CITY OF

SEDALIA, MISSOURI

NOTICE TO CONTRACTORS

PROPOSAL, CONTRACT, BOND, AND SPECIFICATIONS

FOR

2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS

PROJECT NO. 2027-007

November 13, 2026

BIDDER: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

DATE: _____

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NOTICE TO BIDDERS

Sealed Bids will be received by the City of Sedalia at the Office of the City Clerk in the Municipal Building, until 2:00 P.M. Tuesday, December 15, 2026, for the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS,** and will be publicly opened and read aloud in the Council Chambers. The work consists of performing public improvements including Removal/replacement and construction of approximately 51,229 square feet of sidewalk, 81 ADA ramps, curb and gutter and all incidental and/or related work as necessary to provide a complete project.

Prevailing Wages
The Work to be completed pursuant to this Invitation for Bids is subject to the Missouri Prevailing Wage Act, Sections 290.210 to 290.340, RSMo. All bids shall be made in compliance with the Missouri Prevailing Wage Act and consider the Wage Order attached hereto. For construction projects over $2,000 using federal funds, contractors will be provided with a copy of the most current wage determination and must comply with the Davis Bacon Act.

Digital Copies of Plans, Specifications, and Contract Documents for bidding purposes can be obtained at the City's website at www.sedalia.com or contact Elizabeth Nations at enations@sedalia.com.

All questions shall be submitted in writing to Elizabeth Nations via email enations@sedalia.com no later than 4:00 p.m. on Tuesday, December 1, 2026 and responses will be sent no later than 4:00 p.m. on Thursday, December 3, 2026.

All bidders are required to submit their proposal on the printed forms contained in the Contract Documents. Proposals shall be submitted in a sealed envelope marked on the outside **"2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS"** with name of bidder.

A bidder's bond for 5% of the total amount of the bid made payable to the City of Sedalia must accompany each proposal.

The City reserves the right to reject any or all bids and waive any irregularities in the bids. No bidder may withdraw his or her bid for a period of sixty (60) days after date of bid opening.

The City of Sedalia hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

INSTRUCTIONS TO BIDDERS

1. PROPOSALS

Sealed Bids will be received by the City of Sedalia at the Office of the City Clerk in the Municipal Building, until 2:00 p.m. on Tuesday, December 15, 2026, for the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS**, and will be publicly opened and read aloud Council Chambers.

2. DESCRIPTION OF WORK

The work consists of performing public improvements including removal/replacement and construction of approximately 51,229 square feet of sidewalk, 81 ADA ramps, curb and gutter and all incidental and/or related work as necessary to provide a complete project.

3. PLANS AND SPECIFICATION

Digital Copies of Plans, Specifications, and Contract Documents for bidding purposes can be obtained at the City's website at www.sedalia.com or contact Elizabeth Nations at enations@sedalia.com.

4, PROPOSAL GUARANTEE

A Bidder's Bond for not less than five percent (5%) of the total amount of the bid must be submitted with the bid as a guarantee that the bidder will enter into a contract with the City if awarded the contract by the Sedalia City Council.

5. REJECTION OF BIDS

The City of Sedalia, Missouri reserves the right to reject any or all bids and waive defects in bids. No bid may be withdrawn for a period of sixty (60) days after the time set for opening of bids.

6. EXAMINATION OF PROJECT SITE

It is each bidder's responsibility to familiarize himself with existing conditions at the project site. All bidders must examine for themselves the location and the nature of the proposed work and are requested to be present at the time the bids are opened.

7. QUALIFICATION OF BIDDERS

Before the City enters into a contract based on any bid presented, the bidder must satisfy the City Administrator and the City Council of the said City as to his competence to construct such work.

8. COMPLIANCE WITH THE CONSTRUCTION SAFETY TRAINING ACT

Bidders are informed that the Project is subject to the requirements of Section 292.675, RSMo, which requires all contractors or subcontractors doing work on the Project to (1) provide; and (2) require its on-site employees to complete, a ten (10) hour course in construction safety and health approved by the Occupational Safety and Health Administration ("OSHA") or a similar program approved by the Missouri Department of Labor and Industrial Relations that is at least as stringent as an approved OSHA program. The training must be completed within sixty (60) days of the date work on the Project commences. On-site employees found on the worksite without documentation of the required training shall have twenty (20) days to produce such documentation.

9. BONDS

Bidders shall consider the City's requirements for bid, payment, and performance bonds when pricing the Work for purposes of bid submittal.
All bidders shall provide a bid guarantee or bid bond in the amount of 5% of the bid price.
The anticipated cost of the materials, labor, and associated costs of the Work is estimated to exceed $50,000. Consequently, the successful bidder shall furnish to the City a payment bond with good and sufficient sureties to cover 100% of the contract price, which may include:

- Any and all materials incorporated, consumed, or used in connection with the construction of the Work; and
- All insurance premiums, both for compensation, and for all other kinds of insurance, for the Work; and
- For all labor performed in the Work, whether by subcontractor or otherwise.

Additionally, the successful bidder shall provide the City a performance bond (guaranteeing that the contract for the Work will be completed according to its terms, including price and time) with good and sufficient sureties to cover the 100% of the cost of the entire construction contract, including, if authorized increases to cover change orders to such contract.
If the project is federally funded, bidders must also include costs for Davis Bacon compliance, if the federal agency providing the funding requires such compliance.

10. CITY OF SEDALIA CONTRACTOR'S LICENSE

Bidders are informed that the successful bidder will be required to obtain or prove possession of a valid business license issued by the City of Sedalia pursuant to Chapter 12 of the City Code.

11. PAYMENT

Monthly payments will be made to the Contractor on this project for completed work in place based upon unit prices in this proposal. Payment will not be made for materials stored on the work site.

12. BOUND COPY OF CONTRACT DOCUMENTS

None of the instructions to bidders, bonds, proposal, contract, or specifications shall be detached from the bound copy before filing the bid with the City Clerk.

13. SUB-CONTRACTORS

The prime contractor must perform with his own organization contract work amounting to not less than 30% of the total original contract price. No second-tier sub-contracting will be permitted.

14. AS-BUILT DRAWINGS

The Contractor shall provide a set of marked-up or "red-line" plans to the City at project completion for preparation of as-built drawings. These plans shall clearly indicate all constructed deviations from the design plans, including sewer flow line elevations, relocation of utilities, unknown utilities or other structures, etc. The marked-up plans shall be delivered prior to request for final payment.

15. SALES TAX EXEMPTION

Missouri State Sales Tax Law, Section 14.062, paragraph 2, states in part, "When any exempt entity contracts for the purpose of constructing, repairing or remodeling facilities and purchases of tangible personal property and materials to be incorporated into or consumed in the construction of the project are to be made on a tax-exempt basis." THE CONTRACTOR SHALL INCLUDE THE PROVISIONS OF THIS EXEMPTION STATUS IN THEIR BID.

The City will furnish to the Contractor an exemption certificate authorizing such purchases for the construction, repair or remodeling project. The Contractor shall furnish the exemption certificate to all subcontractors and any contractor purchasing materials shall present such certificate to all material suppliers as authorization to purchase, on behalf to the City, all tangible personal property, and materials to be incorporated into or consumed in the construction of that project and no other on a tax-exempt basis. Such suppliers shall execute to the purchasing contractor invoices bearing the name of the exempt entity and the project identification number. The project exemption certificate does not allow the purchase of any construction machinery, equipment, or tools used in construction, repairing or remodeling facilities for the City. All invoices for all personal property and materials purchased under a project exemption certificate shall be retained by the purchasing contractor for a period of five years and shall be subject to audit by the director of revenue.

Any excess resalable tangible personal property or materials which were purchased for the project by a contractor under a project exemption certificate but which were not incorporated into or consumed in the construction of the project shall either be returned to the supplier for credit or the appropriate sales or use tax on such excess property or materials shall be reported on a return and paid by such contractor not later than the due date of the contractor Missouri sales or use tax return following the month in which it was determined that the materials were not to be used in the project.

16. Federal Work Authorization Program and Proof of Lawful Presence

- Bidders are informed that pursuant to Section 285.530, RSMo, as a condition of the award of any contract in excess of five thousand dollars ($5,000.00), the successful bidder shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection to the contracted services.
    - E-Verify is a qualified federal work authorization program. Additional information about E-Verify can be found at www.uscis.gov/everify.

- Bidders shall also sign and submit with the bid an affidavit affirming that it does not and will not knowingly employ any person who is an unauthorized alien in connection to the contracted services.

17. Anti-Discrimination Against Israel

Section 34.600, RSMo., requires the City to ensure that contractors are not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. Successful bidders will be required to execute a sworn affidavit affirming these facts before entering into a contract.

SPECIAL CONDITIONS

1. The Contractor shall develop a construction schedule and detailed plan that describes the sequencing of demolition and construction. The schedule shall be updated weekly to reflect progress and/or changes. The Contractor is expected to pursue his/her work keeping the best interests of the general public in mind and shall advise those residents and/or businesses that might be directly affected by this project of any interruption in service, ingress, egress, etc.; 24 hours advanced notice shall be given for scheduled interruptions. The Contractor shall notify police department, sheriff's office, fire department, and ambulance service 48 hours prior to closing any roads.

2. The Contractor shall employ all necessary measures, including straw bales, etc., to prevent erosion and sediment transport off site during construction. All streets, sidewalks and other public areas shall be kept clear of mud, gravel, and other construction materials and debris during construction.

3. Notice to Proceed shall be issued no later than February 1, 2027.

4. Tree removal that is required to construct sidewalk shall be completed by City crews. Contractor shall coordinate with City crews to identify and schedule the tree removal.

5. Numerous utility crossings exist on this project. The Contractor shall coordinate all work with utility owners in order to minimize disruption of services and to meet the project completion schedule. No additional payment will be made for utility conflicts or utility relocation.

6. The Contractor shall be responsible for developing a traffic control plan for this project and for installation and maintenance of all traffic control devices. The traffic control plan shall be submitted to the City Administrator or his/her designee for review and approval a minimum of 5 days prior to beginning construction. Traffic control measures shall meet the requirements of the current Manual on Uniform Traffic Control Devices.

7. All construction staking is the responsibility of the Contractor. This statement shall take precedence over all other statements in the contract documents regarding construction staking.

8. All manufactured goods or commodities used or supplied in the performance of this contract shall be manufactured or produced in the United States per Section 34.353 RSMo.

DOCUMENTS TO BE EXECUTED
AND SUBMITTED WITH PROPOSAL

PROPOSAL

TO THE CITY OF SEDALIA, MISSOURI:
Pursuant to and in compliance with the Notice to Contractors and having examined the plans and specifications with related documents and the site(s) of the proposed work, the undersigned bidder proposes and agrees, if this proposal is accepted, to furnish all labor, materials, tools, supplies, equipment and supervision and to do all other work necessary for the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS,** as noted in these contract documents for the following price(s):

BASE BID

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Mobilization	LS	1		
2	Construction Staking	LS	1		
3	Temporary Traffic Control	LS	1		
4	Erosion Control	LS	1		
5	Curb and Gutter Type 1	LF	14		
6	Curb and Gutter Type 2	LF	10		
7	Integral Sidewalk Curb	LF	127		
8	Concrete Sidewalk (4”)	SF	51,229		
9	ADA Sidewalk Ramp	EA	81		
10	Truncated Domes (Alleyways)	EA	16		
11	Residential Driveway (6”)	SF	140		
12	Commercial Driveway (8”)	SF	140		
13	12” Corrugated Metal Pipe (CMP)	LF	19		
14	Retaining Wall	LF	30		
14	Seeding	LS	1		

TOTAL AMOUNT OF BASE BID: $_____.

BID ALTERNATES: Upon acceptance of the base bid, the Owner reserves the right to select one or more in the order of Alternates listed herein to be included in the total contract amount. The total contract amount shall be adjusted by deducting the specified amounts of the accepted alternates from the base bid. In order for a Bid to be responsive, the Bidder must submit each Alternate bid listed below. The failure to quote an amount will result in the bid being rejected as non-responsive.

BID ALTERNATE 1-Deduction of quantities associated with West side of Dal-Whi-Mo Ave. between W. 4th St. and W. 6th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	3300		
4	ADA Sidewalk Ramp	EA	4		

TOTAL AMOUNT OF BID ALTERNATE 1: $_____.

BID ALTERNATE 2-Deduction of quantities associated with North side of E. 17th St. between S. Summit Ave. and S. Brown Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1450		
4	ADA Sidewalk Ramp	EA	3		

TOTAL AMOUNT OF BID ALTERNATE 2: $_____.

BID ALTERNATE 3-Deduction of quantities associated with West side of S. Carr Ave. between W. 11th St. and W. 14th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	3100		
4	ADA Sidewalk Ramp	EA	4		
5	Truncated Domes (Alleyways)	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 3: $_____.

BID ALTERNATE 4-Deduction of quantities associated with East side of S. Massachusetts Ave. between E. 4th St. and E. 5th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1350		
4	ADA Sidewalk Ramp	EA	2		
5	Truncated Domes (Alleyways)	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 4: $_____.

BID ALTERNATE 5-Deduction of quantities associated with West side of S. Vermont Ave. between W. 16th St. and W. 17th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1400		
4	ADA Sidewalk Ramp	EA	1		

TOTAL AMOUNT OF BID ALTERNATE 5: $_____.

BID ALTERNATE 6-Deduction of quantities associated with South side of E. 13th St. between S. Hancock Ave. and S. Marvin Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1480		
4	ADA Sidewalk Ramp	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 6: $_____.

BID ALTERNATE 7-Deduction of quantities associated with East side of S. Park Ave. between W. Broadway Blvd and W. 7th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	895		
4	ADA Sidewalk Ramp	EA	1		
5	Truncated Domes (Alleyways)	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 7: $_____.

BID ALTERNATE 8-Deduction of quantities associated with East side of S. Park Ave. between W. 7th and W. 6th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1200		
4	ADA Sidewalk Ramp	EA	2		
5	Truncated Domes (Alleyways)	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 8: $_____.

BID ALTERNATE 9-Deduction of quantities associated with East side of S. Park Ave. between W. 6th St. and W. 4th St.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	2700		
4	ADA Sidewalk Ramp	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 9: $_____.

BID ALTERNATE 10-Deduction of quantities associated with West side of S. Babcock Ave. between E. 5th and E. 6th.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	2100		
4	ADA Sidewalk Ramp	EA	2		
5	Truncated Domes (Alleyways)	EA	2		

TOTAL AMOUNT OF BID ALTERNATE 10: $_____.

BID ALTERNATE 11-Deduction of quantities associated with North side of E. 16th St. between S. Summit Ave. and S. Engineer Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1390		
4	ADA Sidewalk Ramp	EA	4		

TOTAL AMOUNT OF BID ALTERNATE 11: $_____.

BID ALTERNATE 12-Deduction of quantities associated with South side of E. 16th St. between S. Summit Ave. and S. Engineer Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1380		
4	ADA Sidewalk Ramp	EA	4		

TOTAL AMOUNT OF BID ALTERNATE 12: $_____.

BID ALTERNATE 13-Deduction of quantities associated with North side of E. 16th St. between S. Brown Ave. and S. Summit Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1470		
4	ADA Sidewalk Ramp	EA	3		

TOTAL AMOUNT OF BID ALTERNATE 13: $_____.

BID ALTERNATE 14-Deduction of quantities associated with South side of E. 16th St. between S. Brown Ave. and S. Summit Ave.

Item No.	Description	Unit	Estimated Qty.	Unit Cost	Extended Amount
1	Erosion Control	LS	1		
2	Concrete Sidewalk (4")	SF	1470		
4	ADA Sidewalk Ramp	EA	4		
5	Retaining Wall	LF	30		

TOTAL AMOUNT OF BID ALTERNATE 14: $_____.

Bidder acknowledges receipt of the following addenda, which has been considered in the preparation of this bid:

Addendum No. 1_____ Dated:_____.

Addendum No. 2_____ Dated:_____.

Addendum No. 3_____ Dated:_____.

The undersigned agrees, if this proposal is accepted, to complete the work within a period of 120 calendar days from the date of the Notice to Proceed.

NAME OF BIDDER:_____.

BY:_____.

TITLE:_____.

ADDRESS:_____.

DATE: _____

ANTI-COLLUSION STATEMENT

STATE OF MISSOURI
CITY OF SEDALIA

_____

_____being first duly sworn, deposes and says that he is

_____
Title of Person Signing

of _____

_____
Name of Bidder

that all statements made and facts set out in the proposal for the above project are true and correct; and the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with said bid or any contract which may result from its acceptance.

Affiant further certifies the bidder is not financially interested in, or financially affiliated with, any other bidder for the above project.

BY _____

BY _____

BY _____

SWORN to before me this_____day of_____20___.

_____
Notary Public

My Commission Expires _____

BID BOND

DOCUMENTS TO BE EXECUTED
AFTER AWARD OF CONTRACT

PROJECT EXEMPTION CERTIFICATE FOR EXEMPT ENTITY CONSTRUCTION

NAME OF EXEMPT ENTITY: CITY OF SEDALIA, MISSOURI
ADDRESS: 200 S. OSAGE AVE. SEDALIA, MO 65301
CITY: SEDALIA STATE: MISSOURI ZIP: 65301

TAX IDENTIFICATION NUMBER: 12493333

PROJECT IDENTIFICATION NUMBER: 2027-007
PROJECT LOCATION AND A BRIEF DESCRIPTION: The work consists of performing public improvements including removal/replacement and construction of approximately 51,229 square feet of sidewalk, 81 ADA ramps, curb and gutter and all incidental and/or related work as necessary to provide a complete project.

CONTRACT DATE: _____

ESTIMATED PROJECT COMPLETION DATE: _____

CERTIFICATE EXPIRATION DATE: _____

The work consists of performing public improvements including removal/replacement and construction of approximately 51,229 square feet of sidewalk, 81 ADA ramps, curb and gutter and all incidental and/or related work as necessary to provide a complete project.

Contractors are required to provide a copy of the project exemption certificate with the exempt entity's exemption letter. This project exemption certificate does not allow contractors to purchase machinery, equipment, or tools used in fulfilling this contract, tax-exempt. Suppliers accepting this project exemption certificate are required to render to the contractor invoices bearing the name of the exempt entity and the project identification number. An exempt entity that fails to revise the expiration date on this certificate as necessary to complete any work required by the contract will be liable for any sales tax determined due as a result of an audit of the Contractor.

SIGNATURE OF AUTHORIZED AGENT: _____
Matthew Wirt, City Administrator

SEAL

ATTEST: _____
City Clerk

PERFORMANCE-PAYMENT BOND

THE STATE OF MISSOURI BOND NO.: _____
COUNTY OF PETTIS

KNOW ALL MEN BY THESE PRESENTS: That we (1) _____ (2)_____of_____hereinafter called Principal and (3)_____of _____, State of _____, hereinafter called the Surety are held and firmly bound unto the City of Sedalia, Missouri, hereinafter called the City, and unto all persons, firms, and corporations who may furnish materials for, or perform labor upon the building or improvements hereinafter referred to in the penal sum of ($_____) in lawful money of the United States, to be paid in Pettis County, Missouri, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal enters into a certain agreement with the City of Sedalia, Missouri, the City, dated the**_____day of_____, 20__** a copy of which is hereto attached and made a part here for the performance of work of the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS,** herein sometimes called the "Project".

NOW, THEREFORE, if the said Principal shall well and truly perform and complete said project in strict accordance with said Agreement, Information for Bidders, Proposal, Plans and Specifications and related documents, shall pay as they become due all just claims for work or labor performed and materials furnished in connection with said Agreement including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work and all insurance premiums, both compensation and all other kinds of insurance on said work, and for all labor, performed in such work whether by subcontractors or otherwise, and shall defend, indemnify and save harmless said owner against any and all liens, encumbrances, damages, claims, demands, expenses, costs, and charges of every kind, including patent infringement claims except as otherwise provided in said specifications and other contract documents arising out of or in relation to the performance of said work and the provisions of said Agreement, including the general guarantee for the specified period of time following final acceptance of the work, then these presents shall be void; otherwise they shall remain in full force and effect. This obligation is made for the use of said City and also for the use and benefit of all persons who may perform any work or labor or furnish any material in the execution of said Agreement and may be sued on thereby in the name of said City. The Contractor's bond shall include such provisions as will guarantee the faithful performance of the prevailing hourly wage clause as provided by the Contract.

PROVIDED FURTHER, that if any legal action be filed upon this bond, venue shall lie in Pettis County, State of Missouri and that 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 shall in any wise affect its obligation 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.

PROVIDED FURTHER, that no final settlement between the City and the Contractor shall abridge the right of any beneficiary hereunder whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in four counterparts, each one of which shall be deemed an original, **this the_____day of_____, 20__.**

ATTEST:

_____
Principal Secretary

_____
Principal

_____
Witness as to Principal

By: _____

_____
(Address)

_____
(Address)

ATTEST:

_____
Surety

_____
Surety Secretary

By: _____
Attorney-in-fact

SEAL

_____
Address

_____
Witness as to Surety

_____
Address

(1) Correct Name of Contractor
(2) A Corporation, a Partnership, or an Individual, as case may be
(3) Correct name of Surety
If Contractor is Partnership, all partners should execute bond.

MAINTENANCE GUARANTEE

THE STATE OF MISSOURI **BOND NO. _____**
COUNTY OF PETTIS

THIS CONTRACT, made and entered into this_____day of_____, 20__ by and between party of the first part, hereinafter called the **Contractor** and _____party of the second part, hereinafter called the **Surety** and the City of Sedalia, Missouri, party of the third part, hereinafter called the **City**.

WHEREAS, the above **Contractor** has entered into a contract for the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS**, as described in the Contract Documents, Specifications, and Plans:

NOW THEREFORE, the said **Contractor** does hereby agree and bind himself, his heirs, executors and assigns to furnish all material, labor, equipment and do all work necessary to perform the work mentioned above, in accordance with the Contract Documents, Specifications and Plans, a copy of which is hereto attached and made a part hereof, and to maintain the same in a state of perfect repair **for the period of one year** from and after its completion and the final acceptance of the same by the party of the third part, less allowance for normal wear and tear, without further compensation than that provided for in the Contract for the first cost of said work.

NOW THEREFORE ALSO, if for whatever reason the **Contractor** should fail to perform as agreed above, the said **Surety** does hereby agree and bind himself, his heirs, executors and assigns to perform such necessary duties and/or to compensate the **City** for its performance to provide for such work as would have been required of the **Contractor,** without further compensation.

IN TESTIMONY WHEREOF, the said parties to this contract have hereunto set their hand and seal on this _____day of_____, 20__.

_____(Contractor)

By: _____

_____(Surety)

By: _____

:

City of Sedalia, Missouri

By: _____

CONTRACT AGREEMENT

STATE OF MISSOURI
COUNTY OF PETTIS

THIS AGREEMENT AND INDENTURE MADE AND ENTERED INTO THIS, the **_____day of _____, 20__** by and between the CITY OF SEDALIA, MISSOURI.

Party of the first part, termed in this agreement and the Contract Documents as the "CITY", and **_____**Party of the second part, termed in this agreement and the Contract Documents as the "CONTRACTOR".

WITNESSETH:

THAT, WHEREAS, the City has heretofore caused to be prepared certain contract documents for furnishing material, personnel and performing work therein fully described, and the Contractor did, on **the_____day of_____**, 20__ file with the City a copy of said contract documents together with his offer and proposal to furnish said material and perform said work at the terms therein fully stated and set forth; and,

WHEREAS, the said contract documents accurately and fully described the terms and conditions upon which the contractor is willing to furnish the materials, personnel and perform the work called for by the said contract documents and in the manner and time of furnishing and performing same,

IT IS, THEREFORE, AGREED:

1. That a copy of said contract documents filed as aforesaid be attached hereto and that the same do in all particulars become the agreement and contract between the parties hereto in all matters and things set forth therein and described; and further, that both parties hereby accept and agree to the terms and conditions of said contract documents so filed for the **2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS.**

2. The Contract Documents hereto annexed are made a part of this agreement and contract as fully and absolutely as if herein set out.

3. That the wages paid under this contract shall be not less than the prevailing rate of wages as determined by the Missouri State Division of Labor Standards.

4. This contract is executed in three (3) copies.

IN WITNESS WHEREOF, the parties hereto have executed this contract on the day and year in this agreement first above written.

ATTEST:

CITY OF SEDALIA, MISSOURI
(Party of the first part)

_____
City Clerk

BY: _____
Matthew Wirt
City Administrator

SEAL

(If a corporation)

ATTEST:_____
Secretary

SIGNATURE OF CONTRACTOR
(Party of the second part)

CONTRACTOR:

(CORPORATE SEAL)

BY: _____

(Name & Title)

(If an individual or partnership)

CONTRACTOR: _____

BY: _____
(Name & Title)

STATE OF _____

COUNTY OF _____

On this_____day of_____, 20__ before me personally appeared _____to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

In Testimony Whereof, I have hereunto set my hand and affixed my official seal at my office in_____, the day and year first above written.

_____
Notary Public

My Commission Expires:

_____

AFFIDAVIT

COMPLIANCE WITH THE WORK AUTHORIZATION LAW
(as required by Section 285.530, Revised Statutes of Missouri)

As used in this Affidavit, the following terms shall have the following meanings:

EMPLOYEE:

Any person performing work or service of any kind or character for hire within the State of Missouri.

FEDERAL WORK AUTHORIZATION PROGRAM:

Any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employee, under the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603.

KNOWINGLY:

A person acts knowingly or with knowledge,

(a) with respect to the person's conduct or to attendant circumstances when the person is aware of the nature of the person's conduct or that those circumstances exist; or

(b) with respect to a result of the person's conduct when the person is aware that the person's conduct is practically certain to cause that result.

UNAUTHORIZED ALIEN:

An alien who does not have the legal right or authorization under federal law to work in the United States, as defined in 8 U.S.C. 1324a(h)(3).

Before me, the undersigned Notary Public, in and for the County of_____, State of_____, personally came and appeared _____
(Name)

_____, of the_____,
(Position) (Name of the Company)

(a corporation) (a partnership) (a proprietorship) and after being duly sworn did depose and say that all provisions and requirements set out in Chapter 285.530 (2) Missouri Revised Statutes, have been fully satisfied and there has been no exception to the full and complete compliance with said provisions and requirements.

Contractor is enrolled in and participates in a federal work authorization program with respect to the employees working in connection with the following services contracted between Contractor and

_____.

Contractor does not knowingly employ any person who is an unauthorized alien in connection with the contracted services set forth above.

Attached hereto is documentation affirming Contractor's enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services.

2027-007 SIDEWALK REPLACEMENT-VARIOUS LOCATIONS

located at in Sedalia, Pettis County, Missouri, and completed on the___day of _ _ _ _ _ _, 20__.

_____
(Signature)

Subscribed and sworn to me this_____day of_____, 20____.

My Commission expires: _____

_____
Notary Public

PLEASE NOTE:
Acceptable enrollment and participation documentation consists of the following 2 pages of the E-Verify Memorandum of Understanding:

(1) A valid, completed copy of the first page identifying the Contractor; and
(2) A valid copy of the signature page completed and signed by the Contractor, the Social Security Administration, and the Department of Homeland Security – Verification Division.

WAGE RATE STIPULATIONS:

A. The BID, CONTRACT, and BONDS shall be based upon the required payment by the Contractor and his subcontractors of not less than the prevailing hourly rate of wages, including the prevailing rate for legal holidays and overtime work, for each craft or type of workman required to execute the contract, as determined now or hereafter by the Missouri Division of Labor Standards on behalf of the Department of Labor and Industrial Relations.

B. The Contractor and each subcontractor shall comply with all requirements of the prevailing wage law of the State of Missouri, Sections 290.210 through 290.340 RSMo 1959, as amended 1987.

C. The Contractor and each subcontractor shall keep an accurate record showing the names and occupations of all workmen employed, together with actual wages paid to each workman. At all reasonable hours, such records shall be open to inspection by representatives of the City of Sedalia and the Missouri Division of Labor Standards.

D. The Contractor shall forfeit as a penalty to the City, ten dollars for each workman employed, for each calendar day, or portion thereof, such workman is paid less than the said stipulated rates for any work done under this contract, by him or any subcontractor under him.

E. A facsimile of Form PW 1000 of the Missouri Division of Labor Standards is included in the LABOR-RELATED REGULATIONS.

WAGE RATE DETERMINATIONS:

The State of Missouri wage rate determinations are published hereafter.

Missouri
Division of Labor Standards
WAGE AND HOUR SECTION

MIKE KEHOE, Governor

Annual Wage Order No. 33

Section 080
PETTIS COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by
Logan Hobbs, Director
Division of Labor Standards

Filed With Secretary of State: **March 10, 2026**

Last Date Objections May Be Filed: **April 9, 2026**

Prepared by Missouri Department of Labor and Industrial Relations

PETTIS COUNTY

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	$29.19*
Boilermaker	$29.19*
Bricklayer - Stone Mason	$57.90
Carpenter	$58.27
Lather	
Linoleum Layers & Cutter	
Millwright	
Pile Driver	
Cement Mason	$29.19*
Plasterer	
Communication Technician	$29.19*
Electrician (Inside Wireman)	$80.56
Electrician (Outside Lineman)	$29.19*
Outside - Groundman	
Outside - Groundman Tree Trimmer	
Outside - Lineman Operator	
Outside - Lineman Tree Trimmer	
Elevator Constructor	$29.19*
Glazier	$50.81
Iron Worker	$73.48
Laborer	$29.19*
Laborer - First Semi-Skilled	
Laborer - General	
Laborer - Second Semi-Skilled	
Laborer - Skilled	
Mason	$53.60
Marble Finisher	
Marble Mason	
Terrazzo Finisher	
Terrazzo Worker	
Tile Finisher	
Tile Setter	
Operating Engineer	$72.33
Operating Engineer - Group I	
Operating Engineer - Group II	
Operating Engineer - Group III	
Operating Engineer - Group III - A	
Operating Engineer - Group IV	
Operating Engineer - Group V	
Painter	$29.19*
Plumber	$85.16
Pipe Fitter	
Roofer/WaterProofer	$61.78
Sheet Metal Worker	$81.07
Sprinkler Fitter - Fire Protection	$29.19*
Truck Driver	$29.19*
Truck Control Service Driver	
Truck Driver, Teamsters Group I	
Truck Driver, Teamsters Group II	
Truck Driver, Teamsters Group III	
Truck Driver, Teamsters Group IV	

*** The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.**

****The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in RSMo Section 290.210.**

PETTIS COUNTY

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	$68.05
Millwright	
Pile Driver	
Electrician (Outside Lineman)	$29.19*
Outside - Groundman	
Outside - Groundman Tree Trimmer	
Outside - Lineman Operator	
Outside - Lineman Tree Trimmer	
Laborer	$50.97
Laborer - General	
Laborer - Skilled	
Operating Engineer	$61.86
Operating Engineer - Group I	
Operating Engineer - Group II	
Operating Engineer - Group III	
Operating Engineer - Group IV	
Truck Driver	$29.19*
Truck Control Service Driver	
Truck Driver, Teamsters Group I	
Truck Driver, Teamsters Group II	
Truck Driver, Teamsters Group III	
Truck Driver, Teamsters Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance iwth the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title shown on the Building Construction Rate Sheet.

***The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.**

****The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.**

OVERTIME
and
HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

AFFIDAVIT

COMPLIANCE WITH THE PREVAILING WAGE LAW

Before me, the undersigned Notary Public, in and for the County of_____, State of_____, personally came and appeared _____
(Name)

_____, of the_____,
(Position) (Name of the Company)

(a corporation) (a partnership) (a proprietorship) and after being duly sworn did depose and say that all provisions and requirements set out in Chapter 290, Section 290.210 through and including 290.340, Missouri Revised Statutes, pertaining to the payment of wages to workmen employed on public works projects have been fully satisfied and there has been no exception to the full and complete compliance with said provisions and requirements and with Wage Determination No.***33*** issued by the Division of Labor Standards on the ***10th day of March, 2026***, in carrying out the contract and work in connection with

_____located at_____in
(Name of Project) (Name of Institution)

_____County, Missouri, and completed on the_____day of_____, 202_.

_____
(Signature)

Subscribed and sworn to me this_____day of_____, 20___.

My Commission expires: _____

_____
Notary Public

GENERAL CONDITIONS

C-1 CONTRACT DOCUMENTS

It is expressly understood and agreed that the Notice to Bidders, Instructions to Bidders, Proposal, Contract, Bond, Regulations of the Contract, Detailed Specifications, Plans and all Addenda thereto issued prior to the time of opening bids for the work, all of which are hereto attached, and other drawings, specifications and engineering data which may be furnished by the Contractor and approved by the City, together with such additional drawings which may be furnished by the Engineer from time to time as are necessary to make clear, and to define in and all component parts to the agreement governing the work to be done and the materials and equipment to be furnished. All these documents are hereby defined as the Contract Documents.

The Contract Documents are complimentary, and what is called for by anyone shall be as binding as if called for by all. The intention of the Documents is to include the furnishing of all materials, labor, tools, equipment and supplies necessary for constructing complete the work specified. Materials or work described in words which have a well known technical or trade meaning shall be held to refer to such recognized standards.

Four counterpart copies of the proposal, bond and contract agreement shall be prepared, each containing an exact copy of the Contractor's proposal as submitted, the bond properly executed and contract agreements signed by both parties thereto. These executed counterparts of the contract documents shall be filed with The City and the Contractor. The successful bidder shall prepare not less than four (4) conformed copies of the contract documents, after execution thereof, for distribution to, and use by, the City and the Contractor.

C-2 TERM

One year beginning on date of award. The City may, at its sole option, extend the contract for up to four (4) additional one-year terms upon written notice to the Contractor and acceptance of such extension by the Contractor.

C-3 BOND

Coincident with the execution of the contract, the Contractor shall furnish a good and sufficient surety bond in the full amount of the contract sum, guaranteeing the faithful performance of all the covenants, stipulations and agreements of the contract, the payment of all bills and obligations arising from the execution of the contract, which bills or obligations might or will in any manner become a claim against the City and guaranteeing the work included in this Contract against faulty materials or poor workmanship. All provisions of the bond shall be complete and in full accordance with Statutory requirements. The contract shall be executed with the proper sureties through a company licensed and qualified to operate in the state and approved by the City. Bond shall be signed by an agent resident in the state and date of bond shall be the date of execution of the contract. If at any time during the continuance of the Contract the surety on the Contractor's bond becomes irresponsible, the City shall have the right to require additional and sufficient sureties which the contractor shall furnish to the satisfaction of the City within ten (10) days after notice to do so. In default thereof, the contract may be suspended, all payments or money due the Contractor withheld.

C-4 LICENSES

Before starting work on the project, the Contractor shall have a valid CITY OF SEDALIA CONTRACTOR'S LICENSE.

C-5 NOTICE TO UTILITIES, FIRE DEPARTMENT AND POLICE DEPARTMENT

The Contractor shall notify Missouri One Call (811) before starting work on this project. The Contractor shall notify the Fire Department and Police Department before closing streets to traffic. The Contractor shall notify all utilities 2 days before starting excavation work so that the utilities can mark the location of their underground lines.

C-6 BARRICADES

The Contractor shall barricade the project site and the streets or portions of the streets during construction of the improvements. If a street requires closing the Contractor shall place a "street closed" sign at the intersections one block in each direction. All traffic control devices shall conform to the current Manual on Uniform Traffic Control Devices (MUTCD).

C-7 INSURANCE

A. GENERAL

1. Contractor shall purchase and maintain at his expense insurance of such types and in such amounts as are specified herein to protect Contractor and the interests of the City and others from claims which may arise out of or result from Contractor's operations by Contractor or by any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable.

2. Such insurance shall cover claims for damages because of Bodily Injury or death to Contractor's employees including claims brought under:

   a. Workmen's Compensation Laws
   b. Disability Benefit Laws
   c. Occupational sickness or disease laws
   d. Other similar employee benefit laws

3. Such insurance shall also cover claims for damage because of Personal Injury, Bodily Injury, Sickness or Decease or Death of any person or persons other than Contractor's employees and claims from injury to or destruction of tangible property including loss of use thereof.

4. Contractor shall also purchase and maintain at his expense all property insurance, of such types and in such amounts as are specified herein to protect Contractor and the interests of the City and others from loss arising form damage to the work and materials and equipment to be incorporated in the work.

5. Failure of Contractor to maintain proper insurance coverage shall not relieve him or any contractual responsibility or obligation.

6. If part of the work is to be subcontracted, Contractor shall either cover any and all subcontractors in his insurance policies or require each subcontractor not so covered to obtain insurance which will protect the sub-contractor against all applicable hazards or risks of loss designated herein.

7. Copies of the policies or certificates of insurance evidencing coverage on the forms or for the limits required shall be filed with the other contract documents. Such policies or certificates shall state that **thirty (30**) days written notice will be given to the City prior to any material change or cancellation of insurance coverage.

