

INVITATION TO BID 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:		SOLICITATION TITLE		SOLICITATIO N NUMBER:	OPENING DATE & TIME:
11/18/2020	WWTP Sludge Dewatering & Stabilization Buildings Modifications - ITB		21-009	12/18/2020 2:00 PM	
PRE-BID CONFERENCE DATE, TIME AND LOCATION: A non-mandatory Pre-Bid conference will be held Thursday, December 3, 2020 at 10:30 A.M. local time in the Utilities Department located at 380 Riverside Circle, Naples FL 34102.					
LEGAL NAME OF P	ARTNERSHII	P, CORPORATION OR INDIVIDUAL:			
MAILING ADDRESS	:				
CITY-STATE-ZIP:					
PH:			EMAIL:		
FX:			WEB ADDRESS:		
AUTHORIZED SIGNAT	URE	DATE	PRINTED NAME/TIT	LE	
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.					
FEI/EIN I	Number _			r	
Please initial by all that apply I acknowledge receipt/ review of the following addendum					
Addendum #1		Addendum #2	Addend	dum #3	Addendum #4
Addendum #5	i -	Addendum #6	Addend	dum #7	Addendum #8

PLEASE NOTE THE FOLLOWING

- This page must be completed and returned with your bid. >
- >
- Bids must be <u>submitted in a sealed envelope</u>, marked with solicitation number & opening date. All submissions must be received, and date stamped by Purchasing staff prior to the above "<u>OPENING DATE & TIME</u>". >
- 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 Cityowned 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. 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.
- 17. 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.)
- **18. 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.

19. 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.

- **20. PROPOSAL PROTESTS:** The City of Naples has formal protest procedures that are available upon request.
- **21. 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.
- **22. 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.
- 23. 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.
- 24. 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.
- **25. 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.
- **26. ADVERTISING:** In submitting a proposal, proposer agrees not to use the results there from as a part of any commercial advertising.
- **27. 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.
- **28. 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.
- **29. 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 vendor list.
- **30. 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".

- **31. 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.
- 32. 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

- **33. 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.
- **34. 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.
- **35. 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.
- **36. RENEWAL:** Contract will be in-place for a three (3) year term with an optional two (2) 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.
- **37. ABNORMAL QUANTITIES:** While it is not anticipated, should any unusual or abnormal requirements arise, the City reserves the right to solicit separate proposals thereon.
- **38. 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

- **39.** 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.
- 40. 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.
- **41. 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.

- **42. 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, Statues, Ordinances, and rules and regulations of any kind.
- **43. 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.
- 44. 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 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.

- **45. 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.
- **46. 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 ccordance with generally accepted accounting principles.
- 47. 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.
- 48. 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.
- **49. 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.
- **50.** 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.
- **51. 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.

- **52.** 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.
- **53. 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.
- **54. 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.
- **55. 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.
- **56. 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.
- 57. 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.
- **58. 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.

- **59. 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.
- **60. 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 fifteen-day period will begin upon the mailing of notice by the City. If the contractor failure to perform satisfactorily, to perform satisfactorily, the contractor shall be entitled to receive compensation for all reasonable, allocable and allowable contract services satisfactorily performed by 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.
- **61. 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.
- 62. 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.
- 63. 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: <u>PublicRecordsReguest@naplesgov.com</u>; Address: 735 81h Street S., Naples, Florida 34102; Mailing address: same as street address.
- **64. 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.

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.

65. 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, 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 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. <u>No other format will be acceptable</u>.

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 <u>purchasing@naplesgov.com</u> 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	
----	--

Name and Title of individual completing this form:

(Printed Name)

(Title)

Email

(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:				
	ne: naire must be filled out by the company that has done business with the ne past. If the item is not applicable, please state "n/a".				
Relationship with Bidde	Relationship with Bidder/Respondent:				
Title of last project:					
Year last project comple					
Contract Start/End Date	es:				
Contract Amount:	\$				
How many projects perf	ormed:				
a " b '					
Management Ability:					
Ability to meet time sche	edule:				
	Problems encountered:				
How well Contractor coordinated with Owner:					
Cooperation or Lack Thereof:					
Quality of Subcontracto					
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. Work will begin upon the City of Naples issuing the contractor a Notice to Proceed. Substantial completion must be reached for all aspects of the project no later than 180 days and fully completed no later than 210 days with a Project Close-out time frame of 30 days. Should 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 ten percent (10%) 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 CITY OF NAPLES RELEASE AND AFFIDAVIT FORM.

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 five (5) verifiable references from similar scopes of work as identified in this solicitation on the provided "Reference Questionnaire" form. Failure to provide references that verify required experience will cause the Vendor to be deemed nonresponsive.

E. STATEMENT OF NO 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. Last day for questions is 12/8/2020

Direct all questions to: Gerald "Jed" Secory, MBA / CPPO / CPM Purchasing and Contracts Manager City of Naples, Purchasing Division 735 8th Street South Naples, Florida 34102 PH: (239) 213-7102 FX: (239) 213-7105 Jsecory@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 one (1) copy (clearly marked as such) of the response and one (1) properly indexed		
Windows© compatible PDF of the original document on a CD or 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.		
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.		
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.		
Mandatory FORMS from this document to be included are: Cover Sheet, Reference		
Questionnaire, Submission Checklist Sheet, signed IRS W-9 (OCT 2018), Sunbiz		
Report, <u>Cost / BID Schedule, Acknowledgement of Business Type and Certificates</u>		
of Insurance		
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.		
Ensure the following:		
1. The Bid has been signed		
2. Bid schedule completed.		
3. The Bid prices offered have been reviewed.		
4. The price extensions and totals have been checked.		
Bid document needs to be received by the OPENING DATE & TIME indicated on the		
Cover Sheet. The mailing envelope must be addressed to:		
City of Naples Purchasing Division		
735 8th Street South		
Naples, Florida 34102		
The mailing envelope must be sealed and marked with:		
Bid Number: 21-009		
Title: WWTP Sludge Dewatering & Stabilization Buildings Modifications - ITB		
Opening Date:12/18/2020		
Company Name:		
Contact information:		
ALL COURIER DELIVERED BIDS MUST HAVE THE BID NUMBER AND TITLE ON TH		
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.

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

	2 Business name/disregarded entity name, if different from above			
Print or type. Specific Instructions on page 3.	following seven boxes. Individual/sole proprietor or C Corporation S Corporation Partnership Trust/estate	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any)		
	II C if the II C is classified as a single-member II C that is disregarded from the owner unless the owner of the II C is	Exemption from FATCA reporting code (if any)		
P Specific	is disregarded from the owner should check the appropriate box for the tax classification of its owner.	(Applies to accounts maintained outside the U.S.)		
See	6 City, state, and ZIP code			
7 List account number(s) here (optional)				
Pa				
		urity number		
reside	p withholding. For individuals, this is generally your social security number (SSN). However, for a ent alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other es, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a</i>			

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 quidelines on whose number to enter

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

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	Signature of	
Here	U.S. person ▶	

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)

or

Employer identification number

- 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.

Date 🕨

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

 $9-\mbox{An entity}$ 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

 $12-A \ \mbox{middleman}$ 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
 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
 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
 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.ldentityTheft.gov* and Pub. 5027.

Visit *www.irs.gov/ldentityTheft* 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.

SCHEDULE OF VALUES RFP 21-009 WWTP Sludge Dewatering & Stabilization Buildings Modifications - ITB

BASE BID

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	AMOUNT BID
1	Mobilization/Demobilization	LS	1	\$	\$
2	Existing Conveyor Demolition	LS	1	\$	\$
3	New Conveyor System	LS	1	\$	\$
4	New Walkway (Conveyor)	LS	1	\$	\$
5	Existing Conveyor Rehabilitation	LS	1	\$	\$
6	Building Walkway	LS	1	\$	\$
7	Sidewall Intake Fan Replacement	LS	1	\$	\$
8	Roof Top Exhaust Fan Replacement	LS	1	\$	\$
	TOTAL AMOUNT BASE BID				\$

BID ALTERNATE

	New Walkway (Conveyor) 304			
1	Stainless Steel	LS	1	\$ \$
2	Building Walkway 304 Stainless steel	LS	1	\$ \$

TOTAL AMOUNT ALTERNATE BID \$

TOTAL AMOUNT BASE BID PLUS TOTAL AMOUNT ALTERNATE BID \$

This solicitation has potential for P-Card Payment. Does your company accept credit card payment? YES____ NO____

If "yes" please indicate payment options on the below chart.

Payment Options	YES	NO	PERCENT AND/OR TERMS FOR EARLY PAYMENT
Is there a discount for a credit card payment?			
Is there an additional charge for credit card payment?			
Discount for early payment?			
Prompt payment terms:%Days; Net 30 Days			
Company Name:			

EIN:_____

Email: _____

Name and Title of individual completing this schedule:

(Printed Name)

(Title)

(Date)

Х

(Signature)

City of Naples

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	
(aCorporation) In	what State is the Cor	poration Incorporated?
If not incorporated under the laws of Florida	, are you licensed to c	do business in Florida? Yes No
By: Signature		Print Name
Sign and Date Form: Certification: Under penalties of perjury, I certify that the i	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.

	ubcontractor Name and Address	Class of Work to be Performed
endor Name:		
	ubmitting Vendor Name:	
	5	
idder'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:	
Submitting venuor name.	
Authorized Bidder's Signature:	

CITY OF NAPLES RELEASE AND AFFIDAVIT FORM

COUNTY OF (COLLIER) STATE OF (FLORIDA)

BEFORE ME, the undersigned authority, personally appeared ______ who, after being duly sworn deposes and says of him/her personal knowledge the following:

- 2.) Contractor certifies for itself and its subcontractors, material-men, successors and assigns, that all charges for labor, materials, supplies, lands, licenses and other expenses for which the City might be sued or for which a lien or a demand against any payment bond might be filed, shall be fully satisfied and paid upon the City's payment to Contractor.
- 3.) Contractor agrees to indemnify, defend and save harmless the City from all demands or suits, actions, claims of liens or other charges filed or asserted against the City arising out of the performance by Contractor of the Work covered by this Release and Affidavit.
- 4.) This Release and Affidavit is given in connection with Contractor's [monthly/final] Application for Payment No._____. CONTRACTOR

		BY:			
Witness President		ITS:			
		DATE:			
Witness			[Corporate Seal]		
STATE OF					
COUNTY OF					
The foregoing instrument was acknowledged before	re me this	day of	20,		
by, as_		of			
acorporation, on behalf of the corporatio					
		(Signature o	f Notary)		
	Name	:(Legibly Prin	ted)		
	Notar	y Public, State of			
(AFFIX OFFICIAL SEAL)	Comn	nissioner No			

City of Naples, FL ITB No. 21-009 WWTP Sludge Dewatering & Stabilization Buildings Modifications

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City of Naples, FL ITB No. 21-009 WWTP Sludge Dewatering & Stabilization Buildings Modifications - ITB

PROJECT REQUIREMENTS AND SPECIFICATIONS

A. PROJECT DESCRIPTION SCOPE OF WORK

The project includes the rehabilitation and improvements at the City of Naples Wastewater Treatment Facility. This work will be completed at the Sludge Dewatering and Stabilization Buildings. Work shall include, but not be limited to the removal and replacement of the existing conveyor system over the truck bay in the Stabilization Building; rehabilitation and improvements of the existing conveyor in the Dewatering building; new walkways in the Stabilization and Dewatering buildings and removal and replacement of the existing sidewall intake fans and roof top exhaust fans in the Dewatering building. A bid alternate is provided for the use of stainless steel for the support structure for the new walkways in lieu of painted carbon steel.

A site visit to the Wastewater Treatment Facility located at 1400 3rd Avenue North in Naples, Florida will take place directly after the Mandatory Pre-Bid. Prospective Bidders are strongly encouraged to attend since the Wastewater Treatment Facility is a fenced/secured area and this will be their only opportunity to access it.

B. AWARD OF BID:

The City reserves the right to award the bid in a manner that best serves the interests of the City of Naples.

C. CONTRACT MANAGEMENT:

Barry Stein and/or his authorized representative will serve as the City's Contract Manager.

D. LICENSES AND PERMITS:

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 General Contractor's (CGC) license; and be certified and or qualified to install the approved roofing system as described in the Project specifications.
- 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.

E. INSURANCE

The City's General Insurance Requirements on page 12 apply. In addition to the City's General Insurance Requirements, the specialized insurance listed below is required:

- UMBRELLA LIABILITY: With limits of not less than \$3,000,000 per occurrence covering all work performed under this contract.

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 of its sub-contractors are appropriately licensed and are registered with the State of Florida in accordance Florida Statues 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 sub-contractors and material suppliers 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. CONDUCT

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

H. CONTRACTORS EQUIPMENT

All vehicles and equipment must be maintained in good repair, appearance and sanitary condition at all times. 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.

I. DISPOSAL OF DEBRIS

The awarded vendor(s) shall dispose of all debris and other materials gathered from the described work in compliance with all applicable federal, state, county, city, and local regulations.

Remove leftover materials, trash, debris, from project site and surrounding areas daily.

J. SCHEDULING OF WORK

- 1. All work will be performed Monday through Friday from 7AM to 5PM.
- 2. The awarded vendor(s) will correct work deficiencies and/or problems pointed out by the Contract Manager within 3 days of notification or sooner depending on the nature of the deficiency.

K. PAYMENT REQUESTS, INVOICES AND WORK REPORTS

- 1. Invoices shall be submitted after work is completed with a detailed description of the work performed.
- 2. The awarded vendor(s) will meet with Contract Manager and set up procedures prior to the start of work.

L. 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 awarded vendor(s) until correction is made.

M. QUALIFICATIONS

The vendor represented on the bid form by name and signature must have experience in the successful rehabilitation of wastewater and/or water treatment facilities and the work identified for their bid to be considered responsible. The use of subcontractors for execution of the work shall be clearly listed on the bid forms. This shall include, but not be limited to, HVAC (fans) replacement, conveyor replacement/rehabilitation, and walkway and platform erection.

Bidders must provide three (3)verifiable references where the successful rehabilitation of Water and/or Wastewater Treatment Facilities have been provided within the last five (5) years using the "Reference Questionnaire" 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, in order to determine the competency of the contractor.

N. INSPECTION

The City reserves the right to make inspections and tests, when deemed advisable, to ascertain that 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 Invitation to Bid to meet these requirements.

The Contract Manager will make visits to the site at intervals appropriate to the various stages to observe the progress and quality of the executed work and determine if the work is proceeding in accordance with the Contract Documents. Contract Manager may authorize minor variations from the requirements of the Contract Documents.

O. PROTECTION OF FACILITIES, PUBLIC AND PRIVATE PROPERTY

- 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 shall be proper and adequate to protect the building, its contents and any surrounding areas against damage by the elements. The contractor shall 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 at all times guard against damage or loss to the property of the City or of other vendors or contractors and shall 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 shall immediately discontinue any practice obviously hazardous in the opinion of the Contract Manager. The contractor shall comply with all OSHA and other Federal and State safety standards. Blocking of the public street, except under extreme emergency conditions, shall not be permitted unless prior arrangements have been made with the Contract Manager and the City Police and Fire Departments and other agencies having jurisdiction over the street to be closed.

P. PROTECTION OF OVERHEAD UTILITIES

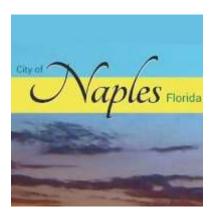
The operations will be conducted in many areas where overhead electric, telephone, and cable television facilities exist. The contractor shall protect all utilities from damage, shall immediately contact the appropriate utility if damage has occurred, and shall be responsible for all claims for damage 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 shall not be the responsibility of the contractor.

Q. 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. Contractor shall have full responsibility for reviewing and checking all information and data for locating all underground facilities.

R. TRAFFIC CONTROL

- 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 State of Florida Manual of Uniform Traffic Control Devices for Highway Construction and Maintenance Operations, latest edition. A flagman is required when two-way traffic is obstructed by the removal operation.
- 2. Contractor will be responsible for adequate barricades, warning devices, and the necessary safety equipment according to State DOT standards while working on City, County or State roads as a sub-Contractor of the City.



UTILITIES DEPARTMENT

NAPLES WASTEWATER TREATMENT FACILITY

SLUDGE DEWATERING & STABILIZATION BUILDINGS MODIFICATION

TECHNICAL SPECIFICATIONS ISSUED FOR CONSTRUCTION

September 2020



HM Project No. 2018.084

CITY OF NAPLES WASTEWATER TREATMENT FACILITY

SLUDGE DEWATERING & STABILIZATION BUILDINGS MODIFICATION

DIVISION 1 – GENERAL REQUIREMENTS

Section 01110 - Summary and Sequence of Work

Section 01130 – Measurement and Payment

Section 01140 – Maintenance of Utility Operations

Section 01150 – Protection of Existing Facilities

Section 01200 – Project Meetings

Section 01315 - Coordination

Section 01330 – Submittals

Section 01410 – Regulatory Requirements

Section 01430 – Materials Testing

Section 01450 – Quality Control

Section 01470 - Color Audio-Video Preconstruction Record

Section 01510 – Temporary Utilities

Section 01540 – Security

Section 01600 – Materials and Equipment

Section 01740 – Construction Cleaning

Section 01750 – Testing and Start-Up

Section 01770 – Contract Closeout

Section 01781 – Project Record Documents

Section 01830 – Operation and Maintenance Data

SUMMARY AND SEQUENCE OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

General description of the Work at the City of Naples Wastewater Treatment Facility required under this Contract.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Conveyor System: The existing dewater sludge conveyor shall be modified as identified on the plans and described following.
 - 1. Removal and replacement of the existing load idlers, return idlers and brackets with the installation of a guard. All new parts to be stainless steel.
 - 2. Removal of the previously installed conveyor at the west end of the Sludge Dewatering Building. The existing motor drive and housing shall be relocated with the electrical service and wash water system extended.
 - 3. Removal of the existing conveyor, conveyor support beam, drip pans, wash water, and miscellaneous electric in the Sludge Stabilization Building. One existing support frame is to be relocated and modified. One existing support frame is to be modified for the new conveyor system.
 - 4. A new conveyor system shall be extended from the original support beams in the Sludge Dewatering Building into the existing Sludge Stabilization Building. A new stainless steel drain pan shall be provided with connection to the existing drainpipes. Work shall include extension of the existing walkway at the conveyor in the Sludge Dewatering Building.
 - 5. New interconnecting walkway in the Sludge Dewatering Building.
- B. Ventilation Fans: The existing sidewall intake fans and roof top exhaust fans shall be removed and replaced in the Sludge Dewatering Building.
- C. Execution of the Work will require coordination and planning with the Wastewater Treatment Facility Manager. The Work shall be planned and executed in a manner and schedule that does not interfere with the ongoing normal operational performance of the facility.
- D. Bid Alternates are provided to construct the New Conveyor Walkway and Building Walkway with 304 stainless steel in lieu of painted carbon steel. The Bid Alternate price shall be the <u>additional</u> costs only.
- E. The Contractor shall organize, coordinate, schedule and execute the various phases or sites of the Contract Work so as to be in strict compliance with the following:
 - 1. Special Project Requirements as noted on Contract Drawings Sheet G-2 and G-3.

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SLUDGE DEWATERING & STABILIZATION BUILDING MOD SUMMARY AND SEQUENCE OF WORK F. The facility may have other construction projects ongoing. As a result, the Contractor shall coordinate his work with these other projects. This coordination shall include submitting weekly schedules and cooperating with other contractors.

1.03 SEQUENCE OF WORK

- A. The following construction constraints and work sequence are not intended to be a complete or exhaustive list, and the descriptions provided are general in nature. The Contractor is responsible for identifying all work activities that could affect any operational aspect of the facility and providing the Owner and Engineer sufficient prior notice. Refer to Sections 01140 and 01150 for additional information and requirements. Also refer to Contract Drawing Sheet G-2 and G-3. The Contractor can submit alternative work sequences to the Engineer for review.
- B. During the conveyor work, the Contractor will be limited to a prearranged five day shutdown to allow demolition and extension of the conveyor from April 30 to November 30. Between December 1 and May 1, shutdowns shall be limited to a prearranged two day shutdown. Multiple prearranged shutdowns can be provided during the replacement of the existing conveyor idlers and rollers. The proposed walkway work is not required to be completed during this time period. The removal and replacement of the existing idlers and brackets can be completed when the sludge dewatering system is not operational. (Typically, the sludge dewatering system is operated three to five days per week.)

1.04 CONTRACT METHOD

The Work will be awarded to a single contractor based on total base bid price or total base bid plus alternate at the option of the Owner.

1.05 WORK BY OTHERS

During the construction period of this project, the Owner (either with his own forces or under a separate contract) will be performing other work that will require the cooperation of the Contractor in scheduling and his coordination to avoid conflicts.

END OF SECTION

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. Payment for the various items in the Schedule of Payment as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, taxes, materials, commissions, transportation and handling, bonds, permit fees, insurance, overhead and profit, and incidentals appurtenant to the items of Work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). Such compensation shall also include payment for any loss or damages arising directly or indirectly from the Work.
- B. The Contractor's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the Contractor feel that the cost for any item of Work has not been established by the Schedule of Payment items or this Section, it shall include the cost for that Work in some other applicable bid item, so that its proposal for the project does reflect its total price for completing the Work in its entirety.

1.02 PAYMENT ITEMS

- A. The Contractor shall submit a Schedule of Payment Values for review with the return of the executed Agreement to the Owner. The schedule shall contain the installed value of the component parts of Work broken down into labor and material categories for the purpose of making progress payments during the construction period.
- B. The schedule shall be given in sufficient detail for proper identification of Work accomplished. The Schedule of Payment Values shall coincide with the activities of work detailed in the construction progress schedule and the construction network analysis in order to accurately relate construction progress to the requested payment. Each item shall include its proportional share of all costs including the Contractor's overhead, contingencies and profit. The sum of all scheduled items shall equal the total value of the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

A. Make payment on the basis of work actually 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 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.

- A. Mobilization/Demobilization: Measurement and Payment for mobilization/ demobilization shall be by Lump Sum for each portion of the project and shall not exceed 10% of the amount for the Base Bid for that work. The work shall include, but not be limited to, preconstruction video, field measuring, those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities. The cost of insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials, shall be included.
- B. Existing Conveyor Demolition: Measurement and Payment shall be by Lump Sum for the demolition of the existing conveyor belt system and disposal of all materials not to be reused.
- C. New Conveyor System: Measurement and Payment shall be by Lump Sum for the complete ready to operate installation of the new conveyor system. It shall include, but not be limited to, the conveyor, support beams, modification of the existing support system, relocation and modification of one existing support system, extension of wash water and electrical service and other miscellaneous work.
- D. New Walkway Conveyor: Measurement and Payment shall be by Lump Sum for an extension of the walkway to access the new conveyor from the existing walkway and to extend to the existing walkway at the bins.
- E. Existing Conveyor Rehabilitation: Measurement and Payment shall be by Lump Sum for the removal and replacement of the existing load idlers, return idlers and mounting brackets on the existing conveyor in the Sludge Dewatering Building. It shall include the installation of the new conveyor guards.
- F. Sludge Dewatering Building Walkway: Measurement and Payment shall be by Lump Sum for the new walkway in the Sludge Dewatering Building.
- G. Sidewall Intake Fans: Measurement and Payment shall be by Lump Sum for the removal of the existing sidewall intake fans and installation of the new fans. The existing electrical shall be reused and extended as needed.
- H. Roof Top Exhaust Fans: Measurement and Payment shall be by Lump Sum for the removal of the existing roof top exhaust fans and installation of the new fans. The existing electrical shall be reused and extended as needed.
- I. Bid Alternate No. 1 New Walkway (Conveyor) 304 Stainless Steel: Measurement ad Payment shall be Lump Sum.. It shall be the additional cost <u>only</u> to construct the steel frame, columns, etc. of stainless steel in lieu of painted carbon steel. The grating and handrails shall remain aluminum.

J. Bid Alternate No. 2 Sludge Dewatering Building Walkway – 304 Stainless Steel: Measurement and Payment shall be Lump Sum. It shall be the additional cost <u>only</u> to construct the steel frame, columns, etc. of stainless steel in lieu of painted carbon steel. The grating and handrails shall remain aluminum.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

MAINTENANCE OF UTILITY OPERATIONS

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The existing plant will be maintained in continuous operation by the Owner during the entire construction period of the Contract as hereinafter specified.
- B. Work shall be scheduled and conducted by the Contractor so as not to impede any treatment process, reduce the quality of the plant effluent or cause odor or other nuisance except as explicitly permitted hereinafter. In performing the work shown and specified, the Contractor shall plan and schedule his work to meet the plant and collection system operating requirements. No discharge of raw or inadequately treated wastewater shall be allowed. The Contractor shall pay all civil penalties, costs, assessments, etc., associated with any discharge of raw or inadequately treated wastewater shall be allowed.
- C. The General Contractor shall be responsible for coordinating the general construction and the schedules of all trades and for ensuring that permanent or temporary power and controls are available for all existing, proposed, and temporary facilities that are required to be on line at any given time.

