



REQUEST FOR PROPOSAL

CITY OF NAPLES
PURCHASING DIVISION
CITY HALL, 735 8TH STREET SOUTH
NAPLES, FL 34102
PH: 239-213-7100 FX: 239-213-7105

COVER SHEET

NOTIFICATION DATE: 03/07/2024	24-014 Lake Restoration & Improvements Project (Lakes 8 & 9)- RFP	SOLICITATION NUMBER: 24-014	OPENING DATE & TIME: 04/09/2024 2:00 PM								
PRE-PROPOSAL CONFERENCE DATE, TIME AND LOCATION: A Non-Mandatory Pre-Proposal Conference will be held March 20th 2024 , at 10:00 A.M. local time in the City Hall Conference Room at 735 8th Street S., Naples FL, 34102											
Questions regarding this proposer packet must be received in writing in the Purchasing Division NO LATER THAN TEN CALENDAR DAYS PRIOR TO THE BID OPENING DATE TO ENSURE AN ANSWER IS PROVIDED PRIOR TO CLOSING. Last day for questions is 03/30/2024. Direct all questions to: Felix Gomez, CPPB, NIGP-CPP Procurement and Contracts Manager City of Naples, Purchasing Division 735 8th Street South Naples, Florida 34102 PH: (239) 213-7101 FX: (239) 213-7105 fgomez@naplesgov.com											
LEGAL NAME OF PARTNERSHIP, CORPORATION OR INDIVIDUAL:											
MAILING ADDRESS:											
CITY-STATE-ZIP:											
PH:		EMAIL:									
FX:		WEB ADDRESS:									
AUTHORIZED SIGNATURE		DATE									
PRINTED NAME/TITLE											
<p>I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder. In submitting a bid to the City of Naples the bidder offers and agrees that if the bid is accepted, the bidder will convey, sell, assign or transfer to the City of Naples all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Anti-trust laws of the United States and the State of FL for price fixing relating to the particular commodities or services purchased or acquired by the City of Naples. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the bidder.</p> <p>FE/EIN Number _____ DUNS Number _____</p> <p>Please initial by all that apply, I acknowledge receipt/ review of the following addendum</p> <table><tr><td>____ Addendum #1</td><td>____ Addendum #2</td><td>____ Addendum #3</td><td>____ Addendum #4</td></tr><tr><td>____ Addendum #5</td><td>____ Addendum #6</td><td>____ Addendum #7</td><td>____ Addendum #8</td></tr></table>				____ Addendum #1	____ Addendum #2	____ Addendum #3	____ Addendum #4	____ Addendum #5	____ Addendum #6	____ Addendum #7	____ Addendum #8
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____ Addendum #5	____ Addendum #6	____ Addendum #7	____ Addendum #8								

PLEASE NOTE THE FOLLOWING

- > This page must be completed and returned with your bid.
- > Bids must be submitted in a sealed envelope, marked with solicitation number & opening date.
- > All submissions must be received, and date stamped by Purchasing staff prior to the above "OPENING DATE & TIME".
- > Submission received after the above opening date and time will not be accepted.
- > Bid tabulations will be available on the City of Naples web site <https://www.naplesgov.com/rfps>

GENERAL CONDITIONS

TO ENSURE ACCEPTANCE OF THE PROPOSAL, PLEASE FOLLOW THESE INSTRUCTIONS. ANY AND ALL SPECIAL CONDITIONS, ATTACHED HERETO, HAVE PRECEDENCE.

- 1. SEALED PROPOSAL:** All proposals must be submitted in a sealed envelope. The face of the envelope shall contain the proposal name and proposal number. Proposals not submitted on attached proposal form shall be rejected. All proposals are subject to the conditions specified herein. Those which do not comply with these conditions are subject to rejection.
- 2. DEFINITIONS:** Uses of the following terms are interchangeable as referenced: "vendor, contractor, supplier, proposer, company, parties, persons", "purchase order, PO, contract, agreement", "city, City of Naples, Naples, agency, owner, requestor, parties", "bid, proposal, response, quote".
- 3. BID EXPENSES:** Bidders shall bear all costs and expenses incurred in developing, preparing, and submitting bids.
- 4. EXECUTION OF PROPOSAL:** Proposal must contain a manual signature of authorized representative in the proposal section. Proposal must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by proposer to his proposal must be initialed.
- 5. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid submittal to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.
- 6. NO PROPOSAL:** If not submitting a proposal, respond by returning the Statement of No Proposal and explain the reason in the spaces provided. Failure to respond 3 times in succession without justification shall be cause for removal of the supplier's name from the proposal mailing list. NOTE: To qualify as a respondent, proposer must submit a "NO PROPOSAL," and it must be received no later than the stated proposal opening date and hour.
- 7. PROPOSAL OPENING:** Shall be public, on the date and at the time specified on the proposal form. It is the proposer's responsibility to assure that his proposal is delivered at the proper time and place of the proposal opening. Proposals which for any reason are not so delivered will not be considered. Offers by telegram; telephone; or fax are not acceptable. Proposal files may be examined during normal working hours.
- 8. WITHDRAWAL OF PROPOSALS:** Withdrawal of a proposal within sixty (60) days after the opening of proposals is subject to suspension or debarment in accordance with Section 2-668(2) of the City Code.
- 9. PRICES, TERMS and PAYMENT:** Prices shall be proposed if required by this request for proposal and include all packing, handling, shipping charges and delivery

to the destination shown herein. Proposer is encouraged to offer cash discount for prompt invoice payment. Terms of less than 20 days will not be considered.

- A. **TAXES:** The City of Naples does not pay Federal Excise and Sales taxes on direct purchases of tangible personal property. See exemption number on face of purchase order. This exemption does not apply to purchases of tangible personal property made by contractors who use the tangible personal property in the performance of contracts for the improvement of City- owned real property.
 - B. **MISTAKES:** Proposers are expected to examine the specifications, delivery schedule, proposal prices, extensions, and all instructions pertaining to supplies and services. Failure to do so will be at proposer's risk. In case of mistake in extension, the unit price will govern.
 - C. **CONDITION AND PACKAGING:** It is understood and agreed that any item offered or shipped as a result of this proposal shall be a new, current standard production model available at the time of this proposal. All containers shall be suitable for storage or shipment, and all prices shall include standard commercial packaging.
 - D. **SAFETY STANDARDS:** Unless otherwise stipulated in the proposal, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards there under.
 - E. **UNDERWRITERS' LABORATORIES:** Unless otherwise stipulated in the proposal, all manufactured items and fabricated assemblies shall carry U.L. approval and re-examination listing where such has been established.
 - F. **PAYMENT:** Payment will be made by the buyer after the items awarded to a vendor have been received, inspected, and found to comply with award specifications, free of damage or defect and properly invoiced. All invoices shall bear the purchase order number. Payment for partial shipments shall not be made unless specified in the proposal. Failure to follow these instructions may result in delay in processing invoices for payment. In addition, the purchase order number must appear on bills of lading, packages, cases, delivery lists and correspondence.
 - G. **CREDIT CARD PAYMENT:** The City of Naples may, at its discretion, use VISA/MASTER card credit network as a payment vehicle for goods and services purchased as a part of this contract. The City of Naples will not accept any additional surcharges (credit card transaction fees) as a result of using the City's credit card for transactions relating to this solicitation.
- 10. DELIVERY:** Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days required to make delivery after receipt of purchase order in space provided. Delivery time may become a basis for making an award (see Special Conditions). Delivery shall be within the normal working hours of the user, Monday through Friday, unless otherwise specified. Unless otherwise specified, all prices are to be FOB-Destination.
- 11. MANUFACTURERS' NAMES AND APPROVED EQUIVALENTS:** Any manufacturers' names, trade names, brand names, information and/or catalog

numbers listed in a specification are for information and not intended to limit competition. The proposer may offer any brand for which he is an authorized representative, which meets or exceeds the specification for any item(s). If proposals are based on equivalent products, indicate on the proposal form the manufacturer's name and number. Proposer shall submit with his proposal, cuts, sketches, and descriptive literature, and/or complete specifications. Reference to literature submitted with a previous proposal will not satisfy this provision. The proposer shall also explain in detail the reason(s) why the proposed equivalent will meet the specifications and not be considered an exception thereto. Proposals which do not comply with these requirements are subject to rejection. Proposals lacking any written indication of intent to quote an alternate brand will be received and considered in complete compliance with the specifications as listed on the proposal form.

12. SPECIAL CONDITIONS: The Purchasing Department has the authority to issue Special Conditions as required for any solicitation. Any Special Conditions that vary from these General Conditions will take precedence over the General Conditions. The special additions are supplemental and in addition to the General Conditions. To the extent that there is a conflict between the General Conditions and the Special Conditions, the Special Conditions will apply and control to the extent of the conflict.

13. ADDENDA AND INTERPRETATIONS: No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any bidder. Prospective bidders must request from the Purchasing and Contracts Manager such interpretation in writing. To be considered, such request must be received 10 calendar days prior to the bid opening. Request must reference the date of bid opening, bid title, and bid number. Failure to comply with this condition will result in bidders waiving their rights to dispute the proposal. Any and all interpretations and any supplemental instructions will be in the form of a written addenda which, if issued, will be posted on the City website and DemandStar.com not later than (3) days prior for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under their bid as submitted. All addenda so issued shall become a part of the contract document.

14. CONFLICT OF INTEREST: All proposal awards are subject to Section 2-72 Conflict of Interest, City of Naples Code of Ordinances, which states: *"No public officer or employee shall have or hold any employment or contractual relationship with any business entity or any agency which is subject to the regulation of or is doing business with the city; nor shall an officer or employee have or hold any employment or contractual relationship that will create a continuing or frequently recurring conflict between his private interests and the performance of his public duties or that would impede the full and faithful discharge of his public duties. Any member of the city council or any city officer or employee who willfully violates this section shall be guilty of malfeasance in office or position and shall forfeit his office or position. Violation of this section with the knowledge, express or implied, of the person or corporation contracting with or making a sale to the city shall render the contract or sale voidable by the city manager or the city council."*

15. CONE OF SILENCE: "Cone of Silence" means a prohibition on any

communication regarding a particular Request for Proposals (RFP), Request for Qualifications (RFQ), Invitation to Bid (ITB), or other competitive solicitation between:

Any person who seeks an award therefrom, including a potential vendor or vendor's representative, and

The City Council, City Attorney, and all City employees, and any non-employee appointed to evaluate or recommend selection in such procurement process.

The Cone of Silence shall not apply to communications with the Procurement Official to obtain clarification or information concerning the subject solicitation. Any such contact other than the Procurement Official may be considered grounds for disqualification. The City shall not be responsible for oral interpretations given by any City employee or its representative. For purposes of this section, "vendor's representative" means an employee, partner, director, or officer of a potential vendor, or consultant, lobbyist, or actual or potential subcontractor or sub-consultant of a vendor, or any other individual acting through or on behalf of any person seeking an award.

16. ETHICS REQUIREMENT: As required by Section 2-975(h)(3), except as otherwise prohibited by law, all contracts executed between the City and a vendor shall 1) prohibit the vendor from employing, or offering to employ any compensated public official or city employee who is substantially involved with the regulation, oversight or management of the contract or the transaction of business during the term, and for a period of two years after termination, of the contract; and 2) provide for liquidated damages in favor of the City for violation of this subsection in the amount equal to the greater of: (i) the compensation received by the compensated public official or city employee from the vendor; and (ii) the amount equal to the total of the compensated public official's or City employee's last two years of gross compensation from the City.

17. E-VERIFY REQUIREMENT: All contracts between the vendor and the City shall require the vendor to be obligated to comply with the provisions of Section 448.095, Florida Statutes (2023) "Employment Eligibility," as amended from time to time. This includes, but is not limited to, registration and use of the E-Verify System to verify the work authorization status of all newly hired employees and requiring any and all subcontractors to provide an affidavit to vendor attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. The vendor shall require any subcontractor to insert into any subcontracts the requirements of this section and shall be responsible for insuring compliance by all subcontractors. The Vendor shall agree to maintain a copy of such affidavit for the duration of the Agreement. Failure to comply will result in the termination of the Agreement as provided in Section 448.095, Florida Stat. (2023), as amended; and the vendor will not be awarded a public contract for at least one (1) year after the date on which the contract was terminate. Vendor will also be

liable for any additional costs to City incurred because of the termination of the contractor.

The City shall upon a good faith belief that a vendor or its subcontractor has knowingly violated Section 448.09(1), Florida Statutes or the provisions of Section 448.095, Florida Statutes, terminate the contract, which shall not be considered a breach of contract and may be challenged pursuant to Section 448.095(2)(d), Florida Statutes. Vendor acknowledges that upon termination of the contract by the City for a violation of this Section, the vendor may not be awarded a public contract for at least one (1) year and that the Vendor is liable for any additional costs incurred by the City as a result of the termination. Vendor shall provide an affidavit of compliance with the E-Verify Requirement at the time a contract is executed.

18. AWARDS: As the best interest of the City may require, the right is reserved to make award(s) by individual item, group of items, all or none, divide the award or a combination thereof; to reject any and all proposals or waive any minor irregularity or technicality in proposals received.

19. ADDITIONAL QUANTITIES: For a period not exceeding ninety (90) days from the date of acceptance of this offer by the buyer, the right is reserved to acquire additional quantities up to but not exceeding those shown on proposal at the prices proposal in this invitation. If additional quantities are not acceptable, the proposal sheets must be noted "PROPOSAL IS FOR SPECIFIED QUANTITY ONLY." (THIS PARAGRAPH DOES NOT APPLY FOR A TERM CONTRACT.)

20. SERVICE AND WARRANTY: Unless otherwise specified, the proposer shall define any warranty service and replacements that will be provided during and subsequent to this contract. Proposers must explain on an attached sheet to what extent warranty and service facilities are provided.

The City of Naples will not accept any disclaimer of the warranties of merchantability and fitness for a particular purpose for the products offered. Proposals will clearly state any additional warranties and guarantees against defective materials and workmanship. A copy of the complete manufacturer's warranty statement is to be submitted with the proposal.

21. SAMPLES: Samples of items, when called for, must be furnished free of expense, and if not destroyed, may upon request, be returned at the proposer's expense. Each individual sample must be labeled with proposer's name, manufacturer's brand name and number, proposal number and item reference. Request for return of samples shall be accompanied by instructions which include shipping authorization and name of carrier and must be received with your proposal. If instructions are not received within this time, the commodities shall be disposed of by the City of Naples.

22. PROPOSAL PROTESTS: The City of Naples has formal protest procedures that

are available upon request.

- 23. INSPECTION, ACCEPTANCE AND TITLE:** Inspection and acceptance will be at destination unless otherwise provided. Title and risk of loss or damage to all items shall be the responsibility of the contract supplier until accepted by the ordering agency, unless loss or damage results from negligence by the ordering.
- 24. DISPUTES:** In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the buyer shall be final and binding on both parties.
- 25. GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship or performance of the items offered on this proposal prior to their delivery, it shall be the responsibility of the successful proposer to notify the buyer at once, indicating in his letter the specific regulation which required an alteration. The City reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the contract at no expense to the City.
- 26. LEGAL REQUIREMENTS:** Applicable provision of all Federal, State, county and local laws, and of all ordinances, rules, and regulations shall govern development submittal and evaluation of all proposals received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a proposal response hereto and the City of Naples by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any proposer shall not constitute a cognizable defense against the legal effect thereof.
- 27. PATENTS AND ROYALTIES:** The proposer, without exception, shall indemnify and save harmless the City of Naples and its employees from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the City of Naples. If the proposer uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the proposal prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.
- 28. ADVERTISING:** In submitting a proposal, proposer agrees not to use the results there from as a part of any commercial advertising.
- 29. ASSIGNMENT:** Any Purchase Order issued pursuant to this proposal invitation and the monies which may become due hereunder are not assignable except with the prior written approval of the buyer.
- 30. LIABILITY:** The supplier shall hold and save the City of Naples, its officers, agents, and employees harmless from liability of any kind in the performance of

this contract.

- 31. PUBLIC ENTITY CRIMES:** A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendorlist.
- 32. DISCRIMINATION:** Pursuant to Subsection 287.134(2)(a), F.S., “an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity”.
- 33. COUNTY TAXES:** No proposal shall be accepted from and no contract will be awarded to any person, firm or corporation that is in arrears to the government of Collier County, Florida.
- 34. OFFER EXTENDED TO OTHER GOVERNMENTAL ENTITIES:** The City of Naples encourages and agrees to the successful proposer/proposer extending the pricing, terms and conditions of this solicitation or resultant contract to other governmental entities at the discretion of the successful proposer/proposer.
- IF THIS PROPOSAL IS FOR A TERM CONTRACT, THE FOLLOWING CONDITIONS SHALL ALSO APPLY**
- 35. ELIGIBLE USERS:** All departments of the City of Naples are eligible to use this term contract. Such purchases shall be exempt from the competitive proposal requirements otherwise applying to their purchases.
- 36. PRICE ADJUSTMENTS:** Any price decrease effectuated during the contract period by reason of market change shall be passed on to City of Naples. Price increases are not acceptable.
- 37. CANCELLATION:** All contract obligations shall prevail for at least one hundred eighty (180) days after effective date of contract. After that period, for the protection of both parties, this contract may be cancelled in whole or in part by either party by giving thirty (30) days prior written notice to the other party.

38. RENEWAL: Contract will be in-place for a three (3) year term with an optional two one (1) year renewals, if mutually agreed upon by the CITY and CONTRACTOR. Pursuant to the City of Naples Code of Ordinances, Sec.2-667(7)(e), the term of this contract may be extended by the parties for no more than two years. Each renewal or extension shall be automatically extended for automatic and successive additional terms, unless either party gives written notice to the other not fewer than ninety (90) days prior to the expiration of the then current term. It is recognized that the terms "renewal" and "extension" once had a distinct meaning in the law; however, the intent of this section is that no contract whether continued by a renewal, extension, or a combination of the two, will result in a term of more than three years plus two years, for a total of five years maximum without City Council approval.

39. ABNORMAL QUANTITIES: While it is not anticipated, should any unusual or abnormal requirements arise, the City reserves the right to solicit separate proposals thereon.

40. FISCAL NON-FUNDING CLAUSE: In the event sufficient funds are not budgeted for a new fiscal period, the City shall notify the contractor of such occurrence and the contract shall terminate on the last day of the current fiscal year without penalty or expense to the City.

IF THIS PROPOSAL IS FOR PERFORMING A SERVICE, THE FOLLOWING CONDITIONS SHALL ALSO APPLY

41. ALTERNATIVE PROPOSALS: Proposers offering service delivery methods other than those permitted by the scope of work may submit a separate envelope clearly marked "ALTERNATIVE PROPOSAL". Alternative proposals will be deemed non-responsive and will not be considered for award. All such responses will, however, be examined prior to award. Such examination may result in cancellation of all proposals received to permit rewriting the scope of work to include the alternative method, or the alternative method may be considered for future requirements of the City of Naples.

42. ANTITRUST: By entering into a contract, the contractor conveys, sells, assigns and transfers to the City of Naples all rights, titles and interest it may now have or hereafter acquire under the antitrust laws of the United States and the State of Florida that relate to the particular goods or services purchased or acquired by the City of Naples under said contract.

43. PROPOSER INVESTIGATIONS: Before submitting a proposal, each proposer shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of the contract and

to verify any representations made by the City of Naples upon which the proposer will rely. If the proposer receives an award as a result of its proposal submission, failure to have made such investigations and examinations will in no way relieve the proposer from its obligation to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

44. CERTIFICATES AND LICENSES: The Contractor, at time of proposal, shall possess the correct occupational licenses, all professional licenses or other authorizations necessary to carry out and perform the work required by the City of Naples and Collier County for this project pursuant to all applicable Federal, State and Local Laws, Statutes, Ordinances, and rules and regulations of any kind.

45. CHANGE IN SCOPE OF WORK: The City of Naples may order changes in the work consisting of additions, deletions or other revisions within the general scope of the contract. No claims may be made by the contractor that the scope of the project or of the contractor's services has been changed, requiring changes to the amount of compensation to the contractor or other adjustments to the contract unless such changes or adjustments have been made by written amendment to the contract signed by the City of Naples and the contractor. If the contractor believes that any particular work is not within the scope of the project, is a material change, or will otherwise require more compensation to the contractor, the contractor must immediately notify the City in writing of this belief. If the City believes that the particular work is within the scope of the contract as written, the contractor will be ordered to and shall continue with the work as changed and at the cost stated for the work within the scope.

46. CHANGE ORDERS: The City may, by field directive, authorize minor variations from the requirements of the contract documents, which do not involve an adjustment in the contract price or the contract time and are consistent with the overall intent of the contract documents. Supplemental agreements, in the form of "change orders" shall be used to clarify the plans and specifications, to provide for unforeseen work or alterations in plans, to change the limits of construction to meet field conditions, to provide a safe and functional connection to an existing facility, to make the project functionally operational in accordance with the intent of the original contract, or to adjust the contract price or the contract time requirements. The City of Naples will not pay more than a total of 10% on markup and overhead. Any supplemental agreement shall be approved by the City Manager, contractor and the architect/engineer, if applicable, prior to the commencement of the modified work. The City Manager may only approve contract change orders not exceeding 25 percent of the original contract that were originally approved by City Council. Contracts originally approved at \$50,000.00 or less will be limited to an amount that does not exceed \$75,000.00 for a change order or modification. (City Code Sec.2- 667.(7)(a)(b)).

The City reserves the right to make, at any time prior to or during the progress of the work, increases or decreases in the quantities of work as may be found necessary or desirable by the City. Compensation for changes in quantities shall be at the bid unit price for the specific item of work with no additional charges allowed for the change in quantity.

All unit prices for items of work in the original contract shall be considered all-inclusive of expenses necessary to accomplish the work regardless of the unit of measure (e.g. LS, LF, CY, SY, TN, etc.) including but not limited to:

1. Material
2. Delivery
3. Direct Labor
4. Taxes
5. Rental rates
6. Fringe Benefits
7. Overhead
8. Profit
9. Markup

A change in quantities whether greater than or lower than the original bid quantity shall be treated as if the new quantity was part of the original quantity of work with respect to unit value. Upon approval of changed quantities the quantities shall be adjusted on the schedule of values to reflect the new total quantity of each item of work. Each proposal for change order shall list both the reduction in quantity of deleted work and increased quantity of added work. The City of Naples will not pay more than a total of 10% on markup and overhead when establishing a negotiated fee for items not listed by unit price.

47. AWARDED CONTRACT: An awarded contract with hourly rates will determine any overtime that is authorized by the City and its Project Manager. Any authorized overtime rates will be based on the standard 1.5 time the indicated hourly rate. This multiplier will be used on any overtime hours being charged that have been mutually agreed upon by the CITY and CONTRACTOR.

48. RATE ADJUSTMENTS: Rate Adjustments: Any adjustment to an awarded agreement that contains equipment and labor rates in the agreement shall be made in one or more of the following ways:

1. By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
2. By unit prices specified in the Contract or subsequently agreed upon;
3. By the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as specified in the Contract or subsequently agreed upon;
4. In such other manner as the parties may mutually agree; or
5. In the absence of agreement between the parties, by a unilateral

determination by the Agency procurement officer of the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as computed by the Agency procurement officer in accordance with generally accepted accounting principles.

- 49. CONTRACTOR PERSONNEL:** The City of Naples shall, throughout the life of the contract, have the right of reasonable rejection and approval of staff or subcontractors assigned to the work by the contractor. If the City reasonably rejects staff or subcontractors, the contractor must provide replacement staff or subcontractors satisfactory to the City in a timely manner and at no additional cost to the City. The day- to-day supervision and control of the contractor's employees and sub- contractors is the responsibility solely of the contractor.
- 50. COST REIMBURSEMENT:** The contractor agrees that all incidental costs, including allowances for profit and tools of the trade, must be included in the proposal rates. If an arrangement is made between the contractor and the City to reimburse the contractor for the cost of materials provided in the performance of the work, the contractor shall be reimbursed in the following manner: The City shall reimburse the contractor on completion and acceptance of each assigned job, only for those materials actually used in the performance of the work that is supported by invoices issued by the suppliers of the contractor describing the quantity and cost of the materials purchased. No surcharge shall be added to the supplier's invoices or included in the contractor's invoice submitted to the City that would increase the dollar amount indicated on the supplier's invoice for the materials purchased for the assigned job.
- 51. EXCEPTIONS:** Proposers taking exception to any part or section of the solicitation shall indicate such exceptions on the proposal form. Failure to indicate any exception will be interpreted as the proposer's intent to comply fully with the requirements as written. Conditional or qualified proposals, unless specifically allowed, shall be subject to rejection in whole or in part.
- 52. FAILURE TO DELIVER:** In the event of the contractor to fail to deliver services in accordance with the contract terms and conditions, the City, after due oral or written notice, may procure the services from other sources and hold the contractor responsible for any resulting purchase and administrative costs. This remedy shall be in addition to any other remedies that the City may have.
- 53. FAILURE TO ENFORCE:** Failure by the City at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of the City to enforce any provision at any time in accordance with its terms.
- 54. FORCE MAJEURE:** The contractor shall not be held responsible for failure to

perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions and acts of God beyond the control of the contractor, unless otherwise specified in the contract.

55. INDEPENDENT CONTRACTOR: The contractor shall be legally considered an independent contractor and neither the contractor nor its employees shall, under any circumstances, be considered servants or agents of the City of Naples and the City of Naples shall be at no time legally responsible for any negligence or any wrongdoing by the contractor, its servants or agents. The City of Naples shall not withhold from the contract payments to the contractor any federal income taxes, Social Security tax, or any other amounts for benefits to the contractor. Further, the City shall not provide to the contractor any insurance coverage or other benefits, including Workers' Compensation normally provided by the City for its employees.

56. ORAL STATEMENTS: No oral statement of any person shall modify or otherwise affect the terms, conditions or specifications stated in this contract. All modifications to the contract must be made in writing by the City of Naples.

57. QUALIFICATIONS OF PROPOSERS: The proposer may be required, before the award of any contract, to show to the complete satisfaction of the City of Naples that it has the necessary facilities, ability, and financial resources to provide the service specified therein in a satisfactory manner. The proposer may also be required to give a past history and references in order to satisfy the City in regard to the proposer's qualifications. The City may make reasonable investigations deemed necessary and proper to determine the ability of the proposer to perform the work, and the proposer shall furnish to the City all information for this purpose that may be requested. The

City reserves the right to reject any proposal if the evidence submitted by, or investigation of, the proposer fails to satisfy the City that the proposer is properly qualified to carry out the obligations of the contract and to complete the work described therein. Evaluation of the proposer's qualifications shall include:

- > The ability, capacity, skill and financial resources to perform the work or service.
- > The ability to perform the work service promptly or within the time specified, without delay.
- > The character, integrity, reputation, judgment, experience, and efficiency of the proposer.
- > The quality of performance of previous contracts or services.

58. QUALITY CONTROL: The contractor shall institute and maintain throughout the contract period a properly documented quality control program designed to ensure that the services are provided at all times and in all respects in accordance with the contract. The program shall include providing daily supervision and conducting frequent inspections of the contractor's staff and ensuring that accurate records are maintained describing the disposition of all complaints. The records so created shall be open to inspection by the City.

59. RESPONSIBLE VENDOR DETERMINATION: Respondent is hereby notified that Section 287.05701, Florida Statutes, requires that the City may not request documentation of or consider a vendor's social, political, or ideological interests when determining if the vendor is a responsible vendor.

60. RECOVERY OF MONEY: Whenever, under the contract, any sum of money shall be recoverable from or payable by the contractor to the City, the same amount may be deducted from any sum due to the contractor under the contract or under any other contract between the contractor and the City. The rights of the City are in addition and without prejudice to any other right the City may have to claim the amount of any loss or damage suffered by the City on account of the acts or omissions of the contractor.

61. REQUIREMENTS CONTRACT: During the period of the contract, the contractor shall provide all the services described in the contract. The contractor understands and agrees that this is a requirements contract and that the City shall have no obligation to the contractor if no services are required. Any quantities that are included in the scope of work reflect the current expectations of the City for the period of the contract. The amount is only an estimate and the contractor understands and agrees that the City is under no obligation to the contractor to buy any amount of services as a result of having provided this estimate or of having any typical or measurable requirement in the past. The contractor further understands and agrees that the City may require services in excess of the estimated annual contract amount and that the quantity actually used whether in excess of, or less than, the estimated annual contract amount and that the quantity actually used shall not give rise to any claim for compensation other than the total of the unit prices in the contract for the quantity actually used.

62. TERMINATION FOR CONVENIENCE: The performance of work under the contract may be terminated by the City in whole or in part whenever the City determines that termination is in the City's best interest. Any such termination shall be effected by the delivery to the contractor of a written notice of termination of at least seven (7) days before the date of termination, specifying the extent to which performance of the work under the contract is terminated and the date upon which such termination becomes effective. After receipt of a notice of termination, except as otherwise directed, the contractor shall stop work on the date of the receipt of the notice or other date specified in the notice; place no further orders or subcontracts for materials, services or facilities except as necessary for completion of such portion of the work not terminated; terminate all vendors and subcontracts; and settle all outstanding liabilities and claims.

63. TERMINATION FOR DEFAULT: The City of Naples reserves the right to terminate the contract if the City determines that the contractor has failed to perform satisfactorily the work required, as determined by the City. In the event the City decides to terminate the contract for failure to perform satisfactorily, the City shall give to the contractor at least seven (7) days written notice before the

termination takes effect. The seven-day period will begin upon the mailing of notice by the City. If the contractor fails to cure the default within the seven (7) days specified in the notice and the contract is terminated for failure to perform satisfactorily, the contractor shall be entitled to receive compensation for all reasonable, allocable and allowable contract services satisfactorily performed by the contractor up to the date of termination that were accepted by the City prior to the termination. In the event the City terminates the contract because of the default of the contractor, the contractor shall be liable for all excess costs that the City is required to expend to complete the work under contract.

64. STATE AND FEDERAL EMPLOYMENT LAWS: Contractors providing service to the City are required to comply with all state and federal employment laws. This includes, but is not limited to, laws resulting from the Immigration and Reform and Control Act of 1986, wherein all employers are required to verify the identity and employment eligibility of all employees. The Department of Homeland Security, U.S. Citizenship and Immigration Services require employees and employers to complete Form I-9 and the employer must examine evidence of identity and employment eligibility within three business days of the date employment begins. Non-compliant contractors will be subject to contract sanctions, up to and including contract termination.

65. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION: “Debarment and Suspension” and 2 CFR 180 “OMB Guidelines to Agencies on Government wide Debarment and Suspension.” These rules require all contractors using federal funds not be debarred or suspended from doing business with the Federal Government. This includes sub- recipients and lower tier participant for covered transactions. Signing and submitting this document certified the organization and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency, and further have not within the preceding three-year period been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction.

66. 119.0701 F.S. CONTACT INFORMATION FOR CITY OF NAPLES' CUSTODIAN OF PUBLIC RECORDS, CITY CLERK'S OFFICE: If the CONTRACTOR has questions regarding the application of Chapter 119, Florida Statutes, to the CONTRACTOR'S duty to provide public records relating to this contract, contact the City of Naples' Custodian of Public records, the City Clerk at Telephone: 239-213- 1015; Email: PublicRecordsRequest@naplesgov.com; Address: 735 8th Street S., Naples, Florida 34102; Mailing address: same as street address.

67. FLORIDA PUBLIC RECORDS LAW: In accordance with Chapter 119, Florida Statutes, and, except as may be provided by other applicable State and

Federal laws, all Proposers should be aware that sealed bids, proposals, or replies received by the City pursuant to a competitive solicitation thereto are in the public domain and are available for public inspection, review and copying. The Proposers are requested, however, to identify specifically any information contained in their bids/proposals which they consider confidential and/or proprietary, inclusive of trade secrets as defined in s. 812.081, Florida Statutes, and which they believe to be exempt from disclosure, citing specifically the applicable exempting law. All proposals received in response to any invitation to bid, request for proposals, or request for qualifications, will become the property of the City of Naples and will not be returned. In the event of an award, all documentation produced as part of the contract will become the exclusive property of the City. All materials that qualify for exemption from Chapter 119, Florida Statutes or other applicable law must be submitted in a separate envelope, clearly identified as "EXEMPT FROM PUBLIC DISCLOSURE" with your firm's name and the proposal number marked on the outside. The City will not accept bids/proposals when the entire proposal is labeled as exempt from public disclosure.

If the contractor, vendor, firm, or proposer considers any portion of any documents, data, or records submitted to the City to be a confidential, proprietary, trade secret or otherwise not subject to disclosure pursuant to Chapter 119, Florida Statutes, the Florida Constitution or other authority, the contractor, vendor, firm, or proposer must simultaneously provide the City Department with a separate redacted copy of the information it claims as Confidential and briefly describe in writing the grounds for claiming exemption from the public records law, including the specific statutory citation for such exemption. This redacted copy shall contain the Contract name and number and shall be clearly titled "Confidential." The redacted copy should only redact those portions of material that the Contractor claims is confidential, proprietary, trade secret or otherwise not subject to disclosure. If contractor, vendor, firm, or proposer fails to submit a redacted copy of documents, data, or other records it claims is confidential, the City is authorized to produce all documents, data, and other records submitted to the City in answer to a public records request for these records.

Be aware that the designation of an item as exempt from public disclosure by a Proposer may be challenged in court by any person or entity. By designation of material in your proposal as exempt from public disclosure, Proposer agrees to defend the City of Naples (and its employees, agents and elected and appointed officials) against all claims and actions (whether or not a lawsuit is commenced) related to Proposer's designation of material as exempt from public disclosure and to hold harmless the City of Naples (and its employees, agents and elected and appointed officials) for any award to a plaintiff for damages, costs and attorneys' fees, and for costs and attorneys' fees incurred by the City by reason of any claim or action related to you designation of material as exempt from public disclosure.

Note: Proposer's References and Proposal Cost or Price will be deemed

a public record, and if a claim of confidentiality is made, the City may deem the proposal non-responsive.

In accordance with Chapter 119.071(1)(b)2. of the Florida Statutes, sealed bids, proposals, or replies received by an agency pursuant to a competitive solicitation are exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier.

In accordance with Chapter 119.071(1)(c)3. of the Florida Statutes, if an agency rejects all bids, proposals, or replies submitted in response to a competitive solicitation and the agency concurrently provides notice of its intent to reissue the competitive solicitation, the rejected bids, proposals, or replies remain exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution until such time as the agency provides notice of an intended decision concerning the reissued competitive solicitation or until the agency withdraws the reissued competitive solicitation. A bid, proposal, or reply is not exempt for longer than 12 months after the initial agency notice rejecting all bids, proposals, or replies.

In accordance with Chapter 286.0113(2)(c)3. of the Florida Statutes, if the agency rejects all bids, proposals, or replies and concurrently provides notice of its intent to reissue a competitive solicitation, the recording and any records presented at the exempt meeting remain exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution until such time as the agency provides notice of an intended decision concerning the reissued competitive solicitation or until the agency withdraws the reissued competitive solicitation. A recording and any records presented at an exempt meeting are not exempt for longer than 12 months after the initial agency notice rejecting all bids, proposals, or replies.

68. EQUAL EMPLOYMENT OPPORTUNITY CLAUSE: City of Naples, in accordance with the provisions of Title VII of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Department of Commerce (15 CFR, Part 8) issued pursuant to such Act, hereby notifies all Proposers that it will ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit proposals in response to this advertisement and will not be discriminated against on the ground of race, color or national origin in consideration for an award.

THE CITY OF NAPLES IS AN EQUAL OPPORTUNITY EMPLOYER

GENERAL INSURANCE REQUIREMENTS

The Contractor shall not commence work until he has obtained all the insurance required under this heading, and until such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work until all similar insurance required of the subcontractor has also been obtained and approved by the Owner.

Certificates of insurance must be issued by an authorized representative of the insurance company at the request and direction of the policyholder and must include sufficient information so as to identify the coverage and the contract for Owner's improvements for which they are issued. Certificates of insurance must be issued by a nationally recognized insurance company with a Best's Rating of no less than B+VII, satisfactory to the Owner, and duly licensed to do business in the state of said Contract.

The Contractor shall procure and maintain, during the life of this Contract, Workmen's Compensation Insurance for all of his employees to be engaged in work under this Contract, and he shall require any subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by the Contractor's insurance. In case any employees are to be engaged in hazardous work under this Contract, and are not protected under this Workmen's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate coverage for the protection of such employees. It is acceptable to use a State-approved Workmen's Compensation Self-Insurance fund.

The Contractor shall take out and maintain during the life of this Contract, Public Liability and Property Damage and shall include Contractual Liability, pursuant to ISO Form CG001, Personal Injury, Libel, Slander, False Arrest, Malicious Prosecution, Wrongful Entry or Eviction, Broad Form Property Damage, Products, Completed Operations and XCU Coverage to be included on an occurrence basis, and to the full extent of the Contract to protect him, the Owner, and any subcontractor performing work covered by this Contract from damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract, whether such operations be by himself or by a subcontractor, or by anyone directly or indirectly employed by either of them. The Contractor shall also maintain automobile liability insurance including "non-owned and hired" coverage. The entire cost of this insurance shall be borne by the Contractor.

The amount of such insurance shall be no less than \$1,000,000 annual aggregate for bodily injury and property damage combined per occurrence.

The City of Naples must be named as Additional Insured on all policies except workers' compensation and professional liability on the insurance certificate and the following must also be stated on the certificate. "These coverage's are primary to all other coverage's the City possesses for this contract only." The City of Naples shall be named as the Certificate Holder. The Certificate Holder shall read as follows:

The City of Naples
735 Eighth Street South
Naples, Florida 34102

No City Division, Department, or individual name should appear on the Certificate.
No other format will be acceptable.

The Certificate must state the bid number and title.

When using the ACORD 25 – Certificate of Insurance only the most current version will be accepted. The City of Naples requires a copy of a cancellation notice in the event the policy is cancelled. The City of Naples shall be expressly endorsed onto the policy as a cancellation notice recipient.

Note: Certificates of Insurance reflecting evidence of the required insurance shall be submitted with the response to the solicitation.

STATEMENT OF NO BID/PROPOSAL

If you do not intend to submit a bid or proposal on this requirement, please complete and return only this page.

Please return via email to purchasing@naplesgov.com or by mail to:

City of Naples, Purchasing Division
City Hall, 735 8th Street South
Naples, FL 34102
Fax 239-213-7105

Failure to respond 3 times in succession without justification shall be cause for removal of the supplier's name from the proposal mailing list. NOTE: To qualify as a respondent, proposer must submit a "STATEMENT OF NO BID/PROPOSAL" and it must be received no later than the stated bid/proposal opening date and hour.

Bid # _____

Bid Title: _____

We, the undersigned, decline to bid on the above project for the following reason(s):

- ___ We are not able to respond to the Invitation to Bid by the specified deadline.
- ___ Our Company does not offer this product or service.
- ___ Our current work schedule will not permit us to perform the required services.
- ___ Unable to meet bond requirements.
- ___ Unable to meet insurance requirements.
- ___ Unable to meet bond specifications.
- ___ Specifications are incomplete, or information is unclear
(Please explain below).

Other (Please specify below)

Company Name _____

PH _____ Email _____

Name and Title of individual completing this form:

(Printed Name) (Title)

(Signature) (Date)



CITY OF NAPLES

Purchasing Division

REFERENCE QUESTIONNAIRE

PROVIDED SAME OR SIMILAR SERVICES WITHIN THE LAST 5 YEARS.

It is the bidder's responsibility to contact the Purchasing Department prior to submitting their bid to verify receipt of the required number of references.

Solicitation No. _____ RFP/ITB Title: _____

Bidder/Respondent Name: _____

This reference questionnaire must be filled out by the company that has done business with the Bidder/Respondent in the past. If the item is not applicable, please state "n/a".

Relationship with Bidder/Respondent: _____

Title of last project: _____

Year last project completed _____

Contract Start/End Dates: _____

Contract Amount: \$ _____

How many projects performed: _____

Overall Performance: _____

Management Ability: _____

Ability to meet time schedule: _____

Ability of control costs: _____

Problems encountered: _____

Quality of Personnel: _____

How well Contractor coordinated with Owner: _____

Cooperation or Lack Thereof: _____

Quality of Subcontractors: _____

Subcontractor Payment Issues: _____

Were there any conflicts, disputes, or other problems:

Yes No

If yes, were they reported early and were they managed well? How were they resolved? Were you satisfied the resolution was fair to both parties?

How satisfied are you with the Bidder/Respondent's ability to perform based on your expectations and according to the contractual arrangements?

Would you contract again with the Bidder/Respondent for the same or similar services? Do you have plans to contract with them again?

Yes No

Any additional comments?

This REFERENCE QUESTIONNAIRE is provided by:

Name of Company

Address of Company

Telephone No.

Email address:

Date: _____

Name and title of person filling out this reference questionnaire:

Signature of person filling out this reference questionnaire:

This reference form must be emailed to Purchasing@naplesgov.com by the company who is providing the reference on or before BID OPENING DATE & TIME indicated on the Cover Sheet. Please add Solicitation Number to your E-mail subject line.

CONSTRUCTION SPECIAL CONDITIONS

A. TERMS OF CONTRACT

The resulting contract will commence on award and be in effect until completion of the project. Services to be rendered by the contractor shall be commenced subsequent to the execution of this Agreement upon written Notice to Proceed (NTP) from the City. Substantial completion must be reached for all aspects of the project no later than 365 calendar days from the issued Notice to Proceed and fully completed in 395 calendar days, and subsequent Administrative 60-day Project Close-out beginning after the date of full completion. Should the contractor fail to complete the project within this timeframe, daily LIQUIDATED DAMAGES in an amount consistent with the current Sec. 8-10.2 Florida Department of Transportation Standard Specifications will be assessed.

RETAINAGE; As a method to assure completion of the total project for projects over a total amount of \$100,000, retainage in the amount of five percent (5%) of all work completed will be withheld from the payment. The retainage will be released upon completion of the City's final inspection and submission of a completed WAIVER AND RELEASE OF LIEN UPON FINAL PAYMENT and CONTRACTOR'S FINAL PAYMENT AFFIDAVIT.

B. PROHIBITION OF CONTACT

Under no circumstances should any prospective organization or individual, or anyone acting for or on behalf of a prospective organization or individual, seek to influence or gain the support of any member of the City Council, public official or City staff favorable to the interest of any prospective organization or individual. Likewise, contact with City Council, any public official or city staff against the interests of other prospective organization (s) and or individual(s) is prohibited. Any such activities will result in the exclusion of the prospective organization or individual from consideration by the City.

C. MINIMUM QUALIFICATION

Vendors licensed to do business in the State of Florida, must submit Sunbiz report showing your company registered as "Active". Vendors not licensed to do business in the State of Florida, must submit documentation equal to a Sunbiz report showing your company registered as "Active" Report must contain a footer that contains the date the document was printed. Printed date must be within 30 days of the solicitation opening date.

A signed and dated IRS W-9 form with EIN is required from all vendors.

D. REFERENCES

Vendors must provide a minimum of three (3) verifiable references from similar scopes of work as identified in this solicitation on the City of Naples provided "Reference Questionnaire" form. Failure to provide references that verify required experience will cause the Vendor to be deemed non-responsive.

E. INSURANCE

The City's General Insurance Requirements on page 18 apply. Successful contractor(s) must furnish proof of insurance as per specifications. Contractors should investigate and determine they hold the necessary insurance prior to bid submittal.

F. STATEMENT OF NO BID/PROPOSAL

If you will not be bidding on this producer/service, please help us by completing and returning the Statement of No Bid/Proposal.

F. BID FORMAT

The Contract, if awarded, will be awarded on the basis of material and equipment illustrated and described on the Drawings or specified in the Specification. If a substitution or an "or equal" item is proposed, the proposer must submit this information to the City of Naples Purchasing Department fifteen (15) days prior to the Bid Opening Date and Time for evaluation as an acceptable substitution or an "or equal" item. If the substitution or the "or equal" item is accepted, the City of Naples will issue an Addendum to all Proposers listing the allowable substitution or the "or equal" item. The cost of changes in related work, additional drawings which may be required to illustrate or define the substitute or "or equal" equipment and its relationship to the other parts or portions of the Work shall be paid by the Contractor. No change will be made in the amount of time in which to complete the Work or in the liquidated damages.

G. BID SECURITY / BID BOND

It is the policy of the City of Naples to require a Bid Bond for all construction- related sealed bids estimated to be **in excess of \$100,000**. A bid bond or equivalent financial security in the amount of five (5) percent of the bid price shall be required and must accompany all bids. The Bid Bond is to be provided by a surety company authorized to do business in the State of Florida or otherwise supplied in a form satisfactory to the City. The bid bond must be submitted with the bid. When the invitation for bids requires a bid bond, noncompliance will result in rejection of the bid. Note that failure or refusal of the awarded bidder to enter into a contract within twenty (20) calendar days after receipt of said contract will result in damages to the City and bid bond will be forfeited to the City as liquidated damages.

H. PROPOSAL CONSTRUCTION PERFORMANCE & PAYMENT BONDS

A Performance and Payment Bond will be required of the Awarded Proposer for any contract that is **in excess of \$100,000.00** dollars and will be in an amount equal to 100 (%) percent of the price specified in the Contract. The bond(s) shall be executed by a surety company authorized to do business in the State of Florida, or otherwise secured in a manner satisfactory to the City for the protection of all persons supplying labor and material to the contractor or its subcontractors for the performance of the work provided for in the contract.

I. QUESTIONS

Questions regarding this proposer packet must be received in writing in the Purchasing Division **NO LATER THAN TEN CALENDAR DAYS PRIOR TO THE BID OPENING DATE TO ENSURE AN ANSWER IS PROVIDED PRIOR TO CLOSING**.

Direct all questions to:
Felix Gomez, CPPB, NIGP-CPP
Procurement and Contracts Manager
City of Naples, Purchasing Division
735 8th Street South Naples, Florida 34102
PH: (239) 213-7101 FX: (239) 213-7105
fgomez@naplesgov.com

SUBMISSION CHECKLIST

Bidder certifies by signature below that the following Documents are included in the Bid Submittal, fully completed in accordance with the bid requirements. It's the bidder's responsibility to contact the Purchasing Department prior to submitting a bid to ascertain if any addenda have been issued, to obtain any and all such addenda and return executed addenda with this bid. Bidder should check off each of the following items as completed and submit with bid response:

CHECKLIST ELEMENTS	INCLUDED
Bidder must submit one (1) original signature (clearly marked as such) of the response and five (5) copy (clearly marked as such) of the response and one (1) properly indexed Windows© compatible PDF of the original document on a USB Flash Drive containing one PDF file of the full response that is clearly labeled with your company's name, Solicitation number, title and contact information.	<input type="checkbox"/>
Include any required drawings; descriptive literature; qualifications; schedules; product compliance / exceptions; alternatives; questionnaire; references, forms, tabs, pricing/cost; and any information required of the proposer identified in the text of the bid including information for bid evaluation.	<input type="checkbox"/>
Include any Professional Licenses (General Contractors license, Underground Utility and Excavation, Builders, etc.) that qualify the firm for this solicitation as well as applicable bond documents, if required. Note if you are not a single prime contractor. List all subcontractors to be used for our project in your bid/proposal and their professional licenses.	<input type="checkbox"/>
Mandatory FORMS from this document to be included are: Cover Sheet, Reference Questionnaire(s), Submission Checklist Sheet, signed IRS W-9 (OCT 2018), Sunbiz Report, Acknowledgement of Business Type, Certificates of Insurance, Immigration Law Affidavit Certification, Schedule of Values. List of Subcontractors, Materials & Suppliers, Equipment Schedules.	<input type="checkbox"/>
Have an authorized individual sign the appropriate pages including the <u>Cover Sheet</u> with any bid addendums initialed. Include all Addendums with your Proposal.	<input type="checkbox"/>
Ensure the following: 1. The Proposal has been signed. 2. Proposal addressed the evaluation criteria. 3. Proposal prices offered have been reviewed. 4. The price extensions and totals have been checked. 5. Tab format was followed. 6. Certificates of Insurance submitted per requirements specified in the bid.	<input type="checkbox"/>
Bid document needs to be received by the <u>OPENING DATE & TIME</u> indicated on the Cover Sheet . The mailing envelope must be addressed to: <div style="text-align: center;">City of Naples Purchasing Division 735 8th Street South Naples, Florida 34102</div>	<input type="checkbox"/>
The mailing envelope must be sealed and marked with: Bid Number: 24-014 Title: Lake Restoration & Improvements Project (Lakes 8 & 9) - RFP Opening Date: 04/09/2024 Company Name: Contact information:	<input type="checkbox"/>

ALL COURIER DELIVERED BIDS MUST HAVE THE BID NUMBER AND TITLE ON THE OUTSIDE OF THE COURIER PACKET.

Submitting Vendor Name: _____

Authorized Bidder's Signature: _____

At the discretion of the Purchasing Manager, bids or proposals with minor irregularities may be accepted and allowed to be corrected when in the best interest of the City.

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
	6 City, state, and ZIP code	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

ACKNOWLEDGEMENT OF BUSINESS TYPE

The undersigned Bidder certifies that this bid package is submitted in accordance with the specifications in its entirety and with full understanding of the conditions governing this bid.

BUSINESS ADDRESS of BIDDER:

Company Name

Address

City

State

Zip

Telephone No. _____ Fax No. _____

SIGNATURE OF BIDDER

If an Individual: _____
Signature Print Name

Doing business as _____

If a Partnership: _____

By: _____
Partner Signature Print Name

If a Corporation: _____
Corporate Name

(a _____ Corporation) In what State is the Corporation Incorporated? _____

If not incorporated under the laws of Florida, are you licensed to do business in Florida? Yes___ No___

By: _____
Signature Print Name

Sign and Date Form: Certification:

Under penalties of perjury, I certify that the information shown on this form is correct to my knowledge.

Signature	Print Name
Title	Date

LIST OF SUBCONTRACTORS

The undersigned states the following is a full and complete list of the proposed subcontractors on this Project and the class of work to be performed by each, and such list will not be added to nor altered without written consent of the owner through the Engineer.

Subcontractor Name and Address	Class of Work to be Performed
1. _____ _____ _____	_____ _____ _____
2. _____ _____ _____	_____ _____ _____
3. _____ _____ _____	_____ _____ _____
4. _____ _____ _____	_____ _____ _____
5. _____ _____ _____	_____ _____ _____
6. _____ _____ _____	_____ _____ _____
7. _____ _____ _____	_____ _____ _____
8. _____ _____ _____	_____ _____ _____
9. _____ _____ _____	_____ _____ _____

Submitting Vendor Name: _____

Authorized Bidder's Signature: _____

MATERIALS & SUPPLIERS

The Bidder is required to state below, material and suppliers he proposes to utilize on this project. No change will be allowed after submittal of Bid. Any substitute material proposed must be listed below and must be approved by Engineer, Bidder shall furnish the manufacturer named and the specifications. Acceptance of this Bid does not constitute acceptance of material proposed on this list.

MATERIAL

SUPPLIER

1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____
13. _____	_____
14. _____	_____
15. _____	_____
16. _____	_____
17. _____	_____

Submitting Vendor Name: _____

Authorized Bidder's Signature: _____

EQUIPMENT SCHEDULE

(List only Major Items above \$25,000 value)

Year	Make	Model	Owned/Leased/Financed	Location
------	------	-------	-----------------------	----------

[illegible]

Attachment: Immigration Law Affidavit Certification

This Affidavit is required and should be signed by an authorized principal of the firm, notarized and submitted with formal Invitations to Bid (ITB's) and Request for Proposals (RFP) submittals. Further, Vendors / Bidders are required to enroll in the E-Verify program, and provide acceptable evidence of their enrollment, at the time of the submission of the vendor's/bidder's proposal. Acceptable evidence consists of a copy of the properly completed E-Verify Company Profile page or a copy of the fully executed E-Verify Memorandum of Understanding for the company. **Failure to include this Affidavit and acceptable evidence of enrollment in the E-Verify program, may deem the (Vendor / Bidder) being a Contractor, Firm, Consultant, etc., and their Submittal of a Bid (ITB, RFP, RFQ, etc.) as non-responsive.**

City of Naples will not intentionally award CITY contracts to any vendor who knowingly employs unauthorized alien workers, constituting a violation of the employment provision contained in 8 U.S.C. Section 1324 a(e) Section 274A(e) of the Immigration and Nationality Act ("INA").

City of Naples may consider the employment by any vendor of unauthorized aliens a violation of Section 274A (e) of the INA. Such Violation by the recipient of the Employment Provisions contained in Section 274A (e) of the INA shall be grounds for unilateral termination of the contract by City of Naples.

Vendor attests that they are fully compliant with all applicable immigration laws (specifically to the 1986 Immigration Act and subsequent Amendment(s)) and agrees to comply with the provisions of the Memorandum of Understanding with E-Verify and to provide proof of enrollment in The Employment Eligibility Verification System (E-Verify), operated by the Department of Homeland Security in partnership with the Social Security Administration at the time of submission of the Vendor's / Bidder's proposal.

Company Name _____

Print Name _____ Title _____

Signature _____ Date _____

State of _____

County of _____

The foregoing instrument was signed and acknowledged before me this _____ day of _____, 20____, by

_____ who has produced _____ as identification.
(Print or Type Name) (Type of Identification and Number)

Notary Public Signature

Printed Name of Notary Public

Notary Commission Number/Expiration

The signee of these Affidavit guarantees, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made.

WAIVER AND RELEASE OF LIEN
UPON PROGRESS PAYMENT

The undersigned lienor, in consideration of the sum of \$ AMOUNT, hereby waives and releases its lien and right to claim a lien for labor, services, or materials furnished through DATE to the City of Naples, a Florida municipality corporation, on the job of NAME OF OWNER to the following property:

Street Address: _____

Folio Number: _____

The waiver and release does not cover any retention or labor, services, or materials furnished after the date specified.

DATED on _____, 20__

Signature: _____

Print Name: _____

Company: _____

Street: _____

City, State, Zip: _____

STATE OF FLORIDA
COUNTY OF COLLIER

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by

_____, who is personally known to me or has produced

_____ as proof of identity, and did take an oath.

Signature of Person Taking Acknowledgement

[NOTARIAL SEAL]

Print Name

File Number: _____

**WAIVER AND RELEASE OF LIEN
UPON FINAL PAYMENT**

The undersigned lienor, in consideration of the final payment in the amount of \$ AMOUNT, hereby waives and releases its lien and right to claim a lien for labor, services, or materials furnished to the City of Naples, a Florida municipality corporation, on the job of NAME OF OWNER to the following property:

Street Address: _____

Folio Number: _____

DATED on _____, 20__

Signature: _____

Print Name: _____

Company: _____

Street: _____

City, State, Zip: _____

STATE OF FLORIDA
COUNTY OF COLLIER

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by

_____, who is personally known to me or has produced

_____ as proof of identity, and did take an oath.

[NOTARIAL SEAL]

Signature of Person Taking Acknowledgement

Print Name

File Number: _____

CONTRACTOR'S PARTIAL PAYMENT AFFIDAVIT

State of Florida
County of Collier

Property Address: _____
Folio Number: _____

Before me, the undersigned authority, personally appeared NAME OF AFFIANT,
who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the TITLE, of BUSINESS NAME,
which does business in the State of Florida, hereinafter referred to as the "Contractor."
2. Contractor, pursuant to a contract with OWNER/CLIENT, hereinafter referred to as the
"Owner," has furnished or caused to be furnished labor, materials, and services for the construction of
certain improvements to real property as more particularly set forth in said contract.
3. This affidavit is executed by the Contractor in accordance with section 713.06 of the Florida Statutes
for the purposes of obtaining payment from the Owner in the amount of \$ AMOUNT.
4. All work to be performed through DATE OF PAY REQUEST has been fully completed, and all
lienors under the direct contract through the above mention date have been paid in full, except the
following listed lienors:

Signed, sealed, and delivered this ____ day of _____, ____.

Signature: _____

Print Name: _____

Company: _____

Street: _____

City, State, Zip: _____

STATE OF FLORIDA
COUNTY OF COLLIER

Sworn to and subscribed before me this ____ day of _____, 20__, by
_____, who is personally known to me or has produced
_____ as proof of identity, and did take an oath.

[NOTARIAL SEAL]

Signature of Person Taking Acknowledgement

Print Name

CONTRACTOR'S FINAL PAYMENT AFFIDAVIT

State of Florida
County of Collier

Property Address: _____
Folio Number: _____

Before me, the undersigned authority, personally appeared NAME OF AFFIANT, who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the TITLE, of BUSINESS NAME, which does business in the State of Florida, hereinafter referred to as the "Contractor."
2. Contractor, pursuant to a contract with OWNER/CLIENT, hereinafter referred to as the "Owner," has furnished or caused to be furnished labor, materials, and services for the construction of certain improvements to real property as more particularly set forth in said contract.
3. This affidavit is executed by the Contractor in accordance with section 713.06 of the Florida Statutes for the purposes of obtaining final payment from the Owner in the amount of \$ AMOUNT.
4. All work to be performed under the contract has been fully completed, and all lienors under the direct contract have been paid in full, except the following listed lienors:

Signed, sealed, and delivered this ____ day of _____, ____.

Signature: _____

Print Name: _____

Company: _____

Street: _____

City, State, Zip: _____

STATE OF FLORIDA
COUNTY OF COLLIER

Sworn to and subscribed before me this ____ day of _____, 20__, by _____, who is personally known to me or has produced _____ as proof of identity, and did take an oath.

[NOTARIAL SEAL]

Signature of Person Taking Acknowledgement

Print Name

City of Naples 24-014 Lake Restoration & Improvements Project (Lakes 8 & 9) - RFP
STATEMENT OF VALUES

North Lake (Lake 8) Improvements						
ITEM NO.	TECHNICAL SPECIFICATIONS NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
1		Lump Sum Items				
a	Sections 01026 & 02575	Mobilization and Demobilization	1	LS	\$	\$
b	Section 01570	Maintenance of Traffic	1	LS	\$	\$
c	Sections 01026, 02250, 02275, & 02276	Erosion and Sediment Control	1	LS	\$	\$
d	Section 02250	Construction and As-Built Surveys	1	LS	\$	\$
2		Removing Invasive Species				
a	Sections 01026 & 02110	Clearing and Grubbing	0.050	AC	\$	\$
3		Dredging and Dewatering				
a	Sections 01010, 01026, 02050, 02250, 02275, 02276, 02400 & 02830	Dredging (Furnish and Install)	4,822	CY	\$	\$
b		Dewatering (Furnish and Install)	4,822	CY	\$	\$
c		Hauling Option #1 (to Collier County Landfill, Roundtrip)	24	Per Mile	\$	\$
d		Hauling Option #2 (to Mammoth Trees LLC)	30	Per Mile	\$	\$
e		Disposal Option #1 (Collier County Landfill) - no tipping fees only management	330	Per Truck Load	\$	\$
f		Disposal Option #2 (Mammoth Trees LLC) - \$100 per truck based on agreement from property owner, Contractor to add management cost, if any.	330	Per Truck Load	\$	\$
g	Sections 01026, 02050, 02575, & 02580	Milling and Repaving	724	SY	\$	\$
4		Stormwater Infrastructure Modifications				
a	Manufacturer Specifications #4	Rectangular Inlet Filter (Furnish and Install)	5	EA	\$	\$
b	Section 03410	Control Structure (Furnish and Install)	1	EA	\$	\$
c	Manufacturer Specifications #1	Aerator (Furnish and Install)	2	EA	\$	\$
d	Sections 01026, 02222, 02223, & 02370	Outfall Riprap Aprons (Furnish and Install)	2	EA	\$	\$
e	Sections 01026, 02223 & 02275	Fill (Furnish and Install)	183	CY	\$	\$
5		Littoral Shelf Reconstruction				
a	Sections 01026, 10151, 02223 & 02275	Littoral Shelf Reconstruction	0.189	AC	\$	\$
		Littoral Mix A				
b	Sections 02830 & 02910	Water Lily	1148	SF	\$	\$
		Littoral Mix B				
c		Bulrush	1275	SF	\$	\$
d		Alligator Flag	1275	SF	\$	\$
e		Smooth Cordgrass	1275	SF	\$	\$
		Littoral Mix C				
f		Sand Cordgrass	552	SF	\$	\$
g		Pickrel Weed	552	SF	\$	\$
h		Duck Potato	552	SF	\$	\$
		Littoral Mix D				
i		Leather Fern	806	SF	\$	\$
j		Muhly Grass	804	SF	\$	\$
GRAND Total						\$

South Lake (Lake 9) Improvements						
ITEM NO.	TECHNICAL SPECIFICATIONS NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
1		Lump Sum Items				
a	Sections 01026 & 02575	Mobilization and Demobilization	1	LS		
b	Section 01570	Maintenance of Traffic	1	LS		
c	Sections 01026, 02250, 02275, & 02276	Erosion and Sediment Control	1	LS		
d	Section 02250	Construction and As-Built Surveys	1	LS		
2		Removing Invasive Species				
a	Sections 01026 & 02110	Clearing and Grubbing	0.110	AC		
3		Dredging and Dewatering				
a	Sections 01010, 01026, 02050, 02250, 02275, 02276, 02400 & 02830	Dredging (Furnish and Install)	12,457	CY		
b		Dewatering (Furnish and Install)	12,457	CY		
c		Hauling Option #1 (to Collier County Landfill, Roundtrip)	24	Per Mile		
d		Hauling Option #2 (to Mammoth Trees LLC)	30	Per Mile		
e		Disposal Option #1 (Collier County Landfill) - no tipping fees only management	830	Per Truck Load		
f		Disposal Option #2 (Mammoth Trees LLC) - \$100 per truck based on agreement from property owner, Contractor to add management cost, if any.	830	Per Truck Load		
g	Sections 01026, 02050, 02575, & 02580	Milling and Repaving	819	SY		
4		Stormwater Infrastructure Modifications				
a	Manufacturer Specifications #4	Rectangular Inlet Filter (Furnish and Install)	8	EA		
b	Section 03410	Control Structure (Furnish and Install)	1	EA		
c	Manufacturer Specifications #1	Aerators (Furnish and Install)	4	EA		
d	Sections 01026, 02222, 02223, & 02370	Outfall Riprap Aprons (Furnish and Install)	3	EA		
e	Sections 01026, 02223 & 02275	Fill (Furnish and Install)	79	CY		
Total						

**CITY OF NAPLES, FL
ITB NO. 24-014
Lake Restoration & Improvements Project (Lakes 8 & 9) - RFP**

Note: All forms marked REQUIRED must be submitted with proposal.

