



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

REQUEST FOR PROPOSALS

Item Description: CITY OF PROVIDENCE - 2023 SEWER SYSTEM EVALUATION

Date to be opened: Tuesday, January 17, 2023

Issuing Department: Department of Public Works

QUESTIONS

- Please direct questions relative to the bidding process, how to fill out forms, and how to submit a bid (Pages 1-8) to the Purchasing Department.
 - Email: purchasing@providenceri.gov
 - Please use the subject line “**RFP Question**”
- Please direct questions relative to the Minority and Women’s Business Enterprise Program and the corresponding forms (Pages 9-13) to the MBE/WBE Outreach Director for the City of Providence:
 - Grace Diaz, MBE/WBE Outreach Director
 - Phone: (401) 680-5766
 - Email: gdiaz@providenceri.gov
 - Please use subject line “**MBE WBE Forms**”
- Please direct questions relative to the specifications outlined (beginning on page 14) to the issuing department’s subject matter expert:
 - Roger Biron, Assistant Chief Engineer
 - (401) 680-7531
 - Rbiron@providenceri.gov
 - Please use the subject line “**RFP Question - CITY OF PROVIDENCE, 2023 SEWER SYSTEM EVALUATION**”.

All questions or comments concerning this RFP must be submitted via email by Friday, January 6, 2023, at 12:00 PM. Bidders are responsible to monitor the website for addendum. An addendum acknowledgment page is included in the Bid Forms.

Pre-bid Conference

Please note, there is no pre-bid conference for this bid solicitation.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

INSTRUCTIONS FOR SUBMISSION

Bids may be submitted up to **2:15 P.M.** on the above meeting date at the **Department of the City Clerk, Room 311, City Hall, 25 Dorrance Street, Providence.** At 2:15 P.M. all bids will be publicly opened and read at the Board of Contract Meeting in the City Council Chambers, on the 3rd floor of City Hall.

- Bidders must submit **2 copies** of their bid in sealed envelopes or packages labeled with the captioned **Item Description** and the **City Department to which the RFP and bid are related and must include the company name and address on the envelope as well.** (On page 1).
- If required by the Department, please keep the original bid bond and check in only one of the envelopes.
- Communications to the Board of Contract and Supply that are not competitive sealed bids (i.e. product information/samples) should have “**NOT A BID**” written on the envelope or wrapper.
- Only use form versions and templates included in this RFP. If you have an old version of a form do not recycle it for use in this bid.
- The bid envelope and information relative to the bid must be addressed to:

**Board of Contract and Supply
Department of the City Clerk – City Hall, Room 311
25 Dorrance Street
Providence, RI 02903**

****PLEASE NOTE:** This bid may include details regarding information that you will need to provide (such as proof of licenses) to the issuing department before the formalization of an award.

This information is NOT requested to be provided in your initial bid by design.

All bids submitted to the City Clerk become public record. Failure to follow instructions could result in information considered private being posted to the city’s Open Meetings Portal and made available as a public record. The City has made a conscious effort to avoid the posting of sensitive information on the City’s Open Meetings Portal, by requesting that such sensitive information be submitted to the issuing department only at their request.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID PACKAGE CHECKLIST

Digital forms are available in the City of Providence Purchasing Department Office or online at <http://www.providenceri.gov/purchasing/how-to-submit-a-bid/>

The bid package **MUST** include the following, in this order:

- Bid Form 1: Bidder's Blank as the cover page/ 1st page (*see page 6 of this document*)
- Bid Form 2: Certification of Bidder as 2nd page (*see page 7 of this document*)
- Bid Form 3: Certificate Regarding Public Records (*see page 8 of this document*)
- Forms from the Minority and Women Business Enterprise Program: Based on Bidder Category. *See forms and instructions enclosed (pages 9-13) or on: <https://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>*

***Please note: MBE/WBE forms must be completed for EVERY bid submitted and must be inclusive of ALL required signatures. Forms without all required signatures will be considered incomplete.**

- Bidder's Proposal/Packet: Formal response to the specifications outlined in this RFP, including pricing information and details related to the good(s) or service(s) being provided. Please be mindful of formatting responses as requested to ensure clarity.
- Financial Assurance, *if requested* (as indicated on page 5 of this document under "Bid Terms")

All of the above listed documents are REQUIRED. (With the exception of financial assurances, which are only required if specified on page 5.)

******Failure to meet specified deadlines, follow specific submission instructions, or enclose all required documents with all applicable signatures will result in disqualification, or in an inability to appropriately evaluate bids.***



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

NOTICE TO VENDORS

1. The Board of Contract and Supply will make the award to the lowest qualified and responsible bidder.
2. In determining the lowest responsible bidder, cash discounts based on preferable payment terms will not be considered.
3. Where prices are the same, the Board of Contract and Supply reserves the right to award to one bidder, or to split the award.
4. No proposal will be accepted if the bid is made in collusion with any other bidder.
5. Bids may be submitted on an “equal in quality” basis. The City reserves the right to decide equality. Bidders must indicate brand or the make being offered and submit detailed specifications if other than brand requested.
6. A bidder who is an out-of-state corporation shall qualify or register to transact business in this State, in accordance with the Rhode Island Business Corporation Act, RIGL Sec. 7-1.2-1401, et seq.
7. The Board of Contract and Supply reserves the right to reject any and all bids.
8. Competing bids may be viewed in person at the Department of the City Clerk, City Hall, Providence, immediately upon the conclusion of the formal Board of Contract and Supply meeting during which the bids were unsealed/opened. Bids may also be accessed electronically on the internet via the City’s [Open Meetings Portal](#).
9. As the City of Providence is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.
10. In case of error in the extension of prices quoted, the unit price will govern.
11. The contractor will **NOT** be permitted to: a) assign or underlet the contract, or b) assign either legally or equitably any monies or any claim thereto without the previous written consent of the City Purchasing Director.
12. Delivery dates must be shown in the bid. If no delivery date is specified, it will be assumed that an immediate delivery from stock will be made.
13. A certificate of insurance will normally be required of a successful vendor.
14. For many contracts involving construction, alteration and/or repair work, State law provisions concerning payment of prevailing wage rates apply ([RIGL Sec. 37-13-1 et seq.](#))
15. No goods should be delivered, or work started without a Purchase Order.
16. **Submit 3 copies of the bid to the City Clerk, unless the specification section of this document indicates otherwise.**
17. Bidder must certify that it does not unlawfully discriminate on the basis of race, color, national origin, gender, gender identity or expression, sexual orientation and/or religion in its business and hiring practices and that all of its employees are lawfully employed under all applicable federal, state and local laws, rules and regulations. (See Bid Form 2.)



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID TERMS

1. Financial assurances may be required in order to be a successful bidder for Commodity or Construction and Service contracts. If either of the first two checkboxes below is checked, the specified assurance must accompany a bid, or the bid will not be considered by the Board of Contract and Supply. The third checkbox indicates the lowest responsible bidder will be contacted and required to post a bond to be awarded the contract.
 - a) A certified check for \$_____ must be deposited with the City Clerk as a guarantee that the Contract will be signed and delivered by the bidder.
 - b) A bid bond in the amount of _____ per centum (%) of the proposed total price, must be deposited with the City Clerk as a guarantee that the contract will be signed and delivered by the bidder; and the amount of such bid bond shall be retained for the use of the City as liquidated damages in case of default.
 - c) A performance and payment bond with a satisfactory surety company will be posted by the bidder in a sum equal to one hundred per centum (100%) of the awarded contract.
 - d) No financial assurance is necessary for this item.
2. Awards will be made within **sixty (60) days of bid opening**. All bid prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.
3. Failure to deliver within the time quoted or failure to meet specifications may result in default in accordance with the general specifications. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents and Acts of God.

The following entry applies only for COMMODITY BID TERMS:

4. Payment for partial delivery will not be allowed except when provided for in blanket or term contracts.

The following entries apply only for CONSTRUCTION AND SERVICE BID TERMS:

5. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.
6. Prior to commencing performance under the contract, the successful bidder shall attest to compliance with the provisions of the Rhode Island Worker's Compensation Act, RIGL 28-29-1, et seq. If exempt from compliance, the successful bidder shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.
7. Prior to commencing performance under the contract, the successful bidder shall, submit a certificate of insurance, in a form and in an amount satisfactory to the City.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 1: Bidders Blank

1. Bids must meet the attached specifications. Any exceptions or modifications must be noted and fully explained.
2. Bidder's responses must be in ink or typewritten, and all blanks on the bid form should be completed.
3. The price or prices proposed should be stated both in **WRITING** and in **FIGURES**, and any proposal not so stated may be rejected. **Contracts exceeding twelve months must specify annual costs for each year.**
4. Bids **SHOULD BE TOTALED** so that the final cost is clearly stated (unless submitting a unit price bid), however **each item should be priced individually**. Do not group items. Awards may be made on the basis of *total* bid or by *individual items*.
5. All bids **MUST BE SIGNED IN INK.**

Name of Bidder (Firm or Individual): _____

Contact Name: _____

Business Address: _____

Business Phone #: _____

Contact Email Address: _____

Agrees to bid on (Write the "Item Description" here): _____

If the bidder's company is based in a state *other than Rhode Island*, list name and contact information for a local agent for service of process that *is located within Rhode Island* _____

Delivery Date (if applicable): _____

Name of Surety Company (if applicable): _____

Total Amount in Writing: _____

Total Amount in Figures: _____

Use additional pages if necessary for additional bidding details.

Signature of Representation

Title



BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND

BID FORM 2: Certification of Bidder
(Non-Discrimination/Hiring)

Upon behalf of _____ (Firm or Individual Bidding),

I, _____ (Name of Person Making Certification),

being its _____ (Title or "Self"), hereby certify that:

1. Bidder does not unlawfully discriminate on the basis of race, color, national origin, gender, sexual orientation and/or religion in its business and hiring practices.
2. All of Bidder's employees have been hired in compliance with all applicable federal, state and local laws, rules and regulations.

I affirm by signing below that I am duly authorized on behalf of Bidder, on
this _____ day of _____ 20_____.

Signature of Representation

Printed Name



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID FORM 3: Certificate Regarding Public Records

Upon behalf of _____ (Firm or Individual Bidding),

I, _____ (Name of Person Making Certification),

being its _____ (Title or "Self"), hereby certify an

understanding that:

1. All bids submitted in response to Requests for Proposals (RFP's) and Requests for Qualification (RFQ's), documents contained within, and the details outlined on those documents become public record upon receipt by the City Clerk's office and opening at the corresponding Board of Contract and Supply (BOCS) meeting.
2. The Purchasing Department and the issuing department for this RFP/RFQ have made a conscious effort to request that sensitive/personal information be submitted directly to the issuing department and only at request if verification of specific details is critical the evaluation of a vendor's bid.
3. The requested supplemental information may be crucial to evaluating bids. Failure to provide such details may result in disqualification, or an inability to appropriately evaluate bids.
4. If sensitive information that has not been requested is enclosed or if a bidder opts to enclose the defined supplemental information prior to the issuing department's request in the bidding packet submitted to the City Clerk, the City of Providence has no obligation to redact those details and bears no liability associated with the information becoming public record.
5. The City of Providence observes a public and transparent bidding process. Information required in the bidding packet may not be submitted directly to the issuing department at the discretion of the bidder in order to protect other information, such as pricing terms, from becoming public. Bidders who make such an attempt will be disqualified.

I affirm by signing below that I am duly authorized on behalf of Bidder, on

this _____ day of _____ 20 _____.

Signature of Representation

Printed Name



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

WBE/MBE Form Instructions

The City of Providence actively seeks Minority and Women business enterprises to participate in bids to meet the City's procurement needs. Pursuant to the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52 (Minority and Women's Business Enterprise) and Rhode Island General Laws (as amended), Chapter 31-14, et seq. (Minority Business Enterprise), Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is **10%** of the total bid value.

The goal for Women's Business Enterprise (WBE) participation is **10%** of the total bid value.

The goal for combined MBE/WBE participation is **20%** of the total bid value.

Only businesses certified with the State of Rhode Island as minority and/or women business enterprises are counted towards the City's goals. Eligible minority or women-owned businesses are encouraged to seek certification from the State of Rhode Island Minority Business Enterprise Compliance Office at: <http://odeo.ri.gov/offices/mbeco/>

Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Bid Requirements:

All Bidders: All bidders **must complete and submit the *MBE/WBE Participation Affidavit*** indicating whether or not they are a state-certified MBE/WBE and acknowledging the City's participation goals. Submission of this form is **required with every bid**. **Your bid will not be accepted without an affidavit.**

Bidders who will be subcontracting: **In addition to the *MBE/WBE Participation Affidavit***, Bidders who will be subcontracting must submit the ***Subcontractor Disclosure Form*** as part of their bid submission. All subcontractors, regardless of MBE/WBE status, must be listed on this form. Business NAICS codes can be found at <https://www.naics.com/search/>. Awarded bidders are required to submit

Subcontractor Utilization and Payment Reports with each invoice.

Waiver Requests:

- a) If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F on the Subcontractor Disclosure Form) and the prime contractor is not a Rhode Island State-certified MBE or WBE, the Bidder must complete the *MBE/WBE Waiver Request Form* for review.
- b) If the prime contractor company has the capacity to perform the whole project, the City of Providence requires the contractor to meet the city's goal of a combined 20% of MBE and WBE participation.
- c) If the contractor is a nonprofit organization, the City of Providence requires the nonprofit organization to provide the *MBE/WBE Participation Affidavit Form* and proof of its nonprofit status.
- d) If the contractor has researched the RI Certified minority list (<http://odeo.ri.gov/offices/mbeco/mbe-wbe.php>) and the state does not have any companies in the desired trade, the City of Providence requires the contractor to provide the *MBE/WBE Participation Affidavit Form*.
- e) Waivers will be considered for approval on a case-by-case basis.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

Verifying MBE/WBE Certification

It is the responsibility of the bidder to confirm that every MBE or WBE named in a proposal and included on a contract is certified by the Rhode Island Minority Business Enterprise Compliance Office. The current MBE/WBE directory is available at the State of RI MBE Office, One Capitol Hill, 2nd Floor, Providence, RI, or online at <http://odeo.ri.gov/offices/mbeco/mbe-wbe.php>. You can also call (401) 574-8670 to verify certification, expiration dates, and services that the MBE/WBE is certified to provide. Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Form Instructions:

Access all bid forms from <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>. Download the forms as blank PDFs. Once saved on your computer, fill them out using the Adobe program. The fillable PDFs must be completed in Adobe in order to be saved properly. Google Chrome and similar platforms do not allow for the forms to be saved as filled PDFs. Therefore, please download the blank forms to your computer, then fill them out and save.

Assistance with Form Requirements

Examples of completed forms can be found on the City of Providence website at <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>.

Contract Requirements:

Prime contractors engaging subcontractors must submit the *Subcontractor Utilization and Payment Report* to the City Department's Fiscal Agent with every invoice and request for final payment. A copy of all forms should be sent to the MBE/WBE Outreach Director Office, Grace Diaz at gdiaz@providenceri.gov. This form is not submitted as a part of the initial bid package. For contracts with durations of less than 3 months, this form must be submitted along with the contractor's request for final payment. The form must include all subcontractors utilized on the contract, both MBE/WBE and non- MBE/WBE, the total amount paid to each subcontractor for the given period and to date, A copy of all forms should be sent to the MBE/WBE Outreach Director Office, Grace Diaz at gdiaz@providenceri.gov. During the term of the contract, any unjustified failure to comply with the MBE/WBE participation requirements is a material breach of contract.

Questions?

For more information or for assistance with MBE/WBE Forms, contact the City of Providence MBE/WBE Outreach Director, Grace Diaz, at gdiaz@providenceri.gov or (401) 680-5766.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

MBE/WBE PARTICIPATION AFFIDAVIT

Project /Item Description (as seen on RFP):

Prime Bidder: _____ Contact Email and Phone _____

Company Name, Address and Trade: _____

Which one of the following describes your business' status in terms of Minority and/or Woman-Owned Business Enterprise certification with the State of Rhode Island? _____ MBE _____ WBE _____ Neither MBE nor WBE

By initialing the following sections and signing the bottom of this document in my capacity as the contractor or an authorized representative of contractor, I make this Affidavit:

It is the policy of the City of Providence that minority business enterprises (MBEs) and women business enterprises (WBEs) should have the maximum opportunity to participate in procurements and projects as prime contractors and vendors. Pursuant to Sec. 21-52 of the Providence Code of Ordinances and Chapter 31-14 *et seq.* of the Rhode Island General Laws (as amended), MBE and WBE participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is 10% of the total bid value.
The goal for Women's Business Enterprise (WBE) participation is 10% of the total bid value.
The goal for combined MBE/WBE participation is 20% of the total bid value.

I acknowledge the City of Providence's goals of supporting MBE/WBE certified businesses. Initial _____

If awarded the contract, I understand that my company must submit to the Minority and Women's Business Coordinator at the City of Providence (MBE/WBE Office), copies of all executed agreements with the subcontractor(s) being utilized to achieve the participation goals and other requirements of the RI General Laws. **I understand that these documents must be submitted prior to the issuance of a notice to proceed.** Initial _____

I understand that, if awarded the contract, my firm must submit to the MBE/WBE Office canceled checks and reports required by the MBE/WBE Office on a quarterly basis verifying payments to the subcontractors(s) utilized on the contract. Initial _____

If I am awarded this contract and find that I am unable to utilize the subcontractor(s) identified in my Statement of Intent, I understand that I must substitute another certified MBE and WBE firm(s) to meet the participation goals. **I understand that I may not make a substitution until I have obtained the written approval of the MBE/WBE Office.**
Initial _____

If awarded this contract, I understand that authorized representatives of the City of Providence may examine the books, records and files of my firm from time to time, to the extent that such material is relevant to a determination of whether my firm is complying with the City's MBE/WBE participation requirements.
Initial _____

I do solemnly declare and affirm under the penalty of perjury that the contents of the foregoing Affidavit are true and correct to the best of my knowledge, information, and belief.

Signature of Bidder

Printed Name

Company Name

Date



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

SUBCONTRACTOR DISCLOSURE FORM

Fill out this form only if you WILL SUBCONTRACT with other parties. If you will not subcontract any portion of the proposed bid, do not fill out this form.

Prime Bidder: _____ Primary NAICS _____

Code: _____

Item Description (as seen on RFP): _____

Please list all Subcontractors below. Include the total dollar value that you propose to share with each subcontractor and the dollar amount to be subcontracted. Please check off MBE and WBE where applicable. The directory of all state-certified MBE/WBE firms is located at www.mbe.ri.gov. Business NAICS codes can be found at

<https://www.naics.com/search/>

Proposed Subcontractor	MBE	WBE	Primary NAICS Code	Date of Mobilization	\$ Value of Subcontract
					\$
					\$
					\$
					\$
					\$
					\$
A. MBE SUBCONTRACTED AMOUNT:					\$
B. WBE SUBCONTRACTED AMOUNT:					\$
C. NON-MBE WBE SUBCONTRACTED AMOUNT:					\$
D. DOLLAR AMOUNT OF WORK DONE BY THE PRIME CONTRACTOR:					\$
E. TOTAL AMOUNT OF BID (SUM OF A, B, C, & D):					\$
F. PERCENTAGE OF BID SUBCONTRACTED TO MBEs AND WBEs. (Divide the sum of A and B by E and multiply result by 100).					%

Please read and initial the following statement acknowledging you understand. If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box (F)) and the prime contractor is NOT a Rhode Island State-certified MBE or WBE, you must fill out the MBE/WBE WAIVER REQUEST FORM for consideration by City of Providence MBE/WBE Outreach Director. Initial _____ Required

Signature of Bidder

Printed Name



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

MBE/WBE Waiver Request Form

**Fill out this form only if you did not meet the 20% MBE/WBE participation goal.
State-certified MBE or WBE Prime Bidders are NOT REQUIRED to fill out this form.**

Submit this form to the City of Providence MBE/WBE Outreach Director, Grace Diaz, at mbe-wbe@providenceri.gov, for review **prior to bid submission**. This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit in the future. **In case a waiver is need it City Department Directors should not recommend a bidder for award if this form is not included, absent or is not signed by the city of Providence MBE/WBE director.**

Prime Bidder: _____ Contact Email and Phone _____
 Company Name, Address: _____ Trade _____
 Project /Item Description (as seen on RFP): _____

To receive a waiver, you must list the certified MBE and/or WBE companies you contacted, the name of the primary individual with whom you interacted, and the reason the MBE/WBE company could not participate on this project.

MBE/WBE Company Name	Individual's Name	Company Name	Why did you choose not to work with this company?

I acknowledge the City of Providence's goal of a combined MBE/WBE participation is 20% of the total bid value. I am requesting a waiver of _____ % MBE/WBE (20% minus the value of **Box F** on the Subcontractor Disclosure Form). If an opportunity is identified to subcontract any task associated with the fulfillment of this contract, a good faith effort will be made to select MBE/WBE certified businesses as partners.

 Signature of Prime Contractor /
 or Duly Authorized Representative

 Printed Name

 Date Signed

 Signature of City of Providence (or Designee (Only)
 MBE/WBE Outreach Director

 Printed Name of City of Providence
 MBE/WBE Outreach Director

 Date Signed



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

BID PACKAGE SPECIFICATIONS

See attached bid documents and specifications, beginning on Page 18.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

SUPPLEMENTAL INFORMATION

If the issuing department for this RFP determines that your firm's bid is best suited to accommodate their need, you will be asked to provide proof of the following prior to formalizing an award.

An inability to provide the outlined items at the request of the department may lead to the disqualification of your bid.

*This information is **NOT** requested to be provided in your initial bid that you will submit to the City Clerk's office by the "date to be opened" noted on page 1. This list only serves as a list of items that your firm should be ready to provide on request.*

All bids submitted to the City Clerk become public record. Failure to follow instructions could result in information considered private being posted to the city's Open Meetings Portal and made available as a public record.

You must be able to provide:

- Business Tax ID will be requested after an award is approved by the Board of Contract and Supply.



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

CITY OF PROVIDENCE STANDARD TERMS & CONDITIONS

1. The terms “you” and “your” contained herein refer to the person or entity that is a party to the agreement with the City of Providence (“the City”) and to such person’s or entity’s employees, officers, and agents.
2. The Request For Proposals (“RFP”) and these Standard Terms and Conditions together constitute the entire agreement of the parties (“the Agreement”) with regard to any and all matters. By your submission of a bid proposal or response to the City’s RFP, you accept these Standard Terms & Conditions and agree that they supersede any conflicting provisions provided by bid or in any terms and conditions contained or linked within a bid and/or response. Changes in the terms and conditions of the Agreement, or the scope of work thereunder, may only be made by a writing signed by the parties.
3. You are an independent contractor and in no way does this Agreement render you an employee or agent of the City or entitle you to fringe benefits, workers’ compensation, pension obligations, retirement or any other employment benefits. The City shall not deduct federal or state income taxes, social security or Medicare withholdings, or any other taxes required to be deducted by an employer, and this is your responsibility to yourself and your employees and agents.
4. You shall not assign your rights and obligations under this Agreement without the prior written consent of the City. Any assignment without prior written consent of the City shall be voidable at the election of the City. The City retains the right to refuse any and all assignments in the City’s sole and absolute discretion.
5. Invoices submitted to the City shall be payable sixty (60) days from the time of receipt by the City. Invoices shall include support documentation necessary to evidence completion of the work being invoiced. The City may request any other reasonable documentation in support of an invoice. The time for payment shall not commence, and invoices shall not be processed for payment, until you provide reasonably sufficient support documentation. In no circumstances shall the City be obligated to pay or shall you be entitled to receive interest on any overdue invoice or payment. In no circumstances shall the City be obligated to pay any costs associated with your collection of an outstanding invoice.
6. For contracts involving construction, alteration, and/or repair work, the provisions of applicable state labor law concerning payment of prevailing wage rates (R.I. Gen. Laws §§ 37-13-1 et seq., as amended) and the City’s First Source Ordinance (Providence Code of Ordinances §§ 21-91 et seq., as amended) apply.
7. With regard to any issues, claims, or controversies that may arise under this Agreement, the City shall not be required to submit to dispute resolution or mandatory/binding arbitration. Nothing prevents the parties from mutually agreeing to settle any disputes using mediation or non-binding arbitration.
8. To the fullest extent permitted by law, you shall indemnify, defend, and hold harmless the City, its employees, officers, agents, and assigns from and against any and all claims, damages, losses, allegations, demands, actions, causes of action, suits, obligations, fines, penalties, judgments, liabilities, costs and expenses, including but not limited to attorneys’ fees, of any nature whatsoever arising out of, in connection with, or resulting from the performance of the work provided in the Agreement.
9. You shall maintain throughout the term of this Agreement the insurance coverage that is required by the RFP or, if none is required in the RFP, insurance coverage that is considered in your industry to be commercially reasonable, and you agree to name the City as an additional insured on your general liability policy and on any umbrella policy you carry.
10. The City shall not subject itself to any contractual limitations on liability. The City shall have the time permitted within the applicable statute of limitations, and no less, to bring or assert any and all causes of action, suits, claims or demands the City may have arising out of, in connection with, or resulting from the performance of the work provided in the Agreement, and in no event does the City agree to limit your liability to the price of the Agreement or any other monetary limit.
11. The City may terminate this Agreement upon five (5) days’ written notice to you if you fail to observe any of the terms and conditions of this Agreement, or if the City believes your ability to perform the



**BOARD OF CONTRACT AND SUPPLY
CITY OF PROVIDENCE, RHODE ISLAND**

- terms and conditions of this Agreement has been materially impaired in any way, including but in no way limited to loss of insurance coverage, lapsing of a surety bond, if required, declaration of bankruptcy, or appointment of a receiver. In the event of termination by the City, you shall be entitled to just and equitable compensation for any satisfactory work completed and expenses incurred up to the date of termination.
12. Written notice hereunder shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the entity for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known by the party providing notice.
 13. In no event shall the Agreement automatically renew or be extended without a writing signed by the parties.
 14. You agree that products produced or resulting from the performance of the Agreement are the sole property of the City and may not be used by you without the express written permission of the City.
 15. For any Agreement involving the sharing or exchange of data involving potentially confidential and/or personal information, you shall comply with any and all state and/or federal laws or regulations applicable to confidential and/or personal information you receive from the City, including but not limited to the Rhode Island Identity Theft Protection Act, R.I. Gen. Laws § 11-49.3-1, during the term of the Agreement. You shall implement and maintain appropriate physical, technical, and administrative security measures for the protection of, and to prevent access to, use, or disclosure of, confidential and/or personal information. In the event of a breach of such information, you shall notify the City of such breach immediately, but in no event later than twenty-four (24) hours after discovery of such breach.
 16. The Agreement is governed by the laws of the State of Rhode Island. You expressly submit yourself to and agree that any and all actions arising out of, in connection with, or resulting from the performance of the Agreement or relationship between the parties shall occur solely in the venue and jurisdiction of the State of Rhode Island or the federal court located in Rhode Island.
 17. The failure of the City to require performance of any provision shall not affect the City's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default or a waiver of the provision itself.
 18. If any term or provision of this Agreement, or the application thereof to any person or circumstance shall, in any extent, be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and each term and provision shall be valid and enforceable to the fullest extent permitted by law.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

**REQUEST FOR PROPOSALS
2023 Sewer System Evaluation**

I. PURPOSE

The City of Providence, Department of Public Works (DPW, City, OWNER) is soliciting proposals from vendors (CONTRACTOR) with expertise in sewer system cleaning and evaluations.

This Project involves sewer cleaning and closed-circuit television (CCTV) inspection to identify sewer system maintenance and structural defects, integration of findings with the City's sewer GIS, and development of sewer system rehabilitation recommendations. The following describes the tasks associated with the scope of services:

Task 1: Sewer System Evaluation (SSE)

A closed-circuit television (CCTV) inspection/cleaning company shall clean and CCTV inspect approximately 114,000 linear feet (LF) of pipes as specified in the Base Bid in the project areas of the City of Providence. See Table 1 on the following page for a breakdown of pipes to be inspected by diameter and Attachment C for maps of the inspection locations. The pipes selected for inspection include sanitary, combined, and stormwater pipes.

Respondents shall be aware, that depending on pricing and available funds, Additive Alternates may be included in the contract. Tables 2 through 4 summarize the lengths and diameters of each of the three (3) Add-Alternates, and project limits are included in Attachment C. Respondents shall provide costs for Base Bid and all Add Alternates separately in the proposal.

Depending on the bids received, Additive Alternate, No. 1 (Trinity Square) may be included in the base bid scope of work to be completed by Friday, June 15, 2023. The City may elect to award the base bid only, or the base bid and any combination of additive alternates.

NASSCO's Pipeline Assessment Certification Program (PACP) standards for pipeline assessment must be followed as part of these investigations and all inspection data will be delivered in a PACP compliant format. CONTRACTOR shall submit a sample PACP Exchange database to the City's Consultant, CDM Smith, prior to starting CCTV inspections to ensure the data and format being collected is PACP compliant. CDM Smith hosts and maintains the city's sewer GIS database. CDM Smith will check the sample database to verify it is formatted correctly and can be imported into the OWNER's CCTV database and can be integrated with the OWNER's GIS without issues. It is the responsibility of the CONTRACTOR to ensure the data delivery is acceptable prior to beginning inspection work.

The CONTRACTOR shall provide a competent Superintendent and/or Project Manager, dedicated to the project and satisfactory to the Owner, on the work at all times during working hours with full authority to act on behalf of the CONTRACTOR. The CONTRACTOR shall also provide an adequate staff for the proper coordination and expediting of their work.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

The CONTRACTOR shall lay out their own work and shall be responsible for all work executed under the Contract. **The CONTRACTOR shall field verify conditions and accessibility prior to scheduling the cleaning and CCTV work. Failure to verify field conditions and accessibility that results in lost working time will NOT compensated by the City.**

Table 1. Base Bid CCTV Inspection Lengths by Diameter

Diameter	Length (ft)
6"	150
8"	18,000
12"	49,000
15"	9,000
16"	1,600
18"	4,200
20"	6,500
22"	900
24"	8,400
26"	500
30"	850
33"	2,800
36"	1,600
38"	1,800
39" X 26"	250
40"	1,800
42"	1,600
46"	1,600
48"	1,500
50"	1,350
54"	100
Total	113,550



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

Table 2: Additive Alternate No. 1 CCTV Inspection Lengths by Diameter

Diameter	Length (ft)
8''	1,000
12''	30,000
15''	3,300
16''	100
18''	1,800
20''	3,250
22''	1,850
24''	1,850
26''	275
30'' x 20''	500
33''	1,100
38''	700
40''	400
Area Total	46,125

Table 3: Additive Alternate No. 2 CCTV Inspection Lengths by Diameter

Diameter	Length (ft)
8''	1,800
10''	150
12''	13,000
15''	200
28''	400
32''	950
42'' X 28''	250
Area Total	16,750



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

Table 4: Additive Alternate No. 3 CCTV Inspection Lengths by Diameter

Diameter	Length (ft)
6''	175
8''	150
12''	23,000
15''	1,850
16''	400
18''	1,450
20''	2,100
22''	950
24''	500
27''	100
36''	2,450
40''	1,400
48''	400
Area Total	34,925

Preparatory cleaning will be performed in all pipeline segments prior to CCTV inspection to show all visible defects. Heavy cleaning may also be required as defined in the Price and Payment section. In areas where tree roots obstruct viewing of pipe conditions, root cutting shall be performed. CCTV inspection logs and videos of the inspected pipes will be delivered as part of the project via digital media (external hard drive or USB thumb drive), and GIS integration with DPW's GIS database. All inspections will follow the DPW's manhole and pipeline asset identification system as noted in DPW's GIS database. All work shall be completed in accordance with the specifications in Attachment D.

Should a siphon be encountered crossing Willow Lake in Roger Williams Park (MH 3444 to MH 1864) during inspection, the CONTRACTOR must contact DPW to confirm the next steps before cleaning the siphon. Record drawings for the suspected siphon under Willow Lake are not available. There are separate bid items for siphon cleaning and inspection.

Task 1A: Emergency On-call SSE Requests:

CONTRACTOR must be responsive to City's request to clean and CCTV inspect sections not included in the current scope on an emergency basis while mobilized onsite during the execution of the scope included herein.

Task 1B: Manhole Access:

CONTRACTOR shall compile a list of buried manholes required to be located, uncovered, and/or raised to grade to facilitate CCTV Inspection. The City will determine, on a case-by-case basis, whether the work will be completed by their own forces or authorize the CONTRACTOR to complete it. See Attachment D and



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

Attachment E for technical specifications, price and payment, and City of Providence Standard Details related to buried manholes and frame and cover installation. The CONTRACTOR should assume that manholes may be in either paved roadways or off-road easements. The City maintains the right of access to the sewer and drainage infrastructure located within the easements. The CONTRACTOR shall coordinate with property owners (including RIDOT for highway crossings and state-maintained roads) will be required for reaches within the scope of work that traverse outside the public right of way.

Truck access will be allowed within the easement areas. The bidder is reminded that damage to landscaped areas (including but not limited to tire tracks and rutting), pavements, utilities, or private properties shall be promptly repaired (in kind) to the satisfaction of the owner, at the Engineer's expense.

There may be situations where manhole access may be limited or impracticable. On a case-by-case basis, the OWNER will make the determination whether to allow for CCTV through intermediate structures, rather than from manhole to manhole. Buried manholes that were not exposed during cleaning and CCTV operations shall be documented on the Sewer GIS database to be addressed in the future.

Approximate surface conditions via aerial photography, record drawings, and a general schematic of the sewer and stormwater system may be accessed at the following web site under the Sewer and Stormwater GIS and Plan Viewer: <https://providence-gis-hub-pvdgis.hub.arcgis.com>. The City does not warrant the accuracy or completeness of the information presented; it is provided for informational purposes only.

Task 2: Data Analysis and SSES Report

CONTRACTOR will use the information generated by the sewer system investigations and analysis described above to identify maintenance and structural defects and recommend cost-effective sewer system rehabilitation actions; including, cured-in-place pipe (CIPP) lining, spot replacement of sewer pipe and service laterals and any other technology which may be pertinent. See Price & Payment for further information on the Periodic Summary Technical Memoranda and the Final SSE Reports.

Task 3: GIS Integration

This task will be performed by CDM Smith and paid under a \$15,000 allowance that the CONTRACTOR must carry in the contract. The task to be performed by CDM Smith is described below to allow the CONTRACTOR to understand the scope and interconnectivity between data collected and GIS Integration task. The City's contact person for GIS Integration at CDM Smith is Jayson Brennen (BrennenJD@cdmsmith.com).

Under this task, CDM Smith will complete integration of the NASSCO PACP standard digital condition information, videos, logs, and recommendations from Task 2 above with the OWNER's GIS database. NASSCO PACP standard defect locations and pipeline inspection scoring results will be linked directly to the OWNER's GIS using the unique asset identifiers in the GIS that were entered by the CONTRACTOR during the inspections.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

II. SUBMISSION REQUIREMENTS AND INSTRUCTIONS

RFP Questions

Contact Roger Biron, Assistant Chief Engineer at (401) 680-7531 or rbiron@providenceri.gov with any questions or comments by 12:00 PM on January 6, 2023. Questions received after this time may not be considered.

Bid Submission

Bids may be submitted up to **2:15 P.M. on Tuesday, January 17, 2023** at the **Department of the City Clerk, Room 311, City Hall, 25 Dorrance Street, Providence.** At 2:15 P.M. all bids will be publicly opened and read at the Board of Contract Meeting in the City Council Chambers, on the 3rd floor of City Hall.

To be considered responsive, a brief proposal submission must include the following administrative and technical information for DPW review and subsequent selection recommendation(s):

- a) **Letter of Transmittal & Company Introduction (5 points max.):** A Letter of Transmittal must accompany each response signed by an owner, officer of other authorized agent of the firm. Maximum length of letter shall be two pages. Qualified respondents must provide evidence of expertise relative to the services requested. Respondents are also required to include a complete description and other relevant information documenting organizational structure and specific office locations.
- b) **Qualifications and Relative Experience (25 points max.):** Respondents are to include a comprehensive listing of similar current and past projects and/or clients served providing related to the Scope of Work. Respondents must show proof of at least 5 years' experience (within the last 7 years) on SSE Investigation Projects of similar size and complexity, including in combined sewer systems; with a population more than 100,000 and within the New England market.

Additionally, resumes and past project information sheets regarding the history and experience of the prime consultant and all subconsultants proposed to be part of the project team. Resumes shall include the name(s), business address, phone number, email addresses, and resumes of individuals proposed to participate in all work efforts identified and needing to be performed to meet the intent of this project.

The Project Manager shall be clearly identified along with the roles of other significant project participants. The CONTRACTOR and subcontractors shall be collectively scored based on their demonstrated level of experience and competence in the following areas:

- Experience working on SSE investigation projects of similar size and complexity.
- NASSCO PACP certification for the CONTRACTOR responsible for reviewing and compiling recommendation report.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

- Experience compiling similar SSE recommendation reports.
 - Ability to submit a Microsoft Access database that is up to date and can be merged into a GIS system.
- c) Client References (10 points max.): Respondents must provide at a minimum THREE (3) references for whom the respondent has provided similar Sewer System Evaluation work, detailing client name/address, complete contact information, type of project, description of services provided, and timeframe completed. The reference must have been directly involved in the project on behalf of the hiring agency and have direct experience supervising the work of the consultant. By listing these references, permission is granted to City to contact said individuals to verify the satisfactory performance of services provided.
- d) Proposed Schedule (10 points max.): Respondents shall provide a proposed project schedule broken down by task and subtask, including the additive alternate areas in as listed tables 2, 3, and 4.
- e) Base Bid (50 points max.)

Interested firms shall submit unit costs to complete Tasks 1, 1A, 1B, 2, and 3 as described in Section I and accounted for in the attached Bid Form. The following required forms must be filled out and submitted with the Proposal. Failure to submit all required forms will result in disqualification from this bid.

1. Qualifications/proposal document (as delineated in Section II, Items a. to d. above)
2. Bid Forms
 - a. Bid Form 1 - Bidders Blank
 - b. Bid Form 2 - Certification of Bidder
 - c. Bid Form 3 - Certificate Regarding Public Records
3. Schedule of Unit Prices
4. Forms of Non-Collusive Affidavit
5. Proposed Subcontractors
6. Municipal Contract Addendum, Rhode Island Department of Labor and Training, Prevailing Wage Requirements (37-13-1 ET SEQ)
7. City of Providence Minority Business Enterprise (MBE)/Women Business Enterprise (WBE) forms

The City has blanket goals of 10% Minority Business Enterprise (MBE) and 10% Woman Business Enterprise (WBE) utilization. The selected respondents are responsible for achieving this goal or submitting a waiver. All relevant MBE/WBE forms must be submitted.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

III. EVALUATION AND SELECTION

1. A Technical Review Committee will be convened comprised of members of the City's Department of Public Works.
2. The Technical Review Committee members will review and evaluate qualification proposal submissions from each Respondent to determine if they are responsive or nonresponsive to the requirements of this RFP. All responsible firms will be evaluated and rated based on the criteria herein.
3. The award of the Contract to the highest evaluated and responsive bidder shall NOT guarantee or entitle the highest evaluated and responsive bidder to the full Contract Amount. It is therefore understood by all parties that the actual amount of work completed, and the final Contract Amount shall be subject to availability of funds and needs and priorities of the City of Providence.

IV. SELECTION CRITERIA

Item	Points
1. Letter of Transmittal & Company Introduction	0-5
2. Qualifications and Relative Experience	0-25
3. Client References	0-10
4. Proposed Schedule	0-10
5. Lowest Total Base Bid and Selected Add Alternate Price Amount (In regard to arithmetic errors in the bid, the figures shall be resolved in favor of the corrected sums)	0-50
Maximum Score	100
0 score = non-responsive/poor response	
Top score (differs with category) = excellent response	

Final evaluation and ranking will be based on the respondents' Proposal and ability/commitment to provide services to the City in a timely manner. The City may, at its sole option, elect to require interviews and presentation(s) by respondents clearly in consideration for award. Other submissions, certifications, or affirmations may be required, as appropriate. The City may select a respondent by highest score, or a respondent in the best interest of the City.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

V. INSURANCE

Contractor shall purchase and maintain the following insurance for limits in amounts no less than set forth below:

GENERAL LIABILITY INSURANCE – PROPERTY DAMAGE AND BODILY INJURY: One Million Dollars (\$1,000,000) per Occurrence; Two Million Dollars (\$2,000,000) Aggregate Limit.

OWNED, HIRED AND NON-OWNED AUTOMOBILE LIABILITY INSURANCE: for Bodily Injury, Wrongful Death and Property Damage; One Million Dollars (\$1,000,000) per Occurrence; Two Million Dollars (\$2,000,000) Aggregate.

WORKERS COMPENSATION AND OCCUPATIONAL DISEASE: including Employer's Liability-Statutory Limit, such Employer's Liability limits for bodily injury by accident or disease to not be less than Five Hundred Thousand Dollars (\$500,000) each accident, Five Hundred Thousand Dollars (\$500,000) each employee and Five Hundred Thousand Dollars (\$500,000) policy limit.

UMBRELLA LIABILITY INSURANCE: Five Million Dollars (\$5,000,000) per Occurrence; Five Million Dollars (\$5,000,000) Aggregate.

POLLUTION LIABILITY INSURANCE: Two Million Dollars (\$2,000,000) policy limit.

All required insurance coverages listed above shall be written on an occurrence-basis, and shall be maintained continuously, without interruption, from the date of commencement of this Agreement until the completion of the Contract Work or the date of final payment for the Contract Work, whichever occurs later.

Certificates of insurance acceptable to Owner shall be submitted to Owner before commencement of the Contract Work. The certificates of insurance and the insurance policies required above shall include a provision stating that the insurance coverage under each policy shall not be cancelled or otherwise allowed to expire until at least thirty (30) days' advance notice has been given directly to Owner by the insurance company or companies.

The insurance policies required for general liability coverages, owned, hired and non-owned automobile liability coverage shall include Owner (City of Providence and the Providence Public Building Authority) as an additional insured and shall provide that these insurance coverages are primary and non-contributory in the event any additional insured is insured for the same coverages under another insurance policy or policies. Contractor shall provide copies of the endorsements from the carrier showing that these entities have been added as additional insured.

VI. PREVAILING WAGE REQUIREMENTS

CONTRACTOR shall review and certify to the Municipal Contract Addendum, Rhode Island Department of Labor and Training, Prevailing Wage Requirements (37-13-1 ET SEQ), in Attachment B.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

VII. REQUIREMENTS AND CONDITIONS

1. Prevailing wages must be paid in accordance with the latest DOJ wage determination.
2. Each respondent shall have no collusion or secondary interests with any other respondent.
3. The City reserves the right to reject any or all proposals or to make an award or multiple awards if deemed to be in the best interest of the City.
4. All costs associated with developing or submitting documents in response to this solicitation and/or in providing oral or written clarification of its content shall be borne by the respondent. The City assumes no responsibility for these costs.
5. A Contract Bond for Complete Performance and Full Payment with a satisfactory surety company will be posted by the bidder in a sum equal to one hundred per centum (100%) of the awarded contract.

VIII. CONTRACT & PROJECT COMPLETION DATE

The CONTRACTOR shall have made application for required bonds no later than the day after Contract Award. The CONTRACTOR may work through the winter period provided that the cleaning and CCTV work does not impede snow removal operations and weather conditions allow for the use of water for cleaning purposes. **All work shall be completed in full (including receipt of all inspection reports, videos and other digital multimedia, GIS Data, Technical Memoranda, and Final SSES reports) by Friday, September 15, 2023.**



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT A

Contract Forms

- Construction Agreement
- Contract Bond for Complete Performance and Full Payment
- Contractor's DBE Subcontractor Utilization Form
- Partial Release – Contractor
- Final Release – Contractor
- Partial Release – Subcontractor
- Final Release – Subcontractor

ATTACHMENT B

Bid Forms

- Bid Form
- Schedule of Unit Prices
- Forms of Non-Collusive Affidavit
- Proposed Subcontractors
- Municipal Contract Addendum, Rhode Island Department of Labor and Training, Prevailing Wage Requirements (37-13-1 ET SEQ)
- City of Providence Minority Business Enterprise (MBE)/Women Business Enterprise (WBE) forms

ATTACHMENT C

2023 System Evaluation & CCTV Inspection Figures (71 Sheets)

ATTACHMENT D

Project Specifications

- 012001 Price & Payment
- 330130.16 TV Inspection of Pipelines
- 330130.41 Cleaning of Sewers
- 330513 Manholes & Structures
- 331210 Temporary Bypass Pumping Systems

ATTACHMENT E

City of Providence Standard Details

ATTACHMENT F

RIDOT Roads

ATTACHMENT G

Primary Roads



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT A

Contract Forms

CONSTRUCTION AGREEMENT CITY OF PROVIDENCE – 2023 SEWER SYSTEM EVALUATION

PROVIDENCE, RHODE ISLAND

CONSTRUCTION AGREEMENT BETWEEN THE CITY OF PROVIDENCE AND **INSERT CONTRACTOR NAME HERE**

FOR

CITY OF PROVIDENCE – 2023 SEWER SYSTEM EVALUATION

This Construction Agreement (“Agreement”) is made this _____ day of _____, 20____ by and between the City of Providence Department of Public Works (DPD) and the Providence Public Building Authority (PPBA) (jointly, the “Owner”) and **insert contractor name and mailing address**

(“Contractor”) (jointly, “Parties”).

Project: This contract is for CITY OF PROVIDENCE – 2023 SEWER SYSTEM EVALUATION. The work to be performed under this Contract includes, but is not limited to, all labor, material, and equipment necessary for sewer and drainage system cleaning and closed-circuit television (CCTV) inspection to identify sewer system maintenance and structural defects, integration of findings with the City’s sewer GIS, and development of sewer system rehabilitation recommendations. The work includes all other incidentals necessary to execute the work complete in place and accepted within the limits of this contract to the satisfaction of the Engineer and Owner.

Project Address: Various Locations throughout the City of Providence as directed by the Department of Public Works.

Contractor agrees to complete the work identified in this Agreement and in the Contract Documents, (“Project”). With regard to the Project, Owner and Contractor agree:

1. CONTRACT DOCUMENTS

1.1. This Agreement, the scope of work, invitation for bids, and any other documents referenced in or attached to this agreement are collectively referred to as the “contract documents,” and include:

1.2. Contract Documents prepared by the Department of Public Works and issued by Owner as part of the Request for Proposals – CITY OF PROVIDENCE – 2023 SEWER SYSTEM EVALUATION awarded in **month, year;**

1.2.1. Bid submitted by Contractor dated **day, month, year;**

1.2.2. Contract Documents, Request for Proposals, City of Providence – 2023 Sewer System Evaluation, prepared by Department of Public Works, dated December, 2022;

1.2.3. Addenda as issued.

1.2.4. Each of the Contract Documents forms part of and is fully incorporated in this Agreement.

- 1.3. To the extent any of the Contract Documents that form part of and are incorporated in this Agreement differ or contradict the terms of this Agreement, the terms of this Agreement shall control.

2. SCOPE OF WORK AND AGREEMENT PRICE

- 2.1. Contractor, having examined the Contract Documents and Project Site, agrees to be bound by the Contract Documents.
- 2.2. Contractor agrees to furnish all required Project Management, labor, materials, equipment, competent supervision, tools, safety measures, transportation costs, proof of insurance, performance bond and payment bond (as directed by Owner) and any and all other appurtenant items necessary for complete performance of the Contract Work in a good and workmanlike manner.
- 2.3. The Contract Work shall conform to all applicable laws, regulations and/or ordinances of any and all governmental agencies including Quasi and having jurisdiction over the Contract Work. All required standards required by the Utility Providers shall be strictly complied with unless otherwise confirmed in writing by the Owner.
- 2.4. Contractor agrees to perform the necessary sewer and stormwater system cleaning, CCTV inspection, evaluation, analysis, and oversight work set forth in the Scope of Work.
- 2.5. Contractor agrees to perform the Contract Work strictly in accordance with the Contract Documents, task order and subject to the final approval of Owner for the Agreement Price. Owner and Contractor may amend the Agreement Price only by a written Change Order executed by both Parties. Contractor shall not charge overtime or travel time to Owner unless Owner first approves such charges in writing.
- 2.6. Contractor is responsible for the cleanup and removal of all debris associated with the Contract Work to assure the safety and protection of all persons and property associated with the Project.
- 2.7. If the progress schedule cannot be met due to business interruption and circumstances beyond the control of Contractor, the Owner and Contractor shall discuss and document the cause of such delay and present to the Owner to review and discuss reasonable means to complete the work to avoid further delay. No overtime work will be conducted without an agreed upon Change Order.
- 2.8. From Time to Time the Contractor may be given advanced notice of special events taking place within the Project Limit Lines that will require special attention to work around and/or otherwise provide detailed cleanup, minimize road openings and sidewalk closures as well other applicable tasks that may be required. These events will be required to be captured in the Project Schedule and worked around as necessary to accommodate the events and assure that efforts are made to accommodate the events. Potential events in and around the project area shall be provided to the contractor upon award.
- 2.9. Contractor is employed as an independent contractor to perform the Contract Work and is responsible to provide all tools, equipment and incidentals required to complete the Work.
- 2.10. Contractor has examined the Project Site and has acquainted themselves with local conditions, including readable availability of a project management Team, labor, sub-contractors, equipment, and materials.
- 2.11. Based on the Contractors examination of the Project Site, the Contractor accepts all open and obvious conditions at the Project Site visible upon reasonable inspection as of the date of this Agreement. No allowances will be made after the date of this Agreement for any oversight, error or omission by Contractor in assessing the Project Site with respect to the Scope of Work to be performed and the Agreement Price for conditions falling within these parameters.

3. PERFORMANCE AND WARRANTY

3.1. Time is of the essence.

3.2. Contractor shall cooperate with Owner in scheduling and performing the Contract Work to avoid conflict, delay in or interference with any separate work of the Owner or other engineers or contractors. Performance requirements may be included in task order, to be agreed to by the City and Contractor.

3.3. At Owner's request, Contractor shall promptly provide Owner with proof of the ordering of all materials, equipment and supplies required for complete performance of the Contract Work.

3.4. Upon execution of this Agreement, Contractor shall promptly provide the Owner with a schedule of work to be performed, which shall be considered a living schedule and update a minimum of every two weeks. Failure to submit an update may result in rescinding work and/or withholding of payment. The schedule must be agreed upon between the Owner and Contractor before execution of the work.

3.5. Contractor shall use only new material for the Contract Work. Contractor shall remove and replace promptly, at Contractor's own expense, all defective or nonconforming work or materials. Contractor shall promptly report to Owner, in writing, any errors, inconsistencies or omissions relating to the Contract Work and any errors, inconsistencies or omissions in the Drawings and Specifications. Contractor may use salvaged materials with the approval of the Owner.

3.6. Contractor shall complete each aspect of the Contract Work in strict accordance with the standards set forth in this Agreement and the other Contract Documents. Notice to proceed will be issued upon the Contractor's furnishing of insurance, bond, and execution of this Agreement. Contractor shall begin the work no later than ten calendar days after full execution of this contract, and must complete work by **September 15, 2023** unless otherwise stipulated in the task order. The Completion Date may be changed only by a written Change Order signed by the Contractor and Owner. Contractor's failure to perform and timely complete each aspect of the Contract Work, excluding delays caused by Owner or third party persons who are not under Contractor's control, in strict accordance with the Contract Documents, or delay of any work by other engineers, contractors or Owner caused by Contractor, constitutes a material breach of this Agreement, and Contractor shall be responsible for all additional costs incurred by Owner or other engineers or contractors, including overhead, profit, attorneys' fees and litigation expenses resulting from any such breach.

3.7. If Contractor, by its own fault or omission, fails to diligently pursue completion of the Contract Work, overtime work may be required by Contractor without additional compensation from Owner.

3.8. Contractor agrees to keep Owner informed both verbally and in writing as to the progress of the Contract Work and shall perform the Contract Work faithfully and in such order as necessary to keep the overall Project on schedule and to avoid any delay in completion of the Project. Failure to updated project schedule may result in rescinding work and/or withholding of payment.

3.9. Contractor shall provide safe and proper facilities for inspection at all times during performance of the Contract Work including preparing and maintaining a **Safety Plan to be submitted prior to the start of Work.**

3.10. Contractor warrants that the Contract Work shall (i) be free of defects in material and workmanship for a period of Two (2) years except where prescribed to be for a longer period; (ii) comply with the Drawings and the Specifications or as otherwise agreed to by the Parties; (iii) be performed in safe and workmanlike manner by trained, qualified, and efficient workers, in strict conformity with construction best practices; and (iv) be constructed of new materials of the most suitable grade for the application and furnish satisfactory evidence to Owner of the type and quality of materials so furnished and used. In the event that the Contract Work fails to meet any of the aforementioned warranties, Contractor shall have the right to cure any nonconforming or defective Work and may replace the defective Contract Work, or reimburse Owner for the Contract Work at the invoice or market price, within thirty (30) days after discovery of the breach of

warranty. Contractor shall also, at its cost, remove all material, equipment, and Contract Work which does not comply with the Drawings or meet the Specifications, or is otherwise defective, whether incorporated in the Project or not, and shall re-execute the Contract Work and correct any other work damaged thereby. If Contractor does not remove nonconforming or defective Contract Work promptly, Owner may do so and restore such nonconforming Contract Work at Contractor's expense.

3.11. Contractor shall reimburse Owner for all reasonable costs and expenditures made in the settlement of any claim against Owner relating to nonconforming or defective Contract Work.

3.12. Neither acceptance of the Contract Work nor payment of some or all of the Agreement Price shall relieve Contractor of responsibility for faulty materials, equipment or workmanship. Contractor shall remedy, as soon as possible, defects appearing within two (2) years from the date of final payment, or within such longer period of time as provided by any manufacturer's warranty, and correct resulting damage to other work at no cost to Owner.

4. ASSIGNMENT

4.1. Contractor shall not assign or sublet the whole or any part of this Agreement or any funds accrued or to accrue under this Agreement without the prior written consent of Owner; any assignment or sublet without prior written consent of Owner shall be voidable at the election of Owner. Owner retains the right to refuse any and all assignments or subletting in Owner's sole and absolute discretion. Any attempt to assign this Agreement in whole or in part without Owner's prior written consent constitutes a material breach of this Agreement.

5. CHANGES AND DELAYS

5.1. Contractor shall not deviate from the Contract Documents except on written order of Owner, received by Contractor before beginning any deviation.

5.2. Owner may make written changes in the Contract Documents which may add to or deduct from the Contract Work without invalidating this Agreement. All work outside the scope of the Contract Work to which Contractor is directed to perform by Owner or Owner's authorized representative without an agreement as to the price for the work shall be preserved and resolved through the dispute resolution clause in Section 14 of this Agreement.

5.3. Unless a written Construction Change Directive has been issued to Contractor by Owner directing that certain work be performed prior to agreement on extra compensation and/or time or in the event of a dispute as to whether the work is within the original Scope of Work, no extra compensation for extra work, materials or any time extension shall be allowed unless a written Change Order has been signed by Owner, nor shall Contractor proceed with extra work without a written Change Order signed by Owner. Compensation for any work added by a Change Order shall be in accordance with unit prices, applicable add/alternate prices, a lump sum price, or with the prior approval of Owner, shall be performed on a time and material basis with a detailed account of labor and material costs associated with the work.

5.4. Recovery by Contractor for delays caused by Owner shall be limited to time extensions only as set forth in an executed Change Order. Contractor shall not be entitled to damages or compensation for any losses on account of delay from any cause whatsoever, including, but not limited to, any act, neglect, omission, default or failure of performance by Owner or separate contractors, failure to obtain required materials, delay in obtaining permits, or other conditions. Notwithstanding the above, the Owner at its sole option may consider an "equitable adjustment" for any claim by the Contractor for any delay caused by the Owner pursuant to this paragraph. It is understood that the Contractor has no claim for delay pursuant to this paragraph unless specifically agreed upon by the Owner at the Owner's sole discretion and any claim for delay shall be presented to the Owner in detail format itemizing the dollar amount of delay with necessary backup for the Owner's consideration.

6. PROTECTION OF THE WORK AND EMPLOYEES; SUPERVISION AT THE PROJECT SITE

6.1. Until the Contract Work is complete, Contractor shall effectively secure and protect the Contract Work and shall repair and/or replace all loss or damage to the Contract Work caused by the Contractor or anyone for whom Contractor is responsible.

6.2. Following completion of the Contract Work, Contractor shall be bound by the warranty obligations of Contractor and its subcontractors and suppliers.

6.3. Contractor shall at all times supply a sufficient number of skilled workers to perform the Contract Work in a timely and efficient manner. In addition, Contractor shall assign a competent person who shall supervise the performance of the Contract Work, be present at the Project Site at all times when Contract Work is being performed, and act as Contractor's representative at the Project Site for the purposes of coordinating Contractor's activities with those of the Owner and others at the Project Site.

7. BREACH AND REMEDIES

7.1. Contractor shall be deemed to be in material breach of this Agreement if Contractor: (i) fails to perform the Contract Work in strict accordance with the Contract Documents or task order; (ii) fails to provide competent supervision or a sufficient number of properly skilled workers; (iii) fails to supply sufficient material or equipment of proper quality; (iv) fails to correct nonconforming or defective work promptly; (v) fails to perform any terms of this Agreement; (vi) is unable to meet its debts or fails to pay promptly for labor, material or other obligations; (vii) becomes financially insecure; (viii) disregards any law, including, without limitation, the Environmental Laws (as defined in Section 8.5), rules, regulations or ordinances applicable to the Contract Work; (ix) by negligent act or omission causes delay or interference with Owner or separate contractors; (x) assigns this Agreement for any reason without the prior written consent of Owner; or (xi) performs or fails to perform any act the commission or omission of which is defined elsewhere in the Contract Documents as a material breach of this Agreement or which would constitute a material breach at common law.

7.2. In the event of Contractor's breach, Owner shall have the following remedies in addition to any other remedies available at law or in equity:

7.2.1. Upon five (5) days' written notice to Contractor, Owner may declare Contractor in breach of this Agreement subject to the Contractor's right to cure, and after such time, the Owner may (i) terminate the Agreement; (ii) after termination, employ one or more other contractors to complete the Contract Work; (iii) complete the Contract Work with its own forces; or (iv) employ some combination of the foregoing to complete the Contract Work. Upon Contractor's breach, Contractor shall assign all material, equipment, tools, services, and supplies, and all of Contractor's agreements and supply contracts to Owner for the purpose of assisting Owner's completion of the Contract Work by any of the foregoing means. Equipment and tools left on the Project Site subject to a security or rental agreement shall be returned to Contractor. Equipment or tools owned outright by Contractor left on the Project Site may be assigned to Owner upon the termination of this Agreement resulting from Contractor's breach of the Contract Documents for use to complete the Project.

7.2.2. Contractor shall remain liable to Owner for all costs incurred by Contractor in completing the Contract Work caused by Contractor's breach of the terms of this Agreement.

7.3. If Contractor breaches this Agreement, Contractor shall not be entitled to any further payments for Contract Work not completed until the Contract Work has been completed and accepted by Owner and all above-described expenses have been paid by Contractor to Owner. Contractor shall be liable to Owner for all costs of completion of the Contract Work that exceed the balance due under this Agreement, and Contractor shall promptly pay all valid amounts owed to Owner upon demand.

7.4. The Owner will be in breach of this Agreement and in default if any of the following events occur:

7.4.1. Owner fails or refuses to pay on time (generally within 60 days of acceptance of Payment

Application) any monies due under the Contract Documents;

7.4.2. Owner fails or refuses to perform any obligation required under the Contract Documents;

7.4.3. Owner makes any assignment for the benefit of creditors or files any petition under any bankruptcy or debtor-relief law.

8. INDEMNITY

8.1. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless Owner, its respective employees, agents, officers, directors and representatives (collectively, the "Indemnified Parties") from, for, of, and against any and all claims, damages, losses, liabilities, demands, costs and expenses, including but not limited to attorneys' fees and litigation expenses arising out of or resulting from, in whole or in part, the performance of the Contract Work, or which are caused, in whole or in part, by any negligent act or omission of the Contractor, or by any of Contractor's subcontractors or suppliers, or anyone directly or indirectly employed by them. Excluded from this indemnity section is any claim attributable to the conduct and actions of the Owner or arising out of any non-delegable duty owed by the Owner.

8.2. To the fullest extent permitted by law, Owner shall indemnify and hold harmless Contractor and its agents, officers, directors and employees from, for, of, and against any and all claims, damages, losses, liabilities, demands, costs and expenses, including but not limited to attorneys' fees and litigation expenses attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property which are caused, in whole, by any negligent act or omission of Owner, or any of Owner's separate contractors, or anyone directly or indirectly employed by them.

8.3. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this section.

9. INSURANCE

9.1. Contractor shall purchase and maintain the following insurance for limits in amounts no less than set forth below:

9.1.1. GENERAL LIABILITY INSURANCE – PROPERTY DAMAGE AND BODILY INJURY: One Million Dollars (\$1,000,000) per Occurrence; Two Million Dollars (\$2,000,000) Aggregate Limit.

9.1.2. OWNED, HIRED AND NON-OWNED AUTOMOBILE LIABILITY INSURANCE: for Bodily Injury, Wrongful Death and Property Damage; One Million Dollars (\$1,000,000) per Occurrence; Two Million Dollars (\$2,000,000) Aggregate.

9.1.3. WORKERS COMPENSATION AND OCCUPATIONAL DISEASE: including Employer's Liability-Statutory Limit, such Employer's Liability limits for bodily injury by accident or disease to not be less than Five Hundred Thousand Dollars (\$500,000) each accident, Five Hundred Thousand Dollars (\$500,000) each employee and Five Hundred Thousand Dollars (\$500,000) policy limit.

9.1.4. UMBRELLA LIABILITY INSURANCE: Five Million Dollars (\$5,000,000) per Occurrence; Five Million Dollars (\$5,000,000) Aggregate.

9.1.5. POLLUTION LIABILITY INSURANCE: Two Million Dollars (\$2,000,000) policy limit.

9.2. All required insurance coverages listed above shall be written on an occurrence-basis, and shall be maintained continuously, without interruption, from the date of commencement of this Agreement until the completion of the Contract Work or the date of final payment for the Contract Work, whichever occurs later.

9.3. Certificates of insurance acceptable to Owner shall be submitted to Owner before commencement of the Contract Work. The certificates of insurance and the insurance policies required above shall include a

provision stating that the insurance coverage under each policy shall not be cancelled or otherwise allowed to expire until at least thirty (30) days' advance notice has been given directly to Owner by the insurance company or companies.

9.4. The insurance policies required for general liability coverages, owned, hired and non-owned automobile liability coverage shall include Owner (City of Providence and the Providence Public Building Authority) as an additional insured and shall provide that these insurance coverages are primary and non-contributory in the event any additional insured is insured for the same coverages under another insurance policy or policies. Contractor shall provide copies of the endorsements from the carrier showing that these entities have been added as additional insured.

9.5. Nothing in the provisions of this Section shall modify, alter or otherwise affect the indemnity obligations of Contractor under Section 8 of this Agreement.

10. SAFETY

10.1. At its own expense and at all times, Contractor shall take all necessary precautions to protect persons and property at or adjacent to the Project Site from damage, loss, or injury resulting from performance of the Contract Work by the Contractor, its employees, subcontractors and others for whom Contractor is responsible.

10.2. If any accident occurs, person is injured, or property is damaged at or near the Project Site resulting from the performance of the Contract Work by Contractor, its employees, subcontractors or others for whom Contractor is responsible, Contractor shall immediately notify Owner both verbally and in writing.

10.3. Contractor shall maintain a safety program that complies with all applicable laws and shall comply with all specific safety requirements promulgated by any applicable governmental authority and the City of Providence, including without limitation, the requirements of the Occupational Safety and Health Act ("OSHA"). Copies of the program shall be furnished to the Owner upon request.

10.4. The Contractor shall submit a Life and Safety Plan prior to the execution of the Work including the Contractors COVID-19 Plan.

11. COMPLIANCE WITH LAWS

11.1. Contractor shall comply with all applicable federal, state, and local laws, codes, regulations and ordinances, including, but not limited to, the Fair Labor Standards Act, OSHA, workers compensation, social security, employment and wage and hour laws.

11.2. Contractor shall not discriminate in the employment or advancement of any employee or applicant because of race, national origin, sex, color, age, religion, creed, physical handicap, Veteran's status or any protected class.

11.3. Contractor shall maintain all records and accounts for the employment of labor and the furnishing of materials and supplies in accordance with proper accounting and record keeping procedures and with all federal, state, and local laws, codes, regulations and ordinances. Copies of such records shall be provided to Owner upon request.

12. PAYMENTS

12.1. Compensation:

12.1.1. When base bid quantities are exceeded, they shall be added to the Schedule of Values as a new line item carrying the same unit prices. The CONTRACTOR and the Owner all shall monitor overages versus those items coming in lower than estimated to assure that the budget health is not compromised.

- 12.1.2. The amount of the Contract (accepted bid prices) listed in the Bid is based on the estimated quantities as set forth in the Bid. Actual work may result in greater or lesser quantities estimated. It is understood and agreed that the CONTRACTOR will accept as payment the actual measured quantities at the unit set forth in the accepted bid.
- 12.1.3. The estimated quantities given in the Bid (proposal) for the various items of work are given for the purpose of comparing proposals offered for the work under this contract and if it is found in the performance of the contract work that any or all of the said estimated quantities are not even approximately correct, the CONTRACTOR shall have no claim for anticipated profits, or for loss of profits or for increase in prices as listed in the accepted Bid because of the difference between the quantities of the various items of work actually done and the estimated quantities stated in the accepted Bid (proposal).
- 12.1.4. Payments for unit items shall be in accordance with the specifications.
- 12.2. Progress Payments:
- 12.2.1. The CONTRACTOR shall prepare his requisition for monthly progress payment, at a date to be specified by the Owner, and submit it digitally in a PDF and unlocked Excel document formats, to the Owner for his approval. The amount of the payment due the CONTRACTOR shall be determined by adding to the total value of work completed to date and deducting (1) ten percent (10%) of the total amount, to be retained until final payment and (2) the amount of all previous payments. The total value of work completed to date shall be based on the actual quantities of work completed and on the unit prices contained in the Bid Form. For lump sum items the value of the work completed to date will be based on the actual amount of the work done. Copies of all invoices shall be available for inspection by the Owner.
- 12.2.2. THE OWNER, PRIOR TO MAKING EACH PAYMENT TO THE CONTRACTOR, shall require the CONTRACTOR to furnish releases or receipts from any or all persons / firms performing work and supplying material or services to the CONTRACTOR, or any Subcontractor, if this is deemed necessary to protect its interest. Additionally, the CONTRACTOR may be required to submit certified payrolls for any and all employees, including Subcontractors.
- 12.2.3. Payment Processing Requirements to process payment:
- (a) Certified payrolls
 - (b) MBE/WBE utilization form
 - (c) Liens Releases
 - (d) Summary of Items for Period and Completed to Date (with Progress Report)
- 12.3. Final Payment:
- 12.3.1. After DPW's receipt of the final SSE Report, all project related inspection reports, videos, pictures, other multimedia, and GIS data, and acceptance by the Owner of all work under the Contract, the CONTRACTOR shall prepare his requisition for final payment which shall be based upon the carefully measured or computed quantity of each item of work at the applicable unit prices stipulated in the Bid Form. The total amount of the final payment due the CONTRACTOR under this contract shall be the amount computed as described above less all previous payments. Final payment to the CONTRACTOR shall be made subject to his furnishing the Owner with the Final SSE Report, and a release in satisfactory form of all claims against the Owner arising under and by virtue of his contract.

12.3.2. The Owner, before paying the final invoice, may require the CONTRACTOR to furnish releases or receipts from all Subcontractors having performed any work and all persons having supplied materials, equipment and services to the CONTRACTOR, if the Owner deems the same necessary in order to protect its interest. The Owner, however, may if it deems such action advisable, make payment in part or in full to the CONTRACTOR without requiring the furnishing of such releases or receipts and any payments so made shall in no wise impair the obligations of any surety or sureties furnished under this Contract.

12.3.3. Final payment by the Owner shall in no way relieve the Contractor for liability for its obligations to repair or replace faulty or defective Contract Work discovered after final payment. All such defenses Contractor may have to such claims are preserved.

12.4. Withholding Payments:

12.4.1. The Owner may withhold from any payment otherwise due the CONTRACTOR so much as may be necessary to protect the Owner and if it so elects may also withhold any amounts due from the CONTRACTOR to any Subcontractors or material dealers, for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the Owner and will not require the Owner to determine or adjust any claims or disputes between the CONTRACTOR and his Subcontractors or material dealers, or to withhold any monies for their protection unless the Owner elects to do so. The failure or refusal of the Owner to withhold any monies from the CONTRACTOR shall in no wise impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

(e) Certified Payroll

(f) WBE and DBE

(g) Liens Releases

(h) Supporting information to review invoices

(i) Incomplete Work

(j) Not Addressing REAL TIME Punch lists

13. RIGHTS AND REMEDIES

13.1. Duties and obligations imposed by this Agreement and rights and remedies available hereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available at law or in equity.

14. DISPUTES

14.1. Disputes to be resolved in accordance with the Rhode Island General Law Tittle 37, Chapter 37-16.

14.2. All claims, disputes, and other matters in question arising out of or relating to this contract or the performance or interpretation thereof shall be submitted to arbitration. Arbitration shall be commenced by a demand in writing made by one party to the contract upon the other within a reasonable time after the dispute, claim, or other matter in question arose but in no event after payment in full of the contract price has been made and accepted. The written demand shall contain a statement of the question to be arbitrated and a detailed statement of each item or matter in dispute and the name of the arbitrator appointed by that party. The other party to the contract within ten (10) days of the receipt of the written demand shall appoint an arbitrator and give notice in writing thereof to the party who commenced arbitration. The two (2)

arbitrators appointed by the parties shall within ten (10) days of the date of the appointment of the second arbitrator select a third arbitrator who shall be designated as chairperson and who immediately shall give written notice to the parties of his or her appointment. The third arbitrator shall select a time, date, and place for hearing and give each party five (5) days' notice in writing thereof. The date for hearing shall not be more than fifteen (15) days after the date of appointment of the third arbitrator. The award shall be made promptly by the arbitrators and, unless otherwise agreed by the parties or specified by law, no later than thirty (30) days from the date of closing the hearing, or, if oral hearings have been waived, from the date of the transmittal of the final statements and proofs to the arbitrators. The award shall be in writing and shall be signed by a majority of the arbitrators. It shall be executed in the manner required by law. The arbitrator shall provide a written explanation of the reasoning for the award. In the event the party of whom arbitration is demanded shall fail to appoint his or her arbitrator within the time specified or the two (2) arbitrators appointed by the parties are unable to agree on an appointment of the third arbitrator within the time specified, either party may petition the presiding justice of the superior court to appoint a single arbitrator who shall hear the parties and make an award as provided herein. The petitioner shall give five (5) days' notice in writing to the other party before filing his or her petition.

15. GOVERNING LAW

15.1. This Agreement shall be governed by and construed under the laws of the State of Rhode Island, without regard to its conflicts of law principles.

16. ALL CHANGES TO AGREEMENT SHALL BE IN WRITING

16.1. This Agreement shall not be changed except by written agreement of Owner and Contractor.

17. LEGAL EFFECT

17.1. In the event any provision contained herein is found to be legally unenforceable, all other provisions of this Agreement shall remain in full force and effect as if the unenforceable provision was never made a part of this Agreement.

18. INTERPRETATION

18.1. This Agreement is the result of negotiations between the parties and, accordingly, shall not be construed for or against either party regardless of which party drafted this Agreement or any portion thereof.

19. NO PARTNERSHIP

19.1. Nothing contained herein shall, or shall be deemed to, create any relationship between the Parties other than that of Owner and Contractor.

20. FURTHER DOCUMENTS

20.1. The Parties shall execute and deliver all such documents and perform all such acts as reasonably requested by the other party from time to time, to carry out the matters contemplated by this Agreement.

21. RECORD KEEPING, AUDIT AND INSPECTION

21.1. Contractor shall retain all books and records pertaining to the provision of the Contract Work for a period of no less than five (5) years after completion of all Contract Work or the termination of this Agreement, whichever occurs earlier and shall, during such time, shall permit Owner and its designated representative(s) to audit, inspect, and make copies of all such books and records so maintained by Contractor. Any such audit and inspection shall take place during normal business hours upon reasonable prior notice to Contractor. The right to audit and inspect shall survive the termination of the Agreement.

22. NOTICE

22.1. All notices to either party pursuant to this Agreement shall be in writing and signed by a duly authorized representative of the party giving such notice and shall be served either in person, by overnight delivery service or by certified mail, return receipt requested, to the respective address for each party given in the Agreement.

23. AUTHORITY

23.1. The individuals executing this Agreement on behalf of the parties represent they are duly authorized to sign on behalf of the parties and bind the Parties hereto.

24. COUNTERPARTS

24.1. This Agreement may be signed in counterparts.

25. NOTICES

25.1. No notice, consent, approval, or other communication given in connection herewith shall be validly given, made, delivered, or served unless in writing and delivered by hand, email, or by registered/certified United States mail to Owner or Contractor, as the case may be. Correspondence shall be delivered to the respective mailing and/or email addresses set forth below, or to such other addresses as either party may from time to time designate in writing and deliver to the other party. Notices, consents, approval, or communications shall be deemed given or received 24 hours after deposit in the mail, or immediately if hand-delivered or sent by email transmission. All written correspondence shall be followed by a telephone call within 24 hours of sending to confirm that it was received by the other party.

If to City:

Leo Perrotta, Director
Department of Public Works
700 Allens Avenue
Providence, RI 02905
401-680-7500
lperotta@providenceri.gov

If to PBBA:

Girard Visconti
SAVAGE LAW PARTNERS, LLP
564 South Water Street, Providence,
RI 02903
Phone: 401-238-8500
gvisconti@savagelawpartners.com

cc:

Craig Hochman, Deputy Chief Engineer
401-680-7515
chochman@providenceri.gov

If to Contractor:

[CONTACT NAME, TITLE]
[COMPANY]
[ADDRESS]
[CITY, STATE, ZIP]
[PHONE]

26. EXHIBITS

This Exhibit List is hereto attached to that certain Construction Agreement between the City of Providence/Providence Building Authority and the Contractor, _____, for the Project known as CITY OF PROVIDENCE – 2023 SEWER SYSTEM EVALUATION.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

NOW, THEREFORE, the Parties execute this Agreement on the day and date listed in the Preamble.

PROVIDENCE PUBLIC BUILDING AUTHORITY

By: _____

Name (Printed): _____

Title: _____

Date: _____

CITY OF PROVIDENCE DEPARTMENT OF PUBLIC WORKS

By: _____

Name (Printed): _____

Title: _____

Date: _____

[CONTRACTOR NAME]

By: _____

Name (Printed): _____

Title: _____

Date: _____

APPROVED AS TO FORM AND CORRECTNESS

By: _____

Name (Printed): _____

Title: _____

Date: _____

**EXHIBIT LIST
TO CONSTRUCTION AGREEMENT**

EXHIBIT A	Request for Proposals dated _____
EXHIBIT A-1	Contractor's Proposal dated _____
EXHIBIT B	Contractor's Insurance
EXHIBIT C	Contractor's Performance and Payment Bonds (Statutory Form)
EXHIBIT D	Contractor's Schedule of Values, if applicable
EXHIBIT E	RIGL (Prevailing Wages) Sections 37-13-5, 6, 7 & 9
EXHIBIT F	Project Schedule

**CONTRACT BOND FOR
COMPLETE PERFORMANCE AND FULL PAYMENT**

PROVIDENCE, RHODE ISLAND

KNOW ALL MEN BY THESE PRESENTS, THAT, _____ of _____ hereinafter called the "Contractor," and _____ AS SURETY are held and hereinafter called the "Surety," a corporation authorized to execute surety bonds under the laws of the State of Rhode Island, are held and firmly bounden unto the City of Providence, City of Providence Department of Public Works, and the Providence Public Buildings Authority in the penal sum _____ Dollars, (\$ __) lawful money of the United States of America, to the payment of which sum, well and truly to be made the Contractor and the Surety herein firmly bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT,

WHEREAS, the contractor did on the ___ day of ___ 20___, enter into a written Contract for _____ in the sum of _____ (\$..00).

NOW, THEREFORE, if the Contractor, its executors, administrators or successors, shall in all things well and truly keep and perform the covenants, conditions and agreements in the Contract and in any alterations thereof made as therein provided, on its part to be kept and performed, at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City of Providence, City of Providence Department of Public Works, and the Providence Public Buildings Authority, as therein stipulated, and shall also promptly pay for all such labor performed or furnished, (which as to equipment shall mean payment of the reasonable rental value, as determined by the City of Providence, City of Providence Department of Public Works, and the Providence Public Buildings Authority, for its use during the period of its use), as shall be performed or furnished for and are promptly paid for, whether or not the labor is directly performed for or furnished to the Contractor or is even directly performed upon the work covered by the Contract, and whether or not the materials are furnished to the Contractor or become component parts of the work, and whether or not the equipment is furnished to the Contractor or even directly used upon the work; and shall also pay for all Wages, Workers' Compensation, Public Liability, Fire Insurance, Federal and State Unemployment, Social Security and Compensation Taxes; then this obligation shall become and be null and void; otherwise it shall abe and remain in full force and virtue.

This Bond is subject to all such rights and powers of the City of Providence, City of Providence Department of Public Works, and the Providence Public Buildings Authority and such other provisions as are set forth in the Contract and the Plans, Specifications and Proposal incorporated by reference in the Contract; and is subject also to all rights of the State and others which are set forth with respect to such a bond in RIGL §37-12-1 et. seq. and RIGL §37-13-14 and is subject to the provision that no extension of the time of performance of the Contract or delay in the completion of the work thereunder or any alterations thereof, made as therein provided, shall invalidate this Bond or release the liability of the Surety hereunder.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20___, the name and corporate seal of each corporate party being hereto affixed, and these presents signed by its undersigned representative, pursuant to authority of its governing body.

In presence of: _____(Seal)
(Individual Principal) _____
_____ (Business Address including Zip)

(Title) _____ (Seal)
_____ (Partnership)

_____ (Business Address including Zip)

By: _____

Attest:

_____ (Corporate Principal)
_____ (Business Address including Zip)

By: _____
(Affix Corporate Seal)

Attest:

_____ (Corporate Surety)

By: _____
(Affix Corporate Seal)

Countersigned:
by _____
*Attorney-in-Fact, State of _____

(*Power-of-attorney for person signing for surety company must be attached to bond.)

CONTRACTOR'S DBE SUBCONTRACTOR UTILIZATION FORM

P R O V I D E N C E , R H O D E I S L A N D

Contractor: _____ Telephone: _____

Contact Person: _____ Fax: _____

E-mail: _____

BID PRICE: \$ _____

BID DATE: ___/___/___

PROJECT # _____

PROJECT LOCATION: _____

TOTAL ANTICIPATED DBE _____ % PARTICIPATION FOR THIS SUBMISSION

W B E•	D B E•	Non DBE	Firm Name	Item Number & Description of Work	Quantity	Cost per Unit/Item	Actual \$ Value
Subcontractor Total >							
DBE Total >							

NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN FEDERALLY FUNDED CDBG CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL NOT BECOME A PART OF THE CONTRACTUAL TERMS.

Equal Opportunity Use:

Form received: ___/___/___ Verified by: _____

For a complete list of certified firms and company designation (WBE/DBE) go to <http://www.providenceri.gov>

PARTIAL RELEASE

WHEREAS, the undersigned Contractor supplied labor, materials, equipment and/or services to the Owner, _____, relative to improvements made to the property owned by _____, which project was located at the street address of _____.

NOW, THEREFORE, the undersigned for and in consideration of payment in the amount of \$ _____, (for monies due Contractor through and including month/day/year) contingent upon the receipt of said payment, does hereby unconditionally and irrevocably waives and releases any and all actions, claims, demands, liens, damages, or any and all claims whatsoever against the Owner, the Project or the property whether arising at law, in equity or under the Mechanic's Lien law in the State of Rhode Island, which Contractor has or may have against the Owner or the property on account of labor, materials, equipment and/or services furnished for use at the project as of the date of the execution of this document. This Release does not release any pending change orders or retainage due or to become due to Contractor nor does this Release release any of the following items: _____.

The undersigned warrants that all costs for labor, materials, equipment and/or services incurred by Contractor or its employees, consultants, subcontractors, sub-subcontractors, suppliers and all tiers have been paid or will be paid out of these proceeds by the undersigned. The Contractor warrants that no obligations, legal, equitable, or otherwise will be owed to any person arising out of or from Contractor's work on the project that will not be satisfied by the payment set forth above for all work, labor, materials, equipment and/or services performed by

or furnished to Contractor on the project up to and inclusive of the date this document is executed.

Contractor agrees to indemnify, defend and hold harmless the Owner from any claim, lien, damage, cost or expense brought by any employee, agent or consultant of Contractor, any subcontractor or lower tier subcontractor, and any material supplier relating to any labor, material and/or equipment furnished, supplied or performed for, or on behalf of the Contractor or the project to which payment was made to Contractor for the work performed.

By:

(Name and Title)

STATE OF RHODE ISLAND

COUNTY OF _____

Subscribed and sworn to before me on this _____ day of _____, 2021.

NOTARY PUBLIC

My Commission Expires: _____

FINAL RELEASE

WHEREAS, the undersigned Contractor supplied labor, materials, equipment and/or services to the Owner, _____, relative to improvements made to the property owned by _____, which project was located at the street address of _____.

NOW, THEREFORE, the undersigned for and in consideration of the final payment in the amount of \$ _____, contingent upon the receipt of said payment, does hereby unconditionally and irrevocably waives and releases any and all actions, claims, demands, liens or other claims whatsoever against the Owner, the Project or the property whether arising at law, in equity or under the Mechanic's Lien law in the State of Rhode Island, which Contractor has or may have against the Owner or the property on account of labor, materials, equipment and/or services furnished for use at the project as of the date of the execution of this document.

The undersigned warrants that all costs for labor, materials, equipment and/or services incurred by Contractor or its employees, consultants, subcontractors, sub-subcontractors, suppliers and all tiers have been paid or will be paid out of these proceeds by the undersigned. The Contractor warrants that no obligations, legal, equitable, or otherwise will be owed to any person arising out of or from Contractor's work on the project that will not be satisfied out of the full and final payment set forth above for all work, labor, materials, equipment and/or services performed by or furnished to Contractor on the project up to and inclusive of the date this document is executed.

Contractor agrees to indemnify, defend and hold harmless the Owner from any claim, lien, damage, cost or expense brought by any employee, agent or consultant of Contractor, any subcontractor or lower tier subcontractor, and any material supplier relating to any labor, material and/or equipment furnished, supplied or performed for, or on behalf of the Contractor or the project to which payment was made to Contractor for the work performed.

By:

(Name and Title)

STATE OF RHODE ISLAND

COUNTY OF _____

Subscribed and sworn to before me on this _____ day of _____, 2022.

NOTARY PUBLIC

My Commission Expires: _____

PARTIAL RELEASE

WHEREAS, the undersigned subcontractor supplied labor, materials, equipment and/or services to the general contractor, _____, relative to improvements made to the property owned by (Name of Owners), which project was located at a street address of _____.

NOW, THEREFORE, the undersigned for and in consideration of payment in the amount of \$ _____, (for monies due Contractor through and including month/day/year) contingent upon the receipt of said payment, does hereby waive and release any and all actions, claims, demands, liens or bond claims against _____, its surety, the project, the Owner and the property described herein whether arising at law, in equity or under the Mechanic's Lien law in the State of Rhode Island, which subcontractor has or may have against _____, its surety, the project and the property described herein on account of labor, materials, equipment and/or services furnished for use at the project as of the date of the execution of this document.

Upon presenting this signed waiver to _____, the above payment will be issued to the subcontractor in accordance with the terms of the subcontract agreement.

The undersigned warrants that all costs for labor, materials, equipment and/or services incurred by subcontractor or its employees, consultants, sub-subcontractors, suppliers and all tiers have been paid or will be paid out of these proceeds by the undersigned. The subcontractor warrants that no obligations, legal, equitable, or otherwise will be owed to any person arising out of or from subcontractor's work on the project that will not be satisfied by the payment set forth above for all work, labor, materials, equipment and/or services performed by or furnished to subcontractor on the project up to and inclusive of the date this document is executed.

Exempt from release are any retained amounts being withheld pursuant to the subcontract agreement on account of labor, materials, equipment and/or services furnished by subcontractor on the project.

(Name of Subcontractor)

By:

(Name and Title)

STATE OF RHODE ISLAND

COUNTY OF _____

Subscribed and sworn to before me on this _____ day of _____, 2022.

NOTARY PUBLIC

My Commission Expires: _____

FINAL RELEASE

WHEREAS, the undersigned subcontractor supplied labor, materials, equipment and/or services to the general contractor, _____, relative to improvements made to the property owned by (Name of Owners), which project was located at a street address of _____.

NOW, THEREFORE, the undersigned for and in consideration of the final payment in the amount of \$ _____, contingent upon the receipt of said payment, does hereby unconditionally and irrevocably waive and release any and all actions, claims, demands, liens or bond claims against _____, its surety, the project, the Owner and the property described herein whether arising at law, in equity or under the Mechanic's Lien law in the State of Rhode Island, which subcontractor has or may have against _____, its surety, the project and the property described herein on account of labor, materials, equipment and/or services furnished for use at the project, whether known or unknown by the subcontractor as of the date of the execution of this document.

