

**CITY OF GREELEY
INVITATION FOR BID**

10TH STREET ADAPTIVE PROJECT- BID

**BID #F24-07-062
DUE AUGUST 12, 2024,
BEFORE 2:00PM (MTN)**



Serving Our
Community
It's A Tradition

*The Office of the Purchasing Manager is a service division
established to build effective partnerships through efficient and responsive
procurement processes to obtain high quality
goods and services for the best value.*



Virtual Bid Opening Meeting

Monday, August 12, 2024, at 2:30 PM (MTN)

F24-07-062 - 10TH STREET ADAPTIVE PROJECT- BID

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 226 221 318 372

Passcode: 5bsfRn

Dial in by phone

[+1 347-966-8471,,997901838#](#) United States, New York City

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Phone conference ID: 997 901 838#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

SECTION 00110
BID #F24-07-062

INVITATION FOR BID

The City of Greeley, Colorado is requesting **sealed** bids for **10TH STREET ADAPTIVE PROJECT- BID before AUGUST 12, 2024, at 2:00 p.m. (MST)** emailed to purchasing@greeleygov.com. No late or faxed bids will be accepted. It is the responsibility of the vendor to ensure the solicitation documents are delivered to the correct address as noted in the Solicitation Documents. Solicitations delivered to other City of Greeley email addresses may be deemed as late and not accepted.

The City of Greeley disseminates all bids and requests for proposals through the Rocky Mountain E-Purchasing System site. Go to <https://www.bidnetdirect.com>, then "Bid Opportunities" and then select "The City of Greeley". Bids submitted to the City of Greeley must include Sections 00120, 00130, 00140 and 00160. Addenda must be acknowledged in Section 00120 of the bidding documents. Bidders failing to acknowledge any and all addenda may be considered non-responsive.

Each bid shall be accompanied, by a certified check drawn on a bank which is insured by the Federal Deposit Insurance corporation or a bidder's bond executed by a surety company authorized to do business in Colorado, made payable to the City of Greeley, Colorado, in an amount not less than five percent (5%) of the proposal sum as security that the successful bidder will enter into a contract to construct this project in accordance with the plans and specifications, and give bonds in the sum as hereafter provided. Checks accompanying bids not accepted will be returned.

The successful responsive and responsible bidder will be required to furnish a satisfactory performance bond and payment bond in the amount of the contract sum.

No bid shall be withdrawn after the opening on the bids without the consent of the City of Greeley, Colorado, for a period of sixty (60) days after the scheduled time of the receiving the bids.

Bid acceptance and bid evaluation. Bids shall be evaluated based on the requirements set forth in the invitation for bids, which may include criteria to determine acceptability such as inspection, testing, quality, workmanship, delivery and suitability for a particular purpose. Those criteria that will affect the bid price and be considered in evaluation for award shall be objectively measurable, such as discounts, transportation costs and total or life cycle costs. The invitation for bids shall set forth the evaluation criteria to be used. No criteria may be used in bid evaluation that are not set forth in the invitation for bids.

The City of Greeley retains the right to reject any and all bids and to waive any informality as deemed in the best interest of the city.

Questions pertaining to the project may be directed to purchasing@greeleygov.com before July 31, 2024, by 2:00 PM (MST).

Schedule of Events (subject to change)	All times are given in local Colorado time
Bid Proposal Issued	7/18/2024
Pre-Bid Conference include date/time and location (optional)	7/24/2024 at 3:00 p.m. via Microsoft Teams Meeting
Inquiry Deadline	7/31/2024 – by 2:00 p.m. MST via email to purchasing@greeleygov.com
Final Addendum Issued	8/5/2024
Bid Due Date and Time	8/12/2024 – By 2:00 p.m. MST via email to purchasing@greeleygov.com
Interviews	N/A
Notice of Award (tentative)	8/21/2024
Notice to Proceed (tentative)	8/28/2024

Invitation for you to attend a Pre-Bid meeting via Microsoft Teams, Wednesday, July 24, 2024, at 3:00 PM (MST)

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 219 919 713 996

Passcode: rQGxsw

Dial in by phone

[+1 347-966-8471](tel:+13479668471), [104157019#](tel:+1104157019) United States, New York City

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City of Greeley, Colorado
Purchasing Division

Greeley Website
July 18, 2024

Section 00120

BID PROPOSAL

PROJECT: 10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

The Undersigned, having become familiar with the local conditions affecting the cost of the work, plans, drawings, and specifications attached herewith, and with advertisement for bids, the form of bid and proposal, form of bond, all of which are issued and attached and on file in the office of the Project Manager, hereby bid and propose to furnish all the labor, materials, necessary tools, and equipment and all utility and transportation service necessary to perform and complete in a workmanlike manner all of the work required in connection with the construction of the items listed on the bidding schedule in accordance with the plans and specifications as prepared by the City of Greeley, Colorado, for the sums set forth in the Bidding Schedule.

The total bid shall be the basis for establishing the amount of the Performance and Payment Bond for this project. The total bid is based on the quantities shown in the bid proposal form and the dimensions shown on the plans.

The undersigned has carefully checked the Bidding Schedule quantities against the plans and specifications before preparing this proposal and accepts the said quantities as substantially correct, both as to classification and the amounts, and as correctly listing the complete work to be done in accordance with the plans and specifications.

The undersigned, agrees to complete and file a Performance and Payment Bond within seven (7) calendar days of Section 00210: Notice of Award and further agrees to complete the contract within the dates as described in the Specifications Section 00620 Special Provisions. Official notice to proceed will not be issued until adequate Performance and Payment Bonds and other required documents are on file with the City of Greeley.

NOTE: Bidders should not add any conditions or qualifying statements to this bid as otherwise the bid may be declared irregular as being non responsive to the Invitation for bids. The following numbered Addenda have been received and the bid, as submitted, reflects any changes resulting from those Addenda: _____

ATTEST

DATE

COMPANY NAME

BY

SIGNATURE

TITLE

**SECTION 00130
BID SCHEDULE**

10th Street Adaptive – Video Detection & Cabinet Replacement Project

Bid #F24-07-062

Item #	Contract Item	Unit	Bid Qty	Unit Price	Total Amount
	PHASE 1				
	TRAFFIC VIDEO DETECTION INSTALLATION WORK				
1	10th Street & 23rd Avenue (Complete traffic signal vehicle detection system installation work necessary to operate a new video detection system in accordance to plans and specifications)	L.S.	1		
2	9th Street & 23rd Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
3	10th Street & 26th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
4	10th Street & 28th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
5	10th Street & 35th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
6	10th Street & 37th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
7	10th Street & 39th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
8	10th Street & 43rd Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
9	10th Street & 45th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
10	10th Street & 47th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		

11	10th Street & 54th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
12	10th Street & 59th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
13	10th Street & 69th Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
14	necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
15	10th Street & 83rd Avenue (Complete traffic signal vehicle detection system installation work necessary to operate video detection system in accordance to plans and specifications)	L.S.	1		
	Subtotal				
TRAFFIC SIGNAL CABINET REPLACEMENT & MODIFICATION WORK					
16	10th Street & 59th Avenue (Complete traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications)	L.S.	1		
17	10th Street & 47th Avenue (Complete traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications)	L.S.	1		
18	10th Street & 35th Avenue (Complete traffic signal work and materials necessary to modify the existing traffic signal controller cabinet including materials and installation in accordance to plans and specifications)	L.S.	1		
	Subtotal				
PHASE 2					
19	10th Street & 23rd Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
20	9th Street & 23rd Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		

21	10th Street & 26th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
22	10th Street & 28th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
23	10th Street & 35th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
24	10th Street & 37th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
25	10th Street & 39th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
26	10th Street & 43rd Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
27	10th Street & 45th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
28	10th Street & 47th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
29	10th Street & 54th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
30	10th Street & 59th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
31	10th Street & 69th Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		

32	10th Street & 71st Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
33	10th Street & 83rd Avenue (Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications)	L.S.	1		
	Subtotal				
	TOTAL	LS			\$

COOPERATIVE PURCHASING STATEMENT

The City of Greeley encourages and participates in cooperative purchasing endeavors undertaken by or on behalf of other governmental jurisdictions. To the extent, other governmental jurisdictions are legally able to participate in cooperative purchasing endeavors; the City of Greeley supports such cooperative activities. Further, it is a specific requirement of this proposal or Request for Proposal that pricing offered herein to the City of Greeley may be offered by the vendor to any other governmental jurisdiction purchasing the same products. The vendor(s) must deal directly with any governmental agency concerning the placement of purchase orders, contractual disputes, invoicing, and payment. The City of Greeley shall not be liable for any costs or damages incurred by any other entity.

SECTION 00140

BID BOND

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto the City of Greeley, Colorado, as Owner, in the penal sum of _____ for the Payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

THE CONDITION of this obligation is such that whereas the Principal has submitted to the City of Greeley, Colorado, the accompanying bid and hereby made a part hereof to enter into a Contract Agreement for the construction of City of Greeley Project,

10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

WHEREAS, the Owner, as condition for receiving said bid, requires that the Principal to deposit with the Owner as Bid Guaranty equal to five percent (5%) of the amount of said bid.

NOW, THEREFORE,

(a) If said bid shall be rejected; or in the alternate,

(b) If said bid shall be accepted and the Principal shall execute and deliver a Contract Agreement (properly completed in accordance with said bid) and shall furnish a Performance and Payment Bond upon the forms prescribed by the Owner for the faithful performance of said Agreement; and shall in all other respects perform the agreement created by the acceptance of said bid;

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals this _____ day of _____, 20_____, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

PRINCIPAL

SURETY

Name: _____

Address: _____

By: _____

Title: _____ Attorney _____

In-Fact:
(Seal)

(Seal)

NOTE: Surety Companies executing bonds must be authorized to transact business in the State of Colorado and be accepted to the Owner.

SECTION 00160
NOTICE OF PRE-BID CONFERENCE

PROJECT: 10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

A optional pre-bid conference will be held:

On 7/24/2024, at 3:00 p.m., via Microsoft Teams Meeting. All bidders are encouraged to attend.

Join Teams Meeting

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 219 919 713 996

Passcode: rQGxsw

Dial in by phone

[+1 347-966-8471](tel:+13479668471), [104157019#](tel:+13479668471) United States, New York City

[Find a local number](#)

Phone conference ID: 104 157 019#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

City of Greeley staff will be present to answer questions.

Each bidder shall submit the following declaration of attendance, along with the other bid documents.

I have attended the pre-bid conference _____

I have not attended the pre-bid conference _____

Name of Contracting Organization

Authorized Signature Date

SECTION 00210

NOTICE OF AWARD

DATE:

TO:

Re: **10TH STREET ADAPTIVE PROJECT- BID #F24-07-062**

Dear Contractor:

The City of Greeley, Colorado (hereinafter called "the Owner") has considered the bids submitted for referenced work in response to its Invitation for Bids. You are hereby notified that your bid has been accepted for items and prices stated in the Bid Schedule in the amount of \$_____. You are required to execute the Contract Agreement, provide the necessary insurance certificates, the Performance and Payment Bonds within ten (10) days from the date of this Notice. If you fail to execute said Contract Agreement and furnish the necessary insurance certificates and bonds within the time allotted from this date, the Owner will be entitled to consider your rights arising out of the Owner's acceptance of your bid as abandoned and to demand payment of bid guaranty as damages. The Owner will be entitled to such other rights as may be granted by law. You are required to return an acknowledged copy of this Notice of Award and enclosures to Purchasing.

CITY OF GREELEY, COLORADO

By: Paul Trombino III

Title: Director of Public Works

ACKNOWLEDGMENT: Receipt of the foregoing Notice of Award accompanied with a Performance and Payment Bond form and a signed copy of the Contract Document is hereby acknowledged this _____ day of _____, 20_____.

Bidder: _____

By: _____

SECTION 00310

CONTRACT

THIS AGREEMENT made and entered into this _____ day of ____, 20__, by and between the City of Greeley, Colorado, and under the laws of the state of Colorado, party of the first part, termed in the Contract Documents as the "Owner" and party of the second part, termed in the Contract Documents as "Contractor."

WITNESSETH: In consideration of monetary compensation to be paid by the Owner to the Contractor at the time and in the manner hereinafter provided, the said Contractor has agreed, and does hereby agree, to furnish all labor, tools, equipment and material and to pay for all such items and to construct in every detail, to wit:

PROJECT: 10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

at the price bid on the Proposal Form of \$ _____ all to the satisfaction and under the general supervision of the Project Manager for the City of Greeley, Colorado.

The Contract Documents consist of this Agreement, the Conditions of the Contract (General, Supplementary and other Conditions), the Drawings, the Specifications, all Addenda issued prior to and all Modifications issued after execution of this Agreement. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

The Project Manager named herein shall interpret and construe the Contract Documents, reconciling any apparent or alleged conflicts and inconsistencies therein; and all of the work and all details thereof shall be subject to the approval and determination of the Project Manager as to whether or not the work is in accordance with Contract Documents. Said City Project Manager shall be the final arbiter and shall determine any and all questions that may arise concerning the Contract Documents, the performance of the work, the workmanship, quality of materials and the acceptability of the completed project. The decision of the Project Manager on all questions shall be final, conclusive and binding.

AND FOR SAID CONSIDERATION IT IS FURTHER PARTICULARLY AGREED BETWEEN THE PARTIES TO THIS AGREEMENT.

1. That construction and installation of the above enumerated work for the Owner shall be completed and ready for use in accordance with the time of completion described in the Bid form of this Contract. The Owner reserves the right to void the contract if the work does not commence by the agreed upon schedule provided in the bid documents and/or executed contract.
2. That said work and materials for the project covered by the Contract Documents shall be completely installed and delivered to the Owner, within the time above stated, clear and free from any and all liens, claims, and demands of any kind.
3. The full compensation to be paid the Contractor by the Owner pursuant to the terms of this Contract shall be payable as provided in the Contract Documents.

4. This Contract consists of the following component parts, all of which are as fully a part of the Contract as herein set out verbatim, or if not attached, as if hereto attached:

- Section 00110: Invitation for Bid
- Section 00120: Bid Proposal
- Section 00130: Bid Schedule
- Section 00140: Bid Bond
- Section 00160: Pre-bid meeting
- Section 00210: Notice of Award
- Section 00310: Contract
- Section 00320: Performance Bond
- Section 00330: Payment Bond
- Section 00340: Certificate of Insurance
- Section 00350: Lien Waiver Release
- Section 00360: Debarment/Suspension Certification Statement
- Section 00410: Notice to Proceed
- Section 00420: Project Manager Notification
- Section 00430: Certificate of Substantial Completion
- Section 00440: Final Completion
- Section 00510: General Conditions of the Contract
- Section 00520: Subcontractors List
- Section 00620: Special Provisions

Addenda Number _____ Inclusive

Any modifications, including change orders, duly delivered after execution of this Agreement.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed as of the day and year first above written.

EXECUTED:

The City of Greeley
Approved as to Substance

Signed: _____
Name: _____
Title: _____
Date: _____

CONTRACTOR:

Signed: _____
Name: _____
Title: _____
Date: _____

ENDORSED:

The City of Greeley
Approved as to Legal Form

Signed: _____
Name: _____
Title: _____
Date: _____

ENDORSED:

The City of Greeley
Certification of Contract Funds Availability

Signed: _____
Name: _____
Title: _____
Date: _____

SECTION 00320

PERFORMANCE BOND

Bond No. _____

KNOWN ALL MEN BY THESE PRESENTS: that

(Firm) _____

(Address) _____

(an Individual), (a Partnership), (a Corporation), hereinafter referred to as "the Principal", and

(Firm) _____

(Address) _____

hereinafter referred to as "the Surety", are held and firmly bound unto the CITY OF GREELEY, 1000 10th Street, Greeley, CO. 80631, a Municipal Corporation, hereinafter referred to as "the Owner" in the penal sum of _____ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these present.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Contract Agreement with the Owner, dated the _____ day of _____, 20_____, a copy of which is hereto attached and made a part hereof for the performance of City of Greeley Project,

10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said Contract Agreement during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without Notice to the Surety and during the life of the guaranty period, and if he shall satisfy all claims and demands incurred under such Contract Agreement, and shall fully indemnify and save harmless the Owner from all cost and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, and then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, 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 Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way 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 Agreement or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument is executed this _____ day of _____, 20____.

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

IN PRESENCE OF:

PRINCIPAL

_____ By: _____

(Corporate Seal)

(Address)

IN PRESENCE OF:

OTHER PARTNERS

_____ By: _____

_____ By: _____

By: _____

IN PRESENCE OF:

SURETY

_____ By: _____

(Attorney-in-Fact)

(SURETY SEAL)

(Address)

NOTE: Date of Bond must not be prior to date of Contract Agreement. If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the Owner.

SECTION 00330

PAYMENT BOND

Bond No. _____

KNOWN ALL MEN BY THESE PRESENT: that

(Firm) _____

(Address) _____

(an Individual), (a Partnership), (a Corporation), hereinafter referred to as "the Principal", and

(Firm) _____

(Address) _____

hereinafter referred to as "the Surety", are held and firmly bound unto the CITY OF GREELEY, 1000 10th Street, Greeley, Co. 80631, a Municipal Corporation, hereinafter referred to as "the Owner", in the penal sum of

_____ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Contract Agreement with the Owner, dated the _____ day of _____, 20_____, a copy of which is hereto attached and made a part hereof for the performance of

10TH STREET ADAPTIVE PROJECT- BID #F24-07-062

NOW, THEREFORE, if the Principal shall make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract Agreement, and any equipment and tools, consumed, rented or used in connection with the construction of such work and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, 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 Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way 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 Agreement or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument is executed this _____ day of _____,
20____.

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

IN PRESENCE OF:

PRINCIPAL

_____ By: _____

(Corporate Seal)

(Address)

IN PRESENCE OF:

OTHER PARTNERS

_____ By: _____

_____ By: _____

_____ By: _____

IN PRESENCE OF:

SURETY

_____ By: _____

(Attorney-in-Fact)

(SURETY SEAL)

(Address)

NOTE: Date of bond must not be prior to date of Contract Agreement. If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the Owner.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/14/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER ABC Insurance Company P. O. Box 1234 Anywhere, USA	CONTACT NAME: PHONE (A/C, No, Ext): _____ FAX (A/C, No): _____ E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: _____														
INSURED Sample Certificate	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">INSURER(S) AFFORDING COVERAGE</th> <th style="width: 20%;">NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Financial Rating of A</td> <td></td> </tr> <tr> <td>INSURER B :</td> <td></td> </tr> <tr> <td>INSURER C :</td> <td></td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Financial Rating of A		INSURER B :		INSURER C :		INSURER D :		INSURER E :		INSURER F :	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A : Financial Rating of A															
INSURER B :															
INSURER C :															
INSURER D :															
INSURER E :															
INSURER F :															

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y					EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y					COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

City of Greeley is named as Additional Insured on General Liability and Automobile Liability. Waiver of subrogation is included on Workers Compensation. This insurance is primary and noncontributory to insurance policies held by the City.

CERTIFICATE HOLDER**CANCELLATION**

City of Greeley 1000 10th St Greeley, CO 80631-3808	<p>No material change or cancellation of this policy shall be effective without ten (10) days prior written notice to the City of Greeley.</p> AUTHORIZED REPRESENTATIVE
--	--

SECTION 00350

LIEN WAIVER RELEASE

TO: City of Greeley, Colorado (hereinafter referred to as "the OWNER".)

FROM: (hereinafter referred to as "the CONTRACTOR")

PROJECT: **10TH STREET ADAPTIVE PROJECT- BID #F24-07-062**

1. The CONTRACTOR does hereby release all Mechanic's Liens Rights, Miller Act Claim (40 USCA 270), Stop Notice, Equitable Liens and Labor and Material Bond Rights resulting from labor and/or materials, subcontract work, equipment or other work, rents, services or supplies heretofore furnished in and for the construction, design, improvement, alteration, additions to or repair of the above described project.
2. This release is given for and in consideration of the sum of \$ and other good and valuable consideration. If no dollar consideration is herein recited, it is acknowledged that other adequate consideration has been received by the CONTRACTOR for this release.
3. In further consideration of the payment made or to be made as above set forth, and to induce the OWNER to make said payment, the CONTRACTOR agrees to defend and hold harmless the OWNER, employees, agents and assigns from any claim or claims hereinafter made by the CONTRACTOR and/or its material suppliers, subcontractors or employees, servants, agents or assigns of such persons against the project. The CONTRACTOR agrees to indemnify or reimburse all persons so relying upon this release for any and all sums, including attorney's fees and costs, which may be incurred as the result of any such claims.
4. It is acknowledged that the designation of the above project constitutes an adequate description of the property and improvements for which the CONTRACTOR has received consideration for this release.
5. It is further warranted and represented that all such claims against the CONTRACTOR or the CONTRACTOR's subcontractors and/or material suppliers have been paid or that arrangements, satisfactory to the OWNER and CONTRACTOR, have been made for such payments.
6. It is acknowledged that this release is for the benefit of and may be relied upon by the OWNER, the CONTRACTOR, and construction lender and the principal and surety on any labor and material bond for the project.