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EXHIBIT A - City of Naples - Lakes 8 & 9 Technical Specifications Nov 2023

EXHIBIT B - 100 Percent Design

City of Naples, FL

RFP No. 24-014

Lake Restoration & Improvements Project (Lakes 8 & 9) - RFP

PROJECT REQUIREMENTS AND SPECIFICATIONS

A. INTRODUCTION

The City of Naples is seeking proposals for work that includes all labor, equipment, and materials required for the work to be done under this contract are shown on the plan drawings and detailed in the Technical Specifications document.

The Contractor shall self-perform at least 60% of the work not including the purchase of materials.

B. SCOPE OF WORK

This project is comprised of two lakes—Lake 8 & 9. Work for Lakes 8 & 9 will involve dredging of lake bottom to restore historically natural sand substrate and reconstructing the existing shorelines to create littoral shelves for native species recruitment. The use of hydraulic and mechanical dredging technologies will be allowed to remove in situ organic muck sediments and in situ sandy sediment from the lake bottoms.

The dewatering operations for the dredged material will be staged in 20 YD roll off containers with trash/sand screen and 20 yard roll off containers lined with TenCate 50 sieve woven geotextile bags, or approved equivalent.

Lakes 8 and 9 materials will be injected with a cationic emulsion SNF C-12227 (0.6 lbs. per dry ton), or approved equivalent, to increase coagulation. Sediment will be dewatered sufficiently for safe offsite hauling without impacts to any roadways. If the Contractor uses the Collier County Landfill as a final disposal location, rather than some other beneficial offsite use, the Contractor will meet the Landfill's requirements for disposal. Once dewatered and the material meets the SW-846 Test Method 9095B: Paint Filter Liquids Test it shall be transported to the final disposal location. The final disposal location may be the Collier County Landfill or Mammoth Trees LLC or other commercial beneficial reuse site recommended by Contractor and approved by City. If the material is to be beneficial reused, the Contractor shall test the material and demonstrate that it is clean and free of contaminants:

- Volatile Organics (by EPA Method 8260)
- Semi-volatile Organics [Base/Neutrals (e.g., PAHs, Pesticides, PCBs) and Acid Extractables (e.g., Phenols)] (by EPA Methods 8270/8081/8082)
- RCRA Metals (by EPA Method 6010 and EPA Method 7471 OR EPA Method 6020, and EPA Method 7471 if not certified for mercury under EPA Method 6020)
- Petroleum Residual Organics (by FL-PRO)

The Contractor shall also provide a release of liability for the City for the disposal of the material at the beneficial reuse location.

In addition, best management practices will be implemented: including the installation of outfall structures, removal of invasive species, native plantings, riprap aprons on existing stormwater inlets, aeration devices in both lakes 8 and 9, and curb inlet filtration devices surrounding the Lakes.

C. CONTRACT MANAGEMENT

Streets & Stormwater Department Director and/or his authorized representative will serve as the City's Project Manager.

D. GENERAL CONDITIONS

1. Work shall begin upon the City of Naples issuing the contractor a written Notice to Proceed (NTP). All work will be performed Monday through Saturday no earlier than 7 a.m. or later than 5 p.m., Monday through Saturday per City Code. Construction activity is NOT allowed on the following holidays: Christmas Day, Fourth of July, Labor Day, Memorial Day, New Year's Day, Thanksgiving Day.
2. Contractor shall be responsible to plan, organize, supervise, monitor, direct, schedule, and control the work competently and efficiently. Contractor shall provide an onsite supervisor with experience to direct this type of work. Contractor shall provide contact information for the personnel directing the referenced work including emergency contact numbers. The on-site supervisor for the contractor shall be on site throughout the construction of the project. Any changes in the designated supervision must be approved in advance by City staff. Contractor shall identify all utilities within construction limits prior to commencement to protect existing utilities from being impacted. Any repairs to damaged utilities are the responsibility of the contractor.
3. Proposers are required to comply with all provisions of Federal, State, County and local laws and ordinances, rules and regulations that are applicable to the items being proposal. Lack of knowledge by the proposer shall in no way be a cause for relief from responsibility or constitute a cognizable defense against the legal effect thereof.
4. Contractor shall provide in its pricing all necessary tools, equipment, labor, workmanship and anything else required to complete the work described in a timely and accurate manner to meet project plans and time schedules.
5. Proposer certifies that all material, equipment, etc., contained in his/her proposal meets all applicable O.S.H.A. requirements. Proposer further certifies that, if he/she is the successful Proposer, and the material, equipment, etc., delivered is subsequently found to be defective in applicable O.S.H.A. requirement in effect on the date of delivery, all costs necessary to comply with the requirements shall be borne by the Proposer.

E. LICENSES AND PERMITS

All equipment operated by the successful Contractor will be properly licensed and permitted.

Licenses may be required by the State of Florida, Collier County, or the City of Naples to perform all or part of this work. Contractors should investigate and determine if they hold the necessary License(s) prior to bid submittal. Permitting may be required for all or part of the requested work. The contractor will be responsible for investigating and determining if permitting is necessary. The contractor will also be responsible for obtaining permits.

At a minimum, vendors must submit the following:

1. An active certified Florida General Contractor license and be certified and or

qualified to complete the project per project specifications or a Building Contractors License plus Underground and Excavation Licenses if the contractor can demonstrate how the licenses, equipment, and staff enabled the company to successfully accomplish similar projects.

2. Prospective vendors, whether residents or nonresidents of Florida, must provide evidence of proper licensure with their Bids submittal. Such evidence must be in the form of copies of their Florida license which authorizes Bidder to perform the work.
3. Prospective vendors must hold the required license for the type of work to be performed at the time their bid response is submitted and for the duration of the contract.
4. Prospective vendors must provide a list of the permit(s) they determined are necessary to perform the requested work.

F. SUB-CONTRACTORS AND MATERIAL SUPPLIERS

If the prospective contractor contemplates the use of sub-contractors, as a further condition of award of a contract, the prospective contractor must certify in writing that all its sub-contractors are appropriately licensed and are registered with the State of Florida in accordance Florida Statutes Chapters 607 or 620, and such statement will include any sub-contractors' corporate charter numbers. For additional information on registering, the prospective contractor should contact the Florida Secretary of State's Office.

Each prospective contractor must submit a list of all proposed subcontractors, material suppliers, and equipment intended for this project. No changes to this list shall be made without the express written consent of the City. Any request for changes shall be made in writing to the City, clearly stating the reasons for the change. The City reserves the exclusive right to either approve or reject such request for change. Contractor agrees that the City's or its consultant's decision is final and binding. Contractor understands and agrees that he/she is solely responsible to the City for all work specified herein; and, that subsequent review of sub-contractors and/or material suppliers by the City or its consultants does not relieve the contractor and/or his surety of any liability or obligation stipulated herein. Failure to comply with the above may result in termination of this contract.

All bidders must provide requested information in the attached forms provided.

G. MANDATORY PRE-CONSTRUCTION MEETING

A mandatory pre-contract / project/work order meeting will be held within fourteen (14) days of contract execution with City of Naples staff, and contractors authorized representative to ensure compliance with all contract requirements regarding this ITB.

H. SCHEDULING OF WORK

The Contractor, within fourteen (14) calendar days after receipt of the Notice of Award, shall prepare and submit to the Engineer, for review and approval, a progress schedule for the Project (herein "Progress Schedule"). The Progress Schedule shall relate to all Work required by the Contract Documents and shall provide for expeditious and practicable execution of the Work within the Contract Time. The Progress Schedule shall indicate the dates for starting and completing each stormwater pond.

The Progress Schedule shall be updated monthly by the Contractor. All monthly updates to the Progress Schedule shall be subject to the Engineer's review and approval. Contractor shall submit the updates to the Progress Schedule with its Applications for Payment noted below. The Engineer's review and approval of the submitted Progress Schedule updates shall be a condition precedent to The City's obligation to pay Contractor.

Daily reports must be provided directly to the Engineer within twenty-four (24) hours of the daily completed activity.

Contract time will commence to run on the day the Contractor receives a Notice to Proceed. All work will be performed from Monday to Friday between the hours of 7:30am to 5:30pm and Saturday between the hours of 8:00am to 4:00pm unless prior approval has been obtained from the Project Manager.

Work deficiencies pointed out must be corrected by the contractor within two working days of notification, written or verbal, by the Project Manager.

The contractor shall provide schedules for all work performed at least one week prior to contract commencement. The City will have the right to alter said schedules due to events or projects that may conflict or require immediate attention. All changes or modifications to the schedule after the City has approved must be resubmitted for approval. It is the contractor's responsibility to ensure that the Project Manager has an accurate service schedule at all times. Refer to the bid tab for locations that have specific service day requirements.

I. PAYMENT REQUESTS, INVOICES AND WORK REPORTS

1. Invoices must be submitted after work is completed with a detailed description of the work performed. Invoices for progress payments may be submitted to the City monthly (every 30 days) for work completed.
2. Be in the form of an "Invoice" on company letterhead.
3. AIA Document G702™–1992, Application and Certificate for Payment, is to be used in conjunction with AIA Document G703™, Continuation Sheet. (Prior to using any AIA Contract Document, awarded bidder should consult www.aia.org or a local AIA component to verify the most recent edition.
4. Be accompanied by a properly executed "Contractor's Affidavit and Certificate of Completion".
5. Cite the purchase order number and the bid number.
6. Be submitted to the City Representative/Architect/Engineer of Record in detail sufficient for a proper preaudit and post audit thereof.
7. Clearly identify the services, portion of services, and expenses for which compensation is sought; and,
8. Be accompanied with applicable "Waivers of Lien".
9. The awarded bidder(s) will meet with the Project Manager and set up procedures prior to the start of work.

J. PROTECTION OF WORK, PROPERTY AND PERSON

The Contractor shall adequately protect the work, adjacent property, and the public, and shall be responsible for any damages or injury due to his/her actions.

K. CONDUCT

The contractor and his employees will conduct themselves in such a manner as to avoid embarrassment to the City of Naples and must always be courteous to the public. Although uniforms are not required, proper clothing must be always worn to include shirts, necessary safety equipment, pants, short or long, and proper footwear. Proper safety equipment must be always worn.

L. CONTRACTOR'S EQUIPMENT

All vehicles and equipment must be maintained in good repair, appearance and sanitary condition always. Vehicles must be clearly identified with the name of the company and phone number clearly visible. In addition, the contractor will be responsible for using the necessary safety equipment according to State standards while working on City, County, or State roads as a sub-contractor of the City.

M. DISPOSAL OF DEBRIS

The contractor shall dispose of all debris and other materials gathered from the described work in compliance with City and County Laws.

N. PAYMENT REQUESTS, INVOICES AND WORK REPORTS

Invoices shall be submitted after the work is completed with a detailed description of the work performed. The successful bidder(s) will meet with the Project Manager and set up procedures prior to the start of work.

O. NON-PERFORMANCE

The City reserves the right to cancel the contract with a seven (7) day notice should the Contractor fail to perform up to the requirements and standards identified in the specifications. The City may withhold part or all payments due to the Contractor until correction is made.

P. QUALIFICATIONS

The Contractor shall be licensed with a minimum of five (5) years of experience in providing lake restoration type of work. All bidders shall provide, with their bid proposal, a list of at least three (3) commercial references, a list of personnel and equipment. The City reserves the right to contact these references, to determine the competency of the Contractor.

The vendor represented on the bid form by name and signature must have experience providing lake restoration for their bid to be considered responsible. Recent projects of significant dollar value will be considered favorable over projects greater than 5-years in the past and under \$500,000.

The Contractor must be licensed with a minimum of seven (7) years' experience in completing similar projects. All bidders shall provide, with their bid proposal, three (3) verifiable commercial, industrial or governmental references of completed specific projects and send the attached reference questionnaire to the client who will submit the completed form directly to the City. The City reserves the right to contact these references, to determine the competency of the Contractor.

Q. INSPECTION

Sites will be inspected by the City for contractor compliance. If deficiencies are noted, the contractor will be notified of the specific deficiencies, which the contractor must rectify prior to the City approving payment for that service. Inspections will occur, as nearly as is practically possible, upon completion of work for an individual site. Failure of City staff to make site inspections shall not relieve the Contractor from meeting all the requirements of this specification.

The City reserves the right to make inspections and tests, when deemed advisable, to ascertain that the requirements of the contract are being fulfilled. Should it be found that the standards specified are not being satisfactorily maintained, the City will immediately demand that the contractor comply with the RFP to meet these requirements.

R. REJECTING DEFECTIVE WORK

The Streets and Stormwater's department authorized representative will have the authority to disapprove or reject work, which he believes to be unacceptable work and not in accordance with Contract Documents. The Streets and Stormwater's Department's authorized representative will be the final interpreter of the requirements of the Contract Documents and judge of the acceptability of the work performed. The city will notify the contractor, in writing or verbally, of unacceptable work. If work has been rejected, the contractor must correct all defective work within three (3) days of notification. The contractor will bear all costs to correct the defective work. If the contractor fails to correct the defective work, or if the contractor fails to perform the work in accordance with the Contract Documents, the City may correct and remedy any such deficiency, with the contractor to bear all costs to correct the defective work. The contractor will contact the Project Manager to advise when staff will be on site to correct the rejected work. If the contractor fails within three (3) working days after notice to correct the defective work, or if the contractor fails to perform the work in accordance with the Contract Documents, the City will withhold payment due to the Contractor for the portion of service not rendered. Should unacceptable or incomplete site service continue, termination of contractor will be requested.

S. PROTECTION OF FACILITIES, PUBLIC AND PRIVATE PROPERTY

1. From the time the awarded contractor commences and until final acceptance by the City of any work specified on the Invitation to Bid, awarded contractor is required to initiate and maintain measures which must be proper and adequate to protect buildings, its contents and any surrounding areas against damage by the elements. The contractor will assume full responsibility for any damage to any property including but not limited to walls, floors, tables, chairs, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities, resulting from the performance of the work.
2. Further, the awarded contractor must always guard against damage or loss to the property of the City or of other vendors or contractors and will be held responsible for replacing or repairing any such loss or damage. The City may withhold payment or make such deductions from payments as it deems necessary to insure reimbursement or replacement for loss or damage to property through negligence of the awarded contractor or his agents.
3. Further, provide adequate protection for both curbs/sidewalks/grass areas over

which trucks and equipment pass to reach the project site and repair/replace all damaged areas, at no cost to the owner.

4. The contractor upon receipt of either written or oral notice must immediately discontinue any practice obviously hazardous in the opinion of the Project Manager. The contractor must comply with all OSHA and other Federal and State safety standards. Blocking of the public street, except under extreme emergency conditions, will not be permitted unless prior arrangements have been made with the Project Manager and the City Police and Fire Departments and other agencies having jurisdiction over the street to be closed.

T. PROTECTION OF OVERHEAD UTILITIES

The operations will be conducted in many areas where overhead electric, telephone, and cable television facilities exist. The contractor must protect all utilities from damage, will immediately contact the appropriate utility if damage has occurred, and will be responsible for all claims for damage due to his operations. The contractor must make arrangements with the utility for the removal of necessary limbs and branches, which may conflict with, or create a personal injury hazard in the removal of the tree. Delays encountered by the contractor in waiting for the utility to complete its work will not be the responsibility of the contractor.

U. PROTECTION OF UNDERGROUND UTILITIES

The Contractor will be responsible for following the Florida Underground Facility Damage Prevention & Safety Act (556), OSHA Standard 1926.651, Florida Trench and Safety Act (Chapter 90-96) and obtaining utility locations by calling Sunshine State One-Call of Florida Inc. at 1-800-432-4700. The contractor will have full responsibility for reviewing and checking all information and data for locating all underground facilities.

V. TRAFFIC CONTROL

1. Contractor will be required to furnish traffic control and/or barricades as needed or as required by the State of Florida. Barricading and detouring of the traffic shall be accomplished in conformance with the Manual on Uniform Traffic Control Devices for Highway Construction and Maintenance Operations, latest edition.
2. Contractor will be responsible for adequate barricades, warning devices, and the necessary safety equipment according to State FDOT Standard Plans while working on City, County or State roads as a sub-Contractor of the City.

W. SELECTION PROCESS

1. SOLICITATION SCHEDULE:

Listed below are the important dates and times related to this solicitation. The Procurement Division may find it necessary to change any of these dates or times. All dates are subject to change.

Action	Estimated Completion Date
Issue RFP to Qualified Vendors	Week of March 4, 2024
RFP Due Date	April 9, 2024
Evaluation Committee Meeting	Week of April 15, 2024

2. PROPOSAL OPENING

The bid opening is public on the date and at the time specified on the proposal

form. It is the proposer's responsibility to assure their proposal is delivered at the proper time and place of the proposal opening. Proposals which for any reason are not so delivered will not be considered.

3. EVALUATION COMMITTEE

The City Manager will appoint a selection committee to review and evaluate the proposals using the following criteria. The City, at its sole discretion, may contact the references and/or visit one or more of the projects listed in response to this solicitation as part of the evaluation process. A shortlist of firms MAY be interviewed for final ranking. If an interview is held, it will be no longer than one hour in length and consist of a presentation from the short-listed firms followed by questions and answers. The presentation time and date (if necessary) will be assigned by the City.

4. SELECTION CRITERIA:

Any proposal that does not meet the minimum qualifications as stated above will be rejected. The criteria below are not necessarily listed in order of importance. Proposals will be evaluated on the following criteria:

CRITERIA	MAXIMUM POINTS
Cover Letter and Forms	0
Qualifications and Experience of Company and Personnel	20
Approach to this Project	20
Ability to complete project per provided timeline	20
Schedule of Values	40
TOTAL	100

5. SUBMITTAL REQUIREMENTS:

a. Interested firms shall include the following information in their submittal responses to this solicitation. The following format and sequence should be followed to provide consistency in the firm's responses and to ensure each proposal receives full consideration. Use 8 ½ x 11 sheet pages only with minimum font size of 10 points and with tabs or section dividers to separate sections as defined below. More than one section is permitted on one page unless otherwise indicated below. Undesignated information shall be inserted at the rear of each package. Place page numbers at the bottom of every page, excluding dividers. Proposal documents should not contain links to other web pages; such links will not be reviewed for evaluation purposes.

b. **PLEASE INCLUDE PAGE TABS/ SECTION DIVIDERS** so that those evaluating your submittal can easily compare each section with others that are submitted. If any of the information provided by the Proposer is found to be substantially unreliable, in the sole opinion of the Evaluation Committee and Procurement & Contracts Manager, their proposal may be rejected.

c. Proposers shall submit one (1) original hard copy (clearly marked as such) of the response and five (5) copies (clearly marked as such) of the response and

one (1) properly indexed Windows© compatible electronic version on a USB flash drive set(s) containing the proposal submittal in an unlocked PDF format. The City may request specific files be submitted in specialty format (i.e., provide Price Forms or Project Timeline in Excel format.) Vendor shall accommodate such specialty requests as stated within the submittal requirements described herein. Should files not be provided in the format or quantity as requested, Vendor may be deemed non-responsive and therefore ineligible for award. In case of any discrepancies, the original will be considered by the City in evaluating the Proposal, and the electronic version is provided for the City's administrative convenience only. Limit the color and number of images to avoid unmanageable file sizes.

- d. Qualified vendors interested in providing Lake Restoration & Improvements Project (Lakes 8 & 9) services described in this request are invited to submit a proposal. Submittals shall address the evaluation criteria. Please use the TAB format below for your proposal. Proposals should be concise and clear.

Tab 1 - Cover Letter and Forms

- Cover Letter - Maximum two pages outlining why the City should select your firm/team. Identify who will be the point of contact including their email address. Identify the Project Manager and in which office they are located.
- Items for Baseline Eligibility - Include Mandatory Form information in order from the Submission Check List page including any applicable licenses / certifications not included anywhere else in the proposal.

NOTE: There is a 50 printed (single sided) page maximum for the information below.

Tab 2 - Qualifications and Experience of Company and Personnel

- Demonstrate experience and qualifications of the Prime Contractor on lake improvement projects, as well as sub-contractors on the project team. Experience should detail relevant experience in lake restoration and/or aquatic environmental restoration.
- Should sub-consultant(s) be listed as part of the project team, the proposer shall provide a letter from each sub-consultant that indicates the sub-consultant's intent to be part of the project team.
- Provide a staff organization chart. Identify key individuals involved on this project, their affiliation and office location.
- For each key staff member involved on this project, provide their experience, professional discipline, and availability to support this project via resumes. (Note - 2 Page Max for each resume).
- Provide three (3) completed City of Naples reference questionnaires from clients whose projects are of a similar nature to this solicitation as a part of their proposal completed within the past 5 years.
- The Prime Contractor has a history of not being involved in litigation against Owners, General Contractors or Engineering Firms. The Prime Contractor shall provide a statement that it has not been involved in litigation as a plaintiff against the Owner or Engineering firm within the past five years. If this is not the case, provide an explanation.

- The contractor must provide a letter from its bonding company stating that the contractor must be able to provide a **performance bond in the amount of \$2 million.**

Tab 3 - Approach to this Project

- Provide your firm's approach to achieving the project's scope of work.
- Identify the potential project challenges and how your firm would remedy any challenges that may be addressed.
- Identify any issue that the City might have omitted in its understanding of this project.
- Include any cost-saving ideas.

Tab 4 - Ability to complete project per provided timeline

- Provide a detailed schedule. Provide a proposed Project Schedule that illustrates the total project time to complete this project. For these purposes, assume that substantial completion must be reached for all aspects of the project no later than 365 calendar days from the issued Notice to Proceed and fully completed in 395 calendar days. The project schedule must include, at a minimum:
 - Critical Path Schedule
 - Construction sequencing
 - Site Access and Staging Plan, including identification of all proposed site access routes and staging areas and areas to be disturbed (i.e., vegetation, driveways, barriers, fences, utilities, etc.)
- If the vendor determines that the project can't be completed in the timeline proposed in above, provide a proposed Project Schedule that illustrates the total project time to complete this project with a detailed explanation.

Tab 5 - Schedule of Values

- Provide the signed Schedule of Values as contained within the bid documents.

X. INCURRING COSTS

The City of Naples is not liable for any costs incurred by the offeror submitting a proposal in response to this solicitation. The cost to prepare the proposal and travel to project interviews shall be the full responsibility of the proposer.

AA. FIRM RANKING AND SELECTION

Based on the evaluation process and selection criteria results, the Evaluation Committee will prepare a prioritized ranking of firms. City staff will present an agreement to the top-ranked firm services. Should contract negotiations fail with the top-ranked firm, the City will enter discussions with the second-ranked firm, and so on, until an acceptable agreement has been reached between the City and the selected firm. The final agreement will then be forwarded to the City Council for approval.

Technical Construction and Material Specifications and Guidelines for the North Lake (Lake 8) and South Lake (Lake 9) Restoration Project, Collier County, Naples, Florida

Prepared for:
City of Naples
Public Works Department
Streets, Stormwater, & Natural Resources Division
295 Riverside Circle
Naples, Florida 34102

Prepared by:
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WSP Project No.: 600843.03

November 2023

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Manufacturer Specifications (included at the end of the specifications):

1. Aeration Systems
2. Inlet Filters

SECTION 01010 - SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Description of Work:
- B. CONTRACTOR's Use of Site
- C. Work Sequence
- D. City Occupancy

1.2 DESCRIPTION OF WORK

- A. General: The Work to be done under this Contract is shown on the drawings and detailed below: This project is comprised of two lakes—Lake 8 & 9. Work for Lakes 8 & 9 will involve dredging of lake bottom to restore historically natural sand substrate and reconstructing the existing shorelines to create littoral shelves for native species recruitment. The use of hydraulic and mechanical dredging technologies will be allowed to remove in situ organic muck sediments and in situ sandy sediment from the lake bottoms.

The dewatering operations for the dredged material will be staged in 20 YD roll off containers with trash/sand screen and 20 yard roll off containers lined with TenCate 50 sieve woven geotextile bags, or approved equivalent.

Lakes 8 and 9 materials will be injected with a cationic emulsion SNF C-12227 (0.6 lbs. per dry ton), or approved equivalent, to increase coagulation. Sediment will be dewatered sufficiently for safe offsite hauling without impacts to any roadways. If the Contractor uses the Collier County Landfill as a final disposal location, rather than some other beneficial offsite use, the Contractor will meet the Landfill's requirements for disposal. Once dewatered and the material meets the SW-846 Test Method 9095B: Paint Filter Liquids Test it shall be transported to the final disposal location. The final disposal location may be the Collier County Landfill or Mammoth Trees LLC or another commercial beneficial reuse site recommended by Contractor and approved by City. If the material is to be beneficial reused, the Contractor shall test the material and demonstrate that it is clean and free of contaminants:

- Volatile Organics (by EPA Method 8260)
- Semi-volatile Organics [Base/Neutrals (e.g., PAHs, Pesticides, PCBs) and Acid Extractables (e.g., Phenols)] (by EPA Methods 8270/8081/8082)
- RCRA Metals (by EPA Method 6010 and EPA Method 7471 OR EPA Method 6020, and EPA Method 7471 if not certified for mercury under EPA Method 6020)
- Petroleum Residual Organics (by FL-PRO)

The Contractor shall also provide a release of liability for the City for the disposal of the material at the beneficial reuse location.

In addition, best management practices will be implemented: including the installation of outfall structures, removal of invasive species, native plantings, riprap aprons on existing stormwater inlets, aeration devices in both lakes 8 and 9, and curb inlet filtration devices surrounding the Lakes.

B. The Work includes:

1. Furnishing of all labor, material, superintendence, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, services and other means of construction necessary or proper for performing and completing the Work.
2. Sole responsibility for adequacy of plant and equipment.
3. Maintaining the Work area and site in a clean and acceptable manner.
4. Maintaining existing facilities in service at all times including Maintenance of Traffic plans.
5. Protection of finished and unfinished Work.
6. Repair and restoration of Work or existing facilities damaged during construction.
7. Furnishing as necessary proper equipment and machinery, of a sufficient capacity, to facilitate the Work and to handle all emergencies normally encountered in Work of this character.
8. Furnishing, installing, and protecting all necessary guides, track rails, bearing plates, anchor and attachment bolts, and all other appurtenances needed for the installation of the devices included in the equipment specified. Make anchor bolts of appropriate size, strength and material for the purpose intended. Furnish substantial templates and shop drawings for installation.

C. Implied and Normally Required Work: It is the intent of these Specifications to provide the City with complete operable systems, subsystems and other items of Work. Any part or item of Work, which is reasonably implied or normally required to make each installation satisfactorily and completely operable, is deemed to be included in the Work and the Contract Amount. All miscellaneous appurtenances and other items of Work incidental to meeting the intent of these Specifications are included in the Work and the Contract Amount even though these appurtenances may not be specifically called for in these Specifications.

D. Quality of Work: Regard the apparent silence of the Contract Documents as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished as meaning that only the best general practice is to prevail and that only materials and workmanship of the best quality are to be used. Interpretation of these specifications will be made upon this basis.

1.3 CONTRACTOR'S USE OF SITE

A. Limit use of site and premises for work and storage to allow for the following:

1. Coordination of the Work under this CONTRACT with the work of the other contractors where Work under this CONTRACT encroaches on the Work of other contractors.
2. City occupancy and access to operate existing facilities.
3. Coordination of site use with ENGINEER.
4. Responsibility for protection and safekeeping of products under this CONTRACT.
5. Providing additional offsite storage at no additional cost to the City as needed.

B. Use of Premises: Contractor shall confine all construction equipment, the storage of materials and equipment and the operations of workers to the Project Site and land and areas identified in and permitted by the Contract Documents and other lands and areas permitted by law, rights of way, permits and easements, and shall not unreasonably encumber the Project site with construction equipment or other material or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or any land or areas contiguous thereto, resulting from the performance of the Work.

1.4 WORK SEQUENCE

- A. Construct Work in stages to accommodate the City's use of premises during construction period and in accordance with the limitations on the sequence of construction specified. Coordinate construction schedules and operations with ENGINEER. The Contractor shall not open work to conflict with work already in progress. The Engineer may, however, require the Contractor to finish a section on which work is in progress prior to starting another section.

- B. Coordinate Work of all subcontractors.

1.5 CITY OCCUPANCY

- A. The City will occupy premises during the entire period of construction to maintain normal operations. Cooperate with the City's Manager or designee in all construction operations to minimize conflict, and to facilitate City usage.
- B. Conduct operations with the least inconvenience to the public.

1.6 PROTECTION OF EXISTING UTILITIES

- A. In case of damage to existing utilities caused by construction activities, contact the owner of the utility or appropriate City department (Water, Wastewater and Roads) immediately. Repair any damage to existing utilities caused by construction activities in coordination with or as directed by the owner of the utility.

Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities being referred to in this Section as the "utilities". Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project. Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Contractor shall be responsible for properly shoring, always supporting and protecting all Utilities during the Work. The Contractor shall always conduct his work such that adequate drainage is provided and shall not interfere with or block existing drainage facilities such as gutters, ditches, storm drains, or other drainage appurtenances. Existing fire hydrants adjacent to the project shall be always kept accessible for fire apparatus and no material or equipment shall be placed within 25 feet of any hydrant.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

- A. Starting Work: Start Work within 10 days following the date stated in the Notice to Proceed and execute with such progress as may be required to prevent delay to other contractors or to the general completion of the project. Execute Work at such items and in or on such parts of the project, and with such forces, material and equipment, as to complete the Work in the time established by the Contract. At all times, schedule and direct the Work so that it provides an orderly progression to completion within the specified time for completion. The Contractor shall obtain all necessary building permits prior to commencement of work. The Contractor shall become totally familiar with the requirements of all permits prior to start of work.
- B. Intent of Contract Documents: It is the intent of the Contract Documents to describe a functionally complete project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether specifically called for. When words which have a well-known technical or trade meaning are used

to describe work, materials or equipment, such works shall be interpreted in accordance with that meaning. Reference to standards specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in affect at the time the Work is performed, except as may be otherwise specifically stated herein.

If before or during the performance of the Work the Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall report same to the Engineer in writing and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from the Engineer. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.

Drawings are intended to show general arrangements, design and extent of work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the drawings, specifications or other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon the Contractor, as determined by the Engineer. Unless otherwise specifically mentioned, all anchors, bolts, screws, fittings, fillers, hardware, accessories, trim and other parts required in connection with any portion of the Work to make a complete, serviceable, finished and first quality installation shall be furnished and installed as part of the Work, whether called for by the Contract Documents.

- B. Investigation and Utilities: Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work and the general and local conditions, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water and electric power; availability and condition of roads; work area; living facilities; climatic conditions and seasons; physical conditions at the work-site and the project area as a whole; topography and ground surface conditions; nature and quantity of the surface materials to be encountered; subsurface conditions; equipment and facilities needed preliminary to and during performance of the Work; and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.
- C. Schedule: The Contractor, within ten (10) calendar days after receipt of the Notice of Award, shall prepare and submit to the Engineer, for review and approval, a progress schedule for the Project (herein "Progress Schedule"). The Progress Schedule shall relate to all Work required by the Contract Documents and shall provide for expeditious and practicable execution of the Work within the Contract Time. The Progress Schedule shall indicate the dates for starting and completing the various stages of the Work.

The Progress Schedule shall be updated monthly by the Contractor. All monthly updates to the Progress Schedule shall be subject to the Engineer's review and approval. Contractor shall submit the updates to the Progress Schedule with its monthly Applications for Payment noted below. The Engineer's review and approval of the submitted Progress Schedule updates shall be a condition precedent to the City's obligation to pay Contractor.

- D. Submittals and Substitutions: Contractor shall carefully examine the Contract Documents for all requirements for approval of materials to be submitted such as shop drawings, data, test results,

schedules and samples. Contractor shall submit all such materials at its own expense and in such form as required by the Contract Documents in sufficient time to prevent any delay in the delivery of such materials and the installation thereof.

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by the City if sufficient information is submitted by Contractor to allow the City to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of substitute items of material and equipment will not be accepted by the City from anyone other than Contractor and all such request must be submitted by Contractor to the Engineer within thirty (30) calendar days after Notice of Award is received by Contractor.

If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make application to the Engineer for acceptance thereof, certifying that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of substantial completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the City for the Project) to adapt the design to the proposed substitute and whether or not the incorporation or use by the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service shall be indicated. The application also shall contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Engineer in evaluating the proposed substitute. The Engineer may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the Engineer, if Contractor submits sufficient information to allow the Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for submission to and review by the Engineer shall be the same as those provided herein for substitute materials and equipment.

The Engineer shall be allowed a reasonable time within which to evaluate each proposed substitute. The Engineer shall be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the Engineer's and the City's prior written acceptance which shall be evidenced by either a Change Order or an approved Shop Drawing. The City may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

- E. Daily Reports, As-Builts and Meetings: Unless waived in writing, the CEI shall complete and submit to the City on a weekly basis a daily log of the Contractors work for the preceding week in a format approved by the City. The daily log shall document all activities of Contractor at the Project site including, but not limited to, the following:
 - 1. Weather conditions showing the high and low temperatures during work hours, the amount of precipitation received on the Project site, and any other weather conditions which adversely affect the Work;

2. Soil conditions which adversely affect the Work;
3. The hours of operation by Contractor's and subcontractor's personnel;
4. The number of Contractor's and subcontractor's personnel present and working at the Project site, by subcontract and trade;
5. All equipment present at the Project site, description of equipment use and designation of time equipment was used (specifically indicating any down time);
6. Description of Work being performed at the Project site;
7. Any unusual or special occurrences at the Project site;
8. Materials received at the Project site;
9. A list of all visitors to the Project site; and
10. Any problems that might impact either the cost or quality of the Work or the time of performance.

The daily log shall not constitute nor take the place of any notice required to be given by Contractor to the City pursuant to the Contract Documents.

Contractor shall maintain in a safe place at the Project site one record copy of the Contract Documents, including, but not limited to, all drawings, permits, specifications, addenda, amendments, Change Orders, Work Directive Changes and Field Orders, as well as all written interpretations and clarifications issued by the Engineer, in good order and annotated to show all changes made during construction. The annotated drawings shall be continuously updated by the Contractor throughout the prosecution of the Work to accurately reflect all field changes that are made to adapt the Work to field conditions, changes resulting from Change Orders, Work Directive Changes and Field Orders, and all concealed and buried installations of piping, conduit and utility services. All buried and concealed items, both inside and outside the Project site, should be accurately located on the annotated drawings as to depth and in relationship to not less than two (2) permanent features (e.g. interior or exterior wall faces). The annotated drawings shall be clean, and all changes, corrections and dimensions shall be given in a neat and legible manner in a contrasting color. The "As-Built" record documents, together with all approved samples and a counterpart of all approved shop drawings shall be available to the Engineer for reference. Upon completion of the Work and as a condition precedent to the Contractor's entitlement to final payment, these "As-Built" record documents, samples and shop drawings shall be delivered to the Engineer by Contractor.

Contractor shall keep all records and supporting documentation which concern or relate to the Work hereunder for a minimum of five (5) years from the date of termination of this Agreement or the date the Project is completed, whichever is later. The City, or any duly authorized agents or representatives of the City, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during the period of this Agreement and during the five (5) year period noted above; provided, however, such activity shall be conducted only during normal business hours.

- F. Contract Time and Time Extensions: Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of the Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes or lockouts, Contractor shall notify the City in writing within forty-eight (48) hours after the commencement of such delay, stating the cause or causes thereof, or be deemed to have waived any right which Contractor may have had to request a time extension.
- G. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whole or in part, shall relieve Contractor of his duty to perform or give rise to any right to damages or additional compensation from the City. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the City will be the right to seek an extension to the Contract Time; provided,

however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damage For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.

- H. Changes in Work: The City shall have the right at any time during the progress of the Work to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or as expressly set forth herein, no addition or changes to the Work shall be made except upon written order of the City, and the City shall not be liable to the Contractor for any increased compensation without such written order.
- I. Claims and Disputes: A claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between the City and Contractor arising out of or relating to the Contract Documents.

The responsibility to substantiate a Claim shall rest with the party making the Claim.

Claims by the Contractor shall be made in writing to the City within forty-eight (48) hours after the first day of the event giving rise to such Claim or else the Contractor shall be deemed to have waived the Claim. Written supporting data shall be submitted to the City within fifteen (15) calendar days after the occurrence of the event, unless the City grants additional time in writing, or else the Contractor shall be deemed to have waived the Claim.

The Contractor shall proceed diligently with its performance as directed by the City, regardless of any pending claim, action, suit or administrative proceeding, unless otherwise agreed to by the City in writing. The City shall continue to make payments in accordance with the Contract Documents during the pendency of any Claim.

- J. Other Work: The City may perform other work related to the Project at the site by the City's own forces, have other work performed by utility owners or let other direct contracts. If the fact that such other work is to be performed is not noted in the Contract Documents, written notice thereof will be given to Contractor prior to starting any such other work. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to the City within forty-eight (48) hours of being notified of the other work. If the Contractor fails to send the above required forty-eight (48) hour notice, the Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount.

Contractor shall afford each utility owner and other contractor who is a party to such a direct contract (or the City, if the City is performing the additional work with the City's employees) proper and safe access to the site and a reasonable opportunity for execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other Contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between the City and such utility owners and other contractors.

If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or the City), Contractor shall inspect and promptly report to the Engineer in writing any delays, defects or deficiencies in such work that render it unavailable or

unsuitable for such proper execution and results. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

- K. Compliance with Laws: Contractor agrees to comply, at its own expense, with all federal, state and local laws, codes, statutes, ordinances, rules, regulations and requirements applicable to the Project, including but not limited to those dealing with taxation, worker's compensation, equal employment and safety (including, but not limited to, the Trench Safety Act, Chapter 553, Florida Statutes). If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify the Engineer in writing.
- L. Assignment: Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of the City. If Contractor does, with approval, assign this Agreement or any part thereof, it shall require that its assignee be bound to it and to assume toward Contractor all the obligations and responsibilities that Contractor has assumed toward the City.
- M. Permits, Licenses and Taxes: Pursuant to Section 218.80, F.S., the City will pay for all permits and fees, including license fees, permit fees, impact fees or inspection fees applicable to the work through an internal budget transfer(s). Contractor is not responsible for paying for permits issued by The City of Naples, but is responsible for acquiring all permits.

All permits, fees and licenses necessary for the prosecution of the Work which are not issued by the City shall be acquired and paid for by the Contractor unless otherwise noted.

- N. Termination for Default: Contractor shall be considered in material default of the Agreement and such default shall be considered cause for the City to terminate the Agreement, in whole or in part, as further set forth in this Section, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified herein; or (2) fails to properly and timely perform the Work as directed by the Engineer or as provided for in the approved Progress Schedule; or (3) performs the Work unsuitably or neglects or refuses to remove material or to correct or replace such Work as may be rejected as unacceptable or unsuitable; or (4) discontinues the prosecution of the Work; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for more than ten (10) days; or (8) makes an assignment for the benefit of creditors; or (9) fails to obey any applicable codes, laws, ordinances, rules or regulations with respect to the Work; or (10) materially breaches any other provision of the Contract Documents.

The City shall notify Contractor in writing of Contractor's default(s). If the City determines that Contractor has not remedied and cured the default(s) within seven (7) calendar days following receipt by Contractor of said written notice, then the City, at its option, without releasing or waiving its rights and remedies against the Contractor's sureties and without prejudice to any other right or remedy it may be entitled to hereunder or by law, may terminate Contractor's right to proceed under the Agreement, in whole or in part, and take possession of all or any portion of the Work and any materials, tools, equipment, and appliances of Contractor, take assignments of any of Contractor's subcontracts and purchase orders, and complete all or any portion of Contractor's Work by whatever means, method or agency which the City, in its sole discretion, may choose.

If the City deems any of the foregoing remedies necessary, Contractor agrees that it shall not be entitled to receive any further payments hereunder until after the Project is completed. All monies expended and all the costs, losses, damages and extra expenses (including Engineer and attorney's fees) or damages incurred by The City incident to such completion, shall be deducted from the Contract Amount, Contractor agrees to pay promptly to the City on demand the full amount (including appeals) and interest thereon at the maximum legal rate of interest until paid. If the unpaid balance of the Contract Amount exceeds all such costs, expenditures and damages incurred by the City to complete the Work, such excess shall be paid to the Contractor. The

amount to be paid to the Contractor, shall be approved by the Engineer, upon application, and this obligation for payment shall survive termination of the Agreement.

The liability of Contractor hereunder shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by The City in good faith under the belief that such payments or assumptions were necessary or required, in completing the Work and providing labor, materials, equipment, supplies, and other items therefore or re-letting the Work, and in settlement, discharge or compromise of any claims, demands suits, and judgments pertaining to or arising out of the work hereunder.

If, after notice of termination of contractor's right to proceed pursuant to this Section, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that the City is not entitled to the remedies against Contractor provided herein, then Contractor's remedies against the City shall be the same as and limited to those afforded Contractor under "Completion" section below.

- O. Termination for Convenience and Right of Suspension: The City shall have the right to terminate this Agreement without cause upon seven (7) calendar days written notice to Contractor. In the event of such termination for convenience, Contractor's recovery against the City shall be limited to that portion of the Contract Amount earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against the City, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.

The City shall have the right to suspend all or any portions of the Work upon giving Contractor not less than two (2) calendar days' prior written notice of such suspension. If all or any portion of the Work is so suspended, Contractor's sole and exclusive remedy shall be to seek an extension of time to its schedule in accordance with the procedures set forth in the Contract Documents. In no event shall the Contractor be entitled to any additional compensation or damages. Provided, however, if the ordered suspension exceeds six (6) months, the Contractor shall have the right to terminate the Agreement with respect to that portion of the Work which is subject to the ordered suspension.

- P. Completion: When the entire Work (or any portion thereof designated in writing by the City) is ready for its intended use, Contractor shall notify the Engineer in writing that the entire Work (or such designated portion) is substantially complete and request that the Engineer issue a Certificate of Substantial completion (or Certificate of Partial Substantial Completion). Within a reasonable time thereafter, the City, Contractor and Engineer shall inspect the Work (or designated portion thereof) to determine the status of completion. If the City and Engineer do not consider the Work (or designated portion) substantially complete, the Engineer shall notify Contractor in writing giving the reasons therefore. If the City and Engineer consider the Work (or designated portion) substantially complete, the Engineer shall prepare and deliver to Contractor a Certificate of Substantial Completion (or Certificate of Partial Substantial Completion) which shall fix the date of Substantial Completion for the entire Work (or designated portion thereof) and include a tentative punch list of items to be completed or corrected by Contractor before final payment. The City shall have the right to exclude Contractor from the Work and Project site (or designated portion thereof) after the date of Substantial Completion, but the City shall allow Contractor reasonable access to complete or correct items on the tentative punch list.

Upon receipt of written certification by Contractor that the Work is completed in accordance with the Contract Documents and is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Engineer will make such inspection and, if he finds the Work acceptable and fully performed under the Contract Documents, he shall promptly issue a final Certificate for Payment, recommending that, on the basis of his observations and inspection, and the Contractor's certification that the Work has been completed in accordance with the terms and

conditions of the Contract Documents, that the entire balance found to be due Contractor is due and payable. Neither the final payment nor the retainage shall become due and payable until Contractor submits: all data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens, arising out of the Contract Documents, to the extent and in such form as may be designated by the City. The City reserves the right to inspect the Work and make an independent determination as to the Work's acceptability, even though the Engineer may have issued his recommendations. Unless and until the City is completely satisfied, neither the final payment nor the retainage shall become due and payable.

- Q. Warranty: Contractor shall obtain and assign to the City all express warranties given to Contractor or any subcontractors by any material, men supplying materials, equipment or fixtures to be incorporated into the project. Contractor warrants to the City that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to the City that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers or processors except as otherwise provided for in the Contract Documents. If, within one (1) year after final completion, any Work is found to be defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from the City. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work which may be damaged as a result of such replacement or repair. These warranties are in addition to those implied warranties to which the City is entitled as a matter of law.
- R. Supervision and Superintendents: Contractor shall plan, organize, supervise, schedule, monitor, direct and control the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the contract documents. Contractor shall be responsible to see that the finished work complies accurately with the Contract Documents. Contractor shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without prior written notice to the Engineer except under extraordinary circumstances. The superintendent shall be Contractor's representative at the Project site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor. The City shall have the right to direct Contractor to remove and replace its Project superintendent, with or without cause.
- S. Protection of Work: Contractor shall fully protect the Work from loss or damage and shall bear the cost of any such loss or damage until final payment has been made. If Contractor or any one for whom Contractor is legally liable for is responsible for any loss or damage to the Work, or other work or materials of the City or the City's separate contractors, Contractor shall be charged with the same, and any monies necessary to replace such loss or damage shall be deducted from any amounts due Contractor.

Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Contractor shall not disturb any benchmark established by the Engineer with respect to the Project. If Contractor, or its subcontractors, agents or anyone for whom Contractor is legally liable, disturbs the Engineer's benchmark, Contractor shall immediately notify The City and Engineer. The Engineer shall reestablish the benchmark and Contractor shall be liable for all costs incurred by The City associated therewith.

- T. **Emergencies:** In the event of an emergency affecting the safety or protection of persons or Work or property at the Project site of adjacent thereto, Contractor, without special instructions or authorization from the City or Engineer is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Engineer written notice within forty-eight (48) hours after the occurrence of the emergency, if Contractor believes that after the occurrence of the emergency, if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the Engineer determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order shall be issued to document the consequences of the changes or variations. If Contractor fails to provide the forty- eight (48) hour written notice noted above, the Contractor shall be deemed to have waived any right it otherwise may have had to seek an adjustment to the Contract Amount or an extension to the Contract Time.
- U. **Project Meetings:** Prior to the commencement of Work, the Contractor shall attend a preconstruction conference with the Engineer and others as appropriate to discuss the Progress Schedule, procedures for handling shop drawings and other submittals, and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work. During the prosecution of the Work, the Contractor shall attend all meetings convened by the Engineer or the City with respect to the Project, when directed to do so. Contractor shall have its subcontractors and suppliers attend all such meetings (including the preconstruction conference) as may be directed by the City or Engineer.
- V. **Traffic Control Plan:** A traffic control plan to support the Contractor's operations shall be submitted at least 72 hours prior to commencing work that shall conform to the Florida Department of Transportation's "Manual on Traffic Control and Safe Practices" which shall be obtained by the Contractor at his expense.
- W. **Hours of Work:** Work within the travelled way of the project shall commence no earlier than 7:00 a.m. local time and be completed no later than 7:00 p.m. local time. Hours of work may be altered at any time at the discretion of the City.
- X. **Tax Exemption:** The City of Naples is exempt from the payment of sales or use tax. The tax exemption certificate number is: 85-8012621645C-0.

PART 4 SAFETY

- A. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. All employees on the Work and other persons and/or organizations who may be affected thereby;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Project site; and
 - 3. Other property on Project site or adjacent thereto, including trees, shrubs, walks, pavements, roadways, structures, utilities and any underground structures or improvements not designated for removal, relocation or replacement in the Contract Documents.
- B. Contractor shall comply with all applicable codes, laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground structures and improvements and utility-owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation or replacement of their property. Contractor's duties and responsibilities for the safety and protection of the Work shall

continue until such time as the Work is completed and final acceptance of same by The City has occurred.

- C. Contractor shall designate a responsible representative at the Project site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to The City.

END OF SECTION

SECTION 01026 – MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Explanation and Definitions
- B. Measurement
- C. Payment
- D. Schedule of Values

1.2 EXPLANATION AND DEFINITIONS

- A. The following explanation of the Measurement and Payment for the Bid Schedule items is made for information and guidance. The omission of reference to any item in this description shall not, however, alter the intent of the Bid Schedule or relieve the CONTRACTOR of the necessity of furnishing such as a part of the Contract. Measurement and payment for all Contract Items shall made be in accordance with this section.

1.3 MEASUREMENT

- A. The quantities set forth in the Bid Schedule are approximate and are given to establish a uniform basis for the comparison of bids. The CITY reserves the right to increase or decrease the quantity of any class or portion of the work during the progress of construction in accord with the terms of the Contract.

1.4 PAYMENT

- A. Make payment for the items listed on the Bid Schedule based on the work performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, clean up, restoration of disturbed areas, and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications.
- B. Unit prices are used as a means of computing the final figures for bid and Contract purposes, for periodic payments for work performed, for determining value of additions or deletions and wherever else reasonable.

1.5 SCHEDULE OF VALUES

- A. Approval of Schedule: Submit for approval a preliminary schedule of values, in duplicate, for all the Work. Prepare and submit final schedule of values within 10 calendar days after the Effective Date of the Agreement.
- B. Format: Utilize a format like the Table of Contents of the Project Specifications. Identify each line item with number and title of the major specification items. Identify site mobilization, bonds and insurance. Include within each line item, a direct proportional amount of CONTRACTOR's overhead profit.
- C. Revisions: With each Application for Payment, revise schedule to list approved Change Orders.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 MEASUREMENT AND PAYMENT

- A. Make payment based on work actually performed completing each item in the Bid, such work including, but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, cleanup, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications. Payment for each item includes compensation for cleanup and restorations. Cost of cleanup and surface restorations (including pavement replacement) will be considered as the percentage retained in accordance with the Contract Documents, and complete payment will not be made until cleanup, restorations and as-builts are completed.

LUMP SUM SCHEDULE

- 1a. Mobilization/Demobilization: This item shall include and cover the costs for performing construction, preparatory, and overhead operations, including but not limited to movement of personnel and equipment to and from the site, sanitary facilities, project administration and management, insurance, bonds, Owner and Engineer indemnification, temporary utilities, project signs, permits related to construction, and all other similar activities and facilities necessary for executing this project. This item shall not exceed 10% of the Total Bid. The Contractor shall be paid 40% of this item upon completion of mobilization, 3% per month for general conditions up until 80% of the total is reached, with the remaining 20% paid upon demobilization.
- 1b. Maintenance of Traffic: The Contractor shall furnish all labor, signage, barricades, and other equipment necessary to provide traffic control in accordance with FDOT Standard Index 600 Series for all phases of work and prepare and implement Maintenance of Traffic (MOT) plans in accordance with City of Naples requirements and all other MOT plans as may be required by local, county, or state agencies. The MOT plan shall be submitted to the City of Naples for review and approval. This item shall not exceed 5% of the Total Bid. The Contractor shall be paid 50% upon initial delivery and set-up of the materials, and the remaining 50% shall be pro-rated equally over the construction duration.
- 1c. Erosion and Sediment Control: Payment for obtaining a NPDES permit and installing/removing silt fence, floating turbidity barriers, hay bales, and soil tracking devices will be made for at the Contract lump sum price. Install and remove all erosion and sediment controls in accordance with the specifications and details shown on the Plans.
- 1d. Construction and As-Built Surveys: Payment for construction surveys will be made for at the Contract lump sum price.

UNIT PRICE SCHEDULE

- 2a. Clearing and Grubbing of Invasive Species:
- Measurement shall be the number of acres of invasive species removed from the project site, as indicated in the plans.
 - Payment shall be made at the Contract unit price per acre of land where the invasive species are removed and shall include full compensation for all equipment and materials as detailed in section 02110.

- 3a. Dredging: The dredge tolerance will be up to 6-inches shallower than design depth and up to 2-inches deeper than design depth, where Contractor will be paid for material removed, measured in cubic yards, to the measured and calculated volumes within this tolerance.

The City's goal is to remove 100% of the design dredge volume within the Lakes and meet the design depth at all locations within the dredge areas; however, it is understood that unforeseen conditions may exist that may prevent the Contractor from achieving design depth and the tolerance standards set forth above. This may include bedrock and other unknown conditions, not already addressed by these specifications, that cause a shallower elevation than the design depth. In such cases, the Contractor will notify the City's Engineer of such condition and the condition will be evaluated. The City's Engineer shall direct the Contractor to proceed according in one of the following ways:

- a. work around the condition and log the area where the condition exists; or
- b. prepare a cost estimate for a change order for the City to consider to bring the condition to within the tolerance of the design depth, or
- c. continue to work to achieve a depth within tolerance of the design depth.

The maximum estimated quantity of sediment to be removed from within the Lake limits shall be, for bidding and payment purposes, in-situ sediments. The Contractor's pay volume will be limited to a maximum of 100% of this volume dredge quantity based upon the design depth. The Contractor shall provide bids for each Lake based on the estimated volumes.

Lakes	Design Dredge Volume (CY)
Lake 8	4,822
Lake 9	12,457
Total	17,279

The total computed quantities of material required to be removed within the specified limits of the cross sections are based on the pre-construction surveys performed by the Engineer at 50 ft baseline stations. The Contractor is required to remove a minimum 100% of the design dredge volume within the Lakes and meet the design depth at all locations within the dredge areas.

The basis of measurement of quantities for payment shall be the comparison of the pre-construction surveys, as shown on the Contract Drawings, and the post-construction acceptance surveys of the dredging. Quantities will be calculated based on the average end area method for volume computations at 100 feet baseline stations surveyed.

To meet the minimum excavation requirement, the Contractor's vertical accuracy of the surveying equipment shall not be less than 2-inches in the vertical datum.

The Engineer shall be notified a minimum of forty-eight (48) hours in advance of each acceptance of Lakes to allow for observation by a representative of the Engineer, unless waived by the Engineer. The Contractor may call for post-construction acceptance surveys on completed Lakes.

The Contractor may elect to independently conduct pre-construction surveys to be used for payment. These surveys must be performed in the presence of the Engineer and be performed by a professional survey licensed in the State of Florida.

The City will not pay for material excavated from areas unauthorized by this Contract. Excavation of such areas is a violation of the regulatory permits and may results in Contractor

finer. If it is determined that the Contractor has excavated outside of the approved excavation areas or below the allowable excavation limit, the quantity of material excavated from these areas will be computed and subtracted directly from the pay quantity.

Debris, such as stumps, rock fragments, roots, logs, trash, etc. and any other objects except archeological or historical resources which exist within the project area or are unearthed during dredging operations shall be removed, transported and disposed of at the Collier County Landfill and should be expected to be encountered during the dredge operations and will not constitute a change of condition to the contract.

3b. Dewatering: Measurement shall be in the number of cubic yards of dredged material that has been dewatered. Payment shall be made at the Contract unit price per cubic yard of dredged material processed, and will include compensation for all labor, equipment, and materials for storage, polymer dosing, discharge, and all other work necessary to dewater the dredged material.

3c and d. Hauling: Measurement shall be in the number of miles to haul de-watered dredged material to either the Landfill or Mammoth Trees LLC. Payment shall be made at the Contract unit price per mile of de-watered dredged material removed and shall include all compensation for all labor, equipment, and materials for transportation, disposal, and all other work necessary to remove the unsuitable material.

3e and f. Disposal: Measurement shall be in the number of trucks disposed of de-watered dredged material at either the Landfill or Mammoth Trees LLC. Payment shall be made at the Contract unit price per trucks of de-watered dredged material removed and shall include all compensation for all labor, equipment, and materials for transportation, disposal, and all other work necessary to remove the unsuitable material.

3g. Milling and Repaving: Measurement shall be the quantity of square yards of roadway milled and paved. Payments shall be made at the Contract unit price bid per square yard of asphaltic concrete removal and replacement and shall include full compensation for all equipment and materials necessary including any required signage and striping as specified in the Drawings. Milling must be maintained and compacted as per the Technical Specifications.

4a-e. Stormwater Infrastructure Modifications: Payment for relocating, cleaning, reinforcing, furnishing and installing stormwater pipelines (various sizes and types), inlet filters (various sizes and types), and pavement repair will be made at the Contract unit price per each for the mitered end sections and inlet filters, unit price per each outfall structure, unit price per each aeration device, and unit price per cubic yard of fill not already accounted for in the littoral restoration. This item includes all necessary fittings, pipe coatings and linings, connections to existing mains, labor, equipment and materials for the furnishing and laying modifications, signs, dewatering, compaction, pipe bedding, backfilling, sheeting, restrained joint piping, detectable tape, clamps, harnessing, plugs and caps, adapters, excavation of all material encountered, including rock, backfill, replacement of grass, sod, clearing and grubbing (excluding the removal of invasive species detailed in the Plans), landscaping, pavement, driveways, sidewalks, mailboxes, culverts, and storm sewers. Stormwater infrastructure modifications shall be performed in accordance with the specifications and details shown on the Plans.

5a. Littoral Shelf Reconstruction: Measurement shall be the quantity of acres of land restored as a littoral shelf. Payment shall be made at the Contract unit price per acre of land along the northern bank of Lake 8 which has been converted into a littoral shelf and shall include full compensation for all labor, equipment, and materials necessary including excavation, filling, compaction, grading, and all other work necessary to place materials in accordance with the specifications and details shown on the Plans.

5b-j Vegetative Planting: Measurement shall be the quantity of square feet on the area shown in the Plans, completed and accepted by the Owner. Payment shall be full compensation for all work and materials including all labor, surface preparation, materials, and incidentals necessary to complete the work. The vegetation species shall match what is specified in the Plans.

- B. Prior to submitting first monthly Application for Payment, Contractor shall submit to Engineer, for review and approval, a schedule of values based upon the Contract Price, listing the major elements of the Work and the dollar value for each element. After its approval by the Engineer, this schedule of values shall be used with the bid tabulation as the basis for the Contractor's monthly Applications for Payment.
- C. Prior to submitting first monthly Application for Payment, Contractor shall submit to The City a complete list of all its proposed subcontractors and materialmen, showing the work and materials involved and the dollar amount of each proposed subcontract and purchase order. The first Application for Payment shall be submitted no earlier than thirty (30) days after the Commencement Date.
- D. If payment is requested on the basis of materials and equipment not incorporated into the Project, but delivered and suitably stored at the site or at another location agreed to by the City in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that the City has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the City's interest therein, all of which shall be subject to the City's satisfaction.
- E. Contractor shall submit two (2) copies of its monthly Application for Payment to the Engineer on or before the 25th day of each month for work performed during the previous month. Invoices received after the 25th day of each month shall be considered for payment as part of the next month's application. Within ten (10) calendar days after receipt of each Application for Payment, the Engineer shall either:
 - 1. indicate his approval of the requested payment;
 - 2. indicate his approval of only a portion of the requested payment, stating in writing his reasons therefore; or
 - 3. return the Application for Payment to the Contractor indicating, in writing, the reason for refusing to approve payment.