Upon presenting this signed waiver to _____, the above payment will be issued to the subcontractor in accordance with the terms of the subcontract agreement.

The undersigned warrants that all costs for labor, materials, equipment and/or services incurred by subcontractor or its employees, consultants, sub-subcontractors, suppliers and all tiers have been paid or will be paid out of these proceeds by the undersigned. The subcontractor warrants that no obligations, legal, equitable, or otherwise will be owed to any person arising out of or from subcontractor's work on the project that will not be satisfied out of the full and final payment set forth above for all work, labor, materials, equipment and/or services performed by or furnished to subcontractor on the project up to and inclusive of the date this document is

executed.

This final release does not extinguish and is subject to subcontractor's warranty and contractual obligations set forth in its contract and/or agreement with _____

(Name of Subcontractor)

By:

(Name and Title)

STATE OF RHODE ISLAND

COUNTY OF _____

Subscribed and sworn to before me on this _____ day of _____, 2021.

NOTARY PUBLIC

My Commission Expires: _____



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT B

Bid Form

C I T Y O F

FORM OF BID

P R O V I D E N C E, R H O D E I S L A N D

**TO: DEPARTMENT OF PUBLIC WORKS
700 Allens Avenue
Providence, Rhode Island 02905**

1. The undersigned, having familiarized (himself) (themselves) (itself) with existing conditions at the 2023 Sewer System Evaluation, Cleaning, & CCTV Inspection affecting the cost of work, and with the Contract Documents (which includes the Request for Qualifications, Contract Forms, Contract Agreement, Form of Bid, Price & Payment, Addenda (if any), Drawings/Figures, Technical Specifications; as prepared by the Department of Public Works, and on file in the office of the Department of Public Works, 700 Allens Avenue, Providence, RI 02905, hereby proposes to furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services including utility and transportation services, and to perform and complete all required work for the 2023 Sewer System Evaluation, Cleaning, & CCTV Inspection and such other required and incidental work, complete, all in accordance with the above listed documents and for the unit prices for work in-place for the following items and quantities.

The undersigned further agrees to pay OWNER, as liquidated damages, \$3,000 per day for each calendar day beyond the Contract Time Limit (September 15, 2023) or extension thereof that the Work remains incomplete, in accordance with the terms of the Agreement.

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
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BASE BID

1	150.00	Perform Cleaning & Television Inspection of Sewer Pipe 6".	LF	\$	\$
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1a	30.00	Perform heavy cleaning on existing 6" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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2	67,000.00	Perform Cleaning & Television Inspection of Sewer Pipe 8" to 12".	LF	\$	\$
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2a	13,400.00	Perform heavy cleaning on existing 8" to 12" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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3	14,800.00	Perform Cleaning & Television Inspection of Sewer Pipe 15" to 18".	LF	\$	\$
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3a	3,000.00	Perform heavy cleaning on existing 15" to 18" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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4	15,800.00	Perform Cleaning & Television Inspection of Sewer Pipe 20" to 24".	LF	\$	\$
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SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
4a	3,200.00	Perform heavy cleaning on existing 20" to 24" sewer in locations as determined from CCTV inspection.	LF	\$	\$
5	1,350.00	Perform Cleaning & Television Inspection of Sewer Pipe 26" to 30".	LF	\$	\$
5a	275.00	Perform heavy cleaning on existing 26" to 30" sewer in locations as determined from CCTV inspection.	LF	\$	\$
6	4,400.00	Perform Cleaning & Television Inspection of Sewer Pipe 32" to 36".	LF	\$	\$
6a	900.00	Perform heavy cleaning on existing 32" to 36" sewer in locations as determined from CCTV inspection.	LF	\$	\$
7	5,450.00	Perform Cleaning & Television Inspection of Sewer Pipe 38" to 42".	LF	\$	\$
7a	1,100.00	Perform heavy cleaning on existing 38" to 42" sewer in locations as determined from CCTV inspection.	LF	\$	\$

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
8	3,100.00	Perform Cleaning & Television Inspection of Sewer Pipe 46" to 48".	LF	\$	\$
8a	620.00	Perform heavy cleaning on existing 46" to 48" sewer in locations as determined from CCTV inspection.	LF	\$	\$
9	1,450.00	Perform Cleaning & Television Inspection of Sewer Pipe 50" to 54".	LF	\$	\$
9a	290.00	Perform heavy cleaning on existing 50" to 54" sewer in locations as determined from CCTV inspection.	LF	\$	\$
10	500.00	Perform Cleaning & Television Inspection of Siphon Pipe 20" to 24" sewer in locations as determined from CCTV inspection.	LF	\$	\$
10a	24.00	Perform heavy cleaning on existing 20" to 24" sewer siphon locations as determined from CCTV inspection.	HR	\$	\$

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
11	30.00	Raise Buried Manholes Located in Paved Roads (per Vertical Foot).	VF	\$ _____	\$ _____
12	10.00	Raise Buried Manhole's Located in Grass Easements (per Vertical Foot).	VF	\$ _____	\$ _____
13	20.00	Furnish and Install New Frames and Covers To Grade Buried in Paved Roads & Grass Easements (per Vertical Foot)	VF	\$ _____	\$ _____

A. SUBTOTAL BASE BID PRICE	\$ _____
B. SUBTOTAL GIS ALLOWANCE	\$15,000.00
C. SUBTOTAL EMERGENCY ON-CALL ALLOWANCE	\$50,000.00
D. SUBTOTAL POLICE ALLOWANCE	\$50,000.00
E. TOTAL BASE BID (A+B+C+D)	\$ _____

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
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ADDITIVE ALTERNATE NO. 1

14	31,000.00	Perform Cleaning & Television Inspection of Sewer Pipe 8" to 12".	LF	\$	\$
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14a	6,200.00	Perform heavy cleaning on existing 8" to 12" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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15	5,200.00	Perform Cleaning & Television Inspection of Sewer Pipe 15" to 18".	LF	\$	\$
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15a	1,000.00	Perform heavy cleaning on existing 15" to 18" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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16	6,950.00	Perform Cleaning & Television Inspection of Sewer Pipe 20" to 24".	LF	\$	\$
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16a	1,400.00	Perform heavy cleaning on existing 20" to 24" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
17	775.00	Perform Cleaning & Television Inspection of Sewer Pipe 26" to 30".	LF	\$	\$
17a	150.00	Perform heavy cleaning on existing 26" to 30" sewer in locations as determined from CCTV inspection.	LF	\$	\$
18	1,100.00	Perform Cleaning & Television Inspection of Sewer Pipe 32" to 36".	LF	\$	\$
18a	250.00	Perform heavy cleaning on existing 32" to 36" sewer in locations as determined from CCTV inspection.	LF	\$	\$
19	1,100.00	Perform Cleaning & Television Inspection of Sewer Pipe 38" to 42".	LF	\$	\$
19a	220.00	Perform heavy cleaning on existing 38" to 42" sewer in locations as determined from CCTV inspection.	LF	\$	\$

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
SUBTOTAL ALTERNATE NO. 1				\$	_____
TOTAL ALTERNATE NO. 1				\$	_____

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
<u>ADDITIVE ALTERNATE NO. 2</u>					
20	15,000.00	Perform Cleaning & Television Inspection of Sewer Pipe 8" to 12".	LF	\$	\$
20a	3,000.00	Perform heavy cleaning on existing 8" to 12" sewer in locations as determined from CCTV inspection.	LF	\$	\$
21	200.00	Perform Cleaning & Television Inspection of Sewer Pipe 15" to 18".	LF	\$	\$
21a	50.00	Perform heavy cleaning on existing 15" to 18" sewer in locations as determined from CCTV inspection.	LF	\$	\$
22	1,350.00	Perform Cleaning & Television Inspection of Sewer Pipe 28" to 32".	LF	\$	\$
22a	300.00	Perform heavy cleaning on existing 28" to 32" sewer in locations as determined from CCTV inspection.	LF	\$	\$

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated.

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
23	250.00	Perform Cleaning & Television Inspection of Sewer Pipe 42".			
			LF	\$	\$
23a	50.00	Perform heavy cleaning on existing 42 "sewer in locations as determined from CCTV inspection.			
			LF	\$	\$
SUBTOTAL ALTERNATE NO. 2				\$	
TOTAL ALTERNATE NO. 2				\$	

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
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ADDITIVE ALTERNATE NO. 3

24	175.00	Perform Cleaning & Television Inspection of Sewer Pipe 6".	LF	\$	\$
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24a	40.00	Perform heavy cleaning on existing 6" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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25	23,150.00	Perform Cleaning & Television Inspection of Sewer Pipe 8" to 12".	LF	\$	\$
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25a	4,600.00	Perform heavy cleaning on existing 8" to 12" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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26	3,700.00	Perform Cleaning & Television Inspection of Sewer Pipe 15" to 18".	LF	\$	\$
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26a	750.00	Perform heavy cleaning on existing 15" to 18" sewer in locations as determined from CCTV inspection.	LF	\$	\$
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SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
27	3,650.00	Perform Cleaning & Television Inspection of Sewer Pipe 20" to 27".	LF	\$	\$
27a	750.00	Perform heavy cleaning on existing 20" to 27" sewer in locations as determined from CCTV inspection.	LF	\$	\$
28	3,850.00	Perform Cleaning & Television Inspection of Sewer Pipe 36" to 40".	LF	\$	\$
28a	775.00	Perform heavy cleaning on existing 36" to 40" sewer in locations as determined from CCTV inspection.	LF	\$	\$
29	450.00	Perform Cleaning & Television Inspection of Sewer Pipe 48".	LF	\$	\$
29a	100.00	Perform heavy cleaning on existing 48" sewer in locations as determined from CCTV inspection.	LF	\$	\$

SCHEDULE OF UNIT PRICES

PROVIDENCE, RHODE ISLAND

Unit prices are to be Complete prices to be added on the basis of quantities of work involved, for each item in place in the unit indicated

Item Code	Quantity	Description	Unit	Unit Bid Price \$0.00	Amount (PxQ) \$0.00
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SUBTOTAL ALTERNATE NO. 3 \$ _____

TOTAL ALTERNATE NO. 3 \$ _____

Total of Base Bid - For the sum of: \$ _____
_____ **Dollars**

Total of Alternate No. 1 - For the sum of: \$ _____
_____ **Dollars**

Total of Alternate No. 2 - For the sum of: \$ _____
_____ **Dollars**

Total of Alternate No. 3 - For the sum of: \$ _____
_____ **Dollars**

Total Base Bid + Additive Alternate No. 1 through No. 3 - For the sum of: \$ _____
_____ **Dollars**

1. In submitting this Bid, the Bidder understands that the right is reserved by the Department of Public Works to reject any and all Bids. If written notice of acceptance of this Bid is mailed, emailed, or delivered to the undersigned within (90) days after the opening thereof, or at any time thereafter before this Bid is withdrawn, the undersigned agrees to execute and deliver an Agreement in the prescribed form and furnish the required bond within ten (10) days after the Agreement is presented to him/her for signature.
2. The Bidder is prepared to submit a financial and experience statement upon request.
3. If applicable unit prices are contained in the Agreement (established as the result of either a Unit Price, the City may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract.

Bidder Signature and Acknowledgement of Addenda:

DATE: _____, 20____

Official Address:

Name of Bidder (Firm):

By: _____ *(Signature)*
Title: _____

Bidder shall indicate, in space provided,
the earliest possible Project **Start-up Date:**

_____, 20____

ADDENDA: The undersigned acknowledges receipt of the following Addenda, if any, and has included the provisions thereof in this Bid:

<u>Addendum No.</u>	<u>Date</u>	<u>Addendum No.</u>	<u>Date</u>
_____	_____, 20____	_____	_____, 20____
_____	_____, 20____	_____	_____, 20____
_____	_____, 20____	_____	_____, 20____
_____	_____, 20____	_____	_____, 20____

**NON-COLLUSION AFFIDAVIT
OF PRIME BIDDER**

PROVIDENCE, RHODE ISLAND

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____
(owner, partner, officer, representative, or agent) _____

, the Bidder that has submitted the attached Bid:

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid:

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Department of Public Works or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title)

Subscribed and sworn to before me this

_____ day of _____, 20__

(Title)

My Commission expires _____

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**NON-COLLUSION AFFIDAVIT
OF SUBCONTRACTOR**

PROVIDENCE, RHODE ISLAND

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

(1) He is _____ of _____
(owner, partner, officer, representative, or agent) _____

, the Subcontractor that has submitted the attached Bid:

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid:

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Subcontractor, Bidder, firm or person to submit a collusive sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has communication or conference with any other Subcontractor, Bidder, firm or person to fix the price or prices in the attached Bid or of any other Subcontractor, Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Subcontractor, Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the Department of Public Works or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Subcontractor or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title)

Subscribed and sworn to before me this

_____ day of _____, 20__

(Title)

My Commission expires _____

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PROPOSED SUBCONTRACTORS

PROVIDENCE, RHODE ISLAND

I, _____, the BIDDER, hereby propose to utilize the following named SUBCONTRACTORS for the work items and/or estimated prices stated below and understand that the Owner reserves the right to reject any subcontractor if investigation determines they do not meet federal requirements or are otherwise unacceptable for the Project.

1. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____
Subcontractor: _____
Address: _____

City/State/Zip-Code: _____
Telephone No.: _____

2. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____
Subcontractor: _____
Address: _____

City/State/Zip-Code: _____
Telephone No.: _____

3. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____
Subcontractor: _____
Address: _____

City/State/Zip-Code: _____
Telephone No.: _____

4. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____

Subcontractor: _____

Address: _____

City/State/Zip-Code: _____

Telephone No.: _____

5. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____

Subcontractor: _____

Address: _____

City/State/Zip-Code: _____

Telephone No.: _____

6. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____

Subcontractor: _____

Address: _____

City/State/Zip-Code: _____

Telephone No.: _____

7. WORK ITEM/DESCRIPTION: _____

Estimated Value of Work: _____

Subcontractor: _____

Address: _____

City/State/Zip-Code: _____

Telephone No.: _____

(Add additional pages if necessary)

MUNICIPAL CONTRACT ADDENDUM
RHODE ISLAND DEPARTMENT OF LABOR AND TRAINING
PREVAILING WAGE REQUIREMENTS
(37-13-1 ET SEQ.)

The prevailing wage requirements are generally set forth in RIGL 37-13-1 et seq. These requirements refer to the prevailing rate of pay for regular, holiday, and overtime wages to be paid to each craftsmen, mechanic, teamster, laborer, or other type of worker performing work on public works projects when state or municipal funds exceed one thousand dollars (\$1,000).

All Prevailing Wage Contractors and Subcontractors are required to:

1. Submit to the Awarding Authority a list of the contractor's subcontractors for any part or all of the prevailing wage work in accordance with RIGL § 37-13-4;
2. Pay all prevailing wage employees at least once per week and in accordance with RIGL §37-13-7;
3. Post the prevailing wage rate scale and the Department of Labor and Training's prevailing wage poster in a prominent and easily accessible place on the work site in accordance with RIGL §37-13-11; posters may be downloaded at <https://dlt.ri.gov/requiredposters/> or obtained from the Department of Labor and Training, Center General Complex, 1511 Pontiac Avenue, Cranston, Rhode Island;
4. Access the Department of Labor and Training website, at <https://dlt.ri.gov> on or before July 1st of each year, until such time as the contract is completed, to ascertain the current prevailing wage rates and the amount of payment or contributions for each covered prevailing wage employee and make any necessary adjustments to the covered employee's prevailing wage rates effective July 1st of each year in compliance with RIGL §37-13-8;
5. Attach a copy of this CONTRACT ADDENDUM and its attachments as a binding obligation to any and all contracts between the contractor and any subcontractors and their assignees for prevailing wage work performed pursuant to this contract;
6. Provide for the payment of overtime for prevailing wage employees who work in excess of eight (8) hours in any one day or forty (40) hours in any one week as provided by RIGL §37-13-10;

7. Maintain accurate prevailing wage employee payroll records on a Rhode Island Certified Weekly Payroll form available for download at <https://dlt.ri.gov/wrs/prevailingwage/> as required by RIGL §37-13-13, and make those records available to the Department of Labor and Training upon request;
8. Furnish the fully executed RI Certified Weekly Payroll Form to the awarding authority on a monthly basis for all work completed in the preceding month.
9. For general or primary contracts one million dollars (\$1,000,000) or more, shall maintain on the work site a fully executed RI Certified Prevailing Wage Daily Log listing the contractor's employees employed each day on the public works site; the RI Certified Prevailing Wage Daily Log shall be available for inspection on the public works site at all times; this rule shall not apply to road, highway, or bridge public works projects. Where applicable, furnish both the Rhode Island Certified Prevailing Wage Daily Log together with the Rhode Island Weekly Certified Payroll to the awarding authority.
10. Any violation of RIGL 37-13-13 of Certified Weekly Payroll Forms and Daily Logs will result in the department imposing a penalty on the contractor of a minimum of one hundred dollars (\$100) for each calendar day of noncompliance.
11. Assure that all covered prevailing wage employees on construction projects with a total project cost of one hundred thousand dollars (\$100,000) or more has a OSHA ten (10) hour construction safety certification in compliance with RIGL § 37-23-1;
12. Assure that all prevailing wage employees who perform work which requires a Rhode Island trade license possess the appropriate Rhode Island trade license in compliance with Rhode Island law; and
13. Comply with all applicable provisions of RIGL §37-13-1, et. seq;

Any questions or concerns regarding this CONTRACT ADDENDUM should be addressed to the contractor or subcontractor's attorney. Additional Prevailing Wage information may be obtained from the Department of Labor and Training at <https://dlt.ri.gov/wrs/prevailingwage/>.

CERTIFICATION

I hereby certify that I have reviewed this CONTRACT ADDENDUM
and understand my obligations as stated above.

By: _____

Title: _____

Subscribed and sworn before me this ____ day of _____, 20__.

Notary Public
My commission expires: _____



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

WBE/MBE Form Instructions

The City of Providence actively seeks Minority and Women business enterprises to participate in bids to meet the City's procurement needs. Pursuant to the City of Providence Code of Ordinances, Chapter 21, Article II, Sec. 21-52 (Minority and Women's Business Enterprise) and Rhode Island General Laws (as amended), Chapter 31-14, et seq. (Minority Business Enterprise), Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is **10%** of the total bid value.

The goal for Women's Business Enterprise (WBE) participation is **10%** of the total bid value.

The goal for combined MBE/WBE participation is **20%** of the total bid value.

Only businesses certified with the State of Rhode Island as minority and/or women business enterprises are counted towards the City's goals. Eligible minority or women-owned businesses are encouraged to seek certification from the State of Rhode Island Minority Business Enterprise Compliance Office at: <http://odeo.ri.gov/offices/mbeco/>

Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Bid Requirements:

All Bidders: All bidders **must complete and submit the *MBE/WBE Participation Affidavit*** indicating whether or not they are a state-certified MBE/WBE and acknowledging the City's participation goals. Submission of this form is **required with every bid**. **Your bid will not be accepted without an affidavit.**

Bidders who will be subcontracting: *In addition to the MBE/WBE Participation Affidavit*, Bidders who will be subcontracting must submit the ***Subcontractor Disclosure Form*** as part of their bid submission. All subcontractors, regardless of MBE/WBE status, must be listed on this form. Business NAICS codes can be found at <https://www.naics.com/search/>. Awarded bidders are required to submit

Subcontractor Utilization and Payment Reports with each invoice.

Waiver Requests:

- a) If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F on the Subcontractor Disclosure Form) and the prime contractor is not a Rhode Island State-certified MBE or WBE, the Bidder must complete the *MBE/WBE Waiver Request Form* for review.
- b) If the prime contractor company has the capacity to perform the whole project, the City of Providence requires the contractor to meet the city's goal of a combined 20% of MBE and WBE participation.
- c) If the contractor is a nonprofit organization, the City of Providence requires the nonprofit organization to provide the *MBE/WBE Participation Affidavit Form* and proof of its nonprofit status.
- d) If the contractor has researched the RI Certified minority list (<http://odeo.ri.gov/offices/mbeco/mbe-wbe.php>) and the state does not have any companies in the desired trade, the City of Providence requires the contractor to provide the *MBE/WBE Participation Affidavit Form*.
- e) Waivers will be considered for approval on a case-by-case basis.



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

Verifying MBE/WBE Certification

It is the responsibility of the bidder to confirm that every MBE or WBE named in a proposal and included on a contract is certified by the Rhode Island Minority Business Enterprise Compliance Office. The current MBE/WBE directory is available at the State of RI MBE Office, One Capitol Hill, 2nd Floor, Providence, RI, or online at <http://odeo.ri.gov/offices/mbeco/mbe-wbe.php>. You can also call (401) 574-8670 to verify certification, expiration dates, and services that the MBE/WBE is certified to provide. Note: MBE certification with the State of Rhode Island on the basis of Portuguese heritage is not currently recognized by the City of Providence's MBE program.

Form Instructions:

Access all bid forms from <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>. Download the forms as blank PDFs. Once saved on your computer, fill them out using the Adobe program. The fillable PDFs must be completed in Adobe in order to be saved properly. Google Chrome and similar platforms do not allow for the forms to be saved as filled PDFs. Therefore, please download the blank forms to your computer, then fill them out and save.

Assistance with Form Requirements

Examples of completed forms can be found on the City of Providence website at <http://www.providenceri.gov/oeo/> or <http://www.providenceri.gov/purchasing/minority-women-owned-business-mbewbe-procurement-program/>.

Contract Requirements:

Prime contractors engaging subcontractors must submit the *Subcontractor Utilization and Payment Report* to the City Department's Fiscal Agent with every invoice and request for final payment. A copy of all forms should be sent to the MBE/WBE Outreach Director Office, Grace Diaz at gdiaz@providenceri.gov. This form is not submitted as a part of the initial bid package. For contracts with durations of less than 3 months, this form must be submitted along with the contractor's request for final payment. The form must include all subcontractors utilized on the contract, both MBE/WBE and non- MBE/WBE, the total amount paid to each subcontractor for the given period and to date, A copy of all forms should be sent to the MBE/WBE Outreach Director Office, Grace Diaz at gdiaz@providenceri.gov. During the term of the contract, any unjustified failure to comply with the MBE/WBE participation requirements is a material breach of contract.

Questions?

For more information or for assistance with MBE/WBE Forms, contact the City of Providence MBE/WBE Outreach Director, Grace Diaz, at gdiaz@providenceri.gov or (401) 680-5766.



DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND

MBE/WBE PARTICIPATION AFFIDAVIT

Project /Item Description (as seen on RFP):

Prime Bidder: _____ Contact Email and Phone _____

Company Name, Address and Trade: _____

Which one of the following describes your business' status in terms of Minority and/or Woman-Owned Business Enterprise certification with the State of Rhode Island? _____ MBE _____ WBE _____ Neither MBE nor WBE

By initialing the following sections and signing the bottom of this document in my capacity as the contractor or an authorized representative of contractor, I make this Affidavit:

It is the policy of the City of Providence that minority business enterprises (MBEs) and women business enterprises (WBEs) should have the maximum opportunity to participate in procurements and projects as prime contractors and vendors. Pursuant to Sec. 21-52 of the Providence Code of Ordinances and Chapter 31-14 *et seq.* of the Rhode Island General Laws (as amended), MBE and WBE participation goals apply to contracts.

The goal for Minority Business Enterprise (MBE) participation is 10% of the total bid value.
The goal for Women's Business Enterprise (WBE) participation is 10% of the total bid value.
The goal for combined MBE/WBE participation is 20% of the total bid value.

I acknowledge the City of Providence's goals of supporting MBE/WBE certified businesses. Initial _____

If awarded the contract, I understand that my company must submit to the Minority and Women's Business Coordinator at the City of Providence (MBE/WBE Office), copies of all executed agreements with the subcontractor(s) being utilized to achieve the participation goals and other requirements of the RI General Laws. **I understand that these documents must be submitted prior to the issuance of a notice to proceed.** Initial _____

I understand that, if awarded the contract, my firm must submit to the MBE/WBE Office canceled checks and reports required by the MBE/WBE Office on a quarterly basis verifying payments to the subcontractors(s) utilized on the contract. Initial _____

If I am awarded this contract and find that I am unable to utilize the subcontractor(s) identified in my Statement of Intent, I understand that I must substitute another certified MBE and WBE firm(s) to meet the participation goals. **I understand that I may not make a substitution until I have obtained the written approval of the MBE/WBE Office.**
Initial _____

If awarded this contract, I understand that authorized representatives of the City of Providence may examine the books, records and files of my firm from time to time, to the extent that such material is relevant to a determination of whether my firm is complying with the City's MBE/WBE participation requirements.
Initial _____

I do solemnly declare and affirm under the penalty of perjury that the contents of the foregoing Affidavit are true and correct to the best of my knowledge, information, and belief.

Signature of Bidder

Printed Name

Company Name

Date



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

SUBCONTRACTOR DISCLOSURE FORM

Fill out this form only if you WILL SUBCONTRACT with other parties. If you will not subcontract any portion of the proposed bid, do not fill out this form.

Prime Bidder: _____ Primary NAICS _____

Code: _____

Item Description (as seen on RFP): _____

Please list all Subcontractors below. Include the total dollar value that you propose to share with each subcontractor and the dollar amount to be subcontracted. Please check off MBE and WBE where applicable. The directory of all state-certified MBE/WBE firms is located at www.mbe.ri.gov. Business NAICS codes can be found at

<https://www.naics.com/search/>

Proposed Subcontractor	MBE	WBE	Primary NAICS Code	Date of Mobilization	\$ Value of Subcontract
					\$
					\$
					\$
					\$
					\$
					\$
A. MBE SUBCONTRACTED AMOUNT:					\$
B. WBE SUBCONTRACTED AMOUNT:					\$
C. NON-MBE WBE SUBCONTRACTED AMOUNT:					\$
D. DOLLAR AMOUNT OF WORK DONE BY THE PRIME CONTRACTOR:					\$
E. TOTAL AMOUNT OF BID (SUM OF A, B, C, & D):					\$
F. PERCENTAGE OF BID SUBCONTRACTED TO MBEs AND WBEs. (Divide the sum of A and B by E and multiply result by 100).					%

Please read and initial the following statement acknowledging you understand. If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box (F) and the prime contractor is NOT a Rhode Island State-certified MBE or WBE, you must fill out the MBE/WBE WAIVER REQUEST FORM for consideration by City of Providence MBE/WBE Outreach Director. Initial _____ Required

Signature of Bidder

Printed Name



DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND

MBE/WBE Waiver Request Form

Fill out this form only if you did not meet the 20% MBE/WBE participation goal.
State-certified MBE or WBE Prime Bidders are NOT REQUIRED to fill out this form.

Submit this form to the City of Providence MBE/WBE Outreach Director, Grace Diaz, at mbe-wbe@providenceri.gov, for review **prior to bid submission**. This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit in the future. **In case a waiver is need it City Department Directors should not recommend a bidder for award if this form is not included, absent or is not signed by the city of Providence MBE/WBE director.**

Prime Bidder: _____ Contact Email and Phone _____
Company Name, Address: _____ Trade _____
Project /Item Description (as seen on RFP): _____

To receive a waiver, you must list the certified MBE and/or WBE companies you contacted, the name of the primary individual with whom you interacted, and the reason the MBE/WBE company could not participate on this project.

MBE/WBE Company Name	Individual's Name	Company Name	Why did you choose not to work with this company?

I acknowledge the City of Providence's goal of a combined MBE/WBE participation is 20% of the total bid value. I am requesting a waiver of _____ % MBE/WBE (20% minus the value of **Box F** on the Subcontractor Disclosure Form). If an opportunity is identified to subcontract any task associated with the fulfillment of this contract, a good faith effort will be made to select MBE/WBE certified businesses as partners.

Signature of Prime Contractor / or
Duly Authorized Representative

Printed Name

Date Signed

Signature of City of Providence (or Designee (Only)
MBE/WBE Outreach Director

Printed Name of City of Providence
MBE/WBE Outreach Director

Date Signed



**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

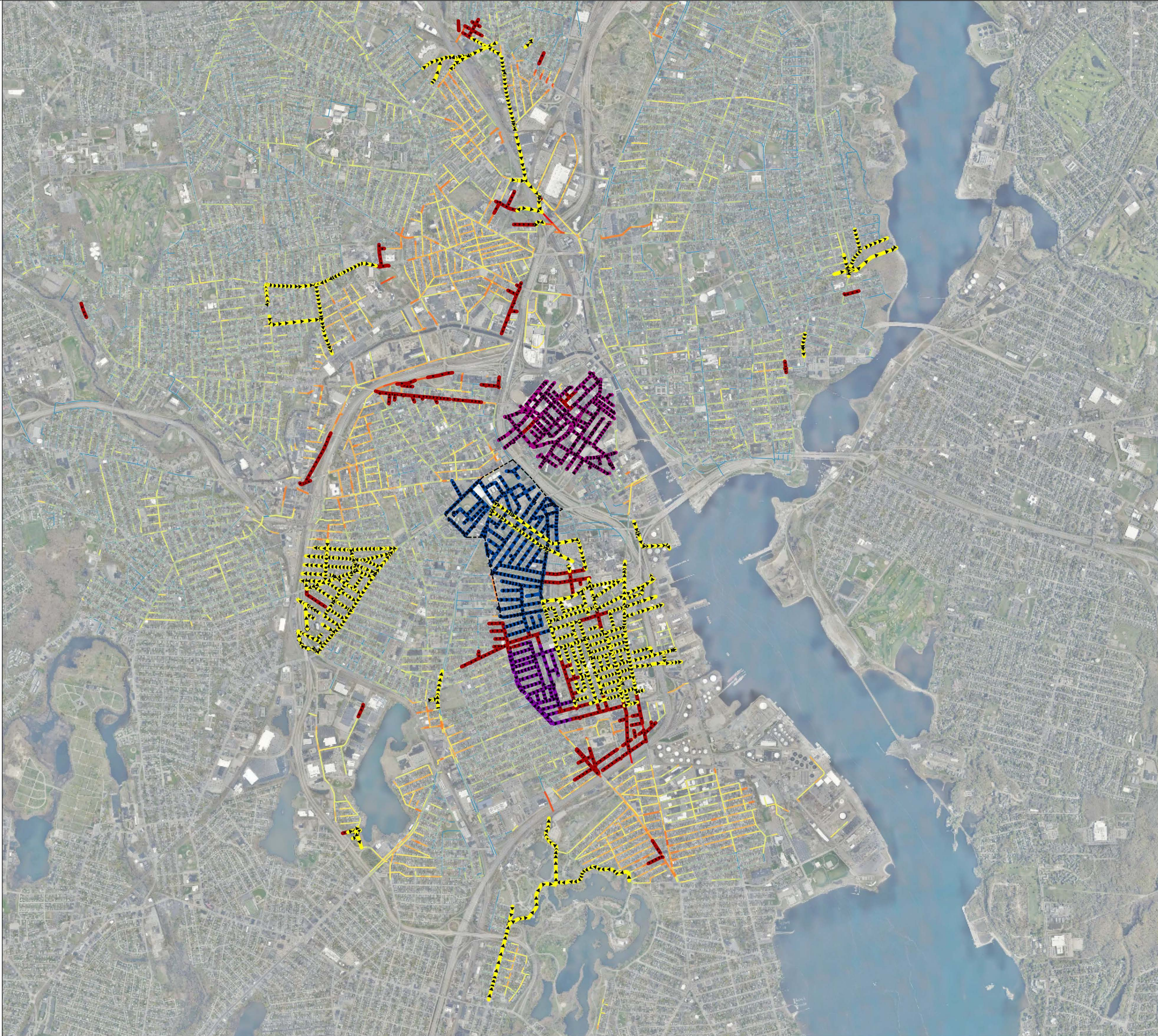
ATTACHMENT C

2023 System Evaluation & CCTV Inspection Figures

City of Providence 2023 Sewer System Evaluation & CCTV Inspection

Legend

- Proposed CCTV - Base Bid
- Extent of Trinity Square Project
- Do Not CCTV Previously Inspected
- Additive Alt 1
- Additive Alt 2
- Additive Alt 3



1 Inch = 1,250 Feet





City of Providence 2022 Sewer System Evaluation & CCTV Inspection Elmwood Ave

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

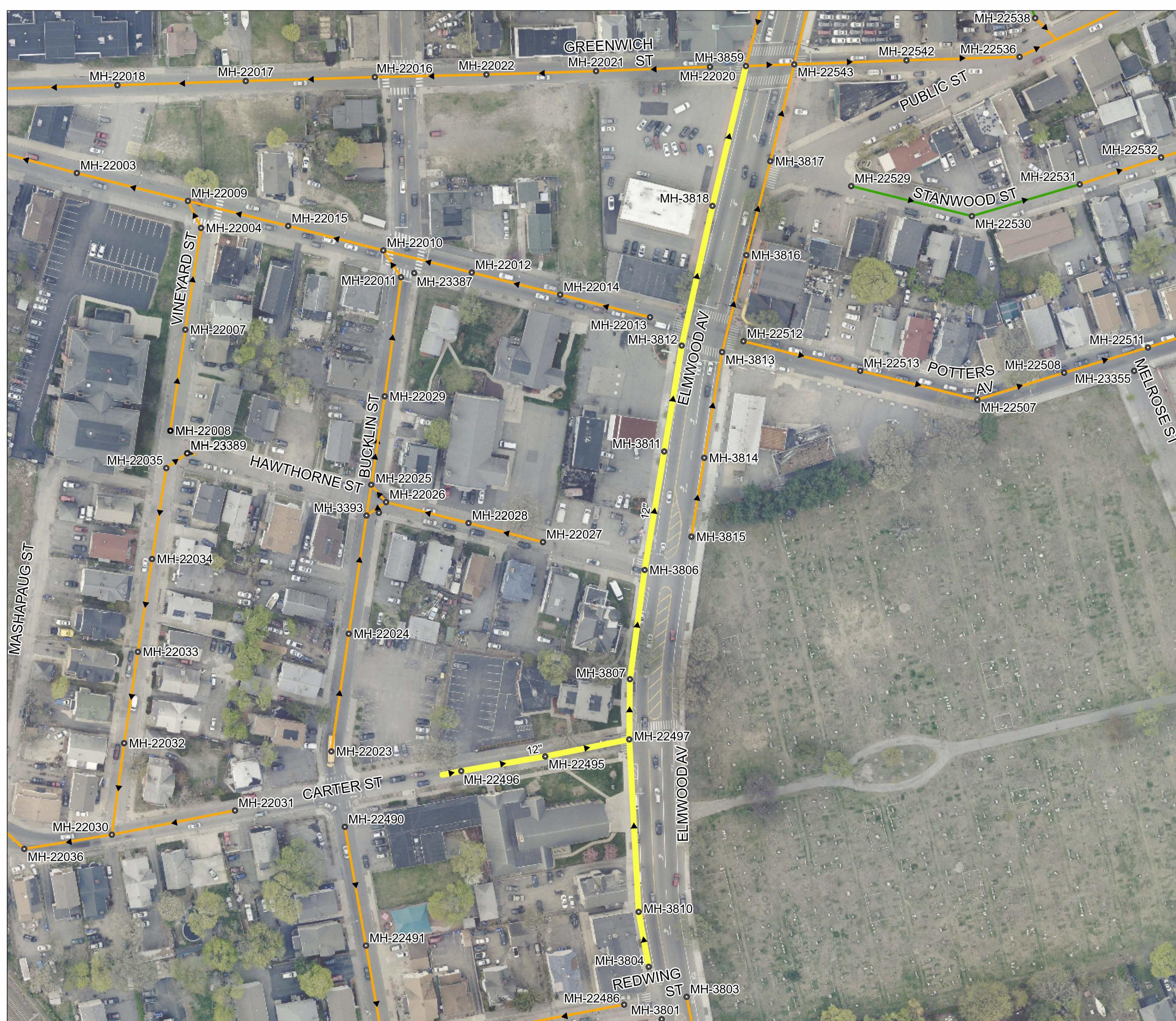
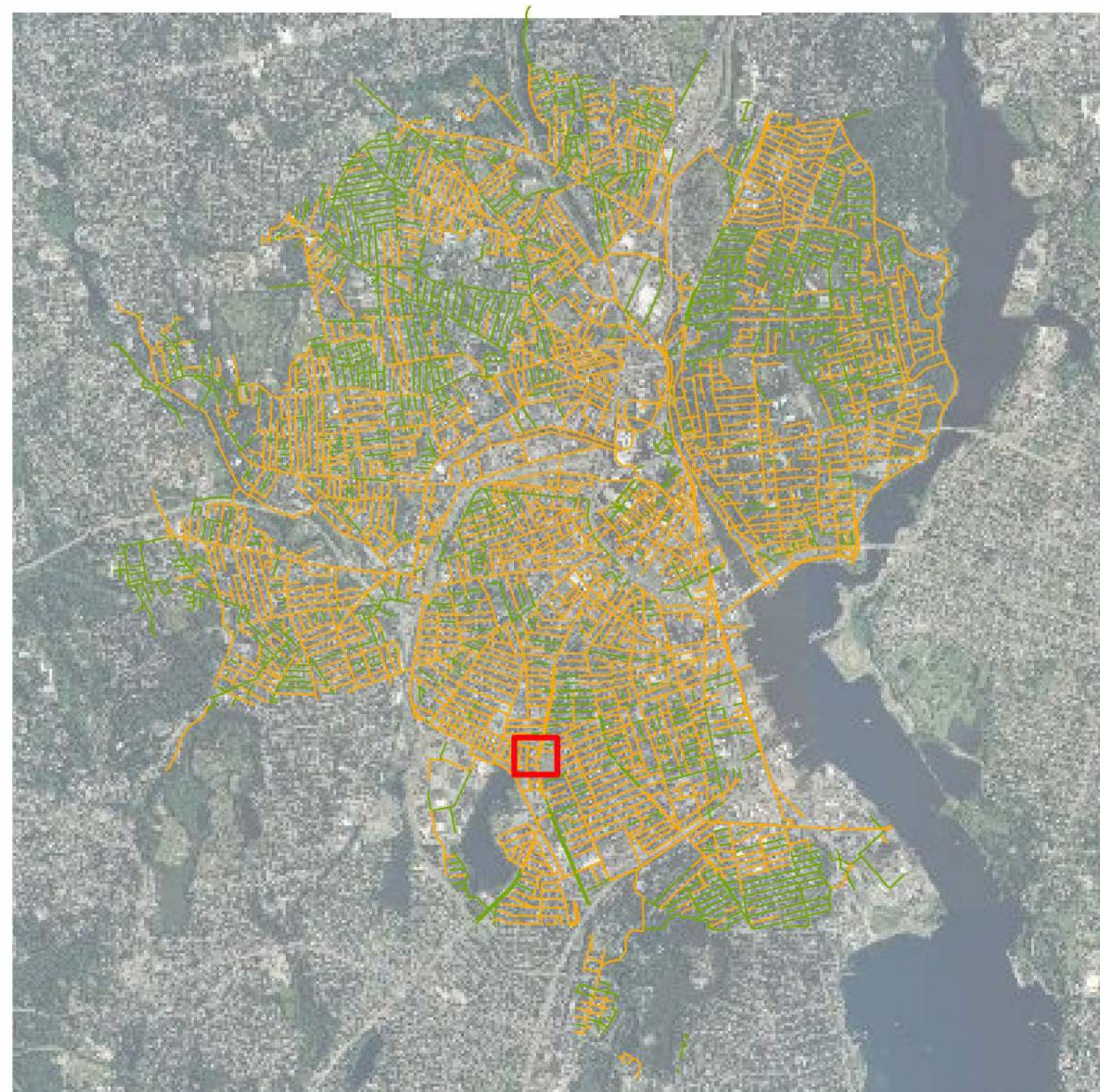
Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Elmwood Ave	
Diameter	12"
Length (ft)	1283
Area Total	1283



1 Inch = 50 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Roger Williams Park - Index Page

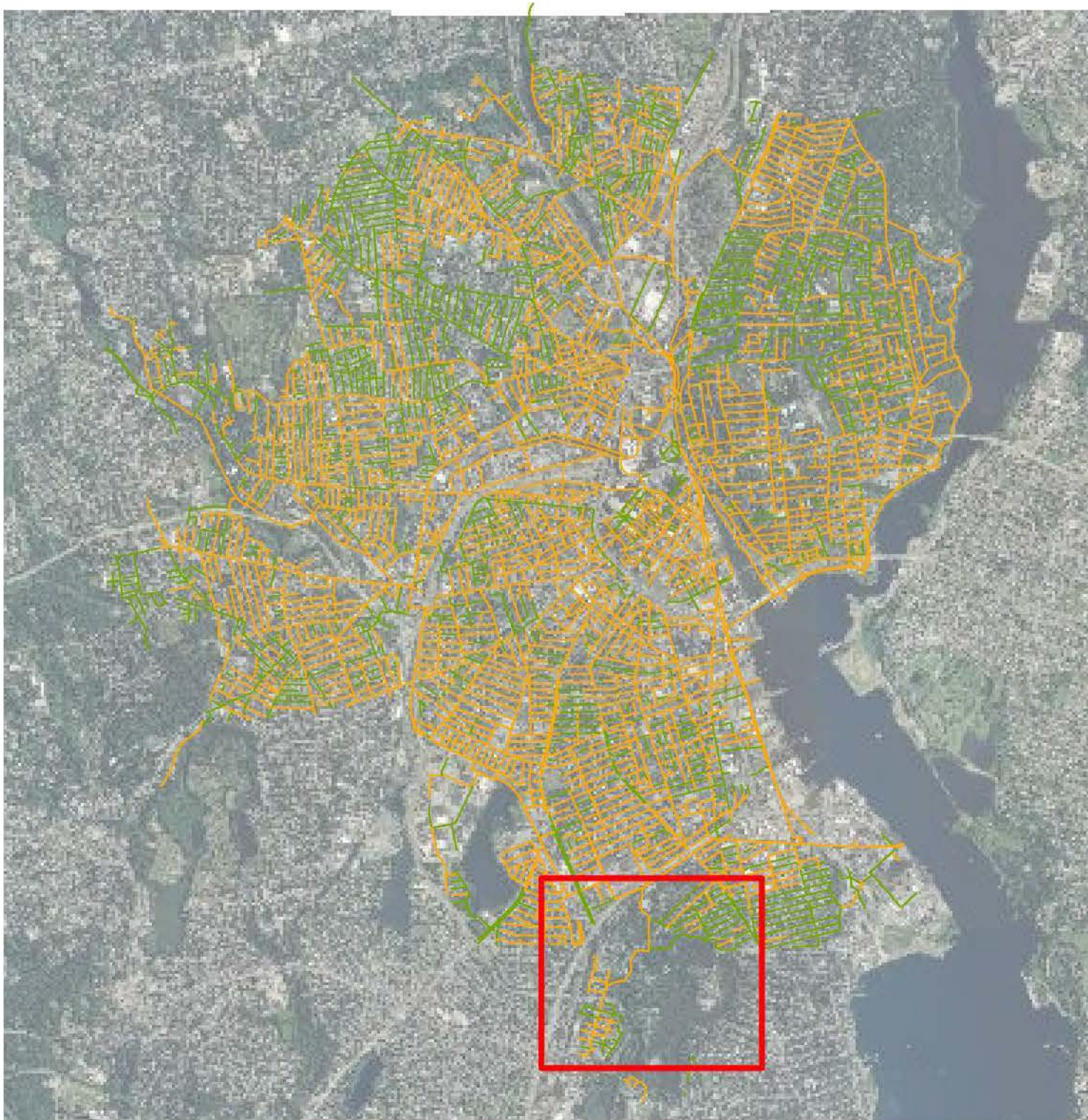
Legend

- Sewer Pipes
- Sanitary Pipe
- Combined Pipe
- Proposed CCTV
- Combined
- Sanitary

Diameter	Length (ft)
Roger Williams Park	
12"	523
15"	467
20"	2468
24"	6120
Area Total	9578



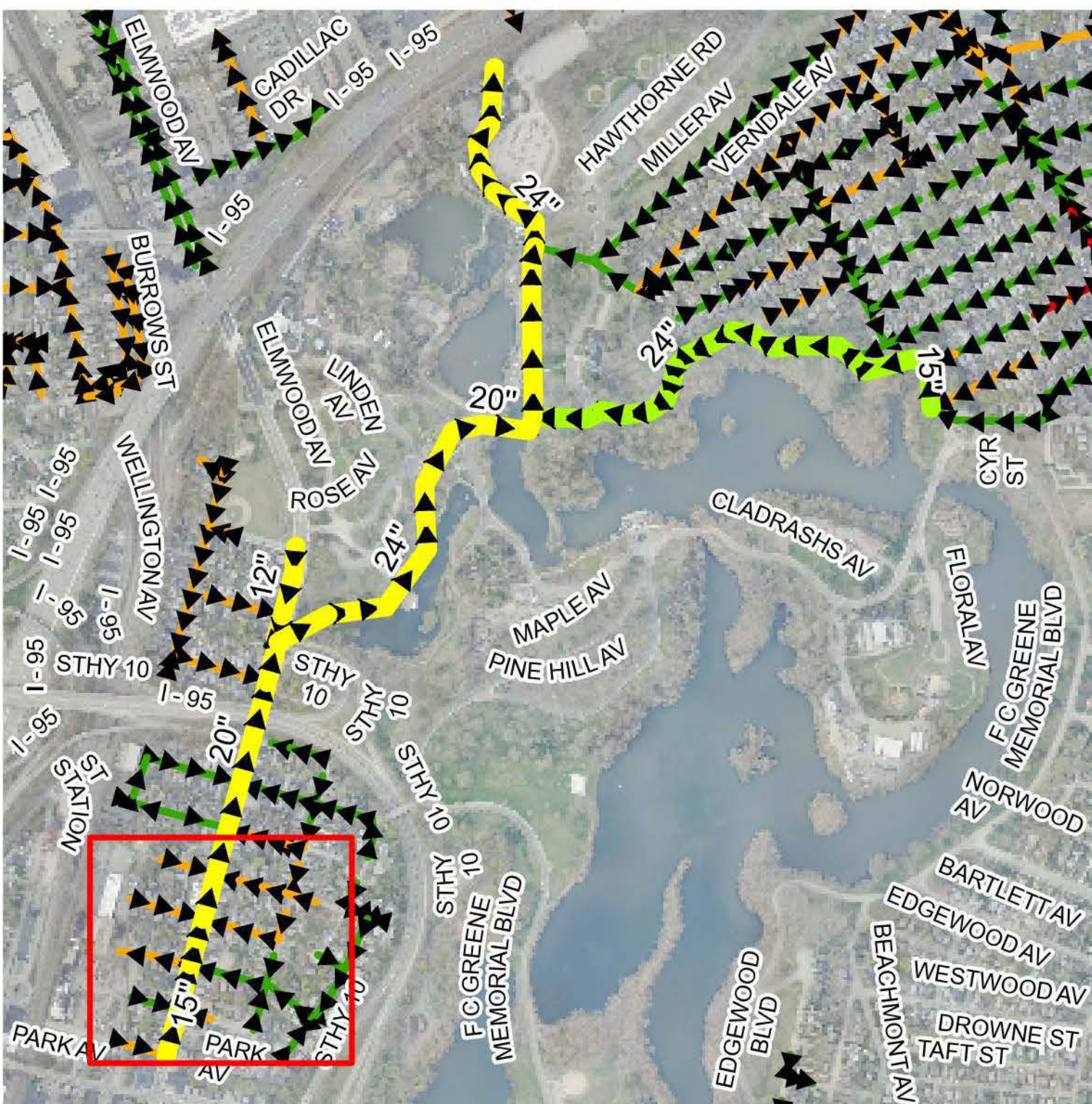
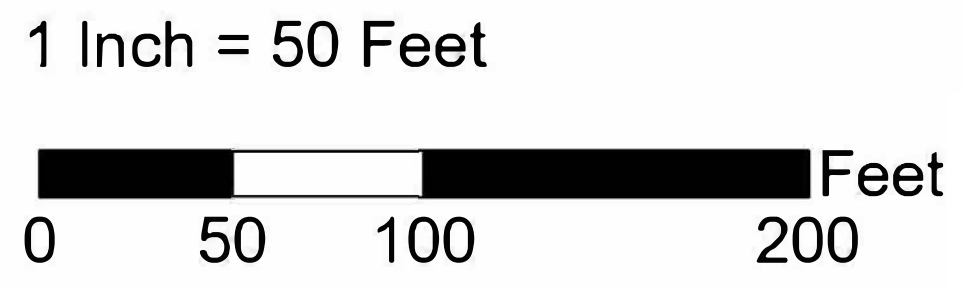
1 Inch = 250 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 1

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



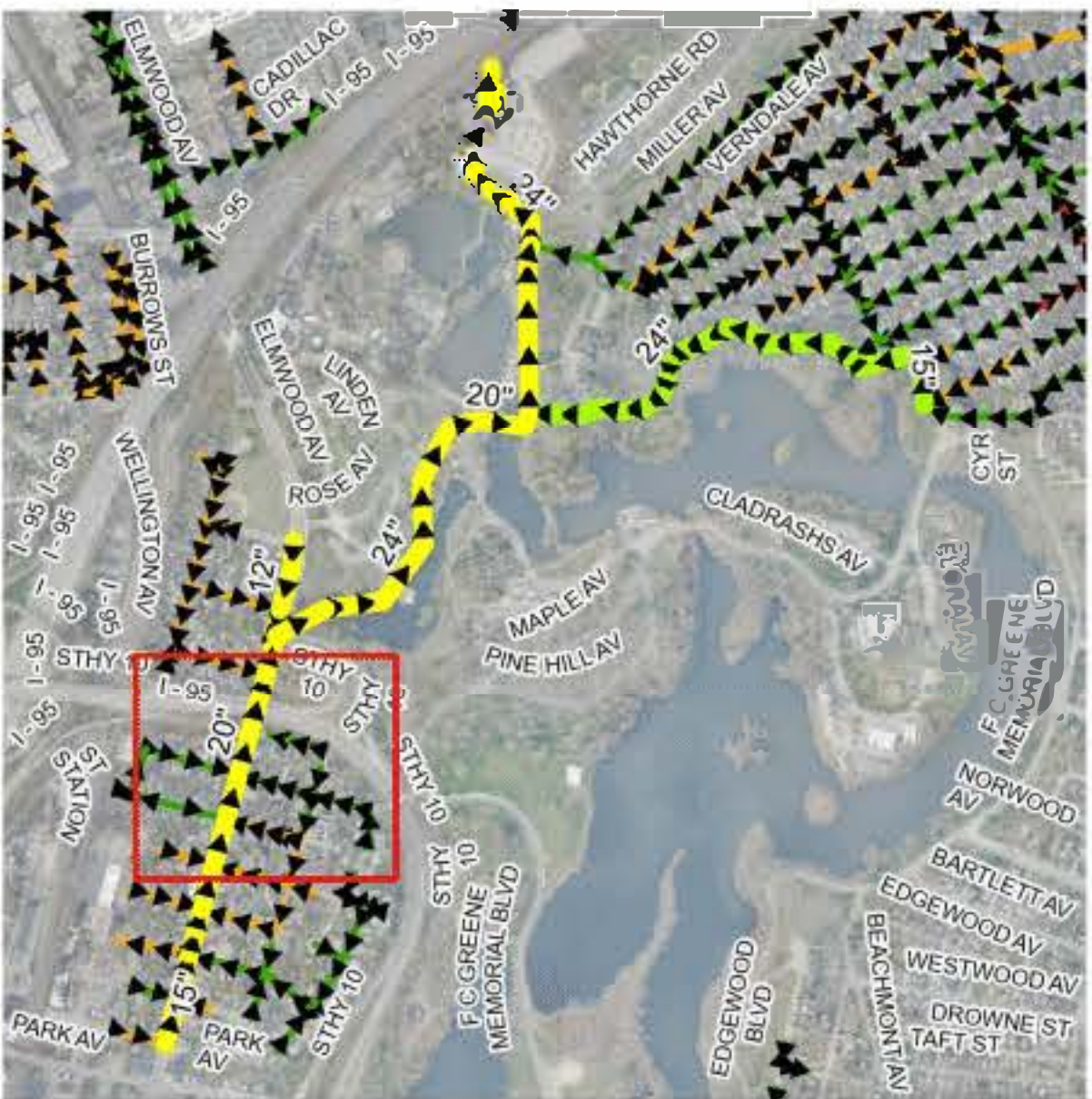
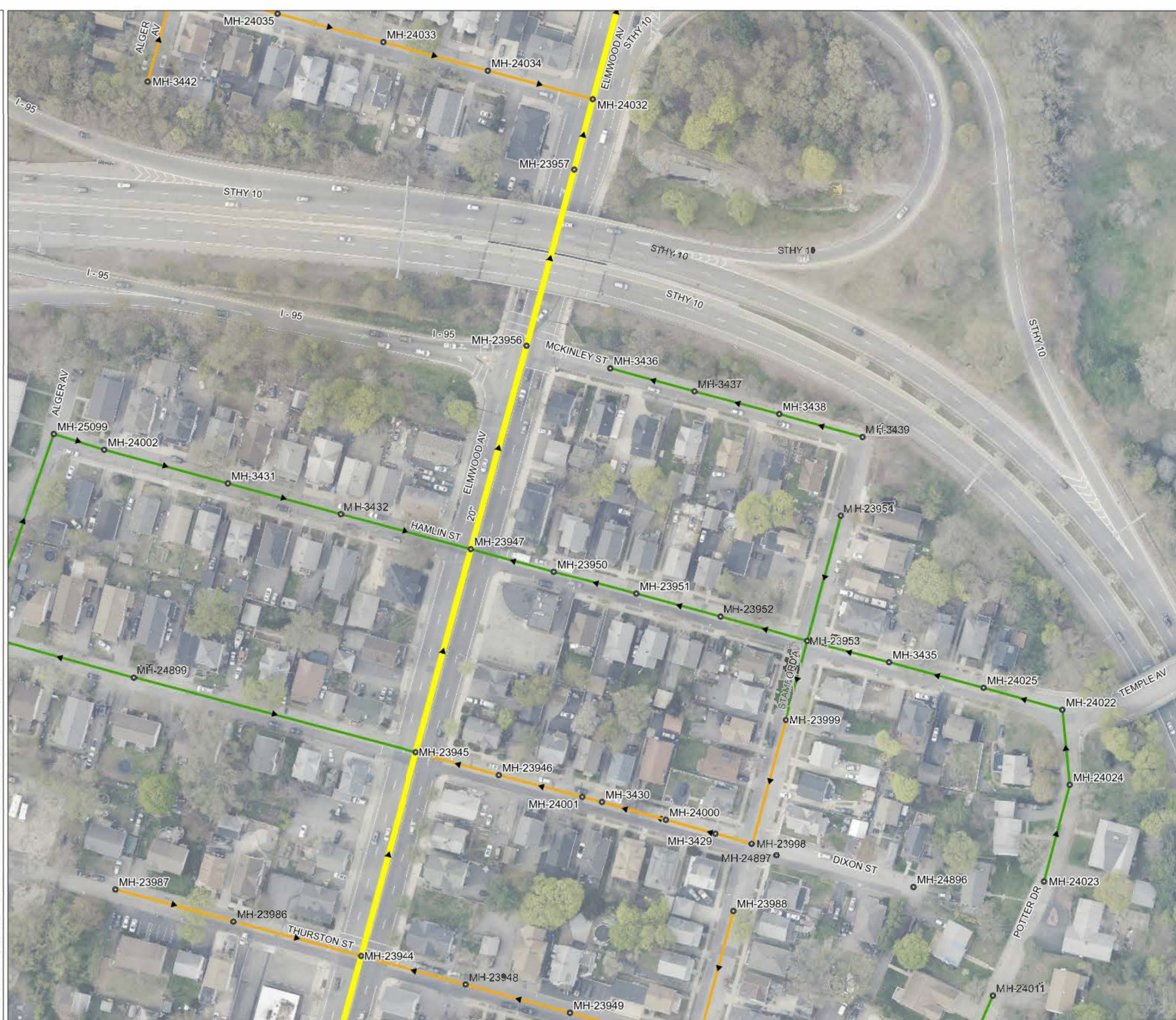
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 2

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



1 Inch = 50 Feet



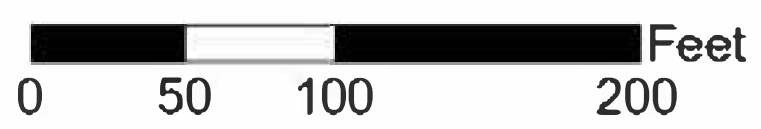
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 3

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



1 Inch = 50 Feet



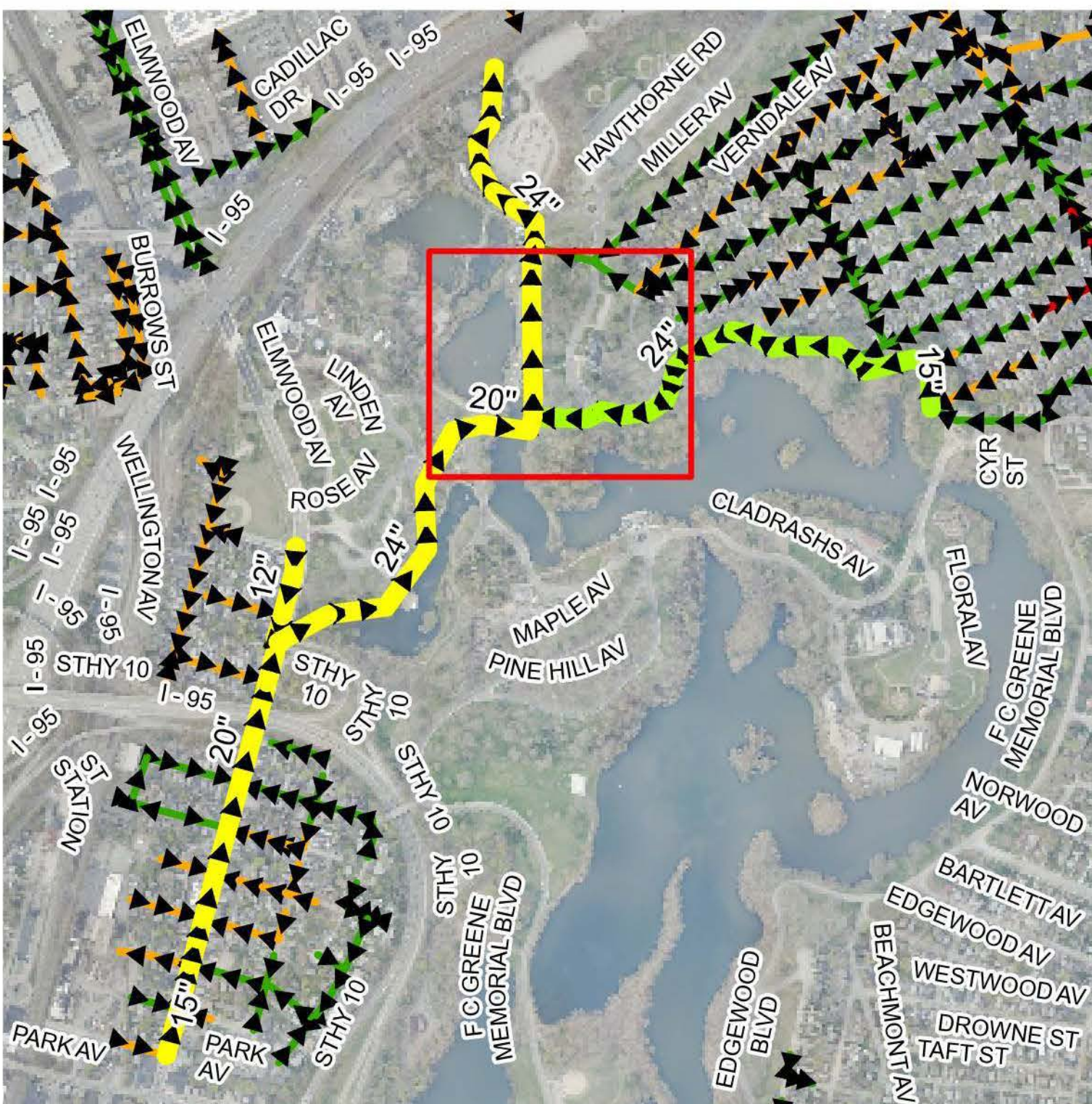
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 4

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



1 Inch = 50 Feet



Please note that this line may likely be a siphon. Bidders must account for the potential use of a vacuum system, recycler, flow control, obstruction removal, and cleaning prior to inspection. CCTV inspection is preferred but if CCTV is not possible due to flow conditions then other forms of inspection must be used such as sonar.

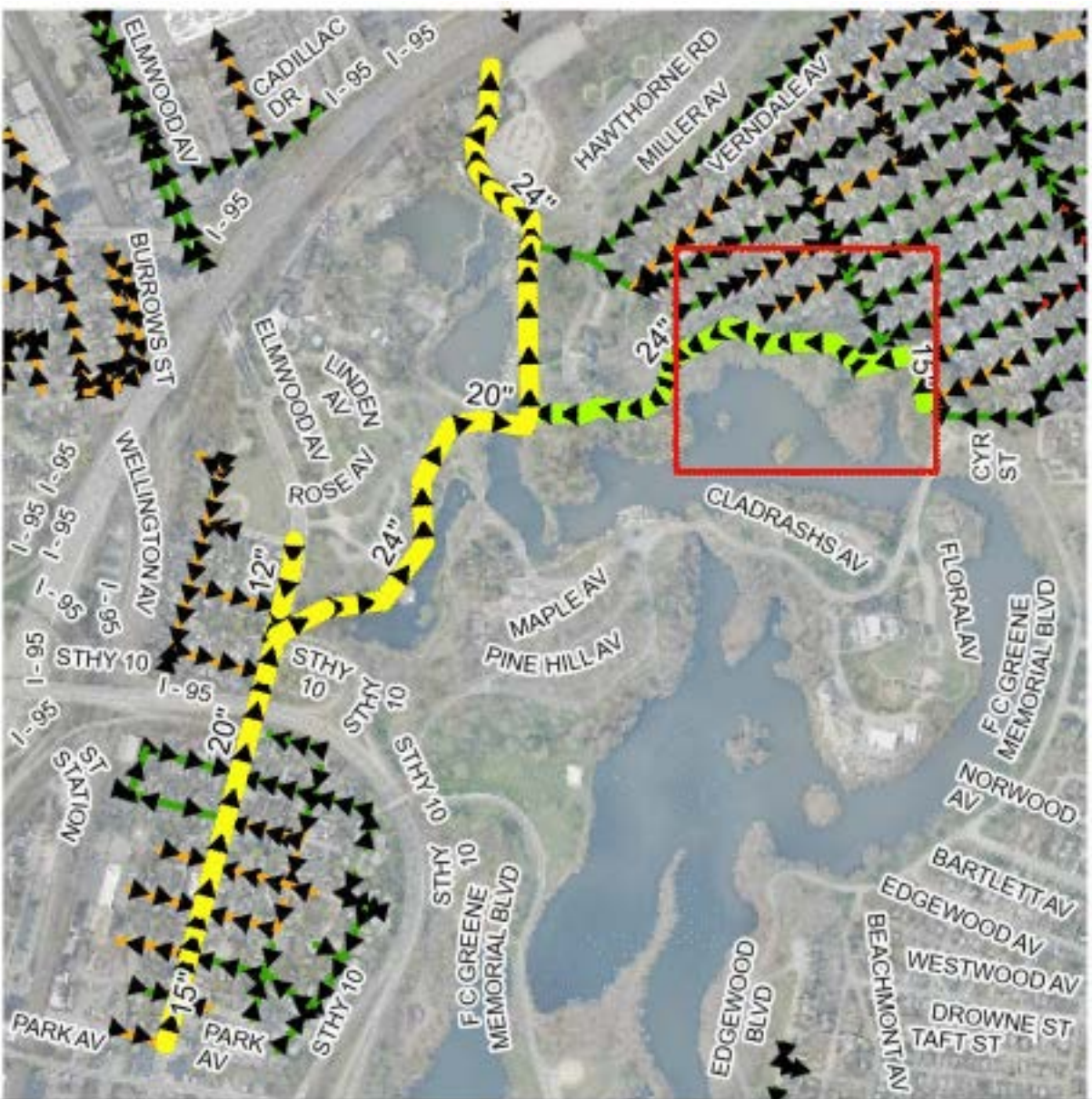
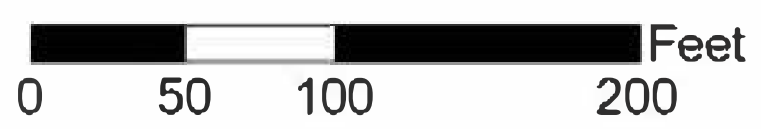
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 5

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



1 Inch = 50 Feet



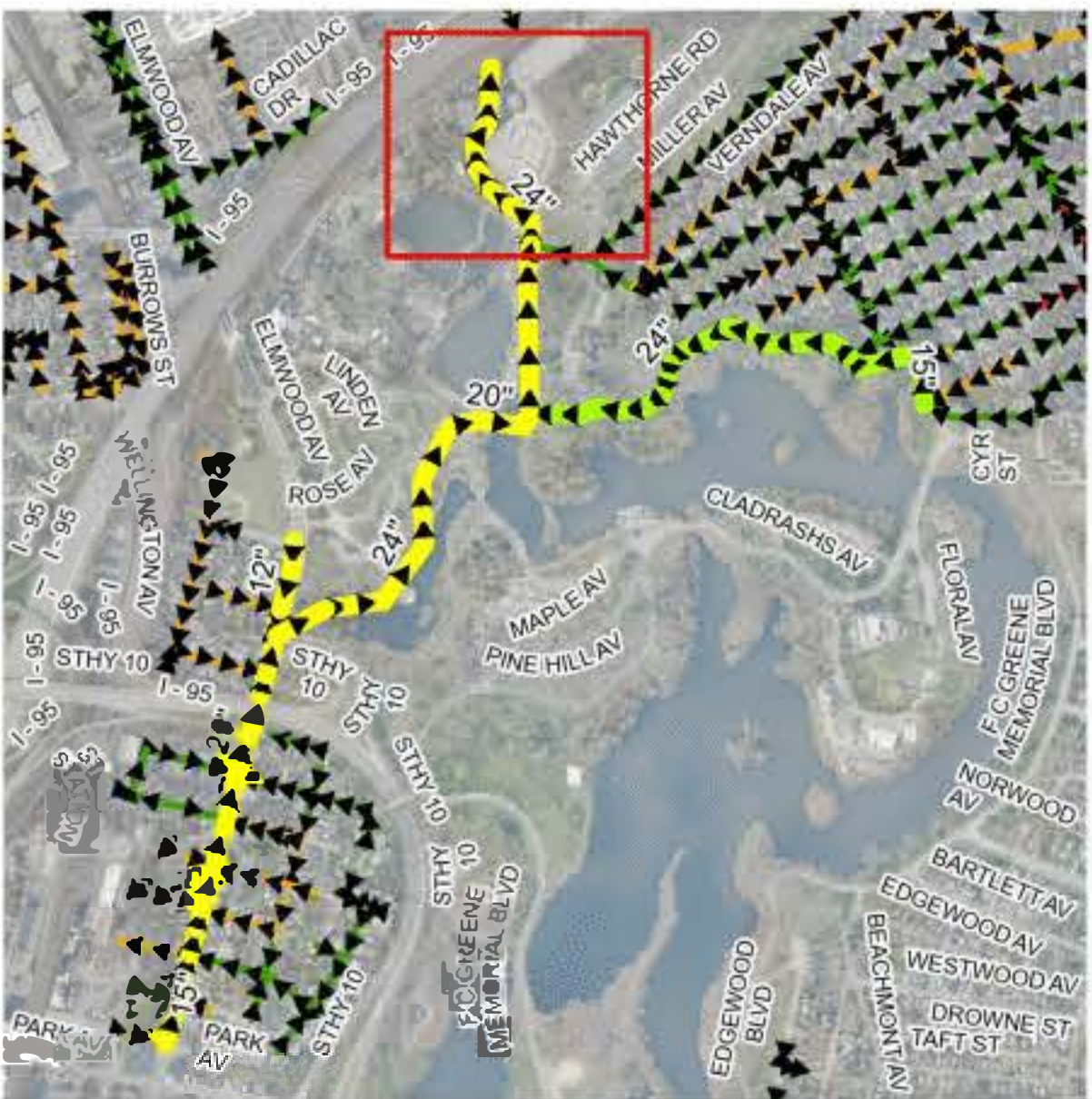
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Roger Williams Park - Page 6

Legend

- Manholes
 - Sanitary Pipe
 - Combined Pipe
- Proposed CCTV
- Combined
 - Sanitary
 - Stormwater



1 Inch = 50 Feet

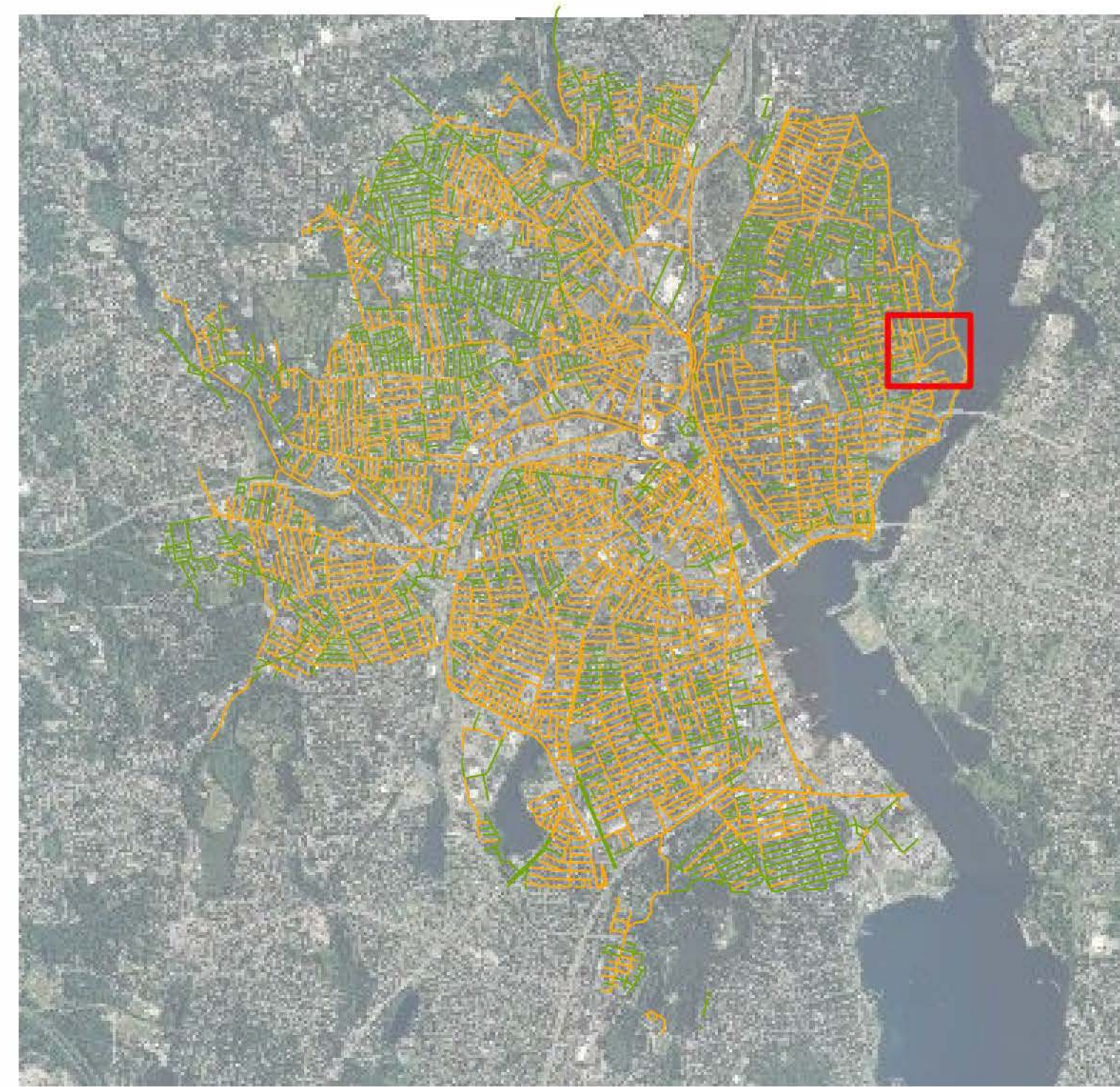
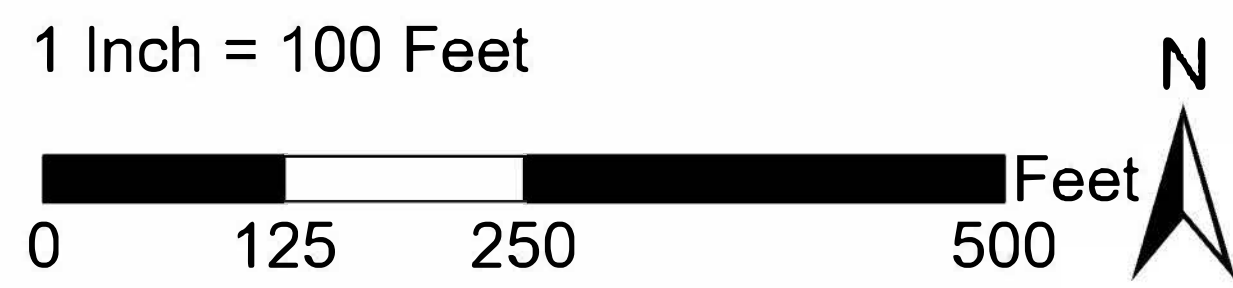


City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Blackstone Blvd - Index Page

Legend

- Sewer Pipes
- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater
- Proposed CCTV
- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater




Diameter	Length (ft)
Blackstone Blvd	
12"	542
15"	1462
20"	321
22"	66
36"	243
40"	282
42"	207
48"	639
50"	1278
54"	74
Area Total	5116






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Blackstone Blvd - Page 1

Legend

Sewer Pipes

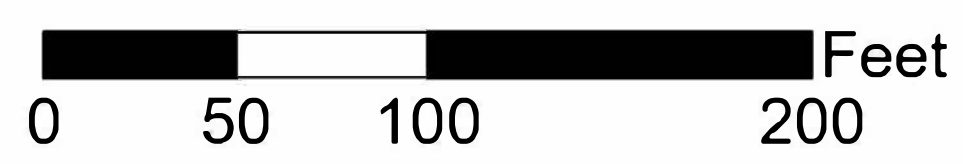
-  Combined
-  Sanitary
-  Stormwater

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater






1 Inch = 50 Feet






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Blackstone Blvd - Page 2

Legend

Sewer Pipes

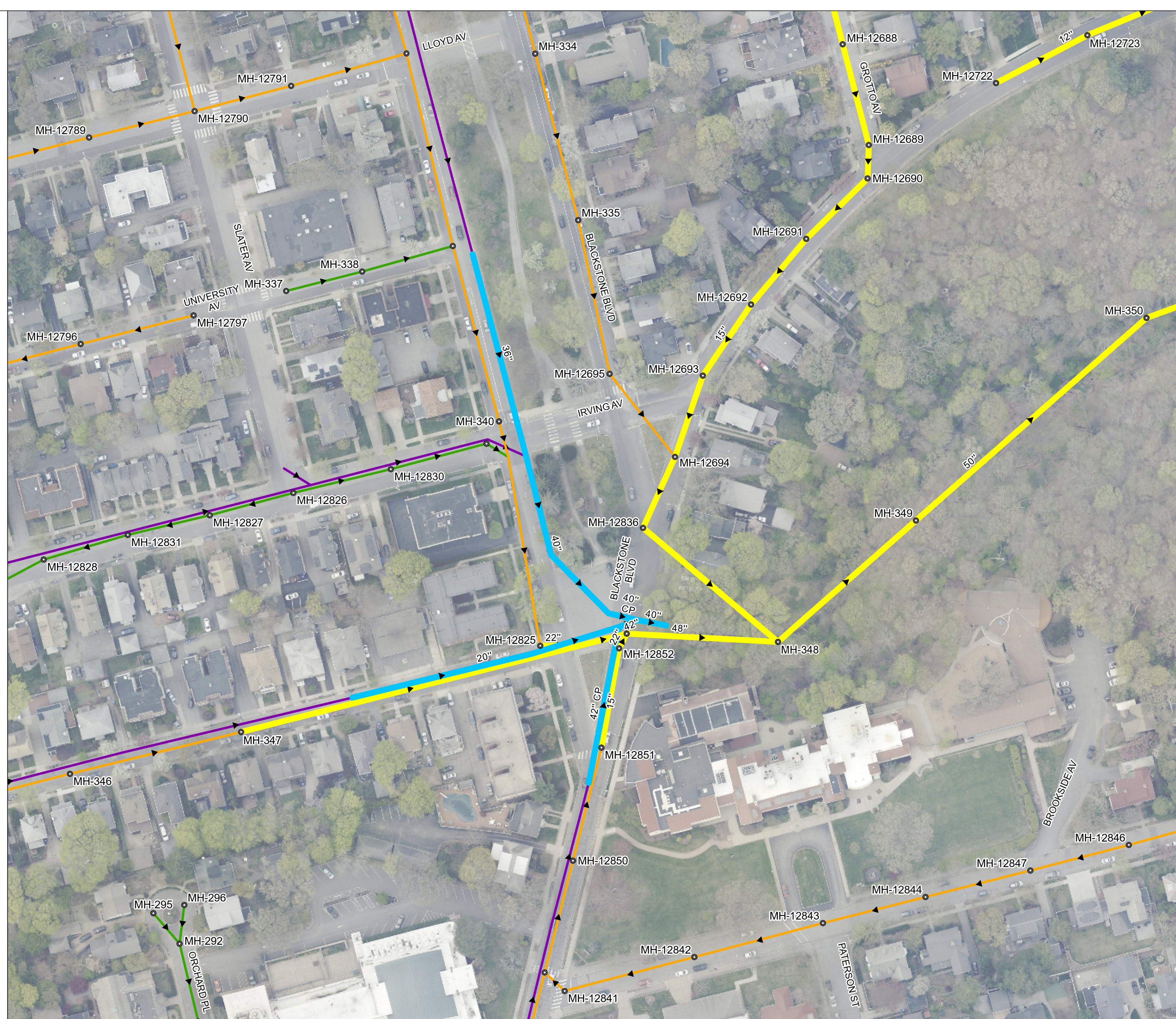
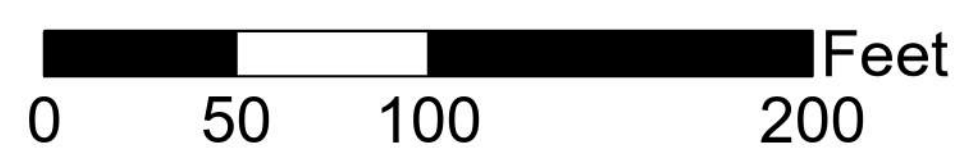
-  Combined
-  Sanitary
-  Stormwater

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater



1 Inch = 50 Feet

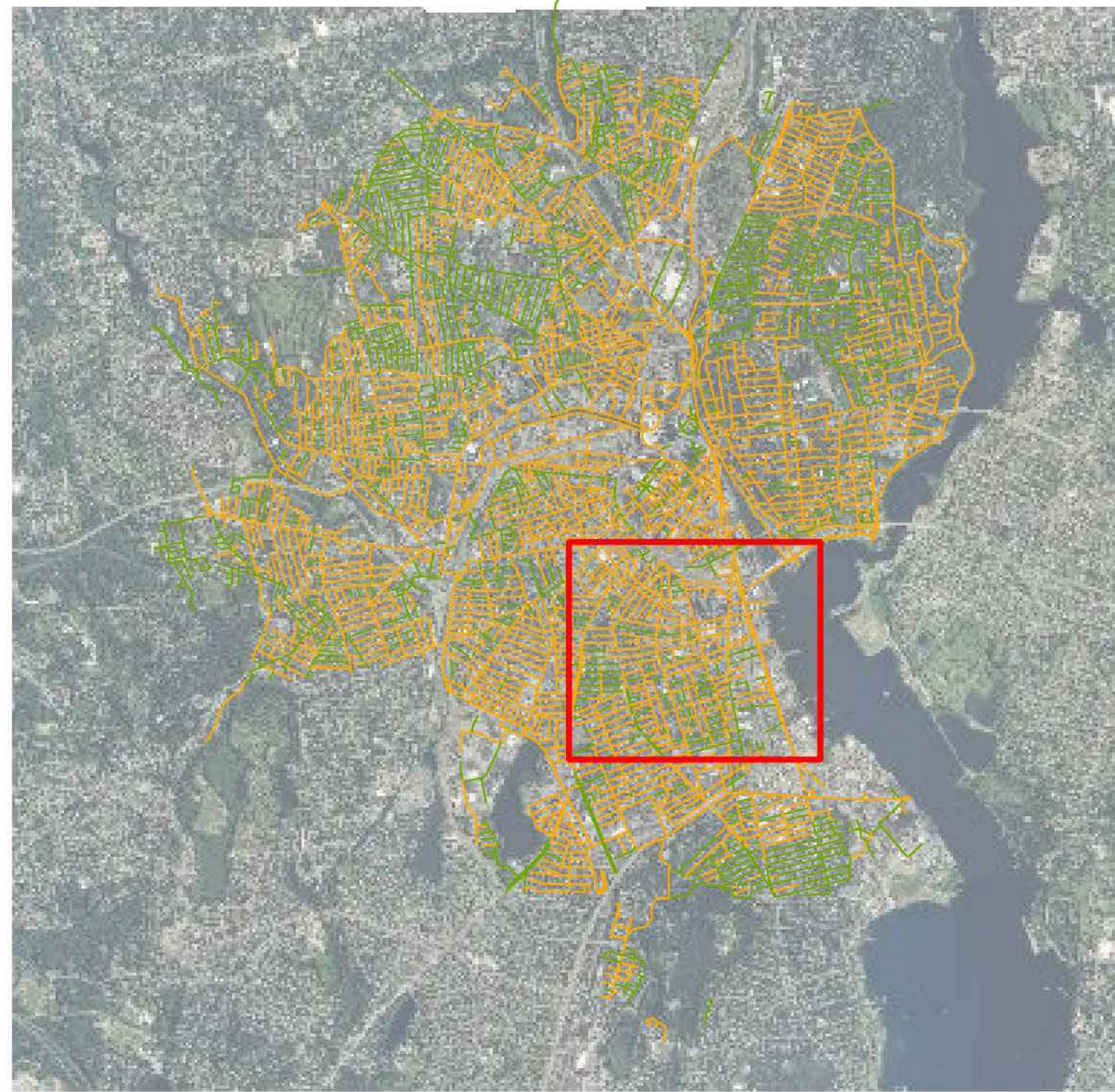
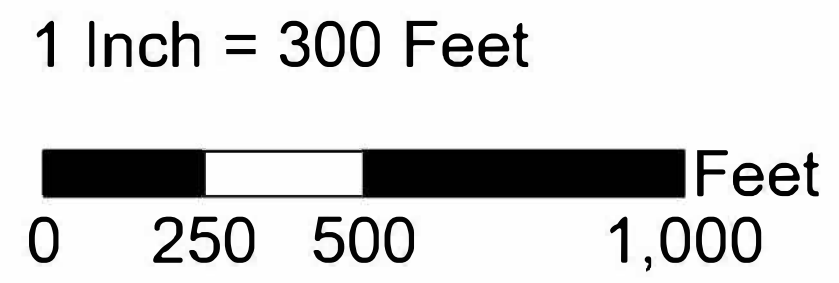


City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Index Page

Legend

- Sewer Pipes
- Sanitary Pipe
- Combined Pipe
- Proposed CCTV
- Combined
- Sanitary
- Stormwater
- Additive Alternate
- Additive Alternate

Diameter	Length (ft)
Lower South Providence	
8"	16053
12"	22805
15"	3883
16"	618
18"	2059
20"	1039
24"	613
33"	46
36"	1040
38"	2143
40"	1395
42"	169
46"	1497
Area Total	53359



