQUIREMENTS:

8.1. All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City's Notice of Intent to Award letter.

8.2. Refer to sections 5-4, "INSURANCE", and 5-4.11, "WORKERS' COMPENSATION INSURANCE AND EMPLOYERS LIABILITY INSURANCE" of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.

9. **REFERENCE STANDARDS:** Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

| Title | Edition | Document Number |
|---|---------|-----------------|
| Standard Specifications for Public Works Construction ("The GREENBOOK") http://www.greenbookspecs.org/ | 2018 | PWPI010119-01 |
| City of San Diego Standard Specifications for Public Works Construction ("The WHITEBOOK")* https://www.sandiego.gov/publicworks/edocref/greenbook | 2018 | PWPI010119-02 |
| City of San Diego Standard Drawings* https://www.sandiego.gov/publicworks/edocref/standarddraw | 2018 | PWPI010119-03 |
| Citywide Computer Aided Design and Drafting (CADD) Standards https://www.sandiego.gov/publicworks/edocref/drawings | 2018 | PWPI010119-04 |
| California Department of Transportation (CALTRANS) Standard Specifications – http://www.dot.ca.gov/des/oe/construction-contract-standards.html | 2018 | PWPI030119-05 |
| CALTRANS Standard Plans http://www.dot.ca.gov/des/oe/construction-contract-standards.html | 2018 | PWPI030119-06 |
| California Manual on Uniform Traffic Control Devices Revision 1 (CA MUTCD Rev 1) - http://www.dot.ca.gov/trafficops/camutcd/ | 2014 | PWPIO92816-07 |
| <p>NOTE: *Available online under Engineering Documents and References at: http://www.sandiego.gov/publicworks/edocref/index.shtml</p> <p>*Electronic updates to the Standard Drawings may also be found in the link above.</p> | | |

10. **CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Notice Inviting Quotes at any time, and further reserves the right to reject submitted Quotes, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Quotes under the Notice Inviting Quotes shall be the sole responsibility of each bidder. The Notice Inviting Quotes creates or imposes no obligation upon the City to enter a contract.

11. **CONTRACT PRICING:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth herein. The Bidder agrees to perform construction services for the City of San Diego in accordance with these contract documents for the prices listed below. The Bidder further agrees to guarantee the Contract Price for a period of 120 days from the date of Quote opening. The duration of the Contract Price guarantee may be extended, by mutual consent of the parties, by the number of days required for the City to obtain all items necessary to fulfill all contractual conditions.

12. SUBCONTRACTOR INFORMATION:

12.1. LISTING OF SUBCONTRACTORS. In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act" of the California Public Contract Code, the Bidder shall provide the **NAME** and **ADDRESS** of each Subcontractor who will perform work, labor, render services or who specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Quote. The Bidder shall also state within the description, whether the subcontractor is a **CONSTRUCTOR, CONSULTANT** or **SUPPLIER**. The Bidder shall state the **DIR REGISTRATION NUMBER** for all subcontractors and shall further state within the description, the **PORZION** of the work which will be performed by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Quote to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement may result in the Quote being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 3-2, "Self-Performance", which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors for which Bidders are seeking recognition towards achieving any mandatory, voluntary (or both) subcontracting participation goals.

12.2. Additionally, pursuant to California Senate Bill 96 and in accordance with the requirements of Labor Code sections 1771.1 and 1725.5, by submitting a quote or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the California Department of Industrial Relations (DIR). **The Bidder shall provide the name, address, license number, DIR registration number of any Subcontractor - regardless of tier** - who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement pursuant to the contract.

13. SUBMITTAL OF "OR EQUAL" ITEMS: See Section 4-6, "Trade Names" in The WHITEBOOK and as amended in the SSP.

14. AWARD:

14.1. The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award.

14.2. The City may award the contract to the contractor with the written price quotation offering the best value to the City, considering factors such as price, unit cost, life cycle cost, economic cost analysis, operating efficiency, warranty and quality, compatibility with existing equipment, maintenance costs, experience and

qualification of the contractor, when the contractor can start and complete the project, and any additional factors deemed relevant.

- 14.3. This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form the City Attorney's Office.

15. **SAN DIEGO BUSINESS TAX CERTIFICATE:** The Contractor and Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, First floor and submit to the Contract Specialist upon request or as specified in the Contract Documents. Tax Identification numbers for both the Bidder and the listed Subcontractors must be submitted on the City provided forms within these documents.

16. AWARD OF CONTRACT OR REJECTION OF QUOTES:

- 16.1. Bidders shall complete ALL eBid forms as required by this solicitation. Incomplete eBids will not be accepted.
- 16.2. The City reserves the right to reject any or all Quotes, to waive any informality or technicality in Quotes received, and to waive any requirements of these specifications as to bidding procedure.
- 16.3. Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City within 3 Working Days of the quote opening, written notice from the Bidder which shows proof of honest, credible, clerical error of a material nature, free from fraud or fraudulent intent; and of evidence that reasonable care was observed in the preparation of the Quote.
- 16.4. The City of San Diego will not discriminate in the award of contracts with regard to race, religion creed, color, national origin, ancestry, physical handicap, marital status, sex or age.
- 16.5. Each Quote package properly signed as required by these specifications shall constitute a firm offer which may be accepted by the City within the time specified herein.

17. QUOTE RESULTS:

- 17.1. The availability of the quotes on the City's eBidding system shall constitute the public announcement. In the event that the apparent low bidder is subsequently deemed non-responsive or non-responsible, a notation of such will be made on the eBidding system. The new ranking and apparent low bidder will be adjusted accordingly.

17.2. To obtain the results, view the results on the City's web site, or request the results by U.S. mail and provide a self-addressed, stamped envelope. If requesting by mail, be sure to reference the quote name and number. The quote tabulations will be mailed to you upon their completion. The results will not be given over the telephone.

18. THE CONTRACT:

18.1. The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 14 days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.

18.2. If the Bidder takes longer than 14 days to fulfill these requirements, then the additional time taken shall be added to the Quote guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.

18.3. The award of the Contract is contingent upon the satisfactory completion of the above-mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee and approval as to form the City Attorney's Office. If the selected contractor does not execute the Contract or submit required documents and information, the City may award the Contract to another responsible and reliable Bidder who shall fulfill every condition precedent to award. The selected firm shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.

19. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK: The Bidder shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 2-7, and the proposal forms (e.g., Bidding Documents). The submission of a Quote shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.

20. CITY STANDARD PROVISIONS: This contract is subject to the following standard provisions. See The WHITEBOOK for details.

20.1. The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.

- 20.2.** The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.
- 20.3.** The City of San Diego Municipal Code §22.3004 for Contractor Standards.
- 20.4.** The City of San Diego's Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.
- 20.5.** Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.
- 20.6.** The City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).
- 20.7.** The City's Information Security Policy (ISP) as defined in the City's Administrative Regulation 90.63.

21. PRE-AWARD ACTIVITIES:

- 21.1.** The contractor selected by the City to execute a contract for this Work shall submit the required documentation as specified in the herein and in the Notice of Award. Failure to provide the information as specified may result in the Quote being rejected as **non-responsive**.
- 21.2.** The decision that quote is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.

Issued in Duplicate

Premium will be adjusted
based on final contract price

PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND

Bond No.: 2286927
Premium: \$3,552.00

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

Ahrens Mechanical _____, a corporation, as principal, and
North American Specialty Insurance Company _____, a corporation authorized to do
business in the State of California, as Surety, hereby obligate themselves, their successors and
assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of
One Hundred Seventy Thousand One Hundred Dollars and Zero Cents (\$170,100.00) for the
faithful performance of the annexed contract, and in the sum of **One Hundred Seventy
Thousand One Hundred Dollars and Zero Cents (\$170,100.00)** for the benefit of laborers and
materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract with the City of San Diego,
California, then the obligation herein with respect to a faithful performance shall be void;
otherwise it shall remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials
for or performing labor in the execution of this contract, and shall pay all amounts due under the
California Unemployment Insurance Act then the obligation herein with respect to laborers and
materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit
of all persons, firms and corporations entitled to file claims under the provisions of Article 2,
Claimants, (iii) public works of improvement commencing with Civil Code Section 9100 of the Civil
Code of the State of California.

Changes in the terms of the annexed contract or specifications accompanying same or
referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby
waives notice of same.

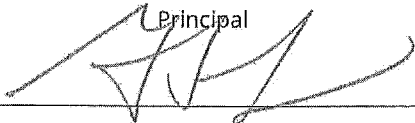
The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of
this bond.

PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND (continued)

Dated September 19, 2019

Approved as to Form

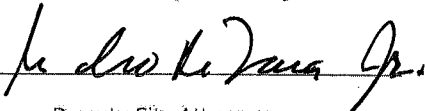
Ahrens Mechanical

By  Principal

GREGORY S. AHRENS, President

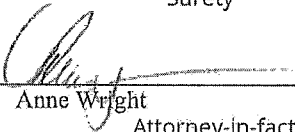
Printed Name of Person Signing for Principal

Mara W. Elliott, City Attorney

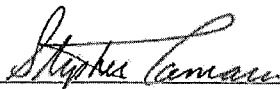
By 
Deputy City Attorney

North American Specialty Insurance Company

Surety

By 
Anne Wright
Attorney-in-fact

Approved:

By 
Stephen Samara
Principal Contract Specialist
Public Works Department

777 S Figueroa Street, Ste. 3700

Local Address of Surety

Los Angeles, CA 90017

Local Address (City, State) of Surety

213-337-3086

Local Telephone No. of Surety

Premium \$ 3,552.00

Bond No. 2286927

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of San Diego }

On September 19, 2019 before me, Dana L. Michaelis, Notary Public,
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Anne Wright

Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Dana L. Michaelis
Signature of Notary Public Dana L. Michaelis



Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.

Description of Attached Document

Title or Type of Document: _____

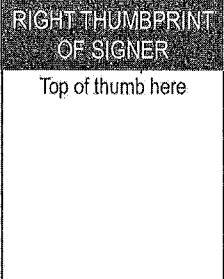
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

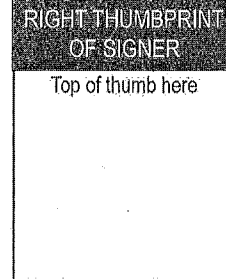
- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing: _____

SWISS RE CORPORATE SOLUTIONS

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Overland Park, Kansas, and Washington International Insurance Company, a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Overland Park, Kansas, each does hereby make, constitute and appoint:

CYNDI BEILMAN, ANNE WRIGHT, AND DANA MICHAELIS

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on the 9th of May, 2012:

"RESOLVED, that any two of the Presidents, any Managing Director, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By [Signature]
Steven P. Anderson, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company



By [Signature]
Michael A. Ito, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company

IN WITNESS WHEREOF, North American Specialty Insurance Company and Washington International Insurance Company have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this 18 day of JANUARY, 2018.

North American Specialty Insurance Company
Washington International Insurance Company

State of Illinois
County of Cook ss:

On this 18 day of JANUARY, 2018, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Michael A. Ito, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



[Signature]
M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Assistant Secretary of North American Specialty Insurance Company and Washington International Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company and Washington International Insurance Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 19th day of September, 2019.

[Signature]
Jeffrey Goldberg, Vice President & Assistant Secretary of
Washington International Insurance Company & North American Specialty Insurance Company

ATTACHMENTS

ATTACHMENT A

SCOPE OF WORK

SCOPE OF WORK

1. SCOPE OF WORK:

1.1. Mid-City Pipeline – 37th & Orange Deep Anode Ground bed Replacement:

The Contractor shall provide all the labor, materials, tools, and incidentals to install a new deep anode ground bed and connect it to the existing rectifier for the Mid-City potable water pipeline approximately 50 feet South of the intersection of 37th Street and Orange Avenue. The work shall include the following items:

- 1.1.1. The Contractor shall obtain the necessary traffic control permits from the City's Field Engineering and Construction Management Division. This will include any necessary traffic control drawings required to obtain the permit.
- 1.1.2. The Contractor shall provide all the labor and equipment necessary to implement the requirements of the traffic control permit.
- 1.1.3. The Contractor shall obtain all the necessary Well Drilling and Abandonment Permits from the County of San Diego and submit approved copies to the City.
- 1.1.4. The Contractor shall destroy and abandon the existing deep anode ground bed in accordance with all local, state, and federal requirements.
- 1.1.5. The Contractor shall drill and load a new 160-foot-deep anode ground bed per the project drawings. The Contractor shall log the new well as described in the project specifications and submit all data to the City.
- 1.1.6. The Contractor shall trench all new anode wire conduit and vent pipe over to the existing anode wire conduit cabinet as shown on the drawings. The Contractor shall intercept the existing anode wire conduit and use it to pull the new anode wires into the rectifier cabinet.
- 1.1.7. The Contractor shall provide the necessary connection hardware such as shunts, buss bars, and compression lugs to make all final wire connections inside the rectifier cabinet.
- 1.1.8. The Contractor shall provide all the necessary labor and equipment to saw cut the existing pavement sections, trench and excavate as required. The Contractor shall backfill, compact, and repair street surfaces at all excavated and trenched locations per the 2018 Greenbook and 2018 Whitebook City Supplements.
- 1.1.9. Final CP System activation shall be performed by the City.

1.2. Bonita Pipeline – 45th St. & G St. Deep Anode Ground bed Replacement:

The Contractor shall provide all the labor, materials, tools, and incidentals to install a new deep anode ground bed and connect it to the existing rectifier for the Bonita potable water pipeline approximately 300 feet north of the intersection of 45th Street and Market St. The work shall include the following items:

- 1.2.1. The Contractor shall obtain the necessary traffic control permits from the City's Field Engineering and Construction Management Division. This will include any necessary traffic control drawings required to obtain the permit.
- 1.2.2. The Contractor shall provide all the labor and equipment necessary to implement the requirements of the traffic control permit.
- 1.2.3. The Contractor shall obtain all the necessary Well Drilling and Abandonment Permits from the County of San Diego and submit approved copies to the City.
- 1.2.4. The Contractor shall destroy and abandon the existing deep anode ground bed in accordance with all local, state, and federal requirements.
- 1.2.5. The Contractor shall drill and load a new 175-foot-deep anode ground bed per the project drawings. The Contractor shall log the new well as described in the project specifications and submit all data to the City.
- 1.2.6. The Contractor shall trench all new anode wire conduit and vent pipe over to the existing anode wire conduit cabinet as shown on the drawings. The Contractor shall intercept the existing anode wire conduit and use it to pull the new anode wires into the rectifier cabinet.
- 1.2.7. The Contractor shall provide the necessary connection hardware such as shunts, buss bars, and compression lugs to make all final wire connections inside the rectifier cabinet.
- 1.2.8. The Contractor shall provide all the necessary labor and equipment to saw cut the existing pavement sections, trench and excavate as required. The Contractor shall backfill, compact, and repair street surfaces at all excavated and trenched locations per the 2018 Greenbook and 2018 Whitebook City Supplements.
- 1.2.9. Final CP System activation shall be performed by the City.

1.3. The Work shall be performed in accordance with:

- 1.3.1. The Notice Inviting Quotes, Technical and Plans numbered 41134-1-D through 41134-4-D and 41135-1-D through 41135-4, inclusive.

2. ESTIMATED CONSTRUCTION COST: The City's estimated construction cost for this project is **\$170,100.00.**

3. **LOCATION OF WORK: The location of the Work is as follows:**

Near 37th Street and Orange Avenue and Near 45th Street and G Street

4. **CONTRACT TIME:** The Contract Time for completion of the Work, shall be 90 **Working Days**.

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ATTACHMENT C
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ATTACHMENT D
PREVAILING WAGES

PREVAILING WAGES

1. **PREVAILING WAGE RATES:** Pursuant to San Diego Municipal Code section 22.3019, construction, alteration, demolition, repair and maintenance work performed under this Contract is subject to State prevailing wage laws. For construction work performed under this Contract cumulatively exceeding \$25,000 and for alteration, demolition, repair and maintenance work performed under this Contract cumulatively exceeding \$15,000, the Contractor and its subcontractors shall comply with State prevailing wage laws including, but not limited to, the requirements listed below.
 - 1.1. **Compliance with Prevailing Wage Requirements.** Pursuant to sections 1720 through 1861 of the California Labor Code, the Contractor and its subcontractors shall ensure that all workers who perform work under this Contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.
 - 1.1.1. Copies of such prevailing rate of per diem wages are on file at the City and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Contractor and its subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.
 - 1.1.2. The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this Contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this Contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this Contract, each successive predetermined wage rate shall apply to this Contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this Contract, such wage rate shall apply to the balance of the Contract.
 - 1.2. **Penalties for Violations.** Contractor and its subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed. This shall be in addition to any other applicable penalties allowed under Labor Code sections 1720 – 1861.
 - 1.3. **Payroll Records.** Contractor and its subcontractors shall comply with California

subcontractor shall not be qualified to quote on, be listed in a quote or proposal, subject to the requirements of section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Labor Code section 1725.5. It is not a violation of this section for an unregistered contractor to submit a quote that is authorized by Section 7029.1 of the Business and Professions code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

1.9.1. A Contractor's inadvertent error in listing a subcontractor who is not registered pursuant to Labor Code section 1725.5 in response to a solicitation shall not be grounds for filing a quote protest or grounds for considering the quote non-responsive provided that any of the following apply: (1) the subcontractor is registered prior to quote opening; (2) within twenty-four hours after the quote opening, the subcontractor is registered and has paid the penalty registration fee specified in Labor Code section 1725.5; or (3) the subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.

1.9.2. By submitting a quote or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the DIR in compliance with Labor Code sections 1771.1 and 1725.5, and Contractor shall provide proof of registration for themselves and all listed subcontractors to the City at the time of quote or proposal due date or upon request.

1.10. Stop Order. For Contractor or its subcontractors engaging in the performance of any public work contract without having been registered in violation of Labor Code sections 1725.5 or 1771.1, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractors or unregistered subcontractor(s) on ALL public works until the unregistered contractor or unregistered subcontractor(s) is registered. Failure to observe a stop order is a misdemeanor.

1.11. List of all Subcontractors. The Contractor shall provide the list of subcontractors (regardless of tier), along with their DIR registration numbers, utilized on this Contract prior to any work being performed; and the Contractor shall provide a complete list of all subcontractors with each invoice. Additionally, Contractor shall provide the City with a complete list of all subcontractors (regardless of tier) utilized on this contract within ten working days of the completion of the contract, along with their DIR registration numbers. The City shall withhold final payment to Construction Management Professional until at least thirty (30) days after this information is provided to the City.

1.12. Exemptions for Small Projects. There are limited exemptions for installation, alteration, demolition, or repair work done on projects of \$25,000 or less. The Contractor shall still comply with Labor Code sections 1720 et. seq. The only recognized exemptions are listed below:

- 1.12.1.** Registration. The Contractor will not be required to register with the DIR for small projects. (Labor Code section 1771.1)
- 1.12.2.** Certified Payroll Records. The records required in Labor Code section 1776 shall be required to be kept and submitted to the City of San Diego, but will not be required to be submitted online with the DIR directly. The Contractor will need to keep those records for at least three years following the completion of the Contract. (Labor Code section 1771.4).
- 1.12.3.** List of all Subcontractors. The Contractor shall not be required to hire only registered subcontractors and is exempt from submitting the list of all subcontractors that is required in section 1.11 above. (Labor code section 1773.3).

ATTACHMENT E
SUPPLEMENTARY SPECIAL PROVISIONS

SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

1. The **2018 Edition** of the Standard Specifications for Public Works Construction (The "GREENBOOK").
 2. The **2018 Edition** of the City of San Diego Standard Specifications for Public Works Construction (The "WHITEBOOK"), including the following:
 - a) General Provisions (A) for all Construction Contracts.
-

SECTION 3 - CONTROL OF THE WORK

3-2 SELF-PERFORMANCE. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. You shall perform, with your own organization, Contract Work amounting to at least 50% of the Contract Price.

SECTION 4 - CONTROL OF MATERIALS

4-6 TRADE NAMES. To the "WHITEBOOK", ADD the following:

11. You shall submit your list of proposed substitutions for an "equal" item on the City's Product Submittal Form available at:

<http://www.sandiego.gov/publicworks/edocref/index.shtml>

SECTION 5 - LEGAL RELATIONS AND RESPONSIBILITIES

5-4 INSURANCE. To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

5-4 INSURANCE.

1. The insurance provisions herein shall not be construed to limit your indemnity obligations contained in the Contract.

5-4.1 Policies and Procedures.

