

**Four Rivers Sanitation Authority
Rockford, Illinois**

Bidding Requirements and Contract Forms

for

2021-2022 Service Lateral Lining

Capital Project No. 2233

Four Rivers Sanitation Authority Rockford, Illinois

Bidding Requirements and Contract Forms and *General Provisions and Technical Specifications* for *Sanitary Sewer Construction*

for

2021-2022 Service Lateral Lining

Capital Project No. 2233

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Not to be used for bidding purposes

Section I
Bidding Requirements

Article 1 — Notice to Bidders

The Four Rivers Sanitation Authority (FRSA) will receive signed and sealed bids for 2021-2022 Service Lateral Lining, Capital Project No. 2233, at the Steve Graceffa Administration Building (Administration Building) at 3501 Kishwaukee Street, Rockford, Illinois until 10:00 a.m. on Tuesday, September 21, 2021 at which time and place responsive / responsible bids will be publicly opened and read aloud. All members of the public attending the bid opening are required to wear a mask. Please note that bid packets, delivered in-person, must be placed in the blue box located directly outside the Administration Building entrance up to the bid due date and time.

The 2021-2022 Service Lateral Lining project consists of the rehabilitation of approximately 194 clay sanitary sewer services by lining with cured-in-place pipe (CIPP). Work also includes traffic control, restoration, and all other appurtenances as indicated in the specifications.

Bidder's attention is called to Article 2 – Instructions to Bidders 3.8 requirements for Statement of Qualifications.

All construction and associated Project work shall be completed by April 30, 2022. Liquidated damages shall be \$300.00 per calendar day.

Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting the FRSA Engineering Department at 815-387-7660.

Plans and specifications may also be viewed at the offices of the Northern Illinois Building Contractors Association at 1111 S. Alpine Rd, Rockford, Illinois. For more information, visit the FRSA website at www.rrwr.dst.il.us.


All construction shall be done in accordance with specifications on file with FRSA, including the *General Provisions and Technical Specifications for Sanitary Sewer Construction, Four Rivers Sanitation Authority* (Current Edition).

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached, in the amount of five percent (5%) of the total bid price. This amount is a guarantee that, if the Proposal is accepted, a Contract will be entered into and its performance properly secured.

The successful bidder will be required to furnish a satisfactory Performance Bond in the full amount of the Bid or Proposal. No Bid shall be withdrawn without FRSA's consent for a period of sixty (60) days after the scheduled closing time for receipt of bids.

FRSA reserves the right to reject any or all bids, or any part thereof, or to accept any bid or any part thereof, or to waive any formalities in any bids, deemed to be in the best interest of FRSA.

Dated this 1st day of September, 2021.


BY: Timothy S. Hanson, Executive Director

Article 2 — Instructions to Bidders

1 General

1.1 Scope and Intent

This section of the Contract Documents is concerned with furnishing prospective bidders with detailed information and requirements for delineation of bidders' responsibilities, preparation and submission of bids, basis for awarding the Contract and other general information concerned with bidding and Contract execution.

1.2 Contradictions

If in the case of apparent contradiction between or among the Contract Documents, the Contract Documents shall be consulted in the following order: Addenda, Agreement, Supplementary Drawings, Instructions to Bidders, Detailed Specifications, Plans, Four Rivers Sanitation Authority (FRSA) General Provisions and Technical Specifications for Sanitary Sewer Construction. The language in the first such document in which language regarding the conflict, error or discrepancy occurs shall control.

2 Legal Requirements

2.1 Illinois Regulations

1. Public Act 100-1177 requires the Bidder to comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Bidder is responsible for verifying current information at the State's website.
2. Public Act 83-1030 entitled "Steel Products Procurement Act" requires that steel products used or supplied in performance of this contract or subcontract shall be manufactured or produced in the United States with three exceptions.

The provisions of this Section shall not apply:

- a. Where the contract involves an expenditure of less than \$500.
 - b. Where the executive head of the public agency certifies in writing that
 - i. the specified products are not manufactured or produced in the United States in sufficient quantities to meet the agency's requirements, or
 - ii. obtaining the specified products, manufactured or produced in the United States would increase the cost of the contract by more than 10%.
 - c. When its application is not in the public interest.
3. Public Act 96-929 (30 ILCS 570) provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and, further, that Illinois workers are available and capable of performing the particular type work involved.
 4. Public Act 99-093 requires that any party to a contract adopt and promulgate written sexual harassment policies that include, as a minimum, the following information:
 - a. the illegality of sexual harassment
 - b. the definition of sexual harassment under Illinois State law

- c. a description of sexual harassment, utilizing examples
- d. my (our) organization's internal complaint process including penalties
- e. the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Illinois Human Rights Commission
- f. directions on how to contact the Department and the Commission
- g. protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act

Upon request, this information shall be provided to the Illinois Department of Human Rights and the FRSA.

5. With regard to nondiscrimination in employment, the Contractor for this project will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations.
6. The Contractor for this project shall comply with the Occupational Safety and Health Act.
7. The Contractor for this project shall comply with the Federal Drug-Free Workplace Act.
8. Public Act 96-1416 requires the Certification of Clean Construction and Demolition Debris (CCDD) and uncontaminated soil prior to disposal at a CCDD fill site. The Contractor for this project shall comply with Public Act 96-1416 and be responsible for the certifications and any fees associated with the disposal at a CCDD fill site.
 - a. In the event that contaminated soil is uncovered on the project, the Contractor shall notify FRSA immediately. Any extra costs resulting from the presence of contaminated soil shall be evaluated in accordance with FRSA General Provisions & Technical Specs for Sanitary Sewer Construction; General Conditions: Article 5 – Time Provisions and Article 8 – Changes.

2.2 Americans with Disabilities Act

The Contractor for this project will comply with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify the FRSA and their representatives from all:

1. suits, claims, or actions
2. costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement
3. damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the contract.

2.3 Bidder Prequalification

Prospective bidders shall submit pre-qualification information for approval prior to bid opening or bids will be rejected as unqualified. Pre-qualification submittals shall be presented to FRSA's Director of Engineering on or before **2:00 p.m. on Friday, September 10, 2021; FRSA will review these submittals and will advise each applicant whether they are determined pre-qualified on or before Monday, September 13, 2021.**

Only bids from pre-qualified manufacturers and installers using pre-qualified products and methods will be opened and read. Bids submitted on products or from manufacturers/installers

that have not been pre-qualified will be returned unopened. Bid Proposals shall be clearly labeled on the bid envelope with Contractor's name and CIPP manufacturer.

Bidders that have previously pre-qualified or have satisfactorily completed lateral lining work for FRSA are considered pre-qualified provided methods and materials as previously employed are the same at the proposed methods and materials specified herein.

The following Contractors are pre-qualified to bid this project:

Contractor	CIPP Product
BLD Services, LLC	BLD Service Connection Seal & Lateral
Performance Pipelining, Inc.	LMK T-Liner
MBI Pipelining Services	LMK T-Liner
LMK Technologies	LMK T-Liner
National Watermain Cleaning Company	Trelleborg EPROS

In order to be considered pre-qualified to bid on this project, the product, manufacturer and contractor must each demonstrate, to FRSA's satisfaction, compliance with the following requirements:

- a. **The bidder shall document a minimum of two (2) years of experience installing CIPP laterals of similar length and configuration as this project and shall have successfully installed a minimum of 5,000 CIPP laterals in wastewater collection systems. The manufacturer's system shall have a minimum of five (5) years of installation with a minimum of 10,000 CIPP laterals successfully installed.**
- b. Submittal of FRSA-approved Third Party test data supporting the following product performance requirements. Product samples used for testing shall be similar to those proposed for installation. Test samples shall be prepared so as to simulate installation methods and service conditions of the product.
 - Chemical resistance – Test shall be conducted in accordance with ASTM F 1216, and meet the minimum guidelines listed therein.
 - Long-term properties – Tests to confirm 50-year design values shall be conducted in accordance with ASTM D2990. As an alternative, third party testing of a 10,000-hour external loading test, conducted in a wet environment to simulate field conditions, can be used to verify long-term design values.
 - External hydrostatic pressure testing – Testing of external hydrostatic loading capacity of at least ten (10) restrained pipe samples to verify design techniques.
 - Contractor / Manufacturer shall demonstrate structural properties meet or exceed the requirements listed below by providing test results from an independent laboratory from three (3) recent lining projects. A minimum of twelve (12) test results must be submitted.

STRUCTURAL PROPERTIES

Property	Minimum Value	ASTM Test Method
Flexural Strength	4,500 PSI	D790
Flexural Modulus	350,000 PSI	D790

- c. The Contractor shall provide a list of personnel working on this project, including previous project experience of the Foreman / Job Superintendent.
- d. The manufacturer and/or contractor shall submit a copy of the license or certificate verifying the manufacturer's or licenser's approval of the installer.

The final decision to accept or reject the product/manufacturer/installer lies solely with FRSA.

3 General Instructions

3.1 Bidder's Responsibility

Bidders are cautioned not to submit Proposals until having carefully examined the entire site of the proposed work and adjacent premises and the various means of approach and access to the site, and having made all necessary investigations to inform themselves thoroughly as to the facilities for delivering, placing and handling the materials at the site, and having informed themselves thoroughly as to all difficulties involved in the completion of all the work under this Contract in accordance with its requirements.

Bidders must examine the Plans, Specifications and other Contract Documents and shall exercise their own judgment as to the nature and amount of the whole of the work to be done and for the bid prices must assume all risk of variance, by whomsoever made, in any computation or statement of amount or quantities necessary to complete fully the work in strict compliance with the Contract Documents. The Bidder must satisfy himself by making borings or test pits, or by such methods as he may prefer, as to the character and location of the materials to be encountered or work to be performed. No pleas of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work under this Contract, as a result of failure to make the necessary examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill, in every detail, all of the requirements of the Contract Documents, or will be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

The Contractor is responsible for identifying the location of all existing utilities in the project areas.

The Bidder, therefore, shall satisfy himself by such means as he may deem proper as to the location of all structures that may be encountered in construction of the work.

3.2 Addenda and Interpretations

No interpretation of the meaning of the Plans, Specifications, or other Contract Documents will be made to any bidder orally. Every request for such interpretation must be in writing addressed to FRSA, 3501 Kishwaukee Street, Rockford, Illinois. To be given consideration, such request must be received at least five (5) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda which, if issued, will be sent by email, fax, or certified mail with acknowledgement of receipt requested, to all prospective bidders, at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve said bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

3.3 Laws and Regulations

The prospective bidder is warned that he must comply with all laws of the United States Government, State of Illinois, all ordinances and regulations of FRSA in the performance of the work under this Contract. The Bidder's attention is specifically called to that provision of the General Conditions regarding the rate of wage to be paid on the work.

3.4 Quantities Estimated Only

Bidders are warned that the estimate of quantities of the various items of work and materials, as set forth in the Proposal form, is approximate only and is given solely to be used as a uniform basis for the comparison of bids. The quantities actually required to complete the Contract work may be more or less than so estimated, and if awarded a Contract for the work specified, the Contractor further agrees that he will not make any claim for damages or for loss of profits or for an extension of time because of a difference between the quantities of the various classes of work assumed for comparison of bids and quantities of work actually performed.

3.5 Form, Preparation, and Presentation of Proposals

For particulars as to the quantity and quality of the supplies, materials and equipment to be furnished, and the nature and extent of the work or labor to be done, prospective bidders are referred to the Contract Documents, which may be examined or obtained at the office of FRSA.

Each bid will be submitted upon the provided Proposal form. All blank spaces for bid prices must be filled in, in ink, with the unit or total sum or both for which the Proposal is made. If the Proposal contains any omissions, erasures, alterations, additions or items not called for in the itemized Proposal, or contains irregularities of any kind, such may constitute sufficient cause for rejection of bid. In case of any discrepancy in the unit price or amount bid for any item in the Proposal, the unit price as expressed in figures will govern. In no case is the agreement form to be filled out or signed by the bidder.

Bidders may opt to contact the FRSA Engineering Department at 815.387.7660 to obtain an electronic Proposal form. If used, this form must be attached to the hard copy Proposal form and appropriately signed and executed with the Bid.

The bid must be verified and be presented on the provided form in a sealed envelope on or before the time and at the place stated in the Advertisement for Bids, endorsed with the name of the person, firm or corporation presenting it, the date of presentation, and the title of the work for which the bid is made. If forwarded by mail, the sealed envelope containing the Proposal and marked as directed above, must be enclosed in another envelope addressed to Clerk of the Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois, 61109 and be sent preferably by certified mail. FRSA will not accept facsimile generated bids.

3.6 Bid Security

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached, in the amount specified in Article One, Notice to Bidders. This sum is a guarantee that, if the Proposal is accepted, a contract will be entered into and its performance properly secured. FRSA's Bid Bond Form included in the bid packet must be used. No other Bid Bond form may be substituted.

Within ten (10) days after the opening of bids, the deposits of all but the three lowest bidders will be returned. The deposits of the remaining two unsuccessful bidders will be returned within three (3) days after the execution of the contract, or, if no such contract has been executed, within sixty (60)

days after the date of opening bids. The deposit of the successful bidder will be returned only after he has duly executed the contract and furnished the required bond and insurance.

3.7 Affidavit of Compliance

Each Proposal must be accompanied by an executed Affidavit of Compliance. A separate Affidavit of Compliance form is enclosed with the Proposal packet. Failure to submit an executed Affidavit of Compliance with the proposal may constitute sufficient cause for rejection of the bid.

3.8 Statement of Qualifications

Each Proposal must be accompanied by a Statement of Qualifications certifying that the bidder is registered to do business in the State of Illinois and provides documentation that the bidder possesses the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations. **The bidder shall document a minimum of two (2) years of experience installing CIPP laterals of similar length and configuration as this project and shall have successfully installed a minimum of 5,000 CIPP laterals in wastewater collection systems. The manufacturer's system shall have a minimum of five (5) years of installation with a minimum of 10,000 CIPP laterals successfully installed.** FRSA reserves the right to request additional information, as needed, to evaluate bids prior to making an award.

3.9 Comparison of Proposals

Bids on item contracts will be compared on the basis of a total computed price arrived at by taking the sum of the estimated quantities of each item, multiplied by the corresponding unit prices and including any lump sum bids on individual items, in accordance with the estimate of quantities set forth in the proposal form. Bids on lump sum contracts will be considered upon the basis of the lowest sum bid.

3.10 Acceptance of Bids and Basis of Award

No bidder may withdraw his bid after the scheduled closing time for receipt of bids, for at least sixty (60) days.

The contract will be awarded, if at all, to the lowest responsive, responsible bidder. FRSA also reserves the right to reject any or all bids.

The bidder whose Proposal is accepted shall enter into a written contract for the performance of the work and furnish the required bonds and insurance certificate within ten (10) days after written notice by the FRSA Director of Engineering has been served on such bidder personally or by mailing a postpaid wrapper to such bidder at the address given in his Proposal. If the bidder to whom the contract is awarded refuses or neglects to execute it or fails to furnish the required bond and insurance within five (5) days after receipt by him of the notice, the amount of his deposit shall be forfeited and shall be retained by FRSA as liquidated damage and not as a penalty. It being now agreed that said sum is a fair estimate of the amount of damages that FRSA will sustain in case said bidder fails to enter into a contract and furnish the required bond and insurance. No plea of mistake in the bid shall be available to the bidder for the recovery of his deposit or as a defense to any action based upon the neglect or refusal to execute a contract.

3.10.1 Evaluation of Responsiveness

The responsiveness of bidders will be judged on the basis of the completeness of the Bid submitted. To be responsive, a Bid must be submitted on the forms provided as part of the Bid Documents and comply with all the requirements of the Instruction to Bidders.

3.10.2 Evaluation of Responsibility

To be judged as responsible, the bidder shall:

- a. Have adequate financial resources for performance, the necessary experience, organization, technical qualifications, and facilities, or a firm commitment to obtain such by subcontracts;
- b. Be able to comply with the required completion schedule for the project;
- c. Have a satisfactory record of integrity, judgment, and performance, including, in particular, any prior performance on contracts with FRSA;
- d. Have an adequate financial management system and audit procedures, that provide efficient and effective accountability and control of all property, funds, and assets;
- e. Conform to the civil rights, equal employment opportunity and labor law requirements of the Bid Documents.
- f. Been pre-qualified in accordance with Article 2, Sections 2.3 and 3.8.

3.11 The Rejection of Bids

FRSA reserves the right to reject any Bid if the evidence submitted in the statement of the bidder's qualifications, or if investigation of such Bidder fails to satisfy FRSA that such Bidder is properly qualified to carry out the obligations and to complete the work contemplated therein. Any or all Proposals will be rejected if there is reason to believe that collusion exists among the bidders. Conditional Bids will not be accepted. FRSA reserves the right to reject any and all Bids and to accept the Bid which they deem most favorable to the interest of FRSA after all proposals have been examined and canvassed.

3.12 Insurance and Bonding

Contractor shall provide all necessary insurance and bonds required to complete the project. No more than ten (10) calendar days subsequent to FRSA's issuance of an award letter, the Contractor shall provide documentation to prove that he has obtained all required insurance and bonds. FRSA shall be the sole judge as to the acceptability of any such proof.

Contractor shall provide and maintain all insurance and bonds as required by FRSA.

3.12.1 General

The Contractor shall ensure that:

1. All insurance policies shall be specific to the project.
2. The insurance certificate shall state: This certifies that the insurance coverage meets or exceeds that required for the 2021-2022 Service Lateral Lining, Capital Project No. 2233.
3. FRSA shall be named as insured in all policies; this shall include the Owners Contractors Protective Policy option.
4. All completed operations coverages and bonds shall remain in force for a period of two (2) years following acceptance of the project and completed operations shall stay in force for two (2) years following completion of the project.

3.12.2 Insurance

The Contractor shall, for the duration of the contract and for two (2) years following project acceptance, maintain the following:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project or the general aggregate limit shall be twice the required occurrence limit. The Contractor shall provide "XCU" coverage.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage including coverages for owned, hired or non—owned vehicles, as applicable.
3. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by statute and Employers Liability limits of \$500,000 per accident and \$500,000 per disease.
4. Umbrella: \$2,000,000 per occurrence/aggregate for contracts valued at \$500,000 or over, or \$1,000,000 for contracts below \$500,000. \$10,000 is maximum allowable self-retained limit.
5. Errors and Omissions: If the Contractor performs professional services, he shall maintain errors and omissions insurance with a limit no lower than \$1,000,000 for the duration of the contract.

The policies shall contain, or be endorsed to contain, the following provisions in the General Liability and Automobile Liability Coverage's:

- a. Unless otherwise provided in paragraph "c" of this section, FRSA, its officers, officials, employees and volunteers shall be covered as additional insureds as respects liability arising out of activities performed by or on insured's general supervision of the Contractor, products and completed operations of the Contractor, premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to FRSA, its officers, officials, employees, volunteers, or agents.
- b. Unless otherwise provided in paragraph "c" of this section, the Contractor's insurance coverage shall be primary insurance as respects FRSA, its officers, officials, employees, volunteers, and agents. Any insurance or self-insurance maintained by FRSA, its officers, officials, employees, volunteers, or agents shall be excess of the Contractor's insurance and shall not contribute with it.
- c. As an acceptable alternative to provisions "a" and "b" of this section, the Contractor may provide owner's and contractor's protective liability insurance with coverage limits, named insureds, and in conformity with all applicable specifications of this section.
- d. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to FRSA, its officers, officials, employees, volunteers, or agents.
- e. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- f. All Coverages — Each insurance policy required by this clause shall not be suspended, voided, canceled by either party, reduced in coverage, or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to FRSA.

3.12.3 Best's Ratings

FRSA shall be the sole judge of whether or not said insurer's ratios are satisfactory. FRSA's decision shall be final and FRSA's bidding procedures contain no appeal provision.

1. Alphabetical Rating: For purposes of this Request for Bids, "insurer" shall mean any surety, insurance carrier, or other organization which proposes to provide an insurance policy or bond for the Contractor. No insurer or surety rated lower than "A-, Excellent" in the current *Best's Key Rating Guide* shall be acceptable to FRSA.
2. Financial Size Rating: Provided an insurer's alphabetical rating is satisfactory, FRSA will examine said insurer's financial size rating.
 - a. If Best classifies the insurer XII or larger, said insurer shall be acceptable to FRSA.
 - b. If Best classifies the insurer as smaller than XII, but larger than VI, said insurer shall be submitted to FRSA's Director of Human Services and/or FRSA's insurance consultant for review.

Financial Size ratings less than VII are not acceptable and will disqualify the Contractor.

3.12.4 Performance Bond and Labor & Materials Payment Bond Form

The Contractor shall provide a Performance Bond and Labor & Materials Payment Bond form acceptable to FRSA. The performance bond shall be for either 100% of the contract price or for the Contractor's unit price times the estimated number of units, as applicable.

This Request for Bids contains a Performance Bond and a Labor & Material Bond form for the Contractor's use.

If the Contractor fails to provide acceptable bonds within the specified time, he shall be in default.

3.12.5 Correction of Contractor's Insurance or Bond Deficiencies

If FRSA determines that the Contractor's insurance or bond documentation does not conform to these specifications, FRSA shall inform said Contractor of the non-conformity. If said Contractor fails to provide conforming insurance or bond documentation within five (5) calendar days of FRSA's deficiency notice, he shall be in default.

3.12.6 Indemnification Clause

Contractor shall protect, indemnify, hold and save harmless and defend FRSA, its officers, officials, employees, volunteers, and agents against any and all claims, costs, causes, actions and expenses, including but not limited to attorney's fees incurred by reason of a lawsuit or claim for compensation arising in favor of any person, including the employees, officers, independent contractors, or subcontractors of the Contractor or FRSA, on account of personal injuries or death, or damages to property occurring, growing out of, incident to, or resulting directly or indirectly from the performance by the Contractor or subcontractor, whether such loss, damage, injury or liability is contributed to by the negligence of FRSA or by premises themselves or any equipment thereon whether latent or patent, or from other causes whatsoever, except that the successful bidder shall have no liability for damages or the costs incident thereto caused by the sole negligence of FRSA.

The indemnification shall not be limited by a limitation on amount or type of damages payable by or for the Contractor or its subcontractor under any employee benefits act including, but not limited, to the Workers Compensation Act.

No inspection by FRSA, its employees, or agents shall be deemed a waiver by FRSA of full compliance with the requirements of the Contract. This indemnification shall not be limited by the required minimum insurance coverages in the Contract.

3.13 Tax Exemption

FRSA is exempt, by law, from paying bidder Federal Excise Tax and Illinois Retailers' Occupational Tax. Therefore, the bidder shall exclude those taxes from his bid. FRSA's tax exemption number is E99923696. The bidder shall include all applicable taxes in his bid price.

Not to be used for bidding purposes

Article 3 — Detailed Specifications

1 General

This article contains detailed specifications relating to Proposal items. The work to be done under each item is discussed along with units for payment and measurement for payment. The descriptions given do not necessarily outline all the work to be done under any item. The materials and workmanship provided for this project shall meet or exceed these Specifications, the Four Rivers Sanitation Authority's (FRSA) *General Provisions and Technical Specifications for Sanitary Sewer Construction* and current National Association of Sewer Service Companies (NASSCO) recommendations. In the case of contradictions between this article and the *General Provisions and Technical Specifications*, this article shall govern. In addition, the materials and workmanship provided for this project shall conform to current editions of the following:

- Standard Specifications for Water and Sewer Main Construction in Illinois as published by the Associated General Contractors of Illinois, the Illinois Municipal League, the Illinois Society of Professional Engineers and the Underground Contractors Association.
- Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation.
- American Society for Testing and Materials (ASTM):
 - ASTM D 543 Test Method for Resistance of Plastics to Chemical Reagents
 - ASTM D 638 Test Method for Tensile Properties of Plastics
 - ASTM D 790 Test Method for Tensile Properties of Non-reinforced and Reinforced Plastics and Electrical Insulating Materials
 - ASTM F 1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube
 - ASTM F 1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-place Installation of Cured-in-place Resin Pipe
 - ASTM F 2561 Standard Practice for Rehabilitation for a sewer service lateral and its connections to the main using a one piece main and lateral cured-in-place liner.

