PROJECT MANUAL FOR

WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

PENSACOLA

FLORIDA'S FIRST & FUTURE

Bid No. 26-034

CITY OF PENSACOLA
DEPARTMENT OF ENGINEERING AND PUBLIC WORKS
ENGINEERING AND CONSTRUCTION SERVICES
APRIL 2026

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Bid No. 26-034

WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

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THE CITY OF PENSACOLA, FLORIDA
INVITATION TO BID
BID NO. 26-034

WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

A sealed, complete hardcopy bid **with original (or electronic) signature**, and **one (1) complete and identical electronic copy (PDF) on flash drive or CD** will be received on **May 21, 2026, 2:30 P.M.**, local time, at the following location.

City Hall (lobby)
222 West Main Street
Pensacola, Florida, 32502
Attention: Purchasing

The OUTER FACE of the sealed submittal package shall **identify the respondent, the bid title, and the bid number** (whether hand-delivered, mailed, or via UPS/FedEx or other courier service). Submittals received after the closing time will not be accepted. Multiple submittals from the same entity will not be accepted. After the submittal deadline those submittals received will be opened and publicly acknowledged. Interested parties may attend.

Alternatively, electronic responses may be submitted to Demandstar or Central Bidding. Both sites require registration and varying fees for notifications and document downloads.

NOTE: *If submitting an electronic response and **IF** a bid/proposal bond is required:*

- An insurance company's executed surety bond **may be included** with the electronic submittal.
  OR
- An insurance company's executed surety bond, a certified check, or a cashier's check **must be delivered** to the address above.

Those submittals received will be opened and publicly acknowledged the **following business day** *(May 22, 2025, 10:00 A.M., Central time)* via Microsoft Teams at the following link*: Microsoft Teams bid opening link.

Specifications will be posted to the City's website at www.cityofpensacola.com/bids.aspx. Addenda will be posted to the City's website. Bidders are responsible for obtaining addenda and are advised to check the website frequently. There is no cost to view or download documents from the City website.

In order to review the project requirements, an **optional** pre-bid meeting will be held at **10:00 A.M., May 1, 2026**, via Microsoft Teams at the following link: Microsoft Team Pre-Bid Meeting Link.

Bidders shall submit a cashier's check or bid bond, payable to the City of Pensacola in the amount of **five percent (5%) of the base bid** for a period of sixty (60) days.

Any questions concerning the bid should include the Subject Line: **BID # - RFI**, and should be addressed and submitted in writing **no later** than 10:00 A.M., local time, **May 8, 2026**, to:

Dedria Lunderman, Purchasing Manager
City of Pensacola
222 W. Main St.
Pensacola, FL 32502
purchasing@cityofpensacola.com

A bid tabulation or a Notice of Intent to Award will be posted to the City's website at www.cityofpensacola.com/bids.aspx. Bidders are advised to check the website frequently.

The City of Pensacola adheres to the Americans with Disabilities Act and will make reasonable accommodations for access to City services, programs, and activities. Please email ADACoordinator@cityofpensacola.com or call (850) 436-5600. Requests must be made at least 48 hours in advance of the event in order to allow the City time to provide the requested services.

The City of Pensacola reserves the right to accept or reject any or all bids, to award bids on a split-order basis by item number when applicable, to waive any bid informalities and to re-advertise for bids when deemed in the best interest of the City of Pensacola.

Attest:
Ericka L. Burnett
City Clerk

CITY OF PENSACOLA
D. C. Reeves
Mayor

The City of Pensacola provides equal access in employment and public services.

Participation in a Microsoft Teams meeting requires a microphone and speakers; however, webcams are optional. Participants may join the meeting either via a PC or Smartphone. Please be sure to check the system requirements at the following link: https://docs.microsoft.com/en-us/microsoftteams/hardware-requirements-for-the-teams-app.

SECURITY NOTICE

Visitors to City Hall are required to stay in the lobby unless otherwise directed.

Late submittals will not be accepted.

PURCHASING GENERAL CONDITIONS

To ensure acceptance, all bidders submitting bids to the City of Pensacola shall be governed by the following conditions, attached specifications, and bid form(s) unless otherwise specified. Bids not submitted on the bid form(s) provided shall be rejected, and bids not complying with these conditions will be subject to rejection. **Multiple submittals from the same entity will not be accepted.**

1. **Approved Equivalents or Equals:** Any manufacturer's names, trade names, brand names, model numbers, etc. listed in the specifications are for information only and not intended to limit competition. The Bidder may offer any brand for which he is an authorized representative, which meets or exceeds the specifications as written. If the bid is based on an "approved equivalent or equal" item(s) or service(s), supportive information in the form of the manufacturer's printed literature or brochures, sketches, diagrams, and/or complete specifications must accompany the bid. The bidder must explain in detail the reasons why the proposed equivalent or equal will meet specifications and not be considered an exception thereto. The City of Pensacola reserves the right to determine acceptance of proposed equivalent or equal item(s) or service(s).

2. **Award of Bids:** Recommendations for award of bids are made to the Mayor or City Council based on the lowest and best responsible bidder meeting all conditions and requirements of the specifications.

3. **Bid Bond: The particular item(s) or service(s) outlined within the attached specifications require(s) that a certified check, cashier's check, or insurance company's executed bond made payable to the City of Pensacola accompany your proposal as specified in the Invitation to Bid. To ensure its prompt return, please include the company's name and return address on the face of your good faith check or draft.** Checks or drafts accepted as good faith deposits will be retained within the City's Finance Department until award and execution of contract is complete, or until a purchase order is issued to the successful proposer. Any proposer withdrawing his proposal after the proposal opening forfeits the right of return of his good faith deposit.

4. **Bid Withdrawal:** No bid may be withdrawn after closing time for receipt of bids for a period of sixty (60) days thereafter. The contract award shall be legally binding at the time of award by Mayor or City Council.

5. **Delivery:** Bid quotations shall include all freight costs to Pensacola, Florida to a point(s) specified herein or specified at the time the purchase order is placed. No title to the item(s) or service(s) ordered nor any risk of loss shall be passed to the City of Pensacola until after receipt of delivery has been acknowledged by an authorized representative of the City of Pensacola.

6. **Discounts:** Terms offering a discount for prompt payment will be considered in determining the low bid. The discount period shall begin whenever (1) the conditions of the specifications have been fully met and the product or service judged acceptable to the City of Pensacola or (2) a correct invoice and other required documents have been received, whichever is later. Discounts offered for a period of less than thirty (30) days will not be considered in determining low bid.

7. **E-Verify System (Mandatory):** In compliance with the provisions of F.S. 448.095, the parties to this contract and any subcontractors engaged in the performance of this contract hereby certify that they have registered with and shall use the E-Verify system of the United States Department of Homeland Security to verify the work authorization status of all newly hired employees, within the meaning of the statute.

8. **Exceptions to Specifications:** During the drafting of written specifications, a sincere effort is made to describe products and services best suited to the needs of the City; however, in order that consideration be given in evaluating bids, any exceptions to or deviations from the specifications as written must be noted and fully explained. The Mayor is the final authority in determining the acceptability of any exceptions to specifications.

9. **Governing Law:** The laws of the State of Florida shall be the laws applied in the resolution of any action, claim or other proceeding arising out of this contract.

10. **Identical Tie Bids:** In the event that two or more bids are identical in price, preference shall be given to business with Drug-Free Workplace Programs. A Drug-Free Workplace Certificate is enclosed.

11. **Intent of Specifications:** It is the intent of the specifications attached hereto to set forth and describe a certain item(s) or service(s) to be purchased by the City of Pensacola including all materials, equipment, machinery, tools, apparatus, and means of transportation (including freight costs) necessary to provide the item(s) or service(s).

12. **Interpretations:** All questions concerning the specifications or conditions shall be directed in writing to the Purchasing Office at least ten (10) days prior to submittal deadline, unless otherwise instructed on the Invitation to Bid Page. Inquiries must reference the bid item(s) or service(s) and the date of the bid submittal deadline. Interpretations will be made in the form of an addendum placed on the City's website. The City shall not be responsible for any other explanation or interpretation.

13. **Legal Requirements:** All applicable provisions of Federal, State, County, and local laws including all ordinances, rules, and regulations shall govern the development, submittal and evaluation of all bids received in response to these

specifications, and shall govern any and all claims between person(s) submitting a bid response hereto and the City of Pensacola, by and through its officers, employees and authorized representatives. A lack of knowledge by the bidder concerning any of the aforementioned shall not constitute a cognizable defense against the legal effect thereof. The Bidder agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability.

14. **Licenses, Registration and Certificates:** Each bidder shall possess at the time of submitting its bid all licenses, registration and certificates necessary to engage in the business of contracting (or special contracting if the work to be performed necessitates a particular type of specialty contractor) in the City of Pensacola. Bidder must also possess all licenses, registrations and certificates necessary to comply with federal, state and local laws and regulations. The awarded bidder shall be registered at the time of contract execution as an active vendor with the Florida Department of State, Division of Corporations (www.sunbiz.org).

15. **Mistakes:** Bidders are expected to examine the conditions, scope of work, proposal prices, extensions, and all instructions pertaining to the item(s) or service(s) involved. Failure to do so will be at the bidder's risk. Unit prices bid will govern in award.

16. **Payment of Invoices:** The City of Pensacola issues checks for payment of invoices on the 10th of each month. The signed receiving copy of the purchase order and a correct invoice must have been received by Accounts Payable Activity prior to the 4th of the month. Item(s) or service(s)s received on or after the 4th will be processed in the following month. All invoices are payable by the City under the terms of Florida Prompt Payment Act, Florida Statute §218.70. All purchases are subject to availability of funds in the City's budget.

17. **Permits and Taxes:** The bidder shall procure all permits, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Bidders who use public roads of the City of Pensacola, Florida for transport of goods of any kind which said goods were transported from a point without the City of Pensacola, Florida to a point within the City of Pensacola shall obtain a "Use of Streets" permit for a fee not in excess of the license paid for by local licensees engaged in the same business.

18. **Pre-Bid Meetings:** If a bid requires a mandatory pre-bid meeting, any representative of a firm wishing to submit a bid must sign in with the name of the bidding firm.

19. **Prohibited Conduct by Bidders:** Upon the publication of any solicitation for sealed bids, requests for proposals, requests for qualifications, or other solicitation of interest or invitation to negotiate by any authorized representative of the City of Pensacola, any party interested in submitting a bid, proposal, or other response reflecting an interest in participating in the purchasing or

contracting process shall be prohibited from engaging in any communication **pertaining to formal solicitations** with the Mayor, any member of Pensacola City Council or any member of a selection/evaluation committee for RFPs/RFQs, whether directly or indirectly or through any representative or agent, whether in person, by mail, by facsimile, by telephone, by electronic communications device, or by any other means of communication, until such time as the City has completed all action with respect to the solicitation.

20. **Protests:** Protests of the plans, specifications, and other requirements of bids and requests for proposals must be received in writing by the Purchasing Office at least ten (10) business days prior to the scheduled bid submittal deadline. A detailed explanation of the reason for the protest must be included. Protests of the intended award of bid or contract must be in writing and received in the Purchasing Office within five (5) business days of the notice of intent to award. A detailed explanation of the protest must be included.

21. **Public Entity Crimes:** By submitting a proposal each proposer is confirming that the company has not been placed on the convicted vendors list as described in Florida Statute §287.133 (2) (a).

22. **Public Records:** Any material submitted in response to this Invitation to Bid will become a public document pursuant to Florida Statute §119.07. This includes material which the responding bidder might consider to be confidential or a trade secret. Any claim of confidentiality is waived upon submission, effective after opening the bid pursuant to Florida Statute §119.07.

23. **Public Records Law:** The Parties shall each comply with Florida Public Records laws. The Parties hereby contractually agree that each Party shall allow public access to all documents, papers, letters, or other public records as defined in Chapter 119, Florida Statutes, made or received by either Party in conjunction with this agreement, or related thereto, unless a statutory exemption from disclosure exists. Notwithstanding any provision to the contrary, it is expressly agreed that Contractor's failure to comply with this provision, within seven (7) days of notice from the City, shall constitute an immediate and material breach of contract for which the City may, in the City's sole discretion, unilaterally terminate this agreement without prejudice to any right or remedy.

24. **Rejection of Bids:** The City of Pensacola reserves the right to accept or reject any or all bids, to award bids on a split-order basis by item or service number, to waive any minor bid irregularities, technicalities, or informalities, and to re-advertise for bids when deemed in the best interest of the City of Pensacola.

25. **Sealed Response:** All executed City forms must be submitted. All responses must be signed by an authorized representative of the proposer.

A. Hardcopy response: In the event more than one submittal deadline is scheduled for the same date and time, do not include responses concerning

different sets of specifications within the same envelope. The face of the sealed envelope shall be plainly marked identifying the responder, the bid/RFP/RFQ title and number. It shall be the sole responsibility of the respondent to assure receipt of the submittal at the Purchasing Office prior to the published time for the submittal deadline.

B. Electronic response: Respondent may submit an electronic submittal to the sites mentioned on page 1. Offers by telephone, fax, or email will **NOT BE ACCEPTED**.

26. **Tax:** The City of Pensacola is exempt from all State and local sales tax.

27. **Unauthorized Aliens:** The City of Pensacola shall consider the employment by any contracted vendor of unauthorized aliens a violation of Section 274A of the Immigration and Nationality Act. Such violation shall be cause for unilateral termination of this contract.

28. **Venue:** Venue for any claim, action or proceeding arising out of this contract shall be Escambia County, Florida.

ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THESE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

INSURANCE AND INDEMNIFICATION

GENERAL

Before starting and until termination of work for, or on behalf of the **City**, the Contractor shall procure and maintain insurance of the types and limits specified.

The term City, as is used in this section, is defined to mean the City of Pensacola, itself, any subsidiaries or affiliates, elected and appointed officials, employees, volunteers, representatives and agents.

COVERAGE

Insurance shall be issued by an insurer whose business reputation, financial stability and claims payment reputation is satisfactory to the City, for the City's protection only. Unless otherwise agreed, the amounts, form and type of insurance shall conform to the following minimum requirements.

Worker's Compensation

The Contractor shall purchase and maintain Worker's Compensation Insurance Coverage for all Workers' Compensation as legally required. Additionally, the policy, or separately obtained policy, must include Employers Liability Coverage of at least $100,000 each person – accident, $100,000 each person – disease, $500,000 aggregate – disease.

Commercial General, Automobile, Contractor's Pollution Liability and Umbrella Liability Coverages

The Contractor shall purchase coverage on forms no more restrictive than the latest editions of the Commercial General Liability, Business Auto, and Contractor's

Pollution Liability policies filed by the Insurance Services Office. **The City of Pensacola shall be an Additional Insured** and such coverage shall be at least as broad as that provided to the Named Insured under the policy for the terms and conditions of this Contract. The City shall not be considered liable for premium payment, entitled to any premium return or dividend and shall not be considered a member of any mutual or reciprocal company. Minimum limits of $3,000,000 per occurrence, and per accident, combined single limit for liability must be provided, with umbrella insurance coverage making up any difference between the policy limits of underlying policies coverage and the total amount of coverage required. If the required limits of liability afforded should become impaired by reason of any claim, then the Contractor agrees to have such limits of $3,000,000 per occurrence, reinstated under the policy.

Commercial General Liability coverage must be provided, including bodily injury and property damage liability for premises, operations, products and completed operations (including pollution related claims), independent contractors, and property damage resulting from, explosion, collapse or underground (x,c,u) exposures. The coverage shall be written on occurrence-type basis.

Business Auto Policy coverage must be provided, including bodily injury and property damage arising out of operation, maintenance or use of owned, non-owned and hired automobiles and employee non-ownership use.

Contractor's Pollution Liability coverage for bodily injury, property damage, fines, penalties, defense, and clean up must be included. Coverage must include both sudden/accidental and non-sudden/gradual. **A minimum limit of $2,000,000 per occurrence is acceptable for this specific coverage requirement.**

Umbrella Liability Insurance coverage shall not be more restrictive than the underlying insurance policy coverage(s). The coverage shall be written on an occurrence-type basis

CERTIFICATES OF INSURANCE

Required insurance shall be documented in the Certificates of Insurance which provide that the City shall be notified at least thirty (30) days in advance of cancellation, non-renewal or adverse change or restriction in coverage. **The City shall be named as an Additional Insured** and this contract shall be listed. If required by the City, the Contractor shall furnish copies of the Contractor's insurance polices, forms, endorsements, jackets and other items forming a part of, or relating to such policies. Certificates shall be on the "Certificate of Insurance" form equal to, as determined by the City, an ACORD 25. **Any wording in a Certificate which would make notification of cancellation, adverse change or restriction in coverage to the City an option shall be deleted or crossed out by the insurance carrier or the insurance carrier's agent or employee**. If on an ACORD 25 or similar form, the words "endeavor to" and "but failure..." shall be deleted so that the sentence ends with the word "left" or signed endorsements for the cancellation clauses MUST accompany Certificate(s) of

Insurance. The Contractor shall replace any canceled, adversely changed, restricted or non-renewed policies with the new policies acceptable to the City and shall file with the City, Certificate of Insurance under the new policies prior to the effective date of such cancellation, adverse change or restriction. If any policy is not timely replaced, in a manner acceptable to the City, the Contractor shall, upon instructions of the City, cease all operations under the Contract until directed by the City in writing, to resume operations.

INSURANCE OF THE CONTRACTOR PRIMARY

The Contractor required coverage shall be considered primary, and all other insurance shall be considered as excess, over and above the Contractor's coverage. The Contractor's policies of coverage will be considered primary as relates to all provisions of the contract.

LOSS CONTROL AND SAFETY

The Contractor shall retain control over its employees, agents, servants, and subcontractors, as well as control over its invitees, and its activities on and about the subject premises and the manner in which such activities shall be undertaken and to that end, the Contractor shall not be deemed to be an agent of the City. Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall make special effort to detect hazards and shall take prompt action where loss control/safety measures should reasonably be expected.

HOLD HARMLESS

The Contractor shall indemnify and hold harmless the City of Pensacola, its officers and employees, from any and all liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of this contract. The Contractor's obligation shall not be limited by, or in any way to, any insurance coverage or by any provision in or exclusion or omission from any policy of insurance.

PAY ON BEHALF OF THE CITY

The Contractor agrees to pay on behalf of the City, as well as provide a legal defense for the City, both of which will be done only if and when requested by the City, for all claims as described in the Hold Harmless paragraph. Such payment on the behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

GOVERNING LAW AND VENUE

This Contract is governed and construed in accordance with laws of the State of Florida. The law of the State of Florida shall be the law applied in the resolution of any claim, actions or proceedings arising out of the Contract. Venue for any claim, actions or proceedings arising out of this Contract shall be Escambia County, Florida.

INSTRUCTIONS TO BIDDERS

1. AWARD OF CONTRACT

A. The contract will be awarded as soon as practicable to the lowest responsible bidder, price and other factors considered, provided their bid is reasonable and it is to the interest of the City to accept it.
B. The City reserves the right to waive any informality in bids received when such waiver is in the interest of the City. In case of error in the extension of prices, the unit price will govern.
C. The City further reserves the right to accept or reject any or all items of any bid, unless the bidder qualifies such bid by specific limitations; also to make an award to the bidder whose aggregate bid on any combination of bid items is low.

2. BID OPENING

At the time fixed for the opening of bids, their contents will be made public for the information of bidders and others properly interested.

3. BIDDERS INTERESTED IN MORE THAN ONE BID

If more than one bid is offered by any one party, by or in the name of their clerk, partner, or other person, all such bids will be rejected. A party who has quoted prices to a bidder is not thereby disqualified from quoting prices to other bidders or from submitting a bid directly for the work.

4. BIDDER'S QUALIFICATIONS

Before a bid is considered for award, the bidder may be requested by the City to submit a statement of facts in detail as to their previous experience in performing similar or comparable work, and of their business and technical organization and financial resources and plant available to be used in performing the contemplated work. A minimum of 5 qualifying project references may be required from previous or current project owners. These references shall be specific to the prime contractor’s experience; experience of the subcontractor cannot be substituted should the prime contractor fail to meet the requirements of this section. These references shall be from specific projects of similar size and scope. At least 3 of the 5 shall be from another government municipality, especially if the bidder has not contracted with the City on projects of a same/similar nature within the previous five (5) years of the bid date. No references will be considered in which the bidder worked under a different company name or in which the bidder worked as a subcontractor to a prime contractor. The City reserves the express right to not award a contract to a

bidder if the provided references do not reveal that the contractor has ample/adequate experience beyond a reasonable doubt to complete the project according to the plans and specifications and within the time frame stipulated.

5. COMMENCEMENT & COMPLETION

The bidder further proposes and agrees hereby to commence the work with an adequate force and equipment within **(10)** consecutive calendar days after being notified by the City of Pensacola to do so; and to complete the work and testing within sixty (**60)** calendar days after the commencement date set by the City of Pensacola and to pay as delay day penalty the sum of **$500** for each and every calendar day used for the completion of the work in excess of that heretofore stated.

6. CONDITIONS AT SITE OF WORK

Bidders shall be responsible to visit the site to ascertain pertinent local conditions readily determined by inspection and inquiry, such as the location, and general character of the site, labor conditions, the character and extent of existing work within or adjacent thereto, and any other work being performed thereon.

7. DECLARATIONS

The bidder hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respect fair and in good faith without collusion or fraud.

The bidder further declares that he has examined the site of the work and has informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the plans and specifications for the work and the contractual documents relative thereto, including the Advertisement, Proposal Form, Form of Contract, General Conditions, and all specific conditions; and that he has satisfied himself relative to the work to be performed.

The bidder proposes and agrees, if this Proposal is accepted, that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability and to contract with the City of Pensacola in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and labor

necessary to complete the project.

8. EXPLANATION TO BIDDER

Any explanation desired by bidders regarding the meaning or interpretation of drawings and specifications must be requested in writing and with sufficient time allowed for a reply to reach them before the submission of their bids. Oral explanations or instructions given before the award of the contract will not be binding. Any interpretation made will be in the form of an addendum to the specifications or drawings and will be furnished to all bidders, and its receipt by the bidder shall be acknowledged.

9. LICENSING REQUIREMENT

Each bidder shall possess at the time of submitting its bid all licenses, registration and certificates necessary to engage in the business of contracting (or special contracting if the work to be performed necessitates a particular type of specialty contractor) in the City of Pensacola. Bidder must also possess all licenses, registrations and certificates necessary to comply with federal, state and local laws and regulations. The awarded bidder shall be registered at the time of contract execution as an active vendor with the Florida Department of State, Division of Corporations (www.sunbiz.org).

Bidder for the project shall hold one or more of the following licenses in order to submit a bid and have qualifying experience relative to the subject project.

A. Florida Licensed General Contractor
B. Florida Licensed Underground Utility Contractor

10. LIEN RELEASE AND AFFIDAVIT

Each Application for Payment shall be accompanied by a Lien Release and Affidavit from each subcontractor and each supplier showing that all materials, labor, equipment and other bills associated with that portion of the work in which payment is being requested for have been paid in full. The City shall not be required to make payment until and unless these affidavits are furnished by the Contractor.

11. PENALTIES

The bidder further agrees that in case of failure on his part to execute the said Contract and Bond within **(10)** calendar days after written notice being given of the award of the Contract, the check or bid bond accompanying this bid, and the monies payable thereon, shall be paid into the funds of the City of Pensacola as delay day penalties for such

failure; otherwise, the check or bid bond accompanying the Proposal shall be returned to the undersigned.

12. PREPARATION OF BIDS

A. Bids shall be submitted on the forms furnished or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each such erasure or change must be initialed by the person signing the bid.

B. The form of bid will provide for quotation of a price, or prices, for one or more items which may be lump sum bids, alternate prices, scheduled items resulting in a bid on a unit of construction or a combination thereof. Where required on the bid form, bidders must quote on all items and they are warned that failure to do so may disqualify the bid. When quotations on all items are not required, bidders should insert the words “no bid” in the space provided for any item on which no quotation is made.

13. RECEIPT AND OPENING OF BIDS

No responsibility will attach to any City employee for the premature opening of, or the failure to open, a bid not properly addressed and identified.

14. REJECTION OF BIDS

The City reserves the right to reject any and all bids when such rejection is in the interest of the City; to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of a similar nature; and to reject the bid of a bidder who is not, in the opinion of the Engineer, in a position to perform the contract.

15. SPECIAL CONDITIONS

A. **Public Entity Crimes** - Any person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

B. All bidders are advised that compliance with The Occupational Safety and Health Administration Excavation Safety Standards, 29 C.F.R.s

1926.650-652 of Sub part P will be required.

C. The Contractor agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age or disability.
D. Florida State Statute 93.240 under section 556.101 through 556.111 requires that all excavators notify gas companies of their intention to perform any excavation at least forty- eight (48) hours (excluding Saturday, Sundays and holidays) prior to beginning work. If excavating, digging, boring, tunneling, blasting or otherwise disturbing the earth in any manner where a buried gas line may be damaged is proposed, please call the toll free number 1-800-432-4770 between the hours of6:30 a.m. and 4:00 p.m. CST Monday through Friday, forty-eight (48) hours before starting the proposed work, (weekends and holidays excluded).

   Contractor shall notify all utility companies to locate and mark all utility facilities forty-eight (48) hours before starting any excavation.
E. The general contractor will submit a maintenance traffic plan which will satisfy the traffic conditions outlined in the general notes.
F. The general contractor shall post the construction site with "NO TRESPASSING" signs, to prevent amateur archaeologists from entering the site without authorization.

Bid. 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

SCOPE OF WORK
April 20, 2026

Wayside Park East at 17th Avenue and Bayfront Parkway has fallen into disrepair due to its age, and this was made far worse by hurricane damage. The park's boat ramps, and dock were damaged during Hurricane Sally, the parking lot pavement is in poor condition and lacks current accessibility features, and the boardwalk north of the railroad track needs replacement. Additionally, the northbound approach to "Graffiti Bridge" is notorious for generating truck strikes on the low bridge. This project works in conjunction with FDOT to install a state-of-the-art advanced warning system alerting truck drivers of the low bridge hazard well before the bridge. Overall, road and park safety and accessibility are greatly improved by the successful completion of this project.

BASE BID - BOAT RAMP, PARKING LOT, PEDESTRIAN PATHWAY

The main goal of this project is to improve the parking lot and boat facilities at Wayside Park East. This includes the removal and demolition activities related to the existing pavement. This also includes the stabilization of the shoreline, erosion and sedimentation control, preparation of subgrade, base, asphalt and concrete pavement for the new parking lot and sidewalks.
Additionally, the existing boat ramp is dilapidated and shall be restored to a new condition. This includes the addition of accessible pathways and parking to provide access for all mobilities.
All pavement markings and striping shall be thermoplastic and shall be placed as called for in the plans and specifications.
Generally, dewatering, sediment and erosion control, sod work and maintenance of traffic is to be expected.

BID ALTERNATE #1 - PEDESTRIAN UNDERPASS AND BOARDWALK DEMO & REPLACEMENT

The existing boardwalk on the north side of the railroad tracks in the center of the project does not meet ADA standards and shall be demolished within this alternate scope, and necessary clearing and grubbing may be performed during this stage. Continuing from the end of the base-bid sidewalk, a "standard" gray concrete sidewalk shall be constructed approaching the railroad trestle. A new, covered and lighted boardwalk shall be constructed under the trestle continuing the walkway from the parking lot. The covered portion extends to the edge of the railroad north right-of-way, where the boardwalk turns westward toward 17th Avenue. At the end of the new boardwalk, an ADA compliant sidewalk shall be constructed that connects to the existing 17th Avenue sidewalk. All permitting and costs pertaining to the railroad ROW shall be considered in the bid price, and expected line-items are included in the

quantities sheet. Bid alternate #1 includes protection for several protected trees in the boardwalk vicinity. This protection shall be inspected by the City regularly through the duration of the project.

BID ALTERNATE #2 - DEMOLITION AND REPLACEMT OF BOAT DOCK

Bid alternate #2 calls for the complete removal of the existing boat dock, existing sheet piling, and remaining structure, and the construction of a new dock as shown in the plans. This alternate scope includes the potion of new, gray sidewalk leading from the existing sidewalk on the southwest side of the park to the dock. This does not include the concrete apron for the adjacent boat ramp, or the “temporary tie-down parking” adjacent to the sidewalk. All other sidewalk portions not mentioned are excluded from this alternate scope.

BID ALTERNATE #3 - (LBAWS) DETECTION AND WARNING SYSTEM

Bid alternate #3 calls for the installation of the advanced warning system for overheight vehicles approaching the railroad bridge. This includes the installation of electric and signal equipment, signs, poles, CCTV equipment and a specialized MOT plan.

Additional Scope of Work Notes:

The LS Maintenance of Traffic item shall include all signs, devices and other cost associated with maintaining traffic during the project. While not anticipated or required, contractor may elect to perform portions of this project as night work.

In the area of intersection with existing asphalt, pavement interface shall be saw cut and the perimeter milled to provide a clean seam between existing and proposed asphalt. Care shall be exercised to not cause any damage to adjacent infrastructure being left inplace during reconstruction. Any such damage shall be the responsibility of the contractor.

Due to the proximity to Pensacola Bay and adjoining waters, erosion and sedimentation control is paramount and will be tightly enforced.

All grade work and elevations shall reflect the design information provided in the construction plans. All proposed line and grade work shall be approved by the City Inspector.

Contractor’s work shall include the necessary coordination of all existing utilities with respective owners and to timely address any potential conflicts with required work. All sod placed shall be properly watered and maintained until permanently rooted/established to the satisfaction of the City.

Maximum access shall be always provided to the property and owners during construction.

Due to the nature of the project, it is required that bidders visit the site and thoroughly review the plans and specifications.

All work shall be in accordance with the standards and specifications of the City of Pensacola.

PROPOSAL
BID NO. 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

AMOUNTS, WRITTEN AND NUMERAL, MUST BE TYPED.

Base Bid

_____

(Written)

($_____)

Bid Alternate #1 - Pedestrian Connection & Sidewalk

_____

(Written)

($_____)

Bid Alternate #2 - Demo and Replace of Boat Dock

_____

(Written)

($_____)

Bid Alternate #3 - LBAWS (Detection and Warning System)

_____

(Written)

($_____)

**A quantity sheet must be filled out and included for the submittal to be considered.*

Bid Security in the proper form and in the amount of five percent of the base bid is submitted.

Dunns#/UEID: _____ (Federal Transparency Act Reporting Requirement)

Florida Department of Professional Regulation
Contractor's Certification or Registration

No. _____Expiration Date

Survey: How did you obtain this solicitation?

☐ City of Pensacola website ☐ Central Bidding ☐ Demandstar

Other:_____

Signature_____Date:_____

Printed Name: _____ Title: _____

Company:_____ Address:_____

Telephone:_____ City:_____

Fax:_____ State:_____Zip:____

E-mail:_____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS
QUANTITY SHEET

Company Name:_____

BASE BID LINE ITEMS (including demolition and					
No	**Category**	**Quantity**	**Units**	**Unit Price**	**Total Cost**
1	Mobilization & Demobilization	1	LS		
2	Clearing and Grubbing, incl. Trees <13"	2	ACRE		
3	Dewatering	30	DAY		
4	Earthwork, Excavate, Haul, and Install, On-Site	750	CY		
5	Remove and Replace Unsuitable Materials	75	CY		
6	2.5" Type SP 12.5" Asphalt, more than 1500sy	2895	SY		
7	6" Concrete Pavement	376	SY		
8	Remove Existing Asphalt, 2" Average Depth	3865	SY		
9	Saw Cut Existing Asphalt	224	LF		
10	18" Stabilized Subgrade, more than 1000sy	3271	SY		
11	8" Graded aggregate Base "Min. LBR 100 at 100% Modified Proctor", less than 1000sy	3260	SY		
12	"Develop and provide a MOT traffic safety plan, both map type and written type, by a Certified Work Zone Safety Traffic	1	EA		
13	Concrete, Ribbon Curb, 1' Wide	55	LF		
14	FDOT Type E Curb and Gutter	30	LF		
15	FDOT Type F Curb and Gutter	648	LF		
16	FDOT Valley Gutter	50	LF		
17	Fiber Reinforced Concrete Sidewalk, over 80lf	183	LF		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS
QUANTITY SHEET

Company Name:_____

BASE BID LINE ITEMS (including demolition and construction of dock)

No	Category	Quantity	Units	Unit Price	Total Cost
18	Curb Ramp, Concrete	4	EA		
19	Detectable Warning Surface	115	SF		
20	Saw Cut Existing Concrete, up to 6" thick	50	LF		
21	Remove Existing Concrete, up to 6" thick	96	SY		
22	Remove Existing Curb	125	LF		
23	Sign Assembly, F&I Ground Mount, Less than 12	6	AS		
24	Sign Assembly, F&I Ground Mount, Less than 12	2	AS		
25	Pavement Marking, White, Thermoplastic, Stripe, 4"	1,120	LF		
26	Pavement Marking, Blue, Thermoplastic, Stripe, 4"	83	LF		
27	Handicap Parking Space Symbol, Thermoplastic	1	EA		
28	Pavement Marking, White, Thermoplastic, Stop	43	LF		
29	Sod, Pensacola Bahia, Staked	7,260	SY		
30	Coastal Vegetative Ground Cover	300	SY		
31	Flex-A-Mat Standard or Approved Equal	140	SY		
32	Silt Fence Type IV	600	LF		
33	Turbidity Barrier	220	LF		
34	Inlet Protection System	4	EA		
35	Tree Protection Barriers (as required)	4	EA		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS
QUANTITY SHEET

Company Name:_____

BASE BID LINE ITEMS (including demolition and construction of dock)

No	Category	Quantity	Units	Unit Price	Total Cost
36	Construct Stabilized Gravel Construction Entrance	115	SY		
38	NPDES Construction General Permit, NOI, and NOT (including SWPPP and monitoring), for use only with disturbed areas over 1.0	1	EA		
39	Arborist Services	1	LS		
40	Utility Coordination	1	LS		
41	As-Built Preparation	1	LS		
				BASE BID TOTAL	

BID ALTERNATE #1 - PEDESTRIAN CONNECTION & BOARDWALK

No	Category	Quantity	Units	Unit Price	Total Cost
1	Mobilization	4	EA		
2	Mobilization (Specialty Contractor)	1	EA		
3	Clearing and Grubbing	0.25	ACRE		
4	Railroad Right-of-Entry	1	LS		
5	Railroad Flagging (Basem Weekday Rate without Overtime)	45	DAY		
6	Earthwork, Excavate, Haul, and Install, On-Site	100	CY		
7	Remove and Replace Unsuitable Materials	20	CY		
8	Fiber Reinforced Concrete Sidewalk, under 80lf	180	LF		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS
QUANTITY SHEET

Company Name:_____

BID ALTERNATE #1 - PEDESTRIAN CONNECTION & BOARDWALK

No	Category	Quantity	Units	Unit Price	Total Cost
9	Remove Existing Boardwalk and Piles	1	LS		
10	Elevated Boardwalk, Furnish & Install, incl. Fall Protection	1	LS		
11	Fencing, Chainlink	263	LF		
12	Silt Fence Type IV	1090	LF		
13	Inlet Protection System	5	EA		
14	Pedestrian Underpass Piles	8	EA		
15	Pedestrian Underpass Canopy & Concrete Pad	1	LS		
16	Pedestrian Underpass Electrical & Lighting	1	LS		
				BID ALTERNATE #1 TOTAL	

BID ALTERNATE #2 - DEMOLITION AND REPLACEMENT OF BOAT DOCK

No	Category	Quantity	Units	Unit Price	Total Cost
1	Mobilization	1	EA		
2	Mobilization (Specialty Contractor)	1	EA		
3	Remove Existing Dock and Piles	1	LS		
4	Elevated Dock, Furnish & Install, incl. Req'd. Fall Protection	1	LS		
5	Fiber Reinforced Concrete Sidewalk, under 80lf	50	LF		
				BID ALTERNATE #2 TOTAL	

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034
WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS
QUANTITY SHEET

Company Name:_____

BID ALTERNATE #3 – LBAWS (DETECTION AND WARNING SYSTEM)

No	Category	Quantity	Units	Unit Price	Total Cost
1	Mobilization	4	EA		
2	Mobilization (Specialty Contractor)	1	EA		
3	"Develop and provide a MOT traffic safety plan, both map type and written type, by a Certified Work Zone Safety Traffic Supervisor	1	EA		
4	Clearing & Grubbing	1	LS"		
5	Aluminum Signals Pole, Pedestal	4	EA		
6	Trigg Industries Z-Pattern Infrared Sensor Package (or equal)	2	EA		
7	CCTV Hardware, Mounting, and Installation	1	LS		
8	Engineering, Controls, Power, and System	1	LS		
9	On-Site Support Travel	1	TRIP		
10	On-Site Labor	3	DAY		
11	Blank-Out Sign with Flashing Beacons OVERHEIGHT VEHICLE DETECTED"	3	AS		
12	Enhanced Highway Sign Assembly, Solar Powered, F&I Ground Mount, w/Beacons (2), up to 12 SF of Static Panel Signs (w/ LED Border)	4	AS		
13	Single Column Ground Sign Assembly, F&I Ground Mount, Less Than 12 SF (w/ LED Border)	2	AS		
14	Single Column Ground Sign – Convert Pedestrian Warning Signs and Plaques to Fluorescent Yellow-Green (F&I)	10	AS		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BID 26-034 WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS QUANTITY SHEET					
BID ALTERNATE #3 – LBAWS (DETECTION AND WARNING SYSTEM)					
No	**Category**	**Quantity**	**Units**	**Unit Price**	**Total Cost**
15	NO TRUCKS Sign (R5-2) and Arrow Plaque (per plan)	4	AS		
16	NO TRUCKS Sign (R5-2)	1	AS		
17	Advisory "25 MPH" Sign (W13-1P) 18"x18	1	AS		
18	Signage, Remove	2	AS		
19	Signage, Remove & Reset Allowance (undistributed)	8	AS		
20	Pavement Message Marking, “CAUTION HEIGHT 10’-0” AHEAD” Group	2	EA		
				BID ALTERNATE #3 TOTAL	
				OVERALL PROJECT GRAND TOTAL	
*NOTES					
1. Bid shall include all associated earthwork and necessary back-sloping as determined by the City of Pensacola.					
2. This bid proposal contains line items which may not be called out on the plans. Such items have been included to address potential unforeseen conditions.					
3. The City of Pensacola reserves the right to move forward with or opt out of bid alternates in any order.					

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Legal Name of Company: _____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

State of Florida
Affidavit Regarding the Use of Coercion for Labor and Services
Pursuant to Florida Statute 787.06(13)

Vendor Name: _____

Vendor FEIN: _____ Phone Number: _____

Vendor's Authorized Representative Name and Title: _____

Address: _____

City: _____ State: _____ ZIP: _____

Email Address: _____

Section 787.06(13) Florida Statutes requires all nongovernmental entities executing, renewing, or extending a contract with a governmental entity to provide an affidavit signed by an officer or representative of the nongovernmental entity under penalty of perjury that the nongovernmental entity does not use coercion for labor or services.

The undersigned hereby certifies that he/she is an officer or authorized representative of the vendor identified above and that said vendor does not use coercion for labor or services as defined in Section 787.06 Florida Statutes.

Florida Statute 787.06
(2)(a) "Coercion" means:

1. *Using or threatening to use physical force against any person;*
2. *Restraining, isolating, or confining or threatening to restrain, isolate, or confine any person without lawful authority and against her or his will;*
3. *Using lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied toward the liquidation of the debt, the length and nature of the labor or services are not respectively limited and defined;*
4. *Destroying, concealing, removing, confiscating, withholding, or possessing any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification document, of any person;*
5. *Causing or threatening to cause financial harm to any person;*
6. *Enticing or luring any person by fraud or deceit; or*
7. *Providing a controlled substance as outlined in Schedule I or Schedule II of s. 893.03 to any person for the purpose of exploitation of that person.*
8. *(2)(e) "Labor" means work of economic or financial value.(2)(h) "Services" means any act committed at the behest of, under the supervision of, or for the benefit of another. The term includes, but is not limited to, forced marriage, servitude, or the removal of organs*

Under penalties of perjury, I declare that I have read the foregoing document and that the facts stated in it are true.

By: _____

AUTHORIZED SIGNATURE

Print Name and Title: _____

Date: _____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

52.209-5 FAR Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters

The Offeror certifies, to the best of its knowledge and belief, that the Offeror and/or any of its Principals:

A. Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.

B. Have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

C. Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph 1-B of this provision.

1. The Offeror has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

A. "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

B. The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

C. A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

D. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

E. The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

Company Name:_____ Date:_____

Authorized Signature:_____ Printed Name:_____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

52.209-6 FAR Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment

1. The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

2. The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

3. A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the Excluded Parties List System). The notice must include the following:

   A. The name of the subcontractor.

   B. The Contractor's knowledge of the reasons for the subcontractor being in the Excluded Parties List System.

   C. The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in the Excluded Parties List System.

   D. The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

_____
Company Name

_____
Authorized Signature

_____
Printed Name

_____
Date

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

City of Pensacola
Florida

CERTIFICATION
for
EROSION AND SEDIMENTATION COMPLIANCE

All site excavation and site disturbance shall comply with the following federal, state and local regulations related to erosion and sedimentation:

A. Federal Clean Water Act as amended in 1987
B. State Florida Statutes, Chapter 373 and 403, and the rules promulgated thereunder
C. Local Code of the City of Pensacola, Chapter 12-9

By signature of its undersigned authorized representative, the Bidder hereby assures the City of Pensacola that any soil-disturbing activities performed by the Bidder will comply with all applicable federal, state, and local regulations.

The cost of compliance with applicable erosion and sedimentation regulations is estimated by the Bidder to be $ _____, which cost is included in the amount of the bid.

The specific methods of compliance with applicable federal, state, and local regulations and the associated costs are as follows:

_____

_____

_____

_____

_____

_____

_____

_____
Authorized Official

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

DRUG-FREE WORKPLACE CERTIFICATE

IDENTICAL TIE BIDS - Pursuant to Florida Statue §287.087, preference shall be given to business with Drug-Free Workplace Programs. Whenever two or more bids which are equal with respect to price, quality, and service are received for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a Drug-Free Workplace Program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a Drug-Free Workplace Program. In order to have a Drug-Free Workplace Program, a business shall:

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 under bid 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 through implementation of this section.

AS THE PERSON AUTHORIZED TO SIGN THE STATEMENT, I CERTIFY THAT THIS FIRM COMPLIES FULLY WITH THE ABOVE REQUIREMENTS.

_____ _____

Signature Printed Name

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

VETERAN BUSINESS ENTERPRISE PARTICIPATION FORM

In order to foster economic development and business opportunities for service-disabled veterans and wartime veterans who have made extraordinary sacrifices on behalf of the nation, the City of Pensacola has adopted a Veteran Business Enterprise ("VBE") Preference. For further information regarding this program, please refer to Section 3-3-12 AND 3-3-13 of the Code of the City of Pensacola.

In order for a respondent to receive credit for being VBE vendor, it must perform useful business functions on the contract, have its principal place of business in Escambia or Santa Rosa County and be certified as a veteran business enterprise by the State of Florida Department of Management Services ("DMS") as set forth in Section 295.187 of the Florida Statutes as of the date set for submittal of bids. For purposes of the City's VBE Program, the respondent's principal place of business must be within Escambia County, FL, or Santa Rosa County, FL.

There shall be no third-party beneficiaries of the Veteran Business Enterprise Preference provisions of this solicitation or resulting contract. The City of Pensacola shall have the exclusive means of enforcement of the Veteran Business Enterprise Preference Ordinance and any contract terms. The City of Pensacola is the sole judge of compliance. All solicitations and submittals awarded will be evaluated in accordance with the Code of the City of Pensacola.

If the Respondent is a qualifying VBE, please complete the boxes below.

If not, mark "N/A."

Respondent's Name:	Respondent's Principle Place of Business	Florida Certification Number as issued by State of Florida DMS:

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

MINORITY/WOMEN BUSINESS ENTERPRISE STATEMENT

The City has implemented a Minority/Women Business Enterprise (MWBE) program to assist certified minority- and women-owned businesses with identifying and participating in City of Pensacola procurement and construction opportunities as set in the Code of the City of Pensacola, Ordinance No. 4-15.

For a respondent to receive credit for being a MWBE vendor, it must perform useful business functions on the contract, have its principal place of business in Escambia, Santa Rosa, Okaloosa, Walton County in Florida or Mobile, Alabama, and have received a certification letter issued from the City of Pensacola.

There shall be no third party beneficiaries of the Minority and Women Business Enterprise provisions of this solicitation or resulting contract. The City of Pensacola shall have the exclusive means of enforcement of the Minority and Women Business Enterprise Ordinance and any contract terms. The City of Pensacola is the sole judge of compliance. All solicitations and submittals awarded will be evaluated in accordance with the Code of the City of Pensacola.

Respondent's Name:	Respondent's Principal Place of Business

If your firm is partnering with or subcontracting with a certified M/WBE, please provide the information requested below.