1. You shall procure the insurance described below, at its sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.

2. Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
3. You shall maintain this insurance for the duration of this Contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this Contract. Your liabilities under the Contract, e.g., your indemnity obligations, is not deemed limited to the insurance coverage required by this Contract.
4. The payment for insurance shall be included in the Contract Price as bid by you. Except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any Work under this Contract until you have provided and the City has approved all required insurance.
5. Policies of insurance shall provide that the City is entitled to 30 Days (10 Days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

5-4.2 Types of Insurance.

5-4.2.1 Commercial General Liability Insurance.

1. Commercial General Liability Insurance shall be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
2. The policy shall cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There shall be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You shall maintain the same or equivalent insurance for at least 10 years following completion of the Work.

4. All costs of defense shall be outside the policy limits. Policy coverage shall be in liability limits of not less than the following:

| <u>General Annual Aggregate Limit</u> | <u>Limits of Liability</u> |
|---|----------------------------|
| Other than Products/Completed Operations | \$2,000,000 |
| Products/Completed Operations Aggregate Limit | \$2,000,000 |
| Personal Injury Limit | \$1,000,000 |
| Each Occurrence | \$1,000,000 |

5-4.2.2 Commercial Automobile Liability Insurance.

1. You shall provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles (“Any Auto”).
2. All costs of defense shall be outside the limits of the policy.

5-4.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this Contract as described herein shall be carried only by responsible insurance companies with a rating of, or equivalent to, at least “A-, VI” by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

5-4.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, “surplus lines” carriers only if the carrier is authorized to do business in the State and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers shall be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

5-4.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal documentation prior to expiration of this insurance. Each required document shall be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

5-4.5 Policy Endorsements.

5-4.5.1 Commercial General Liability Insurance.

5-4.5.1.1 Additional Insured.

1. You shall provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
2. To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
3. The additional insured coverage for projects for which the Engineer's Estimate is \$1,000,000 or more shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products,
 - c) your Work, e.g., your completed operations performed by you or on your behalf, or
 - d) premises owned, leased, controlled, or used by you.
4. The additional insured coverage for projects for which the Engineer's Estimate is less than \$1,000,000 shall include liability arising out of:
 - a) Ongoing operations performed by you or on your behalf,
 - b) your products, or
 - c) premises owned, leased, controlled, or used by you.

5-4.5.1.2 Primary and Non-Contributory Coverage. The policy shall be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it shall provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives shall be in excess of your insurance and shall not contribute to it.

5-4.5.1.3 Project General Aggregate Limit. The policy or policies shall be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work shall reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit shall be in addition to the aggregate limit provided for the products-completed operations hazard.

5-4.5.2 Commercial Automobile Liability Insurance.

5-4.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form

or equivalent form providing coverage at least as broad, the policy shall be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

5-4.6 Deductibles and Self-Insured Retentions. You shall pay for all deductibles and self-insured retentions. You shall disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

5-4.7 Reservation of Rights. The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this Contract.

5-4.8 Notice of Changes to Insurance. You shall notify the City 30 Days prior to any material change to the policies of insurance provided under this Contract.

5-4.9 Excess Insurance. Policies providing excess coverage shall follow the form of the primary policy or policies e.g., all endorsements.

5-4.11 Workers' Compensation Insurance and Employers Liability Insurance.

1. In accordance with the provisions of §3700 of the California Labor Code, you shall provide at your expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.
2. Limits for this insurance shall be not less than the following:

| <u>Workers' Compensation</u> | <u>Statutory Employers Liability</u> |
|------------------------------|--------------------------------------|
| Bodily Injury by Accident | \$1,000,000 each accident |
| Bodily Injury by Disease | \$1,000,000 each employee |
| Bodily Injury by Disease | \$1,000,000 policy limit |
3. By signing and returning the Contract you certify that you are aware of the provisions of §3700 of the Labor Code which requires every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you shall comply with such provisions before commencing the Work as required by §1861 of the California Labor Code.

5-4.11.1. Waiver of Subrogation. The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

TECHNICAL

PART 1 – GENERAL

1.1 WORK OF THIS SECTION

- A. The Contractor shall provide all labor, materials, tools, and incidentals to install a cathodic protection system for the existing Midcity and Bonita potable water pipelines at the intersections of 37th Street and Orange Avenue and at 45th Street and G Street, respectively. The work includes the provision and installation of two deep anode ground beds, trenching for wiring runs, anode hole logging, and all accessories required for a complete operable systems. The final system activation and testing shall be performed by the CITY.
- B. The Contractor shall remove the existing anode deepwells from service per local, state, and federal requirements.
- C. If the products installed as part of this Section are found to be defective or damaged or if the WORK of this Section is not in conformance with these Specifications then the products and WORK shall be corrected at the CONTRACTOR's expense.

1.2 DEFINITIONS

- A. CONTRACTOR: The licensed prime installer selected by the CITY to install the pipeline.
- B. CITY: The City of San Diego.
- C. CORROSION ENGINEER: A qualified Corrosion Engineer retained by the Contractor who is either a Registered Professional Corrosion Engineer or NACE-International Certified Cathodic Protection Specialist.
- D. ENGINEER: The City of San Diego's Resident Engineer or designated representative.
- E. CITY'S CORROSION ENGINEER: The Engineer's appointed representative from the City's Corrosion Section.

1.3 CONTRACTOR QUALIFICATIONS

- A. All work must be conducted by qualified, experienced personnel working under continuous, competent supervision. The Contractor doing the electrical installations shall have proper valid State of California C-10 license and the Contractor doing the well drilling work shall have a proper valid State of California C-57 license.

1.4 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Commercial Codes and Standards:
 - ASTM B3 Soft or Annealed Copper Wire
 - ASTM B8 Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or soft
 - ASTM C150 Portland Cement

| | |
|-------------------|--|
| ASTM D1785 | Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120 |
| ASTM D2220 | Polyvinylchloride Insulation of Wire and Cable |
| CA Bulletin 74-90 | California Well Standards |
| FS W-C-1094 | Conduit and Conduit Fittings, Plastic, Rigid |
| Mil-C-18480-B | Coating Compound, Bituminous, Solvent, Coal Tar Base |
| NACE SP0169 | Standard Practice, Control of External Corrosion on Underground or Submerged Metallic Piping Systems |
| NACE SP0572 | Design, Installation, Operation, and Maintenance, of Impressed Current Deep Groundbeds |
| NEMA 250 | Enclosures for Electrical Equipment (1,000 V maximum) |
| NEMA LI-1 | Industrial Laminated Thermosetting Products |
| NEMA TC2 | Electrical Polyvinyl Chloride (PVC) Tubing and Conduit |
| NEMA TC3 | PVC Fittings for use with Rigid PVC Conduit and Tubing |
| NFPA 70 | National Electrical Code (NEC) |
| UL 6 | Rigid Metal Conduit |
| UL 83 | Thermoplastic-Insulated Wire |
| UL 486 | Wire Connectors and Soldering Lugs for Use with Copper Conductors |
| UL 514 | Metallic Outlet Boxes |
| UL 651 | Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings |
| Green Book | Standard Specifications for Public Works Construction, 2015 edition |
| White Book | Standard Specifications of Public Works Construction, City of San Diego, 2015 edition |

Standard Drawings for Public Works Construction latest edition

County of San Diego, San Diego County Code of Regulatory Ordinances, Title 6 - Health and Sanitation, Division 7 - Water and Water Supplies, Chapter 4 – Wells

1.5 CONTRACTOR SUBMITTALS

A. Catalog Cuts:

Submit manufacturer's catalog cuts for each item listed. The catalog cuts shall include the manufacturer's name, shall be identified by reference to the applicable specifications paragraph and/or drawing number, and shall provide sufficient information to show that the materials meet the requirements of the Drawings and Specifications. Where more than one item or catalog number appears on a catalog cut, clearly identify the item proposed. Catalog cuts of the following items shall be submitted for approval:

- a. Impressed Current Anodes
- b. Anode Centralizer
- c. Coke Backfill
- d. Vent Pipe
- e. Well Sealing Materials
- f. Deep Anode Well Head Vault
- g. Surface Vent Pipe
- l. Conduit and Fittings
- m. Wire, Leads, and Cable
- o. Anode Shunts
- p. Cable Warning Tape

B. Drilling and Anode Resistance Logs:

The CONTRACTOR shall record and submit to the ENGINEER the following information obtained during the drilling and anode loading of the hole. All data shall be typed on white 8 1/2" x 11" paper.

1. Drillers Log.
2. Identification of water bearing strata
3. Initial Hole Resistance Log Versus Depth
4. Individual anode final depths
5. Individual anode current outputs before and after backfilling with coke

C. As-Built Drawings

The CONTRACTOR shall maintain as-built drawings showing the exact locations of the deep anode ground bed and wire trenching runs. Location changes shall be clearly indicated in red on a blue-line copy of the design drawings. These drawings shall be submitted to the ENGINEER before the work is considered complete

D. Anode Well Permits: The CONTRACTOR shall submit copies of the completed and approved County of San Diego, Department of Environmental Health, cathodic protection well permit.

1.6 PACKAGING AND SHIPPING

A. The CONTRACTOR shall coil wires, secure and package anodes as required to prevent damage during shipment.

1.7 NOTIFICATION FOR TESTING AND INSPECTION

- A. The CONTRACTOR shall notify the ENGINEER at least seven days in advance of the deep anode ground bed drilling and the installation of associated wiring. Well loading and completion shall be done in the presence of the ENGINEER. The ENGINEER shall witness all corrosion control installations at their discretion.

1.8 INTERFERENCE AND EXACT LOCATIONS

- A. The locations of cathodic protection equipment as indicated are approximate only. Exact locations shall be determined by the CONTRACTOR in the field and be subject to approval of the ENGINEER.
- B. The CONTRACTOR shall field verify all data and final locations of work done under other Sections of the Specifications required for placing of the electrical work
- C. In case of interference with other work or erroneous locations with respect to equipment or structures, the CONTRACTOR shall furnish all labor and materials necessary to complete the WORK in an acceptable manner.

PART 2 – PRODUCTS

2.1 IMPRESSED CURRENT ANODES

- A. Mixed Metal Oxide - Tubular
 - 1. Description: Dimensionally stable, tubular titanium anodes with a mixed metal oxide coating and having the dimensions listed below:
 - a. Length: as noted on the drawings.
 - b. Outside Diameter: 1 inch, minimum.
 - 2. Manufacturer: De Nora Lida “One” Anodes, or approved equal

2.2 ANODE CENTRALIZERS

- A. Centering devices shall consist of three metal or plastic assemblies that can be securely attached to the anodes and vent pipe to center them in the drilled hole. Centralizers shall not block the hole or impair installation of the anode, anode wire, or calcined coke. Centralizers shall be LIDA Ventralizers or approved equal.

2.3 COKE BACKFILL

- A. Calcined Petroleum Coke: Lubricated, low resistance, calcined petroleum coke shall be provided, suitable for pumping and with the following composition:
 - 1. Bulk Density: 64 to 74 pounds per cubic foot.
 - 2. Fixed Carbon: 98% to 99.8%.
 - 3. Ash: 0.6% to 0.13%.
- B. Manufacturers, or approved equal:
 - 1. Loresco SC-3, Asbury 251, or approved equal.

2.4 DEEP ANODE GROUND BED CONSTRUCTION MATERIALS

- A. Vent Pipe: 2-inch, Schedule 40 PVC pipe with screwed and glued joints, with 0.006-inch longitudinal slots, 3-inches long, cut completely through both sides of the pipe at 4-inch centers in the active anode column area. Loresco All-Vent, or approved equal.
- B. Ground Bed Sealing Material: Cement grout, bentonite-gelatinous mud, or neat cement, in accordance with the applicable state and local regulations.
- C. Deep Anode Well Head Vault: The wellhead vault shall be H-20 traffic rated cast iron frame and lid. The lid shall be approximately 14 inches in diameter and shall have precast ½-inch high letters that say "CITY OF SAN DIEGO – CATHODIC PROTECTION – ANODE WELL". The well head vault shall be model SBF 1243 as manufactured by Southbay Foundry or equal.
- D. Surface Vent Pipe: 1-inch diameter schedule 80 PVC with two 90-degree schedule 80 PVC bends to form a gooseneck and bug screen at the top.

2.5 CONDUIT, FITTINGS, AND ACCESSORIES

- A. All below-grade wire shall be run in schedule 40 PVC electrical conduit meeting the requirements of NEMA TC2 and UL 651. All above-grade conduit shall be rigid galvanized steel.
- B. Fittings: Metal fittings for use as pull box junctions with rigid steel conduit or PVC electrical conduit shall be epoxy coated and lined ferrous metal, with gasket covers. Fittings for use with either rigid nonmetallic conduit shall be PVC and shall have solvent weld-type conduit connections.
- C. Elbows and bends: All buried conduit elbows and bends shall be long radius ell type sweeps.
- D. Liquid tight fitting: Anode lead wires ingressing or egressing conduit being used as vent pipe shall be fitted with liquid tight cord grips as manufactured by Heyco, model M3321GCM-SM, or equal.

2.6 WIRES AND CABLE

- A. General: Conform to applicable requirements of NEMA WC 5, WC 7, and ASTM B3. All wires shall be single conductor, stranded copper unless otherwise specified.
- B. Anode Wires:
 - 1. Construction: The wire attached to the anodes shall be AWG stranded, single conductor, copper, insulated for 600 V. Wire size shall be No. 8 AWG Halar/HMWPE, PVDF/HMWPE, or approved equal. The inner insulation shall be 0.020-inch minimum, radiation-cross linked polyvinylidene fluoride. The outer insulation shall be 0.065-inch minimum HMWPE per ASTM 1248. Connection of wire to the anode shall have a pulling strength, which shall exceed the tensile strength of the wire. Any damage to the wire insulation or anode shall require complete replacement of the wire and anode.

Anode wires shall be of one continuous length without splices from the anode connection to the Anode Shunt Panel. Anode wires with the

attached anode shall be shipped to the job site with the wire wound on a reel. The minimum core diameter of the reel shall be 7½-inches. The anode wire insulation shall be free of nicks, abrasions and scratches throughout the entire length of the wire. Precaution shall be taken during fabrication, transportation and installation of the anodes to see that the wire is not kinked or sharply bent. Bends sharper than 2½-inches in radius are not permissible.

2. Resistance Testing: The anode manufacturer shall conduct and report resistance tests performed on each anode wire connection to assure the finished connection does not exceed 0.004 ohms. These resistance tests shall be performed with a Kelvin bridge circuit or equal. Anode wire connections that have a resistance value of greater than 0.004 ohms shall not be acceptable. An accurate record of tests shall be submitted to the Engineer. The records shall include the following information, as a minimum:
 - a. Anode numbering system to identify anode under test
 - b. Anode wire length
 - c. Resistance value as indicated by test
 - d. Test equipment
 - e. Description of test method
3. The anode manufacturer shall mark the reel holding the anode wire for shipment to the job site with the same anode numbering system used on the test records and the total length of attached anode wire.

2.11 SHUNTS

- A. Holloway Type SS, 0.001 ohm, 25 ampere capacity.

2.12 CONCRETE

- A. Reinforcing steel: ASTM A 615, Grade 60 deformed bars and welded wire fabric.
- B. Welded Wire Fabric: ASTM A 497.
- C. Formwork: Plywood, earth cuts may be used.
- D. Concrete with minimum 4,000 psi compressive strength at 28 days.

2.13 ANCILLARY MATERIALS

- A. Electrical Tape: Linerless rubber high-voltage splicing tape and vinyl electrical tape suitable for moist and wet environments. Use Scotch 130C and Scotch 88 as manufactured by 3M Products.
- B. Wire Connectors: One-piece, tin-plated crimp-on lug connector as manufactured by Burndy Co., Thomas and Betts.

2.14 CABLE WARNING TAPE

- A. Inert polyethylene, impervious to known alkalis, acids, chemical reagents, and solvents likely to be encountered in soil.
- B. Thickness: Minimum 4-mils.

- C. Width: 6-inches.
- D. Identifying Lettering: Minimum 1-inch high, permanent black lettering imprinted continuously over entire length.
- E. Color: Red with black lettering as follows: "CAUTION CATHODIC PROTECTION CABLES BURIED BELOW."

PART 3 – EXECUTION

3.1 GENERAL

- E. Work not specifically described herein shall conform to NACE SP0169, NACE SP0572, the Standard Specifications for Public Works Construction 2015 (Greenbook) and City Supplement White Book 2015 and the latest revision to the Standard Drawings.

3.2 DEEP ANODE GROUND BED

- A. No specific alternate deep anode ground bed sites are provided however, if bedrock is reached prior to the design depth, then alternate well locations may be designated by the ENGINEER. The following anode bed design changes shall apply depending upon the actual well depth achieved:
 1. Bedrock depth greater than 110-feet to full design depth of 160-feet: Install all 5 anodes with active anode column length as shown in the detail drawings.
 2. Bedrock depth greater than 100-feet but less than 110-feet: Install as shown in the drawings except with 4 anodes.
 3. Bedrock depth greater than 90-feet but less than 100-feet: Install as shown in the drawings except with 3 anodes.
 4. Bedrock depth greater than 80-feet but less than 90-feet: Install as shown in the drawings except with 2 anodes. Install a second anode bed within the City's Easement or public right of way, but no closer than 15-feet of the first well location with direction from the ENGINEER. Install the 3 remaining anodes in the second well.
- B. The CONTRACTOR shall notify the ENGINEER immediately if rock is encountered. Drilling shall continue to the design well depth until specifically instructed otherwise by the ENGINEER.
- C. The CONTRACTOR'S base price quotation shall be based upon the assumption that the deep anode ground bed will be drilled to the full design depth and shall include 2-hours of rock-drilling.
- D. Inspection and Notification: The drilling, preparation, loading of anodes and calcined coke shall be done in the presence of the ENGINEER and the CORROSION ENGINEER. The CONTRACTOR shall give the ENGINEER a 7-day notice before drilling and installation.

- E. Location and Responsibility: The final location of the deep anode ground bed shall be determined in the field by the CONTRACTOR and shall be approved by the ENGINEER. The well location can be adjusted to accommodate positioning of the drill rig such that there will be minimum impact on traffic. The CONTRACTOR is responsible to locate and avoid all utilities prior to drilling. The CONTRACTOR shall retain his responsibility regardless of the approval of the drilling site by the ENGINEER.
- F. Drilling: Anode well drilling shall be done in the presence of the ENGINEER and the CORROSION ENGINEER and shall be done by means of a rotary drill rig using circulating water base drill mud or by rotary air drilling. It is the CONTRACTOR'S responsibility to provide the proper drilling method with the knowledge that rock or cobble may be encountered. Holes shall be nominal 8-inches in diameter and shall be drilled essentially straight and plum. Drilling mud shall be circulated from a portable sump or tank provided by the CONTRACTOR.
- G. The CONTRACTOR shall dispose of drilling mud and cuttings at a suitable disposal site at no additional cost to the Owner. Drilling fluid may be considered hazardous and must be disposed of in accordance with Local, State, Federal, and US EPA approved methods.
- H. When the hole has been drilled to specified depth, fresh water shall be circulated from the bottom of the hole to clear the hole of drilling mud and cuttings. The hole shall be flushed until fluid is thinned as much as possible without danger of cave-in. The degree to which the hole is flushed shall be determined by the Engineer. The hole shall be maintained full to the top with fresh water throughout the entire loading operations.
- I. Rock Drilling:
 - 1. The CONTRACTOR shall notify the ENGINEER immediately if a rock strata is encountered. Drilling shall be stopped until authorized by the ENGINEER to proceed.
 - 2. Rock drilling shall be defined as a condition where the rate of drilling drops below 6-feet per hour (1-foot every 10-minutes). It is assumed that the drillers' equipment is suitable for the intended purpose and can achieve a 50 to 90-feet per hour rate in good drilling conditions.
 - 3. Rock drilling shall commence only upon the approval and direction of the ENGINEER and shall cease upon direction of the ENGINEER.
- J. Loading:
 - 1. Preparation for the loading of anodes and other equipment in the hole shall be done in the presence of the ENGINEER. A minimum of 7-day notice before anode loading shall be given by the CONTRACTOR to the ENGINEER. Loading of the anode hole shall be begun early enough in the day to insure completion of all loading, including backfilling, during regular working hours. Loading shall not be started later than 1:00 p.m. unless prior approval has been obtained by the CONTRACTOR from the ENGINEER.