In the event of a total denial and return of the Application for Payment by the Engineer, the Contractor may make the necessary corrections and resubmit the Application for Payment. The City shall, within thirty (30) calendar days after the Engineer's approval of an Application for Payment, pay the Contractor the amounts so approved. Provided, however, in no event shall the City be obligated to pay any amount greater than that portion of the Application for Payment approved by the Engineer.

- F. The City shall retain ten (10%) of the gross amount of each monthly payment request or ten percent (10%) of the portion thereof approved by the Engineer for payment, whichever is less. Such sum shall be accumulated and not released to the Contractor until final payment is due.
- G. Monthly payments to Contractor shall in no way imply approval or acceptance of Contractor's work.
- H. Contractor agrees and understands that funding limitations exist, and that the expenditure of funds must be spread over the duration of the Project at regular intervals based on the Contract

Amount and Progress Schedule. Accordingly, prior to submitting its first monthly Application for Payment, Contractor shall prepare and submit for the Engineers review and approval, a detailed Project Funding Schedule, which shall be updated as necessary and approved by the City to reflect approved adjustments to the Contract Amount and Contract Time. No voluntary acceleration or early completion of the Work shall modify the time of payments to Contractor as set forth in the approved Project Funding Schedule.

3.2 PAYMENTS WITHHELD

- A. The Engineer may decline to approve any Application for Payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The Engineer may nullify the whole or any part of any approval for payment previously issued and the City may withhold any agreement between the City and Contractor, to such an extent as may be necessary in the City's opinion to protect it from loss because of:
 - 1. Defective Work not remedied;
 - 2. Third party claims filed or reasonable evidence indicating probable filing of such claims
 - 3. Failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment;
 - 4. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount;
 - 5. Reasonable indication that the Work will not be completed within the Contract Time;
 - 6. Unsatisfactory prosecution of the Work by the Contractor; or
 - 7. Any other material breach of the Contract Documents.
- B. If these conditions in above are not remedied or removed, the City may, after three (3) days written notice, rectify the same at Contractor's expense. The City also may offset against any sums due to the Contractor the amount of any liquidated or unliquidated obligations of Contractor whether relating to or arising out of this Agreement or any other agreement between Contractor and the Engineer.

3.3 FINAL PAYMENT

- A. The City shall make final payment to Contractor within thirty (30) calendar days after the Work is finally inspected and accepted by both the City and the Engineer in accordance with Section 3..1 herein provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to final payment, shall have furnished the City with any and all documentation that may be required by the Contract Documents and the City.
- B. Contractor's acceptance of final payment shall constitute a full waiver of all claims by Contractor against the City arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment. Neither the acceptance of the Work nor payment by the City shall be deemed to be a waiver of the City's right to enforce any obligations of Contractor hereunder or to the recovery of damages for defective Work not discovered by the Engineer at the time of final inspection.

END OF SECTION

SECTION 01045 - CONNECTIONS TO EXISTING SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General Requirements
- B. Submittals
- C. Scheduling of Shutdown

1.2 RELATED SECTIONS

- A. Section 01010 - Summary of Work
- B. Section 01500 - Construction Facilities and Temporary Controls
- C. Section 01570 - Traffic Regulations and Public Safety
- D. Section 02575 - Pavement Repair and Restoration

1.3 GENERAL REQUIREMENTS

- A. Be responsible for all connection to existing systems, cutting, fitting and patching, including attendant excavation and backfill, required to complete the work or to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of the work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
- B. Coordination: Before connection is performed, verify and provide for any pipe restraint that may be required for the new connection. Perform all cutting, fitting or patching of the Work that may be required to make the several parts thereof join in accordance with the Contract Documents. Perform restoration with competent workmen skilled in the trade.
- C. Improperly Timed Work: Perform all cutting and patching required to install improperly timed work, to remove samples of installed materials for testing, and to provide for alteration of existing facilities or for the installation of new Work in the existing construction.
- D. Limitations: Except when the cutting or removal of existing construction is specified or indicated, do not undertake any cutting or demolition, which may affect the structural stability of the Work or existing facilities without the ENGINEER's concurrence.
- E. City of Naples Damage Prevention Policy: This policy has been put in place to avoid damage to CITY underground utilities. A minimum distance of five feet (5') horizontally and eighteen inches (18") vertically must be maintained away from CITY utilities. All variations to this order must be approved by the Water or Wastewater Department. **Before commencement of any excavation, the existing underground utilities in the area affected by the work must be marked by Sunshine State One Call after proper notification to them by either calling 800/432-4770 or emailing www.callsunshine.com. Before commencing excavation for the work, potholing of all potential conflicts must be performed.** All lines in conflict must be physically located by the contractor and verified by CITY Locate Department personnel before performing work. Utilities under concrete or pavement may require soft dig vacuum locates which also is the contractor's responsibility to perform. All utilities will be field marked per Sunshine State One Call's statutes and guidelines. For line verification or any other information concerning locates, please call the Locate Department at 239/213-4717 during normal business hours. For line verification or emergency locates after hours, call emergency number 239/213-4717. **In the**

event the potholing and/or vacuum soft dig does not locate the marked utility, work must be stopped and the affected utility owner contacted. Failure to comply with this policy and obtain required signature(s) may result in delay or denial of permit.

The Contractor will be required to take every precaution to guard against any or all damages to existing structures, pipe lines, and equipment of the City water, sewer, or reuse system from any cause whatsoever in the prosecution of the work. All work shall be planned and executed in such a manner by the Contractor as to absolutely insure the regular and continuous operation of the waterworks system insofar as same may be affected by the Contractor's operations; and the sequence of operations of the Contractor in providing for and executing the work shall be at all times subject to the approval of the Engineer of Record and City, insofar as the operation of the above- mentioned system may be affected. Such approval of the EOR shall in no way relieve the Contractor of his responsibility for providing all and adequate means of guaranteeing the continuous, uninterrupted operation of the City utility systems. Any damage done to any City main or facility shall be reported to Public Works immediately by calling (239) 213-4717. Any such damage shall be the direct responsibility of the Contractor and such damage shall be restored, replaced, or repaired per City direction by the Contractor at no expense to the City. See also Section 01500, 1.8.B

1.4 SUBMITTALS

- A. Submit a written request to the Engineer well in advance of executing any cutting or alteration which affects:
 - 1. Work of the City or any separate contractor.
 - 2. Structural value or integrity of any element of the project or work.
 - 3. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 4. Efficiency, operational life, maintenance or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.
- B. Include in request:
 - 1. Identification of the work.
 - 2. Description of affected work.
 - 3. The necessity for cutting, alteration or excavation.
 - 4. Effect on work of the CITY or any separate contract, or on structural or weatherproof integrity of work.
 - 5. Description of proposed work:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 - 6. Alternatives to cutting and patching.
 - 7. Cost proposal, when applicable.
 - 8. Written permission of any separate contractor whose work will be affected.
- C. SUBMIT WRITTEN NOTICE TO THE ENGINEER DESIGNATING THE DATE AND THE TIME THE WORK WILL BE UNCOVERED.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of projects, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of products, or performance of the work.
- C. Report unsatisfactory or questionable conditions to the ENGINEER in writing; do not proceed with work until the ENGINEER has provided further instructions.

3.2 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity or affected portion of work.
- B. Provide devices and methods to protect other portions of project from damage.
- C. Provide protection from elements for that portion of the project that may be exposed by cutting and patching work, and maintain excavations free from water.
- D. Material Removal: Cut and remove all materials to the extent shown or as required to complete the Work. Remove materials in a careful manner with no damage to adjacent facilities. Remove materials that are not salvageable from the site.

3.3 PERFORMANCE

- A. Execute cutting and demolition by methods that will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Employ original installer or fabricator to perform cutting and patching for:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces.
- D. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- E. Restore work, which has been cut or removed; install new products to provide completed work in accord with requirements of contract documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

3.4 PAVEMENT RESTORATION

- A. Restore all pavement or roadway surfaces in accordance with Section 02575 – Repair and Restoration of Pavement, Sidewalk, Etc.
- B. Restore, replace or rebuild existing street paving, including underdrains, if any are encountered, where damaged, using the same type of construction as was in the original. Be responsible for restoring all such work, including subgrade, base courses, curb and gutter or other appurtenances where present. The CITY Manager or designee will obtain the permits listed in the Contract Documents. Obtain and pay for at CONTRACTOR's expense any additional local or other governmental permits as may be required for the opening of streets and be satisfied as to any requirements other than those herein set forth which may affect the type, quality and manner of carrying on the restoration of surfaces by reason of jurisdiction of such governmental bodies.
- C. This section does not describe the construction of new road surfaces or the complete resurfacing of existing pavements.
- D. In all cases, the CONTRACTOR will be required to maintain, without additional compensation, all permanent replacement of street paving, done by him under this Contract for a period of 12 months after the acceptance of the Contract, including the removal and replacement of such work wherever surface depressions or underlying cavities result from settlement of trench backfill.
- E. Perform all the final resurfacing or repaving of streets or roads, over the excavations made and be responsible for relaying paving surfaces of roads that have failed or been damaged at any time before the termination of the maintenance period on account of work done by him. Resurface or repave over any tunnel jacking, or boring excavation that settles or breaks the surface, repave.
- F. Where pipeline construction crosses paved streets, driveways or sidewalks, the CONTRACTOR may elect, at no additional cost to the CITY, to place the pipe by the jacking and boring, horizontal direction drilling, or tunneling method in lieu of cutting and patching of the paved surfaces. Such work shall be accomplished in accordance with all applicable sections of the Contract Documents.

END OF SECTION

SECTION 01051 - ALIGNMENT AND GRADES

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. General
- B. Surveys
- C. Datum Plane
- D. Protection of Survey Data

1.2 GENERAL

- A. Construct all work in accordance with the lines and grades shown on the Drawings. Assume full responsibility for keeping all alignment and grade.

1.3 SURVEYS

- A. Reference Points: The CITY will provide reference points for the work as described in the General Conditions. Base horizontal and vertical control points will be designated by the ENGINEER and used as datum for the Work. Perform all additional survey, layout, and measurement work.
 - 1. Keep ENGINEER informed, sufficiently in advance, of the times and places at which work is to be performed so that base horizontal and vertical control points may be established, and any checking deemed necessary by ENGINEER may be done, with minimum inconvenience to the ENGINEER and at no delay to CONTRACTOR. It is the intention not to impede the Work for the establishment of control points and the checking of lines and grades set by the CONTRACTOR. When necessary, however, suspend working operations for such reasonable time as the ENGINEER may require for this purpose. Costs associated with such suspension are deemed to be included in the Contract Price, and no time extension or additional costs will be allowed.
 - 2. Provide an experienced survey crew, including a Professional Land Surveyor, an instrument operator, competent assistants, and any instruments, tools, stakes, and other materials required to complete the survey, layout, and measurement of work performed by the CONTRACTOR.

1.4 DATUM PLANE

- A. All datum indicated or specified refer to the North American Datum 1983/2011 adjustment (NAD83/11) with values expressed in U.S. survey feet, Florida State Plan Coordinate System (FSPCS) East zone 901, and the North American Vertical Datum of 1988 (NAVD 88), respectively, based on National Spatial Reference System Control Stations:

NAPLES RESET: Recovered in good condition. In Naples, at the intersection of U.S. Highway 41 and Goodland Frank Road, 186.5 m (611.9 ft) North of the center of the westbound lanes of the Highway, 18.4 m (60.4 ft) West of the center of the road, 3.7m (12.1 ft) Northeast of a witness post, 0.7 m (2.3 ft) South of the center of an entrance road to the grand central station shopping center, 0.7 m (2.3 ft) above the level of the road, and the monument is flush with the pavement. Elevation 6.29 feet, FSPCS N: 658,769.28' E: 396,684.54'.

and

V 241: Recovered in good condition. In Naples, at 856 3rd Avenue South, 7.8 m (25.6 ft) Northwest of the Northeast corner of the post office at 856 3rd Avenue South, 7.0 m (23.0 ft) South of and level with the centerline of the avenue, 0.4 m (1.3 ft) North-Northeast of a witness post, 0.3 m (1.0 ft) west of a utility pole, and the disk is encased in a 4-inch metal pipe and is flush with the ground surface.

Elevation 6.43 feet, FSPCS N: 658,801.55' E: 395,120.18'.

With the baseline of survey depicted hereon as being N 83°20'15" E

1.5 PROTECTION OF SURVEY DATA

- A. General: Safeguard all points, stakes, grade marks, known property corners, monuments, and benchmarks made or established for the Work. Reestablish them if disturbed and bear the entire expense of checking reestablished marks and rectifying work improperly installed.
- B. Records: Keep neat and legible notes of measurements and calculations made in connection with the layout of the Work. Furnish copies of such data to the ENGINEER for use in checking the CONTRACTOR's layout. Data considered of value to the City Manager or designee will be transmitted to the City Manager or designee by the ENGINEER with other records on completion of the Work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01090 - REFERENCES**PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Reference Abbreviations
- B. Abbreviations
- C. Reference Standards
- D. Definitions

1.2 RELATED SECTIONS

- A. Information provided in this section is used where applicable in individual Specification Sections.

1.3 REFERENCE ABBREVIATIONS

- A. Reference to a technical society, trade association or standards setting organization, may be made in the Specifications by abbreviations in accordance with the following list:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ANSI	American National Standards Institute
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CMAA	Crane Manufacturers Association of America
CRD	U.S. Corps of Engineers Specifications
CRSI	Concrete Reinforcing Steel Institute
DOH	Department of Health
DOT	Department of Transportation
Fed. Spec.	Federal Specifications

OSHA	Occupational Safety and Health Act
PCI	Prestressed Concrete Institute

1.4 ABBREVIATIONS

- A. Abbreviations which may be used in individual Specification Sections are as follows:

alternating current.....	ac
American wire gauge.....	AWG
ampere(s)	amp
ampere-hour(s).....	AH
annual	ann
Ampere Interrupting Capacity.....	AIC
atmosphere(s)	atm
average.....	avg
biochemical oxygen demand.....	BOD
Board Foot.....	FBM
brake horsepower.....	bhp
Brinell Hardness	BH
British thermal unit(s)	Btu
calorie (s).....	cal
carbonaceous biochemical oxygen demand.....	CBOD
Celsius (centigrade)	C
Center to Center.....	C to C
centimeter(s).....	cm
chemical oxygen demand.....	COD
coefficient, valve flow	Cv
condensate return.....	CR
cubic	cu
cubic centimeter(s)	cc
cubic feet per day	cfm
cubic feet per hour.....	cfh
cubic feet per minute	cfm
cubic feet per minute, standard conditions	scfm
cubic feet per second	cfs
cubic foot (feet).....	cu ft
cubic inch(es)	cu in
cubic yard(s).....	cu yd
decibels dB	
decibels (A scale)	dBa
degree(s)	deg
dewpoint temperature.....	dpt
diameter.....	dia

direct current dc
 dissolved oxygen..... DO
 dissolved solidsDS
 dry-bulb temperature.....dbt

 efficiencyeff
 elevation el
 engineer of record EOR
 entering water temperature ewt
 entering air temperature.....eat
 equivalent direct radiationedr

 face area fa
 face to face f to f
 FahrenheitF
 feet per day fpd
 feet per hour fph
 feet per minute fpm
 feet per second fps
 foot (feet) ft
 foot-candle..... fc
 foot-pound ft-lb
 foot-pounds per minute ft-lb/min
 foot-pounds per second ft-lb/sec
 formazin turbidity unit(s).....FTU
 frequency.....freq
 fuel oilFO
 fuel oil supply..... FOS
 fuel oil return..... FOR

gallon(s)gal
 gallons per daygpd
 gallons per day per
 cubic footgpd/cu ft
 gallons per day per
 square foot.....gpd/sq ft
 gallons per hourgph
 gallons per minutegpm
 gallons per secondgps
 gas chromatography and
 mass spectrometry GC-MS
 gauge.....ga
 grain(s)..... gr
 gram(s)g
 grams per cubic centimeter gm/cc
 Heat Transfer
 Coefficient..... U
 Height hgt
 Hertz Hz
 Horsepower hp
 horsepower-hour hp-hr
 hour(s) hr
 humidity, relative..... rh
 hydrogen ion concentration pH

 inch(es) in
 inches per second ips
 inside diameter ID

 Jackson turbidity unit(s)..... JTU

 kelvin..... K
 kiloamperes kA
 kilogram(s) kg
 kilometer(s) km
 kilovar (kilovolt-amperes
 reactive) kvar
 kilovolt(s) kV
 kilovolt-ampere(s) kVA
 kilowatt(s) kW
 kilowatt-hour(s) kWh

 linear foot (feet) lin ft
 liter(s) L

 megavolt-ampere(s) MVA
 meter(s) m
 micrograms per liter µg/L
 miles per hour mph
 milliamperes(s) mA
 milligram(s) mg
 milligrams per liter mg/L
 milliliter(s) mL
 millimeter(s) mm

million gallons..... MG
 million gallons per day.....mgd
 millisecond(s) ms
 millivolt(s) mV
 minute(s) min
 mixed liquor
 suspended solids MLSS

 nephelometric
 turbidity unit..... NTU
 net positive suction headNPSH
 noise criteria nc
 noise reduction coefficient NRC
 number no

 ounce(s) oz
 outside air.....oa
 outside diameter..... OD

 parts per billion ppb
 parts per million ppm
 percentpct
 phase (electrical)..... ph
 pound(s) lb
 pounds per cubic foot..... pcf
 pounds per cubic foot
 per hourpcf/hr
 pounds per day lbs/day
 pounds per day per
 cubic foot..... lbs/day/cu ft
 pounds per day per
 square foot lbs/day/sq ft
 pounds per square foot psf
 pounds per square foot
 per hourpsf/hr
 pounds per square inch psi
 pounds per square inch
 absolute..... psia
 pounds per square
 inch gauge..... psig
 power factor..... PF
 pressure drop or
 difference..... dp
 pressure, dynamic
 (velocity) vp
 pressure, vapor vap pr

 quart(s) qt

 Rankine R
 relative humidityrh
 resistanceres
 returnairra
 revolution(s).....rev

revolutions per minute rpm
 revolutions per second rps
 Right of WayROW
 root mean squaredrms

 safety factorsf
 second(s) sec
 shading coefficient.....SC
 sludge density index.....SDI
 Sound Transmission
 Coefficient..... STC
 specific gravitysp gr
 specific volume Sp Vol
 sp ht at constant pressure Cp
 squaresq
 square centimeter(s) sq cm
 square foot (feet) sq ft
 square inch (es)..... sq in
 square meter(s)sq m
 square yard(s) sq yd
 standard.....std
 static pressurest pr
 supply airsa
 suspended solids..... SS

 temperaturetemp
 temperature differenceTD
 temperature entering TE
 temperature leaving..... TL
 thousand Btu per hour.....Mbh
 thousand circular mils..... kcmil
 thousand cubic feetMcf

threshold limit value TLV
 tons of refrigeration tons
 torque TRQ
 total dissolved solids TDS
 total dynamic head TDH
 total kjeldahl nitrogen TKN
 total oxygen demand TOD
 total pressure TP
 total solids TS
 total suspended solids TSS
 total volatile solids TVS

 vacuum vac
 viscosity visc
 volatile organic chemical VOC
 volatile solids VS
 volatile suspended solids VSS

volt(s) V
 volts-ampere(s) VA
 volume vol

 watt(s) W
 watthour(s) Wh
 watt-hour demand WHD
 watt-hour demand meter WHDM
 week(s)wk
 weight wt
 wet-bulb WB
 wet bulb temperature WBT

 yard(s) yd
 year(s) yr

1.5 REFERENCE PUBLICATIONS

The following publications are incorporated into this Manual and are made a part of this Manual as is set out verbatim in this Manual. Violations of any provision of every such publication, latest revision, shall be a violation of City Ordinance.

- A. Water Environment Federation, Manual of Practice No. 8, Wastewater Treatment Plant Design, W.E.F., 601 Wythe Street, Alexandria, VA, 22314-1994.
- B. Water Environment Federation, Manual of Practice No. 9, Design and Construction of Sanitary and Storm Sewers, W.E.F., 601 Wythe Street, Alexandria, VA, 22314-1994.
- C. Great Lakes/Upper Mississippi River Board of State Sanitary Engineers. Recommended Standards for Sewage Works, Health Education Service, Inc., P.O. Box 7283, Albany, New York, 12224.
- D. Great Lakes/Upper Mississippi River Board of State Sanitary Engineers. Recommended Standards for Water Works, Health Education Service, Inc., P.O. Box 7283, Albany, New York, 12224.
- E. Florida Department of Environmental Protection for Water, Wastewater, and Reclaimed Water Systems, latest revisions of F.A.C. Chapters 62-550, 62-555, 62-600, 62-604, 62-610, 64E-6, and 64E-8, 3900 Commonwealth Boulevard M.S. 49, Tallahassee, Florida, 32399.
- F. American Water Works Association, Inc., Water Treatment Plant Design, 6666 West Quincy Avenue, Denver, Colorado, 80235.
- G. American Water Works Association, Inc., Water Treatment Plant Design, AWWA Standards and Applicable Manuals, 6666 West Quincy Avenue, Denver, Colorado, 80235.
- H. Ductile Iron Pipe Research Association, Handbook, Ductile Iron Pipe/Cast Iron Pipe, Ductile Iron Pipe Research Association, 245 Riverchase Parkway East, Birmingham, Alabama, 35244.
- I. Uni-Bell Plastic Pipe Association, Handbook of PVC Pipe, Uni-Bell Plastic Pipe Association, 2655 Villa Creek Drive, Suite 164, Dallas, Texas, 75234.

- J. American National Standards Institute, latest revisions of applicable standards, 1819 L Street NW, Suite 600, Washington, D.C., 20036.
- K. American Society for Testing and Materials, latest revisions of applicable standards, ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, Pennsylvania, 19428-2959.
- L. National Water Research Institute, Treatment Technologies for Removal of MTBE. NWRI, 10500 Ellis Ave., P.O. Box 20865, Fountain Valley, CA, 92728.
- M. National Water Research Institute, Valuing Ground Water: Economic Concepts/Approaches. NWRI, 10500 Ellis Ave., P.O. Box 20865, Fountain Valley, CA, 92728.7.3.14.
- N. U.S. Environmental Protection Agency, Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability, Supplement to the Federal Guidelines for Design, Operation, and Maintenance of Wastewater Treatment Facilities, Technical Bulletin EPA-430-99-74-001, U.S. EPA, Office of Water Program Operations.
- O. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Maps & Publications Sales, Mail Station 12, 605 Suwannee Street, Tallahassee, Florida 32399-0450.
- P. Plastics Pipe Institute, Handbook of Polyethylene Pipe, 1825 Connecticut Ave., NW, Suite 680, Washington, DC 20009.
- Q. National Fire Protection Association, 1995 Edition of NFPA 24 – Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 1 Batterymarch Park, Quincy, MA 02169.
- R. City of Naples Utilities Standards and Specifications Manual.
- S. National Electrical Code, latest revisions of applicable requirements.
- T. Metcalf and Eddy, Wastewater Engineering Treatment and Reuse, 4th Edition, McGraw-Hill, 2002.
- U. Water Environment Federation, Manual of Practice No. 11, Operation of Municipal Wastewater Treatment Plants, 601 Wythe Street, Alexandria, VA 22314-1994.
- V. American Petroleum Institute, 1801 K Street NW, Washington, DC 20006. W. American Welding Society, 2501 NW 7th St, Miami, FL 33125
- X. Factory Mutual Research, 1151 Boston-Providence Turnpike, Norwood, MA 02062
- Y. National Association of Corrosion Engineers, P.O. Box 218340, Houston, TX 77218.
- Z. National Electrical Manufacturer's Association, 155 East 44th St., NY, NY 10017.
- AA. Occupational Safety and Health Act, U.S. Dept. of Labor, Occupational Safety and Health Administration, 299E. Broward Blvd. – Rm 302, Ft. Lauderdale, FL 33301.
- BB. Society of Automotive Engineers, 2 Pennsylvania Plaza, NY, NY 10001.
- CC. Steel Structures Painting Council, 4400 Fifth Ave., Pittsburgh, PA 15213.

DD. Standard Specification for Public Works, Construction Building News, Inc., 3055 Overland Ave., Los Angeles, CA 90034.

EE. Uniform Building Code, published by ICBO.

FF. Underwriters Laboratories, Inc., 207 East Ohio Street, Chicago, IL 60611.

1.6 REFERENCE STANDARDS

- A. Latest Edition: Construe references to furnishing materials or testing, which conform to the standards of a particular technical society, organization, or body, to mean the latest standard, code, or specification of that body, adopted and published as of the date of bidding this Contract. Standards referred to herein are made a part of these Specifications to the extent that is indicated or intended.
- B. Precedence: The duties and responsibilities of the CITY, CONTRACTOR or ENGINEER, or any of their consultants, agents or employees are set forth in the Contract Documents and are not changed or altered by any provision of any referenced standard specifications, manuals or code, whether such standard manual or code is or is not specifically incorporated by reference in the Contract Documents. Any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority, to undertake responsibility contrary to the powers of the ENGINEER as set forth in the Contract Documents cannot be assigned to the ENGINEER or any of the ENGINEER's consultants, agents or employees.

1.7 DEFINITIONS

- A. In these Contract Documents the words furnish, install, and provide are defined as follows:
 - 1. Furnish (Materials): to supply and deliver to the project ready for installation and in operable condition.
 - 2. Install (services or labor): to place in final position, complete, anchored, connected in operable condition.
 - 3. Provide: to furnish and install complete. Includes the supply of specified services. When neither furnish, install, or provide is stated, provided is implied.
 - 4. CITY or City: City Council, Naples, Florida, or authorized staff or representatives.
 - 5. ENGINEER: The terms Design Professional, Design Engineer, Engineer, and Engineer of Record are interchangeably used throughout the Contract Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 013233 - PRECONSTRUCTION DIGITAL AUDIO-VIDEO DOCUMENTATION

PART 1 GENERAL

1.01 DESCRIPTION

This section includes materials and performance for preconstruction digital audio-video documentation and generally defines Contractor's responsibilities, unless otherwise stated, for the following:

- A. Equipment.
- B. Submittals.
- C. Technique.
- D. Quality assurance.

1.02 VIDEO AND AUDIO QUALITY

- A. Documentation shall be performed by a responsible commercial firm skilled and regularly engaged in the preparation of preconstruction color audio-video DVD documentation acceptable to the Owner.
- B. Completed documentation shall reproduce bright, sharp pictures with accurate colors and shall be free from distortion or any other significant picture imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume, clarity, and be free of distortion.
- C. The Owner's Representative will accompany the commercial firm in performing the audio-video documentation. One person will accompany the commercial firm to observe the documentation effort. The accompanying personnel may direct the commercial firm to record certain features observed. Notify the Owner's Representative seven days in advance so that the accompanying personnel can be scheduled.
- D. Construction shall not proceed until the Owner and Owner's Representative have reviewed the documentation and notified the Contractor of its acceptability. It is anticipated that such review will be completed within 10 days after submittal.

1.03 MEASUREMENT AND PAYMENT

No separate payment item is provided for this work. The cost of performing this work shall be incorporated into the bid item for mobilization.

PART 2 MATERIALS

2.01 RECORDING EQUIPMENT

Utilize a high-resolution digital video camera with extended still frame capability.

2.02 RECORDING MEDIA

Utilize new, color DVD having:

- A. High resolution.
- B. Extended still frame capability.
- C. American TV Standard DVD playback capability.

PART 3 EXECUTION

3.01 COVERAGE

- A. Record coverage of surface features located in the construction's zone of influence including, but not limited to:
 - 1. Roadways, driveways, sidewalks, bicycle paths, shoreline vegetation and pond conditions and railroads.
 - 2. Buildings, walls, retaining walls, fences and seawalls.
 - 3. Ponds, culvert ends, drainage structures, and above ground utility features.
 - 4. Landscaping, trees, shrubbery, fences, and irrigation heads.
- B. Record the individual features of each item with particular attention being focused upon the existence of any existing faults, fractures, or defects.
- C. Control pan rate, rate of travel, camera height, and zoom rate to maintain a steady clear view.
- D. Limit recorded coverage to one side of any street at any one time.
- E. Create a single, continuous, unedited recording which begins and ends within each portion of a particular construction area. The recording shall proceed in the direction of ascending baseline stationing.

3.02 AUDIO CONTENT

- A. Simultaneously record audio content during videotaping.
- B. Audio recording shall assist in viewer orientation and in any needed identification, clarification, or description of features being recorded.
- C. Audio recording shall only consist of camera operator commentary.

3.03 INDEXING

- A. Permanently label each DVD with a sequential number and the project name.
- B. Index each DVD with a digital record of the time and date of the recording which is continuously displayed as the DVD is played.
- C. Prepare a written log which describes the contents of each DVD including:
 - 1. Names of streets or easements.
 - 2. Coverage begin/end station and location.

3. Recording date.

3.04 CONDITIONS

- A. Record coverage during dry, clear weather and during daylight hours only. B.
Record coverage when the area is free of debris or obstructions.
- C. Record coverage no more than 21 days prior to mobilization at the site.

END OF SECTION

SECTION 01400 - QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. Submittals
- B. Inspection Services
- C. Inspection of Materials
- D. Quality Control
- E. Costs of Inspection
- F. Acceptance Tests
- G. Failure to Comply with Contract

1.2 SUBMITTALS

- A. General: Provide all submittals, including the following, as specified in Division 1 and the individual material sections. Submit manufacturer's Certificates of Inspection, descriptive literature, catalog data, illustrations, principle dimensions, materials of construction, specifications, installation instructions, and related information. See Section 01730 for operation manual submittal information.
- B. Certificate Submittals: Furnish the ENGINEER authoritative evidence in the form of Certificates of Manufacture that the materials and equipment to be used in the Work have been manufactured and tested in conformity with the Contract Documents and this Manual and Specifications. Include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

1.3 TESTS AND INSPECTIONS

- A. City's Access: At all times during the progress of the Work, and until the date of final completion, afford the City Manager or designee and ENGINEER every reasonable, safe, and proper facility for inspecting the Work at the site. The observation and inspection of any work will not relieve the CONTRACTOR of any obligations to perform proper and satisfactory work as specified. Replace work rejected due to faulty design, inferior, or defective materials, poor workmanship, improper installation, excessive wear, or nonconformity with the requirements of the Contract Documents, with satisfactory work at no additional cost to the City. Replace as directed, finished or unfinished work found not to be in strict accordance with the Contract, even though such work may have been previously approved and payment made therefore.

The City of Naples, its respective representatives, agents and employees, and governmental agencies with jurisdiction over the Project shall have access at all times to Work, whether the Work is being performed on or off the Project site, for their observation, inspection and testing. Contractor shall provide proper, safe conditions for such access. Contractor shall provide Engineer with timely notice of readiness of the Work for all required inspections, tests or approvals.

If the Contract Documents or any codes, laws, ordinances, rules or regulations of any public authority having jurisdiction over the Project requires any portion of the Work to be specifically inspected, tested or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish Engineer the required certificates of inspection, testing or approval. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to the Engineer and The City of Naples.

If any Work that is to be inspected, tested or approved is covered without written concurrence from the Engineer, such work must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness to respond to such notice. If any Work is covered contrary to written directions from Engineer, such Work must, if requested by Engineer, be uncovered for Engineer's observation and be replaced at Contractor's sole expense.

The City shall charge to Contractor and may deduct from any payments due Contractor all engineering and inspection expenses incurred by the City in connection with any overtime work. Such overtime work consisting of any work during the construction period beyond the regular eight (8) hour day and for any work performed on Saturday, Sunday or holidays.

Neither observations nor other actions by the Engineer nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

- B. Rejection: The City's Manager or designee has the right to reject materials and workmanship which are defective or require correction. Promptly remove rejected work and materials from the site.
- C. Inferior Work Discoveries: Failure or neglect on the part of the City Manager or designee to condemn or reject bad or inferior work or materials does not imply an acceptance of such work or materials. Neither is it to be construed as barring the City Manager or designee at any subsequent time from recovering damages or a sum of money needed to build anew all portions of the Work in which inferior work or improper materials were used.

Work not conforming to the requirements of the Contract Documents shall be deemed defective Work. If required by Engineer, Contractor shall as directed, either correct all defective Work, whether or not fabricated, installed or completed, or if the defective Work has been rejected by Engineer, remove it from the site and replace it with undefective Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby, and shall hold the City harmless for same.

If any portion of the Work is defective, or Contractor fails to supply sufficient skilled workers with suitable materials or equipment, or fails to finish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Engineer may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Engineer to stop the Work shall not give rise to any duty on the part of the City or Engineer to exercise this right for the benefit of Contractor or any other party.

Should the City determine, at its sole opinion, it is in the City's best interest to accept defective Work, the City may do so. Contractor shall bear all direct, indirect and consequential costs attributable to the City's evaluation of and determination to accept defective Work. If such determination is rendered prior to final payment, a Change Order shall be executed evidencing such acceptance of such defective Work, incorporating the necessary revisions in the Contract Documents and reflecting an appropriate decrease in the Contract Amount. If the City accepts such defective Work after final payment, Contractor shall promptly pay the City an appropriate amount to adequately compensate the City for its acceptance of the defective Work.

If Contractor fails, within a reasonable time after the written notice from the City or Engineer, to correct defective Work or to remove and replace rejected defective Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any of the provisions of the Contract Documents, the City may,

after seven (7) days written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, the City may exclude Contractor from any or all of the Project site, take possession of all or any part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Project site and incorporate in the Work all materials and equipment stored at the Project site or for which the City has paid Contractor but which are stored elsewhere. Contractor shall allow the City and its respective representatives, agents, and employees such access to the Project site as may be necessary to enable the City to exercise the rights and remedies under the paragraph. All direct, indirect and consequential costs of the City in exercising such rights and remedies shall be charged against Contractor, and a Change Order shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Amount. Such direct, indirect and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys, and other professionals, all court costs and all costs of repair and replacement or work of others destroyed or damaged by Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of The City's rights and remedies hereunder.

- D. **Removal for Examination:** Should it be considered necessary or advisable by the City Manager or designee, at any time before final acceptance of the Work, to make examinations of portions of the Work already completed, by removing or tearing out such portions, promptly furnish all necessary facilities, labor, and material, to make such an examination. If such Work is found to be defective in any respect, defray all expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the cost of examination and restoration of the Work will be considered a change in the Work to be paid for in accordance with applicable provisions of the Contract.

If the City or Engineer consider it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at the City's or Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or tests as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals), and the City shall be entitled to an appropriate decrease in the Contract Amount. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Amount and/or an extension to the Contract Time, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

- E. **Operation Responsibility:** Assume full responsibility for the proper operation of equipment during tests and instruction periods. Make no claim, other than provided in the Contract Documents, for damage that may occur to equipment prior to the time when the City Manager or designee accepts the Work.
- F. **Rejection Prior to Warranty Expiration:** If at any time prior to the expiration of any applicable warranties or guarantees, defective equipment is rejected by the City Manager or designee, repay to the CITY all sums of money received for the rejected equipment on progress certificates or otherwise on account of the Contract lump sum prices, and upon the receipt of the sum of money, City Manager or designee will execute and deliver a bill of sale of all its rights, title, and interest in and to the rejected equipment. Do not remove the equipment from the premises of the CITY until the City Manager or designee obtains from other sources, equipment to take the place of that rejected. The City Manager or designee hereby agrees to obtain other equipment within a reasonable time and the CONTRACTOR agrees that the CITY may use the equipment

furnished by the CONTRACTOR without rental or other charge until the other new equipment is obtained.

1.4 INSPECTION OF MATERIALS

- A. Premanufacture Notification: Give notice in writing to the ENGINEER sufficiently in advance of the commencement of manufacture or preparation of materials specially manufactured or prepared for use in or as part of the permanent construction. When required, notice to include a request for inspection, the date of commencement, and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, ENGINEER will arrange to have a representative present at such times during the manufacture or testing as may be necessary to inspect the materials or will notify CONTRACTOR that the inspection will be made at a point other than the point of manufacture or testing, or that the inspection will be waived. Comply with these provisions before shipping any materials. Such inspection will not constitute a release from the responsibility for furnishing materials meeting the requirements of the Contract Documents.
- B. Testing Standards: Conduct tests of electrical and mechanical equipment and appliances in accordance with recognized, applicable test codes.

1.5 QUALITY CONTROL

A. Testing

1. Field and Laboratory

- a. Provide personnel to assist the ENGINEER in performing the following periodic observation and associated services.
 - (1) Soils: Observe and test excavations, placement and compaction of soils. Determine suitability of excavated material. Observe subgrade soils and foundations.
 - (2) Concrete: Observe forms and reinforcement; observe concrete placement; witness air entrainment tests, facilitate concrete cylinder preparation and assist with other tests performed by ENGINEER.
 - (3) Masonry: Sample and test mortar, bricks, blocks and grout; inspect brick and block samples and sample panels; inspect placement of reinforcement and grouting.
 - (4) Structural Steel: Verify that all welders are certified; visually inspect all structural steel welds; mechanically test high-tensile bolted connections.
- b. When specified in Divisions 2 through 16 of the Contract Documents, provide an independent laboratory testing facility to perform required testing. Qualify the laboratory as having performed previous satisfactory work. Prior to use, submit to the ENGINEER for approval.
- c. Cooperate with the ENGINEER and laboratory testing representatives. Provide at least 24 hours' notice prior to when specified testing is required. Provide labor and materials, and necessary facilities at the site as required by the ENGINEER and the testing laboratory.
- d. When an independent electrical testing agency is specified in the Contract Documents, provide a member of the National Electrical Testing Association to perform inspections and tests.

2. Equipment: Coordinate and demonstrate test procedures as specified in the Contract Documents and as required during the formal tests.
3. Pipeline and Other Testing: Conform to test procedures and requirements specified in the appropriate Specification Section.
4. Testing of Gravity Sanitary Sewer Lines
 - a. Watertight Construction: It is imperative that all sewers and force mains, manholes, and service connections be built watertight, and that the CONTRACTOR adhere rigidly to the specifications for material and workmanship. Since all the water and sewage in the lines will be treated at the treatment plant, special care and attention must be given to securing watertight construction. After completion, the sewers or sections thereof will be tested and gauged. If infiltration or exfiltration is above the limits specified, the sewer construction work will be rejected.
 - b. Cleaning: Exercise care during construction of the manhole to see that materials do not enter the sewer line. Keep the invert and shelf of the manhole clean of all mortar, broken brick, sand, or any other materials falling into the manhole. Immediately remove such material. Maintain this condition until final acceptance of the work. Prior to testing of gravity sanitary sewer lines, clean the lines using appropriate tools.
 - c. Gravity Sewers - Visual Inspections: On completion of each block or section of sewer, or at such other times as the City Manager or designee may direct, the block or section of sewer is to be cleaned, tested and inspected. Each section of the sewer is to show, on examination from either end, a full circle of light between manholes. Each manhole, or other appurtenance to the system, shall be of the specified size and form, be watertight, neatly and substantially constructed, with the rim set permanently to design position and grade. All repairs shown necessary by the inspection are to be made; broken or cracked pipe replaced, all deposits removed, and the sewers left true to line and grade, entirely clean and ready for use.
 - d. Infiltration Limits: Provide the equipment necessary to check the lines for infiltration or exfiltration as directed by the City Manager or designee, before they are put in service. Infiltration more than fifty (50) gallons per day inch-mile of sewer will result in having the CONTRACTOR go over the lines, ascertain where the leakage exists, and repair the lines to the extent necessary to bring the infiltration down within acceptable limits. Observable inflow is not permitted.
 - e. Exfiltration Limits: The length of sewer subject to an exfiltration test shall be the distance between two (2) adjacent manholes. Close the inlets of the upstream and downstream manholes with watertight plugs and the test section filled with water until the elevation of the water in the upstream manhole is two (2) feet above the crown of the pipe in the line being tested, or two (2) feet above the existing groundwater in the trench, whichever is higher. A standpipe may be used instead of the upstream manhole for providing the pressure head when approved by the City Manager or designee. Measure exfiltration by determining the amount of water required to maintain the initial water elevation for one (1) hour period from the start of the test. The maximum allowable leakage, including manholes, shall be 50 gallon per inch for diameter per mile of pipe per day.
 - f. Air Testing: Air testing shall be required if, in the opinion of the City Manager or designee, conditions are such that infiltration measurements may be inconclusive. Conduct the test in the presence of the City Manager or designee and conform to the following requirements:
 - (1) Test pressure shall be 3.5 psi increased by the groundwater pressure above the top of the sewer.

(2) Pressure loss from shall not exceed 0.5 psi during the required testing time.

(3) Testing time in minutes shall be calculated as $0.625 \times \text{nominal pipe size (inches)}$.

B. Reports

1. Certified Test Reports: Where transcripts or certified test reports are required by the Contract Documents, meet the following requirements:

a. Before delivery of materials or equipment submit and obtain approval of the ENGINEER for all required transcripts, certified test reports, certified copies of the reports of all tests required in referenced specifications or specified in the Contract Documents. Perform all testing in an approved independent laboratory or the manufacturer's laboratory. Submit for approval reports of shop equipment tests within thirty days of testing. Transcripts or test reports are to be accompanied by a notarized certificate in the form of a letter from the manufacturer or supplier certifying that tested material or equipment meets the specified requirements and the same type, quality, manufacture and make as specified. The certificate shall be signed by an officer of the manufacturer or the manufacturer's plant manager.

2. Certificate of Compliance: At the option of the ENGINEER, submit for approval a notarized Certificate of Compliance. The Certificates may be in the form of a letter stating the following:

- a. Manufacturer has performed all required tests
- b. Materials to be supplied meet all test requirements
- c. Tests were performed not more than one year prior to submittal of the certificate
- d. Materials and equipment subjected to the tests are of the same quality, manufacture and make as those specified
- e. Identification of the materials

1.6 COSTS OF INSPECTION

A. CONTRACTOR's Obligation: Include in the Contract Price, the cost of all shop and field tests of equipment and other tests specifically called for in the Contract Documents.

B. Reimbursements to the CITY:

- 1. Materials and equipment submitted by the CONTRACTOR as the equivalent to those specifically named in the Contract may be tested by the City Manager or designee for compliance. Reimburse the CITY for expenditures incurred in making such tests on materials and equipment that are rejected for noncompliance.
- 2. Reimburse the CITY for all costs associated with Witness Tests that exceed 5 Calendar Days per kind of equipment.

1.7 ACCEPTANCE TESTS

A. Preliminary Field Tests: As soon as conditions permit, furnish all labor and materials and services to perform preliminary field tests of all equipment provided under this Contract. If the preliminary field tests disclose that any equipment furnished and installed under this Contract does not meet the requirements of the Contract Documents, make all changes, adjustments and replacements required prior to the acceptance tests.

B. Final Field Tests: Upon completion of the Work and prior to final payment, subject all equipment, piping and appliances installed under this Contract to specified acceptance tests to demonstrate compliance with the Contract Documents.

1. Furnish all labor, fuel, energy, water and other materials, equipment, instruments and services necessary for all acceptance tests.
 2. Conduct field tests in the presence of the ENGINEER. Perform the field tests to demonstrate that under all conditions of operation each equipment item:
 - a. Has not been damaged by transportation or installation
 - b. Has been properly installed
 - c. Has been properly lubricated
 - d. Has no electrical or mechanical defects
 - e. Is in proper alignment
 - f. Has been properly connected
 - g. Is free of overheating of any parts
 - h. Is free of all objectionable vibration
 - i. Is free of overloading of any parts
 - j. Operates as intended
 3. Operate work or portions of work for a minimum of 100 hours or 14 days continuous service, whichever comes first. For those items of equipment that would normally operate on wastewater or sludge, plant effluent may be used if available when authorized by ENGINEER. If water cannot properly exercise equipment, conduct 100-hour test after plant startup. Conduct test on those systems that require load produced by weather (heating or cooling) exercise only when weather will produce proper load.
- C. Failure of Tests: If the acceptance tests reveal defects in material or equipment, or if the material or equipment in any way fails to comply with the requirements of the Contract Documents, then promptly correct such deficiencies. Failure or refusal to correct the deficiencies, or if the improved materials or equipment, when tested again, fail to meet the guarantees or specified requirements, the City Manager or designee, notwithstanding its partial payment for work and materials or equipment, may reject said materials or equipment and may order the CONTRACTOR to remove the defective work from the site at no addition to the Contract Price, and replace it with material or equipment which meets the Contract Documents.

1.8 FAILURE TO COMPLY WITH CONTRACT

- A. Unacceptable Materials: If it is ascertained by testing or inspection that the material or equipment does not comply with the Contract, do not deliver said material or equipment, or if delivered remove it promptly from the site or from the Work and replace it with acceptable material without additional cost to the CITY. Fulfill all obligations under the terms and conditions of the Contract even though the City Manager or designee fail to ascertain noncompliance or notify the CONTRACTOR of noncompliance.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General Requirements
- B. Related Sections
- C. Temporary Utilities
- D. Temporary Construction
- E. Barricades and Enclosures
- F. Fences
- G. Security
- H. Temporary Controls
- I. Traffic Regulation
- J. Field Offices and Sheds

1.2 RELATED SECTIONS

- A. Section 01010 - Summary of Work
- B. Section 01045 – Connection to Existing Systems
- C. Section 01570 – Traffic Regulations and Public Safety
- D. Section 02575 - Pavement Repair and Restoration

1.3 GENERAL REQUIREMENTS

- A. Plant and Facilities: Furnish, install, maintain and remove all false work, scaffolding, ladders, hoist ways, braces, pumping plants, shields, trestles, roadways, sheeting, centering forms, barricades, drains, flumes, and the like, any of which may be needed in the construction of any part of the Work and which are not herein described or specified in detail. Accept responsibility for the safety and efficiency of such works and for any damage that may result from their failure or from their improper construction, maintenance or operation.
- B. First Aid: Maintain a readily accessible, completely equipped first aid kit at each location where work is in progress.
- C. Safety Responsibility: Accept sole responsibility for safety and security at the site. Indemnify and hold harmless the CITY and the City's Manager or designee, including the ENGINEER, for any safety violation, or noncompliance with governing bodies and their regulations, and for accidents, deaths, injuries, or damage at the site during occupancy or partial occupancy of the site by CONTRACTOR's forces while performing any part of the Work.
- D. Hazard Communication: Furnish two copies of the CONTRACTOR's Hazard Communication Program required under OSHA regulations before beginning on site activities. Furnish two copies of amendments to Hazard Communications Program as they are prepared.

1.4 TEMPORARY UTILITIES

- A. Water: Provide all necessary and required water without additional cost, unless otherwise specified. If necessary, provide and lay water lines to the place of use; secure all necessary permits; pay for all taps to water mains and hydrants and for all water used at the established rates.
- B. Light and Power: Provide without additional cost to the CITY temporary lighting and power facilities required for the proper construction and inspection of the Work. If, in the ENGINEER's opinion, these facilities are inadequate, do NOT proceed with any portion of the Work affected thereby. Maintain temporary lighting and power until the Work is accepted.
- C. Heat: Provide temporary heat, whenever required, for work being performed during cold weather to prevent freezing of concrete, water pipes, and other damage to the Work or existing facilities.
- D. Sanitary Facilities: Provide sufficient sanitary facilities for construction personnel. Prohibit and prevent nuisances on the site of the Work or on adjoining property. Discharge any employee who violates this rule. Abide by all environmental regulations or laws applicable to the Work.

1.5 TEMPORARY CONSTRUCTION

- A. Bridges: Design and place suitable temporary bridges where necessary for the maintenance of vehicular and pedestrian traffic. Assume responsibility for the sufficiency and safety of all such temporary work or bridges and for any damage that may result from their failure or their improper construction, maintenance, or operation. Indemnify and save harmless the CITY and the CITY's representatives from all claims, suits or actions, and damages or costs of every description arising by reason of failure to comply with the above provisions.

1.6 BARRICADES, LIGHTS AND ENCLOSURES

- A. Protection of Workmen and Public: Effect and maintain at all times during the prosecution of the Work, barriers, lights and enclosures necessary for the protection of workmen and the public. Perform all work within the City right-of-way in strict accordance with the CITY Maintenance of Traffic Policy and other applicable statutory requirements.
- B. Provide suitable barricades, lights, signs and watchmen at excavation sites and all other places where the Work causes obstructions to normal traffic or constitutes in any way a hazard to the public.

1.7 FENCES

- A. Existing Fences: Obtain written permission from property owner(s) prior to relocating or dismantling fences that interfere with construction operations. Reach agreements with the fence owner as to the period the fence may be left relocated or dismantled. Install adequate gates where fencing must be maintained. Keep gates closed and always locked when not in use.
- B. Restoration: Restore all fences to their original or better condition and to their original location on completion of the Work.

1.8 SECURITY

A. Preservation of Property:

1. Preserve from damage, all property along the line of the Work, in the vicinity of or in any way affected by the Work, the removal or destruction of which is not called for by the Drawings. Preserve from damage, public utilities, trees, lawn areas, building monuments, fences, pipe and underground structures, and public streets. Note: Normal wear and tear of streets resulting from legitimate use by the CONTRACTOR are not considered as damage. Whenever damages occur to such property, immediately restore to its original condition. Costs for such repairs are incidental to the Contract.
2. In case of failure on the part of the CONTRACTOR to restore property or make good on damage or injury, the City Manager or designee may, upon 24 hours written notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any moneys due, or which may become due the CONTRACTOR under this Contract. If removal, repair or replacement of public or private property is made necessary by alteration of grade or alignment authorized by the City Manager or designee and not contemplated by the Contract Documents, the CONTRACTOR will be compensated, in accordance with the General Conditions, provided that such property has not been damaged through fault of the CONTRACTOR or the CONTRACTOR's employees.

B. Public Utility Installations and Structures:

1. Public utility installations and structures include all poles, tracks, pipes, wires, conduits, vaults, valves, hydrants, manholes, and other appurtenances and facilities, whether owned or controlled by public bodies or privately owned individuals, firms or corporations, used to serve the public with transportation, gas, electricity, telephone, storm and sanitary sewers, water, or other public or private utility services. Facilities appurtenant to public or private property that may be affected by the Work are deemed included hereunder.
2. The Contract Documents contain data relative to existing public utility installations and structures above and below the ground surface. Existing public utility installations and structures are indicated on the Drawings only to the extent such information was made available to, or found by, the ENGINEER in preparing the Drawings. These data are not guaranteed for completeness or accuracy, and the CONTRACTOR is responsible for making necessary investigations to become fully informed as to the character, condition, and extent of all public utility installations and structures that may be encountered and that may affect the construction operations.
3. Before starting construction, identify and mark all existing valves and always maintain access to the valves during construction.
4. Contact utility locating service sufficiently in advance of the start of construction to avoid damage to the utilities and delays to the completion date. See Section 01045, 1.3.F for additional information.
5. If existing utilities are damaged during the Work, immediately notify the owner of the affected utility. In coordination with or as directed by the owner, remove, replace, relocate, repair, rebuild, and secure any public utility installations and structures damaged as a direct or indirect result of the Work under this Contract. Costs for such work are incidental to the Contract. Be responsible and liable for any consequential damages done to or suffered by any public utility installations or structures. Assume and accept responsibility for any injury, damage, or loss that may result from or be consequent to interference with, or interruption or discontinuance of, any public utility service. See Section 01045, 1.3.F for additional information.

6. At all times in the performance of Work, employ proven methods and exercise reasonable care and skill to avoid unnecessary delay, injury, damage, or destruction to public utility installations and structures. Avoid unnecessary interference with, or interruption of, public utility services. Cooperate fully with the owners thereof to that end.
 7. Provide notice to the City Manager or designee of any proposed connections to existing utilities, interruptions of service or shutdowns in accordance with Section 01045. Give written notice to the owners of all public utility installations and structures affected by proposed construction operations sufficiently in advance of breaking ground in any area or on any unit of the Work, to obtain their permission before disrupting the lines and to allow them to take measures necessary to protect their interests. Advise the Stormwater, Streets and Traffic Department and Police and Emergency Services Department of any excavation in public streets or the temporary shut-off of any water main. Provide at least 24 hours' notice to all affected property owners whenever service connections are taken out of service.
- C. Work on Private Property: Work on this project will require operations on private property, rights of way or easements. The City Manager or designee has secured the appropriate easements or rights of entry from the affected property owners. Comply with all easement or rights of entry provisions. Conduct operations along rights-of-way and easements through private property to avoid damage to the property and to minimize interference with its ordinary use. Upon completion of the Work through such property, restore the surface and all fences or other structures disturbed by the construction as nearly as possible to the preconstruction conditions. Do not remove any material from private property without the consent of the property owner or responsible party in charge of such property. Hold the CITY harmless from any claim or damage arising out of or in connection with the performance of work across and through private property.
- D. Miscellaneous Structures: Assume and accept responsibility for all injuries or damage to culverts, building foundations and walls, retaining walls, or other structures of any kind met with during the prosecution of the Work. Assume and accept liability for damages to public or private property resulting therefrom. Adequately protect against freezing all pipes carrying liquid.
- E. Protection of Trees and Lawn Areas:
1. Protect with boxes, trees and shrubs, except those ordered to be removed. Do not place excavated material to cause injury to such trees or shrubs. Replace trees or shrubs destroyed by accident or negligence of the CONTRACTOR or CONTRACTOR's employees with new stock of similar size and age, at the proper season, at no additional cost to the CITY. The Contractor shall provide preconstruction audio-video recording of project in accordance with Section 013233.
 2. Leave lawn areas in as good condition as before the start of the Work. Restore areas where sod has been removed by seeding or sodding.
- 1.9 TEMPORARY CONTROLS
- A. During Construction:
1. Keep the site of the Work and adjacent premises free from construction materials, debris, and rubbish. Remove this material from any portion of the site if such material, debris, or rubbish constitutes a nuisance or is objectionable.
 2. Remove from the site all surplus materials and temporary structures when they are no longer needed.

3. Neatly stack construction materials such as concrete forms and scaffolding when not in use. Store pipe to be incorporated into the Work in accordance with AWWA standards. Promptly remove splattered concrete, asphalt, oil, paint, corrosive liquids, and cleaning solutions from surfaces to prevent marring or other damage.
 4. Properly store volatile wastes in covered metal containers and remove from the site daily.
 5. Do not bury or burn on the site or dispose of into storm drains, sanitary sewers, streams, or waterways, any waste material. Remove all wastes from the site and dispose of in a manner complying with applicable ordinances and laws.
- B. Smoke Prevention:
1. Strictly observe all air pollution control regulations.
 2. Open fires will be allowed only if permitted under current ordinances.
- C. Noises:
1. In accordance with the CITY's or COUNTY's Noise Ordinance, maintain acceptable noise levels in the vicinity of the Work. Limit noise production to acceptable levels by using special mufflers, barriers, enclosures, equipment positioning, and other approved methods.
 2. Supply written notification to the City Manager or designee sufficiently in advance of the start of any work that violates this provision. Proceed only when all applicable authorizations and variances have been obtained in writing.
- D. Hours of Operation:
1. Operation of construction equipment is only permitted Monday through Saturday, 7:00 AM to 7:00 PM. Obtain written consent from the City Manager or designee for operation of construction equipment during any other period.
 2. Do not carry out non-emergency work, including equipment moves, on Sundays without prior written authorization by the City Manager or designee.
- E. Dust Control:
1. Take measures to prevent unnecessary dust. Keep earth surfaces exposed to dusting moist with water or a chemical dust suppressant. Cover materials in piles or while in transit to prevent blowing or spreading dust.
 2. Adequately protect buildings or operating facilities that may be affected adversely by dust. Protect machinery, motors, instrument panels, or similar equipment by suitable dust screens. Include proper ventilation with dust screens.
- F. Temporary Drainage Provisions:
1. Provide for the drainage of stormwater and any water applied or discharged on the site in performance of the Work. Provide adequate drainage facilities to prevent damage to the Work, the site, and adjacent property.
 2. Supplement existing drainage channels and conduits as necessary to carry all increased runoff from construction operations. Construct dikes as necessary to divert increased runoff from entering adjacent property (except in natural channels), to protect the CITY's facilities and the

Work, and to direct water to drainage channels or conduits. Provide ponding as necessary to prevent downstream flooding.

3. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

- G. Pollution: Prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. Do not permit sanitary wastes to enter any drain or watercourse other than sanitary sewers. Do not permit sediment, debris, or other substances to enter sanitary sewers. Take reasonable measures to prevent such materials from entering any drain or watercourse.

1.10 TRAFFIC REGULATION

- A. Parking: Provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the Contract, to avoid any need for parking personal vehicles where they may interfere with public traffic or construction activities.
- B. Access: Conduct Work to interfere as little as possible with public travel, whether vehicular or pedestrian. Provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, give reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when the CONTRACTOR has obtained permission from the owner or tenant of private property, or from the authority having jurisdiction over the public property involved, to obstruct traffic at the designated point. The Contractor may be allowed to restrict traffic for short periods of time if he first contacts the City Stormwater, Streets and Traffic Department, County, and/or Florida DOT for their restrictions and also provided that adequate traffic control devices are placed in accordance with applicable City, County, and/or State Ordinances.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01570 - TRAFFIC REGULATION AND PUBLIC SAFETY

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General Requirements
- B. Traffic Control
- C. Public Safety

1.2 RELATED SECTIONS

- A. Section 01500 – Construction Facilities and Temporary Controls
- B. Section 02575 – Pavement Repair and Restoration

1.3 GENERAL REQUIREMENTS

- A. Perform all work within CITY rights-of-way in strict accordance with the City's Maintenance of Traffic Policy and other applicable statutory requirements to protect the public safety. The Maintenance of Traffic Plan shall include but not be limited to: placement of signs, timing of phases, transition lengths, hours of traffic interference, and contact person (24 hour availability).
- B. Be responsible for providing safe and expeditious movement of traffic through construction zones. A construction zone is defined as the immediate areas of actual construction and all abutting areas which are used by the CONTRACTOR, and which interfere with the driving or walking public.
- C. Remove temporary equipment and facilities when no longer required. Restore grounds to original or specified conditions.

1.4 TRAFFIC CONTROL

- A. Include as necessary precautions, not to be limited to, such items as proper construction warning signs, signals, lighting devices, marking, barricades, channelization, flares, and hand signaling devices. Be responsible for installation and maintenance of all devices and requirements for the duration of the Construction period. All design, application, installation, maintenance and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workmen from hazards within the project limits shall be as specified in the State of Florida, Manual of Traffic and Highway Construction, Maintenance and Utility Operations. The standards established in the Manual constitute the minimum requirements for normal conditions. Additional traffic control devices, warning devices, barriers, or other safety devices shall be required where unusual, complex, or particularly hazardous conditions exist.
- B. Provide notice, at least five (5) working days prior to construction, to the State or City Stormwater, Streets and Traffic Department of the necessity to close any portion of a roadway carrying vehicles or pedestrians so that the final approval of such closings can be obtained at least 48 hours in advance. At no time will more than one (1) lane of roadway be closed to vehicles and pedestrians. With any such closings make adequate provision for the safe expeditious movement of each.

- C. Be responsible for notifying the Stormwater, Streets and Traffic Department, and Police, Fire, and other Emergency Departments at least 48 hours prior to construction whenever construction is within roadways and of the alternate routes.
- D. Be responsible for removal, relocation, or replacement of any traffic control device in the construction area that exists as part of the normal pre-construction traffic control scheme.
- E. Immediately notify the City Manager or designee of any vehicular or pedestrian safety or efficiency problems incurred as a result of the construction of the project.
- F. Be responsible for notifying all residents of any road construction and limited access at least 72 hours in advance.