7. In addition to the foregoing, this instrument shall constitute a *** (full, final and complete) ***(partial) release of all rights, claims and demands of the CONTRACTOR against the OWNER arising out of or pertaining to the above referenced project. If partial, all rights and claims on the project are released up to and including the _____ day of Month, 20 .

Dated this _____ day of _____, 20 ____.

CONTRACTOR

By: _____

Title: _____

STATE OF _____)
)ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____,
20____by_____.

My Commission expires:

Notary Public

***Strike when not applicable

SECTION 00360

Debarment/Suspension Certification Statement

The proposer certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal, State, County, Municipal or any other department or agency thereof. The proposer certifies that it will provide immediate written notice to the City if at any time the proposer learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstance.

UEI # (Optional) _____

Name of Organization _____

Address _____

Authorized Signature _____

Title _____

Date _____

SECTION 00410

NOTICE TO PROCEED

Month , 20

TO: NAME

PROJECT: **10TH STREET ADAPTIVE PROJECT- BID #F24-07-062**

To Whom It May Concern:

You are hereby notified to commence work on the above-referenced project in accordance with the Contract Agreement dated Month , 20 .

You are to complete this project by Month , 20

CITY OF GREELEY, COLORADO

By: _____

Title: _____

Signature

SECTION 00420

PROJECT MANAGER NOTIFICATION

_____, 20____

TO:

PROJECT: **10TH STREET ADAPTIVE PROJECT- BID #F24-07-062**

The Owner hereby designates _____ as its Project Manager and authorizes this individual, under the authority of the Director of Public Works to make all necessary and proper decisions with reference to the project. Contract interpretations, change orders and other requests for clarification or instruction shall be directed to the Project Manager. The Director of Public Works shall be authorized to bind the Owner with respect to any decision made in accordance with the contract document.

CITY OF GREELEY, COLORADO

By: _____

Title: _____

SECTION 00430

CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: CONTRACTOR

PROJECT: 10TH STREET ADAPTIVE PROJECT- BID #F24-07-0628

Project or designated portion shall include: Describe Scope.

The work performed under this contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as Month , 20 .

The date of commencement of applicable warranties required by the Contract Documents is stipulated in Section 00440 - Certificate of Final Acceptance.

DEFINITION OF DATE OF SUBSTANTIAL COMPLETION

The Date of Substantial Completion of the Work or designated portion thereof is the date certified by the Project Manager when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected, prepared by the Contractor and verified and amended by the Project Manager is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The date of commencement of warranties for items on the attached list is as stipulated in Section 00440 – Certificate of Final Acceptance.

The Owner shall operate and maintain the Work or portion of the Work described above from the Date of Substantial Completion and be responsible for all costs associated with the completed work excluding cost related to warrantee work.

The Contractor will complete or correct the Work on the list of items attached hereto within days from the above Date of Substantial Completion.

Contractor

Owner

(Note--Owner's and Contractor's legal and insurance counsel should review and determine insurance requirements and coverage; Contractor shall secure consent of surety company, if any.)

SECTION 00440

CERTIFICATE OF FINAL ACCEPTANCE

TO: **CONTRACTOR**

PROJECT NAME: **10TH STREET ADAPTIVE PROJECT- BID #F24-07-062**

The work performed under this contract has been reviewed and found to meet the definition of final acceptance. This Certificate of Final Acceptance applies to the whole of the work.

The Date of Final Acceptance of the Project designated above is hereby established as: Month _____, 20____ at 2:00 pm. This date is also the date of commencement of applicable warranties associated with the Project described above and as required by the Contract Documents.

DEFINITION OF DATE OF FINAL ACCEPTANCE

The Date of Final Acceptance of the Work is the date certified by the City of Greeley's Project Manager when the work is 100% complete, in accordance with the Contract Documents, as amended by change order(s), or as amended below:

Amendment to the Certificate of Final Completion (if any): Describe Amendments.

The Contractor and/or the City Of Greeley shall define any claims or requests for additional compensation above (or as attachments to this document).

Final Acceptance shall not be achieved until the Contractor provides the City Of Greeley with all contract specified Contractor and Sub-contractor close out documents including final lien waivers, releases, insurances, manuals, training, test results, warranties, and other documents required by the Contract Documents, as amended.

Upon issuance of the Certificate of Final Acceptance the Contractor may submit an application for payment requesting final payment for the entire Work. Liquidated damages (if any) will be assessed at this time.

Contractor's acceptance of the final payment shall constitute a waiver by the Contractor of all claims arising out of or relating to the Work; except as noted under 'Amendment to the Certificate of Final Acceptance' above.

Agreed:

_____	_____20	_____	_____20
Contractor's Representative	DATE	Project Manager (COG)	DATE

Section 00510
General Conditions
(Enter Reference)

Please click the link below to access Section 00510

[SECTION 00510 General Conditions F24-07-062.docx](#)



SECTION 520
SUBCONTRACTORS/MATERIALS SUPPLIERS AND RELATED DATA

Firm Name: _____ City Contractors License # _____
Primary Contractor _____
PROJECT: _____ Address: _____

For each Subcontractor and/or Materials Suppliers to be utilized, please provide the following information (use additional sheets as necessary):

Phone Number: _____ Fax Number: _____
Proposed work and percentage of total work to be assigned _____
Percentage: _____ %

Firm Name: _____ City Contractors License # _____
Address: _____
Phone Number: _____ Fax Number: _____
Proposed work and percentage of total work to be assigned _____
Percentage: _____ %

Firm Name: _____ City Contractors License # _____
Address: _____
Phone Number: _____ Fax Number: _____
Proposed work and percentage of total work to be assigned _____
Percentage: _____ %

Firm Name: _____ City Contractors License # _____
Address: _____
Phone Number: _____ Fax Number: _____
Proposed work and percentage of total work to be assigned _____
Percentage: _____ %

Firm Name: _____ City Contractors License # _____
Address: _____
Phone Number: _____ Fax Number: _____
Proposed work and percentage of total work to be assigned _____
Percentage: _____ %

If the Primary Contractor adds any Subcontractors or Materials Suppliers during the duration of the project, the Primary Contractor will supply the City with an updated form before the Subcontractor or Materials Supplier will be allowed to work on the project.

DR 160 (9/87)
DEPARTMENT OF REVENUE
1375 SHERMAN STREET
DENVER, COLORADO 80261

State of Colorado

THIS LICENSE IS NOT TRANSFERABLE

CERTIFICATE OF EXEMPTION FOR SALES AND USE TAX ONLY

GREELEY CITY OF
1000 10TH ST
GREELEY CO 80631-3982



A handwritten signature in black ink, appearing to read "John J. [unclear]", is written over the seal.

Executive Director
Department of Revenue

ACCOUNT NUMBER	LIABILITY INFORMATION	ISSUE DATE
98-03320	03 057 8600 9 120180	SEP 02 1988
1000 10TH ST	GREELEY CO	

**CITY OF GREELEY
PUBLIC WORKS DEPARTMENT**

10th Street Adaptive – Video Detection & Cabinet Replacement

SECTION 00620 SPECIAL PROVISIONS

PROJECT DESCRIPTION

This lump sum bid item includes traffic signal work in conjunction with the 10th Street Adaptive project (23rd to 83rd Avenues) that calls for upgrading video detection and signal controller cabinets. This project is planned in two (2) phases in conjunction with replacing the adaptive operating system along this corridor. The **first** phase includes installing new “complete” video detection systems at fifteen (15) signalized intersections. The vehicle detection systems will be furnished by the City and will include the “complete” system composed of these principal items: signal vehicle detection devices (stop bar and advance detection capabilities), processor units, mounting hardware and all necessary cables and miscellaneous hardware for the operation of the system. This project also includes replacing the existing model 332 signal cabinets with 332-D cabinets at two (2) signalized intersections (i.e. 47th Avenue/10th Street, and 59th Avenue/10th Street). It also includes work to remove and relocated signal equipment in the signal controller cabinet at the 35th Avenue/10th Street intersection. This signal cabinet work at the three (3) intersections is provided on plans provided in Appendix A, B, and C.

The **second** project phase will include removing the existing video detection system subject that the new adaptive operating system has been successively deployed. This work will include removing “complete” video detection systems and related accessory items at fifteen (15) signalized intersections and may be done in late fall/early winter (2024). Authorization must be received for completing this phase.

The work specified below describes the installation of necessary material and equipment to complete traffic signal installations and/or electrical systems. All materials and labor shall be included in the base bid cost except for City furnished materials listed below. Incidental work includes performing traffic control, providing uniformed traffic control, locates, and other associated work.

All work for this project shall be completed in accordance to the these specifications, the plans, any special provisions, and all supplemental documents including the current Colorado Department of Transportation specifications or City of Greeley specifications whichever is more stringent.

The City will furnish the following items:

- Stop Bar Video Detection Cameras (Next-Cam-Pak)
- Stop Bar & Advance Video Detection Cameras (Vector-Next)
- Shelf Mounted Processors (Next-CCU-SM4-TS2-Pak)
- Rack Mounted Processors (Next-DVP)
- Video Detection Wire (Cat5E-Shld-Cable)
- Traffic Signal Controller Cabinet & Operating Equipment

Electrical equipment shall conform to the standards of the National Electrical Manufacturers Association. Material and work shall conform to the applicable requirements of the National Electrical Code and any local ordinance, which may apply.

TIME to COMPLETE:

Phase 1: Install New Video Detection System and Replace/Modify Signal Cabinets - July 31st to September 30, 2024.

Phase 2: Remove existing Video Detection System – October 28 to December 6, 2024.

GENERAL

Prime Contractor Participation; Perform at least 55 percent of the original contract amount with the Contractor's own organization. The Contractor's own organization is defined as workers the Contractor employs and pays directly as well as equipment the Contractor owns or rents, either with or without operators. Submit documentation accordingly to indicate what work the Contractor's own organization is performing and the dollar value of that work. Use the following calculation and this shall be submitted with the bid:

All bidders will furnish with their bid a complete written list of clients for projects completed in the past two years. List shall include project title, name and contact information.

In case of conflict, documents will have the following priorities: (1) General Conditions, (2) Special Provisions, (3) Plans, (4) Governing documents for relevant construction element listed in the following Governing Specifications Table:

Table 1: Governing Specifications

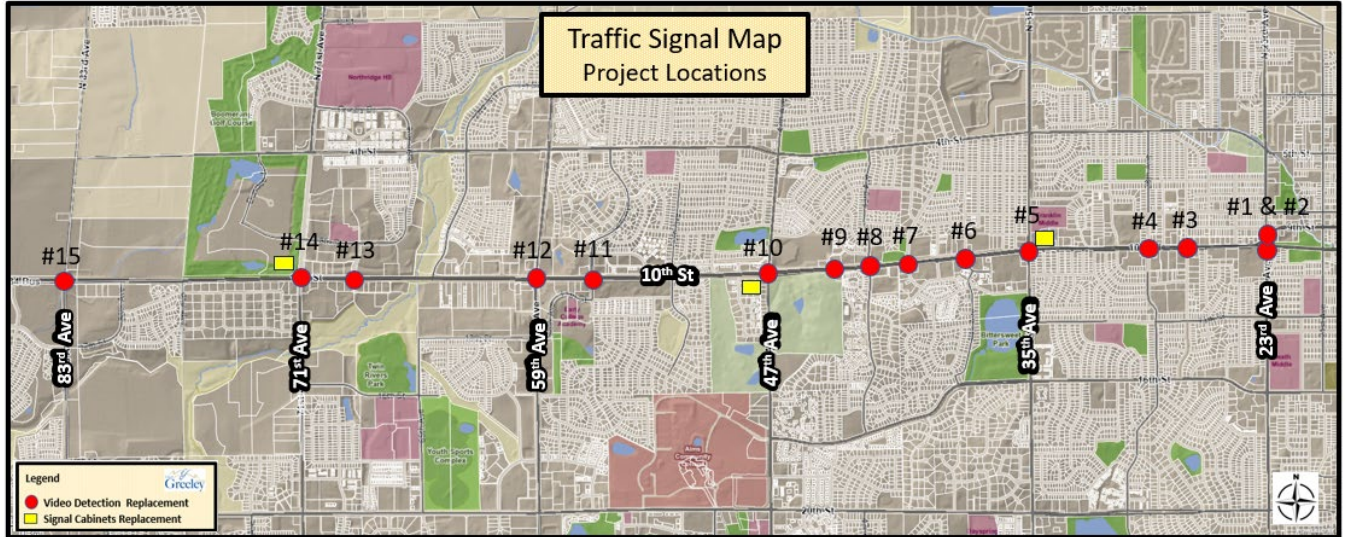
Construction Element	Governing Document
All Construction	City of Greeley Design Criteria and Construction Specifications Manual (DCCSM)
Traffic Signal Installations	City of Greeley 2021 Traffic Signal Standards & Manual on Uniform Traffic Control Devices (MUTCD)
Concrete	Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction & CDOT M&S Standards
Erosion Control	Mile High Flood District (MHFD) Criteria Manual Volume 3
Traffic Control	Manual on Uniform Traffic Control Devices (MUTCD) and 2021 City of Greeley Method of Handling Traffic Manual (MHTM)

ALL CONSTRUCTION WILL MEET THE AMERICANS WITH DISABILITIES ACT (ADA) CONSTRUCTION SPECIFICATIONS.

PROJECT LOCATIONS

The traffic signal work is located at these fifteen (15) locations listed and shown below:

- 10th Street & 23rd Avenue
- 9th Street & 23rd Avenue
- 10th Street & 26th Avenue
- 10th Street & 28th Avenue
- 10th Street & 35th Avenue
- 10th Street & 37th Avenue
- 10th Street & 39th Avenue
- 10th Street & 43rd Avenue
- 10th Street & 45th Avenue
- 10th Street & 47th Avenue
- 10th Street & 54th Avenue
- 10th Street & 59th Avenue
- 10th Street & 69th Avenue
- 10th Street & 71st Avenue
- 10th Street & 83rd Avenue



TIME TO COMPLETE

Phase 1 (Install New Video Detection System and Replace/Modify Signal Cabinets) - July 31st and September 30, 2024.

Phase 2 (Remove existing Video Detection System) – October 28 and December 6, 2024.

GENERAL PROJECT WORK

These projects include mobilization, traffic control, water pollution control, dust prevention and control, site cleanup, traffic signal equipment removal/installation (i.e., video detection, traffic signal cabinets, wiring, etc.), all other work as shown on the Plans and as directed by the Engineer.

SCOPE OF SERVICES

The Contractor will initially complete the **first** phase that includes installing new “complete” video detection systems at fifteen (15) signalized intersections. The vehicle detection systems will be furnished by the City and the work will include the “complete” system installation composed of these principal items: signal vehicle detection devices (stop bar and advance detection capabilities), processor units, mounting hardware and all necessary cables and miscellaneous hardware for the operation of the system. The existing video detection systems must remain operating at these intersections during this first project phase except when the new system is tested.

This first project phase also includes replacing the existing model 332 signal cabinets with 332-D cabinets at two (2) signalized intersections (i.e. 47th Avenue/10th Street, and 59th Avenue/10th Street). It also includes work to remove and relocated signal equipment in the signal controller cabinet at the 35th Avenue/10th Street intersection. This signal cabinet work at the three (3) intersections is provided on plans provided in Appendix A, B, and C.

Phase 1 work that includes installing complete video detection systems at the fifteen (15) intersections will include signal detection devices at the intersections shown in the table on the next page.

Int #	Intersection	# Stop Bar Signal Detectors	# Stop Bar & Advance Signal Detectors	Processor Type	Approx Length of Cable (ft)
1	10 th Street & 23 rd Avenue	2	1	Rack	450
2	9 th Street & 23 rd Avenue	2	1	Rack	940
3	10 th Street & 26 th Avenue	2	2	Rack	720
4	10 th Street & 28 th Avenue	2	2	Rack	780
5	10 th Street & 35 th Avenue	2	2	Rack	810
6	10 th Street & 37 th Avenue	2	2	Rack	770
7	10 th Street & 39 th Avenue	2	2	Rack	805
8	10 th Street & 43 rd Avenue	2	2	Rack	1040
9	10 th Street & 45 th Avenue	2	2	Rack	890
10	10 th Street & 47 th Avenue	2	2	Rack	860
11	10 th Street & 54 th Avenue	2	2	Rack	930
12	10 th Street & 59 th Avenue	2	2	Rack	1005
13	10 th Street & 69 th Avenue	2	2	Rack	890
14	10 th Street & 71 st Avenue	2	2	Rack	995
15	10 th Street & 83 rd Avenue	2	2	Rack	1055
	Total	30	28		12,940

The Phase 1 work includes the installation of Cat 5e video cable at the fifteen (15) intersections in the existing underground signal conduits as shown in Appendix D.

The Phase 1 work includes replacing the existing model 332 signal cabinets with 332-D cabinets at two (2) signalized intersections (i.e. 47th Avenue/10th Street, and 59th Avenue/10th Street). It also includes work to remove and relocated signal equipment in the signal controller cabinet at the 35th Avenue/10th Street intersection. This signal cabinet work at the three (3) intersections is provided on plans provided in Appendix A, B, and C.

Int#	Intersection	Description of Work
12	10th Street & 59th Avenue	Complete traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications
10	10th Street & 47th Avenue	Complete traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications
5	10th Street & 35th Avenue	Complete traffic signal work and materials necessary to modify the existing traffic signal controller cabinets including materials and installation in accordance to plans and specifications

Phase 1 Major Tasks (Install New Video Detection and Modify/Replace Traffic Signal Cabinets)

The major tasks included in this Phase 1 project includes the following:

1. Modify/Replace Traffic Signal Controller Cabinets including:
 - a. Remove and Replace Traffic Signal Controller at 10th Street & 47th Avenue according to plans and specifications
 - b. Remove and Replace Traffic Signal Controller at 10th Street & 59th Avenue according to plans and specifications
 - c. Modify Traffic Signal Controller Cabinet at 10th Street & 35th Avenue according to plans and specifications.

2. Install the new “complete” traffic video detection system while maintaining existing detection system in operation that includes

- Installing video detection cabling from video detection mounted on signal poles to the cabinet
- Installing mounting hardware and brackets
- Installing and connecting processor in cabinet (for testing purposes only)
- Install all other Video Detection System accessories required for operating the devices
- Perform field adjustments with assistance from City
 - Test the “complete” traffic video detection system
 - After testing the “complete” detection system, revert the operation to utilize the existing video detection system

(Location of video detection units on the signal mast arm will be determined by City signal staff)

Phase 2 Major Tasks (Remove Older Video Detection Tasks)

The major tasks included in this Phase 2 project includes the following

1. Install the necessary video detection components in the cabinet to operate the new “complete” video detection system. Includes installing and connecting processor in cabinet
2. Removal of the older “complete” traffic video detection system includes
 - Remove existing video detection cable extending from overhead cameras to the cabinet (i.e. signal poles, handholes, underground cable locations)
 - Remove mounting hardware and brackets
 - Remove Video Detection units on signal poles
 - Remove Video Detection processor and cabling in cabinets
 - Remove all other existing Video Detection accessories necessary

Materials furnished by the City and by the Contractor

Materials to be furnished by the City:

- Video Detection Units including hardware
- Video Detection Processors
- Multi Conductor and Service Wire.
- Video Detection Cables
- Traffic Signal Controller Cabinet & Operating Equipment

Materials furnished by the Contractor

- Banding materials (shall be .75 inches wide)
- All other accessory equipment/materials not supplied by the City

PROJECT SUPERINTENDENT

The Contractor’s Project Superintendent, designated at the pre-construction meeting, will be on the work site when needed during all construction. If the Superintendent is unable to be on the job site, then a designee will be assigned with the authority to make all required decisions. A copy of the Special Provisions will be with the Project Foreman or his designate representative at all times.

The City of Greeley requires an English speaking Superintendent/Project Manager on the job site at all times to ensure clear communication between City Staff and Contractor.

LICENSE, FEES, AND PERMITS

The Contactor shall obtain all necessary City of Greeley permits for work. City of Greeley permit fees will be waived. The Contractor is responsible to keep all permits in compliance until the can be terminated.