2. Anode assemblies, with centralizers attached and secured to the vent pipe, shall be lowered into the hole supported by the attached lead wires and vent pipe. Anode vent pipes shall be lowered to the depth indicated. The ENGINEER shall visually inspect the insulation on the anode lead wire for abrasion or other damage to the insulation and wire as the anode is lowered into place. The ENGINEER will reject all anodes with damaged insulation or wire, and they shall not be installed. Splices and/or any form of wire repair shall not be allowed on the anode lead wire from the point of connection at the anode to the top of the deep anode well hole. In the event that an anode must be retrieved after it has been lowered into the hole, the entire length of the anode lead wire shall be inspected by the ENGINEER for abrasion or other forms of damage to the insulation and wire. Anodes with damaged wires shall be rejected by the ENGINEER and shall not be reinstalled.
3. When an anode has been placed at specified depth, it shall be securely fixed in that position by tying the anode lead wire to a rack, sawhorse, etc., placed over or adjacent to the anode hole. That portion of the device to which the anode wire is tied shall be smooth and round and shall have a diameter of not less than 3-inches so as to prevent kinking or sharply bending the wire.
4. All anodes shall be loaded before calcined coke backfill is loaded. No anodes shall be covered until the ENGINEER has inspected the placement of the anodes and given permission to backfill.
5. The vent pipe shall be installed simultaneously with the anodes. The ENGINEER will approve the attachment of the anodes before the vent pipe is lowered into the hole. Joints shall be made up as the anode assembly, with the vent pipe attached, is lowered into the hole.

K. Calcined Coke:

1. The coke backfill shall be slurried above-grade and then pumped into the hole after the anodes are installed. The backfill shall be pumped from the bottom of the hole up using an approximately 1 inch diameter tremmie pipe that is the length of the anode hole. The pipe used to pump the backfill into the hole shall not be the vent pipe. The 1 inch pipe shall be raised as the anode column is filled with backfill. The 1 inch pipe shall be removed from the hole after the backfill installation operation is completed. A sufficient amount of backfill shall be used such that the coke backfill column extends a minimum of 10 feet above the top of the topmost anode.
2. Settling of the backfill and coverage of the anodes shall be determined by the ENGINEER by observing the CONTRACTOR'S measurement of anode current output through a 12V DC power source circuit. During backfill placement, continuous monitoring of the current output of the lowermost uncovered anode shall be made. Coverage of the anode will be indicated by a rapid increase in current output, normally by at least 50%. As soon as coverage of a lower anode is indicated, the circuit shall be attached to the next higher anode in the hole and so on until coverage of all anodes

has been verified. The CONTRACTOR shall record the anode current output of each backfilled anode on the same form used for recording the initial current output of the anode. After coverage of the top anode has been verified, sufficient coke shall be placed in the hole to insure backfilling a minimum of 10-feet above the uppermost anode. The coke backfill shall be allowed to settle for at least 2 hours after the last additions have been made. After 2 hours, the level of the coke shall be tested using a weighted tape measure to measure the depth of the top of the coke column.

L. Well Sealing:

1. The hole above the coke column shall be filled with either cement grout, bentonite-gelatinous mud, or neat cement. The hole shall be sealed within 50-feet of the top with premixed grout as specified in California State Bulletin Number 74 and as shown on the drawings.
2. Well sealing operations above the calcined coke column shall begin no sooner than 2 hours, nor later than 24 hours, after the anode current measurements, indicating that the uppermost anode had been covered with calcined coke. Once well sealing has begun, it shall continue until the hole is filled with grout all the way to the wellhead.

M. Wellhead Vault: The cast iron frame and cover for the wellhead vault shall be set at the top of the anode hole as shown on the drawings. From the top of the anode hole, the anode leads shall be run to the rectifier enclosure as shown on the drawings. Conduits between the existing anode well and the rectifier shall be intercepted and reused for routing the anode lead conduit/vent pipe between the rectifier enclosure and the new anode well. Use pull boxes per NEC as required.

N. Individual anode leads shall terminate on the anode shunt panel and be permanently marked with cable identifiers to their respective position in the anode hole as indicated. Modify the anode shunt panel per the drawings to accept the additional anode leads. Liquid tight cord grips shall be used where the anode lead wires enter and exit the conduit between the rectifier and the new anode well.

O. The existing anode well shall be destroyed per the well destruction permit.

3.3 EXISTING DEEP ANODE GROUND BED DESTRUCTION

A. General requirements for well destruction are contained in Section 23 of the Water Well Standards. Special considerations and minimum requirements for cathodic protection wells are as follows. Other well destruction requirements will be dependent upon the governing agencies and permit requirements.

1. Preliminary Work: A cathodic protection well shall be investigated before it is destroyed to determine its condition, details of its construction and whether conditions exist that will interfere with filling and sealing.

The well shall be sounded immediately before it is destroyed to make sure that no obstructions exist that will interfere with filling and sealing. The well shall be cleaned before destruction, as needed, to ensure that all undesirable materials, including obstructions to filling and sealing, debris, and pollutants and

contaminants that could interfere with well destruction are removed for disposal. The enforcing agency shall be notified as soon as possible if pollutants and contaminants are known or suspected to be in a well to be destroyed. Well destruction operations may then proceed only at the approval of the enforcing agency. The enforcing agency should be contacted to determine requirements for proper disposal of materials removed from a well to be destroyed.

2. Filling and Sealing Conditions. The following minimum requirements shall be followed when various conditions are encountered.
 - a. Wells that only penetrate unconsolidated material and a single "zone" of ground water. At a minimum, the upper 20 feet of the well casing and the annulus between the well casing and borehole wall (if not already sealed) shall be completely sealed with suitable material. Sealing material shall extend to a minimum depth of 50 feet below land surface if the well to be destroyed is located in an urban area, or is within 100 feet of any potential source of pollution or contamination. Additional sealing material may be needed if adverse conditions exist. The remainder of the well below the minimum surface seal shall be filled with suitable granular fill material, such as clean sand or pea gravel, or with sealing material.
 - b. Wells that penetrate several water-bearing strata. The upper portion of the well casing and annular space shall be filled with sealing material as described in Item a, above. Strata encountered below the surface seal that contain poor-quality water, pollutants, or contaminants that could mix with and degrade water in other strata penetrated by the well, shall be effectively isolated by sealing the well bore and annulus within intervals specified in Section 10, above. The remainder of the well shall be filled with suitable granular fill or sealing material.
 - c. Wells penetrating fractured rock. Sealing material shall be installed as outlined in Items a and b, above. Cement-based sealing material shall be used opposite fractured rock. The remainder of the well shall be filled with fill or sealing material, as appropriate.
 - d. Wells in nonfractured consolidated strata. Sealing material shall be installed as outlined in Items a and b, above. The remainder of the well shall be filled with fill or sealing material, as appropriate.
 - e. Wells penetrating water-bearing zones or aquifers of special significance. The enforcing agency may require that specific water-bearing zones be sealed off for well destruction.
3. Placement of Material. The placement of sealing materials for cathodic protection well destruction is generally described in Section 23 and Appendix B of the Water Well Standards. The following additional requirements shall be observed in destroying cathodic protection wells.

Casing, cables, anodes, granular backfill, conductive backfill, and sealing material shall be removed as needed, by redrilling, if necessary, to the point needed to allow proper placement of sealing materials within required sealing intervals. Removal of some or all well materials will likely be required for cathodic protection wells that were not constructed in accordance with these standards, or standards adopted by the Southern California Cathodic Protection Committee in December 1969.

Casing that cannot be removed shall be adequately perforated or punctured at specific intervals to allow pressure injection of sealing materials into granular backfill and all other voids that require sealing.

The following requirements shall be observed in placing fill and sealing material in cathodic protection wells to be destroyed.

- a. Placement Method. The well shall be filled and sealed with appropriate material upward from the bottom of the well using a tremie pipe or equivalent.
 - b. Sealing material shall be placed by methods (such as by the use of a tremie pipe or equivalent) that prevent freefall, bridging, or dilution of the sealing materials, or separation of aggregates from sealants. Sealing materials shall not be installed by freefall unless the interval to be sealed is dry and no deeper than 30 feet below ground surface.
 - c. Timing of Placement. Sealing material shall be placed in one continuous operation (or "pour") from the bottom to the top of the well unless conditions in the well dictate that sealing operations be conducted in a staged manner and prior approval is obtained from the enforcing agency.
 - d. Ground Water Flow. Special care shall be used to restrict the flow of ground water into a well while fill and sealing material is being placed, if subsurface pressure causing the flow of water is significant.
 - e. Sealing Pressure. Pressure required for placement of cement-based sealing material shall be maintained long enough for the cement-based sealing material to set.
 - f. Verification. Verification shall be made that the volume of sealing and fill material placed in a well during destruction operations equals or exceeds the volume to be filled and sealed. This is to help determine that the well has been properly destroyed and that no jamming or bridging of the fill or sealing material has occurred.
4. Sealing Materials. Materials used for sealing cathodic protection wells for destruction shall have low permeabilities so that the volume of water and possible pollutants and contaminants passing through them will be of minimal

consequence. Sealing material shall be compatible with the chemical environment into which it is placed and shall have mechanical properties compatible with present and future site uses.

Suitable sealing materials include neat cement, sand-cement, concrete, and bentonite, as described in Section 9 of the Water Well Standards. Sealing materials used for isolating zones of fractured rock shall be cement-based, as described in Subsection B, above. Drilling mud or drill cuttings shall not be used as any part of a sealing material for well destruction. Concrete may be used as a sealing material at the approval of the enforcing agency.

5. Fill Material. Many fill materials are suitable for destruction of cathodic protection wells. These include clean, washed sand or gravel or sealing material. Fill material shall be free of pollutants and contaminants and shall not be subject to decomposition or consolidation after placement. Fill material shall not contain drilling mud or cuttings.
6. Additional Requirements for Destruction of Cathodic Protection Wells in Urban Areas. The following additional requirements shall be met at each well site in urban areas, unless otherwise approved by the enforcing agency:
 - a. The upper surface of the sealing material shall end at a depth of 5 feet below ground surface, and,
 - b. If the casing was not extracted during destruction and sealing operations, a hole shall be excavated around the well casing to a depth of 5 feet below ground surface after sealing operations have been completed and sealing materials have adequately set and cured. The exposed well casing shall then be removed by cutting the casing at the bottom of the excavation. The excavation shall then be backfilled with clean, native soil or other suitable material.
7. Temporary Cover. The well borehole and any associated excavations shall be covered at the surface to prevent the entry of foreign material, water, pollutants, and contaminants and to ensure public safety whenever work on the well is interrupted by such events as overnight shutdown, poor weather, and required waiting periods to allow setting of sealing materials and performance of tests. The cover shall be held in place or weighted down in such a manner that it cannot be removed except by equipment or tools.

3.4 WIRE, CABLES AND CONDUITS

- A. Wire runs shall be laid straight with no kinks or sharp bends. Each wire run shall be continuous in length and free of joints and or splices. Care shall be taken during installation to avoid punctures, cuts, or other damage to the wire insulation. Damage to insulation shall require replacement of the entire length of wire at the CONTRACTOR's expense.
- B. Wire and conduit routing shall be as shown on the drawings. Alternate routing is acceptable where there is a compelling reason and provided it is within existing

City of San Diego property or permanent easement. All changes to the wire routing shown on the drawings shall be approved by the ENGINEER.

- C. All buried wire shall be installed in conduit at a minimum depth of 24 inches or as shown otherwise on the drawings. The bottom of the finished trench shall be backfilled with stone-free earth. The first three inches of backfill material shall be placed directly on the conduit. The remainder of the trench shall be backfilled with stone-free earth and tamped in individual layers not exceeding 6 inches each. Trenches shall be compacted to 90% of its maximum compaction. Cable warning tape shall be placed 12" above all conduit runs.

PART 4 – TESTING AND INSPECTION

4.1 General

- A. The CP system shall be activated and adjusted by the City's CORROSION ENGINEER. The CONTRACTOR is required to contact the City's Corrosion Section at least 5 days in advance of all corrosion control/cathodic protection facility installations. The ENGINEER shall witness all testing and installations at their discretion. All test data shall be submitted to the ENGINEER within seven (7) days of the completion of the testing. All deficiencies found to be due to faulty materials or workmanship shall be repaired or replaced by the CONTRACTOR and at his/her expense.

4.2 ANODE LEAD WIRE INSPECTION

- A. Responsibility: The City's CORROSION ENGINEER will inspect each anode lead wire at the anode well site. The CONTRACTOR shall assist the City's CORROSION ENGINEER and is responsible for inspecting/testing the anode lead wire insulation prior to storing and shipping.
- B. Test Method: Inspection shall be visual and by feel, or by using a Holiday Tester. The ENGINEER shall inspect and run his or her hand along the full length of each anode lead wire cable just prior to installation in the well.
- C. Acceptance: All anode lead wires shall be free of cuts, nicks, and abrasions. Cables with damage shall be rejected.

4.3 WIRE TRENCHING AND BACKFILL

- A. Responsibility: The ENGINEER, at his or her discretion, shall inspect wire trenches and backfill material and methods.
- B. Test Method: The depth, trench bottom padding, and backfill material shall be visually inspected before backfilling.
- C. Acceptance: Conformance with specifications.

4.5 CATHODIC PROTECTION PERFORMANCE

- A. Responsibility: The cathodic protection system shall be activated and tested by the City CORROSION ENGINEER in the presence of the CONTRACTOR.

**** END OF SECTION ****

PLANS

SHEET INDEX

| SHEET NO. | DISCIPLINE CODE | TITLE |
|-----------|-----------------|-----------------------------------|
| 1 | G-1 | TITLE SHEET |
| 2 | CP-1 | SITE PLAN |
| 3 | CP-2 | CATHODIC PROTECTION DETAILS |
| 4 | CP-3 | EXISTING ANODE GROUND BED DETAILS |

MIDCITY PIPELINE - 37TH ST & ORANGE AVE CATHODIC PROTECTION DEEP ANODE GROUNDBED REPLACEMENT

CONSTRUCTION STORM WATER PROTECTION NOTES

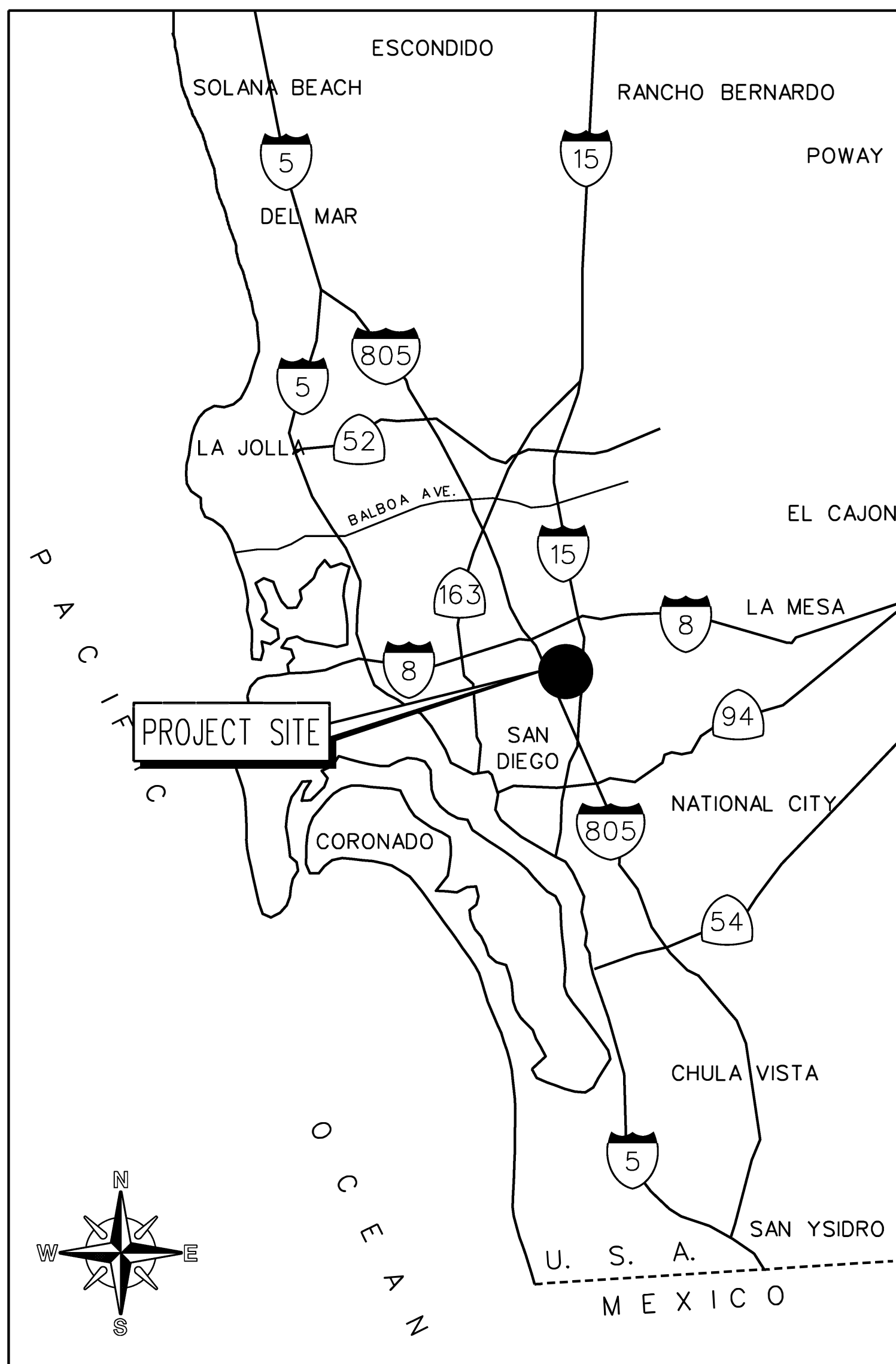
- TOTAL SITE DISTURBANCE AREA (ACRES) 0.01
HYDROLOGIC UNIT/ WATERSHED PUEBLO SAN DIEGO
HYDROLOGIC SUBAREA NAME & NO. CHOLLAS - 908.22
- THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE
 WPCP (MINOR WPCP)
THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100
 SWPPP
THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100 AND CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWQ AS AMENDED BY ORDER 2010-0014-DWQ AND 2012-0006-DWQ
TRADITIONAL RISK LEVEL 1 2 3
LUP RISK TYPE 1 2 3
- CONSTRUCTION SITE PRIORITY
 ASBS HIGH MEDIUM LOW

MONUMENTATION/SURVEY NOTES

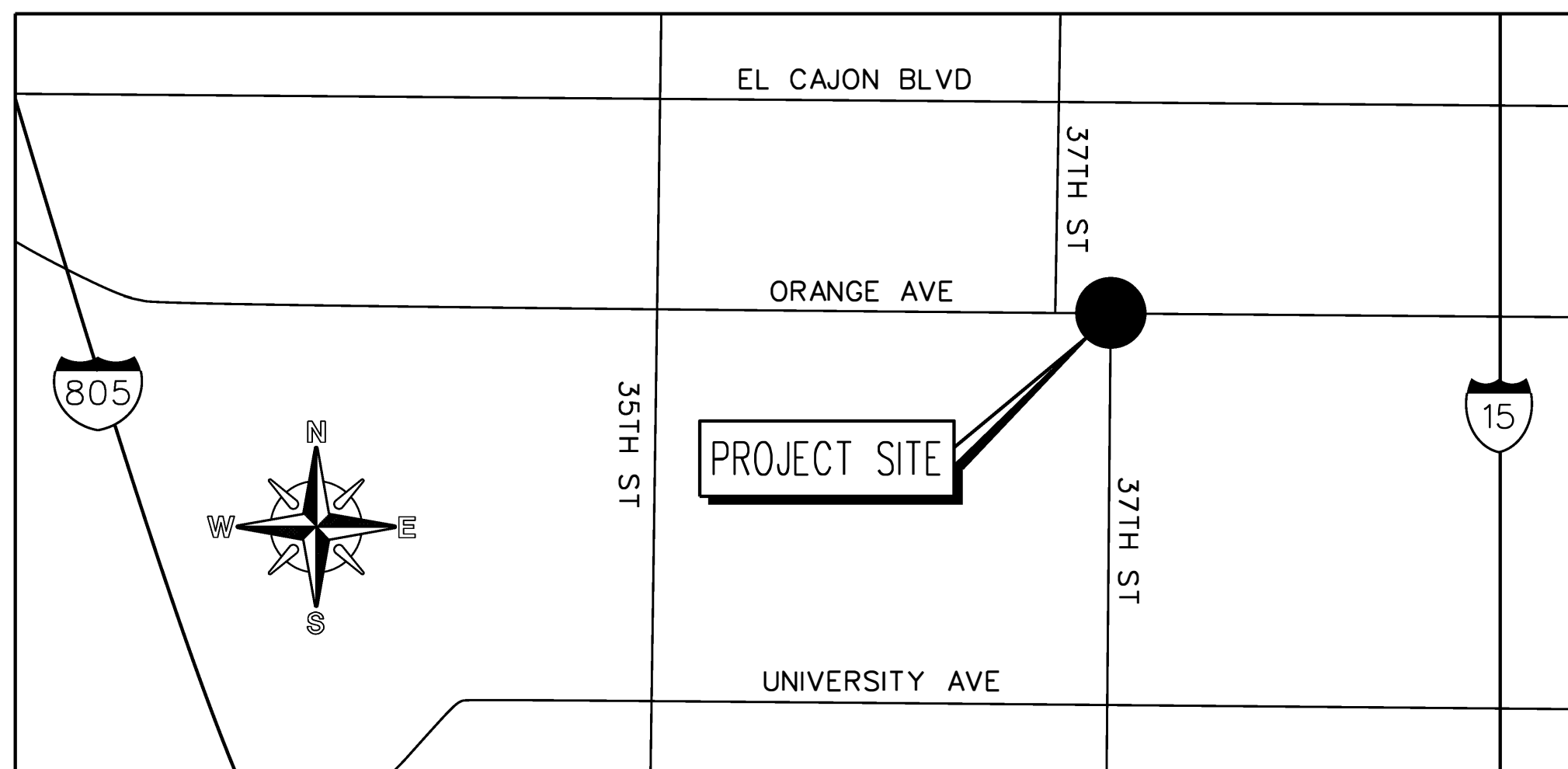
THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LICENSED LAND SURVEYOR OR LICENSED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA SHALL FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR ANY EARTHWORK, DEMOLITION OR SURFACE IMPROVEMENTS. IF DESTROYED, A LICENSED LAND SURVEYOR SHALL REPLACE SUCH MONUMENT(S) WITH APPROPRIATE MONUMENTS. WHEN SETTING SURVEY MONUMENTS USED FOR RE-ESTABLISHMENT OF THE DISTURBED CONTROLLING SURVEY MONUMENTS AS REQUIRED BY SECTIONS 6730.2 AND 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILLED WITH THE COUNTY SURVEYOR. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION SHALL BE NOTIFIED IN WRITING AT LEAST 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING AND VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