1.5 PUBLIC SAFETY (DURING CONSTRUCTION, ALTERATION OR REPAIR)

- A. In areas of high vehicular traffic, provide a safe walkway around the work area.
- B. Use barricades or other barriers to prevent any possibility of injury to the public caused by the CONTRACTOR's work.
- C. Keep walk areas around the work areas clean of sand, stones, and any other material that could cause a pedestrian accident.
- D. Barricade work areas left overnight. Install flashing warning lights in areas required by the CITY.
- E. Unless an approved detour is provided at any open cut crossings, a minimum of one-way traffic will be maintained during the daylight hours and two-way traffic at night. All traffic detours will be restricted to limits of the Right-of-Way with necessary flagmen and/or marking devices. These detours shall be approved by the CITY. Detour of traffic outside of the Right-of-Way will be considered with the approval of local governmental agencies and private concerns involved.
- F. Crossing and Intersections: Do not isolate residences and places of business. Provide access to all residences and places of business whenever construction interferes with existing means of access. Always maintain access. If pavement is disturbed, a cold mix must be applied at the end of the day.
- G. Detours
 - 1. Construct and maintain detour facilities wherever it becomes necessary to divert traffic from any existing roadway or bridge, or wherever construction operations block the flow of traffic. The location of all detours will require prior approval of the CITY.
 - 2. Furnishing of Devices and Barriers: Furnish all traffic control devices (including signs), warning devices and barriers. Costs of such devices shall be incidental to construction and included in unit prices bid.
 - 3. Maintenance of Devices and Barriers: Keep traffic control devices, warning devices and barriers in the correct position, properly directed, clearly visible and clean, always. Immediately repair replace or clean damaged, defaced or dirty devices or barriers as necessary.
- H. Flagmen: Provide certified flagmen (flaggers) to direct traffic where one-way operation in a single lane is in effect, and in other situations as may be required. Radios may be required if flagmen cannot maintain contact with each other.
- I. Utilize all necessary signs, flagmen, and other safety devices during construction.

- J. Perform all work with the requirements set forth by the Occupational Safety Health Administration.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Description
- B. Substitutions
- C. Manufacturer's Written Instructions
- D. Transportation and Handling
- E. Storage, Protection and Maintenance
- F. Manufacturer's Field Quality Control Services
- G. Post Startup Services
- H. Special Tools and Lubricating Equipment
- I. Lubrication

1.2 DESCRIPTION

- A. Proposed Manufacturers List: Within 15 calendar days of the date of the Notice to Proceed, submit to the ENGINEER a list of the names of proposed manufacturers, material men, suppliers and subcontractors, obtain approval of this list by the City Manager or designee prior to submission of any working drawings. Upon request submit evidence to ENGINEER that each proposed manufacturer has manufactured a similar product to the one specified and that it has previously been used for a like purpose for a sufficient length of time to demonstrate its satisfactory performance.
- B. All material and equipment designed or used in connection with a potable (drinking) water system shall conform to the requirements of the National Sanitation Foundation (NSF) Standard 61, "Drinking Water System Components – Health Effects."
- C. Furnish and install Material and Equipment which meets the following:
 - 1. Conforms to applicable specifications and standards.
 - 2. Complies with size, make, type, and quality specified or as specifically approved, in writing, by ENGINEER.
 - 3. Will fit into the space provided with sufficient room for operation and maintenance access and for properly connecting piping, ducts and services, as applicable. Make the clear spaces that will be available for operation and maintenance access and connections equal to or greater than those shown and meeting all the manufacturers' requirements. If adequate space is not available, the CONTRACTOR shall advise the ENGINEER for resolution.
 - 4. Manufactured and fabricated in accordance with the following:
 - a. Design, fabricate, and assemble in accordance with best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - c. Provide two or more items of same kind identical, by same manufacturer.
 - d. Provide materials and equipment suitable for service conditions.
 - e. Adhere to equipment capabilities, sizes, and dimensions shown or specified unless variations are specifically approved, in writing, in accordance with the Contract Documents.

- f. Adapt equipment to best economy in power consumption and maintenance. Proportion parts and components for stresses that may occur during continuous or intermittent operation, and for any additional stresses that may occur during fabrication or installation.
 - g. Working parts are readily accessible for inspection and repair, easily duplicated and replaced.
5. Use material or equipment only for the purpose for which it is designed or specified.

1.3 SUBSTITUTIONS

A. Substitutions:

1. Make any CONTRACTOR's requests for changes in equipment and materials from those required by the Contract Documents in writing, for approval by the Engineer of Record. Such requests are considered requests for substitutions and are subject to CONTRACTOR's representations and review provisions of the Contract Documents when one of following conditions are satisfied:
 - a. Where request is directly related to a "Engineer of Record approved equal" or "City approved equal" clause or other language of same effect in Specifications.
 - b. Where required equipment or material cannot be provided within Contract Time, but not as result of CONTRACTOR's failure to pursue Work promptly or to coordinate various activities properly.
 - c. Where required equipment or material cannot be provided in a manner compatible with other materials of Work or cannot be properly coordinated therewith.
2. CONTRACTOR'S Options:
 - a. Where more than one choice is available as options for CONTRACTOR's selection of equipment or material, select option compatible with other equipment and materials already selected (which may have been from among options for other equipment and materials).
 - b. Where compliance with specified standard, code or regulation is required, select from among products that comply with requirements of those standards, codes, and regulations.
 - c. Or City approved Equal: For equipment or materials specified by naming one or more equipment manufacturer(s) as "or City approved equal", submit request for substitution for any equipment or manufacturer not specifically named to the Engineer of Record.

B. Conditions Which are Not Substitution:

1. Requirements for substitutions do not apply to CONTRACTOR options on materials and equipment provided for in the Specifications.
2. Revisions to Contract Documents, where requested by the City Manager or designee or ENGINEER, are "changes" not "substitutions".
3. CONTRACTOR's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute substitutions and do not constitute the basis for a Change Order, except as provided for in Contract Documents.

1.4 MANUFACTURER'S WRITTEN INSTRUCTIONS

- A. Instruction Distribution: When the Contract Documents require that installation, storage, maintenance and handling of equipment and materials comply with manufacturer's written instructions, obtain and distribute printed copies of such instructions to parties involved in installation, including six copies to ENGINEER.
 - 1. Maintain one set of complete instructions at jobsite during storage and installation, and until completion of work.
- B. Manufacturer's Requirements: Store, maintain, handle, install, connect, clean, condition, and adjust products in accordance with manufacturer's written instructions and in conformity with Specifications.
 - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult ENGINEER for further instructions.
 - 2. Do not proceed with work without written instructions.
- C. Performance Procedures: Perform work in accordance with manufacturer's written instructions. Do not omit preparatory steps or installation procedures, unless specifically modified or exempted by Contract Documents.

1.5 TRANSPORTATION AND HANDLING

- A. Coordination with Schedule: Arrange deliveries of materials and equipment in accordance with Construction Progress Schedules. Coordinate to avoid conflict with work and conditions at site.
 - 1. Deliver materials and equipment in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible. Keep product free of dirt and debris.
 - 2. Protect bright machined surfaces, such as shafts and valve faces, with a heavy coat of grease prior to shipment.
 - 3. Immediately upon delivery, inspect shipments to determine compliance with requirements of Contract Documents and approved submittals and that material and equipment are protected and undamaged.
- B. Handling: Provide equipment and personnel to handle material and equipment by methods recommended by manufacturer to prevent soiling or damage to materials and equipment or packaging.

1.6 STORAGE, PROTECTION, AND MAINTENANCE

- A. On-site storage areas and buildings:
 - 1. Conform storage buildings to requirements of Section 01500.
 - 2. Coordinate location of storage areas with ENGINEER and the CITY.
 - 3. Arrange on site storage areas for proper protection and segregation of stored materials and equipment with proper drainage. Provide for safe travel around storage areas and safe access to stored materials and equipment.
 - 4. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.

5. Store materials such as pipe, reinforcing and structural steel, and equipment on pallets, blocks or racks, off ground.
6. PVC Pipe may be damaged by prolonged exposure to direct sunlight, take necessary precautions during storage and installation to avoid this damage. Store pipe under cover and install with sufficient backfill to shield it from the sun.
7. Store fabricated materials and equipment above ground, on blocking or skids, to prevent soiling or staining. Cover materials and equipment that are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.

B. Interior Storage:

1. Store materials and equipment in accordance with manufacturer's instructions, with seals and labels intact and legible.
2. Store materials and equipment, subject to damage by elements, in weathertight enclosures.
3. Maintain temperature and humidity within ranges required by manufacturer's instructions.

C. Accessible Storage: Arrange storage in a manner to provide easy access for inspection and inventory. Make periodic inspections of stored materials or equipment to assure that materials or equipment are maintained under specified conditions and free from damage or deterioration.

1. Perform maintenance on stored materials of equipment in accordance with manufacturer's instructions, in presence of the City Manager or designee or ENGINEER.
2. Submit a report of completed maintenance to ENGINEER with each Application for Payment.
3. Failure to perform maintenance, to notify ENGINEER of intent to perform maintenance or to submit maintenance report may result in rejection of material or equipment.

D. CITY's Responsibility: The CITY assumes no responsibility for materials or equipment stored in buildings or on-site. CONTRACTOR assumes full responsibility for damage due to storage of materials or equipment.

E. CONTRACTOR's Responsibility: For CITY Capital Improvement Projects, the CONTRACTOR assumes full responsibility for protection of completed construction until facilities (or portions of facilities) are accepted for operation and placed in service. Repair and restore damage to completed Work equal to its original condition.

F. Special Equipment: Use only rubber-tired wheelbarrows, buggies, trucks, or dollies to wheel loads over finished floors, regardless of whether the floor has been protected or not. This applies to finished floors and to exposed concrete floors as well as those covered with composition tile or other applied surfacing.

G. Surface Damage: Where structural concrete is also the finished surface, take care to avoid marking or damaging surface.

1.7 MANUFACTURER'S FIELD QUALITY CONTROL SERVICES

A. General:

1. Provide manufacturer's field services in accordance with this subsection for those tasks specified in other sections.
 2. Include and pay all costs for suppliers' and manufacturers' services, including, but not limited to, those specified.
- B. Installation Instruction: Provide instruction by competent and experienced technical representatives of equipment manufacturers or system suppliers as necessary to resolve assembly or installation procedures that are attributable to, or associated with, the equipment furnished.
- C. Installation Inspection, Adjustments and Startup Participation:
1. Provide competent and experienced technical representatives of equipment manufacturers or system suppliers to inspect the completed installation as follows.
 - a. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or for other conditions that may cause damage.
 - b. Verify that tests meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
 - c. Verify that wiring and support components for equipment are complete.
 - d. Verify that equipment or system is installed in accordance with the manufacturer's recommendations, approved shop drawings and the Contract Documents.
 - e. Verify that nothing in the installation voids any warranty.
 2. Provide manufacturer's representatives to perform initial equipment and system adjustment and calibration conforming to the manufacturer's recommendations and instructions, approved shop drawings and the Contract Documents.
 3. Start-up of Equipment: Provide prior written notice of proposed start-up to the City Manager or designee and ENGINEER. Obtain ENGINEER's approval before start-up of equipment. CITY's departmental representative must be on-site during start-up. Execute start-up under supervision of applicable manufacturer's representative in accordance with manufacturers' instructions.
 4. Furnish ENGINEER with three copies of the following. When training is specified, furnish the copies at least 48 hours prior to training.
 - a. "Certificate of Installation, Inspection and Start-up Services" by manufacturers' representatives for each piece of equipment and each system specified, certifying:
 - (1) That equipment is installed in accordance with the manufacturers' recommendations, approved shop drawings and the Contract Documents.
 - (2) That nothing in the installation voids any warranty.
 - (3) That equipment has been operated in the presence of the manufacturer's representative.
 - (4) That equipment, as installed, is ready to be operated by others.
 - b. Detailed report by manufacturers' representatives, for review by ENGINEER of the installation, inspection and start-up services performed, including:

- (1) Description of calibration and adjustments if made; if not in Operation and Maintenance Manuals, attach copy.
- (2) Description of any parts replaced and why replaced.
- (3) Type, brand name, and quantity of lubrication used, if any.
- (4) General condition of equipment.
- (5) Description of problems encountered, and corrective action taken.
- (6) Any special instructions left with CONTRACTOR or ENGINEER.

D. Field Test Participation: Provide competent and experienced technical representatives of all equipment manufacturers and system suppliers as necessary to participate in field testing of the equipment specified in Section 01400.

E. Trouble-Free Operation: Provide competent and experienced technical representatives of all equipment manufacturers and system suppliers as necessary to place the equipment in trouble-free operation after completion of start-up and field tests.

1.8 SPECIAL TOOLS AND LUBRICATING EQUIPMENT

A. General: Furnish, per manufacturer's recommendations, special tools required for checking, testing, parts replacement, and maintenance. (Special tools are those which have been specially designed or adapted for use on parts of the equipment, and which are not customarily and routinely carried by maintenance mechanics.)

B. Time of Delivery: Deliver special tools and lubricating equipment to the CITY when unit is placed into operation and after operating personnel have been properly instructed in operation, repair, and maintenance of equipment.

C. Quality: Provide tools and lubricating equipment of a quality meeting equipment manufacturer's requirements.

1.9 LUBRICATION

A. General: Where lubrication is required for proper operation of equipment, incorporate in the equipment the necessary and proper provisions in accordance with manufacturer's requirements. Where possible, make lubrication automated and positive.

B. Oil Reservoirs: Where oil is used, supply reservoir of sufficient capacity to lubricate unit for a 24-hour period.

1.10 WARRANTY

A. Provide copies of any warranties of materials or equipment to the City Manager or designee with documentation showing compliance with warranty requirements.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

CERTIFICATE OF INSTALLATION, INSPECTION AND START-UP SERVICES	
Project _____	
Equipment _____	
Specification Section _____	
Contract _____	
<p>I hereby certify that the named equipment has been inspected, adjusted and operated by the Manufacturers' Representative and further certify:</p> <ol style="list-style-type: none"> 1. That the equipment is installed in accordance with the manufacturer's recommendations, approved shop drawings and the Contract Documents. 2. That nothing in the installation voids any warranty. 3. That equipment has been operated in the presence of the manufacturer's representative. 4. That equipment, as installed, is ready to be operated by others. 	
<p>MANUFACTURERS' REPRESENTATIVE</p> <p>Signature _____ Date _____</p> <p>Name (print) _____</p> <p>Title _____</p> <p>Representing _____</p>	
<p>CONTRACTOR</p> <p>Signature _____ Date _____</p>	
<p>Name (print) _____</p> <p>Title _____</p>	
<p>Attach the detailed report called for by Specification Section 01600.</p> <p>Complete and submit three copies of this form with the detailed report to ENGINEER as specified.</p>	

CERTIFICATE OF POST START-UP SERVICES

Project _____

Equipment _____

Specification Section _____

Contract _____

I hereby certify the Manufacturers' Representative has inspected this equipment, made adjustments and calibrations, and that it is operating in conformance with the design, specifications, and manufacturer's requirements. Detailed notation of improper operation with corresponding recommendations, if any, are made and attached to this form.

MANUFACTURERS' REPRESENTATIVE

Signature _____ Date _____

Name (print) _____

Title _____

Representing _____

CONTRACTOR

Signature _____ Date _____

Name (print) _____

Title _____

ENGINEER

Signature _____ Date _____

Name (print) _____

Title _____

Complete and submit three copies of this form to the City Manager or designee upon completion of 6 to 11 months reinspection as required by Specification Section 01600.

END OF SECTION

SECTION 01710 - CLEANING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General Requirements
- B. Disposal Requirements

1.2 GENERAL REQUIREMENTS

- A. Execute cleaning during progress of the work and at completion of the work.

1.3 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the work, the site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris, resulting from construction operations.
- B. Provide onsite containers for the collection of waste materials, debris and rubbish.
All waste materials including containers, food debris and other miscellaneous materials must be disposed of daily in onsite containers.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.2 FINAL CLEANING

- A. Requirements: At the completion of work and immediately prior to final inspection, clean the entire project as follows:
 - 1. Thoroughly clean, sweep, wash, and polish all work and equipment provided under the Contract, including finishes. Leave the structures and site in a complete and finished condition to the satisfaction of the ENGINEER.
 - 2. Direct all subcontractors to similarly perform, at the same time, an equivalent thorough cleaning of all work and equipment provided under their contracts.
 - 3. Remove all temporary structures and all debris, including dirt, sand, gravel, rubbish and waste material.

4. Should the CONTRACTOR not remove rubbish or debris or not clean the buildings and site as specified above, the OWNER reserves the right to have the cleaning done at the expense of the CONTRACTOR.
- B. Employ experienced workers, or professional cleaners, for final cleaning.
 - C. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
 - D. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.
 - E. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed interior and exterior finished surfaces. Polish surfaces so designated to shine finish.
 - F. Repair, patch, and touch up marred surfaces to specified finish, to match adjacent surfaces.
 - G. Replace air-handling filters if units were operated during construction.
 - H. Clean ducts, blowers, and coils, if air-handling units were operated without filters during construction.
 - I. Vacuum clean all interior spaces, including inside cabinets.
 - J. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights.
 - K. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
 - L. Clean interior of all panel cabinets, pull boxes, and other equipment enclosures.
 - M. Wash and wipe clean all lighting fixtures, lamps, and other electrical equipment that may have become soiled during installation.
 - N. Perform touch-up painting.
 - O. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
 - P. Remove erection plant, tools, temporary structures and other materials.
 - Q. Remove and dispose of all water, dirt, rubbish or any other foreign substances.

3.3 FINAL INSPECTION

- A. After cleaning is complete the final inspection may be scheduled. The inspection will be done with the OWNER and ENGINEER.

END OF SECTION

SECTION 01730 – OPERATION AND MAINTENANCE MANUALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Description
- B. Quality Assurance
- C. Format and Contents

1.2 DESCRIPTION

- A. Scope: Furnish to the ENGINEER three (3) printed copies and one (1) electronic copy of an Operation and Maintenance Manual for all equipment and associated control systems furnished and installed.

1.3 QUALITY ASSURANCE

- A. Reference Codes and Specifications: No current government or commercial specifications or documents apply.

1.4 FORMAT AND CONTENTS

- A. Prepare and arrange each copy of the manual as follows:
 1. One copy of an equipment data summary (see sample form) for each item of equipment.
 2. One copy of an equipment preventive maintenance data summary (see sample form) for each item of equipment.
 3. One copy of the manufacturer's operating and maintenance instructions specific to the model number furnished. Operating instructions include detailed assembly drawings including a list of all parts and materials with catalog number, and instructions for equipment start-up, normal operation, adjusting, overhauling, shutdown, emergency operation, troubleshooting. Maintenance instructions include equipment installation, calibration and adjustment, preventive and repair maintenance, lubrication schedule, lubricant types and grades, troubleshooting, parts list and recommended spare parts. Include Manufacturer's telephone numbers for Technical Support.
 4. List of electrical relay settings and control and alarm contact settings.
 5. Electrical interconnection wiring diagram for equipment furnished including all control and lighting systems.
 6. Furnish all O&M Manual material in bound 8-1/2 by 11 commercially printed or typed forms or an acceptable alternative format.
- B. Organize each manual into sections paralleling the equipment specifications. Identify each section using heavy section dividers with reinforced holes and numbered plastic index tabs. Use 3-ring, hard-back binders. Punch all loose data for binding. Arrange composition and printing so that punching does not obliterate any data. Print on the cover and binding edge of each manual the project title, and manual title, as furnished and approved by the ENGINEER.

- C. Leave all operating and maintenance material that comes bound by the equipment manufacturer in its original bound state. Cross-reference the appropriate sections of the CONTRACTOR's O&M manual to the manufacturers' bound manuals.
- D. Label binders Volume 1, 2, and so on, where more than one binder is required. Include the table of contents for the entire set, identified by volume number, in each binder.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

City Utilities

Equipment Data Summary

Equipment Name:		Specification Reference:	
Manufacturer:			
	Name:		
	Address:		
	Telephone:		
Number Supplied:		Location/Service:	
Model No:		Serial No:	
Type:			
Size/Speed/Capacity/Range (as applicable):			
Power Requirement (Phase/Volts/Hertz):			
Local Representative:			
	Name:		
	Address:		
	Telephone:		
NOTES:			

City Utilities

Preventive Maintenance Summary

Equipment Name:		Location:	
Manufacturer:			
	Name:		
	Address:		
	Telephone:		
Model No:		Serial No:	
Maintenance Task	Lubricant/Part	D W M Q S A A	O&M Manual Reference
NOTES:			

*D-Daily W-Weekly M-Monthly Q-Quarterly SA-Semi-Annual A-Annual

END OF SECTION

SECTION 01750 – PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

Requirements for preparation, maintenance and submittal of project record documents. The Contractor's attention is specifically directed to Part 3.2.B. of this Section, which requires use of a Florida licensed surveyor to sign and seal all record drawings.

1.2 RELATED SECTIONS

- A. Section 01051 – Alignment and Grades
- B. Section 01400 - Quality Control

1.3 SUBMITTALS

- A. General: Provide all submittals as specified. Final disbursement of project monies shall not occur until or unless said "record drawings" are submitted to the satisfaction of the City.
- B. At Contract close out, two (2) sets of signed and sealed Record Drawings for the potable water system, non-potable irrigation water system, and/or wastewater system to be conveyed shall be submitted to the City.
- C. Provide electronic submittal as specified in Part 3.2.B of this Section.

1.4 REQUIREMENTS

- A. Contractor shall maintain at the site for the City one record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change orders and other modifications to the Contract
 - 5. Design Engineer's field orders or written instructions
 - 6. Approved shop drawings, working drawings and samples
 - 7. Field test records
- B. Additional Requirements for City Capital Projects Only
 - 1. CAD and GIS Turn-Over Documents (see City of Naples GIS and CAD Record Standards and Requirements)

PART 2 PRODUCTS (not used)

PART 3 EXECUTION

3.1 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Project record documents shall be stored in Contractor's field office or other location approved by the City apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Always make documents and samples available for inspection by the City.

3.2 RECORDING

A. General

- 1. Record Drawings shall accurately depict the constructed configuration of all potable water, non-potable irrigation water and/or wastewater systems or portion(s) thereof. All revisions to City staff approved construction drawings shall be precisely identified and illustrated on the Record Drawings. All Record Drawings of utility systems or portion(s) thereof that are not being conveyed to the Board shall bear, on the cover sheet, a prominently displayed DISCLAIMER, in bold lettering at least one-quarter (1/4) inch high, stating: "All on-site potable water, non-potable irrigation and/or wastewater systems shall be owned, operated and maintained by the private owner(s) and/or the master condominium/homeowners' association, successors or assigns" (or other comparable private ownership).
- 2. Label each document "PROJECT RECORD" or similar text in neat, large printed letters.
- 3. Survey information can be obtained as needed by the use of 2-inch PVC labeled pipes installed over underground improvements by the contractor during construction. This method is an adequate process for obtaining record information.
- 4. Record information in red ink

B. Record Drawings

- 1. The Record Drawings require signed and sealed as-built information, including above and below ground improvements including underground piping, valves and ductbanks, by a Florida Licensed Land Surveyor.
- 2. The Record Drawings shall identify the entity that provided the record data.
- 3. All datum indicated or specified refer to the North American Datum 1983/2011 adjustment (NAD83/11) with values expressed in U.S. survey feet, Florida State Plan Coordinate System (FSPCS) East zone 901, and the North American Vertical Datum of 1988 (NAVD 88), respectively, based on National Spatial Reference System Control Stations:

NAPLES RESET: Recovered in good condition. In Naples, at the intersection of U.S. Highway 41 and Goodland Frank Road, 186.5 m (611.9 ft) North of the center of the westbound lanes of the Highway, 18.4 m (60.4 ft) West of the center of the road, 3.7m (12.1 ft) Northeast of a witness post, 0.7 m (2.3 ft) South of the center of an entrance road to the grand central station shopping center, 0.7 m (2.3 ft) above the level of the road, and the monument is flush with the pavement. Elevation 6.29 feet, FSPCS N: 658,769.28' E: 396,684.54'.

and

V 241: Recovered in good condition. In Naples, at 856 3rd Avenue South, 7.8 m (25.6 ft) Northwest of the Northeast corner of the post office at 856 3rd Avenue South, 7.0 m (23.0 ft) South of and level with the centerline of the avenue, 0.4 m (1.3 ft) North-Northeast of a witness post, 0.3 m (1.0 ft) west of a utility pole, and the disk is encased in a 4-inch metal pipe and is flush with the ground surface. Elevation 6.43 feet, FSPCS N: 658,801.55' E: 395,120.18'.

With the baseline of survey depicted hereon as being N 83°20'15" E

4. Files shall be also submitted in Drawing File (DWG) format in AutoCAD Release 2004 or later version and a red-lined "field" hardcopy.
 5. Record drawings shall be submitted to the City staff within 60 days of the final construction completion date.
 6. The following items shall be accurately depicted in vertical and horizontal directions on the Record Drawings:
 - a) All associated rights-of-way and utility easements whether shown on the Contract Drawings, found during construction or added during the Work.
 - b) Horizontal and vertical cross sections spaced every 50' within the Lake to accurately represent the proposed dredged bottom.
 - c) Stormwater modifications lengths, inverts, slopes, and geographic locations of the inlet filters, mitered end sections, and proposed pipes.
 - d) Public Amenities locations of all installed trees and lighting and centerline alignment and elevations of the trail.
 7. Each pipe elevation shall be clearly identified as to whether it is top of pipe, centerline of pipe or invert of pipe.
 8. Record Drawings shall indicate all deviations from Contract Drawings including:
 - a) Field changes.
 - b) Changes made by Change Order.
 - c) Details, utilities, piping or structures not on original Contract Drawings.
 - d) Equipment and piping relocations.
- C. Specifications and Addenda
1. Legibly mark each Section to record:
 2. Manufacturer, trade name, catalog number and supplier of each product and item of equipment installed.
 3. Changes made by Field Order or Change Order.
- D. Shop Drawings
1. Keep one copy of the final, approved shop drawing with the Record Documents.
 2. Record documents should include all shop drawing information submitted. Additional information submitted during the review process should be filed with the appropriate submittal.

END OF SECTION

SECTION 02050 - DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: All work necessary for the removal and disposal of structures, foundations, piping, equipment and roadways, or any part thereof including masonry, steel, reinforced concrete, plain concrete, electrical facilities, large lake bottom debris and any other material or equipment shown or specified to be removed.
- B. Basic Procedures and Schedule: Carry out demolition so that adjacent structures, which are to remain, are not endangered. Schedule the work so as not to interfere with the day-to-day operation of the existing facilities. Do not block doorways or passageways in existing facilities.
- C. Additional Requirements: Provide dust control and make provisions for safety.
- D. Related Work Specified in Other Sections Includes:
 - 1. Section 01045 – Connection to Existing Systems
 - 2. Section 02110 – Site Clearing

1.2 SUBMITTALS

- A. Site Inspection: Visit the site and inspect all existing structures. Observe and record any defects that may exist in buildings or structures adjacent to but not directly affected by the demolition work. Provide the City Manager or designee with a copy of this inspection record and obtain the ENGINEER's and the City's Manager or designee approval prior to commencing the demolition.

1.3 QUALITY ASSURANCE

- A. Limits: Exercise care to break pipes for removal in reasonably small masses. Where only parts of a structure are to be removed, cut the concrete along limiting lines with a suitable saw so that damage to the remaining structure is held to a minimum.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 EXAMINATION OF EXISTING DRAWINGS

- A. Available drawings of existing structures and equipment will be available for inspection at the office of the ENGINEER.

3.2 PROTECTION

- A. General Safety: Provide warning signs, protective barriers, and warning lights as necessary adjacent to the work as approved or required. Maintain these items during the demolition period.

- B. Existing Services: Undertake no demolition work until all mechanical and electrical services affected by the work have been properly disconnected. Cap, reroute or reconnect interconnecting piping or electrical services that are to remain in service either permanently or temporarily in a manner that will not interfere with the operation of the remaining facilities.
- C. Hazards: Perform testing and air purging where the presence of hazardous chemicals, gases, flammable materials or other dangerous substances is apparent or suspected and eliminate the hazard before demolition is started.

3.3 DEMOLITION REQUIREMENTS

- A. Explosives: The use of explosives will not be permitted.
- B. Protection: Carefully protect all mechanical and electrical equipment against dust and debris.
- C. Removal: Remove all debris from the structures during demolition and do not allow debris to accumulate in piles.
- D. Access: Provide safe access to and egress from all working areas at all times with adequate protection from falling material.
- E. Protection: Provide adequate scaffolding, shoring, bracing railings, toe boards and protective covering during demolition to protect personnel and equipment against injury or damage. Cover floor openings not used for material drops with material substantial enough to support any loads placed on it. Properly secure the covers to prevent accidental movement.
- F. Lighting: Always provide adequate lighting during demolition.
- G. Closed Areas: Close areas below demolition work to anyone while removal is in progress.
- H. Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with manufacturer's instructions or government regulations as applicable.

3.4 DISPOSAL OF MATERIALS

- A. Final Removal: Dispose of AC pipe in accordance with CITY special handling requirements and coordination with City Solid Waste Management Department. Remove all other debris, rubbish, scrap pieces, equipment, and materials resulting from the demolition. Take title to all demolished materials and remove such items from the site.

END OF SECTION

SECTION 02110 - SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Requirements for clearing of all areas within the Contract limits and other areas shown, including work designated in permits and other agreements.
- B. Related Work Specified in Other Sections Includes:
 - 1. Section 02050 – Demolition
 - 2. Section 02222 - Excavation - Earth and Rock
 - 3. Section 02223 – Backfilling

1.2 DEFINITIONS

- A. Clearing: Clearing is the removal from the ground surface and disposal, within the designated areas, of trees, brush, shrubs, down timber, decayed wood, other vegetation, rubbish and debris as well as the removal of fences.
- B. Grubbing: Grubbing is the removal and disposal of all stumps, buried logs, roots larger than 1-1/2 inches, matted roots and organic materials.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PROTECTION OF EXISTING UTILITIES

- A. Prior to site clearing, locate and mark all existing utilities in coordination with the CITY and other affected owners. Protect all existing utilities and markings from damage. In case of damage to existing utilities caused by construction activities, contact the owner of the utility or appropriate CITY department (Water or Wastewater) immediately. Repair any damage to existing utilities or markings caused by construction activities in coordination with or as directed by the owner of the utility.

3.2 TREE REMOVAL

- A. Tree Removal Within Right-of-Way Limits: Remove trees and shrubs within the right-of-way unless otherwise indicated.
 - 1. Remove trees and shrubs to avoid damage to trees and shrubs designated to remain.
 - 2. Grub and remove tree stumps and shrubs felled within the right-of-way to an authorized disposal site. Fill depressions created by such removal with material suitable for backfill as specified in Section 02223.
- B. Tree Removal Outside Right-of-Way Limits: Do not cut or damage trees outside the right-of-way unless plans show trees to be removed or unless written permission has been obtained from the

property owner. Furnish three copies of the written permission before removal operations commence.

- C. If the landowner desires the timber or small trees, cut and neatly pile it in 4 ft. lengths for removal by the owner; otherwise, dispose of it by hauling it away from the project site. If hauled timber is of merchantable quality, credit shall accrue to the CONTRACTOR.

3.3 TREES AND SHRUBS TO BE SAVED

- A. Protection: Protect trees and shrubs within the work limits that are so delineated or are marked in the field to be saved from defacement, injury and destruction.
 - 1. Work within the limits of the tree drip line with extreme care using either hand tools or equipment that will not cause damage to trees.
 - a. Do not disturb or cut roots unnecessarily. Do not cut roots 1-1/2 inches and larger unless approved.
 - b. Immediately backfill around tree roots after completion of construction in the vicinity of trees.
 - c. Do not operate any wheeled or tracked equipment within drip line.
 - 2. Protect vegetation from damage caused by emissions from engine-powered equipment.
 - 3. During working operations, protect the trunk, foliage and root system of all trees to be saved with boards or other guards placed as shown and as required to prevent damage, injury and defacement.
 - a. Do not pile excavated materials within the drip line or adjacent to the trunk of trees.
 - b. Do not allow runoff to accumulate around trunk of trees.
 - c. Do not fasten or attach ropes, cables, or guy wires to trees without permission. When such permission is granted, protect the tree before making fastening or attachments by providing burlap wrapping and softwood cleats.
 - d. The use of axes or climbing spurs for trimming will not be permitted.
 - e. Provide climbing ropes during trimming.
 - 4. Remove shrubs to be saved, taking a sufficient earth ball with the roots to maintain the shrub.
 - a. Temporarily replant if required, and replace at the completion of construction in a condition equaling that which existed prior to removal.
 - b. Replace in kind if the transplant fails.
 - 5. Have any tree and shrub repair performed by a tree surgeon properly licensed by the State of Florida and within 24 hours after damage occurred.

3.4 CLEARING AND GRUBBING

- A. Clearing: Clear all items specified to the limits shown and remove cleared and grubbed materials from the site.
 - 1. Do not start earthwork operations in areas where clearing and grubbing is not complete, except that stumps and large roots may be removed concurrent with excavation.
 - 2. Comply with erosion, sediment control and storm management measures.
- B. Grubbing: Clear and grub areas to be excavated, areas receiving less than 3 feet of fill, all existing vegetation in Lakes 8 and 9, and areas upon which structures are to be constructed.
 - 1. Remove stumps and root mats in these areas to a depth of not less than 18 inches below the subgrade of sloped surfaces.
 - 2. Fill all depressions made by the removal of stumps or roots with material suitable for backfill as specified in Section 02223.
- C. Limited Clearing: Clear areas receiving more than 3 feet of fill by cutting trees and shrubs as close as practical to the existing ground. Grubbing will not be required.
- D. Dispose of all material and debris from the clearing and grubbing operation by hauling such material and debris away to an approved dump. The cost of disposal (including hauling) of cleared and grubbed material and debris shall be considered a subsidiary obligation of the CONTRACTOR; include the cost in the bid for the various classes of work.

3.5 TOPSOIL

- A. Stripping: Strip existing topsoil from areas that will be excavated or graded prior to commencement of excavating or grading and place in well-drained stockpiles in approved locations.

END OF SECTION

SECTION 02222 - EXCAVATION - EARTH AND ROCK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Requirements for performing open cut excavations to the widths and depths necessary for constructing pipelines, including excavation of any material necessary for any purpose pertinent to the construction of the Work.
- B. Related Work Specified In Other Sections Includes:
 - 1. Section 02110 - Site Clearing
 - 2. Section 02223 – Backfilling

1.2 DEFINITIONS

- A. Earth: "Earth" includes all materials which, in the opinion of the ENGINEER, do not require blasting, barring, wedging or special impact tools for their removal from their original beds, and removal of which can be completed using standard excavating equipment. Specifically excluded are all ledge and bedrock and boulders or pieces of masonry larger than one cubic yard in volume.
- B. Rock: "Rock" includes all materials which, in the opinion of the ENGINEER, require blasting, barring, wedging and/or special impact tools such as jack hammers, sledges, chisels, or similar devices specifically designed for use in cutting or breaking rock for removal from their original beds and which have compressive strengths in their natural undisturbed state in excess of 300 psi. Boulders or masonry larger than one cubic yard in volume are classed as rock excavation.

1.3 SUBMITTALS

- A. General: Provide all submittals, including the following, as specified in Division 1.
- B. Engage the services of a Professional Engineer who is registered in the State of Florida to design all cofferdam and sheeting and bracing systems which the CONTRACTOR feels necessary for the execution of his work. Submit to the ENGINEER a signed statement that he has been employed by the CONTRACTOR to design all sheeting and bracing systems. After the systems have been installed, furnish to the ENGINEER an additional signed statement that the cofferdams and sheeting and bracing systems have been installed in accordance with his design.
- C. If a detour is required, submit a traffic control plan for approval to City Manager or designee and/or the Florida Department of Transportation as described in Section 01570.

1.4 SITE CONDITIONS

- A. Geotechnical Investigation: The geotechnical investigation report is not part of the Contract Documents.
- B. Actual Conditions: Make any geotechnical investigations deemed necessary to determine actual site conditions.
- C. Underground Utilities: Locate and identify all existing underground utilities prior to the commencement of Work.

- D. Quality and Quantity: Make any other investigations and determinations necessary to determine the quality and quantities of earth and rock and the methods to be used to excavate these materials.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL

- A. Clearing: Clear opencut excavation sites of obstructions preparatory to excavation. Clearing in accordance with Section 02110, includes removal and disposal of vegetation, trees, stumps, roots and bushes, except those specified to be protected during trench excavation.
- B. Safety: Whenever an excavation site or trench is left unattended by the CONTRACTOR or when an area is not within 100 feet of observation by the CONTRACTOR, the excavation site or trench shall be filled and/or, at the City Manager's or designee discretion, protected by other means to prevent accidental or unauthorized entry. Include barricades and other protection devices requested by the ENGINEER or City Manager or designee, including temporary fencing, or temporary "structure" tape. Such safety items shall not relieve the CONTRACTOR of any site safety requirements or liabilities established by Federal, State and local laws and agencies, including OSHA, but is intended as additional safety measures to protect the general public.
- C. Hazardous Materials: If encountered, take care of hazardous materials not specifically shown or noted in accordance with Section 01500.
- D. During excavation and any site work, take storm water pollution prevention measures to ensure that water quality criteria are not violated in the receiving water body and all state and local regulatory requirements are met.

3.2 STRUCTURE EXCAVATION

- A. Excavation Size: Provide excavations of sufficient size and only of sufficient size to permit the Work to be economically and properly constructed in the manner and of the size specified.
- B. Excavation Shape: Shape and dimension the bottom of the excavation in earth or rock to the shape and dimensions of the underside of the structure or drainage blanket wherever the nature of the excavated material permits.
- C. Compaction: Before placing foundation slabs, footings or backfill, proof roll the bottom of the excavations to detect soft spots and correct deficiencies.
 - 1. For accessible areas, proof roll with a ten wheel tandem axle dump truck loaded to at least 15 tons or similarly loaded construction equipment.
 - 2. For small areas, proof roll with a smooth-faced steel roller filled with water or sand, or compact with a mechanical tamper.
 - 3. Make one complete coverage, with overlap, of the area.
 - 4. Overexcavate soft zones and replace with compacted select fill.

3.3 TRENCH EXCAVATION

- A. Preparation: Properly brace and protect trees, shrubs, poles and other structures which are to be preserved. Unless shown or specified otherwise, preserve all trees and large shrubs. Hold damage to the root structure to a minimum. Small shrubs may be preserved or replaced with equivalent specimens.
- B. Adequate Space: Keep the width of trenches to a minimum, however provide adequate space for workers to place, joint and backfill the pipe properly and safely.
 - 1. The minimum width of the trench shall be equal to at least 3.5 feet or the outside diameter of the pipe at the joint plus 8-inches for unsheeted trench or 12 inches for sheeted trench, whichever is greater. Conform the trench walls to OSHA Regulations.
 - 2. In sheeted trenches, measure the clear width of the trench at the level of the top of the pipe to the inside of the sheeting.
- C. Depth:
 - 1. Excavate trenches to a minimum depth of 8 inches, but not more than 12 inches, below the bottom of the pipe so that bedding material can be placed in the bottom of the trench and shaped to provide a continuous, firm bearing for pipe barrels and bells.
 - 2. Standard trench grade shall be defined as the bottom surface of the utility to be constructed or placed within the trench. Trench grade for utilities in rock or other non-cushioning material shall be defined as additional undercuts backfilled with crushed stone compacted in 6-inch lifts, below the standard 8-inches minimum trench undercut. Backfill excavation below trench grade not ordered in writing by the ENGINEER with acceptable USCS Class I, II or III (see Section 02223, 2.1.C) embedment material to trench grade and compact to density equal to native soil.
 - 3. In stable trenches, where the soil is neither wet, yielding, nor mucky, trench bottom may be either native undisturbed soils of USCS Class II, III, or IV, or thoroughly compacted USCS Class I, II, or III material from three inches (3") to six inches (6") depth to provide a stable, continuous support for the pipe bedding system. In USCS Class V soil areas, foundation bedding is required. All foundation bedding shall be USCS Class I material. In no case shall pipe be bedded on solid rock. See Section 02223, subsections 3.2 and 2.4 for more information on bedding.
- D. Unstable or Unsuitable Materials: If unstable or unsuitable material is exposed at the level of the bottom of the trench excavation, excavate the material in accordance with the subsection headed "Authorized Additional Excavation".
 - 1. Remove material for the full width of the trench and to the depth required to reach suitable foundation material.
 - 2. When in the judgment of the ENGINEER the unstable or unsuitable material extends to an excessive depth, the ENGINEER may advise, in writing, the need for stabilization of the trench bottom with additional select fill material, crushed stone, washed shell, gravel mat or the need to provide firm support for the pipe or electrical duct by other suitable methods.
 - 3. Crushed stone, washed shell and gravel shall be as specified in Section 02223.
 - 4. Payment for such trench stabilization will be made under the appropriate Contract Items or where no such items exist, as a change in the Work.

- E. Length of Excavation: Keep the open excavated trench preceding the pipe laying operation and the unfilled trench, with pipe in place, to a minimum length which causes the least disturbance. Provide ladders for a means of exit from the trench as required by applicable safety and health regulations.
- F. Excavated Material: Neatly deposit excavated material to be used for backfill at the sides of the trenches where space is available. Where stockpiling of excavated material is required, obtain the sites to be used and maintain operations to provide for natural drainage and not present an unsightly appearance.
- G. Water: Allow no water to rise in the trench excavation until sufficient backfill has been placed to prevent pipe flotation.

3.4 ROCK EXCAVATION

- A. Rock Excavation: Excavate rock within the boundary lines and grades as shown, specified or required. Use of explosives will not be permitted unless written approval is obtained from the Engineer of Record.
 - 1. Rock removed from the excavation becomes the property of the CONTRACTOR. Transport and dispose of excavated rock at an off site disposal location. Obtain the off site disposal location.
 - 2. Remove all shattered rock and loose pieces.
- B. Structure Depths: For cast-in-place structures, excavate the rock only to the bottom of the structure, foundation slab, or drainage blanket.
- C. Trench Width: Maintain a minimum clear width of the trench at the level of the top of the pipe of the outside diameter of the pipe barrel plus 2 feet, unless otherwise approved.
- D. Trench Depth: For trench excavation in which pipelines are to be placed, excavate the rock to a minimum depth of 8 inches below the bottom of the pipe or duct encasement. Provide a cushion of sand or suitable crushed rock. Refill the excavated space with pipe bedding material in accordance with Section 02223. Include placing, compacting and shaping pipe bedding material in the appropriate Contract Items.
- E. Over-excavated Space: Refill the excavated space in rock below structures, pipelines, conduits and manholes, which exceeds the specified depths with 2,500 psi concrete, crushed stone, washed shell, or other material as directed. Include refilling of over-excavated space in rock as part of the rock excavation.
- F. Other Requirements: Follow, where applicable, the requirements of the subsections on "Trench Excavation" and "Structure Excavation".
- G. Payment: Rock excavation, including placing, compacting and shaping of the select fill material, will be paid for under the appropriate Contract Items or where no such items exist, as a change in the Work.

3.6 FINISHED EXCAVATION

- A. Finish: Provide a reasonably smooth finished surface for all excavations, which is uniformly compacted and free from irregular surface changes.
- B. Finish Methods: Provide a degree of finish that is ordinarily obtainable from blade- grade operations and in accordance with Section 02223.

3.7 PROTECTION

- A. Traffic and Erosion: Protect newly graded areas from traffic and from erosion.
- B. Repair: Repair any settlement or washing away that may occur from any cause, prior to acceptance. Re-establish grades to the required elevations and slopes.
- C. It shall be the CONTRACTOR's responsibility to acquaint himself with all existing conditions and to locate all structures and utilities along the proposed utility alignment in order to avoid conflicts. Where actual conflicts are unavoidable, coordinate work with the facility owner and perform work so as to cause as little interference as possible with the service rendered by the facility disturbed in accordance with Section 01045. Repair and/or replace facilities or structures damaged in the prosecution of the work immediately, in conformance with current standard practices of the industry, or according to the direction of the owner of such facility, at the CONTRACTOR's expense.
- D. Other Requirements: Conduct all Work in accordance with the environmental protection requirements specified in Division 1.

3.8 AUTHORIZED ADDITIONAL EXCAVATION

- A. Additional Excavation: Carry the excavation to such additional depth and width as authorized in writing, for the following reasons:
 - 1. In case the materials encountered at the elevations shown are not suitable.
 - 2. In case it is found desirable or necessary to go to an additional depth, or to an additional depth and width.
- B. Refill Materials: Refill such excavated space with either authorized 2500 psi concrete or compacted select fill material, in compliance with the applicable provisions of Section 02223.
- C. Compaction: Compact fill materials to avoid future settlement. As a minimum, backfill layers shall not exceed 6-inches in thickness for the full trench width and compaction shall equal 95% of maximum density, or 98% if under paved area of roadway, as determined by using ASTM D 1557. Perform compaction density tests at all such backfill areas with spacing not to exceed 100 feet apart and on each 6-inch compacted layer.
- D. Payment: Additional earth excavations so authorized and concrete or select fill materials authorized for filling such additional excavation and compaction of select fill materials will be paid for under the appropriate Contract Items or where no such items exist, as a change in the Work.

3.9 UNAUTHORIZED EXCAVATION

- A. Stability: Refill any excavation carried beyond or below the lines and grades shown, except as specified in the subsection headed "Authorized Additional Excavation", with such material and in such manner as may be approved in order to provide for the stability of the various structures.
- B. Refill Materials: Refill spaces beneath all manholes, structures, pipelines, or conduits excavated without authority with 2500 psi concrete or compacted select fill material, as approved.
- C. Payment: Refill for unauthorized excavation will not be measured and no payment will be made therefore.

3.10 SEGREGATION STORAGE AND DISPOSAL OF MATERIAL

- A. Stockpiling Suitable Materials: Stockpile topsoil suitable for final grading and landscaping and excavated material suitable for backfilling or embankments separately on the site in approved locations.
- B. Stockpile Locations: Store excavated and other material a sufficient distance away from the edge of any excavation to prevent its falling or sliding back into the excavation and to prevent collapse of the wall of the excavation. Provide not less than 2 feet clear space between the edge of any stockpile and other material and the edge of any excavation or the lake.
- C. Excess Materials: Be responsible for transport and disposal of surplus excavated material and excavated material unsuitable for backfilling or embankments at an off site disposal location secured by the CONTRACTOR. Contractor shall be responsible for the proper disposal of all AC pipe/couplings and shall comply with all Federal, State, and local regulatory agencies accordingly.

3.11 REMOVAL OF WATER

- A. Water Removal: At all times during the excavation period and until completion and acceptance of the WORK at final inspection, provide ample means and equipment with which to remove promptly and dispose of properly all water entering any excavation or other parts of the WORK.
- B. Dry Excavations: Keep the excavation dry
- C. Water Contact: Allow no water to rise over or come in contact with masonry and concrete until the concrete and mortar have attained a set and, in any event, not sooner than 12 hours after placing the masonry or concrete.
- D. Discharge of Water: Dispose of water pumped or drained from the Work in a safe and suitable manner without damage to adjacent property or streets or to other work under construction.
- E. Protection: Provide adequate protection for water discharged onto streets. Protect the street surface at the point of discharge.
- F. Sanitary Sewers: Discharge no water into sanitary sewers.
- G. Storm Sewers: Discharge no water containing settleable solids into storm sewers.
- H. Repair: Promptly repair any and all damage caused by dewatering the Work.

END OF SECTION

SECTION 02223 – BEDDING AND BACKFILLING

PART 1 GENERAL

1.1 SUMMARY

- A. General Requirements: Backfill all excavation to the original surface of the ground or to such other grades as may be shown or required. For areas to be covered by topsoil, leave or stop backfill (12) inches below the finished grade. Obtain approval for the time elapsing before backfilling against masonry structures. Remove from all backfill, any compressible or destructible rubbish and refuse and all lumber and braces from the excavated space before backfilling is started. Leave sheeting and bracing in place or remove as the work progresses.
- B. Equipment Limitations: Do not permit construction equipment used to backfill to travel against and over cast-in-place concrete structures until the specified concrete strength has been obtained, as verified by concrete test cylinders. In special cases where conditions warrant, the above restriction may be modified providing the concrete has gained sufficient strength, as determined from test cylinders, to satisfy design requirements for the removal of forms and the application of load.
- C. Related Work Specified In Other Sections Includes:
 - 1. Section 02110 - Site Clearing
 - 2. Section 02222 – Excavation – Earth and Rock

1.2 REFERENCES

- A. Codes and standards referred to in this Section are:
 - 1. ASTM D 1557 - Standard Test Methods for Moisture-Density Relations of Soil and Soil-Aggregate Mixtures Using 10 lb Rammer and 18 in Drop

PART 2 PRODUCTS

2.1 BACKFILL MATERIAL - GENERAL

- A. General: Whenever trenches are in or across driveways, paved areas or streets, the Contractor shall be responsible for any settlement which occurs within one (1) year of preliminary acceptance. Backfill with sound materials, free from waste, organic matter, rubbish, boggy or other unsuitable materials. Acceptable backfill shall not contain rocks or stones larger than 2 inches in size.
- B. General Materials Requirements: Conform materials used for backfilling to the requirements specified. Follow common fill requirements whenever drainage or select fill is not specified. Determine and obtain the approval of the appropriate test method where more than one compaction test method is specified.
- C. Classification of Approved Embedment Materials: Embedment materials listed here include a number of processed materials plus the soil types defined according to the Unified Soil Classification System (USCS) in ASTM D2487. These materials are grouped into 5 broad categories according to their suitability for this application.
 - 1. Class I: Angular, 0.25 inch to 1.5 inch (6 to 40 mm) graded stone, including a number of fill materials that have regional significance such as coral, slag, cinders, crushed shells and crushed stone. (Note: The size range and resulting high void ratio of Class I material makes it suitable for

use to dewater trenches during pipe installation. This permeable characteristic dictates that its use be limited to locations where pipe support will not be lost by migration of fine grained natural material from the trench walls and bottom or migration of other embedment materials into the Class I material. When such migration is possible, the material's minimum size range should be reduced to finer than 0.25 inch (6 mm) and the gradation properly designed to limit the size of the voids. An alternative to modifying the gradation is to use a geotextile fabric as a barrier to migration to fines.)

2. Class II: Coarse sands and gravels with maximum particle size of 1.5 inches (40 mm), including variously graded sands and gravels containing small percentages of fines, generally granular and non-cohesive, either wet or dry. Soil Types GW, GP, SW and SP are included in this class. (Note: Sands and gravels, which are clean or borderline between clean and with fines, should be included. Coarse-grained soils with less than 12 percent, but more than 5 percent fines are neglected in ASTM D2487 and the USCS, but should be included. The gradation of Class II material influences its density and pipe support strength when loosely placed. The gradation of Class II material may be critical to the pipe support and stability of the foundation and embedment, if the material is imported and is not native to the trench excavation. A gradation other than well graded, such as uniformly graded or gap graded, may permit loss of support by migration into void spaces of a finer grained natural material from the trench wall and bottom. An alternative to modifying the gradation is to use a geotextile fabric as a barrier to migration of fines.)
3. Class III: Fine sand and clayey (clay filled) gravels, including fine sands, sand-clay mixtures and gravel-clay mixtures. Soil Types GM, GC, SM and SC are included in this class.
4. Class IV: Silt, silty clays and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil Types MH, ML, CH and CL are included in this class. (Note: Use caution in the design and selection of the degree and method of compaction for Class IV soils because of the difficulty in properly controlling the moisture content under field conditions. Some Class IV soils with medium to high plasticity and with liquid limits greater than 50 percent (CH, MH, CH-MH) exhibit reduced strength when wet and should only be used for bedding, haunching and initial backfill in arid locations where the pipe embedment will not be saturated by groundwater, rainfall or exfiltration from the pipe. Class IV soils with low to medium plasticity and with liquid limits lower than 50 percent (CL, ML, CL-ML) also require careful consideration in design and installation to control moisture content, but need not be restricted in use to arid locations.)
5. Class V: This class includes the organic soils OL, OH and PT as well as soils containing frozen earth, debris, rocks larger than 1.5 inches (40 mm) in diameter and other foreign materials. Do not use these materials for bedding, haunching or backfill.

2.2 SELECT BACKFILL

- A. Materials for Select Backfill: Use clean gravel, crushed stone, washed shell, or other granular or similar material as approved which can be readily and thoroughly compacted to 95 percent of the maximum dry density obtainable by ASTM D 1557.

1. Allowed Materials: Grade select backfill between the following limits:

U.S. Standard Sieve	Percent Passing By Weight
2 inch	100
1-1/2 inch	90-100
1 inch	75-95
1/2 inch	45-70
#4	25-50
#10	15-40
#200	5-15

2. Unallowed Materials: Very fine sand, uniformly graded sands and gravels, sand and silt, soft earth, or other materials that have a tendency to flow under pressure when wet are unacceptable as select backfill.

2.3 COMMON ON-SITE BACKFILL

- A. Materials for Common Backfill: Material from on-site excavation may be used as common backfill (fill) provided that it can be readily compacted to 90 percent of the maximum dry density obtainable by ASTM D 1557, and does not contain unsuitable material. Select fill may be used as common fill at no change in the Contract Price.
- B. Granular Materials On-Site: Granular on-site material, which is fairly well graded between the following limits may be used as granular common fill:

U.S. Standard Sieve	Percent Passing by Weight
2 inch	100
#10	50-100
#60	20-90
#200	0-20

- C. Cohesive Materials On-Site: Cohesive site material may be used as common fill.
- The gradation requirements do not apply to cohesive common fill.
 - Use material having a liquid limit less than or equal to 40 and a plasticity index less than or equal to 20.
- D. Material Approval: All material used as common fill is subject to approval. If there is insufficient on-site material, import whatever additional off-site material is required which conforms to the specifications and at no additional cost.

2.4 UTILITY PIPE BEDDING

- A. Gradation for all Piping: Bedding material shall be FDOT No. 57 stone if below the seasonal low groundwater table; or FDOT No. 89 stone, FDOT No. 131 screenings, or No. 132 screenings if above the seasonal low groundwater table. Provide a minimum of 6 inches of bedding material under all piping.

PART 3 EXECUTION

3.1 PIPE BEDDING AND INITIAL BACKFILL

- A. Placement: Place backfill for initial pipe backfill from top of bedding to 1 foot over top of pipes in uniform layers not greater than 8 inches in loose thickness. Tamp under pipe haunches and thoroughly compact in place the backfill with suitable mechanical or pneumatic tools to not less than 98 percent of the maximum dry density as determined by ASTM D 1557.
- B. Foundation Bedding: Place bedding, to a depth specified by the City Manager or designee, as a foundation in wet, yielding or mucky locations. Construct foundation bedding by removal of the wet, yielding or mucky material and replacement with sufficient Class I material to correct soil instability.
- C. Stone Placement: Do not place large stone fragments in the pipe bedding or backfill within 2 feet over or around pipelines, or nearer than 2 feet at any point from any casing pipe, conduit or concrete wall.
- D. Machine Compaction: Machine Compaction of initial backfill is prohibited unless adequate cover as deemed by the City Manager or designee is provided. In no case shall adequate cover be less than 12 inches.
- E. Unallowed Materials: Pipe bedding containing very fine sand, uniformly graded sands and gravels, sand and silt, soft earth, or other materials that have a tendency to flow under pressure when wet is unacceptable.

3.2 TRENCH BACKFILL

- A. General: Backfill trenches from 1 foot over the top of the pipe, from the top of electrical duct bedding or as shown to the bottom of pavement base course, subgrade for lawns or lawn replacement, to the top of the existing ground surface or to such other grades as may be shown or required.
- B. Materials: All backfill material shall be acceptable dry materials, and shall be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, or stones, or other deleterious material which in the opinion of the City Manager or designee is unsuitable.
- C. Depth of Placement - Place trench backfill in uniform layers not greater than 12 inches in loose thickness and that can be thoroughly compacted in place using suitable mechanical or pneumatic equipment to not less than 98 percent of the maximum dry density as determined by ASTM D 1557.
- D. Depth of Placement - Undeveloped Areas: In nondeveloped areas and where select fill material or hand-placed backfill are not specified or required, place suitable job-excavated material or other approved backfill in lifts not exceeding 12 inches in loose thickness. Lifts of greater thickness may be permitted by the City Manager or designee if the CONTRACTOR demonstrates compliance with required densities. When the trench is full, consolidate the backfill by jetting,

spading, or tamping to ensure complete filling of the excavation. Mound the top of the trench approximately 12 inches to allow for consolidation of backfill.

- E. Compaction: Compact backfill as a percentage of the maximum density at optimum moisture content as determined by the standard proctor test, ASTM D698 as demonstrated in the following table:

Area	(Mod.) ASTM D1557
Around and 1' (Min) above top of pipe	98
Remaining Trench	98
Pavement Sub-Grade and Shoulders (Last 3' of Fill)	98
Base Material and Pavement	98
Adjacent to Structures (Areas not Paved)	98
Under Structures	98
Sub-Base	98

- F. Density Tests: Density tests will be made at the request of the City Manager or designee. Deficiencies will be corrected at the expense of the CONTRACTOR.
- G. Dropping of Material on Work: Do trench backfilling work in such a way as to prevent dropping material directly on top of any conduit or pipe through any great vertical distance.
- H. Distribution of Large Materials: Break lumps up and distribute any stones, pieces of crushed rock or lumps which cannot be readily broken up, throughout the mass so that all interstices are solidly filled with fine material.

3.3 STRUCTURE BACKFILL

- A. Use crushed stone underneath all structures, and adjacent to structures where pipes, connections and structural foundations are to be located within this fill. Use crushed stone beneath all pavements, walkways, and railroad tracks, and extend to the bottom of pavement base course or ballast.
- Place backfill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable approved mechanical or pneumatic equipment.
 - Compact backfill to not less than 95 percent of the maximum dry density as determined by ASTM D 1557.
- B. Use of Common Fill: Use common granular fill adjacent to structures in all areas not specified above. Select fill may be used in place of common granular fill at no additional cost.
- Extend such backfill from the bottom of the excavation or top of bedding to the bottom of subgrade for lawns or lawn replacement, the top of previously existing ground surface or to such other grades as may be shown or required.
 - Place backfill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable equipment, as specified above.

3. Compact backfill to not less than 90 percent of the maximum dry density as determined by ASTM D 1557.

3.4 COMPACTION EQUIPMENT

- A. Equipment and Methods: Carry out all compaction with suitable approved equipment and methods.
 1. Compact clay and other cohesive material with sheep's-foot rollers or similar equipment where practicable. Use hand held pneumatic tampers elsewhere for compaction of cohesive fill material.
 2. Compact low cohesive soils with pneumatic-tire rollers or large vibratory equipment where practicable. Use small vibratory equipment elsewhere for compaction of cohesionless fill material.
 3. Do not use heavy compaction equipment over pipelines or other structures, unless the depth of fill is sufficient to adequately distribute the load.

3.5 FINISH GRADING

- A. Final Contours: Perform finish grading in accordance with the completed contour elevations and grades shown and blend into conformation with remaining natural ground surfaces.
 1. Leave all finished grading surfaces smooth and firm to drain.
 2. Bring finish grades to elevations within plus or minus 0.10 foot of elevations or contours shown.
- B. Surface Drainage: Perform grading outside of building or structure lines in a manner to prevent accumulation of water within the area. Where necessary or where shown, extend finish grading to ensure that water will be carried to drainage ditches, and the site area left smooth and free from depressions holding water.

3.6 RESPONSIBILITY FOR AFTER SETTLEMENT

- A. After Settlement Responsibility: Take responsibility for correcting any depression which may develop in backfilled areas from settlement within one year after the work is fully completed. Provide, as needed, backfill material, pavement base replacement, permanent pavement, sidewalk, curb and driveway repair or replacement, and lawn replacement, and perform the necessary reconditioning and restoration work to bring such depressed areas to proper grade as approved.