1.02 GENERAL CONSTRAINTS

- A. The Contractor shall schedule the Work so that the plant is maintained in continuous operation. All treatment processes shall be maintained in continuous operation during the construction period. Several items of work require connections of new piping and/or utilities to existing piping, utilities, or modifications to existing piping, utilities or facilities. <u>The Owner will not allow shutdowns of the Wastewater Treatment Facility or any of its processes (in part or in its entirety) to facilitate these connections and/or modifications without prior written approval.</u> The Contractor shall submit a written plan to the Owner and Engineer describing the process shut down and a detailed schedule along with all planned resources. The plan for each process shut-down must be submitted at least ten working days prior to the scheduled shut-down.
- B. The Contractor shall comply with the scheduling and coordination requirements and restrictions identified in the Special Project Requirements noted in the Contract Drawings. Refer to Section 01110 for additional information and requirements.
- C. The Contractor shall review all bidding documents and shall be responsible to determine all such connections or modifications, and the scope and cost of all temporary measures required to isolate the work area without the need for a shutdown of the affected facility, process area, piping or utility.
- D. Any temporary work, facilities, roads, walks, protection of existing structures, piping, blind flanges, valves, equipment, etc. that may be required within the Contractor's work limits to maintain continuous and dependable plant operation shall be furnished by the Contractor at the direction of the Engineer at no extra cost to the Owner.

- E. The Owner shall have the authority to order Work postponed, stopped or prohibited that would, in his opinion, unreasonably result in interrupting the necessary functions of the plant operations.
- F. If the Contractor impairs performance or operation of the plant as a result of not complying with specified provisions for maintaining plant operations, then the Contractor shall immediately make all repairs or replacements and do all work necessary to restore the plant to operation to the satisfaction of the Owner and the Engineer. Such work shall progress continuously to completion on a 24-hours per day, seven work days per week basis.
- G. The Contractor shall provide the services of emergency repair crews on call 24-hours per day.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

PROTECTION OF EXISTING FACILITIES

PART 1 – GENERAL

1.01 SECTION INCLUDES

Requirements for protection of existing facilities and completed construction

1.02 GENERAL

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities as well as public, development and private improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory excavations of all utilities that may interfere with the Work. All such exploratory excavations shall be performed as soon as practicable after award of Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's Work. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Engineer.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.03 PROTECTION OF MARKERS

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the Owner of the time and location that Work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration.

1.04 EXISTING UTILITIES AND IMPROVEMENTS

- A. Maintaining in Service: All oil and gasoline pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, wire or cable.
- B. The Contractor shall protect all underground utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

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- C. Where the proper completion of the Work requires the temporary or permanent removal, or relocation of an existing utility or other improvement which is shown, the Contractor shall contact the utility owner and proceed as required by the Owner and the utility owner.
- D. Unrecorded Underground Utilities or Improvements
 - 1. Existing underground utilities shown on Drawings are based upon available records. Data regarding existing utilities is presented for Contractor's convenience only, and shall not be used as a basis for claims of extra compensation.
 - 2. Examine available records and make exploratory excavations whenever necessary to determine locations of existing pipes, valves, or other underground improvements.
 - 3. Take prudent precautions not to damage unrecorded underground utilities and improvements.
 - 4. If unrecorded underground utilities or other improvements are encountered, immediately notify the Engineer and inform the Engineer of the conditions encountered. Include written report of conditions encountered with Progress Schedule covering period in which unrecorded underground utilities or improvements were encountered. If unrecorded underground utilities or improvements conflict with Work, changes shall be made under the terms of the Agreement. Changes to the Work shall be as approved by the Engineer.
 - 5. The Contractor shall contact the affected utility owner and proceed as required by the Owner and the utility owner.

1.05 TREES WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS

- A. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or owner.
- B. All existing trees and shrubs which are damaged during construction shall be repaired or replaced by the Contractor as required by the Owner.

1.06 NOTIFICATION BY THE CONTRACTOR

In additional to State and County requirements regarding location of existing underground utilities and prior to any excavation in the vicinity of any existing underground facilities including all water, sewer, storm drain, gas, petroleum products or other pipelines, all buried electric power, communications or television cables, all traffic signal and street lighting facilities, and all roadway and state highway rights-of-way, the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can locate their facilities or be present during such work if they so desire.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held after Award of Contract, but prior to starting work at the site. The Engineer shall prepare and distribute the meeting agenda and shall preside at the meeting. The Engineer shall record and distribute minutes of the proceedings and decisions.
- B. Attendance:
 - 1. Owner
 - 2. Engineer
 - 3. Contractor
 - 4. Major subcontractors
- C. Minimum Agenda:
 - 1. Tentative construction and submittal schedules
 - 2. Critical work sequencing
 - 3. Designation of responsible personnel
 - 4. Processing of Field Decisions and Change Orders
 - 5. Adequacy of distribution of Contract Documents
 - 6. Submittal of Shop Drawings and samples
 - 7. Procedures for maintaining record documents
 - 8. Use of site and Owner's requirements
 - 9. Major equipment deliveries and priorities
 - 10. Safety and first aid procedures
 - 11. Security procedures
 - 12. Housekeeping procedures
 - 13. Processing of Partial Payment Requests

14. General regard for community relations

1.02 PROGRESS MEETING

- A. Progress meetings will be held biweekly at the Water Treatment Facility Conference Room during the active performance of the field work of this Contract. Additional meetings may be called as progress of work dictates.
- B. Engineer will prepare and distribute agenda, preside at meetings and record minutes of proceedings and decisions. Engineer will distribute copies of minutes to participants.
- C. Attendance:
 - 1. Owner
 - 2. Engineer
 - 3. Contractor
 - 4. Subcontractors, only with Engineer's approval or request, as pertinent to the agenda
- D. Minimum Agenda:
 - 1. Review and approve minutes of previous meetings.
 - 2. Review progress of Work since last meeting.
 - 3. Review proposed 30-60 day construction schedule.
 - 4. Note and identify problems which impede planned progress.
 - 5. Develop corrective measures and procedures to regain planned schedule.
 - 6. Revise construction schedule as indicated and plan progress during next work period.
 - 7. Maintaining of quality and work standards.
 - 8. Complete other current business.
 - 9. Schedule next progress meeting.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

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SLUDGE DEWATERING & STABILIZATION BUILDING MOD PROJECT MEETINGS

COORDINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for structural, mechanical and electrical coordination to ensure proper selection, installation, fit and operation of all mechanical, electrical and control devices as well as building components.

1.02 COORDINATOR

Contractor shall employ an individual or a firm, technically qualified and experienced in field coordination for the type of work required for this Project for the duration of the Work.

1.03 SUBMITTALS

- A. General: As specified in Section 01330 Submittals.
- B. Submit name, address, and telephone number of Coordinator and, if a firm, the name of its principal officer, to Engineer for approval.
- C. Submit necessary coordination drawings and schedules prior to submitting shop drawings, product data, and samples.

1.04 COORDINATION REQUIRED

- A. Coordinate submittals for structural, mechanical and electrical products.
- B. Conduct conferences with Subcontractors and others concerned with the Work, to establish and maintain coordination and schedules, and to resolve coordination matters in dispute.
- C. Participate in progress meetings. Report on progress of Work to be adjusted under coordination requirements, and any required changes in schedules. Transmit official minutes of meetings and reports to concerned parties.

1.05 DOCUMENTS FOR COORDINATION

- A. Prepare necessary coordination drawings to organize installation of products for efficient use of available space, to meet requirements of Work sequence, for proper sequence of installation, and to identify potential conflicts.
- B. Prepare a master schedule to identify responsibilities under each section of Divisions 1 through 17 of the Specifications for activities that directly relate to mechanical and electrical coordination, including submittals and temporary utilities.

- C. Maintain documents for the duration of the Work, recording changes due to site restrictions, modifications or adjustments.
- D. After Engineer review of original and revised documents, reproduce and distribute copies to concerned parties.

1.06 COORDINATION OF SUBMITTALS

- A. Coordinate shop drawings, product data, and samples.
 - 1. Check field dimensions and clearances and relationship to available space and anchors.
 - 2. Check compatibility of products with products furnished or installed under other sections.
 - 3. Check electrical characteristics, and operational control requirements.
 - 4. Check motor voltages, speed, and control characteristics.
 - 5. Coordinate controls, interlocks, power wiring, control wiring, and instrument wiring.
 - 6. Coordinate wiring and control diagrams.
 - 7. Review the effect of any changes on work of other sections.
- B. Verify and coordinate maintenance of Record Documents.

1.07 COORDINATION OF SUBSTITUTIONS AND MODIFICATIONS

- A. Submit requests for substitutions as specified in Section 01600 Materials and Equipment.
- B. Review proposals and requests from subcontractors.
- C. Verify compatibility of substitutes with other products. Identify modifications required to make other products compatible with substitutes.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION

3.01 OBSERVATION OF WORK

- A. Observe Work for structural, mechanical and electrical coordination.
- B. Maintain a list of observed deficiencies and defects and promptly report observed deficiencies and defects to appropriate parties.

3.02 EQUIPMENT START-UP

A. Verify utilities, connections and controls are complete and equipment is in operable condition prior to equipment start-up.

- B. Observe start-up of equipment and demonstrations to Owner, as noted in Section 01750.
- C. Coordinate adjustments or modifications required to provide equipment and systems that operate properly, both mechanically and electrically.

3.03 INSPECTION AND ACCEPTANCE OF EQUIPMENT

Prior to inspection, verify that equipment and systems are tested and operating properly.

END OF SECTION

SUBMITTALS

PART 1 – GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for submittals.

1.02 SCHEDULE

- A. Transmit submittals in accordance with approved Progress Schedule, and in such sequence to avoid delay in the Work or work of other contracts.
- B. Do not fabricate products or begin work that requires submittals until return of submittal with Engineer acceptance.
- C. Identify the appropriate specification sections and parts on each submittal.

1.03 CONTRACTOR REVIEW

- A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
- B. Sign each sheet of shop drawings and product data, and each sample; label to certify compliance with requirements of Contract Documents. Notify Engineer of any deviations from requirements of Contract Documents in writing at time of submittal.
- C. Identify the relevant specification sections and parts on each submittal.
- D. For each submittal, the Contractor must submit a statement letter that they have met all contract requirements.

1.04 SUBMITTAL REQUIREMENTS

- A. Apply Contractor's stamp, signed certifying to review and approval, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of Work and Contract Documents.
- B. Number each submittal sequentially beginning with 001. <u>Each submittal shall describe only</u> <u>one product or one equipment system.</u> Re-submittals shall use the same number identifier with a letter suffix; e.g. 001A.
- C. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
 - 1. Finishes that involve Engineer selection of colors, textures, or patterns.
 - 2. Associated items that require correlation for efficient function or for installation.

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- D. Submit under transmittal letter. Identify Project by title and number.
- E. If any submittal requires more than three reviews (normally an original and two re-submittals), the Engineer may charge the Contractor for additional review time based on his actual incurred time and expenses. These charges shall be summarized for the Contractor and deducted from the Contractor's next pay request.
- F. The Contractor may expect most submittals to be reviewed within 21 calendar days following receipt of the submittal. Certain submittals such as Owner color selection or instrumentation may require a longer review time.
- G. The submission of submittals by email may be allowed subject to prior specific approval by the Engineer. Before the first electronic submittal, the Contractor must with the Engineer to review the format and protocols for such submittals.

Any digital file submittal or re-submittal must be complete in every respect. Any digital file submittal must include only one piece of material or equipment.

Digital transmission of O&M data, electrical and instrumentation submittals <u>must</u> include <u>two</u> hard copies of the complete submittal.

In the event that digital transmission of submittals is not allowed, then email shall <u>not</u> be used for transmission of the follow submittals: (a) construction schedules, (b) electrical submittals, (c) instrumentation submittals, (d) structural submittals, (e) any submittal over one page in length and (f) any submittal in color.

- H. Provide submittals on the following items and as required by the Contract Documents:
 - 1. Replacement load and return idlers, brackets and new guard.
 - 2. New and modified conveyer system.
 - 3. New walkway and structural supports.
 - 4. New sidewall intake fans and roof top exhaust fans.

1.05 NUMBER OF COPIES

A. Number of Copies: Electronic submittals are to be made, except as noted:

	Number of Copies	
<u>Submittal</u>	To Engineer	Returned to Contractor
Progress Schedules	Electronic	Electronic
Shop Drawings & Product Data	Electronic	Electronic
Samples & Test Reports	Electronic	Electronic
O&M Data	Refer to Section 01830	Refer to Section 01830
Certificates of Compliance	3 copies	

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Request for Substitution	Electronic	Electronic
Requests for authorization, requests for information, and other similar requests	Electronic	Electronic

1.06 PROGRESS SCHEDULES

Submit progress schedules in accordance with Contract documents

1.07 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and number. Transmittal letter shall reference item as listed on Submittal Schedule.
- B. Identify each element of drawings by reference to sheet number and specification section of Contract Documents.
- C. Identify field dimensions; show relation to adjacent or critical features or Work or products.

1.08 PRODUCT DATA

- A. Submit only pages that are pertinent. Mark or highlight each copy of standard printed data to identify pertinent products. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.

1.09 SAMPLES

- A. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures, and patterns, for Owner selection.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- C. Approved samples that may be used in the Work are indicated in the Specification section.
- D. Label each sample with identification required for transmittal letter.
- E. Provide field samples of finishes at Project, at location acceptable to Engineer, as required by individual Specifications section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.
- F. Accepted samples shall establish the standards by which the completed Work will be judged.

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1.10 MANUFACTURER'S CERTIFICATES

- A. Prior to delivery at project site, furnish an Affidavit of Compliance certified by the equipment manufacturer that the equipment and appurtenances furnished comply with all applicable provisions of applicable referenced standards and these Specifications.
- B. Do not deliver equipment to job site until Affidavit of Compliance has been submitted and accepted by the Consultant.

1.11 REQUESTS

If there are any questions about interpretations of plans, specifications or Contract Documents, the Contractor may submit a written request for information or a request for clarification to the Engineer.

1.12 RESUBMITTAL

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.
- B. Identify resubmittal as a resubmittal and reference previous submittal.
- C. Identify changes made since previous submittal.

1.13 DISTRIBUTION

- A. Distribute reproductions of shop drawings, copies of product data, samples, substitutions and other submittals which bear Engineer's review stamp, to job site file, Record Documents file, subcontractors, suppliers, and other entities requiring information.
- B. Instruct recipients to promptly report any inability to comply with provisions.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for obtaining permits complying with permits and compliance with all regulatory requirements.

1.02 PERMITS

A. A City of Naples Building Permit for the new walkway is anticipated. No permit is anticipated for the conveyor modification and repairs or replacement sidewall and roof top fans.

1.03 CODES AND ORDINANCES

- A. Codes applicable to this project include, but are not necessarily limited to, the following:
 - 1. Standard building codes as applicable.
 - 2. <u>Title 29, Part 1926, Construction Safety and Health Regulations</u>, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
 - 3. <u>Title 29, Part 1910, Occupational Safety and Health Standards</u>, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
 - 4. Accessibility Requirements Manual, Department of Community Affairs, Florida Board of Building Codes and Standards.
 - 5. The Americans with Disabilities Act (ADA) 1990 36 CFR Part 1191 Architectural and Transportation Barriers Compliance Requirements.
 - 6. NFPA 101 Life Safety Code, Latest Edition.
 - 7. NFPA Standard Fire Prevention Codes as applicable, Latest Editions.
 - 8. State Fire Marshal's Uniform Fire Safety Rules.
 - 9. National and State of Florida Electrical Codes and Regulations.
- B. All materials and workmanship shall confirm to local city or county ordinances.
- C. If there is a conflict in regulations, codes, or regulations and codes, the more stringent requirements shall govern.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION

3.01 VERIFICATION AND CONFORMANCE

A. Conform to all requirements of all permits.

END OF SECTION

MATERIALS TESTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for independent testing laboratory services for concrete, soils compaction and other testing as may be required by the Contract Documents.

1.02 REFERENCES

- A. ANSI/ASTM Standards
 - 1. ANSI/ASTM D3740 Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
 - 2. ANSI/ASTM E329 Practice for Inspection and Testing Agencies for Concrete, Steel, Bituminous Materials as Used in Construction

1.03 SELECTION AND PAYMENT

- A. The Contractor shall employ services of an independent testing laboratory to perform required inspection and testing.
- B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.

1.04 QUALITY ASSURANCE

- A. Standards: Comply with requirements of ANSI/ASTM E329 and ANSI/ASTM D3740.
- B. Laboratory: Authorized to operate in State of Florida.
- C. Laboratory Staff: Maintain a full time Registered Professional Engineer on staff to review services.
- D. Testing Equipment: Calibrated at reasonable intervals with devices of accuracy traceable to either National Bureau of Standards (NBS) Standards or accepted values of natural physical constants.

1.05 LABORATORY RESPONSIBILITIES

- A. Test samples submitted by Contractor.
- B. Provide qualified personnel at site. Cooperate with County and Contractor in performance of services.
- C. Perform specified inspection, sampling, and testing of products in accordance with specified standards.

- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer, County and Contractor of observed irregularities or nonconformance of Work or products.
- F. Perform additional inspections and tests required by Engineer or County.
- G. Attend preconstruction conferences and progress meetings as appropriate.

1.06 LABORATORY REPORTS

- A. After each inspection and test, the laboratory shall promptly submit three (3) copies of laboratory report to Engineer, Contractor and County.
- B. Report shall include:
 - 1. Date issued,
 - 2. Project title and number,
 - 3. Name of inspector or technician,
 - 4. Date and time of sampling or inspection,
 - 5. Identification of product and Specifications section,
 - 6. Location in the Project,
 - 7. Type of inspection or test,
 - 8. Date of test,
 - 9. Results of tests,
 - 10. Conformance with Contract Documents.
- C. When requested by Engineer, provide interpretation of test results.

1.08 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume any duties of Contractor.
- D. Laboratory has no authority to stop the Work.

1.09 CONTRACTOR RESPONSIBILITIES

- A. Deliver to laboratory, at designated location, adequate samples of proposed materials that require testing, along with proposed design data as required.
- B. Cooperate with laboratory personnel and provide access to the Work.

- C. Provide incidental labor and facilities to provide access to Work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- D. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.
- E. Pay for all testing services.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

As specified in the Contract.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

QUALITY CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements to ensure that the products and installation meet industry standards, manufacturers requirements and government regulations and ordinances.

1.02 GENERAL QUALITY CONTROL

- A. The Contractor shall maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Public Inspection: The Contractor shall inform the Engineer and local authorities, such as building and plumbing inspectors, Fire Marshall, OSHA inspectors, and others, in order that they may approve all required work and witness all required tests for foundations, piping, plumbing, fire protection systems, pressure vessels, safety systems, electrical systems and other systems requiring regulatory authority inspections to obtain all required permits and certificates.
- C. Site Inspection: The Contractor shall verify all dimensions in the field and shall continuously check field conditions during construction.
- D. Sampling and Testing: The Engineer reserves the right to take samples and make independent tests to verify that the Work meets the requirements of the specifications.

1.03 RIGHT OF REJECTION

- A. Engineer shall have the right, at all times and places, to reject any articles or materials to be furnished hereunder which, in any respect, fail to meet the requirements of the Contract Documents, regardless of whether the defects in such articles or materials are detected at the point of manufacture or after installation. If the Engineer or its representative, through an oversight or otherwise, has accepted materials or Work which is defective or which is contrary to the Contract Documents, such materials, no matter in what stage or condition of manufacture, delivery, or erection, may be subsequently rejected.
- B. The Contractor shall promptly remove rejected articles or materials from the site of the Work after notification of rejection.

PART 2 – PRODUCTS

2.01 MANUFACTURERS' CERTIFICATES

Submit manufacturer's certificate that product meets or exceeds specified requirements as specified in Section 01600 – Material and Equipment and Section 01750 – Testing and Startup.

2.02 MATERIALS TESTING

The Contractor shall employ the services of an independent, testing laboratory to perform inspections, tests, and other services as specified in Section 01430 – Materials Testing. The Contractor's responsibilities are described in Section 01430.

PART 3 – EXECUTION

3.01 MANUFACTURERS' INSTRUCTIONS

Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

3.02 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Comply with all local, state and federal regulations and ordinances.
- C. Perform work by persons qualified to produce workmanship of specified quality.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration and rocking.

3.03 MANUFACTURERS' FIELD SERVICES

- A. When specified in the individual product section, require manufacturer or manufacturer's representative to provide qualified personnel to observe field conditions; conditions of surfaces and installation; quality of workmanship; start-up, testing, adjustment, and balance of equipment as applicable; and to make appropriate recommendations.
- B. The extent of the manufacturer's field services shall be as specified in the individual product specification sections.

END OF SECTION

COLOR AUDIO-VIDEO PRECONSTRUCTION RECORD

PART 1 - GENERAL

1.01 SCOPE

Prior to commencing work, the Contractor shall take a continuous color audio-video digital recording (provided on a flash drive) of Project site to serve as a record of pre-construction conditions.

1.02 APPROVAL

No construction shall begin prior to review and approval by Engineer of the flash drive recording covering construction area. The Engineer shall have authority to reject all or any portion of the recording not conforming to specifications and order that it be done again at no additional charge. The Contractor shall reschedule unacceptable coverage within five days after being notified. The Engineer shall designate those areas, if any, to be omitted from or added to the audio-video coverage. Recordings shall not be made more than 60 days prior to construction in any area. All flash drives and written records shall become property of the County. Prior to video recording, there will be a meeting between Engineer, Contractor and electrographer.

1.03 PROFESSIONAL ELECTROGRAPHERS

Engage the services of a professional electrographer. The color audio-video recording shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of preconstruction color audio-video documentation. The electrographer shall furnish to Engineer a list of names and addresses of two references that electrographer has performed color audio-video recording for projects of a similar nature.

PART 2 - PRODUCTS

2.01 AUDIO-VIDEO RECORDINGS

The Contractor shall submit two flash drives of audio-video recording for review and approval.

2.02 EQUIPMENT

- A. Furnish all equipment, accessories, materials and labor to perform this service. The total audio-video system shall reproduce bright, sharp, clear pictures with accurate colors and shall be free from distortion, tearing, rolls or any other form of imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume, clarity and be free from distortion and interruptions.
- B. The color video camera used in the recording system shall have a horizontal resolution of 300 lines at center, a luminance signal to noise ratio of 45 dB and a minimum illumination requirement of 25 foot-candles.

PART 3 - EXECUTION

3.01 SCHEDULING

No recording shall be done during precipitation, mist or fog. Recording shall only be done when sufficient sunlight is present to properly illuminate the subjects of recording and to produce bright, sharp video recordings of those subjects.

3.02 RECORDED INFORMATION – AUDIO

Each recording shall begin with current date, project name and Owner and followed by general location, i.e., viewing side and direction of progress. Audio track shall consist of an original live recording. Recording shall contain the narrative commentary of electrographer, recorded simultaneously with his fixed elevation video record of the zone of influence of construction.

3.03 RECORDED INFORMATION - VIDEO

All video recordings must, by electronic means, display continuously and simultaneously generated with the actual taping transparent digital information to include the date and time of recording, and station numbers as shown on the Drawings. Date information shall contain the month, day and year. Time information shall contain the hour, minutes and seconds. Additional information shall be displayed periodically. Such information shall include but not be limited to project name, contract number, name of street or structure, direction of travel and view. This transparent information shall appear on the extreme upper left hand third of the screen.

3.04 AREA OF COVERAGE

- A. Recorded coverage shall include all surface features located within the zone of construction supported by appropriate audio coverage. Such coverage shall include special attention to existing driveways, sidewalks, curbs, pavements, structures, exposed piping, electrical and control devices, landscaping, culverts, fences, signs and headwalls within the area covered.
- B. When a conventional wheeled vehicle is appropriate for use, distance from the camera lens to the ground shall not be less than twelve feet. Rate of speed in the general direction of travel of the vehicle used during recording shall not exceed 15 feet per minute. Panning, zoom-in and zoom-out rates shall be sufficiently controlled to maintain a clear view of the object. Tape coverage may be required in areas not accessible by vehicles. Such coverage shall be obtained by walking or special conveyance approved by the Engineer.

END OF SECTION

TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for temporary utilities.

1.02 TEMPORARY SERVICES

- A. Each temporary service shall meet the requirements of the utility having authority over the temporary service. Provide metering and isolation to meet requirements of utility authority over temporary service.
- B. Obtain permission of utility having authority over temporary service prior to connecting temporary service.
- C. Remove temporary services after temporary services are no longer needed for construction operations, site security, field offices, or testing. Restore to pre-construction condition.

1.03 APPLICATION AND PAYMENT FOR TEMPORARY SERVICES

- A. Make applications and arrangements and pay all fees and charges for temporary electrical, potable water, non-potable water, sanitary and telephone services.
- B. Provide and pay for temporary generators, pumps, wiring, switches, piping, connections, meters, and appurtenances for temporary utilities.
- C. The following permanent utility services and services relative to temporary utilities shall be provided by the Owner.
 - 1. Electricity for facilities that are occupied and operated by the Owner.
 - 2. Potable water for facilities that are occupied and operated by the Owner.
 - 3. Telephone service for facilities that are occupied and operated by the Owner.

1.04 ELECTRICITY, LIGHTING

- A. For facilities connected to permanent electrical services, the Contractor shall pay the Owner by deductive cost Change Order for all electrical power used in new facilities until facility is accepted, occupied, and operated by the Owner.
- B. Provide temporary electrical service, or services, for the following:
 - 1. Power tools for construction operations.
 - 2. Construction lighting.
 - 3. Security lighting.