SYMBOLS

| | |
|----------------|-----------------|
| CENTERLINE | --- |
| ELECTRICAL | — E — |
| GAS | — G — |
| OVERHEAD POWER | — OHV — |
| POWER POLE | ● |
| SEWER | — S — |
| STREET CURB | — ^ — |
| TELEPHONE | — T — |
| WATER | — W — 48 WTR |



CITY OF SAN DIEGO
VICINITY MAP



37TH ST & ORANGE AVE
LOCATION MAP

ABBREVIATIONS

| | |
|-----------|----------------------|
| AC | ALTERNATING CURRENT |
| APPROX | APPROXIMATE |
| AVE | AVENUE |
| BLVD | BOULEVARD |
| CP | CATHODIC PROTECTION |
| Cu | COPPER |
| DIA | DIAMETER |
| DWG | DRAWING |
| E, ELEC | ELECTRICAL |
| EX, EXIST | EXISTING |
| G | GAS |
| GALV | GALVANIZED |
| ID | IDENTIFICATION |
| JUNCT | JUNCTION |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| NAD | NORTH AMERICAN DATUM |
| NO. | NUMBER |
| PVC | POLYVINYL CHLORIDE |
| RD | ROAD |
| REBAR | REINFORCING STEEL |
| REQ | REQUIRED |
| S | SEWER |
| SCH | SCHEDULE |
| ST | STREET |
| T | TELEPHONE |
| TYP | TYPICAL |
| W, WTR | WATER |

CONTRACTOR RESPONSIBILITIES

- PURSUANT TO SECTION 4216 OF THE GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION, YOU MUST CONTACT THE REGIONAL NOTIFICATION CENTER (E.G. UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- NOTIFY SDG&E AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10' OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES. (I.E., 69 KV & HIGHER)
- THE LOCATIONS OF EXISTING FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORD INFORMATION ONLY AND ARE SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. THE CONTRACTOR SHALL POHOLE ALL EXISTING UTILITIES EITHER SHOWN ON THE PLANS OR MARKED IN THE FIELD IN ACCORDANCE WITH THE SPECIFICATIONS SECTION 5-UTILITIES. RECORDS ARE AVAILABLE TO THE CONTRACTOR AT THE PUBLIC UTILITIES DEPARTMENT, 2797 CAMINITO CHOLLAS.
- VERIFY THE LOCATION OF ADJACENT STRUCTURES AND UTILITIES AND FOR AVOIDING DAMAGE TO, AND CONFLICT, WITH THESE STRUCTURES OR UTILITIES.
- UNLESS OTHERWISE NOTED DRAWINGS ARE NOT SHOWN TO SCALE.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, CITY STANDARDS AND THE TECHNICAL SPECIFICATIONS.
- NOTIFY THE ENGINEER AT LEAST 7 DAYS PRIOR TO ANY INSTALLATIONS OR TRENCHING. COMPLY WITH INSPECTION REQUIREMENTS AS INDICATED IN THE SPECIFICATIONS. THE INSTALLATION AND DRILLING OF THE DEEPWELL ANODE BED MUST BE IN THE PRESENCE OF THE ENGINEER OR DESIGNATED REPRESENTATIVE.
- NO ANODE WIRE SPLICES ARE PERMITTED.
- DOCUMENT ALL CHANGES FROM THESE DRAWINGS AND SUBMIT 'AS-BUILT' DRAWINGS TO THE ENGINEER PRIOR TO COMPLETION OF THE WORK.
- ALL IMPROVEMENTS AND LANDSCAPING DISTURBED BY CONTRACTOR SHALL BE REPLACED IN KIND TO ORIGINAL OR BETTER. REPLACE IN KIND ANY SENSORS OR EQUIPMENT DAMAGED DURING CONSTRUCTION.
- THE THICKNESS OF AND SUBSURFACE COMPOSITION OF EXISTING PAVEMENT IS UNKNOWN.
- STORM DRAIN INLETS SHALL REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
- ALL ADVANCE METERING INFRASTRUCTURE (AMI) DEVICES ATTACHED TO THE WATER METER OR LOCATED IN OR NEAR WATER METER BOXES, COFFINS, OR VAULTS SHALL BE PROTECTED AT ALL TIMES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SUMMARY OF WORK

- INSTALL NEW DEEPWELL ANODE GROUNDBED.
- ROUTE NEW ANODE LEADS/VENT PIPE TO EXISTING RECTIFIER BY INTERCEPTING EXISTING ANODE LEAD/VENT PIPE CONDUIT.
- DESTROY EXISTING ANODE GROUNDBED.

G-1

PLANS FOR THE CONSTRUCTION OF
MIDCITY PIPELINE - 37TH & ORANGE
DEEP ANODEWELL REPLACEMENT
TITLE SHEET

| | | |
|----------------------------|---|---|
| SPEC. NO. | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 1 OF 4 SHEETS | WATER WBS - SEWER WBS - |
| APPROVED FOR CITY ENGINEER | DATE 12/11/18 | SUBMITTED BY: E. FERNANDEZ PROJECT MANAGER |
| PRINT DCE NAME | RCE* | CHECKED BY: S. FOX PROJECT ENGINEER |
| DESCRIPTION | BY APPROVED DATE FILMED | 214-1734 CCS27 COORDINATE 1854-6296 CCS83 COORDINATE |
| ORIGINAL | SRF ERF 12/18 | 41134-1-D |
| CONTRACTOR | INSPECTOR | DATE STARTED DATE COMPLETED |

| AS-BUILT INFORMATION | |
|-----------------------|----------------------|
| MATERIALS | MANUFACTURER / MODEL |
| RECTIFIER | - |
| ICCP ANODES | - |
| FINAL ICPP WELL DEPTH | - |
| GACP ANODES | - |
| - | - |
| - | - |
| CONTRACTOR | - |

FILE NAME: 2018-03-37th&Orange.dgn DATE PLOTTED: 5/8/2019 11:52:00 AM

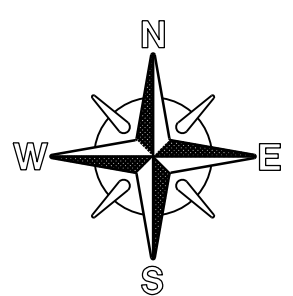
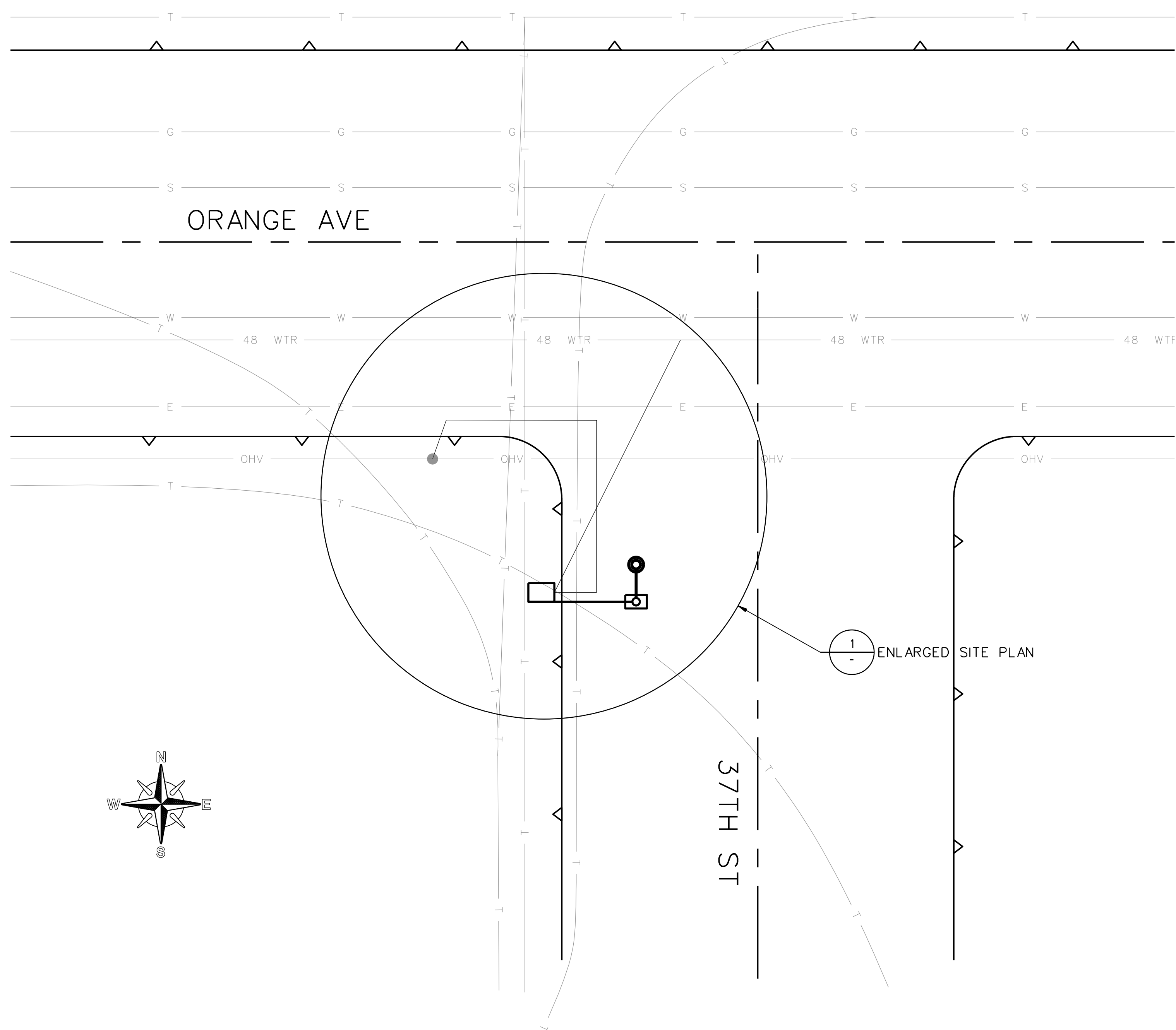
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|--------------------------------|------|---------------------------------|--------------|
| CHANGE | DATE | AFFECTED OR ADDED SHEET NUMBERS | APPROVAL NO. |
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WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

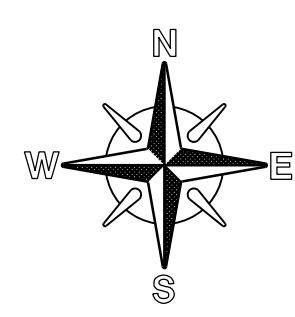
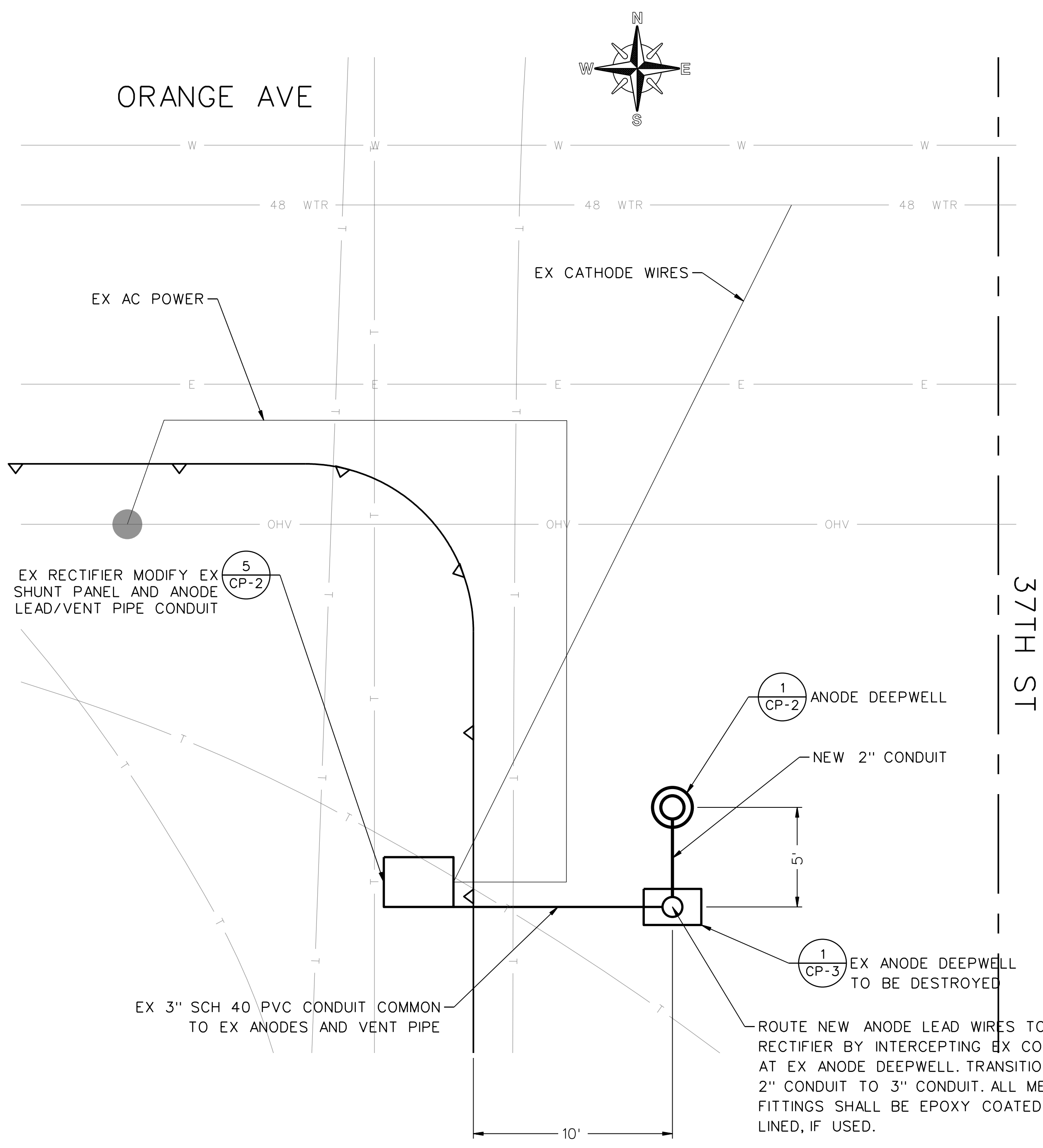


MIDCITY PIPELINE - 37TH & ORANGE DEEP ANODEWELL REPLACEMENT

FILE NAME: 2018-03-3718&Orange.dwg DATE PLOTTED: 5/9/2019 11:52:00 AM



WORK AREA
SCALE 1" = 10'



ENLARGED SITE PLAN

SCALE 1" = 4'

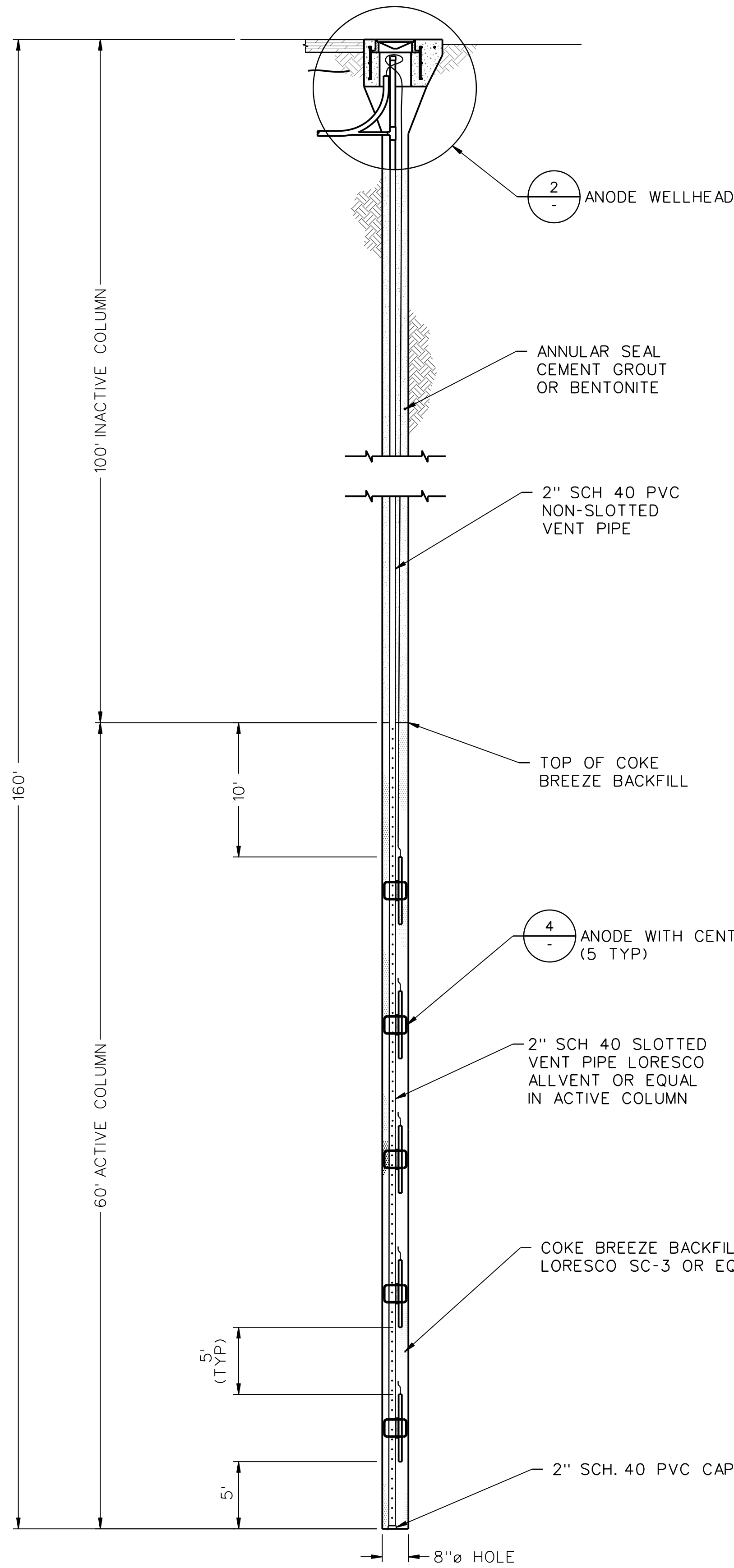
1
CP-1

**PLANS FOR THE CONSTRUCTION OF
MIDCITY PIPELINE - 37TH & ORANGE
DEEP ANODEWELL REPLACEMENT
SITE PLAN**

| | | | | |
|--|--|---|--|--|
| SPEC. NO. 1859 | | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 2 OF 4 SHEETS | | WATER WBS - |
| APPROVED FOR CITY ENGINEER: <i>[Signature]</i> | | DATE 12/11/18 | | SEWER WBS - |
| PRINT DCE NAME: _____ | | RCE: _____ | | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| CHECKED BY: S FOX PROJECT ENGINEER | | DATE FILMED: 12/18 | | 214-1734 CCS27 COORDINATE |
| CONTRACTOR: _____ | | DATE STARTED: _____ | | 1854-6296 CCS83 COORDINATE |
| INSPECTOR: _____ | | DATE COMPLETED: _____ | | 41134-2-D |