The Contractor shall provide the FRSA with a construction schedule prior to performing any work. Any work that is performed by the Contractor without the FRSA's permission or without a FRSA inspector present may be rejected at the FRSA's sole discretion.

Excavated or other materials shall not be stored or cast upon pavement. At the end of each day and prior to leaving the site, the Contractor shall clean-up work areas by sweeping, washing or other approved methods and shall transport all materials collected from the work site to an approved dumping area.

The Contractor shall perform all operations in strict accordance with OSHA and CIPP liner manufacturer's safety requirements. The FRSA shall not be responsible for the enforcement of safety standards and will not supervise, direct, control, or have authority over the Contractor's construction means, methods, techniques, sequences, procedures, or safety precautions and programs incident thereto, or for any failure of the Contractor to fully comply with all applicable laws and regulations related to the performance and completion of the specified work.

The Contractor shall be responsible for the final installation and all tests of materials required by the FRSA. All deficiencies noted by the inspectors shall be promptly corrected by the Contractor

without cost to the FRSA and prior to final payment. The FRSA will not be responsible for the Contractor's failure to perform or complete work in accordance with these Contract documents.

1.2 Required Submittals

- Applicable ASTM specifications.
- Construction schedule.

1.3 Payment – Not used.

2 Permit Requirements

2.1 General

All work in streets, highways, railroads or flood plains shall be subject to the regulations and requirements of the jurisdictional agency. The Contractor shall be responsible for securing all necessary permits, bonds, insurance, paying all fees and meeting all conditions required by all permits at no cost to the FRSA. Copies of Contractor-secured permits shall be provided to the FRSA prior to the start of construction. If conflicts or contradictions exist between Contract documents and required permit(s), the permit terms and conditions shall govern.

2.2 Local Permit Authorities

1. The City of Rockford will require a Blanket Right-of-way permit for all services located in the City of Rockford, contact Jordan Masemore at 779-348-7634 or via email at jordan.masemore@rockfordil.gov to obtain the permit.
2. For services in the City of Loves Park, notify Shannon Messinger at 815-654-5040 or via email at shannonmessinger@loves-park.il.us forty-eight (48) hours, minimum, prior to beginning any work.
3. For services in Rockford Township, notify Barry Palm at 815-222-6951 or via email at barrypalm@rockfordtownshipil.gov forty-eight (48) hours, minimum, prior to beginning any work.
4. For services in the Village of Machesney Park, contact Chad Hunter, at 815-877-5432 or via email at chadh@machesneypark.org.

2.3 Required Submittals

1. Copies of all permits obtained.

2.4 Payment

Payment for procurement and compliance of any permits required shall be included in the Contract unit price per Each (EA) for CIPP Lateral Reconstruction.

3 Notification and Access

3.1 General

The Contractor shall notify the FRSA forty-eight (48) hours, minimum, prior to beginning any work on a normal work day and twenty-four (24) hours prior to working on a weekend or a FRSA holiday. The Contractor will not be permitted to work on the following FRSA holidays: Thanksgiving Day, Christmas Day, New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, or Labor Day.

The Contractor shall contact JULIE at 800-892-0123 forty-eight (48) hours, minimum, prior to the start of construction to have the on-site utilities located. All underground utilities shall be located by the utility owner and special care shall be taken when excavating to avoid any damage to the utility. The Contractor shall notify the local roadway authority seventy-two (72) hours in advance of performing any roadway removal or restoration work. All roadway removal and restoration shall be inspected and approved by the governing roadway authority.

The Contractor shall be responsible for the temporary maintenance of all roadways, drives and drainage facilities for the duration of the project and shall maintain access at all times to all affected businesses and residences. Work areas shall be restored to pre-construction conditions or to the satisfaction of the governing agency.

It shall be the Contractor's responsibility to secure any temporary or permanent access, storage or construction easements from property owners deemed necessary to perform the work as described in these specifications. All easement acquisition costs shall be incidental to Contract pay items.

The Contractor shall continuously maintain the current level of sanitary sewer service for the duration of the project. Property owners shall not be without sewer service for more than eight (8) hours.

3.2 Public Notification Program

A public notification program must be implemented. At a minimum, the Contractor shall contact each home or business scheduled for lining to inform them of the work to be conducted and when the sewer will be out of service. Adjustment to the lining schedule shall be made to accommodate property owners and/or residents as necessary. The following shall also be provided:

1. Forty-eight (48) hour, minimum, advanced written notice to be delivered to each home or business describing the work, schedule, how it affects them, and a toll free or local telephone number of the Contractor contact they can call to discuss the project or any problems that arise. Notice shall also include contact information for the FRSA's Field Operations Manager, Ben Christiansen, 815-209-7952. Notice may be in the form of a letter and/or door-hanger.
2. Personal contact or written notice the day prior to the beginning of work being conducted on the section relative to the residents impacted.
3. Personal contact with any home or business that cannot be reconnected within the time stated in the written notice.

3.3 Required Submittals

1. Notification letter and/or door hanger notification.
2. Agreements for access and/or storage, as requested.

3.4 Payment

Payment for notification and access shall be included in the Contract unit price per Each (EA) for CIPP Lateral Reconstruction.

4 Sewer Cleaning

4.1 General

The Contractor shall be responsible for cleaning and removing foreign materials from the sewer lines to permit proper installation of the pipe lining materials. The sewer line cleaning shall be accomplished by using a hydraulically propelled, high-velocity jet nozzle, or mechanically powered equipment. Selection of the equipment shall be the responsibility of the Contractor and shall be approved by the FRSA prior to starting any of the work.

The cleaning procedure shall conform to current NASSCO recommendations and remove all dirt, grease, rocks, roots, sand, and any other material or obstructions from the pipe that would affect proper installation of the liner. Contractor shall notify the FRSA of any sewer service segment that cannot be properly cleaned because of a broken pipe or other major blockage. If the FRSA cannot make the necessary modifications to the sewer service to facilitate lining, the service will be removed from the Contract.

The Contractor shall take all necessary precautions in the use of cleaning equipment to prevent flooding or damage to any sewer lines, services, manholes and public or private property. To ensure safe operation, all machines shall be fully enclosed and shall be equipped with an automatic overload clutch or relief valve.

When hydraulically propelled or other cleaning tools are used, precautions shall be taken to ensure that the water pressure created does not damage the existing pipe or cause flooding of public or private property being served by the sewer.

4.2 Water and Electricity

1. Electricity: Any electricity required shall be the responsibility of the Contractor.
2. Water: The Contractor shall be responsible for coordinating with the appropriate water authority for the availability of public water for this project. If public water is not directly available at specific sites, the Contractor is responsible for delivery of water to the site and for any fees charged for water usage. A calibrated water meter shall be obtained from the appropriate water department to gauge water usage as required. Local water authority contacts are as follows:

<u>Authority</u>	<u>Contact</u>	<u>Telephone</u>
City of Rockford	Jamie Rott	779-348-7152
City of Loves Park	Craig McDonald	815-877-1421
North Park Public Water Dist.	Ed Rice	815-633-5461

4.3 Solids Disposal

All foreign materials cleaned from the sewers shall be removed at the downstream manhole of the section of sewer being cleaned. The Contractor shall not pass foreign materials into other pipe sections. All materials shall be removed from the project site and properly disposed of by the Contractor at the end of each workday. No debris shall be accumulated on the work site except in totally enclosed containers and as approved by the FRSA.

4.4 Acceptance of Sewer Line Cleaning

The Contractor shall televise all sewer services after they are cleaned and verify that the service is prepared for lining. If television inspection shows the cleaning to be unsatisfactory, the Contractor shall re-clean and re-televise the sewer line until it is acceptable to the FRSA. No additional compensation will be awarded for re-cleaning or re-televising of sewers.

4.5 Equipment Recovery

If any equipment becomes stuck in the sewer line and excavation is required for tool removal, the Contractor shall be responsible for the cost of extraction work necessary, including but not limited to excavation, backfill, pavement and turf restoration, pipe repair and repairs to property damaged by sewer back-ups.

4.6 Required Submittals

1. Proposed cleaning equipment specifications.

4.7 Payment

Payment for sewer cleaning shall be included in the Contract unit price per Each (EA) for Clean and Televiser Service Lateral.

5 Sewer Flow Control

5.1 General

The Contractor shall be responsible for controlling the flow in the sewer main to ensure the service liner is installed properly. If required, the Contractor will be allowed to reduce or eliminate the amount of flow by plugging the upstream line. The Contractor shall monitor flow and bypass pump into another sanitary sewer manhole. All plugs must be restrained to ensure that they cannot be washed downstream. All bypass pumping routes shall be approved by the FRSA.

The service lateral must be inactive during the time of service liner installation and inspection. This shall be accomplished by plugging the upstream end of the service at the tee fitting and requesting that the homeowner refrain from using water during the installation period.

5.2 Temporary Plugging

The Contractor shall insert an acceptable sewer line plug into the mainline upstream of the section being worked on. The plug must be designed such that all or any portion of the sewage can be quickly released. The Contractor shall remove the plug well in advance of any sewer back-up and monitor the service during work as required to do so. After the work has been completed, flow shall be restored to normal.

5.3 Bypass Pumping

When bypass pumping is required, the Contractor shall supply the pumps, conduits, and other equipment to bypass sewage around the manhole section in which work is to be performed. The bypass system shall be of sufficient capacity to accommodate peak flows. The Contractor shall furnish the necessary labor and supervision to set up, operate and maintain the bypass pumping system.

Bypassed flow shall only be discharged into manholes approved by the FRSA. The Contractor must ensure that surcharging and backups do not occur on public or private property while pumping or plugging operations are being conducted. If bypass pumping is required on a twenty-four (24) hour basis, the equipment shall be equipped with mufflers to restrict noise levels to 90 decibels or less. Hoses, pipes or other equipment shall not be placed upon private property without written permission of said property owner.

5.4 Flooding Precautions

When flow in a sewer line is plugged, blocked, or bypassed, the Contractor shall take sufficient precautions to protect the sewer lines from damage that might result from sewer surcharging, and

to ensure that sewer flow control operations do not cause flooding or damage to the public or private property being served by the sewer involved.

The Contractor will be liable for any damage caused by sewer back-ups.

5.5 Required Submittals

1. Proposed bypass pumping route(s), as applicable.

5.6 Payment

Payment for sewer flow control shall be included in the Contract unit price bid per Each (EA) for CIPP Lateral Reconstruction.

6 Cured-in-Place Pipe (CIPP) Lateral Reconstruction

6.1 General

It is the intent of this specification to provide for the reconstruction of sanitary service lateral pipes from the sewer main to the property line without excavation by the installation of a resin impregnated flexible tube. The cured-in-place pipe (CIPP) shall be installed in the existing service lateral, in accordance with ASTM F-1216, ASTM F-1743, and/or ASTM F-2561 through a 6" diameter clean-out at the property line or from the mainline pipe. The resin and tube shall be held in place using internal pressure and cured into a hard impermeable pipe. When cured, the pipe shall be a continuous, tight-fitting pipe-within-a-pipe. The rehabilitation shall also provide a watertight connection at the mainline pipe and full mainline wrap unless specified otherwise.

6.2 Cured-in-place Pipe (CIPP)

The tube shall be fabricated to a size that when installed provides a CIPP that will neatly conform to the internal circumference of the existing service pipe. **Location Maps provided in Section III show each service to be reconstructed, however, the Contractor shall be responsible for verifying the length, diameter and condition of all existing services.**

1. Cured-in-place Pipe (CIPP) Material Specifications
 - a. Chemical resistance: The CIPP shall be fabricated from materials which when cured will be chemically resistant to withstand internal exposure to domestic sewage, and meet the chemical corrosion resistance requirements of ASTM F-1216 and D-5813. All materials shall be suitable for service in the environment intended.
 - b. Tube: The tube material shall meet the requirements of ASTM F 1216, Section 5.1.
 - i. Absorbent Fabric Tube: The tube shall consist of one or more layers of absorbent fabric capable of carrying resin, and capable of withstanding installation pressures and curing temperatures. The tube shall be compatible with the resin system used. The tube material shall be capable of stretching to fit irregular pipe sections and bends.
 - ii. Allowance should be made for circumferential stretch during inversion. For the pull-in methods of lining, the resin soaked tube shall have an outer plastic lining that effectively prevents the scrape-off or wash-off of resin.

- iii. Thickness: The liner shall be designed in accordance with ASTM F-1216. The finished tube shall have a uniform thickness and shall not vary from the nominal minimum tube thickness by more than 5%. The minimum liner thickness for this project shall be 3.0 mm unless design calculations per the CIPP structural requirements provided in this specification demonstrate a thinner liner would be acceptable.
 - iv. Color: The tube shall be a light reflective color so that a clear, detailed examination with closed circuit television equipment may be made.
 - v. Delamination: The bond between all CIPP layers shall be strong and uniform. Once cured, all layers must form a homogeneous structural pipe wall with no part of the tube left unsaturated by resin. It shall not be possible to separate any layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between layers; nor shall separation of layers occur during testing performed under the requirements specified elsewhere herein.
- c. Resin: The resin system shall be thermoset polyester, vinylester (or FRSA approved alternate) resin meeting the requirements of ASTM F-1216, Section 5.2.
- i. The manufacturer shall certify that the proposed resin system and cure schedule are appropriate for the proposed application, and have been tested in laboratory and field conditions. The resin shall produce CIPP, which will comply with the structural and chemical resistance requirements specified.
 - ii. The resin used shall be compatible with the tube and be able to cure in the presence of water. Thixotropic agents that enable the resin system to possess pseudo-plastic fluid flow properties, and that do not interfere with visual inspection, shall be added for viscosity control and to minimize resin washout.
 - iii. Resins may contain pigments that do not interfere with visual inspection of, or the physical testing of the CIPP material. Filler materials of a proprietary nature may be added as long as the final pipe product meets or exceeds the minimum standards set forth in this specification.
- d. Deviations: The Contractor shall submit his price proposal for the appropriate length, size and thickness designated or required. No changes in prices will be entertained by the FRSA as a result of the Contractor modifying the properties of the liner due to unexpected parent pipe conditions.

2. Cured-in-place Pipe (CIPP) Structural Design Requirements

- a. The CIPP pipe shall be designed in accordance with the requirements of ASTM F 1216, Appendix XI, with the following design parameters:
 - i. Design safety factor: 2.0
 - ii. Reduction factor for long-term effects: 0.50 (applied to flexural modulus).
 - iii. Ovality: 2% min.
 - iv. Enhancement factor (K): 7

- v. Groundwater depth: To grade
- vi. Soil Depth: To grade
- vii. Soil Modulus: 1000 psi
- viii. Soil density: 120 pcf
- ix. Live load: 0
- x. Design condition: Fully deteriorated

- b. Design calculations shall be submitted to the FRSA for approval prior to lining.

3. Structural Performance

- a. The structural performance of the finished pipe must be able to accommodate all anticipated loads throughout the design life of the CIPP. No CIPP reconstruction technology will be allowed that requires bonding to the existing pipe for any part of its structural strength. If reinforcing is used (fiberglass, etc.), those materials must be of a corrosion-resistant grade and be fully encapsulated within the resin to assure that the reinforcement is not compromised when exposed to raw sewage. The cured-in-place pipe shall conform to the minimum structural standards as listed below:

<u>Property</u>	<u>ASTM Standard</u>	<u>Minimum</u>
Flexural Strength	ASTM D-790	4,500 PSI
Flexural Modulus of Elasticity	ASTM D-790	250,000 PSI

- b. Structural Testing: To verify past performance, the manufacturer shall submit independent laboratory test results from the same liner materials proposed for the actual installation. These test results must verify that the structural properties specified above have been achieved in previous field applications. Samples shall be prepared and tested in accordance with ASTM E-1216. Copies of certified test reports by an approved testing laboratory shall be provided to the FRSA. The flexural modulus of elasticity and flexural strength shall be measured for gravity pipe applications in accordance with Test Method D-790, Test Method #1 - Procedure A.

4. Preparation of Liner

- a. Liner material must be inspected to verify conformance with manufacturer's standards prior to impregnation.
- b. Wet Out: The tube shall be impregnated with resin under controlled conditions. The volume of resin used should be sufficient to fill all voids in the tube material at nominal thickness and diameter. A roller system shall be used to uniformly distribute the resin throughout the tube. All air in the tube shall be removed by vacuum, allowing the resin to thoroughly impregnate the tube. Should any unsaturated section of the tube be noticed before inversion, the unsaturated area of the tube shall be re-impregnated with the resin using methods developed by the Contractor and approved by the FRSA.

5. Lateral Lining Installation

- a. Installation of the lateral lining system shall take place by one or both of the following installation methods:
 - i. Install service liner through sanitary sewer main: A pressure apparatus, attached to a robotic device, shall be hand-winched through the mainline pipe to the service connection. The robotic device and a television camera shall be used to position the pressure apparatus installation hardware at the service connection opening. Air pressure shall be used to install the tube into the lateral pipe.
 - ii. Install service liner through existing cleanout: A pressure apparatus shall be pulled into place through the cleanout. Air pressure shall be used to install the wet-out tube into the lateral pipe.
 - b. Non-toxic lubricant may be used to reduce friction. The inversion / installation process shall be conducted at a maximum controlled speed of two feet per second (2 fps).
 - c. Pressure: Tube installation forces or pressures shall be limited so as not to stretch the tube longitudinally by more than 5% of the original length. Prior to installation, the tube manufacturer shall determine the minimum pressure required to hold the tube tight against the host pipe and the maximum allowable pressure to avoid overstretching or damaging tube. Once the installation has started, the pressure shall be maintained between the minimum and the maximum pressures until the installation is complete.
 - d. The Contractor shall be responsible for coordinating with the appropriate water authority for the availability of public water for this project. If public water is not directly available at specific sites, the Contractor shall be responsible for delivery of water to the site. The Contractor shall be responsible for any fees charged for water usage. If required, the Contractor shall obtain a calibrated water meter from the appropriate water department to gauge usage of water.
 - e. Curing: Curing shall take place per the manufacturer's recommendations. The Contractor shall provide submittals on all lining materials and resins, and shall furnish manufacturer certification that the liner materials are in compliance with the specifications, codes, and standards referenced herein. The submittals shall include details of all construction material components, including complete manufacturers recommendations for storage procedures and temperature control (step curing temperature/hours at each and final stage for each section thickness and length), handling, inserting the liner, and curing details.
6. Finish: The finished CIPP shall be free of dry spots, lifts, wrinkles or delamination. The CIPP shall not inhibit the closed circuit television post-video inspection of the mainline or service lateral pipes. The service lateral pipe opening at the connection to lined mainline has been reinstated in a manner that is consistent with *ASTM F-1743, Section 6.9*. The method of connection of the service liner pipe to the main must be approved by the FRSA. If the service reinstatement in the existing CIPP or fold and formed liner, has rough or jagged edges or is not fully open, the Contractor shall modify the service

connection at the main as specified elsewhere herein. The connection of the service to the mainline sewer must be made watertight by means of a hydrophilic seal or other FRSA approved method.

7. Final Acceptance:

- a. Upon completion, the Contractor shall televise the lined lateral and provide the inspection video to the FRSA.
- b. Upon completion of service lining, FRSA crews will televise the sewer main to verify acceptance of the sewer service connection at the main. The Contractor shall coordinate main line connection inspection schedule with the FRSA Inspector.

6.3 Required Submittals

1. Chemical resistance test data from CIPP from previous construction contracts.
2. Tube material specification.
3. Resin system material specification.
4. Liner thickness design calculations.
5. Structural property testing results from previously completed projects.
6. Curing details.

6.4 Payment

Payment for Cured-in-place Pipe Lateral Reconstruction shall be made based on the Contract unit price per Each (EA) for CIPP Lateral Reconstruction for the size and type indicated. Contract Pay Items are as follows (all tees indicated = Main I.D. X Service I.D.):

- CIPP Lateral Reconstruction, 8" X 6" Tee
- CIPP Lateral Reconstruction, 9" X 6" Tee
- CIPP Lateral Reconstruction, 10" X 6" Tee
- CIPP Lateral Reconstruction, 12" X 6" Tee
- CIPP Lateral Reconstruction, 15" X 6" Tee
- CIPP Lateral Reconstruction Special, 6" X 4" Straight
- CIPP Lateral Reconstruction Special, 8" X 6" Tee, Short

7 Service Reinstatement Modification

7.1 General

Prior to installing the service liner, the Contractor shall locate the sewer lateral openings in the lined sewer main by televising. The Contractor shall inspect service openings in the existing liner pipe.

If required, the Contractor shall modify / re-cut or brush existing service connections to achieve one hundred percent (100%) of the original opening. Service modification shall be done without excavation from the interior of the pipe by means of a television camera and a remotely controlled cutting device or brush. The edges of the service cut-ins shall be smooth and even. There shall be no rough or jagged edges. The entire circumference (360°) of the sewer service reinstatement shall be televised and recorded on the post-lining videotape.

The service opening shall be reviewed by the FRSA prior to modification and shall meet FRSA approval prior to lining.

Any pieces of the liner that were cut from the service connections shall be captured at the downstream manhole and disposed of by the Contractor.

7.2 Required Submittals – Not Used.

7.3 Payment

Payment for modification of the sewer service connection at the main will be made at the Contract unit price per Each (EA) for Service Reinstatement Modification.

8 Television Inspection

8.1 General

The Contractor shall televise and document all service line conditions after cleaning the service but prior to installing the service liner. Recording will also be required after the liner is installed. The FRSA will review the recordings for final acceptance. All televising shall be performed by experienced technicians.

All sewer televising shall be done in accordance with recommended specifications as published by the National Association of Sewer Service Companies (NASSCO).

The Contractor shall also provide equipment to play back the recordings in the field as requested by the FRSA. The equipment shall play back at the same speed that it was recorded, and shall have a slow-motion or stop-action feature.

Prior to installing the liner, the interior of the service line shall be carefully inspected to verify the inside diameter and to determine the locations of any conditions that would prevent the proper installation of the sewer liner.

8.2 Televising Equipment

All televising equipment utilized for inspection of service lateral pipes shall conform to the minimum standards established herein.

1. Televising equipment shall include a push rod wide angle service camera, television monitor, cables, power source, lights, skids, and other required equipment. The television camera shall be specifically designed and constructed for operation in connection with sewer inspection.
2. Camera Specifications: The camera, television monitor, and other components of the video system shall be capable of producing a minimum 600-line resolution color video picture. The camera shall be operative in one hundred percent (100%) humidity conditions. Lighting for the camera shall be supplied by a lamp on the camera and will minimize reflective glare. Lighting and camera quality shall be suitable to provide a clear, in-focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. Picture quality and definition shall be to the satisfaction of the FRSA. The camera used for televising the sewer service shall be a push service camera. Markings shall be made on the push camera cable to measure distance and the distances shall be verified above ground with a tape.
3. Recording Requirements: All sewer televising shall be documented on digital media. The recording shall include information that accurately reproduces the original picture of the video inspection. The recording shall be free of electrical interference and shall produce a clear and stable image.