3.7 INSPECTION AND TESTING OF BACKFILLING

- A. Sampling and Testing: Provide sampling, testing, and laboratory methods in accordance with the appropriate ASTM Standard Specification. Subject all backfill to these tests.
- B. Correction of Work: Correct any areas of unsatisfactory compaction by removal and replacement, or by scarifying, aerating or sprinkling as needed and recompaction in place prior to placement of a new lift.
- C. Testing Schedule:
 1. Compaction Schedule
 2. Optimum Moisture Content (Proctor Test)

END OF SECTION

SECTION 02250 - DREDGING

PART 1 GENERAL

1.1 DESCRIPTION:

- A. The work of this Section consists of furnishing all labor, equipment, supplies, and materials necessary for the proper dredging, treatment, placement and handling of dredging material required by the Contract Documents.
 - 1. SECTION 01010 Summary of Work
 - 2. SECTION 01500 Construction Facilities and Temporary Controls
 - 3. SECTION 02110 Site Clearing
 - 4. SECTION 02222 Excavation – Earth and Rock
 - 5. SECTION 02275 NPDES Requirements
 - 6. SECTION 02276 Erosion and Sediment Control

1.2 MATERIAL TO BE REMOVED:

- A. Lake 8 material to be removed is generally comprised of filamentous algae and vegetation debris (leaves, twigs and alike) around the perimeter of the Lake. The sediment was very dark and appeared to be organic rich with often some sand in it. The sediment was highly heterogenous at some locations in both thickness and strata characteristics. The sediment was most often sitting on a layer of sand of various grain size but mostly fine sand of various tints. Fine sand was underlying the sediment at all sites. Some composited samples of Lake 8 showed concentrations of Arsenic, Benzo (a) Pyrene, and Benzo (a) Pyrene equivalents exceeding the direct exposure to residential and commercial limits.
- B. Lake 9 material to be removed is generally comprised of filamentous algae and vegetation debris (leaves, twigs and alike) along the perimeter of the Lake. The sediment was very dark and appeared to be organic rich with often some sand in it. The sediment was highly heterogenous at some locations in both thickness and strata characteristics. The sediment was most often sitting on a layer of sand of various grain size but mostly fine sand of various tints. Fine sand was underlying the sediment at all sites. Some composited samples of Lake 9 showed concentrations of Arsenic, Copper, Benzo (a) Pyrene, and Benzo (a) Pyrene equivalents exceeding the direct exposure to residential and commercial limits.

The physical and chemical results for each of the Lakes are included within sediment assessment reports completed by WSP.

1.3 ARTIFICIAL OBSTRUCTIONS:

- A. The CONTRACTOR shall identify all existing utilities on site before construction commencement to ensure no impacts.

1.4 QUANTITY OF MATERIAL:

- A. The Contractor shall independently estimate the quantities necessary to be removed based on the proposed Drawings provided and Contractor site investigation of existing conditions. An initial estimate shown on the plans are based on limited soil borings, however this figure should be used as guidance only, actual volume determination will be the responsibility of the Contractor.

1.5 PERMIT:

- A. The Contractor shall comply with all permit conditions. The City shall provide the permits for dredging and disposal of material.

1.6 ENVIRONMENTAL PROTECTION REQUIREMENTS:

- A. The Contractor shall provide and maintain during the life of the contract, all necessary environmental protective measures. Additionally, the Contractor shall provide environmental protective measures required to correct unforeseen environmentally hazardous conditions that occur during the dredging operations. The Contractor will comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. The Contractor will be responsible for implementing erosion and pollution control devices and practices, as specified in SECTION 01500 Construction Facilities and Temporary Controls, SECTION 02276 Erosion and Sediment Control, the Drawings and the Permit Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 INSPECTION:

- A. The Contractor shall inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended purpose. Furnish, at the request of the City, boats, boatmen, laborers, and materials necessary for inspecting, supervising, and surveying the work. When required, the Contractor shall provide transportation for the City and inspectors between the dredge and adjacent points on shore.

3.2 CONDUCT OF DREDGING WORK:

- A. Order of Work
 - 1. The Contractor will direct the sequence of the work as specified and shown on the Drawings or SECTION 01010 Summary of Work. The City reserves the right to change the order of work at any time.
- B. Compensation for Interruption of Operations
 - 1. There will be no compensation to the Contractor for interruption of operations due to expected and/or unforeseen occurrences. Expected interruption of operations that should be taken into account during the bid process include the halting of operations due to sediment dewatering area size restrictions, which would effectively limit the amount of dredge material removed at any given time.
- C. Ranges, Gages, and Lines
 - 1. The Contractor shall furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The City will furnish, upon request by the Contractor, survey lines, points and elevations necessary for the setting of ranges, gages and buoys.
- D. Dredge Equipment

1. The Contractor shall utilize hydraulic and mechanical dredge equipment to remove the muck and sand deposits to elevations shown on the drawings. The Contractor shall be aware that pumping rate may be constrained by the sediment dewatering rate, sediment dewatering area and polymer dosing equipment, and shall implement the appropriate equipment accordingly.
2. The Contractor shall maintain the plant, scows, coamings, barges, pipelines, and associated equipment to meet the requirements of the work. Immediately repair leaks or breaks along pipelines. Immediately remove dredged material discharged in wetlands or other areas outside of the identified project area due to leaks and breaks. Removal of material shall bring the impacted area back to original condition and shall be conducted at Contractor's expense. Operations shall be immediately halted if a pipeline breaks or a leak occurs.
3. Except where authorized in the plans and specifications, dredge pipelines or open ditches shall not block roads or rights of way or otherwise interfere with access unless approved.

E. Polymer

1. The Contractor is required to use the chemical amendment, SNF C-12227 or equivalent, specified in the Drawings.
2. The Contractor shall submit evidence and references from at least three projects in which the Contractor has successfully implemented and operated a cationic polymer dosing system to provide water quality treatment of dredge material. Project descriptions shall include total volume of sediment removed, type of sediment removed, type of polymer used, type and operation of the dosing equipment and Contractor's qualified chemical amendment personnel. A list of any difficulties encountered in the project and resolutions shall also be included. Submit project description, client project managers and qualified employee overseeing the application with the bid. If past experience cannot be adequately demonstrated, the Contractor shall hire, at the expense of the Contractor, a qualified chemical amendment technician to be on-site at all times of dredge operation. Qualifications and references of requirements of said technician shall be the same as previously described.
3. The Contractor is responsible for installing and operating polymer mixing and dosing equipment that is capable of delivering a constant feed of polymer to the dredge transfer line when dredge material is being pumped. Mixing and dosing equipment must operate according to the following manufacturer specifications (also included in the Drawings and Permit Documents):

F. Dewatering of Excavated Material

1. The Contractor shall utilize woven geotextile filter bags (US #50 Sieve Pore Size or equivalent) for sediment dewatering purposes. Geotextile filter bags shall be housed in temporary, portable containers that can be hauled to and from the temporary dewatering area on a daily basis. The Contractor may choose a geotextile filter bag size and/or a portable container size that is different from the Design Engineer's recommendation of a 20 CY capacity for each, however final hauling weight of each load (load = sediment + truck + trailer) is not to exceed Florida Highway Patrol – Office of Commercial Vehicle Enforcement Manual, Eight Edition, Dated April 2013, maximum single axle weight of 22,000 lbs. The contractor is responsible for preparing and providing the City for approval a hauling plan that follows all weight limits along the approved hauling alignment.

G. Disposal of Excavated Material

1. The Contractor shall provide for safe transportation and disposal of dredged materials according to specifications and guidelines set forth in the Drawings and Permit Document. The deposit of dredged materials in unauthorized places is forbidden. Spoil material inadvertently spilled on roads, public rights of way and private property shall be promptly removed and the area restored by the Contractor.

H. Method of Communication

1. The Contractor shall provide a system of communication between the dredge crew and the crew at the dewatering area at all times. A portable two-way radio is acceptable.

I. Safety of Structures

1. The prosecution of the work shall ensure the stability subaqueous utility crossings, buried and overhead utilities, parallel runs, utility poles and lines, guys and anchors, culverts, pipes and other structures or trees and vegetation or existing slope protection lying on or adjacent to the site of the work, insofar as structures may be jeopardized by dredging operations. The Contractor shall be responsible for repair of damage resulting from construction operations, insofar as such damage may be caused by variation in locations or depth of dredging, or both, from that indicated or permitted under the contract or pipelines spraying.

J. Plant Removal

1. Upon completion of the work, promptly remove the plant, including ranges, buoys, piles, silt screens or silt barriers, rope, line, cable and artificial anchors, signage and other markers or obstructions and return the site to its original condition.

3.3 MEASUREMENT:

A. Surveys during Progress of Work

1. Preliminary checks of design depth will be determined by soundings or sweepings taken behind the dredge as the work progresses. The Contractor shall take progress soundings or sweepings to verify compliance with contract requirements.
2. Contract Depth will be confirmed via bathymetric survey after conclusion of each zone. The bathymetric survey shall be signed and sealed by a Florida Registered Professional Surveyor and follow all guidelines set by the City.

B. Monthly Estimates

1. Monthly estimates of work completed will be based on the result of soundings taken during the progress of the work. Deductions will be made for dredging and disposal not in accordance with the specifications.

3.4 FINAL EXAMINATION AND ACCEPTANCE:

- A. On completion of dredging of a section or an area, the Contractor shall engage a licensed surveyor to provide as-built cross sections to provide certified drawings of the section. Cross sections shall be taken at the same locations used for the contract unless specified otherwise. The City may take additional cross sections and soundings as necessary. The Contractor shall provide to the City signed and sealed certified as-built drawings indicating the existing cross section superimposed on the dredged cross sections as the final submittal. A dredge tolerance of 6-inches shallower than design depth and up to 2-inches deeper than design depth, where

Contractor will be paid for material removed to the measured and calculated volumes within this tolerance. Signed and Sealed as-built cross sections of the re-sloped shoreline shall also be provided.

END OF SECTION

SECTION 02275 – NPDES REQUIREMENTS

PART 1 GENERAL

1.1 DESCRIPTION

- A. This Section describes the required documentation to be prepared and signed by the CONTRACTOR before conducting construction operations, in accordance with the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit, as required by Florida Administrative Code (F.A.C.) Chapter 62-621.
- B. The CONTRACTOR shall be responsible for implementation, maintenance and inspection of stormwater pollution prevention control measures in accordance with F.A.C. Chapter 62-621 including, but not limited to, erosion and sediment control, stormwater management plans, waste collection and disposal, off-site vehicle tracking, and other practices shown on the Drawings and/or specified elsewhere in this or other specifications. The stormwater pollution prevention control measures shall include protection of offsite public and private storm sewer facilities potentially impacted during construction. Stormwater facilities include streets, inlets, pipes, ditches, swales, canals, culverts, control structures, and detention/retention areas.
- C. The CONTRACTOR shall prepare and review implementation of the Stormwater Pollution Prevention Plan (SWPPP) in a meeting with the City Manager or designee prior to start of construction.

1.2 UNIT PRICES

- A. Unless indicated in the Unit Price Schedule as a pay item, no separate payment will be made for work performed under this Section. Include cost of work to be performed under this Section in pay items of which this work is a component.

1.3 REFERENCE DOCUMENTS

- A. ASTM D3786 – Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics
- B. ASTM D4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 NOTICE OF INTENT (NOI)

- A. Fill out, sign and date a Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, (FDEP Form 62-621.300(4)(b)). Submit the signed copy of the NOI to the City Manager or designee. The City Manager or designee will submit the completed form to the FDEP along with the required permit fee.

3.2 CERTIFICATION REQUIREMENTS

- A. On the attached OPERATOR'S INFORMATION form, fill out the name, address and telephone number for the CONTRACTOR, persons or firms responsible for maintenance and inspection of erosion and sediment control measures, and all Subcontractors.
- B. The CONTRACTOR and Subcontractors named in the Operator's Information form shall read, sign and date the attached CONTRACTOR'S/SUBCONTRACTOR'S CERTIFICATION form.
- C. The persons or firms responsible for maintenance and inspection of erosion and sediment control measures shall read, sign and date the attached EROSION CONTROL CONTRACTOR'S INSPECTION AND MAINTENANCE CERTIFICATION form.
- D. Submit all forms to the City Manager or designee before beginning construction.

3.3 RETENTION OF RECORDS

- A. Retain a copy of the SWPPP at the construction site and at the Contractor's office from the date that it became effective to the date of project completion.
- B. At project closeout, submit to the City Manager or designee all NPDES forms and certifications, as well as a copy of the SWPPP. Stormwater pollution prevention records will be retained by the City Manager or designee for a period of three (3) years from the date of project completion.

3.4 REQUIRED NOTICES

- A. The following notices shall be posted from the date that the SWPPP goes into effect until the date of final site stabilization:
 - 1. A copy of the submitted NOI and a brief project description, as given in the SWPPP, shall be posted at the construction site and at the CONTRACTOR's office in a prominent place for public viewing.
 - 2. Notice to drivers of equipment and vehicles, instructing them to stop, check and clean tires of debris and mud before driving onto traffic lanes. Post such notices at every stabilized construction exit area.
 - 3. Post a notice of waste disposal procedures in an easily visible location on site.
 - 4. Notice of hazardous material handling and emergency procedures shall be posted with the NOI on site. Keep copies of Material Safety Data Sheets at a location on site that is known to all personnel.
 - 5. Keep a copy of each signed certification at the construction site and at the CONTRACTOR's office.

REQUIRED FORMS FOLLOW

OPERATOR'S INFORMATION

Owner's Name and Address:

City Utilities Department

380 Riverside Circle
Naples, Florida 34102
(239) 213-4717

Contractors' Names and Addresses:

General Contractor:

Telephone:

Site Superintendent:

Telephone:

Erosion Control and
Maintenance Inspection:

Telephone:

Subcontractors' Names and Addresses:

Phone: _____

Phone: _____

CONTRACTOR'S / SUBCONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of Florida's National Pollutant Discharge Elimination System (NPDES) Construction General Permit that authorizes storm water discharges associated with activity from the construction site identified as part of this certification, and that I have received a copy of the SWPPP.

Signature: _____
Name: _____ (printed _____ or _____ typed)
Title: _____
Company: _____
Address: _____

Signature: _____
Name: _____ (printed _____ or _____ typed)
Title: _____
Company: _____
Address: _____

Signature: _____
Name: _____ (printed _____ or _____ typed)
Title: _____
Company: _____
Address: _____

**EROSION CONTROL CONTRACTOR'S
INSPECTION AND MAINTENANCE CERTIFICATION**

I certify under penalty of law that I understand the terms and conditions of Florida's National Pollutant Discharge Elimination System (NPDES) Construction General Permit that authorizes storm water discharges associated with activity from the construction site identified as part of this certification, and that I have received a copy of the SWPPP.

Signature: _____

Name: _____ (printed) _____ or _____ typed)

Title: _____

Company: _____

Address: _____

Date: _____

**STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT**

Project: _____

Contractor: _____

Inspector: _____

Date: _____

CONTROLS	LOCATION	SEDIMENT HEIGHT	PROBLEM DESCRIPTION	MAINTENANCE REQUIRED	REPAIRED BY / DATE

END OF SECTION

SECTION 02276 – EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL

1.1 DESCRIPTION

- A. The work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary. The Contractor shall exercise extreme care to minimize contamination of rainfall run-off from the site. All necessary provisions and care shall be taken to insure compliance with the Water Quality Standards of the State of Florida, more particularly the South Florida Water Management District (SFWMD). The Contractor shall make himself familiar with Chapter 17-3, "Water Quality Standards," of the Florida Administrative Code (F.A.C.). Compliance for protection of State Waters and/or jurisdictional areas require the use of hay bales, temporary swales, settling ponds, silt screens, and other appropriate methods as necessary to prevent soils and sediment from entering such areas. Prior to commencement of work, the Contractor shall submit a plan of action and a list of materials he plans to use for sedimentation/erosion control to the City for approval.
- B. Temporary sedimentation controls include, but are not limited to; silt fence, floating turbidity barriers, hay bales, public and private on- and off-site storm sewer inlets protectors, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the CITY.
- C. If required by regulation or CITY, CONTRACTOR is responsible for providing an approved Erosion Control Plan for effective temporary erosion and sediment control measures during construction or until final controls become effective.

1.2 REFERENCE DOCUMENTS

- A. South Florida Building Code and Standard Building Code.

PART 2 PRODUCTS

2.1 EROSION CONTROL

- A. Sodding and Seeding is specified in Section 02400.
- B. Rip Rap Apron
- C. Road Stabilization.

2.2 SEDIMENTATION CONTROL

- A. Floating Turbidity Barriers
- B. Sediment Fence.
- C. Bales - clean, seed free pine needle or cereal hay type.

PART 3 EXECUTION

3.1 EROSION CONTROL

- A. Minimum procedures for grassing are:
 - 1. Scarify slopes to a depth of not less than six inches and remove large clods, rock, stumps, roots larger than 1/2 inch in diameter and debris.

2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4 inch and 1-1/2 inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas that exhibit unsatisfactory growth (less than 70 percent coverage). Backfill and seed eroded areas, removing eroded material from effected drainage facilities.

B. Minimum procedures for rip rap aprons are:

1. Clear the foundation of all trees, stumps, and roots.
2. Install extra strength filter fabric on the bottom and sides of the channel foundation, placing the upstream fabric over the downstream fabric with at least a 1 foot overlap on all joints. The fabric is to be securely held in place with metal pins.
3. Place riprap evenly to the lines and grades shown on the drawings and staked in the field. Place riprap immediately following the installation of the filter fabric.
4. Riprap shall meet the specification for FDOT Class 2 Riprap.
5. Restore all disturbed areas in accordance with a vegetation plan submitted in advance and approved by the City Manager or designee.

C. Minimum Procedures for road stabilization are:

1. Clear roadbed and parking areas of all vegetation, roots and other objectionable material.
2. Provide surface drainage.
3. Spread 6 inch course of lime rock evenly over the full width of road and parking area and smooth to avoid depressions.
4. After grading, seed or resod all disturbed areas adjoining roads and parking areas conforming to existing conditions prior to construction.

3.2 SEDIMENTATION CONTROL

A. Install and maintain silt dams, traps, barriers, and appurtenances as required. Replace deteriorated hay bales and dislodged filter stone.

B. Minimum requirements for sediment fence:

1. Construct sediment fence on low side of topsoil stockpile to prevent sediment from being washed into the drainage system. Fence to extend around approximately 70 percent of the perimeter of the stockpile. Fence must be unobstructed so as to maintain a minimum of 75 percent of its design flow rate.
2. Locate posts down slope of fabric to help support fencing.
3. Bury toe of fence approximately 8 inches deep to prevent undercutting.

4. When joints are necessary, securely fasten the fabric at a support post with overlap to the next post.
5. Filter fabric shall be of nylon, polyester, propylene or ethylene yarn with extra strength – 50 pounds per linear inch (minimum) - and with a flow rate of at least 0.30 gallons per foot per minute. Fabric should contain ultraviolet ray inhibitors and stabilizers.

C. Minimum Requirement for stormwater facilities protection

1. Public and private storm sewer facilities, both on and offsite shall be protected at all inlets affected by construction. Storm sewer facilities include streets, inlets, pipes, ditches, swales, canals, culverts, control structures, and detention/retention areas.
2. Grated drop inlets shall be wrapped with filter fabric in a manner that allows removal of accumulated sediment from the fabric before removing the grate.
3. Curb inlets shall be protected from sediment, turbid water from stormwater or dewatering activities; also construction debris, concrete mix and rinsate, and any other pollution.
4. Stormwater runoff entering such storm sewer inlets and stormwater detention/retention facilities with a turbidity greater than 50 NTU shall be considered to be in non-compliance with these regulations.

3.3 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed fail to produce results which comply with the requirements of the State of Florida, immediately take steps necessary to correct the deficiency at no expense to the CITY. Sedimentation or turbid water violations to stormwater facilities on or offsite shall require the contractor to remove all sediment from the affected facilities.

END OF SECTION

SECTION 02370 – RIPRAP SYSTEM

PART 1 – GENERAL

1.1 SCOPE:

- A. Summary of Work: The CONTRACTOR shall provide all labor, materials, and equipment necessary for the construction of riprap systems for the mitered end sections as indicated in the construction drawings. All material must be prewashed and clean from metals, concrete and fines.

1.2 APPLICABLE PUBLICATIONS: The following standard specification shall apply to the work of this section:

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, (FDOT)

1.3 SUBMITTALS: The CONTRACTOR shall furnish testing certificates from either the pit of the rock source or a quality testing agency prior to acceptance of the rock source to verify the conformity to the requirements.

- A. Filter Fabric: The CONTRACTOR shall submit manufacturer's data for filter fabric demonstrating compliance with specified material properties, and including manufacturer's recommendations for storage, handling, installation, and anchoring fabric.

PART 2 - MATERIALS

2.1 The CONTRACTOR has the option of using either limestone or natural stone for the rock riprap as long as the selected stone meets the size requirements. All stone used shall be pre-washed, and free from organic material, dirt, clay, sand, rock fines, metals and other materials not meeting the gradation limits.

2.2 RIPRAP - Limestone: The CONTRACTOR shall furnish stone for riprap (gradation B and C only) that shall be limestone, and shall be sound, durable and angular in shape. No more than 10% of the stone for any gradation shall have an elongation (ratio of greatest dimension to least dimension) greater than 3:1, and no stone shall have an elongation greater than 4:1. The riprap material shall conform to the following additional requirements.

2.3 RIPRAP – Local Native Stone: The CONTRACTOR shall provide local native stones for riprap from other sources. The native stone riprap shall be durable stones graded to provide a dense mass. Native stone riprap shall conform to the following requirements.

- A. Local Native stones for riprap shall be graded in size to produce a dense mass. Riprap shall consist of dense, natural rock fragments. Stones shall be resistant to weathering and to water action; free from overburden, spoil, shale and organic material; and shall meet the gradation requirements below. Shale and stones with shale seams are not acceptable.
- B. The greatest dimension of 50 percent of the stones shall be at least two-thirds but not more than 1-1/2 times the diameter of the average size. Neither the breadth nor thickness of any piece of riprap shall be less than one-third its length. Material shall be of shapes that will form a stable protection structure of required depth. Rounded boulders or cobbles shall not be used.
- C. The acceptability of the stones will be determined by the CITY'S representative prior to placement.

- 2.4 FILTER FABRIC: The CONTRACTOR shall provide and install filter fabric conforming to the requirements of FDOT Section 985 for riprap filter.

PART 3 - PERFORMANCE

3.1 FIELD QUALITY CONTROL:

- A. Field control of riprap gradation will be by visual inspection. Arriving loads not meeting specifications will be rejected.
- B. Material shall be placed not dropped to minimize impacts to the filter fabric.

3.2 SUBGRADE PREPARATION:

- A. Dry Installation: The CONTRACTOR shall prepare the subgrade to the lines, slopes and elevations indicated. The CONTRACTOR shall clear the subgrade of sticks, stones, debris and other materials that could puncture the overlying filter fabric. The finished subgrade shall not vary from design grade by more than 2" at any location.

- 3.3 FILTER FABRIC: The CONTRACTOR shall provide and install filter fabric in accordance with the requirements of FDOT Section 514. Filter fabric shall be placed only on subgrade approved by the CITY'S representative.

- 3.4 GRANULAR BEDDING: The CONTRACTOR shall place bedding material beneath those areas to receive gradation C riprap, to a nominal depth of six inches.

- A. Bedding material shall be spread uniformly over filter fabric material. Placement shall not commence until the CITY has approved subgrade preparation and filter fabric installation.
- B. Placement methods, which segregate the bedding particles, will not be permitted.
- C. Compaction of the bedding material will not be required, but material shall be finished to a reasonably even surface.
- D. Tolerance shall be + three-tenths foot provided this tolerance is not continuous over an area greater than 200 square feet when placed in the dry, or greater than 400 square feet when placed sub aqueous.
- E. CONTRACTOR shall maintain the bedding material until the riprap is in place.

- 3.5 RIPRAP: The CONTRACTOR shall proceed placing the riprap upon completion of filter fabric and bedding material (where required) and after receiving approval of the CITY'S representative to proceed. The CONTRACTOR shall place riprap in accordance with the following.

- A. Stone shall be placed in such a manner as to produce a reasonably well-graded mass with the minimum practicable percentage of voids.
 - 1. Place to full course thickness in one operation in a manner to avoid displacing or puncturing filter fabric.
 - a. Stone shall not be dropped from a height greater than two feet above the fabric.
 - 2. Finished riprap shall not be free from objectionable pockets of small stones and clusters of larger stones. Hand place or adjust if necessary to secure the desired results.

B. Surface Tolerances:

1. Dry Installation: The finished stone surface shall not vary from design grade by more than three inches at any location, except that any extreme of the tolerance shall not be continuous over an area greater than 100 square feet.
- 3.6 MAINTENANCE: The CONTRACTOR shall maintain riprap until the project is completed. The CONTRACTOR shall replace riprap displaced by any cause prior to completion of work.
- 3.7 REMOVAL: The CONTRACTOR shall remove all riprap and filter fabric utilized for temporary purposes, such as flow attenuation from the discharge area, upon completion of the project

END OF SECTION

SECTION 02400 – RESTORATION BY SODDING OR SEEDING

PART 1 GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

- A. The work in this section consists of furnishing all labor, material and equipment to restore all areas disturbed during construction to match preconstruction conditions. Establish a stand of grass within the areas disturbed by furnishing and placing grass sod where required, or by seeding and mulching areas not requiring sod.

1.2 REFERENCE DOCUMENTS

- A. Use materials conforming to the requirements of Florida Department of Transportation Standard Specifications for Road and Bridge Construction as follows:
 1. Section 570 – Grassing (by Seeding)
 2. Section 575 – Sodding
 3. Section 981 – Grassing and Sodding Materials
 4. Section 982 – Commercial Fertilizer
 5. Section 983 – Water for Grassing

1.3 SUBMITTALS

- A. Submit certifications and identification labels for all sodding supplied in accordance with General Conditions.

PART 2 PRODUCTS

2.1 SODDING

- A. Types: Sod may be of either St. Augustine or Argentine Bahia grass or as that disturbed, as established prior to construction. Use well matted sod with roots. When replacing sod in areas that are already sodded, use sod of the same type as the existing sod.
- B. Provide sod as required in accordance with Florida Department of Transportation Specifications 575 and 981. Furnish sod equal to and similar in type as that disturbed. Place and water in accordance with FDOT Specifications Section 575.
- C. Use sod in commercial-size rectangles, preferably 12-inch by 24-inch or larger, except where 6-inch strip sodding is called for.
- D. Use sod that is sufficiently thick to secure a dense stand of live grass. Use sod that is live, fresh and uninjured at the time of planting, having a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be reasonably free of weeds and other grasses. Plant sod as soon as possible after being dug, and shade and keep moist from the time it is dug until it is planted.
- E. Handle sod in a manner to prevent breaking or other damage. Do not handle by dumping from trucks or other vehicles. Use care at all times to retain the native soil on the roots of each sod roll during stripping and handling. Sod that has been damaged by handling during delivery, storage or installation will be rejected.

- F. Swales: Place sod to the proper grade and cross section in all flow areas to ensure the design flow of water in the ditch. In excavating for the placement of sod, provide a minimum of 3 inches of undercut.

2.2 FERTILIZER

- A. Supply chemical fertilizer in suitable bags with the net weight certification of the shipment. Fertilizer shall be 12-8-8 and comply with Section 982 of the FDOT Standard Specification for Road and Bridge Construction.
- B. The numerical designations for fertilizer indicate the minimum percentages (respectively) of (1) total nitrogen, (2) available phosphoric acid and (3) water soluble potash, contained in the fertilizer.
- C. The chemical designation of the fertilizer shall be 12-8-8, with at least 50 percent of the nitrogen from a nonwater-soluble organic source. The nitrogen source may be a ureaformaldehyde source provided it is not derived from a waste product of the plastic industry.

2.3 EQUIPMENT

- A. Spread fertilizer uniformly at the specified rate.

2.4 SEEDING

- A. Seed all unpaved areas disturbed during construction that do not require sod. Complete all seeding in conformance with FDOT Specifications Sections 570 and 981. Mulch and fertilize the grassed areas shall be mulched and fertilized in accordance with FDOT Specifications.
- B. Provide mulch material free of weeds. Mulch shall be oat straw or rye, Pangola, peanut, Coastal Bermuda, or Bahia grass hay.
- C. All seeds must have been tested within 6 months of planting. Submit a seed bag tag with final payment requests from each type or mixture of seed used. Seed mixtures shall be chosen to insure the development of the planting during the season or planting, and to insure future growth and permanence.

2.5 TOPSOIL

- A. Topsoil stockpiled during excavation may be used. If additional topsoil is required to replace topsoil removed during construction, it shall be obtained off site at no additional cost to the CITY. Topsoil shall be fertile, natural surface soil, capable of producing all trees, plants, and grassing specified herein.

2.6 MULCH

- A. Furnish small grain straw mulch. Apply mulch at a rate of 1.5 tons per acre, corresponding to a depth not less than 1-inch or more than 3-inches according to texture and moisture content of mulch material. Apply asphalt emulsion at a rate of 150 gallons per ton of straw to anchor the straw applied.

2.7 WATER

- A. It is the CONTRACTOR'S responsibility to supply all water to the site, as required during seeding and sodding operations and through the maintenance period and until the work is accepted. Make whatever arrangements may be necessary to ensure an adequate supply of water to meet the

needs for the work. Furnish all necessary hose, equipment, attachments, and accessories for the adequate irrigation of lawns and planted areas as may be required. Water shall be suitable for irrigation and free from ingredients harmful to plant life.

2.8 SOIL IMPROVEMENTS

- A. Apply lime at the rate of 1 to 1.5 tons per acre. Apply 10-10-10 commercial fertilizer at the rate of 800 pounds per acre and work well into the top inch of topsoil.

PART 3 EXECUTION

3.1 SOD BED PREPARATION

- A. Clear areas to be sodded and/or seeded of all rough grass, weeds, and debris, and bring soil to an even grade.
- B. Thoroughly till soil to a minimum 4-inch depth.
- C. Bring area to proper grade, free of sticks, stones, or other foreign matter over 1- inch in diameter or dimension. The surface shall conform to finish grade, less the thickness of sod, free of water-retaining depressions, the soil friable and of uniformly firm texture.

3.2 INSPECTION

- A. Verify that soil preparation and related preceding work has been completed.
- B. Do not start work until conditions are satisfactory.

3.3 SOD HANDLING AND INSTALLATION

- A. During delivery, prior to planting, and during the planting of sod areas, protect the sod panels at all times from excessive drying and unnecessary exposure of the roots to the sun. Stack sod during construction and planting so as not to be damaged by sweating or excessive heat and moisture.
- B. After completion of soil conditioning as specified above, lay sod panels tightly together so as to make a solid sodded lawn area. On mounds and other slopes, the long dimension of the sod shall be laid perpendicular to the slope. Immediately following sod laying, roll the lawn areas with a lawn roller customarily used for such purposes, and then thoroughly water.
- C. Place sod at all areas where sod existed prior to construction, on slopes of 3 horizontal to 1 vertical (3:1) or greater, in areas where erosion of soils will occur, and as directed by the ENGINEER. On areas where the sod may slide, due to height and slope, the ENGINEER may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.

3.4 SOD MAINTENANCE

- A. The sod shall produce a dense, well-established growth. Repair and re-sod all eroded or bare spots until project acceptance. Repair to sodding shall be accomplished as in the original work.
- B. Perform sufficient watering to maintain adequate moisture for optimum development of the seeded and sodded areas, and no less than 1.5 inches of water per week for at least 2 weeks.

Thereafter, apply water for a minimum of 60 days as needed until the sod takes root and starts to grow or until final acceptance, whichever is latest.

3.5 GUARANTEE

- A. Guarantee a live and vigorous stand of permanent grass at the time of acceptance of the work consisting of 80 percent minimum coverage for seeded grass areas with no bare spots greater than 5 square feet.

3.6 CLEANING

- A. Remove debris and excess materials from the project site.

END OF SECTION

SECTION 02575 - REPAIR AND RESTORATION OF PAVEMENT, SIDEWALK, ETC.**PART 1 GENERAL****1.1 SCOPE OF WORK**

- A. Furnish all labor, materials, equipment, and incidentals required and remove and replace pavements over trenches excavated for installation of pipelines as shown on the drawings and/or specified herein and repair areas where equipment has damaged the roads.

1.2 GENERAL

- A. Repair all damage, as a result of work under this project, done to existing pavement, driveways, paved areas, curbs and gutters, sidewalks, shrubbery, grass, trees, fences, utility poles, utility pipe lines, conduits, drains, catch basins, or stabilized areas or driveways and including all obstructions not specifically named herein, in a manner satisfactory to the ENGINEER. Include in the bid price, the furnishing of all labor, materials, equipment, and incidentals necessary for the cutting, repair, and restoration of the damaged areas unless pay items for specific types of repair are included in the Bid Form.
 - B. Keep the surface of the backfilled area of excavation in a safe condition and level with the remaining pavement until the pavement is restored in the manner specified herein. All surface irregularities that are dangerous or obstructive to traffic are to be removed. Conform the repair to applicable CITY or State requirements for pavement repair and as described herein.
 - C. The CITY reserves the right to require soil bearing or loading tests or materials tests, should the adequacy of the foundation or the quality of materials used be questionable. Costs of these tests shall be the responsibility of the CITY, if found acceptable; the costs of all failed tests shall be the responsibility of the CONTRACTOR.
 - D. Make all street and road repair in accordance with the details indicated on the drawings and in accordance with the applicable requirements of these Specifications and meeting the permit requirements and approval of the governing Department of Transportation agencies.
 - E. Replace pavement or roadway surfaces cut or damaged in equal or better condition than the original, including stabilization, base course, surface course, curb and gutter or other appurtenances. Obtain the necessary permits prior to any roadway work. Provide advance notice to the appropriate authority, as required, prior to construction operations.
1. Roadway Restoration (within City Department of Transportation & Engineering jurisdiction): Perform restoration in accordance with the requirements set forth in the "Right-of-Way Utility Construction Activities Policy" and these Standards. Obtain prior approval from the City Stormwater, Streets and Traffic Department for the materials of construction and method of installation, along with the proposed restoration design for items not referred or specified herein.
 - a. Where existing pavement is to be removed, mechanical saw cut the surface prior to trench excavation, leaving a uniform and straight edge parallel or perpendicular to the roadway centerline with minimum disturbance to the remaining adjacent surfacing. Provide minimal width of cut for this phase of existing pavement removal. Limerock from a FDOT approved pit shall be on the job site during open cutting. When the specified compacted limerock base is greater than six inches (6"), the base shall be constructed in two (2) or more lifts.
 - b. Immediately following the specified backfilling and compaction, apply a temporary sand seal coat surface to the cut areas. For this temporary surfacing, provide a smooth traffic surface

with the existing roadway and maintain until final restoration. Ensure that surfacing remains for a minimum of ten (10) days in order to assure the stability of the backfill under normal traffic conditions. Thirty (30) days following this period and prior to sixty (60) days after application: remove the temporary surfacing and perform final roadway surface restoration.

- c. In advance of final restoration, remove the temporary surfacing and mechanically saw the existing pavement straight and clean to the stipulated dimensions, if needed. Following the above operation, proceed immediately with final pavement restoration in accordance with the requirements set forth by the City.
 - d. No layer shall be greater than two inches (2") when compacted. Where a surface course is constructed to a thickness greater than two inches (2"), construct it in approximately equal layers, each not exceeding two inches (2").
 - e. Where necessitated by traffic conditions, lay mixture in strips in such manner as to provide for the passage of traffic. Where the road is closed to traffic, mixture may be laid to the full width, by machines traveling in parallel.
2. Roadway Restoration (outside City jurisdiction) – Conform work within the rights-of-way of public thoroughfares which are not under jurisdiction of City to the requirements of the Governmental agency having jurisdiction or the Florida Department of Transportation, if no governmental agencies have jurisdiction. Work within State Highway right-of-way shall be in full compliance with all requirements of the permit drawings, and to the satisfaction of the Florida Department of Transportation.

1.3 QUALITY ASSURANCE

- A. Applicable provisions of the latest version of the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", and Supplemental Specifications hereunder govern the work under this Section. The Florida Department of Transportation will hereafter be referred to as FDOT.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Use materials for flexible base pavement and base course as specified in the latest version of the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction".

PART 3 EXECUTION

3.1 CUTTING PAVEMENT

- A. Cut and remove pavement to straight edges, 6 inches outside each edge of proposed trench to avoid pavement damage during installation of the new pipelines and appurtenances and for making connections to existing pipelines.
- B. Before removing pavement, mark the pavement for cuts nearly paralleling pipelines and existing street lines. Cut asphalt pavement along the markings with a jackhammer, rotary saw, or other suitable tool.

- C. No pavement shall be machine pulled until completely broken and separated along the marked cuts.
- D. The pavement adjacent to pipeline trenches shall neither be disturbed nor damaged. If the adjacent pavement is disturbed or damaged, irrespective of cause, remove the damaged pavement replace it at CONTRACTOR's expense.

3.2 GENERAL RESTORATION

- A. Restore, replace or rebuild existing street paving, driveways, sidewalks, etc., using the same type of construction as was in the original. Be responsible for restoring all such work, including sub-grade and base courses where present. Obtain and pay for such local or other governmental permits as may be necessary for the opening of streets. Meet any requirements other than those herein set forth which may affect the type, quality and manner of carrying on the restoration of surfaces by reason of jurisdiction of such governmental bodies.
- B. In all cases, maintain, without additional compensation, all permanent replacement of street paving, done by him under this Contract until accepted by the City Manager or designee, including the removal and replacement of such work wherever surface depressions or underlying cavities result from settlement of trench backfill.
- C. Complete all the final resurfacing or re-paving of streets or roads, over the excavations and relay paving surfaces of roadbed that have failed or been damaged prior to acceptance by the City Manager or designee. Conform backfilling of trenches and the preparation of sub-grades to the requirements of Section 02223.
- D. Do all re-paving or resurfacing in accordance with Florida Department of Transportation Specifications, to which the following requirement of trench backfill will be added: Where pipeline construction crosses paved areas such as streets, backfill the top 24 inches of trench below the road bases or concrete slabs with compacted A-4 or better material that will provide a bearing value of not less than 75 when tested by the Florida Department of Transportation Soil Bearing Test Methods. All open cuts through paved areas shall be repaved within 48 hours at least with cold patch.

3.3 PRIME AND TACK COATS

- A. Apply bituminous prime and tack coats on the previously prepared base course in accordance with Section 300 of the FDOT Specifications.

3.4 WEARING COURSE

- A. Use plant-mixed hot bituminous pavement to the thickness indicated in the drawings conforming to Type III asphaltic concrete in accordance with Section 333 of the FDOT Specifications. The requirements for plant and equipment are specified in Section 320 and the general construction requirements for asphaltic concrete pavement are contained in Section 330 of the FDOT specifications.

3.5 TESTING

- A. Perform all field-testing at an independent laboratory employed by the CITY. Test and certify all materials by the producer. Repeat tests of sub-grade or base not meeting specified compaction at the CONTRACTOR's expense.

3.6 MISCELLANEOUS RESTORATION

- A. Restore sidewalks, cut or damaged by construction, in full sections or blocks to a minimum thickness of four inches. Restore concrete curb or curb gutter to the existing height and cross section in full sections or lengths between joints. Concrete shall be as specified on the drawings. Restore grassed yards, shoulders and parkways to match the existing sections with grass seed or sod of a type matching the existing grass.

3.7 CLEANUP

- A. After all repair and restoration or paving has been completed, remove all excess asphalt, dirt, and other debris from the roadways. Check and clean all existing storm sewers and inlets of any construction debris.

END OF SECTION

SECTION 02580 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. This Section specifies the furnishing and application of thermoplastic, glass beads, and reflective pavement markings.

1.2 QUALITY ASSURANCE

- A. Thermoplastic, glass beads and reflective pavement markings shall be applied in accordance with the most recently published edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, the 2014 Roadway and Traffic Design Standards and the Florida Manual on Traffic Control and Safe Practices for Street and Highway Construction.

1.3 SUBMITTALS

- A. Submit certificates stating that materials meet Florida Department of Transportation Specifications Sections 706 and 711.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Thermoplastic: The Thermoplastic compound used shall meet the requirements set of Section 711 of the 1999 FDOT Standard Specification for Road and Bridge Construction.
- B. Glass Beads: Glass beads shall meet the requirements of Section 711-6 of the 1999 FDOT Standard Specification for Road and Bridge Construction.
- C. Type 4 Mono-Directional Amber Reflective Pavement Markers: The markers shall meet the requirements of Section 706-2 of the 1999 FDOT Standard Specification for Road and Bridge Construction.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Equipment shall conform with FDOT Standard Specification for Road and Bridge Construction Section 711-4.
- B. Dimensions and alignment tolerances shall conform with FDOT Standard Specifications Section 711-5 and 710-5.
- C. Application of thermoplastic compound and glass beads for traffic striping, arrows, messages, and markings shall conform with FDOT Standard Specification Section 711.
- D. Application of reflective pavement markers shall conform with FDOT Standard Specification Section 706.

- E. Protection of newly applied thermoplastic, and newly applied markers from traffic shall conform with FDOT Standard Specification Sections 710-7 and 711-8.

3.2 PERFORMANCE

- A. Temporary Striping of the Centerline of the Road and Stop Bars shall be installed after the leveling course is applied, by the following day. In addition, if the surface course has not started within two (2) weeks, temporary Edge Lines will also be installed over the leveling course. Temporary Striping of the Centerline of the Road, Stop Bars, and Edge Lines shall then be installed on the surface course. The Striping Contractor shall be on-site the day the surface course is applied to begin temporary striping lay out, otherwise, the paving operation will be suspended. All temporary striping shall be completed within one (1) week.

END OF SECTION

SECTION 02830 - CHAIN LINK FENCING AND GATES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Requirements for providing black vinyl coated galvanized steel chain link fencing and gates.

1.2 REFERENCES

- A. Codes and standards referred to in this Section are:
 - 1. ASTM 1043 - Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework
 - 2. ASME B36.10M - Welded and seamless wrought steel pipe
 - 3. FS RR-F-191 - Fencing, Wire and Post, Metal

1.3 DESIGN

- A. General: Provide fencing of the chain-link black vinyl coated type and six (6) feet high with six (6) feet of diamond mesh woven wire fabric topped by extension arms with a vertical height of approximately one foot above the top of the fabric. Design the extension arms slanted out at an angle of 45 degrees and provide the arms to carry three double strands of barbed wire when specifically required. Locate the fence as shown.
- B. Fabric, Supports and Fittings: Provide steel fabric, supports and fittings except as specified.
- C. Fabric, Supports and Fittings: Provide black vinyl coated steel fabric, supports and fittings. Coat the framework, posts and hardware except hinges and latches to match the fabric with thermoplastic or thermoset resins and provide oven-baked materials to a minimum dry coating of seven mils. Color coat all accessories except hinges and latches to match the fence. Provide aluminum hinges and latches.
- D. Pipe Sizes and Weights: Provide pipe sizes and weights meeting the requirements of ASME B 36.10, Table 2 and ASTM A 53, Table 1. All pipe sizes listed are nominal, unless otherwise indicated.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable manufacturers are listed below. Other manufacturers of equivalent products may be submitted.
 - 1. Fences
 - a. Chain Link Fence Co. of Pennsylvania
 - b. U.S. Steel-Cyclone

2.2 FABRIC

- A. Provide fabric that is a one piece woven 2-inch mesh chain link of 6-gauge steel wire with a minimum breakload of 1800 lbs/ft. and which is interwoven to form a continuous fabric with no splices and is coated after weaving. Provide the top selvage knuckled for fabric 60 inches high and under, and the bottom selvage twisted and barbed for fabric over 60 inches high. Clean the fabric of all grease and foreign matter before coating and shipping. Stretch the fabric tightly approximately two inches above grade level and attach the fabric to the terminal or gateposts using beveled tension bands and tension bars.
 - 1. Provide galvanized fabric that is fusion coated with a minimum seven-mil coating of black polyvinyl chloride (PVC) applied over a thermoset plastic bonding agent. Conform the PVC to Federal Specification RR-F-191.
 - 2. Vinyl coat all cut ends.
 - 3. Conform aluminum fabric to Fed. Spec. RR-F-191.

2.3 TENSION WIRE

- A. For the tension wire for the fence bottom use minimum 6-gauge galvanized coil spring steel fusion color coated as specified for the fabric.

2.4 TOP AND BRACE RAILS

- A. General: Furnish the top rail in approximately 20-foot lengths with couplings approximately 6 inches long for each joint. Provide one coupling in each 5 with an expansion spring. Provide the rail continuous from end-to-end for each run of fence. Provide brace rails at all terminal posts, locate the rails midway between the top and bottom of the fabric and extend from the terminal post to the first adjacent line post. Securely fasten rails at both ends. Provide top and brace rails that are galvanized steel fusion color coated as specified for framework in Subsection 1.03 C.
- B. Pipe Type: 1-1/4-inch, Schedule 40 pipe or a 1.625- by 1.25-inch roll-formed section with minimum bending strength of 192 pounds on 10-foot span.

2.5 POSTS

- A. General: Provide all posts that are coated as specified for vinyl-coated framework, posts and hardware in Subsection 1.03 C.
- B. Pipe Posts: Provide pipe posts as follows:
 - 1. For end, corner and pull posts use 2-1/2-inch, Schedule 40 pipe
 - 2. For line posts use 2-inch, Schedule 40 pipe
 - 3. For gate posts use the following pipes for different leaves:
 - a. For leaves up to 6 feet wide, use 2-1/2-inch Schedule 40 pipe
 - b. For leaves over 6 feet to 12 feet wide, use 3-1/2-inch Schedule 40 pipe c.
 - For leaves over 12 feet to 18 feet wide, use 6-inch Schedule 40 pipe

- C. Bending Strength: Provide materials with the minimum bending strength based on a 6-foot cantilever for rolled formed or tube posts as follows:

		Galvanized Steel
1.	End, Corner and Pull Posts:	
	2.875" O.D. roll formed or	444
	2-1/2-inch square tube	547
	2-1/2-inch square, heavy wall extrusion	
2.	Line Posts:	
	For fences 8 feet maximum height 1.875- by 1.625-inch C-Section	245
	For fences over 8 feet high 2.25- by 1.703-inch C- Section	347
3.	Gate Posts:	
	For leaves up to 6 feet wide (2.875-inch O.D. roll formed or 2-1/2-inch square tube	444
		645

2.6 GATES

- A. General: For the perimeter construction of gates with leaves up to 6 feet wide, use 1-1/2-inch Schedule 40 pipe or 1-1/2-inch square steel tube, and for gates with leaves greater than 6 feet wide, use 2-inch Schedule 40 pipe or 2-inch square steel tube.
- B. Braces: Provide the gates with sufficient horizontal and vertical members and bracing to ensure structural stability to prevent sagging and to provide for the attachment of fabric, hardware and accessories. Provide gates with diagonal cross bracing consisting of 3/8-inch diameter adjustable length truss rods where necessary to provide frame rigidity without sag or twist.
- C. Cantilever Sliding Gates: Furnish cantilever overhang as follows:

Gate Leaf Size	Overhang
6'-0" to 10'-0"	6'-6"
11'-0" to 14'-0"	7'-6"
15'-0" to 22'-0"	10'-0"
12'-0" to 30'-0"	12'-0"

- 1. For gates leaf sizes 23'-0" to 30'-0", add one additional 2-inch square lateral support rail welded adjacent to the top horizontal rail. Make the bottom rail of 2" x 4" tubing weighing 1.71 pounds per foot.
- 2. Provide all cantilever overhang frames having 3/8-inch (galvanized steel) (aluminum) brace rods.
- 3. Provide the enclosed track made of a combined track and rail aluminum extrusion having a total weight of 3.72 pounds per foot and designed to withstand a reaction load of 2,000 pounds.
- 4. Provide each gate leaf with two swivel type zinc die cast trucks having four sealed lubricant ball-bearing wheels, 2-inch in diameter by 9/16-inch in width, with two side rolling wheels to insure alignment of the truck in the track. Hold trucks to post brackets by 7/8-inch diameter ball bolts with 1/2-inch shank. Design truck assemblies to take the same reaction load as the track.
- 5. Install gates on 4-inch OD Schedule 40 (aluminum) (black vinyl coated) posts weighing 9.1 pounds per foot. Use three posts for single slide gate and four posts for double slide gate.
- 6. Provide guide wheel assemblies for each supporting post. Provide each assembly consisting of two rubber wheels 4 inches in diameter attached to a post so that the bottom horizontal member will roll between the wheels which can be adjusted to maintain gate frames plumb and in proper alignment.

- D. Gate Accessories: Equip gates with hinges, latches, center stops, hasps, holdbacks, and padlocks. Provide hinges, latches, center stops, hasps, and holdbacks that are aluminum. Provide double gates with a center drop bar and gate holdbacks.
- E. Latches: Provide gate latches that are positive locking, pivoting type with the padlocking arrangement accessible from either side of the gate.
- F. Hinges: Hang all gates on offset hinges to permit swinging the gate through a 180-degree arc to lie, when not obstructed, along and parallel to the line of the fence.

2.7 ATTACHMENTS

- A. General: Provide all attachments fabricated of coated to match the fabric as specified for framework, posts and hardware in Subsection 1.03, except provide aluminum hinges and latches.
- B. Tension Bars: Provide 3/16-inch by 3/4-inch galvanized carbon steel tension bars attached to the terminal posts by means of beveled edge bands.
- C. Truss Rods: Provide 3/8-inch diameter galvanized carbon steel truss rods. Securely mount truss rods between the line post end of the brace rail and the base of the terminal post.
- D. Post Tops: Provide post tops of galvanized pressed steel or malleable iron to form weathertight caps for post or tube posts. Make provisions for installation or passage of the top rail.
- E. Brace and Tension Bands: Provide galvanized steel brace bands and tension bands, of the "unclimbable" beveled edge type with 3/8-inch diameter square shouldered aluminum carriage bolts, nonremovable from outside of the fence.
- F. Rail Couplings: Provide rail couplings of the outside sleeve type, not less than six inches long, self-centering, which allows for expansion and contraction. Provide aluminum galvanized steel rail couplings.
- G. Fabric Ties: Provide 11-gauge galvanized steel fabric ties.
- H. Hog Rings: Provide 11-gauge wire, aluminum alloy, Type 6061-T6 hog rings.
- I. Extension Arms: Provide galvanized pressed steel extension arms for supporting the barbed wire where used. Design the arms with an adequate cross section to withstand without failure or permanent deflection a perpendicular force of 250 pounds applied at the end of the arm when the arm is securely attached to the post. Construct extension arms to be slanted out.

PART 3 EXECUTION

3.1 INSTALLATION

- A. General: Install all fencing and accessories according to the manufacturer's recommendations. Do not begin installation and erection before final grading is completed, unless otherwise approved.
- B. Excavation: Drill or hand excavate (using post hole digger) holes for posts to the diameter

and spacing indicated, in firm, undisturbed or compacted soil.

1. If not indicated, excavate holes for each post to the minimum diameter recommended by the fence manufacturer, but not less than four times the largest cross-section of the post.
 2. Unless otherwise indicated excavate the hole depths approximately 3 inches lower than the post bottom, with the bottom of posts set not less than 36 inches below the finished grade surface.
- C. Barbed Wire: When specifically required, firmly install the barbed wire in slots in the extension arms, anchored to the terminal extension arms after removal of all sag from the wire.
- D. Tension Wire: Attach the tension wire to the bottom of the fabric by hog rings spaced at 24-inch intervals and to terminal posts by brace bands.
- E. Posts: Set posts plumb in concrete encasement at not more than 10-foot centers in the line of the fence with the tops properly aligned. Extend concrete encasement for line posts a minimum of three feet below finish grade with a minimum diameter of ten inches. Extend concrete encasement for terminal, corner and gate posts 40 inches below finished grade, except gate posts for leaves greater than 6 feet, for which extend the encasement 54 inches below grade. Provide the minimum diameter of encasement for terminal, corner and gateposts to be sufficient to provide not less than four inches between any part of the post and the face of the concrete and in no case provide the diameter to be less than 12 inches. Set line posts 32 inches into the concrete and set all other posts 36 inches, except gate posts for leaves greater than 6 feet wide, which are to be set 48 inches into the concrete. Slope the top exposed surface of the concrete to shed water and provide a neat appearance.
1. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment and hold posts in position during placement and finishing operations.
 - a. Unless otherwise indicated, extend the concrete footing 2 inches above grade and trowel to a crown to shed water.
- F. Fabric Ties: Space fabric ties approximately 14 inches apart on the line posts and 24 inches apart on the rails. (For clips used with C-section posts, use galvanized 11-gauge steel wire.)
- G. Fabric: Leave approximately 2 inches between finished grade and the bottom selvage, unless otherwise indicated. Pull the fabric taut and tie to posts, rails, and tension wires. Install the fabric on the security side of the fence, and anchor the fabric to the framework so that the fabric remains in tension after the pulling force is released.
- H. Fasteners: Install nuts for tensions bands and hardware bolts on the side of the fence opposite the fabric side. Peen ends of bolts or score threads to prevent nut removal.

END OF SECTION

SECTION 02910 - LANDSCAPING

PART 1 GENERAL

1.1 Section Includes

- A. Materials, installation, maintenance of trees, ground cover, and shrubs

1.2 Related Sections

- A. Section 002920 - Lawns and Grasses

1.3 General Requirements

- A. Furnish all labor, materials, equipment, and incidentals required to install trees, ground cover, shrubs, and littoral vegetation, to place accessory planting materials and to maintain and guarantee all planted areas, in areas as shown on the Drawings. All work shall be in strict adherence with sound nursery practice and shall include maintenance and watering of all the work of this Contract until final completion and acceptance by the Owner. The landscaping shall be performed by a subcontractor who is fully experienced in projects of this scope and whose main business is landscaping. The subcontractor shall be subject to the approval of the Landscape Architect.
- B. Provide under this Section all landscaping appurtenances as shown on the landscaping drawings and specifications.

1.4 Submittals

- A. Submit to the Landscape Architect for approval, complete written maintenance instructions for each type of plant furnished under the Contract.
- B. Submit representative samples of any or all of required accessory planting materials as ordered by the Landscape Architect.
- C. The Landscape Architect will inspect the material at the nursery and again when delivered to the site to make sure they are healthy, not root bound, of satisfactory height for the size purchased.

1.5 Warranty

- A. All plant materials shall be guaranteed for one (1) year from the time of final inspection and interim acceptance shall be alive and in satisfactory growth for each specific kind of plant at the end of the guaranteed period.
- B. At the end of the guarantee period, any plant required under this contract that is dead or not in satisfactory growth, as determined by the Landscape Architect, shall be removed and replaced. Replacement plants shall have an extended guarantee, as noted above, from time of replacement.

1.6 Maintenance

- A. Maintenance shall commence after each plant is planted and the maintenance period shall continue until the job or specific phase of the job is accepted by the Landscape Architect. Extreme care shall be taken to instruct the Owner or his representatives in general maintenance procedures.
- B. The contractor shall water all trees and palms regularly. The contractor shall provide schedules for all watering performed at least one week prior to commencement. The contractor shall notify the City

prior to watering at the time outlined herein and must adhere to the schedule. The City will have the right to alter said schedules due to events or projects that may conflict or require immediate attention. In the first two weeks, watering should occur 4 times a week. The saucers around the trees and palms should be filled with a minimum of three inches of water. From the third week through the eight-week watering should be done 3 times a week. From the ninth week through the 52nd week watering should be done twice a week or more if needed. This is the minimum-watering schedule desired. If site conditions require more water, it is the responsibility of the contractor to make those scheduling changes. The City has the right at anytime during the maintenance period to require additional watering. The contractor shall keep the watering saucers free of weeds during the maintenance period.

- C. The contractor shall be responsible for all pest control, including but not limited to ants, aphids, Royal Palm bug, mealy bugs, scales, caterpillars and beetles. The contractor shall also treat for fungus problems on the tree leaves and palm fronds.
- D. The contractor shall remove any damaged fronds or tree limbs as they may occur from storms or vandalism. The stakes and ties should always be in good condition. Stakes and ties will be removed in the eighth month of the maintenance program or within 30 days of request of the City. All sucker growth shall be removed when it occurs on specific trees.
- E. Plant maintenance shall include daily watering, as needed pruning, weekly weeding and cultivating, mulching to maintain 4" depth, tightening and repairing of guys as needed, replacement of sick or dead plants upon discovery, resetting plants to proper grades or upright positions upon discovery and restoration of the planting saucer and all other care needed for proper growth of the plants.
- F. During the maintenance period and up to the date of final acceptance, the Landscape Contractor shall do all seasonal spraying and/or dusting of trees and shrubs. Upon completion of all planting, an inspection for acceptance of work will be held. The Landscape Contractor shall notify the Landscape Architect for scheduling of the inspection 10 days prior to the anticipated date.
- G. At the time of the inspection, if all of the materials are acceptable, a written notice will be given by the Landscape Architect to the Landscape Contractor Stating the date when the Maintenance Period ends.

PART 2 PRODUCTS

2.1 Materials

- A. Plant species and size shall conform to those indicated in the Plant List and in plant locations shown on the Drawings. All plants shall be Florida Grade No. 1, or better. The CITY or ENGINEER will inspect the plants at the nursery and after delivered to the site for conformance to the standards.
- B. Plants shall be sound, healthy, vigorous, free from plant diseases, insects, pest, or their eggs, and shall have healthy normal root systems. Plants shall be nursery grown stock, freshly dug. No heeled in, cold storage or collected stock will be acceptable.
- C. Shape and Form:
 - 1. Plant material shall be symmetrical, typical for the variety and species, and shall conform to the measurements specified in the Plant List.
 - 2. Plants used where symmetry is required shall be matched as nearly as possible.
 - 3. Plants shall not be pruned prior to delivery except as authorized.
 - 4. All plants shall have been transplanted or root pruned at least once in the past 3 years.
 - 5. Unless otherwise noted, street trees shall be free of branches up to 6 feet, with the single leader well branched, and with straight trunks.

6. Shrubs shall have been twice transplanted, have fully developed root systems, be heavily canned with foliage to base, fulfill dimensions required, and be typical of the species.
 7. Ground covers shall have sturdy fibrous root systems and shall be heavily leafed.
- D. Measurement: The height and/or width of trees shall be measured from the ground or across the normal spread of branches with the plants in their normal position. The measurement shall not include the immediate terminal growth.
- E. Substitutions in plant species or size shall be made only with the written approval of the Landscape Architect and approval by the CITY.
- F. Ground cover plants shall be planted in beds which receive 12 inches of approved topsoil, thoroughly disked into the soil. The finished surface, compacted and settled, shall conform generally with and at all points to the required grade. Plants shall be spaced as shown, and in accordance with the best practices of the trade.
- G. Planting Soil/Topsoil:
1. Verify amount stockpiled if any, and supply additional as needed from naturally well-drained sites where topsoil occurs at least 12 inches deep in planting beds and 6 inches deep in turf areas. Do not obtain topsoil from bogs or marshes.
 2. Soil for backfilling around plants and planting beds shall be a good grade of garden loam as approved. Soil shall be free of heavy clay, coarse sand, stones, lumps, sticks or other foreign material. The soil shall not be delivered or used in a muddy condition.
 3. There shall be a slight acid reaction to the soil with no excess of calcium or carbonate. The soil shall be free from excess weeds or other objectionable material.
 4. Soil for trees and shrubs shall be delivered in a loose, friable condition. All trees should average approximately 1 cubic yard per tree. There will be 12-inches of planting soil in ground cover areas and 1/8 cubic yard per shrub or vine.
 5. No marl shall be used in ground cover planting beds.
- H. Any required landscaping stone shall be inert, nonleaching material as specified on the Drawings. Provide physical samples for approval before purchase. No crushed limrock shall be used.
- I. Soil mixture should be the following mixture:
1. 25% Perlite or Course Sand
 2. 25% Vamiculite
 3. 25% Canadian peat Moss
 4. 25% Organic Compost
 5. Incorporate Terra Sorb at the rate of 1 lb. per 100 sq. ft. per mandatory instructions.
- J. Fertilizer:
- A. Deliver fertilizer, mixed as specified, in original unopened standard size bags showing weight, analysis and name of manufacturer. Containers shall bear manufacturer's guaranteed statement of analysis, or manufacturer's certificate of compliance covering analysis shall be furnished to Owner. Store fertilizer in such manner that it shall be kept dry.
 - B. Base percentages of nitrogen, phosphorus, and potash on laboratory test recommendations as approved by Owner. For bidding assume 10 percent nitrogen, 6 percent phosphorus, and 4 percent potash by weight. At least 50 percent of total nitrogen shall contain no less than 3 percent water-insoluble nitrogen. At least 60 percent of nitrogen content shall be derived from super-phosphate containing not less than 18 percent phosphoric acid or bone meal containing 25 - 30 percent phosphoric acid and 2 - 3 percent nitrogen. Potash shall be derived from muriate of potash containing 55 - 60 percent potash.

