

20-C-00002; Comprehensive Infrastructure for Tampa's Neighborhoods - Design-Build

PUBLIC ANNOUNCEMENT IN COMPLIANCE WITH REQUIREMENTS OF SECTION 287.055, FLORIDA STATUTES (CONSULTANTS' COMPETITIVE NEGOTIATION ACT)
APPLICABLE LAW, EXECUTIVE ORDERS, RULES, REGULATIONS, AND THE CITY'S STANDARD PROCEDURES. A NOTICE OF INTENT TO AWARD SHALL BE POSTED, IF AT ALL,
ON THE CITY'S WEBSITE ACCESSIBLE BY UTILIZING THIS WEBSITE LINK: www.tampagov.net/contract-administration/programs/architectural-engineering-construction-and-related-rfgs.

The City of Tampa desires to obtain Professional Design-Build Services for the Comprehensive Infrastructure for Tampa's Neighborhoods project, including water, wastewater, stormwater, and transportation improvements performed at the same time for selected locations within Tampa's neighborhoods.

The project includes but is not limited to design and construction of, and performing public relations for, various comprehensive infrastructure improvements.

Services will also include coordination and scheduling during the permitting and design phase, cost estimating, administering subcontracts and all related work required for a number of completed improvements.

Services will be provided under a contract for a negotiated guaranteed maximum price with appropriate Public Construction Bonds.

The proposed budget is estimated at \$200 million.

A pre-submittal conference will be held at 3 PM Tuesday, December 3, 2019, in the 3rd Floor City Council Chambers, Old City Hall 315 E. Kennedy Blvd., Tampa, Florida 33602. Attendance is not mandatory.

Additional material may be found at demandstar.com and at: www.tampagov.net/contract-administration/programs/architectural-engineering-construction-and-related-rfqs

Questions may be directed to Jim Greiner, PE, 813-274-8598, or Jim.Greiner@tampagov.net.

An individual or entity ("Firm") responding to this RFQ must provide evidence of any required licenses, certificates, or registrations with its submission or within 10 days thereof in order to be considered. The City shall own all ideas, documents, plans, and materials developed as a result of this solicitation and Firm is informed same shall be subject to reuse in accordance with Section 287.055(10), Florida Statutes. Firm (i) confirms it has read and is familiar with Section 119.071(3), Florida Statutes regarding certain building plans, blueprints, schematic drawings, which depict the internal layout and structural elements of a building, facility, or other structure owned or operated by the City or other agency that are per said section exempt from Section 119.07(1), Florida Statutes and Section 24(a), Art. I of the Florida Constitution ("Exempt Plans") and (ii) agrees Firm shall remain in compliance with same, including maintaining the exempt status of such Exempt Plans for so long as they are held by Firm or otherwise in its possession. The City may cancel, withdraw, or modify this RFQ at any time and reserves the right to reject any or all responses and to waive irregularities, formalities, and informalities as it determines in the City's best interest.

Firms desiring to provide these services to the City must submit a single electronic file in searchable PDF format, Smaller than 5MB, that includes the attached RFQ Transmittal Memorandum completed as appropriate, a Letter of Interest addressed to Brad L, Baird, P.E., Chairman, and referring to this RFQ by number, together with a Statement of Qualifications and any supplemental material allowing evaluation for further consideration (short-listing) based upon the following criteria/point system: Project understanding and Approach (30); Successful Comparable Urban Project Experience, (25); Workload and availability (5); Past performance/Low amount of City work (5); Standard Form #A305 or similar outline(with financial info. provided in a separate PDF)(5); Planned WMBE/SLBE Solicitation & Utilization, Form MBD 10 & 20 (20 pts); Workforce Development Programs(10).

The PDF file must be E-Mailed to ContractAdministration@tampagov.net BEFORE 2 P.M., Thursday, January 9, 2020.

As a courtesy, the City will endeavor provide an email acknowledgement usually sent within a few days after submission receipt (submissions received on the day of the deadline may not be acknowledged before the deadline or at all). It is Firm's responsibility to confirm its submission (PDF file) has been received.

RFQ TRANSMITTAL MEMORANDUM FOR A SUBMITTAL TO THE CITY OF TAMPA, FLORIDA

| TRANSMITTAL DATE: RFQ NO. & TITLE: | | | | | | |
|--|--|---|---|--|--|--|
| | Brad L. Baird, P. E., Chairman Selection & Certification Committee (CCNA) c/o Contract Administration Department via ContractAdministration@tampagov.net 306 East Jackson Street, 4th Floor North, Tampa, Florida 33602 | | | | | |
| SUBMITTER ("Firm") NAME: | | | | | | |
| FEDERAL TAX ID#: | | | | | | |
| FIRM TYPE: | ☐ Individual/Sole Proprietor☐ Limited Liability Company | ☐ Joint Venture (JV)* ☐ Other: | • • • | ☐ Corporation | | |
| FIRM CONTACT NAME: | | EMAIL: | PF | IONE: | | |
| CERTIFICATIONS: | Firm is licensed, permitted, and c License/registration/certification r | | ness in Florida: 🗌 Yes | | | |
| | Per §287.133, Fla. Stat., individu "affiliate") placed on the convicted submit a bid, proposal, or reply ("entity, may not submit a Responsibuilding or public work, may not sawarded or perform work as a coentity; and may not transact busin §287.017, Fla. Stat. for CATEGO Neither Firm nor its affiliates have | d vendor list ("List") following a Response") on a contract to p se on a contract with a public of submit a Response for leases ontractor, supplier, subcontract ness with any public entity in of DRY TWO for a period of 36 m | a conviction for public entity provide any goods or service entity for the repair or const of real property to a public tor, or consultant under a coexcess of the threshold amounths from the date of place. | r crimes may not es to a public truction of a public entity, and may not be ontract with any public bunt provided in | | |
| | Firm's own initial application for e in Chapter 12, Article VI, Tampa and will not be used as a basis for | Code (responses, whether "Ye | es" or "No", are for informat | ar to those contained ional purposes only | | |
| | Firm shall comply with all applica 522, Tampa Code). The City's Chenefit or profit out of any award financial interest in effecting any receives any such benefit or interest. | narter & Ethics Code prohibit a or obligation entered into with such award or obligation. If Fi | any City employee from rec the City, or from having ar rm is successful, it shall en | eiving any substantial ny direct or indirect sure no City employee | | |
| | Firm is not in arrears and is not in | n default upon any obligation t | o the City of Tampa: Ye | s No | | |
| | Firm agrees that if the City of Tar practices with regard to this subn right to debar Firm and deem invo | mpa determines Firm has part nittal, in addition to any other r alid any contract let under suc | icipated in any collusive, de remedy it may exercise, the rh circumstances: ☐Yes | eceptive, or fraudulent City will have the No | | |
| | Data or material Firm asserts to be in a separate, single electronic see "Confidential Material", which ide exempt from public disclosure, and then Firm waives any possible or | earchable PDF file labeled with ntifies the data/material to be nd the specific Florida statute | h the above RFQ number a protected, states the reaso allowing such exemption (if | nd the phrase ns the date/material is "No" or otherwise, | | |
| FAILURE TO COM | PLETE THE ABOVE MAY RESU | LT IN FIRM'S SUBMITTAL B | EING DECLARED NON-R | ESPONSIVE | | |
| [5 | Authorized SEAL] | d Signature (wet): Printed Name: Title: ☐ Sole Prop ☐ Pres | S Sr VP Gen Ptnr | LLC Auth.Mbr/Mgr | | |
| STATE OF COUNTY OF The forgoing instrument when the entity. He/She is personal perso | | | | | | |
| [NOTARY S | CE A I 1 | | | | | |
| INOTARYS | DLALJ | Printed Name: My Commission Expires: | Notary Public, St | ate of mission No: | | |

^{*} With submittal or within 10 days thereafter, Firm must provide a signed copy of the complete agreement between all JV/PN members indicating respective roles, responsibilities, and levels of participation.

| Point | Points Pursuant to Designated Industry Category: | | | | |
|-----------|--|---------------|--|--|--|
| | (Refer to MBD Form 70 and Form 50-0 | GFE Outreach) | | | |
| | Evaluation Criteria | Point Values | | | |
| A. | Underutilized WMBE Firms participating as the Prime Contractor (City of Tampa Certified Only) | 20 | | | |
| В. | City of Tampa Certified SLBE firms participating as the Prime Contractor, which include City of Tampa Certified WMBE/SLBE sub-(contractor, consultant) participation | 5 - 15 | | | |
| C. | Non-City of Tampa Certified WMBE/SLBE Prime Contractor with meaningful sub-(contractor, consultant) participation by City Certified Underutilized WMBE and/or SLBE firms | 1 - 15 | | | |
| D. | * External agency WMBE/SLBE/DBE certifications recognized by City of Tampa for designated RFP, RFQ, RFI solicitations | 0 – 7 | | | |
| NOTE: The | IOTE: The maximum points available for WMBE and/or SLBE participation will not exceed twenty (20) | | | | |

Points are determined as follows (Requires Form 50-GFE):

- A. A maximum of twenty (20) rating points <u>may</u> be awarded when the Proposer is a City of Tampa Certified WMBE firm deemed underutilized within the Industry category established by the RFP.
- B. A maximum of fifteen (15) rating points <u>may</u> be awarded when the Proposer is a City of Tampa certified SLBE with meaningful participation by City certified WMBE/SLBE subcontractors/consultants.
- C. One to Fifteen (1-15) rating points <u>may</u> be awarded when the <u>Proposer is not</u> a City of Tampa certified WMBE/SLBE prime contractor but utilizes either Underutilized WMBE and/or SLBE certified firm(s) as sub-contractors/consultants and assigned to perform meaningful segments of the <u>contractual services detailed herein</u> and documented on the enclosed MBD Form 10-20.
- D. A maximum of seven (7) "discretionary" rating points <u>may</u> be awarded when the Proposer provides WMBE/SLBE participation from an external agency recognized by the City. Discretionary points may be awarded for ancillary participation (see definition). The point values for ancillary participation may be subordinate to weighted values outlined in categories A, B and C above.
- **NOTE:** *WMBE participation is narrowly-tailored (per policy) to target <u>underutilization</u> of affected groups in specific trade/industry categories. Any WMBE/SLBE achievement that was not designated on MBD Form 70 is considered ancillary. Ancillary participation may be counted with overall participation and credited to your rating points when underutilization criteria are met.

The maximum number of points available for WMBE and/or SLBE participation will not exceed a total of twenty (20) points.

Equal Business Opportunity Evaluation Weighted Points: CCNA Proposal Guidelines

Under CCNA solicitations, proposers must submit to preconstruction Good Faith Efforts (GFE) requirements covering the inclusion of City of Tampa certified WMBE, SLBE firms. Such inclusion shall be clearly addressed and documented utilizing Forms MBD 10, 20 & 50. Proof of certification shall include copies of current certification certificates. This applies to **ALL** Phase 1 preconstruction design services.

Points awarded during the shortlist selection process will be more heavily weighted predominantly on the design side (this does not preclude identification of phase 2 projections of construction participation which follow in the future, i.e. GMPs). In order to ensure the maximum points, a proposer must clearly **identify and quantify** its planned participation. Finally, additional favorable consideration will be granted to the firm(s) that beyond all others provide(s) the highest and most binding participation.

GMP Exhibit

Tampa's Equal Business Opportunity Program Procedures for GMP Contracts

- The City of Tampa's Equal Business Opportunity Program (EBO) requires setting a construction subcontract goal on each GMP under the CM /or D-Build delivery system.
- Prior to the time construction subcontract goals are set, the Construction Manager (CM)
 or the Design-Builder (D-B) provides information on subcontract packages planned for
 the construction phase(s) and their sequencing.

(Ref: use Detailed GMP Estimate and MBD Form-80 PTW)

- The CM (or D-B) participates in a meeting wherein the City will establish narrowly-tailored project goals for SLBE and/or W/MBE subcontractor participation on the project. (Ref: use MBD Form-70)
- For each subcontracting package to be bid, the CM (or D-B) confirms with the MBD Office, the City's minimum contact list of available SLBE and/or W/MBE firms to be solicited. Note: strategic, extensive outreach is the CM/DB's responsibility (i.e. GFECP) (Ref: use Minimum Contact List provided w/final Project EBO Determination Goal)
- The CM (or D-B) documents the notification of **all** potential subcontractors, including the SLBE or W/MBE firms identified above, i.e. minimum contact list of certified firms. (**Ref:** use **DMI 10-20 for construction phase Solicitation/Utilization outcomes**)
- The CM (or D-B) receives, opens, and tabulates subcontract bid results. The City, including representatives of the managing department and the MBD Office, may be present for the bid openings or to review the bids submitted.