The pipeline inspection shall consist of identifying a location both within the pipe segment (physical location) and within the recording (video frame location) for each observation. This will allow the recording and inspection data to be cross-referenced for instant access to any point of interest within the recording.

Continuous measurements along service lines shall be electronically or manually recorded for purposes of referencing locations of pipe defects. The date and service address or Item number from the Lateral Reconstruction Schedule shall be continuously displayed on the recording header.

8.3 TV Inspection and Data Collection Practices

All inspection and recording practices shall conform to the minimum standards specified herein.

1. Color: All recordings shall be in color with the ability to achieve proper balance of tint and brightness. The loss of color or severe redness due to equipment malfunction and black and white pictures irrespective of quality may be cause for rejection.
2. Focus: All recordings shall be in focus, properly illuminated with good contrast and without interference.
3. Cleaning: Prior to televising, all lines shall be cleaned by the Contractor in accordance with applicable specifications or as directed by the FRSA. All obstructions that restrict flow, prevent cleaning, or televising should be reported to the FRSA immediately.
4. Maximum Flow Depth: If possible, televising shall be performed while the line segments are in service without plugging or flow diversion.
5. Camera Movement: The camera shall move through the line at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition but in no case shall the television camera be pulled at a speed greater than 30 feet per minute.
6. Lens Cleaning: The camera lens must be kept clean and clear. Any fogging due to wastewater content or debris that obscures the lens shall be cleaned off before proceeding with the recording operations.
7. Sewer Length Accuracy: Measurements shall be accurate to +/- 1.0 feet over the length of the section being inspected. Distance marks shall be made on the push camera and all measurements verified above ground with a walking meter, roll-a-tape, or other suitable device.
8. Digital Recording Review: The Contractor shall provide the FRSA with digital recordings (1 copy) of all sewer services before and after rehabilitation with visual records of all services and problem areas provided in a format that is compatible with the FRSA's equipment. Electronic files shall be organized by Contract Item Numbers from the *Lateral Reconstruction List* provided in *Section III*. File labels shall clearly describe post-lining and pre-lining for each service. During construction, the Contractor may submit video inspections for review and approval to expedite any corrective work, but the final video submittal must contain all video inspections on a single SSD hard drive. All recordings submitted by the Contractor to the FRSA shall be subject to review for acceptability of quality conforming to the minimum standards established herein. The cost of providing the hard drive shall be incidental to the sewer lining.

9. Unacceptable Inspection: If the recording of any portion of a line is unacceptable, the entire segment will be deemed unacceptable and must be re-televised from the property line to the main.
10. Complete Service Line Segments: All services must be televised complete from the sewer main to property line on the same recording in a continuous run. Partial recordings on separate files will not be accepted.

8.4 Required Submittals – Not Used.

8.5 Payment

Payment for the television inspections of the lined service shall be included in the Contract unit price bid per Each (EA) for CIPP Lateral Reconstruction.

9 Restoration Work

9.1 General

Restoration work shall include the following provisions:

1. All soil, brush and debris resulting from construction shall be removed and disposed of in a satisfactory manner. The surface of the ground, all fences and other structures on the premises or adjacent premises touched or in any manner altered by lining operations, shall be restored to pre-construction conditions.
2. Ground surface including public rights-of-way and easements that were covered with grass prior to construction shall be seeded in accordance with Sections 250, and 251 of the IDOT *Standard Specifications for Road and Bridges Construction*, current edition, and as directed by the FRSA. The Contractor shall make certain that all disturbed areas have the same depth (4" minimum) and quality of approved topsoil as existed prior to construction.
 - a. The seeding mixture used shall be compatible with the existing ground cover and shall be acceptable to the FRSA. Maintainable lawn areas shall be seeded with IDOT Class I seeding mixture. Existing non-maintained turf areas shall be seeded with IDOT Class 3-slope mixture.
3. On private property, the Contractor shall remove and replace (or replant) all bushes, shrubs and plants damaged or destroyed with species of similar type, size and quantity. These plantings shall be guaranteed for a period of one (1) year after final completion.

9.2 Excavation

In the unlikely case excavation is required beyond the scope of exposing existing cleanouts, all restoration of private and public property, including sidewalks, driveways, all other slab work, concrete and asphalt, drainage channels, storm sewers and dry wells, disturbed or damaged as a result of construction shall be promptly completed, in accordance with roadway authority standards within public right-of-way or to pre-construction conditions as directed by the FRSA and guaranteed by the Contractor for a period of two (2) years following satisfactory completion and final acceptance of the total Contract.

All excavated areas shall be guaranteed against subsidence and settlement for a period of three (3) years after final completion of the Contract. Any restoration work damaged as a result of subsidence shall be restored again at no cost to the FRSA.

All structures and conduits shall be repaired, cleaned and re-laid or replaced at original alignments and grades. Pipes, which in the estimation of the FRSA have been significantly damaged by the

Contractor, shall be replaced with new pipe of the same diameter, length and type, at the Contractor's sole expense; any necessary couplings and fittings shall also be installed as necessary, and all work shall be satisfactory to the FRSA. When necessary, temporary restoration of roads, drives, fences, etc., will be required.

9.3 Required Submittals

1. Seed mixture certification(s).
2. Pavement mix designs (if applicable).

9.4 Payment

Payment for restoration work shall be included in the Contract unit price per Each (EA) for CIPP Lateral Reconstruction.

10 Safety and Traffic Control

10.1 General

The work described under this contract includes work within sanitary sewers, an environment deemed hazardous by State and Federal authorities. The Contractor shall employ all safety measures appropriate for such work. The Contractor shall be solely responsible for the safety of the operations and shall comply with all state, local and OSHA regulations. The Contractor shall meet all the requirements of all permits secured for this project.

10.2 Safety Program

The Contractor shall develop and maintain a safety program that will effectively incorporate and implement all required safety provisions as determined by OSHA 29 CFR for the duration of this Contract.

10.3 Traffic Control

The Contractor shall comply with all rules and regulations of the State, County, and Local authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by express permission of the FRSA. The work shall be constructed so as to ensure the least possible obstruction to traffic and normal business activities. Contractor shall protect all obstructions within traveled roadways by installing approved signs, barricades, and lights where necessary for the safety of the public. The Contractor shall notify the appropriate roadway authority a minimum of seventy-two (72) hours prior to beginning any work for approval of traffic control on affected streets, as well as required detour routes, signing and permits.

The Contractor shall maintain continuous access to the residences and/or businesses, schools, etc., at all times (i.e., drives, roadways, ramps must remain open or temporary access must be provided) for the duration of this Contract.

The Contractor shall furnish flagmen, guards and all other traffic control devices when required by regulation or deemed necessary for safety.

10.4 Required Submittals – Not Used.

10.5 Payment

Payment for safety and traffic control shall be included in the Contract unit price per Each (EA) for CIPP Lateral Reconstruction.

11 Quality Assurance

11.1 General

The television inspection described in previous sections shall be used by the FRSA to perform final inspection on the lined pipe. The finished pipe liner shall be continuous from the sewer main to the property line and shall be free from all visual defects such as foreign inclusions, dry spots, pinholes, pilot holes, wrinkles or delamination. The lining shall be impervious and free of any leakage between the pipe and the surrounding ground, as well as any leakage at the connection to the sewer main.

Upon completion of service lateral lining, the FRSA will televise the sewer main to verify the acceptance of the sewer service connection at the main.

The Contractor shall repair any defects in the liner that will affect the integrity or strength of the pipe and any visual or functional defects such as wrinkles, drill holes, folds, pillows, etc., at his own expense. All repairs shall be performed in a manner that is mutually agreed upon by the FRSA and the Contractor. If a liner fails and is determined to be unacceptable by the FRSA the entire length of lined pipe from the main to the property line shall be removed and replaced per FRSA requirements at no additional cost to the FRSA.

11.2 Wrinkles and Folds

Any wrinkles or folds in the finished liner pipe that are larger than five percent (5%) of the pipe diameter and are located in the bottom half of the service shall be unacceptable and shall be removed and repaired by the Contractor at his sole expense. The method of removal/repair shall be approved by the FRSA.

11.3 Structural Property Testing

For every twenty (20) laterals lined, one (1) flat plate sample shall be tested by a third party test laboratory for confirmation of flexural strength and flexural modulus of elasticity in accordance with ASTM F-1216. Should any samples fail to meet minimum structural properties, the Contractor shall excavate, sample and re-test material to the satisfaction of the FRSA. The FRSA will determine the quantity and individual liner(s) subject to additional structural property testing in the case of failed flat plate sample tests.

11.4 Required Submittals

1. The Contractor shall submit quality control procedures for the liner manufacture and installation, including detailed inspection, collection of field samples, retention of samples, and testing of physical properties of field samples.
2. Contractor shall submit evidence of manufacturer approved installer training, testing and / or certification of personnel employed being trained to install the product by the manufacturer for the product.

11.5 Payment

Payment for quality assurance shall be included in the Contract unit price per Each (EA) for CIPP Lateral Reconstruction.

12 Warranty

The Contractor shall unconditionally warrant their products for a period of two (2) years commencing on the date installation of the entire project is completed and accepted, in writing, by the FRSA. The Contractor shall repair, at his own expense, any defects in the liner that will affect the integrity or strength of the pipe. All repairs shall be performed in a manner that is mutually

agreed upon by the FRSA and the Contractor. Any such repairs shall likewise be covered by the same warranty period from the date of subsequent installation and written approval by the FRSA.

Any repairs required after the service liner is installed and within the two-year warranty period will require testing in accordance with *T.S. 9 Acceptance Tests*, Pages 94 through 98 of the *General Provisions and Technical Specifications for Service Lateral Construction*. This testing shall be performed by the Contractor at no additional cost to the FRSA. Complete site restoration of any repairs shall also be the responsibility of the Contractor. All trenches and related restoration shall be guaranteed against settlement for a period of three (3) years from the date the project is completed.

During the warranty period, any defects which will affect the integrity or strength of the cured-in-place pipe shall be repaired at the Contractor's expense in a manner mutually agreed upon by the FRSA and the Contractor.

12.2 Required Submittals – Not Used.

12.3 Payment – Not Used.

Not to be used for bidding purposes

Section II
Contract Forms

Proposal

Project: 2021-2022 Service Lateral Lining, Capital Project No. 2233
Location: Throughout public right-of-way and sanitary sewer easements within the Four Rivers Sanitation Authority in Winnebago County, Illinois
Completion Date: April 30, 2022
Liquidated Damages: \$300/calendar day per each completion date deadline

To: Board of Trustees
Four Rivers Sanitation Authority
3501 Kishwaukee Street
Rockford, IL 61109

From: _____
(Individual, Partnership or Corporation, as case may be)

(Address of Individual, Partnership or Corporation)

Gentlemen:

I (We), the undersigned, hereby propose to furnish all materials, equipment, tools, services, labor, and whatever else may be required to construct and place in service the above subject Sanitary Sewer for the Four Rivers Sanitation Authority all in accordance with the plans and specifications, provided by Four Rivers Sanitation Authority. The undersigned also affirms and declares:

1. That I (we), have, examined and am (are) familiar with all the related contract documents and found that they are accurate and complete and are approved by the undersigned.
2. That I (we), have carefully examined the site of the work, and that, from my (our) investigation, has satisfied myself (ourselves) as to the nature and location of the work, the character, quality, and quantity of materials and the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions and all difficulties to be encountered, and all other items which may, in any way, effect the work or its performance.
3. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same purposes, and is in all respects fair and without collusion or fraud; and that I (we) are not barred from bidding as a result of a bid-rigging or bid-rotating conviction.

4. That accompanying the Proposal is a Bidder's Bond in the amount specified in Article 1, Notice to Bidders, payable to the Board of Trustees of the Four Rivers Sanitation Authority, which it is agreed, shall be retained as liquidated damages by said Four Rivers Sanitation Authority if the undersigned fails to execute the Contract in conformity with the contract documents incorporated in the contract documents and furnish bond as specified, within ten (10) days after notification of the award of the contract to the undersigned.
5. The Bidder is of lawful age and that no other person, firm or corporation has any interest in this Proposal or in the Contract proposed to be entered into.
6. The Bidder is not in arrears to the Four Rivers Sanitation Authority, upon debt or contract, and is not a defaulter, as surety or otherwise, upon any obligation to the Four Rivers Sanitation Authority.
7. No officer or employee or person whose salary is payable in whole or in part by the Four Rivers Sanitation Authority is, shall be or become interested, directly or indirectly as a contracting party, partner, stockholder, surety or otherwise, in this Proposal, or in the performance of the Contract, or in the work to which it is relates, or in any portion of the profits thereof.
8. The Bidder which I represent complies with all applicable requirements of the Americans with Disabilities Act (ADA) and the Occupational Safety and Health Act (OSHA) and that if said bidder is awarded a contract, it will complete all OSHA-required or ADA-required employee and customer training, will make available all required information, and will hold harmless and indemnify the Four Rivers Sanitation Authority and the Four Rivers Sanitation Authority's representatives.

In regard to participation in an approved Apprenticeship program, upon request, Contractor will be required to provide written proof of participation.
9. The undersigned, as Bidder, declares that he has adopted and promulgated written sexual harassment policies in accordance with Public Act 101-0221 and will make this information available upon request.
10. The undersigned, as Bidder, declares he will comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on public works projects (including Four Rivers Sanitation Authority) to submit certified payroll reports via the State's Certified Transcript of Payroll Portal found at www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx.
11. The undersigned, as Bidder, declares he will comply with the Federal Drug Free Workplace Act.
12. The undersigned, as Bidder, declares he will comply with Public Act 83-1030 entitled "Steel Products Procurement Act".
13. The undersigned, as Bidder, declares he will comply with Public Act 96-929 (30 ILCS 570) regarding Illinois residents' employment.
14. The undersigned, as Bidder, declares he will comply with non-discrimination in employment in accordance with the Illinois Fair Employment Practices Commissions Rules & Regulations.

15. The undersigned, as Bidder, declares that he currently participates in an apprenticeship or training program that is registered with the United States Department of Labor's Bureau of Apprenticeship and Training or other acceptable State of Illinois Department of Labor monitored program.

In submitting this bid, it is understood that the right is reserved by the Four Rivers Sanitation Authority to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.

The undersigned further declares that he (they) has (have) carefully examined the following items of work and that the cost of all the work to complete this project is given in this Proposal.

Not to be used for bidding purposes

Item No.	Quantity	Unit	Description	Unit Price (In Writing)	Unit Price (In Figures)	Total Price (In Figures)
1	194	EA	Clean and Televise Service Lateral			
2	148	EA	CIPP Lateral Reconstruction, 8" x 6" Tee			
3	2	EA	CIPP Lateral Reconstruction, 9" x 6" Tee			
4	12	EA	CIPP Lateral Reconstruction, 10" x 6" Tee			
5	2	EA	CIPP Lateral Reconstruction, 12" x 6" Tee			
6	28	EA	CIPP Lateral Reconstruction, 15" x 6" Tee			
7	1	EA	CIPP Lateral Reconstruction Special 6" x 4" Straight			
8	1	EA	CIPP Lateral Reconstruction Special, 8" x 6" Tee, Short			
9	5	EA	Service Reinstatement Modification			
TOTAL BID PRICE:						
				(In Writing)		(In Figures)

The undersigned acknowledges receiving Addendum numbers _____, _____, _____, and realizes that all Addenda are considered part of the contract.

By: _____

Name: _____ Title: _____ Date: _____

Fair Employment Practices Affidavit of Compliance

Project: 2021-2022 Service Lateral Lining, Capital Project No. 2233

NOTE: THE BIDDER MUST EXECUTE THIS AFFIDAVIT AND SUBMIT IT WITH ITS SIGNED BID. THE FOUR RIVERS SANITATION AUTHORITY CANNOT ACCEPT ANY BID WHICH DOES NOT CONTAIN THIS AFFIDAVIT

_____, being first duly sworn, deposes and says that:
(Name of person making affidavit)

They are: _____ of _____
(Officer's Title) (Company Name)

that said company is and "Equal Opportunity Employer" as defined by Section 2000(e) of Chapter 21, Title 42 of the United States Code annotated and Federal Executive Orders #11375 which are incorporated herein by reference;

and that said company will comply with any and all requirements of Title 44 Admin. Code 750. APPENDIX A – Equal Opportunity Clause, Rules and Regulations, Illinois Department of Human Rights, which read as follows:

"In the event of the contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance to this contract, the contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, citizen status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
2. That, if he or she hires additional employees in order to perform this contract or any portion of this contract, he or she will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the areas from which he or she may reasonably recruit and he or she will hire for each job classification for which employees are hired in a way that minorities and women are not underutilized.
3. That, in all solicitations or advertisements for employees placed by him or her or on his or her behalf, he or she will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, citizenship status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service.
4. That he or she will send to each labor organization or representative of workers with which he or she has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the contractor in his or her efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations under the contract.
5. That he or she will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Departments Rules and Regulations.
6. That he or she will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
7. That he or she will include verbatim or by reference the provisions of this clause in every subcontract awarded under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply with the provisions. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contacts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

(Source: Amended at 32 Ill. Reg. 16484, effective September 23, 2008)"

IL Dept of Human Rights Registration No.: _____ Expiration Date: _____

Signature

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

Notary Public

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we:

_____ (hereinafter called the Principal) and

_____ (hereinafter called the Surety)

a Corporation chartered and existing under the laws of the State of _____ with its principal offices in the City of _____ and authorized to do business in the State of Illinois are held and firmly bound onto the Four Rivers Sanitation Authority (FRSA) of Winnebago County, Illinois, in the full and just sum of: **FIVE PERCENT (5%) OF THE TOTAL BID PRICE** good lawful money of the United States of America, to be paid upon demand of the FRSA, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted to FRSA, a proposal for constructing Sanitary Sewers and Appurtenances.

WHEREAS, the Principal desires to file this bond, in accordance with law, to accompany this Proposal.

NOW THEREFORE, The conditions of this obligation are such that if the Proposal be accepted, the Principal shall, within ten days after the date of receipt of a written notice of award of Contract, execute a Contract in accordance with the Proposal and upon the terms, conditions, and prices set forth therein, in the form and manner required by FRSA, and execute a sufficient and satisfactory Contract Performance Bond payable to said FRSA in an amount of one hundred percent (100%) of the Contract price (including alternates) in form and with security satisfactory to said FRSA, then this obligation to be void, otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid FRSA, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20_____.

Principal

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Attest:

Secretary

Surety

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Agreement

1. General

THIS AGREEMENT, made and concluded this ____ day of _____, 2021, between the Four Rivers Sanitation Authority (FRSA), Rockford, Illinois, acting by and through the Board of Trustees, and _____, his/their executors, administrators, successors or assigns:

2. Scope of Work

WITNESSETH: That for and in consideration of the payments and agreements made in the Proposal attached hereto, to be made and performed by FRSA and according to the terms expressed in the Bond referring to these presents, the Contractor agrees with FRSA at his/their own proper cost and expense to do all the work, furnish all equipment, materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of FRSA and its representative.

And it is also understood and agreed that the Bidding Requirements, Detailed Specifications, Contract Forms, General Conditions, General Requirements, Technical Specifications, Plans, Addenda, and provisions required by law are all essential documents of the contract, and are a part hereof, as if herein set out verbatim or as if attached, except for titles, subtitles, headings, table of contents and portions specifically excluded.

3. Contract Price

FRSA shall pay to the Contractor, and the Contractor shall accept, in full payment for the performance of this Contract, subject to any additions or deductions provided for hereby, in current funds, the Total Contract Price of _____ and 00/100 (\$_____).

Payments are to be made to the Contractor in accordance with and subject to the provisions of Section 7 of this Agreement, which is a part of this Contract.

4. Bond

The Contractor has entered into and herewith tenders a bond of even date herewith, in the penal sum of _____ and 00/100 (\$_____) to insure the faithful performance of this Contract, which said bond is hereby made a part of this Contract by reference.

5. Maintenance and Guarantee

The Contractor shall promptly repair, replace, restore or rebuild any imperfections that may arise and shall maintain satisfactory to FRSA all work for a period three years from the date of final acceptance of the Contract for trench settlement and for a period of two years all other work, except where periods of maintenance and guarantee are provided for. The Contractor shall, for this period, indemnify and save harmless the FRSA, its officers and agents from any injury done to property or persons as a direct or alleged result of imperfections in the Contractors' work, and shall immediately assume and take charge of the defense of such action or suits in like manner and to all intents and purposes as if said actions and suits had been brought directly against the Contractor.

If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged work promptly after receiving notice given by FRSA, the FRSA shall have the right to have the work done by others and to call on the Contractor and his bondsman to pay the costs thereof.

6. Contract Execution

IT IS EXPRESSLY UNDERSTOOD AND AGREED that the entire improvement shall be done in a thorough and workmanlike manner, under the direction and to the satisfaction of FRSA and in full compliance with all the requirements of its representative under them. All loss or damage arising out of the nature of the work to be done, or from any detention of unforeseen obstruction or difficulty which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.

The Contractor will be held responsible for all accidents, and hereby agrees to indemnify and protect FRSA from all suits, claims, and actions brought against it, and all cost, and damages which FRSA may be put to by reason of an injury or alleged injury, to the person or property of another in the execution of this contract, or the performance of the work, or in guarding the same, or for any material used in its prosecution or in its construction.

Any person employed on the work who shall refuse or neglect to obey the directions of FRSA or its representative, or who shall be deemed by FRSA to be incompetent, or who shall be guilty of any disorderly conduct, or who shall commit any trespass on any public or private property in the vicinity of the work, shall at once be removed from the work by the Contractor when so requested by FRSA.

Any request to extend the contract completion date must be considered by the Board at the Board meeting prior to the then-existing contract termination date. Any deviation from this action will result in the liquidated damage clause in the contract to be exercised.

7. Payments to Contractor

FRSA hereby covenants and agrees, in consideration of the covenants and agreements in this Contract, specified to be kept and performed by the Contractor and subject to the conditions herein contained, and if FRSA receives an acceptable invoice prior to the tenth day of the month and receives approval of the work by the FRSA's Director of Engineering, FRSA shall issue payment before the fifth day of the succeeding month. If FRSA receives an acceptable invoice on or after the tenth day of the month, FRSA shall issue payment before the fifth day of the second succeeding month.

FRSA reserves the right at all times to refuse to issue payment in case the Contractor has neglected or failed to pay any subcontractors, workmen or employee on the work.

8. Subcontracts

No part of the work herein provided for shall be sublet or subcontracted without the express consent of FRSA, to be entered in the records, and in no case shall consent relieve the Contractor from the obligation herein entered into, or change the terms of this Agreement.

9. Contractor's Responsibility

This Contract shall extend to and be binding upon the successors and assigns, and upon the heirs, administrators, executors, and legal representatives of the Contractor.

In consideration of and to induce the award of this Contract to him, the Contractor represents and warrants: that he is not in arrears to FRSA upon debt of the Contract and that he is not a defaulter, as surety, contractor or otherwise; that he is financially solvent and sufficiently experienced and competent to perform the work; that the work can be performed as called for by the Contract; that the facts stated in his proposal and the information given by him is true and correct in all respects, and that he is fully informed regarding all the conditions affecting the work to be done and labor and materials to be furnished for the completion of this Contract and that his information was secured by personal investigation and research.

The Contractor shall pay not less than the prevailing wage rate as determined by the Department of Labor, to all laborers, workmen and mechanics performing work under this Contract. Contractor shall comply with current revisions of the wage standards; as required by law. The Contractor shall be responsible for verifying the prevailing wages each month and notifying all subcontractors of the appropriate monthly rates. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Contractor is responsible for verifying current website.