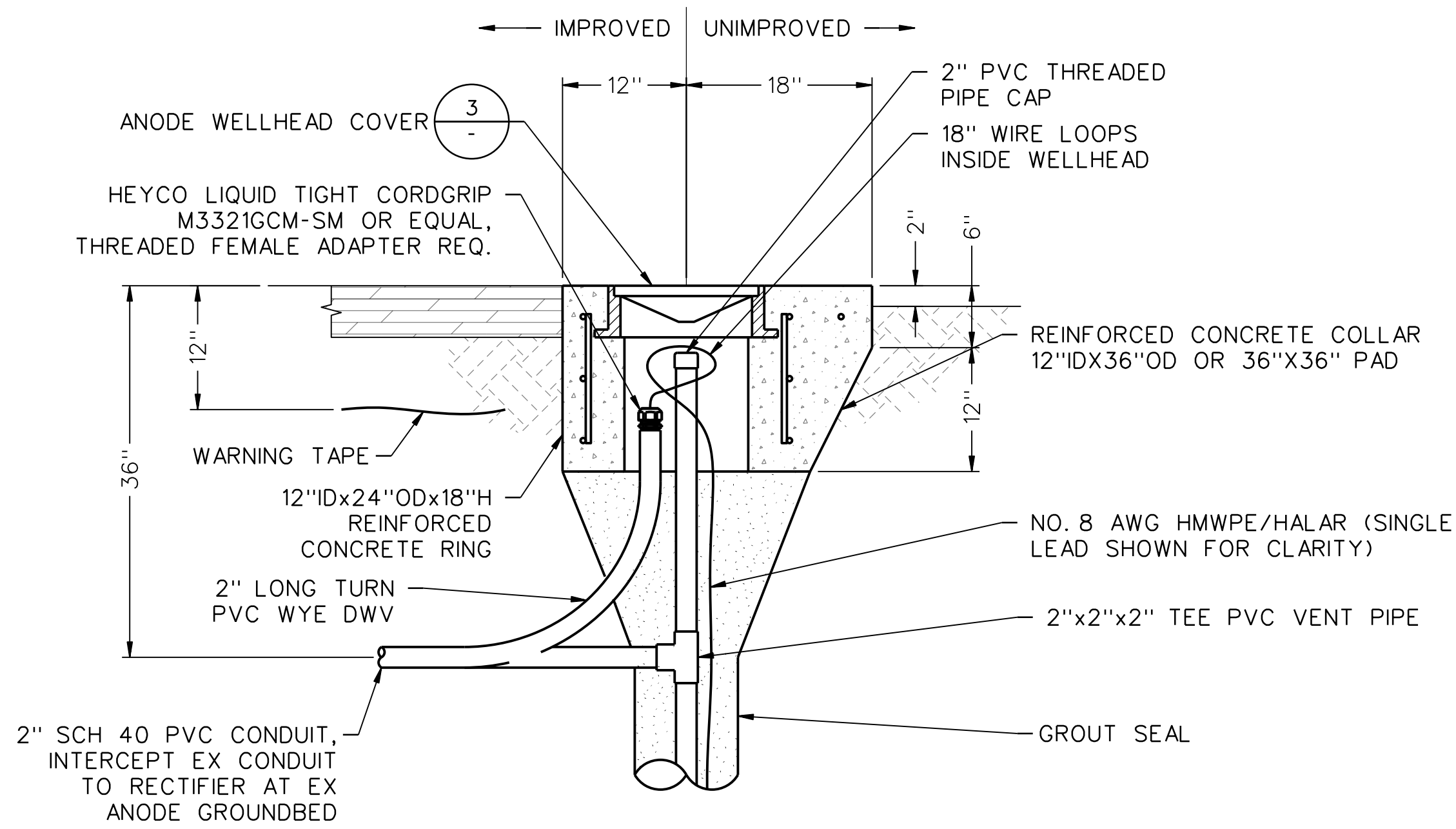
MIDCITY PIPELINE - 37TH & ORANGE DEEP ANODEWELL REPLACEMENT

FILE NAME: 2018-03-371880.dwg DATE PLOTTED: 5/6/2019 11:52:00 AM



ANODE DEEPWELL
NOT TO SCALE

1
CP-1

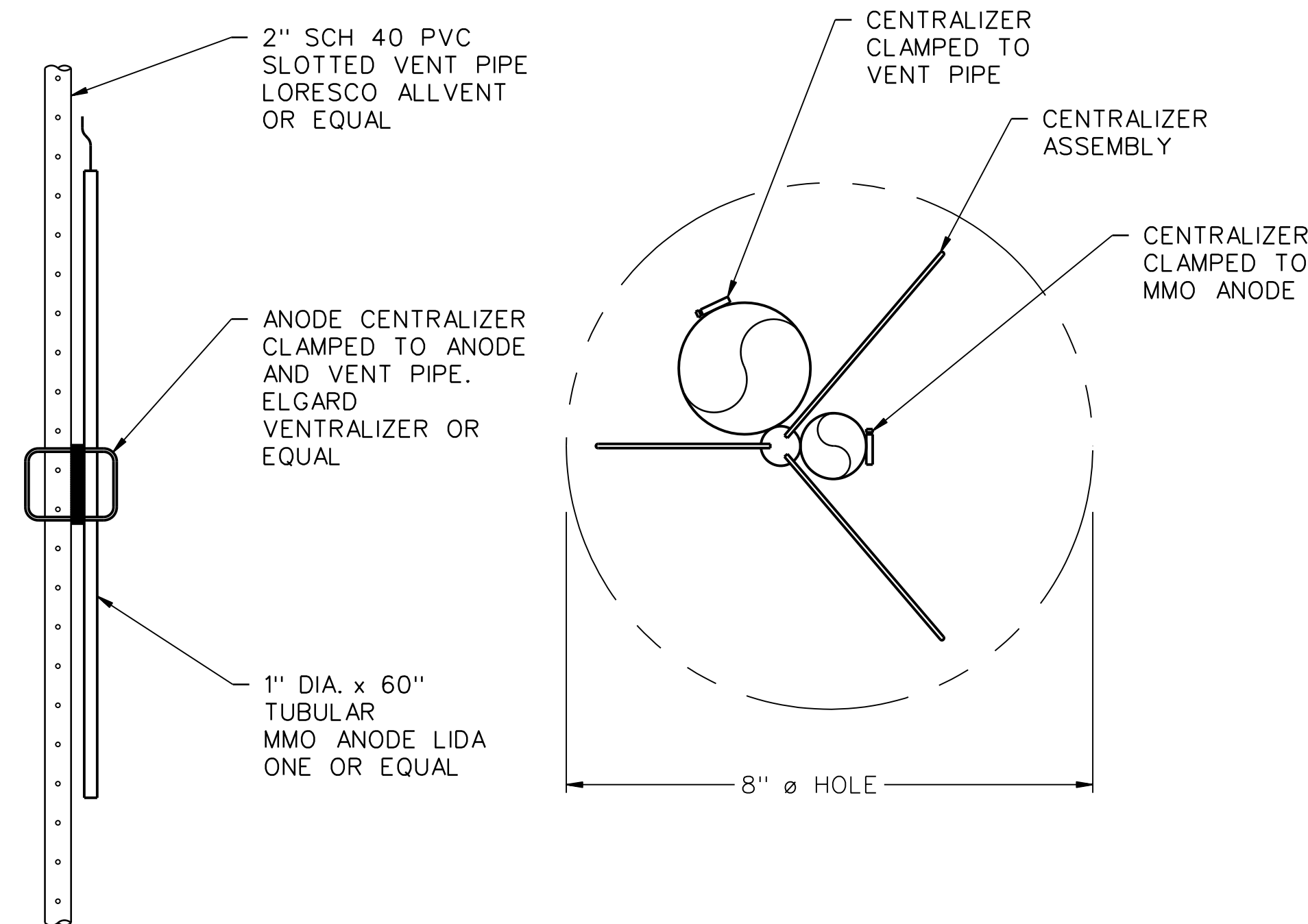


NOTES:

1. ALL TRENCHING OF CONDUITS AND WIRES SHALL BE PER SDG-117 REQUIREMENTS.

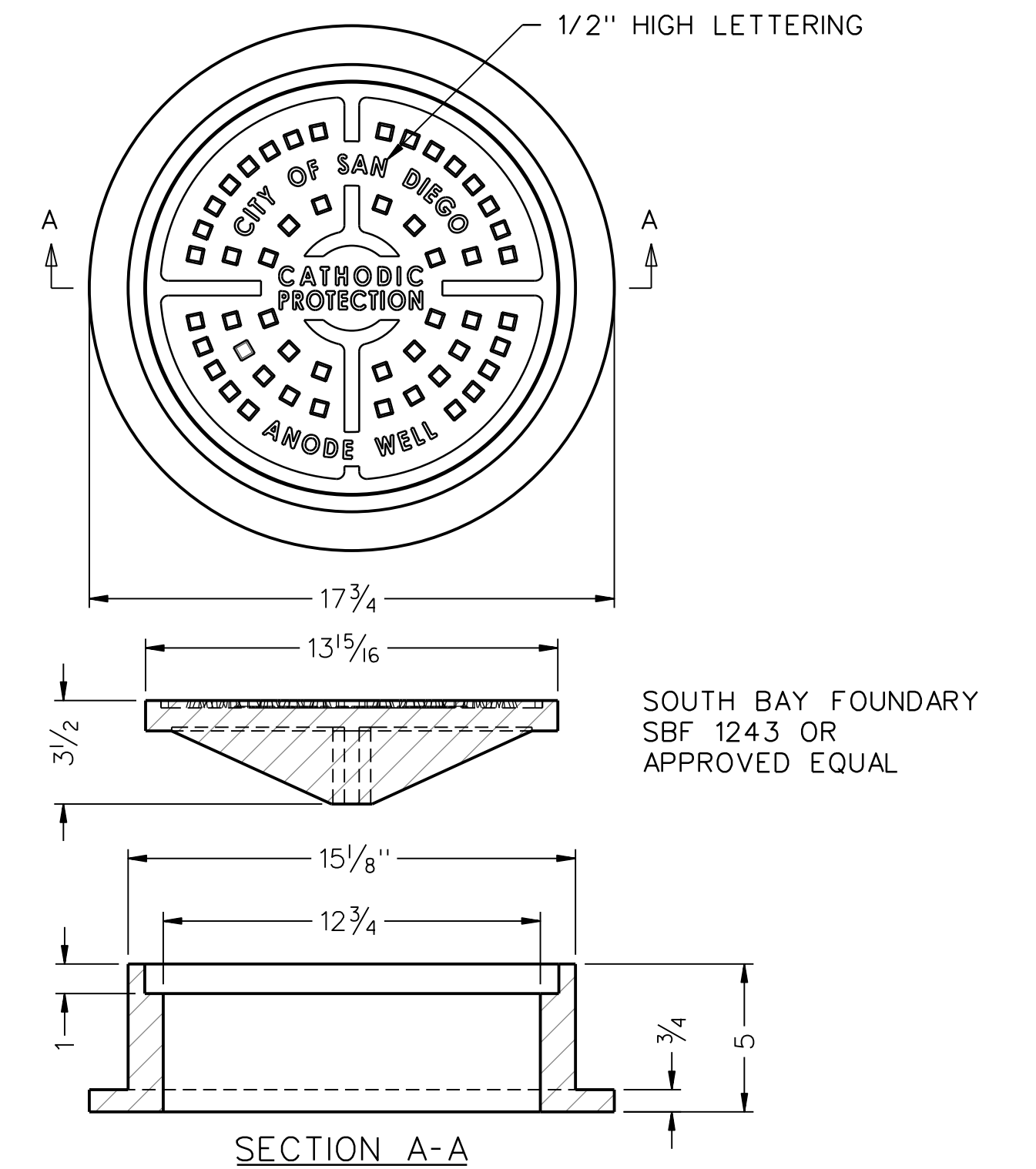
ANODE WELLHEAD
NOT TO SCALE

2
CP-2



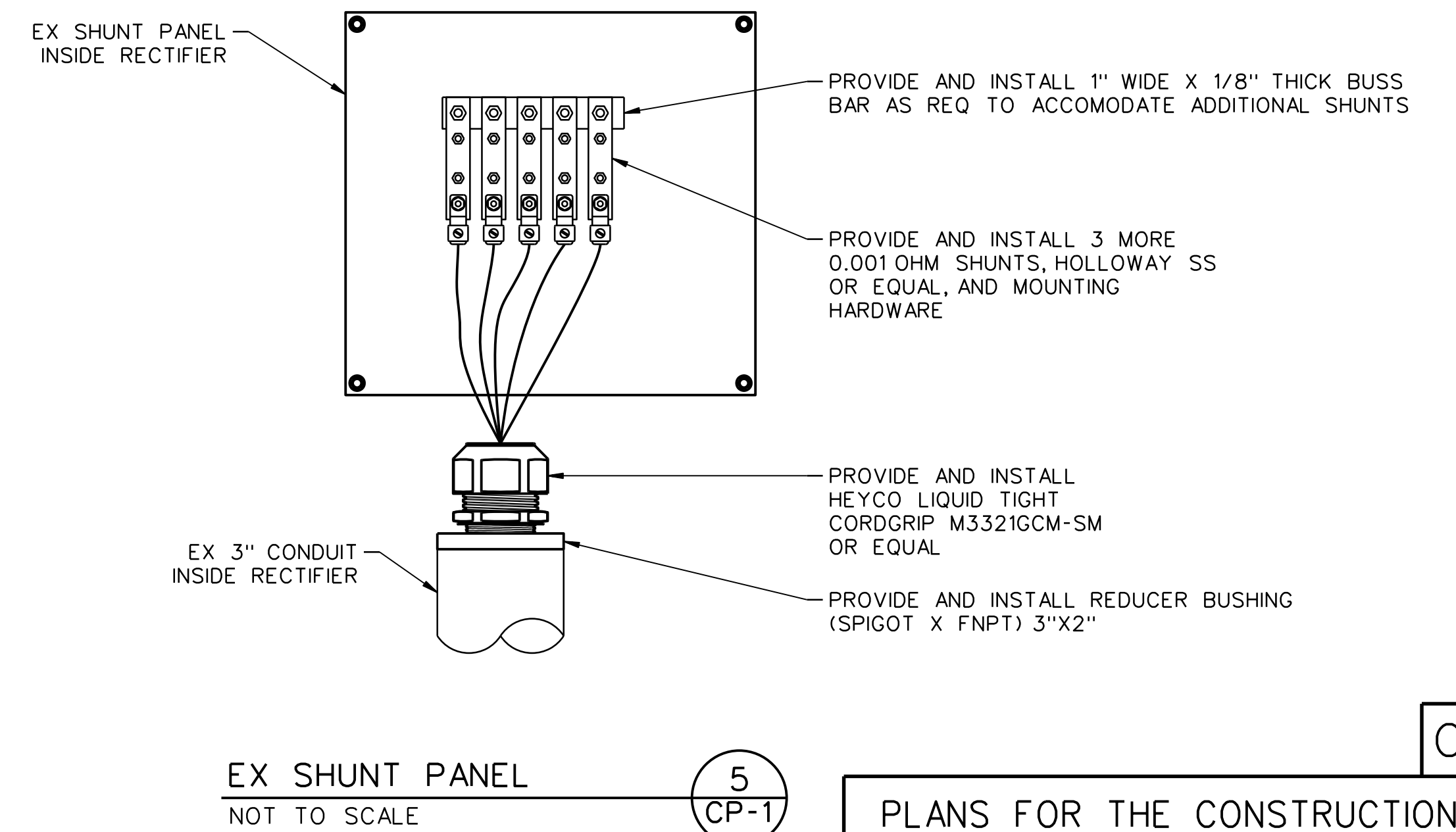
ANODE WITH CENTRALIZER
NOT TO SCALE

4
CP-2



ANODE WELLHEAD COVER
NOT TO SCALE

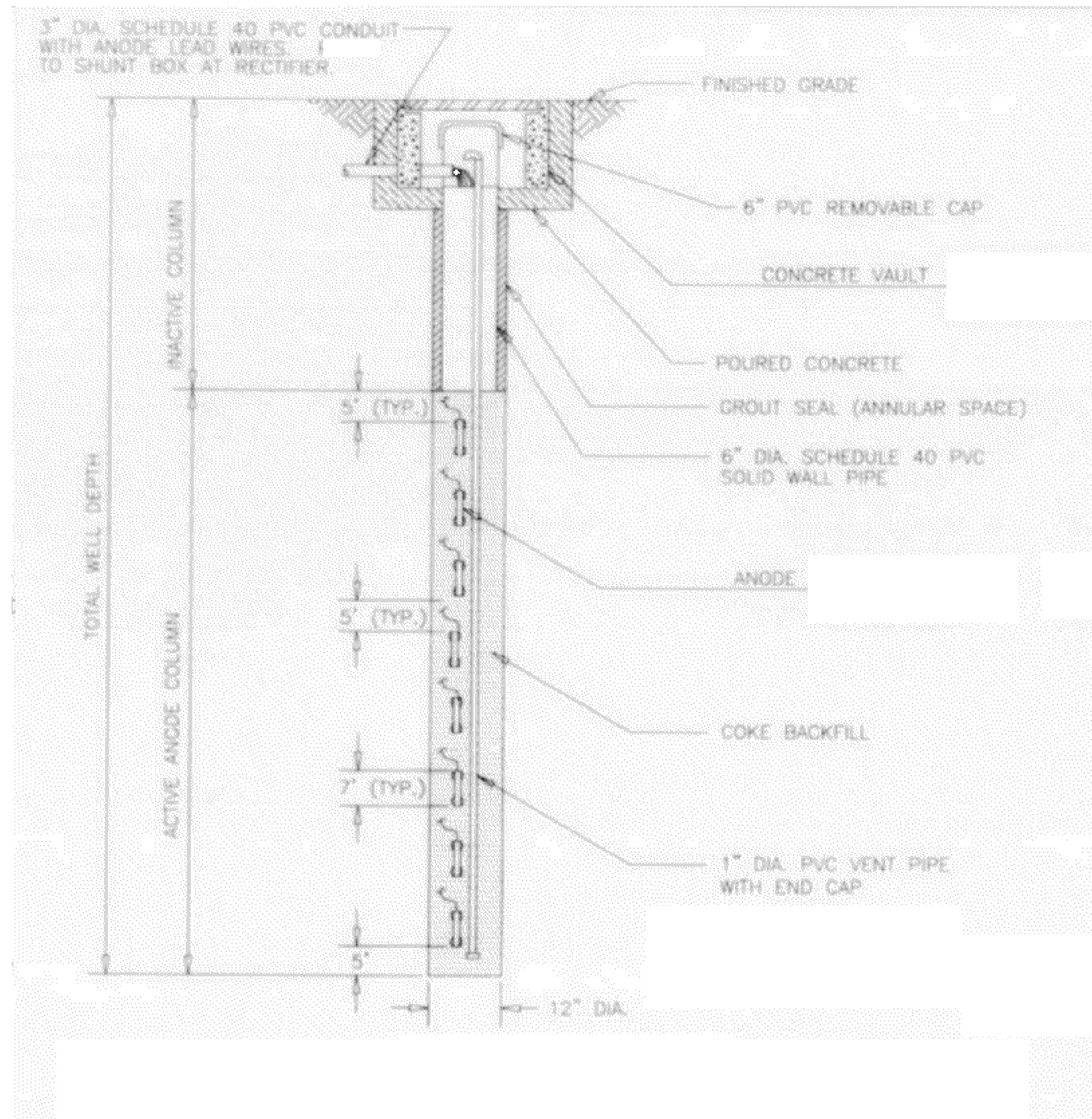
3
CP-2



CP-2

PLANS FOR THE CONSTRUCTION OF
MIDCITY PIPELINE - 37TH & ORANGE
DEEP ANODEWELL REPLACEMENT
CATHODIC PROTECTION DETAILS - 1

| | | |
|----------------------------|---|--|
| SPEC. NO. 1859 | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 3 OF 4 SHEETS | WATER WBS - SEWER WBS - |
| APPROVED FOR CITY ENGINEER | DATE 12/11/18 | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| PRINT DCE NAME | RCE* | CHECKED BY: S FOX PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | SRF | ERF |
| | | DATE FILMED 12/18 |
| | | 214-1734 |
| | | CCS27 COORDINATE |
| | | 1854-6296 |
| | | CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | 41134-3-D |
| INSPECTOR | DATE COMPLETED | |



