

INVITATION FOR BID

FINAL BID PACKAGE

Project Name: 2023 Bridge Rail Improvements

IFB Number: IFB 2023-017

**Bids Due Date:
07/18/2023
Time: 2:00 p.m.**



**Prepared by City of Northglenn Public Works Department
11701 Community Center Drive
Northglenn, CO 80233**

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BID NO _____

ISSUE DATE _____

INVITATION FOR BID (IFB) COVER SHEET

BID TITLE: _____

SUBMISSION DEADLINE: _____ on _____

SUBMIT BID TO: City Clerk's Office
11701 Community Center Dr
Northglenn CO 80233
or
bids@northglenn.org

CONTACT: _____

EMAIL: _____

PHONE: _____

Bidding instructions and drawings are available at the Rocky Mountain E-Purchasing website or at: https://www.northglenn.org/government/bids_with_the_city.php

MANDATORY PREBID CONFERENCE: _____

DATE & TIME: _____ at _____

LOCATION: _____

The undersigned hereby affirms that (1) they are a duly authorized agent of the vendor, (2) they have read all terms and conditions, requirements, and instructions of this bid as stated or implied, (3) the vendor warrants that they are familiar with all provisions of the contract documents and technical specifications which were made available in conjunction with this solicitation and fully understands and accepts them unless specific variations have been expressly listed in their offer, (4) that the offer is being submitted on behalf of the vendor in accordance with any terms and conditions set forth in this document, and (5) that the vendor listed on the bid submission must match all contract and insurance documents submitted upon award.

PRINT OR TYPE YOUR INFORMATION

Company _____ Fax Number _____

Address _____ City, State Zip _____

Contact Person _____ Title _____

Email _____ Phone _____

Signature _____

Print Name _____

INSTRUCTIONS TO BIDDERS

1. **BID NO:** _____

2. **BID TITLE:** _____

3. **PURPOSE OF SOLICITATION:**

4. **SCHEDULE OF ACTIVITIES:** The following schedule of activities delineates the timing of the solicitation and the estimated project schedule. These dates may be subject to change at the City's discretion.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

5. **BID SUBMITTAL REQUIREMENTS:** Vendors must provide the following information.

- **Cover Sheet.** Include the completed Cover Sheet.
- **Prices.** Prices must be provided on the forms provided. The vendor shall not alter forms (e.g. add or modify categories for posting prices offered) unless expressly permitted to do so. No other form shall be accepted.
- **Submission Timeline.** It is the responsibility of the submitting vendors to ensure timely receipt by the City. The City reserves the right to reject any late submittals. Bids must be received no later than _____ on _____.

6. **INTERPRETATION OF DOCUMENTS AND SPECIFICATIONS:** Wherever the word "contract" appears, it shall be held to include all the documents as listed. No less than all of the parts of the contract documents shall constitute the formal contract. If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of specifications, schedules, or information sheets or the proposed contract documents, they may submit to the project manager a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt and actual delivery. Any interpretation of such documents will be made only by an addendum duly issued, and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The City will not be responsible for any explanation or interpretation of such documents which anyone presumes to make on behalf of the City.

7. **TERMS AND CONDITIONS:** As set forth in the contract agreements and any supplemental, the following terms and conditions will apply to this Invitation for Bid, each vendor's bid and to the negotiations, if any, of any said contract. The City will consider specific recommended changes that clarify the intent of the agreement. **The City will not consider contract changes that have not been specifically identified in your proposal response.** A general statement suggesting that, if selected, you reserve the right to discuss contract issues at a later date will not be accepted and will be grounds for disqualification. Submission of a bid in response to this IFB indicates the vendor's acceptance of the terms and conditions contained in this document and the contract.
8. **BIDDER EXPENSES:** The City of Northglenn will not be responsible for any expenses incurred by any vendor in preparing and submitting an offer.
9. **BID:** All bids must be made on the forms provided. No alterations in bids or in the printed forms thereof, by erasures, deletions, or interpolations will be acceptable unless each alteration is signed or initialed by the vendor. If initialed, the City may require the vendor identify the alteration so initialed. If mailed or delivered, each bid must be enclosed in a sealed envelope labeled with the words _____.
- The bid shall be submitted to the City of Northglenn, Office of the City Clerk, 11701 Community Center Drive, Northglenn, Colorado 80233-8061.
10. **WITHDRAWAL:** A vendor may withdraw their bid at any time prior to the expiration of the final date and time set for receipt of bids. Withdrawal notification must be in written form, and must be received in the Offices of the City Clerk prior to the closing date and time.
11. **IRREVOCABILITY:** Following the time of closing, all bids will become irrevocable offers to the City and will remain as such until 90 days from date of submission. By submission of a bid, the vendor agrees to enter into a contract. In addition all quoted prices will be firm and valid up to 90 days from date of submission. The City may, in its sole discretion, release any bid and return any bonds if applicable prior to the 90 days.
12. **LATE BIDS:** Any Bids received after the Final date and time for receipt of Bids will not be accepted and will be unopened and discarded without being considered.
13. **SIGNATURES OF VENDORS:** Each vendor shall sign their bid, using their legal signature and giving their full business address. The person signing the bid must be an officer of the company or partnership. Bids by partnerships shall be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the President, Secretary, or other persons authorized to bind it in the matter. The names of all persons signing should also be printed below the signature. A bid by a person who affixes to their signature the word, "President", "Secretary", "Agent" or other designation without disclosing their principal, may be held to be a bid of the individual signing. When requested by the City, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished. Bids submitted electronically are to be typed in lieu of written signature (see the cover letter).
14. **OPEN RECORDS ACT:** Notwithstanding any language contained in a bid to the contrary, all bids submitted to the City become the property of the City. Any information considered proprietary should be marked by the vendor and as such and will be kept confidential to the extent provided by law.
15. **SALES TAX:** Vendors shall not include federal, state, or local excise, sales or use taxes in prices offered, as the City is exempt from payment of such taxes.
16. **MISTAKES IN BIDDING INSTRUCTIONS:** If the City makes a mistake in drafting the bidding instructions or any other contract documents, the City reserves the right to reject any or all bids, or to require that vendors submit an alternate bid with adjustments made to correct the error(s). Such errors will be set forth in an addendum. If the vendor has already been selected and has started performing work under the contract, and the City then discovers a mistake in the contract documents for which the City is responsible, the City may opt to reform the contract. If the mistake causes the vendor to receive compensation for materials not used in the work or for labor that would not be required for the work, the contract price shall be decreased

proportionally. If the mistake causes the vendor to fail to bid on work which must be performed in order to properly complete the contract, the City may increase the contract price to equal the proportionate increase in the cost of required materials and labor caused to the vendor. In the alternative, the City may solicit bids for such additional work, or the City may reassign such additional work to another vendor, as the City deems appropriate. Nothing in this provision shall apply to mistakes made by the vendor in completing the bid form or in performing the contract.

- 17. BID RESULTS:** Vendors desiring to know bid results must enclose a self-addressed, stamped envelope with their bid. A bid summary sheet will be mailed after the bid opening. No bid results will be given over the telephone. Vendors attending the bid opening will receive a copy of the results after the opening of the bids.
- 18. ACCEPTANCE OF BID:** It is expressly understood and agreed that the City reserves the right to reject any or all bids, to waive formalities, and accept the bid which appears to be in the City's best interest.
- 19. APPEAL OF AWARD:** Solicitations will be awarded based on multiple criteria, price being just one of the conditions. Vendors can review the solicitation's special terms and conditions for information on evaluation criteria. Vendors may appeal the award decision by submitting, in writing, to the City of Northglenn, a request for reconsideration within 7 calendar days after the posting of the Notice of Intent to Award, provided that the appeal is sought by the vendor prior to the City finalizing a contract with the selected vendor. Vendors who were deemed non-responsive are ineligible to participate in the appeal process.
- 20. DEFENSE OF SUITS:** In case any action at law or suit in equity is brought against the City, any officer, employee, or agent thereof, for or on account of the failure, omission, or neglect of the vendor to do and perform any of the covenants, acts, matters, or things by this contract undertaken to be done or performed, or for the injury or damage caused by the negligence of the vendor or their subcontractors or their or their agents, or in connection with any claim or claims based on the lawful demands of subcontractors, workmen, material, men or suppliers or machinery and parts thereof, equipment, power tools and supplies incurred in the fulfillment of the contract, the vendor shall indemnify and save harmless the City, officers, employees, and agents of the City, of and from all losses, damages, costs (including attorney's fees), expenses, judgments, or decrees whatever arising out of such action of suit that may be brought as aforesaid.
- 21. CONTRACT NEGOTIATIONS:** If the City decides to proceed and to negotiate a contract, the City intends to provide written notification to the vendor whose bid is deemed by the City to be in the best interests of the City and the City will attempt to negotiate a contract with the selected vendor(s) on terms and conditions stated in this IFB or in the successful vendor's bid, but shall also include terms and conditions later negotiated. If the City and the successful vendor are unable to execute a contract and the vendor has been notified that it is the successful vendor then the City may cease all discussions with the (first) successful vendor without any further obligation to that vendor and select another (second) vendor as the successful vendor. If the (second) vendor is rejected, as per the terms above, then the City, without any further obligation to that vendor, may select another (third) vendor as the successful vendor and so on, or the City reserves the right to reject all bids and re-bid.

BID FORM

City of Northglenn
11701 Community Center Drive
Northglenn, Colorado 80233-8061

BID: Pursuant to the "advertisement for bids" for the above named project, and being familiar with all contractual requirements therefore, the undersigned bidder hereby proposes to furnish all labor, materials, tools, supplies, equipment, transportation, services and all other things necessary for the completion of the contractual work, and perform the work in accordance with the requirements and intent of the contract documents, within the time of completion set forth herein, for, and in consideration of the following prices.

Proposal of _____ (hereinafter called **BIDDER**) organized and existing under the laws of the State of _____ doing business as _____*.
To the **CITY OF NORTHGLENN** (hereinafter called **CITY**). In compliance with your advertisement for bids, **BIDDER** hereby proposes to perform **WORK** on

_____ - _____

in strict conformance with the **CONTRACT DOCUMENTS**, within the time set forth therein, and at the prices stated below.

By submission of this **BID**, each **BIDDER** certifies, and in case of a joint **BID** each party thereto certifies as to their own organization that this **BID** has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this **BID** with any other **BIDDER** or with any competitor.

BIDDER hereby agrees to commence **WORK** under this contract on or before a date to be specified in the **NOTICE TO PROCEED** and to fully complete the **PROJECT** as indicated in the General Conditions.

BIDDER acknowledges receipt of the following **ADDENDUM**:

*Insert "a corporation", "a partnership", or "an individual" as applicable.

Sub-contractors (if any): Work they will perform:

1. _____ Email: _____

2. _____ Email: _____

3. _____ Email: _____

Please provide a complete and accurate list of at least three references and contact phone numbers:

1. _____ Phone: _____

Email: _____

2. _____ Phone: _____

Email: _____

3. _____ Phone: _____

Email: _____

Respectfully submitted,

(Seal, if Bid is by a Corporation)

Attest

Signature

Address

Title

Date

License Number
(If Applicable Signature)

Phone Number

BID SUMMARY

(Vendor Name)

Hereby submits to the City of Northglenn, Colorado the following bid items, complete and in place, as specified for the:

2023 Bridge Rail Improvements

- **IFB 2023-017**

Malley Dr.

Item	Description	Quantity	Unit	Unit Cost	Total Cost
1	Debris Removal and Disposal (Optional)	LS	1	\$	\$
2	Removal of Sidewalk	LS	1	\$	\$
3	Removal of Curb and Gutter	LS	1	\$	\$
4	Removal of Pedestrian Rail	LS	1	\$	\$
5	Bridge Sidewalk and Rail Curb	LS	1	\$	\$
6	Bridge Rail, Transitions and Guardrail	LS	1	\$	\$
7	Concrete Sidewalk	LS	1	\$	\$
8	Concrete Curb and Gutter	LS	1	\$	\$
9	Mobilization	LS	1	\$	\$
10	Temporary Traffic Control	LS	1	\$	\$
11	Variable Message Sign	EA	2	\$	\$
12	F/A Minor Contract Revisions	FA	-	\$10,000.00	\$10,000.00

Claude Ct.

Item	Description	Quantity	Unit	Unit Cost	Total Cost
13	Removal of Sidewalk	LS	1	\$	\$
14	Removal of Pedestrian Rail	LS	1	\$	\$
15	Headwall and Wingwall Curb	LS	1	\$	\$
16	Bridge Rail, Transitions and Guardrail	LS	1	\$	\$
17	Concrete Sidewalk	LS	1	\$	\$
18	Mobilization	LS	1	\$	\$
19	Temporary Traffic Control	LS	1	\$	\$
20	F/A Minor Contract Revisions	FA	-	\$10,000.00	\$10,000.00

112th Pl.

Item	Description	Quantity	Unit	Unit Cost	Total Cost
21	Debris Removal and Disposal (Optional)	LS	1	\$	\$
22	Chevron Alignment (W1-8R) 18x24	LS	5	\$	\$
23	Bicycle/Pedestrian (W11-15) 30x30 with Beacon	LS	2	\$	\$
24	Pedestrian (R10-3) 9x12 with Pedestrian Accessible Signal	LS	2	\$	\$
25	Concrete Repair	LS	1	\$	\$
26	Paint Bridge Rail	LS	1	\$	\$
27	Mobilization	LS	1	\$	\$
28	Temporary Traffic Control	LS	1	\$	\$
29	F/A Minor Contract Revisions	FA	-	\$10,000.00	\$10,000.00

Acoma St.

Item	Description	Quantity	Unit	Unit Cost	Total Cost
30	Debris Removal and Disposal	LS	1	\$	\$
31	Mobilization	LS	1	\$	\$
32	Temporary Traffic Control	LS	1	\$	\$
33	F/A Minor Contract Revisions	FA	-	\$5,000.00	\$5,000.00

Note: No alternates or substitutions will be accepted.

TOTAL FOR ALL ITEMS _____

TOTAL IN WORDS _____

TRADE CONTRACTOR AGREEMENT

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TRADE CONTRACTOR AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of _____, 20_____, by and between the City of Northglenn, State of Colorado, a Colorado home rule municipal corporation, hereinafter referred to as the "City" or "Owner" and _____, hereinafter referred to as the "Trade Contractor".

ARTICLE 1 - GENERAL PROVISIONS AND SERVICES

A. The Trade Contractor will commence and fully complete the construction of the Bridge Rail Improvement Project, which is described in **Exhibit A**, which is attached hereto and made a part hereof ("Project").

B. The Trade Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the project described herein.

C. The Trade Contractor will commence the work required by the contract documents within _____ (_____) calendar days after the date of the notification to proceed and will complete the same within sixty (60) days, unless the period for completion is extended otherwise by the contract documents. The Trade Contractor agrees to pay as liquidated damages, and not as a penalty, the sum _____ (\$_____) for each consecutive calendar days delay in completing this Contract after the completion dated specified herein, excluding any approved extensions of time because of unavoidable delay.

D. The Trade Contractor agrees to perform all the work described in the contract documents and to comply with the terms therein for an amount not to exceed _____ (\$_____) as described in Article 5 of this Agreement.

ARTICLE 2 - DEFINITIONS

A. Wherever used in the contract documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1. Addenda - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the contract documents, drawings and specifications, by additions, deletions, clarifications or corrections.
2. Architect - The Architect shall be N/A
3. Bid - The offer or proposal of the bidder submitted in the prescribed form setting forth the prices for the work to be performed.
4. Bidder - Any person, firm or corporation submitting a bid for the work.
5. Bonds - Bid, performance and payment bonds and other instruments of security, furnished by the Trade Contractor and his surety in accordance with the contract documents.
6. Change Order - A written order to the Trade Contractor authorizing an addition, deletion or revision in the work within the general scope of the contract documents or authorizing an adjustment in the contract price and/or contract time.
7. Contract Documents - The contract, including advertisement for bids, information for bidders, bid, bid bond agreement, bid schedule, labor and material, payment bond, performance bond, notice of award, notice to proceed, change order, general conditions, special conditions, general specifications, special specifications, scopes of work, addenda, drawings, schedules and any and all other documents or papers included or referred to in the foregoing documents are part of the Contract Documents

8. Contract Price - The total monies payable to the Trade Contractor under the terms and conditions of the contract documents.
9. Contract Time - The number of calendar days stated in the contract documents for the completion of the work.
10. Date of Award - Date of award of contract shall mean the date formal notice of such award, approved by the Owner, has been delivered to the intended awardee, or mailed to him at the main business address shown in his proposal by the Owner or it's authorized representative.
11. Day or Days - Unless herein otherwise expressly defined, "day" shall mean calendar day or days.
12. Drawings, Plans or Contract Documents - The part of the contract documents which shows the characteristics and scope of the work to be performed and which has been prepared or approved by the Engineer and/or Architect.
13. Engineer shall be determined by the Northglenn Public Works Director.
14. Field Order - A written order effecting a change in the work not involving an adjustment in the contract price or an extension of the contract time, issued by the Engineer or the Owner to the Trade Contractor during construction.
15. Major Equipment or Major Equipment Items - Installation of major equipment to be furnished and placed under the contract awarded to the Trade Contractor and/or installations of major equipment to be furnished by the Owner and received, unloaded, stored, and placed under the contract awarded to the Trade Contractor.
16. Notice of Award - The written notice of the acceptance of the bid from the Owner to the successful bidder.
17. Notice to Proceed - Written communication issued by the Owner to the Trade Contractor authorizing him to proceed with the work and establishing the date of commencement of the work.
18. Owner or City - The City of Northglenn, Colorado, a home rule municipality. The Public Works Director of the Owner, or his designee, is the Owner's representative.
19. Project - Construction of the project described in **Exhibit A**.
20. Shop Drawings - All drawings, diagrams, illustrations, brochures, schedules, and other data which are prepared by the Trade Contractor, a subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the work shall be fabricated or installed.
21. Site - The lands and other places on, under, in, or through which the work is to be executed or carried out and any other lands or places provided by the Owner for the purposes of the contract together with such other places as may be specifically designed in the contract documents as forming part of the site.
22. Special Conditions - Supplemental conditions that apply to specific aspects of the project or modifications to the general conditions that are to be adhered to in the project.
23. Subcontractor - An individual, firm or corporation having a direct contract with the

Trade Contractor or with any other subcontractor for the performance of a part of the work at the site.

24. Substantial Completion - That date as certified by the Owner when the construction of the project or a specified part thereof is sufficiently completed, in accordance with the contract documents, so that the project or specified part can be utilized for the purposes for which it is intended.

25. Suppliers - Any person, supplier, or organization who supplies materials or equipment for the work, including that fabricated to a special design, but who does not perform labor at the site. A supplier is not a subcontractor who purchases an item of equipment from a manufacturer.

26. Trade Contractor - The person, firm or corporation with whom the City of Northglenn has executed this Agreement.

27. Work - All labor necessary to produce the construction required by the contract documents, and all materials and equipment incorporated or to be incorporated in the project. The work and the project are used interchangeably to mean the same thing.

28. Written Notice - Any notice to any party of the Agreement relative to any part of the Agreement in writing and considered delivered and the service thereof completed when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the work.

ARTICLE 3 - DESCRIPTION OF WORK AND SERVICES

Section 1. Drawings and Specifications.

- A. The intent of the drawings and specifications is that the Trade Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the work in accordance with the contract documents and all incidental work necessary to complete the project in an acceptable manner, ready for use, occupancy or operation by the Owner.
- B. Up to three (3) copies of the drawings and specifications will be furnished to the Trade Contractor without charge upon request, and any additional copies which the Trade Contractor may request will be furnished at the cost of reproduction. The drawings and specifications are to be used only in connection with the work specified herein and, with the exception of the signed contract set and As-Built drawings, are to be returned at the completion of the contract.
- C. In case of conflict between the drawings and specifications, the drawings will govern. In case of conflict between the special specifications and the general specifications, the special specifications shall govern. Figure dimension on drawings will govern over scale dimensions, and detailed drawings will govern over general drawings. Notwithstanding the above, a document which is more restrictive or requires greater responsibility or increased compliance by the Trade Contractor shall govern.
- D. Any discrepancies found between the drawings and specifications and site conditions or any inconsistencies or ambiguities in the drawings or specifications shall be immediately reported to the Owner, in writing, who will promptly resolve such inconsistencies or ambiguities in writing. Work done on unreported discrepancies, inconsistencies or ambiguities by the Trade Contractor shall be done at the Trade Contractor's risk.
- E. The Trade Contractor may be furnished additional instructions and detail drawings,

by the Owner, as necessary to carry out the work required by the contract documents. All additional instructions and detail drawings shall be issued to the Trade Contractor by the Owner.

F. The additional drawings and instructions thus supplied will become a part of the contract documents. The Trade Contractor shall carry out the work in accordance with the additional detail drawings and instructions.

Section 2. Materials, Services and Facilities.

A. It is understood that, except as otherwise specifically stated in the contract documents, the Trade Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the work within the specified time.

B. In addition to the requirements for major equipment items previously given, within fourteen (14) days after execution of the Contract, the Trade Contractor shall submit to the Owner and Engineer a complete listing of the manufacturers of each item of equipment or assembly fabricated off the site which he proposed to furnish for the project, together with sufficient information, including shop assembly and detail drawings, manufacturers' specifications and performance data, to demonstrate clearly that the materials and equipment to be furnished comply with the provisions and intent of the contract documents. If the information shows any deviation from the Contract requirements, the Trade Contractor shall advise the Engineer and Owner of the deviation and state the reason for it in writing.

C. Only first-class materials and materials which conform to the requirements of the specifications shall be incorporated in the work. All materials shall be new unless specified to be otherwise.

D. When requested by the Owner, the Trade Contractor shall furnish a written statement of the origin, composition, and manufacturer of any or all materials (manufactured, produced or grown) that are to be used in the work. The sources of supply of each material used will be approved by the Owner before delivery is started. If, at any time, sources previously approved, fail to produce materials acceptable to the Owner, the Trade Contractor shall furnish materials from other sources.

E. Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.

F. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

G. Materials, supplies, and equipment shall be in accordance with samples submitted by the Trade Contractor and approved by the Engineer or Architect.

H. Materials, supplies or equipment to be incorporated into the work shall not be purchased by the Trade Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

I. The Trade Contractor shall retain, for the benefit of the Owner, all materials and supplies that are purchased for the project but are not used as a part of the project. The Owner may take any of the materials and supplies that are used in the project for any City purpose. Any materials and supplies not taken by the Owner shall be removed from the project site by the Trade Contractor.

Section 3. Shop Drawings.

A. The Trade Contractor shall submit shop drawings, samples and O&M manuals as may be necessary for the prosecution of the work as required by the contract documents on a timely basis so that the project schedule is not affected. The Engineer will promptly review all shop drawings. All such drawings will be approved and signed by the Engineer, and will be null and void unless authorized by such signature. The Engineer's approval of any shop drawing will not release the Trade Contractor from responsibility for deviations from the contract documents. The approval of any shop drawings which substantially deviates from the requirements of the contract documents shall be evidenced by a change order.

B. All drawings and details on items of major equipment will be reviewed by the Engineer only after the complete set of drawings and details covering the entire equipment package to be furnished under a particular major equipment item are submitted. Drawings submitted on a piecemeal basis covering only parts of the equipment package will be held for checking until the entire set of drawings are received.

C. The Trade Contractor shall also submit to the Engineer shop drawings showing all necessary detail for the proper installation of materials into the completed work, as provided by this Agreement.

D. The Trade Contractor shall make any indicated corrections on the drawings returned and shall resubmit corrected drawings until final approval is obtained.

E. The Trade Contractor shall have no claims for damages or extension of time on account of any delay in the work resulting from the rejection of material or from review, revision and resubmittal of drawings when the review, revision and resubmittal is due to changes to the original design documents, and other data for approval by the Engineer.

F. Each shop drawing shall be dated and shall be identified with the name of the project, the division, if any, the Contract item number, and the name of the Trade Contractor.

G. When submitted for the Engineer's review, shop drawings shall bear the Trade Contractor's certification that he has reviewed, checked and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

H. The Trade Contractor shall submit the shop drawings in accordance with the general requirements.

I. Portions of the work requiring a shop drawing or sample submission shall not begin until the shop drawing or submission has been approved by the Engineer. A copy of each approved sample shall be kept in good order by the Trade Contractor at the site and shall be available to the Engineer.

J. By approving and submitting shop drawings and samples, the Trade Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated each shop drawing and sample with the requirements of the work and of the contract documents.

Section 4. Records, Accounts and Audits.

A. The Trade Contractor agrees to keep one complete set of records and books of account on a recognized cost accounting basis (satisfactory to the Engineer), showing all expenditures, of whatever nature, made pursuant to the provisions of this Contract.

B. The Trade Contractor shall furnish the Engineer and Owner with such records, information and data as may be reasonable. The Engineer and Owner shall at all reasonable times be afforded the opportunity to inspect and/or audit the above-specified books and records of said Trade Contractor.

Section 5. Inspection and Testing.

A. All materials and equipment used in the construction of the project will be subject to adequate inspection and testing in accordance with generally accepted standards.

B. The Trade Contractor shall give sufficient advance notice of placing orders to permit tests to be completed before materials are incorporated in the work.

C. The Owner will provide all inspection and testing services required by the Contract Documents, unless specifically noted in the contract specifications for special inspection and testing services, such as, by way of example, welding inspections on off-site assembly.

D. Neither observations by the Engineer, and Owner, tests nor approvals by persons other than the Engineer and Owner will relieve the Trade Contractor from his obligations to perform the work in accordance with the requirements of the contract documents.

E. The Engineer, the Owner, and their representatives will at all times have access to the work and to locations where materials or equipment are being manufactured, stored, or prepared for use under these contract documents, and they shall have full facilities for unrestricted inspection of such materials, equipment, and work including full access to purchasing and engineering information, but not including prices, to the extent of uncovering, testing, or removing portions of the finished work. The Engineer and Owner shall be furnished with such information as may be required regarding materials used and the process of manufacture for the various items of equipment. Inspections by the Engineer and Owner of equipment or materials during its manufacture will be performed by or for the Owner solely in an effort to detect discrepancies and defects as early as possible, when they can be most readily corrected, and the work thereby expedited. No acceptance of equipment or materials will be construed to result from such shop inspections by the Engineer and Owner. Any inspections or tests or waivers thereof will not relieve the Trade Contractor of responsibility for meeting all requirements of these contract documents.

F. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Trade Contractor shall provide proper facilities for such access and observation of the work and also for any inspection or testing thereof.

G. In case of disputes between the Trade Contractor and the Engineer as to materials furnished or manner of performing the work, the Owner will have authority to reject materials or suspend the work until the question at issue can be decided by the Owner. The Owner is authorized to revoke, alter, enlarge, relax or release any requirements of these specifications, and to approve or accept any portion of the work, and to issue instructions contrary to the drawings and specifications.

Section 6. Construction Review

A. The Engineer will periodically observe the construction of all work covered by this Contract. The Engineer, on behalf of the Owner, shall be authorized to determine the amount or quantities of the several items of work which are to be paid for under this Contract; to order field changes within the scope of the Contract and to render decisions on any questions which may arise relative to the execution of the work covered by this Contract. The Engineer does not have authority to suspend work on the project. The Trade Contractor shall not suspend any portion of the work nor resume suspended work without the written authority of the Owner.

B. Neither Engineer's authority to act under the Contract nor any decision made by Engineer in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Engineer to the Trade Contractor, any subcontractor, any supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

C. Whenever in the drawings, plans or Contract Documents the terms "as ordered", "as directed", or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the work for compliance with the contract documents. The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility for the project. Neither the Owner nor the Engineer will be responsible for the acts or omissions of Contractor or any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

D. Periodic observation of the work in progress by the Engineer will be done whenever the Contractor is performing work that requires review as determined by the Engineer. The normal working time shall be during a regular 5-day, 40-hour work week, Monday through Friday. If the Trade Contractor elects to work more than 40 hours per week and observation is required during this overtime work as determined by the Engineer, the Engineer shall be paid by the Trade Contractor at the rate as specified herein for all review time required over the normal 5-day, 40-hour week. If the Engineer or his authorized representative is called to the job site to address problems created by the Trade Contractor, he will be paid by the Trade Contractor at the same rate as for overtime review as stated above. This payment shall be made by a credit to the Owner, and then the Engineer shall bill the Owner for the same.

E. If any work has been covered which the Engineer has not been specifically requested to observe prior to its being covered, or if the Engineer considers it necessary or advisable that covered work be inspected or tested by others, the Trade Contractor at the Engineer's request shall uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools and equipment. If it is found that such work is defective, the Trade Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the Trade Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate change order will be issued.

Section 7. Surveys, Permits and Regulations.

A. The Owner will furnish any existing land surveys in the Owner's possession. Provided however, the Trade Contractor shall perform all necessary land surveys to complete the work required by this Agreement. The Trade Contractor shall provide detailed construction staking.

B. At the beginning of the construction or as the work progresses, the Trade Contractor shall be responsible for the installation of property corners and the setting of benchmarks.

C. Benchmarks and survey stakes shall be preserved by the Trade Contractor and in case of their destruction, or removal by him, his employees, or others, they shall be replaced at the Trade Contractor's expense and his Sureties shall be liable therefor.

D. The Trade Contractor shall be responsible for elevations used in computing his bid.

E. The Trade Contractor shall secure and pay for all necessary permits, fees and licenses in connection with the performance of its work and shall pay all municipal and other governmental fees in connection therewith except those expressly provided by the specifications as being the responsibility of the Owner, and shall furnish at its expense any and all bonds and cash or other deposits required by law or required by any lawful body having the right to make demand therefor.

F. The Owner will provide rights-of-way and permanent and temporary easements as shown on the plans for construction purposes. Any additional land actually needed by the Trade Contractor for the performance of the work, proper location of his plant and equipment, or the storage of materials and supplies for the work, shall be furnished by the Trade Contractor.

Section 8. Protection of Work, Property and Persons.

A. The Trade Contractor shall be responsible for initiating and maintaining all safety precautions and programs in connection with the work. Neither the Owner nor the Engineer will be responsible for Trade Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. The Trade Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the work who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

B. The Trade Contractor shall at all times consult with and obtain the approval of the Owner for the storage of material, operation of equipment, placing of temporary structures or dispositions of any surplus or waste materials upon property of the Owner anywhere outside the limits of construction. The Trade Contractor shall comply with all state, federal and local laws related to the storage or placement of any supplies, equipment, structures, or any other materials.

C. The Trade Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. He shall notify owners of adjacent utilities when prosecution of the work may affect them. The Trade Contractor shall remedy at his expense all damage, injury, or loss to any property or person caused, directly or indirectly, in whole or in part, by the Trade Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, except damage or loss attributable to the fault of the contract documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Trade Contractor. Notwithstanding the provisions of C.R.S. § 13-20-802.5(2), for purposes of this Contract, the measure of damages shall never be deemed to be the fair market value of the real property without an alleged construction defect.

D. The Trade Contractor shall observe all rules and regulations of the health department

having jurisdiction and shall take precautions to avoid creating unsanitary conditions.

E. In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the Trade Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss.

F. The Trade Contractor shall at all times conduct and work in such a manner as to cause the least inconvenience and greatest protection to the general public. The Trade Contractor shall furnish and maintain barricades, warning signs, red flags, lights, and temporary passageways as may be necessary to protect the work and to safeguard the public. The cost of furnishing and maintaining the above facilities shall be incidental to the contract and no extra compensation for it will be allowed.