 (Ref: use MBD Form-50 GFECP outreach w/documentation)
- The CM (or D-B) provides to the City, a tabulation of all bids received and its determination of the lowest responsive/responsible bidder. If bids received exceed contracted Guaranteed Maximum Price, CM (or D-B) advises City as to how they will proceed. If re-bidding is selected, notification at least equal to the original solicitation will occur. (Ref: Reaffirm EBO Outreach)
- As all subcontracts are executed, final copies are provided to the City. Where participation is achieved via sub-subcontractors and/or suppliers, the CM (or D-B) provides the City and MBD with copy of executed agreement or purchase order as documentation. (Ref: use MBD Form-40 LOIs execute "Letters-of-Intent")
- During construction, monitoring activities may including but may not be limited to, subcontractor payment reports to be submitted with pay requests, prior approval by the MBD Office and the managing departments, of any replacement of SLBE or W/MBE subcontractors, and a report of final amounts paid to all subcontractors.

(Ref: use #1-DMI 30 Form w/Pay Applications; #2-Prime & Subs must log into Diversity Mgt. Compliance System to report payment activity)



Good Faith Effort Compliance Plan Guidelines
for Women/Minority Business Enterprise\Small Local Business Enterprise Participation
City of Tampa - Equal Business Opportunity Program
(MBD Form 50 - detailed instructions on page 2 of 2)

| Con | ntract Name | Bid Date |
|------|--|--|
| Bido | dder/Proposer | |
| Sign | gnature Title | Date |
| Nam | me Title | |
| The | e Compliance Plan with attachments is a true account of Good Faith Efforts (GFE) made to a ecified for Women/Minority Business Enterprises/Small Local Business Enterprises (WMBE/ | chieve the participation goals as |
| □ Th | The WMBE/SLBE participation <u>Goal is Met or Exceeded</u> . See DMI Forms 10 and 20 v bcontractors <u>solicited</u> and <u>all</u> subcontractors <u>to-be-utilized</u> . | which accurately report <u>all</u> |
| step | The WMBE/SLBE participation Goal is Not Achieved. The following list is an overviews already performed. Furthermore, it is understood that these GFE requirements a aluation based on the veracity and demonstrable degree of documentation provided (Check applicable boxes below. Must enclose supporting documents according to the content of the content o | re weighted in the compliance I with the bid/proposal: |
| (1) | Solicited through reasonable and available means the interest of WMBE/SLBEs that have the capability to perform the solicit this interest within sufficient time to allow the WMBE/SLBEs to respond. The Bidder or Proposer must take approinterested WMBE/SLBEs. See DMI report forms for subcontractors solicited. See enclose efforts. Qualifying Remarks: | work of the contract. The Bidder or Proposer mus opriate steps to follow up initial solicitations with |
| (2) | Provided interested WMBE/SLBEs with adequate, specific scope information about the plans, specifications, and require timely manner to assist them in responding to the requested-scope identified by bidder/proposer for the solicitation. used. Qualifying Remarks: | |
| (3) | Negotiated in good faith with interested WMBE/SLBEs that have submitted bids (e.g. adjusted quantities or scale). Doc addresses, and telephone numbers of WMBE/SLBEs that were solicited; the date of each such solicitation; a descriptio and specifications for the work selected for subcontracting; and evidence as to why agreements could not be reached v costs involved in soliciting and using subcontractors is not a sufficient reason for a bidder/proposer's failure to meet goa are reasonable. Bidders are not required to accept excessive quotes in order to meet the goal. DMI Utilized Forms for sub-(contractor/consultant) reflect genuine negotiations The and negotiations are limited to clarifications of scope/specifications and qualifications. Qualifying Remarks: | n of the information provided regarding the plans with WMBE/SLBEs to perform the work. Additional als or achieve participation, as long as such costs his project is an RFQ/RFP in nature |
| (4) | Not rejecting WMBE/SLBEs as being unqualified without justification based on a thorough investigation of their capabili membership in specific groups, organizations / associations and political or social affiliations are not legitimate causes for Not applicable. See attached justification for rejection of a subcontractor's bid or particular section. | for rejecting or not soliciting bids to meet the goals |
| (5) | Made scope(s) of work available to WMBE/SLBE subcontractors and suppliers; and, segmented portions of the work or WMBE/SLBE subcontractors and suppliers, so as to facilitate meeting the goal. Sub-Contractors were allow work or trade without restriction to a pre-determined portion. See enclosed comments | wed to bid on their own choice of |
| (6) | Made good faith efforts, despite the ability or desire of Bidder/Proposer to perform the work of a contract with its own fo to self-perform the work of a contract must demonstrate good faith efforts if the goal has not been met. Sub-Cont submitting bids/proposals and were solicited on work typically self-performed by the prime. | ractors were not prohibited from |
| (7) | Segmented portions of the work to be performed by WMBE/SLBEs in order to increase the likelihood that the goals will breaking out contract work items into economically feasible units (quantities/scale) to facilitate WMBE/SLBE participatic prefer to perform these work items with its own forces. Sub-Contractors were allowed to bid on their restriction to a pre-determined portion. Sub-Contractors were not prohibited from susplicited on work typically self-performed by the prime. See enclosed comments. | on, even when the Bidder/Proposer might otherwise own choice of work or trade without |
| (8) | Made efforts to assist interested WMBE/SLBEs in obtaining bonding, lines of credit, or insurance as required by the city See enclosed documentation on initiatives undertaken and methods to accomplish. | or contractor. □ Qualifying Remarks: |
| (9) | Made efforts to assist interested WMBE/SLBEs in obtaining necessary equipment, supplies, materials, or related assist acceptable mentor-protégé program. □ See enclosed documentation of initiatives and/or agreem | |
| (10) | Effectively used the services of the City and other organizations that provide assistance in the recruitment and placeme See enclosed documentation. The following services were used: | ent of WMBE/SLBEs. |
| Note | te: Provide any unsolicited information that will support the Bid/RFP Compliance Evaluation. 🗆 Nan | ned Documents Are: |



Participation Plan: Guidance for Complying with Good Faith Efforts Outreach (page 2 of 2)

- 1. All firms on the WMBE/SLBE Goal Setting List must be solicited and documentation provided for email, fax, letters, phone calls, and other methods of outreach/communication with the listed firms. The DMI Solicited and DMI-Utilized forms must be completed for all firms solicited or utilized. Other opportunities for subcontracting may be explored by consulting the City of Tampa MBD Office and/or researching the online Diversity Management Business System Directory for Tampa certified WMBE/SLBE firms.
- 2. Solicitation of WMBE/SLBEs, via written or electronic notification, should provide specific information on the services needed, where plans can be reviewed and assistance offered in obtaining these, if required. Solicitations should be sent a minimum of a week (i.e. 5 business days or more) before the bid/proposal date. Actual copies of the bidder's solicitation containing their scope specific instructions should be provided.
- 3. With any quotes received, a follow-up should be made when needed to confirm detail scope of work. For any WMBE/SLBE low quotes rejected, an explanation Shall be provided detailing negotiation efforts.
- 4. If a low bid WMBE/SLBE is rejected or deemed unqualified the contractor must provide an explanation and supporting documentation for this decision.
- 5. Prime Shall break down portions of work into economical feasible opportunities for subcontracting. The WMBE/SLBE directory may be useful in identifying additional subcontracting opportunities and firms not listed in the "WMBE/SLBE Goal Setting Firms List."
- 6. Contractor Shall not preclude WMBE/SLBEs from bidding on any part of work, even if the Contractor may desire to self-perform the work.
- 7. Contractor Shall avoid relying solely on subcontracting out work-scope where WMBE/SLBE availability is not sufficient to attain the pre-determined subcontract goal set for the Bid or when targeted sub-consultant participation is stated within the RFP/RFQ.
- 8. In its solicitations, the Bidder should offer assistance to WMBE/SLBEs in obtaining bonding, insurance, et cetera, if required of subcontractors by the City or Prime Contractor.
- 9. In its solicitation, the Bidder should offer assistance in obtaining equipment for a specific job to WMBE/SLBEs, if needed.
- 10. Contractor should use the services offered by such agencies as the City of Tampa Minority and Small Business Development Office, Hillsborough County Entrepreneur Collaborative Center, Hillsborough County Economic Development Department's MBE/SBE Program and the NAACP Empowerment Center to name a few for the recruitment and placement of WMBEs/SLBEs.



Failure to Complete, Sign and Submit Both Forms 10 & 20 SHALL render the Bid or Proposal Non-Responsive

Page 1 of 4 – DMI Solicited/Utilized Schedules City of Tampa – Schedule of All Solicited Sub-(Contractors/Consultants/Suppliers) (FORM MBD-10)

| Contract No.: | Contract Name: | | | | | |
|---|--|---------------------------------|--|--|---|-------------------------------------|
| Company Na | me:Ai | ddress: | | | | |
| Federal ID: | Phone: Fa | ax: | Ema | il: | | |
| [] No Firms [] No Firms [] See attac Note: Form | able box(es). Detailed Instructions for completing were contacted or solicited for this contract were contacted because: hed list of additional Firms solicited and all MBD-10 must list ALL subcontractors solicited includies: Buildings = 909, General = 912, Heavy = 913, Trades = 914, | t. supplemen uding Non-mi | tal information nority/small busin | (List must o | | this form) |
| | | <u> </u> | | | | |
| S = SLBE W=WMBE O = Neither | Company Name Address Phone, Fax, Email | () E H | ype of Ownership F=Female M=Male) BF BM = African Am. IF HM = Hispanic JF AM = Asian Am. | Trade or Services NIGP Code (listed | Contact Method L=Letter F=Fax E=Email | Quote or Response Received |
| Federal ID | | | IF NM = Native Am. CF CM = Caucasian | above) | P=Phone | Y/N |
| | | | | | | |
| | | | | | | |
| | Failure to Comp | olete. | , Sign | and S | Subi | nit |
| | this form with | | | | | |
| | Shall render the | e Bic | IN - | | | |
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| | | | | | | |
| | ertified that the information provided is an accurate on this contract. | e and true a | ccount of contact | s and solicita | ations for s | ub-contracting |
| Signed: | Name/Titlere to Complete, Sign and Submit Both Forms 10 | le: | | | Date: | |
| <u>Failur</u> | | | | or Proposal I | lon-Respo | <u>nsive</u> |
| | Forms must be included with Bid / Proposal | | | | | |



Page 2 of 4 – DMI Solicited/Utilized

Instructions for completing The Sub-(Contractors/Consultants/ Suppliers) Solicited Form (Form MBD-10)

<u>This form must be submitted with all bids or proposals</u>. <u>All</u> subcontractors (regardless of ownership or size) solicited and subcontractors from whom unsolicited quotations were received must be included on this form. The instructions that follow correspond to the headings on the form required to be completed. <u>Note:</u> Ability or desire to self-perform all work shall not exempt the prime from Good Faith Efforts to achieve participation.

- Contract No. This is the number assigned by the City of Tampa for the bid or proposal.
- Contract Name. This is the name of the contract assigned by the City of Tampa for the bid or proposal.
- Contractor Name. The name of your business and/or doing business as (dba) if applicable.
- Address. The physical address of your business.
- **Federal ID.** FIN. A number assigned to your business for tax reporting purposes.
- **Phone.** Telephone number to contact business.
- **Fax.** Fax number for business.
- **Email.** Provide email address for electronic correspondence.
- No Firms were contacted or solicited for this contract. Checking the box indicates that a pre-determined Subcontract Goal or Participation Plan Requirement was not set by the City resulting in your business not using subcontractors and will self-perform all work. If during the performance of the contract you employ subcontractors, the City must pre-approve subcontractors. Use of the "Sub-(Contractors/Consultants/Suppliers) Payments" form (MBD Form-30) must be submitted with every pay application and invoice. Note: Certified SLBE or WMBE firms bidding as Primes are not exempt from outreach and solicitation of subcontractors.
- No Firms were contacted because. Provide brief explanation why no firms were contacted or solicited.
- See attached documents. Check box, if after you have completed the DMI Form in its entirety, you need more space to list additional firms and/or if you have supplemental information/documentation relating to the form. All DMI data not submitted on the MBD Form-10 must be in the same format and have all requested data from MBD Form-10 included.

The following instructions are for information of any and all subcontractors solicited.

