INVITATION TO BID
CITY OF FORT PIERCE, FORT PIERCE, FLORIDA
INVITATION TO BID NO. 2026-022

Sealed Bids will be received by the City of Fort Pierce Purchasing Department until **3:00 PM, Wednesday, February 11, 2026,** for:

CDBG COACH FENN PARK IMPROVEMENTS

The project includes permitting, installation of utilities, construction of park improvements including foundations and coordination for a City-provided modular restroom, construction of a parking lot with stormwater facilities, pavilion construction, and installation of a fully operational ADA-compliant splash pad.

Specifications are available upon request in the Office of the Purchasing Manager, City of Fort Pierce City Hall, 100 North U.S. 1, Fort Pierce, Florida.

Electronic copies of the documents may be obtained from the Office of Purchasing at no cost.

The City of Fort Pierce encourages Minority Business Enterprise participation.

Advertising for Bids will conform to federal requirements which include advertising for a minimum of two (2) weeks.

CITY OF FORT PIERCE

Gelencia Carter

Gelencia Carter, M.P.A
Purchasing Manager

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SECTION 1 - DEFINED TERMS

1.1 Terms used in these "INSTRUCTIONS TO BIDDERS" which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

SECTION 2 - COPIES OF BIDDING DOCUMENTS

2.1 Complete sets of Bidding Documents may be obtained in the manner defined in the Call for Bids.

2.2 Complete sets of Bidding Documents shall be used in preparing Bids; City shall not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3 City, in making copies of Bidding Documents available on the above terms, does so only for the purpose of obtaining Bids on the Work and does not confer a license or grant for any other use.

SECTION 3 - QUALIFICATIONS OF BIDDERS

3.1 Each Bid must contain evidence that the Bidder has a valid State of Florida license with a minimum classification of "Certified General Contractor" associated with the company bidding along with evidence of the Bidder's qualifications to do business in the State of Florida. To demonstrate qualifications to perform the Work, each Bidder must submit to City, together with the Bid, information including but not limited to financial data, capability to obtain Payment and Performance and previous experience on similar projects, including references and evidence of authority to conduct business in the jurisdiction where the Project is located. Submittals requested pursuant to this paragraph are in addition to those required elsewhere.

SECTION 4 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly; (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress, or performance of the Work; (c) familiarize himself with federal, state and local laws, ordinances, rules, regulations and policies that may in any manner affect cost, progress or performance of the Work; (d) study and carefully correlate Bidder's observations with the Contract Documents; and (e) make written requests for interpretations promptly after

discovering any conflicts, errors, ambiguities of inconsistencies. Written requests must be received prior to the Pre-Bid Conference.

4.2 Reference may be made to the identification of investigations and tests of subsurface and latent physical conditions at the site, or otherwise affecting cost, progress or performance of the Work which have been relied upon by the City Engineer or City Consultant in preparing the Drawings and Specifications. Such reports are available for review by any bidder at the office of the City Engineer. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract Documents; they are provided for guidance only. If this information is used by Bidder in preparing his proposal, he shall assume all risks resulting from actual conditions differing from the conditions set out in the reports.

4.3 If a log of test borings showing a record of the data is obtained by the investigation of subsurface conditions by the City, or their consultants, it is expressly understood and agreed that said log of test borings does not constitute a part of the contract, represents only the opinion of the City, or their consultants as to the character of the materials encountered by them in the test borings, is included in the plans or other documents only for the convenience of bidders, and its use is subject to all of the conditions and limitations set forth in this article. Discrepancies must be reported prior to the Pre-Bid Conference.

4.4 Before submitting a Bid, each Bidder shall, at Bidder's own expense, make or obtain any additional investigations, examinations, explorations and tests and obtain any additional information which pertains to the physical conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress or performance of the Work and which Bidder deems necessary to determine its Bid for performing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.5 City will provide each Bidder reasonable access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid. Bidder shall restore site to condition existing prior to conducting said investigations and tests.

4.6 The lands upon which the work is to be performed, rights-of-way for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor.

4.7 The submission of the Bid shall be an indication that the Bidder has

considered normal local weather conditions (daily and monthly variations) for the previous ten years from the date of the Bid as compiled by the National Weather Service.

SECTION 5 - INTERPRETATIONS

5.1 All questions about the meaning or intent of the Contract Documents shall be submitted to the City Engineer. Bidders are required to advise the City Engineer of any conflicts in the Contract Documents or any discrepancies between conditions noted at the project site and those shown on the Drawings or described in the Specifications. Replies will be issued by Addenda mailed or delivered to all parties recorded by the City's Purchasing Agent as having received the Bidding Documents. Questions received less than seven days prior to the date for the opening of Bids shall not be answered. Only questions answered by formal written Addenda shall be binding. Oral and other interpretations or clarifications will be without legal effect. All addenda shall be issued no less than five days prior to bid opening.

SECTION 6 - BID SECURITY

6.1 Bid Security shall be made payable to City, in an amount of 10 percent of the Bidders maximum Bid price and in the form of a certified or cashier's check or a Bid Bond on the prescribed form attached issued by a Surety.

6.2 The Bid Security of the Lowest and Best Bidder shall be retained until such Bidder has executed the Agreement, furnished the required Contract Security, the Insurance Certificates and Endorsements, and complied with the State of Florida requirements; if the Lowest and Best Bidder fails to execute and deliver the Agreement or furnish the Contract Security within ten (10) days of the receipt of Agreement, City may annul the Notice of Award and the Bid Security of that Bidder may be forfeited. The Bid Security of any Bidder whom City believes to have a reasonable chance of receiving the award may be retained by City until the earlier of the seventh day after the "effective date of the Agreement" (which term is defined in the General Conditions) or the sixty-first day after the Bid opening. Bid Security of other Bidders may be returned within seven days of the Bid opening.

SECTION 7 - CONTRACT TIME

7.1 The time of completion is of the essence of the Contract, and the Bidder awarded the Contract shall proceed with the Work in accordance with the Contract time period specified in the Notice to Proceed for each project. In the event of failure to complete the Work within the time specified, the City may assess damages and/or impose penalties as provided by law or the Contract Documents, unless an appropriate extension of time has been granted by the City.

SECTION 8 - LIQUIDATED DAMAGES

8.1 Provisions for liquidated damages, if any, are set forth in the Agreement.

SECTION 9 – SUBSTITUE MATERIAL AND EQUIPMENT

9.1 Not applicable.

SECTION 10 - SUBCONTRACTORS, ETC.

10.1 The City shall receive from the Apparent Lowest and Best Bidder (or the Lowest and Best Bidder), within ten days after receipt of the Bids, a list of all Subcontractors and other persons and organizations, including those who are to furnish the principal items of material and equipment. This list shall include the name and address of the Subcontractor, person or organization, a description of the services, materials or equipment to be supplied. Such list shall be accompanied by a statement of experience with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person or organization. If City has reasonable objection to any proposed Subcontractor, other person or organization, the City may, before the Notice of Award, request the Apparent Lowest and Best Bidder (or the Lowest and Best Bidder) to submit an acceptable substitute without an increase in Bid price. If the Apparent Lowest and Best Bidder (or the Lowest and Best Bidder) declines to make any such substitution, the Contract may not be awarded to such Bidder at the City's sole discretion. Bidder's declining to make any such substitution shall constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom City does not make written objection prior to the Notice of Award will be deemed acceptable to City, but City does not thereby waive any right it may have against the Contractor because of the actions or omissions of said Subcontractor, other person or organization, or request from the Contractor to replace Sub-contractors depending on their performance or workmanship.

SECTION 11 - BID FORM

11.1 The Bid Form(s) is included in the Contract Documents.

11.2 Bid Forms must be completed in ink or typewritten. **Bid prices shall be provided for all items listed. All partial bid proposals shall be rejected.**

11.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer, accompanied by evidence of authority to sign), and the corporate seal must be affixed and attested by the

secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

11.4 Bids by partnership must be executed in the partnership name and signed by an authorized partner, whose title must appear under the signature.

11.5 All names and titles must be typed or printed below the signature.

11.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

11.7 The address to which communications regarding the Bid are to be directed must be shown.

SECTION 12 - SUBMISSION OF BIDS

12.1 Submit bids on Bid Forms supplied herein. Bids shall be submitted at the time and place indicated in the CALL FOR BIDS and shall be included in an opaque sealed envelope marked with the Project title and name and address of the Bidder and accompanied by the Bid Security.

If the bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

12.2 Bids received after the time and date specified in the CALL FOR BIDS shall not be considered and will be returned unopened.

SECTION 13 - MODIFICATION AND WITHDRAWAL OF BIDS

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids. Withdrawal of a bid will not prejudice the rights of Bidder to file a new Bid

SECTION 14 - OPENING OF BIDS

14.1 At the specified time and place as indicated in the CALL FOR BIDS, Bids shall be opened publicly and read aloud.

14.2 An abstract of the amounts of the base bids and major alternates (if any) will be prepared and made available within a reasonable time after the opening of Bids.

14.3 Quantities of work and materials in the Bid Form(s) or in the plans are approximate only and for the purpose of providing a bidder with information that may

be used for the computation of the Base Bid, to obtain unit prices for the approval of payments for the work done, and to determine additions or deletions to the Contract Sum. It shall be the Bidder's responsibility to determine if a different quantity of any item required and to bring the same to the attention of the City Engineer, or Consultant prior to submittal of the Bid.

14.4 Notwithstanding any other provision contained in the Contract Documents, the City reserves the right to reject any and all bids, or portions thereof, and waive any and all irregularities, and the right to disregard any or all nonconforming, unbalanced, or conditional bids or counter proposals. The City may reject, as non-responsive, any or all bids where bidders fail to acknowledge receipt of addenda as prescribed. If the City elects not to reject a bid which fails to acknowledge receipt of any addendum, the bid shall be construed as though the addendum has been received and acknowledged by the Bidder.

14.5 The bids supplied shall be a Unit Price Bid. Unit Price bids for the work items shall be based on estimated quantities for the purpose of determining the best and Lowest Bidder and unit prices as shown in the Bid Form (see Paragraph 14.3 above). In the event that work in addition to estimated quantities is required, compensation to the Contractor shall be based on the unit prices indicated in the Bid Form. For basis of award, discrepancies between the total Bid and the sum of columns of figures shall be resolved in favor of the total Bid. Contractor shall be responsible for the accuracy of the arithmetic of the bid, in particular with the addition of the columns to match the total Bid. City has the right to accept the total Bid whether it is less or more than any additions of any columns or extensions and prorate the unit prices to match the total Bid amount. Contractor shall lose his bid deposit if contract award is not accepted by such Contractor.

SECTION 15 - BIDS TO REMAIN OPEN

15.1 All Bids shall remain open for sixty (60) days after the day of the Bid opening, but City may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

15.2 Extensions of time when bids shall remain opened beyond the sixty-day period may be made only by mutual agreement between the City, the Lowest and Best Bidder, and the Surety, if any, for the Lowest and Best Bidder.

SECTION 16 - AWARD OF CONTRACT

16.1 Award shall be based on products, equipment and materials named in the Contract Documents.

16.2 In evaluating Bids, City shall consider the qualifications of the Bidders, and whether or not the Bids comply with the prescribed requirements.

16.3 In evaluating Bids, City shall consider the information provided by the Bidder as described in these INSTRUCTIONS TO BIDDERS.

16.4 The Lowest and Best Bidder shall submit, to City, documentation evidencing its capability to obtain Performance and Payment Bonds and to perform classes of work contemplated, and the necessary plant and sufficient capital, to execute the work properly within the time specified. **This information must be received by City as per Section 10 above.**

16.5 The City shall require the Lowest and Best Bidder to submit a certified statement describing his organization, plant, manpower and financial resources, and list all previous and/or ongoing construction contracts over the last 5 years, regardless of amount or completion status. Information shall be submitted on the Associated General Contractors of America Form "Standard Questionnaires and Financial Statement for Bidders", available from AGC, 1957 "E" Street, N.W., Washington, D.C., 20006, or other form acceptable to City. The information shall be certified by a Certified Public Accountant for bids over $25,000 and shall be submitted to the City prior to Contract Award. The City, at its discretion, may require any or all of the above listed information from any other Bidder.

16.6 City may consider qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Bid Form and Section 10 of these Instructions.

16.7 City may conduct such investigations and require supplemental information as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors, proposed equipment and material suppliers, and other persons and organizations to do the Work in accordance with the Contract Documents to City's satisfaction within the prescribed time.

16.8 City reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to City's satisfaction.

16.9 **City reserves the right to reject the Bid of any Bidder which is or was behind on the approved completion schedule for any existing or past contracts with the City, is in litigation with the City, has previously defaulted on a contract with the City, has delayed or skipped subcontractor payment(s), or has provided unsatisfactory performance on current or previous City Contracts.**

16.10 If the Contract is to be awarded, it will be awarded to the best and lowest responsible Bidder on the basis of the total Bid amount, qualifications, experience, and ability to perform the work. City reserves the right to reject all bids or portions thereof.

SECTION 17 - BONDS AND INSURANCE

17.1 The General and Special Supplemental Conditions set forth the City's requirements as to Bonds and Insurance. When the Successful Bidder delivers the executed Agreement to City, it shall be accompanied by the required Bonds, Insurance Certificates, and Endorsements on forms prescribed by City. The City must receive with Successful Bidder executed Agreement copies of all insurance policies for the insurance requirements set forth in the General and Special Supplemental Conditions. Attorneys-in-fact who sign Bid Bonds, Performance Bonds and Payment Bonds must file with such Bonds a certified copy of their power-of-attorney to sign the Bonds.

SECTION 18 - SIGNING OF AGREEMENT

18.1 When City gives a Notice of Award to the Successful Bidder, it will be accompanied by at least two (2) unsigned counterparts of the Agreement and all other Contract Documents. Within ten (10) days of receipt thereafter, Successful Bidder shall sign and deliver at least two (2) counterparts of the Agreement to City, together with the documents described in Section 17 above attached. Within ten (10) days after receipt of the properly executed and completed submittal, City will deliver a fully signed counterpart to Successful Bidder.

18.2 Failure by a Successful Bidder to whom the contract is awarded to execute the Agreement, or to correctly complete or furnish required Bonds or insurance certificates and endorsements, shall be just cause for the annulment of the award and the forfeiture of the Bid Security.

18.3 If Successful Bidder is a Corporation, the Agreement shall be signed by the President, attested by the Secretary, and have the Corporate Seal affixed. The executed Agreement shall be accompanied by a Certificate of Good Standing dated within 30 days and an Incumbency Certificate, under oath, executed by Legal

Counsel or the Secretary of the Corporation, and the Corporate Seal if by the Secretary.

18.4 A Successful Bidder who is awarded the Contract and fails to execute the Agreement or correctly complete or furnish the required Bonds, insurance certificates and endorsements within the time period specified in Article 10, Section 18.1 above or fails to comply with submittal requirements specified in Article 20 shall be liable to the City for all damages resulting there from, including reasonable attorneys' fees and costs, and attorneys' fees and costs on appeal. The Bid Security forfeited shall not be a limitation thereon.

SECTION 19 - SCHEDULE OF SUBMITTALS

19.1 Within ten (10) days prior to Contract Award, the Successful Bidder shall submit a preliminary progress schedule and a schedule of projected payments in accordance with the General Conditions. This schedule shall show in a summary fashion the order in which the Successful Bidder proposes to perform the Work and shall indicate approximate starting and completion dates for said projects. This progress schedule shall not replace, but serve as a basis for, the progress schedule submittals to be developed as required in the Specifications. Failure by the Successful Bidder to furnish this Schedule of Submittals, as required, in a sufficiently complete and responsible manner, shall void evaluation of the Bid, and will constitute proof that the Successful Bidder has abandoned all his rights and interests in the award, and his Bid Security may be declared forfeited to the City as liquidated damages, and the Work may be awarded to another Bidder.

SECTION 20 - SPECIAL WARRANTY, GUARANTEE, BOND, INSURANCE, MAINTENANCE, AND CORRECTION PERIOD REQUIREMENTS

20.1 There may be special requirements pertaining to Warranty, Guarantee, Bonds, Insurance, Maintenance, and the Correction Period which are described in the Contract Documents. Bidders shall review these special requirements, if applicable, and reflect in their bids all costs associated therewith.

SECTION 21 – MATERIALS

21.1 Materials produced by convict labor are prohibited from use on the PROJECT unless specific written authority for such use is obtained.

21.2 State produced materials are now allowed.

21.3 State/Local Owned/Furnished/Designated materials may be utilized if it is in the public interest and approved by the CITY.

END OF SECTION

PLEASE REFER TO
EXHIBIT C –
CONSTRUCTION DRAWINGS,
ATTACHED AS PDF FILES,
FOR THE PROJECT'S TECHNICAL SPECIFICATIONS

END OF SECTION

GENERAL NOTES:

1. THE LOCATION OF THE EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES SHOWN NOR FOR ANY FACILITY NOT SHOWN. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF OTHER UTILITIES (NOT SHOWN ON THE PLAN) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE UTILITY SUPPLIER OF THE UTILITY CONFLICTS AND THE UTILITY ADJUSTMENTS AS REQUIRED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL OTHER UTILITY FACILITIES.

4. FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE ENGINEER OF RECORD.

5. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF THE WORK, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

6. AS-BUILT DRAWINGS SHALL BE PREPARED BY A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, AND SUBMITTED BY THE CONTRACTOR TO THE OWNER AND THE ENGINEER OF RECORD (PAVING, GRADING, DRAINAGE, WATER & SEWER,, STORM).

7. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553-851 FOR PROTECTION OF UNDERGROUND GAS PIPE LINES.

8. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE (1-800-432-4770) 48 HOURS IN ADVANCE OF CONSTRUCTION.

9. ALL VEGETATION, DEBRIS, CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN AREA AT THE CONTRACTORS EXPENSE.

10. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES, SUCH AS TURBIDITY SCREENS, CURTAINS AND FLOATING SILT BARRIERS WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE AND LOCAL WATER QUALITY STANDARDS. CONTRACTOR TO PROVIDE SILT FENCE AS NECESSARY TO PREVENT OFF SITE EROSION TRANSPORT.

11. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES SHALL BE STRICTLY OBSERVED.

12. ALL CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF ST LUCIE COUNTY, SFWMD, PBCWUD, CITY OF FORT PIERCE & FDOT.

13. SAW CUT PAVEMENT AND CONCRETE WHERE IT IS TO BE REMOVED.

14. WATER AND SEWER COVER SHALL BE 3.0 FEET (TYPICAL) UNLESS OTHERWISE NOTED ON DRAWINGS.

15. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.

16. CONTRACTOR SHALL MONITOR AND PROHIBIT THE DEFACING OF FRESHLY PLACED CONCRETE SURFACES. ANY CONCRETE SURFACES DEFACED SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

17. PROJECT SITE SAFETY:

    A. THE ENGINEER OF RECORD/OWNER OR THEIR EMPLOYEES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER THE CONTRACTOR, ANY SUB-CONTRACTOR OR OTHER ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY JOBSITE HEALTH OR SAFETY PRECAUTIONS.

    B. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY, AND WARRANTS THAT THIS INTENT IS MADE EVIDENT BY THE AGREEMENT BETWEEN OWNER AND CONTRACTOR.

    C. ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS OR ENCOUNTERED THROUGH THE PROGRESSION OF WORK AT THIS PROJECT SITE ARE ASSUMED TO BE LIVE, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS WHEN WORKING AROUND EXISTING OVERHEAD OR UNDERGROUND UTILITIES.

20. ALL CONCRETE SHALL DEVELOP A MINIMUM OF 3000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAYS, UNLESS OTHERWISE STATED.

21. TRENCHES SHALL BE DRY WHEN PIPES ARE INSTALLED. ALL DEWATERING PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL BACKFILL TO BE COMPACTED TO 98% ASTM D1557. REFER TO DETAIL.

22. A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF CONSTRUCTION.

23. ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.

24. FIVE (5) COPIES OF THE MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL SITE WATER, SEWER & DRAINAGE STRUCTURES FOR APPROVAL PRIOR TO ORDERING.

25. ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRE-CONSTRUCTION MEETING.

26. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.

27. ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.

28. THE CONTRACTOR OR ENGINEER OF RECORD SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.

29. NO CONNECTION OR CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING FORT PIERCE UTILITY AUTHORITY OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A FORT PIERCE UTILITY AUTHORITY OFFICIAL OR ENGINEER OF RECORD WITHOUT PRIOR NOTIFICATION.

30. CONTRACTOR TO COORDINATE WITH THE CITY OF FORT PIERCE FOR ALL TREES TO REMAIN OR RELOCATE. TREE REMOVAL, PRUNING AND RELOCATION SHALL BE AT CONTRACTORS EXPENSE.

31. ALL SIGNAGE AND STRIPING SHALL MEET ALL FLORIDA BUILDING CODE ADA REQUIREMENTS, MANUAL OF UNIFORM AND TRAFFIC CONTROL DEVICES, AND PALM BEACH COUNTY TYPICAL DETAILS FOR PAVEMENT MARKINGS, SIGNING AND GEOMETRICS (No T-P. 10-001). ALL STRIPING TO BE LOW VOC TRAFFIC MARKING PAINT (SUBMIT FOR APPROVAL).

32. CONTRACTOR TO PROVIDE EROSION CONTROL DEVICES TO CONTROL DISPERSION OF SEDIMENT ON ROADWAY OR PARKING AREAS. IF SEDIMENT IS SPREAD OUT OF THE SITE AREA THE CONTRACTOR MUST REMOVE AND CLEAN AT OWN EXPENSE.

33. ALL TRENCHING, PIPE-LAYING, BACKFILL, MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY REGULATIONS.

34. ANY DAMAGE DONE TO PROPERTY DUE TO CONSTRUCTION ACTIVITY MUST BE REPAIRED TO THE EXISTING CONDITION OR BETTER AT CONTRACTORS EXPENSE.

35. TOPOGRAPHIC SURVEY PERFORMED BY CULPEPPER AND TERPENING INC. ALL ELEVATIONS ARE IN NAVD 88 DATUM.

36. ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH THE CITY OF FORT PIERCE.

37. REFER TO GEOTECHNICAL REPORT FOR TESTING AND APPROVED SITE GRADING MATERIALS.

38. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

39. ANY MUCK THAT IS FOUND ONSITE SHALL BE REMOVED AT CONTRACTORS EXPENSE. DE-MUCKING (IF NECESSARY SHALL BE PERFORMED PER FDOT SPECIFICATIONS.

40. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING PLANS AND DETAILS.

41. CONTRACTOR TO COORDINATE WITH OWNER ON TYPE OF SOD TO BE USED.

42. ALL CURB RAMPS AND ADA CROSSINGS SHALL CONFORM TO THE REQUIREMENTS OF THE FBC 2010 ACCESSIBILITY.

43. IMPORTED SOIL USED FOR BACKFILL SHOULD BE FREE OF HEAVY CLAY, SILTS, STONES, PLANT ROOT, OTHER FOREIGN MATERIAL AND ROCK FRAGMENTS GREATER THAN 1½" IN DIAMETER IN ORDER TO ACHIEVE ADEQUATE COMPACTION AROUND ANY FIXED OBJECT IN GROUND. ALTERNATE WILL BE TO USE FLOWABLE FILL.

CONVENTIONAL CONCRETE PAVING

GENERAL NOTES:

1. THICKNESS:

    A. 6 INCHES

    28 DAY COMPRESSIVE STRENGTH:

    A. 4500 PSI

    SUBGRADE PREPARATION:

    A. STABILIZE 12 INCH THICK SUBGRADE TO A LIMEROCK BEARING RATIO (LBR 40) MINIMUM. COMPACTED 12 INCH THICK SUBGRADE TO 98% ASTM D 1557.

1.0 GENERAL PROVISIONS

1.1 SCOPE OF WORK:
THE WORK TO BE COMPLETED UNDER THIS CONTRACT INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS IN CONFORMANCE WITH PLANS AND SPECIFICATIONS. ALL WORK TO BE IN ACCORDANCE WITH ACI 330.1-03. ANY CONFLICTS IN SPECIFICATIONS, PLAN NOTES AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR CLARIFICATION.

1.2 CONTRACTOR'S QUALIFICATIONS:
ACI CERTIFIED CONCRETE FLATWORK FINISHERS OR EQUIVALENT SHALL BE REQUIRED. CONTACT THE FC&PA FOR A LIST OF CERTIFIED FINISHERS.

1.3 SUBMITTALS AND APPROVALS:
CONTRACTOR TO SUBMIT: "PROPOSED PAVING CONSTRUCTION PLAN," WHICH SHALL SHOW THE CONCRETE PAVING JOINT TYPES AND LOCATIONS AND SHALL INCLUDE A STATEMENT OF PROPOSED SEQUENCE AND SCHEDULE OF PAVING OPERATIONS WITH A BRIEF DESCRIPTION OF MOTORIZED PAVING EQUIPMENT, IF APPLICABLE. PROPOSED JOINT LAYOUT PLAN SHALL BE SUBMITTED TO THE ENGINEER OF RECORD 7 DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. SUBMIT MIX DESIGN FOR APPROVAL PRIOR TO PRECONSTRUCTION MEETING. USE ACI 330R-08 GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS AS A REFERENCE.

1.4 PRE-WORK CONFERENCE REQUIRED. CONTRACTOR, SUB-CONTRACTOR, CONCRETE PRODUCER, ENGINEER OF RECORD, INSPECTORS, GEOTECHNICAL ENGINEER OF RECORD, AND OWNER REPRESENTATIVE ARE REQUIRED TO ATTEND.

1.5 CONSTRUCT CONCRETE PAVING IN ACCORDANCE WITH ACI 330.1-03 STANDARD SPECIFICATION FOR PLAIN CONCRETE PARKING LOTS EXCEPT AS MODIFIED BY THESE DOCUMENTS.

1.6 CURE ALL CONCRETE IN ACCORDANCE WITH ACI 308 "STANDARD PRACTICE FOR CURING CONCRETE". SUBMIT CURING METHOD AND PLAN TO THE ENGINEER OF RECORD FOR APPROVAL.

2.0 SUBGRADE PREPARATION AND FORMWORK

2.1 GENERAL:
THE SUBGRADE SHALL BE BROUGHT TO PROPER GRADE AND CROSS SECTION BY MEANS OF PROPER MACHINERY.

2.2 SUBGRADE MATERIAL:
THE 12 INCHES OF SUBGRADE SHALL BE COMPOSED OF GRANULAR OR GRAVELY SOIL THAT IS PREDOMINANTLY SANDY WITH NO MORE THAN A MODERATE AMOUNT OF SILT OR CLAY. SUBGRADE SHALL BE MOIST WITH-OUT FREESTANDING WATER WHEN PLACING CONCRETE (IN AREA OF PERVIOUS PAVING ONLY FREE DRAINING CLEAN SAND TO BE USED).

2.3 SUBGRADE SUPPORT:
MATERIAL SHALL BE PLACED AND COMPACTED IN LAYERS OF A THICKNESS THAT CAN BE COMPACTED TO A DENSITY OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 1557. A LIME ROCK BEARING RATIO (LBR) OF 40 SHALL BE OBTAINED IN THE 12 INCHES OF THE SUBGRADE. PREPARE THE SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEEER'S RECOMMENDATIONS FOR RIGID PAVEMENTS. SUBGRADE SOIL DENSITY TESTING MUST BE COMPLETED AND VERIFIED BY THE GEOTECHNICAL ENGINEER OF RECORD PRIOR TO CONCRETE PLACEMENT.

2.4 UTILITY TRENCH BACKFILLING:
ALL UTILITY TRENCHES, INLETS AND MANHOLES SHALL BE BACKFILLED AND FINISHED WITH READY-MIXED FLOWABLE FILL OR WITH COMPACTED SOIL SIMILAR TO THAT ADJACENT TO THE TRENCH. SOIL BACKFILL UNDER THE PAVEMENT AND OUT TO A LINE EXTENDING ON A 45 DEGREE ANGLE TO HORIZONTAL FROM THE BACK OF CURB SHALL BE COMPACTED IN 12 IN. MAXIMUM LIFTS TO A DENSITY OF AT LEAST 98% OF THE MAXIMUM DENSITY DETERMINED BY ASTM D 1557.

2.5 FORMS:
FORMS MAY BE OF WOOD OR STEEL AND SHALL BE THE FULL DEPTH OF THE PAVEMENT. FORMS SHALL BE OF SUFFICIENT STRENGTH AND STABILITY TO SUPPORT MECHANICAL EQUIPMENT WITHOUT DEFORMATION OF PLAN PROFILES FOLLOWING SPREADING, STRIKE-OFF CONSOLIDATION AND FINISHING. INSTEAD OF USING FIXED FORMS, THE CONTRACTOR MAY PLACE CONCRETE IN ONE COMPLETE PASS OF THE MACHINE.

3.0 MATERIALS

3.1 GENERAL:
LOCALLY AVAILABLE MATERIALS HAVING A RECORD OF SATISFACTORY PERFORMANCE SHALL BE USED.

3.2 CEMENT:
PORTLAND CEMENT TYPE I – ASTM C 150.

3.3 CONCRETE SHALL COMPLY WITH ASTM C94.

3.4 CEMENTITIOUS MATERIALS:

3.4.1 FLY ASH:
ASTM C 618

3.4.2 GROUND IRON BLAST-FURNACE SLAG:
ASTM C 989.

3.5 AGGREGATE:

3.5.1 FINE AGGREGATE:
ASTM C 33, OR FDOT STANDARD SPECIFICATIONS, SECTION 902.

3.5.2 COARSE AGGREGATE:
ASTM C 33 AGGREGATES NOT MEETING THE SIZE GRADINGS OF C 33 MAY BE USED IF THEY COMPLY WITH THE GRADING REQUIREMENTS OF ASTM D 448.

3.6 AIR ENTRAINING AGENT:
SHALL COMPLY WITH ASTM C 260.

3.7 ADMIXTURES:
ASTM C 494: TYPE A WATER REDUCING, TYPE D WATER REDUCING AND RETARDING, TYPE E WATER REDUCING AND ACCELERATING, AND TYPE G HIGH RANGE WATER-REDUCING AND RETARDING.

3.8 WATER:
POTABLE OR SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS, SECTION 923 OR ASTM C 94, SECTION 4.

3.9 FLOWABLE FILL:
SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS, SECTION 121.

3.10 JOINT MATERIAL:
PROVIDE FULL DEPTH PRE-MOLDED JOINT MATERIAL FOR ISOLATION JOINTS. ASTM D 994-98 AND ASTM D 1751-99.

3.11 CURING COMPOUND:
CURE CONCRETE IMMEDIATELY AFTER FINISHING OPERATION IS COMPLETED BY APPLYING A WHITE PIGMENTED MEMBRANE FORMING CURING COMPOUND TO ALL EXPOSED SURFACES. APPLY CURING COMPOUND IMMEDIATELY AFTER SURFACE TEXTURE HAS BEEN OBTAINED AND WATER SHEEN HAS DISAPPEARED. CURING COMPOUND TO COMPLY WITH ASTM C 309, TYPE 2, CLASS A.

3.12 JOINT SEALANT:
WHERE REQUIRED, SHALL BE HOT POURED RUBBER ASPHALT OR JOINT SEALING COMPOUND CONFORMING TO AASHTO M-173 OR FEDERAL SPECIFICATIONS TT-S-0011543A OR TT-S-00230 OR ASTM D 994, D1751 OR ASTM D 1752.

4.0 CONCRETE QUALITY

4.1 MIX DESIGNS:
SUBMIT FOR APPROVAL RECOMMENDED PROPORTIONS, WHICH WILL PROVIDE THE SPECIFIED COMPRESSIVE STRENGTHS AT 28 DAYS, IN ACCORDANCE WITH ACI 318, CHAPTER 5.

4.2 CLASSES OF CONCRETE:
CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS. COARSE AGGREGATE SIZE SHALL BE NO. 67 (3/4 IN. TO NO. 4) OR NO. 57 (1 IN. TO NO. 4) OR LARGER. SLUMP SHALL NOT EXCEED 4 INCHES FOR PAVEMENT PLACED BY OTHER THAN SLIPFORM EQUIPMENT OR 1 ½ INCHES FOR CONCRETE PLACED WITH SLIPFORM EQUIPMENT UNLESS CHEMICAL ADMIXTURES ARE USED TO INCREASE THE SLUMP. WATER MAY BE ADDED ON SITE IN ACCORDANCE WITH ASTM C 94 AT THE OPTION OF THE CONTRACTOR PROVIDED THAT THE SLUMP DOES NOT EXCEED 4 INCHES.

4.3 AIR-ENTRAINMENT:
SHALL BE PER TABLE 2.1 ACI 330.1-3

4.4 CHEMICAL ADMIXTURES:
USE IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS

5.0 MIXING, HAULING AND PLACING

5.1 READY-MIXED CONCRETE:
BATCH, MIX AND TRANSPORT CONCRETE IN ACCORDANCE WITH ASTM C 94.

5.2 PLACING AND FINISHING EQUIPMENT:
UNLESS OTHERWISE APPROVED BY THE OWNER/AGENT IN WRITING, THE CONTRACTOR SHALL PROVIDE MECHANICAL EQUIPMENT OF EITHER SLIPFORM OR FORM RIDING TYPE THAT WILL STRIKE-OFF, CONSOLIDATE AND FINISH THE PAVEMENT TO THE REQUIRED CROSS SECTION. WHEN REQUIRED, APPROVED VIBRATORS FOR CONSOLIDATING CONCRETE ALONG THE FACES OF FORMS AND ADJACENT TO JOINTS SHALL BE PROVIDED BY THE CONTRACTOR.

5.3 CONCRETE PLACEMENT:
DISTURBED GRADE SHALL BE PROPERLY RESHAPED AND RE-COMPACTED PRIOR TO PLACING CONCRETE. IF ANY TRAFFIC IS ALLOWED TO USE THE PREPARED GRADE, THE GRADE SHALL BE CHECKED AND CORRECTED IMMEDIATELY AHEAD OF PLACING THE CONCRETE. DO NOT PLACE CONCRETE AROUND MANHOLES OR OTHER STRUCTURES UNTIL THEY HAVE BEEN BROUGHT TO THE REQUIRED GRADE AND ALIGNMENT. CONCRETE SHALL BE DEPOSITED AND CONSOLIDATED IN SUCH A MANNER AS TO PREVENT DISLOCATION OF JOINT DEVICES. DEPOSIT AND SPREAD CONCRETE IN A CONTINUOUS OPERATION.

5.3.1 UNLESS APPROVED BY THE /ENGINEER OF RECORD, DO NOT PLACE CONCRETE WHEN AMBIENT TEMPERATURE IS BELOW 35 DEGREES F OR WHEN THE CONCRETE IS LIKELY TO BE SUBJECTED TO FREEZING TEMPERATURES BEFORE IT HAS REACHED 500 PSI STRENGTH.

5.3.2 DURING HOT WEATHER, KEEP THE CONCRETE TEMPERATURE AS LOW AS POSSIBLE AND USE AN APPROVED SET-RETARDING ADMIXTURE. DO NOT RE-TEMPER CONCRETE WHICH HAS ATTAINED INITIAL SET. FOLLOW ACI 305 "HOT WEATHER CONCRETING" WHEN APPROPRIATE.

5.3.3 IN THE EVENT OF RAIN, TERMINATE PLACING OF THE CONCRETE AS SOON AS PRACTICAL. PROTECT FRESHLY PLACED CONCRETE BY COVERING WITH WATERPROOF MATERIAL. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGED CONCRETE DUE TO RAIN, VANDALISM OR ANY OTHER METHOD. REPLACEMENT OF DAMAGED CONCRETE IS AT THE DISCRETION OF THE ENGINEER OF RECORD.

5.4 JOINT CONSTRUCTION:
CONSTRUCT CONTRACTION (CONTROL), CONSTRUCTION AND ISOLATION JOINTS TRUE TO LINE WITH FACE PERPENDICULAR TO SURFACE OF THE PAVEMENT AS SHOWN ON APPROVED PAVING CONSTRUCTION PLAN. JOINTS SHALL BE PROVIDED IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS. MAXIMUM SPACING OF LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS SHALL BE 10 FT FOR 4" PAVEMENTS, 12 FT FOR 5 IN. PAVEMENTS AND 12 FT FOR PAVEMENTS 6 INCHES AND OVER. ALL EDGES, TOOLED JOINTS, AND ISOLATION JOINTS SHOULD BE ROUNDED TO APPROPRIATE RADIUS (REFER TO ACI 330). KEEP ALL JOINTS CONTINUOUS. PROVIDE FULL DEPTH ISOLATION JOINTS AT ENDS OF DISCONTINUOUS JOINTS.

5.4.1 CONTRACTION (CONTROL) JOINTS:
PROVIDE CONTRACTION JOINTS FOR A DEPTH NO GREATER THAN 1/3 OR LESS THAN 1/4 OF THE PAVEMENT THICKNESS. CONTRACTION JOINTS MUST BE CONTINUOUS ACROSS THE SLAB UNLESS INTERRUPTED BY A FULL DEPTH ISOLATION JOINT MATERIAL AND MUST EXTEND COMPLETELY THROUGH ANY INTEGRAL CURBS. CONTRACTION JOINT ALIGNMENT MAY BE SKEWED OR WARPED WHERE NECESSARY TO REACH POINTS OF STRESS CONCENTRATION. SHARP OR ACUTE ANGLES OF LESS THAN 45 DEGREES SHOULD BE AVOIDED IN JOINTS AT INTERSECTIONS AND RADIUSES TO PREVENT CRACKED AND BROKEN CORNERS AND SLIVERS UNDER TRAFFIC.

5.4.1.1 SAWED JOINTS:
FORM CONTRACTION JOINTS USING AN EARLY-ENTRY DRY-SAW EQUIPPED OR EQUIVALENT WITH SHATTERPROOF ABRASIVE OR DIAMOND RIMMED BLADES. CUT JOINTS INTO CONCRETE PAVEMENTS AS SOON AS THE SURFACE WILL NOT RAVEL OR OTHERWISE DAMAGE BY THE CUTTING ACTION. JOINTS MUST BE COMPLETED BETWEEN 2 AND 8 HOURS AFTER PAVEMENT HAS BEEN PLACED. SAWCUT JOINTS TO BE ⅛" WIDE AND MIN. ¼ THE SLAB THICKNESS IN DEPTH.

5.4.1.2 HAND-FORMED:
CONTRACTION JOINTS MAY BE INSTALLED IN THE CONCRETE PAVEMENT WITH THE USE OF A MASON'S HAND GROOVER OR OTHER APPROVED GROOVING DEVICE WHILE THE CONCRETE IS IN THE PLASTIC STATE. THE BLADE OF THE HAND-GROOVER MUST BE OF SUFFICIENT DEPTH TO LEAVE A FINISHED JOINT GREATER THAN "D"/5 AND LESS THAN "D"/4. HAND-FORMED JOINTS MUST HAVE A FINISHED RADIUS ALONG THE JOINT EDGE EQUAL TO 1/8 IN.

5.4.2 CONSTRUCTION JOINTS:
PLACE FULL DEPTH CONSTRUCTION JOINTS AT THE ENDS OF CONCRETE PLACEMENT AND WHERE PAVING IS STOPPED FOR A PERIOD OF THIRTY MINUTES OR MORE. THICKEN EDGE 2" OVER 2' (SEE DETAIL).

5.4.3 ISOLATION JOINTS:
ISOLATION JOINT SHALL BE COLD JOINTS w/ NO JOINT FILLER OR SEALANT.

5.5 FINISHING:
FC&PA OR ACI CERTIFIED FINISHERS ARE REQUIRED. PERFORM CONCRETE FINISHING USING MACHINE AND/OR HAND TOOLS AS REQUIRED. ADDING WATER TO THE SURFACE OF THE CONCRETE TO ASSIST IN FINISHING OPERATIONS SHALL NOT BE PERMITTED. A UNIFORM, NON-SLIP FINISH SHALL BE PROVIDED BY BRUSHING THE SURFACE WITH A STIFF-BRISTLED BROOM. DO NOT PERFORM ANY FINISHING OPERATIONS WHILE BLEEDWATER IS ON THE SURFACE.

5.6 CURING:
CONCRETE SHALL BE CURED TO PROTECT IT AGAINST LOSS OF MOISTURE AND MECHANICAL INJURY FOR AT LEAST 5 DAYS AFTER PLACEMENT. A PIGMENTED LIQUID CURING MEMBRANE SHALL BE APPLIED IMMEDIATELY AFTER THE FINISHING OPERATION.

5.7 OPENING TO TRAFFIC:
UNLESS AUTHORIZED BY THE ENGINEER OF RECORD IN WRITING, AUTOMOBILE TRAFFIC SHALL NOT BE ALLOWED ON THE PAVEMENT UNTIL THE CONCRETE IS 5 DAYS OLD AND 7 DAYS FOR OTHER TRAFFIC. THIS DOES NOT INCLUDE SAWING AND SEALING EQUIPMENT OR OTHER LIGHT MISCELLANEOUS EQUIPMENT.

6.0 EVALUATION AND ACCEPTANCE OF PAVEMENT

6.1 TESTING AND INSPECTIONS:
SHALL BE PERFORMED BY A TESTING AGENCY CURRENTLY ACCREDITED BY THE CONCRETE MATERIALS ENGINEERING COUNCIL (CMEC), NVLAP OR OTHER ACCREDITATION AUTHORITY OF EQUAL STANDING, ON THE BASIS OF ITS COMPLIANCE WITH THE REQUIREMENTS OF ASTM C 1077

6.2 SAMPLING AND TESTING CONCRETE:
SHALL BE PERFORMED BY ACI CERTIFIED CONCRETE FIELD TECHNICIANS GRADE I OR PERSONNEL WITH EQUIVALENT QUALIFICATIONS.

6.3 SAMPLING PROCEDURE:
OBTAIN RANDOM SAMPLE IN ACCORDANCE WITH ASTM C 72, "METHOD OF SAMPLING FRESH CONCRETE." RECORD TIME BATCHED AND TIME SAMPLED, WATER ADDITIONS AT THE SITE, STRENGTH CLASS, THE DELIVERY TICKET NUMBER, THE CONCRETE SUPPLIER'S MIX DESIGNATION AND THE LOCATION OF THE CONCRETE IN THE WORK. SLUMP TEST (1) FOR EACH 5,000 SQ. FT. (OR PER PLACEMENT IF LESS THAN 5000 SQ. FT.).CYCLINDERS (4) FOR EACH 5,000 SQ. FT.

6.4 STRENGTH TESTS:
OBTAIN ONE STRENGTH TEST FOR EACH 150 CUBIC YARDS OF CONCRETE PLACED. CYLINDERS/BEAMS SHALL BE CASTED, CURED AND TRANSPORTED IN ACCORDANCE WITH ASTM C 31 "LABORATORY CURED SPECIMENS."

6.4.1 PERFORM SLUMP AND AIR TESTS WITH EACH SET OF STRENGTH TEST CYLINDERS. CONFORM TO METHOD LISTED IN ASTM C 94 "METHODS OF SAMPLING AND TESTING."

6.5 ACCEPTANCE OF CONCRETE STRENGTH:
THE STRENGTH LEVEL OF THE CONCRETE SHALL BE CONSIDERED SATISFACTORY IF THE AVERAGES OF ALL SETS OF THREE CONSECUTIVE STRENGTH TESTS OF AN INDIVIDUAL CLASS OF CONCRETE EQUAL OR EXCEED THE SPECIFIED STRENGTH AND NO INDIVIDUAL STRENGTH TEST RESULT FALLS BELOW THE SPECIFIED STRENGTH BY MORE THAN 500 PSI.

6.5.1 STRENGTH TEST FAILURE:
IF AN INDIVIDUAL STRENGTH TEST RESULT FALLS BELOW THE SPECIFIED STRENGTH BY MORE THAN 500 PSI, DETERMINE THE APPROXIMATE LOCATION AND STRENGTH CONCRETE REPRESENTED BY THE TEST BY A METHOD LISTED IN ASTM C 823, SUCH AS PENETRATION RESISTANCE, ASTM C 803, OR REBOUND NUMBER, ASTM C 805. IF PRESENCE OF UNDER-STRENGTH CONCRETE IS CONFIRMED, OBTAIN THREE CORES FROM THE CONCRETE IN QUESTION IN ACCORDANCE WITH ASTM C 42.

6.5.2 CORE TESTS AND THEIR EVALUATION:
STRENGTH SHALL BE CONSIDERED ADEQUATE, IF THE AVERAGE STRENGTH OF THREE CORES REPRESENTING THE CONCRETE IN QUESTION EQUALS AT LEAST 85% OF THE REQUIRED STRENGTH AND IF NO INDIVIDUAL CORE STRENGTH IS LESS THAN 78% OF THE REQUIRED STRENGTH.

6.6 TEST REPORTS:
PROMPTLY REPORT ALL CONCRETE TEST RESULTS TO THE OWNER/AGENT, THE CONTRACTOR AND THE CONCRETE SUPPLIER. REPORT SHALL INCLUDE METHOD OF INITIAL CURING AND DATE SPECIMENS ARE RECEIVED AT THE LABORATORY.

6.7 TOLERANCE IN PAVEMENT THICKNESS:
BEFORE FINAL ACCEPTANCE OF THE PAVEMENT, AT THE OPTION OF THE OWNER, ITS THICKNESS MAY BE DETERMINED BY CORING AT RANDOM LOCATIONS IN EACH PLACED STRIP SO THAT A CORE REPRESENTS AN AREA NOT EXCEEDING 2,500 SQUARE YARDS. THE DEPTH OF EACH CORE SHALL BE DETERMINED BY AVERAGE MEASUREMENTS OF THE CORE IN ACCORDANCE WITH AASHTO T-148. REFER TO ACI 330.1 FOR ACCEPTABLE TOLERANCES.

WATER AND SEWER NOTES

GENERAL NOTES:

1. ALL CONSTRUCTION MATERIALS, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.

2. THE CONTRACTOR SHALL FURNISH RECORD DRAWINGS INFORMATION TO THE ENGINEER OF INCLUDING LOCATION OF VALVES , FITTINGS , SERVICE CONNECTIONS, BLOWOFFS AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.

3. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTING HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.

4. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING, FOLLOWING TESTING AND STERILIZATION OF WATER LINE CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.

5. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

6. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.

7. THE CONTRACTOR SHALL FURNISH RECORD DRAWINGS INFORMATION TO THE ENGINEER CONSISTING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.

RECOMMENDED MAX. JOINT SPACINGS

PAVEMENT THICKNESS (INCHES)	RECOMMENDED MAXIMUM JOINT SPACING (FEET)
4.0	10
4.5	10
5.0	12
5.5	12
6.0	12

THOMAS EDWARD MUELLER LICENSE No. 58119

This item has been digitally signed and sealed by Thomas Mueller, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

GM2
12798 W. Forest Hill Blvd., Suite 201
Wellington, FL 33414
CA #7969

Ph.: (561) 792-9000
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PROJECT #25-063

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

REV	DESCRIPTION	DATE

COACH FENN PARK
N. 23RD ST. AND AVE. K, FORT PIERCE, FL 34947
CITY OF FORT PIERCE

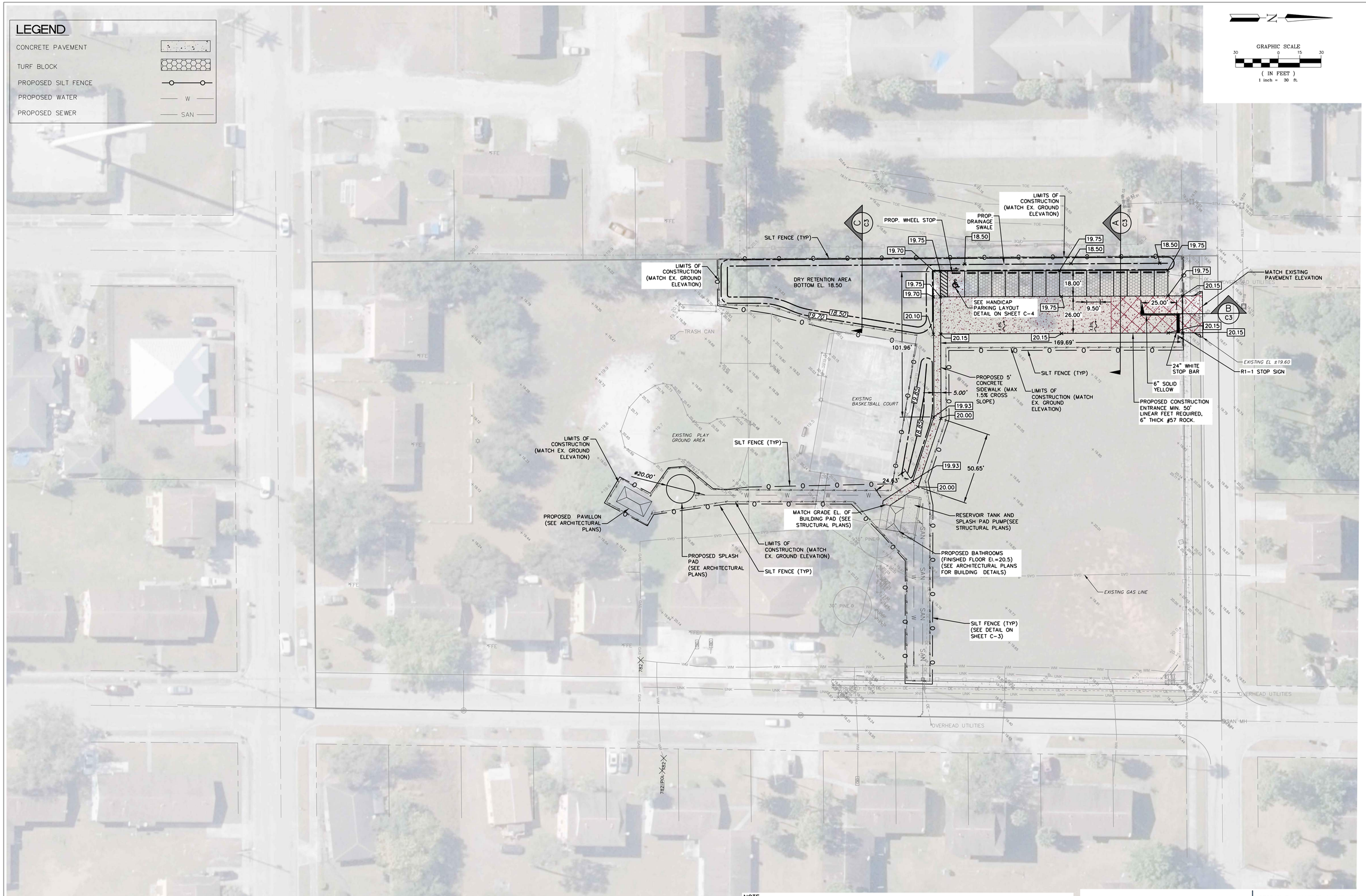
GENERAL NOTES

CDE #	60263
DATE	01/16/2026
DRAWN	L. PONCE
DESIGN	T. MUELLER
CHECK	T. MUELLER
FILE	

C1

SHEET 1 OF 5

H:\Drawings\Coach Fenn Park (42765.00)(25-063)\09-WRK-DWGS\42765.00_GENERAL NOTES.dwg – Wednesday, January 14, 2026 5:48:15 PM



NOTE:
1. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, AS ESTABLISHED BY SLC BENCHMARK D-401, HAVING A PUBLISHED ELEVATION OF 23.523'. NAVD'88 = NGVD'29 - 1.493'.
2. SIDEWALKS ARE TO BE CONSTRUCTED WITH A MAXIMUM LONGITUDINAL SLOPE OF 5% AND MAXIMUM CROSS-SLOPE OF 1.5%.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

DATE

DESCRIPTION

REV

COACH FENN PARK
N. 23RD ST. AND AVE. K, FORT PIERCE, FL 34947
CITY OF FORT PIERCE

SITE PLAN

THOMAS EDWARD MUELLER LICENSE No. 58119 STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. PONCE
DESIGN	T. MUELLER
CHECK	T. MUELLER
FILE	

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PROJECT #25-063

C2

SHEET 2 OF 5

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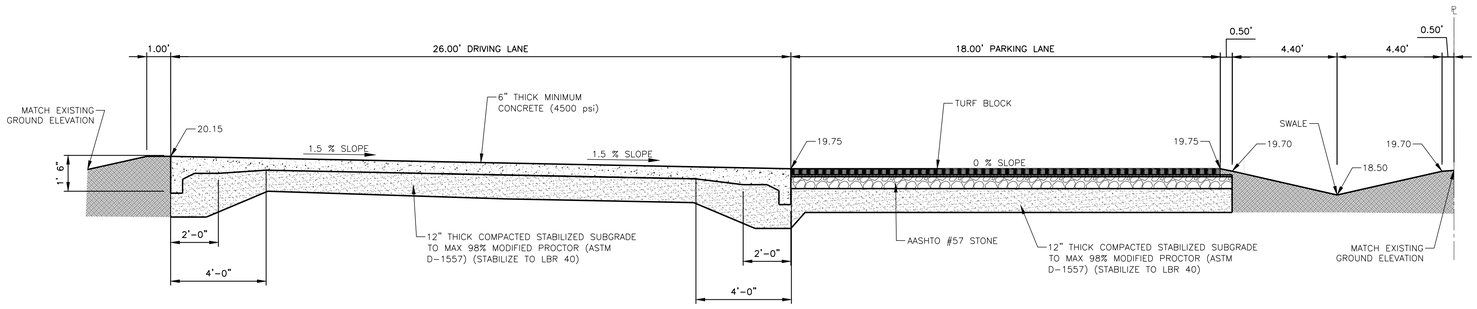
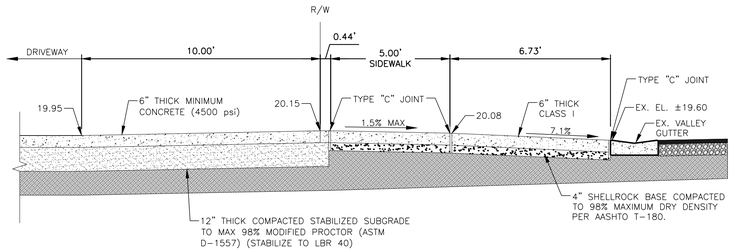
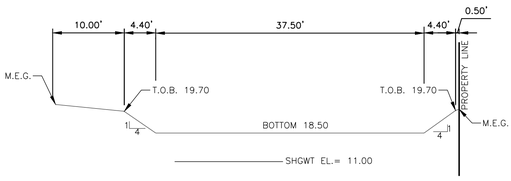


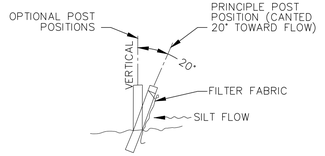
A C7 CROSS-SECTION
1"=30'-0"



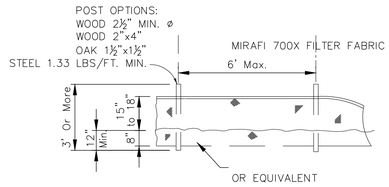
B C7 CROSS-SECTION
1"=30'-0"



C C7 CROSS-SECTION
1"=10'-0" (HORZ.)
SCALE : 1"=5'-0" (VERT.)