G. Throughout the performance of the work or in connection with this Contract, the Trade Contractor shall construct and adequately maintain suitable and safe crossings over trenches and such detours as are necessary to care for public and private traffic. The material excavated from trenches shall be compactly deposited along the sides of the trench or elsewhere in such a manner as shall give as little inconvenience as possible to the traveling public, to adjoining property owners, to other trade contractors, or to the City.

H. In performing the work, the Trade Contractor shall take the necessary action, including making arrangements with the owners or operators of existing power, cable and telephone lines, fiber-optic and telemetry lines, gas, water, sewer and other utilities or installations that may be encountered, whether privately or publicly owned, to prevent interference with the conditions, operations and maintenance of the respective utilities in a manner satisfactory to the owners, or operators of the respective utilities. Relocation or repair of utilities encountered even though not shown on the plans, shall be the responsibility of the Trade Contractor. The cost of the above measures, including maintaining of guards, watchmen, signals, barricades and temporary structures, making any necessary repairs and other cooperative or corrective work shall be borne by the Trade Contractor and shall be included in the prices bid in the Proposal for the related items of work. Neither the Owner nor the Engineer shall be responsible to the Contractor for the existence of utilities not shown on the plans or drawings and the Trade Contractor remains obligated under this paragraph for all hidden utilities.

I. The Trade Contractor shall be responsible for the preservation of all private or public property along and adjacent to the work and shall take all necessary precautions to prevent damage or injury thereto. Such preservation and protection shall include but not be limited to, trees, stone walls, fences, mailboxes, monuments, irrigation ditches, driveways, road access culverts, underground pipelines and structures. Such preservation and protection shall apply to all underground pipelines and utilities whether public, private or individually owned that are in or adjacent to the right-of-way. When direct or indirect damage is done to public or private property on account of the act, omission, neglect or misconduct in the prosecution or non-prosecution of the work on the part of the Trade Contractor, such property shall be restored by the Trade Contractor at the Trade Contractor's expense to a condition similar or equivalent to that which existed before such damage or injury was done, and brought up to current codes if applicable. The Trade Contractor shall be responsible for making all arrangements at his own expense for moving and operating equipment at temporary crossings of telephone and transmission lines, railroad tracks, irrigation ditches and pipelines.

Section 9. Communication with the Owner.

The Trade Contractor shall designate a responsible member of its organization at the site, whose duty shall be designated as the contact person for all communication between the Owner and the Trade Contractor. Said designated representative shall also be responsible to attend such meetings, as may be required to insure coordination and adequate performance of the work.

Section 10. Scope of Work.

The scope of work is described in the contract documents which are appended hereto and incorporated herein by this reference.

Section 11. Trade Contractor's Responsibility.

A. The Trade Contractor shall be responsible for all the work under this Contract until completion and final acceptance by the Owner.

B. The Trade Contractor shall supervise and direct the work. He shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.

C. The Trade Contractor shall employ on the work only such persons who are competent and skilled in their assignments. Any employee who obstructs the progress of the work through incompetence or other means or conducts himself improperly shall be discharged or removed from the work when so requested by the Owner. This section shall not create a duty for the Owner to evaluate or assess the competence or skills of the Trade Contractors employees.

D. The Trade Contractor warrants that all materials and equipment furnished and incorporated by him in the project shall be new, unless otherwise specified, and that all work under this Trade Contract shall be of good quality, free from fault and defects and in conformity with the contract documents. All work not conforming to these standards shall be considered defective. The warranty provided herein shall be in addition to and not in limitation of any other warranty or remedy required by law or by the contract documents.

E. The Trade Contractor agrees that if he should fail or neglect to prosecute the work diligently and properly, or fail to perform any provisions of this Trade Contract, that the Owner, after three (3) days written notice to said Trade Contractor may, without prejudice to any other remedy, make good such deficiencies and may deduct the cost thereof from the payments then or thereafter due to the Trade Contractor pursuant to this Contract.

F. Tools furnished with any equipment may be used when approved by the Owner and shall be turned over to the Owner after completion of the work in a condition acceptable to the Owner. In case of rejection by the Owner, the Trade Contractor shall replace the tool or tools at no extra cost to the Owner.

G. Upon completion and before final acceptance of the work, the Trade Contractor shall remove from the site of the work and property of the Owner, all machinery, equipment, surplus materials, rubbish, barricades, signs and temporary structures and shall leave the premises in a condition which is satisfactory to the Owner.

H. The Trade Contractor shall keep one record set of the contract documents annotated to show all changes made during construction.

I. The Trade Contractor shall be responsible for the acts and omissions of all his employees and all subcontractors, their agents and employees and all other persons performing any of the work under a contract with the Trade Contractor.

J. Upon completion of the work, the Trade Contractor shall, at his or its expense, remove from the vicinity of the work, all plant, buildings, rubbish, unused materials, concrete forms and other like material, belonging to him or used under his direction during construction, and in the event of his failure to do so, the same may be removed by the Owner and the Trade Contractor, his Surety or Sureties, shall be liable for the cost thereof. Also during the construction of the work, the site, partially

finished structures, and material stockpiles shall be kept in a reasonable state of order and cleanliness.

Section 12. Changes in the Work.

A. CHANGES. Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, only by Change Order, Construction Change Directive, or Order for a Minor Change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

1. A Change Order shall be based upon agreement among the Owner, Contractor, and Engineer; a Construction Change Directive requires agreement by the Owner and Engineer and may or may not be agreed to by the Contractor; an Order for a Minor Change in the Work may be issued by the Engineer alone.

2. Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive, or Order for a Minor Change in the Work.

3. If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed Change Order or Construction Change Directive that application of such unit prices to the quantities of work proposed will cause substantial inequity to the Owner or the Contractor, the applicable unit prices shall be equitably adjusted; provided however, that Owner may increase the number of units without change in the unit price if reasonable.

B. CHANGE ORDERS. The Contract Sum and the Contract Time may be changed only by Change Order. Methods used in determining adjustments to the Contract Sum may include those listed in Subsection C below. A Change Order is a written order to the Contractor, signed by the Contractor, the Owner and the Engineer, stating their agreement upon all of the following:

1. A change in the Work;
2. The amount of the adjustment in the Contract Sum, if any; and
3. The extent of the adjustment in the Contract Time, if any.

C. CONSTRUCTION CHANGE DIRECTIVES. A Construction Change Directive is a written order directed to the Contractor and signed by the Owner and Engineer, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

1. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

2. If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- a. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- b. By unit prices stated in the Contract Documents or subsequently agreed upon;

- c. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- d. By the method provided in Subparagraph (C)(3)(5).

3. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the work involved and advise the Engineer and Owner of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

4. A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

5. If the Contractor does not respond promptly to the Construction Change Directive or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Engineer on the basis of reasonable expenditures and savings of those performing the work attributable to the change, including, in case of an increase in the Contract Sum, a percentage fee for overhead and profit not to exceed five percent (5%) of such work's actual cost for Contractor and ten percent (10%) of such work's actual cost to be apportioned between any and all subcontractors and sub-subcontractors. For work performed by Contractor's own forces, Contractor's mark-up shall be limited to actual cost plus a percentage fee for overhead and profit not to exceed ten percent (10%). In such case, the Contractor shall keep and present, in such form as the Engineer may prescribe, an itemized accounting of actual costs together with appropriate supporting data. For the purposes of this Subparagraph, actual costs shall be defined as and limited to the following:

- a. Costs of labor, including Social Security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- b. Costs of materials, supplies, and equipment, including costs of transportation, whether incorporated or consumed;
- c. Reasonable rental costs of machinery and equipment, exclusive of hand tools, obtained and used specifically for such work, whether rented from the Contractor or others; and
- d. Costs of premiums for all bonds (if any), permit fees, and sales, use or similar taxes directly attributable to such work. Actual cost does not include any item which could be deemed to be a general conditions cost or overhead, such as but not limited to, the cost of Contractor and Subcontractor supervisory personnel assigned to the Work, and field office and related expenses.

6. Pending final determination of actual cost to the Owner, amounts not in dispute may be included in applications for payment. The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Engineer. When both additions and credits covering related work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

7. If the Owner and Contractor do not agree with the adjustment in Contract Time or the method for determining it, the adjustment or the method shall be determined in accordance with Article 5 hereof.

8. When the adjustments in the Contract Sum and Contract Time are determined as provided herein, such determination shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

D. MINOR CHANGES IN THE WORK

1. The Engineer will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be affected by written order, and shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.

2. The Owner may at any time as the need arises, order changes within the scope of work without invalidating the Agreement. If such changes increase or decrease the amount due under the contract documents or in the time required for performance of the work, and equitable adjustment will be authorized by change order.

3. The Owner also may, at any time, by issuing a field order, make changes in the details of the work. The Trade Contractor shall proceed with the performance of any changes in the work so ordered by the Owner unless the Trade Contractor believes that such field order entitles him to a change in contract price or time, or both, in which event he shall give the Owner written notice thereof within ten (10) days after the receipt of the ordered change, and the Trade Contractor shall not execute such changes pending the receipt of an executed change order or further instruction from the Owner.

Section 14. Contract Documents.

In case of conflict between this Contract, the general conditions of the contract for construction, and the supplementary conditions, this Contract will govern.

ARTICLE 4 – TRADE CONTRACTOR'S CONSTRUCTION SCHEDULE

Section 1. Preconstruction Conference.

A preconstruction conference shall be scheduled at the time the Notice of Award is issued. The Trade Contractor, at the preconstruction conference, shall prepare and submit for the Owner's and the Engineer's review and approval a Trade Contractor's construction schedule for the Work, in such and form and detail as the Owner may require. The schedule shall not exceed time limits under the Contract Documents, shall be revised as required herein and at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire project to the extent required by the Contract Documents, and shall provide for the expeditious and practicable execution of the Work. The schedule shall indicate the proposed starting and completion dates for the various subdivisions of the Work as well as the totality of the Work. The schedule shall be updated every fourteen (14) days for submitted to Engineer with Trade Contractor's applications for payment. Each schedule shall contain a comparison of actual progress with the estimated progress for such time stated in the original schedule. If any schedule submitted sets forth a date for Substantial Completion for the Work or any phase of the Work beyond the date(s) of Substantial Completion established in the Contract (as the same may be extended as provided in the Contract Documents), the Trade Contractor shall submit to Engineer and Owner for their review and approval, a narrative description of the means and methods which Trade Contractor intends to employ to expedite the progress of the Work to ensure timely completion of the various phases of the Work as well as the totality of the

Work. To ensure such timely completion, Trade Contractor shall take all necessary action including, without limitation, increasing the number of personnel and labor on the Project and implementing overtime and double shifts. In that event, Trade Contractor shall not be entitled to an adjustment in the Contract Sum or the Schedule.

Section 2. Schedule of Submittals.

The Contractor shall prepare and keep current, for the Engineer's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Engineer reasonable time to review submittals.

Section 3. Conformance to Schedule.

The Contractor shall conform to the most recent schedules.

ARTICLE 5 - TIME FOR COMPLETION AND LIQUIDATED DAMAGES

A. The date of beginning and the time for completion of the work are essential conditions of the contract documents and the work embraced shall be commenced on a date specified in the notice to proceed.

B. The Trade Contractor shall proceed with the work at such rate of progress to insure full completion within the Contract Time. It is expressly understood and agreed, by and between the Trade Contractor and the Owner, that the contract time for the completion of the work described herein is a reasonable time, If Trade Contractor is delayed in the progress of the Work by fire, unusual delay in transportation, unanticipated adverse weather conditions, or other unavoidable casualties beyond Trade Contractor's control other than unanticipated adverse weather conditions, the Contract Time shall be extended for a reasonable period of time. "Weather" means precipitation, temperature, or wind, and an "adverse weather condition" means weather that on any calendar day varies from the average weather conditions for that day by more one hundred percent (100%) as measured by the National Oceanic and Atmospheric Administration. The term "unanticipated adverse weather conditions" means the number of days in excess of the anticipated adverse weather days per month as set forth below:

MONTHLY ANTICIPATED ADVERSE WEATHER DAYS											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
7	4	4	4	6	3	4	2	3	3	2	5

By reason of example only, if in March there are two (2) days when the snowfall exceeds the average snowfall for that day by one hundred percent (100%), those two (2) days will have experienced an adverse weather condition. However, there will have been no unanticipated adverse weather condition in March, because there are four (4) anticipated adverse weather days in March, which should be accounted for in the schedule. If, however, there are five (5) days in which the snowfall exceeds the average snowfall by one hundred percent (100%), an unanticipated adverse weather condition will have occurred, and Trade Contractor shall be entitled to request an extension of time.

C. If the Trade Contractor shall fail to complete the work within the Contract Time, or extension of time granted by the Owner, then the Trade Contractor shall pay to the Owner the amount of liquidated damages and not as penalty the sum of (\$) for each calendar day that the Trade Contractor shall be in default after the time stipulated in the contract documents.

D. The Owner will charge the Trade Contractor, and may deduct from the partial and final payment for the work, all architectural, engineering and construction management expenses incurred by the Owner in connection with any work accomplished after the specified completion date.

E. The Trade Contractor will not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following, and the Trade Contractor has promptly given written notice of such delay to the Owner.

1. To any preference, priority or allocation order duly issued by the Owner.
2. To unforeseeable causes beyond the control and without the fault or negligence of the Trade Contractor, including, but not restricted to, unforeseen conditions, acts of God, or of the public enemy, acts of the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and
3. To any delays of subcontractors occasioned by any of the causes specified in subparagraphs 1 and 2 of this paragraph E.

F. The Trade Contractor waives any right of recovery or reimbursement or by whatever name, as against the Owner or the Engineer, as a result of any delay or increase on overhead cost incurred by the Trade Contractor's association with any action or inaction on the part of any other trade contractor or supplier.

G. Any request for extension of the Contract Time shall be made in writing to the Project Manager not more than seven (7) days after commencement of the delay; otherwise it shall be waived. Any such request shall contain an estimate of the probable effect of such delay on the progress of the Work.

H. In strict accordance with C.R.S. § 24-91-103.5, the City shall not amend the Contract Price to provide for additional compensation for any delays in performance which are not the result of acts or omissions of the City or persons acting on behalf of the City.

ARTICLE 6 - CONTRACT SUM

Section 1. Monthly or Progress Payments.

A. The City Council of the City of Northglenn has appropriated the money necessary to fund this project. The Owner shall pay the Trade Contractor in current funds for the performance of the work, subject to any additions and deletions, by written change order, the total sum not to exceed (\$) (the "Original Contract Amount"). Notwithstanding anything to the contrary contained in this Agreement, no change order or other form of directive by the Owner requiring additional compensable work to be performed, which causes the aggregate amount payable under this Agreement, to exceed the amount appropriated for the Original Contract Amount, unless the Trade Contractor is given written assurance by the City of Northglenn that lawful appropriations have been made by the City Council of the City of Northglenn to cover the cost of the additional work.

B. The Engineer has, by separate agreement with the Owner, agreed to include in its monthly work estimate to the Owner, a review of the Trade Contractor's estimates of the value of all work, labor, and materials of the Trade Contractor incorporated into the Project. The Trade Contractor hereby agrees that estimates provided to the Engineer for review for the Owner shall be for work actually performed upon the project and that all such work, including labor and materials, have been paid. The determination of the amount of work completed on each application for payment by the Trade Contractor shall be made by the Engineer and shall thereafter be subject to approval by the Owner. Such determination, however, by the Engineer or approval by the Owner shall not be construed as acceptance of the work.

1. Before the first application for payment, the Trade Contractor shall submit to the Engineer and Owner a schedule of values to be allocated to the various portions of the Work, which in the aggregate equals the total Contract Sum, divided so as to facilitate

payments to subcontractors, supported by such evidence of correctness as the Engineer may direct. This schedule, when approved by the Engineer, shall be used to monitor the progress of the Work and as a basis for making progress payments hereunder. Application for monthly progress payments shall be made in writing in accordance with this Contract and shall be submitted on approved forms provided by the Owner and shall be submitted to the Owner on or before the twentieth (20th) day of each month. Applications received on time will be paid on the twentieth (20th) day of the following month, providing that the Owner approves such recommendations of the Engineer. Applications received after the twentieth (20th) day of each month shall be paid after the Owner's next pay period.

2. Pursuant to Colo. Rev. Stat. § 24-91-103, as may be amended, where the Original Contract Amount exceeds one hundred fifty thousand dollars (\$150,000.00), the Owner may retain up to five percent (5%) of the calculated value of completed work from each progress payment up until the contract is completed satisfactorily and finally accepted by the Owner. If the Owner finds satisfactory progress is being made in any phase of the contract, the Trade Contractor may make written request of the Owner for final payment of the withheld percentage. The Owner may agree to final payment of the withheld percentage if the Owner finds satisfactory and substantial reasons exist for the payment. The Trade Contractor must provide written approval to the Owner from any surety furnishing bonds for the contract work in order to receive said payment of the withheld percentage.

3. Upon receipt of written notice from the Trade Contractor that his work is ready for final inspection and acceptance by the Owner and upon receipt of final application for payment, the Owner will promptly make such final field review subject to the final payment requirements contained in Colo. Rev. Stat. § 38-26-107, as amended. If the Owner finds that the work is acceptable under the contract documents, he will recommend to the Owner that a final certificate of payment be issued. Neither final payment nor the remaining retention shall become due until the Trade Contractor submits to the Engineer an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work, have been paid or otherwise satisfied. Likewise, final payment shall not be made until the consent of the surety to final payment has been obtained, and if required by the Owner, such other data establishing payment or satisfaction of all obligations, including releases, final lien waivers, and receipts and warranties, if any, have been provided to the Engineer for the use and benefit of the Owner. Should any subcontractor of the Trade Contractor or supplier of said Trade Contractor refuse to furnish any warranty and/or release or waiver, the Owner in its sole discretion, may refuse to certify final payment. The Trade Contractor may then furnish sufficient bonds satisfactory to the Owner to indemnify the Owner against any such liens.

4. Notwithstanding anything else to the contrary contained herein, such final payment by the Owner shall not be construed as a waiver of any claims affecting or arising from:

- a. Unsettled liens;
- b. Faulty or defective work appearing after substantial completion;
- c. Failure of the work to comply with the requirements of the contract documents;
- d. Terms of any special warranties required by the contract documents.

5. The acceptance by the Trade Contractor of final payment shall be and shall operate as a release to the Owner from all claims and all liability to the Trade Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of the work other than claims in stated amounts as may be specifically expected by the Trade Contractor with the consent of the Owner. Any

payment, however, final or otherwise, will not release the Trade Contractor or his sureties from any obligations under the contract documents or the performance bond and labor and material payment bond.

ARTICLE 7 - CORRECTION OF WORK

A. During the life of the Contract and for a period of two (2) years after final acceptance, the Trade Contractor shall promptly remove from the premises all work rejected by the Owner for failure to comply with the contract documents, whether incorporated in the construction or not, and the Trade Contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the Owner and shall bear the expense of making good all work of other trade contractors destroyed or damaged by such removal or replacement. The Owner, however, may at its discretion elect to accept an equitable reduction in price or a refund instead of correction of the condemned work.

B. All removal and replacement work shall be done at the Trade Contractor's expense. If the Trade Contractor does not take action to remove such rejected work within ten (10) days after receipt of written notice, the Owner may remove such work and store the materials all at the expense of the Trade Contractor.

ARTICLE 8 - TEMPORARY FACILITIES AND SERVICES

Unless otherwise provided in this Contract, the Trade Contractor shall furnish and make available, at no cost, all temporary facilities, including all power needed for heating and protection of facilities and work. It is the expressed intent of the parties that the Trade Contractor shall be responsible for and at its sole cost all heating and protection of facilities and work.

ARTICLE 9 - INDEMNIFICATION AND INSURANCE

Section 1. Indemnification.

The Contractor, to the fullest extent permitted by law, shall defend, indemnify and hold harmless the City, its officers, employees, agents and their insurers, from and against all liability, claims and demands on account of injury, loss or damage, including without limitation, claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage or any other loss of any kind whatsoever, which arises out of or is in any manner connected with this Contract, to the extent that such injury, loss or damage is attributable to the act, omission, error, professional error, mistake, negligence or other fault of the Contractor, the Contractor's employees, subcontractors or anyone else employed directly or indirectly by the Contractor, Contractor's employees or subcontractor.

The Contractor, to the fullest extent permitted by law, shall defend, investigate, handle, respond and provide defense for and defend against any such liability, claims or demands at the sole expense of the Contractor, or at the option of the City, Contractor agrees to pay the City or reimburse the City for defense costs incurred by the City in connection with any such liability, claims, or demands. The Contractor, to the fullest extent permitted by law, shall defend and bear all other costs and expenses related thereto, including court costs and attorney fees, whether or not such liability, claims or demands alleged are groundless, false or fraudulent.

This indemnification provision is intended to comply with C.R.S. § 13-21-111.5(6), as amended, and shall be read as broadly as permitted to satisfy that intent.

Section 2. Insurance.

A. The Contractor agrees to obtain and maintain during the life of this Contract, a policy

or policies of insurance against all liability, claims, demands and other obligations assumed by the Contractor pursuant to Section 1 above. Such insurance shall be in addition to any other insurance requirements imposed by this Contract or by law. The Contractor shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to Section 1 above, by reason of its failure to obtain and maintain during the life of this Contract insurance in sufficient amounts, durations, or types.

B. Contractor shall obtain and maintain during the life of this Contract, and shall cause any subcontractor to obtain and maintain during the life of this Contract, the minimum insurance coverages listed below. Such coverages shall be obtained and maintained with forms and insurers acceptable to the City. All coverages shall be continuously maintained to cover all liability, claims, demands and other obligations assumed by the Contractor pursuant to Section 1 above. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Worker's Compensation Insurance to cover obligations imposed by applicable law for any employee engaged in the performance of the work under this Contract, and Employers Liability Insurance with minimum limits of five hundred thousand dollars (\$500,000) each incident, five hundred thousand dollars (\$500,000) disease—policy limit, and five hundred thousand dollars (\$500,000) disease—each employee.

2. General Public Liability Insurance to be written with a limit of liability of not less than one million dollars (\$1,000,000) for all damages arising out of bodily injury, personal injury (including coverage for employee and contractual acts), including death, at any time resulting therefrom, sustained by any one person and not less than two million dollars (\$2,000,000) for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by two or more persons in any one accident. This policy shall also include coverage for blanket contractual and independent contractor risks. The limits of General Public Liability Insurance for broad form property damage (including products and completed operations) shall be not less than one million dollars (\$1,000,000) for all damages arising out of injury to or destruction of property in any one (1) accident and not less than two million dollars (\$2,000,000) for all damages arising out of injury to, or destruction of property, including the City's property, during the policy period. The General Public Liability Insurance policy shall include coverage for explosion, collapse and underground hazards. The policy shall contain a severability of interests provision.

3. Protective Liability and Property Damage insurance covering the liability of the Owner, including any employee, officer or agent of the Owner with respect to all operations under the Contract by the Trade Contractor or his sub-contractors shall be obtained and maintained during the life of the contract. The limits of the Owner's Protective Liability Policy, to be provided by the Trade Contractor, as described in this Section 2, shall be increased to the same limits as described above for the Trade Contractor's General Public Liability Insurance.

4. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than one million dollars (\$1,000,000) each occurrence and one million dollars (\$1,000,000) aggregate with respect to each of the Trade Contractor's owned, hired, and non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision. If the Trade Contractor has no owned automobiles, the requirements of this paragraph shall be met by each employee of the Trade Contractor providing services to the Owner under this contract.

C. To the extent that liability results from the acts or omissions of the Trade Contractor, all Insurance Policies and Certificates of Insurance issued for this project shall name as additional

insured(s), the Owner, whether private or governmental, the Owner's officers and employees, and the Engineer and its agents and employees, and any other person(s), company(ies), or entity(ies) deemed necessary by the Owner. The Trade Contractor shall be solely responsible for any deductible losses under any policy required herein.

D. The insurance provided by the Trade Contractor shall be primary to insurance carried by the Owner, the Engineer, and all other additional insureds, and the principal defense of any claims resulting from the Trade Contractor's obligations under the Contract shall rest with the Trade Contractor's Insurer.

Section 3. Certificates of Insurance.

A. The certificate of insurance provided by the Trade Contractor shall be completed by the Trade Contractor's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be reviewed and approved by the Owner prior to commencement of the contract. No other form of certificate shall be used. The certificate shall identify this Contract and shall provide that the coverages afforded under the policies shall not be cancelled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the Owner. The completed certificate of insurance shall be sent to:

City of Northglenn
Att: Kathy Kvasnicka
11701 Community Center Drive
Northglenn, Colorado 80233-8061

B. Failure on the part of the Trade Contractor to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of contract upon which the Owner may immediately terminate this contract, or at its discretion the Owner may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the Owner shall be repaid by the Trade Contractor to the Owner upon demand, or the Owner may offset the cost of the premiums against any monies due to the Trade Contractor from the Owner.

C. The Owner reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

D. The parties hereto understand and agree that the Owner is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently three hundred fifty thousand dollars (\$350,000) per person and nine hundred ninety thousand dollars (\$990,000) per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, 24-10-114 et seq. C.R.S., as from time to time amended, or otherwise available to the Owner, its officers or employees.

ARTICLE 10 - PERFORMANCE, LABOR AND MATERIAL PAYMENT BONDS

The Trade Contractor shall within ten (10) days after the receipt of a notice of award, furnish the Owner with a performance bond and a payment bond in penal sums equal to the amount of the contract price, conditioned upon the performance by the Trade Contractor of all undertakings, covenants, terms, conditions and agreements of the contract documents, and upon the prompt payment by the Trade Contractor to all persons supplying labor and materials in the prosecution of the work provided by the contract documents. Such bonds shall be executed by the Trade Contractor and a corporate bonding company licensed to transact such business in the state in which the work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these bonds shall be borne by the Trade Contractor. If at any time a surety on any such bond is declared a

bankrupt or loses its right to do business in the state in which the work is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, the Trade Contractor shall within ten (10) days after notice from the Owner to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Trade Contractor. No further payments will be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the Owner.

ARTICLE 11 – CLAIMS AND DISPUTES

A. Definition. A claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment of contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. The term “claim” also includes other disputes between the Owner and Contractor arising out of or relating to the Contract. Claims must be made by written notice. The responsibility to substantiate claims shall rest with the party making the claim.

B. Decision of Engineer or Architect. Claims may, upon request of both the Contractor and the Owner, be referred initially to the Engineer or Architect for action as provided in Article 3, Section 12.

C. Time limits on Claims. Claims by either party must be made within twenty one (21) days after occurrence of the event giving rise to such claim or within twenty one (21) days after the claimant first recognizes, or reasonably should have recognized, the condition giving rise to the claim, whichever is later. An additional claim made after the initial claim has been implemented by change order will not be considered unless submitted in a timely manner.

D. Continuing Contract Performance. Pending final resolution of a claim, including litigation, unless otherwise directed by Owner in writing, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

E. Waiver of Claims: Final Payment. The making of Final Payment shall constitute a waiver of claims by the Owner except those arising from:

1. Liens, claims, security interests, or encumbrances arising out of the Contract and unsettled;
2. Failure of the Work to comply with the requirements of the Contract Documents;
3. Terms of special warranties required by the Contract Documents; or
4. Faulty or defective work appearing after Substantial Completion.

F. Claims for Concealed or Unknown Conditions. If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than seven (7) days after first observance of the conditions. Site conditions which an experienced and prudent contractor could have anticipated by visiting the site, familiarizing himself with the local conditions under which the Work is to be performed and correlating his observations with the requirements of the Contract Documents shall not be considered as claims for concealed or unknown conditions, nor shall the locations of utilities which differ from locations provided by the

utility companies. The Engineer or Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or the required time for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Engineer or Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Engineer or Architect shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within twenty-one (21) days after the Engineer or Architect has given notice of the decision. If the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Engineer or Architect for initial determination, subject to further proceeding pursuant to these Contract Documents.

G. Claims for Additional Cost. If the Contractor wishes to make claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the work. Said notice shall itemize all claims and shall contain sufficient detail and substantiating data to permit evaluation of same by Owner and Engineer or Architect. No such claim shall be valid unless so made. Prior notice is not required for claims relating to an emergency endangering life or property. If the Contractor believes additional cost is involved for reasons including but not limited to (1) a written interpretation from the Engineer or Architect, (2) an order by the Owner to stop the Work where the Contractor was not at fault, (3) a written order for a minor change in the Work issued by the Engineer or Architect, (4) failure of payment by the Owner, (5) termination of the Contract by the Owner, (6) Owner's suspension, or (7) other reasonable grounds, claim shall be filed in accordance with the procedure established herein Any change in the Contract Sum resulting from such claim shall be authorized by change order or construction change directive.

H. Claims for additional time. If the Contractor wishes to make claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one claim is necessary.

I. Injury or damage to person or property. Subject to the Parties' obligations and responsibilities under the Contract Documents in general and Article 8 hereof in particular, if either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, of any of the other party's employees or agents, or of others for whose acts such party is legally liable, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding ten (10) days after first observance. The notice shall provide sufficient detail to enable the other party to investigate the matter. If a claim for additional cost or time related to this claim is to be asserted, it shall be filed as provided in Article 3, Section 12.

ARTICLE 12 - RESOLUTION OF CLAIMS AND DISPUTES

A. The Engineer (if the matter is referred to the Engineer for initial decision) will review claims and take one or more of the following preliminary actions within ten (10) days of receipt of a claim: (1) request additional supporting data from the claimant; (2) submit a schedule to the parties indicating when the Engineer expects to take action; (3) reject the claim in whole or in part, stating the reasons for rejection; (4) recommend approval of the claim by the other party; or (5) suggest a compromise. The Engineer may also, but is not obligated to, notify the surety, if any, of the nature and amount of the claim.

B. If a claim has been resolved, the Engineer (or at the Owner's option, Owner), will prepare or obtain appropriate documentation.

C. If a claim has not been resolved, the party making the claim shall within ten (10) days after the Engineer's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by the Engineer; (2) modify the initial claim; or (3) notify the

Engineer that the initial claim stands.

D. If a claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Engineer, the Engineer will notify the parties in writing that the Engineer's decision will be made within seven (7) days, which decision will be considered advisory only and not binding on the parties in the event of litigation in respect of the claim. Upon expiration of such time period, the Engineer will render to the parties the Engineer's written decision relative to the claim, including any change in the Contract Sum or Contract Time or both. If there is a surety and there appears to be a possibility of a Trade Contractor's default, the Engineer may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

E. The dispute clause does not preclude the considerations of questions of fact or law in connection with decisions provided for in Paragraph A above. Nothing in this Agreement, however, shall be construed as making final a decision of an administrative official, representative or City Council on a question of fact or law.

F. As between the parties of this Agreement, as to all acts or failure to act by either party of this Agreement, any applicable statute of limitation shall commence to run from the date of the agreed party's discovery of such act or failure to act.

G. The Trade Contractor shall give written notice to the Owner within ten (10) days of any dispute/claim arising under this Contract upon which the Trade Contractor seeks compensation or change of contract documents, otherwise the Trade Contractor's dispute/claim shall be deemed waived. Said ten (10) days written notice shall not be deemed to run from the date of discovery in this instance but from the date the dispute/claim has arisen.