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 1

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

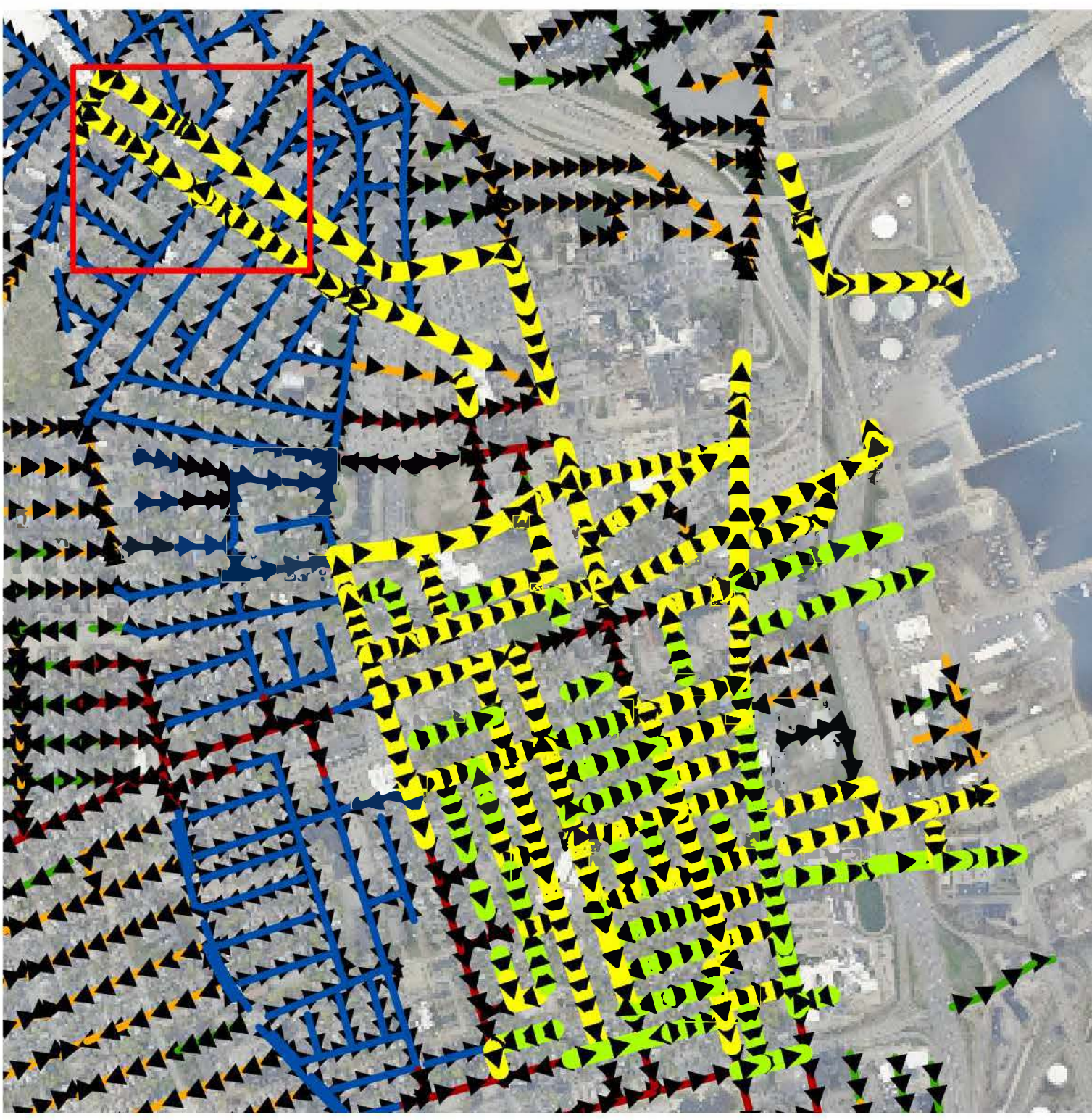
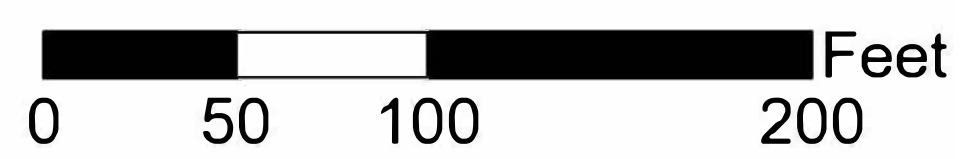
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 2

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

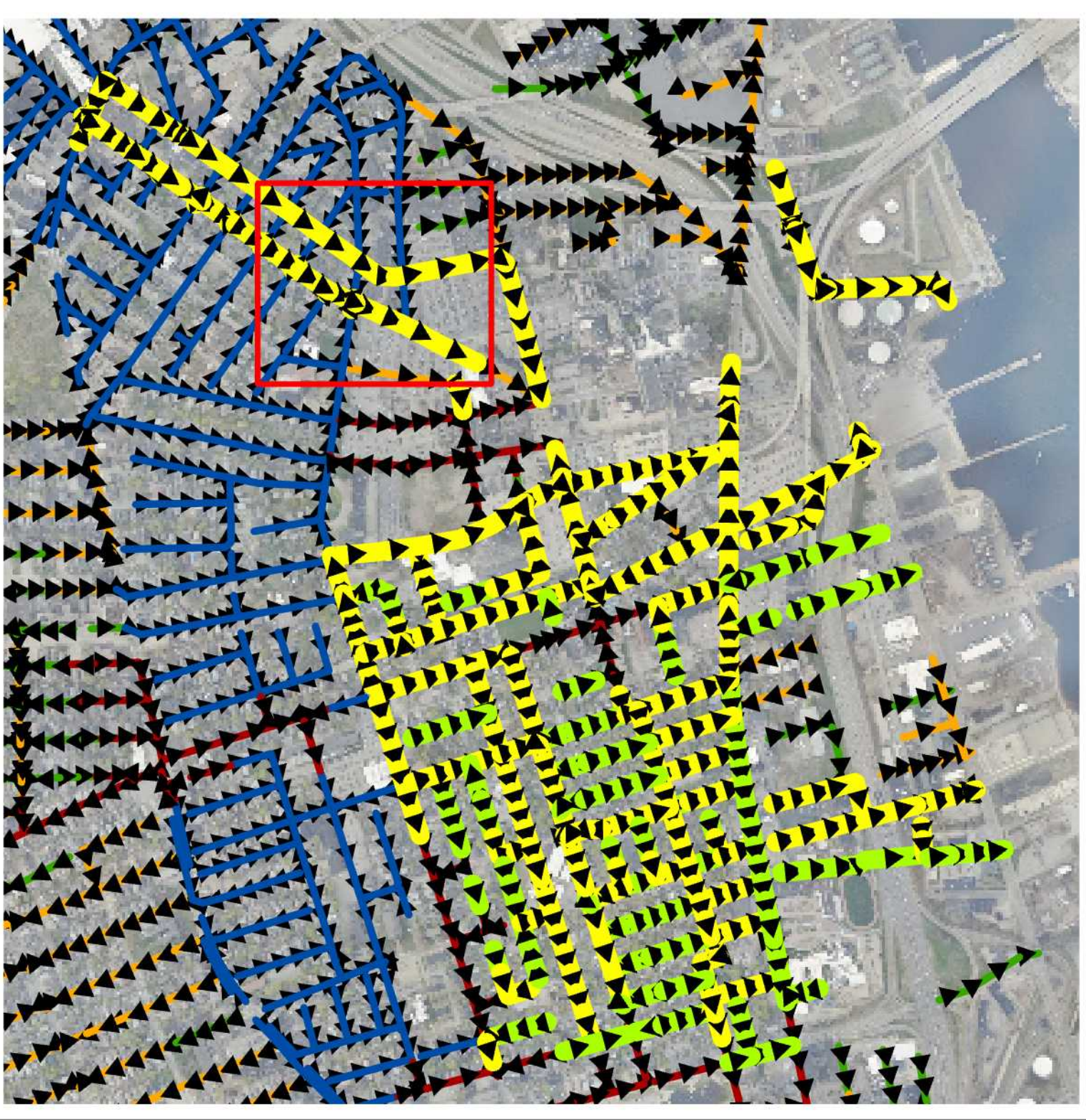
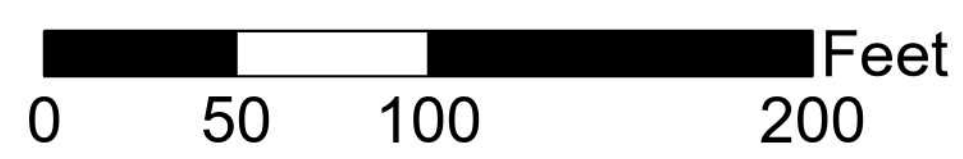
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 3

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

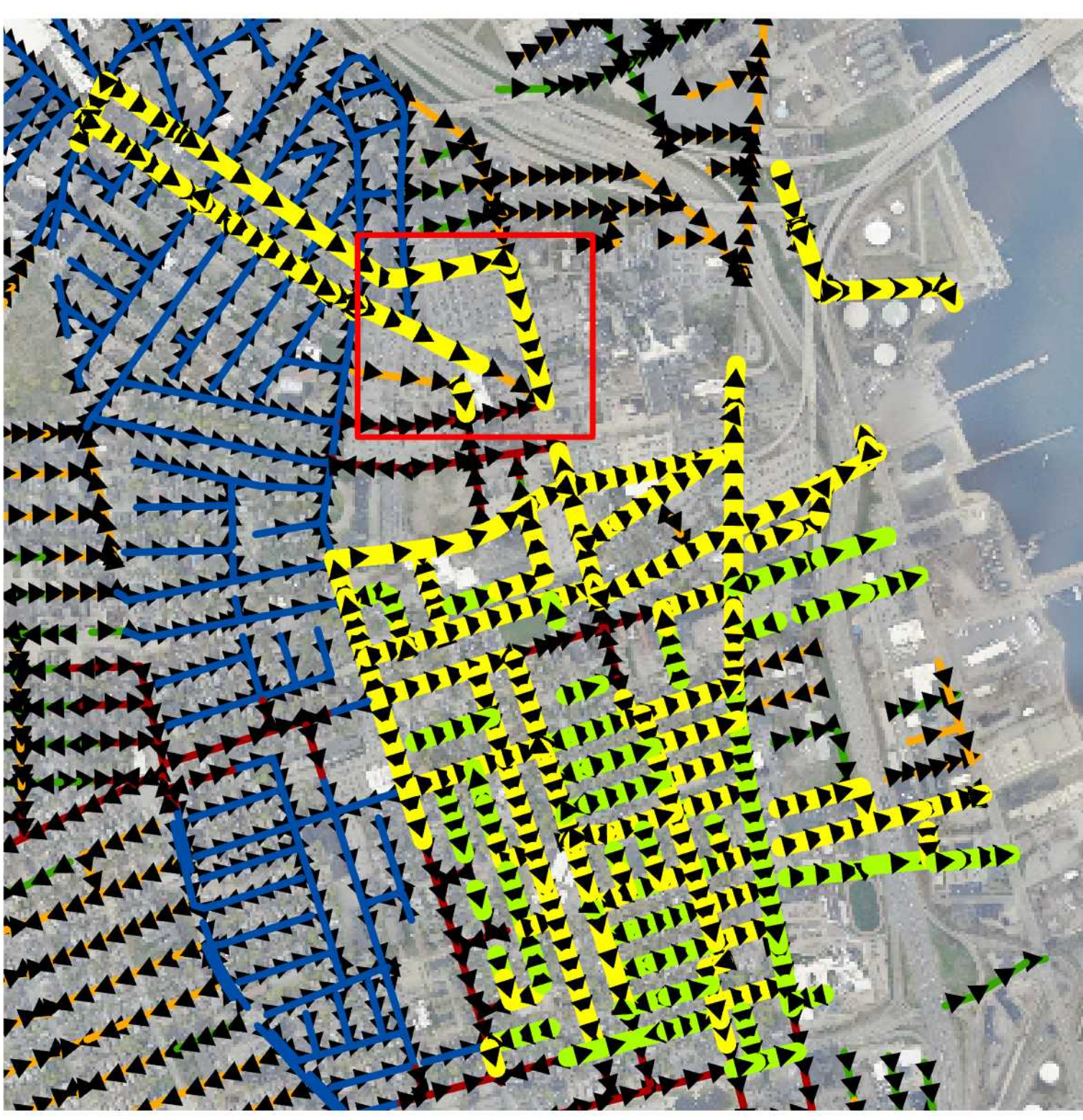
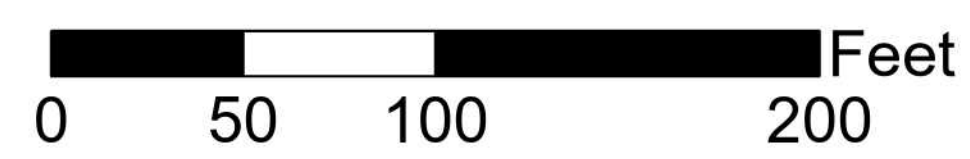
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 4

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

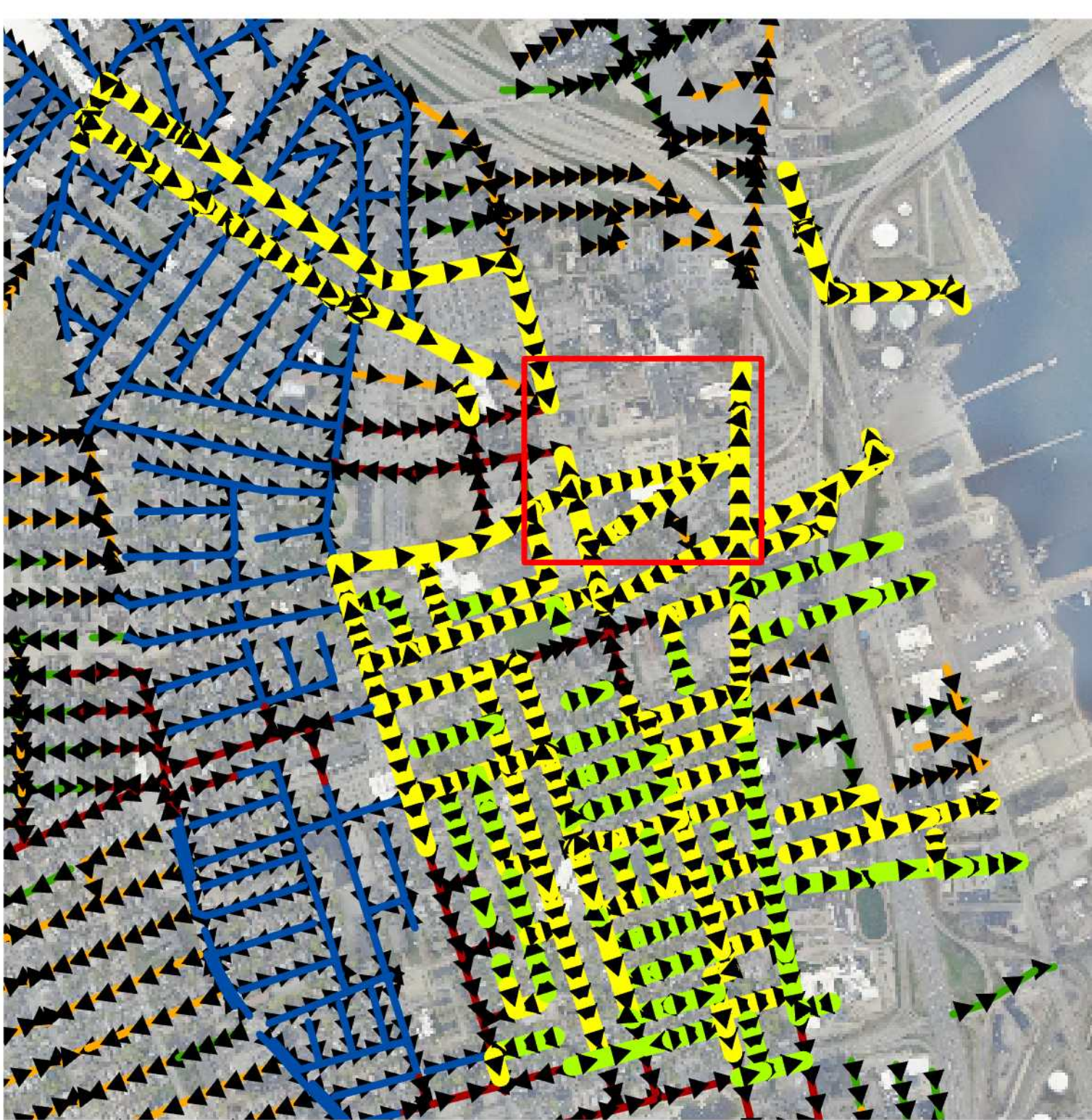
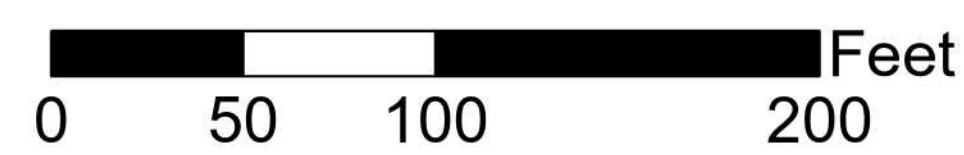
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 5

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

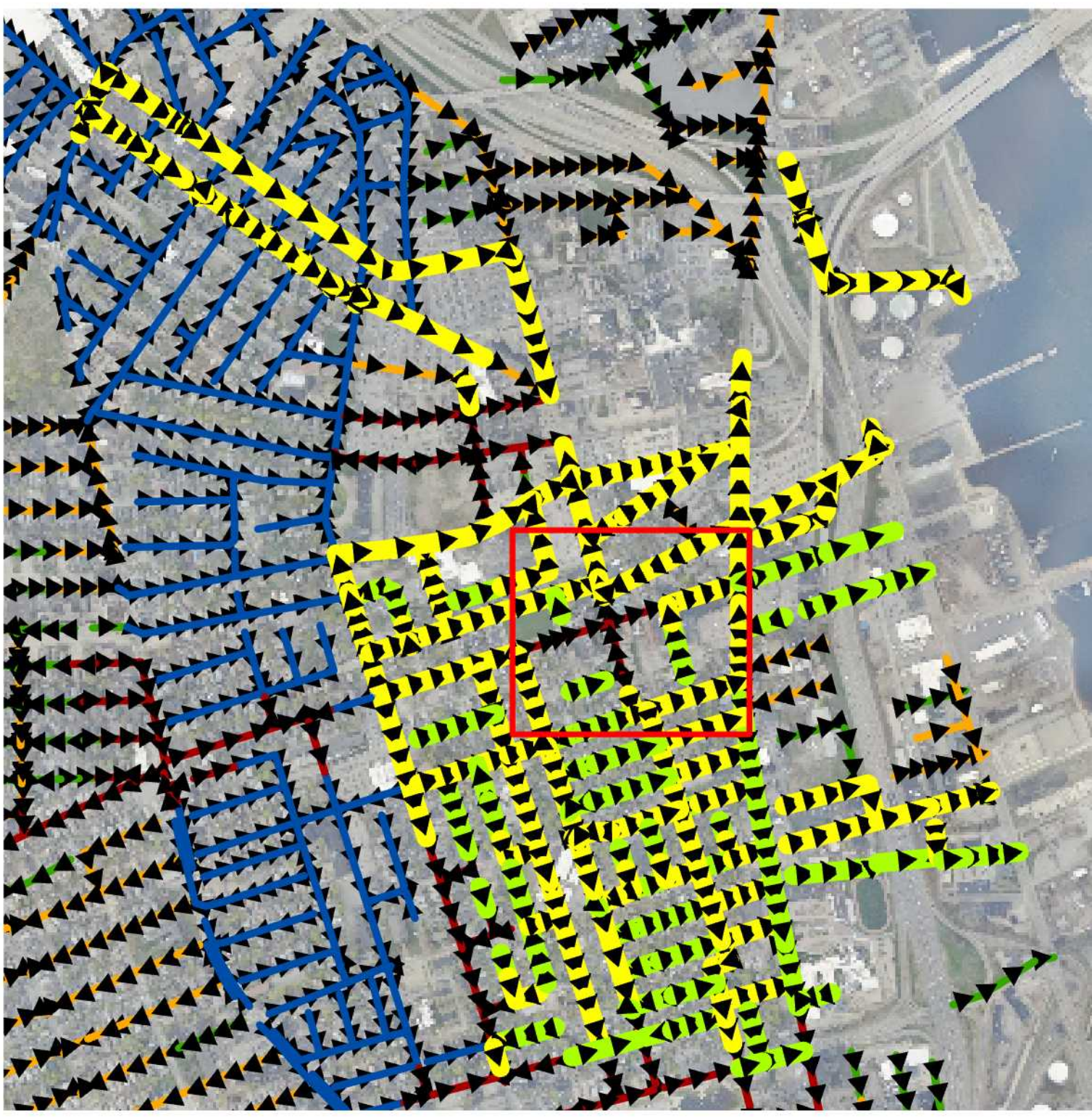
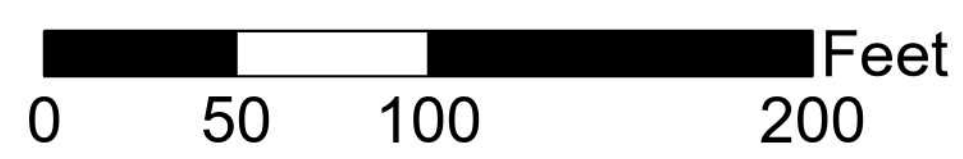
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet




City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 6

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

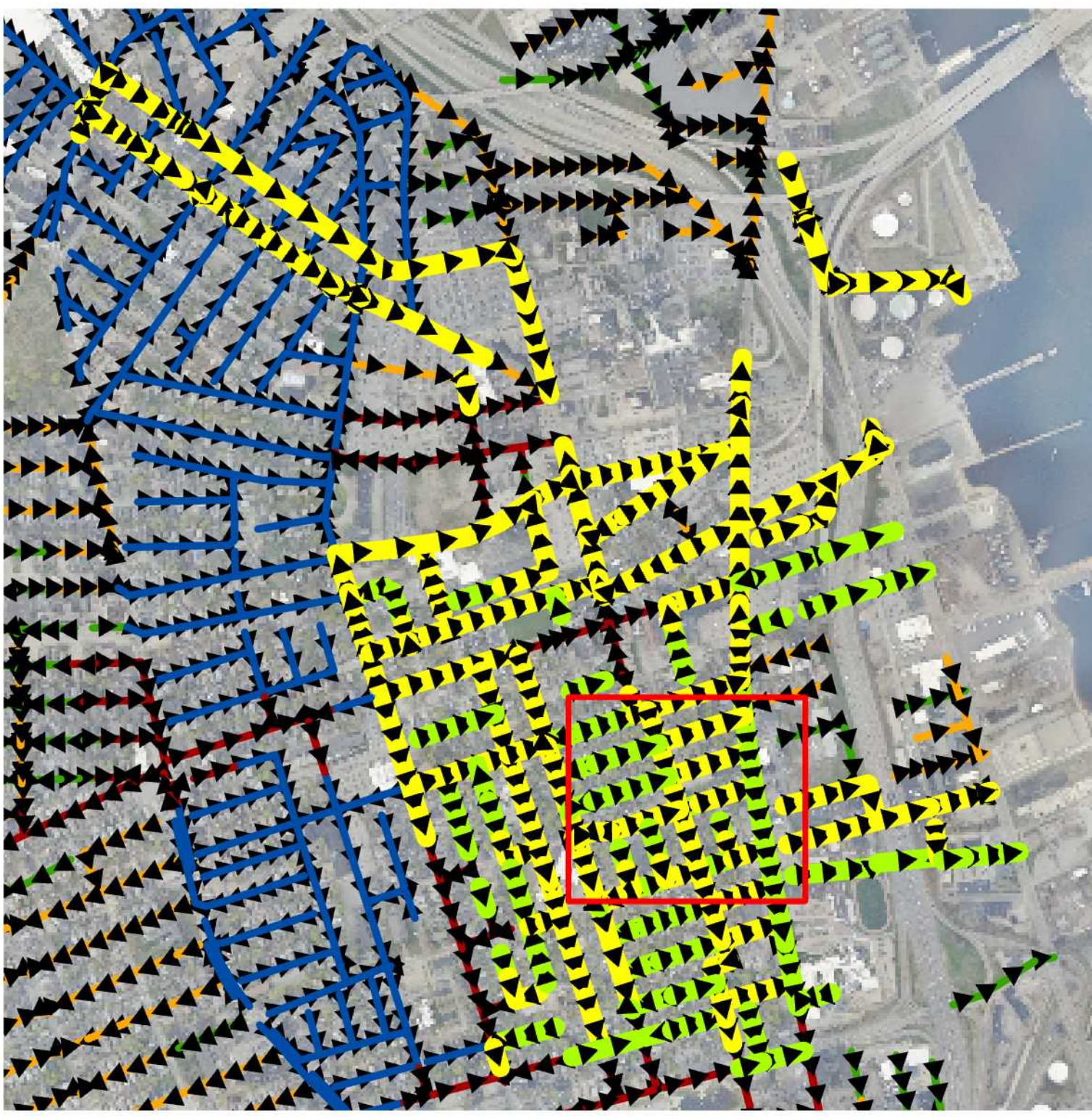
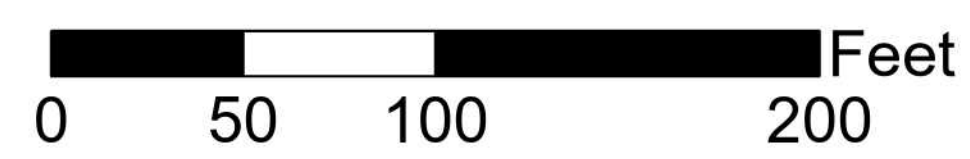
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 8

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

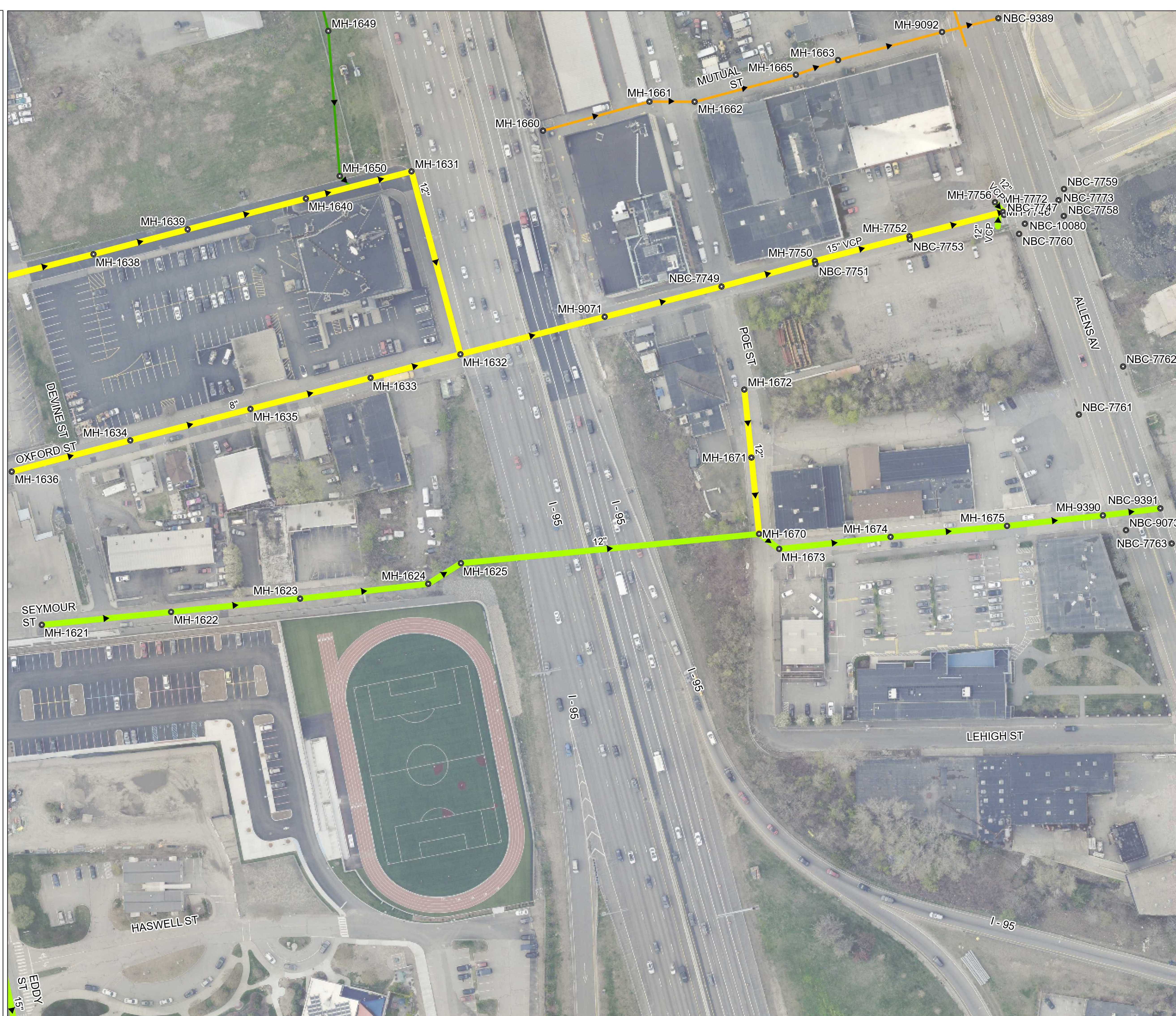
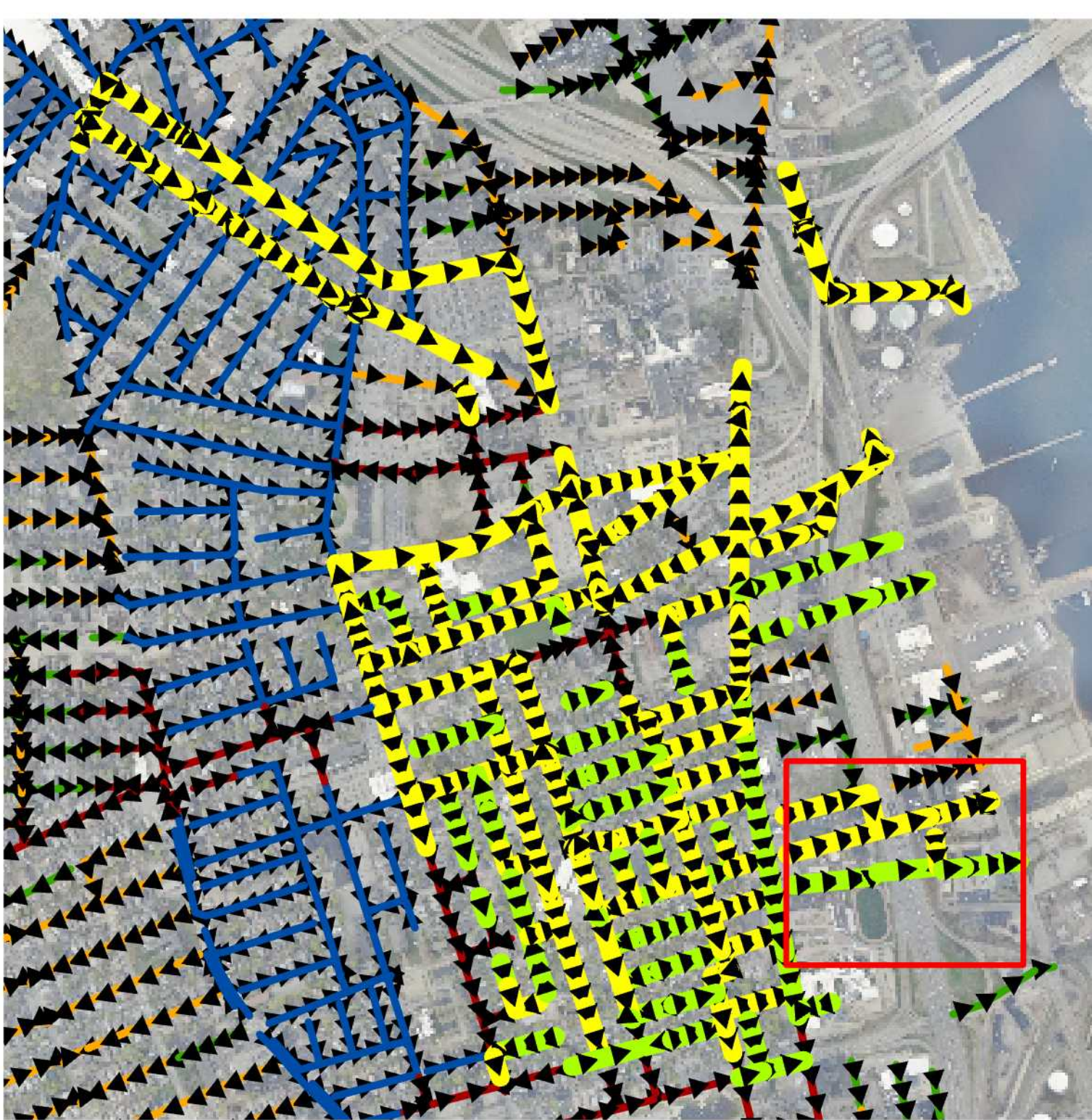
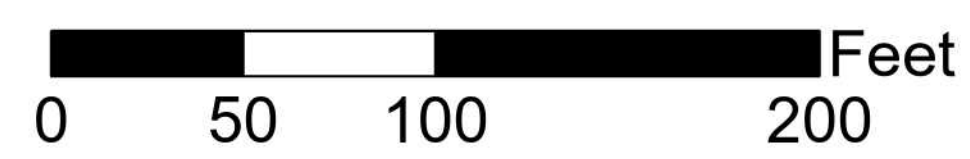
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 10

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

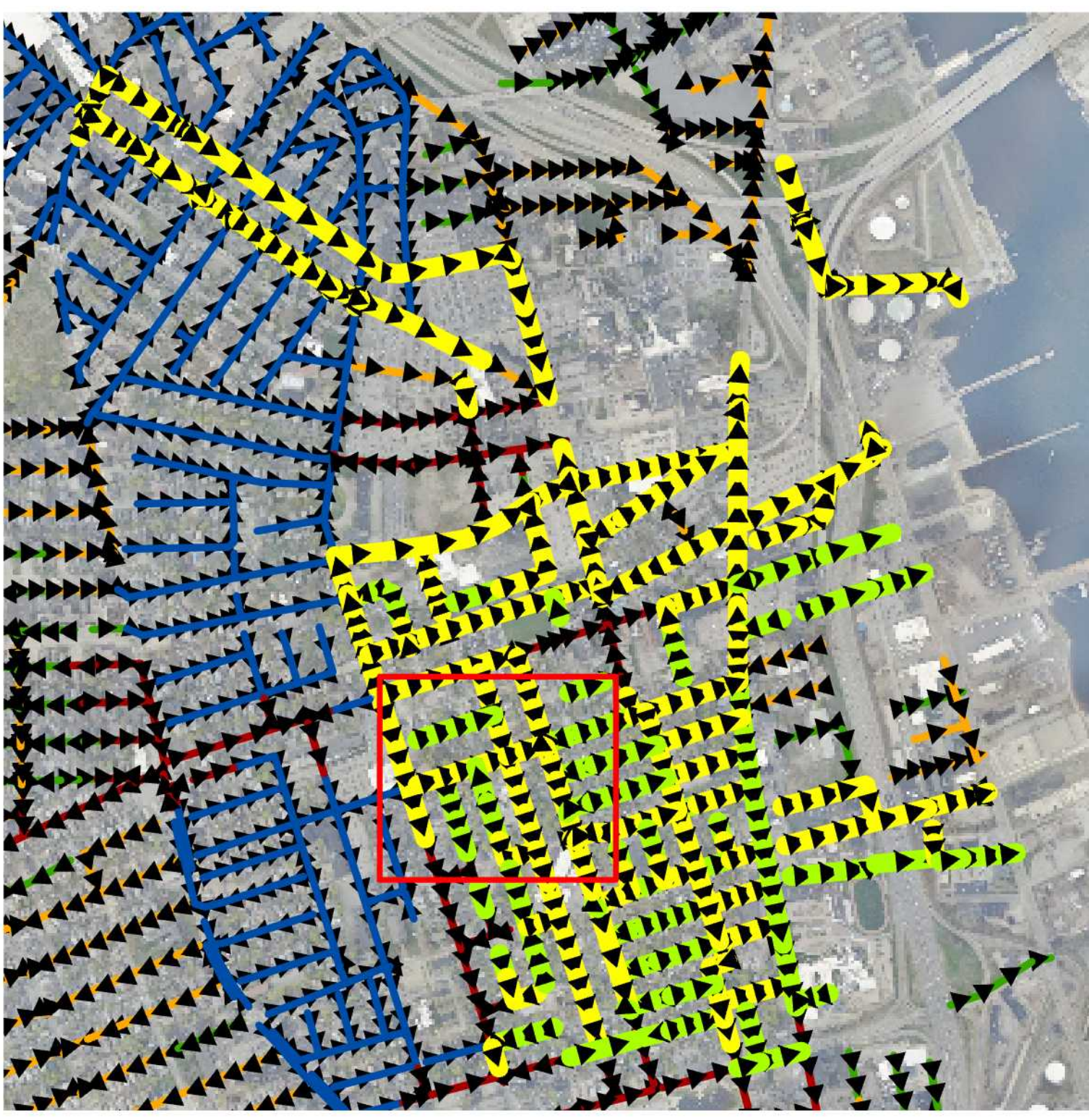
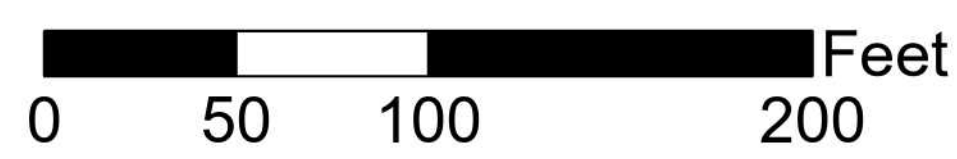
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet




City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 11

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

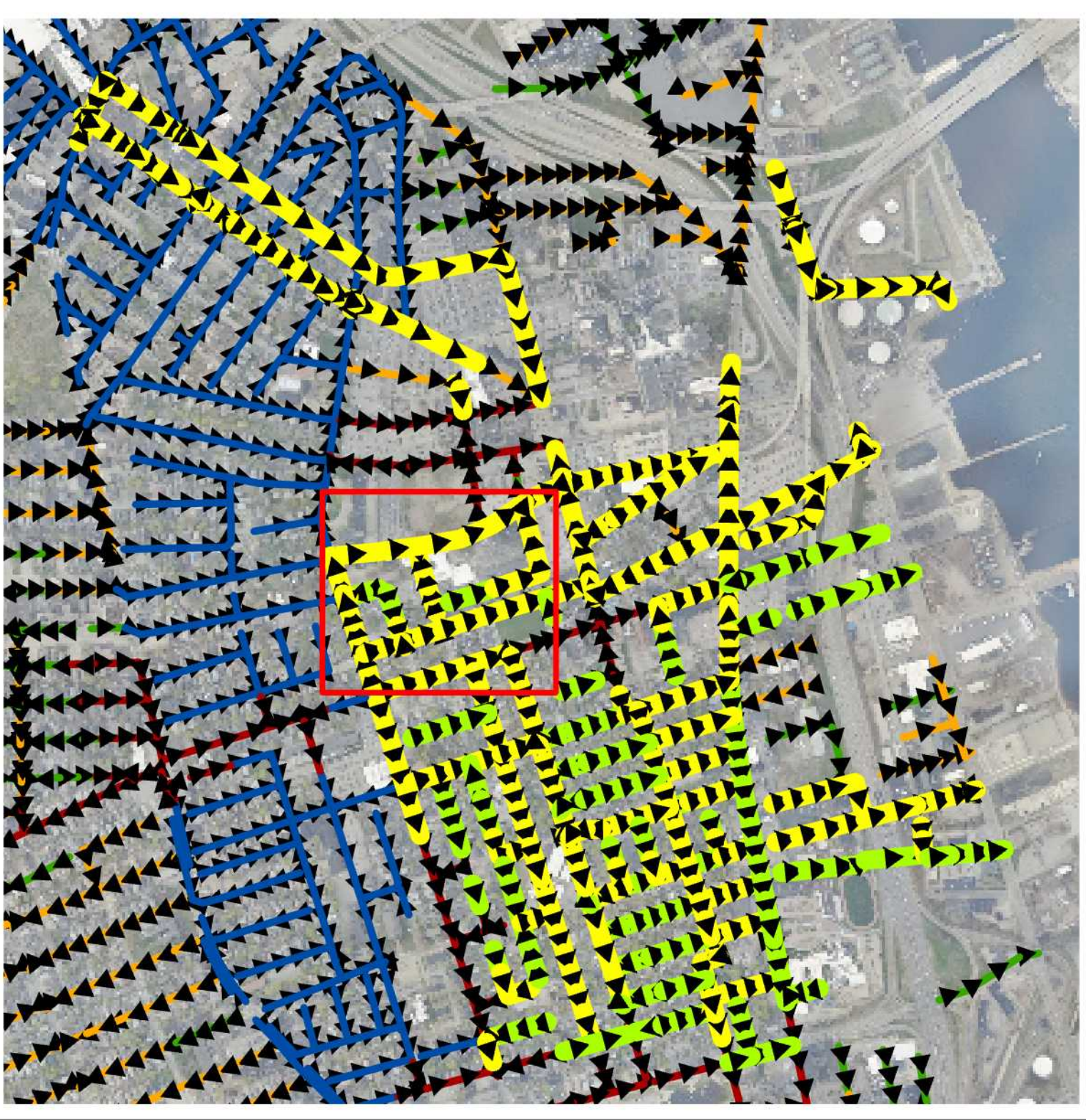
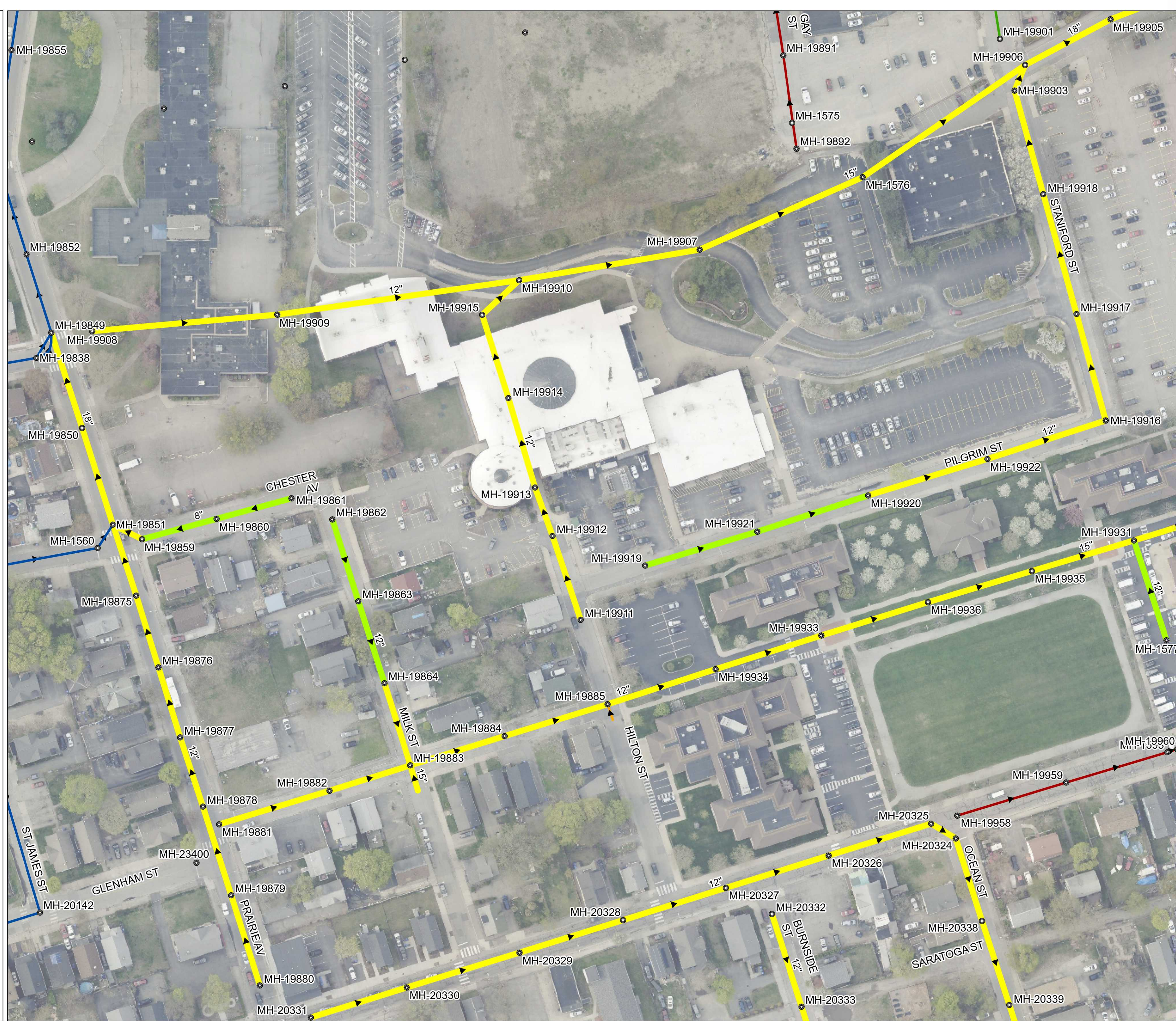
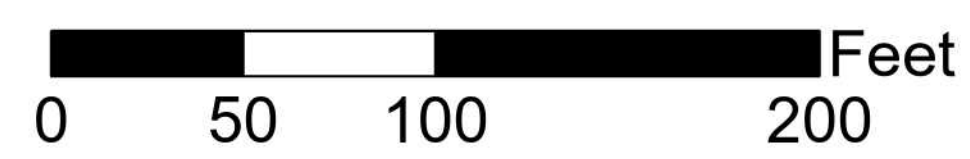
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 12

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

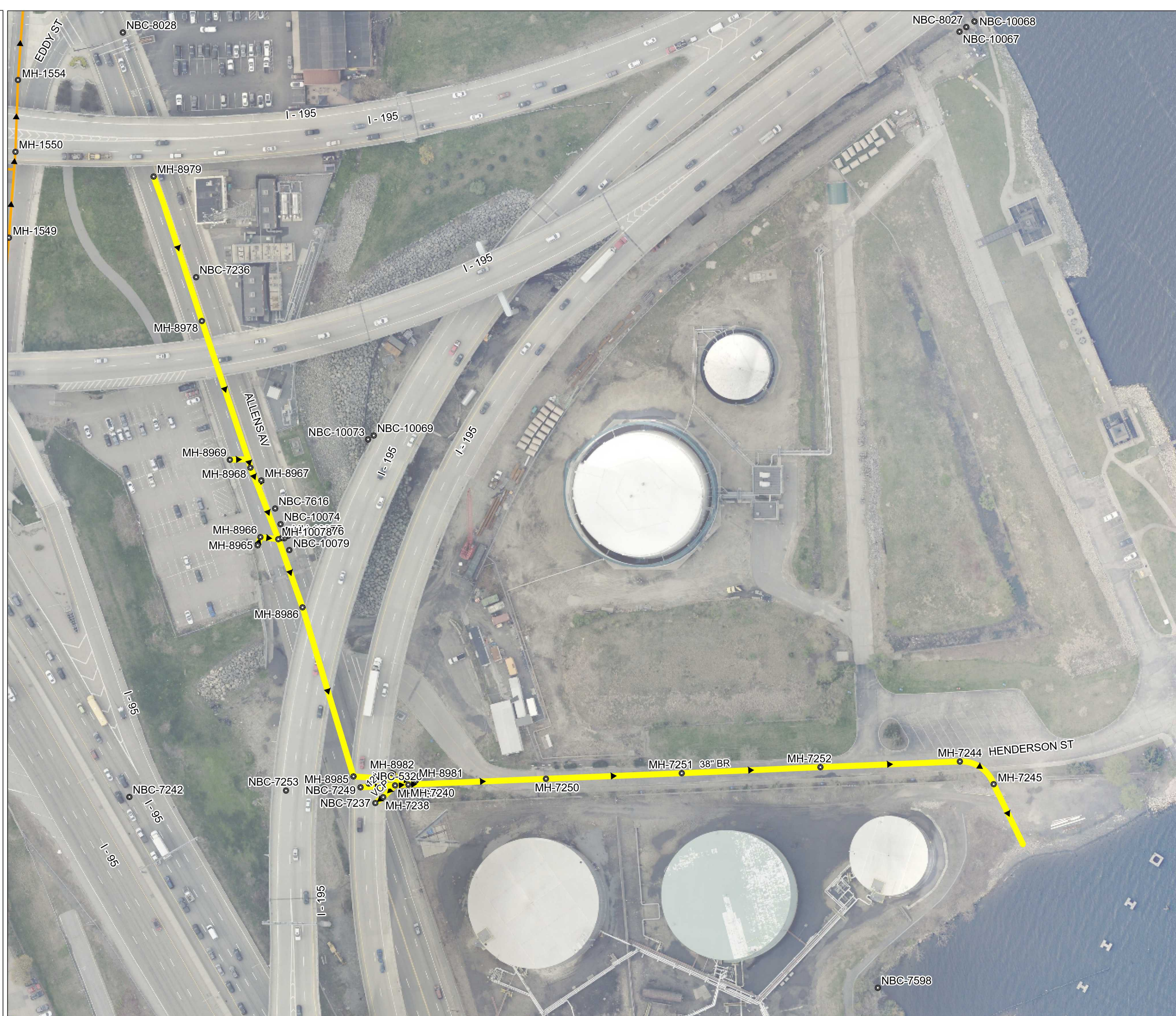
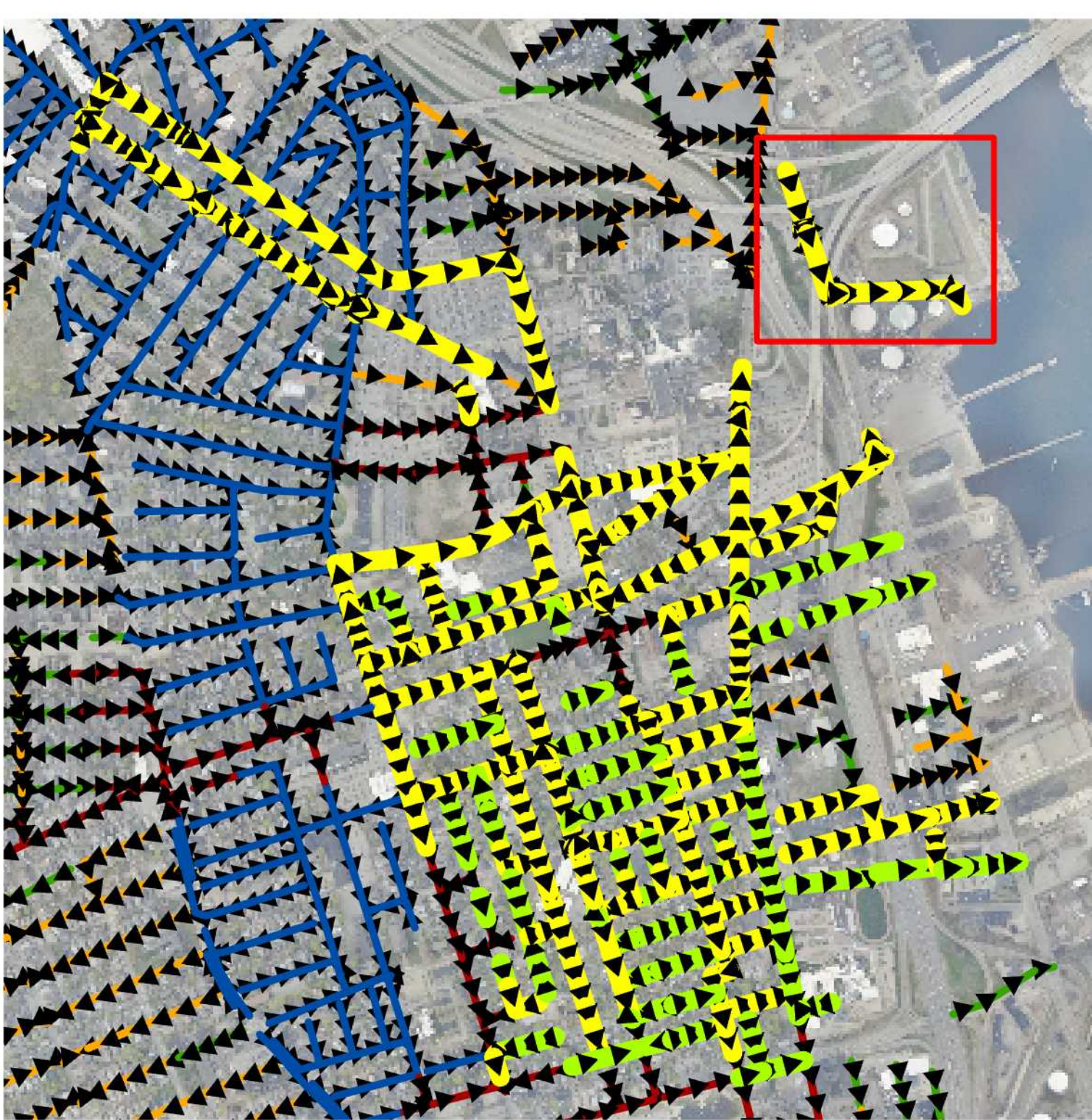
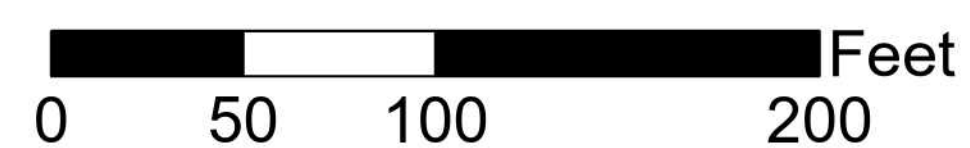
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate






1 Inch = 50 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Lower South Providence -
 Page 13

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

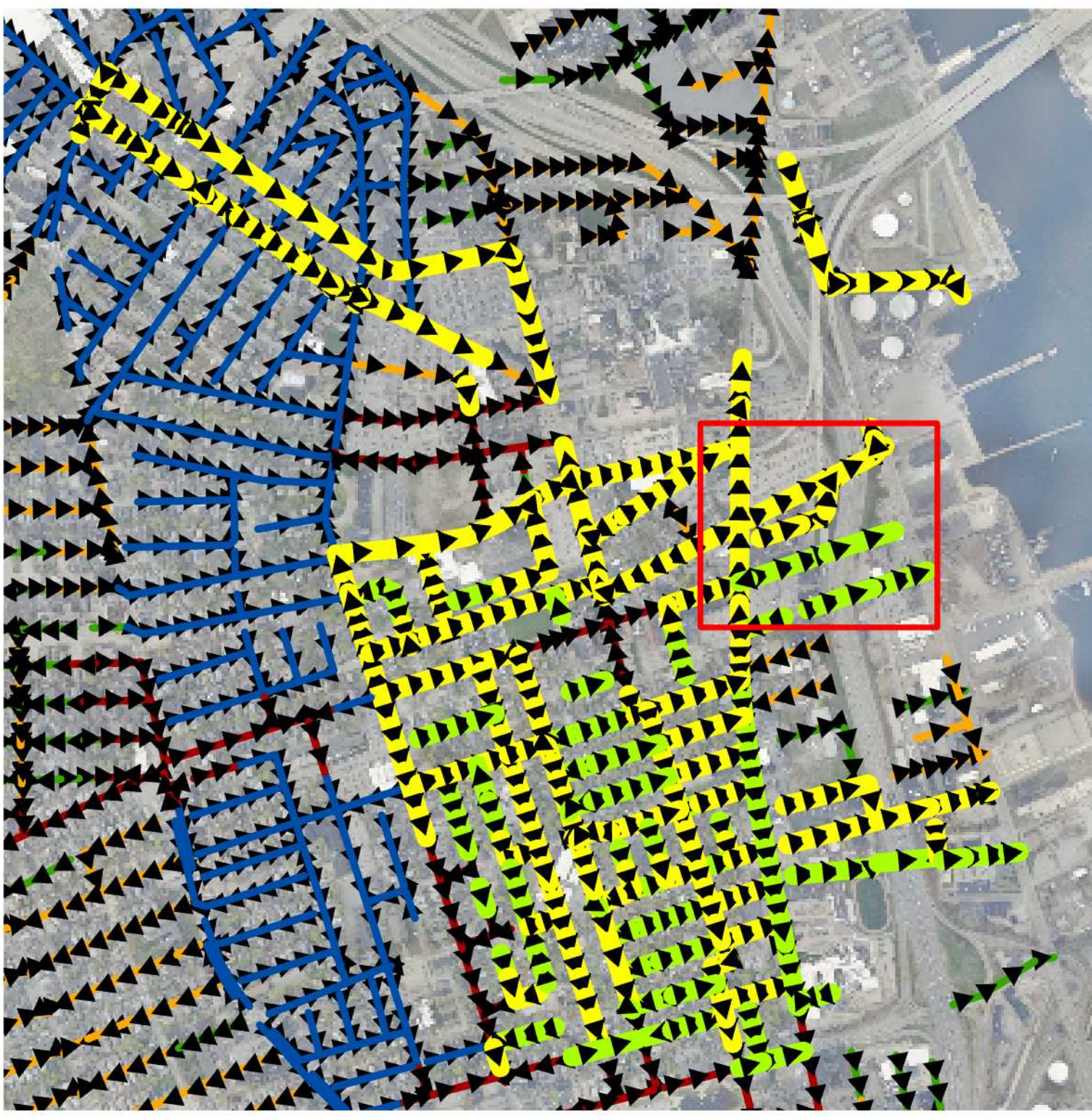
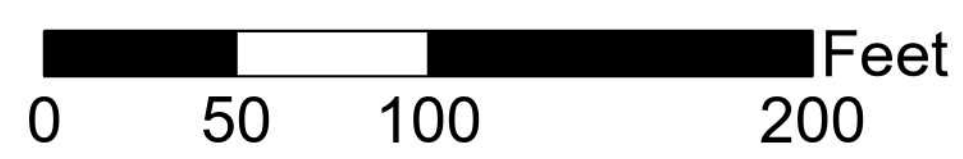
-  Do Not CCTV Previously Inspected

Additive Alternate

-  Additive Alternate




1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 VA Hospital Area -
 Index Page

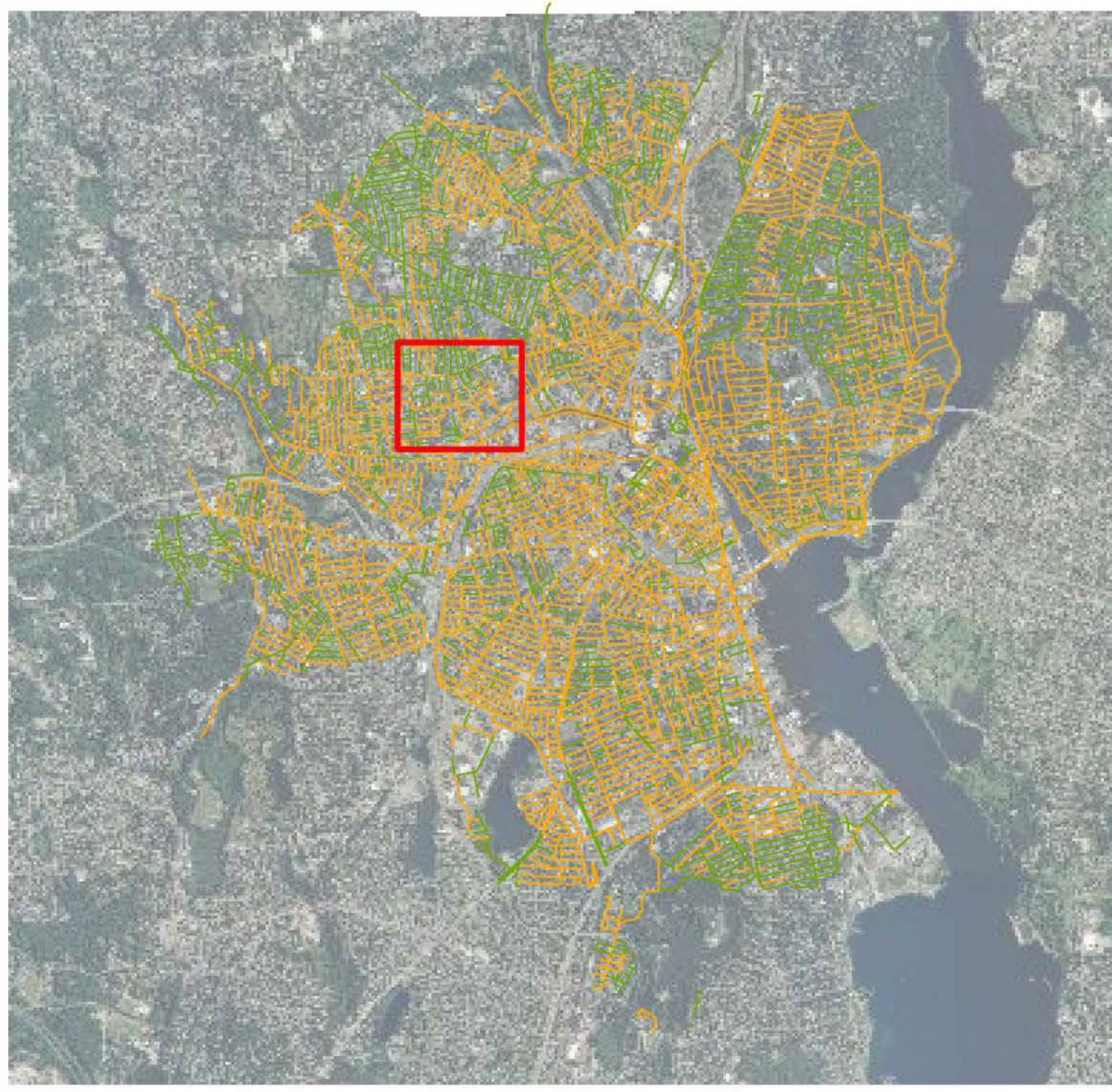
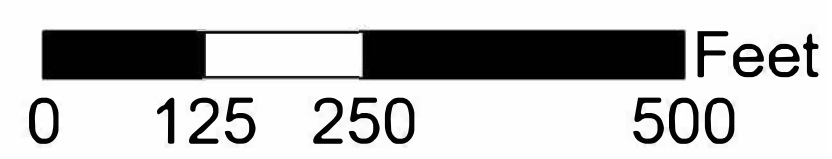
Legend

-  Sanitary Pipe
-  Combined Pipe
- Proposed CCTV
-  Combined
-  Sanitary
-  Stormwater

Diameter	Length (ft)
VA Hospital Area	
8"	829
12"	1043
15"	35
18"	220
20"	1542
22"	439
30"	822
33"	2631
Area Total	7562






1 Inch = 150 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 VA Hospital Area - Page 4

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

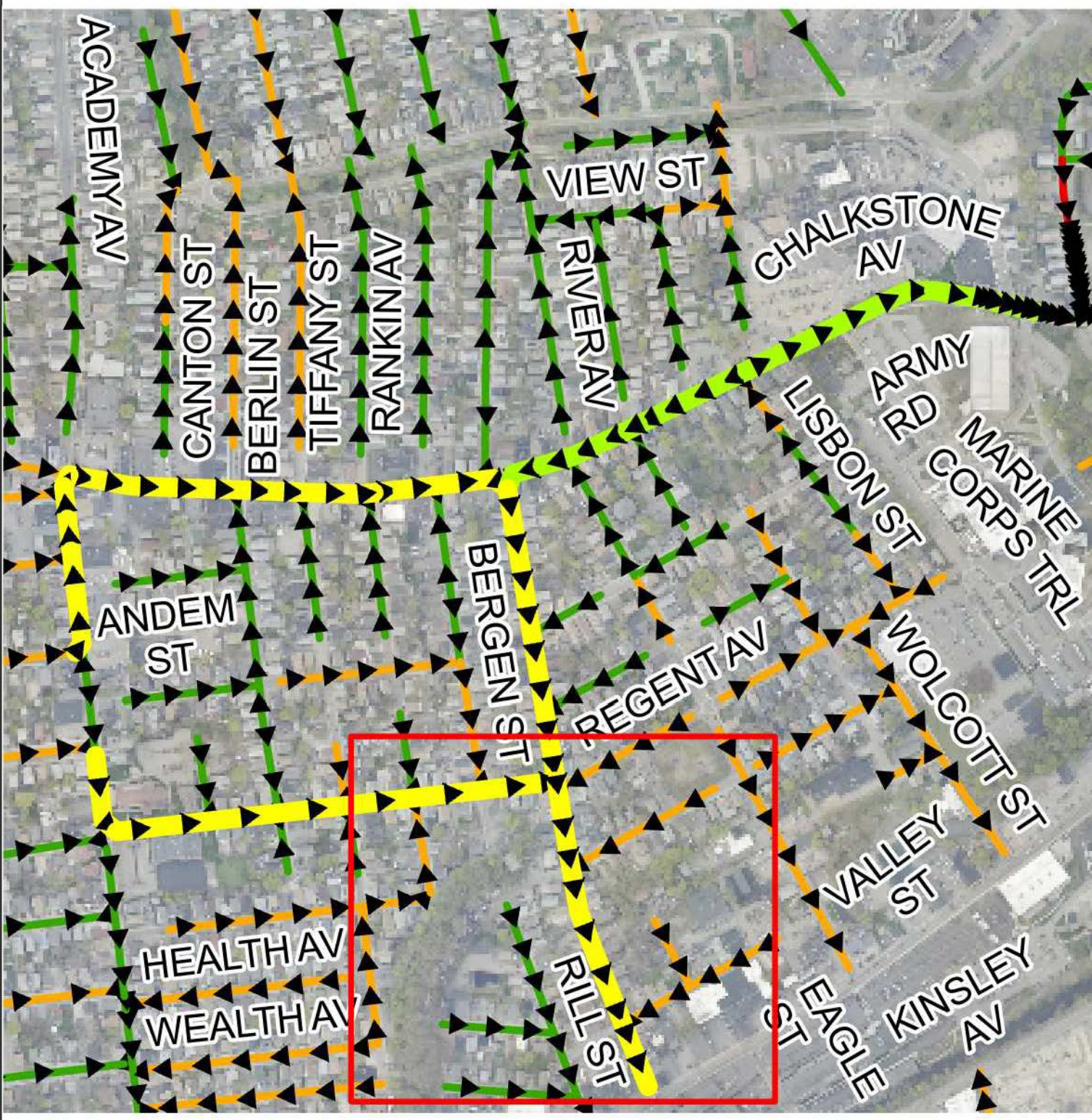
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected



1 Inch = 50 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Wayland Ave

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

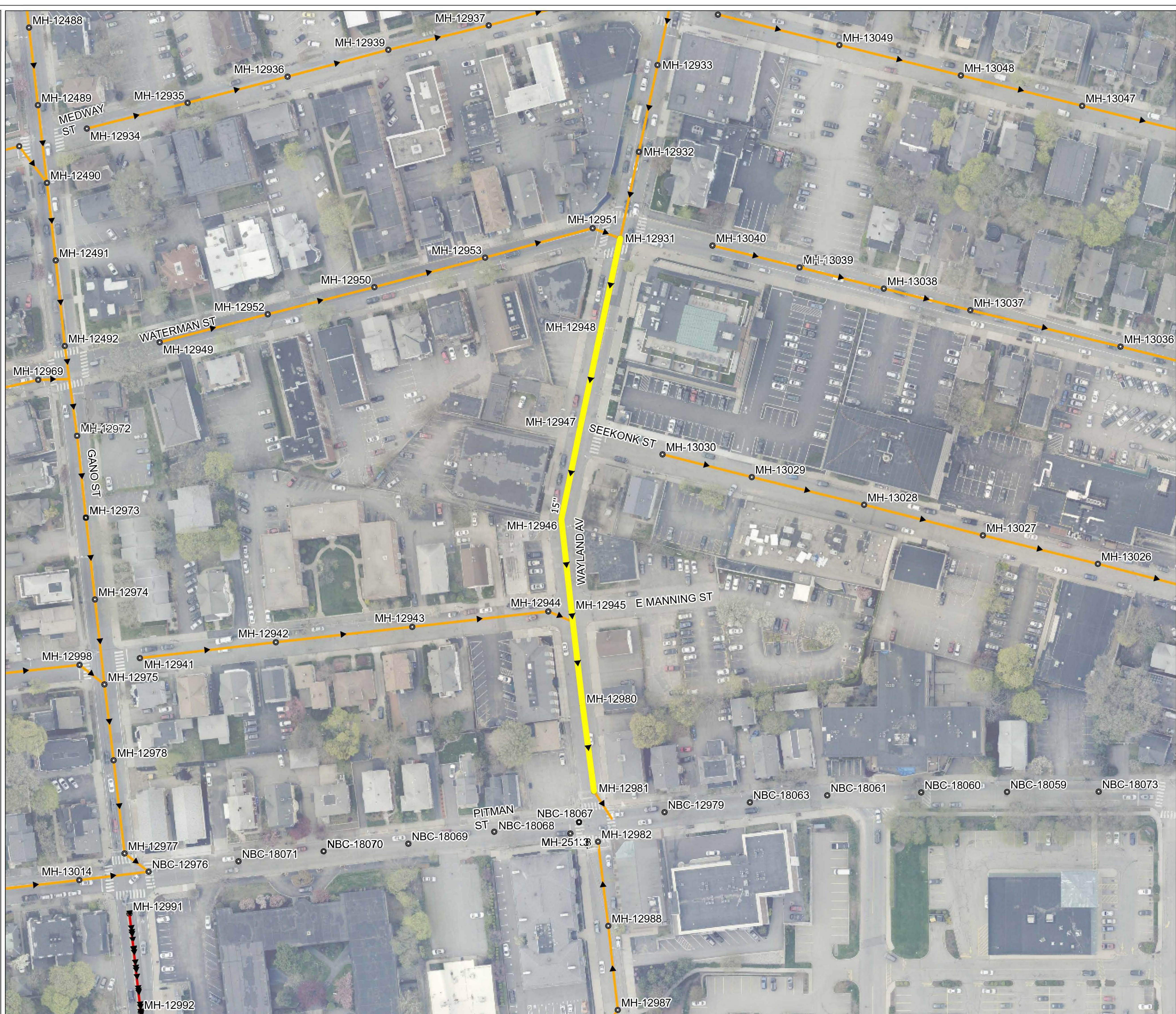
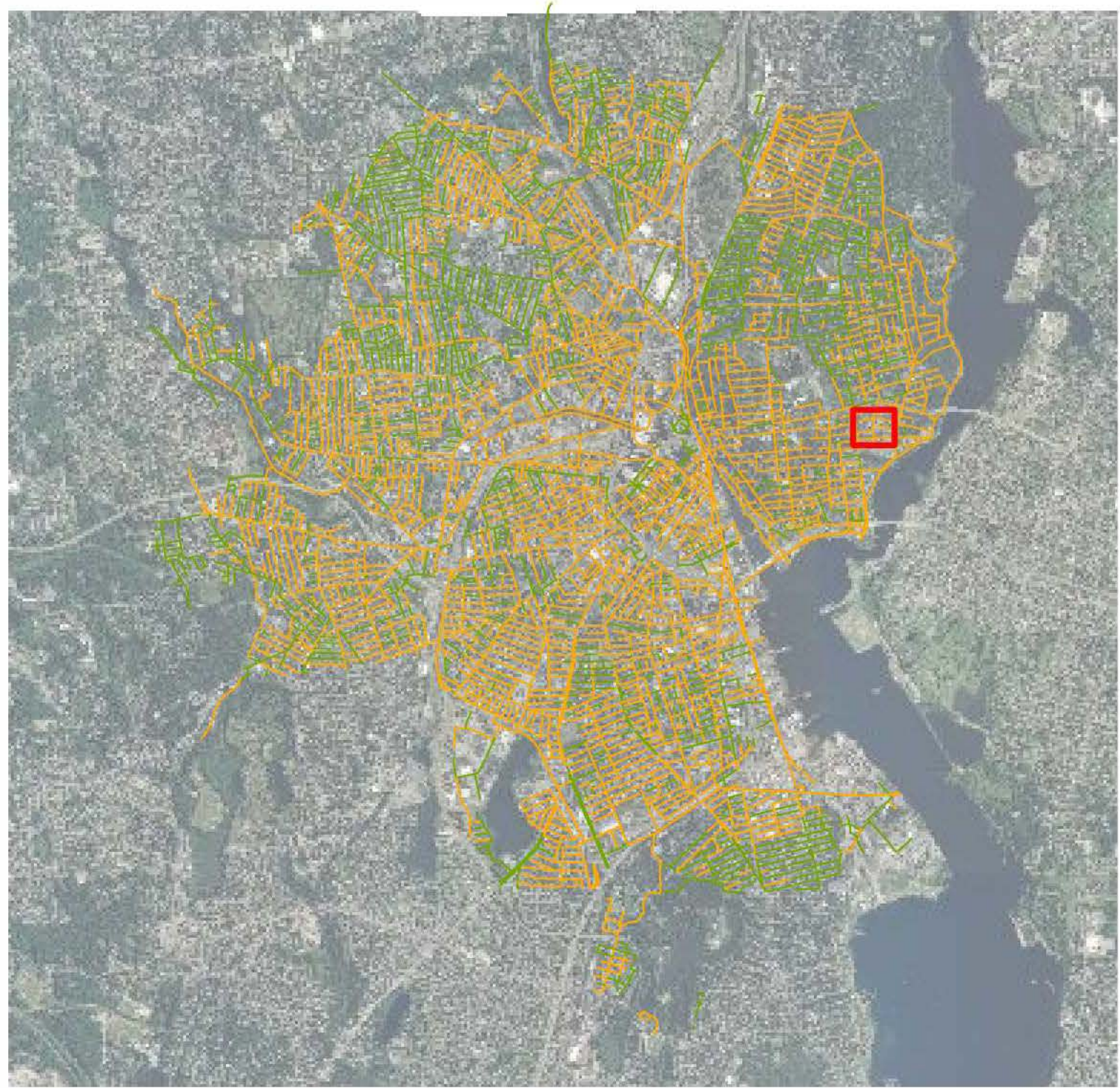
Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected

Diameter	Length (ft)
15"	654
Area Total	654






1 Inch = 50 Feet






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Charles St - Page 1

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

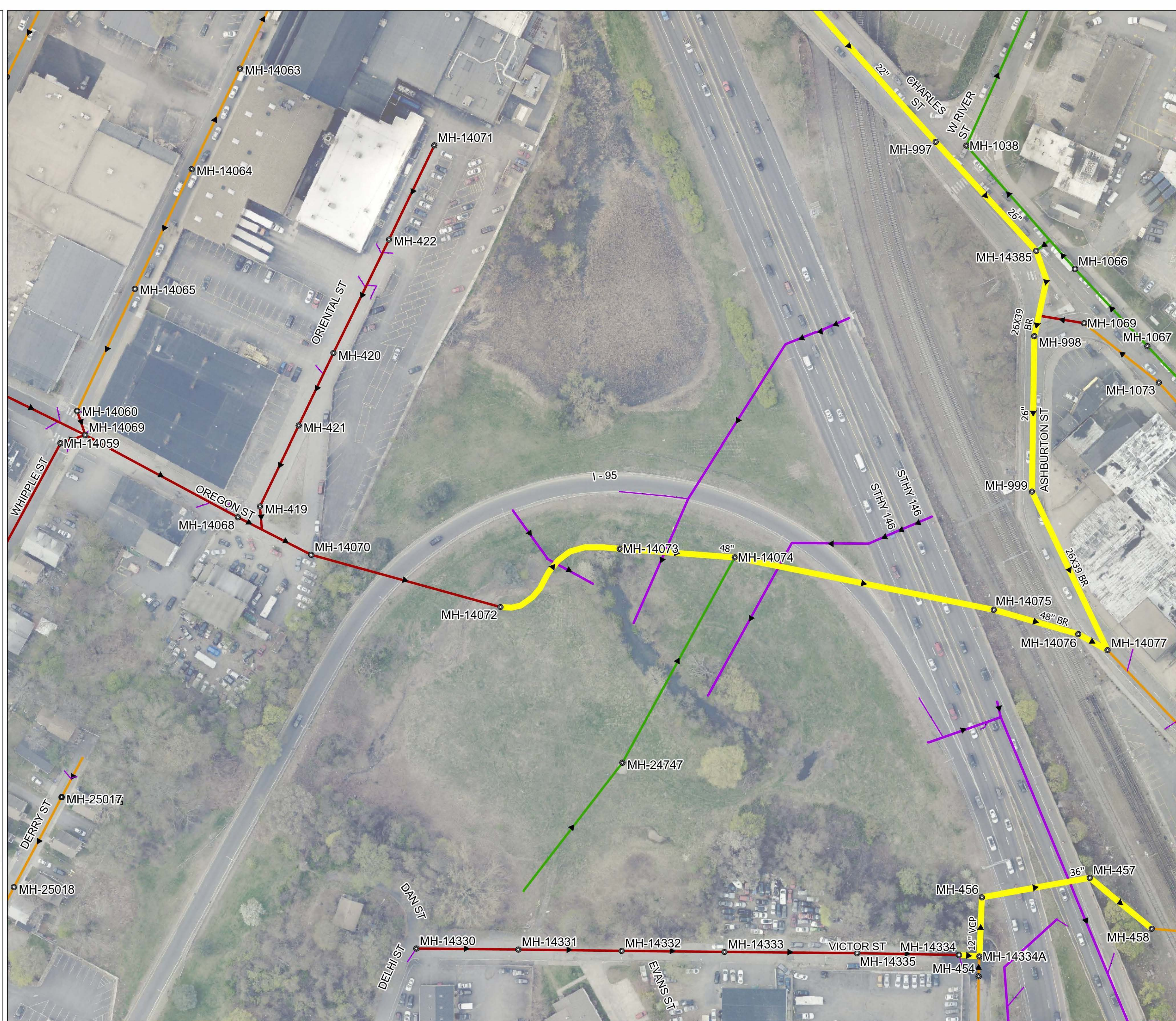
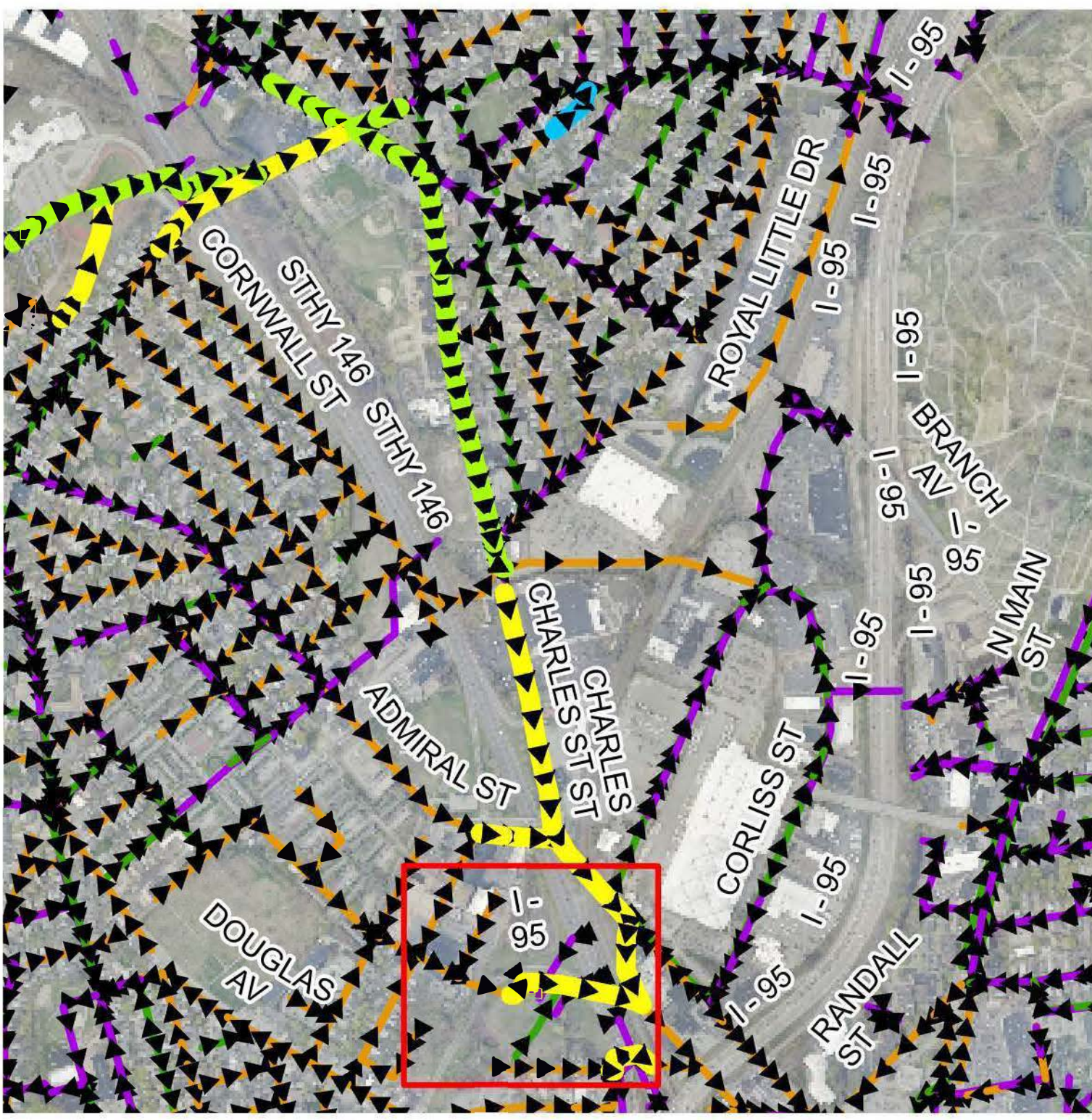
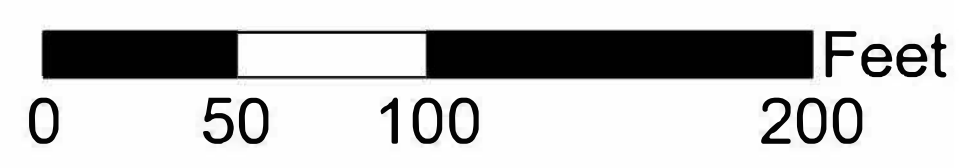
-  Combined
-  Sanitary
-  Stormwater