NAME OF M/WBE FIRM	PARTNER OR SUBCONTRACTOR	% OF CONTRACT PERFORMANCE
1.		
2.		
3.		
4.		
5.		
6.		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

CITY OF PENSACOLA
SMALL BUSINESS ENTERPRISE STATEMENT

The Pensacola City Council adopted Small Business Enterprise Ordinance #61-89. This ordinance encourages participation of small businesses in the City procurement process. Participation goals will be provided on a project by project basis, based on the availability of certified small businesses.

> **A Small Business is defined as an independently owned and operated business employing 50 or fewer permanent full-time employees and having a net worth of not more than $1 million. The business must be located in Escambia or Santa Rosa County.**

If your firm meets the criteria above, please provide the requested information below.

VENDOR QUESTIONNAIRE

Name of Business_____

Address_____

Owner(s)'s Name(s)_____

OR

If your firm is partnering with or subcontracting with a certified SBE, please provide the information requested below.

NAME OF SBE FIRM	PRIME OR SUBCONTRACTOR	% OF CONTRACT PERFORMANCE
1.		
2.		
3.		
4.		
5.		
6.		

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

BIDDERS LIST FORM

The City of Pensacola is required per 49 CFR 26. 11 (c) to create and maintain a comprehensive Bidders List. The Bidders List Form will be used to determine the relative availability of Disadvantaged Business Enterprise (DBE) and non-DBEs. It will assist with establishing the agency's annual DBE goal. Each Bidders List is a compilation of bidders, proposers, quoters, subcontractors, manufacturers, and suppliers of materials and services who have submitted bids during the advertising period of a specific project. Please provide the following mandatory data:

Part A: Business Data

Business Name: _____

Business Address: _____

Street City State Zip

County Business is located in: _____

Name of Contact Person: _____

Phone: ( ) _____ Fax: ( ) _____

Email Address: _____

Is this business certified as a Disadvantaged Business Enterprise? Yes No

Business Annual Gross Receipts: Less than $500,000 $500,000 to $1,000,000

$1,000,000 to $2,000,000 $2,000,000 to $5,000,000 Over $5,000,000

Age of Business: _____ Years _____ Months

Part B: Project and Work Description

RFP # ____ Project Name: _____

Provide brief description of scope of work, services, and/or materials to be performed/furnished:

_____

_____

_____

Will you subcontract any of your work? Yes* No

(* If "Yes," the subcontractor(s) must complete an individual Bidders List Form also.)

Part C: Signature

The undersigned declares that the information set forth on this page is current, complete and accurate.

Authorized Signature: _____ Date: _____

Printed Name: _____ Title: _____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

REQUIRED DOCUMENTS ACKNOWLEDGEMENT
Bid/RFP/RFQ #26-034

Purchasing Forms	**Vendor Initials**
1) Proposal Page(s)	_____
2) State of Florida Affidavit Regarding the Use of Coercion for Labor and Services Pursuant to Florida Statute 787.06(13)	_____
3) 52.209-5 FAR Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters	_____
4) 52.209-6 FAR Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	_____
5) Certification for Erosion and Sedimentation Compliance	_____
6) Drugfree Workplace Certificate	_____
7) Veteran Business Enterprise Statement	_____
8) Minority/Women Business Enterprise Statement	_____
9) Small Business Enterprise Statement	_____
10) Bidders List (DBE Statement)	_____
11) Bid bond	_____
12) Acknowledgement of addenda (signed signature pages of addenda)	_____
13) Required Documents Acknowledgement Page	_____

Department Requirement (Dept to verify)	**Vendor Initials**
1) Florida Licensed General Contractor	_____
OR	
2) Florida Licensed Underground Utility Contractor	_____

Company Name: _____

Authorized Officer's Name: _____ Title: _____

Signature of Officer: _____ Date:_____

FAILURE TO INCLUDE THIS FORM IN SUBMITTAL MAY DISQUALIFY THE BID.

STATEMENT OF NO PROPOSAL

If you are unable to submit a proposal at this time, please complete the following and return by e-mail to purchasing@cityofpenscola.com. Your choices or comments below will assist us in properly notifying you of future opportunities.

We have declined to respond to **Bid/RFP/RFQ #26-034** for the following

reason(s): SPECIFICATIONS

____ Specifications too "tight" (i.e., limited to one brand or manufacturer)

____ Specifications unclear

____ Unable to meet specifications

NATURE OF AWARD

____ Insufficient time to respond

____ Equivalent options not offered

____ Other (please explain below)

Explanation:

_____

_____

_____

_____

We request to:

_____remain in this service category for future City of Pensacola solicitations.

_____be removed from this service category and remain on the City's solicitation list.

_____be removed from the City's solicitation list.

Company Name: _____

Officer Name: _____Title: _____

Address: _____

City: _____State: _____Zip Code: _____

Office: (____)_____ Fax: (____)_____

Email: _____

Signature of Officer: _____Date: _____

CONTRACT BETWEEN CITY OF PENSACOLA AND [xxxCONTRACTORxxx]
BASED UPON INVITATION TO BID #_____

THIS CONTRACT ("Contract") is made this ___ day of _____, 20__, by and between the City of Pensacola ("City"), a Florida municipal corporation created and existing under the laws of the State of Florida, located at 222 W. Main Street, Pensacola, Florida 32502, and _____, ("Contractor"), a corporation authorized to do business in Florida, located at _____, (the City and Contractor collectively referred to hereinafter as the "Parties").

WITNESSETH:

WHEREAS, the City solicited for Invitation to Bid #_____, on _____, 20__ ("Invitation to Bid"), as described in Project Manual/Specifications for _____, Bid #_____, as modified by any addendum to the Project Manual, all as attached hereto as Exhibit A and incorporated herein by this reference (collectively referred to hereinafter as the "Bid Documents"); and

WHEREAS, in response to the Bid Documents, the Contractor submitted to the City a proposal dated _____, 20__, ("Proposal") attached hereto as Exhibit B and incorporated herein by this reference; and

WHEREAS, the City has awarded the Contract to the Contractor; and

WHEREAS, the Parties desire the Contractor to perform the agreement as described in the Bid Documents and the Proposal and pursuant to the terms and conditions of this Contract; and

WHEREAS, the Parties desire to enter into this Contract;

NOW, THEREFORE, in consideration of the work to be performed and the payment for the performance of the work, of the mutual covenants and benefits contained herein, and for other good and valuable consideration, the Parties agree as follows:

Section 1. Recitals.
The recitals contained above are true and correct and are incorporated into this Contract.

Section 2. Contractor's Obligations.
The Contractor shall perform all work and services described in, and in accordance with, the Contract. The Contractor warrants that all equipment, materials, and workmanship furnished, whether furnished by Contractor or its subcontractors or sub-suppliers, will

comply with the Contract and any City specifications, drawings, and other descriptions supplied or adopted. The Contractor further warrants that the supplies and workmanship will be new, fit, and sufficient for the purpose for which they are intended, of good materials, design, and workmanship, and free from defects or failure. The City or its duly authorized representative shall at all times have full opportunity to inspect the materials to be furnished and the work to be done under this Contract. The Contractor shall comply with all applicable federal, state, and local laws, ordinances, rules, and regulations pertaining to the performance of this Contract. The Contractor is responsible for and shall indemnify the City against all damage or loss caused by fire, theft, or otherwise to materials, tools, equipment, and consumables left on City property by the Contractor.

Section 3. Term of Contract.
Subject to the right of termination for cause or convenience, the term of this Contract shall be as specified in the attached Quote Documents and Proposal.

Section 4. Payment.
The Contractor agrees to perform all work and services in Section 2 and to furnish all necessary labor, materials, equipment, machinery, tools, apparatus, and means of transportation related to such work and services at Contractor's sole cost and expense, in consideration of the total amount of _____ ($_____) to be paid by the City in accordance with the Contract upon the complete performance by Contractor based on unit prices if applicable, or based on partial payments approved by the City, only after written acceptance by the City pursuant to the Contract, and such payment in accordance with the Florida Prompt Payment Act. In the event that the Contractor does not fully perform its obligations under the Contract, the City reserves the right to withhold payments for work not performed, to engage an alternative contractor to complete work not performed, and to withhold such amounts as may be required to hold the City harmless from any claims or damages, direct, indirect or consequential, that may be sustained on account of the Contractor's acts or omissions in the performance of this Contract.

Section 5. Bond.

Is a bond required? (___) Yes (___) No

If yes: Contractor shall provide all bond(s) as required in the Contract. Should the City in the City's sole discretion at any time deem any of the sureties upon such bond to be unsatisfactory or if for any reason such bond shall cease to be adequate security for the City, the Contractor shall within five (5) days of written notice from the City furnish a new or additional bond in full sum and satisfactory to the City. No payment shall be deemed to be due or to be made to the Contractor unless and until such new or additional bond shall be furnished and approved in writing by the City. The premium and all expenses associated with such new or additional bond shall be paid by, and the sole responsibility of, the Contractor.

Section 6. Performance Schedule.
The Contractor shall commence and complete all work and services pursuant to the Contract.

Section 7. Necessary Approvals.
Contractor shall procure all permits, licenses, and certificates and any approvals in performance and completion of this Contract as may be required by federal, state, and local laws, ordinances, rules, and regulations, and in accordance with the Contract.

Section 8. No Waiver.
No waiver, alterations, consent or modification of any of the provisions of the Contract shall be binding unless in writing and signed by the Mayor or his/her designee.

Section 9. Governing Law.
This Contract is governed and construed in accordance with the laws of the State of Florida. The law of the State of Florida shall be the law applied in the resolution of any claim, actions, or proceedings arising out of this Contract.

Section 10. Venue.
Venue for any claim, actions, or proceedings arising out of this Contract shall be Escambia County, Florida.

Section 11. No Discrimination.
Contractor shall not discriminate on the basis of any class protected by federal, state, or local law in the performance of this Contract.

Section 12. Assignment.
The rights and privileges conferred by this Contract shall not be assigned or transferred without the written consent of the City, which consent shall not be unreasonably withheld.

Section 13. No Other Agreements.
The Parties agree the Contract contains all the terms and conditions agreed upon by the Parties. No other agreements, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind either Party.

Section 14. Remedies for Failure to Perform or Breach of Contract.
The City reserves the right to seek all remedies available under law in the event of a failure to perform or other breach of this Contract by the Contractor, and the failure of the City to employ a particular remedy shall not be regarded by the Parties as a waiver of that or any other available remedy.

Section 15. Termination for Convenience.
The City may terminate this Contract without cause upon thirty (30) days prior written notice.

Section 16. Public Records Act.
The parties acknowledge and agree to fulfill all obligations respecting required contract provisions in any contract entered into or amended after July 1, 2016, in full compliance pursuant to Section 119.0701, *Florida Statutes*, and obligations respecting termination of a contract for failure to provide public access to public records. The parties expressly

agree specifically that the contracting parties hereto shall comply with the requirements within Attachment "A" attached hereto and incorporated by reference.

Section 17. Mandatory Use of E-Verify System.
In compliance with the provisions of F.S. 448.095, the parties to this contract and any subcontractors engaged in the performance of this contract hereby certify that they have registered with and shall use the E-Verify system of the United States Department of Homeland Security to verify the work authorization status of all newly hired employees, within the meaning of the statute.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed and sealed the day and year first above written.

CONTRACTOR	**CITY OF PENSACOLA, FLORIDA**
_____	_____
(Contractor's Name)	Mayor, D. C. Reeves
By_____	Attest: _____
President	City Clerk, Ericka L. Burnett
_____	Approved as to Substance:
(Printed President's Name)	
Attest_____	_____
Corporate Secretary	Department Director
	Legal in form and execution:
(CORPORATE SEAL)	_____
	City Attorney

Attachment "A"

PUBLIC RECORDS: Contractor shall comply with Chapter 119, Florida Statutes. Specifically, Contractor shall:

A. Keep and maintain public records required by the City to perform the service.

B. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following the completion of the Contract if Contractor does not transfer the records to the City.

D. Upon completion of the Contract, transfer, at no cost, to the City, all public records in possession of Contractor or keep and maintain public records required by the City to perform the service. If Contractor transfers all public records to the City upon completion of the Contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of the Contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request of the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

Failure by Contractor to comply with Chapter 119, Florida Statutes, shall be grounds for immediate unilateral cancellation of this Contract by the City.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE PUBLIC RECORDS COORDINATOR AT:

THE OFFICE OF THE CITY CLERK, (850) 435-1715

PUBLICRECORDS@CITYOFPENSACOLA.COM

222 WEST MAIN STREET, PENSACOLA, FL 32502

Revised 1/12/2021

EXHIBIT A

BID DOCUMENTS

EXHIBIT B

PROPOSAL

The Proposal dated _____, which Contractor submitted in response to the Bid Documents (Exhibit A), includes all attachments and addenda submitted by Contractor.

PUBLIC CONSTRUCTION BOND

STATE OF FLORIDA
COUNTY OF _____

BY THIS BOND, WE: _____, as Principal and _____a corporation, as Surety, are bound to **City of Pensacola**, herein called Owner, in the sum of $_____for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, 20___, between Principal and Owner for construction of _____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.
5. Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provision in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

PRINCIPAL	**SURETY**	**OWNER**
Name_____	_____	City of Pensacola
Bus. Addr. _____	_____	P. O. Box 12910 Pensacola, FL 32521
Tel. #_____	_____	(850) XXX-XXXX

IN WITNESS WHEREOF, the said

_____, as Principal herein has caused these presents to be signed in triplicate in its name, by its _____ under its corporate seal, and the said _____as surety herein, has caused these presents to be signed in triplicate in its name by its _____ under the corporate seal, this _____day of_____, 20___A.D.

ATTEST:

_____ _____
(Print) Principal

_____ By _____
Signature (Print)

_____
ATTEST: (Title)

_____ _____
(Print) Signature

_____
Signature

Surety

By _____
(Print)

_____
(Title)

_____
Signature

GENERAL CONDITIONS

WAYSIDE PARK EAST AND 17th AVENUE PARK IMPROVEMENTS

Prepared by
CITY OF PENSACOLA
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

ENGINEERING AND CONSTRUCTION SERVICES
APRIL 2026

GENERAL CONDITIONS
SECTION 1
DEFINITIONS

1.0 DEFINITIONS

Whenever in any of the Contract Documents the following terms are used, the intent and meaning shall be defined as follows:

1.1 CONTRACT

The agreement executed by the Owner and the Contractor, of which these General Conditions form a part.

1.2 OWNER

The City of Pensacola, the party of the first part of the Contract.

1.3 CONTRACTOR

A person, firm or corporation with whom a Contract has been made directly or through accredited representatives that may have entered into a Contract with the City of Pensacola, and who is liable for the acceptable performance of all legal debts pertaining to the work, the party of the second part of the Contract.

1.4 ENGINEER

The authorized representative of the Owner employed to provide engineering supervision, and/or inspection of the work performed by the Contractor and where the term "Owner" is used in connection with the interpretation of the drawings and specifications, or in connection with the enforcement of the provisions of same, the Engineer, as the Owner's representative, shall have authority to act.

1.5 SUBCONTRACTOR

A person, firm, or corporation to whom the Contractor sublets any part of the Contract.

1.6 INSPECTOR

The authorized representative of the Engineer, assigned to make all necessary inspections of the materials furnished for the work and of the work performed by the Contractor.

1.7 CONTRACT DOCUMENTS

The Contract Documents are composed of the Invitation to Quote, Instruction to Quoters, Form of Proposal, Form of Contract, General Conditions, Project Specifications, and Drawing(s) if applicable.

GENERAL CONDITIONS
SECTION 2
EXECUTION OF CONTRACT

2.0 ASSIGNMENT

The contractor shall not assign the whole or any part of this contract or any monies due or to become due hereunder without written consent of the City of Pensacola. In case the Contractor assigns all or any part of any monies due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this contract.

2.1 PRECONSTRUCTION CONFERENCE

Within ten (10) days after execution of the Agreement, the Contractor will submit to the City Engineer for approval an estimated progress schedule indicating the starting and completion dates of the various stages of the work and a schedule of shop drawing submissions.

Before starting the work, a conference will be held to review the above schedules, to establish procedures for handling shop drawings and other submissions and for processing applications for payment, and to establish a working understanding between the parties as to the project. Present at the conference will be the Engineer of Record and/or his representatives, and the Contractor and/or his representatives and any others deemed necessary by the City of Pensacola.

2.2 TERMINATION OF CONVENIENCE

A contract may be terminated in whole or in part by the City of Pensacola at any time and for any reason in accordance with this clause whenever the City of Pensacola shall determine that such termination is in the best interest of the City of Pensacola. Any such termination shall be effected by the delivery to the contractor at least five (5) working days before the effective date of a Notice of Termination specifying the extent to which performance shall be terminated and the date upon which termination becomes effective. An equitable adjustment in the contract price shall be made for the completed service, but no amount shall be allowed for anticipated profit on unperformed services.

GENERAL CONDITIONS
SECTION 3
CONTRACTOR

3.0 LICENSES, PERMITS, CONSTRUCTION, AND EMPLOYMENT PRACTICES

All contractors shall secure all licenses and permits and comply with all laws, regulations and building and construction codes as required by the State, City and County in which the project is to be constructed, also with all regulations for the protection of workers and in respect to wages and hours which may be promulgated by the State and Federal Government.

3.1 QUALIFICATIONS FOR EMPLOYMENT

Preference shall be given to qualified local residents in the employment of laborers and mechanics for work on the project under this contract. No person shall be employed in violation of the State or the National labor laws. No person under the age of sixteen (16) years shall be employed on the project under the contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the project under this contract; provided, that this shall not operate against the employment of physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform. Contractor agrees that it will not discriminate on the basis of race, creed, color, national origin, sex, age, or disability. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mental defectives shall be employed on the project under this contract.

3.2 CHARACTER OF WORKMEN AND EQUIPMENT

The Contractor shall employ such superintendents, foremen and workmen as are careful and competent. Whenever the Engineer shall determine that any person employed by the Contractor is, in his opinion, incompetent, unfaithful, disorderly or insubordinate, such person shall, upon notice, be discharged from the work and shall not again be employed on it except with the written consent of the Engineer.

Should the Contractor fail to remove such person or persons or fail to furnish suitable or sufficient machinery, equipment or force for the proper prosecution of the work, the Engineer may withhold all estimates which are, or may become due, or may suspend the work until such orders are complied with.

The equipment used on any portion of the work shall be such that no injury to adjacent property, or to streets or highways, will result from its use; equipment shall be modern, in good condition and adequate in size to perform the work in satisfactory time intervals.

3.3 USE OF PREMISES

The Contractor shall confine his apparatus, storage of materials, and construction operations to such limits as may be directed by the Owner and shall not unreasonably encumber the premises with his materials.

The Contractor shall not load or permit any part of any structure to be loaded to such an extent as to endanger its safety.

The Contractor shall enforce any instructions of the Owner regarding signs, advertising, fires, danger signals, barricades, and smoking and shall require all persons employed on the work to comply with all building, post or institutional regulations while on the premises.

3.4 MATERIALS, SERVICES, AND FACILITIES

It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence and temporary construction of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

Any work necessary to be performed after regular working hours, on Sundays or legal holidays, shall be performed without additional expense to the Owner.

3.5 WARRANTY OF TITLE

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the Owner free from any claims, liens, or charges, and further agrees that neither he nor any person, firm or corporation furnishing any materials or labor for any work covered by this contract shall have any right to a lien upon the premises or any improvements or appurtenances thereon, provided that this shall not preclude any contractor from installing metering devices and other equipment of utility companies or of municipalities, the title to which is commonly retained by the utility company or the City. In the event of the installation of such metering device or equipment, the Contractor shall advise the Owner as to the owner thereof. Nothing contained in this section, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due to the Contractor in the hands of the Owner. The provisions of this section shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

3.6 PAYMENTS BY CONTRACTOR

The Contractor shall pay:

1. For all transportation and utility services not later than the 20th day of the calendar month following that in which such services are rendered.
2. For all materials, tools, and other expendable equipment to the extent of ninety (90) percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following the completion of that part of the work in or on which such materials, tools and equipment are incorporated or used.
3. To each of his subcontractors, not later than the 5th day following each payment to the Contractor, the respective amount allowed the Contractor on account of the work performed by his subcontractors, to the extent of each subcontractor's interest therein.

3.7 SUBCONTRACTING

The Contractor shall not award any work to any subcontractor without prior written approval of the Owner, which approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the subcontractors, which statement shall contain such information as the Owner may require.

3.8 REMOVAL AND DISPOSAL OF OBSTRUCTIONS

1. All fences, buildings, or other obstructions upon or within the limits of the work area, shall be removed by the Contractor and carefully placed on the abutting property or otherwise disposed of, if and as required. The cost of removing any existing structure shall be included in the price bid for the construction of new structures.
2. Any artifacts or items of historical value that are discovered in the work area are the property of the City of Pensacola and shall be removed as directed by the Engineer. The Contractor shall take care not to damage said items if at all possible.

3.9 INVESTIGATION, UTILITIES, AND DIFFERING SITE CONDITIONS

1. Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work taking into specific account the Project site and the general and local conditions related thereto, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water and electric power; availability and condition of roads; work area; living facilities; climatic conditions and

seasons; physical conditions at the work-site and the Project area as a whole, topography and ground surface conditions; nature and quality of the surface materials to be encountered; subsurface conditions, equipment and facilities needed preliminary to and during performance of the Work, and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.

2. Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities being referred to in this Section 4 as the "Utilities". Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work.

3. During the Work, the Contractor shall immediately upon the discovery of, and, before such conditions are disturbed, notify the City in writing of: (a) subsurface or latent physical conditions at the site differing materially from those indicated in the Plans and Specifications or other City-furnished information, or (b) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement If, however, a differing or unknown site condition requires immediate action by the Contractor to protect Work in progress from significant damage or to protect the health or safety of persons, the Contractor shall as soon as possible under the circumstances, and before such conditions are disturbed, if reasonably possible, provide the written notice specified herein. The City will promptly investigate the conditions, and if such conditions materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work, whether or not changed as a result of such conditions, the construction completion dates shall be equitably adjusted by Change Order upon timely and proper request for Change Order in accordance with Section 5.

4. No claim by the Contractor under this Section will be allowed unless the Contractor has given the notices required in Section 5. If the City is not given written notice before the conditions are disturbed, or in accordance with the Section 5 for later notice in the case of a condition requiring immediate emergency action to protect the Work in progress or the health or safety of persons, the Contractor will be deemed to have waived its right to assert a claim for additional compensation and time arising out of such conditions.

GENERAL CONDITIONS
SECTION 4
CONTROL OF WORK

4.1 ENGINEER AS REFEREE

It is agreed by the parties hereto that the Engineer of Record shall decide all questions which may arise relative to the interpretation of the plans, specifications, and other contract documents pertaining to the character, quality, amount and value of any work done, and the materials furnished under or by reason of this Contract. His estimates and decisions upon all such claims and questions shall be final and conclusive upon the parties thereto.

4.2 DRAWINGS

1. The general character and scope of the work are illustrated by the drawings accompanying the Contract Documents. Where necessary, the approved plans will be supplemented by the Engineer with such full scale details, sketches, etc., as are necessary to adequately control the work. It is mutually agreed that all authorized alterations affecting the requirements and information given on the approved plans shall be in writing.

   The Contractor shall furnish such detailed plans as may be required for the prosecution of the work and are not included in the plans furnished by the Consultant They shall include shop details, erection plans, masonry layout diagrams and bending diagrams for reinforcing steel, approval of which by the Engineer must be obtained before any work involving these plans shall be performed. Plans for cribs, cofferdams, false work, centering and form work may also be required and such cases shall be likewise subject to approval unless approval is waived by the Engineer.

   It is expressly understood, however, that approval by the Consultant of the Contractor's working drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details or of mutual agreement of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his working drawings with the approved plans and specifications. The Contractor shall not attempt to construct the parts of the work for which such detail drawings are required until he has received them.

   The contract price shall include the cost of furnishing all working drawings and the Contractor will be allowed no extra compensation for such drawings.
2. Where the word "similar" occurs on the drawings, it shall be interpreted in its general sense and not as meaning identical and all details shall be worked out in relation to their location and their connection to other parts of the work.

3. Where on any of the drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other like portions of the work. Where ornament or other detail is indicated by starting only, such detail shall be continued throughout the courses or parts in which it occurs and shall also apply to all other similar parts in the work, unless otherwise indicated.

4.3 SHOP DRAWINGS

1. The Contractor shall submit for approval of the Engineer of Record, copies of all shop and setting drawings and schedules required for the work and no work shall be fabricated by the Contractor, save at his own risk, until such approval has been given. Copies of these drawings and schedules shall be furnished in such number as the Engineer may direct.
2. The Contractor shall submit all drawings and schedules sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting and rechecking; and no claim by the Contractor for delays, arising from his failure in this respect, shall be allowed.
3. All shop drawings submitted must bear the stamp of approval of the Contractor as evidence that the drawings have been checked by the Contractor. Any drawings submitted without this stamp of approval shall not be considered and will be returned to the Contractor for resubmission. If the shop drawings show variations from the requirements of the Contract documents because of standard shop practice or other reason, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise, the Contractor shall not be relieved of the responsibility for executing the work in accordance with the Contract Documents even though such shop drawings have been approved.
4. Where a shop drawing as submitted by the Contractor indicates a departure from the contract which the Consultant deems to be a minor adjustment in the interest of the City and which does not involve a change in the Contract price or extension of time, the Engineer of Record will approve the drawing.
5. The approval by the Engineer of Record of shop drawings will be general and shall not relieve the Contractor from the responsibility for adherence to the Contract, nor shall it relieve him of the responsibility for any error that may exist.

4.4 INTENT OF CONTRACT DOCUMENTS

1. It is the intent of the Contract Documents to describe a functionally complete Project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied by the Contractor whether or

not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in affect at the time the Work is performed, except as may be otherwise specifically stated herein.

2. If during the performance of the Work Contractor discovers a conflict, error or discrepancy in the Contract Documents, Contractor immediately shall report same to the City in writing and before proceeding with the Work affected thereby and shall obtain a written interpretation or clarification from the City. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.
3. Drawings are intended to show general arrangements, design, and extent of Work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the drawings, specifications, or of other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon the Contractor, as determined by the City.

4.5 COORDINATION OF PLANS AND SPECIFICATIONS

The specifications, plans, and all supplementary documents are essential parts of the contract. Any requirement occurring in one is as binding as though occurring in all. Items shown on the plans and not shown on the specifications and items noted in the specifications but not shown on the plans are to be considered as shown on the plans and noted in the specifications. Any errors or omissions as to standards of work in the specifications or on the plans shall not relieve the Contractor of the obligation to furnish a strictly first-class job in strict accord with best practice to be found in structures or work of a similar nature.

4.6 FITTING AND COORDINATION OF THE WORK

The Contractor shall be responsible for the proper fitting of all work for and the coordination of the operation of all trades, subcontractors, or suppliers engaged in the work. He shall be prepared to guarantee to each of his subcontractors the dimensions which they may require for the fitting of their work to all surrounding work and shall do, or cause his agents to do, all cutting, fitting, adjusting, and patching necessary to make the several parts of the work come together properly and to fit the work to receive or be received by that of other contractors.

4.7 OTHER WORK

1. City may perform other work related to the Project at the site by the City's own forces, have other work performed by utility owners or let other direct contracts to other contractors. If the fact that such other work is to be performed is not noted in the Contract Documents, notice thereof will be given to Contractor. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact to the City and Architect/Engineer within forty-eight (48) hours of being notified of the other work If the Contractor fails to send the above required forty-eight (48) hour notice, the Contractor will be deemed to have waived any rights it otherwise may have had to seek an extension to the Contract Time or adjustment to the Contract Amount
2. Contractor shall afford each utility owner and other contractor (or City, if City is performing the additional work with City's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the City and the others whose work will be affected.
3. If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or City), Contractor shall inspect and promptly report to the City in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

4.8 CONSTRUCTION STAKING AND PROJECT LAYOUT

1. City shall provide initial vertical and horizontal (h/v) control information for the project, in the form of surveyed benchmarks, at designated coordinate locations as specifically indicated on the plans. The Contractor shall be responsible for the protection and preservation of all benchmarks throughout the duration of the project. The Contractor shall be responsible for all initial, intermediate, and finish h/v layout and staking necessary for the completion of construction. This shall include, but not be limited to, the establishment of finished layout and/or grade points/elevations of intersections, curb islands and drainage structures, etc., based upon the initial h/v control information provided by the City. Replacement of damaged/removed benchmarks by the City shall be handled by the Contractor and done at the Contractor’s expense.

2. Should the Contractor, in the course of work, find that the points, grades, and dimensions which are shown upon the plans are not conformable to the physical conditions of the locality at the proposed project site, he shall immediately inform the City of the discrepancy between the actual physical conditions of the locality of the proposed work, and the points, grades and dimensions which are shown on the plans. Should the Contractor, in the course of work, discover/determine that any surveyed benchmark information provided by the City (or other entity) is inconsistent with the plans or has been incorrectly established, he shall notify the City immediately. No claim shall be made by the Contractor against the City for compensation or damages by reasons for failure of the City to represent upon said plans, points, grades and dimensions conformable to the actual physical conditions of the locality of the proposed work.

4.9 INSPECTION

The City and its authorized representatives and agents shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records.

4.10 INSPECTION FACILITIES

The Contractor shall provide and shall maintain, unless otherwise specified, suitable, and adequate facilities at the site of the project for the use of those representatives or agents of the City assigned to the project until the completion of this Contract.

4.11 INSPECTION AND TESTING OF MATERIALS

Unless otherwise specifically provided for in the specifications, the inspection and testing of materials and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories or agencies approved by the City. The Contractor shall furnish evidence satisfactory to the City that the materials and finished articles have passed the required tests prior to the incorporation of such materials and finished articles in the work. Testing of all materials shall be paid for by the City. Retesting required because of failure to comply with the specifications shall be paid for by the Contractor.

4.12 "OR EQUAL" CLAUSE

Specified reference in the specifications to any article, device, product, material, fixtures, form, or type of construction, etc., by name, make, or catalogue number, with or without the words "or equal", shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The Contractor, in such cases, may at his option use any article, device, product, material, fixture, form, or type of construction which, in the judgment of the City, expressed in writing, is equal to that named.

4.13 TEMPORARY SUSPENSION OF WORK

The Engineer/City shall have the authority to suspend the work wholly or in part for such period or periods as may be deemed necessary, due to unsuitable weather, or such other conditions as considered unfavorable for the suitable prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given or to perform any or all provisions of the Contract.

4.14 SUSPENSION OF WORK

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed for the Contractor, or any of his property, or if he should persistently or repeatedly refuse or fail to supply enough properly skilled workmen or proper materials, or if he should refuse or fail to make prompt payment to persons supplying labor or materials for the work under the contract, or persistently disregard instructions of the Consultant or fail to observe or perform any provisions of the contract documents, or otherwise be guilty of a substantial violation of any provisions of the contract documents, then the City may, by at least five (5) days prior written notice to the Contractor, without prejudice to any other rights or remedies of the City in the premises, terminate the Contractor's right to proceed with the work. In such event, the City may take over the work and prosecute the same to completion, by contract or otherwise, and the Contractor and his sureties shall be liable to the City for any excess cost occasioned to the City thereby; and, in such case, the City may take possession of and utilize in completing the work such materials, appliances, and plants as may be on the site of the work and necessary therefore. The foregoing provisions are in addition to, and not in limitation of, the rights of the City under any other provisions of the contract documents.

4.15 DELAYS – DAMAGES

1. If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in the Form of Proposal, or any extension thereof, or fails to complete said work within such time, the City may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event, the City may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor and his sureties shall be liable to the City for any excess cost occasioned the City thereby. If the Contractor's right to proceed is so terminated, the City may take possession of and utilize in completing the work such materials, appliances, and plants as may be on the site of the work and necessary therefore. If the City does not terminate the right of the Contractor to proceed, the Contractor shall continue the work, in which event the actual damage for the delay will be impossible to determine and, in lieu thereof, the Contractor shall pay to the City as fixed, agreed, delay penalties for each calendar day of delay until the work is completed or accepted, the amount as set forth in the Form of Proposal,

and the Contractor and sureties shall be liable for the amount thereof. Provided, that the right of the Contractor to proceed shall not be terminated nor the Contractor charged with delay penalties because of any delays in the completion of the work due to unforeseeable causes beyond the Contractor's control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, acts of the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes, if the Contractor shall within ten (10) days from the beginning of any such delay (unless the City shall grant a further period of time prior to the date of final settlement of the contract) notify the City in writing of the causes of delay, who shall ascertain the facts and the extent of the delay and extend the time for completing the work when in his judgment the findings of fact justify such an extension, and his findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal, within thirty (30) days, by the Contractor to the City, whose decision on such appeal as to the facts of the delay and the extension of time for completing the work shall be final and conclusive on the parties hereto.

2. No interruption, interference, inefficiency, suspension, or delay in the commencement or progress of the Work from any cause whatever, including those for which the City may be responsible, in whole or in part, shall relieve Contractor of its duty to perform or give rise to any right to damages or additional compensation from City. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the City will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damages For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.
3. Where actual damages for any delay in completion contemplated by this section are impossible to determine by reason of the City's election under said sections not to terminate the right of the Contractor to proceed, the Contractor and his sureties shall be liable for and shall pay to the City, as set forth in the form of Proposal, agreed and delay penalties for each calendar day of such delay until the work is completed or accepted. Provided, that the City may accept the work if there has been such a degree of completion as will, in its opinion, make the project reasonably safe, fit, and convenient for the use and accommodation for which it was intended. In such case, the Contractor shall not be charged with delay penalties, but the City may assess damages caused by such delay.

4.16 TIME FOR COMPLETION

The work shall be commenced at the time stated in the notice to the Contractor to proceed and shall be completed in the number of consecutive calendar days stated in the Form of Proposal.

GENERAL CONDITIONS
SECTION 5
PROTECTION OF PERSONS AND PROPERTY

5.0 LAWS

The Contractor shall comply with all federal, state, county, and city laws, ordinances, or regulations controlling the action or operation of those engaged upon the work, or affecting material used, and govern himself in accordance with them. He shall indemnify and save harmless the Owner and all of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, orders, or decrees, whether by himself or his employees.

5.1 FURNISHING RIGHT OF WAY

All necessary right of way for the proper completion of the work will be secured by the Owner without cost to the Contractor.

5.2 SANITARY PROVISIONS

The Contractor shall provide and maintain at his own expense, in a sanitary condition, such accommodations for the use of his employees as is necessary to comply with the requirements and regulations of the State or Local Board of Health. He shall commit no public nuisance.

5.3 PUBLIC CONVENIENCE AND SAFETY

No street or roadway shall be closed, except when and where directed by the City Engineer, and whenever the street or roadway is not closed, the work must be so conducted that there shall at all times be a safe passageway for traffic. Whenever it is necessary to divert traffic from any part of the street or roadway actually under construction, the Contractor shall provide and maintain a passable driveway as directed by the Engineer.

The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient red lights, danger signals and signs, provide a sufficient number of watchmen, and take all necessary precautions for the protection of the work and safety of the public. Streets or highways closed to traffic shall be protected by effective barricades on which acceptable warning signs shall be placed. The Contractor shall provide and maintain acceptable warning and detour signs at all closures, intersections and along the detour routes, directing the traffic around the closed portion or portions of the work so that the acceptable warning and detour signs at all closures, intersections and along the detour routes, directing the traffic around the closed portion or portions of the work so that the temporary detour route or routes shall be indicated clearly throughout its entire length. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise. Barricades shall be well built and so designed so as not to be blown over by the wind.

Fire hydrants on or adjacent to the premises on streets where construction is in progress shall be kept accessible to the fire apparatus at all times and no material or obstruction shall be placed within ten (10) feet of any such hydrant. Adjacent premises must be given access as far as practicable and obstruction of gutters and ditches will not be permitted. Material stored along the street or roadway must be placed so as to cause as little obstruction to the public as possible.

5.4 PRESERVATION OF PROPERTY

The Contractor shall preserve from damage all property along the line of the work, the removal or destruction of which is not called for by the plans. This applies to public utilities, trees, monuments, fences, pipe, and underground structures, etc., and whenever such property is damaged due to the activities of the Contractors, it shall be immediately restored to its original condition by the Contractor at his own expense.

In case of failure on the part of the Contractor to restore such property or make good such damage or injury, the Owner may, upon forty-eight (48) hours' notice, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any monies due or which may become due the Contractor from receiving property compensation for the removal, damage, or replacement of any public or private property, not shown on the plans, when same is made necessary by alteration of grade or alignment, and such work is authorized by the Owner, provided that such property has not been damaged through fault of the Contractor, his employees, or agents.

GENERAL CONDITIONS
SECTION 7
PAYMENT

7.0 SCOPE OF PAYMENTS

It is understood and agreed that the Contractor shall receive and accept the prices and rates, as herein specified, in full payment for furnishing all materials, labor, equipment and tools, and for performing all the work contemplated and embraced in the attached specifications and proposal; and also, for all loss or damage arising out of the nature of the work aforesaid, or from action of the elements or from any foreseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its final acceptance, as hereinafter provided for; and also, for all risks of every description and all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein provided for, or for any infringement of patent, trademark, or copyright, and for the completion of the work in accordance with the plans specifications and contract.

7.1 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until acceptance of the work by the City, it shall be under the charge and care of the Contractor and he shall take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good, at his own expense, all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance.

7.2 PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

When alterations in plans or quantities of work as herein provided for are ordered and performed, the Contractor shall accept payment in full at the contract unit price for the actual quantities or work done.

Except as otherwise herein provided, no charge for any extra work or material will be allowed unless the same has been ordered in writing by the City and the price stated in such work order.

7.3 CHANGES IN WORK

A. The City may at any time, by written order and without notice to the sureties, make changes in the drawings and specifications of this contract and within the general scope thereof. In making any change the charge or credit for the change shall be approximately determined by the City in one of the following methods prior to the issuance of the order for the changed work:

   1. The order shall fix the total lump sum value of the change in the work of the Contractor, and shall set out the price which shall be added to or deducted from the contract price (which price shall include the Contractor's overhead and profit.) On any change which involves a net credit to the City, no allowance for overhead and profit shall be figured.

2. By estimating the number of unit quantities of each part of the work which is changed and then multiplying the estimated number of such unit quantities by the price (which price shall include the Contractor's overhead and profit) for a unit quantity thereof.
3. By ordering the Contractor to proceed with the work and to keep and present, in such form as the City may direct, a correct account of the cost of the change together with all vouchers therefor.

(Cost applicable to 1, 2, and 3 above may include an allowance for overhead and profit not to exceed 15% of the net cost. The cost may also include all items of labor or materials, the use of power tools and equipment actually used, power and all items of cost such as public liability and workmen's compensation insurance, pro rate charges for foremen, also social security, old age and unemployment insurance; however, no percentage for overhead and profit shall be allowed on items of social security, old age and unemployment insurance. If deductions are ordered, the credits shall be the net cost. Among the items considered as overhead are included insurance other than mentioned above, bond, or bonds, superintendent, timekeeper, clerks, watchmen, use of small tools, incidental job burdens and general office expense.)

B. The Contractor shall, when required by the City, furnish to the City an itemized breakdown of the quantities and prices used for computing the value of any change that might be ordered.
C. In figuring changes, instructions for measurement of quantities set forth in the specifications shall be followed.
D. Should the Contractor encounter, or the City discover, during the progress of the work, sub-surface or latent conditions at the site materially differing from those shown on the drawings or indicated in the specifications, or unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of character provided for in the drawings and specifications, the attention of the City shall be called immediately to such conditions before they are disturbed. The City shall thereupon promptly investigate the conditions, and if he finds that they do so materially differ, the Contract shall, with the written approval of the City, be modified to provide for any increase or decrease of cost or difference in time resulting from such conditions.

7.4 CLAIMS AND DISPUTES

A Claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between City and Contractor arising out of or relating to the Contract Documents. The responsibility to substantiate a Claim shall rest with the party making the Claim.

Claims by the Contractor shall be made in writing to the City within forty-eight (48) hours after the first day of the event giving rise to such Claim or else the Contractor shall be deemed to have waived the Claim Written supporting data shall be submitted to the City within fifteen (15) calendar days after the occurrence of the event, unless the City grants additional time in writing, or else the Contractor shall be deemed to have waived the Claim All claims shall be priced in accordance with the provisions of Subsection 6.3.
The Contractor shall proceed diligently with its performance as directed by the City, regardless of any pending Claim, action, suit, or administrative proceeding, unless otherwise agreed to by the City in writing. The City shall continue to make payments in accordance with the Contract Documents during the pendency of any Claim.

7.5 OMITTED ITEMS

The City shall have the right to cancel the portions of the Contract relating to the construction of any time therein by the payment to the Contractor of a fair and equitable amount covering all items of cost incurred prior to the date of cancellation or suspension of work by order of the City.

7.6 DEDUCTIONS FOR UNCORRECTED WORK

If the City deems it inexpedient to require the Contractor to correct the work injured or not performed in accordance with the Contract documents, an equitable deduction from the contract price shall be made by agreement between the City and Contractor.

7.7 CONTRACT TIME AND DELAY PENALTIES

Time is of the essence in the performance of the Work under this Agreement. Contractor shall commence the Work within ten (10) calendar days from the Commencement Date, established in the Notice to Proceed from the City. No Work shall be performed at the Project site prior to the Commencement Date. Contractor shall provide forty-eight (48) hours' notice prior to beginning the Work.
The Work shall be fully/finally completed and deemed ready by the City for final completion within the allotted calendar days from the Commencement Date. The Contract Time shall be the time period from the Commencement Date to the date of Final Completion ("Contract Time")

As the project approaches final completion, the City shall compile a "punch list" of any remaining exceptions to final/full completion of the project. The Project shall be deemed to be fully/finally completed by the City on the date that the City certifies in writing that the construction of it, or specified part thereof, is completed in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended, and all punch list items have been completed to the satisfaction of the City.

7.8 ACCEPTANCE AND FINAL PAYMENT

Whenever the improvement provided for under this Contract shall have been completely performed on the part of the Contractor, and all parts of the work have been approved by the City, according to the Contract, the City shall within ten (10) days unless otherwise provided, make the final inspection and a final estimate showing the value of the work as soon as the necessary measurements and computations can be made. All prior certificates or estimates upon which payments have been made are approximate only, subject to correction in the final payment. The amount of this estimate, less any sums that may have been deducted or retained upon the provision of this contract, will be paid to the Contractor within thirty (30) days after the final estimate has been approved by the City, provided that the Contractor has properly maintained the project as hereinafter specified, and provided he has furnished to the party of the first part a sworn affidavit to the effect that all bills are paid and no suits are pending in connection with the work done under this contract.

The Contractor agrees that the payment of all just claims for materials, against him, or any subcontractor in connection with this contract, and his bond will not be released by final acceptance and payment by the City unless all such claims are paid or released.

7.9 GENERAL GUARANTEE

Neither the final certificate of payment nor any provision in the contract documents nor partial or entire use or occupancy of the premises by the City shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The City will give notice of observed defects with reasonable promptness.

7.10 TERMINATION OF CONTRACTOR'S RESPONSIBILITY

This Contract will be considered complete when all work has been completed and the final inspection made, the work accepted by the City and the final estimate paid. The Contractor will then be released from further obligation except as set forth in Section 6.7 of these General Conditions and the requirement to maintain products and completed operations coverage as contained herein.

7.11 INVOICE SUBMITTAL

The City of Pensacola will accept only one request for partial payment per month. Applications for partial payments must reference subject project, note the City's purchase order number, coincide with the City's percentage of work completed, and be certified by the City Engineer's office before the partial request for payment will be processed. Unless otherwise modified in the contract documents, retainage shall be ten (10) percent until final payment.

The City of Pensacola normally issues checks for payment of invoices on the 10th of each month. The signed and correct Pay Request must have been received by the Engineering Division by the 25th of the prior month or as otherwise requested. Pay requests received after the 25th will be processed by the 10th of the subsequent following month. Each Pay Request shall be accompanied by a (1) Lien Release and Affidavit from each subcontractor and each supplier showing that all materials, labor, equipment and other bills associated with that portion of the work payment is being requested on have been paid in full, and (2) an updated construction project schedule. The City shall not be required to make payment until and unless these documents are furnished by the contractor. All invoices are payable by the City under the terms of Florida Prompt Payment Act, Florida Statue § 218.70. All purchases subject to availability of funds in the City's budget.

7.12 PAYMENTS WITHHELD

The City may decline to approve any Application for Payment, or portions thereof, because of subsequently discovered evidence, subsequent inspections of the Work, or failure of the Contractor to submit pay request as described in Section 6.9 above.

The City may nullify the whole or any part of any approval for payment previously issued and the City may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the City and Contractor, to such extent as may be necessary in the City's opinion to protect it from loss because of: (a) defective Work not remedied; (b) third party claims filed or reasonable evidence indicating probable filing of such claims; (c) failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment; (d) reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount; (e) reasonable indication that the Work will not be completed within the Contract Time; (f) unsatisfactory prosecution of the Work by the Contractor; or (g) any other material breach of the Contract Documents.

If these conditions are not remedied or removed, City may, after three (3) days written notice, rectify the same at Contractor's expense.