K. Peat Moss:

- A. Peat moss shall be Michigan peat moss or approved equal in color and consistency.
- B. Peat moss shall be moss peat, finely shredded to pass 1/2-inch mesh and shall be no less than 90 percent organic material by weight, with ash content by ignition of no more than 10 percent.
- C. Material shall contain 35 - 66 percent moisture by weight, but shall have water-holding capacity of 150 - 200 percent.
- D. Material shall have pH value of 4 to 5.
- E. Material may be imported supplied in bales or domestic furnished in bulk. If furnished in bulk, material and its source shall be acceptable to Owner.

L. Mulch:

- A. Shredded hardwood mulch shall be used as mulching material.

PART 3 EXECUTION

3.1 Planting Procedures

- A. Plant Locations: All plants shall be located as shown on the Drawings, to dimensions if shown, to scale if not dimensioned. Large areas or beds shall be scaled and the plants spaced evenly. Layout of the trees and shrub beds shall be approved by the Landscape Architect is required before any plants may be installed. Field adjustments may be recommended prior to planting for utility or aesthetic purposes by the Landscape Architect without additional costs. If the contractor does not call the Landscape Architect to approve the layout of the plant material prior to planting, the cost to relocate plant material for utilities or aesthetic purposes shall be covered by the contractor.
- B. Tree Staking: All tree staking and bracing shall be included herein in accordance with sound nursery practice and shall generally be in accordance with the details shown. Furnish all materials required for staking and bracing as approved.
- C. Tree Pits: Pits for trees shall be at least 2 feet greater in diameter than the specified diameter of the root ball. Other specifications for tree pits shall be as shown on the tree planting detail.
- D. Digging and Handling:
 - 1. Plants shall be handled at all times so that roots or balls are adequately protected from sun or drying winds. Tops or roots of plants allowed to dry out will be rejected.
 - 2. Balled or burlapped plants shall be moved with firm, natural balls of soil, in sizes specified by Florida Grading and Standard for nursery stock. No plant shall be accepted when the ball of earth surrounding its roots has been cracked or broken. All trees, except palm and seedling pines, shall be dug with ball and burlapped. Root pruning shall have been done a minimum of four weeks before planting at the job.
 - 3. Plants too large for 2 persons to lift in and out of holes shall be placed with sling. Do not rock trees in holes to rise.
- E. When balled and burlapped plants are set, planting soil shall be carefully tamped under and around the base of the balls to prevent voids. All burlap, rope, wires, etc., shall be removed from the sides and tops of balls, but no burlap shall be pulled from underneath. Roots of bare rooted plants shall be properly spread out and planting soil carefully worked in among them.
- F. Before plants are backfilled with planting soil, fertilizer tables, Agriform 20-10-5 or equal, shall be placed in each pit. Provide three tablets for each tree and one for each shrub or vine.

- G. All plants shall be set straight or plumb, in locations shown on the Drawings. Except as otherwise specified, plants shall be planted in pits and shall be set at such level that, after settlement, they bear the same relation of the finished grade or surrounding ground as they bore to the grade of the soil from which they are taken, unless otherwise indicated in the planting details.
- H. Pruning shall be carefully done by experienced plantsmen. Prune immediately upon acceptance by the Landscape Architect, including any broken branches, thinning all small branches and tipping back main branches (except main leaders).
- I. Excess soil and debris shall be disposed of off the project site unless ordered stockpiled by the Landscape Architect.

3.2 Obstructions Below Ground

- A. If underground construction utilities or obstructions are encountered in excavation of the planting areas, or pits, other locations for the plant material may be selected by the Landscape Architect.
- B. Such changes shall be done without additional compensation.

3.3 Tree and Plant Protection

- A. The Contractor shall remove only those trees selected for removal by the Landscape Architect. Prior to removal of said trees, the Contractor shall obtain a tree removal permit, if required. All other trees in the vicinity of the work shall be protected against damage by the Contractor until all work under the Contract has been completed. Removal of any unapproved trees shall result in a fine to the Contractor of \$500/inch trunk diameter of that tree that is removed.
- B. Consult with the Landscape Architect, and remove agreed-on roots and branches which interfere with construction. Employ qualified tree surgeon to remove, and to treat cuts.
- C. Provide temporary barriers in accordance with the provided detail, around each, or around each group of trees and plants.
- D. Protect root zones of trees and plants:
 - 1. Do not allow vehicular traffic or parking.
 - 2. Do not store materials or products.
 - 3. Prevent dumping of refuse or chemically injurious materials or liquids.
 - 4. Prevent puddling or continuous running water.
- E. Carefully supervise excavating, grading and filling, and subsequent construction operations, to prevent damage.
- F. In case of inadvertent damage to any tree, by the Contractor or any of his subcontractors or employees, the Contractor shall provide replacement of each size tree with a new tree of acceptable type, size and quality, subject in each case to the approval of the Owner.
- G. Completely remove barricades, including foundations, when construction has progressed to the point that they are no longer needed, and when approved by the Landscape Architect.
- H. Clean and repair damage caused by installation, fill and grade the areas of the site to required elevations and slopes, and clean the area, in accordance with the tree protection notes.
- I. Cover plants transported to project in open vehicles with tarpaulins or other suitable covers securely fastened to body of vehicle to prevent injury to plants. Closed vehicles shall be adequately ventilated to prevent overheating of plants. Evidence of inadequate protection following digging, carelessness while in transit, or improper handling or storage shall be cause for rejection. Plants shall be kept moist, fresh, and protected. Such protection shall encompass entire period during which plants are in transit, being handled, or are in temporary storage.

3.4 Clean Up

During landscape work, store materials and equipment where directed. Keep pavements clean and work area in an orderly condition.

Protect plants from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged planting.

Keep all planted areas free of debris, weeds, and insects. Cultivate, weed, and water until final substantial completion of the work.

Upon completion, remove all excess subsoil, cordage, wrappings, and other extraneous materials from the site.

Remove all tools, equipment, and other materials, except those necessary for maintenance work.

Remove litter or other debris occurring from maintenance operations.

3.5 Acceptance

Inspection of the entire project or designated portions thereof shall be made upon written request of the Contractor.

A substantial completion inspection shall be conducted with all deficiencies noted and given to the Contractor as a list of items to be corrected. Substantial completion acceptance will not be issued until all punch list items have been completed and a re-inspection by the Owner done.

For the purpose of establishing an "Acceptance" standard, all plant material shall be healthy, well rooted, evenly colored, variable, and free of weeds and disease.

Perform other operations necessary to complete maintenance and ensure that plants are healthy, vigorous, visually pleasing and undamaged.

Perform all maintenance tasks as specified in this Section.

Once the re-inspection for compliance with the punch list requirements has been conducted and barring any new deficiencies being noted during the re-inspection, written acceptance will be given for all work of this Section, exclusive of possible replacement of plant material subject to warranty.

If any deficiencies of requirements exist, they will be noted in writing.

Upon written notice of final completion, the Owner will assume all responsibilities for maintenance of landscape work. The Contractor is responsible for all maintenance as specified in this Section until the date of substantial completion.

At the conclusion of the warranty period, an inspection will be made to determine the condition of warranted plant material.

Remove all plant material noted as not being in a healthy growing condition.

At no additional cost, replace plant material during the following season with material of like kind and size, in accordance with specification for original plant materials.

Warranty period also applies to replaced material.

Remove all tree staking and guys and dispose of the material off-site.

3.6 Replacement

A. At the end of the warranty period, any plant required under this Contract that is dead or not in satisfactory growth as determined by the Landscape Architect shall be removed. Plants replaced shall be guaranteed for 90 days after date of replacement.

B. Replacement of plants necessary during the guarantee period shall be the responsibility of the Contractor, except for possible replacements of plants resulting from removal, vandalism, acts of neglect on the part of others, or acts of nature.

C. All replacements shall be plants of the same kind and size as specified in the landscape drawings. They shall be furnished and planted as herein specified. The cost shall be the responsibility of the Contractor.

END OF SECTION

SECTION 03410 - PRECAST CONCRETE STRUCTURES

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Furnish all materials, labor, and equipment and construct proposed outfall structures and accessory items, consisting of precast sections as shown on the Drawings and as specified herein.
- B. The forms, dimensions, concrete, and construction methods shall be approved by the ENGINEER in advance of construction.
- C. These specifications are intended to give a general description of what is required, but do not purport to cover all of the structural design details which will vary in accordance with the requirements of the equipment as offered. It is, however, intended to cover the furnishing, shop testing, delivery, and complete installation of all precast structures whether specifically mentioned in these specifications or not.
- D. The supplier of the precast outfall structures shall coordinate his work with that of the CONTRACTOR to the end that the unit will be delivered and installed in the excavation provided by the CONTRACTOR, in accordance with the CONTRACTOR's construction schedule.

1.2 SUBMITTALS

- A. Submit to the ENGINEER, as provided in the General Conditions, shop drawings showing details of construction, reinforcing and joints.
- B. Shop Drawings
 - 1. Content
 - a. Dimensions and Finishes
 - b. Estimated camber
 - c. Reinforcing and connection details
 - d. Anchors
 - e. Lifting and erection inserts
 - f. Other items cast into members
 - 2. Show location of unit by same identification mark placed on member.
 - 3. Include design calculations.
- C. Manufacturer's Literature: Manufacturer's recommended installation

instructions.

- D. Manufacturer's certificates of material conformance with specifications.
- E. Test Reports: Reports of tests on concrete.
- F. Testing
 - 1. Certification: The supplier shall provide the certified results of testing (7 day, 28 day) for the test cylinders stated herein. Random test cylinders may be taken at any time by the ENGINEER at the CITY's expense.

1.3 INSPECTION

- A. The quality of all materials, the process of manufacture, and the finished sections shall be subject to inspection and approval by the ENGINEER, or the City Manager or designee. Such inspection may be made at the place of manufacture, or at the site after delivery, or at both places, and the sections shall be subject to rejection at any time on account of failure to meet any of the Specification requirements; even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the job shall be marked for identification and shall be removed from the job at once. All sections which have been damaged after delivery will be rejected, and if already installed, shall be repaired, if permitted and accepted by ENGINEER, or removed and replaced, entirely at the CONTRACTOR's expense.
- B. At the time of inspection, the sections will be carefully examined for compliance with ASTM C478 designation and these Specifications, and with the approved manufacturer's drawings. All sections shall be inspected for general appearance, dimension, "scratch-strength", blisters, cracks, roughness, soundness, etc. The surface shall be dense and close-textured.
- C. Imperfections may be repaired, subject to the approval of the ENGINEER, after demonstration by the manufacturer that strong and permanent repairs result. Repairs shall be carefully inspected before final approval. Cement mortar used for repairs shall have a minimum compressive strength of 4,000 psi at the end of 7 days and 5,000 psi at the end of 28 days, Epoxy mortar may be utilized for repairs subject to the approval of the ENGINEER.

PART 2 PRODUCTS

2.1 PRECAST OUTFALL STRUCTURES

- A. Pre-cast Concrete pipe shall be reinforced concrete culvert pipe conforming to ASTM Designation C -76. Pipe joints shall be rubber gasket joints, and the pipe joint shall be manufactured to meet the requirements of the approved type of gasket to be used. Pipe joints and rubber gaskets shall conform to the requirements of Sections 941 and 942 of the FDOT Standard Specifications.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Control ground water to provide firm, dry subgrade for the structure, and prevent water rising on new poured in place concrete or grouted joint sections within 24 hours after placing. Guard against flotation or other damage resulting from ground water or flooding.
- B. Provide backfill material for outfall structures as specified in Section 02223.
- G. Set the precast concrete structure sections so as to be vertical and with sections in true alignment with a 3 inch maximum tolerance to be allowed. Fill the outside and inside joint with a non-shrink grout and finish flush with the adjoining surfaces. Allow joints to set for 24 hours before backfilling. Backfill in a careful manner, bringing the fill up evenly on all sides. If leaks appear in the structures, caulk the inside joints with lead wool to the satisfaction of the ENGINEER. Install the precast sections in a manner that will result in a watertight joint.
- H. Plug holes in the concrete sections required for handling or other purposes with a non-shrinking grout or by grout in combination with concrete plugs.
- I. Where holes must be cut in the precast sections to accommodate pipes, cutting shall be done by core drilling prior to setting them in place to prevent any subsequent jarring which may loosen the mortar joints.

END OF SECTION

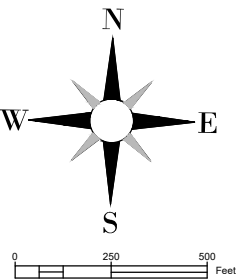
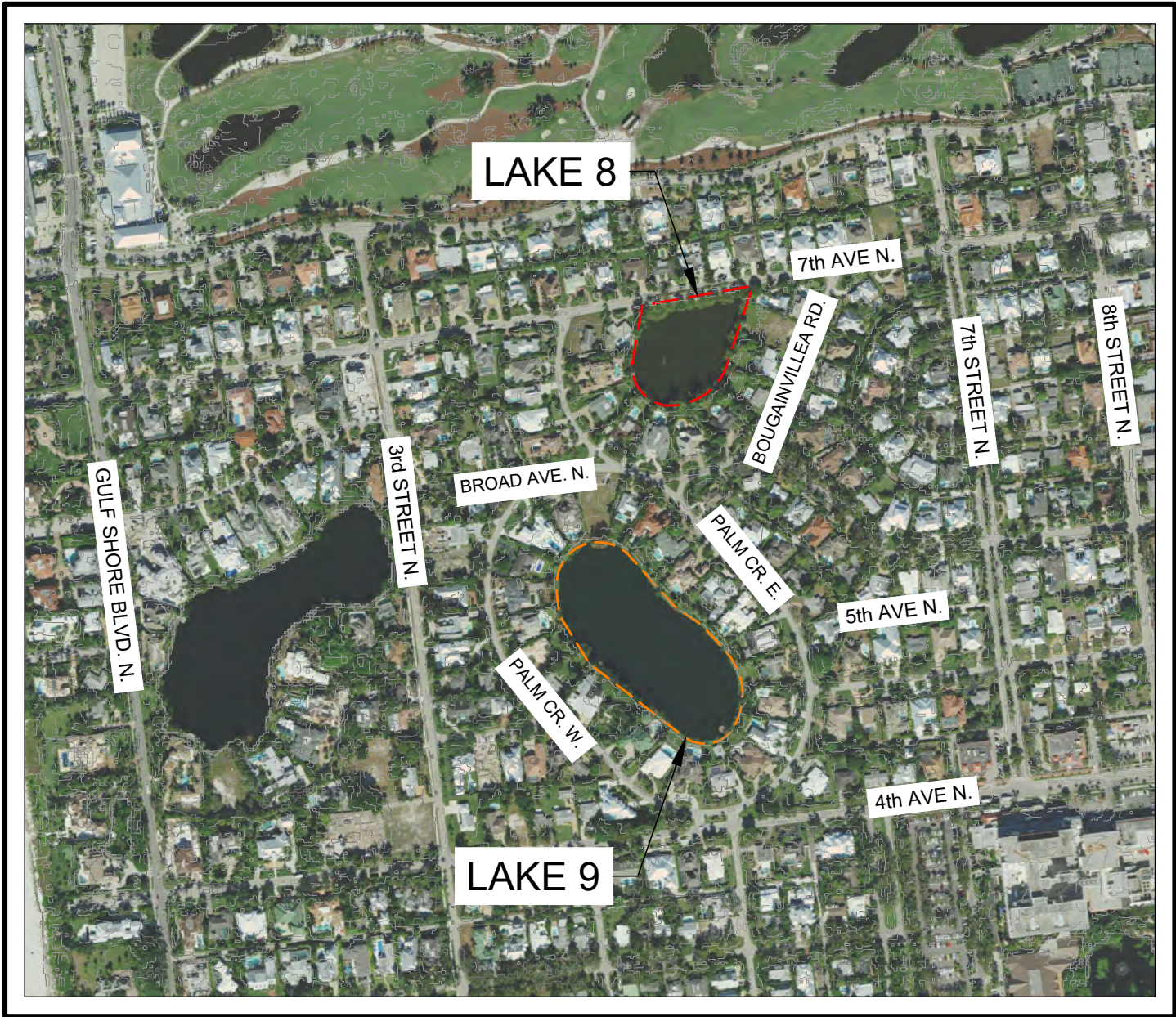
PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\G-001.dwg LAYOUT: COVER SAVED: 3/5/2024 7:09 AM PLOTTED: 3/5/2024 8:11 AM DRAWN BY: BOLTON, GARY

GENERAL SCOPE OF DESIGN PERMITTING AND CONSTRUCTION WORK FOR LAKES RESTORATION

LAKE 8 & 9 RESTORATION PROJECTS

COLLIER COUNTY, NAPLES, FLORIDA

LOCATED IN
SECTION 4 TOWNSHIP 50 SOUTH, RANGE 25 EAST
COLLIER COUNTY, NAPLES, FLORIDA



LEGEND

- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.36 ACRES)
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.84 ACRES)

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THE PLANS SHOULD BE PLOTTED AT 22" X 34" TO OBTAIN SCALED DATA.

GOVERNING SPECIFICATIONS:
THE PROJECT DEVELOPMENT CODE;
CITY OF NAPLES;
COLLIER COUNTY;
FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT);
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP);
SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD);
UNITED STATES ARMY CORPS OF ENGINEERS (USACE);
IN THE EVENT OF A CONFLICT, THE MOST RESTRICTIVE APPLIES.

MAYOR

TERESA HEITMANN

VICE MAYOR

MICHAEL McCABE

CITY COUNCIL

TERRY HUTCHISON
BETH PETRUNOFF
TED BLANKENSHIP
PAUL PERRY
RAYMOND CHRISTMAN

CITY MANAGER

JAY BOODHESHWAR

PUBLIC WORKS DIRECTOR

BOB MIDDLETON

PLANS PREPARED FOR:

CITY OF NAPLES
PUBLIC WORKS DEPARTMENT
295 RIVERSIDE DRIVE NAPLES, FLORIDA 34102
PHONE: 239-213-5016 FAX: 239-213-5010

PLANS PREPARED BY:

WSP ENVIRONMENT AND INFRASTRUCTURE, INC.
5845 NW 158TH ST
MIAMI LAKES, FLORIDA 33014
TEL: (305) 826-5588
E-MAIL: greg.corning@wsp.com
ENGINEER OF RECORD: GREGORY CORNING, P.E (FL 79293)



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS

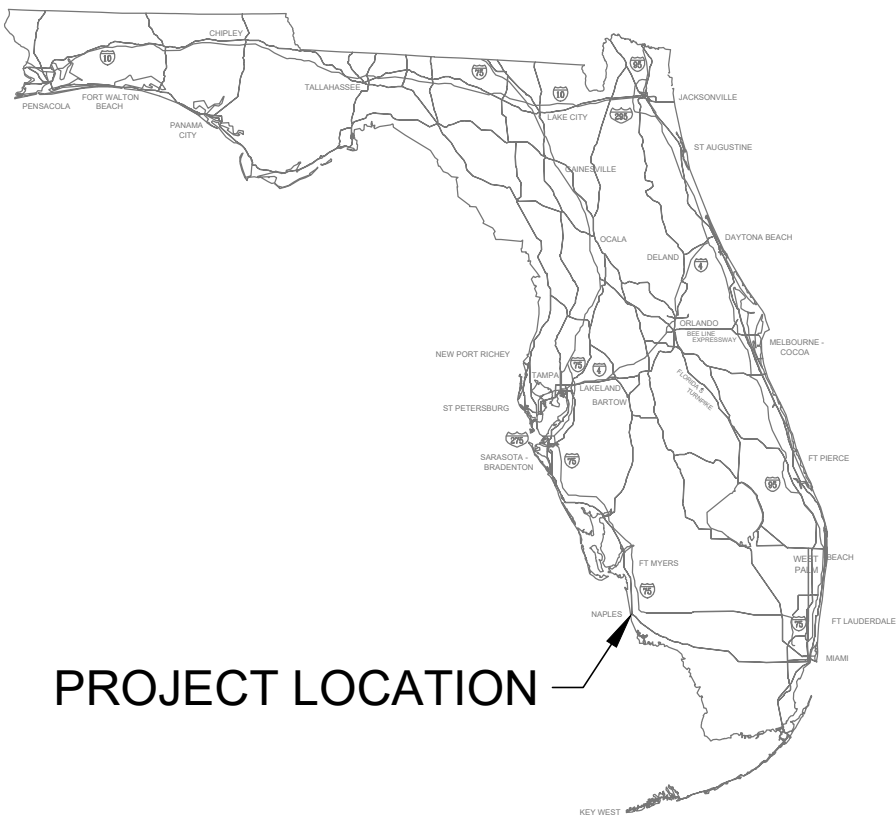
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

COVER

SHEET NUMBER:	REV. #
G-001	E
SHEET 01 OF 18 SHEETS	



SUNSHINE STATE ONE CALL OF FLORIDA
CALL BEFORE YOU DIG
1-800-432-4770

- CALL 1-800-432-4770 TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE DIGGING TO FIND OUT WHERE BURIED FACILITIES (ELECTRIC, GAS, TELECOMMUNICATIONS, CABLE WATER, SEWER) ARE LOCATED.
- WAIT THE REQUIRED TIME FOR THE UTILITIES ON SITE TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES AND CONFIRM THAT THE SITE HAS BEEN LOCATED.
- RESPECT AND PROTECT THE MARKS DURING THE PROJECT, IF MARKS ARE DESTROYED, REQUEST A NEW LOCATE TICKET.
- DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\G-002.dwg LAYOUT: GENERAL NOTES
SAVED: 3/5/2024 7:04 AM PLOTTED: 3/5/2024 8:12 AM DRAWN BY: BOLTON, GARY

NOTES:

A. GENERAL

1. PROPERTY OWNERS NAME AND ADDRESS:

LAKE 8 (NORTH LAKE)				
PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE
8531090007	THOMAS & MEICHU SNEAD	481 7TH AVE. N.	NAPLES	FL
8531080009	FRANK D. & SHARLENE R. DREIER	485 7TH AVE. N.	NAPLES	FL
8531120008	MARY IRENE BINGHAM	501 7TH AVE. N.	NAPLES	FL
8531160000	JEAN V. KANE REVOCABLE TRUST	507 7TH AVE. N.	NAPLES	FL
8531200009	HEIDI L. ROBAR REV UV TRUST	527 7TH AVE. N.	NAPLES	FL
8531240001	DANIEL W. TERPSVA TRUST	549 7TH AVE. N.	NAPLES	FL
8531280003	GEORGE REVOCABLE TRUST	565 7TH AVE. N.	NAPLES	FL
8531320002	WILLIAM M. & NANCY DUNLAP JR	579 7TH AVE. N.	NAPLES	FL
8531360004	FRANKLIN & JACQUE L. PAULSON	615 7TH AVE. N.	NAPLES	FL
17911320008	SHRI & VICTORIA PERSAUD	687 BOUGAINVILLE RD	NAPLES	FL
17911280009	DOROTHY M. HARE TRUST	470 7TH AVE. N.	NAPLES	FL
17911240007	LARRY A. & KATHLEEN A. RAMBO	655 BOUGAINVILLE RD	NAPLES	FL
17911200005	PATRICIA K. COLLINS REVOC. TRUST	645 BOUGAINVILLE RD	NAPLES	FL
17911600006	JOHN D. REMINGTON, & JAQUELINE S. REMINGTON	633 BOUGAINVILLE RD	NAPLES	FL
17911120004	CONSTANTINE S. MIHAS REV. TRUST	625 BOUGAINVILLE RD	NAPLES	FL
17910280005	CONNIE H. SPARPE 2018 FL TRUST	605 BOUGAINVILLE RD	NAPLES	FL
17911040003	MARGARET PATTEN SMITH R TRUST	615 BOUGAINVILLE RD	NAPLES	FL
17911000001	LORRRAINE M. LONGERGAN TRUST	616 BOUGAINVILLE RD	NAPLES	FL
17910960003	SEMPRONE INVESTMENTS LTD	649 BOUGAINVILLE RD	NAPLES	FL
17910920001	MAAAT TRUST	677 BOUGAINVILLE RD	NAPLES	FL
17910900005	PEARL R. STRUMINGER TRUST	689 BOUGAINVILLE RD	NAPLES	FL
17910880002	TERRY & BOBBIE CANERDY	572 7TH AVE. N.	NAPLES	FL
LAKE 9 (SOUTH LAKE)				
PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE
17910360001	ELIZABETH A. MIHAS REV TRUST	677 PALM CIR. E.	NAPLES	FL
17910400000	CONSTANTINE S. MIHAS REV. TRUST	659 PALM CIR. E.	NAPLES	FL
17910440002	LINDA LADAMANY REVOC TRUST	649 PALM CIR. E.	NAPLES	FL
17850240006	OTTO W. & JENNIFER J. IMMEL	635 PALM CIR. E.	NAPLES	FL
17850200004	JOHN M. & GERALDINE C. ROEDER	605 PALM CIR. E.	NAPLES	FL
17910480004	DAVID H. & LAURA C. LINDNER	597 PALM CIR. E.	NAPLES	FL
17910520003	GREGORY S. & ROSALIE L. DEVESON	575 PALM CIR. E.	NAPLES	FL
17910560005	JOHN J. & LORI A. RAY III	561 PALM CIR. E.	NAPLES	FL
17910600004	KENNETH C. MC CUBBINS	555 PALM CIR. E.	NAPLES	FL
17910640006	KEVIN & BARBARA ELLEN MORANO	499 PALM CIR. E.	NAPLES	FL
17910680008	JOSEPH G. WHEELER REV TRUST	479 PALM CIR. E.	NAPLES	FL
17910720007	CHRISTOPHER B. LOFGREN	455 PALM CIR. E.	NAPLES	FL
17910760009	ROBERT H. & LINDA W. MEADE	411 PALM CIR. E.	NAPLES	FL
17910800008	GREGORY D. & KIMBERLEE K. WHITE	410 PALM CIR. W.	NAPLES	FL
17910840000	JOSEPH M. & DIANE R. THOMAS	430 PALM CIR. W.	NAPLES	FL
17860120003	BRIAN M. & DIANNA I. KANTER	450 PALM CIR. W.	NAPLES	FL
17850080004	FERN LP	476 PALM CIR. W.	NAPLES	FL
17910940004	FRED C. & SUE C. SCHULTE	430 PALM CIR. W.	NAPLES	FL
17910080006	JOHN P. CARDILLO, LINDA CARDILLO & JOHN THOMAS CADILLO	510 PALM CIR. W.	NAPLES	FL
17910120005	EIC REVOCABLE TRUST & EDWARD J. CAWLEY	542 PALM CIR. W.	NAPLES	FL
17910160007	ROBERT J. SULLIVAN & JENNIFER SPROUL SULLIVAN	570 PALM CIR. W.	NAPLES	FL
17910200006	LEE K. & HELEN C. ANDERSON	590 PALM CIR. W.	NAPLES	FL
17910240008	DAVID E. WINEBRENNER IV & ELIZABETH C. WINEBRENNER	542 PALM CIR. W.	NAPLES	FL
17910280000	TIMOTHY E. & JOCELYN A. HIRSCH	659 PALM CIR. W.	NAPLES	FL
17910320009	JAMES TOWNLEY HAMMAN & MARY SMITH HAMMAN	674 PALM CIR. W.	NAPLES	FL

PROJECT LOCATION: LAKE 8 - LAT: 26° 9' 19"N LONG: 81°48' 8"W
LAKE 9 - LAT: 26° 9' 10"N LONG: 81°48' 10"W

2. DESCRIPTION: THIS PROJECT CONSISTS OF SITE IMPROVEMENTS, INCLUDING REMOVAL OF INVASIVE EXOTIC VEGETATION, HYDRAULIC AND MECHANICAL DREDGING OF ORGANIC MATERIAL AND SAND FROM THE BOTTOM OF THE LAKES, CONTOURING LAKE BOTTOM AND CONSTRUCTING LITTORAL SHELVES, AND PUBLIC OUTREACH AMENITIES.
3. THE TYPES OF SOIL DISTURBANCE ACTIVITIES INCLUDE: HYDRAULIC DREDGING, GRADING, EXCAVATING AND COMPACTING.
4. SEQUENCE OF MAJOR ACTIVITIES:
- (1) INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT.
 - (2) CONSTRUCT HYDRAULIC DREDGING AND DEWATERING STAGING AREAS
 - (3) DREDGE ORGANIC MATERIAL, DEWATER, AND HAUL OFFSITE.
 - (4) CONSTRUCT FEATURES ACCORDING TO ENGINEERING DESIGN PLANS AND TECHNICAL SPECIFICATIONS.
 - (5) STABILIZE AREAS AS NEEDED.
 - (6) OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL.
5. AREA ESTIMATES:
- 5.1. LAKE 8 AND CITY ROADS PLATTED BOUNDARY = 2.36 ACRES
 - 5.2. LAKE 9 AND CITY ROADS PLATTED BOUNDARY = 4.84 ACRES
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP, OBTAIN, AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE EPA NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES, THE FDEP GENERIC PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES AND ALL OTHER FEDERAL, STATE AND LOCAL REQUIREMENTS.
7. THE CONTRACTOR SHALL SUBMIT A ROW PERMIT APPLICATION THROUGH THE CITY OF NAPLES STREETS AND TRAFFIC DIVISION SHOWING MAINTENANCE OF TRAFFIC AND ANY ROAD OR LANE CLOSURES.
8. THE CONTRACTOR SHALL USE CAUTION TO PROTECT WILDLIFE AND ECOSYSTEM THROUGH THE PROJECT DURATION.
9. THE CITY OF NAPLES, THE ENGINEER OF RECORD, THE CONTRACTOR, AND SFWMD SHALL HAVE A PRE-CONSTRUCTION MEETING TO DISCUSS THE COMPLEXITY AND POTENTIAL PUBLIC CONCERNS WITH THE PROJECT.
10. COORDINATES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT, PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE 901, US SURVEY FEET, AND ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED ON GLOBAL POSITIONING SYSTEM (GPS) MEASUREMENTS TO THE NATIONAL GEODETIC SURVEY (NGS) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK. THE POSITIONS OF THE PROJECT CONTROL STATIONS SHOWN HEREON HAVE A CALCULATED POSITIONAL ACCURACY OF 2 CM OR BETTER BASED UPON THE NGS OPUS ADJUSTMENT REPORT.

B. TEMPORARY EROSION AND SEDIMENT CONTROL

1. CONTRACTOR SHALL INSTALL PRIOR TO AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.
2. EROSION CONTROL MEASURES AND THE OUTFALLS WILL BE INSPECTED AT LEAST DAILY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR IF DAMAGED. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE PERFORMED BY THE CONTRACTOR WHEN SEDIMENT HAS ACCUMULATED TO ONE-HALF (1/2) FULL FOR SILT FENCE, TURBIDITY BARRIERS, AND INLET SEDIMENT TRAPS.
3. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING SEDIMENT AND EROSION CONTROL MEASURES TO PROVIDE OPTIMUM SEDIMENT AND EROSION CONTROL. SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY WITH CHAPTER 6 OF THE FLORIDA DEVELOPMENT MANUAL.
4. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OF CITY OF NAPLES DESIGNATED REPRESENTATIVE.
5. THE CONTRACTOR SHALL PROTECT ALL EXISTING DITCHES, WETLAND VEGETATION, STORM DRAIN PIPES, AND INLETS, IN THE VICINITY OF WORK TO BE PERFORMED, FROM DAMAGE OR SILTATION, WHETHER OR NOT SPECIFICALLY IDENTIFIED IN THE PLANS.
6. EROSION CONTROL MEASURES DESCRIBED SHALL BE MAINTAINED UNTIL PERMANENT DRAINAGE FACILITIES HAVE BEEN RECONSTRUCTED AND VEGETATION ON PLANTED SLOPES IS SUFFICIENTLY ESTABLISHED TO BE AN EFFECTIVE EROSION DETERRENT.
7. CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD INTO PUBLIC STREETS. IF TRACKING OR FLOW OF MUD OCCURS, CONTRACTOR SHALL CONSTRUCT A SOIL TRACKING PREVENTION DEVICE IN ACCORDANCE WITH FDOT DESIGN STANDARD 2010, INDEX NO. 106.
8. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION OR PROJECT COMPLETION, AS DIRECTED BY THE CITY'S REPRESENTATIVE.
9. SILT FENCE AND TURBIDITY BARRIERS SHALL MEET THE REQUIREMENTS OF FDOT DESIGN STANDARDS 2017-18, INDEX NO. 104.
10. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROL OF EROSION WITHIN THE WORK SITE AND PREVENTION OF SEDIMENTATION OF ANY ADJACENT OR DOWNSTREAM WATERWAYS. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR'S METHODS OF OPERATION MAY DICTATE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND INSTALLING ADDITIONAL MEASURES.
11. ANY UNCOVERED DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 20 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

C. DEWATERING

1. DEWATERING ACTIVITIES SHALL ADHERE TO THE SFWMD PERMIT.
2. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

D. EXISTING INFRASTRUCTURE

1. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING INFRASTRUCTURE THAT IS IMPACTED DURING CONSTRUCTION TO MATCH EXISTING CONDITIONS.

E. EXISTING UTILITIES

1. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL PERTINENT UTILITIES COMPANIES 48 HOURS PRIOR TO DIGGING FOR LOCATION OF UNDERGROUND UTILITY LINES.
2. IN THE EVENT THE UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL RESTORE TO MATCH EXISTING CONDITIONS AND NOTIFY THE PERTINENT UTILITY COMPANY IMMEDIATELY.



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GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102
WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:	REV. #
G-002	E
SHEET 02 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USG673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-101_8.dwg LAYOUT: EXISTING SITE PLAN LAKE 8
DRAWN BY: BOLTON, GARY
PLOTTED: 3/5/2024 8:10 AM
PLOTSTYLETABLE: ----
SAVED: 3/5/2024 8:05 AM



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

LEGEND

- 5 EXISTING CONTOURS
- EXISTING STORMWATER DRAINS & PIPES
- NORMAL LAKE WATER LEVEL EL. 2.6'
- CONTROL POINT / BENCHMARK
- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- EXISTING AERATOR / DIFFUSER
- INVASIVE SPECIES (TO BE REMOVED)

NOTES:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 8 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.

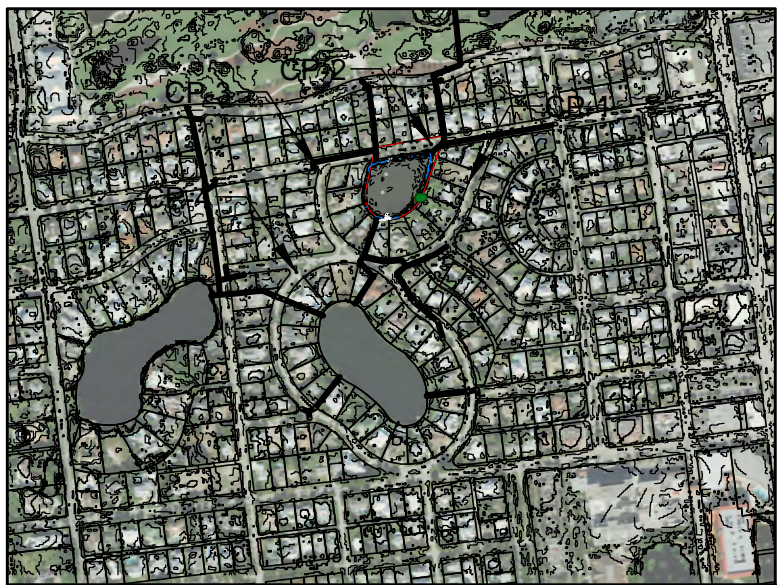
1

EXISTING SITE PLAN - LAKE 8

SCALE: 1"=50'

CONTROL POINTS & BENCHMARK DATA TABLE				
I.D.	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	662961.069	393386.528	7.80'	IRON ROD & CAP STAMPED "TRAVERSE"
CP-2	663158.479	393193.812	7.18'	MAG NAIL E.F. GAINES LS 4576
CP-3	663039.773	392599.265	7.43'	DSK NAIL E.F. GAINES LS 4576 NLD
CP-4	662493.003	392492.566	7.18'	DSK NAIL
BM-191	662624.93	396219.28	6.00'	5/8" IRON ROD & CAP
BM-192	662592.66	395943.02	6.20'	5/8" IRON ROD & CAP
BM-204	657635.89	393659.64	3.30'	5/8" IRON ROD & CAP
CP-5	658801.610	395120.238	6.37'	"SSR W/CAP 3" IN BRASS USGS V241 1965 (PID:AD1256)

NOTE: ALL ELEVATIONS (ELEV.) ARE IN FEET, DATUM IS NAVD 88 UNLESS OTHERWISE STATED.
* = DATUM UNKNOWN



SITE MAP LOCATION



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GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

EXISTING SITE PLAN
LAKE 8

SHEET NUMBER:	REV. #
C-101_8	E
SHEET 03 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-101_9.dwg LAYOUT: EXISTING SITE PLAN LAKE 9 SAVED: 3/5/2024 7:37 AM PLOTTED: 3/5/2024 7:42 AM DRAWN BY: BOLTON, GARY



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

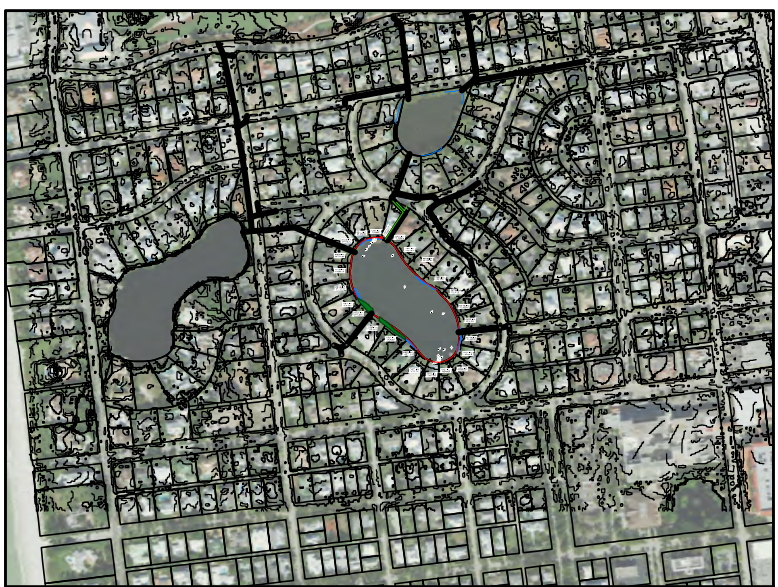
- LEGEND
- 5 — EXISTING CONTOURS MAJOR
 - EXISTING CONTOURS MINOR
 - EXISTING STORMWATER DRAINS & PIPES
 - CITY OF NAPLES EASEMENT
 - NORMAL LAKE WATER LEVEL EL. 2.6'
 - APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
 - COLLIER COUNTY PARCEL BOUNDARY
 - INVASIVE SPECIES (TO BE REMOVED)

1 EXISTING SITE PLAN - LAKE 9

Scale: 1"=75'

NOTES:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY.
IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.



SITE MAP LOCATION



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GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
**CITY OF NAPLES
LAKES RESTORATION**



CLIENT:
**CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT**

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

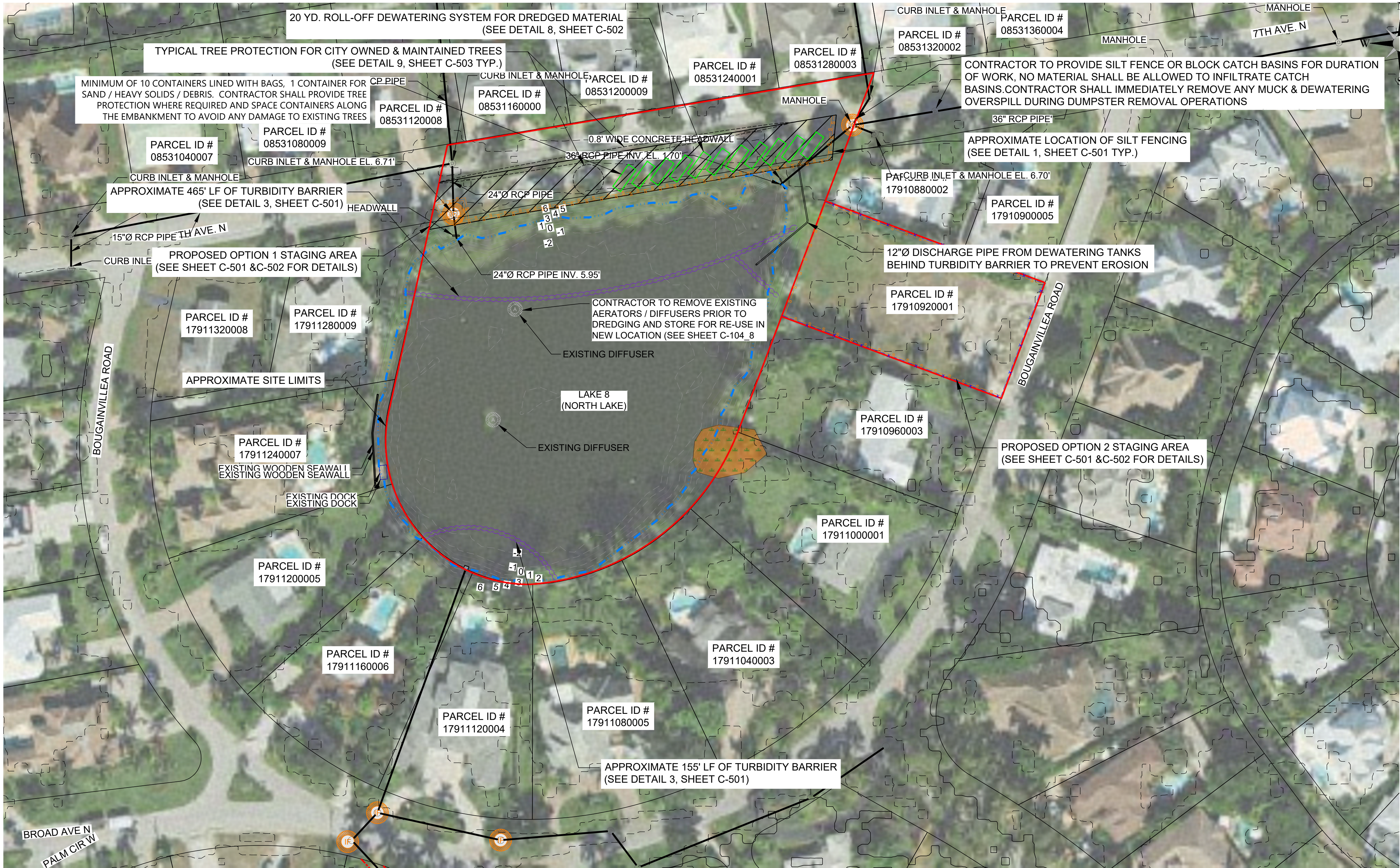
REVISIONS				
NO.	DATE	BY	APPROVED	
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B	6/7/23	GB	GC	
C	8/4/23	GB	GC	
D	1/23/24	GB	GC	
E	3/5/24	GB	GC	

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:
**EXISTING SITE PLAN
LAKE 9**

SHEET NUMBER:	REV. #
C-101_9	E
SHEET 09 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0965\Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-102_8.dwg LAYOUT: EROSION & SEDIMENT CONTROL PLAN LAKE 8
DRAWN BY: BOLTON, GARY
PLOTTED: 3/5/2024 8:09 AM
PLOTSTYLETABLE: ----
SAVED: 3/5/2024 8:05 AM



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

1

PROPOSED EROSION AND SEDIMENT CONTROL PLAN - LAKE 8

Scale: 1"=50'
0 50 100 Feet

LEGEND

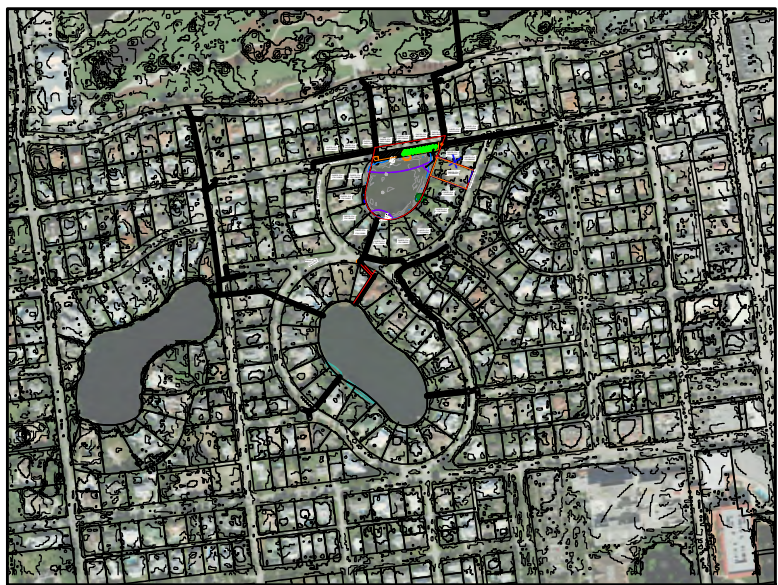
- 5 — EXISTING CONTOURS
- EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- NORMAL LAKE WATER LEVEL EL. 2.6'

- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- PROPOSED INLET FILTER
- PROPOSED AERATOR

- INVASIVE SPECIES (TO BE REMOVED)
- 20 YD ROLL OFF DEWATERING SYSTEM
- FLOATING TURBIDITY BARRIER
- TEMPORARY FENCING
- TEMPORARY SILT FENCING

NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
- CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.
- CONTRACTOR TO DEPLOY / RELOCATE FLOATING TURBIDITY CURTAINS AROUND PROJECT IMPROVEMENTS AS CONSTRUCTION PROGRESSES



SITE MAP LOCATION

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295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
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REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:
EROSION &
SEDIMENT
CONTROL PLAN
LAKE 8

SHEET NUMBER:	REV. #
C-102_8	E
SHEET 04 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0965\Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-102_9.dwg LAYOUT: EROSION AND SEDIMENT CONTROL PLAN LAKE 9
BY: BOLTON, GARY PLOTTED: 3/5/2024 7:42 AM PLOTSTYLETABLE:



- LEGEND
- 5' EXISTING CONTOURS
 - EXISTING CONTOURS MINOR
 - EXISTING STORMWATER DRAINS & PIPES
 - CITY OF NAPLES EASEMENT
 - NORMAL LAKE WATER LEVEL EL. 2.6'
 - APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
 - STAGING AREA
 - COLLIER COUNTY PARCEL BOUNDARY
 - 20 YD ROLL OFF DEWATERING SYSTEM
 - PROPOSED INLET FILTER TYPICAL

- FLOATING TURBIDITY BARRIER
- TEMPORARY FENCING
- TEMPORARY SILT FENCING

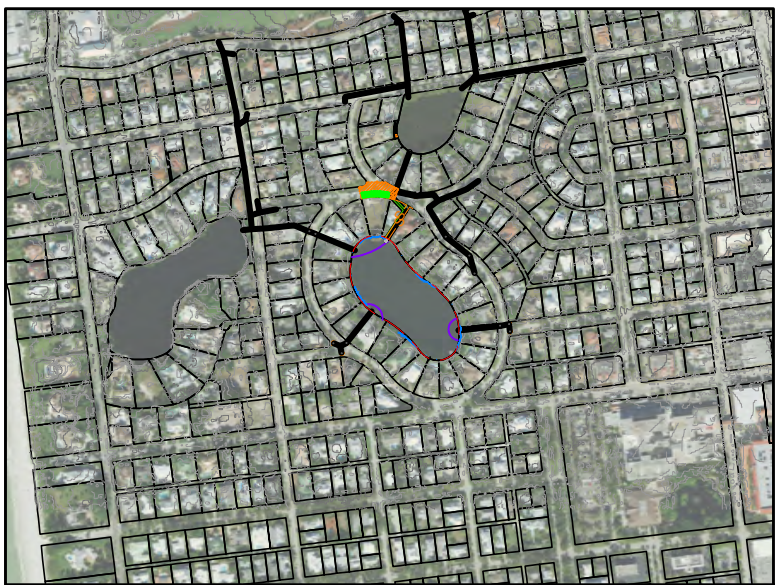
1

PROPOSED EROSION AND SEDIMENT CONTROL PLAN - LAKE 9

Scale: 1"=75'

NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
- CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.



SITE MAP LOCATION



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GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
**CITY OF NAPLES
LAKES RESTORATION**



CLIENT:

**CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT**

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

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REVISIONS

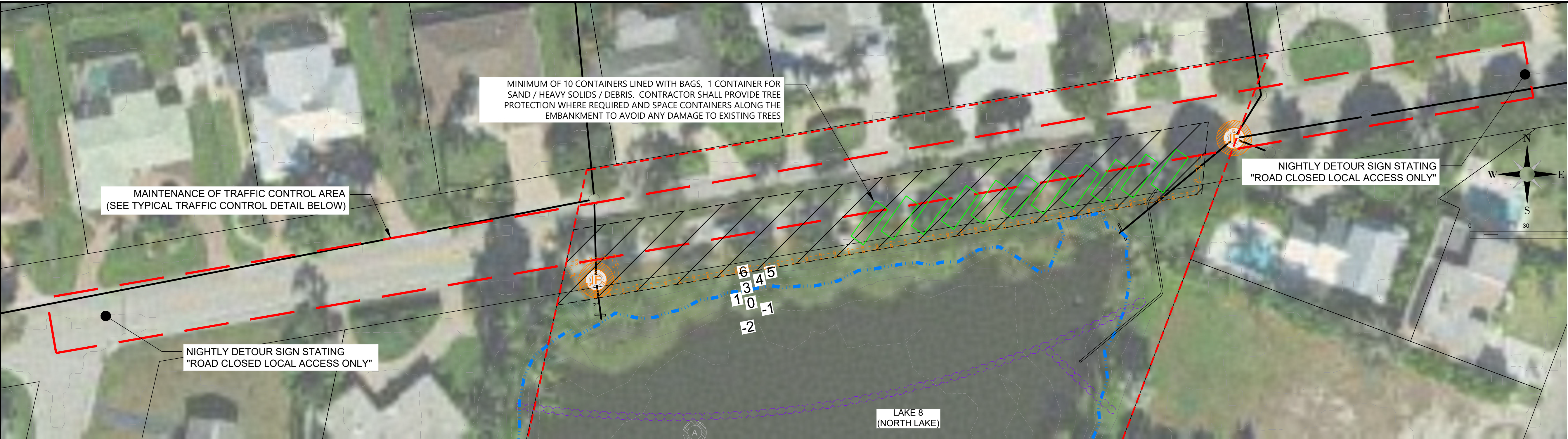
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

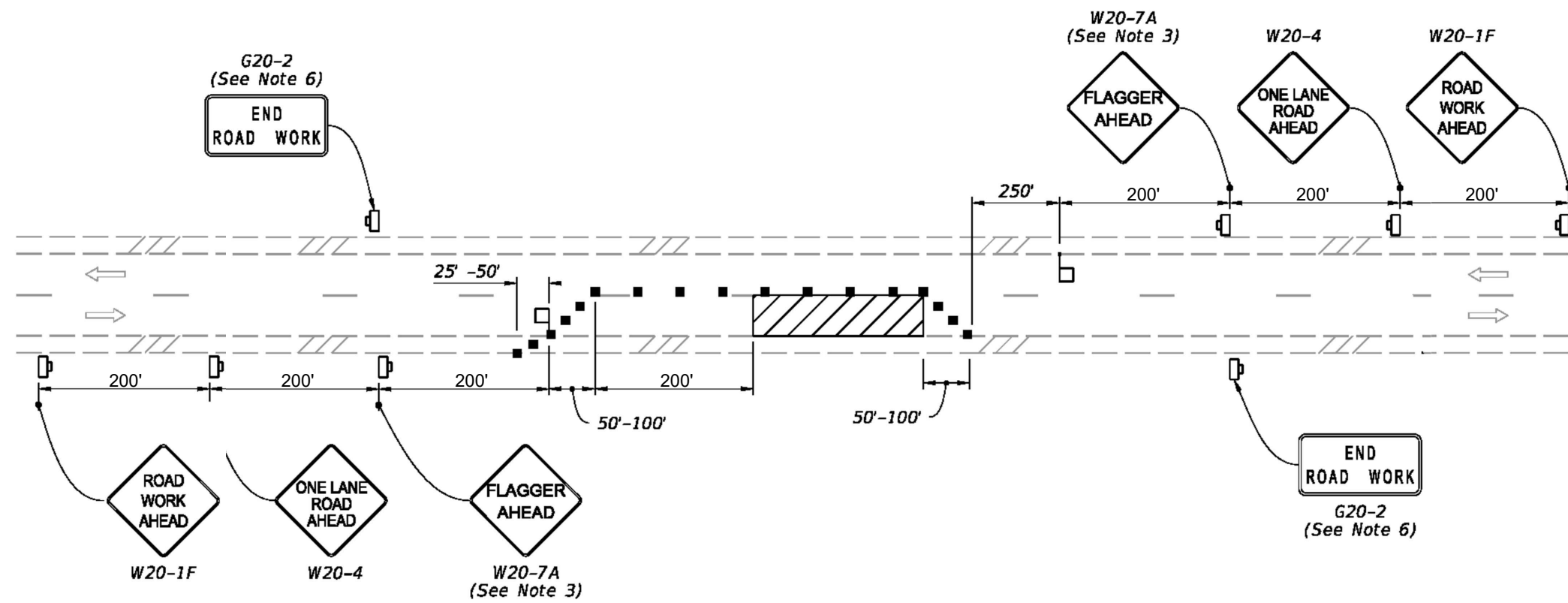
SHEET TITLE:
**EROSION AND
SEDIMENT
CONTROL
PLAN LAKE 9**

SHEET NUMBER:	REV. #
C-102_9	E
SHEET 10 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0965\Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-103_8.dwg LAYOUT: MAINTENANCE OF TRAFFIC CONTROL PLAN
SAVED: 3/5/2024 8:05 AM PLOTTED: 3/5/2024 8:06 AM DRAWN BY: BOLTON, GARY



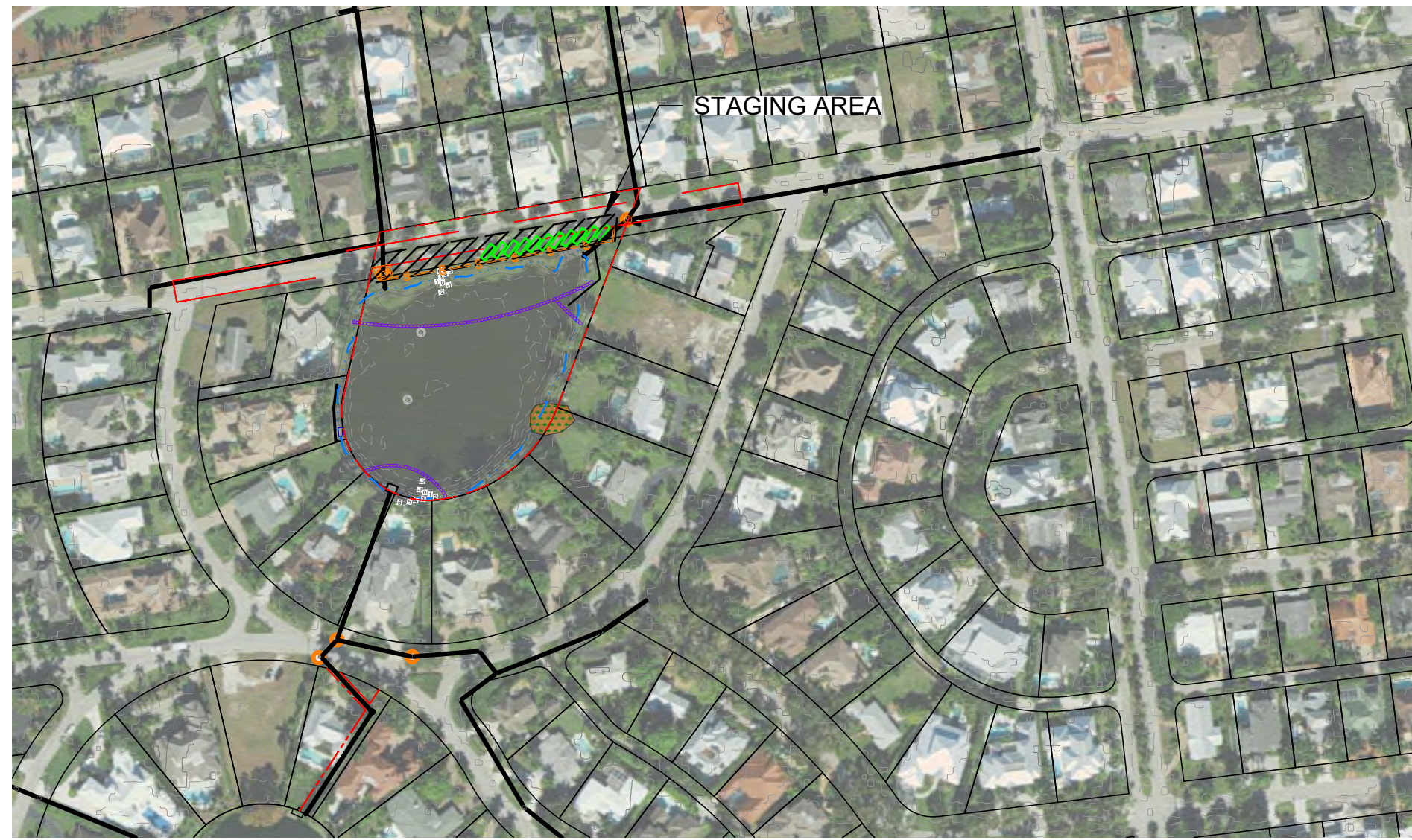
1 PROPOSED MAINTENANCE OF TRAFFIC CONTROL PLAN - LAKE 8
1" = 30'



TYPICAL TWO LANE ROAD TRAFFIC CONTROL DETAIL

- LEGEND
- 5 EXISTING CONTOURS
 - EXISTING CONTOURS MINOR
 - EXISTING STORMWATER DRAINS & PIPES
 - NORMAL LAKE WATER LEVEL EL. 2.6'
 - APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
 - COLLIER COUNTY PARCEL BOUNDARY
 - PROPOSED INLET FILTERS TYPICAL
 - EXISTING AERATOR (TO BE REMOVED & STORED FOR REUSE)
 - 20 YD ROLL OFF DEWATERING SYSTEM
 - FLOATING TURBIDITY BARRIER
 - TEMPORARY SILT FENCING

- NOTES:
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
 - CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.
 - THE CONTRACTOR SHALL MAINTAIN AN EXCAVATOR ON SITE TO MANEUVER THE ROLL OFFS INTO POSITION FOR THE TRUCKS THAT WILL HAVE TO BACK DOWN THE LANE TO LOAD / UNLOAD THE CONTAINERS.