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- 4. Field offices and sheds.
- 5. Testing specified in individual Sections.
- C. Provide construction lighting as required for the following:
 - 1. Prosecution of Work;
 - 2. Observation of Work by Engineer, Owner, and regulatory authorities;
 - 3. Access to facilities occupied by Owner within project site.
- D. Wiring for Temporary Electrical Services
 - 1. Properly install and maintain wiring for temporary lighting and power.
 - 2. Provide separate circuits for temporary lighting and for temporary power.
 - 3. Provide branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.
 - 4. Securely fasten wiring and electrical devices.
 - 5. Temporary lighting and power facilities shall meet the requirements of OSHA Safety and Health Standards for Construction.

1.05 WATER

- A. Provide temporary water services for the following:
 - 1. Potable water or non-potable water for construction operations.
 - 2. Potable water for consumption by Contractor's and subcontractors' personnel.
 - 3. Potable water for field offices.
 - 4. Potable water or non-potable water for fire protection on the construction site.
- B. Piping for Temporary Water Services
 - 1. Provide pipe, fittings, valves, and hydrants for temporary water service, or services.
 - 2. Provide temporary pumps, storage tanks, and controls if available water volume, pressure, or volume and pressure are not sufficient for construction operations.
 - 3. Extend branch piping with outlets located so that water is available by use of hoses.
 - 4. Securely anchor and support temporary water piping.
 - 5. Provide warning signs at each temporary non-potable water outlet.

1.06 SANITARY FACILITIES

A. Provide sanitary facilities (fixed toilets or portable chemical toilets) for Contractor's and subcontractor personnel.

- B. Sanitary Facilities for Contractor's and Subcontractor Personnel shall meet the requirements of OSHA Safety and Health Standards for Construction.
- C. Seclude sanitary facilities from public observation as follows:
 - 1. Locate sanitary facilities so that sanitary facilities cannot be observed by public, or
 - 2. Provide screening around sanitary facilities so that public cannot observe sanitary facilities.
- D. Maintain sanitary facilities so that sanitary facilities are clean and dry at all times.
- E. Enforce use of sanitary facilities. Do not commit nuisances on the project site.

1.07 HEAT, VENTILATION, AND AIR CONDITIONING

- A. Provide temporary heat, ventilation, and air conditioning for the following:
 - 1. Construction operations.
 - 2. Protection, drying, and curing of materials and finishes.
 - 3. Field offices and sheds.
- B. Temporary heat and ventilation for construction operations shall meet the requirements of OSHA Safety and Health Standards for Construction.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECURITY

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for project site security

1.02 SITE SECURITY

- A. Site Not Occupied by Owner: The Contractor shall be fully responsible for site security until site is partially or fully occupied by Owner.
- B. Facilities Partially Occupied by Owner: Site security of partially occupied sites shall be joint responsibility of Contractor and Owner.
 - 1. Contractor shall provide security for the following:
 - a. Contractor's and subcontractors' staging areas and storage areas.
 - b. Field offices and sheds.
 - c. New facilities under construction.
 - d. Existing facilities being renovated.
 - 2. Owner shall provide security for the following:
 - a. Facilities occupied by Owner.
 - b. Site areas solely occupied by Owner.
 - 3. Site Entrance
 - a. Contractor shall provide security for site entrance for Contractor's and subcontractors' use.
- C. The Contractor shall be fully responsible for security of construction equipment, products, small tools, and other items related to the construction.

1.03 SECURITY PROGRAM

- A. Protect Work from theft, vandalism, and unauthorized entry.
- B. Maintain program throughout construction period until Owner acceptance precludes the need for Contractor security.

1.04 ENTRY CONTROL

- A. Restrict entrance of persons and vehicles into construction site.
- B. Owner will control entrance of persons and vehicles related to Owner's operations.

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PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

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MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

General requirements for materials and equipment and requirements for procurement, handling, storage and startup of materials and equipment, and training of Owner's staff.

1.02 SUBMITTALS

- A. General: As specified in Section 01330 Submittals.
- B. Lubricant Test Report: as specified in this Section.
- C. Substitutions: as specified in this Section.
- D. Manufacturer Certificate of Completion: The Contractor shall obtain written certification from the equipment manufacturer, stating that the equipment will efficiently and thoroughly perform the required functions in accordance with the Specifications and as indicated on the Drawings. Contractor shall have responsibility for coordination of all equipment, including motors, variable speed drives, controls, and services required for proper installation and operation of the completely assembled and installed equipment. The Contractor shall submit all such certificates to the Engineer with the shop drawings.

1.03 INFORMATION REGARDING BUY AMERICAN

- A. Products manufactured outside of the United States will not be considered acceptable for the Work unless the Manufacturer submits current certifications as ISO/9001 compliant and the manufacturing location(s) is currently certified as ISO/9001 compliant. The ISO certification must come from a firm having itself been certified by the International Accreditation Forum.
- **B.** Products manufactured outside of the United States will not be considered acceptable for the Work unless the Manufacturer is an approved manufacturer listed in the Utilities Standards Manual as of the Contract date.
- C. Refer to part 2.02 of this section.

1.04 QUALITY ASSURANCE

- A. Inspection, Field Adjustment, and Startup: Demonstrate that all equipment meets the intended function and specified performance requirements.
- B. Tolerances: Tolerances and clearances shall be shown on the shop drawings. Adhere to approved tolerances and clearances. Machine work shall be of high-grade workmanship and finish, with due consideration to the special nature or function of the parts. Members without milled ends and which are to be framed to other steel parts of the structure may have a

variation in the detailed length of not greater than 1/16 of an inch for members 30 feet or less in length, and not greater than 1/8 of an inch for members over 30 feet in length.

- C. Machine Finish: The type of finish shall be the most suitable for the application and shall be shown in micro-inches in accordance with ANSI B46.1. The following finishes shall be used:
 - 1. Surface roughness not greater than 63 micro-inches shall be required for all surfaces in sliding contact.
 - 2. Surface roughness not greater than 250 micro-inches shall be required for surfaces in contact where a tight joint is not required.
 - 3. Rough finish not greater than 500 micro-inches shall be required for other machined surfaces.
 - 4. Contact surfaces of shafts and stems that pass through stuffing boxes and contact surfaces of bearings shall be finished to not greater than 32 micro-inches.
- D. Manufacturer's Experience: Unless otherwise directed by the Engineer, all equipment furnished shall have a record of at least 5 years of successful, trouble-free operation in similar applications within the United States, from the same manufacturer.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. All products shall be new and of the very best quality.
- D. Components that are supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
- E. All parts of the equipment furnished shall be amply designed and constructed for the maximum stresses occurring during fabrication, erection and continuous operation.

2.02 STAINLESS STEEL

- A. All stainless steel fasteners shall be polished during the manufacturing process to provide a bright surface finish.
- B. The submittal data on stainless steel fasteners manufactured outside the United States shall include documentation of alloy elemental analysis performed as routine and ongoing quality control measures associated with the manufacture of the specific products for this project.

2.03 PRODUCT OPTIONS

A. Products specified by reference standards or by descriptions only: Any product meeting these requirements can be submitted for approval.

- B. Products specified by naming one or more manufacturers with a provision for substitutions: Submit a request for substitution for any manufacturer not specifically named.
- C. Products specified by naming one or more manufacturers with no provision for substitutions: No substitutions will be allowed.

2.04 SUBSTITUTIONS

- A. A request for substitution should be made enough time in advance of procurement to allow time for review by the Engineer. A substitution may not be accepted if it delays the project schedule.
- B. Document each request for substitution with complete data substantiating compliance of proposed substitution with material or product specifications.
- C. Request constitutes a representation that Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
 - 2. Will provide the same warranty for substitution as for specified product.
 - 3. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
 - 4. Waives claims for additional costs that may subsequently become apparent.
- D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request, or when acceptance will require substantial revision of Contract Documents.
- E. Engineer will determine acceptability of proposed substitution, and will notify Contractor of acceptance or rejection in writing within a reasonable time.

2.05 MANUFACTURERS' CERTIFICATIONS

- A. Prior to or upon delivery at project site, furnish an Affidavit of Compliance certified by the equipment manufacturer that the equipment and appurtenances furnished comply with all applicable provisions of applicable referenced standards and these Specifications.
- B. Do not deliver invoice for equipment at job site until Affidavit of Compliance has been submitted and accepted by the Engineer.

2.06 NOISE AND VIBRATION

- A. When in operation, no single piece of equipment shall exceed the OSHA noise level requirements for a one-hour exposure.
- B. Equipment that transmits vibration to structures, piping, conduit, or other items connected to the equipment, shall be provided with restrained spring-type vibration isolators or pads per manufacturer's written recommendations.

C. Equipment that can be damaged by vibration generated by the equipment or by vibration transmitted through piping or other connecting items, shall be provided with vibration damping per manufacturer's written recommendations.

2.07 WELDING OF EQUIPMENT AND PIPE

- A. Shop Welding: Unless otherwise specified or shown, shop welding shall conform to the following:
 - 1. Applicable Standards of the American Welding Society for the material and type of item being welded.
 - 2. All composite fabricated steel assemblies, which are to be erected or installed inside a hydraulic structure, including any fixed or movable structural components of mechanical equipment, shall have continuous seal welds to prevent entrance of air or moisture.
 - 3. All welding shall be by the metal-arc method or gas-shielded arc method as described in the American Welding Society's "Welding Handbook" as supplemented by other pertinent standards of the AWS. Qualification of welders shall be in accordance with the AWS Standards governing same.
 - 4. In assembly and during welding, the component parts shall be adequately clamped, supported, and restrained to minimize distortion and for control of dimensions. Weld reinforcement shall be as specified by the AWS code. Upon completion of welding, all weld splatter, flux, slag, and burrs left by attachments shall be removed. Welds shall be repaired to produce a workmanlike appearance, with uniform weld contours and dimensions. All sharp corners of material which is to be painted or coated shall be ground to a minimum of 1/32-inch on the flat.
- B. Field Welding: Field welding shall be as specified in individual specification sections. Qualification of welders shall be in accordance with the AWS standards. Prior to commencement of any field welding, the Contractor shall furnish the Engineer a copy of each welder's current certification for the alloy, position and type of welding to be performed.

2.08 PROTECTIVE COATINGS FOR EQUIPMENT

- A. Equipment shall be painted or coated in accordance with manufacturer's recommendations unless specified otherwise or as approved by the Engineer. Coated surfaces shall be protected from abrasion or other damage during handling, testing, storing, assembly, and shipping.
- B. Gears, bearing surfaces, and other similar surfaces obviously not to be painted shall be given a heavy shop coat of grease or other suitable rust-resistant coating. This coating shall be maintained as necessary to prevent corrosion during periods of storage and erection and shall be satisfactory to the Engineer up to the time of the final acceptance.
- C. Shop-painted items which suffered damage to the shop coating shall be touched up as recommended by the manufacturer.

2.09 GEARS AND GEAR DRIVES

- A. Unless otherwise specified, gears shall be of the helical or spiral-bevel type, designed and manufactured in accordance with AGMA Standards, with a minimum B-10 bearing life of 60,000 hours and a minimum efficiency of 94 percent. Gear reducer service factor shall be based on nominal motor horsepower and shall be:
 - 1. 2.0 for drives incorporating flexible connections between the driven shaft and the gear reducer.
 - 2. 2.5 for coupled drives with pinion gears incorporating a torsionally soft coupling between the motor and pinion shaft.
 - 3. 2.75 for integral gear motors with pinion gears where the pinion is rigidly affixed to the motor shaft.
- B. For integral gear motors with pinion gears, pinions shall not be of the shell type. The pinion gear shall be easily removable from the motor shaft in the field.
- C. Gear speed reducers or increasers shall be of the enclosed type, oil- or grease-lubricated and fully sealed, with a breather to allow air to escape but keep dust and dirt out. Casings shall be of cast iron or heavy-duty steel construction with lifting lugs and an inspection cover for each gear train.
- D. Each oil lubricated gear speed reducer or increaser shall be provided with an oil level sight glass and an oil flow indicator, arranged for easy reading. Oil level and drain location relative to the mounting arrangement shall be easily accessible. Provide oil coolers, or heat exchangers, with required appurtenances when necessary to maintain the proper oil temperature for the application.
- E. Input and output shafts shall be designed for the service and load requirements of the equipment of which gear drives are a part. Gears shall be computer-matched for minimum tolerance variation. Each output shaft shall have seals that prevent lubricant leakage. Each oil lubricated gear dive output shaft shall have two positive seals.
- F. Where gear drive input or output shafts connect to couplings or sprockets not supplied by the gear drive manufacturer, the gear drive manufacturer shall supply matching key taped to the shaft for shipment.
- G. Ship gears and gear drives fully assembled for field installation.

2.10 DRIVE CHAINS

- A. General
 - 1. Power drive chains shall be commercial type roller chains and meet ANSI Standards.
 - 2. Provide chain take-up or tightener that provides easy adjustment of chain tension.
 - 3. Provide a minimum of one connecting or coupler link with each length of roller chain.

- 4. Chain and attachments shall be of the manufacturer's best standard material and suitable for the process fluid.
- B. Sprockets
 - 1. Sprockets shall be used in conjunction with all chain drives and chain-type material handling equipment.
 - 2. Unless otherwise specified, sprockets material shall be as follows:
 - a. Sprockets with 25 teeth or less, normally used as a driver, shall be made of medium carbon steel in the 0.40 to 0.45 percent carbon range.
 - b. Type A and B sprockets with 26 teeth or more, normally used as driven sprockets, shall be made of minimum 0.20 percent carbon steel.
 - c. Large diameter sprockets with Type C hub shall be made of cast iron conforming to ASTM A 48, Class 30.
 - 3. Sprockets shall be accurately machined to ANSI Standards. Sprockets shall have deep hardness penetration in tooth sections.
 - 4. Finish bored sprockets shall be furnished complete with key seat and setscrews.
 - 5. Sprockets shall be of the split type or shall be furnished with taper-lock bushings as required.
 - 6. Idler sprockets shall be furnished with brass or Babbitt bushings, complete with oil hole and axial or circumferential grooving. Steel collars with setscrews may be provided in both sides of the hub.

2.11 V-BELT DRIVES

- A. V-belts and sheaves shall be highest industrial grade and shall conform to ANSI and MPTA Standards.
- B. Unless otherwise specified, sheaves shall be machined from gray cast iron.
- C. Sheaves shall be statically balanced. In some applications where vibration is a potential problem, sheaves shall be dynamically balanced. Sheaves operating at belt speeds exceeding 6,500 feet per minute may be required to be of special materials and construction.
- D. Sheaves shall be furnished complete with taper-lock or QD bushings.
- E. Finish bored sheaves shall be furnished complete with key seat and setscrews.

2.12 DRIVE GUARDS

- A. Power transmission, prime movers, machines, and moving machine parts shall be guarded to conform to the OSHA Safety and Health Standards (29CFR1910).
- B. Where required for lubrication or maintenance, guards shall have hinged access doors.
- C. Drive guards shall be fabricated of 16 gauge minimum galvanized steel or 304 stainless steel. Drive guards shall be easily removable.

2.13 BEARINGS

- A. Bearings shall conform to the standards of the Anti-Friction Bearing Manufacturers Association, Inc. (AFBMA).
- B. Fitting practice, mounting, lubrication, sealing, static rating, housing strength, and other factors shall be considered in bearing selection.
- C. Grease-lubricated type bearings shall be equipped with a hydraulic grease fitting in an accessible location and shall have sufficient grease capacity in the bearing chamber.
- D. Install stainless steel tubing and supports as necessary to extend grease fittings so that greasing can be done from platforms and walkways used by the Owner in routine operations.
- E. Permanently lubricated bearings shall be factory-lubricated with the manufacturer's recommended lubricant.
- F. Except where otherwise specified or shown, bearings shall have a minimum B-10 life expectancy of 60,000 hours.
- G. Bearing housings shall be of cast iron or steel and bearing mounting arrangement shall be as specified or shown, or as recommended in the published standards of the manufacturer. Split-type housings may be used to facilitate installation, inspection, and disassembly.
- H. Sleeve-type bearings shall have a Babbitt or bronze liner.

2.14 SHAFTING

- A. Shafting shall be continuous between bearings and shall be sized to transmit the power required. Keyways shall be accurately cut in line. Shafting shall not be turned down at the ends to accommodate bearings or sprockets whose bore is less than the diameter of the shaft. Shafts shall rotate in the end bearings and shall be turned and polished, straight, and true.
- B. Shafting materials shall be appropriate for the type of service and torque transmitted. Environmental elements such as corrosive gases, moisture, and fluids shall be taken into consideration. Materials shall be as shown or specified unless furnished as part of an equipment assembly.
 - 1. Low carbon cold-rolled steel shafting shall conform to ASTM A108, Grade 1018.
 - 2. Medium carbon cold-rolled shafting shall conform to ASTM A108, Grade 1045.
 - 3. Corrosion-resistant shafting shall be stainless steel or monel, whichever is most suitable for the intended service.
- C. Where differential settlement between the driver and the driven equipment may be expected, a shaft of sufficient length with two sets of universal type couplings shall be provided.
- D. All shafting shall be dynamically balanced in accordance with the recommendations of the shafting manufacturer.
- E. The Contractor shall furnish and install a heavy-duty shaft guard for all drive shafting which is less than seven feet above floor or platform level I accordance with the provisions of

Paragraph 1910.210 of OSHA Rules and regulations. Provision shall be made in the guard as necessary for lubrication and inspection access of the joints and bearings without the necessity of removing the entire guard assembly.

2.15 COUPLINGS

- A. Flexible couplings shall be provided between the drivers and driven equipment. Flexible couplings shall accommodate angular misalignment, parallel misalignment, end float. Flexible couplings shall cushion shock loads.
- B. Equipment manufacturer shall select or recommend the size and type of coupling required to suit each specific application.
- C. Where required for vertical shafts, 3-piece spacer couplings shall be installed.
- D. Taperlock bushings may be used to provide for easy installation and removal on shafts of various diameters.
- E. Where universal type couplings are shown, they shall be of the needle bearing type construction, equipped with commercial type grease fittings.

2.16 EQUIPMENT FOUNDATIONS

- A. Provide equipment foundations in accordance with equipment manufacturers' written instructions.
- B. Mount mechanical equipment, tanks, and floor mounted control cabinets on minimum 4" high concrete bases, as shown on standard details, unless otherwise shown or specified.
- C. Submit foundation drawings for review.

2.17 ANCHOR BOLTS AND FASTENERS

All fastening devices used to secure pipe or equipment to a structure shall be type 316 stainless steel. This requirement includes nuts and washers.

2.18 SHOP FABRICATION

Perform shop fabrication in accordance with the final reviewed and processed shop drawings.

2.19 NAMEPLATES

- A. Equipment nameplates shall be stainless steel. Nameplates shall be engraved or stamped. Fasten nameplates to equipment in an accessible location with No. 4 or larger oval head stainless steel screws or drive pins.
- B. Nameplates shall contain the manufacturer's name, model, serial number, size, characteristics, and appropriate data describing the machine performance ratings.

2.20 WARRANTIES

Furnish warranties as specified in the individual specification sections.

2.21 SPARE PARTS

Following approval of the spare parts list by the Engineer and immediately prior to Substantial Completion, furnish spare parts suitably packaged for long-term storage and labeled with the date of supply, the equipment number and part number, equipment description and part description.

PART 3 - EXECUTION

3.01 DELIVERY, STORAGE, AND HANDLING

- A. Contractor shall be responsible for the delivery, storage, and handling of products.
- B. Equipment shall be boxed, crated, or otherwise protected from damage and moisture during shipment, handling, and storage. Equipment shall be protected from exposure to corrosive fumes and shall be kept thoroughly dry.
- C. Each item of equipment shipped shall have a legible identifying mark corresponding to the equipment number shown or specified for the particular item.
- D. Transport products by methods that prevent product damage. Deliver products dry and in undamaged condition in manufacturer's unopened containers or packaging. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Load and unload equipment and appurtenances by hoists or skidding and in accordance with the manufacturer's recommendations. Do not drop products. Do not skid or roll products on or against other products. Pad slings and hooks in a manner that prevents damage to products.
- F. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions. Store products that will be deteriorated by sunlight in a cool location out of direct sunlight. Rubber products shall not come in contact with petroleum products.
- G. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering and as recommended by manufacturer; provide ventilation that avoids condensation.
- H. Deliver pipe, fittings, valves, and accessories in a clean and undamaged condition. Store pipe, fittings, valves, and accessories off the ground and in accordance with manufacturer's instructions. Do not stack ductile iron pipe higher than the limits shown in ANSI/AWWA C600. Stacking of pipe shall meet the requirements of the pipe manufacturer. Do not stack fittings, valves, valve boxes, or valve stands.
- I. Keep stored products safe from damage or deterioration. Keep the interior of pipe, fittings, valves, and appurtenances free from dirt or foreign matter. Drain and store valves in a manner that will protect valves from damage. Store gaskets, plastic pipe and fittings, and other products that will be deteriorated by sunlight in a cool location out of direct sunlight.

- J. Equipment having moving parts such as gears, bearings, and electric motors; instruments; control panels; motor control centers; and switchgear shall be stored in a temperature and humidity controlled area until equipment is installed and permanent HVAC systems are in operation.
- K. Stored electric motors and actuators with space heaters shall have the space heaters energized. When electric motors and actuators with space heaters are installed, the space heaters shall be connected and energized. Space heaters shall remain energized until equipment is accepted and placed in service.
- L. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
- M. Promptly remove damaged products from the job site. Replace damaged products with undamaged products at no expense to Owner.

3.02 MANUFACTURERS' REPRESENTATIVES

- A. Provide the services of experienced, competent, and authorized service representative of the manufacturer of the items of equipment when specified in the individual Product Section.
- B. Manufacturers' representatives shall visit the site of Work, and shall perform the following tasks:
 - 1. Assist Contractor in installation of equipment.
 - 2. Inspect, check, adjust equipment, and approve equipment installation.
 - 3. Start-up and field-test equipment for proper operation, efficiency, and capacity. Perform necessary field adjustments during the test period until equipment installation and operation are satisfactory to the Engineer.
 - 4. Supervise functional test as specified in Section 01750 Testing and Start-Up
 - 5. Instruct Owner's personnel in operation and maintenance of equipment as specified in this Section.
- C. The times specified in the individual product sections for the Manufacturer's Representative to provide services are exclusive of travel time to and from the facility. The times specified shall not be construed as to relieve the manufacturer of any additional visits to provide sufficient service to place the equipment in satisfactory operation.

3.03 INSTALLATION

- A. Install equipment in accordance with acceptable procedures submitted with the shop drawings and as indicated on the Drawings, unless otherwise accepted by the Engineer.
- B. Measure drive shafts just prior to assembly to ensure correct alignment without forcing.
- C. Support pipe, fittings, valves, conduit, and other items connected to equipment so that there are no excess stresses and loads on equipment.

D. Equipment shall be secure in position and neat in appearance.

3.04 LUBRICANTS

- A. Furnish and install lubricants required for initial operation.
- B. Maintain lubricants at proper levels until equipment is accepted.
- C. Change lubricants in each piece of equipment following equipment initial run-in. The manufacturer shall test removed lubricants for metal particles and lubricant breakdown. Submit lubricant test report to the Engineer. If the equipment manufacturer requires the first lubricant change prior to Final Completion, the Contractor shall remove lubricant and furnish and install the necessary lubricants.

3.05 FIELD TESTS

- A. Field test equipment in accordance with Section 01750 Testing and Start-up.
- B. Field test equipment as specified in individual Specification Sections.

3.06 FUNCTIONAL TEST

Prior to placing systems in service, perform functional test of each system as specified in Section 01750 - Testing and Start-up.

3.07 TRAINING

- A. Manufacturer's representative, responsible subcontractor, or both shall instruct Owner's designated operating and maintenance personnel in correct operation and maintenance procedures for equipment and systems when specified in individual product specification sections. Qualified persons who have been made familiar in advance with equipment and systems at Owner's facility shall give on-site instruction.
- B. Submit to Engineer not less than 14 days prior to each training session an outline of the training program and the qualifications of the trainer(s).
- C. Coordinate training with the Owner. Notify Owner not less than 14 days in advance of each training session.
- D. Provide training while equipment is fully operational.
- E. Provide training for up to three separate shifts of Owner's personnel between the hours of 6:00 A.M. and 6:00 P.M. as necessary to accommodate Owner's personnel schedule. Duration of each training session shall be not less than two hours or more than six hours.
- F. Operation and Maintenance Data as specified in Section 01830 shall be submitted and accepted prior to commencement of training. Use accepted Operation and Maintenance manuals as the basis of instruction.
 - 1. Review contents of manual with personnel in full detail.
 - 2. Explain all aspects of operation and maintenance.

3. Demonstrate start-up, operation, control, adjustment, calibration, trouble-shooting, servicing, maintenance, and shutdown of equipment.

END OF SECTION

SECTION 01740

CONSTRUCTION CLEANING

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for cleaning project site and disposal of waste materials, debris, and rubbish during construction.

1.02 SITE AND FACILITIES CLEANING

- A. Site Not Occupied by Owner: The Contractor shall be fully responsible for cleaning until site is partially or fully occupied by Owner after attaining Substantial Completion.
- B. Facilities Partially Occupied by Owner: Cleaning of partially occupied sites shall be responsibility of the Contractor.
 - 1. Contractor shall clean the following:
 - a. Contractors and subcontractors' staging areas and storage areas.
 - b. Field offices and sheds.
 - c. New facilities under construction.
 - d. Existing facilities being renovated.
 - 2. Owner shall be responsible for cleaning the following:
 - a. Facilities occupied solely by Owner.
 - b. Site areas solely occupied by Owner.