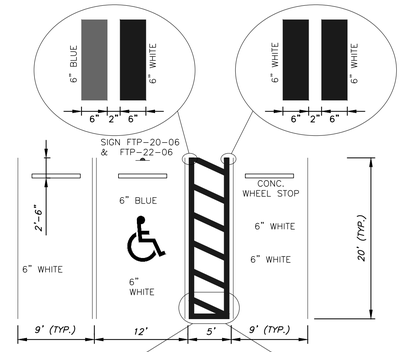


SILT FENCE SECTION
NTS



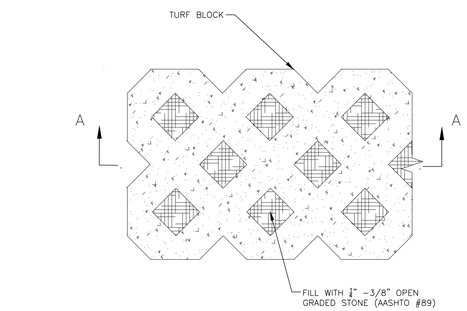
NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

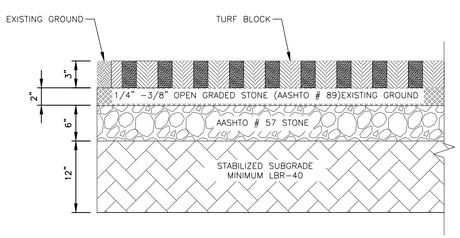
SILT FENCE ELEVATION
NTS



NOTE: ALL SLOPES NOT EXCEED 2.0%

HANDICAP PARKING LAYOUT
N.T.S.

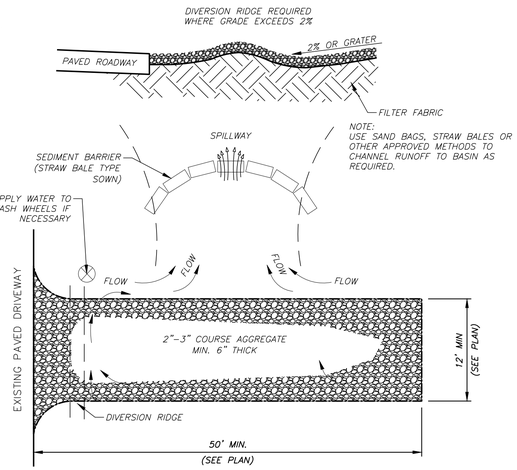




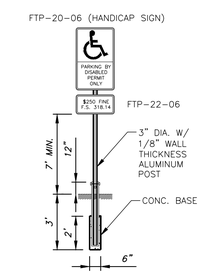
SECTION A-A

TURF BLOCK DETAIL

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
N.T.S.



TYPICAL SIGN INSTALLATION
N.T.S.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8672

DATE | DESCRIPTION | REV

COACH FENN PARK
N. 23RD ST. AND AVE. K, FORT PIERCE, FL 34947
CITY OF FORT PIERCE

CROSS SECTIONS AND DETAILS

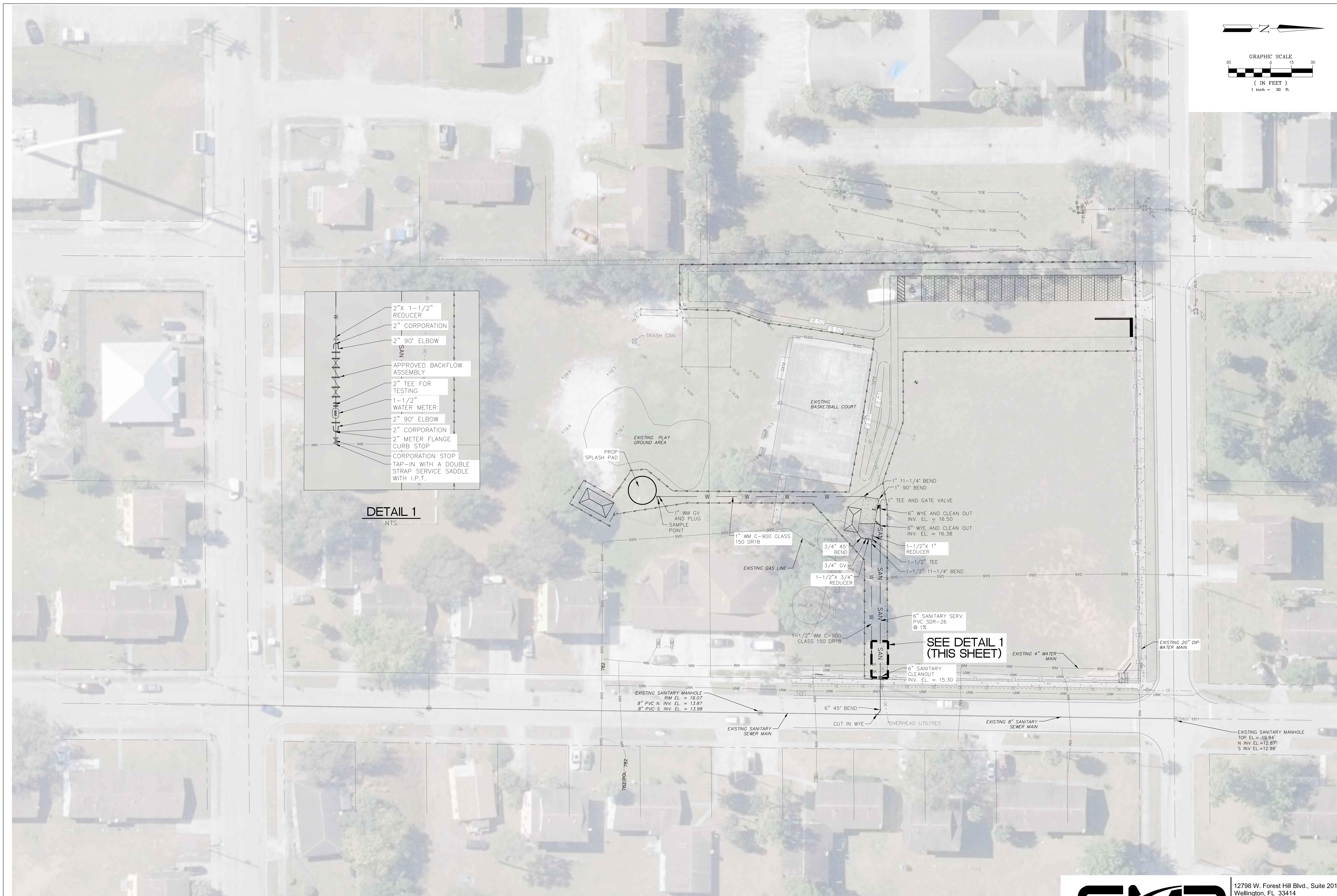
THOMAS EDWARD MUELLER LICENSE No. 58119 STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. PONCE
DESIGN	T. MUELLER
CHECK	T. MUELLER
FILE	

GM2
12798 W. Forest Hill Blvd., Suite 201
Wellington, FL 33414
CA #7969
Ph.: (561) 792-9000
Fax.: (561) 792-9901

PROJECT #25-063

C3



CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

REV	DESCRIPTION	DATE

COACH FENN PARK
N. 23RD ST. AND AVE. K, FORT PIERCE, FL 34947
CITY OF FORT PIERCE

WATER AND SEWER PLAN

THOMAS EDWARD MUELLER LICENSE No. 58119 STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. PONCE
DESIGN	T. MUELLER
CHECK	T. MUELLER
FILE	

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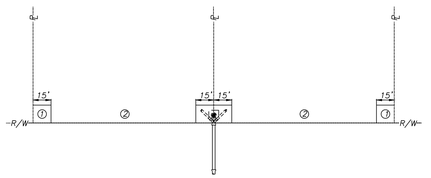
Fax.: (561) 792-9901
PROJECT #25-063

C4
SHEET 4 OF 5

\\Gm2sgafs01\sg&a3\Drawings\Coach Fenn Park (42765.00)(25-063)\09-WRK-DWGS\42765.00_WATER AND SEWER PLAN.dwg - Wednesday, January 14, 2026 6:02:42 PM

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

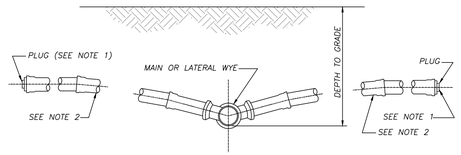


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL, AREA ① , SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL, WITHIN AREA ① , THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ② .
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY 10 FEET.
4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

FPUA COMMUNITY PROUD	WASTEWATER SERVICE PLACEMENT POLICY	S-1
02-06 02-15 SLL DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JJM SEWER DETAIL 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2010	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	

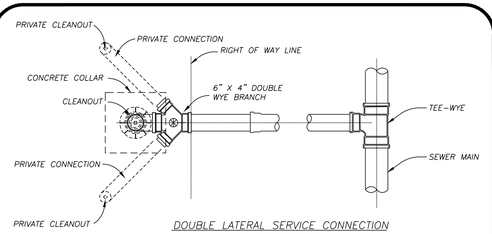


NOTES:

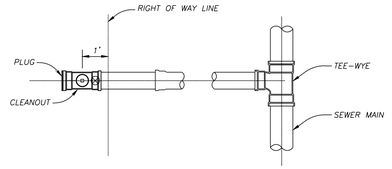
1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD	SERVICE CONNECTION WASTEWATER	S-2
02-06 DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JLC SEWER DETAIL 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2015	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	



DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE



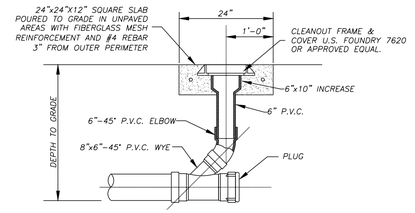
SINGLE SERVICE LATERAL CONNECTION

⊛ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT. BALL BY 3M CORP. OR APPROVED EQUAL

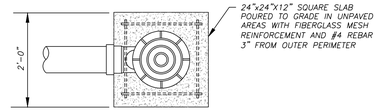
SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD	SERVICE CONNECTION WASTEWATER	S-3
02-06 DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JLC SEWER DETAIL 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2010	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	



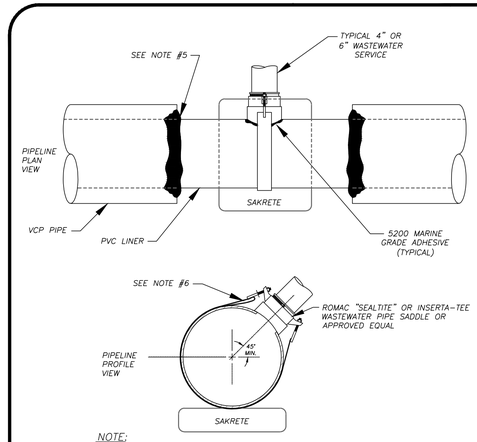
SECTION



PLAN

TERMINAL CLEANOUT DETAIL (COMMERCIAL)
(N.T.S.)

FPUA COMMUNITY PROUD	TERMINAL CLEANOUT DETAIL WASTEWATER	S-4B
10-06 DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JLC SEWER DETAIL 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2010	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 2 OF 3	

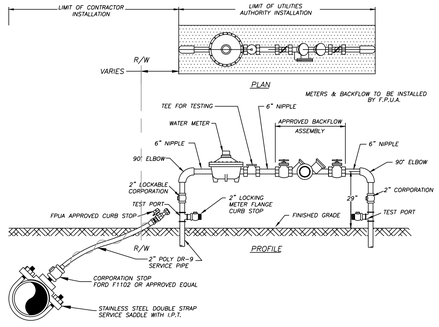


NOTE:

1) INSERTA-TEE'S ARE NOT TO BE USED DURING NEW CONSTRUCTION.
2) INSERTA-TEES ARE ONLY APPROVED FOR INSTALLATION ON 24" AND LARGER SEWER MAINS.
3) ROMAC SADDLE SHALL BE USED AS A TEMPLATE FOR DETERMINING HOLE SIZE AND LOCATION.
4) 5200 MARINE GRADE ADHESIVE SHALL BE USED TO SEAL ROMAC GASKET TO LINER
5) SEAL EXPOSED LINER TO VCP WITH HYDRAULIC CEMENT.
6) ENSURE TO FOLD STRAP BACK AGAINST ITSELF PLACING FREE END BETWEEN STRAP AND PIPE. ON SMALL PIPE, IT MAY BE NECESSARY TO FOLD END TWICE.

WASTEWATER SERVICE DETAIL
(FOR LINED SEWER MAIN)
(N.T.S.)

FPUA COMMUNITY PROUD	WASTEWATER SERVICE DETAIL (FOR LINED SEWER MAIN)	S-5
06-2012 JLC Dept DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JJM SEWER DETAIL 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2010	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	

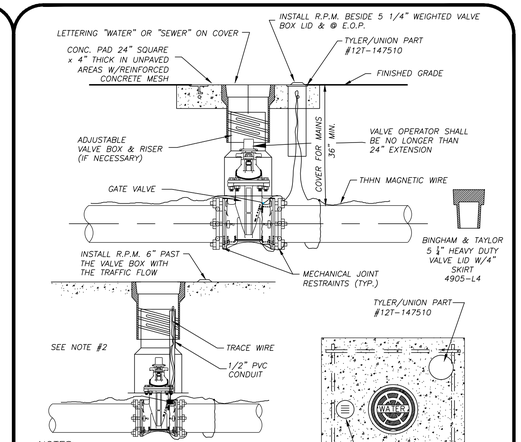


NOTES:

1. LANDSCAPING REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 18" AROUND METER OR BACKFLOW. NO SOLDER JOINTS.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.

WATER METER/BACKFLOW PREVENTER ASSEMBLY
DOMESTIC SERVICE (COMMERCIAL)
(N.T.S.)

FPUA COMMUNITY PROUD	WATER METER/BACKFLOW PREVENTER ASSEMBLY-DOMESTIC SERVICES (METER SIZE 2" DR LESS)	W-8
06-24 DESIGN CTR JB DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JLC WATER DETAILS 200602.DWG DRAWN BY: SCALE: SLL N.T.S. APPROVED: DATE: JLC 2010	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	



NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

FPUA COMMUNITY PROUD	TYPICAL GATE VALVE & VALVE BOX DETAIL	M-6
03-09 CONCRETE SLAB SLL JLC DATE: REVISION: BY: APPD: DESIGNED: COMPUTER FILE # JJM MISC. DETAILS 200602.DWG DRAWN BY: SCALE: SLL APPROVED: DATE: JLC 2015	WATER/WASTEWATER ENGINEERING FT. PIERCE UTILITIES AUTHORITY SHEET 1 OF 1	

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3725 Center Place
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Registry 8072

DATE | DESCRIPTION | REV

COACH FENN PARK
N. 23RD ST. AND AVE K, FORT PIERCE, FL 34947
CITY OF FORT PIERCE

WATER AND SEWER DETAILS

THOMAS EDWARD MUELLER LICENSE No. 58119 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. PONCE
DESIGN	T. MUELLER
CHECK	T. MUELLER
FILE	

C5

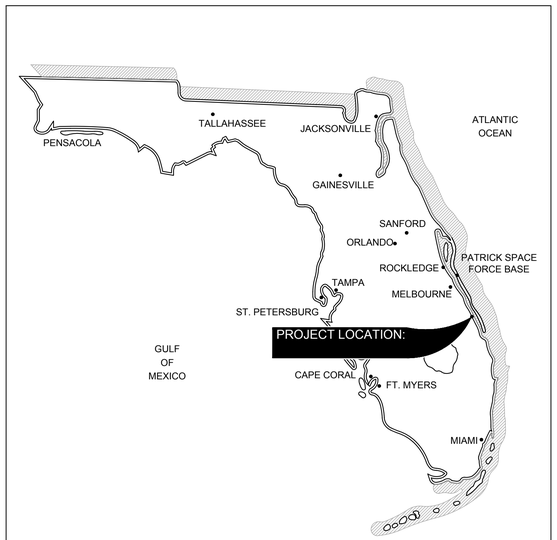
SHEET 5 OF 5

GM2
12798 W. Forest Hill Blvd., Suite 201
Wellington, FL 33414
CA #7969
Ph.: (561) 792-9000
Fax.: (561) 792-9901
PROJECT #25-063

H:\Drawings\Coach Fenn Park (42765.00)\25-063\09-WRK-DWGS\42765.00_WATER AND SEWER DETAILS.dwg - Wednesday, January 14, 2026 5:49:08 PM

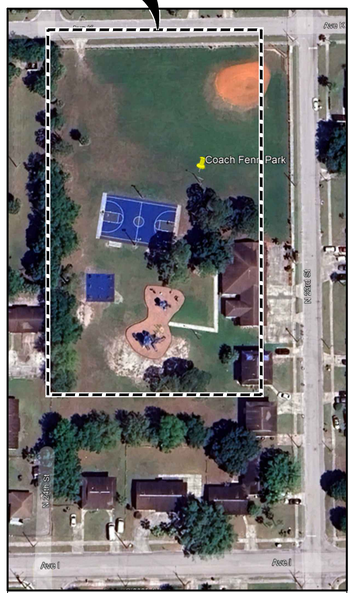
COACH FENN PARK IMPROVEMENT

2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE
PERMIT SET
01/16/2026



CITY LOCATION
N.T.S.

PROJECT LOCATION



VICINITY STREET MAP
N.T.S.

DRAWING INDEX

REV	INDEX	DRAWING	DESCRIPTION	ISSUE FOR PERMIT 01/14/2026				
	--	G-001	COVER SHEET AND INDEX					
	--	C1	GENERAL NOTES					
	--	C2	SITE PLAN					
	--	C3	CROSS SECTIONS AND DETAILS					
	--	C4	WATER AND SEWER PLANS					
	--	C5	WATER AND SEWER DETAILS					
	--	S-001	ABBREVIATIONS AND GENERAL NOTES					
	--	S-100	SITE PLAN					
	--	S-101	FLOOR PLANS AND SECTIONS					
	--	S-501	VAK PAK & TANK DETAILS					
	--	S-102	CLADDING & ELEVATIONS PREFABRICATED BUILDING					
	--	S-502	CHAINLINK FENCE DETAILS					
	--	P-001	PLUMBING ABBREVIATIONS, LEGEND AND NOTES					
	--	P-101	PLUMBING PLAN					
	-	P-102	SPLASH PAD LAYOUT PLAN					
	--	E-001	ELECTRICAL ABBREVIATIONS, LEGENDS AND NOTES					
	--	E-101	RESTROOM AND SPLASH PAD EQUIPMENT YARD POWER PLAN					
	--	E-601	SCHEDULE AND RISER DIAGRAM					

APPLICABLE CODES

STRUCTURAL

FLORIDA BUILDING CODE: BUILDING, 8TH EDITION (2023)
ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY
ACI 301-20: SPECIFICATIONS FOR STRUCTURAL CONCRETE
AISC 360-22: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
ASTM A36: STANDARD SPECIFICATION FOR CARBON STRUCTURAL STEEL
ASTM A992: STANDARD SPECIFICATION FOR STRUCTURAL STEEL SHAPES
AWS D1.1/D1.1M-2020: STRUCTURAL WELDING CODE – STEEL

PLUMBING

FLORIDA BUILDING CODE: PLUMBING, 8TH EDITION (2023)
FLORIDA BUILDING CODE: FUEL GAS, 8TH EDITION (2023)

ELECTRICAL

NATIONAL ELECTRICAL CODE (NEC), 2023 EDITION
FLORIDA BUILDING CODE: BUILDING, 8TH EDITION (2023), CHAPTER 27 - ELECTRICAL

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Registry 8072

DATE | DESCRIPTION | REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

COVER SHEET AND INDEX

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

JUAN PABLO PINHEIROS LICENSE No 72730 STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	G-001.dwg

G-001

ELECTRICAL ABBREVIATION LIST

(SOME MAY NOT BE USED)

A	AMPERES
AC	ABOVE COUNTER
A/C	AIR CONDITIONER
ACT	ACOUSTIC CEILING TILE
ADA	AMERICAN DISABILITY ACT
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ATS	AUTOMATIC TRANSFER SWITCH
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL, ARCHITECT
BC	BELOW COUNTER
BLDG	BUILDING
BU	BUILT UP
C	CONDUIT
COMM	COMMUNICATIONS
CU	COPPER
CL	CLEAR/CLEARANCE
℄	CENTER LINE
CO	COMPANY
CONT	CONTINUOUS
COORD	COORDINATE
CT	COOLING TOWER
CWP	CHILLED WATER PUMP
DEG	DEGREE
DEMO	DEMOLITION
DEP	DEPARTMENT
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DS	DISCONNECT SWITCH
DWG	DRAWING
E	EXISTING
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
ELEV	ELEVATION
ELEC	ELECTRICAL/ELECTRIC
EMH	ELECTRICAL MANHOLE
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EOR	ENGINEER OF RECORD
EQUIP	EQUIPMENT
EXCL	EXCLUDING
EXIST	EXISTING
EXT	EXTERIOR
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOOR
FTL	FEED THRU LUGS
G	GROUND
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEC	GROUND ELECTRODE CONDUCTOR
GF	GROUND FAULT
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRC	GALVANIZED RIGID CONDUIT
HORIZ	HORIZONTAL
HID	HIGH INTENSITY DISCHARGE
HP	HORSE POWER
HT	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INT	INTERIOR
INV	INVERT
JST	JOIST
JT	JOINT
JBOX	JUNCTION BOX
KAIC	(THOUSAND) AMPERE INTERRUPTING CAPACITY
KCMIL	THOUSANDS OF CIRCULAR MILS
KVA	KILOVOLT-AMPERES
KW	KILOWATT
L	LENGTH
LB	LOAD BANK
LC	LIGHTING CONTACTOR
LED	LIGHT EMITTING DIODE
LFNC	LIQUID TIGHT FLEX NONMETALLIC CONDUIT
LTG	LIGHTING
MANUF	MANUFACTURER
MAT	MATERIAL
MCB	MAIN CIRCUIT BREAKER
MCU	MASTER CONTROL UNIT
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE/METAL HALIDE
MLO	MAIN LUG ONLY
MAX	MAXIMUM
MTD	MOUNTED
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N	NUETRAL
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
ORIENT	ORIENTATION
P	POLE
PAC	PACKAGED AC UNIT
PAR	PARALLEL
PB	PULL BOX/PULL BUTTON
PNL	PANEL/PANELBOARD
PVC	POLYVINYL CHLORIDE
PVC40	PVC SCHEDULE 40
PWR	POWER
QTY	QUANTITY
R	EXISTING TO BE REPLACED /REMOVED
RA	ROOF ACCESS
RAD	RADIATOR
RD	ROOF DRAIN
REF	REFERENCE
RGS	RIGID GALVANIZED STEEL
REQ'D	REQUIRED
RM	ROOM
RMC	RIGID METAL CONDUIT
RSG	RIGID STEEL CONDUIT
SCH	SCHEDULE
SEC	SECURITY
SF	SUPPLY FAN
SIM	SIMILAR
SN	SOLID NEUTRAL
SP	SPACING
SPA	SPACE(S)
SPEC	SPECIFICATION
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
T/	TOP OF
T/S	TIMESWITCH
TEL	TELEPHONE
TTC	TELEPHONE TERMINAL CABINET
TEMP	TEMPORARY
TR	TRANSFORMER
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
TV	TELEVISION
UC	UNDER COUNTER
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORIES
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VOL	VOLUME
W	WIRE
W/	WITH
W/O	WITHOUT
W/W	WIREWAY
WH	WATER HEATER
WP	WEATHER PROOF
WT	WEIGHT
XFMR	TRANSFORMER
Y	WYE (CONNECTED)
Z	ZONE
3R	NEMA TYPE 3R
4X	NEMA TYPE 4X

ELECTRICAL LEGEND:

NOTE: NOT EVERY LEGEND SYMBOL IS USED IN THIS PROJECT.

SYMBOLS	DESCRIPTION
[Y]:[Z] [X]	1X4 LUMINAIRE X =LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
[Y]:[Z] [X]	2X4 LUMINAIRE X = LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
[Y]:[Z] [X]	2X4 LUMINAIRE CONNECTED TO EMERGENCY POWER X = LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
[Y]:[Z] [X]	STRIP LIGHT X = LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
[Y]:[Z] [X]	2x2 LUMINAIRE X = LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
[Y]:[Z] [X]	EXIT SIGN, SHADED AREA SHOWS FACING DIRECTION OF EXIT SIGN X = LIGHT TYPE Y = PANEL NAME Z = CIRCUIT
	SWITCHBOARD
	PANELBOARD, 208Y/120V
	PANELBOARD, 480Y/277V
	DISTRIBUTION TRANSFORMER (VOLTAGE, PHASE, RATINGS AS INDICATED)
E	EQUIPMENT CONNECTION
E	EQUIPMENT DISCONNECT SWITCH
XXX / YYY XX	DISCONNECT SWITCH XXX = SIZE, YYY = FUSE (NF=NON-FUSED) XX = ENCLOSURE RATING. NEMA 1 OTHERWISE
M	ELECTRICAL SUB-METER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	GROUNDED CIRCUIT
	MOTOR
TV	TV OUTLET
D2	2-PORT OUTLET
D4	4-PORT OUTLET
WAP	2-PORT OUTLET FOR WAP (WIRELESS ACCESS POINT).
W	1-PORT OUTLET FOR WALL MOUNTED PHONE.
	FLOOR MOUNTED RECEPTACLE AND DATA OUTLET
W	WALL MOUNTED RECEPTACLE AND DATA OUTLET
[Y]-[Z]	POWER TAG Y = PANEL NAME Z = CIRCUIT
PNL-[Y]	PNL TAG Y = PANEL NAME
J	JUNCTION BOX
	2-PORT DATA OUTLET
	CEILING MOUNTED 2-PORT DATA OUTLET
	EMERGENCY PORTABLE GENERATOR HOOKUP
CR	CARD READER (INTERIOR)
CR	CARD READER WITH KEYPAD (EXTERIOR)
	SECURITY CAMERA
	HOMERUN TO PANEL. 2#12, #12 GND IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED

ELECTRICAL LEGEND (CONT.):

SYMBOLS	DESCRIPTION
#	PHOTO CALLOUT
#	KEY NOTE IDENTIFIER
SS	SURGE SUPPRESSOR
OS	OCCUPANCY SENSOR WALL MOUNTED
OS	OCCUPANCY SENSOR CEILING MOUNTED
$, $3, $4, $K	SWITCH: SINGLE, 3-WAY, 4-WAY, KEY SWITCH
$D	SWITCH: DIMMER
	DUPLEX RECEPTACLE
	QUAD RECEPTACLE
GFI	GFI, DUPLEX RECEPTACLE
GFI WP	GFI, WATERPROOF HOUSING DUPLEX RECEPTACLE
FATC	FIRE ALARM TERMINAL CABINET
FACP	FIRE ALARM CONTROL PANEL
	HORN AND STROBE COMBINATION
S	SMOKE DETECTOR
F	FIRE ALARM PULL STATION
	STROBE
H	HEAT DETECTOR
S	DUCT SMOKE DETECTOR
S E	SMOKE DETECTOR. ELEVATOR RECALL
S SS	SINGLE STATION SMOKE DETECTOR AT GUEST ROOMS
FS	SPRINKLER SYSTEM FLOW SWITCH CONNECTION
TS	SPRINKLER SYSTEM TAMPER SWITCH CONNECTION
i	INPUT OR CONTROL RELAY
I	AREA OF RESCUE INTERCOM STATION
M	GUEST ROOM MINI-HORN
	ELECTROMAGNETIC DOOR HOLD OPEN DEVICE
	FLOOR MOUNTED DUPLEX RECEPTACLE
S	CEILING MOUNTED SPEAKER

GENERAL ELECTRICAL NOTES:

1. IT IS THE INTENT OF THESE CONTRACT DRAWINGS TO PROVIDE A COMPLETE AND WORKABLE FACILITY.
2. DESIGN DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS, OR OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF THE WORK. SUCH WORK SHALL BE VERIFIED AT THE SITE. ADDITIONAL BENDS, OFFSETS, AND CONDUIT AS REQUIRED BY VERTICAL AND HORIZONTAL EQUIPMENT LOCATIONS OR OTHER JOB CONDITIONS, SHALL BE PROVIDED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
3. EXCEPT WHERE SHOWN IN DIMENSIONAL DETAIL, THE LOCATIONS OF EQUIPMENT SHOWN ON PLANS ARE APPROXIMATE. SUCH ITEMS SHALL BE PLACED TO ELIMINATE INTERFERENCE WITH OTHER EQUIPMENT. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2023 EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE NATIONAL & LOCAL CODES.
5. MATERIALS SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. SHOULD PLANS AND CODES CONFLICT, CONTACT THE CONSTRUCTION MANAGER. MAKE NO CHANGES, EVEN IN CASE OF CONFLICT, WITHOUT FIRST OBTAINING THE APPROVAL OF THE CONSTRUCTION MANAGER.
6. ELECTRICAL EQUIPMENT OR EQUIPMENT WITH ELECTRICAL CIRCUITS SHALL BE GROUNDED IN ACCORDANCE WITH NFPA 70 ARTICLE 250. ALL NON-CURRENT CARRYING METALLIC PARTS SHALL BE GROUNDED. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE BONDED TO ALL ENCLOSURES AND BOXES IN WHICH IT TERMINATES OR PASSES THOUGH.
7. BONDING JUMPERS SHALL BE USED TO BOND CONDUIT TO ENCLOSURES, BOXES, AND EQUIPMENT WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE USED.
8. EQUIPMENT SIZES INDICATED ARE MINIMUM, BEFORE INSTALLING ANY WIRE OR CONDUIT, THE SUBCONTRACTOR SHALL OBTAIN THE EXACT EQUIPMENT REQUIREMENTS AND SHALL INSTALL WIRE, CONDUIT, CIRCUIT BREAKERS AND OTHER ITEMS OF THE CORRECT SIZE FOR THE EQUIPMENT ACTUALLY INSTALLED. HOWEVER, WIRE AND CONDUIT SIZES FOR THE EQUIPMENT SHALL BE TAKEN AS A MINIMUM AND SHALL NOT BE REDUCED WITHOUT WRITTEN APPROVAL.
9. ALL WORK SHALL BE COORDINATED WITH THE CUSTOMER AND UTILITIES. THE INSTALLATION OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE WORK OF THE OTHER TRADES.
10. THE INSTALLATION SHALL BE ACCOMPLISHED BY WORKERS SKILLED IN THIS TYPE OF WORK AND HAVING AN ELECTRICAL CONTRACTOR'S LICENSE.
11. THE CONTRACTOR SHALL INSTALL HIS WORK IN SUCH A MANNER AND AT SUCH A TIME AS WILL REQUIRE A MINIMUM OF CUTTING AND PATCHING OF THE BUILDING STRUCTURE.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR REPAIR OR REPLACEMENT OF THE UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE COMPLETION OF THIS WORK.
13. ALL BOLTS, NUTS, WASHERS, ETC. USED FOR GROUNDING AND BONDING CONNECTIONS SHALL BE SILICON BRONZE. CONTRACTOR SHALL UTILIZE CONNECTORS TO PREVENT GALVANIC ACTION.
14. ALL EXPOSED ELECTRICAL CONDUIT VULNERABLE TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL, UNLESS NOTED OTHERWISE. ALL OTHER CONDUIT INSIDE FACILITY SHALL BE ELECTRICAL METAL TUBE (EMT). CONDUITS SHALL BE SUPPORTED BY SUITABLE CLAMPS, HANGERS OR STRAPS TO PROVIDE A RIGID INSTALLATION.
15. CONDUIT SUPPORTS SHALL NOT BE FASTENED OR ATTACHED TO OTHER PIPES. EMPTY CONDUIT SHALL BE THOROUGHLY SWABBED OUT WITH DRY SWAB TO REMOVE MOISTURE AND DEBRIS BEFORE WIRE IS DRAWN IN. END OF CONDUIT SHALL BE TIGHTLY PLUGGED UNTIL WIRE IS PULLED. NO CONDUIT SHALL BE LOCATED TO IMPAIR THE STRENGTH OF STRUCTURAL MEMBERS. MAKE CHANGES IN DIRECTION OF RUNS WITH SYMMETRICAL BENDS. DO NOT INSTALL CRUSHED OR DEFORMED CONDUITS. AVOID TRAPPED CONDUITS. PREVENT PLASTER, DIRT, OR TRASH FROM LODGING IN CONDUIT, BOXES, FITTINGS. FREE CLOGGED CONDUITS OF OBSTRUCTIONS.
16. CONTRACTOR SHALL PROVIDE ALL NECESSARY LUGS REQUIRED TO TERMINATE CONDUCTORS AS INDICATED ON THE CONTRACT DOCUMENTS.
17. PROVIDE A FIRE STOP SYSTEM FOR ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. FIRE STOP COMPOUND SHALL BE ONE-PART MATERIALS REQUIRING NO CRITICAL MIXING OR HEAT TO ACTIVATE THE SEAL. THE SYSTEM MUST MAINTAIN THE INTEGRITY OF THE RATED ASSEMBLY WHEN TESTED IN ACCORDANCE WITH ASTM E-814. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE INSTALLATION SHALL BE MADE SO THAT THERE IS NO DEGRADATION OF THE DESIGNED FIRE RATINGS.
18. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT FOR APPROVAL A DETAILED PLAN OF THE PROPOSED SEQUENCE OF WORK. PLAN SHALL IDENTIFY MAJOR CONSTRUCTION MILESTONES, PLANNED UTILITY OUTAGES AND ACTIVITIES REQUIRED BY THE OWNER.
19. MULTI-WIRE CIRCUITS PROHIBITED UNLESS OTHERWISE SPECIFICALLY NOTED.
20. CONTRACTOR SHALL SURVEY ALL UNDERGROUND UTILITIES BEFORE COMMENCEMENT OF ANY WORK.
21. ALL CONDUCTORS SHALL BE COPPER.

X = VIEW NUMBER
Z = SHOWN SHEET NUMBER
Y = CUT SHEET NUMBER

VIEW CALLOUT BUBBLE
N.T.S.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

REV | DESCRIPTION | DATE

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

ELECTRICAL ABBREVIATIONS, LEGENDS AND NOTES

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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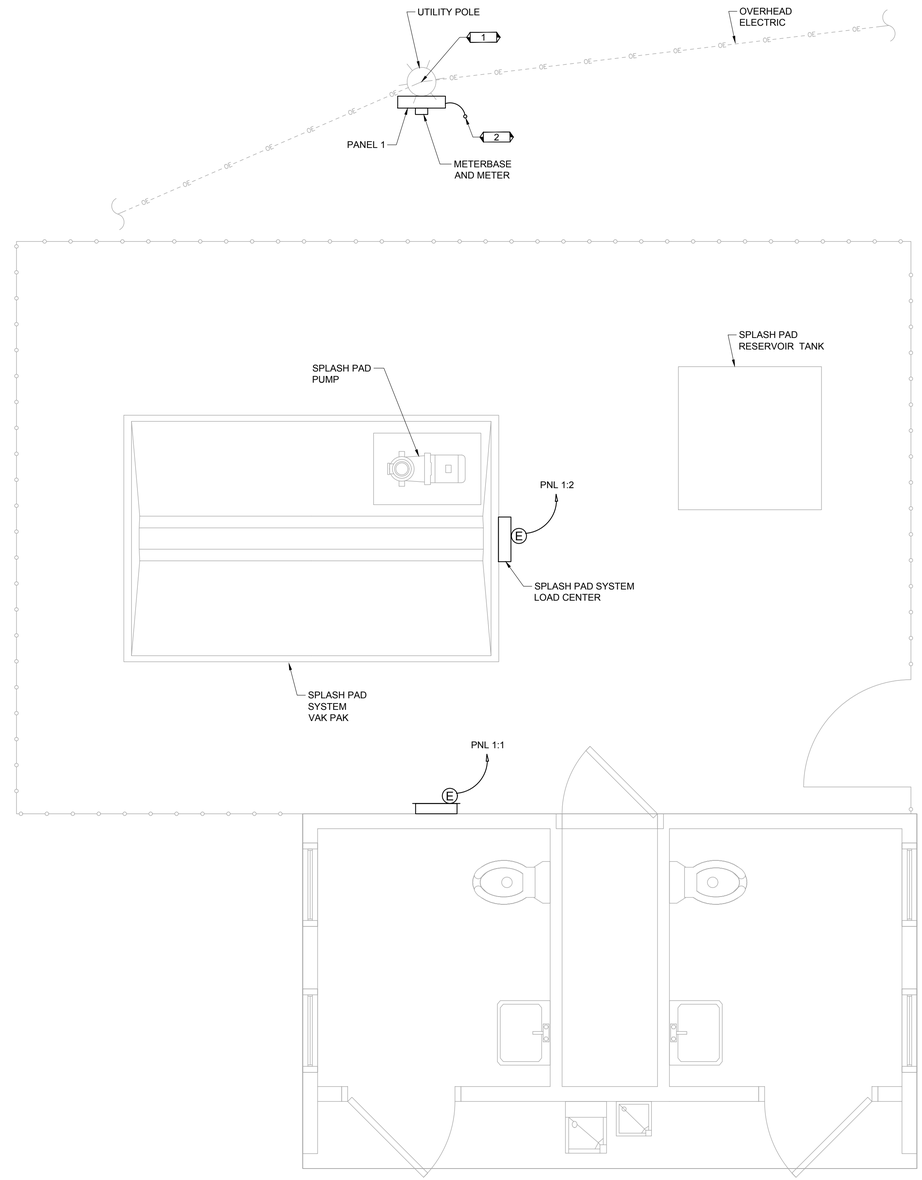
CRAIG T. MARSHALL
LICENSE
No. 96473
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	C. MARSHALL
CHECK	M. CHARMBURY
FILE	E-001.dwg

E-001



KEY NOTES: (#)

1. PROVIDE SPLICE OF EXISTING OVERHEAD LINE (#2 TRIPLEX). ROUTE (3) #2 IN MINIMUM 1" CONDUIT. CONNECT TO LINE SIDE LUGS OF PANEL'S MAIN CIRCUIT BREAKER. SEE "POWER RISER DIAGRAM", SHEET E-601. COORDINATE SPLICE, METER PROVISION, AND CONNECTION WITH LOCAL UTILITY COMPANY.
2. PROVIDE SERVICE GROUND AND GROUNDING ELECTRODE CONDUCTOR PER NEC ARTICLE 250.

N

RESTROOM AND SPLASH PAD EQUIPMENT YARD POWER PLAN

1/2" = 1'-0"

GRAPHIC SCALE

12" 0 1' 2' 3' 4' 5'

1/2"=1'-0"

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REV	DESCRIPTION	DATE

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CITY OF FORT PIERCE

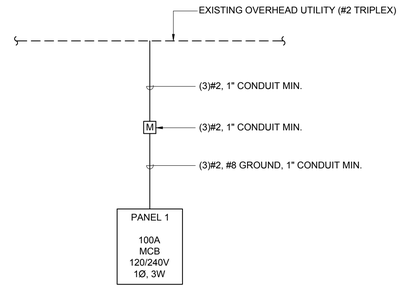
RESTROOM AND SPLASH PAD EQUIPMENT YARD POWER PLAN

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	C. MARSHALL
CHECK	M. CHARMBURY
FILE	E-101.dwg

E-101

PANELBOARD 1 SCHEDULE

100 AMP BUS			100 AMP MCB 240 VOLTS 1 PH, 3 W, SN, MIN. 22 KAI									SURFACE MOUNTED
LOAD SERVED	LOAD AMPS		BKR	WIRE	CKT	PHASE		CKT	WIRE	BKR	LOAD AMPS		LOAD SERVED
	A	B	TRIP	SIZE	NO.	A	B	NO.	SIZE	TRIP	A	B	
RESTROOM	20.0		30	10	1			2	12	20	10.0		SPLASH PAD
BUILDING		20.0			3			4				10.0	SYSTEM
					5			6					
					7			8					
					9			10					
					11			12					
					13			14					
					15			16					
					17			18					
[redacted]					19			20					[redacted]
					21			22					
					23			24					
					25			26					
					27			28					
					29			30					
					31			32					
					33			34					
					35			36					
					37			38					
					39			40					
SUB-TOTAL AMPS	20.0	20.0									10.0	10.0	SUB-TOTAL AMPS
			TOTAL CONNECTED AMPS			*A: 30.0*				*B: 30.0*			
			FEED-THRU PANEL AMPS			*A:*				*B:*			
			PANEL TOTAL AMPS			*A: 30.0*				*B: 30.0*			



POWER RISER DIAGRAM
N.T.S.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

DATE
DESCRIPTION
REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

SCHEDULE AND RISER DIAGRAM

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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CHRISTOPHER T. MARSHALL
LICENSE
No. 96473
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	C. MARSHALL
CHECK	M. CHARMBURY
FILE	E-601.dwg

E-601

ABBREVIATIONS:

AB	ANCHOR BOLT
ALT	ALTERNATE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
B	BOTTOM
BLDG	BUILDING
BM	BEAM
BOTT	BOTTOM
BRG	BEARING
BRDG	BRIDGING
CB	CONCRETE BEAM
C/C	CENTER TO CENTER
CH	CHANNEL
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONFIG	CONFIGURATION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRUGATED
CTR	CENTER
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DR	DOOR
DWG	DRAWING
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELECT	ELECTRICAL
ELEV	ELEVATOR
EOS	EDGE OF SLAB
EQ	EQUAL
EW	EACH WAY
E	EXISTING
EXP	EXPANSION
Fe	FORCE
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FOM	FACE OF MASONRY
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
HC	HOLLOW CORE
HDG	HOT DIPPED GALVANIZED
HORIZ	HORIZONTAL
HP	HIGH POINT
IJ	ISOLATION JOINT
INFO	INFORMATION
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIPS
K/FT	KIPS PER FOOT
KJ	CONST.JOINT/KEYSTONE JOIST
L	ANGLE
LG	LONG
LP	LOW POINT
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
MFR	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING
MATL	MATERIAL
MAX	MAXIMUM
MB	MASONRY BEAM
MECH	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/PLUMBING
MF	MONOLITHIC POUR
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O/C	ON CENTER
OPNG	OPENING
PART	PARTITION
PC	PILE CAP
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER INCH
PT	POST TENSION/PRESSURE TREATED
R	RISER
REINF	REINFORCED
REM	REMAINDER
REQ'D	REQUIRED
REV	REVISED/REVISION
RM	ROOM
RO	ROUGH OPENING
RQMT	REQUIREMENT
SCHED	SCHEDULE
SECT	SECTION
SIM	SIMILAR
SJ	SAWCUT JOINT
SL	SLOPE
SQ	SQUARE
SP	SPIRAL
SS	STAINLESS STEEL
STD	STANDARD
SW	SHEARWALL/SHORT WAY
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMETRICAL
TB	TIE BEAM
TC	TIE COLUMN
TE	THICKENED EDGE
THK	THICK
T/O	THRU OUT
TOC	TOP OF CONCRETE
T	TOP
TEMP	TEMPERATURE
TOS	TOP OF STEEL/SLAB
TR	TREAD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WD	WOOD
WWF	WELDED WIRE FABRIC

MISCELLANEOUS NOTES:

THE PROJECT OWNER / DEVELOPPER SHALL DESIGNATE A CONTACT PERSON WHO HAS THE AUTHORITY TO ACT ON BEHALF OF THE OWNER TO COORDINATE AND PROVIDE CONSISTENCY FOR ALL THE PLANS REQUIRED FOR THE PROJECT INCLUDING LANDSCAPING, GRADING, PEDESTRIAN PROTECTION, ARCHITECTURE, STRUCTURAL, ELECTRICAL, MECHANICAL AND PLUMBING.

GENERAL STRUCTURAL NOTES

(A) GENERAL REQUIREMENTS

1. CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE FLORIDA BUILDING CODE 2023 (FBC) & HIGH VELOCITY WITH THE HURRICANE ZONE SECTIONS AS WELL AS ASCE 7-22 FOR WIND STANDARD.
2. THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS ISSUED BY THE ENGINEER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE PRIOR TO ORDERING ANY MATERIAL AND/OR COMMENCING WORK AND SHALL REPORT IN WRITING ANY DISCREPANCIES TO "CAPE DESIGN ENGINEERINGINC." HEREINAFTER CALLED "THE ENGINEER".
4. THE CONTRACTOR SHALL FULLY PROTECT ALL ADJACENT PROPERTIES BEFORE COMMENCING AY WORK.
5. CONTRACTOR SHALL PROVIDE BARRICADES AND PEDESTRIAN PROTECTION AS REQUIRED BY STATE AND LOCAL CODES.
6. CONTRACTOR SHALL CONSULT WITH REPRESENTATIVES OF CITY AND UTILITY COMPANIES CONCERNING AVAILABLE FACILITIES BEFORE COMMENCING WORK OR CONNECTING TO SEWER, PIPING OR WIRING, ETC., AND REPORT ANY PROBLEMS TO THE ENGINEER.
7. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
8. CONTRACTOR SHALL INSTALL TEMPORARY TOILETS BEFORE START OF JOB.
9. DRAWINGS TAKE PRECEDENCE OVER SPECIFICATIONS. DETAILED DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER GENERAL DRAWINGS AND SPECIFICATIONS.
10. TYPICAL DETAILS SHOWN SHALL APPLY WHERE NO SPECIAL DETAIL IS SHOWN.
11. WRITTEN DIMENSIONS, NOT SCALED DIMENSIONS, SHALL BE USED.
12. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL ALSO APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
13. TEMPORARY ERECTION BRACING AND SHORING SHALL BE PROVIDED AS REQUIRED ON ALL BEAMS, WALLS, ETC., ADEQUATE TO PROVIDE FULL STRUCTURAL STABILITY AND SAFETY. BRACING SHALL NOT BE REMOVED UNTIL THE ELEMENTS ARE FULLY CONNECTED AND ARE CAPABLE OF SUPPORTING THE DESIGN LOADS.
14. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
15. ALL A.S.T.M. SPECIFICATIONS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE A.S.T.M.
16. THE ENTIRE CONSTRUCTION SHALL COMPLY WITH STRUCTURAL INTEGRITY REQUIREMENTS ON ACI 318-19 CODE ARTICLE 7.13.
17. ALL REFERENCED STANDARDS REFER TO THE EDITION ENFORCED AT THE TIME THESE PLANS AND SPECIFICATIONS ARE ISSUED FOR PERMIT.
18. THE GENERAL CONTRACTOR SHALL RESTRICT AND PROPERLY ISOLATE ALL CONSTRUCTION EQUIPMENT AND LOADS FROM INDUCING OR TRANSMITTING VIBRATIONS TO THE STRUCTURE DURING CONSTRUCTION.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM EXCAVATIONS AND DEWATERING OPERATIONS, PREVENTING INCONVENIENCE TO THE WORK AND/OR DAMAGE TO THE STRUCTURAL ELEMENTS.
20. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS CONSTRUCTION DOCUMENTS WITH ANY REVISED DRAWINGS AND SPECIFICATIONS, FIELD ORDERS, CHANGE ORDERS AND CLARIFICATION SKETCHES ISSUED DURING THE COURSE OF CONSTRUCTION.
21. "BY OTHERS" DENOTES LABOR AND MATERIALS BY OTHERS. HOWEVER THE GENERAL CONTRACTOR SHALL PROVIDE COORDINATION AND FREE ACCESS FOR SUCH WORK.
22. "N.I.C." STANDS FOR "NOT IN CONTRACT." THE OWNER SHALL BE RESPONSIBLE FOR COORDINATING A TIME SCHEDULE OF THE BASE CONTRACT WITH THE N.I.C. TRADES.
23. TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO HOLD ALL COMPONENTS OF THE STRUCTURE IN PLACE UNTIL FINAL SUPPORT IS PROPERLY ANCHORED AND SECURED.
24. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES, INCLUDING WATER AND POWER NECESSARY FOR PROPER EXECUTION OF THE WORK SHOWN OR INDICATED ON THESE DRAWINGS. ALL MATERIALS SHALL BE NEW AND WORKMANSHIP SHALL BE OF GOOD QUALITY. ALL WORKMEN AND SUBCONTRACTORS SHALL BE SKILLED IN THEIR TRADE.
25. THE PREMISES SHALL BE KEPT FROM ACCUMULATION OF WASTE MATERIALS, AND DEBRIS. AT THE END OF THE JOB, THE CONTRACTOR SHALL REMOVE ALL RUBBISH, SURPLUS MATERIALS AND TOOLS, AND HE SHALL LEAVE THE BUILDING BROOM CLEAN.
26. SHOP DRAWINGS ARE AN AID FOR FABRICATION AND FIELD INSTALLATION, AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
27. THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL BEFORE FABRICATION OR ERECTION OR ANY STRUCTURAL SYSTEM.
28. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH FIVE (3) COPIES OF SHOP DRAWINGS ALLOWING A MINIMUM OF TWO (2) WEEKS FOR REVIEW AND ACCEPTANCE. THE REVIEW OF SHOP DRAWINGS IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THIS REVIEW DOES NOT GUARANTEE, IN ANY WAY, THAT THE SHOP DRAWINGS ARE CORRECT, NOR DOES IT INFER THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS.
29. STRUCTURAL DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, AIR CONDITIONING, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLAB, SLOPES, DRAINS, OUTLETS RECESSES, OPENINGS REGLETS, BOLT SETTINGS, SLEEVES, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
30. USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER DRAWINGS. COORDINATE THE WORK OF OTHER TRADES INCLUDING, BUT NO LIMITED TO THE REQUIREMENTS FOR SLEEVES, INSERTS, HOLES, HANGERS AND ANCHOR.
31. ELEVATIONS ON THE STRUCTURAL DRAWINGS AR NOTED AS (+/- 0'-0") REFERENCED TO THE FINISHED FIRST FLOOR ELEVATION DATUM. REFER TO THE CIVIL DRAWINGS FOR ACTUAL DATUM ELEVATION.
32. DETAILS ENTITLED OR NOTES AS "TYPICAL" APPLY NOT ONLY WHERE SPECIFICALLY INDICATED OR REFERENCED, BUT ALSO IN ALL OTHER CASES WHERE THE NATURE OF CONSTRUCTION REQUIRES THEIR USE. DETERMINE APPLICABILITY OR TYPICAL DETAILS FROM DESCRIPTIVE TITLES OR FROM SIMILARITY OF CONSTRUCTION CONDITION TO ANOTHER CONDITION WHERE THE DETAILS IS SPECIFICALLY INDICATED OR REFERENCED.
33. JOB SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR. "THRESHOLD" INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT SHALL BE UNDER A SEPARATE CONTRACT.

(B) DESIGN CRITERIA

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AND SPECIFICATIONS:
   - A. FLORIDA BUILDING CODE 2023 (FBC).
   - B. ASCE 7-22, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
   - C. ACI 318-19, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.

2. DESIGN LOAD CRITERIA:

   A. LIVE LOADS (UNIFORM)
   ROOF (NON-GREEN, INACCESSIBLE BY PUBLIC) 20 PSF

   B. DEAD LOADS
   PREFABRICATED RESTROOM BUILDING 54.6 KIP
   PUMP 0.1 KIP

NOTE: LIVE LOAD REDUCTION WAS USED IN THE DESIGN OF THIS STRUCTURE.