8. Any insured loss under the policies or property insurance is to be adjusted with the City and made payable to the City as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage and of paragraph A.10 hereof.

9. The City and Contractor waive all rights against each other for damages arising out of an insured loss under policies of property insurance. Contractor shall require similar waivers by subcontractors.

10. The City as trustee will have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within five days after the occurrence of loss to the City's exercise of this power, and if such objection be made, arbitrators shall be chosen. The City as trustee will, in that case, make settlement with the insurers in accordance with the directions of such arbitrators.

B. Forms of Coverage and Limits of Coverage Required:

1. Workmen's Compensation and Employer's Liability Insurance:

a. This insurance shall protect Contractor against any and all claims brought under the Workmen's Compensation Law for the state or states involved in the work. It shall also protect Contractor against claims for injury to, disease, or death of workmen engaged in the work which, for any reason, may not fall within the provisions of the Workmen's Compensation Act. This policy shall include "All States" endorsement.

b. Limits of coverage shall not be less than the following:

(1) Workmen's Compensation - Statutory
(2) Employer's Liability - $500,000 each person

2. Comprehensive Automobile Insurance:

a. Contractor shall carry Comprehensive Automobile Insurance covering all vehicles owned, hired, rented or non-owned, licensed or not licensed, used in the operations and work under this contract.

b. Liability limits shall be not less than the following:

B.I. and P.D. - $1,000,000 CSL

The City shall be named additional insured on this insurance in regard to all claims arising out of the operations and work under this contract.

3. Comprehensive General Liability Insurance:

a. This insurance, to be on comprehensive form, shall protect Contractor against any and all claims in connection with or resulting from Contractor's operations under the Contract Documents for injuries to or death of any person other than his employees, and damage to property of others, including loss of use resulting therefrom, arising in whole or in part out of any act of omission of Contractor, his agents or Subcontractors, or anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable.

b. In addition, this general liability insurance policy shall be endorsed to provide blanket contractual liability insurance.

c. the property damage liability coverage under this policy shall contain no exclusion (commonly referred to as XC&U exclusion) relative to damage to underground property.

d. Liability limits shall be not less than the following:

General aggregate limit (other than products - completed operations) - **$2,000,000**
Products- completed operations aggregate limit - **$2,000,000**
Each occurrence limit - $1,000,000
Fire damage limit - $50,000
Medical expense limit - $5,000

e. The City shall be named additional insured on this insurance.

f. This policy shall include products and completed operations coverage for limits as specified above.

g. This policy shall include personal injury liability insurance for limits of not less than **$1,000,000 each claim and $2,000,000 annual aggregate.**

h. This policy shall provide "Broad Form Property Damage" Insurance.

5. Owner's Protective Liability Insurance:

a. This insurance shall name the City as the named insured, and the insurance shall be maintained in force for the duration of the Contract and shall be purchased by the Contractor at his expense.

b. Policy shall be for the same limits of liability as the Comprehensive General Liability Insurance and shall protect the City against any and all claims, and liabilities for injury to or death of persons, or damage to property caused in whole or in part by the negligent acts or omissions of Contractor, his agents, employees, or subcontractors, in connection with or resulting from the operations performed under the terms of the Agreement.

C-8 CHANGES IN PLANS (Additions, deductions or changes in work)

A. Changes in the work:

1. The Contract may only be adjusted by a Change Order. The Contract unit prices for completed quantities of unit price items constitutes the total compensation payable to Contractor for performing the work All duties, responsibilities and obligations assigned to or under taken by Contractor in accomplishing the work shall be at his expense.

2. Renewal of labor contracts at higher wage rates will not be grounds for adjustment to the Contract Unit Price.

3. Adjustments to the Contract for extra work or changes ordered by the City shall be determined by one or more of the following methods as agreed upon prior to starting the additional or changed work.

a. By unit prices as listed in bid proposal.
b. By a lump sum price, if not covered by unit prices in proposal.
c. By Contractor's cost plus a fixed fee, if not covered by unit prices in proposal.
d. By Contractor's cost plus a percentage, if not covered by unit prices in proposal.

4. The "Contractor's Cost" is hereby defined for purposes of this Article to be and shall include the amounts required to pay Subcontractors plus the costs of his own work as follows:

a. Labor Costs:

1. The payroll cost for all workmen such as foremen, mechanics, craftsmen and laborers.

2. All incidental labor expenses incurred as a direct result of the performance of the work including payroll taxes, workmen's compensation, pension and retirement allowances, and social insurance, or other regular payroll charges on same.

b. Material and Equipment Costs:

1. The cost of all materials and equipment required, delivered to the construction site, which are not furnished by the City or others.

2. Sales and use taxes applicable to such materials and equipment.

c. Supplemental Costs:

1. Rental for all power-driven equipment at agreed upon rates shall be charged against additional or changed work only for the actual time which the equipment is used specifically therefore.

2. Transportation charges necessarily incurred in connection with such equipment which is not already on site.

3. Cost of power, fuel, lubricants and water required for such equipment (may be included in agree upon rate).

4. Additional cost for surety bonds, liability and property damage, and other insurance required, where cost is necessarily increased by coverage of the additional or change work.

d. The above definitions and requirements apply equally to work done by Subcontractors, suppliers and manufacturers under methods 3.c or 3.d.

e. The percentage which shall be added to the several items of Contractor's cost under method 3.d. are as follows:

1. Amounts paid to Subcontractors - Five percent
2. Labor Costs - Ten percent
3. Material and Equipment Costs - Ten percent
4. Supplemental Costs - None

f. Under method 3.c. or 3.d., compensation or adjustment to Subcontractors, suppliers and manufacturers for work done by them shall be determined in accordance with any of the three methods set forth in Article B.3 as agreed.

g. The above percentages shall be understood to include all other costs and full compensation for profit, overhead, superintendence, field office expense and all other elements of costs not included in the "Contractor's Cost" as herein defined.

h. Contractor shall keep and present in an acceptable form an accurate account with vouchers of the several items of cost, including those of Subcontractors, on changed or extra work done under methods 3.c. or 3.d.

5. Change work shall be adjusted considering separately the parts of work added and the parts omitted. Amount of adjustment for parts omitted shall be estimated at the time of omission is authorized, and the agreed adjustment will be deducted form subsequent Engineer's Pay Estimates.

6. Statements for additional or changed work shall be rendered by Contractor no later than ten days after completion of each assignment of additional or changed work provided for in a Change Order, and if found correct will be accepted by Engineer and submitted for payment with the next Engineer's Pay Estimate.

7. The City reserves the right to obtain any or all extra work from persons or firms other than Contractor.

8. Contractor shall be entitled to no claim for damages for anticipated profits on any portion of the work that may be omitted.

9. If Contractor claims compensation for additional work not ordered as aforesaid or for damages sustained, he shall make a written statement of claims for compensation or damages to the City.

10. Statement shall be in the hands of the City within such time as will allow a full consideration of the basis for the claim, and in no case later than ten days after the work has been completed or damages sustained. All claims for adjustments to the Contract Price shall be determined by the City Administrator and his/her designee if the City and Contractor otherwise agree on the amount involved. Any change to the Contract Price arising from any claim shall be incorporated in a Change Order.

B. Changes to the Contract Time:

1. The Contract Time may only be adjusted by a Change Order. To complete the work within the allowed Contract Time, the City has taken into consideration and made allowances for all of the ordinary delays and hindrances incident to such work.

2. Adjustments to the Contract Time may be made for delays in completion of the work from causes beyond Contractor's control, including the following:

a. Federal embargoes, priority orders, or other restrictions imposed by the United States Government.
b. Unusual delay in fabrication or shipment of orders.
c. Abandonment of the work by the men engaged thereon through no fault of the Contractor.
d. Delays caused by court proceedings.
e. Change Orders
f. Neglect, delay or default of any other contractor employed by the City.
g. Abnormal weather conditions, other than normal seasonal changes.
h. Conflicts, errors of discrepancies in the Contract Documents reported to the City Administrator and his/her designee as provided in these General Conditions.

3. Contractor shall have no claims for damages for any such causes of delay, but he shall in all cases be entitled to such extension of the Contract Time as the City shall award in writing on account of such cases of delay, provided that adequate evidence is presented to enable the City Administrator and his/her designee to determine with exactness the extent and duration of delay for each item involved.

4. No extension to the Contract Time will be granted for delays involving only portions of the work, or which do not directly affect the time required for completion of the entire work.

5. Any claim for an extension to the Contract Time shall be in writing delivered to the City within ten days of the occurrence of the event giving rise to the claim. Any change to the Contract Time resulting from any such claim shall be incorporated in a Change Order.

C-9 ACCEPTANCE OF THE WORK

A. Warranty and Guarantee:

1. Contractor warrants and guarantees to the City that materials and equipment will be new and that all work will be of good quality and free from defects and in accordance with the Contract Documents and of any inspections, tests, or approval provided for in the Contract Documents.

2. Contractor guarantees to remedy promptly, and without cost to the City, any defective materials, equipment or workmanship which appear within **one year** after the date of Substantial Completion or, if earlier, the date the City commences continuous use of the facilities and in accordance with any special guarantees provided for in the Contract Documents. **A Maintenance Guarantee / Bond contract form is included in these contract documents for execution by the Contractor and their Surety and acceptance by the City of Sedalia.**

B. Access to the Work: The City Administrator and his/her designee and his representatives shall at all times have access to the work. The Contractor shall provide proper facilities for such access and observation of the work and also for any inspection or testing thereof by the City Administrator and his/her designee.

C. Defective Work:

1. The term "defective" is used in these documents to describe work that is unsatisfactory, faulty, not in conformance with the requirements of the Contract Documents, or not meeting the requirements of any inspection, test, approval or acceptance required by law or the Contract Documents.

2. Any defective work may be disapproved or rejected by the City Administrator and his/her designee at any time before final acceptance even though it may have been overlooked and included in a previous Pay Estimate.

3. Contractor shall furnish samples of questionable materials from completed work for estimating purposes when required by the City Administrator and his/her designee. All costs in connection with the testing of materials or equipment proven to be defective shall be paid by the Contractor. If such tests prove the materials or equipment to be acceptable, their cost will be paid by the City.

4. Prompt notice will be given by the City Administrator and his/her designee to the Contractor of all defects as they become evident.

D. Stopping Defective Work in Progress: If the work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, the City may, if so recommended by the City Administrator and his/her designee order the Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated, however, this right of the City to stop the work shall not obligate the City to exercise this right for the benefit of the Contractor.

E. Removal and Replacement of Rejected Defective Work:

1. All rejected defective work, whether completed, shall be removed from the site and replaced with acceptable work.

2. If the Contractor does not remove and replace such rejected work within a reasonable time, all as specified in a written notice from the City Administrator and his/her designee, the City may, as provided in these General Conditions:

a. Withhold payment
b. Stop the work
c. Remove and replace the rejected work. All direct and indirect costs of such removal replacement, including compensation for additional professional services, shall be paid by the Contractor. The Contractor shall also bear the expenses of making good all work of others destroyed or damaged by the removal and replacement of his defective work. Rejected materials shall be removed from the site by the Contractor if so directed by the City within ten days of written notice. Materials not removed within such time may be sold by the City and the net proceeds therefrom deducted from the expense of removal and replacement chargeable to the Contractor. An appropriate deductive Change Order will be issued to cover all costs incurred by the City in connection with the removal and replacement of defective work.

F. Correction of Repair of Defective Work:

1. If required by the City Administrator and his/her designee, the Contractor shall promptly correct or repair any defective work, whether completed.

2. If the Contractor does not correct or repair such defective work within a reasonable time, all as specified in a written notice from the Engineer, it may be rejected as specified in the preceding paragraph or the City may have the deficiency corrected by others. All direct and indirect costs of such correction or repair, including compensation for additional professional services shall be paid by the Contractor. The Contractor shall also bear the expenses of making good all work of others destroyed or damaged by correction or repair of his defective work.

G. Acceptance of Defective Work: If instead of requiring correction, repair, or removal and replacement of defective work, the City deems it expedient to accept it, it may do so. In such case, if acceptance occurs prior to approval of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents, including an appropriate reduction in the Contract Price or if the acceptance occurs after approval of final payment, an appropriate amount shall be paid by the Contractor to the City.

H. Correction of Defective Work During the Guarantee Period:

1. If, during the guarantee period, any work is found to be defective, the Contractor shall promptly, without cost to the City and in accordance with the City's written instructions, either correct such defective work or if it has been rejected by the City, remove it from the site and replace it with acceptable work.

2. If the Contractor does not promptly comply with the terms of such instructions, the City may have the defective work corrected or the rejected work removed and replaced and all direct and indirect costs of such correction or removal and replacement, including compensation for additional professional services, shall be paid by the Contractor.

3. The Contractor shall also bear the expenses of making good all other work destroyed or damaged by the correction or removal and replacement of the defective work.

4. The City will give notice of observed defects with reasonable promptness.

5. Under emergency conditions, the City may remedy defective work without waiting for action by the Contractor. The City will notify the Contractor immediately of the circumstances and actions taken and the Contractor shall pay all reasonable substantial costs of such actions.

C-10 MONTHLY PARTIAL PAYMENTS

A. Upon receipt of each Contractor's application for partial payment, the City Administrator or his/her designee will make a Monthly Partial Pay Estimate equal to the value of all work accomplished prior to the date of the Contractor's application, based upon the unit prices listed in the Bid Proposal. Each Monthly Pay Estimate shall be signed by the Contractor or be accompanied by his application for payment to indicate Contractor's concurrence with the amount due. When Monthly Pay Estimate has been delivered to the City by the City Administrator or his/her designee, the City will pay the Contractor within 30 days after receipt thereof. Monthly payment estimates will be made only for satisfactorily completed items of work. Monthly payments will not be made for materials stored on site or at the Contractor's shop (warehouse).

B. Partial Payments will be in the amount of ninety-five percent of the Monthly Pay Estimate less the sum of all previous payments.

C-11 ACCEPTANCE AND FINAL PAYMENT

As soon as the work has been substantially and satisfactorily completed the City Administrator or his/her designee will make a final estimate stating that the work provided under this contract has been completed and is accepted by them under the terms and condition thereof, with qualifications, if any, as stated and the balance found to be due the Contractor according to the terms of payment shall be paid by the City. Prior to filing of estimate, the Contractor shall file with the City Clerk an affidavit stating that all bills for materials and equipment used in the work have been paid. If all bills have not been paid the affidavit shall include a complete list of all unpaid bills. The Contractor shall file with the City Clerk a statement of consent of the surety to final payment.

The final payment shall be based upon the actual completed quantities of each item of work as measured by the City Administrator or his/her designee. The final measured quantities may be more or less than the quantities shown on the Plans and in the Bid Proposal. No Change Order will be required when final measured quantities vary from the estimated quantities shown on the Plans and the Bid Proposal.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City, other than those arising from unsettled liens, form faulty work or materials appearing after final payment, or from requirement of the specifications, and of all claims by the Contractor, except those previously made by the Contractor against the City in writing and still unsettled.

C-12 LIQUIDATED DAMAGES

A. It is mutually understood and agreed by and between the parties to this contract, in the execution of the same that time is of the essence of the contract. In the event that the Contractor shall fail to complete the work to be performed under this contract by and at the completion time bid in the Proposal, the Contractor shall pay unto the City as and for the liquidated damages, such as City's increased overheads, and cost of additional engineering supervision, and delay and inconvenience to the City, and not as a penalty, the sum of $1000.00 (determined per project) for each and every calendar day that the Contractor shall be in default.

B. Liquidated damages shall be waived for and during the extent of any delay caused by the inability of the Contractor to obtain materials or equipment by reason of Federal embargoes, priority orders, or other restrictions imposed by the United States Government, provided that adequate evidence is presented by the Contractor to prove such delay and to enable the City to determine with exactness the extent and duration of such delay for each item of material and equipment involved. Liquidated damages shall be waived during any delay caused by the City or delays due to underground utilities leaks or excavation made in the street by utilities.

C. The City shall have the right to deduct liquidated damages from any monies in its hands, otherwise due, or to become due to the Contractor, or to sue for, and recover, compensation for damages for nonperformance of this contract at the time stipulated herein.

C-13 PENALTY FOR PAYMENT OF LESS THAN STIPULATED WAGE RATES

The contractor will forfeit a penalty to the contracting public body of $100 per day (or portion of a day) for each worker that is paid less than the prevailing rate for any work done under the contract by the contractor or by any subcontractor. A copy of said wage rate determination is included in this set of Contract Documents.

C-14 RELEASE OF LIABILITY

The acceptance by the Contractor of the last payment shall operate as, and shall be, a release to the City and every officer and agent thereof, from all claims and liability to the Contractor for anything done of, furnished for, or relating to the work, or for any act or neglect of the City or of any person relating to or affecting the work.

C-15 RIGHT TO TERMINATE CONTRACT

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to subcontractors for materials or labor, or persistently disregard laws, ordinances or the instruction of the City Administrator or his/her designee, or otherwise be guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the City Administrator or his/her designee that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor seven (7) days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by

whatever method the City Administrator or his/her designee may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense exceeds such unpaid balance, the Contractor shall pay the difference to the City has herein provided, and the damage incurred through the Contractor's default, shall be certified by the City Administrator or his/her designee.

Pending arbitration or settlement of dispute on any point of controversy the City Administrator or his/her designee may suspend action on all or any part of the work. The Contractor shall not be entitled to any claim for loss or damage by reason of such delay nor shall he be entitled to extensions of time although such extension of time may be granted by the City Administrator or his/her designee if he deems it in the interest of the work.

C-16 GENERAL PROVISIONS

The quality and acceptability of materials furnished, and work performed shall be in accordance with the 2004 Missouri Standard Specifications for Highway Construction unless otherwise noted.

The contractor shall take no advantage of any apparent error or omission in the plans or specifications. If the contractor discovers such an error or omission, he shall immediately notify the City Administrator or his/her designee. The City Administrator or his/her designee will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and specifications.

During construction, in special cases driveways and street access shall be maintained for emergency vehicles and local traffic. The Fire and Police Departments shall be notified prior to any street closing.

The contractor shall provide adequate manpower, materials, tools and equipment to ensure that the work will proceed continuously without delay through the succeeding operations to its completion with the least possible interference and inconvenience to the City.

It shall be the contractor’s responsibility to verify locations and depths of utilities prior to and during construction.

It shall be the Contractors responsibility to regrade and realign existing ditches and the site as required to drain.

The Contractor shall protect from damage or injury all existing improvements and structures whether they be private or publicly owned. Any such item inadvertently damaged shall be repaired or replaced at the Contractor's expense. If the Contractor needs to temporarily remove any existing improvements or structures in order to proceed with the work then the Contractor shall do so and then replace all the existing improvements or structures to original location and condition at the Contractor’s expense. The Contractor shall have on the work at all times, as his agent, a competent superintendent capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed, who shall receive instructions from the City Administrator or his/her designee. The superintendent shall have full authority to execute orders or directions of the City Administrator or his/her designee without delay, and to

promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished regardless of the quantity of work sublet.

Photographic documentation shall be made of existing improvements and structures whether they are private or publicly owned in order to verify existing conditions, prior to construction. No extra payment will be allowed for the photographic documentation.

NO ASBESTOS CONTAINING MATERIALS SHALL BE USED OR INSTALLED ON THIS PROJECT.

The Contractor shall remove from all public and private property at his own expense all temporary structures, rubbish and waste materials resulting from his operation and as nearly as possible, leave the site in as good condition as it was before construction was started. Sod, shrubbery, trees, fences, culverts, mailboxes, street signs, street and driveway surfacing, curbs, sidewalks, gutters, pavement and all other Items disturbed during construction shall be restored or replaced with like items to the satisfaction of the City Administrator or his/her designee.

All spoilage, rubbish, excess earth and surplus waste materials shall be removed from the site of the project to authorized dumps where it shall be disposed of and left as a neatly graded fill, unless other disposal is authorized by the City Administrator or his/her designee. Burning within the City Limits is not permitted.

Where necessary to trim trees to allow room for construction of improvements, the limbs shall be sawed off in a vertical plane and the cut areas painted. Shrubbery and hedges shall be trimmed in a neat and orderly manner, using hedge shears or a saw where necessary to do trimming work to provide sufficient clearance for trenching.

C-17 CERTIFICATION REGARDING OMNIBUS TRANSPORTATION EMPLOYEE TESTING ACT

All Contractors of the City of Sedalia, Missouri shall be required to comply with the provisions of the Omnibus Transportation Employee Testing Act and its implementing regulations while engaged in services for the City of Sedalia, or in activity while on the City of Sedalia's property as a condition of the award of any such contracts for services or work and the continuation of same.

The bidder, under penalty of perjury certifies by signing and submitting this bid or proposal that they will comply with the Omnibus Transportation Employee Testing Act and its implementing regulations, including but not limited to persons who are required to possess a CDL license for the operation of a commercial vehicle.

SECTION 3: TECHNICAL SPECIFICATIONS

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TECHNICAL SPECIFICATIONS

S-1 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be attended by the Contractor and the Engineer, at least five (5) days prior to the date the Contractor plans to start work on the project.

S-2 SCHEDULE OF WORK

To ensure that the work will proceed continuously through the succeeding operations to its completion with the least possible interference to the City, the Contractor shall submit for approval a complete schedule of his proposed construction procedure, stating the sequence in which various operations of work are to be performed.

Equipment and tools necessary for handling materials and performing all parts of the work must meet the approval of the City Administrator or his/her designee as to design, capacity and mechanical conditions and must be on the job before the work is started. Any equipment which in not maintained in full working order or which, as used by the Contractor, is inadequate to obtain the results prescribed, shall be improved or similar equipment substituted or added as directed by the City Administrator or his/her designee.

S-3 JOBSITE SAFETY

The Contractor has sole responsibility for jobsite safety on this project. This includes the safety of the contractor's personnel on the project site, as well as the general public, and the occupants of the adjacent properties who may have access to the site. The Contractor shall take all appropriate actions (including temporary chain-link and/or construction fencing) to keep the general public from the project site, and to protect the occupants of the adjacent properties from any construction hazards that may be present along the permanent and construction easements which comprise the project site.

S-4 NOTICE OF DATE CONTRACTOR PLANS TO COMMENCE WORK

The Contractor shall notify the City Administrator or his/her designee at least 5 days prior to the date that the Contractor plans to commence work on the project.

S-5 TRAFFIC CONTROL, FLAGMEN, BARRICADES AND SIGNS

The Contractor shall barricade the streets or portions of streets during construction within the right of way. If necessary, the contractor shall place a "Street Closed" sign at the intersections one block in each direction. All traffic control devices shall conform to the current Manual on Uniform Traffic Control Devices (MUTCD).

All trenching, excavation and other construction work shall be made in a manner to cause the least interruption to traffic. No separate payment will be made for maintenance of traffic. All cost pertaining thereto shall be included in the contract unit prices for items as listed in the Bid Form.

No separate payment will be made for the maintenance of traffic control devices. All City streets must remain open at night unless approved by the City Administrator or his/her designee.

S-6 QUALITY CONTROL TESTING DURING CONSTRUCTION

The City of Sedalia may employ an independent commercial testing laboratory to perform tests for compliance with the 2009 Missouri Standard Specifications for Highway Construction. The Contractor shall cooperate with the lab technician on this project.

The cost of the testing will be paid by the City of Sedalia at no cost to the contractor.

The Contractor shall submit to the City Administrator or his/her designee prior to commencing concrete work laboratory test reports or evaluation reports for concrete materials and concrete mix designs from the Ready- Mix Plant that the Contractor intends to use. If at any time during construction there is a change in Concrete Supplier, this process shall be repeated for the new Supplier prior to use of the concrete.

S-7 ALIGNMENT AND GRADE

The City will stake out the centerline location and grade once for Contractor; all additional relocations of this centerline and grade will be at the Contractor's expense.

The pipe shall be laid and maintained to the lines and grades shown on the plans and properly connected to all manholes as shown on the plans. No deviations shall be made from the required line or grade except with the consent of the City Administrator or his/her designee.

During grading operations in the bottom of the trench and during pipe laying operations, a laser beam shall be used to establish the grade for the trench bottom and pipe laying.

S-8 TRENCHING AND BACKFILLING

A. Trenching

1. The work includes all excavation, sheeting, bracing and all operations necessary for the preparation of trenches fro bedding of pipes and all appurtenances thereto. Remove material as required for alignment and elevation of work as shown. Contractor holds sole responsibility for all jobsite safety, including methods of construction. All trenching shall be in conformance with all applicable OSHA standards.

2. Equipment and Methods:

a. Types of equipment and methods may be at the Contractor's option, where structures or other facilities are not endangered.
b. Equipment and methods shall be subject to approval of jurisdictional agency where stability or usefulness of other facilities may be impaired.

c. Perform by hand methods when required to save or protect trees, culverts, utilities or other structure above or below ground.
d. Maximum length of open trench shall be limited to two hundred feet (200') in advance and two hundred feet (200') behind pipe installation except as approved.

3. Side Walls:

a. Make vertical or slope within specified trench width limitations below a horizontal plane twelve inches (12") above top of pipe.
b. Stepped or slope as required for stability, above a horizontal plane twelve inches (12") above top of pipe.
c. Sheeting and shoring: Except where banks are cut back on a stable slope, excavation for structures and trenches shall be sheeted, braced, and shored as necessary to prevent and to provide protection for existing structures and facilities, sheeting, bracing, and shoring shall be designed and built to withstand all loads that might be caused by earth movement or pressure, and shall be rigid maintaining shape and position under all circumstances. Sheet and brace where necessary.
d. Excavate without undercutting.

4. Trench Depth:

a. Depth shall be sufficient to provide the minimum bedding requirements for the pipe being placed.
b. Depth shall be exceed that indicated where conditions of bottom are satisfactory.
c. Depth shall be increased as necessary to remove unsuitable supporting materials.

5. Trench Bottom:

a. Protect and maintain when suitable natural materials are encountered.
b. Remove rock wall fragments and materials disturbed during excavation or raveled from trench walls.
c. Restore to proper sub-grade with trench stabilization material when over excavated.
d. Correct at no additional cost to the City when trench is over excavated without authority or to stabilize bottom rendered unsuitable through negligence or improper operations.

6. Trench Stabilization Material:

a. Material shall be as follows:
    1) As specified for granular pipe embedment
    2) Conform to AASHTO M147, Grading A or B, well graded.

b. Compact in lifts not exceeding six inches (6") with pneumatic or vibratory equipment.

7. Trench Width:

a. Excavate trench to width, which will permit satisfactory jointing in the pipe and through tamping of bedding.
b. Maintain side clearance not less than six inches (6").
c. Do not exceed trench width reasonably required for proper performance of the work.

B. Test Pits

1. Excavate test pits sufficiently in advance of trenching to enable adequate planning construction procedure.

2. Locate as follows:

a. Where unstable material is suspected that may require special protective measures.
b. Where ground water may require special handling methods.
c. Where advisable to assess adequacy of blasting patterns.
d. Where indicated or otherwise approved.
e. Where interference or conflict with other utilities and/or structures could affect alignment of pipe or grade.

3. With lateral dimensions not less than minimum trench width specified for location excavated.

4. To depth required to obtain information desired.

C. Granular Pipe Embedment

1. Pipe bedding shall be in accordance with the details shown. All piping shall have granular embedment.

2. Granular bedding shall be as follows:

a. Gravel or crushed stone shall be of the following gradation:

Percent Passing	Sieve Size
100	¾ inch
60-100	½ inch
0-5	No. 4

3. Place granular bedding in accordance with the following:

a. Level bottom layer at proper grade to receive and uniformly support pipe barrel throughout its length.
b. Form depression under each joint such that no part of bell or coupling is in contact with trench when pipe is placed in position.
c. Add second later simultaneously to both sides of the pipe with care to avoid displacement.
d. Complete promptly after completion of jointing operations and approval to proceed.
e. Substitute for any part of earth backfill, to within two feet (2') of final grade at Contractor's option.

4. Compact granular bedding:

a. In lifts not exceeding twelve inches (12") in compacted depth.
b. Rod, spade, or use pneumatic or vibratory equipment:

1) As required to obtain not less than ninety percent (90%) relative density as determined by ASTM Method D4253 and D4254.
2) Throughout depth of embedment.

5. Include concrete encasement as follows:

a. In locations indicated or where approved by the City Administrator or his/her designee to correct over width trench condition.
b. Form to dimensions indicated or construct full width of trench.
c. Start and terminate encasement at a pipe joint.
d. Suitably support and block pipe to maintain position and prevent flotation.
e. Place promptly after installation of granular bedding.
f. Protect against damage by heavy equipment with layer of earth.

D. Earth Pipe Embedment

1. Earth pipe embedment shall be as indicated and shall be used at impervious trench checks, spaced at two hundred feet (200') intervals along the length of the sewer to prevent flow of water through the granular bedding.

2. Shape trench bottom to fit the pipe and backfill throughout depth of trench with compacted impervious materials compacted to 95% of maximum density as determined by ASTM D698.

E. Backfilling Trenches

1. Complete promptly after approval to proceed upon completion of pipe embedment or after concrete encasement has attained 70% design strength.

2. Materials:

a. Obtain from the following:

1) Trenches and other excavations included in contract.
2) Borrow from location off job site.
3) As specified for pipe embedment.
4) Combination of above.

b. Free from organic matter, refuse, ashes, cinders, frozen, or other unsuitable material.

c. Gravel, rock or shale particle size limited as follows:

1) Not exceed two inches (2") in greatest dimension within twelve inches (12") of pipe and upper eighteen inches (18") of trench.
2) Maximum dimensions one-half the depth of the layer to be compacted in other areas.
3) Contain sufficient fine materials to provide a dense mass free of voids and capable of satisfactory compaction.
4) Have moisture content enabling satisfactory placement and compaction.
5) Blended or otherwise processed to provide required gradation and moisture content required.
6) Use granular material as specified for pipe embedment, trench stabilization under pavements and driveways.

3. Placement:

a. Use hand methods to place twelve inches (12") above top of pipe barrel.
b. Use approved mechanical methods where hand backfill is not required.
c. In layers of thickness within compacting ability of equipment uses.
d. Until compacted depth over conduit exceeds three feet)3"), do not drop fill materials over five feet (5"). The distance may be increased two feet (2") for each additional foot of cover.

F. Compaction

1. Perform at moisture content necessary to achieve required results with equipment used.

2. Perform with spreading equipment supplemented by hand operated equipment and rollers are required to obtain density specified.

3. Accomplish without inundation of flooding.

4. Achieve following densities under pavement and shoulders:

	Cohesive Soils	Cohesion-less Soils
Top 6”	95%	90%
Remainder of depth	95%	90%

5. Backfill failing to meet required densities shall be removed or scarified and re-compacted as necessary to achieve specified results.

G. Correction of Backfill Settlement

1. Under provisions of the guarantee, Contractor is responsible for correction any settlement of backfill and damages created thereby within one year after acceptance of the work.

2. Make repairs within ten (10) calendar days from and after notification by the City of backfill settlement and resulting damage.

3. Make own arrangements for access to site for purposes of repairs.

H. Materials Encountered

1. All materials encountered, regardless of type, character, composition, and condition thereof shall be unclassified.

2. Determine quantity of various materials to be excavated prior to submitting bid. Rock encountered will be removed at no extra cost to the City.

3. Arrangements for entry to site for purpose of conducting subsurface investigations, including test borings shall be made with the City.

I. Explosives

1. Handling: Store and use explosives in accordance with local, state and federal regulations.

2. Blasting:

a. Blasting shall be performed only under the direction of an employee of the Contractor or Subcontractor who is qualified, competent, and thoroughly experienced in the use of explosives for rock excavation.
b. Persons handling explosives shall be licensed or otherwise authorized to use explosives.
c. Locate charge holes properly and drill to correct depth for charges used.
d. Limit charges in size to minimum required for reasonable removal of material by excavation equipment.

e. Avoid excessive over break or damage to adjacent structures, equipment, utilities, or buried pipeline and conduit as follows:

1) With properly designed pattern.

2) By use of approved explosion mats.

f. Blasting near utilities shall be subject to approval of owning agency.

3. Insurance: Before delivery of any explosives to the job site, the Contractor must have obtained a blasting endorsement on his public liability and property damage insurance policy.

J. De-Watering

1. Control grading around excavations to prevent surface water from flowing into excavation areas.

2. Drain or pump as required to continually maintain all excavations and trenches free of water or mud from any source, and discharge to approved drains or channels. Commence when water first appears and continue until work is complete to the extent that no damage will result from hydrostatic pressure, flotation, or other causes.

3. Use pumps of adequate capacity to insure rapid drainage of area, and construct and use drainage channels and sub-drains with sumps as required.

4. Remove sub-grade materials rendered unsuitable by excessive wetting and replace with approved backfill material.

K. Bulkheads or Pipe Plugs: The contractor shall furnish, install, maintain and remove suitable temporary timber bulkheads or pipe plugs required to prevent the entry of debris and surface run-off into the sewer during construction.

L. Ditch Crossings and Exposed Sewer Pipe: Where sewer pipe is exposed on the surface or is at shallow depth, a concrete encasement within a minimum coverage of six inches (6") shall be constructed as shown on the plans or as directed by the City Administrator or his/her designee. Concrete used for this purpose shall be as specified in these specifications.

M. Tamping Trench Backfill: Where specified on the plans or where ordered by the City Administrator or his/her designee, the trench backfill shall be tamped in place in layers not exceeding **8"** thickness, using mechanical tampers, and using suitable earth free from large lumps and debris and rocks larger than 3" size.

N. Basis of Payment: The unit price bid for pipe installation shall include unclassified trenching and compacted back filling of various depths and include all work listed in this section under "Trenching & Backfilling", including removing and replacing fences, street signs, mailboxes, culvert pipes, street and driveway surfacing,

removing and trimming trees where necessary. The price bid shall also include all trench excavation encountered m the trench, regardless of whether it is *earth,* concrete, rock, gravel, shale, debris, trees, roots, or any other material. All trees, brush, roots, debris and excess material removed by the Contractor shall be hauled away by the Contractor. Burning within the City Limits is not permitted.

S-9 CONCRETE ENCASEMENT

A. Applicable Standards shall be the latest revision of the following:

1. American Society for Testing and Materials (ASTM):

a. A615 -Deformed Billet Steel Bars for concrete reinforcement.
b. A82 - Cold drawn wire.
c. A185 -Welded steel wire fabric for concrete reinforcement.
d. C31 - Making and curing concrete compression and flexure test specimens in the field
e. C33 - Concrete aggregates.
f. C39 - Compressive strength of molded concrete cylinders.
g. C94 - Ready Mixed concrete.
h. C143 - Slump of Portland cement concrete.
i. C150 - Portland cement.
j. C172 - Sampling fresh concrete.
k. C309 - Liquid Membrane forming compounds for curing concrete.

2. American Concrete Institute (ACI):

a. ACI 3 15 - Building Code Requirements for Reinforced Concrete.
b. ACI 318 - Building Code Requirements for Reinforced Concrete.
c. ACI 306 -Recommended Practice for Cold Weather Concreting.
d. ACI 305 - Recommended Practice for Hot Weather Concreting.
e. ACI 304 - Recommended Practice for Measuring, Mixing and Pacing Concrete.

B. Concrete Materials:

1. Cement: Shall conform to ASTM C150 and shall be Portland Cement Type I.

2. Water: Shall be clean and free from injurious amount of oil, acids, alkalis, or other deleterious substances. City water will be acceptable.

3. Fine Aggregates: Shall consist of clean crushed stone or processed gravel, and shall not contain organic materials. Aggregates shall conform to ASTM C33.

4. Coarse Aggregates: Shall consist of clean crushed stone or processed gravel, and shall not contain organic materials. Aggregates shall conform to ASTM C33.

5. Air Entrainment: six percent (6%) air shall be used in all concrete that is above ground level.

C. Metal Reinforcement:

1. Materials:

a. Reinforcement Bars shall conform to ASTM A615, Grade 60, for all bars #4 or larger.
b. Tie, and a11 #3 Bars shall conform to ASTM A615, Grade 40.
c. Welded Wire Fabric shall conform to ASTM A185, using bright basic wire conforming to ASTM A1 82. Wire gauges #I1 or smaller shall be galvanized.
d. Bolsters, Chairs and accessories shall conform to ACI 315.

2. Placement: Place accurately, tie at intersections and support on chairs. Place steel in accordance with ACI 31 8.

a. Tie securely with 16-gauge ***or*** larger annealed iron wire.
b. Splice steel not less than 30-bar diameters for A615, Grade 40, and 40-bar diameters for A615, Grade 60 unless otherwise indicated.
c. Splice plain bars not less than twice that for deformed bars.
d. Lap welded wire fabric not less than the length of one mesh.