SUBMITTALS - MATERIALS

Contractor shall submit manufacturer’s information and materials specification, testing results, and certification that the materials proposed for this project meet the specification requirements outlined in the

CONSTRUCTION TRAFFIC CONTROL

The Contractor shall not perform any construction work in the public right-of-way prior to receiving approval of the Traffic Control Plan from the City of Greeley. The TRAFFIC CONTROL PLAN will include the City's Method of Handling Traffic (MHT) Form. The Contractor will appoint a Traffic Control Supervisor (TCS) to this project. The TCS should be on site daily and must be available twenty-four (24) hours a day. The name and phone of the TCS will be provided to the City at the Pre-Construction Meeting. The Contractor will also provide the name and phone number of an alternate local traffic control company that will act on the Contractor's behalf in case the designated TCS cannot be reached. If Contractor is unresponsive or otherwise is deemed to not be performing traffic control duties in accordance with submitted plan, the City or its subcontractor may perform traffic control services, at cost to the Contractor. The Contractor shall furnish all temporary traffic control devices to meet the City's requirements including:

1. Traffic Control must meet MUTCD, CDOT and City of Greeley Standards.
2. Contractors shall submit and receive an approved MHT plan prior to starting construction work within the public right-of-way.
3. The Contractor/Owner shall schedule and expedite the work to cause the least inconvenience to the public.
4. An applicant shall not cause or allow interference with traffic flow on any arterial or collector street during the hours of 7:00 a.m. through 8:30 a.m. and 4:00 p.m. through 6:30 p.m. Monday through Friday. If construction on a partially closed street stops for the day, all lanes must be reopened to traffic. The Public Works Department may waive these requirements upon a finding of good cause shown by the applicant or public service provider.
5. Construction or repair work will not be permitted at or near the vicinity of schools or school routes and/or along adjacent collector and arterials streets between the hours of 7:00 a.m. to 8:30 a.m. and 3:30 p.m. to 6:30 p.m. Monday through Friday when school is in-session. (Except in the case of an emergency or with approval of the Traffic Services Division.)
6. Except in the case of an emergency, no work shall be performed between the hours of 10:00 p.m. and 7:00 a.m. unless authorized in writing by the Public Works Department. The Public Works Department shall consider overall convenience to the public and to the service provider's customers when considering allowing work between 10:00 p.m. and 7:00 a.m.
7. No work shall be performed on the local streets before 7:00 a.m. or after 6:00 p.m. each workday unless otherwise approved by the City Project Representative.
8. The Public Works Department may require that the work be done overnight and during weekends when necessary to expedite construction and minimize disruption to traffic.
9. Intersections, traffic lanes, streets and driveways shall be closed only for a minimum amount of time. Contractors must adjust their MHT plan accordingly and open closure areas when work activities and/or road hazards do not call for maintaining the closures.
10. The Contractor/Owner shall coordinate street and driveway closures with property owners, one (1) week prior to construction by written notification with final approval by the Traffic Services Division.
11. The Contractor shall maintain responsibility to change or adjust traffic control devices if conditions warrant.
12. All flaggers shall be properly trained according to State and Federal guidelines.
13. The Contractor/Owner shall repair and replace damaged or missing permanent or temporary traffic control devices immediately within the job site.
14. The Contractor/Owner shall maintain all necessary barricades, signs, permanent signs, temporary signs, pavement markings, and other traffic control devices between phases of construction even if construction activity ceased for a year or more.
15. If the traffic control is deemed insufficient, notice will be given to rectify. If after one (1) hour the deficiencies have not been corrected, the City reserves the right to temporarily suspend operations until traffic control is compliant. In life/safety circumstances, the City reserves the right to suspend operations immediately.
16. The Contractor/Owner shall hold harmless the City of Greeley and City staff against claims resulting

from accidents involving construction work or construction traffic control.

When the Contractor's operations create a condition hazardous to traffic or the public, the Contractor shall take the necessary precautions and provide adequate means to protect those who pass through or over the work, at no expense to the City. If the Contractor shall appear to be negligent in providing such warning or protective measures, the Superintendent may direct attention to the existence of a hazard, and the Contractor at no expense to the City shall install any measures required to protect the public.

Signal turn-on/turn-off and flashing entry/exit shall be done only at the on-site direction of the Superintendent.

Only City of Greeley police officers can be stationed to work as Uniform Traffic Control personal for this project.

PRE-CONSTRUCTION MEETING

The date for the pre-construction meeting will be announced after the bids are opened and the contract has been awarded. The Contractor will be expected to present the City with the following items **at least 3 business days in advance** of the pre-construction meeting:

1. Construction schedule for entire project. Schedule shall be updated each week.
2. Copy of completed City permit application.
3. Approved Method of Handling (MHT) Traffic Control Plan:
4. Traffic Control Supervisor certification and TCS's 24-hour contact phone number.
5. Materials Suppliers List
6. Subcontractors List
7. Material Cut Sheet/C.O.C.'s.

All submittals will be provided to the City via the City's document management system or as directed. Failure by the Contractor to provide the aforementioned items in the specified time frame may result in postponement of the meeting. **Such postponement will not result in an extension of contract time.**

UTILITIES

The Contractor must contact and schedule with Xcel Energy Company of Colorado, if needed, for the installation of overhead devices including signal heads, video detection, and other devices as part of this project. Xcel Energy has overhead transmission lines along the west side of 11th Avenue at several of these intersections. The Contractor shall coordinate his or work with Xcel Energy Company. All final **service** line connections shall be coordinated by the City and shall be made by Xcel Energy Company.

Prior to excavating, the Contractor shall positively locate through potholing if necessary all potential conflicts with existing underground utilities and proposed construction, as determined by the Contractor according to proposed methods and schedule of construction. The Contractor shall modify construction plans to avoid existing underground facilities as needed, and as approved by the Engineer. Please note that Colorado811 notifies only its members who are responsible to mark their own facilities - Other facilities may exist, and it is the Contractor's responsibility to investigate, locate and avoid such facilities.

The Contractor shall be responsible for coordinating the adjustment of utilities on this project. The Contractor shall keep each utility company advised of any work being performed in the vicinity of their facilities, so that each utility company can coordinate any needed locates, adjustments or inspections. Contractor shall provide the appropriate utility company ample notice, but not less than two (2) working days, prior to commencing activities in the vicinity of their facilities. Any additional work performed by the Contractor on behalf of the impacted utility company shall not be paid for by the City but shall be paid by the utility company requiring the work, unless otherwise agreed to in writing by the Engineer.

Known utilities within the limits of this project are:

UTILITY	CONTACT/EMAIL	PHONE/FAX
Allo Communications	John Surber John.Surber@allofiber.com	719-221-4374
AT&T	Chris Tone Ct4146@att.com	303-994-2209
Atmos Energy	Curtis Rau Curtis.Rau@atmosenergy.com	970-534-0288
Comcast	John Hamburg John_Hamburg@comast.com	970-567-4797
City of Greeley - ITS	Nate McKinney	970-301-3753
City of Greeley - Traffic	AJ Swanson AJ.Swanson@greeleygov.com	970-702-3372
City of Greeley - Water and Sewer	Brandon Valenciano Brandon.Valenciano@greeleygov.com	970-302-2403
Xcel Energy Application for Gas & Electric Services	BCLCO@xcelenergy.com	1-800-628-2121

WORKSITE CONDITIONS

At the conclusion of each workday, the Contractor will cleanup all construction materials and leave the construction site in a condition approved by the City Project Manager.

Waste material, which is deemed not reusable by the City Project Manager, will be disposed of by the Contractor at his expense.

WARRANTY

The Contractor is responsible for providing a TWO-YEAR warranty to the City for all work completed under this contract. The beginning of the TWO-YEAR warranty period will be established with the issuance of the Certificate of Substantial Completion. There will be no additional cost to the City for material, equipment, labor, and/or traffic control for warranty work. Warranty work will be completed in accordance with these contract specifications and within thirty (30) days of written notification by the City Public Works Department, Engineering Division, and Street Infrastructure Management.

PAYMENT

Actual payments will be based upon mutually accepted work completed. No payment will be made on work sites that have not been completed, including clean up. Request for payments shall be made at least monthly unless approved otherwise by the City Project Manager.

FINAL PAYMENT

Payment will be made in conformance with the General Conditions of the Contract and normally processed on a monthly basis.

BID ITEM DESCRIPTIONS

<u>Item No.</u>	<u>Description</u>
1-15	Traffic Video Detection Installation Work at each of the fifteen listed locations along 10th Street. This lump sum bid item for each of the fifteen intersections includes all traffic signal work and materials necessary to install a traffic signal vehicle detection system necessary to operate a new video detection system in accordance with the plans, specifications, and other requirements to meet City and State standards. The vehicle detection system components listed will be furnished by the City and the work will include the “complete” system installation composed of these principal items: signal vehicle detection devices (stop bar and advance detection capabilities), processor units, mounting hardware and all necessary cables and miscellaneous hardware for the operation of the system. The Phase 1 work includes the installation of Cat 5e video cable at the fifteen (15) intersections as shown in Appendix D. This work also includes perform field adjustments of the video detection units to capture appropriate lane configurations with assistance from City The existing video detection systems must remain operating at these intersections during this first project phase except when the new system is tested. All materials and labor shall be included in the lump sum bid cost except for City furnished materials. Incidental work includes performing traffic control, locates, and other associated work.
16	10th Street & 59th Avenue. This lump sum bid item includes all traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications. This shall be a “complete” installation for the operation of the traffic signal system. All materials and labor shall be included in the lump sum bid cost except for City furnished materials. Incidental work includes performing traffic control, locates, and other associated work.
17	10th Street & 47th Avenue. This lump sum bid item includes all traffic signal work and materials necessary to replace the traffic signal controller cabinet including materials and installation in accordance to plans and specifications. This shall be a “complete” installation for the operation of the traffic signal system. All materials and labor shall be included in the lump sum bid cost except for City furnished materials. Incidental work includes performing traffic control, locates, and other associated work.
18	10th Street & 35th Avenue. This lump sum bid item includes all traffic signal work and materials necessary to modify the existing traffic signal controller cabinet including materials and installation in accordance to plans and specifications. This shall be a “complete” installation for the operation of the traffic signal system. All materials and labor shall be included in the lump sum bid cost except for City furnished materials. Incidental work includes performing traffic control, locates, and other associated work.
19-33	New Traffic Video Detection Activation and Complete Removal of Older Video Detection Systems at each of the fifteen listed locations along 10th Street. . This lump sum bid item includes Connecting new video detection processors/cables in the cabinet to activate new video detection system & complete traffic signal vehicle detection system removal work (old units) necessary in accordance to plans and specifications. Removals include all old detection system equipment such as cables, hardware, cameras, processors and other equipment. This includes performing work and following practices/practices that meet City and State standards, specifications, and other requirements. All materials and labor shall be included in the lump sum bid cost. Incidental work includes performing traffic control, locates, and other associated work.

TRAFFIC SIGNAL INSTALLATIONS – SPECIAL PROVISIONS

TS-2 EXCAVATING AND BACKFILLING

A. Excavating

Blasting shall not be done within City limits.

When trenching, the trench shall be dug only as far in advance of the conduit as permitted by the Superintendent.

The trench bottom, regardless of whether it is existing, imported, or recompacted material, shall be shaped to provide a uniform and continuous bearing support for the conduit on solid and undisturbed material at every point between couplings. Couplings shall be provided for pipe. Excavations for conduit shall be two inches wider than the outside diameter of the conduit. Pipe shall not be installed in the trench until the subgrade preparation meets the above specifications, as determined by the Superintendent. Surplus excavated material shall be removed and disposed of immediately by the Contractor. After each excavation is complete, the Contractor shall notify the Superintendent and under no circumstances shall any conduit or material be covered without inspection and approval.

B. Backfilling

Excavation in trenches shall be backfilled to the original ground surface or to such grades as specified or shown on the drawings. Backfilling shall begin as soon as practical after the pipe has been placed and shall be carried on as rapidly as is consistent with construction in the open trench work area.

Complete cleanup shall proceed directly behind the backfilling to facilitate the return to normal conditions. The Contractor shall have sufficient equipment on the job at all times to assure timely backfilling and cleanup.

Backfilling and compacting shall be done as thoroughly as possible to prevent after-settlement. Depositing of the backfill shall be done so the impact of falling material will not damage the conduit. Grading over and around the work shall be done as directed by the Superintendent.

Backfilling of the conduit trenches shall be done by placing aggregate base course material CDOT Specification, Class 6, tamping in lifts of not more than six inches, to the bottom surface of the structural roadway material. The remaining portion of the excavation shall be backfilled with the same type of material used to construct the existing roadway surface.

Use of non-shrinking backfill material as outlined in City of Greeley Standards may be substituted for above.

When the trench excavation is within the right-of-ways of State or County highways, the backfilling of the trench, compaction of materials, sub-grade preparation, and surfacing shall be done in strict accordance with the requirements and specifications of the State or County Highway Department. Unless otherwise specified, this work shall be considered incidental to other portions of the contract.

The Contractor shall blade and compact the roadway after the trench has been backfilled, so it shall be passable to traffic at all times. The Contractor shall maintain the roadway in a condition acceptable to the Superintendent until final acceptance of the entire work by the City.

The Contractor shall remedy at no cost to the City any defects that appear in the backfill following completion and during the guarantee period.

C. Removing and Replacing Improvements

When a part of a square or slab of existing concrete sidewalk is broken or damaged, the entire square or slab shall be removed and the sidewalk reconstructed as specified above. The outline of areas to be removed in Portland Cement concrete shall be outlined and shall be cut to a minimum depth of 12" with an abrasive-type saw prior to removing the material. Cut for the remainder of the required depth may be made by any method satisfactory to the Engineer. Saw cuts shall be neat and true with no shattering or chipping of concrete adjacent to or outside of the removal area.

Cuts in existing bituminous pavement shall be saw cut or cut with a sharp-edged wheel roller.

Removed bituminous and concrete materials shall be hauled from the site and disposed of by and at the expense of the Contractor, at a suitable disposal site provided by the Contractor.

Trenches in the roadway shall be patched within five calendar days. The Contractor shall be responsible for maintaining trenches on a daily basis until the final patch is in place. In the event the Contractor cannot comply within the allotted time frame, the City may employ a secondary contractor to install the necessary patch, and back charge the original Contractor for patch installation.

TS-3 CONDUIT

A. General

Conductors shall be run in conduit except when run in metal poles. A nylon pull line shall be left in each conduit run for future pulling of wires. Conduit shall be rigid PVC or galvanized rigid steel conforming to the plans, standard specifications, and/or the special provisions.

Electrical conduits running to the control cabinet shall enter from the bottom of the cabinet unless otherwise noted on the plans. Conduit runs shown on the plans are tentative as to routing and may be changed as directed by the Superintendent to avoid underground obstructions. In the event of any change from the location shown on the plans, accurate records shall be kept for as-built drawings, and necessary details submitted to the Superintendent before final payment is made.

B. PVC conduit

PVC conduit shall be manufactured of high-impact PVC, and shall conform to industry standards and commercial standards No. CS-207-60. Each length of PVC conduit and back of the various PVC fittings (expansion joints, couplings, adapter, etc.) shall bear the label of Underwriter's Laboratories, Inc. The conduit shall be of the size or sizes shown on the plans or indicated in the special provisions. All PVC conduits shall be schedule 40, except under any travel way HDPE SDR 11 shall be used. PVC conduit shall be used only for underground installations. Conduit used above ground shall be GRC.

A #8 AWG stranded copper conductor shall run continuously in all PVC conduits used for traffic signal circuits. This wire is used for bonding and grounding purposes.

A nylon pull line of not less than 500 lb. tensile strength shall run continuously in all conduits. Bare copper conductor and nylon pull line shall be supplied by the Contractor and shall be incidental to conduit installation.

C. Galvanized Rigid conduit

Conduit and fittings shall be galvanized rigid steel and shall be uniformly and adequately zinc-coated by the hot-dipped process conforming to ASTM Designation A153. Joints shall be set up tight with squared ends. Fastenings shall be secured and of a type appropriate in design and dimensions for the particular application. Couplings, connectors, and fittings shall be approved types specifically designed and manufactured for the purpose. Fittings shall be installed to provide a good electrical grounding throughout the conduit system. Neither the interior nor the exterior of a six-inch sample cut from the center of a standard length of conduit, when tested in accordance with the applicable portion of ASTM Designation A239, shall show a fixed deposit of copper after four one-minute immersions in the standard copper sulphate solution. The interior of the rigid conduit shall have a galvanized coating. Each length

shall bear the label of Underwriters' Laboratories, Inc., and shall conform to appropriate articles of the electrical code.

D. Conduit Installation

Conduit under railroad tracks shall not be less than 42 inches below the bottom of the tie or as specified by railroad code. It shall be the responsibility of the Contractor to obtain clearance from the railroad before any work is done within the railroad right-of-way. The minimum size of conduit to be used will be shown on the plans or as required on the wire layout sheets. Conduit smaller than 3/4-inch electrical trade size shall not be used, unless otherwise specified, except that grounding jumpers at service points may be enclosed in 2-inch conduit.

Conduit installed for future use shall terminate in a pull box, and each conduit end shall also be capped. Each pull box (other than water valves) shall have a minimum of 6" of 3/4" rock and 4" clearance from the top of the conduit to the bottom of the lid.

E. PVC conduit Installation

In bending PVC conduit, the following methods may be used.

1. A water bending process may be used consisting of a water-filled steel pipe four feet long, heated to the temperature that will render the PVC conduit pliable in approximately 30 seconds after insertion in the pipe. The conduit may then be bent to the desired angle and held in an appropriate jig for a cooling period of approximately 20 seconds.

2. The Contractor may use other methods of bending PVC conduit if the preceding method is found unsuitable because of climactic conditions, but only after demonstrating the proposed method to the Superintendent and receiving his approval.

Bends in PVC conduit shall be made and conform to all appropriate sections of the National Electrical Code or local codes governing bending radius, and number of bends allowed as applicable for rigid conduit.

Conduit bends, except factory bends, shall have a radius of not less than six times the inside diameter of the conduit. When factory bends are not used, conduit shall be bent without crimping or flattening using the longest radius practicable.

F. Termination of conduit

Galvanized rigid conduit terminations shall be fitted with insulating bushings to prevent chafing of wire on exposed edges. Threaded ends shall be protected with approved insulated metal ground bushings or insulated bushing material, and sealed by duct seal.

G. Pull Boxes

All pull boxes shall be polymer concrete type (or an approved equal) with size to be determined by the superintendent. Each pull box will have installed a 5/8" X 10' ground rod and all # 8 copper wires attached to the ground rod. All conduits shall enter the pull box from the bottom and sweep up. There shall be at least 4" clearance between the top of the conduit and the top of the box and no more than 6". Each box shall contain a minimum of 6" of 3/4" rock.

TS-4 Traffic Signal Equipment Removal

This projects includes removing existing traffic signal equipment including signal heads, backplates, cabinet,etc as indicated on the plans. All traffic signal equipment that is removed shall remain the property of City of Greeley. Poles will be stripped clean of all attached parts before transporting. Traffic signal equipment removed from the project will be transported by the contractor to the City's Traffic Signal Yard on 35th Avenue (Bestway Yard). Any abandoned caisson or foundation shall be fully or partially removed and disposed of by the CONTRACTOR per the direction of the ENGINEER. Any

conduit runs associated with an abandoned caisson or foundation shall be extended or abandoned as called for on the plans.

When existing traffic signal installations are modified or completely rebuilt, the CONTRACTOR shall work around existing traffic signal equipment until the new or modified traffic signal system has been installed and put into operation. Signal heads installed on standards or poles for new installation, which are not ready for actual electrical operation, shall be bagged with either black plastic or a suitable non-transparent material. The CONTRACTOR shall at all times maintain operation of a minimum of two (2) three section (red, yellow, and green) traffic signal heads and pedestrian heads (if required) for each roadway approach.

TS-5 CONCRETE FOUNDATIONS

A. General

Foundations shall be concrete conforming to City of Greeley Class "BZ" mix requirements.

After pouring the concrete, the anchor bolts shall be raised and lowered individually to eliminate any air pockets, and to allow proper alignment of the anchor bolts in the concrete prior to the setting of the concrete.

If the Contractor proposes any deviations in the pouring of foundations, the City Engineer prior to pouring of the concrete shall approve the deviations.

B. Poles, Standards, and Pedestal Foundations

Poles, standards, and pedestals shall not be erected until the foundation concrete has set at least seven days. Foundations for high-strain poles shall set a minimum of ten days. Equipment shall be plumbed or raked as required and directed by the Superintendent.

Foundations for poles shall normally be flush-top and shall be located as shown on the plans or as directed by the Superintendent. The maximum distance behind the curb for pole locations is desired. In locations where the roadway is not curbed, the top of the foundations shall be six inches plus or minus one-quarter inch above the grade of the edge of the pavement. Where foundations are located in the sidewalk, the foundation shall be two inches above the surface of the sidewalk. Expansion material shall be placed between the foundation and the sidewalk, with the top of the expansion material level with the sidewalk surface.

Poles that are to be painted, shall be washed with approved solvent, a two-part primer coat applied with an approved primer (Macro Poxxy 846) and two-part epoxy paint (Sherman Williams code B65ST304) Federal Green.

The provisions in the above paragraph are general descriptions for normal roadway conditions. In certain cases, special foundation requirements may be indicated on the plans or required by the City Engineer.