ARTICLE 13- TERMINATION

A. This Agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party; provided that no such termination may be effected unless the other party is given (1) not less than ten (10) days written notice (delivered by certified mail, return receipt requested) of intent to terminate; and (2) an opportunity for consultation with the terminating party prior to termination.

B. This Agreement may be suspended or terminated in whole or in part, in writing, by the Owner for its convenience; provided that no such termination may be effected unless the Trade Contractor is given (1) not less than ten (10) days written notice (delivered by certified mail, return receipt requested) of intent to suspend or terminate; and (2) an opportunity for consultation with the Owner prior to suspension or termination.

C. Suspension for Convenience: The Owner, for its own convenience, may suspend the contract in whole or in part at any time by written notice to the Trade Contractor. Such notice shall state the extent and the effective date of such suspension, and on the effective date thereof the Trade Contractor shall promptly suspend such work to the extent specified, and during the period of such suspension shall properly care for and protect all work and materials, housing and equipment on hand for construction under the contract. The Trade Contractor also shall promptly supply the Owner with copies of all outstanding orders for materials, equipment and services, and shall take such action relative to such orders as may be directed by the Owner. If the performance of the work is thus suspended, the Trade Contractor shall be entitled to be reimbursed for all additional expense incurred by reason of such suspension as agreed upon by the Trade Contractor and the Owner.

D. Termination for Convenience:

1. The Owner may for its own convenience terminate work under the contract in whole or in part at any time by written notice to the Trade Contractor. Such notice shall state the extent and effective date of such termination and on the effective date thereof, the Trade Contractor will, and as to the extent directed, stop work under the contract and the placement of further orders of subcontracts under the contract, terminate work under order and subcontracts under the contract, and take any necessary action to protect property in the Trade Contractor's possession in which the Owner has or may acquire an interest.

2. In the event of such termination, the Owner shall pay to the Trade Contractor: (1) its direct costs (excluding overhead) for all work done in conformity with the Contract to the effective date of such termination and (2) other costs pertaining to the work which the Trade Contractor may incur as a result of such termination, all as approved by the Owner plus ten percent (10%) of such costs (excluding costs under (2) above) for overhead and profit, provided, however, that in no event shall the total amount to be paid under this Article 11, Section D.(2) plus payments previously made, exceed the lesser of (a) the total aggregate contract price specified in the Trade Contract; or (b) that proportion of the aggregate total contract price specified in the date of termination bears to the entire work to be performed hereunder. Any payment under this Article 11, Section D.(2) shall be made upon the expiration of the period within which liens may be filed under the laws of the state of Colorado, subject, however, to withholding by the Owner for the reasons and in the manner provided in those provisions pertaining to withholding of payments for liens.

E. Termination for Default:

1. The Owner shall have the right to terminate the employment of the Trade Contractor after giving ten (10) days written notice of the termination to the Trade Contractor in the event of any default by the Trade Contractor. In the event of such termination, the Owner may take possession of the work and of all materials, tools and equipment thereon and may finish the work by whatever method and means he may select. It shall be considered a default by the Trade Contractor whenever he shall:

- a. Disregard or violate important provisions of the contract documents or the Owner's instructions, or fail to prosecute the work according to the agreement schedule of completion, including extensions thereof;
- b. Fail to provide a qualified representative, competent workmen or subcontractors, or proper materials, or fail to make prompt payment therefor; and
- c. Fail to submit a completion schedule within fourteen (14) days after award of contract.

2. Upon termination of the contract by the Owner for default by the Trade Contractor, no further payments shall be due to the Trade Contractor until the work is completed. If the unpaid balance of the contract amount shall exceed the cost of completing the work including all overhead costs, the excess shall be paid to the Trade Contractor. If the cost of completing the work shall exceed the unpaid balance, the Trade Contractor shall pay the difference to the Owner. The amount of the cost incurred by the Owner in implementing the work, and the damage incurred through the Trade Contractor's default, shall be approved by the Owner.

3. The provisions of this Article 11, Section D.(2) shall not apply in the event of default of the Trade Contractor; provided, however, that the provisions of Article 11, Section D.(2) shall apply in the event of substantial failure by the Owner to fulfill its obligations under this Agreement.

ARTICLE 14 - SIMULTANEOUS WORK BY OTHERS

A. The Owner reserves the right to let other contracts in connection with this project. The Trade Contractor shall afford other trade contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs.

B. If the proper execution or results of any part of the Trade Contractor's work depends upon the work of any other trade contractor, the Trade Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. Failure of the Trade Contractor to so inspect and report defects shall constitute an acceptance of the other trade contractors' work as fit and proper for the addition of his work thereto, except as to defects which may develop in the other trade contractors' work after the execution of his work.

C. The Trade Contractor shall coordinate his operations with those of other trade contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work.

D. The Trade Contractor, including his subcontractors, shall keep informed of the progress and the detail work of other trade contractors and shall notify the Engineer immediately of lack of progress, defective workmanship, or lack of coordination on the part of other trade contractors. Failure of the Trade Contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress, defective workmanship, or lack of coordination by others shall be construed as acceptance by him of the work and the status of work as being satisfactory for proper execution of his own work.

E. All materials and labor shall be furnished at such times as shall be for the best interest of all trade contractors concerned, to the end that the combined work of all may be properly and fully completed on contract time.

F. Nothing herein shall be construed in any way as giving the Trade Contractor a claim as against the Owner and the Engineer resulting in any revised schedule based upon delay caused by any other trade contractor or supplier.

ARTICLE 15 - SUBCONTRACTING

A. The Trade Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

B. Before execution of the contract, the Trade Contractor shall submit the names of all subcontractors, including contact persons, phone numbers, and addresses to the Engineer or Architect and Owner. The Trade Contractor shall also promptly notify all parties of any changes in subcontractors or subcontractor contact information.

C. The Trade Contractor shall be fully responsible to the Owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

D. The Trade Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Trade Contractor by the terms of the contract documents insofar as applicable to the work of subcontractors and to give the Trade Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Trade Contractor under any provision of the contract documents.

E. Nothing contained in this Contract will create any contractual relation between any subcontractor and the Owner.

ARTICLE 16 - GUARANTY

A. The Trade Contractor shall guarantee all materials and equipment furnished and work performed for a period of two (2) years from the date of final acceptance of the contract by the Owner that the work is free from all defects due to faulty materials or workmanship and that the Trade Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Trade Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge the Trade Contractor the cost thereby incurred. The performance bond shall remain in full force and effect through the guarantee period.

B. Whenever in the specifications a guarantee or maintenance bond is required to be furnished for any item of equipment, material or portion of the work, such guarantee shall be submitted to the Owner and a written approval will be issued to the Trade Contractor before any such equipment, material or construction is ordered and incorporated in work by the Trade Contractor.

ARTICLE 17 - SALES TAX

The Trade Contractor and all of his subcontractors must make application to the Colorado State Department of Revenue for a certificate of exemption to permit the purchase of building materials for the construction of this project without payment of the sales tax. Prior to the start of construction, the Trade Contractor shall furnish copies of such certificates to the Owner. Applications and certificates must be on forms provided by the Department of Revenue.

ARTICLE 18 - MISCELLANEOUS PROVISIONS

A. This Agreement is made and entered into subject and conformable to the laws of the State of Colorado and the Home Rule Charter of the City of Northglenn. To the extent any provision hereof is inconsistent with said laws and Charter, said laws and Charter shall control.

B. The Trade Contractor shall comply with all federal and state laws and local ordinances and regulations which affect those engaged or employed in the work or which affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same, and shall at all times observe and comply with all such existing laws, ordinances, regulations and decrees, and shall protect and indemnify the Owner and the Engineer against any claim or liabilities arising solely from or based solely on the violations of such law, ordinance, regulation, order or decree, whether by itself, its subconsultants, agents, or employees.

C. The Trade Contractor will take affirmative action to not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex or handicap, if otherwise qualified.

D. In the event any provision of this Agreement is held invalid and unenforceable, the remaining provisions shall be valid and binding upon the parties.

E. One or more waivers by either party of any provision, term, condition or covenant shall not be construed by the other party as a waiver of a subsequent breach of the same by the other party.

F. The Owner and the Trade Contractor each binds itself and its partners, successors,

executors, administrators, and assigns to this Agreement. Neither the Owner nor the Trade Contractor will assign, sublet, or transfer its interest in this Agreement without the written consent of the other.

G. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the Owner and the Trade Contractor.

H. Keep Jobs in Colorado Act: Pursuant to the Keep Jobs in Colorado Act, C.R.S. 8-17-101 *et seq.* (the "Act") and the rules adopted by the Division of Labor of the Colorado Department of Labor and Employment implementing the Act (the "Rules"), the Contractor shall employ Colorado labor to perform at least eighty percent (80%) of the work and shall obtain and maintain the records required by the Act and the Rules. For purposes of this Section "Colorado labor" means any person who is a resident of the state of Colorado at the time of this Project, without discrimination as to race, color, creed, sex, sexual orientation, marital status, national origin, ancestry, age, or religion except when sex or age is a bona fide qualification. A resident of the state is a person who can provide a valid Colorado driver's license, a valid Colorado state-issued photo identification, or documentation that he or she has resided in Colorado for the last thirty (30) days. Contractor represents that it is familiar with the requirements of the Act and the Rules and will fully comply with same. This Section shall not apply to any project for which appropriation or expenditure of moneys may be reasonably expected not to exceed five hundred thousand dollars (\$500,000) in the aggregate for any fiscal year.

ARTICLE 19 - ATTACHMENTS, SCHEDULES AND SIGNATURES

It is further mutually agreed that this Agreement and the contract documents constitute the entire Agreement between the Owner and the Trade Contractor and supersede all prior or oral understandings. This Agreement may only be amended, supplemented, modified, or cancelled by a duly executed written amendment.

IN WITNESS WHEREOF the parties hereto each herewith subscribe the same in triplicate.

CITY OF NORTHGLENN, COLORADO

By: _____
Name: _____
Title: Mayor

ATTEST:

Johanna Small, CMC, City Clerk

APPROVED AS TO FORM:

Corey Y. Hoffmann, City Attorney

TRADE CONTRACTOR

By: _____
Name: _____
Title: _____

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____,
20__ by _____, as _____ of
_____.

My commission expires: _____

Witness my hand and official seal.

Notary Public



City of Northglenn
11701 Community Center Drive
Northglenn, Colorado 80233

BOND FORM

PERFORMANCE, PAYMENT, MAINTENANCE AND WARRANTY BOND

KNOWN ALL MEN BY THESE PRESENTS, that _____, as Principal, herein called Contractor, and _____, as surety, herein called Surety, are hereby held and firmly bound unto the **City of Northglenn**, as Obligee, herein called the Owner, the amount of _____ Dollars (\$_____) for the payment whereof Contractor and Surety find themselves their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written Agreement dated _____, 20____, entered into a Contract with the Owner for the _____.

Project Number _____ in accordance with Plans and Specifications prepared by the City of Northglenn which Contract is by reference made a part hereof, and is herein referred to as the Contract.

WHEREAS, Contractor and Surety are jointly and severally liable under the provisions hereof and action against either or both may proceed without prior action against the other, and both may be jointed in one action.

WHEREAS, the Surety hereby waives notice of any alteration of the Contract or extension of time made by Owner.

NOW, THEREFORE, the conditions of this obligation are as follows:

FIRST. The Contractor shall: (1) faithfully perform all requirements and obligations of the Contract, and other applicable law, and satisfy all claims and demands incurred for the same; and (2) fully indemnify and save harmless the City from all costs and damages which the City may incur in making good any default.

SECOND. To the extent permitted by law, the Contractor shall protect, defend, indemnify and save harmless the City and its officers, agents, servants and employees, from and against suits, actions, claims, losses, liability or damage of any character, and from and against costs and expenses, including, in part, attorney fees incidental to the defense of such suits, actions, claims losses, damages or liability on account of injury, disease, sickness, including death, to any person, or damage to property, including, in part, the loss of use, resulting therefrom, based upon or allegedly based upon any act, omission or occurrence of the Contractor, or his employees, servants, agents, subcontractors or suppliers, or anyone else under the Contractor's direction and control (regardless of whether or not cause in part by a party indemnified hereunder), and arising out of, occurring in connection with, resulting from, or caused by the performance or failure of performance of any Work called for by the Contract, or from conditions created by the performance or non-performance of said Work.

Whenever Contractor shall be, and declared by Owner to be in default under Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions or

2. Obtain a Bid or Bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible Bidder, or if the Owner elects upon determination by the Owner and the Surety Jointly of the lowest responsible bidder, arrange form a Contract between such Bidder and Owner, and make available as Work progresses (even though there should be a default or succession of defaults under Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph, shall mean the total amount payable by Owner to Contractor under Contract and any Contract Change Orders thereto, less the amount properly paid by Owner to Contractor.

THIRD. The Contractor shall pay all persons, firms and corporations, all just claims due them for the payment of all laborers and mechanics for labor performed, for all materials and equipment used or rented in the performance of the work covered by the Contract subject, however, to the following conditions.

1. A claimant is defined as one having a direct Contract with the Principal, or with a Subcontractor of the Principal for labor material or both, used or reasonably required for use in performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's Work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be due the claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant, other than one having a direct Contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the Work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the Work or labor was done or performed. Such notice shall be served by mailing same by registered mail or certified, postage prepaid, in an envelope addressed to the Principal, Owner, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid Project is located, save that such service need not be made by a public officer.
 - b. After expiration of six (6) months following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof is situated, or in the United States District Court for the District in which the Project, or any part thereof, is situated, and not elsewhere.

FORTH. The Contractor and Surety shall guarantee and warrant that all Work shall remain in good order and repair for a period of **two (2) years** from date of probationary acceptance from all causes arising from defective workmanship and materials, and shall make all repairs arising from said causes during such period without further compensation, and shall guarantee the Facilities and Work and areas within the public rights-of-way affected by such Facilities in good order and repair without further compensation for a period of two (2) years from and after final acceptance thereof by the City. The determination of the necessity for the repair or replacement of any Work or Facilities shall rest entirely with the City, and the City's decision upon the matter shall be final and obligatory upon the Contractor, subject to judicial review pursuant to applicable law.

The Surety shall be deemed and held, notwithstanding any Contract provision, or other agreement to the contrary, to consent without notice to:

1. Any extension of time to the Contractor in which to perform any Work, Permit conditions or obligations.
2. Any change in the Permit or other Permit documents.

Further, the Surety shall pay to the City all costs and attorney fees necessary to enforce the provisions of the bond provisions contained herein.

Unless prohibited by law, an action on this bond may be brought by the City or any person entitled to the benefits of this bond at any time with two (2) years from the date of final acceptance of the Work performed pursuant to the Permit.

Upon full compliance with all the obligations of the Contract, the City shall release this bond, in writing. This bond shall remain in effect until released by the City or the City consents in writing to acceptance of a substitute bond.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

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

Witness

Contractor

Title

Title

Witness

Surety

Title

Title



City of Northglenn
11701 Community Center Dr.
Northglenn, CO 80233

NOTICE OF AWARD

TO: _____

PROJECT NAME: _____

PROJECT NUMBER: _____

PROJECT MANAGER: _____

The **City of Northglenn (CITY)** has considered the BID submitted by you for the above described work in response to its Invitation For Bid dated _____ and Instructions to Bidders.

You are hereby notified that your BID has been accepted for items in the amount of _____, and two executed Agreements were presented to the Northglenn City .

You are required by the Instructions to Bidders to furnish the required Certificate of Insurance within ten (10) calendar days from the date of this Notice to you.

You are required to return an acknowledged copy of this NOTICE OF AWARD to CITY at the attention of the Engineering Department.

Dated this _____ day of _____, 20____.

CITY of Northglenn, Colorado

By _____
Name _____
Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged:

CONTRACTOR:

(Name of Contractor)

By _____
Name _____
(Please Type or Print)
Title _____

Consultant:
Return one signed original to:
City of Northglenn
Engineering Division
11701 Community Center Dr.
Northglenn, CO 80233



City of Northglenn
11701 Community Center Dr.
Northglenn, CO 80233

NOTICE TO PROCEED

TO: _____

DATE: _____

PROJECT NAME: _____

PROJECT NUMBER: _____

PROJECT MANAGER: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20_____, on or before _____ 20_____, and you are to complete the WORK within _____ days thereafter. The date of completion of all work is therefore _____, 20_____.

CITY of Northglenn, Colorado

By _____
Name _____
Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged this _____ day of _____, 20_____.

CONTRACTOR:

(Name of Contractor)

By _____
Name _____
(Please Type or Print)
Title _____

Return one signed original
Notice To Proceed to:

City of Northglenn
Engineering Division
P.O. Box 330061
Northglenn, CO 80233-8061



Owner: City of Northglenn
 11701 Community Center Drive
 Northglenn, CO 80233-8061

Payment Application and Certification

Project: 2023 Bridge Rail Improvements
 Various Locations
 Northglenn, CO 80241

Contractor: _____

Payment Application No.: 1

Period From: _____
Period To: _____

Project Number: # _____
Contract Date: _____

Project Manager: City of Northglenn
 12301 Claude Ct
 Northglenn, CO 80241

Distribution:

- Owner
- Construction Manager
- Project Manager
- Contractor

Application for Payment Summary			Certification for Payment	
1. Original Contract Sum		\$ -	Contractor certifies that the amount requested on this Payment Application is based on work completed in accordance with the terms of the contract for Project No. # Contractor Signature: By: _____ Date: _____ Amount Certified: \$ _____ - Project Manager Signature: By: _____ Date: _____ Construction Manager Signature: By: _____ Date: _____ Notary Signature: By: _____ Date: _____	
2. Net Change By Change Orders		\$ -		
a. Total changes approved in previous months				
Additions	\$ -			
Deductions	\$ -			
b. Total changes approved this month				
Additions	\$ -			
Deductions	\$ -			
3. Contract Sum To Date (Line 1 + Line 2)		\$ -		
4. Total Completed and Stored (Column G, page 2)		\$ -		
5. Total Retainage		\$ -		
a. Completed Work Retainage (Retainage for Column D + Column E, page 2)	\$ -			
b. Stored Material Retainage (Retainage for Column F, page 2)	\$ -			
6. Total Completed and Stored Less Retainage (Line 4-Line 5)		\$ -		
7. Less Previous Payment Applications (Line 6 of previous application)		\$ -		
8. Current Payment Due (Line 6 less Line 7)		\$ -		
9. Balance to Finish, Including Retainage (Line 3 less Line 6)		\$ -		



REQUEST FOR INFORMATION

City of Northglenn
11701 Community Center Drive
Northglenn, CO 80233-8061

Project No.:	RFI Number:	
Project Name:	Date Received:	
Project Manager:	Date Required:	
Project Engineer:	Forwarded To:	
Contractor:	Date Responded:	
Specification No.:	Page No.:	
check one: <input type="checkbox"/> RFI	<input type="checkbox"/> Design Modification	<input type="checkbox"/> Proposed VE
check one: <input type="checkbox"/> Standard Specification	<input type="checkbox"/> Supplemental Specification	<input type="checkbox"/> Special Provision
Plan Sheet No.:	Detail:	

REQUEST:

PROPOSED SOLUTION (If applicable):

By: _____ Signature: _____ Date: _____

RESPONSE:

By: _____ Signature: _____ Date: _____

After reviewing the response, does the contractor anticipate:
That a change order will be required? Yes No
That there will be an increase in the cost of the project? Yes No

Project: 2023 Bridge Rail Improvements

Change Order #: 1
Date:

To:

Contract Number:
Contract Date:

YOU ARE HEREBY DIRECTED TO MAKE THE FOLLOWING CHANGES TO THE ABOVE NAMED CONTRACT:

Item #	Description	Amount
1	Description	
Total		\$0.00

Contract Status Per This Change Order

Original Contract Sum	_____
Net Change By Previous Change Orders	\$0.00
Contract Sum Prior To This Change Order	\$0.00
Net Change Made By This Change Order	\$0.00
New Contract Sum	\$0.00

The Time To Complete The Contract Is:

Unchanged x

Increased By Days

Decreased By Days

The Date Of Completion Is Now: _____

City of Northglenn _____

Owner _____

Heather Geyer _____

Name _____

City Manager _____

Title _____

Signature _____

Date _____

Company _____

Contractor _____

Name _____

Title _____

Signature _____

Date _____

City of Northglenn _____

Engineer _____

Kent Kisselman, P.E. _____

Name _____

Director of Public Works _____

Title _____

Signature _____

Date _____

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- B. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow 10 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow 10 days for review of each resubmittal.
- C. Deviations: Highlight or otherwise specifically identify deviations from the Contract Documents on submittals.
- D. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- E. Submit a minimum of four paper copies of each submittal unless otherwise indicated. Two copies will be returned to the contractor.

1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer.
 2. Submit five copies of operation and maintenance manuals.
- F. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Complete the sample form at end of Section and include with submittals. City will provide electronic version upon request. Include the following information:
 - a. Project name.
 - b. Date.
 - c. Name of Contractor.
 - d. Name of subcontractor.
 - e. Name of supplier.
 - f. Name of manufacturer.
 - g. Submittal number.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references.
 - j. Location(s) where product is to be installed.
 - k. Other necessary identification.
 2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked "A - NO EXCEPTIONS TAKEN or B - FURNISH AS CORRECTED".
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
1. Use for Construction: Use only final submittals with mark indicating "A - NO EXCEPTIONS TAKEN or B - FURNISH AS CORRECTED" taken by Owner's Representative.
- I. Required Submittals: (This is not an all inclusive list. Engineer reserves the right to request additional submittals as required.)
1. Project Schedule
 2. Subcontractor list if applicable
 3. All other requested submittals in separate sections.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
 - 1. Submit electronic submittals directly to extranet specifically established for Project.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Compliance with specified referenced standards.
 - f. Testing by recognized testing agency.
 - g. Application of testing agency labels and seals.
 - h. Notation of coordination requirements.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal of Engineer's CAD Drawings are otherwise permitted.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
- E. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Owner's Representatives and owners, and other information specified.
- C. Welding Certificates: Prepare and provide documentation that welding procedures and personnel comply with AWS requirements. Include names of firms and personnel certified.
- D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

- E. **Material Certificates:** Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- F. **Design Data:** Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- G. **Manufacturer's Instructions:** Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
- H. **Material Safety Data Sheets (MSDSs):** Submit information directly to Owner; do not submit to Owner's Representative.
 - 1. Owner's Representative will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.3 DELEGATED DESIGN

- A. **Performance and Design Criteria:** Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.
- B. **Delegated-Design Submittal:** In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. **Approval Stamp:** Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 OWNER'S REPRESENTATIVE'S AND CONSTRUCTION MANAGER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 - 1. A - NO EXCEPTIONS TAKEN
 - 2. B - FURNISH AS CORRECTED
 - 3. C - REJECTED – SEE REMARKS
 - 4. D - REVISE AND RESUBMIT
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

SUBMITTAL TRANSMITTAL

Project Name:			Date Received:	
Project Owner:			Checked By:	
Contractor:		City of Northglenn		Project No.
Address		Address: 11701 Community Center Drive		
		P.O. Box 330061		
		Northglenn, CO 80233-8061		
Attn:		Attn:		
Item No.	No. Copies	Description	Manufacturer	Action Taken *
Remarks:				

* The Action Designated Above is in Accordance with the Following Legend:

- A – No Exceptions Taken
- B – Furnish as Corrected
- C – Rejected
- D – Revise and Submit
- E – Engineer’s review not required.

Comments:

Distribution:	Contractor	<input type="checkbox"/>	File	<input type="checkbox"/>	By	<input type="checkbox"/>	Field	<input type="checkbox"/>	Owner	<input type="checkbox"/>	Date	<input type="checkbox"/>	Other	<input type="checkbox"/>
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END OF SECTION 013300

The following revises the 2015 City of Northglenn Standards and Specifications:

Add the following to Chapter 1, Subsection 1.1.3 Resource Standards

F/A Minor Contract Revisions

Force Account Work and Minor Contract Revisions for differing site conditions, changes, and extra work shall be authorized at the discretion of the City of Northglenn and shall be administered and performed under the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

Add the following to the end of Chapter 1, Subsection 1.2.6 Control of Work & Materials, Responsibility of the Contractor,

The Contractor shall provide a construction project schedule to the City of Northglenn for review and approval per the CDOT Standard Specifications for Road and Bridge Construction, section 108.03 Project Schedule.

Total Construction Time from Notice To Proceed shall not exceed 60 working days

Work within the City of Northglenn's Right of Way shall not exceed 23 working days

Add the following to Chapter 2, Earthwork, Erosion Control and Seeding

Section 2.3.7 – Debris Removal and Disposal

This work consists of removing and disposing of vegetation and debris within the limits of the right of way, easement areas, borrow pits, and other areas shown in the Contract or required by the work. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

The Engineer will designate all trees, shrubs, plants, and other objects to remain. Every object designated to remain and is damaged shall be repaired or replaced as directed at the Contractor's expense.

All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be removed and disposed of. In areas to be rounded at the tops of backslopes, stumps shall be removed to at least 2 feet below the surface of the final slope line.

No material or debris shall be disposed of within the project limits without the written permission of the Engineer. The Contractor shall make all arrangements to obtain written permission from property owners for disposal locations outside the limits and view of the project. Copies of this written agreement shall be furnished to the Engineer before the disposal area is used.

Branches on trees or shrubs shall be removed as directed. Branches of trees extending over the roadbed shall be trimmed to give a clear height of 20 feet above the roadbed surface. All trimming shall be done in accordance with good tree surgery practices.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities of debris removal and disposal will be discussed in the pre-bid meeting. Prior to the removal of debris, the Contractor shall meet with the Engineer and outline the area to be removed. Acceptance of the debris removal and disposal will be at the Engineers discretion based on the agreed outlined area.

Payment will be full compensation for debris removal and disposal for the entire project upon completion of work and project. No partial payments for this work.

Add the following bullet point Chapter 3, Subsection 3.7.2 Requirements to Preserve Infrastructure Quality & Traffic Flow, Page 26, after the first bullet point, "Road Closures."

- A variable message board (VMS) (Portable Message Sign) will be required to be in place seven (7) calendar days prior to work within the City of Northglenn's Right of Way. The VMS placement and message shall be included in the Temporary Traffic Control plan and submitted to the City of Northglenn for approval. The VMS shall be installed per the CDOT Standard Specifications for Road and Bridge Construction, Section 630, and the City of Northglenn's Standard Specifications. The VMS shall remain in place and operational while working within the City of Northglenn's Right of Way.

Payment for the VMS shall be for each sign for the project's duration. Granted, time delays will not constitute an increase in the cost of the VMS.

Add the following to Chapter 6, Subsection 6.5 Bridges and Major Drainage Structures

6.5.2 General Repair

This work consists of all remedies, materials, and workmanship required to provide a delay or reduced deterioration of the structure, bridge, or structural elements. The repair work is as shown in the 2022 NGL-HI-0.0-112 Structure Inspection and Inventory report as attached, per the Contract or as required by the Engineer.

The Engineer will designate the areas to be repaired or remedied in the prebid meeting.

Concrete Repair

Spalling, delaminated, or loose concrete shall be removed by hand or hand tools. Power actuated concrete removal tool is not recommended. Areas may be sand blasted to provide a clean bonding surface for new concrete upon approval by the Engineer. The Contractor shall provide for approval a written method of repair, including process, material, and finish, prior to proceeding with work.

Exposed steel or other reinforcement shall be wire-brushed clean of all debris, scale, and rust. Debris, scale, and rust shall be removed by hand tools only. If sandblasting is utilized, steel should be protected to provide section loss. Reinforcing that exhibits severe section loss shall be brought to the Engineer's attention.

Upon acceptance of the removal of the spalling, delaminated, or otherwise loose concrete, the Contractor shall prepare exposed reinforcement by coating exposed reinforcement with an Engineer approved corrosion inhibitor. The cleaned surface of the concrete shall have a bonding agent applied prior to installing the new concrete repair.

Concrete repair shall approximately conform to the shape, lines, planes, and other physical features of the adjoining existing concrete surface. Concrete shall be Ultra-high performance concrete with a minimum strength of 4,500 psi. Formwork shall be neat and clean and provide a finish similar to the

adjoining concrete surfaces. Irregular surfaces or other form defects may require removal as directed by the Engineer. The Contractor shall provide a written process for removing irregularities or defects.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and repair area will be discussed in the pre-bid meeting. Acceptance of the repair will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for concrete repair for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 15, Excavation and Embankment, Subsection 15.3.1; revise the second sentence as follows:

The work will include excavation, embankment, grading, compacting, clearing, and grubbing; removal of topsoil, trees, stumps, or other vegetation; removal and/or resetting of minor obstructions; removal of minor structures; subgrade preparations and any other work incidental for the construction of excavations and embankments.

Add the following to the end of Chapter 15, Excavation and Embankment, Subsection 15.3.1:

Removal of Sidewalk and Removal of Pedestrian Rail:

The removal of sidewalks and the removal of pedestrian rail are to be considered the removal of minor structures, and the work shall be conducted per the specified provisions. Inclusive to the removal of pedestrian rail is the removal of spalling or delaminating concrete from the existing headwall and wingwall. Removal of spalling or delaminating concrete shall be completed per the project's special provisions. The pedestrian rail may be cut flush with the face of the headwall and wingwall, and exposed steel edges shall be painted with epoxy coating. Voids left by the removal of the pedestrian rail can be filled with high-strength, low-shrink grout minimum compressive strength of 8,000 psi.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and area of removal are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the sidewalk and pedestrian rail removal for the entire project upon completion of the work and project. No partial payments for this work.

Add the following to the end of Chapter 15, Excavation and Embankment, Subsection 15.11 Bridges & Major Structures:

Headwall and Wingwall Curb:

Headwall and Wingwall Curb shall conform with the CDOT 2022 Standard Specifications for Road and Bridge Construction, Section 601, Structural Concrete, and Section 602 Reinforcing steel. All concrete shall be a CDOT Class D, and reinforcement shall be epoxy coated with a minimum yield strength of 60 ksi. Shop drawings shall be provided for reinforcement and shall be approved by the Engineer prior to the commencement of work. CDOT-approved mix design shall be submitted prior to the commencement of work.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and area new Headwall and Wingwall Curb are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Headwall and Wingwall Curb for the entire project upon completion of the work and project. No partial payments for this work

Bridge Rail and Guard Rail:

Bridge Rail and Guard Rail shall conform with CDOT 2022 Standard Specifications for Road and Bridge Construction, Section 606 Guardrail, the applicable CDOT Standard Details, and the CDOT Bridge Standard Details and as modified by the construction documents.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities for the new Guard Rail and Bridge Rail are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Bridge Rail and Guardrail for the entire project upon completion of the work and project. No partial payments for this work

Concrete Sidewalk:

Concrete sidewalk shall conform with the City of Northglenn's Public Right of Way Standards & Specifications.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities for the new sidewalk are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance of the sidewalk will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Bridge Rail and Guardrail for the entire project upon completion of the work and project. No partial payments for this work

Concrete Curb and Gutter:

Concrete Curb and Gutter (12") shall conform to the CDOT Standard M-609-1 and CDOT Standard Specifications, Section 601, Structural Concrete, and shall be a class B.