D. Forms:

1. Materials:

a. Form materials shall consist of one of the following:
    1) Exterior grade plywood 518 inch thick (use only plywood or steel for all exposed concrete work).
    2) Steel.
    3) Approved wood fiberboard.
    4) Dressed lumber free of loose knots.
b. Form ties shall be approved break back type.

2. Preparation:
a. Treat forms with an approved oil or lacquer prior to placing reinforcement. Wet forms with clean, clear water prior to placing concrete.
b. Adequately brace and stiffen forms to prevent deflection and settlement.

E. Construction Joints:

1. Location: Locate where indicated and in accordance with ACI 318.

2. Preparation: Clean and break laitance or other foreign material from bonding surface. Bed with one inch (1") or grout for bonding in horizontal joints.

F. Concrete:

1. 4000 psi Concrete: Shall have the following proportions and limitations:

a. Minimum compressive strength of 4,000 psi at 28 days.
b. Minimum cement - 6 sacks per cubic yard.
c. Maximum water - 5 112 gallons per sack of cement.
d. Slump - 3 inches, plus or minus 1 inch.
e. Air Entrainment - 6 % air shall be used in all concrete that is above ground level, plus or minus 1%.

2. Ready-Mix Concrete:

a. Concrete shall meet requirements of ASTM C94 and of materials and proportions specified herein. Concrete shall be delivered to the site in approved type truck agitators.
b. The Contractor shall submit to the City Administrator or his/her designee prior to commencing concrete work a laboratory test reports of evaluation reports for concrete materials and concrete mix designs from the Ready-Mix Plant that the Contractor intends to use. If at any time during construction there is a change in Concrete Supplier, this process shall be repeated for the new Supplier prior to use of the concrete.

3. Placing of Concrete

a. Preparation:
1) Clean bonding surfaces free from laitance and foreign materials.
2) Place concrete on properly prepared and unfrozen sub-grade and only in dewatered excavations.
3) Do not deposit partially hardened concrete or concrete contaminated by foreign materials.
b. Placing Concrete:
1) Place in accordance with AC1304.
2) Place within forty-five (45) minutes after mixing, except City Administrator or his/her designee may extend the period to ninety (90) minutes (maximum) dependents upon weather conditions.
3) Place in horizontal layers not exceeding eighteen inches (18").
4) Vibrate or spade concrete to produce solid mass without honeycomb or surface air bubbles.
c. Curing Concrete:

1) Cure concrete with liquid curing membrane compound conforming to ASTM C309. Apply according to manufacturer's recommendations.

2) Apply curing compound to all exposed surfaces immediately after removing form or after finishing concrete placement.

3) Keep form work wet until stripped.

d. Cold Weather Placing: Conform to the practice recommended in ACI 306 when the temperature is below forty degrees Fahrenheit (40 F) or is likely to fall below forty degrees Fahrenheit (40 F) during the twenty-four hour (24 hr.) period after placing.

e. Hot Weather Placing: Conform to practices recommended in ACI 305 when temperature is one hundred degrees Fahrenheit (100 F) or above, or is likely to rise above one hundred degrees Fahrenheit (100 F) within the twenty-four hour (24 hr.) period after placing.

G. Surface Finishes

1. Compact, accurately screed and wood float all slabs to a true uniform surface.

a. Defective Surface Treatments:

a. After removal of forms, remove all fins, projections and form ties.

b. Grout and cure all voids, damaged areas, and tie holes.

c. Basis of Payment: The cost pertaining to this section shall be included in the contract unit prices for items as listed in the Bid Form. No separate payment will be made for concrete encasement.

S-10 PIPE: SANITARY SEWERS

A. Extent of Work: Furnish all pipe, fittings, and specials as required to complete the work As indicated or specified.

B. Applicable Standards:

1. Federal Specification (Fed. Spec.)

a. SS-S-00210 - Sealing Compound, Preformed Plastic, For expansion Joints and Pipe Joints.

C. Requirements: furnish pipe of materials, joint types, sizes and strength classes indicated and specified. Higher strengths may be furnished at Contractor's option.

D. Manufacturer:

1. Experienced in the design, manufacture and commercial supplying of the specific materials for a minimum period of three (3) years.

2. Experienced in the design, manufacture, and commercial supplying of the specific size of pipe for a minimum of one (1) year.

3. Certify to above minimum experience requirements.

E. Ductile Iron Pipe and Fittings: The Contractor shall furnish and install all of the ductile iron pipe and fittings shown on the drawings and called for herein.

1. All ductile iron pipes shall conform to the following specifications: ASTM A 476 ductile iron pipe AWWA C15 1 class 2 thickness.

2. Joints for ductile iron pipe shall conform to AWWA C111, with rubber gasket "push-on" compression type joint.

3. All pipes shall be lined with polyethylene in accordance with ASTM specification D 1248. The exterior of all pipe shall be coated in accordance with the manufacturer's standard coating.

F. PVC Sewer Pipe:

1. Shall be SDR 26 Heavy Wall Pipe conforming to ASTM D **3034.** Joint gaskets shall conform to ASTM F 477 and be synthetic mbber. Pipe shall be furnished with integral bell type ends designed for joint assembly using elastomeric gaskets.

2. Basis of Payment: The unit price bid per linear foot for sewer pipe shall include all work listed in this section under "Pipe: Sanitary Sewers" including all labor, equipment and materials and instal1 all pipe, fittings, specials and appurtenances as indicated or specified for a complete and ready for operation.

S-11 PIPE INSTALLATION

A. Extent of Work: Provide all labor, equipment, and materials and install all pipe, fittings, specials, and appurtenances as indicated or specified.

B. Applicable Standards:

1. Uni-Bell Plastic Pipe Association, handbook of PVC Pipe, Chapter 10 - Construction

C. Handling:

1. Handle in a manner to insure installation in sound and undamaged condition.
    a. Do not drop or dump.

a. Use slings, lifting lugs, hooks and other devices designed to protect pipe, joint elements, and coating.

2. Ship, move and store with provisions to prevent movement or shock contact with adjacent units.

3. Handle pipe with equipment capable of working with adequate factors of safety against overturning or other unsafe procedures.

D. Installation:

1. Utilize equipment, methods and materials ensuring installation to lines and grades indicated.

a. Maintain within tolerances specified to approved laying schedule
   1) Alignment 3 inches
   2) Grade +/- l inch

b. Do not lay pipe on blocks unless pipe is to receive total concrete encasement.

c. Obtain approval of method proposed for transfer of line and grade from control to the work.

2. Install pipe of size, material, strength class, and joint type with embedment shown for plan location.

3. Insofar as possible, commence laying at downstream end of line and install pipe with spigot or tongue ends in direction of flow. Obtain approval for deviations therefrom.

4. Clean interior of all pipes, fittings, and joints prior to installation. Exclude entrance of foreign matter during discontinuance of installation.

a. Close open ends of pipe with snug fitting pipe plugs.

b. Do not let water fill trench. Include provisions to prevent flotation should water control measures prove inadequate.

c. Remove water, sand, mud and other undesirable materials from trench before removal of end cap.

5. Brace or anchor as required to prevent displacement after establishing final position.

1. Perform only when weather and trench conditions are suitable. Do not lap in water.

E. Jointing:

1. General Requirements:

a. Locate joints to provide for differential movement at changes in type of pipe embedment, impervious trench checks, and structures.

1) Not more than eight inches *(8")* from structure wall.

2) Support pipe from wall to first joint with concrete cradle structurally continuous with base slab or footing.

b. Perform in accordance with manufacturer's recommendations.

c. Clean and lubricate all joint and gasket surfaces with lubricant recommended.

d. Utilize methods and equipment capable of fully homing or making up joints without damage.

e. Check joint opening and deflection for specification limits.

2. Special Provisions for Jointing Ductile Iron Pipe:

a. Conform to AWWA C 600.
b. Visually examine while suspended and before installing in steel casing.
c. Paint ell, spigot, or other suspected portions with turpentine and dust with cement to check for cracks invisible to the eye.
d. Remove turpentine and cement by washing when test is satisfactorily completed.

F. Cutting:

1. Cut in neat workman-like manner without damage to pipe

2. Observe specifications regarding joint locations.

G. Closure Pieces:

1. Connect two segments of pipeline or a pipeline segment and existing structure with short sections of pipe fabricated for the purpose.

2. Observe specifications regarding location of joints, type of joints, and pipe materials and strength classifications.

3. Field fabricated closures, where required, shall be concrete encased between adjacent flexible joints.

H. Temporary Plugs:

1. Furnish and install temporary plugs **at** each end of work for removal by others when completed ahead of adjacent contract.

2. Remove form pipe laid under adjacent contract in order to complete pipe connection when work by other contractor is finished prior to work at connection point under this contract.

3. Plugs:

a. Test plugs as manufactured by pipe supplier.
b. Fabricated by Contractor of substantial constructions.
c. Watertight against heads up to twenty feet (20') of water.
d. Secured in place in a manner to facilitate removal when required to connect pipe.

I. Connections to Existing Structures:

1. Connect pipe to existing structures and pipelines where indicated.

2. Prepare structure by making an opening with at least three inch (3") clearance all around fitting to be inserted.

3. Observe pertinent articles of specifications pertaining to joining locations and closures.

4. Repair wall opening with concrete.

J. Acceptance Tests:

1. Alignment:

a. Sewer will be inspected by flashing a light between manholes.

b. Contractor shall clean pipe of excess mortar, joining sealant and other dirt and debris prior to inspection

c. Determine from illumination and inspection:
1) Presence of any misaligned, displaced, or broken pipe.
2) Presence of visible infiltration or other defects.

d. Correct defects as required prior to conducting leakage test.

2. Leakage Test:

a. Contractor shall perform by ex-filtration method using water on all pipe installed, or by air test method.

b. Furnish water and all facilities required including:

1) Necessary piping connections.
2) Test pumping equipment
3) Water meter
4) Pressure gauge
5) Bulkheads
6) All miscellaneous items required

c. Obtain approval of equipment and methods proposed for use.

d. Conduct initial test on first section of pipe laid by each crew

1) Include a minimum of one hundred feet (100') of pipe but not to exceed four hundred feet (400').
2) Perform before backfilling.
3) Satisfactorily complete tests before crew is permitted to continue pipe installation.

e. Test remaining pipe in sections determined by Contractor and approve by the City Administrator or his/her designee.

f. Perform at test pressures specified as measured above centerline of pipe:

1) Clay pipe, not less than two feet (2') of water nor more than ten feet (10') of water.

g. Maintain test as necessary to locate all leaks but not less than two hours (2hrs.).

h. Repeats as necessary after repair of leaks and defects until leakage as measured does not exceed limits listed in gallons per inch of internal diameter per hour per one hundred feet (100') of pipe length: 0.15 gallons per inch of diameter per hour per 100 linear feet.

i. Protect manholes and other structures by means of bulkheads to prevent bursting pressures from being applied inside the structure.

j. De-water pipe upon completion of testing.

k. Perform air tests at Contractor's option in lieu of ex-filtration tests.

1) Furnish all facilities required including:

a. Necessary piping equipment
b. Test pumping equipment
c. Pressure gauges or manometers
d. Pipe plugs
e. All miscellaneous items required

2) Obtain approval of equipment and methods proposed for use.

3) Conduct initial test on first section of pipe laid by each crew.

a. Include a minimum of one hundred feet (100') of pipe but not to exceed four hundred feet (400').
b. Perform before backfilling.
c. Satisfactorily complete tests before crew is permitted to continue pipe installation.

4) Test remaining pipe in sections determined by Contractor and approved by the City Administrator or his/her designee.

5) Plug ends of line and cap or plug all connections to withstand internal test pressures.

6) Introduce low pressure air until internal air pressure is four pounds per square inch (4.0 psi) greater than the average back pressure of ground water above the pipe invert.

7) Allow two (2) to five (5) minutes for air pressure to stabilize. Adjust pressure to three and one half pounds per square inch (3.5 psi) and start test. Time required for pressure to decrease from 3.5 to 2.5 psi greater than the average back pressure of any ground water above the pipe invert shall not be less than the time in the following table for the given diameters:

Pipe Diameter	Minutes
8"	4.0
10"	5.0
12"	5.0

8) Repeat test as necessary after leaks and defects have been repaired.

3. Deflection Test:

a. General: Flexible pipelines shall be tested for deflection by pulling a mandrel through the entire length thereof.

1) The mandrel (go/no-go) device shall be cylindrical in shape and constructed with nine (9) evenly spaced arms or prongs. Mandrels with fewer arms will be rejected as not sufficiently accurate. The dimensions of the mandrel shall be as listed in the accompanying table. The " D mandrel dimension shall carry a tolerance of + or - 0.01 inch. Allowances for pipe wall thickness tolerances or ovality (from heat, shipping, poor production, etc.) shall not be deducted from the "D" dimension but shall be counted in as a part of the five (5) percent or lesser deflection allowance. Contact length (L) shall be measured between points of contact on the mandrel arm. The length shall not be less than as shown in the accompanying table.

2) The Engineer shall be responsible for approving the mandrel. Proving rings shall be used to verify this.

3) The mandrel shall be hand-pulled by the Contractor through all flexible sewer lines. Any sections of sewer not passing the mandrel test shall be uncovered and the contractor, at no additional cost to the Owner, shall reround or replace the sewer to the satisfaction of the Engineer. These repaired sections shall be retested.

4) The testing shall be conducted after final trench backfill.

K. Basis of Payment:

The unit price bid per linear foot for sewer pipe shall include all work listed in this section under "Pipe Installations" including Section S-10, all labor, equipment and materials and install all pipe, fittings, specials and appurtenances as indicated or specified for a complete and ready for operation.

D and L Dimensions For
9 Arm Mandrel

L	D		
Nominal Diameter	SDR 35	SDR 26	SDR 21
8"	7.52"	7.37"	7.41"
10"	9.40"	9.21"	9.24"
12"	11.19"	10.96"	10.96"
15"	13.7"	13.42"	N/A

18"	16.76"	N/A	N/A
21"	19.74"	N/A	N/A
24"	22.21"	N/A	N/A
27"	25.03"	N/A	N/A

S-12 ROADWAY UNCLASSIFIED EXCAVATION AND SUBGRADE PREPARATION

All roadway work shall consist of excavation, disposal and/or compaction of all materials encountered within the limits of the work. This work shall be performed in accordance with Section 203, Missouri Standard Specifications for Highway Construction, 1996 edition, these General Specifications; and in conformance with the lines, grades, thickness, and typical section shown on the plans. All excavation will be considered as unclassified.

Remove existing pavement, surfacing, and base courses of a11 types, curb, curb and gutter, sidewalks and house walks, steps, abandoned drainage and sewer pipes, abandoned utility lines, rubbish, debris, and any other existing improvements to the limits indicated or as required to perform new construction All abandoned sewers, drainage pipes and utility lines beyond the limits of the new construction shall be permanently sealed at the ends with concrete. No direct payment will be made for removal and blocking abandoned sewers, drainage pipes or utility lines.

In removing pavement, curb, curb and gutter, sidewalk and other similar improvements, and where a portion of such improvements are to be left in place, they shall be removed to an existing joint or to a sawed joint. Sufficient removal shall be made to provide for proper grades and connections in the new work regardless of any limits that may be indicated on the plans.

All trenches, holes, and pits resulting from the removal of improvements shall be filled with earth. The material shall be placed in the same manner and compacted to approximately the same density, as that required in adjoining areas. No direct payment will be made for the removal and back filling of abandoned sewers, drainage pipes or utility lines.

Perform excavation as indicated or as required to complete the work. All materials encountered, regardless of type, character, composition and/or condition thereof, shall be unclassified. Rock encountered shall be handled at no additional cost to the City.

Control grading around excavations to prevent surface water from flowing into excavation areas. Drain or pump as required to continually maintain all excavations and trenches free of water or mud from any source, and discharge to approved drains or channels. Remove sub-grade materials rendered unsuitable and replace with approved backfill material.

Remove and disposed of waste materials from the work area (as excavated) to an offsite location arranged for by the Contractor.

Construct embankments to the contours and elevations indicated using suitable approved material from excavations and/or borrow areas.

Compact embankments using equipment as required to obtain uniform density. Compaction shall be as obtained by normal methods and equipment during the placing and grading of layers and to the minimum density specified for particular locations. Perform any wetting or drying of the material as required to maintain moisture content at time of placement to not less than 1% below or more than 5% above optimum as determined by ASTM D698.

Roadway excavation shall be compacted to not less than 95 percent of maximum density at optimum moisture as determined by ASTM D698. A proof roll, with a City inspector present, will be required to insure density has been reached. This proof roll shall be performed with a fully loaded tandem axle dump truck or equivalent.

Excavate or fill as required to construct sub-grade to the elevations and grades indicated Remove all unsuitable material and replace with approved fill materials. Perform all wetting, drying, shaping, and compacting required to prepare a suitable sub-grade.

The sub-grade for the full width (or as designated/directed) of the roadbed shall be scarified to a depth of at least 6 inches and the scarified material brought to a uniform moisture content either by drying or by adding water and manipulating with suitable equipment. The sub-grade shall be compacted as required by the specifications.

If it is determined that the required sub-grade density cannot be obtained by moisture control and compaction due to the material below the upper ***6*** inches, then the material below the upper 6 inches shall be brought to a uniform moisture content to a depth not to exceed 12 inches either by drying or by adding water and manipulating with suitable equipment and compacted to the required density.

Unsuitable material will be determined by an independent testing laboratory. Material will be classified as unsuitable if it has been classified as "organic silt" or "organic clay" when tested to conform to ASTM D2488. In situ moisture content outside the range necessary for preparation of sub-grade will not be cause for classification as unsuitable material.

If the material is unsuitable, the Contractor shall remove it and to the limits designated by the flotation. and replace with suitable material.

Payment for unsuitable materials will be made at the unit price bid per cubic yard of Unclassified Excavation.

Compact sub-grade to 90% of maximum density at optimum moisture as determined by ASTM D698 for:

1. All areas 6 inches or more below finish sub-grade elevation.
2. Sidewalks
3. Residential driveways

Compact sub-grade to 95% of maximum density at optimum moisture as detained by ASTM D698 for:

1. Curbs.

2. Curb and Gutter
3. All rigid pavement and base course.
4. All flexible pavement
5. Top 6" of sub-grade for traffic areas.

Sub-grade for roadways shall have a maximum deviation of not more than 112 inch in any 10 feet when tested with a 10-foot straightedge applied parallel with and at right angles to the centerline of sub-grade areas.

The Contractor shall maintain all completed sub-grade in finished condition until the overlying pavement or base course is placed. Any sub-grade damaged prior to the construction of the overlying course shall be repaired at no cost to the City.

Topsoil shall be placed on all areas not specified to receive paving or other surface treatment. Topsoil shall be a fertile, friable, and loamy soil of uniform quality, free from materials such as hard clods, stiff clay, stone with any dimension greater than 1 inch, and similar impurities. Topsoil shall be placed not less than 4 inches in depth. Grade to match contours of adjacent areas and permit good drain age.

The City may engage an independent commercial testing laboratory to perform the necessary soils tests. The cost of the laboratory services shall be paid by the City. The Contractor shall re-grade and realign existing ditches and drainage ways as required to provide positive drainage.

The Contractor shall notify the City of Sedalia Water Pollution Control Department, Sedalia Water Department, Missouri Public Service Company and southwestern Bell Telephone Company, at least 2 days in advance of starting excavation, so that the various utilities can mark the location of their underground lines and the approximate depth of their lines.

BASIS OF PAYMENT:
Unclassified Excavation, Site and Sub-grade Preparation shall be paid for at the price bid per cubic yard of unclassified excavation and shall include all clearing and grubbing, sawing, perform all necessary excavation work required to grade the roadway; haul away surplus excavated earth, broken concrete and other debris not suitable for backfill material; compaction of the upper 6 inches of sub-grade; re-grade & realign ditches and drainage ways as required to provide positive drainage; and, to provide any earth backfill as required.

Sub-grade Compaction (6-inch depth) shall be paid for at the price bid per Station (100') for the material below the upper 6 inches of the sub-grade. Measurement will be made to the nearest 1/10 station along the center-line of each roadbed, regardless of width, for each 6 inches of depth of compaction authorized.

S-13 SUBGRADE FABRIC

Subgrade fabric shall be of nonwoven geotextile conforming to Section 624, 2004 Missouri Standard Specifications for Highway Construction, and to the following:

1. ASTM D3786 - Mullen Burst of 225 psi and greater.
2. ASTM D4491 - Permittivity of 2.5 per Sec-1 with a Flow of 175 gallons per minute per square foot minimum.
3. ASTM D4632 - Tensile Strength 90 lbs. or greater at 50% elongation.
4. ASTM D4751 - Apparent Opening Size (AOS) of 70 on U.S. Sieve.
5. ASTM D4833 - Puncture 65 lbs or greater.

The fabric shall be placed on the compacted subgrade before placing the aggregate base on the locations specified in the plans or when specified by the City Administrator or his/her designee. Lap all joints a minimum of 12 inches.

BASIS OF PAYMENT:

The price bid per square yard for subgrade fabric shall include furnishing and installing the fabric on the subgrade.

S-14 AGGREGATE BASE COURSE

Aggregate base course shall conform to the requirements of Section 304 of the 2004 Missouri Standard Specifications for Highway Construction, Type 1 and Type 5 aggregate. The aggregate base shall be compacted to at least 95% of standard maximum density. MC 30 Asphalt Prime Coat is not required when plant mix bituminous base course is to be placed on the aggregate sub-base.

BASIS OF PAYMENT

The unit price bid per square yard for Type 1 aggregate sub-base shall include the cost of the material, spreading, compaction, rolling and MC 30 Asphalt Prime Coat (if required).

S-15 MATERIALS FOR PORTLAND CEMENT CONCRETE

Portland Cement shall conform to the requirements of AASHTO M85 Specifications for Portland Cement, Type I, and Section 1019 of the 2004 Missouri Standard Specifications for Highway Construction.

Fine Aggregate shall consist of Kaw River or Missouri River sand. It shall be free from injurious amount of organic impurities. It shall be well graded coarse to fine. Fine aggregate shall conform to Section 1005.3 of the 2004 Missouri Standard Specifications for Highway Construction. Gradation shall conform to Section 1005.3.5 of said specification. Sand, which produces a slippery surface shall not be used.

Coarse aggregate shall be crushed stone conforming to Gradation B or D, Section 1005.2 of the 2004 Missouri Standard Specifications for Highway Construction. It shall consist of sound durable and uncoated particles. Stone will be accepted only from rock ledges accepted by the Missouri State Highway Department.

Air entraining agent shall conform to the requirements of AASHTO M154 and Section 1054 of the 2004 Missouri Standard Specifications for Highway Construction.

Water used in mixing or curing concrete shall be clean and free from injurious amount of oil, salt, acid, vegetable or other substances harmful to concrete. Water from the City water mains shall be used.

Concrete curing compound shall conform to Section 1055 of the 2004 Missouri Standard Specifications for Highway Construction. Either type I or type II may be used. The curing compound shall conform to requirements of AASHTO M148 for type I-D, clear or translucent with fugitive dye, or type II white pigmented. The vehicle shall be Class A.

Reinforcing Steel for concrete structures shall conform to Section 1036 of the 2004 Missouri Standard Specifications for Highway Construction.

Preformed Fiber Expansion Joint material shall conform to requirements of AASHTO M 213 and Section 1057.5 of the 2004 Missouri Standard Specifications for Highway Construction.

S-16 PORTLAND CEMENT CONCRETE PAVEMENT, CURB, AND CURB & GUTTER

GENERAL: This section governs the furnishing of all labor, equipment, tools and materials and the performance of all work necessary to construct Portland cement concrete driveway approaches and sidewalk complete including all necessary or incidental work done in accordance with the applicable requirements of Section S-9 thru S-13 unless otherwise specified or shown on the plans.

Construction methods and materials for Portland cement concrete pavement, curb, and curb & gutter shall conform to requirements of Section(s) 501, 502, and 609 of the 2004 Missouri Standard Specifications for Highway Construction; however, **the maximum slump allowed shall be 3" with a maximum of 5.5 gallons of water per sack of cement.** The requirements for Portland cement shall be a minimum of 6.25 sacks per CY with class A sand and a 3” slump. Minimum compressive strength in 28 days shall be 4,000 psi. Air-entrainment shall be used with the designated quantity of air by volume to be 5½ %, with an operating tolerance of 1 ½-percentage points. The use of calcium chloride or other accelerating admixtures in concrete mixtures will not be permitted.

GRADING AND SUBGRADE PREPARATION: All excavation required in the rough grading and subgrade preparation shall be done by the Contractor. Fine grading shall be done by the Contractor in accordance with Sections 203, 209 and 210 of the 2004 Missouri Standard Specifications for Highway Construction with compaction to at least 95% of maximum dry density.

BASIS OF PAYMENT: The cost of furnishing all labor, equipment, tools, and materials and the performance of all work necessary to construct Portland cement concrete pavement, driveway approaches, curb, curb & gutter, and sidewalks complete, including all incidental work necessary in grading and sub-grade preparation and including breaking up existing concrete sidewalk, and

including any fill or excavation, and including concrete saw cutting, shall be included in the unit price per square yard. ADA ramps will be bid on a separate lump sum unit price per ramp.

S-17 MIXING AND PLACING CONCRETE

CONCRETE: A uniform consistency of concrete shall be maintained at all times. The concrete slump shall not exceed three (3) inches. Consolidation by hand will be permitted.

Concrete may be mixed in transit mixers or mixed in a central mixing plant. Sufficient notice shall be given to the City Administrator or his/her designee, prior to placing concrete of the method of mixing to be used so the mixing and delivery equipment can be checked and approved for use.

EXPANSION JOINTS, PRE-MOLDED NON-EXTRUDING TYPE: Expansion joints consisting of ½ inch pre-molded non-extruding expansion joints shall be place at not to exceed 300 feet centers, at locations shown on the plans, and at radius points. Expansion joints shall be one-half (1/2) inch wide pre-molded non-extruding type shaped to fit cross section of the pavement. The pre-molded joint filler shall be supported to prevent its displacement while depositing concrete at the expansion joints. Pre-molded filler shall be positioned in true alignment at right angles to the line of the pavement centerline and be normal to the surface of the concrete.

CONTRACTION JOINTS: All joints shall conform to the details as set out in the plans. These joints shall be straight and perpendicular to the pavement surface. The transverse joints shall be at right angles to the edge of the gutter. Contraction joints in pavement shall be formed at 15 feet spacing. The Contraction joint shall be one-quarter (1/4) inch wide by one and a half (1½) inches deep: The joints may be formed or sawed. Before the pavement is opened to traffic, all joints shall be marked off into square blocks by contraction joints as shown on the plans. The joints shall be one-eight (1/8) inch wide by one (1) inch deep, and may be formed either by inserting a fiber strip, tooling or by use of a concrete saw. Care must be taken to avoid over finishing at joints.

CONSTRUCTION JOINTS: Transverse and dowelled construction joints as indicated on the typical section shall be installed at the close of each day's work or when interruptions of more than thirty (30) minutes occur. It shall be located at least five (5) feet from any other transverse joint. It shall be formed from a clean wood plank, cut identical with the cross section of the pavement with holes drilled for dowel bars. The plank shall be accurately set and held in place at right angles to the edge of the pavement. When operations are resumed, the plank shall be carefully removed and all surplus concrete or materials on the subgrade removed and fresh concrete deposited directly against the old. The concrete surface shall be floated and straight edged to a true surface as called for on the plans.

FINISHING: Finishing operations shall be such as to require a minimum of manipulation from initial placing to finish surface. After the concrete has thoroughly consolidated and leveled, and the initial set has taken place, the surface shall be finished with a soft wood or cork float and finished with no other mortar than that contained in the concrete. The resulting surface shall be uniform in color with all imperfections removed. The edges shall be rounded with an edging tool having a ¼” radius except in instances when the edges of the pavement and at the joints. The final surface texture shall be applied manually with a wire comb.

FINAL SURFACE TEST: The Contractor will be held responsible for the correct alignment, grade and contour specified. Any spots higher than one-fourth inch (1/4") on a ten (10) foot straight edge shall be ground to the required surface by the contractor at his own expense. Depth of water ponded in any sags or low spots in the pavement shall not exceed one-quarter (¼) inch in depth.

PROTECTION AND CURING: As soon as possible after concrete is finished and without marring the surface, the concrete shall be cured with a membrane spray. The Contractor shall protect the concrete work against damage or defacement of any kind until it has been accepted by the City. Concrete that is not acceptable to the City Administrator or his/her designee because of damages or defacements shall be removed and replaced, or repaired to the City Administrator or his/her designee's satisfaction at the expense of the Contractor.

COLD WEATHER CONCRETING: Except by specific written authorization by the City Administrator or his/her designee, concrete placing shall cease when the descending air temperature in the shade falls below 40 degrees Fahrenheit. When concreting is permitted during cold weather, the temperature of the mixed concrete shall be not less than 50 degree Fahrenheit at the time of placing the forms. The aggregates may be heated by steam or dry heat prior to being placed in the mixer. The water shall be not hotter than 170 degree Fahrenheit. When concrete is being placed during cold weather and the air temperature may be expected to drop below 35 degree Fahrenheit, a supply of straw or other suitable blanketing material shall be provided along the line of work. Care must be exercised to prevent the wind from removing the blanketing material. At any other time when the air temperature may be expected to reach the freezing point during the day or night, the material so provided shall be spread over the concrete to a sufficient depth to prevent freezing of the concrete. Such protection shall be maintained for at least five (5) days. If required by the City Administrator or his/her designee, concrete less than twenty-four (24) hours old shall also be covered by approved devices capable of maintaining the temperature within the concrete at 50 degree Fahrenheit or higher. Concrete injured by frost action shall be removed and replaced at the contractor's expense.

INTEGRAL CURB: Integral Curb shall be cast monolithic with the pavement. The cross-section and dimensions shall match the existing curb. Concrete for integral shall conform to the specifications in section S-12 thru S-20 of this manual.

S-18 CONCRETE MASONRY CONSTRUCTION

Concrete masonry construction shall conform to the specifications of Section 703 of the 2004 Missouri Standard Specifications for Highway Construction, and to the requirements of section S-12 and S-20 of these General Specifications.

S-19 FORMS

All forms shall be in good condition, with not more than one-fourth inch (1/4") variation in horizontal and vertical alignment for each ten (10) feet in length. The forms shall be set true to line and grade shall be adequately supported to stay in position while depositing and compacting the concrete. They shall be designed and constructed to permit their removal without damage to the concrete.

Side forms shall be made of steel of a section approved by the City Administrator or his/her designee, and the height shall be equal to the thickness of pavement at the edge, unless specifically accepted by the City Administrator or his/her designee. Straight forms of wood shall have a minimum nominal thickness of 2".

Earth or crushed rock subgrade under the forms shall be thoroughly compacted prior to placing of concrete. Any fill required shall be Type 1 Aggregate Base or approved crushed rock or gravel.

The method of connecting form sections shall be such as to insure a tight neat joint. Each time forms are used they shall be cleaned thoroughly and oiled before concrete is placed against them.

S- 20 CONCRETE SIDEWALKS

This section governs the furnishing of all labor, equipment, tools and materials and the performance of all work necessary to construct sidewalks including all necessary incidental work done in accordance with the applicable requirements. All items of material included in this section shall conform to the requirements in Section S-12 through S-19 unless otherwise specified or shown on the plans.

The incidental work of clearing and demolition of existing sidewalk, grading and sub-grade preparation shall be carried on well in advance of the sidewalk construction as herein specified.

GRADING AND SUBGRADE PREPARATION: All excavation required in the rough grading and sub-grade preparation shall be done by the Contractor. Fine grading and sub-grade shall be done by the Contractor in accordance with Section 209 and 210 of the 1996 Missouri Standard Specification for Highway Construction with compaction to at least 95% of maximum density.

FORMS: All forms shall be in good condition, with not more than one fourth inch (114") variation in horizontal and vertical alignment for each ten (10) feet in length. The forms shall be set true to line and grade shall be adequately supported to stay in position while depositing and compacting the concrete. They shall be designed and constructed so as to permit their removal without damage to the concrete. Forms shall also conform to the requirements of Section S-19 of these specifications.

EXPANSION JOINTS, PRE-MOLDED NON-EXTRUDING TYPE: Expansion joints constructed at the locations shown on the plans shall be one-half (112) inch wide and shall extend the full depth of the sidewalk.

CONTRACTION JOINTS: The sidewalk surface shall be marked off into square blocks by contraction joints as shown on the plans. The joints shall be one-eighth (118) inch wide by one (1) inch deep, and may be formed either by inserting a fiber strip, tooling or by use of a concrete saw.

CONCRETE WORK: Concrete shall be place in accordance with the requirements of Section S-17 of these specifications. Concrete shall be a minimum of 4,000 psi. Joints shall be constructed at the locations shown on the plans. The pre-molded joint filler shall be supported so as to prevent its displacement while depositing concrete at the expansion joints. Pre-molded filler shall be

positioned in true alignment at right angles to the line of the sidewalk and be normal to the surface of the concrete.

FINISHING: After the concrete has been thoroughly consolidated and leveled, and the initial set has taken place, the surface shall be finished with a soft wood or cork float and finished with no other mortar than that contained in the concrete. The resulting surface shall be uniform in color with all imperfections removed. The edges shall be rounded with an edging tool having a radius as shown on the plans. Special care shall be taken to insure a straight, neat appearance along the edges of the sidewalk and at the joints. In general, finishing shall conform to the requirements of Section S-17 of these specifications.

PROTECTION AND CURING: Shall conform to the requirements of Section S-17 of these specifications. The Contractor shall protect the concrete work against damage or defacement of any kind until it has been accepted by the City. Concrete which is not acceptable to the City Administrator or his/her designee because of damages or defacements, shall be removed and replaced, or repaired satisfactorily to the City Administrator or his/her designee at the expense of the Contractor.

TEMPERATURE LIMITATIONS: Concrete shall be placed in accordance with the requirements of Section S-17 of these specifications.

BASIS OF PAYMENT

The cost of furnishing all labor, equipment, tools, and materials and the performance of all work necessary to construct sidewalk complete, including all incidental work necessary in grading and sub-grade preparation and including breaking up existing concrete sidewalk, and including any fill or excavation, and including saw cutting, shall be included in the unit price per square yard.

S-21 ASTM D-3405 RUBBER CRACK SEALANT

DESCRIPTION: The work shall consist of performing all operations and furnishing all labor, equipment and materials for the preparation, cleaning and installing resilient and adhesivejoint sealing filler capable of effectively sealing joints and cracks in pavements.

PREPARATION: New Construction: Joints to be sealed must be clean and dry. Curing compound on joint interfaces must be removed by sandblasting. Dust, dirt and debris should be blown out of the joint with oil-free, filtered and dried compressed air (@ a minimum of 100 psi) immediately preceding the sealing operation. Use proper eye protection.

MAINTENANCE SEALING: Old joint sealing materials must be routed out of the joint to a depth of 1” to 1 1/2”. Joint interfaces must be cleaned by sandblasting or mechanical equipment. Loose particles should be blown out of the joint with oil-free, filtered and dried compressed air (@ a minimum of 100 psi) prior to sealing. Cracks that are greater than one inch wide shall be repaired as directed by the Engineer prior to placing the sealant. Use proper eye protection.

INSTALLATION OF SEALANT: Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the City Administrator or his/her designee

before sealing is allowed. Sealant shall be installed in accordance with the manufacturer's instructions as evidenced by the following requirements.

The joint sealant shall be applied uniformly solid from bottom to top and shall be filled without formation of entrapped air or voids. A backing material shall be placed and shall be non-adhesive to the pavement or the sealant material. The heating kettle shall be an indirect heating type, constructed as a double boiler. A positive temperature control and mechanical agitation shall be provided. The sealant shall not be heated to more than 20 degree F (-11 degree C) below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. A direct connecting pressure type extruding device with nozzles shaped for insertion into the joint shall be provided. Any sealant spilled on the surface of the pavement shall be removed immediately.

Jute, paper, or other moisture absorbing material shall not be used for the backing material. The backing material shall be rubber, butyl rubber, or other approved material that will not react with the joint sealer and will not form gas when the hot joint sealer is applied.

Sealant which does not bond to the joint face, contains voids, or fails to set a tack free condition within three hours after installation shall be replaced at the expense of the contractor.

MATERIALS: Joint sealing materials shall meet the requirements of ASTM D-3405, joint sealant, hot-poured, for concrete and asphalt pavements.

Each lot or batch of sealing compound shall be delivered to the job site in the manufacturer's original sealed container. Each container shall be clearly marked with the manufacturer's name, batch or lot number, and the safe heating temperature and shall be accompanied by the manufacturer's certification stating that the compound meets the requirements of this specification.