PART 2 - PRODUCTS

2.01 EQUIPMENT

Provide covered containers for deposit of waste materials, debris, and rubbish.

PART 3 - EXECUTION

3.01 CLEANING - GENERAL

- A. Maintain areas under Contractor's control free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to closing the space.
- C. Periodically clean interior areas to provide suitable conditions for work.

- D. Broom clean interior areas prior to start of surface finishing, and continue cleaning on an as-needed basis.
- E. Control cleaning operations so that dust and other particulates will not adhere to wet or newly coated surfaces.

3.02 CLEANING OF NEW WORK

- A. The Contractor shall be fully responsible for cleaning related to new Work including, but not necessarily limited to, the following:
 - 1. Cleaning of cured, or partially cured, concrete surfaces prior to placement of additional concrete.
 - 2. Cleaning of joint surfaces prior to making joints.
 - 3. Cleaning of surfaces prior to application of finish.
 - 4. Cleaning of equipment and enclosures prior to Substantial Completion.
 - 5. Cleaning of new buildings and renovated buildings prior to Substantial Completion.
- B. Cleaning relative to new Work shall be as specified in individual specifications sections.

3.03 DISPOSAL

- A. Remove waste materials, debris, and rubbish from site periodically.
- B. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.

3.04 REPAIR AND RESTORATION

- A. Clean and repair damage caused by installation or use of temporary facilities.
- B. Restore existing facilities used during construction to condition prior to construction.

END OF SECTION

SECTION 01750

TESTING AND START-UP

PART 1 - GENERAL

1.01 SECTION INCLUDES

Procedures for testing and startup of all equipment included in this project.

1.02 QUALITY CONTROL

- A. When specified in individual Product Specification Sections, require manufacturer to provide authorized representative to be present at site at time of startup, testing, and training
- B. Manufacturer's representative shall perform services as described in Section 01600 Material and Equipment.

1.03 SUBMITTALS

- A. General: as specified in Section 01330 Submittals.
- B. In addition, submit the following to the Engineer:
 - 1. Preliminary schedule listing times, dates and sequence for start-up of each item of equipment fourteen days prior to proposed dates.
 - 2. Manufacturer's representative reports within ten (10) days after testing.
 - 3. Each manufacturer shall prepare and submit a completed document, which is contained at the end of this Section, certifying the installation is acceptable and meets their standards and the equipment or device is functioning properly. The Contractor shall submit these certifications to the Engineer prior to either Substantial Completion or placing the equipment in service. A sample of the required certification document is appended to this Section 01750.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that Project conditions comply with requirements.
- B. Verify that status of Work meets requirements for starting of equipment and systems.

3.02 PREPARATION AND CONTRACTOR'S INITIAL START-UP AND INITIAL FUNCTIONAL TEST

- A. Coordinate sequence for initial start-up of various items of equipment.
- B. Notify Engineer fourteen (14) days prior to initial start-up of each item of equipment.
- C. Have Contract Documents, shop drawings, product data, and operation and maintenance data at hand during entire start-up process.
- D. Provide control diagrams that show actual control components and wiring.
- E. Verify that each piece of equipment has been checked for proper lubrication, drive rotation, belt tension, control sequence, noise, vibration and other conditions that may cause damage.
- F. Verify control systems are fully operational in automatic and alternate modes of operation.
- G. Verify that tests, meter readings, and specific electrical characteristics agree with those specified by electrical equipment manufacturer.
- H. Verify that instruments, meters, and gages have been calibrated. Perform three-point calibration on continuous elements and systems. Provide calibration records.
- I. Conduct start-up and initial functional testing.

J. <u>Provide temporary flow meters and other measurement devices as required for testing of equipment and systems.</u>

- 3.03 START-UP AND FUNCTIONAL TEST DEMONSTRATION FOR OWNER AND ENGINEER
 - A. <u>Perform satisfactory Contractor's initial start-up and functional test prior to demonstration</u> for Owner and Engineer.
 - 1. Perform pre-startup inspection of installation.
 - 2. Perform startup under no-load conditions, if possible. Observe noise, vibration and operation.
 - 3. If all operating characteristics are normal, proceed with startup.
 - 4. Operation equipment and system under all lead conditions and confirm all operating characteristics are normal. If normal operation is observed, proceed with witnessed functional test and performance test as required.
 - B. Perform functional and performance tests.
 - 1. Perform functional and performance tests under supervision of responsible manufacturer's representatives, instrumentation and control subcontractor, and Contractor personnel.

- 2. Representatives of Owner and Engineer shall witness functional test.
- 3. Perform functional and performance tests an each piece of equipment and operational system as specified in the individual product sections.
- 4. If system is to be placed in service in phases, perform functional and performance tests on each part of system prior to placing each part of system in service.
- C. Demonstrate that equipment operates and complies with specified performance requirements.
- D. Demonstrate that control panel functions, including failures and alarms, operate and comply with specified performance requirements.
- E. Functional test shall be non-destructive.
- F. If approved by the Engineer, simulate failures and alarm conditions by jumping failure input terminals.
- G. Provide signal generators that simulate control conditions if it is not feasible to create actual conditions.
- H. Use actual as-built control diagrams in demonstration of functions.
- I. Use Operation and Maintenance manuals to demonstrate operation of equipment.
- J. If functional test or performance test does not meet requirements specified in this Section, Contractor shall compensate Engineer for additional time required to observe functional testing until system successfully completes functional testing.

3.04 TRAINING

- A. <u>Training shall not occur until after completion of successful functional testing and</u> performance testing.
- B. <u>Comply with Section 01600 Material and Equipment, Parts 3.02 through 3.07.</u>
- C. Comply with Section 01830 Operation and Maintenance Data.

3.05 PLACING SYSTEMS IN SERVICE

- A. Complete functional testing prior to placing system in service.
- B. Execute start-up under supervision of responsible manufacturer's representative and Contractor personnel.
- C. Place equipment in operation in proper sequence.

END OF SECTION

MANUFACTURER'S CERTIFICATE OF

PROPER INSTALLATION AND OPERATION

PROJECT: <u>SLUDGE DEWATERING & STABILIZATION BUILDING MODIFICATION –</u> <u>CONVEYOR SYSTEM</u>

Date: _____

PRODUCT: _____

SERIAL NO.: _____

SPECIFICATION SECTION: _____

As an authorized representative of the manufacturer, the undersigned certifies the product identified above has been inspected and is installed in accordance with the manufacturer's recommended standards, except as noted below.

The undersigned further certifies that the product identified above has been placed into satisfactory operation, except as noted below.

Exceptions and comments:

lignature	e:		
Printed N	Name:		
			1
	forwarded to the Engineer upon completion	ed in the Operation and Maintenance Data. of startup and testing.	А сору

MANUFACTURER'S CERTIFICATE OF

PROPER INSTALLATION AND OPERATION

PROJECT: <u>SLUDGE DEWATERING & STABILIZATION BUILDING MODIFICATION –</u> <u>VENTILATION FANS</u>

Date: _____

PRODUCT: _____

SERIAL NO.: _____

SPECIFICATION SECTION: _____

As an authorized representative of the manufacturer, the undersigned certifies the product identified above has been inspected and is installed in accordance with the manufacturer's recommended standards, except as noted below.

The undersigned further certifies that the product identified above has been placed into satisfactory operation, except as noted below.

Exceptions and comments:

				-
Signatur	e:			
Printed 1	Name:			
A cop		cate must be included i ad to the Engineer upor		and Maintenance Data. A copy startup and testing.
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		01730-3		

SECTION 01770

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for contract closeout.

1.02 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. When Contractor considers work has reached final completion, submit written certification that Contract Documents have been reviewed, work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- C. In addition to submittals required by the conditions of the Contract, provide submittals required by governing authorities, and submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
- D. If appropriate, Engineer will issue a final Change Order reflecting approved adjustments to Contract Sum not previously made by Change Order.

1.03 PROJECT RECORD DOCUMENTS

- A. Project Record Documents shall be as specified in Section 01781 Project Record Documents.
- B. Prior to Contract closeout, submit Record Documents to Engineer with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.

1.04 WARRANTIES AND BONDS

Contractor shall ensure that all warranties and bonds have been received and submitted to Owner as specified in the Contract Documents.

1.05 SPARE PARTS

- A. Contractor shall ensure that all spare parts have been provided as specified in individual Product Sections. Spare parts shall be packaged and labeled as specified in Section 01600 Material and Equipment.
- B. Contractor deliver the spare parts to the Owner at one time. The delivery shall include an itemized list to be signed and dated by the receiving party for the City.

1.06 OPERATION AND MAINTENANCE MANUALS

Contractor shall ensure that Operation and Maintenance manuals have been provided to the Owner as specified in Section 01830 – Operation and Maintenance Data.

1.07 CERTIFICATES OF PROPER INSTALLATION AND OPERATION

Contractor shall provide complete Certificates of Proper Installation and Operation as specified in the Contract documents.

PART 2 - PRODUCTS (not used)

PART 3 – EXECUTION

3.01 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. <u>Clean or replace all filters of mechanical equipment immediately after issuance of Substantial Completion</u>. Clean roofs, gutters, downspouts, and drainage systems.
- C. Clean site, sweep paved areas, and rake clean other surfaces.
- D. Remove waste, surplus materials, rubbish and temporary construction facilities from the site.

END OF SECTION

SECTION 01781

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

Requirements for preparation, maintenance and submittal of project record documents. The Contractor's attention is specifically directed to Part 3.02.B of this Section.

1.02 SUBMITTALS

- A. General: as specified in Section 1330 Submittals
- B. At Contract close out, deliver one copy of record documents to Engineer.

1.03 REQUIREMENTS

Contractor shall maintain at the site for the Owner one record copy of:

- A. Drawings
- B. Specifications
- C. Addenda
- D. Change orders and other modifications to the Contract
- E. Engineer's field orders or written instructions
- F. Approved shop drawings, working drawings and samples
- G. Field test records
- H. Construction photographs
- I. Detailed Progress Schedule

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.01 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Project record documents shall be stored in Contractor's field office or other location approved by the OWNER 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.

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C. Make documents and samples available at all times for inspection by the Engineer and/or Owner.

3.02 RECORDING

- A. General
 - 1. Label each document "PROJECT RECORD" in neat, large printed letters.
 - 2. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
 - 3. Record information in red ink.
- B. Record Drawings
 - 1. Drawings shall indicate all deviations from Contract Drawings including:
 - a) Field changes of dimension and detail
 - 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

Legibly mark each Section to record:

- 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
- 2. 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. Do not keep previously rejected submittals unless they are necessary to complete the submittal.
 - 2. Record documents should include all shop drawing information submitted. Additional information submitted during the Engineer's review process should be filed with the appropriate submittal.

END OF SECTION

SECTION 01830

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for content and submittal of manufacturers' operation and maintenance data and content and submittal of Facility's Operation and Maintenance manual.

1.02 SUBMITTALS: MANUFACTURERS' O&M DATA

- A. Submittals shall be as specified in Section 01330 Submittals.
- B. Draft: Submit electronic draft copy of manufacturer's O&M Data not later than shipment of product. Draft O&M Data shall include binding. The Engineer will review and return electronically with comments.
- C. Final: Revise the manufacturer's O&M Data based upon the Engineer's comments as well as the completed installation and any deficiencies noted during instruction of Owner's personnel. Submit an electronic copy and, upon approval, submit three copies of the complete, final O&M Data along with three flash drives with each containing all the O&M Data in PDF format. Submit final O&M Data not more than 30 days after final inspection and startup.

1.03 CONTENTS, EACH VOLUME OF MANUFACTURER O&M DATA

- A. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Engineer, subconsultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses, facsimile and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Instructions: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Each manual shall comply with Parts 2.01 and 2.02 of this Section.
- G. Warranties and Bonds: Bind in copy of each.
- H. Additional Requirements: As specified in individual Product specification sections.

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SLUDGE DEWATERING & STABILIZATION BUILDING MOD OPERATION AND MAINTENANCE

1.04 DATA FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. (Provide information for re-ordering custom manufactured Products.)
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.

1.05 DATA FOR EQUIPMENT AND SYSTEMS

- A. Each Item of Equipment and Each System: Provide the following:
 - 1. Product description;
 - 2. Operating Procedures;
 - 3. Maintenance Procedures;
 - 4. Parts;
 - 5. Lubricants;
 - 6. Other Specified Data.
- B. Manufacturer's Printed Operation and Maintenance Instructions: Provide manufacturer's printed operation and maintenance instructions.
- C. Control Data: Provide the following:
 - 1. Include sequence of operation by controls manufacturer.
 - 2. Control diagrams by controls manufacturer as installed.
- D. Panelboard Circuit Directories: Provide electrical service characteristics, controls and communications.
- E. Drawings, Diagrams, and Charts: Provide the following:
 - 1. Color coded wiring diagrams as installed;
 - 2. Contractor's coordination drawings, with color-coded piping diagrams as installed.
 - 3. Charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- F. Tests and Reports: Include tests and reports as specified in the following Contract including:
 - 1. Section 01750 Testing and Startup

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SLUDGE DEWATERING & STABILIZATION BUILDING MOD OPERATION AND MAINTENANCE

2. Division 02 through Division 16 – Individual Product specification sections.

1.06 OPERATION AND MAINTENANCE DATA REQUIREMENTS

- A. Product Description
 - 1. Identify each system and system component. Use identification numbers presented in the Contract Drawings and Specifications.
 - 2. Describe function, physical characteristics, normal operating characteristics, and alternate operating procedure.
 - 3. Present performance curves, engineering data, and test results.
 - 4. Describe operating limitations, environmental limitations, and any other limitations.
- B. Operating Procedures
 - 1. Provide instructions, including required sequences, for the following operations:
 - a) Start-up following installation.
 - b) Break-in.
 - c) Routine
 - d) Preventative maintenance.
 - e) Calibration.
 - f) Emergency shutdown.
 - g) Start-up following emergency shutdown.
 - 2. Provide operating procedures for variations in sunlight, temperature, and humidity.
 - 3. Provide operating procedures for variations in demand, flow, and loading.
 - 4. Provide special operating procedures vital to the product.
- C. Maintenance Procedures
 - 1. Provide instructions for preventative, routine, and periodic maintenance including the following:
 - a) Servicing and lubricating schedule and sequences.
 - b) Wearing parts replacement schedule, including part numbers.
 - c) Product disassembly and assembly.
 - d) Alignment, adjustment, and testing.
 - e) Product re-calibration.
 - 2. Provide a "trouble shooting" guide and repair instructions.
- D. Parts
 - 1. Provide complete nomenclature for all product parts including manufacturer's part number for replacement parts.
 - 2. Provide a list of recommended spare parts with instructions for storage of recommended

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spare parts.

- 3. Provide a list of local sources of supply for parts.
- E. Lubricants
 - 1. Provide a list of lubricants required. Identify the parts to be lubricated with each listed lubricant.
 - 2. Submit separate lubrication schedule for each piece of equipment.
 - 3. Other Data: Provide other Operation and Maintenance Data as specified in the individual Product specification sections.
- F. Other Data: Provide other operation and maintenance data as specified in the individual product specification sections.

PART 2 – PRODUCTS

2.01 GENERAL DESCRIPTION: MANUFACTURER O&M DATA

- A. General:
 - 1. The Manufacturers' O&M Data shall be in an electronic format as well as bound. Three flash drives and three hard copies shall be provided. Binding by suppliers and manufacturers of their O&M data is acceptable if the binding meets the requirements of this Section. Contractor shall provide binding for O&M Manual if the supplier does not provide binding which meets the requirements of this Section.
 - 2. Binding shall be 8-1/2" X 11" size. Binder capacity shall be not less than 2" or more than 3".
 - 3. Binding shall be three-hole, left margin.
 - 4. Binders shall be three-ring, D-type.
 - 5. Binder covers shall be polyethylene, 110 mil thickness.
 - 6. Each binder shall be identified on the binder front and spine.
- B. Table of Contents: Provide a detailed Table of Contents in each Binder.
- C. Index of Tabs
 - 1. Provide a tabbed index sheet for each equipment item, component, or subject. Index tabs shall provide quick reference points, which assist the Owner's personnel in the use of the manual.
 - 2. Indexes shall be 90-lb. stock, minimum. Tabs and binding strips shall be reinforced.
- D. Text
 - 1. Text shall be legible and written in English. Each letter in the text shall be identifiable. Text shall be technically and grammatically correct.
 - 2. Prepare the text so that operation and maintenance personnel can easily read, understand, and properly apply the instructions contained in the text. Arrange the text in a logical format. Use headings to identify each set of procedures.

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- 3. Prepare text specific to this project. Preprinted text and brochures may be used to supplement text specific to this project if the text specific to this project contains reference, or references, to the preprinted material and if the preprinted material has been annotated to clearly show the part, or parts of the preprinted material that are applicable to this project.
- 4. Text character height shall not be less than 8 points or more than 12 points. Larger size letters may be used for headings. Pitch shall be between 10 characters per inch and 16.66 characters per inch. The pitch may be less than 10 characters per inch in headings. Select character point and pitch to produce text, which is easy to read. Select a font style which is easy to read.
- E. Illustrations
 - 1. Provide illustrations as required to clearly present instructions, clarify the text, or both. Place illustrations so that the illustrations are in a logical relationship to the text.
 - 2. Pages of the O&M Data may contain text, illustration, or text and illustrations. Preprinted illustrations and brochures containing illustrations may be used if the preprinted illustrations are applicable to this project or the preprinted illustrations are annotated to clearly show the illustrations or parts of illustrations that are applicable to this project.
- F. Drawings
 - 1. Provide drawings for each system in the O&M Data. Drawings shall show the relationship between the various components in each system and the equipment installed in each system. If there is fluid flow within a system, the drawings for the system shall include a flow diagram. If there is electrical power, control wiring, or both in a system, the drawings for the system shall include a wiring diagram, a control diagram, or both as applicable.
 - 2. Identify systems, components, and enclosures on the O&M Data drawings. Present definitions of all abbreviations and symbols used on the O&M Data drawings.
 - 3. Identify wire and terminal numbers on all wiring diagrams.
 - 4. Drawings shall be specific to this project. Standard drawings may be used in the O&M data if the drawings are revised for this project.
- G. Quality Assurance
 - 1. Personnel who assemble the O&M Data and the Facility Manual shall be familiar with requirements of this Section.
 - 2. O&M Data shall be written by, edited by, or written and edited by personnel skilled in technical writing to the extent required to communicate essential data.
 - 3. Drawings, diagrams, figures, and illustrations shall be prepared by skilled draftsmen or CADD operators competent to prepare required drawings.

2.02 REPRODUCTION

- A. Text and drawings, sketches and diagrams used for illustrations shall be on 8-1/2" x 11" paper, 20-lb. minimum. Do not use sensitized paper.
- B. Photo prints shall be securely mounted on 8-1/2 x 11" backing or shall be mounted in sheet protectors. Photo print backing shall be heavy paper, 90-lb. minimum, card stock, or equal. Sheet protectors shall be non-glare, clear vinyl.

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- C. Drawings shall be 8-1/2" x 11", 11" x 17", or larger. Drawings 8-1/2" x 11" and 11" x 17" shall be bound together with text and shall have reinforced holes. Drawings larger than 11" x 17" shall be folded and placed in pockets which are bound together with text or inside the back cover of the binder.
- D. Text and illustrations shall be originals, offset printed, photo prints, or first quality machine copies. Text and illustrations shall be crisp with a uniform background. If originals have characters, lines, or shading which are a color, or colors, other than black or the medium is a color, or colors other than white, provide machine color copies.
- E. Drawings shall be offset printed, blue line prints, black line prints, or first generation machine copies. Drawings shall be crisp with a uniform background. If originals have lines, characters, symbols, or shading which are a color, or colors, other than black, provide offset prints of drawings.

PART 3 – EXECUTION

3.01 TRAINING OF OWNER'S PERSONNEL

- A. Fully instruct Owner's designated operating and maintenance personnel in the operations, maintenance, adjustment, and calibration of products, equipment, and systems if specified in the applicable Section of the Specifications.
- B. Use the O&M Data as the basis of instruction.
 - 1. Review contents of manual with personnel in full detail.
 - 2. Explain all aspects of operation and maintenance.

END OF SECTION

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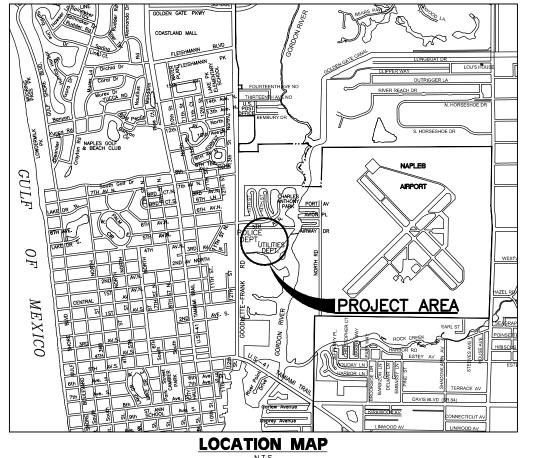
CITY OF NAPLES WASTEWATER TREATMENT FACILITY **SLUDGE DEWATERING & STABILIZATION BUILDINGS MODIFICATIONS**

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>TITLE</u>
<u>G</u>	<u>GENERAL</u>
G-1	COVER SHEET
G-2	NOTES
G-3	NOTES
G-4 M-1 M-2 M-3 M-4 M-5 M-6 M-7 M-8	LOCATION MAP MECHANICAL SLUDGE DEWATERING BUILDING EXISTING/DEMOLITION PLAN SLUDGE DEWATERING BUILDING PROPOSED PLAN SLUDGE STABILIZATION BUILDING EXISTING/DEMOLITION & PROPOSED SLUDGE STABILIZATION BUILDING EXISTING/DEMOLITION & PROPOSED SLUDGE STABILIZATION BUILDING EXISTING/DEMOLITION & PROPOSED SECTIONS VENTILATION DETAILS DETAILS
M-9	STRUCTURAL
M-10	STRUCTURAL NOTES
S0.1	STRUCTURAL NOTES AND ABBREVIATIONS
S0.2	SLUDGE STABILIZATION BUILDING GROUND FLOOR PLAN
S1.1	SLUDGE STABILIZATION BUILDING SERVICE WALKWAY PLAN
S2.2	SLUDGE STABILIZATION BUILDING SERVICE WALKWAY PLAN
S3.1	SECTIONS & DETAILS
S3.2	SECTIONS & DETAILS
S3.3	SECTIONS & DETAILS
HOLE	950 Encore Way Naples, FL. 34110 Phone: (239) 254-2000 Florida Certificate of

Authorization No.1772





ENGINEERS • PLANNERS • SURVEYORS

LANDSCAPE ARCHITECTS

CITY COUNCIL

TERESA HEITMANN TERRY HUTCHINSON RAYMOND CHRISTMAN MICHAEL McCABE GARY PRICE TED BLANKENSHIP PAUL PERRY

MAYOR VICE-MAYOR COUNCIL MEMBER COUNCIL MEMBER COUNCIL MEMBER COUNCIL MEMBER COUNCIL MEMBER

CITY MANAGER

CHARLES CHAPMAN

DIRECTOR, DEPARTMENT OF UTILITIES ADMINISTRATION

ROBERT H. MIDDLETON

DEPUTY DIRECTOR, DEPARTMENT OF UTILITIES **ADMINISTRATION**

ALLYSON HOLLAND

SEPTEMBER 2020 **ISSUED FOR BIDDING**

David W. Schmitt. lorida Reg. No. 4167

GENERAL REQUIREMENTS

- A. The Contractor must plan, coordinate and execute all work in a manner that will not interfere with the operations of the City of Naples Waste Water Treatment Plant as required by Operational Staff. Refer to Construction Notes on this Sheet and the Specifications.
- B. The Contractor shall notify the City of Naples Waste Water Treatment Plant staff in writing at least 10 working days in advance of all planned service interruption. The written notice shall include (a) a detailed plan, (b) a list of human and equipment resources, (c) a detailed schedule and (d) a backup plan in case of an unexpected event. Refer to Specification Sections 01110 and 01140 for additional information and requirements.
- C. Prior to commencing work, the Contractor shall submit for approval of the following:
- 1. Construction Schedule
- 2. Schedule of Values
- Shop drawing for any equipment and materials must be approved prior to its installation.
- After Substantial Completion and prior to Final Completion the Contractor shall submit as-built drawings. Ε. The Contractor shall sign and date the as-built drawings.

GENERAL NOTES

- A. All elevations refer to North American Vertical Datum (NAVD)-1988. The as-built drawings shall reference the North American Vertical Datum (NAVD)-1988.
- B. It is the Contractor's responsibility to replace all existing landscaping (i.e. sod, bushes, trees, etc.) sprinkler piping, sprinkler heads and fencing that may have to be removed or has been damaged during construction. Contractor to replace or repair any damaged property or improvements to a condition equal or better than existed prior to construction.
- C. It is the Contractor's responsibility to verify location and depth of all existing underground utilities prior to construction.
- D. It is the Contractor's responsibility to field locate and protect any existing utility.
- E. It is the Contractor's responsibility to use non-destructive methods to locate embedded conduit in concrete walls and floors prior to demolition, saw cutting and core drilling.
- Extreme caution to be used when excavating. Number and location of exiting utilities have been noted F. based on the information furnished by others.
- G. Damage to existing utilities and property during construction shall be repaired and/or replaced at Contractor's expense.
- H. All driveway, sidewalks and other existing facilities, utilities and improvements shall be restored equal to pre-construction or better and to the satisfaction of the Engineer.