Add the following to Chapter 16, Temporary Traffic Control, at the end of section 16.1.1 General

Temporary traffic control plans shall conform to CDOT Standard Specifications for Road and Bridge Construction and the City of Northglenn Public Right-of-Way Standards and Specifications. The proposed temporary traffic control plan shall be submitted to the City of Northglenn for approval five (5) working days prior to the proposed installation of the temporary traffic control measures. Temporary traffic control measures may not be installed until the City of Northglenn approval is received. Construction delays due to the City of Northglenn's requested changes to the temporary traffic control measures or non-conformance with the specifications shall not be considered time delays.

Northglenn NGLN-MA-0.3-112 Bid Tab

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1	DEBRIS REMOVAL & DISPOSAL (OPTIONAL)	LS	1		
2	REMOVAL OF SIDEWALK	LS	1		
3	REMOVAL OF CURB AND GUTTER	LS	1		
4	REMOVAL OF PEDESTRIAN RAIL	LS	1		
5	BRIDGE SIDEWALK & RAIL CURB	LS	1		
6	BRIDGE RAIL, TRANSITIONS AND GUARDRAIL	LS	1		
7	CONCRETE SIDEWALK	LS	1		
8	CONCRETE CURB & GUTTER	LS	1		
9	MOBILIZATION	LS	1		
10	TEMPORARY TRAFFIC CONTROL	LS	1		
11	VARIABLE MESSAGE SIGN	EA	2		
12	F/A MINOR CONTRACT REVISIONS	FA	-	\$10,000.00	\$10,000.00
	TOTAL CONSTRUCTION COST				

Write Total Construction Cost Here: _____

The following revises the 2015 City of Northglenn Standards and Specifications:

Add the following to Chapter 1, Subsection 1.1.3 Resource Standards

F/A Minor Contract Revisions

Force Account Work and Minor Contract Revisions for differing site conditions, changes, and extra work shall be authorized at the discretion of the City of Northglenn and shall be administered and performed under the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

Add the following to the end of Chapter 1, Subsection 1.2.6 Control of Work & Materials, Responsibility of the Contractor,

The Contractor shall provide a construction project schedule to the City of Northglenn for review and approval per the CDOT Standard Specifications for Road and Bridge Construction, section 108.03 Project Schedule.

Total Construction Time from Notice To Proceed shall not exceed 60 working days

Work within the City of Northglenn's Right of Way shall not exceed 15 working days

A Add the following to Chapter 2, Earthwork, Erosion Control and Seeding

Section 2.3.7 – Debris Removal and Disposal

This work consists of removing and disposing of vegetation and debris within the limits of the right of way, easement areas, borrow pits, and other areas shown in the Contract or required by the work. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

The Engineer will designate all trees, shrubs, plants, and other objects to remain. Every object designated to remain and is damaged shall be repaired or replaced as directed at the Contractor's expense.

All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be removed and disposed of. In areas to be rounded at the tops of backslopes, stumps shall be removed to at least 2 feet below the surface of the final slope line.

No material or debris shall be disposed of within the project limits without the written permission of the Engineer. The Contractor shall make all arrangements to obtain written permission from property owners for disposal locations outside the limits and view of the project. Copies of this written agreement shall be furnished to the Engineer before the disposal area is used.

Branches on trees or shrubs shall be removed as directed. Branches of trees extending over the roadbed shall be trimmed to give a clear height of 20 feet above the roadbed surface. All trimming shall be done in accordance with good tree surgery practices.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities of debris removal and disposal will be discussed in the pre-bid meeting. Prior to the removal of debris, the Contractor shall meet with the Engineer and outline the area to be removed. Acceptance of the debris removal and disposal will be at the Engineers discretion based on the agreed outlined area.

Payment will be full compensation for debris removal and disposal for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 6, Subsection 6.5 Bridges and Major Drainage Structures

6.5.2 General Repair

This work consists of all remedies, materials, and workmanship required to provide a delay or reduced deterioration of the structure, bridge, or structural elements. The repair work is as shown in the 2022 NGLN-CL-0.4-120 Structure Inspection and Inventory report as attached, per the Contract or as required by the Engineer.

The Engineer will designate the areas to be repaired or remedied in the prebid meeting.

Concrete Repair

Spalling, delaminated, or loose concrete shall be removed by hand or hand tools. Power actuated concrete removal tool is not recommended. Areas may be sand blasted to provide a clean bonding surface for new concrete upon approval by the Engineer. The Contractor shall provide for approval a written method of repair, including process, material, and finish, prior to proceeding with work.

Exposed steel or other reinforcement shall be wire-brushed clean of all debris, scale, and rust. Debris, scale, and rust shall be removed by hand tools only. If sandblasting is utilized, steel should be protected to provide section loss. Reinforcing that exhibits severe section loss shall be brought to the Engineer's attention.

Upon acceptance of the removal of the spalling, delaminated, or otherwise loose concrete, the Contractor shall prepare exposed reinforcement by coating exposed reinforcement with an Engineer approved corrosion inhibitor. The cleaned surface of the concrete shall have a bonding agent applied prior to installing the new concrete repair.

Concrete repair shall approximately conform to the shape, lines, planes, and other physical features of the adjoining existing concrete surface. Concrete shall be Ultra-high performance concrete with a minimum strength of 4,500 psi. Formwork shall be neat and clean and provide a finish similar to the adjoining concrete surfaces. Irregular surfaces or other form defects may require removal as directed by the Engineer. The Contractor shall provide a written process for removing irregularities or defects.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and repair area will be discussed in the pre-bid meeting. Acceptance of the repair will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for concrete repair for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 15, Excavation and Embankment, Subsection 15.3.1; revise the second sentence as follows:

The work will include excavation, embankment, grading, compacting, clearing, and grubbing; removal of topsoil, trees, stumps, or other vegetation; removal and/or resetting of minor obstructions; removal of

minor structures; subgrade preparations and any other work incidental for the construction of excavations and embankments.

Add the following to the end of Chapter 15, Excavation and Embankment, Subsection 15.3.1:

Removal of Sidewalk and Removal of Pedestrian Rail:

The removal of sidewalks and the removal of pedestrian rail are to be considered the removal of minor structures, and the work shall be conducted per the specified provisions. Inclusive to the removal of pedestrian rail is the removal of spalling or delaminating concrete from the existing headwall and wingwall. Removal of spalling or delaminating concrete shall be completed per the project's special provisions. The pedestrian rail may be cut flush with the face of the headwall and wingwall, and exposed steel edges shall be painted with epoxy coating. Voids left by the removal of the pedestrian rail can be filled with high-strength, low-shrink grout minimum compressive strength of 8,000 psi.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and area of removal are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the sidewalk and pedestrian rail removal for the entire project upon completion of the work and project. No partial payments for this work.

Add the following to the end of Chapter 15, Excavation and Embankment, Subsection 15.11 Bridges & Major Structures:

Headwall and Wingwall Curb:

Headwall and Wingwall Curb shall conform with the CDOT 2022 Standard Specifications for Road and Bridge Construction, Section 601, Structural Concrete, and Section 602 Reinforcing steel. All concrete shall be a CDOT Class D, and reinforcement shall be epoxy coated with a minimum yield strength of 60 ksi. Shop drawings shall be provided for reinforcement and shall be approved by the Engineer prior to the commencement of work. CDOT-approved mix design shall be submitted prior to the commencement of work.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and area new Headwall and Wingwall Curb are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Headwall and Wingwall Curb for the entire project upon completion of the work and project. No partial payments for this work

Bridge Rail and Guard Rail:

Bridge Rail and Guard Rail shall conform with CDOT 2022 Standard Specifications for Road and Bridge Construction, Section 606 Guardrail, the applicable CDOT Standard Details, and the CDOT Bridge Standard Details and as modified by the construction documents.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities for the new Guard Rail and Bridge Rail are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Bridge Rail and Guardrail for the entire project upon completion of the work and project. No partial payments for this work

Concrete Sidewalk:

Concrete sidewalk shall conform with the City of Northglenn's Public Right of Way Standards & Specifications.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities for the new sidewalk are as shown on the plans and will be discussed in the pre-bid meeting. Acceptance of the sidewalk will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for the installation of the Bridge Rail and Guardrail for the entire project upon completion of the work and project. No partial payments for this work

Add the following to Chapter 16, Temporary Traffic Control, at the end of section 16.1.1 General

Temporary traffic control plans shall conform to CDOT Standard Specifications for Road and Bridge Construction and the City of Northglenn Public Right-of-Way Standards and Specifications. The proposed temporary traffic control plan shall be submitted to the City of Northglenn for approval five (5) working days prior to the proposed installation of the temporary traffic control measures. Temporary traffic control measures may not be installed until the City of Northglenn approval is received. Construction delays due to the City of Northglenn's requested changes to the temporary traffic control measures or non-conformance with the specifications shall not be considered time delays.

Northglenn NGLN-CL-0.4-120 Bid Tab

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1	REMOVAL OF SIDEWALK	LS	1		
2	REMOVAL OF PEDESTRIAN RAIL	LS	1		
3	HEADWALL & WINGWALL CURB	LS	1		
4	BRIDGE RAIL, TRANSITIONS AND GUARDRAIL	LS	1		
5	CONCRETE SIDEWALK	LS	1		
6	MOBILIZATION	LS	1		
7	TEMPORARY TRAFFIC CONTROL	LS	1		
8	F/A MINOR CONTRACT REVISIONS	FA	-	\$10,000.00	\$10,000.00
	TOTAL CONSTRUCTION COST				

Write Total Construction Cost Here: _____

The following revises the 2015 City of Northglenn Standards and Specifications:

Add the following to Chapter 1, Subsection 1.1.3 Resource Standards

F/A Minor Contract Revisions

Force Account Work and Minor Contract Revisions for differing site conditions, changes, and extra work shall be authorized at the discretion of the City of Northglenn and shall be administered and performed under the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

Add the following to the end of Chapter 1, Subsection 1.2.6 Control of Work & Materials, Responsibility of the Contractor,

The Contractor shall provide a construction project schedule to the City of Northglenn for review and approval per the CDOT Standard Specifications for Road and Bridge Construction, section 108.03 Project Schedule.

Total Construction Time from Notice To Proceed shall not exceed 60 working days

Work within the City of Northglenn's Right of Way shall not exceed 15 working days

Add the following to Chapter 2, Earthwork, Erosion Control and Seeding

Section 2.3.7 – Debris Removal and Disposal

This work consists of removing and disposing of vegetation and debris within the limits of the right of way, easement areas, borrow pits, and other areas shown in the Contract or required by the work. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

The Engineer will designate all trees, shrubs, plants, and other objects to remain. Every object designated to remain and is damaged shall be repaired or replaced as directed at the Contractor's expense.

All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be removed and disposed of. In areas to be rounded at the tops of backslopes, stumps shall be removed to at least 2 feet below the surface of the final slope line.

No material or debris shall be disposed of within the project limits without the written permission of the Engineer. The Contractor shall make all arrangements to obtain written permission from property owners for disposal locations outside the limits and view of the project. Copies of this written agreement shall be furnished to the Engineer before the disposal area is used.

Branches on trees or shrubs shall be removed as directed. Branches of trees extending over the roadbed shall be trimmed to give a clear height of 20 feet above the roadbed surface. All trimming shall be done in accordance with good tree surgery practices.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities of debris removal and disposal will be discussed in the pre-bid meeting. Prior to the removal of debris, the Contractor shall meet with the Engineer and outline the area to be removed. Acceptance of the debris removal and disposal will be at the Engineers discretion based on the agreed outlined area.

Payment will be full compensation for debris removal and disposal for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 6, Subsection 6.5 Bridges and Major Drainage Structures

6.5.2 General Repair

This work consists of all remedies, materials, and workmanship required to provide a delay or reduced deterioration of the structure, bridge, or structural elements. The repair work is as shown in the 2022 NGL-HI-0.0-112 Structure Inspection and Inventory report as attached, per the Contract or as required by the Engineer.

The Engineer will designate the areas to be repaired or remedied in the prebid meeting.

Concrete Repair

Spalling, delaminated, or loose concrete shall be removed by hand or hand tools. Power actuated concrete removal tool is not recommended. Areas may be sand blasted to provide a clean bonding surface for new concrete upon approval by the Engineer. The Contractor shall provide for approval a written method of repair, including process, material, and finish, prior to proceeding with work.

Exposed steel or other reinforcement shall be wire-brushed clean of all debris, scale, and rust. Debris, scale, and rust shall be removed by hand tools only. If sandblasting is utilized, steel should be protected to provide section loss. Reinforcing that exhibits severe section loss shall be brought to the Engineer's attention.

Upon acceptance of the removal of the spalling, delaminated, or otherwise loose concrete, the Contractor shall prepare exposed reinforcement by coating exposed reinforcement with an Engineer approved corrosion inhibitor. The cleaned surface of the concrete shall have a bonding agent applied prior to installing the new concrete repair.

Concrete repair shall approximately conform to the shape, lines, planes, and other physical features of the adjoining existing concrete surface. Concrete shall be Ultra-high performance concrete with a minimum strength of 4,500 psi. Formwork shall be neat and clean and provide a finish similar to the adjoining concrete surfaces. Irregular surfaces or other form defects may require removal as directed by the Engineer. The Contractor shall provide a written process for removing irregularities or defects.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities and repair area will be discussed in the pre-bid meeting. Acceptance of the repair will be at the Engineers discretion based on the agreed area.

Payment will be full compensation for concrete repair for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 8, Traffic Control, between 8.6.14 Sign Specifications and 8.16.14.1 Sign Face Material

Traffic Control Devices:

This work consists of the construction of traffic signs and sign structures, traffic signals and systems, barricades, rumble strips, masking sign legends on new sign panels, providing and installing multi-

directional steel sign break-away assemblies, and modification of sign posts and legends. This work shall be done in accordance with these specifications, the latest revision of the "Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways" published by the FHWA and the City of Northglenn's Traffic Control Requirements.

Flashing beacon shall be as shown on the plans. The beacon shall be solar powered as called for on the plans, the beacon head shall be 12V LED type operated at 24 watts. The solar power system shall be capable of operating the flashing beacon continuously for ten days without any sunlight. The solar panel and battery power system shall be augmented to protect it from vandalism or theft. The solar power system shall be complete, including all elements required for an operational installation.

The Accessible Pedestrian Signal (APS) shall be a City of Northglenn-approved pedestrian signal system and shall consist of all electronic control equipment, wiring, conduit, mounting hardware, and a push-button designed to provide a raised push button to activate the pedestrian walk flashing beacon installed in place complete.

The push button shall be weatherproof, tamper-proof, constructed so that it will be impossible to receive any electrical shock under any weather condition, and operate on a voltage not to exceed 24 VAC. The housing shall be shaped to fit the curvature of the pole to which it is attached to provide a rigid installation. Saddles shall be provided to make a neat fit when required.

The Contractor shall provide push-button specifications for the City of Northglenn's approval before bidding. Material substitutions will not be allowed after approval.

Signs and signposts shall be installed per the City of Northglenn's Standards and Specifications or as directed by the Engineer.

Method of measurement for the ground signs shall be by each and include all beacons, bases, and other appurtenances to construct in place complete. The accepted location of the ground signs will be discussed in the pre-bid meeting.

Payment will be full compensation for all installed ground signs for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 16, Temporary Traffic Control, at the end of section 16.1.1 General

Temporary traffic control plans shall conform to CDOT Standard Specifications for Road and Bridge Construction and the City of Northglenn Public Right-of-Way Standards and Specifications. The proposed temporary traffic control plan shall be submitted to the City of Northglenn for approval five (5) working days prior to the proposed installation of the temporary traffic control measures. Temporary traffic control measures may not be installed until the City of Northglenn approval is received. Construction delays due to the City of Northglenn's requested changes to the temporary traffic control measures or non-conformance with the specifications shall not be considered time delays.

Northglenn NGLN-HI-0.0-112 Bid Tab

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1	DEBRIS REMOVAL & DISPOSAL	LS	1		
2	CHEVRON ALIGNMENT (W1-8R) 18x24	EA	5		
3	BICYCLE/PEDESTRIAN (W11-15) WITH BEACON, 30x30	EA	2		
4	PEDESTRIAN (R10-3) 9x12 WITH PEDESTRIAN ACCESSIBLE SIGNAL	EA	2		
5	CONCRETE REPAIR	LS	1		
6	PAINT BRIDGE RAIL	LS	1		
7	MOBILIZATION	LS	1		
8	TEMPORARY TRAFFIC CONTROL	LS	1		
9	F/A MINOR CONTRACT REVISIONS	FA	-	\$10,000.00	\$10,000.00
	TOTAL CONSTRUCTION COST				

Write Total Construction Cost Here: _____

The following revises the 2015 City of Northglenn Standards and Specifications:

Add the following to Chapter 1, Subsection 1.1.3 Resource Standards

F/A Minor Contract Revisions

Force Account Work and Minor Contract Revisions for differing site conditions, changes, and extra work shall be authorized at the discretion of the City of Northglenn and shall be administered and performed under the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

Add the following to the end of Chapter 1, Subsection 1.2.6 Control of Work & Materials, Responsibility of the Contractor,

The Contractor shall provide a construction project schedule to the City of Northglenn for review and approval per the CDOT Standard Specifications for Road and Bridge Construction, section 108.03 Project Schedule.

Total Construction Time from Notice To Proceed shall not exceed 25 working days

Work within the City of Northglenn's Right of Way shall not exceed 15 working days

Add the following to Chapter 2, Earthwork, Erosion Control and Seeding

Section 2.3.7 – Debris Removal and Disposal

This work consists of removing and disposing of vegetation and debris within the limits of the right of way, easement areas, borrow pits, and other areas shown in the Contract or required by the work. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

The Engineer will designate all trees, shrubs, plants, and other objects to remain. Every object designated to remain and is damaged shall be repaired or replaced as directed at the Contractor's expense.

All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be removed and disposed of. In areas to be rounded at the tops of backslopes, stumps shall be removed to at least 2 feet below the surface of the final slope line.

No material or debris shall be disposed of within the project limits without the written permission of the Engineer. The Contractor shall make all arrangements to obtain written permission from property owners for disposal locations outside the limits and view of the project. Copies of this written agreement shall be furnished to the Engineer before the disposal area is used.

Branches on trees or shrubs shall be removed as directed. Branches of trees extending over the roadbed shall be trimmed to give a clear height of 20 feet above the roadbed surface. All trimming shall be done in accordance with good tree surgery practices.

Method of measurement shall be by Lump Sum (LS) – The accepted quantities of debris removal and disposal will be discussed in the pre-bid meeting. Prior to the removal of debris, the Contractor shall

meet with the Engineer and outline the area to be removed. Acceptance of the debris removal and disposal will be at the Engineers discretion based on the agreed outlined area.

Payment will be full compensation for debris removal and disposal for the entire project upon completion of work and project. No partial payments for this work.

Add the following to Chapter 16, Temporary Traffic Control, at the end of section 16.1.1 General

Temporary traffic control plans shall conform to CDOT Standard Specifications for Road and Bridge Construction and the City of Northglenn Public Right-of-Way Standards and Specifications. The proposed temporary traffic control plan shall be submitted to the City of Northglenn for approval five (5) working days prior to the proposed installation of the temporary traffic control measures. Temporary traffic control measures may not be installed until the City of Northglenn approval is received. Construction delays due to the City of Northglenn's requested changes to the temporary traffic control measures or non-conformance with the specifications shall not be considered time delays.

City of Northglenn NGLN-AC-0.8-104 Bid Tab

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL
1	DEBRIS REMOVAL & DISPOSAL	LS	1		
2	MOBILIZATION	LS	1		
3	TEMPORARY TRAFFIC CONTROL	LS	1		
4	F/A MINOR CONTRACT REVISIONS	F/A	-	\$5,000.00	\$5,000.00
	TOTAL CONSTRUCTION COST				

Write Total Construction Cost Here: _____

CITY OF NORTHGLENN GENERAL NOTES:

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF NORTHGLENN STANDARDS AND SPECIFICATIONS AND APPLICABLE DISTRICT, STATE AND FEDERAL REGULATIONS. WHENEVER THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE MOST RESTRICTIVE STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND ACCEPTED BY THE ENGINEERING DIVISION.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENT TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE DESIGNER SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987, AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING, TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH/IRRIGATION COMPANIES) ARE TO BE LOCATED BY CONTACTING EACH AGENCY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY ENGINEERING DIVISION, AND ALL UTILITY COMPANIES INVOLVED, REGARDING RELOCATIONS, ADJUSTMENTS, EXTENSIONS, AND REARRANGEMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL AND SECURITY. REFER TO OSHA PUBLICATION 2226, EXCAVATING AND TRENCHING.
6. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEERING DIVISION IMMEDIATELY.
7. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS, SHOWN ON THESE DRAWINGS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT NO MUD OR DEBRIS SHALL BE TRACKED ONTO THE EXISTING PUBLIC STREET SYSTEM. MUD AND DEBRIS MUST BE REMOVED BY THE END OF EACH WORKING DAY BY AN APPROPRIATE MECHANICAL METHOD (I.E., MACHINE BROOM SEEP, LIGHT DUTY FRONT END LOADER, ETC.).
10. THE DESIGNER SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE ENGINEERING DIVISION AT ALL TIMES.
11. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE A SCALED FORM OF ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTRACT THE ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
12. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION AND AT AREAS WITH DISTURBED SOIL, ON- AND OFF-SITE, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING. TO MITIGATE EROSION, THE CONTRACTOR SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE MILE HIGH FLOOD DISTRICT'S URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3 - BEST MANAGEMENT PRACTICES.
13. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS OR SUNDAY OR AFTER 3:30 PM ON WEEKDAYS UNLESS APPROVED OTHERWISE ON THE RIGHT OF WAY PERMIT.
14. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
15. EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURB AND GUTTER, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE.
16. AFTER INITIAL ACCEPTANCE BY THE CITY ENGINEERING DIVISION, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF INITIAL ACCEPTANCE.

NOTES:

1. ALL WORK SHALL CONFORM TO THE CITY OF NORTHGLENN 2015 STANDARDS AND SPECIFICATIONS OR NEWEST REVISION WITH THE EXCEPTION OF PROJECT SPECIAL PROVISIONS.
2. PRIOR TO PROJECT BIDDING, A MANDATORY PREBID MEETING SHALL BE HELD TO OUTLINE THE ACCEPTED QUANTITIES OF DEBRIS REMOVAL AND DISPOSAL.

NOTE:

ANTICIPATED EXCAVATION IS LESS THAN 2' DEEP AND IS LESS THAN 1,000 CONTIGUOUS SQUARE FEET. UTILITY ELEMENTS SHOWN ARE FOR INFORMATION ONLY AND DO NOT CONSTITUTE SUBSURFACE UTILITY ENGINEERING.

EXISTING UTILITY LOCATIONS:

COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: MALLEY DR COVER SHEET
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION:
 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

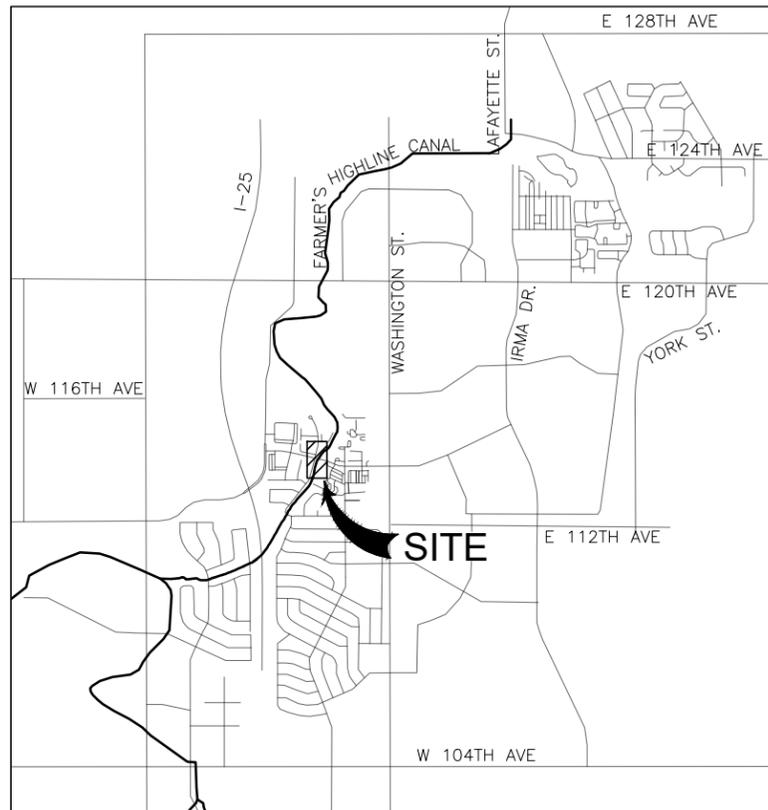
12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED	DESIGNER: TAH DETAILER: MR	STRUCTURE NUMBER NGLN-MA-0.3-112
NO. REVISIONS:		
REVISED:		
VOID:		

MALLEY DRIVE STRUCTURE COVER SHEET		PROJECT NO. 13852-25
SHEET 1/4		

PUBLIC IMPROVEMENTS REPAIR PLANS FOR MALLEY DRIVE STRUCTURE

STRUCTURE ID: NGLN-MA-0.3-112
 A PORTION OF MALLEY BRIDGE RIGHT-OF-WAY,
 LOCATED IN THE SOUTHEAST QUARTER OF SECTION 3,
 TOWNSHIP 2 SOUTH, RANGE 68 WEST OF THE 6TH P.M.,
 CITY OF NORTHGLENN, COUNTY OF ADAMS, STATE OF COLORADO



VICINITY MAP
 SCALE: 1" = 2000'

SHEET INDEX:

DRAWING NO.	DESCRIPTION:
1	COVER SHEET
2	PLAN AND ELEVATION
3	REPAIR PLAN
4	UTILITY PLAN

QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
DEBRIS REMOVAL & DISPOSAL (OPTIONAL)	LS	1
REMOVAL OF SIDEWALK	LS	1
REMOVAL OF CURB AND GUTTER	LS	1
REMOVAL OF PEDESTRIAN RAIL	LS	1
BRIDGE SIDEWALK & RAIL CURB	LS	1
BRIDGE RAIL, TRANSITIONS AND GUARDRAIL	LS	1
CONCRETE SIDEWALK	LS	1
CONCRETE CURB & GUTTER	LS	1
MOBILIZATION	LS	1
TEMPORARY TRAFFIC CONTROL	LS	1
VARIABLE MESSAGE SIGN	EA	2



OWNER:

CITY OF NORTHGLENN
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: (303) 450-8984
 CONTACT: KIRAN BHUSAL

CIVIL ENGINEER:

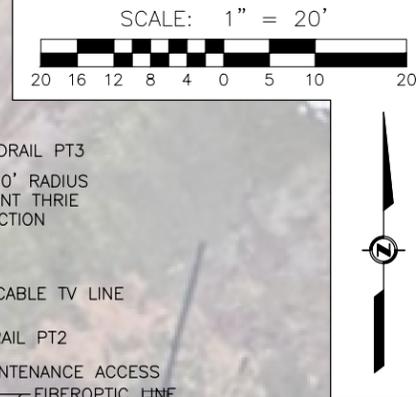
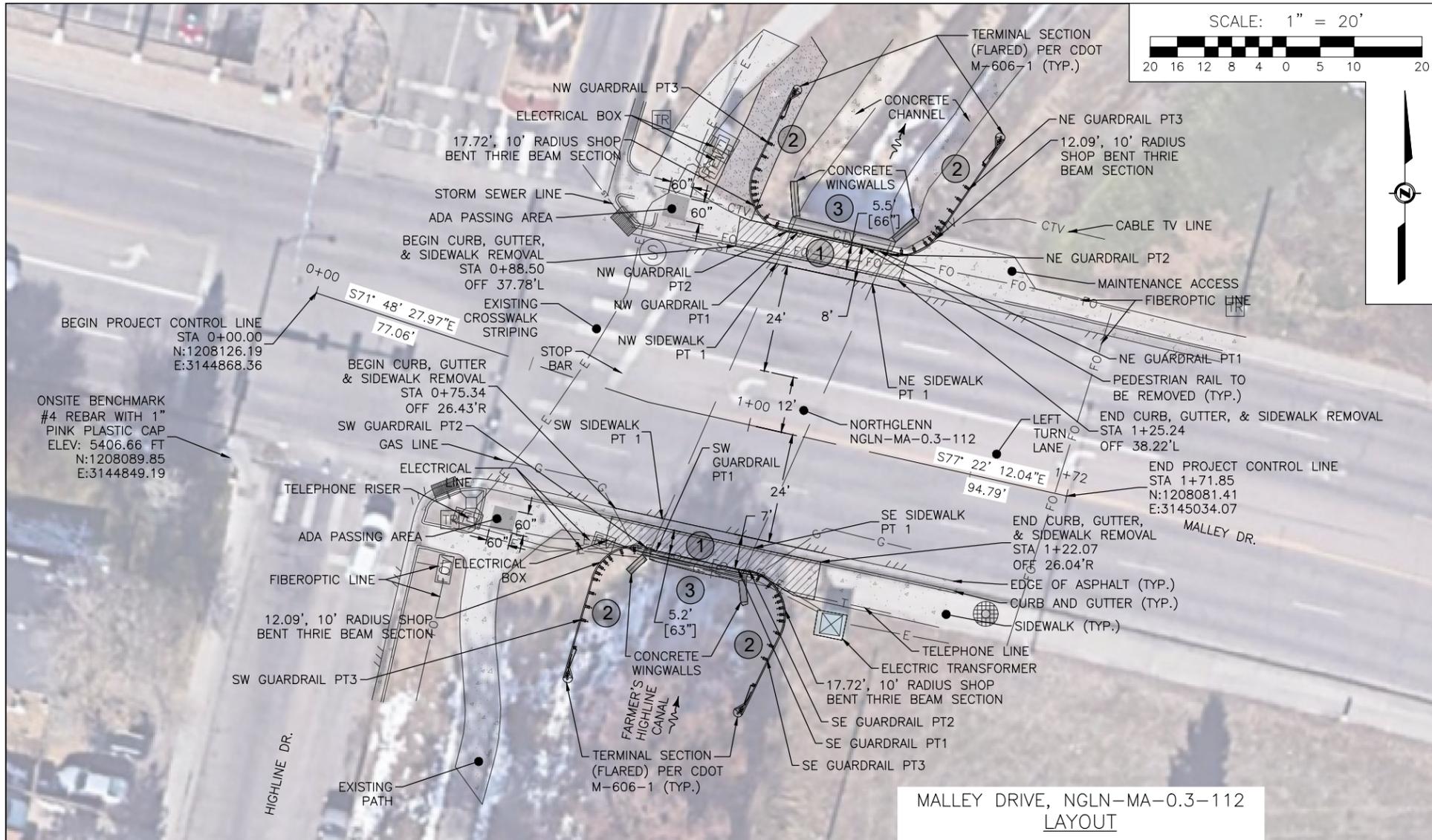
COLLINS ENGINEERS, INC.
 455 SHERMAN ST, SUITE 160
 DENVER, CO 80203
 PHONE: (720) 647-7909
 CONTACT: TIMOTHY HAYASHI
 EMAIL: thayashi@collinsengr.com

SURVEY:

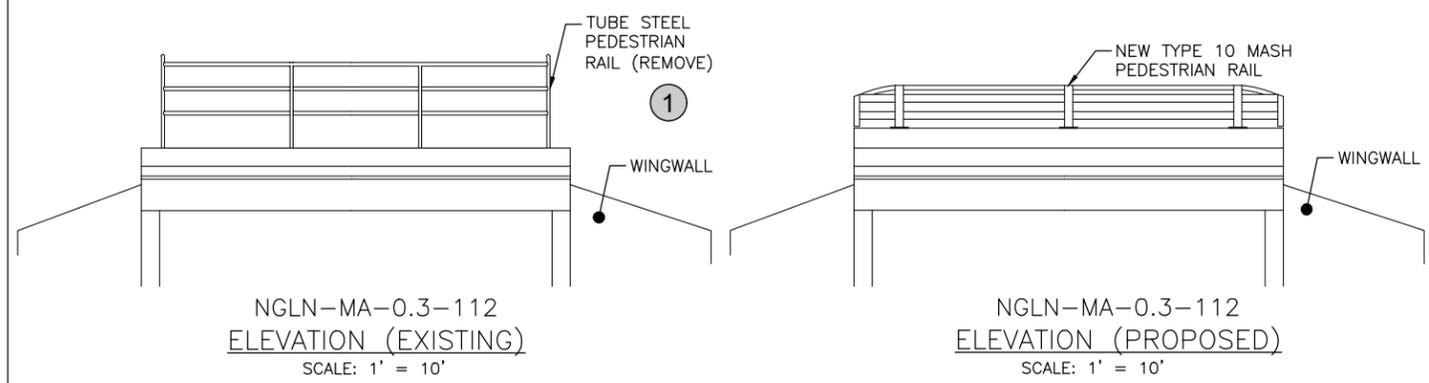
FLATIRONS, INC.
 3825 IRIS AVE, STE 395
 BOULDER, CO 80303
 PHONE: (303) 443-7001
 FAX: (303) 443-9830
 CONTACT: WILLIAM WERNER

BENCHMARK INFORMATION

TRIMBLE VRS NOW CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK WAS USED TO ESTABLISH A GPS DERIVED ELEVATION ON AN ON-SITE BENCHMARK AT THE SOUTHWEST CORNER OF THE INTERSECTION OF MALLEY DRIVE AND HIGHLINE DRIVE, BEING A SET #4 REBAR WITH 1" PINK PLASTIC CAP MARKED "FLATIRONS CONTROL" WITH AN ELEVATION OF 5406.66 FEET (NAVD 88). NGS POINT N-411, BEING A STAINLESS STEEL ROD AT THE INTERSECTION OF WEST 104TH AVENUE AND CROKE DRIVE LOCATED 1.5 MILES FROM SITE, WITH A PUBLISHED ELEVATION OF 5453.20 FEET, WAS CHECKED INTO WITH AN AS-MEASURED ELEVATION OF 5453.29 FEET. NO DIFFERENTIAL LEVELING WAS PERFORMED TO ESTABLISH THE ELEVATION OF THE ON-SITE BENCHMARK.