SEALANT PROPERTIES

TEST	RESULT
Penetration @ 77 degree F (25 Degree C) 150g., 5 s.	<90
Flow @ 140 degree F (60 degree C)	<3.0mm
Bond @ -20 degree F (-29 degree C) 3 complete cycles	pass
Resilience @ 77 degree F (25 degree C)	>60%
Asphalt Compatibility	pass

EQUIPMENT: All equipment shall be maintained in good working order as determined by the City Administrator or his/her designee on a day to day basis. The City shall not be responsible for payment of labor or rental charges on days when the equipment is not in good working order.

S- 22 TACK COAT AND PRIME COAT

The tack coat materials and application shall comply with Section 407 of the Missouri Standard Specifications for Highway Construction, 1996 edition

The Contractor shall apply the SS-1 emulsified asphalt tack coat with an asphalt distributor at a maximum rate of 0.10 gallons per SY a minimum rate of 0.02 gal. per SY over the existing street surface.

The tack coat work shall be done immediately ahead of the hot mix surfacing. The Contractor shall coordinate the tack coat operation very closely with the resurfacing work. MC 30 Prime Coat shall be applied to the surface of Aggregate Base in accordance with the requirements of Section 408 of the Missouri Standard Specifications for Highway Construction, 1996 edition.

BASIS OF PAYMENT:

The price bid per gallon of SS-1 Emulsified Asphalt tack coat shall include preparing and placement of SS-l Emulsified Asphalt tack coat and blotter material if required and all incidental work. The price hid per square yard for Type 1 Aggregate sub-base shall include preparing and placement of MC 30 Asphalt Prime Coat and blotter material if required and all incidental work.

S-23 PLANT MIX BITUMINOUS BASE COURSE

Shall conform to requirements of Section 301, Missouri Standard Specification for Highway Construction, 1996 edition.

The compacted Bituminous Base Course shall have a density of not less than 95%. The Contractor shall obtain a minimum of four (4) inch diameter cores, or 12" square saw cut samples, and send the samples to the testing laboratory for density determination

BASIS OF PAYMENT:

The price bid per ton on Plant Mi bituminous Base Course shall include all material, mixing, hauling, spreading and rolling and cutting out samples and cores for the testing lab. The Contractor shall furnish one copy of the weight ticket made at the asphalt plant with each truckload of asphalt mix spread on the road. The truck driver shall give the weight ticket to the City inspector when the asphalt mix is spread on the road.

When requested by the City Administrator or his/her designee, the Contractor shall send a loaded truck of asphalt mix to a local commercial scale and get a weight ticket on the loaded truck and also on the empty truck in order to check the contractor's asphalt plant scales. The Contractor shall pay the weight ticket charge to the commercial truck scales. If the net weight of the asphalt mix loaded truck on the commercial scales is more than 1% less than the weight on the asphalt plant scales, the Engineer may order the contractor weigh additional loaded trucks on the commercial scales. The weigh check shall be made daily if requested by the City Administrator or his/her designee.

The City will pay the bid price per ton for hot mix asphalt accepted by the City inspector and spread and compacted on the road by the Contractor.

S-24 PLANT MIX BITUMINOUS PAVEMENT

Plant Mix Bituminous Pavement shall conform to the requirements of Section 401 of the 2004 Missouri Standard Specifications for Highway Construction.

One ½" and 2" BP-2 plant mix bituminous pavement shall be placed to an average thickness of 1 ½" and 2" as specified on the plans and specification. The final surface after rolling shall not vary from a 10 ft. straight edge by more than 1/8 inch.

BASIS OF PAYMENT: The price bid per ton on Plant Mix Bituminous pavement shall include all material, mixing, hauling, spreading, rolling, and cutting out samples and cores for the testing lab. Also, spread on intersection approaches and driveway entrances where marked by the City inspector in order to fit existing asphalt surface or to ramp the new surface up or down to the existing surface. The City will pay for Plant Mix Bituminous Pavement that is accepted by the City Administrator or his/her designee, spread and compacted by the Contractor.

The Contractor shall furnish one copy of the weight ticket made at the asphalt plant with each truckload of asphalt mix spread on the road. The truck driver shall give the weight ticket to the City inspector when the asphalt mix is spread on the road.

When requested by the City Administrator or his/her designee, the Contractor shall send a loaded truck of asphalt mix to a local commercial scale and get a weight ticket on the loaded truck and also on the empty truck in order to check the contractor's asphalt plant scales. The Contractor shall pay the weight ticket charge to the commercial truck scales. If the net weight of the asphalt mix loaded truck on the commercial scales is more than 1% less than the weight on the asphalt plant scales, the City Administrator or his/her designee may order the contractor weigh additional loaded trucks on the commercial scales. The weigh check shall be made daily if requested by the City Administrator or his/her designee

S-25 ASPHALTIC CONCRETE PAVEMENT

Asphalt concrete pavement shall conform to the requirements of Section 403 of the 2004 Missouri Standard Specifications for Highway Construction. 1 ½" and 2" Type C or Type IC Asphaltic Concrete Pavement shall be placed to an average thickness of 1 ½" and 2" as specified on the plans and specifications. The final surface after rolling shall not vary from a 10 ft. straight edge by more than 1/8 inch.

BASIS OF PAYMENT: The price bid per ton on Asphaltic Concrete Pavement shall include all material, mixing hauling, spreading, rolling, and cutting out samples and cores for the testing lab. Also, spread on intersection approaches and driveway entrances where marked by the City inspector in order to fit existing asphalt surface or to ramp the new surface up or down to the existing surface. The City will pay for Asphaltic Concrete Pavement that is accepted by the City Administrator or his/her designee, spread and compacted by the Contractor.

The Contractor shall furnish one copy of the weight ticket made at the asphalt plant with each truckload of asphalt mix spread on the road. The truck driver shall give the weight ticket to the City inspector when the asphalt mix is spread on the road.

When requested by the City Administrator or his/her designee, the Contractor shall send a loaded truck of asphalt mix to a local commercial scale and get a weight ticket on the loaded truck and also on the empty truck in order to check the contractor's asphalt plant scales. The Contractor shall pay the weight ticket charge to the commercial truck scales. If the net weight on the asphalt plant scales, the City Administrator or his/her designee may order the contractor weigh additional loaded trucks on the commercial scales. The weigh check shall be made daily if requested by the City Administrator or his/her designee.

S-26 COLD MILLING OF EXISTING ASPHALT SURFACES

Cold milling of the existing asphalt surfaces shall be done between the curb lines or edge of concrete gutter, or a 6' wide or full width strip along edge of the gutter where specified in the plans unless otherwise specified or marked by the City Administrator or his/her designee.

The thickness of asphalt surface to be milled off shall be as noted on the plans and specifications or designated by the City Administrator or his/her designee or the entire width of the pavement curbs down to the concrete pavements, or the width as designated on the plans and specifications. The milled surface shall be on a uniform grade without depressions.

Manholes and valve box covers shall be marked so that the milling machine can be raised over the cast iron covers. The Contractor shall remove the existing asphalt to the proper grade around the manholes and valve box covers.

BASIS OF PAYMENT: The price bid per square yard shall include furnishing and operation of a cold milling machine, and equipment and tools for removing asphalt around manholes, valve box covers, curbs, etc. The milling machine shall be equipped with a belt conveyor for continuous loading of milled asphalt into the City dump trucks.

S-27 STORM SEWER MATERIALS

REINFORCED CONCRETE PIPE/HDPE: All storm sewer piping that will be under streets shall conform to the requirements for reinforced concrete pipe under Sections 1026 and 1035 of the 2004 Missouri Standard Specifications for Highway Construction.

POLYVINYL CHLORIDE PIPE: PVC pipe for storm sewer shall be SDR 35 and conform to the requirements for under Section 1047 of the 2004 Missouri Standard Specifications for Highway Construction. Pipe installation and jointing shall meet the requirements of Section 728 of the 2004 Missouri Standard Specifications for Highway Construction

EMBEDMENT: Crushed stone for Pipe Embedment shall conform to Gradation D, Section 1005.2.4, Coarse Aggregate of the 2004 Missouri Standard Specifications for Highway Construction.

BASIS OF PAYMENT: The unit price bid per linear foot of PVC pipe shall include unclassified excavation, trenching, crushed stone bedding, furnishing and laying pipe and joint materials, and crushed stone backfill and earth backfill with suitable material. Length of PVC pipe will be measured from the interior wall surface of manholes, inlets and box culverts.

S-28 STORM SEWER INLETS AND MANHOLES

CONCRETE: Concrete shall conform to the requirements in Section S-12 through S-20 of these General Specifications. The concrete shall be tamped and spaded or vibrated between the forms and the top surface of the floor of the inlet shall be given a smooth trowel finish. The inlets & manholes shall conform to requirements of Section 604 of the 2004 Missouri Standard Specifications for Highway Construction. The top surfaces of the inlet cover slab shall be finished with a fine brush finish.

FORMS: Forms shall be constructed mortar-tight, true to line and grade, securely staked, and braced. The inlets and manholes shall be constructed in accordance with the details shown on the plans.

MANHOLE FRAMES & GRATES: Manhole frames and grate frames shall be set in place before the concrete is placed. Cast iron manhole frames and covers shall conform to Section 614.30 and steel grates & bearing plates shall be galvanized and shall conform to Section 614.10 of the 2004 Missouri Standard Specifications for Highway Construction.

BASIS OF PAYMENT: The unit price for storm sewer inlets and manholes shall include all unclassified excavation including removal of existing inlet structure and compacted backfilling, furnishing all materials, and constructing the inlets and manholes and connecting all storm sewer pipes through the walls of the inlet or manhole and grouting around pipes and placing gravel or crushed stone filter material on the outside of weep holes.

S-29 LAYING REINFORCED CONCRETE PIPE

INSTALLATION: Installation of reinforced concrete pipe shall conform to Section 726 and Figure 726.30F of the 2004 Missouri Standard Specifications for Highway Construction.

BEDDING: Crushed stone for bedding under and around pipe and for trench backfill shall conform to the graduation listed in Section S-27 of these General Specifications.

CONSTRUCTION STAKING: The City will set stakes for line and grade on the storm sewer pipes, inlets and manholes, and new pavement. Stakes will be set one time by the City at no cost to the Contractor. If the Contractor's equipment damages the stakes, the Contractor will have to employ a surveyor to re-set the stakes at the Contractor's expense.

BASIS OF PAYMENT: The unit price bid per linear foot of reinforced concrete pipe shall include unclassified excavation, trenching, sawing existing pavement, crushed stone bedding; furnishing and installing pipe, joint materials, crushed stone backfill, earth backfill (with suitable material) and asphalt pavement patching. Length of reinforced concrete pipe will be measured from the interior wall surface of manholes, inlets and box culverts.

S-30 LAYING HIGH DENSITY POLYETHYLENE PIPE (HDPE)

INSTALLATION: Installation of HDPE pipe shall conform to Section 730 and Figure 730.00 of the 2004 Missouri Standard Specifications for Highway Construction

BEDDING: Crushed stone for bedding under and around pipe and for trench backfill shall conform to the gradation listed in Section S-27 of these General Specifications.

CONSTRUCTION STAKING: The City will set stakes for line and grade on the storm sewer pipes, inlets and manholes, and new pavement. Stakes will be set one time by the City at no cost to the Contractor. If the Contractor's equipment damages the stakes, the Contractor will have to employ a surveyor to re-set the stakes at the Contractor's expense.

BASIS OF PAYMENT: The unit price bid per linear foot of HDPE pipe shall include unclassified excavations, trenching, crushed stone bedding, furnishing and laying pipe and joint materials, and crushed stone backfill and earth backfill with suitable material.

S-31 LAYING CORRUGATED METAL PIPE

INSTALLATION: Installation of corrugated metal pipe shall conform to Section 725 and Figure 725.00A of the 2004 Missouri Standard Specifications for Highway Construction.

BEDDING: Crushed stone for bedding under and around pipe and for trench backfill shall conform to the gradation listed in Section S-27 of these General Specifications.

CONSTRUCTION STAKING: The City will set stakes for line and grade on the storm sewer pipes, inlets and manholes, and new pavement. Stakes will be set one time by the City at no cost to the Contractor. If the Contractor's equipment damages the stakes, the Contractor will have to employ a surveyor to re-set the stakes at the Contractor's expense.

BASIS OF PAYMENT: The unit price bid per linear foot of corrugated metal pipe shall include unclassified excavation, trenching, crushed stone bedding, furnishing and laying pipe and joint materials, and crushed stone backfill and earth backfill with suitable material. Length of corrugated metal pipe will be measured from the interior wall surface of manholes, inlets and box culverts.

S-32 LAYING POLYFROPYLENE FABRIC

Polypropylene Fabric shall be placed on the milled surface of the pavement as noted in the plans and specifications.

MATERIAL SPECIFICATIONS

Fabric shall be a needle punch, non-woven polypropylene fabric with the following properties:

Min. weight - 3.6 oz./sq.yd.
Tensile strength, (ASTM D-1682-64) minimum - 90 lbs.
Elongation at break (ASTM D-1682-64) minimum - 60%
Asphalt Retention - minimum - 0.2 gal./sq.yd.

Color - black
Width - 75" & 150"
Length of roll - minimum - 100 yds.
Asphaltic Sealant shall he Asphalt Cement (AASHTO-M-20 or AASHTO-M226).

EQUIPMENT
The asphalt distributor shall be capable of spraying sealant at a prescribed uniform rate. The distributor shall be equipped with a hand spray with single nozzle and positive shut-off valve for use on intersection approaches and radii.

Mechanical fabric lay down equipment shall be capable of handling full rolls of fabric, and shall be capable of laying the fabric smoothly, without wrinkles or folds.

Stiff bristle brooms to smooth the fabric and scissors or blades to cut the fabric shall be provided,

CONSTRUCTION PROCEDURE

The surface on which the fabric is to be placed should be free of dirt, water and debris. The asphaltic sealant shall be uniformly sprayed on the pavement at a rate of 0.25 to 0.30 gallons per square yard. Application will be by distributor equipment wherever possible, with hand spraying kept to a minimum. Asphalt temperature shall be sufficiently high to permit a uniform spray pattern. The minimum recommended temperature for asphalt cement is 290 degrees F. The asphalt temperature should not exceed 325 degrees F in order to avoid damage to the fabric. The width of the asphalt sealant application shall be fabric width plus 2 to 6 inches. Any asphalt spilled on the pavement surface shaI1 be cleaned up to avoid possible fabric movement at asphalt rich areas.

The fabric shall be placed on the asphaltic sealant with a m i n i m of wrinkles prior to the time the asphalt has cooled and lost tackiness. The fabric is unrolled so that the bearded (fuzzy) side is unwound into the sealant. Wrinkles severe enough to cause folds shall be slit and laid flat.

Brooming will maximize fabric contact with the pavement surface. Overlay of fabric joints shall be 1 inch to 2 inches. Transverse joints shall be shingled in the direction of paving to prevent edge pick-up by the paver machine. Additional sealant of 0.2 gallons per sq. yd. shall be applied to fabric joints. The fabric shall be blotted with sand when necessary to permit traffic to use the streets.

Placement of hot mix asphalt overlay shall closely follow fabric lay down. If the sealant bleeds through the fabric before the hot mix asphalt is placed, the sealant shall be blotted by spreading sand or hot mix asphalt over the bleeding areas. Laydown of the hot mix asphalt shall be at temperatures below 300 degrees F. The mix temperature shall never exceed 325 degrees F. The pave and other equipment shall be turned gradually to avoid movement of damage to the membrane.

Minimum air temperature during fabric installation shall be 50 degrees F, except by specific written authorization by the City Administrator or his/her designee. It is usually not necessary to tack coat the fabric surface, except in case of delay in overlay, dust accumulation, or under application of binder.

BASIS OF PAYMENT

The price bid per square yard of laying Polypropylene Fabric shall include furnishing and opexation of an Asphalt Distributor and Asphalt Cement and Fabric Laydown Equipment and labor and material.

S-33 OPENING TO TRAFFIC

The roadway shall not be opened to traffic or contractor's equipment until so ordered by the City Administrator or his/her designee The Contractor shall maintain adequate barricades and protection to prevent traffic from using the pavement until it is of an acceptable strength and/or cure as directed by the City Administrator or his/her designee.

S-34 SEEDING

Lime and commercial fertilizer shall conform to Section 801, mulching shall conform to Section 802, and seeding shall conform to Section 805 of the 2004 Missouri Standard Specifications for Highway Construction.

All unpaved area where the Contractor has removed the existing grass, shall be limed, fertilized, seeded and mulched.

Seed mixture and rate of application shall be as follows:

SEED	POUNDS PER ACRE
Kentucky Blue Grass	30
K-31	60
Perennial Rye	10
TOTAL	100

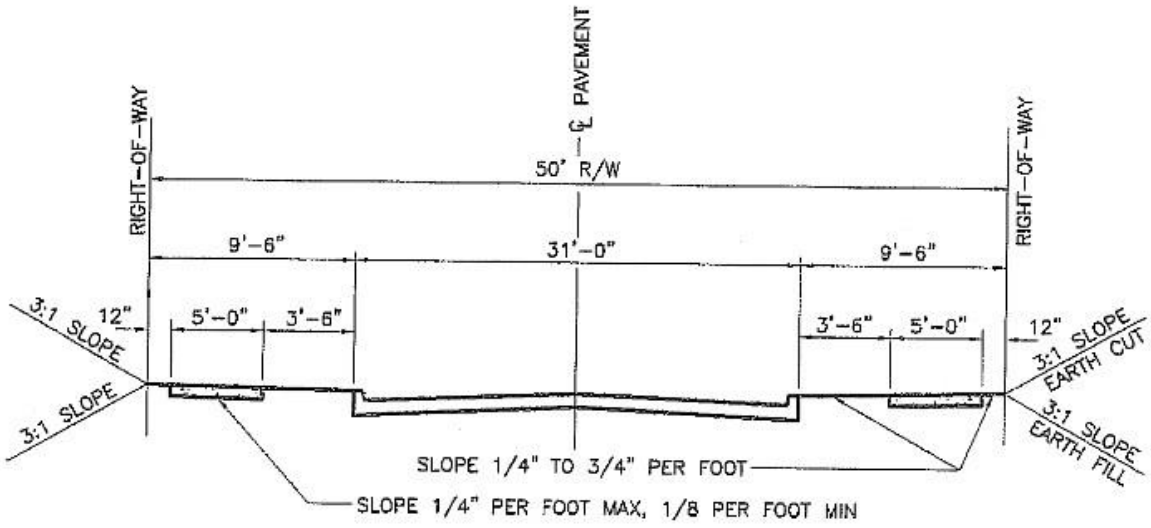
Fertilizer: Mixed commercial fertilizer shall contain total nitrogen, available phosphoric acid and soluble potash at the following rates:

Nitrogen	30 lbs per acre.
Phosphate	90 lbs per acre.
Potash	90 lbs per acre.

Agricultural Lime: Agriculture lime with not less than 90 percent passing the No. 8 sieve and containing not less than 65 percent calcium carbonate equivalent at an application rate of 1,000 pounds per acre.

EXHIBIT 1

CONSTRUCTION STANDARD DETAILS



31 FT. PAVEMENT
(TYPICAL)

NOTES:

SEE CROSS SECTION SHEETS FOR VARIATIONS DUE TO ROCK EXCAVATION, EXISTING LAWN GRADES, ETC.

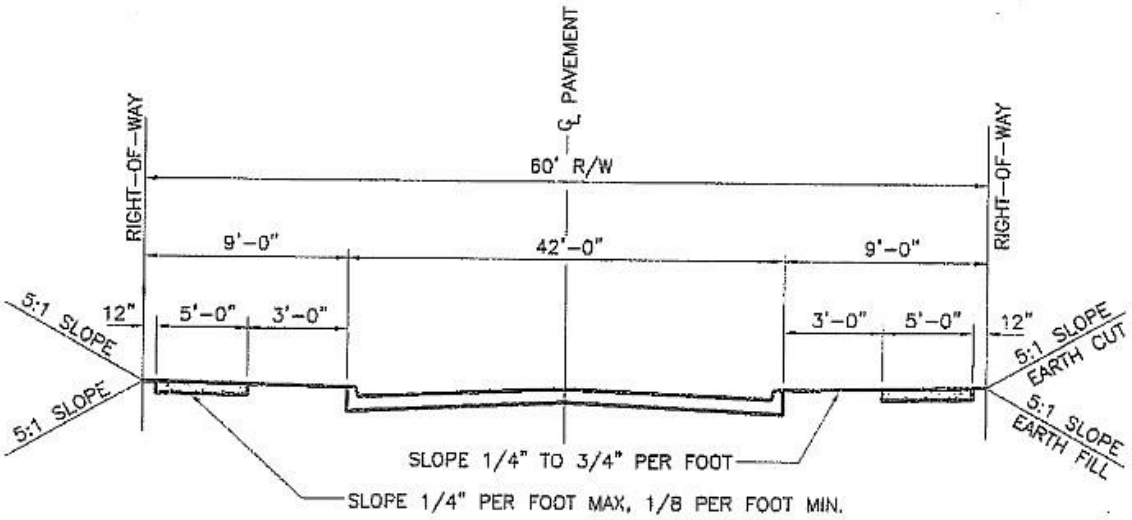
SEE PLAN SHEETS FOR LOCATION OF PAVEMENT AND SIDEWALKS WITHIN RIGHT-OF-WAY.

Approved / / Date

Revisions

TYPICAL STREET CROSS SECTION (RESIDENTIAL)

2.101



NOTE:

SEE CROSS SECTION SHEETS FOR VARIATIONS DUE TO ROCK EXCAVATION, EXISTING LAWN GRADES, ETC.

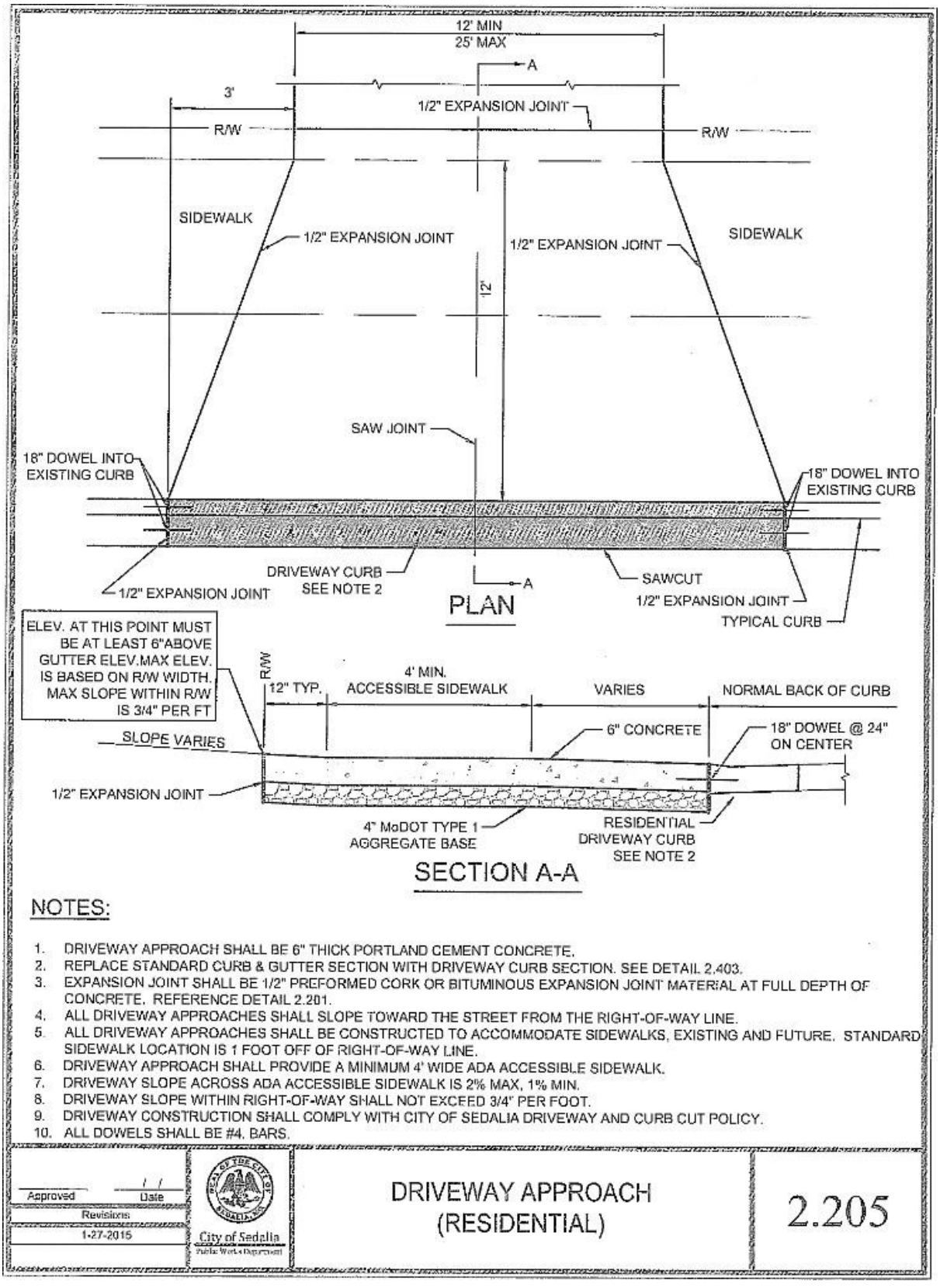
SEE PLAN SHEETS FOR LOCATION OF PAVEMENT AND SIDEWALKS WITHIN RIGHT-OF-WAY.

Approved / / Date

Revisions

TYPICAL STREET CROSS SECTION (COLLECTOR)

2.102



NOTES:

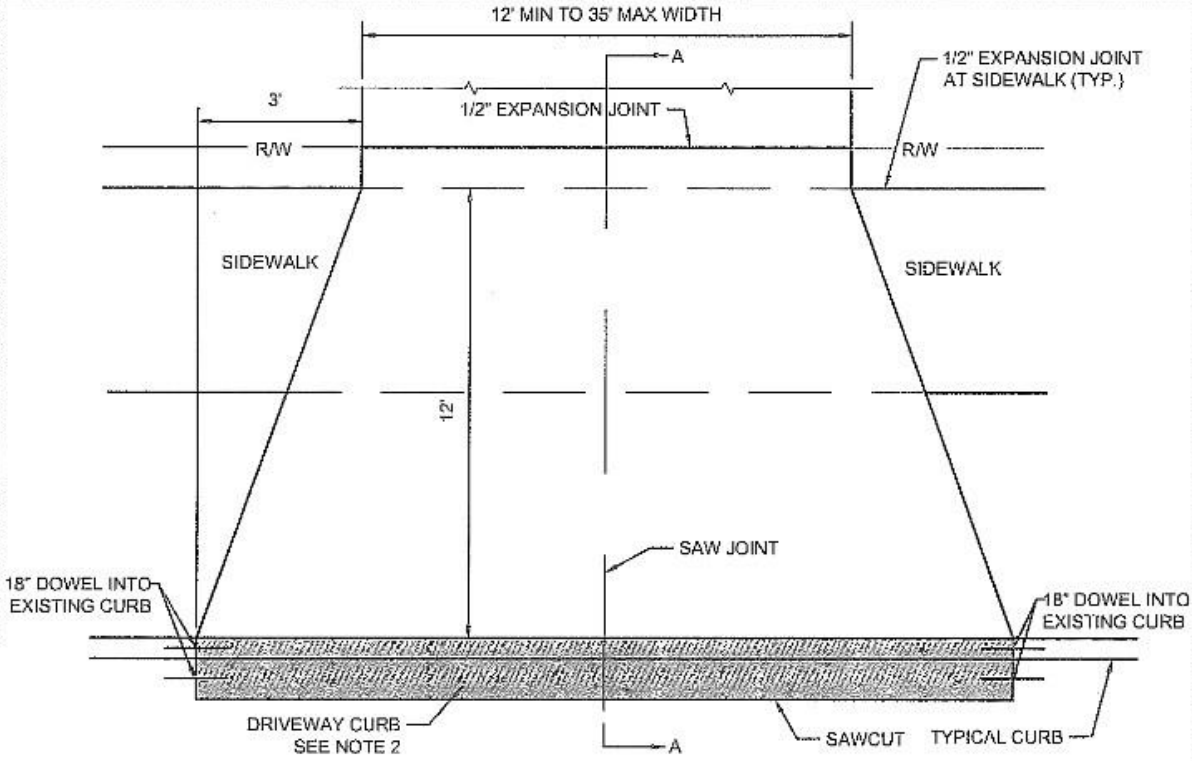
1. DRIVEWAY APPROACH SHALL BE 6" THICK PORTLAND CEMENT CONCRETE.
2. REPLACE STANDARD CURB & GUTTER SECTION WITH DRIVEWAY CURB SECTION. SEE DETAIL 2.403.
3. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL AT FULL DEPTH OF CONCRETE. REFERENCE DETAIL 2.201.
4. ALL DRIVEWAY APPROACHES SHALL SLOPE TOWARD THE STREET FROM THE RIGHT-OF-WAY LINE.
5. ALL DRIVEWAY APPROACHES SHALL BE CONSTRUCTED TO ACCOMMODATE SIDEWALKS, EXISTING AND FUTURE. STANDARD SIDEWALK LOCATION IS 1 FOOT OFF OF RIGHT-OF-WAY LINE.
6. DRIVEWAY APPROACH SHALL PROVIDE A MINIMUM 4' WIDE ADA ACCESSIBLE SIDEWALK.
7. DRIVEWAY SLOPE ACROSS ADA ACCESSIBLE SIDEWALK IS 2% MAX, 1% MIN.
8. DRIVEWAY SLOPE WITHIN RIGHT-OF-WAY SHALL NOT EXCEED 3/4" PER FOOT.
9. DRIVEWAY CONSTRUCTION SHALL COMPLY WITH CITY OF SEDALIA DRIVEWAY AND CURB CUT POLICY.
10. ALL DOWELS SHALL BE #4, BARS.

Approved	Date
Revisions:	
1-27-2015	

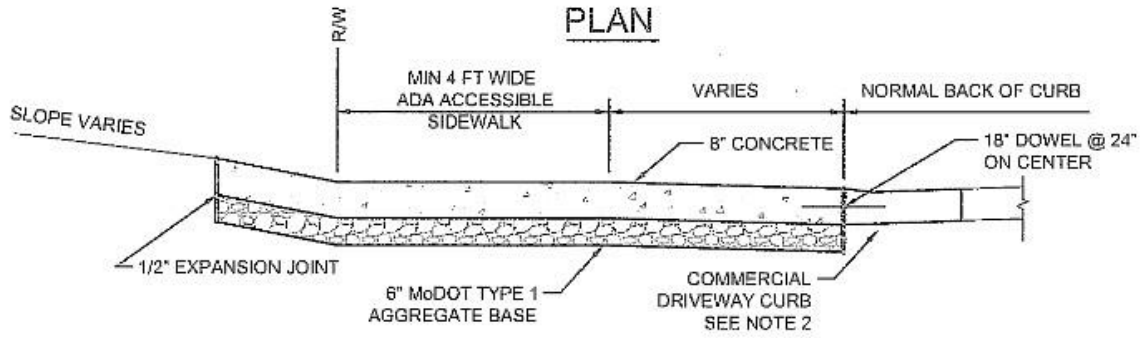
City of Sedalia
Public Works Department

DRIVEWAY APPROACH (RESIDENTIAL)

2.205



PLAN

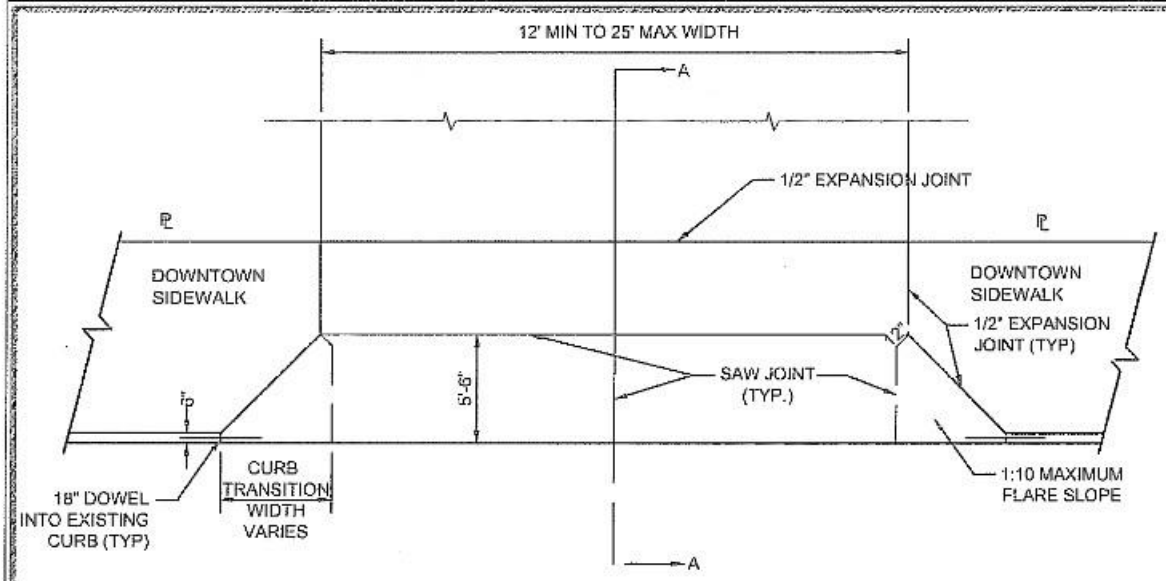


SECTION A-A

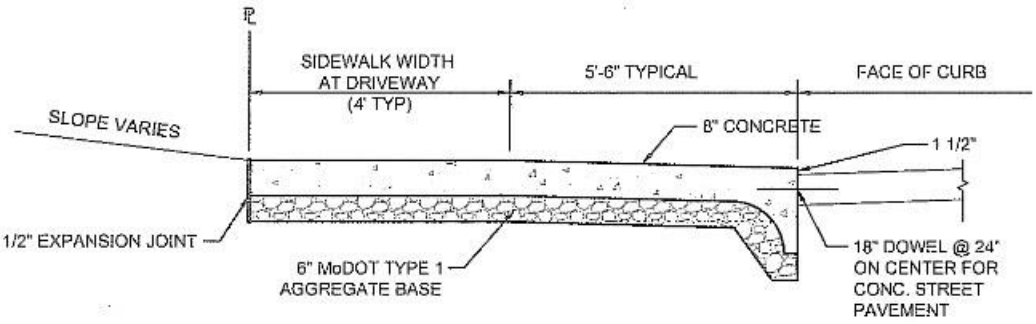
NOTES:

1. DRIVEWAY APPROACH SHALL BE 8" THICK PORTLAND CEMENT CONCRETE.
2. REPLACE STANDARD CURB & GUTTER SECTION WITH DRIVEWAY CURB SECTION. SEE DETAIL 2.403.
3. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
4. ALL DRIVEWAY APPROACHES SHALL SLOPE TOWARD THE STREET FROM THE RIGHT-OF-WAY LINE.
5. ALL DRIVEWAY APPROACHES SHALL BE CONSTRUCTED TO ACCOMMODATE SIDEWALKS, EXISTING AND FUTURE. STANDARD SIDEWALK LOCATION IS 1 FOOT OFF OF RIGHT-OF-WAY LINE.
6. DRIVEWAY APPROACH SHALL PROVIDE A MINIMUM 4' WIDE ADA ACCESSIBLE SIDEWALK.
7. DRIVEWAY SLOPE ACROSS ADA ACCESSIBLE SIDEWALK IS 2% MAX, 1% MIN.
8. DRIVEWAY SLOPE WITHIN RIGHT-OF-WAY SHALL NOT EXCEED 3/4" PER FOOT.
9. DRIVEWAY CONSTRUCTION SHALL COMPLY WITH CITY OF SEDALIA DRIVEWAY AND CURB CUT POLICY.
10. ALL DOWELS SHALL BE #4 BARS.