C. WIND LOAD:

	TYPICAL
BASIC WIND SPEED, V	159 MPH
OCCUPANCY CATEGORY	II
WIND DIRECTIONALLY FACTOR, Kd	0.85
WIND EXPOSURE CATEGORY	C
GUST EFFECT FACTOR, G	0.85
INTERNAL PRESSURE COEFFICIENTS, GCpi	±0.18

NOTES:

-STRENGTH DESIGN BASED ON 700-YEAR MEAN RECURRENCE INTERVAL.
-DEFLECTION (SERVICEABILITY) DESIGN BASED ON 50-YEAR MEAN RECURRENCE INTERVAL.

(C) CONCRETE

CODE:

1. ALL CONCRETE SHALL BE MIXED, FORMED, FINISHED, CURED, AND PROTECTED IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PORTLAND CEMENT ASSOCIATION (PCA) AND THE AMERICAN CONCRETE INSTITUTE (ACI 318-19).
2. FORMWORK SHALL COMPLY WITH "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" (ACI 347R).
3. IN ORDER TO PREVENT SEGREGATION OF THE AGGREGATES, CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SUCH AS IN WALLS, COLUMNS AND DROPPED CAPITALS. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTH SUCH THAT FREE UNCONFINED FALL OF THE CONCRETE DOES NOT EXCEED FOUR (4) FEET. SUFFICIENT NUMBER OF THESE TOOLS SHALL BE USED TO ENSURE THAT THE CONCRETE IS LEVEL AT ALL TIMES.
4. TRANSPORTING, PLACING, VIBRATING, CURING AND DEPOSITING OF CONCRETE SHALL COMPLY WITH THE ACI 301.
5. NO WATER SHALL BE ADDED TO THE CONCRETE MIX AT THE JOB SITE.
6. CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:
   SLAB ON GRADE: 3000 PSI (U.O.N.)
   FOUNDATION: 3000 PSI (U.O.N.)

MIX:

1. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE II. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE AS SPECIFIED ON THE DETAIL DRAWINGS.
2. MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY CONCRETE WORK.

STRUCTURAL SPECIAL INSPECTION NOTES:

(NON-THRESHOLD BUILDINGS)

1. GENERAL
   - 1.1. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC), CHAPTER 17, AS APPLICABLE TO THE STRUCTURAL SYSTEMS USED IN THIS PROJECT.
   - 1.2. THIS STRUCTURE DOES NOT MEET THE DEFINITION OF A THRESHOLD BUILDING PER FBC SECTION 110.8, THEREFORE A THRESHOLD INSPECTION PLAN AND THRESHOLD INSPECTOR ARE NOT REQUIRED.
   - 1.3. SPECIAL INSPECTIONS IDENTIFIED HEREIN ARE REQUIRED DUE TO THE USE OF ENGINEERED STRUCTURAL SYSTEMS AND/OR MATERIALS REGULATED BY FBC CHAPTER 17.
2. SPECIAL INSPECTOR QUALIFICATIONS
   - 2.1. SPECIAL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ).
   - 2.2. THE SPECIAL INSPECTOR SHALL BE INDEPENDENT OF THE CONTRACTOR AND SHALL HAVE APPROPRIATE CERTIFICATIONS AND EXPERIENCE FOR THE INSPECTED WORK.
3. REQUIRED STRUCTURAL SPECIAL INSPECTIONS
   SPECIAL INSPECTIONS ARE REQUIRED FOR THE FOLLOWING STRUCTURAL ELEMENTS, WHEN APPLICABLE:
   - A. CONCRETE CONSTRUCTION
     - VERIFICATION OF REINFORCING STEEL SIZE, SPACING, PLACEMENT, AND ANCHORAGE PRIOR TO CONCRETE PLACEMENT.
     - VERIFICATION OF CONCRETE PLACEMENT, CONSOLIDATION, AND CURING.
     - VERIFICATION OF CONCRETE STRENGTH TESTING (SAMPLING AND TEST REPORTS).
   - B. STRUCTURAL STEEL CONSTRUCTION
     - VERIFICATION OF MATERIAL IDENTIFICATION AND INSTALLATION.
     - INSPECTION OF BOLTED CONNECTIONS FOR PROPER BOLT TYPE, INSTALLATION, AND TIGHTENING.
     - INSPECTION OF WELDED CONNECTIONS, INCLUDING WELDING PROCEDURES, WELDER QUALIFICATIONS, AND VISUAL INSPECTION OF COMPLETED WELDS.
     - NONDESTRUCTIVE TESTING (NDT) ONLY IF SPECIFICALLY REQUIRED BY THE CONSTRUCTION DOCUMENTS.
   - C. COLD-FORMED STEEL FRAMING
     - INSPECTION OF MEMBER SIZES, SPACING, AND FASTENING.
     - VERIFICATION OF CONNECTIONS TO SUPPORTING STRUCTURAL ELEMENTS.
     - VERIFICATION OF BRACING, ANCHORS, AND HOLD-DOWNS.
   - D. WOOD STRUCTURAL ELEMENTS (ENGINEERED WOOD ONLY)
     - INSPECTION OF ENGINEERED WOOD PRODUCTS, INCLUDING TRUSSES, SHEAR WALLS, HOLD-DOWNS, AND ANCHORS.
     - VERIFICATION OF CONNECTOR TYPES, SIZES, AND INSTALLATION.
     - TRUSS INSPECTIONS SHALL COMPLY WITH APPROVED TRUSS SHOP DRAWINGS.
   - E. DEEP FOUNDATIONS / SPECIALTY FOUNDATIONS (IF APPLICABLE)
     - INSPECTION OF PILE INSTALLATION, DRILLED SHAFTS, OR OTHER SPECIALTY FOUNDATION SYSTEMS IN ACCORDANCE WITH APPROVED PLANS AND GEOTECHNICAL RECOMMENDATIONS.
4. OBSERVATION FREQUENCY
   - 4.1. SPECIAL INSPECTIONS SHALL BE PERIODIC, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
   - 4.2. CONTINUOUS INSPECTION IS NOT REQUIRED UNLESS SPECIFICALLY STATED.
5. REPORTING REQUIREMENTS
   - 5.1. THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN INSPECTION REPORTS TO THE BUILDING OFFICIAL, ENGINEER OF RECORD (EOR), AND OWNER AT INTERVALS REQUIRED BY THE AHJ.
   - 5.2. ANY DISCREPANCIES OR NONCONFORMING WORK SHALL BE REPORTED IMMEDIATELY TO THE CONTRACTOR AND EOR FOR CORRECTIVE ACTION.
   - 5.3. A FINAL SIGNED AND SEALED SPECIAL INSPECTION REPORT SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY.
6. CONTRACTOR RESPONSIBILITIES
   - 6.1. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR IN ADVANCE OF WORK REQUIRING INSPECTION.
   - 6.2. WORK REQUIRING SPECIAL INSPECTION SHALL NOT PROCEED WITHOUT THE SPECIAL INSPECTOR PRESENT WHEN REQUIRED.
   - 6.3. CORRECTIVE WORK SHALL BE RE-INSPECTED AND DOCUMENTED.
7. ENGINEER OF RECORD
   THE ENGINEER OF RECORD SHALL REVIEW SPECIAL INSPECTION REPORTS AND PROVIDE CLARIFICATION OR DIRECTION AS REQUIRED TO MAINTAIN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE FLORIDA BUILDING CODE.

SPECIAL INSPECTION MATRIX:

(NON-THRESHOLD BUILDINGS)

STRUCTURAL ELEMENT	**CODE REFERENCE**	**INSPECTION TYPE**	**FREQUENCY**
REINFORCING STEEL	FBC 1705.3	VISUAL VERIFICATION PRIOR TO PLACEMENT	PERIODIC
CONCRETE PLACEMENT	FBC 1705.3	PLACEMENT & CONSOLIDATION	PERIODIC
CONCRETE STRENGTH TESTING	FBC 1705.3	REVIEW OF TEST REPORTS	PERIODIC
STRUCTURAL STEEL – BOLTED CONNECTIONS	FBC 1705.2	BOLT TYPE & INSTALLATION	PERIODIC
STRUCTURAL STEEL – WELDED CONNECTIONS	FBC 1705.2	VISUAL WELD INSPECTION	PERIODIC
COLD-FORMED STEEL FRAMING	FBC 1705.1.2	MEMBER SIZE, SPACING, FASTENING	PERIODIC
ENGINEERED WOOD ELEMENTS	FBC 1705.1.1	HARDWARE & LOAD PATH	PERIODIC
TRUSS INSTALLATION	FBC 1705.1.1	CONFORMANCE TO SHOP DRAWINGS	PERIODIC
ANCHORS (STRUCTURAL LOADS)	FBC 1705.1.3	INSTALLATION & TESTING	PERIODIC
FINAL STRUCTURAL INSPECTION	FBC 1704	SUMMARY COMPLIANCE REVIEW	FINAL

(E) REINFORCEMENT STEEL

1. REINFORCING SHALL BE DEFORMED BILLET-STEEL BARS CONFORMING TO A615 A706, GRADE 60.
2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND IT SHALL BE SUPPORTED ON SLAB BOLSTERS. USE FLAT SHEETS ONLY.
3. REINFORCEMENT SHALL BE COLD BENT AND SHALL NOT BE WELDED WITHOUT WRITTEN APPROVAL FROM THE RESPONSIBLE SUN ENGINEERING CIVIL ENGINEER.
4. REINFORCEMENT SHALL BE CLEANED SO AS TO BE FREE OF OIL, DIRT, LOOSE RUST, SCALE OR OTHER COATINGS THAT WOULD DESTROY OR REDUCE THE BOND.
5. ALL REINFORCING SHALL BE DETAILED AND FABRICATED FOLLOWING THE REQUIREMENTS OF ACI 315. PLACING OF REBARS SHALL CONFORM TO "CRSI RECOMMENDED PRACTICES FOR PLACING REINFORCING BARS."
6. REBAR SHOP FABRICATION DRAWINGS TO BE PROVIDED FOR REVIEW BY ENGINEER PRIOR TO FABRICATION.
7. ALL REINFORCING BARS SHALL BE SECURELY HELD IN PLACE DURING CONCRETE POURING. IF REQUIRED, ADDITIONAL BARS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR THE BARS.
8. ALL REINFORCEMENT SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.
9. NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. ALL REINFORCING DETAILS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL.
10. BAR SUPPORTS SHALL BE PLASTIC TIPPED FOR EXPOSED CONCRETE. LEGS OF FOUNDATION CHAIRS SHALL BE HOT-DIPPED GALVANIZED. PLASTIC "DONUT" SPACERS SHALL BE REQUIRED FOR STEEL AGAINST FORMS IN CONCRETE BEAMS AND WALLS.
11. ALL WALLS AND COLUMNS SHALL BE DOWELED INTO BOTTOM OF FOOTINGS, WALLS, BEAMS, OR SLABS WITH BARS OF SAME SIZE AND SPACING AS THE BARS ABOVE. USE A 30-BAR DIAMETER LAP EXCEPT WHERE SPECIFICALLY INDICATED. SHEAR WALLS SHALL BE LAPPED AS INDICATED ON PLANS.
12. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE FOR TOP BARS IN SPANDREL BEAMS, WALLS, REGULAR BEAMS, GRADE BEAMS, ETC. (UNLESS NOTED OTHERWISE) SHALL BE AT CENTER OF SPAN; BOTTOM BARS SHALL BE SPLICED AT THE SUPPORT.
13. THE GENERAL CONTRACTOR AND STEEL DETAILER MUST MINIMIZE THE NUMBER OF STRUCTURAL COLUMN BAR SPLICES (LAP OR MECHANICAL) BY PLACING BAR LIFTS WITH A MINIMUM OF TWO-STORY HEIGHT. VERIFY WITH ENGINEER OF RECORD PRIOR TO FABRICATION.
14. CUTTING BARS WITH THE USE OF A TORCH IS NOT PERMITTED.
15. FIELD-BENDING OF BARS WITH THE USE OF A TORCH IS NOT PERMITTED.
16. REINFORCING IS DENOTED ON PLANS AS FOLLOWS:
    BOTTOM BARS _ _ _ _ _ _ _ (DASHED LINE)
    TOP BARS ________________ (SOLID LINE)
17. REINFORCING ALLOWANCE: THE CONTRACTOR SHALL PROVIDE 20 TONS OF IN-PLACE STEEL REINFORCEMENT FOR THE ENGINEER TO USE AT HIS DISCRETION DURING CONSTRUCTION. THE CONTRACTOR SHALL GIVE CREDIT TO THE OWNER FOR ANY UNUSED PORTION OF THIS ALLOWANCE AT THE END OF THE PROJECT.
18. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO ALL EXPOSED DOWEL BARS AT PILE CAPS. IF BARS CORRODE DUE TO LONG EXPOSURE TO THE WEATHER, DOWELS SHALL BE CLEANED BY SANDBLASTING OR ANY OTHER ENGINEER APPROVED MEANS. TO INSURE ITS INTEGRITY, CONTRACTOR SHALL HAVE THE OPTION OF USING EPOXY COATING BARS OR GALVANIZED BARS.

REINFORCEMENT COVER:

	MINIMUM COVER	TOLERANCE ±
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	3/8"
EXPOSED TO EARTH OR WEATHER:		
NO. 5 AND SMALLER BARS	2"	1/4"
NO. 6 AND LARGER BARS	3"	1/4"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:		
BALCONIES AND ROOF SLABS	1"	1/8"
STRUCTURAL SLABS AND WALLS	3/4"	1/8"
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS)	1-1/2"	1/4"
SLABS ON GRADE		
TOP	2"	1/4"
BOTTOM BARS	3"	1/4"

REINFORCEMENT CONTINUITY:

1. UNLESS SHOWN OTHERWISE ON THE DESIGN DRAWINGS, ALL REINFORCEMENT SHALL BE PLACED CONTINUOUS BY LAP SPLICING. UNLESS DETAILED OTHERWISE ON DESIGN DRAWINGS ALL LAP SPLICES SHALL HAVE A MINIMUM LENGTH OF 36 BAR DIAMETERS. TERMINATE CONTINUOUS BAR ENDS WITH A STANDARD 90-DEGREE HOOK, U.O.N.

(D) SHOP DRAWINGS AND OTHER SUBMITALS

1. REVIEW OF SUBMITTALS BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SUBMITTALS REQUIRED BY THE CONTRACT DOCUMENTS WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT COMMENTS.
2. BEFORE SUBMITTING THE FIRST SHOP DRAWING, THE CONTRACTOR SHALL PROVIDE THE STRUCTURAL ENGINEER WITH THE SHOP DRAWING SUBMITTAL SCHEDULE CONSISTENT WITH THE FOLLOWING CRITERIA:
   - A. ALLOW SUFFICIENT TIME FOR TRANSIT AND PROCESSING BEFORE FABRICATION. THE STRUCTURAL ENGINEER WILL REVIEW A SUBMITTAL WITHIN AN AVERAGE OF 21 CALENDAR DAYS AFTER THE DATE IN WHICH IT WAS RECEIVED.
   - B. SCHEDULE AND SUBMIT SHOP DRAWINGS FOR SPECIFIC COMPONENTS IN SIMILAR CONDITION, SUCH AS COLUMNS, FOOTINGS, ETC., IN THEIR ENTIRETY. SHOP DRAWINGS FOR SIMILAR FLOORS SHALL BE SUBMITTED IN THE SAME PACKAGE.
   - C. SUBMIT SHOP DRAWINGS IN A TIMELY MANNER.
3. REVIEW OF SHOP DRAWINGS IS LIMITED WITHIN THE SCOPE OF BASIC SERVICES TO TWO (2) REVIEWS PER SUBMITTAL (I.E., INITIAL SUBMITTAL REVIEW AND ONE RESUBMITTAL, IF NECESSARY). REVIEW OF ADDITIONAL RESUBMITTALS WILL BE CONSIDERED ADDITIONAL SERVICES, FOR WHICH THE CONTRACTOR MAY BE HELD RESPONSIBLE. COMPENSATION OF ADDITIONAL SERVICES TO THE ARCHITECT/ ENGINEER WILL BE IN ACCORDANCE WITH THE TERMS OF THE CONTRACT AGREEMENT FOR THE DESIGN OF THIS PROJECT.
4. ALL SUBMITTALS SHALL BE ACCOMPANIED WITH A LETTER OF TRANSMITTAL. DO NOT COMBINE DIFFERENT SUBMITTALS IN THE SAME TRANSMITTAL.
5. ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRIOR TO SUBMITTING THEM TO THE ARCHITECT/ENGINEER.
6. SUBMIT FIVE COPIES/PRINTS TO THE ARCHITECT/ENGINEER FOR REVIEW. THE REVIEWER WILL RETAIN ONE COPY AFTER THE REVIEW.
7. ALL CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. THIS SECOND REVIEW BY THE ARCHITECT/ENGINEER WILL BE LIMITED TO THE ITEMS CAUSING THE RE-SUBMITTAL.
8. DO NOT REPRODUCE THE STRUCTURAL CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS.
9. SHOP DRAWINGS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW.
10. SEE NOTES BELOW FOR ADDITTIONAL CRITERIA APPLICABLE TO SHOP DRAWINGS REQUIRING ENGINEERING INPUT BY A SPECIALTY ENGINEER.

(E) SHOP DRAWINGS REQUIRING ENGINEERING INPUT BY SPECIALTY ENGINEER

1. SPECIALTY ENGINEER:

   A) DEFINITION - A FLORIDA REGISTERED PROFESSIONAL ENGINEER, NOT THE STRUCTURAL ENGINEER OF RECORD, WHO SPECIALIZES IN AND WHO UNDERTAKES THE DESIGN OF STRUCTURAL COMPONENTS OR STRUCTURAL SYSTEMS INCLUDED IN A SPECIFIC SUBMITTAL PREPARED FOR THIS PROJECT.
   B) SHALL BE:

   a) AN EMPLOYEE OR OFFICER OF A FABRICATOR.
   b) AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR.
   c) AN INDEPENDENT CONSULTANT RETAINED BY THE FABRICATOR OR HIS SUPPLIER.
2. SUBMISSIONS AND RE-SUBMISSIONS FOR CUSTOM DESIGNED, MANUFACTURED OR FABRICATED LOAD-CARRYING ITEMS AND CUSTOM FABRICATED ITEMS WHICH ARE REQUIRED BY CODES OR STANDARDS TO RESIST FORCES AND STRESSES, INCLUDING THEIR CONNECTIONS, ANCHORAGES AND ATTACHMENTS REQUIRE A SPECIALTY ENGINEER.
3. THE FOLLOWING SYSTEMS AND COMPONENTS, AS A MINIMUM, REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A SPECIALTY ENGINEER: ALUMINUM OR LIGHT GAGE STEEL EXTERIOR WALL SYSTEMS, PREFABRICATED STEEL STAIRS, RAILINGS, PRECAST CONCRETE COMPONENTS, POST-TENSIONING SYSTEMS, PREFABRICATED WOOD COMPONENTS, OPEN WEB STEEL JOISTS, SHORING AND RE-SHORING
4. FOR EACH CATEGORY OF SHOP DRAWINGS REQUIRING INPUT FROM A SPECIALTY ENGINEER, THE CONTRACTOR SHALL ATTACH TO THE FIRST SHOP DRAWING SUBMITTAL A SIGNED AND SEALED LETTER FROM THE RESPONSIBLE SPECIALTY ENGINEER STATING, "I CERTIFY THAT THE DESIGN AND DRAFTING OF THE SHOP DRAWINGS WHICH ARE SIGNED AND SEALED BY ME WERE PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE THE SHOP DRAWINGS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE CONTRACT DOCUMENTS."
5. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
6. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE IMPRESSED SEAL, DATE AND SIGNATURE OF THE SPECIALTY ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE IMPRESSED SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. SEPIAS DO NOT REQUIRE SIGNATURE AND SEAL. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED BLUE LINE PRINT FOR RECORD.
7. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING INPUT DO NOT REQUIRE THE SEAL OF A SPECIALTY ENGINEER.
8. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A SPECIALTY ENGINEER.
9. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:

   A) THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
   B) THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
   C) THAT THE SPECIALTY ENGINEER HAS UNDERSTOOD THE DESIGN INTEND AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)
   D) THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
10. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED.

(F) FOUNDATION NOTES:

1. FOUNDATIONS WERE DESIGNED FOLLOWING THE RECOMMENDATIONS OF UES, AS STATED IN THEIR SOIL REPORT NUMBER A 25153.01192.000 DATED 2026-14-01.
2. THE MAXIMUM ALLOWABLE SOIL BEARING CAPACITY AND MODULUS OF SUBGRADE FOR SHALLOW FOUNDATIONS ARE 2,500 PSF AND 100 PCI RESPECTIVELY PER UES SOILS REPORT. THE CONTRACTOR SHALL VERIFY THE CODE MINIMUM SOIL REQUIREMENT IS MET.
3. ALL FOUNDATION CONCRETE SHALL BE CAST IN THE DRY. THE DEWATERING OPERATION SHALL BE DONE IN SUCH A WAY THAT GROUND WATER LEVELS OUTSIDE THE SITE WILL BE MAINTAINED TO AVOID SETTLEMENT AND DAMAGE TO NEARBY BUILDINGS AND STRUCTURES.
4. FILL AND BACKFILL SHALL BE PLACED AROUND FOUNDATIONS AS SOON AS THE PROGRESS OF WORK PERMITS, BUT NO MORE THAN 78 DAYS. FILL AND BACKFILL SHALL BE DEPOSITED IN HORIZONTAL LAYERS NOT EXCEDDING 6 INCHES IN THICKNESS. BROUGHT TO NEAR OPTIMUM MOISTURE CONTENT IN-PLACE AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. BACKFILL SHALL BE BROUGHT TO THE GRADE LINE AS INDICATED ON THE DRAWINGS AND GRADED TO DRAIN AWAY FROM THE STRUCTURES. NO BACKFILLING SHALL BE PERFORMED UNTIL THE WORK HAS BEEN INSPECTED AND APPROVED. A MINIMUM 4 FT EXCAVATION BELOW FOUNDATION IS REQUIRED.
5. ALL RE-COMPACTED SOIL SHALL BE TO 95% DENSITY PER ASTM-1557. MOISTURE CONDITIONED 1 TO 3 PERCENT ABOVE OPTIMUM PRIOR TO PLACEMENT OF FILL.
6. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY INTERPRETATION THAT THE SUBSURFACE CONDITIONS DESCRIBED IN THE TEST BORING LOGS OCCUR CONSISTENTLY THROUGHOUT THE JOB SITE. TEST BORINGS ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENT SOIL CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND AT THE PARTICULAR TIMES THEY WERE TAKEN.
7. GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SHORING, SHEETING AND BRACING OF EXCAVATIONS.
8. EXCAVATION OF FOOTINGS AND GRADE BEAMS SHALL FINISHED BY HAND SHOVEL.
9. IN NO CASE SHALL TRUCKS, BULLDOZERS OR OTHER HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION WALL UNLESS APPROVED BY THE ENGINEER.
10. GENERAL CONTRACTOR SHALL INSTALL ALL PIPE SLEEVES, BOXED OPENINGS, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE VARIOUS TRADES. WALL POCKETS TO RECEIVE BEAMS AND SLABS SHALL BE PROVIDED AS REQUIRED FOR THE SUPER-STRUCTURE. SHOP DRAWINGS SHOWING THE POSITION OF OPENINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
11. ALL REINFORCING STEEL USED IN FOUNDATION WORK SHALL COMPLY WITH ASTM A615 (S1), GRADE 60. SEE "REINFORCING STEEL" UNDER "GENERAL NOTES".
12. THE SOIL ENGINEER OR HIS REPRESENTATIVE OR THE OWNER'S QUALIFIED REPRESENTATIVE SHALL INSPECT ALL SUBGRADE PREPARATION WORK PRIOR TO THE PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE AND SHALL PERFORM TESTS AS NECESSARY TO VERIFY THAT SUCH WORK IS IN CONFORMANCE WITH THE RECOMMENDATION GIVEN IN THE SOIL REPORT.
13. THE DESIGN ENGINEER OR HIS QUALIFIED REPRESENTATIVE OR THE OWNER'S QUALIFIED REPRESENTATIVE SHALL CHECK PLACEMENT OF ALL REINFORCING STEEL PRIOR TO CASTING OF ANY CONCRETE.
14. CENTER ALL SPREAD FOOTINGS UNDER RESPECTIVE COLUMNS; CENTER C.M.U. WALLS OVER THEIR RESPECTIVE GRADE BEAMS U.O.N.
15. ALL STRUCTURAL SLAB ON GRADE SHALL BE POURED AT THE END OF CONSTRUCTION (AT ROOF LEVEL CONSTRUCTION) TO AVOID DIFFERENTIAL SETTLEMENT. AS PER SOIL REPORT.
16. PROVIDE CONTROL OR CONSTRUCTION JOINTS AS SHOWN ON PLAN. IF SAW-CUT OPTION IS USED, SLABS SHALL BE CUT NOT MORE THAN 24 HOURS AFTER POURING.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

REV	DESCRIPTION	DATE

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

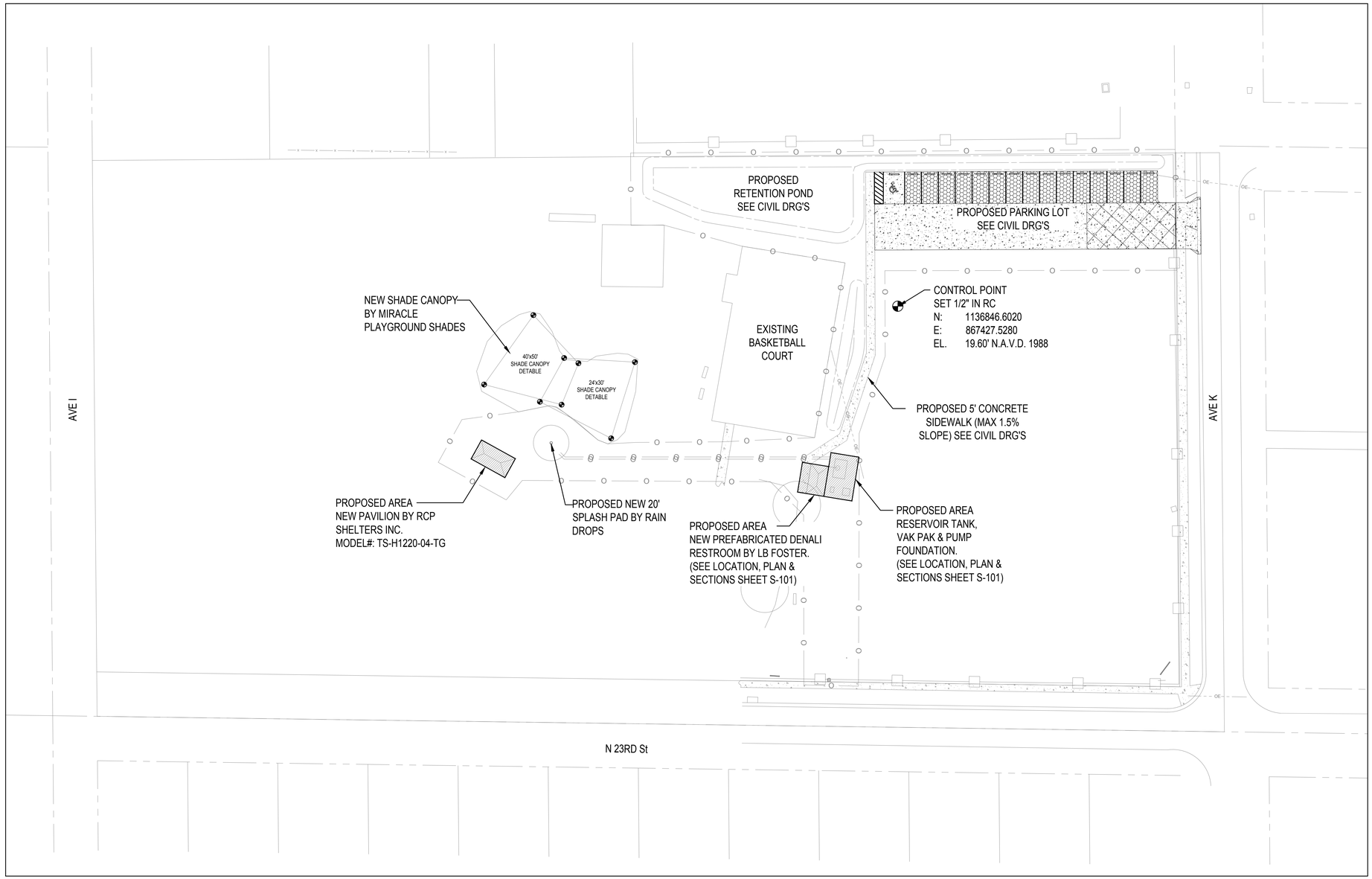
ABBREVIATIONS AND GENERAL NOTES

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

JUAN PABLO PINHEIROS
No 72730

CDE #	60263
DATE	02/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	STRUCTURAL.dwg



N

SITE PLAN
1" = 30'

REFERENCE DRAWINGS:

SEE S-001	ABBREVATIONS AND GENERAL NOTES
SEE S-100	GENERAL NOTES & SITE PLAN
SEE S-101	FLOOR PLANS & SECTIONS
SEE S-102	CLADDING & ELEVATIONS PREFABRICATED BUILDING
SEE S-501	VAK PAK & TANK DETAILS
SEE S-502	CHAIN LINK FENCE DETAILS

LEGEND:

EXISTING CONSTRUCTION TO REMAIN

PROPOSED AREA

15' 0 30' 60'
1"=30'

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

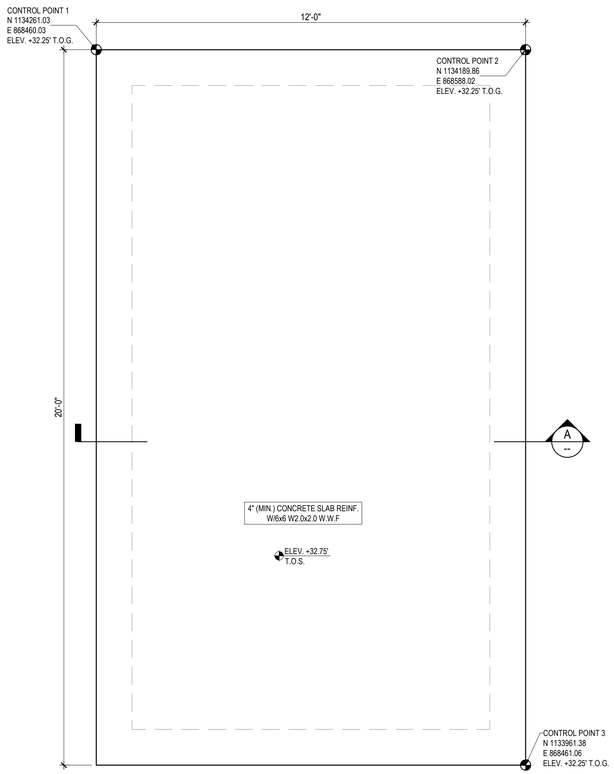
DATE
DESCRIPTION
REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

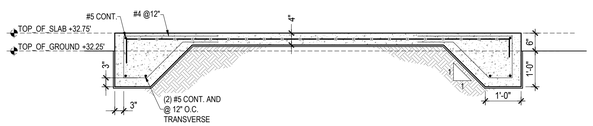
SITE PLAN

CDE #	60263
DATE	02/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	STRUCTURAL.dwg

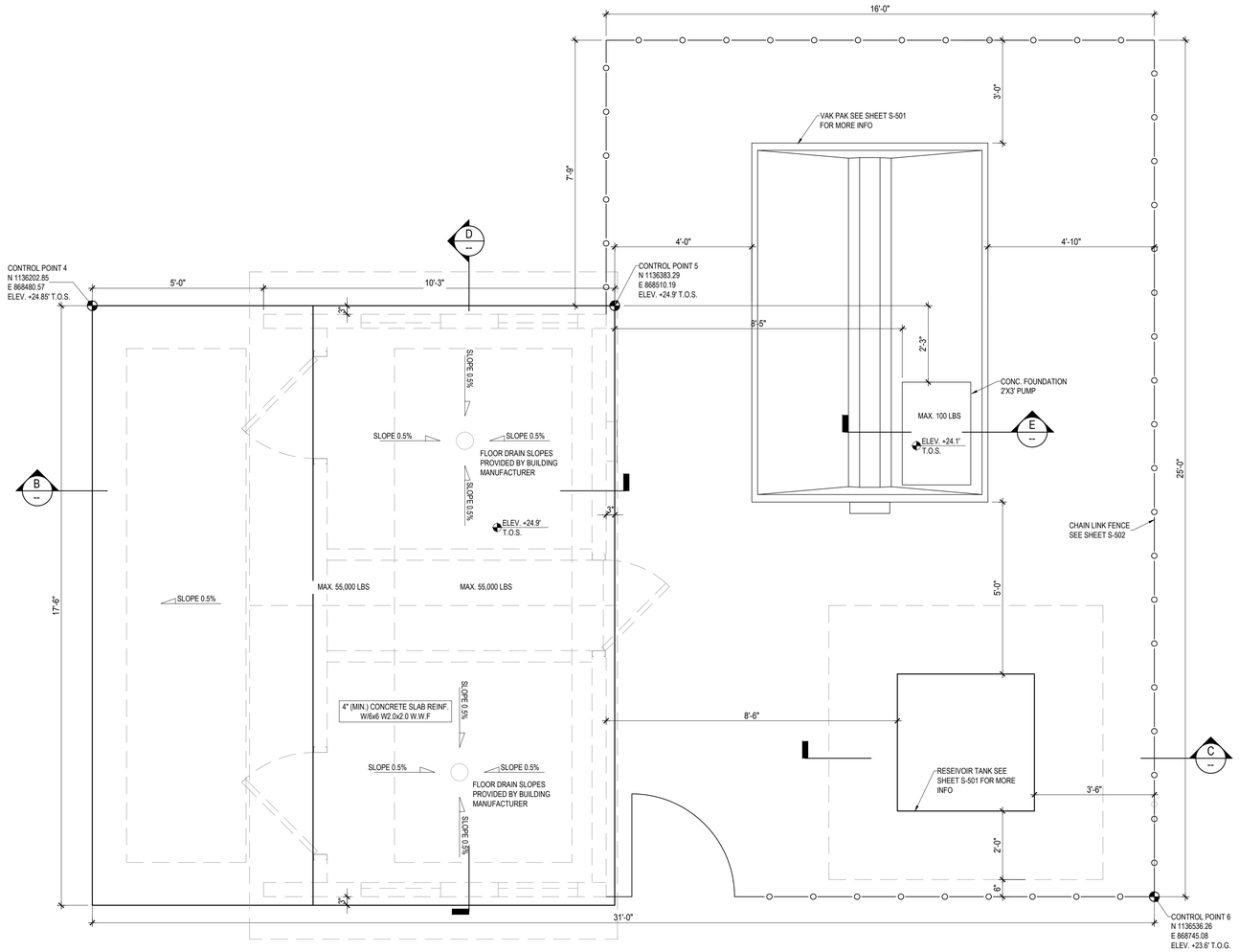
S-100



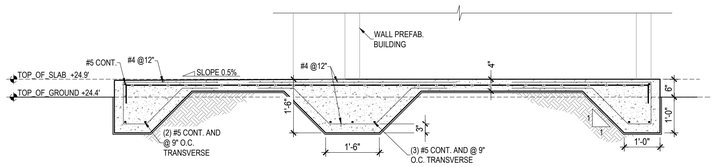
PLAN VIEW CONC. PAVILION FOUNDATION
1/2" = 1'-0"



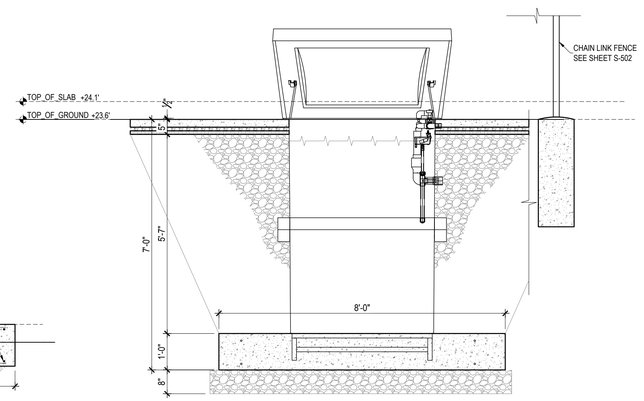
SECTION A
1/2" = 1'-0"



PLAN VIEW CONC. RESTROOM FOUNDATION
1/2" = 1'-0"



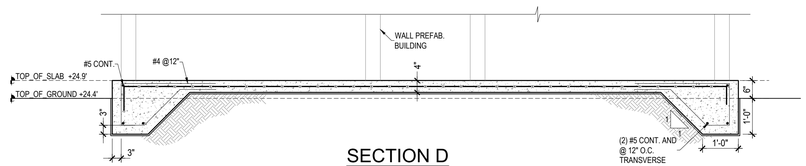
SECTION B
1/2" = 1'-0"



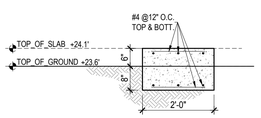
SECTION C
1/2" = 1'-0"

NOTES:

1. ALL DIMENSION SHALL BE FIELD VERIFIED.
2. G.C. TO COORDINATE TOP OF FOUNDATIONS LOCATIONS WITH ALL TRADES PRIOR TO EXCAVATION & NOTIFY ENG. OF ANY DISCREPANCIES.
3. G.C. IS RESPONSIBLE FOR COORDINATION OF STRUCTURAL PLANS WITH M.E.P. OR ANY OTHER PROJECT PLANS/DRAWINGS THAT WOULD IMPACT THE STRUCTURAL LAYOUT AND OR DESIGN. STRUCTURAL ENGINEER IS TO BE NOTIFIED OF DISCREPANCIES (IF ANY) PRIOR TO COMMENCEMENT OF WORK DELINEATED HEREIN.



SECTION D
1/2" = 1'-0"



SECTION E
1/2" = 1'-0"

REFERENCE DRAWINGS:

SEE S-001	ABBREVATIONS AND GENERAL NOTES
SEE S-100	GENERAL NOTES & SITE PLAN
SEE S-101	FLOOR PLANS & SECTIONS
SEE S-102	CLADDING & ELEVATIONS PREFABRICATED BUILDING
SEE S-501	VAK PAK & TANK DETAILS
SEE S-502	CHAIN LINK FENCE DETAILS

CAPE DESIGN ENGINEERING
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321.799.2970 | www.cdeco.com
Registry 8072

DATE

DESCRIPTION

REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

FLOOR PLANS AND SECTIONS

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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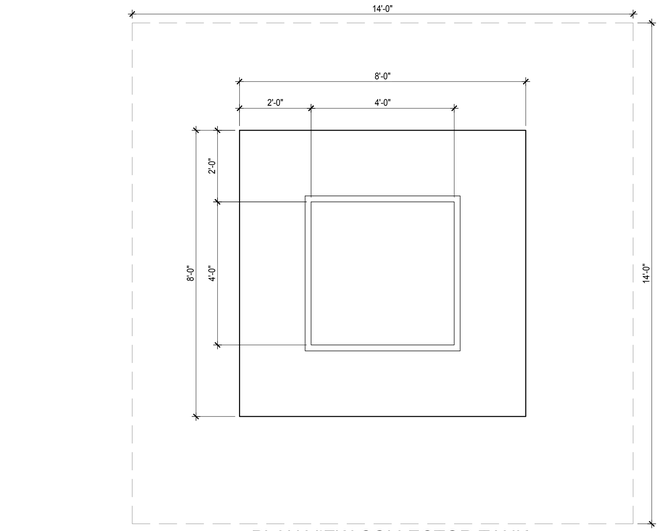
JUAN PABLO PINHEIROS
LICENSE
No 72730
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CDE #	60263
DATE	02/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	STRUCTURAL.dwg

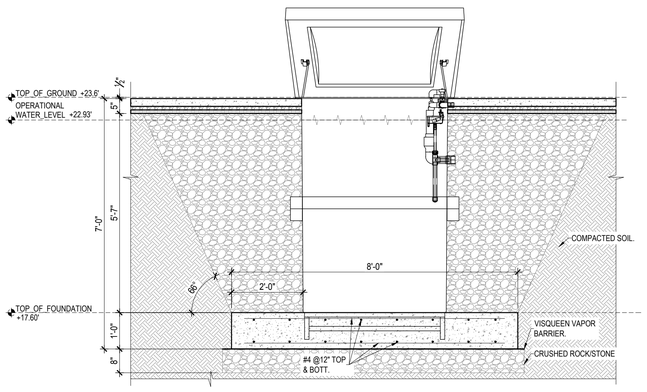
S-101

12" 0 1' 2' 3' 4' 5'
1/2"=1'-0"



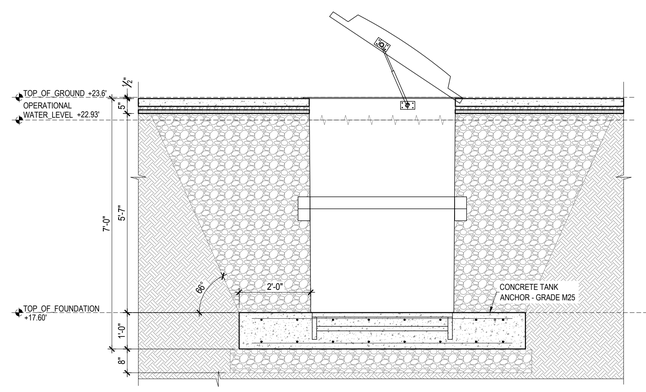
PLAN VIEW COLLECTOR TANK

1/2" = 1'-0"



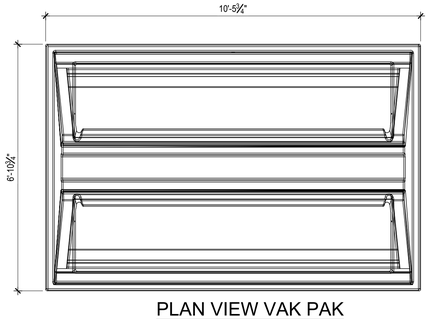
FRONT ELEVATION COLLECTOR TANK

1/2" = 1'-0"



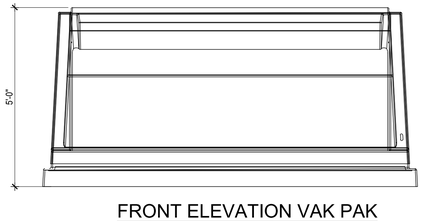
SIDE ELEVATION COLLECTOR TANK

1/2" = 1'-0"



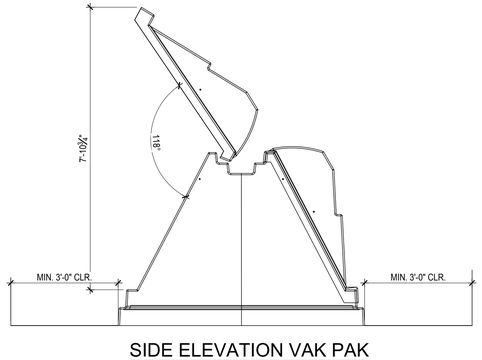
PLAN VIEW VAK PAK

1/2" = 1'-0"



FRONT ELEVATION VAK PAK

1/2" = 1'-0"



SIDE ELEVATION VAK PAK

1/2" = 1'-0"

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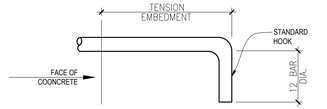
SEE S-502	CHAIN LINK FENCE DETAILS

1/2" 0 1' 2' 3' 4' 5'

1/2"=1'-0"

TENSION EMBEDMENT LENGTH (with std. hook) SCHEDULE

BAR SIZE	f'c = 3000 psi		f'c = 4000 psi		f'c = 5000 psi		f'c = 6000 psi		f'c = 7000 psi		f'c = 8000 psi	
	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
# 4	12"	8"	10"	7"	9"	6"	9"	6"	9"	6"	9"	6"
# 5	14"	10"	13"	9"	12"	8"	10"	7"	10"	7"	10"	7"
# 6	17"	12"	14"	10"	13"	9"	13"	9"	12"	8"	12"	8"
# 7	20"	14"	17"	12"	16"	11"	14"	10"	13"	9"	13"	9"
# 8	23"	16"	20"	14"	17"	12"	16"	11"	16"	11"	14"	10"
# 9	26"	18"	21"	15"	20"	14"	19"	13"	17"	12"	16"	11"
# 10	28"	20"	24"	17"	23"	16"	20"	14"	19"	13"	17"	12"
# 11	31"	22"	27"	19"	24"	17"	23"	16	21"	15"	20"	14"



TYPICAL TENSION EMBEDMENT DETAIL

SCALE: N.T.S.

TABLE # 2

TENSION LAP SPLICES, 1.3Ld (TIE MEMBERS NOT INCLUDED)

BAR SIZE		CASE 1 lengths (in) per concrete strength (psi)								CASE 2 lengths (in) per concrete strength (psi)							
		3000	4000	5000	6000	7000	8000	9000	10000 &ABOVE	3000	4000	5000	6000	7000	8000	9000	10000 &ABOVE
#3	O	22	19	17	16	16	16	16	16	32	28	25	23	21	21	20	19
	T	28	24	22	20	18	17	17	21	42	36	33	30	28	28	26	25
#4	O	29	25	22	20	19	18	17	16	43	37	33	31	28	28	25	24
	T	37	32	29	26	25	23	23	21	56	48	43	40	37	37	33	32
#5	O	36	31	28	25	24	22	21	20	54	47	42	38	35	34	32	30
	T	47	40	36	33	31	29	28	26	70	60	54	49	46	45	42	39
#6	O	43	37	33	31	28	26	25	24	64	56	50	46	42	41	38	36
	T	56	48	43	40	37	34	33	32	84	72	65	59	55	54	50	47
#7	O	63	54	49	44	41	38	37	36	94	81	73	66	61	59	55	52
	T	81	70	63	58	53	50	49	47	122	106	94	86	80	77	72	68
#8	O	72	62	55	51	47	44	42	39	107	93	83	76	70	67	63	59
	T	93	80	72	66	61	57	55	51	139	121	108	98	91	88	82	77
#9	O	81	70	63	57	53	49	47	45	121	105	94	85	79	75	71	67
	T	105	91	81	74	69	64	62	59	157	136	122	111	103	98	93	88
#10	O	91	79	70	64	59	56	54	51	136	118	105	96	89	84	80	76
	T	118	102	91	83	77	72	71	67	177	153	137	125	116	110	104	99
#11	O	101	87	78	71	66	62	59	56	151	131	117	107	99	93	88	84
	T	131	113	101	93	86	80	77	73	196	170	152	139	128	121	115	110
#14	SEE NOTE # 1																

NOTES:

1. LAP SPLICES NOT PERMITTED, USE WELDED SPLICES OR MECHANICAL CONNECTION ACCORDING WITH A.C.I. 318, 12.14.3
2- 0= OTHERS BARS; T= TOP BARS
3- ALL TABLE LENGTHS ARE IN INCHES. TABULATED VALUES ARE FOR GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE
4- CASE 1: BEAMS OR COLUMNS-COVER AT LEAST 1.0 d_b AND C.-C. SPACING AT LEAST 2.0 d_b ALL OTHERS-COVER AT LEAST 1.0 d_b AND C.-C. SPACING AT LEAST 3.0 d_b
5- CASE 2: BEAMS OR COLUMNS-COVER LESS THAN 1.0 d_b OR C.-C. SPACING LESS THAN 2.0 d_b ALL OTHERS-COVER LESS THAN 1.0 d_b OR C.-C. SPACING LESS THAN 3.0 d_b
6- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS
7- FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3

TABLE # 5

TENSION DEVELOPMENT LENGTH, Ld.

BAR SIZE		CASE 1 lengths (in) per concrete strength (psi)								BAR SIZE		CASE 2 lengths (in) per concrete strength (psi)							
		3000	4000	5000	6000	7000	8000	9000	10000 &ABOVE			3000	4000	—5000	6000	7000	8000	9000	10000 &ABOVE
#3	0	17	15	13	12	12	12	12	12	#3	0	25	22	19	18	16	16	15	14
	T	22	19	17	16	14	16	13	16		T	32	28	25	24	21	21	20	19
#4	0	22	19	17	16	15	14	13	12	#4	0	33	29	26	24	22	21	19	18
	T	29	25	22	21	19	19	17	16		T	43	37	33	32	28	28	25	24
#5	0	28	24	22	20	18	17	16	15	#5	0	41	36	32	30	27	26	24	23
	T	36	31	28	26	24	23	21	20		T	54	47	42	39	35	34	32	30
#6	0	33	29	26	24	22	21	19	18	#6	0	50	43	38	35	33	31	29	27
	T	43	37	33	32	28	28	25	24		T	64	56	50	46	42	41	38	36
#7	0	48	42	37	34	32	30	28	27	#7	0	72	63	56	51	47	45	42	40
	T	63	54	49	45	41	39	37	36		T	94	81	73	67	61	59	55	52
#8	0	55	48	43	39	36	34	32	30	#8	0	82	71	64	59	54	51	48	45
	T	72	62	55	51	47	45	42	39		T	107	93	83	77	70	67	63	59
#9	0	62	54	48	44	41	38	36	34	#9	0	93	81	72	66	61	57	54	51
	T	81	70	63	58	53	50	47	45		T	121	105	94	86	79	75	71	67
#10	0	70	61	54	50	46	43	41	39	#10	0	105	91	81	74	69	64	61	58
	T	91	79	70	65	59	56	54	51		T	136	118	105	97	89	84	80	76
#11	0	76	67	60	55	51	48	45	43	#11	0	116	101	90	82	76	71	67	64
	T	101	87	78	72	66	63	59	56		T	151	131	117	107	99	93	88	84
#14	0	93	81	72	66	61	57	54	51	#14	0	139	121	108	99	91	86	81	77
	T	121	105	94	86	79	75	71	67		T	181	157	140	129	119	112	106	101
#18	0	124	107	96	88	81	76	72	68	#18	0	186	161	144	132	122	114	107	102
	T	161	139	125	115	106	99	94	89		T	241	209	187	172	158	149	140	133

NOTES:

1- 0= OTHERS BARS; T= TOP BARS
2- ALL TABLE LENGTHS ARE IN INCHES. TABULATED VALUES ARE FOR GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE
3- CASE 1: BEAMS OR COLUMNS-COVER AT LEAST 1.0 d_b AND C.-C. SPACING AT LEAST 2.0 d_b ALL OTHERS-COVER AT LEAST 1.0 d_b AND C.-C. SPACING AT LEAST 3.0 d_b
4- CASE 2: BEAMS OR COLUMNS-COVER LESS THAN 1.0 d_b OR C.-C. SPACING LESS THAN 2.0 d_b ALL OTHERS-COVER LESS THAN1.0 d_b OR C.-C. SPACING LESS THAN 3.0 d_b
5- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS
6- FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3

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Registry 8072

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DESCRIPTION

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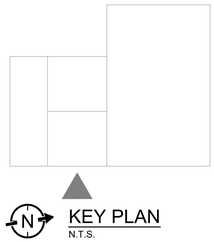
COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

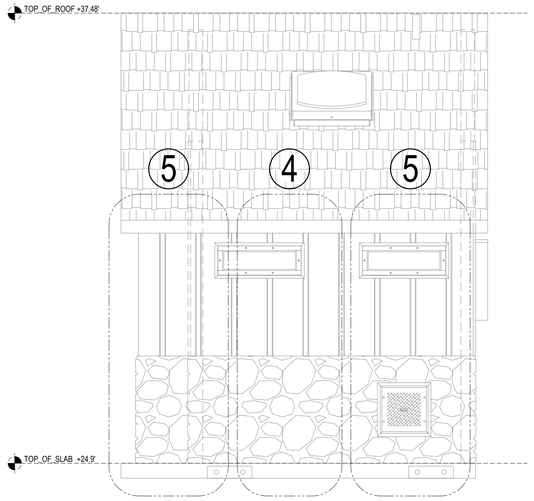
VAK PAK & TANK DETAILS

CDE #	60263
DATE	02/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	STRUCTURAL.dwg

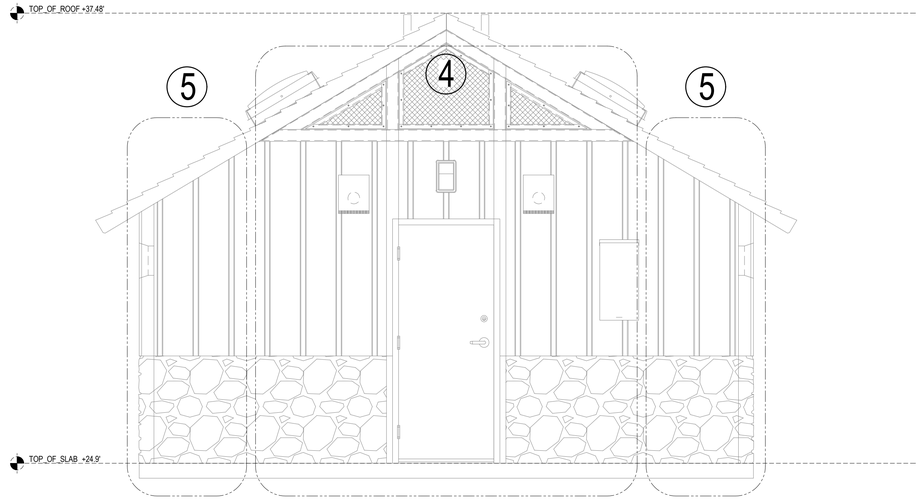
S-501



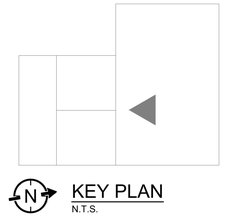
KEY PLAN
N.T.S.