The City also may offset against any sums due Contractor the amount of any delay penalty obligations of Contractor to City, whether relating to or arising out of this Agreement or any other agreement between Contractor and the City.

APPLICATION AND CERTIFICATION FOR PAYMENT

To Owner:
City of Pensacola
Engineering and Construction Services
P. O. Box 12910
Pensacola, FL 32521

Project Manager:

Application #:
Period:

- ☐ OWNER
- ☐ ENGINEER
- ☐ CONTRACTOR
- ☐
- ☐

From Contractor:

Date Submitted:

Project Name:

Purchase Order #:

CONTRACTORS APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.

1. **ORIGINAL CONTRACT SUM** $
2. **Net change by Change Orders** $
3. **CONTRACT SUM TO DATE** (Line 1+2) $
4. **TOTAL COMPLETED & STORED TO DATE** $

5. **RETAINAGE:**
   a 5 % of Completed Work $
   b. ____ % of Stored Material $

   Total Retainage (Line 5a+5b) $
6. **TOTAL EARNED LESS RETAINAGE** $
   (Line 4 less Line 5 Total)
7. **LESS PREVIOUS PAYMENTS** $

8. **CURRENT PAYMENT DUE** $
   (Line 6 less Line 7 Total)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
TOTALS		
NET CHANGES by Change order		

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

By: Date:

State of:

County of:

Subscribed and sworn to before me by who is personally known to me/whose identity I proved on the basis of

this day of 2021

Notary Public:

My Commission expires:

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED .....$

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ENGINEER:

By: Date:

This Certificate is not negotiable . The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

PAY REQUEST-SCHEDULE OF VALUES

City of Pensacola
Engineering and Construction Services

Project Name:

Date Received:

Contractor:

Inspector:
Contract Duration:
Start Date:

Phone:

Fax:

Date of Completion:

Application #: Period:				Contract Amount		Work Completed Previous		Work Completed This Period		Work Completed To Date		% Completed To Date
Item #	Brief Description	Qty	Units	Unit Price	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	%
1	Mobilization & Demobilization	1	LS									
2	Clearing and Grubbing, incl. Trees <13"	2	ACRE									
3	Dewatering	30	DAY									
4	Earthwork, Excavate, Haul, and Install, On-Site	750	CY									
5	Remove and Replace Unsuitable Materials	75	CY									
6	2.5" Type SP 12.5" Asphalt, more than 1500sy	2895	SY									
7	6" Concrete Pavement	376	SY									
8	Remove Existing Asphalt, 2" Average Depth	3865	SY									
9	Saw Cut Existing Asphalt	224	LF									
10	18" Stabilized Subgrade, more than 1000sy	3271	SY									
11	8" Graded aggregate Base "Min. LBR 100 at 100% Modified Proctor", less than 1000sy	3260	SY									
12	Develop and provide a MOT traffic safety plan, both map type and written type, by a Certified Work Zone Safety Traffic Supervisor	1	EA									
13	Concrete, Ribbon Curb, 1' Wide	55	LF									
14	FDOT Type E Curb and Gutter	30	LF									
15	FDOT Type F Curb and Gutter	648	LF									
16	FDOT Valley Gutter	50	LF									
17	Fiber Reinforced Concrete Sidewalk, over 80lf	183	LF									
18	Curb Ramp, Concrete	4	EA									
19	Detectable Warning Surface	115	SF									
20	Saw Cut Existing Concrete, up to 6" thick	50	LF									
21	Remove Existing Concrete, up to 6" thick	96	SY									
22	Remove Existing Curb	125	LF									
23	Sign Assembly, F&I Ground Mount, Less than 12 SF	6	AS									
24	Sign Assembly, F&I Ground Mount, Less than 12 SF (Back-to-Back Mounting)	2	AS									
25	Pavement Marking, White, Thermoplastic, Stripe, 4"	1,120	LF									
26	Pavement Marking, Blue, Thermoplastic, Stripe, 4"	83	LF									
27	Handicap Parking Space Symbol, Thermoplastic	1	EA									
28	Pavement Marking, White, Thermoplastic, Stop Line, 24"	43	LF									
29	Sod, Pensacola Bahia, Staked	7,260	SY									
30	Coastal Vegetative Ground Cover	300	SY									
31	Flex-A-Mat Standard or Approved Equal	140	SY									
32	Silt Fence Type IV	600	LF									
33	Turbidity Barrier	220	LF									
34	Inlet Protection System	4	EA									
35	Tree Protection Barriers (as required)	4	EA									
36	Construct Stabilized Gravel Construction Entrance	115	SY									
37	NPDES NOI and NOT Permit, including SWPPP and monitoring (for use only with disturbed areas over 1.0 Acre)	1	EA									

38	NPDES Construction General Permit, NOI, and NOT (including SWPPP and monitoring), for use only with disturbed areas over 1.0	1	EA							
39	Arborist Services	1	LS							
40	Utility Coordination	1	LS							
41	As-Built Preparation	1	LS							
BID ALTERNATE #1 - PEDESTRIAN CONNECTION, UNDERPASS, & BOARDWALK										
1	Mobilization	4	EA							
2	Mobilization (Specialty Contractor)	1	EA							
3	Clearing and Grubbing	0.25	ACRE							
4	Railroad Right-of-Entry	1	LS							
5	Railroad Flagging (Basem Weekday Rate without Overtime)	45	DAY							
6	Earthwork, Excavate, Haul, and Install, On-Site	100	CY							
7	Remove and Replace Unsuitable Materials	20	CY							
8	Fiber Reinforced Concrete Sidewalk, under 80lf	180	LF							
9	Remove Existing Boardwalk and Piles	1	LS							
10	Elevated Boardwalk, Furnish & Install, incl. Fall Protection	1	LS							
11	Fencing, Chainlink	263	LF							
12	Silt Fence Type IV	1090	LF							
13	Inlet Protection System	5	EA							
14	Pedestrian Underpass Piles	8	EA							
15	Pedestrian Underpass Canopy & Concrete Pad	1	LS							
16	Pedestrian Underpass Electrical & Lighting	1	LS							
BID ALTERNATE #2 - DEMOLITION AND RECONSTRUCTION OF BOAT DOCK										
1	Mobilization	1	EA							
2	Mobilization (Specialty Contractor)	1	EA							
3	Remove Existing Dock and Piles	1	LS							
4	Elevated Dock, Furnish & Install, incl. Req'd. Fall Protection	1	LS							
5	Fiber Reinforced Concrete Sidewalk, under 80lf	50	LF							
BID ALTERNATE #3 - LBAWS (DETECTION AND WARNING SYSTEM)										
1	Mobilization	4	EA							
2	Mobilization (Specialty Contractor)	1	EA							
3	Develop and provide a MOT traffic safety plan, both map type and written type, by a Certified Work Zone Safety Traffic Supervisor	1	EA							
4	Clearing & Grubbing	1	LS							
5	Aluminum Signals Pole, Pedestal	4	EA							
6	Trigg Industries Z-Pattern Infrared Sensor Package (or equal)	2	EA							
7	CCTV Hardware, Mounting, and Installation	1	LS							
8	Engineering, Controls, Power, and System Integration	1	LS							
9	On-Site Support Travel	1	TRIP							
10	On-Site Labor	3	DAY							
11	Blank-Out Sign with Flashing Beacons "OVERHEIGHT VEHICLE DETECTED"	3	AS							
12	Enhanced Highway Sign Assembly, Solar Powered, F&I Ground Mount, w/Beacons (2), up to 12 SF of Static Panel Signs (w/ LED Border)	4	AS							
13	Single Column Ground Sign Assembly, F&I Ground Mount, Less Than 12 SF (w/ LED Border)	2	AS							
14	Single Column Ground Sign – Convert Pedestrian Warning Signs and Plaques to Fluorescent Yellow-Green (F&I)	10	AS							
15	NO TRUCKS Sign (R5-2) and Arrow Plaque (per plan)	4	AS							
16	NO TRUCKS Sign (R5-2)	1	AS							
17	Advisory "25 MPH" Sign (W13-1P) 18"x18	1	AS							
18	Signage, Remove	2	AS							
19	Signage, Remove & Reset Allowance (undistributed)	8	AS							
20	Pavement Message Marking, "CAUTION HEIGHT 10'-0" AHEAD" Group	2	EA							

GENERAL CONDITIONS
SECTION 8
PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION

8.1 Description.

Provide erosion control measures on the project and in areas outside the right-of-way where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects to public or private property adjacent to the project right-of-way and damage to work on the project. Construct and maintain temporary erosion control features or, where practical, construct and maintain permanent erosion control features as shown in the plans or as may be directed by the Engineer.

8.2 General.

Coordinate the installation of temporary erosion control features with the construction of the permanent erosion control features to the extent necessary to ensure economical, effective, and continuous control of erosion and water pollution throughout the life of the Contract.

8.3 Control of Contractor's Operations Which May Result in Water Pollution.

Prevent pollution of streams, canals, lakes, reservoirs, and other water impoundments with fuels, oils, bitumens, calcium chloride, or other harmful materials. Also, conduct and schedule operations to avoid or otherwise minimize pollution or siltation of such water impoundments, and to avoid interference with movement of migratory fish. Do not dump any residue from dust collectors or washers into any live stream.

Restrict construction operations in rivers, streams, lakes, tidal waters, reservoirs, canals, and other water impoundments to those areas where it is necessary to perform filling or excavation to accomplish the work shown in the plans and to those areas which must be entered to construct temporary or permanent structures. As soon as conditions permit, promptly clear rivers, streams, and impoundments of all obstructions placed therein or caused by construction operations.

Do not frequently ford live streams with construction equipment. Wherever an appreciable number of stream crossings are necessary at any one location, use a temporary bridge or other structure.

Except as necessary for construction, do not deposit excavated material in rivers, streams, canals, or impoundments, or in a position close enough thereto, to be washed away by high water or runoff.

Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water by one or more of the following methods prior to discharge into State waters: pumping into grassed swales or appropriate vegetated areas or sediment basins, or confined by an appropriate enclosure such as turbidity barriers when other methods are not considered appropriate.

Do not disturb lands or waters outside the limits of construction as staked, except as authorized by the Engineer.

Obtain the Engineer's approval for the location of, and method of operation in, borrow pits, material pits, and disposal areas furnished for waste material from the project (other than commercially operated sources) such that erosion during and after completion of the work will not result in probability of detrimental siltation or water pollution.

8.4 Materials for Temporary Erosion Control.

The Engineer will not require testing of materials used in construction of temporary erosion control features other than as provided for geotextile fabric unless such material is to be incorporated into the completed project. When no testing is required, the Engineer will base acceptance on visual inspection.

The Contractor may use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project, subject to the approval of the Engineer.

8.5 Preconstruction Conference.

At the Preconstruction Conference, provide to the City a special plan to prevent, control, and reduce erosion and water pollution, meeting the requirements or special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the project erosion control plan will be governed by federal, state, and local regulations.

8.6 Construction Requirements.

8.6.1 Limitation of Exposure of Erodible Earth: The Engineer may limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide erosion or pollution control measures to prevent contamination of any river, stream, lake, tidal waters, reservoir, canal, or other water impoundments or to prevent detrimental effects on property outside the project right-of-way or damage to the project. Limit the area in which excavation and filling operations are being performed so that it does not exceed the capacity to keep the finish grading, grassing, sodding, and other such permanent erosion control measures functional.

8.6.2 Incorporation of Erosion Control Features: Incorporate permanent erosion control features into the project at the earliest practical time. Use approved temporary erosion control features to correct conditions that develop during construction which were not foreseen at the time of design, to control erosion prior to the time it is practical to construct permanent control features, or to provide immediate temporary control of erosion that

develops during normal construction operations, which are not associated with permanent erosion control features on the project.

The Engineer may authorize temporary erosion control features when Topsoil is specified in the Contract and the limited availability of that material from the grading operations will prevent scheduled progress of the work or damage the permanent erosion control features.

8.6.3 Scheduling of Successive Operations: Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing so that grading operations can follow immediately thereafter. Schedule and perform grading operations so that permanent erosion control features can follow immediately thereafter if conditions on the project permit.

8.6.4 Details for Temporary Erosion Control Features:

7-6.4.1 General: Use temporary erosion and water pollution control features that consist of, but are not limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, sediment checks, berms, baled hay or straw, floating turbidity barrier, staked turbidity barrier and silt fence. For design details for some of these items, refer to the Water Quality Section of the Roadway and Traffic Design Standards, latest edition of FDOT specifications.

8.6.4.2 Temporary Grassing: The Engineer may designate certain areas of grassing constructed as temporary erosion control features. The Engineer may direct the Contractor to omit permanent type grass seed from grassing and the reduce the specified rate of spread for fertilizer used in conjunction with grassing operations when such work is designated as a temporary erosion control feature.

8.6.4.3 Temporary Sod: Furnish and place sod within areas designated by the Engineer to temporarily control erosion. If the Engineer determines that the sod will be of a temporary nature, he may not require fertilizer and lime. Keep the sod in a moist condition in order to ensure growth. The Contractor will pay for all required watering under erosion control.

8.6.4.4 Temporary Mulching: Furnish and apply a 2 to 4 inch [50 to 100 mm] thick blanket of straw or hay mulch to designated areas, then mix or force the mulch into the top 2 inches [50 mm] of the soil in order to temporarily control erosion. Use only undecayed straw or hay which can readily be cut into the soil. The Contractor may substitute other measures for temporary erosion control, such as hydromulching, chemical adhesive soil stabilizers, etc., for mulching with straw or hay, if approved by the Engineer. When beginning permanent grassing operations, plow under temporary mulch materials in conjunction with preparation of the ground.

8.6.4.5 Sandbagging: Furnish and place sandbags in configurations to control erosion and siltation.

8.6.4.6 Slope Drains: Construct slope drains in accordance with the details shown in the plans, the Roadway and Traffic Design Standards, or as may be approved as suitable to adequately perform the intended function.

8.6.4.7 Sediment Basins: Construct sediment basins in accordance with the details shown in the plans, the Roadway and Traffic Design Standards, or as may be approved as suitable to adequately perform the intended function. Clean out sediment basins as necessary in accordance with the plans or as directed.

8.6.4.8 Berms: Construct temporary earth berms to divert the flow of water from an erodible surface.

8.6.4.9 Baled Hay or Straw: Provide bales having minimum dimensions of 14 by 18 by 36 inches [350 by 450 by 900 mm], at the time of placement. Construct baled hay or straw dams to protect against downstream accumulations of silt. Construct the baled hay or straw dams in accordance with the details shown in the plans or the Roadway and Traffic Design Standards.

Place the dam to effectively control silt dispersion under conditions present on this project. The Contractor may use alternate solutions and usage of materials if approved.

8.6.4.10 Temporary Silt Fences:

8.6.4.10.1 General: Furnish, install, maintain, and remove temporary silt fences, in accordance with the manufacturer's directions, these Specifications, the details as shown on the plans, and the Roadway and Traffic Design Standards.

8.6.4.10.2 Materials and Installation: Use a geotextile fabric made from woven or nonwoven fabric, meeting the physical requirements necessary to accommodate those applications for erosion control.

Choose the type and size of posts, wire mesh reinforcement (if required), and method of installation. Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective temporary silt fence that controls sediment comparable to the Roadway and Traffic Design Standards, Index No. 102.

Install all sediment control devices in a timely manner to ensure the control of sediment and the protection of lakes, streams, gulf or ocean waters, or any wetlands associated therewith and to any adjacent property outside the right-of-way as required.

At sites where exposure to such sensitive areas is prevalent, complete the installation of any sediment control device prior to the commencement of any earthwork.

After installation of sediment control devices, repair portions of any devices damaged at no expense to the City.

Erect temporary silt fence at upland locations across ditchlines and at temporary locations shown on the plans or approved by the Engineer where continuous construction activities change the natural contour and drainage runoff. Do not attach temporary silt fence to existing trees unless approved by the Engineer.

8.6.4.10.3 Inspection and Maintenance: Inspect all temporary silt fences immediately after each rainfall and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, install additional silt fences as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately ½ of the volume capacity of the temporary silt fence or as directed by the Engineer. Dress any sediment deposits remaining in place after the temporary silt fence is no longer required to conform to the finished grade, and prepare and seed them.

8.6.4.11 Floating Turbidity Barriers and Staked Turbidity Barriers: Install, maintain, and remove turbidity barriers to contain turbidity that may occur as the result of dredging, filling, or other construction activities which may cause turbidity to occur in the waters of the State. The Contractor may need to deploy turbidity barriers around isolated areas of concern such as seagrass beds, coral communities, etc. both within as well as outside the right-of-way limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Install the barriers in accordance with the details shown in the plans or as approved by the Engineer. Ensure that the type barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the construction site. The Engineer may approve alternate methods or materials. Operate turbidity barriers in such a manner to avoid or minimize the degradation of the water quality of the surrounding waters.

8.6.4.12 Rock Bags: Furnish and place rock bags to control erosion and siltation. Place the bags as shown in the plans, the Roadway and Traffic Design Standards or as directed by the Engineer. Use a fabric material with openings that are clearly visible to minimize clogging yet small enough to prevent rock loss. Use material of sufficient strength to allow removing and relocating bags without breakage. The bag size when filled with rocks shall be approximately 12 by 12 by 4 inch [300 by 300 by 100 mm]. Use No. 4 or No. 5 coarse aggregate rock.

8.6.5 Removal of Temporary Erosion Control Features: In general, remove or incorporate into the soil any temporary erosion control features existing at the time of construction of the permanent erosion control features in an area of the project in such a manner that no detrimental effect will result. The Engineer may direct that temporary features be left in place.

8.7 Maintenance of Erosion Control Features.

8.7.1 General: Provide routine maintenance of permanent and temporary erosion control features, at no expense to the City, until the project is complete and accepted. If reconstruction of such erosion control features is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion control features, failure by the Contractor to install permanent erosion control features as scheduled, the Contractor shall replace such erosion control features at no expense to the City. If reconstruction of permanent or temporary erosion control features is necessary due to factors beyond the control of the Contractor, the City will pay for replacement under the appropriate Contract pay item or items.

8.7.2 Mowing: The Engineer may direct mowing of areas within the limits of the project. Mow these designated areas within seven days of receiving such order. Do not mow slopes that are steeper than three horizontal to one vertical.

8.8 Protection During Suspension of Contract Time.

If it is necessary to suspend the construction operations for any appreciable length of time, shape the top of the earthwork in such a manner to permit runoff of rainwater, and construct earth berms along the top edges of embankments to intercept runoff water. Provide temporary slope drains to carry runoff from cuts and embankments that are in the vicinity of rivers, streams, canals, lakes, and impoundments. Locate slope drains at intervals of approximately 500 feet [150 m], and stabilize them by paving or by covering with waterproof materials. Should such preventive measures fail, immediately take such other action as necessary to effectively prevent erosion and siltation. The Engineer may direct the Contractor to perform, during such suspensions of operations, any other erosion control work deemed necessary.

8.9 Compliance with NPDES requirements

Contractor shall be solely responsible for ensuring all dirt/sediment/turbid water remains on this jobsite and overall NPDES compliance. Any failure to comply will result in a $500 penalty per daily occurrence. Contractor will be provided with written notice of failure and funds will be deducted from final payment for contract retainage.

8.10 Basis of Payment.

The lump sum amount listed under erosion control on the proposal shall be the only compensation allowed the contractor. The items covered under this item includes construction and routine maintenance of temporary erosion control features and for moving. Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent

operations. The Contractor shall include these costs in the Contract prices for grading items. Additional temporary erosion control features constructed as directed by the Engineer will be paid for as unforeseeable work.

In case of failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the City's forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress payment.

CITY OF PENSACOLA

WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

TECHNICAL SPECIFICATIONS

TABLE OF CONTENTS

All work not described in these Technical Specifications herein shall conform to the latest version of the FDOT Standard Specifications or manufacturer specifications.

CITY OF PENSACOLA

WAYSIDE PARK EAST AND 17TH AVENUE PARK IMPROVEMENTS

TECHNICAL SPECIFICATIONS

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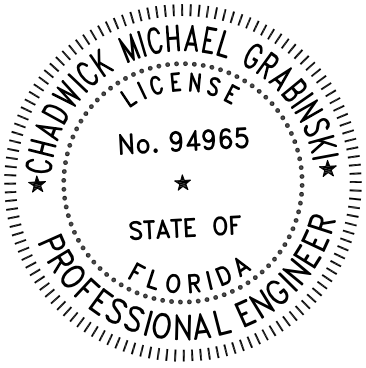


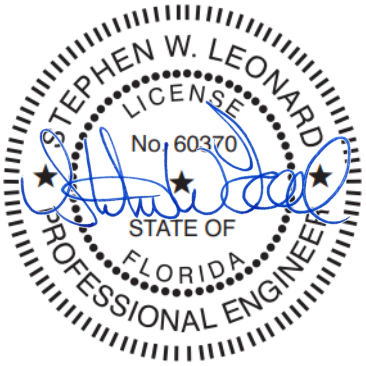
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

MCKIM & CREED, INC.
1301 N. PALAFOX STREET, SUITE 200, PENSACOLA, FLORIDA, 32501

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED ON THE DATE ADJACENT TO THE SEAL.
EMAIL: CGRABINSKI@MCKIMCREED.COM

Engineer of Record (Civil):

Chadwick M. Grabinski, P.E.
#94965
McKim & Creed



This document has been electronically signed and sealed using a digital signature. Per Florida Statute, printed copies of this document are not considered signed and sealed. And, signature must be verified on any electronic copies.

Engineer of Record (Structural):

Stephen W. Leonard, P.E.
#60370
Berube Leonard, LLC

Applicable Sections:	
• All sections not covered by the structural or electrical engineers of record.	• 02461 – TIMBER PILES • 03310 – CAST-IN-PLACE CONCRETE

SECTION 01000 – DEFINITIONS AND TERMS

PART 1 - GENERAL

These Specifications are written to the bidder, prior to award of the Contract, and to the Contractor.

Any reference to Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition, Division I, General Requirements and Covenants, shall be excluded and not applicable to any specification referred to, or otherwise listed, in this document.

1.1 ABBREVIATIONS AND ACRONYMS

The following abbreviations and acronyms, when used in the Contract Documents, represent the full text shown.

AASHTO-
American Association of State Highway and Transportation Officials ACI American Concrete Institute

ADS-
Advanced Drainage Systems

AISI-
American Iron and Steel Institute

ARB-
Asphalt Rubber Binder

ARMI-
Asphalt Rubber Membrane Interlayer

ASTM-
American Society for Testing and Materials

CEI-
Construction Engineering Inspections

CRSI-
Concrete Reinforcing Steel Institute

CTQP-
Construction Testing Qualification Program
ECUA-
Escambia County Utilities Authority

EOR-
Engineer of Record

ERC-
Engineered Crumb Rubber

FAC-
Florida Administrative Code

FDACS-
Florida Department of Agriculture and Consumer Services

FDEP-
Florida Department of Environmental Protection

FDOT-
Florida Department of Transportation

FHWA-
Federal Highway Administration

FM-
Florida Method

HMAC-
Hot-Mix Asphaltic Concrete LBR Limerock Bearing Ratio

MOT-
Maintenance of Traffic

MUTCD-
Manual on Uniform Traffic Control Devices

NCHRP-
National Cooperative Highway Research Program

NPDES-
National Pollutant Discharge Elimination System

NS-
Non-Structural

OSHA-
Occupational Safety and Health Administration PE Professional Engineer

PG-
Performance Grade

PVC-
Polyvinyl Chloride

QA-
Quality Assurance

QC-
Quality Control

RAP-
Reclaimed Asphalt Pavement

RCA-
Recycled Concrete Aggregate

SHS-
Standard Highway Signs

SP-
Superpave

USDA-
United States Department of Agriculture USDOT U.S. Department of Transportation

VFA-
Voids Filled with Asphalt

VMA-
Voids in Mineral Aggregate

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the authority or organization shown.

Use standards, specifications, test methods, or other codes as specified in the current edition at the time of the bid opening.

1.2 DEFINITIONS

The following terms, when used in the Contract Documents, have the meaning described:

Advertisement -

The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished, usually issued as “Notice to Contractors,” or “Notice to Bidders.”

Bidder -
An individual, firm, or corporation submitting a proposal for the proposed work.

Bridge -
A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.

Calendar day -
Every day shown on the calendar, ending and beginning at midnight.

Contract -
The term “Contract” means the entire and integrated agreement between the parties there under and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract Documents form the Contract between the City and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

Contract Documents -
The term “Contract Documents” includes Advertisement for Proposal, Proposal, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Non-collusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Specifications, plans (including revisions thereto issued during construction), Addenda, or other information mailed or otherwise transmitted to the prospective bidders prior to the receipt of bids, work orders and supplemental agreements, all of which are to be treated as one instrument whether or not set forth at length in the form of contract.

Contract Bond -
The security furnished by the Contractor and the surety as a guaranty that the Contractor shall fulfill the terms of the Contract and pay all legal debts pertaining to the construction of the project.

Contract Letting -
The date that the City opened the bid proposals. Contract Time -
The number of calendar days allowed for completion of the Contract work, including authorized time extensions.

Contractor -

The individual, firm, joint venture, or company contracting with the City to perform the work.

Contractor's Engineer of Record -
A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign or Cost Savings Initiative Proposal, or for repair designs and details of the permanent work. The Contractor's Engineer of Record may also serve as the Specialty Engineer. The Contractor's Engineer of Record must be an employee of a pre-qualified firm. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate of being an employee of a pre-qualified firm, the Contractor's Engineer of Record may be a pre-qualified Specialty Engineer. For items of the permanent work declared by the State Construction Office to be "major" or "structural", the work performed by a prequalified Specialty Engineer must be checked by another pre-qualified Specialty Engineer. An individual Engineer may become pre-qualified in the work groups listed in the Rules of the Department of Transportation, Chapter 14-75, if the requirements for the Professional Engineer are met for the individual work groups. Pre-qualified Specialty Engineers are listed on the State Construction Website. Pre-qualified Specialty Engineers will not be authorized to perform redesigns or Cost Savings Initiative Proposal designs of items fully detailed in the plans.

Controlling Work Items -
The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

County -
Escambia County Florida

City -
City of Pensacola

Culverts -
Any structure not classified as a bridge that provides an opening under the roadway.

Delay -
Any unanticipated event, action, force or factor which extends the Contractor's time of performance of any controlling work item under the Contract. The term "delay" is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Contractor, or the Contractor's subcontractors, materialmen, suppliers or other agents. This term does not include "extra work".

Department -

Florida Department of Transportation

Department of Transportation -
Florida Department of Transportation

Developmental Specification -
See definition for Specifications

Engineer -
The Professional Engineer, registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, acting as the project's Construction Engineering Inspection Manager. The Engineer may be City in-house staff, or a consultant retained by the City

Engineer of Record -
The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the preparation of the Plans and Specifications. The Engineer of Record may be City in-house staff, or a consultant retained by the City.

The Contractor shall not employ the Engineer of Record as the Contractor’s Engineer of Record or as a Specialty Engineer.

Equipment -
The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.

Extra Work -
Any “work” which is required by the Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a “delay”.
Highway, Street, or Road -
A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Holidays -
Days designated by the Board of City Commissioners as holidays, which include, but are not limited to, New Year’s Day, Martin Luther King’s Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the following Friday, and Christmas Day.

Inspector -

An authorized representative of the City assigned to make official inspections of the materials furnished and of the work performed by the Contractor.

Laboratory -
The testing laboratory used by the Contractor.

Major Item of Work -
Any item of work having an original Contract value in excess of 5% of the original Contract amount.

Materials -
Any substances to be incorporated in the work under the Contract.

Median -
The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

Plans -
The approved plans, including reproductions thereof, showing the location, character, dimensions, and details of the work.

Proposal (Bid, Bid Proposal) -
The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

Proposal Form -
The official form or the expedite program generated bid item sheets on which the City requires formal bids to be prepared and submitted for the work.

Proposal Guaranty -
The security furnished by the bidder as guaranty that the bidder will enter the Contract for the work if the City accepts the proposal.

Right-of-Way -
The land that the City has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the City.

Roadbed -
The portion of the roadway occupied by the subgrade and shoulders.

Roadway -
The portion of a highway within the limits of construction.

Section -
A numbered prime division of these Specifications.
Special Provisions -

See definition for Specifications.

Specialty Engineer -
A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the plans and required to be furnished by the Contractor such as but not limited to pot bearing designs, nonstandard expansion joints, MSE wall designs and other specialty items. The Specialty Engineer may also provide designs and details for items of the permanent work declared by the State Construction Office to be “minor” or “non-structural”. The Specialty Engineer may be an employee or officer of the Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator, or an independent consultant. For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

1.1 Registration as a Professional Engineer in the State of Florida,
1.2 The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

Specifications -
The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

Developmental Specification -
A specification developed around a new process, procedure, or material.

Special Provisions -
Specific clauses adopted by the Department that add to or revise the Standard Specifications or Supplemental Specifications, setting forth conditions varying from or additional to the Standard Specifications applicable to a specific project.

Standard Specifications -
Florida Department of Transportation “Standard Specifications for Road and Bridge Construction” a bound book, applicable to all construction contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.
Supplemental Specifications -
Approved additions and revisions to the Standard Specifications, applicable to all construction contracts.

Technical Special Provisions -

Specifications, of a technical nature, prepared, signed, and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.

Technical Specifications -
Escambia County Florida “General Paving and Drainage Technical Specifications” developed for all construction contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantity and quality of materials and labor.

State -
State of Florida.

Sub-article -
A headed and numbered subdivision of an Article of a Section of these Specifications.

Subgrade -
The portion of the roadbed immediately below the base course or pavement, including below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6inches beyond the base, pavement, or curb and gutter.

Substructure -
That part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.

Superintendent -
The Contractor’s authorized representative in responsible charge of the work.

Superstructure -
The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.

Supplemental Agreement -
A written agreement between the Contractor and the City, and signed by the surety, modifying the Contract within the limitations set forth in these Specifications.

Supplemental Specifications -
See definition for Specifications.

Surety -

The corporate body that is bound by the Contract Bond with and for the Contractor and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.

Technical Special Provisions -
See definition for Specifications.

Technical Specifications -
See definition for Specifications.

Traveled Way -
The portion of the roadway providing for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Unilateral Payment -
A payment of money made to the Contractor by the Department pursuant to Section 337.11(12), Florida Statutes (2009), for sums the Department determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against the Department for payment of any additional sums the Contractor claims are due for the work.

Work -
All labor, materials and incidentals required to execute and complete the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.

Work Order -
A written agreement between the Contractor and the City modifying the Contract within the limitations set forth in these Specifications. Funds for this agreement are drawn against the Initial Contingency Pay Item or a Contingency Supplemental Agreement.

Working Day -
Any calendar day on which the Contractor works or is expected to work in accordance with the approved work progress schedule.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01000

SECTION 01020 – TROPICAL STORMS AND HURRICANES PREPAREDNESS / RECOVERY PLAN

PART 1 - GENERAL

1.1 INTRODUCTION

The National Weather Service names a tropical weather system and begins to issue advisories as soon as the system reaches tropical storm strength. The advisories are issued every 6 hours. Supplemental advisories are issued at 3-hour intervals when landfall is expected in 24 hours or less.

Contractors are fully responsible for any aspect of their construction work that may affect City operations. The duration of this responsibility starts from the first construction day to final acceptance of the equipment or facilities installed. Therefore, during inclement weather, Contractor shall protect, maintain and repair installations as needed in a timely manner.

1.2 DEFINITIONS

Tropical Storm -
A tropical storm/cyclone in which the maximum sustained surface winds are 39 miles per hour (34 knots) to 73 miles per hour (63 knots). At this point, the system is given a name to identify and track it.

Tropical Storm Watch -
A forecast issued well in advance of a severe weather event to alert the public of the possibility of a particular hazard.

Tropical Storm Warning -
A forecast issued when severe weather has developed, is already occurring and reported, or is detected on radar. Warning states a particular hazard or imminent danger.

Hurricane -
The name for a tropical cyclone with sustained winds of 74 miles per hour (65 knots) or greater in the North Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the Eastern North Pacific Ocean. The same tropical cyclone is known as a typhoon in the Western Pacific and a cyclone in the Indian Ocean.

Hurricane Watch -
A formal advisory issued by forecasters at the National Hurricane Center when they have determined that hurricane conditions are a potential threat to a coastal area or group of islands within a 24-to-36-hour period. A watch is used to inform the public and marine interests of the storm’s location, intensity, and movement. Everyone in the area

covered by the watch should listen for further advisories and be ready to take precautionary actions including evacuation if directed.

Hurricane Warning -
A formal advisory issued by forecasters at The National Hurricane Center when they have determined that hurricane conditions are expected in a coastal area or group of islands within a 24-hour period. A warning is used to inform the public and marine interests of the storm's location, intensity, and movement. The warning will specify areas where sustained winds of 74 mph, or higher, are expected to make landfall within 24 hours.

1.3 PREPAREDNESS

This plan is designed to supplement any storm preparedness/recovery plan currently established by the Contractor. The preparedness & recovery steps listed below shall be the minimum requirements. City project managers or administrative personnel may also direct specific site requirements.

After a **Storm Watch** is Issued:

A. Contractor's field supervisor or project manager shall communicate with the City and Engineer to discuss necessary actions. Emergency phone numbers, including cellular phone numbers will be exchanged.

B. General clean-up of loose construction items shall be accomplished. All storm inlets shall be protected and all loose dirt shall be swept from the roadway. Excess signs and barricades shall be stored in a secured location.

After a **Storm Warning** is Issued:

Contractor's field supervisor or project manager shall communicate with the City and Engineer to discuss necessary actions if not previously accomplished. Emergency phone numbers, including cellular phone numbers will be exchanged.

A. Complete clean-up of construction items and equipment shall be accomplished. All storm inlets shall be protected and all loose dirt shall be swept from the roadway. Excess signs and barricades shall be stored in a secured location. 80# sand/shell bags, as a minimum, shall be placed on each side of barricades that must stay in place.

B. No open holes shall be left at the end of daily construction activities.

C. Tighten down all panel fasteners (cover with plastic if needed) and lock electric panels.

After a **Hurricane Watch** is Issued:

A. Contractor shall meet with his/her key personnel and a City representative to discuss preparedness procedures, resolve any unusual circumstances and confirm communication lines.

B. All construction equipment shall be removed from the public right-of-way and stored at Contractor's facilities. All storm inlets shall be protected and all loose dirt shall be swept from the roadway. Excess signs and barricades shall be stored in a secured location. 120# sand/shell bags, as a minimum, shall be placed on each side barricades that must stay in place. All barricades must be lighted.

C. Be alert for tornado warnings, as hurricanes often spawn tornadoes.

D. All auxiliary and standby equipment should be thoroughly checked out to determine its operational condition. Engage stand-by generators when interruptions or fluctuations in power occur.

E. Fill all fuel tanks of vehicles and auxiliary equipment to capacity. Have sufficient fuel reserves for at least 48 hours of operation stored in approved 5 gallon gas cans.

F. Have spare parts which are critical to the operation of the system stocked on hand.

G. Store drinking water, if necessary, enough for personnel who may remain on-site for several days.

H. Protect any installed electronic equipment (control panels, pull boxes, computers, etc.) from driving rain or flooding.

I. If an evacuation order is given by local emergency managers, construction personnel who are in an evacuation area have to make a personal decision as to whether or not they will comply with the order. It may be true that a near-by city or county storm shelter is the safest location to wait the storm out.

J. Secure food and water supplies for personnel assigned to keep constructed facilities protected. Supply each individual with a minimum of 8 food packs per person assigned to facility or equipment (military MRE's).

After a **Hurricane Warning** is Issued:

A. Board up and secure all facilities. This includes sandbagging openings to prevent water intrusion.

B. Make sure all personnel that are staying at the construction site during the storm know their assignments as well as the reporting locations for other

personnel after the storm.

C. All auxiliary and standby equipment should be thoroughly re-checked out to determine its operational condition.

D. Tighten down all electric panel fasteners (cover with plastic if needed) and lock electric panels and fence gate.

E. Prior to the storm hitting, turn off all unnecessary electrical equipment including lighting.

1.4 RECOVERY PLAN

After the Tropical Storm or Hurricane Passes:

A. Survey all construction site damage and notify emergency management agencies, City, Engineer and local regulators about status including estimation of placing contracted items back in service.

B. Take photos and video of damaged areas to suit any proposed claims.

C. Check installed lines for contamination. Proceed with disinfection procedures if required.

D. Coordinate with the City's project manager if additional assistance in manpower or equipment is required.

E. Have electrical systems inspected by a qualified electrical technician before placing the equipment online.

F. Hurricane recovery activities including labor hours, inventory & supply usage, equipment & vehicle usage and necessary purchases should be well documented for insurance reimbursement purposes. Repairs to facilities should be differentiated as to whether the repair is temporary or permanent.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01020

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and General and Supplemental Provisions of the Contract apply to this Section.

1.2 SUMMARY

This Section includes administrative and procedural requirements for submittals required for performance of the Work, including, but not limited to the following:

A. Submittal Procedures

B. Contractor's Construction Schedule

C. Daily Construction Reports

D. Shop Drawings

E. Product Data

F. Samples

G. Quality Assurance Submittals

H. Licenses

I. Pictures, Video of Pre-Construction Conditions

Administrative Submittals: Refer to other Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

A. Applications for Payment

B. Performance and Payment Bonds

C. Insurance Certificates

D. List of Subcontractors

E. Licenses

F. Permits

1.3 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

B. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, inspections, and related activities that require sequential activity.

C. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination. The City reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

D. Processing: To avoid the need to delay construction as a result of the time required to process submittals, allow enough time for submittal review, including time for re-submittals. Allow 2weeks for initial review. Allow additional time if the City must delay processing to permit coordination with subsequent submittals.

1. If an intermediate submittal is necessary, process the same as the initial submittal.

2. Allow 2weeks for reprocessing each submittal.

3. No extension of Contract Time will be authorized because of failure to transmit submittals to the City sufficiently in advance of the Work to permit processing.

E. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

F. Provide a space approximately 4by 5inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

G. Include the following information on the label for processing and recording action taken.

1. Project Name.

2. Date.

3. Name and Address of the Engineer.

4. Name and Address of the Contractor.

H. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Four copies of each submittal (three hard copy and one digital) shall be transmitted. Transmit each submittal from the Contractor to the City, (copy Engineer) using a transmittal form. The City will not accept submittals received from sources other than the Contractor. Submittals must be approved by Contractor prior to review by the City. On the transmittal, record relevant information and requests for data. On the form or on a separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that the information complies with Contract Document requirements on each submittal.

1.4 CONSTRUCTION SCHEDULE/DOCUMENTATION

A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart-type, contractor's construction schedule. Submit within 10 days of the issuance of the Notice to Proceed. The contractor shall submit an updated schedule at least once per month, showing any schedule changes. This may be requested up to three times per month by the City. Include dates of shop drawing submittals.

B. Cost Correlation: At the head of the schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of Work performed as of the dates used for preparation of payment requests.

C. Pre-Construction Site Conditions Photos/Video: Contractor shall submit a DVD of photos and video of the site conditions prior to the performance of any work.

D. Licenses: All required licenses to perform work shall be submitted prior to the commencement of construction.

1.5 DAILY CONSTRUCTION REPORTS

Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the City at weekly intervals including, but not limited to:

A. Approximate count of personnel at the site.

B. Count and type of major equipment at the site.

C. High and low temperatures, general weather conditions, including daily rainfall amount from gauge installed on site jointly recorded by contractor

and City representative.

D. Accidents and unusual events.

E. Meetings and significant decisions.

F. Stoppages, delays, shortages, and losses.

G. Emergency procedures.

H. Orders and requests of governing authorities.

I. Change Orders received, implemented.

J. Material Expenditures.

K. Work performed.

1.6 SHOP DRAWINGS

A. Submit shop drawings for structures to be approved by the EOR.

B. Shop Drawings –Including, but not limited to the following information:

1. Dimensions.

2. Identification of products and materials included by sheet and detail number.

3. Compliance with specified standards.

1.7 PRODUCT DATA

A. Product Data -Include the following information:

1. Manufacturer's printed recommendations.

2. Compliance with trade association standards.

3. Compliance with recognized testing agency standards.

4. Application of testing agency labels and seals.

1.8 SAMPLES

Submit samples as specified in the technical specifications.

1.9 QUALITY CONTROL (QC) /QUALITY ASSURANCE (QA) SUBMITTALS

A. Submit the QC Plan to the City for approval within 21 calendar days after the Notice to Proceed. The City will review the QC Plan and respond to the Contractor within 21 calendar days of receipt.

If at any time the Contractor is not in compliance with the approved QC Plan, or a part thereof, affected portions of the plan will be disapproved. The contractor shall cease work in the affected operation(s) and submit a revision to the City. If the QC Plan, or a part thereof, must be revised, submit the revision to the City. The City will review the revision and respond within seven calendar days of receipt.

Continue to work on operations that are still in compliance with the approved sections of the QC Plan.

B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit to the City a certification from the manufacturer stating compliance with specified requirements.

C. Inspection and Test Reports: Requirements for specific testing are included in the technical specifications.

1. Submit to the City: Two (2) copies (one hard copy and one digital) of the inspection and test reports from a qualified, independent, geotechnical engineering testing agency, under the direction of a P.E., licensed in the State of Florida.

2. All testing required by these specifications shall be at the contractors' expense.

3. No additional work within/upon the tested area shall proceed until submitted test results confirm compliance with specification requirements.

4. Areas where submitted test results indicate non-compliance shall be removed, replaced, and retested. Extents of area out of compliance shall be determined by testing at 25' increments, in each direction within

5. the construction area, until passing results are achieved.

6. Variations from testing requirements and frequency of testing may be authorized by the City and will be documented in writing.

1.10 ENGINEER'S ACTION

Except for submittals for the record or information, where action and return are required, the City will review each submittal, mark to indicate action taken, return to contractor within the timeframe allotted herein. Compliance with specified characteristics is the Contractor's responsibility.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01300

SECTION 01354 – RAILROAD COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

Section Includes:

A. Requirements for coordination with Florida Gulf & Atlantic Railroad (FGA).

B. Right-of-entry and flagging coordination procedures.

C. Contractor responsibilities related to fees, access, and approvals.

D. Related Documents:

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specifications apply to this Section.

2. Exhibit A – FGA Right-of-Entry Form (including 2026 fee schedule).

3. Exhibit B – FGA Flagging Request Form (including 2026 fee schedule).

1.2 DEFINITIONS

FGA: Florida Gulf & Atlantic Railroad.

ROW: Railroad right-of-way.

1.3 COORDINATION REQUIREMENTS

A. The City of Pensacola has secured a land lease and engineering approval for the work within FGA ROW.

B. Contractor shall be responsible for construction-related coordination, including:

1. Completing and submitting the FGA Right-of-Entry form.

2. Paying all associated Right-of-Entry fees directly to FGA.

3. Completing and submitting the FGA Flagging Request form.

4. Coordinating and paying all flagging service fees required by FGA.

C. Contractor shall not access or perform work within FGA ROW without:

1. Written approval from FGA confirming accepted right-of-entry.

2. Scheduled and confirmed flagging support, if required.

D. Allow a minimum of 30 calendar days for processing of all railroad forms and approvals.

E. Coordinate schedule impacts related to railroad approvals, including potential work pauses or rescheduling due to FGA flagging availability.

1.4 SUBMITTALS

A. Submit executed copies of the following to the Engineer prior to starting work within FGA ROW:

1. Approved Right-of-Entry authorization from FGA.

2. Flagging coordination confirmation, including proposed dates and contact information.

3. Proof of fee payment(s).

1.5 PAYMENT

All fees associated with railroad access and flagging services shall be paid directly by the Contractor to FGA. These fees are not reimbursable and shall be included in the Contractor's bid.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01354

SECTION 01541 – PROTECTION OF THE WORK AND PROPERTY

PART 1 - GENERAL

1.1 SUMMARY

This Section sets forth the requirements and responsibilities to protect the work and all public and private property and improvements above and below ground from aesthetic and structural damage during the performance of the work in compliance with contract Bid Documents.

1.2 BARRICADES AND WARNING SIGNALS

Where Work is performed on or adjacent to any roadway, right-of-way, or public place, Contractor shall provide barricades, fences, lights, warning signs, danger signals and/or watchmen, and shall take other precautionary measures for the protection of persons or property and of the work. Barricades shall be Manual of Uniform Traffic Control Devices (MUTCD) compliant for the condition for which they are used. Contractor shall use new or almost new looking barricades to demonstrate the importance of the warning device.

1.3 TREE AND PLANT PROTECTION

A. Contractor shall protect all existing trees on or adjacent to the site against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots. The Contractor shall utilize the services of a Florida International Society of Arboriculture Certified licensed arborist for protective services.

B. Materials, fuels, lubricants, chemicals, and equipment shall not be stored or parked within the drip line.

C. Temporary fences or barricades in keeping with regionally recognized damage prevention practices shall be installed to protect trees and plants in areas subject to construction traffic.

D. Within the limits of the work, water trees and plants that are to remain or that have been temporarily relocated, in order to maintain their health during construction operations.

E. Cover all exposed roots with soil or 6 inches of mulch that shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution.

F. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas

G. All damaged trees and plants that die or suffer permanent injury as determined by the arborist shall be removed when ordered by the City and replaced by a specimen of equal or better quality at no additional cost to the city.

1.4 PROTECTION OF EXISTING IMPROVEMENTS

A. Underground improvements are defined to include, but not limited to, all storm sewer, sanitary sewer, water, gas, reclaimed water irrigation system and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface improvements located within or adjacent to the limits of the work.

B. Surface improvements are defined as all existing buildings, structures and other facilities above the ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads and their dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, traffic signalization, walks and all other facilities that are visible above the ground surface.

1.5 PROTECTION OF UNDERGROUND AND SURFACE STRUCTURES

A. Contractor shall sustain in their places and protect from direct or indirect injury all underground and surface improvements located within or adjacent to the limits of the work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, Contractor shall satisfy the City that the party owning same has approved the methods and procedures to be used.

1.6 PROTECTION OF INSTALLED IMPROVEMENTS

A. Provide protection of installed improvements to prevent damage. Remove protection when no longer needed, with City concurrence, prior to completion of work.

B. Control construction traffic to prevent damage to equipment, materials and surfaces.

1.7 PROTECTION AGAINST VANDALISM

A. Contractor shall protect against vandalism and repair or remove and replace vandalized property as required by City.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01541

SECTION 01840 – COLOR AUDIO-VIDEO PRECONSTRUCTION RECORD

PART 1 - GENERAL

1.1 SCOPE

Prior to commencing the work, the Contractor shall provide a continuous color audio-video DVD recording of the entire construction area of the Project to serve as a record of the site conditions. The Contractor shall submit one (1) copy of the pre-construction video DVD to the Engineer prior to starting construction activities. A copy of the preconstruction video DVD shall be kept at the site by the Contractor until completion of the work.

1.2 CONSTRUCTION SCHEDULE

Recordings shall not be made more than 45 calendar days prior to construction. No construction shall begin prior to review and approval of the video covering the construction area by the Engineer. The Engineer shall have the authority to reject all or any portion of a video not conforming to specifications and order that it be redone at no additional charge. The Contractor shall reschedule unacceptable coverage within five (5) calendar days after being notified. The Engineer shall designate those areas, if any, to be omitted from or added to the audiovisual coverage. All video and written records shall become the property of City.

1.3 PROFESSIONAL ELECTROGRAPHERS (VIDEOGRAPHERS)

The Contractor shall engage the services of a professional electrographer. The color audio-video DVD recordings shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of preconstruction color audio-video DVD documentation. The electrographer through the Contractor shall furnish to the Engineer a list of all equipment to be used for the audio-video recording, i.e., manufacturer’s name, model number, specifications and other pertinent information. Additional information to be furnished to the Engineer are the names and address of two references that the electrographer has performed color audio-video DVD recording on projects of a similar nature, one within the last 12 months.

PART 2 - PRODUCTS

2.1 GENERAL

A total audio-video system and the procedures employed in its use shall be such as to produce a finished project that will fulfill the technical requirements of the project. The video portion of the recording shall produce bright, sharp, and clear pictures with accurate colors and shall be free from distortion or any other form of picture imperfection. All video recordings shall, by electronic means, display on the screen the time of day, the month, day and year of the recording. This time and date information must be continuously and

simultaneously generated with the actual recording. The audio portion of the recording shall produce the commentary of the camera operator with proper clarity and be free from distortion.

PART 3 - EXECUTION

3.1 COVERAGE

The recordings shall contain coverage of all surface features within the construction zone of influence. These features shall include, but not be limited to, all roadways, pavement, retention ponds, curbs, driveways, sidewalks, culverts, headwalls, retaining walls, landscaping, trees, meters, mailboxes, inlet structures, valve boxes, backflow devices, signage, and fences. Of particular concern shall be the existence or non-existence of any faults, fractures or defects on the Osprey Avenue Bridge. Video coverage shall be limited to one side of the street at one time and shall include all surface conditions located within the zone of influence supported by appropriate audio description. Panning, zoom-in and zoom-out rates shall be sufficiently controlled to maintain a clear view of the object.

3.2 AUDIO RECORDING

Accompanying the video recording shall be a corresponding and simultaneously recorded audio recording. This audio recording, exclusively containing the commentary of the camera operator shall assist in viewer orientation and in any needed identification, differentiation, clarification, or objective description of the features being shown in the video portion of the recording. The audio recording shall also be free from any conversation between the camera operator and any other production technicians.

3.3 VIDEO LOG/INDEX

A. All DVDs shall be permanently labeled and shall be properly identified by video number and project title.

B. Video Logs: Each DVD shall have a log of its contents. The log shall describe the various segments of coverage contained on that DVD in terms of the names of the streets or easements, coverage beginning and end, directions of coverage, video unit counter numbers, engineering stationing numbers when possible, and the date of recording.

C. DVD Index: The Contractor shall provide an index listing, in order by DVD number, each DVD, including DVD number and a brief description of coverage contained on that DVD, including engineering station numbers.

3.4 TIME OF EXECUTION

Visibility: All recording shall be performed during a time of good visibility; no recording shall be done during periods of significant precipitation, mist or fog. The recording shall

only be done when sufficient sunlight is present to properly illuminate the subject and to produce sharp, bright video recordings of those subjects. No recording shall be performed when more than 10% of the area to be recorded contains debris or obstructions unless authorized by the Engineer.

3.5 CONTINUITY OF COVERAGE

In order to insure the continuity of coverage, the coverage shall consist of a single continuous unedited recording which begins at one end of a particular construction area; however, where coverage is required in areas not accessible by conventional wheeled vehicles and smooth transport of the recording system is not possible, such coverage shall consist of an organized interrelated sequence of recordings at various positions along that proposed construction area e.g., wooded easement area, or neighboring residences & office. Such coverage shall be obtained by walking or by a special conveyance approved by the Engineer.

3.6 COVERAGE RATES

The average rate of travel during a particular segment of coverage shall be directly proportional to the number, size and value of the surface features within that construction area's zone of influence. The average rate of travel shall not exceed forty-eight (48) feet per minute.

3.7 CAMERA OPERATION

A. Camera Height and Stability: When conventional wheeled vehicles are used as conveyances for the recording system, the vertical distance between the camera lens and the ground shall not exceed 10 feet. The camera shall be firmly mounted such that transport of the camera during the recording process will not cause an unsteady picture.

B. Camera Control: Camera pan, tilt, zoom-in and zoom-out rate shall be sufficiently controlled such that recorded objects shall be clearly viewed during video playback. In addition, all other camera and recording system controls, such as lens focus and aperture, video level, pedestal, chroma, white balance and electrical focus shall be properly controlled or adjusted to maximize picture quality.

C. Viewer Orientation Techniques: The audio and video portions of the recording shall maintain viewer orientation. To this end, overall establishing views of all visible house and business addresses shall be utilized. In areas where the proposed construction location will not be readily apparent to the video tape viewer, highly visible yellow flags shall be placed, by the Contractor, in such a fashion as to clearly indicate the proposed center line

of construction.

D. Electrographer Experience: The electrographer in charge shall have had previous experience with audio-video DVD documenting preconstruction work.

END OF SECTION 01840

SECTION 02230 – CLEARING & GRUBBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions shall apply to this Section.

B. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Latest Edition, Section 110

C. Emerald Coast Utility Authority (ECUA) Engineering Manual, Latest Edition.

1.2 SUMMARY

A. This Section includes, but is not limited to, the following:

1. Protection of existing trees indicated to remain.
2. Removal of trees and other vegetation.
3. Clearing and grubbing.
4. Removing above-grade improvements.
5. Removing below-grade improvements.

B. Extent of clearing &grubbing shall remain in City Rights-of-Way, easements (temporary or permanent), or approved written work agreement areas, unless otherwise noted or instructed.

1.3 PROJECT CONDITIONS

A. Provide protection for all public land corners and monuments within the limits of construction. Any Monuments disturbed while performing the work will be replaced at the contractor’s expense.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SITE CLEARING

A. General: Remove trees, shrubs, grass, and other vegetation, improvements, or obstructions, as required, to permit installation of new

construction. Remove similar items elsewhere on site or premises as specifically indicated. Removal includes digging out and off-site disposal of stumps and roots.

B. Carefully and cleanly cut minor roots and branches of trees indicated to remain in a manner where such roots and branches obstruct installation of new construction.

C. Clearing and Grubbing: Clear site of trees, shrubs, and other vegetation, except for those indicated to remain.

1. Completely remove all stumps within the roadway. Remove roots and other debris to a depth of 12” below the ground surface or finished grade, whichever is lower.

2. Use only hand methods for grubbing inside drip line of trees Indicated to remain.

3. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated in accordance with Section 2300.

D. Removal of Improvements: Remove existing above grade and below grade improvements as indicated and as necessary to facilitate new construction, and other work as indicated.

3.2 DISPOSAL OF WASTE MATERIALS

A. Burning: Burning is not permitted on City property. Requests to burn will be considered on a case by case basis. If approved, Contractor is to acquire permits and provide copies to the City.

B. Removal from City Property: Remove waste materials and unsuitable or excess topsoil from City property and dispose of offsite in a legal manner.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

A. Lump Sum Payment: When direct payment is provided in the Contract for the quantity to be paid for as the lump sum quantity cleared and grubbed, no additional measurements will be made.

B. Payment By the Acre/Square Yard: For areas of Clearing and Grubbing that are designated to be paid for separately by the acre or square yard, the quantity to be paid for will be determined by measurement of the areas shown on the plans or authorized by the City to be cleared and grubbed;

and acceptably completed.

4.2 BASIS OF PAYMENT

A. General: Price and payment will be full compensation for all Clearing and Grubbing required for the roadway right-of-way and for lateral ditches, channel changes, or other outfall areas, and any other Clearing and Grubbing indicated, or required for the construction of the entire project, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the contract. Price and payment, either lump sum or by the acre/square yard will be full compensation for all the work specified in this Section, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc., as specified herein.

B. Lump Sum Payment: Payment shall be made at the lump sum contract price for Clearing and Grubbing, lump sum.

C. Payment: Payment shall be made at the per unit contract price for Clearing and Grubbing, per acre or square yard.

END OF SECTION 02300

SECTION 02240 – DEWATERING (DURING CONSTRUCTION)

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope of Work: The work to be performed under this Section shall include the design and installation of a temporary wellpoint system to dewater subsurface waters as required. The system shall remain in place until the work for which the dewatering is required is complete.

1. SECTION 01300 - SUBMITTALS

1.2 QUALITY ASSURANCE

A. The temporary dewatering system shall be designed by a firm who regularly engages in the design of dewatering systems and who is fully experienced, reputable and qualified in the design of such dewatering systems. The firm shall have a successful record of operation for a minimum of five (5) years prior to bid date.

B. The dewatering of any excavation areas and the disposal of water during construction shall be in strict accordance with all local, state, and regulatory agency requirements.

C. Contractor shall obtain and pay for all local, state, and regulatory agency permits required for installation and operation of the dewatering system and for disposal of water discharged from the dewatering system.

1.3 SUBMITTALS

A. Materials and Shop Drawings: Shop drawings required to establish compliance with the specifications shall be submitted in accordance with the provisions of Section 01300: Submittals. Submittals shall include at minimum the following:

1. Design notes and drawings.

2. Descriptive literature of the temporary dewatering system.

3. Layout of all piping and pumping systems involved.

4. Copies of all permits required.

1.4 CRITERIA

A. The wellpoint system shall be developed to the point that is capable of dewatering such that pipe can be laid and compacted satisfactorily at the elevations shown on the Drawings.

B. Groundwater shall be lowered to be a minimum of 12 inches below the bottom of the pipeline open cut trench. Groundwater shall be lowered to be 2 feet below the bottom of the excavation for manholes.

C. Dewatering that would affect the groundwater level in the vicinity of the microtunneling during microtunnel operations is NOT allowed or permitted.

PART 2 - PRODUCTS

2.1 GENERAL

A. The equipment specified herein shall be standard wellpoint dewatering equipment of proven ability as designed and manufactured by firms having experience in the design and production of such equipment. The equipment furnished shall be designed, constructed and installed in accordance with the best practices and methods.

B. The Contractor shall be required to monitor the performance of the dewatering system during the progress of the work and make such modifications as may be required to assure that the systems will perform satisfactorily. Dewatering system shall be designed in such a manner as to preserve the undisturbed bearing capacity of the subgrade soils and to preserve the integrity of adjacent structures.

C. All earthwork shall be completed in accordance with the two geotechnical reports prepared by LARRY M. JACOBS & ASSOCIATES, INC., dated July 31, 2024, and August 29, 2024, and this section. These reports are included as appendices to the specifications. In the event of conflicting guidance between this section and either geotechnical report, the more restrictive requirement shall govern.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Dewatering: The Contractor shall install a temporary wellpoint dewatering system for the removal of subsurface water encountered during construction of the proposed structures and/or piping.

3.2 PROTECTION AND SITE CLEAN-UP

A. At all times during the progress of the Work the Contractor shall use all reasonable precautions to prevent either tampering with the wellpoints or the entrance of foreign material.

B. Immediately upon completion of the construction for which the wellpoint system was installed, the Contractor shall remove all of his equipment, materials, and supplies from the site of the work, remove all surplus materials and debris, fill in all holes or excavations, and grade the site to elevations of the surface levels which existed before work started.

3.3 DISPOSAL

A. Contractor is responsible for acquiring and complying with all permits required to discharge the water and shall protect waterways from turbidity during the operation.

B. Water pumped from the trench or other excavation may be disposed of in storm sewers having adequate capacity, canals or suitable disposal pits, provided that the Contractor has complies with all permit requirements and has permission to do so from the City.

C. In areas where adequate disposal sites are not available, partially backfilled trenches may be used for water disposal only when the Contractor's plan for trench disposal is approved in writing by the City/Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.

D. No flooding of streets, roadways, driveways or private property will be permitted. Engines driving dewatering pumps shall be equipped with residential type mufflers. Where practical and feasible, electrical "drops" should be used in lieu of portable generators.

END OF SECTION 02240

SECTION 02300 – EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Latest Edition, Sections 120, 160, and 902

1.2 SUMMARY

A. This Section includes preparing and grading for pavement, curb, subgrades, drainage features, and general site work.

B. Related Sections: The following Sections contain requirements that relate to this Section.

1. Section 2230 "Clearing & Grubbing" for clearing, grubbing, and tree protection.

2. Section 2600 “Stormwater System” for installation of stormwater systems.

1.3 DEFINITIONS

A. Base Course: The layer placed immediately beneath the surface pavement in a paving system.

B. Borrow: Soil material obtained off-site when enough approved soil material is not available from on-site excavations.

C. Embankment (Fill): Compacted fill material needed to construct the roadway. This typically excludes the base and pavement portions of the roadway and shoulders, unless the EOR specifies for them to be incorporated into the fill material.

D. Excavation (Regular): The removal of material encountered to subgrade elevations necessary for the construction of the roadway, ditches, ponds, channels, or sidewalks.

E. Subgrade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, base, drainage fill, or topsoil materials.

F. Subbase Course: The layer placed between the subgrade and base course in a paving system.

G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.

H. Topsoil: Topsoil is defined as the surface layer of soil found normally to a depth of at least 4to 8inches that typically contains organic materials. Satisfactory topsoil is reasonably free of roots, clay lumps, stones, other objects over 2inches in diameter, and any other objectionable or deleterious material.

I. Unauthorized Excavation: Removing materials beyond indicated subgrade elevations or dimensions without direction by the City. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at the Contractor's expense.

J. Unsuitable Material: Removal and disposal of any material such as muck, wood, rock, peat, garbage, non-compactable soils in dry condition, and any other material that is considered by the City Engineer to be unsuitable.

K. Utilities: On-site above ground utilities, overhead utilities and underground utilities including pipes, conduits, ducts, and cables, as well as related appurtenances and underground services within building lines.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Section 1300, "Submittals."

B. Product Data and Samples of the following:

1. 1-lb representative samples of each proposed fill and backfill soil material from borrow sources as selected by the City.

2. 12-by-12-inch sample of filter fabric.

3. Representative samples of the proposed base and sub-base materials.

C. Test Reports: In addition to test reports required under field quality control, submit the original directly to the City from the testing services, with a copy to the Contractor:

1. Laboratory analysis as specified in 1.1 (Related Documents) of each soil material proposed for fill and backfill from borrow sources.

2. One optimum moisture-maximum density curve for each soil material.

3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.

1.5 QUALITY CONTROL /QUALITY ASSURANCE

A. Codes and Standards: Perform earthwork complying with all requirements of authorities having jurisdiction.

B. Testing and Inspection Service: A qualified independent geotechnical engineering testing agency, under the direction of a Professional Engineer, licensed in the State of Florida to classify, perform soil tests, and provide inspection services for quality control. All proposed borrow soils will require the testing agency to verify that soils comply with specified requirements and to perform required field and laboratory testing. Contractor shall replace materials removed for testing purposes. Should any work or materials fail to meet the requirements set forth in the plans and specifications, contractor shall reimburse for additional and re- testing.

1.6 PROJECT CONDITIONS

A. Site Information: Data in the subsurface investigation Report, if available, is used for the basis of the design and is available to the contractor for information only. Conditions are not intended as representations or warranties of accuracy or continuity between soil borings. The City will not be responsible for interpretations or conclusions drawn from this data by the Contractor.

B. Existing Utilities: After location of utilities by the appropriate utility company, it is the Contractor's responsibility to protect all such utility lines, including service lines and appurtenances, and to replace at his own expense any that may be damaged by the Contractor's equipment or forces during construction of the Project.

1. Provide a minimum of 48-hours' notice to the City and receive written notice to proceed before interrupting any utility.

2. The contractor is responsible for contacting all utility companies to verify locations of all existing utilities, utility-related obstructions, or utility relocations that he may encounter during construction.

3. Adequate provision shall be made for the flow of existing sewers, drains, and water courses encountered during construction, and structures which may be disturbed shall be satisfactorily restored by the Contractor at his expense.

C. Should uncharted, or incorrectly charted, piping or other utilities be encountered during the work, consult the City immediately for directions.

Cooperate with the City and utility companies in keeping respective services and facilities in operation.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Soils used as fill shall be clean sands, similar to existing soils, with less than 5% passing the number 200 sieve when existing subgrade conditions are considered wet, as per the City. Soils as described above with less than 15% passing the number 200 sieve and meeting the requirements of the FDOT Standard Specifications Section 902-6 may be used when existing subgrade conditions are considered dry, as per the City. The sand shall have a maximum dry density of at least 100 pounds per cubic foot, according to the Standard Proctor compaction test, AASHTO T-99, ASTM D698. Provide approved borrow soil materials from off-site when enough satisfactory soil materials are not available from on-site excavations.

If the Contractor elects to import any materials, then he will do so only with the approval of the City and at his own expense, unless separate payments for such items are called for in these specifications. Provide laboratory certification that soils meet requirements of specifications.

B. Sub-Base Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, or sand. The material shall be stabilized in accordance with FDOT Standard Specifications Section 160-5.4. ASTM D2940, with at least 95 percent passing a 1-1/2-inch sieve, and not more than 8percent passing a No. 200 sieve.

PART 3 - EXECUTION

3.1 DEWATERING

A. Prevent surface water and subsurface or groundwater from entering excavations, from ponding on sub-grades in work areas, and from flooding project site and surrounding area.

B. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

The Contractor shall prevent the accumulation of water in excavated areas, and shall remove, by pumping or other means, any water that accumulates in the excavation. The Contractor shall prevent the accumulation of water in both structural and trench excavations and shall remove, by well point system or by other means, water which accumulates. The Contractor shall

provide, install and operate a suitable and satisfactory dewatering system, when needed to dry sub-grades or other work areas. The Contractor shall comply with the latest testing requirements as set forth by the applicable regulatory agency. At a minimum, the contractor shall test once prior to dewatering, once within the first week of dewatering, and once every thirty (30) days while dewatering.

C. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to collection or runoff areas. Do not use trench excavations as temporary drainage ditches. Discharged water shall be clean, not silt or sediment laden, prior to discharge to untreated system and/or waters of the State.

3.2 EXCAVATION

A. Explosives: Not permitted.

B. Strip topsoil and significant root systems to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines to prevent damage to root systems.

3.3 STABILITY OF EXCAVATIONS

A. Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.

B. All excavation work shall conform to all applicable OSHA Publications, Latest Editions. The Contractor's method of providing protective support to prevent cave-ins shall conform to OSHA requirements. Slope excavations, shoring, and trench box usage in the field must be based on tabulated data and designed by the Contractor. The contractor is solely responsible for job site safety and shall not be compensated for required safety equipment/ devices.

3.4 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot. Extend excavations enough distance from structures for placing and removing concrete formwork, maintaining a safe slope, installing services and other construction, and for inspections.

B. Footings and Foundations: Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades

to leave solid base to receive other work.

C. Pile Foundations: After piles have been installed, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.

D. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Appurtenances: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot.

3.5 EXCAVATION FOR WALKS AND PAVEMENTS

Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades. Consider Dewatering and other sections as applicable.

3.6 EXCAVATION FOR STORMWATER SYSTEMS

Excavate and compact the backfill of trenches to the densities specified for embankment or subgrade, as applicable, and in accordance with the requirements of Section 2600. Consider Dewatering and other sections as applicable.

3.7 STORAGE OF SOIL MATERIALS

Stockpile excavated materials acceptable for backfill, fill soil, and topsoil materials, including acceptable borrow materials. Stockpile soil materials without intermixing. Stockpiles shall be placed, graded, and shaped to drain surface water and prevent erosion. Cover to prevent wind-blown dust and/or erosion. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.8 BACKFILL

A. Backfill excavations promptly, but not before completing the following:

1. Acceptance of construction below finish grade including, where applicable, filter fabric installation and gravel bedding.

2. Surveying locations of underground utilities for record documents.

3. Testing, inspecting, and approval of underground utilities.

4. Removal of trash and debris from excavation.

5. Removal of temporary shoring, bracing, and sheeting unless specified to remain.

B. No backfill material shall be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, backfill

operations shall not be resumed until the moisture content of the fill is as previously specified to achieve proper compaction.

3.9 FILL

A. Preparation: Remove vegetation, topsoil, debris, wet and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills. Plow strip or break up sloped surfaces steeper than 1:4 so fill material will bond with existing surface. In order to ensure proper bond and prevent slipping between the original ground and fill, the surface of the original ground shall be scarified to a depth of at least three inches. Each layer of fill material shall be compacted until the required density is achieved, and the density achieved should be verified in accordance with specifications using in- place density testing.

B. When subgrade or existing ground surface is to receive fill and has a density less than that required for fill, break up ground surface to depth required, pulverize, moisture condition or aerate soil and re-compact to required density.

C. Place fill material in layers to required elevations for each location listed below.

1. Under grass, subbase or base material, use satisfactory excavated or borrow soil material.

2. Under walks and pavements, curbs, steps, ramps, building slabs, footings and foundations use subbase and/or base material.

3.10 MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2percent of optimum moisture content.

B. Do not place backfill or fill material on surfaces that contain excessive moisture.

C. Remove and replace or scarify and air-dry satisfactory soil material that is too wet to compact to specified density. Stockpile or spread and dry removed wet satisfactory soil material.

3.11 COMPACTION

A. Place backfill and fill materials in layers or lifts not more than 12 inches in loose depth for material compacted by heavy compaction equipment, and not more than 8inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure.

C. Percentage of Maximum Dry Density Requirements: Compact soil to not less than the following percentages of maximum dry density according to ASTM Modified Proctor):

1. Under structures, building slabs, steps, and pavements, compact each layer of backfill or fill material at a minimum of 98% Modified Proctor of the material's maximum dry density.

2. Under lawn or unpaved areas, compact each layer of backfill or fill material at 95% Modified Proctor maximum dry density.

3.12 GRADING

A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

1. Provide a smooth transition between existing adjacent grades and new grades.

2. Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.

B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:

1. Lawn or Unpaved Areas: Plus, or minus 0.10 foot.

2. Walks: Plus, or minus 0.10 foot.

3. Pavements: Plus, or minus ½inch.

3.13 STABILIZED SUBGRADE

A. For stabilized subgrade, the type of materials, commercial or local, is at the Contractor's option and no separate payment for stabilizing materials will be made (other than as may be paid for as borrow).

B. When stabilizing is designated as Type B, compliance with the bearing value requirements will be determined by the Limerock Bearing Ratio Method. Minimum LBR shall be 40.It is the Contractor's responsibility that the finished roadbed section meets the bearing value requirements,

regardless of the quantity of stabilizing materials necessary to be added. Also, full payment will be made for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing materials from other sources, within the limits of the stabilizing.

C. After the roadbed grading operations have been substantially completed, the Contractor shall make his own determination as to the quantity (if any) of stabilizing material, of the type selected by him, necessary for compliance with the bearing value requirements. The contractor shall notify the Engineer of the approximate quantity to be added, and the spreading and mixing-in of such quantity of materials shall meet the approval of the City as to uniformity and effectiveness.

3.14 FIELD QUALITY CONTROL

A. Testing Agency Services: Allow testing agency to inspect and test each subgrade and each fill or backfill layer. Do not proceed until test results for previously completed work verify compliance with requirements.

1. Perform field in-place density tests according to ASTM D1556 (sand cone method), ASTM D2167 (rubber balloon method), ASTM D293 (drive cylinder method), or ASTM D2922 (nuclear method), as applicable.

2. Field in-place density tests may also be performed by the nuclear method according to ASTM D2922, if calibration curves are periodically checked and adjusted to correlate to tests performed using ASTM D1556. With each density calibration check, check the calibration curves furnished with the speedy moisture meter according to ASTM D3017.

3. When field in-place density tests are performed using nuclear methods, make calibration checks of both density and speedy moisture meter at beginning of work, on each different type of material encountered, and at intervals as directed by the Engineer.

B. Paved Areas: Make at least one field density test of subgrade, base, and each compacted fill layer for every 300 linear feet of roadway or equivalent area, but in no case less than two tests. Tests shall be staggered to ensure representative sampling.

C. Unpaved Areas: Make at least one field density test of each compacted fill layer or subgrade for every 1000 square yards of area, but in no case less

than two tests.

D. Other tests may be required at City's discretion.

If, in the opinion of the City, based on testing service reports and inspection or the Engineer's observations, subgrades, fills, or backfills are below specified density, scarify and moisten or aerate as needed, or remove and replace soil to the depth required, re-compact, and re-test until required density is obtained at no additional expense.

3.15 REPAIR &CORRECTIONS

A. Protecting Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or lose compaction due to subsequent construction operations or weather conditions. Scarify or remove and replace material to depth directed by the Engineer; reshape and re-compact at optimum moisture content to the required density.

B. Settling: Where settling occurs, remove finished surfacing, backfill with additional approved material, compact, and reconstruct surfacing. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

C. When traffic must cross open trenches, the contractor shall provide suitable bridge of graded aggregate base or temporary asphalt paving as directed by City at no additional expense. (See Section 4060 for additional requirements.)

D. Erosion Control: The Contractor shall be responsible for the prevention of erosion from the site and for maintaining filled and graded surfaces for the duration of the project. This includes, but is not limited to, the erection of a silt fence and hay bale barricade as per Florida Stormwater Erosion and Sedimentation Control Inspector's Manual and/or as shown in the construction plans. The Contractor shall take whatever steps necessary to prevent erosion and sedimentation and will be responsible for any damages which might occur to down-land properties as a result of run-off from the site during sitework construction at no additional cost. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Surplus excavated material becomes the property of the Contractor unless otherwise noted. Waste materials, including unsatisfactory soils, trash and

debris shall be removed and legally disposed of, off the Owner's property.

3.17 CLEAN-UP AND FINAL INSPECTION

A. Before final inspection and acceptance, the Contractor shall clean ditches, shape shoulders and restore all disturbed areas, including street crossings, grass plots, re-grassing if necessary, to as good a condition as existed before work started.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

A. Excavation: When payment for excavation is on a volumetric basis, the quantity to be paid for will be the volume, in cubic yards, calculated by the method of average end areas according to the survey and plans. If actual quantities vary in field, contractor shall communicate with Engineer and/or City to request additional payment. The measurement will include the net volume of material between the original ground surface and the surface of completed earthwork according to the survey and plans. If actual quantities vary in field, contractor shall communicate with the City to request additional payment. Excavation for swales and channels will be included in the total quantity for Excavation. Subsoil Excavation will be measured to the lines and grades indicated on the plans or as approved by the City. Backfill material shall either include normal excavation material from within project limits or borrow material supplied by the Contractor.

B. Embankment: Quantities for Embankment will be calculated by the method of average end or square yard areas and will include material placed above the original ground line, within the lines and grades indicated on the plans or as directed by the City.

C. Calcium Chloride for Dust Control: The quantity to be paid for will be the weight, in tons, of calcium chloride authorized and acceptably spread on the road, within the limits specified by the City. The quantity will be determined from scales, certified freight bills, or other sources, the accuracy of which can be authenticated.

4.2 BASIS OF PAYMENT

A. General: Prices and payments for the various work items included in this section will be full compensation for all work described herein, including excavating, dewatering, dredging, hauling, placing, and compacting. Separate pay items will be provided for all devices required to maintain control of erosion according to plans and NPDES permit. Additional devices shall be no additional cost.

B. Excavation: Unit prices will be established for required cubic yard volumes of Regular Excavation, Subsoil Excavation, and Borrow Excavation, as necessary. When subsoil excavation is required to a depth greater than plans and specifications require, and additional excavation is not due to unsuitable, a change order will be required to establish a new quantity utilizing the current unit price.

C. Embankment: Payment shall be made at the unit contract price for Embankment, cubic yard or square yard, in place, according to plans.

D. Calcium Chloride for Dust Control: Price and payment will be full compensation for all work and materials specified for this item, including specifically all required shaping and maintenance of the treated area and all water furnished and applied to the area.

E. Dewatering: The contractor shall include the cost of dewatering in the unit price bid for the stormwater pipe if there is not a specific line item used in the contract.

END OF SECTION 02300

SECTION 02400 – GRADED AGGREGATE BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Specification Sections, apply to the work of this section.

B. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Section 204, Latest Edition.

1.2 DESCRIPTION OF WORK

A. This item shall consist of a base course of graded aggregate constructed on a subgrade prepared in accordance with the specifications and in conformity with the line, grades and typical cross-section as shown on the drawings.

PART 2 - PRODUCTS

2.1 MATERIALS

Use graded aggregate material which yields a satisfactory mixture meeting all the requirements of these Specifications after it has been crushed and processed as a part of the mining operations.

The Contractor may furnish the material in two sizes of such gradation that, when combined in a central mix plant pugmill, the resultant mixture meets the required specifications.

Use graded aggregate base material of uniform quality throughout, substantially free from organic matter, shale, lumps and clay balls, and having a Limerock Bearing Ratio value of not less than 98. Use material retained on the No.10 sieve composed of aggregate meeting the following requirements:

Soundness Loss, Sodium, Sulfate: AASHTO T104.....15% Percent Wear: AASHTO T96 (Grading A)
Group 1Aggregates..... 45%
Group 2Aggregates..... 65%
Group 1: This group of aggregates is composed of limestone, marble, or dolomite. Group 2: This group of aggregates is composed of granite, gneiss, or quartzite.
Use graded aggregate base material meeting the following gradation:

Sieve Size	Percent by Weight Passing
2 inch	100
1 1/2 inch	95 to 100
3/4 inch	65 to 90
3/8 inch	45 to 75
No. 4	35 to 60
No. 10	25 to 45
No. 50	5 to 25
No. 200	0 to 10

For Group 1 aggregates, ensure that the fraction passing the No. 40 sieve has a Plasticity Index (AASHTO T90) of not more than 4.0 and a Liquid Limit (AASHTO T89) of not more than 25, and contains not more than 67% of the weight passing the No. 200 sieve.

For Group 2 aggregates, ensure that the material passing the No. 10 sieve has a sand equivalent (AASHTO T176) value of not less than 28.

The Contractor may use graded aggregate of either Group 1 or Group 2, but only use one group on any Contract. (Graded aggregate may be referred to hereinafter as “aggregate”.)

2.2 EQUIPMENT

The aggregate shall be spread by mechanical rock spreaders, equipped with a device which strikes off the aggregate uniformly to laying thickness, and capable of producing an even distribution of the aggregate. For crossovers, intersections and ramp areas; for roadway widths of 20 feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders. All equipment for proper construction of this project shall be in first-class working condition.

PART 3 - EXECUTION

3.1 TRANSPORTING GRADED AGGREGATE

The graded aggregate shall be transported to the point where it is to be used, over aggregate previously placed if practical, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when, in the City’s opinion, these operations will not be detrimental to the subgrade.

3.2 SPREADING GRADED AGGREGATE

A. Method of Spreading: The graded aggregate shall be spread uniformly. All segregated areas of fine or coarse aggregate shall be removed and replaced with properly graded aggregate.

B. Number of Courses: When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional material added to bear the weight of the construction equipment without disturbing the subgrade. When compacted thickness is six inches or less, graded aggregate shall be placed in one lift.

3.3 COMPACTING AND FINISHING BASE

A. Single-Course Base: For single-course base, after the spreading is completed, the entire surface shall be scarified and then shaped to produce the required grade and cross-section, free of scabs and laminations, after compaction.

B. Multiple-Course Base: For multiple-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross-section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made, and the City shall have proof that the required compaction has been obtained. After the spreading of the material for the second course is completed, its surface shall be finished and shaped to produce the required grade and cross-section after compaction, and free of scabs and laminations.

C. Moisture Content: When the material does not have the proper moisture content to ensure the required density, wetting or drying will be required. When water is added, it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Water shall be added before beginning compaction operations. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted. This shall be performed utilizing the speedy moisture meter.

3.4 DENSITY REQUIREMENTS

As soon as proper conditions of moisture are attained, the material shall be compacted to a density of not less than 98% of the modified proctor maximum density as determined by AASHTO T-180 (Modified Proctor.)

3.5 TESTING SURFACE, PROTECTION, AND MAINTENANCE

A. Density Tests: A minimum of at least one field density test on each course of compacted base shall be performed for every 500 square yards, or every 300 linear feet of road pavement, or as directed by the Engineer. Additional tests may be made if deemed necessary by the Engineer and/or City/CEI.

B. During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross-section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.

C. Correction of Defects: Contamination of Base Material: If, at any time, the subgrade material should become mixed with the base course materials, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.

D. Cracks and Checks: If cracks or checks appear in the base, either before or after priming, which in the opinion of the City, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by re- scarifying, reshaping, adding base material where necessary, and re-compacting, without additional compensation.

E. Compaction of Widening Strips: Where base construction consists of widening strips and the trench width is not sufficient to permit use of standard base compaction equipment, compaction shall be accomplished by use of vibratory compactors, trench rollers, mechanical plate tampers, or other special equipment which will achieve the density requirements specified herein. When multiple-course base construction is required by the plans or specifications, the required compaction shall be achieved in each course prior to spreading material for the overlaying course.

F. Inspections: The City/CEI shall perform an inspection of all base materials upon placement and prior to paving operations. In the event base failures are documented, the Contractor shall, without additional compensation, correct failed areas prior to commencing asphalt operations.

G. Testing Surface: The finished surface of the base course shall be checked from the required crown and ensure longitudinally a smooth, consistent surface for the placement of the asphalt course(s). All irregularities, greater than 1/4 inch per 15’ straight edge test, shall be corrected, after which the entire area shall be re-compacted and tested as specified herein before. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.

H. Priming and Maintaining:

1. Priming: The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90% of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur. See FDOT Specification Section 300.

2. Maintaining: The Contractor will be responsible for assuring that the true crown and template are maintained, with no rutting or other distortions, and that the base meets all the requirements, at the time the surface course is applied.

I. Thickness Requirements:

1. Measurements: Thickness of the base shall be measured at intervals in such a manner that each test represents 500 square yards, or every 300 linear feet of road pavement, or as otherwise directed by the City. Measurements' shall be taken at various points on the cross-section, through holes not less than three inches in diameter.

2. Areas Requiring Correction: Where the compacted base is deficient by more than ½inch from the thickness called for in the plans, the Contractor shall correct such areas. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross-section.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT:

The quantity to be paid for will be the area, in square yards, completed and accepted.

4.2 BASIS OF PAYMENT:

Price and payment will be full compensation for all work specified in this section, including dust abatement, correcting all defective surfaces and deficient thickness, removing cracks and checks, the additional aggregate required for such crack elimination, and the prime coat.

END OF SECTION 02400

SECTION 02440 – SUPERPAVE ASPHALT BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Specifications sections, apply to work of this section.

1.2 SUBMITTALS

Submit certification of compliance with applicable specifications in accordance with **Section 01300, SUBMITTALS**.

1.3 ENVIRONMENTAL CONDITIONS

Construct bituminous courses when underlying course is dry, and when atmospheric temperature is 40°F and rising for courses 1½" or greater, and 45°F and rising for courses less than 1½".

1.4 CONSTRUCTION EQUIPMENT

A. Spreading Equipment: Self-propelled electronically controlled type unless other equipment is authorized. Spreading equipment shall be capable of spreading hot bituminous mixtures without tearing, shoving, or gouging and to produce a finished surface of specified grade and smoothness. The use of a spreader that leaves indented areas or other objectionable irregularities in the fresh laid mix during operations will not be permitted.

B. Rolling Equipment: Self-propelled pneumatic-tired rollers supplemented by three-wheel and tandem type steel wheel rollers. The number, type and weight of rollers shall be sufficient enough to compact the mixture to the required density without detrimentally affecting the compacted material. All rollers shall be suitable for rolling hot-mix bituminous pavements and capable of reversing without backlash. Pneumatic-tired rollers shall be capable of being operated both forward and backward without turning on the mat, and without loosening the surface being rolled. Equip rollers with suitable devices and apparatus to keep the rolling surfaces wet and prevent adherence of bituminous mixture.

At the Contractor's option, vibratory rollers especially designed for bituminous concrete compaction may be used, provided rollers do not impair stability of pavement structure and any underlying layers. Repair depressions in pavement surfaces resulting from use of vibratory rollers at no cost to the Owner. Rollers shall be self-propelled, single or dual vibrating drums, and steel drive wheels, as applicable; equipped with variable

amplitude and separate controls for energy and propulsion.

C. Hand Tampers: Hand tampers shall weigh not less than 25 pounds and have a tamping face of not more than 50 square inches.

D. Mechanical Hand Tampers: Commercial type, operated by pneumatic pressure or by internal combustion.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials shall conform to the requirements of these Specifications for the pavement sections as shown on the drawings.

PART 3 - EXECUTION

3.1 TRANSPORTATION OF BITUMINOUS MIXTURES

Deliver mixture to the area to be paved in such a manner that the temperature, at the time of dumping into the spreader, shall be not less than 285°F or greater than 345°F or that temperature required to obtain the specified compaction. Reject any load that has become wet prior to placing or falls outside of the above temperature ranges.

3.2 PLACING

The City/CEI shall perform an inspection of the subbase material prior to paving operations. In the event subbase failures are documented, the Contractor shall, without additional compensation, correct failed areas prior to commencing asphalt base operations. Provide line and grade stakes as necessary for control. Place grade stakes in lanes parallel to centerline of area to be paved, and suitably space for string lines. Place and compact bituminous courses in such thicknesses as to achieve density and smoothness requirements. Maximum lift of bituminous base course shall not exceed 3inches. Prior to laying the base course, clean underlying course of foreign and objectionable matter with power blowers, power brooms, or hand brooms in places inaccessible to power equipment, and inspect for compaction and smoothness requirements. The range of temperatures of the mixtures at the time of spreading shall be between 285°F and 345°F. Reject bituminous mixture having a temperature outside these limits when dumped into the hopper of the spreader. Adjust mechanical spreader and regulate speed so that the surface of the course is smooth, and when compacted conforms to depth, cross sections, grades and contours indicated. When irregularities of surface or deficiency in depth is more than specified tolerances, remove defective work and replace with new material. Whenever possible, place the mixture in strips not less than 10 feet wide. Overlap rolling to previously placed strip and extend to overlap first strip. Place mixture as continuously as possible. Shovelers and rakers shall follow spreading equipment, adding hot mixture and raking as required to produce a course that,

when completed, shall conform to requirements specified. In areas where the use of machine spreading is impractical, mixture may be spread by hand. Distribute mixture into place from dump boards by means of hot shovels and spread with hot rakes in a uniformly loose layer of such thickness that, when completed, it conforms to required grade and thickness. Do not dump loads any faster than they can be hand placed by shovels and rakes. Paint contact surfaces of previously constructed curbs, manholes, and similar structures with a thin coat of emulsion or other approved bituminous material prior to placing the bituminous mixture.

3.3 COMPACTION OF MIXTURE

A. Affect compaction by rolling. Begin rolling as soon after placing as the mixture will bear the roller without undue displacement. Delays in rolling freshly spread mixture will not be tolerated. Start rolling longitudinally at extreme sides of lanes and proceed toward center of pavement, overlapping on successive strips by at least one-half the width of rear wheel of roller. Alternate trips of roller shall be slightly different lengths. Affect initial longitudinal rolling using steel roller. Make tests for conformity with specified crown, grade and smoothness immediately after initial compression. Before continuing rolling, correct any variations by removing or adding materials, then roll course using pneumatic-tired rollers or tandem rollers, while mixture is hot and in condition suitable for proper compaction. Speed of rollers shall not exceed 3miles per hour and be slow enough to avoid displacement of hot mixture. Correct any displacement of mixture at once by use of rakes and apply fresh mixture or remove mixture as required. Continue rolling until all roller marks are eliminated. During rolling, moisten rollers to prevent adhesion of mixture to rolling surfaces, but do not permit an excess of water. Provide enough rollers for each spreading machine in operation on the job and to handle plant output. In places not accessible to rollers, compact mixture with hot pneumatic or manual hand tampers. Skin patching of an area that has been rolled is not permitted. Remove any mixture that becomes mixed with foreign material or is defective, replace with fresh mixture, and compact to density of surrounding area. Roller shall not pass over unprotected edge until asphalt has cooled to at least 120°F. Contractor shall provide workmen who can perform work incidental to correction of pavement irregularities. After final rolling, permit no traffic of any kind on the pavement until the surface temperature has cooled to at least 120°F. Surface temperature shall be measured with surface thermometers or other satisfactory methods.

B. Testing Base Course:

1. Density: Within the entire limits of the width and depth of the base, obtain a minimum density in all areas of the roadway of 98% of modified Proctor maximum density as determined by AASHTO FM 1-T 180, Method D. Compact the base of any LOT of shoulder pavement to not less than 95% of the modified Proctor maximum density as determined by FM 1-T 180, Method D. Additional tests and cores may be required at the City's discretion.

2. Thickness: Measure thickness throughout the placement of all courses. In addition, perform periodic check on the yield during the placement of all courses. The maximum allowable deficiency at any point shall not be more than ¼inch less than the indicated thickness for the course. The average thickness of the course shall not be less than the indicated thickness. Where the deficiency is more than the specified tolerances, the contractor shall correct each such representative area or areas by removing the pavement in question and replacing with new pavement.

3. Smoothness: Straightedge the compacted surface of the course, utilizing a 15' rolling straightedge, as deemed necessary by the City. Apply a rolling straightedge parallel with the centerline of the road and a non-rolling straightedge at right angles to the centerline of the road after final rolling. Unevenness of the course shall not vary more than plus or minus 3/16 inch in 15 feet. Correct any portion of the pavement showing irregularities greater than that specified.

4. Thicknesses and Density Requirements: The thickness and density shall be checked at intervals not to exceed one per 300 linear feet of roadway, but in any case, should not be less than three tests. Tests shall be staggered to ensure representative sampling.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT ASPHALT BASE COURSE:

The quantity to be paid for will be the area, in square yards, of asphalt base course after adjustment to the equivalent area of specified thickness.

4.2 BASIS OF PAYMENT ASPHALT BASE COURSE:

Prices and payments will be full compensation for all work specified in this Section.

END OF SECTION 02440

SECTION 02500 – SUPERPAVE ASPHALT CONCRETE

PART 1 - GENERAL

1.1 GENERAL

A. Construct a Type SP Asphalt pavement for local agencies using the type of mixture specified in the Contract, or when offered as alternates, as approved.

B. For this Section only, all references to the Department shall mean the City. All references to the Engineer shall mean the Engineer of Record, designated Engineer of Escambia County and/or CEI.

C. The City will accept the work based on one of the following methods as described in Part 5:

1. Certification,

2. Certification and process control testing by the Contractor,

3. acceptance testing by the City, or

4. other method(s) as determined by the Contract.

1.2 LAYER THICKNESSES

A. Use only fine graded Type SP asphalt mixes. Fine graded mixes are defined as having a gradation that passes above the restricted zone when plotted on an FHWA 0.45 Power Gradation Chart.

B. FINE MIXES: The allowable structural layer thicknesses for fine Type SP Asphalt Concrete mixtures are as follows:

1. Type SP 9.5 1-1½ inches

2. Type SP 12.5 1½ -2½ inches

3. Type SP 19.0 2-3 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on fine mixes when used as a structural course:

1. Type SP 9.5 -Limited to the final (top) structural layer, one layer only

2. Type SP 12.5 -Must not be used in the first layer of courses over 3½ inches thick, nor in the first layer of courses over 2¾ inches thick on limited access facilities.