100% DESIGN FOR CONSTRUCTION



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FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



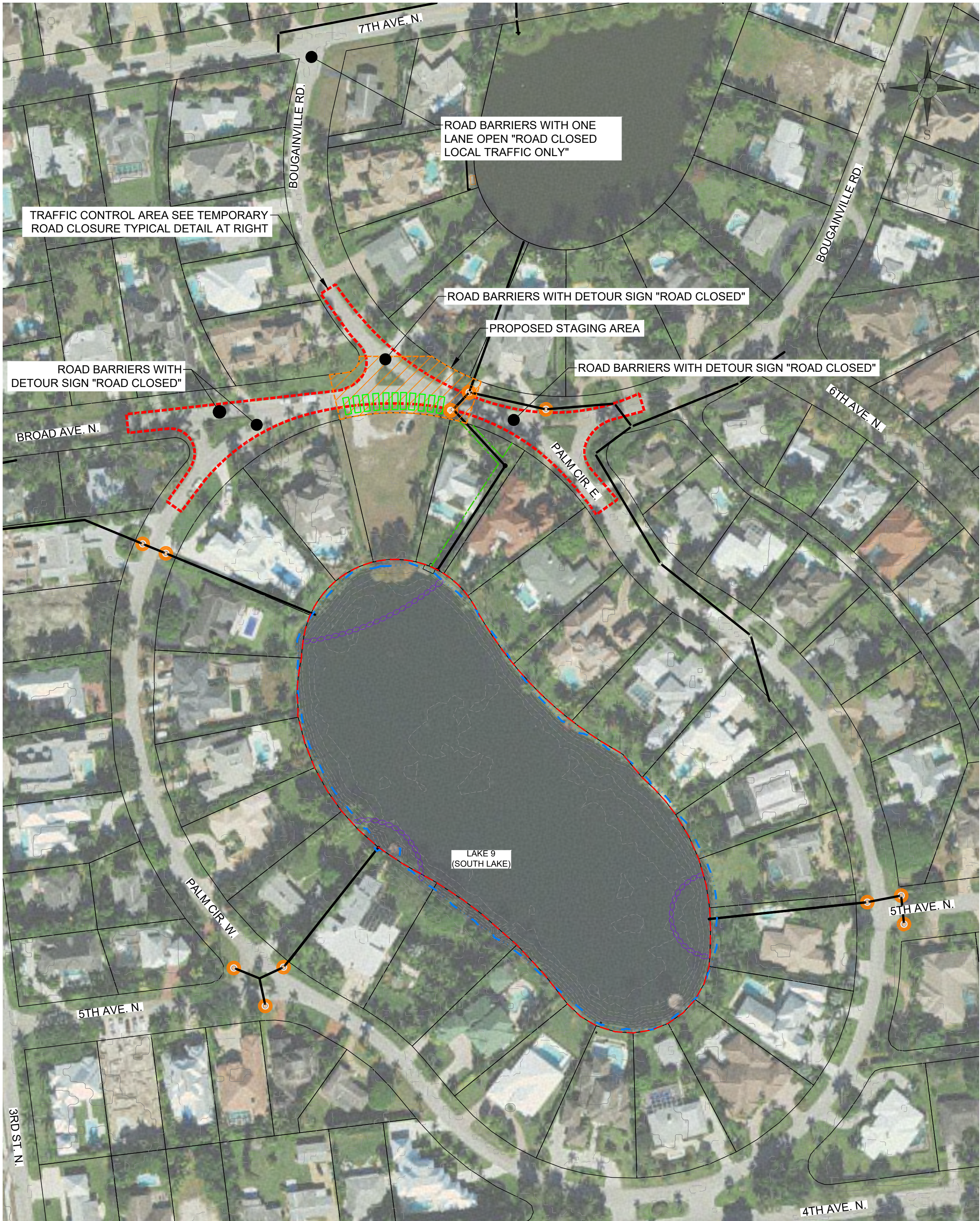
CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102
WSP PROJECT NO:
600843.03

REVISIONS				
NO.	DATE	BY	APPROVED	
A	3/24/23	MV	GC	
B	6/7/23	GB	GC	
C	8/4/23	GB	GC	
D	1/23/24	GB	GC	
E	3/5/24	GB	GC	

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:
MAINTENANCE OF
TRAFFIC CONTROL
PLAN

SHEET NUMBER:	REV. #
C-103_8	E
SHEET 05 OF 18 SHEETS	



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

- LEGEND
- 5 EXISTING CONTOURS
 - EXISTING CONTOURS MINOR
 - EXISTING STORMWATER DRAINS & PIPES
 - CITY OF NAPLES EASEMENT
 - NORMAL LAKE WATER LEVEL EL. 2.6'
 - FLOATING TURBIDITY BARRIER
 - TRAFFIC CONTROL AREA

- STAGING AREA
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- 20 YD ROLL OFF DEWATERING SYSTEM
- PROPOSED INLET FILTER TYPICAL

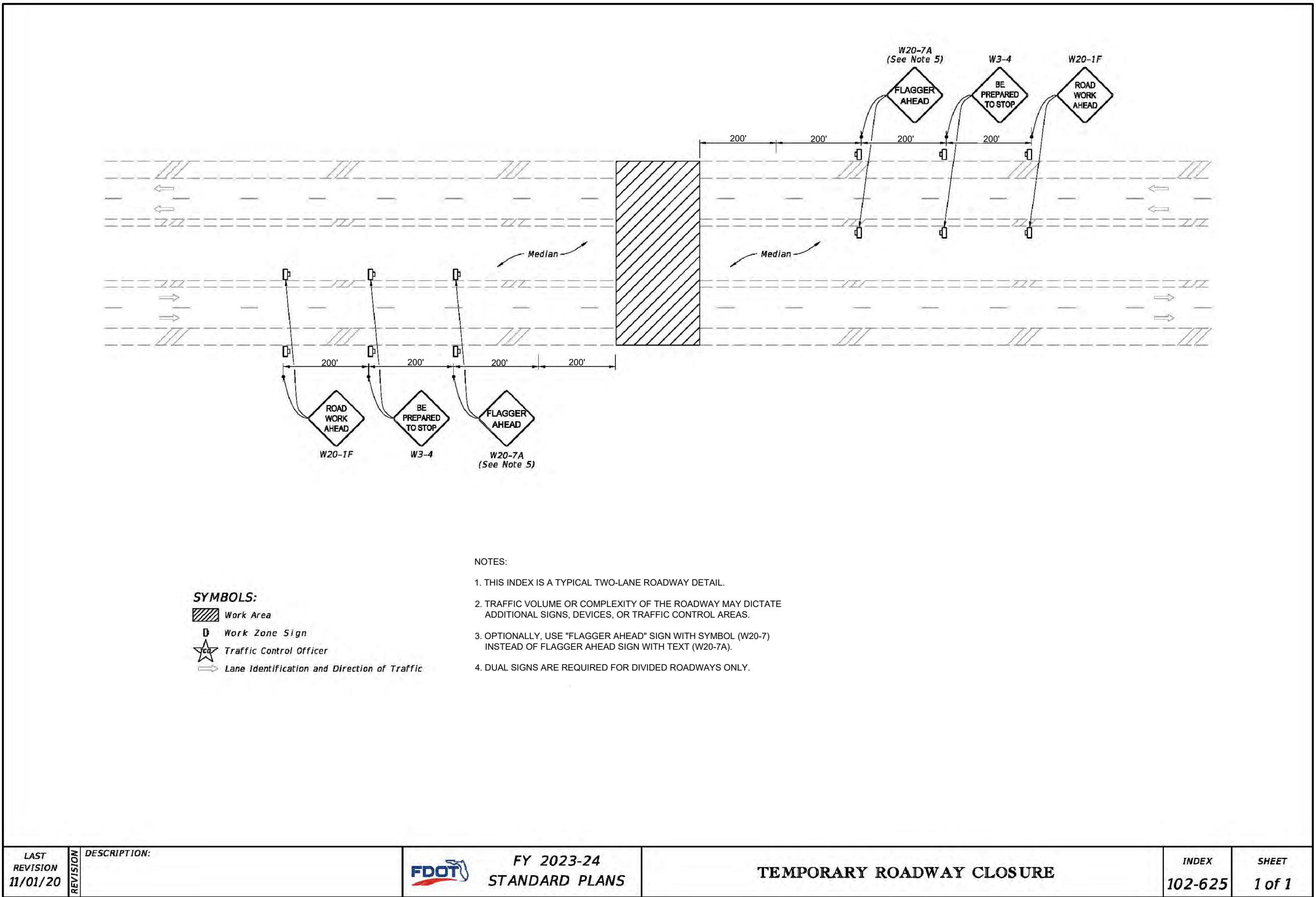
NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
- CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.

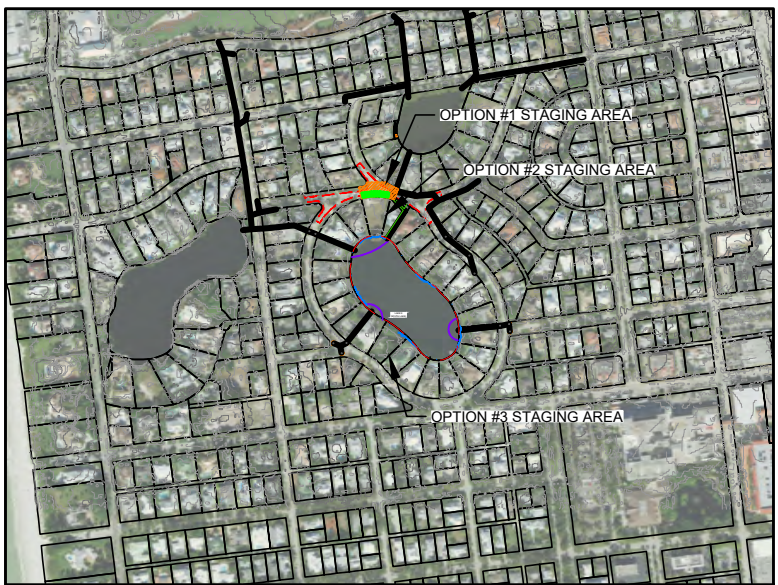
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PROPOSED MAINTENANCE OF TRAFFIC CONTROL PLAN - LAKE 9

NOT TO SCALE



LAST REVISION	DESCRIPTION	FY 2023-24 STANDARD PLANS	TEMPORARY ROADWAY CLOSURE	INDEX	SHEET
11/01/20				102-625	1 of 1



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
**CITY OF NAPLES
LAKES RESTORATION**



CLIENT:
**CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT**
295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

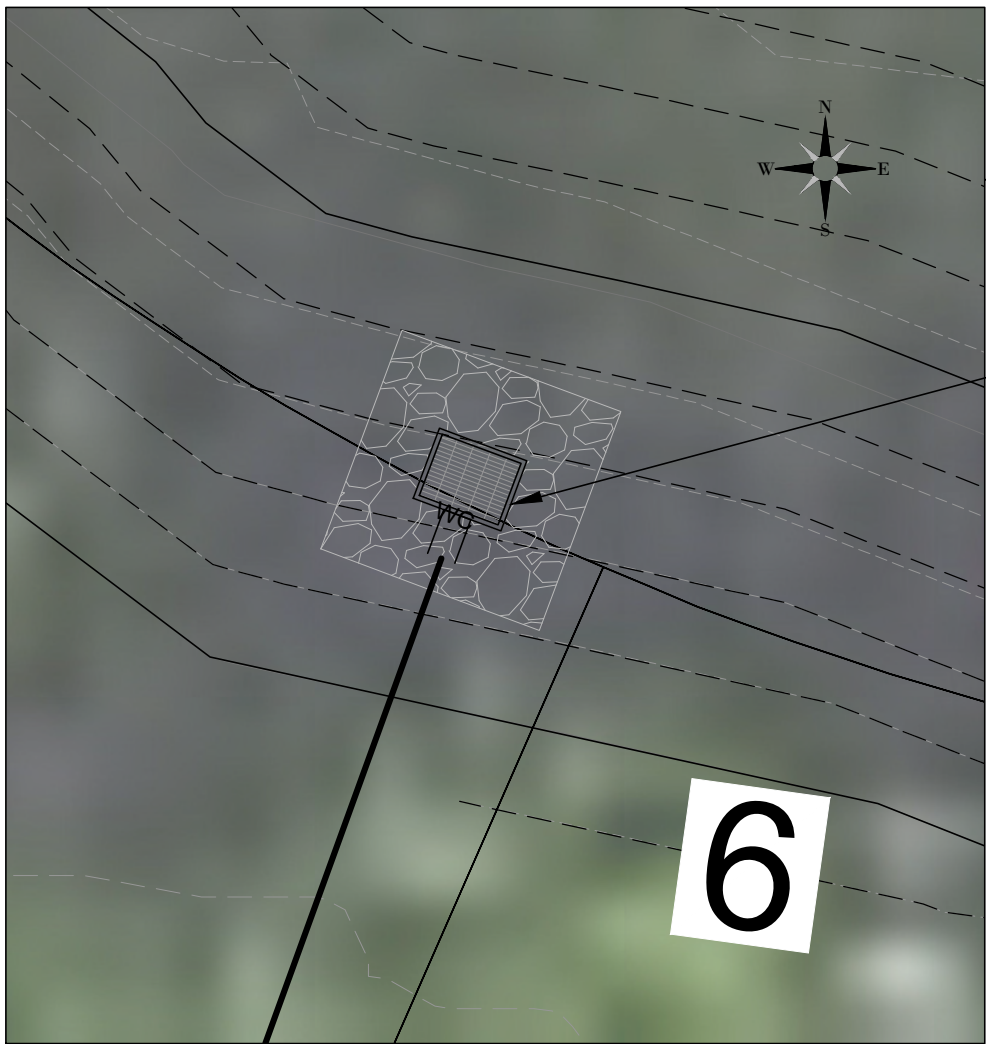
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

**MAINTENANCE OF
TRAFFIC CONTROL
PLAN LAKE 9**

SHEET NUMBER:	REV. #
C-103_9	E
SHEET 11 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-104_8.dwg LAYOUT: PROPOSED SITE PLAN LAKE 8
SAVED: 3/5/2024 8:05 AM PLOTTED: 3/5/2024 8:07 AM DRAWN BY: BOLTON, GARY



2 OUTLET STRUCTURE PLAN
NOT TO SCALE

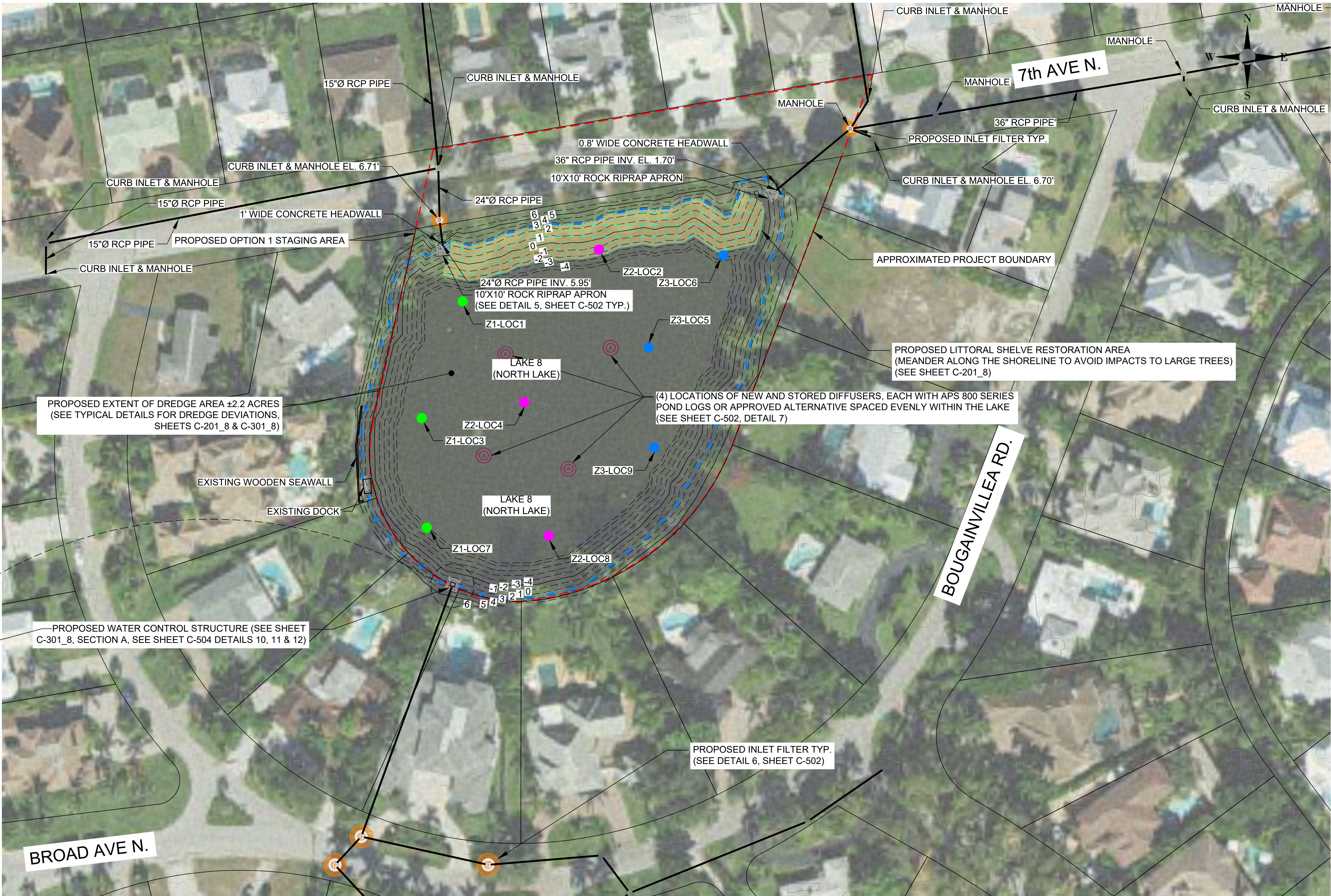
LEGEND

- 5 PROPOSED CONTOURS
- 5 PROPOSED CONTOURS MINOR
- 5 EXISTING CONTOURS MAJOR
- 5 EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- WC PROPOSED WATER CONTROL STRUCTURE TYPICAL
- PROPOSED INLET FILTER TYPICAL
- PROPOSED AERATOR TYPICAL

- LITTORAL SHELVE GRADING & PLANTING
- SEDIMENT SAMPLING LOCATIONS
- ZONE-1 LOCATIONS 1, 3 & 7 (Z1-LOC7)
- ZONE-2 LOCATIONS 2, 4 & 8 (Z2-LOC8)
- ZONE-3 LOCATIONS 6, 5, & 9 (Z3-LOC9)

NOTES:

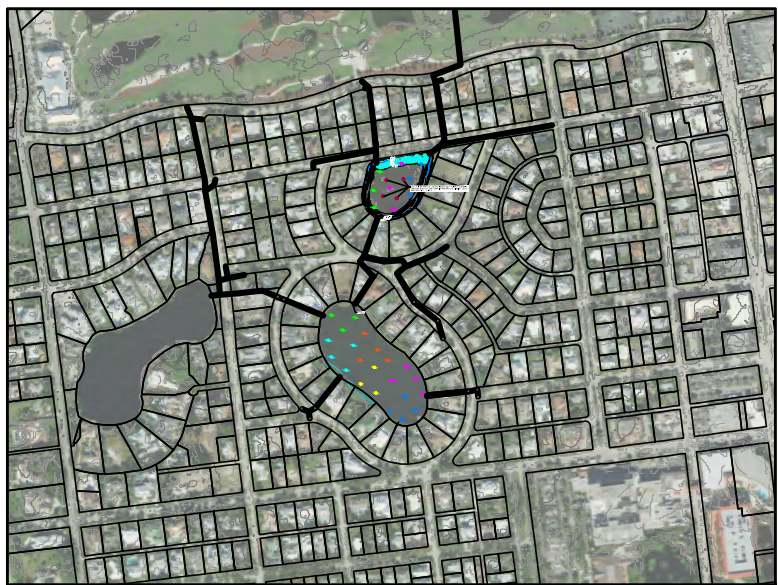
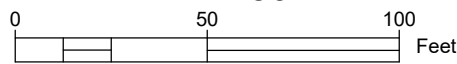
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022,
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.
- CONTRACTOR TO REFERENCE FEASIBILITY REPORT FOR INFORMATION ON SEDIMENT SAMPLING ZONE LOCATIONS AND ANALYTICAL DATA FOR DEWATERING AND DISPOSAL LOGISTICS.



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

1 PROPOSED SITE PLAN - LAKE 8

Scale: 1"=50'



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS

NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

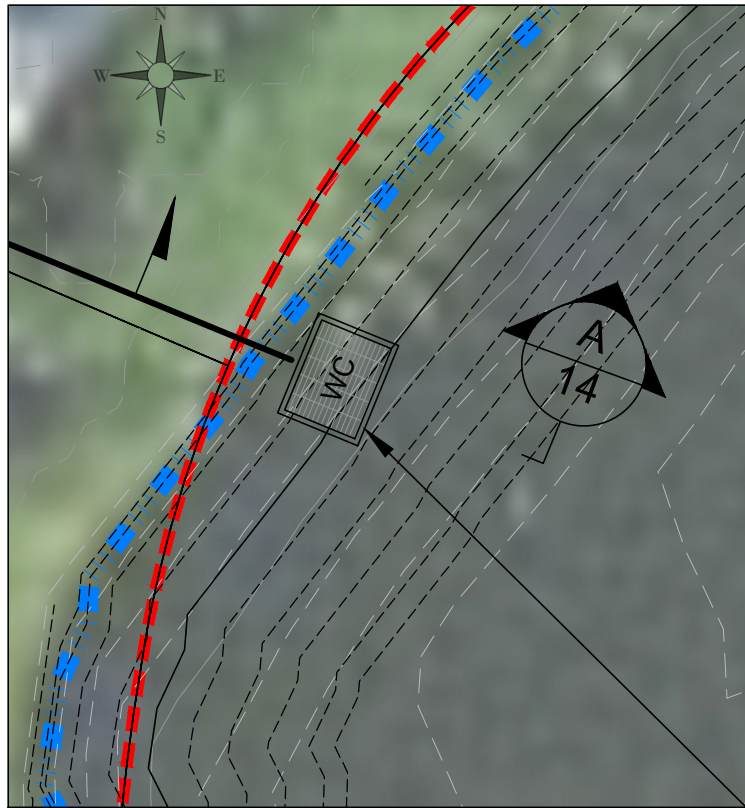
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

PROPOSED SITE
PLAN LAKE 8

SHEET NUMBER:	REV. #
C-104_8	E
SHEET 06 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-104_9.dwg LAYOUT: PROPOSED SITE PLAN LAKE 9
SAVED: 3/5/2024 7:34 AM PLOTSTYLETABLE: ---- PLOTTED: 3/5/2024 7:34 AM DRAWN BY: BOLTON, GARY



2 OUTLET STRUCTURE PLAN
NOT TO SCALE



SOURCE: FLORIDA LABINS (OP2019_NC_310245)

LEGEND

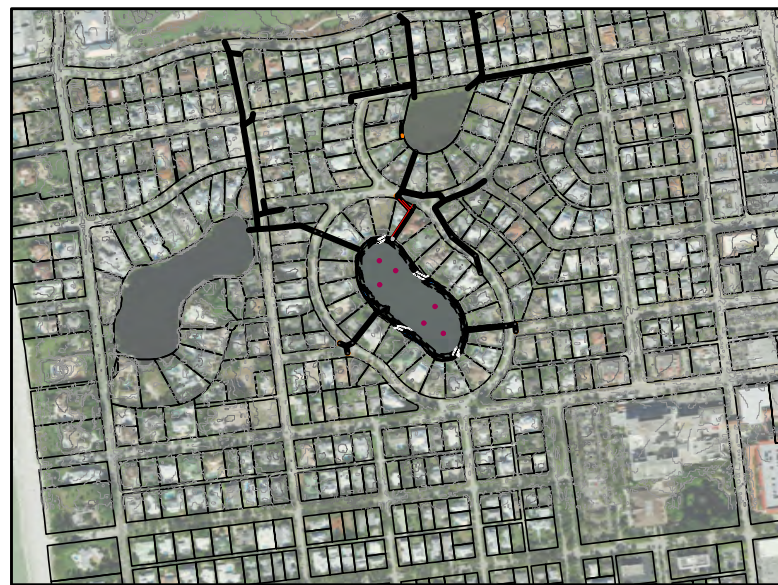
- 5 PROPOSED CONTOURS
- 5 PROPOSED CONTOURS MINOR
- 5 EXISTING CONTOURS MAJOR
- 5 EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- CITY OF NAPLES EASEMENT
- NORMAL WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- PROPOSED WATER CONTROL STRUCTURE
- PROPOSED INLET FILTER
- PROPOSED AERATORS

1 PROPOSED SITE PLAN - LAKE 9

Scale: 1"=75'

NOTES:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022,
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
- THE CONTRACTOR SHALL PROTECT THE CYPRESS TREES AND FEET ALONG THE NORTHERN BOUNDARY DURING CONSTRUCTION. SEE TREE PROTECTION DETAIL 9, SHEET C-503.



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

PROPOSED
SITE PLAN
LAKE 9

SHEET NUMBER:	REV. #
C-104_9	E
SHEET 12 OF 18 SHEETS	

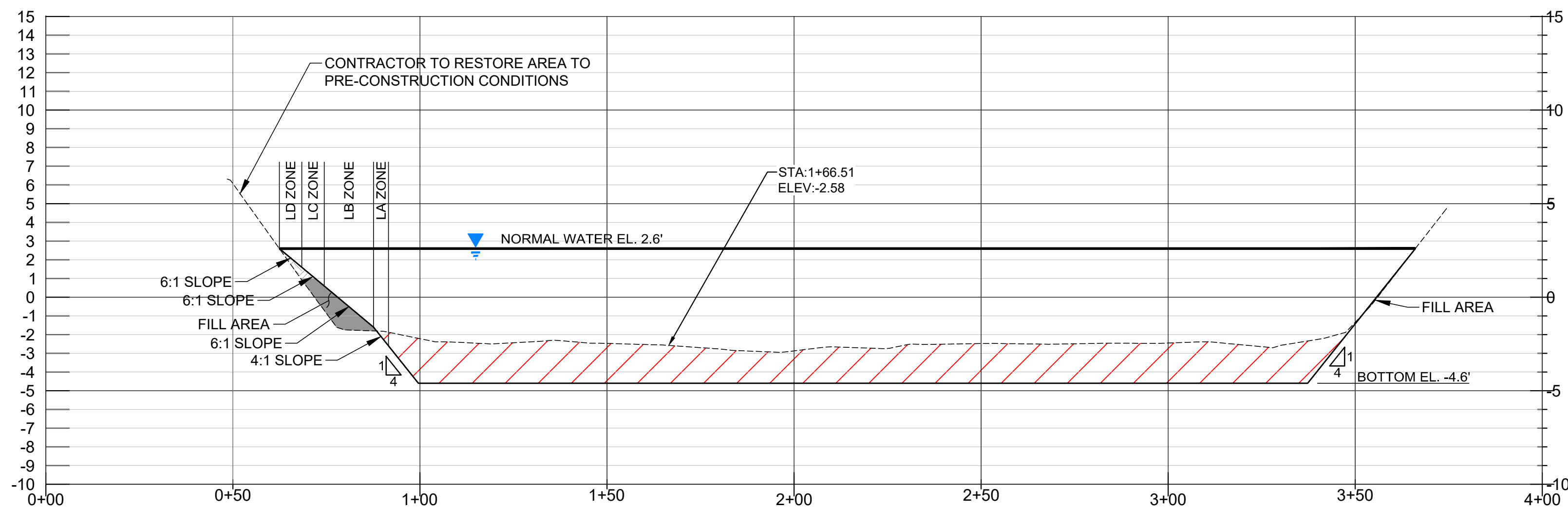


NOTE:

1. CONTRACTOR SHALL STAY A MINIMUM OF 10 FEET FROM EXISTING DOCKS AND SEAWALLS TO AVOID DAMAGE TO PRIVATE PROPERTY.
2. CONTRACTOR TO RESTORE ALL AREAS ABOVE LITTORAL PLANTINGS (EL. 2.6') TO PRE-CONSTRUCTION CONDITION AFTER ALL WORK IS COMPLETED.

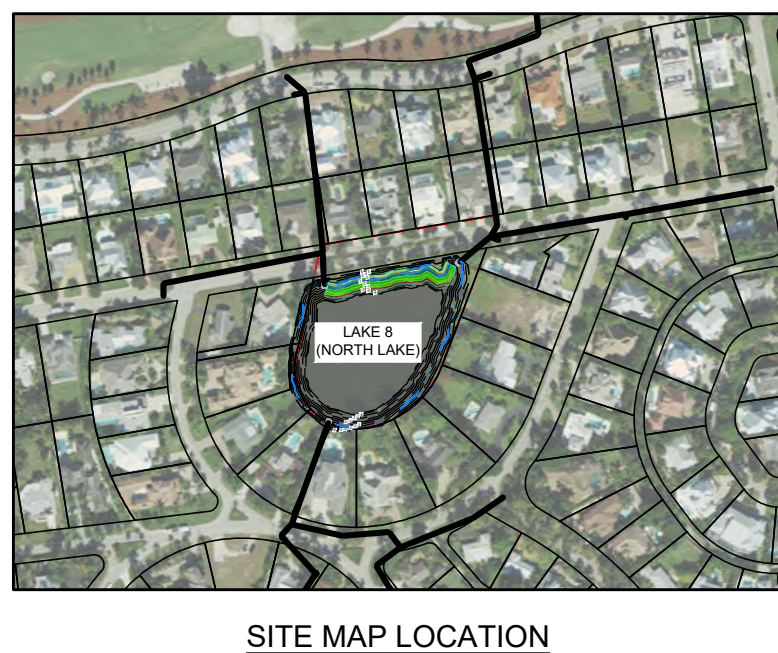
NOTES:

1. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
2. THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8, AND 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022, ELECTRONIC FILES OF DATA WILL BE SUPPLIED TO CONTRACTOR FOR BIDDING PURPOSES.
3. CUT AND FILL VOLUMES ARE APPROXIMATE AND ARE BASED ON PROPOSED SURFACE.



2 NORTH - SOUTH PROFILE VIEW

CITY OF NAPLES PLANTING PLAN								
SYMBOL	ZONE	SLOPE	SQUARE FEET	WATER DEPTH (FT)	COMMON NAME	SCIENTIFIC NAME	SPACING (FEET)	QUANTITY OF PLANTS
	LITTORAL MIX D (LD)	6:1 SLOPE	1610	0-1 (EL. 2.6' TO EL. 1.6')	LEATHER FERN	ACROSTICHUM DANAEIFOLIUM	2	403
					MUHLV GRASS	MUHLBENBERGIA CAPILLARIS	3	268
	LITTORAL MIX C (LC)	6:1 SLOPE	1657	1-2 (EL. 1.6' TO EL. 0.6')	SAND CORDGRASS	SPARTINA BAKERI	3	184
					PICKERELWEED	PONTEDERIA CORDATA	2	276
	LITTORAL MIX B (LB)	6:1 SLOPE	3824	2-3 (EL. 0.6' TO EL. -1.6')	DUCK POTATO	SAGITTARIA LATIFOLIA	2	276
					BULRUSH	SCHOENOPLECTUS AMERICANUS	1	1275
					ALLIGATOR FLAG	THALIA GENICULATA	3	425
					SMOOTH CORDGRASS	SPARTINA ALTERNIFLORA	1	1275
	LITTORAL MIX A (LA)	4:1 SLOPE	1148	3-4 (EL. -1.6' TO EL. -2.6')	WATER LILY	NYMPHAEA ODORATA	7	164



GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION

City of *Naples* Florida

CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

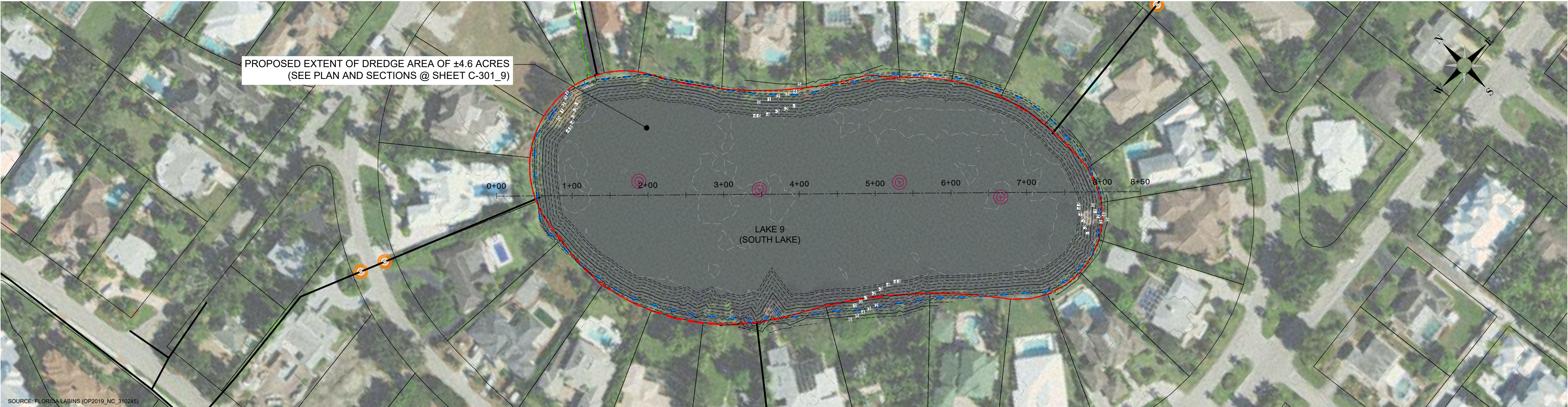
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

LITTORAL PLANTING AND GRADING PLAN AND PROFILE

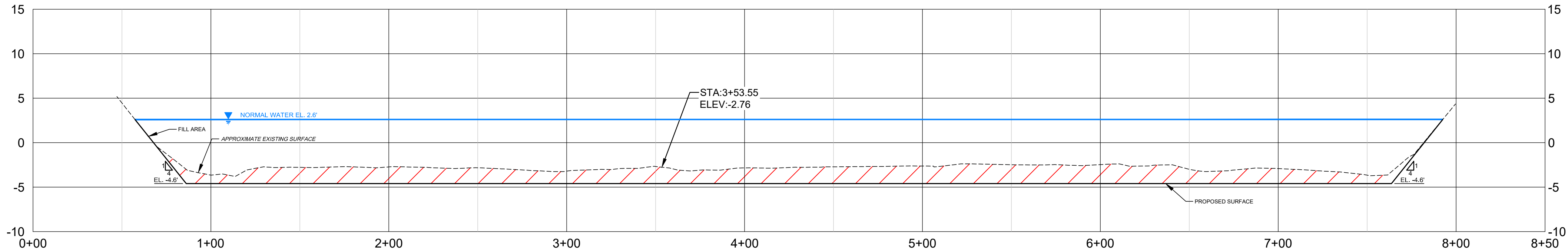
SHEET NUMBER:	REV. #
C-201_8	E
SHEET 07 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
C:\Users\USGB673007\WSP\0365\Corning, Greg - City of Naples - North and South Lake\2023\JULY_2023\City of Naples_Lakes 8 & 9 Restoration - Standard\C-201_9.dwg LAYOUT: PROFILE VIEW & LOCATION LAKE 9
SAVED: 3/5/2024 7:20 AM PLOTTED: 3/5/2024 7:23 AM
DRAWN BY: BOLTON, GARY



1 PROFILE LOCATION PLAN - LAKE 9

Scale: 1"=75'
0 75 150 Feet



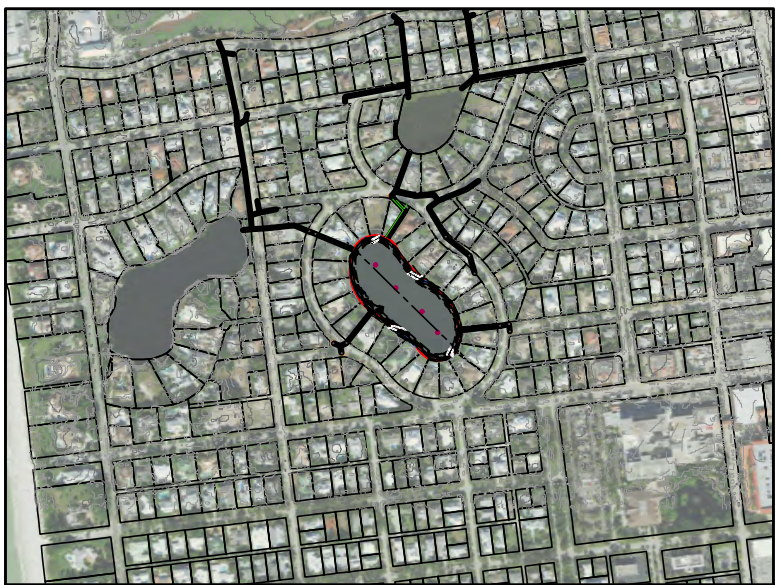
2 NORTHWEST - SOUTHEAST PROFILE VIEW

LEGEND

- 5 PROPOSED CONTOURS
- 5 PROPOSED CONTOURS MINOR
- 5 EXISTING CONTOURS MAJOR
- 5 EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- CITY OF NAPLES EASEMENT
- NORMAL WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- PROPOSED INLET FILTERS TYPICAL
- PROPOSED AERATORS TYPICAL
- FILL AREA (APPROXIMATELY 79 CU. YDS.)
- CUT AREA (APPROXIMATELY 12,457 CU. YDS.)

NOTES:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC DATA FOR PROJECT WAS COMPILED BY WSP IN 2022. ELECTRONIC FILES OF DATA WILL BE SUPPLIED TO CONTRACTOR FOR BIDDING PURPOSES.
- CUT AND FILL VOLUMES ARE APPROXIMATE AND BASED ON PROPOSED SURFACE.



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

100% DESIGN FOR CONSTRUCTION

REVISIONS

NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

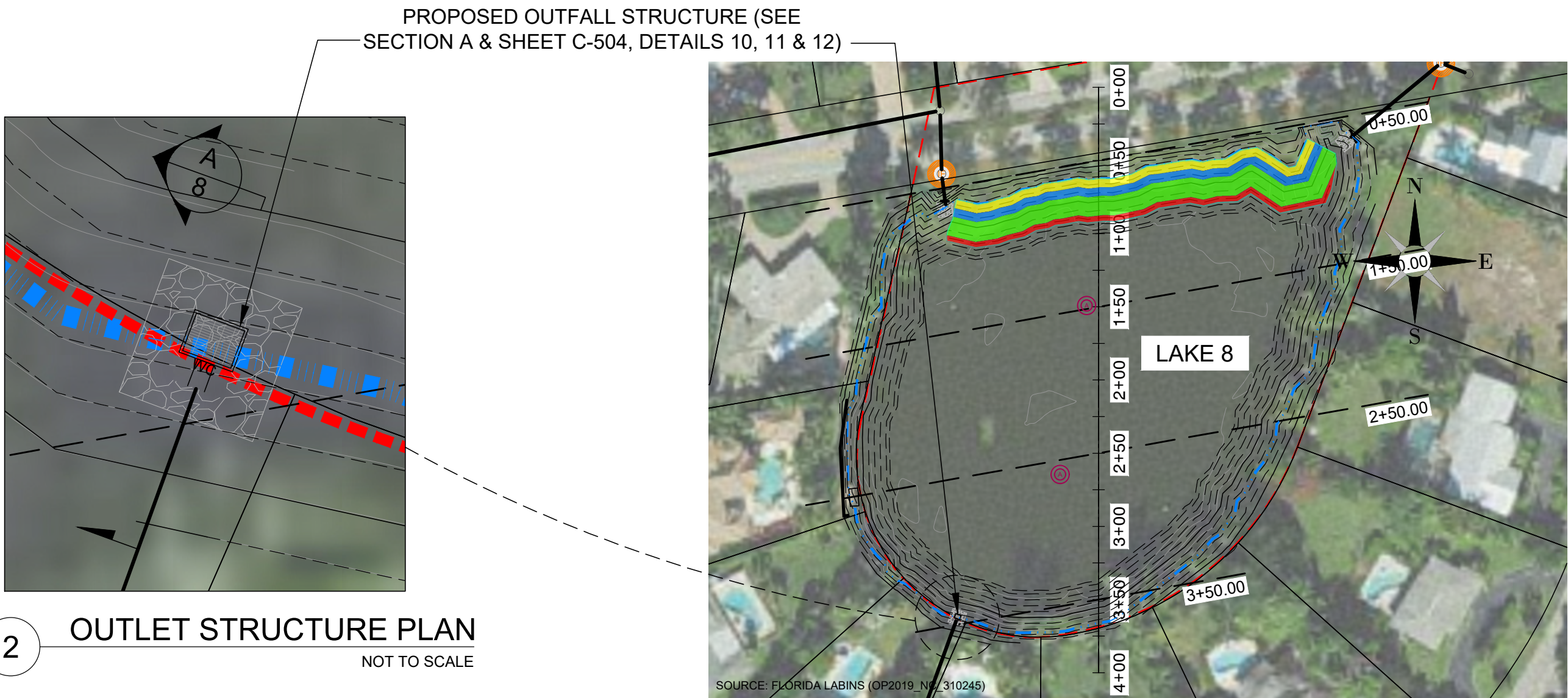
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

PROFILE VIEW
& LOCATION
LAKE 9

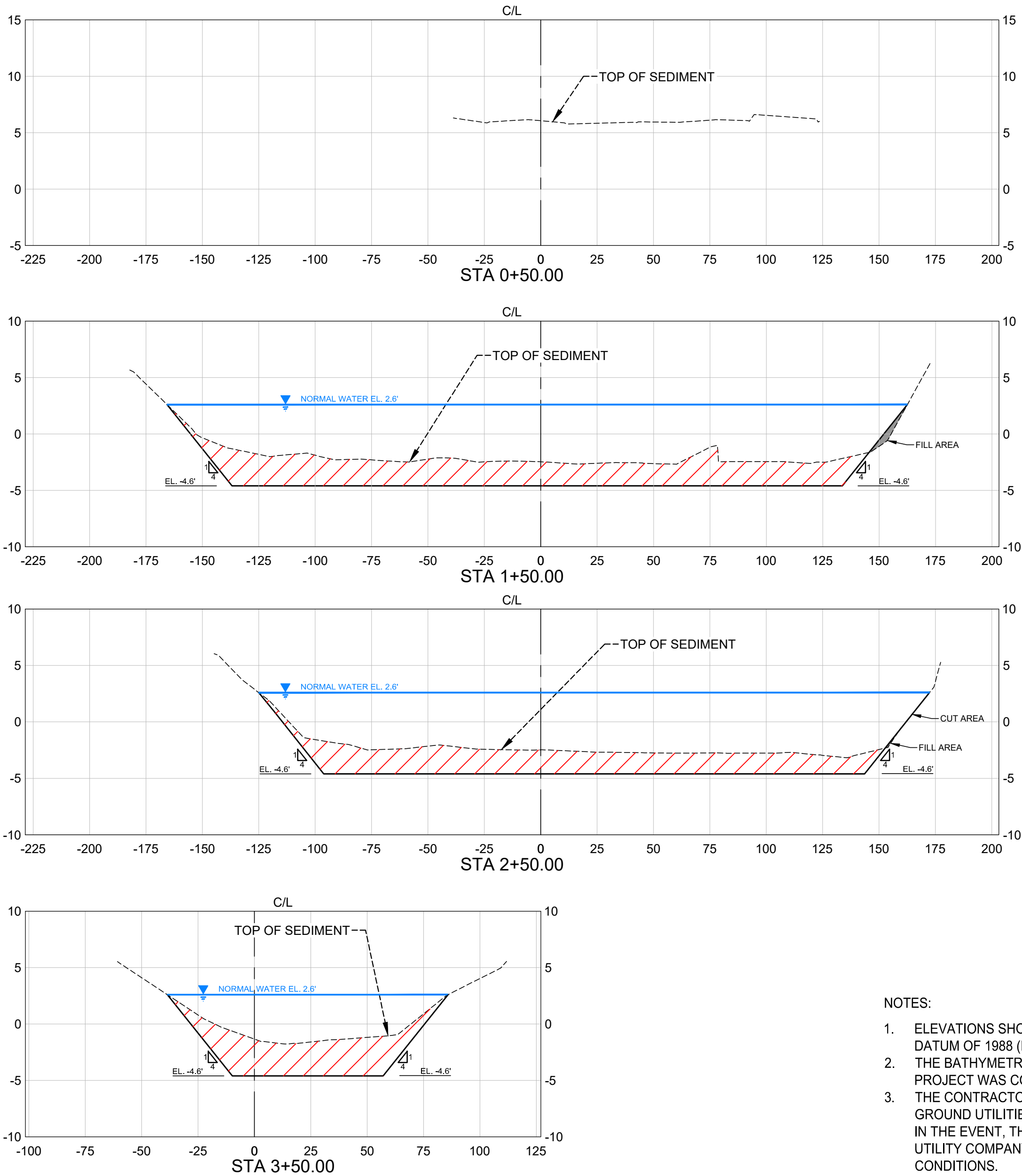
SHEET NUMBER:	REV. #
C-201_9	E
SHEET 13 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
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SAVED: 3/5/2024 7:55 AM PLOTTED: 3/5/2024 7:56 AM DRAWN BY: BOLTON, GARY



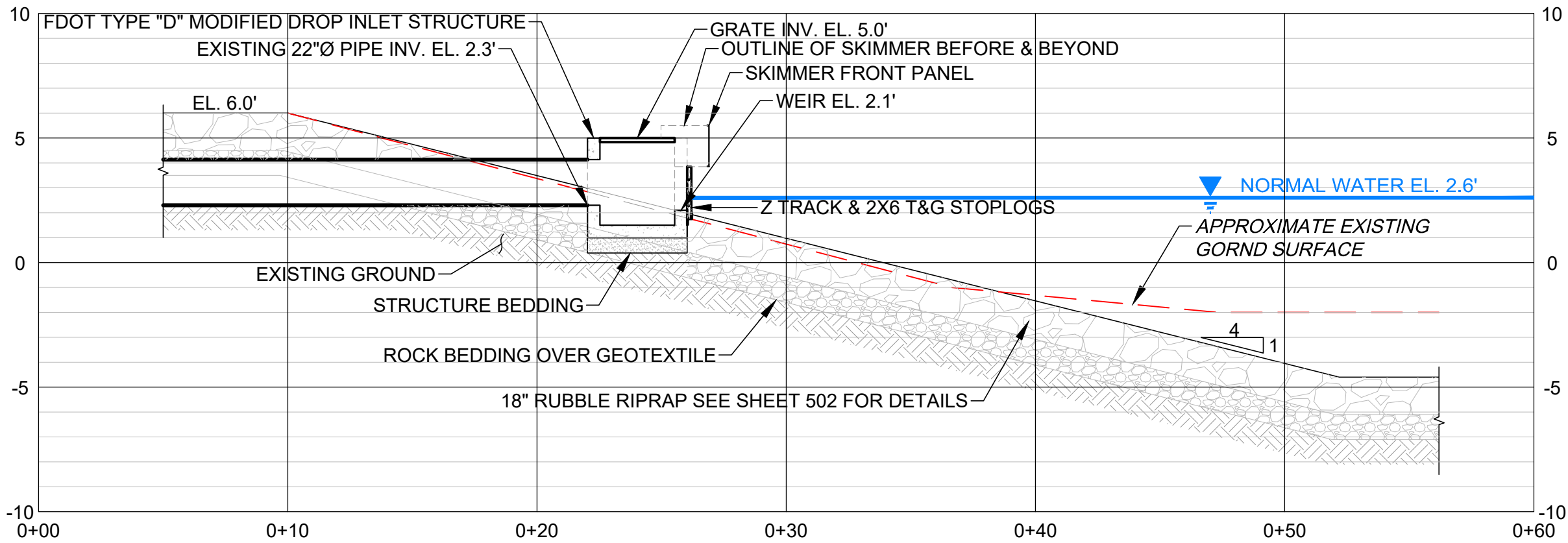
2 OUTLET STRUCTURE PLAN
NOT TO SCALE

1 PROPOSED CROSS-SECTION LOCATION PLAN - LAKE 8
Scale: 1"=80'



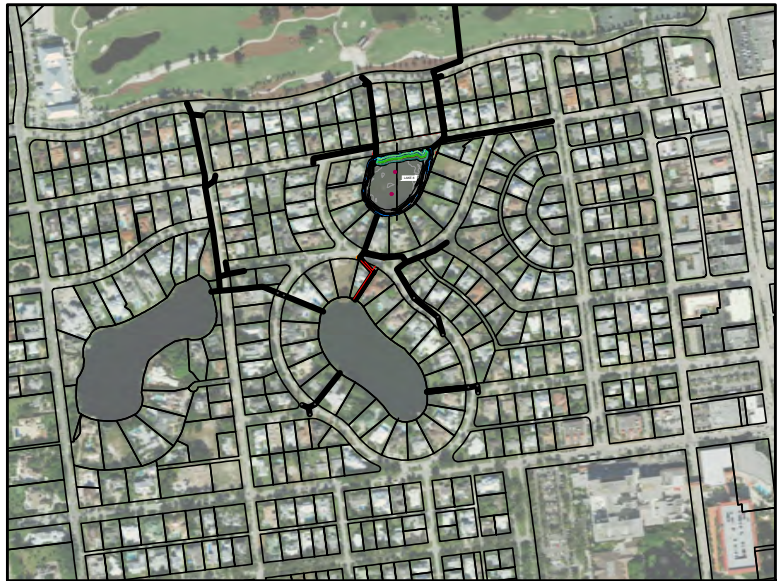
- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8, AND 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
 - THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
 - CUT AND FILL VOLUMES ARE APPROXIMATE AND ARE BASED ON PROPOSED SURFACE.

CITY OF NAPLES PLANTING PLAN								
SYMBOL	ZONE	SLOPE	SQUARE FEET	WATER DEPTH (FT)	COMMON NAME	SCIENTIFIC NAME	SPACING (FEET)	QUANTITY OF PLANTS
[Yellow Box]	LITTORAL MIX D (LD)	6:1 SLOPE	1610	0-1 (EL. 2.6' TO EL. 1.6')	LEATHER FERN	ACROSTICHUM DANAEIFOLIUM	2	403
					MUHLY GRASS	MUHLENBERGIA CAPILLARIS	3	268
					SAND CORDGRASS	SPARTINA BAKERI	3	184
[Blue Box]	LITTORAL MIX C (LC)	6:1 SLOPE	1657	1-2 (EL. 1.6' TO EL. 0.6')	PICKERELWEED	PONTERDERIA CORDATA	2	276
					DUCK POTATO	SAGITTARIA LATIFOLIA	2	276
					BULRUSH	SCHOENOPECTUS AMERICANUS	1	1275
[Green Box]	LITTORAL MIX B (LB)	6:1 SLOPE	3824	2-3 (EL. 0.6' TO EL. -1.6')	ALLIGATOR FLAG	THALIA GENICULATA	3	425
					SMOOTH CORDGRASS	SPARTINA ALTERNIFLORA	1	1275
					WATER LILY	NYPHAEA ODORATA	7	164
[Red Box]	LITTORAL MIX A (LA)	4:1 SLOPE	1148	3-4 (EL. -1.6' TO EL. -2.6')				



A

- LEGEND
- [Hatched Box] FILL AREA (APPROXIMATELY 371 CU. YDS.)
 - [Diagonal Lines Box] CUT AREA (APPROXIMATELY 4822 CU. YDS.)
 - [Solid Line] 5' PROPOSED CONTOURS
 - [Dashed Line] PROPOSED CONTOURS MINOR
 - [Blue Dashed Line] NORMAL LAKE WATER LEVEL EL. 2.6'
 - [Red Dashed Box] APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
 - [WC Box] PROPOSED WATER CONTROL STRUCTURE
 - [P Box] PROPOSED INLET FILTER TYPICAL
 - [A Box] PROPOSED AERATOR



SITE MAP LOCATION

100% DESIGN FOR CONSTRUCTION

wsp

USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
**CITY OF NAPLES
LAKES RESTORATION**

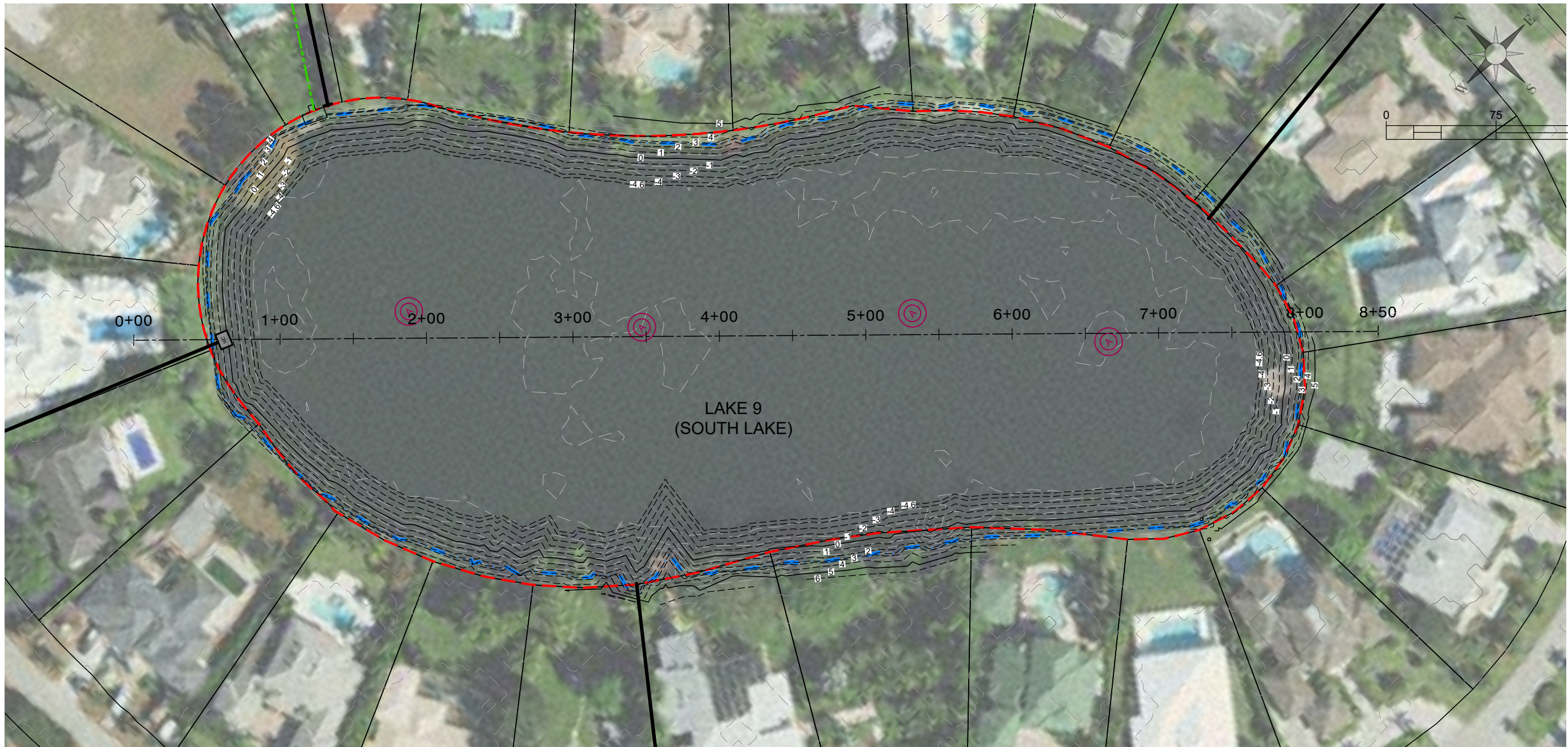
CLIENT:
**CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT**
295 RIVERSIDE DRIVE
NAPLES, FL 34102
WSP PROJECT NO:
600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

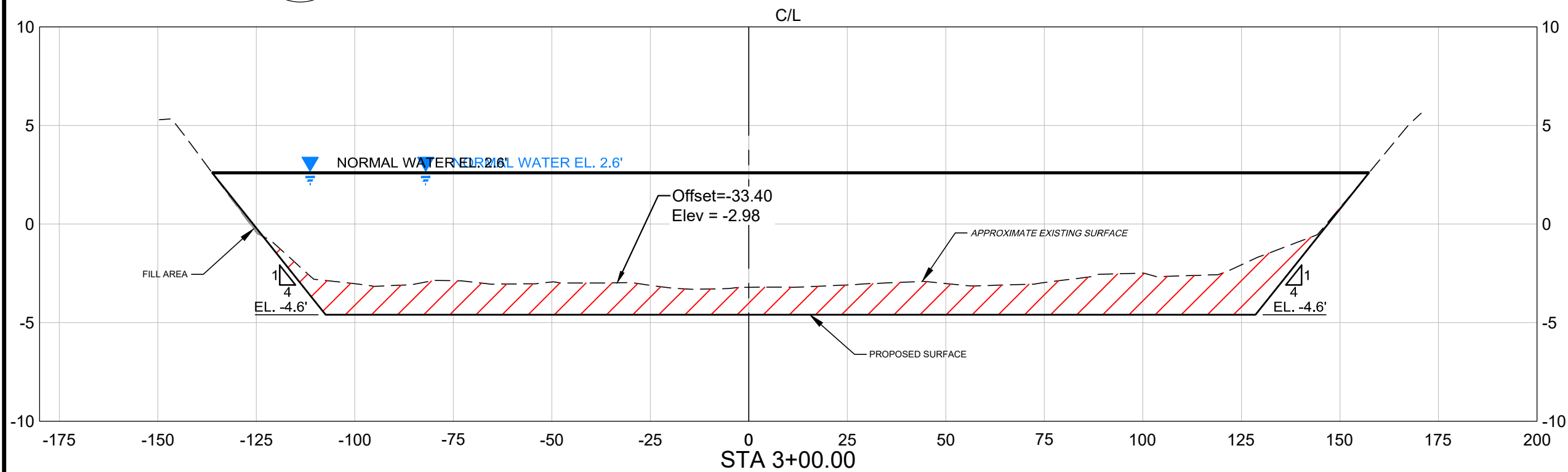
SHEET TITLE:
**CROSS SECTION
LOCATION PLAN
LAKE 8**

SHEET NUMBER:	REV. #
C-301_8	E
SHEET 08 OF 18 SHEETS	

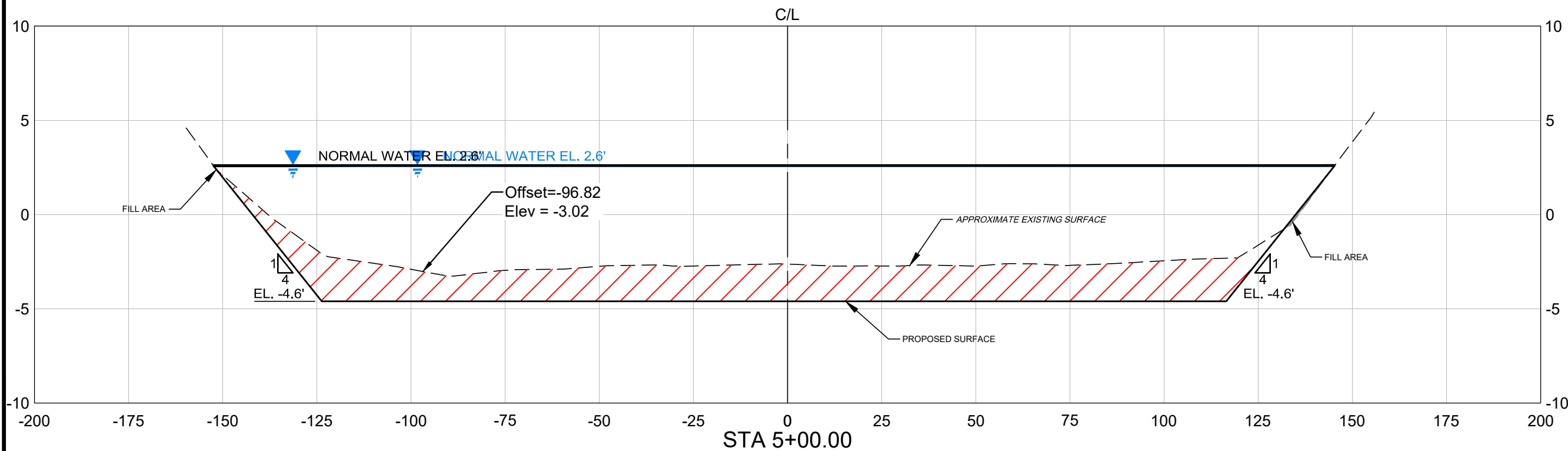


1 PROPOSED CROSS SECTION LOCATION PLAN - LAKE 9

1" = 75'