EX ANODE DEEPWELL
NOT TO SCALE

1
CP-1

| RECTIFIER AND ANODE BED SCHEDULE | | | | | | | |
|----------------------------------|-----------|--------------------------|-----|--------------------------|-----|------------------------|------|
| RECTIFIER | STATION # | NUMBER OF ANODES PER BED | | DEPTH OF ANODE BED (FT.) | | RECTIFIER RATING (V.A) | |
| | | | CCP | | CCP | | CCP |
| 1 | 39+43 | | 2 | | 129 | | 12.8 |

CP-3

PLANS FOR THE CONSTRUCTION OF
MIDCITY PIPELINE - 37TH & ORANGE
DEEP ANODEWELL REPLACEMENT
EXISTING ANODE GROUND BED DETAILS

| | | | | | |
|--|-----|---|--|-----------|---|
| SPEC. NO. 1859 | | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 4 OF 4 SHEETS | | | WATER WBS - |
| APPROVED FOR CITY ENGINEER <i>[Signature]</i> | | DATE 12/11/18 | SUBMITTED BY E FERNANDEZ PROJECT MANAGER | | SEWER WBS - |
| PRINT DCE NAME RCE* | | APPROVED | DATE | FILMED | CHECKED BY S FOX PROJECT ENGINEER |
| ORIGINAL | SRF | ERF | 12/18 | | 214-1734 CCS27 COORDINATE |
| | | | | | 1854-6296 CCS83 COORDINATE |
| CONTRACTOR | | DATE STARTED | | 41134-4-D | |
| INSPECTOR | | DATE COMPLETED | | | |

FILE NAME: 2018-03-37th&Orng.dwg DATE PLOTTED: 5/8/2018 11:52:00 AM

MIDCITY PIPELINE - 37TH & ORANGE DEEP ANODEWELL REPLACEMENT

SHEET INDEX

| SHEET NO. | DISCIPLINE CODE | TITLE |
|-----------|-----------------|-------------------------------|
| 1 | G-1 | TITLE SHEET |
| 2 | CP-1 | SITE PLAN |
| 3 | CP-2 | CATHODIC PROTECTION DETAILS |
| 4 | CP-3 | EXISTING DEEP ANODE GROUNDBED |

BONITA PIPELINE - 45TH STREET & G STREET CATHODIC PROTECTION DEEP ANODE GROUNDBED REPLACEMENT

CONSTRUCTION STORM WATER PROTECTION NOTES

- TOTAL SITE DISTURBANCE AREA (ACRES) 0.01
HYDROLOGIC UNIT/ WATERSHED PUEBLO SAN DIEGO
HYDROLOGIC SUBAREA NAME & NO. CHOLLAS - 908.22
- THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE
 - WPCP (MINOR WPCP)
THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100
 - SWPPP
THE PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT NO. R9-2013-0001 AS AMENDED BY R9-2015-0001 AND R9-2015-0100 AND CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWQ AS AMENDED BY ORDER 2010-0014-DWQ AND 2012-0006-DWQ
TRADITIONAL: RISK LEVEL 1 2 3 4
LUP: RISK TYPE 1 2 3 4
- CONSTRUCTION SITE PRIORITY
 ASBS HIGH MEDIUM LOW

MONUMENTATION/SURVEY NOTES

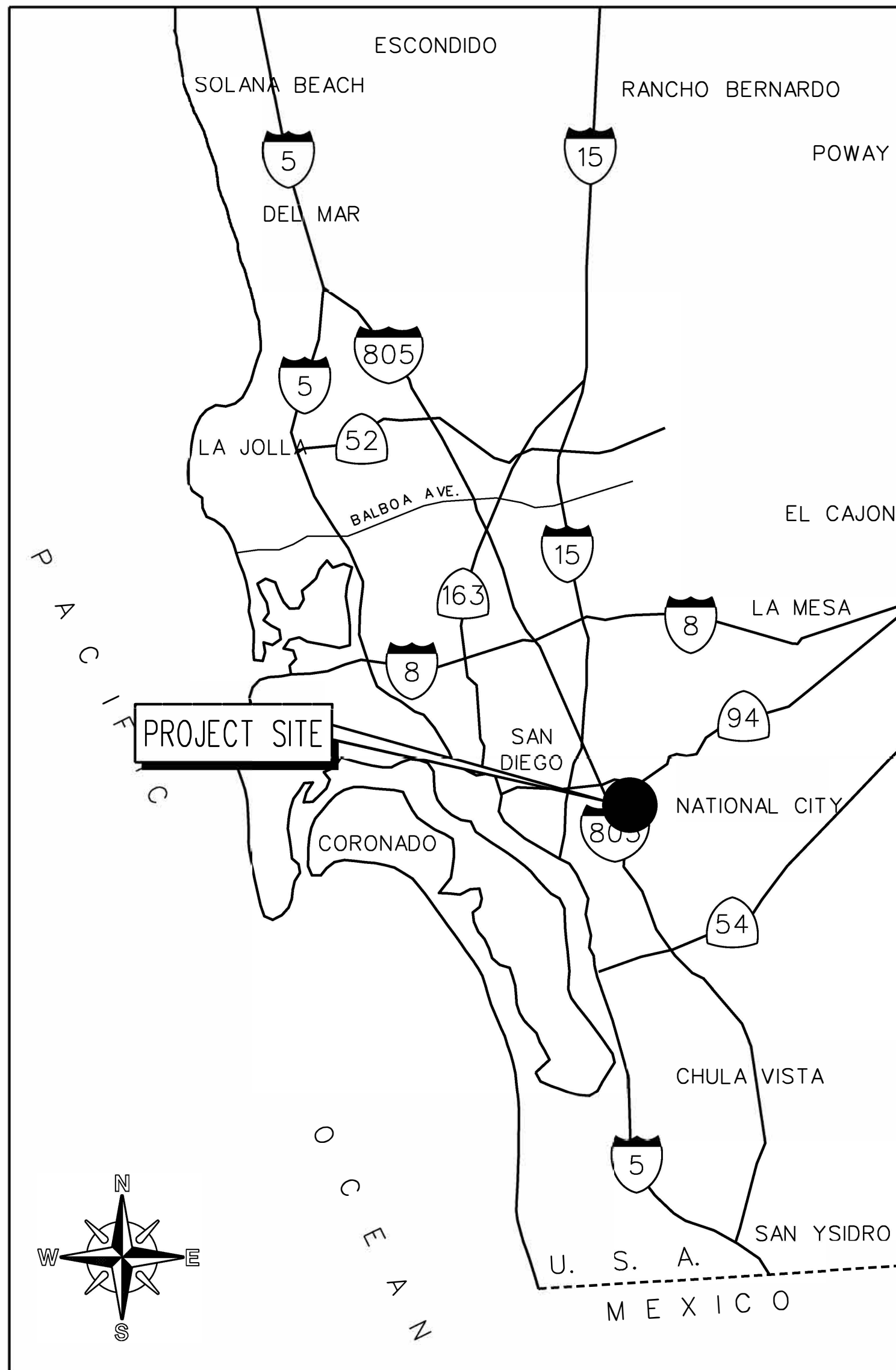
THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LICENSED LAND SURVEYOR OR LICENSED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA SHALL FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR ANY EARTHWORK, DEMOLITION OR SURFACE IMPROVEMENTS. IF DESTROYED, A LICENSED LAND SURVEYOR SHALL REPLACE SUCH MONUMENT(S) WITH APPROPRIATE MONUMENTS. WHEN SETTING SURVEY MONUMENTS USED FOR RE-ESTABLISHMENT OF THE DISTURBED CONTROLLING SURVEY MONUMENTS AS REQUIRED BY SECTIONS 6730.2 AND 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILLED WITH THE COUNTY SURVEYOR. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION SHALL BE NOTIFIED IN WRITING AT LEAST 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING AND VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

SYMBOLS

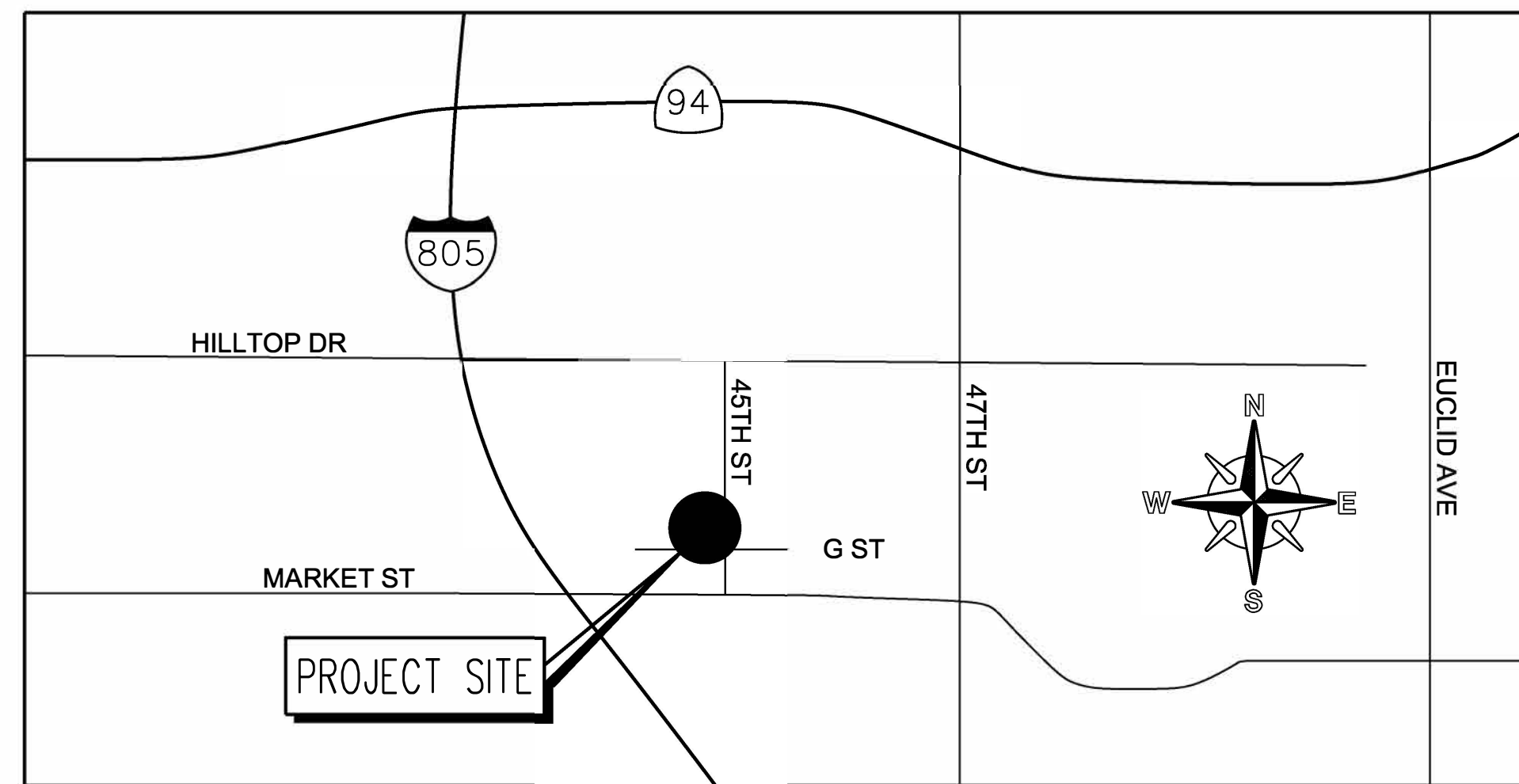
| | |
|----------------|--|
| CENTERLINE | |
| ELECTRICAL | |
| GAS | |
| OVERHEAD POWER | |
| POWER POLE | |
| SEWER | |
| STREET CURB | |
| TELEPHONE | |
| WATER | |

ABBREVIATIONS

| | |
|------------|----------------------|
| AC | ALTERNATING CURRENT |
| APPROX AVE | APPROXIMATE AVENUE |
| BLVD | BOULEVARD |
| CP | CATHODIC PROTECTION |
| Cu | COPPER |
| DIA | DIAMETER |
| DWG | DRAWING |
| E, ELEC | ELECTRICAL |
| EX, EXIST | EXISTING |
| G | GAS |
| GALV | GALVANIZED |
| ID | IDENTIFICATION |
| JUNCT | JUNCTION |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| NAD | NORTH AMERICAN DATUM |
| NO. | NUMBER |
| PVC | POLYVINYL CHLORIDE |
| RD | ROAD |
| REBAR | REINFORCING STEEL |
| REQ | REQUIRED |
| S | SEWER |
| SCH | SCHEDULE |
| ST | STREET |
| T | TELEPHONE |
| TYP | TYPICAL |
| W, WTR | WATER |



CITY OF SAN DIEGO
VICINITY MAP



45TH ST & G ST
LOCATION MAP

CONTRACTOR RESPONSIBILITIES

- PURSUANT TO SECTION 4216 OF THE GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION, YOU MUST CONTACT THE REGIONAL NOTIFICATION CENTER (E.G. UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- NOTIFY SDG&E AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10' OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES. (I.E., 69 KV & HIGHER)
- THE LOCATIONS OF EXISTING FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORD INFORMATION ONLY AND ARE SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES EITHER SHOWN ON THE PLANS OR MARKED IN THE FIELD IN ACCORDANCE WITH THE SPECIFICATIONS SECTION 5-UTILITIES. RECORDS ARE AVAILABLE TO THE CONTRACTOR AT THE PUBLIC UTILITIES DEPARTMENT, 2797 CAMINITO CHOLLAS.
- VERIFY THE LOCATION OF ADJACENT STRUCTURES AND UTILITIES AND FOR AVOIDING DAMAGE TO, AND CONFLICT, WITH THESE STRUCTURES OR UTILITIES.
- UNLESS OTHERWISE NOTED DRAWINGS ARE NOT SHOWN TO SCALE.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, CITY STANDARDS AND THE TECHNICAL SPECIFICATIONS.
- NOTIFY THE ENGINEER AT LEAST 7 DAYS PRIOR TO ANY INSTALLATIONS OR TRENCHING. COMPLY WITH INSPECTION REQUIREMENTS AS INDICATED IN THE SPECIFICATIONS. THE INSTALLATION AND DRILLING OF THE DEEPWELL ANODE BED MUST BE IN THE PRESENCE OF THE ENGINEER OR DESIGNATED REPRESENTATIVE.
- NO ANODE WIRE SPLICES ARE PERMITTED.
- DOCUMENT ALL CHANGES FROM THESE DRAWINGS AND SUBMIT 'AS-BUILT' DRAWINGS TO THE ENGINEER PRIOR TO COMPLETION OF THE WORK.
- ALL IMPROVEMENTS AND LANDSCAPING DISTURBED BY CONTRACTOR SHALL BE REPLACED IN KIND TO ORIGINAL OR BETTER. REPLACE IN KIND ANY SENSORS OR EQUIPMENT DAMAGED DURING CONSTRUCTION.
- THE THICKNESS OF AND SUBSURFACE COMPOSITION OF EXISTING PAVEMENT IS UNKNOWN.
- STORM DRAIN INLETS SHALL REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
- ALL ADVANCE METERING INFRASTRUCTURE (AMI) DEVICES ATTACHED TO THE WATER METER OR LOCATED IN OR NEAR WATER METER BOXES, COFFINS, OR VAULTS SHALL BE PROTECTED AT ALL TIMES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SUMMARY OF WORK

- INSTALL NEW DEEPWELL ANODE GROUNDBED.
- ROUTE NEW ANODE LEADS/VENT PIPE TO EXISTING RECTIFIER BY INTERCEPTING EXISTING ANODE LEAD/VENT PIPE CONDUIT.
- DESTROY EXISTING ANODE GROUNDBED.

G-1

**PLANS FOR THE CONSTRUCTION OF
BONITA PIPELINE - 45TH ST & G ST
DEEP ANODEWELL REPLACEMENT
TITLE SHEET**

| CONSTRUCTION CHANGE / ADDENDUM | | | |
|--------------------------------|------|---------------------------------|--------------|
| CHANGE | DATE | AFFECTED OR ADDED SHEET NUMBERS | APPROVAL NO. |
| | | | |
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WARNING
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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