The thickness of the new pavement may be checked by core samples, as determined by the Engineer. The Contractor shall be required to correct any deficiency either by replacing the full thickness; or overlaying the area as directed by the Engineer.

Type SP 19.0 -Shall not be used in the final (top) structural layer.

C. ADDITIONAL REQUIREMENTS: The following requirements also apply to fine Type SP Asphalt Concrete mixtures:

1. A minimum 1½ inch initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).

2. When construction includes the paving of adjacent shoulders (5 feet wide or less), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.

3. Use the minimum and maximum layer thicknesses as specified in 1.2 B above unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch, and the maximum allowable thickness may be increased 1/2 inch, unless shown differently in the plans.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Meet the material requirements specified in FDOT Standard Specifications Division III. Specific references are as follows:

1. Superpave PG Asphalt Binder or Recycling Agent –Sections 916-1, 916-2 Coarse Aggregate, Stone, Slag or Crushed Gravel –Section 901

2. Fine Aggregate –Section 902

3. Aggregates utilized on Escambia County projects must be in accordance with FDOT Qualified Products List

2.2 GRADATION REQUIREMENTS

Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all the requirements defined in this Specification and conform to the gradation requirements at design as defined in Table 1below. Aggregates from various sources may be combined.

Table 1
Aggregate Gradation Control Points (Gradation Design Ranges)

	Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
Sieve Size	Min.	Max.	Min.	Max.	Min.	Max
1 inch	-	-	-	-	100	-
3/4 inch	-	-	100	-	90	100
1/2 inch	100	-	90	100	-	90
3/8 inch	90	100	-	90	-	-
No. 4	-	90	-	-	-	-
No. 8	32	67	28	58	23	49
No. 200	2	10	2	10	2	8
For additional information, refer to AASHTO M-323-04, Table 3						

2.3 RESTRICTED ZONE

The gradation identified in 2.2 shall pass above the restricted zone specified in Table 2, below.

Table 2
Aggregate Gradation Restricted Zone (Design Only)

Sieve Size within Restricted Zone	Boundaries of Restricted Zone Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
	Min.	Max.	Min.	Max.	Min.	Max
No. 4	-	-	-	-	-	-
No. 8	47.2	47.2	39.1	39.1	34.6	34.6
No. 16	31.6	37.6	25.6	31.6	22.3	28.3
No. 30	23.5	27.5	19.1	23.1	16.7	20.7
For additional information, refer to AASHTO M-323-04, Table 4						

2.4 AGGREGATE CONSENSUS PROPERTIES

A. Meet the following consensus properties at design for the aggregate blend:

1. Coarse Aggregate Angularity: When tested in accordance with ASTM D5821, meet the coarse aggregate angularity requirement defined in Table 3below.

Table 3 Coarse Aggregate Angularity Criteria (Minimum Percent Fractured Faces)				
	Depth of Top of Pavement Layer from Surface			
	≤4 inches		>4 inches	
	1 or More Fractured Faces (%)	2 or More Fractured Faces (%)	1 or More Fractured Faces (%)	2 or More Fractured Faces (%)
	85	80	60	-
For additional information, refer to AASHTO M-323-04, Table 5				

2. Fine Aggregate Angularity: When tested in accordance with AASHTO T-304, meet the fine aggregate angularity requirement defined in Table 4below.

Table 4 Fine Aggregate Angularity Criteria	
Depth of Top of Pavement Layer from Surface	
≤4 inches	>4 inches
Minimum Uncompacted Void Content (%)	Minimum Uncompacted Void Content (%)
45	40
For additional information, refer to AASHTO M-323-04, Table 5	

Flat and Elongated Particles: When tested in accordance with ASTM D4791, use a ratio of maximum to minimum dimensions of 5:1 and do not exceed 10% as the maximum amount of flat and elongated particles.

2.5 USE OF RECLAIMED (MILLED) ASPHALT PAVEMENT

A. General Requirements: Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture subject to the following:

1. The Contractor assumes responsibility for the design of asphalt mixes which incorporate RAP as a component material.

2. For design purposes, the Contractor assumes responsibility for establishing accurate specific gravity values for the RAP material. This may be accomplished by one of the following methods:

a. Calculation of the bulk specific gravity value based upon the effective specific gravity of the RAP determined, based on the asphalt binder content and maximum specific gravity. The Engineer and/or Engineer of Record will approve the estimated asphalt binder absorption value used in the calculation.

b. Testing of the extracted aggregate obtained through a vacuum extraction or ignition oven extraction.

3. The amount of RAP material used in the mix is not to exceed 50% by weight of total aggregate.

4. Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture.

   If oversized RAP material appears in the completed recycled mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not taken immediately, plant operations should be stopped.

5. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles that are soft or conglomerates of fines.

6. Provide RAP, having minimum average asphalt content of 4.0% by weight of total mix. The Engineer may sample the stockpile to verify that this requirement is met.

B. Binder for Mixes with RAP: Select the appropriate binder based on the table below. The Engineer and/or Engineer of Record reserves the right to change binder type and grade at design based on the characteristics of the RAP binder and reserves the right to make changes during production. Maintain the viscosity of the recycled mixture within the range of 4,000 to 12,000 poises. Obtain a sample of the mixture for the Engineer within the first 1,000 tons and at a frequency of approximately one per 4,000 tons of mix.

Binder Grade for Mixes Containing RAP	
% RAP	Asphalt Binder Grade
<20	PG 67-22
20-29	PG 64-22
□ 30	Recycling Agent
Note: When a PG 76-22 Asphalt Binder is called for in the Contract, limit the amount of RAP material used in the mix to a maximum of 15%.	

PART 3 - GENERAL COMPOSITION OF MIXTURE

3.1 GENERAL

Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the approved mix design. Aggregates from various sources may be combined.

3.2 MIX DESIGN

A. Design the Type SP asphalt mixture in accordance with AASHTO PP-28, except as noted herein, to meet the requirements of this Specification. Use only previously approved designs. Prior to the production of any Type SP asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all Type SP asphalt mix design criteria.

The Engineer and/or Engineer of Record will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer and/or Engineer of Record will no longer allow the use of the mix design.

1. Grading Requirements: Meet Gradation Design Ranges in PART 2.

2. Gyratory Compaction: Compact the design mixture in accordance with AASHTO TP-4. Use the number of gyrations as defined in the table below.

Type SP Design Gyratory Compaction Effort			
	$N_{initial}$	N_{design}	$N_{maximum}$
SP Mixes	7	75	115

3. Volumetric Criteria: Use an air void content of the mixture at design of 4.0% at the design number of gyrations (Ndesign). Meet the requirements of the table below.

Mixture Densification Criteria			
	% Gmm		
	$N_{initial}$	N_{design}	$N_{maximum}$
SP Mixes	$\geq$ 89.0	96.0	$\leq$ 98.0

4. VMA Criteria: Meet the requirements of the table below for Voids in the Mineral Aggregate (VMA) of the mixture at the design number of gyrations.

VMA Criteria	
Type Mix	Minimum VMA (%)
SP 9.5	15.0
SP 12.5	14.0
SP 19.0	13.0

5. VFA Criteria: Meet the requirements of the table below for voids filled with asphalt (VFA) of the mixture at the design number of gyrations.

	VFA Criteria
	Design VFA (%)
SP Mixes	65 - 75

6. Dust Proportion: Use an effective dust-to-binder ratio as defined in FDOT Section 334-3.2.5.

7. Moisture Susceptibility: Provide a mixture (4-inch specimens) having a retained tensile strength ratio of at least 0. 80 and a minimum tensile strength (dry and unconditioned) of 100 psi.

8. Additional Information: In addition to the requirements listed above, provide the following information with each proposed mix design submitted for use:

   a. The design number of gyrations (N design).
   b. The source and description of the materials to be used.
   c. The FDOT source number product code of the aggregate components furnished from an FDOT approved source.
   d. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation in handling and processing, as necessary.
   e. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly -No. 200 [-75 µm]) should be accounted for and identified for the applicable sieves.
   f. The bulk specific gravity value for each individual aggregate (and RAP) component as identified in the FDOT aggregate control program.
   g. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.
   h. A target temperature at which the mixture is to be discharged from the plant and a target roadway temperature (per 30 -6.3). Do not exceed a target temperature of 340°F for modified asphalts and 315°F for unmodified asphalts.
   i. Evidence that the completed mixture conforms to all specified physical requirements.
   j. The name, seal, and/or certification of the Mix Designer.

3.3 REVISION OF MIX DESIGN

During production, the Contractor may request a target value revision to a mix design, subject to: (1) the target change falls within the limits defined in the table below, (2) ap propriate data exists demonstrating that the mix complies with production air voids specification criteria, and (3) the mixture gradation meets the basic gradation requirements defined in 2.2 and 2.3.

Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
No. 8 sieve and Coarser	± 5.0%
No. 16 sieve	± 4.0%
No. 30 sieve	± 4.0%
No. 50 sieve	± 3.0%
No. 100 sieve	□ 3.0%
No. 200 sieve	□ 1.0%
Asphalt Binder Content (1)	□ 0.3%
(1) Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria.	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally but must be followed up by a written request. The initial mix design will remain in effect until a change is authorized by the Engineer and/or Engineer of Record. In no case may the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer and/or Engineer of Record.

3.4 PAVING EQUIPMENT

A. Mechanical Spreading and Screeding Equipment:

1. General: Provide mechanical spreading and screeding equipment of an approved type that is self-propelled and can be steered. Equip it with a receiving and distribution hopper and a mechanical screed. Use a mechanical screed capable of adjustment to regulate the depth of material spread and to produce the desired cross-section.

2. Automatic Screed Control: For all asphalt courses, placed with mechanical spreading and finishing equipment, equip the paving machine with automatic longitudinal screed controls of either the skid type, traveling string-line type, or non-contact averaging ski type. Ensure that the length of the skid, traveling string-line, or non- contact averaging ski is at least 25 feet. On the final layer of base, overbuild, structural, and friction courses, use the joint matcher in lieu of the skid, traveling string-line, or non-contact averaging ski on all passes after the initial pass. Furnish a paving machine equipped with electronic transverse screed controls when required by the Contract Documents.

3. Inflation of Tires: When using paving machines equipped with pneumatic tires, the Engineer may require that the tires be ballasted.

4. Screed Width: Provide paving machines on full width lanes that have a screed width greater than 8feet. Does not use extendable screed strike-off devices that do not provide preliminary compaction of the mat in place of fixed screed extensions. The Contractor may use a strike- off device on irregular areas that would normally be done by hand and on shoulders 4feet or less in width. When using the strike-off device on shoulders in lieu of an adjustable screed extension, the Contractor must demonstrate the ability to obtain an acceptable texture, density, and thickness. When using an extendable screed device to extend the screed's width on the full width lane or shoulder by 24 inches or greater, an auger extension, paddle, or kicker device is required unless the Contractor provides written documentation from the manufacturer that these are not necessary.

5. Motor Graders: Provide two motor graders for spreading widening courses with prior approval from the Engineer only. Use motor graders that are rated at not less than 6tons and are self-propelled and power controlled. Mount them on smooth tread or rib-type tires (no lug types allowed) with a wheelbase of at least 15 feet. Equip the front motor grader with a spreader box capable of spreading the mix at the required rate.

6. Rollers:

    a. Steel-Wheeled Rollers: Provide compaction equipment capable of meeting the density requirements described in these Specifications. Provide a tandem steel-wheeled roller weighing a minimum of 8tons for seal rolling, and for the final rolling, use a separate roller with a minimum weight of 8tons. Variations from these requirements shall be approved by the Engineer.

b. Traffic Rollers: Provide compaction equipment capable of meeting the density requirements described in these specifications. Provide a self-propelled, pneumatic-tired traffic roller equipped with at least seven smooth-tread, low pressure tires, equipped with pads or scrapers on each tire. Maintain the tire pressure between 50 and 55 psi or as specified by the manufacturer. Use rollers with a minimum weight of 6tons. Do not use wobble-wheeled rollers. Variations from these requirements shall be approved by the Engineer.

c. Prevention of Adhesion: Do not allow the mixture to adhere to the wheels of any rollers. Do not use fuel oil or other petroleum distillates to prevent adhesion. Do not use any method which results in water being sprinkled directly onto the mixture.

7. Trucks: Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down.

8. Coring Equipment: Furnish a suitable saw or drill for obtaining the required density cores.

9. Hand Tools: Provide the necessary hand tools such as rakes, shovels, etc., and a suitable means for keeping them clean.

PART 4 - CONTRACTOR'S PROCESS CONTROL

4.1 GENERAL

A. Personnel: Provide qualified personnel (certified technician) for sampling, testing (by certified lab), and/or sign-off by P.E., and inspection of materials and construction activities. Ensure that qualifications are maintained throughout sampling, testing and inspection.

Construction operations that require a qualified technician must not begin until the Department verifies that the technician is on the CTQP (Construction Training Qualification Program) list of qualified technicians. The CTQP lists are subject to satisfactory results from periodic Independent Assurance evaluations.

B. Calibration of the Gyratory Compactor: Calibrate the Gyratory Compactor in accordance with the manufacturer's recommendations prior to producing the mixture for any project. Check the height calibration, the speed of rotation, ram pressure and angle of gyration.

C. Plant Testing Requirements: During the initial production of a mix design, test mix to ensure proper performance and provide results to the department.

D. Roadway Testing Requirements: Areas that demonstrate concerns of the mix design quality or poor/improper compaction efforts may be subject to additional coring and testing as seen fit by the Engineer.

E. Extraction Gradation Analysis: Sample the asphalt mixture at the plant and perform extraction test prior to asphalt being delivered to project. The percent asphalt binder content of the mixture will be determined in accordance with FM 5-563 (ignition oven). The gradation of the extracted mixture will be determined in accordance with FM 1-T 030. All test results will be shown to the nearest 0. 01. All calculations will be carried to the nearest 0.001 and rounded to the nearest 0. 01. All results shall be provided to the department prior to placement of asphalt on any project.

Run an extraction gradation analysis on the mixture at a minimum frequency of once per 1,000 tons or a maximum of four consecutive days of paving, whichever comes first.

The target gradation and asphalt content will be as shown on the mix design. Any changes in target will require a change in the mix design.

If the per centage of asphalt binder deviates from the optimum asphalt binder content by more than 0.55%, or the percentage passing any sieve falls outside the limits in the table below, immediately resample the mix and test to validate the previous test result, and if needed, make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits in the table for any sieve, notify the Engineer and take immediate steps to identify and correct the problem, then resample the mix. If the results from this test deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits, in the table for any sieve, stop plant operations until the problem has been corrected.

Tolerances for Quality Control Tests (Extraction Gradation Analysis)	
Size	Percent Passing
1 inch	7.0
3/4 inch	7.0
1/2 inch	7.0
3/8 inch	7.0
No. 4	7.0
No. 8	5.5
No. 16	5.0
No. 30	4.5
No. 50	4.5
No. 100	3.0
No. 200	2.0

F. Volumetric Control: During production of the mix, monitor the volumetric properties of the Type SP asphalt mix with a Type SP Gyratory Compactor to determine the air voids, VMA, VFA, and dust-to-effective asphalt binder ratio (dust proportion) at N design.

Take appropriate corrective actions in order to maintain an air void content at N design between 3. 0and 5.0% during production. When the air void content at N design drops below 2.5 or exceeds 5.5%, stop plant operations until the appropriate corrective actions are made and the problem is resolved to the satisfaction of the Engineer and/or Engineer of Record. Evaluate any failing material in accordance with Part 6.

Determine the volumetric properties of the mixture at a minimum frequency of once per production day when the daily production is less than 1,000 tons. If the daily production exceeds 1,000 tons, monitor the volumetric properties two times per production day. During normal production, volumetric properties of the mixture will not be required on days when mix production is less than 100 tons. However, when mix production is less than 100 tons per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons.

Testing required for volumetric property determination includes AASHTO TP- 4, FM 1-T 209, FM 5-563 and FM 1-T 030. Prior to testing samples in accordance with AASHTO TP-4 and FM 1-T 209, condition the test-sized sample for one hour at the compaction temperature in a covered container.

G. Plant Calibration: At or before the start of mix production, perform an extraction gradation analysis of the mix to verify calibration of the plant. The sample tested at the start of any project may be utilized for this requirement.

H. Process Control of In-Place Compaction: Develop and implement a method to control the compaction of the pavement and ensure its compliance with the minimum specified density requirements. The department may require the use of a nuclear gauge to test areas suspected of not having proper compaction. Other density measuring devices may be used in lieu of the nuclear density gauge, provided that it is demonstrated to the satisfaction of the Engineer and/or Engineer of Record that the device can accurately measure the relative level of density in the pavement on a consistent basis.

PART 5 - ACCEPTANCE OF THE MIXTURE

5.1 GENERAL

A. The asphalt mixture will be accepted based on one of the following methods as determined by the Engineer and/or Contract Documents:

1. Certification by the Contractor
2. Certification and Process Control Testing by the Contractor
3. Acceptance testing by the Engineer
4. Other method(s) as determined by the Contract

5.2 CERTIFICATION BY THE CONTRACTOR

Submit a Notarized Certification of specification Compliance letter on company letterhead to the Engineer that all material produced and placed on the project was in substantial compliance with these specifications.

5.3 CERTIFICATION AND PROCESS CONTROL TESTING BY THE CONTRACTOR

A. Submit a notarized design Certification of Specification Compliance letter on company letterhead to the engineer that all material produced and placed on the project was in substantial compliance with these specifications, along with supporting test data documenting all process control testing. Utilize an Independent Laboratory as approved by the Engineer for the Process Control testing.

5.4 ACCEPTANCE TESTING BY THE ENGINEER

A. Acceptance at the Plant:

1. The asphalt mixture will be accepted, with respect to gradation and asphalt binder content, based on the results from the start up test. However, any load or loads of mixture which, in the opinion of the Engineer and/or Engineer of Record, are unacceptable for reasons of excessive segregation, aggregates improperly coated, or of excessively high or low temperature will be rejected for use in the work.

2. Acceptance Procedures: Control all operations in the handling, preparation, and production of the asphalt mix so that the percent asphalt binder content and the percent passing the No. 8and No. 200 sieves will meet the targets from the mix design within the tolerances shown in the table below.

Tolerances for Acceptance Tests	
Characteristic	Tolerance*
Asphalt Binder Content	±0.55%
Passing No. 8 Sieve	±5.50%
Passing No. 200 Sieve	±2.00%
*Tolerances for sample size of n=1.	

3. Calculations for the acceptance test results for asphalt binder content and gradation (percentages passing the No. 8and No. 200 sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the 0.001 and rounded to the nearest 0.01.

Payment will be based on the acceptance of the project by the Engineer.

B. Acceptance of the Roadway:

1. Density Control: The in-place density of any questionable section of a course of asphalt mix will be evaluated by using a nuclear gauge and/or by the testing of 6-inch diameter roadway cores.

   The Engineer will not perform density testing on leveling courses, open-graded friction courses, or any course which does not show signs of poor /improper compaction efforts. In addition, density testing will not be performed on the following areas when they are less than 1,000 feet in length: crossovers, intersections, turning lanes, acceleration lanes or deceleration lanes. Compact these courses (except for open-graded friction courses) in accordance with the appropriate rolling procedure as specified in these specifications or as approved by the Engineer.

2. Acceptance: The completed pavement will be accepted with respect to overall ride, overall appearance, and overall yield as determined by the Engineer or Engineer of Record.

Areas of question may be tested with a nuclear gauge or by the testing of the density of the cores, as determined by the engineer.

3. Additional Density Requirement: On shoulders with a width of 5feet or less, compact the pavement in accordance with the rolling procedure (equipment and pattern) as specified herein or as approved by the Engineer. Stop the production of the mix if the rolling procedure deviates from the approved procedure.

4. Surface Tolerance: The asphalt mixture will be accepted on the roadway with respect to surface tolerance by using a 15 ft rolling straight edge. The department will determine if the use of a straight edge test is warranted. Unevenness of the course shall not vary more than plus or minus 3/16 inch in 15 feet.

5.5 ADDITIONAL TESTS

The City reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

PART 6 - DISPOSITION OF FAILING MATERIAL

Any material that is represented by failing test results will be evaluated to determine if removal and replacement is necessary. Remove and replace any material, if required, at no cost to the City. The evaluation will be conducted by the Engineer and/or Engineer of Record. If so directed, obtain an engineering analysis, as directed by the Engineer, by the independent laboratory (as approved by the Engineer) to determine if the material can (a) remain in place, for this case the appropriate pay factor will be applied, or (b) be removed and replaced at no cost to the Department. The analysis will be a signed and sealed report by a Professional Engineer licensed in the State of Florida.

PART 7 - MEASUREMENT/PAYMENT

7.1 METHOD OF MEASUREMENT

A. For the work specified under this Section the quantity to be paid for will be the in- place measurement of the area in square yards unless otherwise stated in the project plan details.

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

7.2 BASIS OF PAYMENT

Price and payment will be full compensation for all the work specified under this section.

END OF SECTION 02500

SECTION 02800 – FENCING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

B. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Section 550 and Standard Plans, Index 550-001 through 550-004, Latest Editions

1.2 SUMMARY

A. This Section includes, but is not limited to, the following:

1. Chain link fence

2. Farm Fence

3. Wood privacy fence

B. Where existing fences are to be relocated, but existing materials are deteriorated or damaged, fencing shall be replaced in kind or as specified by the City.

1.3 PROJECT CONDITIONS

A. Traffic: Conduct fencing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities and to minimize disturbance of the activities of adjacent property owners. Do not close or obstruct streets, walks, or other occupied or used facilities without prior approval.

B. Security: Do not leave any fence unfinished or incomplete which might allow the escape of livestock or household pets, access to a private/public pool or pond, etc. without temporary measures in place during construction.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver material in manufacturer's original packaging with all tags and labels intact and legible.

B. Handle and store material in such a manner as to avoid damage.

PART 2 - PRODUCTS /MATERIALS

2.1 CHAIN LINK FENCING

A. Chain link fence shall meet the requirements of FDOT Standard Plans, Index 550-002.

2.2 CHAINLINK GATES

A. Swing Gates: Per FDOT Standard Plans, Index 550-002, as modified herein, construct of 1.625" o.d. steel pipe galvanized in accord with ASTM A-53 and weighing 2.27 pounds per lineal foot. Provide gates more than 8feet wide with either intermediate members or diagonal truss rods. Provide gates less than 8feet wide with truss rods or intermediate braces. Arrange latches for padlocking to provide accessibility from both sides of the gate. Where a double swing gate is called out, construct concrete anchor rod base 8” in diameter and 4” deep flush with top of ground. Opening in base for rod shall accommodate standard size in accordance with manufacturer and shall be PVC or galvanized steel pipe.

B. Slide Gates: shall be constructed per FDOT Standard Plans, Index 550-003.

2.3 CHAINLINK ACCESSORIES

A. Post Tops: pressed steel, or malleable iron. Where top rail is used, provide post tops to permit passage of top rail.

2.4 FARM FENCING

A. Farm Fencing shall meet the requirements of FDOT Standard Plans, Index 550-001.

2.5 WOOD PRIVACY FENCE

A. Where existing fences are to be relocated, but existing materials are deteriorated or damaged, fencing shall be replaced in kind or as specified by the City.

B. Shall be constructed as per industry standard with proper clearance below fence so as not to impede stormwater flow.

PART 3 - EXECUTION

3.1 CHAIN LINK FENCING

Chain link fence shall meet the requirements of FDOT Standard Plans, Index 550-002.

A. Drill holes for post footings in firm, undisturbed or compacted soil.

B. Place concrete around posts in a continuous pour, tamp for consolidation. Check each post for vertical and top alignment.

C. Set Keepers, stops, sleeves and other accessories into concrete as required. Topping of the fence with barbed wire shall not be included unless specifically shown on the plans.

D. Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension.

E. Tension Wire: Install tension wires before stretching fabric and tie to each post with ties or clips.

F. Fabric: Pull fabric taut 2inches above grade level and tie to posts, rails, and tension wires. Attach fabric to terminal or gateposts by a stretcher bar and clip to other framework so that fabric remains in tension after pulling force is released.

G. Hinge gates to swing through 180 degrees from closed to open.

3.2 FARM FENCING

A. General installation shall be in accordance with FDOT Standard Plans, Index 550-001.

B. Fence shall be installed with wire side to the private property side.

C. Topping of the fence with barbed wire shall not be included unless existing farm fence includes barbed wire topping.

3.3 WOOD PRIVACY FENCING:

A. Shall be constructed as per industry standard with proper clearance below fence so as not to impede stormwater flow.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

A. General: The quantities to be paid for will be either the number of gates, the

length of each type of fence, the number of corner post assemblies, constructed and accepted for the length of each type of fence with all other items necessary for construction as incidental. In addition, extra payment will be made, for additional lengths of post approved by the City.

B. Measurement of Fence Length: The length of fence to be paid for will be measured along the bottom of the fabric, out-to-out of end posts, in the completed and accepted fence. Measurement for Resetting Fence will be the actual length of existing fence reset, including gates when applicable.

C. Corner Post Assemblies, Pull, and End Post Assemblies: The number of corner post assemblies and of pull and end post assemblies to be paid for will be the number of such post assemblies constructed and accepted.

4.2 BASIS OF PAYMENT

A. BASIC ITEMS OF FENCING

The contract unit price will be full compensation for all work and materials necessary for the complete installation, including line posts, but not including the corner, end, and pull posts and the assemblies thereof.

B. ITEMS OF POST ASSEMBLIES

The Contract unit prices for the items of Corner Post Assemblies and Pull and End Post Assemblies will include the posts and the complete assemblies therewith for each such item. Approach posts and brace posts will be considered as part of the assembly of the corner, end, or pull post serves as a brace in more than one horizontal line.

C. PAYMENT RATES FOR EXTRA-LENGTH POSTS

For any length of posts in excess of the standard length for each post, approved by the Engineer as provided above, payment will be made for each foot in excess of the standard length at the percentage of the Contract unit price per foot for the item of Fencing, as shown in the following schedule:

Total Post Length	Steel and Aluminum Posts	Recycled Plastic & Timber Posts
Standard up to 14’	50%	60%
Between 14’ – 20’	60%	80%
Over 20’ *	*	*
*When the length of post exceeds 20 feet, the work of finishing and installing such posts and the costs incidentals hereto will be paid for as unforeseeable through a change order.		

The standard length of steel, recycled plastic and aluminum posts will be the required length as indicated in the plans for each type and case.

The above provisions for extra length payment will apply to end, corner and pull posts.

The payment for additional length of post will include the cost of additional concrete to extend concrete bases, as applicable.

D. GATE PAYMENT

The quantities to be paid for will be full compensation for all labor, materials, posts and associated hardware for the complete installation of the type gate specified in the plans and accepted by the City.

END OF SECTION 02800

SECTION 02900 – GRASSING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Specifications Sections apply to this Section.

B. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Section 570 and Section 981, Latest Edition

1.2 SUMMARY

Extent of grassing work is as specified or shown on the construction plans. Sodded areas disturbed during construction shall be re-sodded to match existing. Areas disturbed beyond specified construction area shall be sodded, at no additional expense, either to match existing or as per City direction.

1.3 SUBMITTALS

A. See paragraph 1.9A Quality Control/Quality Assurance Submittals, Section 1300.

1.4 DELIVERY AND STORAGE

A. General: Seed, fertilizer, sod and other grassing materials shall be stored under cover and protected from damaged which would make them unacceptable for use.

B. Seed: All seed shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in sealed standard containers unless exception is granted in writing. Seed, which has become wet, moldy, or otherwise damaged in transit or in storage, shall not be used.

C. Fertilizer: Fertilizer shall be delivered to the site in the original, unopened containers, each bearing the manufacturer’s guaranteed analysis. Any fertilizer, which becomes caked or otherwise damaged, making it unsuitable for use, shall not be used.

D. Sod: Do not use sod which has been cut (stripped) for more than 48 hours. Stack all sod that is not planted 24 hours after cutting and maintain proper moist condition.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Lime: Lime shall be ground limestone (Dolomite) containing not less than 85 percent of total carbonates, and shall be ground to such a fineness that 50-percent will pass a 100-mesh sieve and 90-percent will pass a 20-mesh sieve.

B. Fertilizer: Apply fertilizer at the following rates:

1. 10-10-10 1000 lbs/acre=0.2 lbs/sq yd

2. 13-13-13 770 lbs/acre=0.16 lbs/sq yd

C. Seed: Apply seed at the rate as specified:

GRASS SEEDING RATES (Lbs/Ac)								
TYPE OF SEED	ZONE I				ZONE II			
	COASTAL*		INLAND		COASTAL*		INLAND	
	Mar.-Nov.	Nov.-Mar.	Mar.-Nov.	Nov.-Mar.	Mar.-Nov.	Nov.-Mar	Mar.-Nov.	Nov.-Mar.
PERMANENT GRASSES								
Unhulled Bermuda**		90		20		90		20
Hulled Bermuda**	60		15		60		15	
Bahia (Argentine or Pensacola)			180	180			180	180
QUICK GROWING GRASS								
Annual Rye Grass		90		90		90		90
TOTAL POUNDS PER ACRE	60	180	195	290	60	180	195	290
* Locations where salt sensitive plants may be adversely affected by high concentrations of salt in soils, water, or air. This may include seaside locations, low-lying areas subjected to periodic saltwater inundation from storms or high tides, or where salt intrusion into groundwater supply has occurred.								
** Bermuda shall not be used in areas adjacent to existing or proposed landscaping.								
NOTE: All seeding shall be performed meeting the requirements of Section 570 of the Standard Specifications								

Activities such as clearing, grading, and excavating that will disturb one or more acres of land require coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities from

the Florida Department of Environmental Protection, and implementation of appropriate pollution prevention measures to minimize erosion and sedimentation. Please refer to the National Pollutant Discharge Elimination System (NPDES) Permit.

D. Mulch: The mulch material shall be dry straw or hay, consisting of oat, rye, or wheat straw, or of pangola, peanut, coastal Bermuda or Bahia grass, hay or compost; and shall be free from noxious weeds and plants. Any plant officially listed, as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Furnish to the engineer, prior to incorporation onto the project, a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the Mulch materials are free of noxious weeds. Any such noxious plant or plant part found to be delivered shall be removed by the Contractor at his expense. Only undeteriorated mulch, which can readily be cut into the soil, shall be us ed. The “air-dry” weight (as defined by the Technical Association of the Pulp and Paper Industry, for wood cellulose) shall be marked on each package by the producer. Apply mulch at a rate of 2ton/acre or 1lb/sq yd.

E. Sod: All sod shall be healthy Centipede Sod unless otherwise required. Sod shall be strongly rooted, free of weeds and undesirable grasses and capable of providing vigorous growth and development when planted. Sod shall match existing species where restoration is required as a result of the Contractor’s work.

PART 3 - EXECUTION

3.1 REQUIREMENTS

All areas disturbed by the Contractor’s operations, shall be grassed, unless otherwise noted.

3.2 PLANTING SEED

A. Grading: Areas to be grassed shall be graded to remove depressions, undulations, and irregularities in the surface before grassing. Adhere to grades as shown on plans.

B. Tillage: The area to be grassed shall be thoroughly tilled to a depth of four inches using a plow and disc harrow or rotary tilling machinery until a suitable bed has been prepared and no clods or clumps remain larger than 1½ inches in diameter. Remove sticks, roots, and rubbish.

C. Applying Lime: The pH of the soil shall be determined. If the pH is below 5.0, enough lime shall be added to provide a pH between 5.5 and 6.5. The

lime shall be thoroughly incorporated into the top three to four inches of the soil. Lime and fertilizer may be applied in one operation.

D. Applying Fertilizer: Fertilizer shall be applied in accordance with the rates specified in Part 2and shall be thoroughly incorporated into the top three to four inches of soil before sod is installed. FDOT Section 982.

E. Seed and Mulch: Apply in accordance with the rates specified in Part 2.

F. Maintenance: Maintenance shall begin immediately following the last operation of grassing and continue until final acceptance. Maintenance shall include watering, mowing, replanting, and all other work necessary to produce a uniform stand of grass, all at the contractor's expense.

3.3 PLACING SOD

A. Use Centipede sod (Eremochloa ophiuroides) unless otherwise required. The sod shall have a thick mat of roots (minimum 2") with enough adhering soil to assure growth. Apply sod within 48 hours of stripping. Protect sod against drying and breaking of rolled strips.

B. Placement: Prepare the ground by loosening the soil. Place sod perpendicular to the slope. Place sod on the prepared soil to form a solid mass with tightly fitted joints. Ensure the butt ends and sides of sod strips do not overlap. The seam should have a flush tight transition from new to existing sod with no overlap. Stagger strips to avoid a continuous downhill seam. Tamp or roll lightly to ensure contact with subgrade. Tamp the outer edges of the sodded area to produce a smooth contour. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass. Water sod thoroughly with a fine spray immediately after planting.

C. Pinning: All sod placed on a slope steeper than 3:1 shall be pinned, at the top of the sod, at a rate listed in the table below:

Sod Size	Pins Required
Square Sod	2 pins per sod square
Mini Roll	3 pins per roll
Standard Rolls	1 pin per linear foot

D. Watering: Keep sod continuously moist to a depth below the root zone for three weeks after placement. If there is no water available to the site, the Contractor shall provide the water. Do not water in excess of 1" (one inch) per square yard per week for establishment.

E. Clean-Up: All excess soil, excess grass materials, stones, pallets and other

waste shall be removed from the site daily and not allowed to accumulate. Paved areas shall be kept clean at all times.

F. Maintenance: Maintain sod by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, re-grading, and re-planting as required to establish a lawn free of eroded or bare areas and acceptable to the City. Where inspected work and materials do not comply with requirements, replace rejected work and continue maintenance until re-inspected by City and found to be acceptable. Remove rejected materials promptly from the project site. FDOT Section 570-4.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be for the following items, completed and accepted: square yards of seeding, square yards of seeding and mulching, and square yards of sodding.

4.2 BASIS OF PAYMENT

Prices and payments will be full compensation for all work and materials specified in this Section.

END OF SECTION 02900

SECTION 02461 – TIMBER PILES

PART 1 - GENERAL

1.1 SUMMARY

Section includes round timber piles.

1.2 UNIT PRICES

A. Contract Sum: Base Contract Sum on number and dimensions of piles indicated from tip to cutoff, plus not less than 12 inches of overlength for cutting piles at cutoff elevations.

B. Work of this Section is affected as follows:

1. Additional payment for pile lengths in excess of that indicated, and credit for pile lengths less than that indicated, is calculated at unit prices stated in the Contract, based on net addition or deduction to total pile length as determined by Architect and measured to nearest 12 inches.

    a. Additional payment for splices required to extend pile lengths in excess of that indicated is calculated at unit prices stated in the Contract.

2. Unit prices include labor, materials, tools, equipment, and incidentals for furnishing, driving, cutting off, capping, and disposing of cutoffs.

3. Test piles that become part of permanent foundation system are considered as an integral part of the Work

4. No payment is made for rejected piles, including piles driven out of tolerance, defective piles, or piles damaged during handling or driving.

1.3 PREINSTALLATION MEETINGS

Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For timber piles. Show fabrication and installation details for piles, including details of driving shoes, tips or boots, and pile butt protection.

1.5 INFORMATIONAL SUBMITTALS

A. Round timber pile treatment data.

B. Pile-Driving Equipment Data: Include type, make, and rated energy range; weight of striking part of hammer; weight of drive cap; and, type, size, and properties of hammer cushion.

C. Pile-driving records.

D. Field quality-control reports.

1.6 DELIVERY, STORAGE, AND HANDLING

A. A. Handle and store piles at Project site to prevent breaks, cuts, abrasions, or other physical damage and as required by AWPA M4. Do not drill holes or drive spikes or nails into pile below cutoff elevation.

PART 2 - PRODUCTS

2.1 TIMBER PILES

A. A. Round Timber Piles: ASTM D 25, unused, clean peeled, one piece from butt to tip; of the following species and size basis:

1. Species: Southern yellow pine.

2. Size Basis: 8-inch tip as indicated and natural taper

B. Pressure-treat round timber piles according to AWPA U1 as follows:

1. Service Condition: UC4C Ground Contact, Extreme Duty

2. 2. Treatment: Waterborne preservative Chromated Copper Arsenate (CCA) must be used. No exceptions taken.

2.2 PILE ACCESSORIES

A. Driving Shoes: Fabricate from ASTM A 1011/A 1011M, hot-rolled carbon-steel strip to suit pile-tip diameter.

2.3 FABRICATION

A. Pile Tips: Cut and shape pile tips to accept driving shoes. Fit and fasten driving shoes to pile tips according to manufacturer's written instructions.

B. Pile Butt: Trim pile butt and cut perpendicular to longitudinal axis of pile.

Chamfer and shape butt to fit tightly to driving cap of hammer.

C. Field-Applied Wood Preservative: Treat field cuts, holes, and other penetrations according to AWPA M4.

D. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven.

PART 3 - EXECUTION

3.1 DRIVING PILES

A. General: Continuously drive piles to elevations or penetration resistance indicated. Establish and maintain axial alignment of leads and piles before and during driving.

B. Heaved Piles: Redrive heaved piles to tip elevation at least as deep as original tip elevation with a driving resistance at least as great as original driving resistance.

C. Driving Tolerances: Drive piles without exceeding the following tolerances, measured at pile heads:

1. Location: 4 inches from location indicated after initial driving, and 6 inches after pile driving is completed.

2. Plumb: Maintain 1 inch in 48 inches from vertical, or a maximum of 4 inches, measured when pile is aboveground in leads.

3. Batter Angle: Maximum 1 inch in 48 inches from required angle, measured when pile is aboveground in leads.

D. Withdraw damaged or defective piles and piles that exceed driving tolerances and install new piles within driving tolerances. Fill holes left by withdrawn piles as directed by Architect.

E. Cut off butts of driven piles square with pile axis except as indicated and at elevations indicated.

1. Cover cut-off piling surfaces with minimum three coats of preservative treatment according to AWPA M4.

F. Pile-Driving Records: Maintain accurate driving records for each pile, compiled and attested to by a qualified professional engineer.

3.2 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Dynamic Pile Testing: High-strain dynamic monitoring shall be performed and reported according to ASTM D 4945 during initial driving and during restriking on five single piles of each diameter.

END OF SECTION 02461

SECTION 03300 - PORTLAND CEMENT CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

B. Florida Department of Transportation, Material's Manual, Chapter 9.2, Volume II, and Standard Specifications for Road and Bridge Construction, Section 346, 347, 350, 400, 522, &925, Latest Edition.

1.2 SUMMARY

This Section governs all Portland cement concrete work for the following in accordance with FDOT Standard Plans and Specifications:

A. Roadways

B. Parking Lots

C. Curbs and Gutters

D. Walkways

E. Pads

F. Flumes

G. Curb Ramps

H. Cast in Place Structures

I.

1.3 SUBMITTALS

A. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, joint systems, curing compounds, dry-shake finish materials, and others if requested by the City.

B. Design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

C. Material certificates in lieu of material laboratory test reports when permitted by the City. Material certificates shall be signed by manufacturer and Contractor certifying that each material item complies with or exceeds requirements. Provide certification from admixture manufacturers that chloride content complies with requirements.

1.4 PROJECT CONDITIONS

A. Traffic Control: Comply with requirements of Escambia County Specification, Section 04060, "Maintenance of Traffic."

B. Utilize flagmen, barricades, warning signs and warning lights as required, as shown on plans, or as directed by the City.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Concrete shall conform to requirements of FDOT Standard Specification, Sections 346, 347, &522 for curbs, gutters, sidewalks, structures and miscellaneous concrete.

B. Concrete for pavement shall conform to requirements of FDOT Standard Specification, Section 350.

C. Curb Ramps shall conform to FDOT Standards Plans Index 522-502.

2.2 REINFORCING MATERIALS

A. Reinforcing Bars and Tie Bars: ASTM A615, Grade 60, deformed.

B. Welded Steel Wire Fabric: ASTM A185.

1. Furnish in flat sheets, not rolls.

C. Deformed-Steel Welded Wire Fabric: ASTM A497.

D. Fabricated Bar Mats: Welded or clip-assembled steel bar mats, ASTM A184. Use ASTM A615, Grade 60 steel bars, unless otherwise indicated.

E. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 60. Cut bars true to length with ends square and free of burrs.

F. Hook Bolts: ASTM A307, Grade A bolts, internally and externally threaded. Design hook bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.

G. Supports for Reinforcement: Chairs, spacers, dowel bar supports and other devices for spacing, supporting, and fastening reinforcing bars, welded wire fabric, and dowels in place. Use wire bar-type supports complying with CRSI specifications. Use supports with sand plates or horizontal runners where base material will not support chair legs.

2.3 CONCRETE MATERIALS

A. Portland Cement: Type I, Type IP, Type IS, Type IP (MS), Type II, or Type III

1. Use one brand of cement throughout Project.

2. All concrete shall develop a 28-day compressive strength of 3000 psi for non-structural (NS). If any concrete should fail to meet the strength requirement the structure shall be removed as necessary to remove the defective concrete and shall then be rebuilt at the Contractor's expense.

B. Fly Ash: ASTM C618, Class Cor Class F.

C. Normal-Weight Aggregates: ASTM C33, Class 4, and as follows. Provide aggregates from a single source.

1. Maximum Aggregate Size: 1-1/2 inches.

2. Do not use fine or coarse aggregates that contain substances that cause spalling.

3. Local aggregates not complying with A STM C33 that have been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to Engineer.

D. Water: Potable.

E. Fiber Reinforcement: Synthetic fibers engineered and designed for secondary reinforcement of concrete slabs, complying with ASTM C1116, Type III.

2.4 ADMIXTURES

A. Provide concrete admixtures that contain no more than 0. 01 percent chloride ions.

B. Air-Entraining Admixture: A STM C260, certified by manufacturer to be compatible with other required admixtures.

C. Water-Reducing Admixture: ASTM C494, Type A.

D. High-Range Water-Reducing Admixture: ASTM C494, Type For Type G.

E. Water-Reducing and Accelerating Admixture: ASTM C494, Type E.

F. Water-Reducing and Retarding Admixture: ASTM C494, Type D.

2.5 CONCRETE MIX

Prepare design mixes for each type and strength of normal-weight concrete per FDOT Standard Specification, Section 346-6.2 and FDOT Material's Manual, Chapter 9. 2, Volume II. Use a qualified independent testing laboratory for preparing and reporting proposed mix designs. Do not use the Owner's field quality-control testing laboratory as the independent testing laboratory.

A. Fiber Reinforcement: Add to mix at rate of 1.5 lb./cu.yd. unless manufacturer recommends otherwise.

B. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, project conditions, weather, test results, or other circumstances warrant.

2.6 CONCRETE MIXING

Ready-Mixed Concrete: Comply with requirements of FDOT Specification, Section 346- 7and FDOT Material's Manual, Chapter 9.2, Volume II.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION FOR CONCRETE PAVEMENT

A. Proof-roll prepared base or subgrade surface to check for unstable areas and verify need for additional compaction. Do not begin concrete work until such conditions have been corrected and are ready to receive paving.

B. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install enough forms to allow continuous progress of work and so that forms can remain in place at

least 24 hours after concrete placement.

B. Check completed formwork and screeds for grade and alignment to following tolerances:

1. Top of Forms: Not more than 1/8 inch in 10 feet.

2. Vertical Face on Longitudinal Axis: Not more than 1/4 inch in 10 feet.

C. Clean forms after each use and coat with form release agent as required ensuring separation from concrete without damage.

3.3 PLACING REINFORCEMENT

A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars" for placing and supporting reinforcement. Comply with FDOT Specification, Section 350-7.

B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.

C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces. Maintain minimum cover to reinforcement.

D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction. Use of chairs is required. Welded wire fabric shall not be "pulled" to center of slab.

E. Install fabricated bar mats in lengths, if practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

3.4 JOINTS

A. General: Construct control (contraction) joints, construction, and isolation joints true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to the centerline, unless indicated otherwise. When joining existing paving, place transverse joints to align with previously placed joints, unless indicated otherwise.

B. Control (Contraction) Joints: Control joints are grooved, formed, or sawed into sidewalks, driveways and concrete pavements so that cracking will occur in these joints randomly. If not specified on drawings, intervals shall be not greater than 10 feet or less than 5feet. Construct control joints for a depth equal to at least 1/4 of the concrete thickness, as follows:

1. Tooled Joints: Form contraction joints in fresh concrete by grooving and finishing each edge of joint with a radiused jointer tool.

2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8- inch-wide joints into hardened concrete when cutting action will not tear, abrade, spall or otherwise dam age surface and before development of random contraction cracks.

3. Inserts: Form contraction joints by inserting pre-molded plastic, hardboard, or fiberboard strips into fresh concrete until top surface of strip is flush with paving surface. Radius each joint edge with a jointer tool. Carefully remove strips or caps of two-piece assemblies after concrete has hardened. Clean groove of loose debris.

C. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than ½hour unless paving terminates at isolation joints.

1. Provide preformed galvanized steel or plastic keyway-section forms or bulkhead forms with keys, unless indicated otherwise. Embed keys at least 1-1/2 inches into concrete.