In regard to nondiscrimination in employment, Contractor will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations as provided herein.

The Contractor shall comply with the American Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify FRSA and their representatives from all:

- (a) suits, claims, or actions;
- (b) costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement, and;
- (c) damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the contract.

Contractor shall also comply with Public Act 101-0221, which requires any party to a contract to adopt and enforce a written policy regarding sexual harassment that includes, as a minimum, the following information:

- (a) the illegality of sexual harassment
- (b) the definition of sexual harassment under Illinois State law;
- (c) a description of sexual harassment, utilizing examples;
- (d) my (our) organization's internal complaint process including penalties;
- (e) through the Illinois Department of Human Rights and the Illinois Human Rights Commission;
- (f) directions on how to contact the Department and the Commission; and
- (g) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.

Upon request this information will be provided to the Illinois Department of Human Rights. Upon FRSA award of a contract, FRSA will be provided this information described no more than ten working days after FRSA issues its award notification.

The Contractor shall comply with Public Act 96-929 (30 ILCS 570) which provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and further, that Illinois workers are available and capable of performing the particular type work involved.

The Contractor shall comply with all rules and regulations of OSHA during the execution of this Contract.

The Contractor shall comply with the Federal Drug Free Workplace Act.

The Steel Products Procurement Act, Illinois Public Act 83-1030, requires that steel products used or supplied in performance of this Contract or subcontract shall be manufactured or produced in the United States with three exceptions, as explained in the Instructions to Bidders.

The Contractor shall comply with Public Act 96-1416 regarding the disposal of CCDD and uncontaminated soil at CCDD fill sites as explained in the Instructions to Bidders.

10. Time

Work under this Agreement shall be commenced upon written Notice to Proceed. The completion date for this project shall be April 30, 2022.

11. Liquidated Damages

The amount of liquidated damages shall be \$300.00 per calendar day.

12. Counterparts

This Agreement may be executed and recorded in counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument. The Parties hereby acknowledge and agree that facsimile signatures or signatures transmitted by electronic mail in so-called "pdf" format shall be legal and binding and shall have the same full force and effect as if an original of this Agreement had been delivered. Each of the parties (a) intend to be bound by the signatures on any document sent by facsimile or electronic mail, (b) are aware that the other party will rely on such signatures, and (c) hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

13. Seals

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officers.

Four Rivers Sanitation Authority
Winnebago County, Illinois

(Seal)

By _____
President, Board of Trustees

ATTEST: _____
Clerk of the Board

Contractor

(Corporate Seal)

By _____
Contractor's Officer

Name: _____
Title: _____
Date: _____

ATTEST: _____

Labor & Material Payment Bond

TO: _____ Contractor Name

Contractor City, State

KNOW ALL MEN BY THESE PRESENTS

That _____ (Contractor)

as Principal, and _____

a corporation of the State of _____ as Surety, are held and firmly bound unto the Four Rivers Sanitation Authority, as Obligee, for the use and benefit of claimants as hereinafter defined in the amount of

_____ Dollars (\$ _____), for the payment where of Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ 20__ Entered into a Contract with Obligee for _____ in accordance with contract documents prepared by the Four Rivers Sanitation Authority which Contract is by reference made a part hereof, and is hereinafter referred to as "the Contract".

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Principal shall promptly pay for all laborers, workers and mechanics engaged in the work under the Contract, and not less than the general prevailing rate of hourly wages of a similar character in the locality in which the work is performed, as determined by the State of Illinois Department of Labor pursuant to the Illinois Compiled Statutes 280 ILCS 130 / 1-12 et seq. and for all material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect.

1. A claimant is deemed as any person, firm, or corporation having contracts with the Principal or with any of Principal's subcontractors for labor or materials furnished in the performance of the Contract on account of which this Bond is given.
2. Nothing in this Bond contained shall be taken to make the Obligee liable to any subcontractor, material man or laborer, or to any other person to any greater extent than it would have been liable prior to the enactment of The Public Construction Bond Act, approved June 20, 1931, as amended; provided further, that any person having a claim for labor and materials furnished in the performance of the Contract shall have no right of action unless he shall have filed a verified notice of such claim with the Obligee within 180 days after the date of the last item of work or the furnishing of the last item of materials, which claim shall have been verified and shall contain the name and address of the claimant, the business address of the claimant within the State of Illinois, if any, or if the claimant be a foreign corporation having no place of business within the State the principal place of business of the corporation, and in all cases of partnership the names and residences of each of the partners, the name of the Contractor

for the Obligee, the name of the person, firm or corporation by whom the claimant was employed or to whom such claimant furnished materials, the amount of the claim and a brief description of the public improvement for the construction or installation of which the contract is to be performed. No defect in the notice herein provided for shall deprive the claimant of its right of action under the terms and provisions of this Bond unless it shall affirmatively appear that such defect has prejudiced the rights of an interested party asserting the same.

3. No action shall be brought on this Bond until the expiration of 120 days after the date of the last item of work or of the furnishing of the last item of material except in cases where the final settlement between Obligee and the Contractor shall have been made prior to the expiration of the 120 day period, in which case action may be taken immediately following such final settlement; nor shall any action of any kind be brought later than 6 months after the acceptance by the Obligee of the work. Such suit shall be brought only in the circuit court of this State in the judicial district in which the Contract is to be performed.
4. Surety hereby waives notice of any changes in the Contract, including extensions of time for the performance thereof.
5. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
6. The Principal and Surety shall be liable for any attorneys' fees, engineering costs, or court costs incurred by the Obligee relative to claims made against this Bond.

Signed and Sealed this _____ day of _____, 20____.

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

ATTEST:

Corporate Secretary (Corporations only)

Performance Bond

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Four Rivers Sanitation Authority has awarded to: _____ hereinafter designated as the "Principal", a contract, dated, _____, for the Four Rivers Sanitation Authority.

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract (the "Bond");

NOW, THEREFORE, we the Principal and _____, as Surety, are firmly bound unto the Four Rivers Sanitation Authority in the penal sum of _____

Dollars

(\$ _____) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents for a performance bond. The conditions of this obligation is such that if the said Principal does well and faithfully performs all the conditions and covenants of said Contract, according to the true intent and meaning thereof, upon its part to be kept and performed, then the above obligation is to be null and void, otherwise to remain in full force and effect.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, including the provisions for liquidated damages in the said Contract, any changes, additions or 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 Four Rivers Sanitation Authority, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same and no inadvertent overpayment of progress payments shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications or of any inadvertent overpayment of progress payments. The Four Rivers Sanitation Authority shall be named as beneficiary on this Performance Bond.

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

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

ATTEST:

Corporate Secretary (Corporations only)

Not to be used for bidding purposes

Section III

CIPP Lateral Reconstruction List, Detail, and Location Maps

2021-2022 Service Lateral Linnig, Capital Project 2233
Section III - Lining List

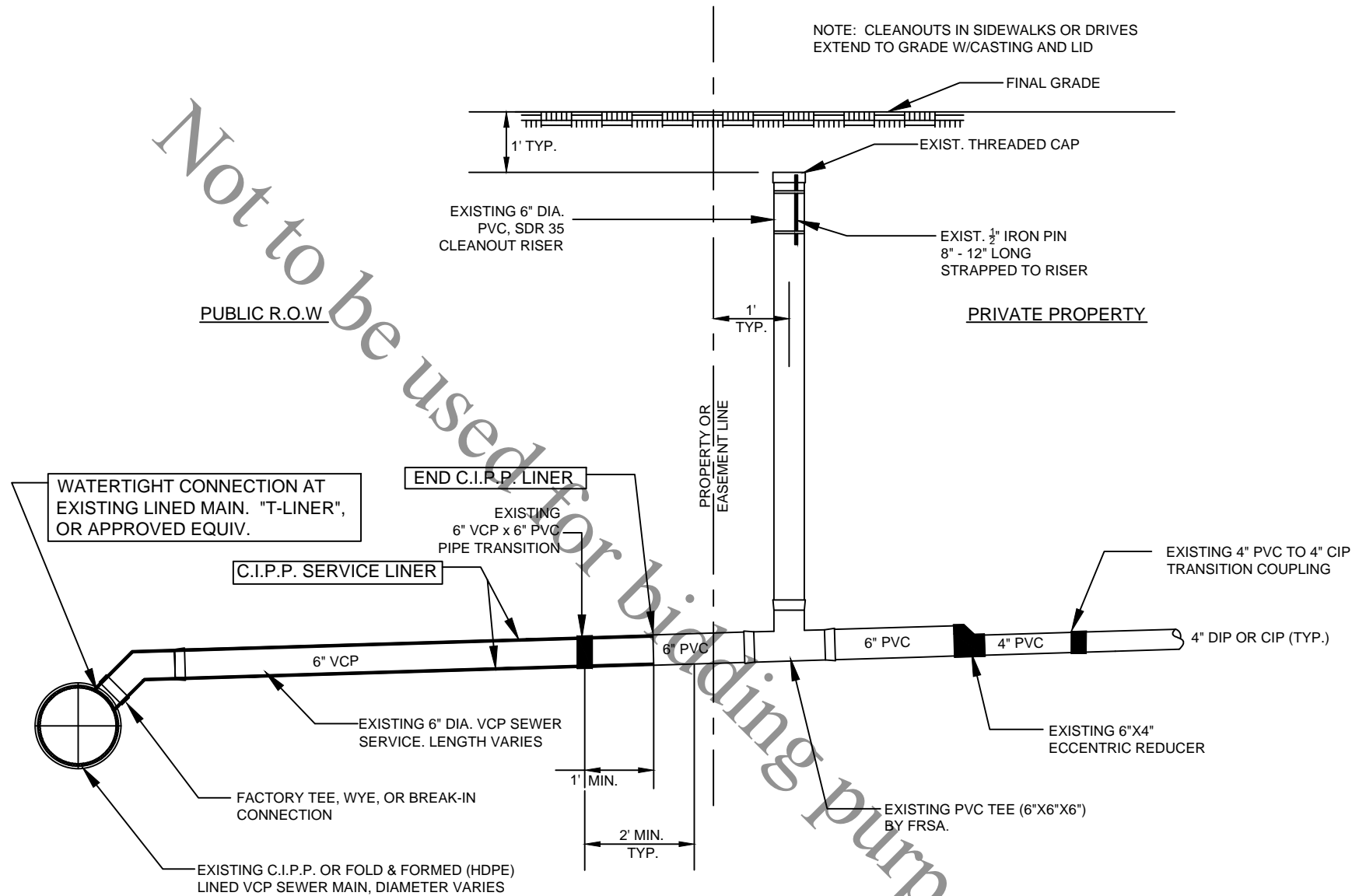
Item #	Address	PIN	UPSTM MH	DNSTM MH	Comments	End Measurment (FT)	Depth (FT)	Main Dia. (INCH)	Main Type	Roadway Authority	Est. Length (FT)	Map #
1	820 Taft Rd	15-02-456-017	005040	005039	6" C/O @ P.L.	7EW	6	8	CIPP	City of Rockford	25	1
2	812 Taft Rd	15-02-456-015	005040	005039	6" C/O @ P.L.	9WE	8.5	8	CIPP	City of Rockford	25	1
3	808 Taft Rd	15-02-456-014	005040	005039	6" C/O @ P.L.	8.6EW	7	8	CIPP	City of Rockford	25	1
4	803 Taft Rd	15-02-457-002	005040	005039	6" C/O @ P.L.	11EW	8.5	8	CIPP	City of Rockford	25	1
5	618 Barry Rd	15-02-380-009	004011	004010	6" C/O @ P.L.	28.5WE	7	8	CIPP	City of Rockford	30	2
6	602 Barry Rd	15-02-380-006	004011	004010	6" C/O @ P.L.	55.6WE	7	8	CIPP	City of Rockford	30	2
7	510 Barry Rd	15-02-377-014	004013	004012	6" C/O @ P.L.	20EW	7.6	8	CIPP	City of Rockford	30	2
8	504 Barry Rd	15-02-377-012	004013	004012	6" C/O @ P.L.	32EW	9	8	CIPP	City of Rockford	30	2
9	502 Barry Rd	15-02-377-011	004013	004012	6" C/O @ P.L.	1EW	10	8	CIPP	City of Rockford	30	2
10	434 Barry Rd	15-02-355-020	004014	004013	6" C/O @ P.L.	9EW	8	8	CIPP	City of Rockford	30	2
11	609 Barry Rd	15-02-381-004	004011	004010	6" C/O @ P.L.	42WE	8	8	CIPP	City of Rockford	30	2
12	615 Sawyer Rd	15-02-379-005	004024	004023	6" C/O @ P.L.	35WE	9	8	CIPP	City of Rockford	25	3
13	607 Sawyer Rd	15-02-379-003	004024	004023	6" C/O @ P.L.	38EW	9	8	CIPP	City of Rockford	25	3
14	605 Sawyer Rd	15-02-379-002	004024	004023	6" C/O @ P.L.	30WE	9	8	CIPP	City of Rockford	25	3
15	614 Sawyer Rd	15-02-332-011	004024	004023	6" C/O @ P.L.	38WE	9	8	CIPP	City of Rockford	25	3
16	608 Sawyer Rd	15-02-332-009	004024	004023	6" C/O @ P.L.	10WE	9	8	CIPP	City of Rockford	25	3
17	819 Barnum Rd	15-02-408-008	004057	004056	6" C/O @ P.L.	10 WE	9	8	CIPP	City of Rockford	25	4
18	226 Gilbert Ter	07-25-428-052	124066	124065	6" C/O @ P.L.	29 EW	8	8	CIPP	Machesney Park	32	5
19	222 Gilbert Ter	07-25-428-051	124066	124065	6" C/O @ P.L.	30 EW	8	8	CIPP	Machesney Park	33	5
20	223 Gilbert Ter	07-25-476-010	124066	124065	6" C/O @ P.L.	30 EW	8.5	8	CIPP	Machesney Park	32	5
21	219 Gilbert Ter	07-25-476-009	124066	124065	6" C/O @ P.L.	29 EW	8.5	8	CIPP	Machesney Park	32	5
22	215 Gilbert Ter	07-25-476-008	124066	124065	6" C/O @ P.L.	30 EW	9	8	CIPP	Machesney Park	32	5
23	132 Gilbert Ter	07-25-404-030	124056	124055	6" C/O @ P.L.	30 EW	7	15	CIPP	Machesney Park	33	6
24	128 Gilbert Ter	07-25-404-029	124055	124054	6" C/O @ P.L.	26 EW	7	15	CIPP	Machesney Park	33	6
25	140 Gilbert Ter	07-25-404-031	124056	124055	6" C/O @ P.L.	29 EW	7	15	CIPP	Machesney Park	33	6
26	142 Gilbert Ter	07-25-404-032	124056	124055	6" C/O @ P.L.	26 EW	7	15	CIPP	Machesney Park	33	6
27	144 Gilbert Ter	07-25-404-033	124056	124055	6" C/O @ P.L.	28 EW	7	15	CIPP	Machesney Park	33	6
28	124 Gilbert Ter	07-25-404-028	124055	124054	6" C/O @ P.L.	28 EW	6.5	15	CIPP	Machesney Park	33	6
29	148 Gilbert Ter	07-25-404-034	124056	124055	6" C/O @ P.L.	31 EW	8	15	CIPP	Machesney Park	33	6
30	152 Gilbert Ter	07-25-404-035	124057	124056	6" C/O @ P.L.	27 EW	7	15	CIPP	Machesney Park	33	6
31	120 Gilbert Ter	07-25-404-027	124055	124054	6" C/O @ P.L.	27 EW	6.5	15	CIPP	Machesney Park	32	6
32	116 Gilbert Ter	07-25-404-026	124055	124054	6" C/O @ P.L.	27 EW	6.5	15	CIPP	Machesney Park	32	6
33	112 Gilbert Ter	07-25-404-025	124055	124054	6" C/O @ P.L.	36 EW	6.5	15	CIPP	Machesney Park	32	6
34	108 Gilbert Ter	07-25-404-024	124054	124049	6" C/O @ P.L.	26 EW	6	15	CIPP	Machesney Park	33	6
35	104 Gilbert Ter	07-25-404-023	124054	124049	6" C/O @ P.L.	28 EW	5.5	15	CIPP	Machesney Park	33	6
36	30 Gilbert Ter	07-25-404-022	124054	124049	6" C/O @ P.L.	33 WE	6	15	CIPP	Machesney Park	33	6
37	28 Gilbert Ter	07-25-404-042	124054	124049	6" C/O @ P.L.	34 WE	4.5	15	CIPP	Machesney Park	32	6
38	139 Gilbert Ter	07-25-451-013	124056	124055	6" C/O @ P.L.	29 EW	7	15	CIPP	Machesney Park	33	6
39	131 Gilbert Ter	07-25-451-012	124056	124055	6" C/O @ P.L.	56 WE	7	15	CIPP	Machesney Park	33	6
40	143 Gilbert Ter	07-25-451-014	124056	124055	6" C/O @ P.L.	29 WE	7	15	CIPP	Machesney Park	33	6
41	147 Gilbert Ter	07-25-451-015	124056	124055	6" C/O @ P.L.	28.5 WE	7	15	CIPP	Machesney Park	33	6
42	155 Gilbert Ter	07-25-451-017	124057	124056	6" C/O @ P.L.	25 WE	8.5	15	CIPP	Machesney Park	33	6
43	127 Gilbert Ter	07-25-451-011	124055	124054	6" C/O @ P.L.	28.5 WE	7	15	CIPP	Machesney Park	33	6
44	123 Gilbert Ter	07-25-451-010	124055	124054	6" C/O @ P.L.	26.5 WE	7	15	CIPP	Machesney Park	34	6
45	115 Gilbert Ter	07-25-451-008	124055	124054	6" C/O @ P.L.	29 WE	6.5	15	CIPP	Machesney Park	34	6
46	111 Gilbert Ter	07-25-451-007	124055	124054	6" C/O @ P.L.	25 WE	6.5	15	CIPP	Machesney Park	34	6
47	107 Gilbert Ter	07-25-451-006	124054	124049	6" C/O @ P.L.	25 WE	6.5	15	CIPP	Machesney Park	33	6
48	103 Gilbert Ter	07-25-451-005	124054	124049	6" C/O @ P.L.	26.5 WE	6	15	CIPP	Machesney Park	33	6
49	29 Gilbert Ter	07-25-451-004	124054	124049	6" C/O @ P.L.	28 WE	6	15	CIPP	Machesney Park	33	6
50	27 Gilbert Ter	07-25-451-003	124054	124049	6" C/O @ P.L.	28 WE	5	15	CIPP	Machesney Park	33	6
51	202 Huron Rd	07-36-227-028	124015	124014	6" C/O @ P.L.	8 WE	9	8	CIPP	Machesney Park	33	7
52	314 Theodore St	11-01-203-029	095059	095058	6" C/O @ P.L.	24 EW	8	8	CIPP	Loves Park	33	8
53	3539 Robey Ave	11-01-352-004	081113	081112	6" C/O @ P.L.	17 NS	8.5	8	CIPP	City of Rockford	25	9
54	324 River Park Rd	11-01-430-020	095103	095007	6" C/O @ P.L.	14 EW	8.5	8	CIPP	Loves Park	24	10
55	2207 Crane Dr	11-02-353-005	087088	087087	6" C/O @ P.L.	48 WE	10	8	CIPP	City of Rockford	40	11
56	2633 Lorado Ln	11-03-476-032	086121	086046	6" C/O @ P.L.	41 EW	8.5	8	CIPP	City of Rockford	33	12
57	3440 Pakard Pkwy	11-03-454-015	086051	086050	6" C/O @ P.L. (SPECIAL 8X6 TEE, SHORT)	50.5 NS	9	8	VCP	City of Rockford	40	12
58	3228 Hanover Dr	11-10-229-024	086024	086023	6" C/O @ P.L.	40 SN	7.5	8	CIPP	City of Rockford	33	13
59	2528 Ellen Ave	11-10-430-020	079122	079121	6" C/O @ P.L.	23 NS	9.5	8	CIPP	City of Rockford	31	14
60	2907 Gladstone Ave	11-10-452-013	077032	077031A	6" C/O @ P.L.	22.5 EW	8	8	CIPP	City of Rockford	25	15
61	2908 Gladstone Ave	11-10-455-005	077032	077031A	6" C/O @ P.L.	27 EW	8	8	CIPP	City of Rockford	25	15
62	1809 Jonathan Ave	11-11-128-037	088018	088017	6" C/O @ P.L.	18.6 WE	9	8	CIPP	City of Rockford	30	16
63	3124 N Church St	11-11-206-015	081039	081038	6" C/O @ P.L.	72.5 NS	11	8	CIPP	City of Rockford	25	17
64	1508 Midway Dr	11-11-256-006	081043	081035	6" C/O @ P.L.	32.5 WE	8.5	8	CIPP	City of Rockford	30	18
65	1401 Barton Blvd	11-11-256-026	NA	080106	MH-4" CO (SPECIAL 6 X 4 STRAIGHT)	See Map	9	N/A	N/A	City of Rockford	70	19
66	2111 Sharon Ave	11-11-308-022	080064	080059	6" C/O @ P.L.	36.5EW	9	8	CIPP	City of Rockford	30	20
67	1823 Sauber Ave	11-11-326-033	080035	080034	6" C/O @ P.L.	24.6 EW	7	8	CIPP	City of Rockford	32	21
68	2117 Bell Ave	11-11-352-014	080085	080084	6" C/O @ P.L.	9.5EW	8	8	CIPP	City of Rockford	30	22
69	2211 Winnebago St	11-11-358-008	080094	080090	6" C/O @ P.L.	14.7SN	8	8	CIPP	City of Rockford	30	23
70	2216 Winnebago St	11-11-357-009	080094	080090	6" C/O @ P.L.	17SN	7.5	8	CIPP	City of Rockford	30	23
71	2215 Winnebago St	11-11-358-007	080094	080090	6" C/O @ P.L.	31NS	8	8	CIPP	City of Rockford	30	23
72	2212 Winnebago St	11-11-357-010	080094	080090	6" C/O @ P.L.	8NS	8	8	CIPP	City of Rockford	30	23
73	1827 Bell Ave	11-11-376-033	080068	080069	6" C/O @ P.L.	19WE	8.5	8	CIPP	City of Rockford	30	24
74	1903 Bell Ave	11-11-376-032	080068	080069	6" C/O @ P.L.	38EW	8.5	8	CIPP	City of Rockford	32	24
75	1907 Bell Ave	11-11-376-031	080068	080069	6" C/O @ P.L.	2EW	8.5	8	CIPP	City of Rockford	32	24
76	1912 Bell Ave	11-11-377-009	080068	080069	6" C/O @ P.L.	24EW	8.5	8	CIPP	City of Rockford	29	24
77	213 Rose Ave (L.P.)	11-12-203-009	082050	082049A	6" C/O @ P.L.	43 EW	8.5	8	CIPP	Loves Park	39	25
78	5124 Illinois St	11-12-277-017	091081	091045A	6" C/O @ P.L.	29.3 NS	8	8	CIPP	Loves Park	14	26
79	915 Van Wie Ave	11-12-354-005	072122	072119	6" C/O @ P.L.	7.5 EW	7	10	CIPP	City of Rockford	23	27
80	2208 Wallace St	11-12-356-009	072123	072122	6" C/O @ P.L.	30.5 SN	7	8	CIPP	City of Rockford	31	27