- "S" = SLBE, "W" = WMBE. Enter "S" for firms Certified by the City as Small Local Business Enterprises and/or "W" for firms Certified by the City as either Women/Minority Business Enterprise; "O" = Non-certified others.
- **Federal ID.** FIN. A number assigned to a business for tax reporting purposes. This information is critical in proper identification and payment of the contractor/subcontractor.
- Company Name, Address, Phone & Fax. Provide company information for verification of payments.
- **Type of Ownership.** Indicate the Ethnicity and Gender of the owner of the subcontracting business.
- **Trade, Services, or Materials** indicate the trade, service, or materials provided by the subcontractor. NIGP codes aka "National Institute of Governmental Purchasing" are listed at top section of document.
- Contact Method L=letter, F=fax, E=Email, P=Phone. Indicate with letter the method(s) of soliciting for bid.
- Quote or Resp. (response) Rec'd (received) Y/N. Indicate "Y" Yes if you received a quotation or if you received a response to your solicitation. Indicate "N" No if you received no response to your solicitation from the subcontractor. Must keep records: log, ledger, documentation, etc. that can validate/verify.

If additional information is required or you have questions, please contact the Equal Business Opportunity Program - Minority and Small Business Development Office at (813) 274-5522.



Failure to Complete, Sign and Submit Both Forms 10 & 20 SHALL render the Bid or Proposal Non-Responsive

Page 3 of 4 – DMI Solicited/Utilized Schedules City of Tampa – Schedule of All To-Be-Utilized Sub-(Contractors/Consultants/Suppliers) (FORM MBD-20)

| Contract No.: | Contract Name: | | | | | |
|--|---|---|---|--|---|--|
| Company Nai | me:Phone: | Address: | | | | |
| Federal ID: | Phone: | Fax: | Er | nail: | | |
| [] See attact Note: Form [] No Subcot [] No Firms | able box(es). Detailed Instructions for or hed list of additional Firms Utilized a MBD-20 must list ALL subcontractors To-E ontracting/consulting (of any kind) ware listed to be utilized because: | and all supplen Be-Utilized includi ill be performe | nental informatio ing Non-minority/sm d on this contrac | n (List mus all businesse t. | <u>s</u> | , |
| | Categories: Buildings = 909, General = 912, Heavy = | | · · | , | | |
| S = SLBE W=WMBE O =Neither Federal ID | nter "S" for firms Certified as Small Local Business Enterpr Company Name Address Phone, Fax, Email | ises, "W" for firms Certi | fied as Women/Minority Bu Type of Ownership (F=Female M=Male) BF BM = African Am. HF HM = Hispanic Am. AF AM = Asian Am. NF NM = Native Am. CF CM = Caucasian | siness Enterprise Trade, Services, or Materials NIGP Code Listed above | *O" for Other No \$ Amount of Quote. Letter of Intent (LOI) if available | Percent of Scope or Contract % |
| | Failure to Co | mnlet | e Sion | and | Suhi | mit |
| | this form wi | | | | | |
| | Shall render t | | | | | |
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| | | | | | | |
| Total SLBE Ut | ocontract / Supplier Utilization \$ ilization \$ Itilization \$ Utilization of Total Bid/Proposal Amt. | | | of Total Bio | d/Proposal <i>A</i> | .mt% |
| | fied that the following information is a true and | | | | | |
| Signed: | N | ame/Title: | IALL randor the Did. | ou Duon oo - Lh | Date: | 140 |



Page 4 of 4 DMI – Solicited/Utilized

Instructions for completing The Sub-(Contractors/Consultants/ Suppliers) to be Utilized Form (Form MBD-20)

<u>This form must be submitted with all bids or proposals.</u> All subcontractors (regardless of ownership or size) projected to be utilized must be included on this form. Note: Ability or desire to self-perform all work shall not exempt the prime from Good Faith Efforts to achieve participation.

Contract No. This is the number assigned by the City of Tampa for the bid or proposal.

- Contract Name. This is the name of the contract assigned by the City of Tampa for the bid or proposal.
- Contractor Name. The name of your business and/or doing business as (dba) if applicable.
- Address. The physical address of your business.
- **Federal ID.** FIN. A number assigned to your business for tax reporting purposes.
- **Phone.** Telephone number to contact business.
- Fax. Fax number for business.
- **Email.** Provide email address for electronic correspondence.
- No Subcontracting/consulting (of any kind) will be performed on this contract. Checking box indicates your business will not use subcontractors when no Subcontract Goal or Participation Plan Requirement was set by the City, but will self-perform all work. When subcontractors are utilized during the performance of the contract, the "Sub-(Contractors/Consultants/Suppliers) Payments" form (MBD Form-30) must be submitted with every pay application and invoice. Note: certified SLBE or WMBE firms bidding as Primes are not exempt from outreach and solicitation of subcontractors, including completion and submitting Form-10 and Form-20.
- **No Firms listed To-Be-Utilized.** Check box; provide brief explanation why no firms were retained when a goal or participation plan requirement was set on the contract. Note: mandatory compliance with Good Faith Effort outreach (GFECP) requirements applies (MBD Form-50) and supporting documentation must accompany the bid.
- See attached documents. Check box, if after completing the DMI Form in its entirety, you need more space to list additional firms and/or if you have supplemental information/documentation relating to the scope/value/percent utilization of subcontractors. Reproduce copies of MBD-20 and attach. All data not submitted on duplicate forms must be in the same format and content as specified in these instructions.

The following instructions are for information of Any and All subcontractors To Be Utilized.

- **Federal ID.** FIN. A number assigned to a business for tax reporting purposes. This information is critical in proper identification of the subcontractor.
- "S" = SLBE, "W" = WMBE. Enter "S" for firms Certified by the City as Small Local Business Enterprises and/or "W" for firms Certified by the City as Women/Minority Business Enterprise; "O" = Non-certified others.
- Company Name, Address, Phone & Fax. Provide company information for verification of payments.
- **Type of Ownership.** Indicate the Ethnicity and Gender of the owner of the subcontracting business.
- Trade, Services, or Materials (NIGP code if Known) Indicate the trade, service, or material provided by the subcontractor. Abbreviated list of NIGP is available at http://www.tampagov.net/mbd "Information Resources".
- Amount of Quote, Letters of Intent (required for both SLBEs and WMBEs).
- **Percent of Work/Contract.** Indicate the percent of the total contract price the subcontract(s) represent. For CCNA only (i.e. Consultant A/E Services) you must indicate subcontracts as percent of total scope/contract.
- **Total Subcontract/Supplier Utilization.** Provide total dollar amount of all subcontractors/suppliers projected to be used for the contract. (Dollar amounts may be optional in CCNA depending on solicitation format).
- **Total SLBE Utilization.** Provide total dollar amount for all projected SLBE subcontractors/Suppliers used for this contract. (Dollar amounts may be optional in CCNA proposals depending on the solicitation format).
- **Total WMBE Utilization.** Provide total dollar amount for all projected WMBE subcontractors/Suppliers used for this contract. (Dollar amounts may be optional in CCNA proposals depending on the solicitation format).
- **Percent SLBE Utilization.** Total amount allocated to SLBEs divided by the total bid/proposal amount.
- Percent WMBE Utilization. Total amount allocated to WMBEs divided by the total bid/proposal amount.

If additional information is required or you have questions, please contact the Equal Business Opportunity Program - Minority and Small Business Development Office at (813) 274-5522.

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Procurement Guidelines

To Implement

Minority & Small Business Participation

Underutilized WMBE Primes by Industry Category

| _ | | | | | |
|---------|--------------|--------------------------|--------------|------------------|------------|
| | Construction | Construction- Related | Professional | Non-Professional | Goods |
| REMENT | Black | Asian | Black | Black | Black |
| PROCURE | Hispanic | Native Am. | Hispanic | Asian | Hispanic |
| AL PR | Native Am. | Woman | Asian | Native Am. | Asian |
| FORM | Woman | | Native Am. | | Native Am. |
| | | | Woman | | Woman |

Underutilized WMBE Sub-Contractors / Sub-Consultants

| | Construction | Construction- Related | Professional | Non-Professional | Goods |
|-------|--------------|--------------------------|--------------|------------------|------------|
| | Black | Black | Black | Black | Black |
| WORK | | Asian | Hispanic | Asian | Asian |
| SUB \ | | Native Am. | Asian | Native Am. | Native Am. |
| | | Woman | Native Am. | | Woman |
| | | | Woman | | |

Policy

The Guidelines apply to formal procurements and solicitations. WMBE participation will be narrowly-tailored.

Index

- Black = Black/African-American Business Enterprise
- Hispanic = Hispanic Business Enterprise
- Asian = Asian Business Enterprise
- Native Am. = Native American Business Enterprise
- Woman = Woman Business Enterprise (Caucasian)

Industry Categories

<u>Construction</u> is defined as: new construction, renovation, restoration, maintenance of public improvements and underground utilities. <u>Construction-Related Services</u> are defined as: architecture, professional engineering, landscape architecture, design build, construction management services, or registered surveying and mapping.

<u>Professional Services</u> are defined as: attorney, accountant, medical doctor, veterinarian, miscellaneous consultant, etc. <u>Non-Professional Services</u> are defined as: lawn maintenance, painting, janitorial, printing, hauling, security guard, etc. <u>Goods</u> are defined as: all supplies, materials, pipes, equipment, machinery, appliances, and other commodities.

MBD Form-70



Contract; 20-C-00002 DESIGN-BUILD SERVICES FOR THE COMPREHENSIVE INFRASTRUCTURE IMPROVEMENTS FOR TAMPA'S NEIGHBORHOODS

DESIGN CRITERIA PACKAGE

PREPARED BY:

Charlie Lynch, P.E. City of Tampa Wastewater Department

City of Tampa, Florida October, 2019

DESIGN CRITERIA:

The City of Tampa has prepared the Design Criteria Package for RFQ: 20-C-00002 Design-Build Services related to the Comprehensive Infrastructure Improvements for Tampa's Neighborhoods.

The project consists of the design and construction of comprehensive infrastructure improvements, that will include water, wastewater, storm water, and transportation improvements performed under single projects for areas within the City of Tampa that have multiple infrastructure needs. The areas included under this project are located within the following neighborhoods: East Tampa, Forest Hills, MacFarlane Park, and Virginia Park. The boundaries of the project areas and preliminary information on necessary infrastructure improvements are further described below.

The scope shall include, but not be limited to the following:

- Design services will include:
 - O Pre-design services to determine infrastructure improvements for each project area. These services will include the review of available data, obtaining additional data as needed, identifying and coordinating infrastructure needs with various City Departments and stakeholders, limited hydraulic analysis to finalize proposed water main sizes, providing and evaluating alternative methods for construction, developing cost estimates, project schedules, and the need for project phasing, identifying traffic impacts and maintenance of traffic needs, and obtaining public input and acceptance.
 - o Performing subsurface utility excavation (SUE) and utility coordination
 - o Performing topographical surveying
 - o Comprehensive design services for selected improvements
 - o Coordinating, applying for and obtaining regulatory permits
- Preconstruction services with development of a Guaranteed Maximum Price (GMP) for construction
- Construction of selected improvements, including any demolition and removal of existing pipes and appurtenances
- Performing all related valve operations for water and/or reclaimed water system shutdowns under the supervision of a City of Tampa Water Department personnel as required for construction
- Start up and testing
- Scheduling of all logistics
- Public relation activities that will maintain a positive response to the project from affected neighborhoods
- Estimated Construction Budget: \$200,000,000.

In addition, the following pages contain the project overview and description of design and construction requirements.

1. Purpose

- 1.1 This document provides the criteria for the design and construction of complete comprehensive infrastructure improvements, that will include water, wastewater, storm water, and transportation improvements performed under single projects for areas within the City of Tampa that have multiple infrastructure needs. The intent is to list the minimum design criteria necessary for achieving the needs of these projects.
- 1.2 The locations and boundaries of the areas that will be included in this RFQ are shown on Exhibits A through H. These exhibits also show the preliminary infrastructure improvements that have been identified for these areas.
- 1.3 This package is not a specification or prescriptive checklist and is not intended to replace the professional judgment by a competent licensed professional engineer after coordination with the end-user and stakeholders of the City of Tampa.