EAST ELEVATION
1/2" = 1'-0"



NORTH ELEVATION
1/2" = 1'-0"



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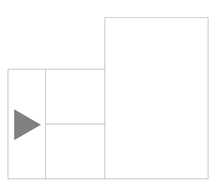

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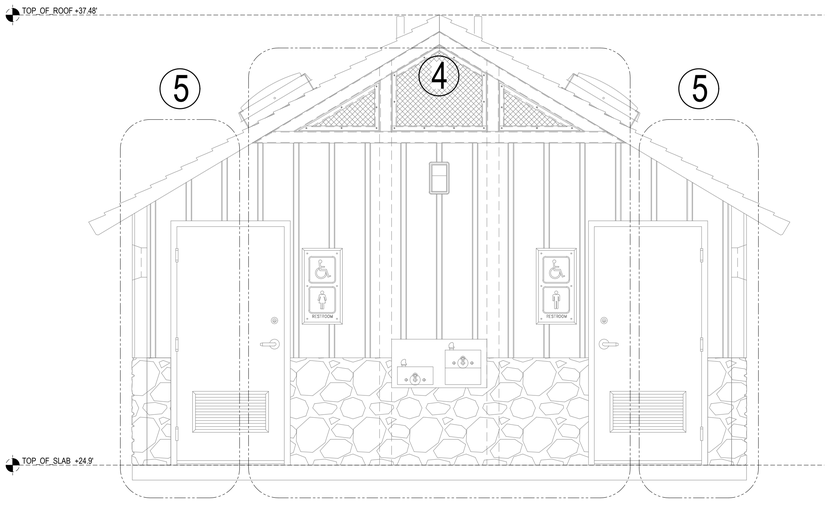
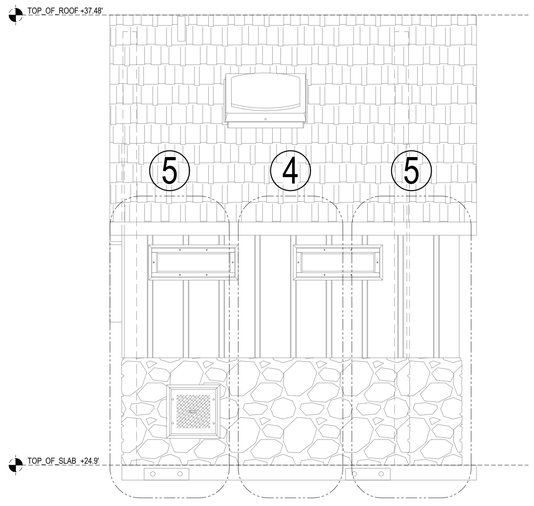
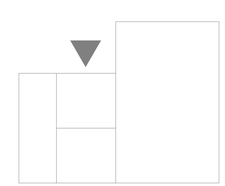


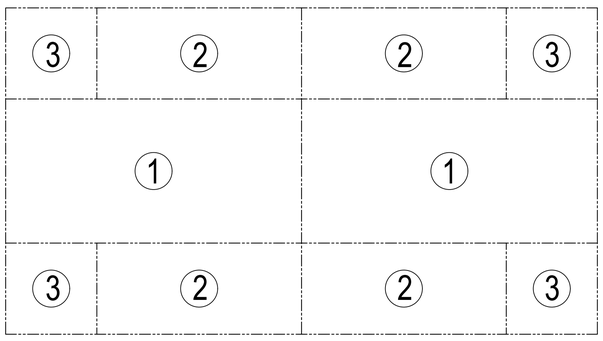
SOUTH ELEVATION
1/2" = 1'-0"



WEST ELEVATION
1/2" = 1'-0"



KEY PLAN
N.T.S.



ROOF CLADDING AND PRESSURES
N.T.S.

DOOR AND WINDOW PRESSURES (PSF) WIND SPEED 159 MPH						
ZONES	WINDOWS 10 S.F		DOORS 15 S.F		WALLS	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
ZONE 4	+55.3 P.S.F.	-60 P.S.F.	+53.8 P.S.F.	-58.5 P.S.F.	+51.3 P.S.F	-56.0 P.S.F
ZONE 5	+55.3 P.S.F.	-74 P.S.F.	+53.8 P.S.F.	-71.1 P.S.F.	+51.3 P.S.F	-66.1 P.S.F

NOTES:

1. IT IS ACCEPTABLE TO USE THE WIND PRESSURES CALCULATED WITH Kd= 0.85 (WIND DIRECTIONALITY FACTOR) IF WINDOWS AND DOORS WERE DESIGNED NOT USING ALLOWABLE STRESS METHOD.
2. WHEN ALLOWABLE STRESS METHOD HAS BEEN USED TO DESIGN WINDOWS/DOORS, IT IS ACCEPTABLE TO USE Kd= 0.85 IF THE VALUES FOR WINDWS/DOORS MATERIALS ALLOWABLE STRESSES HAVE NOT BEEN INCREASED DURING THE DESIGN (ASCE-7-10). THIS SHALL BE SPECIFICALLY STATED IN THE WINDOWS/DOORS SHOP DRAWINGS.
3. IN ALL OTHER CASES IT IS NECESSARY TO USE THE WIND PRESSURES VALUES CALCULATED WITH Kd= 1.0.
4. IT IS REQUIRED THAT WINDOWS/DOORS SHOP DRAWINGS SIGNED AND SEALED BY A FLORIDA REGISTERED P.E. ARE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER OF RECORD.
5. WIND PRESSURES SHOWN ARE ULTIMATE WIND PRESSURES (DIVIDE BY 1.6 TO OBTAIN ALLOWABLE STRESS PRESSURES).
6. NEGATIVE PRESSURE OR SUCTION IS DEFINE TO ACT OUTWARD NORMAL TO BUILDING SURFACE. "POSITIVE PRESSURE " IS DEFINE TO ACT INWARD NORMAL TO BUILDING SURFACE.

DESIGN ULTIMATE WIND PRESSURES FOR GABLE ROOF BASIC WIND PRESSURE a=3'-0" ALL ROOFS FOR THIS DESIGN SURFACE PRESSURE (PSF) WIND SPEED 159 MPH				
AREA	10 SF	20 SF	50 SF	100 SF
ZONE 1	-92.7 P.S.F.	-78.6 P.S.F.	-60.0 P.S.F.	-45.9 P.S.F.
ZONE 2	-102.1 P.S.F.	-91.2 P.S.F.	-76.9 P.S.F.	-66.1 P.S.F.
ZONE 3	-125.5 P.S.F.	-109.2 P.S.F.	-87.8 P.S.F.	-71.5 P.S.F.
POSITIVE ALL ZONES	+50.6 P.S.F.	+46.2 P.S.F.	+40.5 P.S.F.	+36.2 P.S.F.

REFERENCE DRAWINGS:

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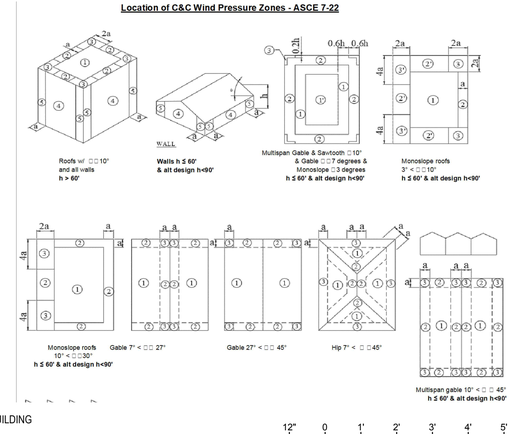
SEE S-100 GENERAL NOTES & SITE PLAN
SEE S-101 FLOOR PLANS & SECTIONS
SEE S-102 CLADDING & ELEVATIONS PREFABRICATED BUILDING
SEE S-501 VAK PAK & TANK DETAILS
SEE S-502 CHAIN LINK FENCE DETAILS



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CITY OF FORT PIERCE

CLADDING & ELEVATIONS PREFABRICATED BUILDING

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JUAN PABLO PINHEIROS LICENSE No 72730 STATE OF FLORIDA PROFESSIONAL ENGINEER

CDE #	60263
DATE	02/16/2026
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CHECK	M. CHARMBURY
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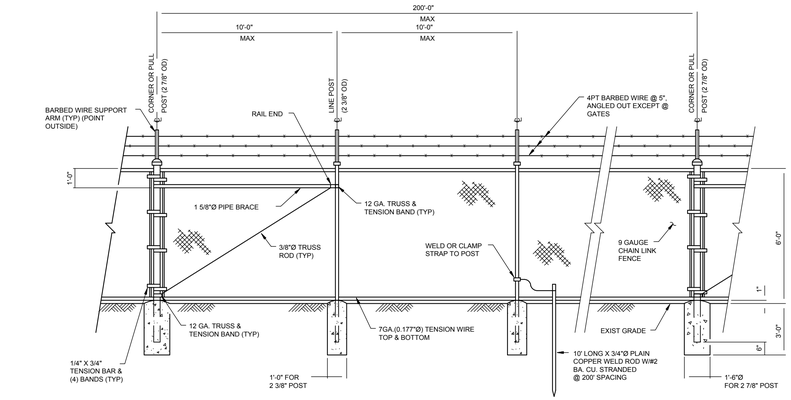
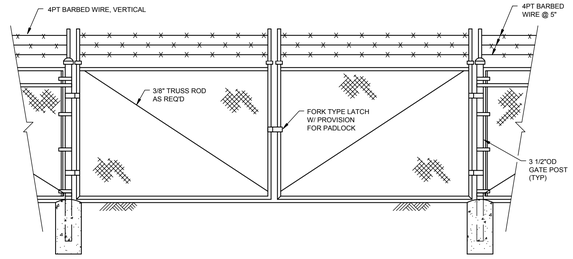
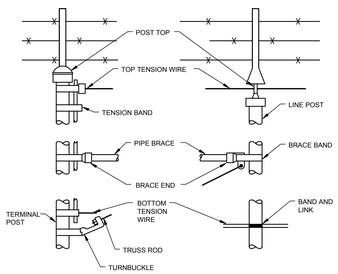
S-102



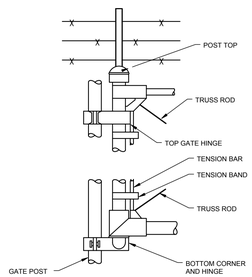
TYPICAL CHAIN LINK FENCE



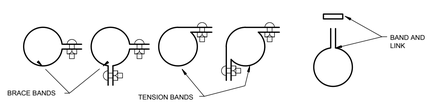
DOUBLE DOOR GATE



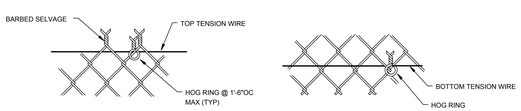
POST DETAILS



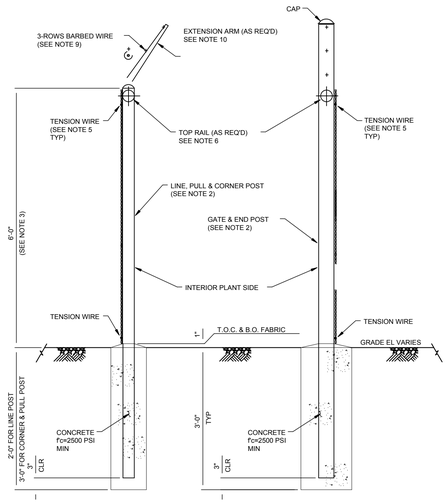
GATE DETAILS



FASTENERS DETAILS

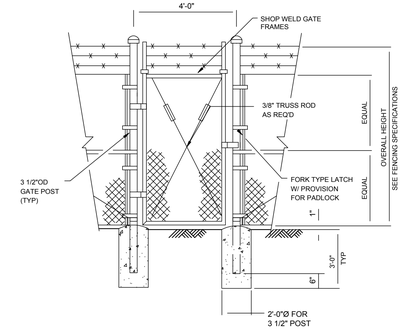


FABRIC DETAILS



PULL, LINE & CORNER POST END & GATE POST

TYPICAL CHAIN LINK FENCE @ INTERIOR



TYPICAL 4'-0" WIDE MAN GATE

REFERENCE DRAWINGS:

SEE S-001	ABBREVATIONS AND GENERAL NOTES
SEE S-100	GENERAL NOTES & SITE PLAN
SEE S-101	FLOOR PLANS & SECTIONS
SEE S-102	CLADDING & ELEVATIONS PREFABRICATED BUILDING
SEE S-501	VAK PAK & TANK DETAILS
SEE S-502	CHAIN LINK FENCE DETAILS

FENCING SPECIFICATIONS

GENERAL

SCOPE

1. THIS SPECIFICATION CONTAINS INFORMATION AND DATA FOR THE DESIGN OF STEEL FENCES.

DESIGN

DESIGN BASIS

1. CODES AND OTHER REGULATIONS: FENCES SHALL CONFORM TO THE REQUIREMENTS OF ANY STATE OR LOCAL CODES HAVING JURISDICTION. THE MORE RIGID SPECIFICATION SHALL GOVERN IN CASE ONE CODE CONFLICTS WITH ANOTHER, OR WITH ANY PART OF THIS SPECIFICATION.

ARRANGEMENT

1. PERIMETER FENCE FOR ALL ENCLOSURES SHALL BE 8'-0" HIGH OVERALL, INCLUDING A 45 DEGREE EXTENSION ARM CARRYING THREE STRANDS OF BARBED WIRE OR AN 18"Ø BARBED TAPE SPIRALY WOUND BETWEEN A TWO TENSION WIRE & THE FENCE FABRIC. THE FENCE FABRIC SHALL BE 2" MESH CHAIN LINK OF #11 GAGE WIRE. ALL FABRIC AND OTHER STEEL PARTS SHALL BE GALVANIZED TO CONFORM TO THE MATERIALS CALLOUT PARAGRAPH OF THIS SPECIFICATION. TOP AND BOTTOM SELVAGES SHALL HAVE TWISTED AND BARBED FINISH. FENCE FOR SUBSTATIONS AND OUTDOOR TYPE SWITCHGEAR INSTALLATIONS SHALL HAVE A HEIGHT OF 8'-0" OVERALL, UNLESS THE ELECTRICAL HAZARD REQUIRES A HIGHER FENCE FOR PERSONNEL PROTECTION. INSTALLATIONS INSIDE OTHER BARBED FENCED ENCLOSURES SHALL HAVE A 1'-0" BARBED WIRE EXTENSION. FENCE SHALL HAVE A HEIGHT OF 6'-0" EXCLUDING BARBED EXTENSION.
2. POST SHALL BE PLACED NOT MORE THAN 10'-0" ON CENTERS. PULL AND LINE POSTS SHALL BE A 1-7/8" OD PIPE, WT 2.201/LIN FT END AND CORNER POSTS SHALL BE 2-3/8" OD PIPE WT.3.65#/LIN FT.
3. SLIDE GATE POSTS: SLIDE GATES UP TO 30'-0" OPENINGS SHALL HAVE POSTS MADE OF 4" OD PIPE, WT 9.1 #/LIN FT. SLIDE GATES WIDER THAN 30'-0" SHALL HAVE POSTS MADE OF 6-5/8" OD PIPE. WT. 18.97#/LIN FT.
4. POST SETTING: ALL POSTS SHALL BE EMBEDDED IN CONCRETE AS SHOW ON TYPICAL SECTION.
5. TOP AND BOTTOM TENSION WIRE SHALL BE #7 GAGE COILED SPRING TENSION WIRE. FASTEN TO FABRIC WITH PIG RINGS AT 2'-0" INTERVALS.
6. TOP RAIL SHALL BE 1-5/8" OD PIPE, WT. 2/27#/LIN.FT., AND SHALL PASS THROUGH BASE OF LINE POST TOPS AND FORM A CONTINUOUS BRACE FROM END TO END OF EACH STRAIGHT RUN OF FENCE AND SHALL BE SECURELY FASTENED TO TERMINAL POSTS. NOTE: FOR USE ON SUBSTATIONS AND OUTDOOR TYPE SWITCHGEAR INSTALLATIONS ONLY UNLESS OTHERWISE SPECIFIED.
7. GATE FRAMES: FRAMES SHALL BE MADE OF 4" OD PIPE, WT. 9.10 #/LIN. FT. (U.N.O.). GATES SHALL BE FURNISHED WITH ALL NECESSARY HARDWARE, INCLUDING HEAVY LOCKING DEVICE AND HOLD-BACK DEVICE, AND OTHERWISE SHALL CONFORM TO FENCE IN WHICH IT IS TO BE INSTALLED.
8. ELECTRICALLY OPERATED GATE: DESIGN, ASSEMBLY, AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE FOLLOWING APPLICABLE NATIONAL CODES, SPECIFICATIONS, GUIDES, ETC., AND TO ALL LOCAL AND STATE CODES HAVING JURISDICTION, LATEST REVISION. WHERE A CONFLICT EXISTS AMONG THE CODES, THE MOST RIGID REQUIREMENT SHALL GOVERN.
   A. NATIONAL ELECTRICAL CODE, NFPA NO. 70 (AN STD. C1), AND NFPA NO. 496.
   B. NATIONAL ELECTRICAL SAFETY CODE, NAT. BUR. STDS. HANDBOOK NO. H81.
   C. UNDERWRITERS LABORATORIES (UL).
   D. SAFETY ORDERS, STATE OF TEXAS.
9. A. BARBED WIRE SHALL CONSIST OF THREE #12-1/2 GAGE STRANDED LINE WIRES, WITH #14 GAGE ROUND WIRE BARBS IN A 4 POINT PATTERN ON 5" CENTERS.
   B. BARBED TAPE SHALL BE SINGLE COIL CONTINUOUS WIRE ATTACHED TO CHAIN LINK @ 5" OC EACH 50'-0" ROLL WILL COVER 25 LF OF FENCE.
10. EXTENSION ARMS SHALL BE PRESSED STEEL FOR LINE POSTS AND HEAVY GALVANIZED MALLEABLE IRON AT CORNER POSTS. THESE ARMS SHALL BE OF SUFFICIENT STRENGTH TO WITHSTAND A WEIGHT OF 200 LBS. APPLIED AT OUTER STRAND OF BARBED WIRE. GATE AND END POSTS SHALL BE A MINIMUM OF 12" HIGHER THAN THE FABRIC FOR FENCES WITH BARBED WIRE EXTENSION. ALL POSTS WITHOUT EXTENSION OR OTHER AND FITTINGS SHALL HAVE CAPS.
11. FABRIC BANDS: THE FABRIC SHALL BE FASTENED TO THE LINE POSTS WITH BANDS OF 11 GAGE WIRE, SPACED ABOUT 14" ON CENTER, AND TO THE TOP RAIL WITH 11 GAGE WIRE AT ABOUT 24" CENTERS. THE WIRE SHALL BE GALVANIZED STEEL. AT END, CORNER, AND GATE POSTS, THE FABRIC SHALL BE FASTENED WITH GALVANIZED STRAPS CONNECTED TO A STIFFENING BAR LACED THROUGH THE END LINKS OF THE MESH. THE STRAPS AND BAR SHALL BE MANUFACTURER'S STANDARD.

MATERIAL

1. GALVANIZING
   A. FABRIC SHALL BE HOT-DIP GALVANIZED AFTER WEAVING AND SHALL HAVE MINIMUM COATING OF 1.2 OZ. OF ZINC PER SQ. FT. OF UNCOATED WIRE SURFACE; -OR, AS AN ALTERNATE, MAY BE BETHANIZED "B" ELECTROLYTICALLY COATED WITH PURE ZINC, 1.2 OZ. PER SQ. FT. OR WIRE SURFACE.
   B. ALL OTHER STEEL PARTS SHALL BE GALVANIZED WITH ASTM A-120, ASTM 1-121, ASTM A-123 OR 1-153 WHICHEVER IS APPLICABLE
   C. ANY WELDING TO GALVANIZED MATERIAL SHALL BE GROUND CLEAN BEFORE WELDING AND HAND PAINTED GALVANIZED WHEN WORK IS COMPLETED.
2. COATING
   B. FABRIC AND ALL OTHER STEEL PARTS SHALL BE VINYL COATED, OR PAINTED A LIGHT EARTHTONE OR TAN COLOR.

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

DATE | DESCRIPTION | REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

CHAINLINK FENCE DETAILS

CDE #	60263
DATE	02/16/2026
DRAWN	L. BECK
DESIGN	J. PINHEIROS
CHECK	M. CHARMBURY
FILE	STRUCTURAL.dwg

S-502

ABBREVIATIONS:

(SOME MAY NOT BE USED)

ABBREVIATION	DESCRIPTION
A	AIR
AAV	AUTOMATIC AIR VENT
AD	AIR DEVICE
AEG	ABOVE EXISTING GRADE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIP	ABANDON IN PLACE
AMB	AMBIENT
AP	ACCESS PANEL
AS	AIR SEPARATOR
ASC	APPLICATION SPECIFIC CONTROLLER
AVG	AVERAGE
AVTR	ACID VENT THRU ROOF
BAS	BUILDING AUTOMATION SYSTEM
BLDG	BUILDING
BOT	BOTTOM
BAL	BALANCING
BOP	BOTTOM OF PIPE
B	BOILER
BFP	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BCS	BLACK CARBON STEEL
CD	CONDENSATE DRAIN
CI	CAST IRON
CLDI	CONCRETE LINED DUCTILE IRON
CO	CLEANOUT
CON	CONCENTRIC
CONC	CONCRETE
COND	CONDENSATE
CONT	CONTINUATION/CONTINUED
CONN	CONNECTION
CS	CARBON STEEL
CY	CYCLES
CU	COPPER/COPPER TUBING
CV	CONTROL VALVE
CW	COLD WATER
D	DEPTH/DRYER
DIA	DIAMETER
dB	DECIBEL
DET	DETAIL
DES	DESIGN
DIP	DUCTILE IRON PIPE
DEMO	DEMOLITION
DN	DOWN
DWG	DRAWING
DHW	DOMESTIC HOT WATER
DCW	DOMESTIC COLD WATER
ELEC	ELECTRIC
EA	EACH
EQ	EQUAL
ECC	ECCENTRIC
EER	ENERGY EFFICIENCY RATING
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EWT	ENTERING WATER TEMPERATURE
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
ELEV	ELEVATOR
EL	ELEVATION
ET	EXPANSION TANK
ERV	ENERGY RECOVERY VENTILATORS
EXIST	EXISTING
FCU	FAN COIL UNIT
FIN	FINISH
FLR	FLOOR
FD	FLOOR DRAIN
FLEX	FLEXIBLE
FT	FEET
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPI	FINS PER INCH
°F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FOD	FLAT OVAL DUCT
FLG	FLANGE
FOF	FACE OF FLANGE
FS	FLOOR SINK
GA	GAUGE
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
GV	GATE VALVE
G	GAS
GRD	GRADE
GAL	GALLON
GTH	GRAND TOTAL HEAT
GSP	GALVANIZED STEEL PIPE
GWH	GAS WATER HEATER
HW	HOT WATER
HB	HOSE BIBB
H	HEIGHT
HD	HEAD
HP	HORSEPOWER
Hz	HERTZ
HWS	HEATING HOT WATER SUPPLY
HWR	HEATING HOT WATER RETURN
Hg	MERCURY
HTR	HEATER
HX	HEAT EXCHANGER
IN	INCHES
INT	INTERIOR
INIT	INITIAL
ISO	ISOMETRIC
INS	INSIDE
ID	INSIDE DIAMETER
INSUL	INSULATION
INV	INVERT
JT	JOINT
JUNC	JUNCTION
KW	KILOWATT
L	LENGTH
LAV	LAVATORY
LAVH	ADA LAVATORY
LWT	LEAVING WATER TEMPERATURE
LBS	POUNDS
LAV	LAVATORY
LLD	LOW LEAKAGE DAMPER
LCP	LOCAL CONTROL PANEL
LWCO	LOW VOLUME CUT OFF
MATL	MATERIAL
MAX	MAXIMUM
MANUF	MANUFACTURER
MIN	MINIMUM
MBTU	THOUSAND BTU'S
MTD	MOUNTED
MTG	MOUNTING
M	MOTOR
MAS	MASONRY
MVD	MANUAL VOLUME DAMPER
MRU	MOBILE REFRIGERATION UNIT
MRHL	MANUAL RESET HIGH LIMIT CONTROL
MS	MOP SINK
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NO.	NUMBER
NOM	NOMINAL
NIC	NOT INCLUDED IN THIS CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OZ	OUNCE
POC	POINT OF CONNECTION
POD	POINT OF DISCONNECTION
PRD	PRESSURE RELIEF DAMPER
PRV	PRESSURE REDUCING VALVE
P	PUMP
PRESS	PRESSURE
PNEU	PNEUMATIC
PVC	POLYVINYL-CHORIDE PIPE
PSI	POUNDS PER SQUARE INCH
Ph	PHASE
PW	POTABLE WATER
QTY	QUANTITY
RET	RETURN
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
REQD	REQUIRED
RPM	REVOLUTIONS PER MINUTE
RF	RADIO FREQUENCY
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
SAN	SANITARY
SH	SHOWER
SLV	SLEEVE
S/M	SHEET METAL
SHT	SHEET
SQ	SQUARE
SP	STATIC PRESSURE
SUP	SUPPLY
SPEC	SPECIFICATION
SF	SQUARE FEET
SK	SINK
SS	SERVICE SINK / STAINLESS STEEL
STL	STEEL
SWD	SIDE WALL DRAIN
TOT	TOTAL
TEMP	TEMPERATURE
TSH	TOTAL SENSIBLE HEAT
TYP	TYPICAL
TRPV	TEMPERATURE/PRESSURE RELIEF VALVE
TCM	TEMPERATURE CONTROL MANUFACTURER
TCP	TEMPERATURE CONTROL PANEL
UR	URINAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VEL	VELOCITY
V	VENT
VB	VALVE BOX
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
VTW	VENT THRU WALL
WT	WEIGHT
W	WIDTH / WASHER
WTR	WATER
WB	WET BULB
WG	WATER GAUGE
WH	WATER HEATER / WALL HYDRANT
WC	WATER CLOSET
WCH	ADA WATER CLOSET
WCO	WALL CLEANOUT
YCO	YARD CLEANOUT

PLUMBING LEGEND

(SOME MAY NOT BE USED)

SYMBOL	DESCRIPTION	ABBREVIATION
	EXISTING PIPING	
	NEW PIPING	
	DOMESTIC COLD WATER	DCW
	DOMESTIC HOT WATER (120°F)	DHW
	DOMESTIC HOT WATER CIRC (120°F)	DHWC
140° F	DOMESTIC HOT WATER (140°F)	140° F DHW
140° F	DOMESTIC HOT WATER CIRC (140°F)	140° F DHWC
D	INDIRECT DRAIN	D
CD	CONDENSATE DRAIN	CD
SD	STORM DRAIN, RAINWATER DRAIN	SD
SS	SOIL, WASTE, OR SANITARY SEWER	W, SS
	VENT	V
G G	GAS	
	PIPING BELOW PLAIN OF CUT	
	FILL, SEAL AND ABANDON IN PLACE	
	CAP	
	CLEANOUT PLUG	CO
FCO	FLOOR CLEANOUT	FCO
	FLOOR DRAIN WITH P-TRAP	FD
	ROOF DRAIN, AREA DRAIN	RD, AD
FH	FIRE HYDRANT	FH
	FLOAT FILL VALVE	FFV
FM	FLOW METER	FM
	GAS PRESSURE REGULATOR	GPR
	HOSE BIBB	HB
	REDUCED PRESSURE BACKFLOW PREVENTER	RPBP
	DOUBLE CHECK BACKFLOW PREVENTER	
	WALL CLEANOUT	WCO
	WALL HYDRANT	WH
	YARD CLEANOUT	YCO
	VALVE IN YARD BOX	YBX
	YARD HYDRANT	YH
	POINT OF CONNECTION	POC
	HANDICAPPED	HC
	FLOW IN DIRECTION OF ARROW	
¼"/FT	PITCH DOWN IN DIRECTION OF ARROW	
	VENT THROUGH ROOF	VTR
	WATER HAMMER ARRESTOR	WHA
	BALL VALVE	
	CALIBRATED BALANCING VALVE	
	PRESSURE REDUCING VALVE	
	CHECK VALVE	
	THERMOMETER	
	THERMOSTATIC MIXING VALVE	
	AIR RELEASE VALVE	
C	PIPING DROP	
	PIPE RISER	
	PUMP	
	PRESSURE/TEMPERATURE RELIEF VALVE	
	VALVE IN RISER	
	EXPANSION TANK; SUSPENDED	ET
	EXPANSION TANK; FLOOR MOUNT	ET

GENERAL NOTES:

1. PROVIDE LABOR, MATERIALS, TOOLS, EQUIPMENT, AND DEVICES NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DRAWINGS. FULLY TEST, BALANCE, CLEAN AND LEAVE SYSTEMS IN A COMPLETE AND OPERATIONAL STATUS.
2. ALL MATERIALS SHALL BE FABRICATED AND INSTALLED IN A NEAT AND WORKMANLIKE MANNER WITH THE COORDINATION OF ALL INVOLVED TRADES.
3. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS, OR OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF THE WORK. SUCH WORK SHALL BE FIELD VERIFIED AND CAREFULLY COORDINATED AT THE SITE BY THE CONTRACTOR.
4. ALL MATERIALS AND EQUIPMENT PROVIDED SHALL BE NEW AND SHALL BE U.L. LISTED WHERE APPLICABLE, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WITH ADEQUATE MAINTENANCE CLEARANCES.
5. PROVIDE WORK IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 6TH EDITION (2017), FLORIDA ENERGY EFFICIENCY CODE, FLORIDA PLUMBING CODE AND OTHER LOCAL CODES AND STANDARDS AS ENFORCED. ALL CODE REFERENCES SHALL BE THE LATEST EDITION AS OF THE CONTRACT DATE.
6. EQUIPMENT AND DESIGN OF SYSTEMS INDICATED ON THE CONTRACT DRAWINGS ARE TO ESTABLISH THE SPECIFIED STANDARD OF QUALITY AND TO PROVIDE THE REQUIRED TYPE(S), SIZE(S), AND CONFIGURATION.
7. EXCEPT WHERE INDICATED IN DIMENSIONAL DETAIL, THE LOCATIONS OF PLUMBING, MECHANICAL EQUIPMENT, PIPING, AND FITTINGS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE COORDINATED WITH ALL APPLICABLE TRADES.
8. TYPICAL DETAILS APPLY TO ALL SITUATIONS WHERE SIMILAR CONDITIONS EXIST AND ARE INTENDED TO BE USED AS APPROPRIATE FOR THE APPLICATION INTENDED UNLESS OTHERWISE INDICATED. REFER TO P-500.
9. ALL EXTERIOR COMPONENTS SHALL WITHSTAND WIND LOADS OF 120 MPH OR AS REQUIRED BY LOCALLY ENFORCED CODES, WHICHEVER IS GREATER. ALL EXTERIOR SUPPORTS SHALL BE ANCHORED TO THE SUPPORTING STRUCTURE.
10. PROVIDE ALL SUPPLEMENTARY STEEL AND FOUNDATIONS FOR SUPPORTS AND BRACING OF ALL PIPING AND EQUIPMENT.
11. PROVIDE PROTECTION FOR ALL CONNECTIONS AND POINTS OF CONTACT OF DISSIMILAR METALS FROM ELECTROLYTIC CORROSION TO BE PROVIDED FOR THIS PROJECT.
12. PROVIDE ACCESS DOORS/PANELS AS REQUIRED FOR ACCESS TO ALL VALVES OR OTHER COMPONENTS WHERE FLOORS, WALLS, CEILINGS, CHASES, ETC. WOULD OTHERWISE PREVENT NECESSARY ACCESS.
13. UNLESS APPROVED ALL DOMESTIC WATER SUPPLY PIPING SHALL BE COPPER TUBING PER ASTM B88, TYPE L (TYPE M, FOR UNDERGROUND) WITH ANSI B.16.18 OR ANSI B16.22 SOLDER JOINT FITTINGS OR WITH ANSI B16.26 FLARED JOINT FITTINGS. PROVIDE ASTM B42 COPPER PIPE NIPPLES WITH THREADED END CONNECTIONS. PROVIDE ASTM B32 95-5 TIN-ANTIMONY SOLDER OR STANDARD PLUMBING CODE APPROVED LEAD-FREE SOLDER. HYDROSTATICALLY TEST SUPPLY PIPING AT NOT LESS THAN 100 PSIG WITH NO LEAKAGE OR REDUCTION IN GAGE PRESSURE FOR 2 HOURS.
14. PROVIDE AND INSTALL NEW FIXTURES, COMPLETE WITH VALVES, STOPS, STRAPS AND PIPING.
15. PROVIDE PROTECTION FOR ALL CONNECTIONS AND POINTS OF CONTACT OF DISSIMILAR METALS FROM ELECTROLYTIC CORROSION. PROVIDE DIELECTRIC WATERWAYS AT ALL WATER HEATER CONNECTIONS, "CLEARFLOW" AS MANUFACTURED BY VICTAULIC, OR APPROVED EQUAL.
16. MAKE WATER CONNECTIONS TO FIXTURES ABOVE FLOOR.
17. PROVIDE CLEANOUTS IN ACCORDANCE WITH APPROPRIATE CODES AND REGULATIONS AND AS SHOWN. PROVIDE 18-INCH MINIMUM CLEARANCE FOR RODDING OF CLEANOUTS. PROVIDE CLEANOUTS AT THE BASE OF ALL SOIL AND WASTE STACKS. PROVIDE ACCESS DOORS FOR CLEANOUTS IN INACCESSIBLE LOCATIONS.
18. PROVIDE ISOLATION VALVES ON CW AND HW SUPPLY MAINS AS INDICATED.
19. CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.
20. DO NOT ROUTE WATER PIPING ABOVE ELECTRICAL PANELS OR EQUIPMENT.
21. PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH MSS SP-58 AND MSS SP-69 AND PER THE FLORIDA BUILDING CODE.
22. CONFIRM LOCATION AND ELEVATION OF ALL CROSSING LINES PRIOR TO INSTALLING ANY PIPE. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
23. ALL ACCESSIBLE PLUMBING FIXTURES SHALL COMPLY WITH THE UNIFORM FEDERAL ACCESSIBILITY STANDARD.
24. POTABLE WATER SYSTEMS SHALL BE SANITIZED AND TESTED PER AWWA C651-92.
25. VALVES INCLUDED IN POTABLE WATER SUPPLY PIPING SHALL BE BRONZE GATE VALVES PER MSS SP-80 OR BALL VALVES PER MSS SP-110, CLASS 125, WITH SOLDER OR THREADED END CONNECTIONS.
26. PROVIDE ONE PIECE CHROMIUM PLATED ON COPPER ALLOY ESCUTCHEON PLATES FOR ALL PIPING PASSING THROUGH WALLS IN FINISHED SPACES. PROVIDE PAINTED FINISH ON METAL IN UNFINISHED SPACES.
27. EXPOSED HOT WATER PIPING INSULATION: PROVIDE 1" THICK MOLDED FIBERGLASS INSULATION WITH PRE-SIZED FACTORY APPLIED FRJ JACKET OF GLASS CLOTH WITH LONGITUDINAL LAP AND BUTT JOINT STRIPS WITH SELF SEALING ADHESIVE OR 1" THICK FOAMED PLASTIC INSULATION.
28. PROVIDE SUBMITTALS AS INDICATED ON THE PLUMBING SUBMITTALS TABLE ON THIS DRAWING. MARK EQUIPMENT TO BE PROVIDED CLEARLY; INCLUDING OPERATING CAPACITIES AND REQUIREMENTS PER THE SCHEDULES AND SPECIFICATIONS.

PLUMBING SUBMITTALS

ITEM	PRODUCT DATA		SHOP DRAWINGS		TEST REPORTS		COORDINATION DRAWINGS		WIRING DIAGRAMS		O & M MANUAL	
	1	2	1	2	1	2	1	2	1	2	1	2
PIPE AND FITTINGS	X	X										
VALVES	X	X									X	X
PIPE HANGERS AND SUPPORTS	X	X										

NOTES:
(1) FOR REVIEW
(2) FOR RECORD

DIRECTION TAKEN
#
PHOTO #

PHOTO CALL OUT

DIRECTION OF SECTION
VIEW IDENTIFICATION
CUT FROM
SHOWN ON

SECTION CALL OUT

VIEW IDENTIFICATION
CUT FROM
SHOWN ON

DETAIL CALL OUT

EQUIPMENT DESIGNATION
EQUIPMENT NUMBER OR E FOR EXISTING

NOTE: REFER TO SCHEDULES FOR ADDITIONAL INFORMATION REGARDING EQUIPMENT.

EQUIPMENT TAG OF SCHEDULED EQUIPMENT

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

DATE | DESCRIPTION | REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

PLUMBING ABBREVIATIONS, LEGEND AND NOTES

IN MY PROFESSIONAL JUDGEMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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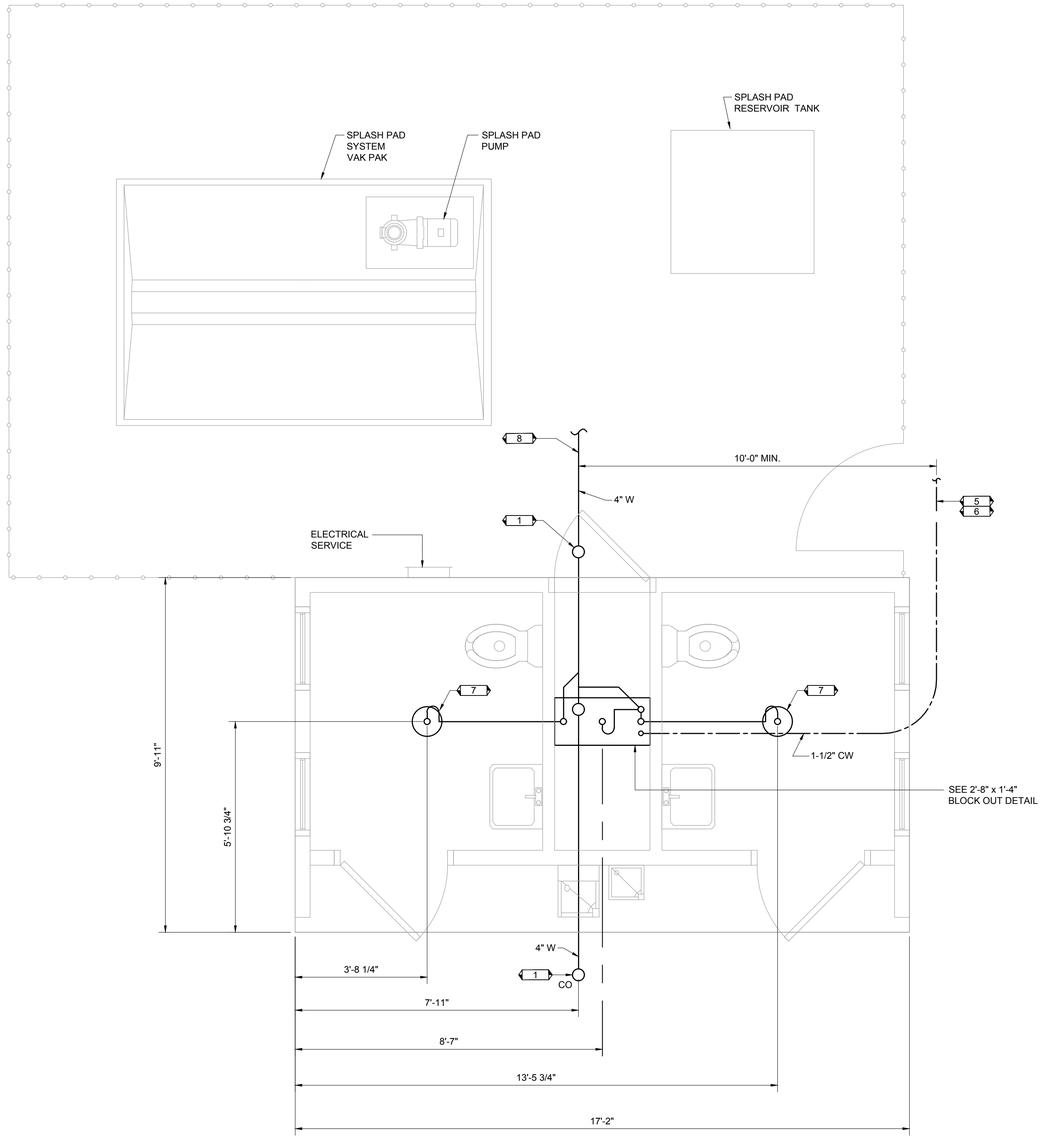
ESTEBAN LOPEZ
LICENSE
No. 96326
STATE OF FLORIDA
PROFESSIONAL ENGINEER

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	E. LOPEZ
CHECK	M. CHARMBURY
FILE	P-001.dwg

P-001



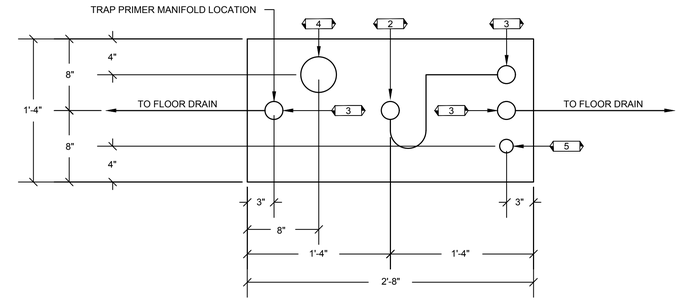
PLUMBING PLAN
1/2" = 1'-0"

PIPING LEGEND:

- ---------- BELOW FLOOR VENT PIPING SCH 40 ABS TYPE DWV
- ———— BELOW FLOOR PIPING WASTE PIPING SCH 40 ABS TYPE DWV
- — — ——— — — 1-1/2" TYPE "K" ANNEALED "SOFT" COPPER WATER SERVICE

KEY NOTES: (#)

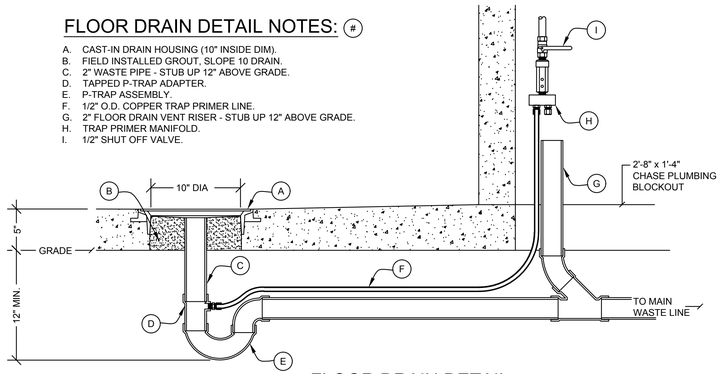
1. 4" CLEAN OUT TO GRADE.
2. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY CITY OF FORT PIERCE. (2'-8" x 1'-4" BLOCKOUT)
3. 2" VENT PIPES EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (2'-8" x 1'-4" BLOCKOUT)
4. 4" WASTE PIPE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE TEST PLUG. (2'-8" x 1'-4" BLOCKOUT)
5. 1-1/2" TYPE K ANNEALED "SOFT" COPPER WATER SERVICE EXTENDED 12" ABOVE FINISHED FLOOR LEVEL, PROVIDE CAP AT END. (2'-8" x 1'-4" BLOCKOUT)
6. MIN. BURY PER LOCAL REQUIREMENTS TO PROTECT AGAINST FREEZING AND DAMAGE.
7. 2" FLOOR DRAIN. FIELD INSTALLED TRAP PRIMER SYSTEM IF REQUIRED BY CITY OF FORT PIERCE. (10" DIA BLOCKOUT)
8. 30" MIN. BURY, PROVIDE TRACER TAPE.



2'-8" x 1'-4" BLOCKOUT DETAIL
1-1/2" = 1'-0"

FLOOR DRAIN DETAIL NOTES: (#)

A. CAST-IN DRAIN HOUSING (10" INSIDE DIM).
B. FIELD INSTALLED GROUT, SLOPE 10 DRAIN.
C. 2" WASTE PIPE - STUB UP 12" ABOVE GRADE.
D. TAPPED P-TRAP ADAPTER.
E. P-TRAP ASSEMBLY.
F. 1/2" O.D. COPPER TRAP PRIMER LINE.
G. 2" FLOOR DRAIN VENT RISER - STUB UP 12" ABOVE GRADE.
H. TRAP PRIMER MANIFOLD.
I. 1/2" SHUT OFF VALVE.



FLOOR DRAIN DETAIL
N.T.S.

GRAPHIC SCALE
12" 6" 0 1'
1 1/2"=1'-0"

GRAPHIC SCALE
12" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

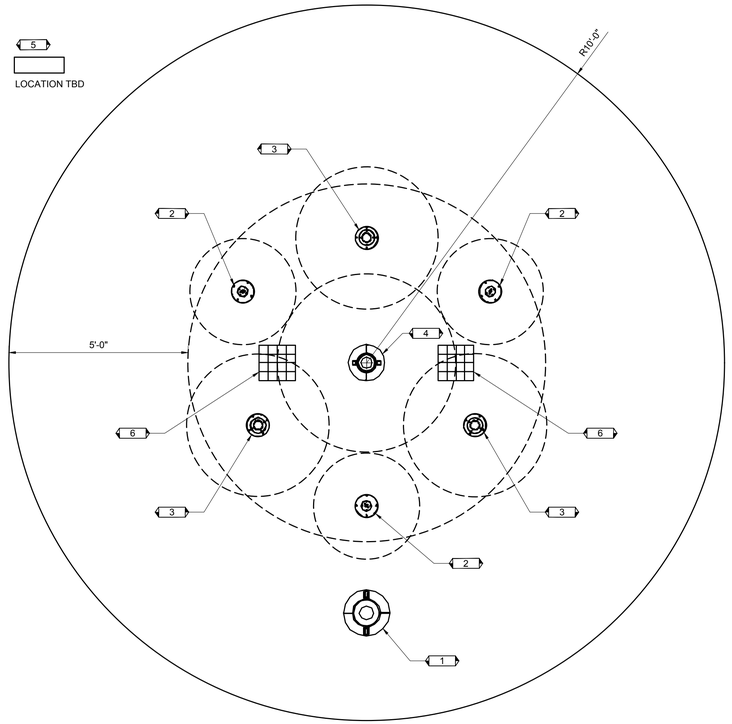
DATE
DESCRIPTION
REV

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

PLUMBING PLAN

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	E. LOPEZ
CHECK	M. CHARMBURY
FILE	P-101.dwg

P-101



SPLASH PAD LAYOUT PLAN
1/2" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR ALL PVC PIPING INCLUDING FLANGES, ELBOWS, GASKETS AND HARDWARE TO CONNECT ALL ABOVE EQUIPMENT TO OPERATE PROPERLY AND IN COMPLIANCE WITH LOCAL PLUMBING REGULATIONS.
2. 2% GRADE SLOPED FROM PERIMETER TO MAIN DRAIN FRAMES.
3. 5FT BUFFER ZONE FROM PERIMETER IS CALCULATED.
4. DASHED LINES INDICATE AREA OF INFLUENCE.

KEY NOTES:

1. STAINLESS LED TOUCH BOLLARD
2. (3) LOW FLOW UPSTREAM JET OM
3. (3) LOW FLOW MINI POPKORN JET OM
4. STAINLESS LOW FLOW BELLE SPRAY JET OM
5. STAINLESS ENCLOSURE WITH MANIFOLD, 2" PRV, SOLENOIDS, BALL VALVES, RAIN MAKER CONTROL.
6. (2) 12 x 12 DRAIN BASIN

GRAPHIC SCALE
12" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

CAPE DESIGN ENGINEERING
2725 Center Place
Melbourne, FL 32940
321.799.2970 | www.cdeco.com
Registry 8072

REV | DESCRIPTION | DATE

COACH FENN PARK IMPROVEMENT
2306 AVE I, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

SPLASH PAD LAYOUT PLAN

CDE #	60263
DATE	01/16/2026
DRAWN	L. BECK
DESIGN	E. LOPEZ
CHECK	M. CHARMBURY
FILE	P-102.dwg

P-102

PLEASE REFER TO
EXHIBIT D –
DRAINANGE AND GEOTECHNICAL REPORTS,
ATTACHED AS PDF FILES,
FOR THE PROJECT'S TECHNICAL SPECIFICATIONS

END OF SECTION

COACH FENN PARK IMPROVEMENTS

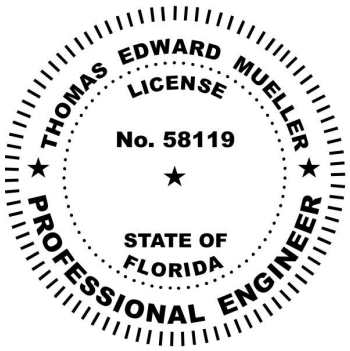
2306 AVENUE I
Fort Pierce, Florida

PROPOSED DRAINAGE DESIGN

January, 2026

Thomas Mueller, P.E.

GM2 ASSOCIATES, INC.
12798 W. FOREST HILL BOULEVARD, SUITE 201
WELLINGTON, FL 33414
PHONE: (561) 792-9000
C.A. 7969
tmueller@GM2inc.com



This item has been digitally signed and sealed by Thomas Mueller, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

_____
Thomas Mueller, P.E.
License No. 58119

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1. Project Background 2

2. Existing Conditions 2

3. Existing Site Drainage 2

4. Proposed Site Drainage 3

5. Land Use Summary 3

6. Water Quality 5

7. Nutrient Loading Caclculations 6

8. Retention Basin Recovery 7

Appendices

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APPENDIX ‘B’ NRCS SOILS MAP

APPENDIX ‘C’ SATURATED HYDRAULIC CONDUCTIVITY

APPENDIX ‘D’ NUTRIENT LOADING CALCULATIONS

APPENDIX ‘E’ STAGE STORAGE CALCULATIONS

APPENDIX ‘F’ SFWMD RAINFALL RETURNS

APPENDIX ‘G’ STORMWISE (ICPR) REPORTS

COACH FENN PARK IMPROVEMENTS
Proposed Drainage Design

1. Project Background

The COACH FENN PARK is located between Avenue I and Avenue K and N23rth Street in the City of Fort Pierce, Saint Lucie County, Florida.
The site is in Section 24, Township 28 South, and Range 19 East.

Proposed improvements include a driveway, 16 pervious parking spaces on the NE corner of the park, a splash pad, a restroom building and a Pavillon.

These improvements are located at the northwest corner of the park and encompass approximately 0.6 acres of disturbed area.

2. Existing Conditions

The property is home to a Boys and Girls Club, and residences include a playground, a basketball court and a baseball field.

By graphical plotting, the site lies within Zone X as shown on the Federal Emergency Management Agency (FEMA) Flood Information Rate Map (FIRM) panel 12111C0178J as published in June 2024. Zone X is defined as 'Area of Minimal Flooding'. Refer to Appendix A for a portion of the FEMA FIRM that includes this property.

Soils that underlay the site include Waveland and Immokalee fine sands and Waveland-Urban land. Both soil types are classified as Hydrologic Soil Group A. Refer to Appendix B for a Natural Resource Conservation Service (NRCS) soils map.

The Seasonal water table elevation was adopted from the Pinecrest Estates Drainage Improvements, Permit # 5603173P

3. Existing Site Drainage

The site drains by overland flow from the central portion of the site to the north, east and south lot lines, directing water to the adjacent N23th street, Avenue I and Avenue K. No organized, designed drainage is apparent on the site.

4. Proposed Site Drainage

The runoff from the proposed driveway will slope down to the proposed pervious parking area to later be directed by a perimeter swale to a Dry Retention Basin with no outside discharge.

5. Land Use Summary

Pre-Improvement Summary						
Basin	Pervious Area (ac)		Impervious Area (ac)		Building/Lake Area (ac)	
	SF	AC	SF	AC	SF	AC
SITE	26,786.00	0.61				
SIDEWALK				-		
OPEN AREA	26,786.00	0.61				
Total	26,786.00	0.61	-	-		-
%		100%		0%		0.0%

Post-Improvement Summary						
Basin	Pervious Area (ac)		Impervious Area (ac)		Building/Lake Area (ac)	
	SF	AC	SF	AC	SF	AC
SITE	26,786.00	0.61				
Impervious Pavement			4,721.00	0.11		
Pervious Pavement	2,567.00	0.06				
Building					436.00	0.01
Splash Pad			314.00	0.01		
Sidewalk			860.00	0.02		
Open Area	17,888.00	0.40		`		
Total	17,888.00	0.46	5,895.00	0.14	436.00	0.01
			Impervious + Building=		0.15	ac
%		76%		22%		2%

6. Water Quantity

The proposed improvements add impervious area to the Site, but the proposed Retention basin and Swales are reducing significantly the amount of runoff from the Site.