2. Continue reinforcement across construction joints unless indicated otherwise.

D. Expansion Joints: Form expansion joints of preformed joint filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.

1. Locate expansion joints at intervals of 30 feet, unless indicated otherwise or directed by City.

2. Extend joint fillers full width and depth of joint, not less than ½inch or more than 1inch below finished surface where joint sealant is indicated. Place top of joint filler flush with finished concrete surface when no joint sealant is required.

3. Furnish joint fillers in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.

4. Protect top edge of joint filler during concrete placement with a metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

E. Filler and Sealants: Submit specifications to Engineer for approval.

F. Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one half of dowel length to prevent concrete bonding to one side of joint.

G. Slabs-on-grade, sidewalks, and concrete pavement subject to vehicular traffic shall be provided with contraction joints, construction joints, and joint spacing in accordance with FDOT Standard Specifications and as shown on the Plans. Sawcut timing and joint depth shall be appropriate for pavement applications.

3.5 CONCRETE PLACEMENT

A. Comply with requirements of FDOT Specification, Sections 350-8 and 400-7 for placing concrete.

B. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place. No concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. Deposit concrete as nearly as practical to its final location to avoid segregation. When concrete placing is interrupted for more than ½hour, place a construction joint.

C. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

D. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, floating, or tamping. Use equipment and procedures to consolidate concrete complying with FDOT Standard Specification, Section 350-9.

E. Screed paved surfaces with a straightedge and strike off. Use bull floats or darby screeds to form a smooth surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces prior to beginning finishing operations.

F. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed. Remove and replace portions of bottom layer of concrete that have been placed more than 15 minutes without being

covered by top layer or use bonding agent if acceptable to City.

G. Curbs and Gutters: Shall be constructed in accordance with FDOT Specs. When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete.

H. Slip-Form Pavers: When automatic machine placement is used for paving, submit revised mix design and laboratory test results that meet or exceed requirements. Produce paving to required thickness, lines, grades, finish, and jointing as required for formed paving. Compact subgrade with enough width to prevent displacement of paver machine during operations.

I. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength, or enough strength to carry loads without damage or injury. Maturity Method Testing, as outlined in FDOT Standard Specification, Section 353-10.2, should be used to determine concrete strength.

J. Cold-Weather Placement: Comply with provisions of FDOT Standard Specification, Sections 346-7.4 and 400-7.1.1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

K. Hot-Weather Placement: Place concrete complying with FDOT Standard Specification, Sections 346-7.5 and 400-7.1.2, and as specified when hot weather conditions exist.

3.6 CONCRETE JOINTING

Slabs-on-grade and concrete pavement subject to vehicular traffic shall be provided with contraction joints, construction joints, and joint spacing in accordance with FDOT Standard Specifications and as shown on the Plans. Sawcut timing and joint depth shall be appropriate for pavement applications.

3.7 CONCRETE FINISHING

A. Float Finish: Begin floating when bleed-water sheen has disappeared, and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand -floating if area is small or inaccessible to power units. Finish surfaces to true planes within a tolerance of 1/8 inch in 10 feet as determined by a 10-foot-long straight-edge placed anywhere on the surface in any direction. Cut down high spots and fill low spots. Refloat surface immediately to a uniform granular texture.

1. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across concrete surface perpendicular to line of traffic to provide a uniform fine line texture finish.

2. Tine Finishes: Apply to curb cut ramps and other areas as noted on the drawings. Finish shall be applied by an approved hand method and shall consist of transverse grooves which are 0.03 to 0.12 inch in width and 0.10 to 0.15 inch in depth, spaced at approximately ½inch center to center.

3. Ribbed, Slip Resistant Finish: Form ribs into fresh, workable concrete using an approved ribbing tool. Ribs shall run perpendicular to vehicle travel and be approximately 1/8” to 1/4” high with 1/2" ± 1/8” spacing. Dimensions shall be consistent with Florida FWC and USACE recommended practice.

B. Final Tooling: Tool edges of paving, gutters, curbs, and joints formed in fresh concrete with a jointing tool to the following radius. Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces. Radius: ½ inch.

3.8 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with the recommendations of FDOT Specification, Sections 350-11 and 925.

3.9 QUALITY CONTROL TESTING

A. A qualified, accredited testing and inspection laboratory, under the direction of a Professional Engineer, licensed in the State of Florida, shall sample materials, perform tests, and submit test reports during concrete placement as follows:

1. Sampling Fresh Concrete: ASTM C172, except modified for slump to comply with A STM C94. All concrete should be sampled by ACI certified technicians.

   a. Slump: ASTM C143; one test at point of placement for each compressive strength test but no less than one test for each day’s pour of each type of concrete. Additional tests will be required when concrete consistency changes.
   b. Air Content: ASTM C231, pressure method; one test for each compressive-strength test but no less than one test for each day’s pour of each type of air-entrained concrete.

c. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40°F (4°C) and below and when 80°F (27°C) and above, and one test for each set of compressive strength specimens.

d. Compression Test Specimens: ASTM C31; one set of four standard cylinders for each compressive- strength test, unless directed otherwise. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.

e. Compressive Strength Tests: ASTM C39; one set for each day's pour of each concrete class, plus one set for each additional 50 cu. yd. Test one specimen at 7days, two specimens at 28 days, and retain one specimen in reserve for earlier or later testing if required. Class NS compression test specimens' cylinders are not required, except as directed by City.

f. Contractor shall repair the area to the satisfaction of the Engineer where material was removed for testing purposes. Should any work or materials fail to meet the requirements set forth in the plans and specifications, contractor shall pay for retesting of same.

2. Basis for acceptance of concrete will be per FDOT Specification Sections 346-8 through 346-11.

B. Test results will be reported in writing to the City, within 24 hours of testing. Reports of compressive strength tests shall contain the Project identification name and number, date and location of concrete placement, name of concrete testing laboratory, concrete type and class, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day and 28- day tests.

C. Nondestructive Testing: Non-destructive test methods may be used with approval of the Engineer but shall not be used as the sole basis for acceptance or rejection.

D. Additional Tests: The testing laboratory will make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Engineer. Testing laboratory may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42, or by other methods as directed.

3.10 REPAIRS AND PROTECTION

A. Remove and replace concrete work that is broken, damaged, or defective, or does not meet the requirements of this Section.

B. Drill test cores where directed by the City when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory

concrete areas with Portland cement concrete bonded to paving with epoxy adhesive.

C. Protect concrete from damage. Exclude traffic from concrete pavement for at least 14 days after placement. When construction traffic is permitted, maintain concrete as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete work free of stains, discoloration, dirt, and other foreign material. Sweep concrete paving not more than 2days prior to date scheduled for Substantial Completion inspections.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be the plan quantity, in square yards, of Plain Cement Concrete Pavement, Reinforced Cement Concrete Pavement, square yards of sidewalk, and linear feet of curb and/or gutter.

4.2 JOINTS AND CRACKS

The Contractor shall include the cost for Cleaning and Sealing Joints in the cost of the newly constructed pavement for: (1) transverse and longitudinal joint construction for new pavement; and (2) abutting joints between existing pavement and new pavement.

For replacing joint seals and sealing random cracks in existing Portland cement concrete pavement, the quantity to be paid for will be as specified below:

A. The length of pavement joint that has been satisfactorily cleaned and sealed in existing Portland cement concrete pavement, as determined by field measurement along the joints, will be paid for at the Contract unit price per foot for Cleaning and Resealing Joints.

B. The length of random cracks in existing Portland cement concrete pavement that have been satisfactorily cut, cleaned, and sealed, as determined by field measurement along the joints, will be paid for at the Contract unit price per foot for Cleaning and Sealing Random Cracks.

4.3 BASIS OF PAYMENT

Prices and payment will be full compensation for all work specified in this Section, including any preparation of the subgrade not included in the work to be paid for under another Contract item; all transverse and longitudinal joint construction, including tie- bars and dowel bars; the furnishing of test specimens; repair of core

holes; and all incidentals necessary to complete the work.

END OF SECTION 03300

SECTION 03310 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes cast-in-place concrete, including reinforcement, concrete materials, mix design, placement procedures, and finishes applicable to the work described on the structural series of sheets (S-###).
B. See Division 2 Section "Earthwork" for drainage fill under slabs-on-grade.

1.02 SUBMITTALS

A. Product Data: For each manufactured material and product indicated.
B. Design Mixes: For each concrete mix indicated.
C. Shop Drawings: Include details of steel reinforcement placement including material, grade, bar schedules, stirrup spacing, bent bar diagrams, arrangement, and supports.
D. Material certificates.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
B. Comply with ACI 301, "Specification for Structural Concrete," including the following, unless modified by the requirements of the Contract Documents.
    1. General requirements, including submittals, quality assurance, acceptance of structure, and protection of in-place concrete.
    2. Formwork and form accessories.
    3. Steel reinforcement and supports.
    4. Concrete mixtures.
    5. Handling, placing, and constructing concrete.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Formwork: Furnish formwork and form accessories according to ACI 301.
B. Steel Reinforcement:
    1. Reinforcing Bars: ASTM A 615 Grade 60, deformed.
    2. Plain-Steel Wire: ASTM A 82, as drawn.
    3. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.

C. Concrete Materials:
   1. Portland Cement: ASTM C 150, Type I or II or I/II.
   2. Normal-Weight Aggregate: ASTM C 33, uniformly graded, not exceeding 1-1/2-inch nominal size.
   3. Water: Complying with ASTM C 94.

D. Admixtures:
   1. Air-Entraining Admixture: ASTM C 260.
   2. Water-Reducing Admixture: ASTM C 494, Type A.
   3. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.
   4. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

E. Sheet Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 10 mils thick.

F. Joint-Filler Strips: ASTM D 1752, cork or self-expanding cork.

G. Curing Materials:
   1. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
   2. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf.
   3. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
   4. Water: Potable.
   5. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B.

2.02 CONCRETE MIXES

A. Comply with ACI 301 requirements for concrete mixtures.

B. Prepare design mixes, proportioned according to ACI 301, for normal-weight concrete determined by either laboratory trial mix or field test data bases, as follows:
   1. Compressive Strength (28 Days): 4000 psi.
   2. Slump: 4 inches.

C. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 2.5 to 4.5 percent.
   1. Air content of trowel-finished interior concrete floors shall not exceed 3.0 percent.

2.03 CONCRETE MIXING

A. Ready-Mixed Concrete: Comply with ASTM C 94 and ASTM C 1116.
   1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

B. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

A. Formwork: Design, construct, erect, shore, brace, and maintain formwork according to ACI 301.

B. Vapor Barrier: Install, protect, and repair vapor-barrier sheets according to ASTM E 1643; place sheets in position with longest dimension parallel with direction of pour.
   1. Lap joints 6 inches and seal with manufacturer's recommended tape.

C. Steel Reinforcement: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
   1. Do not cut or puncture vapor barrier. Repair damage and reseal vapor barrier before placing concrete.

D. Joints: Construct joints true to line with faces perpendicular to surface plane of concrete.
   1. Construction Joints: Locate and install so as not to impair strength or appearance of concrete, at locations indicated or as approved by Architect.
   2. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
      a. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.
      3. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated or as approved by Architect..

E. Tolerances: Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

3.02 CONCRETE PLACEMENT

A. Comply with recommendations in ACI 304R for measuring, mixing, transporting, and placing concrete.

B. Consolidate concrete with mechanical vibrating equipment.

3.03 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.
   1. Apply to concrete surfaces not exposed to public view.

B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Completely remove fins and other projections.
   1. Apply to concrete surfaces exposed to public view or to be covered with a coating or covering material applied directly to concrete, such as waterproofing, dampproofing, veneer plaster, or painting.
   2. Apply smooth-rubbed finish, defined in ACI 301, to smooth-formed finished concrete.

C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.04 FINISHING UNFORMED SURFACES

A. General: Comply with ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on the surface.
   1. Do not further disturb surfaces before starting finishing operations.

C. Float Finish: Apply float finish to surfaces indicated, to surfaces to receive trowel finish, and to floor and slab surfaces to be covered with fluid-applied or sheet waterproofing.

D. Nonslip Broom Finish: Apply a nonslip broom finish to surfaces indicated and to exterior concrete platforms, steps, and ramps. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom in direction of slab slope as indicated.

3.05 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection, and follow recommendations in ACI 305R for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions occur before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Begin curing after finishing concrete, but not before free water has disappeared from concrete surface.

D. Cure formed and unformed concrete for at least seven days as follows:

1. Moisture Curing: Keep surfaces continuously moist with water or continuous water-fog spray or absorptive cover, water saturated and kept continuously wet.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.06 FIELD QUALITY CONTROL

A. Testing Agency: The Owner will engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement. Tests will be performed according to ACI 301.
   1. Testing Frequency: One composite sample for each day's pour of each concrete mix exceeding 5 cu. yd, but less than 25 cu. yd, plus one set for each additional 50 cu. yd. or fraction thereof.
   2. Testing Frequency: At least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mix placed each day.
   3. Test Cylinders: A minimum of four (4) shall be cast for each composite sample. Test one (1) at seven (7) days, two (2) at twenty-eight (28) days and hold one (1) as a spare.

END OF SECTION 03310

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03455 TIMBER PILES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes round timber piles.

1.2 UNIT PRICES

A. Contract Sum: Base Contract Sum on number and dimensions of piles indicated from tip to cutoff, plus not less than 12 inches of overlength for cutting piles at cutoff elevations.

B. Work of this Section is affected as follows:

1. Additional payment for pile lengths in excess of that indicated, and credit for pile lengths less than that indicated, is calculated at unit prices stated in the Contract, based on net addition or deduction to total pile length as determined by Architect and measured to nearest 12 inches.

    a. Additional payment for splices required to extend pile lengths in excess of that indicated is calculated at unit prices stated in the Contract.
2. Unit prices include labor, materials, tools, equipment, and incidentals for furnishing, driving, cutting off, capping, and disposing of cutoffs.
3. Test piles that become part of permanent foundation system are considered as an integral part of the Work.
4. No payment is made for rejected piles, including piles driven out of tolerance, defective piles, or piles damaged during handling or driving.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For timber piles. Show fabrication and installation details for piles, including details of driving shoes, tips or boots, and pile butt protection.

1.5 INFORMATIONAL SUBMITTALS

A. Round timber pile treatment data.

B. Pile-Driving Equipment Data: Include type, make, and rated energy range; weight of striking part of hammer; weight of drive cap; and, type, size, and properties of hammer cushion.

C. Pile-driving records.

D. Field quality-control reports.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Handle and store piles at Project site to prevent breaks, cuts, abrasions, or other physical damage and as required by AWPA M4. Do not drill holes or drive spikes or nails into pile below cutoff elevation.

PART 2 - PRODUCTS

2.1 TIMBER PILES

A. Round Timber Piles: ASTM D 25, unused, clean peeled, one piece from butt to tip; of the following species and size basis:

1. Species: Southern yellow pine.
2. Size Basis: 8-inch tip as indicated and natural taper

B. Pressure-treat round timber piles according to AWPA U1 as follows:

1. Service Condition: UC4C Ground Contact, Extreme Duty
2. Treatment: Waterborne preservative Chromated Copper Arsenate (CCA) must be used. No exceptions taken.

2.2 PILE ACCESSORIES

A. Driving Shoes: Fabricate from ASTM A 1011/A 1011M, hot-rolled carbon-steel strip to suit pile-tip diameter.

2.3 FABRICATION

A. Pile Tips: Cut and shape pile tips to accept driving shoes. Fit and fasten driving shoes to pile tips according to manufacturer's written instructions.

B. Pile Butt: Trim pile butt and cut perpendicular to longitudinal axis of pile. Chamfer and shape butt to fit tightly to driving cap of hammer.

C. Field-Applied Wood Preservative: Treat field cuts, holes, and other penetrations according to AWPA M4.

D. Pile-Length Markings: Mark each pile with horizontal lines at 12-inch intervals; label the distance from pile tip at 60-inch intervals. Maintain markings on piles until driven.

PART 3 - EXECUTION

3.1 DRIVING PILES

A. General: Continuously drive piles to elevations or penetration resistance indicated. Establish and maintain axial alignment of leads and piles before and during driving.

B. Heaved Piles: Redrive heaved piles to tip elevation at least as deep as original tip elevation with a driving resistance at least as great as original driving resistance.

C. Driving Tolerances: Drive piles without exceeding the following tolerances, measured at pile heads:

1. Location: 4 inches from location indicated after initial driving, and 6 inches after pile driving is completed.
2. Plumb: Maintain 1 inch in 48 inches from vertical, or a maximum of 4 inches, measured when pile is aboveground in leads.
3. Batter Angle: Maximum 1 inch in 48 inches from required angle, measured when pile is aboveground in leads.

D. Withdraw damaged or defective piles and piles that exceed driving tolerances, and install new piles within driving tolerances. Fill holes left by withdrawn piles as directed by Architect.

E. Cut off butts of driven piles square with pile axis except as indicated and at elevations indicated.

1. Cover cut-off piling surfaces with minimum three coats of preservative treatment according to AWPA M4.

F. Pile-Driving Records: Maintain accurate driving records for each pile, compiled and attested to by a qualified professional engineer.

3.2 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Dynamic Pile Testing: High-strain dynamic monitoring shall be performed and reported according to ASTM D 4945 during initial driving and during restriking on five single piles of each diameter.

END OF SECTION

SECTION 04000 – TRAFFIC CONTROL SIGNS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.

B. Unless otherwise specified on the work orders, plan sheets, or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following document:

1. USDOT, Federal Highway Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition.

2. USDOT, Federal Highway Administration, Standard Alphabets for Highway Signs and Pavement Markings, Latest Edition.

3. Florida Department of Transportation, Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Latest Edition.

4. Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, section 700, Latest Edition.

1.2 DESCRIPTION OF WORK

A. The work under this section includes the fabrication and installation of standard and special traffic control signs (warning, regulatory, and guide). The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the plans and in these specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense and if requested by the City, shall furnish samples of material and/or shall certify that the material meets all FDOT requirements. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material and replace the same, the City may remove and replace the same and deduct

the cost of the work from the contract amount. If the Contractor chooses to use material other than specified herein, a sample of the material with supporting manufacturer's literature and specifications must be submitted to the City for prior approval.

PART 3 - EXECUTION

3.1 UTILITY SPOTS

All street name signs shall be fabricated and installed in accordance with the plans and related documents. Contractor shall contact Sunshine State One Call of Florida (811 or 800-432-4770) at least 48 hours prior to digging or driving posts.

3.2 SIGN INSTALLATION

A. Signs shall be placed at the locations illustrated and/or specified in the plans or related documents. The soil around the post shall be solidly tamped so that the sign will stand vertically.

B. If a sign cannot be placed where indicated due to a conflict, the Contractor shall immediately notify the City for an alternate location.

C. The date when each sign is installed shall be marked in permanent ink on the rear side of each sign.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantity to be paid for will be plan quantity, unless otherwise provided.

4.2 BASIS OF PAYMENT

Price and payment will constitute full compensation for all work specified in this section. Payment for all items relating to traffic control signs will be included in the lump sum Maintenance of Traffic pay item.

END OF SECTION 04000

SECTION 04040 – PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.

B. Unless otherwise specified on the plan sheets or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following documents:

1. Florida Department of Transportation Roadway and Traffic Standard Plans, Indices 706-001 to 711-003, Latest Edition.

2. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Sections 701, 705, 706, 710, 711, 970, 971, and 993, Latest Edition.

3. USDOT, Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition.

1.2 DESCRIPTION OF WORK

The work under this section includes the installation and removal of temporary and permanent pavement markings, textured pavement, reflective markers, galvanized posts, flex posts, delineators, wheel stops, and audible and vibratory pavement markings. The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the plans and in these specifications. Pavement marking notes on plan sheets shall take precedence over and modify conflicting Technical Specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense and if requested by the City, shall furnish samples of material and/or shall certify that the material meets all FDOT requirements. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material and replace the same, the City may remove and replace the same and deduct the cost of the work from the contract amount.

2.2 PAINTED PAVEMENT MARKINGS

Materials for painted pavement markings shall meet all requirements of FDOT Standard Specification, Section 710.

2.3 THERMOPLASTIC PAVEMENT MARKINGS

Materials for thermoplastic pavement markings shall meet all requirements of FDOT Standard Specification, Section 711.

2.4 RAISED PAVEMENT MARKERS AND BITUMINOUS ADHESIVE

Materials for raised pavement markers (RPMS) and adhesive shall meet all requirements of FDOT Standard Specification, Section 706.

2.5 OBJECT MARKERS AND DELINEATORS

Materials for object markers shall meet all requirements of FDOT Standard Specification, Section 705.

2.6 PROFILED THERMOPLASTIC PAVEMENT MARKINGS

Materials for profiled thermoplastic pavement markings (materials with raised thermoplastic bumps creating a raised profile marking) shall meet all requirements of FDOT Standard Specification, Section 701.

PART 3 - EXECUTION

3.1 GENERAL

All pavement markings shall be applied in accordance with FDOT requirements.

3.2 PAINTED PAVEMENT MARKINGS

Painted pavement markings shall be installed at the end of each day on new pavement surfaces and shall be maintained until permanent markings are installed.

3.3 PERMANENT PAVEMENT MARKINGS

Permanent pavement markings, including painted stripes, thermoplastic stripes, and reflective pavement markers, shall be installed as shown in the plans. Materials and installation shall conform to applicable standards in the documents referenced in Section 1.1. Installation of permanent markings on all final asphaltic concrete surfaces shall not be accomplished prior to 14 calendar days, nor later

than 30 calendar days, after placement of the final surfaces.

3.4 RETROREFLECTIVITY

The Contractor shall, within thirty days of completion, furnish retro-reflectivity readings certifying the materials meet all FDOT requirements as per Part I, 1.1.B.2, Sections 710 and 711.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The engineer or project manager may specify a lump sum or measurement of quantities.
The quantities to be paid for under this Section will be the length in feet or gross mile of Skip Traffic Stripes, the length in feet or gross mile of Solid Traffic Stripes, the number of directional arrows and pavement messages, painted, the area in square feet or of Reflective Paint (Island Nose), and the area in square feet or the length in feet to Remove Existing Markings. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe with proper deductions made for unpainted intervals will not be included in pay quantity.

4.2 BASIS OF PAYMENT

Prices and payment will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

END OF SECTION 04040

SECTION 04060 – MAINTENANCE OF TRAFFIC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.

B. Unless otherwise specified on the plan sheets or in other sections of the specifications, all materials and work shall conform to the applicable requirements in the following documents:

1. Florida Department of Transportation Design Standards, Latest Edition.

2. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Section 102, Latest Edition.

3. USDOT, Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, Part 6Temporary Traffic Controls.

4. FDOT Minimum Specifications for Traffic control and Devices, Latest Edition.

1.2 SUMMARY OF WORK

The work under this section includes the maintenance of traffic within the limits of the project for the duration of construction.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION

3.1 RESPONSIBILITIES OF CONTRACTOR

A. Control and maintain traffic to ensure the safety of the work area in accordance with the most stringent applicable requirements, including local ordinances, FDOT standards, Federal regulations, and recognized maintenance of traffic (MOT) best practices. The Contractor shall be responsible for determining appropriate traffic control measures based on their means and methods and shall implement MOT in a manner that minimizes disruption to pedestrian and vehicular traffic, except as otherwise approved by the City Engineer or Traffic Division. Confine the work area to the smallest practical footprint to maximize public access to streets and

sidewalks and to minimize hazards to the public.

B. Maintain access to properties that adjoin the work. Contact property owners and assure that access is coordinated prior to commencing work that may block access.

C. Furnish all labor, materials, tools, supplies, equipment, and machinery needed to fully comply with the specifications described on the plan sheets and in this Section. At all times, the Contractor shall use workers and traffic control devices necessary to comply with all applicable provisions contained in the reference documents listed in Section 1.1.

D. Prior to performing any work within FDOT right-of-way, whether utility or non-utility in nature, the Contractor shall provide notification to the FDOT District Office, Area Operations Office, and/or District Utilities Office, as applicable, in accordance with the requirements and conditions of the applicable FDOT permit(s) and approved Maintenance of Traffic requirements. No work shall commence within FDOT right-of-way until such notification requirements have been satisfied.

E. The Contractor shall notify the City of Pensacola City Engineer, listed below, or his/her designee a minimum of forty-eight (48) hours prior to beginning any work within the right-of-way and immediately upon completion of the work. City Hall is located at 222 W. Main Street, Pensacola, FL 32502.

City of Pensacola City Engineer
Brad Hinote, P.E.
bradhinote@cityofpensacola.com

F. The Contractor shall provide the City Engineer or his/her designee with the direct phone number of the Contractor's onsite supervisor, who must be present at all times while work is being performed within the right-of-way.

3.2 PENALTIES AND SUSPENSION OF WORK

The City may verbally direct the Contractor to immediately suspend work if appearance of violation of safety regulations is found. In such an event, Contractor shall immediately stop work and secure any potential hazards from the public until the potential violation is confirmed and/or corrected to satisfaction of the City. Law enforcement officers may be called to assist the City in suspending work if the Contractor is not responsive. Suspension of work for violation of safety or additional payment.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

A. Maintenance of Traffic: Where the plans require the use of trucks and truck mounted impact attenuators, these items will not be paid for separately but shall be included in the cost of Maintenance of Traffic. Only use those attenuators that have been tested by a facility approved by the Engineer and certified as meeting the requirements as specified in NCHRP 350 and that have been properly maintained.

B. Law Enforcement Services: The quantity to be paid for will be at the Contract unit price per hour for the actual number of officers on the project site. Payment will be made only for those off-duty law enforcement officers specified in the MOT and authorized by the City.

C. When the plans show more than one detour facility is included in the proposal, payment will be made under Maintenance of Traffic.

D. Materials for Driveway Maintenance: The quantity to be paid for will be, in square yards, of all materials authorized by the City, acceptably placed and maintained for driveway maintenance. The quantity will be determined by in place measurement.

4.2 BASIS OF PAYMENT

A. MAINTENANCE OF TRAFFIC (GENERAL WORK): Price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.

B. LAW ENFORECEMENT: Prices and payment will be considered full compensation for the services of the off-duty law enforcement officer, including a marked law enforcement vehicle and all other direct and indirect costs.

C. SPECIAL DETOURS: The contract price shall include full compensation for furnishing, installing, maintaining, and removing all detour facilities as shown on the plans. This includes all labor, materials, equipment, and incidentals necessary to meet the requirements of this Section for maintaining traffic within the detour limits, as specified in the plans.

END OF SECTION 04060

SECTION 04080 – OVERHEIGHT VEHICLE DETECTION & WARNING SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes furnishing, installing, integrating, testing, and commissioning a complete Overheight Vehicle Detection & Warning System (OVDWS).

B. The system includes, but is not limited to:

1. Overheight vehicle detection sensors;

2. System-activated warning devices, including blank-out signs and flashing beacons;

3. Continuously flashing LED border signs;

4. CCTV cameras and recording equipment;

5. Solar power systems with battery backup;

6. System controllers, communications equipment, and enclosures;

7. Event logging, fault diagnostics, and automated notifications.

C. This Section governs system-level performance and integration. Individual components shall comply with applicable FDOT and MUTCD requirements.

D. All OVDWS components, equipment, devices, and assemblies, except the overheight detection sensor governed by the TSP attached to the Specifications package, shall be sourced from the FDOT APL for their intended use.

E. LED border signs shall not extinguish, dim, or change flash pattern during system faults, loss of communications, or detection events.

1.2 SYSTEM INTENT

A. The OVDWS is intended to:

1. Provide advance warning to overheight vehicles; and

2. Provide objective, time-stamped documentation demonstrating whether the system did or did not activate during an overheight event.

B. System performance shall support post-event review and defense against

claims alleging system malfunction or non-activation.

1.3 REFERENCES

A. FDOT Standard Specifications for Road and Bridge Construction (Latest Edition).

B. FDOT ITS Design Manual.

C. MUTCD (Latest Edition).

1.4 SUBMITTALS

A. Product data for all system components.

B. System integration and wiring diagrams.

C. Solar power sizing calculations.

D. CCTV coverage diagrams demonstrating compliance with performance requirements.

E. Test and acceptance procedures.

PART 2 - PRODUCTS

2.1 SYSTEM REQUIREMENTS

A. The Contractor shall furnish a complete, fully integrated OVDWS capable of performing as intended without reliance on City-furnished equipment.

B. Products not listed on the FDOT Approved Products List (APL) shall not be used unless prior written approval is obtained from the City and FDOT, where applicable.

2.2 OVERHEIGHT DETECTION SENSOR

Sensors shall comply with the Technical Special Provision (TSP) for Over-Height Vehicle Detection Sensor included with the Contract Documents.

2.3 BLANK-OUT SIGNS (SYSTEM-ACTIVATED)

A. Blank-out signs shall:

1. Remain blank during normal conditions;

2. Display the message shown on the Plans upon system activation;

3. Be synchronized with flashing beacons;

4. Be FDOT-compliant and listed on the FDOT Approved Products List (APL), where applicable.

B. Letter height, message layout, cabinet size, and illumination shall be sufficient to ensure legibility at the approach speeds shown on the Plans.

C. Blank-out signs shall be powered by the system solar power supply and included in system power calculations.

2.4 FLASHING BEACONS

A. Flashing beacons and their alternating flash pattern shall comply with and be implemented in accordance with MUTCD requirements and activate only upon system detection.

2.5 CONTINUOUSLY FLASHING LED SIGN BORDERS

A. Continuously flashing LED sign borders shall be provided where shown on the Plans as an integral component of the OVDWS.

B. LED sign borders shall operate continuously, twenty-four (24) hours per day, seven (7) days per week, and shall not be sensor-activated.

C. LED border assemblies, drivers, controllers, and power supplies shall be listed on the FDOT APL for their intended use.

D. LED borders shall be factory-integrated with the sign face or provided as a manufacturer-approved system specifically designed for traffic control applications in accordance with FDOT and MUTCD standards and requirements. Decorative or non-traffic LED lighting products are not permitted.

E. LED borders shall be powered by the system solar power supply and included in system power and autonomy calculations.

2.6 CCTV SYSTEM

A. CCTV cameras shall be provided as an integral component of the OVDWS.

B. Cameras shall provide visual coverage sufficient to clearly:

1. Confirm activation of blank-out signs and beacons;

2. Capture the bridge and vehicle approach area;

3. Document system activation or non-activation.

C. Camera quantity, mounting, and field of view shall be determined by the Contractor to meet performance requirements.

D. Recorded video shall be time-stamped and associated with detection and fault events.

E. Recorded video shall be retained for a duration determined by the Owner.

2.7 POWER SYSTEM

A. The OVDWS shall be powered by solar photovoltaic panels with battery backup.

B. The system shall provide a minimum of 72 hours of continuous operation without sunlight.

C. Loss of power shall be treated as a reportable system fault.

PART 3 - EXECUTION

3.1 INSTALLATION

Install all system components in accordance with manufacturer recommendations, FDOT standards, and the Plans.

3.2 SYSTEM CONFIGURATION

A. Configure system logic such that:

1. Overheight detection activates blank-out signs and beacons;

2. LED border signs operate continuously as shown on the Plans;

3. CCTV recording is triggered by detection and fault events.

3.3 TESTING AND ACCEPTANCE

A. Perform system testing to verify:

1. Detection accuracy;
2. Activation of blank-out signs and beacons;
3. CCTV recording and event correlation;
4. Fault detection and notification.

B. B. Final acceptance shall be based on demonstrated system performance.

END OF SECTION 04080

ATTACHMENTS

ATTACHMENT A
FDOT TECHNICAL SPECIAL PROVISION (TSP)
(OVER-HEIGHT VEHICLE DETECTION SENSOR)

ATTACHMENT B
FDOT OVERHEIGHT VEHICLE DETECTION SENSOR APPROVAL LETTER

ATTACHMENT C
RAILROAD RIGHT-OF-ENTRY APPLICATION 2026

ATTACHMENT D
RAILROAD FLAGGING RATE AGREEMENT 2026

ATTACHMENT E
GEOTECHNICAL REPORT BY LMJ (JULY 31, 2024)

ATTACHMENT F
GEOTECHNICAL REPORT BY LMJ - ADDENDUM (AUGUST 29, 2024)

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Technical Special Provision

Over-Height Vehicle Detection Sensor

(Trigg 3403-Z Series or Approved Equal)

A. Description

Provide an over-height vehicle detection sensor to activate advance warning devices for vehicles exceeding a defined clearance threshold. The sensor shall be performance-based, field-proven, and integrate with FDOT-approved solar power systems, wireless communications, cameras, and warning devices.

B. Standards

- FDOT Standard Specifications (Sections 630, 635, 700 series, as applicable)
- FDOT ITS Design Manual (power, solar, communications, cameras)
- MUTCD (warning sign activation)

All system components other than the sensor shall be FDOT APL-listed or otherwise approved. This provision applies only to the over-height detection sensor.

C. Performance Requirements

1. Detection: Must detect a 2.5-inch diameter target located 1 inch above the clearance threshold at vehicle speeds from 1 to 75 mph.
2. Range: Up to 500 feet, with recommended maximum of 200 feet to maintain reliability under Florida weather conditions.
3. Accuracy: Minimum 95% detection rate for over-height vehicles; maximum 5% false alarm rate under sun, rain, and fog.
4. Outputs:
   - Two Form-C (changeover) alarm relays, 240 VAC / 10 A contact rating.
   - One Form-C fault relay, 240 VAC / 10 A contact rating.
   - Alarm hold time adjustable between 2 and 60 seconds.
5. Diagnostics: Fault relay shall change state when sensor is misaligned, loses power, or fails internally.
6. Alignment: Provide visible alignment aids (LEDs or meter) to verify proper installation.

D. Electrical and Environmental Requirements

1. Power Models:
   - 120 VAC (0.70 A master, 0.65 A remote)
   - 240 VAC (0.35 A master, 0.325 A remote)
   - 24 VDC (1.45 A master, 1.15 A remote)
2. Temperature: Operate from -40 °F to +158 °F.
3. Enclosures:
   - Sensor head: NEMA 6P / IP67.

- Master and remote housings: NEMA 3R aluminum with heater and fan.
4. Mounting: Provide 2-axis or 3-axis adjustable brackets, stainless steel fasteners.

E. Integration Requirements

- Sensor shall connect via dry-contact relay outputs to FDOT-approved ITS field cabinets.
- Relay activations shall directly trigger FDOT APL-listed blank-out signs, flashing beacons, and cameras.
- All solar, communications, cabinet, and video equipment shall conform to FDOT APL and ITS standards.

F. Submittals

1. Manufacturer datasheet and model number.
2. Shop drawings showing mounting and cabinet connections.
3. Certification of environmental and electrical performance.
4. Warranty statement (minimum 2 years).
5. Field acceptance test plan.

G. Field Acceptance Testing

1. Detection Test: Perform ≥ 10 passes with over-height vehicles and ≥ 10 passes with compliant vehicles at 30–40 mph. Require ≥ 95% detection and ≤ 5% false alarms.
2. Integration Test: Verify activation of beacons/signs and camera triggers upon detection.
3. Fault Test: Simulate misalignment or power loss to confirm fault relay output.

H. Measurement and Payment

Payment shall be made under a single pay item for Over-Height Detection Sensor Assembly, including master/remote units, mounting hardware, wiring to cabinet, and testing. Associated warning devices, cameras, and solar equipment shall be paid under separate FDOT items.

Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

November 6, 2025

Mr. Sam Slade
Trigg Industries
716 Bluecrab Rd Ste B
Newport News, VA 23606

RE: Traffic Control Device Permit

Dear Mr. Slade:

In compliance with Section 316.0745(8), Florida Statutes, the following product has been permitted.

TYPE OF DEVICE	DESCRIPTION
Over-Height Vehicle Detection System	Model 3403-Z-24

This permit is subject to the following conditions. Failure to meet all conditions renders this permit null and void.

1) The product is not authorized for sale and installation except on the following project(s):
   Project Number: 09632-0003
   Description: 1 unit to be installed near the Graffiti bridge, N 17th Ave and railroad crossing in Pensacola

2) Upon notification of FDOT product specification available for listing on the Approved Product List (APL), Trigg Industries obtains listing on the APL if it wishes to sell additional products listed above on transportation projects in Florida.

For listing on the APL, the product and quality system of the applicant must meet, at a minimum, the following applicable requirements:

- The applicant's quality system is listed on FDOT's *Acceptable Quality System List*.
- If the product is intended for outdoor use, it is environmentally hardened and meets environmental requirements described in NEMA TS-2 sections 2.2.7, 2.2.8, and 2.2.9.

- If the product emits radio frequency and is unshielded, it meets emission requirements described in FCC 47 CFR Part 15, Subpart B.
- If the product is used within FDOT's traffic management center system, it operates with SunGuide® software.

For questions, please contact Derek Vollmer at (850) 921-7361.

Sincerely,

Derek Vollmer

Derek Vollmer, P.E.
Traffic Engineering Research Lab Manager
Traffic Engineering & Operations Office

cc: Kim Toole (D3 DTOE), Amy DiRusso (D3 TSM&O Program Engineer), Brad Hinote (City of Pensacola), Mark Mathes (TEOO Director), Karen Byram (Product Evaluation group), CO-TERL

Attachments: None

RIGHT OF ENTRY APPLICATION & INSTRUCTIONS

☐ **If you require Expedited Service, notify us by checking this box. There is an additional fee of $2,500 USD for this request.**

A completed application, non-refundable fee in the amount of **$3,750 USD**, and a print or sketch of the proposed lease premises (including dimensions, coordinates, and cardinal directions) are required to begin the lease process. The print or sketch should depict any planned or existing improvements on the requested premises and the distance from the nearest track.

The non-refundable fee of **$3,750 USD** includes access to railroad-owned property for up to thirty (30) days. If your project will take longer than thirty (30) days to complete, is complex, or involves HAZMAT, contact a Real Estate representative to discuss your project needs. Additional fees will be requested if flagging or a License Agreement are required for your project.

Make all checks payable to:

[NAME OF RAILROAD]
Memo: Pinsly Accounting Dept. (R.E. Fees)
245 Riverside Avenue
Suite 250
Jacksonville, FL 32202

LIST CHECK NUMBER(S): _____

Contact us at Realestate-AR@pinsly.com for ACH information [state the name of the railroad in the subject line and attach the completed application with plans].

Once an executable lease, license, or other agreement is submitted to you, it must be fully executed within thirty (30) days. Thereafter, the application and materials will be archived, and resubmission (including fees) will be required. All annual rental payments can be submitted to the same name and address shown above.

EXPEDITED SERVICE: Once a complete application, print or sketch, and required fees are received, including the additional fee of $2,500 USD, an executable agreement will be made available for review within fourteen (14) business days. *Please be sure to mark the box above if you require this service.*

PLEASE INITIAL HERE TO INDICATE YOU UNDERSTAND THIS POLICY _____

RIGHT OF ENTRY APPLICATION

REQUIRED:

Date range for the use of Railroad property (30-day maximum)

Indicate Date Range: FROM_____TO _____

Will you be performing environmental testing? YES____ NO____ (*If 'YES', complete the "Environmental Testing" Section)*

APPLICANT AND PROPERTY INFORMATION:

1. Legal Name of Applicant: _____
2. Agreement to be in the name of (if different from above): _____
3. Type of Entity (select ONE): Corporation_____LLC____Individual____Municipality ____
   Partnership____General____Limited____Other _____
4. If applicable, state/province of incorporation or organization: _____
5. Federal Tax Identification number (U.S. Leases): _____
6. Mailing Address: _____
7. Overnight Delivery Service Address (if different): _____
8. Contact Person:_____Title: _____
9. Phone No.: (_____) _____Fax No.: (_____) _____
10. Email: _____
11. Email address where non-billing notices can be sent to:_____
12. Is Applicant a condemning authority? ___Yes___No
13. Is Applicant an active railroad shipper? ___Yes___No
14. Is track usage needed? ___Yes___No (**NOTE:** If track usage is required, submit a Track Lease Application)
15. **Billing Contact Name, Phone Number, Email, and Address Required:**

NAME:	
PHONE NUMBER:	**EMAIL:**
ADDRESS:	

16. Railroad Name: _____

Nearest Milepost:_____DOT No.: _____

Track Station (from):_____Track Station (to): _____

_____

(Adjacent Address)

RIGHT OF ENTRY APPLICATION

Section:_____Township:_____Range:_____

City:_____County:_____State: _____

Located on the (N/S/E/W)_____side of (landmark, intersection) _____

Geographical Coordinates Required *(in decimal degrees)*

Latitude:_____Longitude: _____

PROJECT INFORMATION:

- Will there be any activity, material, vehicles or equipment within 50 feet of a railroad track in connection with your project? YES_____NO_____*(If 'YES', Railroad protective liability insurance will be required)*
- Within 25 feet? YES_____NO_____(*If 'YES', a Flagmen will be required at applicant's expense)*
- Will there be any excavation involved? YES_____NO_____(*If 'YES', include shoring plans)*
- Will there be storage on Railroad property during the project? YES_____NO_____ *(If 'YES', a License Agreement will be required)*
- Will there be permanent fixtures installed on Railroad property during the project? YES_____NO_____ *(If 'YES', a License Agreement will be required)*
- If you are a hired contractor performing an installation, and that installation is covered under an existing License Agreement, what is the License Agreement number? Agreement Number _____ *(attach a copy to this application)*
- Are you performing railcar stenciling? YES_____NO_____ *If 'YES', provide customer's name and attach a list of the railcar numbers. Customer Name:* _____
- Are you performing railcar testing? YES_____NO_____ *If 'YES', provide customer's name and attach a list of the railcar numbers. Customer Name:* _____
- Are you performing railcar repairs? YES_____NO_____ *If 'YES', provide customer's name and attach a list of the railcar numbers. Customer Name:* _____
- Are you performing railcar cleaning? YES_____NO_____ *If 'YES', provide customer's name and attach a list of the railcar numbers. Customer Name:* _____
- Are you performing transloading? YES_____NO_____ *If 'YES', provide customer's name and attach a list of the railcar numbers. Customer Name:* _____
- Are you a 3rd party performing work on behalf of the railroad? YES___NO___ *If 'YES', provide details below.*

  _____

ENVIRONMENTAL TESTING REQUEST:

- Project Levels:

  _____Phase I. Non-invasive, non-intrusive visual site inspection and records check only. No sampling will be involved.

  _____Phase II. Site investigation. You must advise specific testing to be performed from the list below.

  _____Phase III. Site remediation.

  _____Other. Please describe you project in detail as it pertains to Railroad property.

- Name, Address and Contact Person of Governmental Agency Requiring this Project:

- **Type of Environmental Testing** — **Number of Each**

Surface soil/sediment samples	_____
Hand-held auger borings	_____
Soil gas survey points	_____
Boring drilled with soil samples	_____
Temporary piezometer wells	_____
Temporary monitoring wells (must be flush-mounted)	_____
Permanent monitoring wells	_____
Recovery wells and associated above-ground equipment	_____
Recovery systems and above-ground equipment	_____

Other – full description required

_____

- Special Provisions: Confidentiality_____Railroad Flagmen_____Monitoring Well _____
  Furnish Information_____Proof of Financial Capability or Performance Bond _____

PROJECT DETAILS:

Write a short summary of your project scope below.

_____

_____

_____

_____

_____

_____

_____

RIGHT OF ENTRY APPLICATION

By submitting this application for credit, you authorize Pinsly, or affiliates, to make any inquiries necessary to determine credit worthiness. You release your banking details that would assist to determine credit worthiness.

I hereby certify that the information contained herein is complete and accurate. This information has been furnished with the understanding that it is to be used to determine the amount and conditions of the credit to be extended. Furthermore, I hereby authorize the financial institutions listed in this credit application to release necessary information to the company for which credit is being applied for in order to verify the information contained herein. Our terms of sale and service are NET 30 DAYS from the date listed on the invoice. Invoices that are beyond granted terms will be assessed a late fee of 18% APR (1.5% monthly) additional Terms and Conditions apply. A $20.00 charge will apply for any NSF/Non-Sufficient Checks.

Date:_____ LIST CHECK NUMBER(S):_____

Signature: _____ _____

Name Printed: _____

Title:_____

Phone No.:_____

Fax No:_____

BE SURE TO RETURN THE COVER SHEET WITH YOUR APPLICATION

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Flagging Rate Agreement

When a contractor, state agency, utility or other approved third party has workers and equipment working within the railroad right-of-way, Federal Regulations mandate protection must be provided by a qualified railroad flagman or the track must be taken out of service. Equipment with extensions, such as a crane boom, that are near enough to reach within twenty-five (25) feet of the track also require proper protection.

The completion of this form is required when submitting a formal request for a qualified railroad flagman. An advance deposit in an amount equal to the estimated hours of flagging required must be paid at least two (2) weeks in advance. The signed Flagging Rate Agreement form and deposit shall be sent to: **Pinsly Railroad Company - C/O Accounting Dept. (R.E. Fees) – 245 Riverside Avenue, Suite 250, Jacksonville, FL 32202. Please make the check(s) payable to the railroad the work is being performed on or contact us at RealEstate@Pinsly.com for ACH/CC information [state the name of the railroad in the subject line of the email request and attach this completed form].**

The railroad must be contacted a minimum of fourteen (14) days prior to the required flagging date in order to receive approval from the Roadmaster or Division Engineer who will be scheduling the flagman protection. Below are the Flagging Rates for flagging work completed within the railroad right-of-way. Contractor shall provide a minimum of forty-eight (48) hours' written notice for the cancellation of any scheduled flagging services. Failure to provide such notice will result in the Contractor being charged for one (1) full day of flagging, regardless of whether the service is utilized.