2. Design Criteria

- 2.1 The design is based on providing facilities that will meet the needs of the Water, Wastewater, and Transportation and Storm water Services Departments to effectively maintain and/or improve the level of service provided to the identified project areas.
- 2.2 The City has identified preliminary infrastructure needs and improvements for each of the project areas. These needs and improvements are depicted on Exhibits A through H and are further described in the sections below:
- 2.3 Wastewater needs and improvements:

It is the City's intent that all deficiencies and required improvements related to the wastewater systems within each project area be identified and included in the project. Within the project areas there are gravity sewers constructed on vitrified clay pipe, concrete, cast iron or ductile iron that has been in service for numerous years and are severely deteriorated. Some of these pipelines are located in un-improved rights of way that have obstructions that prevent access to the pipeline. For the pipelines that can be accessed, the deteriorated pipelines should be rehabilitated through the installation of cured in place liners to restore the pipeline's integrity. The rehabilitations should include identifying deficiencies for the portions of the service laterals located in the right of way and making necessary improvements to prevent future failures and reduce infiltration and inflow (I&I). Pipelines that cannot be accessed should be replaced with new pipelines located in right of ways that allow access. The relocations will include rerouting the onsite plumbing for the properties currently connected to the existing pipeline. In addition to the rehabilitation and relocation of gravity sewers, the project should include identifying and completing manhole rehabilitations, point repairs, and other needed wastewater improvements. Based on a preliminary assessment, the project will include the installation of approximately 62,000-linear feet (LF) of new 8" gravity sewers and the rehabilitation of approximately 187,000-linear of gravity sewers ranging size from 8" to 24".

- East Tampa: 35,000 LF of new 8-inch gravity sewers and 41,000 LF rehabilitation of gravity sewers
- Forest Hills: 74,000 LF of rehabilitation of gravity sewers

- MacFarlane Park: 27,000 LF of new 8-inch gravity sewers and 21,000 LF of rehabilitation of gravity sewers
- Virginia Park: 51,000 LF of rehabilitation of gravity sewers

2.4 Water needs and Improvements:

Water improvements will consist of the replacement of existing old water mains within each of the neighborhood areas to effectively maintain and/or improve the level of service for the potable water system. Based on a preliminary assessment of the required replacements, the project consists of the construction of approximately 198,000 linear feet (LF) of potable water mains (East Tampa: 36,000 LF, Forest Hills: 67,000 LF, MacFarlane Park: 54,000 LF, and Virginia Park: 41,000 LF) and associated appurtenances. Improvements should include fire hydrant assemblies, meter sets, service laterals, valves and various fittings as required for a complete and functioning water system. It is imperative that water service be maintained throughout all phase of the project execution. The Firm must fully understand the operational requirements, permitting, site logistics and all related requirements to design the water mains and associated appurtenances accordingly. The majority of the water mains selected for replacement are old cast iron mains. Although preliminary proposed water main sizes have been determined by the Water Department, the Firm shall perform limited hydraulic analysis and finalize proposed water main sizes to provide adequate water service including fire protection.

2.5 Stormwater Needs and Improvements

Stormwater improvements will consist of the construction of new stormwater pipelines, inlets, and manholes. Stormwater improvements will also include the rehabilitation of deteriorated pipelines through the installation of cured in place liners and the rehabilitation of box culverts.

2.6 Transportation Needs and Improvements

Transportation improvements will include milling and resurfacing/reconstruction of all streets within project limits as needed based upon current pavement conditions, reconstruction of curb ramps to comply with current ADA Accessibility Standards, re-profiling of roadways to achieve positive drainage, and driveway/drainage structure replacement (where needed). Other neighborhood improvements shall include construction of new sidewalks, installation of enhanced crosswalks, such as Rectangular Rapid Flashing Beacon (RRFB) assemblies, and traffic calming features, such as raised intersections, chicanes, median islands, bulb-outs, and mini circles, based on traffic and pedestrian analysis with input from the initial public workshops and City Transportation Engineering staff.

Improvements shall include analysis, design, and installation of striping and signage on all applicable roadways. Existing planning documents shall be reviewed for any planned walk-bike or operational improvements. Additional Complete Streets and Bike-Ped improvements identified in the Transportation Capital Plan within these proposed project limits shall be included:

- El Prado Blvd. Complete Streets and Safety Improvements
 - o Coordination of Capital Project that is to be designed and constructed by others
- 21st Ave. Complete Streets and Safety Improvements
 - o Coordination With Capital Project that is to be designed and constructed by others.

- Green ARTery Perimeter Trail
 - Coordination with the on-going Capital Project and design and/or construction of improvements within the project limits
- 34th St. Safety Improvements Project
 - o Coordination with on-going construction by others
- North Boulevard Complete Streets and Safety Improvements
 - o Widening the east or west side sidewalk to 12' wide multi-use trail
 - o Filling any alternative side sidewalk gaps
 - o Approximately nine (9) RRFB Crosswalks at locations within the project limits
 - o Enhancing bus stops
 - o Analysis, design, and construction of safety enhancements at all intersections

Improvements shall also include the design and construction of signal improvements, including complete signal replacements with mast arm assemblies at the following locations:

- Manhattan Ave. & El Prado Blvd.
- Manhattan Ave. & Bay to Bay Blvd.
- Bay to Bay Blvd. & Church Ave.
- MacDill Ave. & Tampa Bay Blvd.

3. Facilities Development Criteria

- 3.1 Project Development services shall be performed for each project area to identify infrastructure needs, develop cost estimates, schedules, and project sequences. These services shall include, but not be limited to, the review of available data, obtaining addition data as needed, identifying and developing requirements for infrastructure improvements, coordinating infrastructure improvements with various City Departments and stakeholders, providing and evaluating alternative methods for construction, identifying traffic impacts and maintenance of traffic needs, and obtaining public input.
- 3.2 The City will evaluate the information provided through the project development services and will make a final selection of the required improvements that will be used for the final design. The Firm will create the final plans and specifications for the selected improvements that will include but will not be limited to:
 - topographical surveys, that includes location of existing utilities, elevations, and all other features required to property design the selected improvements
 - performing subsurface utility excavation (SUE) and utility coordination
 - final construction plans in 2018 AutoCAD Civil 3D format and scaled as 11"X17" PDF drawings

- technical specifications in Microsoft Work and PDF
- pricing proposals developed to a GMP document with all associated exhibits
- obtaining permits and approvals from regulatory agencies and local authorities
- utility coordination
- 3.3 Additional requirements for the project development and final design services are provided below:

Wastewater project development and final design services will include:

- Review of available TV inspection data, GIS data, and as-builts to confirm
 gravity sewers that require rehabilitation and determining the requirements for
 the rehabilitations. Rehabilitation of gravity sewers shall be performed using
 methods that meet Wastewater Department standards and specifications. These
 standards and specifications are provided below.
- Performing TV inspections for service laterals along gravity sewers that will be rehabilitated and determining locations where service laterals require rehabilitation or replacements.
- Determining methods to rehabilitate service laterals
- Review of available manhole inspection reports and determining manholes that require rehabilitation. Manholes requiring rehabilitation will be rehabilitated using methods that meet Wastewater Department standards and specifications. These standards and specifications are provided below.
- Determining methods and requirements for maintaining wastewater service throughout construction

Water project development and final design services:

- Review of available GIS data, and as-builts to confirm water mains that require replacement
- Establishing best location and method for pipe replacements
- Determination of methods and requirements for maintaining water service throughout construction

Storm water project development and final services:

- Perform TV inspections for all existing stormwater pipes and box culverts to identify deteriorated pipes and culverts and to determine if the pipes can be lined with an inversion liner or if they should be replaced. Identify no-dig box culvert rehabilitation methods if needed. To facilitate the TV inspections, some pipes/boxes may need to be cleaned and sediment removed and disposed.
- Perform basin analysis to determine if any of the pipes need to be larger. In some cases, this will entail updating existing hydrologic/hydraulic models.
- Identify areas of standing water and required improvements

Transportation project development and final design services:

- Analysis of surrounding area for existing pedestrian routes, pedestrian attractors, existing crash data, and speeding/cut-through traffic concerns
- Public workshops/informational meetings to assist in prioritization and planning of traffic calming, sidewalks, and roadway improvements and to inform residents of proposed improvements
- Roadway Analysis and Design (Plans), including pavement design, roadway reprofiling, milling and resurfacing, design of sidewalks and pedestrian ramps
- Drainage Analysis and Plans ponding evaluation and drainage design
- Miscellaneous Structures
- Signing and Pavement Marking Analysis and Plans, including traffic analysis, crash analysis, circulation and traffic calming design
- Arborist Services
- Signalization Analysis and Plans
- Landscape Architecture Analysis and Plans
- Geotechnical Services including pavement cores
- Coordination and permitting with other Agencies, such as FDOT, HART, and Hillsborough County

4. Workforce Development

A description of a Workforce Development Program should include any ongoing or developing programs such as apprenticeship, mentoring or on-the-job training. The Program description should include any efforts toward fostering a strong and talented workforce in Tampa, promoting an increase of school attendance and graduation rates, defining pathways through higher education, technical certification programs and career readiness. It should also mention any workforce incentives, championing local businesses and removing barriers to access. The Program description should also include contracting and subcontracting trades, and engineering, architectural, geotechnical and public engagement opportunities.

5. Construction & Oversight

The Firm shall perform all construction and related tasks necessary to deliver completed project. The Firm shall perform construction in a manner to minimize impact to the neighborhoods including traffic. The Firm shall maintain utility services at all times. The Firm shall provide for construction management activities and general project oversight with consistent coordination with the City. Construction management activities will include, but not be limited to:

- Identification of the designated staging location(s) with respect to project need. For each effort, the Firm shall prepare an aerial map with the project boundaries and staging site(s) clearly delineated. The map shall include, at a minimum, distances (from property lines) of the staging lot(s) to adjacent residential parcels, in addition to the duration of occupancy of the location. Accompanying the aerial maps shall be a plan of the respective staging site(s) showing fencing, screening, and if necessary the location of trailers, parking areas and the driveway apron(s) for access.
- Preparation of a general Quality-Control Plan to be submitted in format(s) acceptable to the City, in which personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out the Firm's quality-assurance and quality-control responsibilities will be identified. Coordinate with the Contractor's construction schedule.

- Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for the project.
- Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- Include a comprehensive schedule of work requiring valve operations, testing or inspection, including the following:
 - o Contractor-performed pre-shutdown planning and testing valve operation tasks as well as actual system shutdowns for water and/or reclaimed water system under the supervision of a City of Tampa Water Department personnel.
 - Contractor-performed tests and inspections (including subcontractor-performed tests and inspections). Include required tests and inspections and Contractorelected tests and inspections.
 - Owner-required tests include soil density, concrete for all structural or structurally related work and asphalt, pressure testing, chlorination, and bacteriological sampling.
 - O Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- Maintain testing and inspection reports including log of approved and rejected results, including work the City has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.
- Apply for and obtain Florida Department of Environmental Protection (FDEP) clearances to place completed water mains into service.
- Anticipate the construction week to be Monday through Friday, with work not starting before 7:00 AM and ending no later than 5:00 PM.
- Perform pre-shutdown planning and testing valve operation tasks for water and/or reclaimed water system prior to actual shutdowns under the supervision of a City of Tampa Water Department personnel. These activities include coordination, development of the proposed water system shutdown plan that contains identification of valves to be operated and impacts to existing customers, exposing any buried or paved-over valves and cleaning out valve boxes, as well as testing of the operability of the valves, and verification of customers that will be affected by the proposed shutdown.
- Perform water and/or reclaimed water system shutdown operations under the supervision of a City of Tampa Water Department personnel as required for construction.
- Water system shutdowns shall be scheduled Monday through Wednesday beginning at 9:00 AM with water service restored to normal service no later than 3:00 PM.
- Contractor shall be prepared to perform water and/or reclaimed water system shutdowns after normal business hours, weekends, and holidays as deemed necessary to meet the special needs of the customer or reschedule as determined by the City of Tampa Water Department personnel.
- All right-of-way restoration shall meet or exceed City of Tampa standards.
- All private property restoration shall meet or exceed the existing conditions.
- Maintain safe construction site conditions at all times.
- Accurately document construction installation per each Department's Standards.

- Follow American Water Works Association (AWWA) and Florida Administrative Code (F.A.C.) standards for maintaining and installing water pipeline.
- Complete "Water Main Meter Sheets" to clearly document meter location, serial number, and service lateral characteristics.
- Generate and continuously maintain a project schedule, budget, invoicing, and understand payment status for any utilized sub-consultant or sub-contractor.

The Firm shall provide 2018 AutoCAD Civil 3D as-built drawings accurately depicting the as-built conditions of the proposed underground systems; in addition to any pertinent design data (survey, hydraulic analysis, etc.). Hard copies of the as-built drawings will also be required as determined during the design phase.