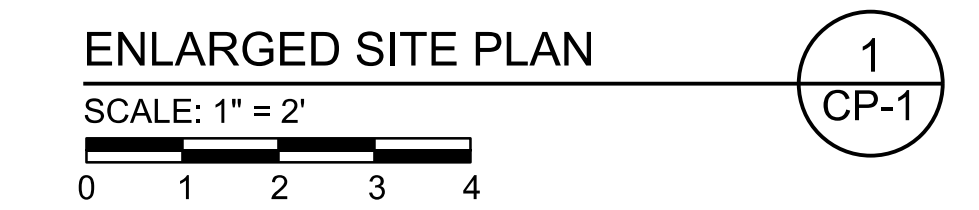
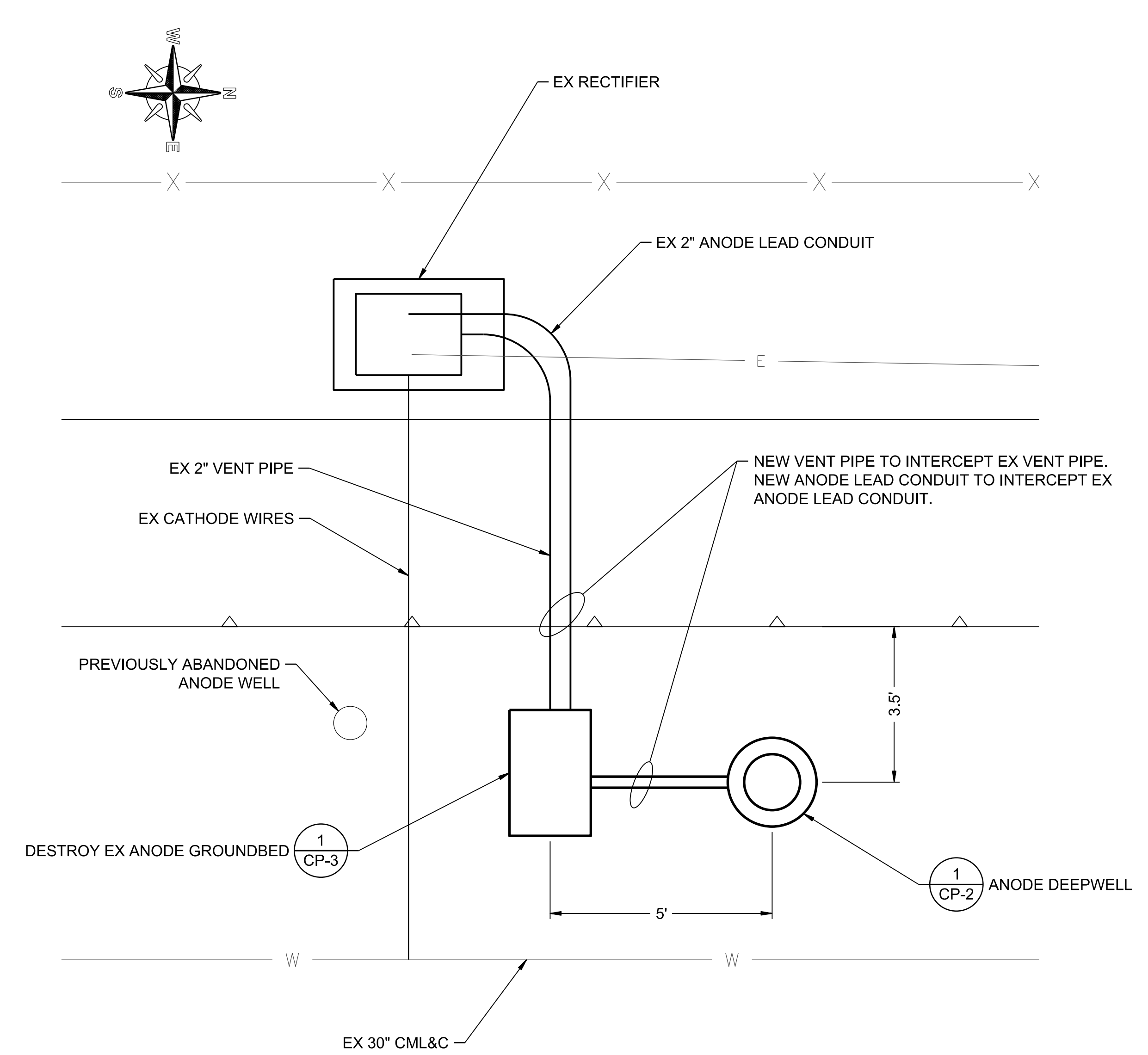
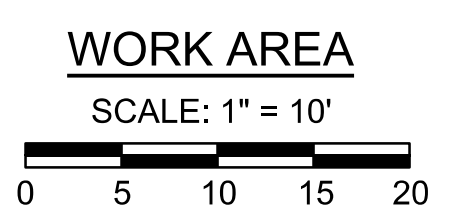
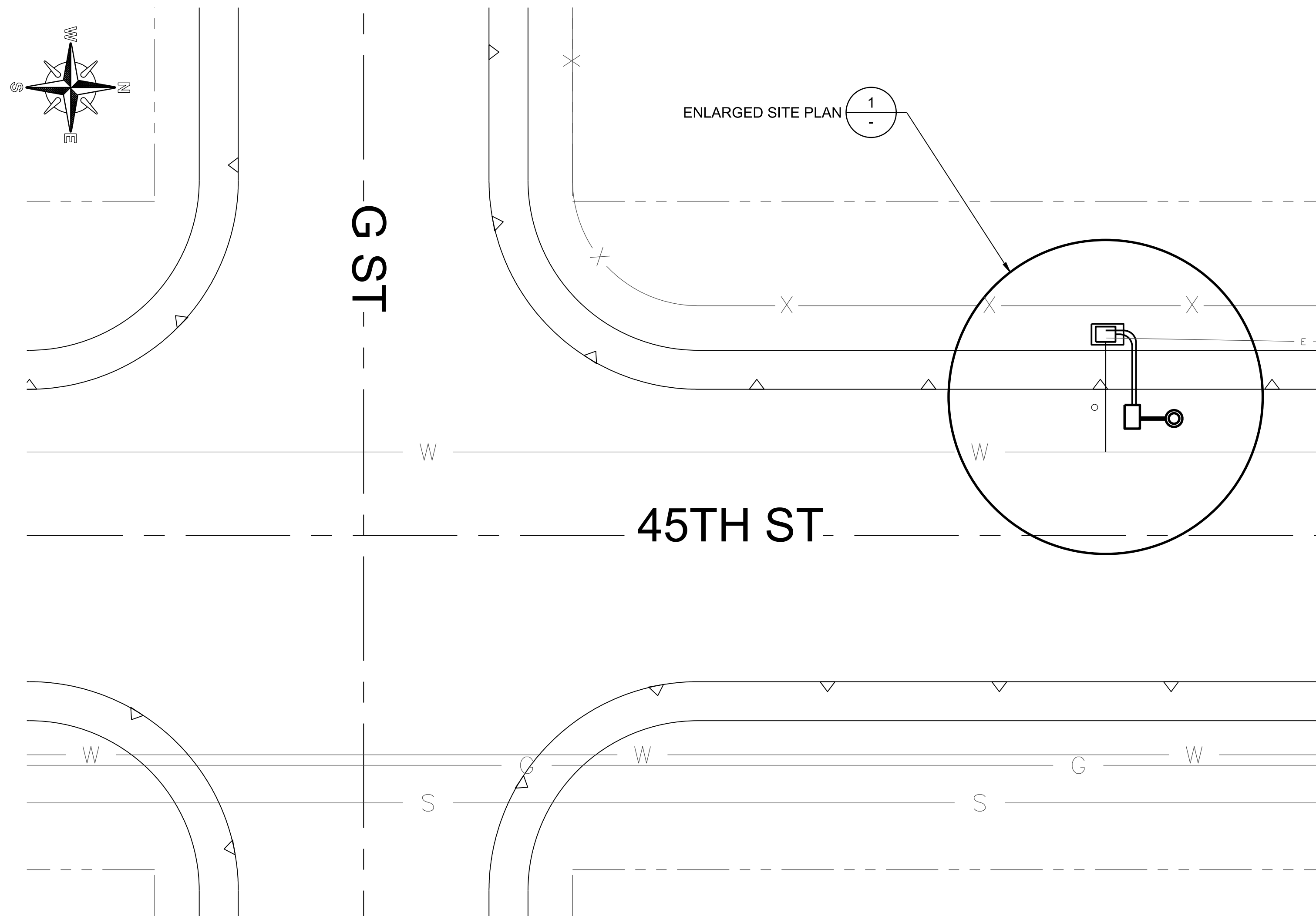


| AS-BUILT INFORMATION | |
|-----------------------|----------------------|
| MATERIALS | MANUFACTURER / MODEL |
| RECTIFIER | - |
| ICCP ANODES | - |
| FINAL ICCP WELL DEPTH | - |
| GACP ANODES | - |
| - | - |
| - | - |
| CONTRACTOR | - |

| | | |
|-------------|---|--|
| SPEC. NO. | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 1 OF 4 SHEETS | WATER WBS - SEWER WBS - |
| | APPROVED FOR CITY ENGINEER: <i>[Signature]</i> DATE: 12/11/18 | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| | PRINT DCE NAME: RCE# | CHECKED BY: S FOX PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | SRF | ERF |
| DATE | DATE | FILMED |
| 12/18 | | |
| 199-1739 | | |
| 1840-6300 | | |
| 41135-1-D | | |
| CONTRACTOR | DATE STARTED | DATE COMPLETED |
| INSPECTOR | | |

DATE PLOTTED: 5/6/2019 11:49:42 AM FILE: 45th&Market.dgn

BONITA PIPELINE - 45TH ST & G ST DEEP ANODEWELL REPLACEMENT

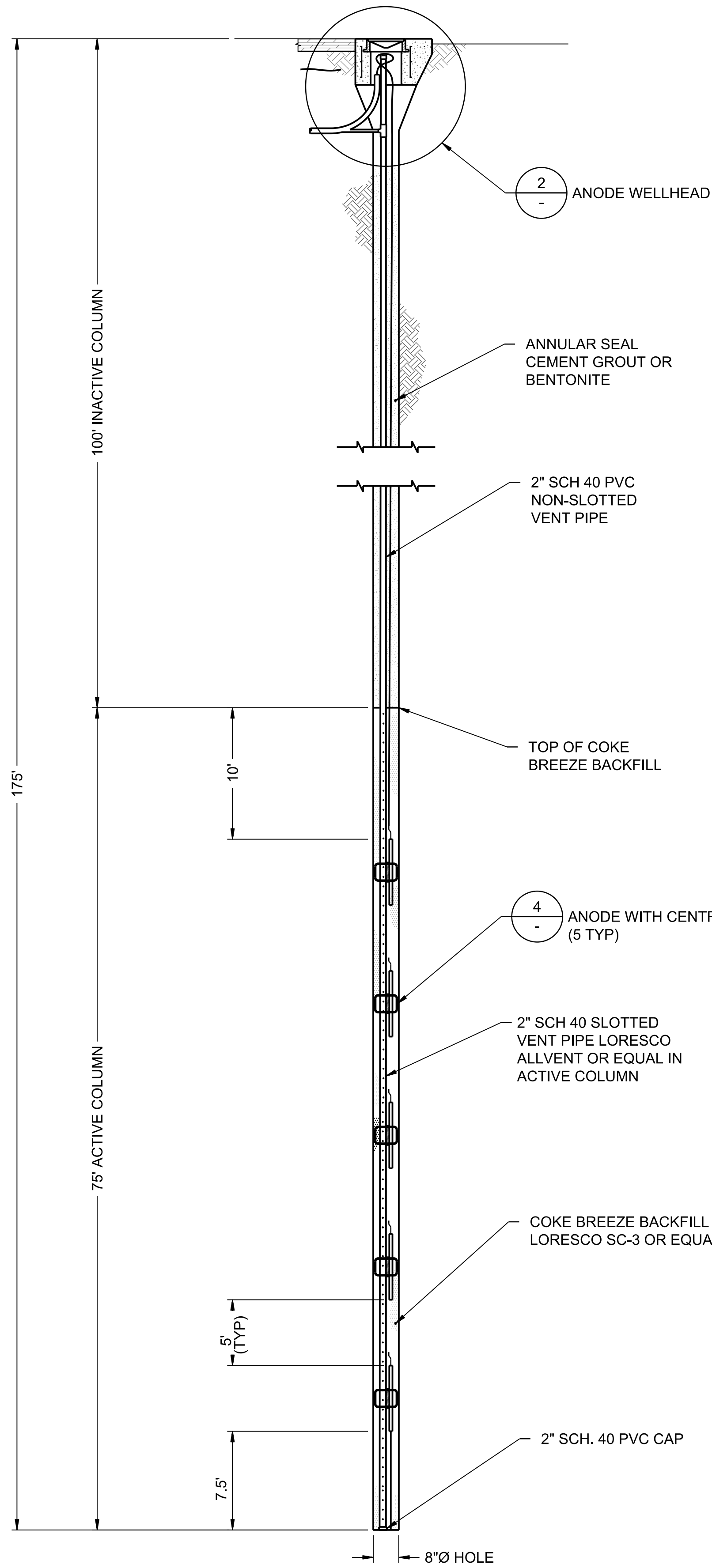


CP-1

PLANS FOR THE CONSTRUCTION OF
 BONITA PIPELINE - 45TH ST & G ST
 DEEP ANODEWELL REPLACEMENT
 SITE PLAN

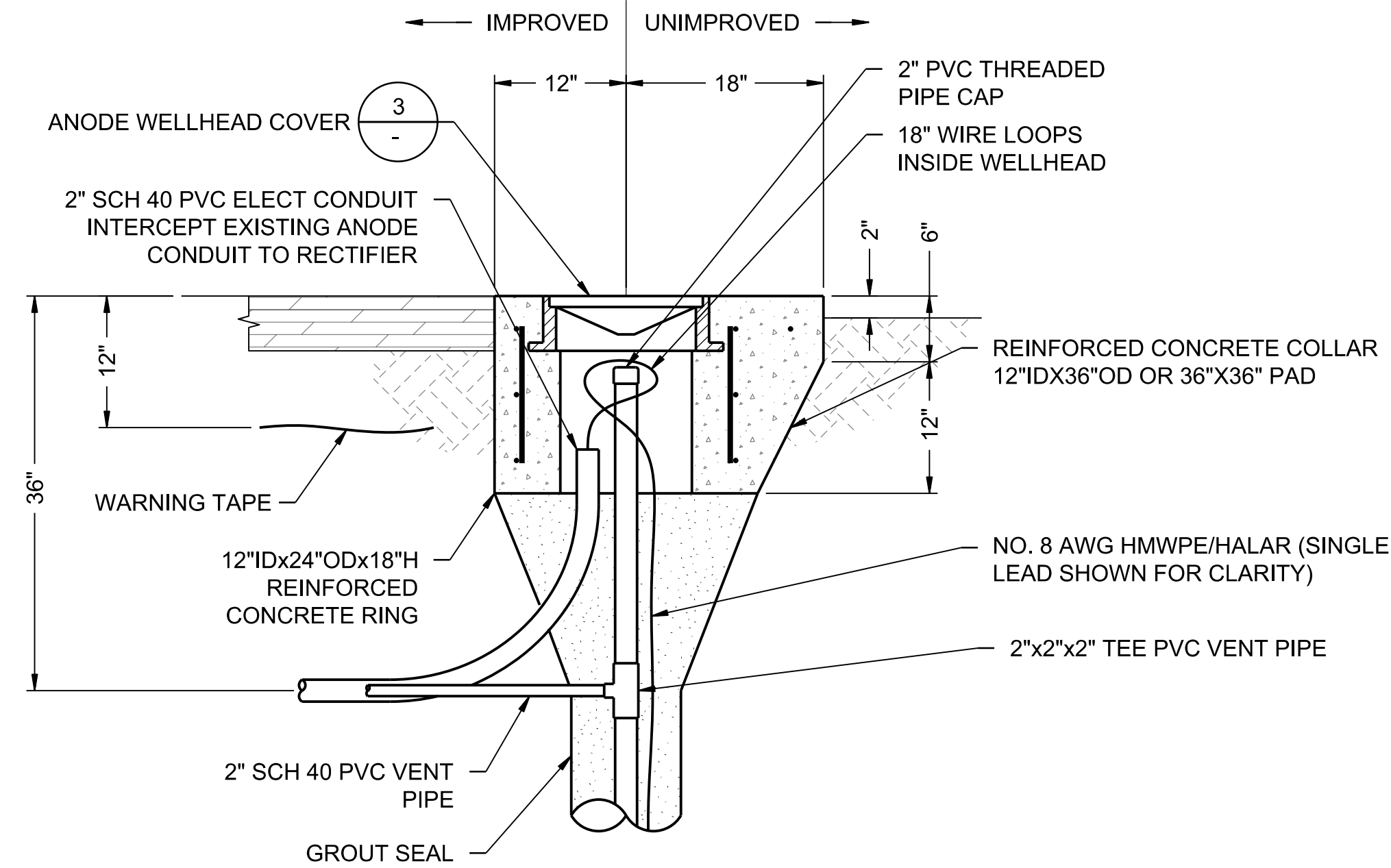
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| SPEC. NO. 1859 | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 2 OF 4 SHEETS | | WATER WBS - |
| | APPROVED FOR CITY ENGINEER | DATE 12/11/18 | SEWER WBS - |
| | PRINT DCE NAME | RCE# | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | SRF | ERF | 12/18 |
| CONTRACTOR | | | DATE STARTED |
| INSPECTOR | | | DATE COMPLETED |
| | | | CHECKED BY: S FOX PROJECT ENGINEER |
| | | | 199-1739 |
| | | | 1840-6300 |
| | | | 41135-2-D |

DATE PLOTTED: 5/8/2019 11:48:42 AM FILE: 45th&Market.dgn



ANODE DEEPWELL
NOT TO SCALE

1
CP-1

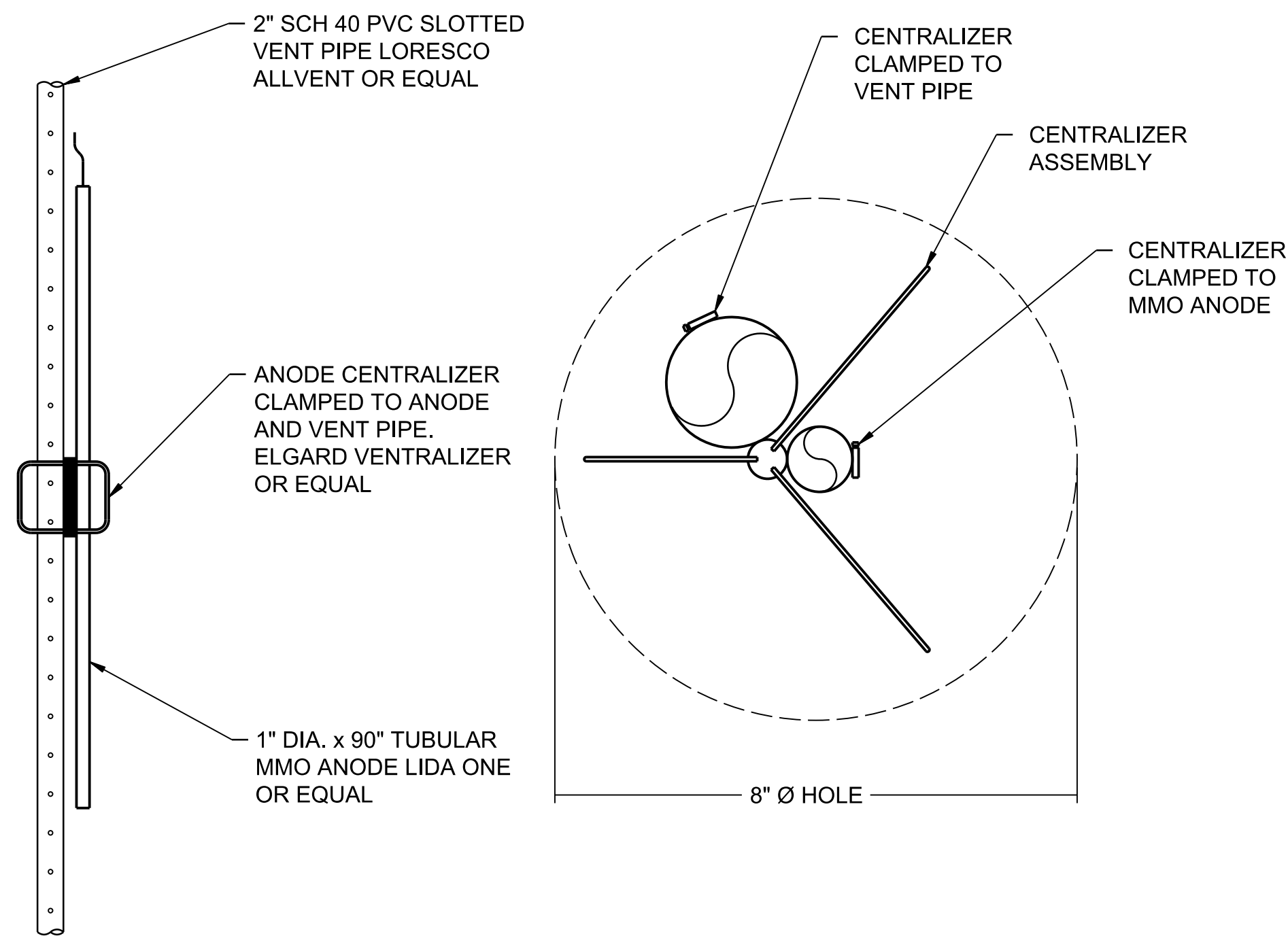


NOTES:

- ALL TRENCHING OF CONDUITS AND WIRES SHALL BE PER SDG-117 REQUIREMENTS.