2021-2022 Service Lateral Linnig, Capital Project 2233
Section III - Lining List

Item #	Address	PIN	UPSTM MH	DNSTM MH	Comments	End Measurment (FT)	Depth (FT)	Main Dia. (INCH)	Main Type	Roadway Authority	Est. Length (FT)	Map #
81	2301 Douglas St	11-12-378-006	072109	072106	6" C/O @ P.L.	71.5 EW	7.5	12	CIPP	City of Rockford	22	28
82	2201 Hancock St	11-12-381-007	072117	072116	6" C/O @ P.L.	47.5 NS	7	8	CIPP	City of Rockford	36	29
83	1421 Burton St	11-14-232-010	071067	071066	6" C/O @ P.L.	32.4 EW	6.5	8	CIPP	City of Rockford	25	30
84	2819 Lawndale Ave	11-15-226-003	077056	077055	6" C/O @ P.L.	24 EW	8	8	CIPP	City of Rockford	25	31
85	1208 Taylor St	11-15-330-007	059060	059061	6" C/O @ P.L.	29.6 WE	8.5	8	CIPP	City of Rockford	34	32
86	1331 Ashland Ave	11-15-334-017	056023	056020	6" C/O @ P.L.	28 EW	6	8	CIPP	City of Rockford	33	33
87	823 Albert Ave	11-16-433-001	055032	055031	6" C/O @ P.L.	61 SN	8.3	8	CIPP	City of Rockford	33	34
88	2403 School St	11-16-459-013	127004	127003	6" C/O @ P.L.	7 EW	9	8	CIPP	City of Rockford	33	35
89	707 Royal Ave	11-16-476-004	055045	055044	6" C/O @ P.L.	19 EW	8.3	8	CIPP	City of Rockford	33	36
90	1138 21st Ave	11-35-427-017	010045	010044	6" C/O @ P.L.	35.5 WE	6.5	10	CIPP	City of Rockford	33	37
91	1119 21st Ave	11-35-427-013	010045	010044	6" C/O @ P.L.	6 WE	7	10	CIPP	City of Rockford	33	37
92	1137 21st Ave	11-35-431-010	010045	010044	6" C/O @ P.L.	16.5 WE	7	10	CIPP	City of Rockford	33	37
93	1932 Delcy Dr	12-17-403-015	101024	101023	6" C/O @ P.L.	42.3 EW	10.3	8	CIPP	Rockford Township	32	38
94	2024 Rural St	11-24-256-026	049024	049021	6" C/O @ P.L.	71 WE	5.5	12	CIPP	City of Rockford	33	39
95	3316 Brendenwood Rd	12-19-204-013	066013	066012	6" C/O @ P.L.	24NS	8	8	CIPP	City of Rockford	30	40
96	1209 Roncevalles Ave	12-19-226-005	066013	066012	6" C/O @ P.L.	13.5NS	8	8	CIPP	City of Rockford	30	40
97	1208 Roncevalles Ave	12-19-204-012	066013	066012	6" C/O @ P.L.	9NS	7.5	8	CIPP	City of Rockford	30	40
98	1203 Roncevalles Ave	12-19-226-006	066013	066012	6" C/O @ P.L.	57NS	7.5	8	CIPP	City of Rockford	30	40
99	3320 Pioneer Dr	12-19-208-011	066011	066010	6" C/O @ P.L.	24NS	8	8	CIPP	City of Rockford	30	41
100	908 Luther Ave	12-19-209-022	051033	051032	6" C/O @ P.L.	22 SN	9.5	8	CIPP	City of Rockford	30	42
101	1208 Arden Ave	12-19-228-012	066033	066029	6" C/O @ P.L.	37.5 WE	8.5	8	CIPP	City of Rockford	30	43
102	3610 Brendenwood Rd	12-19-228-010	066033	066029	6" C/O @ P.L.	37.1 EW	8	8	CIPP	City of Rockford	30	43
103	1310 Arden Ave	12-19-228-005	066035	066034	6" C/O @ P.L.	35.1 NS	11	8	CIPP	City of Rockford	30	43
104	1307 Arden Ave	12-19-229-001	066035	066034	6" C/O @ P.L.	33.4 NS	11	8	CIPP	City of Rockford	30	43
105	1220 Arden Ave	12-19-228-007	066035	066034	6" C/O @ P.L.	35.6 NS	8.5	8	CIPP	City of Rockford	30	43
106	1214 Arden Ave	12-19-228-008	066035	066034	6" C/O @ P.L.	35.4 NS	6.5	8	CIPP	City of Rockford	30	43
107	116 Skylark Dr	12-19-477-032	133012	133011	6" C/O @ P.L.	30EW	8.5	8	CIPP	City of Rockford	30	44
108	115 Skylark Dr	12-19-478-007	133012	133011	6" C/O @ P.L.	34EW	8	8	CIPP	City of Rockford	30	44
109	111 Skylark Dr	12-19-478-006	133012	133011	6" C/O @ P.L.	23WE	8	8	CIPP	City of Rockford	30	44
110	1032 Brookfield Rd	12-20-103-030	066078	066077	6" C/O @ P.L.	28SN	9	8	CIPP	City of Rockford	30	45
111	1028 Brookfield Rd	12-20-103-031	066078	066077	6" C/O @ P.L.	26.5SN	9	8	CIPP	City of Rockford	30	45
112	1023 Brookfield Rd	12-20-104-011	066078	066077	6" C/O @ P.L.	23.5SN	9	8	CIPP	City of Rockford	30	45
113	1019 Brookfield Rd	12-20-104-012	066078	066077	6" C/O @ P.L.	27SN	8.5	8	CIPP	City of Rockford	30	45
114	4212 Brendenwood Rd	12-20-126-021	066122	066084	6" C/O @ P.L.	43WE	9	8	CIPP	City of Rockford	33	46
115	1133 Sterling Dr	12-20-130-018	066089	066087	6" C/O @ P.L.	19.5 NS	8	8	CIPP	City of Rockford	30	47
116	1131 Sterling Dr	12-20-130-019	066089	066087	6" C/O @ P.L.	12.6 NS	8.5	8	CIPP	City of Rockford	30	47
117	1123 Sterling Dr	12-20-130-020	066089	066087	6" C/O @ P.L.	26 NS	8.5	8	CIPP	City of Rockford	30	47
118	506 Sunrise Ln	12-20-302-022	133065	133064	6" C/O @ P.L.	43NS	10	8	CIPP	City of Rockford	32	48
119	512 Hemlock Ln	12-20-301-009	133040	133039	6" C/O @ P.L.	44SN	9	8	CIPP	City of Rockford	30	48
120	511 Hemlock Ln	12-20-302-008	133040	133039	6" C/O @ P.L.	56SN	8	8	CIPP	City of Rockford	30	48
121	508 Hemlock Ln	12-20-301-010	133040	133039	6" C/O @ P.L.	38NS	8.5	8	CIPP	City of Rockford	30	48
122	502 Sunrise Ln	12-20-302-023	133065	133064	6" C/O @ P.L.	42NS	10	8	CIPP	City of Rockford	32	48
123	507 Hemlock Ln	12-20-302-009	133040	133039	6" C/O @ P.L.	53SN	8	8	CIPP	City of Rockford	30	48
124	423 Sunrise Ln	12-20-303-009	133065	133064	6" C/O @ P.L.	39NS	10	8	CIPP	City of Rockford	28	48
125	420 Sunrise Ln	12-20-302-024	133065	133064	6" C/O @ P.L.	51SN	9	8	CIPP	City of Rockford	32	48
126	532 Laurel Dr	12-20-301-017	133040	133039	6" C/O @ P.L.	62NS	8.5	8	CIPP	City of Rockford	30	48
127	503 Hemlock Ln	12-20-302-010	133040	133039	6" C/O @ P.L.	55SN	8	8	CIPP	City of Rockford	30	48
128	522 Laurel Dr	12-20-301-015	133038	133037	6" C/O @ P.L.	43WE	9.5	8	CIPP	City of Rockford	30	49
129	516 Laurel Dr	12-20-301-014	133038	133037	6" C/O @ P.L.	33WE	9.5	8	CIPP	City of Rockford	30	49
130	512 Laurel Dr	12-20-301-013	133038	133037	6" C/O @ P.L.	34WE	9	8	CIPP	City of Rockford	30	49
131	523 Laurel Dr	12-20-304-004	133038	133037	6" C/O @ P.L.	32WE	9	8	CIPP	City of Rockford	30	49
132	511 Laurel Dr	12-20-304-002	133038	133037	6" C/O @ P.L.	37WE	9.5	8	CIPP	City of Rockford	30	49
133	416 Laurel Dr	12-20-301-019	133036	133035	6" C/O @ P.L.	30NS	10	8	CIPP	City of Rockford	31	49
134	412 Laurel Dr	12-20-301-020	133036	133035	6" C/O @ P.L.	31NS	10	8	CIPP	City of Rockford	32	49
135	3804 Crosby St	12-20-304-007	133034	133035	6" C/O @ P.L.	46WE	13.4	8	CIPP	City of Rockford	33	50
136	3811 Crosby St	12-20-351-004	133034	133035	6" C/O @ P.L.	45WE	9	8	CIPP	City of Rockford	34	50
137	3729 Crosby St	12-20-351-002	133035	133018	6" C/O @ P.L.	39EW	12	8	CIPP	City of Rockford	34	50
138	3929 Crosby St	12-20-353-006	133062	133061	6" C/O @ P.L.	66WE	8	8	CIPP	City of Rockford	20	51
139	1016 Shenandoah Ave	12-29-378-004	041073	041072	6" C/O @ P.L.	23 NS	10.5	8	CIPP	City of Rockford	32	52
140	715 Glendale Ave	12-30-404-021	029019	029013	6" C/O @ P.L.	19 SN	8.5	8	CIPP	City of Rockford	32	53
141	1803 Oregon Ave	12-31-205-006	017031	017030	6" C/O @ P.L.	25 NS	8	8	CIPP	City of Rockford	36	54
142	1804 Oregon Ave	12-31-206-011	017031	017030	6" C/O @ P.L.	18 NS	8	8	CIPP	City of Rockford	27	54
143	1720 26th St	12-31-134-005	017029	017167	6" C/O @ P.L.	22.4 NS	8	8	CIPP	City of Rockford	30	54
144	2511 19th Ave	12-31-153-057	011143	011142	6" C/O @ P.L.	22 EW	9	8	CIPP	City of Rockford	29	55
145	1712 Colorado Ave	12-31-232-003	017092	017091	6" C/O @ P.L.	12 NS	8	8	CIPP	City of Rockford	30	56
146	1619 Sexton Dr	12-32-103-018	019008	019007	6" C/O @ P.L.	28 SN	10	8	CIPP	City of Rockford	36	57
147	1911 Apple Tree Ln	12-32-252-005	106086	106085	6" C/O @ P.L.	30 NS	9.5	8	CIPP	City of Rockford	30	58
148	2731 10th St	15-01-106-020	005045	005044	6" C/O @ P.L.	24 NS	8	8	CIPP	City of Rockford	32	59
149	2737 10th St	15-01-106-022	005045	005044	6" C/O @ P.L.	37.5 NS	8	8	CIPP	City of Rockford	32	59
150	2741 10th St	15-01-106-023	005045	005044	6" C/O @ P.L.	43 NS	8.5	8	CIPP	City of Rockford	32	59
151	2714 Lapey St	15-01-108-004	005052A	005049	6" C/O @ P.L.	37.5 SN	7.5	8	CIPP	City of Rockford	26	60
152	2842 Lapey St	15-01-154-013	005053	005039	6" C/O @ P.L.	38NS	10.5	8	CIPP	City of Rockford	25	61
153	2845 Lapey St	15-01-153-030	005053	005039	6" C/O @ P.L.	63NS	10.5	8	CIPP	City of Rockford	27	61
154	2825 Lapey St	15-01-153-021	005053	005039	6" C/O @ P.L.	17NS	10.5	8	CIPP	City of Rockford	27	61
155	2829 Lapey St	15-01-153-022	005053	005039	6" C/O @ P.L.	37NS	10.5	8	CIPP	City of Rockford	27	61
156	2930 Lapey St	15-01-157-011	005036	005038	6" C/O @ P.L.	37.7SN	10	8	CIPP	City of Rockford	32	62
157	2918 Lapey St	15-01-157-006	005036	005038	6" C/O @ P.L.	33SN	11	8	CIPP	City of Rockford	32	62
158	3003 Lapey St	15-01-306-011	005088	005036	6" C/O @ P.L.	18SN	8	8	CIPP	City of Rockford	24	63
159	1317 Brooke Rd	15-01-305-011	005030	005029	6" C/O @ P.L.	29SN	8.5	8	CIPP	City of Rockford	16	63
160	2950 Lapey St	15-01-303-001	005036	005038	6" C/O @ P.L.	20SN	9	8	CIPP	City of Rockford	32	63

2021-2022 Service Lateral Linnig, Capital Project 2233
Section III - Lining List

Item #	Address	PIN	UPSTM MH	DNSTM MH	Comments	End Measur ement (FT)	Depth (FT)	Main Dia. (INCH)	Main Type	Roadway Authority	Est. Length (FT)	Map #
161	3002 Lapey St	15-01-307-018	005088	005036	6" C/O @ P.L.	30.0SN	8	8	CIPP	City of Rockford	37	63
162	2720 18th St	15-01-230-005	006077	006076	6" C/O @ P.L.	24 SN	9	8	CIPP	City of Rockford	24	64
163	2922 Marshall St	15-01-257-005	006056A	006056	6" C/O @ P.L.	14 SN	8	8	CIPP	City of Rockford	25	65
164	3037 10th St	15-01-305-019	005031	005030	6" C/O @ P.L.	71SN	8	8	CIPP	City of Rockford	16	66
165	3113 Lapey St	15-01-310-015	005089	005037	6" C/O @ P.L.	29SN	7.5	8	CIPP	City of Rockford	21	67
166	3130 Lapey St	15-01-311-009	005090	005089	6" C/O @ P.L.	15SN	7	8	CIPP	City of Rockford	42	67
167	3129 Lapey St	15-01-310-019	005090	005089	6" C/O @ P.L.	17SN	7	8	CIPP	City of Rockford	18	67
168	3133 Lapey St	15-01-310-020	005090	005089	6" C/O @ P.L.	28.3SN	7.5	8	CIPP	City of Rockford	18	67
169	3137 Lapey St	15-01-310-021	005090	005089	6" C/O @ P.L.	5.1SN	7.5	8	CIPP	City of Rockford	18	67
170	1626 Johnson Ave	15-01-378-018	005079	005078	6" C/O @ P.L.	25.2EW	7.7	8	CIPP	City of Rockford	20	68
171	1614 Johnson Ave	15-01-378-015	005078	005077	6" C/O @ P.L.	42.7EW	8.3	8	CIPP	City of Rockford	20	68
172	2926 Collins St	15-02-280-007	004139	004092	6" C/O @ P.L.	30.5 NS	9.3	8	CIPP	City of Rockford	31	69
173	2930 Collins St	15-02-280-008	004092	004091	6" C/O @ P.L.	28 SN	8	8	CIPP	City of Rockford	30	69
174	2929 Collins St	15-02-278-020	004092	004091	6" C/O @ P.L.	8 NS	10.5	8	CIPP	City of Rockford	30	69
175	2935 Collins St	15-02-278-021	004092	004091	6" C/O @ P.L.	20.8 SN	9	8	CIPP	City of Rockford	30	69
176	2830 Collins St	15-02-279-008	004126	004139	6" C/O @ P.L.	14 NS	8.5	8	CIPP	City of Rockford	33	70
177	2838 Collins St	15-02-279-010	004126	004139	6" C/O @ P.L.	13 SN	8.5	8	CIPP	City of Rockford	33	70
178	2903 Collins St	15-02-278-013	004139	004092	6" C/O @ P.L.	20 NS	9.5	8	CIPP	City of Rockford	28	70
179	420 Fitch Rd	15-02-306-019	002022	002021	6" C/O @ P.L.	26 EW	9	8	CIPP	City of Rockford	26	71
180	3107 7th St	15-02-427-013	004074	004073	6" C/O @ P.L.	29 SN	8	8	CIPP	City of Rockford	30	72
181	3121 7th St	15-02-427-015	004073	004105	6" C/O @ P.L.	19.8 NS	7.5	8	CIPP	City of Rockford	30	72
182	3111 7th St	15-02-427-016	004073	004105	6" C/O @ P.L.	23 SN	7.5	8	CIPP	City of Rockford	30	72
183	3113 7th St	15-02-427-017	004073	004105	6" C/O @ P.L.	6.5 SN	7	8	CIPP	City of Rockford	30	72
184	3115 7th St	15-02-427-018	004073	004105	6" C/O @ P.L.	16 NS	7.5	8	CIPP	City of Rockford	30	72
185	321 N 4th St	11-23-461-002	036027	036096	6" C/O @ P.L.	9.5 NS	5.6	9	CIPP	City of Rockford	24	73
186	2136 Parmele St	11-36-303-005	010024	010023	6" C/O @ P.L.	27 NS	6.5	9	CIPP	City of Rockford	33	74
187	1008 Kingsley Dr	08-31-401-012	098058	098057	6" C/O @ P.L.	18 EW	5	10	CIPP	Machesney Park	26	75
188	2122 Cumberland St	11-13-128-018	072029	072028	6" C/O @ P.L.	42.5 NS	6.5	10	CIPP	City of Rockford	50	76
189	1811 Huffman Blvd	11-14-251-004	070014	070013	6" C/O @ P.L.	25 NS	6.5	10	CIPP	City of Rockford	46	77
190	217 Smith Ave	11-24-379-002	038023	038069	6" C/O @ P.L.	22 SN	5	10	CIPP	City of Rockford	24	78
191	1642 10th Ave	11-25-333-029	026026	026025	6" C/O @ P.L.	100 WE	7	10	CIPP	City of Rockford	33	79
192	1212 14th St	11-25-452-009	026004B	026004A	6" C/O @ P.L.	25.4 SN	7	10	CIPP	City of Rockford	26	80
193	2024 S 5th St	11-35-256-014	010068A	010067	6" C/O @ P.L.	0 SN	8	10	CIPP	City of Rockford	33	81
194	1315 Brown Ave.	11-11-483-012	071050	071049	6" C/O @ P.L. (2208 Fremont)	3 NS	7	10	CIPP	City of Rockford	33	82



THE CONTRACTOR SHALL LINE THE ENTIRE LENGTH OF EXISTING 6" CLAY SERVICE PIPE TO A POINT 1' UPSTREAM OF THE 6" CLAY TO 6" PVC PIPE TRANSITION WITH CURED IN PLACE PIPE (C.I.P.P.) PER ASTM F-1216, ASTM F-1743 OR ASTM F-2561.