6. Project Schedule

The City desires to start and complete the project as soon as possible. To meet this goal, the Firm shall provide a draft scope of services and related cost for the Project Development services within two (2) weeks of receiving notification that the firm has been selected for the project. The firm will also develop project sequencing, scheduling, and methods that will expedite the completion of the construction. It is expected that construction within all four project areas will be performed simultaneously. Estimated time for completion of the entire project is 42-months. The firm shall maintain sufficient resources through all phases of the project needed to meet project schedules and deadlines.

7. PublicRelations

Contact with neighborhood associations, residents, schools, and retail/commercial businesses is necessary throughout the pre-design, design, and construction phases of the projects. Public involvement meetings during the project phases and prior to and during construction are necessary to minimize impacts and reduce uncertainty for the affected neighborhoods.

Inquiries and questions about design and construction will be handled by the Firm, after coordination of the responses with the City.

The Firm will be responsible for maintaining a proactive, robust and transparent community outreach to keep the neighborhoods continuously informed of project status, project information, and construction scheduling and impacts. Also, the Firm shall immediately react, respond, and address any concerns during construction. At a minimum the selected Firm shall:

- Provide a manned 24/7 phone number and e-mail, to address concerns regarding the project.
- Maintain a phone/e-mail response log.
- Employ social media and traditional communications
- Develop and maintain a website that depicts accurate and up-to-date project scheduling and project progression.
- Conduct public meetings and provide a mailer to inform residents and property owners of the available resources and project schedules.
- Designate an "Ombudsperson".
- Maintain wayfinding and message board signs.

Excerpts from City Standard Workmanship Specifications

SECTION 49 - GRAVITY SEWER REHABILITATION BY CURED-IN-PLACE PIPE (C.I.P.P.)

W-49.01 Scope of Work

This specification covers the materials and method of application for the rehabilitation of gravity sewers through the use of C.I.P.P.

The proposed location for gravity sewer rehabilitation by C.I.P.P. is as shown on the Plans.

The Contractor shall furnish all labor, materials, and special equipment required to accomplish the work in accordance with these specifications. The installation shall affect the complete interior relining of the existing sanitary sewer piping and shall result in a smooth, hard, strong, and chemically inert interior finish closely following the contours of the existing piping. The Contractor shall provide a completed system with trunk sewer and all lateral connections in operational condition.

The Contractor shall provide all necessary television monitoring and cutting equipment and perform all work required to cut out unnecessary liner material at the locations of all existing lateral pipes and reestablish service to all laterals entering the trunk sewer. All television inspection videos to be provided to the City shall be on DVD or USB and a Microsoft Access Database (MDB) file.

The actual sizes, lengths, and materials of the pipes to be relined shall be as indicated in the contract documents, subject to verification by the Contractor prior to commencing the lining installation.

The Contractor shall provide all water, piping, hoses, valves, or connections necessary to complete the lining process.

W-49.02 ASTM Standards

The proposed rehabilitation by CIPP shall be in accordance with these specifications and the applicable reference standards from the American Society for Testing and Materials, such as: ASTM F1216 (Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube), ASTM F1743 (Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)), ASTM D5813 (Cured-in-Place Thermosetting Resin Sewer Pipe), ASTM D790 (Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials), and D2990 (Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics) which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

W-49.03 Qualification of Pipelining Contractor

The prospective Contractor must be approved, in writing, by the Engineer prior to the award of

the contract. The Contractor shall provide any information or documentation which the Engineer may require as proof of the Contractor's competency to perform work of the type herein specified.

Minimum requirements for approval by the Engineer shall be as follows:

- (1) The Contractor shall have been engaged in the business of furnishing and installing the C.I.P.P., and shall have been performing work of similar type, magnitude, and difficulty for a period not less than 5 years and shall also have successfully installed at least 1,000,000 feet of a cured-in-place product in wastewater collection systems. Work performed in non-wastewater systems will not be accepted.
- (2) The Contractor shall submit a resume' and list of projects of similar complexity in wastewater collection systems only, which have been successfully completed by him in the past.
 - (3) The Contractor shall be capable of providing test data supporting the long-term strength, corrosion resistance, and 50-year design life of the liner. These tests shall be based on the following standards:
 - a) Material tested shall be identical to those proposed for installation and from samples of material in final resting place after the trauma of installation and/or reforming of the product. Testing shall be in accordance with applicable ASTM standards. Laboratory samples will not be acceptable.
 - b) Short-term tests can be extrapolated using actual short-term test data and applicable ASTM standards for plastic pipe.
 - c) All test data (whether theoretically extrapolated or actual) must be validated by an independent third party qualified in these testing procedures.
 - (4) The Contractor shall be responsible for providing one (1) restrained CIPP sample test at a frequency of 1 test per every 5,000 ft lined or 1 test per every work order issued, or as directed by the Engineer, at the Contractors own expense.

The test shall be based on the following standards:

- a) The physical properties and thickness shall be tested in accordance with applicable ASTM standards and the report shall be submitted for review by the Engineer. The restrained sample shall be a minimum of 8-inches in length and full diameter of the pipe size being lined.
- b) If any test sample results are unsatisfactory, the City reserves the right to increase the testing frequency at no additional cost.
- c) The sample test must be validated by an independent third party qualified in these testing procedures such as Specialty Testing Services, Birmingham, Alabama or equal. If the minimum thickness and physical properties are not met as set forth in the contract documents the contractor shall repair or replace the liner. The proposed repair method shall be submitted to the Engineer for approval.

W-49.04 Accuracy of the Plans

To the greatest practical extent, the Plans will depict the details of the work, including the locations and numbers of all manholes, distances between manholes, locations of junctions, pipe sizes, manhole depths, etc. However, the Contractor shall verify all dimensions, including lengths between manholes by field measurement. The Contractor shall also be aware that minor variations in pipe diameter and circumference will occur, and that it is not intended that such minor variations be indicated on the Plans.

W-49.05 Inspections

Prior to commencing the C.I.P.P. installation, the Contractor shall thoroughly clean all piping to be relined and shall inspect the piping utilizing closed circuit television. All television inspection shall utilize a radial view (pan and tilt) closed-circuit color television camera capable of viewing the entire circumference of the pipe. DVD(s) or USB(s) and a Microsoft Access Database (MDB) file of the piping to be lined shall be made available to the City for inspection before proceeding with the work. Only certified trained personnel of the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) shall perform the inspection.

The Contractor shall prevent sand or debris from becoming trapped between the existing pipe and its finished liner, or infiltration caused by damage done during the cleaning process. Grouting of laterals or cracks may be required to prevent infiltration and the sand or debris entrapment. If grouting is required, it shall be considered incidental to the lining procedure, and no additional payment shall be made therefor. The grouting of damaged pipelines is required within 48 hours of discovery.

The City reserves the right to inspect the manufacturing of materials. The Contractor shall give appropriate prior notice in order that the City inspector may be on hand to observe the various processes.

No work shall be performed by the Contractor except in the presence of the City of Tampa Inspector unless otherwise approved by the Engineer. The Contractor shall coordinate his work schedule and give timely prior notice regarding his intentions to perform any and/or all parts of the work, in order that the Department's inspector may be on hand. The Contractor shall provide a work schedule a minimum of 2 weeks in advance of starting work to allow for public notification letters to be distributed by the Department. Any work performed in the absence of the Department's inspector is subject to removal and replacement at the Contractor's expense.

Upon substantial completion of the work, the Contractor shall, in the presence of the Department's inspector, inspect the line using a radial view, closed circuit television. The DVD or USB drive thus produced shall be accompanied by a simultaneously produced, narrated sound. The sound narration shall draw attention to all recognizable defects, imperfections, etc., and the location along the length of the piping shall be accurately noted. In addition, the Contractor shall provide a condition assessment inspection report following the latest version of NASSCO PACP coding and scoring. Also, the locations and all pertinent details regarding the entrance of service laterals into the main trunk sewer shall be accurately noted on the DVD or USB and inspection report. One copy of the DVD or USB and a Microsoft Access Database (MDB) file and inspection report shall become the property of the City.

W-49.06 Materials

All materials used in the lining and in the insertion process shall be of the best respective kinds

Comprehensive Infrastructure for Tampa's Neighborhoods

Design Criteria Package

and shall be as approved in advance by the City. Any materials not approved by the City prior to insertion into the piping shall be rejected and shall be removed and replaced with approved materials at the Contractor's expense.

The finished C.I.P.P. shall generally consist of a polyester or epoxy resin impregnated, needle interlocked, terylene felt thoroughly bonded to the internal circumference of the existing pipe, and an internal polyurethane membrane integrally bonded to the internal circumference of the felt, thus forming a smooth, chemically inert internal flow surface.

<u>Felt Content</u>: The liner felt content shall be determined by the Contractor to ensure a cured thickness of liner as indicated on the Plans. The thickness of the cured liner is to be as specified and shall not include the thickness of the polyurethane inner liner.

<u>Resin Content</u>: The resin content of the liner shall be 10-15% by volume greater than the volume of felt in the liner bag.

<u>Liner Sizing</u>: The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the pipe to be lined. Allowance for longitudinal and circumferential stretching of the liner during insertion shall be made by the Contractor.

<u>Length</u>: The length of the liner shall be that deemed necessary by the Contractor to effectively carry out the insertion and seal the liner at the inlet and outlet of the manhole. Individual inversion runs may be made over one or more manhole to manhole sections as determined.

Because the actual strength and characteristics of the finished liner will vary considerably, depending on the types and mixing proportions of the resin and hardener used, the type of felt used, the type and amount of filler material used, and the degree of cure, it shall be the sole responsibility of the Contractor to control these variables and to provide a finished liner possessing the following minimum properties:

| Design Parameter | <u>Unit</u> | ASTM Test Method | Minimum Value |
|--------------------------------|-------------|---------------------|------------------|
| Tensile strength at yield-20°C | psi | D638 | 3,000 |
| Flexural Modulus | psi | D790 | 250,000 |
| Flexural strength | psi | D790 | 4,500 |

The Contractor shall provide a liner exhibiting the above minimum properties. Prior approval of shop drawings related to any or all materials or methods of installation shall not relieve the Contractor of this responsibility.

The Contractor shall provide a finished liner which exhibits excellent resistance to those chemicals, liquids, and gases normally found in raw sewage, in particular, hydrogen sulfide gas.

The resin to be used shall be an epoxy or polyester resin with characteristics compatible with the required mechanical and chemical properties previously specified. A sample of each batch shall be made available to the City for testing.

W-49.07 Execution

Manufacture

It will be necessary for the Contractor to obtain the City's prior approval for all materials or processes and the City shall have the power at any time to order the Contractor to modify or discontinue any practice. All such orders shall be given in writing.

The liner shall be vacuum impregnated with resin not more than 24 hours before the proposed time of installation and stored out of direct sunlight at a temperature of less than 4°C, unless otherwise approved by the Engineer. The Contractor shall designate a location where the CIPP will be vacuum impregnated prior to installation.

The Contractor shall provide all appropriate transport, handling, and protection equipment including refrigerated, or otherwise suitably cooled, transport equipment.

All fabricating and Contractor testing shall be carried out under cover and no materials shall be exposed to the weather until they are ready to be inserted. All materials should be protected from the weather and exposure to ultra-violet light as far as practicable during the manufacture and installation process.

Each liner shall be accompanied by suitable documentation such as a wet out report, indicating time and date of manufacture, felt thickness, number of layers, length of liner, resin types, resin content, catalyst, relevant batch numbers, etc and provided to the City of Tampa inspector for approval prior to installation.

W-49.08 Installation

Each liner may be manufactured at any time but shall be impregnated with resin not more than 24 hours prior to the intended installation time, unless otherwise approved by the Engineer. The City shall notify the Contractor upon approval of the line cleaning and inspection report, at which time the Contractor may proceed with operations on the site. The Contractor shall coordinate his schedule for impregnation and insertion of the liner bag with the City, and with due regard for site and weather conditions prevailing at the time.

On the event of insertion being delayed after impregnation by unexpected site conditions but prior to the start of the insertion process, the Contractor shall store the liner, at his own cost, for a further period below 4°C for use when conditions allow.

Prior to beginning insertion of the liner bag, the Contractor shall inspect the cleaned line by use of radial view, closed circuit television cameras, and shall confirm to his own, and the City's, satisfaction that the lines are adequately cleaned. No sewage shall flow through the cleaned line between final acceptance of the cleaned line and insertion of the liner bag. If, however, sewage does flow through the clean line prior to the insertion of the liner, then the Contractor shall, at minimum, reinspect the line by use of a radial view, closed circuit television camera in order to evaluate whether further cleaning is warranted. The decision whether or not to employ additional cleaning operations will be made by the Engineer. Insertion of the bag by the Contractor shall serve as evidence of his acceptance of the condition of the piping.