For example: where heavy excavations, embankments, sloping (rip-rap) areas near the roadway, or unusual soil conditions are encountered.

C. Controller Foundations

Controller foundations shall be concrete conforming to City of Greeley Class "B" mix requirements. Foundations for traffic signal controller cabinets, when located in sidewalks, shall rise above the sidewalk surface as shown on the plans. Foundations may also be approved fiberglass when approved by the Superintendent.

The foundation shall be caulked with an asphalt or silicon caulk, or "Rubberneck" sealant prior to placing the cabinet on the foundation.

TS-6 VEHICLE DETECTOR INSTALLATION

The vehicle detection system shall be specified by the City of Greeley, and shall be installed per manufacturer standards. Vehicle detection cameras shall be mounted on the mast arm poles as shown on the plans. The mounting of the cameras shall be in accordance with manufacturer's specification to provide proper operation of the devices. The vehicle detection system shall consist of the Iteris Vantage Next detectors for all four approaches complete with the communication manager, I/O 24 Module, connecting cables, mounting brackets as well as other hardware/software (items listed below) for a complete system.

Camera – Iteris Vantage and Next
6' Pole & Mounting Bracket

TS-7 CABLE AND CONDUCTORS

A. General

Cable and conductors shall conform to the applicable I.M.S.A. Specifications and to these specifications. Multi conductor cable shall be copper and conform to IMSA Specification 19-1. The individual conductors in Multi conductor cable shall be 14 gauge stranded copper wire. Pedestrian push button wire shall be IMSA 19-1 AWG #16 Street light wire shall be 19-1 AWG 12, 3 conductor (Black, White, and Green) Cat 5e cable shall be OSP rated.

Opticom emergency priority equipment shall be wired with 3M cable designed specifically for this type of equipment. Opticom lead-in cables shall not be spliced. Opticom lead-in shall be color coded Purple.

All signal heads shall use IMSA 19-1 AWG 14-7 conductor.

All poles shall have a continuous run from traffic signal cabinet using IMSA 19-1 AWG 14-21 conductor. Any detector cabling shall meet the manufacturer specifications.

Separate conduits for low voltage and high voltage conductors shall be provided in all signal installations. High voltage conductors shall be run in conduits separate from low voltage actuation lead-ins and telephone interconnect.

Opticom emergency priority equipment shall be wired with 3M cable designed specifically for this type of equipment.

Connections to signal heads, pushbuttons, and traffic controllers shall be secured to the screw type terminals in the traffic signal heads, pedestrian pushbuttons, and the traffic controller. The connectors shall be of the spade tongue type and shall be affixed to the conductors using a tool designed specifically for the connection of the connectors to the conductors. Wire nuts shall be used for the connections at all hand holes.

The wiring for each mast arm mounted signal head shall be taped with the appropriate number of bands, color coded by direction, to indicate signal head number, with the head furthest from the pole being number one.

Unused conductors in each cable shall be folded back on the cable and securely taped.

B. Wiring Installation

**City Of Greeley
21 Conductor Cable Wiring**

MAIN STREET		SIDE STREET	
CONDUCTOR	INDICATION	CONDUTOR	INDICATION
RED	RED	RED/BLK	RED
ORANGE	YELLOW	ORANGE/BLK	YELLOW
GREEN	GREEN	GREEN/BLK	GREEN
RED/WHT	RED ARROW	BLACK	RED ARROW
ORANGE/RED	YELLOW ARROW	WHITE/BLACK	YELLOW ARROW
GREEN/WHT	GREEN ARROW	BLUE	GREEN ARROW
BLACK/WHT	DON'T WALK	BLACK/RED	DON'T WALK
BLUE/WHT	WALK	BLUE/RED	WALK
WHITE	SIGNAL NEUTRAL	BLUE/BLACK	SPARE / FYA
WHITE/RED	PED NEUTRAL	RED/GRN	SPARE
ORANGE/GRN	SPARE / FYA		

SEVEN CONDUCTOR CABLE WIRING

CONDUCTOR	INDICATION
RED	RED BALL OR ARROW [3 SECTION] OR MAIN STREET DON'T WALK
ORANGE	YELLOW BALL OR ARROW [3 SECTION]
GREEN	GREEN BALL OR ARROW [3 SECTION] OR MAIN STREET WALK
WHITE/BLK	YELLOW ARROW [5 SECTION] OR FLASHING YELLOW ARROW
BLUE	GREEN ARROW [5 SECTION] OR SIDE STREET WALK
WHITE	NEUTRAL
BLACK	SPARE OR SIDE STREET DON'T WALK

CABLE COLOR [TAPE] CODES

NORTHBOUND	RED	LEFT TURN	WHITE
SOUTHBOUND	GREEN	PEDESTRIAN	YELLOW
EASTBOUND	ORANGE	RIGHT TURN	GRAY

WESTBOUND	BLUE	
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Separate Multi conductor cables shall be provided for each signal phase. Each mast arm mounted signal face shall be wired separately back to the pole base. The signal face farthest from the pole shall always be wired to accept a five-section signal face, whether that face is installed or not.

Unused conductors in each cable shall be folded back on the cable and securely taped. Opticom lead-in cables shall not be spliced.

Connections to signal heads, pushbuttons, and traffic controllers shall be secured to the screw type terminals in the traffic signal heads, pedestrian pushbuttons, and the traffic controller. The connectors shall be of the spade tongue type and shall be affixed to the conductors using a tool designed specifically for the connection of the connectors to the conductors. Wire nuts shall be used for the connections at all pull boxes.

Sheath for detectors shall not be grounded.

The wiring for each mast arm mounted signal head shall be taped with the appropriate number of bands, color coded by direction, to indicate signal head number, with the head furthest from the pole being number one.

Seven conductor cable wiring

CONDUCTOR COLOR	INDICATION	TAPE COLOR
<i>Northbound through Vehicles:</i> Green Orange Red	Green Yellow Red	Red Red Red
<i>Northbound Left Turns:</i> Blue White/Blk Red	Green Arrow Yellow Arrow Red Arrow	Red + White Red + White Red + White
<i>Northbound Right Turns:</i> Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Red + Gray Red + Gray Red + Gray
<i>Northbound Pedestrians:</i> Blue Black	Walk Don't Walk	Red + Yellow Red + Yellow
<i>Southbound through Vehicles:</i> Green Orange Red	Green Yellow Red	Green Green Green
<i>Southbound Left Turns:</i> Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Green + White Green + White Green + White
<i>Southbound Right Turns:</i> Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Green + Gray Green + Gray Green + Gray

Southbound Pedestrians: Blue Black	Walk Don't Walk	Green + Yellow Green + Yellow
Eastbound through Vehicles: Green Orange Red	Green Yellow Red	Orange Orange Orange
Eastbound Left Turns: Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Orange + White Orange + White Orange + White
Eastbound Right Turns: Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Orange + Gray Orange + Gray Orange + Gray
Eastbound Pedestrians: Blue Black	Walk Don't Walk	Orange + Yellow Orange + Yellow
Westbound through Vehicles: Green Orange Red	Green Yellow Red	Blue Blue Blue
Westbound Left Turns: Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Blue + White Blue + White Blue + White
Westbound Right Turns: Green Orange Red	Green Arrow Yellow Arrow Red Arrow	Blue + Gray Blue + Gray Blue + Gray
Westbound Pedestrians: Blue Black	Walk Don't Walk	Blue + Yellow Blue + Yellow
Other: White White/Black	Common Signal Unused or Common Ped	

Opticom lead-in shall be color coded Purple.

The Contractor shall install two single conductor #6 AWG wire from the controller to the service connection pull box or service pole, leaving three extra feet of wire in the pull box.

TS-8 SERVICE SYSTEMS

A. General

Service points shown on the plans are approximate only. The exact location will be determined in the field by the Contractor, the Superintendent, and Xcel Energy Company.

Xcel Energy Company will make the electrical service connections. The Contractor shall be

responsible for coordinating the service connection with Xcel Energy Company.

B. Service Pole

Conduit shall be strapped to the pole with rigid two-hole straps with #8 or #9 12" wood screws, or as shown on the plans. Plumber's tape, wire nails, or other means of fastening conduit shall not be used. In locations where it is necessary, conduits, covers, and gaskets shall be furnished and installed by the Contractor.

Conduit used in the service installation above ground shall be GRC of the size specified on the plans or special provisions. In areas where the GRC is coupled to PVC conduit used for the underground portion of the service run, the joining of the two conduits shall take place 18 inches underground utilizing a GRC factory elbow.

The conduit shall be securely bonded to the service pole when deemed necessary by the Superintendent, and shall also be bonded in a like manner to the service pole ground system.

A. General

Separate Purchase Orders may be issued for individual work projects. All invoices by the Contractor for work done shall be itemized by work item and location, and shall reference the applicable Purchase Order.

Items listed as **Furnish and Install** shall mean that the Contractor shall furnish and install the item, and shall furnish all other materials, equipment, and labor to complete the item.

Items listed as **Remove** shall mean that the Contractor shall remove the item and return it to the City at the Municipal Service Center, 1300 A Street, and exercising care not to damage or lose the removed item. The Contractor shall furnish all materials, equipment, and labor to complete the item.

Items listed, as **Reset** shall mean that the Contractor shall remove the item and install it in its relocated position. The Contractor shall furnish all other materials, equipment, and labor to complete the item.

Items listed as **Replace** shall mean that the Contractor shall remove the existing item and return it to the City at the Municipal Service Center, exercising care not to damage or lose the removed item. The Contractor shall install in its place a similar but different item, as shown in the plans. The Contractor shall furnish all other materials, equipment, and labor to complete the item.

B. Trench, Backfill, and Restore

Trenching and backfilling shall not be paid for separately but included in the price of the conduit. Price and payment shall include all materials, equipment, and labor to remove and dispose of spoils and improvements, furnish and install backfill material, and replace and restore removed improvements

C. Bored or Pushed Conduit

Bored or pushed conduit will be paid for at the contract unit price per linear foot, measured from end point to end point. Price and payment shall include furnishing and installing conduit as shown on the plans or as directed by the Superintendent.

D. Conduit

Conduit installation will be paid for at the contract unit prices per linear foot. Prices and payment shall include furnishing and installing as shown on the plans or as directed by the Superintendent.

E. Pot Holing

All potholes in concrete or asphalt shall be restored per MEGPEC Item 18.3.7 (special provision) that states Pot Holes “shall be filled with flow fill up to the bottom of the existing pavement. The rest of the hole shall be filled to within one quarter (1/4) inch of the finished grade with a non-shrink grout.” Other requirements for potholing work as specified in the City of Greeley’s Design Criteria and Construction Specifications shall apply.

F. Pull Box

Pull box installation will be paid for at the contract unit price per each. Price and payment shall include installation as shown on the plans or as directed by the Superintendent. All pull boxes shall meet the ANSI/SCTE 77 2013-Tier 22 specification (or an approved equal) with the sizes as specified on the plans.

G. Cabinet Foundation (Furnish and Install)

Cabinet foundations will be paid for at the contract unit price per each. Price and payment shall include forming the foundation, furnishing and placing the ground rod, placing the anchor bolts, and furnishing and pouring the concrete. Cabinet foundation may be of the fiberglass type at the discretion of the Superintendent.

H. Cabinet Step Pad

Cabinet step pads will be paid for at the contract unit price per each. Price and payment shall include a concrete and/or a strong polymer concrete and reinforced pad with a heavy-weave.

I. Cabinet

Cabinet installations will be paid for at the contract unit price per each including the cost of the traffic signal controller and UPS unit. Price and payment shall include mounting the cabinet on the base and making all connections to render the cabinet fully operable. The traffic controller will be configured and provided by the City of Greeley. The cabinet will contain a UPS unit and generator connector specified by the City of Greeley.

J. Mast Arm Pole or Combination Pole

Mast arm pole or combination mast arm and street light pole installations will be paid for at the contract unit price per each. Price and payment shall include installing either a precast or field-poured foundation in conformance with current City of Greeley Standards or Colorado Department of Transportation Standards, the traffic signal pole associated mast arm as shown on the plans.

K. Pedestal Pole

Pedestal pole installations will be paid for at the contract unit prices per each for each size listed. Prices and payment shall include furnishing and installing a concrete foundation with two 2-inch conduits, furnishing and installing the ground rod, and installing the pole as shown on the plans.

L. Traffic Signal Head

Traffic signal head installations will be paid for at the contract unit price per each. Price and payment shall include making sure all hardware in and out of the head is tight. Assembling and attaching all mounting hardware, mounting the signal head as shown on the plans (including back plate). Furnishing and installing the cable to the pole base hand-hole, at the hand-hole splices shall be made with the appropriate size wire nuts. Signal head cabling shall extend 18” out of the hand hole. All splices and connections to render the traffic signal head fully operable.

Signal heads shall be mounted 18' from the bottom of the signal head to pavement crown (left most head) when installed on the mast arm, the remaining heads on the arm to be level with this head. Sky-brackets (part # SB59- SCK) will be used to mount the traffic heads to the mast arms. Side of pole signal heads to be 10' from the bottom of the head to grade.

Pedestrian signal heads to be 8' from the bottom of the head to grade. Side of Pole Signals shall be mounted using 3/4" Band-it. Holes to facilitate wiring of signal and pedestrian heads are to be drilled and shall be a minimum of 3/4" in diameter. All holes will be deburred by filing with rat-tail file. Traffic signal heads shall be McCain traffic signal heads. Back plates shall have a 2" yellow retro-reflective outer border.

M. Traffic Signal Head Removal

Traffic signal head removals will be paid for at the contract unit price per each.

N. Pedestrian Push-button Assembly

Push-button assembly installations will be paid for at the contract unit price per each. Price and payment shall include furnishing, mounting the push-button assembly and making all connections to render the pushbutton fully operable. Buttons shall be mounted 38" from the ground. Mounting of the assembly shall be by drilling and tapping 1/4" X 20 holes and the hole for wiring shall be drilled a minimum of 3/4" diameter. Pedestrian push buttons shall be specified by the City of Greeley.

O. Pedestrian Instructional Sign

Pedestrian instructional sign (R10-3) shall not be paid for separately but included in the cost of the pedestrian push button. Price and payment shall include the following: drill and tap holes for 5/16" screws provided with the sign, and mount 9" x 12" sign, as shown on the plans.

P. Pedestrian Push-button Wire

Pedestrian push-button wire will be paid for at the contract unit price per linear foot, measured from the termination at the push-button assembly to the controller termination. Price and payment shall include making all connections to render the item fully operable. All wiring shall be paid for as a lump sum under the Wiring item.

Q. Multi Conductor

Multi conductor will be paid for at the contract unit price per linear foot, measured from the controller to the final hand-hole splice prior. (Multi conductor from the final hand-hole splice to the signal head is included in signal head installation unit pricing.) Price and payment shall include making all connections to render the item fully operable. All wiring shall be paid for as a lump sum under the Wiring item.

R. Grounding and Bonding Wire

8 AWG CU stranded wire will be paid for at the contract unit price per linear foot, measured from pull box to pull box and multiplied times the number of conduits. All wiring shall be paid for as a lump sum under the Wiring item.

S. Service Entrance Wire

One each black and white # 8 AWG CU stranded will be paid for at the contract unit price per linear foot, measured from the Utility termination point to the cabinet. All wiring shall be paid for as a lump sum under the Wiring item.

T. Fire Preemption Unit and Timer

Fire Preemption Unit and Timer installations will be paid for at the contract unit price per each. Price and payment shall include making all connections and configurations to render the item fully operable. The unit and timer shall use Global Traffic Technologies 722 dual-channel detectors and 764 Phase Selector card. The cost of the item shall also include troubleshooting services for 30 days after the traffic signal is operational.

U. Fire Preemption Unit Wire

Fire Preemption unit wire shall not be paid for separately but shall be included in the cost of the Fire Preemption Unit and Timer. Price and payment shall include furnishing and installing the wire and making all terminations necessary to make the Fire Preemption Unit fully operable. All fire preemption unit lead-in wire shall be continuous and un-spliced.

V. LED Signal Indication

LED signal indication will be paid for at the contract unit price per each.

W. Intersection Detection System

Intersection detection system shall be specified by the City of Greeley, installations for four approaches will be paid for at the contract unit price per each. Price and payment shall include making all connections and configurations to render the item fully operable. The cost of the item shall also include troubleshooting services for 30 days after the traffic signal is operational.

X. Detection Cabling

Video detection cables will not be paid for separately but shall be included in the cost of the Intersection Detection System. Price and payment shall include installing the wire as shown on the plans or as directed by the Superintendent.

Y. Communications Radio

If Communication Radio is specified, installation will be paid for at the contract unit price per each. Price and payment shall include making all connections to render the item fully operable. The communication radio shall be an Encom 5.8 GHz Broadband radio and antenna.

Failure to submit the following documentation will result in disqualification of the bidder's submission.

Prime Contractor Participation: Perform at least 48 percent of the original contract amount with the Contractor's own organization. The Contractor's own organization is defined as workers the Contractor employs and pays directly as well as equipment the Contractor owns or rents, either with or without operators. Submit documentation accordingly to indicate what work the Contractor's own organization is performing and the dollar value of that work. Use the following calculation and this shall be submitted with the bid:

$$\text{Contractor's share} = P / C$$

P = Work the prime Contractor performs. The prime may include materials the prime purchases and installs or that the prime purchases, but others install. Do not include equipment and associated operators the prime leases to others performing work.

C = Total contract amount.

The Excel spreadsheet version and a signed PDF version of Section 00130—Bid Schedule are required to be submitted with the bid.

EVALUATION CRITERIA – Bidders will be evaluated by the City of Greeley (City) based on the following criteria:

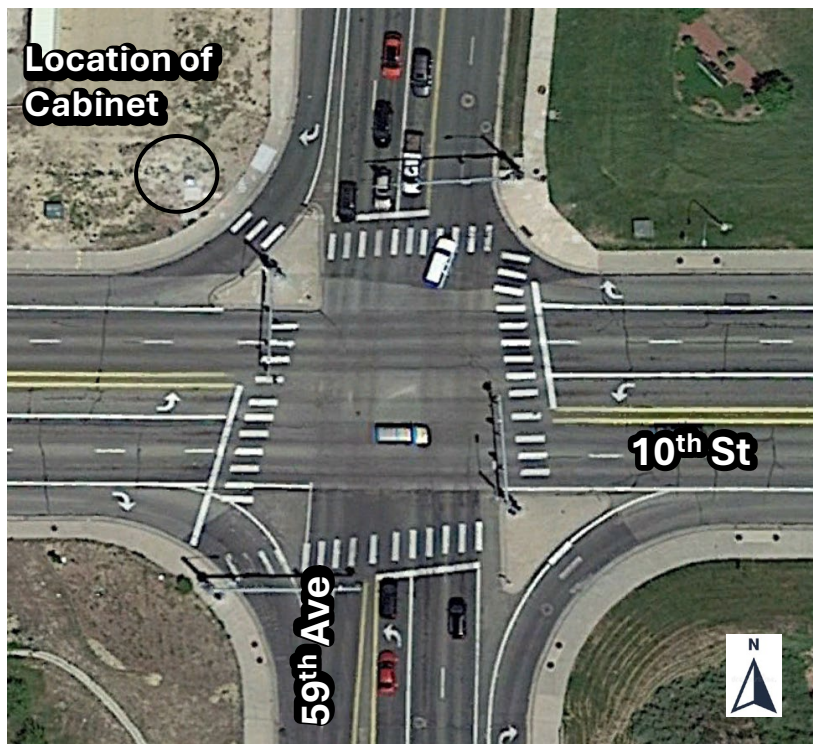
Price (75 points) – Bidder shall complete Section 00130 – Bid Schedule.

Schedule (15 points) – A schedule shall be provided with the bid showing an estimated start date and completion date for each corridor based on the anticipated Notice to Proceed date listed at the front of the bid package. Project schedules shall be constructed in a Gantt chart format with PDF and tabular outputs (i.e. xlsx, csv, txt, etc). The tasks shall be linked to show the work breakdown structure and associated relationships and shall include message board placement, lowering or raising utilities (manholes and water valves), milling, temporary markings (if applicable), leveling course, fabric, final paving mat, permanent markings, sealcoats and patching.

Related Experience (10 points) – All bidders shall furnish with their bid a list of 3-5 similar projects for each of the major disciplines by the Contractors or Subcontractor responsible including: Paving, Patching, Striping, Sealcoats and Traffic Control. All projects shall have been completed in the last 3 years with references for each. Note, the same project can be used for multiple disciplines if applicable and responsible contractor/subcontractor completed the scope of work. List shall include project title, project discipline, contractor, description, completion date, duration, location and reference phone number. Section 00520 Subcontractor List shall also be submitted with the bid.