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected



1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Charles St - Page 2

Legend

Proposed CCTV

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

Sewer Pipes

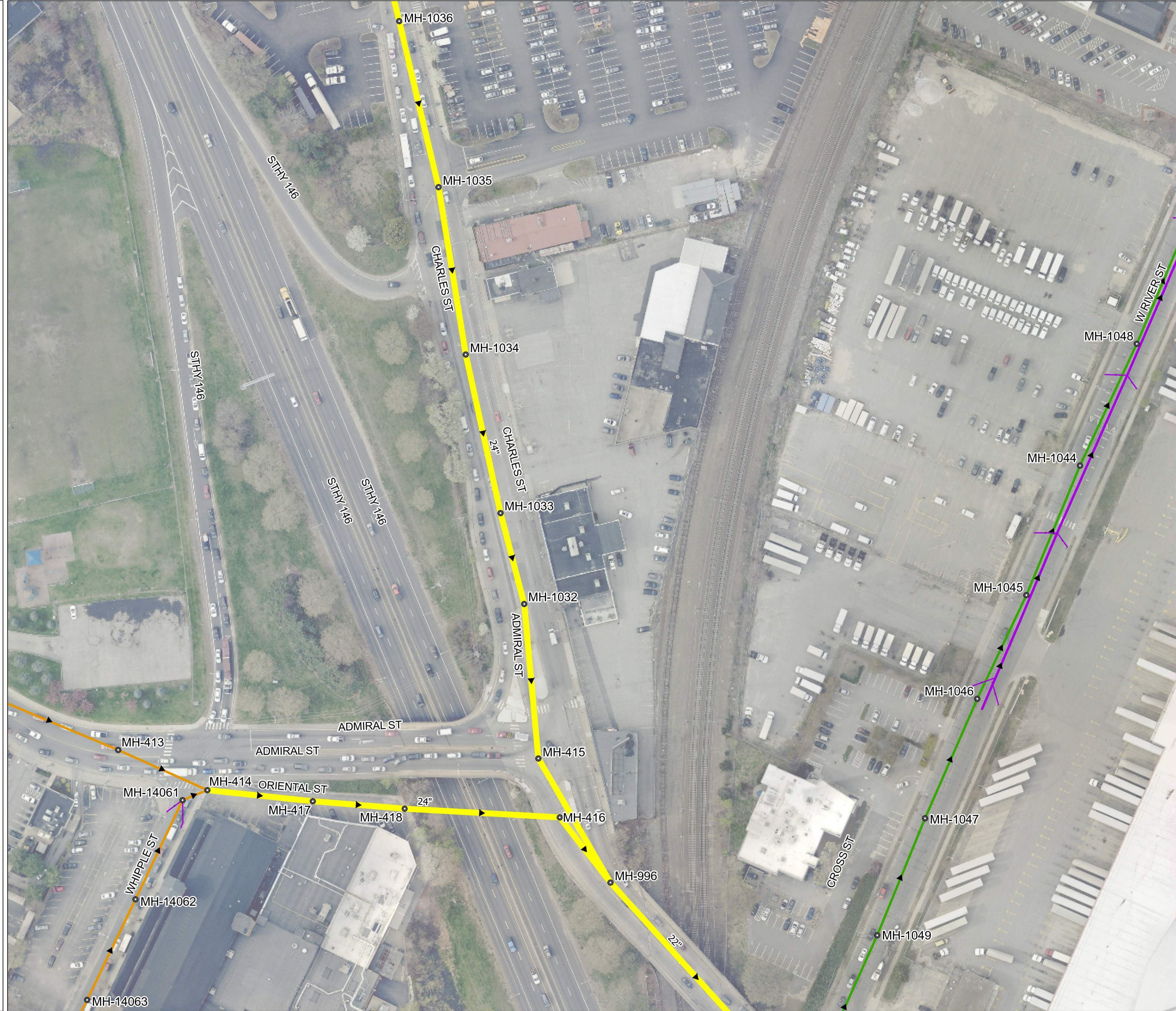
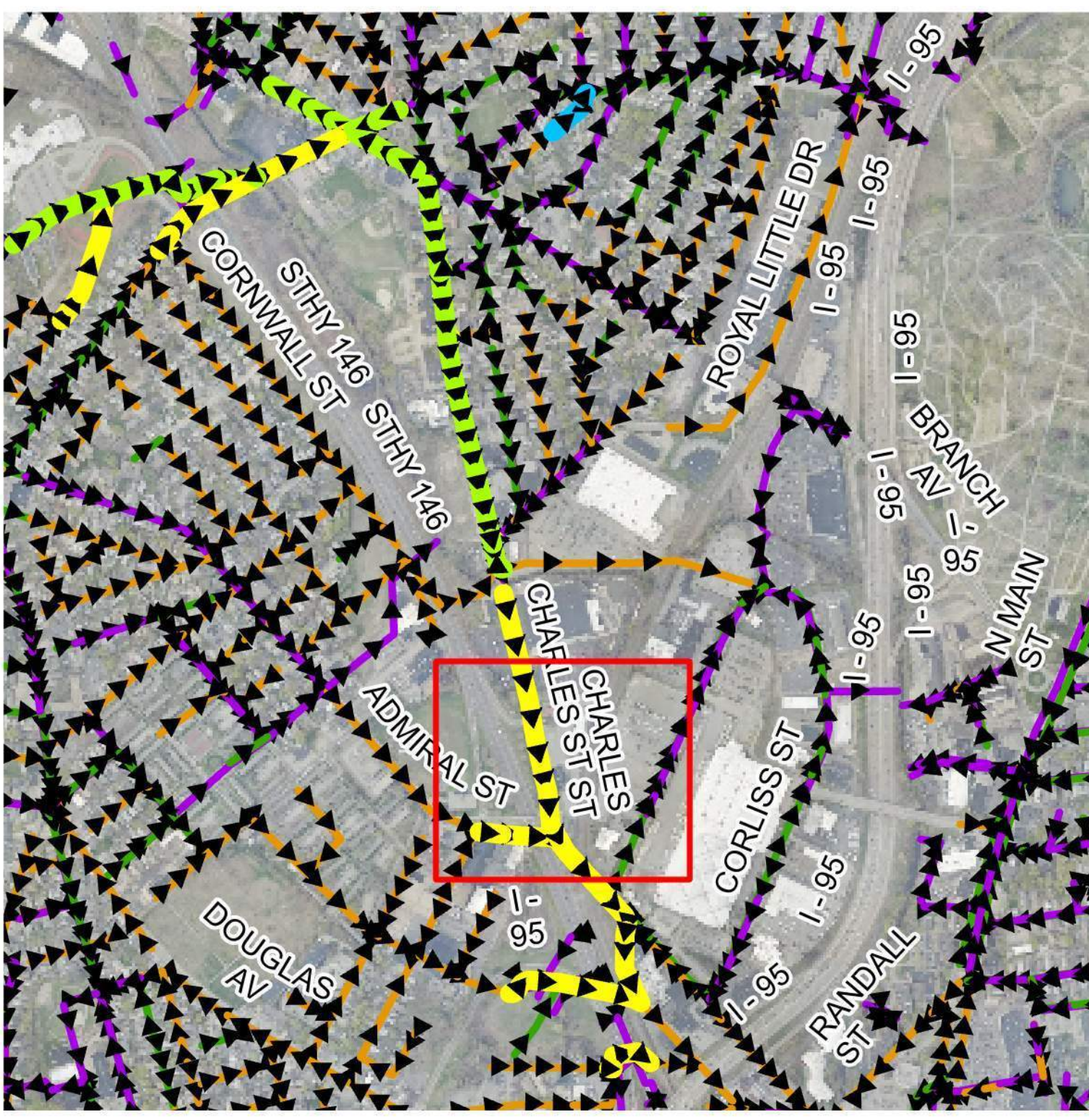
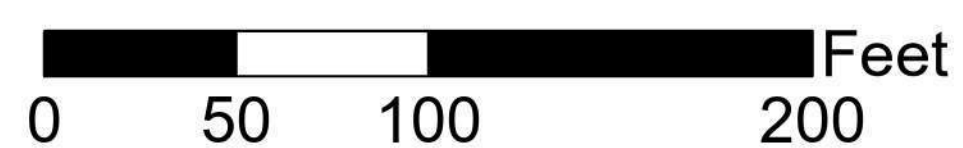
- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

Do Not CCTV Previously Inspected

- ▶ Do Not CCTV Previously Inspected






1 Inch = 50 Feet






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Charles St - Page 3

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

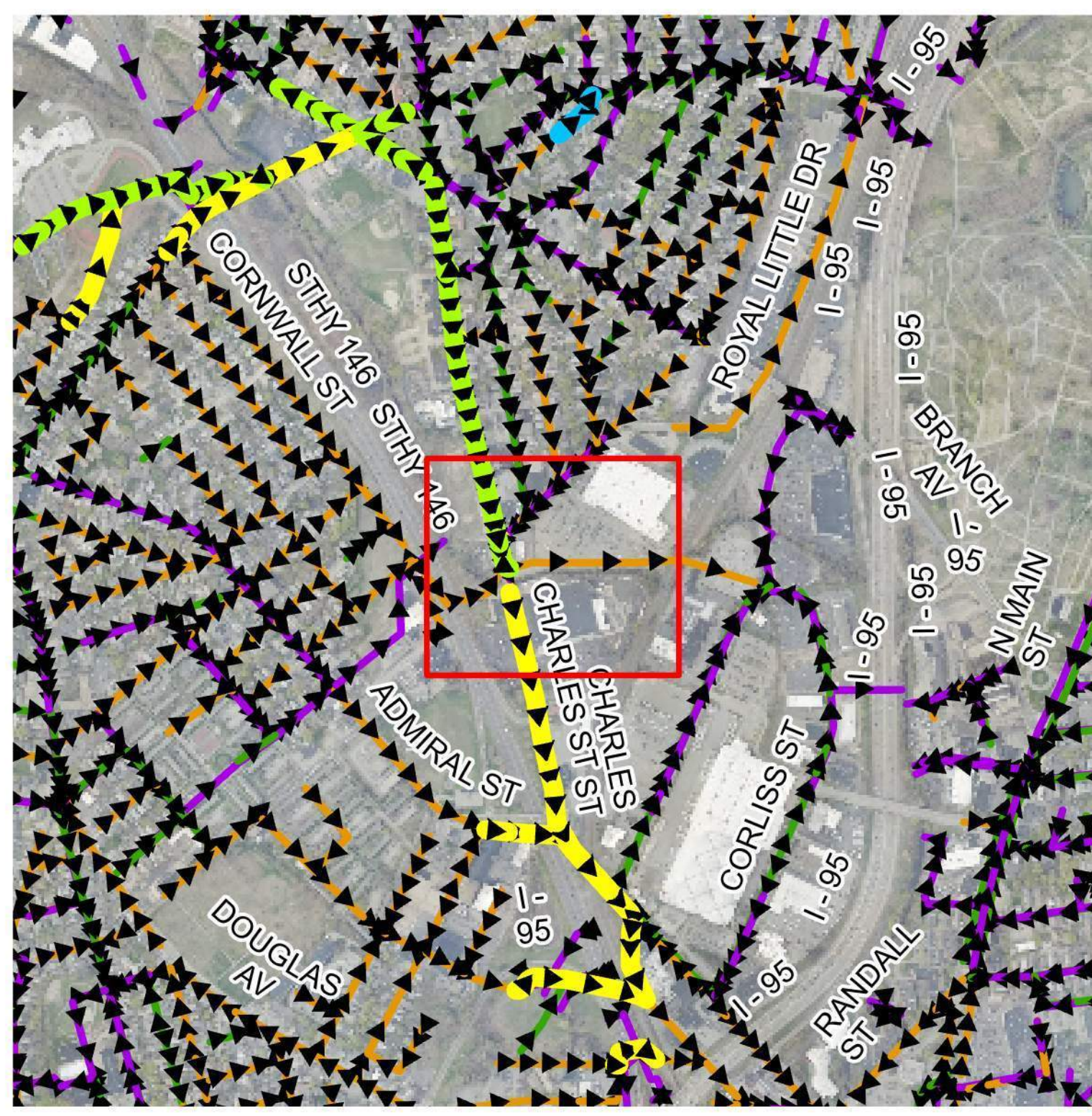
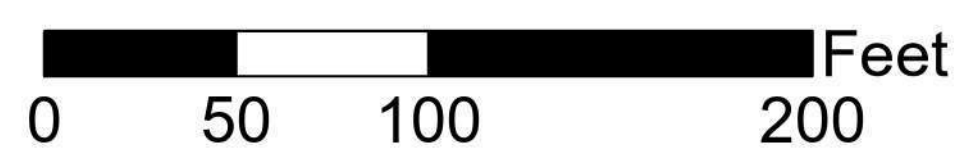
-  Combined
-  Sanitary
-  Stormwater

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected






1 Inch = 50 Feet






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Charles St - Page 5

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

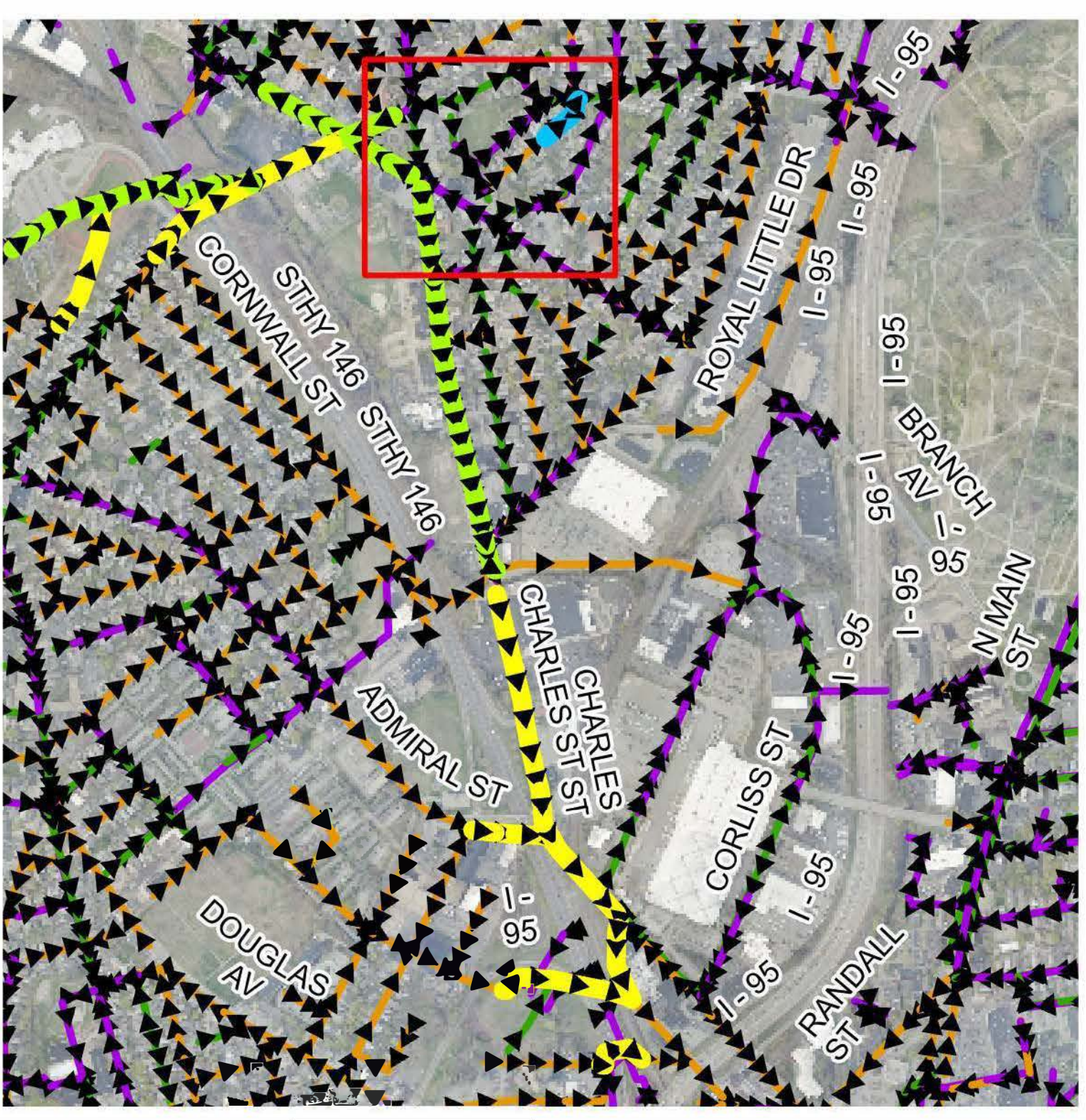
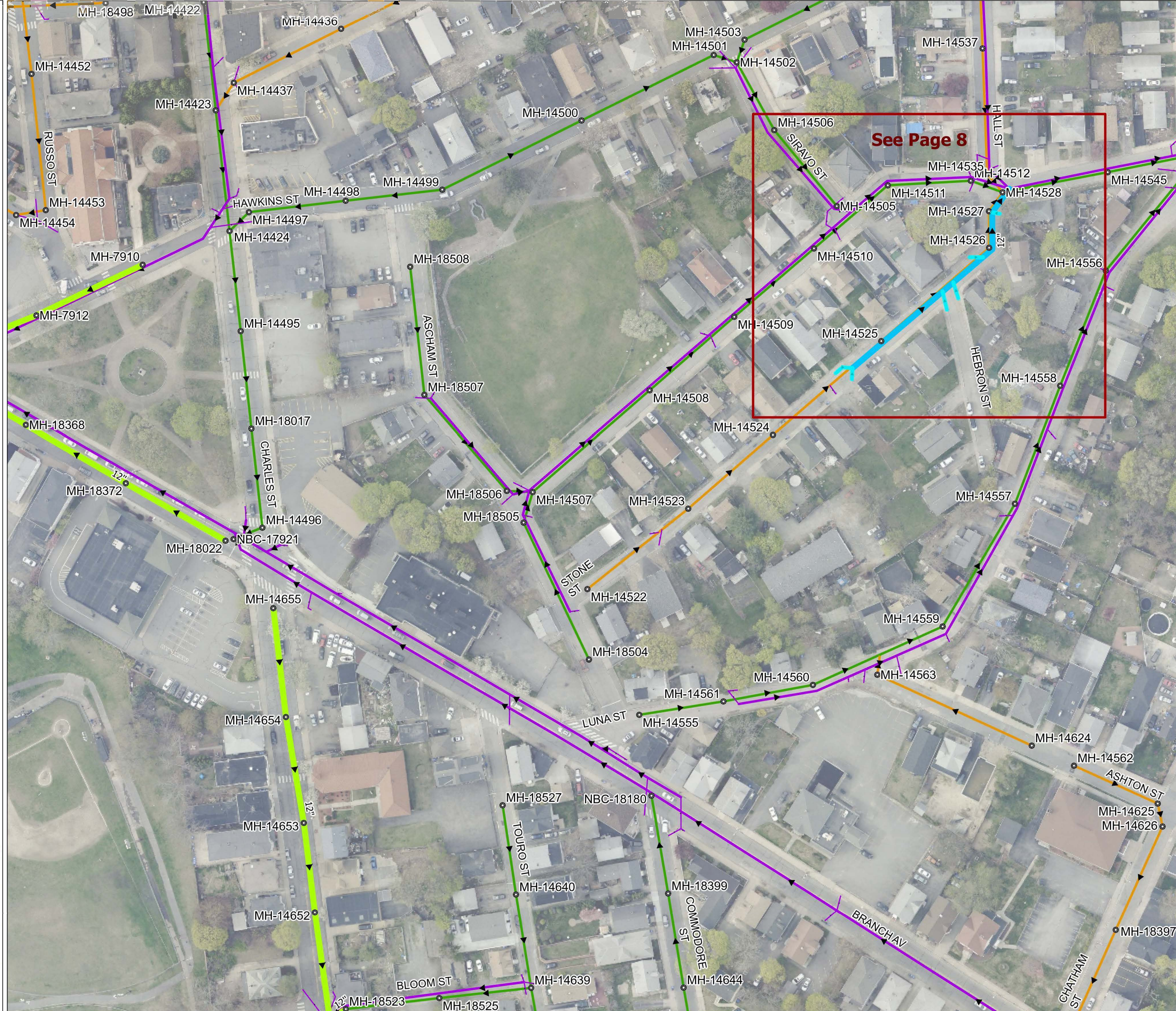
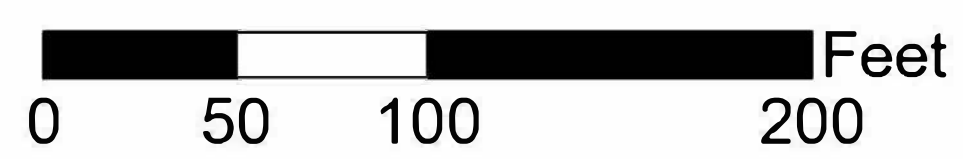
-  Combined
-  Sanitary
-  Stormwater

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected




1 Inch = 50 Feet






City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Charles St - Page 8

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

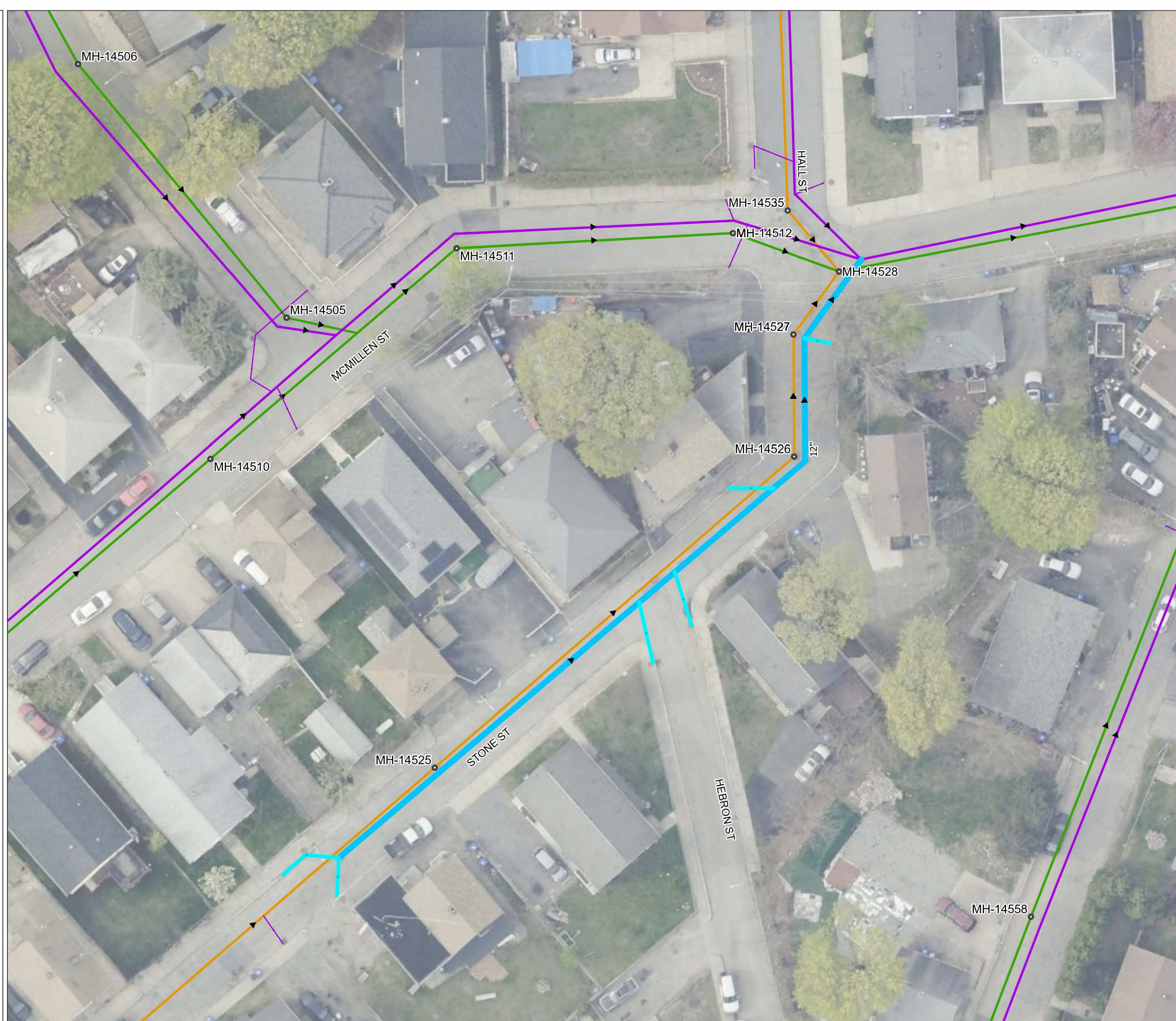
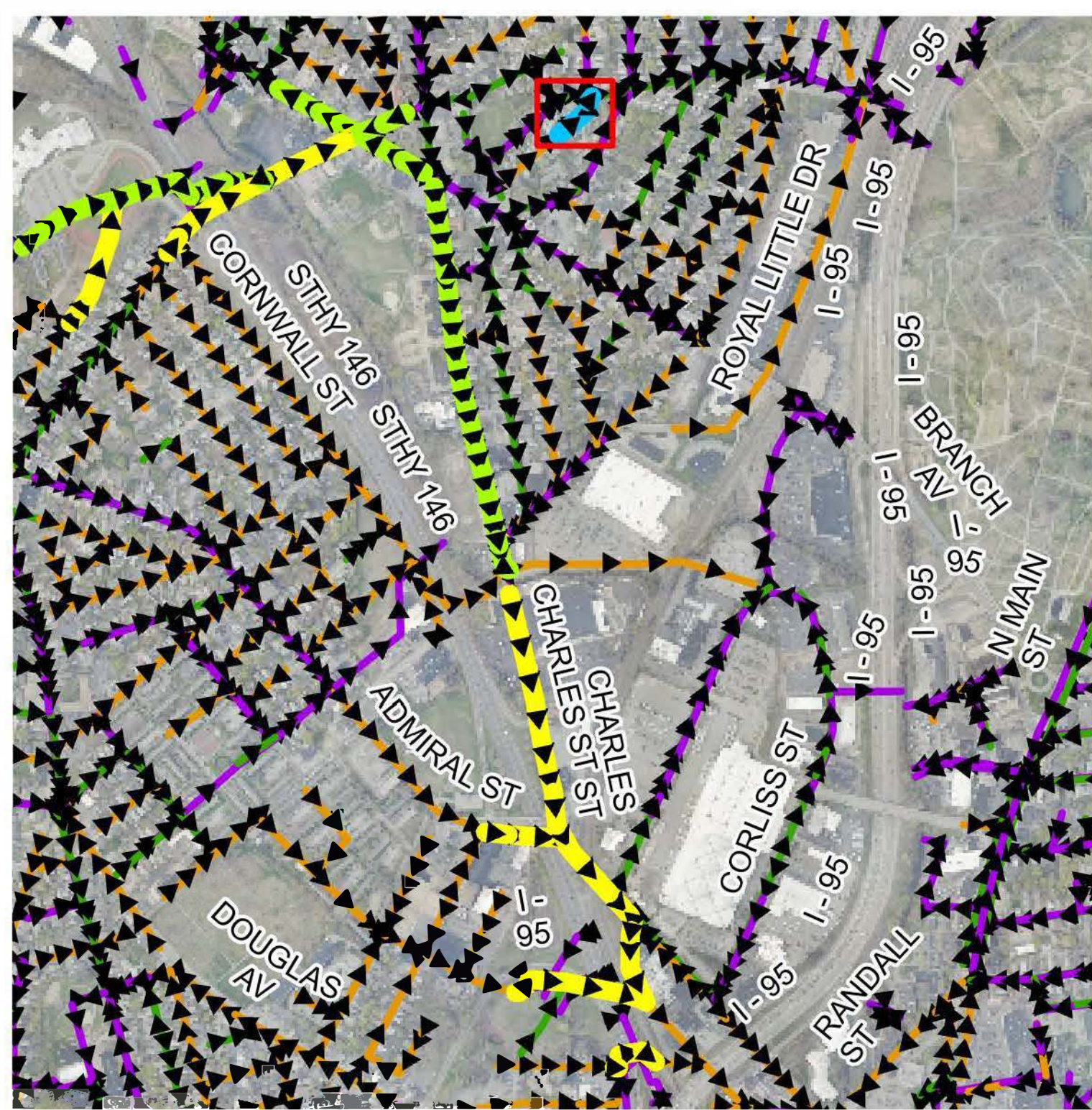
-  Combined
-  Sanitary
-  Stormwater

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected



1 Inch = 15 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Pavilion Ave at Eddy St

Legend

Proposed CCTV

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

Sewer Pipe

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

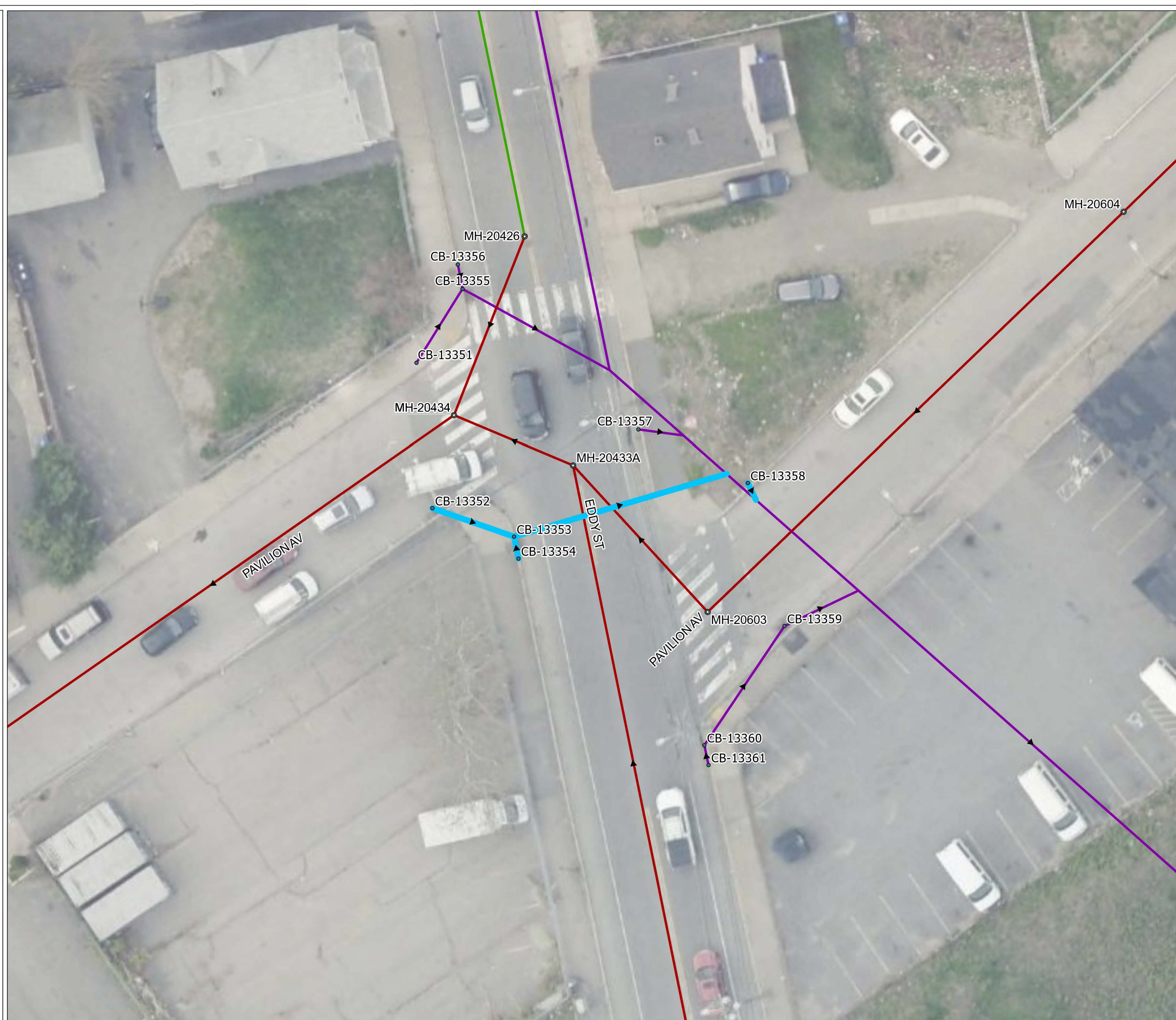
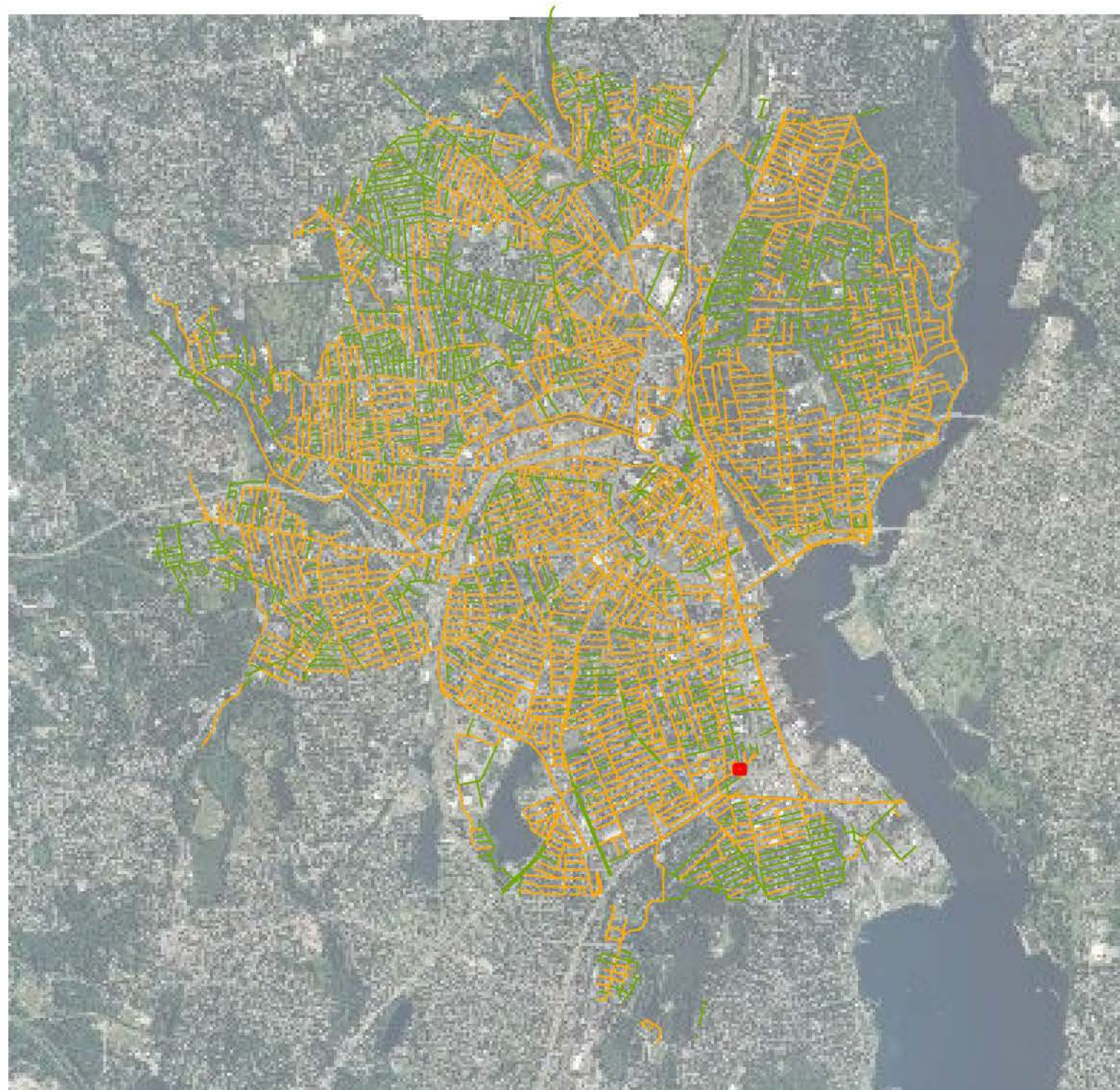
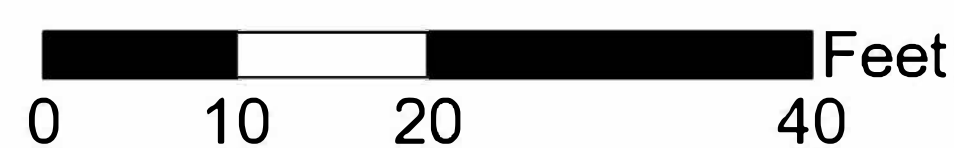
Do Not CCTV Previously Inspected

- ▶ Do Not CCTV Previously Inspected

Diameter	Length (ft)
Pavilion Ave at Eddy St	
Unknown Drainage Diameter	81
Area Total	81



1 Inch = 10 Feet





City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 West End - Index Page

Legend

Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

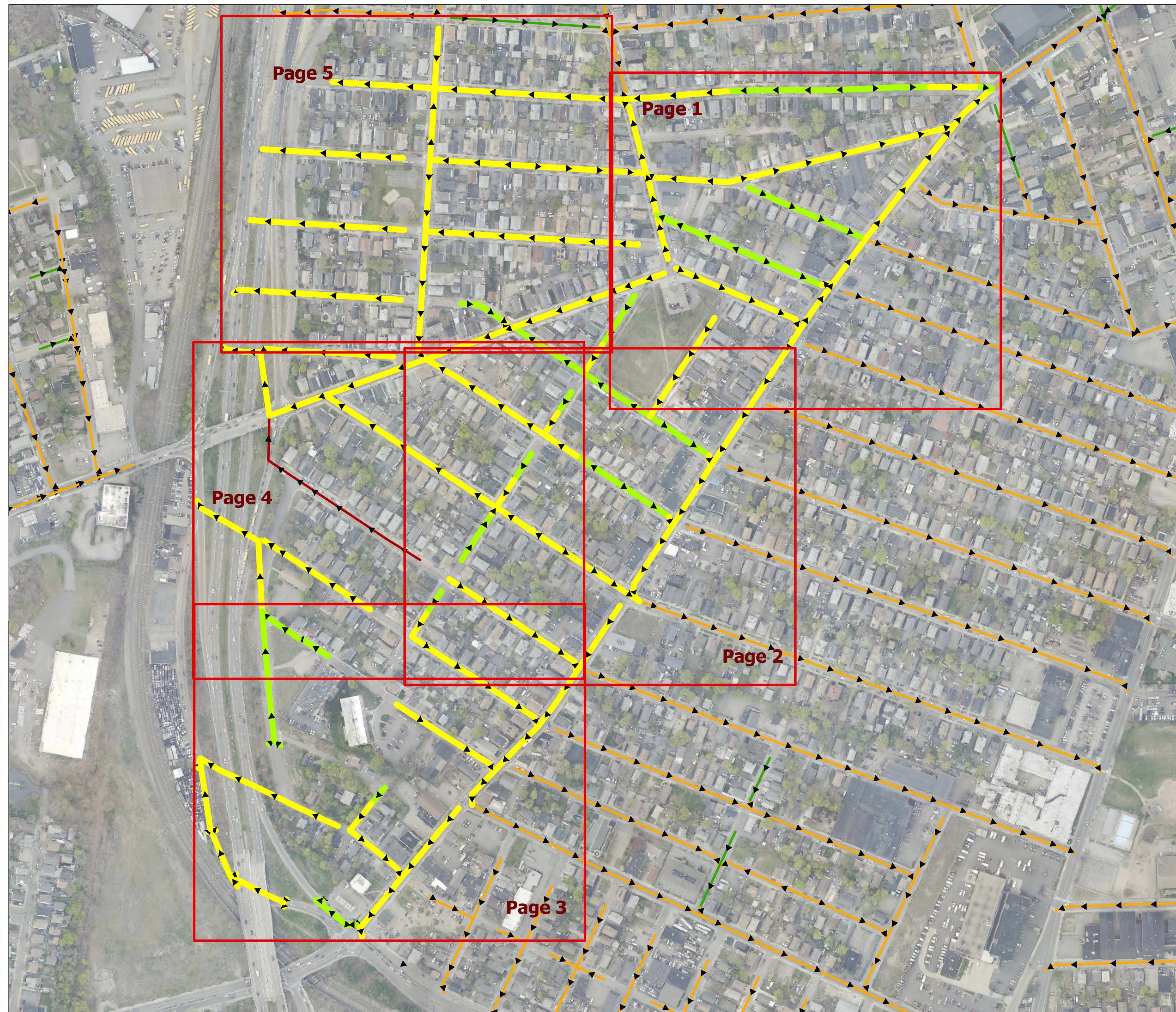
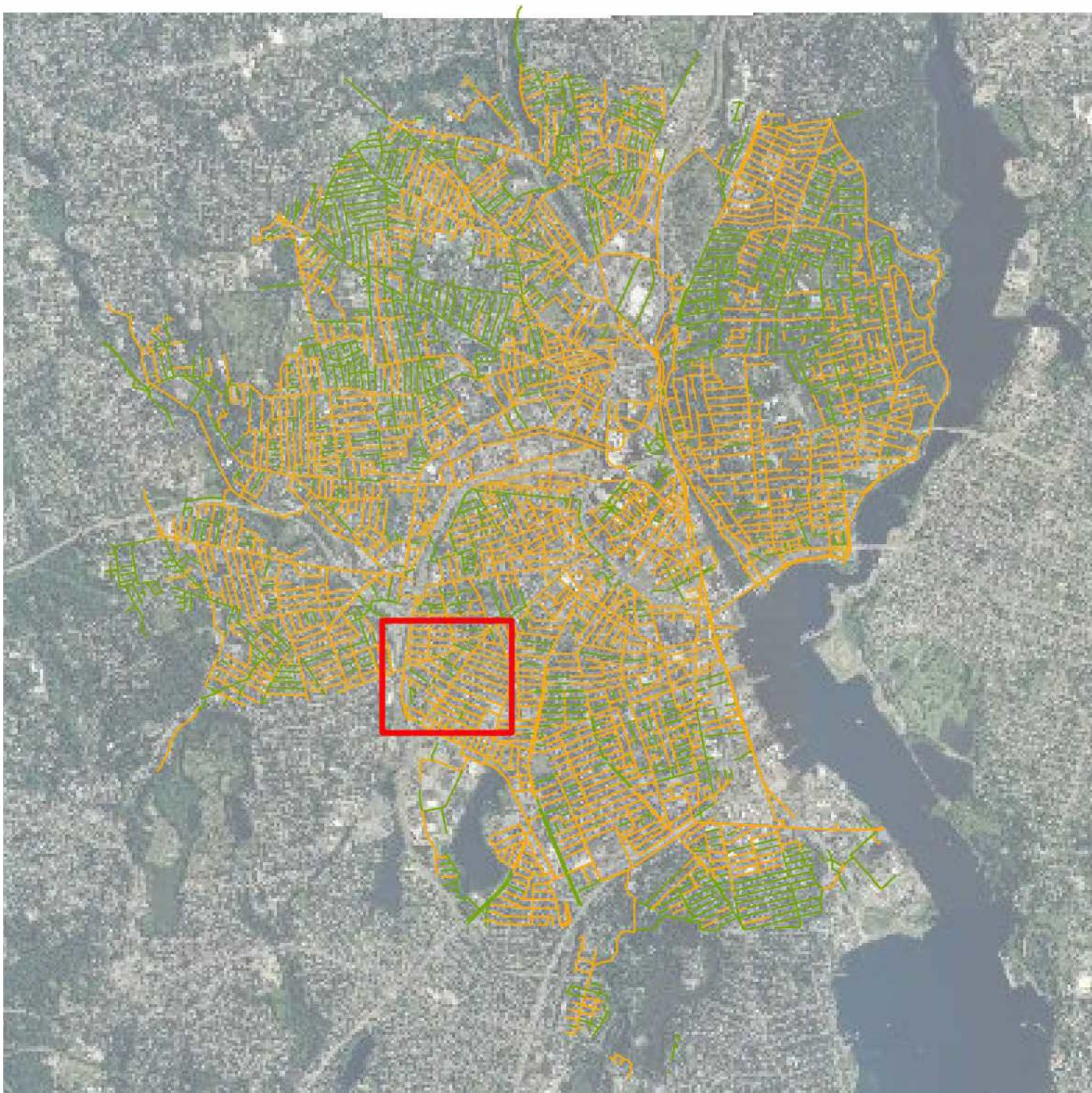
Sewer Pipes

-  Sanitary Pipe
-  Combined Pipe

Diameter	Length (ft)
West End	
8"	2928
12"	17385
15"	1311
16"	282
18"	1862
20"	684
Area Total	24452



1 Inch = 150 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection West End - Page 2

Legend

Proposed CCTV

▶ Combined

▶ Sanitary

▶ Stormwater

Do Not CCTV Previously Inspected

▶ Do Not CCTV Previously Inspected

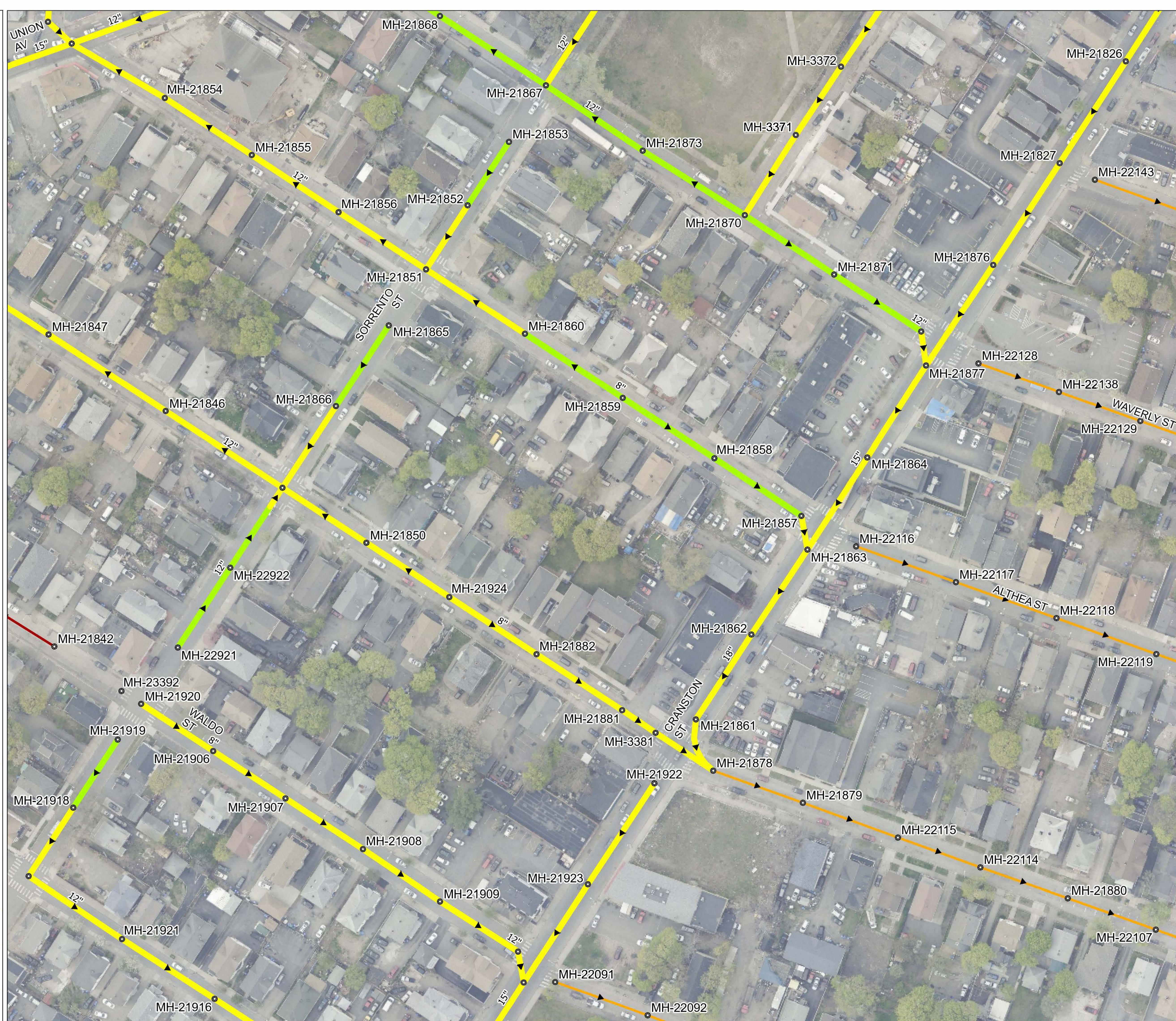
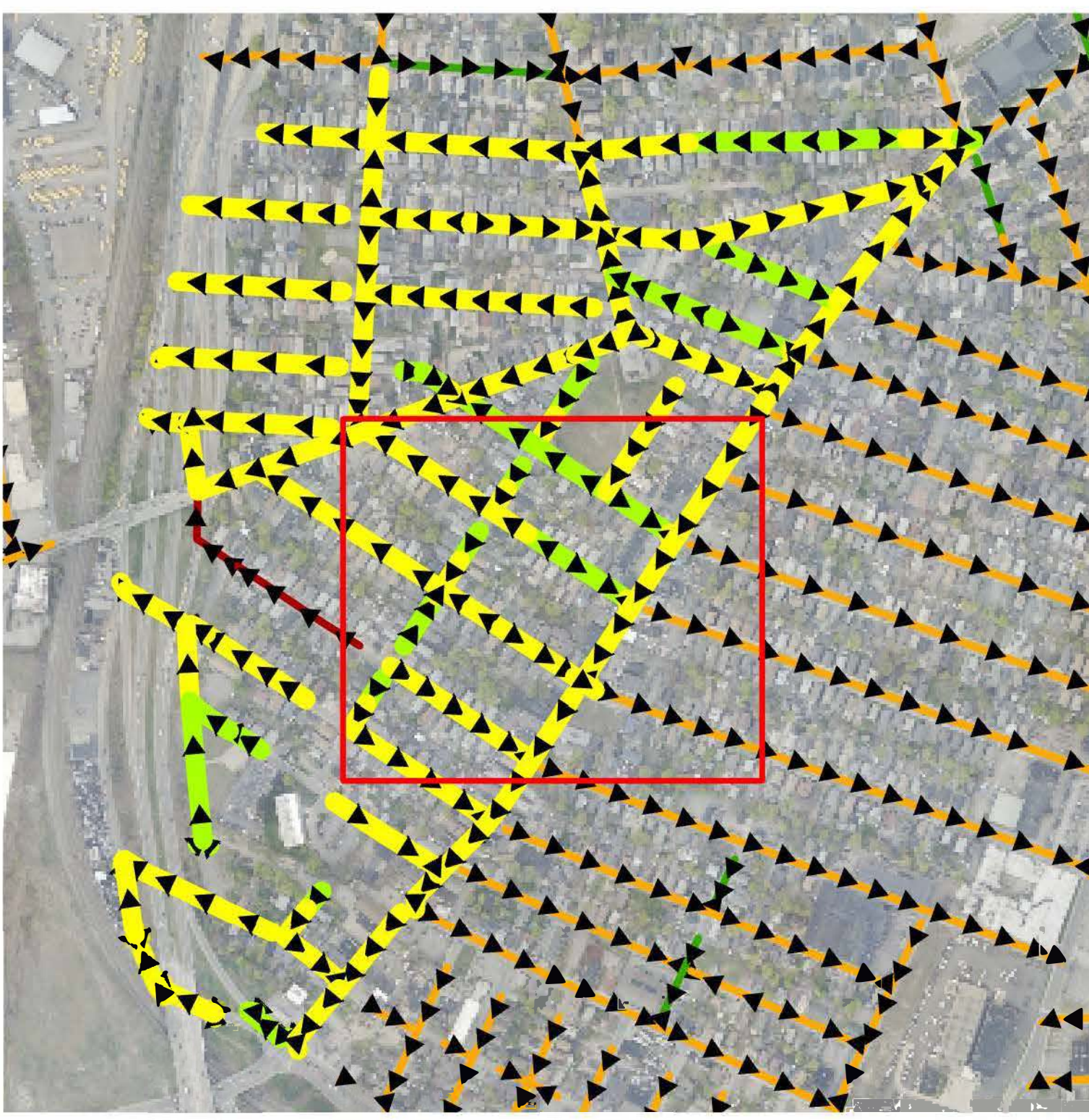
Sewer Pipes

▶ Sanitary Pipe

▶ Combined Pipe



1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 West End - Page 3

Legend

Proposed CCTV

▶ Combined

▶ Sanitary

▶ Stormwater

Do Not CCTV Previously Inspected

▶ Do Not CCTV Previously Inspected

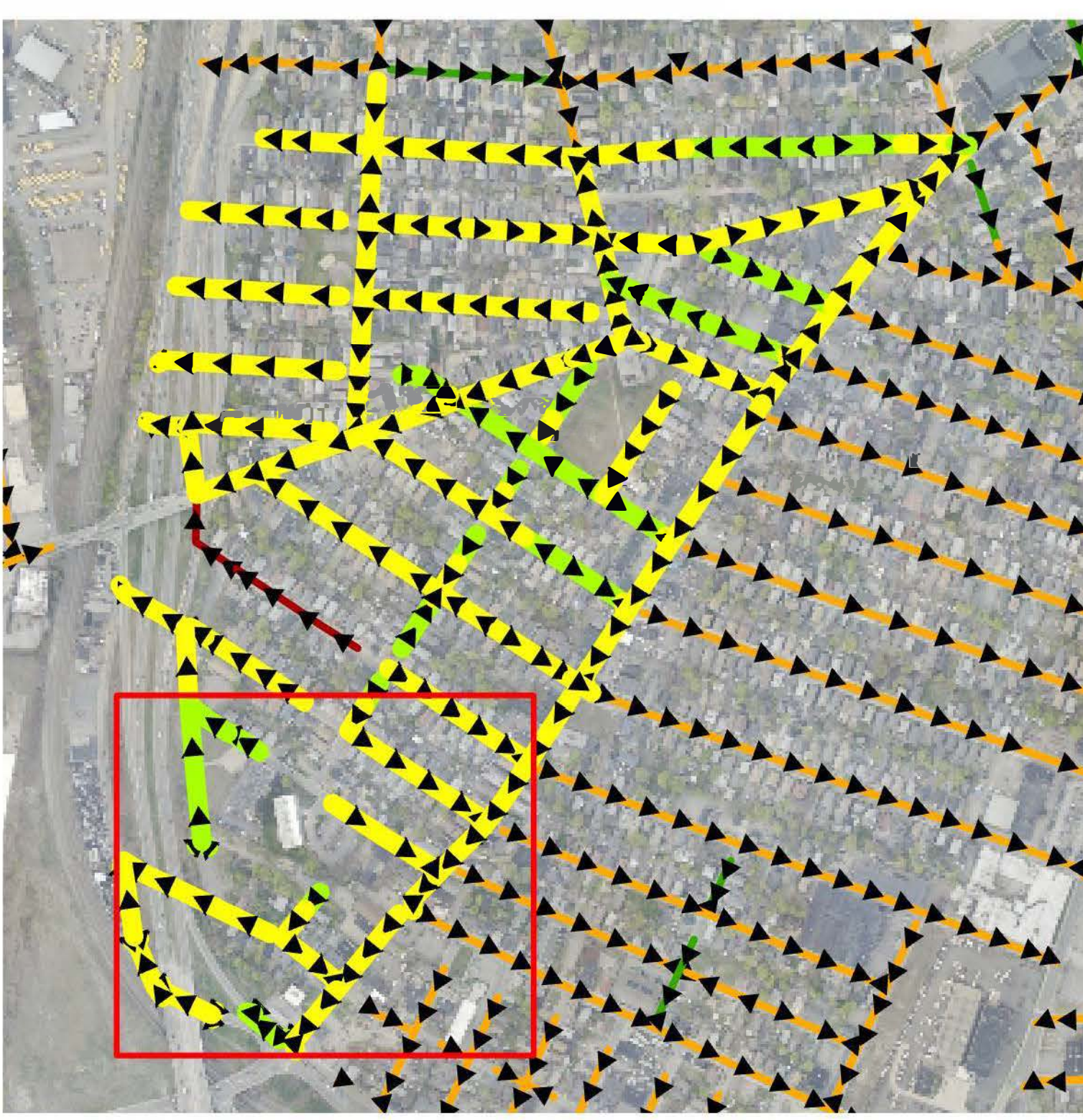
Sewer Pipes

▶ Sanitary Pipe

▶ Combined Pipe



1 Inch = 50 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection West End - Page 4

Legend

Proposed CCTV

▶ Combined

▶ Sanitary

▶ Stormwater

Do Not CCTV Previously Inspected

▶ Do Not CCTV Previously Inspected

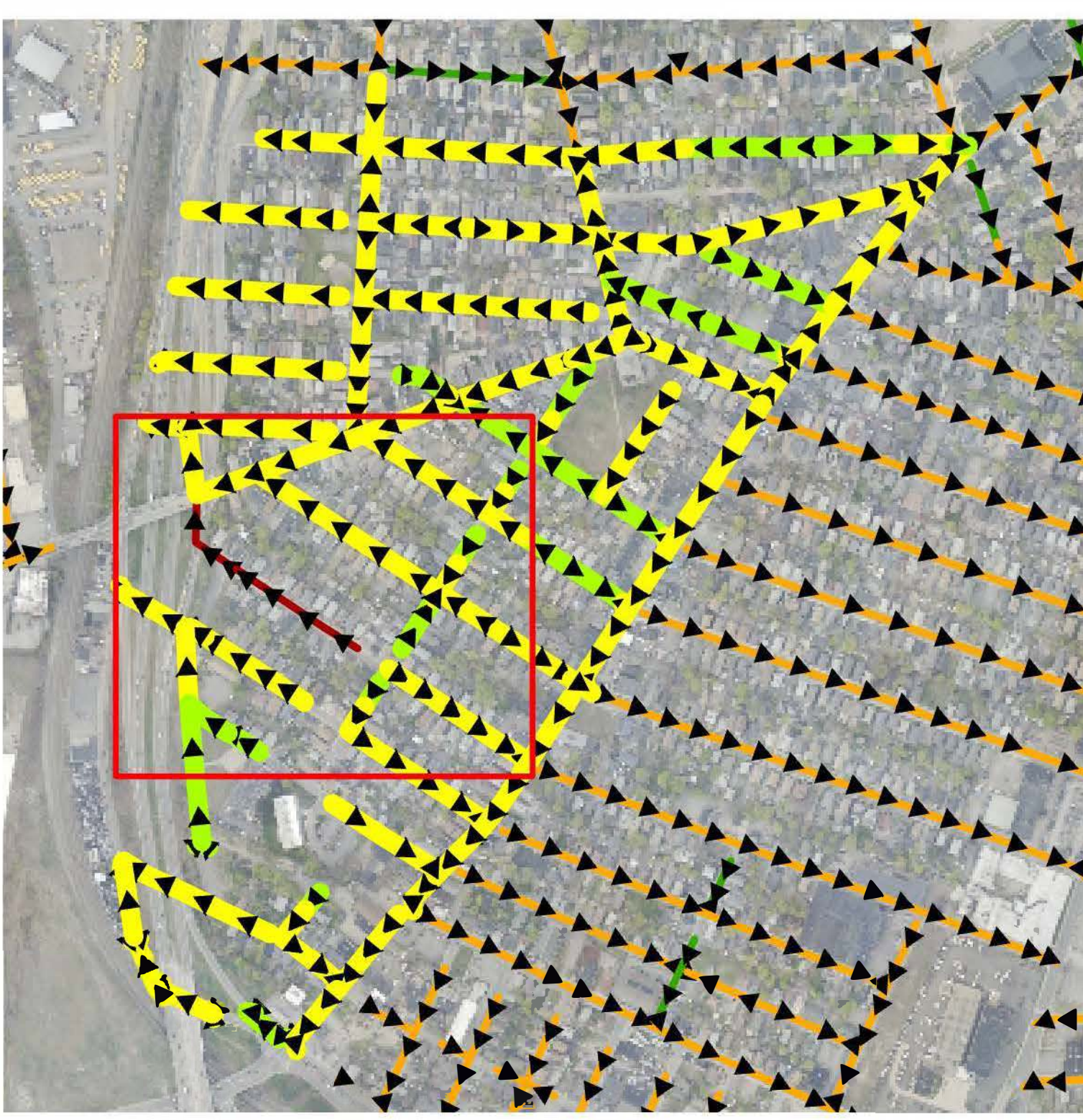
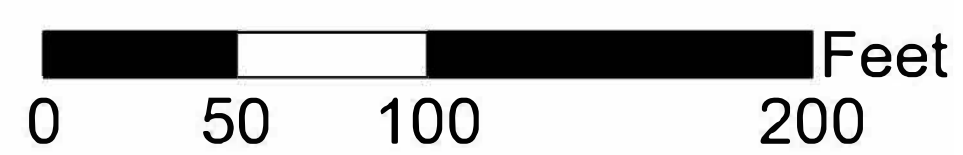
Sewer Pipes

▶ Sanitary Pipe

▶ Combined Pipe



1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 West End - Page 5

Legend

Proposed CCTV

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

Do Not CCTV Previously Inspected

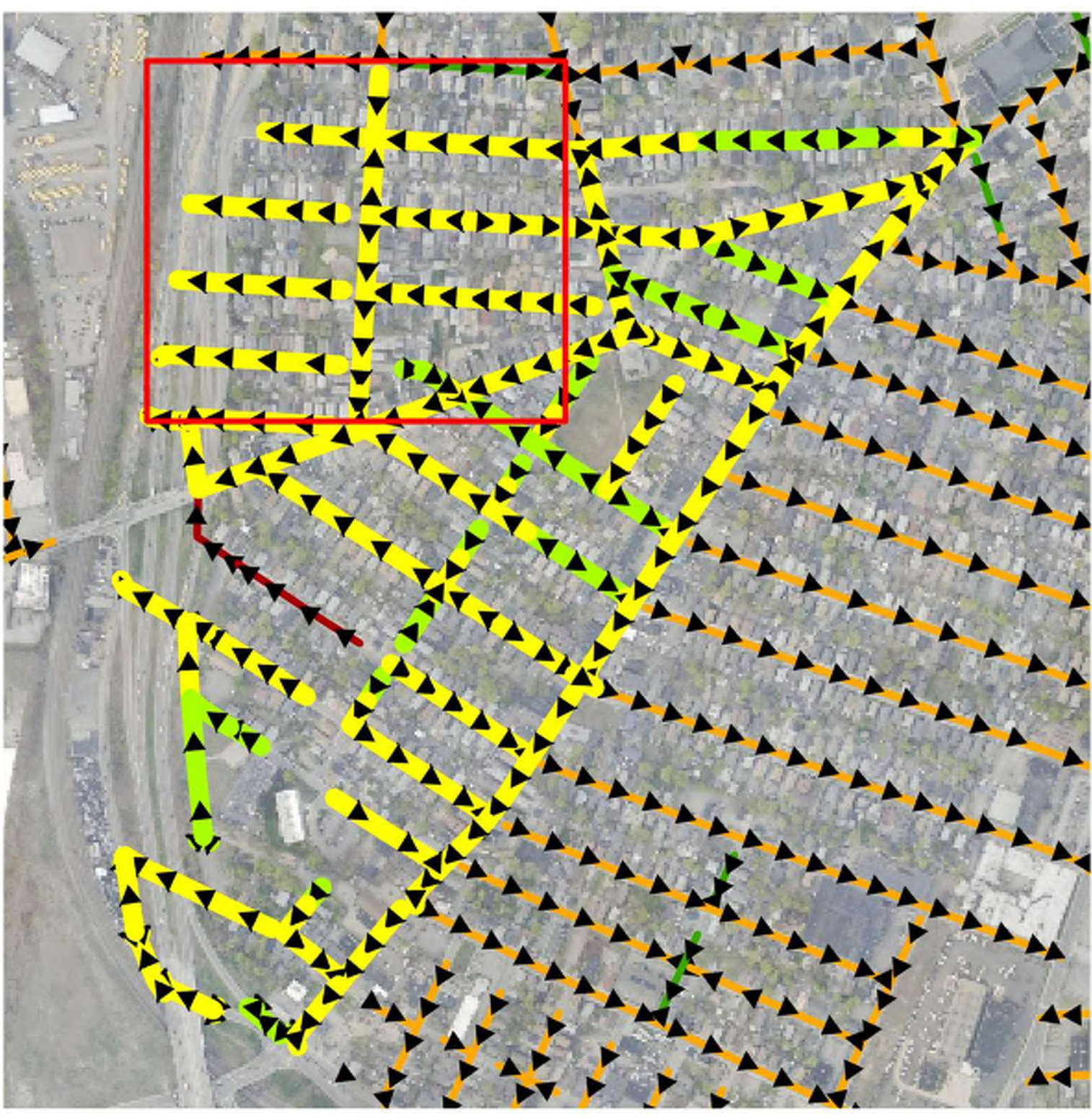
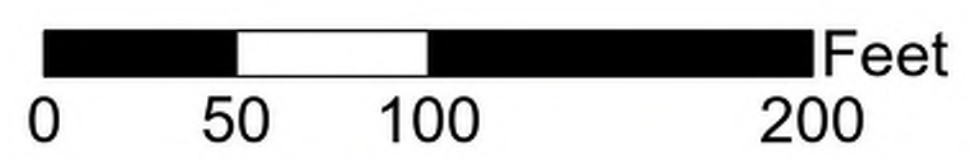
- ▶ Do Not CCTV Previously Inspected

Sewer Pipes

- ▶ Sanitary Pipe
- ▶ Combined Pipe



1 Inch = 50 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Molter Street

Legend

Proposed CCTV

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

Sewer Pipes

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater

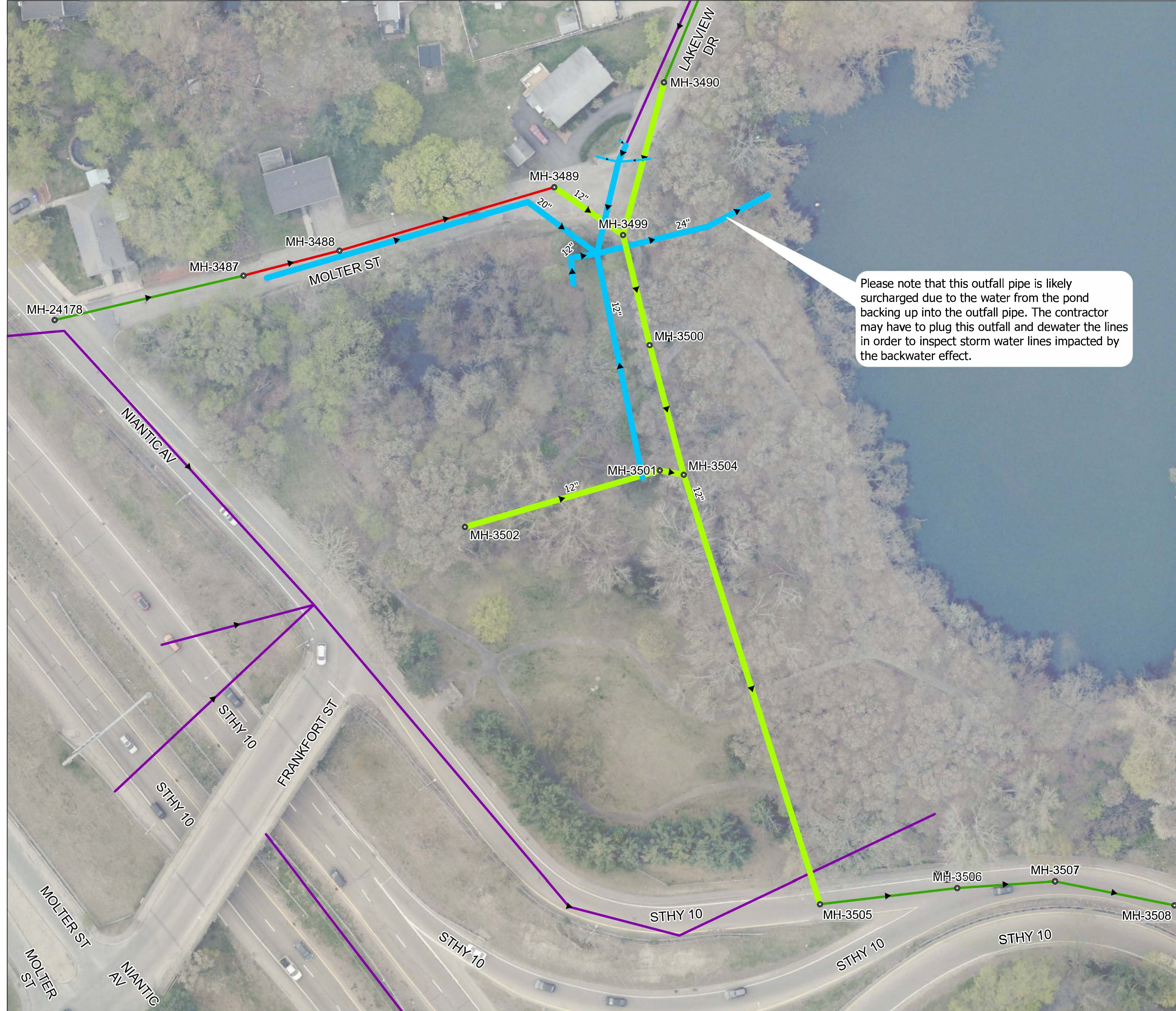
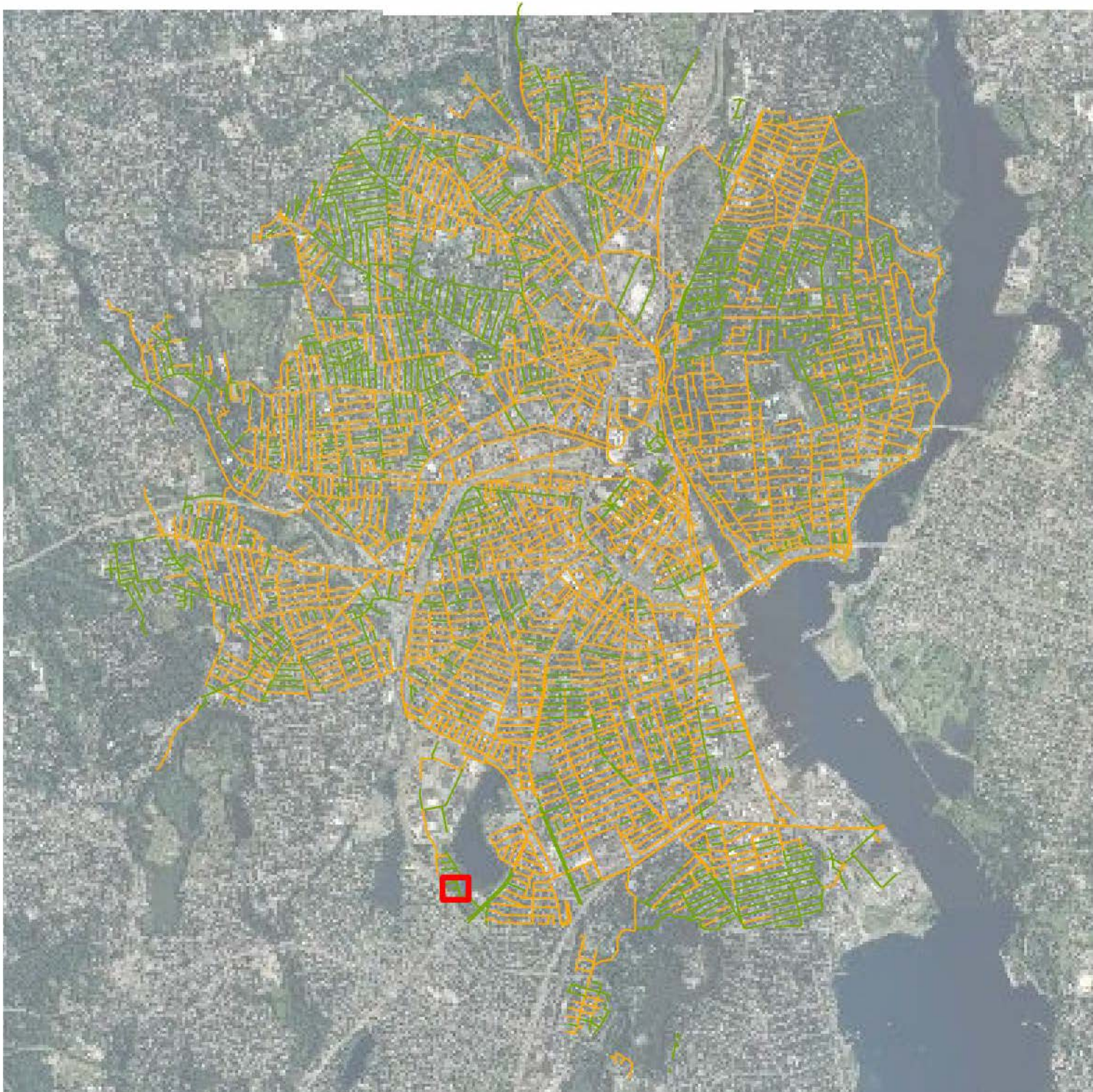
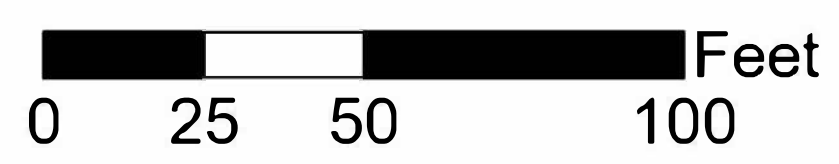
Do Not CCTV Previously Inspected

- ▶ Do Not CCTV Previously Inspected

Diameter	Length (ft)
Molter Street	
12"	1088
20"	250
24"	127
Unknown Drainage Diameter	44
Area Total	1509









1 Inch = 30 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Additive Alternate No. 1 - Index Page

Legend

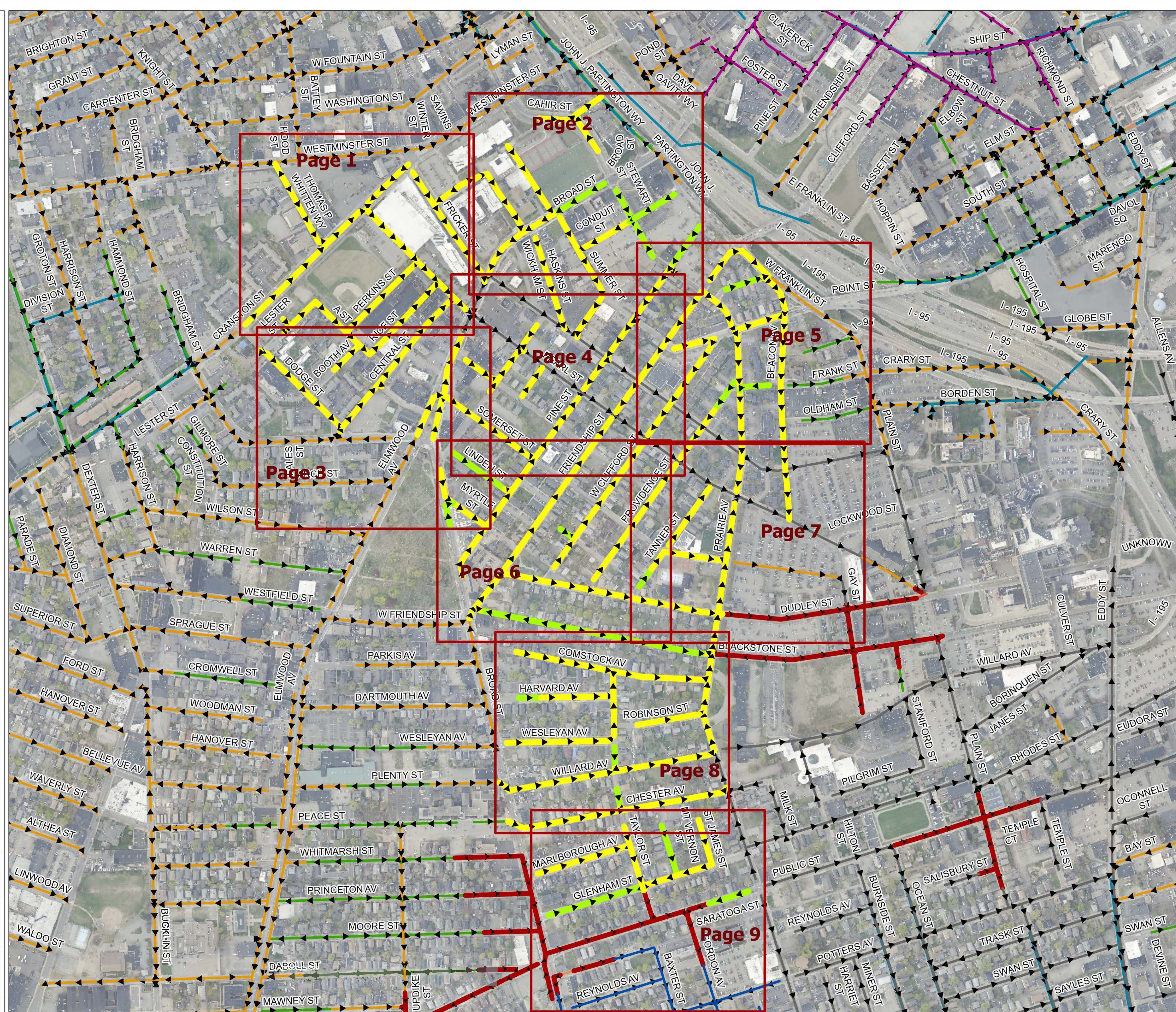
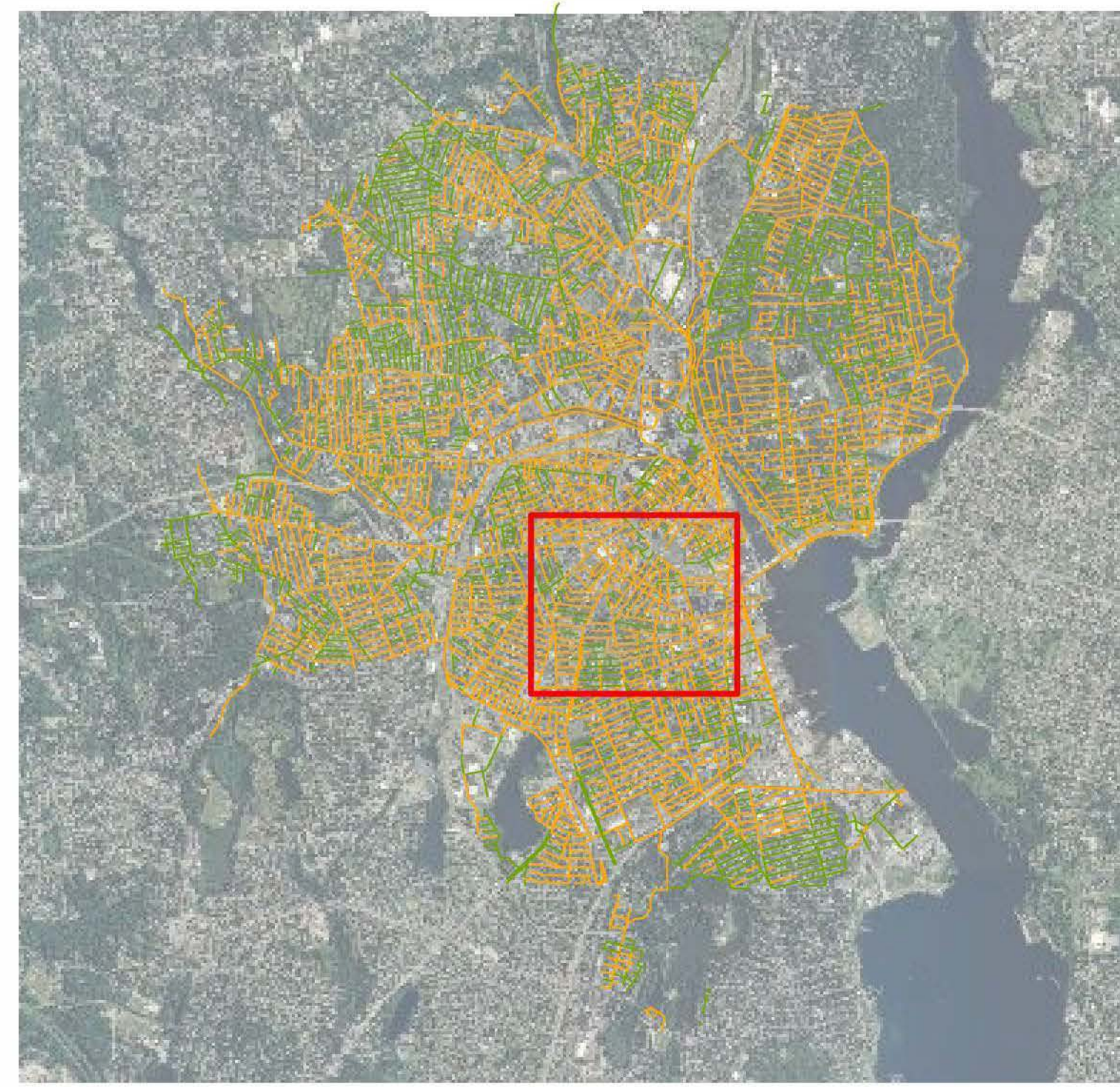
Proposed CCTV - Additive Alternate 1

-  Combined
 -  Sanitary
 -  Stormwater
- Sewer Pipes
-  Sanitary
 -  Combined
 -  Stormwater

Diameter	Length (ft)
Additive Alternate 1	
8"	946
12"	28616
15"	3291
16"	60
18"	1794
20"	3177
20X30 BR	415
22"	1756
24"	1775
26"	216
33"	1016
38"	612
40"	340
Area Total	44013





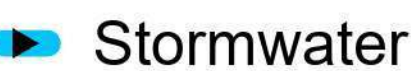



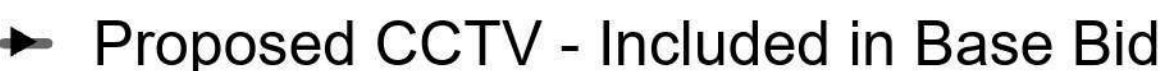

1 Inch = 250 Feet

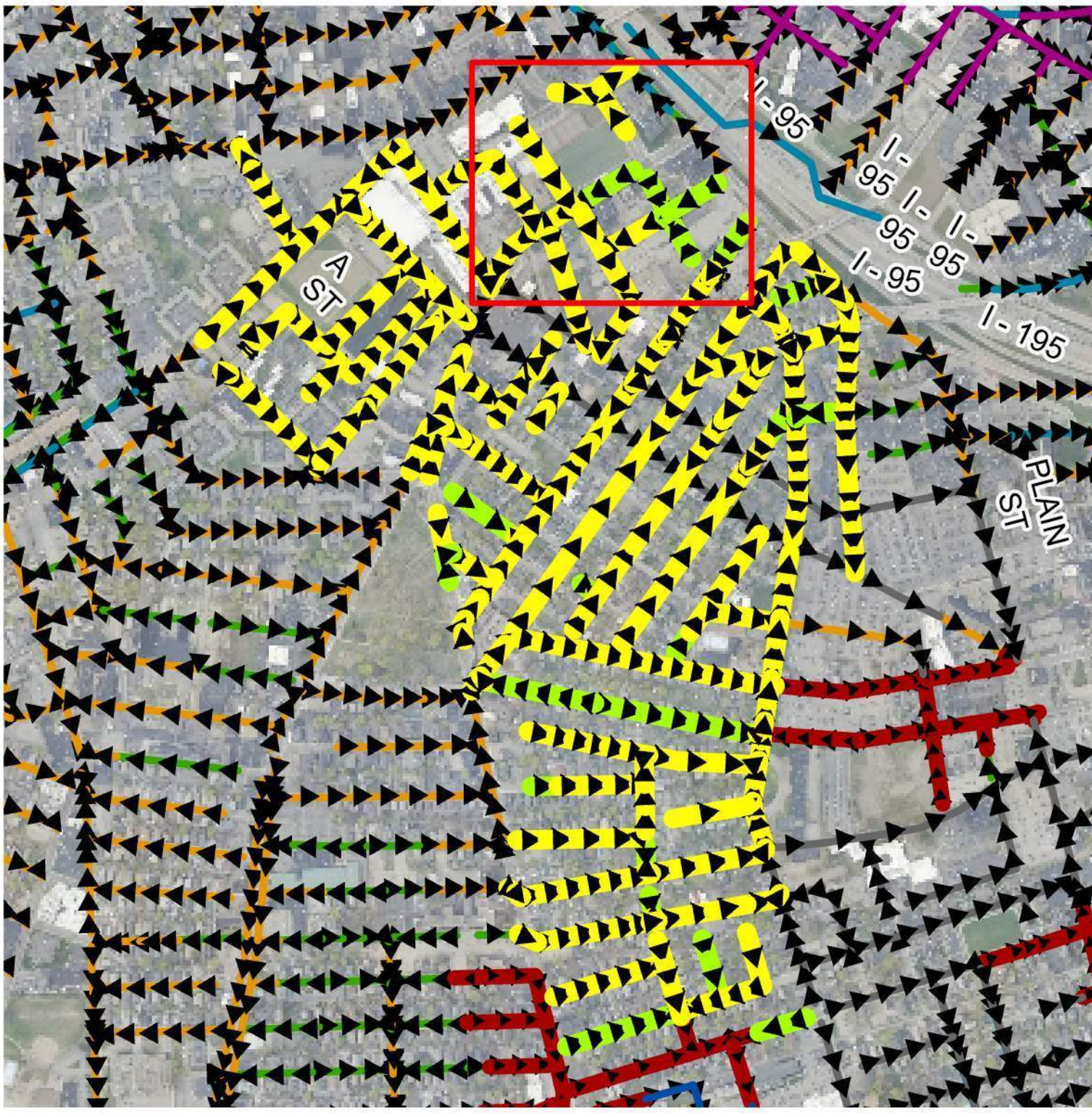


City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 2

Legend

Proposed CCTV - Additive Alternate 1









-  Combined
-  Sanitary
-  Stormwater
- Sewer Pipes**
-  Sanitary
-  Combined
-  Stormwater
-  Proposed CCTV - Included in Base Bid
-  Do Not CCTV Previously Inspected