The liner shall be inverted into the pipeline from a suitable platform located above the manhole or other approved point of inversion. The free open end of the liner bag shall be firmly secured to the inversion platform and the folded liner passed down a suitably reinforced column to a shute or bend leading to the opening of the pipe to be lined. Clean water at ambient temperature shall be supplied to

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the inversion platform at a rate sufficient to cause controlled inversion of the liner into the pipeline.

Alternatively, the liner may also be pulled into position through a manhole or other entry point with the aid of a power winch that is equipped with a device to monitor the force and prevent excessive tension and liner elongation. Extreme care shall be taken during the installation to prevent damage to the liner. After the liner is in place, the calibration hose shall then be securely attached to the standpipe and clean water at ambient temperature shall be supplied to cause a controlled inversion inside the liner.

By either method, the installation forces exerted on the liner shall be limited so as not to stretch the liner longitudinally by more than 5 percent of the original length.

Rehabilitation by fold and form pipe into existing pipes will not be approved on this contract.

The Contractor shall supply a suitable heat source and water recirculation equipment capable of delivering hot water to the far end of the liner to quickly and uniformly raise the water temperature in the entire liner, once inverted in the pipeline, above the temperature required to commence the exothermic reaction of the resin as determined by the catalyst system employed.

The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply to determine when uniform temperature is achieved throughout the length of the liner. Liner installation and curing utilizing steam is considered an acceptable alternative for certain applications and therefore must be approved by the Engineer on a case by case basis.

The finished pipelining shall be continuous over the entire length of an insertion run between two manholes or structures and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, air bubbles, pinholes, dimples, and delamination. The lining shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to the inside of the lined pipe.

The polyurethane inflation bag, permanently bonded and attached to the felt bag, shall remain as an inner liner. This bag shall not be considered as contributing to any of the specified properties required of the liner.

Any defects which, in the judgement of the Engineer, will affect the integrity or strength of the lining, shall be repaired or the liner replaced at the Contractor's expense. Prior to proceeding with any repair work, the Contractor shall recommend the proposed plan to the Engineer for his approval.

End sections, where cut or terminated within manholes, shall be repaired with City-approved products, cut flush with the face of the manhole, and suitably sealed with "Hydro-Tite" waterstops, as manufactured by Gundle Lining Construction Company, Houston, TX, or equal.

All defective work shall be removed and replaced with new material to the full satisfaction of the City.

W49.09 Service Connection

The existing service connections shall be reconnected after the curing process has been completed. A radial view television camera-guided cutting device, in conjunction with the service locater log from pre-lining inspection, shall be used to identify and restore the service connections to not less than 90% capacity. A smoothing device shall be utilized to smooth all rough edges after reestablishment. A locater log shall be provided to the City which identifies the location of the lateral

connection and which connections were re-established. This work shall be done without excavation.

W 49.10 Back-up Equipment

It shall be the Contractors responsibility that all critical equipment necessary to complete the installation of the CIPP liner shall be in good working condition prior to starting construction. Critical equipment shall include service cutting device, brushing tools, CCTV camera, and cleaning equipment. The Contractor shall be required to have one working back-up CCTV camera and cutter and all appurtenances necessary onsite prior to starting construction.

W 49.11 Warranty

All C.I.P.P. will be warranted to be free from defects in materials and workmanship for a period of one year from the date of rehabilitation. Should a defect occur during this one year period that is attributable to the C.I.P.P. installation, then this defect shall be repaired at no additional cost to the City within 30 days.

MANHOLE AND STRUCTURE REHABILITATION

W-52.01 General

It is the intent of this specification to provide for the rehabilitation of the existing brick and concrete manholes, junction chambers and structures shown on the drawings, specified and directed by the Engineer. The rehabilitation shall consist of a spray applied 100% solids epoxy system, or urethane resin system, as specified herein. All aspects of the rehabilitation shall be done in strict accordance to the manufacturer's instructions.

It is the Contractor's responsibility to comply with OSHA standards and all regulations pertaining to work in confined space entry.

W-52.02 Submittals

Prior to the commencement of any rehabilitation work, the Contractor shall submit the following to the Engineer for approval:

- 1) A rehabilitation plan detailing the methods, materials and procedures proposed for the rehabilitation of all manholes and junction chambers.
- 2) Mortar and hydraulic cement mix designs detailing the compressive strengths, cement/water ratios, slump, etc.
- 3) Written certification by the protective coating manufacturer stating that the proposed repair material is compatible and acceptable as a substrate for the protective coating to be applied.
- 4) Detailed method of complete containment of debris
- 5) Description of all the equipment to be used for the rehabilitation.
- 6) Safety plan describing all safety equipment to be utilized in compliance with OSHA standards pertaining to work in confined space entry.

W-52.03 Surface Preparation

Surface preparation shall be in strict accordance with the approved coating manufacturer's instructions. All surfaces to be coated shall be cleaned with a high pressure water spray (minimum 5000 psi). The use of acid for cleaning purposes will not be allowed. All deteriorated concrete and loose or protruding brick and mortar shall be removed from the wall and benches in order to obtain a smooth and even substrate suitable for the proposed coating system. Surfaces shall be cleaned and abraded to produce a sound and uncontaminated surface with adequate profile and porosity to provide a strong bond between the proposed material and the substrate. All corroded materials shall be disposed of at an off-site location in accordance with all Federal, State, and local regulations. All infiltration shall be stopped with hydraulic cement or other approved means before installation of the coating system. Any voids in the manhole walls shall be sealed with hydraulic cement.

Repair materials shall be applied in strict accordance with the manufacturer's instructions and shall be finished as recommended by the protective coating manufacturer. At minimum, the

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repair material shall be troweled or brushed to provide a smooth surface with an average profile equivalent to coarse sandpaper to optimally receive the protective coating.

The Contractor shall install bulkheads or plugs in order to prevent extraneous material from entering the sewer lines.

W – 52.05 Epoxy Coating System

The sprayed applied epoxy coating system shall be as manufactured by Raven Lining Systems, Broken Arrow, Oklahoma, or equal. The product shall be a 100% solids, solvent-free ultra high-build epoxy. The finished epoxy shall be resistant to sulfuric acid attack associated with domestic sewage. The epoxy shall be manually sprayed onto the structures or manholes to provide a uniform smooth and even surface.

The minimum finished thickness shall be as specified on the plans. The coating system shall be capable of being applied over wet surfaces without degrading the final product.

The existing manhole and junction chambers shall be prepared for the application of the epoxy system by cleaning and stoppage of infiltration as specified above. Prior to applying the epoxy liner, the entire manhole surface and benches shall be patched and grouted to the extent needed to provide a smooth and even surface to which the liner will adhere.

The cured epoxy system shall conform to the minimum physical standards, as listed below:

| | | LONG-TERM |
|----------------------|------------|-------------|
| CURED EPOXY | STANDARD | DATA |
| TENSILE STRENGTH | ASTM D-638 | 7,500 psi |
| FLEXURAL MODULUS | ASTM D-790 | 600,000 psi |
| FLEXURAL STRESS | ASTM D-790 | 13,000 psi |
| COMPRESSIVE STRENGTH | ASTM D-695 | 18,000 psi |

The Contractor shall provide certified independent, third party test results verifying the minimum physical properties listed above. The tests shall be in conformance with the ASTM specifications listed.

The finished liner shall be cured in strict accordance with the manufacturer's instructions.

Composite systems containing layers of different materials or cured-in-place resin systems that are inflated in the manholes will not be considered as equal.

W- 52.06 Epoxy Paste (Fast Curing and Moisture Tolerant Coating)

The epoxy paste shall be a two-component moisture tolerant, high adhesive 100% solid strength epoxy paste. The epoxy paste shall be a Concrete Polymer Paste (CPP) as manufactured by EpoxyTec or approved equal. The coating shall be capable of curing underwater and shall be trowel applied up to 1.5-inches thick without sag.

Concrete surfaces shall be prepared for the application of the epoxy paste by cleaning and stoppage of infiltration as specified above. Prior to applying the epoxy paste, concrete surfaces shall be repaired to the extent needed to provide a smooth and even surface to which the liner will adhere.

The epoxy paste shall conform to the minimum physical standards, as listed below:

| | | LONG-TERM |
|------------------|------------|-------------|
| CURED RESIN | STANDARD | DATA |
| TENSILE STRENGTH | ASTM D-638 | 8,900 psi |
| FLEXURAL STRESS | ASTM D-790 | 8,020 psi |
| FLEXURAL MODULUS | ASTM D-790 | 720,000 psi |

The tensile bond to wet concrete shall be a minimum 525 psi. The Contractor shall provide certified independent, third party test results verifying the minimum physical properties listed above. The tests shall be in conformance with the ASTM specifications listed.

The finished liner shall be cured in strict accordance with the manufacturer's instructions.

W-52.07 Urethane Resin System

The sprayed applied urethane resin system shall be SprayWall as manufactured by Sprayroq, Inc, Birmingham, Alabama or equal. The finished urethane shall be resistant to sulfuric acid attack associated with domestic sewage. The urethane shall be manually sprayed onto the structures or manholes to provide a uniform smooth surface. The minimum finished thickness shall be as specified on the plans. The coating system shall be capable of being applied over wet surfaces without degrading the final product.

The existing manhole and junction chambers shall be prepared for the application of the urethane system by cleaning and stoppage of infiltration as specified above. Prior to applying the urethane liner, the entire manhole surface and benches shall be patched and grouted to the extent needed to provide a smooth and even surface to which the liner will adhere.

The cured urethane system shall conform to the minimum physical standards, as listed below:

| | | LONG-TERM |
|------------------|------------|-------------|
| CURED URETHANE | STANDARD | DATA |
| TENSILE STRENGTH | ASTM D-638 | 5,000 psi |
| FLEXURAL STRESS | ASTM D-790 | 10,000 psi |
| FLEXURAL MODULUS | ASTM D-790 | 550,000 psi |

The Contractor shall provide certified independent, third party test results verifying the minimum physical properties listed above. The tests shall be in conformance with the ASTM specifications listed.

The finished liner shall be cured in strict accordance with the manufacturer's instructions.

Composite systems containing layers of different materials or cured-in-place resin systems that are inflated in the manholes will not be considered as equal.

W-52.08 Contractor Qualifications

The manufacturer and installer of the rehabilitation system shall be specialized in the design and installation of the rehabilitation system for at least 5 years. The installer shall be approved and certified in writing by the manufacturer and shall be completely trained in leak repair, surface preparation, and installation of the rehabilitation system. References shall be provided upon request to demonstrate that the installer has successfully used the rehabilitation system in Florida on a minimum of 5 projects, one of which must be at least 5 years old.

W-52.09 Thickness Verification and Inspection

The Contractor shall provide a method of verifying the actual coating thickness installed to ensure it meets or exceeds the minimum values specified. The proposed liner thickness verification method shall be submitted to the Engineer for approval.

The Contractor may utilize a wet film thickness gage meeting ASTM D4414 to ensure monolithic coating and uniform thickness during application. A minimum of three readings per 200 square foot area shall be recorded. Documentation on thickness readings shall be conveyed to the Inspector on a daily basis when the coating application occurs.

All phases of the manhole rehabilitations such as surface preparation, bench reconstruction, liner installation, annulus sealing, grouting, curing, testing, etc., will be inspected by the Department's Field Engineering personnel for conformance to the specifications, construction drawings, and liner manufacturer's instructions. The Contractor shall, therefore, coordinate his schedule for the installation of the structural coating system with the field office, and with due regard for site and weather conditions prevailing at the time.

The final manholes shall be completely free of defects.

The Contractor shall inspect all rehabilitated manholes utilizing closed circuit television 24 hours after coating system is complete. The intent of the inspection is to find any deficiencies to the finished liner. Contractor shall repair deficiencies within 1 week of notification. All television inspection videos to be provided to the City shall be in DVD format. One copy of the DVD shall become the property of the City.

W-52.10 Rehabilitated Manhole Re-Inspection

The Contractor shall be required to assist in re-inspection of all manholes 10 months after rehabilitation has been completed. The re-inspection shall be completed with but not limited to Maintenance of traffic, surface cleaning, video with a CCTV pole camera, hand tools, as necessary for inspection as required by the Engineer to ensure no system failures have occurred as listed in the Workmanship and Materials Section W-52.11 Warranty. All surfaces to be re-inspected shall be cleaned with a high-pressure water spray (minimum 5000 psi) prior to video with the CCTV pole camera. The Contractor shall repair deficiencies within 1 week of notification. Re-Inspection shall be completed at no additional cost to the City.