Criteria	Point Value
Price	75
Schedule	15
Similar experience with size and scope of work	10
Total Points	100

10th Street & 59th Avenue Traffic Signal Cabinet Replacement Plan



Site Map

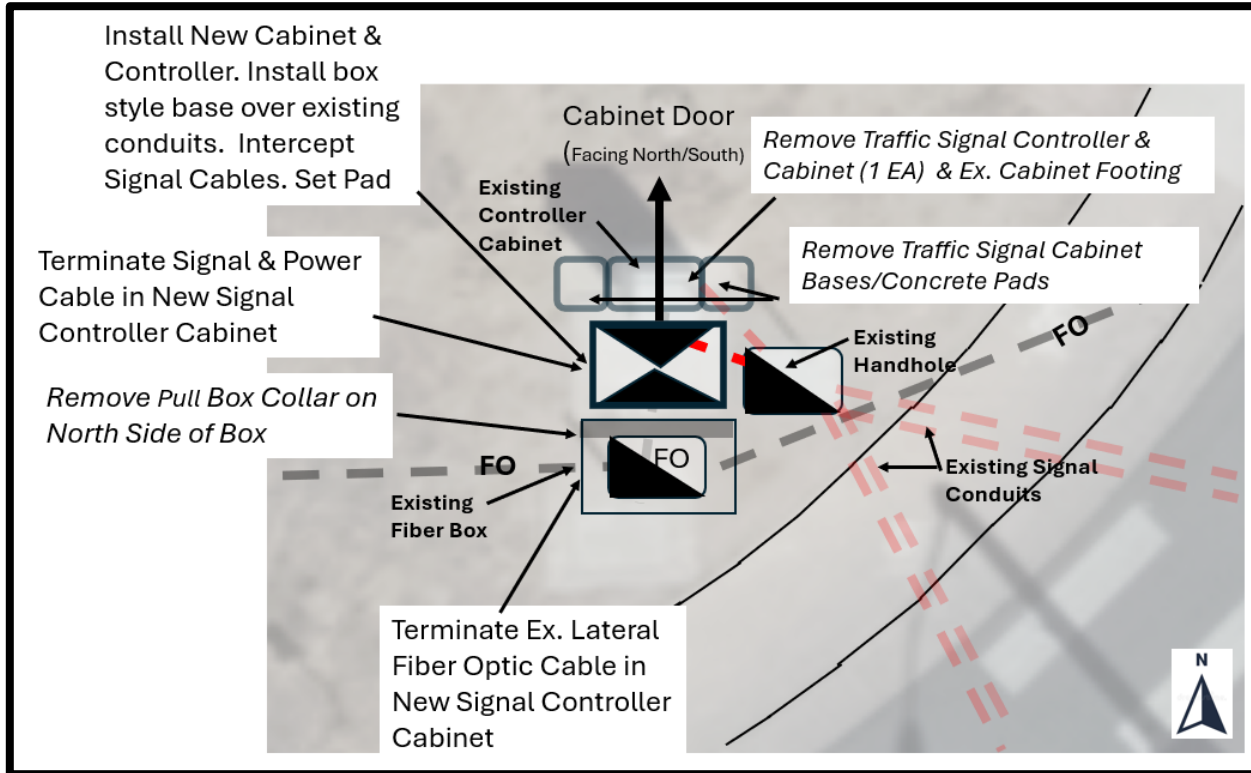
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2. TRAFFIC SIGNAL CABINET TO BE FURNISHED BY THE CITY OF GREELEY WILL BE TYPE 332D WITH CLARY BATTERY BACKUP. THE CABINET FOUNDATION SHALL CONFORM TO CDOT DETAIL S-614-42 AND SHALL BE INCLUDED IN THE COST OF THE WORK.
3. THE TRAFFIC SIGNAL PLAN REPRESENTS A SCHEMATIC ONLY AND ALL ITEM LOCATIONS ARE APPROXIMATE. EXACT PLACEMENT SHALL BE DETERMINED BY THE ENGINEER AND/OR HIS DESIGNEE
4. CALL ART PEREZ (970-539-6211) PRIOR TO ANY TRAFFIC SIGNAL WORK – INCLUDING BUT NOT LIMITED TO, SIGNAL CABINET REMOVAL AND REPLACEMENT, WIRING, SIGNAL, CONDUIT PLACEMENT, ECT.
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10. CONTRACTOR SHALL CONFIRM LOCATIONS OF UTILITIES, INCLUDING DEPTH. POTHOLES SHALL BE PERFORMED FOR, BUT NOT LIMITED TO, THE FOLLOWING ACTIVITIES: BORING CONDUITS (POTHOLES ARE REQUIRED AT ALL CONDUIT CROSSING OF EXISTING UTILITIES).
11. CONTRACTOR SHALL VERIFY THERE ARE NO EXISTING UTILITY CONFLICTS WITH PROPOSED CONDUITS PRIOR TO CONSTRUCTION AND MUST CONSULT WITH THE ENGINEER IF CONFLICTS EXIST.



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CALL 811 SEVENTY-TWO HOURS PRIOR TO DIGGING, GRADING OR ERECTING STRUCTURES.
BID # 24-07-062
THE MARKING OF UNDERGROUND MEMBER UTILITIES

10th Street & 59th Avenue Traffic Signal Cabinet Replacement Plan

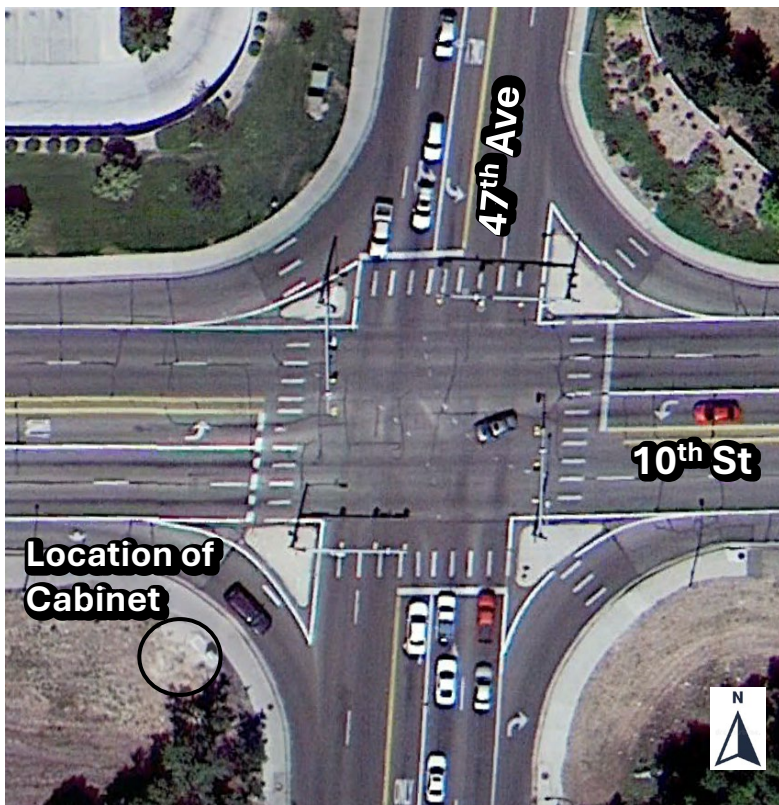


ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNITS	QTY	NOTES
202-00828	Removal of Traffic Signal Equipment	LS	1	
202-00848	Removal of Traffic Signal Controller and Cabinet	LS	1	
202-00848	Removal of Traffic Signal Cabinet Step Pads and Foundations	LS	1	
	Removal of Concrete Colar Section (NS) Fiber Box	SQ Ft	8	
613-10000	Wiring (incl. Power, Fiber, and Signal Cables)			
614-75848	Traffic Signal Controller & Cabinet (Install Only)	Each	1	
	Polymer Controller Cabinet Base	Each	1	
630-00003	Uniform Traffic Control	Hour	4	

1. NEW TRAFFIC SIGNAL EQUIPMENT AND CABLING SHALL BE INSTALLED BEFORE THE REMOVAL OF THE EXISTING INFRASTRUCTURE. THE CONTRACTOR SHALL COORDINATE A CUT-OVER PLAN WITH THE CITY TO MINIMIZE DOWNTIME OF TRAFFIC SIGNAL OPERATIONS. THE CUT-OVER SHALL BE PERFORMED AFTER 9 PM WHEN THE SIGNAL OPERATION IS REQUIRED TO BE REVERTED TO A FLASHING AND/OR DARK OPERATION. THE CONTRACTOR SHALL FURNISH AN UNIFORMED TRAFFIC CONTROL OFFICER DURING THIS PERIOD WHEN THE SIGNAL IS NOT IN OPERATION.
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3. ALL REMOVED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO THE CITY OF GREELEY TRAFFIC SIGNAL SHOP IN ITS PRE-PROJECT CONDITION. (1300 A STREET, BUILDING H, GREELEY, CO 80631)
4. CONTRACTOR SHALL COMPLETE ALL WORK NECESSARY FOR THE OPERATION OF THE SYSTEM AND SHALL CONTACT THE CITY OF GREELEY TO SCHEDULE A COMPLIANCE INSPECTION AT LEAST 2 BUSINESS DAYS IN ADVANCE.
5. ALL SIGNAL CABLE IS TO BE CONTINUOUS FROM CONNECTIONS MADE IN THE HANDHOLE COMPARTMENT OF THE SIGNAL POLE BASE TO THE TERMINAL COMPARTMENT IN THE CONTROLLER CABINET. SPLICING WILL NOT BE PERMITTED.

10th Street & 47th Avenue Traffic Signal Cabinet Replacement Plan



Site Map

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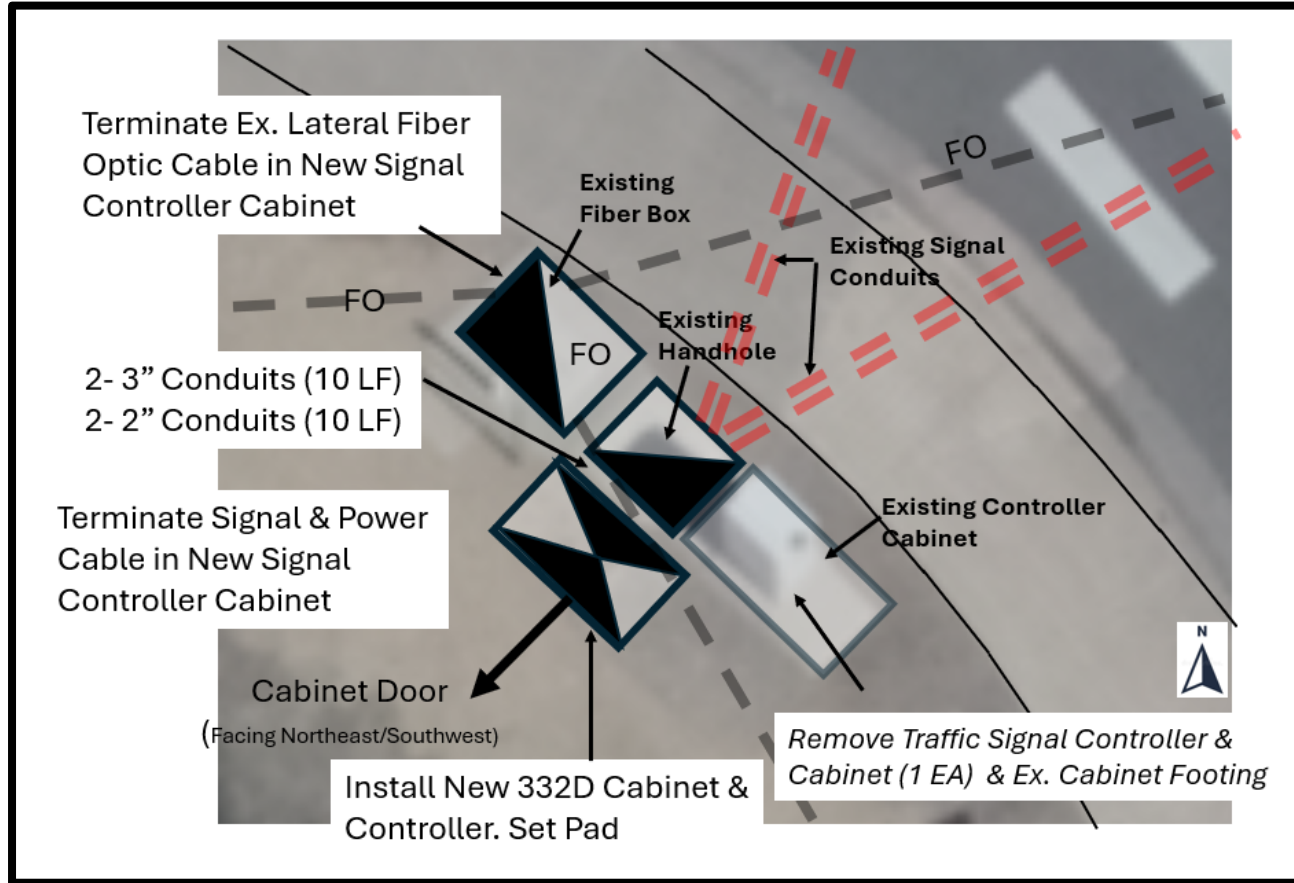
CALL 811 SEVENTY-TWO HOURS PRIOR TO
DIGGING, GRADING OR ERECTING
THE MARKING OF UNDERGROUND MEMBER
UTILITIES

BLD #24-07-062

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07/18/2024

10th Street & 47th Avenue Traffic Signal Cabinet Replacement Plan

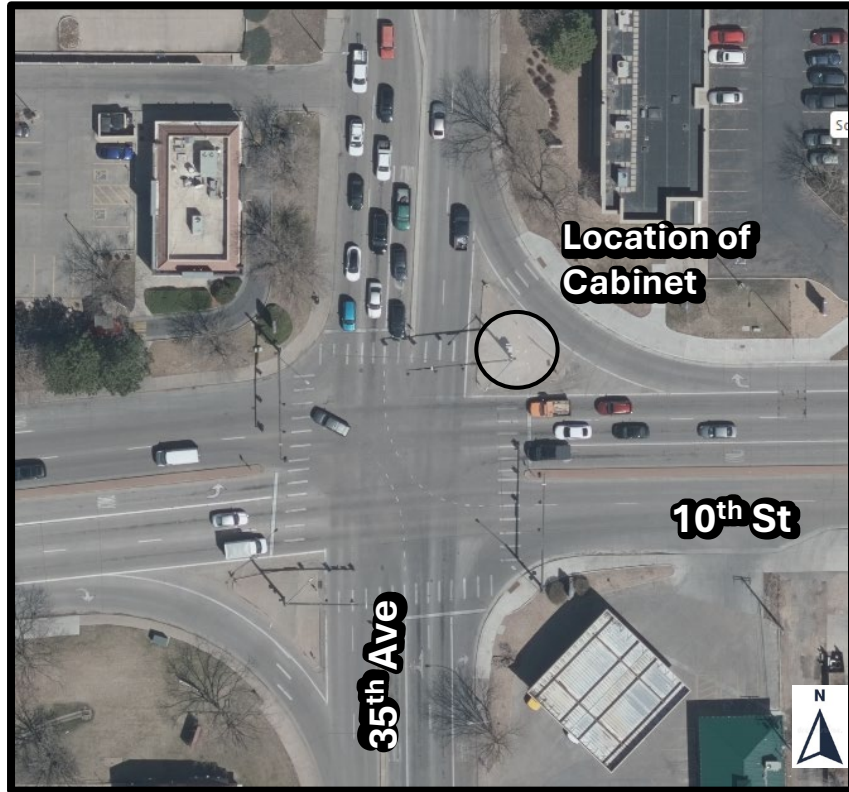


ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNITS	QTY	NOTES
202-00828	Removal of Traffic Signal Equipment	LS	1	
202-00848	Removal of Traffic Signal Controller and Cabinet	LS	1	
202-00848	Removal of Traffic Signal Cabinet Step Pads and Foundations	LS	1	
613-01200	2 Inch Electrical Conduit (Plastic)	LF	20	See Sheet Notes
613-01300	3 Inch Electrical Conduit (Plastic)	LF	20	
613-10000	Wiring (incl. Power, Fiber, and Signal Cables)			
614-75848	Traffic Signal Controller & Cabinet (Install Only)	Each	1	
	Polymer Controller Cabinet Base	Each	1	
630-00003	Uniform Traffic Control	Hour	4	

1. NEW TRAFFIC SIGNAL EQUIPMENT AND CABLING SHALL BE INSTALLED BEFORE THE REMOVAL OF THE EXISTING INFRASTRUCTURE. THE CONTRACTOR SHALL COORDINATE A CUT-OVER PLAN WITH THE CITY TO MINIMIZE DOWNTIME OF TRAFFIC SIGNAL OPERATIONS. THE CUT-OVER SHALL BE PERFORMED AFTER 9 PM WHEN THE SIGNAL OPERATION IS REQUIRED TO BE REVERTED TO A FLASHING AND/OR DARK OPERATION. THE CONTRACTOR SHALL FURNISH AN UNIFORMED TRAFFIC CONTROL OFFICER DURING THIS PERIOD WHEN THE SIGNAL IS NOT IN OPERATION.
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3. ALL REMOVED TRAFFIC SIGNAL EQUIPMENT SHALL BE RETURNED TO THE CITY OF GREELEY TRAFFIC SIGNAL SHOP IN ITS PRE-PROJECT CONDITION. (1300 A STREET, BUILDING H, GREELEY, CO 80631)
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10th Street & 35th Avenue Traffic Signal Cabinet Modification Plan



Site Map

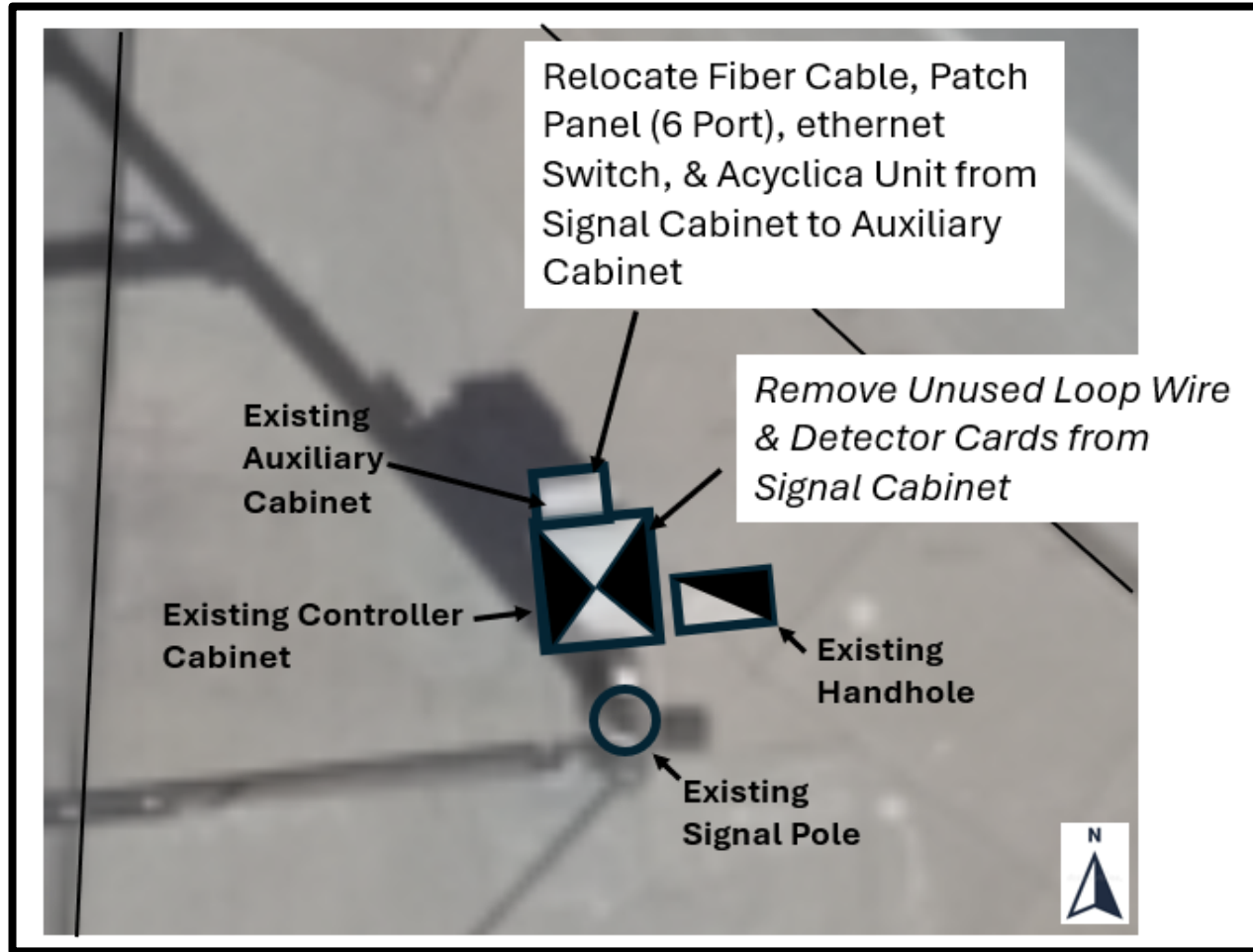
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BID #24-07-062