POINT TABLE			
POINT (PT)	DESCRIPTION	STATION	OFFSET
NW GUARDRAIL PT 1	BEGIN TRANSITION TYPE 3G	1+00.23	43.63' L
NW GUARDRAIL PT 2	BEGIN W-BEAM CURVE/END TYPE 10 RAIL	0+97.73	43.33' L
NW GUARDRAIL PT 3	END TYPE 3G TRANSITION/BEGIN TYPE 3K END ANCHORAGE	0+90.48	61.60' L
NE GUARDRAIL PT 1	BEGIN TRANSITION TYPE 3G	1+19.10	43.65' L
NE GUARDRAIL PT 2	BEGIN W-BEAM CURVE/END TYPE 10 RAIL	1+21.60	43.37' L
NE GUARDRAIL PT 3	END TYPE 3G TRANSITION/BEGIN TYPE 3K END ANCHORAGE	1+36.01	61.30' L
SW GUARDRAIL PT 1	BEGIN TRANSITION TYPE 3G	0+85.42	67.09' L
SW GUARDRAIL PT 2	BEGIN W-BEAM CURVE/END TYPE 10 RAIL	0+83.78	31.29' R
SW GUARDRAIL PT 3	END TYPE 3G TRANSITION/BEGIN TYPE 3K END ANCHORAGE	0+77.02	50.15' R
SE GUARDRAIL PT 1	BEGIN TRANSITION TYPE 3G	1+03.92	31.55' R
SE GUARDRAIL PT 2	BEGIN W-BEAM CURVE/END TYPE 10 RAIL	1+06.19	31.30' R
SE GUARDRAIL PT 3	END TYPE 3G TRANSITION/BEGIN TYPE 3K END ANCHORAGE	1+15.27	49.69' R
NW SIDEWALK PT 1	BEGIN BRIDGE CURB, GUTTER, & SIDEWALK REMOVAL	0+98.10	35.94'L
NE SIDEWALK PT 1	END BRIDGE CURB, GUTTER, & SIDEWALK REMOVAL	1+19.81	36.19'L
SW SIDEWALK PT 1	BEGIN BRIDGE CURB, GUTTER, & SIDEWALK REMOVAL	0+85.77	24.33R
SE SIDEWALK PT 1	END BRIDGE CURB, GUTTER, & SIDEWALK REMOVAL	1+07.07	26.21'R



- ① PEDESTRIAN RAIL TO BE REMOVED AND REPLACED WITH TYPE 10 MASH PEDESTRIAN GUARDRAIL. CURB, GUTTER, AND SIDEWALK TO BE REMOVED AND REPLACED.
- ② NEW TYPE 3G TRANSITION AND TYPE 3K END ANCHORAGES
- ③ DEBRIS REMOVAL AND DISPOSAL UNDER THE BRIDGE AND WATERWAY

DESIGN ADT YEAR	CURRENT ADT YEAR	ESTIMATED GROWTH RATE	DESIGN ADT (V/DAY)	CURRENT ADT (V/DAY)	DESIGN SPEED	POSTED SPEED	CLEAR ZONE
2033	2022	4%	25135	17455	40 MPH	30 MPH	14 FT

- TYPE 10 MASH BRIDGE RAIL, TYPE 3 GUARDRAIL AND END ANCHORAGES (REQUIRED) - VOLUMES AND SPEEDS HIGH ENOUGH TO WARRANT PROTECTION, CLEAR ZONE IS SET TO THE MINIMUM OF 14'-0" WHICH ALSO REQUIRES PROTECTION FROM THE CANAL AND END OF STRUCTURE.
 - TYPE 10 PEDESTRIAN RAIL (REQUIRED) - WHILE EXISTING RAIL CONFORMS TO THE 2012 AASHTO BICYCLE GUIDE HEIGHT REQUIREMENTS OF 42" MINIMUM, THE REPLACEMENT OF THE EXISTING RAIL IS REQUIRED PER CLEAR ZONE REQUIREMENTS AND TO PROVIDE A MASH TESTED CONNECTION TO THE TYPE 3 GUARDRAIL.
 - RECONSTRUCT SIDEWALK TO ADA REQUIREMENTS (NOT REQUIRED) - EXISTING SIDEWALK DOES NOT REQUIRE REPLACEMENT AS IT CURRENTLY MEETS ADA WIDTH REQUIREMENTS. HOWEVER, CURB, GUTTER, AND SIDEWALK REMOVAL AND REPLACEMENT IS SHOWN AS PART OF THE BRIDGE RAIL REPLACEMENT.



PRINT DATE: NOVEMBER 16, 2022
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 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION: URBAN COLLECTOR

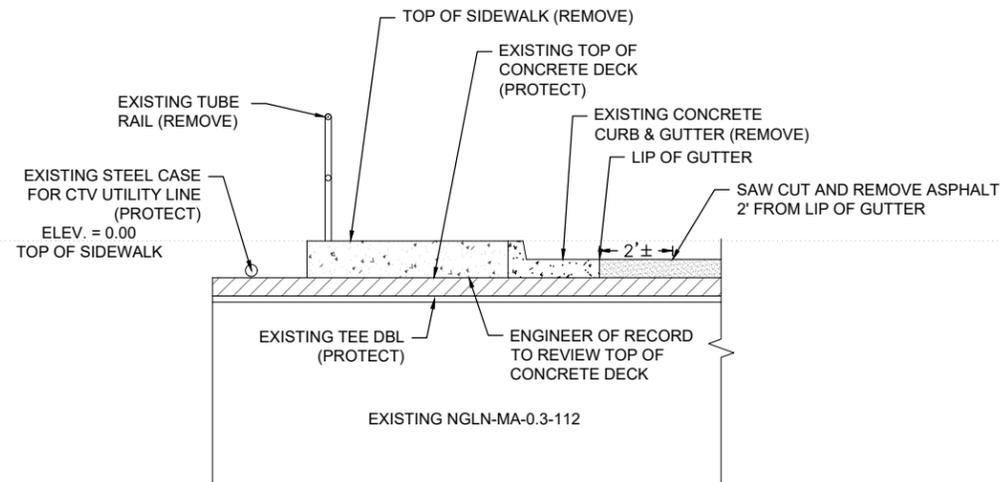
SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

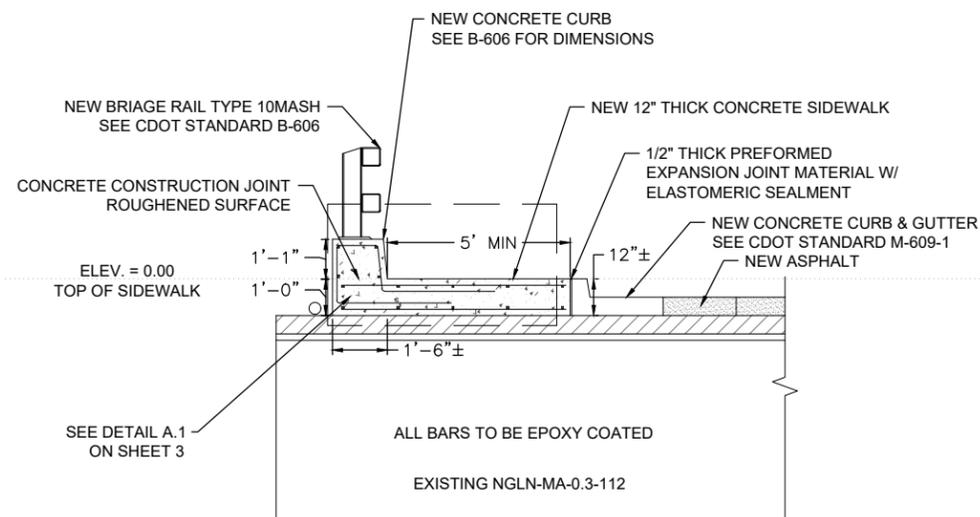
AS CONSTRUCTED
 NO. REVISIONS:
 REVISED:
 VOID:

MALLEY DR. STRUCTURE
 PLAN AND ELEVATION
 DESIGNER: TAH
 STRUCTURE NUMBER
 NGLN-MA-0.3-112
 DETAILER: AMW

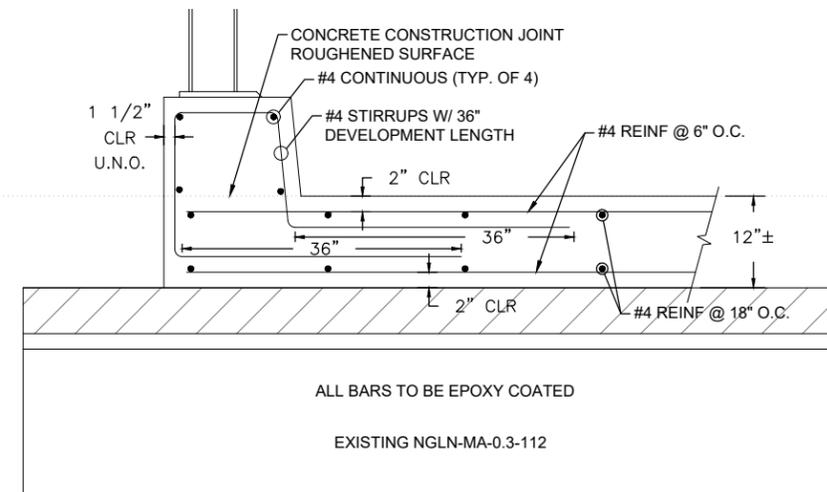
PROJECT NO.
 13852-25
 SHEET 2/4



NGLN-MA-0.3-112
REMOVAL PLAN



NGLN-MA-0.3-112
NEW RAIL, CURB AND SIDEWALK PLAN



NGLN-MA-0.3-112
CURB AND SIDEWALK DETAIL A.1
(SCALE: 1"=2')



PRINT DATE: NOVEMBER 16, 2022
FILE NAME: MALLEY REPAIRS
HORIZONTAL SCALE: 1" = 5'
UNITS: FT
ROADWAY CLASSIFICATION:
URBAN/RURAL LOCAL MIX USE

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

12301 CLAUDE COURT
NORTHGLENN, CO 80241
PHONE: 303-450-8984

AS CONSTRUCTED

NO. REVISIONS:

REVISED:

VOID:

MALLEY DRIVE STRUCTURE
REPAIR PLAN

DESIGNER: TAH

DETAILER: MR

STRUCTURE NUMBER

NGLN-MA-0.3-112

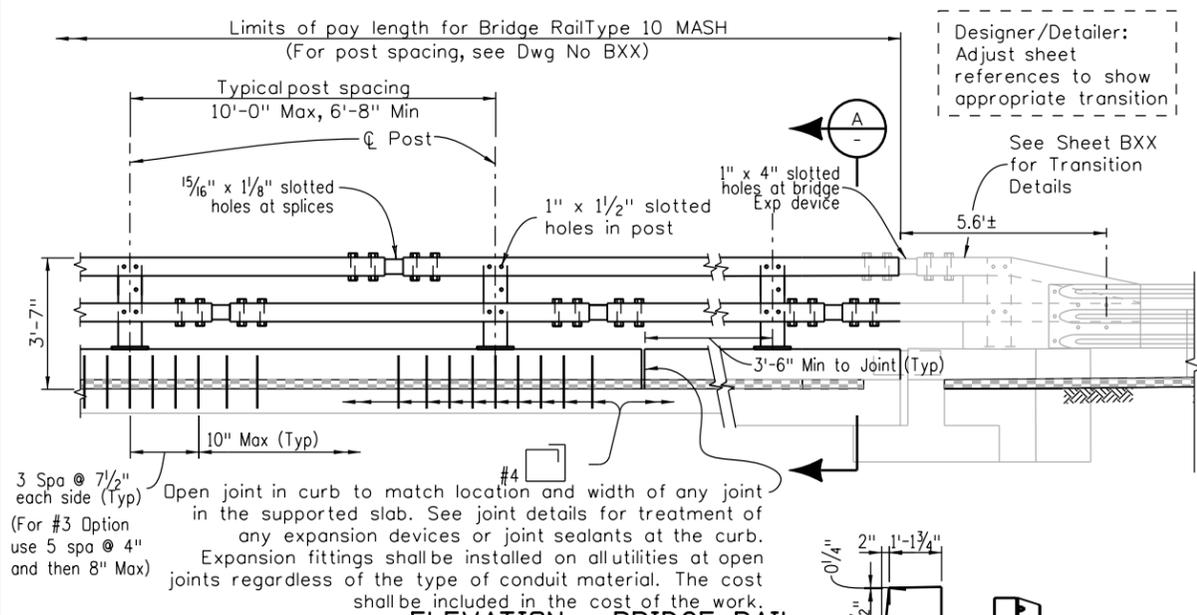
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13852-25

SHEET 3/4

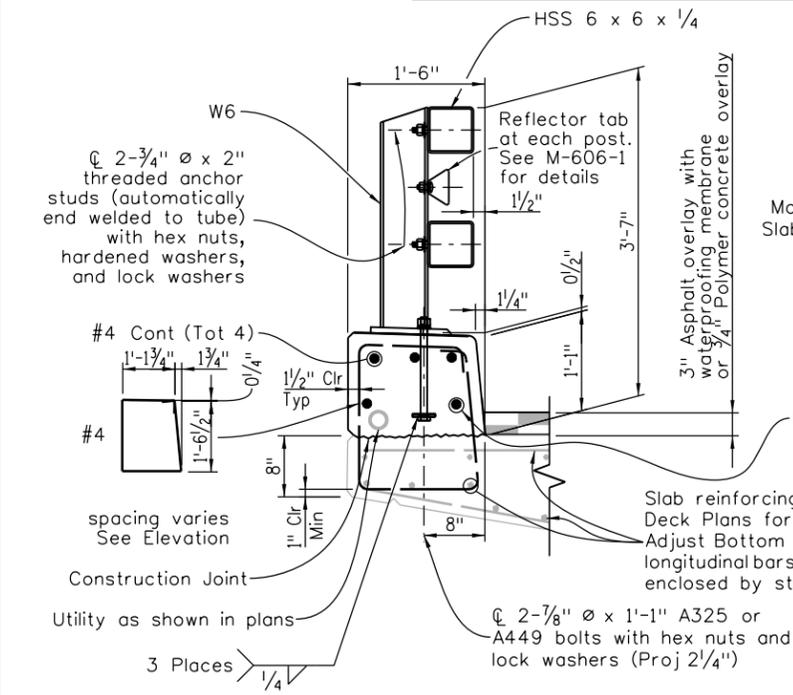
Revision Dates	12/19	1/20	6/20	11/21
(Preliminary Stage Only)				

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						



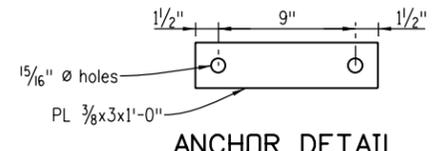
3 Spa @ 7/2" each side (Typ) Open joint in curb to match location and width of any joint in the supported slab. See joint details for treatment of any expansion devices or joint sealants at the curb. Expansion fittings shall be installed on all utilities at open joints regardless of the type of conduit material. The cost shall be included in the cost of the work.

ELEVATION - BRIDGE RAIL



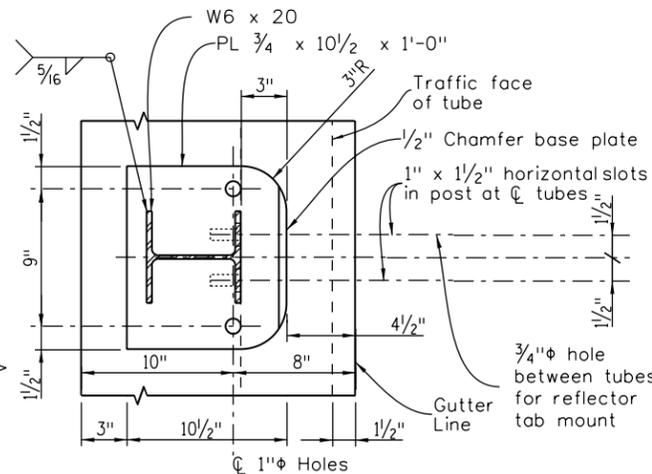
BRIDGE TYPICAL SECTION

Used when placed on concrete slab. Bottom of stirrup parallel to top of deck steel.

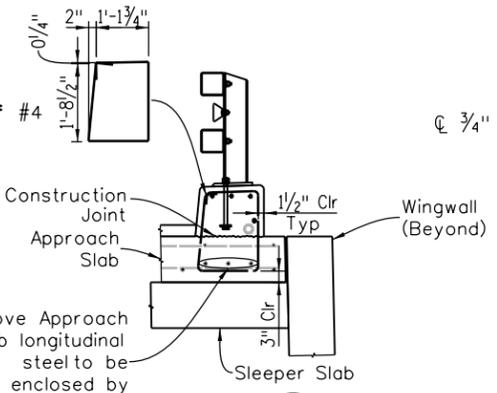


ANCHOR DETAIL

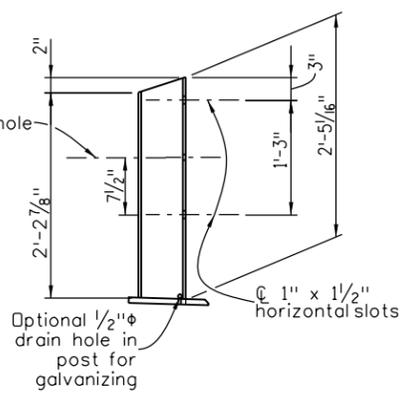
Designer/Detailer: Adjust sheet references to show appropriate transition. See Sheet BXX for Transition Details.



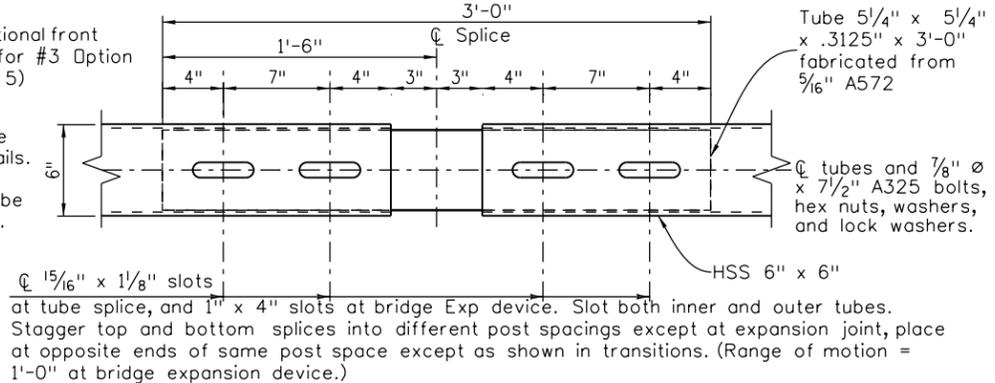
PLAN - POST DETAIL



SECTION A



POST ELEVATION



PLAN - TUBE SPLICE

FOR INFORMATION ONLY

DESCRIPTION	UNIT	PER LF
Concrete Sealer	SY	0.28
Structural Steel (Galvanized)	LB	49.6
Concrete Class D with Macrofiber or Class G	CY	0.059
Reinforcing Steel (High Performance) ▲	LB	8.7

(6.6 for #3 Option)

NOTES:

B-606-10MASH
(Use with B-606-10MASH A&B, A-S, C&D, or C-S&D)

- All tubes shall be ASTM A-1085. All posts, base plates, and splice tubes fabricated by welding shall be ASTM A-572 Grade 50. Post anchor, encased in concrete, shall be Grade 36 steel and need not be galvanized. All other steel shall be Grade 36 unless otherwise noted.
- The above material and all anchor bolts and miscellaneous bolts, nuts, and washers shall be galvanized after fabrication in accordance with Section 509. Concrete, reinforcing steel, and structural steel elements shall conform to the requirements of sections 601 & 606, 602, and 509, respectively unless otherwise noted. Concrete sealer shall conform to section 515.
- The tubes shall be shop bent or fabricated to fit horizontal curve when radius is less than 1,800 feet.
- Tubes shall be continuous over not less than two posts, preferably 4 posts except at approach slab end joint. No welded butt splices will be allowed in the tube sections.
- The centerline of the tube splice shall be 1'-8" minimum and 2'-6" maximum from the centerline of the posts.
- All bolts that have lock washers shall be tightened to snug only.
- Posts, curbs, and stirrups shall be perpendicular to the longitudinal roadway grade and cross slopes.
- One or more 10'-0" post spaces may be reduced (6'-8" Min) in order to maintain dimensions from the end of the rail and expansion joints or concrete buttresses.
- The top and inside face of the rail curb shall receive a coating of Item 515, Concrete Sealer, either a silane/siloxane or a type compatible with the concrete coating or sealer/stain shown in the plans.
- Payment will be made under item 606, Bridge Rail Type 10 MASH, for all posts, post anchors, base plates, backing plates, anchor bolts, miscellaneous bolts, nuts, washers, tubes, tube expansion devices, tube splices, end plates, concrete (Class D with macrofiber or Class G), reinforcing steel, concrete sealer, and reflector tabs.
- Prior to fabrication of this item, an electronic pdf which complies with the requirements of section 105, shall be submitted to the Engineer for information only.
- #3 reinforcing may be substituted for #4 reinforcing with the spacing and additional bars shown.

DESIGN DATA

Design: AASHTO MASH 2016 TL-5 with rail height of 42" (by calculation), AASHTO MASH 2016 TL-4 for overlay thickness over 1" and resulting in a height of the top of rail over pavement of 36" Min (by Professional Evaluation and Crash Testing). Any changes to the bridge rail details must be approved by Staff Bridge.

Structural Steel:
 AASHTO M270 Gr 36 (ASTM A709 Gr 36) fy = 36 ksi
 AASHTO M270 Gr 50 (ASTM A992/A572 Gr 50) fy = 50 ksi
 ASTM A1085 fy = 50 ksi

Concrete: Class D with Macrofiber or Class G, f'c = 4.5 ksi

▲ Reinforcing Steel: **LONG LEAD ITEM**
 Splice Length = 2'-5" for #4, 1'-10" for #3
 All tie wire, chairs and supports shall be stainless steel or plastic coated.
 All reinforcing bends shown shall use a 4D pin diameter.

ASTM A955 fy = 75 ksi Min
 Stainless steel reinforcing bars shall conform to ASTM 955, UNS Designations S24000, S31653, S31803, S32101 and S32304
 ASTM A1035CS, (Grade 100) fy = 100 ksi Min
 Reinforcing steel shall be low-carbon, chromium, conforming to ASTM A1035/A1035M Alloy Type 1035 CS Grade 100 with a minimum chromium content of 9.2%. Stainless steel per ASTM A955 may be substituted.

Designer/Detailer: Select reinforcing steel to specify which reinforcing is required on the project per the following requirements:
 Reinforcing steel on structures and retaining walls carrying Interstate traffic (including ramps and crossing structures) and on any structures on the state highway system in Clear Creek, Grand, Gunnison, Hinsdale, Jackson, Lake, Mineral, Park, Pitkin, Rio Grande, Routt, San Juan, and Summit Counties shall be solid stainless steel (ASTM A955). Reinforcing steel in Bridge rails on structures in other locations shall ASTM A1035CS

Print Date: \$DATE\$
 File Name: sheet_B-606-10mash.dgn
 Horiz. Scale: 1:1 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation
 2829 West Howard Place, 3rd Floor
 Denver, CO 80204
 Phone: 303-512-4079
 FAX: 303-757-9197
Staff Bridge Branch

As Constructed

No Revisions:
Revised:
Void:

BRIDGE RAIL TYPE 10MASH

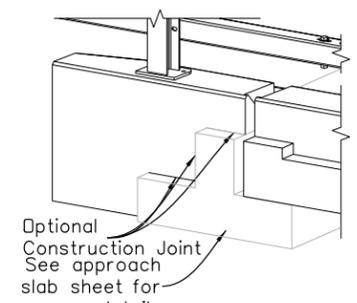
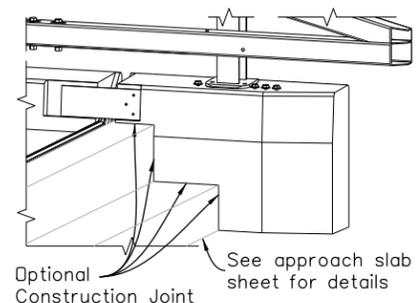
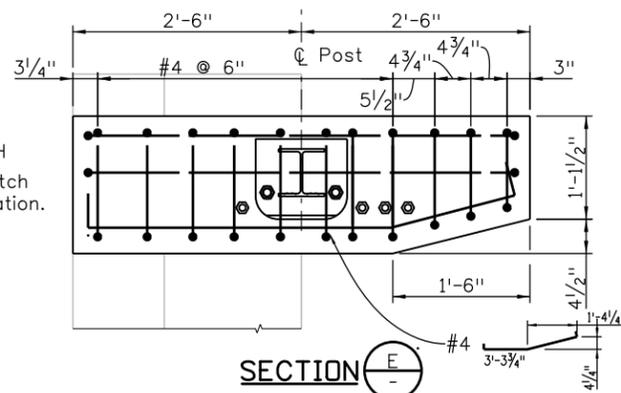
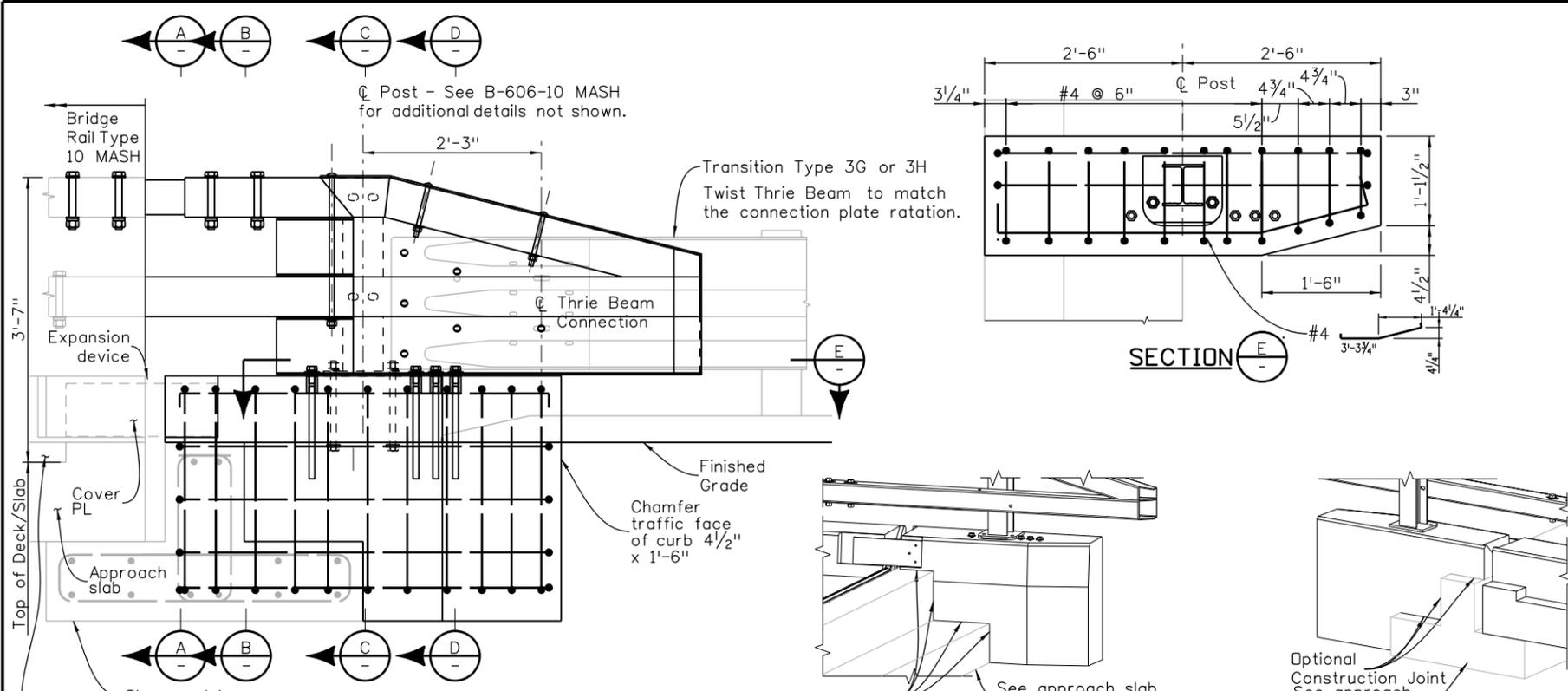
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Detailer: XXXXXXXX	X-XX-XX
Sheet Subset: BRIDGE	Subset Sheets: BXX of XXX

Project No./Code

Project Number
Code
Sheet Number

Revision Dates	(Preliminary Stage Only)
12/19	1/20
12/19	5/22
12/19	6/20
12/19	7/22

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
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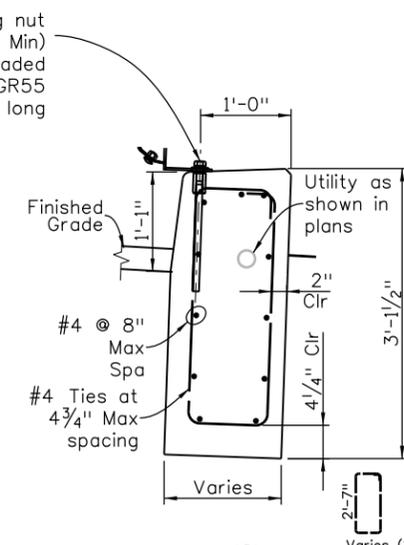
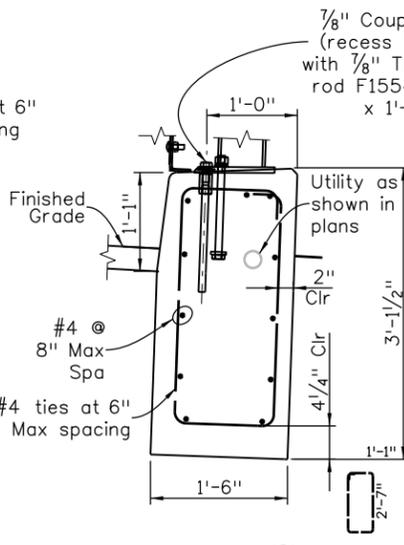
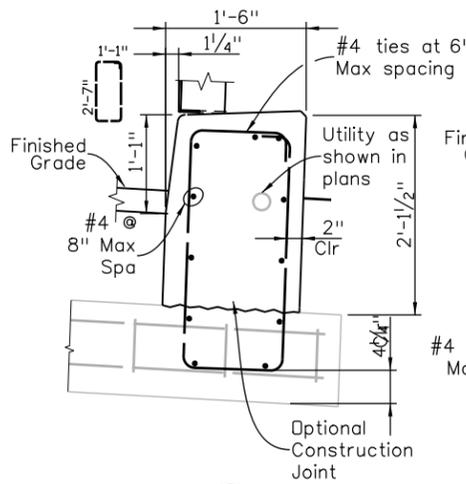
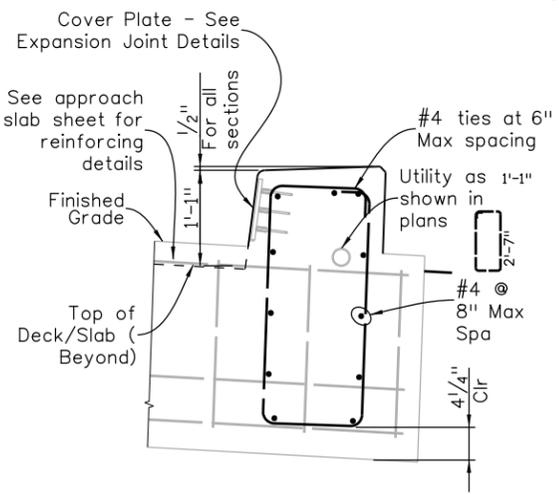


CONCRETE CURB DETAILS
(Rebar shown at front face side only)

Note: Shaded linework is from other Pay Items

Note: Curb dimensions typical for all sections unless noted otherwise.