SPECIFICATIONS

A. All City of Naples Utility Department Standard Details and Specifications (Utility Standards) are applicable to this project and are made a part of the Contract Documents by reference. Refer to latest edition and revisions of the City of Naples Utilities Standards; in the event of conflict between the City of Naples Utilities Standards Manual and these drawings and specifications, the more stringent requirement shall apply. Special attention is to be paid to the following requirements, specific to this project:

SPECIAL PROJECT REQUIREMENTS

- A. The Contractor is advised that the City of Naples WasteWater Treatment Plant and site are high security areas and access is strictly controlled at all times. Contractor shall abide to all COVID-19 protocol in place at the facility.
- Site access shall be coordinated with the Plant Manager and the City Project Manager. All access shall В. be executed in accordance with the Plant security procedures.
- All site storage shall be coordinated with the Plant Manager and the City Project Manager. C.
- D. Work on the site, unless approved by the Plant Manager shall be limited to Monday through Friday 7:00a.m - 5:00p.m. Any work outside this time shall be requested by the Contractor and reviewed and approved by the City.
- The project work includes, but is not limited to, providing all tools, materials, labor, plant, transportation, taxes, related items, ECT. essential for complete installation and startup of mechanical systems as described herein.
- F. Provide repair work to the roofing system where disturbed by the equipment support installation or related work of this contract.
- Drawings for the work are diagrammatic, intended to convey the extent, general arrangement, and G. locations of the work. Because of the scale of the drawings, certain miscellaneous but basic items such as fittings, parts or devices may not be shown. include such items where required by code, other sections, or for proper installation of the work.

- Install all work in accordance with the applicable requirements of the following: 1

Florida Building Code, current edition Florida Mechanical Code, current edition Florida Fire Prevention Code, current edition standard for installation of air conditioning and ventilation systems, NFPA 90a, current edition National Electrical Code, NFPA 70, current edition SMACNA, current edition

- authorities having jurisdiction for required inspections and approvals.
- require relocation, make request to owner for determination of procedures.
- work of this project.
- equipment installation. Patch all surfaces to match existing adjacent construction.
- leave job and equipment provided under contract in a clean and first class condition.
- 0. Provide equipment and duct labels for each system component.
- specified. Modified or re-built equipment is unacceptable.
- mechanical systems.
- recommendations. Replace damaged or defective items with new items.
- requested.
- provided whenever available and possible.
- correct deficiencies and make adjustments as may be required.

E						950 Encore Way	DESIGN BY:	D.W.S.		Se APLE
F						Naples, FL. 34110 Phone: (239) 254-2000	DRAWN BY:	J.M.M.		O ON THE
					HOLE MONTES	Florida Certificate of	CHECKED BY	/: D.W.S.	David W. Schmitt, P.E.	
	1	08/22/2020	MODIFIED FOR SEPTEMBER 2020 RE-BIDDING	KLP	ENGINEERS • PLANNERS • SURVEYORS	Authorization No.1772	CAD FILE:	2018084-CV	Florida Reg. No. 41671	Sunde
	NO.	DATE	REVISIONS	BY						- 52-

21-009 WWTP Sludge Dewatering & Stabilization Buildings Modifications - ITB

SPECIAL PROJECT REQUIREMENTS CONT.

H. Coordinate with all trades in submittal of shop drawings. Shop drawings shall detail space conditions to the satisfaction of all concerned trades, subject to final review of the owner. If work is installed before coordinating with other trades which interferes with work of other trades, make all necessary changes to correct the condition at no additional cost to the owner.

J. Obtain and make all payments for permits and inspections as may be required. Coordinate with

K. Protect existing active services and building contents against damage. Do not prevent or disturb operation of active services which are to remain. If active services are encountered which

Remove and dispose of properly off-site, all equipment, materials, ECT. made obsolete by the

M. Protect all equipment and systems scheduled to remain in use against damage from demolition and construction activities including all finished building surfaces, roofing system, structure, etc. Provide all necessary cutting and patching required in conjunction with the mechanical

N. Clear away all debris, surplus materials, etc. resulting from mechanical work and operations.

P. Install mechanical systems in a neat and workmanlike manner utilizing personnel licensed and skilled in the trades. All equipment and materials furnished shall be new and unused as manufactured by companies regularly engaged in the fabrication of the type of equipment

Q. Perform and repeat operational tests of each system until proven acceptable. Provide all gauges, tools, pumps, gas, air or other equipment required for testing and adjusting of

R. Handle, store and protect equipment and materials in accordance with the manufacturer's

S. Maintain a set of prints at the jobsite on which are recorded all formal field changes and other portions of the work that vary significantly from the contract documents. Indicate actual routing of ductwork. Deliver record drawings to the owner in the quantity and manner

T. Provide all materials and labor with an unconditional warranty for a period of one (1) year from date of substantial completion unless otherwise noted. Specific manufacturer's equipment warranties in excess of one (1) year shall take precedence. Manufacturer's warranties shall be

U. Verify equipment connections and mounting requirements with manufacturers certified shop drawings prior to beginning installation. Prepare building areas for equipment installation.



CITY OF NAPLES	PROJECT NO. :
CITY OF NAPLES WASTEWATER TREATMENT PLANT	2018.084
SLUDGE DEWATERING & STABILIZATION	date : 08/20
BUILDINGS MODIFICATIONS GENERAL NOTES	sheet no. : G—2

ABBREVIATIONS:

VENTILATION FANS

- A. Fans shall be supplied as listed on the Plan Schedule. Fans shall be manufactured by Greenheck or prior approved manufacturer.
- B. Sidewall fans shall be provided with a galvanized steel heavy gauge wall housing and weather hood with gravity damper and OSHA Motor Side Guard. A galvanized wire mesh bird screen shall be provided. Installation shall be per manufacturers standard recommendations. Construction and anchorage shall meet the wind loading per the Florida Building Code.
- C. Centrifugal roof top exhaust fans shall be mounted on the existing roof curb. Construction and fan anchorage shall meet the wind loading per the Florida Building Code. Fan housing shall be heavy gauge aluminum construction with internal support structure. The wind band shall be one piece and continuously welded to a one piece aluminum curb cap. Motor shall be heavy-duty ball bearing type with geavy gauge drive frame assembly. Motors and drives shall be mounted on vibration isolators. A gravity damper shall be provided.
- D. The Contractor shall provide a complete submittal on all fans.

CONVEYOR

- A. The existing dewatered sludge conveyor shall be modified as identified on the Plans. This work shall include, but not be limited to the following items.
 - 1. Removal and replacement of the existing load idlers, return idlers and brackets.
 - 2. Removal of the previously installed conveyor system at the west end of the Sludge Dewatering Building. The existing motor drive and housing shall be relocated as identified with electrical service and wash water extended. The existing conveyor, conveyor support beams, drip pans, wash water and miscellaneous electric shall be removed in the sludge stabilization building. The existing support beams and drain pan shall be removed and replaced with new 304 stainless steel support beams and supports between the original support beams in the Sludge Dewatering Building and the existing support frame in the Sludge Stabilization Building. A new stainless steel drain pan shall be provided. One existing support frame is to be modified and relocated.
 - 3. The existing conveyor belt system with exception of the support beams shall be removed in the sludge stabilization building, including conveyor belt, drain pans, plow and drives. A new conveyor shall be installed with the conveyor belt from the Sludge Dewatering Building extended. A new stainless steel drain pan shall be provided with a connection to the existing drain pipe. Stainless steel sidewalls shall be provided along with a discharge chute. Conveyor splice joints are to be stainless steel.
- B. The existing belt shall be extended. The new belt shall match the existing belt and be 30" in width with
- 3" sidewalls. The belt shall be 3 ply with $\frac{3}{16}$ " top cover and $\frac{1}{16}$ " bottom cover. C. The idlers and brackets shall be CEMA C 6" diameter, 30" width. Idlers, rollers, and brackets shall be fabricated with 304 stainless steel. Idlers shall have a solid steel shaft $(\frac{7}{4})$ with precision ball bearing and grease fittings.

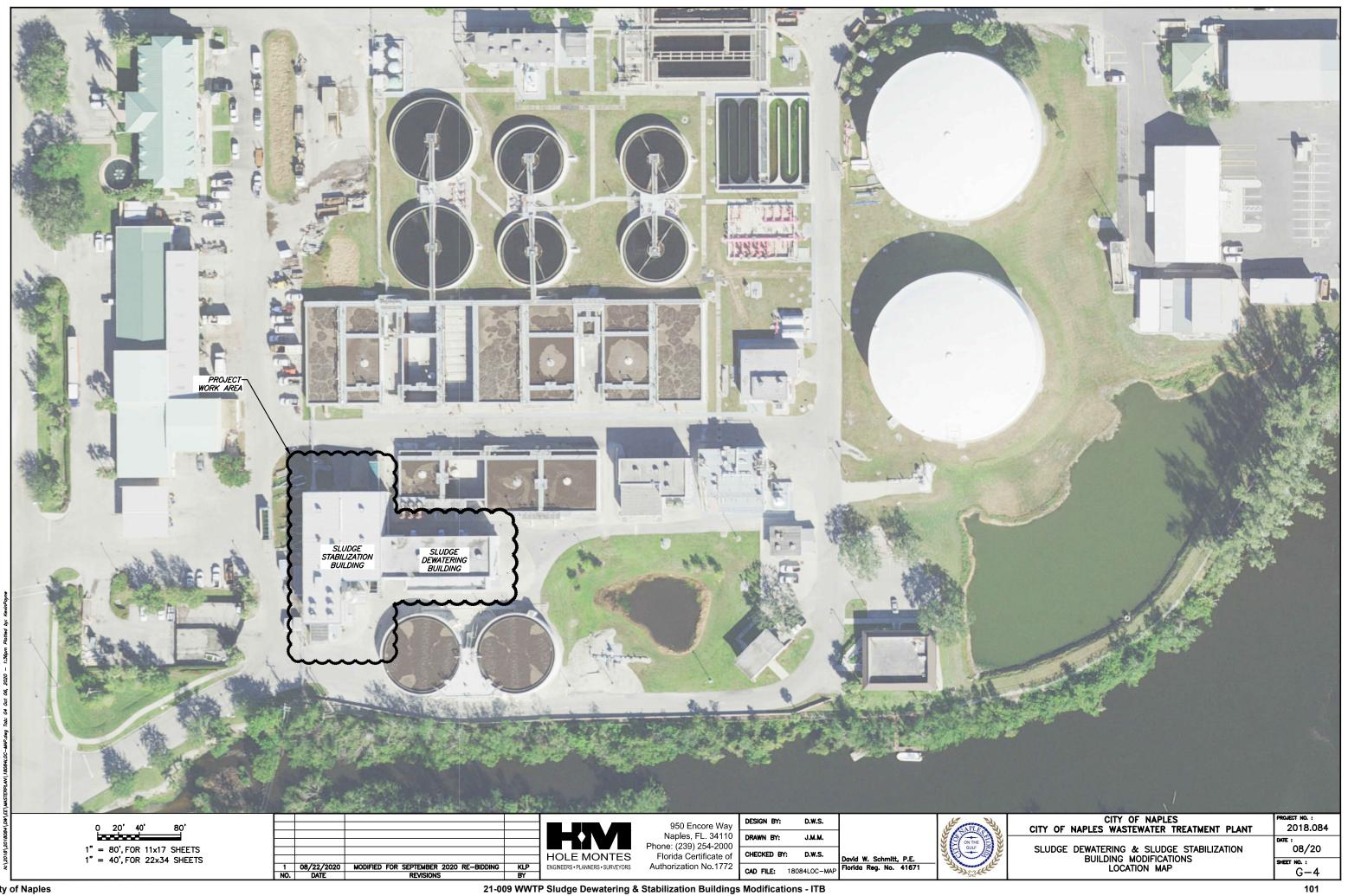
CL CLY CONC CONC CORP. CP D.I.P. DIA SMT EV/EL COP X FE M T LG T COP	AIR RELEASE VALVE BALL VALVE BURIED ELECTRIC BOULEVARD BASE LINE BENCH MARK BURIED TELEPHONE BUTTERFLY VALVE CENTER TO CENTER CAST IRON CLASS/CENTERLINE CLAY CLEANOUT CONCRETE CORPORATION CONTROL PANEL DUCTILE IRON PIPE DIAMETER EASEMENT ELEVATION EDGE OF PAVEMENT EXISTING FINISH FLOOR ELEVATION FORCE MAIN FEET FLANGED PIPE FITTING FIBER OPTIC
LG	
	GALVANIZED GATE VALVE
	HIGH-DENSITY POLYETHYLENE
-	LEFT OF CENTERLINE

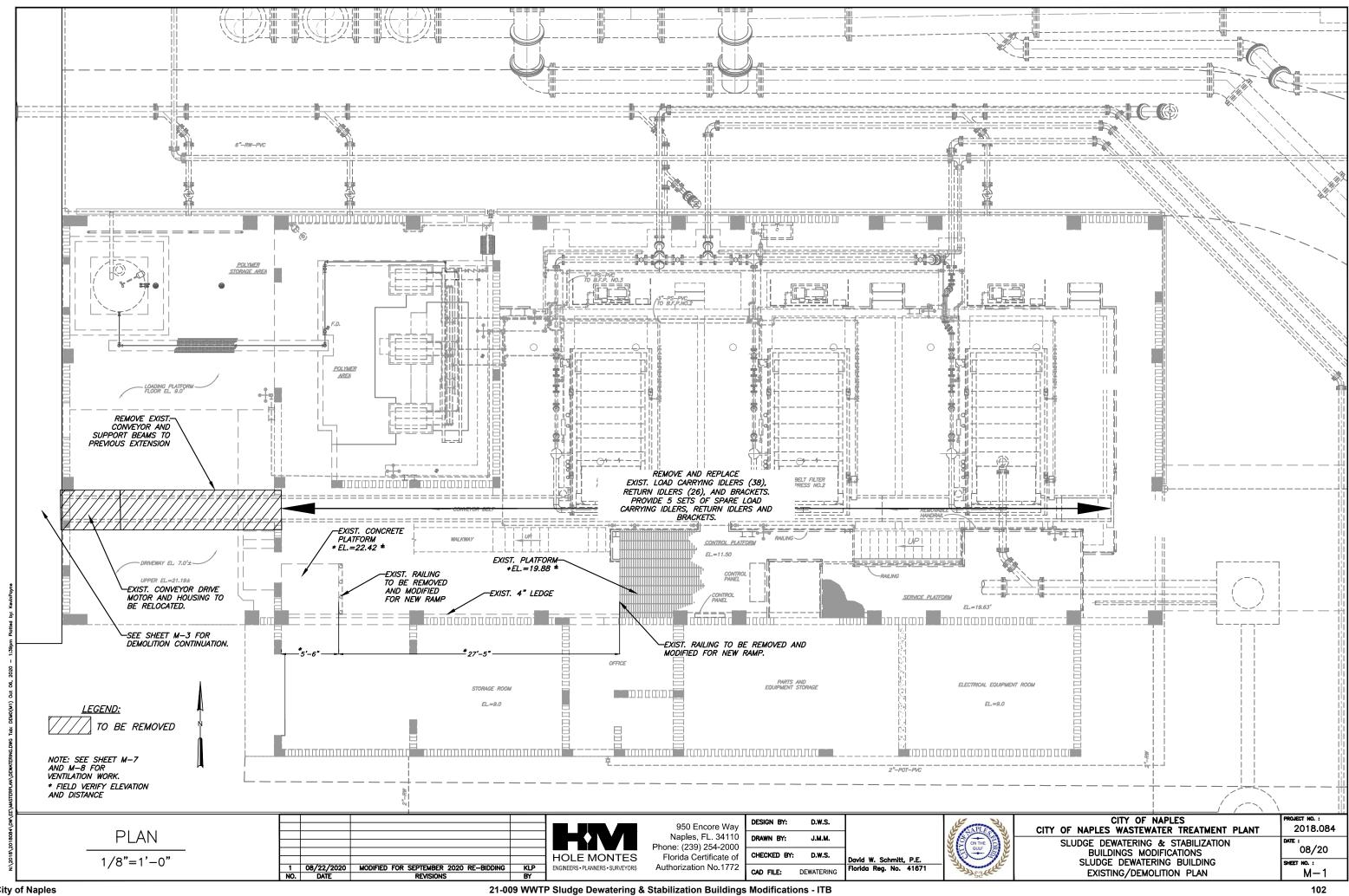


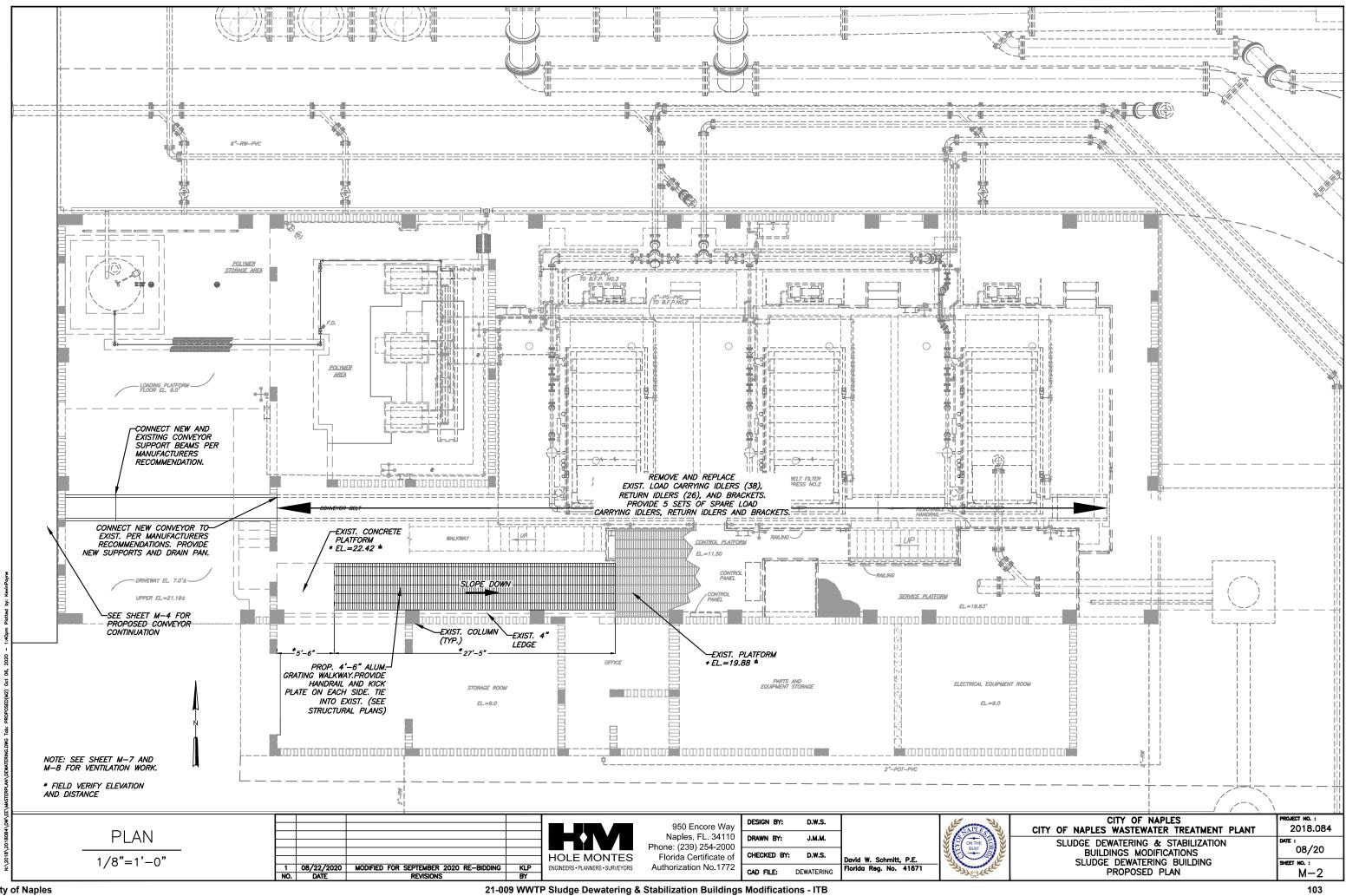
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
NO.	NUMBER
	NOT TO SCALE
OC/EW	ON CENTER EACH WAY
ÞGL	PROFILE GRADE LINE
PPW	POWER POLE WOOD
PPC	POWER POLE CONCRETE
PSI	PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RIGHT OF CENTERLINE
RCP	REINFORCED CONCRETE PIPE
RED.	REDUCER
REQD	REQUIRED
RMJ	RESTRAINED MECHANICAL JOINT RIGHT OF WAY
RW/R.O.W.	RIGHT OF WAY
SCH	SCHEDULE
SCO	SEWER CLEANOUT
SCV	SEWER CLEANOUT SWING CHECK VALVE
SMH	SANITARY MANHOLE
SR	SPECIAL REINFORCED THREADS
SS	SANITARY SEWER/STAINLESS STEEL
ŠŤA	STATION
SW	SOLVENT WELD
SW	SIDEWALK
	TYPICAL
UE	UNDERGROUND ELECTRIC
WM	WATER METER/WATER MAIN

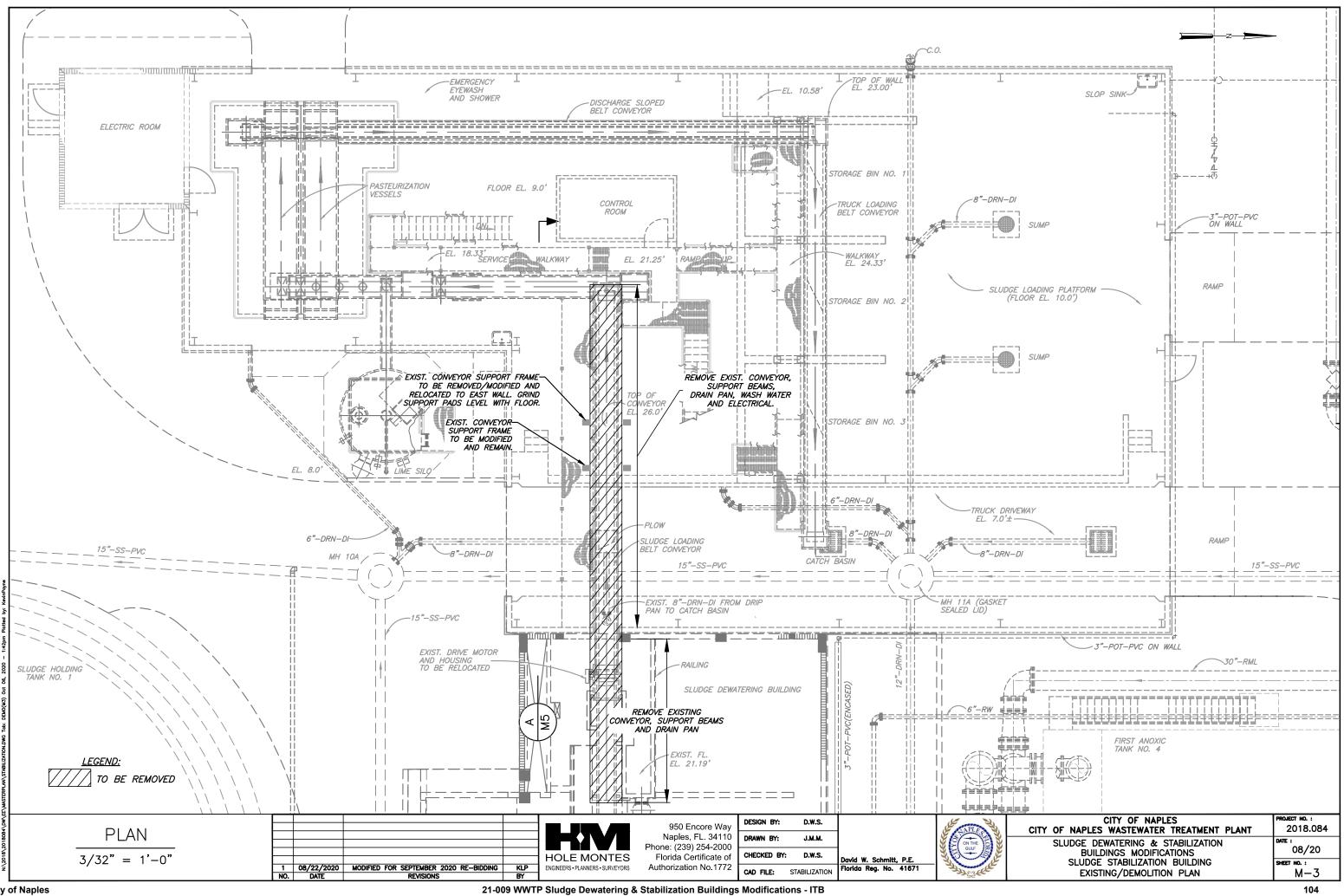


CITY OF NAPLES	PROJECT NO. :
CITY OF NAPLES WASTEWATER TREATMENT PLANT	2018.084
SLUDGE DEWATERING & STABILIZATION	date :
BUILDINGS MODIFICATIONS	08/20
GENERAL NOTES	sheet no. : G—З