10th Street & 35th Avenue Traffic Signal Cabinet Modification Plan



ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNITS	QTY	NOTES
202-00828	Removal of Traffic Signal & Other Equipment (incl detector cable)	LS	1	Traffic Signal Cabling, ???
613-10000	Wiring (incl. Fiber Cables)			
614-75848	Relocate Traffic Signal Equipment (incl Fiber & Acyclica Units)	Each	1	

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APPENDIX D

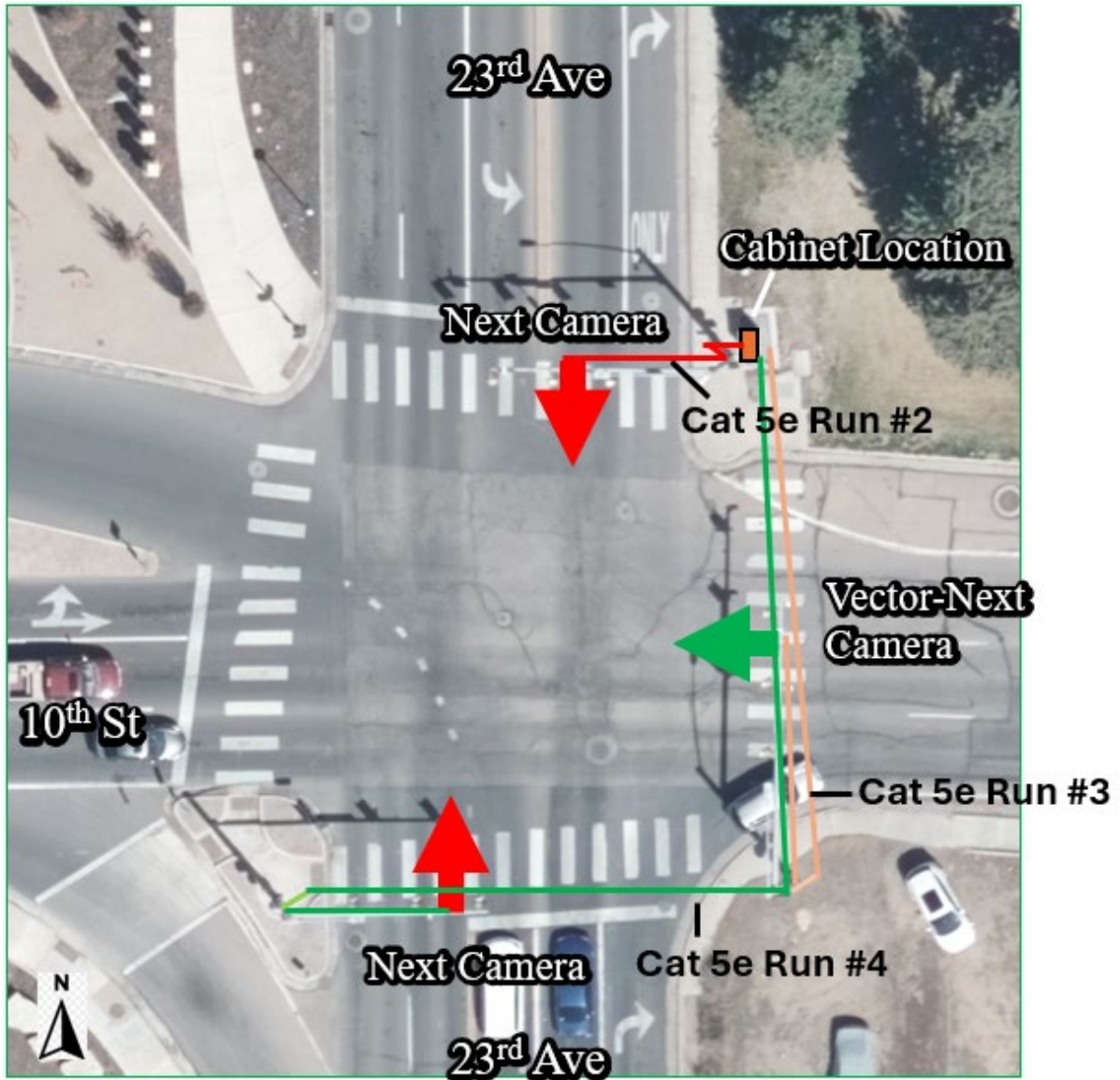
10TH STREET ADAPTIVE – SIGNAL DETECTION VIDEO CABLE INFRASTRUCTURE

LOCATIONS

1. 10th Street & 23rd Avenue
2. 9th Street & 23rd Avenue
3. 10th Street & 26th Avenue
4. 10th Street & 28th Avenue
5. 10th Street & 35th Avenue
6. 10th Street & 37th Avenue
7. 10th Street & 39th Avenue
8. 10th Street & 43rd Avenue
9. 10th Street & 45th Avenue
10. 10th Street & 47th Avenue
11. 10th Street & 54th Avenue
12. 10th Street & 59th Avenue
13. 10th Street & 69th Avenue
14. 10th Street & 71st Avenue
15. 10th Street & 83rd Avenue

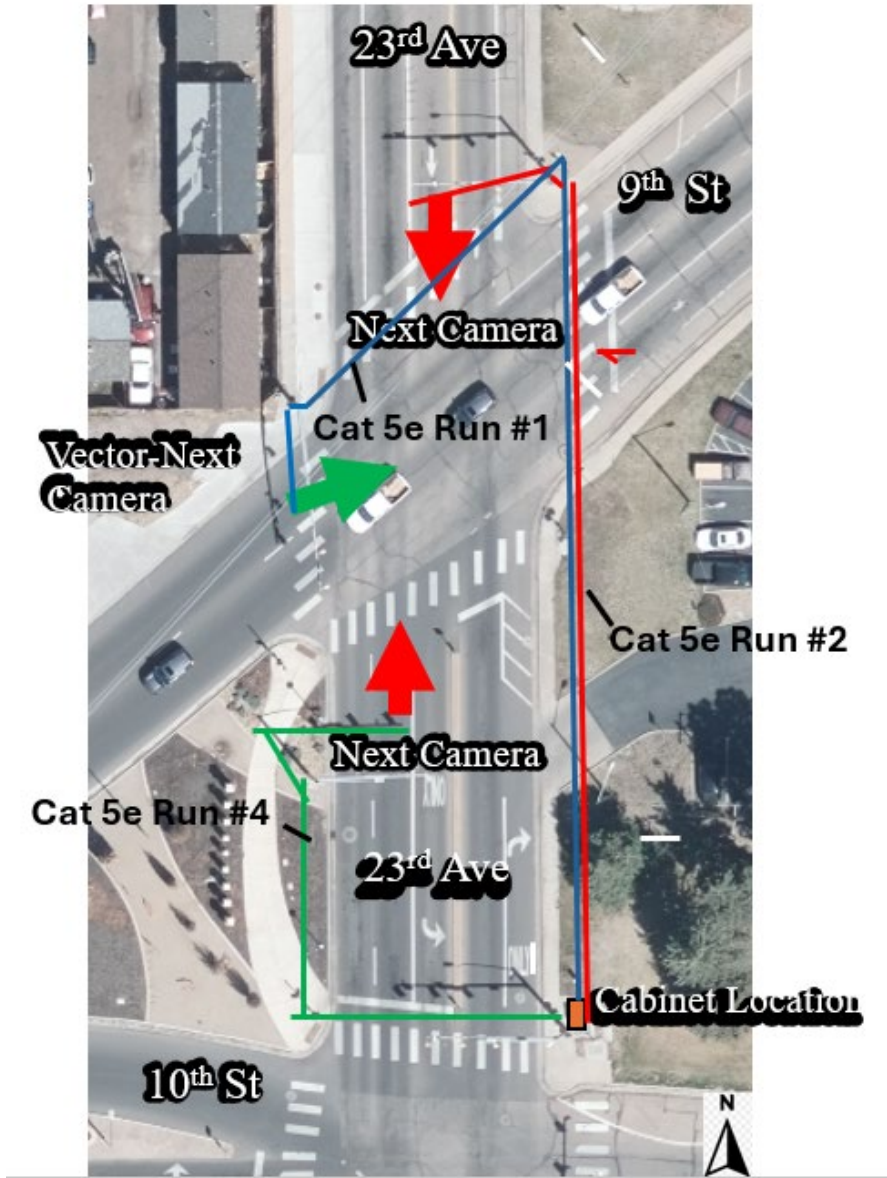
1. 10th Street & 23rd Avenue

Video Detection Installation



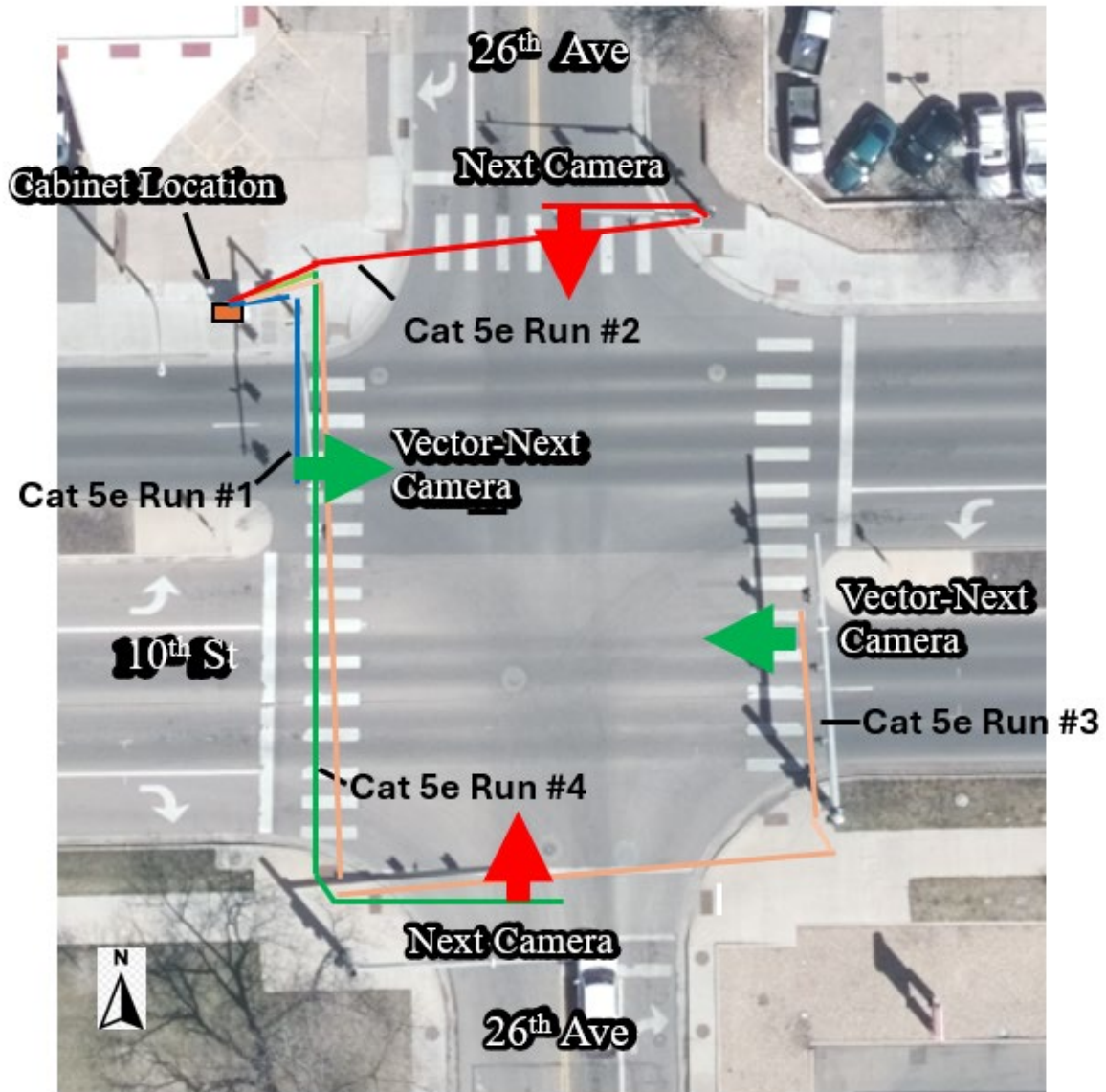
10th Street & 23rd Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#2 (NB) - Cat 5e Run	15	30	25	70
#3 (EB) - Cat 5e Run	35	30	90	155
#4 (SB) - Cat 5e Run	25	30	170	225
Total - Cat 5e Run Lengths	75	90	285	450

2. 9th Street & 23rd Avenue Video Detection Installation



9th Street & 23rd Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	45	30	340	415
#2 (NB) - Cat 5e Run	30	30	250	310
#4 (SB) - Cat 5e Run	35	30	150	215
Total - Cat 5e Run Lengths	110	90	740	940

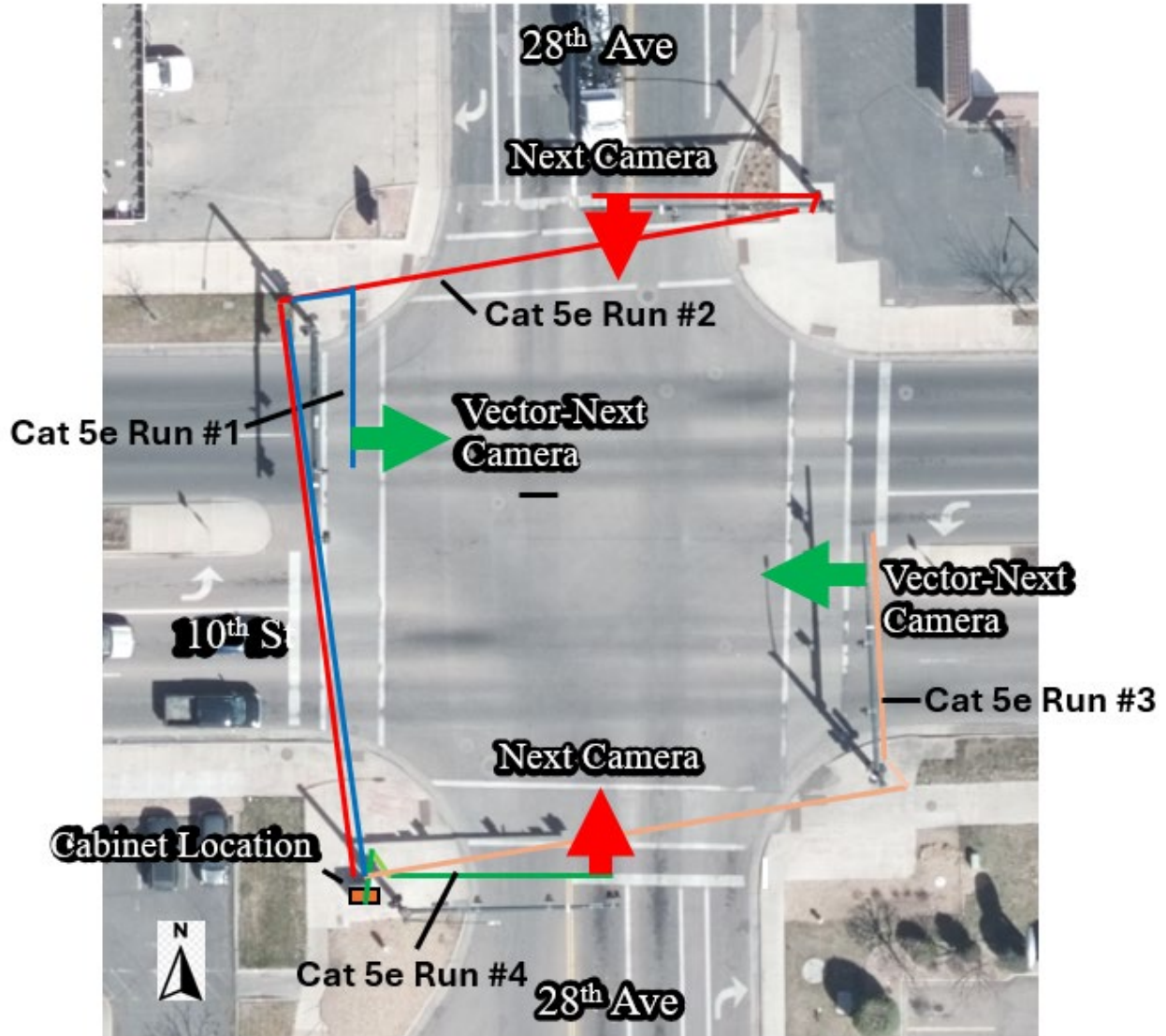
3. 10th Street & 26th Avenue Video Detection Installation



10th Street & 26th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	15	30	40	85
#2 (NB) - Cat 5e Run	90	30	30	150
#3 (EB) - Cat 5e Run	220	30	40	290
#4 (SB) - Cat 5e Run	130	30	35	195
Total - Cat 5e Run Length	455	120	145	720

4. 10th Street & 28th Avenue

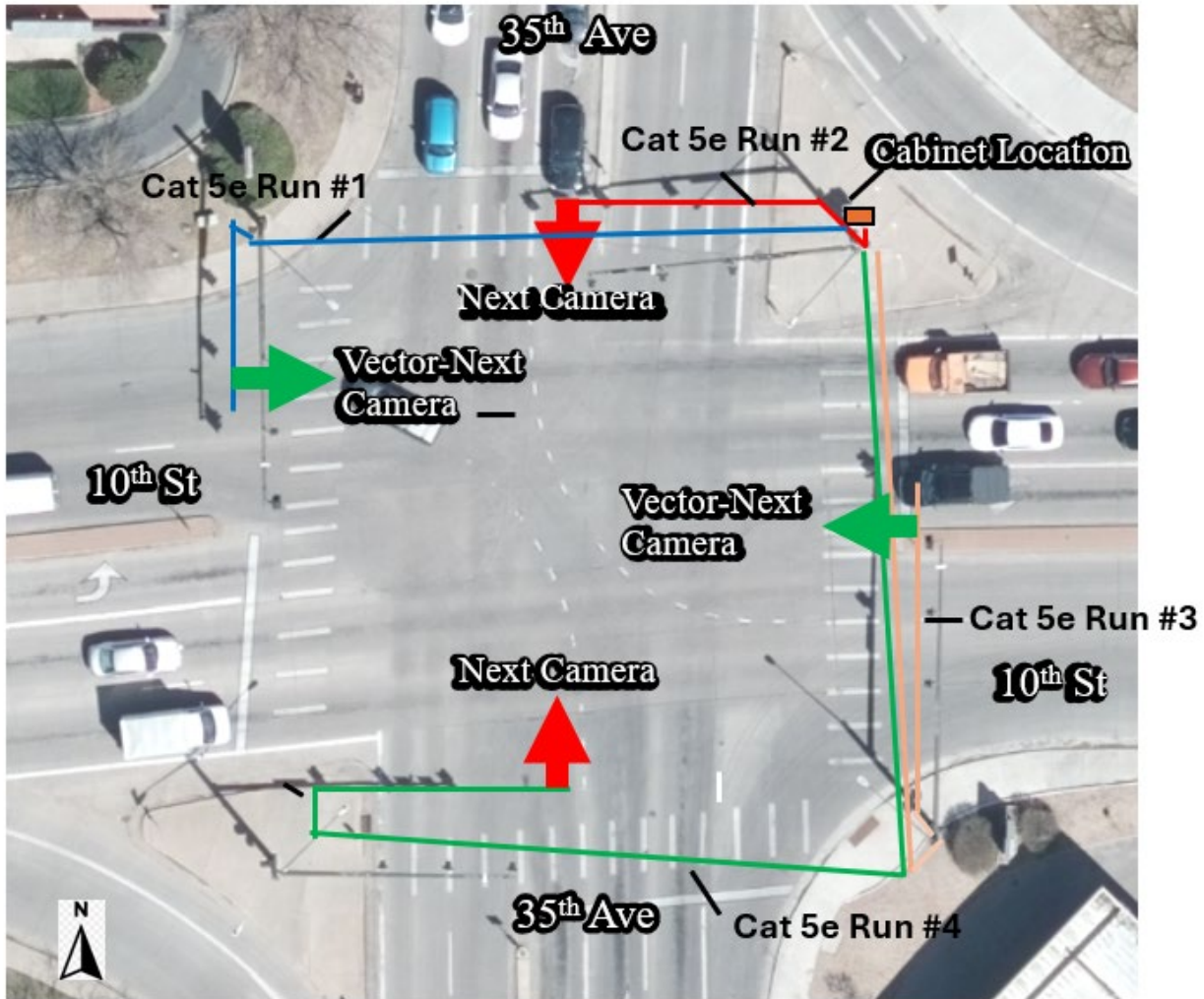
Video Detection Installation



10th Street & 28th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	130	30	40	200
#2 (NB) - Cat 5e Run	225	30	40	295
#3 (EB) - Cat 5e Run	125	30	40	195
#4 (SB) - Cat 5e Run	20	30	40	90
Total - Cat 5e Run Length	500	120	160	780