Approved / / Date Revisions 1-27-2015	City of Sedalia Public Works Department	DRIVEWAY APPROACH (COMMERCIAL)	2.206



PLAN

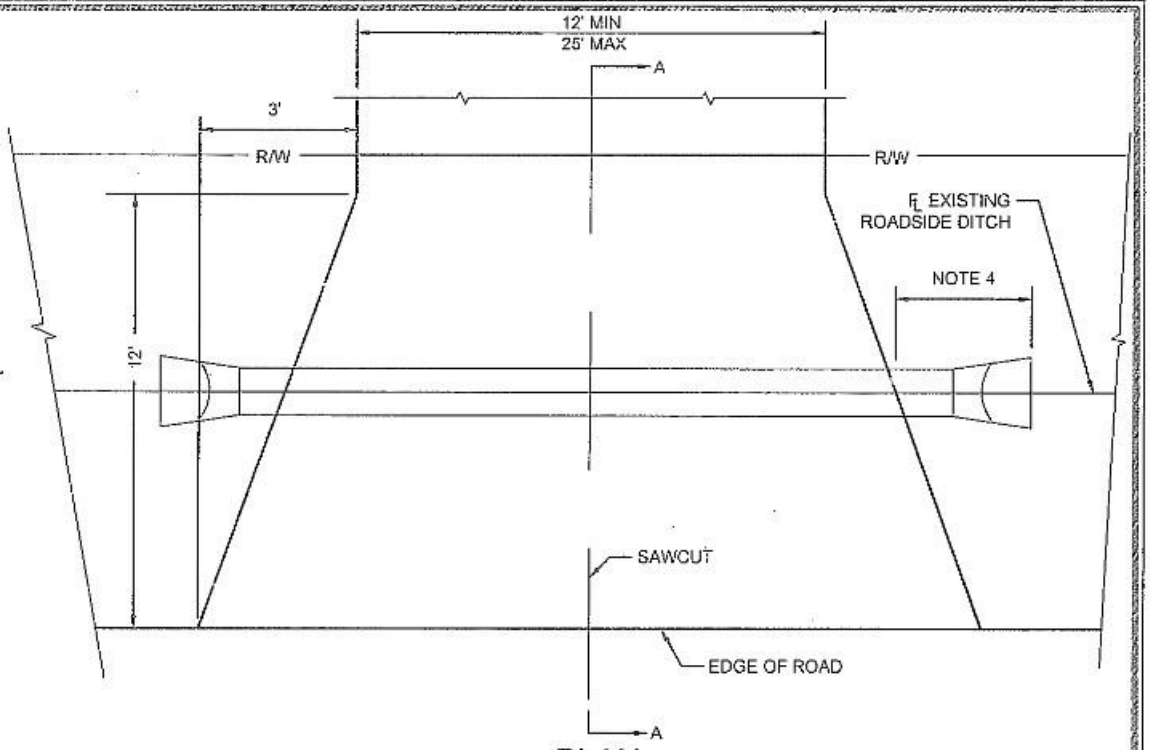


SECTION A-A

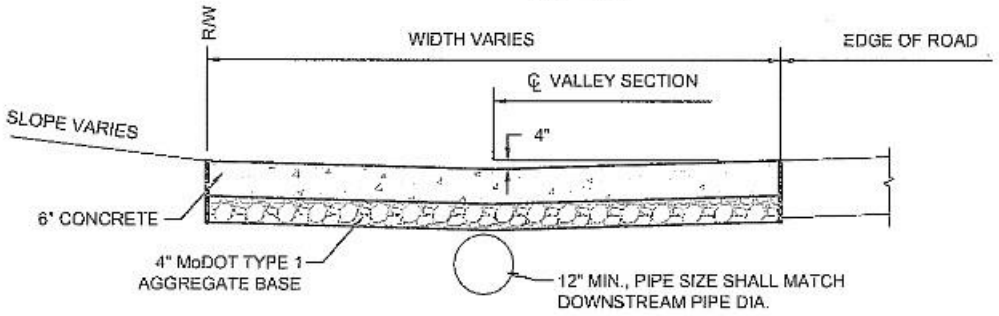
NOTES:

1. DRIVEWAY APPROACH SHALL BE 8" THICK PORTLAND CEMENT CONCRETE.
2. REFERENCE DETAIL 2.105, DOWNTOWN PAVEMENT PATCHING & LANE WIDENING, WHEN INSTALLING APPROACH.
3. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL
4. ALL DRIVEWAY APPROACHES SHALL SLOPE TOWARD THE STREET FROM THE RIGHT-OF-WAY LINE.
5. ALL DRIVEWAY APPROACHES SHALL BE CONSTRUCTED TO ACCOMMODATE SIDEWALKS, EXISTING AND FUTURE.
6. DRIVEWAY APPROACH SHALL PROVIDE A MINIMUM 4' WIDE ADA ACCESSIBLE SIDEWALK.
7. OMIT 1 1/2" EDGE AT GUTTER IF DRIVE APPROACH ALSO SERVES AS ACCESSIBLE SIDEWALK RAMP.
8. DRIVEWAY SLOPE ACROSS ADA ACCESSIBLE SIDEWALK IS 2% MAX, 1% MIN.
9. DRIVEWAY SLOPE WITHIN RIGHT-OF-WAY SHALL NOT EXCEED 3/4" PER FOOT.
10. DRIVEWAY CONSTRUCTION SHALL COMPLY WITH CITY OF SEDALIA DRIVEWAY AND CURB CUT POLICY.
11. ALL DOWELS SHALL BE #4 BARS.

Approved / / Date Revisions 1-27-2015	City of Sedalia Public Works Department	DRIVEWAY APPROACH (DOWNTOWN)	2.207



PLAN

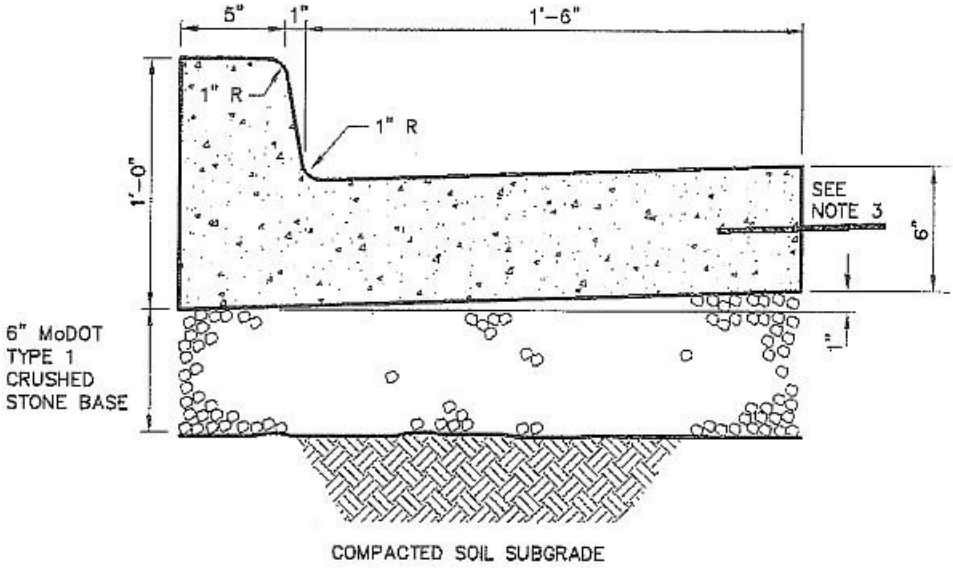


SECTION A-A

NOTES:

1. DRIVEWAY APPROACH SHALL BE 6" THICK PORTLAND CEMENT CONCRETE.
2. VALLEY SECTION IS REQUIRED; FLOW LINE SHALL BE 4" BELOW THE EDGE OF ROAD.
3. PIPE UNDER DRIVEWAY SHALL BE SIZED TO CARRY 10 YR STORM EVENT, WITH A 12" DIAMETER MIN.
4. PIPE LENGTH DETERMINED BY 3:1 FILL SLOPE. USE FLARED END SECTION OR BEVEL END OF PIPE TO MATCH 3:1 SLOPE. HEADWALLS ARE NOT PERMITTED.
5. WHERE THE ROADSIDE DITCH AT A DRIVEWAY DRAINS LESS THAN 10,000 SQ. FT. THE PIPE MAY BE OMITTED. IN THIS CASE, INCREASE VALLEY SECTION DEPTH TO 6".
6. DRIVEWAYS SHALL PROVIDE FOR FUTURE SIDEWALKS AND ROAD IMPROVEMENTS; DRIVEWAY SLOPE BETWEEN VALLEY AND RIGHT-OF-WAY LINE SHALL NOT EXCEED 1%.
7. DRIVEWAY CONSTRUCTION SHALL COMPLY WITH CITY OF SEDALIA DRIVEWAY AND CURB CUT POLICY.

Approved / / Date	City of Sedalia Public Works Department	DRIVEWAY APPROACH (UNIMPROVED STREET)	2.208
Revisions 1-27-2015			



NOTES:

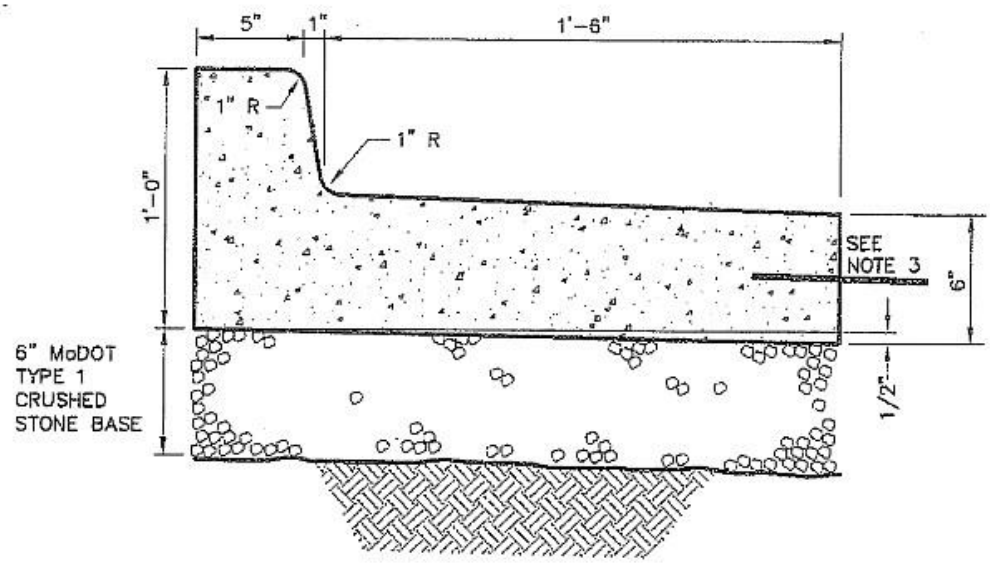
1. CURB & GUTTER SHALL BE PORTLAND CEMENT CONCRETE.
2. EXPANSION JOINTS AND CONTRACTION JOINTS IN CURB & GUTTER SHALL COINCIDE WITH STREET JOINTS IN CONCRETE STREETS AND SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 10' IN CURB & GUTTER ALONG ASPHALT STREETS.
3. WHERE EXISTING PAVEMENT IS CONCRETE, CURB REPLACEMENT SHALL BE DOWELED INTO THE STREET WITH 12" LONG #4 BARS AT 24" CTR.

Approved / Date

Revisions

TYPE 1 CURB (TYPICAL)

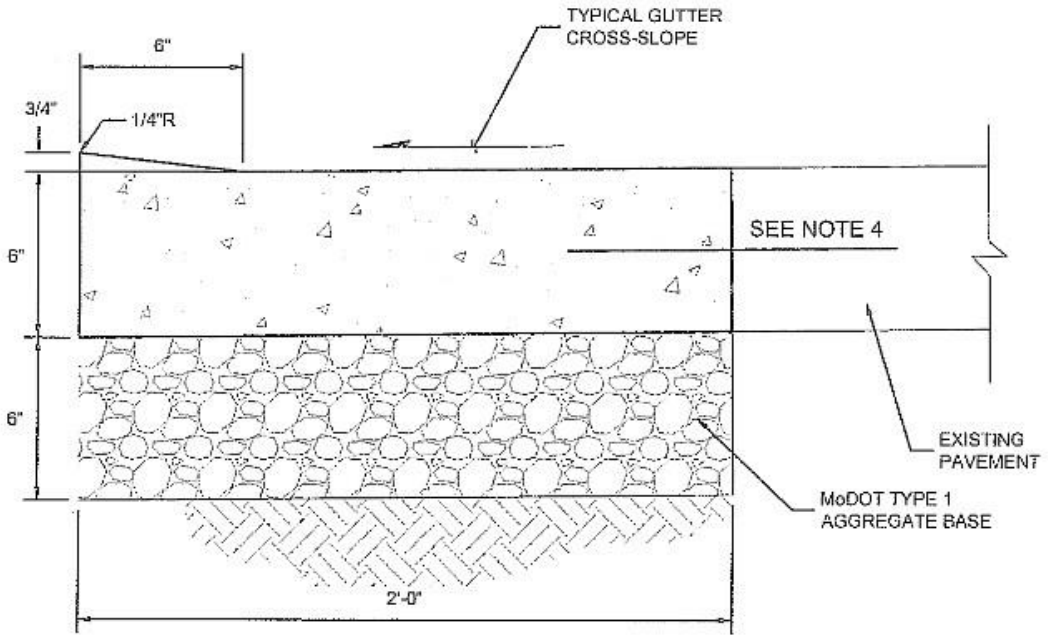
2.401



NOTES:

1. CURB & GUTTER SHALL BE PORTLAND CEMENT CONCRETE.
2. EXPANSION JOINTS AND CONTRACTION JOINTS IN CURB & GUTTER SHALL COINCIDE WITH STREET JOINTS IN CONCRETE STREETS AND SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 10' IN CURB & GUTTER ALONG ASPHALT STREETS.
3. WHERE EXISTING PAVEMENT IS CONCRETE, CURB REPLACEMENT SHALL BE DOWELED INTO THE STREET WITH 12" LONG #4 BARS AT 24" CTR.

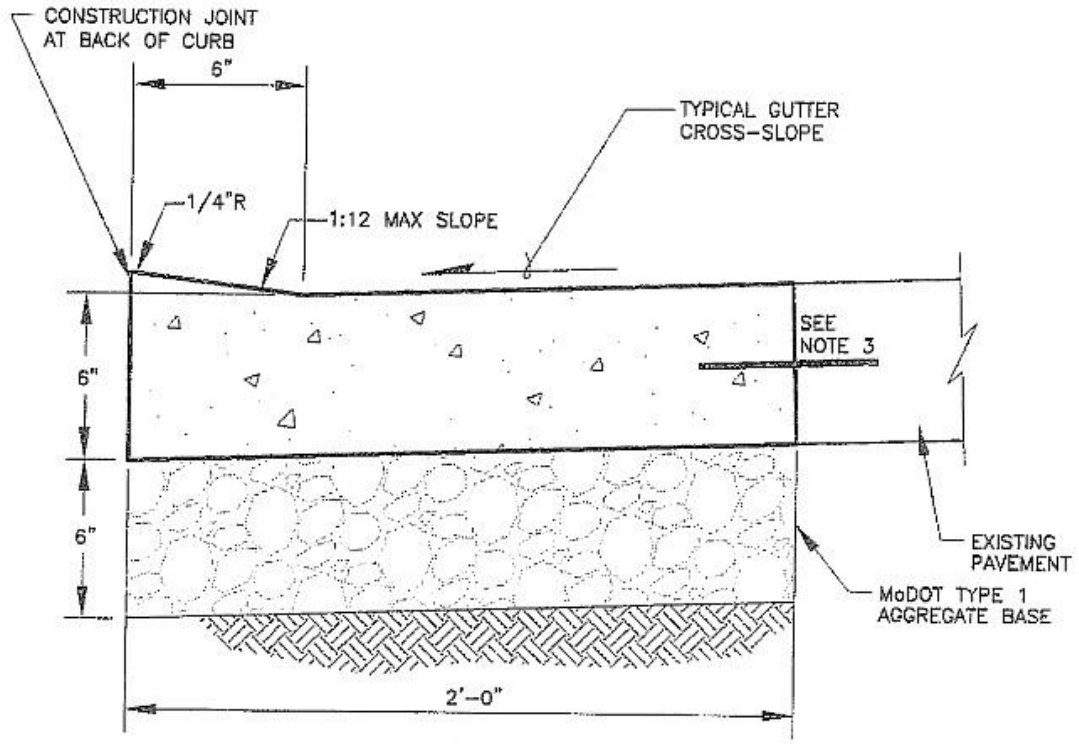
Approved / / Date		
Revisions	TYPE 2 CURB (SPILL CURB)	2.402



NOTES:

1. DRIVEWAY CURB SHALL BE PORTLAND CEMENT.
2. ELEVATION OF DRIVEWAY AT R/W LINE IS REQUIRED TO BE A MINIMUM OF 6" ABOVE GUTTER FLOW LINE ELEVATION
3. EXPANSION JOINTS AND CONTRACTION JOINTS IN CURB & GUTTER SHALL COINCIDE WITH STREET JOINTS IN CONCRETE STREETS AND SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 10' IN CURB & GUTTER ALONG ASPHALT STREETS.
4. WHERE EXISTING PAVEMENT IS CONCRETE, CURB REPLACEMENT SHALL BE DOWELED INTO STREET WITH 12" LONG #4 BARS AT 24" CENTER.

Approved / Date Revisions 1-27-2015	City of Sedalia Public Works Department	DRIVEWAY CURB	2.403



NOTES:

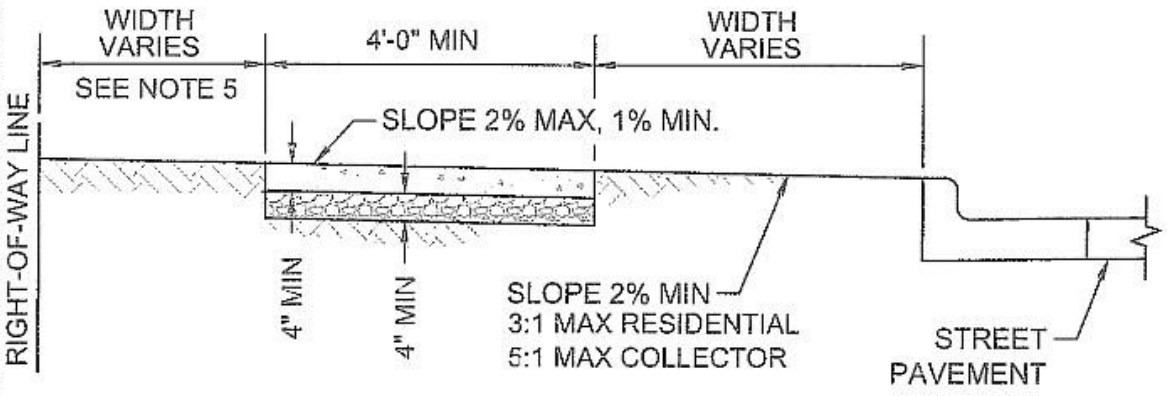
1. CURB RAMP CURB SHALL BE PORTLAND CEMENT CONCRETE.
2. EXPANSION JOINTS AND CONTRACTION JOINTS IN CURB & GUTTER SHALL COINCIDE WITH STREET JOINTS IN CONCRETE STREETS AND SHALL BE INSTALLED AT DISTANCES NO GREATER THAN 10' IN CURB & GUTTER ALONG ASPHALT STREETS.
3. WHERE EXISTING PAVEMENT IS CONCRETE, CURB REPLACEMENT SHALL BE DOWELED INTO THE STREET WITH 12" LONG #4 BARS AT 24" CTR.

Approved / / Date

Revisions

CURB RAMP CURB

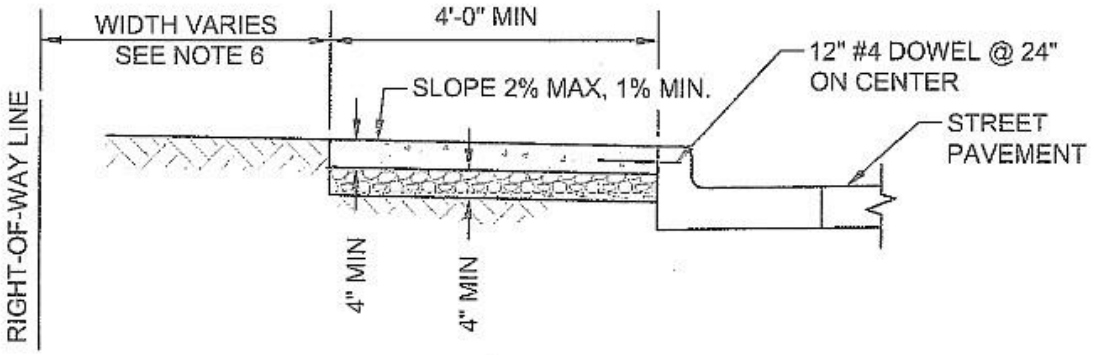
2.404



NOTES:

1. SIDEWALK SHALL BE 4" MIN. CONCRETE WITH 4" MIN. AGGREGATE BASE.
2. TYPICALLY, INSTALL 1/2" EXPANSION JOINTS AT INTERSECTIONS, RAMPS AND STRUCTURES. INSTALL 1/2" EXPANSION JOINTS AT DRIVEWAY APPROACHES.
3. INSTALL TRANSVERSE SAW JOINTS AT SPACING EQUAL TO SIDEWALK WIDTH.
4. FOR SIDEWALKS WIDER THAN 8', INSTALL LONGITUDINAL SAW JOINT AT SIDEWALK CENTERLINE. THEN, TRANSVERSE SAW JOINT SPACING SHALL BE EQUAL TO 1/2 SIDEWALK WIDTH.
5. STANDARD SIDEWALK PLACEMENT IS 12" FROM RIGHT-OF-WAY LINE.
6. SIDEWALKS, RAMPS, AND CURB RAMPS SHALL FULLY COMPLY WITH ADA GUIDELINES.
7. SIDEWALK CROSS SLOPE SHALL BE 2% MAX, AND SHALL NOT BE LESS THAN 1%. SLOPE MAY BE TOWARDS OR AWAY FROM THE STREET AS NECESSARY TO PROVIDE POSITIVE DRAINAGE.
8. SIDEWALK LONGITUDINAL SLOPE EXCEEDING 5% SHALL BE CONSIDERED A RAMP, AND AS SUCH, SHALL HAVE A MAXIMUM SLOPE OF 8.3%, A MIXIMUM RISE OF 30 INCHES, AND ADA-COMPLIANT HANDRAILS. RAMPS WITH A RISE OF 6 INCHES OR LESS DO NOT REQUIRE HANDRAILS.
9. 5'X5' MIN. LANDINGS ARE REQUIRED AT THE TOP AND BOTTOM OF SIDEWALK RAMPS, AT THE TOP OF SIDEWALK CURB RAMPS, AND AT LEAST EVERY 200 LINEAR FEET OF SIDEWALK. LANDING SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION.
10. SEE DETAILS SECTION 3.200 FOR INFORMATION ON CURB RAMPS.
11. ALL CONSTRUCTION JOINTS SHALL BE DOWELED WITH 18" # 4 BARS.

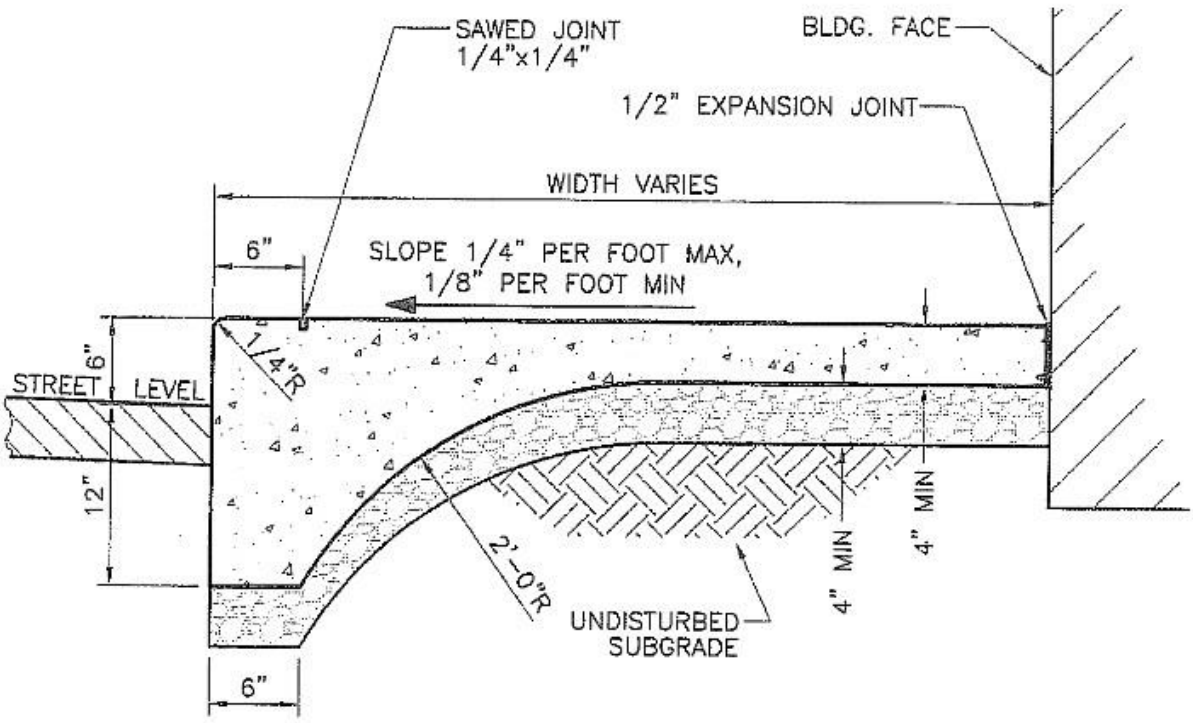
Approved / Date		SIDEWALK WITH GRASS PARKWAY	3.101
Revisions	City of Sedalia		
1-27-2015	Public Works Department		



NOTES:

1. SIDEWALK SHALL BE 4" MIN. CONCRETE WITH 4" MIN. AGGREGATE BASE.
2. TYPICALLY, INSTALL 1/2" EXPANSION JOINTS AT INTERSECTIONS, RAMPS, AND STRUCTURES. INSTALL 1/2" EXPANSION JOINTS AT DRIVEWAY APPROACHES.
3. INSTALL TRANSVERSE SAW JOINTS AT SPACING EQUAL TO SIDEWALK WIDTH.
4. FOR SIDEWALKS WIDER THAN 8', INSTALL LONGITUDINAL SAW JOINT AT SIDEWALK CENTERLINE. THEN, TRANSVERSE SAW JOINT SPACING SHALL BE EQUAL TO 1/2 SIDEWALK WIDTH.
5. STANDARD SIDEWALK PLACEMENT IS 12" FROM RIGHT-OF-WAY LINE.
6. ALL CONSTRUCTION JOINTS SHALL BE DOWELED.
7. SIDEWALKS, RAMPS, AND CURB RAMPS SHALL FULLY COMPLY WITH ADA GUIDELINES.
8. SIDEWALK CROSS SLOPE SHALL BE 2% MAX, AND SHALL NOT BE LESS THAN 1%. SLOPE MAY BE TOWARDS OR AWAY FROM THE STREET AS NECESSARY TO PROVIDE POSITIVE DRAINAGE.
9. SIDEWALK LONGITUDINAL SLOPE EXCEEDING 5% SHALL BE CONSIDERED A RAMP, AND AS SUCH, SHALL HAVE A MAXIMUM SLOPE OF 8.3%, A MAXIMUM RISE OF 30 INCHES, AND ADA-COMPLIANT HANDRAILS.
10. 5'X5' MIN. LANDINGS ARE REQUIRED AT THE TOP AND BOTTOM OF SIDEWALK RAMPS, AT THE TOP OF SIDEWALK CURB RAMPS, AND AT LEAST EVERY 200 LINEAR FEET OF SIDEWALK. LANDING SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION.
11. SEE DETAILS SECTION 3.200 FOR INFORMATION ON CURB RAMPS.

Approved / Date Revisions 1-27-2015	City of Sedalia Public Works Department	SIDEWALK AT BACK OF CURB	3.102



NOTE:

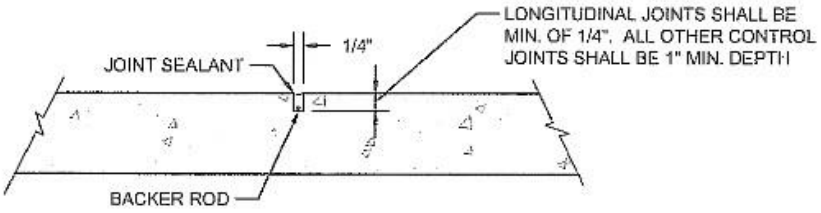
1. SIDEWALK SHALL BE 4" MIN. CONCRETE WITH 4" MIN. AGGREGATE BASE.
2. TYPICALLY, INSTALL 1/2" EXPANSION JOINTS AT INTERSECTIONS, RAMPS, AND STRUCTURES. INSTALL 3/4" EXPANSION JOINTS AT DRIVEWAY APPROACHES.
3. INSTALL TRANSVERSE SAW JOINTS AT SPACING EQUAL TO SIDEWALK WIDTH.
4. FOR SIDEWALKS WIDER THAN 8', INSTALL LONGITUDINAL SAW JOINT AT SIDEWALK CENTERLINE. THEN, TRANSVERSE SAW JOINT SPACING SHALL BE EQUAL TO 1/2 SIDEWALK WIDTH.
5. SIDEWALKS, RAMPS, AND CURB RAMPS SHALL FULLY COMPLY WITH ADA GUIDELINES.
6. SIDEWALK CROSS SLOPE SHALL BE 1/4" PER FOOT (2%) MAX, AND SHALL NOT BE LESS THAN 1/8" PER FOOT (1%).
7. SIDEWALK LONGITUDINAL SLOPE EXCEEDING 3/5" PER FOOT (5%) SHALL BE CONSIDERED A RAMP, AND AS SUCH, SHALL HAVE A MAXIMUM SLOPE OF 1" PER FOOT (8.3%), A MAXIMUM RISE OF 30 INCHES, AND ADA–COMPLIANT HANDRAILS. RAMPS WITH A RISE OF 6 INCHES OR LESS DO NOT REQUIRE HANDRAILS.
8. 5'X5' MIN. LANDINGS ARE REQUIRED AT THE TOP AND BOTTOM OF SIDEWALK RAMPS, AT THE TOP OF SIDEWALK CURB RAMPS, AND AT LEAST EVERY 200 LINEAR FEET OF SIDEWALK. LANDING SLOPES SHALL NOT EXCEED 1/4" PER FOOT (2%) IN ANY DIRECTION.
9. SEE DETAILS SECTION 3.200 FOR INFORMATION ON CURB RAMPS.

Approved / / Date

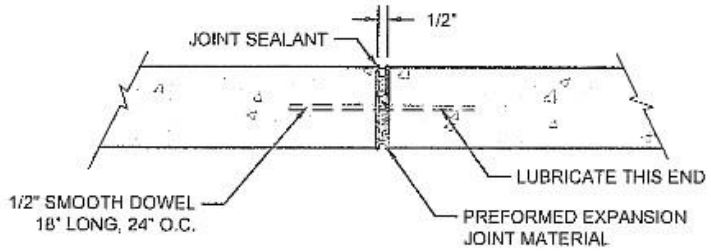
Revisions

DOWNTOWN SIDEWALK

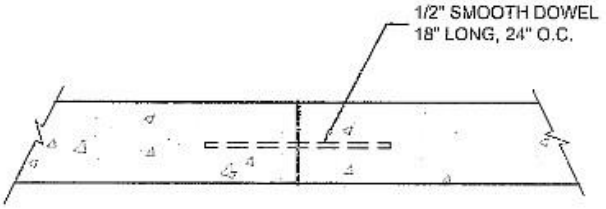
3.103



CONTROL JOINT



EXPANSION JOINT

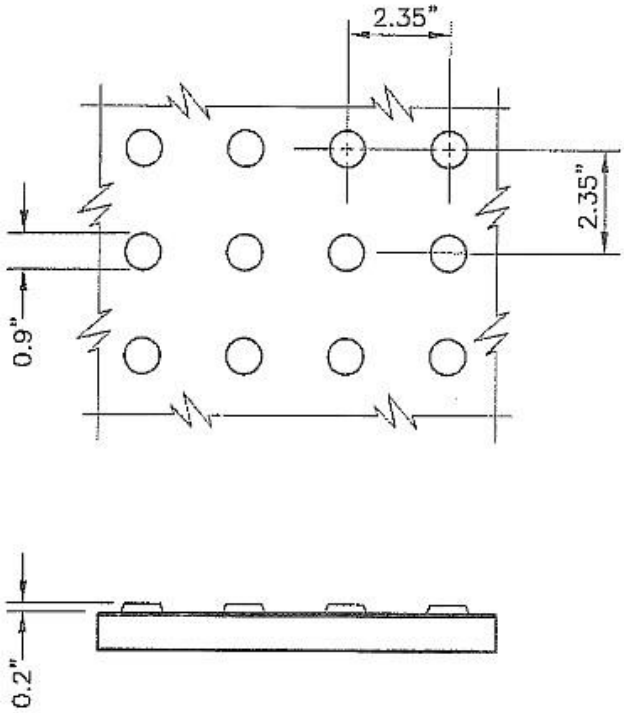


TRANSVERSE CONSTRUCTION JOINT

NOTES:

SEE SPECIFICATIONS S-20.

Approved / Date Revisions 1-27-2015	City of Sedalia Public Works Department	SIDEWALK JOINT DETAILS	3.105



NOTES: THE DETECTABLE WARNING SHALL BE AS WIDE AS THE ADJOINING SIDEWALK("W") AND A MINIMUM OF 2' LONG (PARALLEL WITH ROUTE OF SIDEWALK TRAVEL) DETECTABLE WARNING SHALL BE PAVERS OR A MANUFACTURED PANEL AND MADE OF PLASTIC, FIBERGLASS OR OTHER RESILIENT MATERIAL. PANEL WILL BE RAISED TRUNCATED DOMES WITH A DIAMETER OF 0.9", A HEIGHT OF NOMINAL 0.2", AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35". COLOR SHALL BE DETERMINED BY OWNER.

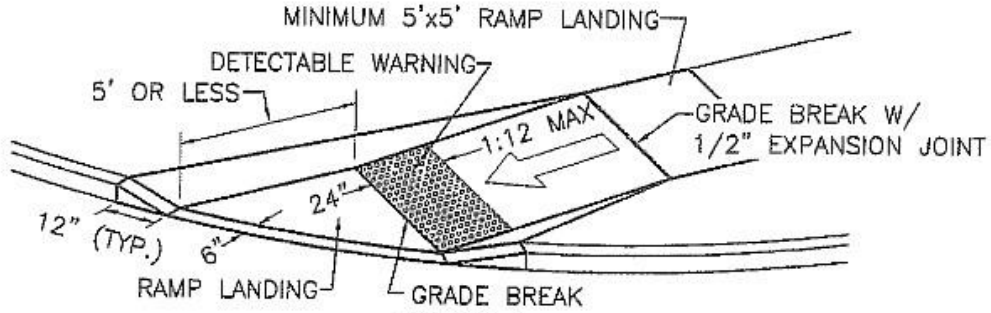
DETECTABLE WARNINGS SHALL BE PLACED PER A.D.A. GUIDELINES. SEE DETAIL 3.202.

Approved / / Date

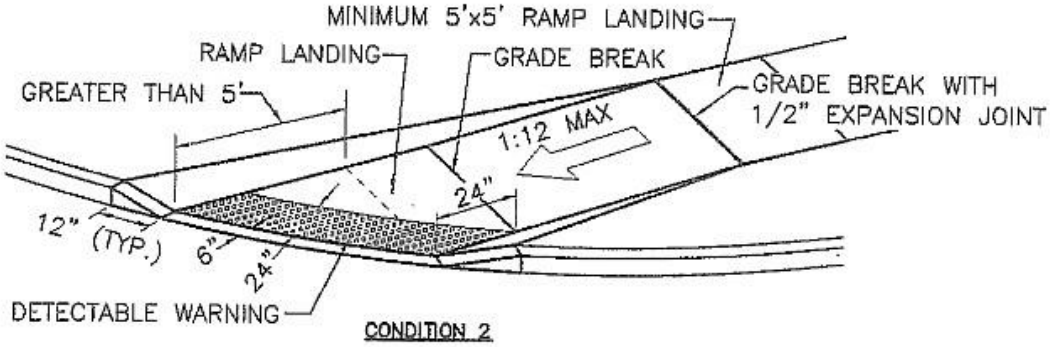
Revisions

DETECTABLE WARNING

3.201



CONDITION 1



CONDITION 2

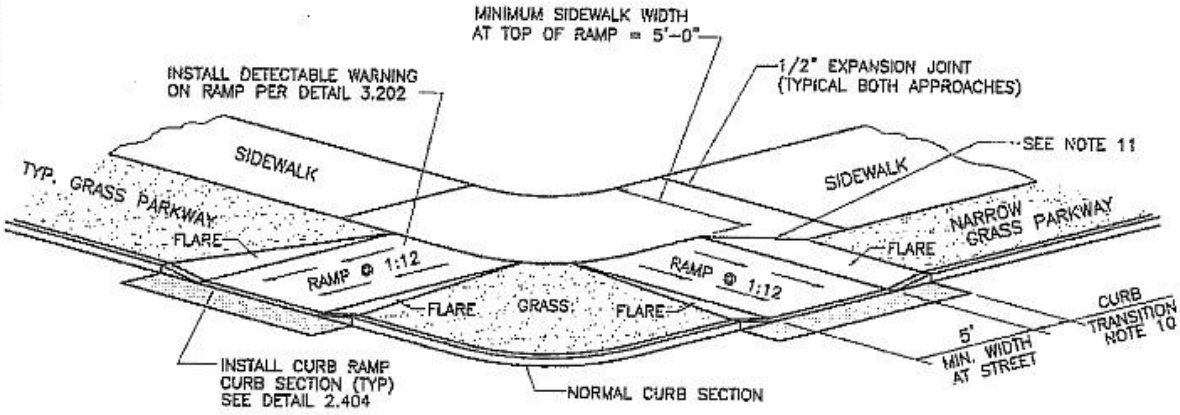
NOTE: SEE DETAIL 3.201 FOR DETECTABLE WARNING DETAIL.