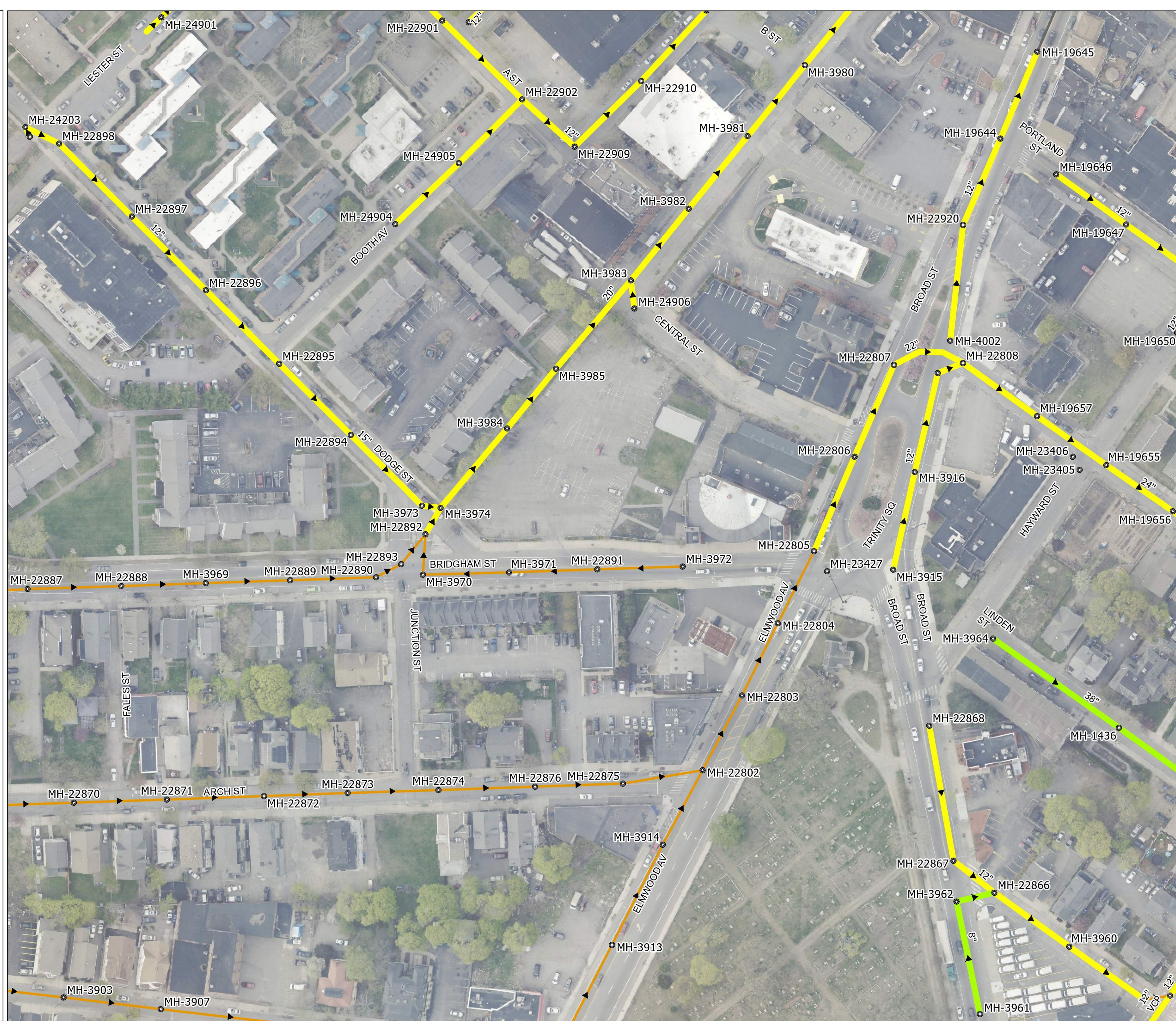
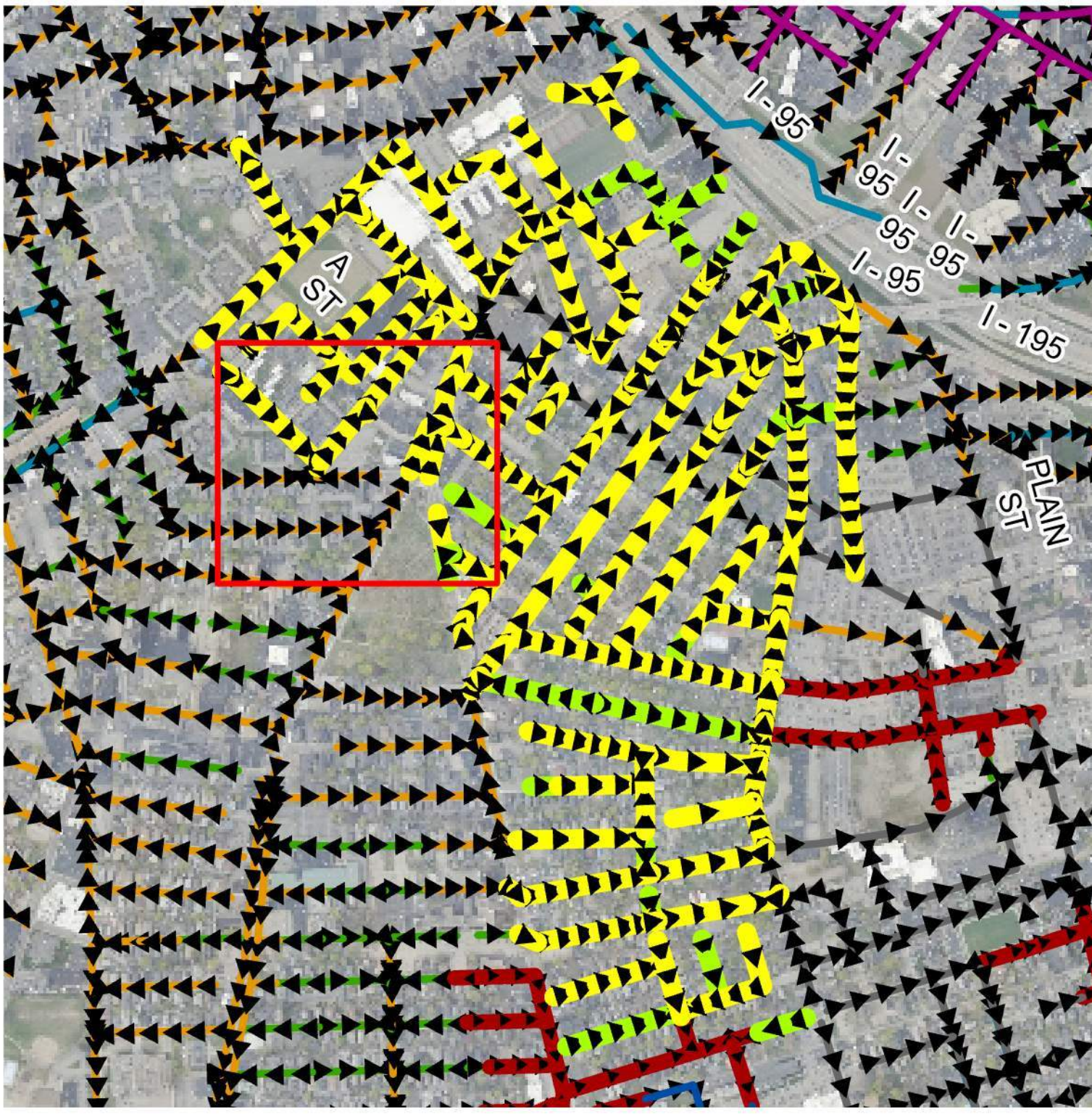


City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 3

Legend

Proposed CCTV - Additive Alternate 1









-  Combined
-  Sanitary
-  Stormwater
- Sewer Pipes**
-  Sanitary
-  Combined
-  Stormwater
-  Proposed CCTV - Included in Base Bid
-  Do Not CCTV Previously Inspected



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 4

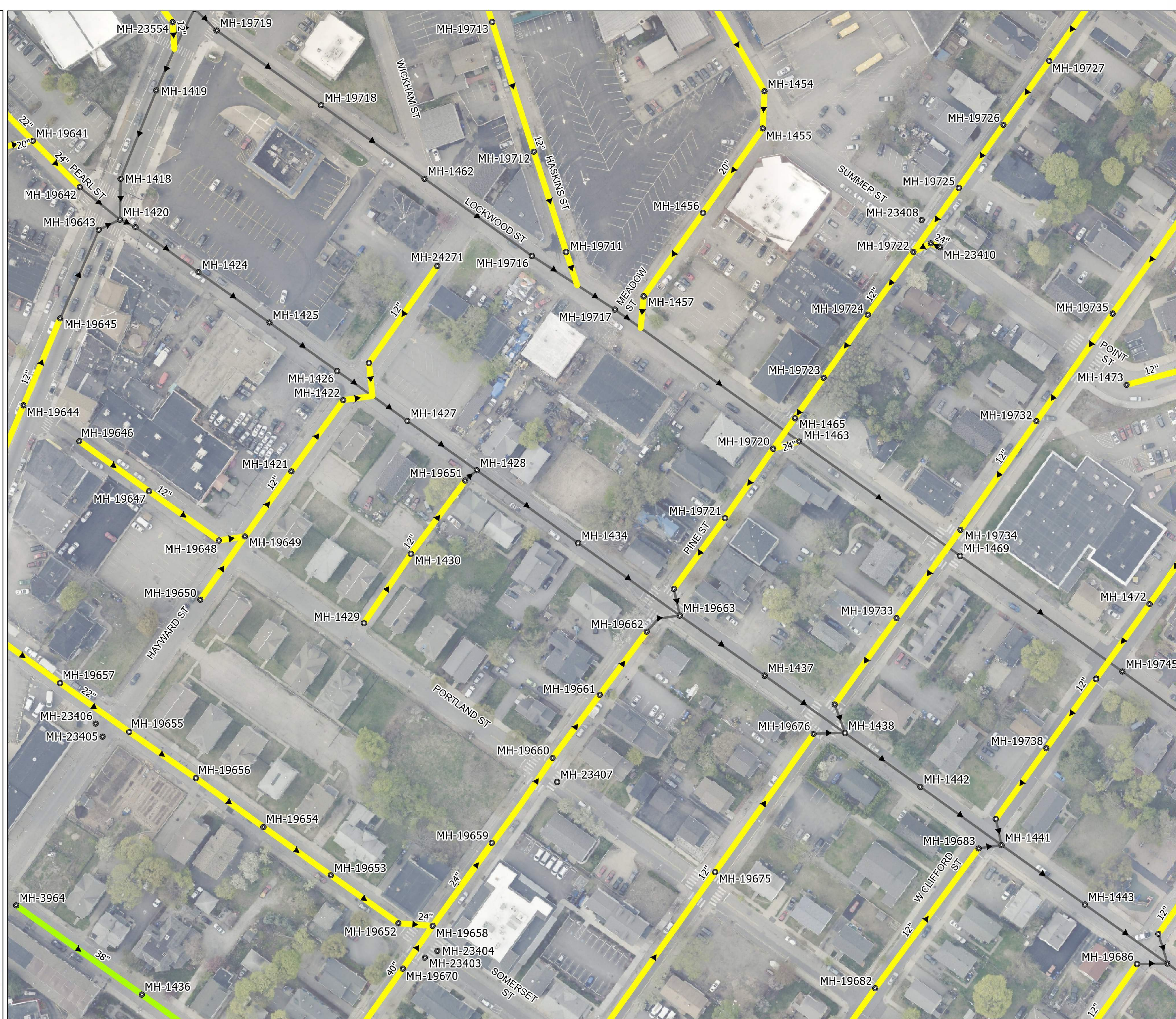
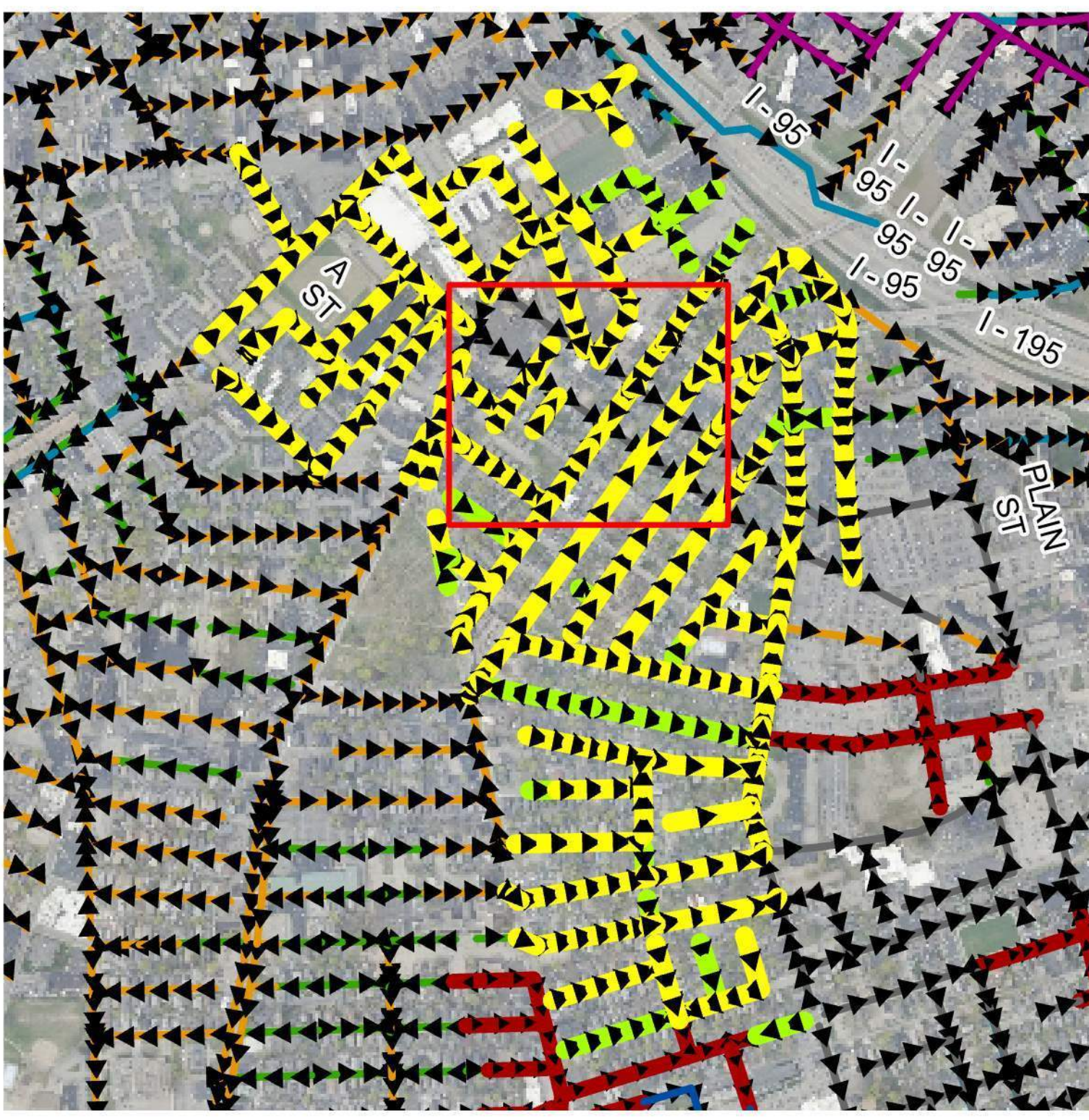
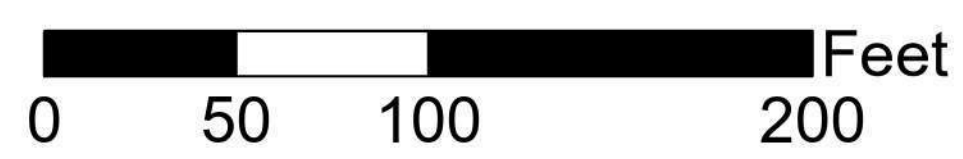
Legend

Proposed CCTV - Additive Alternate 1

-  Combined
-  Sanitary
-  Stormwater
- Sewer Pipes**
-  Sanitary
-  Combined
-  Stormwater
-  Proposed CCTV - Included in Base Bid
-  Do Not CCTV Previously Inspected



1 Inch = 50 Feet








City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 5

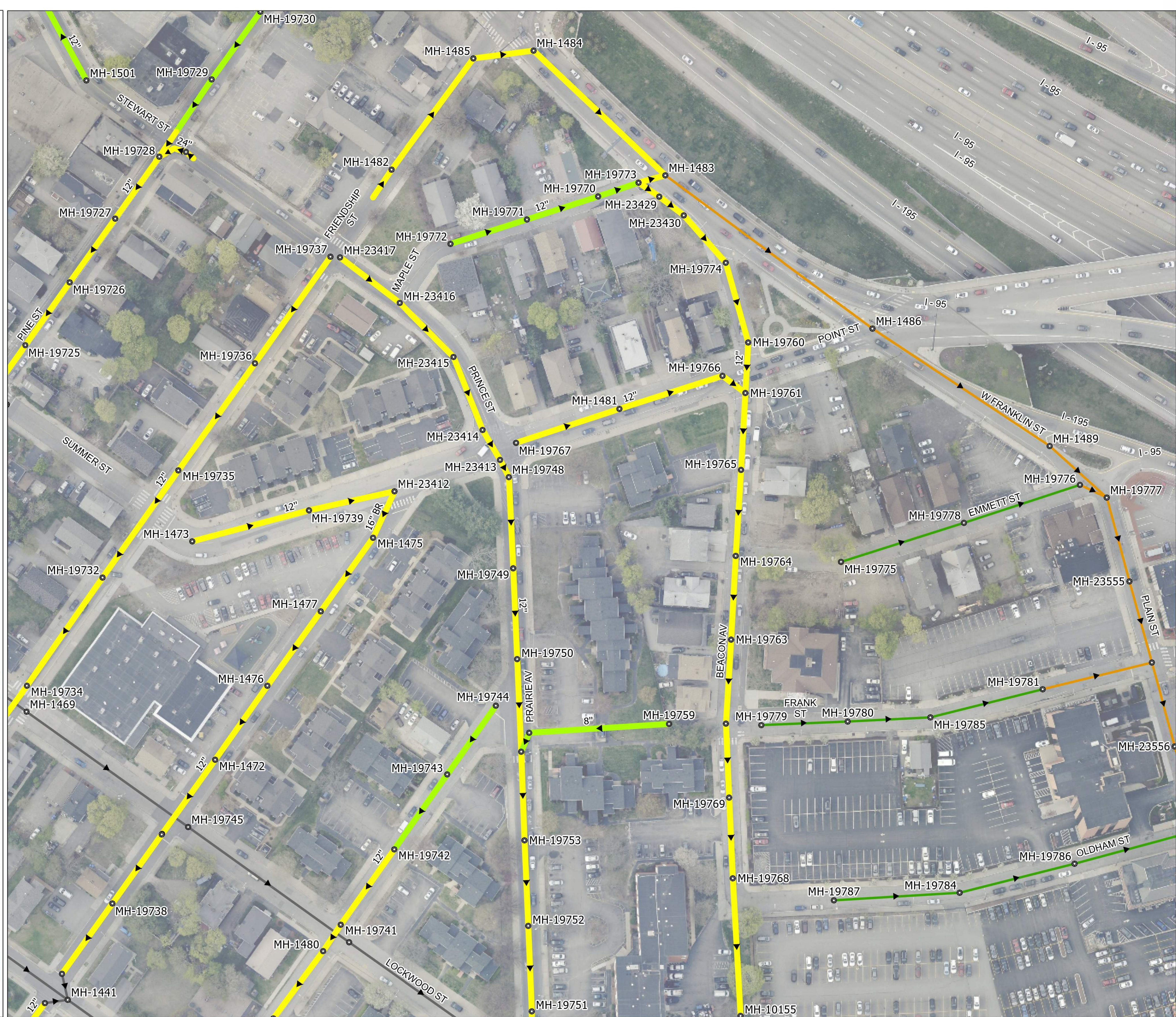
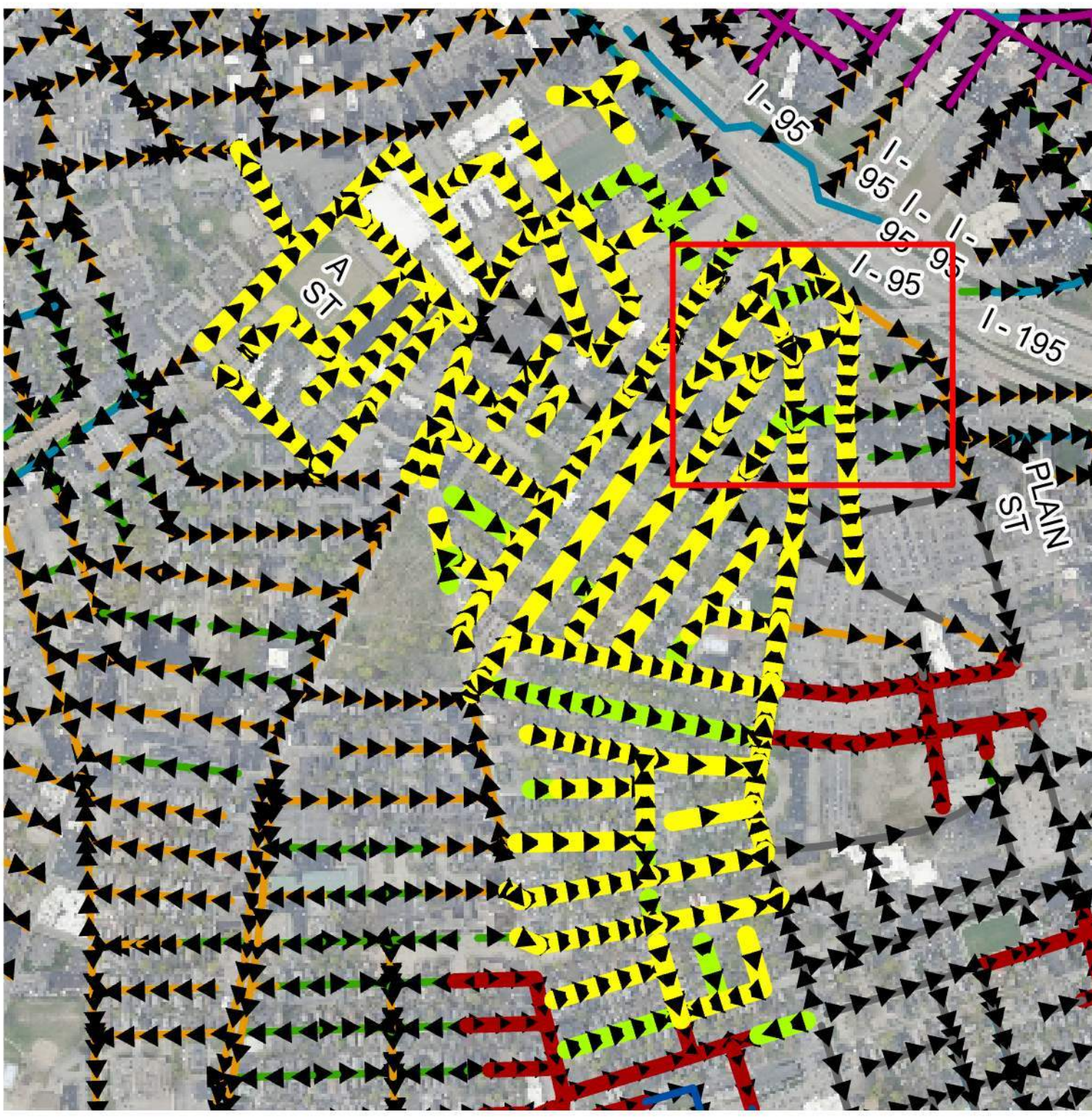
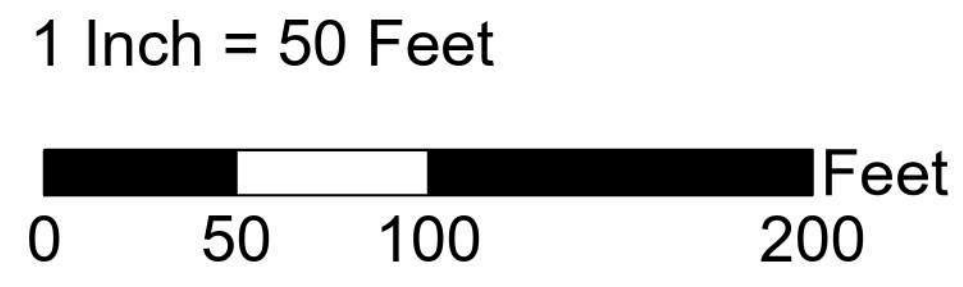
Legend

Proposed CCTV - Additive Alternate 1

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary
-  Combined
-  Stormwater
-  Proposed CCTV - Included in Base Bid
-  Do Not CCTV Previously Inspected



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 7

Legend

Proposed CCTV - Additive Alternate 1

▶ Combined

▶ Sanitary

▶ Stormwater

Sewer Pipes

▶ Sanitary

▶ Combined

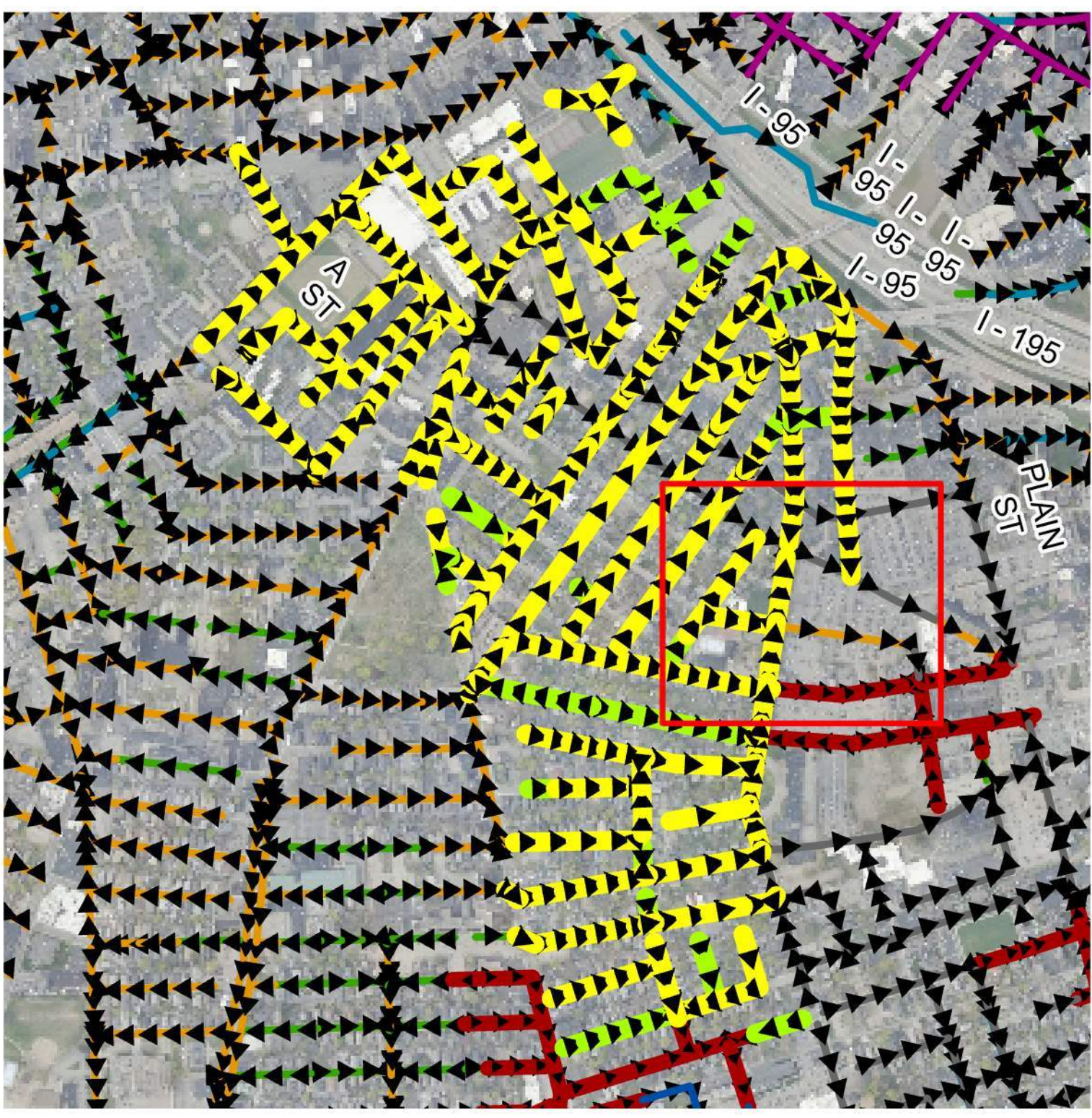
▶ Stormwater

▶ Proposed CCTV - Included in Base Bid

◼ Do Not CCTV Previously Inspected



1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 8

Legend

Proposed CCTV - Additive Alternate 1

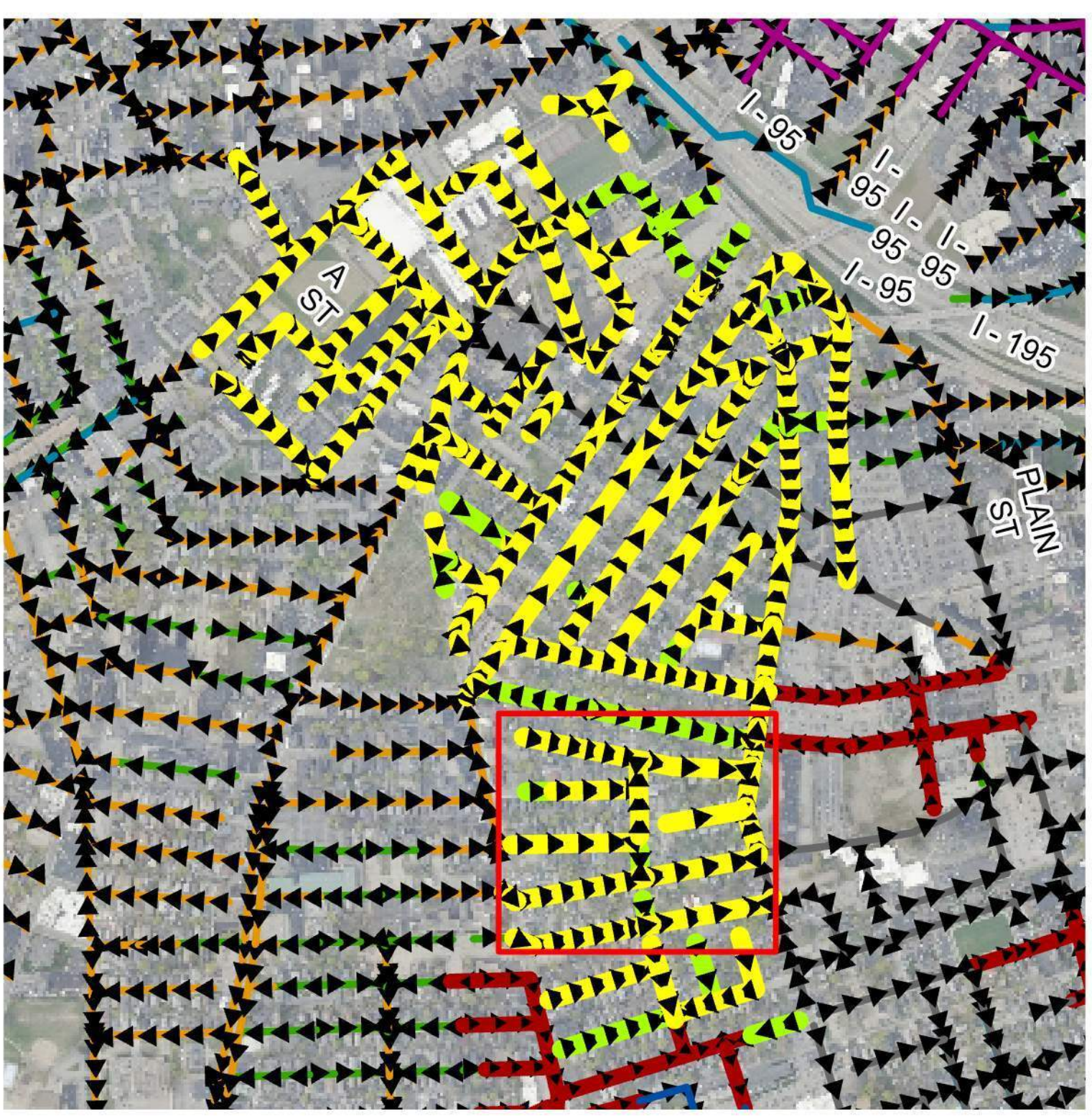
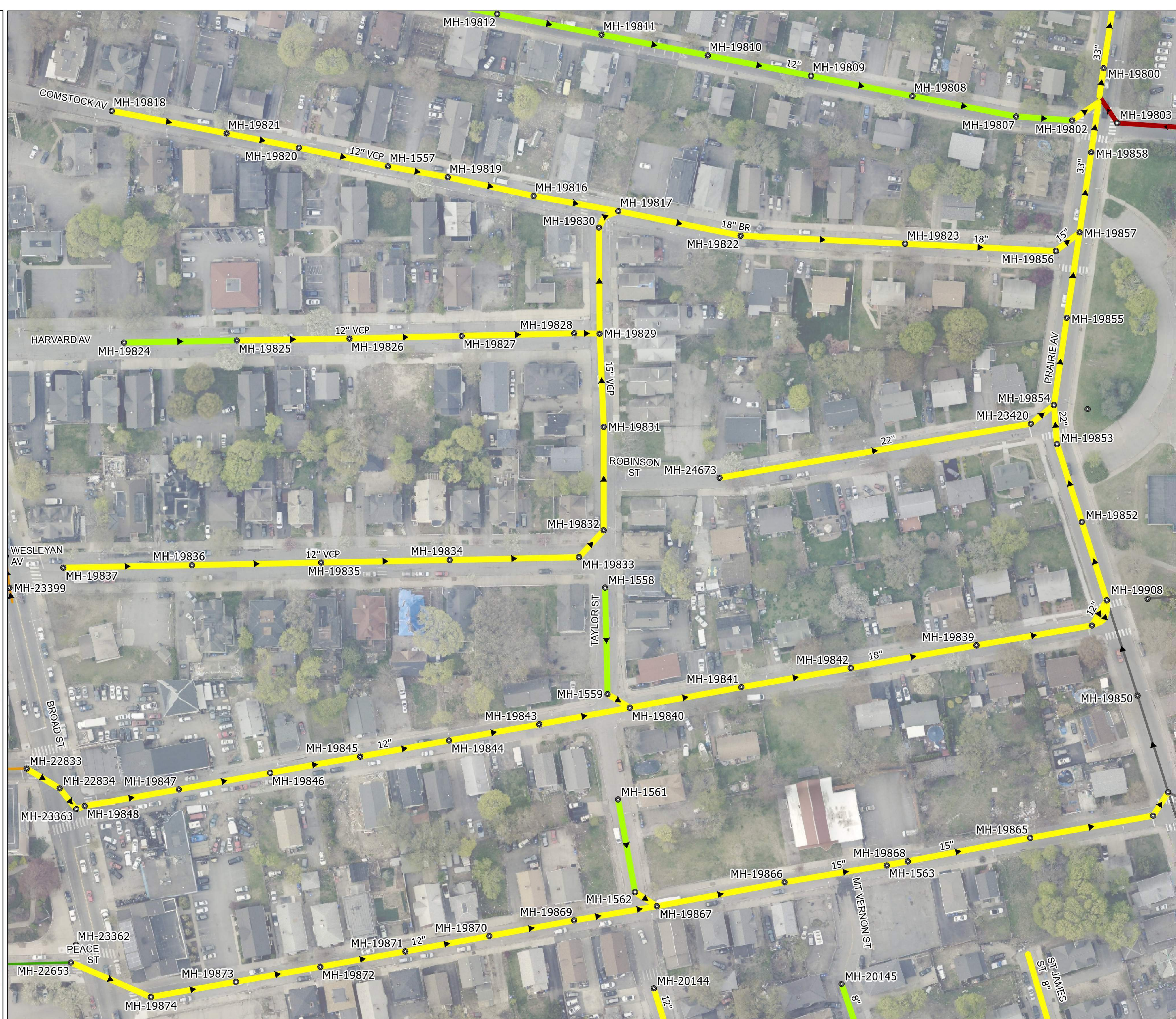
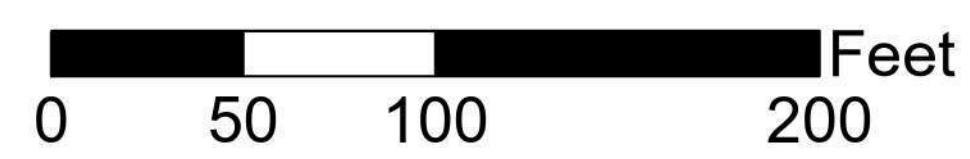
- Combined
- Sanitary
- Stormwater

Sewer Pipes

- Sanitary
- Combined
- Stormwater
- Proposed CCTV - Included in Base Bid
- Do Not CCTV Previously Inspected











1 Inch = 50 Feet

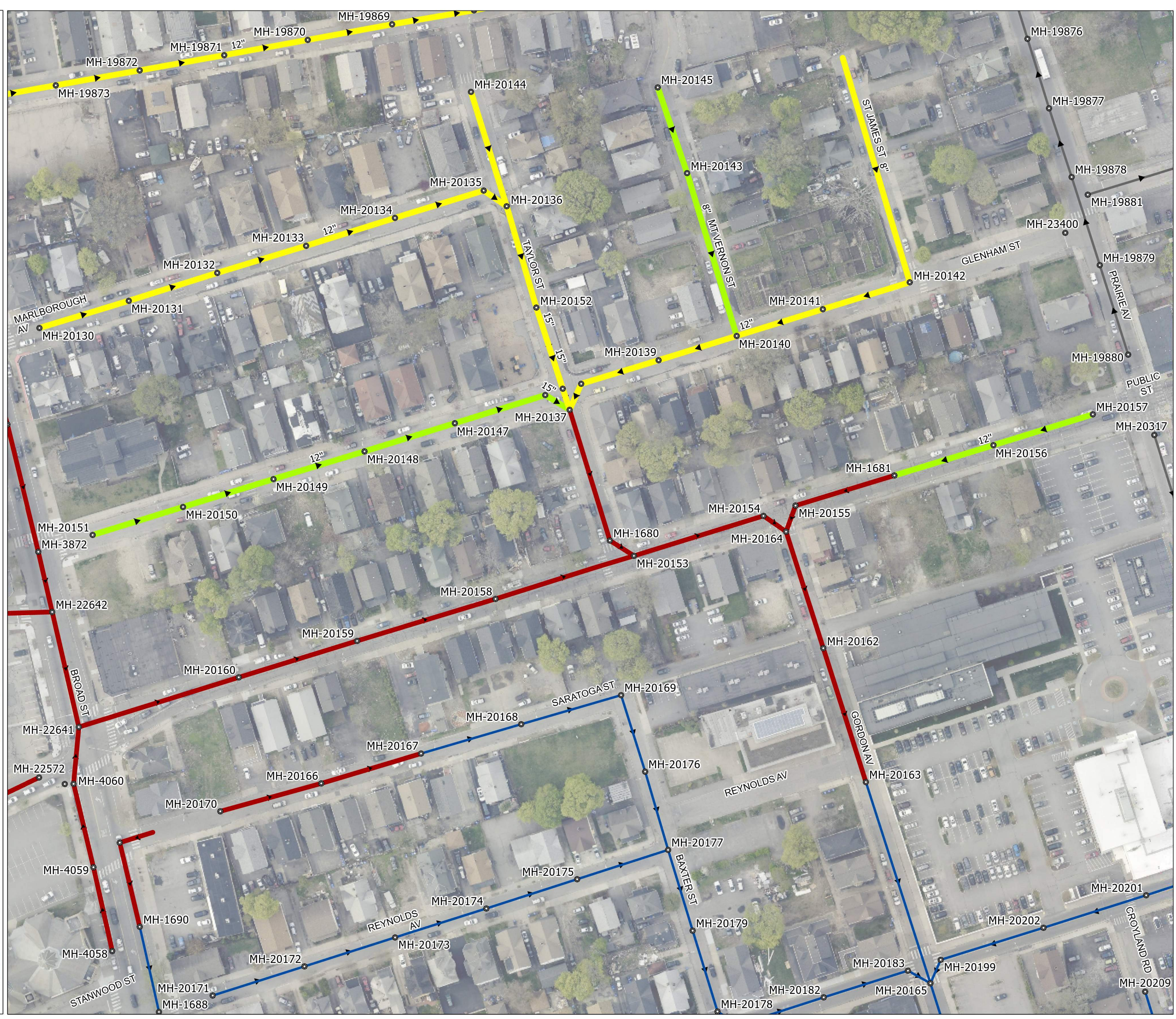
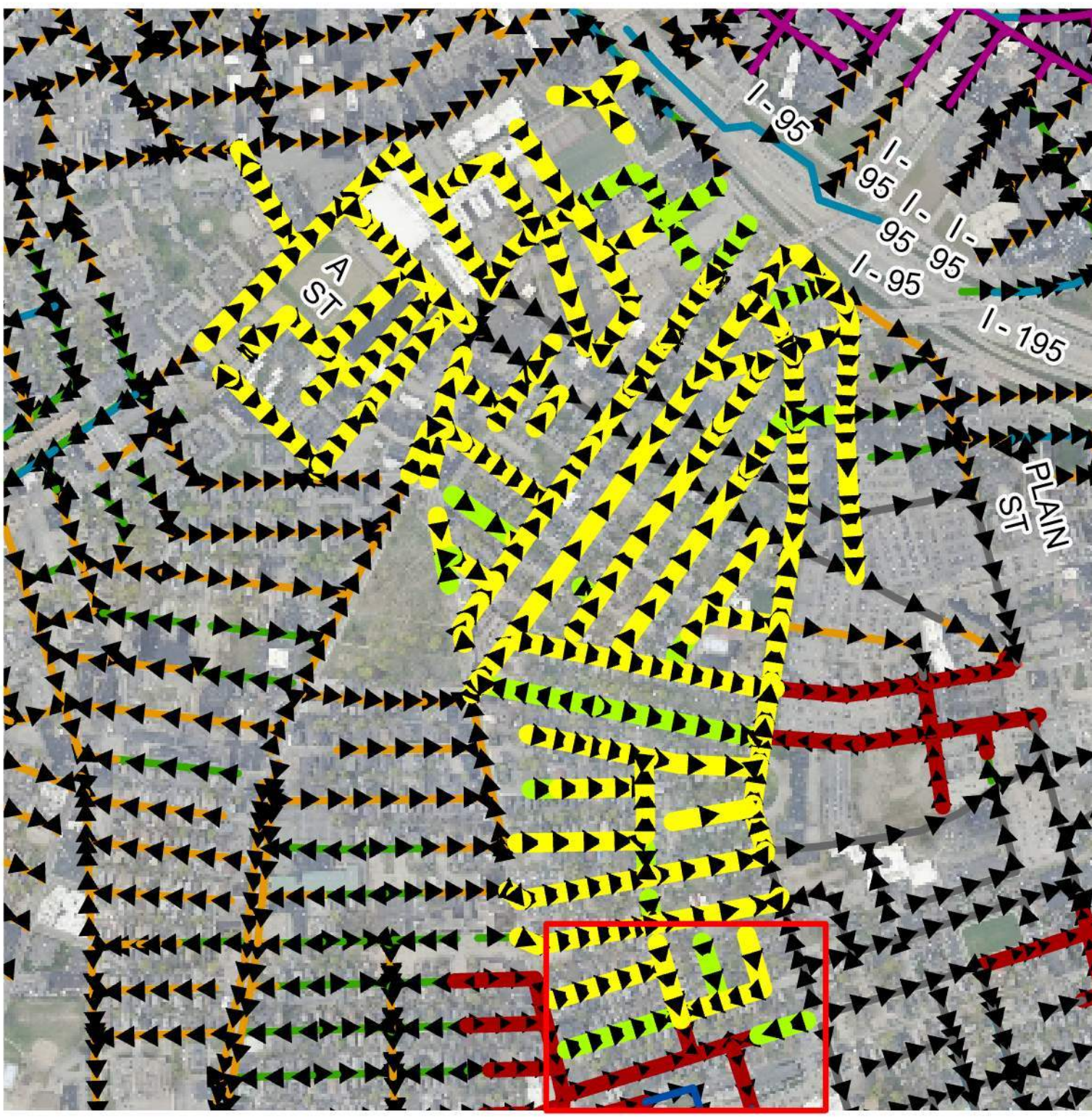
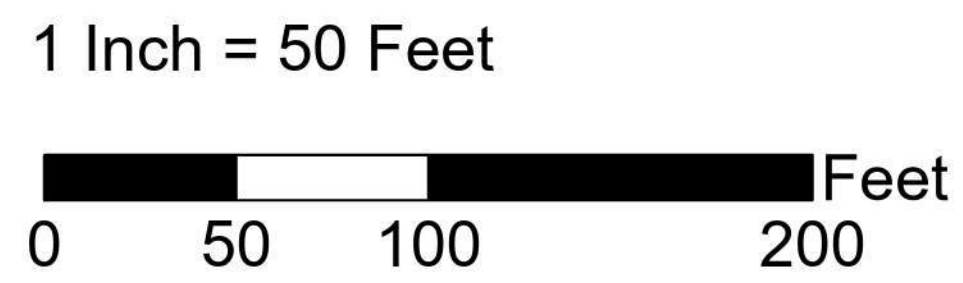


City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 1 -
 Page 9

Legend

Proposed CCTV - Additive Alternate 1

-  Combined
 -  Sanitary
 -  Stormwater
- Sewer Pipes
-  Sanitary
 -  Combined
 -  Stormwater
 -  Proposed CCTV - Included in Base Bid
 -  Do Not CCTV Previously Inspected



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Additive Alternate No. 2 - Index Page

Legend

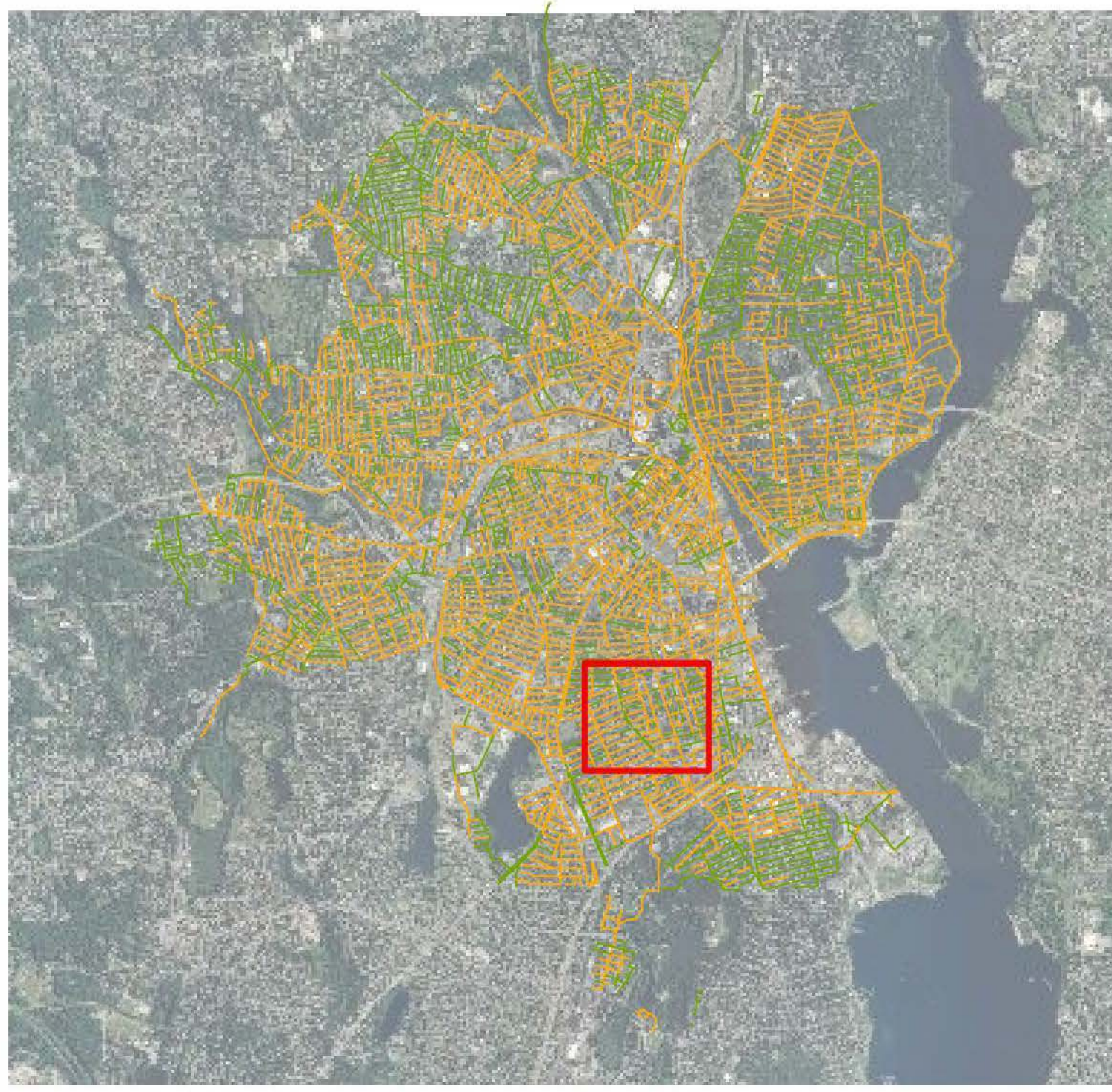
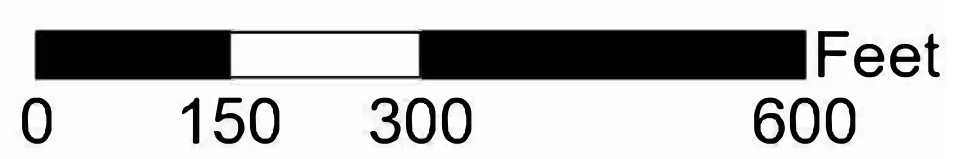
Proposed CCTV - Additive Alternate 2

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater
- Sewer Pipes
- ▶ Sanitary
- ▶ Combined
- ▶ Stormwater

Diameter	Length (ft)
Additive Alternate 2	
8"	1719
10"	121
12"	12462
15"	129
28"	370
32"	980
42X28 BR	189
Area Total	15970



1 Inch = 150 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 2 -
 Page 1

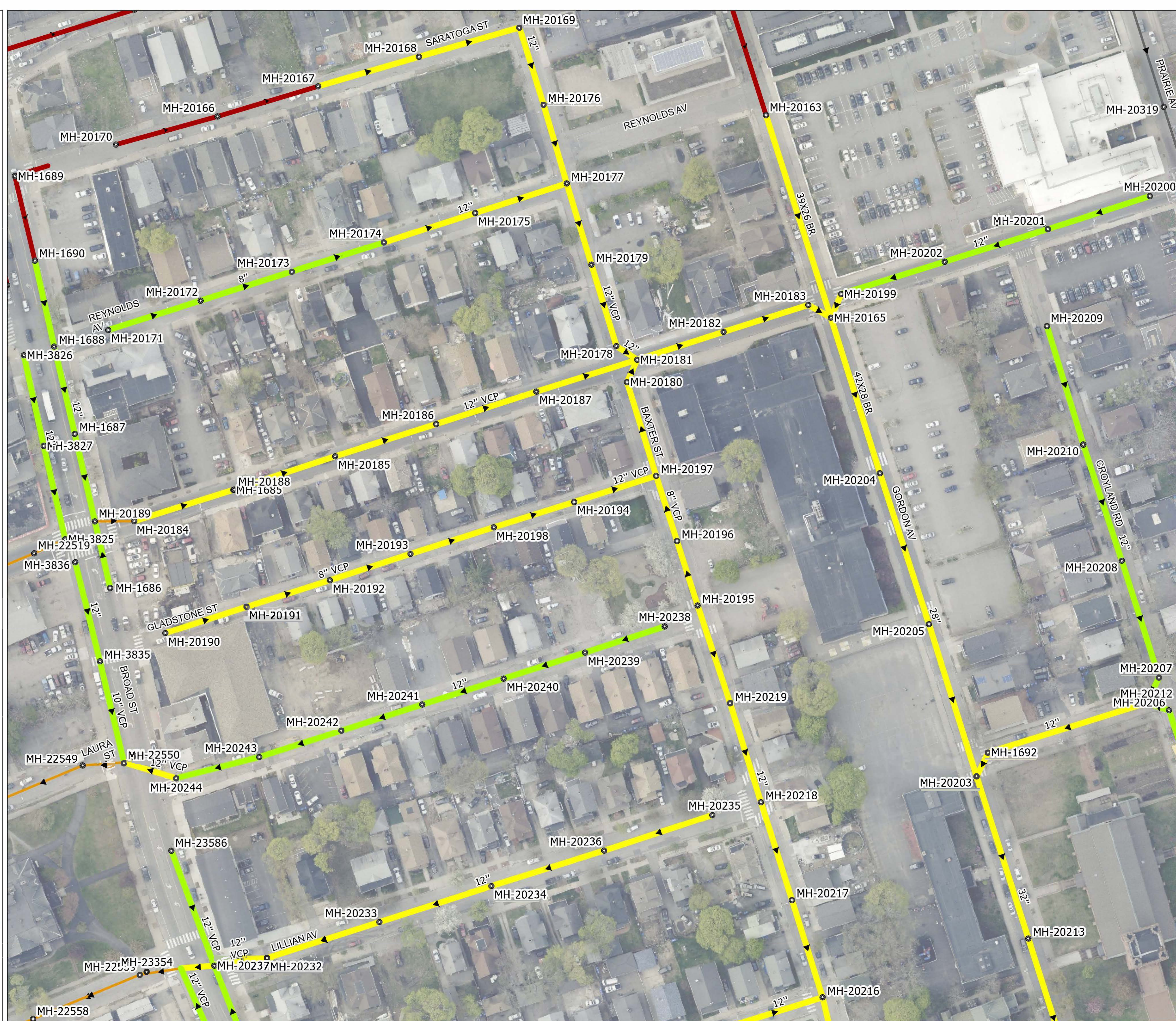
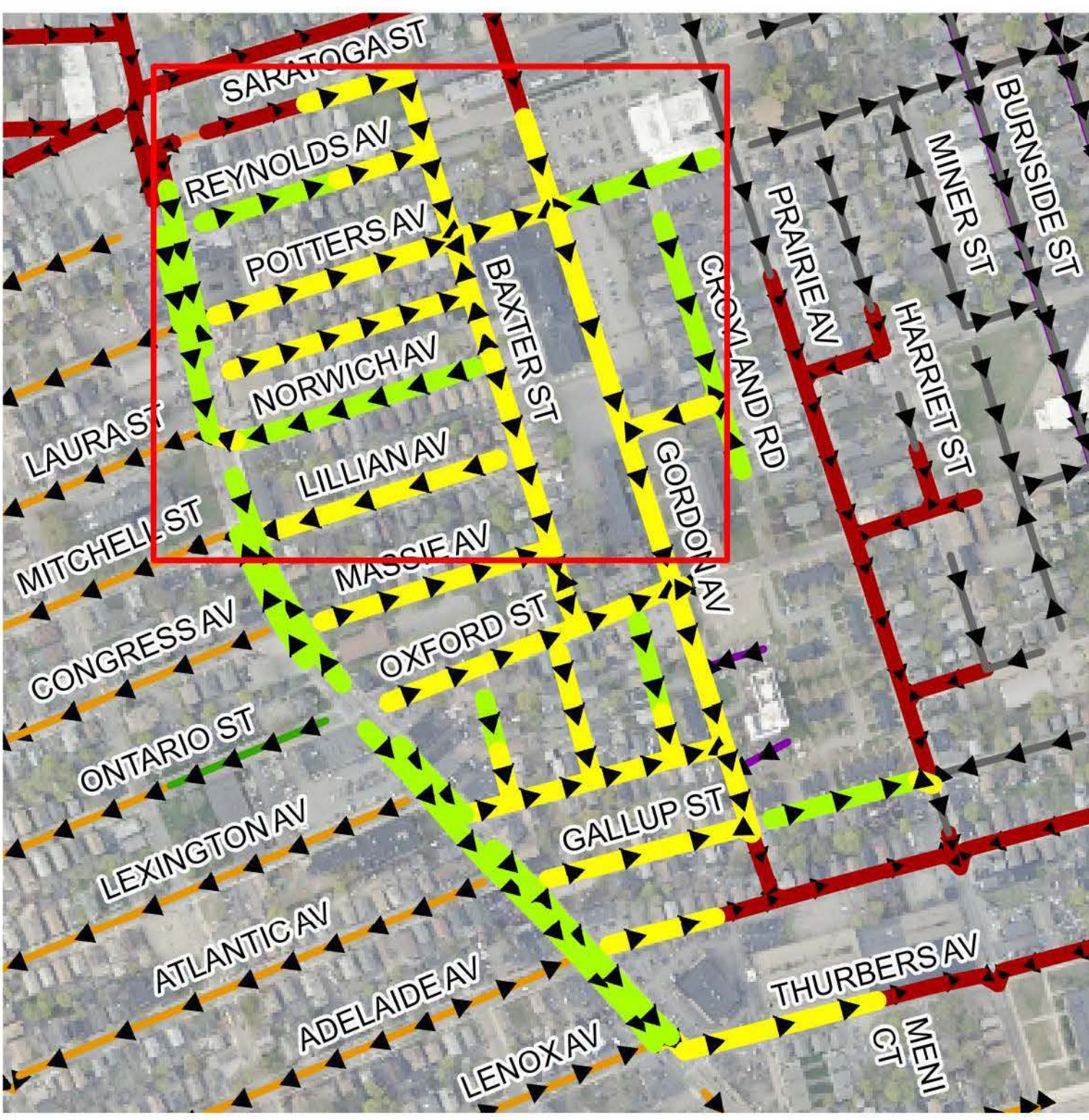
Legend

Proposed CCTV - Additive Alternate 2

- ▶ Combined
- ▶ Sanitary
- ▶ Stormwater
- Sewer Pipes**
- ▶ Sanitary
- ▶ Combined
- ▶ Stormwater
- ▶ Proposed CCTV - Included in Base Bid
- Do Not CCTV Previously Inspected
- Additive Alt 1
- Additive Alt 3













1 Inch = 50 Feet



City of Providence 2022 Sewer System Evaluation & CCTV Inspection Additive Alternate No. 2 - Page 2

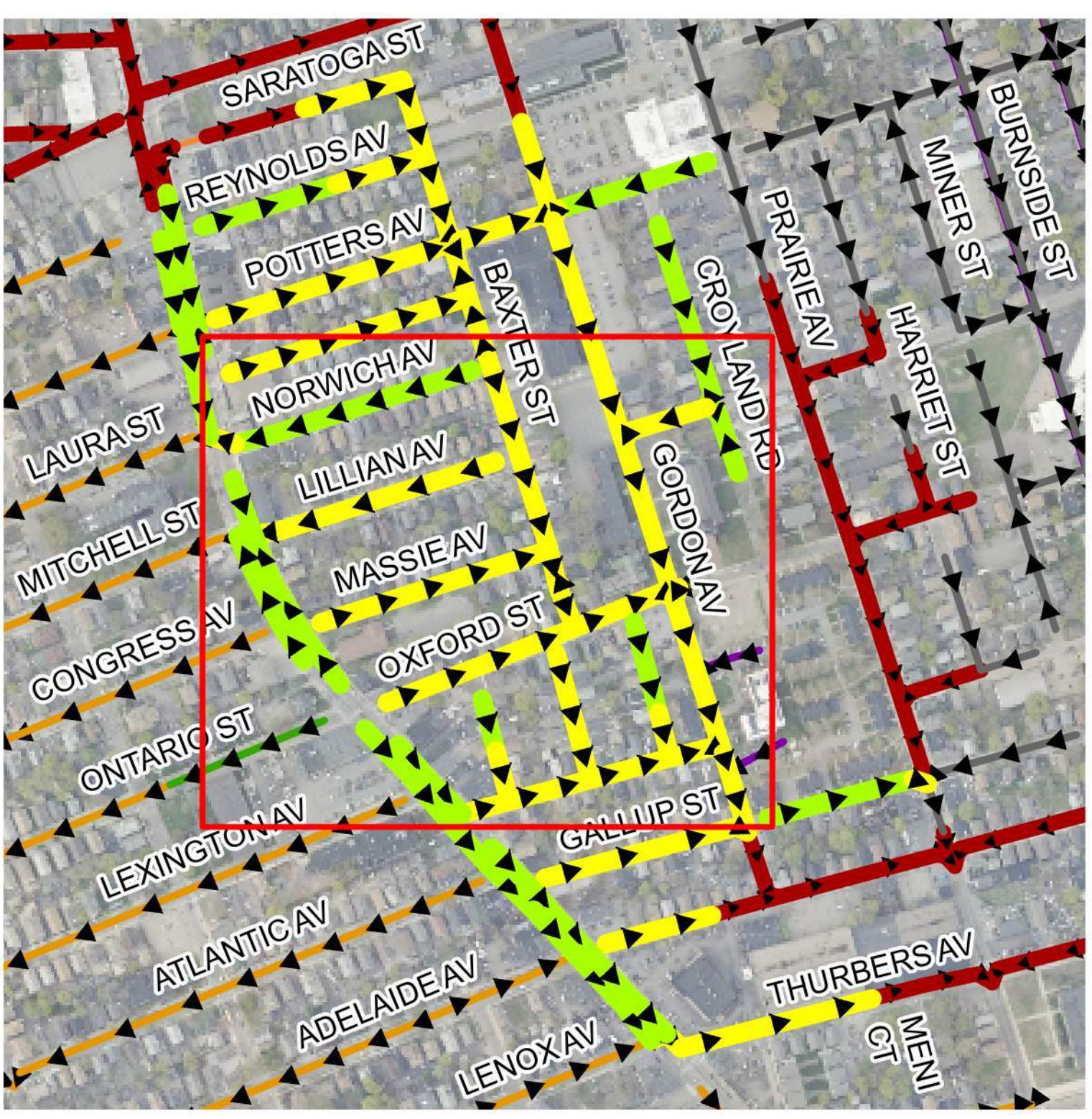
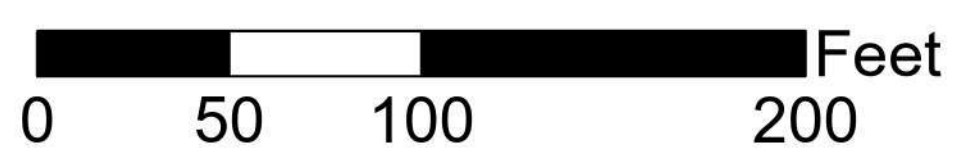
Legend

Proposed CCTV - Additive Alternate 2

-  Combined
 -  Sanitary
 -  Stormwater
- Sewer Pipes
-  Sanitary
 -  Combined
 -  Stormwater
 -  Proposed CCTV - Included in Base Bid
 -  Do Not CCTV Previously Inspected
 -  Additive Alt 1
 -  Additive Alt 3






1 Inch = 50 Feet










City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 2 -
 Page 3

Legend

Proposed CCTV - Additive Alternate 2

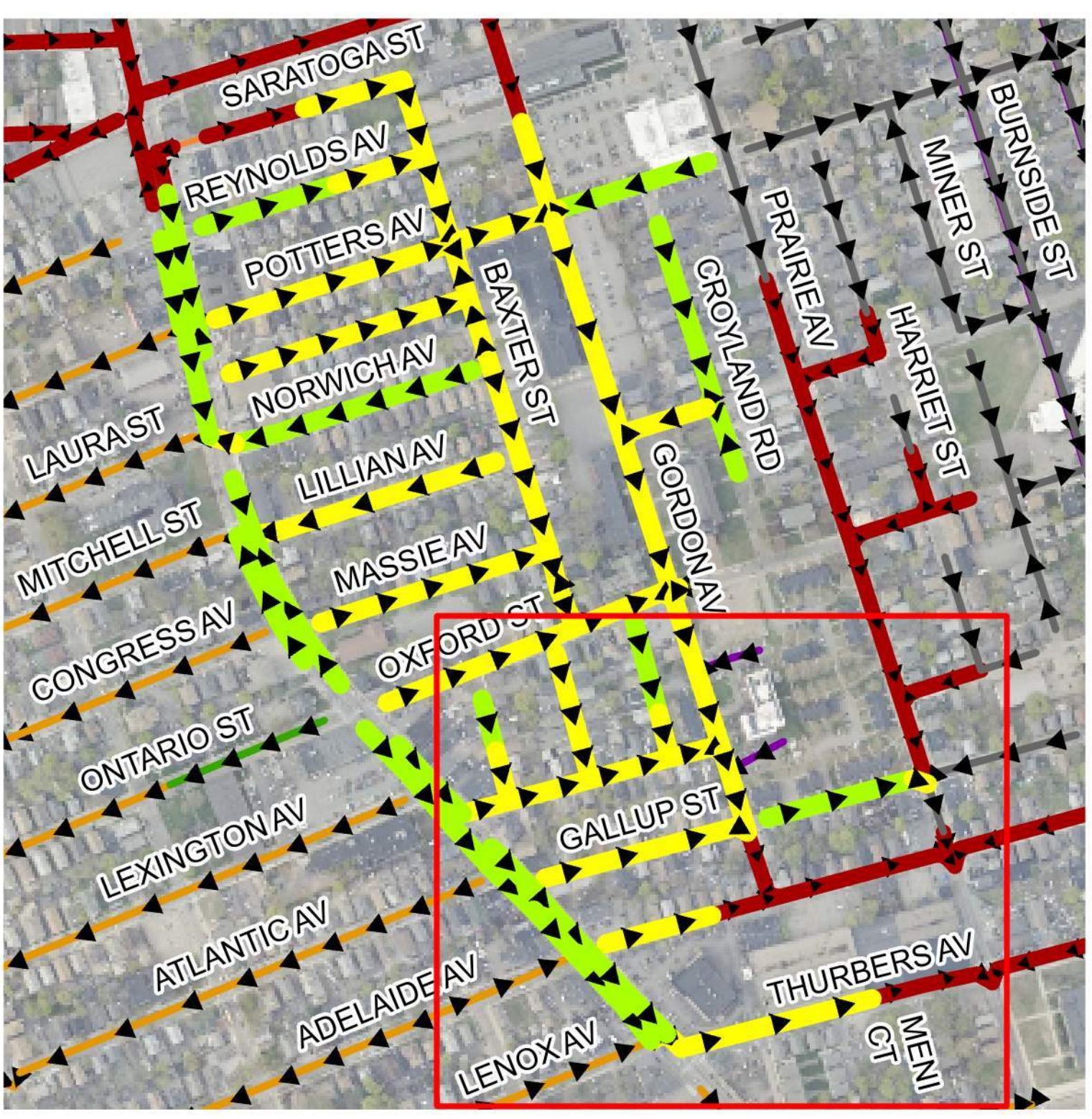
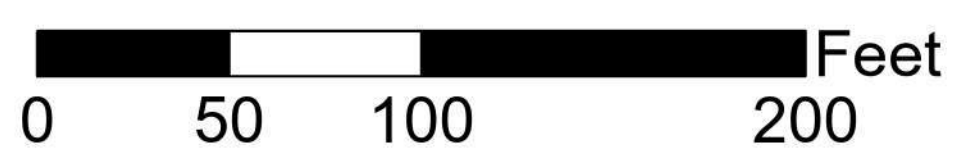
-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

-  Sanitary
-  Combined
-  Stormwater
-  Proposed CCTV - Included in Base Bid
-  Do Not CCTV Previously Inspected
-  Additive Alt 1
-  Additive Alt 3








1 Inch = 50 Feet



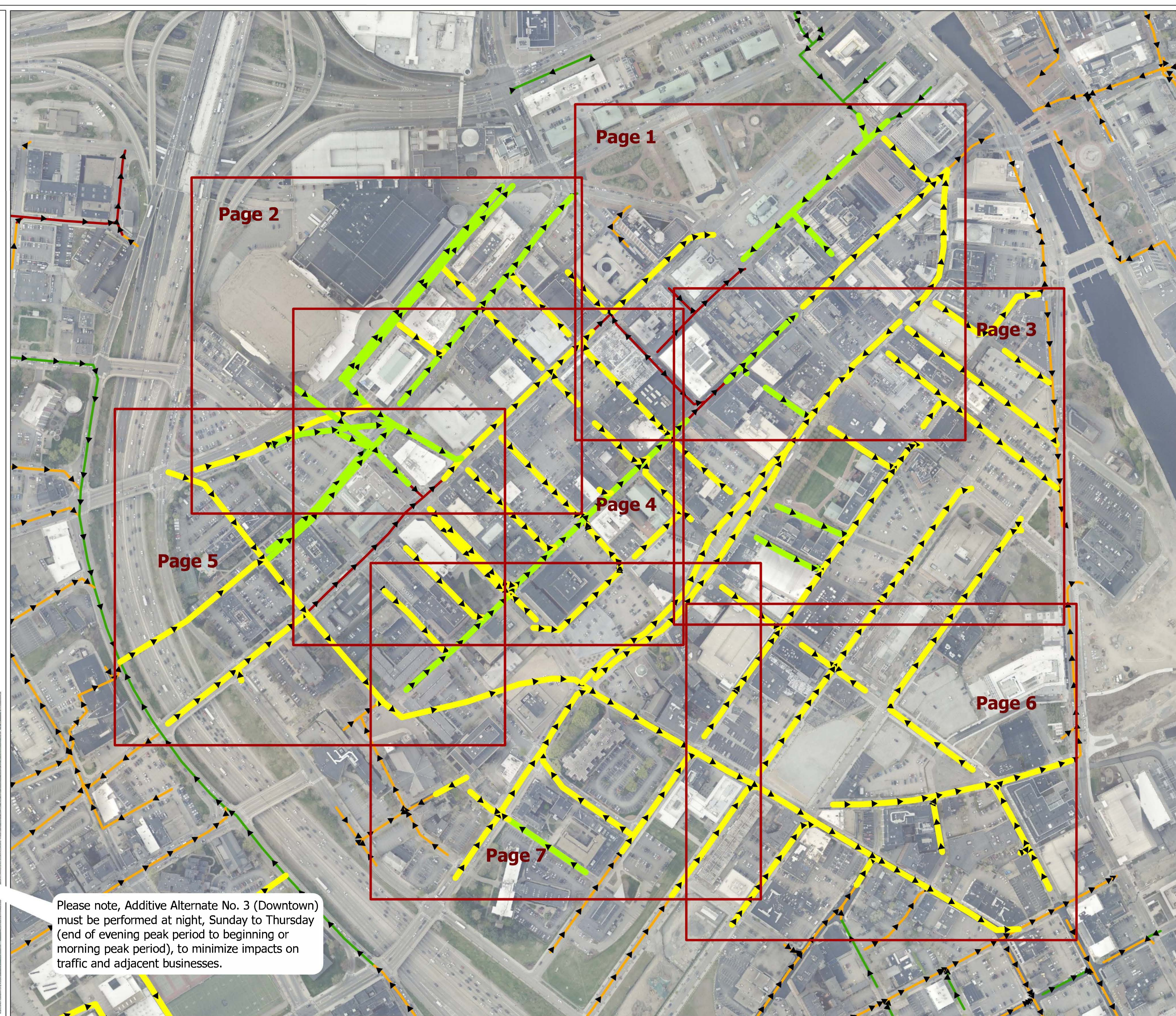
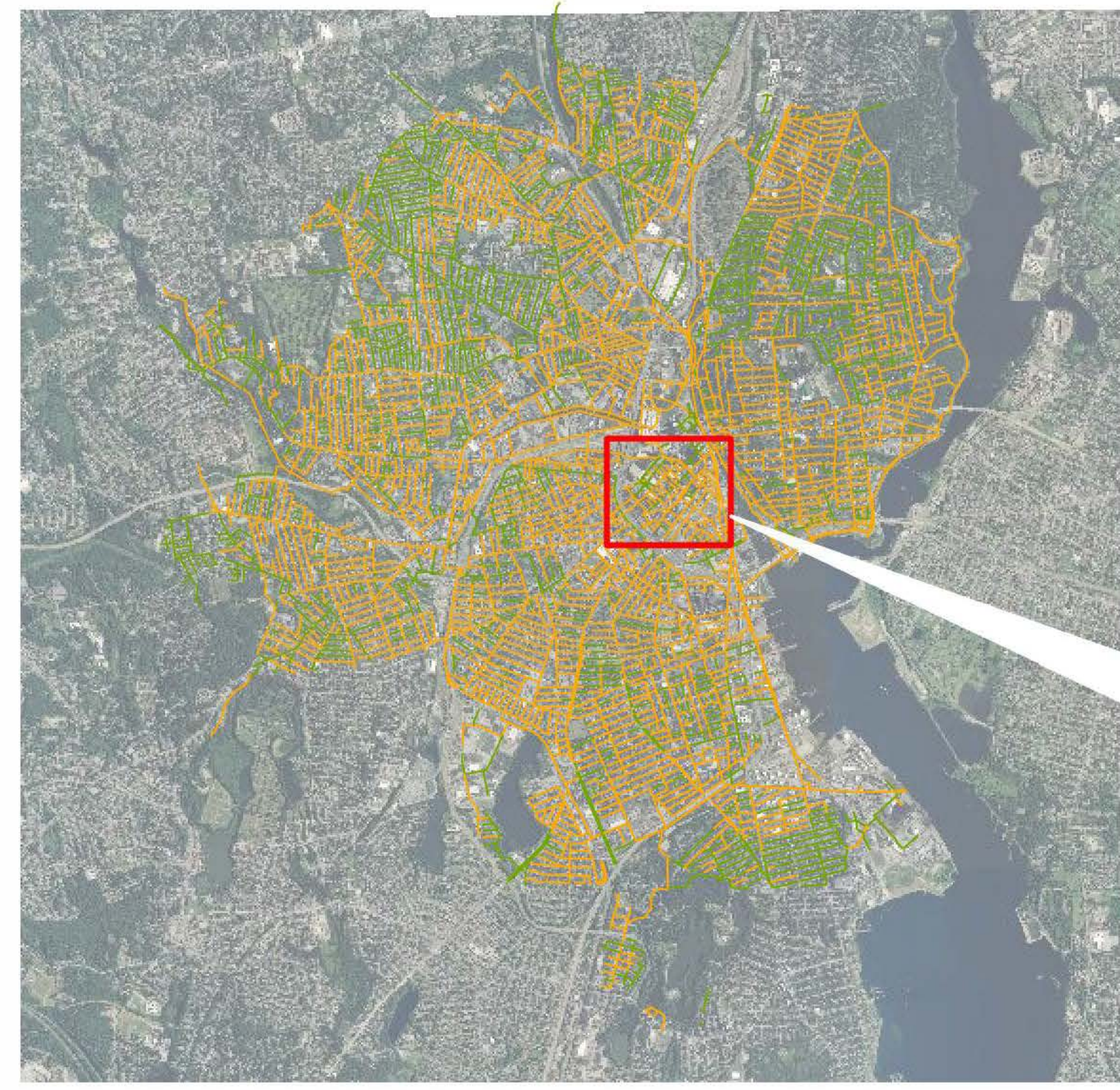
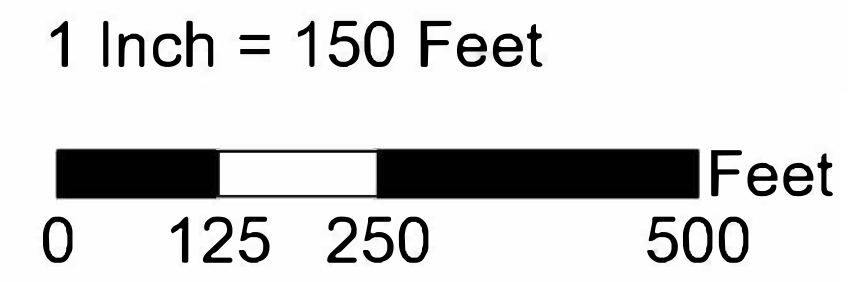
City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Index Page

Legend

Proposed CCTV - Additive Alternate 3

-  Combined
-  Sanitary
-  Stormwater
- Sewer Pipes
-  Sanitary Pipe
-  Combined Pipe




Additive Alternate 3	
6"	144
8"	129
12"	22919
15"	1790
16"	377
18"	1390
20"	2053
22"	875
24"	458
27"	68
36"	2378
40"	1291
48"	349
Area Total	34222



Please note, Additive Alternate No. 3 (Downtown) must be performed at night, Sunday to Thursday (end of evening peak period to beginning or morning peak period), to minimize impacts on traffic and adjacent businesses.