Designer/Detailer:
Any changes to the bridge rail transition details must be approved by Staff Bridge.



Note: Shaded linework is from other Pay Items

NOTES:

B-606-10MASH A
(Use with B-606-10MASH & 10MASH B)

- All tubes shall be ASTM A-1085. All posts, base plates, and splice tubes fabricated by welding shall be ASTM A-572 Grade 50. All other steel shall be Grade 36 unless otherwise noted.
- The above material and all anchor bolts and miscellaneous bolts, nuts, and washers shall be galvanized after fabrication in accordance with Section 509. Concrete, reinforcing steel, and structural steel elements shall conform to the requirements of sections 601 & 606, 602, and 509, respectively unless otherwise noted.
- All bolts that have lock washers shall be tightened to snug only. All anchors shall be cast in place unless approved by Engineer.
- The top and inside face of the rail shall receive a coating conforming to Item 515, Concrete Sealer, compatible with the concrete coating or sealer/stain shown in the plans.
- Payment will be made under item 606, Transition Type BR10M-GR3, for all anchor bolts, miscellaneous bolts, nuts, washers, tubes, tube expansion device, joint filler, expansion joint material, concrete (Class D with macrofiber), reinforcing steel, and concrete sealer. Excavation and backfill will not be paid for separately, but shall be included in the work.
- Prior to fabrication of this item, an electronic pdf which complies with the requirements of section 105, shall be submitted to the Engineer for information only.
- All longitudinal reinforcement shall terminate with standard stirrup hooks as shown. Rotate or adjust reinforcing hooks to avoid interferences as required.
- The thrie beam connection/post of Type 3G or 3H shall be adjusted or rotated to match the transition plate.
- Posts, concrete curbs, and stirrups shall be perpendicular to the longitudinal roadway grade and cross slopes.

DESIGN DATA

Structural Steel:
AASHTO M270 Gr 36 (ASTM A709 Gr 36) fy = 36 ksi
AASHTO M270 Gr 50 (ASTM A992/A572 Gr 50) fy = 50 ksi
ASTM A1085 fy = 50 ksi

Concrete: Class D with Macrofiber f'c = 4.5 ksi

Reinforcing Steel: fy = 60 ksi min

All reinforcing bends shown shall use a 4D pin diameter.

INFORMATION ONLY

DESCRIPTION	UNIT	QUANTITY
Structural Steel (Galvanized)	LB	610
Concrete Sealer	SY	2.5
Concrete Class D with Macrofiber	CY	.7
Reinforcing Steel (Epoxy Coated)	LB	99

Print Date: \$DATE\$
File Name: Sheet_B-606-10MASHA.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
2829 West Howard Place, 3rd Floor
Denver, CO 80204
Phone: 303-512-5989
Phone: FAX: 303-757-9197

Staff Bridge Branch

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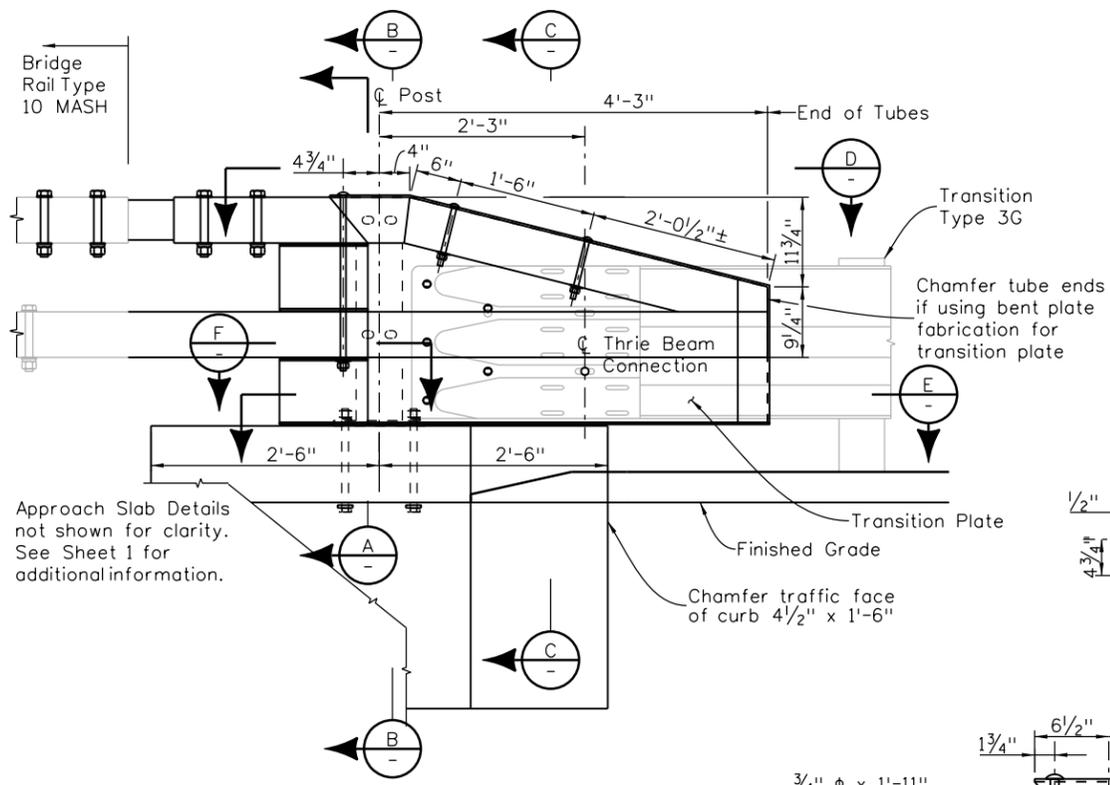
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Detailer: XXXXXXXX	Subset Sheets: BXX of XXX	X-XX-XX	

All seals for this set of drawings are applied to the cover page(s)

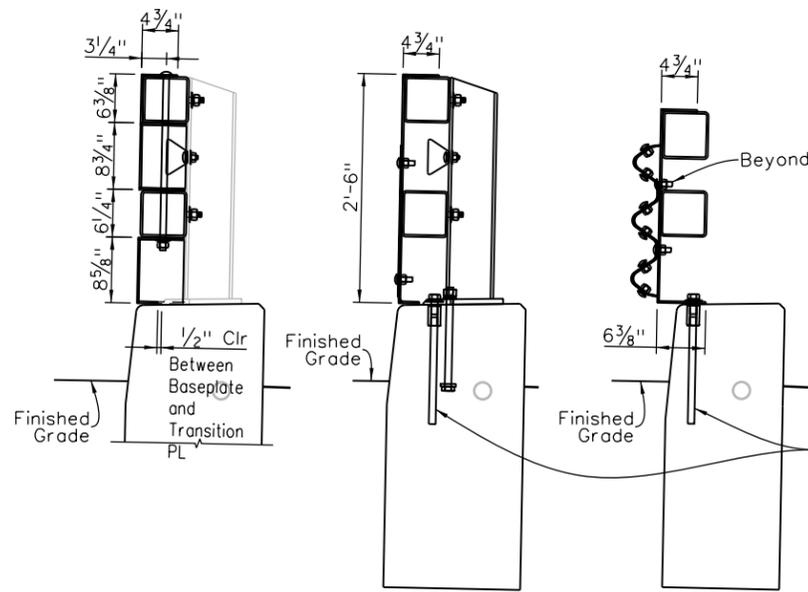
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12/19	1/20	7/22

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Checked By						

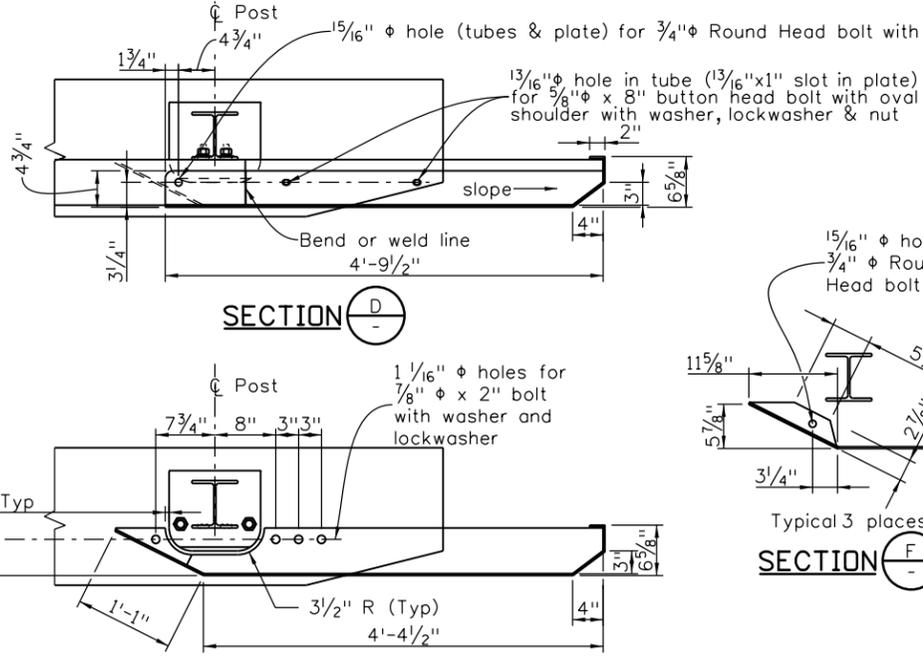


RAIL TUBE DETAILS

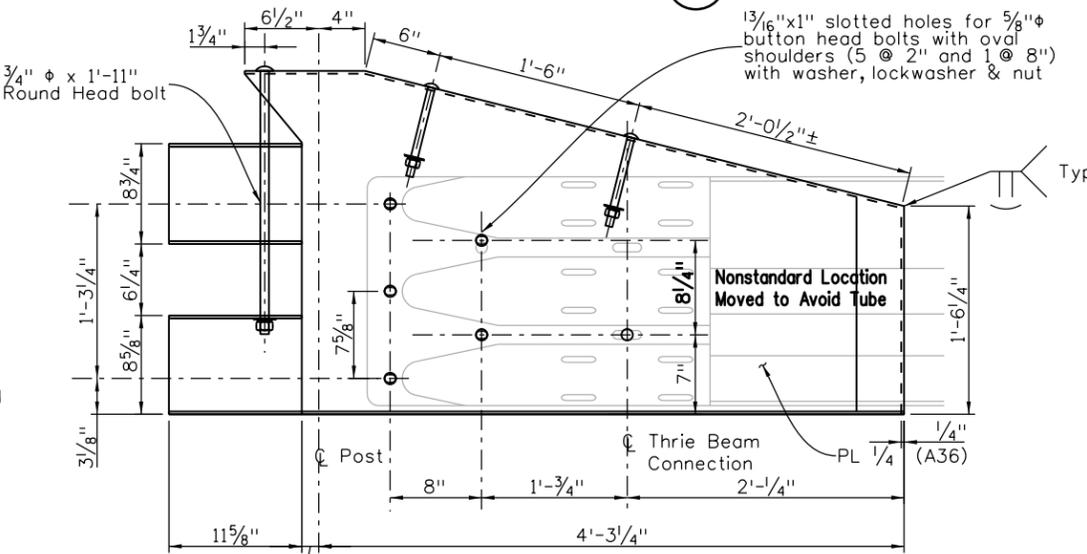
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See Transition BR10M-GR3 Sheet 1 for Curb Details (Typ)



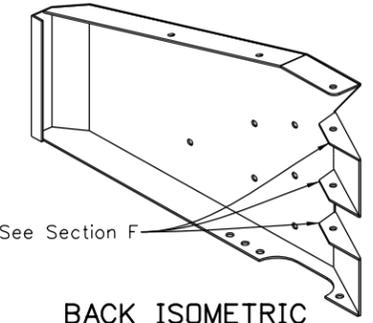
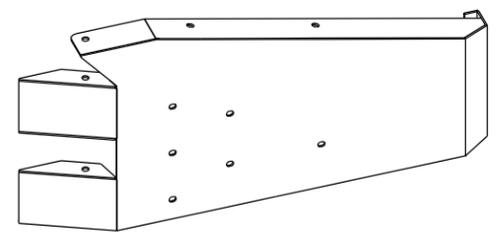
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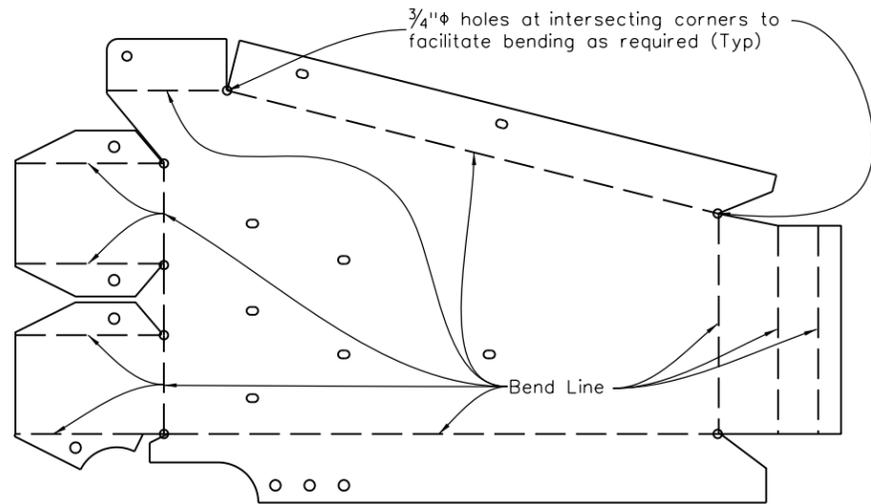
TRANSITION PLATE

TUBE END ISOMETRIC

B-606-10MASH B
(Use with B-606-10MASH & 10MASH A or 10MASH A-S)



Note: Transition Plate may be fabricated with bent plates and/or welded construction. All welds shall be square root with convex contouring.



Note: See BXX (B-606-10MASH A/A-S) for payment details and quantities.

All seals for this set of drawings are applied to the cover page(s)

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Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information Unit Leader Initials

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Date:	Comments	Init.

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Phone: 303-512-5989
Phone: FAX: 303-757-9197

Staff Bridge Branch Initials

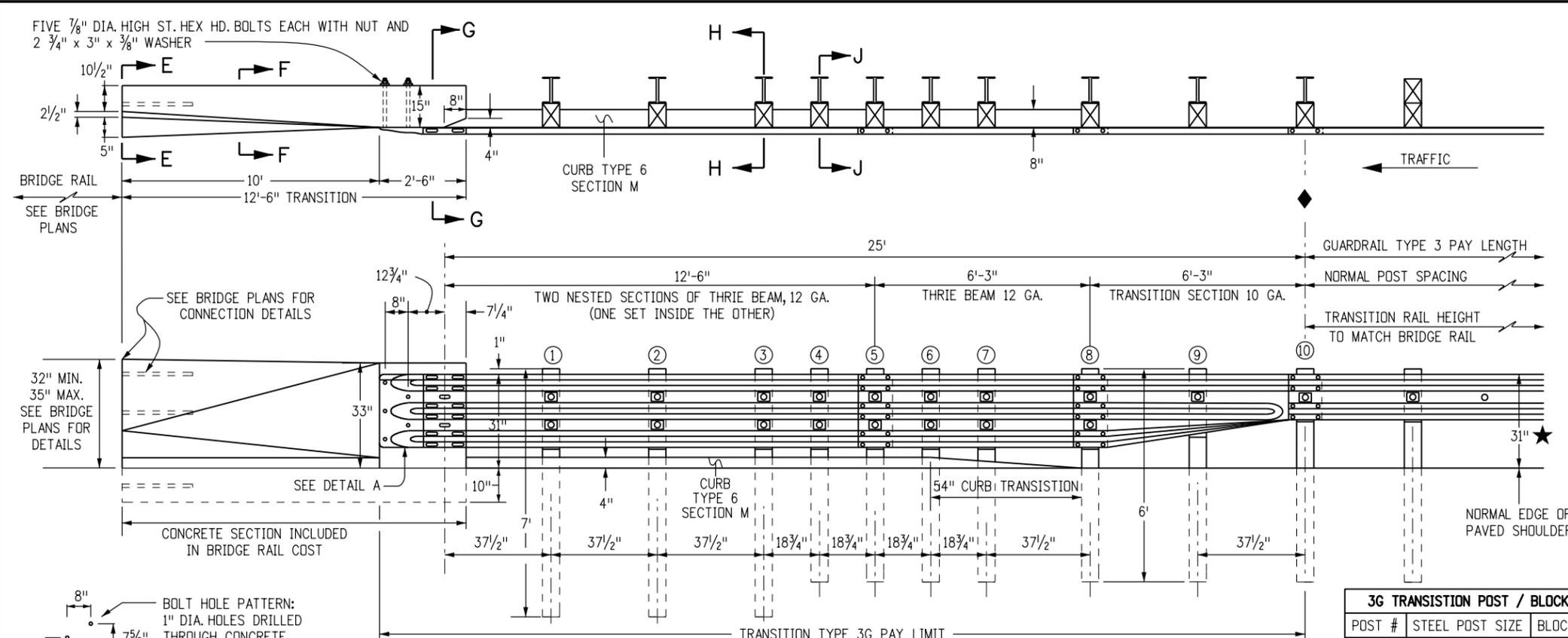
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Revised:
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Detailer:	XXXXXXXX	Structure Numbers	X-XX-XX
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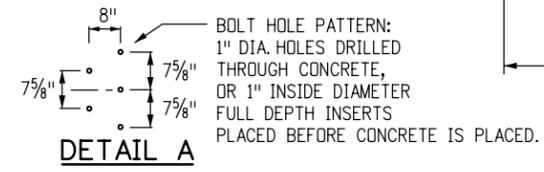
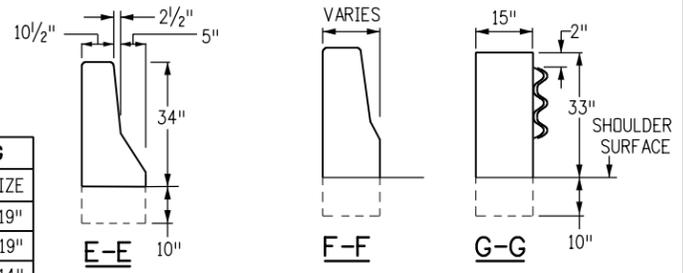
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Project Number	Code
Sheet Number	

NOTES

1. TRANSITION TYPE 3G IS FOR USE AT BOTH ENDS OF BRIDGES ON TWO-WAY HIGHWAYS AND AT THE APPROACH END OF BRIDGES ON ONE-WAY HIGHWAYS.
2. TRANSITION TYPE 3H IS FOR USE AT THE TRAILING END OF BRIDGES ON ONE-WAY HIGHWAYS.
3. THE THRIE BEAM SECTION IN TRANSITIONS TYPES 3G AND 3H MAY BE SHOP BENT TO FIT CURVES THAT ARE GREATER THAN OR EQUAL TO A 10 FT. RADIUS. HOWEVER, THE 6 FT.-3 IN. TRANSITION SECTION SHALL NOT BE BENT.
4. A 12 FT.-6 IN. CONCRETE TRANSITION IS REQUIRED BETWEEN THE TYPE 3G OR 3H AND TYPE 7 BRIDGE RAIL. SEE STANDARD PLAN M-606-13 FOR THE TRANSITION BETWEEN TYPE 3 GUARDRAIL AND TYPE 7 GUARDRAIL.
5. TRANSITIONS TYPE 3G AND TYPE 3H ARE ALSO USED TO CONNECT TO TYPE 8 AND TYPE 10 BRIDGE RAIL. SEE BRIDGE PLANS FOR CONNECTION DETAILS.
6. BACKUP PLATE IS NOT REQUIRED AT POSTS ON TYPE 3G AND 3H.
7. [Symbol] THIS SYMBOL IN THE ELEVATION DRAWINGS SHOWS THE LOCATIONS WHERE A RECTANGULAR WASHER IS REQUIRED UNDER THE POST BOLT HEAD.
8. CURB TYPE 6 SECTION M, MAY BE ASPHALT OR CONCRETE. THE COST OF CURB IS INCLUDED IN THE WORK, UNLESS A SEPARATE PAY ITEM IS INCLUDED IN THE BID SCHEDULE.
9. FOR TYPE 3G, POSTS ① THRU ③ ARE 7 FT. LONG. ALL OTHER POSTS SHALL BE A STANDARD 6 FT. LONG UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
10. NOTCHED RAIL BLOCKS MANUFACTURED FROM SYNTHETIC MATERIAL WILL BE ACCEPTED AS ALTERNATIVES TO WOOD NOTCHED BLOCKS FOR USE WITH STEEL POSTS PROVIDED THAT THE BLOCKS HAVE RECEIVED FHWA APPROVAL AND ARE CERTIFIED AS IDENTICAL TO THE SPECIMENS USED FOR TESTING AND APPROVAL. STEEL BLOCKS ARE NOT ALLOWED.

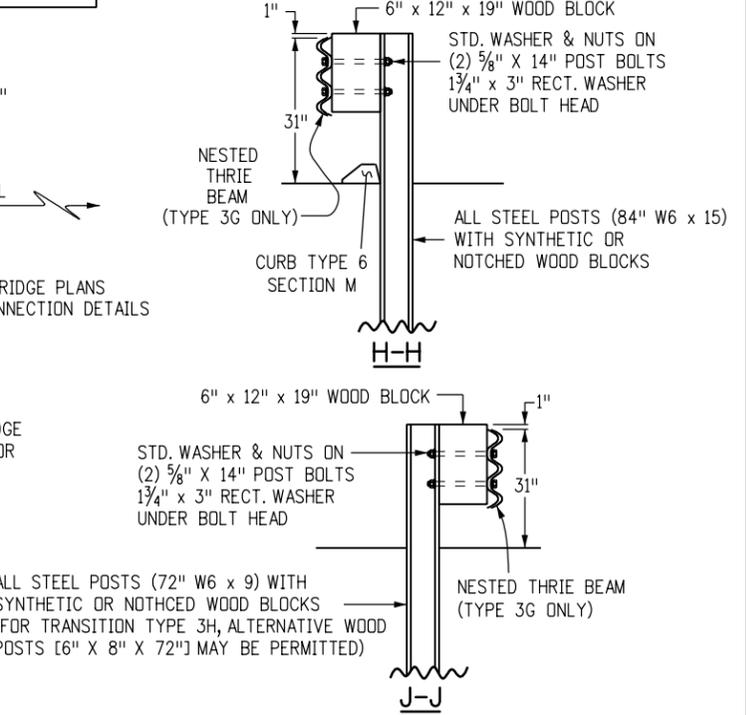
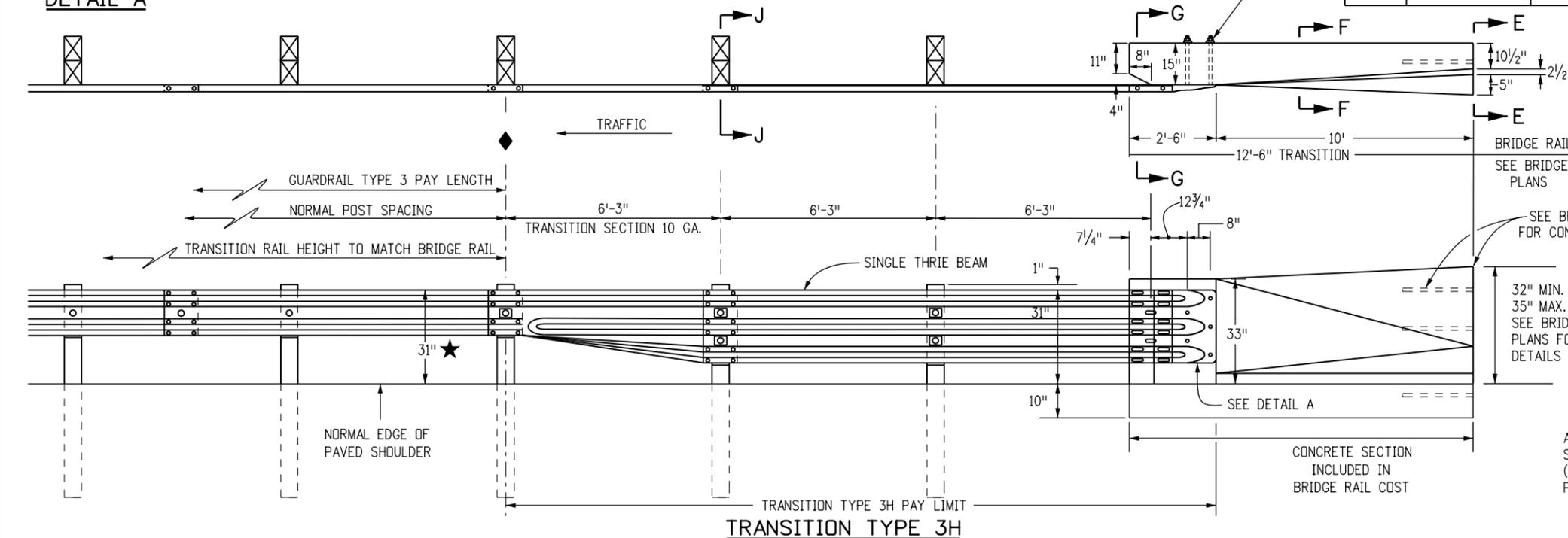


POST #	STEEL POST SIZE	BLOCKOUT SIZE
1 - 3	84" W6 X 15	6" X 12" X 19"
4 - 9	72" W6 X 9	6" X 12" X 19"
10	72" W6 X 9	6" X 12" X 14"



TRANSITION TYPE 3G
ALL POSTS SHALL BE STEEL

★ DETERMINED BY BRIDGE PLANS
◆ END OF GUARDRAIL PAY LENGTH



TRANSITION TYPE 3H

Creation Date: 11/01/18	Initials: JJP
Last Modification Date: 12/21/18	Initials: LTA
Full Path: www.codot.gov/business/designsupport	
Drawing File Name: 60601011019.dgn	
CAD Ver.: MicroStation V8	Scale: Not to Scale Units: English

Date:	Comments
(R-X)	
(R-X)	
(R-X)	
(R-X)	

Colorado Department of Transportation
 2829 West Howard Place
 CDDT HQ, 3rd Floor
 Denver, CO 80204
 Phone: 303-757-9021 FAX: 303-757-9868
 Division of Project Support JJP/LTA

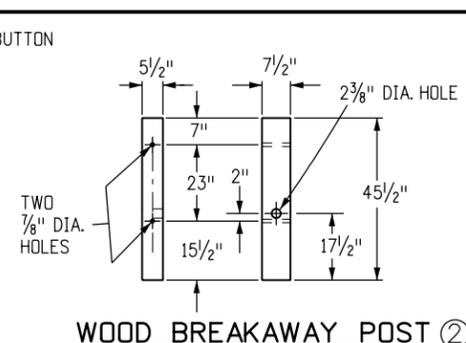
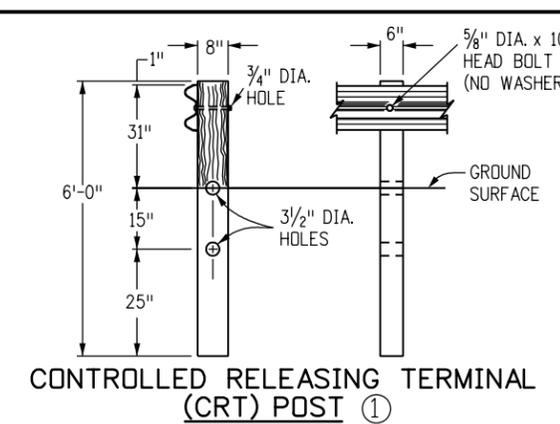
MIDWEST
GUARDRAIL SYSTEM (MGS)
TYPE 3 W-BEAM 31 INCHES
 Issued By: Project Development Branch November 1, 2018

STANDARD PLAN NO.
M-606-1
 Sheet No. 11 of 19

NOTES

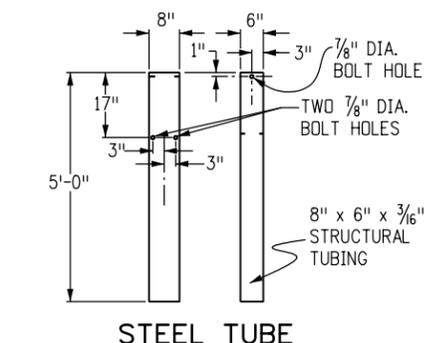
- APPLICATION: THE TRANSITION TYPE 3J MAY BE USED TO SHIELD HAZARDS AT THE INTERSECTION OF TWO ROADWAYS. TYPICAL APPLICATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - CANAL SERVICE ROADS AT BRIDGE ENDS.
 - INTERRUPTIONS IN GUARDRAIL RUNS BY INTERSECTING ROADWAYS, ETC..