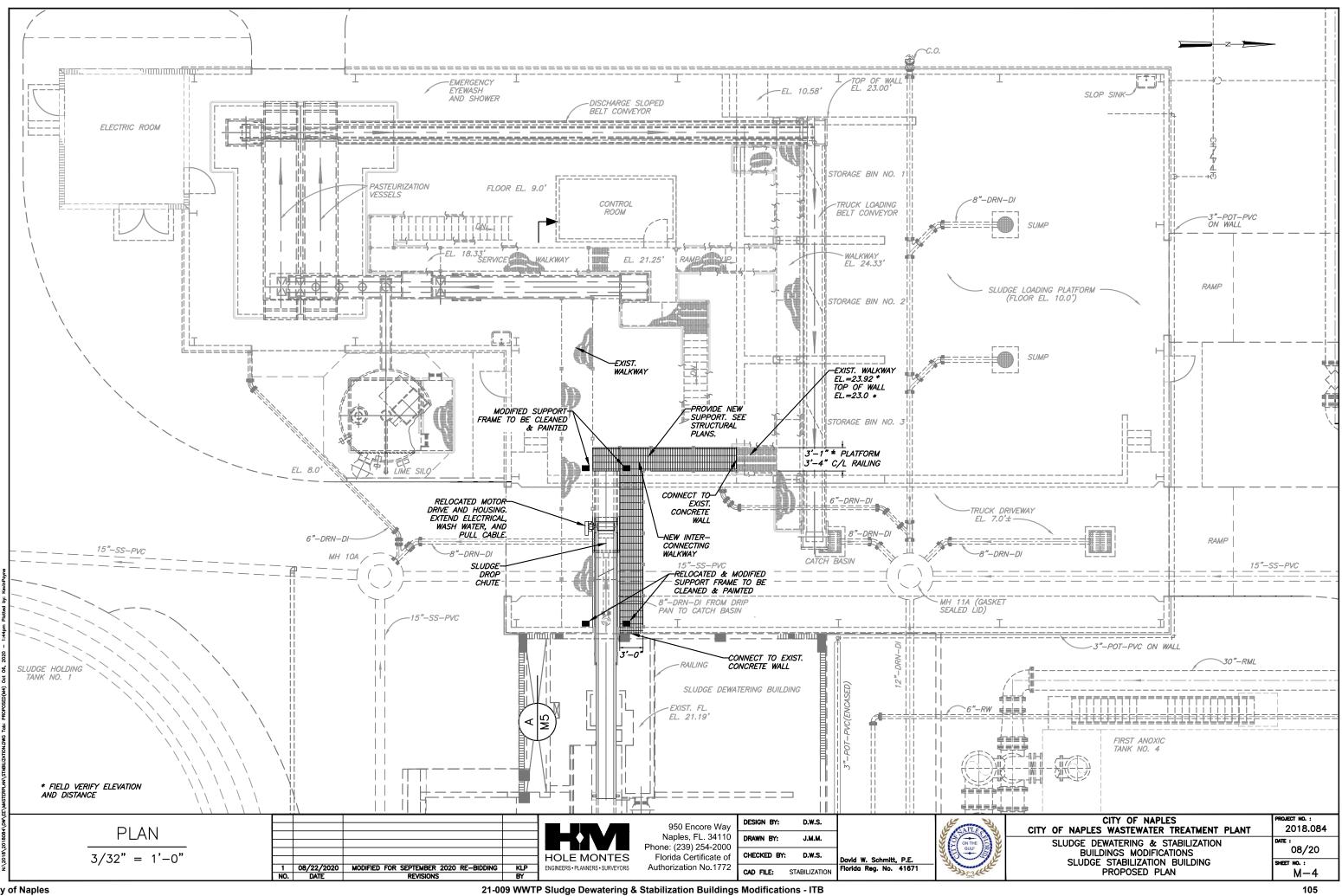




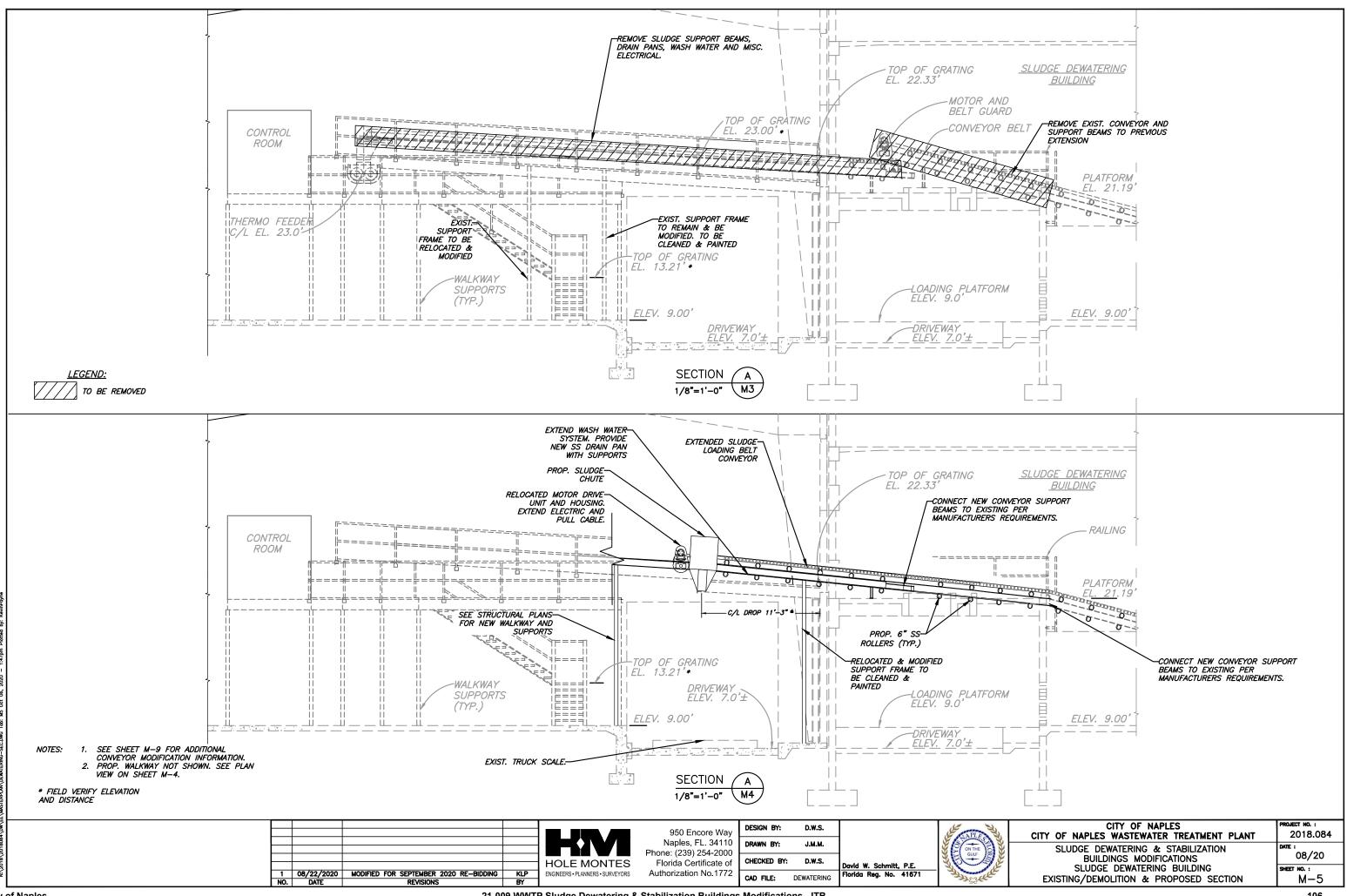


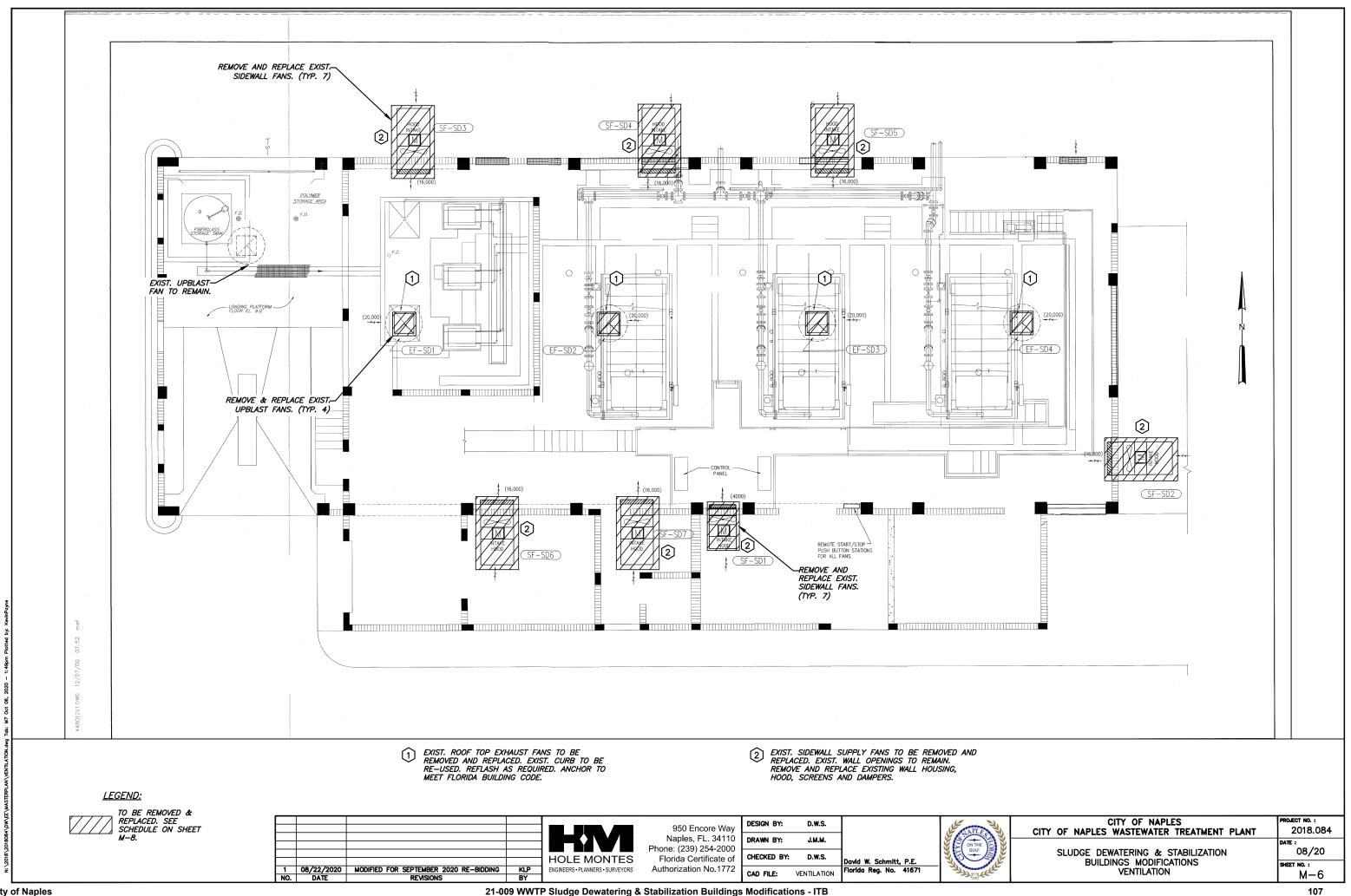


City of Naples



City of Naples





MARK	CFM	SP (IN WG)	FAN SPEED (RPM)	RAN MOTOR (HP)	DRIVE TYPE	electric V/Ø	MANUFACTURER	MODEL	DAMPER SIZE (IN)	WALL/ROOF OPENING	NOTES
EF-SD1	20,000	0.125	342	3	BELT	460/3	GREENHECK	CUBE-480-30	48X48	EXISTING	1,2,3,6
EF-SD2	20,000	0.125	342	3	BELT	460/3	GREENHECK	CUBE-480-30	48X48	EXISTING	1,2,3,6
EF-SD3	20,000	0.125	342	3	BELT	460/3	GREENHECK	CUBE-480-30	48X48	EXISTING	1,2,3,6
EF-SD4	20,000	0.125	342	3	BELT	460/3	GREENHECK	CUBE-480-30	48X48	EXISTING	1,2,3,6
SF-SD1	4,000	0.125	560	1/2	BELT	460/3	GREENHECK	SBS-1-L24-5	26X26	EXISTING	2,4,5,6
SF-SD2	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6
SF-SD3	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6
SF-SD4	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6
SF-SD5	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6
SF-SD6	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6
SF-SD7	16,000	0.125	527	1	BELT	460/3	GREENHECK	SBCS-3H48-10	50X50	EXISTING	2,4,5,6

1. EXISTING OPENING AND ROOF CURB TO BE REUSED. REFLASH AS REQUIRED BY INSTALLATION. FIELD VERIFY EXISTING OPENING.

2. PROVIDE NEW GRAVITY DAMPER

3. ALL ALUMINUM/STAINLESS STEEL CONSTRUCTION

4. EXISTING OPENINGS TO BE USED. FIELD VERIFY OPENING SIZE. MODIFY IF REQUIRED.

5. CAST ALUMINUM WITH GALVANIZED LONG HOUSING, WEATHER HOOD, BIRD SCREEN AND MOTOR GUARD.

6. EXISTING ELECTRICAL TO BE REUSED.

FAN SCHEDULE

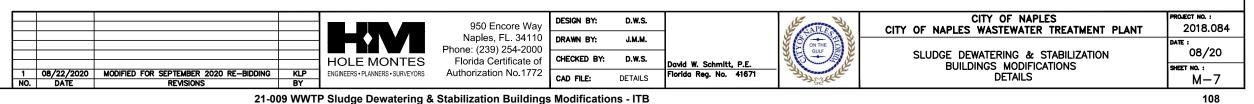


EXISTING ROOF TOP FAN - EXTERIOR



EXISTING ROOF TOP FAN - INTERIOR

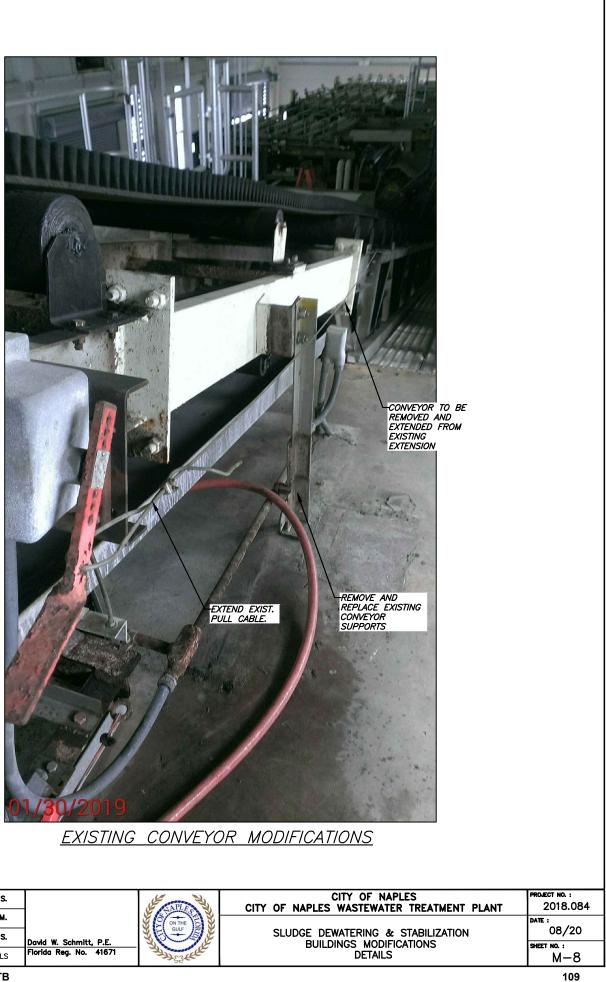


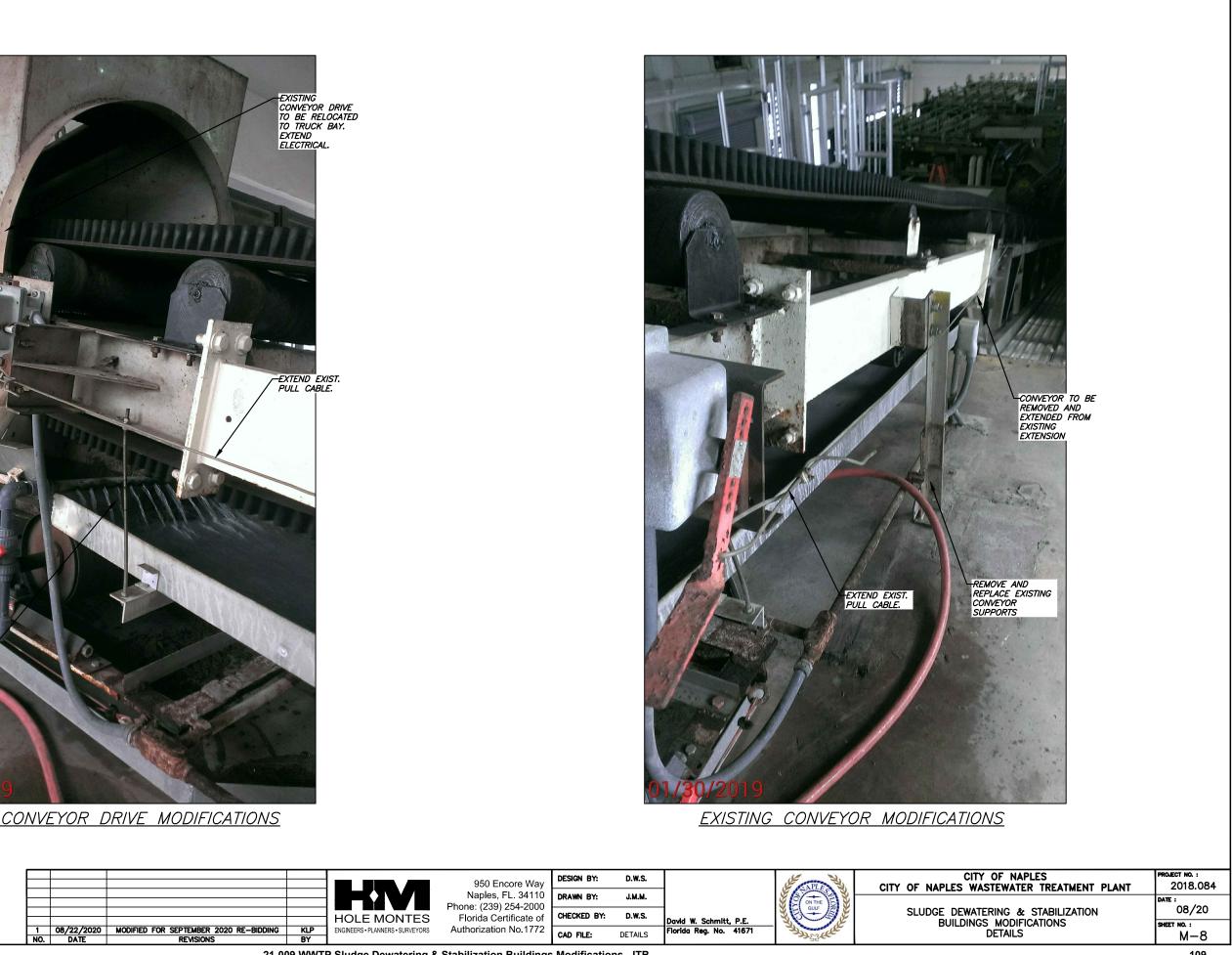




EXISTING SIDEWALL FAN - EXTERIOR









EXIST. LOAD CARRYING IDLERS, RETURN IDLERS, AND BRACKETS TO BE REMOVED AND REPLACED.





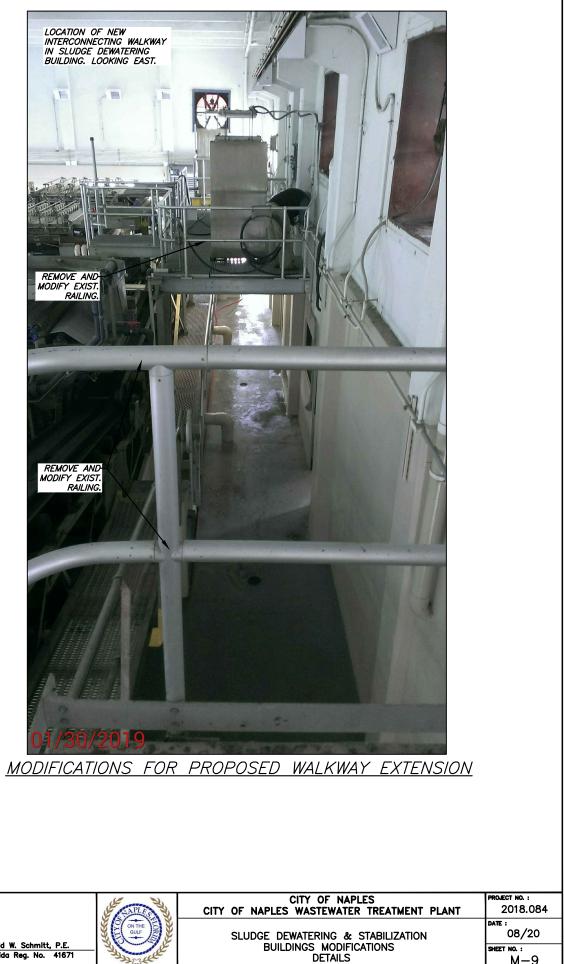
EXISTING CONVEYOR MODIFICATIONS

-EXIST. DRIVE MOTOR AND HOUSING TO BE RELOCATED. EXTEND WASH WATER, ELECTRIC AND PULL CABLE.

-EXIST. WALKWAY TO REMAIN. MODIFY RAILING AT PROP. CROSSOVER.



REMOVE EXIST. CONVEYOR AND DRAIN PAN. EXIST. SUPPORT BEAMS TO REMAIN. CLEAN AND PAIN EXIST. SUPPORT BEAMS.

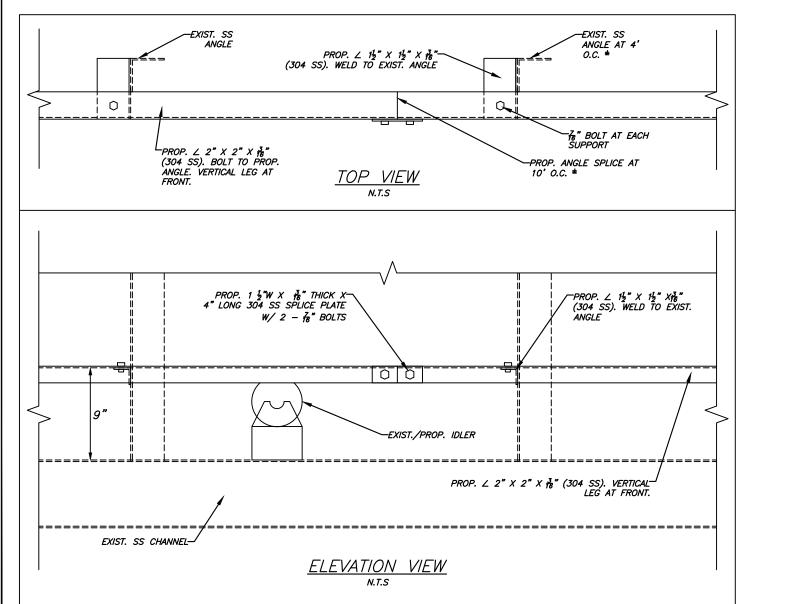


EXISTING CONVEYOR MODIFICATIONS

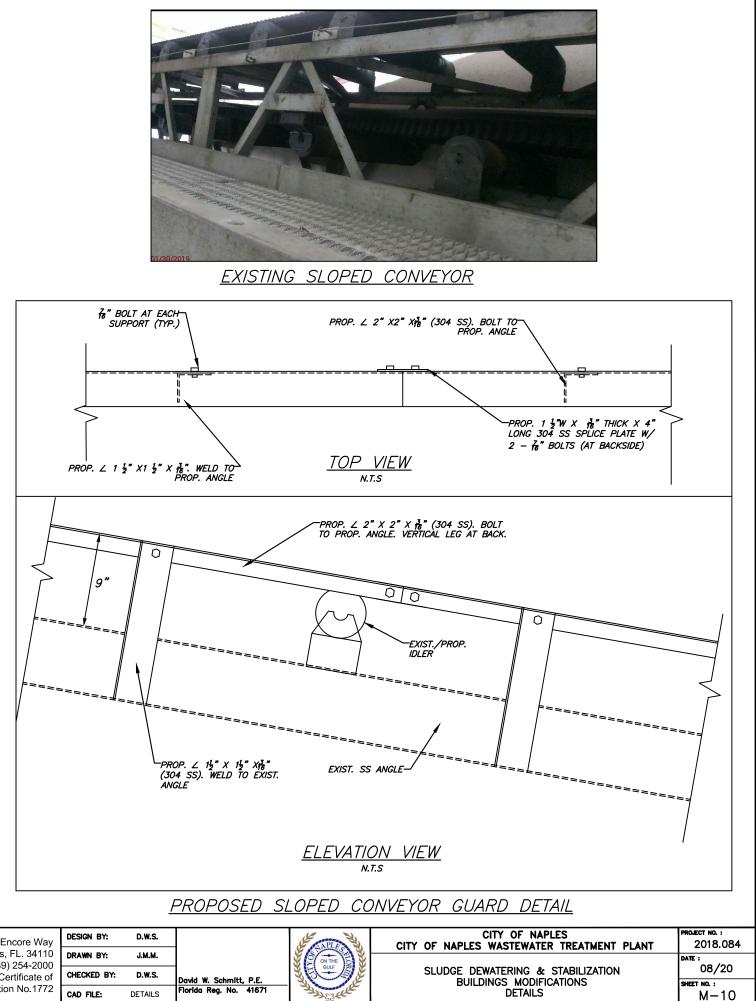


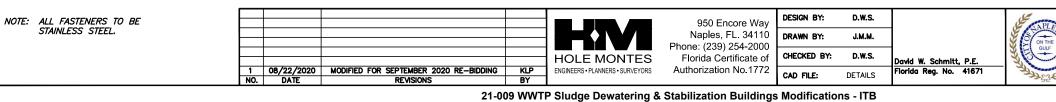


EXISTING CONVEYOR



PROPOSED CONVEYOR GUARD DETAIL





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STRUCTURAL NOTES

A. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL COMPARE AND COORDINATE WITH ALL DISCIPLINES AND REPORT ANY DISCREPANCIES TO A/E PRIOR TO FABRICATION.

B. DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

C. DO NOT SCALE OFF DRAWINGS OR DETAILS. DIMENSIONS PROVIDED ON PLAN OVERIDE ANY SCALED DIMENSIONS.

D. THE STRUCTURE DEPICTED ON THE DRAWINGS IS DESIGNED TO BE SELF-SUPPORTING, STABLE AND STRUCTURALLY SOUND AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES PROVIDING TEMPORARY SHORING, SHEETING, BRACING, GUYS OR TIEDOWNS TO RESIST LOADS IMPOSED BY GRAVITY, SOIL, CONSTRUCTION LOADS, WIND . AND SEISMIC (WHERE APPLICABLE)

E. DETAILS, NOTES, KEYNOTES OR ANY INFORMATION SHOWN ON ANY PART OF THE DRAWINGS SHALL BE APPLIED TO ALL APPLICABLE OR SIMILAR CONDITIONS AND IF NOTED AS TYPICAL OR SHOWN FOR ONE CONDITION, SHALL BE APPLIED FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST USE, IN CONJUNCTION WITH STRUCTURAL DRAWINGS. ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS TO DETERMINE WHERE CONDITIONS THAT ARE LIKE OR SIMILAR APPLY.

F. WHERE A CONFLICT EXISTS BETWEEN DRAWINGS AND SPECIFICATIONS THE DRAWINGS SHALL GOVERN.

EXISTING STRUCTURE:

INFORMATION SHOWN FOR THE EXISTING STRUCTURE ON THESE DRAWINGS WAS TAKEN FROM THE DRAWINGS THAT WERE:

PREPARED FOR:	CITY OF NAPLES
PREPARED BY:	KRIS JAIN & ASSOCIATES, INC.
ENTITLED:	CITY OF NAPLES WWTRF EXPANSION &
	UPGRADE
DATED:	08-1995

WORK SHOWN ON THESE PLANS ASSUMES THAT THE ORIGINAL CONSTRUCTION WAS PERFORMED IN ACCORDANCE WITH THE ABOVE INDICATED ORIGINAL DRAWINGS INCLUDING (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, MEMBER SIZES, MATERIALS, DETAILS, ETC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE CONDITIONS RELATING TO THE EXISTING STRUCTURE AND TO DETERMINE IF MODIFICATIONS AS INDICATED ON DRAWINGS ARE FEASIBLE AND PRACTICAL. FIELD DIMENSIONS AND SURVEY EXISTING STRUCTURE FOR NEW STRUCTURAL ELEMENTS PRIOR TO FABRICATION. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

STRUCTURAL DEMOLITION:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING METHODS OF DEMOLITION SO THAT THE REMAINING STRUCTURE WILL NOT BE IMPAIRED OR DAMAGED.

B. SAWCUTTING AND CORING SHALL BE UTILIZED TO THE FULLEST EXTENT POSSIBLE. ISOLATE CONSTRUCTION TO BE REMOVED FROM THE STRUCTURE TO REMAIN.

C. ONLY OVERCUT OPENINGS WHERE INDICATED. USE APPROPRIATE SIZE CORES AT CORNERS SO THAT OVERCUTTING AT CORNERS WILL NOT BE NECESSARY. USE CHIPPING TOOLS WHERE CORNERS ARE REQUIRED TO BE SQUARE.

D. SELECT METHODS OF TRANSPORTING DEBRIS THROUGH THE BUILDING WHICH WILL NOT OVERLOAD THE EXISTING OR NEW BUILDING.

E. PROVIDE SHORING REQUIRED TO SUPPORT THE STRUCTURE WHEN NEW WORK TO STRENGTHEN THE STRUCTURE CANNOT BE INSTALLED PRIOR TO DEMOLITION. MAINTAIN SHORING UNTIL NEW WORK HAS ATTAINED DESIGN STRENGTH.

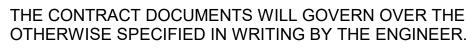
DESIGN LOADS:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE 6TH EDITION OF THE FLORIDA BUILDING CODE (FBC 2017) BY THE SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL, INC. THE FOLOWING LOADING WAS USED IN THE DESIGN:

STAIRS / WALKWAYS: LIVE LOAD - 100 PSF SUPERIMPOSED DEAD LOAD - 5 PSF

SHOP DRAWING REVIEW:

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED.



CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL.

PROVIDE THE FOLLOWING SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION:

GRATING OPEN GRATING STAIR TREADS METAL FRAMING HANDRAILS

<u>3601 POST-INSTALLED ANCHORS:</u> A. POST INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS.

B. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN ANCHORS.

C. CARE SHALL BE GIVEN TO AVOID DAMAGING EXISTING REBAR WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER MANUFACTURER'S INSTRUCTIONS.

D. UNLESS SPECIFIED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES THE NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED FOR SUPPORT OF THE INTENDED LOAD. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCE AND/OR SPACING INDICATED IN THE MANUFACTURER'S LITERATURE.

E. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED BELOW SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL WITH CALCULATIONS PREPARED, SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE.

F. ACCEPTABLE PRODUCTS FOR ANCHORS NOT EXPOSED TO WEATHER ARE AS FOLLOWS:

- 1. EXPANSION ANCHORS FOR NON-CRACKED CONCRETE ONLY: -WEDGE-ALL (WA) BY SIMPSON STRONG-TIE -KWIK BOLT 3 BY HILTI
- 2. CRACKED CONCRETE MECHANICAL ANCHORS: -STRONG-BOLT (STB) BY SIMPSON STRONG-TIE -KWIK BOLT (TZ) BY HILTI
- 3. SCREW ANCHORS: -TITEN HD (THD) BY SIMPSON STRONG-TIE -HUS-H BY HILTI
- -ACRYLIC –TIE (AT AND AT-XP) -HY 200 MAX BY HILTI
- 5. FOR ANCHORING INTO HOLLOW BASE MATERIAL: -CONTACT ENGINEER

G. ACCEPTABLE PRODUCTS FOR ANCHORS EXPOSED TO WEATHER OR FOR ENVIRONMENTAL STRUCTURES ARE AS FOLLOWS:

- 1. CONCRETE MECHANICAL ANCHORS: -TRUBOLT BY ITW REDHEAD- AISI 316 STAINLESS STEEL -KWIK BOLT 3 BY HILTI - AISI 316 STAINLESS STEEL -POWER STUD BY POWERS – AISI 316 STAINLESS STEEL
- 2. SCREW ANCHORS: -TAPPER BY POWERS – AISI 316 STAINLESS STEEL -HUS-H BY HILTI
- 3. CONCRETE OR SOLID GROUTED CMU ADHESIVE ANCHORS: -AISI 316 STAINLESS STEEL

EMBEDDED ITEMS

CHECK OTHER DRAWINGS AND APPLICABLE MANUFACTURERS SHOP DRAWING FOR LOCATIONS OF ALL EMBEDDED ITEMS SUCH AS PIPE SLEEVES AND ANCHOR BOLTS PRIOR TO CASTING CONCRETE. NO APPROVAL WILL BE GIVEN FOR POURING CONCRETE FOR A STRUCTURE UNTIL REQUIRED SHOP DRAWINGS FOR ALL EQUIPMENT AND ITEMS THAT REQUIRE CAST IN PLACE ANCHORING DEVICES HAVE BEEN APPROVED FOR THAT STRUCTURE. SEE MECHANICAL DRAWINGS FOR REQUIRED SIZES, LOCATIONS, AND DETAILS FOR ALL EQUIPMENT CURBS NOT SHOWN HEREIN, AS WELL AS LOCATIONS AND SIZES FOR ALL PIPE PENETRATIONS.

3601 CHEMICAL (ADHESIVE) ANCHORS

SHALL BE AN EQUAL TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS SIMPSON "SET", RAMSET "EPCON", POWERS RAWL "POWER-FAST" CARTRIDGE SYSTEM, OR HILTI HSE2411 EPOXY DOWELING SYSTEM, OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

CERTIFICATE OF AUTHORIZATION NO. 27322	
11926 FAIRWAY LAKES DR.	
FORT MYERS, FL 33913	
PHONE: (239) 939-1414 FAX: (239) 278-4289	
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www.trcww.com	
PROJ No. 19FTM202	

THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS

4. ADHESIVE ANCHORS INTO SOLID CONCRETE OR FULLY GROUTED CMU:

-SET EPOXY-TIE (SET) WITH RETROFIT BOLTS (RFB) BY SIMPSON

5101 STRUCTURAL STEEL:

A. WIDE FLANGE SHAPES INCLUDING WT'S SHALL CONFORM TO ASTM A992 OR A572 GRADE 50 AND OTHER SHAPES SHALL CONFORM TO ASTM A36 AND "THE SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. INC.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46 ksi. STRUCTURAL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE E OR S, Fv = 35 ksi.

B. WELDER QUALIFICATIONS: QUALIFY WELDING PROCESSES AND WELDING OPERATORS IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURE" PER AWS D1.1. OPERATORS SHALL CARRY PROOF OF QUALIFICATIONS ON THEIR PERSONS.

C. TEST REPORTS: (2) COPIES, PLUS THE NUMBER CONTRACTOR WANTS RETURNED, OF STEEL PRODUCER'S REPORT OF MILL ANALYSIS AND TENSILE AND BEND TESTS FOR STRUCTURAL STEEL MADE NO MORE THAN (60) DAYS BEFORE SHIPMENT.

D. CERTIFICATES: TESTING LABORATORY'S CERTIFICATE THAT:

1. STRUCTURAL STEEL HAS BEEN FURNISHED AND INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS.

2. THE ON-SITE INSPECTIONS HAVE BEEN CONDUCTED AND INSTALLED IN ACCORDANCE WITH THE FIELD QUALITY CONTROL BELOW.

E. TESTING LABORATORY SHALL INSPECT CONNECTIONS IN ACCORDANCE WITH **REFERENCES AS FOLLOWS:**

1. WELDED CONNECTIONS: INSPECT ALL COMPLETE PENETRATION WELDS AND ALL BUTT WELDS MADE BY FABRICATOR. VISUALLY INSPECT 50% MINIMUM OF FIELD WELDS. SHOULD ANY WELDS FAIL, 100% SHALL BE INSPECTED.

2. BOLTED CONNECTORS: INSPECT AT LEAST 10% OF ALL HIGH STRENGTH BOLTS WHICH ARE WELL SCATTERED THROUGHOUT THE STRUCTURE. IF LESS THAN 95% OF THE BOLTS MEET DESIGN TENSION OR IF ANY BOLT IS LESS THAN 85% OF DESIGN TENSION, THEN ALL BOLTS SHALL BE REWORKED. INSPECT 50% OF ALL REWORKED BOLTS. REPEAT THIS PROCESS UNTIL THE ABOVE REQUIREMENTS ARE MET. LOAD INDICATOR WASHERS MAY BE USED TO TEST 100% OF ALL HIGH STRENGTH BOLTS.

4. FULL PENETRATION GROOVE WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING. TWENTY-FIVE PERCENT OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

L. CONNECTIONS FOR BEAMS WHICH CANNOT CONFORM TO THE TYPICAL CONNECTION DETAILS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

1. UNLESS OTHERWISE NOTED, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS AS SHOWN IN PART 9 OF THE AISC STEEL CONSTRUCTION MANUAL (13th EDITION).

2. WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DETAILED FOR THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE BEAM) FOR THE SPAN SHOWN ON DRAWING. MINIMUM BEAM REACTION TO BE USED = 15 KIPS (UNFACTORED)

3. WHERE BEAM REACTIONS ARE SHOWN ON THE DRAWINGS, THE CONNECTIONS SHALL DEVELOP THE REACTIONS SHOWN.

4. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DETAILING THE CONNECTION. WELDED CONNECTIONS SHALL BE DETAILED TO TAKE INTO CONSIDERATION THE ECCENTRICITIES OF INDIVIDUAL MEMBERS.

5. MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE 2. NON-LABELED CONNECTIONS SHOWN IN DETAILS ARE FOR GENERAL ARRANGEMENT ONLY.

6. THE FOLLOWING BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE MINIMUM BOLT PRETENSION VALUES INDICATED IN TABLE J3.1 OF THE 15th EDITION OF THE AISC STEEL CONSTRUCTION MANUAL:

- **1. MOMENT CONNECTION FLANGE PLATES**
- 2. BRACED FRAME CONNECTIONS
- 3. HANGERS
- 4. BOLTS IN TENSION
- 5. ALL SLIP-CRITICAL BOLTS
- 6. ALL CONNECTIONS SUBJECT TO VIBRATION
- 7. ALL ASTM A490 BOLTS

	950 Encore Way	DESIGN BY:	FRM			APLE
	Naples, FL 34110 Phone: (239) 254-2000 Florida Certificate of	DRAWN BY:	RHE			ON THE
		CHECKED BY:	PSM	Paul S. Moerschel		
 LANDSCAPE ARCHITECTS	Authorization No. 1772	CAD FILE:		Florida Reg. No.	60487	ANE34CE

SHT #	DESCRIPTION		
S0.1	STRUCTURAL NOTES		
S0.2	STRUCTURAL NOTES & ABBREVIATIONS		
S1.1	SLUDGE STABILIZATION BUILDING GROUND FLOOR PLAN		
S2.1	SLUDGE STABILIZATION BUILDING SERVICE WALKWAY PLAN		
S2.2	SLUDGE DEWATERING BUILDING SERVICE WALKWAY PLAN		
S3.1	SECTIONS & DETAILS		
S3.2	SECTIONS & DETAILS		
S3.3	SECTIONS & DETAILS		

TIGHTENING SHALL BE DONE BY ANY OF THE FOLLOWING METODS: DIRECT TENSION INDICATORS: CALIBRATED WRENCH: TURN-OF-NUT METHOD.

ALL OTHER BOLTED CONNECTIONS MAY BE TIGHTENED ONLY TO THE SNUG-TIGHT CONDITION. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS OBTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH. OR THE FULL EFFORT OF A WORKER WITH A SPUD WRENCH THAT BRINGS THE PLIES INTO FIRM CONTACT.

M. MINIMUM WELD SIZE SHALL BE 3/16" UNLESS OTHERWISE NOTED.

N. GUSSET PLATES SHALL BE 3/8" MINIMUM THICKNESS

O. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ENGINEER AS TO LOCATION AND TYPE OF SPLICE TO BE MADE. ANY MEMBER HAVING A SPLICE NOT SHOWN AND DETAILED ON SHOP DRAWINGS WILL BE REJECTED.

P. RAILINGS, POSTS AND CONNECTIONS SHALL BE CAPABLE OF RESISTING A HORIZONTAL LOADING OF 50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION WITHOUT EXCEEDING ALLOWABLE STRESSES. MAXIMUM SPACING OF 1~ 8"Ø STD. STEEL PIPE POSTS SHALL BE 4'-0". DESIGN OF RAILS, POSTS, AND CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STAIR MANUFACTURER. SUBMIT SIGNED AND STAMPED CALCULATIONS WITH SHOP DRAWINGS.

Q. ANCHOR RODS TO BE ASTM F1554 GRADE 36 UNLESS NOTED OTHERWISE.

R. SLOTTED HOLES FOR BEAM END CONNECTIONS ARE NOT ALLOWED FOR BEAMS ALIGNED ALONG A COLUMN LINE OR WITHIN BRACED FRAMES

S. STRUCTURAL STEEL TO BE COATED WITH SHERWIN WILLIAMS SHOP PRIMER-ACROLON 218 HS B65.

T. STRUCTURAL STEEL TO BE SHOP PRIMED. CONTRACTOR TO APPLY SHERWIN WILLIAMS ACROLON 218 HS B65.

A MANAGER	

FOR 22x34 THE SCALE IS AS NOTED. FOR 11x17 THE SCALE IS 50% OF THE SCALE SHOWN.

CITY OF NAPLES CITY OF NAPLES WASTEWATER TREATMENT PLANT **SLUDGE DEWATERING & STABILIZATION**

BUILDING WALKWAY MODIFICATIONS

DATE : **SEPT 2020**

PROJECT NO.

SHEET NO. :

S0.1

STRUCTURAL NOTES

WORLDWIDE ENGINEERING	
CERTIFICATE OF AUTHORIZATION NO. 27322 11926 FAIRWAY LAKES DR. FORT MYERS, FL 33913 PHONE: (239) 939-1414 FAX: (239) 278-4289 © 2019 - TRČ Worldwide Eng. Inc. 41 rights reserved.	_
PROJ No. 19FTM202	

5150 ALUMINUM:

ALUMINUM RAILINGS, POSTS AND CONNECTIONS SHALL BE CAPABLE OF RESISTING A HORIZONTAL LOADING OF 50 PLF OR 200 LBS APPLIED AT TOP RAIL IN ANY DIRECTION WITHOUT EXCEEDING ALLOWABLE STRESSES. MAXIMUM SPACING OF 1 1/2"ø STD ALUMINUM PIPE POSTS SHALL BE 5-0". DESIGN OF RAILS, POSTS, AND CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STAIR MANUFACTURER. SUBMIT SIGNED AND STAMPED CALCULATIONS WITH SHOP DRAWINGS.

ALUMINUM FABRICATION SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE ALUMINUM ASSOCIATION "STANDARD FOR ALUMINUM STRUCTURES". ALL MEMBERS SHALL BE ALUMINUM ASSOCIATION STANDARD STRUCTURAL SHAPES. WELDING OF ALUMINUM SHALL BE IN ACCORDANCE WITH AWS D1.2, "STRUCTURAL WELDING CODE - ALUMINUM", LATEST EDITION. FABRICATION WORK SHALL BE IN ACCORDANCE WITH CURRENT INDUSTRY PRACTICE.

ROLLED SECTIONS SHALL CONFORM TO ASTM B308, ALLOY 6061-T6. PLATE MATERIAL SHALL CONFORM TO ASTM B209, ALLOY 6061-T6.

BOLTS SHALL BE AISI TYPE 316 STAINLESS STEEL.

WHERE ALUMINUM ALLOY PARTS ARE IN CONTACT WITH, OR ARE FASTENED TO STEEL MEMBERS OR OTHER DISSIMILAR MATERIALS, THE ALUMINUM SHALL BE KEPT FROM DIRECT CONTACT BY PAINTING WITH ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-P-645, FOLLOWED BY (2) COATS OF PAINT CONSISTING OF 2 LBS. OF ALUMINUM PASTE PIGMENT (ASTM SPECIFICATION D962-66, TYPE Z, CLASS B) PER GALLON OF VARNISH MEETING FEDERAL SPECIFICATION TT-V-81d, TYPE II, OR EQUIVALENT. STAINLESS STEEL OR HOT-DIP GALVANIZED STEEL PLATE IN CONTACT WITH ALUMINUM NEED NOT BE PAINTED.

ALUMINUM SHOULD NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE, GROUT, MASONRY, WOOD, FIBERBOARD OR OTHER POROUS MATERIAL THAT MAY ABSORB WATER AND CAUSE CORROSION. WHEN SUCH CONTACTS CANNOT BE AVOIDED, AN INSULATING BARRIER BETWEEN THE ALUMINUM AND THE POROUS MATERIAL SHALL BE INSTALLED. ALUMINUM SURFACES SHALL BE GIVEN A HEAVY COAT OF ALKALI RESISTANT BITUMINOUS PAINT OR OTHER COATING PROVIDING EQUIVALENT PROTECTION BEFORE INSTALLATION.

SEALANT:

EUCOCLASTIC 1 (EUCLID CHEMICAL COMPANY) OR VULKEM 45 (MAMECO) AS PER MANUFACTURER INSTRUCTIONS. PROVIDE POLYETHYLENE BOND BREAKER TAPE FOR BOND BREAK AT BOTTOM OF SEALANT.

PREMOLDED JOINT FILLER: CONFORM TO ASTM D1752, TYPE III (SELF-EXPANDING CORK)

ALUMINUM BAR GRATING: SHALL BE J-LOCKED TYPE

SEE PLANS FOR SPECIFICS

BAND ALL GRATING AT OUTSIDE EDGES AND AT ALL OPENINGS, SUCH AS FOR PIPE PENETRATIONS.

ALUMINUM STAIR TREADS SHALL BE BORDEN TYPE WITH 1 1/2"x3/16" **BEARING BARS & CAST ALUMINUM ABRASIVE NOSING.**

ABBREVIATIONS					
AR	- ANCHOR ROD	K	- KIP(s), 1000 POUNDS		
ALT	- ALTERNATE	KLF	- KIPS PER LINEAR FOOT		
APPROX ARCH	- APPROXIMATELY - ARCHITECT	KJ L	- CONSTRUCTION JOINT - ANGLE		
ARCHL	- ARCHITECTURAL	LG	- LONG		
B/	- BOTTOM OF	LLH	- LONG LEG HORIZONTAL		
BC	- BOTTOM CHORD	LLV	- LONG LEG VERTICAL		
BLDG	- BUILDING	LP	- LOW POINT		
BM BOTT	- BEAM - BOTTOM	LW LWT	- LONG WAY - LIGHTWEIGHT		
BRG	- BEARING	MFR	- MANUFACTURER		
CIP	- CAST IN PLACE	MAS	- MASONRY		
CJ	- CONTROL JOINT	MO	- MASONRY OPENING		
CL	- CENTERLINE	MATL			
CLR CMU	- CLEAR - CONCRETE MASONRY UNIT	MAX MECHL	- MAXIMUM - MECHANICAL		
COL	- COLUMN	MTL	- METAL		
CONC	- CONCRETE	MIN	- MINIMUM		
CONFIG	- CONFIGURATION	MISC	- MISCELLANEOUS		
CONT	- CONTINUOUS	NS	- NEAR SIDE		
CONTR CTR	- CONTRACTOR - CENTER	NIC NTS	- NOT IN CONTRACT - NOT TO SCALE		
DBL	- DOUBLE	NW	- NOT TO SCALE - NORMAL WEIGHT		
DET	- DETAIL	OC	- ON CENTER		
DIA	- DIAMETER	OH	- OPPOSITE HAND		
	- DIMENSION	OPNG			
DN DR	- DOWN - DRAIN	PAF PART	- POWDER ACTUATED FASTENERS - PARTITION		
DR DWG	- DRAWING	PART	- PARTITION - PARTIAL		
EA	- EACH	PCJ	- PRECAST CONCRETE JOIST		
EE	- EACH END	PL	- PLATE		
EF	- EACH FACE	PLF	- POUNDS PER LINEAR FOOT		
EJ EL	- EXPANSION JOINT - ELEVATION	PSF PSI	- POUNDS PER SQUARE FOOT - POUNDS PER SQUARE INCH		
el ELEV	- ELEVATION - ELEVATOR	PSI PT	- POUNDS PER SQUARE INCH - POST TENSIONED		
	- ENGINEER	PrT	- PRESSURE TREATED		
EOR	- ENGINEER OF RECORD	R	- RADIUS		
EOS	- EDGE OF SLAB	REG	- REGULAR		
EQ	- EQUAL	REINF	- REINFORCING		
EW EXIST	- EACH WAY - EXISTING	REM REQD	- REMAINDER - REQUIRED		
EXP	- EXPANSION	REV	- REVISED/REVISION		
EXT	- EXTERIOR	RM	- ROOM		
FIN	- FINISH	RO	- ROUGH OPENING		
FLR	- FLOOR	RQMTS	- REQUIREMENTS		
FND FOM	- FOUNDATION - FACE OF MASONRY	SCHED SECT	- SCHEDULE - SECTION		
FS	- FAR SIDE	SIM	- SIMILAR		
FT	- FOOT	SL	- SLOPE		
FTG	- FOOTING	SOG	- SLAB-ON-GRADE		
GA		SP	- SPIRAL		
GALV GC	- GALVANIZED - GENERAL CONTRACTOR	SQ SS	- SQUARE - STAINLESS STEEL		
GC GT	- GIRDER TRUSS	STD	- STAINLESS STEEL		
HC	- HOLLOW CORE	STL	- STEEL		
HCP	- HOLLOW CORE PLANK	STRUCTL			
HDG	- HOT DIPPED GALVANIZED	SW#	- SHEARWALL		
HG HK	- HIP GIRDER - HOOK	SW T/	- SHORT WAY - TOP OF		
HORIZ	- HORIZONTAL	TB	- TIE BEAM		
HP	- HIGH POINT	TC	- TIE COLUMN		
HS	- HIGH STRENGTH	TEMP	- TEMPERATURE		
IJ	- ISOLATION JOINT	TJ	- TIE JOIST		
		TR TYP	- TRUSS		
INS INT	- INSULATION - INTERIOR	UNO	- TYPICAL - UNLESS NOTED OTHERWISE		
IRR	- IRREGULAR	VERT	- VERTICAL		
JB	- JOIST BEARING	W/	- WITH		
JBE	- JOIST BEARING ELEVATION	W/O	- WITHOUT		
JR IT	- JAMB REINFORCING - JOINT	WD WP	- WOOD		
JT		WP WWR	- WORK POINT - WELDED WIRE REINFORCING		

	950 Encore Way	DESIGN BY:	FRM			APLE
	Naples, FL 34110	DRAWN BY:	RHE		ON THE	
	Phone: (239) 254-2000 Florida Certificate of	CHECKED BY:	PSM	Paul S. Moerschel		
ENGINEERS - PLANNERS - SURVEYORS LANDSCAPE ARCHITECTS	Authorization No. 1772	CAD FILE:		Florida Reg. No.	60487	JASSERE



FOR 22x34 THE SCALE IS AS NOT	TED.
FOR 11x17 THE SCALE IS 50% OF	THE SCALE SHOWN.