- $275.00 Per hour with an eight (8) hour minimum on weekdays + $150 Per day Transportation Fee
- $325.00 Per hour for all hours over eight (8) hours on weekdays + $150 Per day Transportation Fee
- $325.00 Per hour with an eight (8) hour minimum on Saturdays + $150 Per day Transportation Fee
- $375.00 Per hour for all hours over eight (8) on Saturdays, or up to eight (8) hours on Sundays or Holidays + $150 Per day Transportation Fee

By completing the information below and signing this Agreement, you acknowledge and agree to pay the rates for flagging and further agree to provide a deposit no less than two (2) weeks in advance of the required flagging date. In the event of emergency flagging where the required two (2) week notice and prepayment cannot be given, all rates are subject to a 1.5x multiplier.

Total Flagging Prepayment ([Rate x Days]+ Trans. Fee):	
Date Range and Start Time for Flagging:	
Deposit Check Number or ACH Confirmation Number:	
Company Name:	
Address:	
Billing Contact Name:	
Billing Contact Title:	
Billing Contact Phone and Email:	
Onsite Contact Name:	
Onsite Contact Title and Company:	
Onsite Contact Phone and Email:	
Railroad Name and State:	
Project Location (Address or Lat/Long):	
Authorized Personnel Signature:	
Date:	

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Geotech Report

Since 1976 Geotechnical Engineering Construction Materials Testing Drilling Services

Summary | Project Info | Foundation | Pavement | Borings | Lab | Appendix

Wayside Park East

Pensacola, Florida
LMJ File #: 24-138 E
July 31, 2024

Prepared for

Mr. Patrick Jehle, PE
McKim & Creed
pjehle@mckimcreed.com

Prepared by

Larry M. Jacobs & Associates, Inc.
328 East Gadsden Street, Pensacola, Florida 32501
Florida Certificate of Authorization #2184

Terry Niemann
Project Manager

Signed Copy Provided Separate from this Package

LARRY M. JACOBS LICENSE No 19690 STATE OF FLORIDA PROFESSIONAL ENGINEER

This document has been electronically signed and sealed by Larry M. Jacobs, PE (license # 19690) on July 31, 2024. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Subsurface Conditions

- In general, the borings in the dock and boardwalk area (B1, B2) generally encountered 7-8 inchs of asphalt or 4 inches of topsoil at the ground surface at B-3, underlain by white, tan and orange sand or slighty silty sand to 23-38 feet, over orange, white and tan silty sand or slighlty silty sand to the bottom of the borings at 41 feet.
- Below the topsoil, boring B3 encountered gray and black silty sand in the upper 5 feet, and this upper layer had layers with brick and gravel debris.
- In general, the two borings in the parking lot (P1, P2) encountered 2.5-3 inches of asphalt at the ground surface, underlain by 4-21 inches of red/orange silty sand (poor sand/clay base material), over gray and white slighty silty sand and sand to the bottom of the borings at 3.5-4 feet.
- In general, the soils were loose with erratic very loose or medium dense layers in the upper 13-18 feet, underlain by medium dense, dense and very dense sandy soils to the bottom of the borings.
- Groundwater was encountered at 1.5 to 3.5 feet below existing grades at the time of drilling. Groundwater levels will vary with the amount of local rainfall, the tide, changes in site drainage features and may be different at other times. This site can flood in tropical storms or hurricanes.

General Comments and Recommendations

- The soils encountered in the borings (B1, B2 & B3) appear to be best suited for the support of the proposed dock and elevated boardwalk on timber piling if the recommendations of this report are followed.
- The preliminary proposed “footing” with a 4 foot long 18”-24” diameter “footing” placed at 5 feet of embedment would encounter very loose (N=1) soils in the B-2 location and is not well suited to placement in this location which will likely have erosion and scour during major storm conditions as well as laterial loading from water entering and exiting the bayou during and after storm events.
- The existing asphalt pavement was in poor condition at the time of this report. Widespread block cracking was noted, along with frequent alligator cracking, large potholes and pavement patches.
- The pavement could be replaced with asphalt pavement of suitable thickness. New base materials should be graded aggregate base, and the existing sand clay base materials can be reused as a stabilized subgrade. Concrete pavement is commonly used for the boat ramp construction. The native sand soils are low strength and will require stablization if used as subgrade.
- Shallow groundwater is a concern on site, and drainage/dewatering will be needed for footing construction and deeper excavations and compaction operations in some areas.

Note: *The above summary is an overview of the report and should not be used by itself for planning, design, and/or construction. See the relevant sections for further details.*

Existing Site

The site is located near the graffiti bridge at the Wayside Park and N 17th Avenue Park. The site is roughly split in half (north – south) by the CSX railroad embankment/easement. An existing elevated boardwalk surrounds a stormwater pond north of the train tracks. South of the CSX Embankment/easement is an asphalt paved parking lot for a small boat ramp, along with a short wood pier. North of the train tracks the pond is surrounded by areas of thick vegetation, along with grassed areas. Reportedly, there is a small wetland between the railroad easement and the existing boardwalk.

Proposed Construction

We understand that the project consists of the construction of an elevated timber boardwalk, a new timber pier, new pavement for the parking lot, and a covered walkway under the railroad tracks for a pedestrian crossing. Reportedly, the proposed structural loading on the vertical timber posts is 3 kips, and ¾ of that load is wind loading. The wood roof over the walkway under the railroad bridge is currently planned to be supported on four-foot-long footings/piers (24 inch in diameter) established at 5 feet below grade on ½ foot of crushed stone, with a concrete slab on grade walking surface. Timber piling is also under consideration for the walkway. Final structural and grading plans were not available at this time.

Subsurface Exploration

To evaluate the subsurface conditions at the site, we drilled three Standard Penetration Test (SPT) borings to a depth of 41 feet for the structures and two hand auger borings to a depth of 3.5-4 feet for the pavement areas. Soil density in the auger borings was roughly evaluated by periodic probing with a steel rod. The SPT borings were drilled with a truck mounted drilling rig with a safety hammer and the borings were advanced using solid stem auger and/or a mud jetting drilling method. The subsurface conditions encountered in the SPT borings can be found on the boring logs here.

The above information is the basis of our recommendations. If the information in this section changes or is incorrect, our office should be notified, and changes to our report may be needed.

Site Preparation

- The work areas should be cleared, grubbed, and stripped of all vegetation, major roots, root mass, topsoil, pavement materials, soils with a significant amount of organics, debris, and any other deleterious materials.
- Stripped vegetation, topsoil, and organic materials should be hauled offsite, or suitable topsoil could be stockpiled for use in landscaped areas.
- The contractor should check the depth to groundwater at the start of construction and provide drainage/dewatering as needed to complete the work. Groundwater should be kept at least 2-3 feet below the working surface during compaction operations.
- After stripping and clearing, the subgrade in the proposed pavement and slab on grade areas should be compacted to a minimum of 95% of the Modified Proctor Test (ASTM D1557) density for a minimum depth of 12 inches.
- The boring B3 encountered moisture sensitive silty sand at the surface, and the sand clay base materials in the parking borings are also moisture sensitive.
- These moisture sensitive soils drain slowly, retain excess moisture, are prone to pumping and can become unworkable when too wet and are hard to compact if too dry, and this is a concern for earthwork. The contractor should be prepared to moisture condition the soil as needed for compaction.
- Areas that pump, rut or are difficult to compact should be evaluated by LMJ staff and undercutting of wet/problem soils and replacement with suitable fill may be recommended.

Fill Material

- Fill material should be the soil types listed in the following table. Excavated native soils can be used as fill or backfill, provided they meet the requirements below.
- Fill or backfill should be free of significant organic materials, debris, or other deleterious materials and be non-plastic. It should comply with any local color codes.
- Samples of any imported fill material should be submitted to the geotechnical engineer for testing and evaluation prior to shipment to the site.

Fill Type Recommendations

Material Type	Lift Thickness (in)		Equipment Type	
	Large Equipment	Hand Operated Equipment	Large	Hand Operated
Sand or Slightly Silty Sand	6-8	4-6	Vibratory Roller	Plate Tamper

Compaction

- Fill material and top of existing subgrade should be moisture conditioned to within 2% of its optimum moisture content prior to compaction.
- Fill and top of subgrade should be compacted to the requirements in the following table.
- Note that large vibratory rollers can damage/disturb nearby structures and we do not recommend using large vibratory rollers near (within 75 feet) of existing structures.

Compaction Recommendations

Site Element	Minimum Compaction **(ASTM D1557)**	Minimum Compaction Testing Frequency Per 12-inch Increment of Soil
Top 12 inches of Subgrade Below Slab-on-Grade	95%	Minimum of 3, One every 2,000 ft^2
Top 12 inches of Subgrade below Pavement	98%	Minimum of 3, One every 2,000 ft^2
Fill/Backfill	95%	Minimum of 3, One every 2,000 ft^2
Utility Trench Backfill	95%	One per 75 linear feet

- Backfill for utility excavations or any other excavations in the structural areas should be compacted per the above tables.
- Compaction testing should be performed by LMJ staff.

Utility Installation and Bedding

We recommend that the bottom of all settlement sensitive utility excavations be evaluated by a representative from LMJ prior to utility placement. We recommend using a smooth excavator bucket or “butter bar” to excavate the bottom of utility trenches. Settlement sensitive utilities should be bedded on firm soils, and any loose areas would need to be properly compacted prior to utility placement. Loose soils present at the bottom of utility trenches should be compacted to a minimum of 95% of the Modified Proctor Test (ASTM D1557) density for a minimum depth of 12 inches. We recommend installing utilities in manageable sections that can be backfilled in a timely manner when rainfall is anticipated. Dewatering would be needed for utility installation in shallow water areas.

Excavations

All deeper excavations should be made at a safe slope (1.5H:1V minimum) or sheeting, shoring, or trench boxes should be used. Note that significant rainfall events and flowing groundwater (seepage forces) through excavation walls can be destabilizing. Therefore, stormwater runoff and erosion should be controlled for all excavations. The contractor is solely responsible for designing and constructing safe excavations that maintain stability during construction. All excavations should be constructed in accordance with the latest local, state, and federal safety regulations.

Footing Recommendations

- The site is located in an area which will have potential wave action on the south side of the embankment and a potential for scour from flood water flowing into the bayou through the constricted opening and then out of the opening after the storm.
- The site of the pedestrian crossing has very shallow groundwater, and dewatering will be needed to install shallow foundations in the dry.
- Allowable bearing capacity is limited, due to very loose soils at the proposed embedment depth. We recommend dropping the pier foundations to 6+ feet below existing grades to help avoid the worse of the very loose soils and deeper placement will provide more scour protection as well as increased lateral resistance.
- The client should consider supporting the roof of the pedestrian crossing and at least the walkway closest to the water with timber piling, as noted in the sections below. LMJ believes this to be the more pratical foundation option, given the shallow groundwater and native loose soils as well as the scour and lateral loading potential.
- Either foundation alternative will have difficulty in placing foundations close to or under the railway due to low overhead conditions under the railway. Using piles for supporting the walkway readily allows for deeper higher capacity piles to be placed on both sides of the rail crossing and clear spanning this portion of the walkway.
- Footings that are prepared in accordance with this report can be designed based on the parameters in the following table. Minimum embedment depth is below existing grade.

Footing Design Parameters

Minimum Width (ft)	Minimum Embedment Depth (ft)	Net Allowable Soil Pressure (psf)	Estimated Settlement (in)	
			Total	Differential
1.5-2.0	6	1,000	1 or less	½ or less

- The estimated settlement above is from the sandy soils immediately beneath the footings, and reflect shallow water conditions. Roughly ½-¾ of the settlement is expected to occur during construction or relatively soon after initial loading, with the remainder during the first high groundwater event.
- LMJ recommends replacing the six inch thick crushed limerock footing pad noted on the provided interm plans with a hard, well graded, crushed stone well compacted to a firm surface. Very loose areas my require additonal crushed stone to create a firm surface. The footing pad should be evaluated by LMJ staff by probing with a steel rod, as density testing would be impratical in the excavation.

Pile Recommendations

- The borings encountered soils that appear to be best suited for supporting the proposed boardwalk, dock and pedestrian crossing on jetted and driven timber piles if the recommendations of this report are followed.
- The table below provides the theoretical allowable pile capacities for 8 & 10-inch tip diameter round timber piles and 6 & 8 inch square timber piling with an embedment depth of 20 and 25 feet below existing grades at the time of drilling. We would anticipate that spans of the elevated walkway would be increased to reflect the higher available pile capacities.
- The contractor should be prepared to encounter debris at pile locations, particularly at or near the B3 boring location. Pre augering the piling location or digging the debris out could be needed.

Pile Recommendations

Pile size/Description	Pile Tip Embedment Depth (ft) (1)	Allowable Pile Capacity (kips) (2)	
		Compression	Tension
8-Inch Tip Dia. Round Timber Pile	20	7.4	1.1
10-Inch Tip Dia. Round Timber Pile		11.2	1.4
6-Inch Square Timber Pile		5.6	1.0
8-Inch Square Timber Pile		9.4	1.4
8-Inch Tip Dia. Round Timber Pile	25	20	2.2
10-Inch Tip Dia. Round Timber Pile		30	2.8
6-Inch Square Timber Pile		15	2.1
8-Inch Square Timber Pile		25	2.8

(1) Depth is below grade at the time of drilling or the mudline for dock piling.
(2) Theoretical Factor of Safety = 2 for compression and tension capacity.

- The pile capacities are based on the worst conditions in the borings, and different pile capacities may develop in different areas of the site due to variations in soil conditions.
- The pile capacities account for flooding and two feet of scour during an extreme storm event. If significant additional scour is a concern, LMJ can recalculate the capacities in the above table once scour analysis information has been provided.
- Lateral load capacities are available upon request.
- LMJ normally recommends ordering piles somewhat longer than needed to allow for natural variations in soil conditions.

Pile Installation Recommendations

- All piles should be jetted to a depth 3-5 feet above the target embedment depth in the above table and then driven to bearing using an approved pile driving hammer.
- Field determination of the actual pile capacities developed should be analyzed using a dynamic pile driving formula (Hiley, WAVE, etc.). This analysis will require knowledge of the pile driving equipment to be used on the site.
- We would be pleased to calculate the required pile driving resistances (blow counts or blows/foot) to obtain the pile capacities given in the preceding table when the pile driving contractor's equipment to be used and design pile is known.
- A hammer analysis will also help us determine if the contractor's hammer choice is appropriate for this project.
- The allowable pile capacities were calculated assuming flood and minor scour conditions. Flooding and scour will reduce the capacities of the piles, and piles will need to be driven beyond the blow counts (124%) required for the design load in order to allow for reductions in pile capacity from flooding and scour.
- An LMJ technician should be onsite during pile driving so that an evaluation and record of the pile driving resistances achieved and pile embedment depths can be made to check the capacities of the piles and relay information to our engineering staff.
- In the event that any unusual circumstances arise during construction, additional engineering recommendations could be provided.
- After the piles have been satisfactorily installed under the observation of our technician, we can provide a completion letter to document that the piles have been installed in accordance with this report.
- LMJ would be pleased to provide a cost proposal for providing the above services during construction.

Vibration Discussion

- Driving piles creates noise and vibrations, and these vibrations can cause disturbance or damage to any nearby existing structures.
- A low frequency hammer such as a drop hammer or a small diesel hammer would be suitable for driving the piles and should create less vibration. Jetting the piles to the recommended depth will also reduce the energy required for pile driving and the resulting vibrations.
- We suggest performing initial crack surveys of nearby or adjacent structures prior to any pile driving, which includes taking photos and documenting the size/location of cracks present before pile driving.
- LMJ can perform initial crack surveys and offers vibration monitoring services. If vibrations are a concern, we would be pleased to provide you with a proposal for these services.

Subgrade Recommendations

- Based on our experience, the upper silty sand soils encountered in the pavement borings should meet or exceed the normal pavement subgrade strength requirements of LBR 40. If sand soils are exposed, the upper 12 inches would need to be stabilized with the addition of 4-6 inches of graded aggregate base material.
- Any imported fill used in the top 12 inches of subgrade in pavement areas should have a minimum LBR of 40.
- The contractor should provide drainage/dewatering as needed to compact the subgrade and base materials.

Base Recommendations

- We recommend a graded aggregate base (GAB) for this project. These materials are high strength and are best suited for the site conditions. Base materials should meet FDOT requirements.
- A sample of any proposed base material should be submitted to our lab for testing and approval prior to shipment to the site.

Pavement Subgrade and Base Parameters

Layer	Minimum Compaction	Proctor Type	ASTM	Minimum LBR Value
Subgrade[1]	98%	Modified	D1557	40
Base	100%			100

[1]Top 12 inches of subgrade

Asphalt Recommendations

- Asphalt should be FDOT structural course Superpave Asphaltic Concrete meeting the requirements of Section 334 (SP-9.5 or 12.5 is preferred).
- Limit the amount of Recycled Asphalt Pavement (RAP) to no more than 25% of the mixture since mixtures over 25% RAP have a higher potential for quality issues.
- The asphalt should be compacted to a target of 92% of the laboratory maximum specific gravity (G_{mm} or Rice Specific Gravity) as determined by FM 1-T 209.

Typical local pavement sections for parking areas are shown in the following table. Pavement thickness should reflect the proposed traffic loading. If requested, we can prepare a site-specific pavement design if specific traffic loading data is provided.

Typical Minimum Pavement Section

Loading	Minimum Thickness (in)	
	Base	Asphalt
Light Duty	6	1.5

Concrete Pavement Recommendations

Concrete pavement should be used at the boat ramp location(s). It would perform best in areas prone to wetting/flooding and is most practical to construct in these conditions. Concrete pavement should be at least 6 inches thick or thicker if needed to support the traffic loading. Concrete pavement should have a minimum compressive strength of 4000 psi at 28 days. Saw cutting, jointing, and doweling should be according to current industry standards.

Testing Recommendations

- Run density tests on compacted subgrade at a minimum frequency of one test per 2,000 square feet of pavement area. Test the base for compaction at the same frequency.
- After paving, we recommend coring the asphalt to determine thickness and compaction. The bulk specific gravity (G_{mb}) of the cores should be determined using FM 1-T 166
- Concrete pavement should have cylinders cast during placement by LMJ staff to check the compressive strength of the mix.

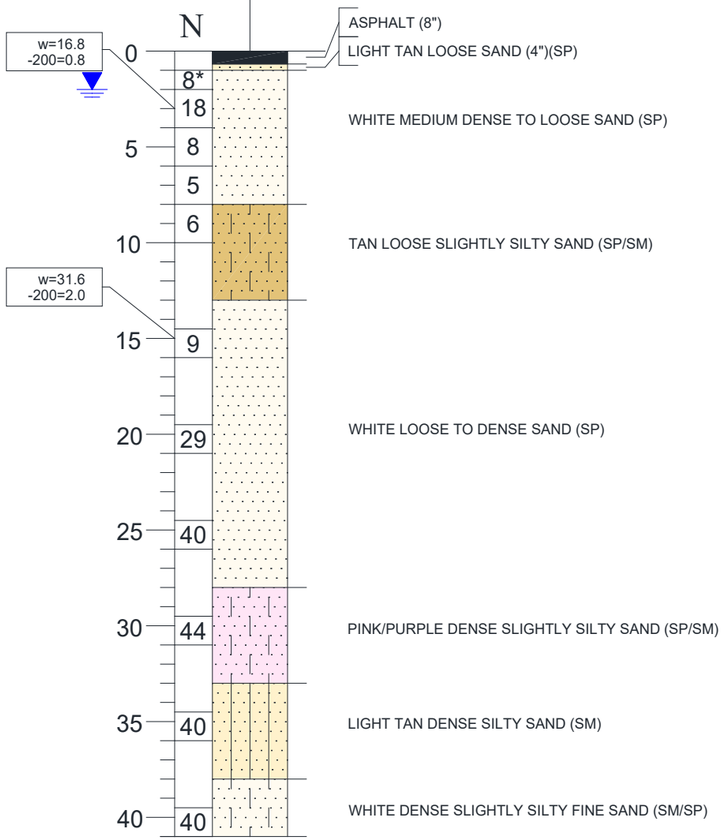
Boring Locations

STANDARD PENETRATION TEST BORING
ALL BORING LOCATIONS ARE APPROXIMATE

Borings

B-1

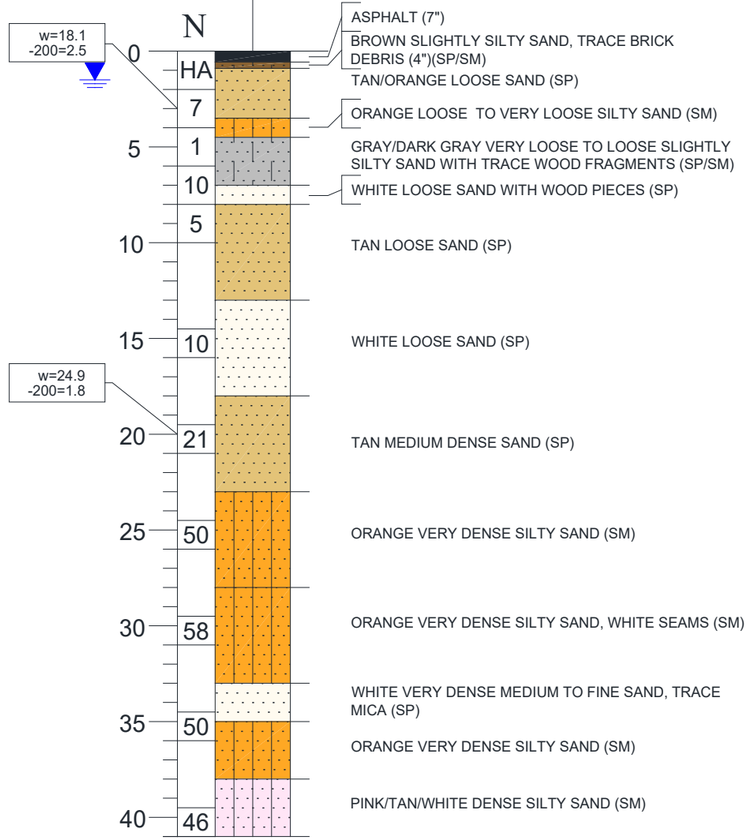
05-15-24



*HAMMER BLOWS:
1 FT SAMPLE: 4/4

B-2

05-14-24

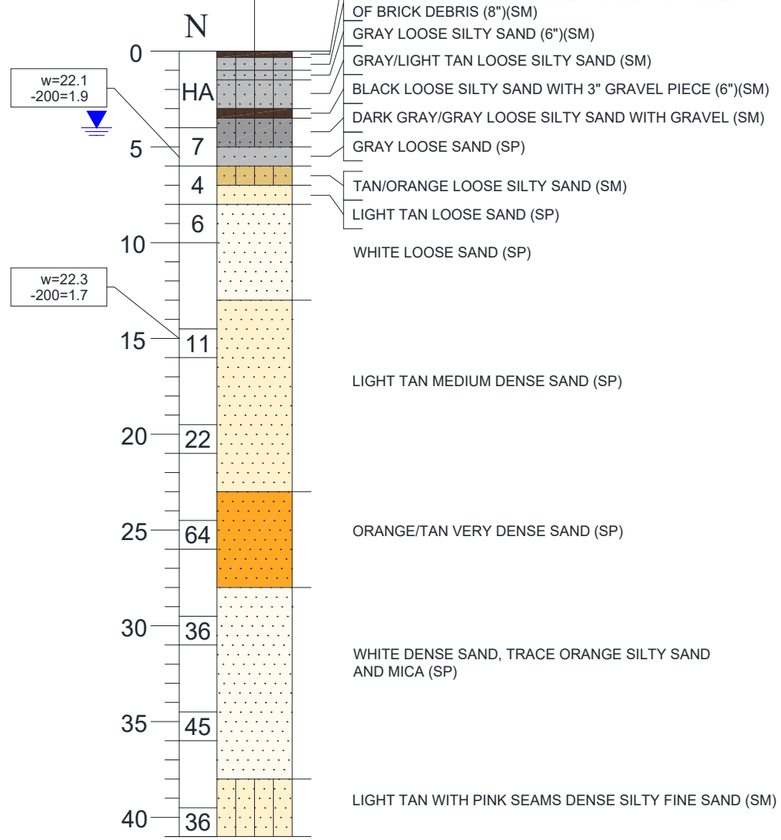


NOTE: WITH A PIECE OF WOOD AT 7-8 FEET

DEPTH (FT)	PROBE (IN)
BELOW ASPHALT	1.5
1	3
1.5	12

B-3

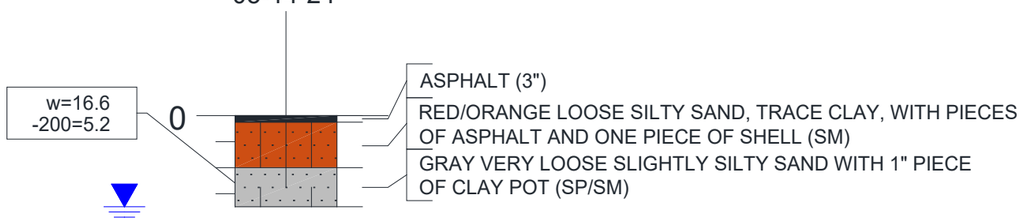
05-13/14-24



DEPTH (FT)	PROBE (IN)
SURFACE	12
1	10
2	8
3	8

P-1

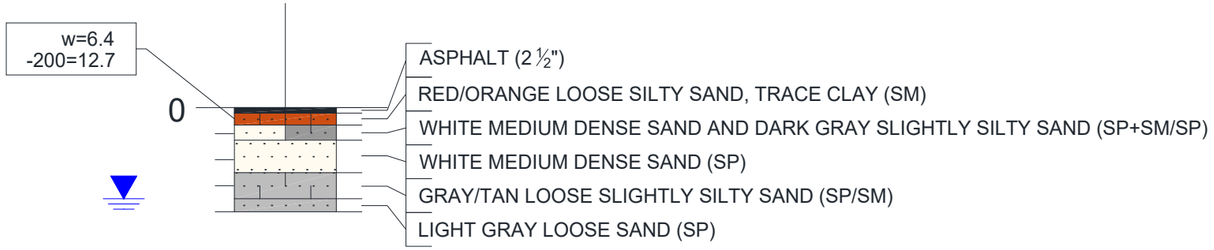
05-14-24



DEPTH (FT)	PROBE (IN)
0.5	3
1	2
1.5	1.5
2	3
2.5	12
3.5	6

P-2

05-14-24



DEPTH (FT)	PROBE (IN)
0.5	2
1	1
1.5	0.5
2	3
2.5	1
3	2
3.5	5
4	14

Test Results

Laboratory testing for this project included wash #200 sieve tests and natural moisture content tests run on the spilt spoon samples to assist in soil classification and to evaluate and document basic soil properties. The results of these tests can be found on the boring logs adjacent to the sample tested.

Basis of Recommendations

Recommendations rendered herein are based on assumed and/or design information available at the time of this report, the subsurface conditions encountered in the test borings, generally accepted geotechnical engineering principles and practices, and our experience with similar soil and groundwater conditions. Should final project information or existing conditions differ from the information used in this report or should any soil conditions not discussed in this report be encountered during construction, our office should be notified and retained so that this report can be modified as needed. LMJ should be provided with the final plans and specifications for review to determine if any changes to our report are needed based on the final design and that our recommendations have been properly interpreted.

This report and any correspondence are intended for the exclusive use of our client for the specific application to the project discussed. LMJ is not responsible for the interpretations, conclusions, or recommendations made by others based on the information in this report. Note that environmental work or chemical testing was not part of our scope of work on this project.

Regardless of the care exercised in performing a Geotechnical Exploration, the possibility always exists that soil and/or groundwater conditions will differ from those encountered at the specific boring locations. In addition, construction operations may alter the soil conditions. Therefore, it is recommended that a representative from LMJ be involved during the construction phases discussed in this report.

Test Methods

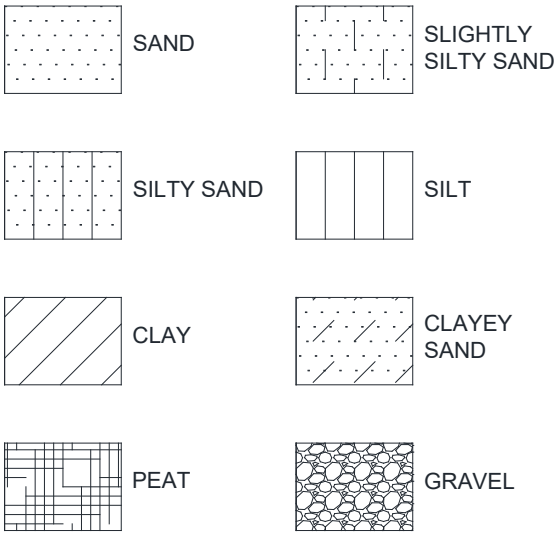
Standard Penetration Test

The Standard Penetration Test (SPT) consists of driving a 2-inch diameter split spoon sampler into the ground using a 140-pound hammer dropped 30 inches. The number of blows required to drive the sampler one foot (after seating it 6 inches) is referred to as the blow count or “N” value and represents the relative density of subsurface soils. “N” values can be found on the boring logs. The SPT borings were drilled in general accordance with ASTM D1586 using a truck mounted drill rig and were sampled by driving back-to-back 2-foot split spoons to a depth of 10 feet followed by samples at 5-foot increments thereafter. Each sample was removed from the sampler, classified in the field by the driller, and packaged for visual classification by our engineering staff and laboratory testing.

Other Test Methods

Wash #200 Sieve (ASTM D1140), Moisture Content (ASTM D2216), Sieve Analysis (ASTM C136)

LEGEND



NOTES

1) SPT BORINGS PERFORMED IN GENERAL ACCORDANCE WITH ASTM D1586
2) SUBSURFACE CONDITIONS ARE AT BORING LOCATIONS AND ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY
3) ALL CLASSIFICATIONS ARE BASED ON VISUAL EXAMINATION UNLESS ACCOMPANIED BY LABORATORY TEST RESULTS
4) BOUNDARIES BETWEEN SOIL LAYERS SHOULD BE CONSIDERED APPROXIMATE AS THE ACTUAL TRANSITION MAY BE GRADUAL
5) DEPTH OF BORING IS BELOW EXISTING GRADE AT TIME OF DRILLING
6) ELEVATIONS, IF SHOWN, WERE ESTIMATED FROM PROVIDED TOPOGRAPHIC SURVEY
7) COLORS USED FOR BORING HATCHING MAY NOT REPRESENT THE ACTUAL SOIL COLORS

GNE
GROUNDWATER NOT ENCOUNTERED AT TIME OF DRILLING

N
STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT

N_A
STANDARD PENETRATION RESISTANCE USING AUTOHAMMER

ENCOUNTERED GROUNDWATER LEVEL

ENCOUNTERED PERCHED WATER LEVEL

50/2"
NUMBER OF BLOWS REQUIRED (50) TO ADVANCE SPLIT SPOON SAMPLER A SPECIFIC DISTANCE (2) INCHES

HW
SPLIT SPOON SAMPLE ADVANCED UNDER WEIGHT OF ROD AND HAMMER

HA
HAND AUGER

SHELBY TUBE SAMPLER

W
NATURAL MOISTURE CONTENT (%)

-200
FINES PASSING #200 SIEVE (%)

O.C.
ORGANIC CONTENT (%)

LL
LIQUID LIMIT

PL
PLASTIC LIMIT

LI
LIQUIDITY INDEX

$C\approx$
APPROXIMATE COHESION VALUE (PSF) BASED ON POCKET PENETROMETER READINGS

K_v
SATURATED VERTICAL HYDRAULIC CONDUCTIVITY (FT/DAY)

γ_d
DRY UNIT WEIGHT (PCF)

γ_m
ESTIMATED MOIST UNIT WEIGHT (PCF)

γ_b
ESTIMATED BUOYANT UNIT WEIGHT (PCF)

ϕ
ESTIMATED ANGLE OF INTERNAL FRICTION (DEGREES)

SAFETY HAMMER

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-3	VERY LOOSE
4-10	LOOSE
11-30	MEDIUM DENSE
31-50	DENSE
> 50	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-1	VERY SOFT
2-4	SOFT
5-8	MEDIUM STIFF
9-15	STIFF
16-30	VERY STIFF
> 30	HARD

AUTOMATIC HAMMER

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-2	VERY LOOSE
3-8	LOOSE
9-24	MEDIUM DENSE
25-40	DENSE
> 40	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
<1	VERY SOFT
1-3	SOFT
4-6	MEDIUM STIFF
7-12	STIFF
13-24	VERY STIFF
> 24	HARD

August 29, 2024

Mr. Patrick Jehle, PE
McKim & Creed
pjehle@mckimcreed.com

SUBJECT: Addendum #1 to the Report of Geotechnical Exploration
Wayside Park East – Low Bridge Advanced Warning System
Pensacola, Florida
LMJ Job #: 24-138 E

Dear Mr. Jehle:

This letter forwards addendum #1 to our geotechnical report for the subject project (LMJ Report #24-138). The purpose of this addendum is to provide estimated engineering soil properties for the soils encountered in the SPT boring locations for the two signal mast arm foundations for the low bridge advance warning system. LMJ drilled two SPT borings to a depth of 41 feet below existing grades for the new system, and the boring locations are noted on the attached **Figure #1** and the logs of boring are attached **Figure #2.** Boring locations were selected by our client. These soil borings were drilled with a track mounted drilling rig equipped with an auto hammer for the SPT.

The estimated soil parameters for the soils encountered in the borings consisted of angle of internal friction and the soil's estimated moist and buoyant unit weight. These values can be found on the attached logs of boring and can be used for foundation design. These properties are based on the SPT results, published correlations, and our experience with similar soils and should be considered approximate. This addendum is covered under the basis of recommendations and the terms & conditions of our proposal, and the project geotechnical report.

We hope that this letter provides sufficient information for your current requirements. If you have any questions or comments, please call.

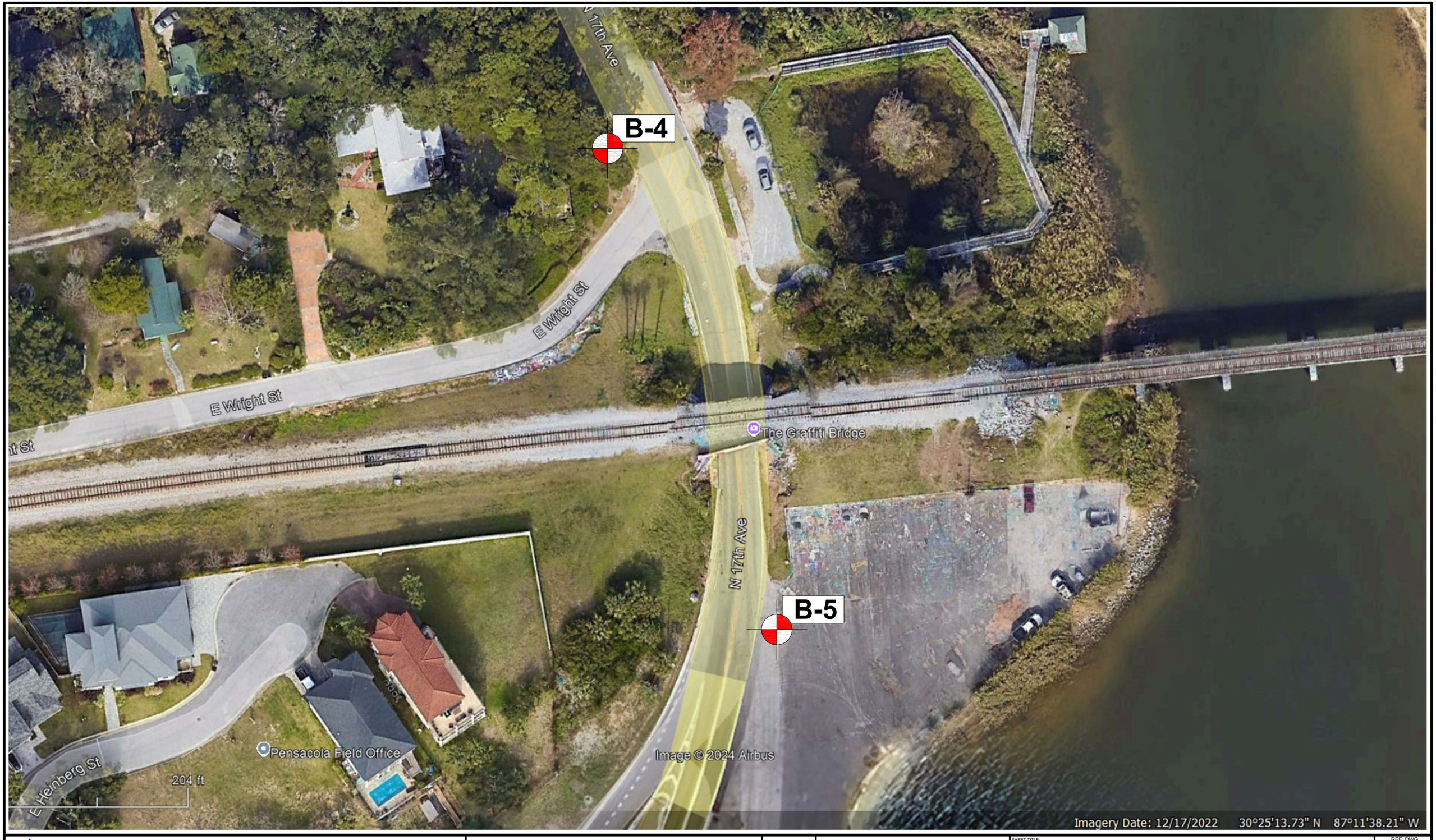
Respectfully yours,

LARRY M. JACOBS & ASSOCIATES, INC.

Terry Niemann

Terry Niemann
Project Manager

This document has been electronically signed and sealed by Larry M. Jacobs, PE (license # 19690) on August 29, 2024. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.



STANDARD PENETRATION TEST BORING
ALL BORING LOCATIONS ARE APPROXIMATE

LARRY M. JACOBS AND ASSOCIATES, INC.
328 E GADSDEN STREET
PENSACOLA, FLORIDA 32501

DRAWN BY:				SHEET TITLE:	REF. DWG. NO.
GEM				BORING LOCATIONS	24-138
CHECKED BY:	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	FIGURE NO.
TDN		Escambia		Wayside East 17th Ave. Park	1

BORING LOGS

B-4

07-29-24

γ_m/γ_b	ϕ
105/45	29°
110/50	31°
115/55	32°
115/55	33°
120/60	35°

w=2.9
-200=3.3

	N_A	
0		DARK BROWN MEDIUM DENSE SLIGHTLY SILTY SAND WITH ROOTS AND GLASS DEBRIS (TOPSOIL)(SM/SP)
		BROWN/WHITE MEDIUM DENSE SAND (6")(SP)
		LIGHT TAN MEDIUM DENSE SAND (6")(SP)
	HA	ORANGE/BROWN LOOSE SLIGHTLY SILTY SAND (SP/SM)
5		LIGHT TAN/BROWN LOOSE SAND WITH POCKETS OF BROWN SLIGHTLY SILTY SAND (SP)
	9	ORANGE/WHITE MEDIUM DENSE SAND (SP)
	16	
10		WHITE/LIGHT TAN MEDIUM DENSE SAND (SP)
15	20	ORANGE/TAN MEDIUM DENSE TO DENSE MEDIUM SAND (SP)
20	25	
25	32	WHITE/TAN DENSE SAND (SP)
30	41	WHITE/PINK VERY DENSE SLIGHTLY SILTY SAND (SP/SM)
35	44	WHITE VERY DENSE SAND WITH POCKETS OF ORANGE SILTY SAND (SP+SM)
40	45	TAN/ORANGE/PURPLE VERY DENSE SLIGHTLY SILTY SAND (SM/SP)

DEPTH (FT)	PROBE (IN)
SURFACE	1
0.5	1.5
1	1.5
1.5	1.5
2	1
2.5	1
3	1
3.5	2
4	0.5
4.5	1

B-5

08-01-24

γ_m/γ_b	ϕ
115/55	30°
100/50	28°
	30°
95/45	26°
100/50	28°
105/55	30°
115/55	33°
120/60	35°
125/65	35°

w=9.3
-200=13.4

w=21.0
-200=1.1

	N_A	
0		ASPHALT (5")
		ORANGE/BROWN SILTY SAND, TRACE CLAY (SAND CLAY BASE)(SM)
	HA	
5	11	TAN MEDIUM DENSE SAND (SP)
	2	
	6	
10		WHITE/TAN VERY LOOSE TO MEDIUM DENSE MEDIUM SAND (SP)
15	5	
20	13	
25	30	TAN/WHITE DENSE TO VERY DENSE MEDIUM TO FINE SAND (SP)
30	42	
35	36	WHITE DENSE SAND (SP)
40	37	PURPLE/TAN DENSE SILTY SAND (SM)

DEPTH (FT)	PROBE (IN)
SURFACE	-
0.5	1
1	1
1.5	2
2	2.5
2.5	5
3	12

LEGEND

SAND
SLIGHTLY SILTY SAND
SILTY SAND
SILT
CLAY
CLAYEY SAND
PEAT
GRAVEL

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-2	VERY LOOSE
3-8	LOOSE
9-24	MEDIUM DENSE
25-40	DENSE
GREATER THAN 40	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
< 1	VERY SOFT
1-3	SOFT
4-6	MEDIUM STIFF
7-12	STIFF
13-24	VERY STIFF
GREATER THAN 24	HARD

SYMBOLS:

- GNE = GROUNDWATER NOT ENCOUNTERED AT TIME OF DRILLING
- N = STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- N_A = STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT USING AUTOMATIC HAMMER
- ▼ = ENCOUNTERED GROUNDWATER LEVEL
- ▽ = ENCOUNTERED PERCHED WATER LEVEL
- 50/2" = NUMBER OF BLOWS REQUIRED (50) TO ADVANCE SPLIT SPOON SAMPLER A SPECIFIC DISTANCE (INCHES)
- HW = SPLIT SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- w = NATURAL MOISTURE CONTENT (%)
- -200 = FINES PASSING #200 SIEVE (%)
- O.C. = ORGANIC CONTENT (%)
- LL = ATTERBERG LIMITS (%) LL=LIQUID LIMIT, PL=PLASTIC LIMIT
- LI = LIQUIDITY INDEX
- c ≈ APPROXIMATE COHESION VALUE (PSF) BASED ON POCKET PENETROMETER READINGS
- K_V = SATURATED VERTICAL HYDRAULIC CONDUCTIVITY (FT/DAY)
- γ_d = DRY UNIT WEIGHT (PCF)
- γ_m = ESTIMATED MOIST UNIT WEIGHT (PCF)
- γ_b = ESTIMATED BOUYANT UNIT WEIGHT (PCF)
- ϕ = ESTIMATED ANGLE OF INTERNAL FRICTION (DEGREES)

NOTES:

1) SPT BORINGS PERFORMED IN GENERAL ACCORDANCE WITH ASTM D1586
2) SUBSURFACE CONDITIONS ARE AT BORING LOCATIONS AND ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY
3) ALL CLASSIFICATIONS ARE BASED ON VISUAL EXAMINATION UNLESS ACCOMPANIED BY LABORATORY TEST RESULTS
4) BOUNDARIES BETWEEN SOIL LAYERS SHOULD BE CONSIDERED APPROXIMATE AS THE ACTUAL TRANSITION MAY BE GRADUAL
5) DEPTH OF BORING IS BELOW EXISTING GRADE AT TIME OF DRILLING

Project #: 24-138 **Scale: NTS**

Date: 08/29/2024 **Checked By: TDN**

Project: Wayside East 17th Ave. Park

Location: Escambia County, Florida

Geotech Report

Since 1976 Geotechnical Engineering Construction Materials Testing Drilling Services

Summary
Project Info
Foundation
Pavement
Borings
Lab
Appendix

Wayside Park East

Pensacola, Florida
LMJ File #: 24-138 E
July 31, 2024

Prepared for

Mr. Patrick Jehle, PE
McKim & Creed
pjehle@mckimcreed.com

Prepared by

Larry M. Jacobs & Associates, Inc.
328 East Gadsden Street, Pensacola, Florida 32501
Florida Certificate of Authorization #2184

Terry Niemann
Project Manager

LARRY M. JACOBS LICENSE No 19690 STATE OF FLORIDA PROFESSIONAL ENGINEER

This document has been electronically signed and sealed by Larry M. Jacobs, PE (license # 19690) on July 31, 2024. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Subsurface Conditions

- In general, the borings in the dock and boardwalk area (B1, B2) generally encountered 7-8 inchs of asphalt or 4 inches of topsoil at the ground surface at B-3, underlain by white, tan and orange sand or slighty silty sand to 23-38 feet, over orange, white and tan silty sand or slighlty silty sand to the bottom of the borings at 41 feet.
- Below the topsoil, boring B3 encountered gray and black silty sand in the upper 5 feet, and this upper layer had layers with brick and gravel debris.
- In general, the two borings in the parking lot (P1, P2) encountered 2.5-3 inches of asphalt at the ground surface, underlain by 4-21 inches of red/orange silty sand (poor sand/clay base material), over gray and white slighty silty sand and sand to the bottom of the borings at 3.5-4 feet.
- In general, the soils were loose with erratic very loose or medium dense layers in the upper 13-18 feet, underlain by medium dense, dense and very dense sandy soils to the bottom of the borings.
- Groundwater was encountered at 1.5 to 3.5 feet below existing grades at the time of drilling. Groundwater levels will vary with the amount of local rainfall, the tide, changes in site drainage features and may be different at other times. This site can flood in tropical storms or hurricanes.