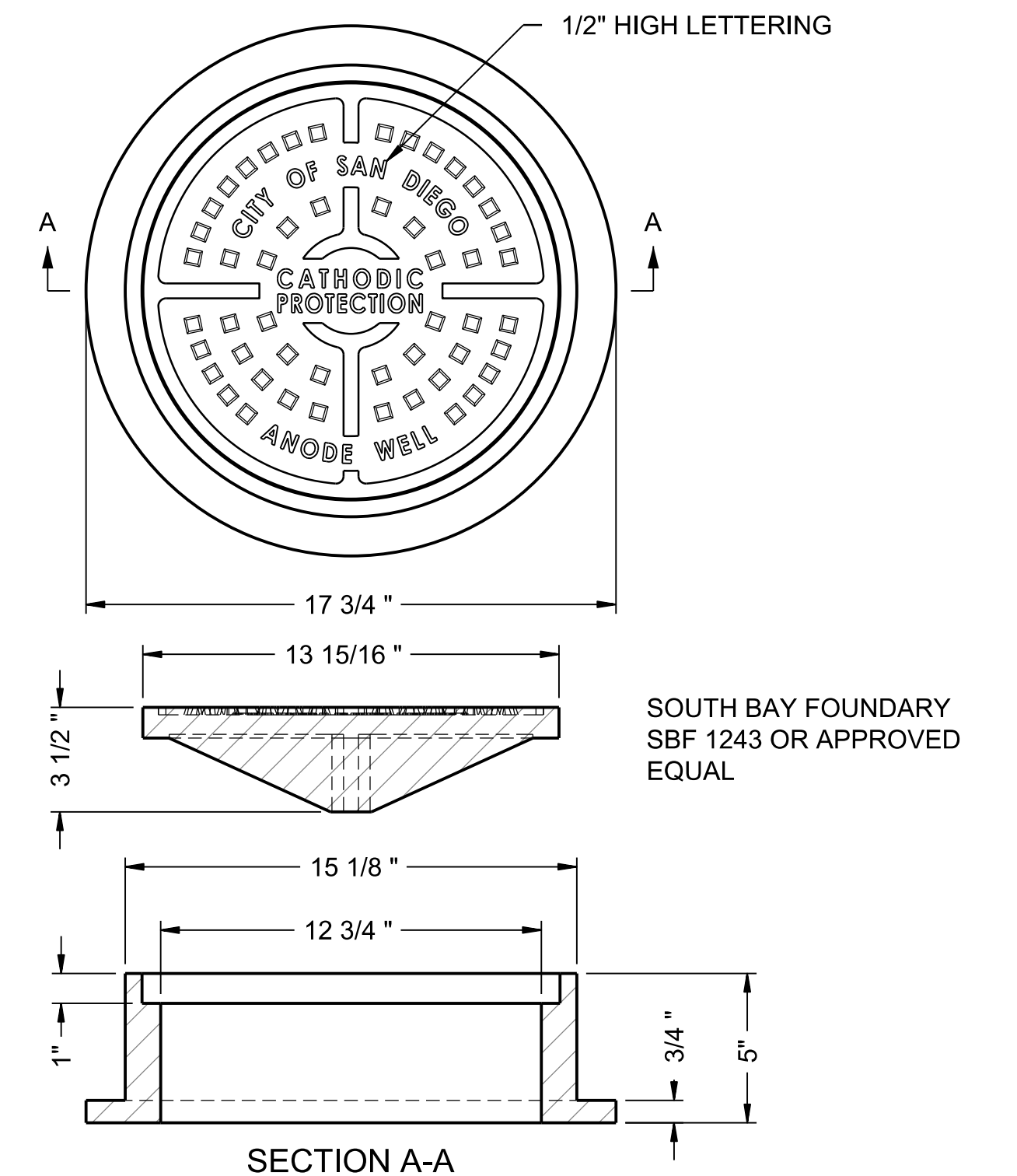
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NOT TO SCALE

2
CP-2



ANODE WITH CENTRALIZER
NOT TO SCALE

4
CP-2



ANODE WELL HEAD COVER
NOT TO SCALE

3
CP-2

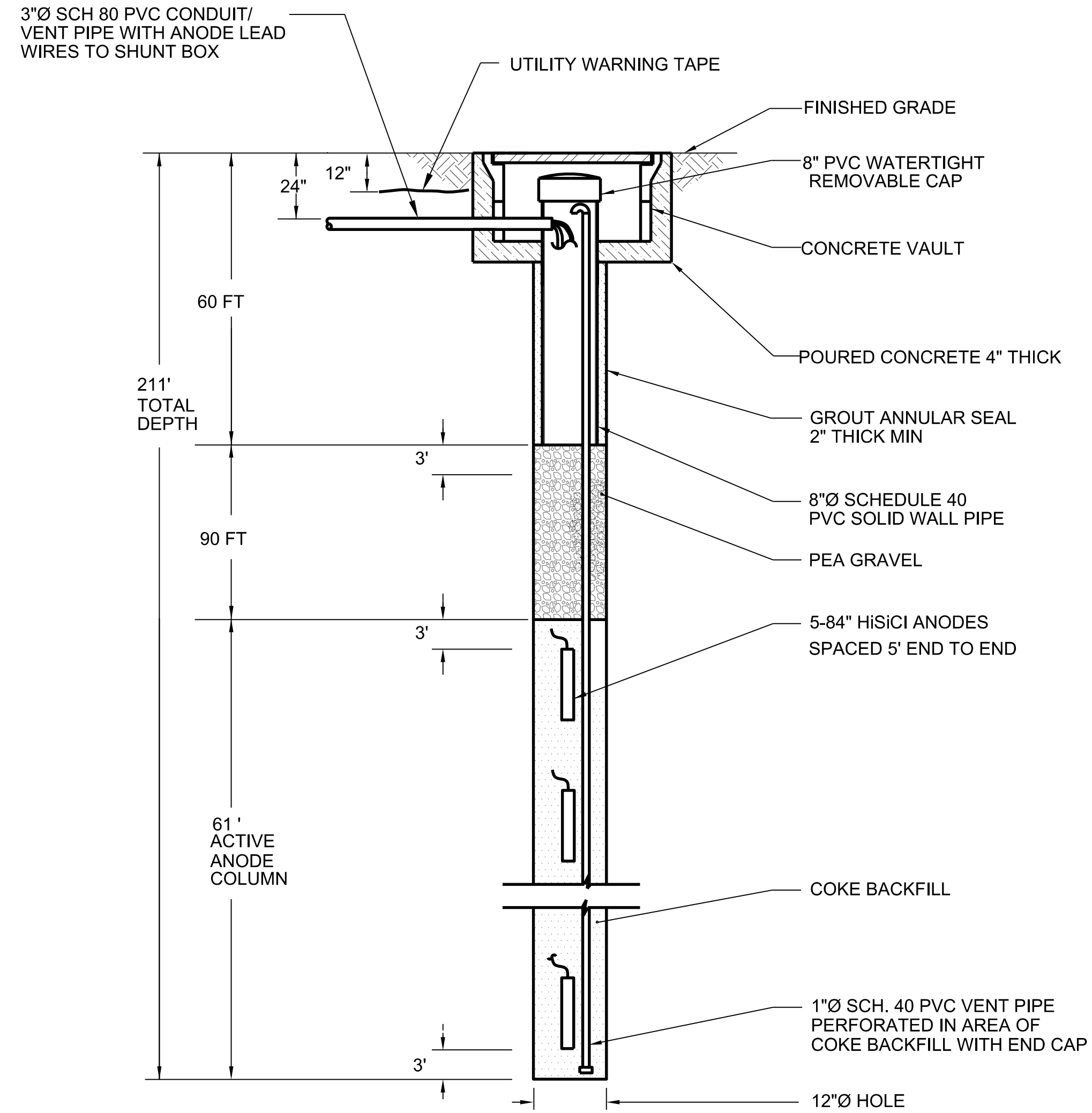
CP-2

**PLANS FOR THE CONSTRUCTION OF
BONITA PIPELINE - 45TH ST & G ST
DEEP ANODEWELL REPLACEMENT
CATHODIC PROTECTION DETAILS**

| | | |
|--|---|---|
| SPEC. NO. 1859 | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 3 OF 4 SHEETS | WATER WBS - SEWER WBS - |
| APPROVED FOR CITY ENGINEER: <i>[Signature]</i> | DATE: 12/11/18 | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| PRINT DCE NAME: <i>[Signature]</i> | RCE#: | CHECKED BY: S FOX PROJECT ENGINEER |
| DESCRIPTION BY APPROVED DATE FILMED | ORIGINAL SRF ERF | 199-1739 CCS27 COORDINATE 1840-6300 CCS83 COORDINATE |
| CONTRACTOR: _____ | DATE STARTED: _____ DATE COMPLETED: _____ | 41135-3-D |

DATE PLOTTED: 5/8/2019 11:48:42 AM FILE: 45th&Market.dgn

BONITA PIPELINE - 45TH ST & G ST DEEP ANODEWELL REPLACEMENT



EXISTING DEEP ANODE GROUND BED

1
CP-1

CP-3

PLANS FOR THE CONSTRUCTION OF
BONITA PIPELINE - 45TH ST & G ST
DEEP ANODEWELL REPLACEMENT
EXISTING DEEP ANODE GROUND BED

| | | | |
|----------------|---|---------------|--|
| SPEC. NO. 1859 | CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 4 OF 4 SHEETS | | WATER WBS - |
| | APPROVED FOR CITY ENGINEER | DATE 12/11/18 | SUBMITTED BY: E FERNANDEZ PROJECT MANAGER |
| | PRINT DCE NAME | RCE# | CHECKED BY: S FOX PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | SRF | ERF | 12/18 |
| | | | |
| | | | |
| CONTRACTOR | | | DATE STARTED |
| INSPECTOR | | | DATE COMPLETED |
| | | | 199-1739 CCS27 COORDINATE 1840-6300 CCS83 COORDINATE 41135-4-D |

ATTACHMENT F
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ATTACHMENT G
CONTRACT AGREEMENT

CONTRACT AGREEMENT

CONSTRUCTION CONTRACT

This contract is made and entered into between THE CITY OF SAN DIEGO, a municipal corporation, herein called "City", and **Ahrens Mechanical**, herein called "Contractor" for construction of **Mid-City and Bonita Pipeline**; Quote No. **M-20-0011** in the amount of **One Hundred Seventy Thousand One Hundred Dollars and Zero Cents (\$170,100.00)**, which is comprised of the Base Quote.

IN CONSIDERATION of the payments to be made hereunder and the mutual undertakings of the parties hereto, City and Contractor agree as follows:

1. The following are incorporated into this contract as though fully set forth herein:
 - (a) The attached Faithful Performance and Payment Bonds.
 - (b) The attached Proposal included in the Quote documents by the Contractor.
 - (c) Reference Standards listed in the Instruction to Bidders and the Supplementary Special Provisions (SSP).
 - (d) That certain documents entitled **Mid-City and Bonita Pipeline** on file in the office of the Public Works Department as Document No. **M-20-0011**, as well as all matters referenced therein.
2. The Contractor shall perform and be bound by all the terms and conditions of this contract and in strict conformity therewith shall perform and complete in a good and workmanlike manner **Mid-City and Bonita Pipeline, M-20-0011**, San Diego, California.
3. For such performances, the City shall pay to Contractor the amounts set forth at the times and in the manner and with such additions or deductions as are provided for in this contract, and the Contractor shall accept such payment in full satisfaction of all claims incident to such performances.
4. No claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
5. This contract is effective as of the date that the Mayor or designee signs the agreement.

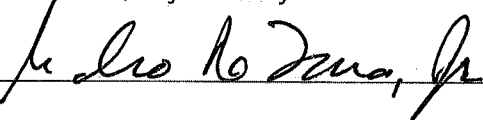
CONTRACT AGREEMENT (continued)

IN WITNESS WHEREOF, this Agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to Municipal Code **§22.31.02** authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM

By 

Mara W. Elliott, City Attorney
By 

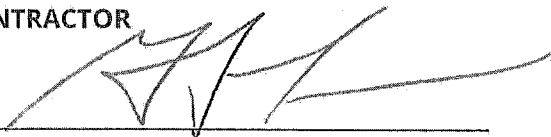
Print Name: Stephen Samara
Principal Contract Specialist
Public Works Department

Print Name: Pedro De Lara, Jr.
Deputy City Attorney

Date: 10/1/2019

Date: 10/10/19

CONTRACTOR

By 

Print Name: Gregory A. Ahrens

Title: President

Date: 18 September 2019

City of San Diego License No.: B2010037845

State Contractor's License No.: 957287

DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION NUMBER: 1000000554

CERTIFICATIONS AND FORMS

The Bidder, by submitting its electronic quote, agrees to and certifies under penalty of perjury under the laws of the State of California, that the certifications, forms and affidavits submitted as part of this quote are true and correct.

Bidder's General Information

To the City of San Diego:

Pursuant to "Notice Inviting Quotes", specifications, and requirements on file with the City Clerk, and subject to all provisions of the Charter and Ordinances of the City of San Diego and applicable laws and regulations of the United States and the State of California, the undersigned hereby proposes to furnish to the City of San Diego, complete at the prices stated herein, the items or services hereinafter mentioned. The undersigned further warrants that this quote is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the quote is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham quote, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham quote, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the quote price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the quote price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the quote are true; and, further, that the bidder has not, directly or indirectly, submitted his or her quote price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, quote depository, or to any member or agent thereof to effectuate a collusive or sham quote.

The undersigned bidder(s) further warrants that bidder(s) has thoroughly examined and understands the entire Contract Documents (plans and specifications) and the Bidding Documents therefore, and that by submitting said Bidding Documents as its quote proposal, bidder(s) acknowledges and is bound by the entire Contract Documents, including any addenda issued thereto, as such Contract Documents incorporated by reference in the Bidding Documents.

**NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH QUOTE
UNDER 23 UNITED STATES CODE 112 AND PUBLIC CONTRACT CODE 7106**

State of California

County of San Diego

The bidder, being first duly sworn, deposes and says that he or she is authorized by the party making the foregoing quote that the quote is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the quote is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham quote, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham quote, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the quote price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the quote price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the quote are true; and further, that the bidder has not, directly or indirectly, submitted his or her quote price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, quote depository, or to any member or agent thereof to effectuate a collusive or sham quote.

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in the WHITEBOOK, Section 5-1.3, "Drug-Free Workplace", of the project specifications, and that;

This company has in place a drug-free workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of subdivisions a) through c) of the policy as outlined.

CONTRACTOR CERTIFICATION

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the WHITEBOOK, Section 5-1.2, "California Building Code, California Code of Regulations Title 24 and Americans with Disabilities Act", of the project specifications, and that:

This company has in place workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of the policy as outlined.

CONTRACTOR CERTIFICATION

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

I declare under penalty of perjury that I am authorized to make this certification on behalf of the company submitting this quote, that as Contractor, I am familiar with the requirements of City of San Diego Municipal Code § 22.3004 regarding Contractor Standards as outlined in the WHITEBOOK, Section 5-1.4, ("Contractor Standards and Pledge of Compliance"), of the project specifications, and that Contractor has complied with those requirements.

I further certify that each of the Contractor's subcontractors has completed a Pledge of Compliance attesting under penalty of perjury of having complied with City of San Diego Municipal Code § 22.3004.

CONTRACTOR CERTIFICATION

Equal Benefits Ordinance Certification

I declare under penalty of perjury that I am familiar with the requirements of and in compliance with the City of San Diego Municipal Code § 22.4300 regarding Equal Benefits Ordinance.

CONTRACTOR CERTIFICATION

Equal Pay Ordinance Certification

Contractor shall comply with the Equal Pay Ordinance (EPO) codified in the San Diego Municipal Code (SDMC) at section 22.4801 through 22.4809, unless compliance is not required based on an exception listed in SDMC section 22.4804.

Contractor shall require all of its subcontractors to certify compliance with the EPO in their written subcontracts.

Contractor must post a notice informing its employees of their rights under the EPO in the workplace or job site.

By signing this Contract with the City of San Diego, Contractor acknowledges the EPO requirements and pledges ongoing compliance with the requirements of SDMC Division 48, section 22.4801 et seq., throughout the duration of this Contract.

ELECTRONICALLY SUBMITTED FORMS

THE FOLLOWING FORMS MUST BE SUBMITTED IN PDF FORMAT WITHIN 3 WORKING DAYS OF THE NOTICE OF INTENT TO AWARD (NOI)

The following forms are to be completed by the bidder and submitted electronically.

- A. CONTRACTOR'S CERTIFICATION OF PENDING ACTIONS**
- B. MANDATORY DISCLOSURE OF BUSINESS INTERESTS FORM**
- C. LIST OF SUBCONTRACTORS**
- D. SUBCONTRACTOR LISTING (OTHER THAN FIRST TIER)**

Quotes will not be accepted until ALL the above-named forms are submitted.

CONTRACTOR'S CERTIFICATION OF PENDING ACTIONS

As part of its quote, the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.


CHECK ONE BOX ONLY.

The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.

The undersigned certifies that within the past 10 years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

| DATE OF CLAIM | LOCATION | DESCRIPTION OF CLAIM | LITIGATION (Y/N) | STATUS | RESOLUTION/REMEDIAL ACTION TAKEN |
|---------------|----------|----------------------|------------------|--------|----------------------------------|
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Contractor Name: Ahrens Mechanical

Certified By Gregory S. Ahrens Title President
 Name

 Signature Date 09/18/2019

USE ADDITIONAL FORMS AS NECESSARY

Mandatory Disclosure of Business Interests Form

BIDDER/PROPOSER INFORMATION

Ahrens Mechanical

| | | | |
|-----------------------------------|--------------|--------------|-------|
| Legal Name | DBA | | |
| 5959 Mission Gorge Road, Ste #204 | San Diego | CA | 92120 |
| Street Address | City | State | Zip |
| Gregory S. Ahrens, President | 619-487-9036 | 619-487-9195 | |
| Contact Person, Title | Phone | Fax | |

Provide the name, identity, and precise nature of the interest* of all persons who are directly or indirectly involved** in this proposed transaction (SDMC § 21.0103).

* The precise nature of the interest includes:

- the percentage ownership interest in a party to the transaction,
- the percentage ownership interest in any firm, corporation, or partnership that will receive funds from the transaction,
- the value of any financial interest in the transaction,
- any contingent interest in the transaction and the value of such interest should the contingency be satisfied, and
- any philanthropic, scientific, artistic, or property interest in the transaction.

** Directly or indirectly involved means pursuing the transaction by:

- communicating or negotiating with City officers or employees,
- submitting or preparing applications, quotes, proposals or other documents for purposes of contracting with the City, or
- directing or supervising the actions of persons engaged in the above activity.

| | |
|-----------------------------|--|
| Gregory S. Ahrens | President |
| Name | Title/Position |
| San Diego, CA | |
| City and State of Residence | Employer (if different than Bidder/Proposer) |
| 100% | |
| Interest in the transaction | |

| | |
|-----------------------------|--|
| Name | Title/Position |
| City and State of Residence | Employer (if different than Bidder/Proposer) |
| Interest in the transaction | |

* Use Additional Pages if Necessary *

Under penalty of perjury under the laws of the State of California, I certify that I am responsible for the completeness and accuracy of the responses contained herein, and that all information provided is true, full and complete to the best of my knowledge and belief. I agree to provide written notice to the Mayor or Designee within five (5) business days if, at any time, I learn that any portion of this Mandatory Disclosure of Business Interests Form requires an updated response. Failure to timely provide the Mayor or Designee with written notice is grounds for Contract termination.

Gregory S. Ahrens, President

9/18/2019

Print Name, Title

Signature

Date

Failure to sign and submit this form with the quote shall make the quote non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed Mandatory Disclosure of Business Interests Form is submitted.

LIST OF SUBCONTRACTORS

In accordance with the requirements of the "Subletting and Subcontracting Fair Practices Act", Section 4100, of the California Public Contract Code (PCC), the Bidder is to list below the name, address and license number of each Subcontractor who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement, in an amount of or in excess of 0.5% of the Contractor's total Bid. Failure to comply with this requirement may result in the Bid being rejected as non-responsive. The Contractor is to list only one Subcontractor for each portion of the Work. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percentage of the Work to be performed with the Bidder's own forces. The Bidder is to also list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors for which the Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

| NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR | CONSTRUCTOR OR DESIGNER | DIR REGISTRATION NUMBER | SUBCONTRACTOR LICENSE NUMBER | TYPE OF WORK | DOLLAR VALUE OF SUBCONTRACT | MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB ^① | WHERE CERTIFIED ^② | CHECK IF JOINT VENTURE PARTNERSHIP |
|--|-------------------------|-------------------------|------------------------------|--------------|-----------------------------|--|------------------------------|------------------------------------|
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____ | | | | | | | | |
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____ | | | | | | | | |

- ① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Certified Emerging Local Business Enterprise | ELBE |
| Certified Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- ② As appropriate, Bidder shall indicate if Subcontractor is certified by:
- | | | | |
|--|--------|--|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | | |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

SUBCONTRACTOR LISTING

(OTHER THAN FIRST TIER)

Pursuant to California Senate Bill 96 and in accordance with the requirements of Labor Code sections 1771.1 and 1725.5, by submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the California Department of Industrial Relations (DIR). **The Bidder is to list below the name, address, license number, DIR registration number of any (known tiered subcontractor) - who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement pursuant to the contract. If none are known at this time, mark the table below with non-applicable (N/A).**

| NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR | CONSTRUCTOR OR DESIGNER | DIR REGISTRATION NUMBER | SUBCONTRACTOR LICENSE NUMBER | TYPE OF WORK |
|---|-------------------------|-------------------------|------------------------------|---------------------|
| Name: <u>Corrpro</u> Address: <u>6445 Marindustry Ave</u> City: <u>San Diego</u> State: <u>CA</u> Zip: <u>92121</u> Phone: <u>858-824-1992</u> Email: _____ | Constructor | 100002963 | 764878 | Cathodic Protection |
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____ | | | | |
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____ | | | | |

**** USE ADDITIONAL FORMS AS NECESSARY ****

QUOTE SUBMITTED FROM CONTRACTOR

Ahrens Mechanical

5959 Mission Gorge Road, Ste #204, San Diego, CA 92120

Ph: 619.487.9036, Fx: 619.487.9195

Estimating@ahrensmechanical.com

Certified DVBE and SB - State of California #1544620

Certified SDVOSB - Department of Veteran Affairs

Certified SLBE City of San Diego - #12AM0557

Public Works Contractor Registration No. 1000000554 exp: 6/30/22

CSLB #957287 / A, B, C4, C10, C16, C20, C34, C36 and C46 Exp:2/28/21

16 September 2019

Manuel Gonzalez
City of San Diego
525 B. Street
San Diego, CA 92101-4409
Email: mgonzalez@sandiego.gov

Subject : Mid City and Bonita Pipeline Anode Bed Replacements
City of San Diego

Replace existing anode beds per attached "Request For Quote - Minor Repair".

Price: \$ 170,100.00

Price is valid through 18 December 2019.

AHRENS MECHANICAL



Gregory S. Ahrens, PE
President