5. 10th Street & 35th Avenue

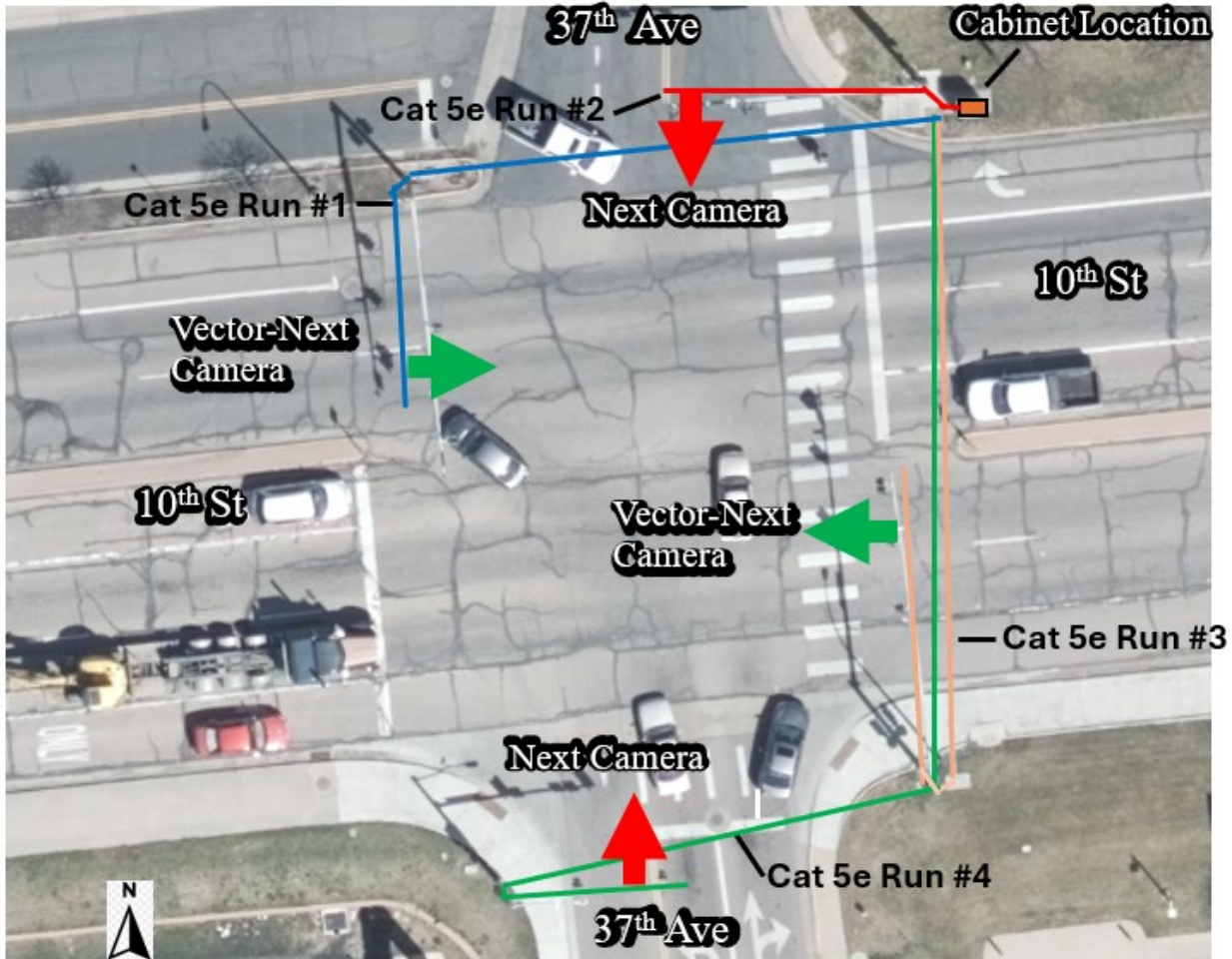
Video Detection Installation



10th Street & 35th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	110	30	50	190
#2 (NB) - Cat 5e Run	15	30	45	90
#3 (EB) - Cat 5e Run	125	30	50	205
#4 (SB) - Cat 5e Run	240	30	55	325
Total - Cat 5e Run Length	490	120	200	810

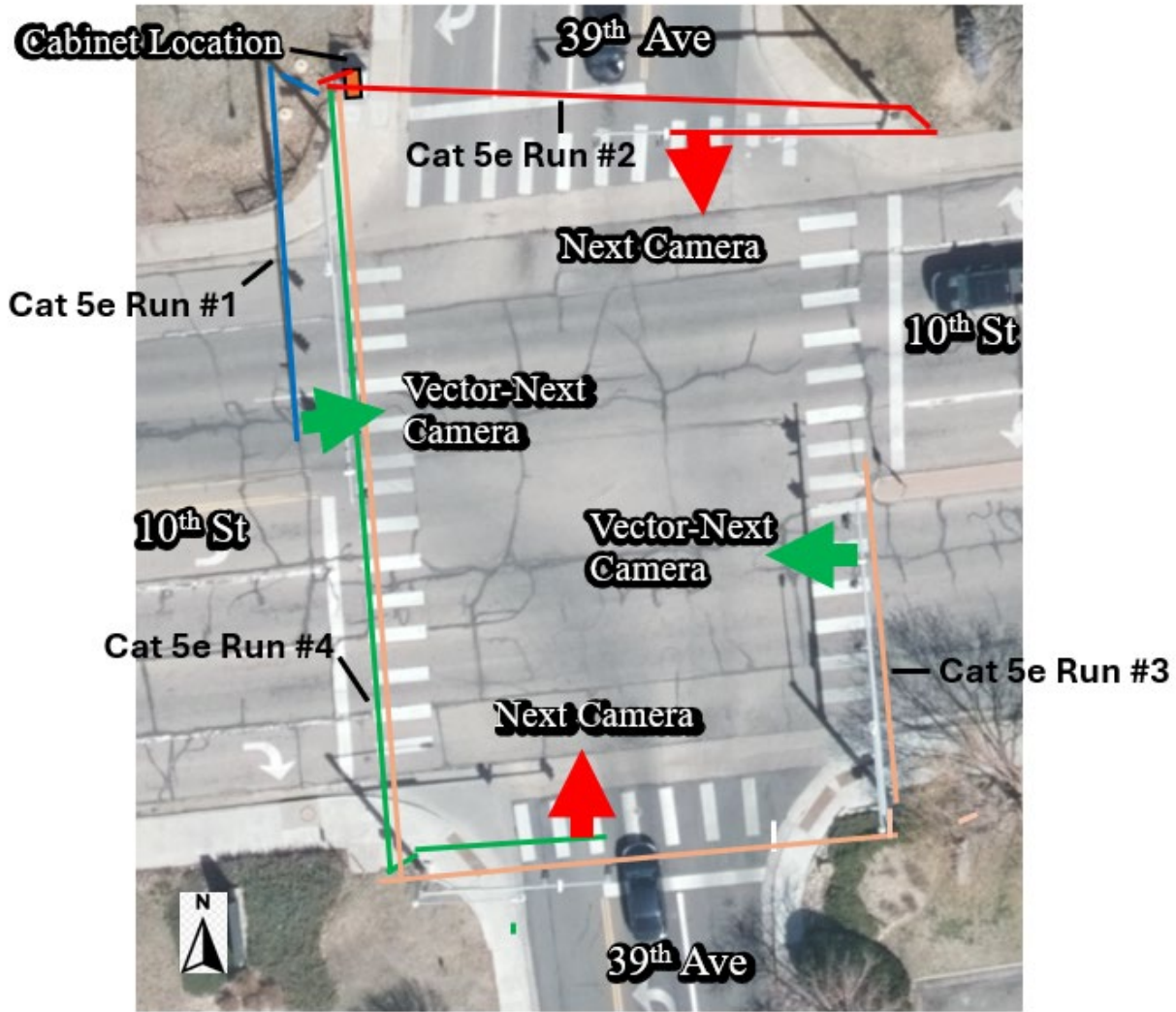
6. 10th Street & 37th Avenue

Video Detection Installation



10th Street & 37th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	110	30	40	180
#2 (NB) - Cat 5e Run	15	30	45	90
#3 (EB) - Cat 5e Run	130	30	55	215
#4 (SB) - Cat 5e Run	215	30	40	285
Total - Cat 5e Run Length	470	120	180	770

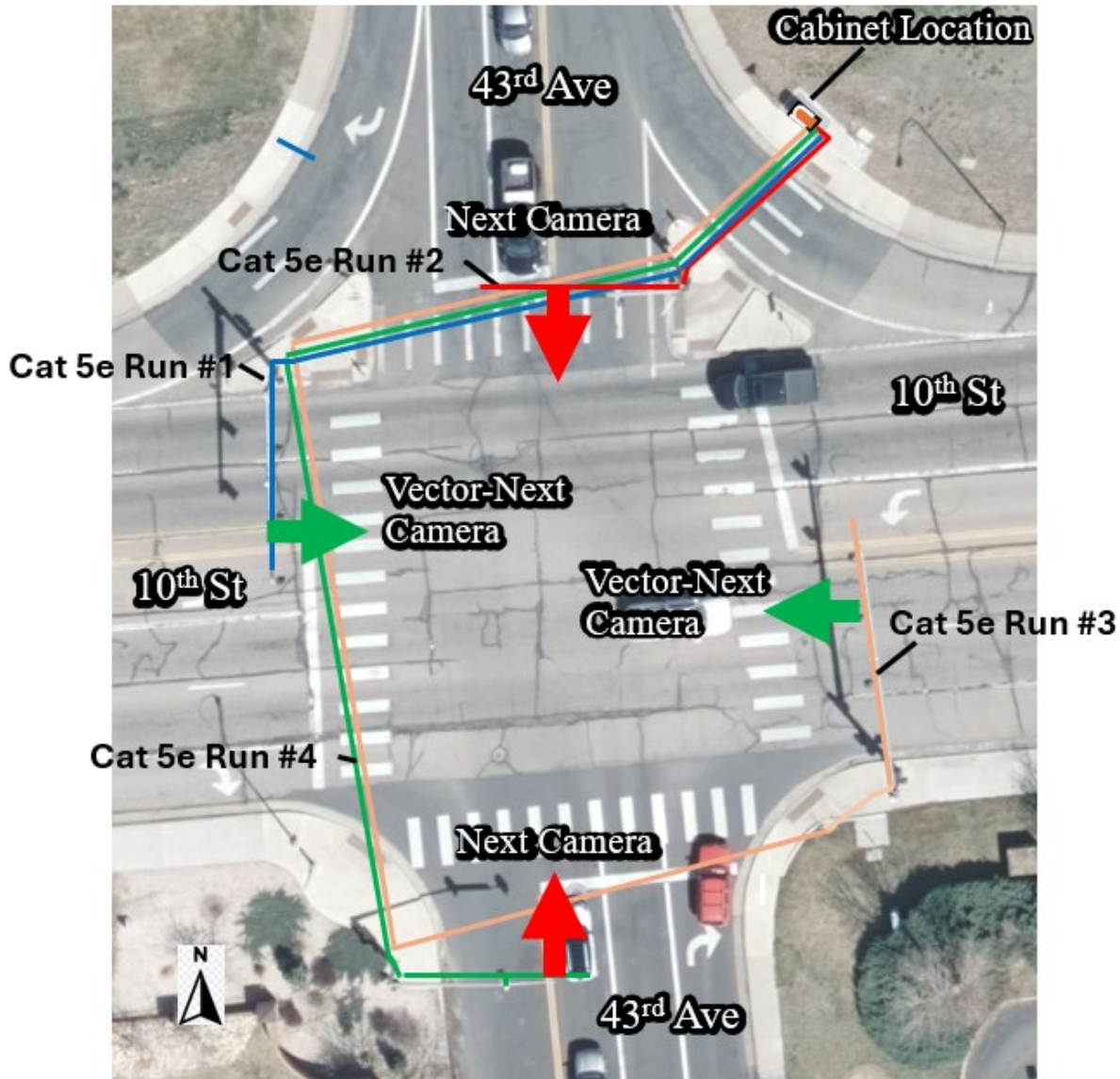
7. 10th Street & 39th Avenue Video Detection Installation



10th Street & 39th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	15	30	60	105
#2 (NB) - Cat 5e Run	95	30	50	175
#3 (EB) - Cat 5e Run	225	30	50	305
#4 (SB) - Cat 5e Run	140	30	50	220
Total - Cat 5e Run Length	475	120	210	805

8. 10th Street & 43rd Avenue

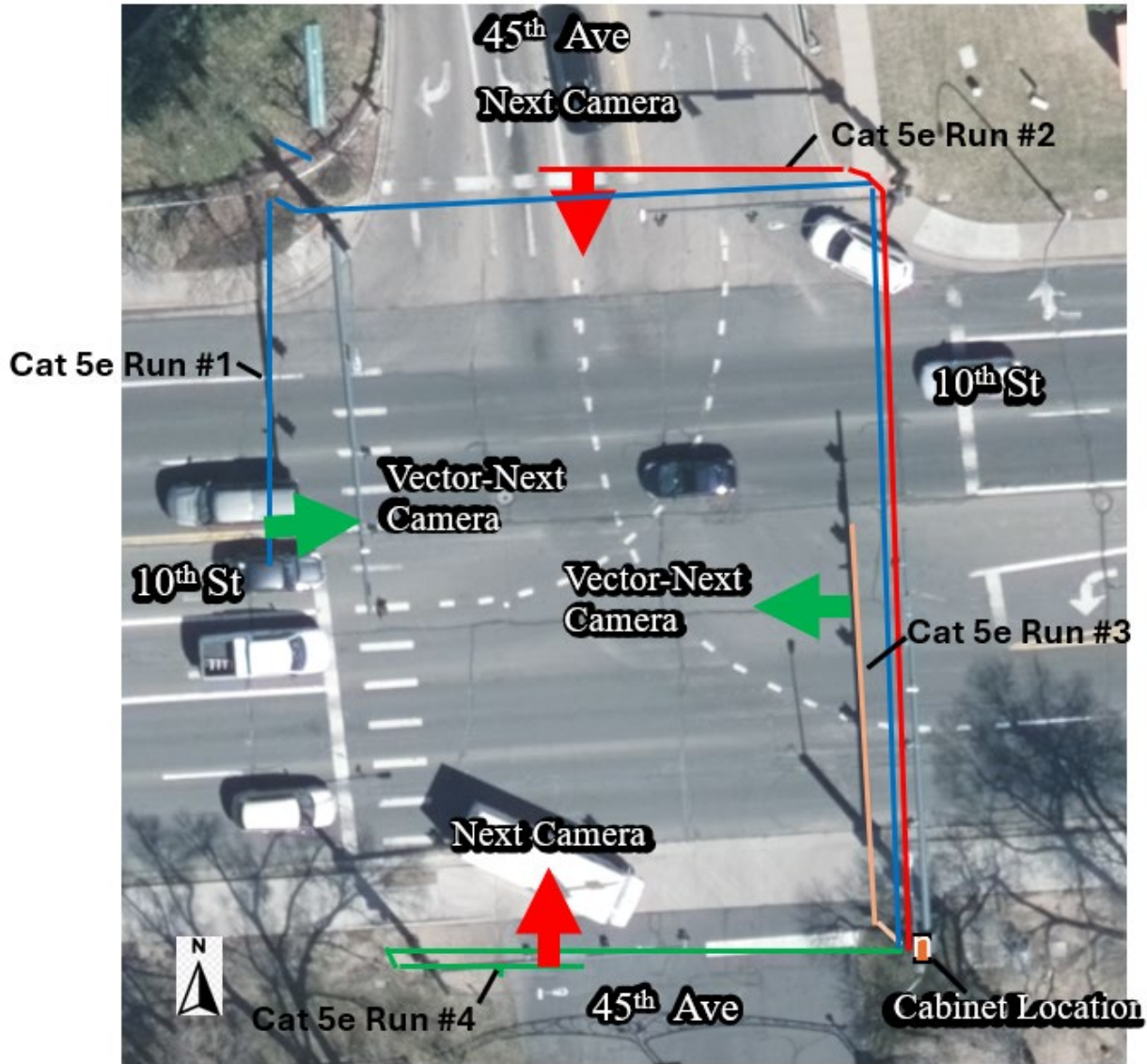
Video Detection Installation



10th Street & 43rd Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	120	30	35	185
#2 (NB) - Cat 5e Run	45	30	35	110
#3 (EB) - Cat 5e Run	340	30	50	420
#4 (SB) - Cat 5e Run	255	30	40	325
Total - Cat 5e Run Length	760	120	160	1040

9. 10th Street & 45th Avenue

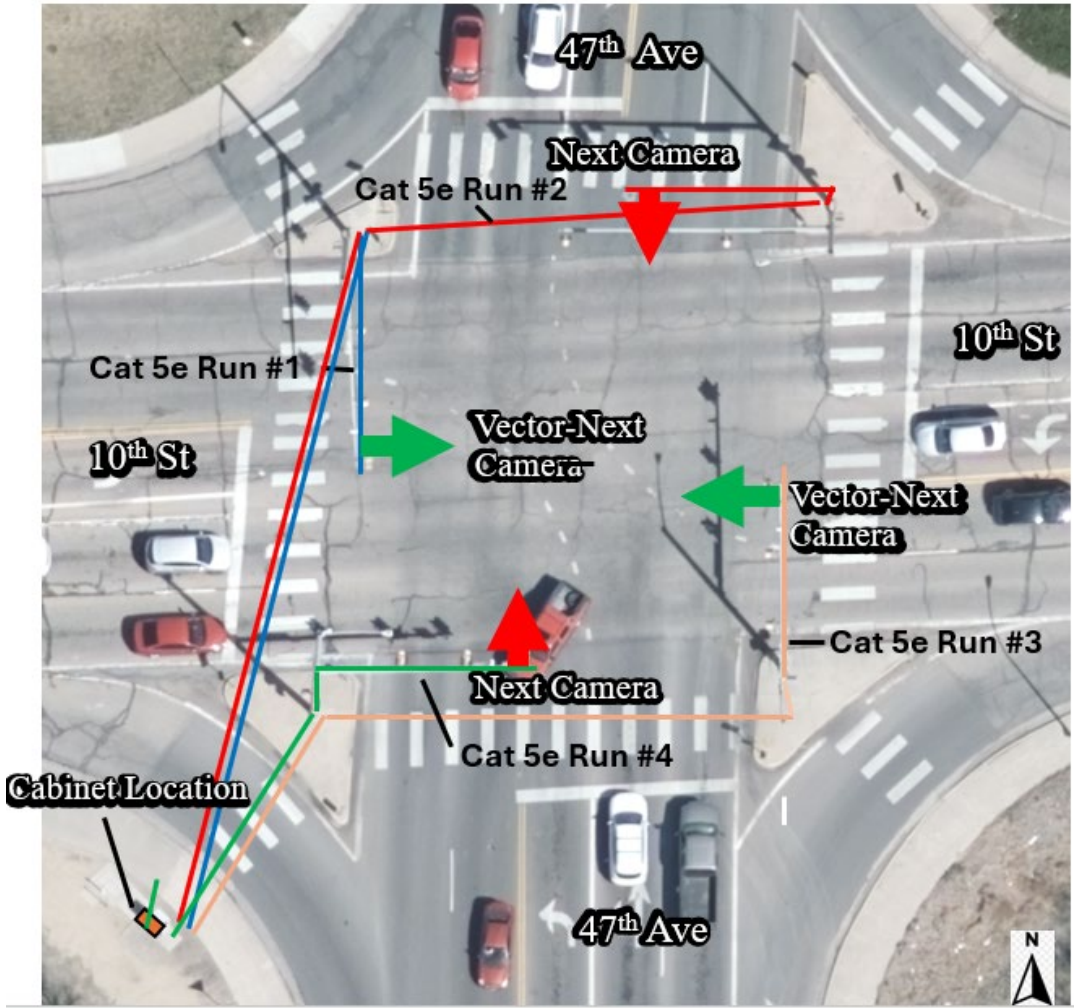
Video Detection Installation



10th Street & 45th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	220	30	50	300
#2 (NB) - Cat 5e Run	135	30	40	205
#3 (EB) - Cat 5e Run	135	30	40	205
#4 (SB) - Cat 5e Run	100	30	50	180
Total - Cat 5e Run Length	590	120	180	890