The Pre-Improvement Run-off Volume for the 10 Year-1 day = 0.24 ac-ft

The Post- Improvement Run-off Volume for the 10 Year-1 day = 0.10 ac-ft

On this basis the reduction in stormwater runoff is expected to lower the design stages than those for the current conditions

The peak stage for the 100-Year, 3- day of current conditions is 19.91 feet

The peak stage for the 100-Year, 3-day of the proposed improvement is 19.9 feet .

The max flow for the Site for the 25 Year 3-day storm is 0.96 cfs. With the addition of the Retention Pond the max flow for the Site for the 25 year 3 day storm is 0.11 cfs reducing significantly the discharge.

The retention pond is required to contain the 10-year 24-hour rain event prior to discharge. This is achieved at an elevation of 19.61 and is equated to a volume of 0.16 acre-feet.

Refer to Appendix G for Stormwise (ICPR) and Appendix E for Stage Storage Reports.

7. Nutrient Loading Calculations and water quality

The nutrient loading calculations for the current site (pre-development) and the proposed site (post-development) are provided in Appendix D. The assessment area for the site has been taken as the area within the silt fence around the construction site as shown in the Site Plan. The Site area within the Silt fence is 0.61 ac.

The required reduction efficiency is 95% for both TN and TP, to satisfy the new water quality rule for an impaired water body and OFW. To achieve this removal efficiency, 2.9 inches of dry retention is required. This corresponds to 0.15 ac-ft of dry retention volume over the 0.61 ac site.

Runoff from the site will be directed through swales to the Dry Retention basin.

Refer to Appendix D for nutrient loading calculations.

8. Retention Basin Recovery

To Dry Retention Basin Recovery calculation, show a total drawdown time of 15.43 hrs. with a permeability Rate of 0.00027 ft/sec.

COACH FENN PARK			
Dry Retention Recovery Calculation			
Dry Retention Bottom Area		4,574.00	SF
Depth		7.50	FT
Permeability Rate		0.00027	FT/Sec
Permeability Rate		3703.70	Sec/FT
Drawdown Time		27777.78	Sec
		7.72	Hrs
Factor of Saftey = 2 (Total Drawdown Time)		**15.43**	**Hrs**

Refer to Appendix C for the Saturated Hydraulic Conductivity value.

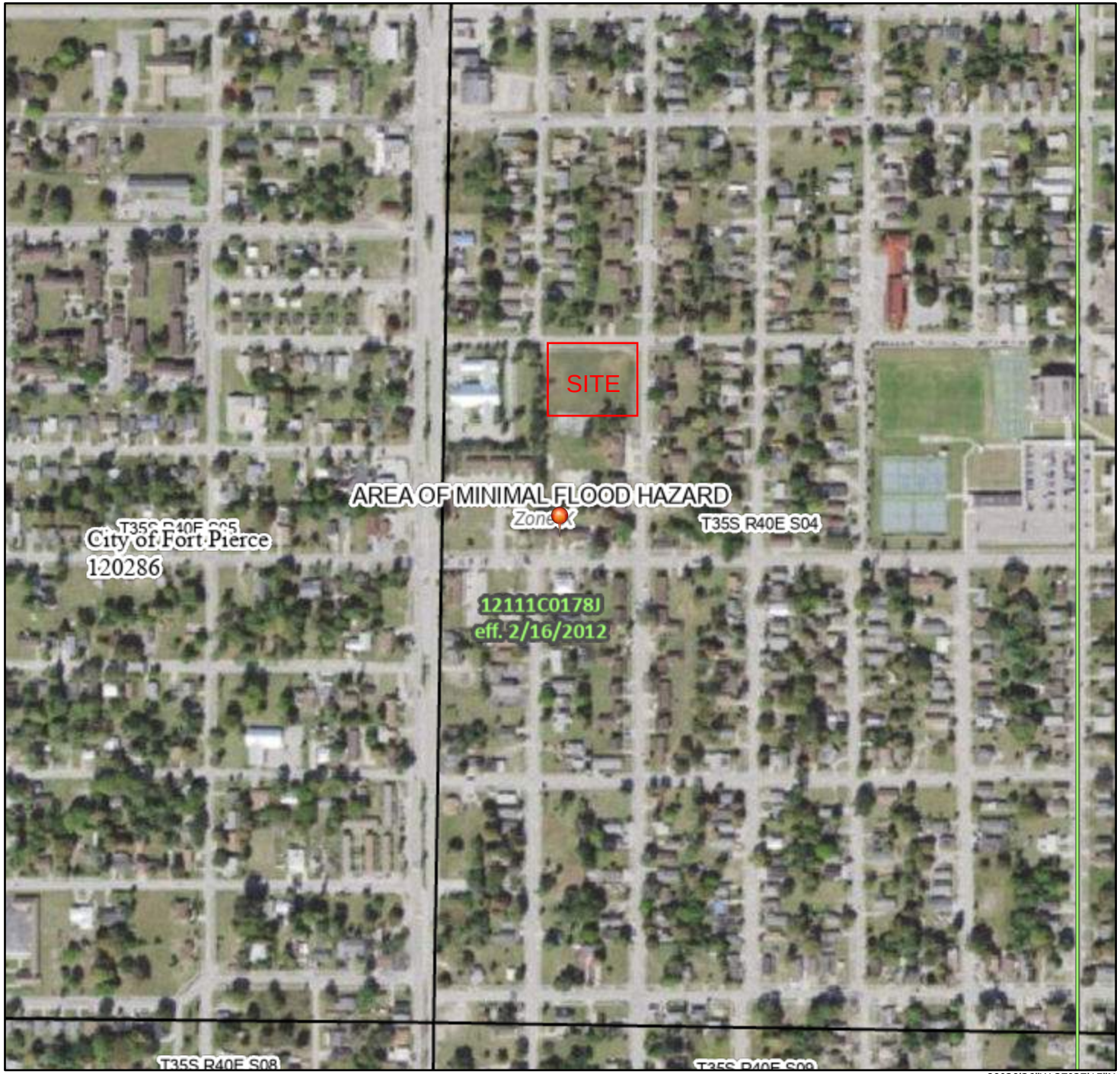
APPENDIX ‘A’

FEMA FIRM

National Flood Hazard Layer FIRMette

FEMA

80°21'14"W 27°27'47"N



80°20'36"W 27°27'15"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 — Cross Sections with 1% Annual Chance
- 17.5 — Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/12/2026 at 8:01 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX ‘B’

NRCS SOILS MAP

Soil Map—St. Lucie County, Florida
(COACH FENN PARK)

Map Scale: 1:805 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 19, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

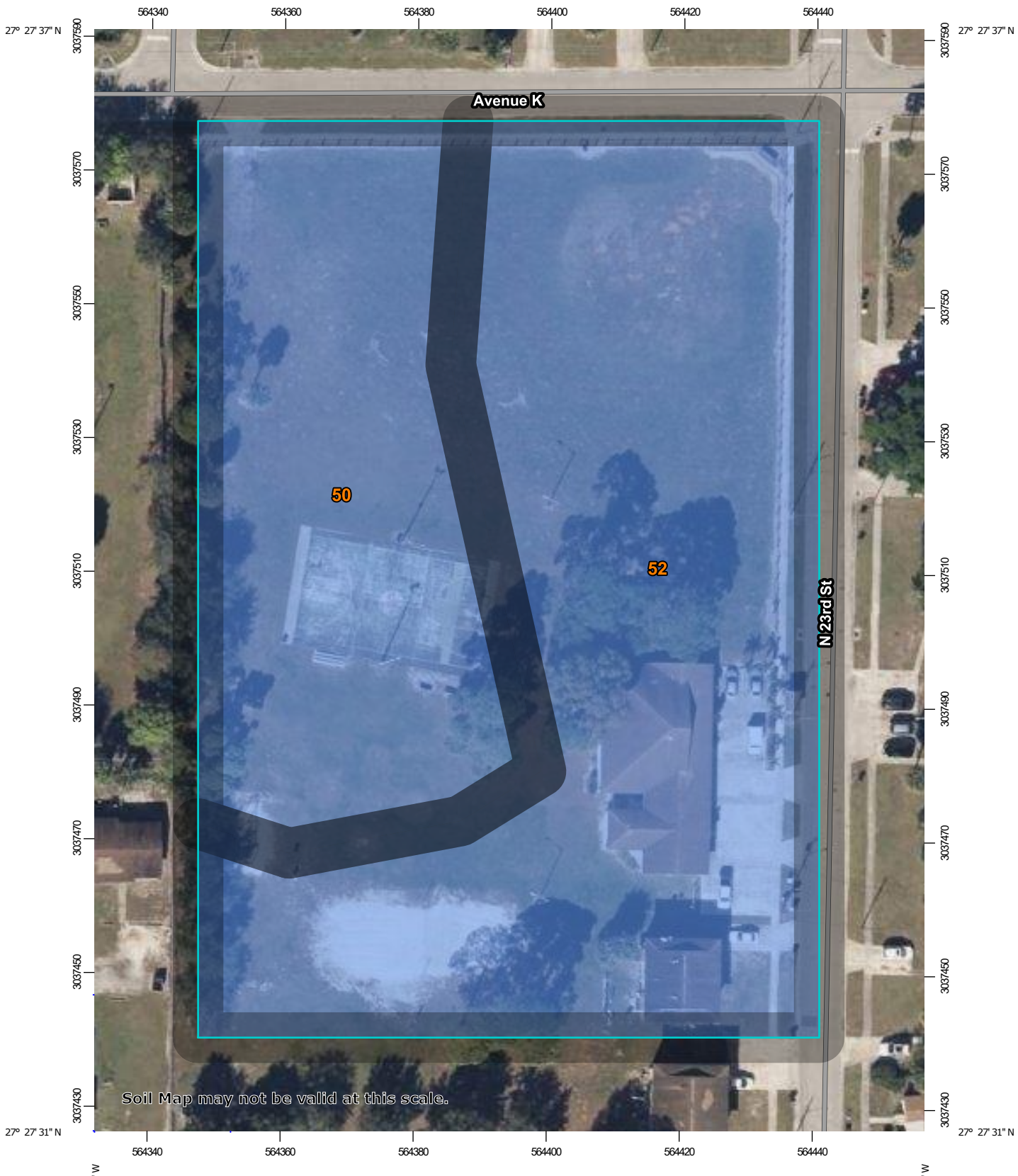
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
50	Waveland and Immokalee fine sands	1.1	35.9%
52	Waveland-Urban land complex	2.0	64.1%
Totals for Area of Interest		**3.2**	**100.0%**

APPENDIX 'C'

SATURATED HYDRAULIC CONDUCTIVITY

Saturated Hydraulic Conductivity (Ksat), Standard Classes—St. Lucie County, Florida
(COACH FENN PARK)



Map Scale: 1:805 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Soil Rating Lines
- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Soil Rating Points
- Very Low (0.0 - 0.01)
- Low (0.01 - 0.1)
- Moderately Low (0.1 - 1)
- Moderately High (1 - 10)
- High (10 - 100)
- Very High (100 - 705)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 19, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Saturated Hydraulic Conductivity (Ksat), Standard Classes

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
50	Waveland and Immokalee fine sands	81.9890	1.1	35.9%
52	Waveland-Urban land complex	81.9890	2.0	64.1%
Totals for Area of Interest			**3.2**	**100.0%**

Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits. The classes are:

Very low: 0.00 to 0.01

Low: 0.01 to 0.1

Moderately low: 0.1 to 1.0

Moderately high: 1 to 10

High: 10 to 100

Very high: 100 to 705

Rating Options

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 36

Units of Measure: Inches

APPENDIX 'D'

NUTRIENT LOADING CALCULATIONS

COACH FENN PARK

STORM WATER QUALITY TREATEMENT EVALUATION.

I. Project Description

The proposed project consists of the construction of an splash pad area , an small Pavillon , Restroom facilities and a parking Lot with 15 standard Pervious concrete parking spaces and a driveway and handicap impervious concrete space . To serve this facilities a water and sewer services are proposed. To provide water quality a dry retention area is proposed on the south side of the parking lot.

II. Project Characteristics

A. Type of Project : Low intensity Commercial

B. Location : Saint Lucie County

C. HUC 12: 030902060504

D. Development within an Impaired Basin: Yes

E. OFW Downstream Yes

Land Use

1. Total Area =	0.61	ac
2. Impervious area=		
a. Building Roof area=	0.01	ac
b. Impervious Pavement	0.14	ac
c. Pervious Pavement	0.06	
3. Pervious Area=	0.41	ac

F. Water Level Elevations

1. SHWT EL.=	11.00	NGVD

III. Water Quality Treatment Criteria

A. Stormwater treatment (Subsection 8.3.2 ,ERP AH Vopl. I)

1. TP Reduction= 95.00 %

2. TN Reduction= 95.00 %

3. Post-Develpoment < Pre-Development

B. Commercial Treatment Required? No

IV. Water Quality Treatment Calculations

A. Rainfall Characteristics

1. Metrerorological Region: Zone 2 (ERP Vol I Appex M1)

2. Average Annual Rainfall Depth= 54 in/yr (ERP Vol I Appex M3)

B. **Pre-Development Annual Loading**

1. Land Use Category: Low Intensity Commercial

a. EMCs

i. P= 0.93 mg/l (Table 9.2, ERP AH Vol I)

ii. N= 0.19 mg/l (Table 9.2, ERP AH Vol I)

b. Hydrologic Conditions: Good

c. HSG= Group D

d. Impervious Areas: 0.00 ac

e. Impervious CN= 98 (table 2-2a USDA-NRCS TR 55)

f. DCIA= 0.00 ac

g. DCIA%= $\frac{\text{(Impervious area)}}{\text{Total area}} \times 100\%$ (Subsection 9.2.1 ERP AH Vol I)

DCIA%= 0.00 %

h. Pervious Area= 0.61 ac

i. Pervious CN= 89 (Table 2-2a, USDA-NCRS TR-55)

j. Non-DCIA= 0.00 ((Pervious CN x Pervious Area)+(Impervious CN x Non-DCIA))/ Pervious Area+(Imp

k. Non-DCIA CN= 89.0

2. ROC= 0.224 (Appendix N, ERP AH Vol I)

3. Average Annual Rainfall (ac-ft/yr)

Annual Runoff Volume(as-ft/yr)= 0.62 ac-ft/yr (Area)(Average Annual Rainfall

4. Annual Mass Loading (kg/yr)

a. TN annual mass loading= 0.15 kg/yr

b. TP annual mass loading= 0.71 kg/yr

C. Post Development Annual Loading

1. Land Use: Low Intensity Commercial

a. EMCs

i. P= 0.93 mg/l (Table 9.2, ERP AH Vol I)

ii. N= 0.19 mg/l (Table 9.2, ERP AH Vol I)

b. Hydrologic Conditions: Good

c. HSG= Group D

d. Impervious Areas: 0.15 ac

e. Impervious CN= 98 (table 2-2a USDA-NRCS TR 55)

f. DCIA= 0.01 ac

g. DCIA%= $\frac{\text{(Impervious area)}}{\text{Total area}}$ x 100% (Subsection 9.2.1 ERP AH Vol I)

DCIA%= 1.27 %

h. Pervious Area= 0.41 ac

i. Pervious CN= 89 (Table 2-2a, USDA-NCRS TR-55)

j. Non-DCIA= 0.14 ac ((Pervious CN x Pervious Area)+(Impervious CN x Non-DCIA))/ Pervious Area+(Imp

k. Non-DCIA CN= 89.14

2. ROC= 0.24 (Appendix N, ERP AH Vol I)

3. Annual Runoff Volume(ac-ft/yr)= 0.65 ac-ft/yr (Area)(Average Annual Rainfall Depth)(ROC)(1/12 ft/in.)

4. Annual Mass Loading (kg/yr)

a. TN annual mass loading= 0.15 kg/yr

b. TP annual mass loading= 0.75 kg/yr

D. Required Load Reduction

1. TP

a. 95 % Reduction (Subsection 8.3.2(a), ERP AH Vol. I)

b. Pre/Post Percent Reduction Calculation (Subsection 8.3.2(a), ERP AH Vol. I)

1-(Pre-developm. Loading/Post Developmt. Loading))x100%)= 4.74 %

c. Required Load Removal= **0.71** kg/yr

2. TN

a. 95 **% Reduction** (Subsection 8.3.2(a), ERP AH Vol. I)

b. Pre/Post Percent Reduction Calculation (Subsection 8.3.2(a), ERP AH Vol. I)

(1-(PRE-DEVLOPM. LOADING/POST DEVELOPM. LOADINGbefore treatment))x100%)=

4.74 %

c. Required Load Removal= 4.50 kg/yr

3. **REQUIRED REDUCTION:**

	TP	TN
Net Improvement	4.74 %	4.74 %
% Reduction	95 %	95 %
Required	95 %	95 %

E. BMP DESIGN

1. Dry Retention :

a. Retention Volume

i. (2.9inch)(0.61ac)= 0.15 ac-ft

ii. Percentage of Reduction provided 95.0 %

APPENDIX 'E'

STAGE STORAGE CALCULATIONS

PRE DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

I. Site Data

A. Acreage

1. Total		0.61	ac
2. Impervious			
a. Buildings		0.00	ac
b. Roadway / Parking Area		0.00	ac
c. Sidewalks / Curbs		0.00	ac
d. N/A		0.00	ac
	Total Impervious	0.00	ac
3. Water management			
a. Lake Surface		0.00	ac
b. Lake Bank		0.00	ac
	Total lake	0.00	ac
c. Retention Area Bottom		0.00	ac
d. Retention Area Bank		0.00	ac
e. NA		0.00	ac
	Total retention/detention	0.00	ac
4. Pervious			
a. Open Space		0.61	ac
b. Pervious Pavement		0.00	ac
c. NA		0.00	ac
d. NA		0.00	ac
	Total Pervious	0.61	ac

B. Minimum elevations

1. Roads and Parking	N/A	ft-NAVD
2. Finished Floor	N/A	ft-NAVD

C. Allowable discharge

1. Pre vs Post (25 Yr-1 Day)	N/A	CSM
2. Allowable discharge for this project (25yr 1dy)	N/A	CFS

D. Water level Elevation

1. Wet season water table	11.00	ft-NAVD
2. Control elevation	N/A	ft-NAVD
3. Receiving body water level	N/A	ft-NAVD

E. Rainfall amounts

1. Design Storm (10-year, 1-day)	6.0	inches
2. Design Storm (25-year, 3-day)	10.00	inches
3. Design Storm (100-year, 3-day)	12.00	inches
4. Finish Floor (100-year, 3-day)	12.00	inches

PRE DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

III. Computations

B. SCS Curve Number

1. The wet season water/control elevation and the control elevation — N/A ft-NAVD

2. Average site finished grade

Land use	Area-A (ac)	Grade-G (ft)	A X G
Buildings	0.00	0.00	0.00
Roadway / Parking Area	0.00	0.00	0.00
Sidewalks / Curbs	0.00	0.00	0.00
N/A	0.00	0.00	0.00
Lake Surface	0.00	0.00	0.00
Lake Bank	0.00	0.00	0.00
Retention Area Bottom	0.00	0.00	0.00
Retention Area Bank	0.00	0.00	0.00
NA	0.00	0.00	0.00
Open Space	0.61	19.89	12.13
Pervious Pavement	0.00	0.00	0.00
NA	0.00	0.00	0.00
NA	0.00	0.00	0.00
Total	0.61		12.13
Weighted Site Grade			19.89 ft-NAVD

3. Runoff Curve Number

Soil Type	Cover Type	CN	HSG	Area	CN*A
Waveland and Immokalee fine sands	Open Space (Fair)	89	D	0.61	54.29
Total				0.61	54.29
Weighted CN		89			

Note: Curve number referenced from TR55 table 2-2a

4. Calculate site-wide = (1000/CN) - 10
= 1.24 inches of site-wide storage, S

5. Initial Abstraction = 0.247

Note: Referece TR55 Lookup Table 4-1

6. Ia/S = 0.20

#REF!

PRE DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

III. Computations

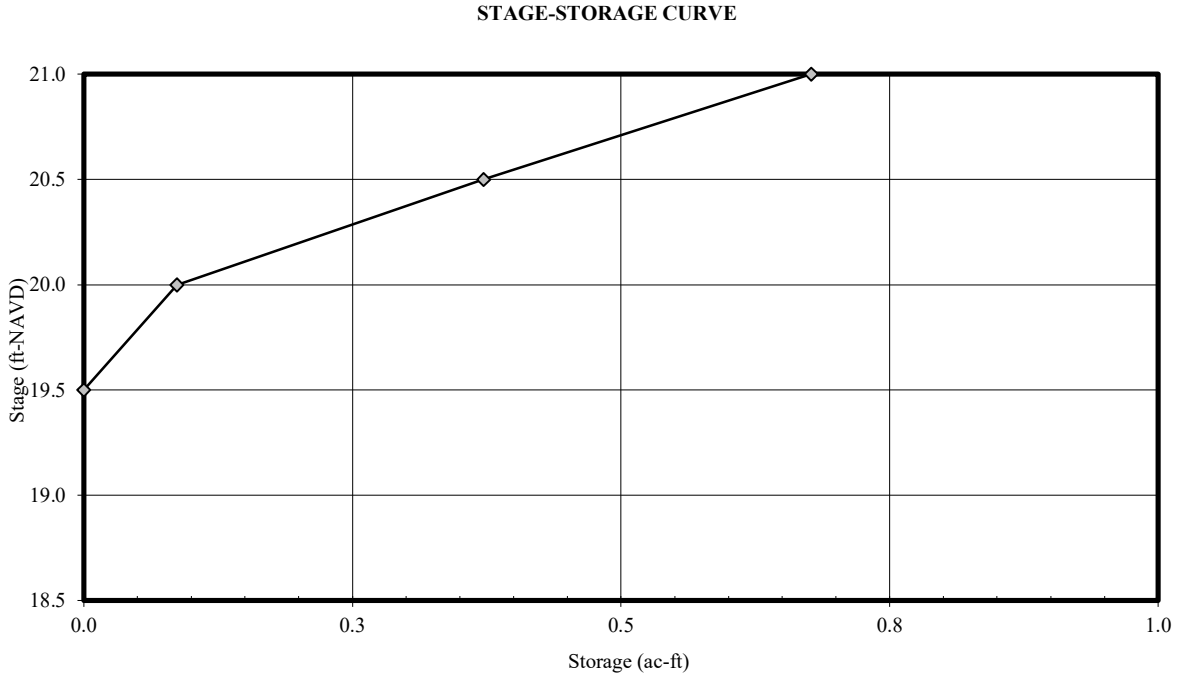
C. Project surface storage

1. Assumptions

Land Use	Start	End	Area
Buildings	0.00	0.00	0.00
Roadway / Parking Area	0.00	0.00	0.00
Sidewalks / Curbs	0.00	0.00	0.00
N/A	0.00	0.00	0.00
Lake Surface	0.00	0.00	0.00
Lake Bank	0.00	0.00	0.00
Retention Area Bottom	0.00	0.00	0.00
Retention Area Bank	0.00	0.00	0.00
NA	0.00	0.00	0.00
Open Space	19.58	20.20	0.61
Pervious Pavement	0.00	0.00	0.00
NA	0.00	0.00	0.00
NA	0.00	0.00	0.00

2. For Stage-Storage curve data, please refer to table attached.

3. Stage-Storage curve.



PRE DEVELOPMENT STAGE STORAGE

Project Name: COACH FENN PARK
Project Number: 42765

Designed: LEP
Checked: TM

Stage-Storage Curve Data

Area (ac)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	
Start (ft-NAVD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.58	0.00	0.00	0.00	
Ends (ft-NAVD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.20	0.00	0.00	0.00	
Difference	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	
Stage (ft-NAVD)	Buildings	Roadway / Parking Area	Sidewalks / Curbs	N/A	Lake Surface	Lake Bank	Retention Area Bottom	Retention Area Bank	Open Space	Pervious Pavement	NA	NA	Total
19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.09
20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.37
21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.68
21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.98
22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	1.29
22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	1.59

PRE DEVELOPMENT STAGE STORAGE

Project Name: COACH FENN PARK
Project Number: 42765.00

Designed:	LEP
Checked:	TM

IV. Design Storm Stages

A. Stage Summary

Design Storm	Stage (ft)
10-Year 1-day storm	20.27
25-Year 3-day storm	20.61
100-Year 3-day storm	20.78

B. 10-Year 1-Day Event

1. The rainfall of the 10-year 1-day storm
   = 6.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 4.74 inches of runoff from the 10-year 1-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.24 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 20.27 feet, see table below

Storage (ac-ft)	Stage (ft)
0.09	20.00
0.24	20.27
0.37	20.50

C. 25-Year 3-Day Event

1. The rainfall of the 25-year 3-day storm
   = 10.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 8.66 inches of runoff from the 25-year 1-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.44 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 20.61 feet, see table below

Storage (ac-ft)	Stage (ft)
0.37	20.50
0.44	20.61
0.68	21.00

D. 100-Year 3-Day Design Event

1. The rainfall of the 100-year 3-day storm
   = 12.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 10.63 inches of runoff from the 100-year 3-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.54 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 20.78 feet, see table below

Storage (ac-ft)	Stage (ft)
0.37	20.50
0.54	20.78
0.68	21.00

POST DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

I. Site Data

A. Acreage

1. Total		0.61	ac
2. Impervious			
a. Buildings		0.01	ac
b. Roadway / Parking Area		0.11	ac
c. Sidewalks		0.02	ac
d. Splash Pad		0.01	ac
	Total Impervious	0.15	ac
3. Water management			
a. Dry Retention Bottom		0.10	ac
b. Dry Retention Bank		0.06	ac
	Total Dry Retention	0.16	ac
c. Swale Bottom		0.00	ac
d. Swale Bank		0.03	ac
e. NA		0.00	ac
	Total retention/detention	0.03	ac
4. Pervious			
a. Open Space		0.20	ac
b. Pervious Pavement		0.06	ac
c. NA		0.00	ac
d. NA		0.00	ac
	Total Pervious	0.26	ac

B. Minimum elevations

1. Roads and Parking	N/A	ft-NAVD
2. Finished Floor	N/A	ft-NAVD

C. Allowable discharge

1. Pre vs Post (25 Yr-1 Day)	N/A	CSM
2. Allowable discharge for this project (25yr 1dy)	N/A	CFS

D. Water level Elevation

1. Wet season water table	11.00	ft-NAVD
2. Control elevation	N/A	ft-NAVD
3. Receiving body water level	N/A	ft-NAVD

E. Rainfall amounts

1. Design Storm (10-year, 1-day)	6.0	inches
2. Design Storm (25-year, 3-day)	10.00	inches
3. Design Storm (100-year, 3-day)	12.00	inches
4. Finish Floor (100-year, 3-day)	13.00	inches

POST DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

III. Computations

A. Quality

1. Compute the first inch of runoff from the developed project
   = 1 in X total area X (1ft/12in)
   = 0.05 ac-ft for the first inch of runoff

2. Compute 2.5 inches times the percentage of imperviousness
   a. Site area for water quality pervious/impervious calculations only:
      = Total project - (water surface + roof)
      = 0.49 ac of site area for water quality pervious/impervious
   b. Impervious area for water quality pervious/impervious calculation only:
      = (site area for water quality pervious/impervious) - pervious
      = 0.17 ac if impervious area for water quality pervious/impervious
   c. Percentage of imperviousness for water quality:
      = (Impervious area for water quality/site area for water quality) 100%
      = 35.22 % impervious
   d. For 2.5 inches times the percentage impervious:
      = 2.5 X percent impervious
      = 0.88 inches to be treated
   e. Compute volume required for water quality detention:
      = Inches to be treated X (total site - Lake)
      = 0.03 ac-ft for the 2.5 inches times the percentage imperviousness

3. Since the 0.05 ac-ft for the first inch of runoff is greater than the 0.03 ac-ft for the 2.5 inches times the percentage imperviousness
   0.05 ac-ft controls

4. Quality Stage

Storage (ac-ft)	Stage (ft)
0.00	18.50
0.05	18.92
0.06	19.00

POST DEVELOPMENT STAGE STORAGE

Project Name: COACH FENN PARK
Project Number: 42765.00

Designed: LEP
Checked: TM

III. Computations

B. SCS Curve Number

1. The wet season water/control elevation and the control elevation N/A ft-NAVD

2. Average site finished grade

Land use	Area-A (ac)	Grade-G (ft)	A X G
Buildings	0.01	20.50	0.21
Roadway / Parking Area	0.11	0.00	0.00
Sidewalks	0.02	19.95	0.40
Splash Pad	0.01	20.00	0.20
Dry Retention Bottom	0.10	18.50	1.92
Dry Retention Bank	0.06	19.10	1.15
Swale Bottom	0.00	18.50	0.00
Swale Bank	0.03	19.10	0.65
NA	0.00	0.00	0.00
Open Space	0.20	19.89	3.98
Pervious Pavement	0.06	19.70	1.18
NA	0.00	0.00	0.00
NA	0.00	0.00	0.00
Total	0.61		9.68
Weighted Site Grade			15.93 ft-NAVD
		19.36	

3. Runoff Curve Number

Soil Type	Cover Type	CN	HSG	Area	CN*A
	Paved	98		0.15	14.70
	Open Space (Fair)	49	A	0.20	9.80
Total				0.35	24.50
Weighted CN		70			

Note: Curve number referenced from TR55 table 2-2a

4. Calculate site-wide moisture storage, S
= (1000/CN) - 10
= 4.29 inches of site-wide storage, S

5. Initial Abstraction
= 0.381
Note: Referece TR55 Lookup Table 4-1

6. Ia/S
= 0.09

POST DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

III. Computations

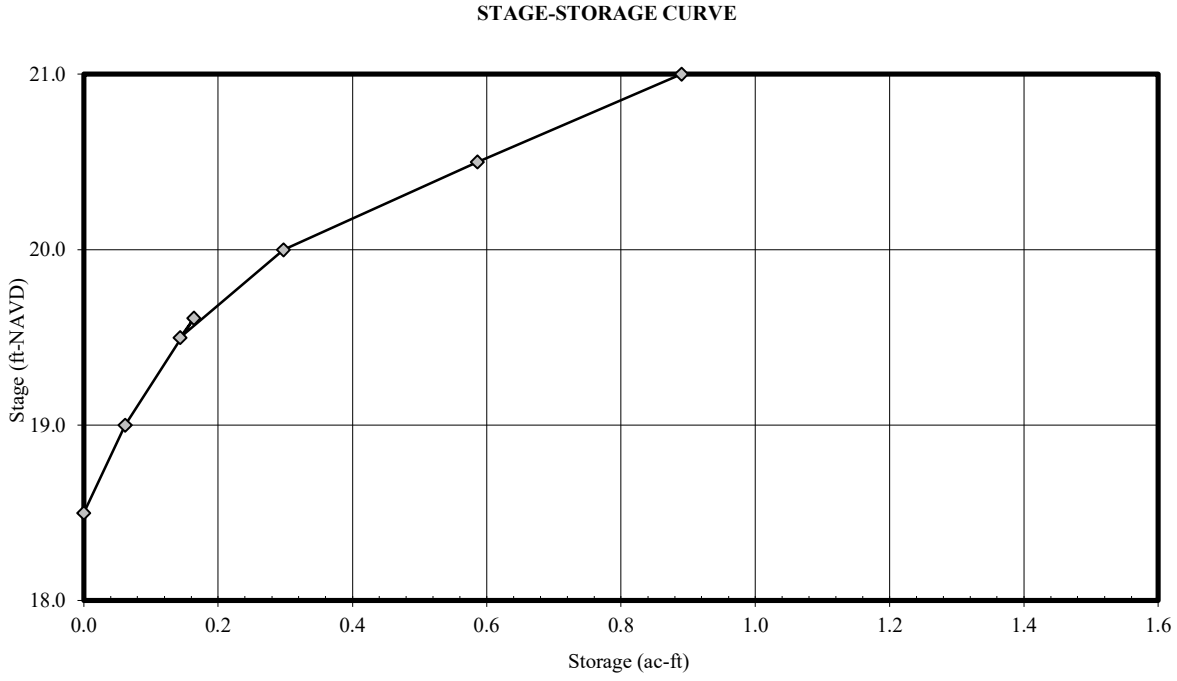
C. Project surface storage

1. Assumptions

Land Use	Start	End	Area
Buildings	20.50	20.50	0.01
Roadway / Parking Area	19.75	20.15	0.11
Sidewalks	19.75	20.15	0.02
Splash Pad	20.00	20.00	0.10
Dry Retention Bottom	18.50	18.50	0.10
Dry Retention Bank	18.50	19.70	0.06
Swale Bottom	18.50	18.50	0.00
Swale Bank	18.50	19.70	0.03
NA	0.00	0.00	0.00
Open Space	19.58	20.20	0.20
Pervious Pavement	19.70	19.70	0.06
NA	0.00	0.00	0.00
NA	0.00	0.00	0.00

2. For Stage-Storage curve data, please refer to table attached.

3. Stage-Storage curve.



POST DEVELOPMENT STAGE STORAGE

Project Name: COACH FENN PARK
Project Number: 42765

Designed: LEP
Checked: TM

Stage-Storage Curve Data

Area (ac)	0.01	0.11	0.02	0.01	0.10	0.06	0.00	0.03	0.20	0.06	0.00	0.00	
Start (ft-NAVD)	20.50	19.75	19.75	20.00	18.50	18.50	18.50	18.50	19.58	19.70	0.00	0.00	
Ends (ft-NAVD)	20.50	20.15	20.15	20.00	18.50	19.70	18.50	19.70	20.20	19.70	0.00	0.00	
Difference	0.00	0.40	0.40	0.00	0.00	1.20	0.00	1.20	0.62	0.00	0.00	0.00	
Stage (ft-NAVD)	Buildings	Roadway / Parking Area	Sidewalks	Splash Pad	Dry Retention Bottom	Dry Retention Bank	Swale Bottom	Swale Bank	Open Space	Pervious Pavement	NA	NA	Total
18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	0.00	0.00	0.00	0.00	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.06
19.61	0.00	0.00	0.00	0.00	0.12	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.16
19.50	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.14
20.00	0.00	0.01	0.00	0.00	0.16	0.05	0.00	0.03	0.03	0.02	0.00	0.00	0.30
20.50	0.00	0.06	0.01	0.01	0.21	0.08	0.00	0.05	0.12	0.05	0.00	0.00	0.59
21.00	0.01	0.12	0.02	0.01	0.26	0.11	0.00	0.06	0.22	0.08	0.00	0.00	0.89
21.50	0.01	0.17	0.03	0.02	0.31	0.14	0.00	0.08	0.32	0.11	0.00	0.00	1.19
22.00	0.02	0.23	0.04	0.02	0.36	0.17	0.00	0.10	0.42	0.14	0.00	0.00	1.50

POST DEVELOPMENT STAGE STORAGE

Project Name:	COACH FENN PARK	Designed:	LEP
Project Number:	42765.00	Checked:	TM

IV. Design Storm Stages

A. Stage Summary

Design Storm	Stage (ft)
10-Year 1-day storm	19.51
25-Year 3-day storm	20.03
100-Year 3-day storm	20.19

B. 10-Year 1-Day Event

1. The rainfall of the 10-year 1-day storm
   = 6.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 2.81 inches of runoff from the 10-year 1-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.14 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 19.51 feet, see table below

Storage (ac-ft)	Stage (ft)
0.06	19.00
0.14	19.51
0.14	19.50

C. 25-Year 1-Day Event

1. The rainfall of the 25-year 3-day storm
   = 10.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 6.22 inches of runoff from the 25-year 3-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.32 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 20.03 feet, see table below

Storage (ac-ft)	Stage (ft)
0.30	20.00
0.32	20.03
0.59	20.50

D. 100-Year 3-Day Design Event

1. The rainfall of the 100-year 3-day storm
   = 12.00 inches
2. Inches of runoff, Q
   = [P - (0.2 X S)]^2 / [P + (0.8 X S)]
   = 8.05 inches of runoff from the 100-year 3-day storm
3. Runoff Volume
   = Inches of runoff X Site area
   = 0.41 ac-ft runoff volume
4. The zero-discharge stage corresponding to the volume of runoff is
   = 20.19 feet, see table below

Storage (ac-ft)	Stage (ft)
0.30	20.00
0.41	20.19
0.59	20.50

APPENDIX 'F'

SFWMD RAINFALL RETURNS

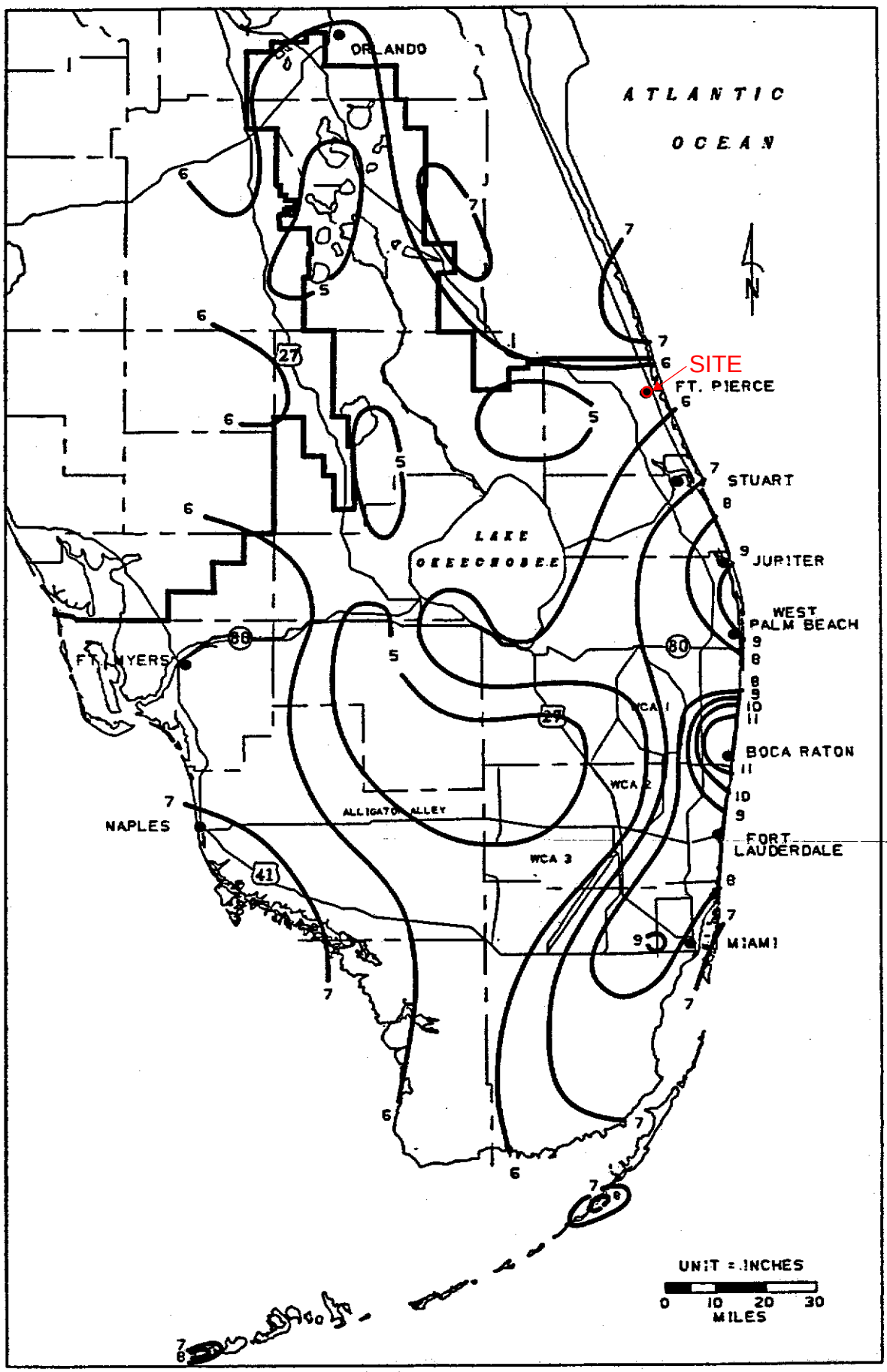


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

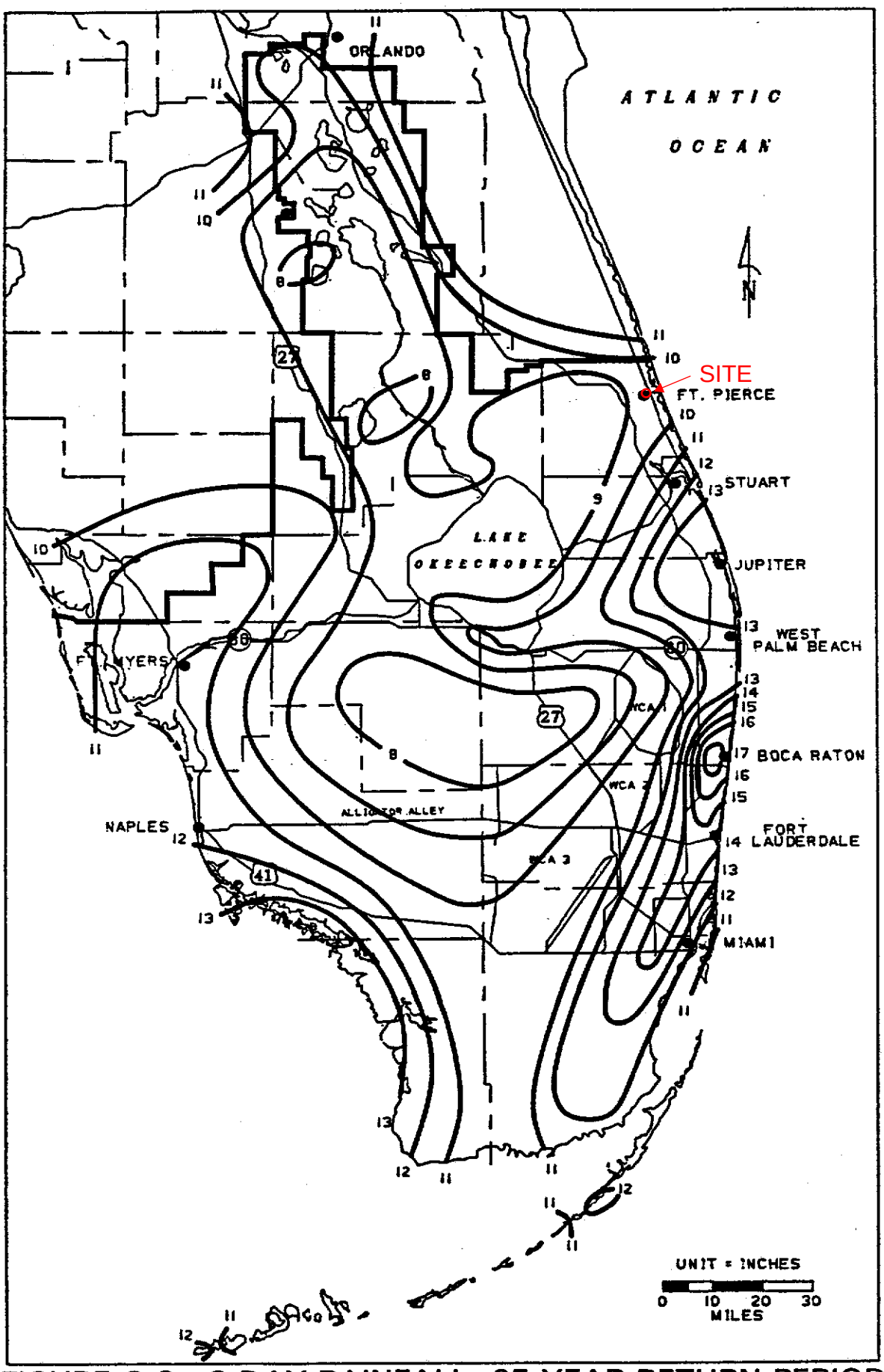


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

Figure C-8

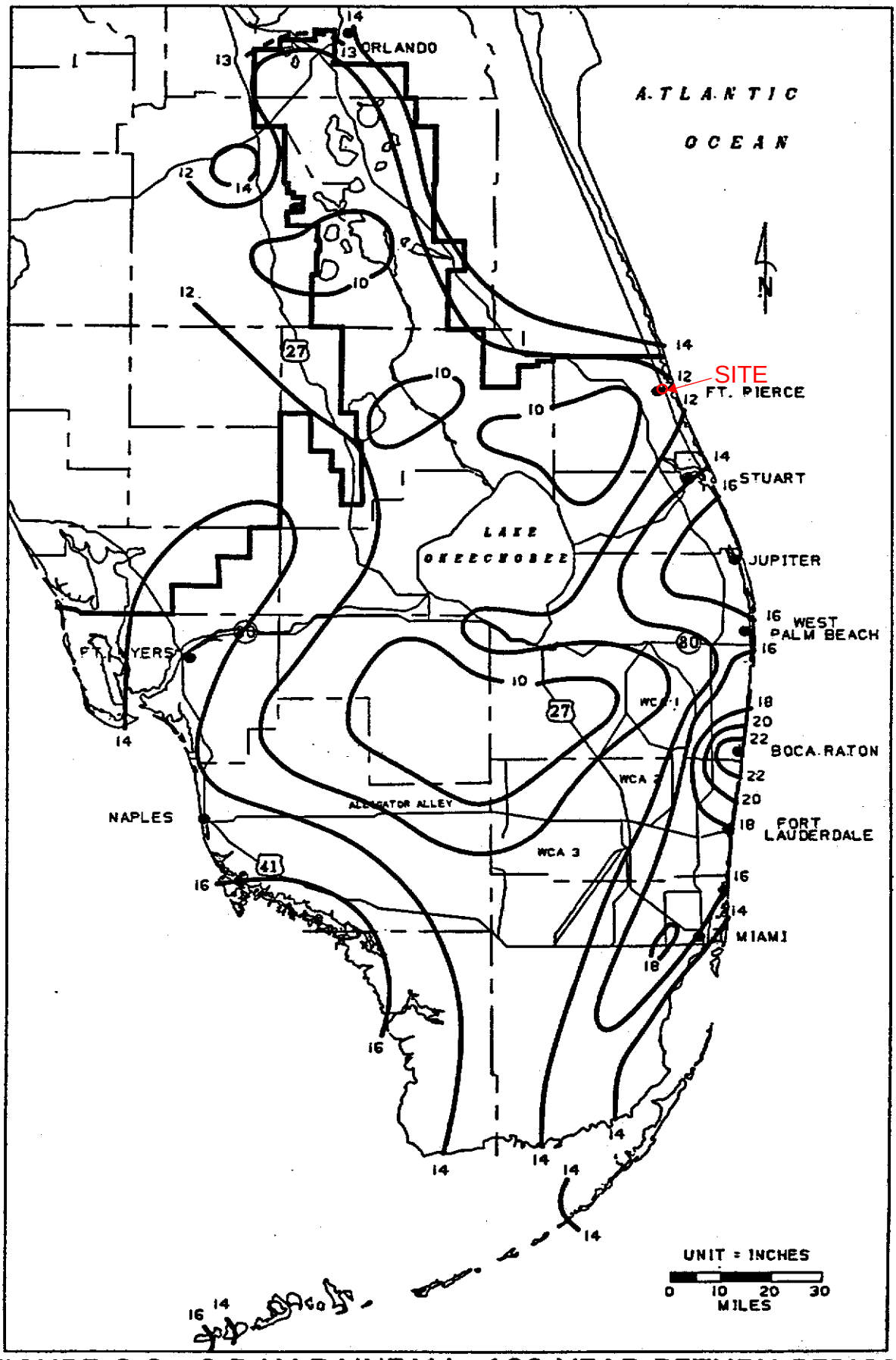


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

Figure C-9

APPENDIX ‘G’

STORMWISE (ICPR) REPORTS

ICPR PRE DEVELOPMENT MODEL

Link Min/Max Conditions : Multi Item | (sim, name) [EXISTING CONDITIONS]

Sim Name	Link Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
100Y-3D	L-DISCHARGE	1.31	0.00	-0.03	0.64	0.64	0.64
10Y-1D	L-DISCHARGE	0.93	0.00	0.02	0.57	0.57	0.57
25Y-3D	L-DISCHARGE	0.96	0.00	-0.02	0.58	0.58	0.58

Node Max Conditions : Multi Item | (sim, name) [EXISTING CONDITIONS]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100Y-3D	N-SITE	0.00	0.00	19.91	-0.0008	1.31	1.31	13063
100Y-3D	NZA-DISCHARGE	0.00	0.00	0.00	0.0000	1.31	0.00	0
10Y-1D	N-SITE	0.00	0.00	19.90	0.0010	1.42	0.93	12701
10Y-1D	NZA-DISCHARGE	0.00	0.00	0.00	0.0000	0.93	0.00	0
25Y-3D	N-SITE	0.00	0.00	19.90	-0.0006	0.97	0.96	12731
25Y-3D	NZA-DISCHARGE	0.00	0.00	0.00	0.0000	0.96	0.00	0

Simple Basin : Multi Item | (sim, name) : Runoff Summary [EXISTING CONDITIONS]

Sim Name	Basin Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
100Y-3D	SMB-SITE	1.31	36.0000	13.00	10.31	0.4400
10Y-1D	SMB-SITE	1.42	12.0333	6.00	3.77	0.4400
25Y-3D	SMB-SITE	0.97	36.0000	10.00	7.45	0.4400

Simple Basin: SMB-SITE

Scenario:	EXISTING CONDITIONS
Node:	N-SITE
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4400 ac
Curve Number:	68.3
Ia/S:	0.08
% Impervious:	34.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Node: N-SITE

Scenario:	EXISTING CONDITIONS
Type:	Stage/Volume
Base Flow:	0.00 cfs
Initial Stage:	19.50 ft
Warning Stage:	0.00 ft
Alert Stage:	0.00 ft

Stage [ft]	Volume [ac-ft]	Volume [ft3]
19.50	0.00	0
20.00	0.09	3920
20.50	0.37	16117
21.00	0.68	29621
21.50	0.98	42689
22.00	1.29	56192
22.50	1.59	69260

Comment:

Node: NZA-DISCHARGE

Scenario: EXISTING CONDITIONS
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Weir Link: L-DISCHARGE

Scenario: EXISTING CONDITIONS
From Node: N-SITE
To Node: NZA-DISCHARGE
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Irregular
Invert: 19.81 ft
Control Elevation: 19.81 ft
Cross Section: X-SITE

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients

Weir Default: 2.800
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Weir Cross Section: X-SITE

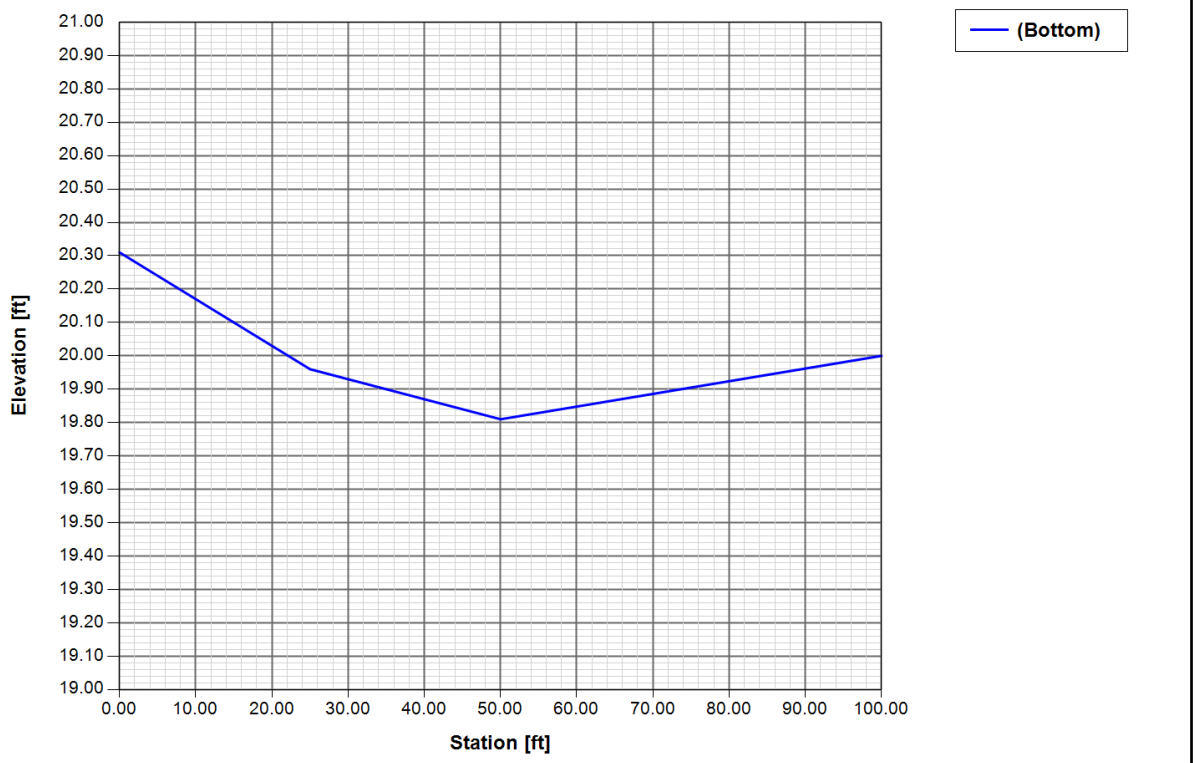
Scenario: EXISTING CONDITIONS
Lid: No

Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	20.31
1	25.00	19.96
2	50.00	19.81
3	100.00	20.00