THE LOW SPEED (<45 MPH) END ANCHORAGE TYPE 3K SHALL BE USED ONLY ON DRIVEWAYS AND LOW SPEED SERVICE ROADS. WHEN AN APPROVED CRASH-TESTED END TREATMENT IS REQUIRED USE THE END ANCHORAGE (FLARED) OR (NONFLARED) WITH 37 FT.-6 IN. LENGTH.
- GRADING AND PAVING FOR THE 3J & 3K SHALL MATCH THE GRADING AND PAVING OF THE GUARDRAIL TO WHICH THEY ARE ATTACHED, AND SHALL BE IN ACCORDANCE WITH SHEET ONE OF THIS STANDARD. MAXIMUM FILL SLOPE SHALL BE 2:1.
- THE RAIL IS NOT BOLTED TO THE CRT POST AT THE CENTER OF THE CURVE FOR THE 8 FT.-6 IN., 17 FT., AND 25 FT.-6 IN. RADII. PLATES SHALL CONFORM TO ASTM A 36, AND THE STRUCTURAL TUBING TO ASTM A 500.
- THE 3/4 IN. GALVANIZED WIRE ROPE (CABLE) SHALL CONFORM TO AASHTO M 30 TYPE II.
- PLATES SHALL CONFORM TO ASTM A 36, AND STRUCTURAL TUBING TO ASTM A 500. WELDING SHALL MEET ALL REQUIREMENTS OF THE AMERICAN WELDING SOCIETY.
- ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN CONFORMANCE WITH ASTM A 123. POSTS SHALL NOT BE PUNCHED, DRILLED, CUT, OR WELDED AFTER GALVANIZING.
- WHEN THE SOIL PLATE WELDED OPTION IS SELECTED, SOIL PLATE CONNECTION BOLT HOLES ARE NOT REQUIRED.
- OUTSIDE NUT SHALL BE TORQUED AGAINST INSIDE NUT WITH THE CABLE INSTALLED TAUT BETWEEN THE ANCHOR PLATE AND FIRST POST.
- ALL CURVED GUARDRAIL SHALL BE SHOP BENT.
- SEE SHEET 5 FOR ANCHOR PLATE AND OTHER DETAILS.
- THE STEEL TUBE MAY BE DRIVEN WITH WOOD POST INSERTED IF NO DAMAGE OCCURS TO THE POST OR BOLTS.

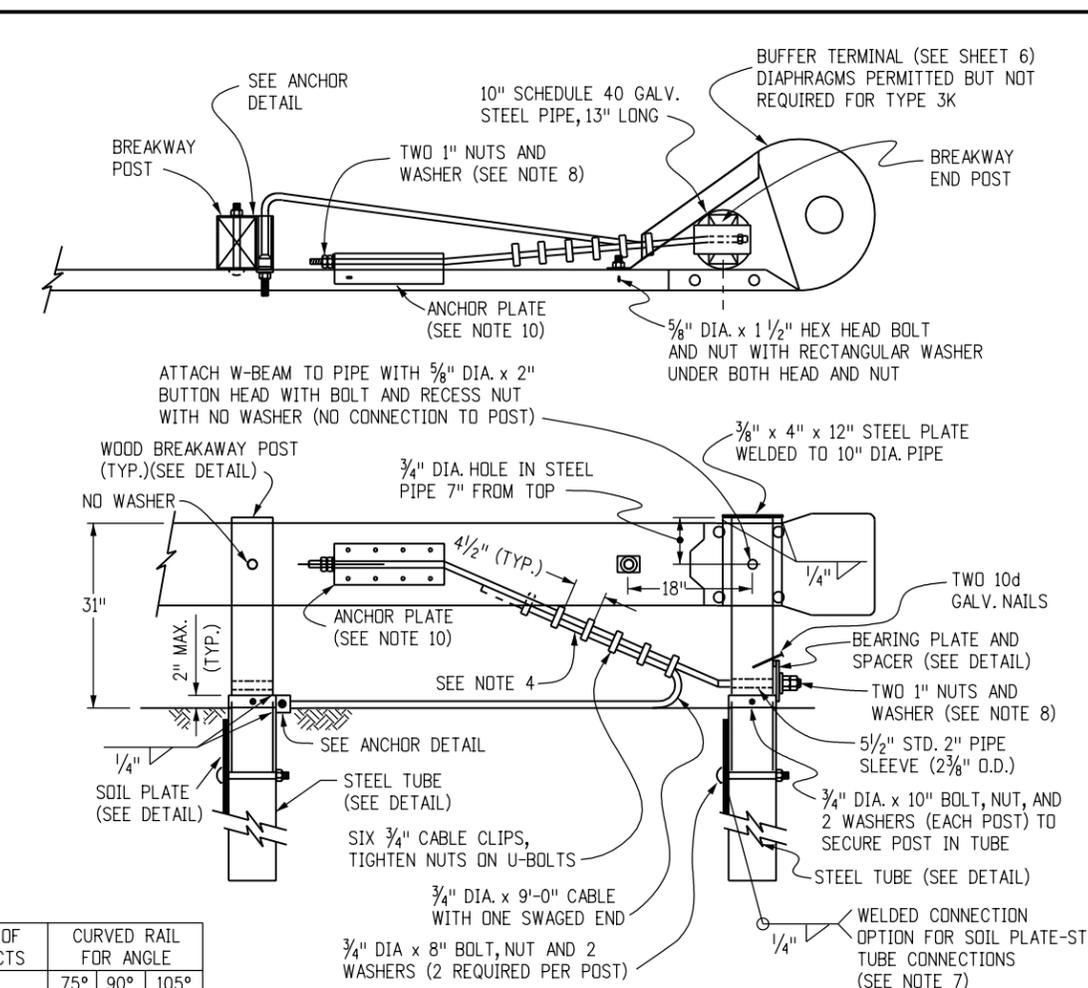


POST	DIMENSIONS	TYPE
①	6" x 8" x 6'	CRT
②	5 1/2" x 7 1/2" x 45 1/2"	BREAKAWAY

POSTS



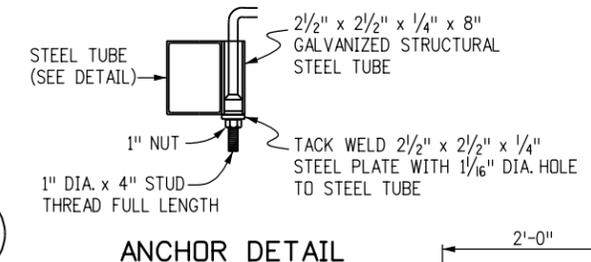
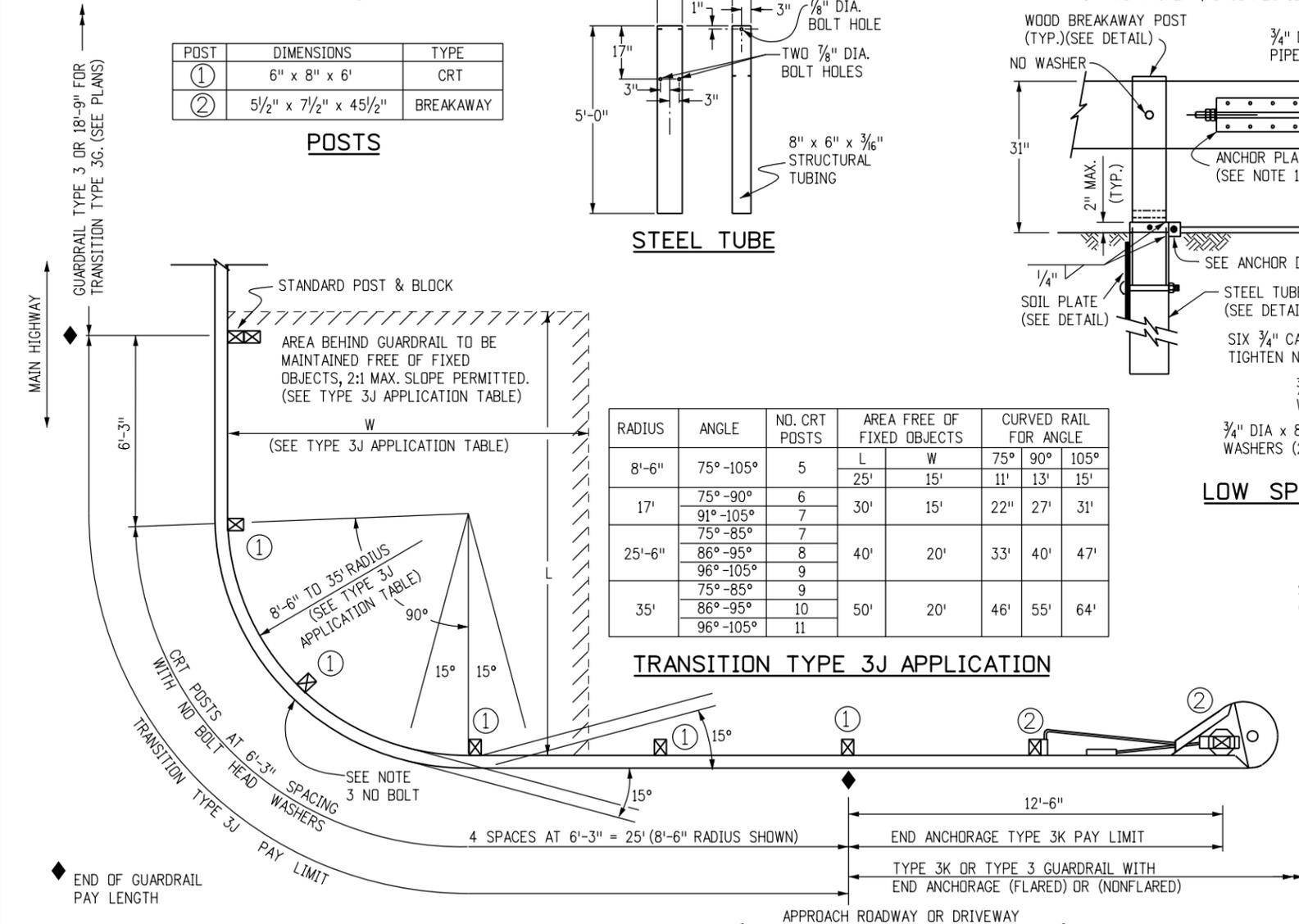
STEEL TUBE



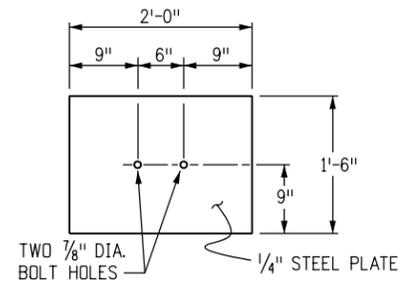
LOW SPEED END ANCHORAGE - TYPE 3K

RADIUS	ANGLE	NO. CRT POSTS	AREA FREE OF FIXED OBJECTS		CURVED RAIL FOR ANGLE		
			L	W	75°	90°	105°
8'-6"	75°-105°	5	25'	15'	11'	13'	15'
	75°-90°	6	30'	15'	22'	27'	31'
91°-105°	7						
25'-6"	75°-85°	7	40'	20'	33'	40'	47'
	86°-95°	8					
	96°-105°	9					
	75°-85°	9					
35'	86°-95°	10	50'	20'	46'	55'	64'
	96°-105°	11					
	96°-105°	11					

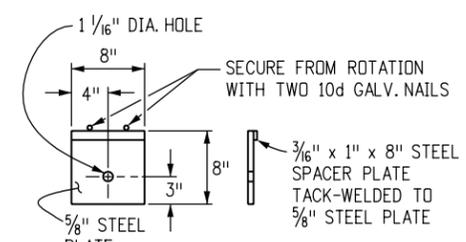
TRANSITION TYPE 3J APPLICATION



ANCHOR DETAIL



SOIL PLATE



BEARING PLATE FOR STEEL TUBE

Computer File Information

Creation Date: 11/01/18	Initials: JJP
Last Modification Date: 12/21/18	Initials: LTA
Full Path: www.codot.gov/business/designsupport	
Drawing File Name: 60601012019.dgn	
CAD Ver.: MicroStation V8	Scale: Not to Scale Units: English

Sheet Revisions

Date:	Comments
12/21/18	Removed reference to Transition Type 3L guardrail.

Colorado Department of Transportation

2829 West Howard Place
 CDDT HQ, 3rd Floor
 Denver, CO 80204
 Phone: 303-757-9021 FAX: 303-757-9868

Division of Project Support JJP/LTA

MIDWEST
GUARDRAIL SYSTEM (MGS)
TYPE 3 W-BEAM 31 INCHES

Issued By: Project Development Branch November 1, 2018

STANDARD PLAN NO.

M-606-1

Sheet No. 12 of 19

CITY OF NORTHGLENN GENERAL NOTES:

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF NORTHGLENN STANDARDS AND SPECIFICATIONS AND APPLICABLE DISTRICT, STATE AND FEDERAL REGULATIONS. WHENEVER THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE MOST RESTRICTIVE STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND ACCEPTED BY THE ENGINEERING DIVISION.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENT TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE DESIGNER SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987, AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING, TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH/IRRIGATION COMPANIES) ARE TO BE LOCATED BY CONTACTING EACH AGENCY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY ENGINEERING DIVISION, AND ALL UTILITY COMPANIES INVOLVED, REGARDING RELOCATIONS, ADJUSTMENTS, EXTENSIONS, AND REARRANGEMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL AND SECURITY. REFER TO OSHA PUBLICATION 2226, EXCAVATING AND TRENCHING.
6. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEERING DIVISION IMMEDIATELY.
7. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS, SHOWN ON THESE DRAWINGS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT NO MUD OR DEBRIS SHALL BE TRACKED ONTO THE EXISTING PUBLIC STREET SYSTEM. MUD AND DEBRIS MUST BE REMOVED BY THE END OF EACH WORKING DAY BY AN APPROPRIATE MECHANICAL METHOD (I.E., MACHINE BROOM SEEP, LIGHT DUTY FRONT END LOADER, ETC.).
10. THE DESIGNER SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE ENGINEERING DIVISION AT ALL TIMES.
11. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE A SCALED FORM OF ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTRACT THE ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
12. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION AND AT AREAS WITH DISTURBED SOIL, ON- AND OFF-SITE, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING. TO MITIGATE EROSION, THE CONTRACTOR SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE MILE HIGH FLOOD DISTRICT'S URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3 - BEST MANAGEMENT PRACTICES.
13. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS OR SUNDAY OR AFTER 3:30 PM ON WEEKDAYS UNLESS APPROVED OTHERWISE ON THE RIGHT OF WAY PERMIT.
14. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
15. EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURB AND GUTTER, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE.
16. AFTER INITIAL ACCEPTANCE BY THE CITY ENGINEERING DIVISION, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF INITIAL ACCEPTANCE.

NOTES:

1. ALL WORK SHALL CONFORM TO THE CITY OF NORTHGLENN 2015 STANDARDS AND SPECIFICATIONS OR NEWEST REVISION WITH THE EXCEPTION OF PROJECT SPECIAL PROVISIONS.
2. PRIOR TO PROJECT BIDDING, A MANDATORY PREBID MEETING SHALL BE HELD TO OUTLINE THE ACCEPTED QUANTITIES OF DEBRIS REMOVAL AND DISPOSAL.

NOTE:

ANTICIPATED EXCAVATION IS LESS THAN 2' DEEP AND IS LESS THAN 1,000 CONTIGUOUS SQUARE FEET. UTILITY ELEMENTS SHOWN ARE FOR INFORMATION ONLY AND DO NOT CONSTITUTE SUBSURFACE UTILITY ENGINEERING.

EXISTING UTILITY LOCATIONS:

COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: CLAUDE CT COVER SHEET
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION:
 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED	CLAUDE CT. STRUCTURE COVER SHEET		PROJECT NO.
NO. REVISIONS:			13852-25
REVISED:	DESIGNER: TAH	STRUCTURE NUMBER	SHEET 1/4
VOID:	DETAILER: MR	NGLN-CL-0.4-120	

PUBLIC IMPROVEMENTS REPAIR PLANS FOR CLAUDE COURT STRUCTURE

STRUCTURE ID: NGLN-CL-0.4-120
 A PORTION OF CLAUDE BRIDGE RIGHT-OF-WAY,
 LOCATED IN THE SOUTHEAST QUARTER OF SECTION 35,
 TOWNSHIP 1 SOUTH, RANGE 68 WEST OF THE 6TH P.M.,
 CITY OF NORTHGLENN, COUNTY OF ADAMS, STATE OF COLORADO



VICINITY MAP
 SCALE: 1" = 2000'

SHEET INDEX:

DRAWING NO.	DESCRIPTION:
1	COVER SHEET
2	PLAN AND ELEVATION
3	REPAIR PLAN
4	UTILITY PLAN



QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
REMOVAL OF SIDEWALK	LS	1
REMOVAL OF PEDESTRIAN RAIL	LS	1
HEADWALL & WINGWALL CURB	LS	1
BRIDGE RAIL, TRANSITIONS AND GUARDRAIL	LS	1
CONCRETE SIDEWALK	LS	1
MOBILIZATION	LS	1
TEMPORARY TRAFFIC CONTROL	LS	1

OWNER:

CITY OF NORTHGLENN
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: (303) 450-8984
 CONTACT: KIRAN BHUSAL

CIVIL ENGINEER:

COLLINS ENGINEERS, INC.
 455 SHERMAN ST, SUITE 160
 DENVER, CO 80203
 PHONE: (720) 647-7909
 CONTACT: TIMOTHY HAYASHI
 EMAIL: thayashi@collinsengr.com

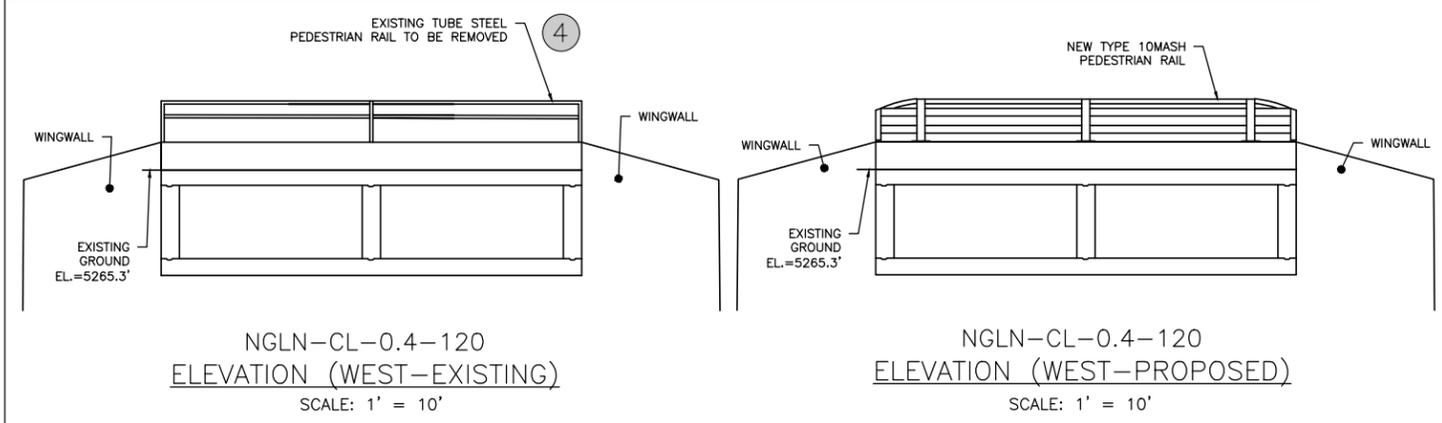
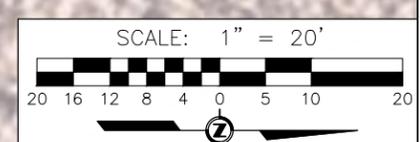
SURVEY:

FLATIRONS, INC.
 3825 IRIS AVE, STE 395
 BOULDER, CO 80303
 PHONE: (303) 443-7001
 FAX: (303) 443-9830
 CONTACT: WILLIAM WERNER

BENCHMARK INFORMATION

TRIMBLE VRS NOW CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK WAS USED TO ESTABLISH A GPS DERIVED ELEVATION ON AN ON-SITE BENCHMARK AT THE WEST SIDE OF CLAUDE COURT, BEING A SET MAG NAIL WITH AN ELEVATION OF 5269.39 FEET (NAVD 88). NGS POINT N-411, BEING A STAINLESS STEEL ROD AT THE INTERSECTION OF WEST 104TH AVENUE AND CROKE DRIVE LOCATED 3.2 MILES FROM SITE, WITH A PUBLISHED ELEVATION OF 5453.20 FEET, WAS CHECKED INTO WITH AN AS-MEASURED ELEVATION OF 5453.29 FEET. NO DIFFERENTIAL LEVELING WAS PERFORMED TO ESTABLISH THE ELEVATION OF THE ON-SITE BENCHMARK.

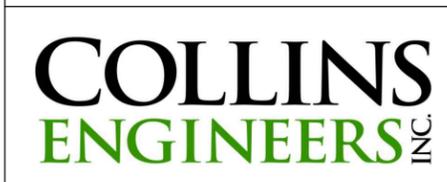
Curve Table: Alignments			
Curve #	Radius	Length	Chord Direction
C3	227.52	40.99	N19° 49' 05.29"W



- ① PEDESTRIAN RAIL TO BE REMOVED AND REPLACED WITH TYPE 10 MASH GUARDRAIL
- ② NEW TYPE 3G TRANSITION AND TYPE 3K END ANCHORAGES REQUIRED
- ③ REMOVE AND REPLACE SIDEWALK
- ④ REMOVE EXISTING TUBE RAIL
- ⑤ EXISTING SIDEWALK MEETS ADA STANDARDS AT 7' WIDE

DESIGN ADT YEAR	CURRENT ADT YEAR	ESTIMATED GROWTH RATE	DESIGN ADT (V/DAY)	CURRENT ADT (V/DAY)	DESIGN SPEED	POSTED SPEED	CLEAR ZONE
2033	2022	4%	18198	12638	30 MPH	35 MPH	14 FT

- TYPE 3 GUARDRAIL AND END ANCHORAGES (REQUIRED WEST SIDE/NOT REQUIRED EAST SIDE) - ADT AND SPEEDS INDICATE APPROXIMATELY 14' OF CLEAR ZONE REQUIRED. WITH PROPOSED TRANSIT ORIENTED GROWTH IN THE AREA, TRAFFIC VOLUMES ARE LIKELY TO INCREASE. THE WEST SIDE OF STRUCTURE RAIL DOES NOT MEET CLEAR ZONE REQUIREMENTS AND A TYPE 3 GUARDRAIL SHOULD BE INSTALLED. THE EAST SIDE OF THE STRUCTURE IS ABOUT 18' FROM THE TRAVEL LANE AND DOES NOT REQUIRE PROTECTION.
 - TYPE 10 PEDESTRIAN RAIL (REQUIRED) - WHILE EXISTING RAIL CONFORMS TO THE 2012 AASHTO BICYCLE GUIDE HEIGHT REQUIREMENTS OF 42" MINIMUM, THE REPLACEMENT OF THE EXISTING RAIL IS REQUIRED PER CLEAR ZONE REQUIREMENTS AND TO PROVIDE A MASH TESTED CONNECTION TO THE TYPE 3 GUARDRAIL. TYPE 3 ONLY REQUIRED ON THE WEST SIDE.
 - RECONSTRUCT SIDEWALK TO ADA REQUIREMENTS (NOT REQUIRED) - EXISTING SIDEWALK MEETS ADA WIDTH REQUIREMENTS. HOWEVER, SIDEWALK REMOVAL AND REPLACEMENT IS SHOWN AS PART OF THE BRIDGE RAIL REPLACEMENT.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: CLAUDE PLAN-ELEVATION
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION: URBAN/RURAL LOCAL MIX USE

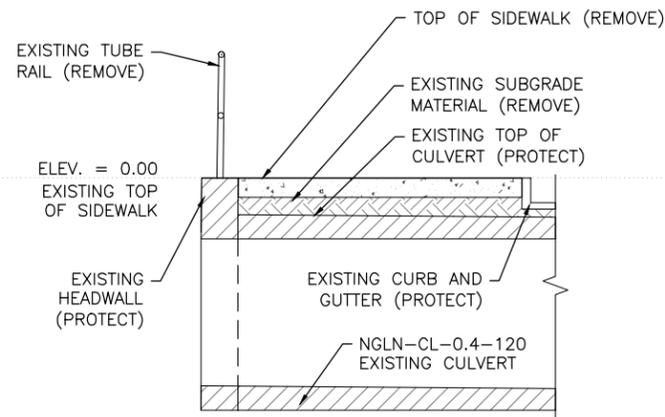
SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

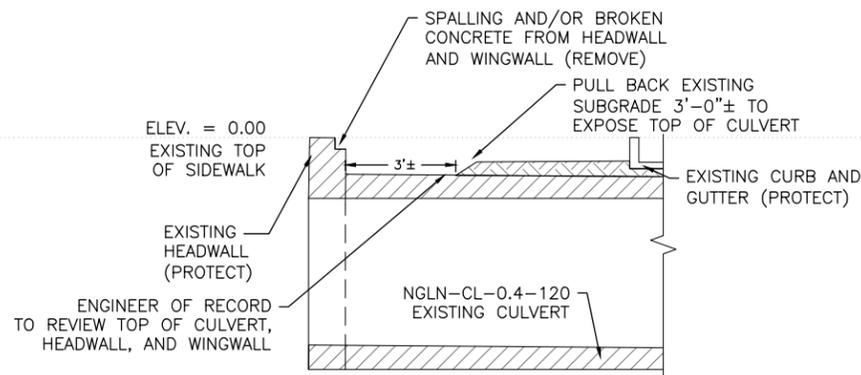
AS CONSTRUCTED
 NO. REVISIONS:
 REVISED:
 VOID:

CLAUDE CT. STRUCTURE PLAN AND ELEVATION
 DESIGNER: TAH
 DETAILER: MR
 STRUCTURE NUMBER: NGLN-CL-0.4-120

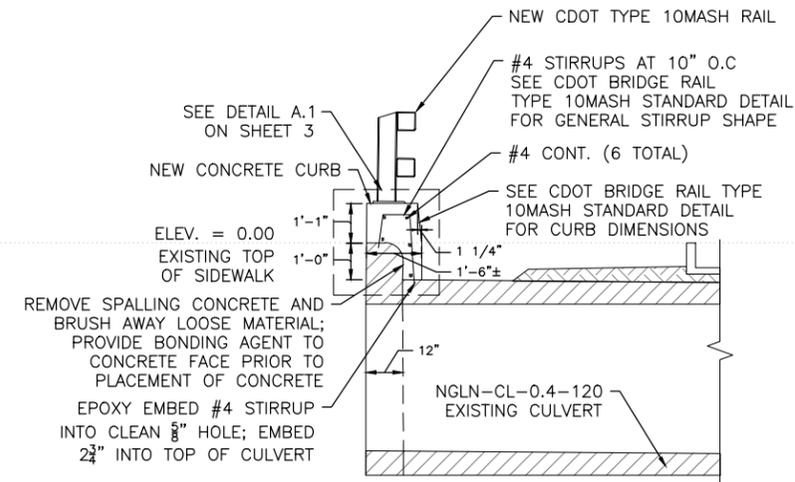
PROJECT NO. 13852-25
 SHEET 2/4



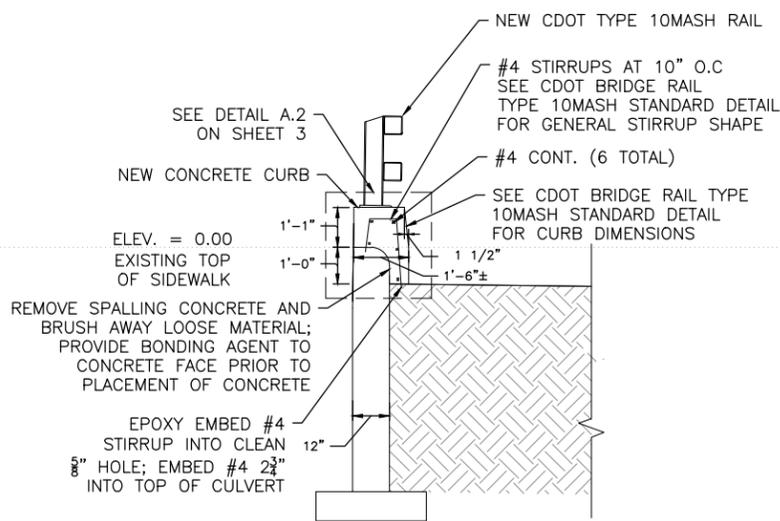
NGLN-CL-0.4-120
REMOVAL PLAN



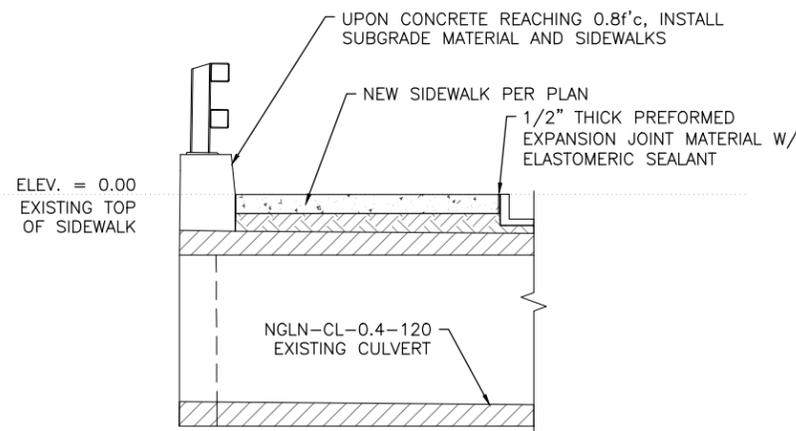
NGLN-CL-0.4-120
CONDITION ASSESSMENT PLAN



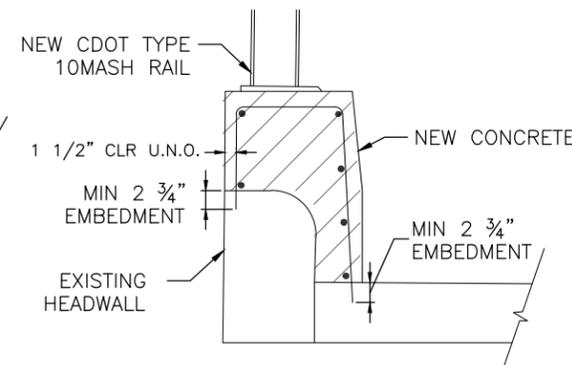
NGLN-CL-0.4-120
NEW RAIL AND CURB PLAN (HEADWALL)



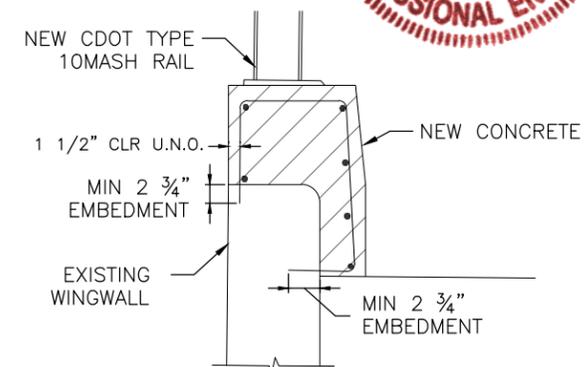
NGLN-CL-0.4-120
NEW RAIL WINGWALL PLAN



NGLN-CL-0.4-120
SIDEWALK PLAN



NGLN-CL-0.4-120
CURB DETAIL A.1
(SCALE: 1"=2')



NGLN-CL-0.4-120
CURB DETAIL A.2
(SCALE: 1"=2')



PRINT DATE: NOVEMBER 16, 2022
FILE NAME: CLAUDE REPAIRS
HORIZONTAL SCALE: 1" = 5'
UNITS: FT
ROADWAY CLASSIFICATION:
URBAN/RURAL LOCAL MIX USE

SHEET REVISIONS

DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

12301 CLAUDE COURT
NORTHGLENN, CO 80241
PHONE: 303-450-8984

AS CONSTRUCTED

NO. REVISIONS:

REVISED:

VOID:

CLAUDE CT. STRUCTURE
REPAIR PLAN

DESIGNER: TAH

DETAILER: MR

STRUCTURE NUMBER

NGLN-CL-0.4-120

PROJECT NO.