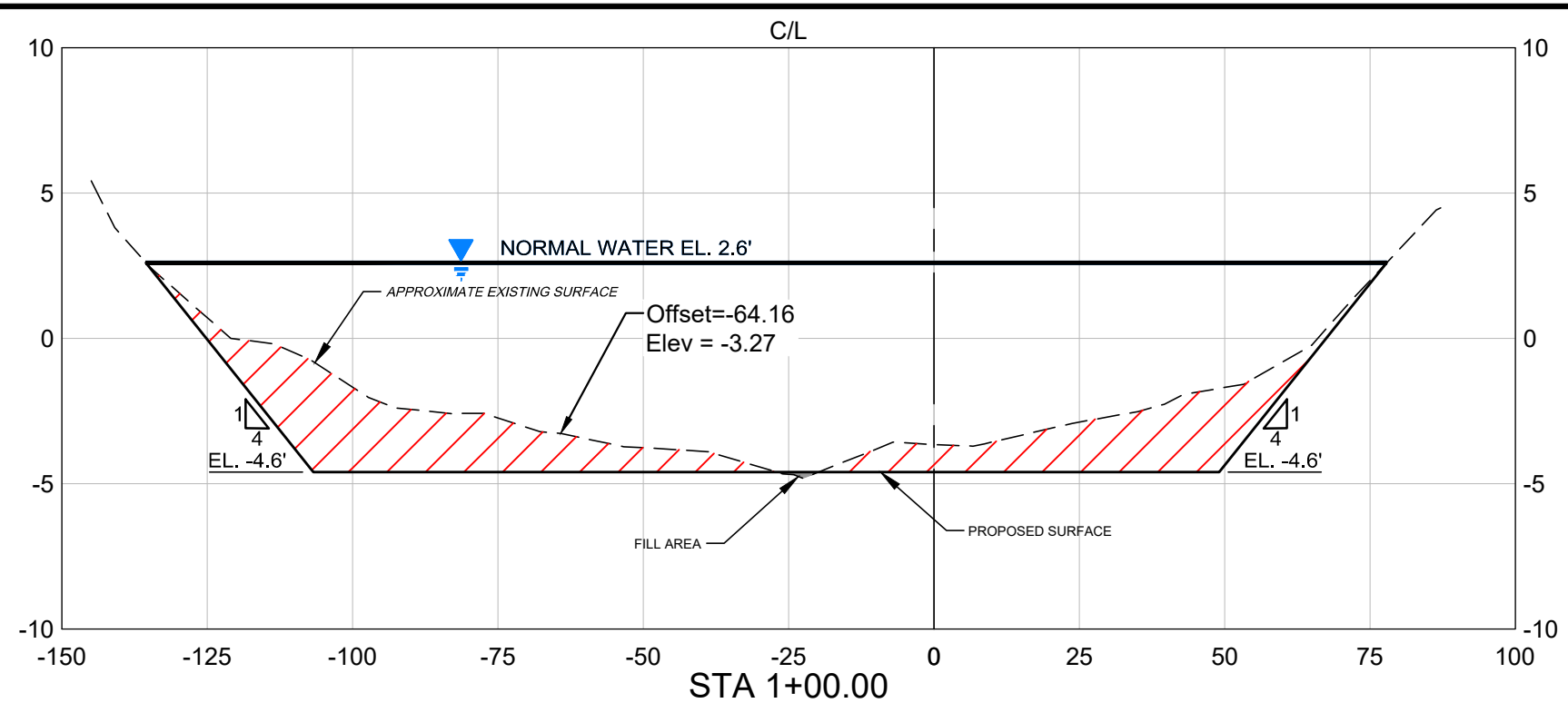
2 CROSS SECTION STA 3+00.00



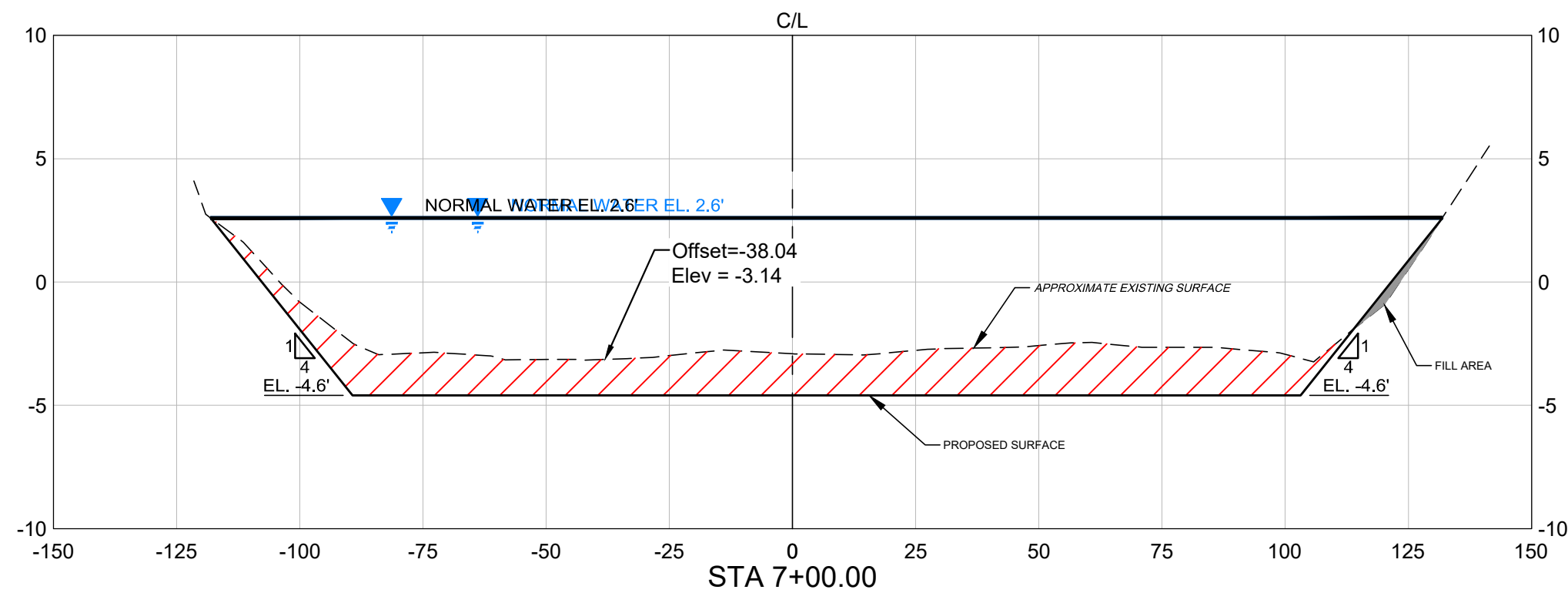
3 CROSS SECTION STA 5+00.00

LEGEND

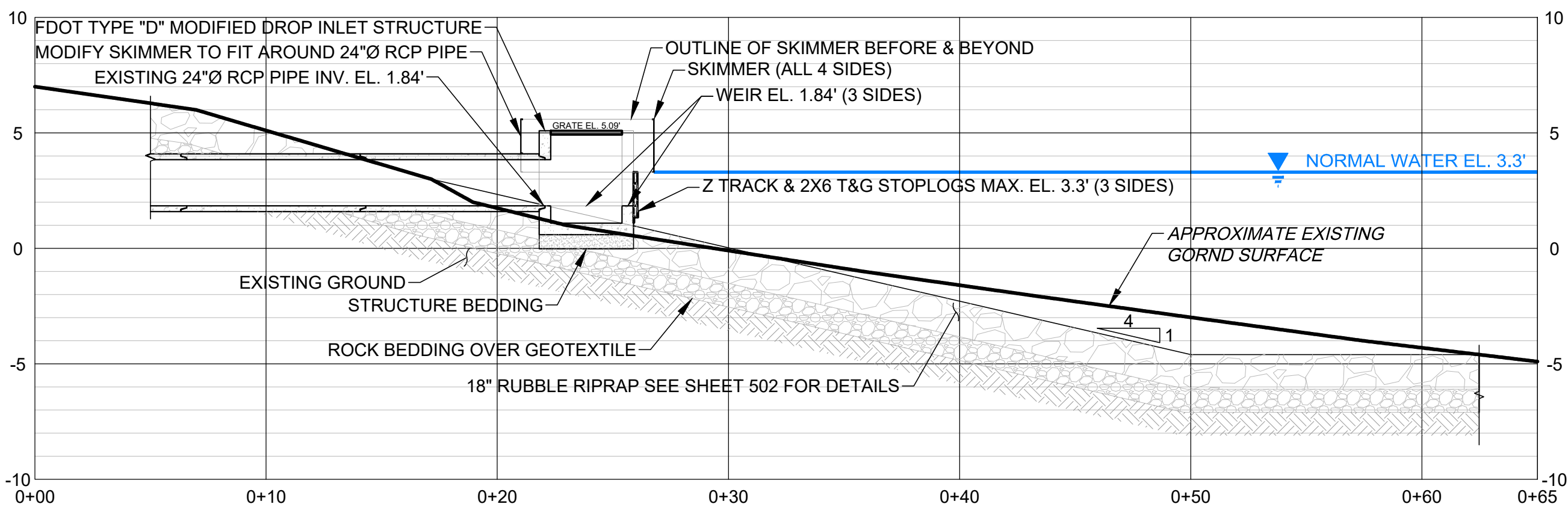
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- FILL AREA (APPROXIMATELY 79 CU. YDS.)
- CUT AREA (APPROXIMATELY 12,457 CU. YDS.)
- PROPOSED AERATOR TYPICAL
- PROPOSED CONTOURS
- PROPOSED CONTOURS MINOR
- EXISTING CONTOURS MAJOR
- EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- CITY OF NAPLES EASEMENT
- NORMAL WATER LEVEL EL. 2.6'



CROSS SECTION STA 1+00.00



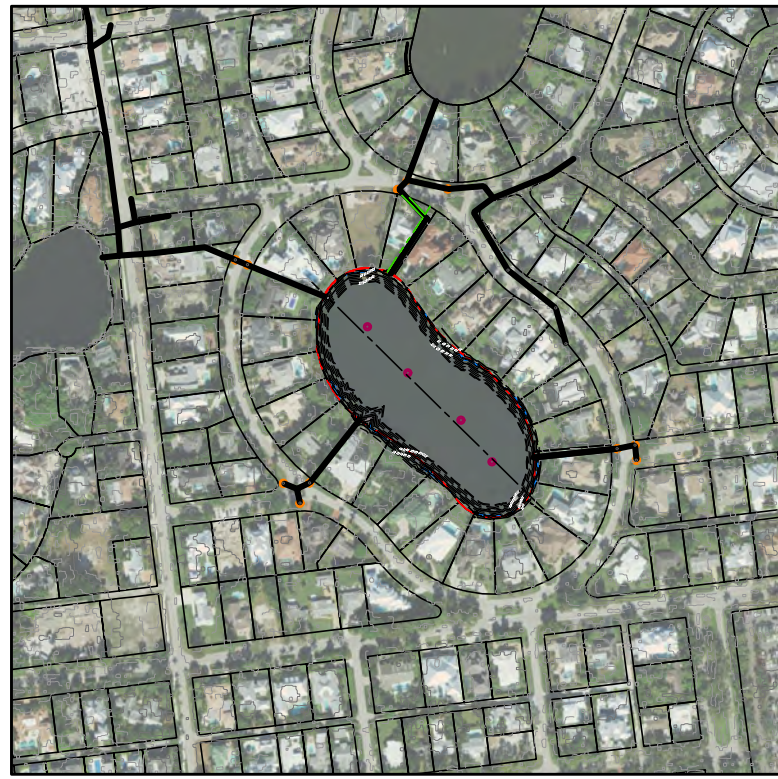
CROSS SECTION STA 7+00.00



OUTFLOW STRUCTURE SECTION LAKE-9

NOTES:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022,
- THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
- CUT AND FILL VOLUMES ARE APPROXIMATE AND BASED ON PROPOSED SURFACE.



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.
1101 Channelside Drive
Suite 200
Tampa, FL 33602
Phone: 1.813.289.0750
www.wsp.com

GREGORY W. CORNING, P.E.
FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT

295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
600843.03

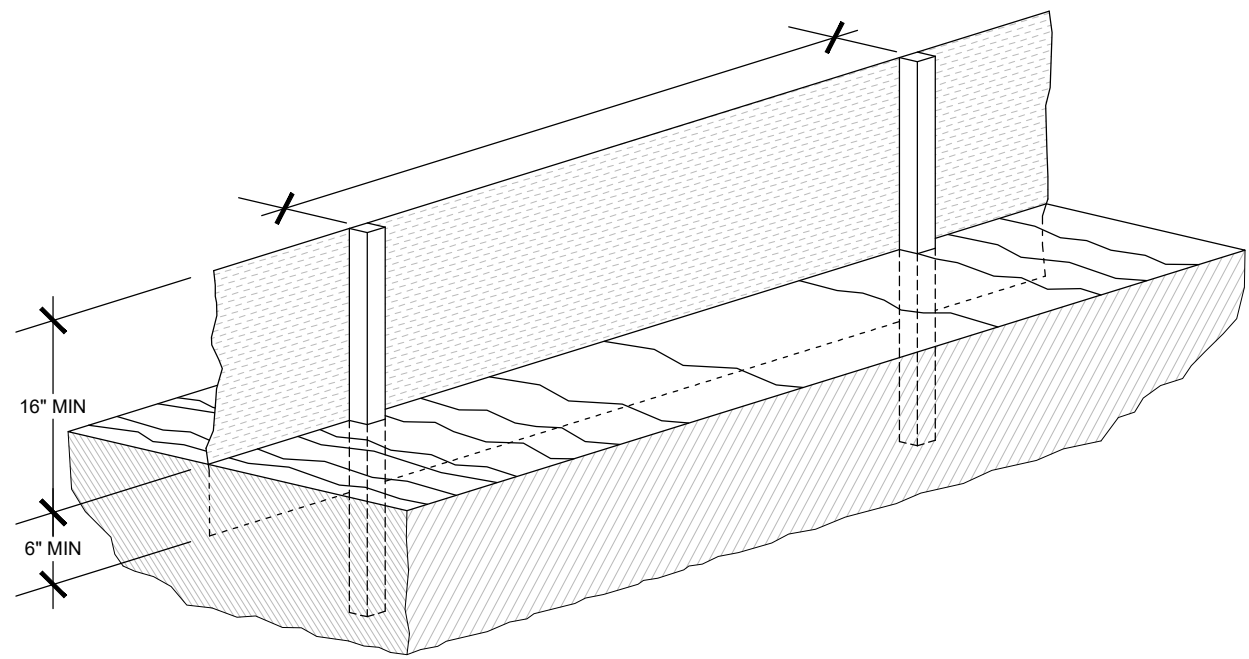
100% DESIGN FOR CONSTRUCTION

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	1/23/24	GB	GC
E	3/5/24	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:
CROSS SECTION
LOCATION PLAN
AND SECTIONS
LAKE 9

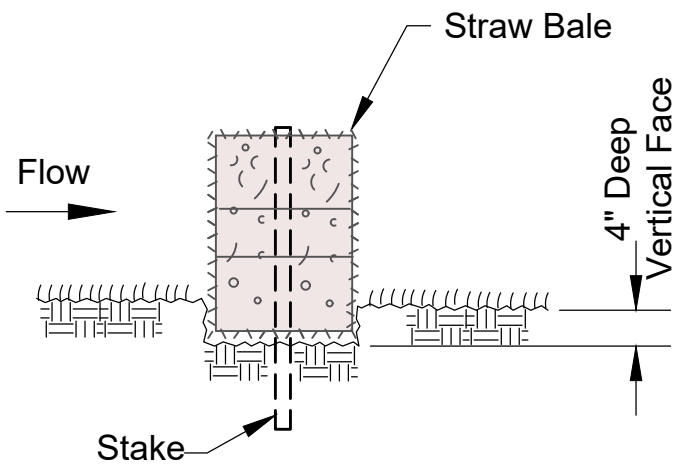
SHEET NUMBER:	REV. #
C-301_9	E
SHEET 14 OF 18 SHEETS	



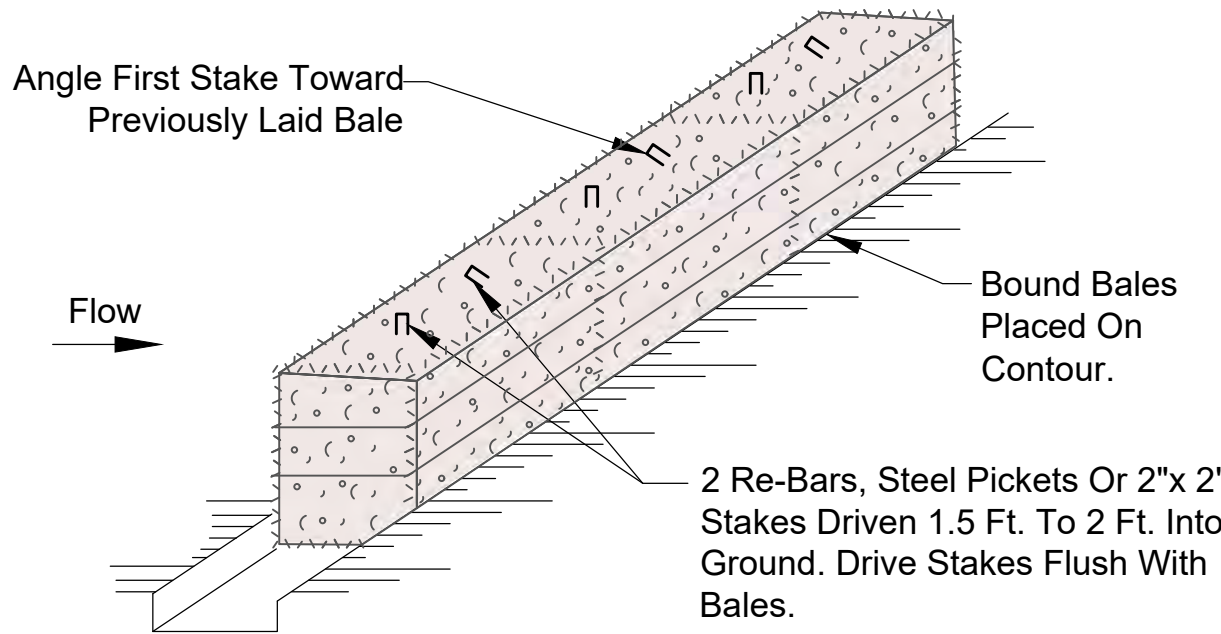
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TYPICAL SILT FENCE DETAIL

Not To Scale



BEDDING DETAIL

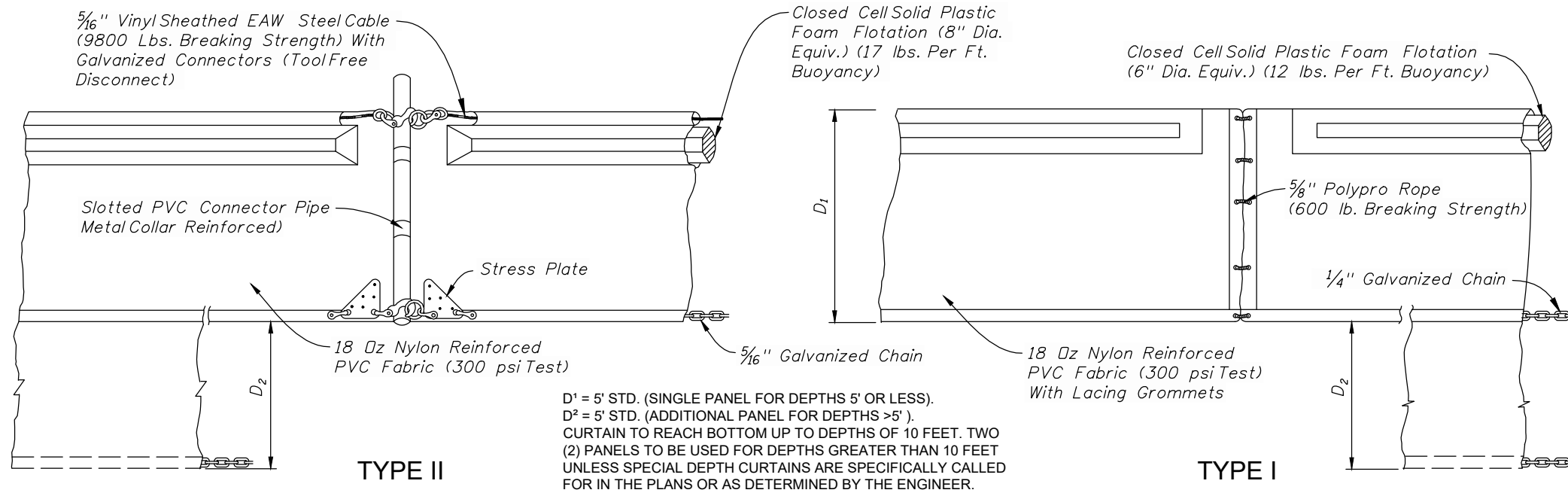


ANCHORING DETAIL

2

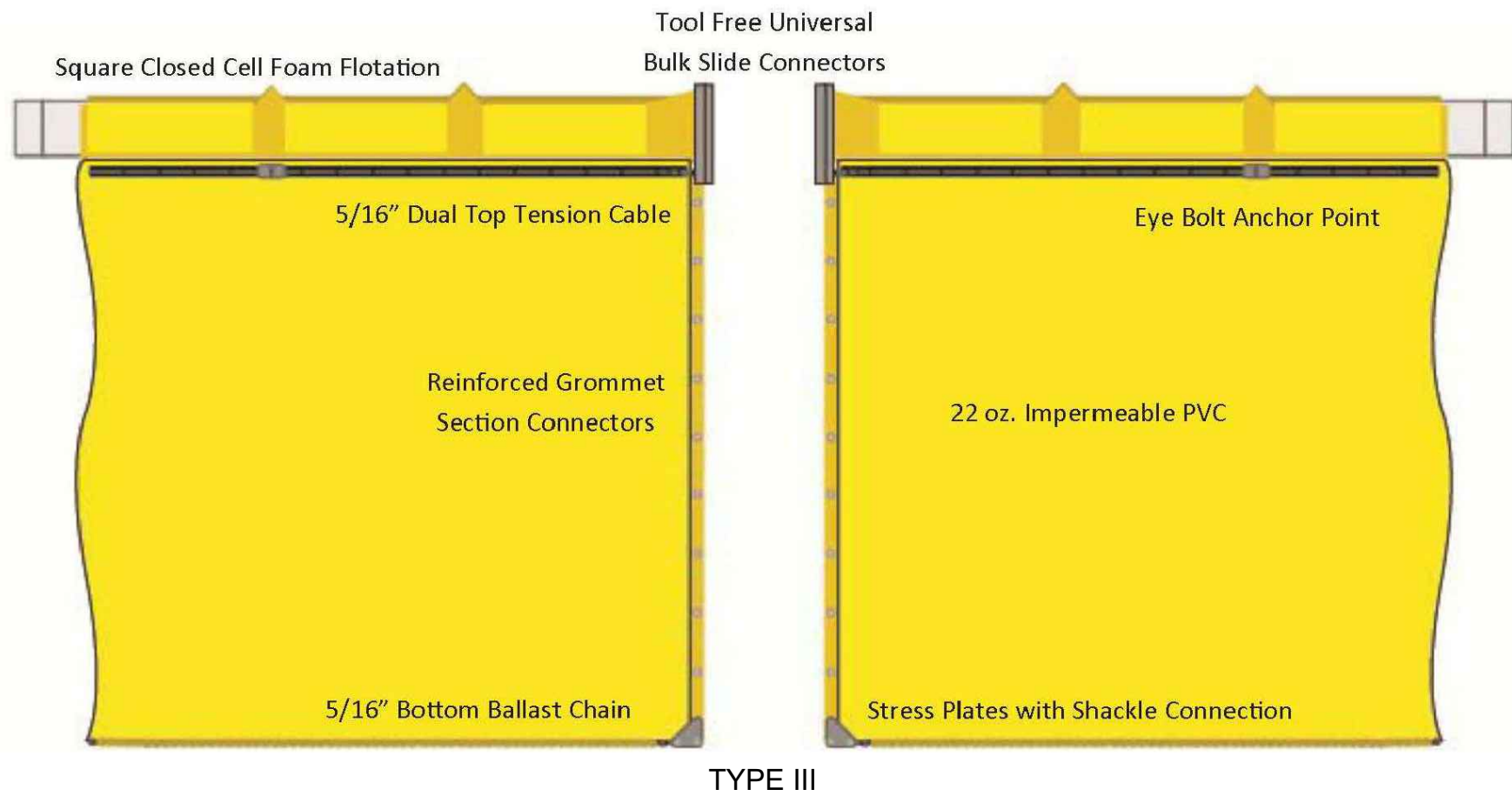
TYPICAL HAY/STAW BALE DETAIL

Not To Scale



NOTICE:
COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

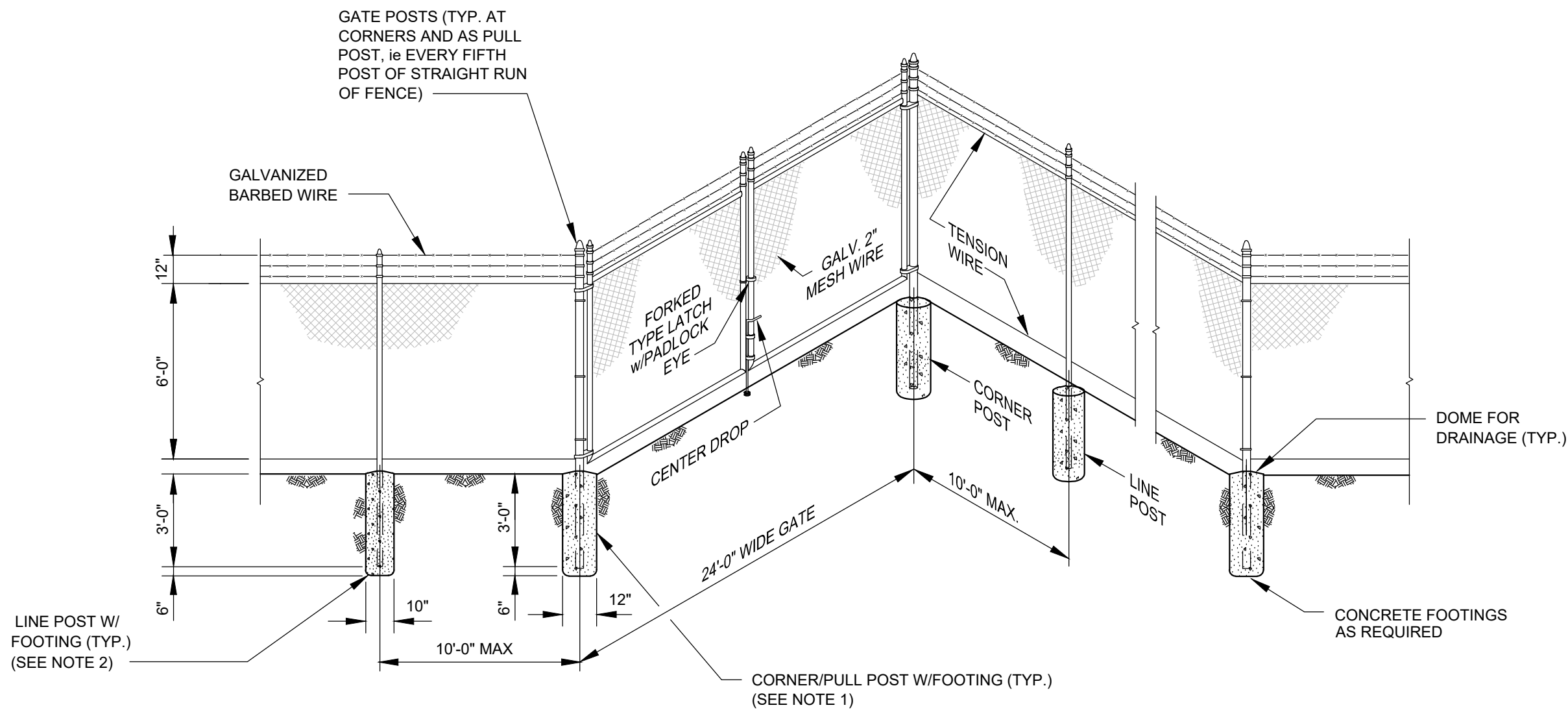


TYPE III

3

TURBIDITY BARRIERS DETAIL

Not To Scale



4

TYPICAL FENCE / GATE DETAIL

Not To Scale



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FLORIDA PE LICENSE NO. 79293

PROJECT:
CITY OF NAPLES
LAKES RESTORATION



CLIENT:
CITY OF NAPLES
PUBLIC WORKS
DEPARTMENT
295 RIVERSIDE DRIVE
NAPLES, FL 34102

WSP PROJECT NO:
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100% DESIGN FOR CONSTRUCTION

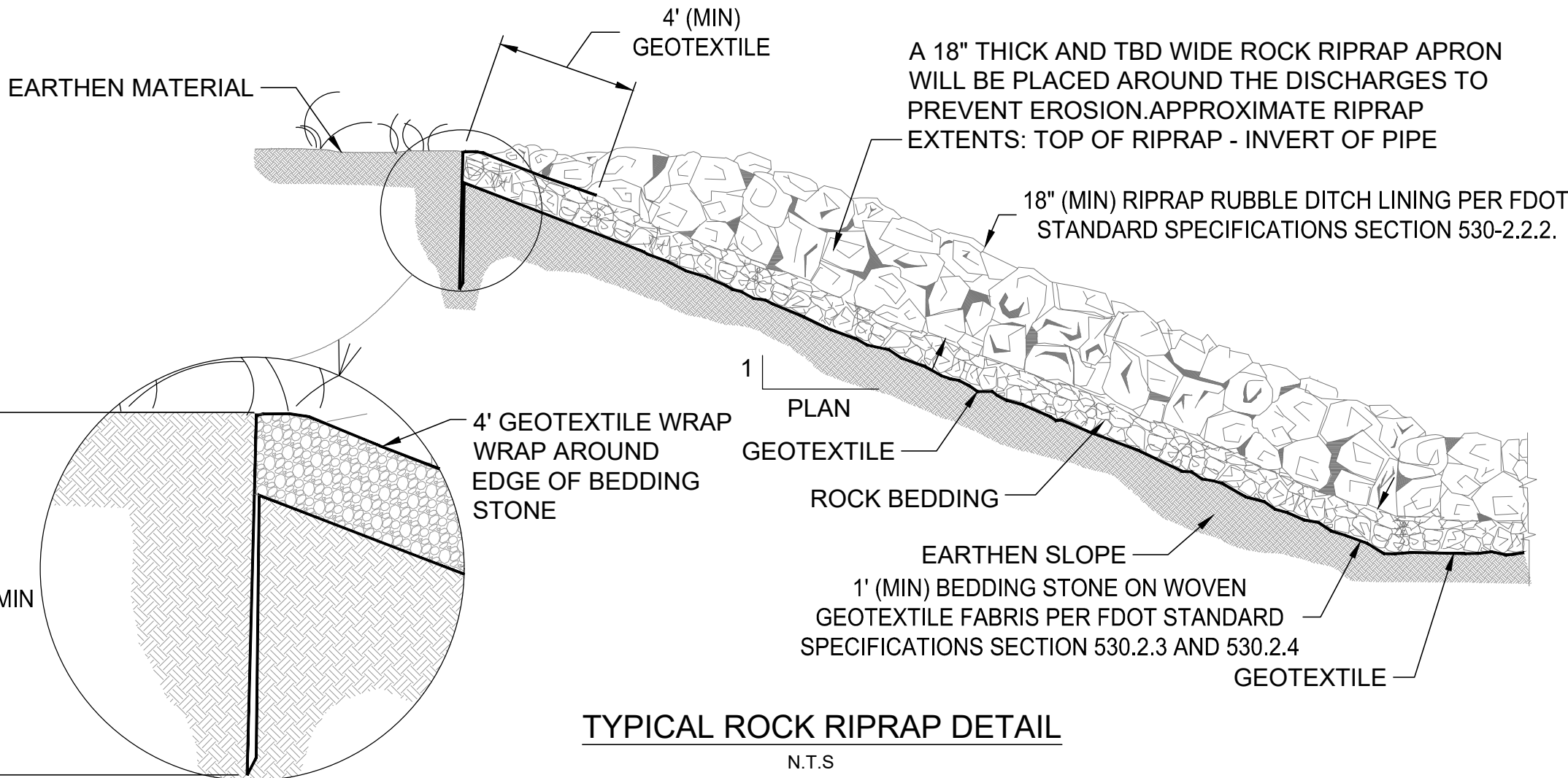
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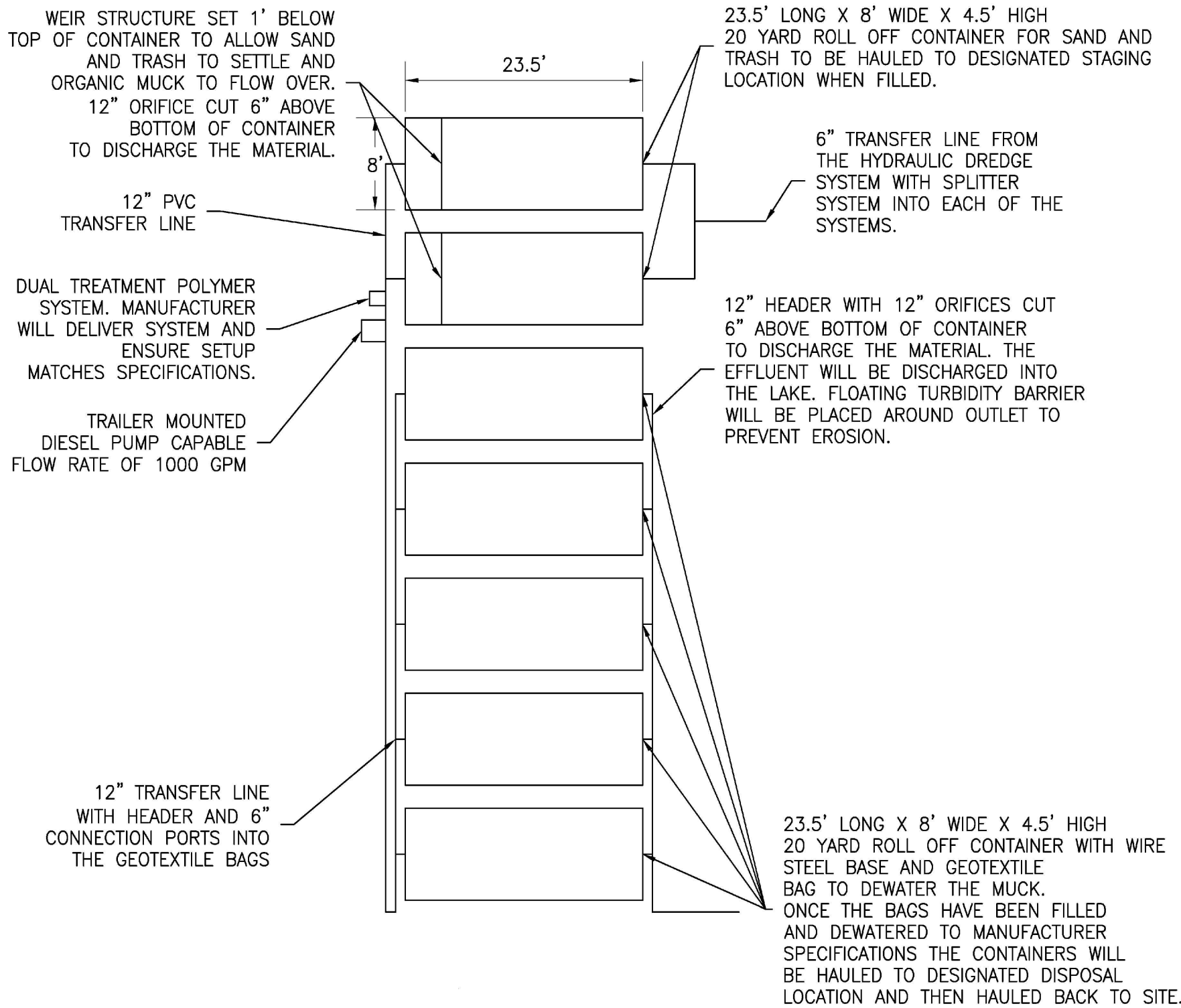
SHEET TITLE:

DESIGN DETAILS
(1 OF 4)

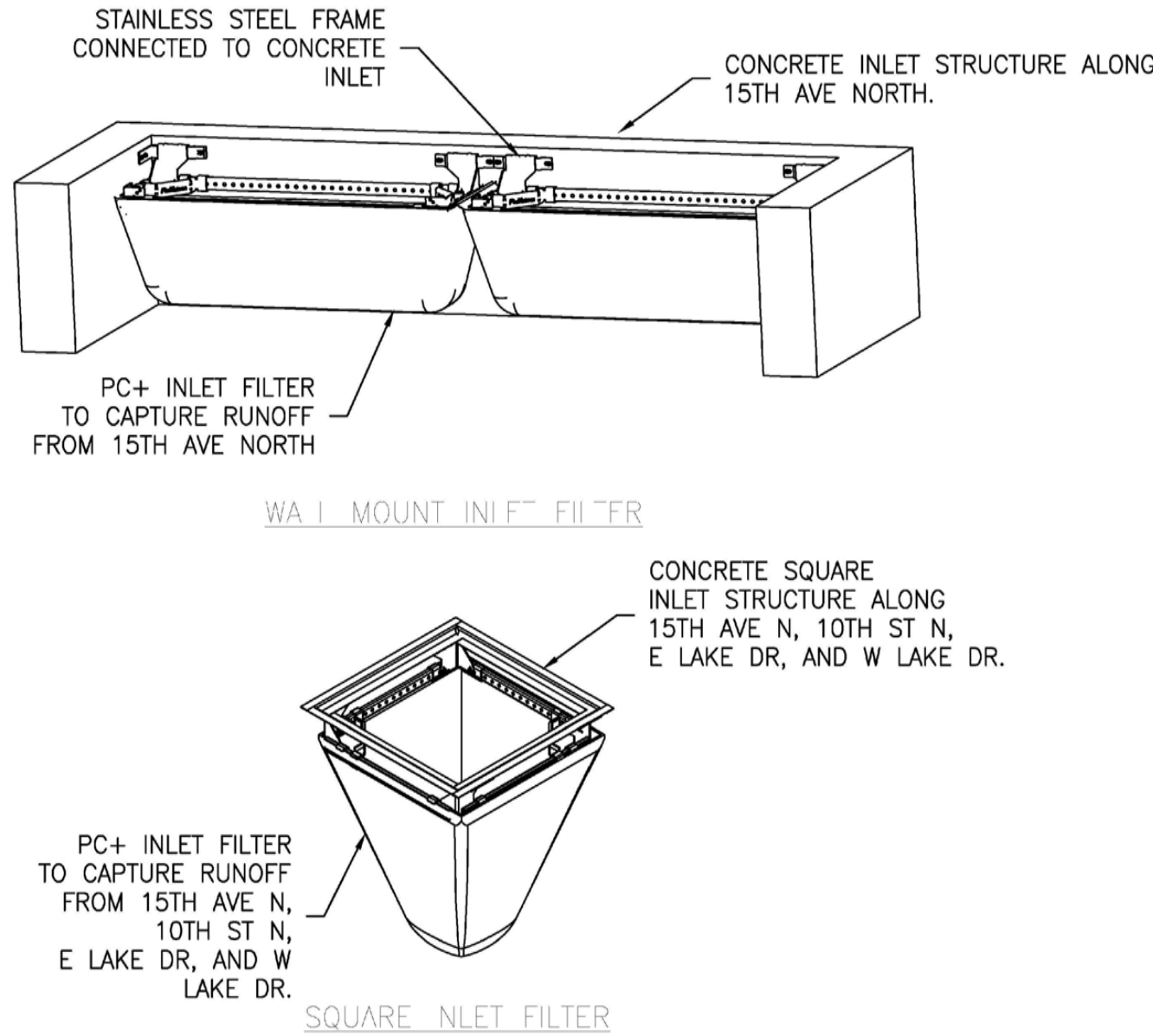
SHEET NUMBER:	REV. #
C-501	E
SHEET 15 OF 18 SHEETS	



5 TYPICAL ROCK RIPRAP DETAIL
NOT TO SCALE



8 DEWATERING DETAIL
NOTE: CONTRACTOR TO REVIEW AND PROVIDE FINAL DEWATERING PLAN FOR ENGINEER AND CITY APPROVAL
NOT TO SCALE



- NOTES:
- ALL FRAMING IS CONSTRUCTED OF 304 STAINLESS STEEL FOR 25 YEAR SERVICE LIFE RATING
 - TOTAL BYPASS CAPACITY: BYPASS CAPACITY WILL VARY WITH EACH SIZE DRAINAGE STRUCTURE. FLEXSTORM DESIGNS FRAMING BYPASS TO MEET OR EXCEED THE DESIGN FLOW OF THE PARTICULAR DRAINAGE STRUCTURE.
 - UPON ORDERING CONFIRMATION OF THE DOT CALLOUT, PRECAST OR CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
 - CONTRACTOR MAY PROVIDE AN EQUIVALENT PRODUCT TO BE REVIEWED AND APPROVED BY ENGINEER AND CITY.

6 INLET FILTER DETAILS
NOT TO SCALE

APPLIED POLYMER SYSTEMS, INC.

POND PRODUCTS

Dirty water decreases the amount of oxygen in the water causing stress to fish and other aquatic life.

APS Pond Products works like a magnet, binding together suspended inanimate particles thereby cleaning the dirty water and reducing aquatic life toxicity.

Pond Logs and Mini Pond Logs are used in medium and large size ponds.

Pond Logs are packaged 4 per box, 144 (36 boxes)/skid

Mini Pond Logs are packaged 10 per box, 360 (36 boxes)/skid

Product	Dimensions	Wt.	Volume Treated	SKU
Pond Log	12" x 8" x 4"	~9 lbs	325,000-500,000 gallons	7-93573-20903-0
Mini Pond Log	5" x 2" x 3"	~2 lbs	20,000-100,000 gallons	7-93573-20904-7

Before Treatment

After Treatment

APS Pond Products can be installed above an aerator, under a floating fountain on the steps of a waterfall or with any circulation mechanism. The water must be moving over and around the Pond Products for them to work.

All APS Pond Products are safe for fish; no need to monitor pH.

The APS Pond Products are a semi-solid block of environmentally safe, non-toxic anionic polymer formulation to clean dirty water and reduce aquatic life toxicity.

Applied Polymer Systems • 519 Industrial Drive, Woodstock GA 30189 • www.siltstop.com

7 POND LOG DETAILS
NOT TO SCALE

100% DESIGN FOR CONSTRUCTION

WSP

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City of *Naples* Florida

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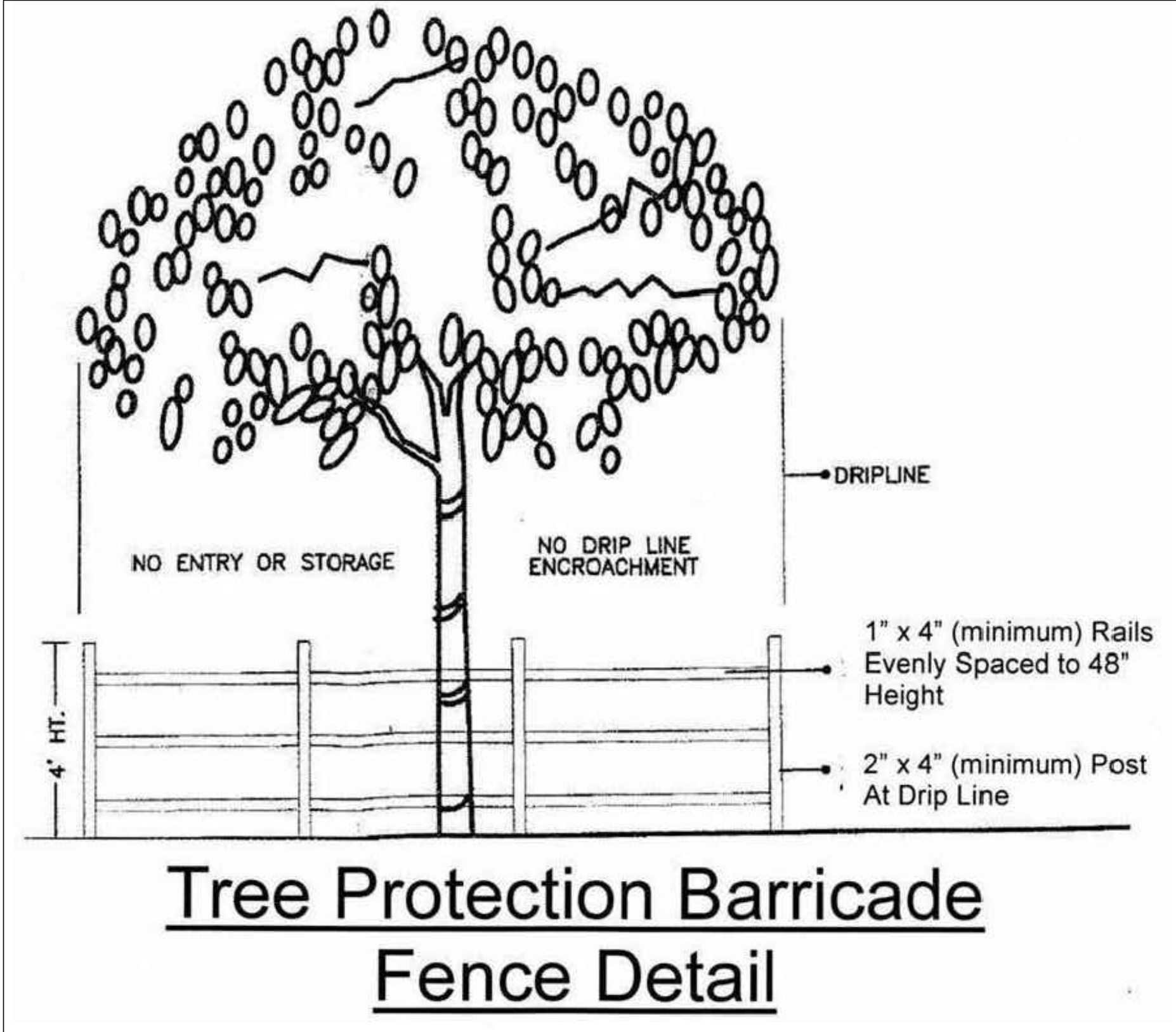
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APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:
DESIGN DETAILS
(2 OF 4)

SHEET NUMBER:	REV. #
C-502	E
SHEET 16 OF 18 SHEETS	

PROJECT NUMBER: 600843.03 CITY: TAMPA
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9 TYPICAL TREE PROTECTION DETAIL
NOT TO SCALE

- NOTES:
- LAKE 8 - NORTH LAKE HAS THE POTENTIAL TO SEVERELY IMPACT THE CITY OWNED TREES IN THE RIGHT OF WAY AND THE MEDIAN ON THE SECTION OF 7TH AVE NORTH SHOWN ON THE PLANS.
1. TREE PROTECTION SHALL BE REQUIRED FOR THE CITY OWNED AND MANAGED TREES (SEE CITY OF NAPLES ORDINANCE 2020-14460.)
 2. THE CITY ARBORIST SHALL BE NOTIFIED OF THE PRE-CONSTRUCTION MEETING.
 3. ANY CITY IRRIGATION WITHIN THE ROW AND/OR MEDIAN SHALL REMAIN ACTIVE DURING THE PROJECT.

CITY OF NAPLES CHAPTER 38 - TREE PROTECTION
SEC. 38-106. - PROTECTION OF CITY TREES.

- REQUIREMENTS FOR UTILITY PRUNING.** UTILITIES MUST CONFORM TO CURRENT ANSI A300 STANDARDS WHEN PERFORMING LINE CLEARING WORK IN CANOPY STREET ZONES TO BALANCE THE REQUIREMENT TO PRESERVE THE CANOPY AND MAINTAIN SAFE, RELIABLE ELECTRIC SERVICE.
- (1. FRANCHISED UTILITIES MUST NOTIFY THE DEPARTMENT BY E-MAIL OR MAIL 30 BUSINESS DAYS PRIOR TO ANY MAINTENANCE UTILITY LINE CLEARING WORK IN CANOPY STREETS.
 - (2. FRANCHISED UTILITIES MUST HAVE AN ISA CERTIFIED ARBORIST DIRECTING THE PRUNING OF TREES IN A CANOPY STREET.
 - (3. UTILITY PRUNING SHOULD ONLY PROVIDE MINIMUM SAFE CLEARANCE TO PROTECT ENERGIZED POWER LINES WITH CONSIDERATION FOR THE COMBINED MOVEMENT OF THE CONDUCTORS NEAR TREES IN SEVERE WEATHER, THE SPECIES OF THE TREE, AND THE VOLTAGE OF THE CONDUCTOR.
 - (4. THE CITY RECOGNIZES THAT FLORIDA POWER AND LIGHT (FPL) HAS A RIGHT AND RESPONSIBILITY, AS PROVIDED BY FLORIDA STATE STATUTE AND ELECTRIC TARIFF RULES, TO CLEAR VEGETATION AWAY FROM POWER LINES IN ORDER TO ENSURE THE SAFE TRANSMISSION OF ELECTRICITY TO CUSTOMERS AND THE ABOVE-LISTED PROVISIONS ARE INTENDED TO BE COOPERATIVE EFFORTS BETWEEN THE CITY AND FPL. THIS SECTION DOES NOT APPLY TO THE EXTENT PREEMPTED BY F.S § 163.3209.

LOCATION OF CITY TREES. ALL CITY TREES THAT MAY BE DISTURBED BY PROPOSED ACTIVITIES MUST BE PHYSICALLY LOCATED ON-SITE AND SHOWN ON THE SITE PLAN SUBMITTED FOR ANY PROJECT OR SITE DEVELOPMENT AND AS A PART OF THE TREE REMOVAL REQUEST IN THE TREE ALTERATION PERMIT APPLICATION PROCESS.

DRIP LINE PRESERVATION . DURING DEVELOPMENT, CONSTRUCTION ACTIVITY, AND UTILITY CONSTRUCTION, THE CRITICAL ROOT ZONE OF A CITY TREE MUST SHALL BE PROTECTED FROM ACTIVITIES THAT MAY DISTURB OR INJURE THE TREE (SUCH AS CUT AND FILL ACTIVITIES, BUILDING PAD PLACEMENTS, ROAD BED CONSTRUCTION, CONSTRUCTION MATERIAL STORAGE, DRIVING OR PARKING OF EQUIPMENT, TRENCHING, ETC.). THE PERMIT APPLICANT MAY PROVIDE SPECIFIC ARBORICULTURAL ANALYSIS TO DEMONSTRATE THAT THERE IS NO LIKELIHOOD OF ADVERSE IMPACT TO A CITY TREE; HOWEVER, THE DEPARTMENT WILL MAKE THE SOLE DETERMINATION OF WHERE TREE PROTECTION BARRIERS MUST BE PLACED AROUND A TREE.

CANOPY AND ROOT PRUNING. WHEN ACTIVITIES DISTURB THE AREA WITHIN THE DRIP LINE OF A CITY TREE, OR WHEN PRUNING MUST BE PERFORMED ON THE CROWN OF A CITY TREE, THE FOLLOWING ARBORICULTURAL TECHNIQUES ARE REQUIRED:

- (1. WHEN THE TREE ROOTS WITHIN THE DRIP LINE MAY BE DISTURBED, THE AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS WHERE THE ACTIVITY IMPACTS THE ROOTS. ROOT PRUNING MUST BE COMPLETED BY AN ISA CERTIFIED ARBORIST. ROOTS CAN BE PRUNED BY UTILIZING TRENCHING EQUIPMENT THAT IS SPECIFICALLY DESIGNED FOR THIS PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A CHAIN SAW, PRUNING SAW OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOTS WITHIN THE DRIP LINE MUST BE PRUNED TO A DEPTH OF 12 INCHES BELOW EXISTING GRADE OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN 12 INCHES FROM THE EXISTING GRADE. WHEN UNDERGROUND UTILITIES ARE TO BE INSTALLED THROUGH THE DRIP LINE, ROOT PRUNING REQUIREMENTS MAY BE WAIVED IF THE LINES ARE INSTALLED VIA TUNNELING OR DIRECTIONAL BORING AS OPPOSED TO TRENCHING.
- (2. ALL PRUNING OF CITY TREES MUST CONFORM TO THE CURRENT ANSI A300 STANDARDS AND BE COMPLETED BY AN ISA CERTIFIED ARBORIST. THERE WILL BE NO STUB CUTS, OR LIONS-TAILING OF THE CROWN OF THE TREE.
- (3. IT WILL BE A VIOLATION OF THIS SECTION TO PERFORM THE TECHNIQUES OF TOPPING OR OTHER PRUNING TECHNIQUES THAT REMOVE THE VERTICAL LEADER STEMS OR OTHER PRUNING THAT RESULTS IN AN UNNECESSARY REDUCTION OF SHADE OF CITY TREES IN THE PERMIT AREA.

TREE PROTECTION BARRIER REQUIREMENTS. DURING DEVELOPMENT ACTIVITIES OR ANY OTHER POTENTIAL DISTURBANCE THAT WILL IMPACT THE AREA WITHIN THE DRIP LINE OF ANY CITY TREE, PROTECTIVE BARRIERS MUST BE PLACED AROUND EACH CITY TREE, BY THE APPLICANT, TO PREVENT THE DESTRUCTION OR DAMAGING OF ROOTS, STEMS, OR CROWNS OF SUCH TREES. BARRIERS MUST REMAIN IN PLACE AND INTACT UNTIL THE WORK IS COMPLETED, HOWEVER, BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE CONSTRUCTION NEEDS, PROVIDED THE CITY APPROVES THE TEMPORARY REMOVAL IN WRITING AND THAT THE MANNER AND PURPOSE FOR SUCH TEMPORARY REMOVAL WILL NOT HARM THE TREE. THE CITY RESERVES THE RIGHT TO DENY THE TEMPORARY REMOVAL OF TREE PROTECTION BARRIERS. THE FOLLOWING ARE THE MINIMUM REQUIREMENTS FOR PROTECTIVE BARRIERS:

- (1) PROTECTIVE POSTS MUST BE PLACED SO AS TO PROTECT ALL AREAS WITHIN THE DRIP LINE BOUNDARY FOR EACH CITY TREE AFFECTED, EXCEPT IN RIGHT-OF-WAY OR UTILITY PLACEMENT AREAS WHERE SPACE TO INSTALL THE BARRICADE MAY BE LIMITED, POSTS MAY BE PLACED SO AS TO PROTECT A MINIMUM OF 50 PERCENT OF THE AREA WITHIN THE DRIP LINE APPROVED BY THE CITY MANAGER.
- (2) POSTS MUST BE A MINIMUM OF TWO INCHES BY FOUR INCHES, OR LARGER, WOODEN POST, TWO-INCH OUTER DIAMETER OR LARGER, OR OTHER POST MATERIAL OF EQUIVALENT SIZE; WILL BE CONNECTED WITH A MINIMUM OF AT LEAST A ONE INCH BY FOUR-INCH WOODEN BOARD RAIL; AND WILL BE CLEARLY FLAGGED. THE MAXIMUM DISTANCE ALLOWED BETWEEN UPRIGHT POSTS IS EIGHT FEET. WOODEN POSTS AND BOARDS MUST BE PAINTED FOREST GREEN ONCE INSTALLED.
- (3) POSTS MUST BE IMPLANTED DEEP ENOUGH INTO THE GROUND TO BE STABLE AND EXTEND A MINIMUM HEIGHT OF FOUR FEET ABOVE THE GROUND.
- (4) WHERE DEVELOPMENT ACTIVITY IS PERMITTED WITHIN 50 PERCENT OF THE RADIUS WITHIN THE AREA OF THE DRIP LINE OF A CITY TREE (AS MEASURED BY THE LONGEST RADIUS FROM TRUNK TO DRIP LINE), THE DEPARTMENT MAY REQUIRE ADDITIONAL TREE PROTECTION PROVISIONS BE INCORPORATED IN THE ACTIVITY PERMIT.
- (5) NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS, OR FILL SOIL IS ALLOWED WITHIN THE DRIP LINE OF ANY CITY TREE.
- (6) NO EQUIPMENT WILL BE CLEANED, OR WASTE MATERIALS SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MORTAR, OR ANY OTHER MATERIAL WILL BE STORED, WITHIN THE DRIP LINE OF ANY CITY TREE.
- (7) NO DAMAGING WIRES, SIGNS OR PERMITS WILL BE FASTENED TO ANY CITY TREE UNLESS APPROVED BY THE DEPARTMENT.
- (8) SILT BARRIERS, HAY BALES, OR SIMILAR EFFECTIVE EROSION SILT CONTROL BARRIERS WILL BE REQUIRED IN ANY AREA WHERE EROSION OR SILTATION MAY CAUSE DAMAGE TO CITY TREES AS DETERMINED SOLELY BY THE DEPARTMENT.
- (9) WHEN ELEVATION CHANGES ARE PROPOSED WITHIN THE DRIP LINE OF ANY CITY TREE, THE APPLICANT WILL BE REQUIRED TO INSTALL RETAINING WALLS OR DRAIN TILES. THE APPLICANT WILL HAVE THE CHOICE OF THE TYPE OR DESIGN. THESE ROOT PROTECTION MEASURES MUST BE IN PLACE PRIOR TO THE DEPOSITION OF FILL, OR EXCAVATION OF SOIL FROM THE DRIP LINE.
- (10) SHOULD A PRIVATE PARTY CONDUCT WORK WITHIN THE DRIP LINE OF A CITY TREE AND FAIL TO INSTALL THE REQUIRED TREE PROTECTION BARRIER, THE CITY RESERVES THE RIGHT TO INSTALL THE REQUIRED TREE PROTECTION BARRIER AND CHARGE THE PRIVATE PARTY CONDUCTING THE WORK FOR THE CITY'S MATERIALS AND LABOR ASSOCIATED WITH THE INSTALLING OF THE BARRICADE. A SAMPLE TREE PROTECTION BARRICADE IS SET OUT BELOW.

INSPECTIONS. THE DEPARTMENT WILL CONDUCT PERIODIC INSPECTIONS OF THE SITE DURING THE PERMITTED ACTIVITY IN ORDER TO ENSURE COMPLIANCE WITH THIS SECTION.

- (a) THE CITY MANAGER IS AUTHORIZED TO ALLOW A VARIATION FROM THE STRICT REQUIREMENTS OF THIS SECTION WHERE AN EQUIVALENT OR SUPERIOR METHOD OF PRESERVING A TREE IS CLEARLY DEMONSTRATED.

(ORD. NO. 17-13971, § 1, 6-7-2017; ORD. NO. 20-14460, § 1, 3-4-2020)



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CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	March 5, 2024

SHEET TITLE:

DESIGN DETAILS
(3 OF 4)

SHEET NUMBER:	REV. #
C-503	E
SHEET 17 OF 18 SHEETS	



12 SKIMMER DETAILS

The top view shows a square structure with a central rectangular opening. A dimension line labeled "STANDOFF" indicates the distance from the outer edge to the inner opening.

The side view shows the structure's profile. A dimension line labeled "VERTICAL STANDOFF" indicates the height of the structure. The central opening is shown with dashed lines. A dimension line labeled "BLADE HEIGHT" indicates the height of the blade.

TYPE C STRUCTURE

4 SIDED SKIMMER



City of *Naples* Florida

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(4 OF 4)

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SHEET 18 OF 18 SHEETS	