Comment:

Weir Cross Section: X-SITE Scenario: X-SITE



Simulation: 100Y-3D

Scenario:	EXISTING CONDITIONS
Run Date/Time:	1/14/2026 10:09:50 AM
Program Version:	StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	80.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FLMOD
Rainfall Amount: 13.00 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10Y-1D

Scenario: EXISTING CONDITIONS
Run Date/Time: 1/14/2026 10:10:23 AM

Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global

Rainfall Name:	~FLMOD
Rainfall Amount:	6.00 in
Storm Duration:	24.0000 hr
Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (1D):	100 ft2
Energy Switch (1D):	Energy

Comment:

Simulation: 25Y-3D

Scenario: EXISTING CONDITIONS
Run Date/Time: 1/14/2026 10:10:34 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	80.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Lookup Tables

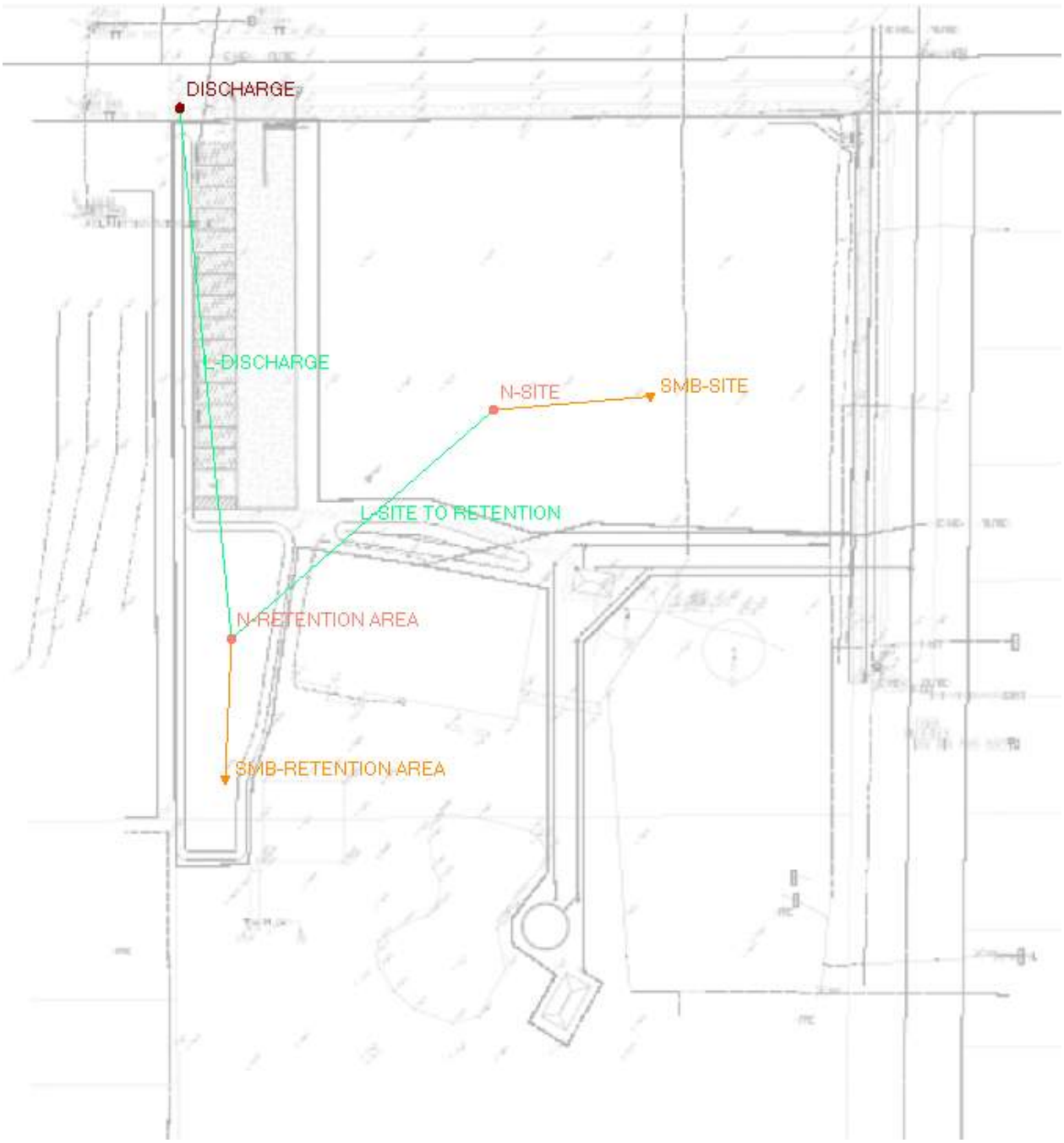
Boundary Stage Set:
Extern Hydrograph Set:

Unit Hydrograph Folder:		Curve Number Set:	
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FLMOD
		Rainfall Amount:	10.00 in
		Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:



ICPR POST DEVELOPMENT MODEL

Link Min/Max Conditions : Multi Item | (sim, name) [POST DEVELOPMENT]

Sim Name	Link Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
100Y-3D	L-DISCHARGE	0.89	0.00	0.03	0.57	0.57	0.57
100Y-3D	L-SITE TO RETENTION	1.49	-0.42	-1.50	0.08	0.08	0.08
10Y-1D	L-DISCHARGE	0.00	0.00	0.00	0.00	0.00	0.00
10Y-1D	L-SITE TO RETENTION	1.42	0.00	0.01	0.00	0.00	0.00
25Y-3D	L-DISCHARGE	0.11	0.00	0.00	0.18	0.18	0.18
25Y-3D	L-SITE TO RETENTION	0.97	0.00	-0.06	0.02	0.02	0.02

Node Max Conditions : Multi Item | (sim, name) [POST DEVELOPMENT]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100Y-3D	DISCHARGE	0.00	0.00	0.00	0.0000	0.89	0.00	0
100Y-3D	N-RETENTION AREA	0.00	0.00	19.90	0.0010	1.72	1.23	9219
100Y-3D	N-SITE	0.00	0.00	19.90	0.0010	1.31	1.49	9075
10Y-1D	DISCHARGE	0.00	0.00	0.00	0.0000	0.00	0.00	0
10Y-1D	N-RETENTION AREA	0.00	0.00	19.65	0.0010	1.80	0.00	8379
10Y-1D	N-SITE	0.00	0.00	19.72	0.0009	1.42	1.42	4473
25Y-3D	DISCHARGE	0.00	0.00	0.00	0.0000	0.11	0.00	0
25Y-3D	N-RETENTION AREA	0.00	0.00	19.86	0.0010	1.29	0.11	9109
25Y-3D	N-SITE	0.00	0.00	19.86	0.0010	0.97	0.97	8230

Simple Basin : Multi Item | (sim, name) : Runoff Summary [POST DEVELOPMENT]

Sim Name	Basin Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
100Y-3D	SMB-RETENTION AREA	0.49	36.0000	13.00	6.90	0.2300
100Y-3D	SMB-SITE	1.31	36.0000	13.00	10.31	0.4400
10Y-1D	SMB-RETENTION AREA	0.38	12.0333	6.00	1.95	0.2300
10Y-1D	SMB-SITE	1.42	12.0333	6.00	3.77	0.4400
25Y-3D	SMB-RETENTION AREA	0.33	36.0000	10.00	4.61	0.2300
25Y-3D	SMB-SITE	0.97	36.0000	10.00	7.45	0.4400

Simple Basin: SMB-RETENTION AREA

Scenario:	POST DEVELOPMENT
Node:	N-RETENTION AREA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.2300 ac
Curve Number:	49.0
Ia/S:	0.04
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: SMB-SITE

Scenario:	POST DEVELOPMENT
Node:	N-SITE
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4400 ac
Curve Number:	68.3

Ia/S: 0.08
% Impervious: 34.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Node: DISCHARGE

Scenario: POST DEVELOPMENT
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Node: N-RETENTION AREA

Scenario: POST DEVELOPMENT
Type: Stage/Volume
Base Flow: 0.00 cfs
Initial Stage: 18.50 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Volume [ac-ft]	Volume [ft3]
18.50	0.00	0
19.00	0.06	2614
19.50	0.14	6098
20.00	0.24	10454
20.50	0.36	15682
21.00	0.47	20473

Comment:

Node: N-SITE

Scenario: POST DEVELOPMENT
Type: Stage/Volume
Base Flow: 0.00 cfs

Initial Stage: 19.50 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Volume [ac-ft]	Volume [ft3]
19.50	0.00	0
20.00	0.06	2614
20.50	0.27	11761
21.00	0.49	21344
21.50	0.71	30928

Comment:

Weir Link: L-DISCHARGE

Scenario: POST DEVELOPMENT
From Node: N-RETENTION AREA
To Node: DISCHARGE
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Irregular
Invert: 19.81 ft
Control Elevation: 19.81 ft
Cross Section: X-DISCHARGE

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients
Weir Default: 2.800
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Weir Link: L-SITE TO RETENTION

Scenario: POST DEVELOPMENT
From Node: N-SITE
To Node: N-RETENTION AREA
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Rectangular
Invert: 19.70 ft
Control Elevation: 19.70 ft
Max Depth: 1.00 ft
Max Width: 165.00 ft
Fillet: 0.00 ft

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients
Weir Default: 2.800
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Weir Cross Section: X-DISCHARGE

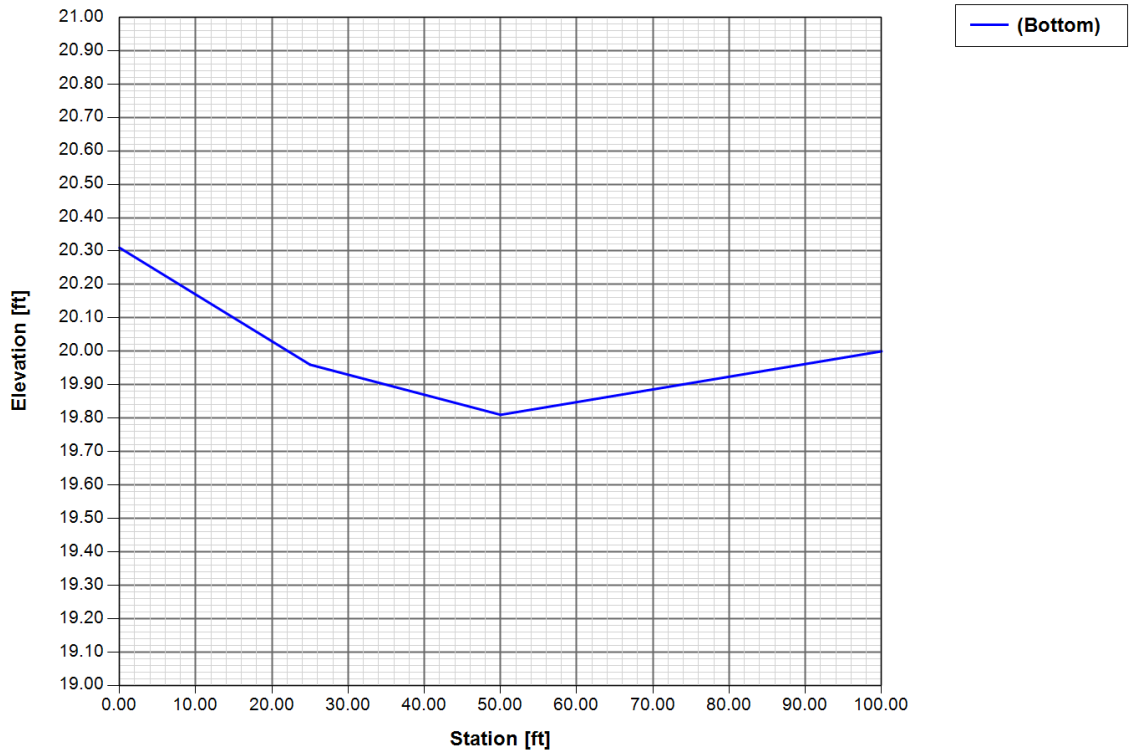
Scenario: POST DEVELOPMENT
Lid: No

Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	20.31
1	25.00	19.96
2	50.00	19.81
3	100.00	20.00

Comment:

Weir Cross Section: X-DISCHARGE Scenario: X-DISCHARGE



Weir Cross Section: X-RETENTION AREA

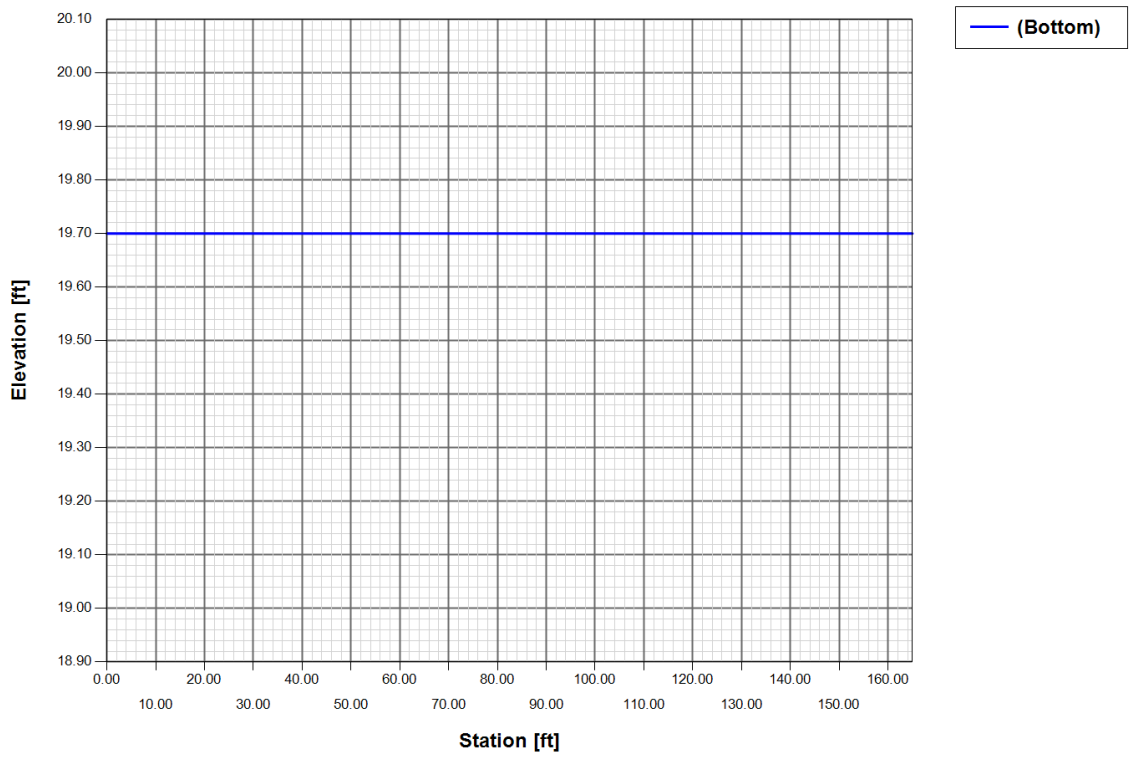
Scenario: POST DEVELOPMENT
Lid: No

Bottom Point Table

Order	Station [ft]	Elevation [ft]
0	0.00	19.70
1	0.01	19.70
2	165.00	19.70

Comment:

Weir Cross Section: X-RETENTION AREA Scenario: X-RETENTION AREA



Simulation: 100Y-3D

Scenario: POST DEVELOPMENT
Run Date/Time: 1/14/2026 10:29:43 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

Year	Month	Day	Hour [hr]

Start Time:	0	0	0	0.0000
End Time:	0	0	0	80.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FLMOD
Rainfall Amount: 13.00 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2

Energy Switch (1D): Energy

Comment:

Simulation: 10Y-1D

Scenario: POST DEVELOPMENT
Run Date/Time: 1/14/2026 10:30:12 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FLMOD
		Rainfall Amount:	6.00 in
		Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 25Y-3D

Scenario:	POST DEVELOPMENT
Run Date/Time:	1/14/2026 10:30:26 AM
Program Version:	StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	80.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FLMOD
		Rainfall Amount:	10.00 in
		Storm Duration:	72.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

GEOTECHNICAL EXPLORATION

COACH FENN PARK IMPROVEMENT
2306 AVENUE I
FORT PIERCE, FLORIDA

UES PROJECT NO. A25153.01192.000

PREPARED FOR:

Cape Design Engineering Co.
2725 Center Place
Melbourne, FL 32940

Attn: Juan Pinheiros

PREPARED BY:

UES Professional Solutions, LLC
607 NW Commodity Cove
Port St. Lucie, Florida 34986
(772) 924-3575

January 14, 2026

January 14, 2026

Juan Pinheiros
Cape Design Engineering Co.
2725 Center Place
Melbourne, FL 32940

Subject: Report of Geotechnical Exploration
Coach Fenn Park Improvement
2306 Avenue I in Fort Pierce, FL
UES Project No. A25153.01192.000

Dear Juan Pinheiros:

UES Professional Solutions LLC has completed the subsurface exploration and geotechnical engineering evaluation for the above reference project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in general accordance with UES's Geotechnical Engineering Proposal No. A25153.01192.000 dated October 27, 2025, planned in conjunction with and authorized by you.

EXECUTIVE SUMMARY

The purpose of the subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions at the site and evaluate their impact upon the proposed construction. This report contains the results of the subsurface exploration and UES's engineering interpretations of these with respect to the project characteristics described to UES, including providing recommendations for foundation design, site preparation, and pavement recommendations.

UES understands that the project consists of the construction of two pavilions, a playground canopy, a splashpad, a restroom, along with a paved parking area, at the referenced site in Fort Pierce, FL. UES was provided a Boundary and Topographic Survey, prepared by Culpepper and Terpening, Inc., dated 08/04/2022. A site development plan was also provided, prepared by The City Of Fort Pierce, FL., dated 04/12/2023. A Grading, Paving, Dimensional and Stripping Plan was also provided, prepared by GM2 Associates, Inc., dated 01/06/2026.

For the foundation recommendations provided herein, UES has assumed maximum column and wall loads in the order of **50 kips** and **4 kip per linear foot**, respectively.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that recommendations with respect to any modifications may be reviewed.

As part of the exploration, UES performed:

- Five (5) Standard Penetration Test (SPT) borings (B-1 through B-5) advanced to a depth of approximately 10 feet below ground surface (BGS) within the proposed structures (1 per structure).

- Two (2) Standard Penetration Test (SPT) borings (P-1 and P-2) advanced to a depth of approximately 10 feet below ground surface (BGS) within the proposed paved parking area.

- One (1) double-ring infiltrometer (DRI) test at grade were performed at the proposed new retention pond within the property.

The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with little clay (SP-SC), and fine sand with little silt (SP-SM) to the termination depths of the borings. Groundwater levels at the time of drilling (January 2026) were encountered at approximate depths of 7.7 to 8.0 feet, depending on the test location.

Considering the results of the field exploration program, the subsurface soil conditions revealed by the borings are generally favorable for support of the proposed development on shallow foundations. A maximum allowable soil bearing pressure of **2,500 psf** may be used for foundation design.

UES appreciates the opportunity to be of service during this phase of the project and looks forward to a continued association. Please do not hesitate to contact UES if you have any questions or comments, or if UES may further assist you as your plans proceed.

Respectfully Submitted,

UES Professional Solutions, LLC
Florida Registry No. 549

This item has been digitally signed and sealed by Luke Aaron Berry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

Luke Aaron Berry, P.E.
Geotechnical Engineer
Florida Registration No. 93889

Dhanuhasini Subramaniam, E.I
Project Engineer

Distribution: Juan Pinheiros – Cape Design Engineering, Co. 1 pdf

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1.0 INTRODUCTION

1.1 Project Description

UES understands that the project consists of the construction of two pavilions, a playground canopy, a splashpad, a restroom, along with a paved parking area, at the referenced site in Fort Pierce, FL. UES was provided a Boundary and Topographic Survey, prepared by Culpepper and Terpening, Inc., dated 08/04/2022. A site development plan was also provided, prepared by The City Of Fort Pierce, FL., dated 04/12/2023. A Grading, Paving, Dimensional and Stripping Plan was also provided, prepared by GM2 Associates, Inc., dated 01/06/2026.

For the foundation recommendations provided herein, UES has assumed maximum column and wall loads in the order of **50 kips** and **4 kip per linear foot**, respectively.

The recommendations provided herein are based upon the above considerations. If the stated conditions are incorrect or if the project description is revised, please inform UES so that recommendations with respect to any modifications may be reviewed.

1.2 Scope of Services

The objective of the geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for the proposed development. The following scope of services is provided within this report:

1. Prepare boring logs depicting the subsurface soil conditions encountered during the field exploration.

2. Review the soil samples obtained during the field exploration for classification and additional testing if necessary.

3. Evaluate the existing soil conditions found during UES's exploration with respect to pavement construction for the proposed development.

4. Provide recommendations with respect to foundation support of the proposed building, including foundation type, maximum allowable soil bearing capacity, and bearing elevations.

5. Provide recommendations for pavement design and subgrade preparation.

6. Provide site preparation criteria for the proposed construction.

7. Provide the double ring infiltrometer test results.

2.0 OBSERVATIONS

2.1 Site Description and Historical Data

As illustrated on the Site Vicinity Map in **Appendix A**, the site is located at 2306 Avenue I in Fort Pierce, FL. The property is bordered by Avenue K to the north, North 23rd Street to the east, a commercial property to the west, and residential/commercial properties to the south.

UES reviewed historic aerials dated from 1958 to 2023. Review of 1958 aerial imagery indicates that the site was undeveloped, with light to moderate vegetation present. By 1984, earthwork activities were observed across multiple portions of the site. By 1999-2007, the property has been developed with what appears to be the existing developments on site. The site has remained relatively unchanged since.

2.2 Field Exploration

As part of the exploration, UES performed:

- Five (5) Standard Penetration Test (SPT) borings (B-1 through B-5) advanced to a depth of approximately 10 feet below ground surface (BGS) within the proposed structures (1 per structure).

- Two (2) Standard Penetration Test (SPT) borings (P-1 and P-2) advanced to a depth of approximately 10 feet below ground surface (BGS) within the proposed paved parking area.

- One (1) double-ring infiltrometer (DRI) test at grade was performed at the proposed new retention pond within the property.

The boring depths were established based upon UES's knowledge of the vicinity soils and confined to the zone of soil likely to be influenced by the planned construction. The locations of the borings are illustrated on the Test Location Plan in **Appendix B**.

The Standard Penetration Tests (SPT) were performed in general accordance with ASTM D 1586, "Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils." The SPT test procedure consists of driving a 1.4-inch I.D. split-barrel sampler into the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot for the second and third 6-inch increments is referred to as the N-value. The N-value has been empirically correlated with various soil properties and provides an indication of soil strength. Please refer to **Appendix C** - Notes Related to Borings for further clarification of UES's field exploration.

Site specific survey staking of the borings was not provided for UES's field exploration. The indicated depth and location of each boring were approximated based upon existing grade and estimated distances and relationships to the landmarks on the property. The latitude, longitude, and elevation noted in UES's boring logs were taken from Google

Earth. Google Earth uses WGS-84 or Local Mean Sea Level (MSL) as datum. It should be noted that elevations may not always be correct if a fill is added, or site grades change to a site after Google captures the image. The boring location and elevations noted should, therefore, be considered approximate.

2.3 Laboratory Testing

Soil samples recovered from the field exploration were returned to UES's laboratory, where they were visually classified by a geotechnical engineer in general accordance with the Unified Soil Classification System (ASTM D 2488). Selected samples were tested for moisture content (ASTM D 2216) and organic content (ASTM D 2974). The laboratory test results are summarized in Table 2.3.1 below and in the boring logs.

Table 2.3.1 - Laboratory Test Results

Boring No.	Strata Depth (feet)	Sample Description	Moisture Content (%)	Organic content (%)
B-3	4.0 - 6.0	Medium dense, dark brown, fine grained sand, trace organics (SP)	15.7	2.8

One (1) Moisture-Density Relationship (Modified Proctor) test in accordance with ASTM D1557 and Limerock Bearing Ratio (LBR) test in accordance with FM 5-515 (in lieu of CBR) was performed on a representative sample collected from the proposed parking areas. The test results are presented in **Appendix F** – Laboratory Test Results for additional information.

The samples will be retained in UES's laboratory for 30 days and then discarded unless UES is notified otherwise in writing. The recovered samples were not evaluated, either visually or analytically, for chemical composition or environmental hazards. UES will be pleased to perform these services for an additional fee, if required.

2.4 Geomorphic Conditions

The geology of the site, as mapped on the USDA Soil Survey website, consists of *Waveland and Immokalee fine sands (50) and Waveland-Urban land complex (52).* Note that the Soil Survey generally extends to a maximum depth of 80 inches below the ground surface and is not indicative of deeper soil conditions.

Boring logs resulting from field exploration are presented in **Appendix D** - Log of Boring Records. The logs contain the soil descriptions and the standard penetration test (SPT) N-values logged during the drilling and sampling activities. Note that the soil boring data reflects information from the specific test locations only and the soil conditions may vary between the strata interfaces indicated on the logs. The soil classifications and descriptions shown on the logs are generally based upon visual characterizations of the recovered samples using the Unified Soil Classification System. See **Appendix G** - Discussion of Soil Groups, for a detailed description of various soil groups.

The subsurface soil conditions encountered at the boring locations generally consisted of loose to medium dense fine sand (SP), fine sand with little clay (SP-SC), and fine sand with little silt (SP-SM) to the termination depths of the borings. For a more precise description of the conditions encountered within the soil test borings, refer to the "Log of Boring Records" included in Appendix D.

2.5 Hydrogeological Conditions

On the date of UES's field exploration (January 2026), groundwater was encountered at a depth of approximately **7.7** to **8.0 feet** below existing ground surface. The groundwater table typically fluctuates seasonally depending upon local rainfall and other site specific and/or local influences. Brief ponding of stormwater may occur across the site after heavy or extended rainfall events.

No additional evaluation was included in UES's scope of work in relation to the wet seasonal high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is necessary, please contact UES's office for additional guidance.

2.6 Double-Ring Infiltrometer Test

The DRI test was performed in general accordance with ASTM D 3385, "Infiltration Rate of Soils in Field Using Double-Ring Infiltrometers." The test location was initially cleared of surface vegetation and topsoil, excavated to an approximate depth of 1 foot, and then leveled. The outer ring, approximately 24 inches in diameter, was driven to a depth of 6 inches below the test depth. The inner ring, approximately 12 inches in diameter, was inserted inside the outer ring, centered, and driven to a depth of approximately 2 inches below the test depth. The 2 rings were filled simultaneously with 6 inches of water.

The water level was maintained throughout the test period, with the required amount of water added to maintain this level in both rings recorded at 15-minute time intervals for the initial hour, 30-minute time intervals for the next hour, and 1-hour time intervals thereafter. After reaching a stabilized inflow volume of water, the test continued for approximately 360 minutes.

2.6.1 Soil Infiltration Rate

The result of the double-ring infiltrometer test indicated the following vertical infiltration rate:

Test Location	Vertical Infiltration Rate K_v (in/hr.)
DRI-1	14.58

Note that the measured vertical infiltration rate should not be considered as the actual exfiltration rate. A factor of safety should be applied to these values when designing the stormwater management system for this project. For more details, refer to **Appendix E** – Double Ring Infiltrometer Test.

3.0 ENGINEERING EVALUATION AND RECOMMENDATIONS

3.1 General

A foundation system for any structure must be designed to resist bearing capacity failures, have settlements within tolerable limits for the structure type, and resist environmental forces, which the foundation may be subjected to over the life of the structure. Environmental forces in Florida can include sinkholes, shrinking and swelling soils, and soil consolidation, among others. It is UES's opinion that these specific environmental forces have a low risk (on a scale of low, moderate, high) of detrimentally affecting shallow foundation performance at this site.

The soil bearing capacity is the soil's ability to support loads without punching into the soil profile. Bearing capacity failures are analogous to shear failures in structural design and are usually sudden and catastrophic. Based on the scope of the proposed project, it is UES's opinion that the soils at the site are generally suitable for shallow foundations to support the proposed structures once ground improvement techniques discussed herein have been completed.

The allowable amount of settlement that a structure may tolerate is dependent on several factors, including uniformity of settlement, time rate of settlement, structural dimensions, and properties of the structural materials. Generally, total, or uniform settlement does not damage a structure but may affect drainage and utility connections. These can generally tolerate movements of several inches for building construction. In contrast, differential settlement affects a structure's frame and is limited by structural flexibility.

3.2 Site Preparation Recommendations

UES recommends the following compaction requirements for this project:

- Proof Roll..... 98 percent of modified Proctor
- Building Pad Fill..... 98 percent of modified Proctor
- Footing..... 98 percent of modified Proctor

The above compaction percentages are based upon the maximum dry density as determined by the modified Proctor test (ASTM D 1557). All density tests should be performed to a depth of 1 foot below stripped surface and bottom of the footings. Density testing should be performed using the nuclear method (ASTM D 6938).

UES's recommendations for the preparation of the site for the use of shallow foundation systems and on-grade slabs are contained herein. This approach to improving and maintaining the site soil has been found to be successful on projects with similar soil conditions.

1. Initial site preparation for the proposed structures should consist of clearing the vegetation, topsoil, near surface roots, and other miscellaneous debris within and to a distance of 5 feet beyond the planned construction limits. Similarly, irrigation

and utility lines within the limits of the proposed construction should be removed or properly abandoned so that they will not adversely impact overlying structures. Disposal of these materials should be accomplished in accordance with local and municipal guidelines.

2. Following the site stripping, areas of surficial sands should be compacted prior to placement of any fill. For the compaction efforts, UES recommends using a steel drum vibratory roller with a minimum static weight of 20,000 lbs. and minimum vibratory impact energy of 50,000 lbs. to proof roll the entire building area. The roller should be operated at 2 mph making at least 10 perpendicular overlapping passes. Densification should continue until no further settlement can be visually discerned at the excavated surface. No section of the subgrade should receive less than 4 passes of the roller or until at least 98% maximum density (ASTM D 1557) is achieved for a depth of at least **1 foot below** the backfilled surface. Upon completion of the proof rolling, pad fill shall be placed in maximum 12-inch loose lifts and compacted to a minimum density of **98 percent** of the Modified Proctor maximum dry density (ASTM D-1557).

3. Place fill material, as required. The excavated site soil that does not contain organics or other deleterious material should be suitable for use as engineered fill. The fill material should be inorganic (classified as SP, SW, GP or GW) containing not more than 5 percent (by weight) organic materials. Fill should be placed in maximum 12-inch loose lifts and compacted to a minimum density of **98 percent** of the Modified Proctor maximum dry density (ASTM D-1557) with a vibratory roller as mentioned above. Perform compliance tests within the fill noted above at a frequency of not less than one test per 2,500 square feet per lift in the building areas, or at a minimum of 2 test locations per lift, whichever is greater.

4. The bottom of all footing excavations shall be examined by the engineer/ geologist or his representative to determine if the soil is free of all organic and/or deleterious material, and that compaction and the recommended allowable soil bearing pressures are achieved. **NOTE: if any unsuitable material is encountered during footing excavation, it should be removed in its entirety.** UES recommends density tests be performed approximately every 50 lineal feet along continuous strip footings and at isolated column footings.

5. If site preparation work is performed during the rainy season (May through October), special care should be taken to maintain positive drainage from the building pad and paved areas to drains or ditches around the site. Unexpected wet periods can also occur in Florida during the “dry” season. Such events can raise water tables to levels above seasonal highs without the associated high temperatures evaporate ponded water. Therefore, the contractor should practice wet weather means and methods for earthwork during the “dry” season as well. Groundwater and surface water control, use of granular fill material and aeration are typical means to accomplish wet weather grading.

6. The contractor shall consider the final contours and grades as established by the plan when executing his backfilling and compaction operations.

Using vibratory compaction equipment can disturb adjacent structures. If vibration related disturbance to nearby structures may be of concern, vibration levels should be monitored during compaction operations. A representative from this office can monitor the vibration disturbance of adjacent structures; and a proposal for these services can be provided upon your request.

3.3 Shallow Foundation

Considering the soil conditions encountered and the site prepared as recommended above, foundations supported on well compacted fill may be designed for a net allowable bearing pressure of **2,500 pounds per square foot (psf)**. Shallow foundations should be embedded a minimum of 12 inches into the bearing soil, and the minimum width of footings shall be 12 inches, regardless of contact pressure, in accordance with Section 1809.4 of the Florida Building Code (latest ed.). The embedment shall be measured from the lowest adjacent exterior grade. All footings and columns should be structurally separated from the floor slab so that minor differential foundation settlement can occur without causing damage to the slab-on-grade floor unless a monolithic slab-on-grade foundation is planned.

Settlement calculations were made using the prepared site conditions and loadings presented in the foundation recommendations above. With the site prepared and the foundations designed and constructed as recommended, UES anticipates settlements of one (1) inch or less and differential settlements of one-half (½) inch or less between adjacent columns or a horizontal distance of 20 feet. Because of the granular nature of the subsurface soils, the majority of the settlements should occur during construction; post-construction settlement should be minimal.

3.4 Ground Floor Slabs

The ground floor slabs may be constructed upon either existing grade or granular fill following completion of the foundation site preparation and fill placement procedures outlined in this report. UES recommends that a modulus of subgrade reaction (k) of 150 pounds per cubic inch (pci) be considered during design. The floor slabs should be structurally separated from walls and columns to allow for differential vertical movement unless monolithic slab foundations are designed.

Excessive moisture vapor transmission through foundation slabs can result in damage to floor coverings as well as cause other deleterious effects. An appropriate moisture vapor barrier should be placed beneath the slabs to reduce moisture vapor from entering the structures through the slabs. The barriers should be installed in general accordance with applicable ASTM procedures, including sealing around pipe penetrations and at the foundation edges.

4.0 PARKING AND ROADWAY CONSTRUCTION RECOMMENDATIONS

4.1 Pavement Site Preparation

UES's recommendations for the preparation of the site for pavement construction are noted below. This approach to improving and maintaining site soil has been found to be successful with similar soil conditions.

1. Initial site preparation should consist of performing dewatering operations (if necessary) prior to any earthwork.

2. The proposed construction limits should be cleared, stripped, and grubbed of all construction debris and existing topsoil, vegetation, and associated root systems to a depth of their vertical reaches. This should be performed within and to a distance of 5 feet beyond the limits of the pavement areas.

3. Prior to initiating fill operations, the existing ground surface should be compacted (proof rolled) using a steel drum vibratory roller having sufficient static weight and vibratory impact energy to achieve the required compaction. After completing the proof rolling, density tests should be performed at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater, to confirm a minimum compaction compliance of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

4. If the roadway subgrade soils become wet and unstable due to excessive rainfall, groundwater intrusion, or the presence of silty/clayey soils, the unsuitable soils may be undercut and replaced using FDOT No. 57 stone, a sand/rock mixture, or equivalent backfill. Alternatively, it may be possible to place fill until a stable unyielding condition is achieved, and the fill is compacted to meet the density criteria. However, if the fill areas remain unstable and compaction cannot be achieved, then the fill should be removed, and underlying soils excavated and replaced with clean sand to such a depth required to achieve a stable, unyielding condition that also meets the compaction criteria.

5. Fill material should be inorganic (classified as SP/GW) containing not more than 5 percent (by weight) fibrous organic materials. **Fill material having silt/clay-size fines contents greater than 12 percent should not be used, including cyclone sand material.** The fill should be placed in a maximum 12-inch-thick lift. Each lift should be compacted to a minimum density of 98 percent of modified Proctor maximum dry density (AASHTO T-180).

6. Compliance density tests should be performed within the fill at a frequency of not less than one test per 5,000 square feet per lift, or at a minimum of two test locations, whichever is greater.

7. Representative samples of both on-site and imported materials proposed for use as fill should be obtained and tested to determine compliance with the project

specifications. The testing should include moisture-density relations (AASHTO T-180) and particle size analysis.

8. The contractor should consider the final contours and grades as established by the site grading, paving, and drainage plans when executing backfilling and compaction operations.

4.2 Pavement Design Sections

Flexible pavement sections in this geographic area typically consist of an asphaltic wearing course, a base course, and a stabilized subgrade layer. Rigid pavements are constructed either directly upon prepared soil subgrades or upon a base course and stabilized subgrade for heavier loads. Based on UES's experience in the area and the assumed traffic loading criteria, recommended pavement section thicknesses are provided in Table 4.2 below.

Table 4.2 Pavement Section Criteria

Type of Pavement	Layer	Material Description	Layer Thickness		
			Light Duty	Heavy Duty*	FDOT ROW
Flexible	(A)	Type S (non FDOT) or SP (FDOT)	1.5	2.5	3
	(B)	Crushed Base with minimum LBR of 100, compacted to 98% of the modified Proctor maximum dry density	6	8	15
	(SG)	Stabilized sub-grade fill, compacted to 98% of the modified Proctor maximum dry density	12	12	12
	STRUCTURAL NUMBER (SN)		**2.70**	**3.50**	**4.98**
Rigid	(C)	Florida DOT Portland Cement Concrete	NA	8**	NA
	(B)	Crushed Limerock with minimum LBR OF 100, compacted to 98% of the modified Proctor maximum dry density	NA	NA	NA
	(CG)	Compacted sub-grade fill, compacted to 98% of the modified Proctor maximum dry density	NA	12	NA

A = Asphaltic Concrete (Layer Coefficient = 0.44 per inch)
B = Base Course (Layer Coefficient = 0.18 per inch) (**note: Minimum LBR for recycled concrete is 150 for an equivalent layer coefficient of 0.18 per inch**)
SG = Stabilized Subgrade (Layer Coefficient = 0.08 per inch)
CG = Compacted Subgrade (Layer Coefficient = 0.00 per inch)
C = Concrete (based on 4,000 psi compressive strength)

* Based on Table 3.4 from ACI 330, Category "D" – Tractor Trailer Units with one or more trailers
** Can be reduced by 1.0 inch if dowels at transverse joints are used.

4.3 Stabilized Subgrade

The stabilized subgrade material should have a minimum Limerock Bearing Ratio (LBR) value of 40. UES recommends that subgrade material be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180). Compliance tests should be performed upon the stabilized subgrade for full depth at a frequency of one test per 5,000 square feet, or at a minimum of two test locations, whichever is greater.

4.4 Base Course

The base course is the portion of the pavement section between the surface course and stabilized subgrade. In areas where separation of at least 1.5 feet between the estimated wet seasonal high groundwater table and the bottom of the base material occurs, UES recommends the base course be limerock or cemented coquina having a minimum Limerock Bearing Ratio (LBR) value of 100. The base material should be obtained from an approved source. The base material should be placed in maximum 6-inch-thick lifts and compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

If the separation between the estimated wet seasonal high groundwater table and the bottom of the base material is less than 1.5 feet, UES recommends that asphaltic concrete base (FDOT SP-12.5) be used in lieu of limerock or cemented coquina. The subgrade should be mechanically stabilized (compacted) to a minimum of 98 percent of modified Proctor maximum dry density (AASHTO T-180). Compliance tests should be performed on the base course at a frequency of one test per 5,000 square feet, or a minimum of two test locations, whichever is greater.

4.5 Flexible (Asphalt) Pavement

Asphalt pavement should consist of either FDOT SP-9.5 or SP-12.5 asphaltic concrete. The mixes should be a current FDOT approved design for the materials used for the project. Samples of the materials delivered to the project should be tested to verify that the aggregate gradation and asphalt content satisfies the mix design specifications.
The asphalt should be compacted to meet the requirements of the latest edition of the FDOT Standard Specifications for Road and Bridge Construction. Compliance tests should be performed by obtaining cores to evaluate material thickness and density at a frequency of one test per 10,000 square feet, or a minimum of two test locations, whichever is greater.

4.6 Rigid (Concrete) Pavement

Rigid pavements should be constructed using concrete, having a minimum 28-day compressive strength of 4,000 psi. The fill required to raise grades in pavement areas should be compacted to at least 98 percent of modified Proctor maximum dry density (AASHTO T-180).

The pavement slabs should be reinforced to make them as rigid as practical. Proper joints should be provided at the junctions of slabs so that a small amount of independent

movement can occur without causing structural damage. Construction and control joints should be in accordance with current American Concrete Institute (ACI) and industry practices. The ACI 330R guidelines recommend *contraction joints* based on the thickness of the slab. A contraction joint predetermines the location of cracks caused by restrained shrinkage of the concrete and be the effects of loads and warping and curling.

Table 3.13—Spacing between contraction joints

Pavement thickness, in. (mm)	Maximum spacing, ft (m)
3-1/2 (90)	8-1/2 (2.5)
4, 4-1/2 (100, 110)	10 (3)
5, 5-1/2 (125, 140)	12-1/2 (4)
6 or greater (150 or greater)	15 (4.5)

The depth of the *contraction joint* should be at least ¼ of the slab thickness. The width of the cut depends on whether the joint will be sealed. A narrow joint, generally 1/10 to 1/8 in. wide, is common for unsealed joints. Cuts at least ¼ in. wide are required for sealed joints. Joint sealant manufacturers' recommendations should be followed for the depth and width of joints that are to be sealed. Sawing operations should be done within 4 to 12 hours after the localized finishing of an area.

Expansion (isolation) joints are recommended at pavement areas that will move independently of each other. Such areas include where aisles intersect or near fixed structures such as inlets, light poles, manholes and buildings. These full depth joints should contain a compressible filler to prevent the adjacent slabs from bonding to each other.

UES recommends distributed steel reinforcement to control the opening of intermediate cracks between the joints. The sole function of the distributed steel is to hold together the fracture faces of cracks form. The size of the steel (welded wire fabric) should be sized in accordance with section 3.8.1 of ACI 330R.

Lastly, the actual pavement section thickness should be provided by the Design Civil Engineer based on traffic loads, volume, and the owner's design life requirements. The above section represents the minimum thickness representative of typical local construction procedures and, as such, periodic maintenance should be anticipated. All pavement materials and construction procedures should conform to the FDOT, American Concrete Institute (ACI), or appropriate city/county requirements.

The pavement sections presented in this report are minimum pavement section thicknesses typically used for similar type projects. The pavement materials and construction procedures should conform to FDOT, ACI, or appropriate city/county requirements.

4.7 Effects of Water

Premature pavement section deterioration can occur due to intrusion of the wet season high groundwater table and/or improper surface water runoff management. UES recommends the pavement areas be constructed to have a minimum separation of 1.5 feet between the wet season high groundwater table and the bottom of base course, regardless of the type of base material. In addition, UES recommends that full-depth curb sections be designed and constructed. Using either extruded curb sections, which lie directly on top of the final surface course, or eliminating the curbing entirely, may allow runoff and/or irrigation water to migrate between the base and surface course. This condition can result in the separation of the surface course from the base course, causing a rippling effect, which results in premature deterioration of the pavement.

4.8 Construction Traffic

Incomplete pavement sections or pavement areas designed for light-duty traffic will not perform satisfactorily under typical construction traffic loading. UES recommends that all construction traffic (i.e., construction equipment, vehicles, etc.) either be re-routed away from these areas or the pavement sections be designed to support construction phase loading conditions.

4.9 Pipe Bedding and Backfill

Pipe bedding and backfill requirements to one (1) foot above the crown of pipe should be specified by the civil engineer. UES suggests the use of a “self” compacting material such as coarse aggregate (i.e., FDOT No. 57 stone) for backfill material placed below the groundwater table. “Self” compacting material placed below the groundwater should consist of inorganic, non-plastic material, free of any man-made debris, limerock with a three (3) inch maximum particle size with ASTM classification (USCS) of GP, GW or FDOT 57 Stone with less than 5% material finer than the No. 200 Sieve and a maximum particle size of 3 inches. The No. 57 stone should not be placed more than one foot above the groundwater.

Fill placed in one (1) foot above the crown of the pipe shall consist of select material having no more than 12 percent passing the No. 200 sieve, with a maximum particle size of 3 inches. The trench backfill shall be placed in maximum loose lifts of 12 inches and compacted to at least 95% of the Modified Proctor (ASTM D1557) maximum dry density or as specified by the civil engineer.

5.0 EXCAVATION CONDITIONS

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better insure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that all excavations, whether they be utility trenches, basement excavations or footing excavations, be constructed in accordance with the OSHA guidelines. It is the UES's understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's person responsible, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations. UES provides this information solely as a service to UES's clients.

UES is not assuming responsibility for construction site safety or the contractor's activities; such responsibility is not being implied and should not be inferred.

6.0 REPORT LIMITATIONS

This consulting report has been prepared for the exclusive use of Cape Design Engineering Co. and other members of the design team for the proposed construction located at 2306 Avenue I in Fort Pierce, FL. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty, either express or implied, is made.

The evaluation submitted in this report is based in part upon the data collected during field exploration. However, the nature and extent of variations throughout the subsurface profile may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the information and professional opinions provided in this report. In the event changes are made in the nature, design, or location of the proposed structures, the evaluation and opinions contained in this report should not be considered valid unless the changes are reviewed, and conclusions modified or verified in writing by UES.

UES should be provided with the opportunity to review the final foundation plans and specifications to determine if UES's recommendations have been properly interpreted, communicated, and implemented. If UES is not afforded the opportunity to participate in construction related aspects of foundation installation as recommended in this report or any report addendum, UES cannot accept responsibility for the interpretation of UES's recommendations made in this report or in a report addendum for foundation performance.

The monitoring and inspection of construction procedures and the supervision of the implementation of the recommendations given herein shall be made by UES. Otherwise, the retained firm shall study this report, perform additional tests as they deem necessary, and submit their own recommendations or assume full responsibility for the outlined recommendations in their entirety.

7.0 BASIS FOR RECOMMENDATIONS

The recommendations presented in this report are based on the data obtained from the borings performed at the locations indicated on the Test Location Plan in Appendix B. This report does not reflect variations which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the boring logs is approximate and the descriptions represent UES's interpretation of the subsurface conditions at the designated boring locations on the specific date drilled.

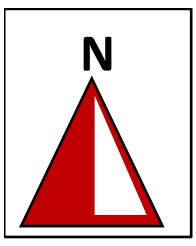
Any third-party reliance of UES's geotechnical report or parts thereof is strictly prohibited without the express written consent of UES. The applicable SPT methodology (ASTM D 1586) used in performing the borings, and for determining penetration resistance and soil relative density, is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

Appendix A - Vicinity Map

Site Vicinity Map

Coach Fenn Park Improvement
2306 Avenue I, Fort Pierce, Florida

Project No. A25153.01192.000	Drafted by: GG	Reviewed By: DS	Date: 01/12/2026

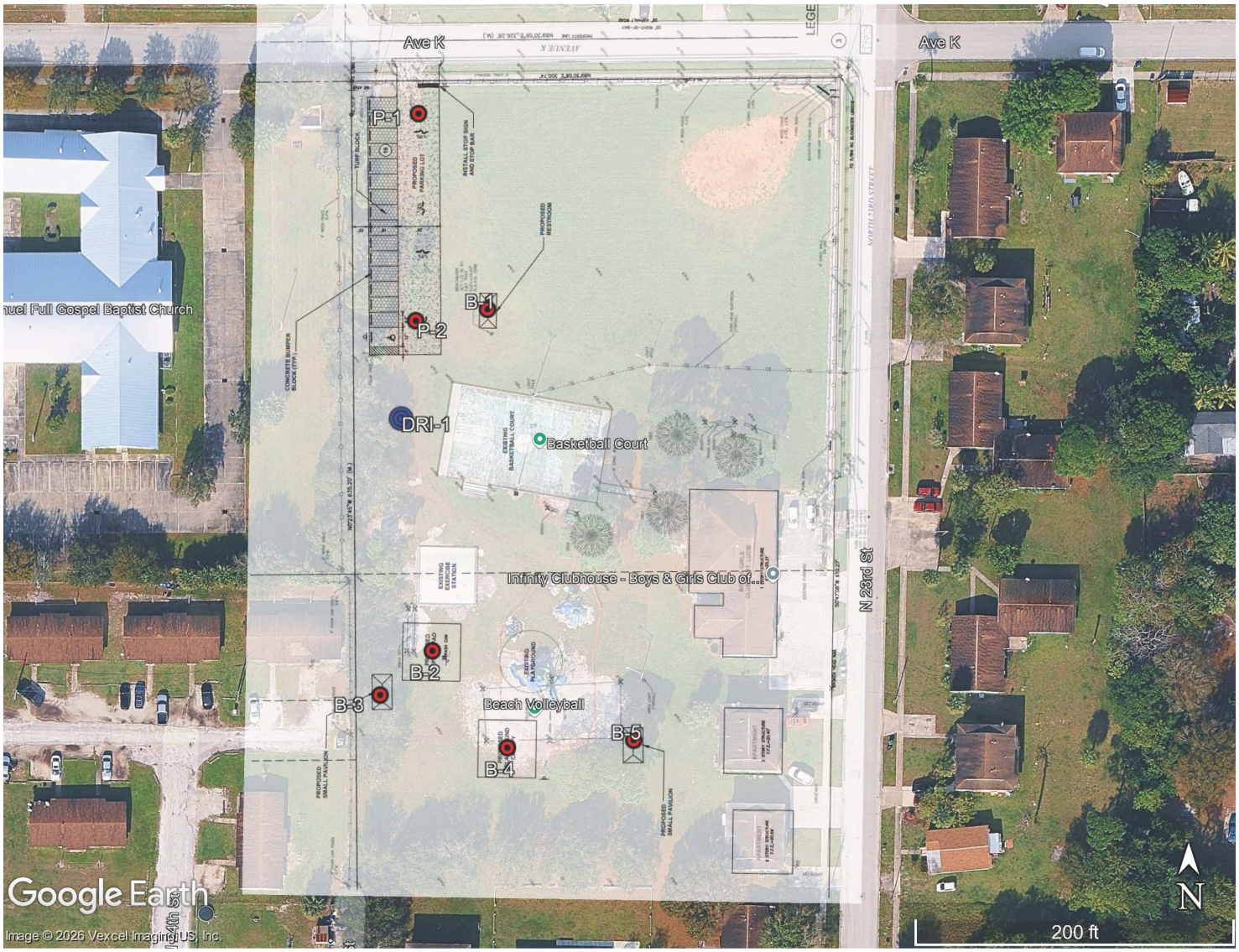


Appendix B - Test Location Plan

Test Location Plan

Coach Fenn Park Improvement
2306 Avenue I, Fort Pierce, Florida

Project No. A25153.01192.000	Drafted by: GG	Reviewed By: DS	Date: 01/12/2026



N

Legend

- Approximate 10’ Standard Penetration Test Boring Locations
- Double Ring Infiltrometer (DRI) Infiltration Test Location

BORING LOCATIONS WERE LOCATED USING A MEASURING TAPE AND EXISTING LANDMARKS AS REFERENCE POINTS. IN ADDITION, THE LATITUDE, LONGITUDE, AND ELEVATION NOTED ON THE BORING LOGS WERE TAKEN FROM GOOGLE EARTH. THEREFORE, LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE.