W-52.11 Spark Testing

The coating system shall be spark tested prior to acceptance. The holiday testing shall be in strict accordance with NACE SPO188. After the coating has set hard to touch, it shall be inspected

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with high-voltage holiday detection equipment. An induced holiday shall be made onto the coated concrete surface and will serve to determine the minimum/maximum voltage to be used to test the coating for holidays at that particular area. The spark tester shall be initially set at 100 volts per 1 mil (25 microns) of minimum specified (not average) film thickness applied but may be increased if it is insufficient to detect the induced holiday. All detected holidays shall be marked and repaired per the manufacturer's recommendations. All costs associated with the testing shall be born by the Contractor. Testing equipment shall be in good working condition and evidence of certified calibration within the last year shall be provided before the detection test equipment shall be used.

W-52.12 Warranty

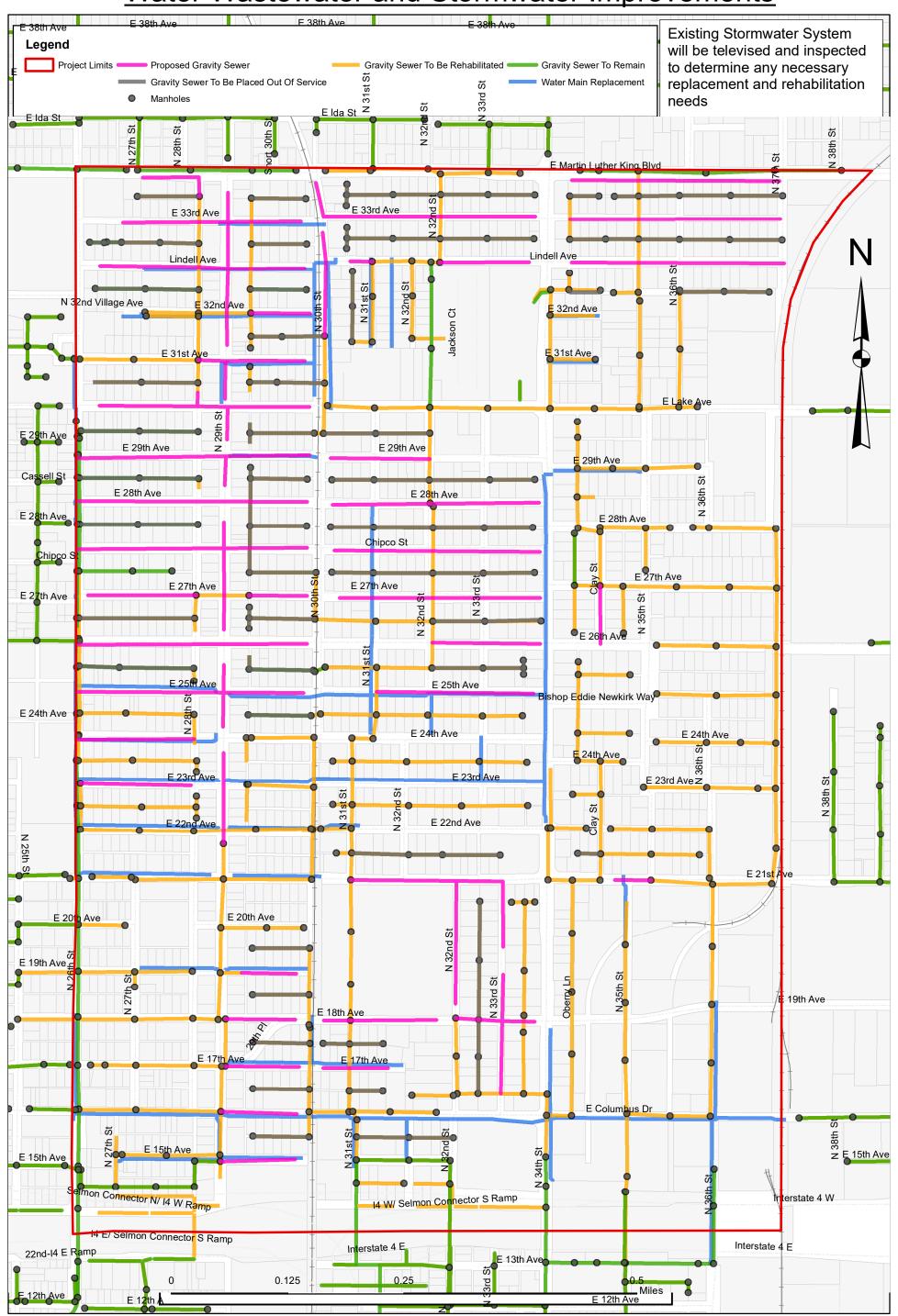
The Manhole Rehabilitation Contractor shall furnish the City of Tampa with an unconditional 5-year warranty for materials and workmanship. This warranty shall be a guarantee against failure for the warranty period. Failure shall be defined to occur if the rehabilitation system fails to:

- 1. Prevent the internal damage or corrosion of the structure.
- 2. Prevent groundwater infiltration.
- 3. Adhere to existing structure wall.

If any failures occur within the specified warranty period after final acceptance, the Contractor shall repair or restore the structure to its previously accepted state including all materials, labor, and at no additional cost to the City. Repair shall be completed within 30 days of written notification of the failure.