CURED IN PLACE SEWER SERVICE LINING DETAIL

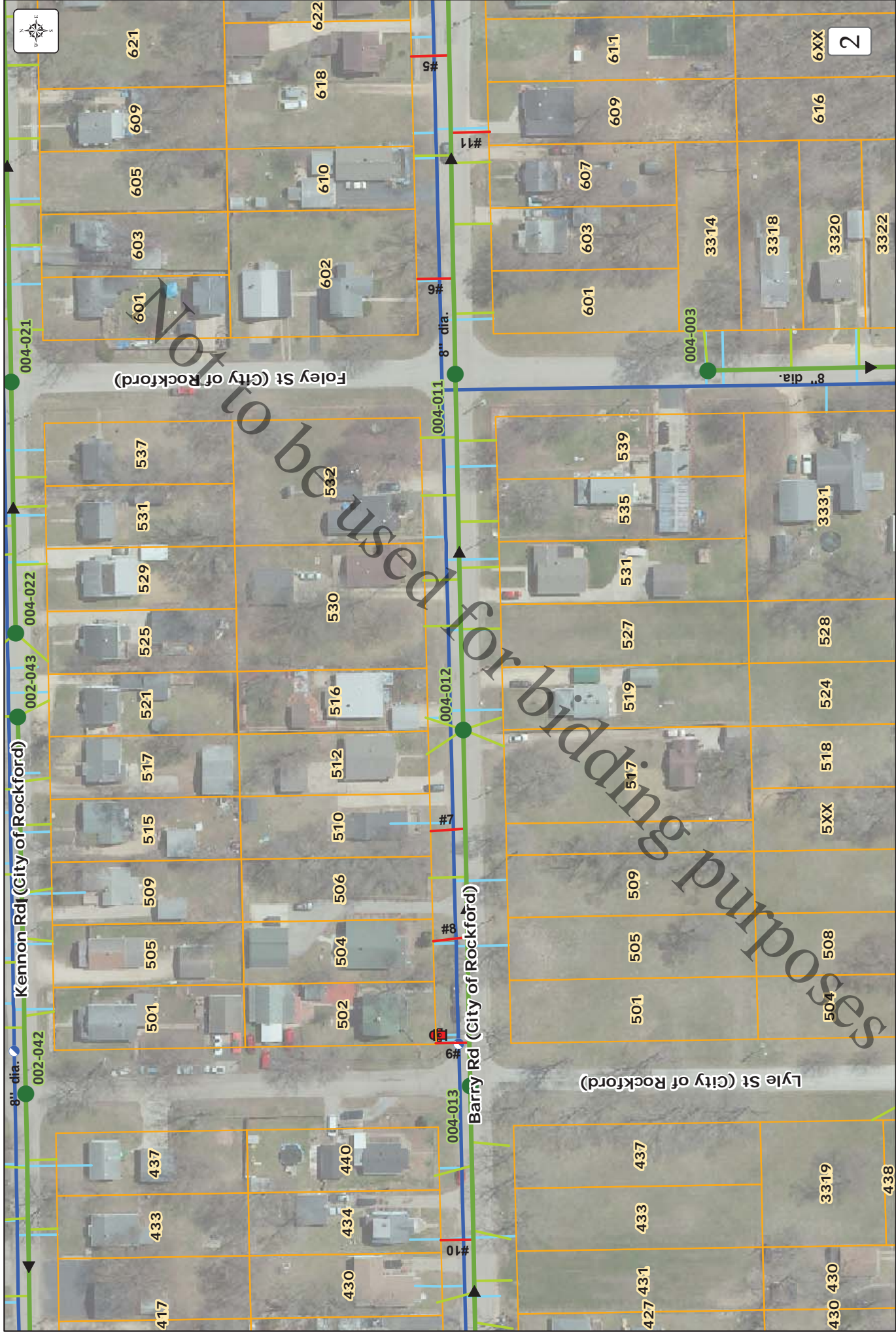
NOT TO SCALE



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

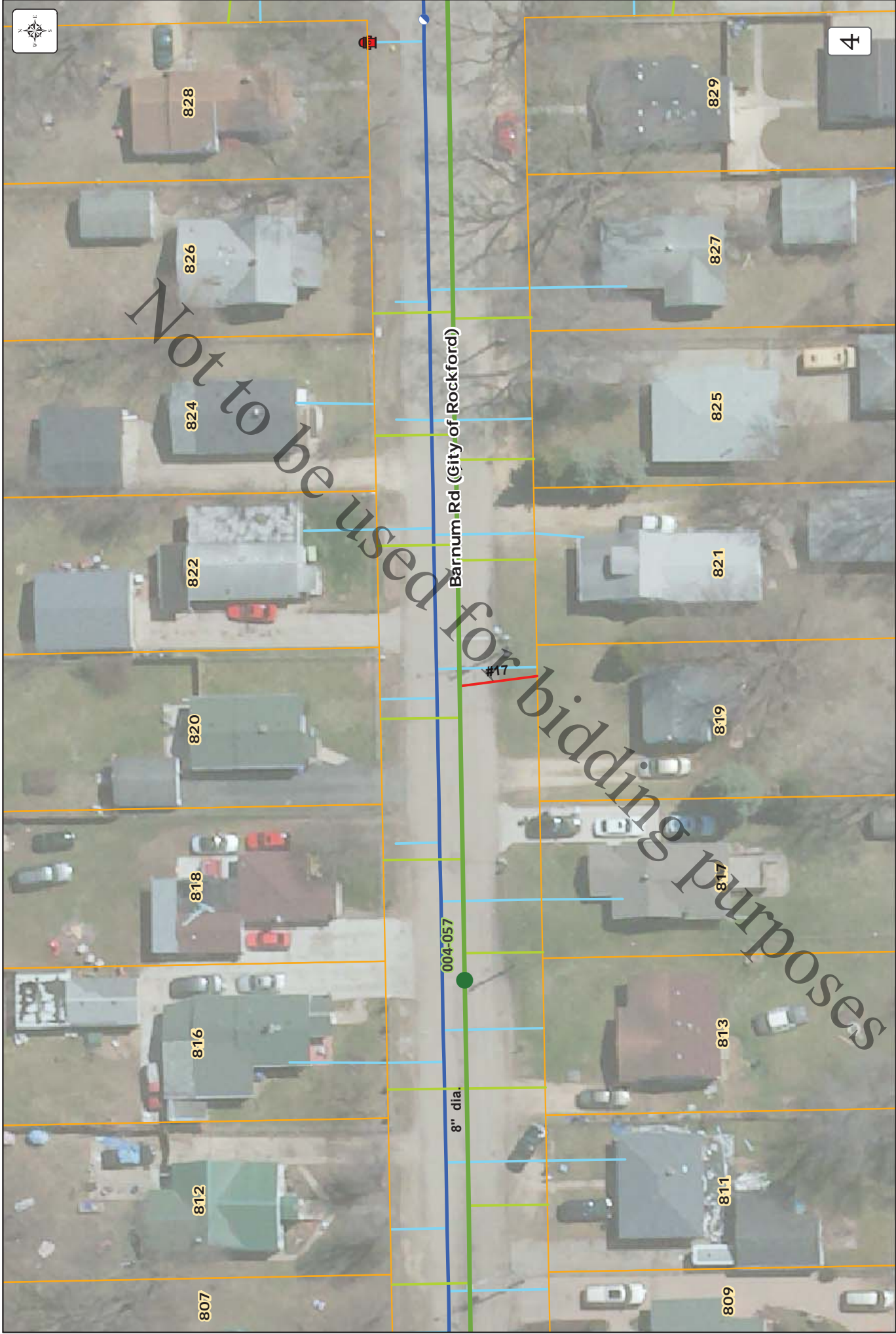
1 inch = 100 feet



Service Lateral Lining 2021-2022

Capital Project #2233

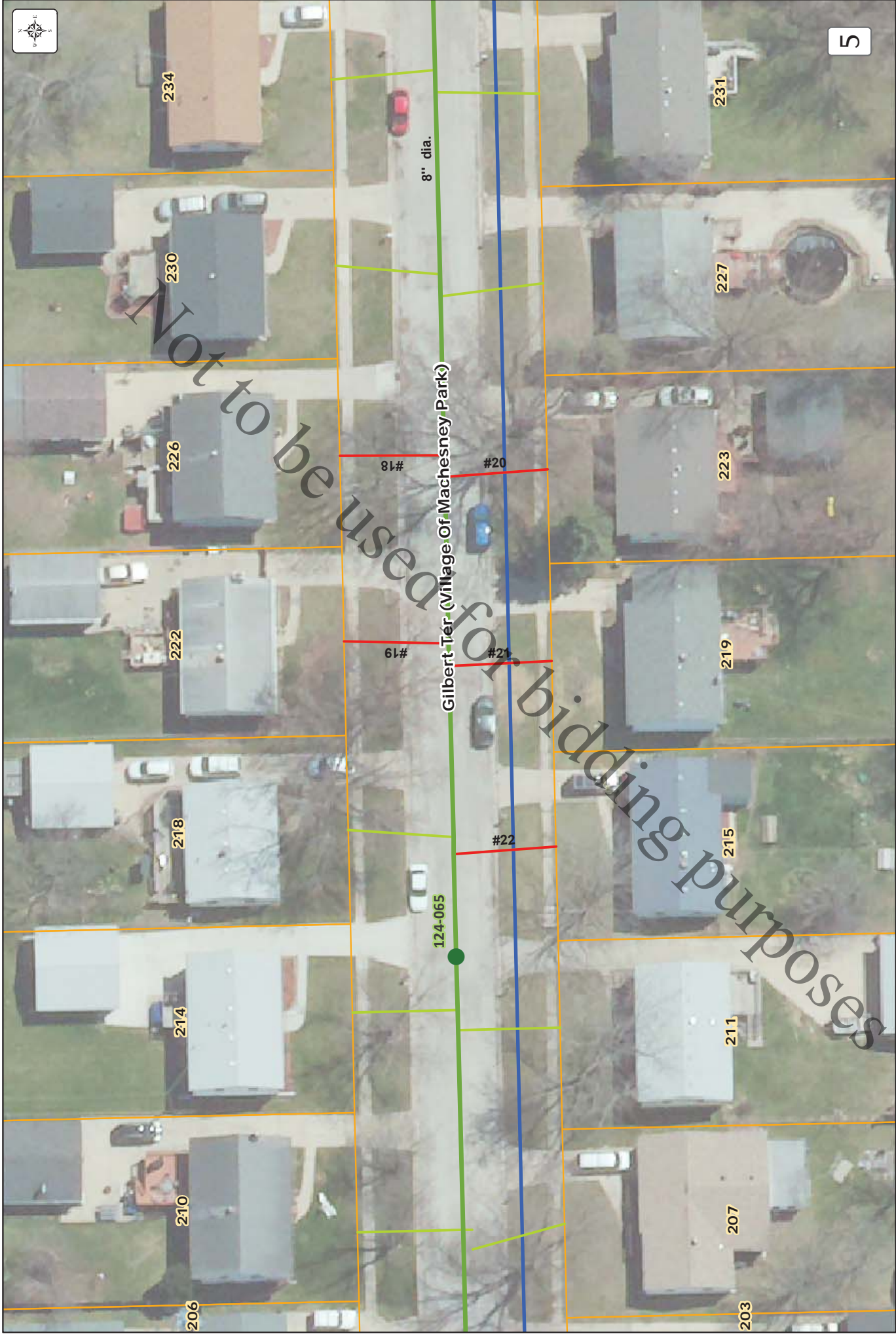
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Service Lateral Lining 2021-2022

Capital Project #2233

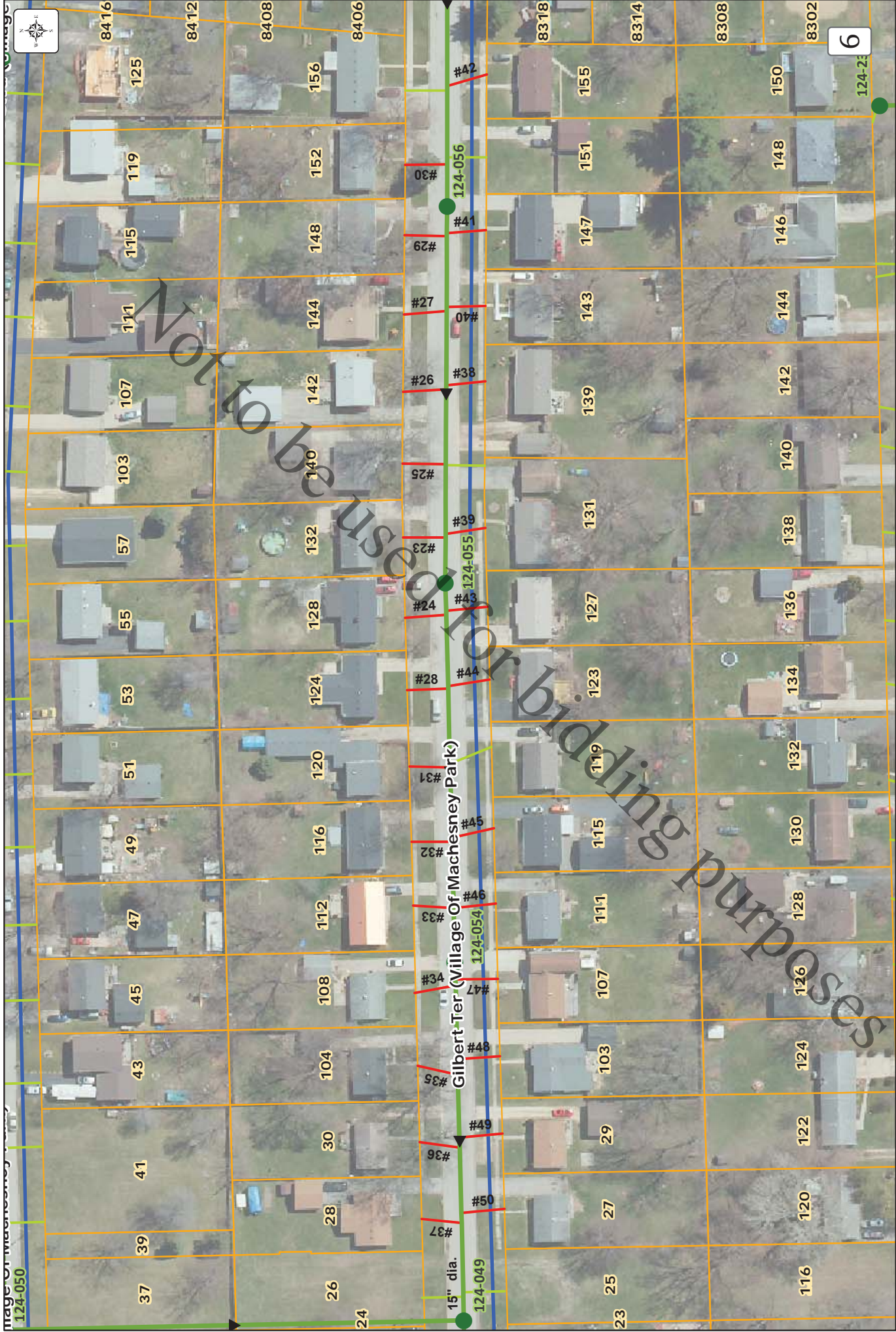
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 100 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

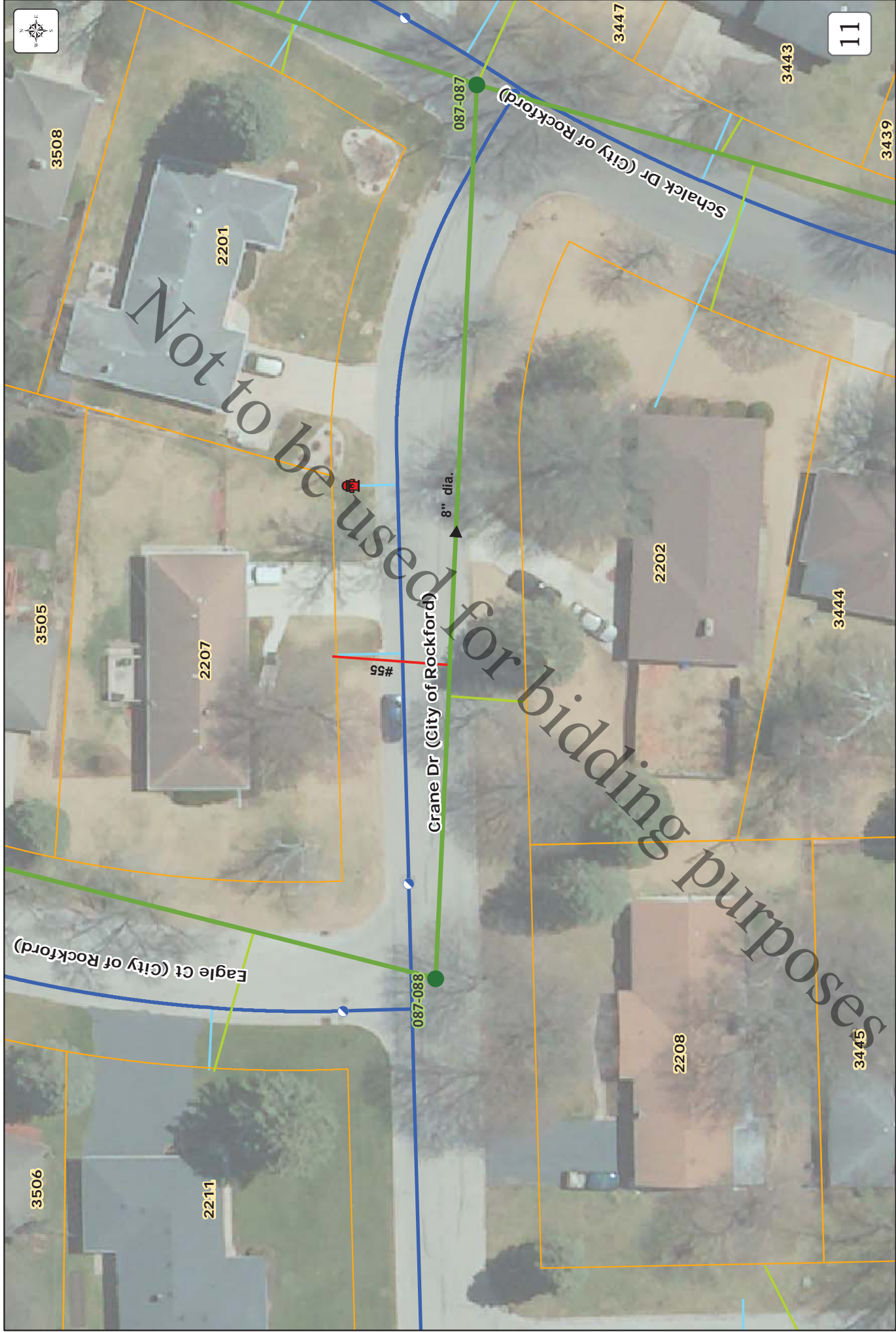
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1 inch = 40 feet



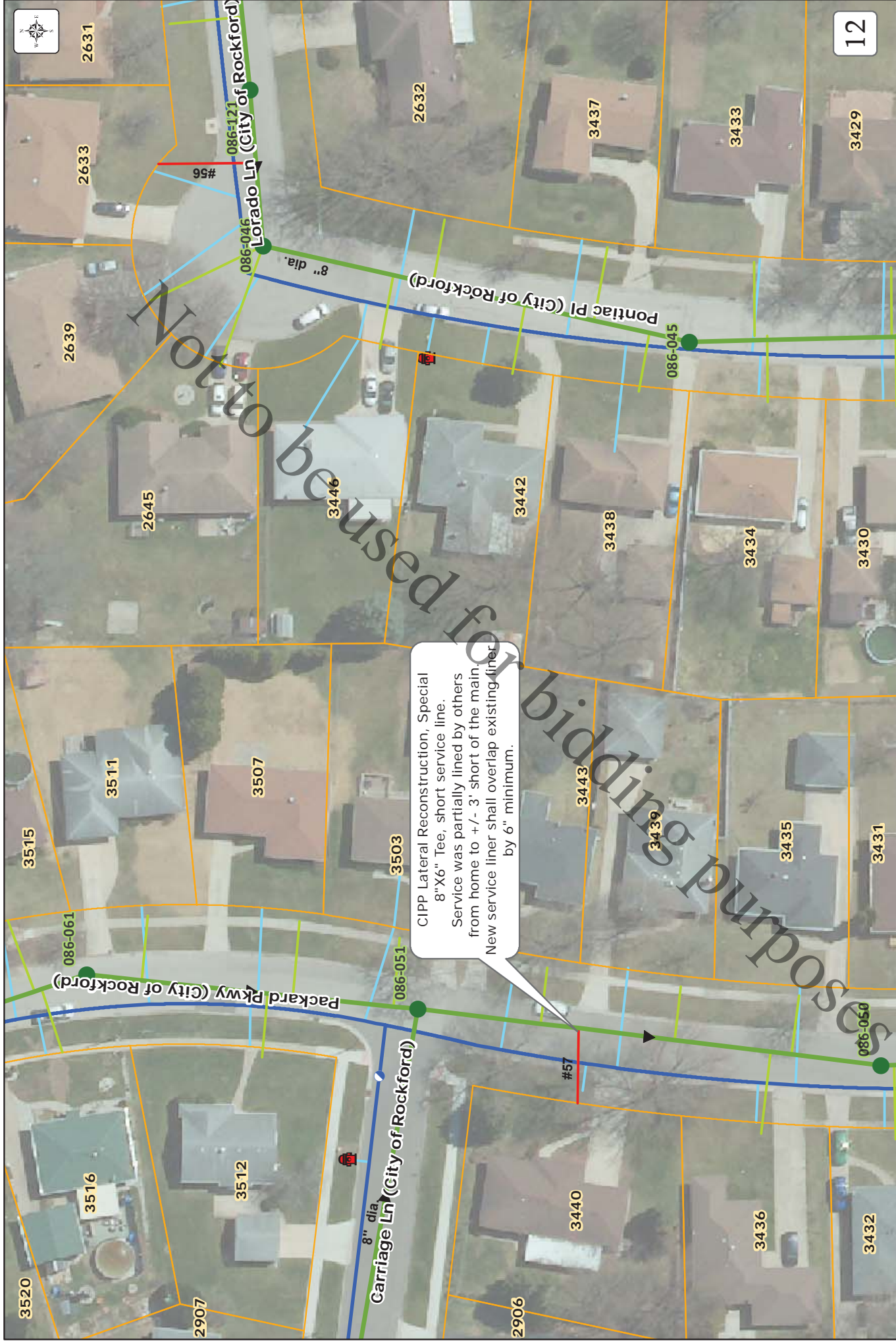
Service Lateral Lining 2021-2022
Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 60 feet



Service Lateral Lining 2021-2022
Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

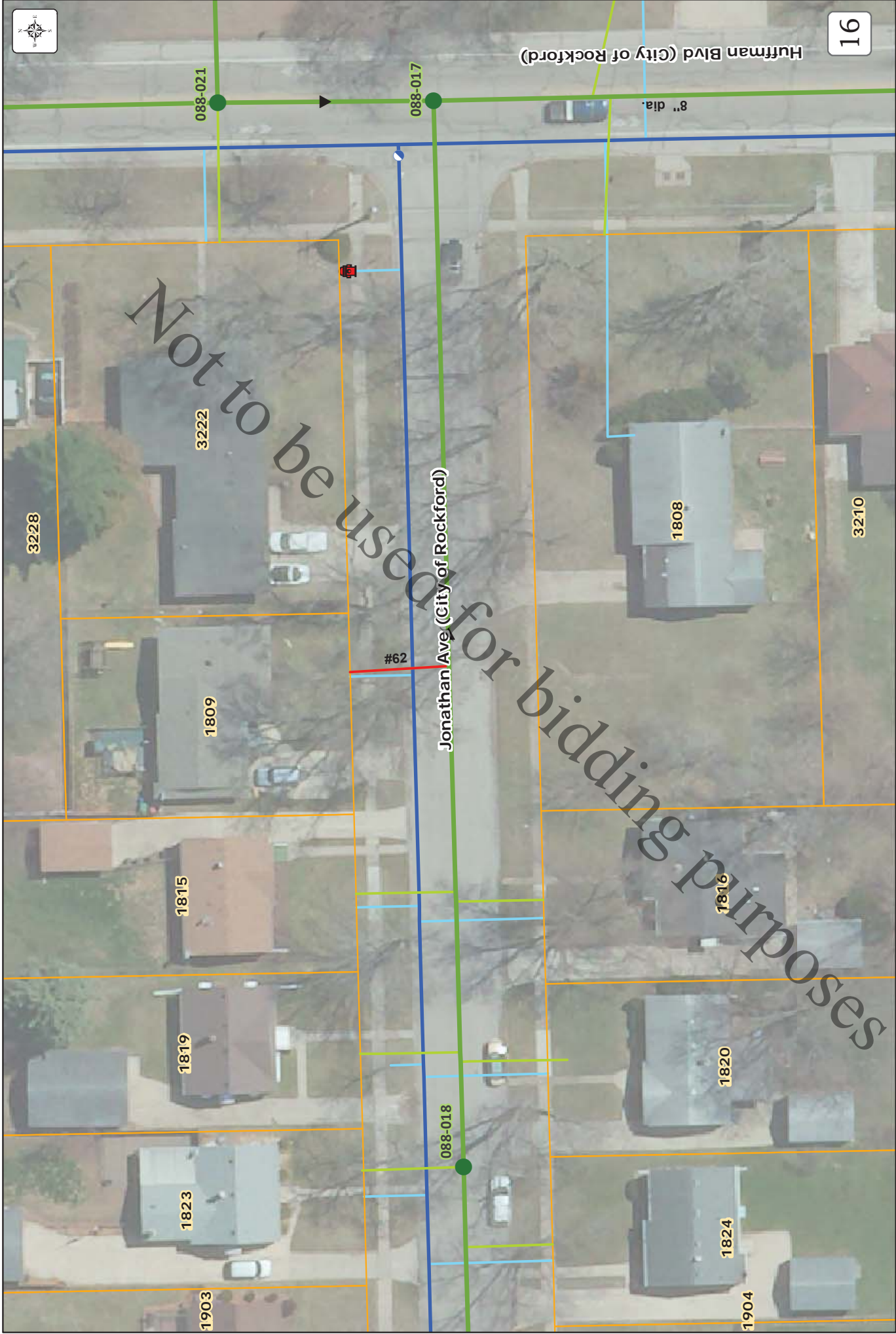
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Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233



Service Lateral Lining 2021-2022

Capital Project #2233

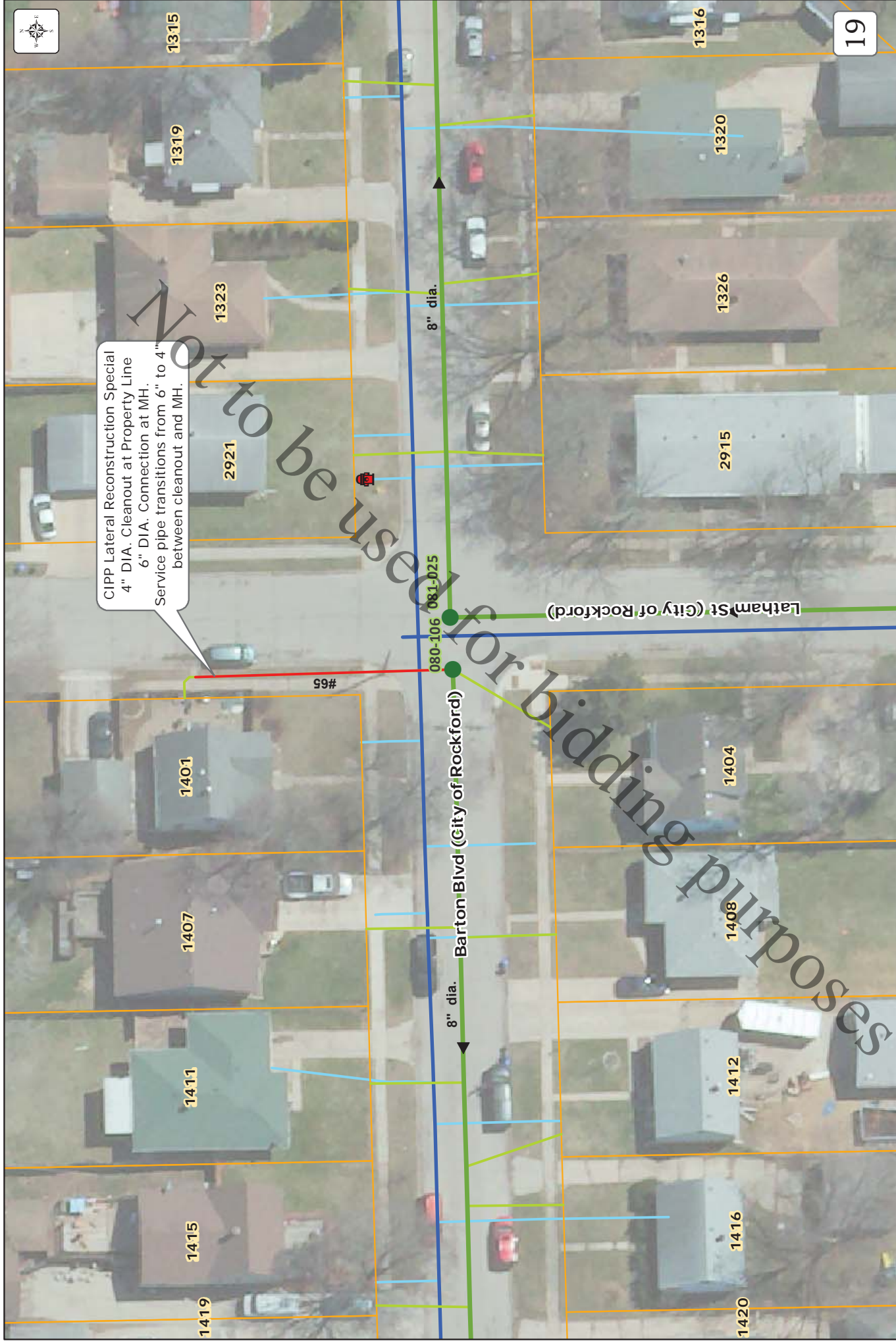
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