City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 1
 Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

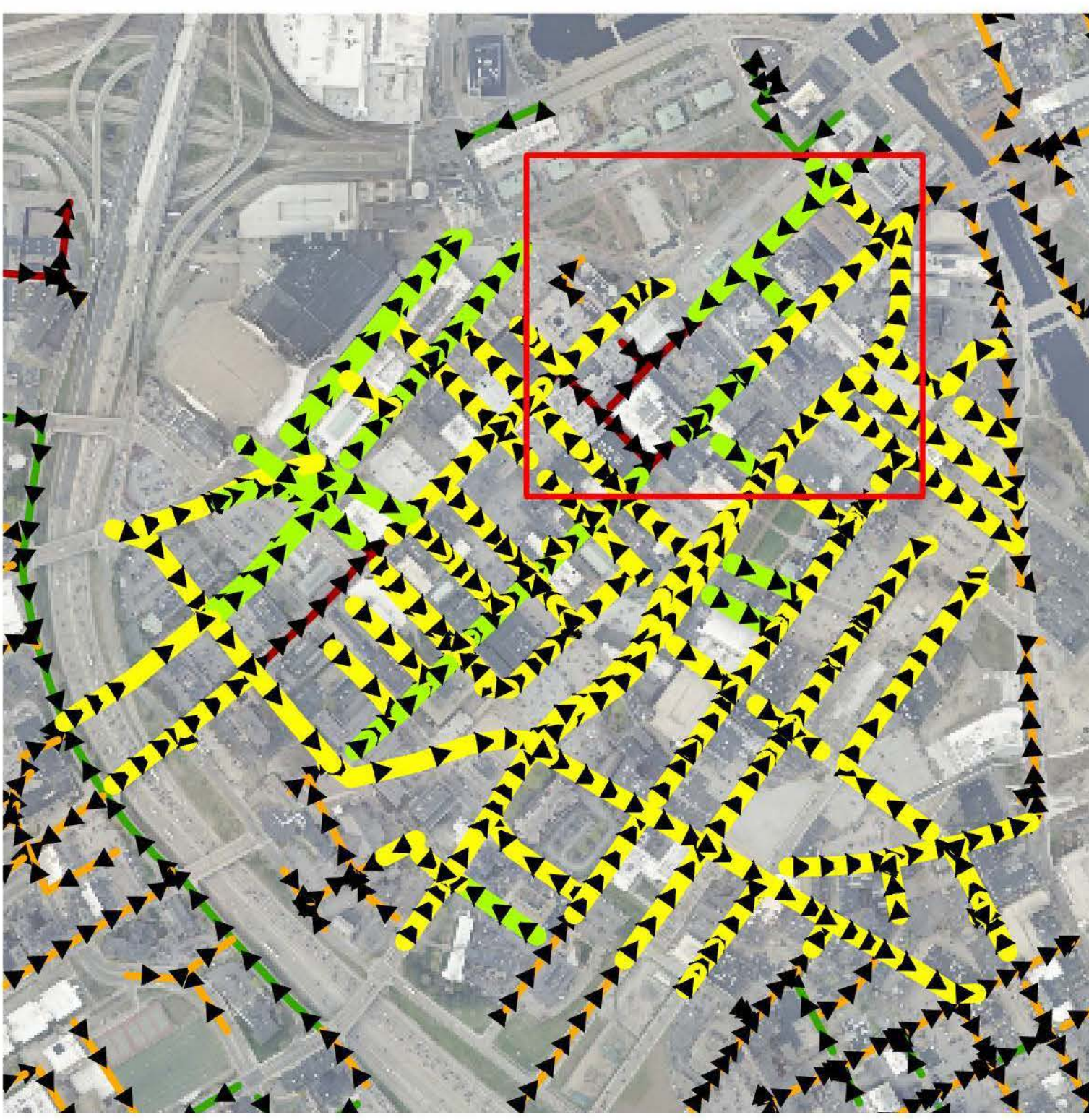
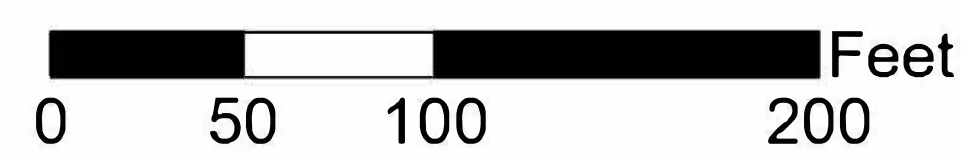
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected









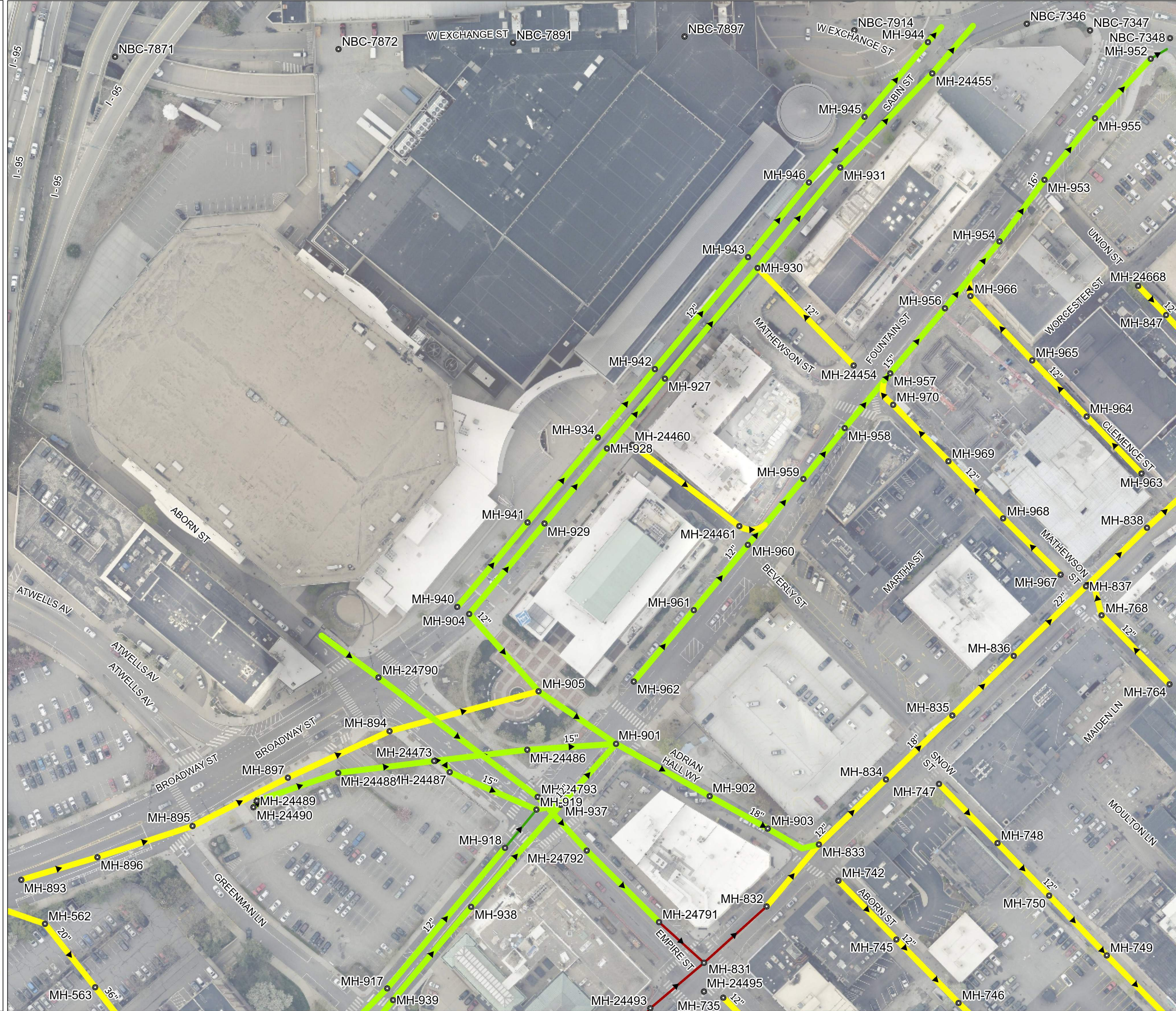
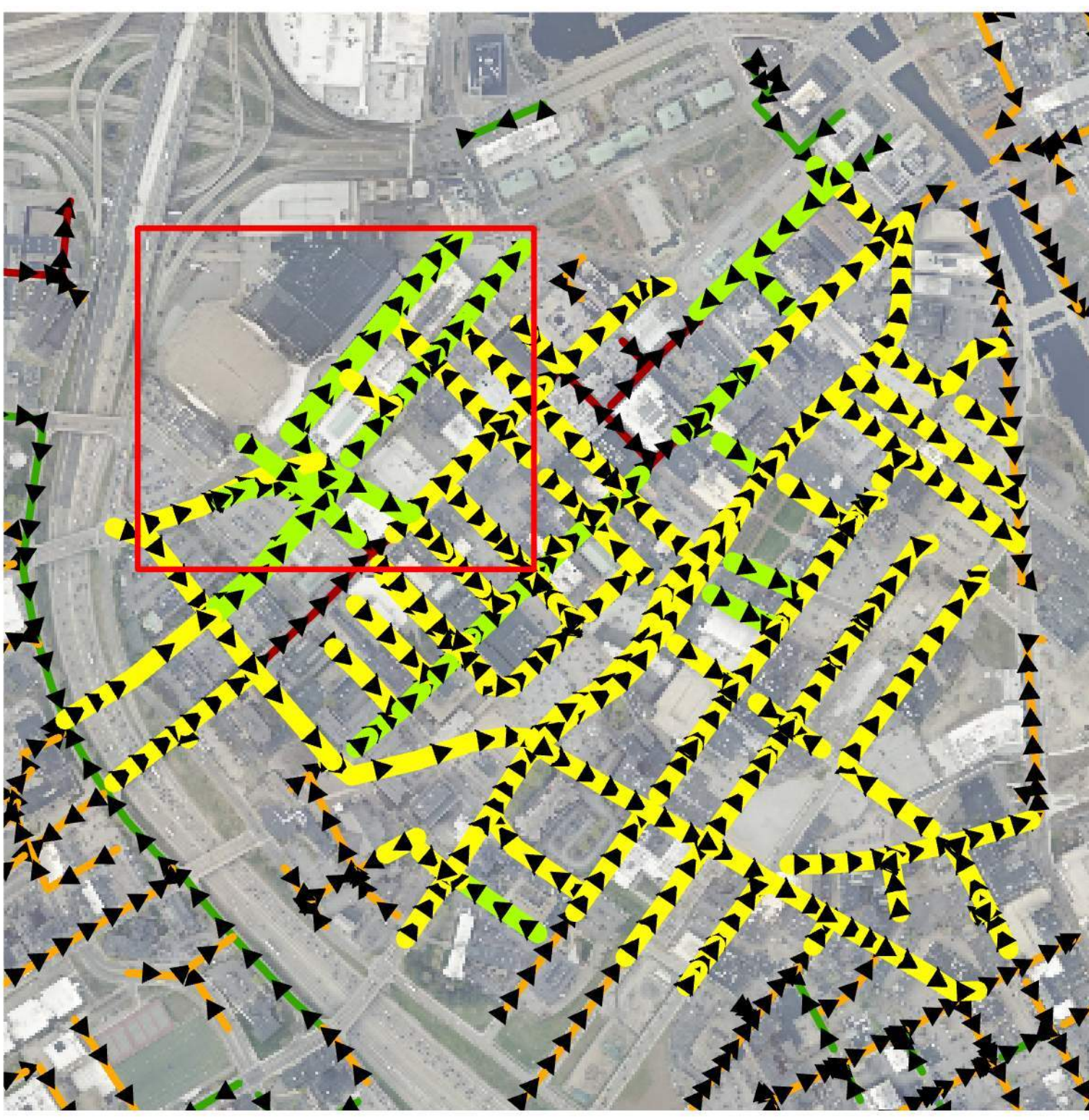
1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 2




Legend

- Additive Alternate Proposed CCTV
-  Combined
 -  Sanitary
 -  Stormwater
- Sewer Pipes
-  Sanitary Pipe
 -  Combined Pipe
- Do Not CCTV Previously Inspected
-  Do Not CCTV Previously Inspected



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 3
Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

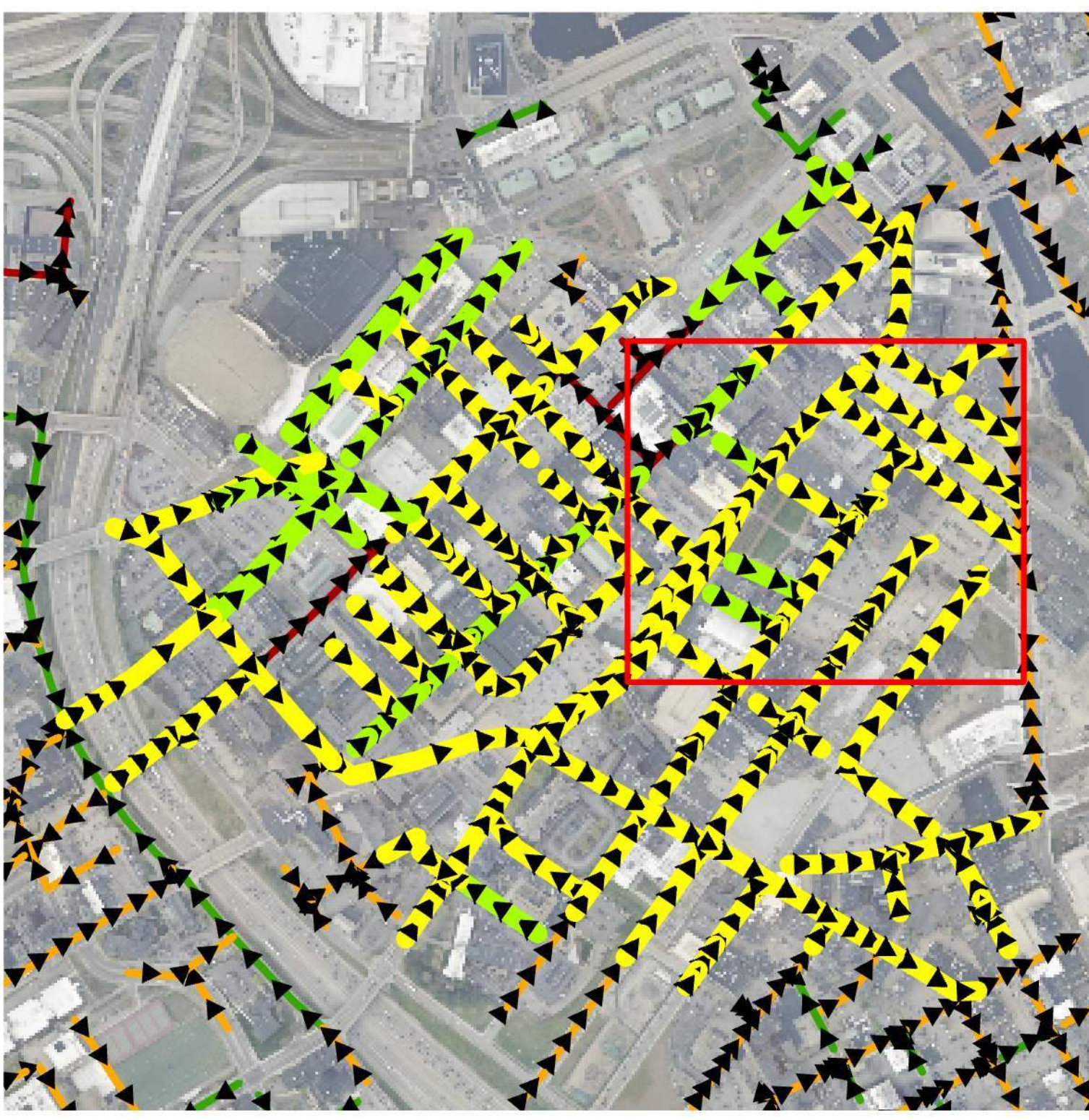
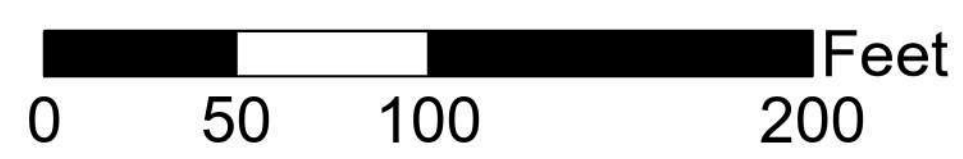
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected






1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 4
Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

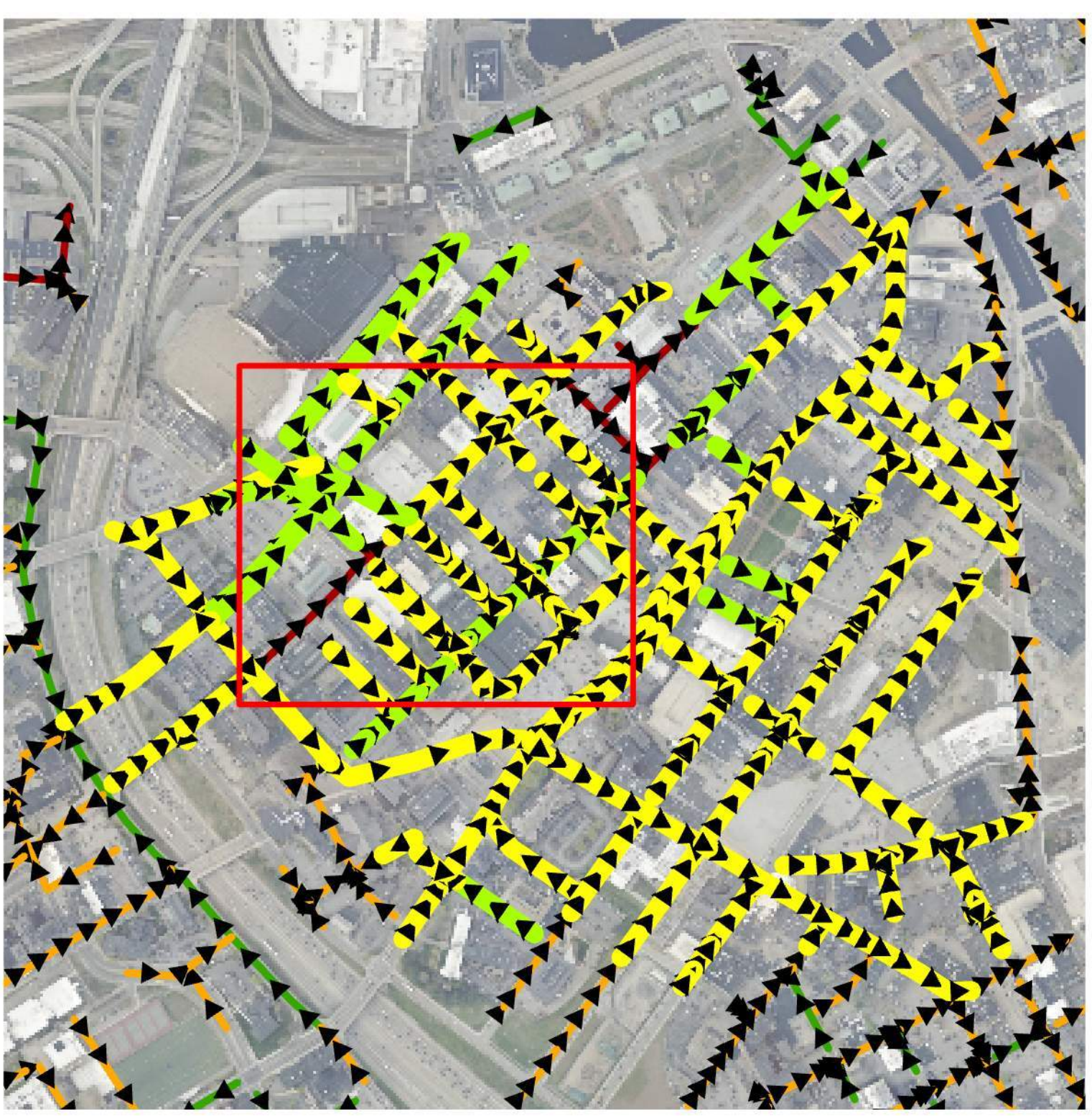
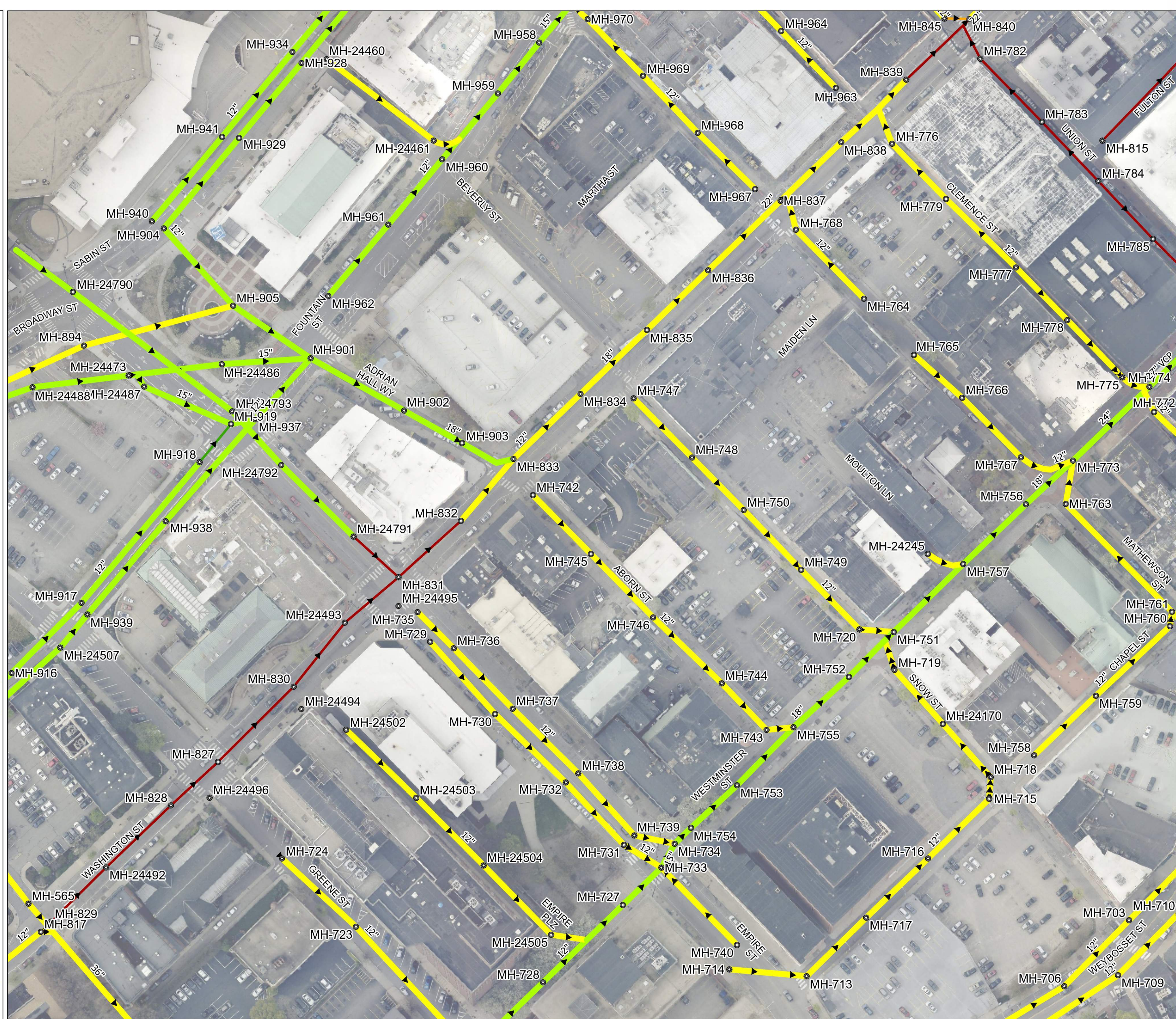
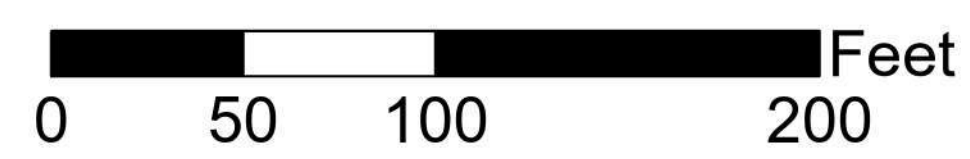
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected






1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 5
Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

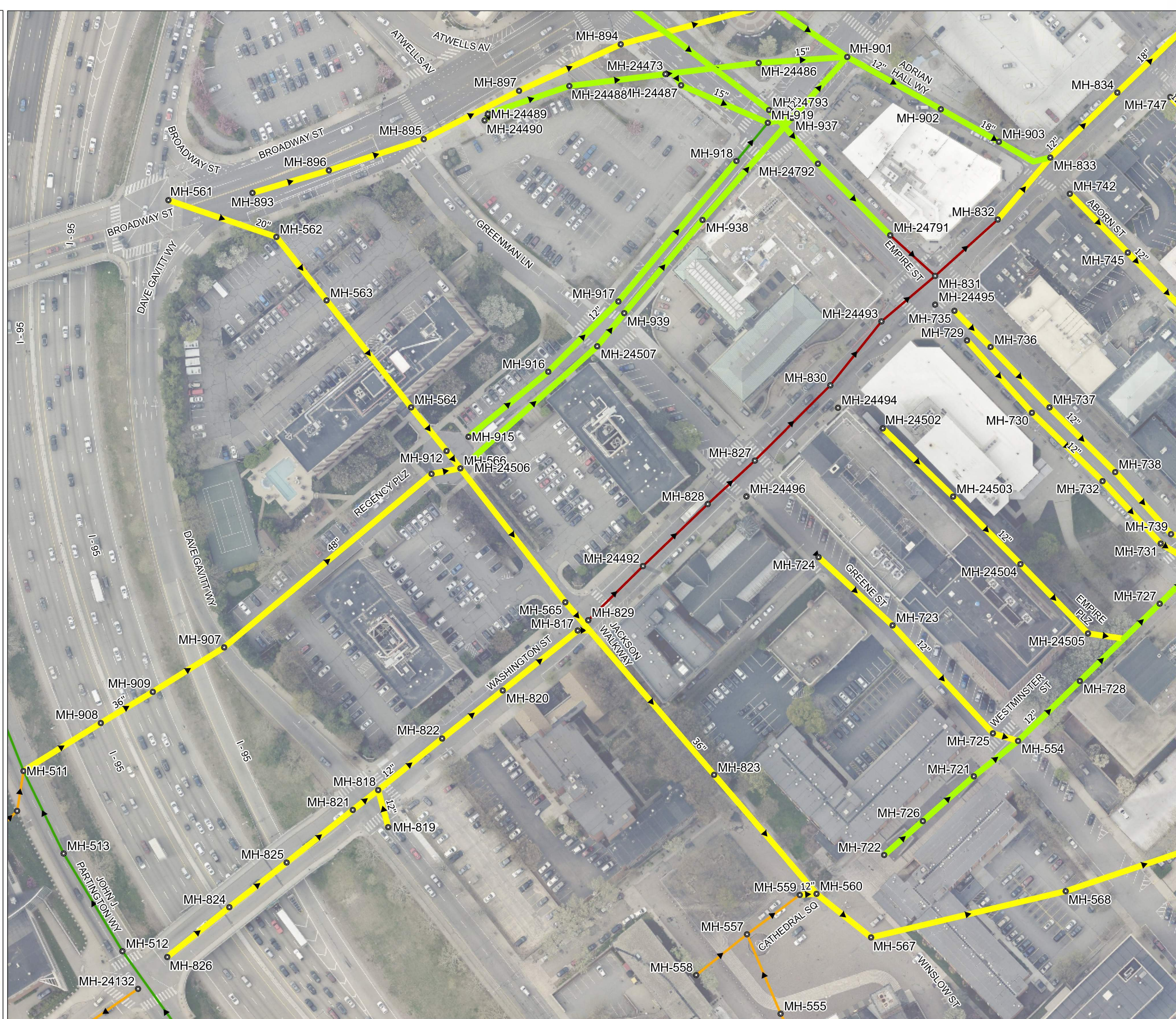
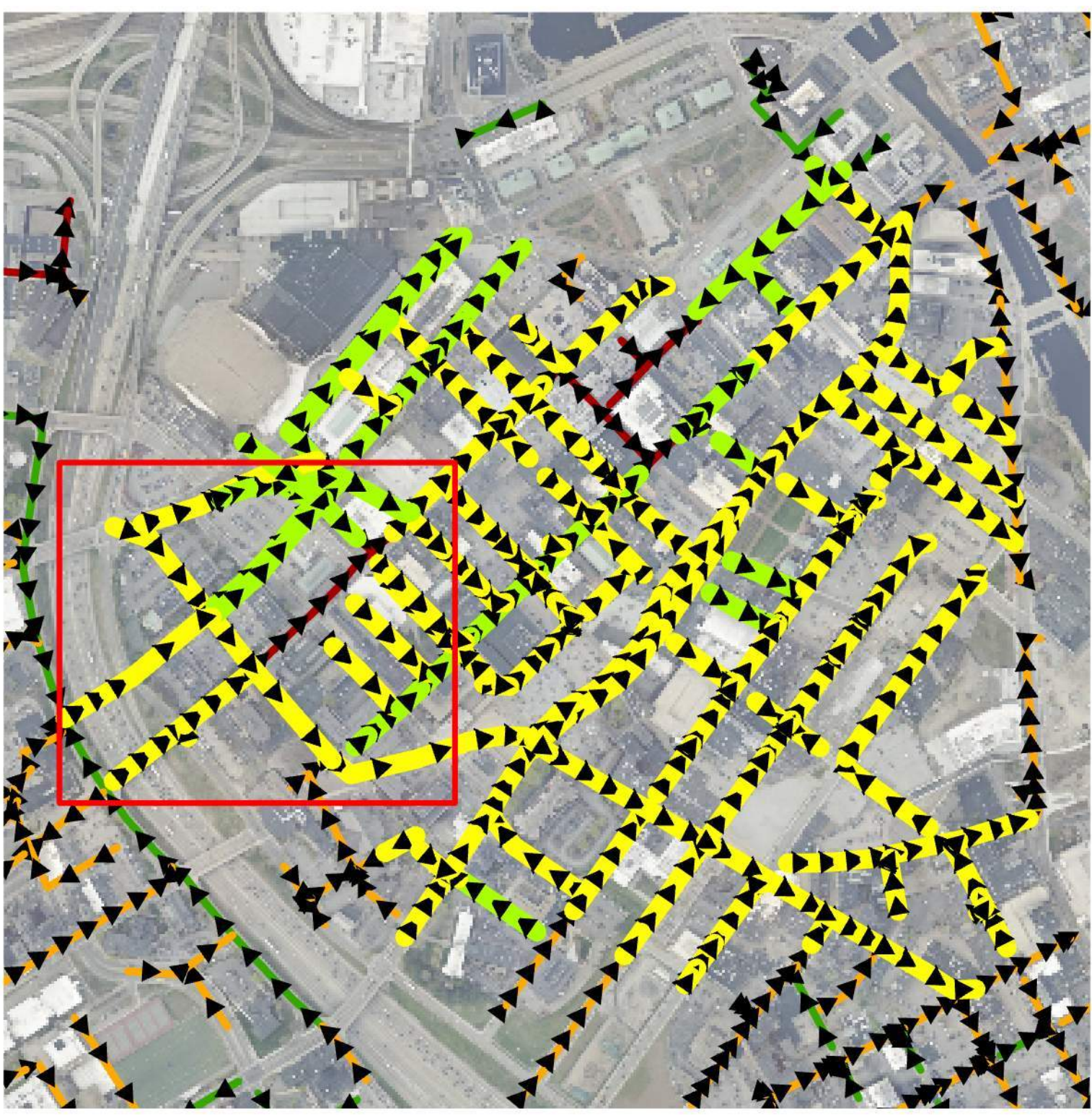
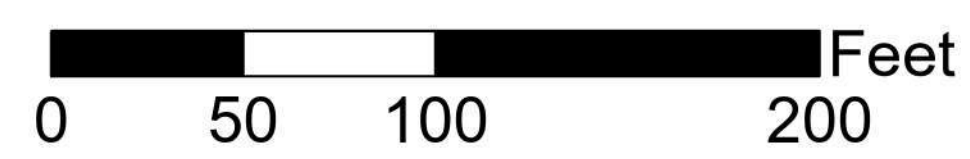
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected






1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 6
Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

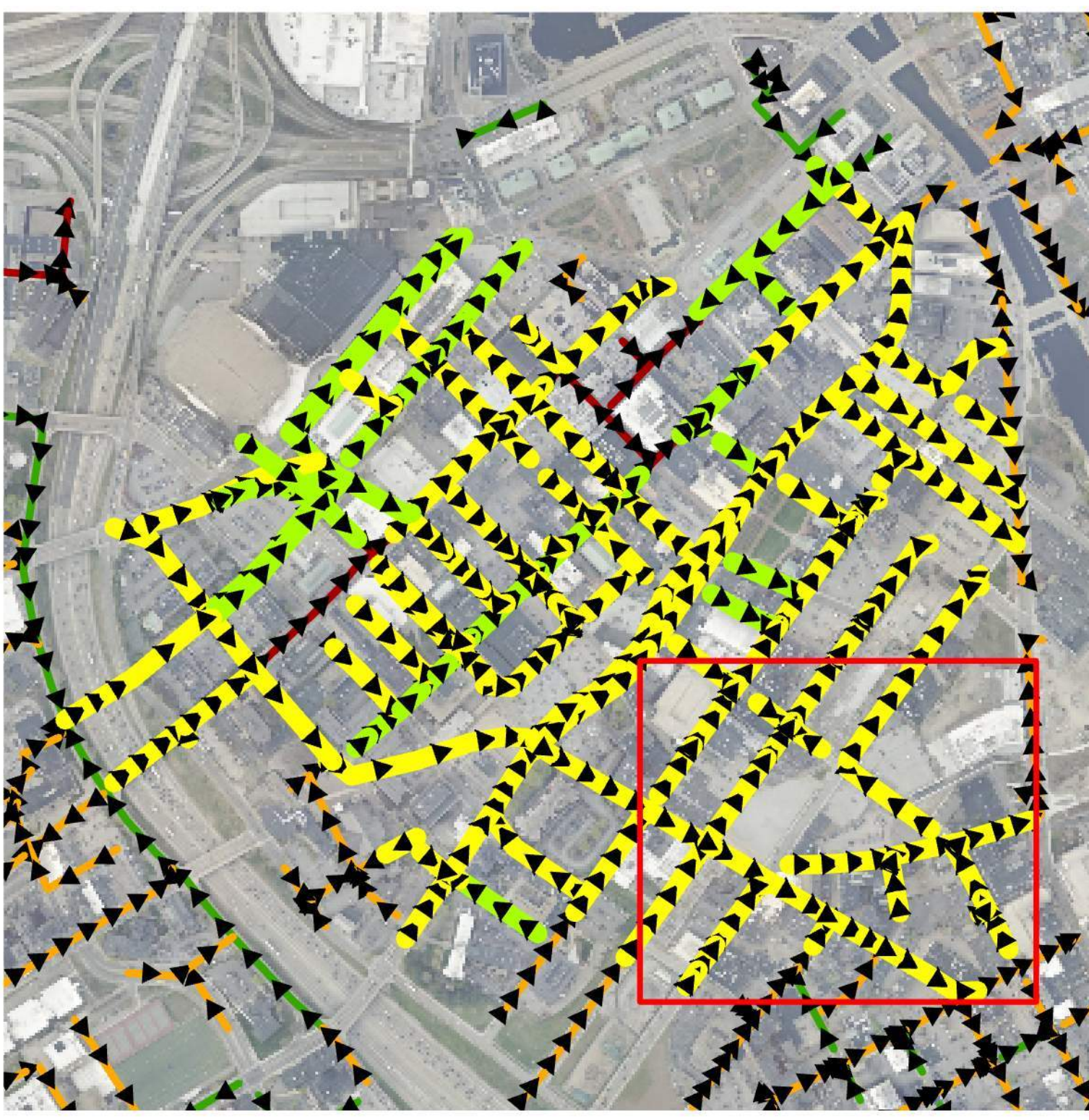
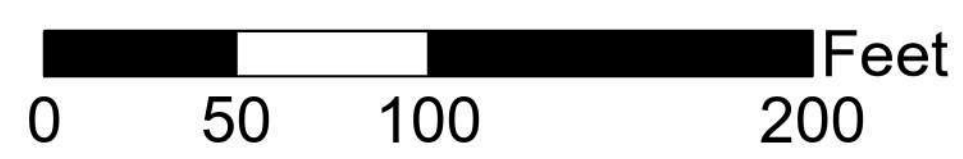
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected






1 Inch = 50 Feet



City of Providence
 2022 Sewer System
 Evaluation & CCTV Inspection
 Additive Alternate No. 3 -
 Page 7
Legend

Additive Alternate Proposed CCTV

-  Combined
-  Sanitary
-  Stormwater

Sewer Pipes

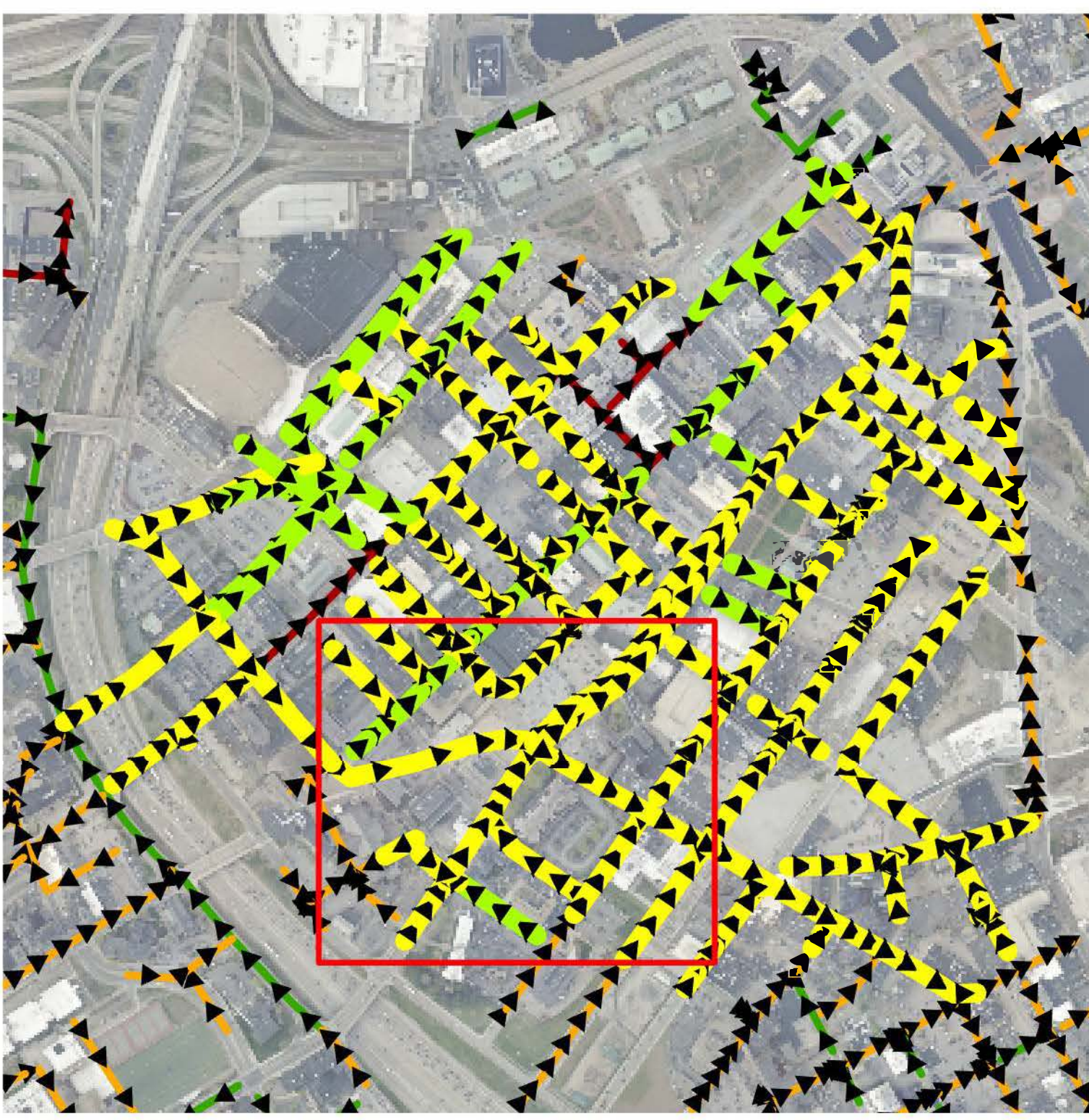
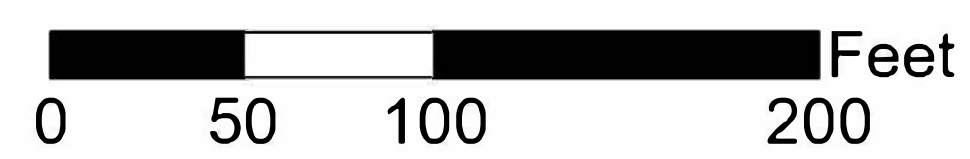
-  Sanitary Pipe
-  Combined Pipe

Do Not CCTV Previously Inspected

-  Do Not CCTV Previously Inspected



1 Inch = 50 Feet





**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT D

Project Specifications



CITY OF PROVIDENCE
2023 SEWER SYSTEM EVALUATION (SSE)

SECTION 012001

PRICE AND PAYMENT

PART 1 GENERAL

1.01 WORK NOT PAID SEPARATELY

A. Mobilization, Demobilization, and Stored Materials

1. The CONTRACTOR and his subcontractors shall not be paid separately for mobilization, demobilization, or stored materials, but the costs thereof shall be considered to be included with the unit prices bid.

B. Traffic Control

1. The CONTRACTOR shall be responsible for all traffic control (police, flaggers, cones, barrels, signs, etc.), including traffic engineering permits to occupy the City Public Right-of-way, and/or implementing detours/street closures. More information can be obtained at the Providence Traffic Engineering website (<https://www.providenceri.gov/public-works/traffic-engineering>). The fee for traffic engineering permits will be waived.
2. The use of a uniformed police officer for traffic control, unless otherwise directed by the permitting authority, will be limited to primary roads. For the purposes of this bid, the Attachment G (RI Division of Statewide Planning listing of arterial and collector roads in the City of Providence) shall be considered "primary roads".
3. Apart from alternating one way traffic, road closures/detours do not require a uniformed police detail. Local roads shall be closed one block at a time and detoured, to allow for the work and as much access as possible. If there's a business, school, place of worship, resident, etc. located within the closure, the contractor must provide access to and from the buildings. Prior coordination shall be required to accommodate the individual needs (i.e., deliveries, parking, etc.) of the impacted properties.
4. **The excessive use of uniformed police details is prohibited. In accordance with Providence Traffic Engineering's recommendations and permit requirements, the employment of traffic diversion techniques (signage, detours, and road closures) is preferred.**
5. An allowance for uniformed police detail, totaling \$50,000, is included in the Base Bid. This allowance is intended for both the Base Bid and Additive Alternate areas.

C. Periodic Summary Technical Memoranda (Task 2)

1. For both the Base Bid Areas and Additive Alternate Areas, the CONTRACTOR will provide a summary of the pipes that have been inspected and reviewed at specific milestones (25% complete, 50% complete, 75% complete) based on the footage of pipe inspected versus the awarded scope. This summary will provide a general overview of the work completed to date, including the general condition of the pipes inspected and the



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

defects identified. The data will be presented in a Technical Memorandum and provide an overview assessment of the condition of the pipes inspected at that specific milestone. This data provided in the summary will be used to determine if inspection areas need to be reprioritized based on data discovered in the field. GIS integrations for all work milestones shall be complete, with inspection reports and videos submitted with each milestone.

2. These summary Technical Memoranda are separate from the final SSE Reports which will include all the work inspected on the project. No additional payment will be made for these services and shall be considered incidental to the cost per linear foot in the bid items.

D. Data Analysis and Final SSE Reports (Task 2)

1. CONTRACTOR shall assign personnel with an active NASSCO PACP Certification to review the CCTV inspection videos with noted failures and provide an assessment and analysis of type and severity of defects observed and locate sources of infiltration or the presence of previous infiltration.
2. CONTRACTOR shall catalogue the condition of pipe CCTV inspected and rank the pipe by defect severity in accordance with NASSCO PACP standards.
3. CONTRACTOR shall provide recommendations for maintenance, rehabilitation, and repairs.
4. As a condition of final payment and release of retainage, both a Final Base Bid SSE Report and at the OWNER's discretion a Final Additive Alternate Areas SSE Report will be submitted to the DPW and will include an executive summary, itemized scope of work for repairs, rehabilitation, and maintenance, listed by cost/benefit and estimated cost, severity of the pipe failure and urgency to act. These Final Reports shall be submitted to the OWNER no later than 2 weeks following the completion of the Base Bid or Additive Alternate inspection areas. The Final Additive Alternate Areas SSE Report shall be inclusive of areas 1 through 3 collectively.
5. No additional payment will be made for these services and shall be considered incidental to the cost per linear foot.

E. GIS Integration (Task 3)

1. CDM Smith will update the GIS database layers to modify the existing asset locations or add new assets found in the field based on information provided by the CONTRACTOR to the City as part of the project in an agreed upon format. CONTRACTOR's recommendations as part of this effort will be integrated as either a separate GIS layer or as a database table that can be linked to the DPW pipeline or manhole GIS layers.
2. CONTRACTOR shall submit a sample PACP Exchange database to the City's consultant CDM Smith prior to starting CCTV inspections to ensure the data and format being collected is PACP compliant. The sample database will be checked by CDM Smith to verify it is formatted correctly and can be imported into the OWNER's CCTV database and can be integrated with the OWNER's GIS without issues. It is the responsibility of



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

the CONTRACTOR to ensure the data delivery is acceptable prior to continuing inspection work.

3. CONTRACTOR shall subcontract with CDM Smith for these services, with expensed to be paid directly by the CONTRACTOR. For purposes of this bid, the CONTRACTOR must carry a \$15,000 allowance for costs associated with the completion of Task 3 (included in the Base Bid price). This allowance is intended for both the Base Bid and Additive Alternate areas.

F. Notification & Coordination

1. The CONTRACTOR is responsible to notify abutters and stakeholders of these projects. The CONTRACTOR shall keep the schedule updated on a biweekly basis and ensure that notifications are distributed in a timely fashion. Failure to communicate and distribute notifications may result in the job being shut for the day at no additional expense to the City.
2. The CONTRACTOR shall be responsible for coordinating work located within any private, local, state, or federal property regarding access and/or right-of-ways necessary to complete the work and for the cost of any necessary permits. The CONTRACTOR is responsible for the coordination, notification, scheduling and cancelling of any services required to complete the work. The CONTRACTOR shall reimburse the City for any costs incurred due to failure to comply or sudden change of schedule.
3. When necessary, the CONTRACTOR is solely responsible for coordinating his work with the utility companies. The owner will not be responsible for any lost time by the CONTRACTOR in delays in the work caused by construction activities of the utilities.
4. Prior to any excavation work (i.e., raising buried manholes), and in accordance with the rules and regulations of Dig Safe, the CONTRACTOR shall notify Dig Safe for the location and marking of all underground utilities in the work area. The CONTRACTOR is to comply with all current Dig Safe Regulations.
5. From Time to Time the CONTRACTOR may be given advanced notice of special events taking place within the Project Limits that will require special attention to work around and/or otherwise provide detailed cleanup, minimize road openings and sidewalk closures as well other applicable tasks that may be required. These events will be required to be captured in the Project Schedule and worked around as necessary to accommodate the events and assure that efforts are made to accommodate the events.
6. No additional payment will be made for these services and shall be considered incidental to the bid items.

G. Permits & Licenses

1. The CONTRACTOR shall make application for and pay all fees for any/all other permits required by the City of Providence and for State maintained roads the Rhode Island Department of Transportation.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

2. For informational purposes, see RIDOT maps in the Attachment F for locations of RIDOT maintained roads in the City of Providence. For a complete listing of State-maintained roads please contact RIDOT or visit their website at: www.dot.ri.gov/about/maproom/State_Maintained_Roads.php. It is the successful bidder's responsibility to coordinate with RIDOT to confirm state-maintained roads within their project limits. The Attachment F RIDOT mapping should not be construed as complete nor binding in any fashion.
3. Payment for permits and/or licenses required by the contract are included in the prices bid for the various items of work in the Bidder's Blank, and therefore no separate payment will be made.

H. Water, Waste Disposal, Mileage, and other Incidentals

1. The CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation (including mileage), plant, disposal of unsuitable materials of every nature, and all other services and facilities of every nature whatsoever necessary to protect, execute, complete and deliver the work within the specified time.
2. The CONTRACTOR and his subcontractor shall take adequate precautions to avoid unnecessary damage to landscaped areas, pavements, utilities, or private properties. The subcontractor shall promptly repair (in kind), at his own expense, any damage attributed to his work to such landscaped areas, pavements, utilities, or private property to the satisfaction of the OWNER.
3. The CONTRACTOR shall be responsible for all claims and/or damages resulting from the cleaning and CCTV inspection work.

I. Nightwork, Weekends, & Holidays

1. There may be instances where night work may be required per project-specific conditions, permitting requirements, traffic considerations, to accommodate the needs of places of worship, schools, businesses, or agency in the selected areas, and/or to reduce risk to travelers and workers, etc. Such work shall be included in the prices bid for the various items of work in the Bidder's Blank, and therefore no additional compensation will be made. The Contractor shall conform to the requirements of local permitting authority and at minimum the latest revision to the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).
2. Any work necessary to be performed after regular working hours Monday through Friday, on Saturdays, Sundays, and legal holidays, shall be performed without additional expense to the Owner with the approval of the Director of Public Works.

J. Pipe Diameter Measurement

1. Pipe diameter shall be assumed to be consistent to the diameter notated on the site plans. If pipe diameter is found to be inconsistent with the plans, the pipe diameter shall be measured at no additional cost to the OWNER. CONTRACTOR and owner shall be notified prior to measurement. The diameter measurement shall occur vertically from the



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

invert to the top of the sewer pipe interior at the point of entry manhole. Should the measured diameter differ from that notated on the site plans, the CONTRACTOR shall be compensated based on the actual diameter as listed in the bid schedule.

2. For egg or oval shaped sewer reaches, the diameter will be measured along the major axis. Should the measured diameter differ from that notated on the site plans, the CONTRACTOR shall be compensated based on the actual diameter as listed in the bid schedule.

K. Manhole Access (Task 1B)

1. As encountered, the City will make the determination whether to perform the locating, uncovering, and/or raising of manholes to grade with their own forces or elect for the CONTRACTOR to complete the work.
2. Where practicable and depending on their condition, the existing frames and covers shall be reused. If they are found to be broken, the City will furnish frames and covers as needed.
3. Items 11, 12, and 13 have been provided in the bid schedule for completion of this work.
4. For situations where the City is unable to furnish frames and covers, the CONTRACTOR shall procure and store an inventory of five (5) frames and covers (24" Manhole Frame and Cover EJ Product No. 240834B01) at the start of the project, at no additional cost. See Item 13 in the bid schedule.
5. Upon the project's completion, any unused frames and covers shall be provided to the City, at no additional cost. The costs for hauling, transportation, and delivery of said frames and covers to City of Providence Department of Public Works shall be considered to be included with the unit prices bid.
6. Manhole covers may have bolts locking them in place. To secure access for cleaning and CCTV inspection, the lock bolts shall be removed by the CONTRACTOR. As encountered, the CONTRACTOR shall remove and return these bolts to the City of Providence Department of Public Works, at no additional cost.

1.02 EMERGENCY ON-CALL SSE REQUESTS (TASK 1A)

1. Emergency requests will be paid per linear foot using the applicable Base Bid items that correspond to the diameter pipe cleaned and CCTV inspected, as measured in the field. These requests may include heavy cleaning of lines to facilitate the CCTV inspections. The CONTRACTOR must respond to the request within 48-hours and provide the video and inspection data to the City within 2 business days of completion of the work. These Emergency SSE requests will not impact the base bid quantities, they shall be added to the Schedule of Values as new line items carrying the same unit prices as those in the Base Bid.
2. An allowance for these emergency on-call requests, totaling \$50,000, is included in the Base Bid. This allowance is intended for any additional cleaning, CCTV inspection, and



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

analysis requested within the City of Providence.

1.03 CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION AND PRELIMINARY CLEANING (TASKS 1 & 1A - ITEMS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29)

A. Measurement

1. CCTV inspection of the existing sewer pipe (6-in to 54-in) will be measured in place on a linear foot basis to the nearest foot. Measurement will be along the horizontal centerline of the pipe with no deductions for manholes and will be from center of manhole to center of manhole.

B. Payment

1. Payment for television inspection of existing sewer pipe (sanitary, storm, combined) will be made for the respective quantity as determined above at the unit price bid under Items the Bid Form. This price and payment shall be full compensation for project notices; full compensation for closed circuit television inspection to determine the presence of defects, submission of printed logs coded with NASSCO's PACP Standards, digital copies of each televised sewer on two (2) external hard drives to be furnished by the Contractor, cleaning of sewer lines with up to six (6) passes with a jet nozzle including the removal and disposal of all debris (sediment, mineral deposits, scale, rocks, tuberculation, grease, roots, etc.) from the existing sewers, obtaining access to the work site, restoration of traffic and pavement markings, traffic management, removal and replacement of all signs and other traffic control systems, and all else incidental thereto for which separate payment is not provided under other items in the Bid Form.

1.04 HEAVY CLEANING OF SEWERS (TASKS 1 & 1A - ITEMS 1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 14A, 15A, 16A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A)

A. Measurement

1. Heavy cleaning of sewers items will be measured in place on a per linear foot basis for sewer, storm, and combined lines, specified for CCTV inspection. Measurement will be along the horizontal centerline of the pipe for heavy special cleaning of each sewer reach and will be from center of manhole to center of manhole.

B. Payment

1. Payment for heavy cleaning of existing sewers will be made for the quantity as above determined at the price for specified bid items 6-in thru 54-in. This price and payment includes the cost associated with obtaining access to the work site (including off-road easements and paved roadways). The price and payment shall be full compensation for heavy cleaning of sewer lines including the removal and disposal of all debris (sediment, mineral deposits, scale, rocks, tuberculation, grease, roots, etc.) from the existing sewers; for bypass pumping; dewatering; restoration of traffic and pavement markings; traffic management; removal and replacement of all signs and other traffic control systems; and



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

all else incidental thereto for which separate payment is not provided under other items in the Bid Form. This payment is in addition to the Preliminary Cleaning that is included as a part of the CCTV in Item 1-10 & 14-29 and must be submitted to Owner for approval before initiating heavy cleaning.

1.05 HEAVY CLEANING OF SIPHONS 20" TO 24" (TASK 1 - Item 10a)

A. Measurement

1. Heavy cleaning of siphons will be measured on an hourly basis for sewer, storm, and combined lines, specified for CCTV inspection.

B. Payment

1. Payment for heavy cleaning of siphons 20" to 24", that may be located in the field, will be paid on an hourly basis. CCTV inspection is preferred but if flow conditions do not allow then other forms of inspection such as sonar will be used. This price and payment includes the cost associated with obtaining access to the work site (including off-road easements and paved roadways). The price and payment shall be full compensation for cleaning of siphons including the removal and disposal of all debris (sediment, mineral deposits, scale, rocks, tuberculation, grease, roots, etc.) from the existing siphon; for bypass pumping; dewatering; restoration of traffic and pavement markings; the use of a sonar device; traffic management; removal and replacement of all signs and other traffic control systems; and all else incidental thereto for which separate payment is not provided under other items in the Bid Form. This payment is in *addition* to the Preliminary Siphon Cleaning that is included in Item 10 and must be submitted to Owner for approval before initiating heavy cleaning.

1.06 MANHOLE ACCESS (TASK 1 B) LOCATE AND RAISE BURIED MANHOLES TO GRADE (Items 11 and 12)

A. Measurement

1. Measurement for the locating and raising of buried manholes to grade (Items 11 & 12) will be measured in place on a per vertical foot basis for the actual feet of manholes located and raised.

B. Payment

1. Payment for the locating of and raising of buried manholes in pavement (Item 11) will be made for the quantities determined above at the unit price bid. This price and payment shall be full compensation for locating manholes, furnishing precast concrete grade rings to raise frame and cover to grade, reusing the existing frame and cover (or if damaged using frames and covers furnished by the City), removal and disposal of all materials, cutting and removal of existing pavement around the frame and cover, excavation, temporary and permanent pavement restoration, loam and seed, restoration of traffic and pavement markings, traffic management, removal and replacement of all signs and other traffic control systems. This price and payment includes cutting pavement, pavement replacement



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION (SSE)

in two phases (initial and final full depth), and the cost associated with gaining access to the work site.

2. Payment for the locating of and raising of buried manholes in grass easements (Item 12) will be made for the quantities determined above at the unit price bid. This price and payment shall be full compensation for locating manholes, furnishing precast concrete grade rings to raise frame and cover to grade, reusing the existing frame and cover (or if damaged using frames and covers furnished by the City), removal and disposal of all materials, cutting and removal of soil the frame and cover, excavation and restoring earth cover, loam and seed, traffic management, This price and payment includes the cost associated with gaining access to the work site.

1.07 MANHOLE ACCESS (TASK 1 B) FURNISHING AND INSTALLING NEW FRAMES AND COVERS TO GRADE (Item 13)

A. Measurement

1. Measurement for furnishing and installing new frames and covers to grade (Item 13) will be measured in place on a per vertical foot basis for the actual feet of manholes located and raised.

B. Payment

1. Payment for furnishing and installing new frames and covers to grade (Item 13) will constitute full compensation for costs for locating buried manholes, furnishing new manhole frames and covers, labor, materials, equipment, transportation, tools, saw cutting pavement, pavement and/or soil removal/disposal/replacement, furnishing precast concrete grade rings to raise frame and cover to grade, excavation and restoring earth cover, loam and seed, traffic management, costs associated with gaining access to the work site, and all other related procedures and materials necessary to successfully install frames and covers in the event that the City is unable to provide them.



**CITY OF PROVIDENCE
2023 SEWER SYSTEM EVALUATION (SSE)**

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CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

SECTION 330130.16 - TV INSPECTION OF PIPELINES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. Each designated pipe section shall be visually inspected by means of closed-circuit television. The inspection shall be done one line section (i.e. manhole to manhole) at a time and the section being inspected shall be suitably isolated from the remainder of the system as required.
- B. Video recordings shall be made of the television inspections and two (2) portable hard drives containing digital copies of each video shall be supplied to the Owner for his inspection and files. Cost of hard drives shall not be paid for separately and shall be considered included in the prices bid for the various items of work in the Bidder's Blank, and therefore no separate payment will be made.
- C. The naming convention for each of the video files shall be as follows:

Upstream MH_ Downstream MH_ Date
- D. Related Requirements:
 - 1. Section 331210 "Temporary Bypass Pumping Systems."

1.3 ACTION SUBMITTALS

- A. Data:
 - 1. Database structure and file naming plan
 - 2. External Hard Drives become property of Owner.
 - 3. Sewer Assessment Reports
- B. Assessment Procedures Plan
 - 1. Pipeline assessment plan
 - 2. List of equipment to be used on the project, including product literature for all video equipment (including cabling, camera, footage counter, tilting device, and recorder)
- C. Proposed door hanger for public notification.
 - 1. The City shall review and edit the submitted door hanger notification, prior to printing and distribution.
- D. Qualification Statements

1.4 INFORMATIONAL SUBMITTALS



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- A. Informational Submittals: Prior to beginning assessment work, submit the following to the Owner
 - 1. Qualifications statement in accordance with the City of Providence RFP documents.
- B. Traffic Control plan for work in areas of vehicular travel, submitted to, and approved by Providence Traffic Engineering.
- C. List of Project staff, including qualifications of Crew Chief and CCTV operator.
- D. Spill plan to address any spills that might occur.
- E. Two copies of the NASSCO-issued “certified PACP user” identification card showing certification number for each CCTV operator that will be performing assessment work on the Project. Work shall not commence until such certification is provided.
- F. Confined Space entry and hazardous atmosphere training certifications for all staff that will be involved in work located within or near manholes.

1.5 QUALITY ASSURANCE

- A. Perform Work according to NASSCO PACP standards, latest version.

1.6 QUALIFICATIONS

- A. Contractor: Successfully performed work on at least ten other projects within the last five years that include at least 1,000,000 linear feet of CCTV video experience in NASSCO PACP format in gravity sewers 8-inches in diameter or greater.
- B. CCTV Operator: Successfully performed work on at least three other projects within the last five years that includes at least 250,000 linear feet of CCTV video experience in gravity sewers using NASSCO PACP format.
- C. Crew Chief: Minimum of five years of experience on projects involving the assessment of gravity sewer measuring 8 inches in diameter or greater and experienced in using the proposed equipment

PART 2 - PRODUCTS

1.1 EXTERNAL HARD DRIVES

- A. Description: A portable storage device that can be attached to a computer through a USB connection.
- B. Solid state data storage devices are preferred.

1.2 CCTV SOFTWARE

- A. Capable of providing complete survey reports in compliance with the most recent version of NASSCO PACP.
- B. The PACP defect and construction codes shall be pre-programmed in the CCTV software and shall



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

be grouped by PACP Groups.

C. Software and Databases

1. Fully compliant with PACP.
2. Capable of customization with the ability to modify or add to the pipe line condition and group them for ease of use.
3. Assessment and reporting software program shall be menu-driven and shall have a complete on-screen help file.
4. NASSCO PACP mandatory fields and any additional available field requested by the Owner shall be setup in the software prior to the assessment, and all of these fields shall be populated with information collected during the assessment. Any general and pipe segment information that is already known prior to the assessment shall be entered into the appropriate fields in advance of performing the physical assessment.
5. Maintain a database of underground pipe and manhole assets. Structure the asset database similar to the one referencing pipe usage (i.e., sanitary, storm, drainage, etc.) sections (i.e., projects, areas, quadrants).
6. Surveys include a method of pipe segment numbering and a chronological survey set-up numbering system.
7. Capacity to import and export survey results in the most recent NASSCO PACP exchange format.

- D. The footage reading from the camera equipment shall be automatically entered into the survey log and shall directly correspond to the noted observation location throughout the pipe graphical and tabular reports generated.

1.3 SEWER ASSESSMENT REPORTS

- A. File Naming Conventions: Name all files in accordance with the requirements of the Owner and CDM Smith to allow direct linking of files to pipe assets using a common unique identifier.

1. Each manhole has been given a unique manhole identification (Asset ID). The file name for each pipeline assessed shall be that unique upstream manhole Asset ID followed by an underscore followed by the unique downstream manhole, then the date of inspection such as: 0123S0456_0123S0457_MMDDYYYY.pdf.
2. If an unnamed manhole is found, the letter "A" shall be added to the end of the upstream manhole's Asset ID to form a new Asset ID. The data/video files shall then be renamed to include the new Asset ID and a new CCTV assessment shall be started from the new Asset ID.
3. If more than one unnamed manhole is found between two named manholes, subsequent new manhole Asset IDs shall be formed using the letters "B", "C", etc.
4. If an unnamed manhole is found, provide documentation showing the location of the unnamed manhole to the Owner depicting the change in connectivity found in the field.
5. If the contractor performs a reverse setup and televises an individual pipe segment from more than one direction (i.e. the camera is only able to televise a portion of the entire segment heading downstream, and the remaining portion of the pipe segment was televised heading upstream) then two or more separate video files are allowable. The name of the additional database files etc. (i.e. unique manhole Asset ID followed by an underscore followed by the unique downstream Asset ID) followed by "_1", "_2" etc. at the end of the filename so that it is clear there are multiple files and videos for the same pipe segment. If unnamed manhole(s) is (are) found the procedure previously described shall also apply.
Examples:



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- a. Initial filename: 0015S0001_0015S0002_MMDDYYYY
- b. Additional filenames: 0015S0001_0015S0002_MMDDYYYY_1

Base the name of each digital still photo on the video/data filename of the specific sewer in which the photo was taken. Record the name as the video/data filename followed by the PACP code for the item pictured, followed by the footage at which the observation was encountered. Examples:

- c. (Filename)_(PACP Coded)@(footage).jpg
- d. 0015S0001_0015S0002_MMDDYYYY_HSV@37_2.jpg
- e. 0015S0001_0015S0002_1_MMDDYYYY_MCU@113_6.jpg

- B. Format all data files to facilitate upload into a NASSCO PACP exchange database.
- C. Digital Video: CCTV assessments shall be captured at a minimum video bit rate of 4,500 kbps.
- D. Indicate individual survey results in tabular form and provide a sortable list of surveys based on a user-defined description field. Include the starting and ending manhole Asset IDs depths, pipe material, total survey length, and pipe diameter. All reports and and/or submittals shall comply with the most recent version of NASSCO PACP standards.
- E. Submit assessment data to the Owner on a weekly basis; including digital videos, digital photos, and evaluation reports, all in electronic format on portable external hard drive. All hard drives and the information contained within them are the property of the Owner after submittal.
 1. Fill data on each portable external hard drive to minimize the number of hard drives submitted. The hard drives shall contain separate digital files for each manhole-to-manhole section of pipe assessed.
 2. Sections of a single segment of sewer shall not be recorded to more than one hard drive.
 3. Video footage of recorded segments shall be grouped by area and shall be submitted in sequential order relating to the area mapping designation.
 4. The footage counter reading from the camera shall appear on all videos.
 5. Separate folders shall be created on the external hard drives for assessment data, digital videos, digital photos, evaluation reports, supporting documentation etc. so all submittals of the same type are in a single folder.
 6. Separate subfolders shall not be used to separate submittals of the same type under the main folder.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Field verify location of sewer pipelines to be inspected.

3.2 PREPARATION

A. Sewer Flow Control

1. Evaluate each segment of sewer to be assessed with respect to diameter, flow rate, velocity, upstream/downstream manhole diameter, debris levels, extent of pipe wall corrosion, and



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

accessibility. Select and provide the most appropriate equipment and methods based on the condition of the specific sewer line segment and its access manhole(s) at the time the work commences.

2. All assessment work shall be attempted during periods of low flow in the sewer segments being assessed.
 3. At all times during the assessment, the flow in the sewer line segment(s) being assessed shall be suitably controlled as needed to perform the assessment in accordance with Section 331210 "Temporary Bypass Pumping Systems."
 4. If the depth of flow in the sewer segments to be assessed is above the maximum allowable for the use of standard CCTV equipment, use of floating inspection equipment can be used. If the depth of flow in the sewer segments to be assessed is above the maximum allowable for the use of floating inspection equipment, off peak hours should be pursued to perform the assessment. If flow levels are not sufficient during off peak hours, the flow level shall be lowered by either:
 - a. using flow through plugs
 - b. performing bypass pumping as approved by the Owner.
 5. When flow in a sewer line is plugged, blocked, or bypassed, take precautions:
 - a. to protect the sewer lines from damage that might result from sewer surcharging.
 - b. to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewer involved.
- B. The equipment and methods used for each sewer pipe and the setup location shall conform to the submitted and reviewed plan.
1. Standard CCTV equipment is appropriate for sewer segments that:
 - a. Have a depth of flow less than 25 percent of the pipe diameter.
 - b. Do not have signs of corrosion.
 - c. Do not appear to have significant debris accumulation below the water surface.
 2. Floating HD Image equipment is appropriate for sewer segments that:
 - a. Do not meet the previously-listed conditions for using standard and CCTV equipment.
 - b. Require longer continuous lengths of assessment due to the difficulty of the manhole access or connection to a buried manhole or manholes.
- C. Perform sewer line cleaning in accordance with Section 330130.41 "Cleaning of Sewers" to provide a thorough assessment of the sewer condition.

3.3 APPLICATION

A. CCTV Equipment

1. Provide a mobile vehicle large enough to accommodate at least three people with video monitoring equipment specifically compatible with the camera equipment being used. Owner and his representative shall have unrestricted access to observe the television



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

screen and all other operations.

2. CCTV Camera:
 - a. Designed and constructed for such assessment.
 - b. Capable of producing digital still photos of all sewer observations and service connections.
 - c. Adjustable light source generate an even distribution of lighting for the camera that results in a clear color picture of the entire periphery of the pipe.
 - d. Operable in 100 percent humidity conditions and in a hazardous and corrosive environment.
 - e. Provide a backup (spare) camera either on the Project site or at a nearby location so performance of the Work is not delayed.
 - f. When usage of standard CCTV equipment is not feasible due to access issues, pipe condition, and/or depth of water flow, floating camera equipment may be used.
 - g. Capable of panning 360 degrees and tilting 270 degrees and with minimum optical zoom ratio of 10:1 plus a minimum digital zoom ratio of 4:1 to facilitate the assessment of all laterals and defects with optimum picture quality provided by focus and iris adjustment.
3. Floating HD Camera: the camera shall be capable of recording 360 degree view using a fisheye lens without tilting or panning.
4. CCTV Equipment:
 - a. Camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Owner and/or his representative. Picture resolution shall be a minimum of 460 television lines (TVL).
 - b. Provide a lighting system adequate for quality pictures. A reflector in front of the camera may be required to enhance the lighting in black pipe.
 - c. Accurate footage counter to display on the monitor the exact distance of the camera from the centerline of the starting manhole.
 - d. Compatible with the version of NASSCO PACP used by the CCTV software and the reports and submittals generated from the software.

3.4 FIELD QUALITY CONTROL

- A. The following measurements shall be collected for each accessible manhole and included in the PACP exchange database:
 1. Utilize GPS equipment to obtain X and Y state plane coordinates with a submeter accuracy.
 2. Field-measure the vertical distance from the top of the manhole frame to the invert in accordance to NASSCO PACP standards.
- B. Pipeline Assessment:
 1. Each sewer section shall be assessed from the upstream manhole to the downstream manhole if possible.
 2. For the upstream and downstream manholes on each segment of pipe that is assessed, pan and tilt from the invert and take digital still photos that clearly depict the entirety of the manhole interior, including cone section.
 3. Assess the full length of each sewer between access points. When the camera is unable to



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- pass an obstruction even though flow is continuing, perform a reverse setup of the CCTV equipment from the opposite access point.
4. Perform all CCTV assessments using personnel who are trained and certified (current standing) in the use of NASSCO's PACP.
 5. Multiple upstream and/or downstream sewer segments can be televised from a single manhole setup location as long as each manhole to manhole video section restarts its footage counter at zero and a separate video file for each assessment is submitted.
 6. The CCTV camera shall travel through the lines using its own power unless a tethered floating unit is used. The pictures taken of the entire inside periphery of the pipe shall be clear and visible. Picture quality and definition shall be to the satisfaction of the Owner.
 7. Stop the camera at all service laterals and pan at such an angle that an internal view of the service lateral is available to determine if the lateral is active, inactive, or plugged. Take photos:
 - a. include a brief description of the subject of the photo directly on the photo.
 - b. catalog and link in the CCTV database, so the photos correspond with the length along the sewer line where the photo of the recorded observation was taken.
 - c. JPEG format and at least 50 kilobytes in size.
 8. Adjust the camera height such that the camera lens is always centered in the pipe being televised.
 9. Retrieve camera equipment that becomes stuck within a sewer.
 10. Submit CCTV inspection videos, where reversal setups are not required, in one continuous video section from manhole to the immediately adjacent manhole and not in multiple files. If a reverse setup is required, two complete inspections and video are acceptable.
- C. Calibrate camera footage on a weekly basis in the presence of the Owner or his representative with an above ground tape measure and simultaneous CCTV footage counter.
- D. Project Notifications: Notify the owner immediately if:
1. A collapsed pipe or other significant pipe failure is discovered.
 2. The conditions for CCTV assessment are found to be unsafe or impractical.
 3. A manhole is buried, cannot be found, or cannot be accessed. Include a diagram in PDF file format that clearly indicates the location of the manhole, identifies its Asset ID, and lists the procedures that were used to attempt to locate the manhole.
 4. Any defects that pose immediate danger to the public are observed (i.e. missing or broken manhole covers, sinkholes, etc.).
 5. Any major pipe blockages, manhole surcharging, or potential overflow conditions are observed.
 6. The pipe configuration in the field is different than shown on the Drawings. Include a diagram in PDF file format that clearly indicates the location of structures in relation to immediately adjacent structures.
 7. Any significant obstructions are found within permanent sewer easement, even if these obstructions do not impact the Work.
- E. Public Notifications: Provide 48 hour notice prior to the assessment of any pipe segment, distribute door-to-door a door hanger, approved by the Owner, describing the work to be performed to notify the owner of every property, including residences and businesses, that may be affected. Include necessary information on bypass pumping how long residents may be unable to utilize the sewer. Door hangers shall be double-sided with the notification information in the English language on one side and in the Spanish language on the reverse side. Affected properties shall



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

include, but not be limited to, properties on which:

1. A sewer to be accessed is located.
2. A manhole for accessing a sewer to be assessed is located.
3. An existing sewer easement that could be used to access the sewer is located.
4. A temporary right-of-entry agreement with the property owner and the contractor for accessing a sewer or manhole on the property.
5. An existing sewer lateral serving the property directly connects to a sewer to be assessed or manhole to be accessed for the sewer assessment.

3.5 DATA QUALITY CONTROL

- A. Review quality and accuracy of each submittal of CCTV assessment data and revise as needed to correct any inaccuracies prior to providing submittal to the Owner or his representative.
- B. Quality Review:
 1. Owner or his representative requires a 30-day period to review sewer assessment data/videos after each submittal has been received.
 2. Payment applications will not be processed until the sewer assessment data/videos have successfully passed the quality review and have been accepted by the Owner or his representative.
 3. Additional 30-day review periods apply to each resubmittal of data/videos determined to be unacceptable by the Owner or his representative.
 4. Re-inspection is required when digital videos are inaccurate or of such poor quality that the Owner or his representative is unable to evaluate the condition of the sewer or locate sewer service connections.
 5. Provide CCTV assessment data contained on each portable external hard drive in the most recent version of PACP exchange format. Include video indexing for all observations. CCTV assessment data to be submitted:
 - a. Database file
 - b. Still photos in JPEG file format for each observation
 - c. Video for each inspection in MPEG1 file format.
 - d. Summary report for each pipe segment in PDF format.

END OF SECTION 330130.16



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2023 SEWER SYSTEM EVALUATION**

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CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

SECTION 330130.41 - CLEANING OF SEWERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. Section includes cleaning of sewer pipe and siphons selected for CCTV inspections as shown on the Drawings and as specified herein.
- B. Cleaning includes proper high-pressure water jetting, rodding, bucketing, brushing and flushing of sewers and manholes prior to inspection by closed circuit television, pipeline rehabilitation or replacement, point repairs, and testing operations.
- C. Clean all sewers to remove debris, roots, intruding services, deposits, and other blockages.. Perform sewer cleaning work to an acceptable level as necessary to perform a thorough television inspection of sewer. If pipe condition is such that cleaning may cause a potential collapse, then pipe shall be televised without attempting to clean it, pending approval by Owner or his representative. Notify Owner immediately if cleaning cannot be completed due to pipe condition.
- D. Furnish all labor, materials, equipment, and incidentals required and perform high pressure water jetting, rodding, brushing, bucketing, and flushing of designated sewer lines and manholes in streets and cross country areas as shown on the maps, and transporting debris to an approved facility, in accordance with all applicable local, state, and federal rules and regulations.
- E. Related Requirements:
 - 1. Section 330130.16 "TV Inspection of Sewer Pipelines".
 - 2. Section 331210 "Temporary Bypass Pumping Systems"

1.3 DEFINITIONS

- A. Preliminary Cleaning: Small amounts of debris existing within sewer line and where sewer reaches do not require heavy cleaning, as defined below, and that produce little or no debris. Preliminary Cleaning is defined as up to six (6) passes with a jet nozzle.
- B. Heavy Cleaning: Large deposits of debris or heavy root growth existing within sewer line and where sewer reaches require debris removal exceeding the definition of Heavy Cleaning, and time required to clean and inspect the line must be at least twice the average time required to clean and inspect other sewers of comparable length and diameter. Heavy cleaning is defined as more than six (6) passes with a jet nozzle or the use of a rotary cutting device.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

1.4 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Section 012001 "Price and payment": Contract Sum/Price modification procedures.
- B. Preliminary Cleaning: Clean sewer using standard industry procedures of high pressure water jetting equipment or other approved equipment. Costs related to cleaning of such sewers shall be included in Contractor's unit prices for CCTV and Preliminary Cleaning.
 - 1. Basis of Measurement: By linear foot.
 - 2. Basis of Payment: TV inspection, data compiling according to NASSCO PACP standards, and audio-video recording of pipeline.
- C. Heavy cleaning: Heavy cleaning must be approved by Owner or his representative. Include costs related to cleaning of such sewers in Unit Prices for Heavy Cleaning. Costs related to televising of such sewers following heavy cleaning shall be included in Unit Prices for CCTV and Preliminary Cleaning. Compensation for heavy cleaning of a particular line will only be paid if:
 - 1. Heavy cleaning was authorized by Owner or his representative prior to performance of the work.
 - 2. Contractor proves that both significant time and effort was necessary to clean the line, (i.e. time required to clean and inspect the line must be at least twice the average time required to clean and inspect other sewers of comparable length and diameter.
 - 3. Adequate video proof of 'before' blockage, debris, grit or grease build-up, or other condition is provided.
 - 4. A submerged camera does not justify a need for heavy cleaning; proof that submergence was due to a blockage or heavy debris and not a sag in the line will be required.
 - 5. Heavy Cleaning will be paid for on a lineal foot basis only for length required to be cleaned, i.e., from downstream manhole to approximate location of heavy cleaning. This may or may not include entire pipe section, unless otherwise approved by Owner.
 - 6. Use of a rotar to grind down an intruding tap does not justify payment for heavy cleaning in addition to payment for removal of an intruding tap.
- D. Pipes that contain excessive blockages must be reported to Owner immediately.

1.5 INFORMATIONAL SUBMITTALS

- A. Submit a safety plan prior to performing any on-site work that includes the following as a minimum:
 - 1. Confined Space Entry.
 - 2. Personal Protective Equipment.
- B. Qualifications Statements:
 - 1. Contractor shall have a minimum of five years' experience in sewer line and underground structure cleaning. Submit a list of at least three customers who have had similar work



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

complete. Furnish trained and qualified technicians with proper experience operating equipment that is being used on this project.

1.6 CLOSEOUT SUBMITTALS

- A. Submit one complete set of documentation regarding inspections and work performed. Based on work scope, submit written reports, photographs and External Hard Drives that incorporate color video and data per Section 330130.16 "TV Inspection of Sewer Pipelines".

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. Contractor shall be solely responsible for his means and methods of sewer cleaning. Selection of cleaning equipment and the method for cleaning shall be based on the condition and/or pipe material of the sewer segment at the time work commences and shall comply with this Specification. **FLUSHING OF ANY SANITARY SEWER TO FACILITATE CLEANING ACTIVITIES WITHOUT THE CAPTURE OF SOLIDS AND DEBRIS IS EXPRESSLY PROHIBITED.**
- B. Sewer line walls shall be cleaned adequately to provide for a camera used during the CCTV phase to discern structural defects, misalignment, and infiltration/inflow sources, and to the extent required for proper installation of cured-in-place pipe liner.
- C. Start the cleaning operation with the upstream sewers in the system and proceed downstream with the direction of flow.
- D. Clean all contributing upstream sewers before proceeding with cleaning downstream sewers.
- E. Under NO circumstances will the Contractor be allowed to obtain water from any water bodies, unless they receive written permission from RIDEM and notify the City in writing prior to work.
- F. The Contractor shall be required to obtain formal authorization from Providence Water when the supply of water is from local fire hydrants. Water supplied from fire hydrants or other sources shall be at the expense of the Contractor and shall include all requirements related to obtaining water, and installation of a meter and backflow preventer, if required. The Contractor is responsible for any damages resulting from the improper use of the water supply system. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant, nor shall a hydrant be used for the purpose described unless a vacuum break is provided. The Contractor shall make every effort to conserve and not use water unnecessarily.
- G. Transport all debris to at an approved facility, in accordance with all applicable local, state, and federal rules and regulations. Contractor to pay for disposal of all debris.
- H. Remove debris, roots, intruding services, deposits, and other blockages as necessary to perform a



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

thorough television inspection of sewer. If pipe condition is such that cleaning may cause a potential collapse, contact Owner to prior to cleaning.

- I. Root Removal (as applicable): Roots shall be removed in the sewer sections and manholes where root intrusion is a problem. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Procedures may include the use of equipment such as high-velocity jet cleaners with specialty nozzles.

3.2 PREPARATION

- A. Select, based on pre-construction CCTV inspection, cleaning equipment to address conditions of manhole and sewer lines at the time the work commences to adequately remove dirt, grease, rocks, sand, and other materials and obstructions from sewer lines and manholes to allow performance of other work. The equipment and methods selected shall be acceptable to the Owner; however, acceptance of proposed method of cleaning does not relieve the Contractor of his responsibility to adequately clean the pipe to allow performance of other work.
 1. Preliminary Cleaning (small amounts of debris existing within the sewer line): Use balls, scooters, high pressure water jetting (up to and including six (6) passes) equipment, brushes and swabs.
 2. Heavy cleaning (large deposits of debris or heavy root growth existing within the sewer line): Use bucket machines, scrapers and augers. Cleaning which requires more than 6 passes with hydraulic cleaning equipment to achieve acceptable results shall be considered heavy cleaning.
- B. Written authorization shall be requested and obtained prior to conducting any heavy cleaning. Authorization shall be required for each individual sewer reach. Heavy cleaning without prior authorization will not be paid for.
- C. Equipment used shall be capable of removing scale, tuberculation, and mineral deposits.
- D. Take satisfactory precautions to protect sewer lines from damage that might be caused by improper use of cleaning equipment. Whenever using hydraulically propelled cleaning tools that depend upon water pressure to provide their cleaning force, or any tools that retard flow of water in sewer line, take precautions to ensure that water does not cause damage or flooding to public or private property.
- E. Sewers damaged as a result of the Contractor's improper operations shall be promptly repaired by the Contractor at no cost to the City. The Contractor shall immediately notify the City of any damages to the sewer system regardless of fault.
- F. Any damage caused to public or private property as a result of such cleaning and preparation operations shall be restored to pre-existing conditions by the Contractor in a timely manner and at no additional costs to the City.
- G. No fire hydrant shall be obstructed in case of a fire in area served by hydrant.
- H. Remove water meters, piping, and related equipment from fire hydrants at end of each workday.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

3.3

EQUIPMENT

A. Hydraulic Sewer Cleaning Equipment:

1. Equipment: movable dam type constructed so that a portion of the dam may be collapsed at any time during cleaning operation to protect against flooding of sewer.
 - a. Movable dam shall be same diameter as pipe being cleaned and shall provide flexible scraper around outer periphery to ensure total removal of grease. If sewer cleaning balls or other such equipment which cannot be collapsed instantly are used, take special precautions against flooding of sewers and public or private property.

B. High Velocity Jet (Hydrocleaning) Equipment:

1. Have a minimum of 500 feet of high-pressure hose.
2. Have a selection of two or more velocity nozzles that can produce a scouring action from 15 to 45 degrees in all size lines to be cleaned. Also include a high velocity gun for washing and scouring manhole walls and floor.
3. Be capable of producing a minimum of 80 gallons per minute flows from a fine spray to a long-distance solid stream and delivering up to 1000 psi. Be able to carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel. Locate controls so equipment can be operated above ground. Select flowrates and pressures as required for each size of sewer, type of debris, and amount of debris, and as recommended by nozzle manufacturers.
4. Have a water tank, auxiliary engines and pumps, and a hydraulically driven hose reel.
5. Have root cutting blades that are hydraulically spun.

C. Mechanical Cleaning Equipment:

1. Bucket machines shall be in pairs and with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe shall not be acceptable.
2. Power rodding machines shall be either sectional or continuous type capable of holding a minimum of 750 feet of rod. Rod shall be specifically treated steel. To ensure safe operation, machine shall have a fully enclosed body and an automatic safety release clutch or relief valve.

3.4

SAFETY

- A. Contractor shall be solely responsible for safety during the performance of all Work. Contractor shall take satisfactory precautions to protect the sewer segments and appurtenances from damage that might be inflicted upon them using cleaning equipment. Any damage inflicted upon a sewer segment or other public or private property as a result of the Contractor's cleaning operations, regardless of the cleaning method used and regardless of any other circumstance which may contribute to the damage, shall be repaired by the Contractor at his sole expense.
- B. Contractor shall not enter any sewer segment where hazardous conditions may exist until such time as the source of those conditions is identified and eliminated by Contractor and/or Owner. Contractor shall perform all work in accordance with the latest OSHA confined space entry regulations. Contractor shall coordinate his work with local fire, police, and emergency rescue units. Whenever hydraulically propelled cleaning tools, which depend upon water pressure to provide their cleaning force, or any tools which retard the flow of water in the sewer segment are



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

used, precautions shall be taken by Contractor to ensure that the water pressure utilized does not result in any damage or flooding to public or private property being served by the sewer segment(s) involved.

3.5 APPLICATION

- A. All sludge, dirt, sand, rocks, grease and other solid or semi-solid residue, debris, and material resulting from cleaning operations shall be removed at the downstream manhole of the section of sewer being cleaned. Passing material from manhole section to manhole section which could cause line stoppages, accumulations of sand in wet wells, or damage to pumping equipment shall not be permitted. In the event that sludge, dirt, sand, rocks, grease and other solid or semisolid material or debris resulting from the cleaning operations are observed and/or detected by Owner as passing to downstream sewer segment(s), Contractor shall be responsible for cleaning such downstream sewer segment(s) at no additional cost to Owner.
- B. Provide appropriate screening to stop passing of materials into downstream sewers. Sludge, dirt, sand, rocks, grease, and other solid or semisolid residue, debris, and material resulting from cleaning operations shall be removed at downstream manhole of section of sewer being cleaned. Passing material from manhole section to manhole section which could cause line stoppages, accumulations of sand in wet wells, or damage to pumping equipment shall not be permitted.
- C. Remove debris, residue, and other materials resulting from cleaning operations from site at end of each workday and shall be disposed of in an approved and lawful manner. Under no circumstances will accumulation of debris, residue, and other matter be permitted on site beyond stated time, unless prior written authorization is given for storage in totally enclosed containers. Transport all debris an approved facility, in accordance with all applicable local, state, and federal rules and regulations. All disposal fees shall be paid by the Contractor.
- D. Continuously remove debris from the downstream manhole during sewer cleaning. Do not allow debris to be passed into the downstream sewer.
- E. Decant excess cleaning water and direct it to the sewer downstream of the sewer being cleaned.
- F. Flushing of sanitary sewers to facilitate cleaning activities without the capture of solids and debris is expressly prohibited.
- G. Retrieval of equipment lodged in pipes, or a wet well is Contractor's responsibility and shall be performed at Contractor's expense.
- H. Under no circumstances shall the removed sewage or solids be dumped onto streets or into ditches, catch basins, storm drains, sanitary or combined sewer manholes, or otherwise improperly disposed. If sewage is unintentionally spilled, discharged, leaked or other deposited in the open environment, Contractor shall be responsible for any clean-up and disinfection of the affected area. Contractor shall comply with all local, State and Federal regulatory requirements regarding spills.
- I. The Contractor shall keep his haul route and work area(s) neat and clean and reasonably free of odor and shall bear all responsibility for the cleanup of any spill which occurs during the transport of cleaning/surface preparation by-products and the cleanup of any such material which is authorized by or pursuant to this Contract and in accordance with applicable law and regulations. The Contractor shall immediately clean up any such spill or waste material release.
- J. Cleaning Precautions: During sewer cleaning operations, satisfactory precautions shall be taken in



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard flow in sewer line are used, precautions shall be taken to ensure that water pressure created does not damage or cause flooding of public or private property being served by sewer. When possible, flow of sewage in sewer shall be utilized to provide necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, water shall be conserved and not used unnecessarily.

- K. No sewer cleaning shall take place in a particular sewer segment until upstream pipe segments have been cleaned. If cleaning is done in a downstream pipe segment to facilitate overall cleaning operations, segment shall be re-cleaned at no additional cost to Owner, after pipes upstream of that segment have been cleaned.
- L. Sewer line walls shall be cleaned adequately to provide for proper operation of joint testing and sealing equipment or internal inspection to discern structural defects, misalignment, and infiltration/inflow sources. Cleaning shall be performed immediately prior to joint testing and sealing and internal inspection to preclude build-up of debris from infiltration/inflow sources and discharges from upstream pipeline sections.
- M. Designated sewer manhole sections shall be cleaned using hydraulically propelled, high velocity jet, or mechanically powered equipment. If cleaning of an entire section cannot be successfully performed from one manhole, equipment shall be set up on other manhole and cleaning again attempted. No additional payment allowance shall be made for reverse set-ups. If, again, successful cleaning cannot be performed or equipment fails to traverse entire manhole section, it will be assumed that a major blockage exists, and cleaning effort shall be repeated with other types of equipment. Immediately report any blockages to Owner.
- N. Determine the location of major blockage(s) by measuring length of hose or rod inserted from manholes at each end and immediately report location of blockage(s) to Owner. Contractor shall note these conditions in its field log.
- O. Contractor shall recognize that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where damage could result if cleaning were attempted or continued. Owner shall be immediately notified by Contractor of all conditions which in the opinion of Contractor warrant termination of cleaning activities. If Contractor's cleaning equipment becomes lodged in a sewer, it shall be removed by Contractor at his expense. This shall include excavation and repair of the sewer, underground utilities, backfilling, and surface restoration.
- P. Water for sewer cleaning shall be purchased and obtained at locations in accordance with utility owner. If water is obtained from a potable supply, provide appropriate backflow prevention devices as required by authority having jurisdiction to protect potable system from cross connections and contamination. Prevent cross contamination of any public or private water systems used for this purpose.

3.6 FIELD QUALITY CONTROL

- A. Acceptance of sewer line cleaning shall be contingent on satisfactory completion of the television inspection. If television inspection shows the cleaning to be unsatisfactory, the sewer line shall be re-cleaned and re-inspected until the cleaning is shown to be satisfactory at no additional cost to the Owner. In areas where television inspection is not performed, a double squeegee (with each



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

squeegee the same diameter as the sewer) shall be pulled cleanly through each section between manholes as evidence of satisfactory cleaning.

- B. If internal joint testing and sealing is to follow cleaning, give particular attention to adequacy of cleaning to ensure that proper seating of sealing packer can be achieved.
- C. Inspection of cleaning operations will be made on a daily basis by the Owner.

3.7 FINAL CLEANING

- A. Upon cleaning of underground sewer lines or structures, removal debris from finish grade and clean work areas so conditions at conclusion of the work are equal to or better than areas prior to work of this Section.

END OF SECTION 330130.41



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

SECTION 330513 - MANHOLE STRUCTURES

1.1 GRADE RINGS, BRICKS, MORTAR AND GROUT

A. Precast Concrete Grade Rings:

1. Reinforced precast concrete according to ASTM C478
2. Lipped male/female joints
3. Gaskets: According to ASTM C923.
4. Grade rings shall withstand a live load of AASHTO HS20.

B. Clay Brick Units: ASTM C62, Grade SW solid units.

1. The bricks shall be good, sound, hard and uniformly burned, regular and uniform in shape and size, of compact texture and satisfactory to the Owner. Underburned or salmon brick will not be acceptable and only whole brick shall be used unless otherwise permitted. In case bricks are rejected by the Owner, they shall be immediately removed from the site of the work and satisfactory bricks substituted therefor.

- a. Bricks for building up and leveling manhole frames shall conform to ASTM C62

C. Mortar and Grout:

1. Type S.
2. Mortar used in the brickwork shall be composed of one part Type II Portland cement conforming to ASTM C150 to two parts sand to which a small amount of hydrated lime not to exceed 10 lbs to each bag of cement shall be added

1.2 FRAMES AND COVERS

A. Manufacturers:

1. Manhole frame and covers shall be East Jordan Iron Works; Mechanics Iron Foundry; Neenah Foundry or equal. The following model numbers refer to East Jordan Iron Works products:
 - a. Manhole Frame and Cover in Streets – 24” Manhole Frame and Cover EJ Product No. 240834B01 as shown in City of Providence Department of Public Work’s standard details.
2. Construction: ASTM A48, Class 30B cast iron.
3. Surface: Machined flat bearing.
4. Lid: Removable
5. Cover: See City of Providence Department of Public Work’s standard details.
6. Live Load Rating: H-20 loading plus the weight of the soil above at 120 pcf.
7. Sealing gasket as directed by Owner and indicated on City of Providence Department of Public Work’s standard details.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

1.3 LOCATING, RAISING, RESETTING, AND/OR REPLACING MANHOLE FRAME AND COVER ASSEMBLIES

- A. Where noted on the Drawings or directed by the Owner, the Contractor shall locate and uncover buried manhole frame and covers; remove existing manhole frame and covers; dispose of existing manhole frame and covers, if they are not being reused; and install new or reused manhole frame and covers as directed by the Owner. The Contractor shall repair any damage to the manhole chimney or corbelling caused by the removal of the existing manhole frame at no additional cost to the Owner.
- B. Existing frames and covers to be reused shall be thoroughly cleaned before re-installation.
- C. When re-setting existing frames and covers, Contractor shall apply preformed flexible joint sealant Kent Seal No. 2 by Hamilton-Kent or Ram-Nek by K.T. Snyder Company or approved equal.
- D. The Contractor shall install new or reused frames so that the tops of the covers are at the required grade. The Contractor shall use precast concrete grade rings to set the manhole frame and cover to the finished grade. Precast concrete grade rings shall be set in a bed of butyl mastic sealant as per manufacturer's recommendations.

1.4 FIELD QUALITY CONTROL

- A. Test concrete manhole and structure sections according to ASTM C497.
- B. Vertical Adjustment of Existing Manholes:
 - 1. If required, adjust top elevation of existing manholes to finished grades as directed by Owner.
 - 2. Reset existing frames, grates, and covers that were carefully removed and cleaned of mortar fragments to required elevation according to requirements specified for installation of castings.
 - 3. When removal of existing concrete wall is required, remove concrete without damaging existing vertical reinforcing bars, clean concrete from vertical bars, and bend into new concrete top slab or splice to required vertical reinforcement.
 - 4. Clean and apply sand-cement bonding compound on existing concrete surfaces to receive cast-in-place concrete as specified.
- C. Leakage Tests:
 - 1. Performed on every manhole with Owner observing.
 - 2. Preparation:
 - a. Prior to placing the shelf and invert, and pointing the horizontal joints, fill all lifting holes within 6 feet of ground surface with approved non-shrinking mortar.
 - b. Lower groundwater table as required.
 - c. Plug all pipes and other openings into manhole.
 - 3. Test:
 - a. Fill water to top of cone section.
 - b. Observe for visible water in the excavated area.
 - c. If area around manhole is backfilled or the test is unsatisfactory, repeat the test



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- allowing for suitable time for absorption of water in the excavated area.
- d. At the end of the absorption period, refill manhole and wait 8 hours.
 - e. Refill the cone at the end of 8 hours, measuring the amount required to refill.
 - f. Extrapolate to determine 24-hour rate of leakage. Leakage not to exceed 1 gallon per vertical foot in a 24-hour period.
 - g. Owner or his representative will perform visual inspection along with the Contractor.
4. Repair:
- a. If leakage is less than 3 gallons per vertical foot per 24 hours, make approved repairs to the manhole and retest, if it is determined the leakage is due to defects in the joints or sections.
 - b. If leakage is 3 gallons or more, then replace the entire manhole, including all joints and sections at the Contractor's expense. Retest the new manhole as described above.
- D. A vacuum test may be substituted for a leakage test as follows:
1. The filling and pointing of exterior joints are not required where the excavation has not been backfilled.
 2. Inflate to affect a seal between the vacuum base and the top of the manhole.
 3. Connect the vacuum pump to the outlet port with the valve open and a vacuum of 10" Hg (20" of Hg absolute) drawn.
 4. Close the valve.
 5. The following test criteria shall apply to 4-ft and 5-ft diameter manholes:
 6. Allowable drops in pressure:
 - a. Manholes 0 – 10 ft. deep:
 - 1) drop of 1" Hg over 2 minutes.
 - b. Manholes 10 -15 ft. deep:
 - 1) Drop of 1" Hg over 2-1/2 minutes
 - c. Manholes 15 - 30 feet:
 - 1) Drop of 1" Hg over 3 minutes
 7. If the pressure drop exceeds the acceptable limits, make necessary repairs as approved by the Owner, and:
 - a. Re-test the manhole.
 - b. If the manhole fails to meet the minimum requirements of the vacuum test retest using the leakage test.
 8. Upon completion of a successful vacuum test, the interior and exterior joints shall be filled and pointed.