Approved / / Date

Revisions

DETECTABLE WARNING PLACEMENT

3.202



NOTES:

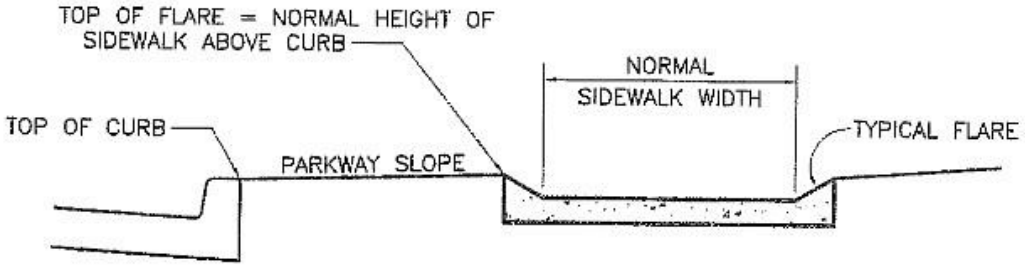
1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT, 1/8" PER FT MINIMUM.
4. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
5. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
6. ADA RAMPS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12. USE FLATTER WHEN POSSIBLE.
7. LANDING AREA AT TOP OF RAMP SHALL BE 5'-0" MIN WIDTH. SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT. INCREASE SIDEWALK RADIUS TO OBTAIN MINIMUM 5'-0" LANDING.
8. TYPE "A" RAMP NOT APPLICABLE IF SIDEWALK AND PARKWAY WIDTH DOES NOT PROVIDE 5'-0" LANDING AT TOP OF RAMP.
9. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION.
10. CURB TRANSITION LENGTH IS DEPENDENT ON FLARE SLOPE.
11. IF RAMP EXTENDS INTO NORMAL SIDEWALK, FLARE SLOPE MUST NOT EXCEED 1:10. A LANDING IS REQUIRED, SEE NOTE 7.

Approved / Date

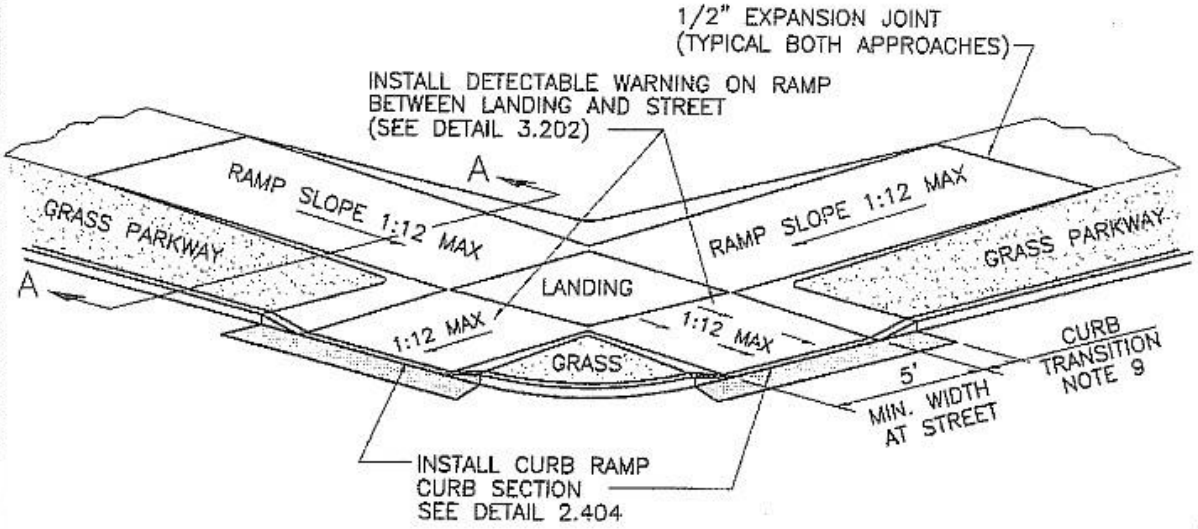
Revisions

TYPE A CURB RAMP WITH GRASS PARKWAY

3.203



SECTION A–A



NOTES:

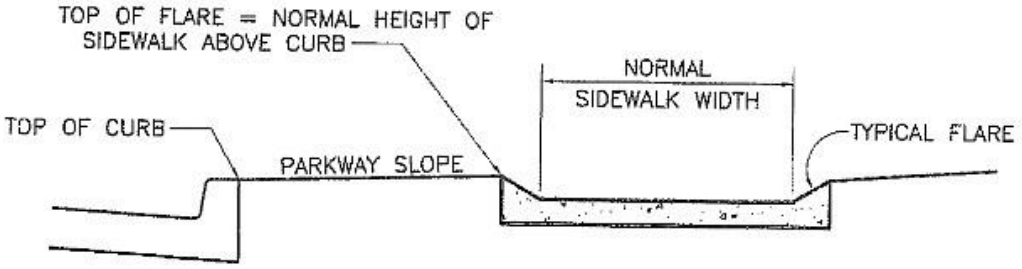
1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT, 1/8" PER FT MINIMUM.
4. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
5. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
6. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
7. LANDING AREA SHALL BE 5'–0" MIN WIDTH, SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
8. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION (SEE SECTION A–A).
9. CURB TRANSITION LENGTH IS DEPENDENT ON FLARE SLOPE.

Approved / / Date

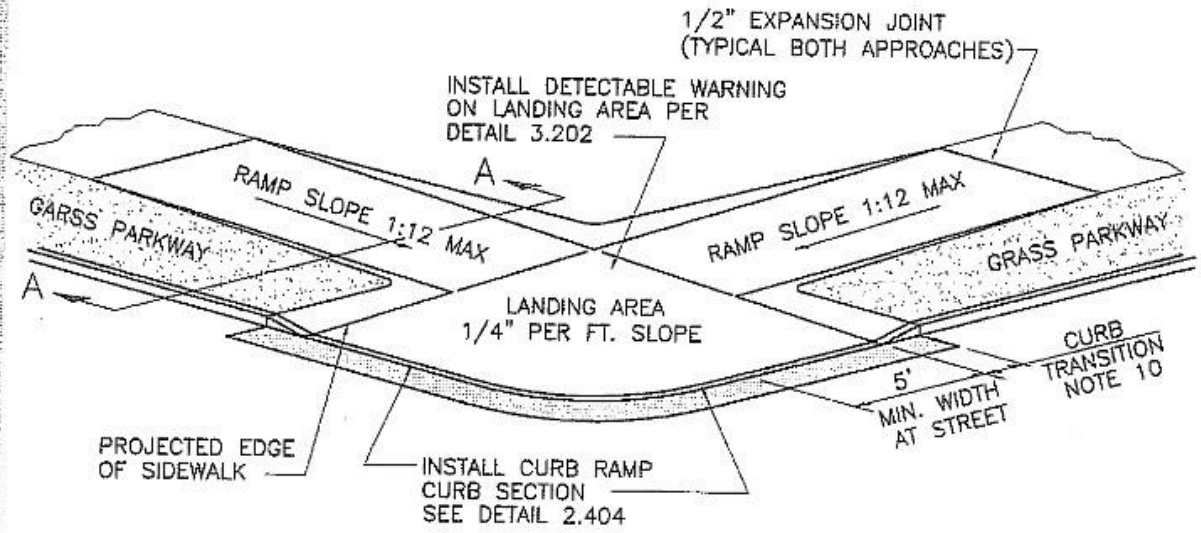
Revisions

TYPE B CURB RAMP WITH GRASS PARKWAY

3.204



SECTION A–A



NOTE:

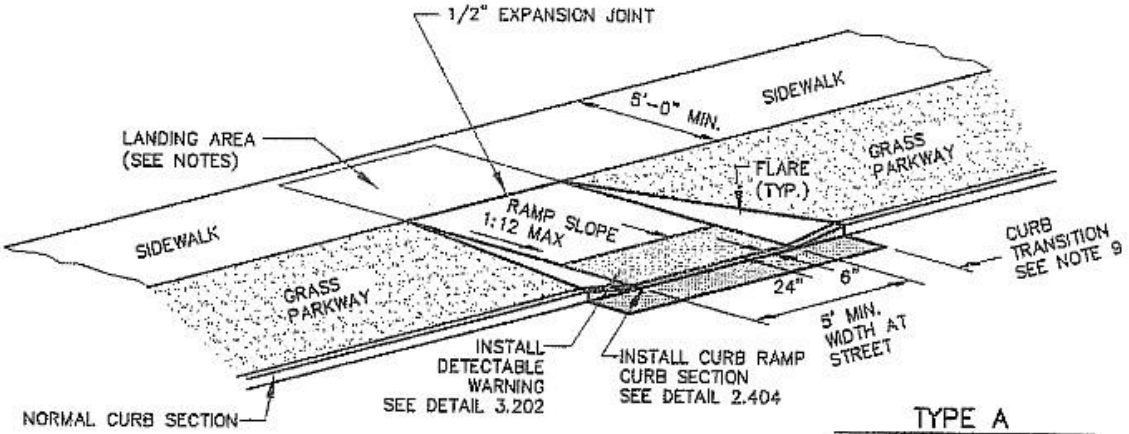
1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT, 1/8" PER FT MINIMUM.
4. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
5. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
6. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
7. LANDING AREA SHALL BE 5'–0" MIN WIDTH. SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
8. USE TYPE "C" RAMP ONLY IF TYPE "A" & "B" ARE NOT FEASIBLE.
9. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION (SEE SECTION A–A).
10. CURB TRANSITION LENGTH IS DEPENDENT ON FLARE SLOPE.

Approved / / Date

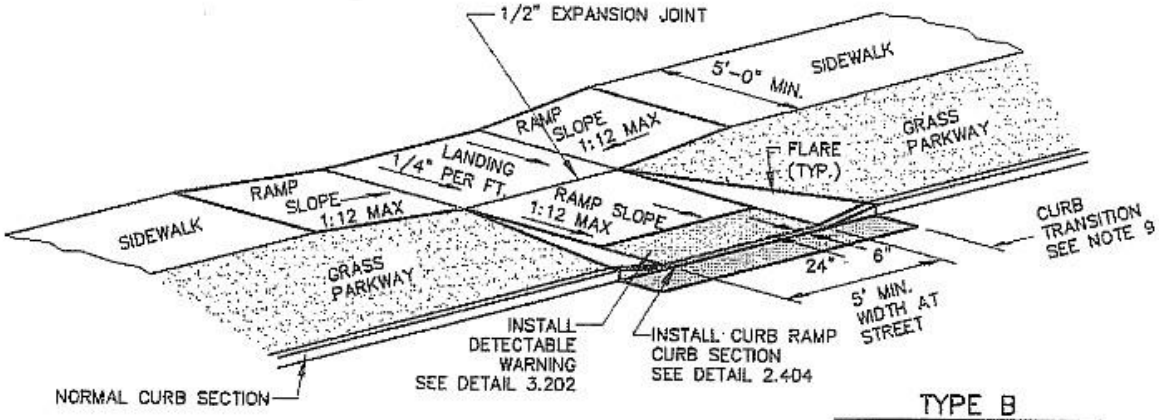
Revisions

TYPE C CURB RAMP WITH GRASS PARKWAY

3.205



TYPE A
PERPENDICULAR RAMP



TYPE B
PARALLEL RAMPS WITH
PERPENDICULAR RAMP

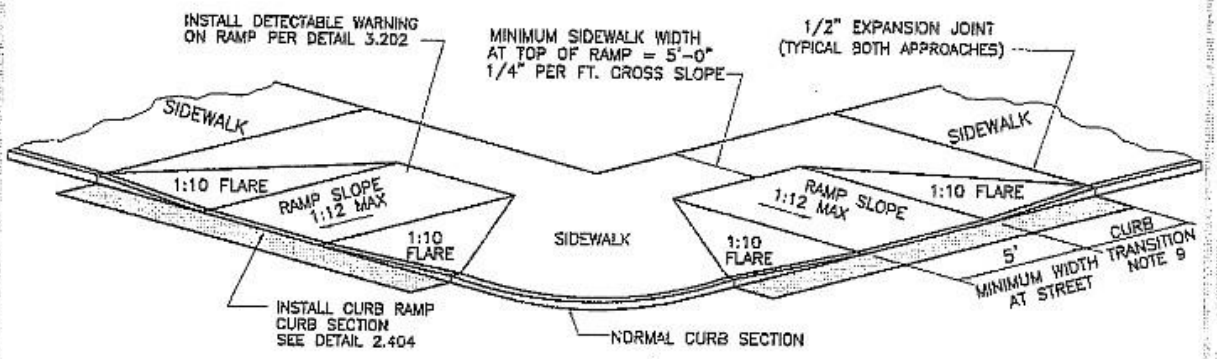
NOTES:

1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
4. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.405.
5. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
6. LANDING AREA SHALL BE 5'-0" MIN WIDTH. CROSS SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
7. TYPE "A" RAMP NOT APPLICABLE IF PARKWAY WIDTH DOES NOT PROVIDE ENOUGH LENGTH FOR PERPENDICULAR RAMP AT 1:12 SLOPE.
8. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION.
9. CURB TRANSITION LENGTH IS DEPENDENT ON FLARE SLOPE.
10. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT.
11. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

Approved	Date
Revisions	

MIDBLOCK CURB RAMP WITH GRASS PARKWAY

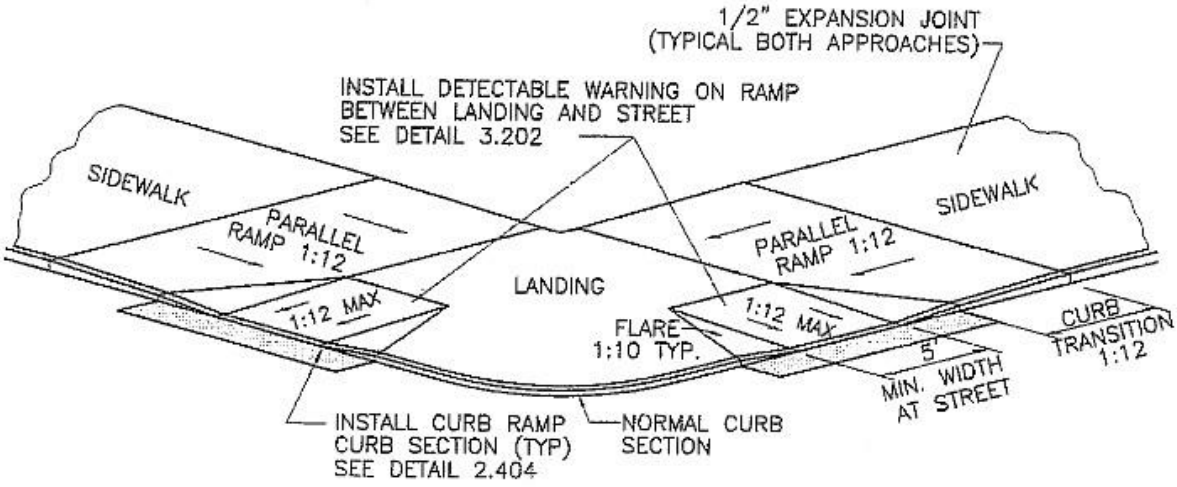
3.206



NOTES:

1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
4. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
5. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
6. LANDING AREA SHALL BE 5'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
7. TYPE "A" RAMP NOT APPLICABLE IF SIDEWALK WIDTH DOES NOT PROVIDE 5'-0" LANDING AT THE TOP OF RAMP.
8. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION.
9. CURB TRANSITION LENGTH IS DEPENDENT ON 1:10 MAX FLARE SLOPE.
10. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT.
11. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

Approved / Date		TYPE A CURB RAMP AT BACK OF CURB	3.207
Revisions			



NOTES:

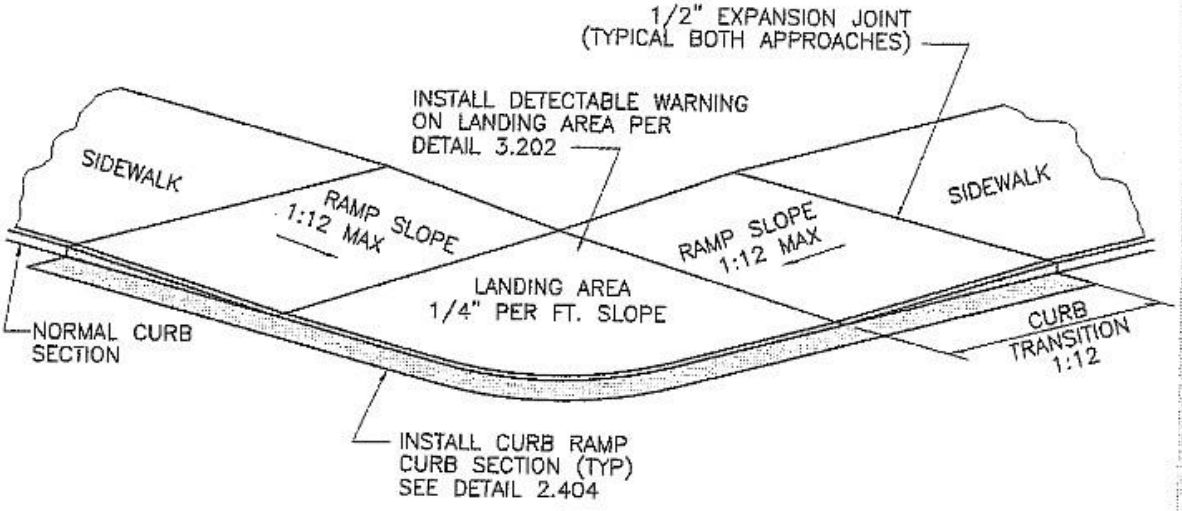
1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
4. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
5. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
6. LANDING AREA SHALL BE 5'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
7. TYPE "B" RAMP PROVIDES PARALLEL RAMPS TO REDUCE PERPENDICULAR RAMP LENGTH AND PROVIDE AN ADEQUATE LANDING.
8. FLARES OR VERTICAL CURBS ARE REQUIRED AT RAMPS TO KEEP GRASS PARKWAY SLOPES IN CONFORMANCE WITH THE TYPICAL CROSS SECTION.
9. CURB TRANSITION LENGTH IS DEPENDENT ON 1:10 MAX FLARE SLOPE.
10. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT.
11. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

Approved / Date

Revisions

TYPE B CURB RAMP AT BACK OF CURB

3.208



NOTES:

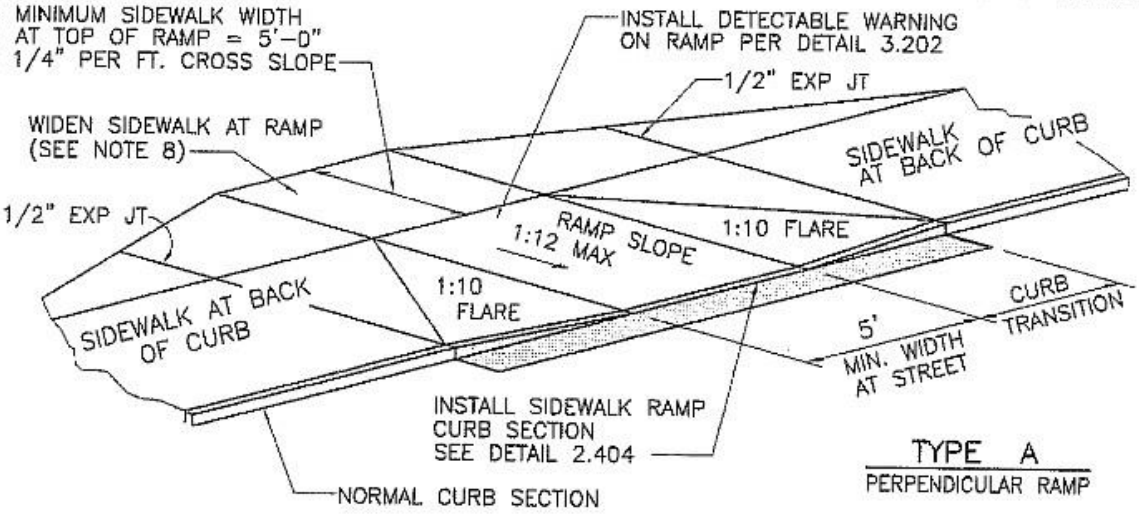
1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
4. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
5. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
6. LANDING AREA SHALL BE 5'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
7. USE "TYPE C" RAMP ONLY IF "TYPE A" AND "TYPE B" RAMPS ARE INFEASIBLE.
10. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT.
11. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

Approved / Date

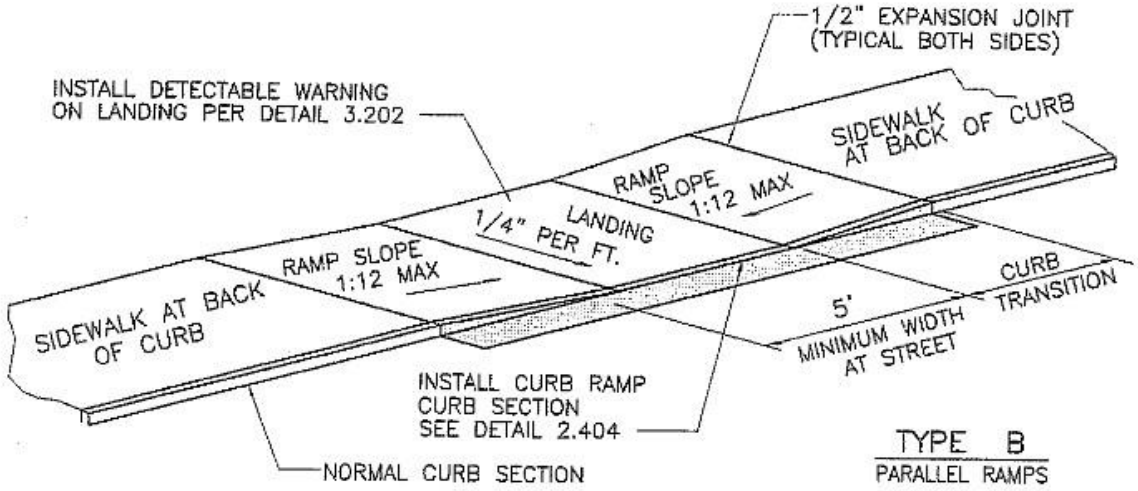
Revisions

TYPE C CURB RAMP AT BACK OF CURB

3.209



TYPE A
PERPENDICULAR RAMP



TYPE B
PARALLEL RAMPS

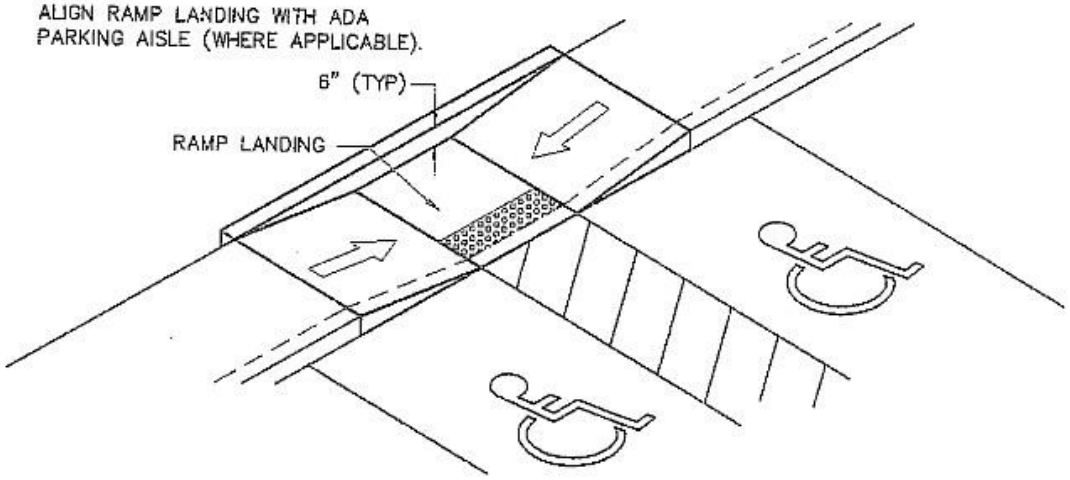
NOTES:

1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. ALL SLOPES ARE MEASURED FROM THE HORIZONTAL.
4. REPLACE STANDARD CURB SECTION WITH CURB RAMP CURB SECTION. SEE DETAIL 2.404.
5. MAXIMUM RAMP SLOPE IS 1:12. USE FLATTER WHEN POSSIBLE.
6. LANDING AREA SHALL BE 5'-0" MIN WIDTH, CROSS SLOPE OF LANDING SHALL NOT EXCEED 1/4" PER FT IN ANY DIRECTION.
7. TYPE "A" RAMP NOT APPLICABLE WHEN NORMAL SIDEWALK WIDTH DOES NOT PROVIDE 5'-0" LANDING AT THE TOP OF RAMP. WIDEN SIDEWALK OR USE TYPE "B" RAMP.
8. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FT.
9. 1:10 MAX FLARES ARE REQUIRED ON "TYPE A" RAMPS.
10. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

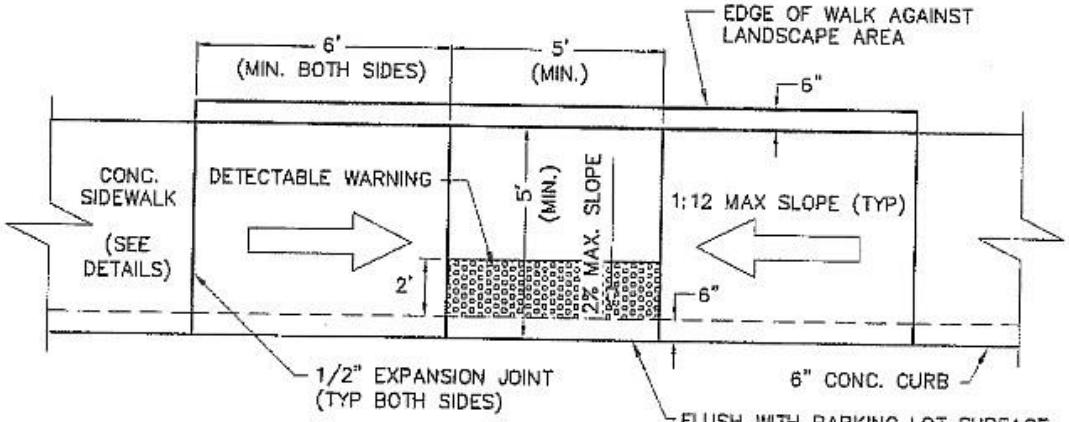
Approved / / Date
Revisions

MIDBLOCK CURB RAMP AT BACK OF CURB

3.210



ISOMETRIC



PLAN

NOTES:

1. RAMP SHALL BE 4" THICK CONCRETE.
2. EXPANSION JOINT SHALL BE 1/2" PREFORMED CORK OR BITUMINOUS EXPANSION JOINT MATERIAL.
3. MAXIMUM RAMP CROSS SLOPE IS 1/4" PER FOOT.
4. MAXIMUM RAMP LONGITUDINAL SLOPE IS 1:12. USE A FLATTER RAMP SLOPE WHEN POSSIBLE.
5. RAMP LANDING SLOPE SHALL NOT EXCEED 1/4" PER FOOT IN ALL DIRECTIONS.
6. SEE DETAILS 3.201 AND 3.202 FOR MORE INFORMATION ON DETECTABLE WARNINGS.