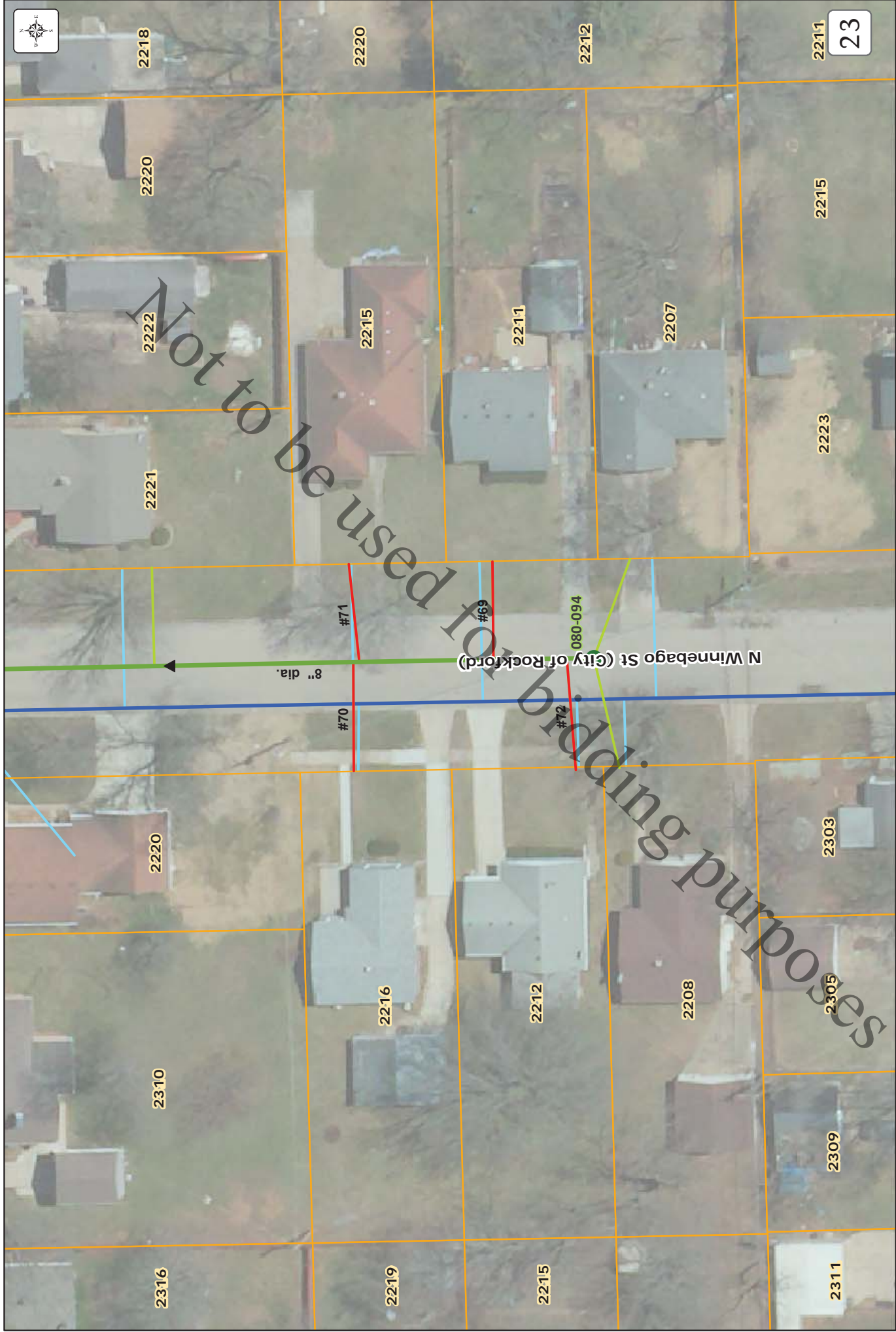
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Service Lateral Lining 2021-2022

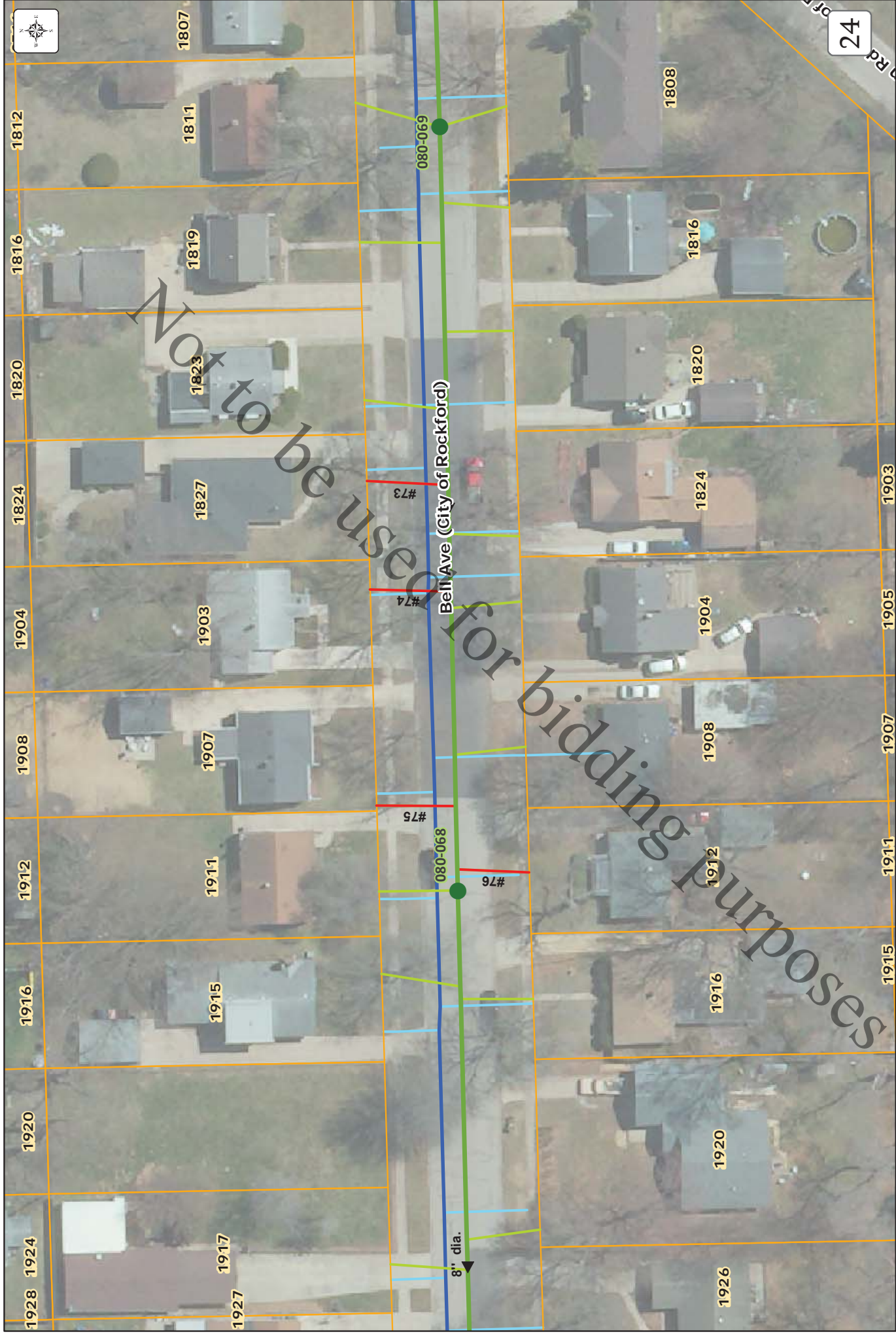
Capital Project #2233





Service Lateral Lining 2021-2022 Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

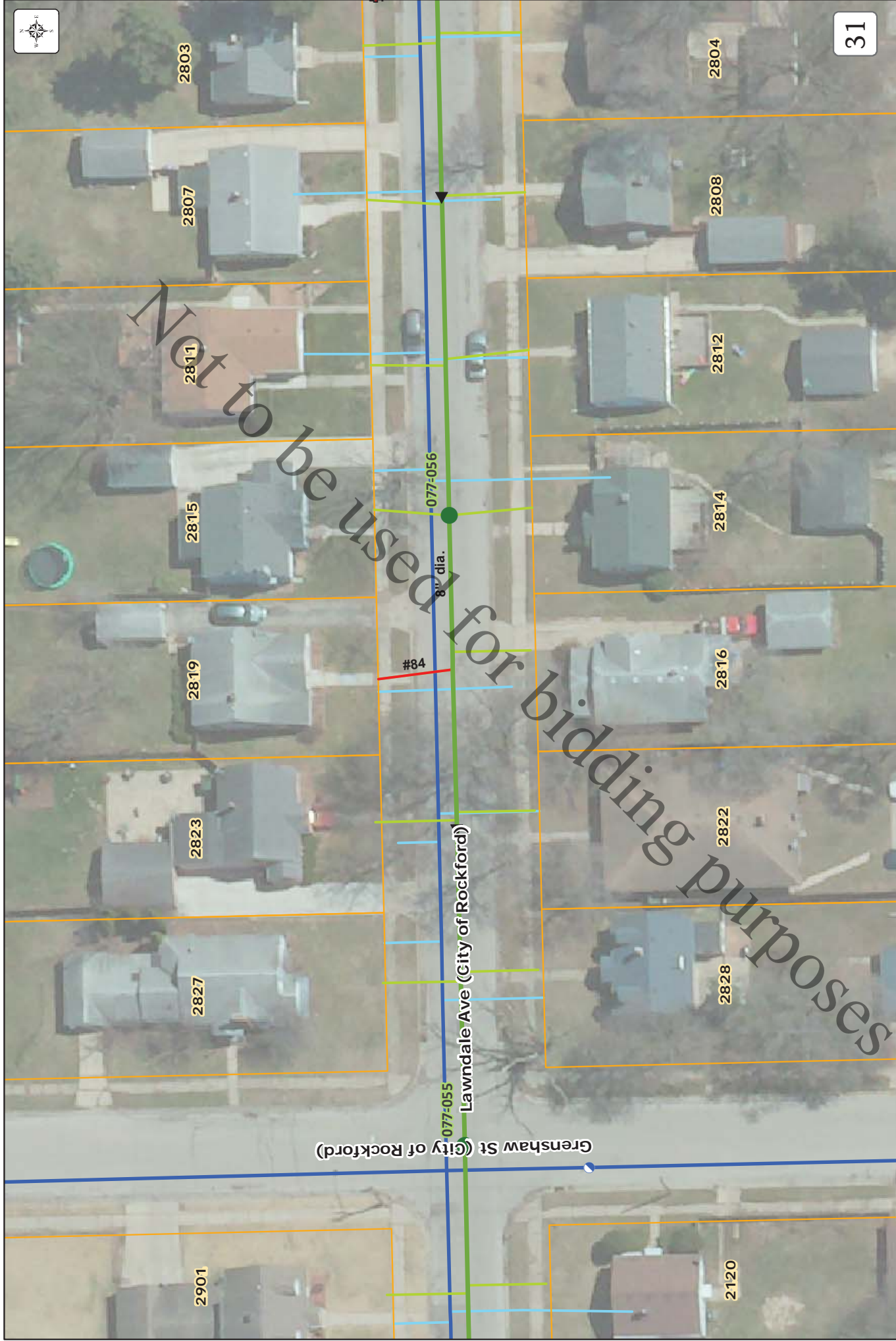
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Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

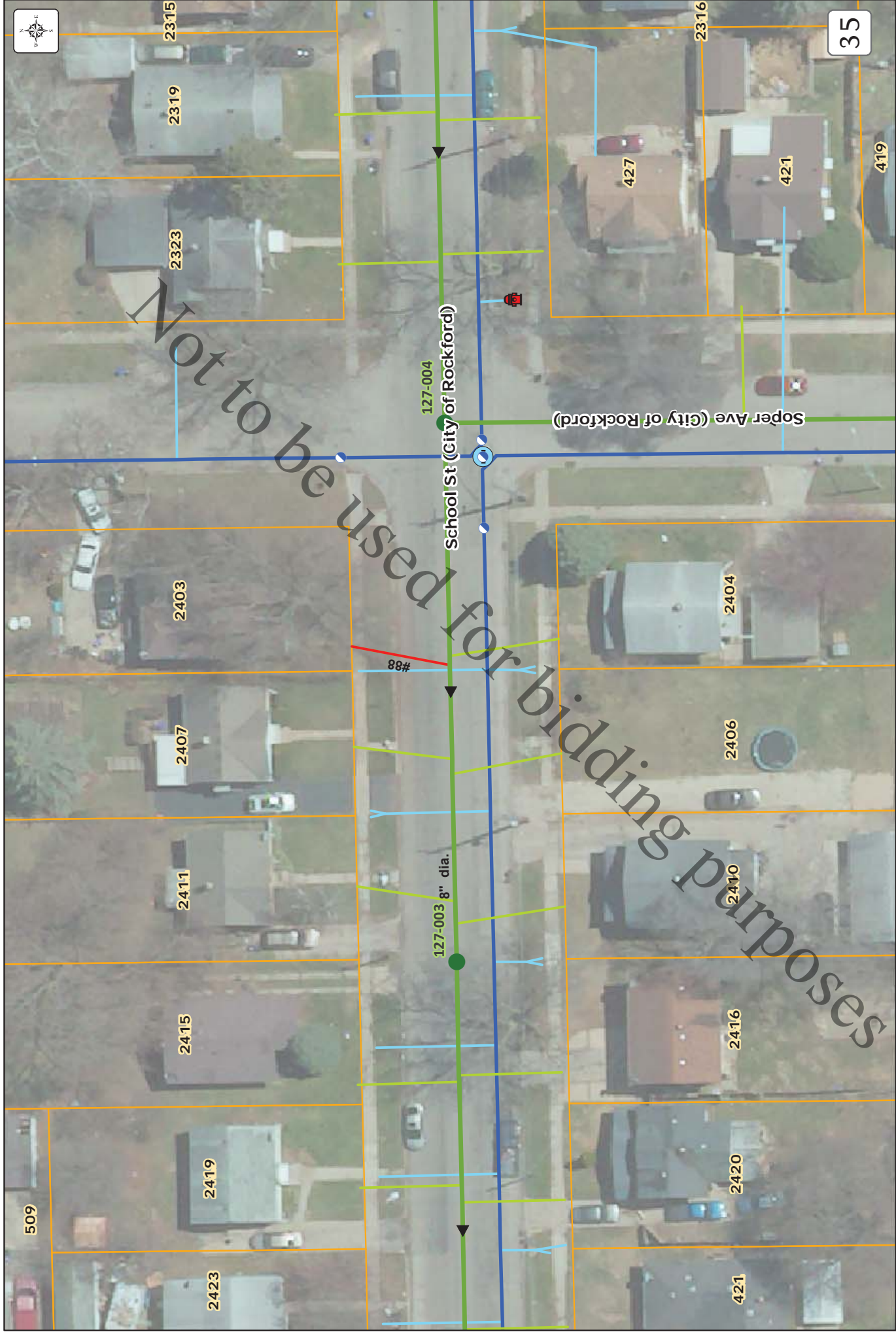
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Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

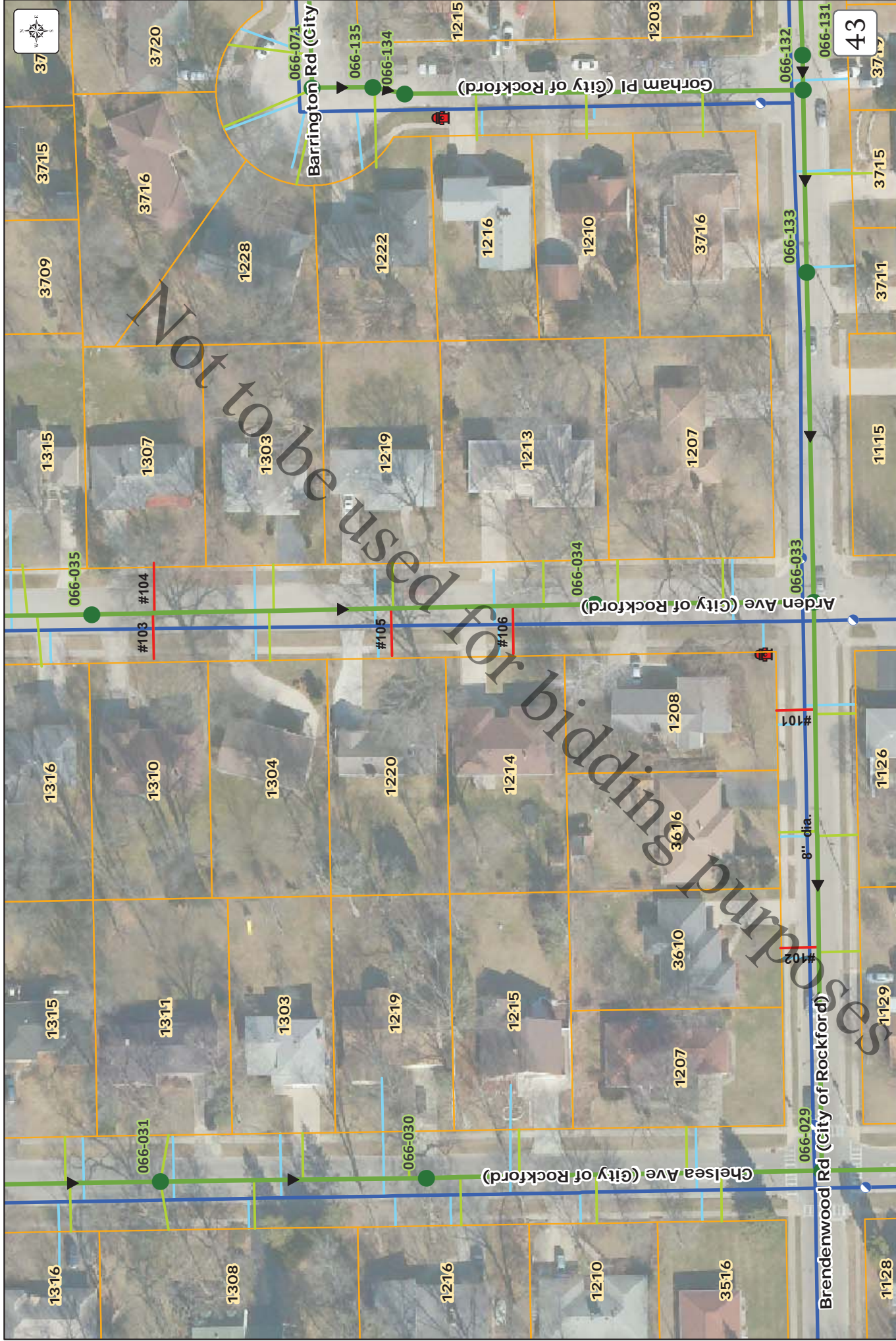
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Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 80 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

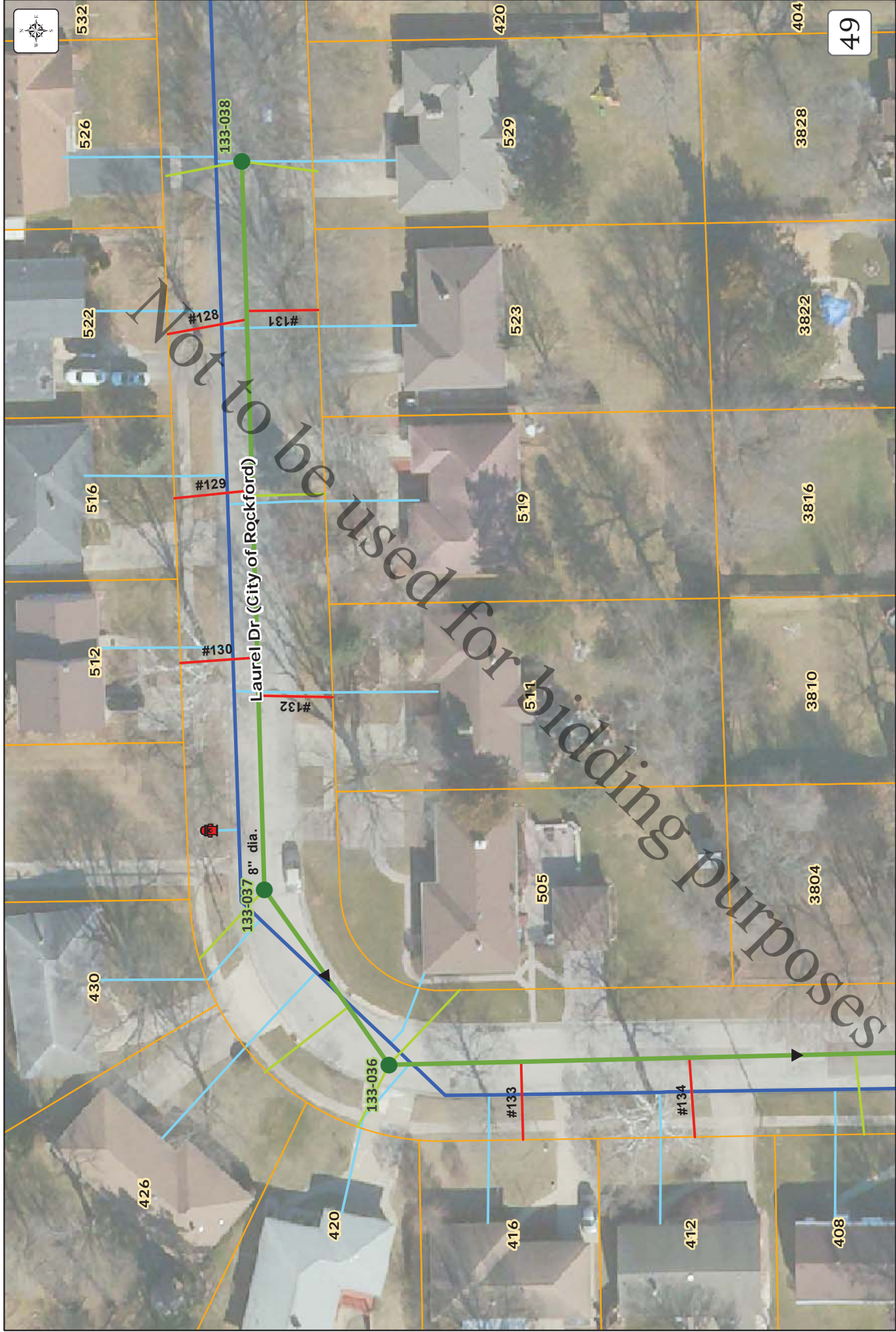
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022 Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