1.5 CLEANING

Clean all raised manholes to be free of silt, debris and foreign matter of any kind, prior to final inspection.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

1.6 LOAM AND SEED

1. The CONTRACTOR shall perform all excavation to prepare the designated areas to receive a 4-inch-deep loam bed. All loamed areas shall be trimmed and graded to true lines and existing grades. All loamed and seeded areas shall be fine raked and subsequently rolled and tamped.
2. All loamed areas shall be free of large stones, brush, roots, stumps, litter, or other foreign material. All seed beds shall be cultivated before seeding and seeding shall not be permitted on any area unless the surface presents a loose friable seed bed.
3. Fertilizer shall be commercial grade 10-6-4. Application shall be at a rate of 0.20 lb. per sq. yd. Lime shall consist of a standard commercial product of ground dolomitic limestone intended for agricultural use. Limestone shall be spread evenly and incorporated thoroughly into soil. Application shall be at a rate of 0.5 lb. per sq. yd. Grass seed shall be equal in mixture to Improved U.R.I. No. 2. Application shall be at a rate of 0.05 lbs. per sq. yd.
4. Landscape work shall only be performed during acceptable growing seasons, as defined for USDA hardiness zone 6b. The Contractor shall be responsible for the watering of the newly seeded areas to promote satisfactory initial grass growth within the restored grassed areas. Depending on weather conditions multiple waterings may be required as part of the overall grass restoration work.

END OF SECTION 330513



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

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CITY OF PROVIDENCE

2023 SEWER SYSTEM EVALUATION

SECTION 331210 - TEMPORARY BYPASS PUMPING SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. Furnishing materials, equipment, and labor required to bypass pump and/or divert wastewater flows from sewers selected for sewer inspection.
- B. The design, installation and operation of temporary bypass pumping systems shall be the Contractor's responsibility. Provide the services of a professional bypass company who can demonstrate to the Owner that the company specializes in the design and operation of temporary bypass pumping systems. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- C. Maintain temporary bypass pumping systems so that they are completely functional throughout the required period of service.
- D. Following the required period of service, remove temporary bypass pumping systems from site.
- E. Provide all maintenance including manufacturer recommended preventive maintenance and on-call repair services. Provide repair services and/or replacement equipment 24 hours per day, seven days per week within 4 hours of being called.
- F. **Under no circumstances may sewage flows be bypassed to a Narragansett Bay Commission (NBC) owned structure without their expressed authorization and approval.**

1.3 ACTION SUBMITTALS

- 1. Evidence of the qualifications of the entity performing bypass operations specified in this Section
- 2. BYPASS PUMPING PLAN: Prior to starting any construction on site, submit detailed plans and descriptions outlining all provisions and precautions regarding the handling of existing wastewater flows. This plan must be specific and complete, including such items as schedules, locations, capacities of equipment, materials and all other incidental items necessary and/or required to protect the facilities, including protection of the manholes from damage due to the discharge flows, and compliance with the requirements and permit conditions specified in these Contract Documents
- 3. Detailed plans and sections showing the proposed pumping system layout including dimensions and elevations. Plan shall include but not be limited to the following:
 - a. Staging area and access requirements for all pumps.
 - b. Number, size, material, location and method of installation of suction piping.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- c. Number, size, material, location and method of installation of discharge piping.
 - d. Sewer plugging method and types of plugs.
 - e. Safety enclosures/fencing for pumping equipment and piping, suction manholes and discharge manholes.
 - f. Standby power generator size, location (if required).
 - g. Method of protecting discharge manholes or existing structures from erosion, damage and overflow. Method for bulkheading downstream sewers to prevent flow from backing up into the work area.
 - h. Emergency response plan for cleaning up leakage from bypass piping or spills from pumping equipment including fuel, hydraulic oil or lubricants.
 - i. Details of driveway and street crossings, and if Contractor will temporarily bury piping or use Owner approved road ramps.
 - j. Certification from a Professional Engineer that the pumping system has been designed to meet specification requirements and will perform as intended.
 - k. Safety measures regarding fueling of equipment shall be implemented during life of the project.
 - l. Method and procedures for removing bypass and restoring the area.
 - m. Pump size, capacity, number of units, diesel engine specifications, fuel tank capacity, fuel consumption requirements, and method of refueling.
 - n. Calculations of static lift, pipe size selection, friction losses, flow velocity and pump selection.
 - o. Pump curves showing pump operating range.
 - p. Proposed method of freeze protection.
 - q. Proposed method of noise control for each pump.
 - r. Temporary pipe supports, anchorage, cover material and other accessories as required to stabilize the piping system.
 - s. Installation schedule and maintenance schedule.
 - t. Vendor phone number and pager number for 24-hour service.
 - u. A minimum of five reference installations of projects with similar size in wastewater pumping applications. Include contact names and phone numbers.
 - v. List of recommended spare parts to be stored on-site for emergency maintenance.
4. Provide information on the vendor's service staff capabilities and replacement parts inventory to show that the vendor has sufficient resources to provide emergency service and replacement equipment and/or parts to the site within 4 hours of a service call.
 5. A description of system operation and controls. Include a list of all alarm conditions and procedures for correcting problems including equipment replacement.
 6. A plan of operations for inclement weather including snow storms. The plan shall demonstrate the ability to maintain pumping system operations throughout inclement weather events.
 7. Public Notifications: Provide 48 hour notice prior to the assessment of any pipe segment, distribute door-to-door a door hanger, approved by the Owner, describing the work to be performed to notify the owner of every property, including residences and businesses, that may be affected. Include necessary information on bypass pumping such as how long residents may be unable to utilize the sewer. Door hangers shall be double-sided with the notification information in the English language on one side and in the Spanish language on the reverse side. Affected properties shall include, but not be limited to, properties on which:
 - a. A sewer to be accessed is located.
 - b. A manhole for accessing a sewer to be assessed is located.
 - c. An existing sewer easement that could be used to access the sewer is located.
 - d. A temporary right-of-entry agreement with the property owner and the contractor



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

for accessing a sewer or manhole on the property.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- e. An existing sewer lateral serving the property directly connects to a sewer to be assessed or manhole to be accessed for the sewer assessment.

1.4 QUALITY ASSURANCE

- A. Employ the services of a vendor who can demonstrate five years of recent and continuous specialization in the design, installation, operation and removal of temporary bypass pumping systems in wastewater applications. The complete system shall be furnished from a single vendor who shall be capable of providing service staff, repair parts and replacement of any deficient system component within four hours of a service call, 24-hours per day, seven days per week.
- B. Provide the services of the manufacturer's representative for physical checkout field testing and operation and maintenance instruction for a minimum of one person day per pumping system. See requirements in PART 3.
- C. Provide the services of the manufacturer's representative or designated alternative, who shall be contactable 24-hours per day via telephone or pager and shall be available to be on site within four hours of being contacted at no additional cost to the Owner.
- D. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- E. The bypass system including all pumps, pipe, hose, valves and fittings shall be provided by one bypass entity.
- F. All hydraulic calculations and drawings required by the submittals shall be provided by the bypass entity and stamped by a Professional Engineer registered in the State of Rhode Island.
- G. Each temporary pumping, piping and diversion system shall be tested and placed in service before the work may begin.
 1. Prior to the diversion of any flow via plug/stop-log/pumping to any other pipeline, the Contractor shall contact the Owner 72-hours in advance and any adjacent property owners 72-hours in advance.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Furnish pumping units and all accessories from a single vendor. Each temporary bypass pumping system shall be complete including pumps, drives, piping, piping headers, valves, flow meter, controls and appurtenances as required for a complete system.
- B. The pumps, drives and controls shall be designed and built for 24-hour continuous service at any and all points within the required range of operation, without overheating, without cavitation, and without excessive vibration or strain. All parts shall be so designed and proportioned as to have the strength, stability and stiffness and be constructed to meet the specified requirements. Methods shall be provided for inspection, repairs, and adjustment.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- C. All necessary foundation bolts, nuts, and washers shall be furnished.
- D. Each piece of equipment shall be furnished with a nameplate (with embossed data) securely mounted to the body of the equipment. As a minimum, the nameplate for the pumps shall include the manufacturer's name and model number, serial number, rated flow capacity, head, speed and all other pertinent data. As a minimum, nameplates for drives shall include the manufacturer's name and model number, serial number, horsepower, speed, input voltage, amps, number of cycles and power and service factors.
- E. Bypass pumping system pumps/generators shall be housed in sound attenuated enclosures with critically silenced mufflers. Limit noise to 69 dBA or lower at 30 feet.
- F. All equipment shall be suitable for outdoor operation under adverse weather conditions. Provide protection from freezing as required to maintain system operation.
- G. Pumping system control panels shall be NEMA 4 and include flow indication, a flow totalizer, indicator lamps showing which pumps are operating, selector switch for auto or manual start and stop for each pump and visual and audible alarms for indication of operation failure and alarm conditions.

2.2 PERFORMANCE REQUIREMENTS

- A. Capacities and Characteristics:
 - 1. Pumps shall be identical in every respect with all parts interchangeable.
 - 2. Each pump shall be designed for the conditions of service. All pumps shall have a rising head capacity curve for stable pump operation from the minimum head operating point to the shut-off head.
 - a. Service: Temporary Bypass Pumping
 - b. Number of pumps: As required by the Application
 - c. Liquid: Raw Wastewater
 - d. Design capacity total peak (gpm): As required by the Application
 - e. Type of drive Diesel engine or Electric
 - 3. The by-pass system shall be of sufficient capacity to handle existing flows plus additional flows that may occur during a rain event. As a minimum, the bypass system shall have a capacity equivalent to the flowing-full capacity of the largest sewer to be rehabilitated as part of this project. The bypass system shall be of sufficient capacity to handle these flows or the Contractor must stop work immediately during a rain event. The Contractor should make every effort to schedule work during dry weather conditions to avoid the need to bypass wet weather flows. If the sewer is part of the combined system the line shall not be inspected if rain is forecasted.

Full Flow Pipe Capacity			
Pipe Size (in.)	Minimum Slope (ft/ft)	Manning's n (ft)	Full Pipe Flow (MGD)
8	0.0040	0.013	0.50
10	0.0028	0.013	0.75



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

12	0.0022	0.013	1.08
15	0.0015	0.013	1.92
18	0.0012	0.013	2.15
24	0.0008	0.013	4.14

4. Pumping System Components:

- a. All pumps shall be centrifugal, end suction, fully automatic self-priming units that do not require the use of foot-valves, vacuum pumps, diaphragm pumps, or isolation valves or float apparatus in the priming system.
- b. Pump seals shall be high pressure, mechanical self-adjusting type with solid carbide faces capable of withstanding suction pressures to 100 psi without the pump running. The mechanical seal shall be cooled and lubricated in an oil bath reservoir, requiring no maintenance or adjustment. The oil bath reservoir shall not come in contact with or leak into the pumped water. Each pump shall be capable of running dry, with no damage for extended periods of time. All pump seal metal parts shall be stainless steel. All elastomers shall be Viton.
- c. Each pump shall be driven by a diesel engine or electric motor. Diesel engine shall be water cooled. If the Contractor uses electric motor driven pumps, power costs are the responsibility of the Contractor.
- d. If using diesel driven pumps, each pump and diesel engine shall be skid mounted with integral fuel tank and skid lifting bracket.
- e. Provide automatic start/stop controls for the pumping system to automatically maintain system flow. Controls shall be contained in a local control panel with provision to manually operate each pump, provide indication of pump operation, and indicate the total flow being pumped.
- f. Provide all required suction and discharge pipe and fittings, discharge manifold pipe and fittings, shutoff valves, check valves, flow meter, pressure regulating valves, insulation, freeze protection, and all required accessories. All pipe and fittings shall be high density polyethylene pipe with fused joints. All joints must be 100 percent restrained. Suction piping shall be rated for 25-in Hg vacuum. Discharge piping, fittings, connections, valves, and other discharge piping accessories shall be rated for a minimum working pressure of 150 psi.
- g. Pumps shall not be connected by a common suction manifold. The use of PVC or steel pipe with couplings will not be accepted. All pipe or hose will be rated for 25-inch Hg vacuum.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Wet Weather Preparedness/Emergency Plan: Develop plan prior to initiating bypass flow operations. Plan to include but not limited to:
 1. Communications plan identifying key Contractor and Owner personnel to be contacted in case of emergency.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

2. Tracking of weather forecasts to identify potential rain events that could substantially increase flows. Contractor shall not setup bypass plugs and pumps if substantial rain events are anticipated for the duration of the bypass system being active.
3. Observations/reporting of sewer flow elevations.
4. Ongoing plan identifying actions to be taken if the bypass system must be taken offline.
5. Additional spare parts for pumps and backup equipment not on site available on short notice.
6. Identification of sewer lines that are receive sewage flow and stormwater flow in order to avoid lining combined pipes during upcoming rain events.

3.2 INSTALLATION

- A. Installation shall be in accordance with the system supplier's recommendations and approved shop drawing submittals.
- B. Install pumping units on a firm level surface.
- C. Furnish the services of the pump system supplier's representative for a minimum of one day per temporary bypass system to assist equipment installation and physical checkout.
- D. Plugging or blocking of sewer flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed, it is to be removed in a manner that permits sewer flow to slowly return to normal without surge, to prevent surcharging downstream. Plugging or bulkheading downstream sewers shall also be performed where necessary to prevent sewage flow from backing up into the work area.
- E. Air vents / air release valves on the bypass piping shall be configured to prevent any wastewater discharge.
- F. When working inside manholes or sewer lines, the Contractor shall comply with OSHA requirements, with the exception that a depth of 4-ft defines a confined space, in lieu of 5-ft, when working in the presence of sewer gases, combustible or oxygen-deficient atmosphere, and confined spaces.
- G. Absorbent mats and booms shall be installed around the flow bypass pump locations.
- H. Odor control mitigation measures shall be taken to prevent release of odors from the suction and discharge manhole and temporary flow diversion system. A minimum 2-inch thick plywood collar with foam rubber seal shall be placed around the suction hose(s) and discharge pipe(s) to prevent odors from escaping from the manholes.
- I. Safety enclosures/fencing or barriers shall be provided at pumping equipment, suction and discharge manholes.
- J. Bypass pumping piping shall be located off streets and sidewalks in gutters, at the back edges of sidewalks or on shoulders of the roads. When the bypass piping crosses streets and driveways, the pipe provided must have adequate strength to withstand traffic loading. Lay bypass piping in a shallow trench in roadway easements covered with temporary surfacing or place the bypass pipelines in bump ramps approved by the Owner. Contractor shall ensure that the transition for bump ramps do not cause any damage to passing vehicles.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

- K. Provide lighting and barriers for pedestrian and vehicular safety.

3.3 FIELD QUALITY CONTROL

- A. Provide field in accordance with the approved shop drawing submittal. Field tests shall demonstrate conformance with system requirements.
- B. Test.
1. Perform leakage and pressure testing of the bypass pumping discharge piping before it is used for bypass sewerage pumping.
 - a. Pressure Test
 - 1) Perform successful hydrostatic testing of temporary bypass piping system using clean water at a pressure equal to 1.2 times the highest expected system operating pressure for a minimum of 15 minutes while maintaining test pressure within 3.0 psi of required test pressure.
 - 2) Owner or his representative will witness hydrostatic tests.
 - 3) Hydrostatic test criteria for acceptance: No leakage.
 - b. Leakage Test
 - 1) The leakage test shall be conducted concurrently with the pressure test.
 - 2) All exposed piping shall be examined during the test. If any leaks, defective material or joints are detected, they shall be repaired or replaced, and the test shall be repeated at no additional cost to the Owner prior to renewing use for bypass sewerage pumping.
 - 3) No leakage of any kind will be permitted.
 - 4) At the completion of the test, the pressure shall be released at the furthest point from the point of application.
 2. The Contractor shall require that field testing be conducted by the pump system supplier's representative in the presence of the Owner or his representative. Furnish the services of the pump system supplier's representative for a minimum of one day per temporary bypass system to conduct required testing.
- C. Remove and replace any system component that fails to perform in accordance with specified requirements.
- D. Physically inspect bypass pumping systems on at least an hourly basis during operation to determine that the systems are working correctly.
- E. All leakage from flow bypass piping shall be immediately reported to the onsite inspector and the City of Providence. Spills shall be eliminated and cleaned up at no additional cost to the Owner.



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

3.4 SYSTEM OPERATION

- A. Perform all required maintenance on the equipment to maintain the system integrity and capacity as specified.
- B. Provide clean-up and disposal of contaminated material and reporting for all product spills.
- C. Maintain flow around the work area to prevent surcharging of and damage to pipes, protect public and private property from damage and flooding, wetlands and other natural resources.
- D. Coordinate location of bypass piping with Owner, City of Providence, property owners and others, as required and in compliance with all permits and established agreements.

3.5 EQUIPMENT REMOVAL

- A. At the completion of the period of service, disconnect all temporary piping and remove all system components from the site. Restore the work site to its original condition.
- B. Flush out pump and all piping with potable water prior to disassembling system. Sewage and related debris shall not be released onto surface features.
- C. Contractor shall get potable water from hydrant using a backflow preventer with meter.

END OF SECTION 331210



CITY OF PROVIDENCE 2023 SEWER SYSTEM EVALUATION

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**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT E

**City of Providence
Standard Details**

CITY OF PROVIDENCE - STANDARD DETAILS

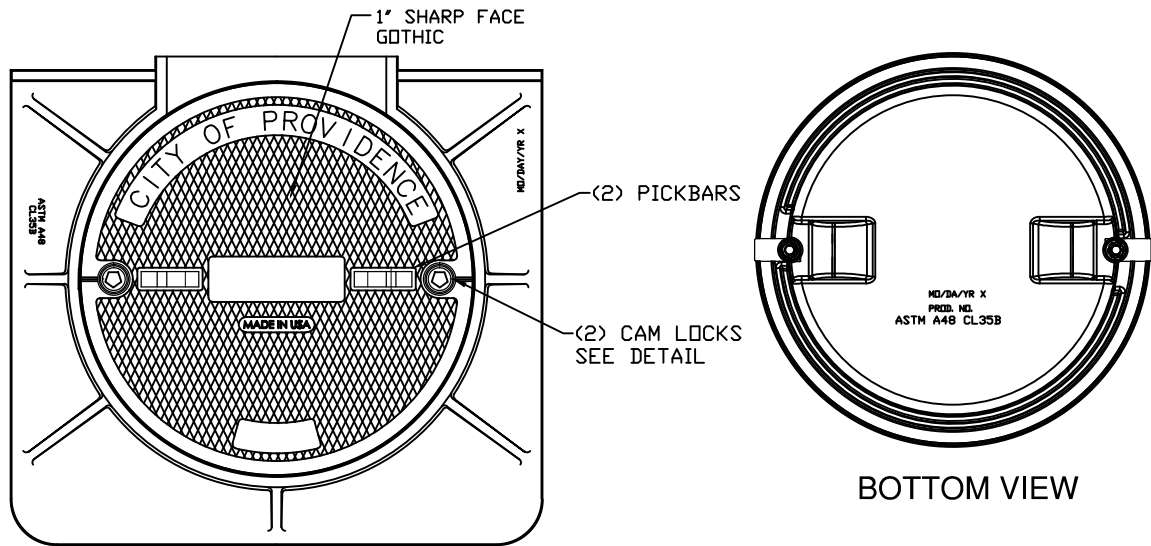
INDEX

<u>Detail No.</u>	<u>Issue Date</u>	<u>Title</u>
6.1.1 P	1/6/17	Sidewalk Manhole Frame and Cover
6.1.2 P	1/6/17	Chute Frame and Cover
6.2.1 P	1/6/17	Heavy Duty Manhole Frame and Cover - 24 Inch
6.2.2 P	1/6/17	Heavy Duty Manhole Frame and Cover - 32 Inch
6.3.0 P	1/6/17	Standard Capacity Grate
6.3.3 P	1/6/17	High Capacity Grate
6.3.4 P	1/6/17	High Capacity Grate and Three Flange Frame
6.3.5 P	1/6/17	High Capacity Grate and Four Flange Frame
6.3.6 P	1/6/17	Rectangular Frame and Grate
7.3.0 P	1/6/17	Granite Curb – Straight and Circular
7.3.3 P	1/6/17	Granite Wheelchair Ramp Transition Curb
7.3.4 P	1/6/17	Granite 2'-0" Radius Curb Return
7.3.5 P	1/6/17	Granite Inlet Stone - 30" Opening
7.3.6 P	1/6/17	Granite Inlet Stone – 24" Opening
7.3.7 P	1/6/17	Granite Apron Stone – 24" Opening
7.3.8 P	1/6/17	Granite Apron Stone – 30" Opening
7.3.9 P	1/6/17	Granite Ramp Stone
7.6.0 P	1/6/17	Curb Setting Detail
43.1.0 P	1/6/17	Cement Concrete Sidewalk
43.1.1 P	1/6/17	Sidewalk Removal Detail
43.3.0	1/6/17	Wheelchair Ramp (RIDOT Standard)

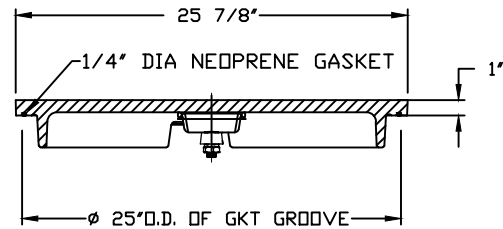
43.3.1	1/6/17	Wheelchair Ramp for Limited Right-of-Way Areas (RIDOT Standard)
43.3.2	1/6/17	Ramp-Landing for Narrow Sidewalk (RIDOT Standard)
48.1.0	1/6/17	Detectable Warning Panel Placement (RIDOT Standard)
43.5.0 P	rev. 10/6/17	Cement Concrete Driveways
60.1.0 P	1/6/17	Temporary Roadway Restoration
60.2.1 P	1/6/17	Permanent Roadway Restoration – Granular Base
60.2.2 P	1/6/17	Permanent Roadway Restoration – Concrete Base
60.2.3 P	8/8/17	Cobblestone Restoration – Granular Base
60.4.0 P	1/6/17	Inlet/Apron Stone Reveal

Details appearing in this document have been adopted as City of Providence Standard. Refer to Rhode Island Department of Transportation (RIDOT) for all other standard details:

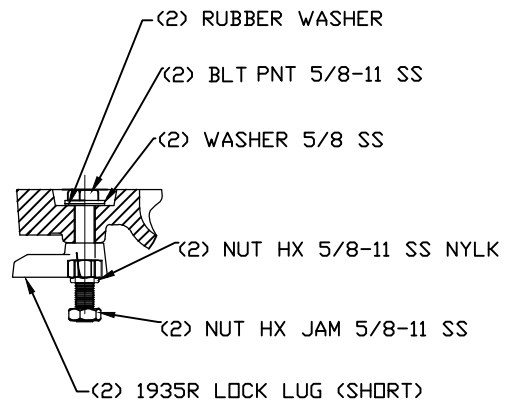
http://www.dot.ri.gov/documents/doingbusiness/RIDOT_Std_Details.pdf



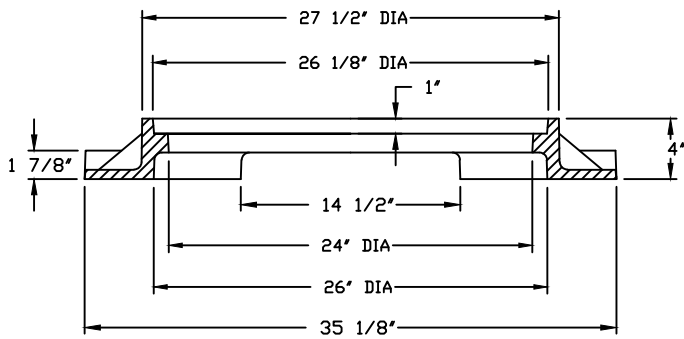
BOTTOM VIEW



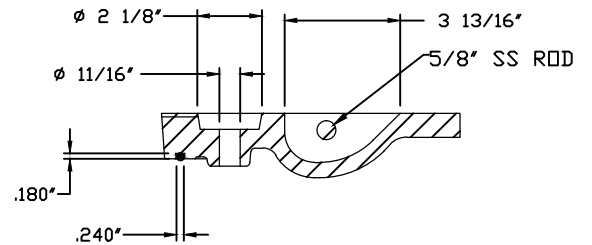
SECTION VIEW



LOCK LUG ASSEMBLY



SECTION



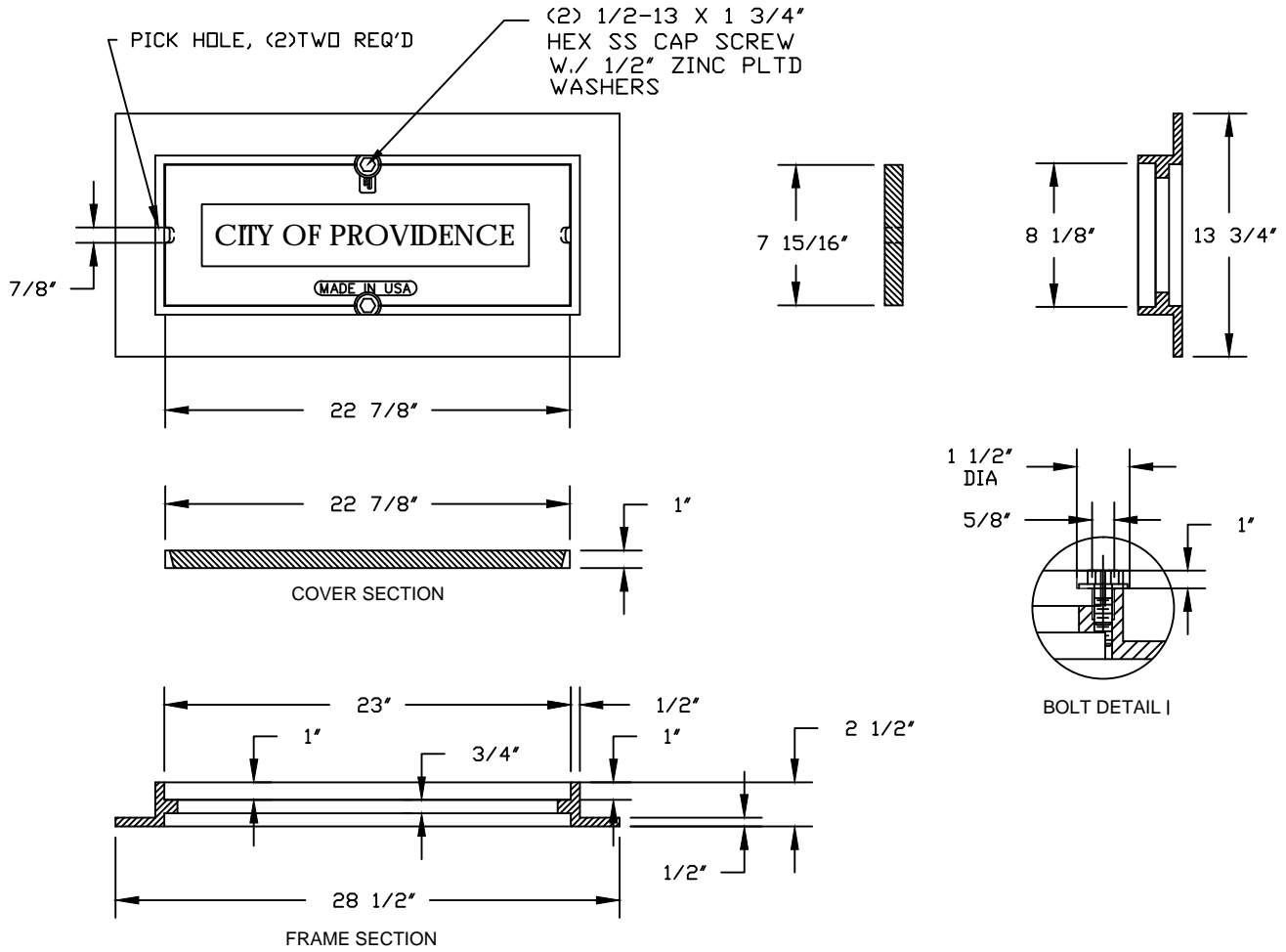
PICKBAR & LOCKLUG HOLE DETAIL

NOTES:

1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
2. ALL MATERIALS SHALL BE GRAY IRON AND SHALL BE ASTM A48 CERTIFIED.
3. SHALL BE EJ PRODUCT 1040081A02 OR APPROVED EQUAL.

SIDEWALK MANHOLE FRAME AND COVER



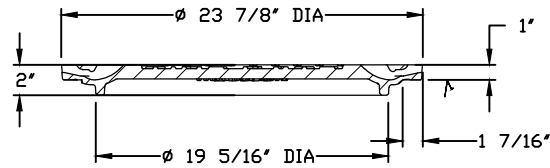
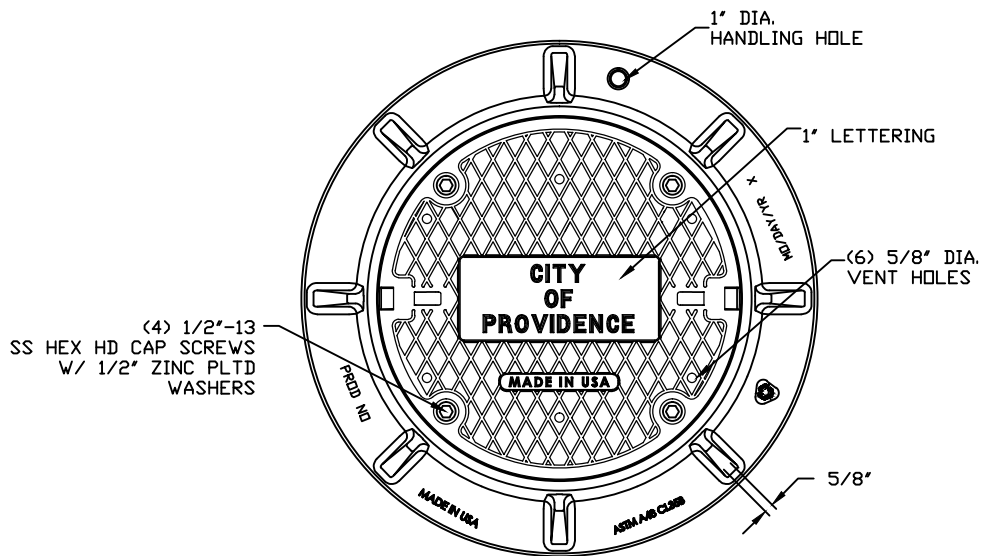


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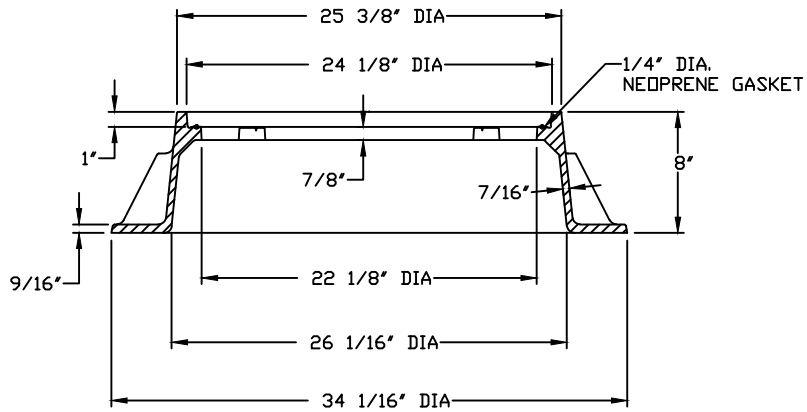
1. Materials shall conform to Section M.04 of the Rhode Island Standard Specifications.
2. All materials shall be gray iron and shall be ASTM A48 certified.
3. Shall be EJ Product 801144B01 or approved equal.

CHUTE FRAME AND COVER

6.1.2 P
PROVIDENCE
STANDARD



COVER SECTION



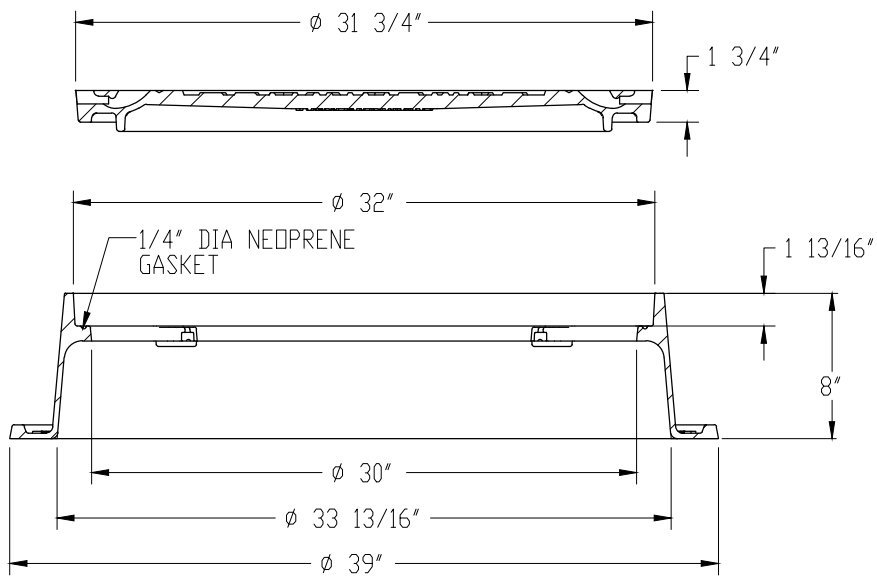
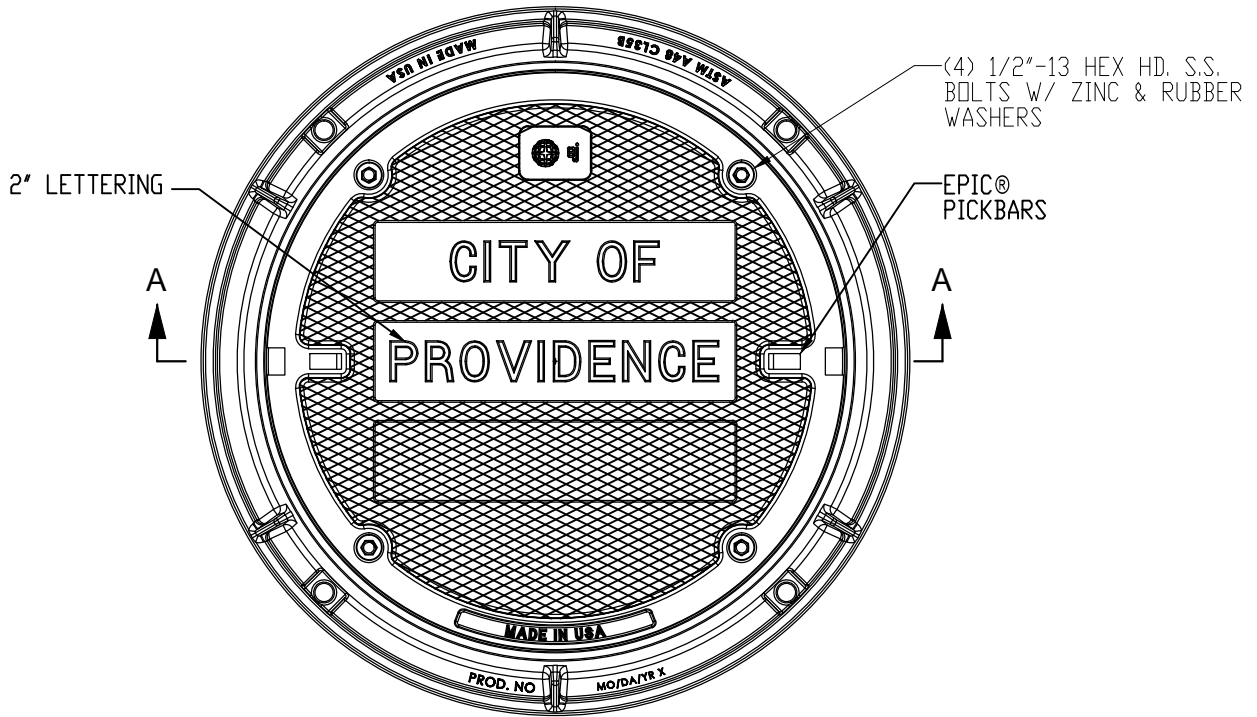
FRAME SECTION

NOTES:

1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
2. THE MATERIALS SHALL BE GRAY IRON AND SHALL BE ASTM A48 CERTIFIED.
3. SHALL BE EJ PRODUCT 240834B01 OR APPROVED EQUAL.

HEAVY DUTY MANHOLE FRAME AND COVER-24 INCH





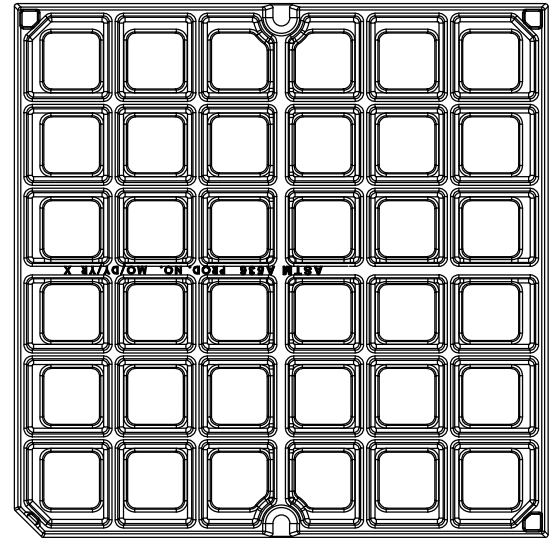
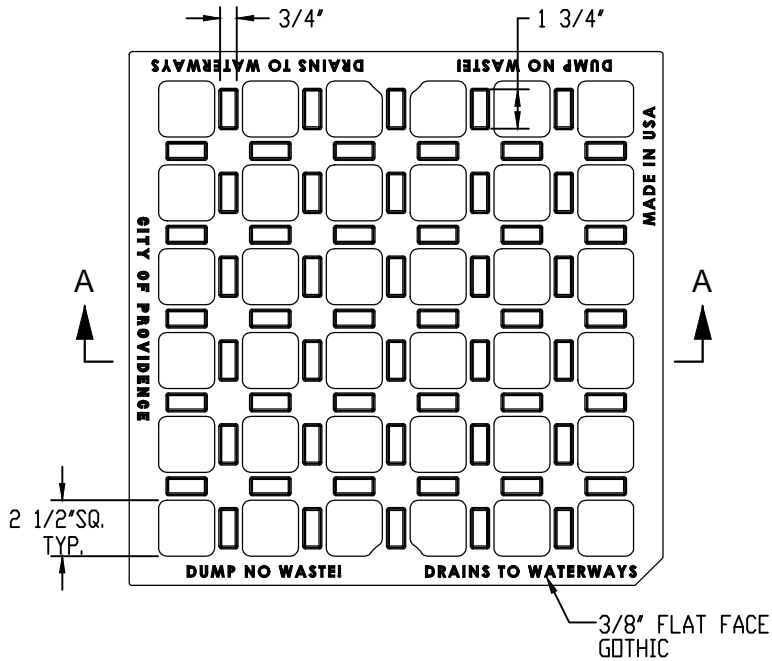
SECTION A-A

Notes:

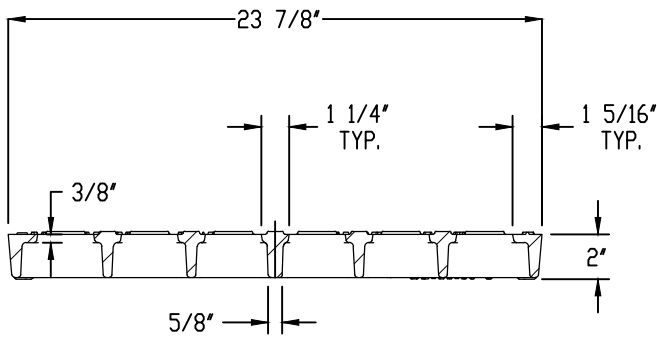
1. Materials shall conform to Section M.04 of the Rhode Island Standard Specifications.
2. All materials shall be gray iron and shall be ASTM A48 certified.
3. Shall be EJ Product 200694W03 or approved equal.

HEAVY DUTY MANHOLE FRAME AND COVER-32 INCH





BOTTOM VIEW

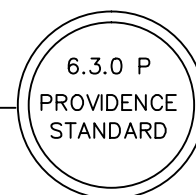


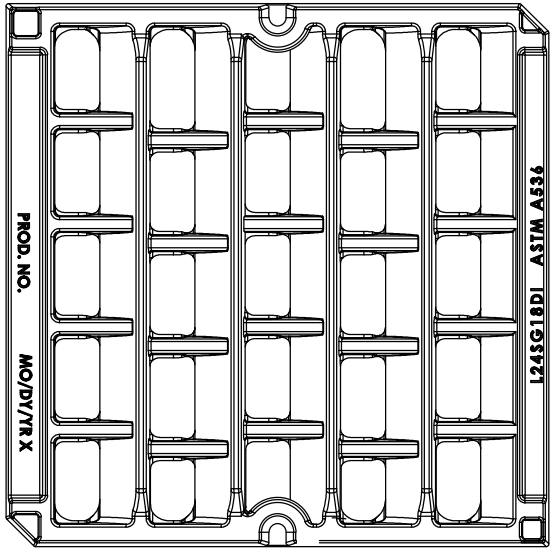
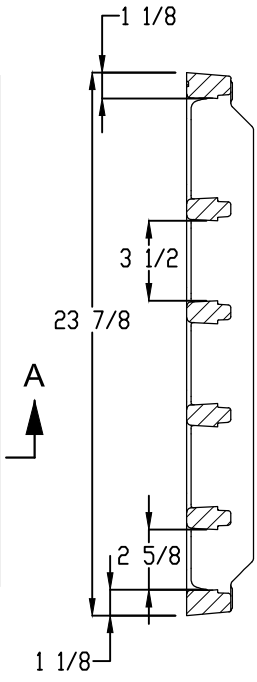
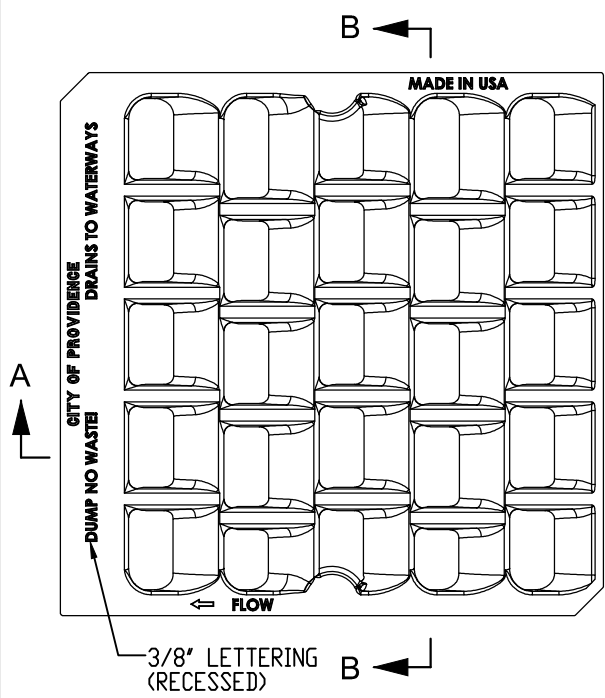
SECTION A-A

NOTES:

1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
2. THE GRATE MATERIAL SHALL BE DUCTILE IRON. MATERIALS SHALL BE ASTM A536 CERTIFIED.
3. OPEN AREA OF GRATE SHALL BE EQUAL TO OR GREATER THAN 217 SQUARE INCHES.
4. SHALL BE EJ PRODUCT 5520002 OR APPROVED EQUAL.

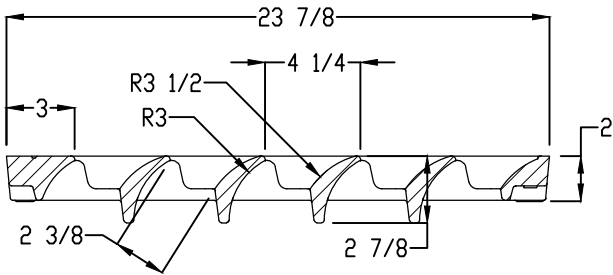
STANDARD CAPACITY GRATE





SECTION B-B

BOTTOM VIEW



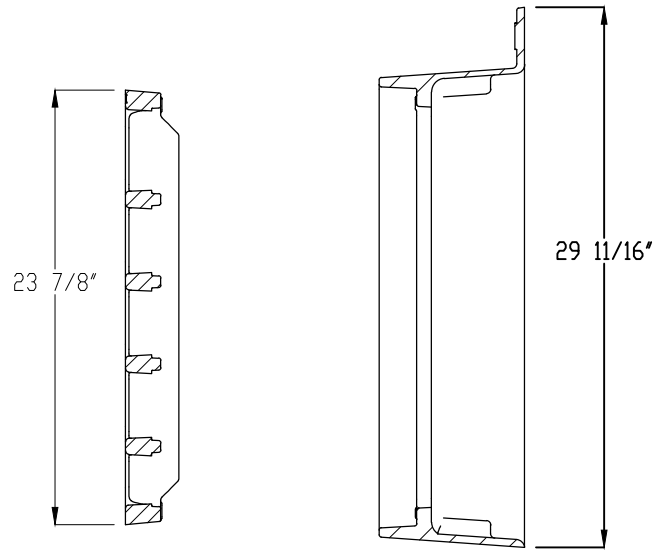
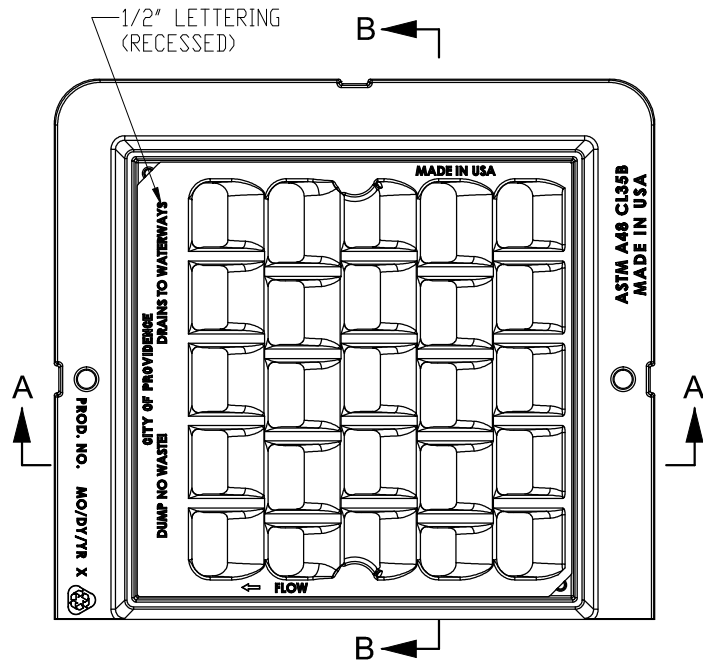
SECTION A-A

NOTES:

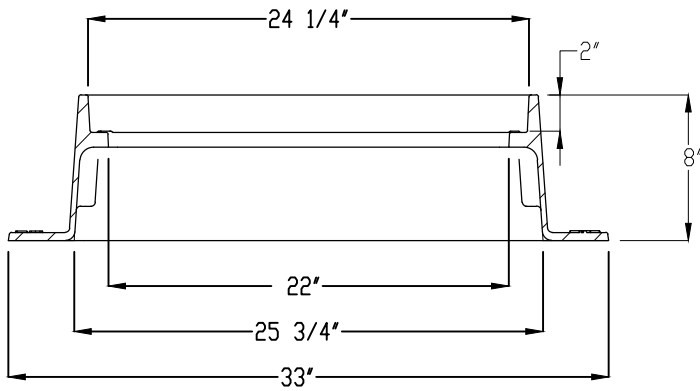
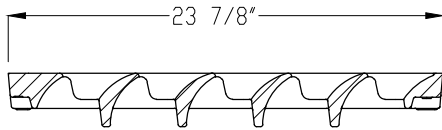
1. MATERIALS SHALL CONFORM TO SECTION M.04 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
2. THE GRATE MATERIAL SHALL BE DUCTILE IRON. MATERIALS SHALL BE ASTM A536 CERTIFIED.
3. OPEN AREA OF GRATE SHALL BE EQUAL TO OR GREATER THAN 325 SQUARE INCHES.
4. SHALL BE EJ PRODUCT 5520001 OR APPROVED EQUAL.

HIGH CAPACITY GRATE





SECTION B-B



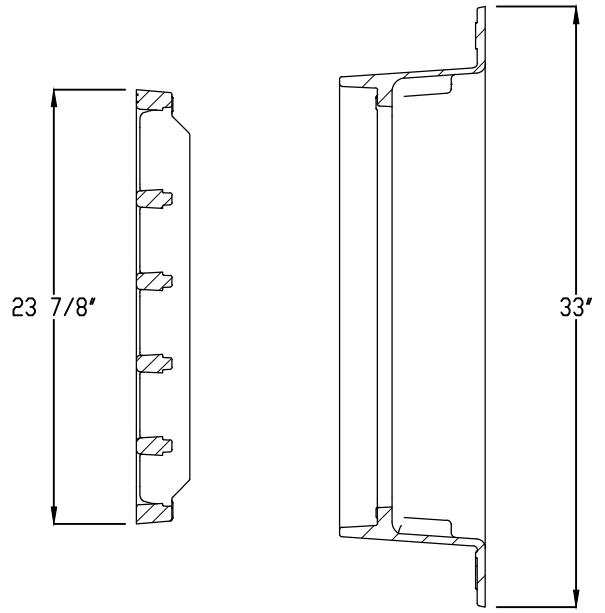
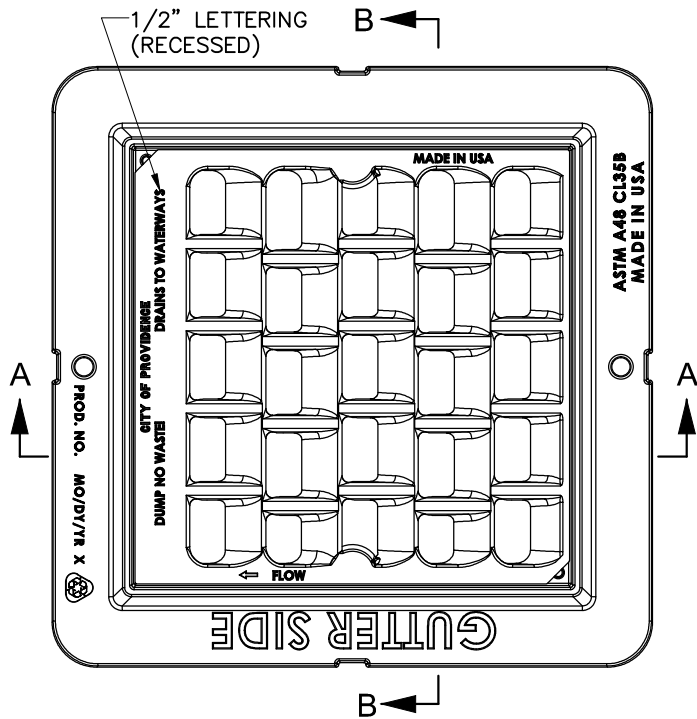
SECTION A-A

Notes:

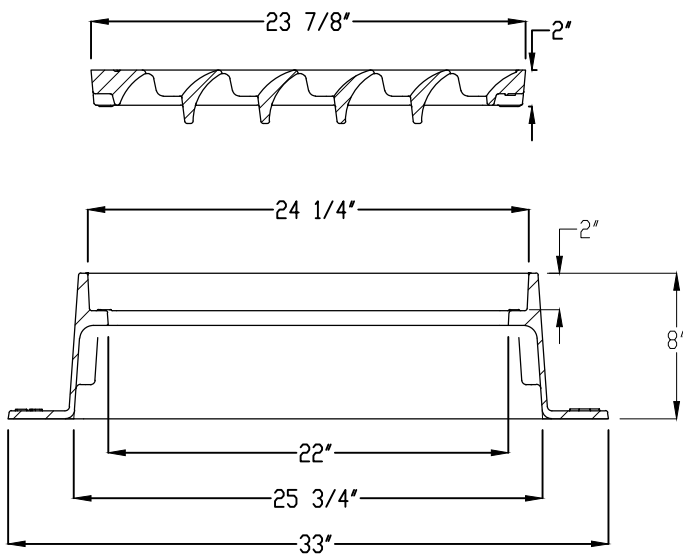
1. Materials shall conform to Section M.04 of the Rhode Island Standard Specifications.
2. The grate material shall be ductile iron and the frame material shall be grey iron. All materials shall be certified ASTM A536 and ASTM A48 respectively.
3. Open area of grate shall be equal to or greater than 325 square inches.
4. Shall be EJ Product 5520001C01 or approved equal.

HIGH CAPACITY GRATE AND THREE FLANGE FRAME

6.3.4 P
PROVIDENCE
STANDARD



SECTION B-B



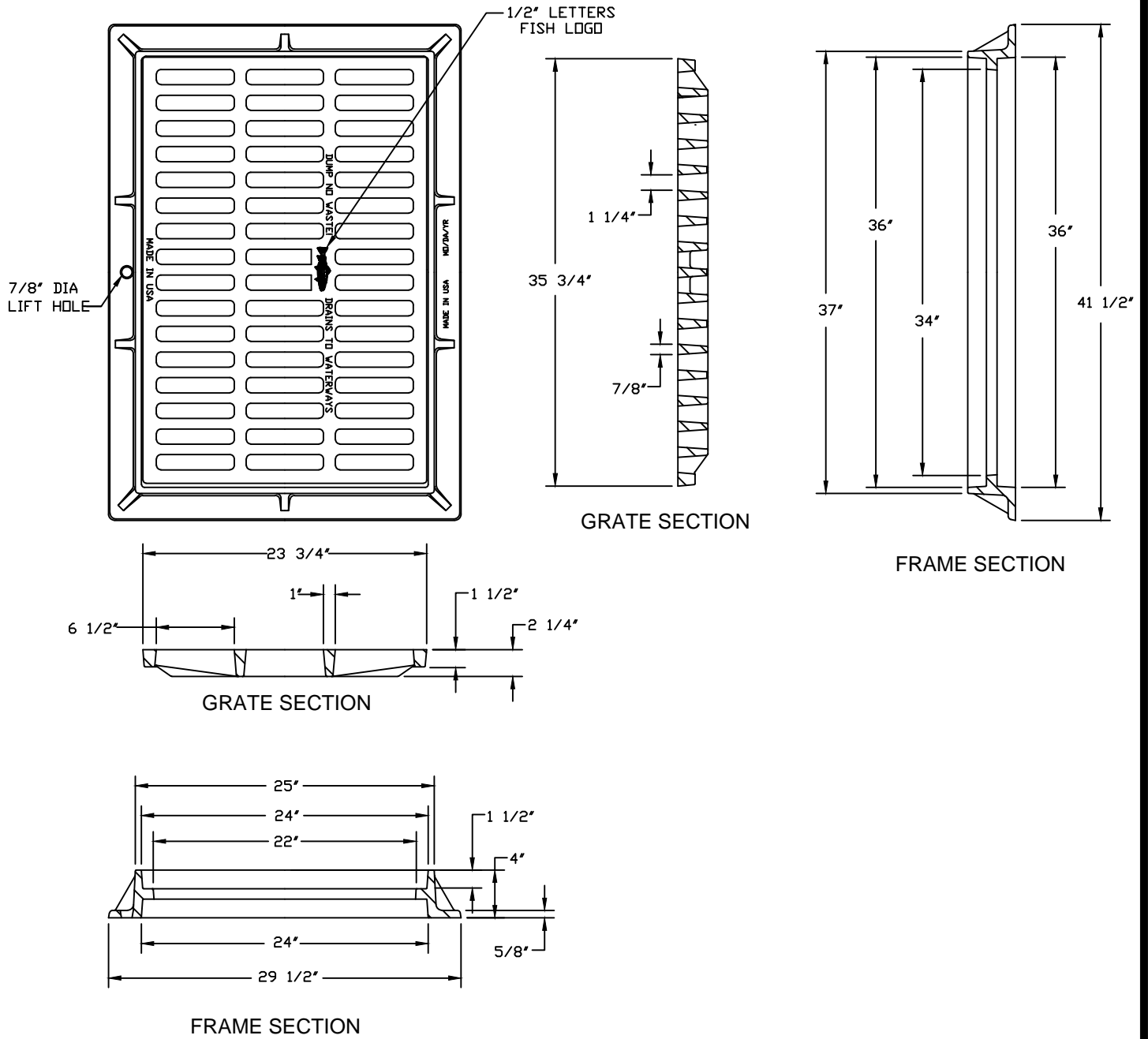
SECTION A-A

Notes:

1. Materials shall conform to Section M.04 of the Rhode Island Standard Specifications.
2. The grate material shall be ductile iron and the frame material shall be grey iron. All materials shall be certified ASTM A536 and ASTM A48 respectively.
3. Open area of grate shall be equal to or greater than 325 square inches.
4. Shall be EJ Product 5520001C02 or approved equal.

HIGH CAPACITY GRATE AND FOUR FLANGE FRAME

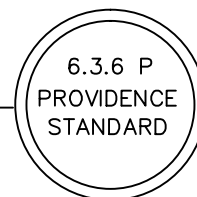
6.3.5 P
PROVIDENCE
STANDARD

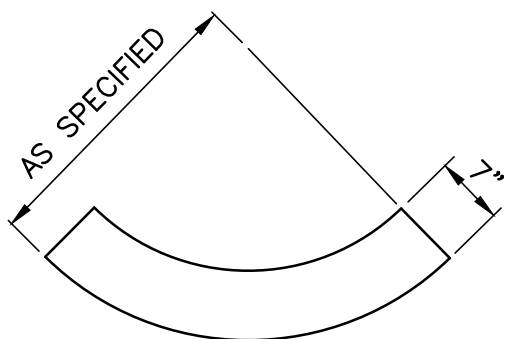
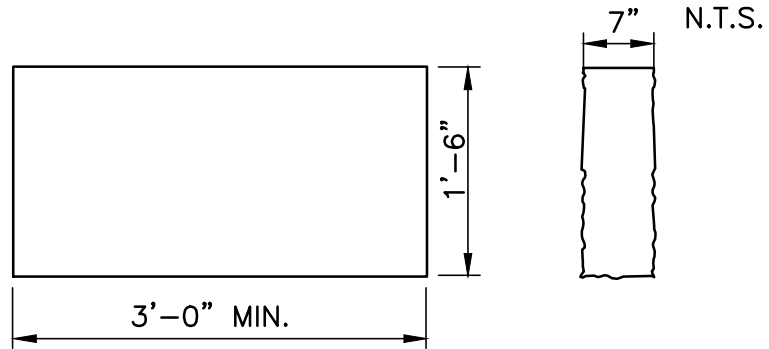


Notes:

1. Materials shall conform to Section M.04 of the Rhode Island Standard Specifications.
2. All materials shall be gray iron and shall be ASTM A48 certified.
3. Open area of grate shall be equal to or greater than 390 square inches.
4. Shall be EJ Product 45660040 or approved equal.

RECTANGULAR FRAME AND GRATE



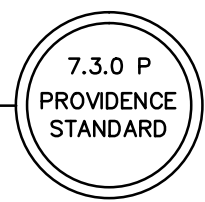


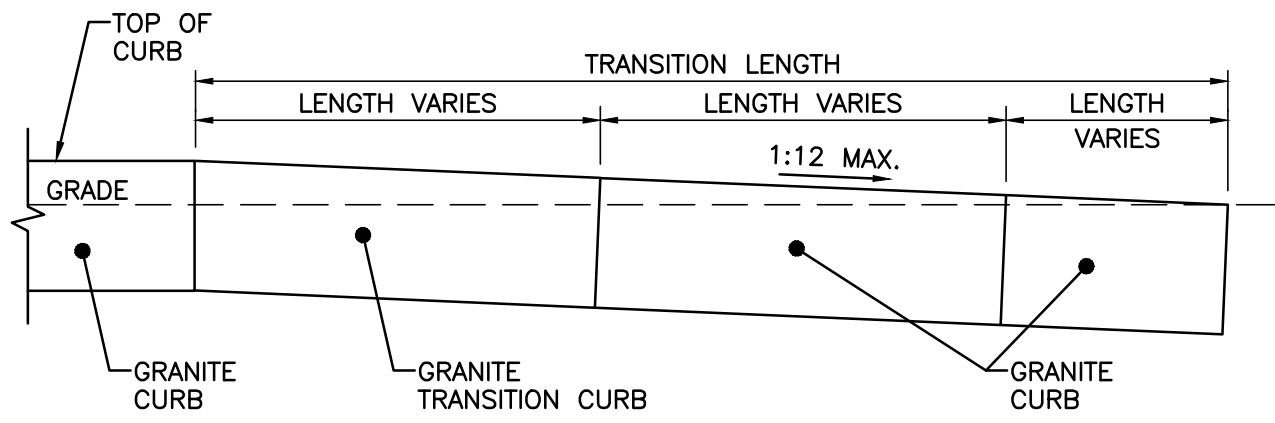
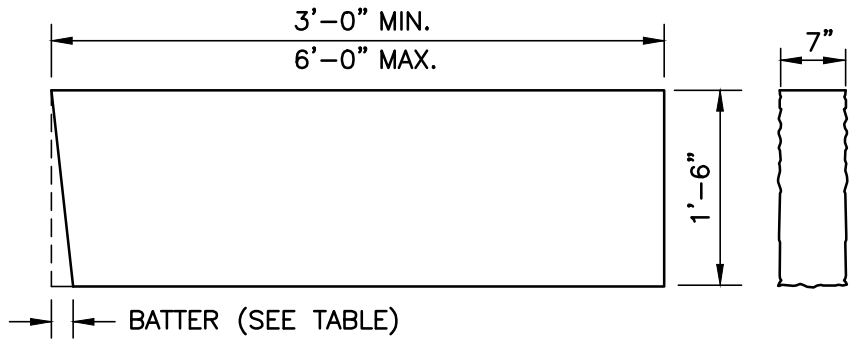
NOTE:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE RI STANDARD SPECIFICATIONS.
2. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER TO BE SAWCUT OR QUARRY SPLIT.
3. MINIMUM LENGTH OR CIRCULAR PIECES TO BE 3'-0".
4. CIRCULAR CURB IS REQUIRED ON CURVES AS INDICATED. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. CURB TO BE SET PER PROVIDENCE CURB SETTING DETAIL.

GRANITE CURB - STRAIGHT AND CIRCULAR

N.T.S.





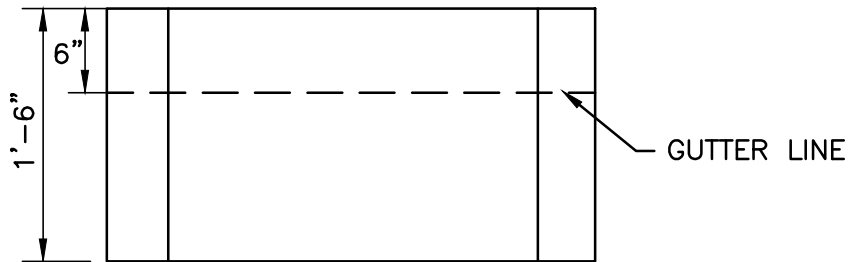
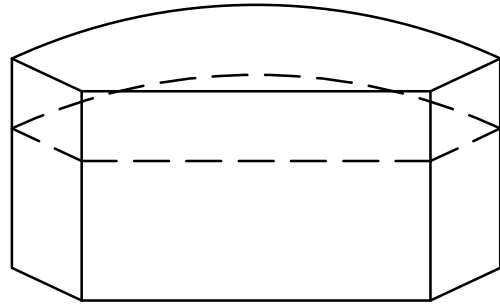
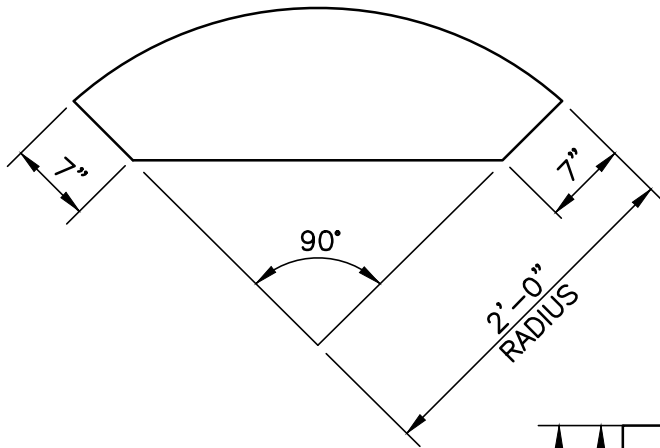
TRANSITION LENGTH (FT.)	BATTER (IN.)
6.0	1.5
7.0	1.3
8.0	1.2
9.5	1.0
11.5	0.8
15.0	0.6
18.0	0.5

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. THE CONTRACTOR MAY CUT EXISTING CURB SECTIONS AS REQUIRED TO MEET THIS DETAIL AND THE R.I. STANDARD SPECIFICATIONS, WHERE OLD CURBING IS BEING REUSED.
3. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR CURB FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
4. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER TO BE SAWCUT OR QUARRY SPLIT.
5. CURB TO BE SET PER PROVIDENCE CURB SETTING DETAIL.

**GRANITE WHEELCHAIR RAMP
TRANSITION CURB**

N.T.S.

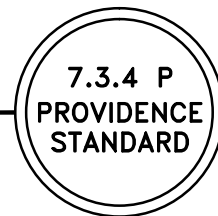


NOTES:

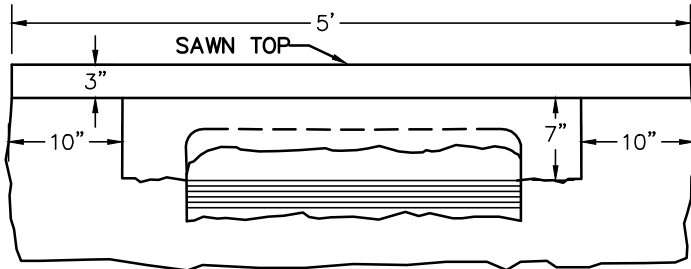
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER TO BE QUARRY SPLIT OR SAWCUT.

GRANITE 2'-0" RADIUS CURB RETURN

N.T.S.

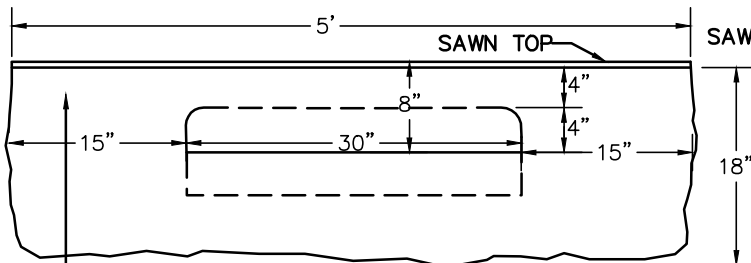


BACK SURFACE SHALL HAVE NO PROJECTIONS FOR A DISTANCE OF 3" DOWN FROM THE TOP UNLESS OTHERWISE SAWN

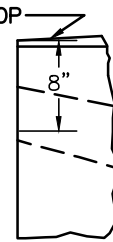


REAR VIEW
N.T.S.

QUARRY FACED WITH NO PORTIONS MORE THAN 1" ABOVE OR MORE THAN 1" BELOW A GENERAL PLANE, UNLESS OTHERWISE SAWN



FRONT VIEW
N.T.S.



END OF ALL STONES SHALL BE SQUARE AND SO FINISHED THAT WHEN STONES ARE SET NO SPACE MORE THAN 1/4" SHALL SHOW IN THE JOINT FOR THE FULL WIDTH OF THE TOP OR DOWN THE FACE FOR 9," UNLESS OTHERWISE SAWN

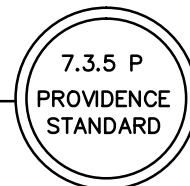
LOWER HALF OF ENDS MAY BE QUARRY FACED WITH NO PROJECTIONS BEYOND DEPRESSED PORTION AND NO DEPRESSION MORE THAN 1" DEEP

FRONT FACE SHALL BE AT RIGHT ANGLES TO THE PLANE OF THE TOP AND SHALL BE SMOOTH QUARRY SPLIT, UNLESS OTHERWISE SAWN

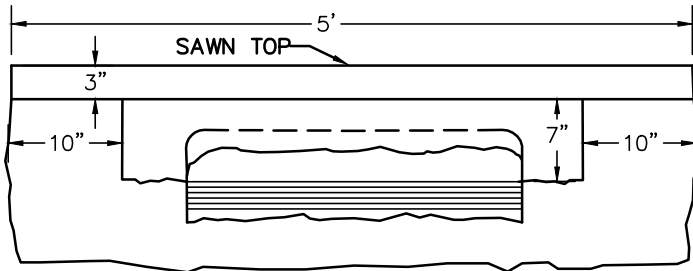
FRONT FACE SHALL HAVE NO PROJECTION GREATER THAN 3/4" OR DEPRESSION GREATER THAN 1/2" FOR A DISTANCE DOWN FROM THE TOP OF 9", UNLESS OTHERWISE SAWN

GRANITE INLET STONE - 30" OPENING

N.T.S.

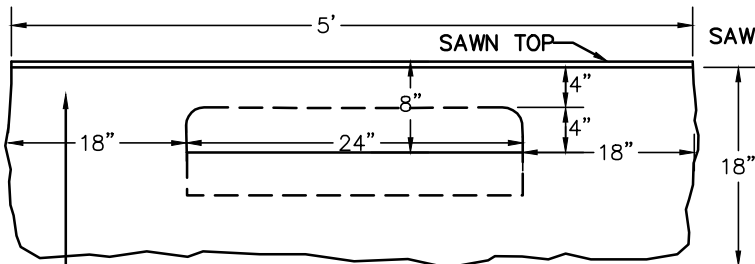


BACK SURFACE SHALL HAVE NO PROJECTIONS FOR A DISTANCE OF 3" DOWN FROM THE TOP UNLESS OTHERWISE SAWN



REAR VIEW
N.T.S.

QUARRY FACED WITH NO PORTIONS MORE THAN 1" ABOVE OR MORE THAN 1" BELOW A GENERAL PLANE, UNLESS OTHERWISE SAWN



FRONT VIEW
N.T.S.



END OF ALL STONES SHALL BE SQUARE AND SO FINISHED THAT WHEN STONES ARE SET NO SPACE MORE THAN 1/4" SHALL SHOW IN THE JOINT FOR THE FULL WIDTH OF THE TOP OR DOWN THE FACE FOR 9," UNLESS OTHERWISE SAWN

LOWER HALF OF ENDS MAY BE QUARRY FACED WITH NO PROJECTIONS BEYOND DEPRESSED PORTION AND NO DEPRESSION MORE THAN 1" DEEP

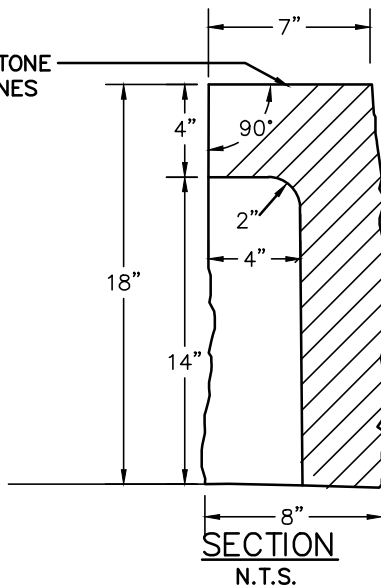
FRONT FACE SHALL BE AT RIGHT ANGLES TO THE PLANE OF THE TOP AND SHALL BE SMOOTH QUARRY SPLIT, UNLESS OTHERWISE SAWN

FRONT FACE SHALL HAVE NO PROJECTION GREATER THAN 3/4" OR DEPRESSION GREATER THAN 1/2" FOR A DISTANCE DOWN FROM THE TOP OF 9", UNLESS OTHERWISE SAWN

GRANITE INLET STONE - 24" OPENING
N.T.S.

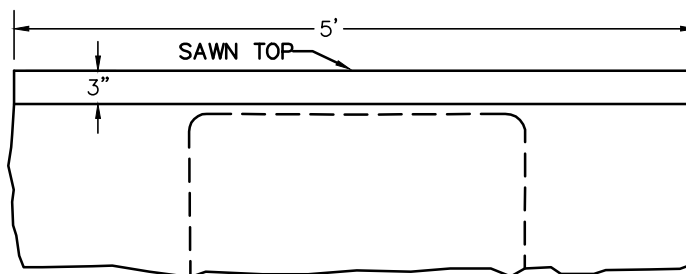


TOP SURFACE OF APRON OR REGULAR INLET STONE SHALL BE SAWN TO APPROXIMATELY TRUE PLANES TOP SURFACE SHALL HAVE NO PROJECTION OR DEPRESSION GRATER THAN 1/8".

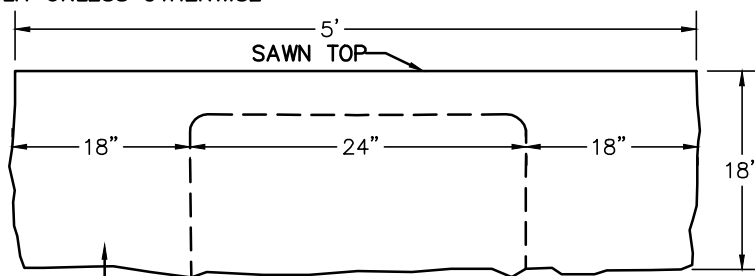


END OF ALL STONES SHALL BE SQUARE AND SO FINISHED THAT WHEN STONES ARE SET NO SPACE MORE THAN 1/4" SHALL SHOW IN THE JOINT FOR THE FULL WIDTH OF THE TOP OR DOWN THE FACE FOR 9"

QUARRY FACED WITH NO PORTIONS MORE THAN 1" ABOVE OR MORE THAN 1" BELOW A GENERAL PLANE, UNLESS OTHERWISE SAWN



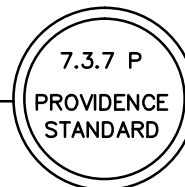
FRONT FACE SHALL BE AT RIGHT ANGLES TO THE PLANE OF THE TOP AND SHALL BE SMOOTH QUARRYSPLIT UNLESS OTHERWISE SAWN



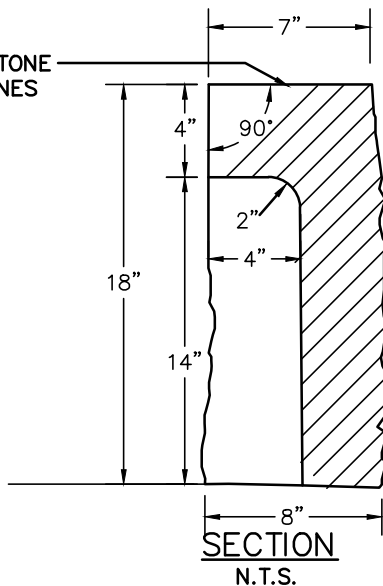
LOWER HALF OF ENDS MAY BE QUARRY FACED WITH NO PROJECTIONS BEYOND DEPRESSED PORTION AND NO DEPRESSION MORE THAN 1" DEEP

FRONT FACE SHALL HAVE NO PROJECTION GREATER THAN 3/4" OR DEPRESSION GREATER THAN 1/2" FOR A DISTANCE DOWN FROM THE TOP OF 9" UNLESS OTHERWISE SAWN

GRANITE APRON STONE - 24" OPENING
N.T.S.

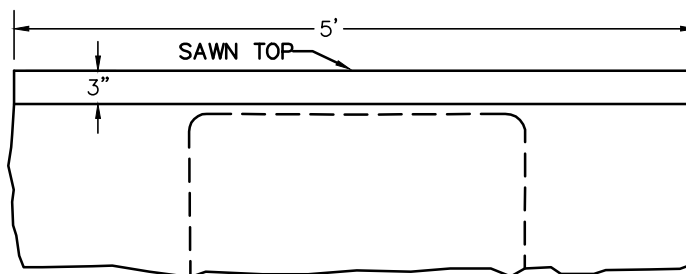


TOP SURFACE OF APRON OR REGULAR INLET STONE SHALL BE SAWN TO APPROXIMATELY TRUE PLANES TOP SURFACE SHALL HAVE NO PROJECTION OR DEPRESSION GRATER THAN 1/8".



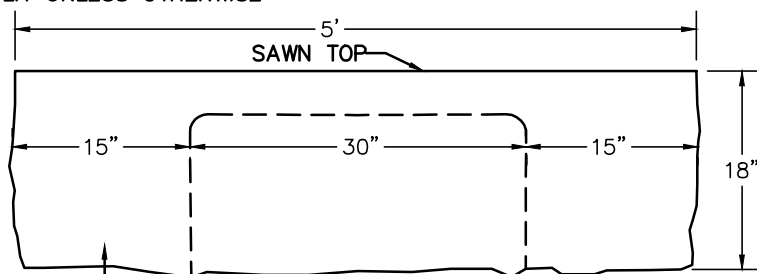
END OF ALL STONES SHALL BE SQUARE AND SO FINISHED THAT WHEN STONES ARE SET NO SPACE MORE THAN 1/4" SHALL SHOW IN THE JOINT FOR THE FULL WIDTH OF THE TOP OR DOWN THE FACE FOR 9"

QUARRY FACED WITH NO PORTIONS MORE THAN 1" ABOVE OR MORE THAN 1" BELOW A GENERAL PLANE, UNLESS OTHERWISE SAWN



FRONT FACE SHALL BE AT RIGHT ANGLES TO THE PLANE OF THE TOP AND SHALL BE SMOOTH QUARRYSPLIT UNLESS OTHERWISE SAWN

REAR VIEW
N.T.S.

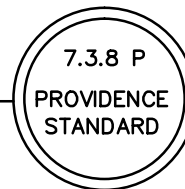


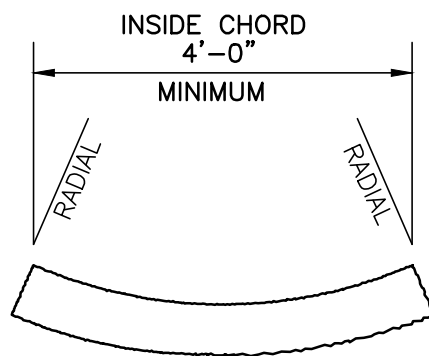
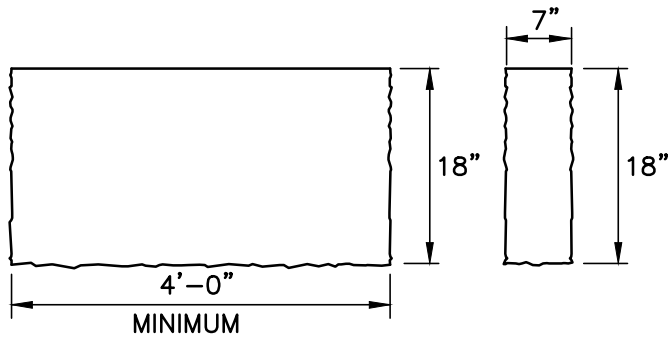
FRONT VIEW
N.T.S.

LOWER HALF OF ENDS MAY BE QUARRY FACED WITH NO PROJECTIONS BEYOND DEPRESSED PORTION AND NO DEPRESSION MORE THAN 1" DEEP

FRONT FACE SHALL HAVE NO PROJECTION GREATER THAN 3/4" OR DEPRESSION GREATER THAN 1/2" FOR A DISTANCE DOWN FROM THE TOP OF 9" UNLESS OTHERWISE SAWN

GRANITE APRON STONE - 30" OPENING
N.T.S.



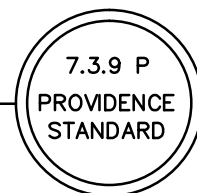


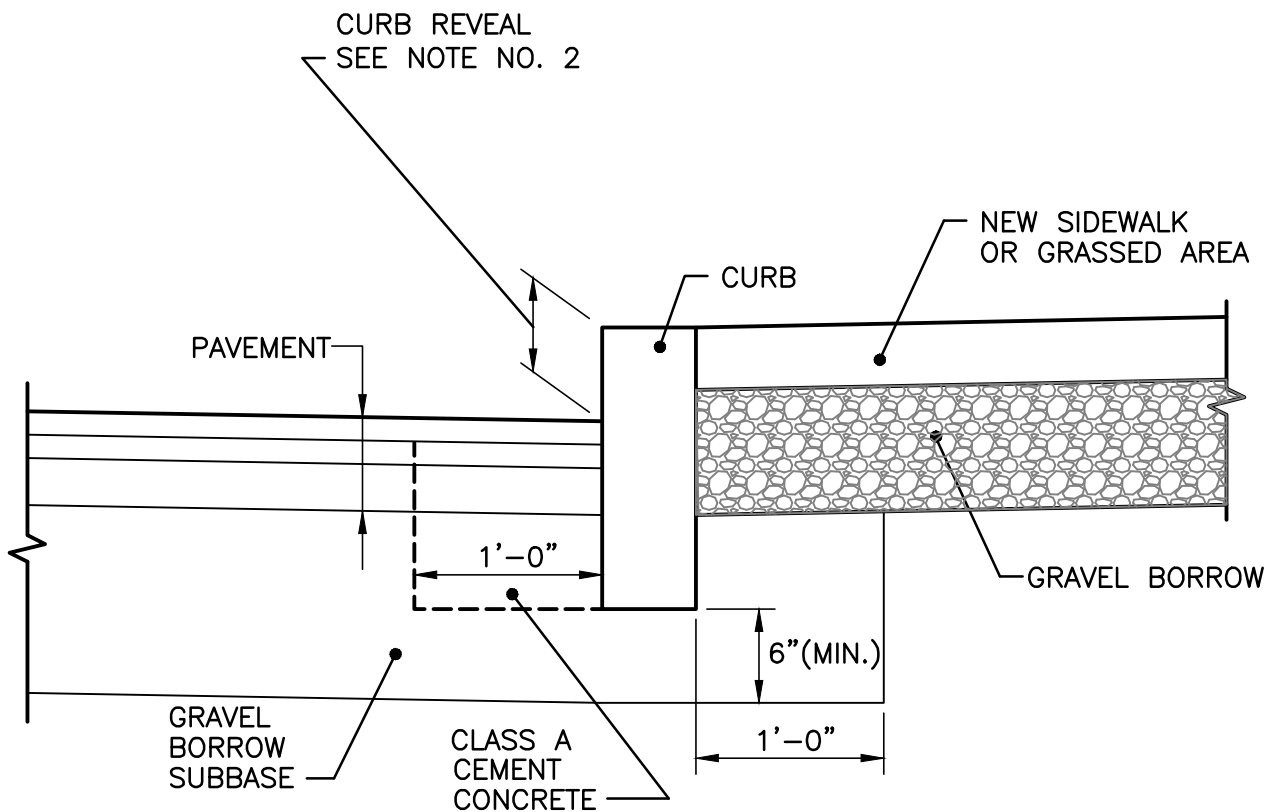
NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. TOP SURFACE TO BE DRESSED BY SAW TO PROVIDE NO-SLIP SURFACE; REMAINDER MAY BE QUARRY SPLIT.
3. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR CURB FILLER PIECES TO BE 4'-0"
4. CIRCULAR RAMP STONE IS REQUIRED ON CURVES AS INDICATED.
STRAIGHT RAMP STONE TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. RAMP STONE SHALL BE SET IN ACCORDANCE WITH PROVIDENCE CURB SETTING STANDARD.

GRANITE RAMP STONE

N.T.S.