10. 10th Street & 47th Avenue

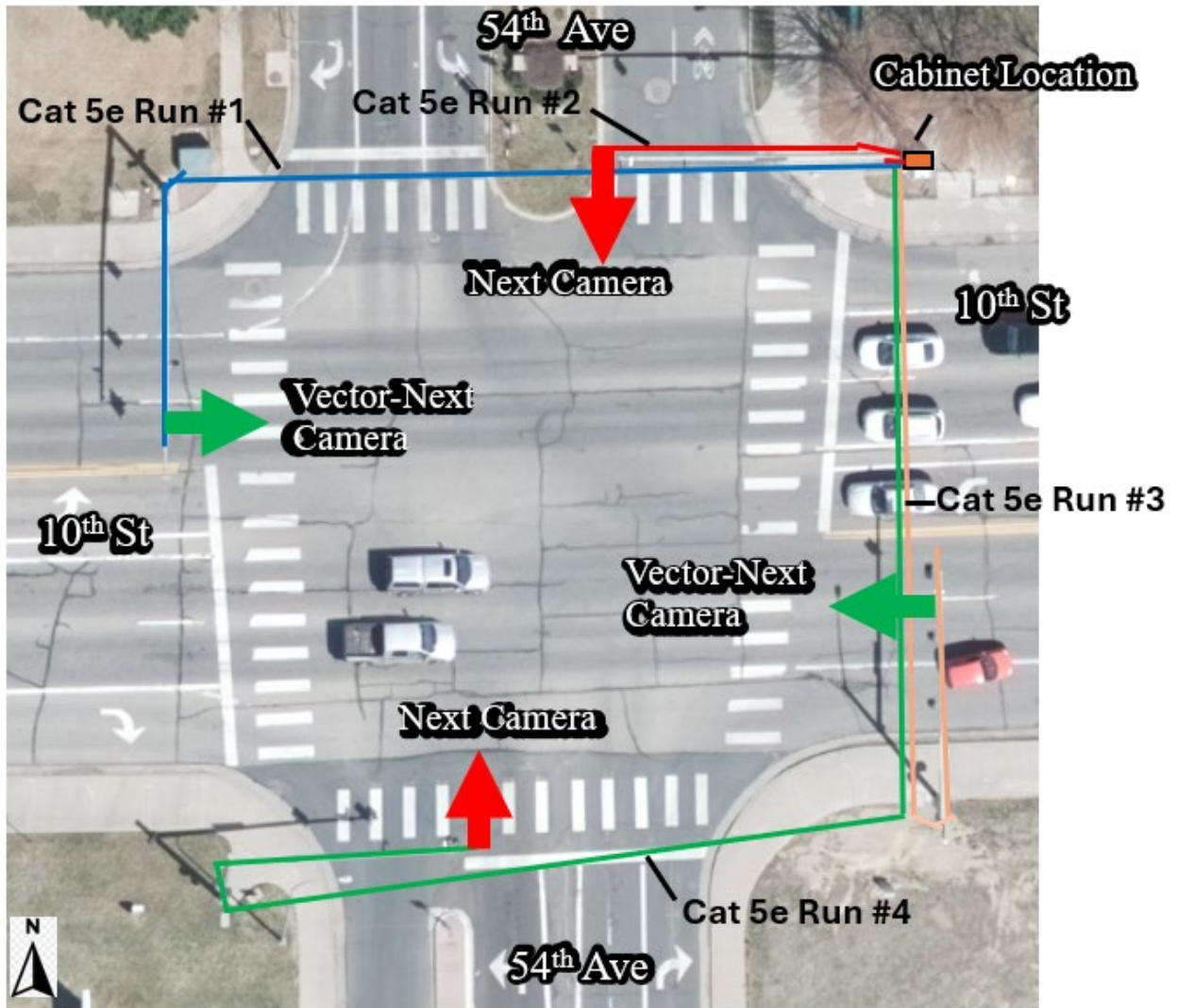
Video Detection Installation



10th Street & 47th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	135	30	45	210
#2 (NB) - Cat 5e Run	215	30	45	290
#3 (EB) - Cat 5e Run	150	30	45	225
#4 (SB) - Cat 5e Run	55	30	50	135
Total - Cat 5e Run Length	555	120	185	860

11. 10th Street & 54th Avenue

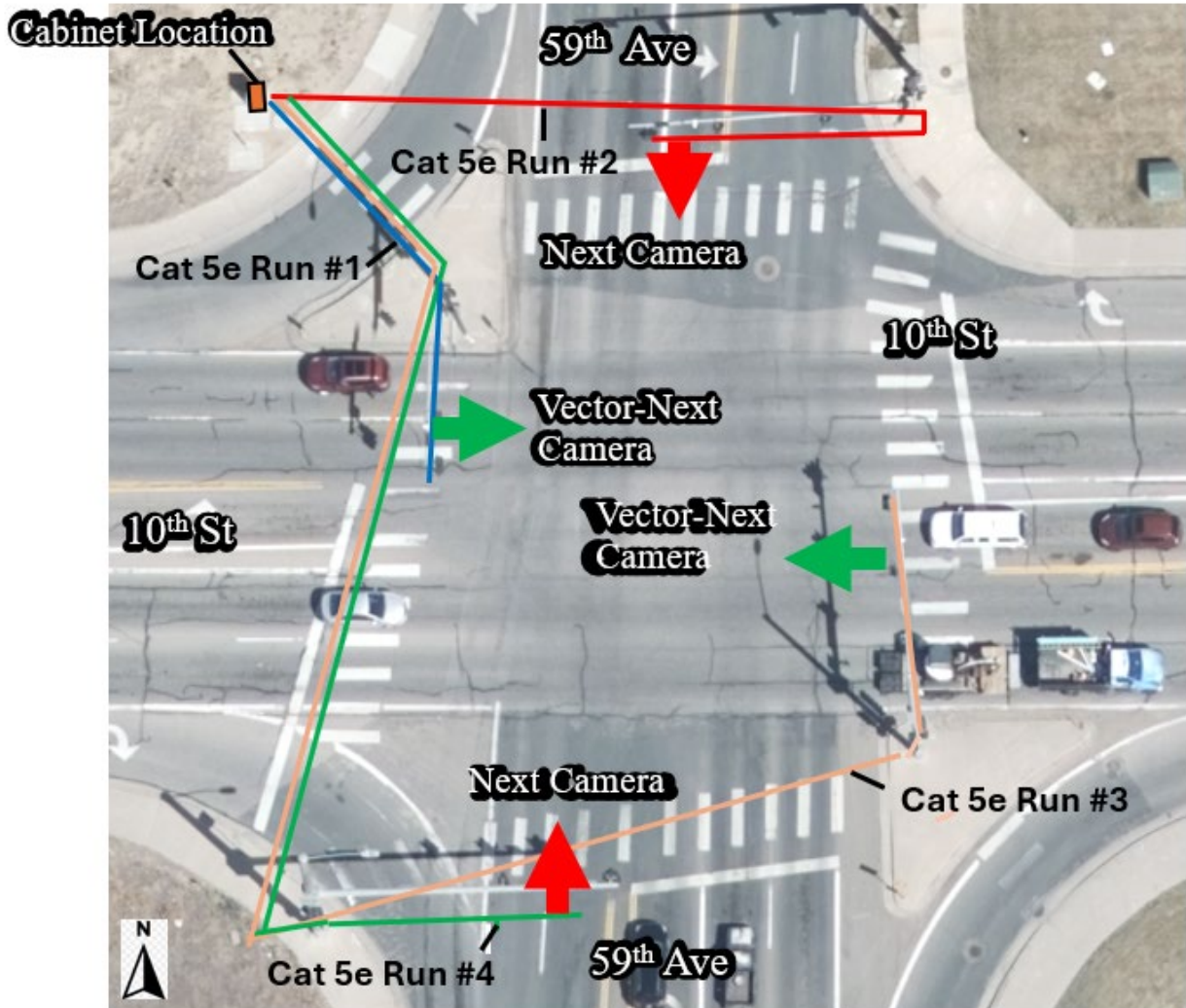
Video Detection Installation



10th Street & 54th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	150	30	55	235
#2 (NB) - Cat 5e Run	20	30	65	115
#3 (EB) - Cat 5e Run	140	30	60	230
#4 (SB) - Cat 5e Run	270	30	50	350
Total - Cat 5e Run Length	580	120	230	930

12. 10th Street & 59th Avenue

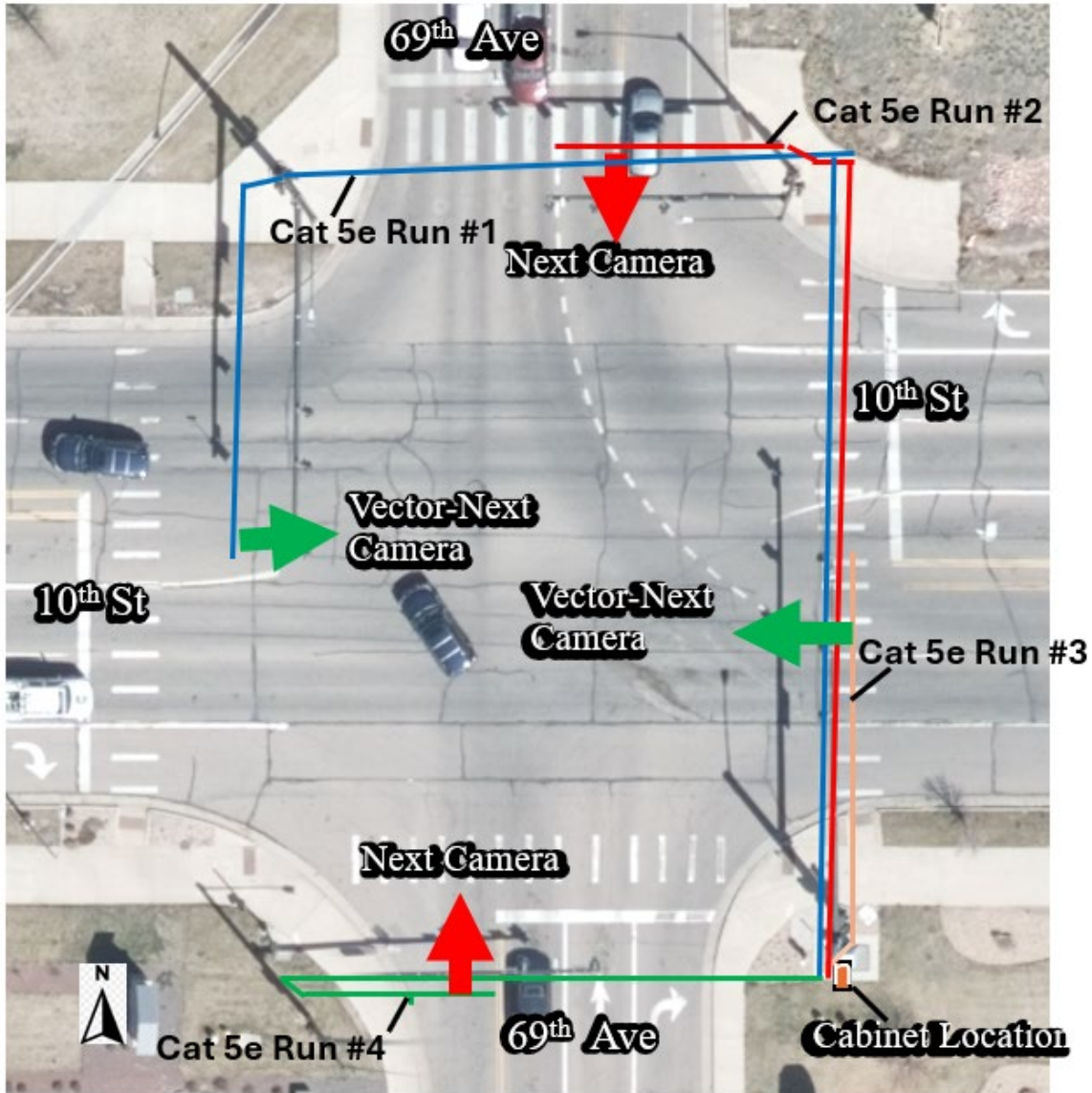
Video Detection Installation



10th Street & 59th Avenue	Underground Run Length	30' Uprighth Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	60	30	45	135
#2 (NB) - Cat 5e Run	130	30	50	210
#3 (EB) - Cat 5e Run	300	30	50	380
#4 (SB) - Cat 5e Run	190	30	60	280
Total - Cat 5e Run Length	680	120	205	1005

13. 10th Street & 69th Avenue

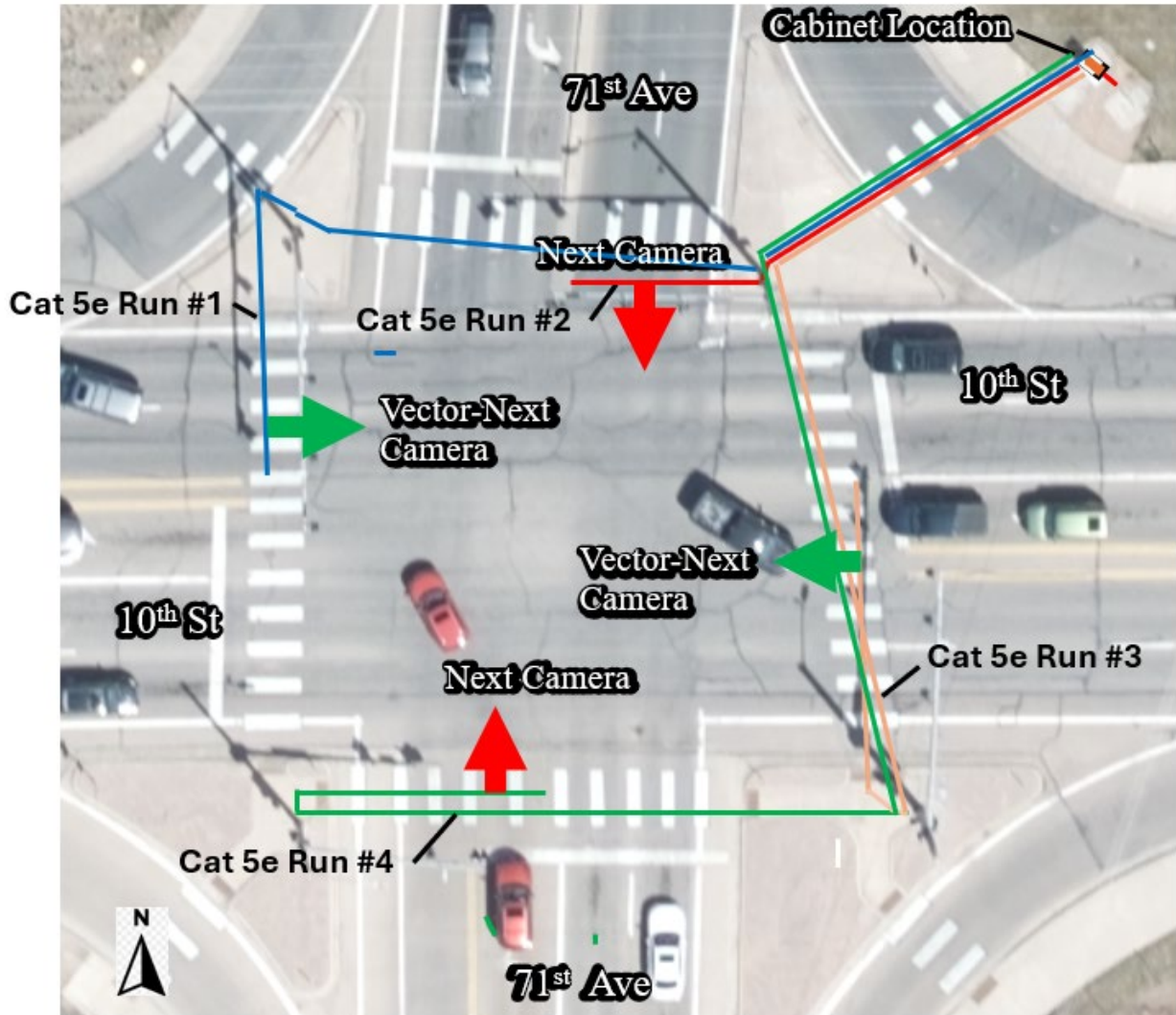
Video Detection Installation



10th Street & 69th Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	250	30	65	345
#2 (NB) - Cat 5e Run	160	30	50	240
#3 (EB) - Cat 5e Run	20	30	60	110
#4 (SB) - Cat 5e Run	105	30	60	195
Total - Cat 5e Run Length	535	120	235	890

14. 10th Street & 71st Avenue

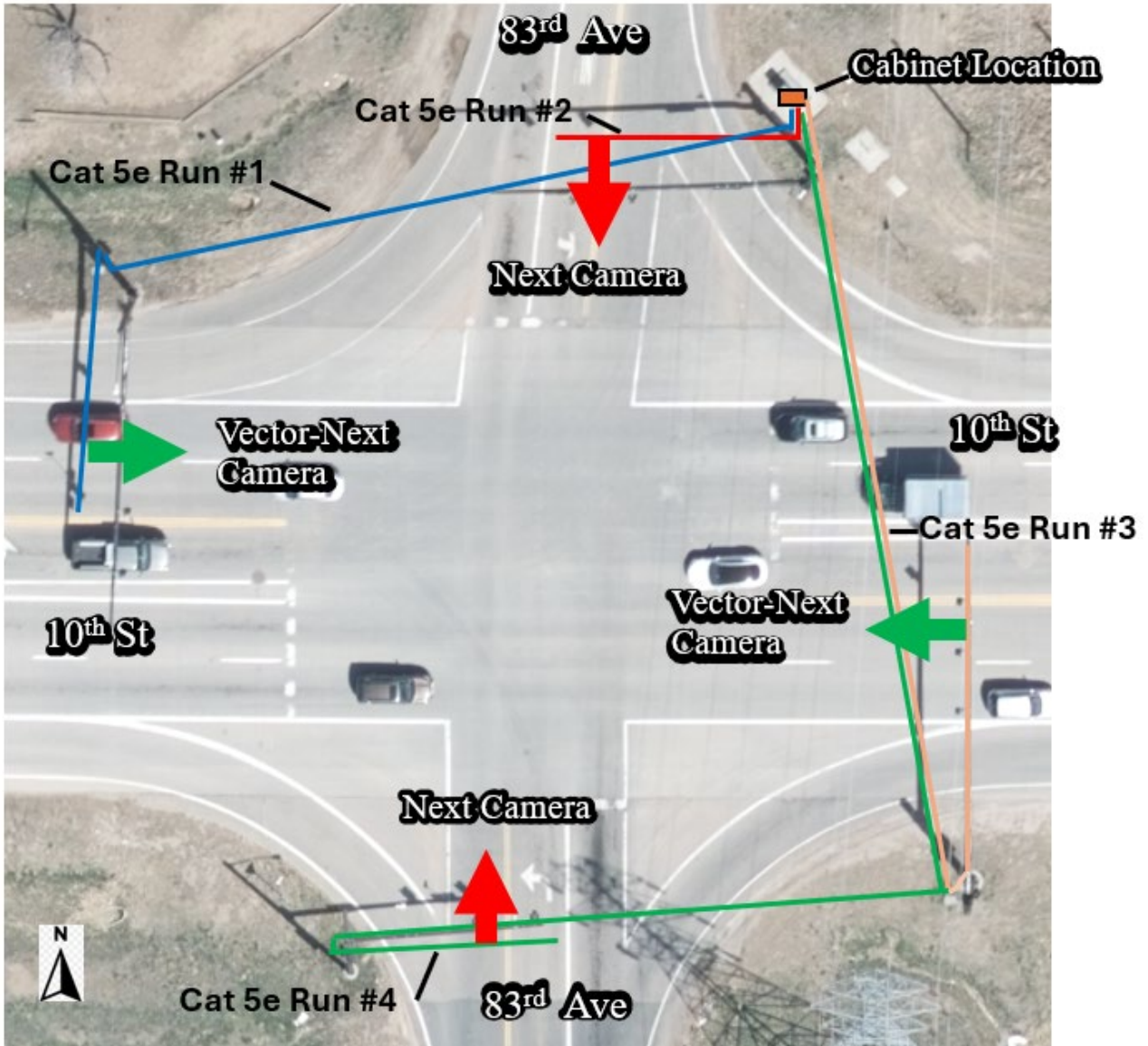
Video Detection Installation



10th Street & 71st Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	160	30	50	240
#2 (NB) - Cat 5e Run	85	30	40	155
#3 (EB) - Cat 5e Run	180	30	50	260
#4 (SB) - Cat 5e Run	270	30	40	340
Total - Cat 5e Run Length	695	120	180	995

15. 10th Street & 83rd Avenue

Video Detection Installation



10th Street & 83rd Avenue	Underground Run Length	30' Upright Pole Run Length	Mast Arm Run Length	Total Run Length
#1 (WB) - Cat 5e Run	175	30	60	265
#2 (NB) - Cat 5e Run	25	30	55	110
#3 (EB) - Cat 5e Run	185	30	70	285
#4 (SB) - Cat 5e Run	320	30	45	395
Total - Cat 5e Run Length	705	120	230	1055