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Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

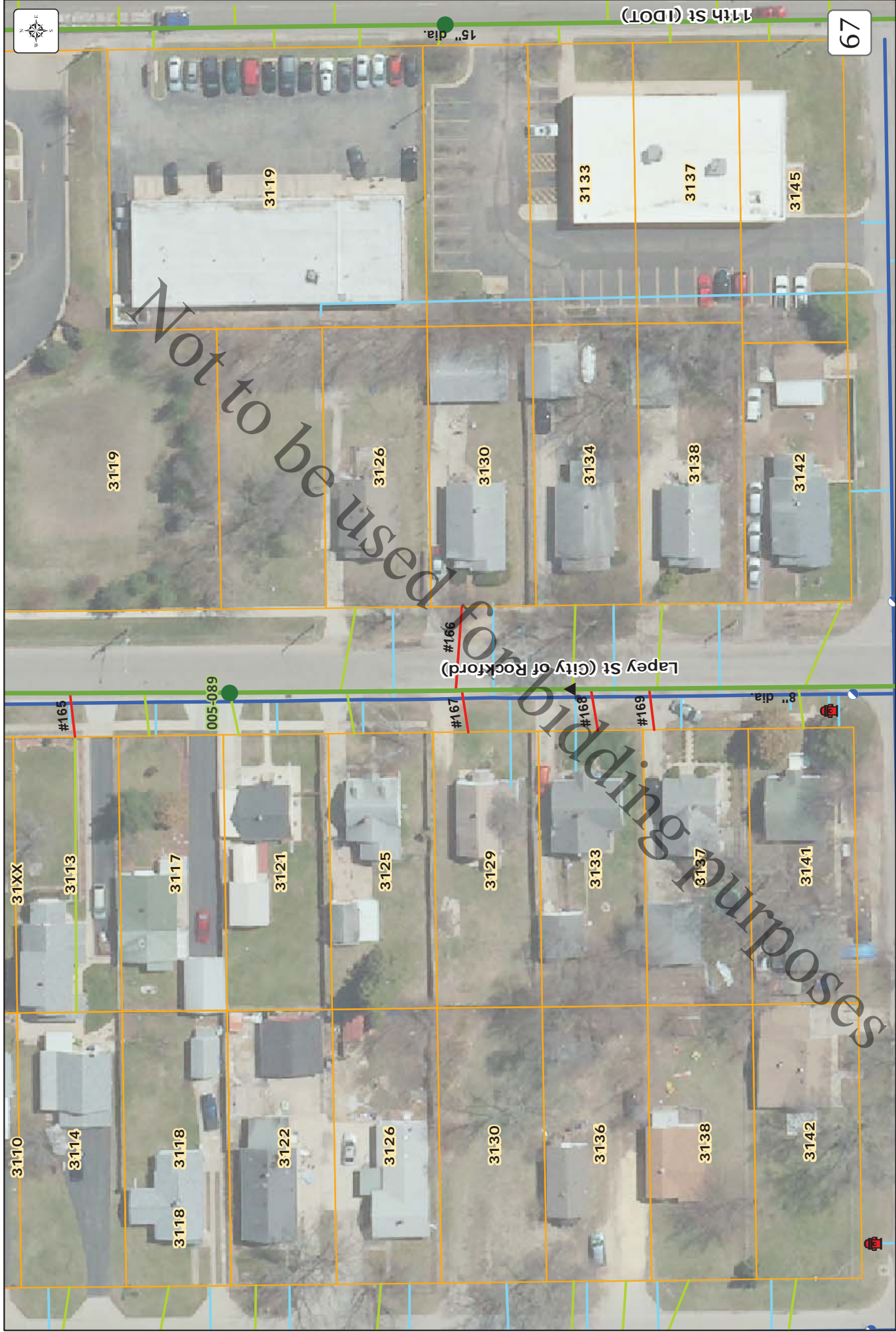
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 60 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 50 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022 Capital Project #2233

1 inch = 60 feet

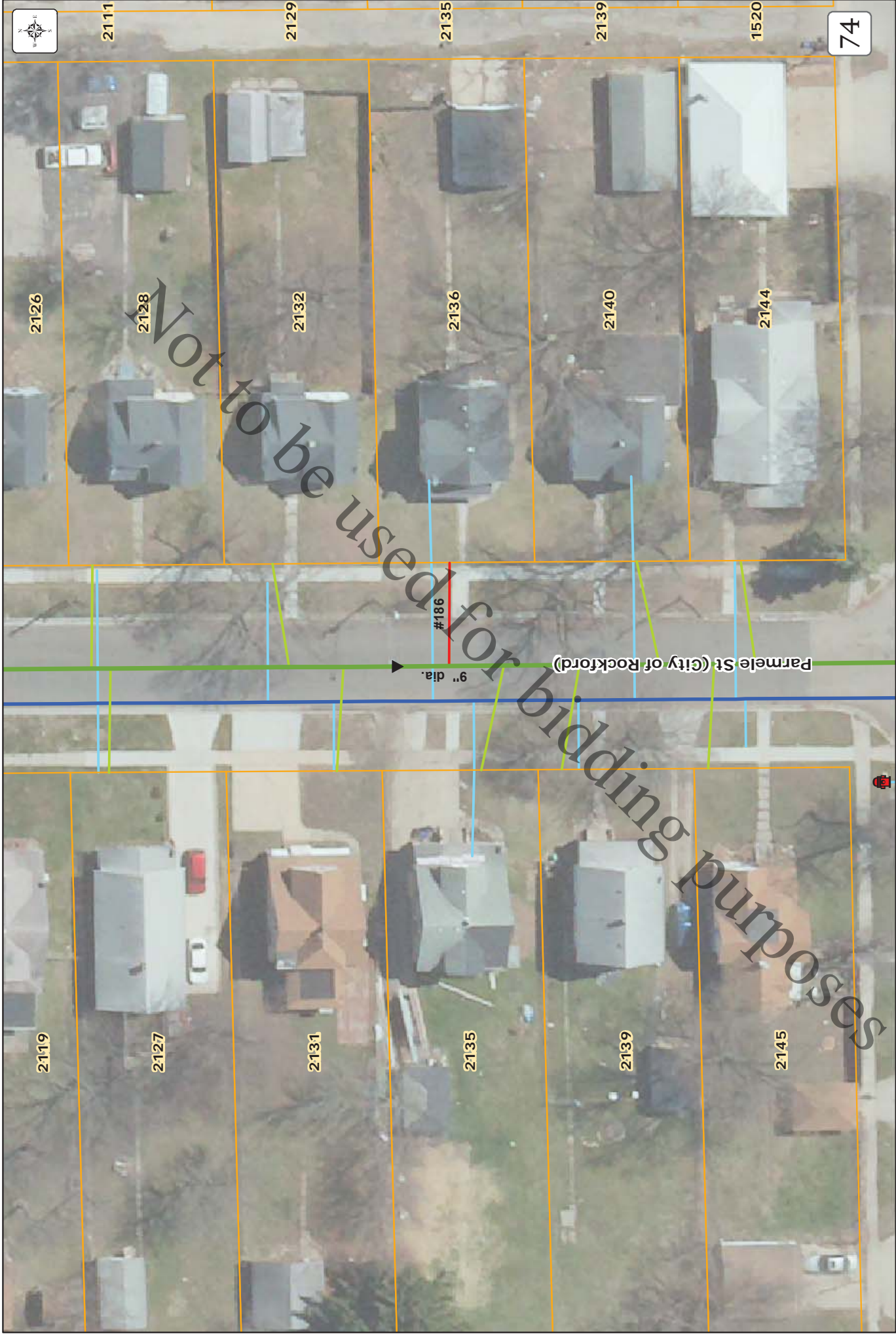


Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet

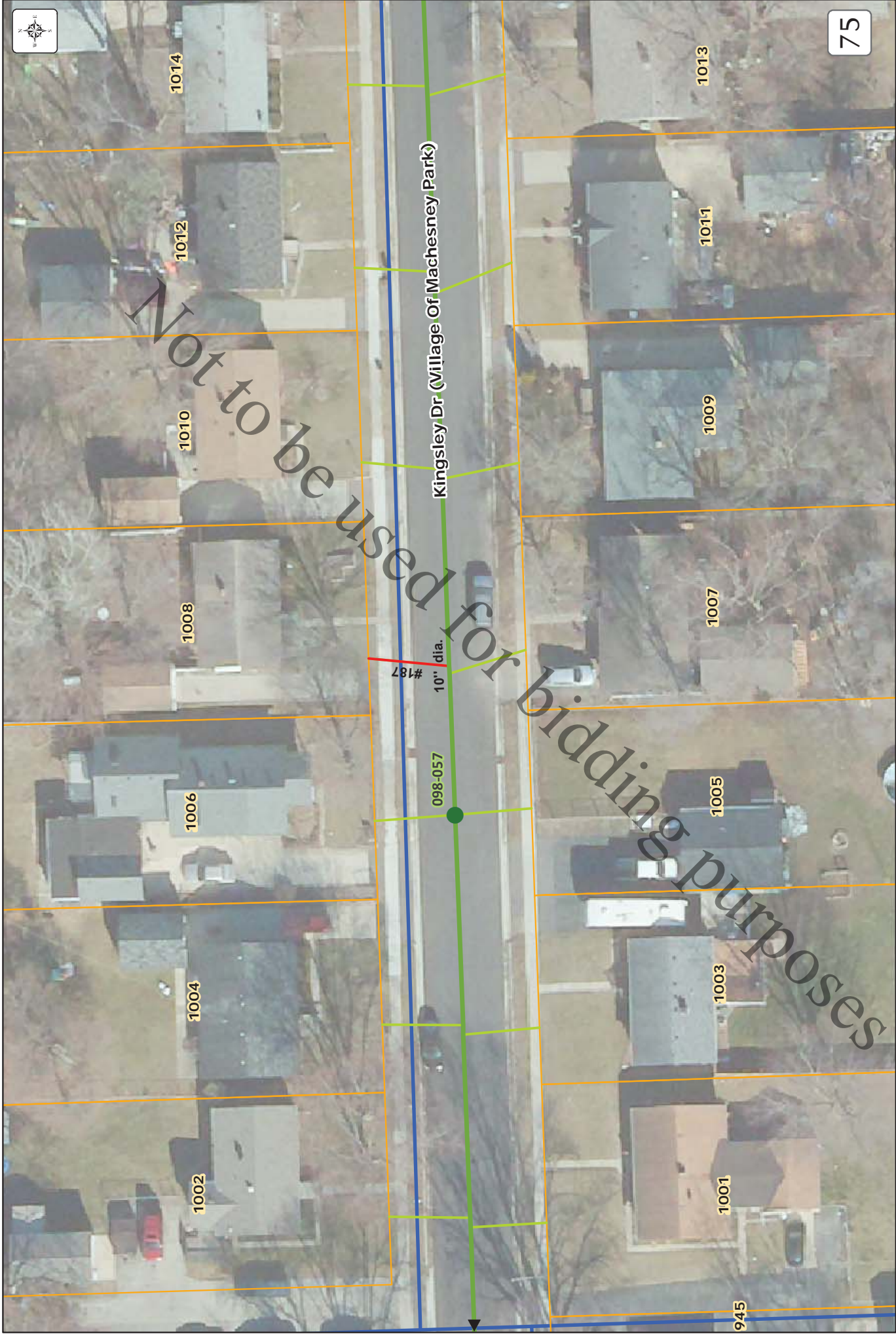




Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

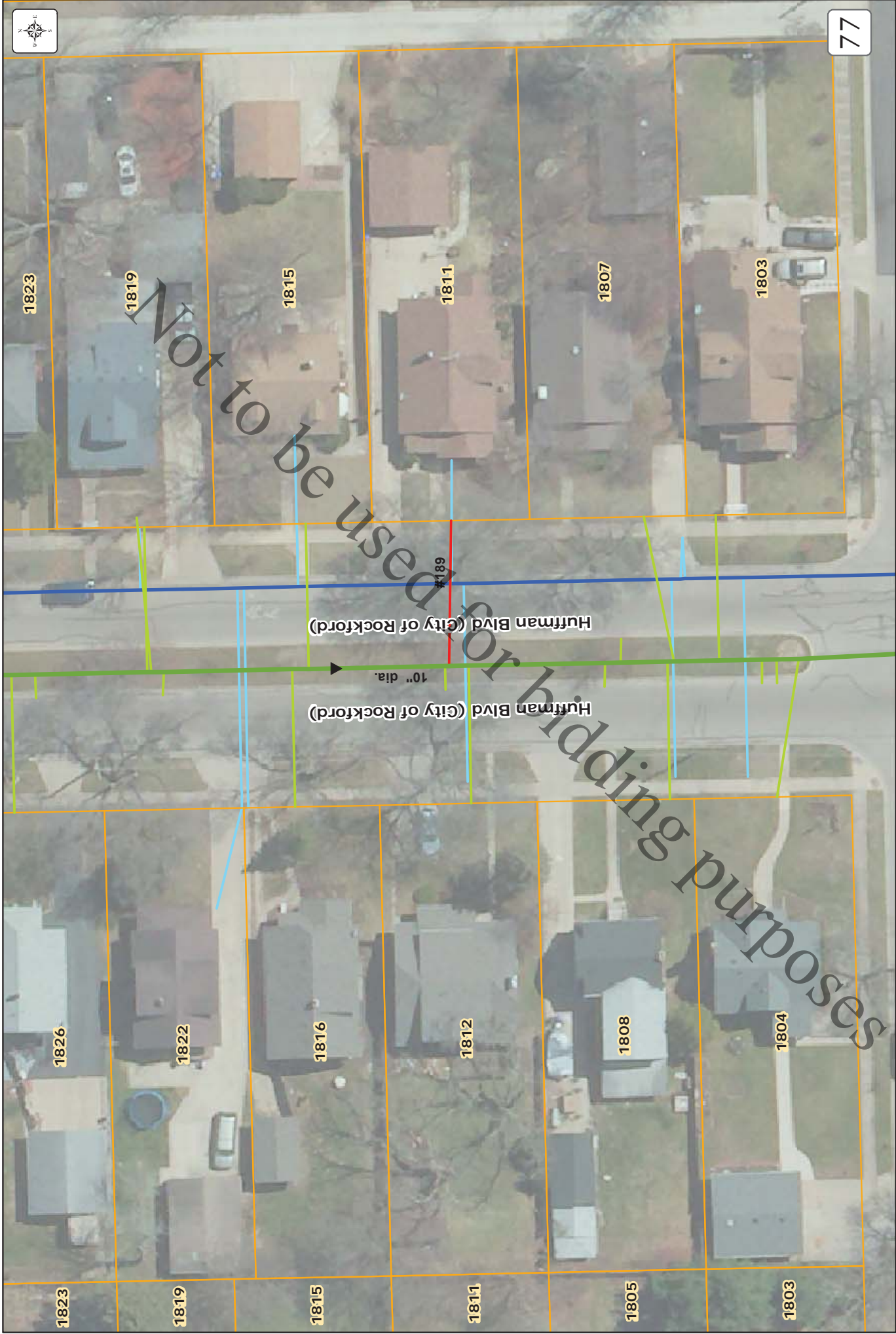
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

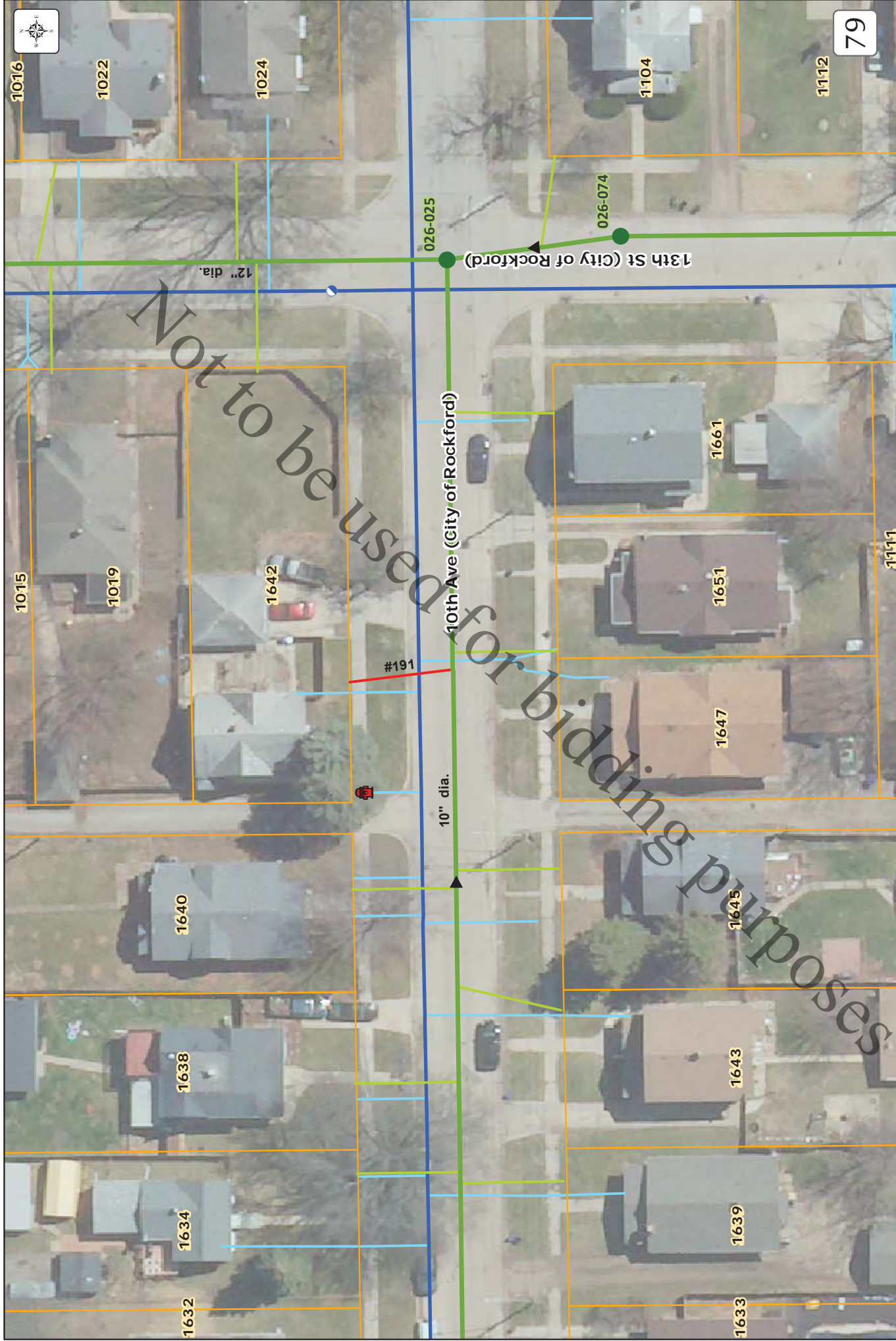
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Service Lateral Lining 2021-2022

Capital Project #2233

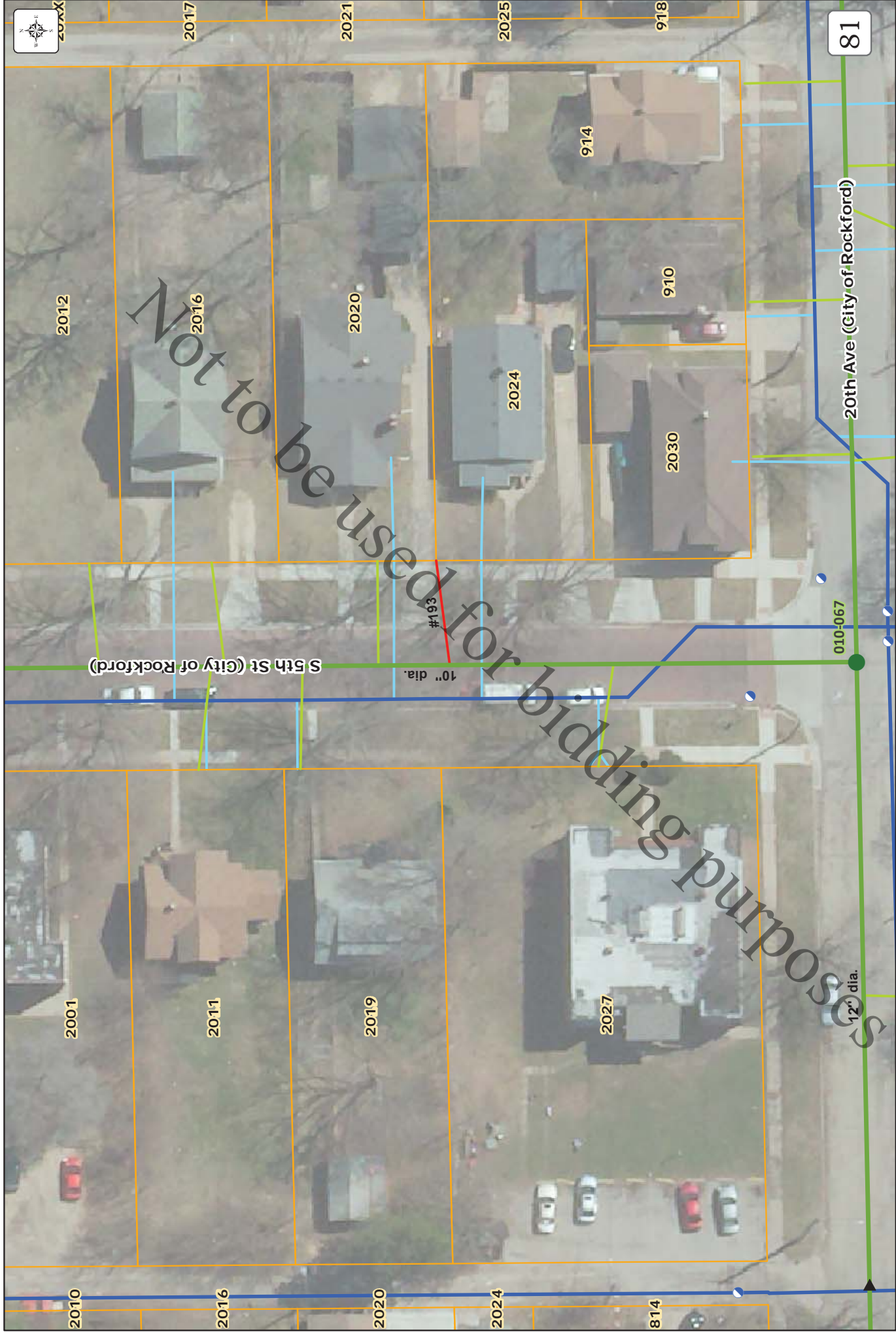
1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet



Service Lateral Lining 2021-2022

Capital Project #2233

1 inch = 40 feet

Not to be used for bidding purposes

Section IV

General Provisions & Technical Specifications for Sanitary Sewer Construction

(Separate document incorporated by reference)