CITY OF NAPLES			
CITY OF NAPLES WASTEWATER TREATMENT PLA	CITY OF NAPLES WASTEWATER TREATMENT PLANT		
	SLUDGE DEWATERING & STABILIZATION		

STRUCTURAL NOTES & ABBREVIATIONS

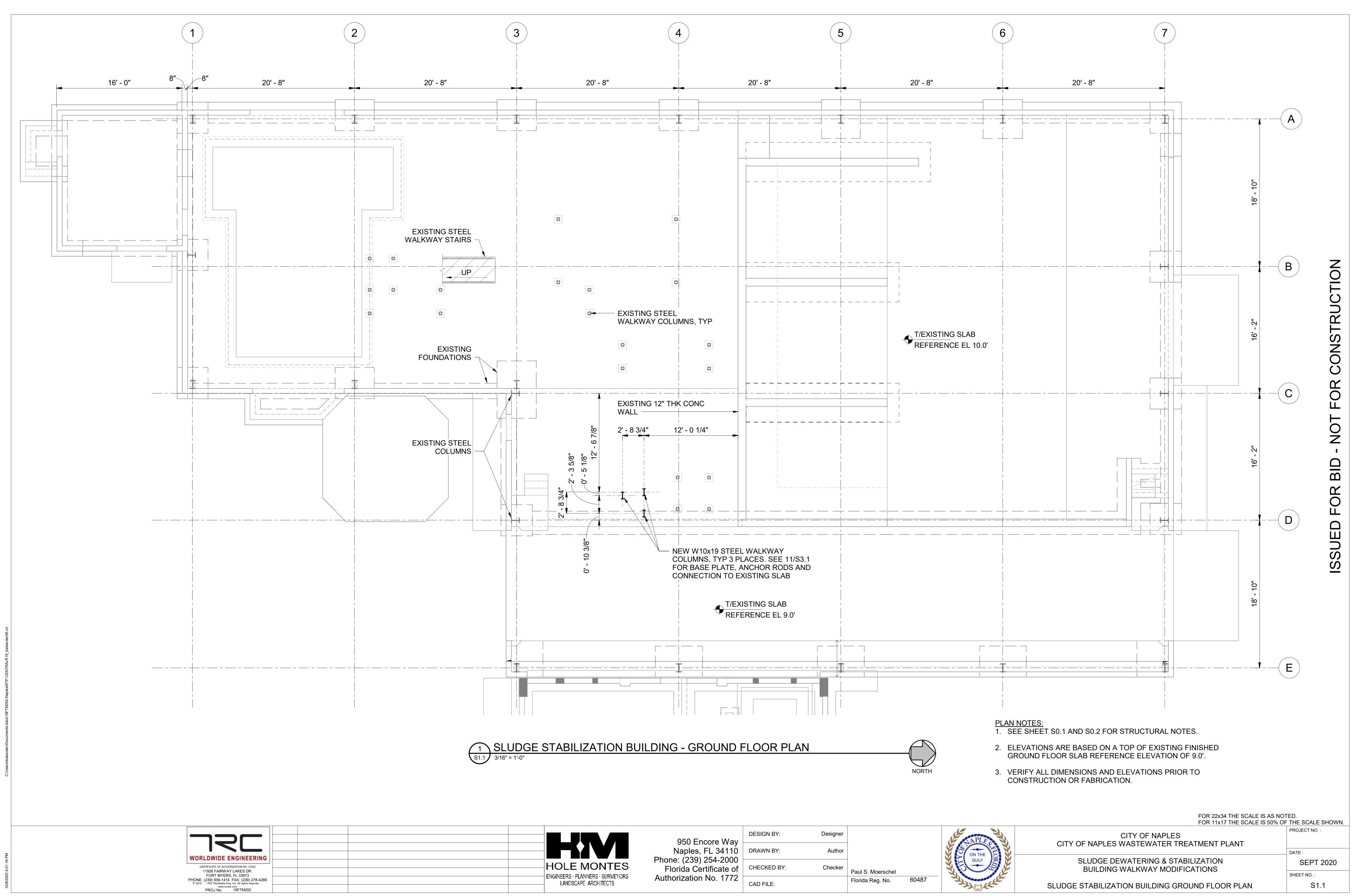
BUILDING WALKWAY MODIFICATIONS

SEPT 2020 SHEET NO. :

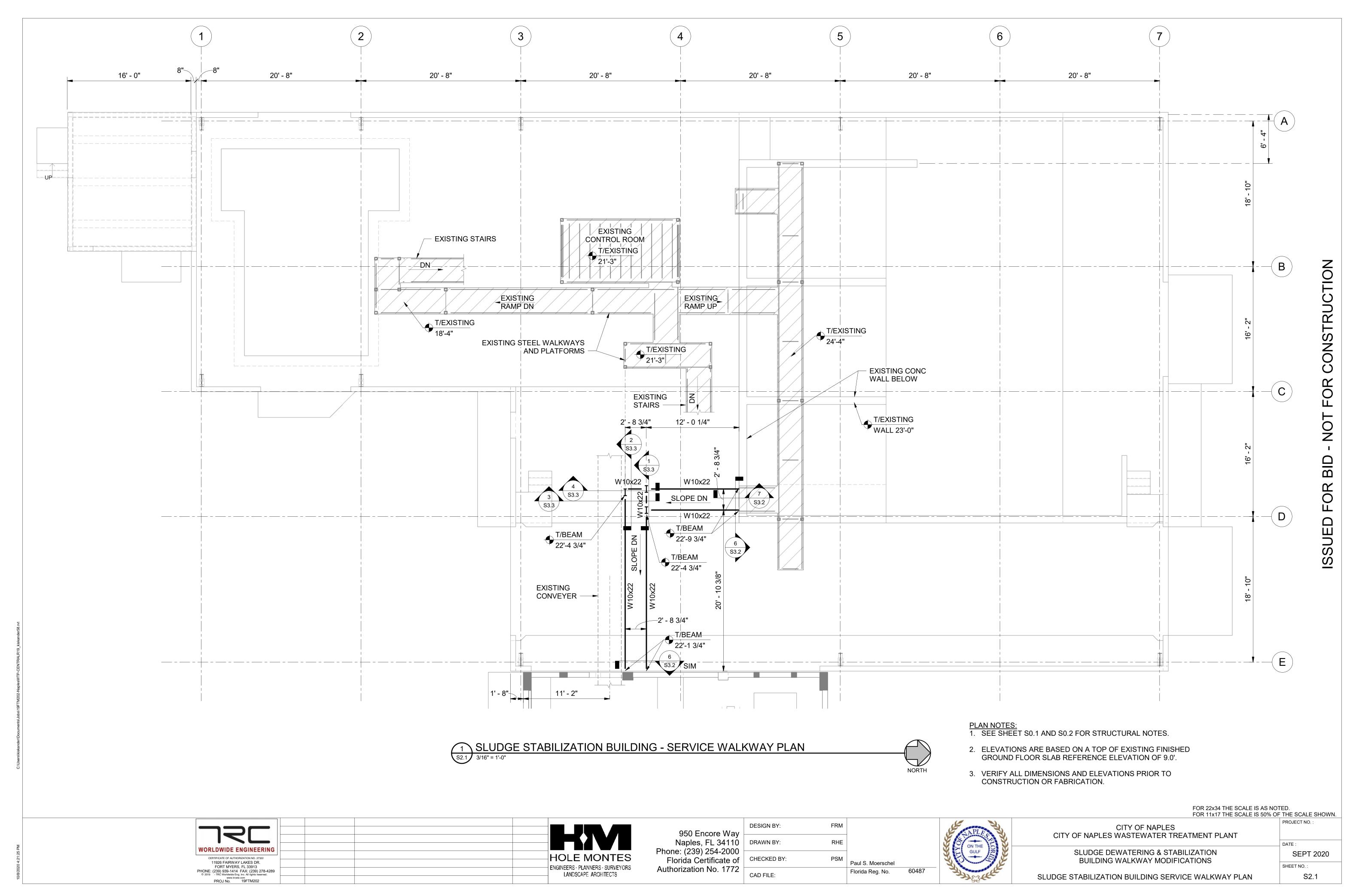
PROJECT NO. :

DATE :

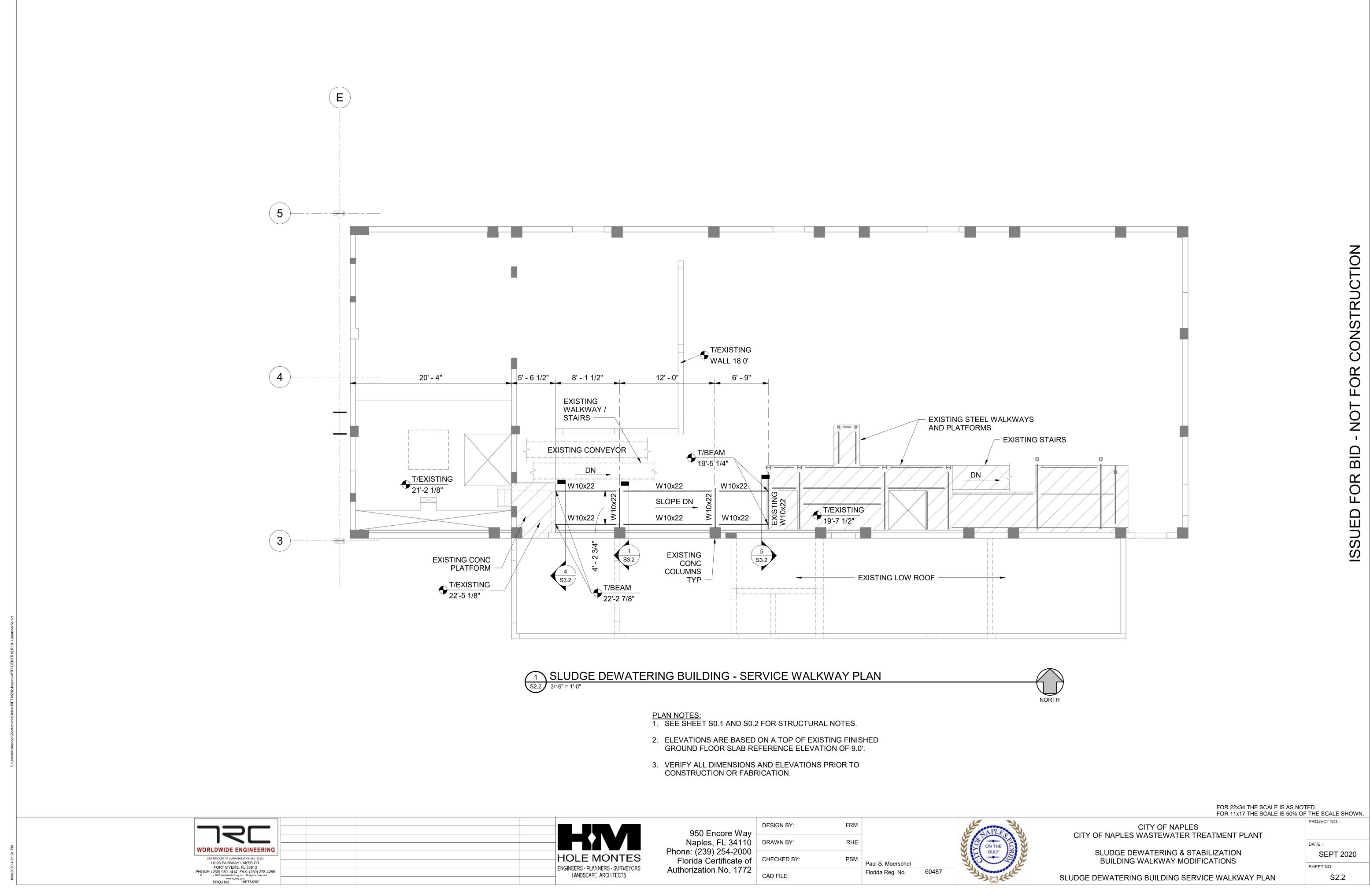
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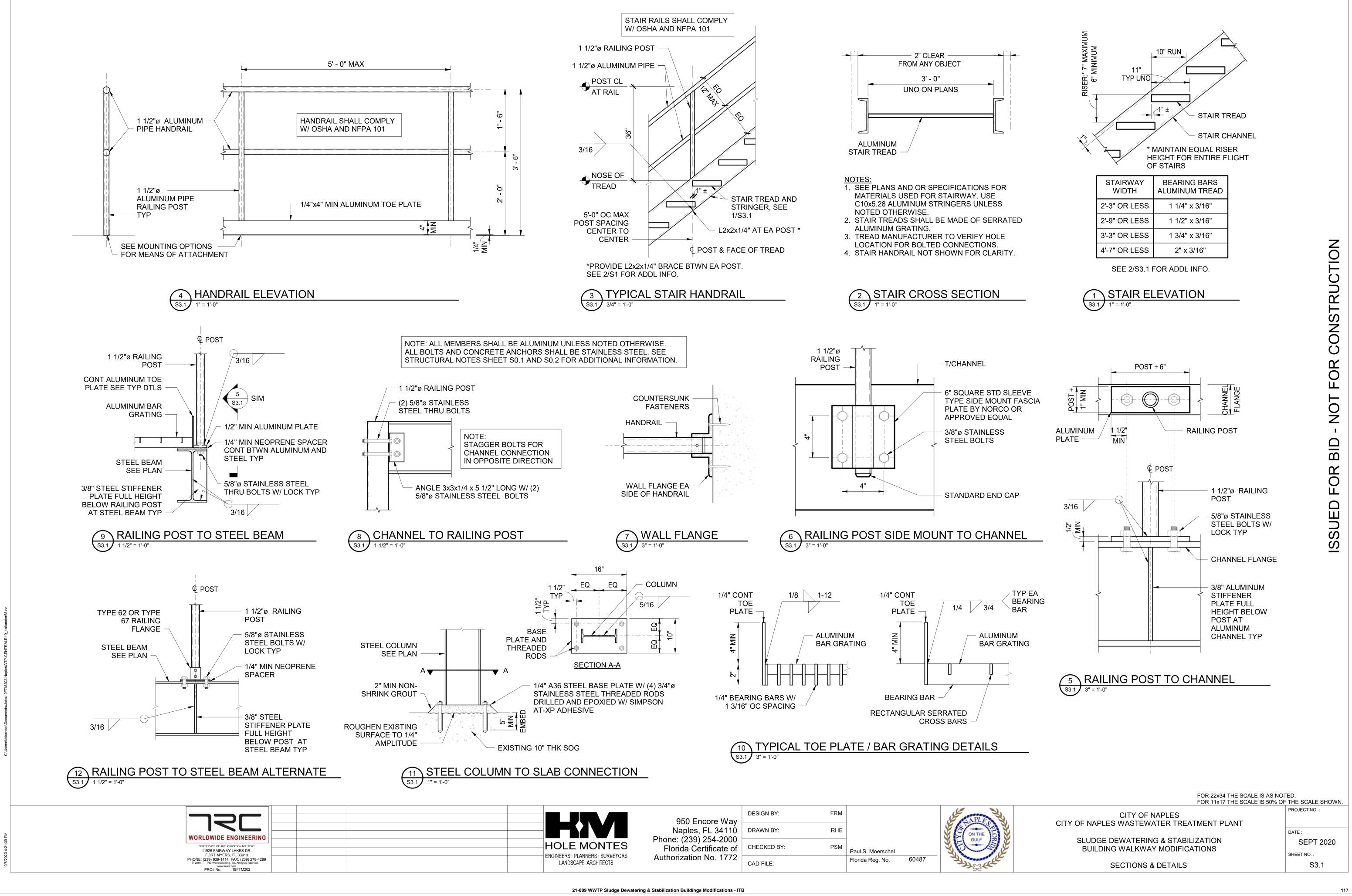


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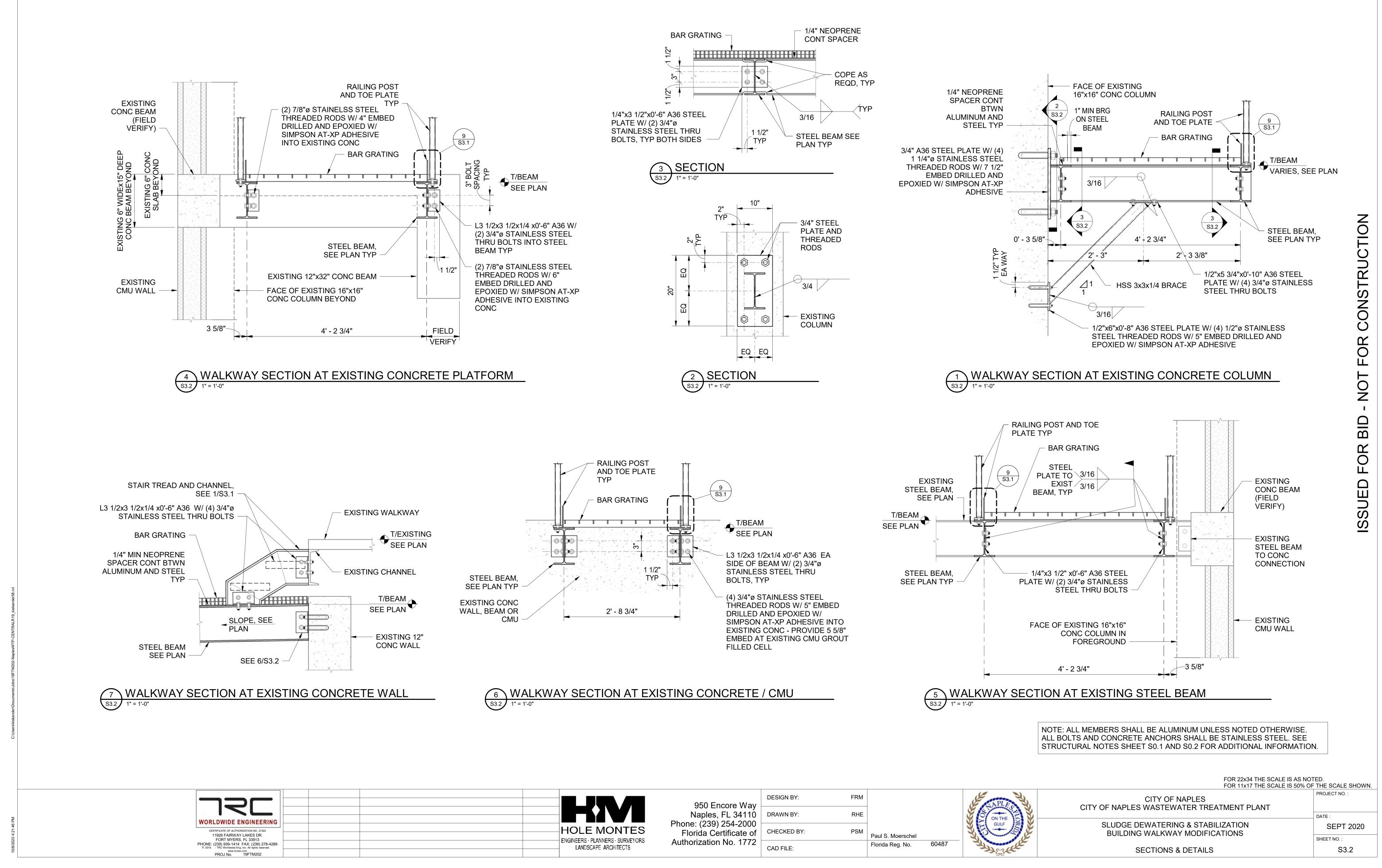


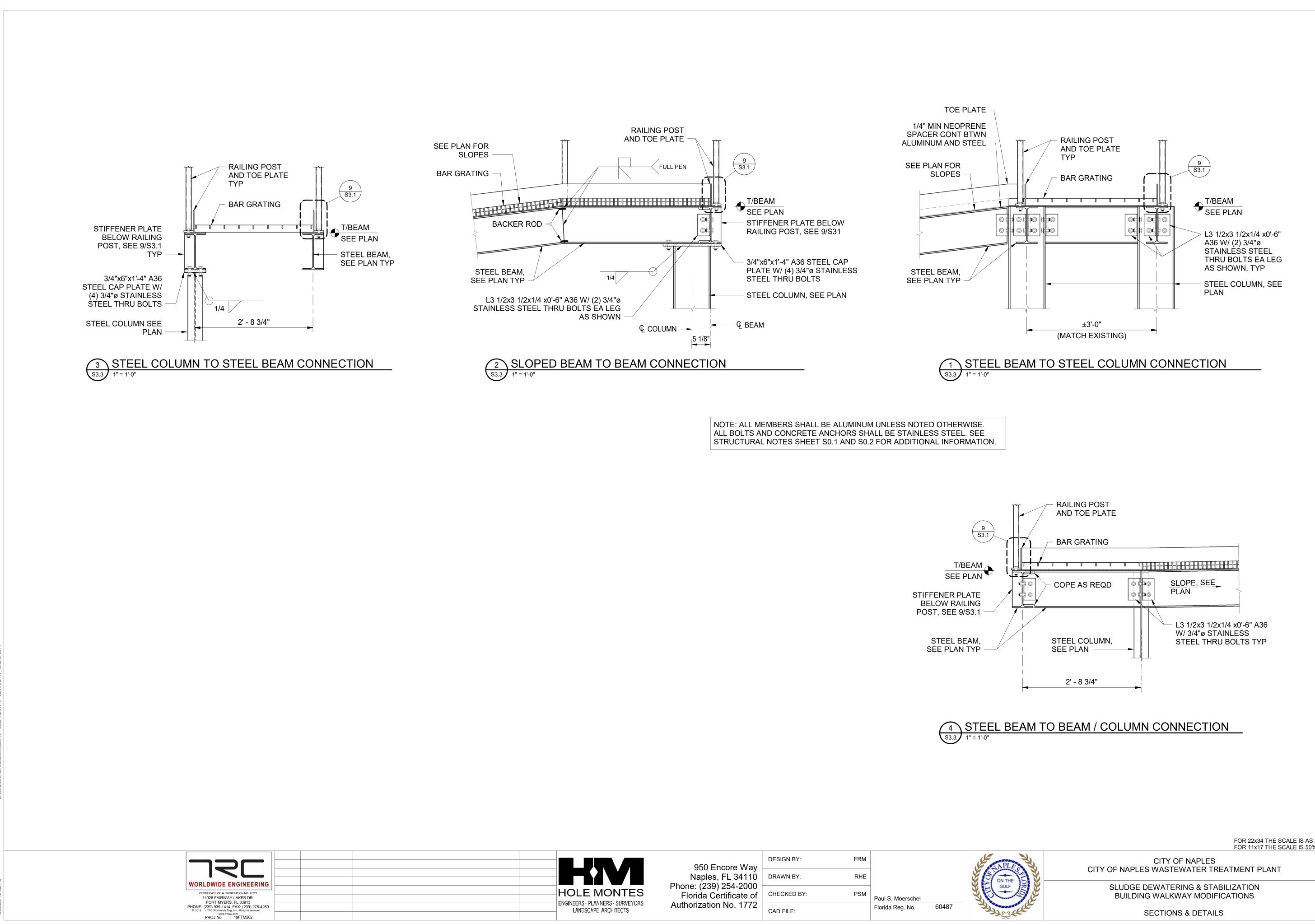
950 Encore Way
Naples, FL 34110
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Florida Certificate of
Authorization No. 1772

	DESIGN BY: FRM		
	DRAWN BY: RHE		
	CHECKED BY: PSM	Paul S. Moerschel	
	CAD FILE:	Florida Reg. No. 60487	
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AN AND AND AND AND AND AND AND AND AND A	CITY OF NAPLES CITY OF NAPLES WASTEWATER TREATMENT PLANT	PROJECT NO. :
	SLUDGE DEWATERING & STABILIZATION BUILDING WALKWAY MODIFICATIONS	DATE : SEPT 2020
	SECTIONS & DETAILS	SHEET NO. : S3.3