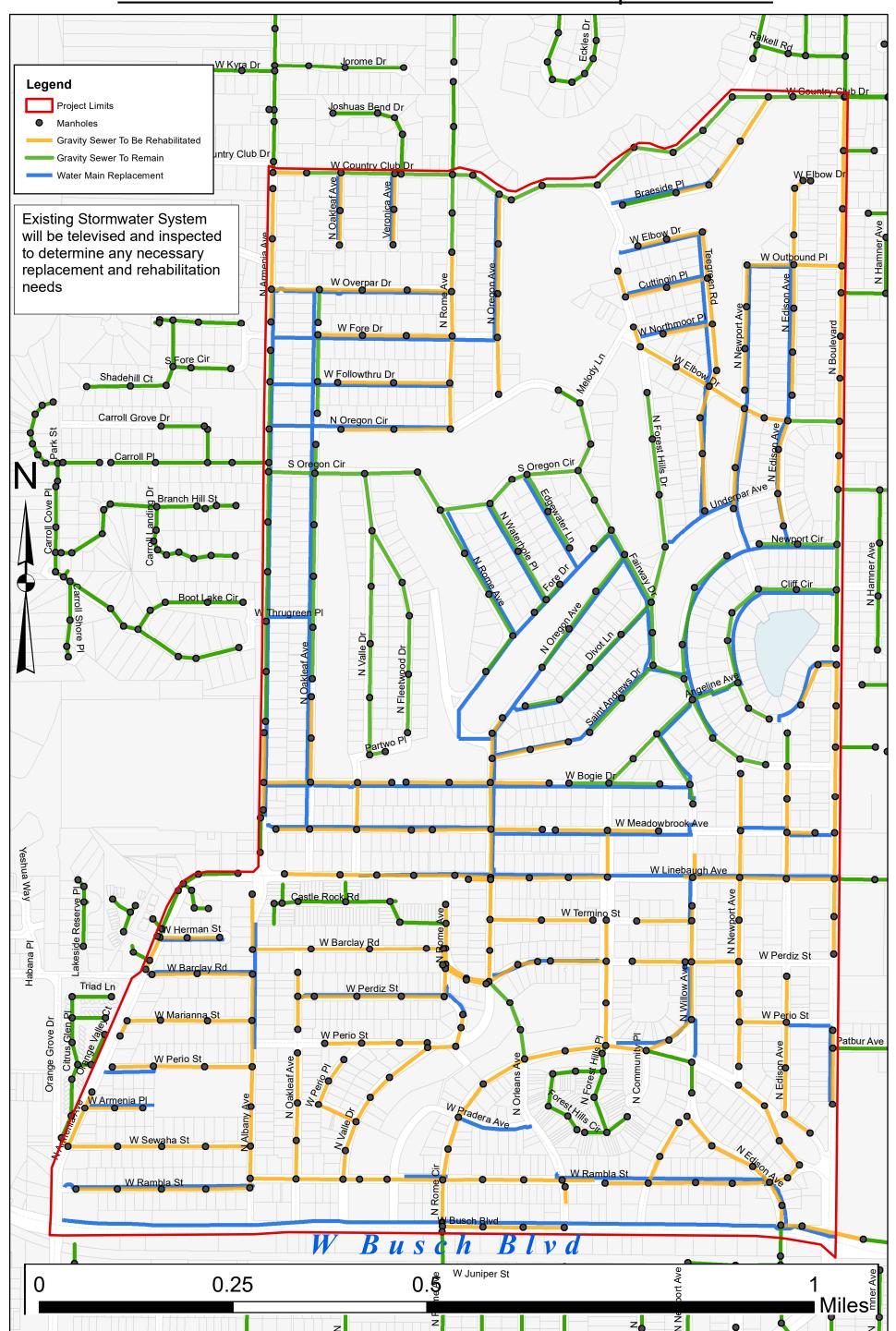
East Tampa

Water Wastewater and Stormwater Improvements



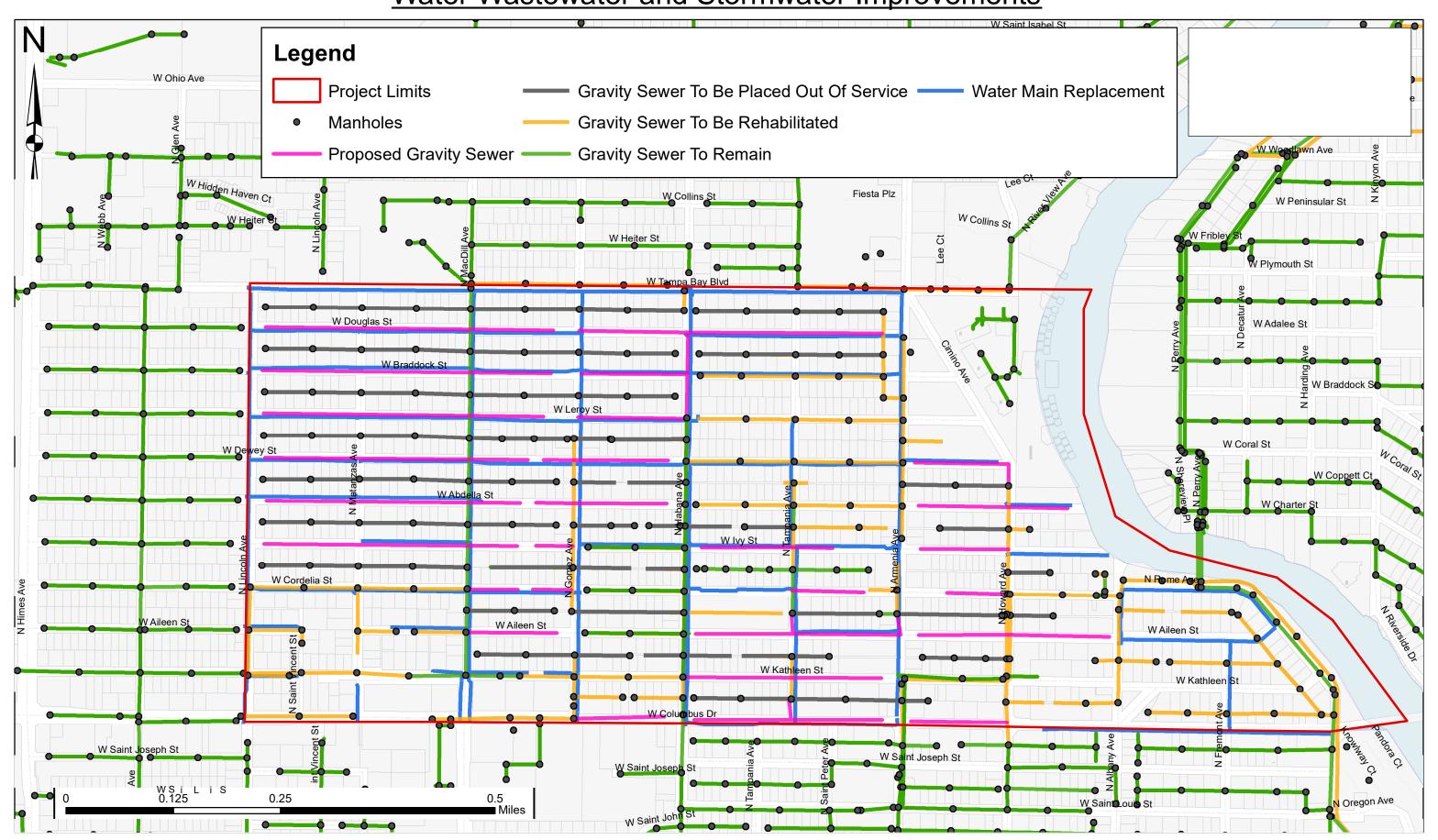
Forest Hills

Water Wastewater and Stormwater Improvements

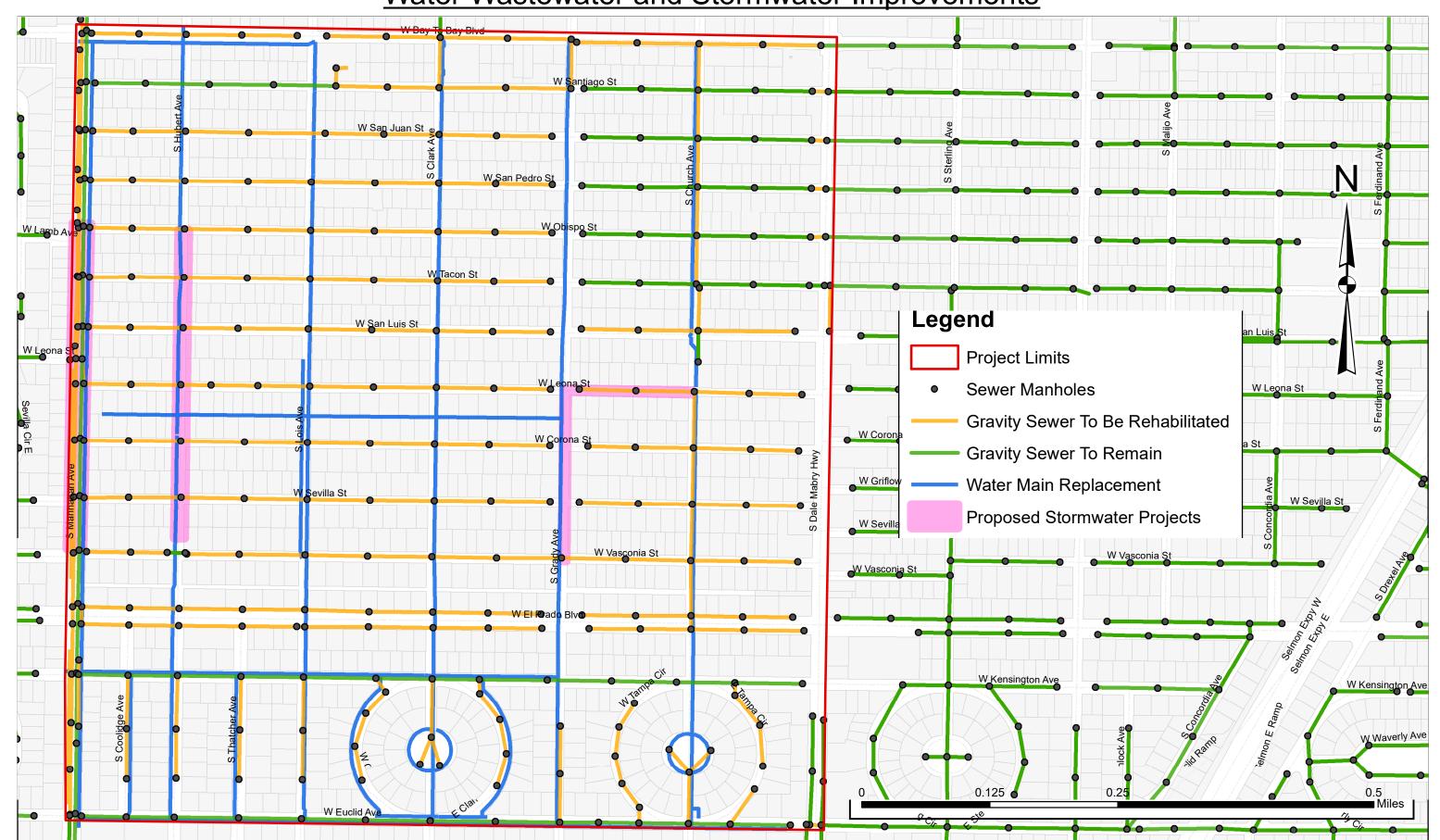


MacFarlane Park

Water Wastewater and Stormwater Improvements



Virginia Park
Water Wastewater and Stormwater Improvements



East Tampa

<u>Transportation Improvements</u>

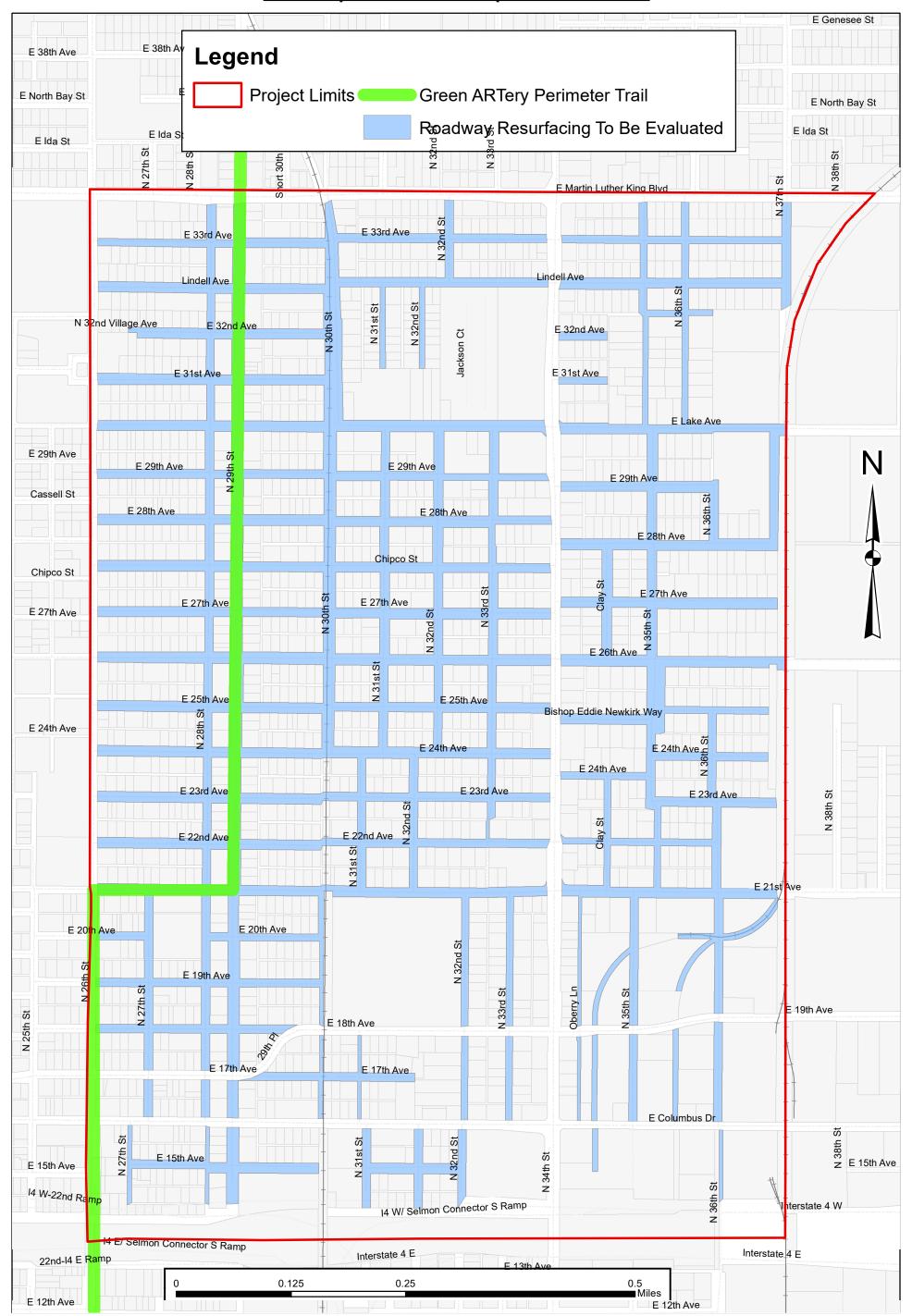


Exhibit E

Forest Hills

Transportation Improvements

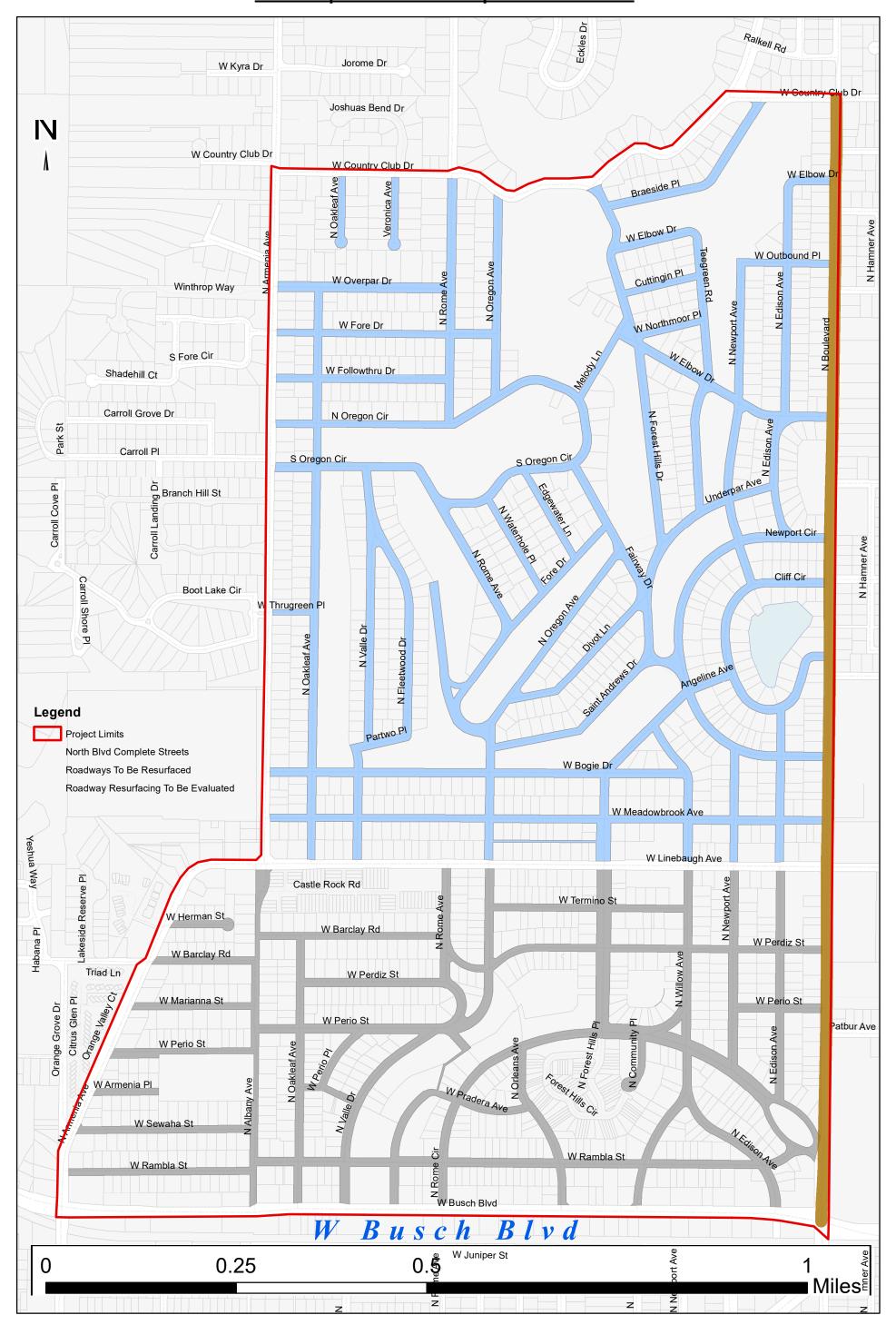


Exhibit F

MacFarlane Park

Transportation Improvements



Exhibit G

Virginia Park Transportation Improvements