General Comments and Recommendations

- The soils encountered in the borings (B1, B2 & B3) appear to be best suited for the support of the proposed dock and elevated boardwalk on timber piling if the recommendations of this report are followed.
- The preliminary proposed “footing” with a 4 foot long 18”-24” diameter “footing” placed at 5 feet of embedment would encounter very loose (N=1) soils in the B-2 location and is not well suited to placement in this location which will likely have erosion and scour during major storm conditions as well as laterial loading from water entering and exiting the bayou during and after storm events.
- The existing asphalt pavement was in poor condition at the time of this report. Widespread block cracking was noted, along with frequent alligator cracking, large potholes and pavement patches.
- The pavement could be replaced with asphalt pavement of suitable thickness. New base materials should be graded aggregate base, and the existing sand clay base materials can be reused as a stabilized subgrade. Concrete pavement is commonly used for the boat ramp construction. The native sand soils are low strength and will require stablization if used as subgrade.
- Shallow groundwater is a concern on site, and drainage/dewatering will be needed for footing construction and deeper excavations and compaction operations in some areas.

Note: *The above summary is an overview of the report and should not be used by itself for planning, design, and/or construction. See the relevant sections for further details.*

Existing Site

The site is located near the graffiti bridge at the Wayside Park and N 17th Avenue Park. The site is roughly split in half (north – south) by the CSX railroad embankment/easement. An existing elevated boardwalk surrounds a stormwater pond north of the train tracks. South of the CSX Embankment/easement is an asphalt paved parking lot for a small boat ramp, along with a short wood pier. North of the train tracks the pond is surrounded by areas of thick vegetation, along with grassed areas. Reportedly, there is a small wetland between the railroad easement and the existing boardwalk.

Proposed Construction

We understand that the project consists of the construction of an elevated timber boardwalk, a new timber pier, new pavement for the parking lot, and a covered walkway under the railroad tracks for a pedestrian crossing. Reportedly, the proposed structural loading on the vertical timber posts is 3 kips, and ¾ of that load is wind loading. The wood roof over the walkway under the railroad bridge is currently planned to be supported on four-foot-long footings/piers (24 inch in diameter) established at 5 feet below grade on ½ foot of crushed stone, with a concrete slab on grade walking surface. Timber piling is also under consideration for the walkway. Final structural and grading plans were not available at this time.

Subsurface Exploration

To evaluate the subsurface conditions at the site, we drilled three Standard Penetration Test (SPT) borings to a depth of 41 feet for the structures and two hand auger borings to a depth of 3.5-4 feet for the pavement areas. Soil density in the auger borings was roughly evaluated by periodic probing with a steel rod. The SPT borings were drilled with a truck mounted drilling rig with a safety hammer and the borings were advanced using solid stem auger and/or a mud jetting drilling method. The subsurface conditions encountered in the SPT borings can be found on the boring logs here.

The above information is the basis of our recommendations. If the information in this section changes or is incorrect, our office should be notified, and changes to our report may be needed.

Site Preparation

- The work areas should be cleared, grubbed, and stripped of all vegetation, major roots, root mass, topsoil, pavement materials, soils with a significant amount of organics, debris, and any other deleterious materials.
- Stripped vegetation, topsoil, and organic materials should be hauled offsite, or suitable topsoil could be stockpiled for use in landscaped areas.
- The contractor should check the depth to groundwater at the start of construction and provide drainage/dewatering as needed to complete the work. Groundwater should be kept at least 2-3 feet below the working surface during compaction operations.
- After stripping and clearing, the subgrade in the proposed pavement and slab on grade areas should be compacted to a minimum of 95% of the Modified Proctor Test (ASTM D1557) density for a minimum depth of 12 inches.
- The boring B3 encountered moisture sensitive silty sand at the surface, and the sand clay base materials in the parking borings are also moisture sensitive.
- These moisture sensitive soils drain slowly, retain excess moisture, are prone to pumping and can become unworkable when too wet and are hard to compact if too dry, and this is a concern for earthwork. The contractor should be prepared to moisture condition the soil as needed for compaction.
- Areas that pump, rut or are difficult to compact should be evaluated by LMJ staff and undercutting of wet/problem soils and replacement with suitable fill may be recommended.

Fill Material

- Fill material should be the soil types listed in the following table. Excavated native soils can be used as fill or backfill, provided they meet the requirements below.
- Fill or backfill should be free of significant organic materials, debris, or other deleterious materials and be non-plastic. It should comply with any local color codes.
- Samples of any imported fill material should be submitted to the geotechnical engineer for testing and evaluation prior to shipment to the site.

Fill Type Recommendations

Material Type	Lift Thickness (in)		Equipment Type	
	Large Equipment	Hand Operated Equipment	Large	Hand Operated
Sand or Slightly Silty Sand	6-8	4-6	Vibratory Roller	Plate Tamper

Compaction

- Fill material and top of existing subgrade should be moisture conditioned to within 2% of its optimum moisture content prior to compaction.
- Fill and top of subgrade should be compacted to the requirements in the following table.
- Note that large vibratory rollers can damage/disturb nearby structures and we do not recommend using large vibratory rollers near (within 75 feet) of existing structures.

Compaction Recommendations

Site Element	Minimum Compaction **(ASTM D1557)**	Minimum Compaction Testing Frequency Per 12-inch Increment of Soil
Top 12 inches of Subgrade Below Slab-on-Grade	95%	Minimum of 3, One every 2,000 ft^2
Top 12 inches of Subgrade below Pavement	98%	Minimum of 3, One every 2,000 ft^2
Fill/Backfill	95%	Minimum of 3, One every 2,000 ft^2
Utility Trench Backfill	95%	One per 75 linear feet

- Backfill for utility excavations or any other excavations in the structural areas should be compacted per the above tables.
- Compaction testing should be performed by LMJ staff.

Utility Installation and Bedding

We recommend that the bottom of all settlement sensitive utility excavations be evaluated by a representative from LMJ prior to utility placement. We recommend using a smooth excavator bucket or “butter bar” to excavate the bottom of utility trenches. Settlement sensitive utilities should be bedded on firm soils, and any loose areas would need to be properly compacted prior to utility placement. Loose soils present at the bottom of utility trenches should be compacted to a minimum of 95% of the Modified Proctor Test (ASTM D1557) density for a minimum depth of 12 inches. We recommend installing utilities in manageable sections that can be backfilled in a timely manner when rainfall is anticipated. Dewatering would be needed for utility installation in shallow water areas.

Excavations

All deeper excavations should be made at a safe slope (1.5H:1V minimum) or sheeting, shoring, or trench boxes should be used. Note that significant rainfall events and flowing groundwater (seepage forces) through excavation walls can be destabilizing. Therefore, stormwater runoff and erosion should be controlled for all excavations. The contractor is solely responsible for designing and constructing safe excavations that maintain stability during construction. All excavations should be constructed in accordance with the latest local, state, and federal safety regulations.

Footing Recommendations

- The site is located in an area which will have potential wave action on the south side of the embankment and a potential for scour from flood water flowing into the bayou through the constricted opening and then out of the opening after the storm.
- The site of the pedestrian crossing has very shallow groundwater, and dewatering will be needed to install shallow foundations in the dry.
- Allowable bearing capacity is limited, due to very loose soils at the proposed embedment depth. We recommend dropping the pier foundations to 6+ feet below existing grades to help avoid the worse of the very loose soils and deeper placement will provide more scour protection as well as increased lateral resistance.
- The client should consider supporting the roof of the pedestrian crossing and at least the walkway closest to the water with timber piling, as noted in the sections below. LMJ believes this to be the more pratical foundation option, given the shallow groundwater and native loose soils as well as the scour and lateral loading potential.
- Either foundation alternative will have difficulty in placing foundations close to or under the railway due to low overhead conditions under the railway. Using piles for supporting the walkway readily allows for deeper higher capacity piles to be placed on both sides of the rail crossing and clear spanning this portion of the walkway.
- Footings that are prepared in accordance with this report can be designed based on the parameters in the following table. Minimum embedment depth is below existing grade.

Footing Design Parameters

Minimum Width (ft)	Minimum Embedment Depth (ft)	Net Allowable Soil Pressure (psf)	Estimated Settlement (in)	
			Total	Differential
1.5-2.0	6	1,000	1 or less	½ or less

- The estimated settlement above is from the sandy soils immediately beneath the footings, and reflect shallow water conditions. Roughly ½-¾ of the settlement is expected to occur during construction or relatively soon after initial loading, with the remainder during the first high groundwater event.
- LMJ recommends replacing the six inch thick crushed limerock footing pad noted on the provided interm plans with a hard, well graded, crushed stone well compacted to a firm surface. Very loose areas my require additonal crushed stone to create a firm surface. The footing pad should be evaluated by LMJ staff by probing with a steel rod, as density testing would be impratical in the excavation.

Pile Recommendations

- The borings encountered soils that appear to be best suited for supporting the proposed boardwalk, dock and pedestrian crossing on jetted and driven timber piles if the recommendations of this report are followed.
- The table below provides the theoretical allowable pile capacities for 8 & 10-inch tip diameter round timber piles and 6 & 8 inch square timber piling with an embedment depth of 20 and 25 feet below existing grades at the time of drilling. We would anticipate that spans of the elevated walkway would be increased to reflect the higher available pile capacities.
- The contractor should be prepared to encounter debris at pile locations, particularly at or near the B3 boring location. Pre augering the piling location or digging the debris out could be needed.

Pile Recommendations

Pile size/Description	Pile Tip Embedment Depth (ft) (1)	Allowable Pile Capacity (kips) (2)	
		Compression	Tension
8-Inch Tip Dia. Round Timber Pile	20	7.4	1.1
10-Inch Tip Dia. Round Timber Pile		11.2	1.4
6-Inch Square Timber Pile		5.6	1.0
8-Inch Square Timber Pile		9.4	1.4
8-Inch Tip Dia. Round Timber Pile	25	20	2.2
10-Inch Tip Dia. Round Timber Pile		30	2.8
6-Inch Square Timber Pile		15	2.1
8-Inch Square Timber Pile		25	2.8

(1) Depth is below grade at the time of drilling or the mudline for dock piling.
(2) Theoretical Factor of Safety = 2 for compression and tension capacity.

- The pile capacities are based on the worst conditions in the borings, and different pile capacities may develop in different areas of the site due to variations in soil conditions.
- The pile capacities account for flooding and two feet of scour during an extreme storm event. If significant additional scour is a concern, LMJ can recalculate the capacities in the above table once scour analysis information has been provided.
- Lateral load capacities are available upon request.
- LMJ normally recommends ordering piles somewhat longer than needed to allow for natural variations in soil conditions.

Pile Installation Recommendations

- All piles should be jetted to a depth 3-5 feet above the target embedment depth in the above table and then driven to bearing using an approved pile driving hammer.
- Field determination of the actual pile capacities developed should be analyzed using a dynamic pile driving formula (Hiley, WAVE, etc.). This analysis will require knowledge of the pile driving equipment to be used on the site.
- We would be pleased to calculate the required pile driving resistances (blow counts or blows/foot) to obtain the pile capacities given in the preceding table when the pile driving contractor's equipment to be used and design pile is known.
- A hammer analysis will also help us determine if the contractor's hammer choice is appropriate for this project.
- The allowable pile capacities were calculated assuming flood and minor scour conditions. Flooding and scour will reduce the capacities of the piles, and piles will need to be driven beyond the blow counts (124%) required for the design load in order to allow for reductions in pile capacity from flooding and scour.
- An LMJ technician should be onsite during pile driving so that an evaluation and record of the pile driving resistances achieved and pile embedment depths can be made to check the capacities of the piles and relay information to our engineering staff.
- In the event that any unusual circumstances arise during construction, additional engineering recommendations could be provided.
- After the piles have been satisfactorily installed under the observation of our technician, we can provide a completion letter to document that the piles have been installed in accordance with this report.
- LMJ would be pleased to provide a cost proposal for providing the above services during construction.

Vibration Discussion

- Driving piles creates noise and vibrations, and these vibrations can cause disturbance or damage to any nearby existing structures.
- A low frequency hammer such as a drop hammer or a small diesel hammer would be suitable for driving the piles and should create less vibration. Jetting the piles to the recommended depth will also reduce the energy required for pile driving and the resulting vibrations.
- We suggest performing initial crack surveys of nearby or adjacent structures prior to any pile driving, which includes taking photos and documenting the size/location of cracks present before pile driving.
- LMJ can perform initial crack surveys and offers vibration monitoring services. If vibrations are a concern, we would be pleased to provide you with a proposal for these services.

Subgrade Recommendations

- Based on our experience, the upper silty sand soils encountered in the pavement borings should meet or exceed the normal pavement subgrade strength requirements of LBR 40. If sand soils are exposed, the upper 12 inches would need to be stabilized with the addition of 4-6 inches of graded aggregate base material.
- Any imported fill used in the top 12 inches of subgrade in pavement areas should have a minimum LBR of 40.
- The contractor should provide drainage/dewatering as needed to compact the subgrade and base materials.

Base Recommendations

- We recommend a graded aggregate base (GAB) for this project. These materials are high strength and are best suited for the site conditions. Base materials should meet FDOT requirements.
- A sample of any proposed base material should be submitted to our lab for testing and approval prior to shipment to the site.

Pavement Subgrade and Base Parameters

Layer	Minimum Compaction	Proctor Type	ASTM	Minimum LBR Value
Subgrade[1]	98%	Modified	D1557	40
Base	100%			100

[1]Top 12 inches of subgrade

Asphalt Recommendations

- Asphalt should be FDOT structural course Superpave Asphaltic Concrete meeting the requirements of Section 334 (SP-9.5 or 12.5 is preferred).
- Limit the amount of Recycled Asphalt Pavement (RAP) to no more than 25% of the mixture since mixtures over 25% RAP have a higher potential for quality issues.
- The asphalt should be compacted to a target of 92% of the laboratory maximum specific gravity (G_{mm} or Rice Specific Gravity) as determined by FM 1-T 209.

Typical local pavement sections for parking areas are shown in the following table. Pavement thickness should reflect the proposed traffic loading. If requested, we can prepare a site-specific pavement design if specific traffic loading data is provided.

Typical Minimum Pavement Section

Loading	Minimum Thickness (in)	
	Base	Asphalt
Light Duty	6	1.5

Concrete Pavement Recommendations

Concrete pavement should be used at the boat ramp location(s). It would perform best in areas prone to wetting/flooding and is most practical to construct in these conditions. Concrete pavement should be at least 6 inches thick or thicker if needed to support the traffic loading. Concrete pavement should have a minimum compressive strength of 4000 psi at 28 days. Saw cutting, jointing, and doweling should be according to current industry standards.

Testing Recommendations

- Run density tests on compacted subgrade at a minimum frequency of one test per 2,000 square feet of pavement area. Test the base for compaction at the same frequency.
- After paving, we recommend coring the asphalt to determine thickness and compaction. The bulk specific gravity (G_{mb}) of the cores should be determined using FM 1-T 166
- Concrete pavement should have cylinders cast during placement by LMJ staff to check the compressive strength of the mix.

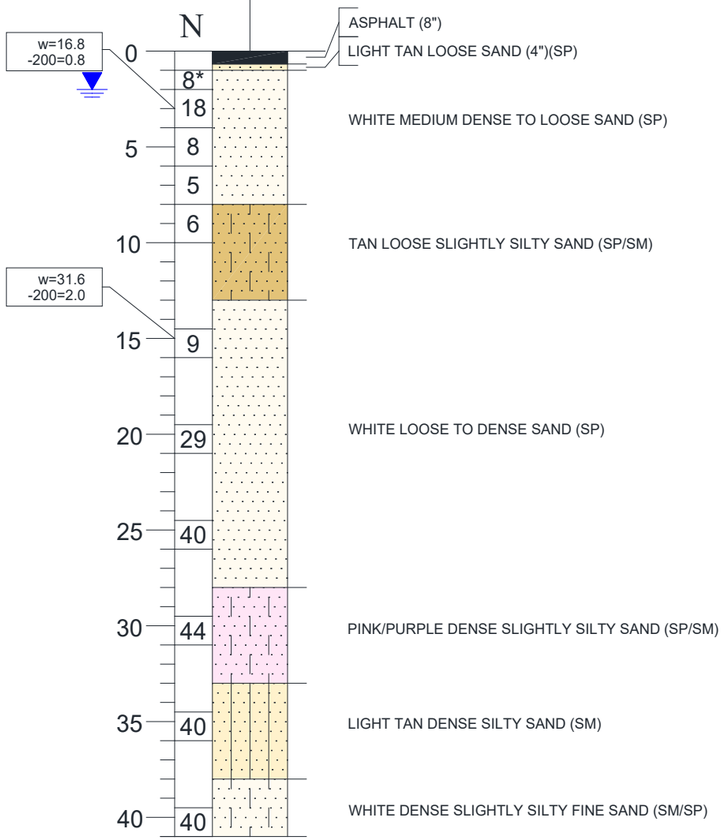
Boring Locations

STANDARD PENETRATION TEST BORING
ALL BORING LOCATIONS ARE APPROXIMATE

Borings

B-1

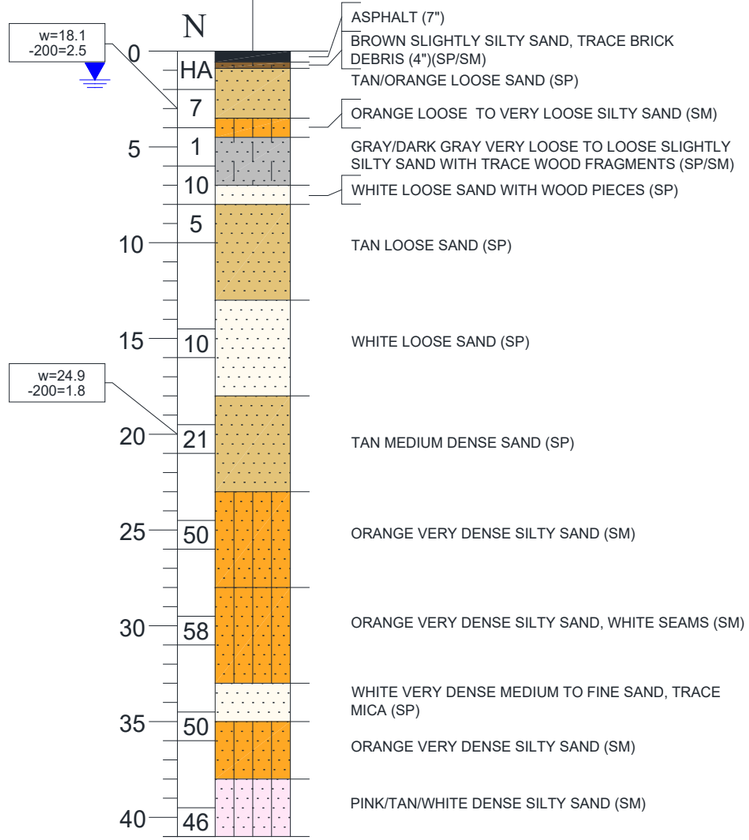
05-15-24



*HAMMER BLOWS:
1 FT SAMPLE: 4/4

B-2

05-14-24

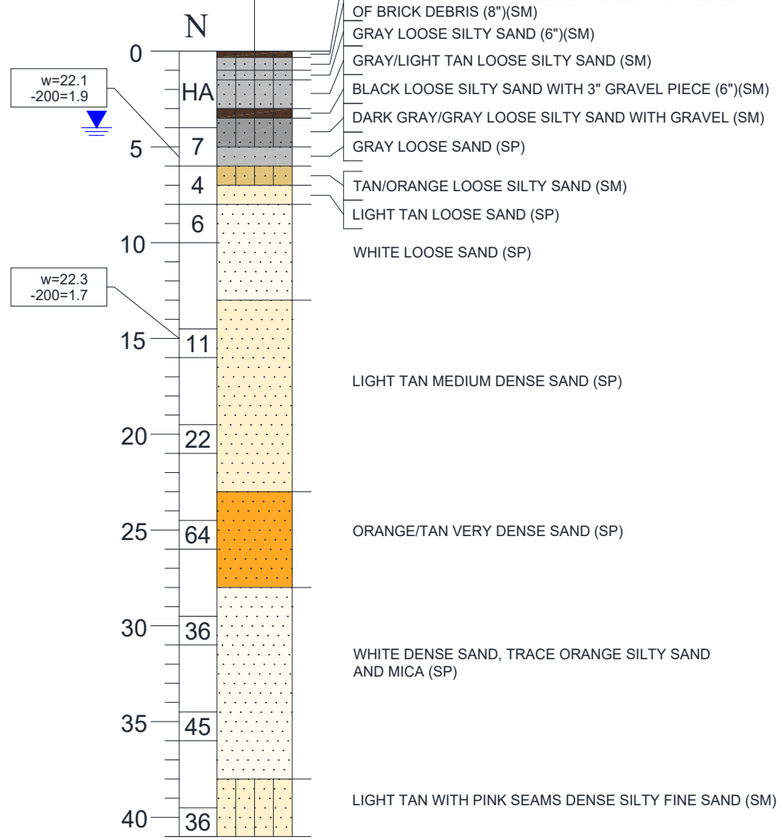


NOTE: WITH A PIECE OF WOOD AT 7-8 FEET

DEPTH (FT)	PROBE (IN)
BELOW ASPHALT	1.5
1	3
1.5	12

B-3

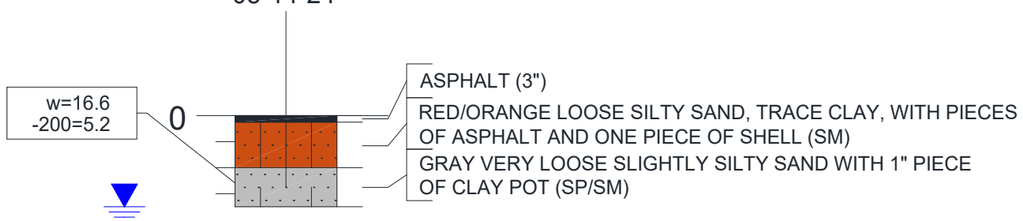
05-13/14-24



DEPTH (FT)	PROBE (IN)
SURFACE	12
1	10
2	8
3	8

P-1

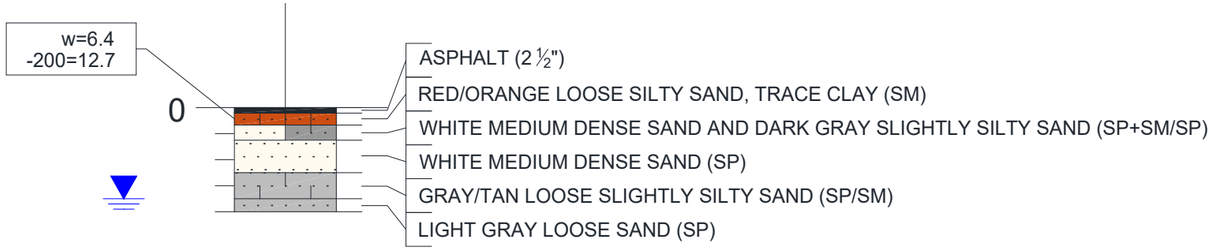
05-14-24



DEPTH (FT)	PROBE (IN)
0.5	3
1	2
1.5	1.5
2	3
2.5	12
3.5	6

P-2

05-14-24



DEPTH (FT)	PROBE (IN)
0.5	2
1	1
1.5	0.5
2	3
2.5	1
3	2
3.5	5
4	14

Test Results

Laboratory testing for this project included wash #200 sieve tests and natural moisture content tests run on the spilt spoon samples to assist in soil classification and to evaluate and document basic soil properties. The results of these tests can be found on the boring logs adjacent to the sample tested.

Basis of Recommendations

Recommendations rendered herein are based on assumed and/or design information available at the time of this report, the subsurface conditions encountered in the test borings, generally accepted geotechnical engineering principles and practices, and our experience with similar soil and groundwater conditions. Should final project information or existing conditions differ from the information used in this report or should any soil conditions not discussed in this report be encountered during construction, our office should be notified and retained so that this report can be modified as needed. LMJ should be provided with the final plans and specifications for review to determine if any changes to our report are needed based on the final design and that our recommendations have been properly interpreted.

This report and any correspondence are intended for the exclusive use of our client for the specific application to the project discussed. LMJ is not responsible for the interpretations, conclusions, or recommendations made by others based on the information in this report. Note that environmental work or chemical testing was not part of our scope of work on this project.

Regardless of the care exercised in performing a Geotechnical Exploration, the possibility always exists that soil and/or groundwater conditions will differ from those encountered at the specific boring locations. In addition, construction operations may alter the soil conditions. Therefore, it is recommended that a representative from LMJ be involved during the construction phases discussed in this report.

Test Methods

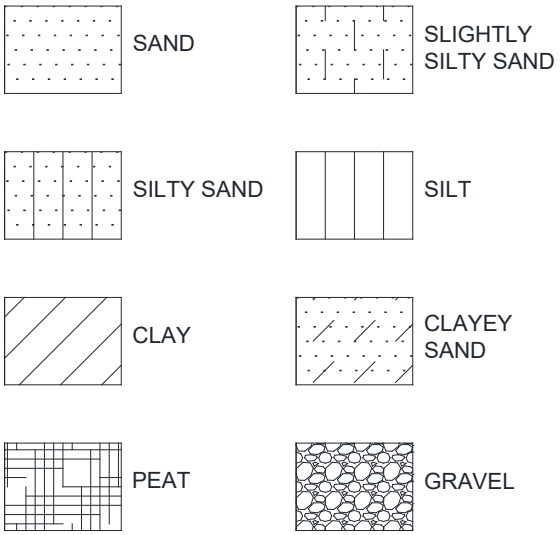
Standard Penetration Test

The Standard Penetration Test (SPT) consists of driving a 2-inch diameter split spoon sampler into the ground using a 140-pound hammer dropped 30 inches. The number of blows required to drive the sampler one foot (after seating it 6 inches) is referred to as the blow count or “N” value and represents the relative density of subsurface soils. “N” values can be found on the boring logs. The SPT borings were drilled in general accordance with ASTM D1586 using a truck mounted drill rig and were sampled by driving back-to-back 2-foot split spoons to a depth of 10 feet followed by samples at 5-foot increments thereafter. Each sample was removed from the sampler, classified in the field by the driller, and packaged for visual classification by our engineering staff and laboratory testing.

Other Test Methods

Wash #200 Sieve (ASTM D1140), Moisture Content (ASTM D2216), Sieve Analysis (ASTM C136)

LEGEND



NOTES

1) SPT BORINGS PERFORMED IN GENERAL ACCORDANCE WITH ASTM D1586
2) SUBSURFACE CONDITIONS ARE AT BORING LOCATIONS AND ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY
3) ALL CLASSIFICATIONS ARE BASED ON VISUAL EXAMINATION UNLESS ACCOMPANIED BY LABORATORY TEST RESULTS
4) BOUNDARIES BETWEEN SOIL LAYERS SHOULD BE CONSIDERED APPROXIMATE AS THE ACTUAL TRANSITION MAY BE GRADUAL
5) DEPTH OF BORING IS BELOW EXISTING GRADE AT TIME OF DRILLING
6) ELEVATIONS, IF SHOWN, WERE ESTIMATED FROM PROVIDED TOPOGRAPHIC SURVEY
7) COLORS USED FOR BORING HATCHING MAY NOT REPRESENT THE ACTUAL SOIL COLORS

GNE
GROUNDWATER NOT ENCOUNTERED AT TIME OF DRILLING

N
STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT

N_A
STANDARD PENETRATION RESISTANCE USING AUTOHAMMER

ENCOUNTERED GROUNDWATER LEVEL

ENCOUNTERED PERCHED WATER LEVEL

50/2"
NUMBER OF BLOWS REQUIRED (50) TO ADVANCE SPLIT SPOON SAMPLER A SPECIFIC DISTANCE (2) INCHES

HW
SPLIT SPOON SAMPLE ADVANCED UNDER WEIGHT OF ROD AND HAMMER

HA
HAND AUGER

SHELBY TUBE SAMPLER

W
NATURAL MOISTURE CONTENT (%)

-200
FINES PASSING #200 SIEVE (%)

O.C.
ORGANIC CONTENT (%)

LL
LIQUID LIMIT

PL
PLASTIC LIMIT

LI
LIQUIDITY INDEX

$C\approx$
APPROXIMATE COHESION VALUE (PSF) BASED ON POCKET PENETROMETER READINGS

K_v
SATURATED VERTICAL HYDRAULIC CONDUCTIVITY (FT/DAY)

γ_d
DRY UNIT WEIGHT (PCF)

γ_m
ESTIMATED MOIST UNIT WEIGHT (PCF)

γ_b
ESTIMATED BUOYANT UNIT WEIGHT (PCF)

ϕ
ESTIMATED ANGLE OF INTERNAL FRICTION (DEGREES)

SAFETY HAMMER

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-3	VERY LOOSE
4-10	LOOSE
11-30	MEDIUM DENSE
31-50	DENSE
> 50	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-1	VERY SOFT
2-4	SOFT
5-8	MEDIUM STIFF
9-15	STIFF
16-30	VERY STIFF
> 30	HARD

AUTOMATIC HAMMER

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-2	VERY LOOSE
3-8	LOOSE
9-24	MEDIUM DENSE
25-40	DENSE
> 40	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
<1	VERY SOFT
1-3	SOFT
4-6	MEDIUM STIFF
7-12	STIFF
13-24	VERY STIFF
> 24	HARD

August 29, 2024

Mr. Patrick Jehle, PE
McKim & Creed
pjehle@mckimcreed.com

SUBJECT: Addendum #1 to the Report of Geotechnical Exploration
Wayside Park East – Low Bridge Advanced Warning System
Pensacola, Florida
LMJ Job #: 24-138 E

Dear Mr. Jehle:

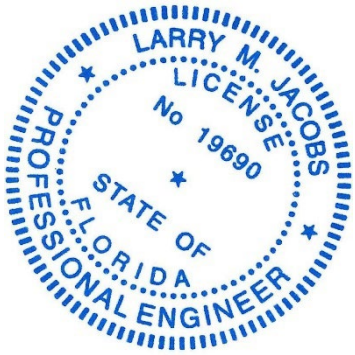
This letter forwards addendum #1 to our geotechnical report for the subject project (LMJ Report #24-138). The purpose of this addendum is to provide estimated engineering soil properties for the soils encountered in the SPT boring locations for the two signal mast arm foundations for the low bridge advance warning system. LMJ drilled two SPT borings to a depth of 41 feet below existing grades for the new system, and the boring locations are noted on the attached **Figure #1** and the logs of boring are attached **Figure #2.** Boring locations were selected by our client. These soil borings were drilled with a track mounted drilling rig equipped with an auto hammer for the SPT.

The estimated soil parameters for the soils encountered in the borings consisted of angle of internal friction and the soil's estimated moist and buoyant unit weight. These values can be found on the attached logs of boring and can be used for foundation design. These properties are based on the SPT results, published correlations, and our experience with similar soils and should be considered approximate. This addendum is covered under the basis of recommendations and the terms & conditions of our proposal, and the project geotechnical report.

We hope that this letter provides sufficient information for your current requirements. If you have any questions or comments, please call.

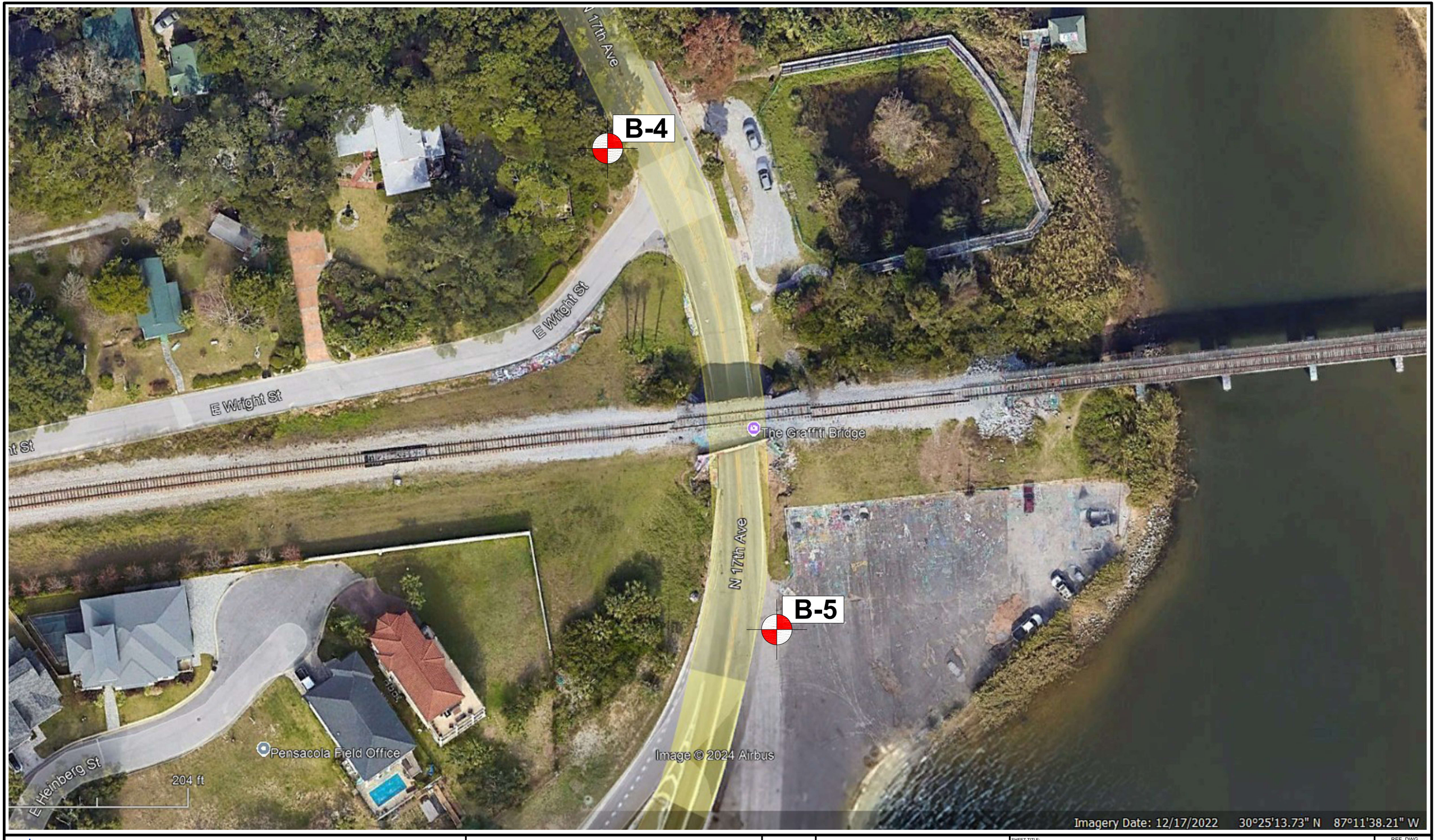
Respectfully yours,

LARRY M. JACOBS & ASSOCIATES, INC.



Terry Niemann
Project Manager

This document has been electronically signed and sealed by Larry M. Jacobs, PE (license # 19690) on August 29, 2024. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.



STANDARD PENETRATION TEST BORING
ALL BORING LOCATIONS ARE APPROXIMATE

LARRY M. JACOBS AND ASSOCIATES, INC.
328 E GADSDEN STREET
PENSACOLA, FLORIDA 32501

DRAWN BY:				SHEET TITLE:	REF. DWG. NO.
GEM				BORING LOCATIONS	24-138
CHECKED BY:	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	FIGURE NO.
TDN		Escambia		Wayside East 17th Ave. Park	1

BORING LOGS

B-4

07-29-24

γ_m/γ_b	ϕ
105/45	29°
110/50	31°
115/55	32°
115/55	33°
120/60	35°

w=2.9
-200=3.3

	N_A	
0		DARK BROWN MEDIUM DENSE SLIGHTLY SILTY SAND WITH ROOTS AND GLASS DEBRIS (TOPSOIL)(SM/SP)
		BROWN/WHITE MEDIUM DENSE SAND (6")(SP)
		LIGHT TAN MEDIUM DENSE SAND (6")(SP)
	HA	ORANGE/BROWN LOOSE SLIGHTLY SILTY SAND (SP/SM)
5		LIGHT TAN/BROWN LOOSE SAND WITH POCKETS OF BROWN SLIGHTLY SILTY SAND (SP)
	9	ORANGE/WHITE MEDIUM DENSE SAND (SP)
	16	
10		WHITE/LIGHT TAN MEDIUM DENSE SAND (SP)
15	20	ORANGE/TAN MEDIUM DENSE TO DENSE MEDIUM SAND (SP)
20	25	
25	32	WHITE/TAN DENSE SAND (SP)
30	41	WHITE/PINK VERY DENSE SLIGHTLY SILTY SAND (SP/SM)
35	44	WHITE VERY DENSE SAND WITH POCKETS OF ORANGE SILTY SAND (SP+SM)
40	45	TAN/ORANGE/PURPLE VERY DENSE SLIGHTLY SILTY SAND (SM/SP)

DEPTH (FT)	PROBE (IN)
SURFACE	1
0.5	1.5
1	1.5
1.5	1.5
2	1
2.5	1
3	1
3.5	2
4	0.5
4.5	1

B-5

08-01-24

γ_m/γ_b	ϕ
115/55	30°
100/50	28°
	30°
95/45	26°
100/50	28°
105/55	30°
115/55	33°
120/60	35°
125/65	35°

w=9.3
-200=13.4

w=21.0
-200=1.1

	N_A	
0		ASPHALT (5")
		ORANGE/BROWN SILTY SAND, TRACE CLAY (SAND CLAY BASE)(SM)
	HA	
5	11	TAN MEDIUM DENSE SAND (SP)
	2	
	6	
10		WHITE/TAN VERY LOOSE TO MEDIUM DENSE MEDIUM SAND (SP)
15	5	
20	13	
25	30	TAN/WHITE DENSE TO VERY DENSE MEDIUM TO FINE SAND (SP)
30	42	
35	36	WHITE DENSE SAND (SP)
40	37	PURPLE/TAN DENSE SILTY SAND (SM)

DEPTH (FT)	PROBE (IN)
SURFACE	-
0.5	1
1	1
1.5	2
2	2.5
2.5	5
3	12

LEGEND

SAND
SLIGHTLY SILTY SAND
SILTY SAND
SILT
CLAY
CLAYEY SAND
PEAT
GRAVEL

GRANULAR SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
0-2	VERY LOOSE
3-8	LOOSE
9-24	MEDIUM DENSE
25-40	DENSE
GREATER THAN 40	VERY DENSE

COHESIVE SOILS

SPT BLOWS/FOOT (N)	RELATIVE DENSITY
< 1	VERY SOFT
1-3	SOFT
4-6	MEDIUM STIFF
7-12	STIFF
13-24	VERY STIFF
GREATER THAN 24	HARD

SYMBOLS:

- GNE = GROUNDWATER NOT ENCOUNTERED AT TIME OF DRILLING
- N = STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- N_A = STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT USING AUTOMATIC HAMMER
- ▼ = ENCOUNTERED GROUNDWATER LEVEL
- ▽ = ENCOUNTERED PERCHED WATER LEVEL
- 50/2" = NUMBER OF BLOWS REQUIRED (50) TO ADVANCE SPLIT SPOON SAMPLER A SPECIFIC DISTANCE (INCHES)
- HW = SPLIT SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- w = NATURAL MOISTURE CONTENT (%)
- -200 = FINES PASSING #200 SIEVE (%)
- O.C. = ORGANIC CONTENT (%)
- LL = ATTERBERG LIMITS (%) LL=LIQUID LIMIT, PL=PLASTIC LIMIT
- LI = LIQUIDITY INDEX
- c ≈ APPROXIMATE COHESION VALUE (PSF) BASED ON POCKET PENETROMETER READINGS
- K_V = SATURATED VERTICAL HYDRAULIC CONDUCTIVITY (FT/DAY)
- γ_d = DRY UNIT WEIGHT (PCF)
- γ_m = ESTIMATED MOIST UNIT WEIGHT (PCF)
- γ_b = ESTIMATED BOUYANT UNIT WEIGHT (PCF)
- ϕ = ESTIMATED ANGLE OF INTERNAL FRICTION (DEGREES)

NOTES:

1) SPT BORINGS PERFORMED IN GENERAL ACCORDANCE WITH ASTM D1586
2) SUBSURFACE CONDITIONS ARE AT BORING LOCATIONS AND ACTUAL CONDITIONS BETWEEN BORINGS MAY VARY
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4) BOUNDARIES BETWEEN SOIL LAYERS SHOULD BE CONSIDERED APPROXIMATE AS THE ACTUAL TRANSITION MAY BE GRADUAL
5) DEPTH OF BORING IS BELOW EXISTING GRADE AT TIME OF DRILLING

Project #: 24-138 **Scale: NTS**

Date: 08/29/2024 **Checked By: TDN**

Project: Wayside East 17th Ave. Park

Location: Escambia County, Florida

ZONE V DESIGN CERTIFICATE

Name Wayside Park East / 17th Avenue Park Improvements Policy Number *(Insurance Co. Use)* _____

Building Address or Other Description Covered Walkway

Permit No. _____ City Pensacola State FL Zip Code 32502

SECTION I: Flood Insurance Rate Map (FIRM) Information

Community Name & No. City of Pensacola Panel No. 0390 Suffix G FIRM Date 9/29/2006

FIRM Zone(s) _____ Seaward of LiMWA (Coastal A Zone) ☐ Yes ☐ No

SECTION II: Elevation Information Used for Design

[NOTE: This section documents elevations used in the design – it does not substitute for an as-built Elevation Certificate.]

1. Datum…… ☐ NGVD ☒ NAVD ☐ Other
2. Elevation of the Bottom of Lowest Horizontal Structural Member …… 12.0 feet above datum
3. Base Flood Elevation (BFE)…… 9.0 feet above datum
4. Elevation of Lowest Adjacent Grade …… 4.0 feet above datum
5. Approximate Depth of Anticipated Scour/Erosion used for Foundation Design…… 0.5 feet
6. Embedment Depth of Pilings or Foundation Below Lowest Adjacent Grade…… 20.0 feet

SECTION III: Zone V Design Certification Statement

[NOTE. This section must be certified by a Florida licensed engineer or architect.]

I certify: (1) I have developed or reviewed the structural design, plans, and specifications for construction and (2) the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the following provisions:

- The bottom of the lowest horizontal structural member of the lowest floor (with the exception of mat or raft foundations, piling, pile caps, columns, grade beams and bracing) is elevated to or above the BFE in accordance with the requirements of the *Florida Building Code* or local floodplain management regulations (manufactured homes and buildings exempt from the FBC, B); and
- The pile and column foundation and building or structure to be attached thereto is designed in accordance with the *Florida Building Code* to be anchored to resist flotation, collapse, and lateral movement due to the effects of the wind and flood loads acting simultaneously on all building components, and other load requirements of the *Florida Building Code*. The potential for scour and erosion at the foundation has been anticipated for conditions associated with the base flood, including wave action.

SECTION IV: Breakaway Wall Design Certification Statement

[NOTE. This section must also be certified by a Florida licensed engineer or architect when breakaway walls exceed a design safe loading resistance of 20 pounds per square foot. This requirement does not apply to open wood/plastic lattice/slats/louvers or insect screening.]

I certify: (1) I have developed or reviewed the structural design, plans, and specifications for construction and (2) the design and methods of construction to be used for the breakaway walls are in accordance with the *Florida Building Code, Building* (ASCE 24) or *Florida Building Code, Residential,* as applicable, and accepted standards of practice.

SECTION V: Certification and Seal

This certification is to be signed and sealed by a Florida licensed professional engineer or architect authorized by law to certify structural designs. *I certify the Zone V Design Certification Statement in Section III and the Breakaway Wall Design Certification Statement in Section IV (if applicable).*

Stephen W. Leonard, PE — 60730

Certifier's Name — Florida License Number

Structural Engineer — Berube Leonard, LLC

Title — Company Name

3101 N. 12th Avenue — Pensacola — FL — 32503

Address — City — State — ZIP

Signature — 7/24/2025 — (850) 473-9955 x103

Date — Telephone