Appendix C - Notes Related to Borings

NOTES RELATED TO BORING RECORDS AND GENERALIZED SUBSURFACE PROFILES

1. Groundwater levels (if encountered) were recorded either during or following the boring completion on the date indicated. Fluctuations in groundwater levels are common - see the report text for a discussion.
2. The boring locations were identified in the field by estimated distances and offsets from existing reference marks and/or other site landmarks.
3. The completed boreholes were backfilled to adjacent site grade using drilling spoils and patched with asphalt cold mix in pavement areas.
4. The Log of Boring records represent our interpretation of soil conditions based on visual classification of the soil samples recovered from the borings.
5. The Log of Boring records are subject to the limitations, conclusions, and recommendations presented in the report text.
6. The Standard Penetration Test (SPT) N-values contained on the Log of Boring records refer to the total blow counts of a 140-pound drop hammer falling 30 inches required to drive a split-barrel sampler a total distance of 12 inches into soil strata at specific depth intervals.
7. The Hand Cone Penetrometer (HCP) values contained on Log of Boring records and the Cone Penetration Test (CPT) values contained on the Cone Penetration Sounding logs refer to the cone tip resistance recorded when pushing the cone tip into the soil strata at specific depth intervals.
8. The soil and/or rock strata interfaces shown on the Log of Boring records are approximate and may vary from those shown on the logs. The soil and/or rock descriptions shown on the Log of Boring records refer to conditions at the specific location tested. Soil/rock conditions may vary between test locations.
9. Relative density for coarse-grained soils (sands/gravels) and consistency for fine-grained soils (silts/clays) are described as follows:

Coarse Grained Soils (Sands and Gravels)				**Fine Grained Soils (Silts and Clays)**			
SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Relative Density	SPT N-Value	HCP Value (kg/cm^2)	CPT Value (tsf)	Consistency
0-4	0-16	0-20	Very Loose	0-2	0-20	0-3	Very Soft
5-10	17-36	21-40	Loose	3-4	21-35	4-6	Soft
11-30	37-116	41-120	Med. Dense	5-8	>35	7-12	Firm
31-50	117-196	121-200	Dense	9-15		13-25	Stiff
>50	> 196	>200	Very Dense	16-30		26-50	Very Stiff
				>30		>50	Hard

10. Grain size descriptions are as follows:

Description	**Particle Size Limits**
Boulder	Greater than 12 inches
Cobble	3 to 12 inches
Coarse Gravel	3/4 to 3 inches
Fine Gravel	No. 4 sieve to 3/4 inch
Coarse Sand	No. 10 to No. 4 sieve
Medium Sand	No. 40 to No. 10 sieve
Fine Sand	No. 200 to No. 40 sieve
Fines (Silt/Clay)	Smaller than No. 200 sieve

11. Definitions for modifiers used in soil/rock descriptions:

Proportion	**Modifier**	**Approximate Root Diameter**	**Modifier**
<5%	Trace	Less than 1/32"	Fine roots
5% to 12%	Little	1/32" to 1/4"	Small roots
12% to 30%	Some	1/4" to 1"	Medium roots
30% to 50%	And	Greater than 1"	Large roots
Organic Soils: Soils containing vegetative tissue in various stages of decomposition having a fibrous to amorphous texture. Usually having a dark brown to black color and an organic odor. Organic Content Modifiers: <25%: Slightly to Highly Organic; 25% to 75%: Muck; >75%: Peat			

Appendix D - Log of Boring Records

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

B-1

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	C. Guarneiri	Date Drilled:	01/09/2026	
Logged By:	C. Guarneiri	Boring Depth:	10.00'	
Equipment:	CME-45	Boring Elevation:	19.99'	
Hammer Type:	Auto	Coordinates:	27.459786, -80.348555	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	7.67'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
			Medium dense, grey, fine grained sand (SP) 2	1		2-4-7-7	90	11	0-2
			Medium dense, dark brown, fine grained organically stained sand (SP) 4	2		8-6-6-7	90	12	2-4
5	15		Medium dense, light brown, fine grained sand, little clay (SP-SC)	3		9-8-7-10	90	15	4-6
▽			8	4		10-8-8-9	90	16	6-8
			Medium dense, light gray, fine grained sand (SP) 10	5		7-7-10-12	90	17	8-10
10	10								
15	5								
	0								

Graphics Legend

- At Time of Drilling (ATD)
- SP
- SP-SC
- SPT - Standard

Water Levels

- ▽ Water encountered @ 7.667'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

B-2

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	C. Guarneiri	Date Drilled:	01/09/2026	
Logged By:	C. Guarneiri	Boring Depth:	10.00'	
Equipment:	CME-45	Boring Elevation:	19.67'	
Hammer Type:	Auto	Coordinates:	27.459201, -80.348662	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	8'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
			Medium dense, grey, fine grained sand (SP)	1		9-8-8-6	90	16	0-2
			3	2		7-7-9-11	90	16	2-4
			Medium dense, dark brown, fine grained organically stained sand (SP) 4						
5	15		Medium dense, light brown, fine grained sand, little clay (SP-SC)	3		10-8-10-12	90	18	4-6
				4		12-7-7-6	90	14	6-8
▽			8						
			Medium dense, light gray, fine grained sand (SP)	5		8-8-9-12	90	17	8-10
10	10		10						
15	5								
	0								

Graphics Legend

- ▽ At Time of Drilling (ATD)
- SP
- SP-SC
- SPT - Standard

Water Levels

- ▽ Water encountered @ 8'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

B-3

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks:	-
Driller:	C. Guarneiri	Date Drilled:	01/09/2026		
Logged By:	C. Guarneiri	Boring Depth:	10.00'		
Equipment:	CME-45	Boring Elevation:	19.50'		
Hammer Type:	Auto	Coordinates:	27.459125, -80.348763		
Drilling Method:	SPT	▽ Water Level at Time of Drilling	7.75'	Refusal Depth	-

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)	Moisture Content (%)	% Organic Material
			Medium dense, dark gray, fine grained sand, trace root fibers (SP) 2	1		10-9-9-8	90	18	0-2		
			Medium dense, dark gray, fine grained sand (SP) 4	2		7-7-8-10	90	15	2-4		
5	15		Medium dense, dark brown, fine grained sand, trace organics (SP) 6	3		9-9-8-11	90	17	4-6	15.70	2.80
▽			Medium dense, light brown, fine grained sand, little clay (SP-SC) 8	4		7-7-7-9	90	14	6-8		
10	10		Medium dense, light gray, fine grained sand (SP) 10	5		8-7-10-10	90	17	8-10		
15	5										
	0										

Graphics Legend

- At Time of Drilling (ATD)
- SP
- SP-SC
- SPT - Standard

Water Levels

- ▽ Water encountered @ 7.75'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

B-4

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	C. Guarneiri	Date Drilled:	01/09/2026	
Logged By:	C. Guarneiri	Boring Depth:	10.00'	
Equipment:	CME-45	Boring Elevation:	19.77'	
Hammer Type:	Auto	Coordinates:	27.459035, -80.348517	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	8'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
				Samples					
			Medium dense, gray, fine grained sand (SP) 2	1		9-8-8-11	90	16	0-2
			Medium dense, dark brown, fine grained sand (SP) 4	2		10-10-9-12	90	19	2-4
5	15		Medium dense, brown, fine grained sand, little silt (SP-SM) 6	3		7-7-8-10	90	15	4-6
			Medium dense, brown, fine grained sand, little clay (SP-SC) 8	4		5-8-7-7	90	15	6-8
▽			Medium dense, brown, fine grained sand (SP) 10	5		6-8-8-13	90	16	8-10
10	10								
15	5								
	0								

Graphics Legend

- ▽ -
- SP
- SP-SM
- SPT - Standard
- SP-SC

Water Levels

- ▽ Water encountered @ 8'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

B-5

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	C. Guarneiri	Date Drilled:	01/09/2026	
Logged By:	C. Guarneiri	Boring Depth:	10.00'	
Equipment:	CME-45	Boring Elevation:	19.72'	
Hammer Type:	Auto	Coordinates:	27.459048, -80.348273	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	8'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
				Samples					
			Loose, gray, fine grained sand, trace root fibers (SP) 2	1		3-3-6-9	90	9	0-2
			Medium dense, dark brown, fine grained sand, little silt (SP-SM) 4	2		8-8-10-12	90	18	2-4
5	15		Medium dense, light brown, fine grained sand, little clay (SP-SC)	3		9-9-8-11	90	17	4-6
			8	4		7-7-9-8	90	16	6-8
▽			Medium dense, light brown, fine grained sand (SP) 10	5		7-6-6-9	90	12	8-10
10	10								
15	5								
	0								

Graphics Legend

- ▽ At Time of
- SP
- SP-SM
- SP-SC
- SPT - Standard

Water Levels

- ▽ Water encountered @ 8'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

P-1

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	J. Diaz	Date Drilled:	01/12/2026	
Logged By:	J. Diaz	Boring Depth:	10.00'	
Equipment:	Geoprobe 7822DT	Boring Elevation:	19.77'	
Hammer Type:	Auto	Coordinates:	27.460121, -80.348689	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	8'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
			Loose, gray, fine grained sand (SP) 2	1		3-4-4-5	90	8	0-2
			Medium dense, dark brown, fine grained organically stained sand, trace root fibers (SP) 4	2		7-6-5-8	90	11	2-4
5	15		Medium dense, light brown, fine grained sand (SP)	3		4-5-6-5	90	11	4-6
				4		7-6-6-6	90	12	6-8
▽				5		5-6-5-7	90	11	8-10
10	10		10						
15	5								
	0								

Graphics Legend

- At Time of Drilling (ATD)
- SPT - Standard
- SP

Water Levels

- ▽ Water encountered @ 8'
- ▼ -

Coach Fenn Park Improvement

2306 Avenue I, Fort Pierce, FL

P-2

Drilling Co.:	UES	Project No.:	A25153.01192.000	Remarks: -
Driller:	J. Diaz	Date Drilled:	01/12/2026	
Logged By:	J. Diaz	Boring Depth:	10.00'	
Equipment:	Geoprobe 7822DT	Boring Elevation:	19.89'	
Hammer Type:	Auto	Coordinates:	27.459766, -80.348694	
Drilling Method:	SPT	▽ Water Level at Time of Drilling	8'	Refusal Depth -

Depth (ft)	Elevation (ft)	Soil Graphic	Visual Classification and Remarks	Sample Number	Sample Graphic	Blow Counts	% Recovery	Uncorrected N-Value	Sample Interval (ft)
				Samples					
			Loose, gray, fine grained sand (SP) 2	1		4-3-3-3	90	6	0-2
			Loose, dark brown, fine grained organically stained sand, trace root fibers (SP) 4	2		4-5-4-5	90	9	2-4
5	15		Loose to medium dense, brown, fine grained sand, little silt (SP-SM)	3		6-5-4-5	90	9	4-6
				4		4-5-5-5	90	10	6-8
▽			8						
			Medium dense, light brown, fine grained sand (SP) 10	5		6-5-6-5	90	11	8-10
10	10								
15	5								
	0								

Graphics Legend

- At Time of Drilling (ATD)
- SP
- SP-SM
- SPT - Standard

Water Levels

- ▽ Water encountered @ 8'
- ▼ -

Appendix E - Double Ring Infiltrometer Test

607 NW Commodity Cove • Port St. Lucie, Florida 34986 Phone: (772) 924-3575 Fax: (772) 924-3580

DOUBLE RING INFILTRATION TEST (ASTM D-3385)

Test Number: DRI-01

Project Name: Coach Fenn Park Improvements

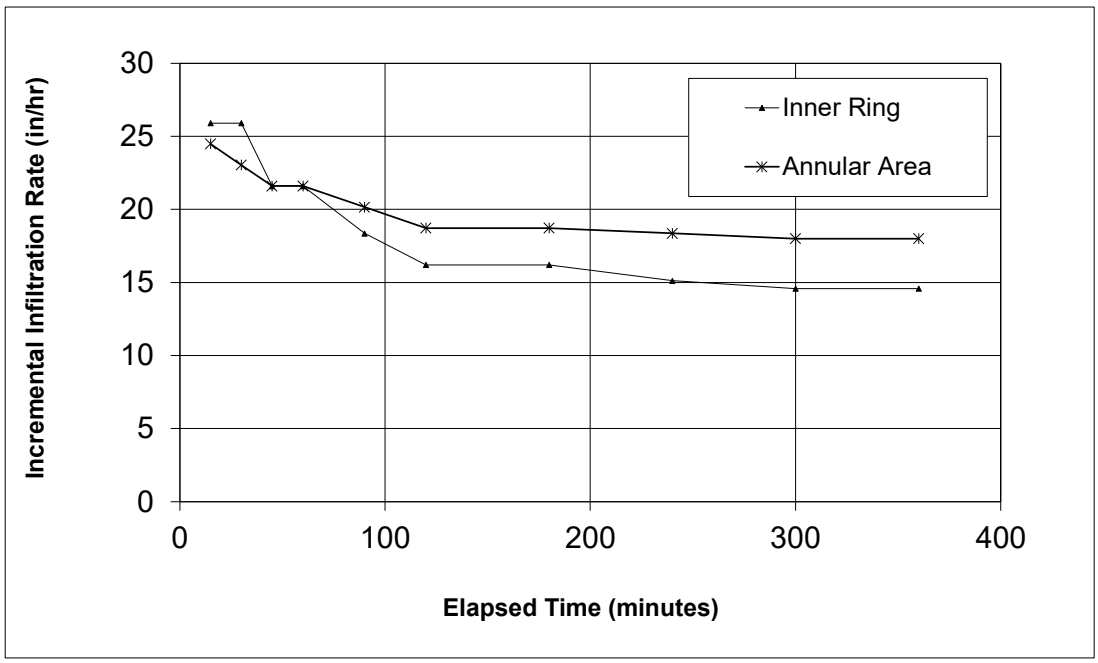
Project number: A24153.01192.000

Date: 1/12/2026

Test Location: DRI-01

Elapsed Time	Volume of water added to inner ring	Volume of water added to outer ring	Volume of water added to inner ring	Volume of water added to outer ring	Test head	Inner Ring Diameter	Outer Ring Diameter	Incremental Infiltration Rate: Inner Ring	Incremental Infiltration Rate: Annular Area
(minutes)	(ml)	(ml)	(in^3)	(in^3)	(in)	(in)	(in)	**(in/hr)**	**(in/hr)**
15	12,000	34,000	732.28	2074.81	6	12	24	**25.91**	**24.47**
30	12,000	32,000	732.28	1952.76	6	12	24	**25.91**	**23.03**
45	10,000	30,000	610.24	1830.71	6	12	24	**21.59**	**21.59**
60	10,000	30,000	610.24	1830.71	6	12	24	**21.59**	**21.59**
90	17,000	56,000	1037.40	3417.33	6	12	24	**18.35**	**20.15**
120	15,000	52,000	915.36	3173.23	6	12	24	**16.20**	**18.71**
180	30,000	104,000	1830.71	6346.47	6	12	24	**16.20**	**18.71**
240	28,000	102,000	1708.66	6224.42	6	12	24	**15.12**	**18.35**
300	27,000	100,000	1647.64	6102.37	6	12	24	**14.58**	**17.99**
360	27,000	100,000	1647.64	6102.37	6	12	24	**14.58**	**17.99**

Steady Infiltration Rate of Inner Ring: **14.58** in/hr



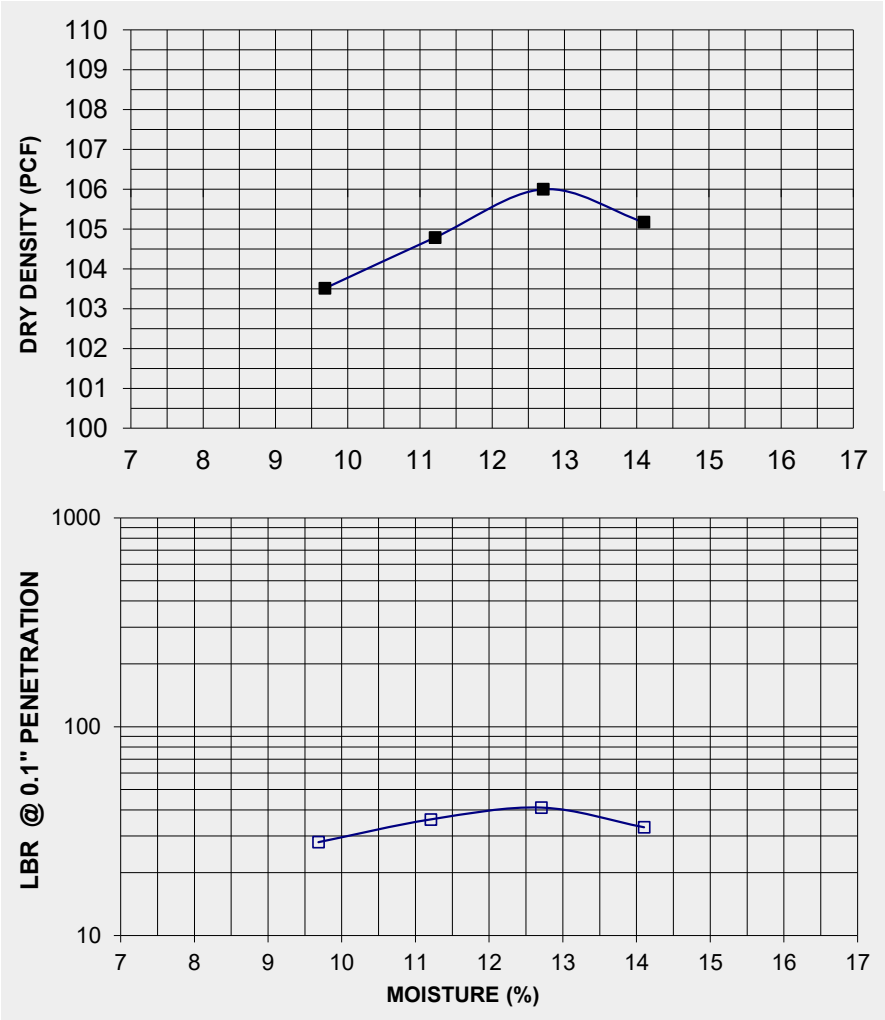
Appendix F - Laboratory Test Results

607 N.W. Commodity Cove • Port St. Lucie, FL 34986

A Universal Engineering Sciences Company

Limerock Bearing Ratio
Florida Method FM 5-515

Project:	Coach Fenn Park	**Project No.:**	A25153.01192.000
Address:	2306 Avenue I, Fort Pierce, FL		
Client:	Cape Design Engineering, Co.		
Material Location:	Pavement Area		
Sampled By:	Chris G	**Date Sampled:**	1/9/2026
Tested By:	R Robinson	**Date Tested:**	1/9/2026
Material Description:	Gray SAND	**Type of Rammer:**	Mechanical
Rammer Face:	Sector	**Soak Time (hrs):** 48	**Surcharge (lbs):** 15
Comments:			



Dry Density (pcf)	Moisture (%)
103.5	9.7
104.8	11.2
106.0	12.7
105.2	14.1

LBR
28
36
41
33

Maximum Dry Density (pcf)
106.0

Optimum Moisture (%)
12.7

Limerock Bearing Ratio
41

Appendix G - Discussion of Soil Groups

DISCUSSION OF SOIL GROUPS

COARSE GRAINED SOILS

General. A soil is classified as coarse-grained if more than 50 percent of a representative sample of the material is retained on the No. 200 sieve.

GW and SW Groups. These groups comprise well-graded gravelly and sandy soils containing little or no plastic fines (less than 5 percent passing the No. 200 sieve). The low fines content does not noticeably change the shear strength characteristics of these soils and does not interfere with their free-draining characteristics.

GP and SP Groups. Poorly graded gravels and sands containing little or no plastic fines (less than 5 percent passing the No. 200 sieve) are in the GP and SP groups. The materials can be called uniform gravels, uniform sands, or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap-graded, or step-graded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM Groups. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent passing the No. 200 sieve) having little or no plasticity. The plasticity index and liquid limit of soils in these groups plot below the “A” line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC Groups. In general, the GC and SC groups comprise gravelly or sandy soils containing fines (more than 12 percent passing the No, 200 sieve) having plasticity characteristics. The plasticity index and liquid limit of soils in these groups plot above the “A” line on the plasticity chart.

FINE GRAINED SOILS

General. A soil is classified as fine-grained if more than 50 percent of a representative sample of the material passes the No. 200 sieve.

ML and MH Groups. These groups comprise inorganic silts (ML) and elastic silts (MH) having either low (L) or high (H) liquid limits, respectively. ML soils have a liquid limit of less than 50 while MH soils have a liquid limit of 50 and greater. Silts and elastic silts can also contain varying amounts of sand and gravel. Also included in this group are loess sediments and rock flours.

CL and CH Groups. These groups comprise low plasticity (lean) clays (CL) and medium to high plasticity (fat) clays (CH) having either low (L) or high (H) liquid limits, respectively. CL soils have a liquid limit of less than 50 while CH soils have a liquid limit of 50 and greater. The low plasticity clays can also be sandy clays or silty clays. The moderate to high plasticity clays can also be sandy clays and include some volcanic clays.

OL and OH Groups. These groups comprise organic silts and clays. The soils are characterized by the presence of organic odor and/or dark color. The OL and OH soils are differentiated by determining and comparing their liquid limit values before and after oven drying representative soil samples.

HIGHLY ORGANIC SOILS

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetative matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the group.

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BID FORMS

PROPOSAL TO
THE CITY OF FORT PIERCE FOR
BID NO. 2026-022
CDBG COACH FENN PARK IMPROVEMENTS

NAME OF BIDDER: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

MAILING ADDRESS: 643 US Hwy 1, Unit 13094, N Palm Beach, FL 33408

STREET ADDRESS: 648 Riverside Rd, North Palm Beach, FL 33408 (Zip Code)

PHONE NUMBER: 951-813-8541

To the: City of Fort Pierce

Pursuant to and in compliance with your notice inviting sealed proposals (Call for Bids), Instructions to Bidders, and the other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the Contract Documents, local conditions affecting the performance of the contract, and the cost of the Work at the place where the Work is to be done, hereby proposes and agrees to perform within the time stipulated in the Contract, including all of its component parts and everything required to be performed, and to provide and furnish any and all utility and transportation services necessary to perform the contract and complete in a workmanlike manner, all of the Work required in connection with the construction of said Work, all in strict conformity with the plans and/or details, specifications and other related Contract Documents included herein.

The undersigned Bidder acknowledges receipt of the following Addenda, which have been considered in preparation of this Bid:

No. 01	Dated 01/27/2026	No. _____	Dated _____
No. 02	Dated 02/03/2026	No. _____	Dated _____
No. 03	Dated 02/11/2026	No. _____	Dated _____

The undersigned Bidder agrees that the Work shall be achieve final construction within 150 calendar days according to the schedule and the Notice to Proceed set forth in these Documents.

The undersigned Bidder further agrees to pay liquidated damages as described herein and engineering and field inspection expenses, due to overtime work and avoidable delays, which shall be in addition to such other amounts for actual delay damages.

Bidder has stated all prices in numerals in accordance with Section 11.2 of the Instruction to Bidders in the blank space(s) provided for that purpose. Bidder has completed all portions of the Bid to avoid disqualification.

The undersigned, as Bidder, declares that the Bid is made in good faith; that this proposal is made without collusion with any person, firm, or corporation; and he proposes and agrees, if the proposal is accepted, that he will execute a contract with the City in the form set forth in the Contract Documents;

BID FORMS

that he will furnish the Contract Security Insurance Certificates; that he is aware that failure to properly comply with the requirements set out in the INSTRUCTIONS TO BIDDERS and elsewhere in the Contract Documents may result in a finding that the Bidder is non- responsive and a forfeiture of the Bid Security.

The undersigned Bidder agrees to furnish the required bonds and insurance and to enter into a contract within 10 days after receipt of Notice of Award and further agrees to complete the Work within the time period specified in the Notices to Proceed for each individual project.

The undersigned declares that he has had prior experiences in the type of Work required and has the necessary finances, personnel, working organization, and equipment available to execute the proposed Work.

Bids shall only be considered from those Bidders who have obtained these Contract Documents directly from the City either electronically or from Demand Star.

LIST OF MAJOR SUBCONTRACTORS

1. If awarded a contract as a result of this Bid, the major subcontractors used in the prosecution of the Work will be those listed below, and

2. The following list includes all subcontractors who will perform Work, and

3. The Bidder represents that the subcontractors listed below are financially responsible and are qualified to do the Work required, and

4. 40% of Work must be done by the General Contractor's entity.

If no major subcontractors are to be used, so state on this form

Work to be Done	Name of Subcontractor	Address
N/A		

Outlook

Responsibility Review – ITB No. 2026-022 – National General Construction

From Zach <zz@nationalgc.net>
Date Wed 2/18/2026 3:03 PM
To Marsha Commond <mcommond@cityoffortpierce.com>
Cc Purchasing Division <purchasing@cityoffortpierce.com>; Maverick Cissell <mc@nationalgc.net>; Nikki Smith <nikki@nationalgc.net>

You don't often get email from zz@nationalgc.net. Learn why this is important

SECURITY WARNING: This email has been generated from external sources and is not affiliated with the City of Fort Pierce systems. Exercise caution while clicking on links or opening attachments. If you have any questions or concerns, please reach out to the IT department promptly.

Good afternoon Marsha,

Please see attached List of critical subcontractors on the project, the rest of the work will be done by our company. Thank you for reaching out and look forward to working with the city on this project.

Horizon Pools
Installation of splash pad
12785 W Forest Hill Blvd Wellington FL 33414

Sky Arc Electric
Electrical work
Miami Florida 33177

Treasure Coast Infrastructure
Underground Utilities
PO Box 405 Palm City Florida 34991

Zach Zuppardo
National General Construction
a So Cal Shaker Plates Company
CSLB#1099259
FLCGC#1533402
SBE-PW $ SBE #2022966
DIR#1001087152

BID FORMS

Notice of Proceed shall be issued by the City with the specified Work to be completed as described in Section 8 of the General Conditions, within the number of days stated when each Project Contract Time begins to run as specified in the Notice to Proceed.

Work shall be completed, ready for final payment in accordance with Section 8 and 9 of the General Conditions.

Time is of the essence of this Contract and Contractor recognizes that the City will suffer financial loss if the Work, or portions authorized, is not completed within the number of days stated above. Accordingly, Contractor agrees to pay City the liquidated damages stated in the Agreement for each day after the time specified above that the Work is not complete in accordance with Sections 8 and 9 of the General Conditions and with the Agreement.

These liquidated damages are cumulative and additive and represent a reasonable estimate of City's expenses for extended delays. Furthermore, Contractor agrees to pay City expenses for inspection, engineering services, and administrative costs associated with such delay.

In addition to these amounts, there may be additional other amounts for delay damages incurred by City as a result of delays by Contractor. These actual delay damages will include, but not be limited to, delay damage settlements or awards, penalties, and professional fees incurred in connection with such settlements, awards, or penalties and fines imposed by regulatory agencies, contract damages, and loss of use.

ACCOMPANYING THIS PROPOSAL IS 10% Bidders Bond
(Insert the word(s) "cashier's check," "bidder's bond," "certified check," or other security as provided by law, as the case may be), in an amount equal to at least 10% of the total amount of the bid, payable to the CITY OF FORT PIERCE the undersigned deposits above-named security as a proposal guarantee and agrees that it shall be forfeited to the City as liquidated damages in case this proposal is accepted by the City and the undersigned fails to execute a contract with the City as specified in the Contract Documents, accompanied by the required payment and faithful performance bonds, with sureties satisfactory to the City, and accompanied by the required certificates of insurance coverage and endorsements. Should the City be required to engage the services of an attorney in connection with the enforcement of this bid, bidder promises to pay City reasonable attorneys' fees and costs (including attorneys' fees and costs on appeals), incurred with or without suit.

The Work shall be performed under a State of Florida Contractor's License. Contract shall not be awarded unless proof of valid license(s) is provided, and license shall be appropriate for the nature of the Work.

The Bidder certifies that the following documents are included in the Bid and are complete:

1. Bid form, list of Addenda received, and authorized signatures.
2. Bid Bond with Power of Attorney attached.
3. Affidavit of Non-Collusion.
4. Trench Safety Act Form.

The Bidder further certifies that he will submit within ten (10) days of notification of the Apparent Successful Bidder:

BID FORMS

1. List of Major Subcontractors
2. Payment Bond
3. Performance Bond
4. Agreement
5. Certificates of Insurance

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth below, together with signature(s) of the officer or officers authorized to sign contracts on behalf of the corporation and corporate seal; if bidder is a partnership, the true name of the firm shall be set forth below with the signature(s) of the partner or partners authorized to sign contracts in behalf of the partnership; and if the bidder is an individual, his signature shall be placed below.

Bidder: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction
(Type or Print)

By: _____

Name: Maverick Cissell

Title: Manager Member

Dated: 02/11/2026, ~~2024~~

(Corporate Seal)

Attest
If Corporation

By: _____
(Signature)

Name: Maverick Cissell

Title: Manager Member

Witnesses: _____
(Signature)

(If partnership
Or individual)_____
(Signature)

Contractor's License (State, Number, Expiration Date, Type of License)

FL CGC 1533402 expires 08/31/2026

END OF SECTION

EXHIBIT "E"
SECTION 002

BID FORMS

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction, as Principal, and Great Midwest Insurance Company, as Surety, are held and firmly bound unto the City of Fort Pierce, hereinafter called the City, in the penal sum of Ten Percent of Bid Amount Dollars ($10% of Bid Amount), lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. The Bid Bond amount shall be ten (10) percent of the Base Bid amount as entered on the Bid Form.

The condition of this obligation is such that whereas the principal has submitted the accompanying bid dated Februry 11 2026, for the Bi d 202 6-022 CDGB Coach Fenn Park Improvement Project

NOW, THEREFORE, If the Principal shall not withdraw said bid within the period of time set forth in the Contract Documents, and shall within ten (10) calendar days after receipt of the Notice of Award enter into a written contract with the City in accordance with the bid as accepted, and if the Principal shall give the required bonds with good and sufficient sureties for the faithful performance and proper fulfillment of such contract and for the protection of subcontractors, laborers and material men, and if the Principal has provided the required evidence of insurance as set forth in the Contract Documents and complied with the Florida Department of Environmental Protection certifications and requirements, and all other contract provisions, or in the event of withdrawal of said bid within the periods specified, or the failure to enter into said contract, or failure to comply with FDEP requirements, or otherwise, if the Principal shall within sixty (60) days after request by the City to pay to the City the difference between the amount specified in said bid and the amount for which the City may procure the required work, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and effect.

It is further agreed that if the City is required to utilize legal counsel to recover on this bond, it may also recover its costs relating thereto, including a reasonable amount for attorneys' fees and costs, including attorneys' fees and costs in appellate proceedings.

BID FORMS

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals this 9th day of February, 2024, the name and corporate seal of each corporate party being hereto affixed, and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

WITNESSES
(if individual
or partnership)

PRINCIPAL

SoCal Shaker Plates & Construction Site Services, LLC
dba National General Construction

By: _____
(Signature)

Name: Maverick Cissell

Title: Manager Member

ATTEST (if corporation)

By: _____
(Signature)

Name: Nikki Smith

Title: Witness

(Corporate Seal)

SURETY

GREAT MIDWEST INSURANCE COMPANY

By: _____
(Signature)

Name: KEVIN VEGA

Title: ATTORNEY-In-FACT

(Surety Seal)

BID FORMS

BID FORMS

Attach a certified copy of Power of Attorney appointing individual Attorney-In-Fact for execution of Bid Bond on behalf of Surety.

Any Claims under this bond may be addressed to:

Name of Surety GREAT MIDWEST INSURANCE COMPANY

Mailing Address 800 GESSNER #600 HOUSTON, TX 77024

Street Address _____

Name and Mailing and Street _____

Address of Agent or 534 E. BADILLO ST. COVINA, CA 91723

Representative in Florida _____

(if different than above) _____

_____

_____

_____

Telephone Number of Surety 626-859-1000

and Agent or Representative _____

In Florida _____

END OF SECTION

POWER OF ATTORNEY

Great Midwest Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that GREAT MIDWEST INSURANCE COMPANY, a Texas Corporation, with its principal office in Houston, TX, does hereby constitute and appoint: Philip E. Vega, Kevin Vega, Britton Christiansen

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of GREAT MIDWEST INSURANCE COMPANY, on the 1st day of April, 2025 as follows:

Resolved, that the President, or any officer, be and hereby is, authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed One-Hundred Million dollars ($100,000,000.00), which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed in the Company's sole discretion and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by electronic mail on any power of attorney granted, and the signature of the Secretary, and the seal of the Company may be affixed by electronic mail to any certificate of any such power and any such power or certificate bearing such electronic signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, GREAT MIDWEST INSURANCE COMPANY, has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 8th day of April, 2025.

GREAT MIDWEST INSURANCE COMPANY

GREAT MIDWEST INSURANCE COMPANY — CORPORATE SEAL — TEXAS CORPORATION

BY Mark W. Haushill

Mark W. Haushill
President

ACKNOWLEDGEMENT

On this 8th day of April 2025, before me, personally came Mark W. Haushill to me known, who being duly sworn, did depose and say that he is the President of GREAT MIDWEST INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.

CHRISTINA BISHOP
My Notary ID # 131090468
Expires April 14, 2029

BY Christina Bishop

Christina Bishop
Notary Public

CERTIFICATE

I, the undersigned, Secretary of GREAT MIDWEST INSURANCE COMPANY, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Houston, TX this 9th Day of February 2026.

GREAT MIDWEST INSURANCE COMPANY — CORPORATE SEAL — TEXAS CORPORATION

BY Patricia C Ryan

Patricia Ryan
Secretary

"WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files and application for insurance of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

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

State of California)
} ss.
County of LOS ANGELES)

On February 9th, 2026 before me, Philip Vega, Notary Public
Here Insert Name and Title of the Officer

personally appeared Kevin Vega, Attorney-in-Fact
Name(s) of Signer(s)

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

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

WITNESS my hand and official seal.

Signature:

PHILIP VEGA
Notary Public - California
Los Angeles County
Commission # 2490565
My Comm. Expires May 31, 2028

Place Notary Seal Above

Signature of Notary Public

OPTIONAL

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

Description of Attached Document

Title of Type of Document:

Document Date: Number of Pages:

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name:	Signer's Name:
■ Individual	☐ Individual
☐ Corporate Officer Title(s):	☐ Corporate Officer Title(s):
☐ Partner - ☐ Limited ☐ General	☐ Partner - ☐ Limited ☐ General
☐ Attorney In Fact	☐ Attorney In Fact
☐ Trustee	☐ Trustee
☐ Guardian or Conservator	☐ Guardian or Conservator
☐ Other:	☐ Other:
Signer Is Representing:	Signer Is Representing:
Right Thumbprint of Signer Top of thumb here	Right Thumbprint of Signer Top of thumb here

THE SUNRISE CITY
FORT PIERCE
Florida
PURCHASING
DEPARTMENT

March 4, 2026

Sent via email: mc@nationalgc.net

SoCal Shaker Plates & Construction Site Services, LLC. dba National General Construction
643 U.S. Highway 1, Unit 13094
North Palm Beach, FL 33408
Attn: Maverick Cissell, Manager Member

RE: Notification of Award
Bid No. 2026-022 CDBG Coach Fenn Park Improvements Project

Dear Mr. Cissell.

We are pleased to inform you that your organization has been awarded the referenced bid following the City Commission meeting on Monday, March 2, 2026.

A construction agreement has been drafted and is currently under review by the City Attorney. Once approved, it will be forwarded to your firm for execution. Please provide the following documents immediately:

1. Insurance certificates meeting the amounts specified in the bid (see attached).
2. Corporate resolutions authorizing a representative to execute the agreement.

For any questions regarding this award, please contact Marsha Commond, MPA, Special Projects Coordinator at mcommond@cityoffortpierce.com or (772) 467-3836.

We appreciate your interest in conducting business with the City of Fort Pierce!

Best regards,
Gelencia Carter
Gelencia Carter, MPA
Purchasing Manager

/gc

Attachment: Insurance Requirements

cc: Marsha Commond, Special Projects Coordinator
Donnella Clarke, Grants Administration
Rick Stauffer, Facilities Manager
File

BID FORMS

NOTICE TO PROCEED

Date: _____

To: _____

_____ **Contractor.**

Notice to Proceed on Project: CDBG Coach Fenn Park Improvements, Bid No. 2026-022

Cost of Project based on Unit Prices by Agreement: $_____

You are hereby notified to proceed with the Work on the subject Project on or before _____, 2026 and to obtain Substantial completion within 90 calendar days and Final completion within 120 calendar days. Find attached four (4) sets of the subject project drawings.

The completion date for **this project** work shall be: _____**, 2026.**

OWNER:
CITY OF FORT PIERCE, FLORIDA
100 NORTH U.S. HIGHWAY 1
FORT PIERCE, FL 34950

BY:

_____
City's Project Manager

ACKNOWLEDGE RECEIPT OF NOTICE

By: _____ _____
Contractor Date

END OF SECTION

CHANGE ORDER FORM
CITY OF FORT PIERCE

PROJECT: **CDBG Coach Fenn Park Improvements**

DATE: _____ CONTRACTOR: _____

OWNER: CITY OF FORT PIERCE AGREEMENT DATE: _____

CHANGE ORDER REQUESTED BY: City _____ Contractor _____

THE FOLLOWING CHANGES ARE MADE TO THE CONTRACT DOCUMENTS:

CONTRACT AMOUNT AND CONTRACT TIME:

Original CONTRACT AWARD AMOUNT	$ _____
Current CONTRACT AMOUNT ADJUSTED by Previous CHANGE ORDER(S)	$ _____
Net (Increase) (Decrease) of CONTRACT AMOUNT resulting from this CHANGE ORDER	$ _____
Current CONTRACT AMOUNT Including this CHANGE ORDER	$ _____
ORIGINAL CONTRACT TIME	_____ Calendar Days
Current CONTRACT TIME ADJUSTED by Previous CHANGE ORDER	_____ Calendar Days
Net (Increase) (Decrease) Resulting from this CHANGE ORDER	_____ Calendar Days
Current CONTRACT COMPLETION DATE including this CHANGE ORDER	_____

(Change Order No._____, Page 1 of 2)

BID FORMS

CHANGES ORDERED:

I. GENERAL: This CHANGE ORDER is necessary to cover changes in the Work to be performed under the Contract Documents. General Conditions, Supplementary Conditions as applicable, Specifications, and all parts listed in Article 1, Definitions of the General Conditions, apply to and govern all Work under this CHANGE ORDER.

II. REQUIRED CHANGES:

_____

_____

III. JUSTIFICATION:

_____

_____

IV. PAYMENT:

Payment for the above listed items shall be made according to the Agreement.

V. APPROVAL AND CHANGE AUTHORIZATION:

Acknowledgments: The aforementioned change(s), and work affected thereby, is subject to all provisions of the original Agreement not specifically changed by this Change Order; and it is expressly understood and agreed that the approval of this Change Order shall have no effect on the original Agreement other than matters expressly provided herein.

RECOMMENDED BY:

_____

By:_____
Signature

Date:_____

ACCEPTED BY:

Contractor: _____

By:_____
Signature

Name:_____

Date:_____

APPROVED BY: City of Ft. Pierce

Date:_____

By:_____
Signature & Title

END OF SECTION

APPLICATION FOR PAYMENT

Application for payment forms will be issued at the Pre-construction Conference.

END OF SECTION

CERTIFICATE OF OWNER'S ATTORNEY

PROJECT: _____

_____

I, the undersigned, _____
(Name of Attorney)

the duly authorized and acting legal representative of_____

_____,do hereby certify as
(Owner)

follows:

I have examined the attached contract(s) and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions, and provisions thereof.

_____
Attorney

_____
Date

END OF SECTION

BID FORMS

BIDDER'S QUALIFICATIONS QUESTIONNAIRE

All questions must be answered, and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires. Qualifications Questionnaire must be submitted with the Proposal.

1. Name of Bidder. SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

2. Permanent Main Office address. 648 Riverside Rd, North Palm Beach, FL 33408

3. When organized? August 2021

4. If a corporation, where incorporated? Florida LLC

5. How many years have you been engaged in construction under this present firm or trade name? Four Years Six Months

* 6. Contracts on hand: (Schedule of these, showing gross amount of each contract and the appropriate anticipated dates of completion.) * See Attached

7. General character of work performed by you. General Contractor

8 Have you ever failed to complete any work awarded to you? If so, where and why? NO

9. Have you ever defaulted on a contract? If so, where and why? NO

* 10. List the more important contracts recently completed by you, stating approximate gross costs of each and the month and year completed. Include the name and telephone number of contact in company for which you provided work.

* 11. List your major equipment available for this contract.

* 12. Experience in general construction work similar in scope to this project. (If additional space is needed or required, it may be attached to this sheet.)

* 13. Background and experience of the principal members of your company, including the officers.

14. Give bank reference. Chase Bank 3030 SW Martin Downs Blvd Palm City FL 34990 Mary Soucie 772-403-6143

15. You will furnish a detailed financial statement and, upon request, any other information that may be required by the City of Fort Pierce. Yes, upon request

16. The Undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Fort Pierce in the County of St. Lucie

6. CURRENT PROJECTS

	1	2	3
STATUS	In Progress	In Progress	Delayed by County
PROJECT	Preserve Trail at the Port	OL Peacock Sr Park	White City Park Shoreline
OWNER	City of Port St Lucie	City of Port St Lucie	St Lucie County
CONTACT	Zak Sherman	Zak Sherman	Daniel Finz
PHONE	772-871-5083	772-871-5083	772-275-8999
TITLE	Project Manager	Project Manager	Project Manager
ARCHITECT	Culpepper & Terpening	Captec Engineering	Dredging & Marine Consultants
AMOUNT	$971,531.00	$ 1,973,971.59	$287,573.00
% DONE	90%	20%	0%
DATE COMPLETE	March 2026	Sept 2026	TBD

10. COMPLETED PROJECTS

	1	2	3	4	5	6	
PROJECT	Treasure Coast Airport	Ballfield Renovations	Indrio Savannah Wet Pond	Fairwinds Golf Course Cart Barn	Swale & Excavation & Improve	Lake Shore Tennis Court Removal	Metal Building Sitework
OWNER	St Lucie County	St Lucie County	St Lucie County	St Lucie County	City of Miramar	City of Miramar	City of Pembroke Pines
CONTACT	Ann Mullen	Brandon Clark	William Cor...	Mark Camm...	Horace Derricks	Adriel Brown	Jim Mulvaney
PHONE	772-462-2350	772-924-5703	772-462-2841	772-462-2707	305-724-4673	ajbrown@miramarfl.gov	954-450-1060 954-445-9613
TITLE	Airport / Project Manager	Project Manager	Project Manager	Fairwinds GM / Project Manager	Project Manager	Parks & Recreation	Project Manager
ARCHITECT	C&S Engineers	County Engineering Dept	Kimley Horn	County Engineering Dept	City Dept	N/A	Calvin Giordano & Assoc
AMOUNT	$ 1,273,424.65	$240,152.00	$802,998.00	$448,801.00	$72,900.00	$16,000.00	$723,000.00
DATE COMPLETED	January 2026	July 2025	June 2025	June 2025	September 2024	June 2024	March 2024
% DONE IN HOUSE	20%	90%	75%	50%	95%	100%	70%

in verification of the recitals comprising this Bidder's Qualifications Questionnaire.

Yes, upon request

11. Equipment - Skidsteer, Dozer, Loader, Dumptruck, Excavator

12. Similar Experience - see also the attachment for line items 6 & 10.
Those contracts all span the necessary experience including grading, excavation, paving, water, sewer, electric, landscaping, concrete pads, pre-fab structures and erosion control and work in park environments.

13. Backgrounds -

Maverick Cissell, Manager Member
19 years construction experience; commercial, residential, public works; superintendent

Jay A Zuppardo, Superintendent
49 years constuction experience; commercial, residential, public works; superintendent

Jay Z Zuppardo, Superintendent
17 years construction experience; commercial, residential, public works; superintendent

BID FORMS

Dated at 10:00 am this 11 day of February, 2026.

Contractor:

SoCal Shaker Plates & Construction Site Services, LLC
dba National General Construction

By _____

Maverick Cissell, Manager Member
(Name & Title)

County of Palm Beach
State of Florida

Maverick Cissell, being duly sworn, deposes and says that he is Manager Member of SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction, and that the answers to the foregoing questions and all statements contained therein are true and correct.

Subscribed and sworn to before me this 11 day of February, 2026.

Nikki Smith
Notary Public

My Commission Expires:

December 10, 2027 (Seal)

Notary Public State of Florida
Nikki R Smith
My Commission HH 471819
Expires 12/10/2027

END OF SECTION

BID FORMS

NON-COLLUSION AFFIDAVIT

STATE OF Florida

COUNTY OF Palm Beach

Maverick Cissell, being first duly sworn, deposes and says:

That he/she is Manager Member
(a partner or officer of the firm of, etc.)

the party making the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed directly or indirectly with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference with any person, to fix the bid price of affiant or of any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the City of Fort Pierce, of the County of St. Lucie, or any person interested in the proposed contract; and that all statements in said proposal or bid are true.

SoCal Shaker Plates & Construction Site Services, LLC
dba National General Construction
(Firm Name)

By: Maverick Cissell

Title: Manager Member

Subscribed and sworn to before me this 11
day of February, 2026

Nikki Smith
Notary Public

My Commission expires: (Seal)

December 10, 2027

Notary Public State of Florida
Nikki R Smith
My Commission HH 471818
Expires 12/10/2027

END OF SECTION

PUBLIC ENTITY CRIMES AFFIDAVIT

SWORN STATEMENT UNDER SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid No. 2026-022 for **CDBG Coach Fenn Park Improvements**

2. This sworn statement is submitted by SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction
(name of entity submitting sworn statement)
whose business address is 648 Riverside Rd, North Palm Beach, FL 33408
and (if applicable) its Federal Employer Identification Number (FEIN) is 85-4013411
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

3. My name is Maverick Cissell my relationship to the entity named above is Manager Member.
(please print name of individual signing)

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in paragraph 287.133(1)(a), Florida Statutes, means:
1. A predecessor or successor of a person convicted of a public entity crime: or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The

term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement.
(Please indicate which statement applies.)

✓ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND **(Please indicate which additional statement applies.)**

_____ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. **(Please attach a copy of the final order.)**

_____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. **(Please attach a copy of the final order.)**

_____ The person or affiliate has not been placed on the convicted vendor list. **(Please describe any action taken by or pending with the Department of General Services.)**

BID FORMS

Signature: _____

Date: 02/11/2026

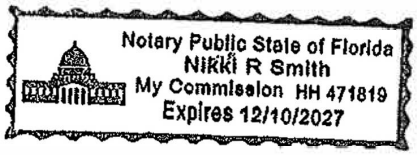
STATE OF Florida

COUNTY OF Palm Beach

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Maverick Cissell who, after first being sworn by me, affixed his/her signature in (name of individual signing) the space provided above on this 11 day of February, 2026.

NOTARY PUBLIC SEAL: Nikki Smith



My commission expires: December 10, 2027

END OF SECTION

BID FORMS

CERTIFICATION OF NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this Bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants, and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors, exempt from the provisions of the Equal Opportunity clause, and that he will retain such certification in his files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

DATE: February 11, 2026

Official Address
(Including Zip Code):

648 Riverside Rd, North Palm Beach, FL 33408

By: Maverick Cissell

Manager Member
(Title)

END OF SECTION

TRENCH SAFETY ACT COMPLIANCE STATEMENT
BID NO. 2026-022

Instructions:

Chapter 90-96 of the Laws of Florida requires all contractors engaged by the City of Fort Pierce to comply with Occupational Safety and Health Administration Standard 29 C.F.R. s. 1926.650 Subpart P. All prospective contractors are required to sign the compliance statement and provide compliance cost information where indicated below. The costs for complying with the Trench Safety Act must be incorporated into this project's base bid.

Certify this form in the presence of a notary public or other officer authorized to administer oaths.

Certification:

1. I understand that Chapter 90-96 of the Laws of Florida (The Trench Safety Act) requires me to comply with OSHA Standard 29 C.F.R. s. 1926.650 Subpart P. I will comply with The Trench Safety Act and I will design and provide trench safety systems at all trench excavations in excess of five feet in depth for this project.

2. The estimated cost imposed by compliance with The Trench Safety Act will be:

Zero Dollars
(Written)

$0.00
(Figures)

3. The amount listed above has been included within the Base Bid.

Certified: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction
(Company-Contractor)
By: _____
(President's Signature)
Maverick Cissell Manager Member
(President's Typed or Printed Name)

Notarization:

Sworn to and subscribed before me in Palm Beach County, Florida on the 11 day of February, 2026.

Notary Public: Nikki Smith (affix seal) My Commission Expires: December 10, 2027
Nikki Smith

Notary Public State of Florida
Nikki R Smith
My Commission HH 471818
Expires 12/10/2027

END OF SECTION

DRUG-FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are proposed a copy of the statement specified in subsection (1).

4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace thorough implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Proposer's Signature

02/11/2026
Date

END OF SECTION

BID NO. 2026-022
BID RESPOSNE FORM
CDBG COACH FENN PARK IMPROVEMENTS

Item		Quantity	Unit	Unit Price	Item Total
1	Mobilization, demo, ins, etc. not to exceed 5% of construction cost.	1	LS	$25,000.00	$25,000.00
2	Maintenance of traffic (MOT), contractor shall furnish all materials	1	LS	$2,500.00	$2,500.00
3	Contractor shall provide all materials, labor, tools, equipment and all incidentals to complete all clearing, grubbing, root-taking and necessay clean up operations in connection with the construction of the work and its related site work	1	LS	$80,000.00	$80,000.00
4	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install temporary and permanent erosion control measures including silt fence, inlet protection, and stabilization.	1	LS	$25,000.00	$25,000.00
5	Contractor shall provide all materials, labor, tools, equipment, and incidentals to perform excavation, fill, compaction, fine grading, and subgrade preparation in accordance with the civil grading plans.	1	LS	$80,000.00	$80,000.00
6	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install stormwater drainage features including retention areas, swales, trench drains, and related appurtenances shown on the drawings.	8600	SF	$2.33	$20,038.00
7	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install aggregate base, leveling course, and compaction for hardscape areas.	7800	SF	$0.84	$6,552.00
8	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install concrete parking, and associated joints and finishes as shown on the plans.	5200	SF	$10.00	$52,000.00
9	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install turf block parking, and associated joints and finishes as shown on the plans.	2600	SF	$15.00	$39,000.00
10	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install parking stripping and finishes as shown on the plans.	1	LS	$6,500.00	$6,500.00
11	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install concrete sidewalks, and associated joints and finishes as shown on the plans.	900	SF	$10.00	$9,000.00
12	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install domestic cold water piping systems, including trenching and excavation, service piping, distribution lines, fittings, isolation valves, tracer wire, sleeves, supports, connections, back flow prevention, testing, and final terminations serving the splash pad and restroom facilities. The scope includes installation of six (6) parallel supply lines for the splash pad over the indicated linear.	310	LF	$50.00	$15,500.00
13	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install all underground sanitary sewer, waste, and vent piping, including trenching, bedding, pipe, fittings, cleanouts, vents, blockouts, and backfill for the prefabricated restroom building.	150	LF	$80.65	$12,097.50

14	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install all underground sanitary and vent piping, including trenching, bedding, pipe, fittings, cleanouts, vents, blockouts, and backfill for the splash pad recirculation system.	160	LF	$80.65	$12,904.00
15	Contractor shall provide all materials, labor, tools, equipment, and incidentals to excavate, prepare, proof-roll, moisture condition, and compact subgrade beneath slabs, pads, and footings.	1	LS	$15,000.00	$15,000.00
16	Contractor shall provide all materials, labor, tools, equipment, and incidentals to construct reinforced concrete foundations, stub ups coordinatoin and isntallation, and anchorage for the prefabricated restroom building.	260	SF	$57.69	$14,999.40
17	Contractor shall provide all materials, labor, tools, equipment, and incidentals to construct reinforced concrete foundations for the pavilion structure.	250	SF	$100.00	$25,000.00
18	Contractor shall provide all materials, labor, tools, equipment, and incidentals to construct splash pad structural slab, thickened edges,and utility blockouts.	320	SF	$93.75	$30,000.00
19	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install the splash pad polyaspartic surface coating system, including surface preparation, application, curing, and finishing, in the design pattern and color scheme selected by the City.	320	SF	$187.50	$60,000.00
20	Contractor shall provide all materials, labor, tools, equipment, and incidentals to install sleeves, embeds, drains, blockouts, and excavation/foundations required for splash pad plumbing and splash pad Vak Pak, reservoir tank equipment installation.	1	LS	$20,000.00	$20,000.00
21	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install a 10-inch thick compacted gravel bed at the splash pad pump yard.	400	SF	$37.50	$15,000.00
22	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install a chain-link fence enclosure around the splash pad pump yard, including posts, rails, fabric, tension wire, gates, hardware, concrete footings, and coordination with equipment clearances.	85	LF	$117.65	$10,000.25
23	Contractor shall provide all materials, labor, tools, equipment, and incidentals to furnish and install above ground and underground electrical conduit, including trenching, excavation, bedding, sweeps, warning tape, backfill, compaction, sleeves, and restoration of disturbed areas for electrical distribution to the splash pad and prefabricated restroom building.	1	LS	$40,000.00	$40,000.00
24	Contractor shall provide all materials, labor, tools, equipment, and incidentals to perform final grading, surface restoration, and cleanup of all disturbed areas.	1	LS	$7,500.00	$7,500.00
25	Permit fee allowance to reimburse the contractor for any permit by the City. Each bidder shall palce the amount of $3,000 in this line item for city calculation purposes.	1	AL	$3,000.00	$3,000.00
Total Base Bid					**$626,591.15**

Bidder's Name: SoCal Shaker Plates & Construction Sire Services LLC dba National General Construction

SUBSTITUTION SHEET
FORT PIERCE, FLORIDA

PROJECT TITLE: CDBG COACH FENN PARK IMPROVEMENTS

BID NO. 2026-022

SUBSTITUTION SHEET

DESCRIPTION OR BID ITEM NO.	MAKE SPECIFIED	PROPOSED SUBSTITUTION	ADD	DEDUCT
N/A			$	$
			$	$
			$	$
			$	$
			$	$
			$	$
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			$	$
			$	$
			$	$

CONTRACTOR VERIFICATION FORM

FORT PIERCE, FLORIDA
SEALED BID NO. 2026-022

PROJECT TITLE: CDBG COACH FENN PARK IMPROVEMENTS

THE FOLLOWING IS TO COMPLETED BY PRIME BIDDER:

Name of firm: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

Corporate Title: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

Address: 648 Riverside Rd, North Palm Beach, FL 33408

(Zip Code)

By: Maverick Cissell (Print name) Manager Member (Print title)

(Authorized Signature)

Telephone: (951) 813-8541

Fax: ( )

State License # CGC 1533402 **(ATTACH COPY)**

County License # **(ATTACH COPY)**

City License: **(ATTACH PROOF OF REGISTRATION WITH THE CITY)**

Type of License:

Unlimited (yes/no)

If "NO", Limited to what trade?