Approved / / Date

Revisions

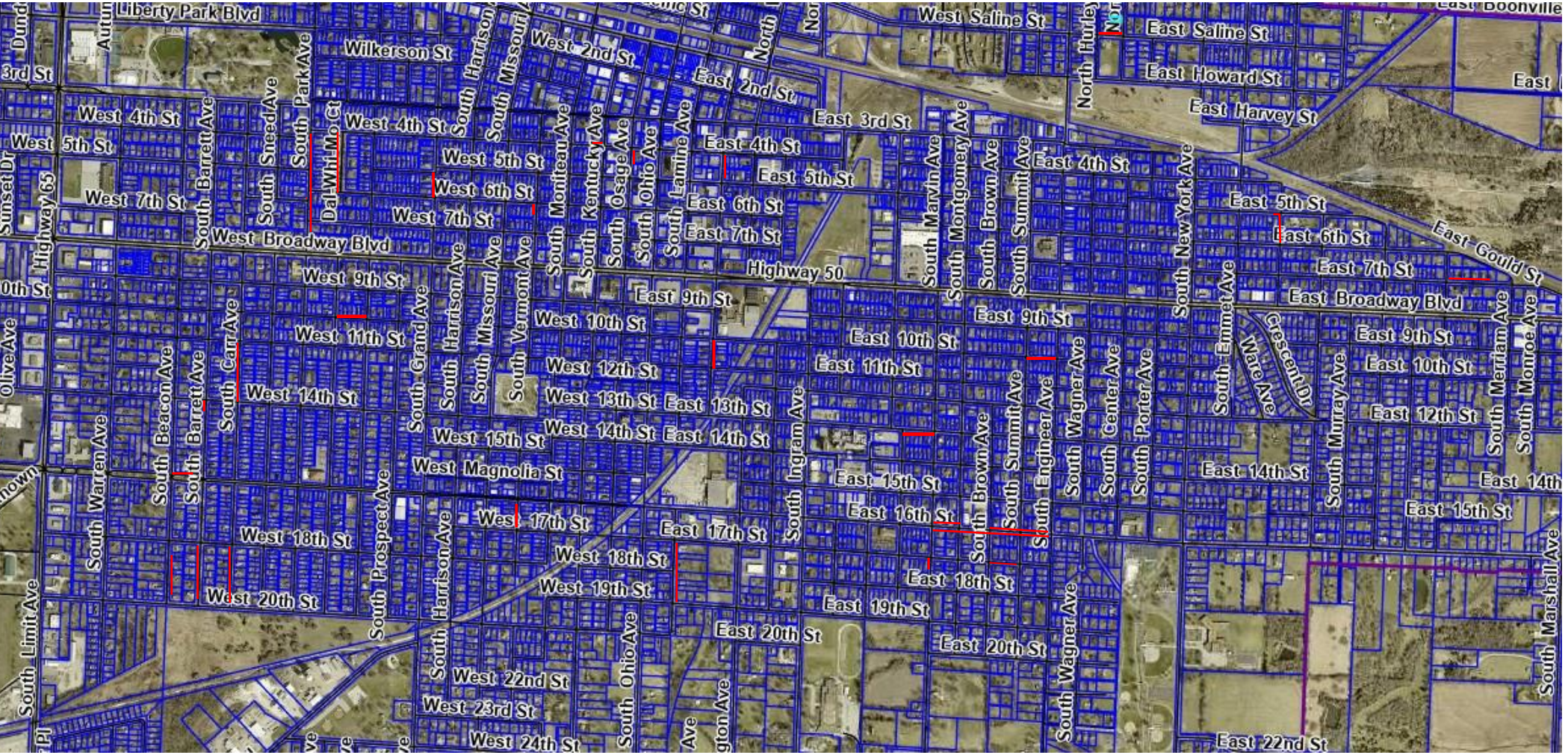
PARALLEL CURB RAMP

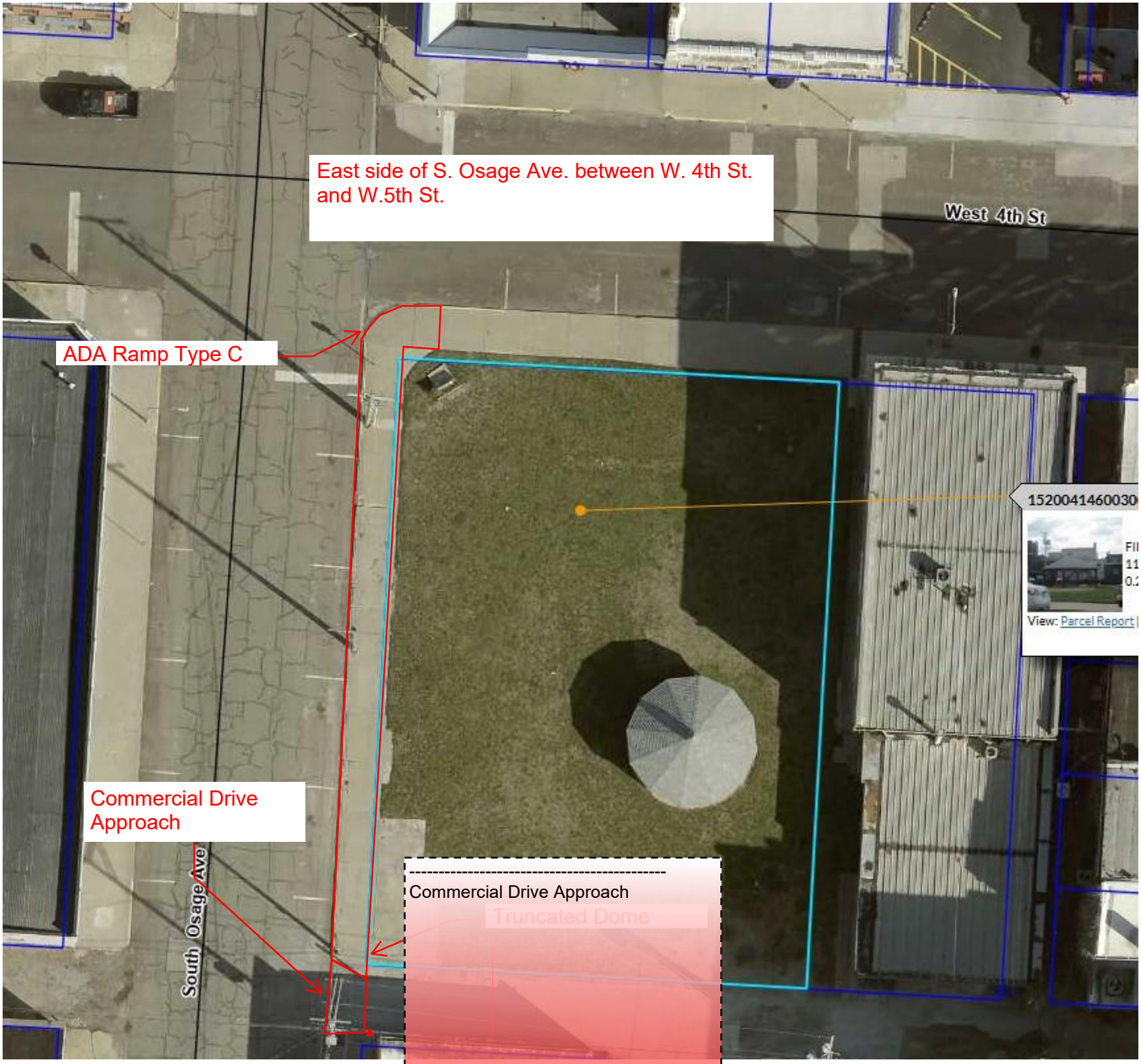
3.211

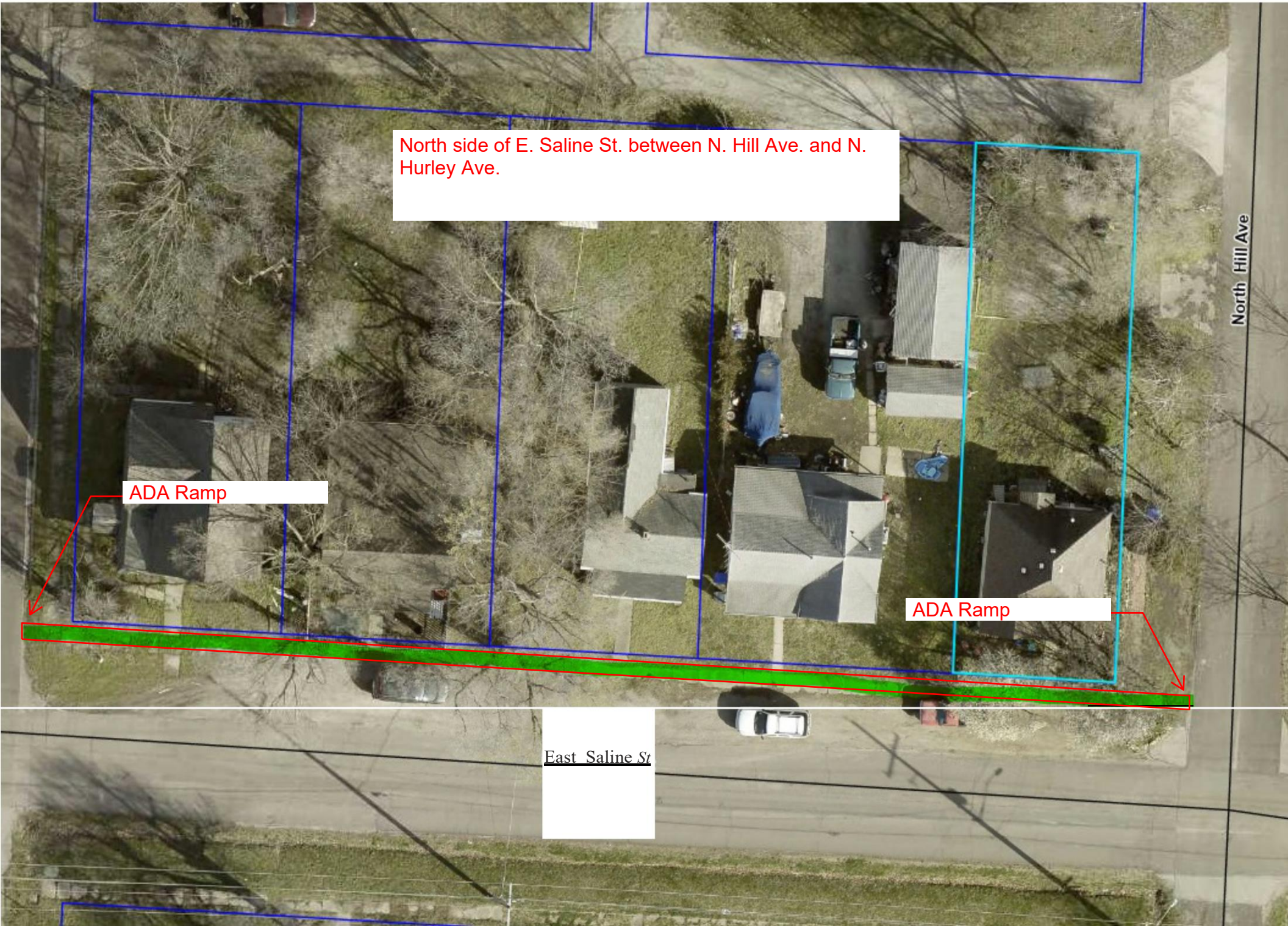
EXHIBIT 2

OVERVIEW AND SIDEWALK REPLACEMENT AREAS

OVERVIEW

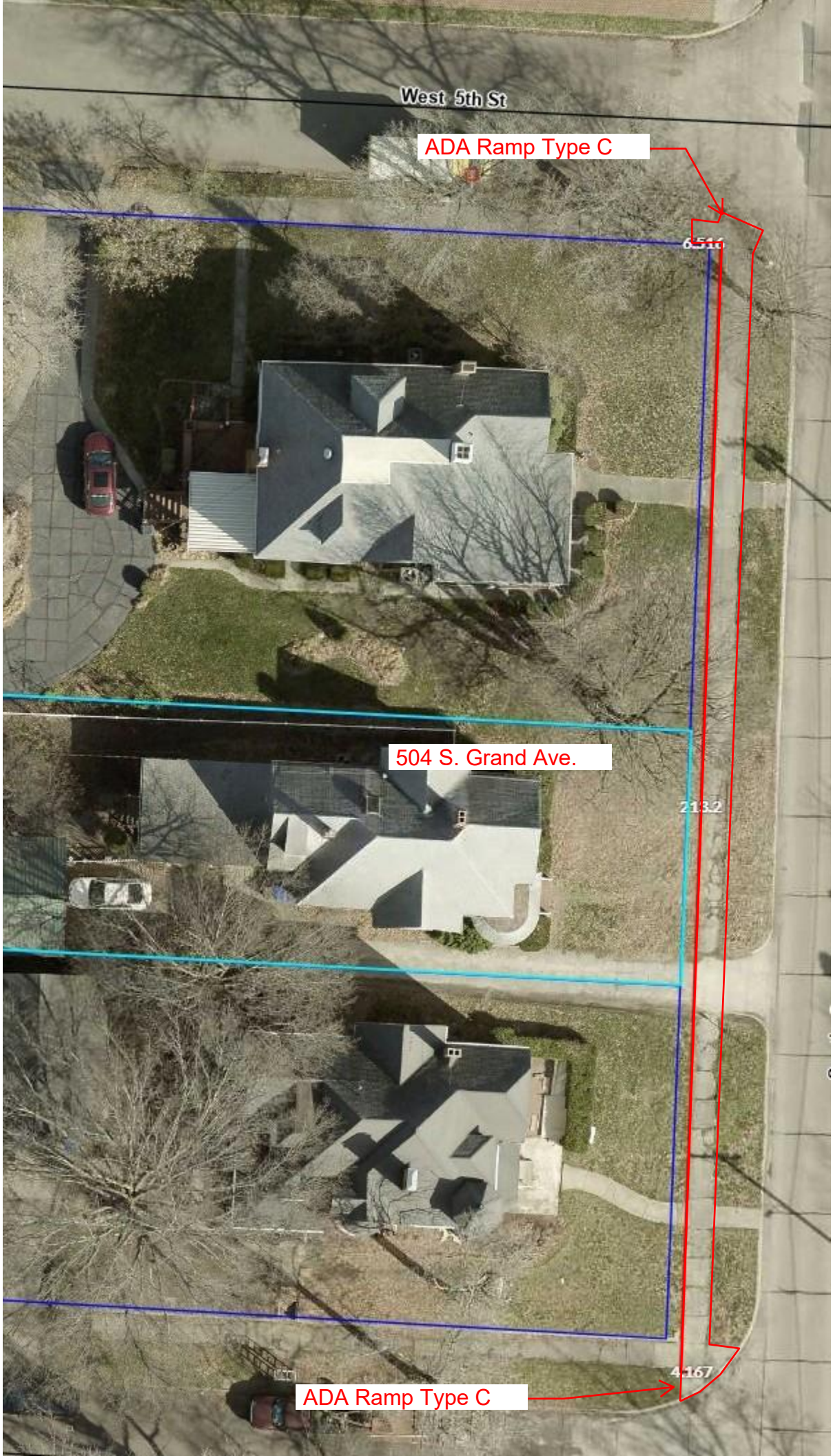

Liberty Park Blvd
Wilkerson St
West 2nd St
East 2nd St
West Saline St
East Saline St
East Howard St
East Harvey St
West 4th St
West 5th St
West 6th St
West 7th St
East 3rd St
East 4th St
East 5th St
East 6th St
East 7th St
West Broadway Blvd
Highway 50
East Broadway Blvd
East Gould St
West 9th St
East 9th St
West 10th St
East 10th St
West 11th St
East 11th St
West 12th St
West 13th St
East 13th St
West 14th St
East 14th St
West 15th St
West Magnolia St
East 15th St
West 17th St
East 16th St
East 17th St
West 18th St
East 18th St
West 19th St
East 19th St
West 20th St
East 20th St
West 22nd St
West 23rd St
West 24th St
East 22nd St
South Park Ave
South Sneed Ave
South Barrett Ave
South Missouri Ave
South Harrison Ave
South Vermont Ave
South Moniteau Ave
South Kentucky Ave
South Osage Ave
South Ohio Ave
South Lamine Ave
South Marvin Ave
South Montgomery Ave
South Brown Ave
South Summit Ave
South New York Ave
South Emmet Ave
Crescent Dr
Ware Ave
South Grand Ave
South Carr Ave
South Beacon Ave
South Warren Ave
South Prospect Ave
South Ingram Ave
South Engineer Ave
South Wagner Ave
South Center Ave
South Porter Ave
South Murray Ave
South Meriam Ave
South Monroe Ave
South Marshall Ave
South Limit Ave
Highway 65


East side of S. Osage Ave. between W. 4th St. and W.5th St.
West 4th St
ADA Ramp Type C
Commercial Drive Approach
South Osage Ave
Commercial Drive Approach
Truncated Dome
View: Parcel Report

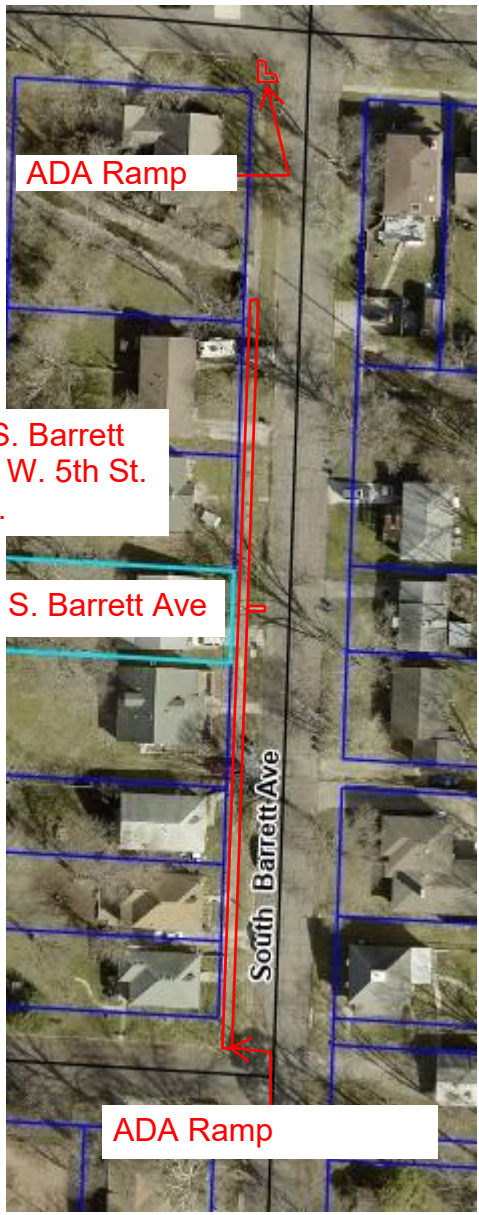

North side of E. Saline St. between N. Hill Ave. and N. Hurley Ave.
ADA Ramp
ADA Ramp
North Hill Ave
East Saline St


320 S. Kentucky Ave.
South Kentucky Ave
ADA Ramp
ADA Ramp
West 4th St

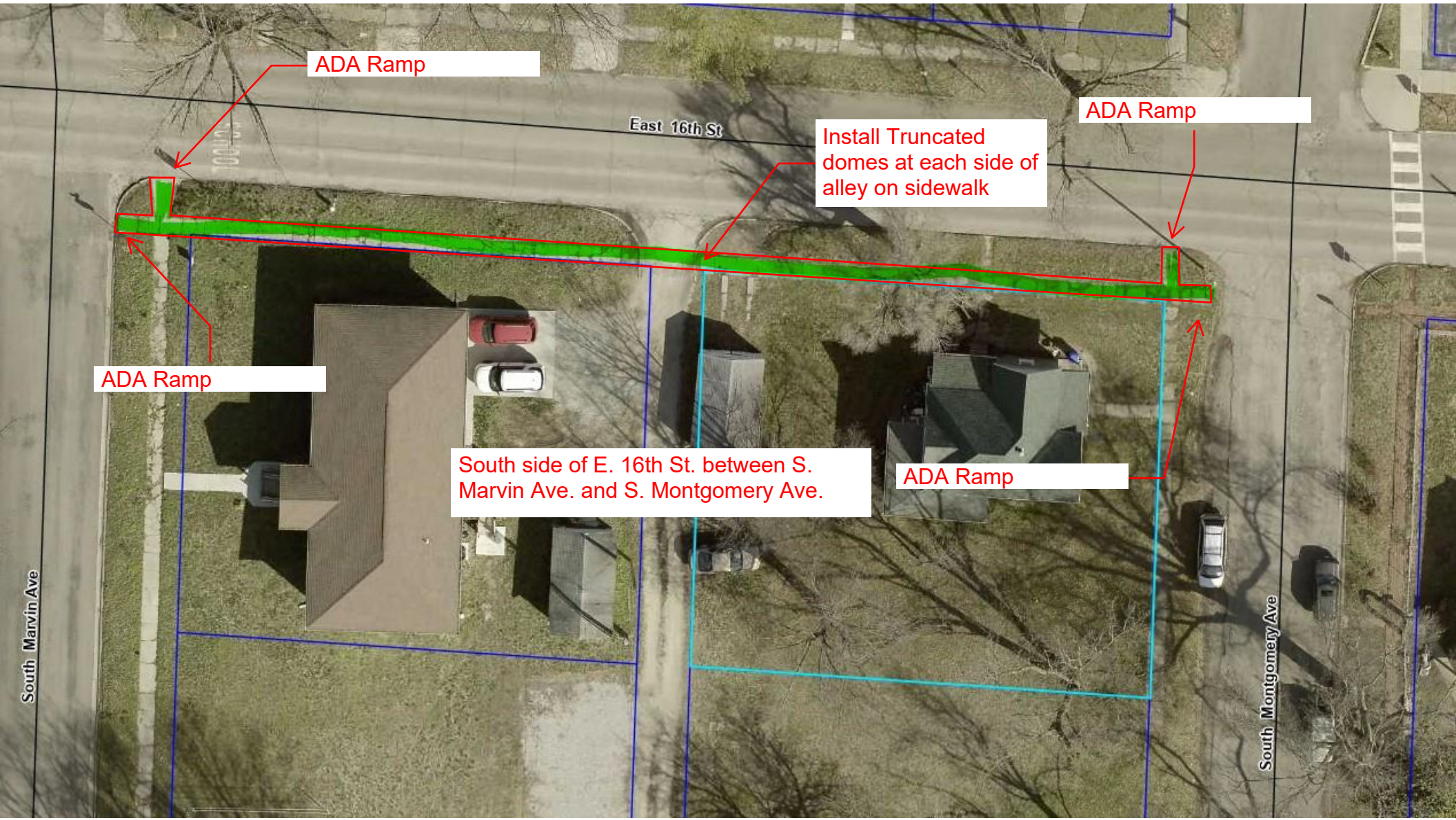

West 6th St
ADA Ramp
ADA Ramp
501 W. 6th St.
South Vermont Ave

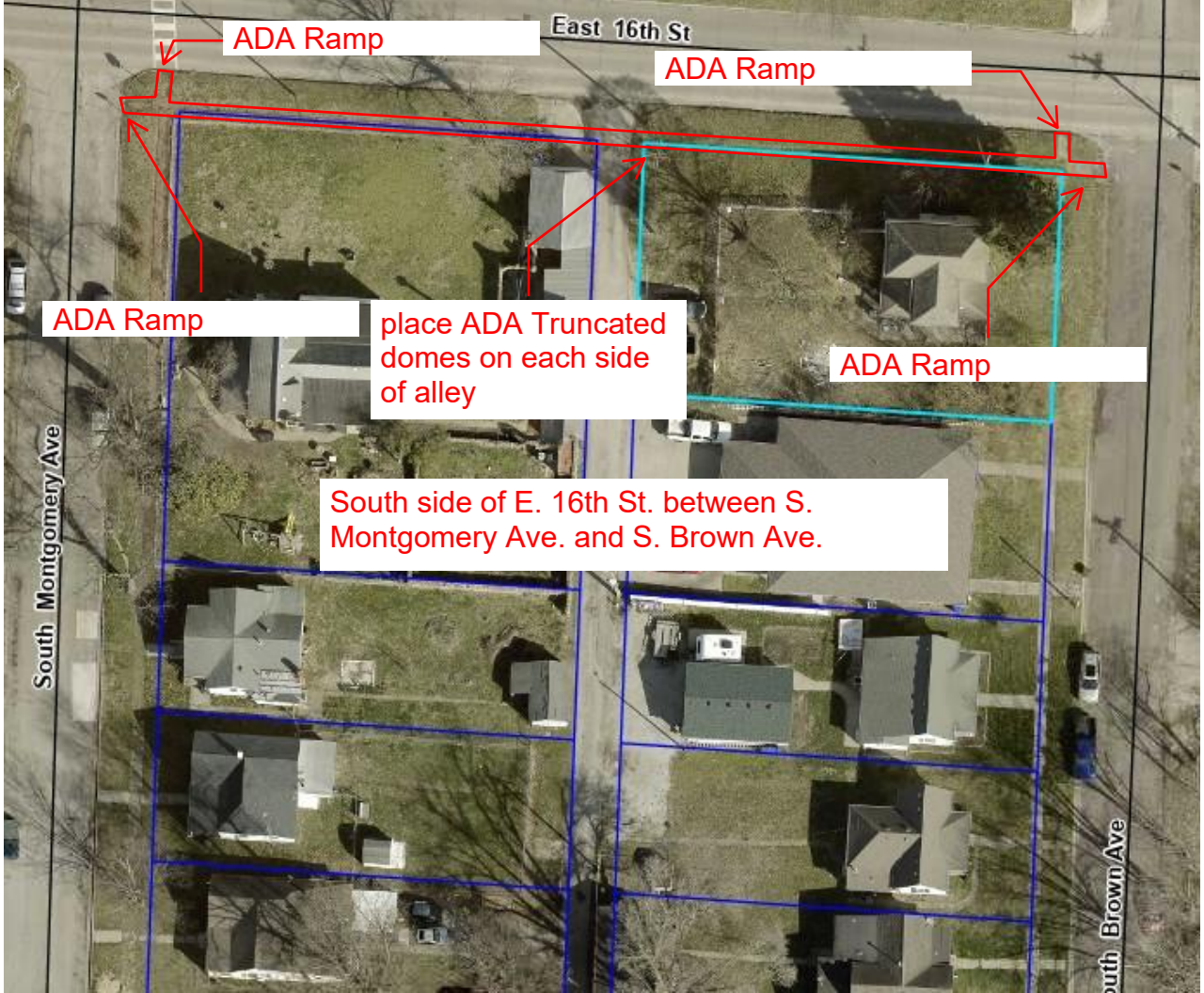

West 5th St
ADA Ramp Type C
504 S. Grand Ave.
213.2
4.167
ADA Ramp Type C


South Sneed Ave
North side of W. 6th between S. Sneed Ave. and S. Park Ave.
West 6th St
ADA Ramp
ADA Ramp
South Park Ave

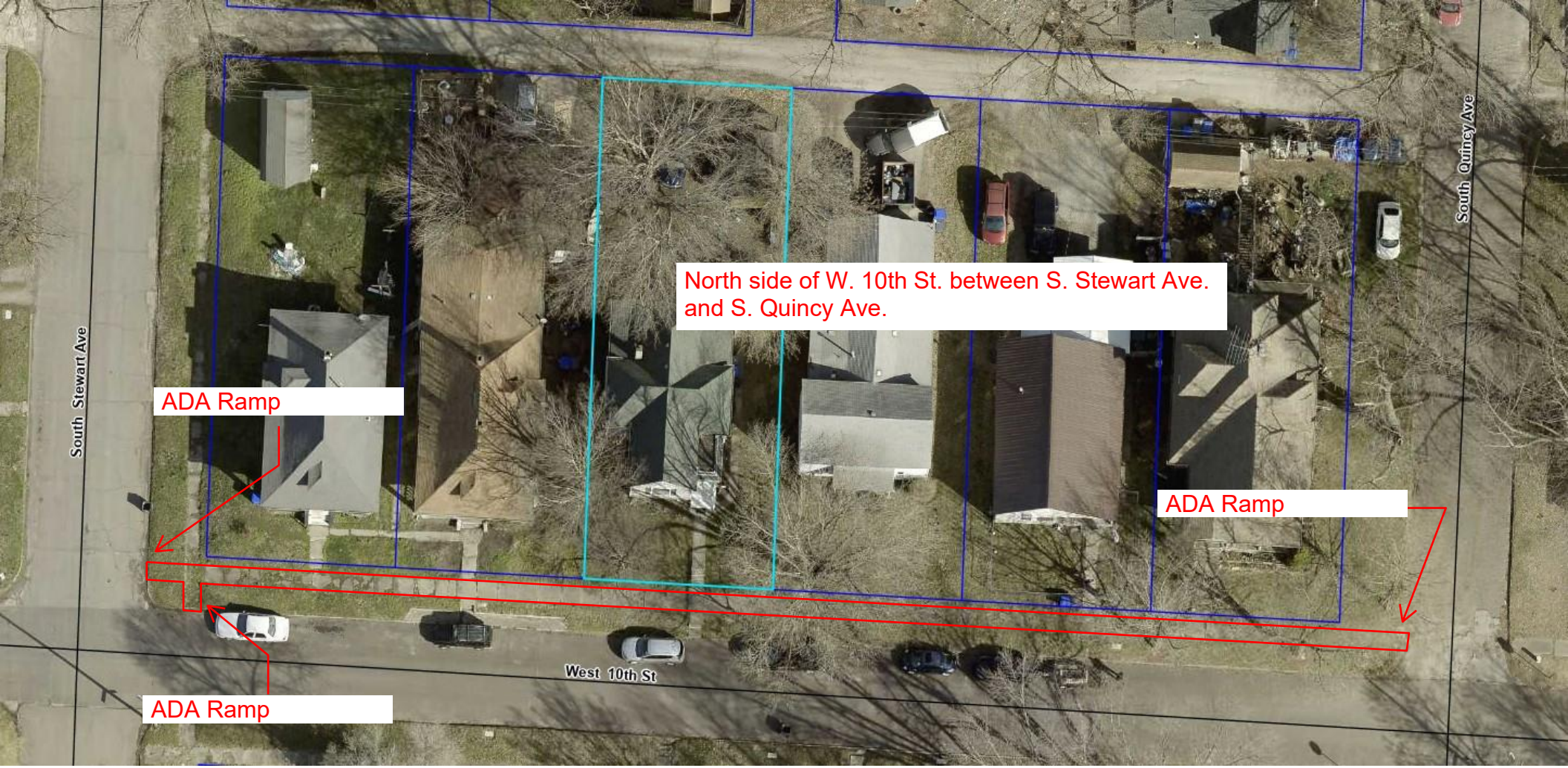

ADA Ramp
West side of S. Barrett Ave. between W. 5th St. and W. 7th St.
600 S. Barrett Ave
South Barrett Ave
ADA Ramp

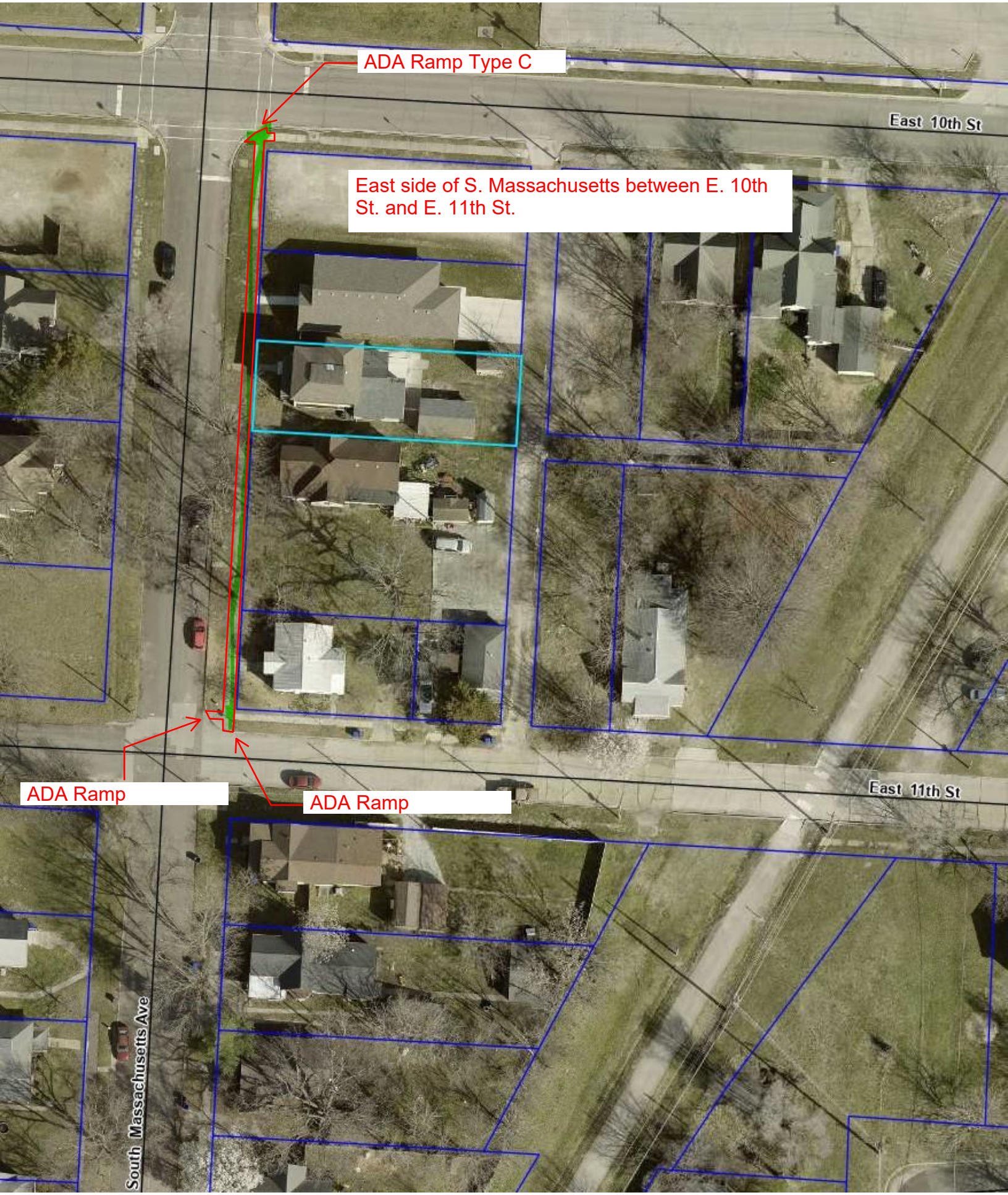

North side of E. 16th St. between S. Marvin Ave. and S. Montgomery Ave.
ADA Ramp
ADA Ramp Type C
ADA Ramp
South Marvin Ave
South Montgomery Ave
East 16th St


ADA Ramp
East 16th St
Install Truncated domes at each side of alley on sidewalk
ADA Ramp
ADA Ramp
South side of E. 16th St. between S. Marvin Ave. and S. Montgomery Ave.
ADA Ramp
South Marvin Ave
South Montgomery Ave


ADA Ramp
East 16th St
ADA Ramp
ADA Ramp
place ADA Truncated domes on each side of alley
ADA Ramp
South side of E. 16th St. between S. Montgomery Ave. and S. Brown Ave.
South Montgomery Ave
South Brown Ave


South Brown Ave
South Summit Ave
East 14th St
ADA Ramp
North side of E. 14th St. between S. Brown Ave. and S. Summit Ave.
ADA Ramp
ADA Ramp
ADA Ramp


North side of W. 10th St. between S. Stewart Ave. and S. Quincy Ave.
ADA Ramp
ADA Ramp
ADA Ramp
South Stewart Ave
South Quincy Ave
West 10th St

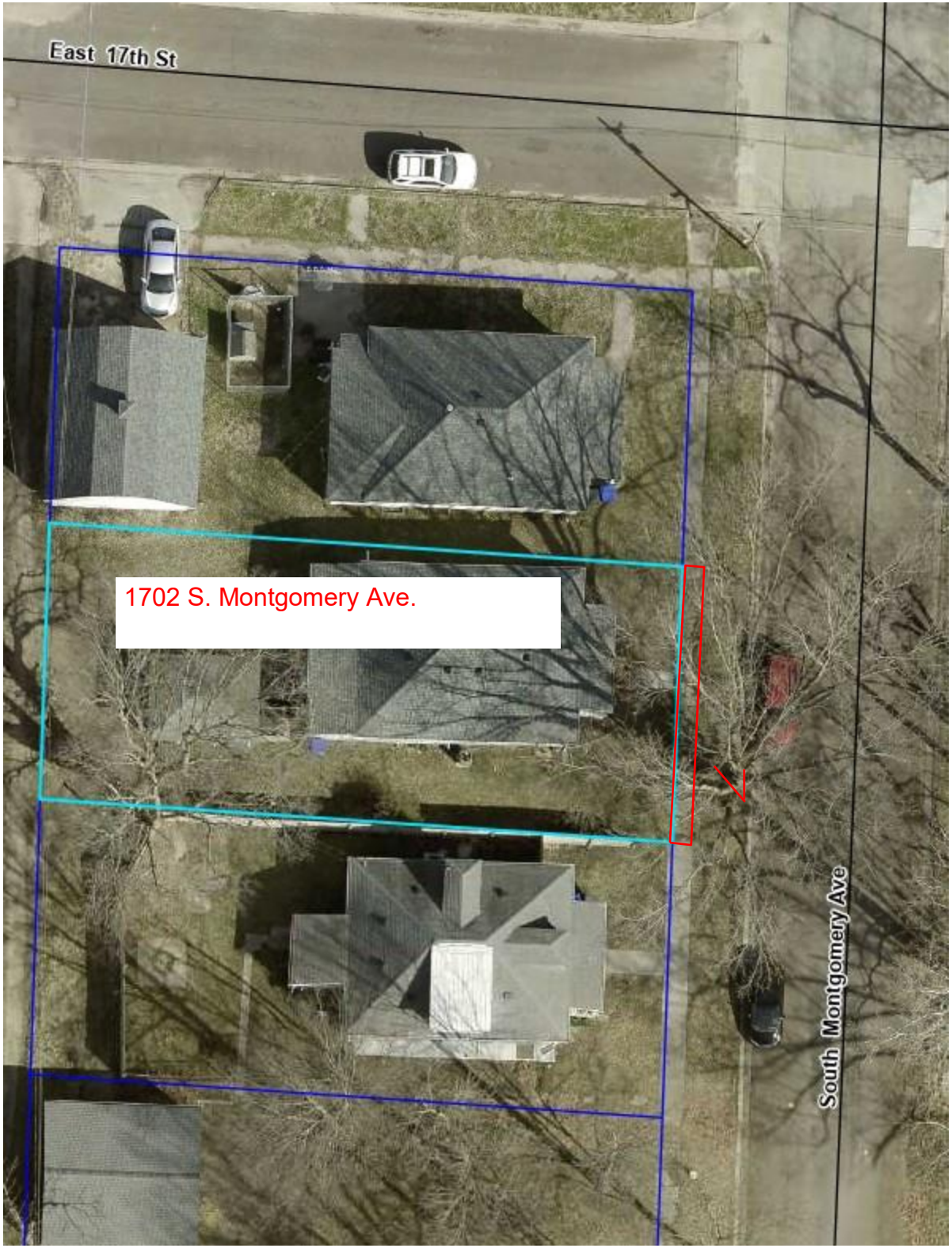

ADA Ramp Type C
East 10th St
East side of S. Massachusetts between E. 10th St. and E. 11th St.
ADA Ramp
ADA Ramp
East 11th St
South Massachusetts Ave

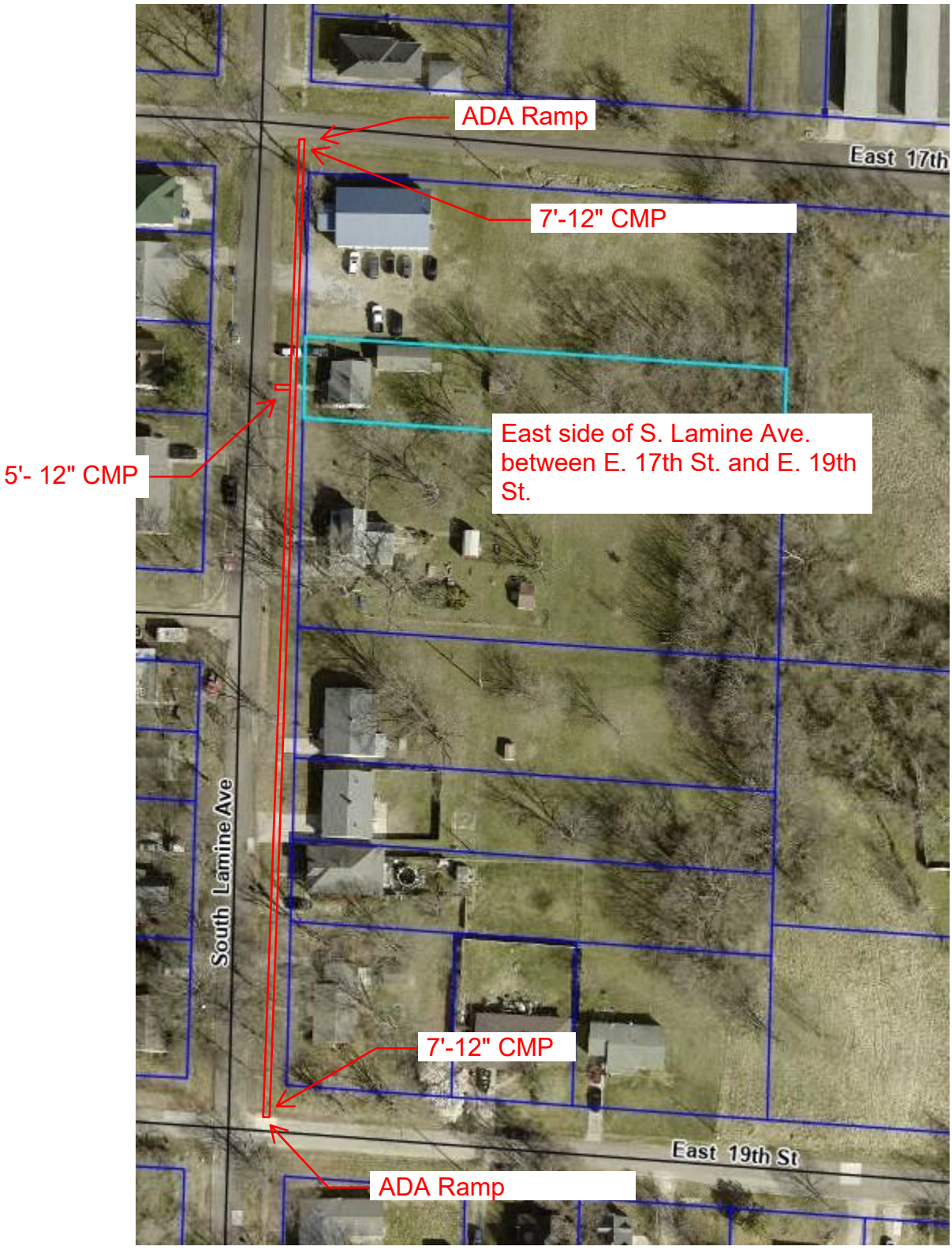

East 10th St
South Summit Ave
South Engineer Ave
South of E. 10th St. between S. Summit Ave. and S. Engineer Ave.