13852-25

SHEET 3/4



CLAUDE CT, NGLN-CL-0.4-120
UTILITY PLAN

NOTE:
ANTICIPATED EXCAVATION IS LESS THAN 2' DEEP AND IS LESS THAN 1,000 CONTIGUOUS SQUARE FEET. UTILITY ELEMENTS SHOWN ARE FOR INFORMATION ONLY AND DO NOT CONSTITUTE SUBSURFACE UTILITY ENGINEERING.

EXISTING UTILITY LOCATIONS:
COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



	PRINT DATE: NOVEMBER 16, 2022	SHEET REVISIONS			CITY OF NORTHGLENN, COLORADO	AS CONSTRUCTED		CLAUDE CT. STRUCTURE UTILITY PLAN		PROJECT NO.
	FILE NAME: CLAUDE UTILITY PLAN	DATE	COMMENTS	INIT.		NO. REVISIONS:	DESIGNER: TAH		STRUCTURE NUMBER	13852-25
	HORIZONTAL SCALE: AS SPECIFIED					REVISED:	DETAILER: MR		NGLN-CL-0.4-120	SHEET 4/4
	UNITS: FT					VOID:				
	ROADWAY CLASSIFICATION: URBAN/RURAL LOCAL MIX USE									

12301 CLAUDE COURT
NORTHGLENN, CO 80241
PHONE: 303-450-8984

CITY OF NORTHGLENN GENERAL NOTES:

- ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF NORTHGLENN STANDARDS AND SPECIFICATIONS AND APPLICABLE DISTRICT, STATE AND FEDERAL REGULATIONS. WHENEVER THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE MOST RESTRICTIVE STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND ACCEPTED BY THE ENGINEERING DIVISION.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENT TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE DESIGNER SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987, AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING, TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH/IRRIGATION COMPANIES) ARE TO BE LOCATED BY CONTACTING EACH AGENCY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION AT LEAST 2 WORKING DAYS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
- THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY ENGINEERING DIVISION, AND ALL UTILITY COMPANIES INVOLVED, REGARDING RELOCATIONS, ADJUSTMENTS, EXTENSIONS, AND REARRANGEMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL AND SECURITY. REFER TO OSHA PUBLICATION 2226, EXCAVATING AND TRENCHING.
- IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEERING DIVISION IMMEDIATELY.
- ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS, SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT NO MUD OR DEBRIS SHALL BE TRACKED ONTO THE EXISTING PUBLIC STREET SYSTEM. MUD AND DEBRIS MUST BE REMOVED BY THE END OF EACH WORKING DAY BY AN APPROPRIATE MECHANICAL METHOD (I.E., MACHINE BROOM SEEP, LIGHT DUTY FRONT END LOADER, ETC.).
- THE DESIGNER SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE, AND AVAILABLE TO THE ENGINEERING DIVISION AT ALL TIMES.
- DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE A SCALED FORM OF ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTRACT THE ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION AND AT AREAS WITH DISTURBED SOIL, ON- AND OFF-SITE, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SURFACE OR LANDSCAPING. TO MITIGATE EROSION, THE CONTRACTOR SHALL USE STANDARD EROSION CONTROL TECHNIQUES DESCRIBED IN THE MILE HIGH FLOOD DISTRICT'S URBAN STORM DRAINAGE CRITERIA MANUAL, VOLUME 3 - BEST MANAGEMENT PRACTICES.
- THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS OR SUNDAY OR AFTER 3:30 PM ON WEEKDAYS UNLESS APPROVED OTHERWISE ON THE RIGHT OF WAY PERMIT.
- UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
- EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURB AND GUTTER, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE.
- AFTER INITIAL ACCEPTANCE BY THE CITY ENGINEERING DIVISION, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF INITIAL ACCEPTANCE.

NOTES:

- ALL WORK SHALL CONFORM TO THE CITY OF NORTHGLENN 2015 STANDARDS AND SPECIFICATIONS OR NEWEST REVISION WITH THE EXCEPTION OF PROJECT SPECIAL PROVISIONS.
- PRIOR TO PROJECT BIDDING, A MANDATORY PREBID MEETING SHALL BE HELD TO OUTLINE THE ACCEPTED QUANTITIES OF DEBRIS REMOVAL AND DISPOSAL.

NOTE:

ANTICIPATED EXCAVATION IS LESS THAN 2' DEEP AND IS LESS THAN 1,000 CONTIGUOUS SQUARE FEET. UTILITY ELEMENTS SHOWN ARE FOR INFORMATION ONLY AND DO NOT CONSTITUTE SUBSURFACE UTILITY ENGINEERING.

EXISTING UTILITY LOCATIONS:

COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: E 112TH COVER SHEET
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION:
 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED

NO. REVISIONS:

REVISED:

VOID:

E 112TH PL STRUCTURE
 COVER SHEET

DESIGNER: TAH

DETAILER: MR

STRUCTURE NUMBER
 NGLN-HI-0.0-112

PROJECT NO.

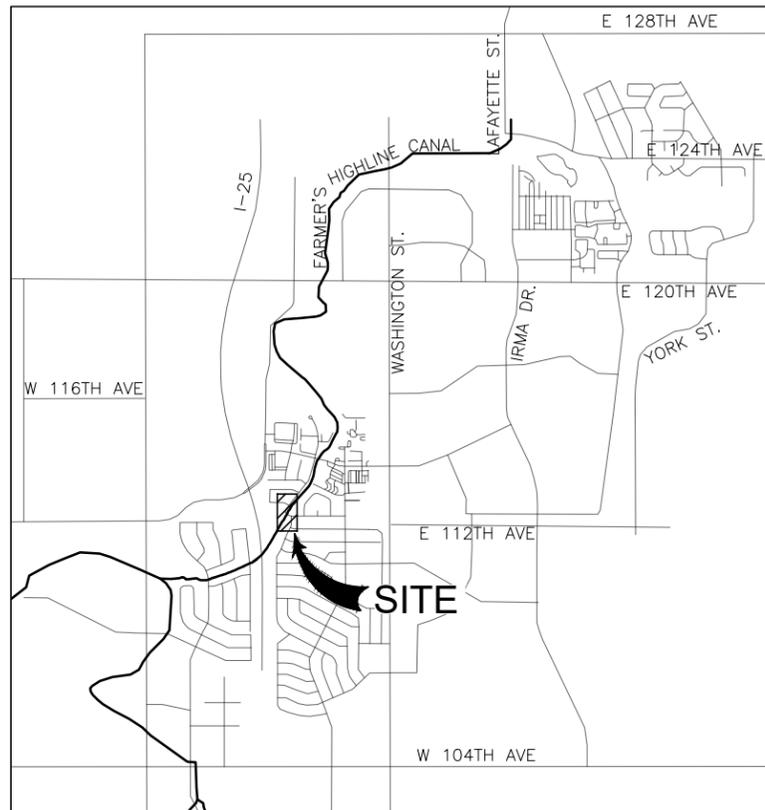
13852-25

SHEET 1/3

PUBLIC IMPROVEMENTS REPAIR PLANS FOR E 112TH PLACE STRUCTURE

STRUCTURE ID: NGLN-HI-0.0-112

A PORTION OF EAST 112TH PLACE BRIDGE RIGHT-OF-WAY, LOCATED IN THE SOUTHEAST QUARTER OF SECTION 3, TOWNSHIP 2 SOUTH, RANGE 68 WEST OF THE 6TH P.M., CITY OF NORTHGLENN, COUNTY OF ADAMS, STATE OF COLORADO



VICINITY MAP
 SCALE: 1" = 2000'

SHEET INDEX:

DRAWING NO.	DESCRIPTION:
1	COVER SHEET
2	PLAN AND ELEVATION SHEET
3	UTILITY PLAN

BENCHMARK INFORMATION

TRIMBLE VS NOW CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK WAS USED TO ESTABLISH A GPS DERIVED ELEVATION ON AN ON-SITE BENCHMARK NEAR THE SOUTHWEST CORNER OF THE INTERSECTION OF EAST 112TH PLACE AND NORTHGLENN DRIVE, BEING A SET #4 REBAR WITH 1" PINK PLASTIC CAP MARKED "FLATIRONS CONTROL" WITH AN ELEVATION OF 5396.92 FEET (NAVD 88). NGS POINT N=411, BEING A STAINLESS STEEL ROD AT THE INTERSECTION OF WEST 104TH AVENUE AND CROKE DRIVE LOCATED 1.3 MILES FROM SITE, WITH A PUBLISHED ELEVATION OF 5453.20 FEET, WAS CHECKED INTO WITH AN AS-MEASURED ELEVATION OF 5453.29 FEET. NO DIFFERENTIAL LEVELING WAS PERFORMED TO ESTABLISH THE ELEVATION OF THE ON-SITE BENCHMARK.



QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
DEBRIS REMOVAL & DISPOSAL (OPTIONAL)	LS	1
CHEVRON ALIGNMENT (W1-8R), 18x24	EA	5
BICYCLE/PEDESTRIAN (W11-15), 30x30 WITH BEACON	EA	2
PEDESTRIAN (R10-3), 9x12 WITH PEDESTRIAN ACCESSIBLE SIGNAL	EA	2
CONCRETE REPAIR	LS	1
PAINT BRIDGE RAIL	LS	1
MOBILIZATION	LS	1
TEMPORARY TRAFFIC CONTROL	LS	1

OWNER:

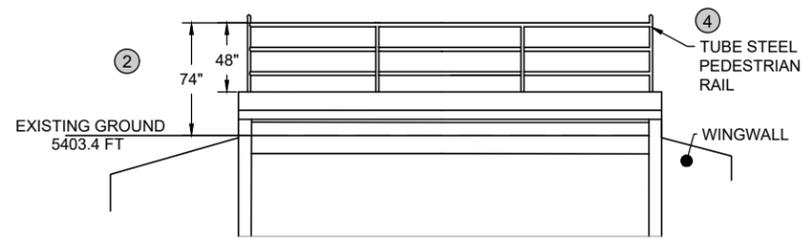
CITY OF NORTHGLENN
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: (303) 450-8984
 CONTACT: KIRAN BHUSAL

CIVIL ENGINEER:

COLLINS ENGINEERS, INC.
 455 SHERMAN ST, SUITE 160
 DENVER, CO 80203
 PHONE: (720) 647-7909
 CONTACT: TIMOTHY HAYASHI
 EMAIL: thayashi@collinsengr.com

SURVEY:

FLATIRONS, INC.
 3825 IRIS AVE, STE 395
 BOULDER, CO 80303
 PHONE: (303) 443-7001
 FAX: (303) 443-9830
 CONTACT: WILLIAM WERNER



**E 112TH PLACE, NGLN-HI-0.0-112
ELEVATION**
SCALE: 1" = 10'

**E 112TH PLACE, NGLN-HI-0.0-112
LAYOUT**

- ① 7' MEETS MINIMUM CLEAR ZONE
- ② 42" MEETS MINIMUM REQUIREMENTS
- ③ 60" X 60" ADA PASSING AREA REQUIRED FOR SIDEWALKS WITH 32" MINIMUM WIDTH
- ④ PAINT BRIDGE RAIL
- ⑤ DEBRIS REMOVAL AND DISPOSAL UNDER THE BRIDGE AND WATERWAY (OPTIONAL)
- ⑥ CONCRETE REPAIR

DESIGN ADT YEAR	CURRENT ADT YEAR	ESTIMATED GROWTH RATE	DESIGN ADT (V/DAY)	CURRENT ADT (V/DAY)	DESIGN SPEED	POSTED SPEED	CLEAR ZONE
2033	2022	2%	2205	1807	20 MPH	25 MPH	6 Ft

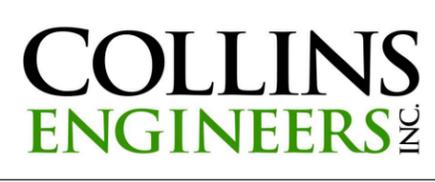
- TYPE 3 GUARDRAIL (NOT REQUIRED) 2018 AASHTO LOW-VOLUME DESIGN GUIDE (4.7) - USE OF GUARDRAIL OR OTHER TRAFFIC BARRIERS TO PROTECT DRIVERS FROM ROADSIDE OBSTRUCTIONS IS NOT COST EFFECTIVE. A TRAFFIC BARRIER IS IN ITSELF AN OBSTACLE.

- TYPE 10 PEDESTRIAN RAIL (NOT REQUIRED) 2012 AASHTO BICYCLE GUIDE INDICATES A MINIMUM 42" ABOVE THE WALKWAY. CDOT/AASHTO ONLY REQUIRES MASH RAILS ON ALL NEW CONSTRUCTION

- REMOVE EXISTING RAIL (NOT REQUIRED) THE ENTRANCE CURVE FROM THE NORTH IS NEAR 135 DEGREES WITH A RADIUS OF ~95'. VISUAL OBSERVATIONS OF THE RAIL INDICATE NO PREVIOUS DAMAGE AND SPEEDS SHOULD BE LOW. CURRENTLY, THE RAIL IS PROVIDING PROTECTION TO THE USERS OF THE SOUTHWEST SIDEWALK. WHILE DAMAGE TO VEHICLE MAY OCCUR ON IMPACT, OCCUPANT INJURY IS UNLIKELY DUE TO LOW SPEEDS. HOWEVER, WITH REMOVAL OF THE EXISTING RAIL, ERRANT VEHICLES STRIKING A PEDESTRIAN OR OTHER ACTIVE TRANSPORTATION USER WOULD RESULT IN A NEAR HEAD-ON IMPACT, LIKELY RESULTING IN INJURY TO THE USER. BASED ON THIS, LEAVING THE RAIL IN PLACE PROVIDES A POSSIBLE REDUCED LEVEL OF INJURY TO THE PUBLIC.

- RECONSTRUCT SIDEWALK (NOT REQUIRED) 2010 ADA REQUIREMENTS: 32" MINIMUM WIDTH WITH PASSING SPACE OF 60"x60" AT INTERVALS OF 200 FT

- THIS CROSSING HAS LIMITED SIGHT DISTANCE. PEDESTRIAN ACTIVATED CROSSING BEACONS INCLUDED FOR SAFETY.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: E 112TH PLAN-ELEVATION
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
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 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED
 NO. REVISIONS:
 REVISED:
 VOID:

**E 112TH PL STRUCTURE
 PLAN AND ELEVATION**
 DESIGNER: TAH
 STRUCTURE NUMBER
 NGLN-HI-0.0-112
 DETAILER: MR

PROJECT NO.
 13852-25
 SHEET 2/3



**E 112TH PLACE, NGLN-HI-0.0-112
UTILITY PLAN**

NOTE:
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	PRINT DATE: NOVEMBER 16, 2022	SHEET REVISIONS			CITY OF NORTHGLENN, COLORADO 12301 CLAUDE COURT NORTHGLENN, CO 80241 PHONE: 303-450-8984	AS CONSTRUCTED		E 112TH PL STRUCTURE UTILITY PLAN		PROJECT NO.
	FILE NAME: E 112TH UTILITY PLAN	DATE	COMMENTS	INIT.		NO. REVISIONS:			13852-25	
	HORIZONTAL SCALE: AS SPECIFIED					REVISED:	DESIGNER: TAH	STRUCTURE NUMBER	SHEET 3/3	
	UNITS: FT					VOID:	DETAILER: MR	NGLN-HI-0.0-112		
	ROADWAY CLASSIFICATION: URBAN LOCAL RESIDENTIAL									

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6. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEERING DIVISION IMMEDIATELY.
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13. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS OR SUNDAY OR AFTER 3:30 PM ON WEEKDAYS UNLESS APPROVED OTHERWISE ON THE RIGHT OF WAY PERMIT.
14. UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.
15. EXISTING FENCES, TREES, STREETS, SIDEWALKS, CURB AND GUTTER, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED, OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE.
16. AFTER INITIAL ACCEPTANCE BY THE CITY ENGINEERING DIVISION, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF INITIAL ACCEPTANCE.

NOTES:

1. ALL WORK SHALL CONFORM TO THE CITY OF NORTHGLENN 2015 STANDARDS AND SPECIFICATIONS OR NEWEST REVISION WITH THE EXCEPTION OF PROJECT SPECIAL PROVISIONS.
2. PRIOR TO PROJECT BIDDING, A MANDATORY PREBID MEETING SHALL BE HELD TO OUTLINE THE ACCEPTED QUANTITIES OF DEBRIS REMOVAL AND DISPOSAL.

NOTE:

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EXISTING UTILITY LOCATIONS:

COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: ACOMA COVER SHEET
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION:
 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO

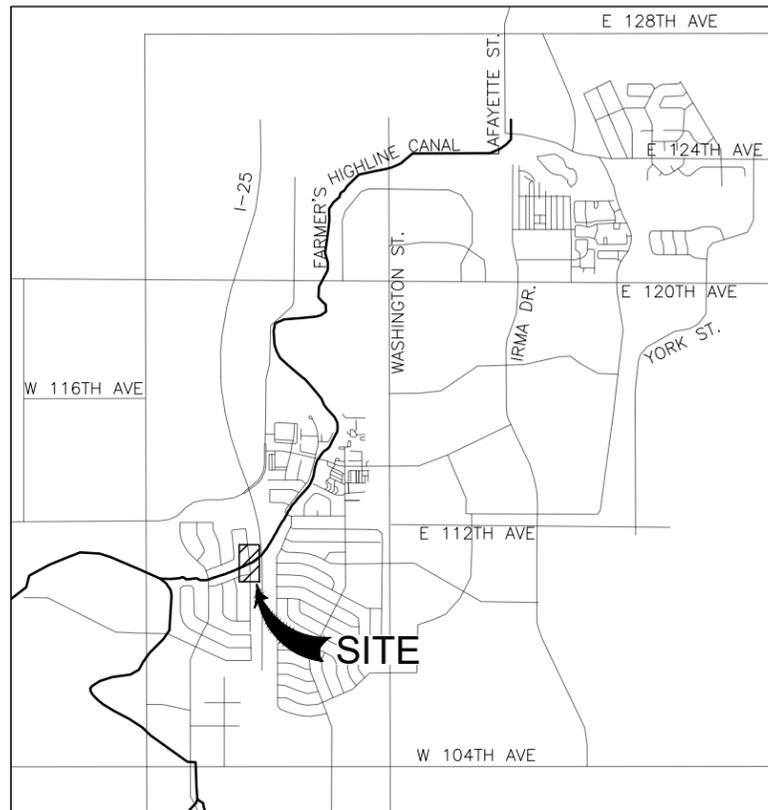
12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED	ACOMA ST. STRUCTURE COVER SHEET		PROJECT NO.
NO. REVISIONS:			13852-25
REVISED:	DESIGNER: TAH	STRUCTURE NUMBER	SHEET 1/3
VOID:	DETAILER: MR	NGLN-AC-0.8-104	

PUBLIC IMPROVEMENTS REPAIR PLANS FOR ACOMA STREET STRUCTURE

STRUCTURE ID: NGLN-AC-0.8-104

A PORTION OF ACOMA STREET BRIDGE RIGHT-OF-WAY, LOCATED IN THE NORTHWEST QUARTER OF SECTION 10, TOWNSHIP 2 SOUTH, RANGE 68 WEST OF THE 6TH P.M., CITY OF NORTHGLENN, COUNTY OF ADAMS, STATE OF COLORADO



VICINITY MAP
 SCALE: 1" = 2000'

SHEET INDEX:

DRAWING NO.	DESCRIPTION:
1	COVER SHEET
2	PLAN AND ELEVATION SHEET
3	UTILITY PLAN

QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
DEBRIS REMOVAL & DISPOSAL (OPTIONAL)	LS	1
MOBILIZATION	LS	1
TEMPORARY TRAFFIC CONTROL	LS	1

OWNER:

CITY OF NORTHGLENN
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: (303) 450-8984
 CONTACT: KIRAN BHUSAL

CIVIL ENGINEER:

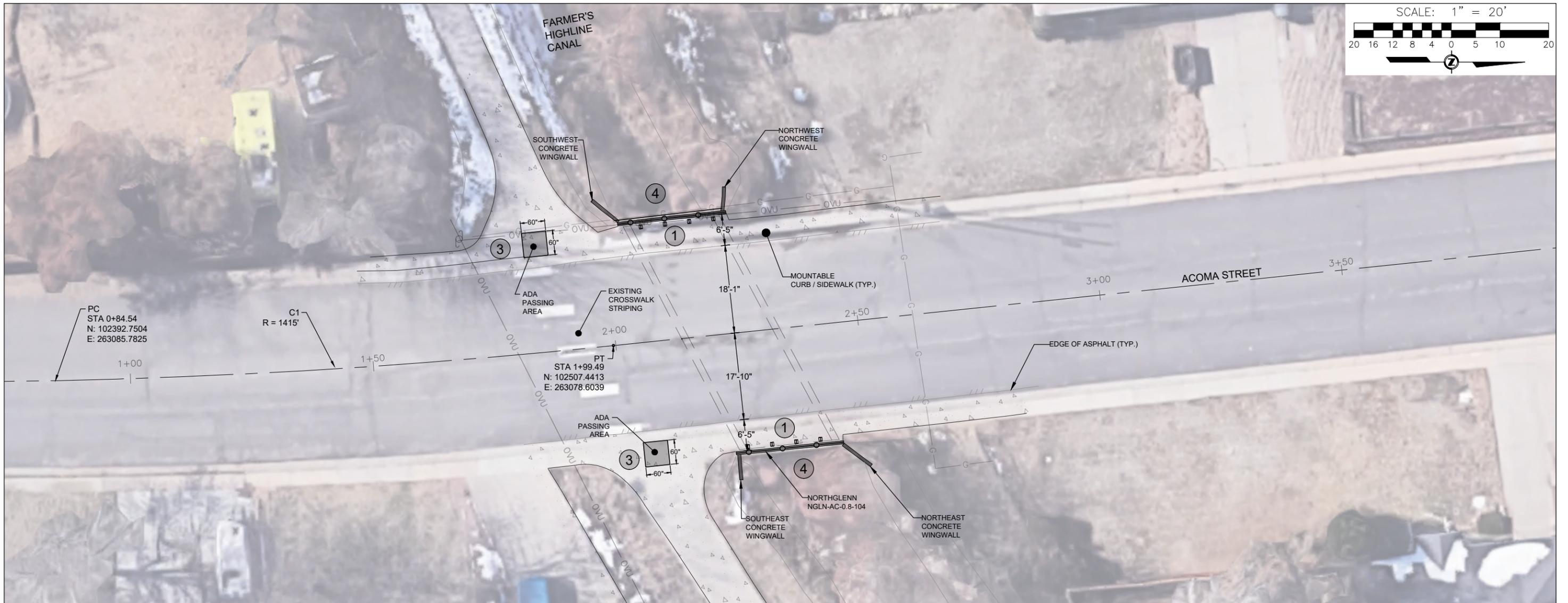
COLLINS ENGINEERS, INC.
 455 SHERMAN ST, SUITE 160
 DENVER, CO 80203
 PHONE: (720) 647-7909
 CONTACT: TIMOTHY HAYASHI
 EMAIL: thayashi@collinsengr.com

SURVEY:

FLATIRONS, INC.
 3825 IRIS AVE, STE 395
 BOULDER, CO 80303
 PHONE: (303) 443-7001
 FAX: (303) 443-9830
 CONTACT: WILLIAM WERNER

BENCHMARK INFORMATION

TRIMBLE VRS NOW CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK WAS USED TO ESTABLISH A GPS DERIVED ELEVATION ON AN ON-SITE BENCHMARK AT THE EAST SIDE OF TOPO AREA SITE 4, BEING A SET #4 REBAR WITH 1" PINK PLASTIC CAP MARKED "FLATIRONS CONTROL" WITH AN ELEVATION OF 5405.72 FEET (NAVD 88). NGS POINT N-411, BEING A STAINLESS STEEL ROD AT THE INTERSECTION OF WEST 104TH AVENUE AND CROKE DRIVE LOCATED 1.1 MILES FROM SITE, WITH A PUBLISHED ELEVATION OF 5453.20 FEET, WAS CHECKED INTO WITH AN AS-MEASURED ELEVATION OF 5453.29 FEET. NO DIFFERENTIAL LEVELING WAS PERFORMER TO ESTABLISH THE ELEVATION OF THE ON-SITE BENCHMARK.

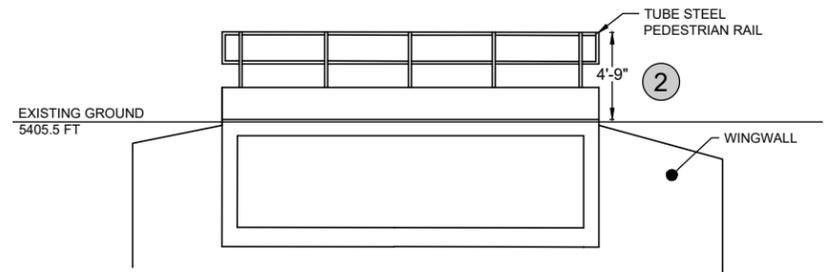


**ACOMA STREET, NGLN-AC-0.8-104
LAYOUT**

- ① 6'-5" MEETS MINIMUM CLEAR ZONE
- ② 42" HEIGHT MEETS MINIMUM REQUIREMENTS
- ③ 60" X 60" ADA PASSING AREA REQUIRED FOR SIDEWALKS WITH 32" MINIMUM WIDTH
- ④ DEBRIS REMOVAL AND DISPOSAL UNDER THE BRIDGE AND WATERWAY

DESIGN ADT YEAR	CURRENT ADT YEAR	ESTIMATED GROWTH RATE	DESIGN ADT (V/DAY)	CURRENT ADT (V/DAY)	DESIGN SPEED	POSTED SPEED	CLEAR ZONE
2033	2022	4%	303	248	30 MPH	25 MPH	6 Ft

- TYPE 3 GUARDRAIL (NOT REQUIRED) 2018 AASHTO LOW VOLUMEN - 4.7 USE OF GUARDRAIL OR OTHER TRAFFIC BARRIERS TO PROTECT DRIVERS FROM ROADSIDE OBSTRUCTIONS IS NOT COST EFFECTIVE. TRAFFIC BARRIERS IS IN ITSELF AN OBSTACLE.
 - TYPE 10 PEDESTRIAN RAIL (NOT REQUIRED) 2012 AASHTO BICYCLE GUIDE INDICATES A MINIMUM 42" ABOVE THE WALKWAY. CDOT/AASHTO ONLY REQUIRES MASH RAILS ON ALL NEW CONSTRUCTION
 - RECONSTRUCT SIDEWALK (NOT REQUIRED) 2010 ADA REQUIREMENTS = 32" WIDTH MINIMUM WITH PASSING AREA OF OF 60"x60" AT INTERVALS OF 200 FT.



**NGLN-AC-0.8-104
ELEVATION
SCALE: 1" = 10'**



PRINT DATE: NOVEMBER 16, 2022
 FILE NAME: ACOMA PLAN-ELEVATION
 HORIZONTAL SCALE: AS SPECIFIED
 UNITS: FT
 ROADWAY CLASSIFICATION:
 URBAN LOCAL RESIDENTIAL

SHEET REVISIONS		
DATE	COMMENTS	INIT.

CITY OF NORTHGLENN, COLORADO
 12301 CLAUDE COURT
 NORTHGLENN, CO 80241
 PHONE: 303-450-8984

AS CONSTRUCTED
 NO. REVISIONS:
 REVISED:
 VOID:

ACOMA ST. STRUCTURE
 PLAN AND ELEVATION
 DESIGNER: TAH
 DETAILER: MR
 STRUCTURE NUMBER
 NGLN-AC-0.8-104

PROJECT NO.
 13852-25
 SHEET 2/3



ACOMA STREET, NGLN-AC-0.8-104
UTILITY PLAN

NOTE:
ANTICIPATED EXCAVATION IS LESS THAN 2' DEEP AND IS LESS THAN 1,000 CONTIGUOUS SQUARE FEET. UTILITY ELEMENTS SHOWN ARE FOR INFORMATION ONLY AND DO NOT CONSTITUTE SUBSURFACE UTILITY ENGINEERING.

EXISTING UTILITY LOCATIONS:
COLLINS ENGINEERS INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

	PRINT DATE: NOVEMBER 16, 2022	SHEET REVISIONS			CITY OF NORTHGLENN, COLORADO 12301 CLAUDE COURT NORTHGLENN, CO 80241 PHONE: 303-450-8984	AS CONSTRUCTED		ACOMA ST. STRUCTURE UTILITY PLAN		PROJECT NO.
	FILE NAME: ACOMA UTILITY PLAN	DATE	COMMENTS	INIT.		NO. REVISIONS:			13852-25	
	HORIZONTAL SCALE: AS SPECIFIED					REVISED:	DESIGNER: TAH	STRUCTURE NUMBER	SHEET 3/3	
	UNITS: FT					VOID:	DETAILER: ACS	NGLN-AC-0.8-104		
	ROADWAY CLASSIFICATION: URBAN LOCAL RESIDENTIAL									