END OF SECTION

Ron DeSantis, Governor

Melanie S. Griffin, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CISSELL, MAVERICK

SOCAL SHAKER PLATES & CONSTRUCTION SITE SERVICES, LLC
27475 YNEZ RD
#389
TEMECULA CA 92591

LICENSE NUMBER: CGC1533402

EXPIRATION DATE: AUGUST 31, 2026

Always verify licenses online at MyFloridaLicense.com

ISSUED: 01/02/2025

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

LIST OF REFERENCES

FORT PIERCE/ST. LUCIE COUNTY, FLORIDA

PROJECT TITLE: CDBG COACH FENN PARK IMPROVMENTS

BID NO. 2026-022

OWNER'S NAME/ADDRESS	PROJECT	CONTACT PERSON	TELEPHONE NUMBER
St Lucie County	Treasure Coast Airport Parking Lot	Ann Mullen	772-462-2350
St Lucie County / Fairwinds Golf Course	Fairwinds Golf Course Cart Storage Building	Mark Cammarene	772-462-2707
St Lucie County	Indrio Savannah Wet Pond	William Cornelius	772-462-2841
St Lucie County	Ballfield Renovations	Brandon Clark	772-924-5703
City Port St Lucie	Preserve Trail at the Port	Zak Sherman	772-871-5083
City Port St Lucie	OL Peacock Sr Park	Zak Sherman	772-871-5083

END OF SECTION

E-VERIFY

FORT PIERCE, FLORIDA

PROJECT: **CDBG COACH FENN PARK IMPROVEMENTS**

Bid No.: 2026-022

Project Description: **Installation of utilities, construction of park improvements and parking lot with stormwater facilities, pavilion construction, and installation of a fully operation ADA compliant splash pad.**

Vendor/Consultant acknowledges and agrees to the following:

1. Vendor/Consultant shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Vendor/Consultant during the term of the contract; and
2. shall expressly require any subcontractors performing work or providing services pursuant to this contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

Company/Firm: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

Authorized Signature: 

Title: Manager Member

Date: 02/11/2026

END OF SECTION

CITY OF FORT PIERCE

CDBG COACH FENN PARK IMPROVEMENT PROJECT

BID NO. 2026-022

ADDENDUM NO. 1

This Addendum is issued to formally include certain exhibits that were referenced within the bid documents but were inadvertently not attached at the time of initial advertisement.

ADDITION OF EXHIBITS

Accordingly, the following exhibits are hereby attached and incorporated into the Bid Document:

- **Exhibit H: CXT, Inc. – Prefab Restroom Reference Drawings**
- **Exhibit I: RCP Shelters Pavilion Preliminary Drawings and Quote (2 Attachments)**
- **Exhibit J: Rain Drop Splashpad Quote and Drawings**

These exhibits are now officially part of the solicitation and shall be considered in the preparation and submission of all bids.

All other conditions of this bid remain the same.

Please acknowledge receipt of this addendum and include it with you submittal.

Signature: _____
Manual

Signature: Maverick Cissell Manager Member
Typed or Printed

Company Name: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

Address: 648 Riverside Rd, North Palm Beach, FL 33408

Date: 02/11/2026

/mw

Attachments: See the PDF documents for Exhibits H,I, and J.

February 3, 2026

CITY FORT PIERCE

CDBG COACH FENN PARK IMPROVEMENT PROJECT

RFP NO. 2026-022

ADDENDUM NO. 2

The purpose of this addendum is to provide the Specific Purpose Survey and revisions to the Drawing Index for this project. Please see the attached Drawing Index, which reflects revisions made by our Engineer.

1. **G-001** – Revises Exhibit C Cover SS to update the Drawing Index.
2. **S-101** – Revises Exhibit C Structural SS.
3. **S-102** – New drawing added.

All other conditions of this bid remain the same.

Please acknowledge receipt of this addendum and include it with your submittal.

Signature: _____
Manual

Signature: Maverick Cissell Manager Member
Typed or Printed

Company Name: SoCal SHaker Plates & Construction Site Services LLC dba National General Construction

Address: 648 Riverside Rd North Palm Beach FL 33408

Date: 02/11/2026

/lh

Attachments: Specific Purpose Survey
Revised Drawing Index.

February 11, 2026

CITY OF FORT PIERCE

CDBG COACH FENN PARK IMPROVEMENT PROJECT

BID NO. 2026-022

ADDENDUM NO. 3

It has come to the City's attention that certain documents necessary for interested bidders to prepare a complete and responsive submission were not made available on all required platforms at the time of advertisement.

Specifically:

- The **Bid Response Form** excel worksheet was inadvertently omitted from the solicitation package.
- The **Civil Drawings** were posted on the City's website but were not uploaded to DemandStar.

To ensure fairness, transparency, and equal access to information for all prospective bidders, the City is issuing this Addendum to provide the missing documents and extend the bid due date.

The documents are attached and made part of the solicitation.

The bid due date is extended has been extended to:

Friday, February 13, 2026; 3PM

All other conditions of this bid remain the same.

Please acknowledge receipt of this addendum and include it with your submittal.

Signature: _____
Manual

Signature: Maverick Cissell
Typed or Printed

Company Name: SoCal Shaker Plates & Construction Site Services, LLC dba National General Construction

Address: 648 Riverside Rd, North Palm Beach, FL 33408

Date: 02/12/2026

/gc

Attachments: Bid Response Form
Ex. C – Drawings – Coach Fenn Park – Civic SS

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

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

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

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See *Specific Instructions* on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)

SoCal Shaker Plates & Construction Site Services LLC

2 Business name/disregarded entity name, if different from above.

National General Construction

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes.

☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate

☑ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . . S

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

5 Address (number, street, and apt. or suite no.). See instructions.

643 US Hwy 1 Unit 13094

Requester's name and address (optional)

6 City, state, and ZIP code

North Palm Beach FL 33408

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

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

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

Social security number

			–			–				

or

Employer identification number

8	5	–	4	0	1	3	4	1	1

Part II Certification

Under penalties of perjury, I certify that:

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

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

Sign Here | **Signature of U.S. person** | Date 2025/11/02

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*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

THE VILLAGE OF NORTH PALM BEACH

2025-2026 BUSINESS TAX RECEIPTS

701 US HIGHWAY 1 SUITE 100
NORTH PALM BEACH, FL 33408
561-841-3365

SoCal Shaker Plates & Construction Site Services LLC
643 US Hwy 1 Unit 13094
North Palm Beach, FL 33408

(951) 813-8541

NO: 310705
CUSTOMER ID NO: BTR-2025-73

DATE: 10/29/2025

Address: 648 Riverside Rd
North Palm Beach, FL 33408

Activity: Home Based Business / Personal Service
Services - Miscellaneous personal service NEC
SoCal Shaker Plates & Construction Site Services LLC

Issued to: SoCal Shaker Plates & Construction Site Services LLC
648 Riverside Rd
North Palm Beach, FL 33408

MUST BE POSTED CONSPICUOUSLY AT THE PLACE OF BUSINESS

PAID - EXPIRES SEPTEMBER 30, 2026 **LATE FEES APPLY OCTOBER 1, 2026 (RENEWAL NOTICE MAILING NOT REQUIRED)**

PLEASE NOTIFY THE VILLAGE BUILDING DEPARTMENT IF THE BUSINESS RELOCATES OR CLOSES

Detail by Entity Name

Florida Limited Liability Company
SOCAL SHAKER PLATES & CONSTRUCTION SITE SERVICES, LLC

Filing Information

Document Number	L22000084227
FEI/EIN Number	85-4013411
Date Filed	02/14/2022
Effective Date	08/27/2021
State	FL
Status	ACTIVE
Last Event	CONVERSION
Event Date Filed	02/14/2022
Event Effective Date	NONE

Principal Address

648 Riverside Rd
North Palm Beach, FL 33408

Changed: 09/30/2025

Mailing Address

643 US Highway 1 #13094
North Palm Beach, CA 33408

Changed: 02/11/2025

Registered Agent Name & Address

ALPER TRUSTEES, LLC
255 PRIMERA BLVD STE 160
LAKE MARY, FL 32764

Authorized Person(s) Detail

Name & Address

Title MGR

CISSELL, MAVERICK
648 Riverside Rd
North Palm Beach, FL 33408

Report Year	Filed Date
2024	02/20/2024
2025	01/10/2025
2025	09/30/2025

Document Images

09/30/2025 -- AMENDED ANNUAL REPORT	View image in PDF format
01/10/2025 -- ANNUAL REPORT	View image in PDF format
02/20/2024 -- ANNUAL REPORT	View image in PDF format
02/28/2023 -- ANNUAL REPORT	View image in PDF format
02/14/2022 -- Florida Limited Liability	View image in PDF format

Previous on List Next on List Return to List

Filing History

Fictitious Name Search
Submit

Fictitious Name Detail

Fictitious Name

NATIONAL GENERAL CONSTRUCTION

Filing Information

Registration Number	G23000120601
Status	ACTIVE
Filed Date	09/28/2023
Expiration Date	12/31/2028
Current Owners	1
County	MULTIPLE
Total Pages	4
Events Filed	3
FEI/EIN Number	85-4013411

Mailing Address

643 US HIGHWAY 1
#13094
NORTH PALM BEACH, FL 33408

Owner Information

SOCAL SHAKER PLATES & CONSTRUCTION SITE SERVICES, LLC
648 RIVERSIDE RD
NORTH PALM BEACH, FL 33408
FEI/EIN Number: 85-4013411
Document Number: L22000084227

Document Images

09/28/2023 -- Fictitious Name Filing — View image in PDF format

09/26/2025 -- CHANGE NAME/ADDRESS — View image in PDF format

03/14/2025 -- CHANGE NAME/ADDRESS — View image in PDF format

03/13/2025 -- CHANGE NAME/ADDRESS — View image in PDF format

Florida Department of State, Division of Corporations

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/20/2026

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Caracciolo Insurance Services, Inc. Dba Insurance Allstars Agency 43950 Margarita Road Suite C Temecula CA 92592	CONTACT NAME: Anthony Caracciolo PHONE (A/C, No, Ext): (951) 397-4010 FAX (A/C, No): (951) 742-4643 E-MAIL ADDRESS: Anthony@insallstars.com
INSURED So Cal Shaker Plates and construction site services LLC DBA: National SWPPP Services 643 US Hwy 1 Unit 13094 Palm Beach FL 33408	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A: PartnerRE INS SOL BERMUDA, LTD — AA-3191504 INSURER B: WESCO INS CO — 25011 INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	X	X	VCP2026012-01	1/19/2026	1/19/2027	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [ ] HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ $ $ $ $
A	[ ] UMBRELLA LIAB [X] OCCUR [X] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $	X	X	VCX2026007-01	1/19/2026	1/19/2027	EACH OCCURRENCE AGGREGATE $	$ 2,000,000 $ 2,000,000 $
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	WES3805800	09/10/2025	09/10/2026	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
A	Contractors Pollution	X	X	VCP2026012-01	1/19/2026	1/19/2027	Occurence Aggregate Deductible	$1,000,000 $2,000,000 $10,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Proof of Coverage

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Anthony Caracciolo

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Acentria Insurance - Sunrise 1607 NW 136th Ave Suite B-200 Sunrise FL 33323 License#: L100460 SOCALS0001	CONTACT NAME: PHONE (A/C, No, Ext): 954-735-5500 FAX (A/C, No): 954-735-2852 E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : GEICO Marine Insurance Company	37923
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
SO CAL SHAKER PLATES AND CONSTRUCTION SITE SERVICES
643 US Highway 1
Unit 13094
North Palm Beach FL 33408

COVERAGES **CERTIFICATE NUMBER:** 453214447 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC OTHER:						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
								$
A	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY X SCHEDULED AUTOS X NON-OWNED AUTOS ONLY	Y		9300227302	10/21/2025	10/21/2026	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
RE: City of Port St. Lucie – Contract #20250180 – O.L. Peacock, Sr., Park
City of Port St. Lucie, a municipality of the State of Florida, its officers, employees and agents are included as Additional Insureds as respects General Liability when required in a written contract.

CERTIFICATE HOLDER

City of Port St. Lucie Procurement Management Department
121 SW Port St. Lucie Blvd.
Building A
Port St. Lucie FL 34984

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

END OF SECTION

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SECTION 1 - CONTRACT DOCUMENTS

1.1 DEFINITIONS

1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Owner-Contractor Agreement, including Invitation for Bid, Instruction to Bidders, Contractor's Bid (including documentation accompanying the Bid and any documentation submitted prior to the Notice of Award), Performance Bond, Payment Bond, Bid Bond, Insurance Certificates and Endorsements, and copies of policies, Notice of Award, Notice to Proceed, these General Conditions, Special Supplemental Conditions, and any Modifications. A Modification is:(1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a written interpretation issued by the City Engineer pursuant to Subparagraph 2.2.8, or (4) a written order for a minor change in the Work for each project issued by the City Engineer pursuant to Paragraph 12.3.

1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. This Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.1. Nothing contained in the Contract Documents shall create any contractual relationship between the Owner and any Subcontractor or Sub-subcontractor.

1.1.3 THE WORK

The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part.

1.1.5 ADDENDA

Written or graphic instruments issued prior to the Award of the Contract which modify or interpret the Contract Documents by additions, deletions, corrections, or clarifications.

1.1.6 ACCEPTANCE, FINAL ACCEPTANCE

The formal action by the City accepting the Work as being complete, after certification by the City Engineer of final completion.

1.1.7 AGREEMENT

The written agreement between the City and the Contractor covering the Work to be performed also designated as the Contract.

1.1.8 APPARENT LOWEST AND BEST BIDDER

The Bidder submitting the lowest and best Bid at the Bid Opening without correction of numerical discrepancies or determination of responsiveness and responsibility.

1.1.9 APPLICATION FOR PAYMENT

The form furnished in the Contract Documents which is to be used by the Contractor in requesting progress payments and an affidavit of the Contractor that progress payments theretofore received from City on account of the Work have been applied by the Contractor to discharge in full all of the Contractor's obligations stated in prior Applications of Payment. The application includes such supporting documentation as required by the Contract Documents.

1.1.10 BID

The offer or proposal of the Bidder submitted in the prescribed manner on the prescribed forms to perform the contemplated Work in accordance with the Contract Documents.

1.1.11 BIDDER

Any individual, partnership, corporation, joint venture, or other legal entity or combination thereof submitting a Bid for the Work, acting directly or through an authorized representative.

1.1.12 BONDS

Instruments of security furnished by the Contractor and his surety in accordance with the Contract Documents including Bid, Performance, and Payment Bonds.

1.1.13 CHANGE ORDER

A written order to the Contractor, approved by the City, complying with the change order procedure established in the Contract Documents, authorizing an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or Contract Time, or both.

1.1.14 CITY

The City of Fort Pierce: The Owner.

1.1.15 CONTRACT PRICE/AMOUNT
The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.16 DAY

A calendar day of 24 hours lasting from midnight one day to midnight the next day.

1.1.17 DEFECTIVE

An adjective which, when modifying the word Work, refers to Work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, test, or approval referred to in the Contract Documents, or has been damaged prior to Final Payment.

1.1.18 DRAWINGS, PLANS

The drawings, plans, or reproductions thereof, which show location, character, dimensions, and details of the Work to be done, which are included in the Contract Documents.

1.1.19 EFFECTIVE DATE OF AGREEMENT

The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed by the last of the two parties to sign.

1.1.20 FIELD ORDER

A written order issued by the City Engineer to the Contractor during construction effecting a minor change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time.

1.1.21 LOWEST AND BEST BIDDER

The lowest responsive, responsible Bidder.

1.1.22 MODIFICATION

A written amendment of the Contract Documents signed by both parties, and work

directives including but not limited to Change Orders and Field Orders. A modification may only be issued after the effective date of the Agreement.

1.1.23 NOTICE OF AWARD

The written notice of the acceptance of the Bid from the City to the Lowest and Best Bidder.

1.1.24 NOTICE TO PROCEED

Written communication issued by the City to the Contractor authorizing him to proceed with the Work and establishing the date of commencement of the Work.

1.1.25 OWNER

The City of Fort Pierce: The Owner.

1.1.26 PAYMENT BOND

The security furnished by the Contractor and its Surety in the form contained in the Contract Documents as a guarantee that the Contractor will pay in full all bills.

1.1.27 PERFORMANCE BOND

The Security furnished by the Contractor and its surety as a guarantee that the Contractor will perform all of its contractual obligations in accordance with the terms of the Contract Documents; the covered amount of the Performance Bond is separate and distinct from the covered amount of the Payment Bond.

1.1.28 REQUEST FOR INFORMATION

Contractor's inquiries for information shall be submitted to the City Engineer.

1.1.29 ENGINEERING INSPECTOR

The authorized representative of the City Engineer who is assigned to the site inspection or any part thereof.

1.1.30 SAMPLE

Samples are physical examples or work including, but not limited to, the following items: Partial sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used materials; Swatches showing color, texture, and pattern, color range sets, or units of work to be used for independent inspection and testing.

1.1.31 SHOP DRAWINGS

All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Contractor or for the Contractor to demonstrate how the Contractor specifically intends to comply with the Contract Documents.

1.1.32 SPECIFICATIONS

Those portions of the Contract Documents consisting of written or graphic technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable there.

1.1.33 SPECIAL SUPPLEMENTAL CONDITIONS

Modifications, additions, or deletions to the General Conditions.

1.1.34 WORD DEFINITIONS

1. Unless other expressly stated, wherever in the Contract Documents the word "approved," "reviewed," "acceptable," "satisfactory," "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the action required, reference, or determination rests solely with the City Engineer or his duly authorized representative.

2. Unless otherwise expressly stated, wherever in the Contract Documents the words "as shown" or "as indicated" or words of like import are used, they shall mean as shown or as indicated on the drawings.

3. Unless otherwise expressly stated, wherever in the Contract Documents the word "provide" is used, it shall mean furnished and installed in place, complete and tested.

4. Wherever the word "Product" is used in these Contract Documents, it shall refer to materials, systems, and equipment provided by Contractor.

5. The term "Project Manual" as used in these Contract Documents includes Bidding Requirements, Conditions of the Contract, and Specifications.

1.2 EXECUTION, CORRELATION, AND INTENT

1.2.1 The Contract Documents shall be signed in not less than duplicate by the City and the Contractor.

1.2.2 By executing the Contract, the Contractor represents that he has visited the

site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonable inferable there from as being necessary to produce the intended results. Words and abbreviations which have well- known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2.4 The organization of the Specifications into divisions, sections, and articles and the arrangement of drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

1.3 OWNERSHIP AND USE OF DOCUMENTS

1.3.1 All Drawings, Specifications, and copies thereof furnished by the City are and shall remain the property of the City, to be used only with respect to this Project and not to be used on any other project. With the exception of one contract set for each party to the Contract, such documents are to be returned or suitably accounted for to the City on request at the completion of the Work. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the City Engineer's common law copyright or other reserved rights.

SECTION 2 - THE CITY ENGINEER

2.1 The City Engineer or his designee is the person authorized by the City Manager to oversee implementation of the Contract Documents.

2.2 The City Engineer or designee will visit the site at intervals to check the quality or quantity of the Work. The City Engineer or designee will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the CONTRACTOR'S failure to carry out the Work in accordance with the Contract Documents. The City Engineer or designee will not be responsible for or have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. The City Engineer or designee shall at all times have access to the Work wherever it is in preparation and progress. The Contractor shall provide facilities for such access so the City Engineer or designee may perform his functions under the Contract Documents.

2.3 The City Engineer will render interpretations necessary for the proper execution of progress of the Work, with reasonable promptness and in accordance with any time limit agreed upon. Either party to the Contract may make written request to the City Engineer for such interpretations.

SECTION 3 - CITY

3.1 DEFINITION

3.1.1 The City is the person or entity identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Owner means the City or its authorized representative.

3.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

3.2.1 The City shall furnish legal limitations for the site of the Project.

3.2.2 Except as provided in Subparagraph 4.7.1 and elsewhere in the Contract and Contract Documents, the City shall secure and pay for necessary approvals, easements, assessments, and charges required for the construction, use, or occupancy of permanent structures or for permanent changes in existing facilities.

3.2.3 Information or services under the City's control shall be furnished by the City with reasonable promptness to avoid delay in the orderly progress of the Work.

3.2.4 Six sets of contract drawings will be furnished to the Contractor free of charge for execution of the Work. Additional sets of documents required by the Contractor will be made available upon payment by Contractor of costs of reproduction.

3.2.5 The foregoing are in addition to other duties and responsibilities of the City enumerated herein and especially those in respect to Work by City or by Separate Contractors, Payments and Completion, and Insurance in Sections 6, 9, and 11, respectively.

3.3. CITY'S RIGHT TO STOP THE WORK

3.3.1 Termination of work shall be in compliance with the Contract Articles 8,10, 14, 15, 16, and 17, and the Contract Documents.

3.4 CITY'S RIGHT TO CARRY OUT THE WORK

3.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Agreement or Contract Documents, then the City shall have the right to carry out the Work in accordance with the Contract and Sections 8, 14, 15, and 16, and

as noted in the Agreement and Contract Documents.

SECTION 4 - CONTRACTOR

4.1 DEFINITION

4.1.1 The Contractor is the person or entity identified as such in the Owner-Contractor Agreement and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative.

4.2 REVIEW OF CONTRACT DOCUMENTS

4.2.1 The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Engineer any error, inconsistency or omission he may discover. The Contractor shall not be liable to the City or the City Engineer for any damage resulting from such errors, inconsistencies or omissions in the Contract Documents. The Contractor shall perform no portion of the Work at any time without Contract Documents or, where required, approved Shop Drawings, Product Data, or Samples for such portion of the Work.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

4.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors, and their agents and employees, and other persons performing any of the Work under a contract with the Contractor.

4.3.3 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Engineer in his administration of the Contract, or by inspections, tests, or approvals required or performed under Paragraph 7.7 by persons other than the Contractor.

4.4 LABOR AND MATERIALS

4.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in Work.

4.4.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ anyone unskilled in the task assigned to him.

4.5 WARRANTY

4.5.1 The Contractor warrants to the City and the City Engineer that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects, and in conformance with the Contract Documents. All Work not conforming to these requirements may be considered defective. If required by the City Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 13.2.

4.6 TAXES

4.6.1 Not applicable.

4.7 PERMITS, FEES, AND NOTICES

4.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure all City construction permits and secure all other permits and governmental fees and licenses necessary for the proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required prior to construction.

4.7.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the Work.

4.7.3 When the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the City Engineer in writing, and any necessary changes shall be accomplished by appropriate Modification.

4.7.4 If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the City Engineer, he shall assume full responsibility therefore and shall bear all costs attributable thereto.

4.8 ALLOWANCES

4.8.1 Not applicable.

4.9 SUPERINTENDENT

4.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the project site during the progress of the Work. The superintendent shall represent the Contractor, and all communications given to the superintendent shall be binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case.

4.9.2 The Contractor shall provide the City Engineer with the name of his Superintendent and the location at which the Superintendent may be reached at all times.

4.10 PROGRESS SCHEDULE

4.10.1 The Contractor, within ten (10) days after Notice of Award, shall prepare and submit an estimated progress schedule for the Work. The progress schedule shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

4.11 DOCUMENTS AND SAMPLES AT THE SITE

4.11.1 Contractor shall maintain on site one record copy of: Drawings, Specifications, Addenda, Change Orders and other modifications to the Contract, Reviewed Shop Drawings, Product Data, and Samples, Field Test Records, Inspection Certificates, and Manufacturer's Certificates.

4.11.2 At the Contract closeout, deliver record documents and samples to the City Engineer by transmittal letter with Contractor's signature.

4.12 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

4.12.1 After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, Contractor shall submit to City Engineer for review and approval, in accordance with the accepted schedule of Shop Drawing submissions and specific requirements of the Specifications, or for other appropriate action if so indicated in the Supplementary Conditions, six copies of all Shop Drawings which will bear a stamp or specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as City Engineer may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data, to enable City Engineer to review the information as required.

4.12.2 Contractor shall also submit to City Engineer for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, supplier, and pertinent data such as catalog numbers and the use for which intended.

4.12.3 Before submission of each shop drawing or sample, Contractor shall have determined and verified all quantities, dimensions, specific performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each shop drawing or sample with other shop drawings and samples and with the requirements of the Work and the Contract Documents.

4.12.4 At the time of each submission, Contractor shall give City Engineer specific written notice of each variation that shop drawings or samples may have from requirements of Contract Documents, and, in addition, shall cause a specific notation to be made on each shop drawing submitted to City Engineer for review and approval of each such variation.

4.12.5 City Engineer will review and take action within 14 calendar days of receipt of shop drawings and samples, but City Engineer's review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated, in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by the City Engineer and shall return the required number of corrected copies of shop drawings and submit as required new samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by City Engineer on previous submittals.

4.12.6 City Engineer's review and approval of shop drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called City Engineer's attention to each such variation at the time of submission as required by Subparagraph 4.12.3.1 and City Engineer has given written approval of each such variation by a specific written notation thereof incorporated in or a specific written notation thereof incorporated in or accompanying the shop drawing or sample approval; nor will any approval by City Engineer relieve Contractor from responsibility for errors or omissions in the shop drawings or from responsibility for having complied with the provisions of Subparagraph 4.12.3.

4.12.7 Where a shop drawing or sample is required by the Specifications, any related Work performed prior to City Engineer's review and approval of the pertinent submission will be the sole expense and responsibility of Contractor.

4.13 USE OF SITE

4.13.1 The Contractor shall confine operations of the site to areas permitted by law, ordinances, permits, Agreement, and the Contract Documents and shall not unreasonably encumber the site with any materials or equipment.

4.14 CUTTING AND PATCHING OF WORK

4.14.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

4.14.2 The Contractor shall not damage or endanger any portion of the Work or the work of the City or any separate contractors by cutting, patching, or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the City or any separate contractor except with the written consent of the City and of such separate contractor. The Contractor shall not unreasonably withhold from City or any separate contractor his consent to cutting or otherwise altering the Work.

4.15 CLEANING UP

4.15.1 The Contractor at all times shall keep the work site project free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, construction equipment, machinery, and surplus materials.

4.15.2 If the Contractor fails to clean up at the completion of the Work, the City may do so, and the cost thereof shall be charged to the Contractor.

4.16 COMMUNICATIONS

4.16.1 The Contractor shall forward all communications to the City through the City Engineer.

4.17 ROYALTIES AND PATENTS

4.17.1 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save City harmless from loss on account thereof except that City shall be responsible for all such loss when a particular design process or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to City Engineer.

4.18 INDEMNIFICATION

4.18.1 The Contractor shall agree to indemnify and hold the City harmless against any and all expenses and liabilities as per the Contract, to include Articles 10 and 22, and all Contract Documents.

SECTION 5 - SUBCONTRACTORS

5.1 DEFINITION

5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative. The term Subcontractor does not include any separate contractor or his subcontractors.

5.1.2 A Subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work at the site. The term Sub-subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Sub-subcontractor or an authorized representative thereof.

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK.

5.2.1 Shall comply with the Contract, to include Article 12 and the Contract Documents.

SECTION 6 - WORK BY CITY

6.1 CITY'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

6.1.1 The City reserves the right to perform work related to the Project with his own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the

Contract. If the Contractor claims that delay or additional cost is involved because of such action by the City, he shall make such claim as provided elsewhere in the Contract Documents.

6.1.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

6.2 MUTUAL RESPONSIBILITY

6.2.1 The Contractor shall afford the City and separate contractors' reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work and shall connect and coordinate his Work with theirs as required by the Contract Documents.

6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the work of the City or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the City Engineer any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acceptance of the City's or separate contractors' work as fit and proper to receive his Work, except as to defects which may subsequently become apparent in such work by others.

6.2.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefore. No time extensions will be granted due to ill-timed work or any other reasons.

6.2.4 Should the Contractor wrongfully cause damage to the work or property of the City, or to other work on the site, the Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5.

6.2.5 Should the Contractor wrongfully cause damage to the work or property of any separate contractor, the Contractor shall upon due notice promptly attempt to settle with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues or initiates an arbitration proceeding against the City on account of any damage alleged to have been caused by the Contractor, the City shall notify the Contractor who shall defend such proceedings at the City's expense, and if any judgment or award against the City arises there from, the Contractor shall pay or satisfy it and shall reimburse the City for all attorneys' fees and court or arbitration costs which the City has incurred. Regardless of the outcome, the Contractor will pay all expenses.

6.3 CITY'S RIGHT TO CLEAN UP

6.3.1 If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Section 4.15, the City may clean up and charge the cost thereof to the Contractors as the City Engineer shall determine to be just.

SECTION 7 - MISCELLANEOUS PROVISIONS

7.1 Governing Law

7.1.1 The Contractor shall be governed by the law of the place where the project is located.

7.2 SUCCESSORS

7.2.1 The City and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the City.

7.3 WRITTEN NOTICE

7.3.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if last delivered at or sent by registered or certified mail to the last business address known to him who gives the notice.

7.4 CLAIMS FOR DAMAGE

7.4.1 All claims by the Contractor shall be in accordance with Article 11 of the Contract Agreement.

7.5 PERFORMANCE AND PAYMENT BOND

7.5.1 Contractor shall furnish a Performance Bond and a Payment Bond on the forms provided as part of the Contract Documents each in an amount as required by the Contract Documents as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. Contractor shall also furnish such other Bonds as are required by the Special Supplementary

Conditions. All Bonds shall be in the forms prescribed by the bidding documents or Special Supplementary Conditions and be executed by such Sureties as are licensed to conduct business in the state where the Project is located, and, except as otherwise provided by law, are named in the current list of "Companies Holding Certificates of City as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U. S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

7.5.2 If the Surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 7.5.1, Contractor shall within five (5) days thereafter substitute another Bond and Surety, both of which shall be acceptable to City.

7.6 RIGHTS AND REMEDIES

7.6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

7.6.2 No action or failure to act by the City, Engineer, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach hereunder, except as may be specifically agreed in writing.

7.7 TESTS

7.7.1 When the Contract Documents, laws, ordinances, rules, regulations or orders of any public agency having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the City Engineer timely notice of its readiness so the City Engineer may observe, provide or instruct such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public agency other than City. Unless otherwise provided, the City shall bear all costs of other inspections, tests or approvals. The City shall pay for soils, compaction, and other testing required by the Contract Documents, to assure compliance with plans and specifications, and the Contractor shall pay for all required retests.

7.7.2 If the Engineer determines that any Work requires special inspection, testing, or approval which Paragraph 7.7.1 does not include, he will instruct the Contractor to order such special instruction, testing or approval, and the Contractor shall give notice as provided in Paragraph 7.7.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the City's

additional services made necessary by such failure; otherwise the City shall bear such costs, and an appropriate Change Order shall be issued.

7.7.3 Required certificates of inspection, testing or approval from public agencies having jurisdiction over the Project shall be secured by the Contractor and promptly delivered by him to the City Engineer.

SECTION 8 - TIME

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Completion of the Work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.

8.1.2 The date of commencement of the Work is the date established in a Notice to Proceed for each project. If there is no notice to proceed, it shall be the date of the Owner-Contractor Agreement or such other date as may be established therein.

8.1.3 The Date of Completion of the Work is the Date certified by the City Engineer when construction is complete, in accordance with the Contract Documents.

8.1.4 The term day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated.

8.2 PROGRESS AND COMPLETION

8.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.

8.2.2 The Contractor shall begin the work on the date of commencement as defined in Subparagraph 8.1.2. He shall carry the Work forward expeditiously with adequate forces and shall achieve Completion within the Contract Time.

8.3 DELAYS AND EXTENSIONS OF TIME

8.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the City or the City Engineer, or by any employee of either, or by any separate contractor employed by the City, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, or by delay authorized by the City pending arbitration, or by any other cause which the City Engineer determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as the City Engineer may determine.

8.3.2 Any claim for extension of time shall be made in writing to the City Engineer not more than twenty (20) days after the commencement of the delay. In the case of a continuing delay only one claim is necessary. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the Work.

8.3.3 If no agreement is made stating the dates upon which interpretations as provided in Subparagraph 8.3.1 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen (15) days after written request is made for them, and not then unless such claim is reasonable.

8.3.4 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Agreement or Contract Documents.

SECTION 9 - PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

9.1.1 The Contract Sum for each project is the sum stated in the project's Notice to Proceed, including authorized adjustments thereto, is the total amount payable by the City to the Contractor for the performance of the Work under the Contract Documents.

9.2.1 Ten (10) days before the first Application for Payment, the City shall submit to the Contractor a schedule of values allocated to the various portions of the Work, in accordance with the Agreement, prepared in such form and supported by such data to substantiate its accuracy. This schedule shall be used only as a basis for the Contractor's Applications for Periodic Payments.

9.3 APPLICATIONS FOR PAYMENT

9.3.1 At least ten (10) days before the date for each progress payment established in the City-Contractor Agreement, the Contractor shall submit to the City and City Engineer an itemized and completed Application for Payment, notarized, supported by such data substantiating the Contractor's right to payment as the City or the City Engineer may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents.

9.3.1.1 Until Completion of the Work the City will pay ninety-five percent (95%) of the amount due the Contractor on account of progress payments. At Completion and Final Acceptance of the Work by the City Engineer, the City shall pay the retainage, less such amount as the City Engineer shall determine for all incomplete Work, unsettled claims and penalties as provided in the Contract Documents.

9.4 CERTIFICATES FOR PAYMENT

9.4.1 The City Engineer will, within ten (10) days after the receipt of the Contractor's Application for Payment, either approve the application for payment to the Owner, with a copy to the Contractor, for such amount as the City Engineer determines is properly due, or notify the Contractor in writing his reasons for withholding a Certificate as provided in Subparagraph 9.6.1.

9.4.2 The approval of the Application for Payment will constitute only a presentation by the City, based on the City Engineer's observations at the site as provided in Subparagraph 2.1.2 and the data comprising the Application for Payment that the Work has progressed to the point indicated; that to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work for conformance with the Contract Documents upon Completion, to the results of any subsequent tests required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to any specific qualifications stated in his Certificate); and that the Contractor is entitled to payment in the amount certified. However, by issuing a Certificate for Payment, the City Engineer shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work to relieve the Contractor of his responsibilities specified in the Agreement or that he has reviewed the construction means, methods, techniques, sequences or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the monies previously paid on account of the Contract Sum.

9.5 PROGRESS PAYMENTS

9.5.1 After the City Engineer has approved the complete Application for Payment, the City shall make payment in accordance with Article 6 of identified in the Agreement.

9.5.2 The Contractor shall promptly pay each Subcontractor upon receipt of each payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to his Sub-subcontractors in a similar manner.

9.5.3 The City Engineer may, on request and at his direction, furnish to any Subcontractor information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the City Engineer on account of Work done by such Subcontractor.

9.5.4 Neither the City nor the City Engineer shall have any obligation to pay or to see to the payment of any monies to any Subcontractor except as may otherwise be required by law.

9.5.5 No approval for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the City, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.5.6 **No approval for a progress payment shall be approved prior to City Engineer receiving Partial Releases of Liens applicable to previous payments received by Contractor.**

9.6 PAYMENTS WITHHELD

9.6.1 The City Engineer may decline to approve payment and may withhold it in whole or in part, to the extent necessary reasonably to protect the City, if in his opinion he is unable to make representations to the City as provided in Subparagraph 9.4.2. If the City Engineer is unable to make representations to the City as provided in Paragraph 9.4.2 and to certify payment in the amount of the Application, he will notify the Contractor as provided in Subparagraph 9.4.1. If the Contractor and the City Engineer cannot agree on a revised amount, the City Engineer will promptly approve the payment for the amount for which he is able to make such representations to the City. The City Engineer also may decline to approve payment or, because of subsequently discovered evidence or subsequent observations, he may nullify the whole or any part of any approval for payment previously issued, to such extent as may be necessary in his opinion to protect the City from loss because of:

1. Defective Work not remedied; or

2. Third party claims filed or reasonable evidence indicating probable filing of such claims, such as Notice; or

3. Failure of the Contractor to make payments properly to Subcontractors for labor, materials or equipment. City Engineer may request Partial Releases of Liens prior to payment; or

4. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum; or

5. Damage to the City or other contractor; or

6. Reasonable evidence that the Work will not be completed within the Contract Time; or

7. Persistent failure to carry out the Work in accordance with the Contract Documents.

9.6.2 When the above grounds in Subparagraph 9.6.1 are removed, payment shall be made for amounts withheld because of them.

9.7 "ELIMINATED"

9.8 FINAL COMPLETION AND FINAL PAYMENT

9.8.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the City Engineer will make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, will promptly approve the Application for Payment, stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in said approval is due and payable. The City Engineer's final approval for payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in the Agreement and Contract Documents have been fulfilled and the Contractor has met the requirements of the Agreement and Contract Documents.

9.8.2 Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the City Engineer: (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied; (2) consent of surety, if any, to final payment; and (3) other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the City. If any Subcontractor, sub-subcontractor, material man, or laborer, refuses to furnish a release, or waiver, required by the City, the Contractor may furnish a bond satisfactory to the City, to indemnify him against any such lien. City may withhold all sums reasonably necessary for the claims of subcontractors, sub- subcontractors, material men, laborers or other who have asserted any claims, even if based upon purported additions, extras, or unexecuted change orders, which sums shall include interest, costs and reasonably anticipated attorneys' fee. If any claim remains unsatisfied after all payments are made, the Contractor shall refund to the City all monies that the latter may be compelled to pay in discharging such lien, including interest, all costs, and reasonable attorneys' fee.

9.8.3 The making of final payment shall constitute a waiver of all claims by the City except those arising from:

1. Unsettled liens, claims or notices of any kind by subcontractors, sub-subcontractors, material men, and laborers; or

2. Faulty or defective Work appearing after Substantial Completion; or

3. Failure of the Work to comply with the requirements of the Contract Documents; or
4. Terms of any special warranties required by the Contract Documents.

9.8.4 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment. By acceptance thereof, Contractor agrees to cooperate with City in disposing of any and all remaining claims of subcontractors, sub-subcontractors, material men, and laborers, and shall indemnify and hold harmless City from all such claims, including attorneys' fees, trial and appellate, and costs and expenses.

SECTION 10 - PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:

1. All employees on the Work and all other persons who may be affected thereby;

2. All the Work, and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and

3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities. Without limiting the generality of the foregoing, the Contractor's ladders, scaffolds, lifts and other equipment, and those portions of the Contractor's work and temporary work which are utilized by the City and the City Engineer and their employees in the observation of construction shall comply with all applicable laws, ordinances, rules, regulations, standards and orders of any public authority having jurisdiction for the safety of persons or property.

10.2.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

10.2.5 The Contractor shall promptly remedy all damage or loss to any property referred to in Paragraph 10.2, caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible, except damage or loss attributable to the acts or omissions of the Owner or City Engineer or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under the Agreement and the Contract Documents.

10.2.6 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the City and the City Engineer.

10.2.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.

10.3 EMERGENCIES

10.3.1 In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Section 12 for Changes in the Work.

10.4 CITY ENGINEER'S STATUS

10.4.1 Without limiting the generality of Subparagraphs 2.2 and 2.3, the City Engineer will not inspect or be responsible for the Contractor's compliance with the requirements of this Section 10.

SECTION 11 - INSURANCE

(SEE CONTRACT DOCUMENTS - ARTICLE 17)

SECTION 12 - CHANGES IN THE WORK

12.1 CHANGE ORDERS

12.1.1 A Change Order is a written order to the Contractor signed by the City Engineer, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum or the Contract Time.

12.1.2 The City, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents.

12.1.3 The cost or credit to the City resulting from a change in the Work shall be determined in one or more of the following ways:

1. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;

2. By unit prices stated in the Contract Documents or subsequently agreed upon;

3. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee.

12.2 CONCEALED CONDITIONS

12.2.1 Should concealed conditions encountered in the performance of the Work below the surface of the ground differing materially from those ordinarily encountered and generally recognized as inherent in work of the character

provided for in this Contract be encountered, the Contract Sum may be equitably adjusted by Change Order upon claim by either party made within twenty (20) days after the first observance of the conditions.

12.3 CLAIMS FOR ADDITIONAL COST

12.3.1 If the Contractor wishes to make a claim for an increase in the Contract Sum, he shall give the City Engineer written notice thereof within twenty (20) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall precede in accordance with Paragraph 10.3. No such claim shall be valid unless so made. If the Owner and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the City Engineer. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

12.3.2 If the Contractor claims that additional cost is involved because of, but not limited to: (1) any written interpretation pursuant to Subparagraph 2.3; (2) any order by the City to stop the Work pursuant to Paragraph 3.3 where the Contractor was not at fault; (3) any written order for a minor change in the Work issued pursuant to Paragraph 12.4; or (4) failure of payment by the City pursuant to Paragraph 9.7, the Contractor shall make such claim as provided in Paragraph 12.3.1.

12.4 MINOR CHANGES IN THE WORK

12.4.1 The City Engineer will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order (field order), and shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.

SECTION 13 - UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

13.1.1 If any portion of the Work should be covered contrary to the request of the City Engineer or to requirements specifically expressed in the Contract Documents, it must, if required by the City Engineer, be uncovered for his observation and shall be replaced at the Contractor's expense.

13.1.2 If any other portion of the Work has been covered which the City Engineer has not specifically requested or required to observe prior to being covered, the

City Engineer may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the City. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it is found that this condition was caused by the City or a separate contractor as provided in Section 6, in which event the City shall be responsible for the payment of such costs.

13.2 CORRECTION OF WORK

13.2.1 The Contractor shall promptly correct all Work rejected by the City Engineer as defective or as failing to conform to the Contract Documents whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the City Engineer or his designee's additional services and inspections made necessary thereby.

13.2.2 If, within one year after the Date of Completion of the Work or designated portion thereof or within one year after acceptance by the City of designated Work or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the City to do so unless the City has previously given the Contractor a written acceptance of such condition. This obligation shall survive termination of the Contract. The City shall give such notice promptly after discovery of the condition.

13.2.3 The Contractor shall remove from the site all portions of the Work which are defective or non-conforming and which have not been corrected under Subparagraphs 4.5.1, 13.2.1, and 13.2.2, unless removal is waived by the City.

13.2.4 If the Contractor fails to correct defective or non- conforming Work as provided in Subparagraphs 4.5.1, 13.2.1, and 13.2.2, the City may correct it in accordance with Paragraph 3.4.

13.2.5 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the City Engineer, the City may remove it and replace the materials or equipment at the expense of the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the City.

13.2.6 The Contractor shall bear the cost of making good all work of the City or separate contractors destroyed or damaged by such correction or removal.

13.2.7 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might

have under the Contract Documents, including Paragraph 4.5 hereof. The establishment of the time period of one year after the Date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

13.3 ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK

13.3.1 If the City prefers to accept defective or non- conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

SECTION 14 - TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

14.1.1 If the Work is stopped for a period of thirty (30) days under an order of any court or other public agency having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, or if the Work should be stopped for a period of thirty (30) days by the Contractor because the City Engineer has not approved an Application for Payment as provided in Paragraph 9.7 or because the City has not made payment thereon as provided in Paragraph 9.7, then the Contractor may, upon seven (7) additional days' written notice to the City Engineer, terminate the Contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.

14.2 TERMINATION BY THE CITY

14.2.1 If the Contractor is adjudged a bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, or if he persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he fails to make prompt payment to Subcontractors or for materials or labor, persistently disregards laws, ordinances, rules, regulations or is guilty of a substantial violation of a provision of the Contract Documents, then the

Owner, upon certification by the City Engineer that sufficient cause exists to justify such action, may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven (7) days' written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method he may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished.

14.2.2 If the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including compensation for the City Engineer's additional services made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City. The amount to be paid to the Contractor or to the City, as the case may be, shall be certified by the City Engineer, upon application, in the manner provided in Paragraph 9.4, and this obligation for payment shall survive the termination of the Contract.

SECTION 15 - UNFAVORABLE WEATHER AND OTHER CONDITIONS

15.1 During unfavorable weather and other unfavorable conditions, the Contractor shall pursue only such portions of the Work as shall not be damaged thereby. No portions of the Work whose satisfactory quality or efficiency will be affected by an unfavorable condition shall be constructed while these unfavorable conditions exist unless, by special means or precautions approved by the City Engineer, the Contractor shall be able to overcome them.

SECTION 16 - ENGINEERING AND FIELD INSPECTION EXPENSES DUE TO OVERTIME WORK AND UNAVOIDABLE DELAYS

16.1 The City shall charge to the Contractor and may deduct from the periodic and final payment for the Work all engineering and inspection expenses incurred by the City in connection with any overtime work during the contract construction period, including any time extension granted thereof, beyond the regular eight (8) hour day, (normal resident project representative working day), and for any time worked on Saturdays, Sundays, or Holidays.

16.2 In addition, these General Conditions provide for the payment by the Contractor to the City of all engineering and inspection expenses incurred as a result of unavoidable delays or correctness of the Work.

16.3 All engineering and inspection expenses, including direct costs incurred by the City due to the above specified conditions, shall be paid by the Contractor at the City's hourly rates, including all overhead.

SECTION 17 - BEFORE STARTING CONSTRUCTION

17.1 Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to the City Engineer any conflict, error or discrepancy which Contractor or any of his Subcontractors may discover and shall obtain a written interpretation or clarification from City Engineer before proceeding with any work affected thereby; provided, however, Contractor shall not be liable to City or City Engineer for failure to report any conflict, error or discrepancy unless Contractor or any of his Subcontractors had actual knowledge thereof or should reasonably have known thereof.

17.2 Within ten (10) days after the effective date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to City Engineer for review: (1) a progress schedule indicating the starting and completion dates of the various stages of the Work; (2) a proposed schedule of Shop Drawing Submissions; (3) a schedule of values of the Work; and (4) a listing of the monthly progress payments through the Contract Time. The City Engineer may require the schedule of values to be adjusted if in its opinion the breakdown does not accurately reflect the true distribution of the Contract Price.

17.3 No later than twenty (20) days after the effective date of the Agreement, but before Contractor starts the Work at the site, a conference will be held for review of the schedules to establish procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work. Contractor shall attend such conference and shall require any or all of his Subcontractors, as City Engineer directs, to attend the conference.

SECTION 18 - PRECEDENCE OF CONTRACT DOCUMENTS

18.1 In resolving conflicts and discrepancies between the Contract Documents, precedence shall be given in the following order:

Plans shall control over Technical Specifications; larger scale plans shall control over general plans; large scale details over small scale and figure dimensions; and figure dimensions over scaled dimensions. Addenda and change orders supersede only affected portions of the documents.

SECTION 19 - MEASUREMENT AND PAYMENT

19.1 DESCRIPTION OF REQUIREMENTS

19.1.1 Payment for the WORK, as further specified herein, shall include compensation to be received by the Contractor for furnishing tools, equipment, supplies, and manufactured articles, and for labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work in accordance with the requirements of the Contract Documents, including 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). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

19.1.2 The total Unit Bid Price shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction equipment, and tools; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and Unit bid prices. All work not specifically set forth as a pay item in the Bid shall be considered a subsidiary obligation of Contractor and all costs in connection therewith shall be included.

19.1.3 Payment for all work done in compliance with the Contract Documents, inclusive of furnishing all manpower, equipment, materials, and performance of all operations relative to construction of this project, will be made under the Unit Bid Price.

19.1.4 The City reserves the right to alter the Drawings, modify incidental work if necessary, and increase or decrease quantities of work to be performed in accordance with such changes, including deduction or cancellation of any one or more of the Items. Changes in the work shall not be considered as a waiver of any conditions of the Contract nor invalidate any provisions thereof. When changes result in changes in the quantities of work to be performed, and proposed change will cause substantial inequity to the City or Contractor the applicable unit prices shall be equitably adjusted by change order.

19.1.5 Quantities necessary to complete the work as shown on the Drawings or as specified herein shall govern over those shown in the Proposal or Bid Documents. The Contractor shall take no advantage of any apparent error or omission in the Drawings or Specifications, and the City Engineer shall be permitted to make corrections and interpretations as may be deemed necessary for fulfillment of the intent of the Contract Documents.

19.1.6 The quantities for payment, other than Final Payment, under this Contract shall be determined for actual measurement of the completed items, in place, ready for service and accepted by the City, in accordance with the applicable method of measurement therefore contained herein. A representative of the Contractor shall witness all field measurements.

SECTION 20 - ESTIMATED QUANTITIES

20.1 All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and supplied for the sole purpose of providing Bidder with a basis which will be used to determine the Base Bid and to obtain unit prices for approvals of progress payments for the Work done. Actual quantities which will be ordered by City may vary from those on the Bid Form(s).

20.2 The Contractor's attention is directed to the items of work for which no unit price is set. All work shown on the drawings as outlined in the specifications is to be completed in all respects, and the cost of all miscellaneous and associated work to any specific items shall be included in the Unit Prices.

20.3 All quantities, for the submittal of payments, shall be measured and tabulated by both the City Engineer, or representative, and the Contractor. Requests for payment and supporting data shall be prepared by the Contractor and given to the City Engineer sufficiently in advance of payment date to permit thorough checking of all quantities.

20.4 The Contractor shall furnish the City Engineer whatever assistance is required, laborers, clerks and records that will enable the City Engineer to expeditiously check all estimates and especially the final quantities of the project.

SECTION 21- COORDINATION

21.1 Contractor shall: (1) coordinate scheduling, submittals, and work of the various sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements; (2) coordinate completion

and clean-up of Work of separate sections of specifications in preparation for Substantial Completion; and (3) after City occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of City activities.

SECTION 22 - FIELD ENGINEERING

Contractor shall employ a Land Surveyor registered in the State of Florida and acceptable to City Engineer, locate and protect survey control and reference points, control datum for survey that is shown on the Exhibit Drawings, and provide field engineering services and establish elevations, lines, and levels, utilizing recognized engineering survey practices.

SECTION 23

"DELETED"

SECTION 24 - PRECONSTRUCTION CONFERENCE

24.1 City Engineer will schedule a conference after Notice to Award.

24.2 Attendance Required: City, Contractor, Utilities Representatives. (Subcontractors if so requested by City.)

24.3 Agenda:

1. Execution of City-Contractor Agreement;
2. Submission of executed bonds and insurance certificates;
3. Distribution of Contract Documents;
4. Submission of list of Subcontractors, and progress schedule;
5. Designation of personnel representing the parties in Contract, and the City Engineer;
6. Procedures and processing of field decisions, submittals, substitutions, applications for payment, proposal requests, Change Orders and Contract closeout procedures;
7. Scheduling;
8. Scheduling activities of Testing Laboratory.

SECTION 25 - PROGRESS MEETINGS

25.1 City Engineer or Contractor may schedule meetings, at intervals, as required throughout progress of the Work. Each may make arrangements for meetings, prepare agenda with copies for participants, record minutes and distribute copies within 3 days to participants and those affected by decisions made.

25.3 Agenda:

1. Review minutes of previous meetings;
2. Review of Work progress;
3. Field observations, problems, and decisions;
4. Identification of problems which impede planned progress;
5. Review of submittals schedule and status of submittals;
6. Review of off-site fabrication and delivery schedules;
7. Maintenance of progress schedule;
8. Corrective measures to regain projected schedules;
9. Planned progress during succeeding work period;
10. Coordinate of projected progress;
11. Maintenance of quality and work standards;
12. Effect of proposed changes on progress schedule and coordination;
13. Other business relating to Work.

SECTION 26 - CONTRACT CLOSEOUT

26.1 DESCRIPTION
Scope of Work: Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.

26.2 FINAL COMPLETION & INSPECTION

1. When Contractor considers the Work is complete, he shall submit written certification that: (1) Contract Documents have been reviewed, (2) Work has been inspected for compliance with Contract Documents, (3) Work has been completed in accordance with Contract Documents, (4) equipment and systems have been tested in the presence of the City's representative and are operational, and (5) Work is completed and ready for final inspection.

2. The Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

3. Should the Engineer consider that the work is incomplete or defective: (1) the Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work, (2) Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the Engineer that the Work is complete, and (3) the Engineer will re-inspect the Work.

4. When the Engineer finds that the Work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

26.3 REINSPECTION FEES

Should the Engineer perform re-inspection due to failure of the Work to comply with the claims of status of completion made by the Contractor, (1) the Contractor will compensate the City at their request for such additional inspection services, and (2) the City will deduct the expenses incurred for such inspection services.

26.4 CONTRACTOR'S CLOSEOUT SUBMITTALS

26.4.1 The Contractor shall submit to the Engineer the following documentation:

1. Evidence of compliance with requirements of governing authorities that issued permit or have jurisdiction over Work;
2. Warranties and Bonds;
3. Evidence of Payment and Release of Liens;
4. Project Record Documents that show the final location, by reference to at least two completed, visible improvements or other permanent control points, of the completed improvements for this project, verification of all design dimensions, any revisions to the Plans, and all other information necessary to horizontally and vertically locate and operate the improvements constructed under this Contract. Information to be shown includes the location of the drainage structures, signs, lighting, irrigation system, landscaping, sidewalks, roadway improvements and all culvert pipes, the elevations referenced to NGVD 1929 of the control structure tops, bottom inverts, and the elevations of all pipe inverts. No erasures are permitted. Where changes occur, cross out design information and denote constructed information. Other items to be shown on the Record Drawings include:
5. Any changes or verifications get marked.
6. Mark out all "proposed" or "constructs."
7. Draw in all changes to location of pipe, structures, etc.
8. Draw in a detail box of any substantial changes.
9. Mark location and footage of all culverts.
10. Mark all elevations for grates and pipe inverts.
11. Mark all grades and spot elevations of roadways at 500 feet spacing or less.
12. Canal cross-sections at 500 feet spacing.

The Contractor shall submit four (4) sets of signed and sealed Record Drawing prints, and two electronic As-Built Drawings supplied in digital format (AutoCAD).

END OF SECTION