ADA RAMP
West 12th St
355'x4" with passing lanes per ADA
South Moniteau Ave
East side of S. Moniteau Ave. between W. 12th St. and W. 13th St.
West 14th St


West 14th St
ADA Ramp
1400 S. Barrett Ave.
South Barrett Ave


1516 w. 16th St.
North side of W. 16th St. between S. Beacon Ave. and S. Barrett Ave.
South Beacon Ave
West 16th St
ADA Ramp


East 17th St
1702 S. Montgomery Ave.
South Montgomery Ave

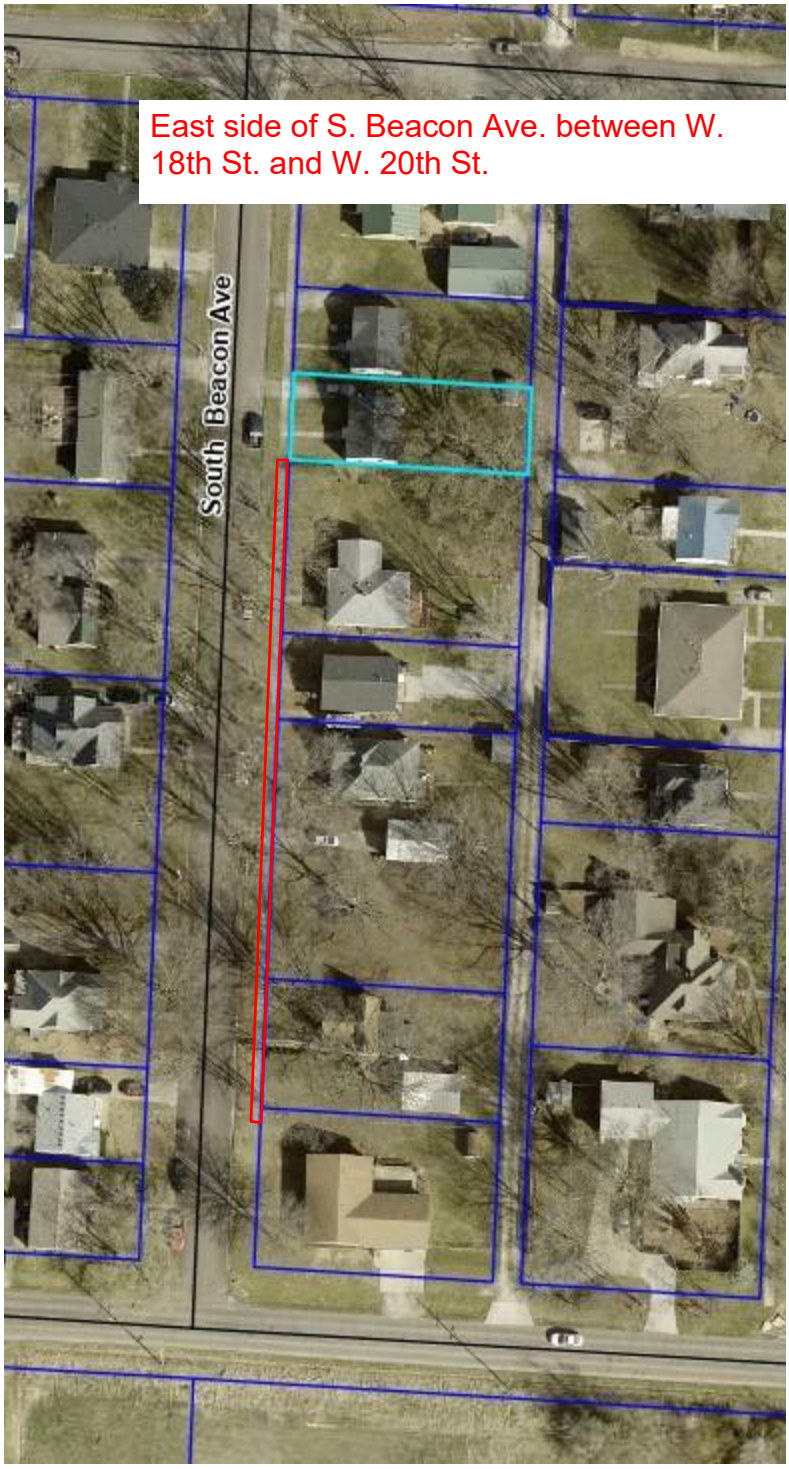

ADA Ramp
East 17th
7'-12" CMP
East side of S. Lamine Ave. between E. 17th St. and E. 19th St.
5'- 12" CMP
South Lamine Ave
7'-12" CMP
East 19th St
ADA Ramp

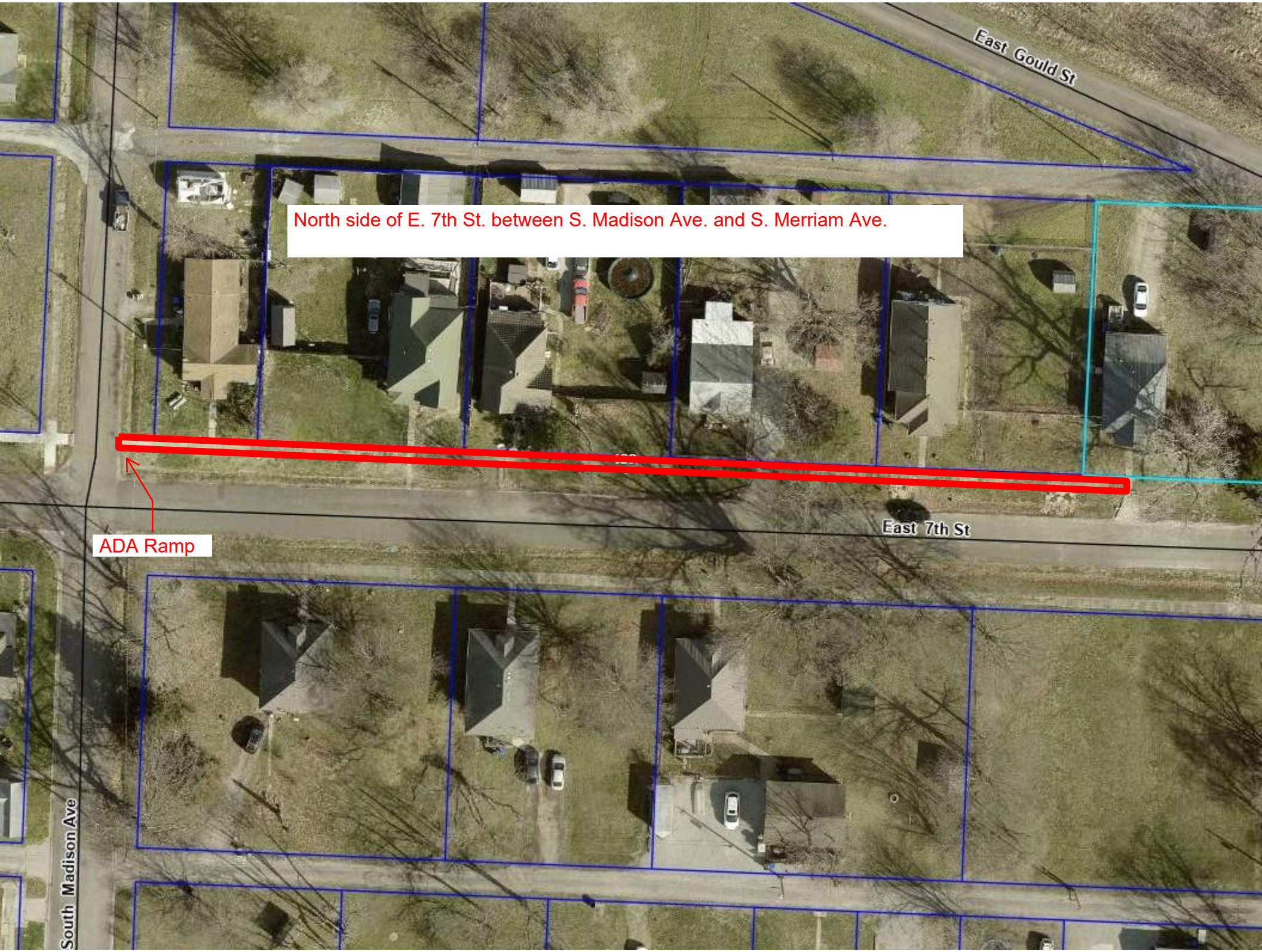

ADA Ramp
West 18th St
West side of S. Carr Ave. between W. 18th St. and W. 20th St.
South Carr Ave
ADA Ramp



West side of S. Barrett Ave.
between W. 18th St. and W. 20th St.

East side of S. Beacon Ave. between W. 18th St. and W. 20th St.




East Gould St
North side of E. 7th St. between S. Madison Ave. and S. Merriam Ave.
East 7th St
ADA Ramp
South Madison Ave

ALTERNATE 1

West side of Dal-Whi-Mo Ct. between W. 4th St. and W. 6th St.



ALTERNATE 2

North side of E. 17th St. between S. Brown Ave. and S. Summit Ave.

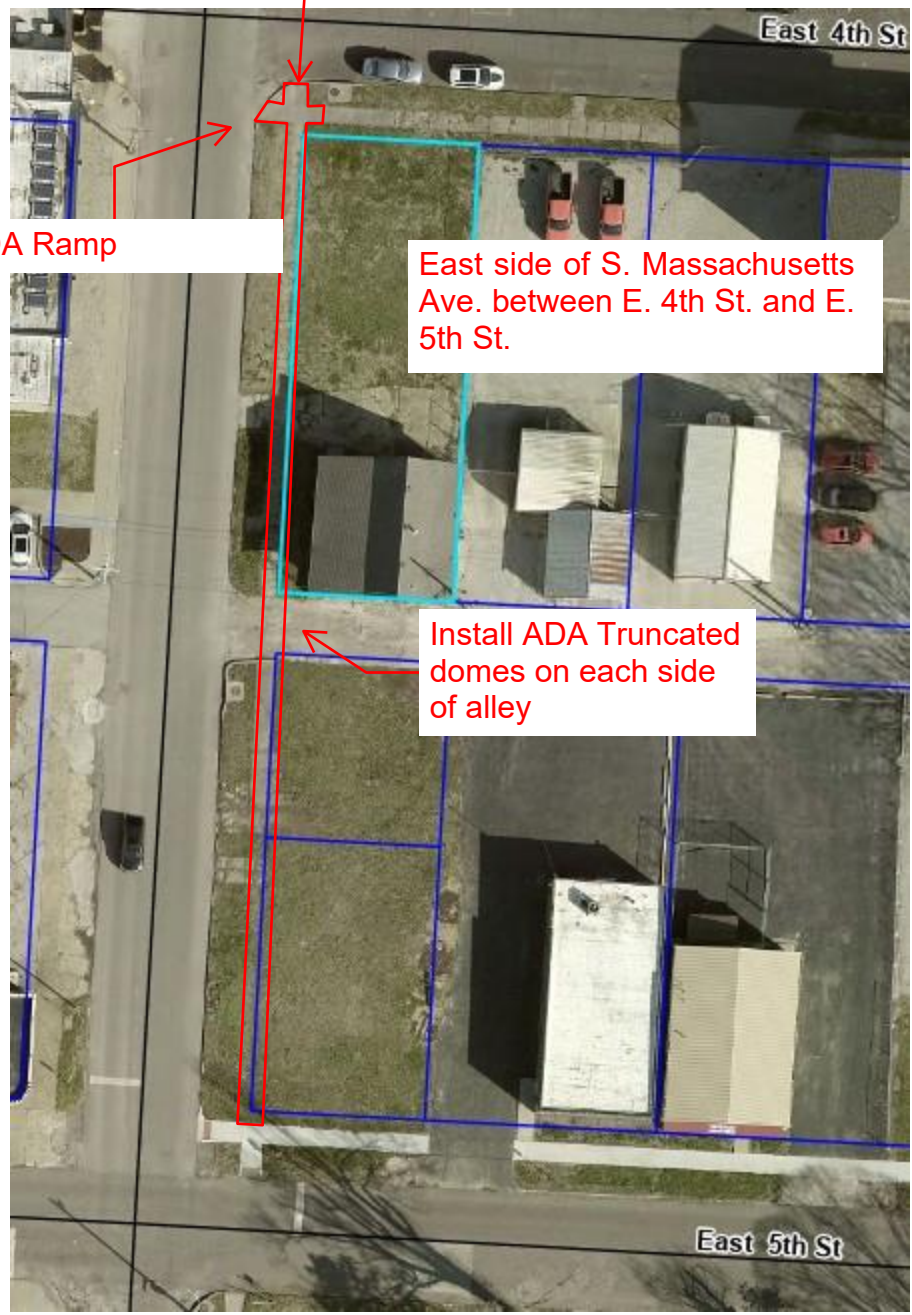


ALTERNATE 3

West side of S. Carr Ave. between W. 11th St. and W. 14th St.



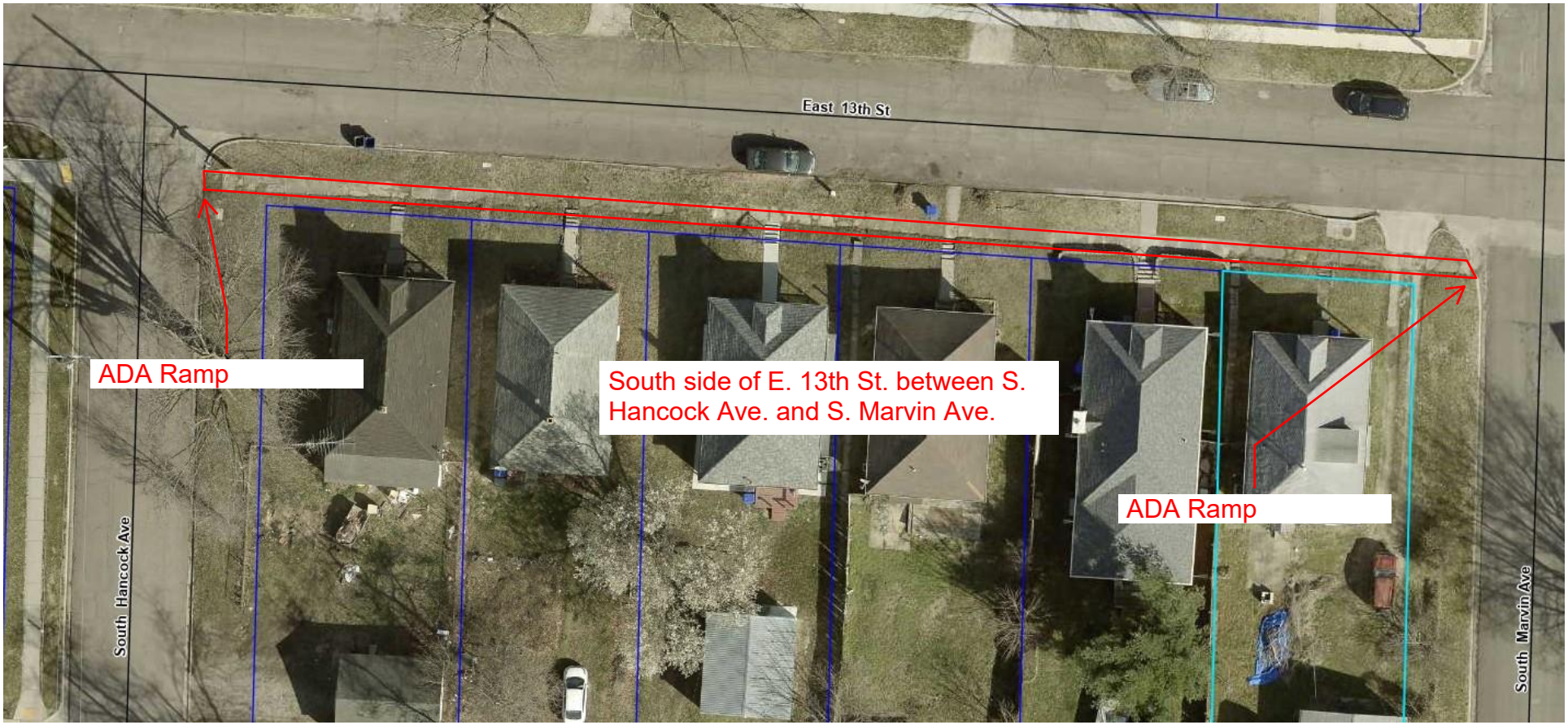
ALTERNATE 4


ADA Ramp
ADA Ramp
East side of S. Massachusetts Ave. between E. 4th St. and E. 5th St.
Install ADA Truncated domes on each side of alley
East 4th St
East 5th St

ALTERNATE 5


West of S. Vermont Ave. between W. 16th St. and W. 17th St.
West 16th
South Vermont Ave
West 17th St
ADA Ramp

ALTERNATE 6


East 13th St
ADA Ramp
South side of E. 13th St. between S. Hancock Ave. and S. Marvin Ave.
ADA Ramp
South Hancock Ave
South Marvin Ave

ALTERNATE 7

East side of S. Park Ave. between W. 7th St. and W. Broadway Ave.

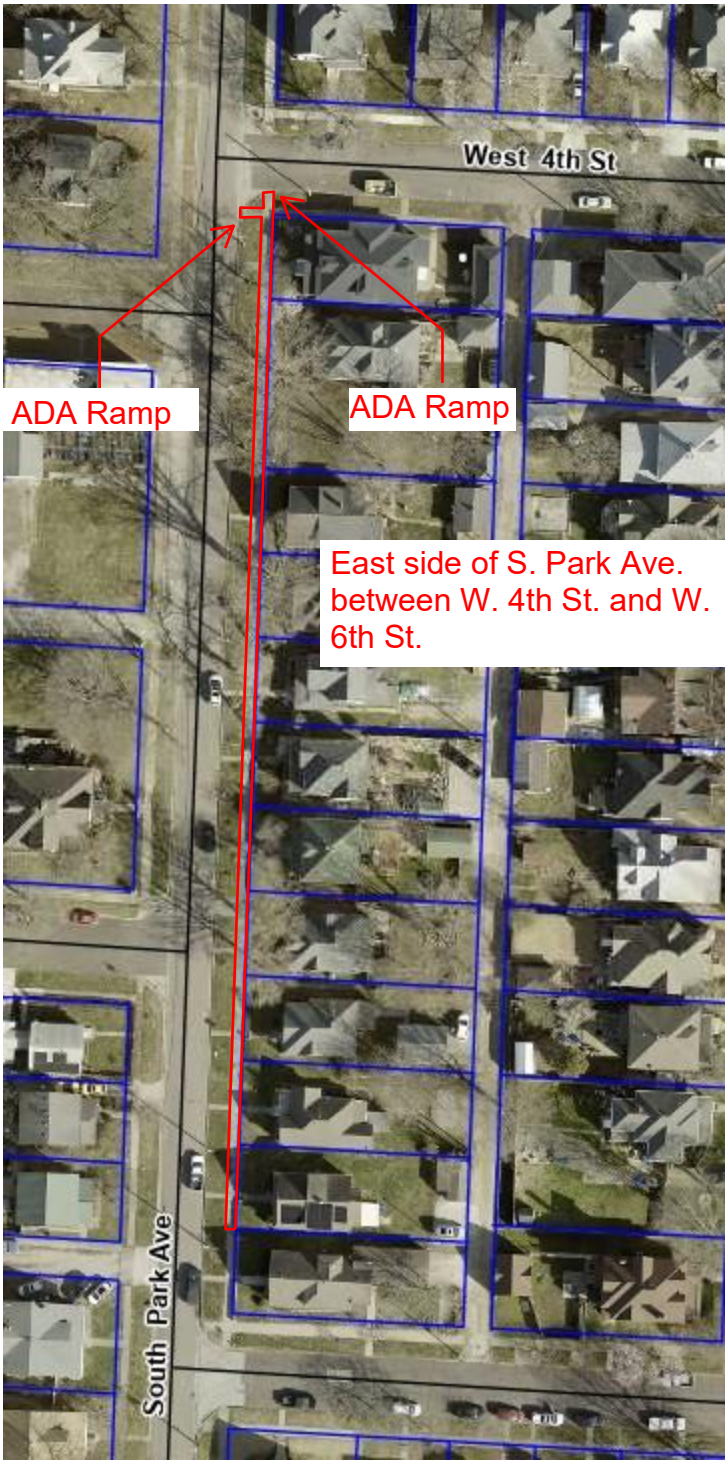


ALTERNATE 8

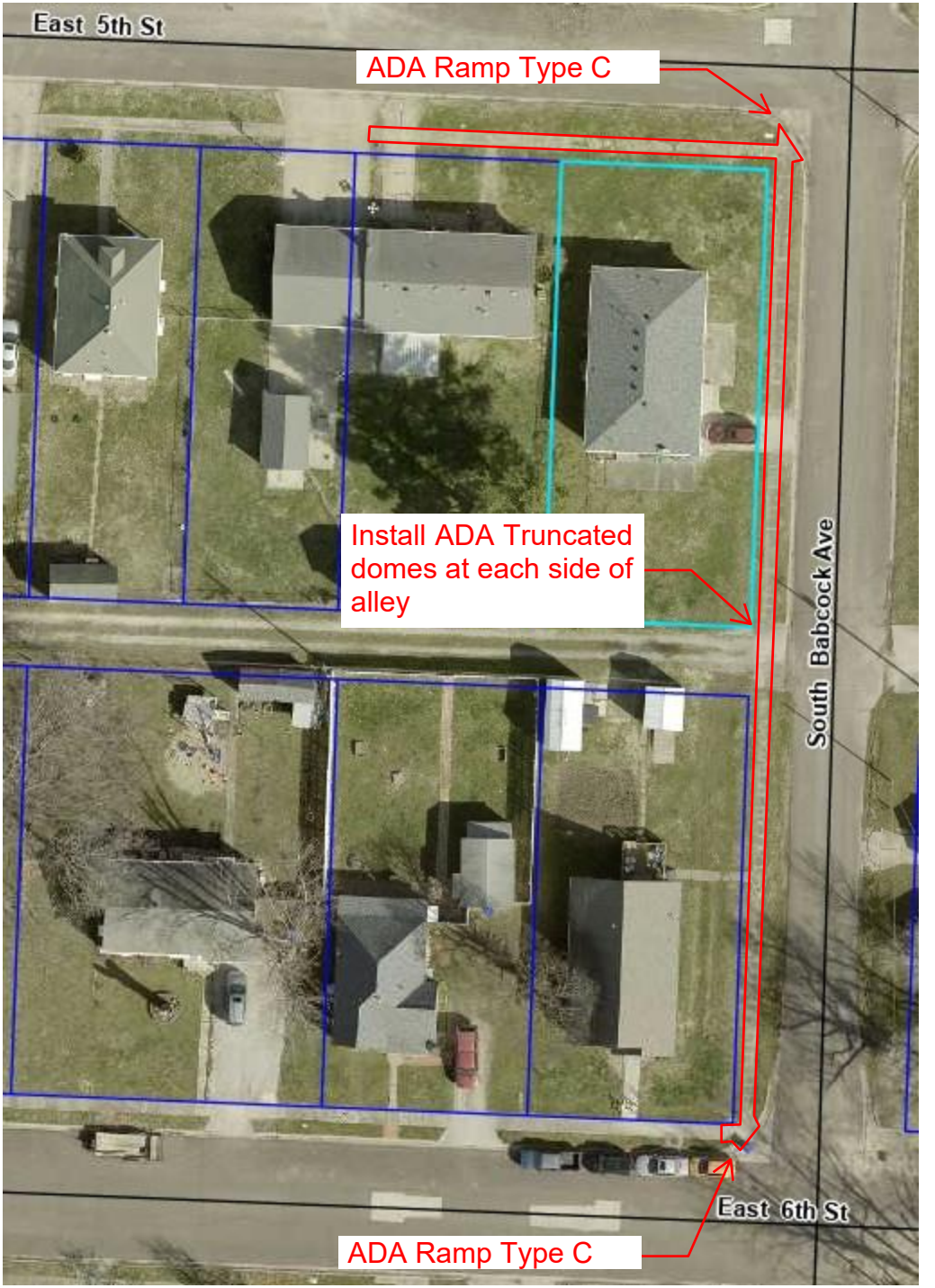
East side of S. Park Ave. between W. 6th St. and W. 7th St.

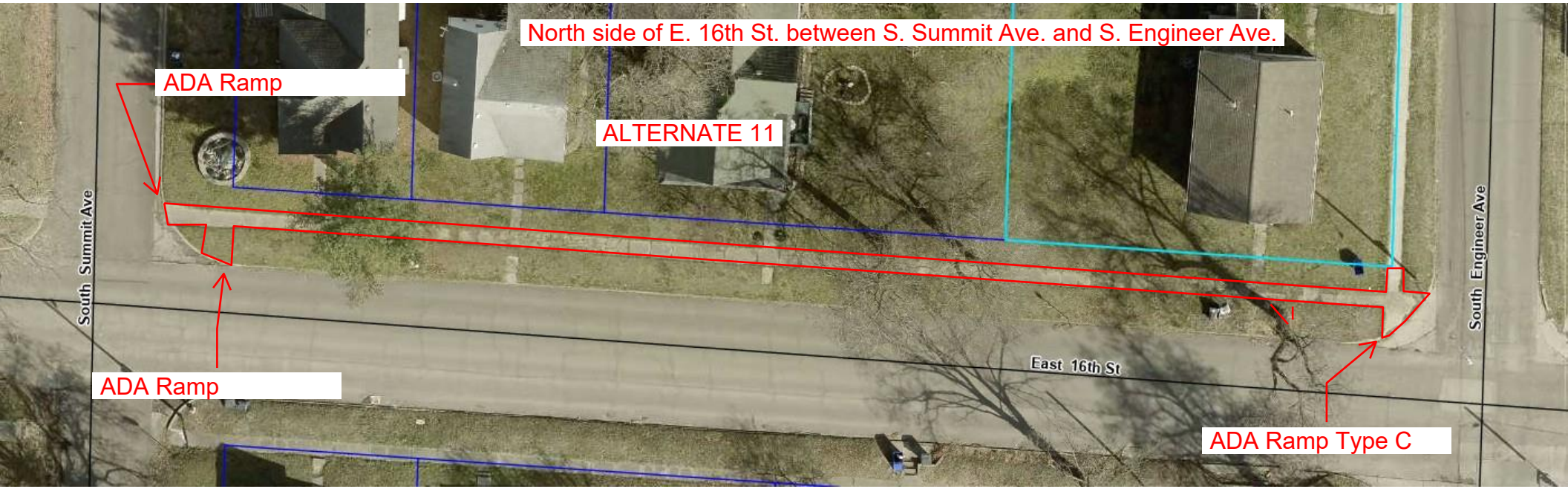


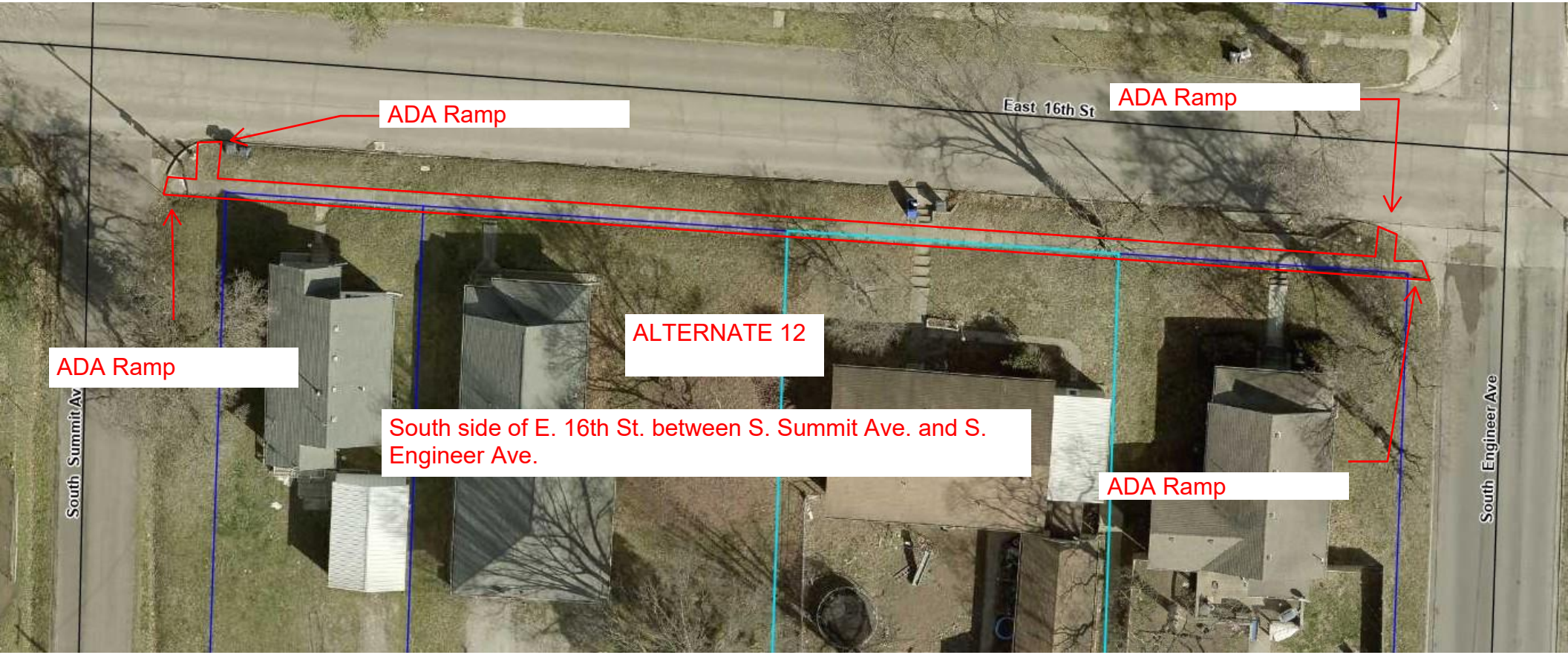
ALTERNATE 9

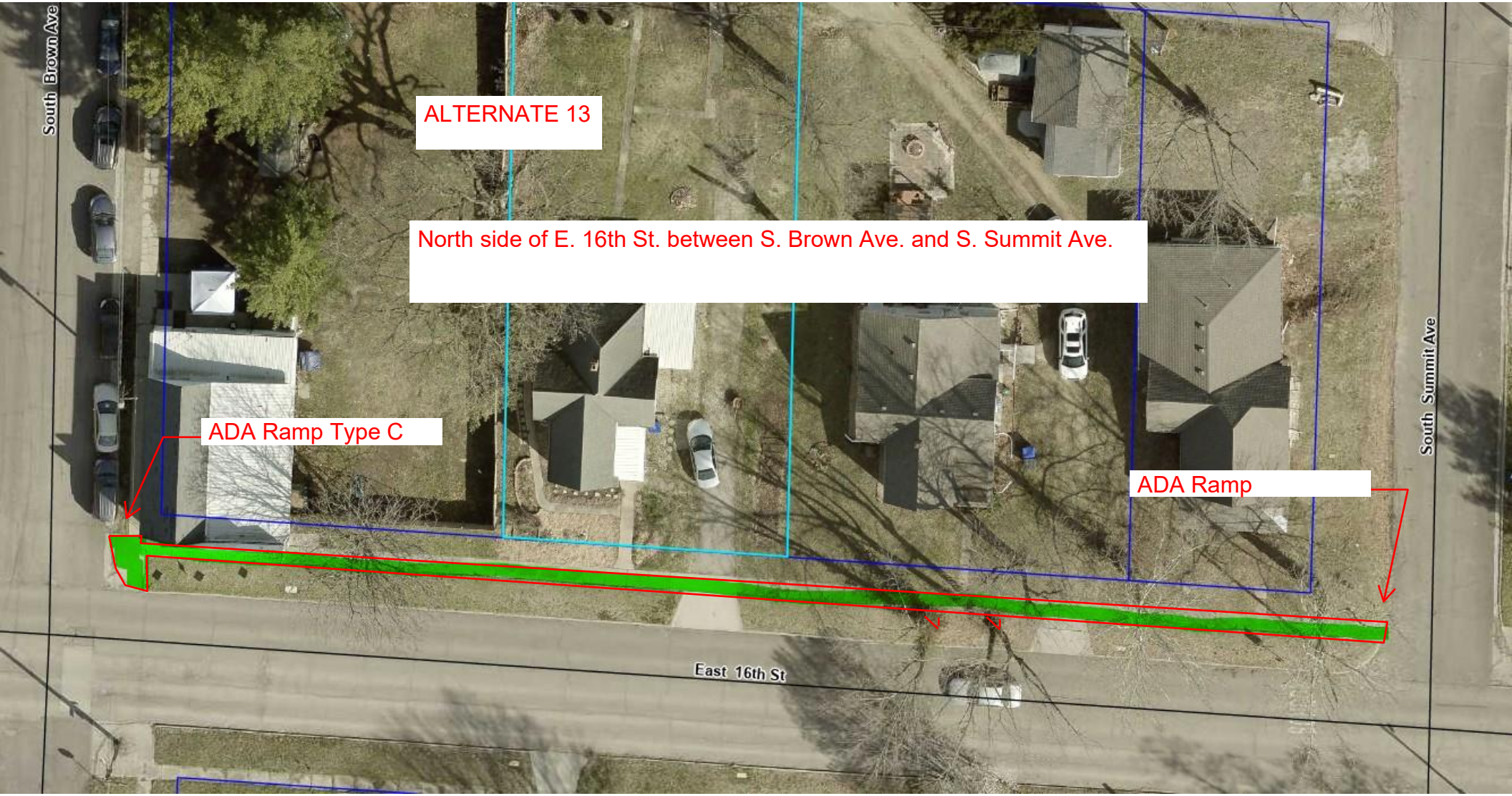

West 4th St
ADA Ramp
ADA Ramp
East side of S. Park Ave. between W. 4th St. and W. 6th St.
South Park Ave

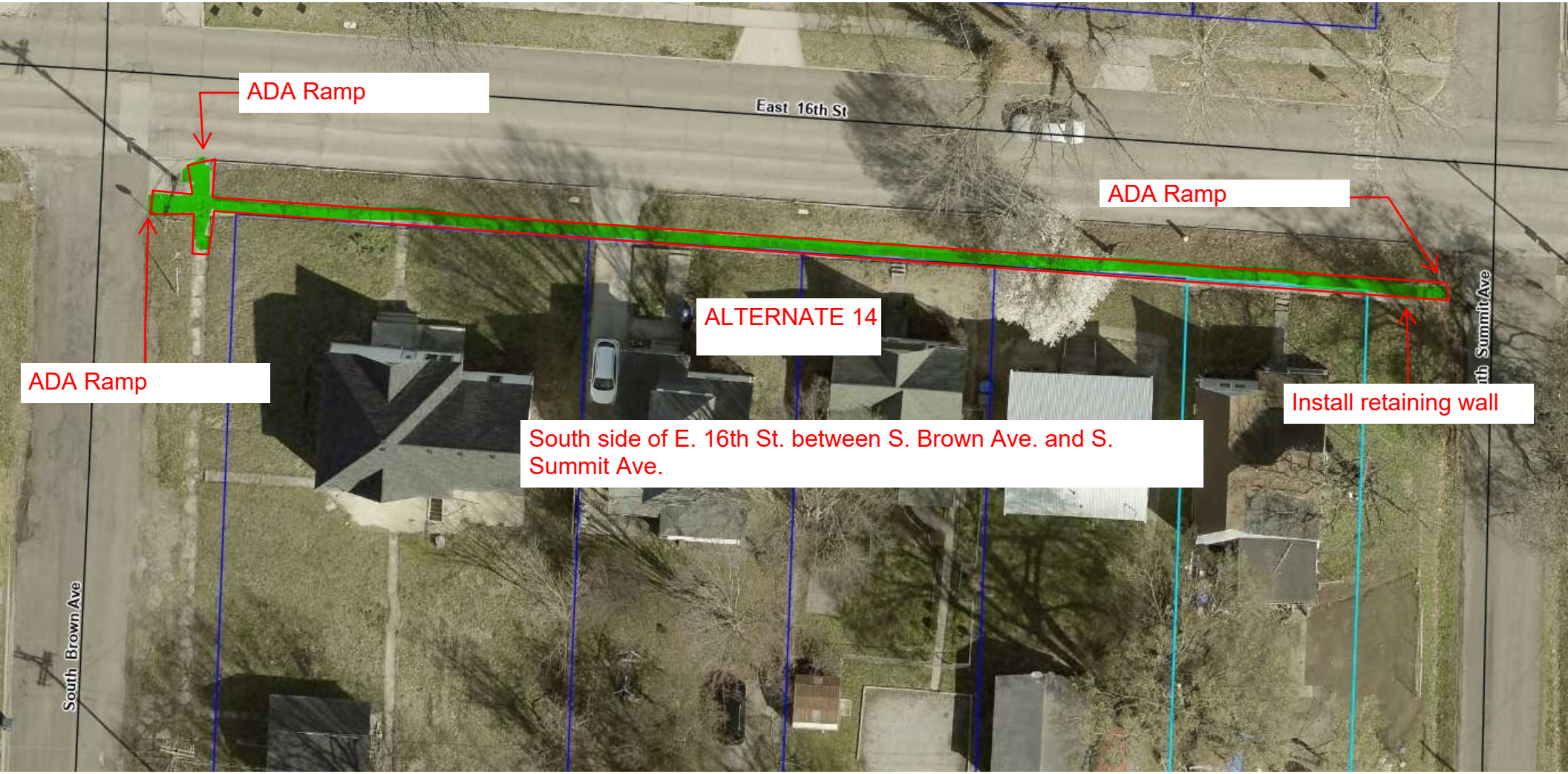
ALTERNATE 10




North side of E. 16th St. between S. Summit Ave. and S. Engineer Ave.
ADA Ramp
ALTERNATE 11
South Summit Ave
South Engineer Ave
East 16th St
ADA Ramp
ADA Ramp Type C


ADA Ramp
East 16th St
ADA Ramp
ALTERNATE 12
ADA Ramp
South side of E. 16th St. between S. Summit Ave. and S. Engineer Ave.
ADA Ramp
South Summit Ave
South Engineer Ave


ALTERNATE 13
North side of E. 16th St. between S. Brown Ave. and S. Summit Ave.
ADA Ramp Type C
ADA Ramp
South Brown Ave
South Summit Ave
East 16th St


ADA Ramp
East 16th St
ADA Ramp
ALTERNATE 14
ADA Ramp
Install retaining wall
South side of E. 16th St. between S. Brown Ave. and S. Summit Ave.
South Brown Ave