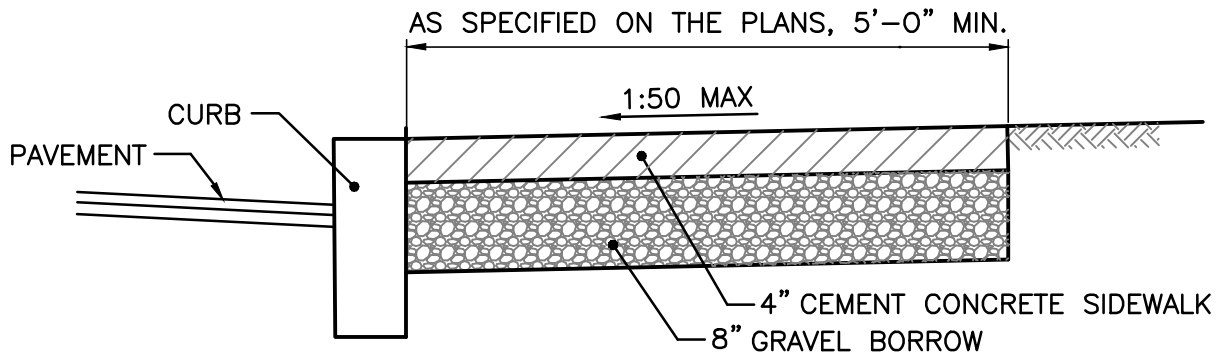
NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. NEW CURBING CONSTRUCTION SHALL BE SET AT A 6 INCH REVEAL OR AS INDICATED ON PLANS OR DIRECTED BY PROVIDENCE DPW. NEW CURBING INSTALLED ADJACENT TO EXISTING CURBING SHALL MATCH THE EXISTING REVEAL OR A MINIMUM OF 4 INCHES, WHICHEVER IS GREATER. IF ADJACENT EXISTING REVEAL IS LESS THAN 4 INCHES, THE FIRST SECTION OF NEW CURB SHALL TRANSITION TO 4" REVEAL,

CURB SETTING DETAIL

N.T.S.



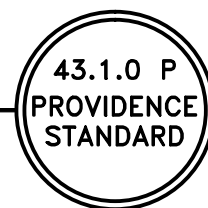


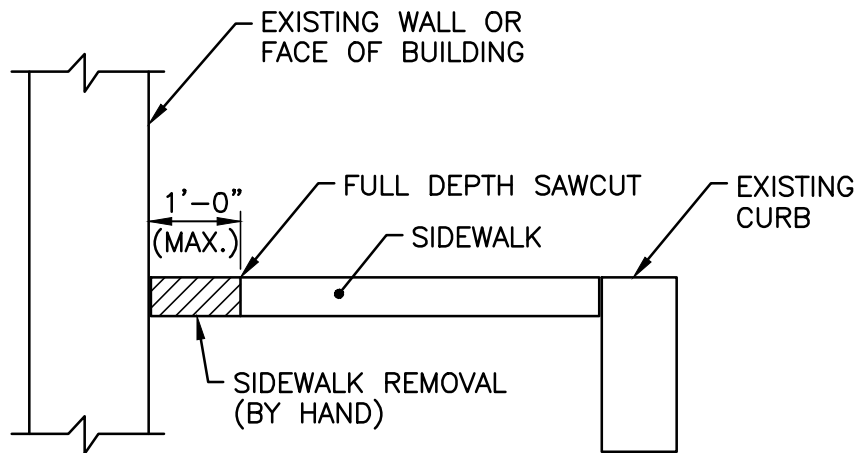
NOTES

1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. SEE CURB SETTING DETAIL WHERE APPLICABLE.
3. RUNNING SLOPE OF SIDEWALK SHALL NOT EXCEED 8.3% (1:12). TYPICALLY, RUNNING SLOPE SHALL MATCH ROAD SLOPE.
4. CROSS SLOPE OF SIDEWALK SHALL NOT EXCEED 2% (1:50).
5. SIDEWALK MAY BE SUBJECT TO GRASS STRIP INSTALLATION. CONSULT WITH DPW ENGINEERING
6. GRAVEL BORROW BASE SHALL COMPACT TO ACHIEVE SOIL DENSITY VALUES OF 95% MODIFIED PROCTOR DENSITY (AASHTO T180).
7. SIDEWALK REPAIRS TWENTY FEET OR LONGER ARE SUBJECT TO REQUIREMENTS HEREIN. SIDEWALK REPAIRS SHORTER THAN TWENTY FEET SHALL MAKE EVERY EFFORT TO MEET REQUIRED SLOPES.
8. CONTROLL JOINTS SHALL BE INSTALLED EVERY 5 FEET IN EACH DIRECTION.
9. EXPANSION JOINTS SHALL BE INSTALLED EVERY 20 FEET IN EACH DIRECTION AT FOUNDATIONS AND WALLS AND IN A SQUARE PATTERN AROUND MANHOLE COVERS, HYDRANTS, SIGN POSTS AND UTILITY POLES. THE EXPANSION JOINT SHALL BE THE FULL DEPTH OF THE SIDEWALK AND FILLED WITH AN APPROVED TYPE OF PREMOLDED EXPANSION JOINT FILLER.

CEMENT CONCRETE SIDEWALK

N.T.S.



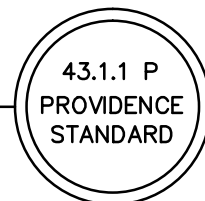


NOTES:

1. IN AREAS WHERE SIDEWALKS ARE TO BE REMOVED IN FRONT OF EXISTING WALLS OR BUILDINGS, THE CONTRACTOR SHALL SAWCUT ONE(1) FOOT (MAXIMUM) IN FRONT OF THE WALL/BUILDING AND REMOVE THE SIDEWALK STRUCTURE BY HAND.
2. IN THE EVENT THAT THE EXISTING SIDEWALK IS A STRUCTURAL ELEMENT OF THE WALL/BUILDING, THE EXISTING SIDEWALK IN FRONT OF THESE STRUCTURES WILL REMAIN IN-PLACE AND A NEW SIDEWALK CONSTRUCTED TO MATCH THE EXISTING SECTION.
3. ANY DAMAGE TO THE WALL OR BUILDING BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.

SIDEWALK REMOVAL DETAIL

N.T.S.





Issue Date: 1/6/17

Revised: 6/14/19

PROVIDENCE WHEELCHAIR RAMP STANDARDS

The City of Providence has adopted the Rhode Island Department of Transportation's (RIDOT) wheelchair ramp standards:

43.3.0 – Wheelchair Ramp

43.3.1 – Wheelchair Ramp for Limited Right-of-Way Areas

43.3.2 – Ramp-Landing for Narrow Sidewalk

48.1.0 – Detectable Warning Panel Placement

Please note:

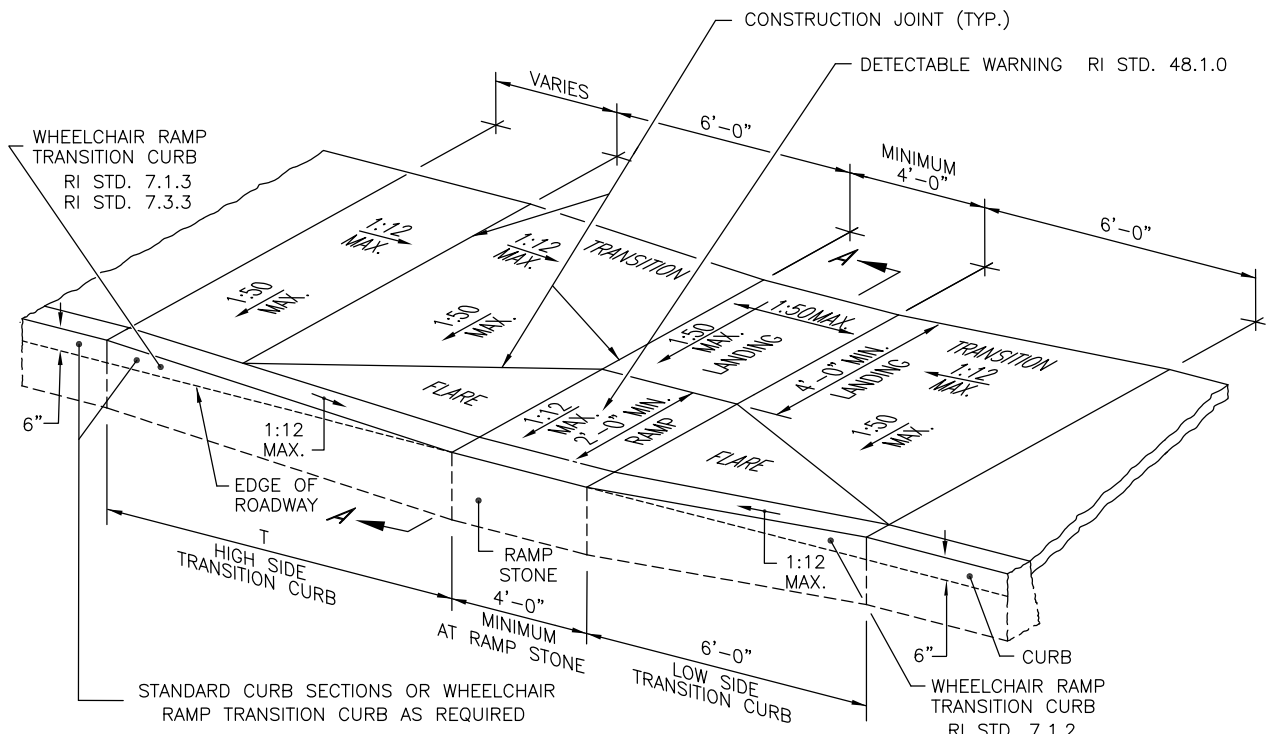
1. All sidewalks and wheelchair ramps shall be Portland cement concrete.
2. All references to curbing in the RIDOT standard details shall be Providence Standard 7" wide granite curb

DEPARTMENT OF PUBLIC WORKS

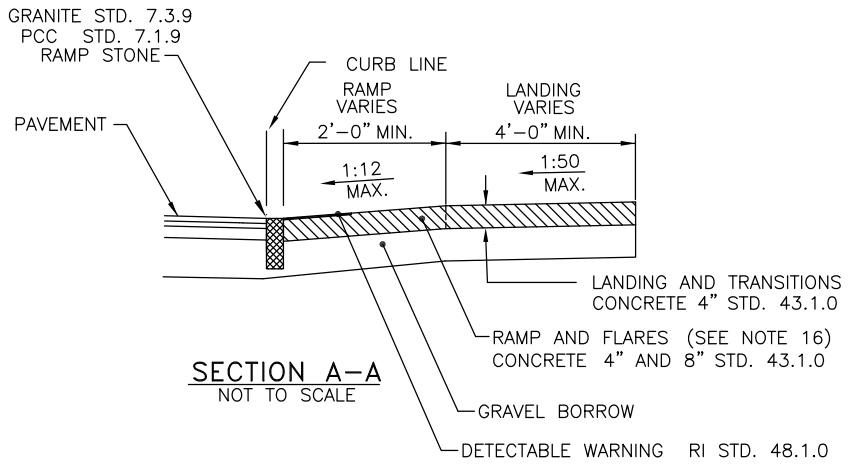
700 Allens Avenue Providence, Rhode Island 02905

401 467 7950 ph | 401 941 2567 fax

www.providenceri.com



ISOMETRIC VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0

NOTES:

- SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
- WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP SHALL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
- AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
- DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
- LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
- IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
- AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
- THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT BE STEEPER THAN 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
- WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
- IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
- THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
- THE WHEELCHAIR RAMP SHALL BE CENTERED RADIALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
- MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
- ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
- DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS
- 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

WHEELCHAIR RAMP

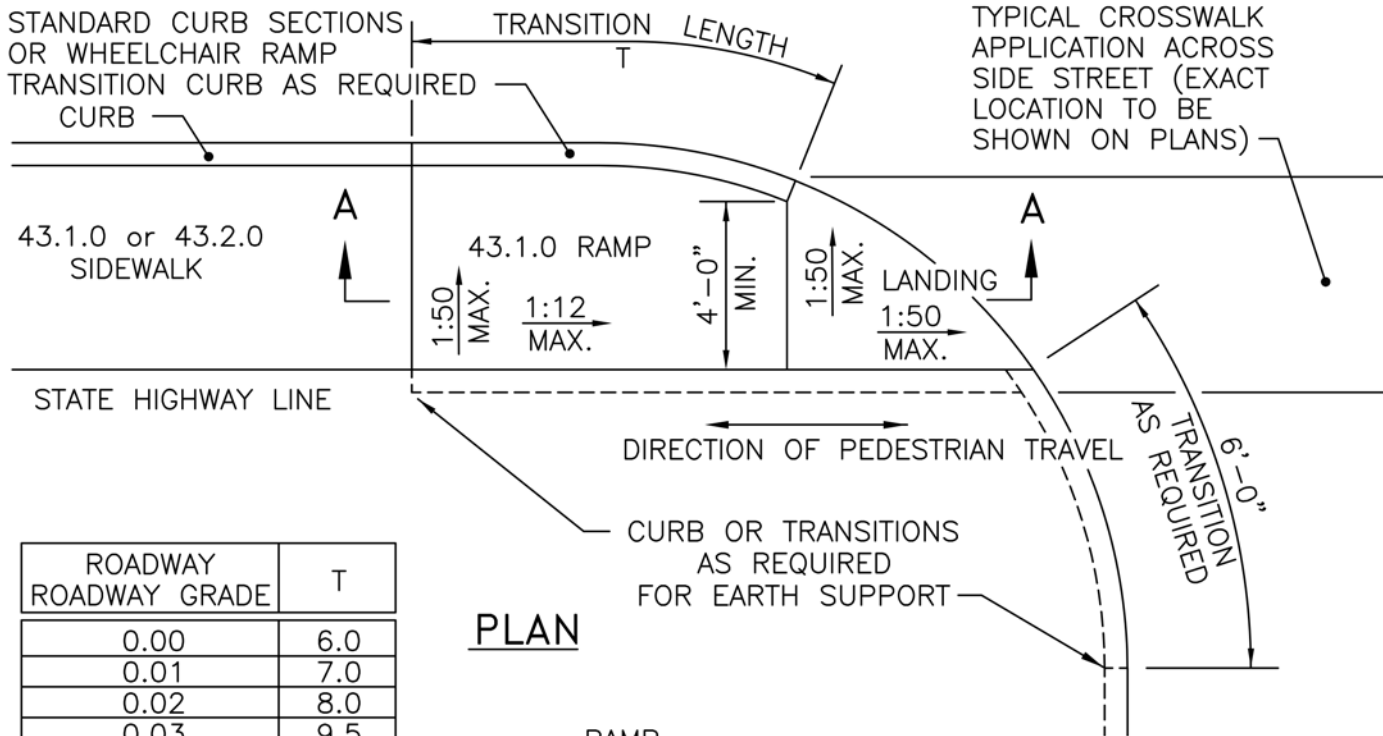
REVISIONS		
NO.	BY	DATE
1	MLP	Oct 2005
2	MLP	Jun 2008
3	MLP	Sep 2012

James A. Capaldi
CHIEF ENGINEER
TRANSPORTATION

Edward J. Parker
CHIEF DESIGN ENGINEER
TRANSPORTATION

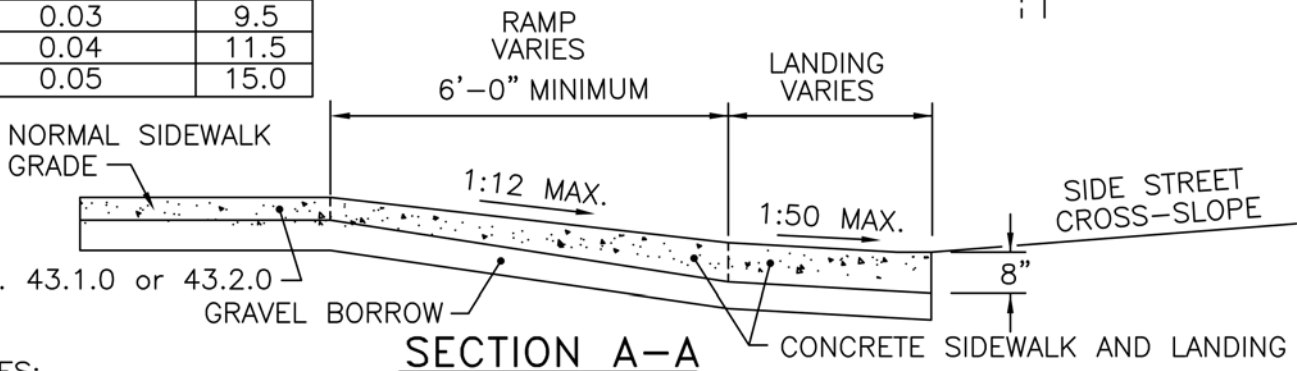
JUNE 15, 1998
ISSUE DATE





ROADWAY ROADWAY GRADE	T
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0

PLAN



SECTION A-A

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. THIS DETAIL IS TO BE USED ONLY WHEN STATE RIGHT-OF-WAY IS LIMITED TO BACK OF SIDEWALK, AND SIDEWALK IS NARROW WITH NO PEDESTRIAN TRAFFIC FROM SIDE STREET.
3. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, IF POSSIBLE, THE OBSTRUCTION SHALL BE PLACED SUCH THAT IT FALLS OUTSIDE OF THE RAMP.
4. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
5. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
6. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
7. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
8. WHERE THE ROAD PROFILE EXCEEDS 5% THE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
9. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
10. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
11. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS

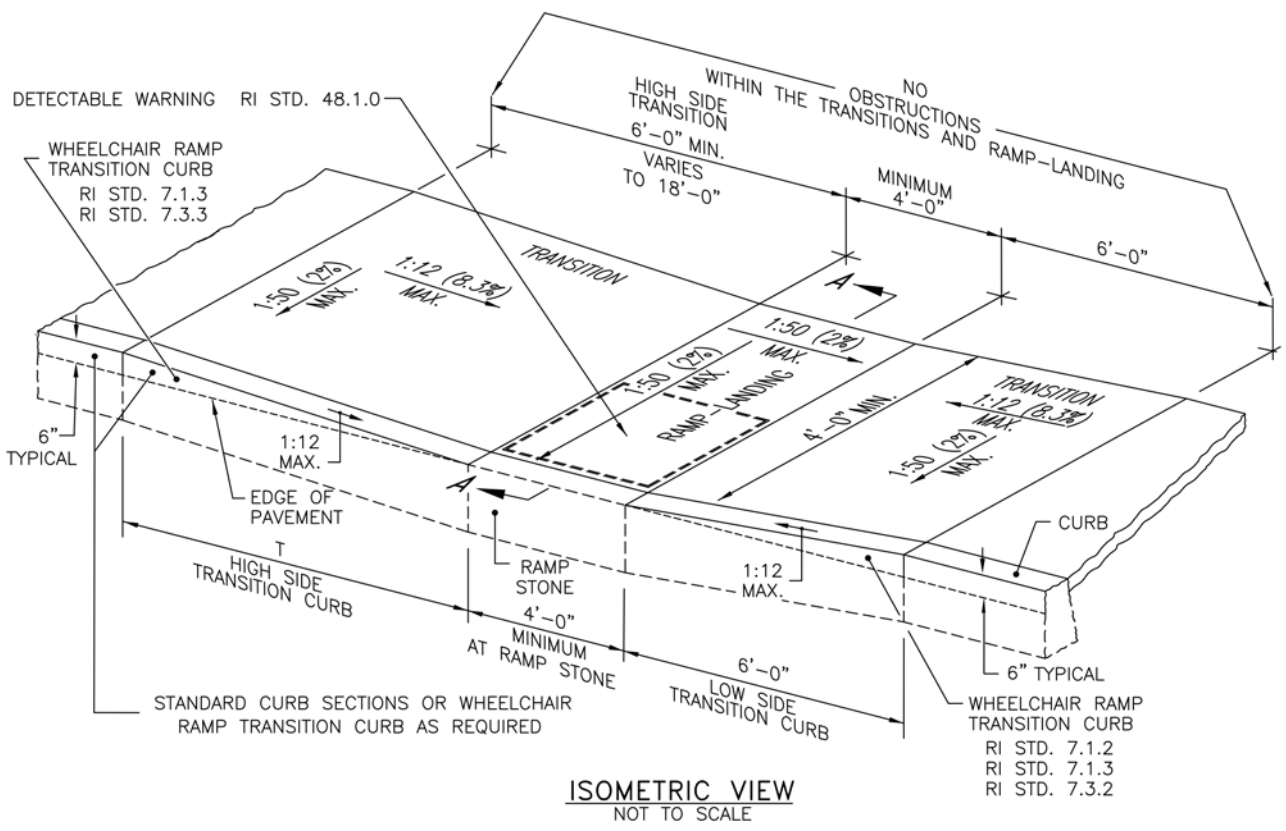
REVISIONS		
NO.	BY	DATE
1	MLP	Dec 2005
2	MLP	Sep 2012

James A. Casabadi
CHIEF ENGINEER
TRANSPORTATION

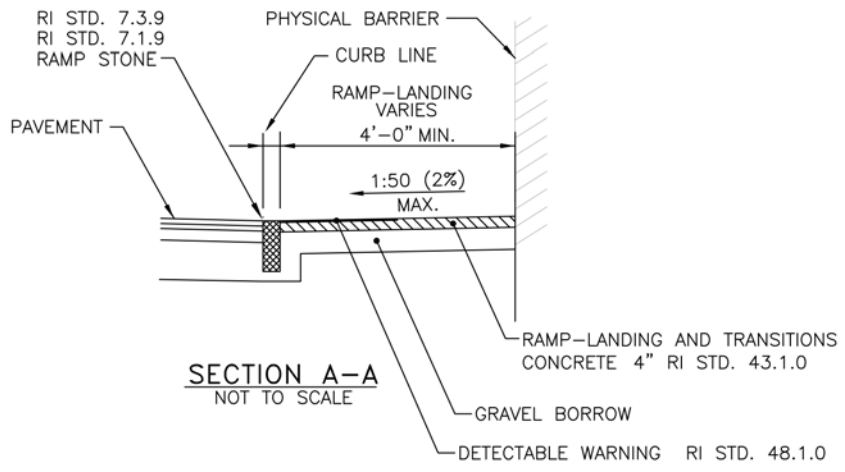
Edmund J. Parkes Jr.
CHIEF DESIGN ENGINEER
TRANSPORTATION

JUNE 15, 1998
ISSUE DATE





ISOMETRIC VIEW
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0
> 0.05	18.0

NOTES:

1. THIS DETAIL MAY BE USED WHEN A PHYSICAL BARRIER IS PRESENT AND THERE IS INSUFFICIENT ROOM TO PROPERLY CONSTRUCT AN ADA ACCESSIBLE RAMP AND LANDING; A TECHNICAL INFEASIBILITY FINDING IS REQUIRED.
2. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
3. THE RAMP-LANDING AND TRANSITIONS SHALL BE FREE OF OBSTRUCTIONS.
4. LOCATION OF THE RAMP-LANDING IS AS SHOWN ON CONTRACT DRAWINGS.
5. AN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PATH OF TRAVEL) WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
6. THE ENTRANCE OF THE RAMP-LANDING SHALL BE FLUSH WITH THE PAVEMENT.
7. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
8. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
9. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

RAMP-LANDING FOR NARROW SIDEWALK

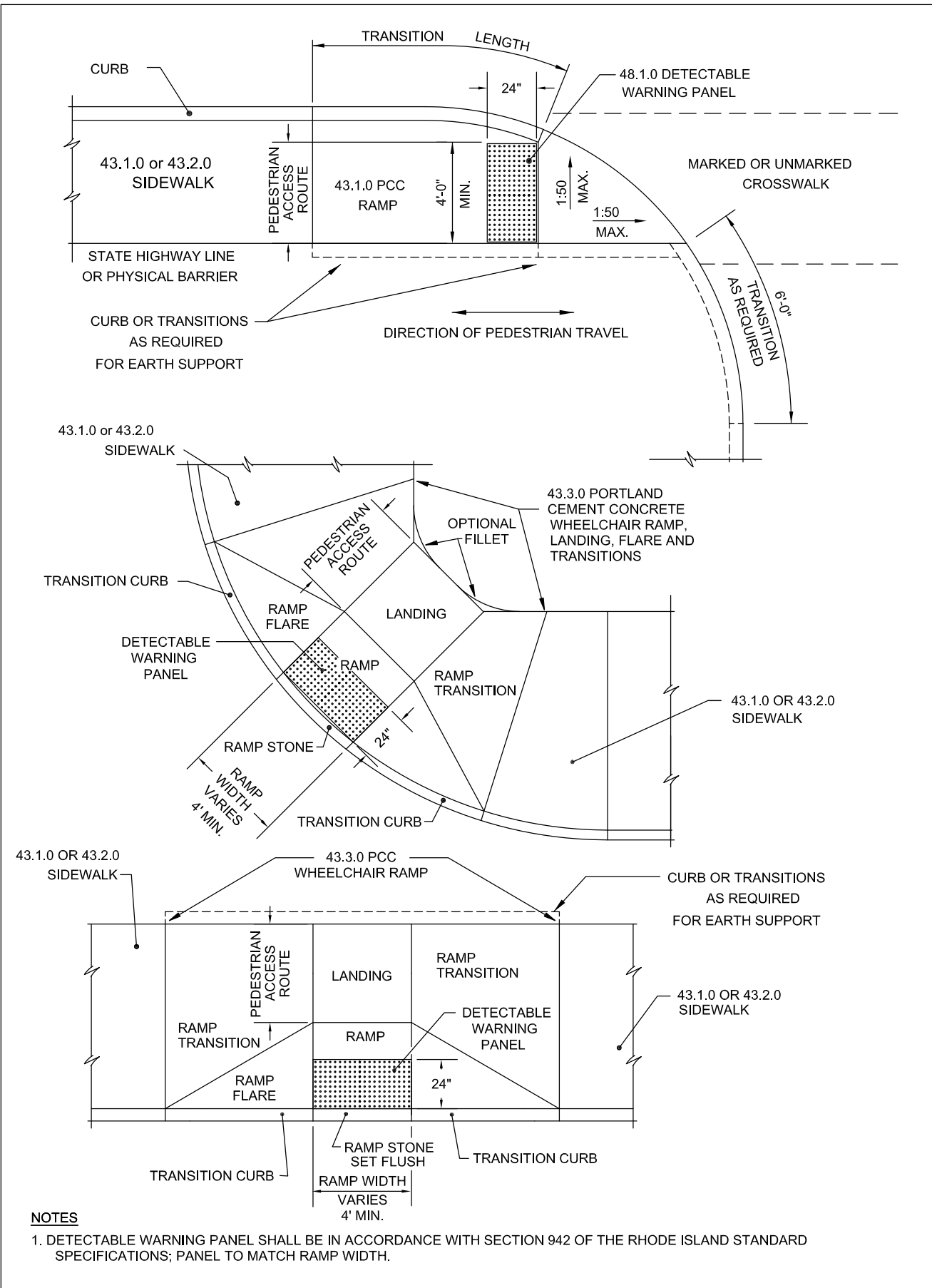
REVISIONS		
NO.	BY	DATE

Kay Folan
CHIEF ENGINEER
TRANSPORTATION

Nit D'Ala
CHIEF DESIGN ENGINEER
TRANSPORTATION

MARCH 31, 2015
ISSUE DATE





RHODE ISLAND DEPARTMENT OF TRANSPORTATION

DETECTABLE WARNING PANEL PLACEMENT

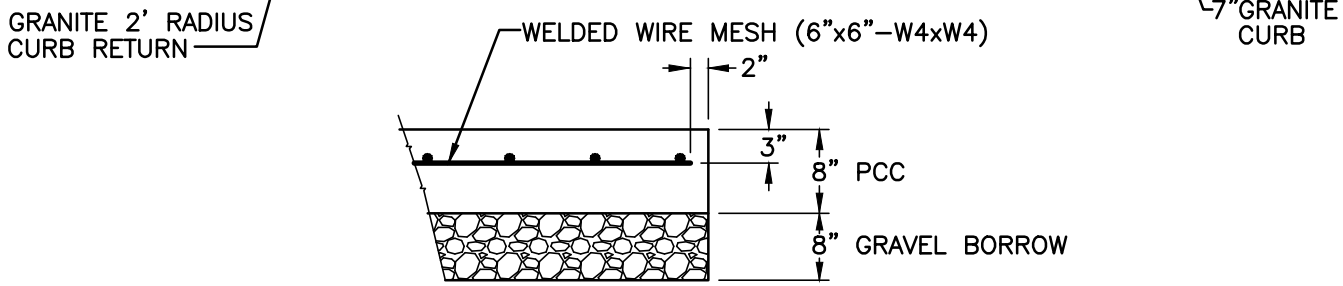
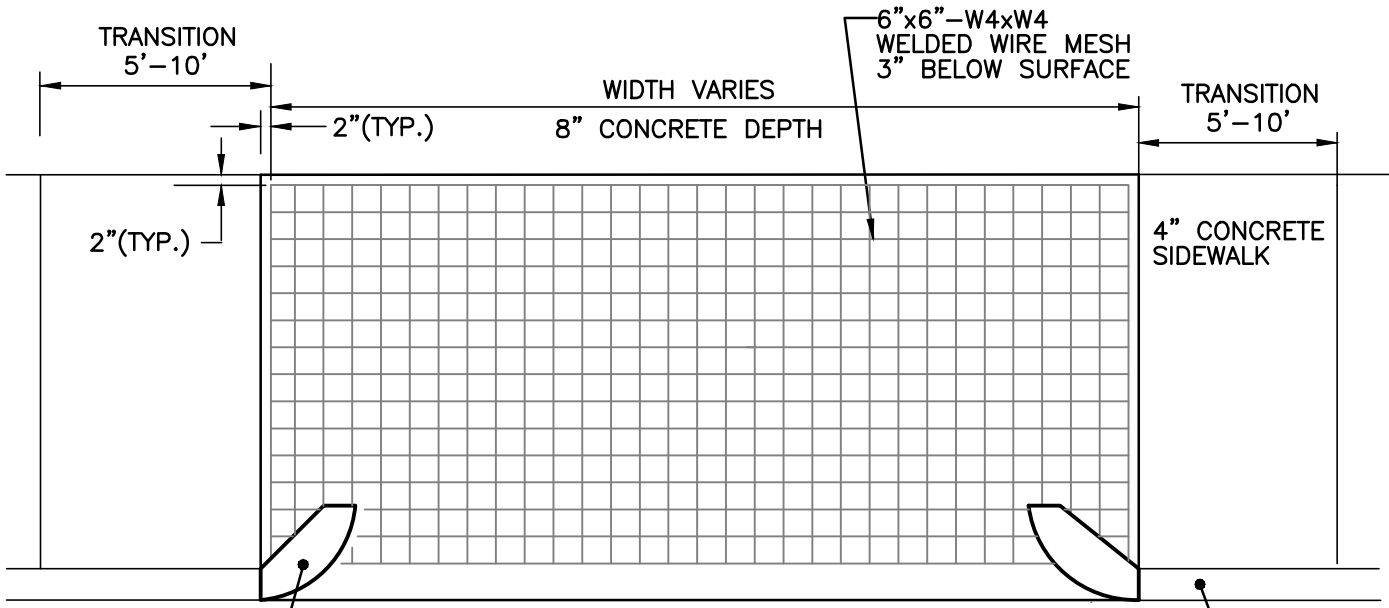
REVISIONS		
NO.	BY	DATE
1	MLP	Mar 2005
2	MLP	Sep 2012

James M. Capelli
 CHIEF ENGINEER
 TRANSPORTATION

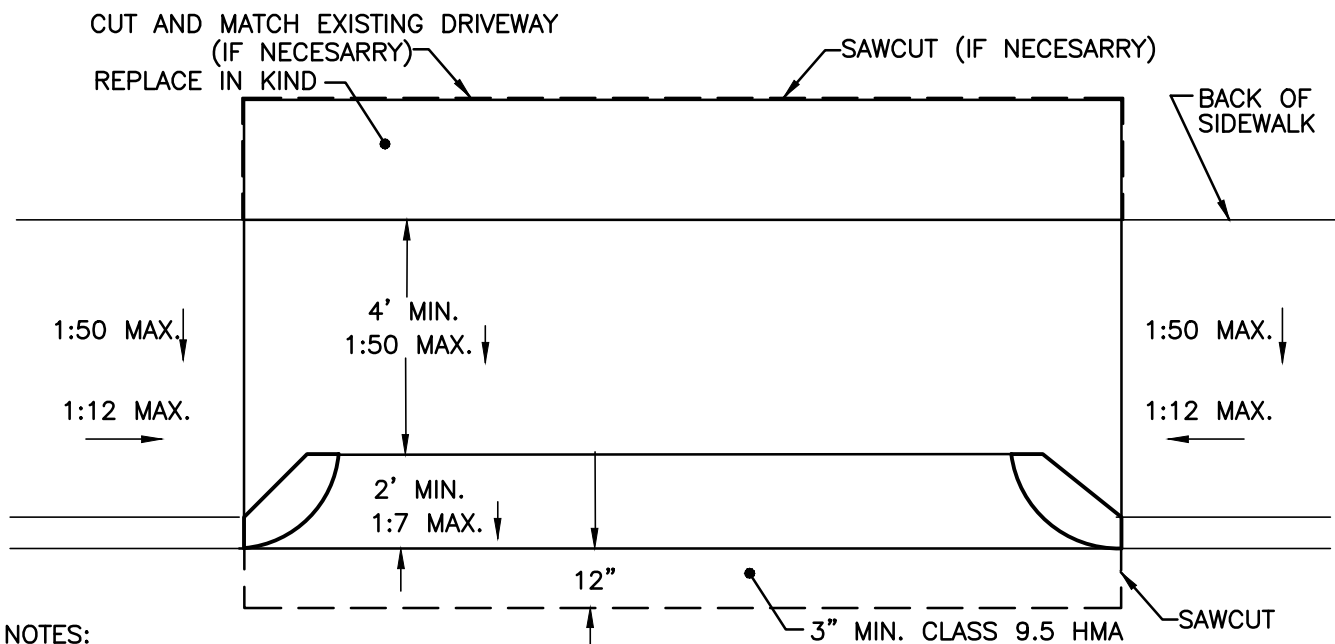
Edward J. Parker Jr.
 CHIEF DESIGN ENGINEER
 TRANSPORTATION

JUNE 15, 1998
 ISSUE DATE





DRIVEWAY SECTION

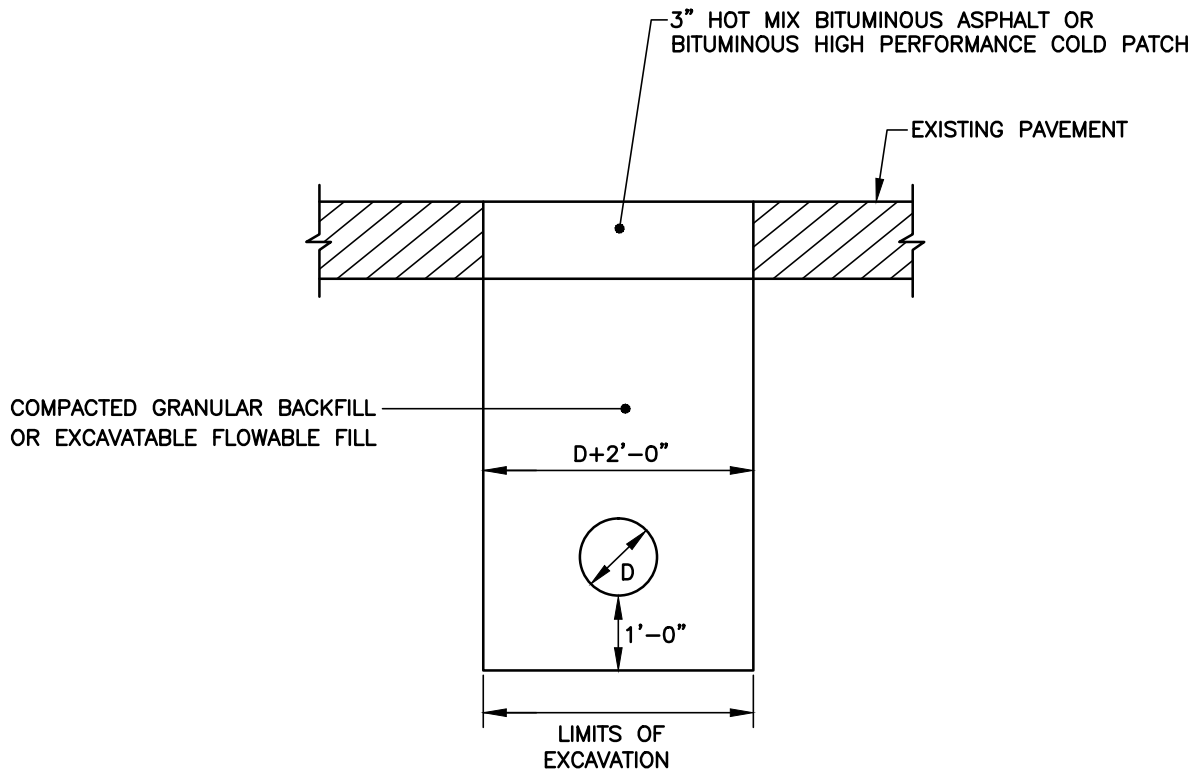


- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RIDOT STANDARD SPECIFICATIONS.
 2. RUNNING SLOPE OF SIDEWALK/DRIVEWAY SHALL NOT EXCEED 8.3% (1:12)
 3. 4' MINIMUM ACCESSIBLE PATH SHALL BE INSTALLED WITH CROSS SLOPE NOT EXCEEDING 2% (1:50)
 4. RESIDENTIAL CURB CUTS SHALL BE NO WIDER THAN 12' FROM INSIDE OF CURB RETURNS.

CEMENT CONCRETE DRIVEWAYS

N.T.S.





NOTES:

1. BITUMINOUS CONCRETE SHALL ADHERE TO RIDOT STANDARD SPECIFICATIONS, SECTION 401.
2. GRANULAL BASE MATERIAL SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (AASHTO T180), AND SHALL ADHERE TO RIDOT STANDARD SPECIFICATIONS, SECTION 301.
3. EXCAVATABLE FLOWABLE FILL (CONTROLLED DENSITY FILL, CDF) SHALL ADHERE TO RIDOT STANDARD SPECIFICATIONS, SECTION 603.
4. ANY TEMPORARY PATCH INSTALLED PRIOR TO SEPTEMBER 1 IN ANY YEAR SHALL BE REPLACED WITH PERMANENT PATCH NO LATER THAN DECEMBER 1 OF THAT YEAR.

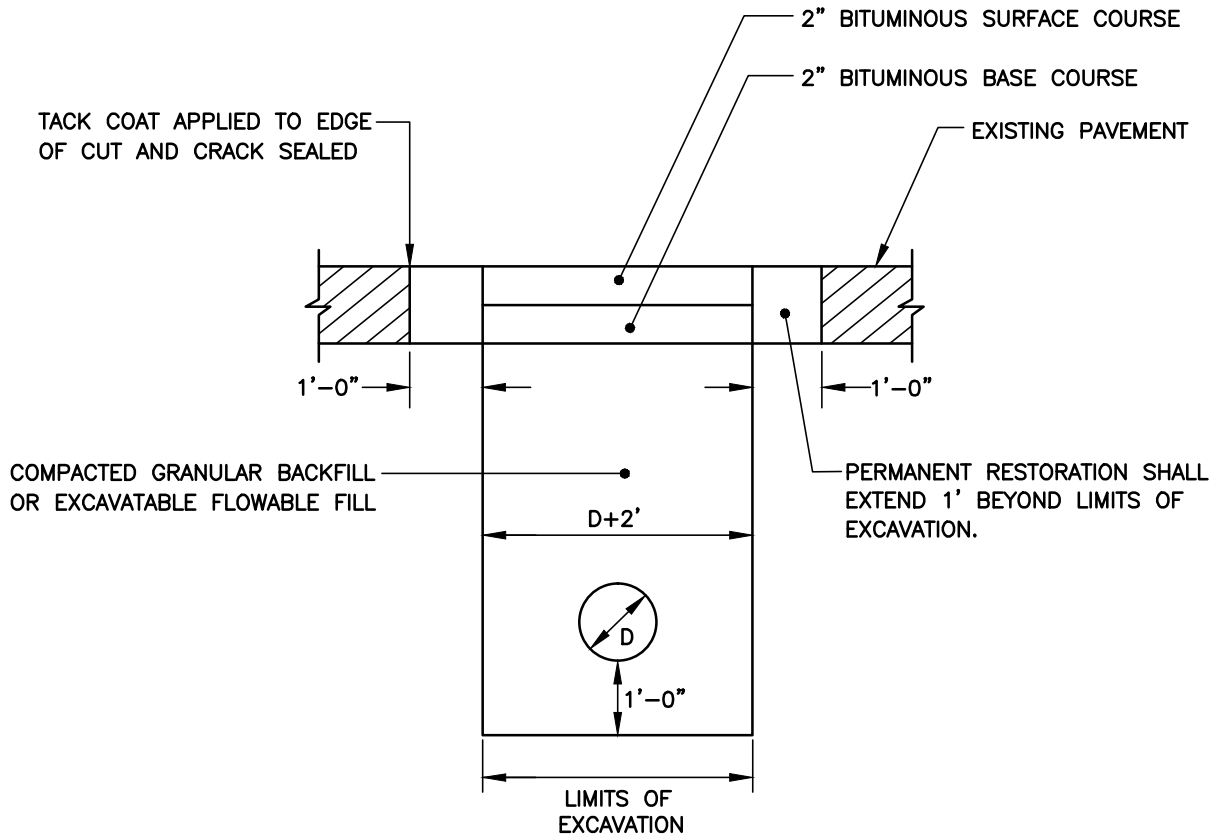
TEMPORARY PATCHES MADE BETWEEN SEPTEMBER 1 AND MARCH 30 SHALL BE MAINTAINED BY THE PERMITTEE UNTIL A PERMANENT PATCH CAN BE INSTALLED, NO LATER THAN JUNE 15.

5. IF TEMPORARY PATCH IS INSTALLED, PERMITTEE MAY ALLOW NO MORE THAN 45 DAYS FOR SETTLING BEFORE PERMANENT RESTORATION. THE PERMITTEE SHALL BE RESPONSIBLE TO MAINTAIN TEMPORARY ROADWAY RESTORATIONS IN A SAFE CONDITION FOR ALL TYPES OF TRAVEL UNTIL A PERMANENT PAVEMENT REPAIR HAS BEEN MADE. TO ENSURE PROPER MAINTENANCE, THE PERMITTEE SHALL PERFORM PERIODIC INSPECTION OF EACH TEMPORARY PATCH UNTIL IT IS REPLACED WITH A PERMANENT PATCH.

TEMPORARY ROADWAY RESTORATION

N.T.S.





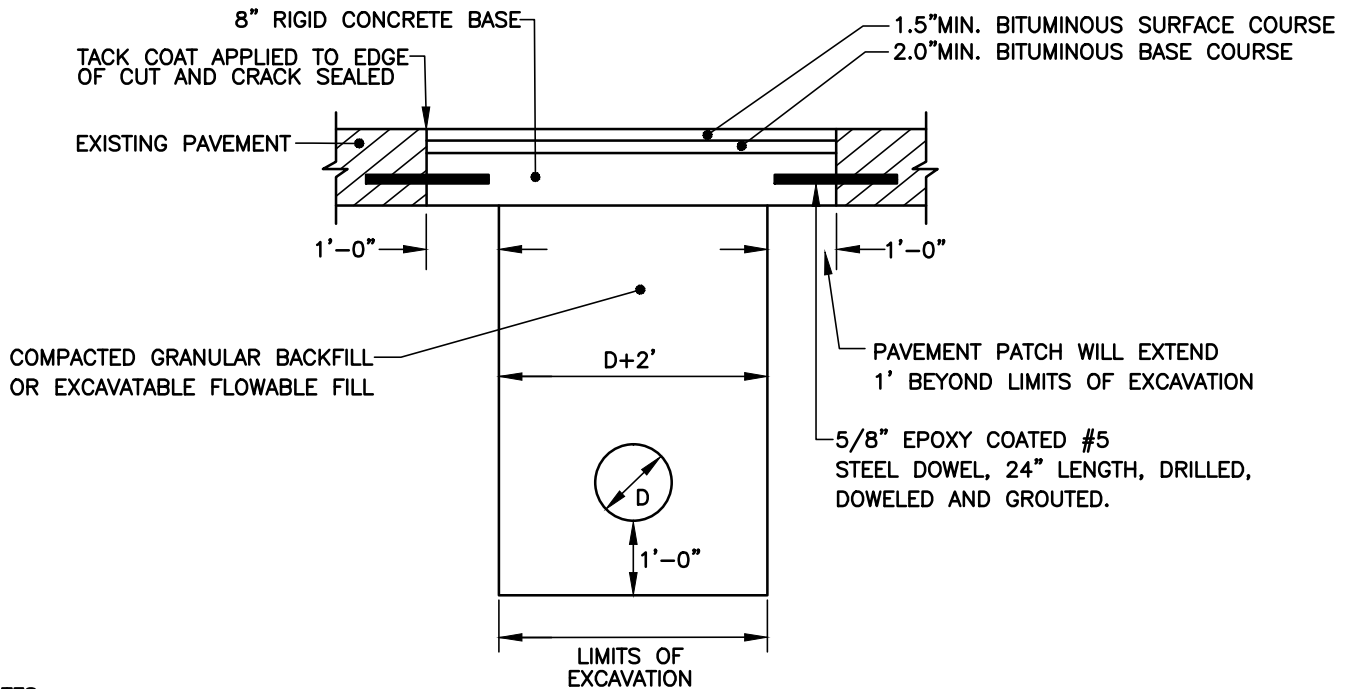
NOTES:

1. BITUMINOUS CONCRETE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 401.
2. GRANUAL BASE MATERIAL SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (AASHTO T180). GRAVEL BASE COURSE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 301.
3. EXCAVATABLE FLOWABLE FILL (CONTROLLED DENSITY FILL, CDF) SHALL ADHERE TO 95% OF THE MODIFIED PROCTOR DENSITY (AASHTO T180), ADHERING TO RIDOT SPECIFICATIONS, SECTION 603.
4. PRIOR TO PERMANENT RESTORATION, ALL EDGES OF THE EXCAVATED AREA AND ONE FOOT BEYOND SHALL BE SAWCUT TO A CLEAN, SQUARE EDGE.
5. IF EXCAVATION IS ON A PROTECTED STREET, THE REMAINING ROADWAY OUTSIDE THE TRENCH TO THE NEAREST CURB SHALL BE MILLED 1.5 INCHES WITH 1.5 INCH BITUMINOUS CONCRETE SURFACE OVERLAY. THE JOINTS SHALL BE SEALED USING INFRARED TECHNOLOGY. THE LENGTH OF THE NEW PAVED AREA MUST BE A MINIMUM OF 10 FEET TO ALLOW FOR PROPER ROLLING.
6. IF EXCAVATION IS ON A NON-PROTECTED STREET, AND THE DISTANCE FROM EDGE OF EXCAVATION TO EDGE OF ROADWAY IS TWO FEET OR LESS, THE REMAINING AREA TO EDGE OF ROADWAY SHALL BE REMOVED AND REPLACED IN CONJUNCTION WITH THE PERMANENT PAVEMENT RESTORATION.

PERMANENT ROADWAY RESTORATION - GRANULAR BASE

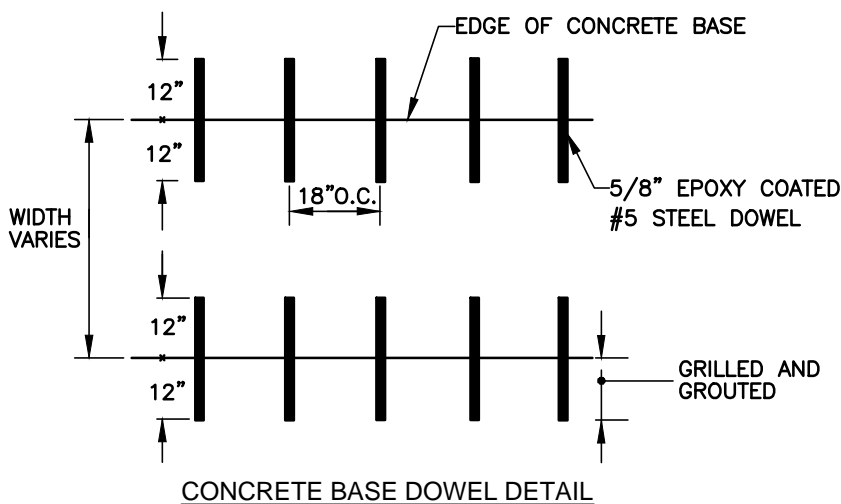
N.T.S.





NOTES:

1. CONCRETE ROAD BASE MUST BE RESTORED TO THE EXISTING DEPTH OR A MINIMUM OF 8 INCHES. A MINIMUM OF 3.5 INCHES OF BITUMINOUS CONCRETE SURFACE COURSE MEETING RIDOT SPECIFICATIONS, SECTION 401 SHALL BE PLACED OVER BASE.
2. 8 INCH RIGID CONCRETE BASE SHALL BE TYPE XX (28 DAY -4000 PSI) PER RIDOT SPECIFICATIONS, SECTION 601.
3. PRIOR TO PERMANENT RESTORATION, ALL EDGES OF THE EXCAVATED AREA AND ONE FOOT BEYOND SHALL BE SAWCUT TO A CLEAN, SQUARE EDGE.
4. GRANULAR SUBGRADE MATERIAL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR DENSITY (AASHTO T80), MEETING RIDOT SPECIFICATIONS, SECTION 301.
5. EXCAVATABLE FLOWABLE FILL (CONTROLLED DENSITY FILL, CDF) SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 603.
6. IF EXCAVATION IS ON A PROTECTED STREET, THE REMAINING ROADWAY OUTSIDE THE TRENCH TO THE NEAREST CURB SHALL BE MILLED 1.5 INCHES WITH A 1.5 INCH BITUMINOUS CONCRETE SURFACE OVERLAY. THE JOINTS SHALL BE SEALED USING INFRARED TECHNOLOGY. THE LENGTH OF THE NEW PAVED AREA MUST BE A MINIMUM OF 10 FEET TO ALLOW FOR PROPER COMPACTION.
7. IF EXCAVATION IS ON NON PROTECTED STREET, AND THE DISTANCE FROM EDGE OF EXCAVATION TO EDGE OF ROADWAY IS TWO FEET OR LESS, THE REMAINING AREA TO SUCH EDGE OF ROADWAY SHALL BE REMOVED AND REPLACED IN CONJUNCTION WITH THE PERMANENT PAVEMENT RESTORATION.



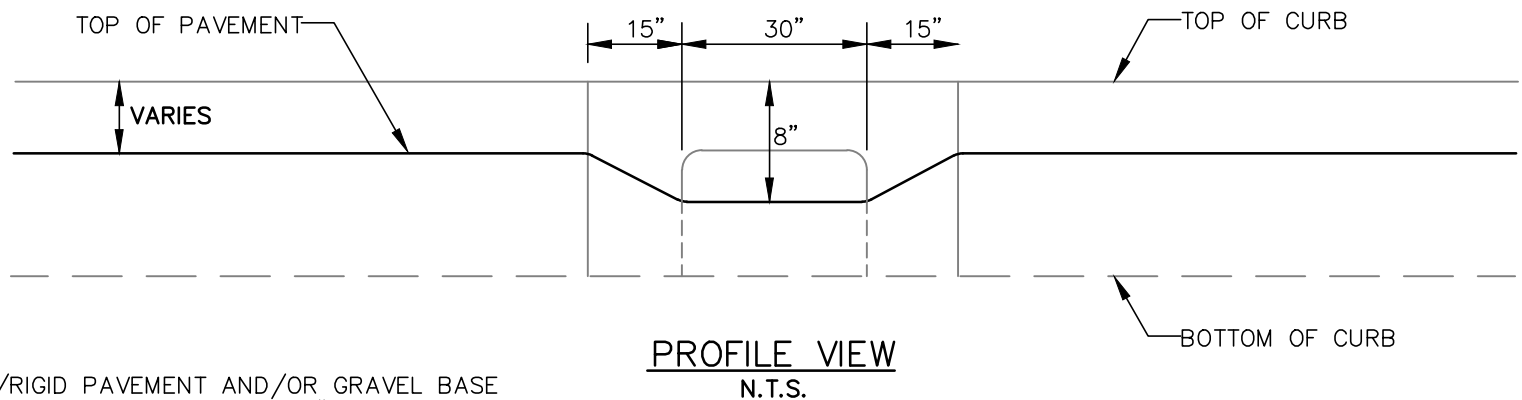
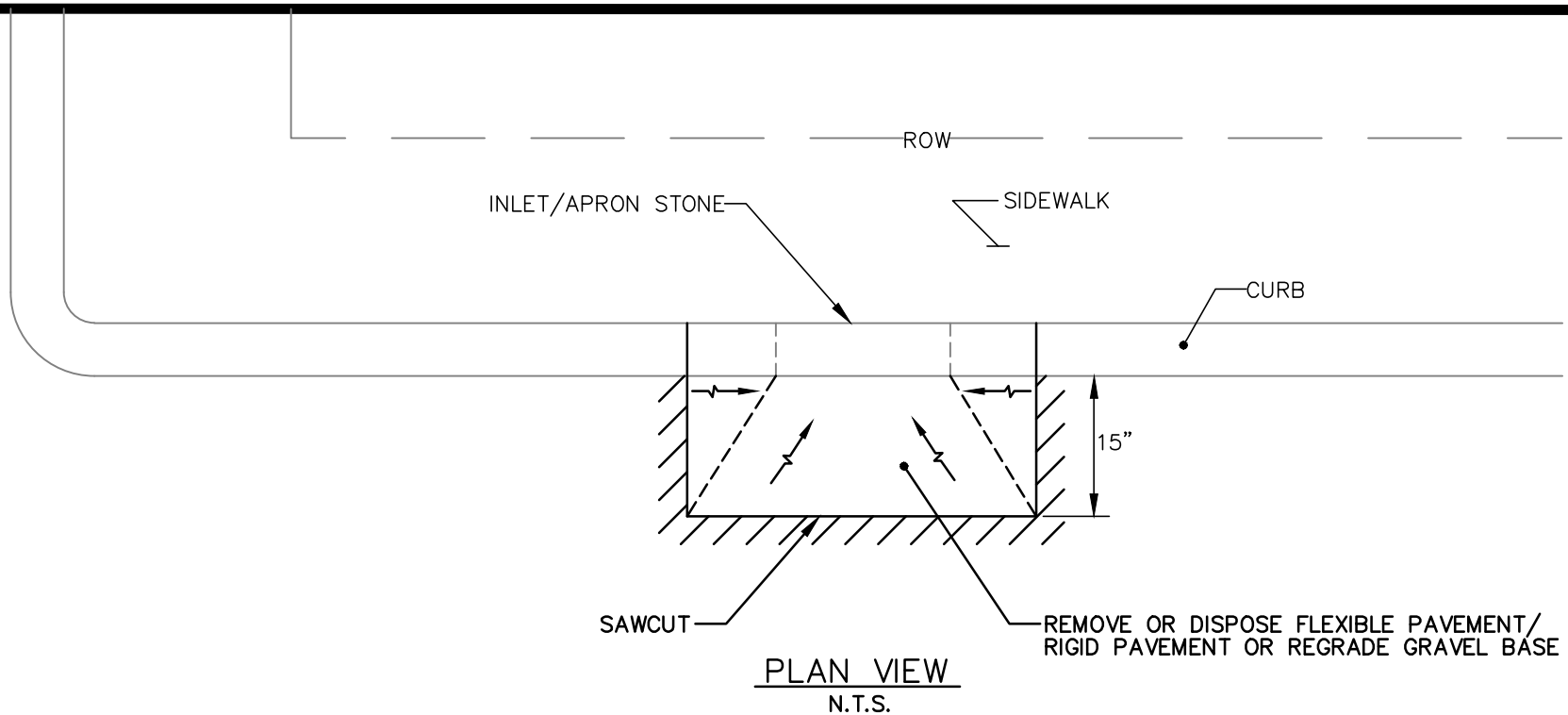
NOTES:

1. DOWEL SHALL BE INSTALLED 4" FROM SURFACE OF CONCRETE BASE.
2. THE EXISTING CONCRETE ROAD BASE SHALL BE DRILLED AND GROUTED EVERY 18" ON CENTER TO RECEIVE THE EPOXY COATED STEEL DOWELS.

PERMANENT ROADWAY RESTORATION - CONCRETE BASE

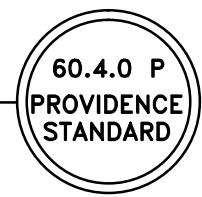
N.T.S.





- NOTES: 1. FLEXIBLE/RIGID PAVEMENT AND/OR GRAVEL BASE SHALL BE GRADED TO DRAIN TO 8" BELOW THE TOP OF CURB.
2. ITEMS SHALL BE PAID AT RESPECTIVE BID PRICES

INLET / APRON STONE REVEAL
N.T.S.

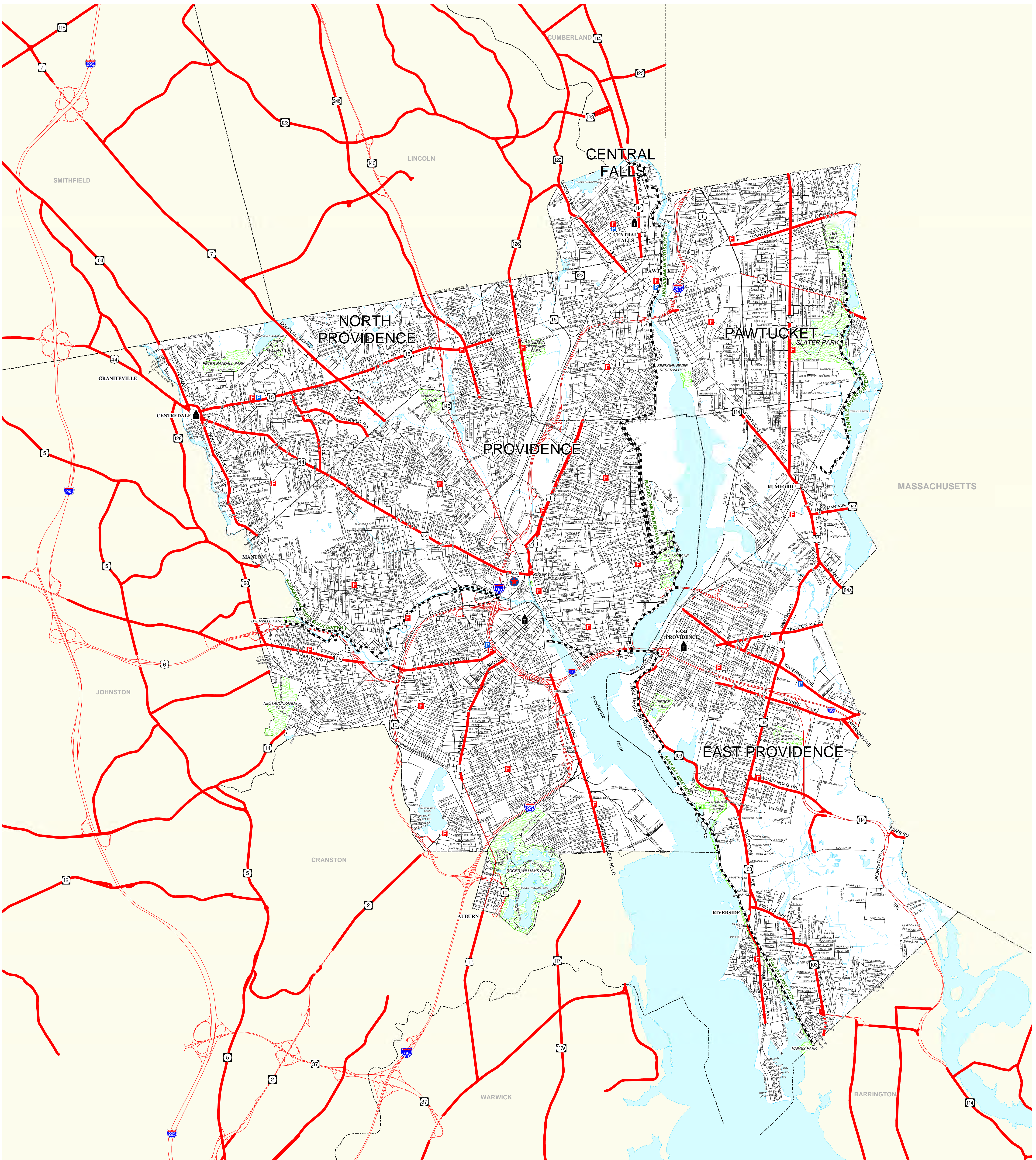




**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

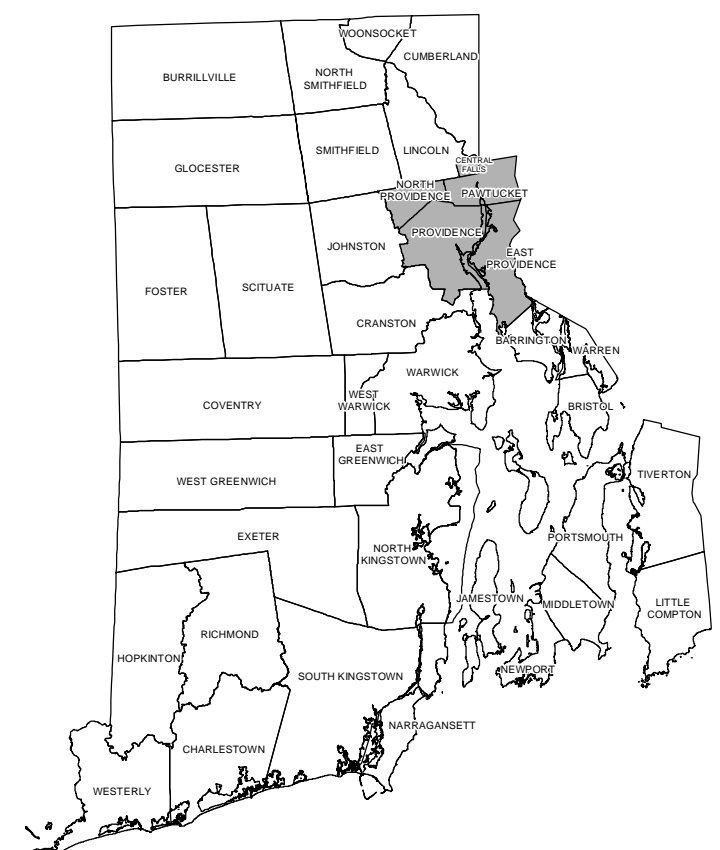
ATTACHMENT F

**RIDOT
Maintained Roads**

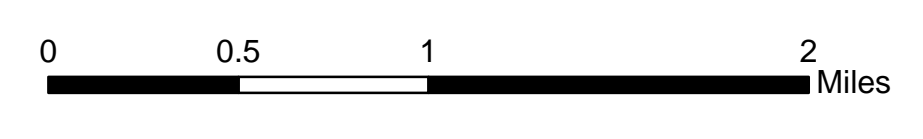
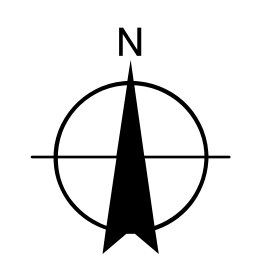


GENERAL HIGHWAY MAP
 Providence - North Providence - Pawtucket
 Central Falls - East Providence
RHODE ISLAND
PROVIDENCE COUNTY

PREPARED BY THE
DEPARTMENT OF TRANSPORTATION
 IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



ROADS AND ROADWAY FEATURES		DRAINAGE	
HYBRID STATE HIGHWAY		NARROW STREAM	
STATE HIGHWAYS		WIDE STREAM	
OTHER STATE ROADS		RESERVOIR, POND, OR LAKE	
TOWN ARTERIAL			
LOCAL ROADS			
ROAD SYSTEM DESIGNATION		BOUNDARIES	
INTERSTATE SYSTEM ROUTE NUMBER		STATE	
U.S. NUMBERED HIGHWAY		COUNTY	
		TOWN OR CITY	
STATE NUMBERED HIGHWAY		PARKS AND OTHER RESERVATIONS	
RAILROADS		PUBLIC FACILITIES	
RAILROAD (ACTIVE)		STATE CAPITOL	
		CITY OR TOWN'S HALL	
AIRPORTS		FIRE STATION	
AIRPORTS WITH SURFACED RUNWAYS		POLICE STATION	
		STATE POLICE	
BIKE PATHS		VILLAGE CENTERS AND PLACES	
BIKE PATHS		VILLAGE CENTERS AND PLACES	



2020

COPIES OF THIS MAP ARE AVAILABLE FOR PUBLIC USE AT A NOMINAL COST. CONTACT PROGRAM SUPPORT, R.I. DEPT. OF TRANSPORTATION, 2 CAPITOL HILL, PROVIDENCE, RHODE ISLAND 02903





**DEPARTMENT OF PUBLIC WORKS
CITY OF PROVIDENCE, RHODE ISLAND**

ATTACHMENT G

Primary Roads

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
EXIT 17	Principal Arterial - Interstate	Yes	Yes	0.20
EXIT 18	Principal Arterial - Interstate	Yes	Yes	0.74
EXIT 19	Principal Arterial - Interstate	Yes	Yes	0.51
EXIT 1A	Principal Arterial - Interstate	Yes	Yes	0.37
EXIT 1B	Principal Arterial - Interstate	Yes	Yes	0.23
Exit 2	Principal Arterial - Interstate	Yes	Yes	0.71
EXIT 20	Principal Arterial - Interstate	Yes	Yes	1.35
EXIT 21	Principal Arterial - Interstate	Yes	Yes	0.30
EXIT 22	Principal Arterial - Interstate	Yes	Yes	0.42
EXIT 22A	Principal Arterial - Interstate	Yes	Yes	0.38
EXIT 22B	Principal Arterial - Interstate	Yes	Yes	0.80
EXIT 22C	Principal Arterial - Interstate	Yes	Yes	0.78
EXIT 23	Principal Arterial - Interstate	Yes	Yes	0.47
EXIT 24	Principal Arterial - Interstate	Yes	Yes	0.52
EXIT 25	Principal Arterial - Interstate	Yes	Yes	0.15
EXIT 3	Principal Arterial - Interstate	Yes	Yes	0.26
I 195	Principal Arterial - Interstate	No	Yes	0.00
I 195 E	Principal Arterial - Interstate	Yes	Yes	0.99
I 195 W	Principal Arterial - Interstate	Yes	Yes	1.52
I 95 N	Principal Arterial - Interstate	Yes	Yes	5.91
I 95 S	Principal Arterial - Interstate	Yes	Yes	5.96
OFF RAMP BORDEN ST/EDDY S	Principal Arterial - Interstate	Yes	Yes	0.56
OFF RAMP US-1	Principal Arterial - Interstate	Yes	Yes	0.20
ON RAMP I-195 E	Principal Arterial - Interstate	Yes	Yes	0.39
ON RAMP I-195 W	Principal Arterial - Interstate	Yes	Yes	0.16
ON RAMP I-95 N	Principal Arterial - Interstate	Yes	Yes	3.02
ON RAMP I-95 S	Principal Arterial - Interstate	Yes	Yes	2.84
ON RAMP RI-126	Principal Arterial - Interstate	Yes	Yes	0.18
ONRAMP	Principal Arterial - Interstate	Yes	Yes	0.81
SOUTH MAIN ST	Principal Arterial - Interstate	Yes	Yes	0.08
US HWY 6 E	Principal Arterial - Interstate	Yes	Yes	0.12

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
EXIT 23	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.12
OFF RAMP ADMIRAL ST	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.19
OFF RAMP BRANCH AVE	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.41
OFF RAMP BROADWAY	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.15
OFF RAMP DEAN ST	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.35
OFF RAMP FROM US HWY 6 E	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.29
OFF RAMP RI-128	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.49
OFF RAMP RI-14	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.22
OFF RAMP RI-2	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.53
OFF RAMP RI-6A	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.51
OFF RAMP UNION AVE	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.36
OFF RAMP WESTMINSTER ST	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.12
ON RAMP RI-10 N	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.94
ON RAMP RI-10 S	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.62
ON RAMP RI-146 N	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.42
ON RAMP RI-146 S	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.63
ON RAMP TO US HWY 6 W	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.26
ON RAMP US 6 E	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.22
ON RAMP US 6 W	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.25
ON RAMP US HWY 6 W	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.39
ON RAMP US-1 N	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.22
ON RAMP US-6 E	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.84
ON RAMP US-6 W	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.65
STATE HWY 10 N	Principal Arterial - Other Freeways & Expressways	Yes	Yes	1.76
STATE HWY 10 S	Principal Arterial - Other Freeways & Expressways	Yes	Yes	1.83
STATE HWY 146 N	Principal Arterial - Other Freeways & Expressways	Yes	Yes	2.09
STATE HWY 146 S	Principal Arterial - Other Freeways & Expressways	Yes	Yes	2.09
TOBEY ST	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.03
US HWY 6	Principal Arterial - Other Freeways & Expressways	Yes	Yes	0.05
US HWY 6 E	Principal Arterial - Other Freeways & Expressways	Yes	Yes	3.04
US HWY 6 W	Principal Arterial - Other Freeways & Expressways	Yes	Yes	3.13

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
195 EAST ACCESS RD	Principal Arterial - Other	Yes	Yes	0.07
ALLENS AVE	Principal Arterial - Other	Yes	Yes	1.74
ANGELL ST	Principal Arterial - Other	Yes	Yes	0.87
ASHBURTON ST	Principal Arterial - Other	Yes	Yes	0.40
BENEFIT ST	Principal Arterial - Other	Yes	Yes	0.01
BRIDGE ST	Principal Arterial - Other	Yes	Yes	0.19
BROAD ST	Principal Arterial - Other	Yes	Yes	2.74
CANAL ST	Principal Arterial - Other	Yes	Yes	0.49
CHARLES ST	Principal Arterial - Other	Yes	Yes	1.15
DOUGLAS AVE	Principal Arterial - Other	Yes	Yes	2.13
DYER ST	Principal Arterial - Other	Yes	Yes	0.41
EAST FRANKLIN ST	Principal Arterial - Other	Yes	Yes	0.32
EDDY ST	Principal Arterial - Other	Yes	Yes	1.51
ELMWOOD AVE	Principal Arterial - Other	Yes	Yes	4.22
EXIT 21	Principal Arterial - Other	Yes	Yes	0.05
FRANKLIN ST	Principal Arterial - Other	Yes	Yes	0.30
GANO ST	Principal Arterial - Other	Yes	Yes	0.70
LINDEN AVE	Principal Arterial - Other	No	Yes	0.05
MEMORIAL BLVD	Principal Arterial - Other	Yes	Yes	0.95
MILL ST	Principal Arterial - Other	Yes	Yes	0.09
NARRAGANSETT BLVD	Principal Arterial - Other	Yes	Yes	0.35
NASHUA ST	Principal Arterial - Other	Yes	Yes	0.03
NORTH MAIN ST	Principal Arterial - Other	Yes	Yes	4.07
OFF RAMP FROM US HWY 6 E	Principal Arterial - Other	Yes	Yes	0.19
ON RAMP TO US HWY 6 W	Principal Arterial - Other	Yes	Yes	0.18
ORMS ST	Principal Arterial - Other	Yes	Yes	0.28
PLAIN ST	Principal Arterial - Other	Yes	Yes	0.15
POINT ST	Principal Arterial - Other	Yes	Yes	0.74
RESERVOIR AVE	Principal Arterial - Other	Yes	Yes	0.98
SERVICE RD 7	Principal Arterial - Other	Yes	Yes	0.56
SERVICE RD 8	Principal Arterial - Other	Yes	Yes	0.07

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
SILVER SPRING ST	Principal Arterial - Other	Yes	Yes	0.01
SMITH ST	Principal Arterial - Other	Yes	Yes	2.64
SMITHFIELD AVE	Principal Arterial - Other	Yes	Yes	1.21
SOUTH MAIN ST	Principal Arterial - Other	Yes	Yes	0.86
SOUTH WATER ST	Principal Arterial - Other	Yes	Yes	0.64
STEEPLE ST	Principal Arterial - Other	No	Yes	0.01
STEEPLE ST	Principal Arterial - Other	Yes	Yes	0.10
THOMAS ST	Principal Arterial - Other	Yes	Yes	0.08
THURBERS AVE	Principal Arterial - Other	Yes	Yes	0.39
WASHINGTON ST	Principal Arterial - Other	Yes	Yes	0.08
WATERMAN ST	Principal Arterial - Other	Yes	Yes	0.94
WICKENDEN ST	Principal Arterial - Other	Yes	Yes	0.05
ADMIRAL ST	Minor Arterial	No	Yes	1.93
ANGELL ST	Minor Arterial	No	Yes	0.14
ATWELLS AVE	Minor Arterial	No	Yes	1.93
BARTON ST	Minor Arterial	No	Yes	0.15
BLACKSTONE BLVD	Minor Arterial	No	Yes	3.35
BLACKSTONE ST	Minor Arterial	No	Yes	0.01
BRANCH AVE	Minor Arterial	No	Yes	2.01
BROAD ST	Minor Arterial	No	Yes	0.18
BROADWAY	Minor Arterial	No	Yes	1.58
BUTLER AVE	Minor Arterial	No	Yes	0.31
CARTER ST	Minor Arterial	No	Yes	0.14
CHALKSTONE AVE	Minor Arterial	No	Yes	2.53
CHARLES ST	Minor Arterial	No	Yes	1.19
CRANSTON ST	Minor Arterial	No	Yes	1.40
DEAN ST	Minor Arterial	No	Yes	1.22
DORRANCE ST	Minor Arterial	No	Yes	0.44
DOYLE AVE	Minor Arterial	No	Yes	0.47
DUXBURY ST	Minor Arterial	No	Yes	0.12
EAGLE ST	Minor Arterial	No	Yes	0.37

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
EDDY ST	Minor Arterial	No	Yes	0.93
EDNA ST	Minor Arterial	No	Yes	0.07
EMPIRE ST	Minor Arterial	No	Yes	0.24
EXCHANGE ST	Minor Arterial	No	Yes	0.20
EXCHANGE TER	Minor Arterial	No	Yes	0.27
FOUNTAIN ST	Minor Arterial	No	Yes	0.23
FRANCIS ST	Minor Arterial	No	Yes	0.61
FRIENDSHIP ST	Minor Arterial	No	Yes	0.60
FRUIT HILL AVE	Minor Arterial	No	Yes	0.38
GASPEE ST	Minor Arterial	No	Yes	0.25
GLENBRIDGE AVE	Minor Arterial	No	Yes	0.52
HARRIS AVE	Minor Arterial	No	Yes	0.83
HARTFORD AVE	Minor Arterial	No	Yes	1.37
HAYES ST	Minor Arterial	No	Yes	0.10
HENDERSON BRIDGE	Minor Arterial	No	Yes	0.59
HOPE ST	Minor Arterial	No	Yes	2.71
HUNTINGTON AVE	Minor Arterial	No	Yes	1.52
KILLINGLY ST	Minor Arterial	No	Yes	1.07
KINSLEY AVE	Minor Arterial	No	Yes	0.48
LOCKWOOD ST	Minor Arterial	No	Yes	0.34
MANTON AVE	Minor Arterial	No	Yes	2.00
MESSER ST	Minor Arterial	No	Yes	0.09
MOUNT PLEASANT AVE	Minor Arterial	No	Yes	1.64
NIANTIC AVE	Minor Arterial	No	Yes	1.04
OAKLAND AVE	Minor Arterial	No	Yes	0.14
OLNEY ST	Minor Arterial	No	Yes	0.43
OLNEYVILLE SQ	Minor Arterial	No	Yes	0.03
ON RAMP RI-10 N	Minor Arterial	No	Yes	0.13
ORMS ST	Minor Arterial	No	Yes	0.58
PARK ST	Minor Arterial	No	Yes	0.12
PINE ST	Minor Arterial	No	Yes	0.48

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
PLAINFIELD ST	Minor Arterial	No	Yes	1.61
POCASSET AVE	Minor Arterial	No	Yes	0.79
POINT ST	Minor Arterial	No	Yes	0.20
PONTIAC AVE	Minor Arterial	No	Yes	0.24
PROMENADE ST	Minor Arterial	No	Yes	0.49
PUBLIC ST	Minor Arterial	No	Yes	1.24
RANDALL ST	Minor Arterial	No	Yes	0.22
RAYMOND ST	Minor Arterial	No	Yes	0.28
RESERVOIR AVE	Minor Arterial	No	Yes	0.10
RIVER AVE	Minor Arterial	No	Yes	1.80
ROGER WILLIAMS AVE	Minor Arterial	No	Yes	0.47
SABIN ST	Minor Arterial	No	Yes	0.16
SILVER SPRING ST	Minor Arterial	No	Yes	0.94
SOUTH ANGELL ST	Minor Arterial	No	Yes	0.30
SUNSET AVE	Minor Arterial	No	Yes	0.25
THURBERS AVE	Minor Arterial	No	Yes	0.47
UNION AVE	Minor Arterial	No	Yes	1.03
UNNAMED_4	Minor Arterial	No	Yes	0.03
VALLEY ST	Minor Arterial	No	Yes	1.43
WASHINGTON ST	Minor Arterial	No	Yes	0.75
WATERMAN ST	Minor Arterial	No	Yes	0.41
WESTMINSTER ST	Minor Arterial	No	Yes	1.40
WEYBOSSET ST	Minor Arterial	No	Yes	0.42
WICKENDEN ST	Minor Arterial	No	Yes	0.67
5TH ST	Major Collector	No	Yes	0.40
7TH ST	Major Collector	No	Yes	0.28
ACADEMY AVE	Major Collector	No	Yes	1.23
ACORN ST	Major Collector	No	Yes	0.18
ADELAIDE AVE	Major Collector	No	Yes	0.60
ALDRICH ST	Major Collector	No	Yes	0.27
ALFRED STONE RD	Major Collector	No	Yes	0.12

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
APPLETON ST	Major Collector	No	Yes	0.12
BARBARA LEONARD WAY	Major Collector	No	Yes	0.20
BATH ST	Major Collector	No	Yes	0.30
BENEFIT ST	Major Collector	No	Yes	1.20
BLACKSTONE ST	Major Collector	No	Yes	0.85
BRIDGHAM ST	Major Collector	No	Yes	0.51
BROOK ST	Major Collector	No	Yes	0.84
BUCKLIN ST	Major Collector	No	Yes	0.76
BURNS ST	Major Collector	No	Yes	0.32
BUTLER AVE	Major Collector	No	Yes	0.19
CAHIR ST	Major Collector	No	Yes	0.16
CALVERLY ST	Major Collector	No	Yes	0.26
CAMP ST	Major Collector	No	Yes	0.80
CANDACE ST	Major Collector	No	Yes	0.27
CAPITOL HILL ST	Major Collector	No	Yes	0.21
CATHEDRAL AVE	Major Collector	No	Yes	0.30
CEMETERY ST	Major Collector	No	Yes	0.15
CHAD BROWN ST	Major Collector	No	Yes	0.30
CHESTNUT ST	Major Collector	No	Yes	0.43
CLIFFORD ST	Major Collector	No	Yes	0.49
COLLEGE ST	Major Collector	No	Yes	0.12
CORLISS ST	Major Collector	No	Yes	0.48
CYPRESS ST	Major Collector	No	Yes	0.57
DE PASQUALE AVE	Major Collector	No	Yes	0.21
DEAN ST	Major Collector	No	Yes	0.41
DELAINE ST	Major Collector	No	Yes	0.25
DEXTER ST	Major Collector	No	Yes	1.14
DUDLEY ST	Major Collector	No	Yes	0.78
EARL ST	Major Collector	No	Yes	0.07
EATON ST	Major Collector	No	Yes	1.08
ELMGROVE AVE	Major Collector	No	Yes	1.67

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
ERNEST ST	Major Collector	No	Yes	0.34
ERNEST ST	Major Collector	Yes	Yes	0.20
EXCHANGE ST	Major Collector	No	Yes	0.11
FINANCE WAY	Major Collector	No	Yes	0.14
FOUNTAIN ST	Major Collector	No	Yes	0.20
FRIENDSHIP ST	Major Collector	No	Yes	0.61
FROST ST	Major Collector	No	Yes	0.12
GALILEO AVE	Major Collector	No	Yes	0.33
GANO ST	Major Collector	No	Yes	0.17
GENTIAN AVE	Major Collector	No	Yes	0.58
HAROLD ST	Major Collector	No	Yes	0.39
HARRIS AVE	Major Collector	No	Yes	0.88
HAWKINS ST	Major Collector	No	Yes	0.58
HEMLOCK ST	Major Collector	No	Yes	0.16
HOLDEN ST	Major Collector	No	Yes	0.28
HOME AVE	Major Collector	No	Yes	0.02
HUXLEY AVE	Major Collector	No	Yes	0.24
INDIA ST	Major Collector	No	Yes	0.62
IVES ST	Major Collector	No	Yes	0.62
JUSTICE ST	Major Collector	No	Yes	0.07
KENNEDY PLZ	Major Collector	No	Yes	0.19
KINSLEY AVE	Major Collector	No	Yes	0.50
KNIGHT ST	Major Collector	No	Yes	0.58
LAUREL HILL AVE	Major Collector	No	Yes	0.84
LLOYD AVE	Major Collector	No	Yes	0.83
LUBEC ST	Major Collector	No	Yes	0.27
MAGNOLIA ST	Major Collector	No	Yes	0.29
MATHEWSON ST	Major Collector	No	Yes	0.23
MESSER ST	Major Collector	No	Yes	0.41
MONTGOMERY AVE	Major Collector	No	Yes	0.34
MORRIS AVE	Major Collector	No	Yes	0.02

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
MURRAY ST	Major Collector	No	Yes	0.08
NARRAGANSETT AVE	Major Collector	No	Yes	0.57
NEW YORK AVE	Major Collector	No	Yes	0.34
OAKLAND AVE	Major Collector	No	Yes	0.35
OCONNELL ST	Major Collector	No	Yes	0.21
ORTOLEVA DR	Major Collector	No	Yes	0.44
OVERHILL RD	Major Collector	No	Yes	0.11
OXFORD ST	Major Collector	No	Yes	0.84
PARK ROW	Major Collector	No	Yes	0.15
PARK ROW WEST	Major Collector	No	Yes	0.07
PARK ST	Major Collector	No	Yes	0.18
PARKIS AVE	Major Collector	No	Yes	0.19
PETTEYS AVE	Major Collector	No	Yes	0.39
PILSUDSKI ST	Major Collector	No	Yes	0.21
PITMAN ST	Major Collector	No	Yes	0.35
PLAINFIELD ST	Major Collector	No	Yes	0.00
PLEASANT VALLEY PKWY	Major Collector	No	Yes	0.88
POTTERS AVE	Major Collector	No	Yes	1.68
POWER ST	Major Collector	No	Yes	0.79
PRAIRIE AVE	Major Collector	No	Yes	1.42
PROMENADE ST	Major Collector	No	Yes	0.11
PUTNAM ST	Major Collector	No	Yes	0.30
RIALTO ST	Major Collector	No	Yes	0.11
RICHMOND ST	Major Collector	No	Yes	0.51
RIDGE ST	Major Collector	No	Yes	0.18
ROCHAMBEAU AVE	Major Collector	No	Yes	0.94
ROSEBANK AVE	Major Collector	No	Yes	0.17
SACKETT ST	Major Collector	No	Yes	0.62
SESSIONS ST	Major Collector	No	Yes	0.24
SHARON ST	Major Collector	No	Yes	0.51
SHIPYARD ST	Major Collector	No	Yes	0.40

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
SILVER LAKE AVE	Major Collector	No	Yes	0.40
SOUTH MAIN ST	Major Collector	No	Yes	0.04
STANDISH AVE	Major Collector	No	Yes	0.08
STATE ST	Major Collector	No	Yes	0.24
STEWART ST	Major Collector	No	Yes	0.22
STILLMAN ST	Major Collector	No	Yes	0.08
SWISS ST	Major Collector	No	Yes	0.13
TERRACE AVE	Major Collector	No	Yes	0.29
THAYER ST	Major Collector	No	Yes	0.74
TOBEY ST	Major Collector	No	Yes	0.10
TROY ST	Major Collector	No	Yes	0.19
VEAZIE ST	Major Collector	No	Yes	0.61
WAYLAND AVE	Major Collector	No	Yes	0.55
WEBSTER AVE	Major Collector	No	Yes	0.52
WELLINGTON AVE	Major Collector	No	Yes	0.01
WEST EXCHANGE ST	Major Collector	No	Yes	0.58
WEST RIVER ST	Major Collector	No	Yes	0.56
WESTMINSTER ST	Major Collector	No	Yes	0.45
WEYBOSSET ST	Major Collector	No	Yes	0.04
WHIPPLE ST	Major Collector	No	Yes	0.29
WHITFORD AVE	Major Collector	No	Yes	0.69
WOODWARD RD	Major Collector	No	Yes	0.71
WOONASQUATUCKET AVE	Major Collector	No	Yes	0.18
WYNDHAM AVE	Major Collector	No	Yes	0.01
COLLEGE RD	Minor Collector	No	Yes	0.72
EDDY ST	Minor Collector	No	Yes	0.21
FRICKER ST	Minor Collector	No	Yes	0.15
GOVERNOR ST	Minor Collector	No	Yes	0.10
LEDGE ST	Minor Collector	No	Yes	0.42
SHIP ST	Minor Collector	No	Yes	0.17
SNOW ST	Minor Collector	No	Yes	0.17

PROVIDENCE

Rhode Island Highway Functional Classification

Name	Functional Classification	NHS	Federal Aid	Miles
TERMINAL RD	Minor Collector	No	Yes	0.54
UNION ST	Minor Collector	No	Yes	0.07